SAR TEST REPORT

The following samples were submitted and identified on behalf of the client as:

Equipment Under Test	Notebook PC
Brand Name	HP
Model No.	TPN-Q206
Company Name	HP Inc.
Company Address	3390 East Harmony Road Fort Collins, Colorado 80528 United States
Standards	IEEE/ANSI C95.1-1992, IEEE 1528-2013, KDB616217D04v01r02,KDB865664D01v01r04, KDB865664D02v01r02,KDB941225D01v03r01, KDB941225D05v02r05,KDB941225D05Av01r02, KDB447498D01v06, KDB248227D01v02r02
FCC ID	B94HNQ206PD
Date of Receipt	Nov. 08, 2017
Date of Test(s)	Nov. 20, 2017 ~ Dec. 03, 2017
Date of Issue	Jan. 11, 2018

In the configuration tested, the EUT complied with the standards specified above.

Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS Taiwan Electronic & Communication Laboratory or testing done by SGS Taiwan Electronic & Communication Laboratory in connection with distribution or use of the product described in this report must be approved by SGS Taiwan Electronic & Communication Laboratory in writing.

Signed on behalf of SGS

Sr. Engineer	**Supervisor**
afu Chen	John Yeh
Afu Chen	**John Yeh**
Date: Jan. 11, 2018	**Date: Jan. 11, 2018**

Revision History

Report Number	Revision	Description	Issue Date
EN/2017/B0008	Rev.00	Initial creation of document	Jan. 11, 2018

Contents

1. General Information

1.1 Testing Laboratory

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1.2 Details of Applicant

Company Name	HP Inc.
Company Address	3390 East Harmony Road Fort Collins, Colorado 80528 United States

1.3 Description of EUT

Equipment Under Test	Notebook PC		
Brand Name	HP		
Model No.	TPN-Q206		
FCC ID	B94HNQ206PD		
Integrated Module	Wireless LAN+BT	Brand Name : Intel Model Name : 8265D2W	
	GNSS (LTE+GPS)	Brand Name : Fibocom Model Name : L850-GL	
Mode of Operation	☒WCDMA ☒HSDPA ☒HSUPA ☒LTE FDD ☒LTE TDD ☒WLAN802.11 a/b/g/n(20M/40M)/ac(20M/40M/80M) ☒Bluetooth		
Duty Cycle	WCDMA	1	
	LTE FDD	1	
	LTE TDD	0.633	
	WLAN802.11 a/b/g/n(20M/40M)/ ac(20M/40M/80M)	1	
	Bluetooth	1	
TX Frequency Range (MHz)	WCDMA Band II	1850 – 1910	
	WCDMA Band IV	1710 – 1755	
	WCDMA Band V	824 – 849	
	LTE FDD Band 2	1850 – 1910	
	LTE FDD Band 4	1710 – 1755	
	LTE FDD Band 5	824 – 849	
	LTE FDD Band 7	2500 – 2570	
	LTE FDD Band 12	699 – 716	
	LTE FDD Band 13	777 – 787	
	LTE FDD Band 17	704 – 716	

TX Frequency Range (MHz)	LTE FDD Band 26	814	–	849
	LTE FDD Band 30	2305	–	2315
	LTE FDD Band 38	2570	–	2620
	LTE TDD Band 41	2496	–	2690
	LTE FDD Band 66	1710	–	1780
	WLAN802.11 b/g/n(20M)	2412	–	2472
	WLAN802.11 n(40M)	2422	–	2462
	WLAN802.11 a/n(20M)/ac(20M) 5.2G	5180	–	5240
	WLAN802.11 n(40M)/ac(40M) 5.2G	5190	–	5230
	WLAN802.11 ac(80M) 5.2G	5210		
	WLAN802.11 a/n(20M)/ac(20M) 5.3G	5260	–	5320
	WLAN802.11 n(40M)/ac(40M) 5.3G	5270	–	5310
	WLAN802.11 ac(80M) 5.3G	5290		
	WLAN802.11 a/n/ac(20M) 5.6G	5500	–	5720
	WLAN802.11 n/ac(40M) 5.6G	5510	–	5710
	WLAN802.11 ac(80M) 5.6G	5530	–	5690
	WLAN802.11 a/n(20M)/ac(20M) 5.8G	5745	–	5825
	WLAN802.11 n(40M)/ac(40M) 5.8G	5710	–	5795
	WLAN802.11 ac(80M) 5.8G	5775		
	Bluetooth	2402	–	2480
Channel Number (ARFCN)	WCDMA Band II	9262	–	9538
	WCDMA Band IV	1312	–	1513
	WCDMA Band V	4132	–	4233
	LTE FDD Band 2	18607	–	19193
	LTE FDD Band 4	19957	–	20393
	LTE FDD Band 5	20407	–	20643
	LTE FDD Band 7	20775	–	21425
	LTE FDD Band 12	23017	–	23173

Channel Number (ARFCN)	LTE FDD Band 13	23205	–	23255
	LTE FDD Band 17	23755	–	23825
	LTE FDD Band 26	26697	–	27033
	LTE FDD Band 30	27685	–	27735
	LTE FDD Band 38	37775	–	38225
	LTE TDD Band 41	39675	–	41565
	LTE FDD Band 66	131979	–	132665
	WLAN802.11 b/g/n(20M)	1	–	13
	WLAN802.11 n(40M)	3	–	11
	WLAN802.11 a/n(20M)/ac(20M) 5.2G	36	–	48
	WLAN802.11 n(40M)/ac(40M) 5.2G	38	–	46
	WLAN802.11 ac(80M) 5.2G	42		
	WLAN802.11 a/n(20M)/ac(20M) 5.3G	52	–	64
	WLAN802.11 n(40M)/ac(40M) 5.3G	54	–	62
	WLAN802.11 ac(80M) 5.3G	58		
	WLAN802.11 a/n/ac(20M) 5.6G	100	–	144
	WLAN802.11 n/ac(40M) 5.6G	102	–	142
	WLAN802.11 ac(80M) 5.6G	106	–	138
	WLAN802.11 a/n(20M)/ac(20M) 5.8G	149	–	165
	WLAN802.11 n(40M)/ac(40M) 5.8G	142	–	159
	WLAN802.11 ac(80M) 5.8G	155		
	Bluetooth	0	–	78

Max. SAR (1 g) (Unit: W/Kg)				
Band	Measured	Reported	Channel	Position
WCDMA Band II	1.32	1.35	9262	Right side
WCDMA Band IV	1.34	1.35	1513	Back side
WCDMA Band V	1.00	1.00	4132	Back side
LTE FDD Band 2	1.24	1.27	18700	Right side
LTE FDD Band 4	1.29	1.36	20300	Right side
LTE FDD Band 5	1.04	1.04	20525	Back side
LTE FDD Band 7	1.07	1.17	20850	Back side
LTE FDD Band 12	0.97	1.00	23095	Top side
LTE FDD Band 13	1.26	1.29	23230	Top side
LTE FDD Band 17	1.20	1.28	23790	Top side
LTE FDD Band 26	1.10	1.12	26825	Back side
LTE FDD Band 30	1.04	1.11	27710	Back side
LTE FDD Band 38	1.07	1.15	37850	Back side
LTE TDD Band 41	1.07	1.18	39750	Back side
LTE TDD Band 66	1.06	1.10	132072	Back side

Max. SAR (1 g) (Unit: W/Kg)					
Antenna	Band	Measured	Reported	Channel	Position
Main	WLAN802.11 b	0.98	0.99	6	Back side
	WLAN802.11 n(40M) 5.2G	1.15	1.15	38	Back side
	WLAN802.11 n(40M) 5.3G	0.92	0.92	62	Back side
	WLAN802.11 n(40M) 5.6G	0.70	0.70	134	Back side
	WLAN802.11 ac(80M) 5.6G	0.61	0.62	138	Back side
	WLAN802.11 ac(80M) 5.8G	0.56	0.56	155	Back side
Aux	WLAN802.11 b	0.78	0.79	6	Back side
	Bluetooth (GFSK)	0.18	0.24	39	Back side
	WLAN802.11 n(40M) 5.2G	1.15	1.16	38	Left side
	WLAN802.11 n(40M) 5.3G	1.18	1.19	62	Left side
	WLAN802.11 n(40M) 5.6G	1.12	1.14	102	Left side
	WLAN802.11 ac(80M) 5.6G	1.19	1.19	138	Left side
	WLAN802.11 ac(80M) 5.8G	1.16	1.16	155	Left side

WWAN antenna information:

Vendor	WNC				
Antenna	Main (PIFA)				
Part Number	DQ6415GC100(81EAA415.GC1)				
Frequency	750	835	1750	1900	2600
Gain (dBi)	-2.27	-0.37	1.26	2.13	1.11

WLAN / Bluetooth antenna information:

Vendor	WNC				WNC			
Antenna	Main (PIFA)				Aux (PIFA)			
Part Number	DQ6415GC300(81EAA415.GC3)				DQ6415GC400(81EAA415.GC4)			
Frequency	2.4G	5.2G	5.5G	5.8G	2.4G	5.2G	5.5G	5.8G
Gain (dBi)	-1.66	-1.56	-1.61	-1.71	-1.61	-1.61	-1.71	-2.01

WCDMA Band II / Band IV / Band V - HSDPA / HSUPA conducted power table (Full power):

Unit: dBm

Band		WCDMA II		
TX Channel		9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.00**		
3GPP Rel 99	RMC 12.2Kbps	23.90	23.78	23.60
3GPP Rel 5	HSDPA Subtest-1	23.85	23.75	23.58
	HSDPA Subtest-2	22.88	22.77	22.61
	HSDPA Subtest-3	22.38	22.29	22.10
	HSDPA Subtest-4	22.14	22.07	21.85
3GPP Rel 6	HSUPA Subtest-1	23.37	23.21	23.12
	HSUPA Subtest-2	23.85	23.69	23.58
	HSUPA Subtest-3	22.32	22.21	22.03
	HSUPA Subtest-4	23.80	23.71	23.57
	HSUPA Subtest-5	22.84	22.70	22.57

Band		WCDMA IV		
TX Channel		1312	1412	1513
Frequency (MHz)		1712.4	1732.4	1752.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.00**		
3GPP Rel 99	RMC 12.2Kbps	23.86	23.93	23.96
3GPP Rel 5	HSDPA Subtest-1	23.84	23.91	23.96
	HSDPA Subtest-2	22.83	22.90	22.99
	HSDPA Subtest-3	22.36	22.39	22.48
	HSDPA Subtest-4	22.11	22.14	22.21
3GPP Rel 6	HSUPA Subtest-1	23.24	23.37	23.40
	HSUPA Subtest-2	23.73	23.80	23.87
	HSUPA Subtest-3	22.21	22.29	22.39
	HSUPA Subtest-4	23.80	23.78	23.84
	HSUPA Subtest-5	22.72	22.82	22.88

Band		WCDMA V		
TX Channel		4132	4183	4233
Frequency (MHz)		826.4	836.6	846.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**24.00**		
3GPP Rel 99	RMC 12.2Kbps	23.94	23.72	23.93
3GPP Rel 5	HSDPA Subtest-1	23.91	23.58	23.90
	HSDPA Subtest-2	22.95	23.08	23.04
	HSDPA Subtest-3	22.43	22.59	22.59
	HSDPA Subtest-4	22.21	22.35	22.35
3GPP Rel 6	HSUPA Subtest-1	23.52	23.70	23.63
	HSUPA Subtest-2	23.99	23.69	23.89
	HSUPA Subtest-3	22.51	22.74	22.64
	HSUPA Subtest-4	23.90	23.69	23.91
	HSUPA Subtest-5	23.01	23.21	23.12

WCDMA Band II / Band IV / Band V - HSDPA / HSUPA
conducted power table(Reduced power):
Unit: dBm

Band		WCDMA II		
TX Channel		9262	9400	9538
Frequency (MHz)		1852.4	1880	1907.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**16.50**		
3GPP Rel 99	RMC 12.2Kbps	16.40	16.49	16.15
3GPP Rel 5	HSDPA Subtest-1	16.30	16.39	15.97
	HSDPA Subtest-2	16.26	16.45	16.05
	HSDPA Subtest-3	16.26	16.38	16.03
	HSDPA Subtest-4	16.28	16.44	16.01
3GPP Rel 6	HSUPA Subtest-1	16.31	16.42	15.98
	HSUPA Subtest-2	16.27	16.45	16.00
	HSUPA Subtest-3	16.29	16.45	15.97
	HSUPA Subtest-4	16.30	16.41	15.96
	HSUPA Subtest-5	16.30	16.42	16.02

Band		WCDMA IV		
TX Channel		1312	1412	1513
Frequency (MHz)		1712.4	1732.4	1752.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**17.00**		
3GPP Rel 99	RMC 12.2Kbps	16.96	16.94	16.90
3GPP Rel 5	HSDPA Subtest-1	16.75	16.68	16.63
	HSDPA Subtest-2	16.83	16.61	16.65
	HSDPA Subtest-3	16.77	16.66	16.67
	HSDPA Subtest-4	16.75	16.65	16.63
3GPP Rel 6	HSUPA Subtest-1	16.73	16.68	16.62
	HSUPA Subtest-2	16.77	16.65	16.62
	HSUPA Subtest-3	16.79	16.67	16.69
	HSUPA Subtest-4	16.81	16.68	16.66
	HSUPA Subtest-5	16.78	16.65	16.62

Band		WCDMA V		
TX Channel		4132	4183	4233
Frequency (MHz)		826.4	836.6	846.6
Max. Rated Avg. Power+Max. Tolerance (dBm)		**18.00**		
3GPP Rel 99	RMC 12.2Kbps	17.95	17.78	17.99
3GPP Rel 5	HSDPA Subtest-1	17.79	17.65	17.79
	HSDPA Subtest-2	17.82	17.61	17.80
	HSDPA Subtest-3	17.84	17.67	17.79
	HSDPA Subtest-4	17.82	17.63	17.88
3GPP Rel 6	HSUPA Subtest-1	17.78	17.62	17.79
	HSUPA Subtest-2	17.83	17.59	17.79
	HSUPA Subtest-3	17.82	17.61	17.80
	HSUPA Subtest-4	17.85	17.65	17.79
	HSUPA Subtest-5	17.82	17.63	17.79

Sub-Test for HSDPA

SUB-TEST	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{HS} *(Note1, Note 2)*	CM (dB) *(Note 3)*	MPR (dB) *(Note 3)*
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15	15/15	64	12/15	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Sub-Test for HSUPA

SUB-TEST	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{HS} *(Note1)*	β_{ec}	β_{ed} *(Note 5) (Note 6)*	β_{ed} *(SF)*	β_{ed} *(Codes)*	CM *(dB) (Note 2)*	MPR *(dB) (Note 2)*	*AG Index (Note 6)*	*E-TFCI*
1	11/15	15/15	64	11/15	22/15	209/225	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	15/15	64	15/15	30/15	24/15	134/15	4	1	1.0	0.0	21	81

LTE FDD Band 2 / Band 4 / Band 5 / Band 12 / Band 13 / Band 17 / Band 26 / Band 30 / Band 38 / Band 41 / Band 66 power table(Full power):

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1860	18700	22.91	23	0
				1880	18900	22.72	23	0
				1900	19100	22.79	23	0
			50	1860	18700	22.62	23	0
				1880	18900	22.71	23	0
				1900	19100	22.63	23	0
			99	1860	18700	22.89	23	0
				1880	18900	22.82	23	0
				1900	19100	22.61	23	0
		50 RB	0	1860	18700	21.70	22	0-1
				1880	18900	21.76	22	0-1
				1900	19100	21.61	22	0-1
			25	1860	18700	21.68	22	0-1
				1880	18900	21.71	22	0-1
				1900	19100	21.55	22	0-1
			50	1860	18700	21.73	22	0-1
				1880	18900	21.73	22	0-1
				1900	19100	21.63	22	0-1
		100RB		1860	18700	21.83	22	0-1
				1880	18900	21.86	22	0-1
				1900	19100	21.82	22	0-1
	16-QAM	1 RB	0	1860	18700	21.96	22	0-1
				1880	18900	21.99	22	0-1
				1900	19100	21.75	22	0-1
			50	1860	18700	21.76	22	0-1
				1880	18900	21.94	22	0-1
				1900	19100	21.99	22	0-1
			99	1860	18700	21.74	22	0-1
				1880	18900	21.74	22	0-1
				1900	19100	21.35	22	0-1
		50 RB	0	1860	18700	20.77	21	0-2
				1880	18900	20.76	21	0-2
				1900	19100	20.60	21	0-2
			25	1860	18700	20.77	21	0-2
				1880	18900	20.83	21	0-2
				1900	19100	20.53	21	0-2
			50	1860	18700	20.80	21	0-2
				1880	18900	20.84	21	0-2
				1900	19100	20.61	21	0-2
		100RB		1860	18700	20.77	21	0-2
				1880	18900	20.91	21	0-2
				1900	19100	20.81	21	0-2

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1857.5	18675	22.79	23	0
				1880	18900	22.71	23	0
				1902.5	19125	22.65	23	0
			36	1857.5	18675	22.60	23	0
				1880	18900	22.70	23	0
				1902.5	19125	22.59	23	0
			74	1857.5	18675	22.65	23	0
				1880	18900	22.78	23	0
				1902.5	19125	22.51	23	0
		36 RB	0	1857.5	18675	21.64	22	0-1
				1880	18900	21.76	22	0-1
				1902.5	19125	21.50	22	0-1
			18	1857.5	18675	21.70	22	0-1
				1880	18900	21.82	22	0-1
				1902.5	19125	21.52	22	0-1
			37	1857.5	18675	21.67	22	0-1
				1880	18900	21.70	22	0-1
				1902.5	19125	21.56	22	0-1
		75RB		1857.5	18675	21.67	22	0-1
				1880	18900	21.73	22	0-1
				1902.5	19125	21.60	22	0-1
	16-QAM	1 RB	0	1857.5	18675	21.99	22	0-1
				1880	18900	21.89	22	0-1
				1902.5	19125	21.97	22	0-1
			36	1857.5	18675	21.95	22	0-1
				1880	18900	21.93	22	0-1
				1902.5	19125	21.33	22	0-1
			74	1857.5	18675	21.83	22	0-1
				1880	18900	21.98	22	0-1
				1902.5	19125	21.92	22	0-1
		36 RB	0	1857.5	18675	20.74	21	0-2
				1880	18900	20.82	21	0-2
				1902.5	19125	20.58	21	0-2
			18	1857.5	18675	20.67	21	0-2
				1880	18900	20.89	21	0-2
				1902.5	19125	20.57	21	0-2
			37	1857.5	18675	20.70	21	0-2
				1880	18900	20.74	21	0-2
				1902.5	19125	20.50	21	0-2
		75RB		1857.5	18675	20.67	21	0-2
				1880	18900	20.88	21	0-2
				1902.5	19125	20.63	21	0-2

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1855	18650	22.77	23	0
				1880	18900	22.85	23	0
				1905	19150	22.50	23	0
			25	1855	18650	22.64	23	0
				1880	18900	22.81	23	0
				1905	19150	22.44	23	0
			49	1855	18650	22.85	23	0
				1880	18900	22.76	23	0
				1905	19150	22.67	23	0
		25 RB	0	1855	18650	21.75	22	0-1
				1880	18900	21.86	22	0-1
				1905	19150	21.53	22	0-1
			12	1855	18650	21.71	22	0-1
				1880	18900	21.88	22	0-1
				1905	19150	21.57	22	0-1
			25	1855	18650	21.69	22	0-1
				1880	18900	21.77	22	0-1
				1905	19150	21.54	22	0-1
		50RB		1855	18650	21.60	22	0-1
				1880	18900	21.77	22	0-1
				1905	19150	21.63	22	0-1
	16-QAM	1 RB	0	1855	18650	21.97	22	0-1
				1880	18900	21.91	22	0-1
				1905	19150	21.97	22	0-1
			25	1855	18650	21.93	22	0-1
				1880	18900	21.96	22	0-1
				1905	19150	21.91	22	0-1
			49	1855	18650	21.92	22	0-1
				1880	18900	21.91	22	0-1
				1905	19150	21.98	22	0-1
		25 RB	0	1855	18650	20.90	21	0-2
				1880	18900	20.99	21	0-2
				1905	19150	20.67	21	0-2
			12	1855	18650	20.63	21	0-2
				1880	18900	20.95	21	0-2
				1905	19150	20.59	21	0-2
			25	1855	18650	20.75	21	0-2
				1880	18900	20.83	21	0-2
				1905	19150	20.52	21	0-2
		50RB		1855	18650	20.68	21	0-2
				1880	18900	20.84	21	0-2
				1905	19150	20.61	21	0-2

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1852.5	18625	22.79	23	0
				1880	18900	22.95	23	0
				1907.5	19175	22.43	23	0
			12	1852.5	18625	22.67	23	0
				1880	18900	22.84	23	0
				1907.5	19175	22.40	23	0
			24	1852.5	18625	22.53	23	0
				1880	18900	22.79	23	0
				1907.5	19175	22.45	23	0
		12 RB	0	1852.5	18625	21.96	22	0-1
				1880	18900	21.97	22	0-1
				1907.5	19175	21.65	22	0-1
			6	1852.5	18625	21.92	22	0-1
				1880	18900	22.00	22	0-1
				1907.5	19175	21.67	22	0-1
			13	1852.5	18625	21.93	22	0-1
				1880	18900	21.97	22	0-1
				1907.5	19175	21.68	22	0-1
		25RB		1852.5	18625	21.74	22	0-1
				1880	18900	21.77	22	0-1
				1907.5	19175	21.46	22	0-1
	16-QAM	1 RB	0	1852.5	18625	21.89	22	0-1
				1880	18900	21.93	22	0-1
				1907.5	19175	21.81	22	0-1
			12	1852.5	18625	21.93	22	0-1
				1880	18900	21.61	22	0-1
				1907.5	19175	21.71	22	0-1
			24	1852.5	18625	21.92	22	0-1
				1880	18900	21.95	22	0-1
				1907.5	19175	21.76	22	0-1
		12 RB	0	1852.5	18625	20.99	21	0-2
				1880	18900	20.93	21	0-2
				1907.5	19175	20.72	21	0-2
			6	1852.5	18625	20.96	21	0-2
				1880	18900	20.98	21	0-2
				1907.5	19175	20.71	21	0-2
			13	1852.5	18625	20.92	21	0-2
				1880	18900	20.88	21	0-2
				1907.5	19175	20.74	21	0-2
		25RB		1852.5	18625	20.76	21	0-2
				1880	18900	20.70	21	0-2
				1907.5	19175	20.46	21	0-2

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1851.5	18615	22.71	23	0
				1880	18900	22.77	23	0
				1908.5	19185	22.36	23	0
			7	1851.5	18615	22.78	23	0
				1880	18900	22.72	23	0
				1908.5	19185	22.38	23	0
			14	1851.5	18615	22.61	23	0
				1880	18900	22.76	23	0
				1908.5	19185	22.36	23	0
		8 RB	0	1851.5	18615	21.71	22	0-1
				1880	18900	21.81	22	0-1
				1908.5	19185	21.40	22	0-1
			4	1851.5	18615	21.70	22	0-1
				1880	18900	21.73	22	0-1
				1908.5	19185	21.35	22	0-1
			7	1851.5	18615	21.68	22	0-1
				1880	18900	21.75	22	0-1
				1908.5	19185	21.41	22	0-1
		15RB		1851.5	18615	21.72	22	0-1
				1880	18900	21.74	22	0-1
				1908.5	19185	21.36	22	0-1
	16-QAM	1 RB	0	1851.5	18615	21.84	22	0-1
				1880	18900	21.75	22	0-1
				1908.5	19185	21.60	22	0-1
			7	1851.5	18615	21.87	22	0-1
				1880	18900	21.85	22	0-1
				1908.5	19185	21.50	22	0-1
			14	1851.5	18615	21.95	22	0-1
				1880	18900	21.93	22	0-1
				1908.5	19185	21.65	22	0-1
		8 RB	0	1851.5	18615	20.75	21	0-2
				1880	18900	20.91	21	0-2
				1908.5	19185	20.50	21	0-2
			4	1851.5	18615	20.62	21	0-2
				1880	18900	20.73	21	0-2
				1908.5	19185	20.42	21	0-2
			7	1851.5	18615	20.78	21	0-2
				1880	18900	20.85	21	0-2
				1908.5	19185	20.43	21	0-2
		15RB		1851.5	18615	20.72	21	0-2
				1880	18900	20.75	21	0-2
				1908.5	19185	20.32	21	0-2

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1850.7	18607	22.69	23	0
				1880	18900	22.85	23	0
				1909.3	19193	22.38	23	0
			2	1850.7	18607	22.72	23	0
				1880	18900	22.77	23	0
				1909.3	19193	22.31	23	0
			5	1850.7	18607	22.65	23	0
				1880	18900	22.74	23	0
				1909.3	19193	22.33	23	0
		3 RB	0	1850.7	18607	21.78	22	0-1
				1880	18900	21.78	22	0-1
				1909.3	19193	21.41	22	0-1
			2	1850.7	18607	21.68	22	0-1
				1880	18900	21.73	22	0-1
				1909.3	19193	21.42	22	0-1
			3	1850.7	18607	21.73	22	0-1
				1880	18900	21.76	22	0-1
				1909.3	19193	21.45	22	0-1
		6RB		1850.7	18607	21.74	22	0-1
				1880	18900	21.72	22	0-1
				1909.3	19193	21.48	22	0-1
	16-QAM	1 RB	0	1850.7	18607	21.99	22	0-1
				1880	18900	21.89	22	0-1
				1909.3	19193	21.86	22	0-1
			2	1850.7	18607	21.96	22	0-1
				1880	18900	21.68	22	0-1
				1909.3	19193	21.61	22	0-1
			5	1850.7	18607	21.84	22	0-1
				1880	18900	21.76	22	0-1
				1909.3	19193	21.86	22	0-1
		3 RB	0	1850.7	18607	21.86	22	0-1
				1880	18900	21.90	22	0-1
				1909.3	19193	21.75	22	0-1
			2	1850.7	18607	21.98	22	0-1
				1880	18900	21.89	22	0-1
				1909.3	19193	21.51	22	0-1
			3	1850.7	18607	21.76	22	0-1
				1880	18900	21.76	22	0-1
				1909.3	19193	21.67	22	0-1
		6RB		1850.7	18607	20.75	21	0-2
				1880	18900	20.85	21	0-2
				1909.3	19193	20.45	21	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1720	20050	23.40	23.5	0
				1732.5	20175	23.33	23.5	0
				1745	20300	23.15	23.5	0
			50	1720	20050	23.35	23.5	0
				1732.5	20175	23.23	23.5	0
				1745	20300	23.23	23.5	0
			99	1720	20050	23.24	23.5	0
				1732.5	20175	23.05	23.5	0
				1745	20300	23.26	23.5	0
		50 RB	0	1720	20050	22.34	22.5	0-1
				1732.5	20175	22.22	22.5	0-1
				1745	20300	22.24	22.5	0-1
			25	1720	20050	22.33	22.5	0-1
				1732.5	20175	22.20	22.5	0-1
				1745	20300	22.28	22.5	0-1
			50	1720	20050	22.24	22.5	0-1
				1732.5	20175	22.16	22.5	0-1
				1745	20300	22.37	22.5	0-1
		100RB		1720	20050	22.45	22.5	0-1
				1732.5	20175	22.27	22.5	0-1
				1745	20300	22.40	22.5	0-1
	16-QAM	1 RB	0	1720	20050	22.49	22.5	0-1
				1732.5	20175	22.48	22.5	0-1
				1745	20300	22.32	22.5	0-1
			50	1720	20050	22.14	22.5	0-1
				1732.5	20175	22.03	22.5	0-1
				1745	20300	22.29	22.5	0-1
			99	1720	20050	22.22	22.5	0-1
				1732.5	20175	22.00	22.5	0-1
				1745	20300	22.40	22.5	0-1
		50 RB	0	1720	20050	21.39	21.5	0-2
				1732.5	20175	21.29	21.5	0-2
				1745	20300	21.33	21.5	0-2
			25	1720	20050	21.39	21.5	0-2
				1732.5	20175	21.25	21.5	0-2
				1745	20300	21.31	21.5	0-2
			50	1720	20050	21.21	21.5	0-2
				1732.5	20175	21.15	21.5	0-2
				1745	20300	21.32	21.5	0-2
		100RB		1720	20050	21.45	21.5	0-2
				1732.5	20175	21.32	21.5	0-2
				1745	20300	21.49	21.5	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1717.5	20025	23.40	23.5	0
				1732.5	20175	23.12	23.5	0
				1747.5	20325	23.27	23.5	0
			36	1717.5	20025	23.32	23.5	0
				1732.5	20175	23.22	23.5	0
				1747.5	20325	23.26	23.5	0
			74	1717.5	20025	23.10	23.5	0
				1732.5	20175	23.15	23.5	0
				1747.5	20325	23.30	23.5	0
		36 RB	0	1717.5	20025	22.34	22.5	0-1
				1732.5	20175	22.21	22.5	0-1
				1747.5	20325	22.25	22.5	0-1
			18	1717.5	20025	22.40	22.5	0-1
				1732.5	20175	22.23	22.5	0-1
				1747.5	20325	22.25	22.5	0-1
			37	1717.5	20025	22.36	22.5	0-1
				1732.5	20175	22.30	22.5	0-1
				1747.5	20325	22.37	22.5	0-1
		75RB		1717.5	20025	22.37	22.5	0-1
				1732.5	20175	22.20	22.5	0-1
				1747.5	20325	22.31	22.5	0-1
	16-QAM	1 RB	0	1717.5	20025	22.36	22.5	0-1
				1732.5	20175	22.34	22.5	0-1
				1747.5	20325	22.34	22.5	0-1
			36	1717.5	20025	22.48	22.5	0-1
				1732.5	20175	22.23	22.5	0-1
				1747.5	20325	21.71	22.5	0-1
			74	1717.5	20025	22.15	22.5	0-1
				1732.5	20175	22.35	22.5	0-1
				1747.5	20325	22.31	22.5	0-1
		36 RB	0	1717.5	20025	21.41	21.5	0-2
				1732.5	20175	21.30	21.5	0-2
				1747.5	20325	21.30	21.5	0-2
			18	1717.5	20025	21.43	21.5	0-2
				1732.5	20175	21.25	21.5	0-2
				1747.5	20325	21.31	21.5	0-2
			37	1717.5	20025	21.28	21.5	0-2
				1732.5	20175	21.24	21.5	0-2
				1747.5	20325	21.40	21.5	0-2
		75RB		1717.5	20025	21.40	21.5	0-2
				1732.5	20175	21.28	21.5	0-2
				1747.5	20325	21.29	21.5	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1715	20000	23.20	23.5	0
				1732.5	20175	23.48	23.5	0
				1750	20350	23.21	23.5	0
			25	1715	20000	23.27	23.5	0
				1732.5	20175	23.21	23.5	0
				1750	20350	23.49	23.5	0
			49	1715	20000	23.27	23.5	0
				1732.5	20175	23.20	23.5	0
				1750	20350	23.37	23.5	0
		25 RB	0	1715	20000	22.31	22.5	0-1
				1732.5	20175	22.32	22.5	0-1
				1750	20350	22.30	22.5	0-1
			12	1715	20000	22.37	22.5	0-1
				1732.5	20175	22.21	22.5	0-1
				1750	20350	22.36	22.5	0-1
			25	1715	20000	22.38	22.5	0-1
				1732.5	20175	22.21	22.5	0-1
				1750	20350	22.34	22.5	0-1
		50RB		1715	20000	22.29	22.5	0-1
				1732.5	20175	22.18	22.5	0-1
				1750	20350	22.30	22.5	0-1
	16-QAM	1 RB	0	1715	20000	22.46	22.5	0-1
				1732.5	20175	22.45	22.5	0-1
				1750	20350	22.27	22.5	0-1
			25	1715	20000	22.31	22.5	0-1
				1732.5	20175	22.40	22.5	0-1
				1750	20350	22.46	22.5	0-1
			49	1715	20000	22.49	22.5	0-1
				1732.5	20175	22.38	22.5	0-1
				1750	20350	22.46	22.5	0-1
		25 RB	0	1715	20000	21.39	21.5	0-2
				1732.5	20175	21.40	21.5	0-2
				1750	20350	21.37	21.5	0-2
			12	1715	20000	21.44	21.5	0-2
				1732.5	20175	21.30	21.5	0-2
				1750	20350	21.45	21.5	0-2
			25	1715	20000	21.47	21.5	0-2
				1732.5	20175	21.33	21.5	0-2
				1750	20350	21.41	21.5	0-2
		50RB		1715	20000	21.38	21.5	0-2
				1732.5	20175	21.24	21.5	0-2
				1750	20350	21.40	21.5	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1712.5	19975	22.58	23.5	0
				1732.5	20175	22.65	23.5	0
				1752.5	20375	22.67	23.5	0
			12	1712.5	19975	22.71	23.5	0
				1732.5	20175	22.54	23.5	0
				1752.5	20375	22.73	23.5	0
			24	1712.5	19975	22.64	23.5	0
				1732.5	20175	22.69	23.5	0
				1752.5	20375	22.67	23.5	0
		12 RB	0	1712.5	19975	22.39	22.5	0-1
				1732.5	20175	22.40	22.5	0-1
				1752.5	20375	22.34	22.5	0-1
			6	1712.5	19975	22.42	22.5	0-1
				1732.5	20175	22.35	22.5	0-1
				1752.5	20375	22.48	22.5	0-1
			13	1712.5	19975	22.44	22.5	0-1
				1732.5	20175	22.26	22.5	0-1
				1752.5	20375	22.43	22.5	0-1
		25RB		1712.5	19975	21.72	22.5	0-1
				1732.5	20175	21.54	22.5	0-1
				1752.5	20375	21.74	22.5	0-1
	16-QAM	1 RB	0	1712.5	19975	21.98	22.5	0-1
				1732.5	20175	21.76	22.5	0-1
				1752.5	20375	21.98	22.5	0-1
			12	1712.5	19975	21.98	22.5	0-1
				1732.5	20175	21.81	22.5	0-1
				1752.5	20375	21.61	22.5	0-1
			24	1712.5	19975	21.84	22.5	0-1
				1732.5	20175	22.07	22.5	0-1
				1752.5	20375	21.84	22.5	0-1
		12 RB	0	1712.5	19975	21.43	21.5	0-2
				1732.5	20175	21.40	21.5	0-2
				1752.5	20375	21.42	21.5	0-2
			6	1712.5	19975	21.45	21.5	0-2
				1732.5	20175	21.46	21.5	0-2
				1752.5	20375	21.45	21.5	0-2
			13	1712.5	19975	21.44	21.5	0-2
				1732.5	20175	21.40	21.5	0-2
				1752.5	20375	21.29	21.5	0-2
		25RB		1712.5	19975	20.72	21.5	0-2
				1732.5	20175	20.67	21.5	0-2
				1752.5	20375	20.75	21.5	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1711.5	19965	23.23	23.5	0
				1732.5	20175	23.19	23.5	0
				1753.5	20385	23.27	23.5	0
			7	1711.5	19965	23.19	23.5	0
				1732.5	20175	23.17	23.5	0
				1753.5	20385	23.32	23.5	0
			14	1711.5	19965	23.25	23.5	0
				1732.5	20175	23.12	23.5	0
				1753.5	20385	23.27	23.5	0
		8 RB	0	1711.5	19965	22.29	22.5	0-1
				1732.5	20175	22.20	22.5	0-1
				1753.5	20385	22.38	22.5	0-1
			4	1711.5	19965	22.28	22.5	0-1
				1732.5	20175	22.20	22.5	0-1
				1753.5	20385	22.34	22.5	0-1
			7	1711.5	19965	22.31	22.5	0-1
				1732.5	20175	22.21	22.5	0-1
				1753.5	20385	22.34	22.5	0-1
		15RB		1711.5	19965	22.30	22.5	0-1
				1732.5	20175	22.21	22.5	0-1
				1753.5	20385	22.28	22.5	0-1
	16-QAM	1 RB	0	1711.5	19965	22.47	22.5	0-1
				1732.5	20175	22.43	22.5	0-1
				1753.5	20385	22.41	22.5	0-1
			7	1711.5	19965	22.41	22.5	0-1
				1732.5	20175	22.49	22.5	0-1
				1753.5	20385	22.40	22.5	0-1
			14	1711.5	19965	22.36	22.5	0-1
				1732.5	20175	22.37	22.5	0-1
				1753.5	20385	22.34	22.5	0-1
		8 RB	0	1711.5	19965	21.36	21.5	0-2
				1732.5	20175	21.22	21.5	0-2
				1753.5	20385	21.40	21.5	0-2
			4	1711.5	19965	21.33	21.5	0-2
				1732.5	20175	21.18	21.5	0-2
				1753.5	20385	21.39	21.5	0-2
			7	1711.5	19965	21.30	21.5	0-2
				1732.5	20175	21.31	21.5	0-2
				1753.5	20385	21.34	21.5	0-2
		15RB		1711.5	19965	21.33	21.5	0-2
				1732.5	20175	21.27	21.5	0-2
				1753.5	20385	21.26	21.5	0-2

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1710.7	19957	23.23	23.5	0
				1732.5	20175	23.11	23.5	0
				1754.3	20393	23.45	23.5	0
			2	1710.7	19957	23.21	23.5	0
				1732.5	20175	23.17	23.5	0
				1754.3	20393	23.36	23.5	0
			5	1710.7	19957	23.34	23.5	0
				1732.5	20175	23.15	23.5	0
				1754.3	20393	23.38	23.5	0
		3 RB	0	1710.7	19957	22.42	22.5	0-1
				1732.5	20175	22.44	22.5	0-1
				1754.3	20393	22.41	22.5	0-1
			2	1710.7	19957	22.41	22.5	0-1
				1732.5	20175	22.32	22.5	0-1
				1754.3	20393	22.48	22.5	0-1
			3	1710.7	19957	22.47	22.5	0-1
				1732.5	20175	22.38	22.5	0-1
				1754.3	20393	22.44	22.5	0-1
		6RB		1710.7	19957	22.24	22.5	0-1
				1732.5	20175	22.25	22.5	0-1
				1754.3	20393	22.27	22.5	0-1
	16-QAM	1 RB	0	1710.7	19957	22.36	22.5	0-1
				1732.5	20175	22.42	22.5	0-1
				1754.3	20393	22.40	22.5	0-1
			2	1710.7	19957	22.34	22.5	0-1
				1732.5	20175	22.07	22.5	0-1
				1754.3	20393	22.10	22.5	0-1
			5	1710.7	19957	22.42	22.5	0-1
				1732.5	20175	22.40	22.5	0-1
				1754.3	20393	22.46	22.5	0-1
		3 RB	0	1710.7	19957	22.20	22.5	0-1
				1732.5	20175	22.24	22.5	0-1
				1754.3	20393	22.24	22.5	0-1
			2	1710.7	19957	22.30	22.5	0-1
				1732.5	20175	22.34	22.5	0-1
				1754.3	20393	22.43	22.5	0-1
			3	1710.7	19957	22.20	22.5	0-1
				1732.5	20175	22.23	22.5	0-1
				1754.3	20393	22.32	22.5	0-1
		6RB		1710.7	19957	21.43	21.5	0-2
				1732.5	20175	21.47	21.5	0-2
				1754.3	20393	21.18	21.5	0-2

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	829	20450	22.96	23	0
				836.5	20525	22.99	23	0
				844	20600	22.88	23	0
			25	829	20450	22.93	23	0
				836.5	20525	22.80	23	0
				844	20600	22.95	23	0
			49	829	20450	22.98	23	0
				836.5	20525	22.94	23	0
				844	20600	22.87	23	0
		25 RB	0	829	20450	21.96	22	0-1
				836.5	20525	21.97	22	0-1
				844	20600	21.98	22	0-1
			12	829	20450	21.93	22	0-1
				836.5	20525	21.91	22	0-1
				844	20600	21.97	22	0-1
			25	829	20450	21.91	22	0-1
				836.5	20525	21.84	22	0-1
				844	20600	21.78	22	0-1
		50RB		829	20450	21.82	22	0-1
				836.5	20525	21.84	22	0-1
				844	20600	21.79	22	0-1
	16-QAM	1 RB	0	829	20450	21.90	22	0-1
				836.5	20525	21.65	22	0-1
				844	20600	21.76	22	0-1
			25	829	20450	21.89	22	0-1
				836.5	20525	21.96	22	0-1
				844	20600	21.87	22	0-1
			49	829	20450	21.74	22	0-1
				836.5	20525	21.92	22	0-1
				844	20600	21.84	22	0-1
		25 RB	0	829	20450	20.85	21	0-2
				836.5	20525	20.85	21	0-2
				844	20600	20.87	21	0-2
			12	829	20450	20.89	21	0-2
				836.5	20525	20.78	21	0-2
				844	20600	20.85	21	0-2
			25	829	20450	20.81	21	0-2
				836.5	20525	20.80	21	0-2
				844	20600	20.84	21	0-2
		500RB		829	20450	20.89	21	0-2
				836.5	20525	20.77	21	0-2
				844	20600	20.98	21	0-2

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	826.5	20425	22.98	23	0
				836.5	20525	22.94	23	0
				846.5	20625	22.96	23	0
			12	826.5	20425	22.82	23	0
				836.5	20525	22.76	23	0
				846.5	20625	22.83	23	0
			24	826.5	20425	22.95	23	0
				836.5	20525	22.74	23	0
				846.5	20625	22.89	23	0
		12 RB	0	826.5	20425	21.83	22	0-1
				836.5	20525	21.89	22	0-1
				846.5	20625	21.98	22	0-1
			6	826.5	20425	21.97	22	0-1
				836.5	20525	21.83	22	0-1
				846.5	20625	21.91	22	0-1
			13	826.5	20425	21.93	22	0-1
				836.5	20525	21.75	22	0-1
				846.5	20625	21.84	22	0-1
		25RB		826.5	20425	21.99	22	0-1
				836.5	20525	21.87	22	0-1
				846.5	20625	21.94	22	0-1
	16-QAM	1 RB	0	826.5	20425	21.98	22	0-1
				836.5	20525	21.91	22	0-1
				846.5	20625	21.80	22	0-1
			12	826.5	20425	21.82	22	0-1
				836.5	20525	21.96	22	0-1
				846.5	20625	21.89	22	0-1
			24	826.5	20425	21.54	22	0-1
				836.5	20525	21.86	22	0-1
				846.5	20625	21.84	22	0-1
		12 RB	0	826.5	20425	20.61	21	0-2
				836.5	20525	20.61	21	0-2
				846.5	20625	20.94	21	0-2
			6	826.5	20425	20.95	21	0-2
				836.5	20525	20.87	21	0-2
				846.5	20625	20.97	21	0-2
			13	826.5	20425	20.97	21	0-2
				836.5	20525	20.96	21	0-2
				846.5	20625	20.90	21	0-2
		25RB		826.5	20425	20.82	21	0-2
				836.5	20525	20.90	21	0-2
				846.5	20625	20.97	21	0-2

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	825.5	20415	22.82	23	0
				836.5	20525	22.70	23	0
				847.5	20635	22.75	23	0
			7	825.5	20415	22.70	23	0
				836.5	20525	22.66	23	0
				847.5	20635	22.87	23	0
			14	825.5	20415	22.70	23	0
				836.5	20525	22.63	23	0
				847.5	20635	22.86	23	0
		8 RB	0	825.5	20415	21.87	22	0-1
				836.5	20525	21.67	22	0-1
				847.5	20635	21.71	22	0-1
			4	825.5	20415	21.80	22	0-1
				836.5	20525	21.65	22	0-1
				847.5	20635	21.92	22	0-1
			7	825.5	20415	21.79	22	0-1
				836.5	20525	21.60	22	0-1
				847.5	20635	21.82	22	0-1
		15RB		825.5	20415	21.75	22	0-1
				836.5	20525	21.61	22	0-1
				847.5	20635	21.99	22	0-1
	16-QAM	1 RB	0	825.5	20415	21.94	22	0-1
				836.5	20525	21.92	22	0-1
				847.5	20635	21.99	22	0-1
			7	825.5	20415	21.90	22	0-1
				836.5	20525	21.85	22	0-1
				847.5	20635	21.99	22	0-1
			14	825.5	20415	21.94	22	0-1
				836.5	20525	21.98	22	0-1
				847.5	20635	21.92	22	0-1
		8 RB	0	825.5	20415	20.98	21	0-2
				836.5	20525	20.80	21	0-2
				847.5	20635	20.83	21	0-2
			4	825.5	20415	20.72	21	0-2
				836.5	20525	20.62	21	0-2
				847.5	20635	20.91	21	0-2
			7	825.5	20415	20.78	21	0-2
				836.5	20525	20.65	21	0-2
				847.5	20635	20.99	21	0-2
		15RB		825.5	20415	20.82	21	0-2
				836.5	20525	20.71	21	0-2
				847.5	20635	20.76	21	0-2

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	824.7	20407	22.99	23	0
				836.5	20525	22.91	23	0
				848.3	20643	22.65	23	0
			2	824.7	20407	22.90	23	0
				836.5	20525	22.78	23	0
				848.3	20643	22.62	23	0
			5	824.7	20407	22.90	23	0
				836.5	20525	22.81	23	0
				848.3	20643	22.63	23	0
		3 RB	0	824.7	20407	21.88	22	0-1
				836.5	20525	21.85	22	0-1
				848.3	20643	21.60	22	0-1
			2	824.7	20407	21.87	22	0-1
				836.5	20525	21.74	22	0-1
				848.3	20643	21.66	22	0-1
			3	824.7	20407	21.91	22	0-1
				836.5	20525	21.78	22	0-1
				848.3	20643	21.64	22	0-1
		6RB		824.7	20407	21.98	22	0-1
				836.5	20525	21.84	22	0-1
				848.3	20643	22.00	22	0-1
	16-QAM	1 RB	0	824.7	20407	21.97	22	0-1
				836.5	20525	21.85	22	0-1
				848.3	20643	21.60	22	0-1
			2	824.7	20407	21.54	22	0-1
				836.5	20525	21.36	22	0-1
				848.3	20643	21.50	22	0-1
			5	824.7	20407	21.85	22	0-1
				836.5	20525	21.47	22	0-1
				848.3	20643	21.52	22	0-1
		3 RB	0	824.7	20407	20.79	21	0-1
				836.5	20525	20.60	21	0-1
				848.3	20643	20.82	21	0-1
			2	824.7	20407	20.99	21	0-1
				836.5	20525	20.52	21	0-1
				848.3	20643	20.82	21	0-1
			3	824.7	20407	20.62	21	0-1
				836.5	20525	20.49	21	0-1
				848.3	20643	20.91	21	0-1
		6RB		824.7	20407	20.21	21	0-2
				836.5	20525	20.93	21	0-2
				848.3	20643	20.90	21	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2510	20850	23.44	23.5	0
				2535	21100	23.33	23.5	0
				2560	21350	23.47	23.5	0
			50	2510	20850	23.35	23.5	0
				2535	21100	23.46	23.5	0
				2560	21350	23.38	23.5	0
			99	2510	20850	23.40	23.5	0
				2535	21100	23.40	23.5	0
				2560	21350	23.11	23.5	0
		50 RB	0	2510	20850	22.06	22.5	0-1
				2535	21100	22.25	22.5	0-1
				2560	21350	22.18	22.5	0-1
			25	2510	20850	22.12	22.5	0-1
				2535	21100	22.29	22.5	0-1
				2560	21350	22.19	22.5	0-1
			50	2510	20850	22.22	22.5	0-1
				2535	21100	22.37	22.5	0-1
				2560	21350	22.23	22.5	0-1
		100RB		2510	20850	22.25	22.5	0-1
				2535	21100	22.46	22.5	0-1
				2560	21350	22.32	22.5	0-1
	16-QAM	1 RB	0	2510	20850	22.41	22.5	0-1
				2535	21100	22.32	22.5	0-1
				2560	21350	22.44	22.5	0-1
			50	2510	20850	22.31	22.5	0-1
				2535	21100	22.47	22.5	0-1
				2560	21350	22.34	22.5	0-1
			99	2510	20850	22.49	22.5	0-1
				2535	21100	22.35	22.5	0-1
				2560	21350	22.41	22.5	0-1
		50 RB	0	2510	20850	21.20	21.5	0-2
				2535	21100	21.37	21.5	0-2
				2560	21350	21.32	21.5	0-2
			25	2510	20850	21.27	21.5	0-2
				2535	21100	21.39	21.5	0-2
				2560	21350	21.23	21.5	0-2
			50	2510	20850	21.35	21.5	0-2
				2535	21100	21.35	21.5	0-2
				2560	21350	21.31	21.5	0-2
		100RB		2510	20850	21.29	21.5	0-2
				2535	21100	21.41	21.5	0-2
				2560	21350	21.38	21.5	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2507.5	20825	23.41	23.5	0
				2535	21100	23.49	23.5	0
				2562.5	21375	23.32	23.5	0
			36	2507.5	20825	23.39	23.5	0
				2535	21100	23.46	23.5	0
				2562.5	21375	23.35	23.5	0
			74	2507.5	20825	23.45	23.5	0
				2535	21100	23.44	23.5	0
				2562.5	21375	23.43	23.5	0
		36 RB	0	2507.5	20825	22.35	22.5	0-1
				2535	21100	22.43	22.5	0-1
				2562.5	21375	22.45	22.5	0-1
			18	2507.5	20825	22.45	22.5	0-1
				2535	21100	22.46	22.5	0-1
				2562.5	21375	22.41	22.5	0-1
			37	2507.5	20825	22.46	22.5	0-1
				2535	21100	22.48	22.5	0-1
				2562.5	21375	22.42	22.5	0-1
		75RB		2507.5	20825	22.36	22.5	0-1
				2535	21100	22.47	22.5	0-1
				2562.5	21375	22.41	22.5	0-1
	16-QAM	1 RB	0	2507.5	20825	22.25	22.5	0-1
				2535	21100	22.45	22.5	0-1
				2562.5	21375	22.40	22.5	0-1
			36	2507.5	20825	22.45	22.5	0-1
				2535	21100	22.37	22.5	0-1
				2562.5	21375	22.45	22.5	0-1
			74	2507.5	20825	22.46	22.5	0-1
				2535	21100	22.33	22.5	0-1
				2562.5	21375	22.35	22.5	0-1
		36 RB	0	2507.5	20825	21.36	21.5	0-2
				2535	21100	21.46	21.5	0-2
				2562.5	21375	21.50	21.5	0-2
			18	2507.5	20825	21.33	21.5	0-2
				2535	21100	21.41	21.5	0-2
				2562.5	21375	21.32	21.5	0-2
			37	2507.5	20825	21.49	21.5	0-2
				2535	21100	21.22	21.5	0-2
				2562.5	21375	21.32	21.5	0-2
		75RB		2507.5	20825	21.47	21.5	0-2
				2535	21100	21.41	21.5	0-2
				2562.5	21375	21.33	21.5	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2505	20800	23.27	23.5	0
				2535	21100	23.49	23.5	0
				2565	21400	23.34	23.5	0
			25	2505	20800	23.31	23.5	0
				2535	21100	23.44	23.5	0
				2565	21400	23.46	23.5	0
			49	2505	20800	23.45	23.5	0
				2535	21100	23.41	23.5	0
				2565	21400	23.34	23.5	0
		25 RB	0	2505	20800	22.39	22.5	0-1
				2535	21100	22.48	22.5	0-1
				2565	21400	22.44	22.5	0-1
			12	2505	20800	22.42	22.5	0-1
				2535	21100	22.49	22.5	0-1
				2565	21400	22.50	22.5	0-1
			25	2505	20800	22.49	22.5	0-1
				2535	21100	22.42	22.5	0-1
				2565	21400	22.34	22.5	0-1
		50RB		2505	20800	22.39	22.5	0-1
				2535	21100	22.33	22.5	0-1
				2565	21400	22.47	22.5	0-1
	16-QAM	1 RB	0	2505	20800	22.20	22.5	0-1
				2535	21100	22.42	22.5	0-1
				2565	21400	21.74	22.5	0-1
			25	2505	20800	22.01	22.5	0-1
				2535	21100	22.38	22.5	0-1
				2565	21400	22.18	22.5	0-1
			49	2505	20800	22.09	22.5	0-1
				2535	21100	22.23	22.5	0-1
				2565	21400	22.17	22.5	0-1
		25 RB	0	2505	20800	20.84	21.5	0-2
				2535	21100	21.03	21.5	0-2
				2565	21400	20.95	21.5	0-2
			12	2505	20800	20.92	21.5	0-2
				2535	21100	20.98	21.5	0-2
				2565	21400	20.98	21.5	0-2
			25	2505	20800	21.00	21.5	0-2
				2535	21100	21.09	21.5	0-2
				2565	21400	20.97	21.5	0-2
		50RB		2505	20800	20.83	21.5	0-2
				2535	21100	20.97	21.5	0-2
				2565	21400	20.94	21.5	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2502.5	20775	23.26	23.5	0
				2535	21100	23.44	23.5	0
				2567.5	21425	23.22	23.5	0
			12	2502.5	20775	23.25	23.5	0
				2535	21100	23.48	23.5	0
				2567.5	21425	23.40	23.5	0
			24	2502.5	20775	23.46	23.5	0
				2535	21100	23.40	23.5	0
				2567.5	21425	23.31	23.5	0
		12 RB	0	2502.5	20775	22.37	22.5	0-1
				2535	21100	22.32	22.5	0-1
				2567.5	21425	22.41	22.5	0-1
			6	2502.5	20775	22.35	22.5	0-1
				2535	21100	22.45	22.5	0-1
				2567.5	21425	22.50	22.5	0-1
			13	2502.5	20775	22.39	22.5	0-1
				2535	21100	22.43	22.5	0-1
				2567.5	21425	22.47	22.5	0-1
		25RB		2502.5	20775	22.40	22.5	0-1
				2535	21100	22.41	22.5	0-1
				2567.5	21425	22.32	22.5	0-1
	16-QAM	1 RB	0	2502.5	20775	22.40	22.5	0-1
				2535	21100	22.41	22.5	0-1
				2567.5	21425	21.93	22.5	0-1
			12	2502.5	20775	21.96	22.5	0-1
				2535	21100	22.40	22.5	0-1
				2567.5	21425	22.02	22.5	0-1
			24	2502.5	20775	22.12	22.5	0-1
				2535	21100	22.49	22.5	0-1
				2567.5	21425	21.95	22.5	0-1
		12 RB	0	2502.5	20775	20.74	21.5	0-2
				2535	21100	20.88	21.5	0-2
				2567.5	21425	20.84	21.5	0-2
			6	2502.5	20775	20.65	21.5	0-2
				2535	21100	21.02	21.5	0-2
				2567.5	21425	20.82	21.5	0-2
			13	2502.5	20775	20.71	21.5	0-2
				2535	21100	21.03	21.5	0-2
				2567.5	21425	20.81	21.5	0-2
		25RB		2502.5	20775	20.72	21.5	0-2
				2535	21100	20.96	21.5	0-2
				2567.5	21425	20.90	21.5	0-2

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	704	23060	22.69	23	0
				707.5	23095	22.77	23	0
				711	23130	22.64	23	0
			25	704	23060	22.80	23	0
				707.5	23095	22.53	23	0
				711	23130	22.76	23	0
			49	704	23060	22.96	23	0
				707.5	23095	22.73	23	0
				711	23130	22.89	23	0
		25 RB	0	704	23060	21.96	22	0-1
				707.5	23095	21.78	22	0-1
				711	23130	21.75	22	0-1
			12	704	23060	21.91	22	0-1
				707.5	23095	21.74	22	0-1
				711	23130	21.68	22	0-1
			25	704	23060	21.82	22	0-1
				707.5	23095	21.84	22	0-1
				711	23130	21.83	22	0-1
		50RB		704	23060	21.80	22	0-1
				707.5	23095	21.78	22	0-1
				711	23130	21.71	22	0-1
	16-QAM	1 RB	0	704	23060	21.83	22	0-1
				707.5	23095	21.90	22	0-1
				711	23130	21.73	22	0-1
			25	704	23060	21.93	22	0-1
				707.5	23095	21.53	22	0-1
				711	23130	21.98	22	0-1
			49	704	23060	21.98	22	0-1
				707.5	23095	21.98	22	0-1
				711	23130	21.90	22	0-1
		25 RB	0	704	23060	20.96	21	0-2
				707.5	23095	20.89	21	0-2
				711	23130	20.83	21	0-2
			12	704	23060	20.84	21	0-2
				707.5	23095	20.80	21	0-2
				711	23130	20.86	21	0-2
			25	704	23060	20.91	21	0-2
				707.5	23095	20.81	21	0-2
				711	23130	20.96	21	0-2
		50RB		704	23060	20.81	21	0-2
				707.5	23095	20.85	21	0-2
				711	23130	20.99	21	0-2

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	701.5	23035	22.88	23	0
				707.5	23095	22.83	23	0
				713.5	23155	22.81	23	0
			12	701.5	23035	22.94	23	0
				707.5	23095	22.74	23	0
				713.5	23155	22.78	23	0
			24	701.5	23035	22.94	23	0
				707.5	23095	22.81	23	0
				713.5	23155	22.95	23	0
		12 RB	0	701.5	23035	21.75	22	0-1
				707.5	23095	21.76	22	0-1
				713.5	23155	21.88	22	0-1
			6	701.5	23035	21.93	22	0-1
				707.5	23095	21.82	22	0-1
				713.5	23155	21.75	22	0-1
			13	701.5	23035	21.92	22	0-1
				707.5	23095	21.88	22	0-1
				713.5	23155	21.88	22	0-1
		25RB		701.5	23035	21.91	22	0-1
				707.5	23095	21.83	22	0-1
				713.5	23155	21.91	22	0-1
	16-QAM	1 RB	0	701.5	23035	21.88	22	0-1
				707.5	23095	21.91	22	0-1
				713.5	23155	21.95	22	0-1
			12	701.5	23035	21.97	22	0-1
				707.5	23095	21.66	22	0-1
				713.5	23155	21.91	22	0-1
			24	701.5	23035	21.63	22	0-1
				707.5	23095	21.56	22	0-1
				713.5	23155	21.85	22	0-1
		12 RB	0	701.5	23035	20.81	21	0-2
				707.5	23095	20.88	21	0-2
				713.5	23155	20.83	21	0-2
			6	701.5	23035	20.94	21	0-2
				707.5	23095	20.87	21	0-2
				713.5	23155	20.91	21	0-2
			13	701.5	23035	20.98	21	0-2
				707.5	23095	20.94	21	0-2
				713.5	23155	20.91	21	0-2
		25RB		701.5	23035	20.94	21	0-2
				707.5	23095	20.83	21	0-2
				713.5	23155	20.86	21	0-2

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	700.5	23025	22.94	23	0
				707.5	23095	22.80	23	0
				714.5	23165	22.90	23	0
			7	700.5	23025	22.92	23	0
				707.5	23095	22.74	23	0
				714.5	23165	22.84	23	0
			14	700.5	23025	22.84	23	0
				707.5	23095	22.78	23	0
				714.5	23165	22.79	23	0
		8 RB	0	700.5	23025	21.87	22	0-1
				707.5	23095	21.77	22	0-1
				714.5	23165	21.81	22	0-1
			4	700.5	23025	21.89	22	0-1
				707.5	23095	21.79	22	0-1
				714.5	23165	21.82	22	0-1
			7	700.5	23025	21.94	22	0-1
				707.5	23095	21.87	22	0-1
				714.5	23165	21.82	22	0-1
		15RB		700.5	23025	21.94	22	0-1
				707.5	23095	21.96	22	0-1
				714.5	23165	21.86	22	0-1
	16-QAM	1 RB	0	700.5	23025	22.00	22	0-1
				707.5	23095	21.80	22	0-1
				714.5	23165	21.16	22	0-1
			7	700.5	23025	21.69	22	0-1
				707.5	23095	21.90	22	0-1
				714.5	23165	21.89	22	0-1
			14	700.5	23025	21.93	22	0-1
				707.5	23095	21.65	22	0-1
				714.5	23165	21.55	22	0-1
		8 RB	0	700.5	23025	20.55	21	0-2
				707.5	23095	20.55	21	0-2
				714.5	23165	20.65	21	0-2
			4	700.5	23025	20.49	21	0-2
				707.5	23095	20.55	21	0-2
				714.5	23165	20.65	21	0-2
			7	700.5	23025	20.57	21	0-2
				707.5	23095	20.70	21	0-2
				714.5	23165	20.41	21	0-2
		15RB		700.5	23025	20.52	21	0-2
				707.5	23095	20.53	21	0-2
				714.5	23165	20.62	21	0-2

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	699.7	23017	22.95	23	0
				707.5	23095	22.73	23	0
				715.3	23173	22.78	23	0
			2	699.7	23017	22.81	23	0
				707.5	23095	22.63	23	0
				715.3	23173	22.75	23	0
			5	699.7	23017	22.81	23	0
				707.5	23095	22.72	23	0
				715.3	23173	22.90	23	0
		3 RB	0	699.7	23017	21.94	22	0-1
				707.5	23095	21.98	22	0-1
				715.3	23173	21.98	22	0-1
			2	699.7	23017	21.91	22	0-1
				707.5	23095	21.91	22	0-1
				715.3	23173	21.94	22	0-1
			3	699.7	23017	21.98	22	0-1
				707.5	23095	21.93	22	0-1
				715.3	23173	21.97	22	0-1
		6RB		699.7	23017	21.86	22	0-1
				707.5	23095	21.77	22	0-1
				715.3	23173	21.85	22	0-1
	16-QAM	1 RB	0	699.7	23017	21.98	22	0-1
				707.5	23095	21.57	22	0-1
				715.3	23173	22.00	22	0-1
			2	699.7	23017	21.95	22	0-1
				707.5	23095	21.66	22	0-1
				715.3	23173	21.96	22	0-1
			5	699.7	23017	21.79	22	0-1
				707.5	23095	21.95	22	0-1
				715.3	23173	21.88	22	0-1
		3 RB	0	699.7	23017	20.97	21	0-1
				707.5	23095	20.81	21	0-1
				715.3	23173	20.82	21	0-1
			2	699.7	23017	20.89	21	0-1
				707.5	23095	20.92	21	0-1
				715.3	23173	20.98	21	0-1
			3	699.7	23017	20.91	21	0-1
				707.5	23095	20.94	21	0-1
				715.3	23173	20.94	21	0-1
		6RB		699.7	23017	20.61	21	0-2
				707.5	23095	20.59	21	0-2
				715.3	23173	20.85	21	0-2

FDD Band 13								
BW(Mhz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	782	23230	23.41	23.5	0
			25	782	23230	23.28	23.5	0
			49	782	23230	23.20	23.5	0
		25 RB	0	782	23230	22.32	22.5	0-1
			12	782	23230	22.29	22.5	0-1
			25	782	23230	22.33	22.5	0-1
		50RB		782	23230	22.40	22.5	0-1
	16-QAM	1 RB	0	782	23230	22.40	22.5	0-1
			25	782	23230	22.47	22.5	0-1
			49	782	23230	22.46	22.5	0-1
		25 RB	0	782	23230	21.44	21.5	0-2
			12	782	23230	21.35	21.5	0-2
			25	782	23230	21.31	21.5	0-2
		50RB		782	23230	21.46	21.5	0-2

FDD Band 13								
BW(Mhz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	779.5	23205	23.29	23.5	0
				782	23230	23.33	23.5	0
				784.5	23255	23.48	23.5	0
			12	779.5	23205	23.35	23.5	0
				782	23230	23.44	23.5	0
				784.5	23255	23.42	23.5	0
			24	779.5	23205	23.31	23.5	0
				782	23230	23.45	23.5	0
				784.5	23255	23.41	23.5	0
		12 RB	0	779.5	23205	22.33	22.5	0-1
				782	23230	22.44	22.5	0-1
				784.5	23255	22.41	22.5	0-1
			6	779.5	23205	22.40	22.5	0-1
				782	23230	22.42	22.5	0-1
				784.5	23255	22.43	22.5	0-1
			13	779.5	23205	22.46	22.5	0-1
				782	23230	22.48	22.5	0-1
				784.5	23255	22.41	22.5	0-1
		25RB		779.5	23205	22.39	22.5	0-1
				782	23230	22.46	22.5	0-1
				784.5	23255	22.50	22.5	0-1
	16-QAM	1 RB	0	779.5	23205	22.22	22.5	0-1
				782	23230	22.41	22.5	0-1
				784.5	23255	22.11	22.5	0-1
			12	779.5	23205	22.27	22.5	0-1
				782	23230	22.19	22.5	0-1
				784.5	23255	22.04	22.5	0-1
			24	779.5	23205	21.89	22.5	0-1
				782	23230	21.99	22.5	0-1
				784.5	23255	22.28	22.5	0-1
		12 RB	0	779.5	23205	21.42	21.5	0-2
				782	23230	21.44	21.5	0-2
				784.5	23255	21.34	21.5	0-2
			6	779.5	23205	21.45	21.5	0-2
				782	23230	21.44	21.5	0-2
				784.5	23255	21.42	21.5	0-2
			13	779.5	23205	21.40	21.5	0-2
				782	23230	21.48	21.5	0-2
				784.5	23255	21.43	21.5	0-2
		25RB		779.5	23205	21.38	21.5	0-2
				782	23230	21.33	21.5	0-2
				784.5	23255	21.47	21.5	0-2

FDD Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	709	23780	22.92	23	0
				710	23790	22.91	23	0
				711	23800	22.80	23	0
			25	709	23780	22.93	23	0
				710	23790	22.91	23	0
				711	23800	22.83	23	0
			49	709	23780	22.84	23	0
				710	23790	22.94	23	0
				711	23800	22.96	23	0
		25 RB	0	709	23780	21.91	22	0-1
				710	23790	21.90	22	0-1
				711	23800	21.99	22	0-1
			12	709	23780	21.98	22	0-1
				710	23790	21.93	22	0-1
				711	23800	21.95	22	0-1
			25	709	23780	21.93	22	0-1
				710	23790	21.96	22	0-1
				711	23800	21.97	22	0-1
		50RB		709	23780	21.94	22	0-1
				710	23790	21.97	22	0-1
				711	23800	21.91	22	0-1
	16-QAM	1 RB	0	709	23780	21.75	22	0-1
				710	23790	21.97	22	0-1
				711	23800	21.85	22	0-1
			25	709	23780	21.94	22	0-1
				710	23790	21.65	22	0-1
				711	23800	21.51	22	0-1
			49	709	23780	21.77	22	0-1
				710	23790	21.99	22	0-1
				711	23800	21.86	22	0-1
		25 RB	0	709	23780	20.88	21	0-2
				710	23790	20.75	21	0-2
				711	23800	20.85	21	0-2
			12	709	23780	20.91	21	0-2
				710	23790	20.92	21	0-2
				711	23800	20.91	21	0-2
			25	709	23780	20.97	21	0-2
				710	23790	20.96	21	0-2
				711	23800	20.92	21	0-2
		50RB		709	23780	20.86	21	0-2
				710	23790	20.81	21	0-2
				711	23800	20.95	21	0-2

FDD Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	706.5	23755	22.98	23	0
				710	23790	22.77	23	0
				713.5	23825	22.88	23	0
			12	706.5	23755	22.87	23	0
				710	23790	22.93	23	0
				713.5	23825	22.97	23	0
			24	706.5	23755	22.93	23	0
				710	23790	22.89	23	0
				713.5	23825	22.63	23	0
		12 RB	0	706.5	23755	21.96	22	0-1
				710	23790	21.81	22	0-1
				713.5	23825	21.87	22	0-1
			6	706.5	23755	21.93	22	0-1
				710	23790	21.81	22	0-1
				713.5	23825	21.91	22	0-1
			13	706.5	23755	21.96	22	0-1
				710	23790	21.91	22	0-1
				713.5	23825	21.93	22	0-1
		25RB		706.5	23755	21.96	22	0-1
				710	23790	21.98	22	0-1
				713.5	23825	21.94	22	0-1
	16-QAM	1 RB	0	706.5	23755	21.61	22	0-1
				710	23790	21.78	22	0-1
				713.5	23825	21.91	22	0-1
			12	706.5	23755	21.46	22	0-1
				710	23790	21.97	22	0-1
				713.5	23825	21.90	22	0-1
			24	706.5	23755	21.92	22	0-1
				710	23790	21.92	22	0-1
				713.5	23825	21.56	22	0-1
		12 RB	0	706.5	23755	20.51	21	0-2
				710	23790	20.49	21	0-2
				713.5	23825	20.42	21	0-2
			6	706.5	23755	20.56	21	0-2
				710	23790	20.59	21	0-2
				713.5	23825	20.48	21	0-2
			13	706.5	23755	20.52	21	0-2
				710	23790	20.52	21	0-2
				713.5	23825	20.56	21	0-2
		25RB		706.5	23755	20.52	21	0-2
				710	23790	20.51	21	0-2
				713.5	23825	20.51	21	0-2

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	822.5	26825	22.81	23	0
				831.5	26865	22.89	23	0
				841.5	26965	22.85	23	0
			36	822.5	26825	22.92	23	0
				831.5	26865	22.92	23	0
				841.5	26965	22.97	23	0
			74	822.5	26825	22.82	23	0
				831.5	26865	22.85	23	0
				841.5	26965	22.96	23	0
		36 RB	0	822.5	26825	21.96	22	0-1
				831.5	26865	21.88	22	0-1
				841.5	26965	21.79	22	0-1
			18	822.5	26825	21.98	22	0-1
				831.5	26865	21.92	22	0-1
				841.5	26965	21.94	22	0-1
			37	822.5	26825	21.97	22	0-1
				831.5	26865	21.90	22	0-1
				841.5	26965	21.03	22	0-1
		75RB		822.5	26825	21.94	22	0-1
				831.5	26865	22.00	22	0-1
				841.5	26965	21.96	22	0-1
	16-QAM	1 RB	0	822.5	26825	21.92	22	0-1
				831.5	26865	21.34	22	0-1
				841.5	26965	21.20	22	0-1
			36	822.5	26825	21.69	22	0-1
				831.5	26865	21.47	22	0-1
				841.5	26965	21.53	22	0-1
			74	822.5	26825	21.31	22	0-1
				831.5	26865	21.51	22	0-1
				841.5	26965	21.42	22	0-1
		36 RB	0	822.5	26825	20.40	21	0-2
				831.5	26865	20.15	21	0-2
				841.5	26965	19.98	21	0-2
			18	822.5	26825	20.27	21	0-2
				831.5	26865	20.11	21	0-2
				841.5	26965	20.09	21	0-2
			37	822.5	26825	20.30	21	0-2
				831.5	26865	20.16	21	0-2
				841.5	26965	20.30	21	0-2
		75RB		822.5	26825	20.25	21	0-2
				831.5	26865	20.26	21	0-2
				841.5	26965	20.16	21	0-2

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	820	26800	22.91	23	0
				831.5	26865	22.71	23	0
				844	26990	22.52	23	0
			25	820	26800	22.77	23	0
				831.5	26865	22.50	23	0
				844	26990	22.62	23	0
			49	820	26800	22.68	23	0
				831.5	26865	22.68	23	0
				844	26990	22.89	23	0
		25 RB	0	820	26800	21.77	22	0-1
				831.5	26865	21.70	22	0-1
				844	26990	21.65	22	0-1
			12	820	26800	21.72	22	0-1
				831.5	26865	21.61	22	0-1
				844	26990	21.74	22	0-1
			25	820	26800	21.70	22	0-1
				831.5	26865	21.57	22	0-1
				844	26990	21.91	22	0-1
		50RB		820	26800	21.77	22	0-1
				831.5	26865	21.69	22	0-1
				844	26990	21.74	22	0-1
	16-QAM	1 RB	0	820	26800	21.94	22	0-1
				831.5	26865	21.91	22	0-1
				844	26990	21.64	22	0-1
			25	820	26800	21.87	22	0-1
				831.5	26865	21.20	22	0-1
				844	26990	21.81	22	0-1
			49	820	26800	21.17	22	0-1
				831.5	26865	21.60	22	0-1
				844	26990	21.66	22	0-1
		25 RB	0	820	26800	20.54	21	0-2
				831.5	26865	20.39	21	0-2
				844	26990	20.46	21	0-2
			12	820	26800	20.44	21	0-2
				831.5	26865	20.46	21	0-2
				844	26990	20.49	21	0-2
			25	820	26800	20.34	21	0-2
				831.5	26865	20.38	21	0-2
				844	26990	20.61	21	0-2
		50RB		820	26800	20.52	21	0-2
				831.5	26865	20.42	21	0-2
				844	26990	20.62	21	0-2

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	816.5	26715	22.77	23	0
				831.5	26865	22.94	23	0
				846.5	27015	22.99	23	0
			12	816.5	26715	22.84	23	0
				831.5	26865	22.92	23	0
				846.5	27015	22.93	23	0
			24	816.5	26715	22.97	23	0
				831.5	26865	22.92	23	0
				846.5	27015	22.80	23	0
		12 RB	0	816.5	26715	21.79	22	0-1
				831.5	26865	21.94	22	0-1
				846.5	27015	21.94	22	0-1
			6	816.5	26715	21.91	22	0-1
				831.5	26865	21.85	22	0-1
				846.5	27015	21.94	22	0-1
			13	816.5	26715	21.96	22	0-1
				831.5	26865	21.90	22	0-1
				846.5	27015	21.79	22	0-1
		25RB		816.5	26715	21.95	22	0-1
				831.5	26865	21.87	22	0-1
				846.5	27015	21.92	22	0-1
	16-QAM	1 RB	0	816.5	26715	21.35	22	0-1
				831.5	26865	21.63	22	0-1
				846.5	27015	21.94	22	0-1
			12	816.5	26715	21.90	22	0-1
				831.5	26865	21.52	22	0-1
				846.5	27015	21.66	22	0-1
			24	816.5	26715	21.70	22	0-1
				831.5	26865	21.41	22	0-1
				846.5	27015	21.93	22	0-1
		12 RB	0	816.5	26715	20.91	21	0-2
				831.5	26865	20.81	21	0-2
				846.5	27015	20.98	21	0-2
			6	816.5	26715	20.93	21	0-2
				831.5	26865	20.88	21	0-2
				846.5	27015	20.90	21	0-2
			13	816.5	26715	20.90	21	0-2
				831.5	26865	20.87	21	0-2
				846.5	27015	20.91	21	0-2
		25RB		816.5	26715	20.82	21	0-2
				831.5	26865	20.75	21	0-2
				846.5	27015	20.88	21	0-2

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	815.5	26705	22.76	23	0
				831.5	26865	22.84	23	0
				847.5	27025	22.97	23	0
			7	815.5	26705	22.82	23	0
				831.5	26865	22.81	23	0
				847.5	27025	22.83	23	0
			14	815.5	26705	22.95	23	0
				831.5	26865	22.95	23	0
				847.5	27025	22.83	23	0
		8 RB	0	815.5	26705	21.77	22	0-1
				831.5	26865	21.95	22	0-1
				847.5	27025	21.90	22	0-1
			4	815.5	26705	21.79	22	0-1
				831.5	26865	21.84	22	0-1
				847.5	27025	21.98	22	0-1
			7	815.5	26705	21.90	22	0-1
				831.5	26865	21.83	22	0-1
				847.5	27025	21.92	22	0-1
		15RB		815.5	26705	21.82	22	0-1
				831.5	26865	21.84	22	0-1
				847.5	27025	21.93	22	0-1
	16-QAM	1 RB	0	815.5	26705	21.76	22	0-1
				831.5	26865	21.87	22	0-1
				847.5	27025	21.99	22	0-1
			7	815.5	26705	21.59	22	0-1
				831.5	26865	21.08	22	0-1
				847.5	27025	21.72	22	0-1
			14	815.5	26705	21.10	22	0-1
				831.5	26865	21.62	22	0-1
				847.5	27025	21.68	22	0-1
		8 RB	0	815.5	26705	20.39	21	0-2
				831.5	26865	20.55	21	0-2
				847.5	27025	20.52	21	0-2
			4	815.5	26705	20.43	21	0-2
				831.5	26865	20.39	21	0-2
				847.5	27025	20.61	21	0-2
			7	815.5	26705	20.44	21	0-2
				831.5	26865	20.41	21	0-2
				847.5	27025	20.64	21	0-2
		15RB		815.5	26705	20.45	21	0-2
				831.5	26865	20.25	21	0-2
				847.5	27025	20.62	21	0-2

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	814.7	26697	22.72	23	0
				831.5	26865	22.83	23	0
				848.3	27033	22.94	23	0
			2	814.7	26697	22.77	23	0
				831.5	26865	22.82	23	0
				848.3	27033	22.87	23	0
			5	814.7	26697	22.84	23	0
				831.5	26865	22.86	23	0
				848.3	27033	22.69	23	0
		3 RB	0	814.7	26697	21.99	22	0-1
				831.5	26865	21.77	22	0-1
				848.3	27033	21.96	22	0-1
			2	814.7	26697	21.70	22	0-1
				831.5	26865	21.73	22	0-1
				848.3	27033	21.88	22	0-1
			3	814.7	26697	21.71	22	0-1
				831.5	26865	21.72	22	0-1
				848.3	27033	21.97	22	0-1
		6RB		814.7	26697	21.77	22	0-1
				831.5	26865	21.86	22	0-1
				848.3	27033	21.91	22	0-1
	16-QAM	1 RB	0	814.7	26697	21.87	22	0-1
				831.5	26865	21.95	22	0-1
				848.3	27033	21.98	22	0-1
			2	814.7	26697	21.89	22	0-1
				831.5	26865	21.97	22	0-1
				848.3	27033	21.99	22	0-1
			5	814.7	26697	21.37	22	0-1
				831.5	26865	21.83	22	0-1
				848.3	27033	21.93	22	0-1
		3 RB	0	814.7	26697	20.56	21	0-1
				831.5	26865	20.73	21	0-1
				848.3	27033	20.90	21	0-1
			2	814.7	26697	20.46	21	0-1
				831.5	26865	20.69	21	0-1
				848.3	27033	20.80	21	0-1
			3	814.7	26697	20.49	21	0-1
				831.5	26865	20.56	21	0-1
				848.3	27033	20.83	21	0-1
		6RB		814.7	26697	20.76	21	0-2
				831.5	26865	20.71	21	0-2
				848.3	27033	20.68	21	0-2

FDD Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2310	27710	23.35	23.5	0
			25	2310	27710	23.41	23.5	0
			49	2310	27710	23.23	23.5	0
		25 RB	0	2310	27710	22.39	22.5	0-1
			12	2310	27710	22.41	22.5	0-1
			25	2310	27710	22.38	22.5	0-1
		50RB		2310	27710	22.42	22.5	0-1
	16-QAM	1 RB	0	2310	27710	22.24	22.5	0-1
			25	2310	27710	22.41	22.5	0-1
			49	2310	27710	22.44	22.5	0-1
		25 RB	0	2310	27710	21.46	21.5	0-2
			12	2310	27710	21.49	21.5	0-2
			25	2310	27710	21.43	21.5	0-2
		50RB		2310	27710	21.44	21.5	0-2

FDD Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2307.5	27685	23.41	23.5	0
				2310	27710	23.39	23.5	0
				2312.5	27735	23.43	23.5	0
			12	2307.5	27685	23.36	23.5	0
				2310	27710	23.45	23.5	0
				2312.5	27735	23.41	23.5	0
			24	2307.5	27685	23.41	23.5	0
				2310	27710	23.40	23.5	0
				2312.5	27735	23.42	23.5	0
		12 RB	0	2307.5	27685	22.46	22.5	0-1
				2310	27710	22.40	22.5	0-1
				2312.5	27735	22.41	22.5	0-1
			6	2307.5	27685	22.45	22.5	0-1
				2310	27710	22.40	22.5	0-1
				2312.5	27735	22.32	22.5	0-1
			13	2307.5	27685	22.44	22.5	0-1
				2310	27710	22.40	22.5	0-1
				2312.5	27735	22.32	22.5	0-1
		25RB		2307.5	27685	22.25	22.5	0-1
				2310	27710	22.41	22.5	0-1
				2312.5	27735	22.33	22.5	0-1
	16-QAM	1 RB	0	2307.5	27685	22.45	22.5	0-1
				2310	27710	22.48	22.5	0-1
				2312.5	27735	22.35	22.5	0-1
			12	2307.5	27685	21.84	22.5	0-1
				2310	27710	22.45	22.5	0-1
				2312.5	27735	22.38	22.5	0-1
			24	2307.5	27685	22.48	22.5	0-1
				2310	27710	22.48	22.5	0-1
				2312.5	27735	22.26	22.5	0-1
		12 RB	0	2307.5	27685	21.24	21.5	0-2
				2310	27710	21.30	21.5	0-2
				2312.5	27735	21.25	21.5	0-2
			6	2307.5	27685	21.27	21.5	0-2
				2310	27710	21.19	21.5	0-2
				2312.5	27735	21.26	21.5	0-2
			13	2307.5	27685	21.34	21.5	0-2
				2310	27710	21.26	21.5	0-2
				2312.5	27735	21.24	21.5	0-2
		25RB		2307.5	27685	21.34	21.5	0-2
				2310	27710	21.22	21.5	0-2
				2312.5	27735	21.25	21.5	0-2

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2580	37850	22.85	23	0
				2595	38000	22.93	23	0
				2610	38150	22.94	23	0
			50	2580	37850	22.81	23	0
				2595	38000	22.93	23	0
				2610	38150	22.96	23	0
			99	2580	37850	22.88	23	0
				2595	38000	22.98	23	0
				2610	38150	22.97	23	0
		50 RB	0	2580	37850	21.72	22	0-1
				2595	38000	21.84	22	0-1
				2610	38150	21.83	22	0-1
			25	2580	37850	21.71	22	0-1
				2595	38000	21.81	22	0-1
				2610	38150	21.81	22	0-1
			50	2580	37850	21.79	22	0-1
				2595	38000	21.82	22	0-1
				2610	38150	21.81	22	0-1
		100RB		2580	37850	21.77	22	0-1
				2595	38000	21.80	22	0-1
				2610	38150	21.82	22	0-1
	16-QAM	1 RB	0	2580	37850	21.75	22	0-1
				2595	38000	21.80	22	0-1
				2610	38150	21.90	22	0-1
			50	2580	37850	21.73	22	0-1
				2595	38000	21.88	22	0-1
				2610	38150	21.91	22	0-1
			99	2580	37850	21.79	22	0-1
				2595	38000	21.94	22	0-1
				2610	38150	21.97	22	0-1
		50 RB	0	2580	37850	20.73	21	0-2
				2595	38000	20.87	21	0-2
				2610	38150	20.94	21	0-2
			25	2580	37850	20.75	21	0-2
				2595	38000	20.87	21	0-2
				2610	38150	20.91	21	0-2
			50	2580	37850	20.78	21	0-2
				2595	38000	20.90	21	0-2
				2610	38150	20.90	21	0-2
		100RB		2580	37850	20.75	21	0-2
				2595	38000	20.84	21	0-2
				2610	38150	20.89	21	0-2

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2577.5	37825	22.84	23	0
				2595	38000	22.97	23	0
				2612.5	38175	22.98	23	0
			36	2577.5	37825	22.92	23	0
				2595	38000	22.81	23	0
				2612.5	38175	22.96	23	0
			74	2577.5	37825	22.90	23	0
				2595	38000	22.91	23	0
				2612.5	38175	22.92	23	0
		36 RB	0	2577.5	37825	21.83	22	0-1
				2595	38000	21.89	22	0-1
				2612.5	38175	21.91	22	0-1
			18	2577.5	37825	21.82	22	0-1
				2595	38000	21.89	22	0-1
				2612.5	38175	21.92	22	0-1
			37	2577.5	37825	21.85	22	0-1
				2595	38000	21.90	22	0-1
				2612.5	38175	21.89	22	0-1
		75RB		2577.5	37825	21.82	22	0-1
				2595	38000	21.84	22	0-1
				2612.5	38175	21.85	22	0-1
	16-QAM	1 RB	0	2577.5	37825	21.81	22	0-1
				2595	38000	21.85	22	0-1
				2612.5	38175	21.91	22	0-1
			36	2577.5	37825	21.80	22	0-1
				2595	38000	21.89	22	0-1
				2612.5	38175	21.93	22	0-1
			74	2577.5	37825	21.81	22	0-1
				2595	38000	21.91	22	0-1
				2612.5	38175	21.92	22	0-1
		36 RB	0	2577.5	37825	20.93	21	0-2
				2595	38000	20.61	21	0-2
				2612.5	38175	20.63	21	0-2
			18	2577.5	37825	20.55	21	0-2
				2595	38000	20.61	21	0-2
				2612.5	38175	20.62	21	0-2
			37	2577.5	37825	20.55	21	0-2
				2595	38000	20.61	21	0-2
				2612.5	38175	20.61	21	0-2
		75RB		2577.5	37825	20.83	21	0-2
				2595	38000	20.91	21	0-2
				2612.5	38175	20.92	21	0-2

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2575	37800	22.93	23	0
				2595	38000	22.68	23	0
				2615	38200	22.67	23	0
			25	2575	37800	22.53	23	0
				2595	38000	22.67	23	0
				2615	38200	22.63	23	0
			49	2575	37800	22.55	23	0
				2595	38000	22.68	23	0
				2615	38200	22.66	23	0
		25 RB	0	2575	37800	21.79	22	0-1
				2595	38000	21.94	22	0-1
				2615	38200	21.98	22	0-1
			12	2575	37800	21.79	22	0-1
				2595	38000	21.95	22	0-1
				2615	38200	21.95	22	0-1
			25	2575	37800	21.84	22	0-1
				2595	38000	21.95	22	0-1
				2615	38200	21.95	22	0-1
		50RB		2575	37800	21.80	22	0-1
				2595	38000	21.88	22	0-1
				2615	38200	21.90	22	0-1
	16-QAM	1 RB	0	2575	37800	21.83	22	0-1
				2595	38000	21.93	22	0-1
				2615	38200	21.98	22	0-1
			25	2575	37800	21.82	22	0-1
				2595	38000	21.92	22	0-1
				2615	38200	21.97	22	0-1
			49	2575	37800	21.85	22	0-1
				2595	38000	21.97	22	0-1
				2615	38200	21.96	22	0-1
		25 RB	0	2575	37800	20.96	21	0-2
				2595	38000	20.67	21	0-2
				2615	38200	20.69	21	0-2
			12	2575	37800	20.58	21	0-2
				2595	38000	20.66	21	0-2
				2615	38200	20.69	21	0-2
			25	2575	37800	20.58	21	0-2
				2595	38000	20.69	21	0-2
				2615	38200	20.68	21	0-2
		50RB		2575	37800	20.83	21	0-2
				2595	38000	20.94	21	0-2
				2615	38200	20.96	21	0-2

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2572.5	37775	22.88	23	0
				2595	38000	22.94	23	0
				2617.5	38225	22.96	23	0
			12	2572.5	37775	22.86	23	0
				2595	38000	22.93	23	0
				2617.5	38225	22.92	23	0
			24	2572.5	37775	22.89	23	0
				2595	38000	22.94	23	0
				2617.5	38225	22.94	23	0
		12 RB	0	2572.5	37775	21.75	22	0-1
				2595	38000	21.86	22	0-1
				2617.5	38225	21.87	22	0-1
			6	2572.5	37775	21.76	22	0-1
				2595	38000	21.83	22	0-1
				2617.5	38225	21.85	22	0-1
			13	2572.5	37775	21.77	22	0-1
				2595	38000	21.85	22	0-1
				2617.5	38225	21.87	22	0-1
		25RB		2572.5	37775	21.76	22	0-1
				2595	38000	21.86	22	0-1
				2617.5	38225	21.88	22	0-1
	16-QAM	1 RB	0	2572.5	37775	21.78	22	0-1
				2595	38000	21.87	22	0-1
				2617.5	38225	21.94	22	0-1
			12	2572.5	37775	21.75	22	0-1
				2595	38000	21.84	22	0-1
				2617.5	38225	21.88	22	0-1
			24	2572.5	37775	21.76	22	0-1
				2595	38000	21.86	22	0-1
				2617.5	38225	21.92	22	0-1
		12 RB	0	2572.5	37775	20.74	21	0-2
				2595	38000	20.84	21	0-2
				2617.5	38225	20.89	21	0-2
			6	2572.5	37775	20.72	21	0-2
				2595	38000	20.84	21	0-2
				2617.5	38225	20.86	21	0-2
			13	2572.5	37775	20.78	21	0-2
				2595	38000	20.86	21	0-2
				2617.5	38225	20.87	21	0-2
		25RB		2572.5	37775	20.86	21	0-2
				2595	38000	20.96	21	0-2
				2617.5	38225	20.99	21	0-2

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2506	39750	23.00	23	0
				2549.5	40185	22.99	23	0
				2593	40620	22.78	23	0
				2636.5	41055	22.94	23	0
				2680	41490	22.83	23	0
			50	2506	39750	22.56	23	0
				2549.5	40185	22.87	23	0
				2593	40620	22.82	23	0
				2636.5	41055	22.84	23	0
				2680	41490	22.78	23	0
			99	2506	39750	22.76	23	0
				2549.5	40185	22.77	23	0
				2593	40620	22.99	23	0
				2636.5	41055	22.80	23	0
				2680	41490	22.85	23	0
		50 RB	0	2506	39750	21.41	22	0-1
				2549.5	40185	21.81	22	0-1
				2593	40620	21.57	22	0-1
				2636.5	41055	21.79	22	0-1
				2680	41490	21.69	22	0-1
			25	2506	39750	21.45	22	0-1
				2549.5	40185	21.70	22	0-1
				2593	40620	21.66	22	0-1
				2636.5	41055	21.70	22	0-1
				2680	41490	21.71	22	0-1
			50	2506	39750	21.53	22	0-1
				2549.5	40185	21.65	22	0-1
				2593	40620	21.73	22	0-1
				2636.5	41055	21.69	22	0-1
				2680	41490	21.78	22	0-1
		100RB		2506	39750	21.52	22	0-1
				2549.5	40185	21.73	22	0-1
				2593	40620	21.65	22	0-1
				2636.5	41055	21.71	22	0-1
				2680	41490	21.77	22	0-1
	16-QAM	1 RB	0	2506	39750	21.84	22	0-1
				2549.5	40185	21.80	22	0-1
				2593	40620	21.53	22	0-1
				2636.5	41055	21.82	22	0-1
				2680	41490	21.57	22	0-1
			50	2506	39750	21.38	22	0-1
				2549.5	40185	21.71	22	0-1
				2593	40620	21.61	22	0-1
				2636.5	41055	21.65	22	0-1
				2680	41490	21.52	22	0-1
			99	2506	39750	21.58	22	0-1
				2549.5	40185	21.57	22	0-1
				2593	40620	21.79	22	0-1
				2636.5	41055	21.58	22	0-1
				2680	41490	21.60	22	0-1
		50 RB	0	2506	39750	20.42	21	0-2
				2549.5	40185	20.82	21	0-2
				2593	40620	20.60	21	0-2
				2636.5	41055	20.82	21	0-2
				2680	41490	20.70	21	0-2
			25	2506	39750	20.47	21	0-2
				2549.5	40185	20.72	21	0-2
				2593	40620	20.67	21	0-2
				2636.5	41055	20.72	21	0-2
				2680	41490	20.76	21	0-2
			50	2506	39750	20.54	21	0-2
				2549.5	40185	20.67	21	0-2
				2593	40620	20.76	21	0-2
				2636.5	41055	20.70	21	0-2
				2680	41490	20.82	21	0-2
		100RB		2506	39750	20.60	21	0-2
				2549.5	40185	20.78	21	0-2
				2593	40620	20.65	21	0-2
				2636.5	41055	20.70	21	0-2
				2680	41490	20.78	21	0-2

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2503.5	39725	22.93	23	0
				2548.3	40173	22.97	23	0
				2593	40620	22.79	23	0
				2637.8	41068	22.98	23	0
				2682.5	41515	22.83	23	0
			36	2503.5	39725	22.58	23	0
				2548.3	40173	22.96	23	0
				2593	40620	22.89	23	0
				2637.8	41068	22.90	23	0
				2682.5	41515	22.87	23	0
			74	2503.5	39725	22.67	23	0
				2548.3	40173	22.81	23	0
				2593	40620	22.95	23	0
				2637.8	41068	22.81	23	0
				2682.5	41515	22.97	23	0
		36 RB	0	2503.5	39725	21.50	22	0-1
				2548.3	40173	21.89	22	0-1
				2593	40620	21.69	22	0-1
				2637.8	41068	21.87	22	0-1
				2682.5	41515	21.87	22	0-1
			18	2503.5	39725	21.58	22	0-1
				2548.3	40173	21.90	22	0-1
				2593	40620	21.78	22	0-1
				2637.8	41068	21.81	22	0-1
				2682.5	41515	21.88	22	0-1
			37	2503.5	39725	21.56	22	0-1
				2548.3	40173	21.81	22	0-1
				2593	40620	21.84	22	0-1
				2637.8	41068	21.79	22	0-1
				2682.5	41515	21.91	22	0-1
		75RB		2503.5	39725	21.61	22	0-1
				2548.3	40173	21.89	22	0-1
				2593	40620	21.71	22	0-1
				2637.8	41068	21.79	22	0-1
				2682.5	41515	21.83	22	0-1
	16-QAM	1 RB	0	2503.5	39725	21.88	22	0-1
				2548.3	40173	21.94	22	0-1
				2593	40620	21.68	22	0-1
				2637.8	41068	21.92	22	0-1
				2682.5	41515	21.70	22	0-1
			36	2503.5	39725	21.57	22	0-1
				2548.3	40173	21.93	22	0-1
				2593	40620	21.78	22	0-1
				2637.8	41068	21.83	22	0-1
				2682.5	41515	21.70	22	0-1
			74	2503.5	39725	21.62	22	0-1
				2548.3	40173	21.76	22	0-1
				2593	40620	21.85	22	0-1
				2637.8	41068	21.75	22	0-1
				2682.5	41515	21.79	22	0-1
		36 RB	0	2503.5	39725	20.21	21	0-2
				2548.3	40173	20.61	21	0-2
				2593	40620	20.42	21	0-2
				2637.8	41068	20.61	21	0-2
				2682.5	41515	20.96	21	0-2
			18	2503.5	39725	20.67	21	0-2
				2548.3	40173	20.99	21	0-2
				2593	40620	20.89	21	0-2
				2637.8	41068	20.94	21	0-2
				2682.5	41515	20.98	21	0-2
			37	2503.5	39725	20.68	21	0-2
				2548.3	40173	20.92	21	0-2
				2593	40620	20.95	21	0-2
				2637.8	41068	20.91	21	0-2
				2682.5	41515	21.00	21	0-2
		75RB		2503.5	39725	20.62	21	0-2
				2548.3	40173	20.89	21	0-2
				2593	40620	20.76	21	0-2
				2637.8	41068	20.82	21	0-2
				2682.5	41515	20.87	21	0-2

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2501	39700	22.55	23	0
				2547	40160	22.99	23	0
				2593	40620	22.84	23	0
				2639	41080	22.94	23	0
				2685	41540	22.92	23	0
			25	2501	39700	22.53	23	0
				2547	40160	22.95	23	0
				2593	40620	22.90	23	0
				2639	41080	22.82	23	0
				2685	41540	22.97	23	0
			49	2501	39700	22.64	23	0
				2547	40160	22.92	23	0
				2593	40620	22.98	23	0
				2639	41080	22.93	23	0
				2685	41540	22.83	23	0
		25 RB	0	2501	39700	21.53	22	0-1
				2547	40160	21.90	22	0-1
				2593	40620	21.77	22	0-1
				2639	41080	21.86	22	0-1
				2685	41540	21.88	22	0-1
			12	2501	39700	21.50	22	0-1
				2547	40160	21.89	22	0-1
				2593	40620	21.78	22	0-1
				2639	41080	21.83	22	0-1
				2685	41540	21.91	22	0-1
			25	2501	39700	21.57	22	0-1
				2547	40160	21.81	22	0-1
				2593	40620	21.80	22	0-1
				2639	41080	21.83	22	0-1
				2685	41540	21.92	22	0-1
		50RB		2501	39700	21.50	22	0-1
				2547	40160	21.85	22	0-1
				2593	40620	21.72	22	0-1
				2639	41080	21.80	22	0-1
				2685	41540	21.87	22	0-1
	16-QAM	1 RB	0	2501	39700	21.91	22	0-1
				2547	40160	21.91	22	0-1
				2593	40620	21.70	22	0-1
				2639	41080	21.92	22	0-1
				2685	41540	21.77	22	0-1
			25	2501	39700	21.50	22	0-1
				2547	40160	21.89	22	0-1
				2593	40620	21.83	22	0-1
				2639	41080	21.83	22	0-1
				2685	41540	21.81	22	0-1
			49	2501	39700	21.58	22	0-1
				2547	40160	21.83	22	0-1
				2593	40620	21.87	22	0-1
				2639	41080	21.76	22	0-1
				2685	41540	21.88	22	0-1
		25 RB	0	2501	39700	20.62	21	0-2
				2547	40160	21.00	21	0-2
				2593	40620	20.96	21	0-2
				2639	41080	20.97	21	0-2
				2685	41540	21.00	21	0-2
			12	2501	39700	20.61	21	0-2
				2547	40160	20.99	21	0-2
				2593	40620	20.91	21	0-2
				2639	41080	20.95	21	0-2
				2685	41540	20.85	21	0-2
			25	2501	39700	20.69	21	0-2
				2547	40160	20.93	21	0-2
				2593	40620	20.96	21	0-2
				2639	41080	20.95	21	0-2
				2685	41540	20.44	21	0-2
		50RB		2501	39700	20.49	21	0-2
				2547	40160	20.86	21	0-2
				2593	40620	20.82	21	0-2
				2639	41080	20.83	21	0-2
				2685	41540	20.93	21	0-2

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2498.5	39675	22.91	23	0
				2547.8	40148	22.94	23	0
				2593	40620	22.89	23	0
				2640.3	41093	22.92	23	0
				2687.5	41565	22.95	23	0
			12	2498.5	39675	22.48	23	0
				2547.8	40148	22.93	23	0
				2593	40620	22.88	23	0
				2640.3	41093	22.89	23	0
				2687.5	41565	22.96	23	0
			24	2498.5	39675	22.52	23	0
				2547.8	40148	22.95	23	0
				2593	40620	22.89	23	0
				2640.3	41093	22.83	23	0
				2687.5	41565	22.99	23	0
		12 RB	0	2498.5	39675	21.45	22	0-1
				2547.8	40148	21.89	22	0-1
				2593	40620	21.80	22	0-1
				2640.3	41093	21.80	22	0-1
				2687.5	41565	21.89	22	0-1
			6	2498.5	39675	21.43	22	0-1
				2547.8	40148	21.87	22	0-1
				2593	40620	21.79	22	0-1
				2640.3	41093	21.79	22	0-1
				2687.5	41565	21.86	22	0-1
			13	2498.5	39675	21.46	22	0-1
				2547.8	40148	21.88	22	0-1
				2593	40620	21.81	22	0-1
				2640.3	41093	21.80	22	0-1
				2687.5	41565	21.86	22	0-1
		25RB		2498.5	39675	21.50	22	0-1
				2547.8	40148	21.89	22	0-1
				2593	40620	21.78	22	0-1
				2640.3	41093	21.82	22	0-1
				2687.5	41565	21.88	22	0-1
	16-QAM	1 RB	0	2498.5	39675	21.87	22	0-1
				2547.8	40148	21.94	22	0-1
				2593	40620	21.79	22	0-1
				2640.3	41093	21.88	22	0-1
				2687.5	41565	21.78	22	0-1
			12	2498.5	39675	21.45	22	0-1
				2547.8	40148	21.91	22	0-1
				2593	40620	21.77	22	0-1
				2640.3	41093	21.84	22	0-1
				2687.5	41565	21.80	22	0-1
			24	2498.5	39675	21.49	22	0-1
				2547.8	40148	21.91	22	0-1
				2593	40620	21.81	22	0-1
				2640.3	41093	21.78	22	0-1
				2687.5	41565	21.92	22	0-1
		12 RB	0	2498.5	39675	20.47	21	0-2
				2547.8	40148	20.89	21	0-2
				2593	40620	20.78	21	0-2
				2640.3	41093	20.78	21	0-2
				2687.5	41565	20.93	21	0-2
			6	2498.5	39675	20.45	21	0-2
				2547.8	40148	20.86	21	0-2
				2593	40620	20.77	21	0-2
				2640.3	41093	20.73	21	0-2
				2687.5	41565	20.90	21	0-2
			13	2498.5	39675	20.44	21	0-2
				2547.8	40148	20.86	21	0-2
				2593	40620	20.78	21	0-2
				2640.3	41093	20.81	21	0-2
				2687.5	41565	20.91	21	0-2
		25RB		2498.5	39675	20.58	21	0-2
				2547.8	40148	20.98	21	0-2
				2593	40620	20.90	21	0-2
				2640.3	41093	20.91	21	0-2
				2687.5	41565	20.90	21	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1720	132072	23.44	23.5	0
				1745	132322	23.47	23.5	0
				1770	132572	23.38	23.5	0
			50	1720	132072	23.32	23.5	0
				1745	132322	23.48	23.5	0
				1770	132572	23.32	23.5	0
			99	1720	132072	23.19	23.5	0
				1745	132322	23.49	23.5	0
				1770	132572	23.36	23.5	0
		50 RB	0	1720	132072	22.26	22.5	0-1
				1745	132322	22.25	22.5	0-1
				1770	132572	22.34	22.5	0-1
			25	1720	132072	22.28	22.5	0-1
				1745	132322	22.37	22.5	0-1
				1770	132572	22.25	22.5	0-1
			50	1720	132072	22.19	22.5	0-1
				1745	132322	22.44	22.5	0-1
				1770	132572	22.27	22.5	0-1
		100RB		1720	132072	22.40	22.5	0-1
				1745	132322	22.50	22.5	0-1
				1770	132572	22.44	22.5	0-1
	16-QAM	1 RB	0	1720	132072	22.45	22.5	0-1
				1745	132322	22.48	22.5	0-1
				1770	132572	22.38	22.5	0-1
			50	1720	132072	22.39	22.5	0-1
				1745	132322	22.35	22.5	0-1
				1770	132572	22.45	22.5	0-1
			99	1720	132072	22.42	22.5	0-1
				1745	132322	22.49	22.5	0-1
				1770	132572	22.32	22.5	0-1
		50 RB	0	1720	132072	21.50	21.5	0-2
				1745	132322	21.42	21.5	0-2
				1770	132572	21.38	21.5	0-2
			25	1720	132072	21.37	21.5	0-2
				1745	132322	21.47	21.5	0-2
				1770	132572	21.41	21.5	0-2
			50	1720	132072	21.41	21.5	0-2
				1745	132322	21.38	21.5	0-2
				1770	132572	21.43	21.5	0-2
		100RB		1720	132072	21.32	21.5	0-2
				1745	132322	21.40	21.5	0-2
				1770	132572	21.47	21.5	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1717.5	132047	23.41	23.5	0
				1745	132322	23.27	23.5	0
				1772.5	132597	23.33	23.5	0
			36	1717.5	132047	23.37	23.5	0
				1745	132322	23.44	23.5	0
				1772.5	132597	23.39	23.5	0
			74	1717.5	132047	23.20	23.5	0
				1745	132322	23.41	23.5	0
				1772.5	132597	23.32	23.5	0
		36 RB	0	1717.5	132047	22.22	22.5	0-1
				1745	132322	22.25	22.5	0-1
				1772.5	132597	22.34	22.5	0-1
			18	1717.5	132047	22.28	22.5	0-1
				1745	132322	22.37	22.5	0-1
				1772.5	132597	22.25	22.5	0-1
			37	1717.5	132047	22.19	22.5	0-1
				1745	132322	22.44	22.5	0-1
				1772.5	132597	22.27	22.5	0-1
		75RB		1717.5	132047	22.40	22.5	0-1
				1745	132322	22.50	22.5	0-1
				1772.5	132597	22.50	22.5	0-1
	16-QAM	1 RB	0	1717.5	132047	22.45	22.5	0-1
				1745	132322	22.48	22.5	0-1
				1772.5	132597	22.38	22.5	0-1
			36	1717.5	132047	22.39	22.5	0-1
				1745	132322	22.35	22.5	0-1
				1772.5	132597	22.41	22.5	0-1
			74	1717.5	132047	22.47	22.5	0-1
				1745	132322	22.45	22.5	0-1
				1772.5	132597	22.34	22.5	0-1
		36 RB	0	1717.5	132047	21.40	21.5	0-2
				1745	132322	21.12	21.5	0-2
				1772.5	132597	21.38	21.5	0-2
			18	1717.5	132047	21.34	21.5	0-2
				1745	132322	21.47	21.5	0-2
				1772.5	132597	21.21	21.5	0-2
			37	1717.5	132047	21.41	21.5	0-2
				1745	132322	21.34	21.5	0-2
				1772.5	132597	21.13	21.5	0-2
		75RB		1717.5	132047	21.32	21.5	0-2
				1745	132322	21.43	21.5	0-2
				1772.5	132597	21.28	21.5	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1715	132022	23.34	23.5	0
				1745	132322	23.41	23.5	0
				1775	132622	23.33	23.5	0
			25	1715	132022	23.37	23.5	0
				1745	132322	23.48	23.5	0
				1775	132622	23.32	23.5	0
			49	1715	132022	23.19	23.5	0
				1745	132322	23.49	23.5	0
				1775	132622	23.36	23.5	0
		25 RB	0	1715	132022	22.26	22.5	0-1
				1745	132322	22.25	22.5	0-1
				1775	132622	22.34	22.5	0-1
			12	1715	132022	22.28	22.5	0-1
				1745	132322	22.37	22.5	0-1
				1775	132622	22.25	22.5	0-1
			25	1715	132022	22.19	22.5	0-1
				1745	132322	22.44	22.5	0-1
				1775	132622	22.27	22.5	0-1
		50RB		1715	132022	22.40	22.5	0-1
				1745	132322	22.50	22.5	0-1
				1775	132622	22.50	22.5	0-1
	16-QAM	1 RB	0	1715	132022	22.45	22.5	0-1
				1745	132322	22.48	22.5	0-1
				1775	132622	22.38	22.5	0-1
			25	1715	132022	22.39	22.5	0-1
				1745	132322	22.35	22.5	0-1
				1775	132622	22.45	22.5	0-1
			49	1715	132022	22.42	22.5	0-1
				1745	132322	22.49	22.5	0-1
				1775	132622	22.32	22.5	0-1
		25 RB	0	1715	132022	21.50	21.5	0-2
				1745	132322	21.42	21.5	0-2
				1775	132622	21.38	21.5	0-2
			12	1715	132022	21.37	21.5	0-2
				1745	132322	21.47	21.5	0-2
				1775	132622	21.41	21.5	0-2
			25	1715	132022	21.41	21.5	0-2
				1745	132322	21.38	21.5	0-2
				1775	132622	21.43	21.5	0-2
		50RB		1715	132022	21.32	21.5	0-2
				1745	132322	21.40	21.5	0-2
				1775	132622	21.47	21.5	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1712.5	131997	23.28	23.5	0
				1745	132322	23.27	23.5	0
				1777.5	132647	23.18	23.5	0
			12	1712.5	131997	23.28	23.5	0
				1745	132322	23.48	23.5	0
				1777.5	132647	23.16	23.5	0
			24	1712.5	131997	23.19	23.5	0
				1745	132322	23.41	23.5	0
				1777.5	132647	23.36	23.5	0
		12 RB	0	1712.5	131997	22.14	22.5	0-1
				1745	132322	21.97	22.5	0-1
				1777.5	132647	22.18	22.5	0-1
			6	1712.5	131997	21.96	22.5	0-1
				1745	132322	22.29	22.5	0-1
				1777.5	132647	22.13	22.5	0-1
			13	1712.5	131997	22.19	22.5	0-1
				1745	132322	22.40	22.5	0-1
				1777.5	132647	22.11	22.5	0-1
		25RB		1712.5	131997	22.40	22.5	0-1
				1745	132322	22.38	22.5	0-1
				1777.5	132647	22.22	22.5	0-1
	16-QAM	1 RB	0	1712.5	131997	22.29	22.5	0-1
				1745	132322	22.20	22.5	0-1
				1777.5	132647	22.14	22.5	0-1
			12	1712.5	131997	22.35	22.5	0-1
				1745	132322	22.27	22.5	0-1
				1777.5	132647	22.17	22.5	0-1
			24	1712.5	131997	22.10	22.5	0-1
				1745	132322	22.33	22.5	0-1
				1777.5	132647	22.32	22.5	0-1
		12 RB	0	1712.5	131997	21.50	21.5	0-2
				1745	132322	21.14	21.5	0-2
				1777.5	132647	21.14	21.5	0-2
			6	1712.5	131997	21.01	21.5	0-2
				1745	132322	21.19	21.5	0-2
				1777.5	132647	21.41	21.5	0-2
			13	1712.5	131997	21.33	21.5	0-2
				1745	132322	21.14	21.5	0-2
				1777.5	132647	21.27	21.5	0-2
		25RB		1712.5	131997	21.16	21.5	0-2
				1745	132322	21.04	21.5	0-2
				1777.5	132647	21.39	21.5	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1711.5	131987	23.12	23.5	0
				1745	132322	23.19	23.5	0
				1778.5	132657	23.06	23.5	0
			7	1711.5	131987	23.12	23.5	0
				1745	132322	23.24	23.5	0
				1778.5	132657	23.08	23.5	0
			14	1711.5	131987	22.99	23.5	0
				1745	132322	23.37	23.5	0
				1778.5	132657	23.24	23.5	0
		8 RB	0	1711.5	131987	22.10	22.5	0-1
				1745	132322	22.25	22.5	0-1
				1778.5	132657	22.22	22.5	0-1
			4	1711.5	131987	22.16	22.5	0-1
				1745	132322	22.09	22.5	0-1
				1778.5	132657	21.97	22.5	0-1
			7	1711.5	131987	21.99	22.5	0-1
				1745	132322	22.44	22.5	0-1
				1778.5	132657	22.15	22.5	0-1
		15RB		1711.5	131987	22.36	22.5	0-1
				1745	132322	22.42	22.5	0-1
				1778.5	132657	22.18	22.5	0-1
	16-QAM	1 RB	0	1711.5	131987	22.45	22.5	0-1
				1745	132322	22.24	22.5	0-1
				1778.5	132657	22.02	22.5	0-1
			7	1711.5	131987	22.23	22.5	0-1
				1745	132322	22.19	22.5	0-1
				1778.5	132657	22.37	22.5	0-1
			14	1711.5	131987	22.42	22.5	0-1
				1745	132322	22.45	22.5	0-1
				1778.5	132657	22.00	22.5	0-1
		8 RB	0	1711.5	131987	21.26	21.5	0-2
				1745	132322	21.30	21.5	0-2
				1778.5	132657	21.06	21.5	0-2
			4	1711.5	131987	21.37	21.5	0-2
				1745	132322	21.11	21.5	0-2
				1778.5	132657	21.33	21.5	0-2
			7	1711.5	131987	21.29	21.5	0-2
				1745	132322	21.02	21.5	0-2
				1778.5	132657	21.35	21.5	0-2
		15RB		1711.5	131987	21.16	21.5	0-2
				1745	132322	21.08	21.5	0-2
				1778.5	132657	21.31	21.5	0-2

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1710.7	131979	23.16	23.5	0
				1745	132322	23.43	23.5	0
				1779.3	132665	23.22	23.5	0
			2	1710.7	131979	23.20	23.5	0
				1745	132322	23.24	23.5	0
				1779.3	132665	22.96	23.5	0
			5	1710.7	131979	23.15	23.5	0
				1745	132322	23.13	23.5	0
				1779.3	132665	23.36	23.5	0
		3 RB	0	1710.7	131979	22.22	22.5	0
				1745	132322	22.21	22.5	0
				1779.3	132665	22.10	22.5	0
			2	1710.7	131979	22.24	22.5	0
				1745	132322	22.21	22.5	0
				1779.3	132665	21.97	22.5	0
			3	1710.7	131979	22.07	22.5	0
				1745	132322	22.20	22.5	0
				1779.3	132665	22.11	22.5	0
		6RB		1710.7	131979	22.16	22.5	0-1
				1745	132322	22.26	22.5	0-1
				1779.3	132665	22.18	22.5	0-1
	16-QAM	1 RB	0	1710.7	131979	22.21	22.5	0-1
				1745	132322	22.28	22.5	0-1
				1779.3	132665	22.22	22.5	0-1
			2	1710.7	131979	22.31	22.5	0-1
				1745	132322	22.31	22.5	0-1
				1779.3	132665	22.29	22.5	0-1
			5	1710.7	131979	22.22	22.5	0-1
				1745	132322	22.33	22.5	0-1
				1779.3	132665	21.96	22.5	0-1
		3 RB	0	1710.7	131979	21.38	22.5	0-1
				1745	132322	21.06	22.5	0-1
				1779.3	132665	21.38	22.5	0-1
			2	1710.7	131979	21.09	22.5	0-1
				1745	132322	21.35	22.5	0-1
				1779.3	132665	21.33	23	0-1
			3	1710.7	131979	21.29	22.5	0-1
				1745	132322	21.06	22.5	0-1
				1779.3	132665	21.23	22.5	0-1
		6RB		1710.7	131979	21.12	21.5	0-2
				1745	132322	21.12	21.5	0-2
				1779.3	132665	21.35	21.5	0-2

LTE FDD Band 2 / Band 4 / Band 5 / Band 12 / Band 13 / Band 17 / Band 26 / Band 30 / Band 38 / Band 41 / Band 66 power table (Reduced power):

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1860	18700	16.48	16.5	0
				1880	18900	16.44	16.5	0
				1900	19100	16.32	16.5	0
			50	1860	18700	16.21	16.5	0
				1880	18900	16.36	16.5	0
				1900	19100	16.08	16.5	0
			99	1860	18700	16.31	16.5	0
				1880	18900	16.11	16.5	0
				1900	19100	16.12	16.5	0
		50 RB	0	1860	18700	16.28	16.5	0
				1880	18900	16.42	16.5	0
				1900	19100	16.25	16.5	0
			25	1860	18700	16.28	16.5	0
				1880	18900	16.39	16.5	0
				1900	19100	16.13	16.5	0
			50	1860	18700	16.29	16.5	0
				1880	18900	16.28	16.5	0
				1900	19100	16.16	16.5	0
		100RB		1860	18700	16.49	16.5	0
				1880	18900	16.45	16.5	0
				1900	19100	16.37	16.5	0
	16-QAM	1 RB	0	1860	18700	16.29	16.5	0
				1880	18900	16.25	16.5	0
				1900	19100	16.07	16.5	0
			50	1860	18700	16.08	16.5	0
				1880	18900	16.30	16.5	0
				1900	19100	16.02	16.5	0
			99	1860	18700	16.22	16.5	0
				1880	18900	15.94	16.5	0
				1900	19100	16.12	16.5	0
		50 RB	0	1860	18700	16.26	16.5	0
				1880	18900	16.38	16.5	0
				1900	19100	16.13	16.5	0
			25	1860	18700	16.11	16.5	0
				1880	18900	16.16	16.5	0
				1900	19100	16.00	16.5	0
			50	1860	18700	16.16	16.5	0
				1880	18900	16.27	16.5	0
				1900	19100	16.12	16.5	0
		100RB		1860	18700	16.32	16.5	0
				1880	18900	16.25	16.5	0
				1900	19100	16.34	16.5	0

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1857.5	18675	16.28	16.5	0
				1880	18900	16.34	16.5	0
				1902.5	19125	16.11	16.5	0
			36	1857.5	18675	16.16	16.5	0
				1880	18900	16.25	16.5	0
				1902.5	19125	15.90	16.5	0
			74	1857.5	18675	16.23	16.5	0
				1880	18900	16.11	16.5	0
				1902.5	19125	15.99	16.5	0
		36 RB	0	1857.5	18675	16.14	16.5	0
				1880	18900	16.18	16.5	0
				1902.5	19125	16.22	16.5	0
			18	1857.5	18675	16.04	16.5	0
				1880	18900	16.21	16.5	0
				1902.5	19125	16.07	16.5	0
			37	1857.5	18675	16.14	16.5	0
				1880	18900	16.17	16.5	0
				1902.5	19125	16.01	16.5	0
		75RB		1857.5	18675	16.32	16.5	0
				1880	18900	16.42	16.5	0
				1902.5	19125	16.36	16.5	0
	16-QAM	1 RB	0	1857.5	18675	16.29	16.5	0
				1880	18900	16.12	16.5	0
				1902.5	19125	16.00	16.5	0
			36	1857.5	18675	15.87	16.5	0
				1880	18900	16.28	16.5	0
				1902.5	19125	15.94	16.5	0
			74	1857.5	18675	16.10	16.5	0
				1880	18900	15.75	16.5	0
				1902.5	19125	15.92	16.5	0
		36 RB	0	1857.5	18675	16.25	16.5	0
				1880	18900	16.30	16.5	0
				1902.5	19125	16.12	16.5	0
			18	1857.5	18675	15.88	16.5	0
				1880	18900	16.09	16.5	0
				1902.5	19125	15.92	16.5	0
			37	1857.5	18675	15.92	16.5	0
				1880	18900	16.09	16.5	0
				1902.5	19125	16.05	16.5	0
		75RB		1857.5	18675	16.32	16.5	0
				1880	18900	16.24	16.5	0
				1902.5	19125	16.31	16.5	0

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1855	18650	16.25	16.5	0
				1880	18900	16.28	16.5	0
				1905	19150	16.01	16.5	0
			25	1855	18650	16.01	16.5	0
				1880	18900	16.34	16.5	0
				1905	19150	16.01	16.5	0
			49	1855	18650	16.20	16.5	0
				1880	18900	15.89	16.5	0
				1905	19150	16.04	16.5	0
		25 RB	0	1855	18650	16.13	16.5	0
				1880	18900	16.40	16.5	0
				1905	19150	16.19	16.5	0
			12	1855	18650	16.09	16.5	0
				1880	18900	16.21	16.5	0
				1905	19150	16.02	16.5	0
			25	1855	18650	16.21	16.5	0
				1880	18900	16.19	16.5	0
				1905	19150	16.09	16.5	0
		50RB		1855	18650	16.39	16.5	0
				1880	18900	16.39	16.5	0
				1905	19150	16.26	16.5	0
	16-QAM	1 RB	0	1855	18650	16.20	16.5	0
				1880	18900	16.05	16.5	0
				1905	19150	15.99	16.5	0
			25	1855	18650	15.93	16.5	0
				1880	18900	16.06	16.5	0
				1905	19150	15.88	16.5	0
			49	1855	18650	16.20	16.5	0
				1880	18900	15.75	16.5	0
				1905	19150	16.09	16.5	0
		25 RB	0	1855	18650	16.13	16.5	0
				1880	18900	16.15	16.5	0
				1905	19150	15.90	16.5	0
			12	1855	18650	16.00	16.5	0
				1880	18900	16.03	16.5	0
				1905	19150	15.76	16.5	0
			25	1855	18650	16.00	16.5	0
				1880	18900	16.06	16.5	0
				1905	19150	15.89	16.5	0
		50RB		1855	18650	16.18	16.5	0
				1880	18900	16.09	16.5	0
				1905	19150	16.16	16.5	0

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1852.5	18625	16.28	16.5	0
				1880	18900	16.43	16.5	0
				1907.5	19175	16.11	16.5	0
			12	1852.5	18625	15.99	16.5	0
				1880	18900	16.13	16.5	0
				1907.5	19175	15.90	16.5	0
			24	1852.5	18625	16.10	16.5	0
				1880	18900	15.93	16.5	0
				1907.5	19175	16.12	16.5	0
		12 RB	0	1852.5	18625	16.23	16.5	0
				1880	18900	16.40	16.5	0
				1907.5	19175	16.12	16.5	0
			6	1852.5	18625	16.04	16.5	0
				1880	18900	16.25	16.5	0
				1907.5	19175	16.02	16.5	0
			13	1852.5	18625	16.20	16.5	0
				1880	18900	16.05	16.5	0
				1907.5	19175	16.12	16.5	0
		25RB		1852.5	18625	16.25	16.5	0
				1880	18900	16.35	16.5	0
				1907.5	19175	16.18	16.5	0
	16-QAM	1 RB	0	1852.5	18625	16.19	16.5	0
				1880	18900	16.10	16.5	0
				1907.5	19175	15.84	16.5	0
			12	1852.5	18625	15.96	16.5	0
				1880	18900	16.15	16.5	0
				1907.5	19175	15.92	16.5	0
			24	1852.5	18625	16.01	16.5	0
				1880	18900	15.74	16.5	0
				1907.5	19175	15.89	16.5	0
		12 RB	0	1852.5	18625	16.09	16.5	0
				1880	18900	16.31	16.5	0
				1907.5	19175	15.94	16.5	0
			6	1852.5	18625	16.07	16.5	0
				1880	18900	16.14	16.5	0
				1907.5	19175	15.93	16.5	0
			13	1852.5	18625	16.09	16.5	0
				1880	18900	16.06	16.5	0
				1907.5	19175	15.89	16.5	0
		25RB		1852.5	18625	16.25	16.5	0
				1880	18900	16.23	16.5	0
				1907.5	19175	16.21	16.5	0

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1851.5	18615	16.30	16.5	0
				1880	18900	16.30	16.5	0
				1908.5	19185	16.00	16.5	0
			7	1851.5	18615	16.16	16.5	0
				1880	18900	16.30	16.5	0
				1908.5	19185	15.95	16.5	0
			14	1851.5	18615	16.18	16.5	0
				1880	18900	16.09	16.5	0
				1908.5	19185	16.00	16.5	0
		8 RB	0	1851.5	18615	16.04	16.5	0
				1880	18900	16.26	16.5	0
				1908.5	19185	16.16	16.5	0
			4	1851.5	18615	16.16	16.5	0
				1880	18900	16.26	16.5	0
				1908.5	19185	16.12	16.5	0
			7	1851.5	18615	16.17	16.5	0
				1880	18900	16.06	16.5	0
				1908.5	19185	16.08	16.5	0
		15RB		1851.5	18615	16.48	16.5	0
				1880	18900	16.33	16.5	0
				1908.5	19185	16.29	16.5	0
	16-QAM	1 RB	0	1851.5	18615	16.05	16.5	0
				1880	18900	16.23	16.5	0
				1908.5	19185	15.93	16.5	0
			7	1851.5	18615	15.88	16.5	0
				1880	18900	16.07	16.5	0
				1908.5	19185	15.85	16.5	0
			14	1851.5	18615	16.00	16.5	0
				1880	18900	15.72	16.5	0
				1908.5	19185	16.00	16.5	0
		8 RB	0	1851.5	18615	16.06	16.5	0
				1880	18900	16.34	16.5	0
				1908.5	19185	16.09	16.5	0
			4	1851.5	18615	16.11	16.5	0
				1880	18900	16.09	16.5	0
				1908.5	19185	15.94	16.5	0
			7	1851.5	18615	15.94	16.5	0
				1880	18900	16.16	16.5	0
				1908.5	19185	15.94	16.5	0
		15RB		1851.5	18615	16.18	16.5	0
				1880	18900	16.19	16.5	0
				1908.5	19185	16.17	16.5	0

FDD Band 2								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1850.7	18607	16.20	16.5	0
				1880	18900	16.33	16.5	0
				1909.3	19193	16.20	16.5	0
			2	1850.7	18607	16.08	16.5	0
				1880	18900	16.29	16.5	0
				1909.3	19193	16.06	16.5	0
			5	1850.7	18607	16.26	16.5	0
				1880	18900	16.01	16.5	0
				1909.3	19193	15.95	16.5	0
		3 RB	0	1850.7	18607	16.15	16.5	0
				1880	18900	16.31	16.5	0
				1909.3	19193	16.04	16.5	0
			2	1850.7	18607	16.12	16.5	0
				1880	18900	16.22	16.5	0
				1909.3	19193	16.07	16.5	0
			3	1850.7	18607	16.23	16.5	0
				1880	18900	16.07	16.5	0
				1909.3	19193	16.01	16.5	0
		6RB		1850.7	18607	16.48	16.5	0
				1880	18900	16.41	16.5	0
				1909.3	19193	16.19	16.5	0
	16-QAM	1 RB	0	1850.7	18607	16.11	16.5	0
				1880	18900	16.25	16.5	0
				1909.3	19193	15.83	16.5	0
			2	1850.7	18607	15.87	16.5	0
				1880	18900	16.25	16.5	0
				1909.3	19193	15.96	16.5	0
			5	1850.7	18607	16.03	16.5	0
				1880	18900	15.83	16.5	0
				1909.3	19193	15.88	16.5	0
		3 RB	0	1850.7	18607	16.26	16.5	0
				1880	18900	16.29	16.5	0
				1909.3	19193	16.11	16.5	0
			2	1850.7	18607	16.10	16.5	0
				1880	18900	15.97	16.5	0
				1909.3	19193	15.96	16.5	0
			3	1850.7	18607	16.16	16.5	0
				1880	18900	16.07	16.5	0
				1909.3	19193	15.90	16.5	0
		6RB		1850.7	18607	16.30	16.5	0
				1880	18900	16.08	16.5	0
				1909.3	19193	16.27	16.5	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1720	20050	16.77	17	0
				1732.5	20175	16.75	17	0
				1745	20300	16.74	17	0
			50	1720	20050	16.86	17	0
				1732.5	20175	16.70	17	0
				1745	20300	16.92	17	0
			99	1720	20050	16.84	17	0
				1732.5	20175	16.74	17	0
				1745	20300	16.86	17	0
		50 RB	0	1720	20050	16.89	17	0
				1732.5	20175	16.80	17	0
				1745	20300	16.77	17	0
			25	1720	20050	16.87	17	0
				1732.5	20175	16.77	17	0
				1745	20300	16.76	17	0
			50	1720	20050	16.81	17	0
				1732.5	20175	16.77	17	0
				1745	20300	16.76	17	0
		100RB		1720	20050	16.99	17	0
				1732.5	20175	16.86	17	0
				1745	20300	16.90	17	0
	16-QAM	1 RB	0	1720	20050	16.63	17	0
				1732.5	20175	16.56	17	0
				1745	20300	16.53	17	0
			50	1720	20050	16.77	17	0
				1732.5	20175	16.50	17	0
				1745	20300	16.72	17	0
			99	1720	20050	16.73	17	0
				1732.5	20175	16.63	17	0
				1745	20300	16.79	17	0
		50 RB	0	1720	20050	16.84	17	0
				1732.5	20175	16.72	17	0
				1745	20300	16.68	17	0
			25	1720	20050	16.83	17	0
				1732.5	20175	16.66	17	0
				1745	20300	16.63	17	0
			50	1720	20050	16.60	17	0
				1732.5	20175	16.61	17	0
				1745	20300	16.62	17	0
		100RB		1720	20050	16.98	17	0
				1732.5	20175	16.77	17	0
				1745	20300	16.72	17	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1717.5	20025	16.75	17	0
				1732.5	20175	16.54	17	0
				1747.5	20325	16.67	17	0
			36	1717.5	20025	16.70	17	0
				1732.5	20175	16.61	17	0
				1747.5	20325	16.55	17	0
			74	1717.5	20025	16.83	17	0
				1732.5	20175	16.61	17	0
				1747.5	20325	16.76	17	0
		36 RB	0	1717.5	20025	16.72	17	0
				1732.5	20175	16.65	17	0
				1747.5	20325	16.54	17	0
			18	1717.5	20025	16.79	17	0
				1732.5	20175	16.63	17	0
				1747.5	20325	16.70	17	0
			37	1717.5	20025	16.71	17	0
				1732.5	20175	16.66	17	0
				1747.5	20325	16.75	17	0
		75RB		1717.5	20025	16.89	17	0
				1732.5	20175	16.76	17	0
				1747.5	20325	16.72	17	0
	16-QAM	1 RB	0	1717.5	20025	16.44	17	0
				1732.5	20175	16.35	17	0
				1747.5	20325	16.34	17	0
			36	1717.5	20025	16.69	17	0
				1732.5	20175	16.26	17	0
				1747.5	20325	16.58	17	0
			74	1717.5	20025	16.65	17	0
				1732.5	20175	16.52	17	0
				1747.5	20325	16.64	17	0
		36 RB	0	1717.5	20025	16.62	17	0
				1732.5	20175	16.54	17	0
				1747.5	20325	16.46	17	0
			18	1717.5	20025	16.68	17	0
				1732.5	20175	16.57	17	0
				1747.5	20325	16.51	17	0
			37	1717.5	20025	16.51	17	0
				1732.5	20175	16.44	17	0
				1747.5	20325	16.39	17	0
		75RB		1717.5	20025	16.94	17	0
				1732.5	20175	16.66	17	0
				1747.5	20325	16.60	17	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1715	20000	16.55	17	0
				1732.5	20175	16.51	17	0
				1750	20350	16.54	17	0
			25	1715	20000	16.63	17	0
				1732.5	20175	16.70	17	0
				1750	20350	16.58	17	0
			49	1715	20000	16.76	17	0
				1732.5	20175	16.64	17	0
				1750	20350	16.74	17	0
		25 RB	0	1715	20000	16.89	17	0
				1732.5	20175	16.71	17	0
				1750	20350	16.75	17	0
			12	1715	20000	16.71	17	0
				1732.5	20175	16.74	17	0
				1750	20350	16.74	17	0
			25	1715	20000	16.62	17	0
				1732.5	20175	16.58	17	0
				1750	20350	16.78	17	0
		50RB		1715	20000	16.85	17	0
				1732.5	20175	16.64	17	0
				1750	20350	16.80	17	0
	16-QAM	1 RB	0	1715	20000	16.39	17	0
				1732.5	20175	16.40	17	0
				1750	20350	16.32	17	0
			25	1715	20000	16.60	17	0
				1732.5	20175	16.50	17	0
				1750	20350	16.49	17	0
			49	1715	20000	16.67	17	0
				1732.5	20175	16.53	17	0
				1750	20350	16.55	17	0
		25 RB	0	1715	20000	16.71	17	0
				1732.5	20175	16.59	17	0
				1750	20350	16.58	17	0
			12	1715	20000	16.74	17	0
				1732.5	20175	16.58	17	0
				1750	20350	16.50	17	0
			25	1715	20000	16.57	17	0
				1732.5	20175	16.58	17	0
				1750	20350	16.58	17	0
		50RB		1715	20000	16.92	17	0
				1732.5	20175	16.59	17	0
				1750	20350	16.69	17	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1712.5	19975	16.55	17	0
				1732.5	20175	16.70	17	0
				1752.5	20375	16.63	17	0
			12	1712.5	19975	16.83	17	0
				1732.5	20175	16.61	17	0
				1752.5	20375	16.70	17	0
			24	1712.5	19975	16.82	17	0
				1732.5	20175	16.73	17	0
				1752.5	20375	16.65	17	0
		12 RB	0	1712.5	19975	16.81	17	0
				1732.5	20175	16.56	17	0
				1752.5	20375	16.59	17	0
			6	1712.5	19975	16.87	17	0
				1732.5	20175	16.55	17	0
				1752.5	20375	16.73	17	0
			13	1712.5	19975	16.80	17	0
				1732.5	20175	16.72	17	0
				1752.5	20375	16.62	17	0
		25RB		1712.5	19975	16.83	17	0
				1732.5	20175	16.62	17	0
				1752.5	20375	16.71	17	0
	16-QAM	1 RB	0	1712.5	19975	16.52	17	0
				1732.5	20175	16.45	17	0
				1752.5	20375	16.36	17	0
			12	1712.5	19975	16.64	17	0
				1732.5	20175	16.49	17	0
				1752.5	20375	16.50	17	0
			24	1712.5	19975	16.68	17	0
				1732.5	20175	16.42	17	0
				1752.5	20375	16.66	17	0
		12 RB	0	1712.5	19975	16.75	17	0
				1732.5	20175	16.56	17	0
				1752.5	20375	16.62	17	0
			6	1712.5	19975	16.71	17	0
				1732.5	20175	16.60	17	0
				1752.5	20375	16.39	17	0
			13	1712.5	19975	16.47	17	0
				1732.5	20175	16.52	17	0
				1752.5	20375	16.50	17	0
		25RB		1712.5	19975	16.81	17	0
				1732.5	20175	16.66	17	0
				1752.5	20375	16.60	17	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1711.5	19965	16.55	17	0
				1732.5	20175	16.58	17	0
				1753.5	20385	16.53	17	0
			7	1711.5	19965	16.71	17	0
				1732.5	20175	16.46	17	0
				1753.5	20385	16.63	17	0
			14	1711.5	19965	16.77	17	0
				1732.5	20175	16.72	17	0
				1753.5	20385	16.86	17	0
		8 RB	0	1711.5	19965	16.81	17	0
				1732.5	20175	16.66	17	0
				1753.5	20385	16.70	17	0
			4	1711.5	19965	16.77	17	0
				1732.5	20175	16.56	17	0
				1753.5	20385	16.68	17	0
			7	1711.5	19965	16.66	17	0
				1732.5	20175	16.77	17	0
				1753.5	20385	16.74	17	0
		15RB		1711.5	19965	16.75	17	0
				1732.5	20175	16.74	17	0
				1753.5	20385	16.78	17	0
	16-QAM	1 RB	0	1711.5	19965	16.49	17	0
				1732.5	20175	16.33	17	0
				1753.5	20385	16.33	17	0
			7	1711.5	19965	16.57	17	0
				1732.5	20175	16.44	17	0
				1753.5	20385	16.54	17	0
			14	1711.5	19965	16.53	17	0
				1732.5	20175	16.62	17	0
				1753.5	20385	16.78	17	0
		8 RB	0	1711.5	19965	16.79	17	0
				1732.5	20175	16.50	17	0
				1753.5	20385	16.58	17	0
			4	1711.5	19965	16.79	17	0
				1732.5	20175	16.44	17	0
				1753.5	20385	16.58	17	0
			7	1711.5	19965	16.56	17	0
				1732.5	20175	16.37	17	0
				1753.5	20385	16.45	17	0
		15RB		1711.5	19965	16.89	17	0
				1732.5	20175	16.61	17	0
				1753.5	20385	16.61	17	0

FDD Band 4								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1710.7	19957	16.75	17	0
				1732.5	20175	16.62	17	0
				1754.3	20393	16.68	17	0
			2	1710.7	19957	16.63	17	0
				1732.5	20175	16.56	17	0
				1754.3	20393	16.72	17	0
			5	1710.7	19957	16.69	17	0
				1732.5	20175	16.73	17	0
				1754.3	20393	16.82	17	0
		3 RB	0	1710.7	19957	16.75	17	0
				1732.5	20175	16.76	17	0
				1754.3	20393	16.68	17	0
			2	1710.7	19957	16.66	17	0
				1732.5	20175	16.58	17	0
				1754.3	20393	16.56	17	0
			3	1710.7	19957	16.69	17	0
				1732.5	20175	16.77	17	0
				1754.3	20393	16.78	17	0
		6RB		1710.7	19957	16.75	17	0
				1732.5	20175	16.73	17	0
				1754.3	20393	16.81	17	0
	16-QAM	1 RB	0	1710.7	19957	16.42	17	0
				1732.5	20175	16.37	17	0
				1754.3	20393	16.45	17	0
			2	1710.7	19957	16.60	17	0
				1732.5	20175	16.32	17	0
				1754.3	20393	16.69	17	0
			5	1710.7	19957	16.71	17	0
				1732.5	20175	16.57	17	0
				1754.3	20393	16.73	17	0
		3 RB	0	1710.7	19957	16.75	17	0
				1732.5	20175	16.57	17	0
				1754.3	20393	16.50	17	0
			2	1710.7	19957	16.77	17	0
				1732.5	20175	16.43	17	0
				1754.3	20393	16.50	17	0
			3	1710.7	19957	16.60	17	0
				1732.5	20175	16.42	17	0
				1754.3	20393	16.55	17	0
		6RB		1710.7	19957	16.88	17	0
				1732.5	20175	16.56	17	0
				1754.3	20393	16.57	17	0

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	829	20450	17.80	18	0
				836.5	20525	17.73	18	0
				844	20600	17.70	18	0
			25	829	20450	17.68	18	0
				836.5	20525	17.69	18	0
				844	20600	17.81	18	0
			49	829	20450	17.66	18	0
				836.5	20525	17.93	18	0
				844	20600	17.91	18	0
		25 RB	0	829	20450	17.74	18	0
				836.5	20525	17.62	18	0
				844	20600	17.77	18	0
			12	829	20450	17.83	18	0
				836.5	20525	17.60	18	0
				844	20600	17.71	18	0
			25	829	20450	17.68	18	0
				836.5	20525	17.60	18	0
				844	20600	17.82	18	0
		50RB		829	20450	17.84	18	0
				836.5	20525	17.61	18	0
				844	20600	17.83	18	0
	16-QAM	1 RB	0	829	20450	17.59	18	0
				836.5	20525	17.62	18	0
				844	20600	17.62	18	0
			25	829	20450	17.58	18	0
				836.5	20525	17.52	18	0
				844	20600	17.73	18	0
			49	829	20450	17.54	18	0
				836.5	20525	17.50	18	0
				844	20600	17.79	18	0
		25 RB	0	829	20450	17.62	18	0
				836.5	20525	17.60	18	0
				844	20600	17.69	18	0
			12	829	20450	17.57	18	0
				836.5	20525	17.42	18	0
				844	20600	17.71	18	0
			25	829	20450	17.55	18	0
				836.5	20525	17.57	18	0
				844	20600	17.68	18	0
		500RB		829	20450	17.82	18	0
				836.5	20525	17.54	18	0
				844	20600	17.70	18	0

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	826.5	20425	17.57	18	0
				836.5	20525	17.68	18	0
				846.5	20625	17.48	18	0
			12	826.5	20425	17.59	18	0
				836.5	20525	17.61	18	0
				846.5	20625	17.66	18	0
			24	826.5	20425	17.65	18	0
				836.5	20525	17.57	18	0
				846.5	20625	17.80	18	0
		12 RB	0	826.5	20425	17.54	18	0
				836.5	20525	17.41	18	0
				846.5	20625	17.72	18	0
			6	826.5	20425	17.53	18	0
				836.5	20525	17.36	18	0
				846.5	20625	17.63	18	0
			13	826.5	20425	17.64	18	0
				836.5	20525	17.46	18	0
				846.5	20625	17.61	18	0
		25RB		826.5	20425	17.65	18	0
				836.5	20525	17.44	18	0
				846.5	20625	17.79	18	0
	16-QAM	1 RB	0	826.5	20425	17.38	18	0
				836.5	20525	17.39	18	0
				846.5	20625	17.41	18	0
			12	826.5	20425	17.40	18	0
				836.5	20525	17.30	18	0
				846.5	20625	17.60	18	0
			24	826.5	20425	17.32	18	0
				836.5	20525	17.26	18	0
				846.5	20625	17.62	18	0
		12 RB	0	826.5	20425	17.45	18	0
				836.5	20525	17.54	18	0
				846.5	20625	17.54	18	0
			6	826.5	20425	17.39	18	0
				836.5	20525	17.40	18	0
				846.5	20625	17.52	18	0
			13	826.5	20425	17.47	18	0
				836.5	20525	17.52	18	0
				846.5	20625	17.61	18	0
		25RB		826.5	20425	17.73	18	0
				836.5	20525	17.35	18	0
				846.5	20625	17.56	18	0

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	825.5	20415	17.68	18	0
				836.5	20525	17.58	18	0
				847.5	20635	17.53	18	0
			7	825.5	20415	17.47	18	0
				836.5	20525	17.63	18	0
				847.5	20635	17.78	18	0
			14	825.5	20415	17.47	18	0
				836.5	20525	17.58	18	0
				847.5	20635	17.81	18	0
		8 RB	0	825.5	20415	17.61	18	0
				836.5	20525	17.55	18	0
				847.5	20635	17.55	18	0
			4	825.5	20415	17.67	18	0
				836.5	20525	17.54	18	0
				847.5	20635	17.60	18	0
			7	825.5	20415	17.66	18	0
				836.5	20525	17.46	18	0
				847.5	20635	17.74	18	0
		15RB		825.5	20415	17.62	18	0
				836.5	20525	17.50	18	0
				847.5	20635	17.65	18	0
	16-QAM	1 RB	0	825.5	20415	17.45	18	0
				836.5	20525	17.52	18	0
				847.5	20635	17.44	18	0
			7	825.5	20415	17.47	18	0
				836.5	20525	17.29	18	0
				847.5	20635	17.52	18	0
			14	825.5	20415	17.42	18	0
				836.5	20525	17.50	18	0
				847.5	20635	17.63	18	0
		8 RB	0	825.5	20415	17.60	18	0
				836.5	20525	17.45	18	0
				847.5	20635	17.61	18	0
			4	825.5	20415	17.34	18	0
				836.5	20525	17.24	18	0
				847.5	20635	17.50	18	0
			7	825.5	20415	17.33	18	0
				836.5	20525	17.56	18	0
				847.5	20635	17.68	18	0
		15RB		825.5	20415	17.60	18	0
				836.5	20525	17.33	18	0
				847.5	20635	17.59	18	0

FDD Band 5								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	824.7	20407	17.61	18	0
				836.5	20525	17.55	18	0
				848.3	20643	17.51	18	0
			2	824.7	20407	17.64	18	0
				836.5	20525	17.45	18	0
				848.3	20643	17.76	18	0
			5	824.7	20407	17.45	18	0
				836.5	20525	17.58	18	0
				848.3	20643	17.76	18	0
		3 RB	0	824.7	20407	17.69	18	0
				836.5	20525	17.56	18	0
				848.3	20643	17.77	18	0
			2	824.7	20407	17.51	18	0
				836.5	20525	17.41	18	0
				848.3	20643	17.60	18	0
			3	824.7	20407	17.51	18	0
				836.5	20525	17.59	18	0
				848.3	20643	17.58	18	0
		6RB		824.7	20407	17.74	18	0
				836.5	20525	17.54	18	0
				848.3	20643	17.60	18	0
	16-QAM	1 RB	0	824.7	20407	17.37	18	0
				836.5	20525	17.38	18	0
				848.3	20643	17.58	18	0
			2	824.7	20407	17.34	18	0
				836.5	20525	17.38	18	0
				848.3	20643	17.52	18	0
			5	824.7	20407	17.47	18	0
				836.5	20525	17.35	18	0
				848.3	20643	17.75	18	0
		3 RB	0	824.7	20407	17.38	18	0
				836.5	20525	17.48	18	0
				848.3	20643	17.57	18	0
			2	824.7	20407	17.36	18	0
				836.5	20525	17.29	18	0
				848.3	20643	17.47	18	0
			3	824.7	20407	17.42	18	0
				836.5	20525	17.33	18	0
				848.3	20643	17.67	18	0
		6RB		824.7	20407	17.79	18	0
				836.5	20525	17.48	18	0
				848.3	20643	17.59	18	0

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2510	20850	13.51	14	0
				2535	21100	13.65	14	0
				2560	21350	13.93	14	0
			50	2510	20850	13.56	14	0
				2535	21100	13.74	14	0
				2560	21350	13.84	14	0
			99	2510	20850	13.60	14	0
				2535	21100	13.69	14	0
				2560	21350	13.83	14	0
		50 RB	0	2510	20850	12.66	13	0-1
				2535	21100	12.84	13	0-1
				2560	21350	12.92	13	0-1
			25	2510	20850	12.68	13	0-1
				2535	21100	12.83	13	0-1
				2560	21350	12.84	13	0-1
			50	2510	20850	12.73	13	0-1
				2535	21100	12.86	13	0-1
				2560	21350	12.83	13	0-1
		100RB		2510	20850	12.76	13	0-1
				2535	21100	12.91	13	0-1
				2560	21350	12.89	13	0-1
	16-QAM	1 RB	0	2510	20850	12.52	13	0-1
				2535	21100	12.56	13	0-1
				2560	21350	12.81	13	0-1
			50	2510	20850	12.43	13	0-1
				2535	21100	12.63	13	0-1
				2560	21350	12.64	13	0-1
			99	2510	20850	12.39	13	0-1
				2535	21100	12.67	13	0-1
				2560	21350	12.64	13	0-1
		50 RB	0	2510	20850	11.48	12	0-2
				2535	21100	11.52	12	0-2
				2560	21350	11.66	12	0-2
			25	2510	20850	11.37	12	0-2
				2535	21100	11.56	12	0-2
				2560	21350	11.62	12	0-2
			50	2510	20850	11.59	12	0-2
				2535	21100	11.58	12	0-2
				2560	21350	11.57	12	0-2
		100RB		2510	20850	11.61	12	0-2
				2535	21100	11.71	12	0-2
				2560	21350	11.64	12	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2507.5	20825	13.43	14	0
				2535	21100	13.64	14	0
				2562.5	21375	13.80	14	0
			36	2507.5	20825	13.43	14	0
				2535	21100	13.43	14	0
				2562.5	21375	13.65	14	0
			74	2507.5	20825	13.52	14	0
				2535	21100	13.50	14	0
				2562.5	21375	13.65	14	0
		36 RB	0	2507.5	20825	12.37	13	0-1
				2535	21100	12.67	13	0-1
				2562.5	21375	12.78	13	0-1
			18	2507.5	20825	12.35	13	0-1
				2535	21100	12.52	13	0-1
				2562.5	21375	12.66	13	0-1
			37	2507.5	20825	12.63	13	0-1
				2535	21100	12.69	13	0-1
				2562.5	21375	12.67	13	0-1
		75RB		2507.5	20825	12.62	13	0-1
				2535	21100	12.78	13	0-1
				2562.5	21375	12.69	13	0-1
	16-QAM	1 RB	0	2507.5	20825	12.34	13	0-1
				2535	21100	12.44	13	0-1
				2562.5	21375	12.69	13	0-1
			36	2507.5	20825	12.23	13	0-1
				2535	21100	12.49	13	0-1
				2562.5	21375	12.63	13	0-1
			74	2507.5	20825	12.15	13	0-1
				2535	21100	12.52	13	0-1
				2562.5	21375	12.40	13	0-1
		36 RB	0	2507.5	20825	11.37	12	0-2
				2535	21100	11.39	12	0-2
				2562.5	21375	11.58	12	0-2
			18	2507.5	20825	11.21	12	0-2
				2535	21100	11.44	12	0-2
				2562.5	21375	11.62	12	0-2
			37	2507.5	20825	11.42	12	0-2
				2535	21100	11.40	12	0-2
				2562.5	21375	11.43	12	0-2
		75RB		2507.5	20825	11.50	12	0-2
				2535	21100	11.65	12	0-2
				2562.5	21375	11.57	12	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2505	20800	13.28	14	0
				2535	21100	13.43	14	0
				2565	21400	13.82	14	0
			25	2505	20800	13.38	14	0
				2535	21100	13.45	14	0
				2565	21400	13.78	14	0
			49	2505	20800	13.42	14	0
				2535	21100	13.65	14	0
				2565	21400	13.83	14	0
		25 RB	0	2505	20800	12.45	13	0-1
				2535	21100	12.71	13	0-1
				2565	21400	12.58	13	0-1
			12	2505	20800	12.46	13	0-1
				2535	21100	12.69	13	0-1
				2565	21400	12.73	13	0-1
			25	2505	20800	12.42	13	0-1
				2535	21100	12.63	13	0-1
				2565	21400	12.59	13	0-1
		50RB		2505	20800	12.65	13	0-1
				2535	21100	12.57	13	0-1
				2565	21400	12.78	13	0-1
	16-QAM	1 RB	0	2505	20800	12.32	13	0-1
				2535	21100	12.43	13	0-1
				2565	21400	12.75	13	0-1
			25	2505	20800	12.36	13	0-1
				2535	21100	12.53	13	0-1
				2565	21400	12.64	13	0-1
			49	2505	20800	12.22	13	0-1
				2535	21100	12.44	13	0-1
				2565	21400	12.55	13	0-1
		25 RB	0	2505	20800	11.30	12	0-2
				2535	21100	11.52	12	0-2
				2565	21400	11.48	12	0-2
			12	2505	20800	11.32	12	0-2
				2535	21100	11.55	12	0-2
				2565	21400	11.43	12	0-2
			25	2505	20800	11.58	12	0-2
				2535	21100	11.55	12	0-2
				2565	21400	11.35	12	0-2
		50RB		2505	20800	11.44	12	0-2
				2535	21100	11.51	12	0-2
				2565	21400	11.47	12	0-2

FDD Band 7								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2502.5	20775	13.48	14	0
				2535	21100	13.59	14	0
				2567.5	21425	13.80	14	0
			12	2502.5	20775	13.46	14	0
				2535	21100	13.44	14	0
				2567.5	21425	13.65	14	0
			24	2502.5	20775	13.44	14	0
				2535	21100	13.53	14	0
				2567.5	21425	13.79	14	0
		12 RB	0	2502.5	20775	12.33	13	0-1
				2535	21100	12.73	13	0-1
				2567.5	21425	12.59	13	0-1
			6	2502.5	20775	12.58	13	0-1
				2535	21100	12.66	13	0-1
				2567.5	21425	12.73	13	0-1
			13	2502.5	20775	12.46	13	0-1
				2535	21100	12.51	13	0-1
				2567.5	21425	12.58	13	0-1
		25RB		2502.5	20775	12.59	13	0-1
				2535	21100	12.68	13	0-1
				2567.5	21425	12.63	13	0-1
	16-QAM	1 RB	0	2502.5	20775	12.46	13	0-1
				2535	21100	12.47	13	0-1
				2567.5	21425	12.68	13	0-1
			12	2502.5	20775	12.19	13	0-1
				2535	21100	12.52	13	0-1
				2567.5	21425	12.47	13	0-1
			24	2502.5	20775	12.28	13	0-1
				2535	21100	12.49	13	0-1
				2567.5	21425	12.64	13	0-1
		12 RB	0	2502.5	20775	11.45	12	0-2
				2535	21100	11.52	12	0-2
				2567.5	21425	11.47	12	0-2
			6	2502.5	20775	11.37	12	0-2
				2535	21100	11.45	12	0-2
				2567.5	21425	11.55	12	0-2
			13	2502.5	20775	11.53	12	0-2
				2535	21100	11.43	12	0-2
				2567.5	21425	11.33	12	0-2
		25RB		2502.5	20775	11.57	12	0-2
				2535	21100	11.65	12	0-2
				2567.5	21425	11.48	12	0-2

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	704	23060	20.40	20.5	0
				707.5	23095	20.38	20.5	0
				711	23130	20.33	20.5	0
			25	704	23060	20.43	20.5	0
				707.5	23095	20.20	20.5	0
				711	23130	20.28	20.5	0
			49	704	23060	20.45	20.5	0
				707.5	23095	20.35	20.5	0
				711	23130	20.37	20.5	0
		25 RB	0	704	23060	20.35	20.5	0
				707.5	23095	20.28	20.5	0
				711	23130	20.49	20.5	0
			12	704	23060	20.42	20.5	0
				707.5	23095	20.29	20.5	0
				711	23130	20.34	20.5	0
			25	704	23060	20.44	20.5	0
				707.5	23095	20.32	20.5	0
				711	23130	20.39	20.5	0
		50RB		704	23060	20.46	20.5	0
				707.5	23095	20.42	20.5	0
				711	23130	20.40	20.5	0
	16-QAM	1 RB	0	704	23060	20.16	20.5	0
				707.5	23095	20.21	20.5	0
				711	23130	20.24	20.5	0
			25	704	23060	20.30	20.5	0
				707.5	23095	19.96	20.5	0
				711	23130	20.14	20.5	0
			49	704	23060	20.24	20.5	0
				707.5	23095	20.34	20.5	0
				711	23130	20.22	20.5	0
		25 RB	0	704	23060	20.45	20.5	0
				707.5	23095	20.27	20.5	0
				711	23130	20.16	20.5	0
			12	704	23060	20.26	20.5	0
				707.5	23095	20.25	20.5	0
				711	23130	20.13	20.5	0
			25	704	23060	20.33	20.5	0
				707.5	23095	20.20	20.5	0
				711	23130	20.34	20.5	0
		50RB		704	23060	20.22	20.5	0
				707.5	23095	20.28	20.5	0
				711	23130	20.16	20.5	0

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	701.5	23035	20.25	20.5	0
				707.5	23095	20.18	20.5	0
				713.5	23155	20.32	20.5	0
			12	701.5	23035	20.37	20.5	0
				707.5	23095	20.13	20.5	0
				713.5	23155	20.17	20.5	0
			24	701.5	23035	20.42	20.5	0
				707.5	23095	20.19	20.5	0
				713.5	23155	20.24	20.5	0
		12 RB	0	701.5	23035	20.28	20.5	0
				707.5	23095	20.41	20.5	0
				713.5	23155	20.24	20.5	0
			6	701.5	23035	20.42	20.5	0
				707.5	23095	20.19	20.5	0
				713.5	23155	20.38	20.5	0
			13	701.5	23035	20.37	20.5	0
				707.5	23095	20.27	20.5	0
				713.5	23155	20.24	20.5	0
		25RB		701.5	23035	20.48	20.5	0
				707.5	23095	20.31	20.5	0
				713.5	23155	20.47	20.5	0
	16-QAM	1 RB	0	701.5	23035	20.12	20.5	0
				707.5	23095	20.13	20.5	0
				713.5	23155	20.17	20.5	0
			12	701.5	23035	20.29	20.5	0
				707.5	23095	19.89	20.5	0
				713.5	23155	20.10	20.5	0
			24	701.5	23035	20.31	20.5	0
				707.5	23095	20.38	20.5	0
				713.5	23155	20.14	20.5	0
		12 RB	0	701.5	23035	20.40	20.5	0
				707.5	23095	20.29	20.5	0
				713.5	23155	20.15	20.5	0
			6	701.5	23035	20.10	20.5	0
				707.5	23095	20.25	20.5	0
				713.5	23155	19.96	20.5	0
			13	701.5	23035	20.16	20.5	0
				707.5	23095	20.21	20.5	0
				713.5	23155	20.28	20.5	0
		25RB		701.5	23035	20.08	20.5	0
				707.5	23095	20.18	20.5	0
				713.5	23155	20.05	20.5	0

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	700.5	23025	20.42	20.5	0
				707.5	23095	20.19	20.5	0
				714.5	23165	20.37	20.5	0
			7	700.5	23025	20.36	20.5	0
				707.5	23095	20.22	20.5	0
				714.5	23165	20.32	20.5	0
			14	700.5	23025	20.48	20.5	0
				707.5	23095	20.34	20.5	0
				714.5	23165	20.29	20.5	0
		8 RB	0	700.5	23025	20.43	20.5	0
				707.5	23095	20.32	20.5	0
				714.5	23165	20.36	20.5	0
			4	700.5	23025	20.46	20.5	0
				707.5	23095	20.18	20.5	0
				714.5	23165	20.24	20.5	0
			7	700.5	23025	20.20	20.5	0
				707.5	23095	20.21	20.5	0
				714.5	23165	20.44	20.5	0
		15RB		700.5	23025	20.47	20.5	0
				707.5	23095	20.27	20.5	0
				714.5	23165	20.37	20.5	0
	16-QAM	1 RB	0	700.5	23025	20.18	20.5	0
				707.5	23095	20.04	20.5	0
				714.5	23165	20.11	20.5	0
			7	700.5	23025	20.25	20.5	0
				707.5	23095	19.80	20.5	0
				714.5	23165	20.14	20.5	0
			14	700.5	23025	20.23	20.5	0
				707.5	23095	20.22	20.5	0
				714.5	23165	20.19	20.5	0
		8 RB	0	700.5	23025	20.31	20.5	0
				707.5	23095	20.32	20.5	0
				714.5	23165	20.14	20.5	0
			4	700.5	23025	20.23	20.5	0
				707.5	23095	20.08	20.5	0
				714.5	23165	20.15	20.5	0
			7	700.5	23025	20.26	20.5	0
				707.5	23095	20.12	20.5	0
				714.5	23165	20.34	20.5	0
		15RB		700.5	23025	20.09	20.5	0
				707.5	23095	20.30	20.5	0
				714.5	23165	20.13	20.5	0

FDD Band 12								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	699.7	23017	20.46	20.5	0
				707.5	23095	20.20	20.5	0
				715.3	23173	20.36	20.5	0
			2	699.7	23017	20.38	20.5	0
				707.5	23095	20.21	20.5	0
				715.3	23173	20.15	20.5	0
			5	699.7	23017	20.31	20.5	0
				707.5	23095	20.27	20.5	0
				715.3	23173	20.34	20.5	0
		3 RB	0	699.7	23017	20.29	20.5	0
				707.5	23095	20.38	20.5	0
				715.3	23173	20.36	20.5	0
			2	699.7	23017	20.30	20.5	0
				707.5	23095	20.36	20.5	0
				715.3	23173	20.32	20.5	0
			3	699.7	23017	20.21	20.5	0
				707.5	23095	20.27	20.5	0
				715.3	23173	20.29	20.5	0
		6RB		699.7	23017	20.48	20.5	0
				707.5	23095	20.27	20.5	0
				715.3	23173	20.32	20.5	0
	16-QAM	1 RB	0	699.7	23017	20.12	20.5	0
				707.5	23095	20.26	20.5	0
				715.3	23173	20.29	20.5	0
			2	699.7	23017	20.21	20.5	0
				707.5	23095	20.00	20.5	0
				715.3	23173	20.13	20.5	0
			5	699.7	23017	20.23	20.5	0
				707.5	23095	20.27	20.5	0
				715.3	23173	20.05	20.5	0
		3 RB	0	699.7	23017	20.32	20.5	0
				707.5	23095	20.29	20.5	0
				715.3	23173	20.20	20.5	0
			2	699.7	23017	20.22	20.5	0
				707.5	23095	20.25	20.5	0
				715.3	23173	20.18	20.5	0
			3	699.7	23017	20.19	20.5	0
				707.5	23095	20.07	20.5	0
				715.3	23173	20.33	20.5	0
		6RB		699.7	23017	20.24	20.5	0
				707.5	23095	20.33	20.5	0
				715.3	23173	20.15	20.5	0

FDD Band 13								
BW(Mhz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	782	23230	19.42	19.5	0
			25	782	23230	19.40	19.5	0
			49	782	23230	19.39	19.5	0
		25 RB	0	782	23230	19.48	19.5	0
			12	782	23230	19.37	19.5	0
			25	782	23230	19.43	19.5	0
		50RB		782	23230	19.48	19.5	0
	16-QAM	1 RB	0	782	23230	19.36	19.5	0
			25	782	23230	19.29	19.5	0
			49	782	23230	19.32	19.5	0
		25 RB	0	782	23230	19.36	19.5	0
			12	782	23230	19.35	19.5	0
			25	782	23230	19.32	19.5	0
		50RB		782	23230	19.31	19.5	0

FDD Band 13								
BW(Mhz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	779.5	23205	19.49	19.5	0
				782	23230	19.34	19.5	0
				784.5	23255	19.37	19.5	0
			12	779.5	23205	19.26	19.5	0
				782	23230	19.36	19.5	0
				784.5	23255	19.29	19.5	0
			24	779.5	23205	19.33	19.5	0
				782	23230	19.33	19.5	0
				784.5	23255	19.28	19.5	0
		12 RB	0	779.5	23205	19.40	19.5	0
				782	23230	19.37	19.5	0
				784.5	23255	19.24	19.5	0
			6	779.5	23205	19.33	19.5	0
				782	23230	19.22	19.5	0
				784.5	23255	19.28	19.5	0
			13	779.5	23205	19.32	19.5	0
				782	23230	19.17	19.5	0
				784.5	23255	19.25	19.5	0
		25RB		779.5	23205	19.45	19.5	0
				782	23230	19.29	19.5	0
				784.5	23255	19.32	19.5	0
	16-QAM	1 RB	0	779.5	23205	19.40	19.5	0
				782	23230	19.27	19.5	0
				784.5	23255	19.23	19.5	0
			12	779.5	23205	19.15	19.5	0
				782	23230	19.32	19.5	0
				784.5	23255	19.23	19.5	0
			24	779.5	23205	19.22	19.5	0
				782	23230	19.31	19.5	0
				784.5	23255	19.20	19.5	0
		12 RB	0	779.5	23205	19.21	19.5	0
				782	23230	19.17	19.5	0
				784.5	23255	19.10	19.5	0
			6	779.5	23205	19.20	19.5	0
				782	23230	19.04	19.5	0
				784.5	23255	19.22	19.5	0
			13	779.5	23205	19.29	19.5	0
				782	23230	18.95	19.5	0
				784.5	23255	19.19	19.5	0
		25RB		779.5	23205	19.27	19.5	0
				782	23230	19.27	19.5	0
				784.5	23255	19.13	19.5	0

FDD Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	709	23780	20.46	20.5	0
				710	23790	20.22	20.5	0
				711	23800	20.29	20.5	0
			25	709	23780	20.38	20.5	0
				710	23790	20.07	20.5	0
				711	23800	20.28	20.5	0
			49	709	23780	20.45	20.5	0
				710	23790	20.21	20.5	0
				711	23800	20.15	20.5	0
		25 RB	0	709	23780	20.21	20.5	0
				710	23790	20.16	20.5	0
				711	23800	20.14	20.5	0
			12	709	23780	20.27	20.5	0
				710	23790	20.13	20.5	0
				711	23800	20.11	20.5	0
			25	709	23780	20.30	20.5	0
				710	23790	20.19	20.5	0
				711	23800	20.18	20.5	0
		50RB		709	23780	20.26	20.5	0
				710	23790	20.32	20.5	0
				711	23800	20.29	20.5	0
	16-QAM	1 RB	0	709	23780	20.24	20.5	0
				710	23790	20.10	20.5	0
				711	23800	20.10	20.5	0
			25	709	23780	20.37	20.5	0
				710	23790	19.96	20.5	0
				711	23800	20.15	20.5	0
			49	709	23780	20.31	20.5	0
				710	23790	20.10	20.5	0
				711	23800	20.11	20.5	0
		25 RB	0	709	23780	20.05	20.5	0
				710	23790	20.08	20.5	0
				711	23800	19.94	20.5	0
			12	709	23780	20.05	20.5	0
				710	23790	20.00	20.5	0
				711	23800	19.95	20.5	0
			25	709	23780	20.19	20.5	0
				710	23790	19.96	20.5	0
				711	23800	19.95	20.5	0
		50RB		709	23780	20.12	20.5	0
				710	23790	20.22	20.5	0
				711	23800	20.20	20.5	0

FDD Band 17								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	706.5	23755	20.45	20.5	0
				710	23790	19.98	20.5	0
				713.5	23825	20.28	20.5	0
			12	706.5	23755	20.26	20.5	0
				710	23790	19.90	20.5	0
				713.5	23825	20.08	20.5	0
			24	706.5	23755	20.45	20.5	0
				710	23790	20.23	20.5	0
				713.5	23825	20.12	20.5	0
		12 RB	0	706.5	23755	20.09	20.5	0
				710	23790	19.93	20.5	0
				713.5	23825	19.95	20.5	0
			6	706.5	23755	20.13	20.5	0
				710	23790	19.94	20.5	0
				713.5	23825	19.98	20.5	0
			13	706.5	23755	20.19	20.5	0
				710	23790	19.98	20.5	0
				713.5	23825	20.03	20.5	0
		25RB		706.5	23755	20.21	20.5	0
				710	23790	20.10	20.5	0
				713.5	23825	20.21	20.5	0
	16-QAM	1 RB	0	706.5	23755	20.22	20.5	0
				710	23790	19.94	20.5	0
				713.5	23825	19.99	20.5	0
			12	706.5	23755	20.21	20.5	0
				710	23790	19.79	20.5	0
				713.5	23825	19.91	20.5	0
			24	706.5	23755	20.08	20.5	0
				710	23790	20.10	20.5	0
				713.5	23825	20.05	20.5	0
		12 RB	0	706.5	23755	19.92	20.5	0
				710	23790	19.97	20.5	0
				713.5	23825	19.93	20.5	0
			6	706.5	23755	19.85	20.5	0
				710	23790	19.93	20.5	0
				713.5	23825	19.82	20.5	0
			13	706.5	23755	19.97	20.5	0
				710	23790	19.84	20.5	0
				713.5	23825	19.75	20.5	0
		25RB		706.5	23755	20.03	20.5	0
				710	23790	20.15	20.5	0
				713.5	23825	20.04	20.5	0

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	822.5	26825	17.95	18	0
				831.5	26865	17.89	18	0
				841.5	26965	17.81	18	0
			36	822.5	26825	17.84	18	0
				831.5	26865	17.70	18	0
				841.5	26965	17.78	18	0
			74	822.5	26825	17.82	18	0
				831.5	26865	17.64	18	0
				841.5	26965	17.94	18	0
		36 RB	0	822.5	26825	17.93	18	0
				831.5	26865	17.79	18	0
				841.5	26965	17.72	18	0
			18	822.5	26825	17.88	18	0
				831.5	26865	17.80	18	0
				841.5	26965	17.79	18	0
			37	822.5	26825	17.85	18	0
				831.5	26865	17.78	18	0
				841.5	26965	17.82	18	0
		75RB		822.5	26825	17.89	18	0
				831.5	26865	17.84	18	0
				841.5	26965	17.92	18	0
	16-QAM	1 RB	0	822.5	26825	17.85	18	0
				831.5	26865	17.79	18	0
				841.5	26965	17.65	18	0
			36	822.5	26825	17.79	18	0
				831.5	26865	17.70	18	0
				841.5	26965	17.77	18	0
			74	822.5	26825	17.63	18	0
				831.5	26865	17.56	18	0
				841.5	26965	17.85	18	0
		36 RB	0	822.5	26825	17.79	18	0
				831.5	26865	17.69	18	0
				841.5	26965	17.56	18	0
			18	822.5	26825	17.87	18	0
				831.5	26865	17.64	18	0
				841.5	26965	17.72	18	0
			37	822.5	26825	17.80	18	0
				831.5	26865	17.55	18	0
				841.5	26965	17.70	18	0
		75RB		822.5	26825	17.73	18	0
				831.5	26865	17.81	18	0
				841.5	26965	17.86	18	0

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	820	26800	17.94	18	0
				831.5	26865	17.77	18	0
				844	26990	17.74	18	0
			25	820	26800	17.60	18	0
				831.5	26865	17.68	18	0
				844	26990	17.68	18	0
			49	820	26800	17.78	18	0
				831.5	26865	17.41	18	0
				844	26990	17.83	18	0
		25 RB	0	820	26800	17.95	18	0
				831.5	26865	17.68	18	0
				844	26990	17.58	18	0
			12	820	26800	17.76	18	0
				831.5	26865	17.68	18	0
				844	26990	17.75	18	0
			25	820	26800	17.80	18	0
				831.5	26865	17.67	18	0
				844	26990	17.72	18	0
		50RB		820	26800	17.87	18	0
				831.5	26865	17.63	18	0
				844	26990	17.87	18	0
	16-QAM	1 RB	0	820	26800	17.72	18	0
				831.5	26865	17.59	18	0
				844	26990	17.55	18	0
			25	820	26800	17.69	18	0
				831.5	26865	17.64	18	0
				844	26990	17.75	18	0
			49	820	26800	17.59	18	0
				831.5	26865	17.40	18	0
				844	26990	17.76	18	0
		25 RB	0	820	26800	17.56	18	0
				831.5	26865	17.55	18	0
				844	26990	17.52	18	0
			12	820	26800	17.69	18	0
				831.5	26865	17.49	18	0
				844	26990	17.68	18	0
			25	820	26800	17.63	18	0
				831.5	26865	17.38	18	0
				844	26990	17.65	18	0
		50RB		820	26800	17.68	18	0
				831.5	26865	17.81	18	0
				844	26990	17.72	18	0

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	816.5	26715	17.91	18	0
				831.5	26865	17.72	18	0
				846.5	27015	17.71	18	0
			12	816.5	26715	17.72	18	0
				831.5	26865	17.60	18	0
				846.5	27015	17.61	18	0
			24	816.5	26715	17.80	18	0
				831.5	26865	17.53	18	0
				846.5	27015	17.80	18	0
		12 RB	0	816.5	26715	17.80	18	0
				831.5	26865	17.78	18	0
				846.5	27015	17.55	18	0
			6	816.5	26715	17.68	18	0
				831.5	26865	17.77	18	0
				846.5	27015	17.69	18	0
			13	816.5	26715	17.75	18	0
				831.5	26865	17.77	18	0
				846.5	27015	17.76	18	0
		25RB		816.5	26715	17.88	18	0
				831.5	26865	17.80	18	0
				846.5	27015	17.89	18	0
	16-QAM	1 RB	0	816.5	26715	17.61	18	0
				831.5	26865	17.70	18	0
				846.5	27015	17.49	18	0
			12	816.5	26715	17.77	18	0
				831.5	26865	17.59	18	0
				846.5	27015	17.61	18	0
			24	816.5	26715	17.60	18	0
				831.5	26865	17.46	18	0
				846.5	27015	17.78	18	0
		12 RB	0	816.5	26715	17.58	18	0
				831.5	26865	17.50	18	0
				846.5	27015	17.39	18	0
			6	816.5	26715	17.79	18	0
				831.5	26865	17.60	18	0
				846.5	27015	17.60	18	0
			13	816.5	26715	17.63	18	0
				831.5	26865	17.49	18	0
				846.5	27015	17.50	18	0
		25RB		816.5	26715	17.57	18	0
				831.5	26865	17.77	18	0
				846.5	27015	17.63	18	0

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	815.5	26705	17.92	18	0
				831.5	26865	17.65	18	0
				847.5	27025	17.66	18	0
			7	815.5	26705	17.63	18	0
				831.5	26865	17.62	18	0
				847.5	27025	17.64	18	0
			14	815.5	26705	17.64	18	0
				831.5	26865	17.57	18	0
				847.5	27025	17.73	18	0
		8 RB	0	815.5	26705	17.79	18	0
				831.5	26865	17.64	18	0
				847.5	27025	17.70	18	0
			4	815.5	26705	17.87	18	0
				831.5	26865	17.77	18	0
				847.5	27025	17.75	18	0
			7	815.5	26705	17.75	18	0
				831.5	26865	17.66	18	0
				847.5	27025	17.81	18	0
		15RB		815.5	26705	17.87	18	0
				831.5	26865	17.76	18	0
				847.5	27025	17.88	18	0
	16-QAM	1 RB	0	815.5	26705	17.61	18	0
				831.5	26865	17.75	18	0
				847.5	27025	17.56	18	0
			7	815.5	26705	17.71	18	0
				831.5	26865	17.61	18	0
				847.5	27025	17.63	18	0
			14	815.5	26705	17.57	18	0
				831.5	26865	17.40	18	0
				847.5	27025	17.65	18	0
		8 RB	0	815.5	26705	17.60	18	0
				831.5	26865	17.45	18	0
				847.5	27025	17.56	18	0
			4	815.5	26705	17.82	18	0
				831.5	26865	17.59	18	0
				847.5	27025	17.53	18	0
			7	815.5	26705	17.59	18	0
				831.5	26865	17.49	18	0
				847.5	27025	17.66	18	0
		15RB		815.5	26705	17.54	18	0
				831.5	26865	17.59	18	0
				847.5	27025	17.76	18	0

FDD Band 26								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	814.7	26697	17.79	18	0
				831.5	26865	17.81	18	0
				848.3	27033	17.71	18	0
			2	814.7	26697	17.62	18	0
				831.5	26865	17.46	18	0
				848.3	27033	17.66	18	0
			5	814.7	26697	17.69	18	0
				831.5	26865	17.53	18	0
				848.3	27033	17.91	18	0
		3 RB	0	814.7	26697	17.93	18	0
				831.5	26865	17.59	18	0
				848.3	27033	17.54	18	0
			2	814.7	26697	17.64	18	0
				831.5	26865	17.71	18	0
				848.3	27033	17.67	18	0
			3	814.7	26697	17.78	18	0
				831.5	26865	17.76	18	0
				848.3	27033	17.64	18	0
		6RB		814.7	26697	17.67	18	0
				831.5	26865	17.82	18	0
				848.3	27033	17.85	18	0
	16-QAM	1 RB	0	814.7	26697	17.71	18	0
				831.5	26865	17.68	18	0
				848.3	27033	17.61	18	0
			2	814.7	26697	17.78	18	0
				831.5	26865	17.47	18	0
				848.3	27033	17.74	18	0
			5	814.7	26697	17.47	18	0
				831.5	26865	17.39	18	0
				848.3	27033	17.66	18	0
		3 RB	0	814.7	26697	17.71	18	0
				831.5	26865	17.46	18	0
				848.3	27033	17.39	18	0
			2	814.7	26697	17.87	18	0
				831.5	26865	17.62	18	0
				848.3	27033	17.60	18	0
			3	814.7	26697	17.74	18	0
				831.5	26865	17.49	18	0
				848.3	27033	17.50	18	0
		6RB		814.7	26697	17.58	18	0
				831.5	26865	17.62	18	0
				848.3	27033	17.83	18	0

FDD Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2310	27710	14.84	15	0
			25	2310	27710	14.79	15	0
			49	2310	27710	14.72	15	0
		25 RB	0	2310	27710	14.93	15	0
			12	2310	27710	14.92	15	0
			25	2310	27710	14.88	15	0
		50RB		2310	27710	14.98	15	0
	16-QAM	1 RB	0	2310	27710	14.92	15	0
			25	2310	27710	14.90	15	0
			49	2310	27710	14.86	15	0
		25 RB	0	2310	27710	14.91	15	0
			12	2310	27710	14.73	15	0
			25	2310	27710	14.79	15	0
		50RB		2310	27710	14.92	15	0

FDD Band 30								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2307.5	27685	14.74	15	0
				2310	27710	14.72	15	0
				2312.5	27735	14.80	15	0
			12	2307.5	27685	14.65	15	0
				2310	27710	14.70	15	0
				2312.5	27735	14.71	15	0
			24	2307.5	27685	14.69	15	0
				2310	27710	14.73	15	0
				2312.5	27735	14.71	15	0
		12 RB	0	2307.5	27685	14.72	15	0
				2310	27710	14.69	15	0
				2312.5	27735	14.70	15	0
			6	2307.5	27685	14.71	15	0
				2310	27710	14.77	15	0
				2312.5	27735	14.71	15	0
			13	2307.5	27685	14.72	15	0
				2310	27710	14.69	15	0
				2312.5	27735	14.71	15	0
		25RB		2307.5	27685	14.80	15	0
				2310	27710	14.69	15	0
				2312.5	27735	14.80	15	0
	16-QAM	1 RB	0	2307.5	27685	14.73	15	0
				2310	27710	14.75	15	0
				2312.5	27735	14.76	15	0
			12	2307.5	27685	14.73	15	0
				2310	27710	14.77	15	0
				2312.5	27735	14.72	15	0
			24	2307.5	27685	14.77	15	0
				2310	27710	14.71	15	0
				2312.5	27735	14.75	15	0
		12 RB	0	2307.5	27685	14.78	15	0
				2310	27710	14.74	15	0
				2312.5	27735	14.73	15	0
			6	2307.5	27685	14.70	15	0
				2310	27710	14.77	15	0
				2312.5	27735	14.75	15	0
			13	2307.5	27685	14.80	15	0
				2310	27710	14.77	15	0
				2312.5	27735	14.76	15	0
		25RB		2307.5	27685	14.73	15	0
				2310	27710	14.80	15	0
				2312.5	27735	14.69	15	0

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2580	37850	18.49	18.5	0
				2595	38000	18.39	18.5	0
				2610	38150	18.29	18.5	0
			50	2580	37850	17.91	18.5	0
				2595	38000	18.38	18.5	0
				2610	38150	18.23	18.5	0
			99	2580	37850	18.32	18.5	0
				2595	38000	18.28	18.5	0
				2610	38150	18.25	18.5	0
		50 RB	0	2580	37850	18.16	18.5	0
				2595	38000	18.28	18.5	0
				2610	38150	18.23	18.5	0
			25	2580	37850	18.15	18.5	0
				2595	38000	18.23	18.5	0
				2610	38150	18.20	18.5	0
			50	2580	37850	18.17	18.5	0
				2595	38000	18.25	18.5	0
				2610	38150	18.22	18.5	0
		100RB		2580	37850	18.18	18.5	0
				2595	38000	18.23	18.5	0
				2610	38150	18.25	18.5	0
	16-QAM	1 RB	0	2580	37850	17.78	18.5	0
				2595	38000	18.35	18.5	0
				2610	38150	18.13	18.5	0
			50	2580	37850	17.84	18.5	0
				2595	38000	18.20	18.5	0
				2610	38150	18.15	18.5	0
			99	2580	37850	18.25	18.5	0
				2595	38000	18.34	18.5	0
				2610	38150	18.05	18.5	0
		50 RB	0	2580	37850	18.02	18.5	0
				2595	38000	18.14	18.5	0
				2610	38150	18.15	18.5	0
			25	2580	37850	17.97	18.5	0
				2595	38000	18.18	18.5	0
				2610	38150	18.05	18.5	0
			50	2580	37850	18.06	18.5	0
				2595	38000	18.25	18.5	0
				2610	38150	18.05	18.5	0
		100RB		2580	37850	17.99	18.5	0
				2595	38000	18.18	18.5	0
				2610	38150	18.01	18.5	0

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2577.5	37825	17.61	18.5	0
				2595	38000	18.21	18.5	0
				2612.5	38175	18.25	18.5	0
			36	2577.5	37825	17.91	18.5	0
				2595	38000	18.16	18.5	0
				2612.5	38175	18.11	18.5	0
			74	2577.5	37825	18.29	18.5	0
				2595	38000	18.43	18.5	0
				2612.5	38175	18.21	18.5	0
		36 RB	0	2577.5	37825	18.02	18.5	0
				2595	38000	18.16	18.5	0
				2612.5	38175	18.15	18.5	0
			18	2577.5	37825	17.93	18.5	0
				2595	38000	18.15	18.5	0
				2612.5	38175	18.11	18.5	0
			37	2577.5	37825	17.97	18.5	0
				2595	38000	18.14	18.5	0
				2612.5	38175	18.01	18.5	0
		75RB		2577.5	37825	18.10	18.5	0
				2595	38000	18.14	18.5	0
				2612.5	38175	18.23	18.5	0
	16-QAM	1 RB	0	2577.5	37825	17.61	18.5	0
				2595	38000	18.23	18.5	0
				2612.5	38175	17.99	18.5	0
			36	2577.5	37825	17.65	18.5	0
				2595	38000	18.08	18.5	0
				2612.5	38175	17.95	18.5	0
			74	2577.5	37825	18.12	18.5	0
				2595	38000	18.12	18.5	0
				2612.5	38175	17.89	18.5	0
		36 RB	0	2577.5	37825	17.94	18.5	0
				2595	38000	17.92	18.5	0
				2612.5	38175	18.14	18.5	0
			18	2577.5	37825	17.80	18.5	0
				2595	38000	18.02	18.5	0
				2612.5	38175	18.00	18.5	0
			37	2577.5	37825	17.95	18.5	0
				2595	38000	18.01	18.5	0
				2612.5	38175	17.94	18.5	0
		75RB		2577.5	37825	17.79	18.5	0
				2595	38000	18.10	18.5	0
				2612.5	38175	17.92	18.5	0

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2575	37800	17.65	18.5	0
				2595	38000	18.16	18.5	0
				2615	38200	18.20	18.5	0
			25	2575	37800	17.72	18.5	0
				2595	38000	18.32	18.5	0
				2615	38200	18.10	18.5	0
			49	2575	37800	18.24	18.5	0
				2595	38000	18.40	18.5	0
				2615	38200	18.10	18.5	0
		25 RB	0	2575	37800	17.96	18.5	0
				2595	38000	18.21	18.5	0
				2615	38200	18.19	18.5	0
			12	2575	37800	18.11	18.5	0
				2595	38000	18.16	18.5	0
				2615	38200	18.13	18.5	0
			25	2575	37800	18.16	18.5	0
				2595	38000	18.06	18.5	0
				2615	38200	18.13	18.5	0
		50RB		2575	37800	17.97	18.5	0
				2595	38000	18.17	18.5	0
				2615	38200	18.20	18.5	0
	16-QAM	1 RB	0	2575	37800	17.67	18.5	0
				2595	38000	18.34	18.5	0
				2615	38200	18.01	18.5	0
			25	2575	37800	17.70	18.5	0
				2595	38000	17.98	18.5	0
				2615	38200	18.09	18.5	0
			49	2575	37800	18.01	18.5	0
				2595	38000	18.23	18.5	0
				2615	38200	17.81	18.5	0
		25 RB	0	2575	37800	17.78	18.5	0
				2595	38000	17.93	18.5	0
				2615	38200	17.93	18.5	0
			12	2575	37800	17.82	18.5	0
				2595	38000	18.03	18.5	0
				2615	38200	18.00	18.5	0
			25	2575	37800	17.90	18.5	0
				2595	38000	18.22	18.5	0
				2615	38200	17.97	18.5	0
		50RB		2575	37800	17.88	18.5	0
				2595	38000	17.96	18.5	0
				2615	38200	17.81	18.5	0

TDD Band 38								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2572.5	37775	17.74	18.5	0
				2595	38000	18.22	18.5	0
				2617.5	38225	18.08	18.5	0
			12	2572.5	37775	17.82	18.5	0
				2595	38000	18.37	18.5	0
				2617.5	38225	17.99	18.5	0
			24	2572.5	37775	18.18	18.5	0
				2595	38000	18.42	18.5	0
				2617.5	38225	18.24	18.5	0
		12 RB	0	2572.5	37775	18.12	18.5	0
				2595	38000	18.16	18.5	0
				2617.5	38225	18.06	18.5	0
			6	2572.5	37775	18.01	18.5	0
				2595	38000	18.04	18.5	0
				2617.5	38225	18.01	18.5	0
			13	2572.5	37775	18.14	18.5	0
				2595	38000	18.13	18.5	0
				2617.5	38225	18.03	18.5	0
		25RB		2572.5	37775	18.00	18.5	0
				2595	38000	18.04	18.5	0
				2617.5	38225	18.10	18.5	0
	16-QAM	1 RB	0	2572.5	37775	17.69	18.5	0
				2595	38000	18.13	18.5	0
				2617.5	38225	18.11	18.5	0
			12	2572.5	37775	17.83	18.5	0
				2595	38000	17.99	18.5	0
				2617.5	38225	18.01	18.5	0
			24	2572.5	37775	18.19	18.5	0
				2595	38000	18.13	18.5	0
				2617.5	38225	17.88	18.5	0
		12 RB	0	2572.5	37775	17.96	18.5	0
				2595	38000	17.97	18.5	0
				2617.5	38225	18.00	18.5	0
			6	2572.5	37775	17.78	18.5	0
				2595	38000	18.02	18.5	0
				2617.5	38225	17.93	18.5	0
			13	2572.5	37775	18.03	18.5	0
				2595	38000	18.25	18.5	0
				2617.5	38225	17.85	18.5	0
		25RB		2572.5	37775	17.87	18.5	0
				2595	38000	17.99	18.5	0
				2617.5	38225	17.83	18.5	0

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	2506	39750	17.59	18	0
				2549.5	40185	17.96	18	0
				2593	40620	17.59	18	0
				2636.5	41055	17.93	18	0
				2680	41490	17.87	18	0
			50	2506	39750	17.36	18	0
				2549.5	40185	17.88	18	0
				2593	40620	17.61	18	0
				2636.5	41055	17.68	18	0
				2680	41490	17.68	18	0
			99	2506	39750	17.58	18	0
				2549.5	40185	17.76	18	0
				2593	40620	17.80	18	0
				2636.5	41055	17.76	18	0
				2680	41490	17.98	18	0
		50 RB	0	2506	39750	17.33	18	0
				2549.5	40185	17.70	18	0
				2593	40620	17.62	18	0
				2636.5	41055	17.78	18	0
				2680	41490	17.68	18	0
			25	2506	39750	17.34	18	0
				2549.5	40185	17.68	18	0
				2593	40620	17.63	18	0
				2636.5	41055	17.73	18	0
				2680	41490	17.67	18	0
			50	2506	39750	17.42	18	0
				2549.5	40185	17.63	18	0
				2593	40620	17.72	18	0
				2636.5	41055	17.71	18	0
				2680	41490	17.76	18	0
		100RB		2506	39750	17.44	18	0
				2549.5	40185	17.64	18	0
				2593	40620	17.67	18	0
				2636.5	41055	17.73	18	0
				2680	41490	17.75	18	0
	16-QAM	1 RB	0	2506	39750	17.10	18	0
				2549.5	40185	17.95	18	0
				2593	40620	17.55	18	0
				2636.5	41055	17.75	18	0
				2680	41490	17.85	18	0
			50	2506	39750	17.36	18	0
				2549.5	40185	17.87	18	0
				2593	40620	17.45	18	0
				2636.5	41055	17.59	18	0
				2680	41490	17.53	18	0
			99	2506	39750	17.45	18	0
				2549.5	40185	17.57	18	0
				2593	40620	17.64	18	0
				2636.5	41055	17.66	18	0
				2680	41490	17.94	18	0
		50 RB	0	2506	39750	17.11	18	0
				2549.5	40185	17.61	18	0
				2593	40620	17.59	18	0
				2636.5	41055	17.67	18	0
				2680	41490	17.58	18	0
			25	2506	39750	17.32	18	0
				2549.5	40185	17.44	18	0
				2593	40620	17.51	18	0
				2636.5	41055	17.60	18	0
				2680	41490	17.55	18	0
			50	2506	39750	17.35	18	0
				2549.5	40185	17.39	18	0
				2593	40620	17.69	18	0
				2636.5	41055	17.52	18	0
				2680	41490	17.52	18	0
		100RB		2506	39750	17.22	18	0
				2549.5	40185	17.62	18	0
				2593	40620	17.48	18	0
				2636.5	41055	17.54	18	0
				2680	41490	17.68	18	0

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	2503.5	39725	17.19	18	0
				2548.3	40173	17.96	18	0
				2593	40620	17.37	18	0
				2637.8	41068	17.72	18	0
				2682.5	41515	17.65	18	0
			36	2503.5	39725	17.16	18	0
				2548.3	40173	17.69	18	0
				2593	40620	17.48	18	0
				2637.8	41068	17.52	18	0
				2682.5	41515	17.44	18	0
			74	2503.5	39725	17.34	18	0
				2548.3	40173	17.75	18	0
				2593	40620	17.72	18	0
				2637.8	41068	17.65	18	0
				2682.5	41515	17.90	18	0
		36 RB	0	2503.5	39725	17.31	18	0
				2548.3	40173	17.47	18	0
				2593	40620	17.50	18	0
				2637.8	41068	17.71	18	0
				2682.5	41515	17.59	18	0
			18	2503.5	39725	17.17	18	0
				2548.3	40173	17.58	18	0
				2593	40620	17.44	18	0
				2637.8	41068	17.63	18	0
				2682.5	41515	17.50	18	0
			37	2503.5	39725	17.33	18	0
				2548.3	40173	17.43	18	0
				2593	40620	17.66	18	0
				2637.8	41068	17.68	18	0
				2682.5	41515	17.75	18	0
		75RB		2503.5	39725	17.35	18	0
				2548.3	40173	17.47	18	0
				2593	40620	17.60	18	0
				2637.8	41068	17.49	18	0
				2682.5	41515	17.74	18	0
	16-QAM	1 RB	0	2503.5	39725	16.96	18	0
				2548.3	40173	17.71	18	0
				2593	40620	17.54	18	0
				2637.8	41068	17.57	18	0
				2682.5	41515	17.76	18	0
			36	2503.5	39725	17.19	18	0
				2548.3	40173	17.70	18	0
				2593	40620	17.44	18	0
				2637.8	41068	17.57	18	0
				2682.5	41515	17.34	18	0
			74	2503.5	39725	17.31	18	0
				2548.3	40173	17.50	18	0
				2593	40620	17.49	18	0
				2637.8	41068	17.52	18	0
				2682.5	41515	17.70	18	0
		36 RB	0	2503.5	39725	17.10	18	0
				2548.3	40173	17.43	18	0
				2593	40620	17.37	18	0
				2637.8	41068	17.50	18	0
				2682.5	41515	17.58	18	0
			18	2503.5	39725	17.16	18	0
				2548.3	40173	17.26	18	0
				2593	40620	17.35	18	0
				2637.8	41068	17.46	18	0
				2682.5	41515	17.48	18	0
			37	2503.5	39725	17.12	18	0
				2548.3	40173	17.30	18	0
				2593	40620	17.45	18	0
				2637.8	41068	17.45	18	0
				2682.5	41515	17.31	18	0
		75RB		2503.5	39725	17.03	18	0
				2548.3	40173	17.61	18	0
				2593	40620	17.35	18	0
				2637.8	41068	17.45	18	0
				2682.5	41515	17.47	18	0

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	2501	39700	17.29	18	0
				2547	40160	17.96	18	0
				2593	40620	17.57	18	0
				2639	41080	17.74	18	0
				2685	41540	17.77	18	0
			25	2501	39700	17.12	18	0
				2547	40160	17.75	18	0
				2593	40620	17.58	18	0
				2639	41080	17.68	18	0
				2685	41540	17.55	18	0
			49	2501	39700	17.53	18	0
				2547	40160	17.74	18	0
				2593	40620	17.59	18	0
				2639	41080	17.56	18	0
				2685	41540	17.97	18	0
		25 RB	0	2501	39700	17.25	18	0
				2547	40160	17.46	18	0
				2593	40620	17.50	18	0
				2639	41080	17.56	18	0
				2685	41540	17.64	18	0
			12	2501	39700	17.22	18	0
				2547	40160	17.60	18	0
				2593	40620	17.54	18	0
				2639	41080	17.57	18	0
				2685	41540	17.54	18	0
			25	2501	39700	17.41	18	0
				2547	40160	17.63	18	0
				2593	40620	17.64	18	0
				2639	41080	17.53	18	0
				2685	41540	17.57	18	0
		50RB		2501	39700	17.23	18	0
				2547	40160	17.61	18	0
				2593	40620	17.51	18	0
				2639	41080	17.60	18	0
				2685	41540	17.67	18	0
	16-QAM	1 RB	0	2501	39700	17.05	18	0
				2547	40160	17.88	18	0
				2593	40620	17.53	18	0
				2639	41080	17.56	18	0
				2685	41540	17.82	18	0
			25	2501	39700	17.17	18	0
				2547	40160	17.80	18	0
				2593	40620	17.32	18	0
				2639	41080	17.55	18	0
				2685	41540	17.44	18	0
			49	2501	39700	17.37	18	0
				2547	40160	17.54	18	0
				2593	40620	17.48	18	0
				2639	41080	17.47	18	0
				2685	41540	17.91	18	0
		25 RB	0	2501	39700	17.04	18	0
				2547	40160	17.52	18	0
				2593	40620	17.41	18	0
				2639	41080	17.64	18	0
				2685	41540	17.45	18	0
			12	2501	39700	17.10	18	0
				2547	40160	17.26	18	0
				2593	40620	17.43	18	0
				2639	41080	17.52	18	0
				2685	41540	17.53	18	0
			25	2501	39700	17.19	18	0
				2547	40160	17.27	18	0
				2593	40620	17.52	18	0
				2639	41080	17.47	18	0
				2685	41540	17.37	18	0
		50RB		2501	39700	17.11	18	0
				2547	40160	17.45	18	0
				2593	40620	17.40	18	0
				2639	41080	17.48	18	0
				2685	41540	17.46	18	0

TDD Band 41								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	2498.5	39675	17.22	18	0
				2547.8	40148	17.72	18	0
				2593	40620	17.40	18	0
				2640.3	41093	17.89	18	0
				2687.5	41565	17.83	18	0
			12	2498.5	39675	17.16	18	0
				2547.8	40148	17.68	18	0
				2593	40620	17.57	18	0
				2640.3	41093	17.55	18	0
				2687.5	41565	17.56	18	0
			24	2498.5	39675	17.37	18	0
				2547.8	40148	17.66	18	0
				2593	40620	17.67	18	0
				2640.3	41093	17.60	18	0
				2687.5	41565	17.91	18	0
		12 RB	0	2498.5	39675	17.25	18	0
				2547.8	40148	17.54	18	0
				2593	40620	17.58	18	0
				2640.3	41093	17.69	18	0
				2687.5	41565	17.66	18	0
			6	2498.5	39675	17.26	18	0
				2547.8	40148	17.51	18	0
				2593	40620	17.48	18	0
				2640.3	41093	17.72	18	0
				2687.5	41565	17.45	18	0
			13	2498.5	39675	17.22	18	0
				2547.8	40148	17.42	18	0
				2593	40620	17.65	18	0
				2640.3	41093	17.71	18	0
				2687.5	41565	17.72	18	0
		25RB		2498.5	39675	17.24	18	0
				2547.8	40148	17.54	18	0
				2593	40620	17.55	18	0
				2640.3	41093	17.53	18	0
				2687.5	41565	17.68	18	0
	16-QAM	1 RB	0	2498.5	39675	17.08	18	0
				2547.8	40148	17.72	18	0
				2593	40620	17.53	18	0
				2640.3	41093	17.72	18	0
				2687.5	41565	17.67	18	0
			12	2498.5	39675	17.36	18	0
				2547.8	40148	17.77	18	0
				2593	40620	17.32	18	0
				2640.3	41093	17.41	18	0
				2687.5	41565	17.34	18	0
			24	2498.5	39675	17.43	18	0
				2547.8	40148	17.44	18	0
				2593	40620	17.41	18	0
				2640.3	41093	17.64	18	0
				2687.5	41565	17.74	18	0
		12 RB	0	2498.5	39675	17.03	18	0
				2547.8	40148	17.57	18	0
				2593	40620	17.59	18	0
				2640.3	41093	17.56	18	0
				2687.5	41565	17.50	18	0
			6	2498.5	39675	17.19	18	0
				2547.8	40148	17.22	18	0
				2593	40620	17.43	18	0
				2640.3	41093	17.47	18	0
				2687.5	41565	17.35	18	0
			13	2498.5	39675	17.17	18	0
				2547.8	40148	17.32	18	0
				2593	40620	17.64	18	0
				2640.3	41093	17.52	18	0
				2687.5	41565	17.33	18	0
		25RB		2498.5	39675	17.03	18	0
				2547.8	40148	17.54	18	0
				2593	40620	17.28	18	0
				2640.3	41093	17.52	18	0
				2687.5	41565	17.65	18	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
20	QPSK	1 RB	0	1720	132072	17.40	17.5	0
				1745	132322	17.42	17.5	0
				1770	132572	17.41	17.5	0
			50	1720	132072	17.33	17.5	0
				1745	132322	17.46	17.5	0
				1770	132572	17.31	17.5	0
			99	1720	132072	17.29	17.5	0
				1745	132322	17.44	17.5	0
				1770	132572	17.32	17.5	0
		50 RB	0	1720	132072	17.49	17.5	0
				1745	132322	17.41	17.5	0
				1770	132572	17.39	17.5	0
			25	1720	132072	17.45	17.5	0
				1745	132322	17.43	17.5	0
				1770	132572	17.41	17.5	0
			50	1720	132072	17.49	17.5	0
				1745	132322	17.31	17.5	0
				1770	132572	17.35	17.5	0
		100RB		1720	132072	17.36	17.5	0
				1745	132322	17.37	17.5	0
				1770	132572	17.45	17.5	0
	16-QAM	1 RB	0	1720	132072	17.36	17.5	0
				1745	132322	17.38	17.5	0
				1770	132572	17.33	17.5	0
			50	1720	132072	17.29	17.5	0
				1745	132322	17.42	17.5	0
				1770	132572	17.28	17.5	0
			99	1720	132072	17.25	17.5	0
				1745	132322	17.40	17.5	0
				1770	132572	17.17	17.5	0
		50 RB	0	1720	132072	17.41	17.5	0
				1745	132322	17.37	17.5	0
				1770	132572	17.27	17.5	0
			25	1720	132072	17.35	17.5	0
				1745	132322	17.38	17.5	0
				1770	132572	17.36	17.5	0
			50	1720	132072	17.33	17.5	0
				1745	132322	17.40	17.5	0
				1770	132572	17.21	17.5	0
		100RB		1720	132072	17.46	17.5	0
				1745	132322	17.44	17.5	0
				1770	132572	17.41	17.5	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
15	QPSK	1 RB	0	1717.5	132047	17.33	17.5	0
				1745	132322	17.32	17.5	0
				1772.5	132597	17.35	17.5	0
			36	1717.5	132047	17.25	17.5	0
				1745	132322	17.34	17.5	0
				1772.5	132597	17.27	17.5	0
			74	1717.5	132047	17.15	17.5	0
				1745	132322	17.40	17.5	0
				1772.5	132597	17.21	17.5	0
		36 RB	0	1717.5	132047	17.45	17.5	0
				1745	132322	17.31	17.5	0
				1772.5	132597	17.26	17.5	0
			18	1717.5	132047	17.36	17.5	0
				1745	132322	17.38	17.5	0
				1772.5	132597	17.37	17.5	0
			37	1717.5	132047	17.37	17.5	0
				1745	132322	17.48	17.5	0
				1772.5	132597	17.22	17.5	0
		75RB		1717.5	132047	17.45	17.5	0
				1745	132322	17.47	17.5	0
				1772.5	132597	17.36	17.5	0
	16-QAM	1 RB	0	1717.5	132047	17.28	17.5	0
				1745	132322	17.34	17.5	0
				1772.5	132597	17.26	17.5	0
			36	1717.5	132047	17.16	17.5	0
				1745	132322	17.36	17.5	0
				1772.5	132597	17.17	17.5	0
			74	1717.5	132047	17.21	17.5	0
				1745	132322	17.31	17.5	0
				1772.5	132597	17.04	17.5	0
		36 RB	0	1717.5	132047	17.27	17.5	0
				1745	132322	17.24	17.5	0
				1772.5	132597	17.18	17.5	0
			18	1717.5	132047	17.30	17.5	0
				1745	132322	17.35	17.5	0
				1772.5	132597	17.31	17.5	0
			37	1717.5	132047	17.20	17.5	0
				1745	132322	17.32	17.5	0
				1772.5	132597	17.11	17.5	0
		75RB		1717.5	132047	17.44	17.5	0
				1745	132322	17.29	17.5	0
				1772.5	132597	17.40	17.5	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
10	QPSK	1 RB	0	1715	132022	17.31	17.5	0
				1745	132322	17.28	17.5	0
				1775	132622	17.28	17.5	0
			25	1715	132022	17.29	17.5	0
				1745	132322	17.40	17.5	0
				1775	132622	17.19	17.5	0
			49	1715	132022	17.21	17.5	0
				1745	132322	17.41	17.5	0
				1775	132622	17.27	17.5	0
		25 RB	0	1715	132022	17.39	17.5	0
				1745	132322	17.37	17.5	0
				1775	132622	17.27	17.5	0
			12	1715	132022	17.35	17.5	0
				1745	132322	17.28	17.5	0
				1775	132622	17.34	17.5	0
			25	1715	132022	17.34	17.5	0
				1745	132322	17.41	17.5	0
				1775	132622	17.26	17.5	0
		50RB		1715	132022	17.45	17.5	0
				1745	132322	17.49	17.5	0
				1775	132622	17.29	17.5	0
	16-QAM	1 RB	0	1715	132022	17.31	17.5	0
				1745	132322	17.23	17.5	0
				1775	132622	17.21	17.5	0
			25	1715	132022	17.21	17.5	0
				1745	132322	17.35	17.5	0
				1775	132622	17.13	17.5	0
			49	1715	132022	17.13	17.5	0
				1745	132322	17.30	17.5	0
				1775	132622	17.07	17.5	0
		25 RB	0	1715	132022	17.37	17.5	0
				1745	132322	17.30	17.5	0
				1775	132622	17.13	17.5	0
			12	1715	132022	17.30	17.5	0
				1745	132322	17.34	17.5	0
				1775	132622	17.34	17.5	0
			25	1715	132022	17.25	17.5	0
				1745	132322	17.30	17.5	0
				1775	132622	17.13	17.5	0
		50RB		1715	132022	17.32	17.5	0
				1745	132322	17.40	17.5	0
				1775	132622	17.31	17.5	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
5	QPSK	1 RB	0	1712.5	131997	17.28	17.5	0
				1745	132322	17.29	17.5	0
				1777.5	132647	17.28	17.5	0
			12	1712.5	131997	17.21	17.5	0
				1745	132322	17.33	17.5	0
				1777.5	132647	17.19	17.5	0
			24	1712.5	131997	17.13	17.5	0
				1745	132322	17.45	17.5	0
				1777.5	132647	17.28	17.5	0
		12 RB	0	1712.5	131997	17.47	17.5	0
				1745	132322	17.36	17.5	0
				1777.5	132647	17.23	17.5	0
			6	1712.5	131997	17.30	17.5	0
				1745	132322	17.27	17.5	0
				1777.5	132647	17.25	17.5	0
			13	1712.5	131997	17.34	17.5	0
				1745	132322	17.48	17.5	0
				1777.5	132647	17.29	17.5	0
		25RB		1712.5	131997	17.44	17.5	0
				1745	132322	17.44	17.5	0
				1777.5	132647	17.39	17.5	0
	16-QAM	1 RB	0	1712.5	131997	17.21	17.5	0
				1745	132322	17.30	17.5	0
				1777.5	132647	17.27	17.5	0
			12	1712.5	131997	17.19	17.5	0
				1745	132322	17.34	17.5	0
				1777.5	132647	17.13	17.5	0
			24	1712.5	131997	17.18	17.5	0
				1745	132322	17.26	17.5	0
				1777.5	132647	17.15	17.5	0
		12 RB	0	1712.5	131997	17.39	17.5	0
				1745	132322	17.24	17.5	0
				1777.5	132647	17.13	17.5	0
			6	1712.5	131997	17.28	17.5	0
				1745	132322	17.30	17.5	0
				1777.5	132647	17.30	17.5	0
			13	1712.5	131997	17.28	17.5	0
				1745	132322	17.33	17.5	0
				1777.5	132647	17.12	17.5	0
		25RB		1712.5	131997	17.40	17.5	0
				1745	132322	17.40	17.5	0
				1777.5	132647	17.48	17.5	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
3	QPSK	1 RB	0	1711.5	131987	17.30	17.5	0
				1745	132322	17.26	17.5	0
				1778.5	132657	17.27	17.5	0
			7	1711.5	131987	17.29	17.5	0
				1745	132322	17.35	17.5	0
				1778.5	132657	17.19	17.5	0
			14	1711.5	131987	17.14	17.5	0
				1745	132322	17.49	17.5	0
				1778.5	132657	17.18	17.5	0
		8 RB	0	1711.5	131987	17.42	17.5	0
				1745	132322	17.27	17.5	0
				1778.5	132657	17.25	17.5	0
			4	1711.5	131987	17.35	17.5	0
				1745	132322	17.28	17.5	0
				1778.5	132657	17.31	17.5	0
			7	1711.5	131987	17.41	17.5	0
				1745	132322	17.42	17.5	0
				1778.5	132657	17.20	17.5	0
		15RB		1711.5	131987	17.31	17.5	0
				1745	132322	17.43	17.5	0
				1778.5	132657	17.46	17.5	0
	16-QAM	1 RB	0	1711.5	131987	17.32	17.5	0
				1745	132322	17.35	17.5	0
				1778.5	132657	17.18	17.5	0
			7	1711.5	131987	17.17	17.5	0
				1745	132322	17.31	17.5	0
				1778.5	132657	17.14	17.5	0
			14	1711.5	131987	17.21	17.5	0
				1745	132322	17.37	17.5	0
				1778.5	132657	17.09	17.5	0
		8 RB	0	1711.5	131987	17.25	17.5	0
				1745	132322	17.33	17.5	0
				1778.5	132657	17.21	17.5	0
			4	1711.5	131987	17.28	17.5	0
				1745	132322	17.24	17.5	0
				1778.5	132657	17.20	17.5	0
			7	1711.5	131987	17.26	17.5	0
				1745	132322	17.29	17.5	0
				1778.5	132657	17.13	17.5	0
		15RB		1711.5	131987	17.39	17.5	0
				1745	132322	17.37	17.5	0
				1778.5	132657	17.32	17.5	0

FDD Band 66								
BW(MHz)	Modulation	RB Size	RB Offset	Frequency (MHz)	Channel	Conducted power (dBm)	Target Power + Max. Tolerance (dBm)	MPR Allowed per 3GPP(dB)
1.4	QPSK	1 RB	0	1710.7	131979	17.36	17.5	0
				1745	132322	17.38	17.5	0
				1779.3	132665	17.29	17.5	0
			2	1710.7	131979	17.18	17.5	0
				1745	132322	17.39	17.5	0
				1779.3	132665	17.22	17.5	0
			5	1710.7	131979	17.14	17.5	0
				1745	132322	17.47	17.5	0
				1779.3	132665	17.23	17.5	0
		3 RB	0	1710.7	131979	17.33	17.5	0
				1745	132322	17.35	17.5	0
				1779.3	132665	17.24	17.5	0
			2	1710.7	131979	17.37	17.5	0
				1745	132322	17.41	17.5	0
				1779.3	132665	17.29	17.5	0
			3	1710.7	131979	17.38	17.5	0
				1745	132322	17.37	17.5	0
				1779.3	132665	17.31	17.5	0
		6RB		1710.7	131979	17.48	17.5	0
				1745	132322	17.41	17.5	0
				1779.3	132665	17.35	17.5	0
	16-QAM	1 RB	0	1710.7	131979	17.23	17.5	0
				1745	132322	17.33	17.5	0
				1779.3	132665	17.31	17.5	0
			2	1710.7	131979	17.14	17.5	0
				1745	132322	17.37	17.5	0
				1779.3	132665	17.21	17.5	0
			5	1710.7	131979	17.23	17.5	0
				1745	132322	17.28	17.5	0
				1779.3	132665	17.03	17.5	0
		3 RB	0	1710.7	131979	17.36	17.5	0
				1745	132322	17.25	17.5	0
				1779.3	132665	17.25	17.5	0
			2	1710.7	131979	17.27	17.5	0
				1745	132322	17.31	17.5	0
				1779.3	132665	17.31	18	0
			3	1710.7	131979	17.28	17.5	0
				1745	132322	17.35	17.5	0
				1779.3	132665	17.06	17.5	0
		6RB		1710.7	131979	17.31	17.5	0
				1745	132322	17.29	17.5	0
				1779.3	132665	17.43	17.5	0

WLAN802.11 a/b/g/n(20M/40M)/ac(20M/40M/80M) conducted power table:

Antenna / Band	SISO		MIMO
	Chain 0	Chain 1	Chain0+1
WLAN802.11b	V	V	–
WLAN802.11g	V	V	–
WLAN802.11n(20M)	V	V	V
WLAN802.11n(40M)	V	V	V
WLAN802.11ac	V	V	V
WLAN802.11a	V	V	–
WLAN802.11n(20M) 5G	V	V	V
WLAN802.11n(40M) 5G	V	V	V
WLAN802.11ac(20M) 5G	V	V	V
WLAN802.11ac(40M) 5G	V	V	V
WLAN802.11ac(80M) 5G	V	V	V

Tablet Mode

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
2450 MHz	802.11b	1	2412	1Mbps	16.00	15.94
		6	2437		16.00	15.91
		11	2462		16.00	15.92
		12	2467		16.00	15.89
		13	2472		8.50	8.45
	802.11g	1	2412	6Mbps	16.00	15.92
		6	2437		16.00	15.97
		11	2462		16.00	15.93
		12	2467		11.50	11.47
		13	2472		-2.50	-2.53
	802.11n-HT20	1	2412	MCS0	16.00	15.96
		6	2437		16.00	15.90
		11	2462		16.00	15.92
		12	2467		11.50	11.44
		13	2472		-2.50	-2.58
	802.11n-HT40	3	2422	MCS0	16.00	15.89
		6	2437		16.00	15.99
		9	2452		16.00	15.96
		10	2457		12.50	12.47
		11	2462		-2.50	-2.61

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.15-5.25 GHz	802.11a	36	5180	6Mbps	15.50	15.40
		40	5200		15.50	15.44
		44	5220		15.50	15.42
		48	5240		15.50	15.46
	802.11n-HT20	36	5180	MCS0	15.50	15.40
		40	5200		15.50	15.45
		44	5220		15.50	15.40
		48	5240		15.50	15.43
	802.11n-VHT20	36	5180	MCS0	15.50	15.41
		40	5200		15.50	15.40
		44	5220		15.50	15.46
		48	5240		15.50	15.48
	802.11n-HT40	38	5190	MCS0	15.50	15.49
		46	5230		15.50	15.47
	802.11n-VHT40	38	5190	MCS0	15.50	15.40
		46	5230		15.50	15.46
	802.11n-VHT80	42	5210	MCS0	14.00	13.99

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.25-5.35 GHz	802.11a	52	5260	6Mbps	15.50	14.90
		56	5280		15.50	14.96
		60	5300		15.50	14.91
		64	5320		15.50	14.94
	802.11n-HT20	52	5260	MCS0	15.50	14.92
		56	5280		15.50	14.97
		60	5300		15.50	14.94
		64	5320		15.50	14.92
	802.11n-VHT20	52	5260	MCS0	15.50	14.98
		56	5280		15.50	14.90
		60	5300		15.50	14.93
		64	5320		15.50	14.96
	802.11n-HT40	54	5270	MCS0	15.50	15.48
		62	5310		15.50	15.49
	802.11n-VHT40	54	5270	MCS0	15.50	14.91
		62	5310		15.50	14.96
	802.11n-VHT80	58	5290	MCS0	12.00	11.99

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5600 MHz	802.11a	100	5500	6Mbps	16.00	15.93
		120	5600		16.00	15.91
		140	5700		16.00	15.95
	802.11n-HT20	100	5500	MCS0	16.00	15.97
		120	5600		16.00	15.91
		140	5700		16.00	15.97
		144	5720		16.00	15.93
	802.11n-VHT20	100	5500	MCS0	16.00	15.95
		120	5600		16.00	15.92
		140	5700		16.00	15.94
		144	5720		16.00	15.92
	802.11n-HT40	102	5510	MCS0	16.00	15.97
		118	5590		16.00	15.93
		134	5670		16.00	15.99
		142	5710		16.00	15.91
	802.11n-VHT40	102	5510	MCS0	16.00	15.92
		118	5590		16.00	15.95
		134	5670		16.00	15.96
		142	5710		16.00	15.94
	802.11n-VHT80	106	5530	MCS0	13.50	13.31
		122	5610		16.00	15.89
		138	5690		16.00	15.99

Main Antenna						
Mode	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5800 MHz	802.11a	149	5745	6Mbps	15.00	14.90
		157	5785		15.00	14.93
		165	5825		15.00	14.94
	802.11n-HT20	149	5745	MCS0	15.00	14.96
		157	5785		15.00	14.93
		165	5825		15.00	14.92
	802.11n-VHT20	149	5745	MCS0	15.00	14.92
		157	5785		15.00	14.91
		165	5825		15.00	14.96
	802.11n-HT40	151	5755	MCS0	15.00	14.91
		159	5795		15.00	14.90
	802.11n-VHT40	151	5755	MCS0	15.00	14.94
		159	5795		15.00	14.96
	802.11n-VHT80	155	5775	MCS0	15.00	14.97

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
2450 MHz	802.11b	1	2412	1Mbps	16.00	15.93
		6	2437		16.00	15.96
		11	2462		16.00	15.90
		12	2467		16.00	15.88
		13	2472		8.50	8.47
	802.11g	1	2412	6Mbps	16.00	15.95
		6	2437		16.00	15.93
		11	2462		16.00	15.98
		12	2467		10.50	10.48
		13	2472		-2.50	-2.51
	802.11n-HT20	1	2412	MCS0	16.00	15.98
		6	2437		16.00	15.94
		11	2462		16.00	15.90
		12	2467		10.50	10.45
		13	2472		-2.50	-2.54
	802.11n-HT40	3	2422	MCS0	16.00	15.91
		6	2437		16.00	15.99
		9	2452		16.00	15.92
		10	2457		12.50	12.43
		11	2462		-2.50	-2.59

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.15-5.25 GHz	802.11a	36	5180	6Mbps	15.00	14.92
		40	5200		15.00	14.93
		44	5220		15.00	14.91
		48	5240		15.00	14.96
	802.11n-HT20	36	5180	MCS0	15.00	14.92
		40	5200		15.00	14.93
		44	5220		15.00	14.94
		48	5240		15.00	14.90
	802.11n-VHT20	36	5180	MCS0	15.00	14.90
		40	5200		15.00	14.93
		44	5220		15.00	14.90
		48	5240		15.00	14.91
	802.11n-HT40	38	5190	MCS0	15.00	14.98
		46	5230		15.00	14.95
	802.11n-VHT40	38	5190	MCS0	15.00	14.94
		46	5230		15.00	14.97
	802.11n-VHT80	42	5210	MCS0	14.00	13.96

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power +	Average power (dBm)
5.25-5.35 GHz	802.11a	52	5260	6Mbps	20.00	19.95
		56	5280		20.00	19.98
		60	5300		20.00	19.94
		64	5320		16.50	16.47
	802.11n-HT20	52	5260	MCS0	20.00	19.91
		56	5280		20.00	19.97
		60	5300		20.00	19.95
		64	5320		16.50	16.48
	802.11n-VHT20	52	5260	MCS0	20.00	19.96
		56	5280		20.00	19.98
		60	5300		20.00	19.93
		64	5320		16.50	16.43
	802.11n-HT40	54	5270	MCS0	20.00	19.95
		62	5310		15.00	14.94
	802.11n-VHT40	54	5270	MCS0	20.00	19.92
		62	5310		15.00	14.97
	802.11n-VHT80	58	5290	MCS0	12.00	11.92

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5600 MHz	802.11a	100	5500	6Mbps	15.00	14.93
		120	5600		15.00	14.89
		140	5700		15.00	14.92
	802.11n-HT20	100	5500	MCS0	15.00	14.91
		120	5600		15.00	14.93
		140	5700		15.00	14.91
		144	5720		15.00	14.90
	802.11n-VHT20	100	5500	MCS0	15.00	14.94
		120	5600		15.00	14.95
		140	5700		15.00	14.93
		144	5720		15.00	14.96
	802.11n-HT40	102	5510	MCS0	15.00	14.94
		118	5590		15.00	14.92
		134	5670		15.00	14.99
		142	5710		15.00	14.90
	802.11n-VHT40	102	5510	MCS0	15.00	14.96
		118	5590		15.00	14.93
		134	5670		15.00	14.94
		142	5710		15.00	14.91
	802.11n-VHT80	106	5530	MCS0	14.00	13.99
		122	5610		15.00	14.91
		138	5690		15.00	14.99

Aux Antenna						
Mode	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5800 MHz	802.11a	149	5745	6Mbps	16.00	15.92
		157	5785		16.00	15.90
		165	5825		16.00	15.97
	802.11n-HT20	149	5745	MCS0	16.00	15.98
		157	5785		16.00	15.96
		165	5825		16.00	15.93
	802.11n-VHT20	149	5745	MCS0	16.00	15.98
		157	5785		16.00	15.95
		165	5825		16.00	15.91
	802.11n-HT40	151	5755	MCS0	16.00	15.98
		159	5795		16.00	15.90
	802.11n-VHT40	151	5755	MCS0	16.00	15.96
		159	5795		16.00	15.98
	802.11n-VHT80	155	5775	MCS0	16.00	15.99

Notebook Mode

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
2450 MHz	802.11b	1	2412	1Mbps	20.00	19.98
		6	2437		20.00	19.92
		11	2462		20.00	19.95
		12	2467		16.50	16.45
		13	2472		8.50	8.46
	802.11g	1	2412	6Mbps	18.00	17.98
		2	2417		20.00	19.95
		6	2437		20.00	19.93
		10	2457		17.50	17.46
		11	2462		17.50	17.44
		12	2467		11.50	11.43
		13	2472		-2.50	-2.56
	802.11n-HT20	1	2412	MCS0	18.00	17.94
		2	2417		20.00	19.92
		6	2437		20.00	19.95
		10	2457		17.50	17.41
		11	2462		17.50	17.40
		12	2467		11.50	11.46
		13	2472		-2.50	-2.53
	802.11n-HT40	3	2422	MCS0	18.00	17.95
		4	2427		18.50	18.47
		6	2437		19.00	18.93
		8	2447		17.00	16.98
		9	2452		16.00	15.95
		10	2457		12.50	12.41
		11	2462		-2.50	-2.56

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.15-5.25 GHz	802.11a	36	5180	6Mbps	18.00	17.97
		40	5200		20.00	19.99
		44	5220		20.00	19.96
		48	5240		19.50	19.46
	802.11n-HT20	36	5180	MCS0	18.00	17.98
		40	5200		20.00	19.95
		44	5220		20.00	19.89
		48	5240		19.50	19.48
	802.11n-VHT20	36	5180	MCS0	18.00	17.94
		40	5200		20.00	19.93
		44	5220		20.00	19.91
		48	5240		19.50	19.48
	802.11n-HT40	38	5190	MCS0	18.00	17.95
		46	5230		20.00	19.98
	802.11n-VHT40	38	5190	MCS0	18.00	17.91
		46	5230		20.00	19.97
	802.11n-VHT80	42	5210	MCS0	14.00	13.97

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.25-5.35 GHz	802.11a	52	5260	6Mbps	20.00	19.92
		56	5280		20.00	19.94
		60	5300		20.00	19.90
		64	5320		16.00	15.94
	802.11n-HT20	52	5260	MCS0	20.00	19.93
		56	5280		20.00	19.94
		60	5300		20.00	19.98
		64	5320		16.00	15.93
	802.11n-VHT20	52	5260	MCS0	20.00	19.94
		56	5280		20.00	19.91
		60	5300		20.00	19.98
		64	5320		16.00	15.94
	802.11n-HT40	54	5270	MCS0	20.00	19.97
		62	5310		14.50	14.47
	802.11n-VHT40	54	5270	MCS0	20.00	19.96
		62	5310		14.50	14.48
	802.11n-VHT80	58	5290	MCS0	12.00	11.92

Main Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5600 MHz	802.11a	104	5520	6Mbps	20.00	19.96
		120	5600		20.00	19.92
		136	5680		20.00	19.89
	802.11n-HT20	104	5520	MCS0	20.00	19.91
		120	5600		20.00	19.95
		136	5680		20.00	19.89
		144	5720		20.00	19.88
	802.11n-VHT20	104	5520	MCS0	20.00	19.95
		120	5600		20.00	19.94
		136	5680		20.00	19.90
		144	5720		20.00	19.98
	802.11n-HT40	110	5550	MCS0	20.00	19.98
		118	5590		20.00	19.94
		126	5630		20.00	19.90
		142	5710		20.00	19.88
	802.11n-VHT40	110	5550	MCS0	20.00	19.97
		118	5590		20.00	19.91
		126	5630		20.00	19.93
		142	5710		20.00	19.89
	802.11n-VHT80	106	5530	MCS0	13.50	13.45
		122	5610		17.50	17.43
		138	5690		20.00	19.96

Main Antenna						
Mode	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5800 MHz	802.11a	149	5745	6Mbps	20.00	19.98
		157	5785		20.00	19.99
		165	5825		20.00	19.94
	802.11n-HT20	149	5745	MCS0	20.00	19.96
		157	5785		20.00	19.97
		165	5825		20.00	19.94
	802.11n-VHT20	149	5745	MCS0	20.00	19.93
		157	5785		20.00	19.96
		165	5825		20.00	19.91
	802.11n-HT40	151	5755	MCS0	20.00	19.97
		159	5795		20.00	19.98
	802.11n-VHT40	151	5755	MCS0	20.00	19.95
		159	5795		20.00	19.99
	802.11n-VHT80	155	5775	MCS0	17.50	17.48

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
2450 MHz	802.11b	1	2412	1Mbps	18.00	17.98
		2	2417		20.00	19.91
		6	2437		20.00	19.98
		10	2457		20.00	19.92
		11	2462		18.50	18.45
		12	2467		16.00	15.98
		13	2472		8.50	8.47
	802.11g	1	2412	6Mbps	18.00	17.94
		2	2417		20.00	19.97
		6	2437		20.00	19.92
		10	2457		17.50	17.43
		11	2462		17.00	16.91
		12	2467		10.50	10.41
		13	2472		-2.50	-2.54
	802.11n-HT20	1	2412	MCS0	18.00	17.95
		2	2417		20.00	19.95
		6	2437		20.00	19.93
		10	2457		17.50	17.48
		11	2462		17.00	16.98
		12	2467		10.50	10.42
		13	2472		-2.50	-2.58
	802.11n-HT40	3	2422	MCS0	17.00	16.89
		4	2427		17.50	17.46
		6	2437		19.00	18.97
		8	2447		16.50	16.45
		9	2452		16.00	15.93
		10	2457		12.50	12.43
		11	2462		-2.50	-2.54

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.15-5.25 GHz	802.11a	36	5180	6Mbps	17.50	17.47
		40	5200		19.50	19.46
		44	5220		20.00	19.94
		48	5240		19.50	19.44
	802.11n-HT20	36	5180	MCS0	17.50	17.49
		40	5200		19.50	19.48
		44	5220		20.00	19.91
		48	5240		19.50	19.46
	802.11n-VHT20	36	5180	MCS0	17.50	17.47
		40	5200		19.50	19.45
		44	5220		20.00	19.97
		48	5240		19.50	19.44
	802.11n-HT40	38	5190	MCS0	18.00	17.95
		46	5230		20.00	19.98
	802.11n-VHT40	38	5190	MCS0	18.00	17.89
		46	5230		20.00	19.97
	802.11n-VHT80	42	5210	MCS0	14.00	13.98

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5.25-5.35 GHz	802.11a	52	5260	6Mbps	20.00	19.95
		56	5280		20.00	19.98
		60	5300		20.00	19.94
		64	5320		16.50	16.47
	802.11n-HT20	52	5260	MCS0	20.00	19.91
		56	5280		20.00	19.97
		60	5300		20.00	19.95
		64	5320		16.50	16.48
	802.11n-VHT20	52	5260	MCS0	20.00	19.96
		56	5280		20.00	19.98
		60	5300		20.00	19.93
		64	5320		16.50	16.43
	802.11n-HT40	54	5270	MCS0	20.00	19.95
		62	5310		15.00	14.94
	802.11n-VHT40	54	5270	MCS0	20.00	19.92
		62	5310		15.00	14.97
	802.11n-VHT80	58	5290	MCS0	12.00	11.92

Aux Antenna						
Band	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5600 MHz	802.11a	104	5520	6Mbps	20.00	19.95
		120	5600		20.00	19.92
		136	5680		20.00	19.97
	802.11n-HT20	104	5520	MCS0	20.00	19.99
		120	5600		20.00	19.96
		136	5680		20.00	19.94
		144	5720		20.00	19.92
	802.11n-VHT20	104	5520	MCS0	20.00	19.93
		120	5600		20.00	19.98
		136	5680		20.00	19.89
		144	5720		20.00	19.96
	802.11n-HT40	110	5550	MCS0	20.00	19.90
		118	5590		20.00	19.97
		126	5630		20.00	19.93
		142	5710		20.00	19.89
	802.11n-VHT40	110	5550	MCS0	20.00	19.96
		118	5590		20.00	19.94
		126	5630		20.00	19.97
		142	5710		20.00	19.95
	802.11n-VHT80	106	5530	MCS0	14.00	13.92
		122	5610		18.50	18.45
		138	5690		20.00	19.94

Aux Antenna						
Mode	Mode	Channel	Frequency (MHz)	Data Rate	Max. Rated Avg. Power + Max. Tolerance (dBm)	Average power (dBm)
5800 MHz	802.11a	149	5745	6Mbps	20.00	19.98
		157	5785		20.00	19.95
		165	5825		20.00	19.92
	802.11n-HT20	149	5745	MCS0	20.00	19.92
		157	5785		20.00	19.89
		165	5825		20.00	19.98
	802.11n-VHT20	149	5745	MCS0	20.00	19.97
		157	5785		20.00	19.91
		165	5825		20.00	19.94
	802.11n-HT40	151	5755	MCS0	20.00	19.96
		159	5795		20.00	19.94
	802.11n-VHT40	151	5755	MCS0	20.00	19.97
		159	5795		20.00	19.94
	802.11n-VHT80	155	5775	MCS0	17.50	17.46

Bluetooth conducted power table:

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)		
			1Mbps	2Mbps	3Mbps
			Max. Rated Avg. Power + Max. Tolerance (dBm)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Max. Rated Avg. Power + Max. Tolerance (dBm)
			11.5	8	7
BR/EDR	CH 00	2402	9.79	7.42	6.46
	CH 39	2441	10.22	7.97	6.95
	CH 78	2480	9.55	7.19	6.10

Mode	Channel	Frequency (MHz)	Average Output Power (dBm)	Max. Rated Avg. Power + Max. Tolerance (dBm)
			GFSK	
LE	CH 00	2402	6.43	7
	CH 19	2440	6.93	
	CH 39	2480	6.04	

1.3.1 LTE Downlink CA specification

LTE Downlink 2CA conducted power table

Two Component Carrier Maximum Conducted Power																
PCC									SCC 1				Power			
PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	Modulation	PCC (UL) RB	PCC (UL) RB Offset	PCC (DL) Channel	PCC (DL) Frequency [MHz]	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	LTE Tx.Power with DL CA active (dBm)	LTE Tx.Power with DL CA inactive (dBm)	Configurations	Maximum power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B1	20	300	2140	22.50	22.99	CA_1A-5A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B1	20	300	2140	17.51	17.93	CA_1A-5A	Reduced power
LTE B26	15	26965	841.5	QPSK	1	36	8965	886.5	LTE B1	20	300	2140	22.38	22.97	CA_1A-26A	Full power
LTE B26	15	26825	822.5	QPSK	1	0	8825	872.5	LTE B1	20	300	2140	17.44	17.95	CA_1A-26A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B17	10	5790	740	22.85	22.95	CA_2A-17A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B17	10	5790	740	16.45	16.48	CA_2A-17A	Reduced power
LTE B17	5	23755	706.5	QPSK	1	0	5755	736.5	LTE B2	20	900	1960	22.68	22.98	CA_2A-17A	Full power
LTE B17	10	23780	709	QPSK	1	0	5780	739	LTE B2	20	900	1960	20.16	20.46	CA_2A-17A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B30	10	9820	2355	22.76	22.95	CA_2A-30A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B30	10	9820	2355	16.47	16.48	CA_2A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B2	20	900	1960	21.50	23.45	CA_2A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B2	20	900	1960	14.56	14.98	CA_2A-30A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B3	20	1575	1842.5	22.57	22.99	CA_3A-5A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B3	20	1575	1842.5	17.43	17.93	CA_3A-5A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B13	10	5230	751	22.96	23.48	CA_4A-13A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B13	10	5230	751	16.98	16.99	CA_4A-13A	Reduced power
LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B4	20	2175	2132.5	22.84	23.41	CA_4A-13A	Full power
LTE B13	10	23230	782	QPSK	25	0	5230	751	LTE B4	20	2175	2132.5	19.27	19.48	CA_4A-13A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B17	10	5790	740	22.88	23.48	CA_4A-17A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B17	10	5790	740	16.82	16.99	CA_4A-17A	Reduced power
LTE B17	5	23755	706.5	QPSK	1	0	5755	736.5	LTE B4	20	2175	2132.5	22.63	22.98	CA_4A-17A	Full power
LTE B17	10	23780	709	QPSK	1	0	5780	739	LTE B4	20	2175	2132.5	20.23	20.46	CA_4A-17A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B30	10	9820	2355	22.96	23.48	CA_4A-30A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B30	10	9820	2355	16.68	16.99	CA_4A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B4	20	2175	2132.5	21.55	23.45	CA_4A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B4	20	2175	2132.5	14.66	14.98	CA_4A-30A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B7	20	3100	2655	22.67	22.99	CA_5A-7A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B7	20	3100	2655	17.66	17.93	CA_5A-7A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B5	10	2525	881.5	21.57	23.47	CA_5A-7A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B5	10	2525	881.5	13.56	13.93	CA_5A-7A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B30	10	9820	2355	22.65	22.99	CA_5A-30A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B30	10	9820	2355	17.61	17.93	CA_5A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B5	10	2525	881.5	21.97	23.45	CA_5A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B5	10	2525	881.5	14.71	14.98	CA_5A-30A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B20	20	6300	806	21.43	23.47	CA_7A-20A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B20	20	6300	806	13.42	13.93	CA_7A-20A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B28	20	9460	783	21.23	23.47	CA_7A-28A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B28	20	9460	783	13.45	13.93	CA_7A-28A	Reduced power
LTE B12	10	23060	704	QPSK	1	49	5060	734	LTE B30	10	9820	2355	22.79	22.96	CA_12A-30A	Full power
LTE B12	10	23130	711	QPSK	25	0	5130	741	LTE B30	10	9820	2355	20.36	20.49	CA_12A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B12	10	5095	737.5	21.75	23.45	CA_12A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B12	10	5095	737.5	14.72	14.98	CA_12A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B29	10	9715	722.5	21.59	23.45	CA_29A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B29	10	9715	722.5	14.68	14.98	CA_29A-30A	Reduced power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B2	20	898	1959.8	22.88	22.91	CA_2C	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B2	20	898	1959.8	16.34	16.48	CA_2C	Reduced power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B2	20	1100	1980	22.74	22.91	CA_2A-2A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B2	20	1100	1980	16.17	16.48	CA_2A-2A	Reduced power
LTE B4	20	20050	1720	QPSK	1	0	2050	2120	LTE B4	20	2300	2145	22.91	23.40	CA_4A-4A	Full power
LTE B4	20	20050	1720	QPSK	1	50	2050	2120	LTE B4	20	2300	2145	16.77	16.86	CA_4A-4A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	3152	2660.2	23.35	23.47	CA_7C	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	3152	2660.2	13.88	13.93	CA_7C	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	2850	2630	23.26	23.47	CA_7A-7A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	2850	2630	13.87	13.93	CA_7A-7A	Reduced power
LTE B41	20	39750	2506	QPSK	1	0	39750	2506	LTE B41	20	39948	2525.8	22.89	23.00	CA_41C	Full power
LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	41292	2660.2	17.87	17.98	CA_41C	Reduced power
LTE B41	20	39750	2506	QPSK	1	0	39750	2506	LTE B41	20	41490	2680	22.86	23.00	CA_41A-41A	Full power
LTE B41	20	41490	2680	QPSK	1	99	41490	2680	LTE B41	20	39750	2506	17.88	17.98	CA_41A-41A	Reduced power

LTE Downlink 3CA conducted power table

Three Component Carrier Maximum Conducted Power																				
PCC									SCC 1				SCC 2				Power		Configurations	Maximum power
PCC Band	PCC Bandwidth [MHz]	PCC (UL) Channel	PCC (UL) Frequency [MHz]	Modulation	PCC (UL) RB	PCC (UL) RB Offset	PCC (DL) Channel	PCC (DL) Frequency [MHz]	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	SCC Band	SCC Bandwidth [MHz]	SCC (DL) Channel	SCC (DL) Frequency [MHz]	LTE Tx.Power with DL CA active (dBm)	LTE Tx.Power with DL CA inactive (dBm)		
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B1	20	300	2140	LTE B3	20	1575	1842.5	21.80	23.47	CA_1A-3A-7A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B1	20	300	2140	LTE B3	20	1575	1842.5	13.69	13.93	CA_1A-3A-7A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B4	20	2175	2132.5	LTE B5	10	2525	881.5	22.78	22.95	CA_2A-4A-5A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B4	20	2175	2132.5	LTE B5	10	2525	881.5	16.36	16.48	CA_2A-4A-5A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B2	20	900	1960	LTE B5	10	2525	881.5	23.02	23.48	CA_2A-4A-5A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B2	20	900	1960	LTE B5	10	2525	881.5	16.98	16.99	CA_2A-4A-5A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	22.53	22.99	CA_2A-4A-5A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	17.47	17.93	CA_2A-4A-5A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B4	20	2175	2132.5	LTE B13	10	5230	751	21.82	22.95	CA_2A-4A-13A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B4	20	2175	2132.5	LTE B13	10	5230	751	16.54	16.48	CA_2A-4A-13A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B2	20	900	1960	LTE B13	10	5230	751	22.87	23.48	CA_2A-4A-13A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B2	20	900	1960	LTE B13	10	5230	751	16.98	16.99	CA_2A-4A-13A	Reduced power
LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	22.67	23.41	CA_2A-4A-13A	Full power
LTE B13	10	23230	782	QPSK	25	0	5230	751	LTE B2	20	900	1960	LTE B4	20	2175	2132.5	19.25	19.48	CA_2A-4A-13A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	22.94	22.95	CA_2A-5A-30A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	16.38	16.48	CA_2A-5A-30A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B2	20	900	1960	LTE B30	10	9820	2355	22.66	22.99	CA_2A-5A-30A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B2	20	900	1960	LTE B30	10	9820	2355	17.63	17.93	CA_2A-5A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B2	20	900	1960	LTE B5	10	2525	881.5	21.37	23.45	CA_2A-5A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B2	20	900	1960	LTE B5	10	2525	881.5	14.59	14.98	CA_2A-5A-30A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	22.83	22.95	CA_2A-5A-66A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B5	10	2525	881.5	LTE B66	20	66786	2145	16.52	16.48	CA_2A-5A-66A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	22.59	22.99	CA_2A-5A-66A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B2	20	900	1960	LTE B66	20	66786	2145	17.42	17.93	CA_2A-5A-66A	Reduced power
LTE B66	20	132322	1745	QPSK	1	99	66786	2145	LTE B2	20	900	1960	LTE B5	10	2525	881.5	23.05	23.49	CA_2A-5A-66A	Full power
LTE B66	20	132072	1720	QPSK	50	0	66536	2120	LTE B2	20	900	1960	LTE B5	10	2525	881.5	17.38	17.49	CA_2A-5A-66A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	22.83	22.95	CA_2A-12A-30A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	16.21	16.48	CA_2A-12A-30A	Reduced power
LTE B12	10	23060	704	QPSK	1	49	5060	734	LTE B2	20	900	1960	LTE B30	10	9820	2355	22.65	22.96	CA_2A-12A-30A	Full power
LTE B12	10	23130	711	QPSK	25	0	5130	741	LTE B2	20	900	1960	LTE B30	10	9820	2355	20.36	20.49	CA_2A-12A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B12	10	5095	737.5	LTE B2	20	900	1960	21.70	23.45	CA_2A-12A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B12	10	5095	737.5	LTE B2	20	900	1960	14.73	14.98	CA_2A-12A-30A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B13	10	5230	751	LTE B66	20	66786	2145	22.88	22.95	CA_2A-13A-66A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B13	10	5230	751	LTE B66	20	66786	2145	16.22	16.48	CA_2A-13A-66A	Reduced power
LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B2	20	900	1960	LTE B66	20	66786	2145	22.68	23.41	CA_2A-13A-66A	Full power
LTE B13	10	23230	782	QPSK	25	0	5230	751	LTE B2	20	900	1960	LTE B66	20	66786	2145	19.14	19.48	CA_2A-13A-66A	Reduced power
LTE B66	20	132322	1745	QPSK	1	99	66786	2145	LTE B2	20	900	1960	LTE B13	10	5230	751	23.03	23.49	CA_2A-13A-66A	Full power
LTE B66	20	132072	1720	QPSK	50	0	66536	2120	LTE B2	20	900	1960	LTE B13	10	5230	751	17.40	17.49	CA_2A-13A-66A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	22.85	22.95	CA_2A-29A-30A	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	16.39	16.48	CA_2A-29A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B2	20	900	1960	LTE B29	10	9715	722.5	21.65	23.45	CA_2A-29A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B2	20	900	1960	LTE B29	10	9715	722.5	14.96	14.98	CA_2A-29A-30A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B3	20	1575	1842.5	LTE B20	20	6300	806	21.75	23.47	CA_3A-7A-20A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B3	20	1575	1842.5	LTE B20	20	6300	806	13.71	13.93	CA_3A-7A-20A	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B3	20	1575	1842.5	LTE B28	20	9460	783	21.67	23.47	CA_3A-7A-28A	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B3	20	1575	1842.5	LTE B28	20	9460	783	13.73	13.93	CA_3A-7A-28A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	22.86	23.48	CA_4A-5A-30A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B5	10	2525	881.5	LTE B30	10	9820	2355	16.92	16.99	CA_4A-5A-30A	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B4	20	2175	2132.5	LTE B30	10	9820	2355	22.65	22.99	CA_4A-5A-30A	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B4	20	2175	2132.5	LTE B30	10	9820	2355	17.61	17.93	CA_4A-5A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B4	20	2175	2132.5	LTE B5	10	2525	881.5	21.66	23.45	CA_4A-5A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B4	20	2175	2132.5	LTE B5	10	2525	881.5	14.87	14.98	CA_4A-5A-30A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	22.44	23.48	CA_4A-12A-30A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B12	10	5095	737.5	LTE B30	10	9820	2355	16.92	16.99	CA_4A-12A-30A	Reduced power
LTE B12	10	23060	704	QPSK	1	49	5060	734	LTE B4	20	2175	2132.5	LTE B30	10	9820	2355	22.64	22.96	CA_4A-12A-30A	Full power
LTE B12	10	23130	711	QPSK	25	0	5130	741	LTE B4	20	2175	2132.5	LTE B30	10	9820	2355	20.19	20.49	CA_4A-12A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B4	20	2175	2132.5	LTE B12	10	5095	737.5	21.41	23.45	CA_4A-12A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B4	20	2175	2132.5	LTE B12	10	5095	737.5	14.87	14.98	CA_4A-12A-30A	Reduced power
LTE B4	10	20175	1732.5	QPSK	1	0	2175	2132.5	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	23.21	23.48	CA_4A-29A-30A	Full power
LTE B4	20	20050	1720	QPSK	100	0	2050	2120	LTE B29	10	9715	722.5	LTE B30	10	9820	2355	16.95	16.99	CA_4A-29A-30A	Reduced power
LTE B30	5	27710	2310	QPSK	1	12	9820	2355	LTE B4	20	2175	2132.5	LTE B29	10	9715	722.5	21.43	23.45	CA_4A-29A-30A	Full power
LTE B30	10	27710	2310	QPSK	50	0	9820	2355	LTE B4	20	2175	2132.5	LTE B29	10	9715	722.5	14.67	14.98	CA_4A-29A-30A	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	22.87	22.95	CA_2A-66B	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	16.32	16.48	CA_2A-66B	Reduced power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B2	20	900	1960	22.90	23.41	CA_2A-66B	Full power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B2	20	900	1960	16.93	17.33	CA_2A-66B	Reduced power
LTE B2	5	18900	1880	QPSK	1	0	900	1960	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	22.90	22.95	CA_2A-66C	Full power
LTE B2	20	18700	1860	QPSK	1	0	700	1940	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	16.36	16.48	CA_2A-66C	Reduced power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B2	20	900	1960	23.31	23.44	CA_2A-66C	Full power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B2	20	900	1960	17.27	17.40	CA_2A-66C	Reduced power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	3152	2660.2	LTE B3	20	1575	1842.5	21.74	23.47	CA_3A-7C	Full power
LTE B7	20	21350	2560	QPSK	1	0	3350	2680	LTE B7	20	3152	2660.2	LTE B3	20	1575	1842.5	13.68	13.93	CA_3A-7C	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	22.72	22.99	CA_5A-66B	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	17.53	17.93	CA_5A-66B	Reduced power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B5	10	2525	881.5	22.87	23.41	CA_5A-66B	Full power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B5	10	2525	881.5	16.96	17.33	CA_5A-66B	Reduced power
LTE B5	10	20525	836.5	QPSK	1	0	2525	881.5	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	22.62	22.99	CA_5A-66C	Full power
LTE B5	10	20525	836.5	QPSK	1	49	2525	881.5	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	17.53	17.93	CA_5A-66C	Reduced power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B5	10	2525	881.5	23.01	23.44	CA_5A-66C	Full power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B5	10	2525	881.5	17.29	17.40	CA_5A-66C	Reduced power
LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	22.83	23.41	CA_13A-66B	Full power
LTE B13	10	23230	782	QPSK	25	0	5230	751	LTE B66	10	66837	2150.1	LTE B66	10	66936	2160	19.21	19.48	CA_13A-66B	Reduced power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B13	10	5230	751	22.75	23.41	CA_13A-66B	Full power
LTE B66	15	132047	1717.5	QPSK	1	0	66511	2117.5	LTE B66	5	66604	2126.8	LTE B13	10	5230	751	17.03	17.33	CA_13A-66B	Reduced power
LTE B13	10	23230	782	QPSK	1	0	5230	751	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	22.78	23.41	CA_13A-66C	Full power
LTE B13	10	23230	782	QPSK	25	0	5230	751	LTE B66	20	66536	2120	LTE B66	10	66680	2134.4	19.25	19.48	CA_13A-66C	Reduced power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B13	10	5230	751	22.92	23.44	CA_13A-66C	Full power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	10	66680	2134.4	LTE B13	10	5230	751	17.34	17.40	CA_13A-66C	Reduced power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	20	66734	2139.8	LTE B66	20	66932	2159.6	22.98	23.44	CA_66D	Full power
LTE B66	20	132072	1720	QPSK	1	0	66536	2120	LTE B66	20	66734	2139.8	LTE B66	20	66932	2159.6	17.33	17.40	CA_66D	Reduced power

LTE CA information

A)

The device supports downlink LTE Carrier Aggregation (CA) only. It supports a maximum of 3 carriers in the downlink. Other Release 10 features or higher features are not supported, including Uplink Carrier Aggregation, Enhanced SC-FDMA and Uplink MIMO or other antenna diversity configurations etc. All uplink communications are identical to the Release 8 Specifications.

The possible downlink LTE CA combinations supported by this device are as below tables per 3GPP TS 36.521-1 V14.3.0. The conducted power measurement results of downlink LTE CA are provided as above per 3GPP TS 36.521-1 V14.3.0. According to KDB 941225 D05A and RF exposure procedures in TCB workshop Nov. 2017, the downlink LTE CA SAR test is not required.

B)

i) Combinations supported for intra-band carrier aggregation.

Intra-band contiguous (2CC)	Intra-band contiguous (3CC)
CA-2C (0)	**CA-66D (0)**
CA-7B (0)	
CA-7C (0)(1)(2)	
CA-41C (0)(1)(2)	

Intra-band contiguous CA combination

Table 1: intra-band contiguous CA

E-UTRA CA configuration	Component carriers in order of increasing carrier frequency			Maximum aggregated bandwidth [MHz]	Bandwidth combination set
	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]	Channel bandwidths for carrier [MHz]		
CA_2C	5	20		40	0
	10	15,20			
	15	10,15,20			
	20	5,10,15,20			
CA_7B	15	5		20	0
CA_7C	15	15		40	0
	20	20			
	10	20		40	1
	15	15,20			
	20	10,15,20			
	15	10,15		40	2
	20	15,20			
CA_41C	10	20		40	0
	15	15,20			
	20	10,15,20			
	5,10	20		40	1
	15	15,20			
	20	5,10,15,20			
	10	15,20		40	2
	15	10,15,20			
	20	10,15,20			
	10	20		40	3
	20	20			
CA_66D	5	20	20	60	0

	20	5	20		
	20	20	5		
	10	20	15		
	15	20	10		
	10,15,20	15,20	20		
	15,20	10	20		
	15	15,20	15		
	20	15,20	10,15		
	20	10	15		

Intra-band non-contiguous (2CC
CA-2A-2A (0)
CA-4A-4A (0)(1)
CA-7A-7A (0)(1)(2)**(3)**
CA-41A-41A (0)(1)

Intra-band non-contiguous CA combination

Table 2: intra-band non-contiguous CA (with two sub-blocks)

-UTRACA configuration	**Component carriers in order of increasing carrier frequency**			**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
	Channel bandwidths for carrier [MHz]	**Channel bandwidths for carrier [MHz]**	**Channel bandwidths for carrier [MHz]**		
CA_2A-2A	5,10,15,20	5,10,15,20		40	0
CA_4A-4A	5,10,15,20	5,10,15,20		40	0
	5,10	5,10		20	1
CA_7A-7A	5	15		40	0
	10	10,15			
	15	15,20			
	20	20			
	5,10,15,20	5,10,15,20		40	1
	5,10,15,20	5,10		30	2
	10,15,20	10,15,20		40	3
CA_41A-41A	10,15,20	10,15,20		40	0
	5,10,15,20	5,10,15,20		40	1

ii) The frequency band combinations supported for inter-band carrier aggregation.

2 bands / 2CC	2 bands / 3CC	3 bands / 3CC
		CA_1A-3A-7A (0)
CA_1A-5A (0)(1)		
CA_1A-26A (0)(1)		
CA_2A-4A (0)(1)(2)		**CA_2A-4A-5A (0)**
		CA_2A-4A-13A (0)
CA_2A-5A (0)(1)	CA_2C-5A (0)	**CA_2A-5A-30A (0)**
		CA_2A-5A-66A (0)
CA_2A-12A (0)(1)(2)		**CA_2A-12A-30A (0)**
CA_2A-13A (0)(1)		**CA_2A-13A-66A (0)**
CA_2A-17A (0)		
CA_2A-29A (0)(1)(2)		**CA_2A-29A-30A (0)**
CA_2A-30A (0)		
CA_2A-66A (0)(1)(2)	**CA_2A-66B (0)**	
	CA_2A-66C (0)	
CA_3A-5A (0)(1)(2)(3)(4)		
CA_3A-7A (0)(1)	CA_3C-7A (0)	**CA_3A-7A-20A (0)**
	CA_3A-7B (0)	**CA_3A-7A-28A (0)**
	CA_3A-7C (0)(1)	
CA_4A-5A (0)(1)		**CA_4A-5A-30A (0)**
CA_4A-12A (0)(1)(2)(3)(4)(5)		**CA_4A-12A-30A (0)**
CA_4A-13A (0)(1)		
CA_4A-17A (0)		
CA_4A-29A (0)(1)(2)		**CA_4A-29A-30A (0)**
CA_4A-30A (0)		
CA_5A-7A (0)(1)		
CA_5A-30A (0)		
CA_5A-66A (0)	**CA_5A-66B (0)**	
	CA_5A-66C (0)	
CA_7A-20A (0)(1)		
CA_7A-28A (0)(1)		
CA_12A-30A (0)		
CA_13A-66A (0)	**CA_13A-66B (0)**	
	CA_13A-66C (0)	
CA_29A-30A (0)		

Inter band CA combination

Table 3: inter-band CA (two bands)

E-UTRA CA Configuration	E-UTRA Bands	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz	Maximum aggregated bandwidth [MHz]	Bandwidth combination set
CA_1A-5A	1				Yes			20	0
	5				Yes				
	1			Yes	Yes	Yes	Yes	30	1
	5			Yes	Yes				
CA_1A-26A	1			Yes	Yes	Yes	Yes	35	0
	26			Yes	Yes	Yes			
	1			Yes	Yes			20	1
	26			Yes	Yes				
CA_2A-4A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	4			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	4			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	4			Yes	Yes	Yes	Yes		
CA_2A-5A	2			Yes	Yes	Yes	Yes	30	0
	5			Yes	Yes				
	2			Yes	Yes			20	1
	5			Yes	Yes				
CA_2C-5A	2	See CA_2C bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-3						50	0
	5			Yes	Yes				
CA_2A-12A	2			Yes	Yes	Yes	Yes	30	0
	12			Yes	Yes				
	2			Yes	Yes	Yes	Yes	30	1
	12		Yes	Yes	Yes				
	2			Yes	Yes			20	2

	12			Yes	Yes				
CA_2A-13A	2			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	2			Yes	Yes			20	1
	13				Yes				
CA_2A-17A	2			Yes	Yes			20	0
	17			Yes	Yes				
CA_2A-29A	2			Yes	Yes			20	0
	29		Yes	Yes	Yes				
	2			Yes	Yes			20	1
	29			Yes	Yes				
	2			Yes	Yes	Yes	Yes	30	2
	29			Yes	Yes				
CA_2A-30A	2			Yes	Yes	Yes	Yes	30	0
	30			Yes	Yes				
CA_2A-66A	2	Yes	Yes	Yes	Yes	Yes	Yes	40	0
	66			Yes	Yes	Yes	Yes		
	2			Yes	Yes			20	1
	66			Yes	Yes				
	2			Yes	Yes	Yes	Yes	40	2
	66			Yes	Yes	Yes	Yes		
CA_2A-66B	2			Yes	Yes	Yes	Yes	40	0
	66	See CA_66B bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_2A-66C	2			Yes	Yes	Yes	Yes	60	0
	66	See CA_66C bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_3A-5A	3				Yes	Yes	Yes	30	0
	5			Yes	Yes				
	3				Yes			20	1
	5			Yes	Yes				

	3			Yes	Yes	Yes	Yes	30	2
	5			Yes	Yes				
	3			Yes	Yes	Yes	Yes	30	3
	5		Yes	Yes	Yes				
	3		Yes	Yes	Yes			20	4
	5		Yes	Yes	Yes				
CA_3A-7A	3			Yes	Yes	Yes	Yes	40	0
	7				Yes	Yes	Yes		
	3			Yes	Yes	Yes	Yes	40	1
	7			Yes	Yes	Yes	Yes		
CA_3C-7A	3	See CA_3C bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1						60	0
	7			Yes	Yes	Yes	Yes		
CA_3A-7B	3			Yes	Yes	Yes	Yes	40	0
	7	See CA_7B bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_3A-7C	3			Yes	Yes	Yes	Yes	60	0
	7	See CA_7C bandwidth combination set 1 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
	3			Yes	Yes	Yes	Yes	60	1
	7	See CA_7C bandwidth combination set 2 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_4A-5A	4			Yes	Yes			20	0
	5			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	1
	5			Yes	Yes				
CA_4A-12A	4	Yes	Yes	Yes	Yes			20	0
	12			Yes	Yes				
	4	Yes	Yes	Yes	Yes	Yes	Yes	30	1
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	2

	12		Yes	Yes	Yes				
	4			Yes	Yes			20	3
	12			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	4
	12			Yes	Yes				
	4			Yes	Yes	Yes		20	5
	12			Yes					
CA_4A-13A	4			Yes	Yes	Yes	Yes	30	0
	13				Yes				
	4			Yes	Yes			20	1
	13				Yes				
CA_4A-29A	4			Yes	Yes			20	0
	29		Yes	Yes	Yes				
	4			Yes	Yes			20	1
	29			Yes	Yes				
	4			Yes	Yes	Yes	Yes	30	2
	29			Yes	Yes				
CA_4A-30A	4			Yes	Yes	Yes	Yes	30	0
	30			Yes	Yes				
CA_5A-7A	5	Yes	Yes	Yes	Yes			30	0
	7				Yes	Yes	Yes		
	5			Yes	Yes			30	1
	7				Yes	Yes	Yes		
CA_5A-30A	5			Yes	Yes			20	0
	30			Yes	Yes				
CA_5A-66A	5			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_5A-66B	5			Yes	Yes			30	0
	66	See CA_66B bandwidth combination set 2 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_5A-66C	5			Yes	Yes			50	0

	66	See CA_66C bandwidth combination set 2 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_7A-20A	7				Yes	Yes	Yes	30	0
	20			Yes	Yes				
	7				Yes	Yes	Yes	40	1
	20			Yes	Yes	Yes	Yes		
CA_7A-28A	7			Yes	Yes	Yes	Yes	35	0
	28			Yes	Yes	Yes			
	7			Yes	Yes	Yes	Yes	40	1
	28			Yes	Yes	Yes	Yes		
CA_12A-30A	12			Yes	Yes			20	0
	30			Yes	Yes				
CA_13A-66A	13			Yes	Yes			30	0
	66			Yes	Yes	Yes	Yes		
CA_13A-66B	13			Yes	Yes			30	0
	66	See CA_66B bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_13A-66C	13			Yes	Yes			50	0
	66	See CA_66C bandwidth combination set 0 in 3GPP TS 36,521-1 table 5.4.2A. 1-1							
CA_29A-30A	29			Yes	Yes			20	0
	30			Yes	Yes				

Table 4: inter-band CA (three bands)

E-UTRA CA Configuration	**E-UTRA Bands**	**1.4 MHz**	**3 MHz**	**5 MHz**	**10 MHz**	**15 MHz**	**20 MHz**	**Maximum aggregated bandwidth [MHz]**	**Bandwidth combination set**
CA_1A-3A-7A	1			Yes	Yes	Yes	Yes	60	0
	3			Yes	Yes	Yes	Yes		
	7				Yes	Yes	Yes		

CA_2A-4A-5A	2			Yes	Yes	Yes	Yes	50	0
	4			Yes	Yes	Yes	Yes		
	5			Yes	Yes				
CA_2A-4A-13A	2			Yes	Yes	Yes	Yes	50	0
	4			Yes	Yes	Yes	Yes		
	13				Yes				
CA_2A-5A-30A	2			Yes	Yes	Yes	Yes	40	0
	5			Yes	Yes				
	30			Yes	Yes				
CA_2A-5A-66A	2			Yes	Yes	Yes	Yes	50	0
	5			Yes	Yes				
	66			Yes	Yes	Yes	Yes		
CA_2A-12A-30A	2			Yes	Yes	Yes	Yes	40	0
	12			Yes	Yes				
	30			Yes	Yes				
CA_2A-13A-66A	2			Yes	Yes	Yes	Yes	50	0
	13			Yes	Yes				
	66			Yes	Yes	Yes	Yes		
CA_2A-29A-30A	2			Yes	Yes	Yes	Yes	40	0
	29			Yes	Yes				
	30			Yes	Yes				
CA_3A-7A-20A	3			Yes	Yes	Yes	Yes	60	0
	7				Yes	Yes	Yes		
	20			Yes	Yes	Yes	Yes		
CA_3A-7A-28A	3			Yes	Yes	Yes	Yes	60	0
	7			Yes	Yes	Yes	Yes		
	28			Yes	Yes	Yes	Yes		
CA_4A-5A-30A	4			Yes	Yes	Yes	Yes	40	0
	5			Yes	Yes				
	30			Yes	Yes				
CA_4A-12A-30A	4			Yes	Yes	Yes	Yes	40	0

	12			Yes	Yes				
	30			Yes	Yes				
CA_4A-29A-30A	4			Yes	Yes	Yes	Yes	40	0
	29			Yes	Yes				
	30			Yes	Yes				

Note:

1）For the inter-band CA combinations, except B29 can't be PCC, all the listed bands above can be used as PCC or SCC.

2) The channel spacing and aggregated channel bandwidth for CA are identical to the associated specification in 3GPP TS 36.521-1 V14.3.0.

3) The reference test frequencies for CA refers to 3GPP TS 36.508 V14.2.0

4) Testing is not required in bands or modes not intended/allowed for US operation

5) Based on TCB workshop Nov. 2017, for inter-band downlink CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need consideration; i.e., the bold words bands in CA combination table.

6) Based on TCB workshop Nov. 2017, for intra-band downlink CA SAR test exclusion, only the CA configuration with the largest aggregated DL CA bandwidth in each frequency band group need consideration, i.e., the bold words bands in CA combination table, and independently for contiguous and non-contiguous CA.

1.4 Test Environment

Ambient Temperature: 22±2° C
Tissue Simulating Liquid: 22±2° C

1.5 Operation Description

For WWAN, the EUT is controlled by using a Radio Communication Tester, and the communication between the EUT and the tester is established by air link.
For WLAN, using chipset specific software to control the EUT, and makes it transmit in maximum power. The EUT is set to maximum power level during all tests, and at the beginning of each test the battery is fully charged.
EUT was tested based on KDB inquiry as below,

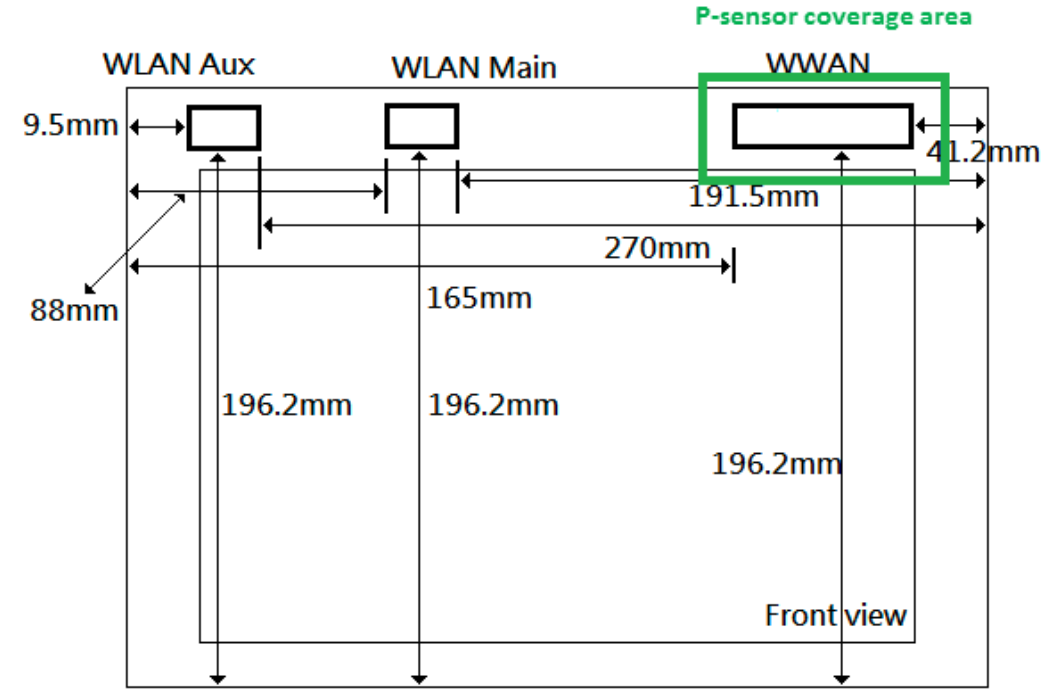
WWAN

Back/top_0mm with power reduction

Back/top_10mm and bottom/right/Left sides_0mm without power reduction

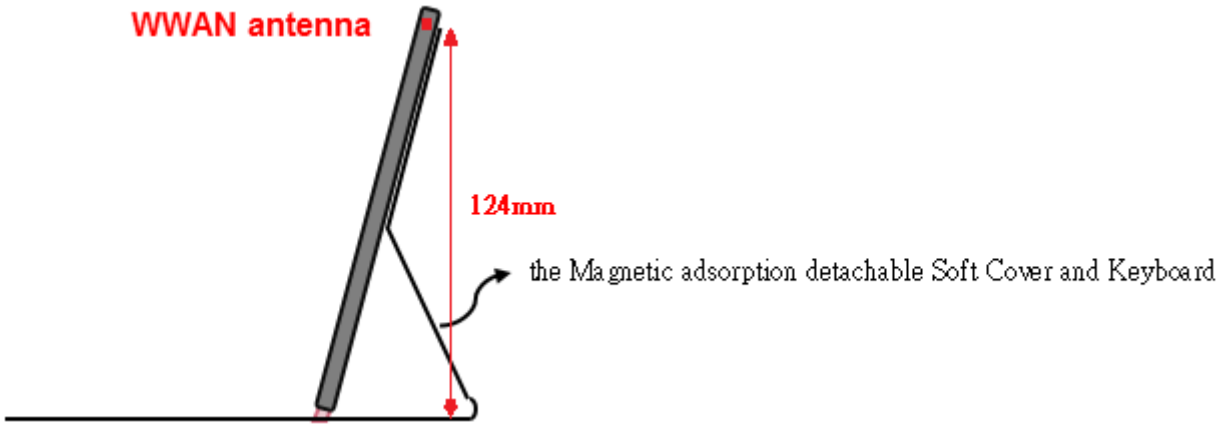
WLAN

Back/top/bottom/right/left sides_0mm without power reduction



Antenna location (front view)

(The p-sensor is colocated with WWAN antenna)



Edge view of NB mode

Note:

1. During the SAR testing, the DASY 5 system checks power drift by comparing the e-field strength of one specific location measured at the beginning with that measured at the end of the SAR testing.

2. The 3G SAR test reduction procedure is applied to HSDPA with 12.2 kbps RMC as the primary mode. Since the maximum output power in a secondary mode (HSDPA) is ≤ ¼ dB higher than the primary mode (WCDMA), SAR measurement is not required for the secondary mode (HSDPA).

3. The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) with 12.2 kbps RMC as the primary mode. Since the maximum output power in a secondary mode (HSPA) is ≤ ¼ dB higher than the primary mode (WCDMA), SAR measurement is not required for the secondary mode (HSPA).

4. LTE modes test according to **KDB 941225D05v02r05.**
   a. Per Section 5.2.1, the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation.
   - Using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   - When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required for 1 RB allocation; otherwise, SAR is required for the remaining required test channels and only for the RB offset configuration with the highest output power for that channel.
   - When the reported SAR of a required test channel is > 1.45 W/kg, SAR is required for all three RB offset configurations for that required test channel.

   b. Per Section 5.2.2, the largest channel bandwidth and measure SAR for QPSK with 50% RB allocation
   - The procedures required for 1 RB allocation in 5.2.1 are applied to measure the SAR for QPSK with 50% RB allocation.

c. Per Section 5.2.3, the largest channel bandwidth and measure SAR for QPSK with 100% RB allocation

- For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation in 5.2.1 and 5.2.2 are ≤ 0.8 W/kg.
- Otherwise, SAR is measured for the highest output power channel and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.

d. Per Section 5.2.4, Higher order modulations

- For each modulation besides QPSK; e.g., 16-QAM, 64-QAM, apply the QPSK procedures in sections 5.2.1, 5.2.2 and 5.2.3 to determine the QAM configurations that may need SAR measurement. For each configuration identified as required for testing, SAR is required only when the highest maximum output power for the configuration in the higher order modulation is > ½ dB higher than the same configuration in QPSK or when the reported SAR for the QPSK configuration is > 1.45 W/kg.

e. Per Section 5.3, other channel bandwidth standalone SAR test requirements

- For the other channel bandwidths used by the device in a frequency band, apply all the procedures required for the largest channel bandwidth in section 5.2 to determine the channels and RB configurations that need SAR testing and only measure SAR when the highest maximum output power of a configuration requiring testing in the smaller channel bandwidth is > ½ dB higher than the equivalent channel configurations in the largest channel bandwidth configuration or the reported SAR of a configuration for the largest channel bandwidth is > 1.45 W/kg. The equivalent channel configuration for the RB allocation, RB offset and modulation etc. is determined for the smaller channel bandwidth according to the same number of RB allocated in the largest channel bandwidth.
- TDD LTE was tested at highest duty factor using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP

36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.LTE downlink CA (KDB942225 D05A)

5. The device supports a maximum of 3 carriers in the downlink. All uplink communications are identical to the Release 8 specifications. Uplink maximum output power is measured with downlink carrier aggregation active, only for the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

6. The downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements. The nominal channel spacing is determined by [BW1 + BW2 – 0.1*|BW1 – BW2|]/2 MHz, where BW1 and BW2 are the channel bandwidths of the CC in a 2-CC aggregation configuration.

7. The downlink PCC channel should be paired with the uplink channel according to normal configurations, as if there is no carrier aggregation. The downlink SCC should be adjacent to the PCC and remain within the downlink transmission band for contiguous intra-band CA. For non-contiguous intra-band CA, the SCC should be selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band. For inter-band CA, the SCC should be near the middle of its transmission band.

8. When downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive, so SAR evaluation is not required for downlink carrier aggregation.

802.11b DSSS SAR Test Requirements:

9. SAR is measured for 2.4 GHz 802.11b DSSS mode using the highest measured maximum output power channel, when the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
10. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

802.11g/n OFDM SAR Test Exclusion Requirements:

11. SAR is not required for 802.11g/n since the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.

Initial Test Configuration:

12. An initial test configuration is determined for OFDM transmission modes according to the channel bandwidth, modulation and data rate combination(s) with the highest maximum output power specified for production units in each standalone and aggregated frequency band.

13. SAR is measured using the highest measured maximum output power channel. When the reported SAR of the initial test configuration is > 0.8 W/kg, SAR measurement is required for the subsequent next highest measured output power channel(s) in the initial test configuration until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

14. For WLAN Main/Aux, 5.2n(40)/5.3n(40)/5.6n/ac(80)/5.8ac(80) is chosen to be the initial test configuration.

15. Since the highest reported SAR for the initial test configuration is adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for subsequent test configuration.

16. According to KDB447498D01v06, SAR test exclusion evaluation for surfaces/edges of tablet mode is not required since SAR measurements for all the surfaces/edges were performed. Also, SAR measurement for NB mode is excluded as below.

    (1) SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances≤ 50 mm are determined by:

$$\frac{\text{Max. tune up power(mW)}}{\text{Min. test separation distance(mm)}} \times \sqrt{\text{f(GHz)}} \leq 3$$

    When the minimum test separation distance is < 5mm, 5mm is applied to determine SAR test exclusion.

(2) For test separation distances > 50 mm, and the frequency at 100 MHz to 1500MHz, the SAR test exclusion threshold is determined according to the following, and as illustrated in Appendix B of KDB447498 D01.
[(Threshold at 50mm in step1) + (test separation distance-50mm) x($\frac{f(MHz)}{150}$)](mW),

(3) For test separation distances > 50 mm, and the frequency at >1500MHz to 6GHz, the SAR test exclusion threshold is determined according to the following, and as illustrated in Appendix B of KDB447498 D01.

NB mode		WLAN Main 2.45GHz	WLAN Main 5GHz
Max. tune-up power(dBm)		20	20
Max. tune-up power(mW)		**100.00**	**100.00**
Bottom side	Test separation distance (mm)	124	124
	test exclusion threshold (mW)	743.138	744.827
	Require SAR testing?	**NO**	**NO**

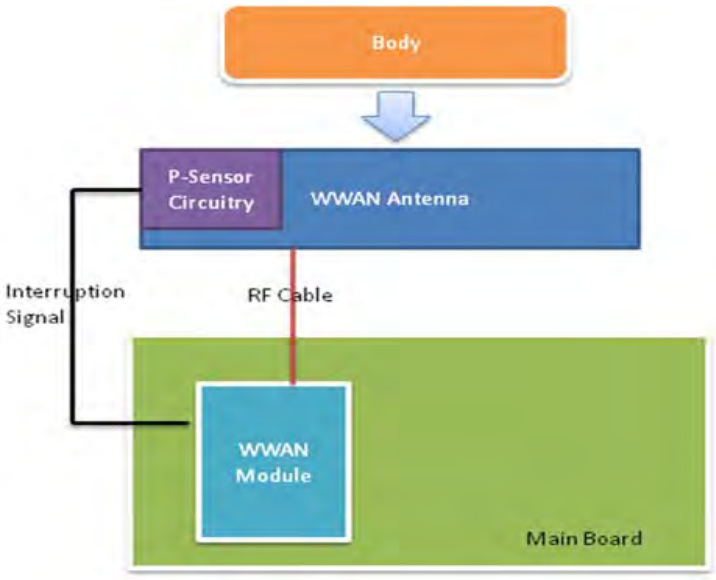
NB mode		WLAN Aux 2.45GHz	WLAN Aux 5GHz	BT Aux
Max. tune-up power(dBm)		20	20	11.5
Max. tune-up power(mW)		**100.00**	**100.00**	**14.13**
Bottom side	Test separation distance	124	124	124
	test exclusion threshold (mW)	743.138	744.827	743.150
	Require SAR testing?	**NO**	**NO**	**NO**

17. According to **KDB447498D01v06**, testing of other required channels is not required when the reported 1-g SAR for the highest output channel is ≤ 0.8 W/kg, when the transmission band is ≤ 100 MHz.

18. According to **KDB865664D01v01r04,** SAR measurement variability must be assessed for each frequency band. When the original highest measured SAR is ≥ 0.8 W/kg, repeated that measurement once. Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit)

1.6 Proximity sensor operation description

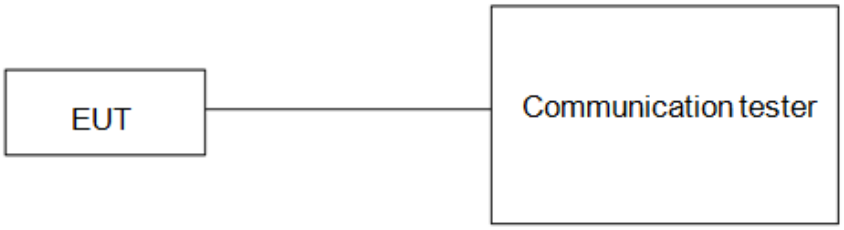
The P-sensor being used to reduce output power is capacitive in which when the object such as human body, metal or plastic is being approached, the sensing capacitance would be increased with the antenna pad. Once the capacitance is accumulated, and reached over the threshold as set in MCU of the microchip, the interruption signal is pulled low (High state without trigger) and further inform modem module of the transmitter to make power reduction.



1.6.1 Proximity sensor measurement procedure

1. The proximity sensor is collocated with WWAN antenna.

2. Output power is measured, and monitored by using the communication tester. A RF cables with sufficient length was being attached from the antenna port of the module, and used for the measurement. The appropriate loss attenuated from cable is compensated in the communication tester.



1.6.2 Trigger distances for back/top side

Test procedure:

1. The entire back surface or edge of the tablet is positioned below a flat phantom filled with the required tissue equivalent medium and positioned at least 20 mm further than the distance that triggers power reduction.

2. The back surface or edge is moved toward the phantom in 3 mm steps until the sensor triggers.

3. The back surface or edge is again moved toward the phantom, but in 1 mm steps, until it is at least 5 mm past the triggering point or touching the phantom

4. If the tablet is not touching the phantom, it is moved in 3 mm steps until it touches the phantom to confirm that the sensor remains triggered and the maximum power stays reduced.

5. The back surface or edge is then moved back (further away) from the phantom until maximum output power is returned to the normal maximum level.

6. The process is then reversed by moving the tablet away from the phantom to determine triggering release, until it is at least 10 mm beyond the point that triggers the return of normal maximum power.

7. The measured output power within ± 5 mm of the triggering points, or until the tablet is touching the phantom, for movements to and from the phantom should be tabulated.

8. To ensure all production units are compliant, it is generally necessary to reduce the triggering distance determined from the triggering tests by 1 mm, or more if it is necessary, and use the smallest distance for movements to and from the phantom, minus 1 mm, as the sensor triggering distance for determining the SAR measurement distance.

9. For back side, the trigger distance of proximity sensor is 11mm.

10. For top side, the trigger distance of proximity sensor is 12mm, and we perform the 1.6.3 tilt angle testing in next step.

1.6.3 Tilt angle testing

Test procedure:

1. The influence of table tilt angles to proximity sensor triggering is determined by positioning each tablet edge that contains a transmitting antenna, perpendicular to the flat phantom, at the smallest sensor triggering test distance determined in sections 1.6.2 by rotating the tablet around the edge next to the phantom in ≤ 10 deg increments until the tablet is +/- 45deg or more from the vertical position at 0 deg.

2. If sensor triggering is released and normal maximum output power is restored within the +/- 45deg range, the procedures in step 1) should be repeated by reducing the tablet to phantom separation distance by 1 mm until the proximity sensor no longer releases triggering, and maximum output power remains in the reduced mode.

3. The smallest separation distance determined in steps 1) and 2), minus 1 mm, is the sensor triggering distance for tablet tilt coverage. The smallest separation distance determined in sections 1.6.2, 1.6.3 minus 1 mm should be used in the SAR measurements.

4. The influence of tablet tilt angles to proximity sensor triggering is determined by positioning top and right sides, please refer to table 1.6.5 and 1.6.6.

5. After the tilt angle testing for top side, the sensor is not released during +/- 45deg, so 12-1=11mm, is the sensor triggering distance for tablet tilt coverage. The smallest separation distance minus 1 mm(11-1=10mm) should be used in the SAR measurements.

1.6.4 Proximity sensor coverage

The following procedures do not apply and are not required for configurations where the antenna and sensor are collocated and the peak SAR location is overlapping with the sensor.

Test procedure:

1. The back surface or edges of the tablet is positioned at a test separation distance less than or equal to the distance required for back surface or edge triggering, with both the antenna and sensor pad located at least 20 mm laterally outside the edge (boundary) of the phantom, along the direction of maximum antenna and sensor offset.

2. The similar sequence of steps applied to determine sensor triggering distance in section 1.6.2 are used to verify back surface and edge sensor coverage by moving the tablet (sensor and antenna) horizontally toward the phantom while maintaining the same vertical separation between the back surface or edge and the phantom.

3. After the exact location where triggering of power reduction is determined, with respect to the sensor and antenna, the tablet movement should be continued, in 3 mm increments, until both the sensor and antenna(s) are fully under the phantom and at least 20 mm inside the phantom edge.

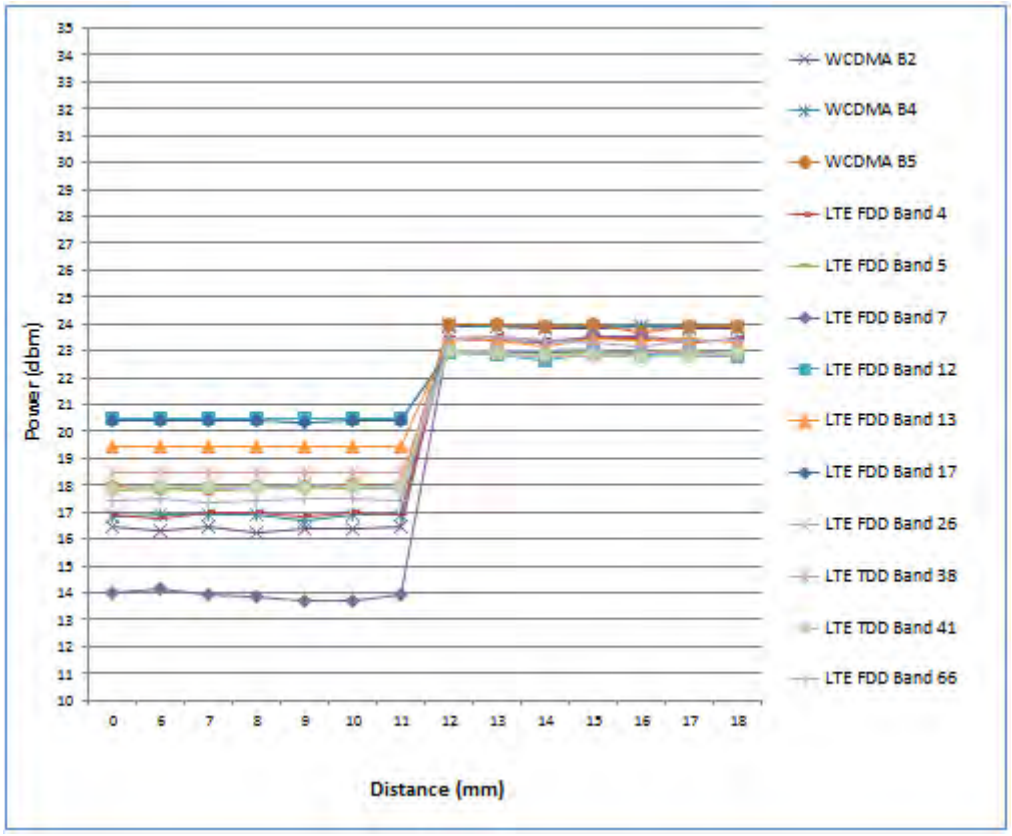
4. The process is then repeated from the other direction, at the opposite end of maximum antenna and sensor offset, by rotating the tablet 180 degrees.

1.6.5 Results

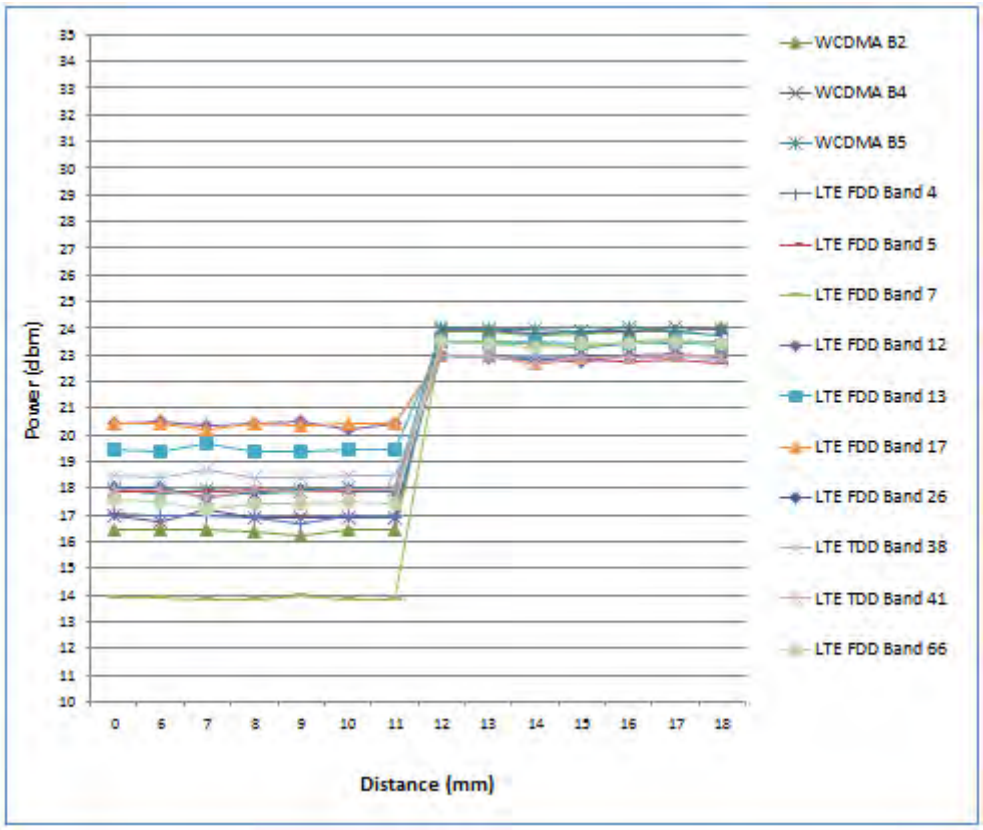
The measured output power within ± 5 mm of the triggering points, or until the tablet is touching the phantom, for movements to and from the phantom is tabulated in the following.

Back side

Moving device toward the phantom



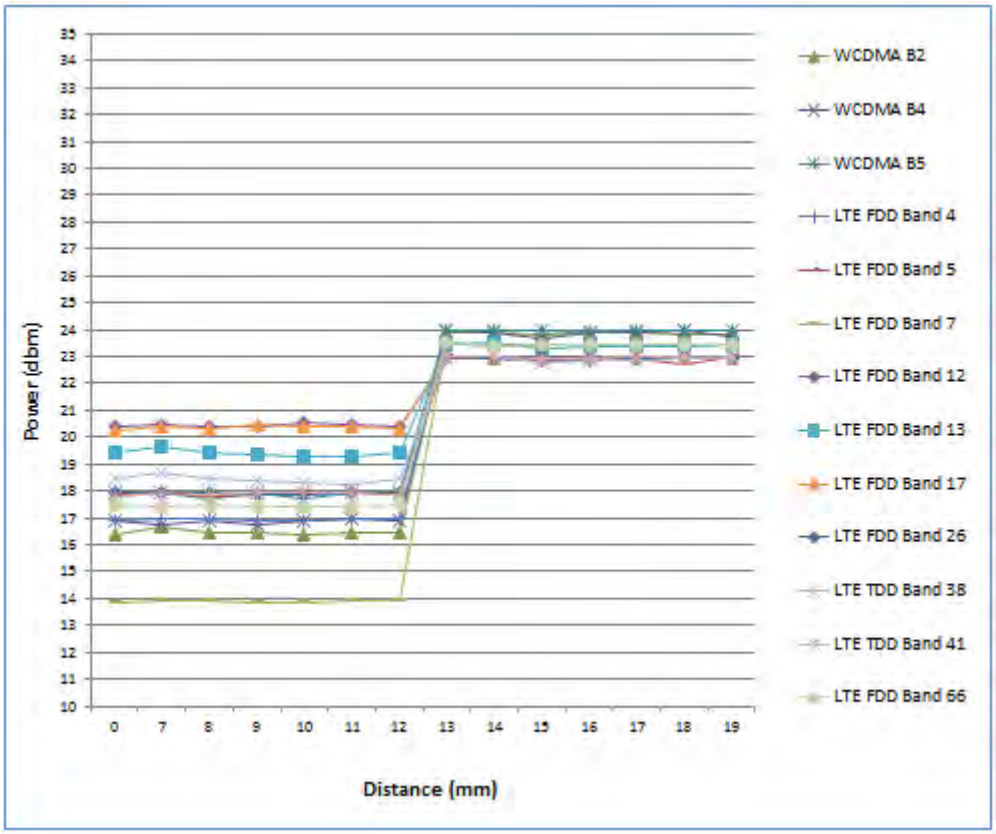
Moving device away from the phantom



For back side, the worst trigger distance of proximity sensor is 11mm, and we backside SAR in 10mm without power reduction and 0mm with power reduction.

Top side

Moving device toward the phantom



Moving device away from the phantom

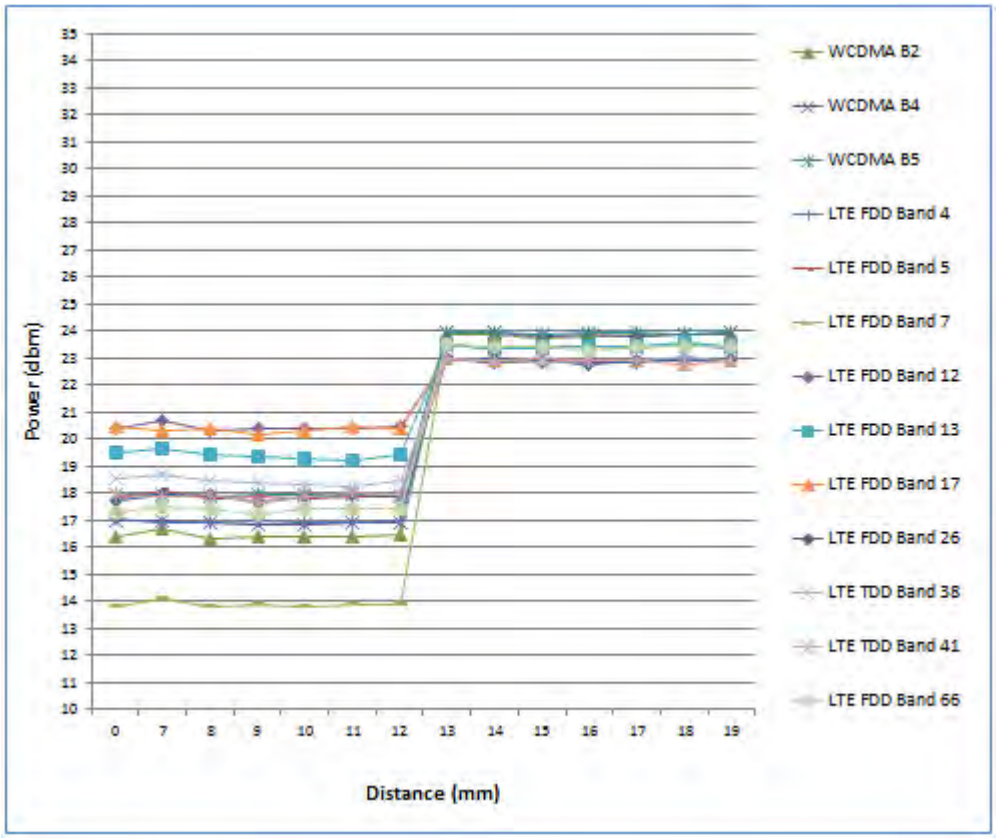


Table 1.6.5 Tilt angle test results for top side

P-sensor ON/OFF	-50 deg	-45 deg	-40 deg	-30 deg	-20 deg	-10 deg	0 deg	10 deg	20 deg	30 deg	40 deg	45 deg	50 deg
12mm	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

During the tilt angle testing for top side, the sensor is not released in 12mm, so 12-1=11mm, is the sensor triggering distance for tablet tilt coverage. The smallest separation distance minus 1 mm(11-1=10mm) should be used in the SAR measurements for top side.

Note:

1. The triggering variations and hysteresis effect has been evaluated separately according to the tissue-equivalent medium required for each frequency band, and sensor triggering does not change with different tissue-equivalent media.

2. The default power level for sensor failure and malfunctioning, including all compliance concerns, has been addressed in the client's operation description (1.6.6) for the proximity sensor implementation to be acceptable.

3. Conducted power is monitored qualitatively to identify the general triggering characteristics and recorded quantitatively, versus spacing.

1.6.6 Operation description for P-sensor

Power Reduction Design Specification (for P-sensor)

The mechanism of power reduction is used only for WWAN, not for Wi-Fi and Bluetooth. The reduced power for each technology/band is defined in Table1-1. With P-sensor mechanism, the WCDMA/LTE default power when P-sensor failure or malfunction are show in Table1-2 as below.

Table1-1：The power reduction scenario table

Band	Power Reduction
WCDMA B2	YES
WCDMA B4	YES
WCDMA B5	YES
LTE B2/4/5/7/12/13/17/26/30/38/41/66	YES
WLAN	NO
BT	NO

Table1-2：The default maximum power when p-sensor failure or malfunction

Technology / Band	Mode	Default Maximum Power (dBm)
UMTS B2	All	16.5
UMTS B4	All	17
UMTS B5	All	18
LTE B2	All	16.5
LTE B4	All	17
LTE B5	All	18
LTE B7	All	14
LTE B12	All	20.5
LTE B13	All	19.5
LTE B17	All	20.5
LTE B26	All	18
LTE B30	All	15
LTE B38	All	18.5
LTE B41	All	18
LTE B66	All	17.5

1.7 The SAR Measurement System

A block diagram of the SAR measurement System is given in Fig. a. This SAR Measurement System uses a Computer-controlled 3-D stepper motor system (SPEAG DASY 5 professional system). The model EX3DV4 field probe is used to determine the internal electric fields. The SAR can be obtained from the equation SAR= σ ($|Ei|^2$)/ ρ where σ and ρ are the conductivity and mass density of the tissue-simulant.

The DASY 5 system for performing compliance tests consists of the following items:

1. A standard high precision 6-axis robot (Staubli RX family) with controller, teach pendant and software. An arm extension is for accommodating the data acquisition electronics (DAE).
2. A dosimetric probe, i.e., an isotropic E-field probe optimized and calibrated for usage intissue simulating liquid. The probe is equipped with an optical surface detector system.
3. A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.

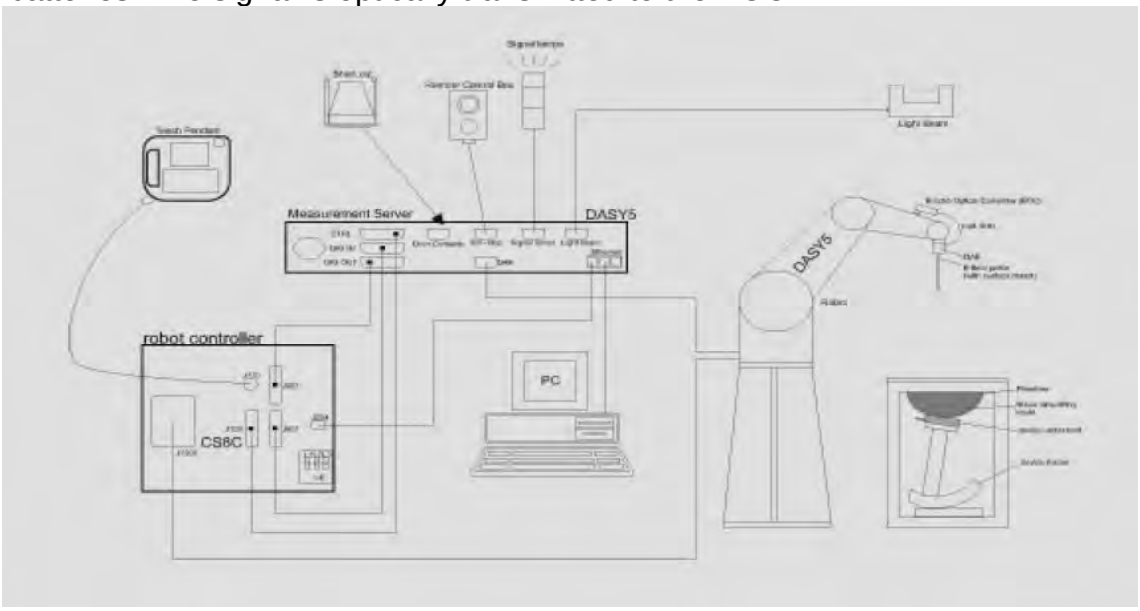


Fig. a The block diagram of SAR system

4. The Electro-optical converter (EOC) performs the conversion between optical and electrical of the signals for the digital communication to the DAE and for the analog signal from the optical surface detection. The EOC is connected to the measurement server.
5. The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
6. A probe alignment unit which improves the (absolute) accuracy of the probe positioning.
7. A computer operating Windows 7.
8. DASY 5 software.
9. Remote control with teach pendant and additional circuitry for robot safety such as warning lamps, etc.
10. The SAM twin phantom enabling testing left-hand and right-hand usage.
11. The device holder for handheld mobile phones.
12. Tissue simulating liquid mixed according to the given recipes.
13. Validation dipole kits allowing to validate the proper functioning of the system.

1.8 System Components

EX3DV4 E-Field Probe

Construction	Symmetrical design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Calibration	Basic Broad Band Calibration in air Conversion Factors (CF) for HSL 750/835/1750/1900/2300/2450/2600/5200/5300/5600/5800MHz Additional CF for other liquids and frequencies upon request	
Frequency	10 MHz to > 6 GHz	
Directivity	± 0.3 dB in HSL (rotation around probe axis) ± 0.5 dB in tissue material (rotation normal to probe axis)	
Dynamic Range	10 µW/g to > 100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 µW/g)	
Dimensions	Tip diameter: 2.5 mm	
Application	High precision dosimetric measurements in any exposure scenario (e.g., very strong gradient fields). Only probe which enables compliance testing for frequencies up to 6 GHz with precision of better 30%.	

PHANTOM

Model	ELI
Construction	The ELI phantom is used for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI is fully compatible with the IEC 62209-2 standard and all known tissue simulating liquids. ELI has been optimized regarding its performance and can be integrated into our standard phantom tables. A cover prevents evaporation of the liquid. Reference markings on the phantom allow installation of the complete setup, including all predefined phantom positions and measurement grids, by teaching three points. The phantom is compatible with all SPEAG dosimetric probes and dipoles.
Shell Thickness	2 ± 0.2 mm
Filling Volume	Approx. 30 liters
Dimensions	Major axis: 600 mm Minor axis: 400 mm

DEVICE HOLDER

Construction	The device holder (Supporter) for Notebook is made by POM (polyoxymethylene resin) , which is non-metal and non-conductive. The height can be adjusted to fit varies kind of notebooks.

Device Holder

1.9 SAR System Verification

The microwave circuit arrangement for system verification is sketched in Fig. b. The daily system accuracy verification occurs within the flat section of the SAM phantom. A SAR measurement was performed to see if the measured SAR was within +/- 10% from the target SAR values. These tests were done at 750/835/1750/1900/2300/2450/ 2600/5200/5300 /5600/5800MHz. The tests were conducted on the same days as the measurement of the DUT. The obtained results from the system accuracy verification are displayed in the table 1 (SAR values are normalized to 1W forward power delivered to the dipole). During the tests, the ambient temperature of the laboratory was 21.7°C, the relative humidity was 62% and the liquid depth above the ear reference points was ≥ 15 cm ± 5 mm (frequency ≤ 3 GHz) or ≥ 10 cm ± 5 mm (frequency > 3 G Hz) in all the cases. It is seen that the system is operating within its specification, as the results are within acceptable tolerance of the reference values.

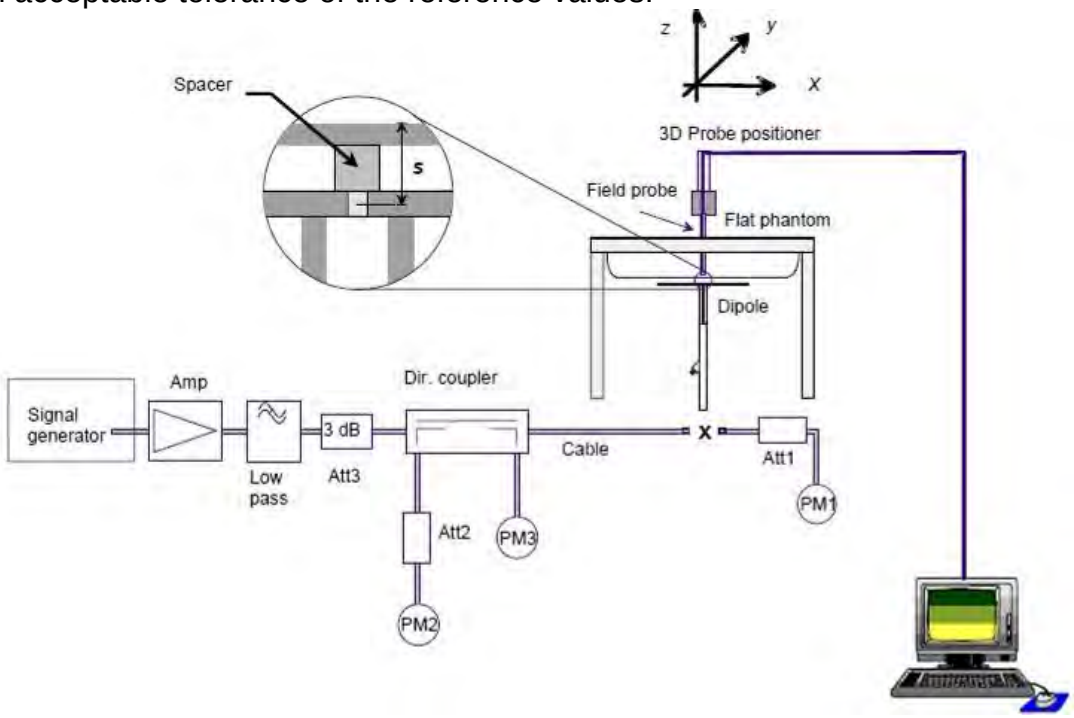


Fig. b The block diagram of system verification

Validation Kit	S/N	Frequency (MHz)		1W Target SAR-1g (mW/g)	Measured SAR-1g (mW/g)	Measured SAR-1g normalized to 1W	Deviation (%)	Measured Date
D750V3	1015	750	Body	8.76	2.16	8.64	-1.37%	Dec. 03, 2017
D835V2	4d063	835	Body	9.57	2.43	9.72	1.57%	Dec. 02, 2017
D1750V2	1008	1750	Body	36.7	9.06	36.24	-1.25%	Dec. 01, 2017
D1900V2	5d173	1900	Body	40.2	9.65	38.60	-3.98%	Nov. 30, 2017
D2300V2	1023	2300	Body	46.4	12.60	50.40	8.62%	Nov. 29, 2017
D2450V2	727	2450	Body	50.6	12.50	50.00	-1.19%	Nov. 20, 2017
D2600V2	1005	2600	Body	55.1	14.20	56.80	3.09%	Nov. 28, 2017
D5GHzV2	1023	5200	Body	72.8	7.43	74.30	2.06%	Nov. 21, 2017
		5300	Body	76.1	7.91	79.10	3.94%	Nov. 22, 2017
		5600	Body	79.6	8.22	82.20	3.27%	Nov. 23, 2017
		5800	Body	75.9	7.33	73.30	-3.43%	Nov. 24, 2017

Table 1. Results of system verification

1.10 Tissue Simulant Fluid for the Frequency Band

The dielectric properties for this Head-simulant fluid were measured by using the Agilent Model 85070E Dielectric Probe (rates frequency band 200 MHz to 20 GHz) in conjunction with Network Analyzer.

All dielectric parameters of tissue simulates were measured within 24 hours of SAR measurements. The measured conductivity and permittivity are all within ± 5% of the target values.

Tissue Type	Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	% dev εr	% dev σ
Body	Dec. 3, 2017	704	55.710	0.960	57.625	0.923	-3.44%	3.83%
		707.5	55.697	0.960	57.642	0.921	-3.49%	4.07%
		709	55.691	0.960	57.598	0.924	-3.42%	3.77%
		710	55.687	0.960	57.642	0.927	-3.51%	3.46%
		711	55.683	0.960	57.551	0.929	-3.35%	3.26%
		750	55.531	0.963	57.268	0.969	-3.13%	-0.58%
		782	55.406	0.966	56.922	1.001	-2.74%	-3.64%
	Dec. 2, 2017	822.5	55.249	0.969	57.003	0.984	-3.18%	-1.55%
		826.4	55.226	0.959	56.907	0.987	-3.04%	-2.88%
		829	55.218	0.963	56.912	0.987	-3.07%	-2.53%
		831.5	55.214	0.970	56.914	0.990	-3.08%	-2.09%
		835	55.200	0.970	56.908	0.996	-3.09%	-2.68%
		836.5	55.195	0.972	56.922	0.996	-3.13%	-2.49%
		836.6	55.194	0.970	56.906	0.997	-3.10%	-2.77%
		841.5	55.180	0.978	56.805	1.001	-2.94%	-2.35%
		844	55.172	0.981	56.832	1.003	-3.01%	-2.23%
		846.6	55.164	0.984	56.772	1.005	-2.91%	-2.11%
	Dec. 1, 2017	1712.4	53.531	1.465	51.562	1.427	3.68%	2.57%
		1720	53.511	1.469	51.495	1.435	3.77%	2.35%
		1732.4	53.478	1.477	51.492	1.452	3.71%	1.71%
		1732.5	53.478	1.477	51.492	1.448	3.71%	1.99%
		1745	53.445	1.485	51.428	1.461	3.77%	1.63%
		1750	53.432	1.488	51.378	1.468	3.84%	1.37%
		1752.6	53.425	1.490	51.410	1.471	3.77%	1.28%
		1770	53.379	1.501	51.322	1.492	3.85%	0.60%
	Nov. 30, 2017	1852.4	53.300	1.520	51.062	1.528	4.20%	-0.53%
		1860	53.300	1.520	51.002	1.535	4.31%	-0.99%
		1880	53.300	1.520	50.942	1.560	4.42%	-2.63%
		1900	53.300	1.520	50.872	1.571	4.56%	-3.36%
		1907.6	53.300	1.520	50.840	1.586	4.62%	-4.34%
	Nov. 29, 2017	2300	52.900	1.807	54.103	1.887	-2.27%	-4.45%
		2310	52.887	1.816	54.080	1.898	-2.26%	-4.50%

Tissue Type	Measurement Date	Measured Frequency (MHz)	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	% dev εr	% dev σ
Body	Nov. 20, 2017	2402	52.764	1.904	53.867	1.931	-2.09%	-1.41%
		2437	52.717	1.938	53.848	1.967	-2.14%	-1.52%
		2441	52.711	1.937	53.813	1.969	-2.09%	-1.64%
		2450	52.700	1.950	53.832	1.986	-2.15%	-1.85%
		2452	52.697	1.953	53.826	1.991	-2.14%	-1.95%
		2480	52.660	1.979	53.768	2.019	-2.10%	-2.04%
	Nov. 28, 2017	2506	52.629	2.029	52.854	2.119	-0.43%	-4.41%
		2510	52.624	2.035	52.855	2.122	-0.44%	-4.27%
		2535	52.592	2.071	52.812	2.160	-0.42%	-4.32%
		2549.5	52.573	2.091	52.752	2.178	-0.34%	-4.16%
		2560	52.560	2.106	52.701	2.196	-0.27%	-4.27%
		2580	52.535	2.134	52.652	2.225	-0.22%	-4.25%
		2593	52.518	2.153	52.621	2.240	-0.20%	-4.05%
		2595	52.515	2.156	52.608	2.144	-0.18%	0.54%
		2600	52.509	2.163	52.577	2.247	-0.13%	-3.90%
		2610	52.496	2.177	52.577	2.245	-0.15%	-3.11%
	Nov. 21, 2017	5190	49.028	5.288	49.591	5.151	-1.15%	2.58%
		5200	49.014	5.299	49.507	5.150	-1.01%	2.82%
		5230	48.974	5.334	49.464	5.178	-1.00%	2.93%
	Nov. 22, 2017	5270	48.919	5.381	49.267	5.305	-0.71%	1.41%
		5300	48.879	5.416	49.221	5.331	-0.70%	1.57%
		5310	48.865	5.428	49.145	5.338	-0.57%	1.65%
	Nov. 23, 2017	5510	48.594	5.661	48.446	5.657	0.30%	0.08%
		5600	48.471	5.766	48.248	5.811	0.46%	-0.77%
		5610	48.458	5.778	48.164	5.833	0.61%	-0.95%
		5670	48.376	5.848	48.016	5.926	0.75%	-1.33%
		5690	48.349	5.872	47.951	5.975	0.82%	-1.76%
	Nov. 24, 2017	5775	48.234	5.971	47.661	6.107	1.19%	-2.28%
		5800	48.200	6.000	47.583	6.146	1.28%	-2.43%

Table 2. Dielectric Parameters of Tissue Simulant Fluid

The composition of the body tissue simulating liquid:

Frequency (MHz)	Mode	Ingredient						Total amount
		DGMBE	Water	Salt	Preventol D-7	Cellulose	Sugar	
750	Body	–	631.68 g	11.72 g	1.2 g	–	600 g	1.0L(Kg)
850	Body	–	631.68 g	11.72 g	1.2 g	–	600 g	1.0L(Kg)
1750	Body	300.67 g	716.56 g	4.0 g	–	–	–	1.0L(Kg)
1900	Body	300.67 g	716.56 g	4.0 g	–	–	–	1.0L(Kg)
2300	Body	301.7ml	698.3ml	–	–	–	–	1.0L(Kg)
2450	Body	301.7ml	698.3ml	–	–	–	–	1.0L(Kg)
2600	Body	301.7ml	698.3ml	–	–	–	–	1.0L(Kg)

Simulating Liquids for 5 GHz, Manufactured by SPEAG:

Ingredients	Water	Esters, Emulsifiers, Inhibitors	Sodium and Salt
(% by weight)	60-80	20-40	0-1.5

Table 3. Recipes for Tissue Simulating Liquid

1.11 Evaluation Procedures

The entire evaluation of the spatial peak values is performed within the Post-processing engine (SEMCAD). The system always gives the maximum values for the 1 g and 10 g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

1. The extraction of the measured data (grid and values) from the Zoom Scan.
2. The calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
3. The generation of a high-resolution mesh within the measured volume
4. The interpolation of all measured values from the measurement grid to the high-resolution grid
5. The extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
6. The calculation of the averaged SAR within masses of 1g and 10g.

The probe is calibrated at the center of the dipole sensors that is located 1 to 2.7mm away from the probe tip. During measurements, the probe stops shortly above the phantom surface, depending on the probe and the surface detecting system. Both distances are included as parameters in the probe configuration file. The software always knows exactly how far away the measured point is from the surface. As the probe cannot directly measure at the surface, the values between the deepest measured point and the surface must be extrapolated. The angle between the probe axis and the surface normal line is less than 30 degree.

In the Area Scan, the gradient of the interpolation function is evaluated to find all the extreme of the SAR distribution. The uncertainty on the locations of the extreme is less than 1/20 of the grid size. Only local maximum within –2 dB of the global maximum are searched and passed for the Cube Scan measurement. In the Cube Scan, the interpolation function is used to extrapolate the Peak SAR from the lowest measurement points to the inner phantom surface (the extrapolation distance). The uncertainty increases with the extrapolation distance. To keep the uncertainty within 1% for the 1 g and 10 g cubes, the extrapolation distance should not be larger than 5mm.

The maximum search is automatically performed after each area scan measurement. It is based on splines in two or three dimensions. The procedure can find the maximum for most SAR distributions even with relatively large grid spacing. After the area scanning measurement, the probe is automatically moved to a position at the interpolated maximum. The following scan can directly use this position for reference, e.g., for a finer resolution grid or the cube evaluations. The 1g and 10g peak evaluations are only available for the predefined cube 7x7x7 scans. The routines are verified and optimized for the grid dimensions used in

these cube measurements.
The measured volume of 30x30x30mm contains about 30g of tissue.
The first procedure is an extrapolation (incl. Boundary correction) to get the points between the lowest measured plane and the surface. The next step uses 3D interpolation to get all points within the measured volume. In the last step, a 1g cube is placed numerically into the volume and its averaged SAR is calculated. This cube is the moved around until the highest averaged SAR is found. If the highest SAR is found at the edge of the measured volume, the system will issue a warning: higher SAR values might be found outside of the measured volume. In that case the cube measurement can be repeated, using the new interpolated maximum as the center.

1.12 Probe Calibration Procedures

For the calibration of E-field probes in lossy liquids, an electric field with an accurately known field strength must be produced within the measured liquid. For standardization purposes it would be desirable if all measurements which are necessary to assess the correct field strength would be traceable to standardized measurement procedures. In the following two different calibration techniques are summarized:

1.12.1 Transfer Calibration with Temperature Probes

In lossy liquids the specific absorption rate (SAR) is related both to the electric field (E) and the temperature gradient ($\delta T / \delta t$) in the liquid.

$$SAR = \frac{\sigma}{\rho}\left|E\right|^2 = c\,\frac{\delta T}{\delta t}$$

whereby σ is the conductivity, ρ the density and c the heat capacity of the liquid.

Hence, the electric field in lossy liquid can be measured indirectly by measuring the temperature gradient in the liquid. Non-disturbing temperature probes (optical probes or thermistor probes with resistive lines) with high spatial resolution (<1-2 mm) and fast reaction time (<1 s) are available and can be easily calibrated with high precision [1]. The setup and the exciting source have no influence on the calibration; only the relative positioning uncertainties of the standard temperature probe and the E-field probe to be calibrated must be considered. However, several problems limit the available accuracy of probe calibrations with temperature probes:

1. The temperature gradient is not directly measurable but must be evaluated from temperature measurements at different time steps. Special precaution is necessary to avoid measurement errors caused by temperature gradients due to energy equalizing effects or convection currents in the liquid. Such effects cannot be completely avoided, as the measured field itself destroys the thermal equilibrium in the liquid. With a careful setup these errors can be kept small.
2. The measured volume around the temperature probe is not well defined. It is difficult to calculate the energy transfer from a surrounding gradient temperature field into the probe. These effects must be considered, since temperature probes are calibrated in liquid with homogeneous temperatures. There is no traceable standard for temperature rise measurements.
3. The calibration depends on the assessment of the specific density, the heat capacity and the conductivity of the medium. While the specific density and heat capacity can be measured accurately with standardized procedures (~ 2% for c; much better for ρ) , there is no standard for the measurement of the conductivity. Depending on the method and liquid, the error can well exceed ±5%.
4. Temperature rise measurements are not very sensitive and therefore are often performed at a higher power level than the E-field measurements. The nonlinearities in the system (e.g., power measurements, different components, etc.) must be considered.

Considering these problems, the possible accuracy of the calibration of E-field probes with temperature gradient measurements in a carefully designed setup is about ±10% (RSS) [2]. Recently, a setup which is a combination of the waveguide techniques and the thermal measurements was presented in [3]. The estimated uncertainty of the setup is ±5% (RSS) when the same liquid is used for the calibration and for actual measurements and ±7-9% (RSS) when not, which is in good agreement with the estimates given in [2].

1.12.2 Calibration with Analytical Fields

In this method a technical setup is used in which the field can be calculated analytically from measurements of other physical magnitudes (e.g., input power). This corresponds to the standard field method for probe calibration in air; however, there is no standard defined for fields in lossy liquids.
When using calculated fields in lossy liquids for probe calibration, several points must be considered in the assessment of the uncertainty:

1. The setup must enable accurate determination of the incident power.

2. The accuracy of the calculated field strength will depend on the assessment of the dielectric parameters of the liquid.
3. Due to the small wavelength in liquids with high permittivity, even small setups might be above the resonant cutoff frequencies. The field distribution in the setup must be carefully checked for conformity with the theoretical field distribution.

References

1. N. Kuster, Q. Balzano, and J.C. Lin, Eds., *Mobile Communications Safety*, Chapman & Hall, London, 1997.
2. K. Meier, M. Burkhardt, T. Schmid, and N. Kuster, \Broadband calibration of E-field probes in lossy media", *IEEE Transactions on Microwave Theory and Techniques*, vol. 44, no. 10, pp. 1954{1962, Oct. 1996.
3. K. Jokela, P. Hyysalo, and L. Puranen, \Calibration of specific absorption rate (SAR) probes in waveguide at 900 MHz", *IEEE Transactions on Instrumentation and Measurements*, vol. 47, no. 2, pp. 432{438, Apr. 1998.

1.13 Test Standards and Limits

According to FCC 47CFR §2.1093(d) The limits to be used for evaluation are based generally on criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (‘‘SAR’’) in Section 4.2 of ‘‘IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz,’’ ANSI/IEEE C95.1, By the Institute of Electrical and Electronics Engineers, Inc., New York, New York 10017. These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in ‘‘Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields,’’ NCRP Report No. 86, Section 17.4.5. Copyright NCRP, 1986, Bethesda, Maryland 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards. The criteria to be used are specified in paragraphs (d)(1) and (d)(2) of this section and shall apply for portable devices transmitting in the frequency range from 100 kHz to 6 GHz. Portable devices that transmit at frequencies above 6 GHz are to be evaluated in terms of the MPE limits specified in § 1.1310 of this chapter. Measurements and calculations to demonstrate compliance with MPE field strength or power density limits for devices operating above 6 GHz should be made at a minimum distance of 5 cm from the radiating source.

1. Limits for Occupational/Controlled exposure: 0.4 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 8 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 20 W/kg, as averaged over an 10 grams of tissue (defined as a tissue volume in the shape of a cube).
2. Occupational/Controlled limits apply when persons are exposed as a consequence of their employment provided these persons are fully aware of and exercise control over their exposure. Awareness of exposure can be accomplished by use of warning labels or by specific training or education through appropriate means, such as an RF safety program in a work environment.
3. Limits for General Population/Uncontrolled exposure: 0.08 W/kg as averaged over the whole-body and spatial peak SAR not exceeding 1.6 W/kg as averaged over any 1 gram of tissue (defined as a tissue volume in the shape

of a cube). Exceptions are the hands, wrists, feet and ankles where the spatial peak SAR shall not exceed 4 W/kg, as averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube). General Population/Uncontrolled limits apply when the general public may be exposed, or when persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or do not exercise control over their exposure. Warning labels placed on consumer devices such as cellular telephones will not be sufficient reason to allow these devices to be evaluated subject to limits for occupational/controlled exposure in paragraph (d)(1) of this section. (Table 4.)

Human Exposure	Uncontrolled Environment General Population	Controlled Environment Occupational
Spatial Peak SAR (Brain)	1.60 W/Kg	8.00 W/Kg
Spatial Average SAR (Whole Body)	0.08 W/Kg	0.40 W/Kg
Spatial Peak SAR (Hands/Feet/Ankle/Wrist)	4.00 W/Kg	20.00 W/Kg

Table 4. RF exposure limits

Notes:

1. Uncontrolled environments are defined as locations where there is potential exposure of individuals who have no knowledge or control of their potential exposure.
2. Controlled environments are defined as locations where there is potential exposure of individuals who have knowledge of their potential exposure and can exercise control over their exposure.

2. Summary of Results

WCDMA Band II (without power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band II	Back side	10	9262	1852.4	24.00	23.90	2.33%	1.060	1.085	-
	Back side	10	9400	1880	24.00	23.78	5.20%	1.090	1.147	-
	Back side	10	9538	1907.6	24.00	23.60	9.65%	1.040	1.140	-
	Top side	10	9262	1852.4	24.00	23.90	2.33%	0.765	0.783	-
	Bottom side	0	9262	1852.4	24.00	23.90	2.33%	0.006	0.006	-
	Right side	0	9262	1852.4	24.00	23.90	2.33%	1.320	1.351	444
	Right side*	0	9262	1852.4	24.00	23.90	2.33%	1.290	1.320	-
	Right side	0	9400	1880	24.00	23.78	5.20%	1.210	1.273	-
	Right side	0	9538	1907.6	24.00	23.60	9.65%	0.901	0.988	-
	Left side	0	9262	1852.4	24.00	23.90	2.33%	0.135	0.138	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

WCDMA Band II (with power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band II	Back side	0	9262	1852.4	16.50	16.40	2.33%	1.160	1.187	-
	Back side	0	9400	1880	16.50	16.49	0.23%	1.120	1.123	-
	Back side	0	9538	1907.6	16.50	16.15	8.39%	1.030	1.116	-
	Top side	0	9400	1880	16.50	16.49	0.23%	0.494	0.495	-

WCDMA Band IV (without power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band VI	Back side	10	1712.4	1312	24	23.86	3.28%	0.858	0.886	-
	Back side	10	1732.4	1412	24	23.93	1.62%	0.867	0.881	-
	Back side	10	1752.6	1513	24	23.96	0.93%	0.895	0.903	-
	Top side	10	1752.6	1513	24	23.96	0.93%	0.635	0.641	-
	Bottom side	0	1752.6	1513	24	23.96	0.93%	0.005	0.005	-
	Right side	0	1752.6	1513	24	23.86	3.28%	1.190	1.229	-
	Right side	0	1752.6	1513	24	23.93	1.62%	1.310	1.331	-
	Right side	0	1752.6	1513	24	23.96	0.93%	1.340	1.352	445
	Right side*	0	1752.6	1513	24	23.96	0.93%	1.280	1.292	-
	Left side	0	1752.6	1513	24	23.96	0.93%	0.127	0.128	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

WCDMA Band IV (with power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band VI	Back side	0	1312	1712.4	17	16.96	0.93%	1.050	1.060	-
	Back side	0	1412	1732.4	17	16.94	1.39%	1.130	1.146	-
	Back side	0	1513	1752.6	17	16.90	2.33%	1.160	1.187	-
	Top side	0	1312	1712.4	17	16.96	0.93%	0.574	0.579	-

WCDMA Band V (without power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band V	Back side	10	4132	826.4	24	23.98	0.46%	0.995	1.000	446
	Back side*	10	4132	826.4	24	23.98	0.46%	0.989	0.994	-
	Back side	10	4183	836.6	24	23.76	5.68%	0.941	0.994	-
	Back side	10	4233	846.6	24	23.97	0.69%	0.932	0.938	-
	Top side	10	4132	826.4	24	23.98	0.46%	0.734	0.737	-
	Bottom side	0	4132	826.4	24	23.98	0.46%	0.004	0.004	-
	Right side	0	4132	826.4	24	23.98	0.46%	0.324	0.325	-
	Left side	0	4132	826.4	24	23.98	0.46%	0.085	0.085	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

WCDMA Band V (with power reduction)

Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
								Measured	Reported	
WCDMA Band 5	Back side	0	4132	826.4	18	17.95	1.16%	0.887	0.897	-
	Back side	0	4183	836.6	18	17.78	5.20%	0.866	0.911	-
	Back side	0	4233	846.6	18	17.99	0.23%	0.966	0.968	-
	Top side	0	4132	826.4	18	17.95	1.16%	0.858	0.868	-
	Top side	0	4183	836.6	18	17.78	5.20%	0.835	0.878	-
	Top side	0	4233	846.6	18	17.99	0.23%	0.923	0.925	-

LTE FDD Band 2 (without power reduction)

Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
											Measured	Reported	
20MHz	QPSK	1 RB	0	Back side	10	18700	1860	23	22.91	2.09%	1.100	1.123	-
				Back side	10	19100	1900	23	22.79	4.95%	1.030	1.081	-
				Top side	10	18700	1860	23	22.91	2.09%	0.777	0.793	-
				Bottom side	0	18700	1860	23	22.91	2.09%	0.005	0.005	-
				Right side	0	18700	1860	23	22.91	2.09%	1.240	1.266	447
				Right side*	0	18700	1860	23	22.91	2.09%	1.200	1.225	-
				Right side	0	19100	1900	23	22.79	4.95%	1.193	1.252	-
				Left side	0	18700	1860	23	22.91	2.09%	0.137	0.140	-
			99	Back side	10	18900	1880	23	22.82	4.23%	1.100	1.147	-
				Right side	0	18900	1880	23	22.82	4.23%	1.174	1.224	-
		50 RB	0	Back side	10	18900	1880	22	21.76	5.68%	0.847	0.895	-
				Top side	10	18900	1880	22	21.76	5.68%	0.678	0.717	-
				Bottom side	0	18900	1880	22	21.76	5.68%	0.004	0.004	-
				Right side	0	18900	1880	22	21.76	5.68%	0.983	1.039	-
				Left side	0	18900	1880	22	21.76	5.68%	0.104	0.110	-
			50	Back side	10	18700	1860	22	21.73	6.41%	0.874	0.930	-
				Back side	10	19100	1900	22	21.63	8.89%	0.865	0.942	-
				Right side	0	18700	1860	22	21.73	6.41%	0.924	0.983	-
				Right side	0	19100	1900	22	21.63	8.89%	0.909	0.990	-
		100 RB		Back side	10	18700	1860	22	21.83	3.99%	0.897	0.933	-
				Back side	10	18900	1880	22	21.86	3.28%	0.855	0.883	-
				Back side	10	19100	1900	22	21.82	4.23%	0.922	0.961	-
				Top side	10	18900	1880	22	21.86	3.28%	0.682	0.704	-
				Bottom side	0	18900	1880	22	21.86	3.28%	0.004	0.004	-
				Right side	0	18700	1860	22	21.83	3.99%	0.940	0.978	-
				Right side	0	18900	1880	22	21.86	3.28%	0.966	0.998	-
				Right side	0	19100	1900	22	21.82	4.23%	0.987	1.029	-
				Left side	0	18900	1880	22	21.86	3.28%	0.107	0.111	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 2 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	0	18700	1860	16.5	16.48	0.46%	1.140	1.145	-
					Back side	0	18900	1880	16.5	16.44	1.39%	1.050	1.065	-
					Back side	0	19100	1900	16.5	16.32	4.23%	1.120	1.167	-
					Top side	0	18700	1860	16.5	16.48	0.46%	0.513	0.515	-
			50 RB	0	Back side	0	18900	1880	16.5	16.42	1.86%	1.050	1.070	-
					Back side	0	19100	1900	16.5	16.25	5.93%	1.080	1.144	-
					Top side	0	18900	1880	16.5	16.42	1.86%	0.494	0.503	-
				50	Back side	0	18700	1860	16.5	16.29	4.95%	1.100	1.154	-
			100 RB		Back side	0	18700	1860	16.5	16.49	0.23%	1.110	1.113	-
					Back side	0	18900	1880	16.5	16.45	1.16%	1.020	1.032	-
					Back side	0	19100	1900	16.5	16.37	3.04%	1.100	1.133	-
					Top side	0	18700	1860	16.5	16.49	0.23%	0.486	0.487	-

LTE FDD Band 4 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	10	20050	1720	22.5	23.40	-18.72%	0.873	0.710	-
					Back side	10	20175	1732.5	23.5	23.33	3.99%	0.925	0.962	-
					Top side	10	20050	1720	22.5	23.40	-18.72%	0.621	0.505	-
					Bottom side	0	20050	1720	22.5	23.40	-18.72%	0.010	0.008	-
					Right side	0	20050	1720	22.5	23.40	-18.72%	1.210	0.984	-
					Right side	0	20175	1732.5	23.5	23.33	3.99%	1.250	1.300	-
					Left side	0	20050	1720	22.5	23.40	-18.72%	0.092	0.075	-
				99	Back side	10	20300	1745	23.5	23.26	5.68%	0.813	0.859	-
					Back side	10	20300	1745	23.5	23.26	5.68%	1.290	1.363	448
					Back side	10	20300	1745	23.5	23.26	5.68%	1.260	1.332	-
			50 RB	0	Back side	10	20050	1720	22.5	22.34	3.75%	0.697	0.723	-
					Back side	10	20175	1732.5	22.5	22.22	6.66%	0.719	0.767	-
					Right side	0	20050	1720	22.5	22.34	3.75%	0.975	1.012	-
					Right side	0	20175	1732.5	22.5	22.22	6.66%	0.986	1.052	-
				50	Back side	10	20300	1745	22.5	22.37	3.04%	0.743	0.766	-
					Top side	10	20300	1745	22.5	22.37	3.04%	0.506	0.521	-
					Bottom side	0	20300	1745	22.5	22.37	3.04%	0.009	0.009	-
					Right side	0	20300	1745	22.5	22.37	3.04%	0.980	1.010	-
					Left side	0	20300	1745	22.5	22.37	3.04%	0.068	0.070	-
			100 RB		Back side	10	20050	1720	22.5	22.45	1.16%	0.732	0.740	-
					Back side	10	20175	1732.5	22.5	22.27	5.44%	0.742	0.782	-
					Back side	10	20300	1745	22.5	22.40	2.33%	0.751	0.768	-
					Top side	10	20050	1720	22.5	22.45	1.16%	0.487	0.493	-
					Bottom side	0	20050	1720	22.5	22.45	1.16%	0.009	0.009	-
					Right side	0	20050	1720	22.5	22.45	1.16%	0.968	0.979	-
					Right side	0	20175	1732.5	22.5	22.27	5.44%	0.982	1.035	-
					Right side	0	20300	1745	22.5	22.40	2.33%	0.976	0.999	-
					Left side	0	20050	1720	22.5	22.45	1.16%	0.063	0.064	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 4 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	0	20175	1732.5	17	16.75	5.93%	1.020	1.080	-
				50	Back side	0	20050	1720	17	16.86	3.28%	0.995	1.028	-
					Back side	0	20300	1745	17	16.92	1.86%	1.130	1.151	-
					Top side	0	20300	1745	17	16.92	1.86%	0.557	0.567	-
			50 RB	0	Back side	0	20050	1720	17	16.89	2.57%	1.000	1.026	-
					Back side	0	20175	1732.5	17	16.80	4.71%	1.090	1.141	-
					Back side	0	20300	1745	17	16.77	5.44%	1.020	1.075	-
					Top side	0	20050	1720	17	16.89	2.57%	0.587	0.602	-
			100 RB		Back side	0	20050	1720	17	16.99	0.23%	1.050	1.052	-
					Back side	0	20175	1732.5	17	16.86	3.28%	1.110	1.146	-
					Back side	0	20300	1745	17	16.90	2.33%	1.070	1.095	-
					Top side	0	20050	1720	17	16.99	0.23%	0.586	0.587	-

LTE FDD Band 5 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	10	20525	836.5	23	22.99	0.23%	1.040	1.042	449
					Back side*	10	20525	836.5	23	22.99	0.23%	0.998	1.000	-
					Top side	10	20525	836.5	23	22.99	0.23%	0.795	0.797	-
					Bottom side	0	20525	836.5	23	22.99	0.23%	0.005	0.005	-
					Right side	0	20525	836.5	23	22.99	0.23%	0.303	0.304	-
					Left side	0	20525	836.5	23	22.99	0.23%	0.071	0.071	-
				25	Back side	10	20600	844	23	22.95	1.16%	0.980	0.991	-
				49	Back side	10	20450	829	23	22.98	0.46%	0.960	0.964	-
			25 RB	0	Back side	10	20450	829	22	21.96	0.93%	0.851	0.859	-
					Back side	10	20525	836.5	22	21.97	0.69%	0.824	0.830	-
					Back side	10	20600	844	22	21.98	0.46%	0.838	0.842	-
					Top side	10	20600	844	22	21.98	0.46%	0.642	0.645	-
					Bottom side	0	20600	844	22	21.98	0.46%	0.004	0.004	-
					Right side	0	20600	844	22	21.98	0.46%	0.225	0.226	-
					Left side	0	20600	844	22	21.98	0.46%	0.059	0.059	-
			50 RB		Back side	10	20450	829	22	21.82	4.23%	0.847	0.883	-
					Back side	10	20525	836.5	22	21.84	3.75%	0.852	0.884	-
					Back side	10	20600	844	22	21.79	4.95%	0.831	0.872	-
					Top side	10	20525	836.5	22	21.84	3.75%	0.653	0.678	-
					Bottom side	0	20525	836.5	22	21.84	3.75%	0.004	0.004	-
					Right side	0	20525	836.5	22	21.84	3.75%	0.228	0.237	-
					Left side	0	20525	836.5	22	21.84	3.75%	0.055	0.057	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 5 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	0	20450	829	18	17.80	4.71%	0.887	0.929	-
					Top side	0	20450	829	18	17.80	4.71%	0.857	0.897	-
				49	Back side	0	20525	836.5	18	17.93	1.62%	0.991	1.007	-
					Back side	0	20600	844	18	17.91	2.09%	0.926	0.945	-
					Top side	0	20525	836.5	18	17.93	1.62%	0.973	0.989	-
					Top side	0	20600	844	18	17.91	2.09%	0.912	0.931	-
			25 RB	0	Back side	0	20525	836.5	18	17.62	9.14%	0.867	0.946	-
					Top side	0	20525	836.5	18	17.62	9.14%	0.832	0.908	-
				12	Back side	0	20450	829	18	17.83	3.99%	0.885	0.920	-
					Back side	0	20450	829	18	17.83	3.99%	0.865	0.900	-
				25	Back side	0	20600	844	18	17.82	4.23%	0.890	0.928	-
					Top side	0	20600	844	18	17.82	4.23%	0.866	0.903	-
			50 RB		Back side	0	20450	829	18	17.84	3.75%	0.907	0.941	-
					Back side	0	20525	836.5	18	17.61	9.40%	0.862	0.943	-
					Back side	0	20600	844	18	17.83	3.99%	0.882	0.917	-
					Top side	0	20450	829	18	17.84	3.75%	0.878	0.911	-
					Top side	0	20525	836.5	18	17.61	9.40%	0.848	0.928	-
					Top side	0	20600	844	18	17.83	3.99%	0.856	0.890	-

LTE FDD Band 7 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	10	20850	2510	23.5	23.44	1.39%	1.110	1.125	-
					Back side	10	21350	2560	23.5	23.47	0.69%	1.090	1.098	-
					Top side	10	20850	2510	23.5	23.44	1.39%	0.851	0.863	-
					Top side	10	21350	2560	23.5	23.47	0.69%	0.865	0.871	-
					Bottom side	0	21350	2560	23.5	23.47	0.69%	0.004	0.004	-
					Right side	0	21350	2560	23.5	23.47	0.69%	0.248	0.250	-
					Left side	0	21350	2560	23.5	23.47	0.69%	0.145	0.146	-
				50	Back side	10	21100	2535	23.5	23.46	0.93%	1.110	1.120	-
					Top side	10	21100	2535	23.5	23.46	0.93%	0.876	0.884	-
			25 RB	50	Back side	10	20850	2510	22.5	22.22	6.66%	0.830	0.885	-
					Back side	10	21100	2535	22.5	22.37	3.04%	0.880	0.907	-
					Back side	10	21350	2560	22.5	22.23	6.41%	0.850	0.905	-
					Top side	10	21100	2535	22.5	22.37	3.04%	0.762	0.785	-
					Bottom side	0	21100	2535	22.5	22.37	3.04%	0.003	0.003	-
					Right side	0	21100	2535	22.5	22.37	3.04%	0.207	0.213	-
					Left side	0	21100	2535	22.5	22.37	3.04%	0.107	0.110	-
			100 RB		Back side	10	20850	2510	22.5	22.25	5.93%	0.890	0.943	-
					Back side	10	21100	2535	22.5	22.46	0.93%	0.920	0.929	-
					Back side	10	21350	2560	22.5	22.32	4.23%	0.910	0.949	-
					Top side	10	21100	2535	22.5	22.46	0.93%	0.783	0.790	-
					Bottom side	0	21100	2535	22.5	22.46	0.93%	0.002	0.002	-
					Right side	0	21100	2535	22.5	22.46	0.93%	0.215	0.217	-
					Left side	0	21100	2535	22.5	22.46	0.93%	0.116	0.117	-

LTE FDD Band 7 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	0	21350	2510	14	13.93	1.62%	1.130	1.148	450
					Back side*	0	21350	2535	14	13.93	1.62%	1.100	1.118	-
					Top side	0	21350	2560	14	13.93	1.62%	0.281	0.286	-
				50	Back side	0	21100	2535	14	13.74	6.17%	1.030	1.094	-
				99	Back side	0	20850	2510	14	13.60	9.65%	1.070	1.173	-
			25 RB	0	Back side	0	21350	2560	13	12.92	1.86%	0.913	0.930	-
					Top side	0	21350	2560	13	12.92	1.86%	0.228	0.232	-
				50	Back side	0	20850	2510	13	12.73	6.41%	0.928	0.988	-
					Back side	0	21100	2535	13	12.86	3.28%	0.919	0.949	-
			100 RB		Back side	0	20850	2510	13	12.76	5.68%	0.877	0.927	-
					Back side	0	21100	2535	13	12.91	2.09%	0.904	0.923	-
					Back side	0	21350	2560	13	12.89	2.57%	0.915	0.938	-
					Top side	0	21100	2535	13	12.91	2.09%	0.222	0.227	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 12 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	10	23095	707.5	23	22.77	5.44%	0.533	0.562	-
				49	Back side	10	23060	704	23	22.96	0.93%	0.513	0.518	-
					Back side	10	23130	711	23	22.89	2.57%	0.525	0.538	-
					Top side	10	23060	704	23	22.96	0.93%	0.285	0.288	-
					Bottom side	0	23060	704	23	22.96	0.93%	0.002	0.002	-
					Right side	0	23060	704	23	22.96	0.93%	0.355	0.358	-
					Left side	0	23060	704	23	22.96	0.93%	0.090	0.091	-
			25 RB	0	Back side	10	23060	704	22	21.96	0.93%	0.390	0.394	-
					Top side	10	23060	704	22	21.96	0.93%	0.225	0.227	-
					Bottom side	10	23060	704	22	21.96	0.93%	0.001	0.001	-
					Right side	0	23060	704	22	21.96	0.93%	0.282	0.285	-
					Left side	0	23060	704	22	21.96	0.93%	0.065	0.066	-
				25	Back side	10	23095	707.5	22	21.84	3.75%	0.403	0.418	-
					Back side	10	23130	711	22	21.83	3.99%	0.412	0.428	-
			50 RB		Back side	10	23060	704	22	21.80	4.71%	0.401	0.420	-
					Back side	10	23095	707.5	22	21.78	5.20%	0.397	0.418	-
					Back side	10	23130	711	22	21.71	6.91%	0.430	0.460	-
					Top side	10	23060	704	22	21.80	4.71%	0.236	0.247	-
					Bottom side	10	23060	704	22	21.80	4.71%	0.001	0.001	-
					Right side	0	23060	704	22	21.80	4.71%	0.284	0.297	
					Left side	0	23060	704	22	21.80	4.71%	0.063	0.066	-

LTE FDD Band 12 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	0	23095	707.5	20.5	20.38	2.80%	0.888	0.913	-
					Top side	0	23095	707.5	20.5	20.38	2.80%	0.968	0.995	451
					Top side*	0	23095	707.5	20.5	20.38	2.80%	0.961	0.988	-
				49	Back side	0	23060	704	20.5	20.45	1.16%	0.883	0.893	-
					Back side	0	23130	711	20.5	20.37	3.04%	0.864	0.890	-
					Top side	0	23060	704	20.5	20.45	1.16%	0.953	0.964	-
					Top side	0	23130	711	20.5	20.37	3.04%	0.931	0.959	-
			25 RB	0	Back side	0	23130	711	20.5	20.49	0.23%	0.876	0.878	-
					Top side	0	23130	711	20.5	20.49	0.23%	0.905	0.907	-
				25	Back side	0	23060	704	20.5	20.44	1.39%	0.902	0.915	-
					Back side	0	23095	707.5	20.5	20.32	4.23%	0.882	0.919	-
					Top side	0	23060	704	20.5	20.44	1.39%	0.931	0.944	-
					Top side	0	23095	707.5	20.5	20.32	4.23%	0.912	0.951	-
			50 RB		Back side	0	23060	704	20.5	20.46	0.93%	0.874	0.882	-
					Back side	0	23095	707.5	20.5	20.42	1.86%	0.864	0.880	-
					Back side	0	23130	711	20.5	20.40	2.33%	0.842	0.862	-
					Top side	0	23060	704	20.5	20.46	0.93%	0.962	0.971	-
					Top side	0	23095	707.5	20.5	20.42	1.86%	0.943	0.961	-
					Top side	0	23130	711	20.5	20.40	2.33%	0.923	0.944	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 13 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	10	23230	782	23.5	23.41	2.09%	0.826	0.843	-
					Top side	10	23230	782	23.5	23.41	2.09%	0.579	0.591	-
					Bottom side	0	23230	782	23.5	23.41	2.09%	0.003	0.003	-
					Right side	0	23230	782	23.5	23.41	2.09%	0.510	0.521	-
					Left side	0	23230	782	23.5	23.41	2.09%	0.038	0.039	-
				25	Back side	10	23230	782	23.5	23.28	5.20%	0.849	0.893	-
				49	Back side	10	23230	782	23.5	23.20	7.15%	0.866	0.928	-
			25 RB	0	Back side	10	23230	782	22.5	22.32	4.23%	0.656	0.684	-
				12	Back side	10	23230	782	22.5	22.29	4.95%	0.668	0.701	-
				25	Back side	10	23230	782	22.5	22.33	3.99%	0.683	0.710	-
					Top side	10	23230	782	22.5	22.33	3.99%	0.505	0.525	-
					Bottom side	0	23230	782	22.5	22.33	3.99%	0.002	0.002	-
					Right side	0	23230	782	22.5	22.33	3.99%	0.427	0.444	-
					Left side	0	23230	782	22.5	22.33	3.99%	0.034	0.035	-
			50 R		Back side	10	23230	782	22.5	22.40	2.33%	0.694	0.710	-
					Top side	10	23230	782	22.5	22.40	2.33%	0.526	0.538	-
					Bottom side	0	23230	782	22.5	22.40	2.33%	0.002	0.002	-
					Right side	0	23230	782	22.5	22.40	2.33%	0.465	0.476	-
					Left side	0	23230	782	22.5	22.40	2.33%	0.036	0.037	-

LTE FDD Band 13 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	0	23230	782	19.5	19.42	1.86%	1.120	1.141	-
					Top side	0	23230	782	19.5	19.42	1.86%	1.160	1.182	-
				25	Back side	0	23230	782	19.5	19.40	2.33%	1.160	1.187	-
					Top side	0	23230	782	19.5	19.40	2.33%	1.260	1.289	452
					Top side*	0	23230	782	19.5	19.40	2.33%	1.210	1.238	-
				49	Back side	0	23230	782	19.5	19.39	2.57%	1.100	1.128	-
					Top side	0	23230	782	19.5	19.39	2.57%	1.120	1.149	-
			25 RB	0	Back side	0	23230	782	19.5	19.48	0.46%	1.080	1.085	-
					Top side	0	23230	782	19.5	19.48	0.46%	1.110	1.115	-
				12	Back side	0	23230	782	19.5	19.37	3.04%	1.020	1.051	-
					Top side	0	23230	782	19.5	19.37	3.04%	1.080	1.113	-
				25	Back side	0	23230	782	19.5	19.43	1.62%	1.100	1.118	-
					Top side	0	23230	782	19.5	19.43	1.62%	1.120	1.138	-
			50 RB		Back side	0	23230	782	19.5	19.48	0.46%	1.070	1.075	-
					Top side	0	23230	782	19.5	19.48	0.46%	1.120	1.125	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 17 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	25	Back side	10	23780	709	23	22.93	1.62%	0.454	0.461	-
				49	Back side	10	23790	710	23	22.94	1.39%	0.438	0.444	-
					Back side	0	23800	711	23	22.96	0.93%	0.430	0.434	-
					Top side	0	23800	711	23	22.96	0.93%	0.294	0.297	-
					Bottom side	0	23800	711	23	22.96	0.93%	0.002	0.002	-
					Right side	0	23800	711	23	22.96	0.93%	0.327	0.330	-
					Left side	0	23800	711	23	22.96	0.93%	0.114	0.115	-
			25 RB	0	Back side	10	23800	711	22	21.99	0.23%	0.363	0.364	-
					Top side	10	23800	711	22	21.99	0.23%	0.250	0.251	-
					Bottom side	0	23800	711	22	21.99	0.23%	0.001	0.001	-
					Right side	0	23800	711	22	21.99	0.23%	0.273	0.274	-
					Left side	0	23800	711	22	21.99	0.23%	0.079	0.079	-
				12	Back side	10	23780	709	22	21.98	0.46%	0.356	0.358	-
				25	Back side	10	23790	710	22	21.96	0.93%	0.379	0.383	-
			50 RB		Back side	10	23780	709	22	21.94	1.39%	0.373	0.378	-
					Back side	10	23790	710	22	21.97	0.69%	0.381	0.384	-
					Back side	10	23800	711	22	21.91	2.09%	0.388	0.396	-
					Top side	10	23790	710	22	21.97	0.69%	0.261	0.263	-
					Bottom side	0	23790	710	22	21.97	0.69%	0.001	0.001	-
					Right side	0	23790	710	22	21.97	0.69%	0.277	0.279	-
					Left side	0	23790	710	22	21.97	0.69%	0.085	0.086	-

LTE FDD Band 17 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	10MHz	QPSK	1 RB	0	Back side	0	23780	709	20.5	20.46	0.93%	0.984	0.993	-
					Back side	0	23790	710	20.5	20.22	6.66%	0.987	1.053	-
					Back side	0	23800	711	20.5	20.29	4.95%	0.966	1.014	-
					Top side	0	23780	709	20.5	20.46	0.93%	1.190	1.201	-
					Top side	0	23790	710	20.5	20.22	6.66%	1.200	1.280	453
					Top side*	0	23790	710	20.5	20.22	6.66%	1.150	1.227	-
					Top side	0	23800	711	20.5	20.29	4.95%	1.160	1.217	-
			25 RB	25	Back side	0	23780	709	20.5	20.30	4.71%	0.955	1.000	-
					Back side	0	23790	710	20.5	20.19	7.40%	0.947	1.017	-
					Back side	0	23800	711	20.5	20.18	7.65%	0.921	0.991	-
					Top side	0	23780	709	20.5	20.30	4.71%	1.120	1.173	-
					Top side	0	23790	710	20.5	20.19	7.40%	1.150	1.235	-
					Top side	0	23800	711	20.5	20.18	7.65%	1.130	1.216	-
			50 RB		Back side	0	23780	709	20.5	20.26	5.68%	0.945	0.999	-
					Back side	0	23790	710	20.5	20.32	4.23%	0.950	0.990	-
					Back side	0	23800	711	20.5	20.29	4.95%	0.932	0.978	-
					Top side	0	23780	709	20.5	20.26	5.68%	1.070	1.131	-
					Top side	0	23790	710	20.5	20.32	4.23%	1.100	1.147	-
					Top side	0	23800	711	20.5	20.29	4.95%	1.059	1.111	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 26 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	15MHz	QPSK	1 RB	36	Back side	10	26825	822.5	23	22.92	1.86%	1.100	1.120	454
					Back side*	10	26825	822.5	23	22.92	1.86%	1.050	1.070	-
					Back side	10	26865	831.5	23	22.92	1.86%	1.010	1.029	-
					Back side	10	26965	841.5	23	22.97	0.69%	0.985	0.992	-
					Top side	10	26965	841.5	23	22.97	0.69%	0.843	0.849	-
					Bottom side	0	26965	841.5	23	22.97	0.69%	0.005	0.005	-
					Right side	0	26965	841.5	23	22.97	0.69%	0.227	0.229	-
					Left side	0	26965	841.5	23	22.97	0.69%	0.079	0.080	-
			36 RB	18	Back side	10	26825	822.5	22	21.98	0.46%	0.869	0.873	-
					Back side	10	26865	831.5	22	21.92	1.86%	0.858	0.874	-
					Back side	10	26965	841.5	22	21.94	1.39%	0.851	0.863	-
					Top side	10	26825	822.5	22	21.98	0.46%	0.685	0.688	-
					Bottom side	0	26825	822.5	22	21.98	0.46%	0.004	0.004	-
					Right side	0	26825	822.5	22	21.98	0.46%	0.181	0.182	-
					Left side	0	26825	822.5	22	21.98	0.46%	0.064	0.064	-
			75 RB		Back side	10	26825	822.5	22	21.94	1.39%	0.844	0.856	-
					Back side	10	26865	831.5	22	22.00	0.00%	0.865	0.865	-
					Back side	10	26965	841.5	22	21.96	0.93%	0.833	0.841	-
					Top side	10	26865	831.5	22	22.00	0.00%	0.658	0.658	-
					Bottom side	0	26865	831.5	22	22.00	0.00%	0.004	0.004	-
					Right side	0	26865	831.5	22	22.00	0.00%	0.191	0.191	-
					Left side	0	26865	831.5	22	22.00	0.00%	0.066	0.066	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 26 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	15MHz	QPSK	1 RB	0	Back side	0	26825	822.5	18	17.95	1.16%	0.981	0.992	-
					Back side	0	26865	831.5	18	17.89	2.57%	0.892	0.915	-
					Top side	0	26825	822.5	18	17.95	1.16%	0.957	0.968	-
					Top side	0	26865	831.5	18	17.89	2.57%	0.856	0.878	-
				74	Back side	0	26965	841.5	18	17.94	1.39%	0.921	0.934	-
					Top side	0	26965	841.5	18	17.94	1.39%	0.905	0.918	-
			36 RB	0	Back side	0	26825	822.5	18	17.93	1.62%	0.956	0.972	-
					Top side	0	26825	822.5	18	17.93	1.62%	0.926	0.941	-
				18	Back side	0	26865	831.5	18	17.80	4.71%	0.921	0.964	-
					Top side	0	26865	831.5	18	17.80	4.71%	0.908	0.951	-
				37	Back side	0	26965	841.5	18	17.82	4.23%	0.936	0.976	-
					Top side	0	26965	841.5	18	17.82	4.23%	0.916	0.955	-
			75 RB		Back side	0	26825	822.5	18	17.89	2.57%	0.926	0.950	-
					Back side	0	26865	831.5	18	17.84	3.75%	0.918	0.952	-
					Back side	0	26965	841.5	18	17.92	1.86%	0.922	0.939	-
					Top side	0	26825	822.5	18	17.89	2.57%	0.892	0.915	-
					Top side	0	26865	831.5	18	17.84	3.75%	0.911	0.945	-
					Top side	0	26965	841.5	18	17.92	1.86%	0.904	0.921	-

LTE FDD Band 30 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	15MHz	QPSK	1 RB	0	Back side	10	27710	2310	23.5	23.35	3.51%	0.951	0.984	-
				25	Back side	10	27710	2310	23.5	23.41	2.09%	0.976	0.996	-
					Top side	10	27710	2310	23.5	23.41	2.09%	0.526	0.537	-
					Bottom side	10	27710	2310	23.5	23.41	2.09%	0.004	0.004	-
					Right side	10	27710	2310	23.5	23.41	2.09%	0.151	0.154	-
					Left side	0	27710	2310	23.5	23.41	2.09%	0.157	0.160	-
				49	Right side	0	27710	2310	23.5	23.23	6.41%	0.988	1.051	-
			25 RB	0	Back side	10	27710	2310	22.50	22.39	2.57%	0.833	0.854	-
				12	Back side	10	27710	2310	22.5	22.41	2.09%	0.824	0.841	-
					Top side	10	27710	2310	22.5	22.41	2.09%	0.407	0.416	-
					Bottom side	10	27710	2310	22.5	22.41	2.09%	0.002	0.003	-
					Right side	10	27710	2310	22.5	22.41	2.09%	0.136	0.139	-
					Left side	0	27710	2310	22.5	22.41	2.09%	0.129	0.132	-
				25	Right side	0	27710	2310	22.5	22.38	2.80%	0.836	0.859	-
			50 RB		Back side	10	27710	2310	22.5	22.42	1.86%	0.853	0.869	-
					Top side	10	27710	2310	22.5	22.42	1.86%	0.419	0.427	-
					Bottom side	0	27710	2310	22.5	22.42	1.86%	0.003	0.003	-
					Right side	0	27710	2310	22.5	22.42	1.86%	0.140	0.143	-
					Left side	0	27710	2310	22.5	22.42	1.86%	0.137	0.140	-

LTE FDD Band 30 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	15MHz	QPSK	1 RB	0	Back side	0	27710	2310	15	14.84	3.75%	1.020	1.058	-
					Top side	0	27710	2310	15	14.84	3.75%	0.309	0.321	-
				25	Back side	0	27710	2310	15	14.79	4.95%	0.998	1.047	-
				49	Back side	0	27710	2310	15	14.72	6.66%	1.040	1.109	455
					Back side*	0	27710	2310	15	14.72	6.66%	1.010	1.077	-
			25 RB	0	Back side	0	27710	2310	15	14.93	1.62%	0.958	0.974	-
					Top side	0	27710	2310	15	14.93	1.62%	0.298	0.303	-
				12	Back side	0	27710	2310	15	14.92	1.86%	0.953	0.971	-
				25	Back side	0	27710	2310	15	14.88	2.80%	0.945	0.971	-
			50 RB		Back side	0	27710	2310	15	14.98	0.46%	0.949	0.953	-
					Top side	0	27710	2310	15	14.98	0.46%	0.289	0.290	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE TDD Band 38 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	99	Back side	10	37850	2580	23	22.88	2.80%	0.598	0.615	-
					Back side	10	38000	2595	23	22.98	0.46%	0.606	0.609	-
					Back side	10	38150	2610	23	22.97	0.69%	0.583	0.587	-
					Top side	10	38000	2595	23	22.98	0.46%	0.478	0.480	-
					Bottom side	10	38000	2595	23	22.98	0.46%	0.002	0.002	-
					Right side	0	38000	2595	23	22.98	0.46%	0.175	0.176	-
					Left side	0	38000	2595	23	22.98	0.46%	0.056	0.056	-
			50 RB	0	Back side	10	38000	2595	22	21.84	3.75%	0.446	0.463	-
					Back side	10	38150	2610	22	21.83	3.99%	0.438	0.456	-
					Top side	0	38000	2595	22	21.84	3.75%	0.350	0.363	-
					Bottom side	0	38000	2595	22	21.84	3.75%	0.001	0.001	-
					Right side	0	38000	2595	22	21.84	3.75%	0.132	0.137	-
					Left side	0	38000	2595	22	21.84	3.75%	0.053	0.055	-
			100 RB		Back side	10	37850	2580	22	21.77	5.44%	0.443	0.467	-
					Back side	10	38000	2595	22	21.80	4.71%	0.451	0.472	-
					Back side	10	38150	2610	22	21.82	4.23%	0.421	0.439	-
					Top side	10	38150	2610	22	21.82	4.23%	0.348	0.363	-
					Bottom side	0	38150	2610	22	21.82	4.23%	0.001	0.001	-
					Right side	0	38150	2610	22	21.82	4.23%	0.134	0.140	-
					Left side	0	38150	2610	22	21.82	4.23%	0.054	0.057	-

LTE TDD Band 38 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	0	37850	2580	18.5	18.32	4.23%	1.070	1.115	-
					Back side	0	38000	2595	18.5	18.48	0.46%	1.100	1.105	456
					Back side*	0	38000	2595	18.5	18.48	0.46%	1.040	1.045	-
					Back side	0	38150	2610	18.5	18.35	3.51%	1.020	1.056	-
					Top side	0	38000	2595	18.5	18.48	0.46%	0.442	0.444	-
			50 RB	0	Back side	0	38000	2595	18.5	18.28	5.20%	1.080	1.136	-
					Back side	0	38150	2610	18.5	18.23	6.41%	1.020	1.085	-
					Top side	0	38000	2595	18.5	18.28	5.20%	0.435	0.458	-
				50	Back side	0	37850	2580	18.5	18.17	7.89%	1.060	1.144	-
			100 RB		Back side	0	37850	2580	18.5	18.18	7.65%	1.070	1.152	-
					Back side	0	38000	2595	18.5	18.23	6.41%	1.040	1.107	-
					Back side	0	38150	2610	18.5	18.25	5.93%	1.010	1.070	-
					Top side	0	38150	2610	18.5	18.25	5.93%	0.460	0.487	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE TDD Band 41 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	10	39750	2506	23	23.00	0.00%	0.428	0.428	-
					Back side	10	40185	2549.5	23	22.99	0.23%	0.396	0.397	-
					Back side	10	41055	2636.5	23	22.94	1.39%	0.393	0.398	-
					Top side	10	39750	2506	23	23.00	0.00%	0.309	0.309	-
					Bottom side	0	39750	2506	23	23.00	0.00%	0.004	0.004	-
					Right side	0	39750	2506	23	23.00	0.00%	0.102	0.102	-
					Left side	0	39750	2506	23	23.00	0.00%	0.127	0.127	-
				99	Back side	10	40620	2593	23	22.99	0.23%	0.371	0.372	-
					Back side	10	41490	2680	23	22.85	3.51%	0.369	0.382	-
			50 RB	0	Back side	10	40185	2549.5	22	21.81	4.47%	0.336	0.351	-
					Back side	10	41055	2636.5	22	21.79	4.95%	0.352	0.369	-
					Top side	10	40185	2549.5	22	21.81	4.47%	0.275	0.287	-
					Bottom side	0	40185	2549.5	22	21.81	4.47%	0.003	0.003	-
					Right side	0	40185	2549.5	22	21.81	4.47%	0.084	0.088	-
					Left side	0	40185	2549.5	22	21.81	4.47%	0.104	0.109	-
				50	Back side	10	39750	2506	22	21.53	11.43%	0.339	0.378	-
					Back side	10	40620	2593	22	21.73	6.41%	0.322	0.343	-
					Back side	10	41490	2680	22	21.78	5.20%	0.308	0.324	-
			100 RB		Back side	10	39750	2506	22	21.52	11.69%	0.335	0.374	-
					Back side	10	40185	2549.5	22	21.73	6.41%	0.328	0.349	-
					Back side	10	40620	2593	22	21.65	8.39%	0.341	0.370	-
					Back side	10	41055	2636.5	22	21.71	6.91%	0.339	0.362	-
					Back side	0	41490	2680	22	21.77	5.44%	0.308	0.325	-
					Top side	10	41490	2680	22	21.77	5.44%	0.268	0.283	-
					Bottom side	0	41490	2680	22	21.77	5.44%	0.002	0.003	-
					Right side	0	41490	2680	22	21.77	5.44%	0.088	0.092	-
					Left side	0	41490	2680	22	21.77	5.44%	0.102	0.108	-

LTE TDD Band 41 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	0	39750	2506	18	17.59	9.90%	1.070	1.176	457
					Back side*	0	39750	2506	18	17.59	9.90%	1.010	1.110	-
					Back side	0	40185	2549.5	18	17.96	0.93%	0.983	0.992	-
					Back side	0	41055	2636.5	18	17.93	1.62%	0.957	0.973	-
				99	Back side	0	40620	2593	18	17.80	4.71%	0.988	1.035	-
					Back side	0	41490	2680	18	17.98	0.46%	0.840	0.844	-
					Top side	0	41490	2680	18	17.98	0.46%	0.298	0.299	-
			50 RB	0	Back side	0	40185	2549.5	18	17.70	7.15%	1.000	1.072	-
					Back side	0	41055	2636.5	18	17.78	5.20%	0.983	1.034	-
					Top side	0	40185	2549.5	18	17.70	7.15%	0.327	0.350	-
				50	Back side	0	39750	2506	18	17.42	14.29%	0.994	1.136	-
					Back side	0	40620	2593	18	17.72	6.66%	0.981	1.046	-
					Back side	0	41490	2680	18	17.76	5.68%	0.894	0.945	-
			100 RB		Back side	0	39750	2506	18	17.44	13.76%	0.968	1.101	-
					Back side	0	40185	2549.5	18	17.64	8.64%	0.977	1.061	-
					Back side	0	40620	2593	18	17.67	7.89%	0.971	1.048	-
					Back side	0	41055	2636.5	18	17.73	6.41%	0.953	1.014	-
					Back side	0	41490	2680	18	17.75	5.93%	0.742	0.786	-
					Top side	0	41490	2680	18	17.75	5.93%	0.291	0.308	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

LTE FDD Band 66 (without power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	0	Back side	10	132072	1720	23.5	23.44	1.39%	0.809	0.820	-
					Back side	10	132572	1770	23.5	23.38	2.80%	0.796	0.818	-
					Right side	0	132072	1720	23.5	23.44	1.39%	1.035	1.049	-
					Right side	0	132572	1770	23.5	23.38	2.80%	0.914	0.940	-
				99	Back side	10	132322	1745	23.5	23.49	0.23%	0.817	0.819	-
					Top side	10	132322	1745	23.5	23.49	0.23%	0.515	0.516	-
					Bottom side	0	132322	1745	23.5	23.49	0.23%	0.003	0.003	-
					Right side	0	132322	1745	23.5	23.49	0.23%	1.050	1.052	-
					Left side	0	132322	1745	23.5	23.49	0.23%	0.108	0.108	-
			50 RB	0	Back side	10	132572	1770	22.5	22.34	3.75%	0.663	0.688	-
					Top side	10	132572	1770	22.5	22.34	3.75%	0.859	0.891	-
				25	Back side	10	132072	1720	22.5	22.28	5.20%	0.654	0.688	-
					Top side	10	132072	1720	22.5	22.28	5.20%	0.899	0.946	-
				50	Back side	10	132322	1745	22.5	22.44	1.39%	0.644	0.653	-
					Top side	10	132322	1745	22.5	22.44	1.39%	0.417	0.423	-
					Bottom side	0	132322	1745	22.5	22.44	1.39%	0.003	0.003	-
					Right side	0	132322	1745	22.5	22.44	1.39%	0.853	0.865	-
					Left side	0	132322	1745	22.5	22.44	1.39%	0.054	0.055	-
			100 RB		Back side	10	132072	1720	22.5	22.40	2.33%	0.660	0.675	-
					Back side	10	132322	1745	22.5	22.50	0.00%	0.658	0.658	-
					Back side	10	132572	1770	22.5	22.44	1.39%	0.666	0.675	-
					Top side	10	132572	1770	22.5	22.44	1.39%	0.408	0.414	-
					Bottom side	0	132572	1770	22.5	22.44	1.39%	0.003	0.003	-
					Right side	0	132072	1720	22.5	22.40	2.33%	0.909	0.930	-
					Right side	0	132322	1745	22.5	22.50	0.00%	0.867	0.867	-
					Right side	0	132572	1770	22.5	22.44	1.39%	0.916	0.929	-
					Left side	0	132572	1770	22.5	22.44	1.39%	0.068	0.069	-

LTE FDD Band 66 (with power reduction)

Mode	Bandwidth (MHz)	Modulation	RB Size	RB start	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
												Measured	Reported	
Body	20MHz	QPSK	1 RB	50	Back side	0	132072	1720	17.5	17.33	3.99%	1.060	1.102	458
					Back side*	0	132072	1720	17.5	17.33	3.99%	1.030	1.071	-
					Back side	0	132322	1745	17.5	17.46	0.93%	1.040	1.050	-
					Top side	0	132072	1720	17.5	17.33	3.99%	0.570	0.593	-
				99	Back side	0	132572	1770	17.5	17.32	4.23%	1.050	1.094	-
			50 RB	0	Back side	0	132072	1720	17.5	17.49	0.23%	0.987	0.989	-
					Back side	0	132572	1770	17.5	17.39	2.57%	1.020	1.046	-
					Top side	0	132572	1770	17.5	17.39	2.57%	0.548	0.562	-
				50	Back side	0	132322	1745	17.5	17.31	4.47%	0.944	0.986	-
			100 RB		Back side	0	132072	1720	17.5	17.36	3.28%	0.991	1.023	-
					Back side	0	132322	1745	17.5	17.37	3.04%	0.968	0.997	-
					Back side	0	132572	1770	17.5	17.45	1.16%	0.976	0.987	-
					Top side	0	132572	1770	17.5	17.45	1.16%	0.553	0.559	-

* - repeated at the highest SAR measurement according to the KDB 865664 D01

WLAN Main Antenna

Antenna	Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
									Measured	Reported	
Main	WLAN 802.11b	Back sdie	0	6	2437	16	15.95	101.16%	0.975	0.986	459
		Back sdie*	0	6	2437	16	15.95	101.16%	0.963	0.974	-
		Back sdie	0	11	2462	16	15.93	101.62%	0.951	0.966	-
		Top side	0	6	2437	16	15.95	101.16%	0.288	0.291	-
		Right side	0	6	2437	16	15.95	101.16%	0.010	0.010	-
		Left side	0	6	2437	16	15.95	101.16%	0.021	0.022	-
	WLAN 802.11n(40M) 5.2G	Back sdie	0	38	5190	15.5	15.49	100.23%	1.150	1.153	460
		Back sdie*	0	38	5190	15.5	15.49	100.23%	1.120	1.123	-
		Back sdie	0	46	5230	15.5	15.47	100.69%	1.100	1.108	-
		Top side	0	38	5190	15.5	15.49	100.23%	0.614	0.615	-
		Bottom side	0	38	5190	15.5	15.49	100.23%	0.317	0.318	-
		Right side	0	38	5190	15.5	15.49	100.23%	0.023	0.023	-
		Left side	0	38	5190	15.5	15.49	100.23%	0.044	0.044	-
	WLAN 802.11n(40M) 5.3G	Back sdie	0	54	5270	15.5	15.48	100.46%	0.895	0.899	-
		Back sdie	0	62	5310	15.5	15.49	100.23%	0.922	0.924	461
		Back sdie*	0	62	5310	15.5	15.49	100.23%	0.915	0.917	-
		Top side	0	62	5310	15.5	15.49	100.23%	0.537	0.538	-
		Bottom side	0	62	5310	15.5	15.49	100.23%	0.003	0.003	-
		Right side	0	62	5310	15.5	15.49	100.23%	0.021	0.021	-
		Left side	0	62	5310	15.5	15.49	100.23%	0.041	0.041	-
	WLAN 802.11n(40M) 5.6G	Back sdie	0	134	5670	16	15.99	100.23%	0.700	0.702	462
		Top side	0	134	5670	16	15.99	100.23%	0.462	0.463	-
		Bottom side	0	134	5670	16	15.99	100.23%	0.002	0.002	-
		Right side	0	134	5670	16	15.99	100.23%	0.017	0.017	-
		Left side	0	134	5670	16	15.99	100.23%	0.022	0.022	-
	WLAN 802.11ac(80M) 5.6G	Back sdie	0	138	5690	16	15.99	100.23%	0.614	0.615	463
		Top side	0	138	5690	16	15.99	100.23%	0.442	0.443	-
		Bottom side	0	138	5690	16	15.99	100.23%	0.002	0.002	-
		Right side	0	138	5690	16	15.99	100.23%	0.013	0.013	-
		Left side	0	138	5690	16	15.99	100.23%	0.015	0.015	-
	WLAN 802.1ac(80M) 5.8G	Back sdie	0	155	5775	15	14.97	100.69%	0.556	0.560	464
		Top side	0	155	5775	15	14.97	100.69%	0.283	0.285	-
		Bottom side	0	155	5775	15	14.97	100.69%	0.003	0.003	-
		Right side	0	155	5775	15	14.97	100.69%	0.011	0.011	-
		Left side	0	155	5775	15	14.97	100.69%	0.013	0.013	-

WLAN Aux Antenna

Antenna	Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
									Measured	Reported	
Aux	WLAN 802.11b	Back sdie	0	6	2437	16	15.96	100.93%	0.781	0.788	465
		Top side	0	6	2437	16	15.96	100.93%	0.165	0.167	-
		Bottom side	0	6	2437	16	15.96	100.93%	0.165	0.167	-
		Right side	0	6	2437	16	15.96	100.93%	0.004	0.004	-
		Left side	0	6	2437	16	15.96	100.93%	0.626	0.632	-
	Bluetooth (GFSK)	Back sdie	0	0	2402	11.5	9.79	148.25%	0.098	0.145	-
		Back sdie	0	39	2441	11.5	10.22	134.28%	0.179	0.240	466
		Back sdie	0	78	2480	11.5	9.55	156.68%	0.091	0.143	-
		Top side	0	39	2441	11.5	10.22	134.28%	0.056	0.075	-
		Bottom side	0	39	2441	11.5	10.22	134.28%	0.008	0.010	-
		Right side	0	39	2441	11.5	10.22	134.28%	0.000	0.000	-
		Left side	0	39	2441	11.5	10.22	134.28%	0.170	0.228	-
	WLAN 802.11n(40M) 5.2G	Back sdie	0	38	5190	15	14.98	100.46%	0.927	0.931	-
		Back sdie	0	46	5230	15	14.95	101.16%	0.915	0.926	-
		Top side	0	38	5190	15	14.98	100.46%	0.834	0.838	-
		Top side	0	46	5230	15	14.95	101.16%	0.817	0.826	-
		Bottom side	0	38	5190	15	14.98	100.46%	0.008	0.008	-
		Right side	0	46	5230	15	14.95	101.16%	0.012	0.012	-
		Left side	0	38	5190	15	14.98	100.46%	1.150	1.155	467
		Left side	0	46	5230	15	14.95	101.16%	1.100	1.113	-
		Left side	0	38	5190	15	14.98	100.46%	1.120	1.125	-
	WLAN 802.11n(40M) 5.3G	Back sdie	0	54	5270	15	14.92	101.86%	0.835	0.851	-
		Back sdie	0	62	5310	15	14.98	100.46%	0.863	0.867	-
		Top side	0	54	5270	15	14.92	101.86%	0.805	0.820	-
		Top side	0	62	5310	15	14.98	100.46%	0.817	0.821	-
		Bottom side	0	62	5310	15	14.98	100.46%	0.006	0.006	-
		Right side	0	62	5310	15	14.98	100.46%	0.015	0.015	-
		Left side	0	54	5270	15	14.92	101.86%	1.150	1.171	-
		Left side	0	62	5310	15	14.98	100.46%	1.180	1.185	468
		Left side*	0	62	5310	15	14.98	100.46%	1.160	1.165	-

WLAN Aux Antenna

Antenna	Mode	Position	Distance (mm)	CH	Freq. (MHz)	Max. Rated Avg. Power + Max. Tolerance (dBm)	Measured Avg. Power (dBm)	Scaling	Averaged SAR over 1g (W/kg)		Plot page
									Measured	Reported	
Aux	WLAN 802.11n(40M) 5.6G	Back sdie	0	134	5670	15	14.99	100.23%	0.661	0.663	-
		Top side	0	138	5690	15	14.94	101.39%	0.968	0.981	-
		Top side	0	134	5670	15	14.99	100.23%	0.987	0.989	-
		Bottom side	0	134	5670	15	14.99	100.23%	0.002	0.002	-
		Right side	0	134	5670	15	14.99	100.23%	0.019	0.019	-
		Left side	0	138	5690	15	14.94	101.39%	1.120	1.136	469
		Left side*	0	138	5690	15	14.94	101.39%	1.080	1.095	-
		Left side	0	134	5670	15	14.99	100.23%	1.100	1.103	-
	WLAN 802.11ac(80M) 5.6G	Back sdie	0	138	5690	15	14.99	100.23%	0.634	0.635	-
		Top side	0	122	5610	15	14.91	102.09%	0.796	0.813	-
		Top side	0	138	5690	15	14.99	100.23%	0.816	0.818	-
		Bottom side	0	138	5690	15	14.99	100.23%	0.003	0.003	-
		Right side	0	138	5690	15	14.99	100.23%	0.017	0.017	-
		Left side	0	106	5530	14	13.99	100.23%	0.934	0.936	-
		Left side	0	122	5610	15	14.91	102.09%	1.150	1.174	-
		Left side	0	138	5690	15	14.99	100.23%	1.190	1.193	470
		Left side	0	138	5690	15	14.99	100.23%	1.170	1.173	-
	WLAN 802.1ac(80M) 5.8G	Back sdie	0	155	5775	16	15.99	100.23%	0.671	0.673	-
		Top side	0	155	5775	16	15.99	100.23%	0.798	0.800	-
		Bottom side	0	155	5775	16	15.99	100.23%	0.003	0.003	-
		Right side	0	155	5775	16	15.99	100.23%	0.013	0.013	-
		Left side	0	155	5775	16	15.99	100.23%	1.160	1.163	471
		Left side*	0	155	5775	16	15.99	100.23%	1.110	1.113	-

3. Simultaneous Transmission Analysis

Simultaneous Transmission Scenarios:

NO.	Simultaneous Transmit Configurations	Body
1	UMTS + 2.4GHz WLAN Main / 2.4GHz WLAN Aux / 2.4GHz MIMO	YES
2	UMTS + 5GHz WLAN Main / 5GHz WLAN Aux / 5GHz MIMO	YES
3	UMTS + BT	YES
4	UMTS + 2.4/5GHz WLAN Maiin + BT	YES
5	LTE + 2.4GHz WLAN Main / 2.4GHz WLAN Aux / 2.4GHz MIMO	YES
6	LTE + 5GHz WLAN Main / 5GHz WLAN Aux / 5GHz MIMO	YES
7	LTE + BT	YES
8	LTE + 2.4/5GHz WLAN Main + BT	YES

Note :
1) WWAN and WLAN may transmit simultaneously.
2) Bluetooth and WLAN Aux share the same antenna path.
3) Bluetooth can transmit with WLAN Main simultaneously.

3.1 Estimated SAR calculation

According to KDB447498 D01 – When standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

$$\text{Estimated SAR} = \frac{\text{Max.tune up power(mW)}}{\text{Min. test separation distance(mm)}} \times \frac{\sqrt{\text{f(GHz)}}}{7.5}$$

If the minimum test separation distance is < 5mm, a distance of 5mm is used for estimated SAR calculation. When the test separation distance is >50mm, the 0.4W/kg is used for SAR-1g.

3.2 SPLSR evaluation and analysis

Per KDB447498D01, when the sum of SAR is larger than the limit, SAR test exclusion is determined by the SAR sum to peak location separation ratio(SPLSR).

The simultaneous transmitting antennas in each operating mode and exposure condition combination must be considered one pair at a time to determine the SAR to peak location separation ratio to qualify for test exclusion.

The ratio is determined by (SAR1 + SAR2)^1.5/Ri, rounded to two decimal digits, and must be ≤ 0.04 for all antenna pairs in the configuration to qualify for 1-g SAR test exclusion.

SAR1 and SAR2 are the highest reported or estimated SAR for each antenna in the pair, and Ri is the separation distance between the peak SAR locations for the antenna pair in mm.

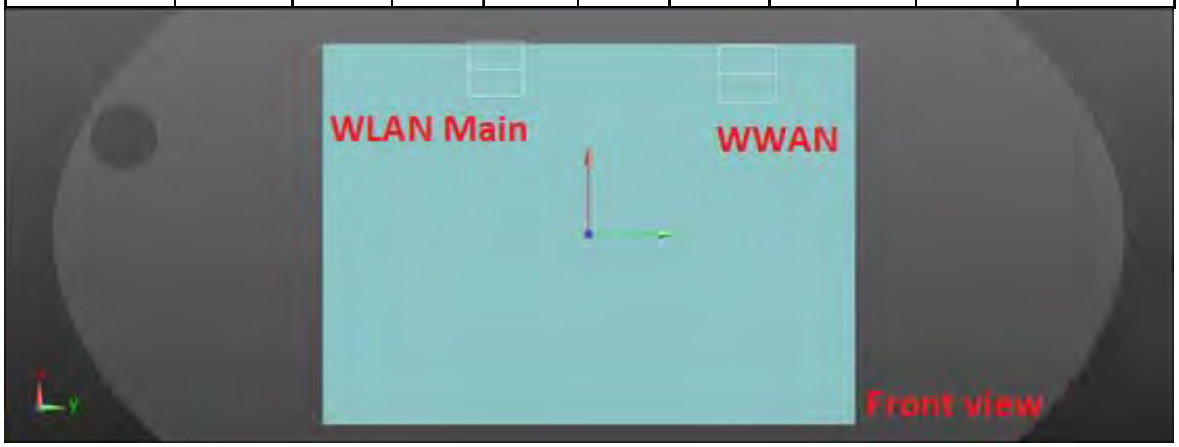
When standalone test exclusion applies, SAR is estimated; the peak location is assumed to be at the feed-point or geometric center of the antenna.

WCDMA Band II + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
1	WCDMA Band II	Back side	0	1.187	0.986	0.788	**2.961**	Analyzed as below
		Top side	0	0.783	0.291	0.167	1.241	ΣSAR<1.6, Not required
		Bottom side	0	0.006	0.004	0.167	0.177	ΣSAR<1.6, Not required
		Right side	0	1.351	0.010	0.004	1.365	ΣSAR<1.6, Not required
		Left side	0	0.138	0.022	0.632	0.792	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	2.173	138.4	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	1.975	208.44	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

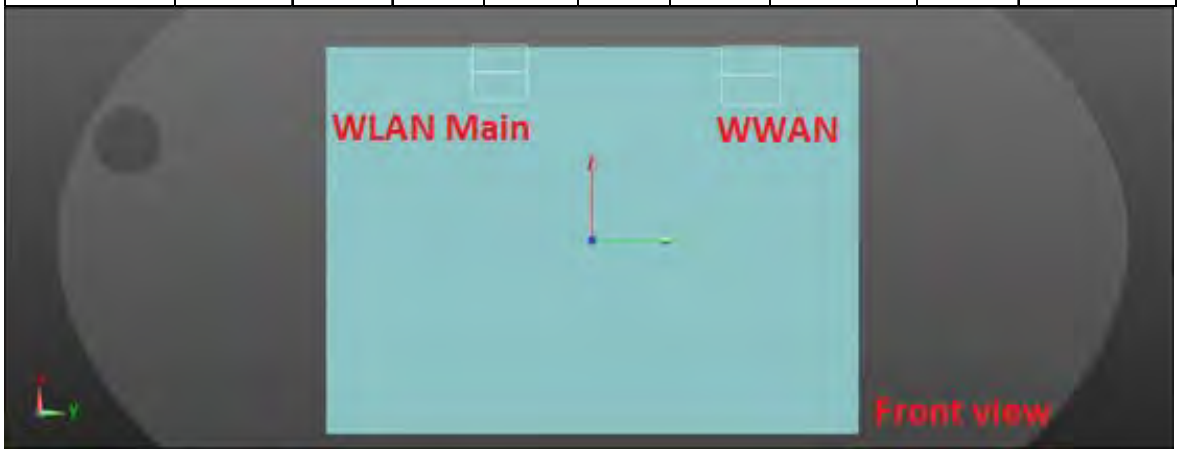
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.13	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WCDMA Band IV + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
2	WCDMA Band IV	Back side	0	1.187	0.986	0.788	**2.961**	Analyzed as below
		Top side	0	0.641	0.291	0.167	1.099	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.167	0.176	ΣSAR<1.6, Not required
		Right side	0	1.352	0.010	0.004	1.366	ΣSAR<1.6, Not required
		Left side	0	0.128	0.022	0.632	0.782	ΣSAR<1.6, Not required

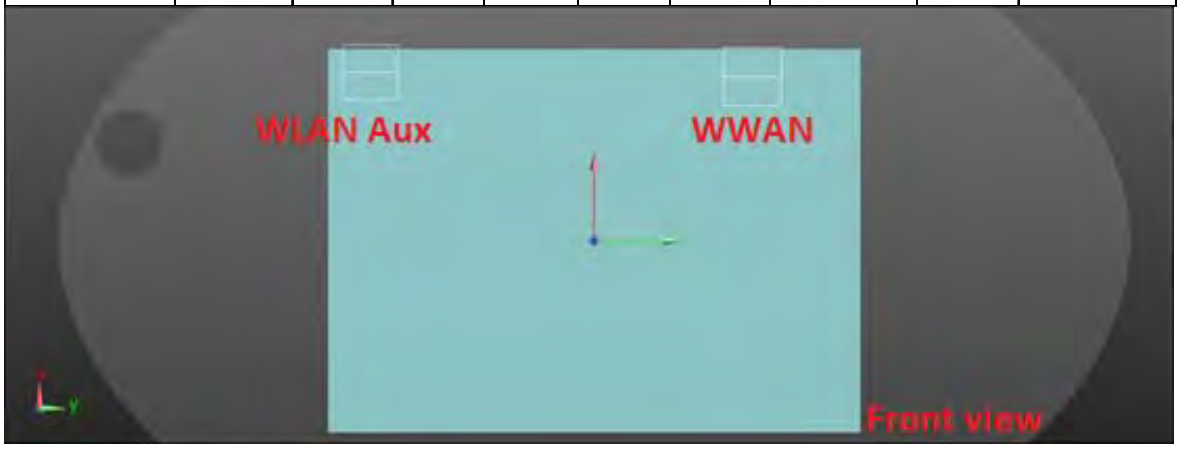
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	2.173	138.41	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	1.975	208.42	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WCDMA Band V + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
3	WCDMA Band V	Back side	0	1.000	0.986	0.788	**2.774**	Analyzed as below
		Top side	0	0.737	0.291	0.167	1.195	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.167	0.175	ΣSAR<1.6, Not required
		Right side	0	0.325	0.010	0.004	0.339	ΣSAR<1.6, Not required
		Left side	0	0.085	0.022	0.632	0.739	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.986	104.31	0.027	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.788	178.16	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 2 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
4	LTE FDD Band 2	Back side	0	1.167	0.986	0.788	**2.941**	Analyzed as below
		Top side	0	0.793	0.291	0.167	1.251	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.167	0.176	ΣSAR<1.6, Not required
		Right side	0	1.266	0.010	0.004	1.280	ΣSAR<1.6, Not required
		Left side	0	0.140	0.022	0.632	0.794	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	2.153	136.8	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	1.955	206.85	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

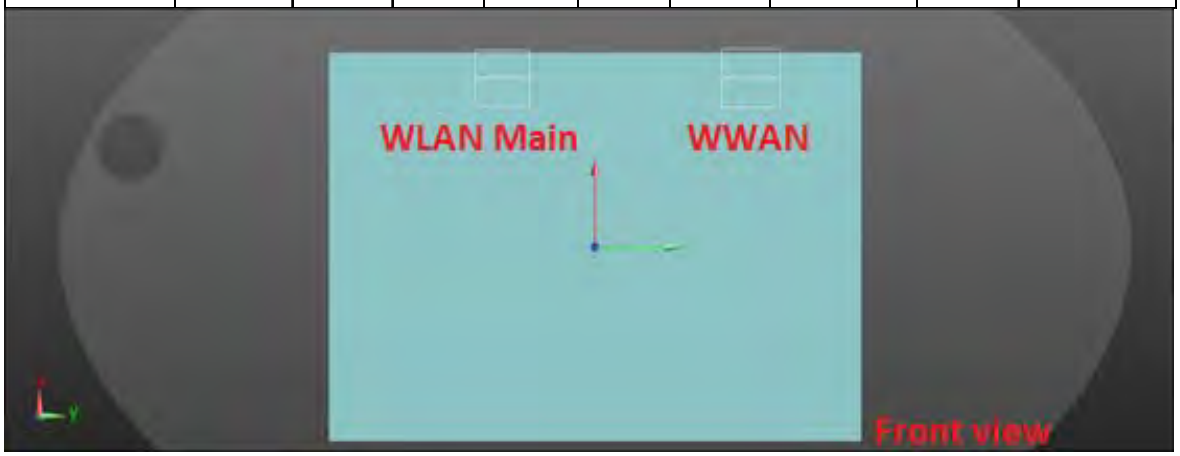
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 4 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
5	LTE FDD Band 4	Back side	0	1.151	0.986	0.788	**2.925**	Analyzed as below
		Top side	0	0.602	0.291	0.167	1.060	ΣSAR<1.6, Not required
		Bottom side	0	0.009	0.004	0.167	0.180	ΣSAR<1.6, Not required
		Right side	0	1.363	0.010	0.004	1.377	ΣSAR<1.6, Not required
		Left side	0	0.075	0.022	0.632	0.729	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	2.137	135.33	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	1.939	205.3	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 5 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
6	LTE FDD Band 5	Back side	0	1.042	0.986	0.788	**2.816**	Analyzed as below
		Top side	0	0.989	0.291	0.167	1.447	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.167	0.176	ΣSAR<1.6, Not required
		Right side	0	0.304	0.010	0.004	0.318	ΣSAR<1.6, Not required
		Left side	0	0.071	0.022	0.632	0.725	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	2.028	113.49	0.025	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	1.830	183.05	0.014	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

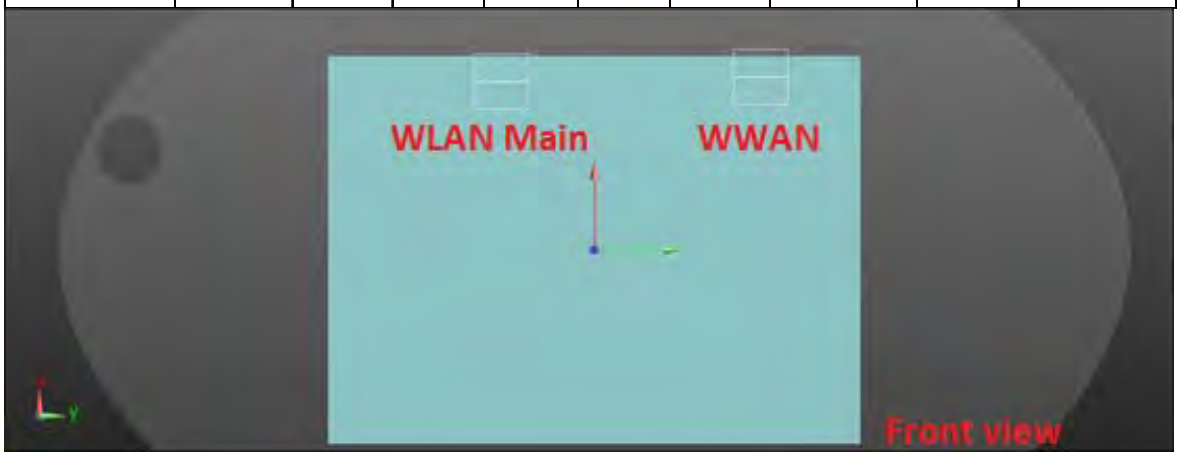
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 7 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
7	LTE FDD Band 7	Back side	0	1.173	0.986	0.788	**2.947**	Analyzed as below
		Top side	0	0.884	0.291	0.167	1.342	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.167	0.175	ΣSAR<1.6, Not required
		Right side	0	0.250	0.010	0.004	0.264	ΣSAR<1.6, Not required
		Left side	0	0.146	0.022	0.632	0.800	ΣSAR<1.6, Not required

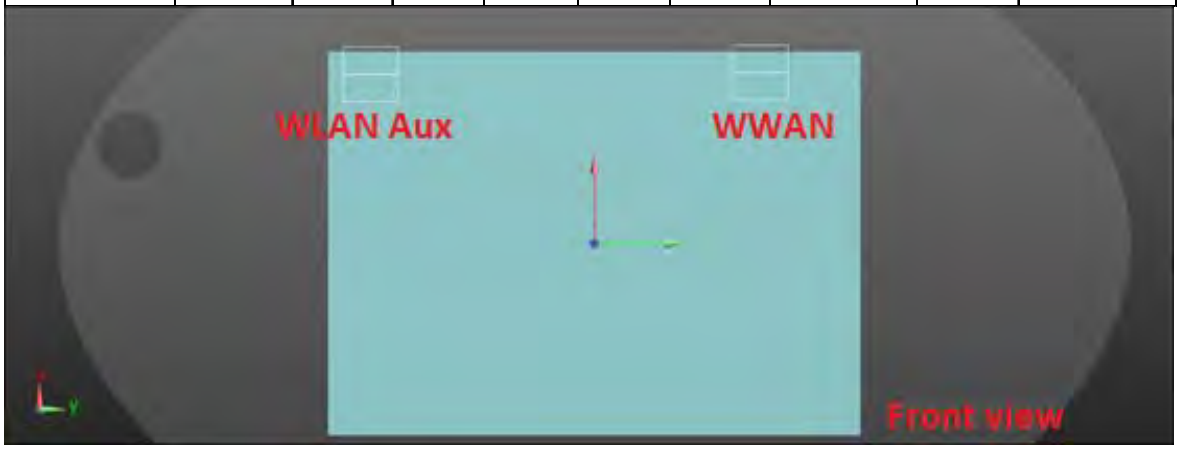
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	2.159	142.15	0.022	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	1.961	212.01	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 12 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
8	LTE FDD Band 12	Back side	0	0.919	0.986	0.788	**2.693**	Analyzed as below
		Top side	0	0.995	0.291	0.167	1.453	ΣSAR<1.6, Not required
		Bottom side	0	0.002	0.004	0.167	0.173	ΣSAR<1.6, Not required
		Right side	0	0.358	0.010	0.004	0.372	ΣSAR<1.6, Not required
		Left side	0	0.091	0.022	0.632	0.745	ΣSAR<1.6, Not required

WWAN + WLAN Main

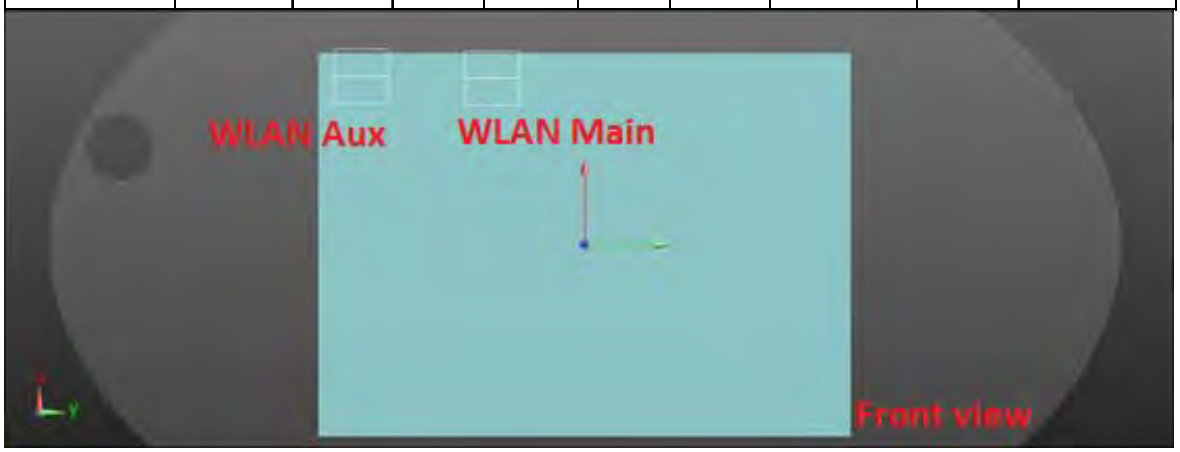
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.905	113.42	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.707	182.96	0.012	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

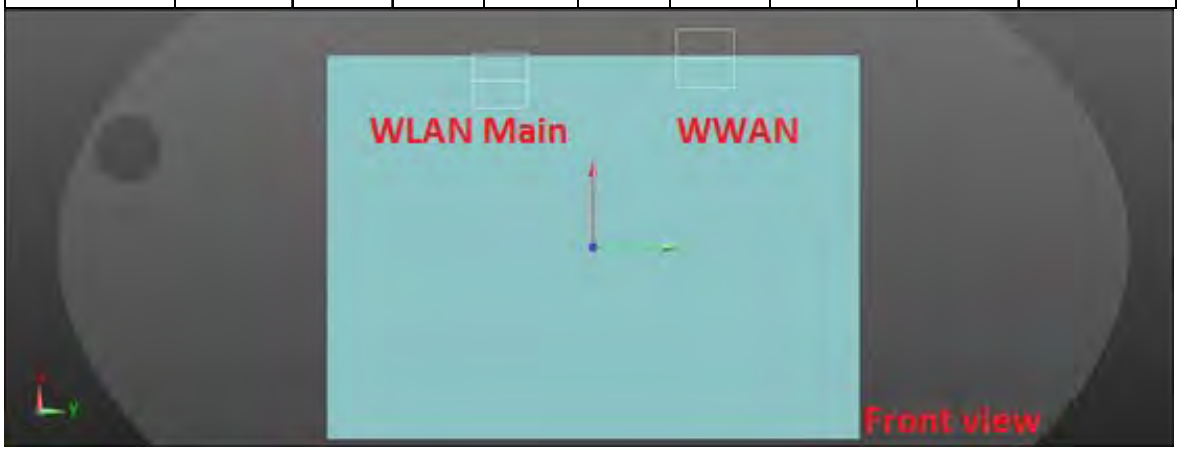


LTE FDD Band 13 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
9	LTE FDD Band 13	Back side	0	1.187	0.986	0.788	**2.961**	Analyzed as below
		Top side	0	1.289	0.291	0.167	**1.747**	Analyzed as below
		Bottom side	0	0.003	0.004	0.167	0.174	ΣSAR<1.6, Not required
		Right side	0	0.521	0.010	0.004	0.535	ΣSAR<1.6, Not required
		Left side	0	0.039	0.022	0.632	0.693	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	2.173	108.73	0.029	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

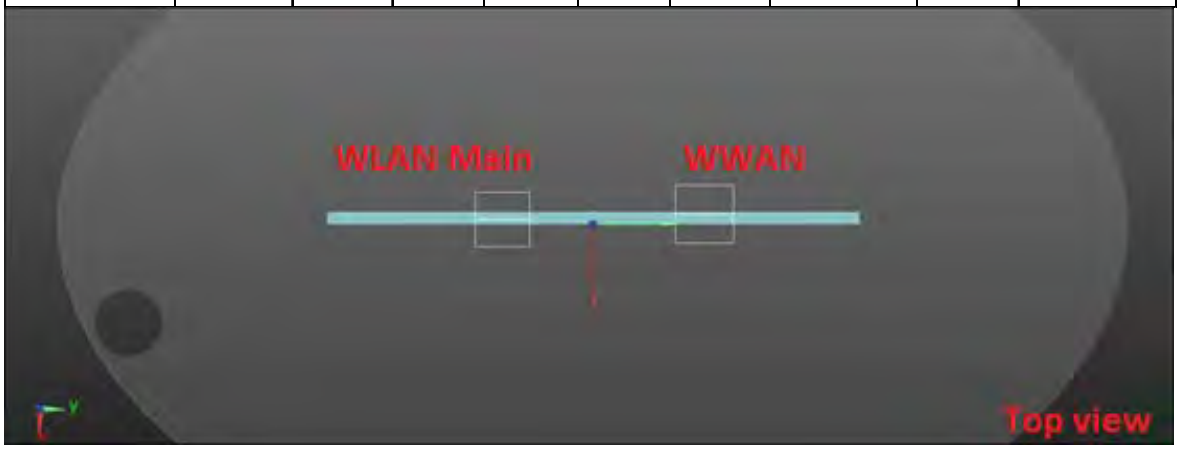
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	1.975	178.26	0.016	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

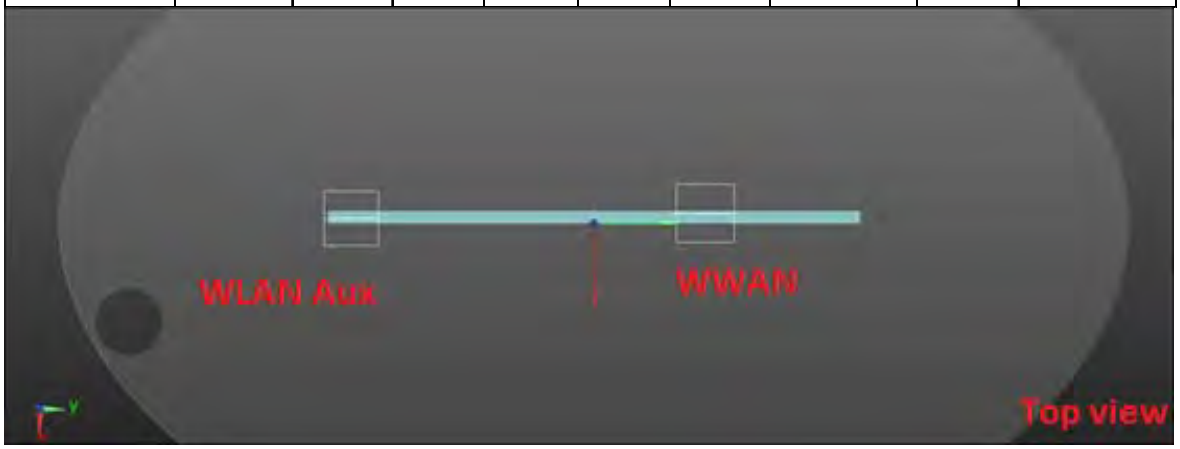
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.580	109.01	0.018	SPLSR<0.04, Not required
WLAN Main		0.291	-0.46	-4.96	-0.24				



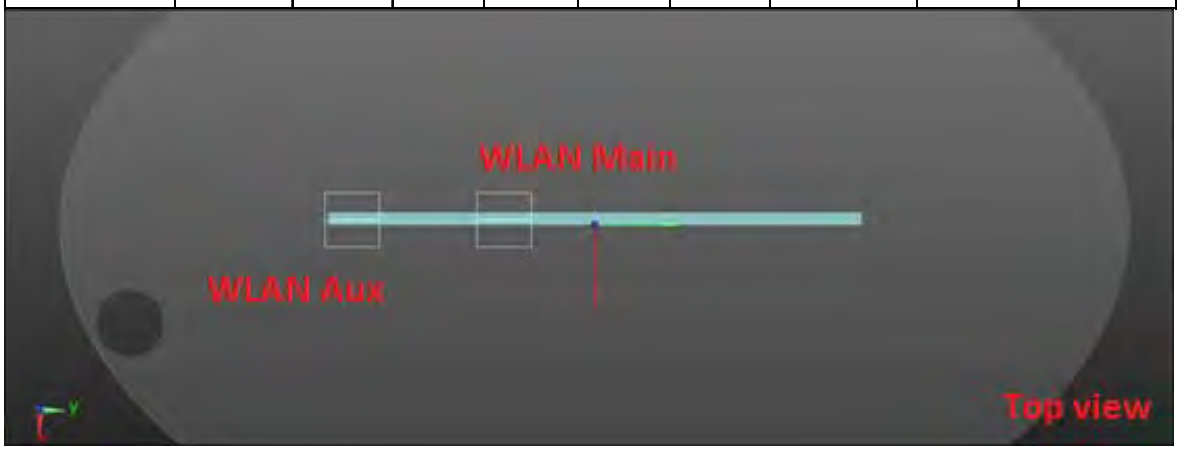
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.456	190.61	0.009	SPLSR<0.04, Not required
WLAN Aux		0.167	-0.36	-13.12	-0.22				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.291	-0.46	-4.96	-0.24	0.458	81.6	0.004	SPLSR<0.04, Not required
WLAN Aux		0.167	-0.36	-13.12	-0.22				



LTE FDD Band 17 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
10	LTE FDD Band 17	Back side	0	1.053	0.986	0.788	**2.827**	Analyzed as below
		Top side	0	1.280	0.291	0.167	**1.738**	Analyzed as below
		Bottom side	0	0.002	0.004	0.167	0.173	ΣSAR<1.6, Not required
		Right side	0	0.330	0.010	0.004	0.344	ΣSAR<1.6, Not required
		Left side	0	0.115	0.022	0.632	0.769	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	2.039	105.56	0.028	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

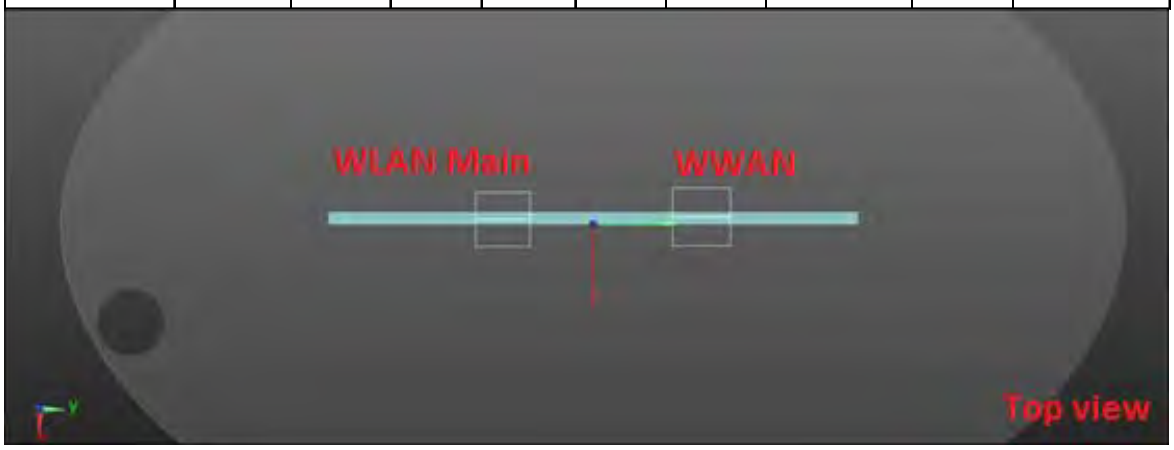
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	1.841	175.07	0.014	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

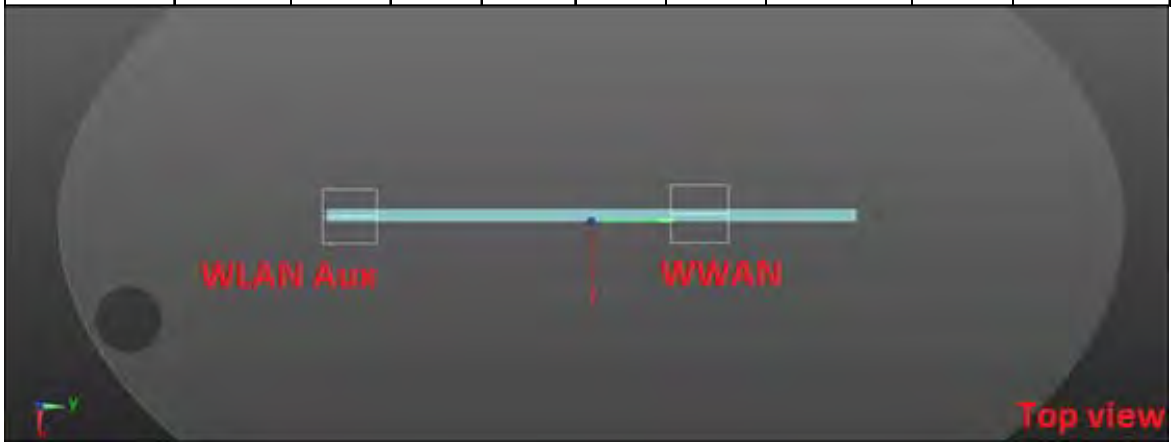
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.571	93.13	0.021	SPLSR<0.04, Not required
WLAN Main		0.291	-0.46	-4.96	-0.24				



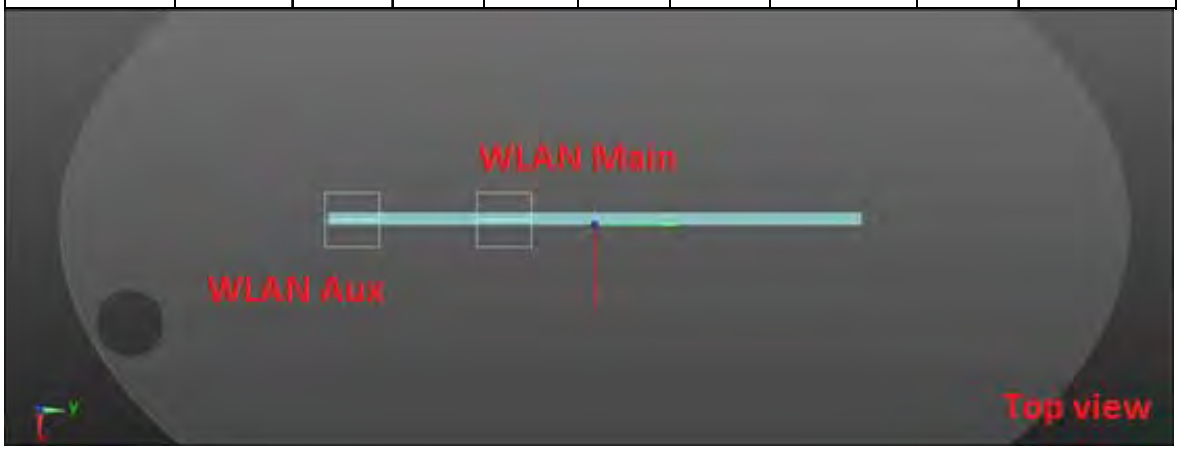
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.447	174.72	0.010	SPLSR<0.04, Not required
WLAN Aux		0.167	-0.36	-13.12	-0.22				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.291	-0.46	-4.96	-0.24	0.458	81.6	0.004	SPLSR<0.04, Not required
WLAN Aux		0.167	-0.36	-13.12	-0.22				



LTE FDD Band 26 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
11	LTE FDD Band 26	Back side	0	1.120	0.986	0.788	**2.894**	Analyzed as below
		Top side	0	0.968	0.291	0.167	1.426	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.167	0.176	ΣSAR<1.6, Not required
		Right side	0	0.229	0.010	0.004	0.243	ΣSAR<1.6, Not required
		Left side	0	0.080	0.022	0.632	0.734	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	2.106	110.21	0.028	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	1.908	179.76	0.015	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

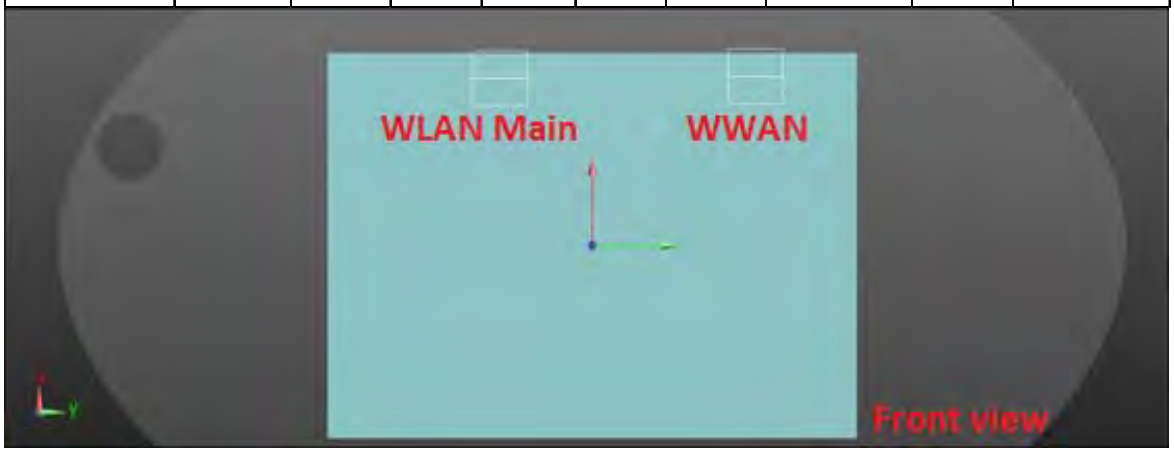
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 30 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
12	LTE FDD Band 30	Back side	0	1.109	0.986	0.788	**2.883**	Analyzed as below
		Top side	0	0.427	0.291	0.167	0.885	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.167	0.175	ΣSAR<1.6, Not required
		Right side	0	0.154	0.010	0.004	0.168	ΣSAR<1.6, Not required
		Left side	0	0.160	0.022	0.632	0.814	ΣSAR<1.6, Not required

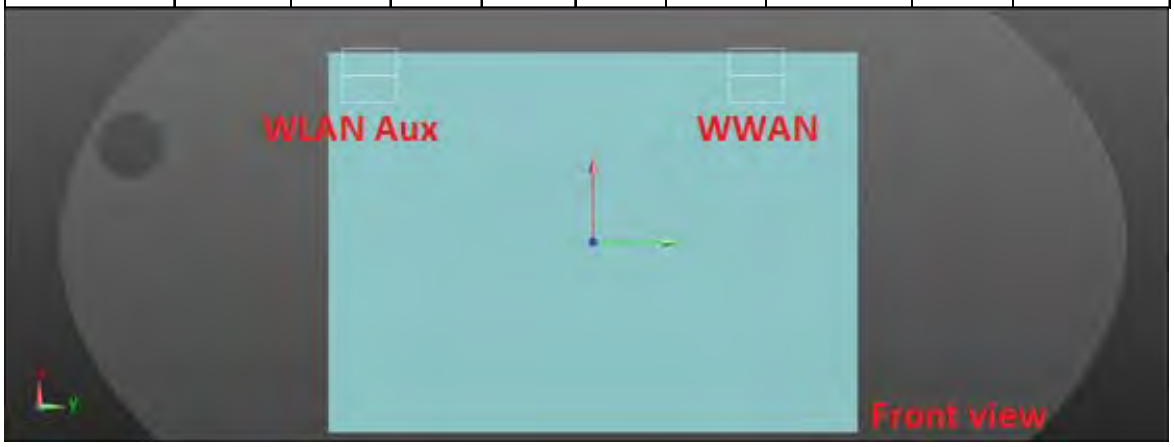
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	2.095	140.9	0.022	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	1.897	210.8	0.012	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				



WLAN MIMO

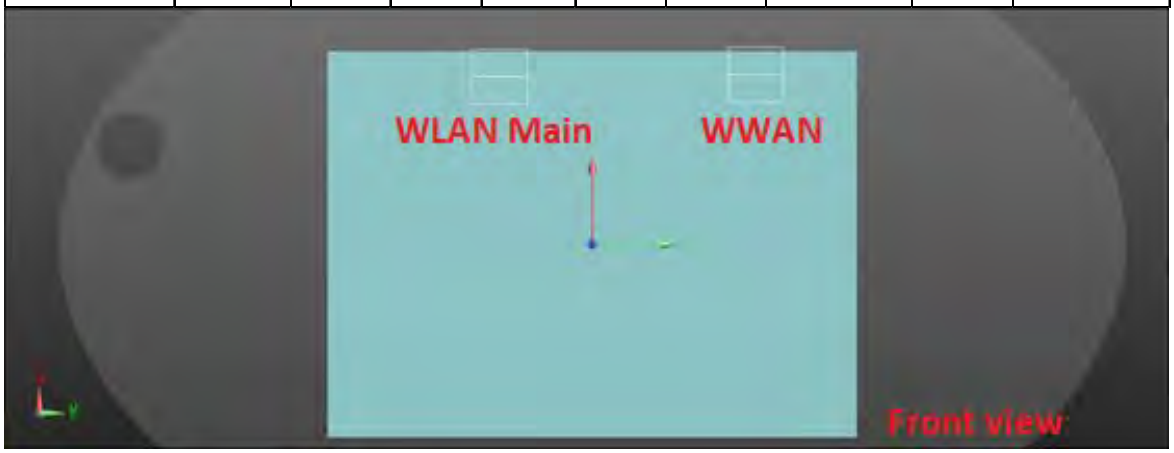
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 38 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
13	LTE FDD Band 38	Back side	0	1.152	0.986	0.788	**2.926**	Analyzed as below
		Top side	0	0.487	0.291	0.167	0.945	ΣSAR<1.6, Not required
		Bottom side	0	0.002	0.004	0.167	0.173	ΣSAR<1.6, Not required
		Right side	0	0.176	0.010	0.004	0.190	ΣSAR<1.6, Not required
		Left side	0	0.057	0.022	0.632	0.711	ΣSAR<1.6, Not required

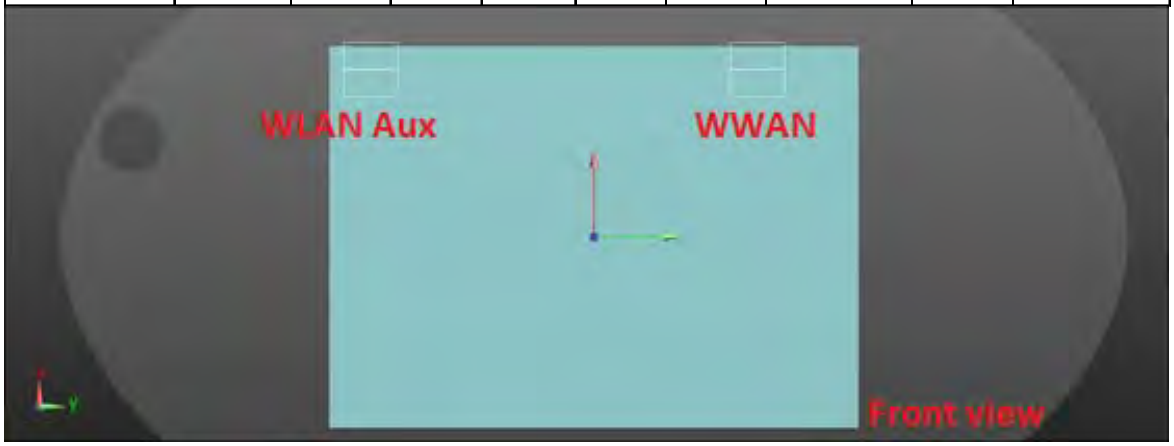
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	2.138	138.86	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	1.940	208.8	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				



WLAN MIMO

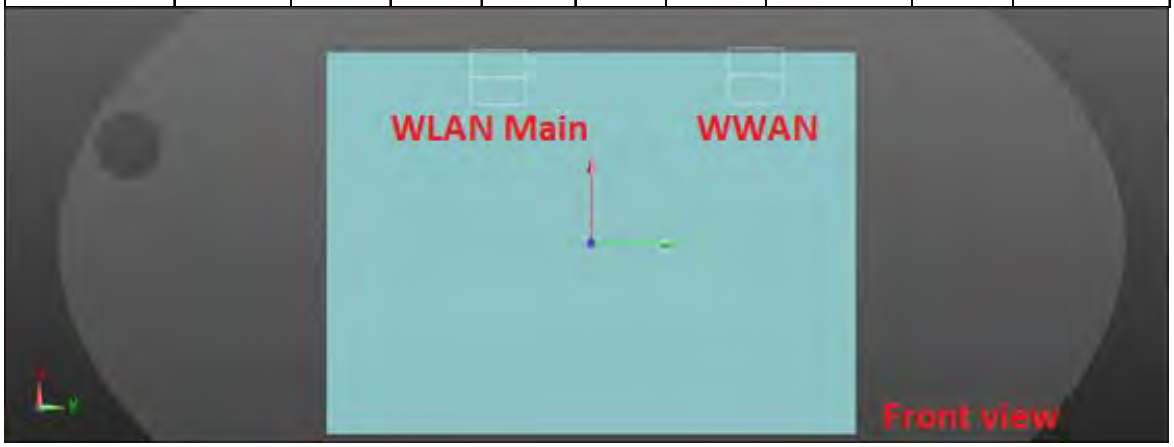
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE TDD Band 41 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
14	LTE FDD Band 41	Back side	0	1.176	0.986	0.788	**2.950**	Analyzed as below
		Top side	0	0.350	0.291	0.167	0.808	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.004	0.167	0.174	ΣSAR<1.6, Not required
		Right side	0	0.092	0.010	0.004	0.106	ΣSAR<1.6, Not required
		Left side	0	0.109	0.022	0.632	0.763	ΣSAR<1.6, Not required

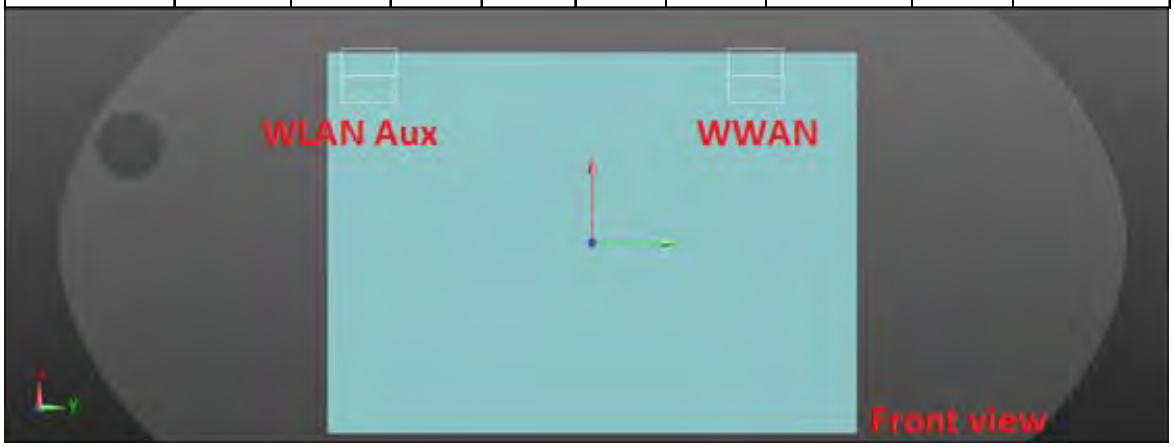
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	2.162	138.86	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	1.964	208.8	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				



WLAN MIMO

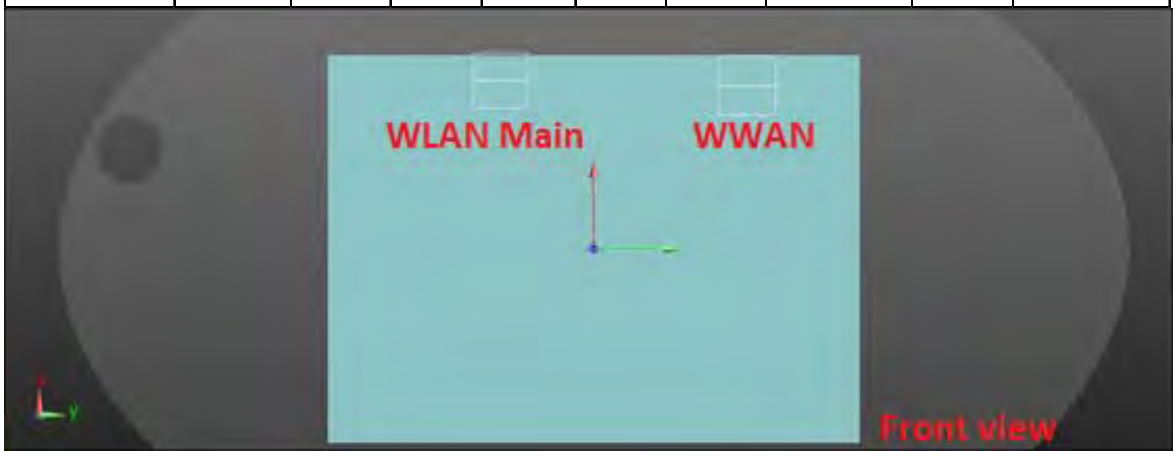
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

LTE FDD Band 66 + 2.4GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
15	LTE FDD Band 66	Back side	0	1.102	0.986	0.788	**2.876**	Analyzed as below
		Top side	0	0.593	0.291	0.167	1.051	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.004	0.167	0.174	ΣSAR<1.6, Not required
		Right side	0	1.052	0.010	0.004	1.066	ΣSAR<1.6, Not required
		Left side	0	0.108	0.022	0.632	0.762	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	2.088	133.8	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	1.890	203.85	0.013	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WLAN MIMO

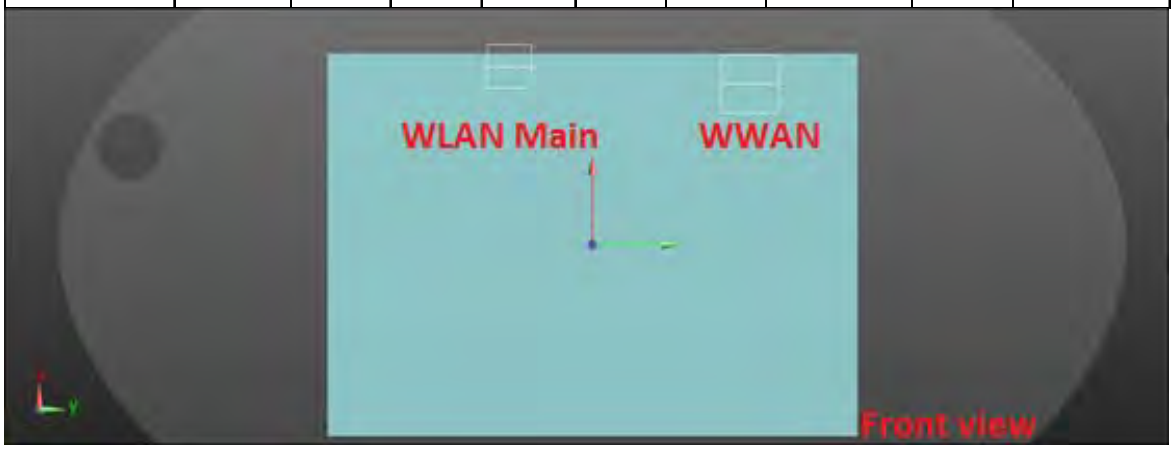
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.774	70.1	0.034	SPLSR<0.04, Not required
WLAN Aux		0.788	9.44	-11.98	-0.14				

WCDMA Band II + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
16	WCDMA Band II	Back side	0	1.187	1.153	0.931	**3.271**	Analyzed as below
		Top side	0	0.783	0.615	0.989	**2.387**	Analyzed as below
		Bottom side	0	0.006	0.318	0.167	0.491	ΣSAR<1.6, Not required
		Right side	0	1.351	0.023	0.019	1.393	ΣSAR<1.6, Not required
		Left side	0	0.138	0.004	1.193	1.335	ΣSAR<1.6, Not required

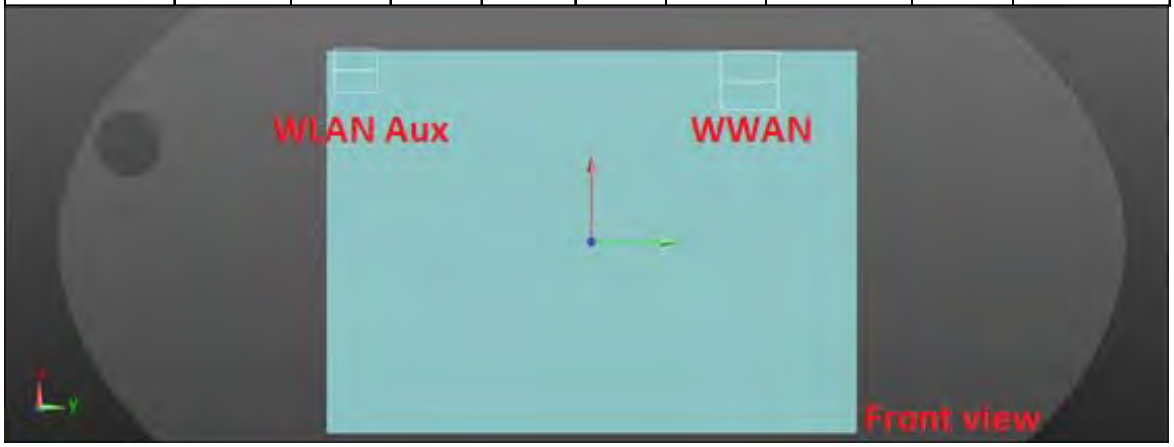
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	2.340	134.83	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				



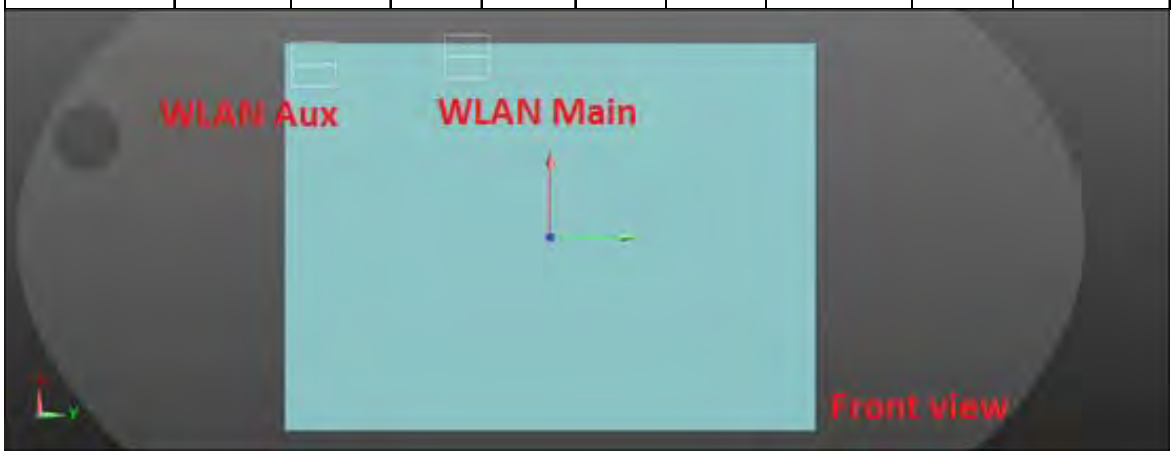
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	2.118	219.47	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



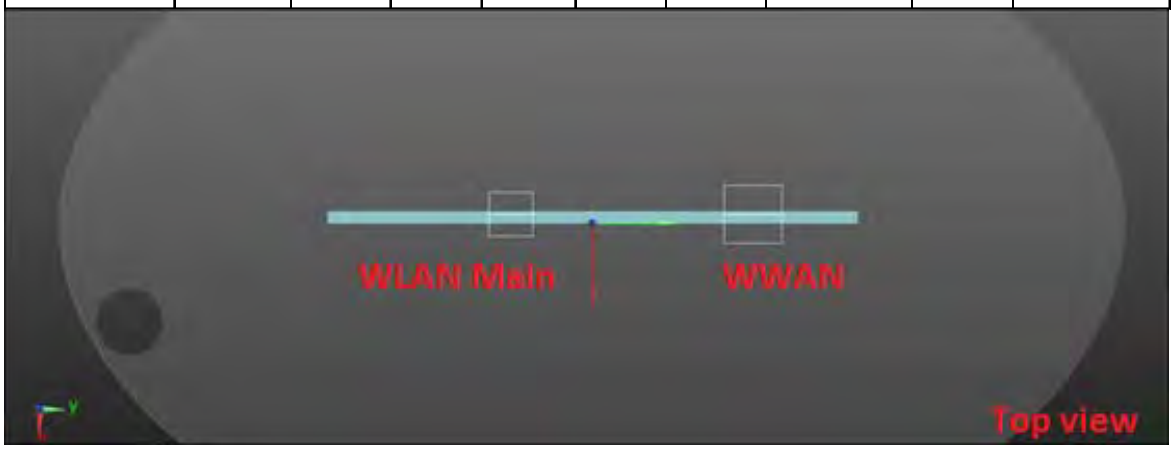
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



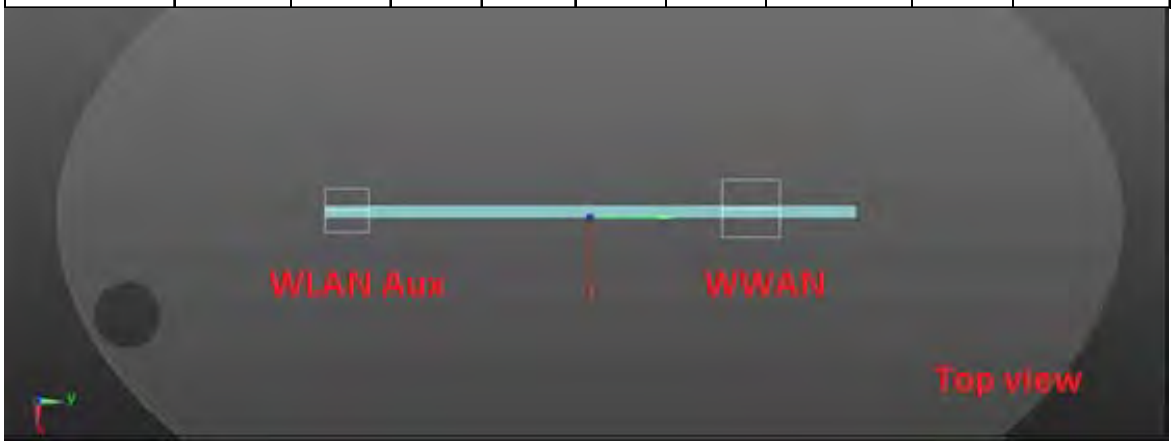
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.783	-0.50	8.69	-0.34	1.398	130.31	0.013	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



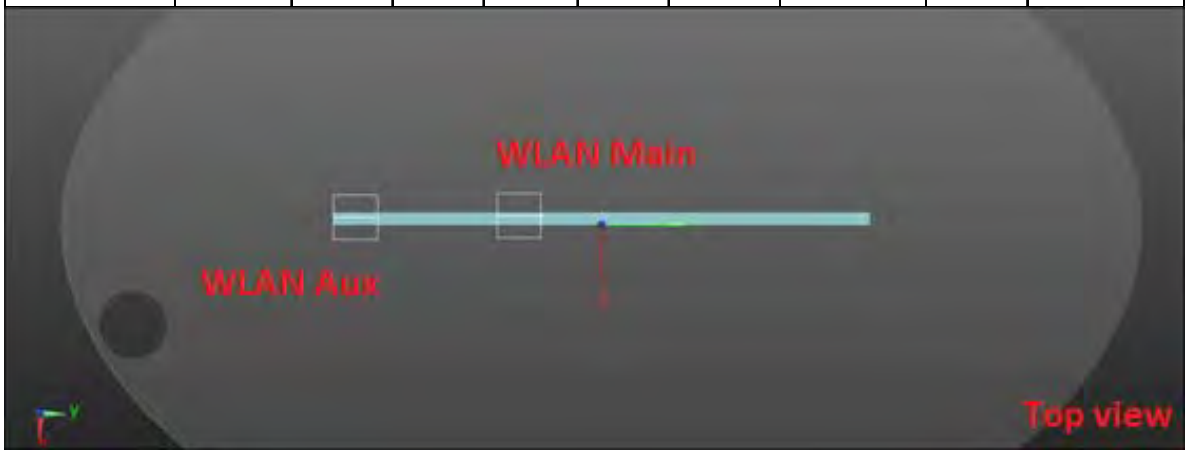
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.783	-0.50	8.69	-0.34	1.772	224.92	0.010	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				

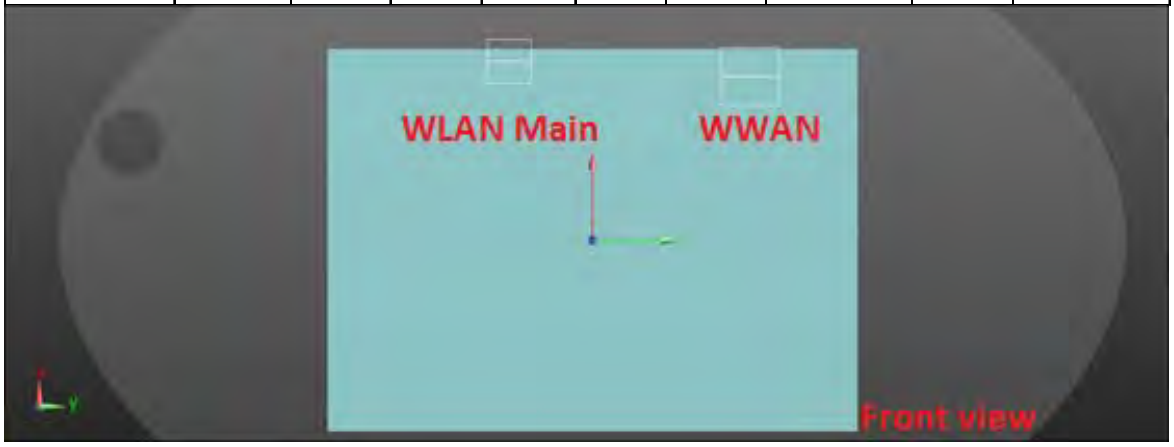


WCDMA Band IV + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
17	WCDMA Band IV	Back side	0	1.187	1.153	0.931	**3.271**	Analyzed as below
		Top side	0	0.641	0.615	0.989	**2.245**	Analyzed as below
		Bottom side	0	0.005	0.318	0.167	0.490	ΣSAR<1.6, Not required
		Right side	0	1.352	0.023	0.019	1.394	ΣSAR<1.6, Not required
		Left side	0	0.128	0.004	1.193	1.325	ΣSAR<1.6, Not required

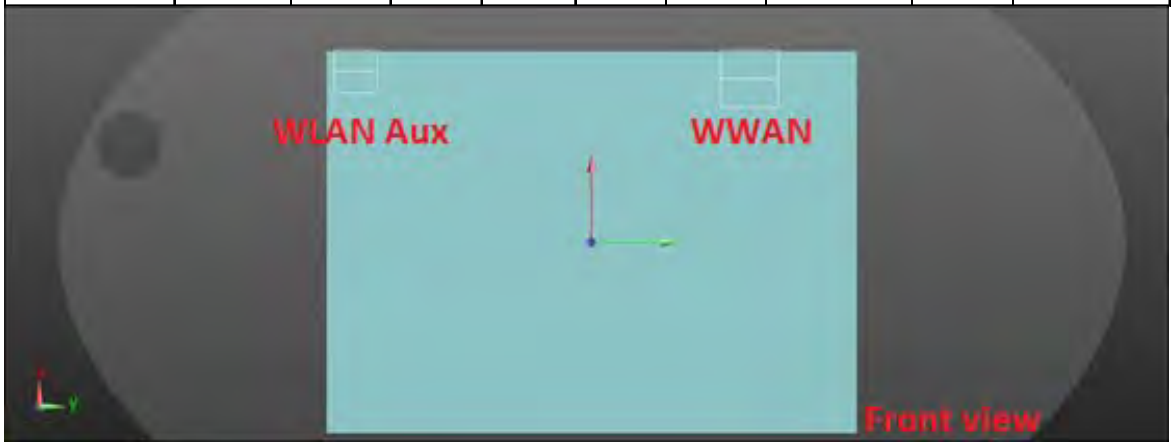
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	2.340	134.75	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				



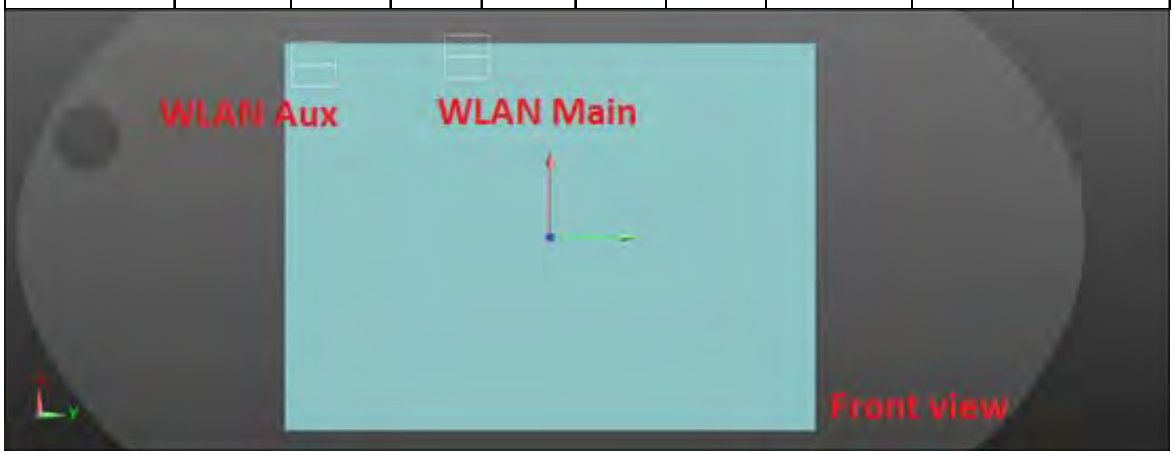
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	2.118	219.44	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



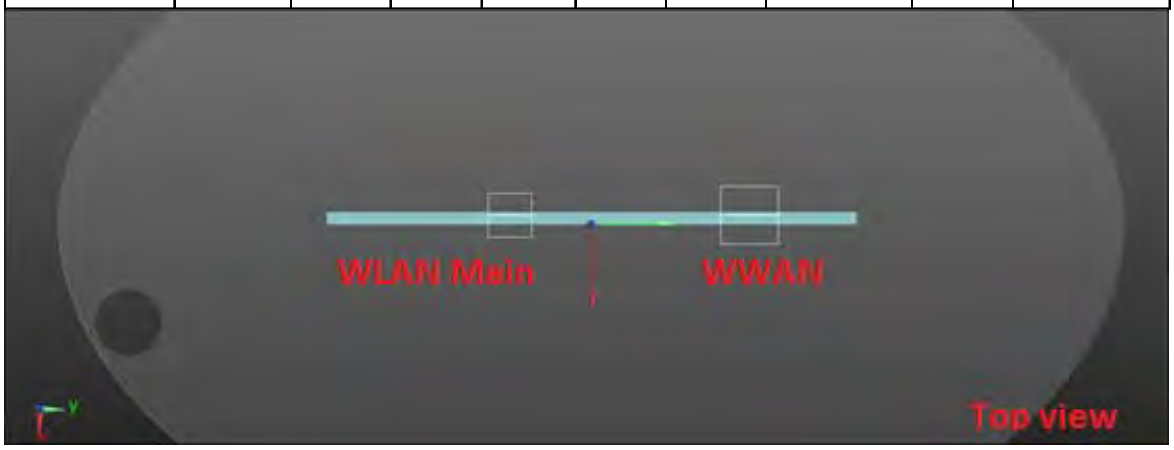
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



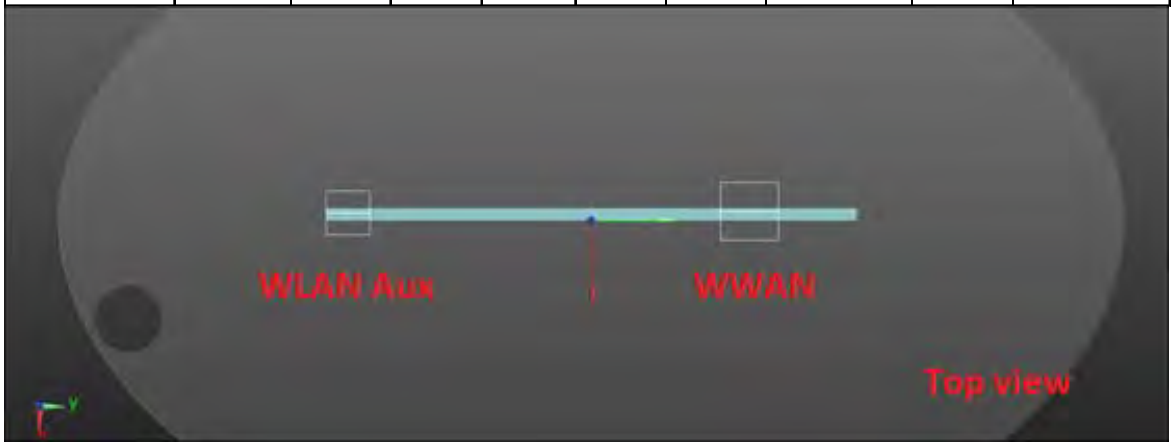
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.641	-0.50	8.54	-0.34	1.256	128.81	0.011	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



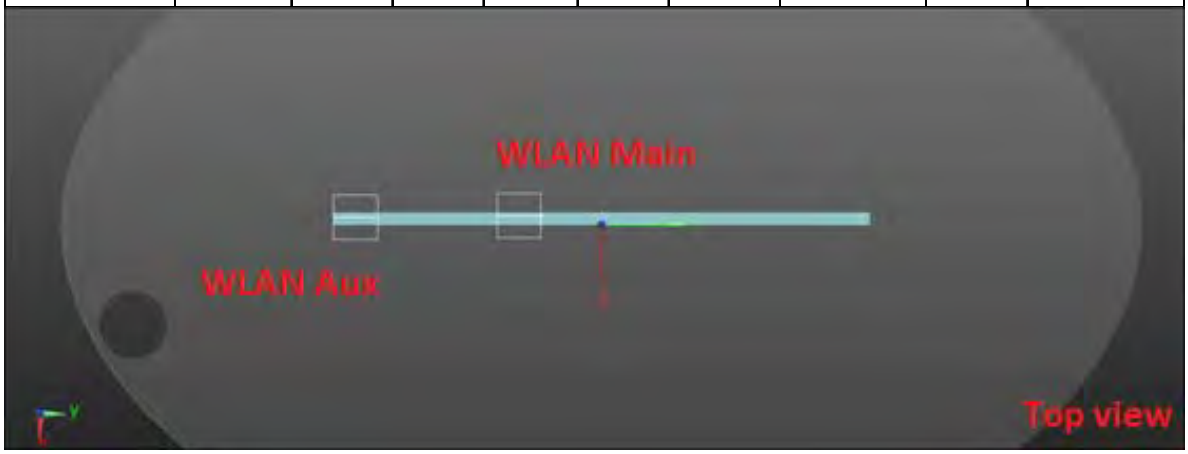
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.641	-0.50	8.54	-0.34	1.630	223.42	0.009	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WCDMA Band V + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
18	WCDMA Band V	Back side	0	1.000	1.153	0.931	**3.084**	Analyzed as below
		Top side	0	0.737	0.615	0.989	**2.341**	Analyzed as below
		Bottom side	0	0.004	0.318	0.167	0.489	ΣSAR<1.6, Not required
		Right side	0	0.325	0.023	0.019	0.367	ΣSAR<1.6, Not required
		Left side	0	0.085	0.004	1.193	1.282	ΣSAR<1.6, Not required

WWAN + WLAN Main

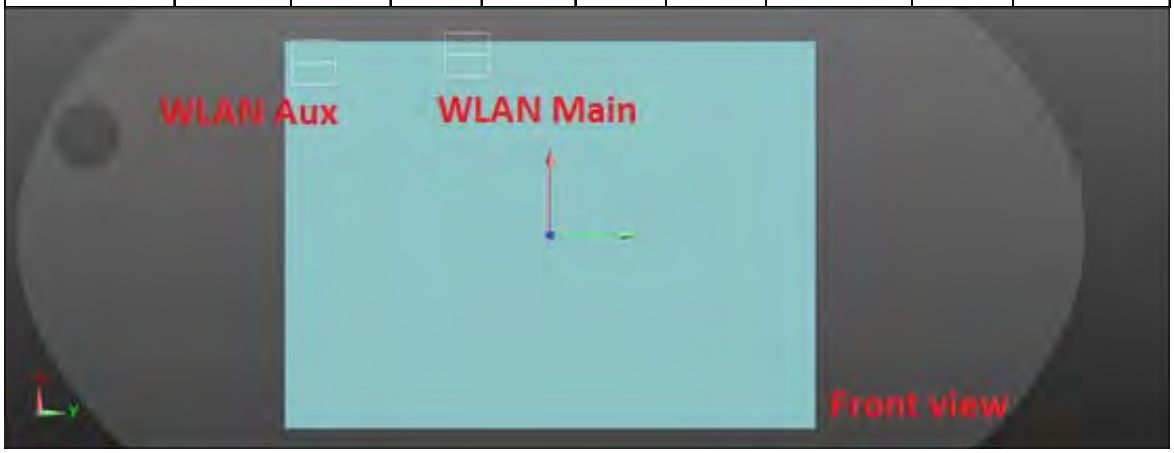
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	2.153	104.31	0.030	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.931	189.13	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				

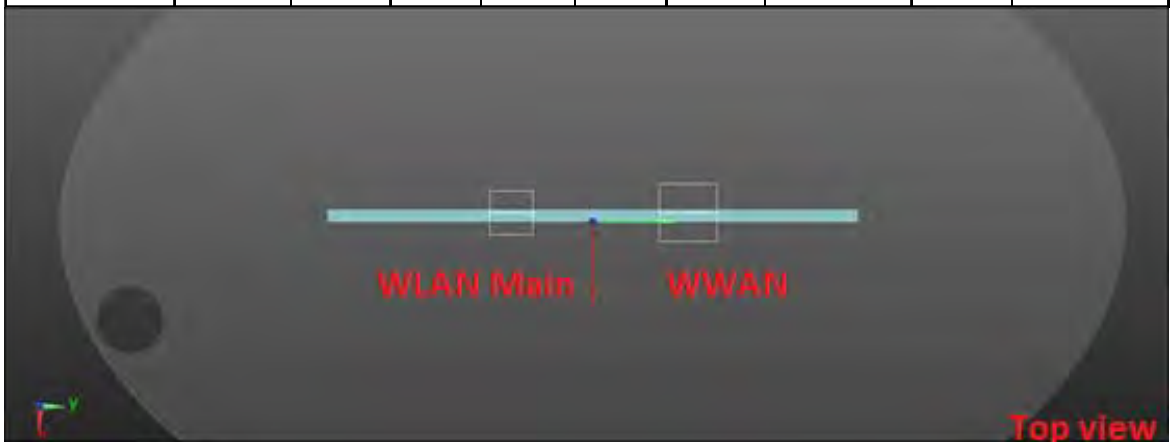
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



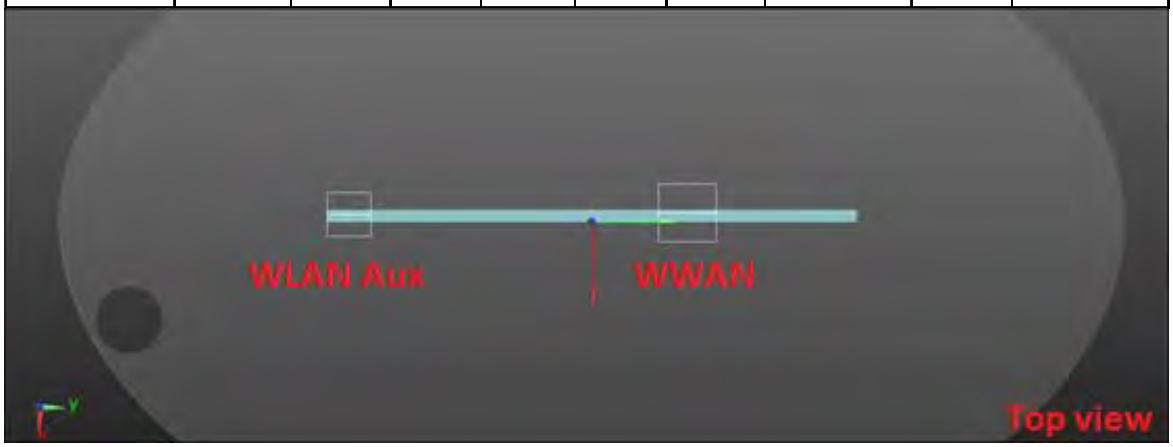
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.737	-0.66	5.57	-0.49	1.352	99.16	0.016	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



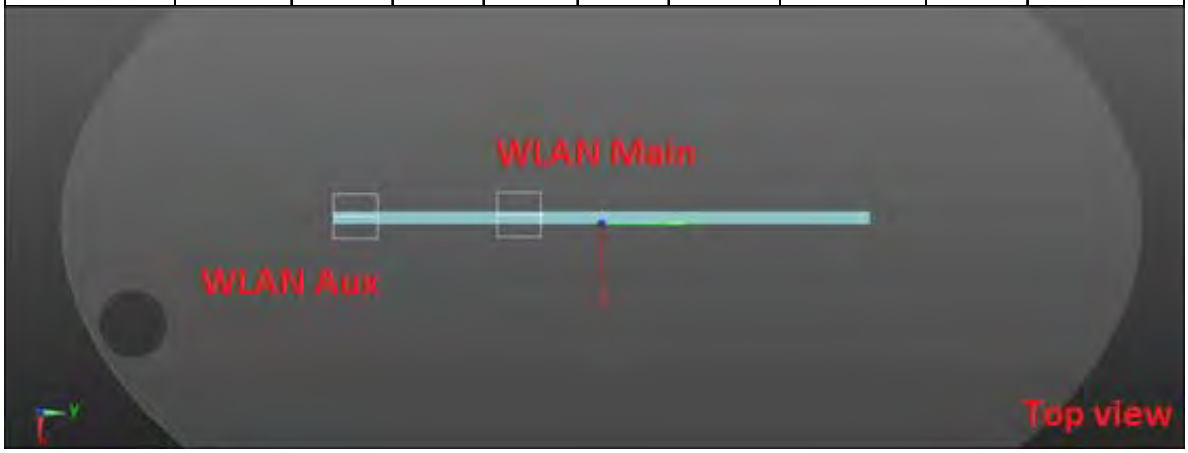
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.737	-0.66	5.57	-0.49	1.726	193.76	0.012	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 2 + 5GHz WLAN MIMO

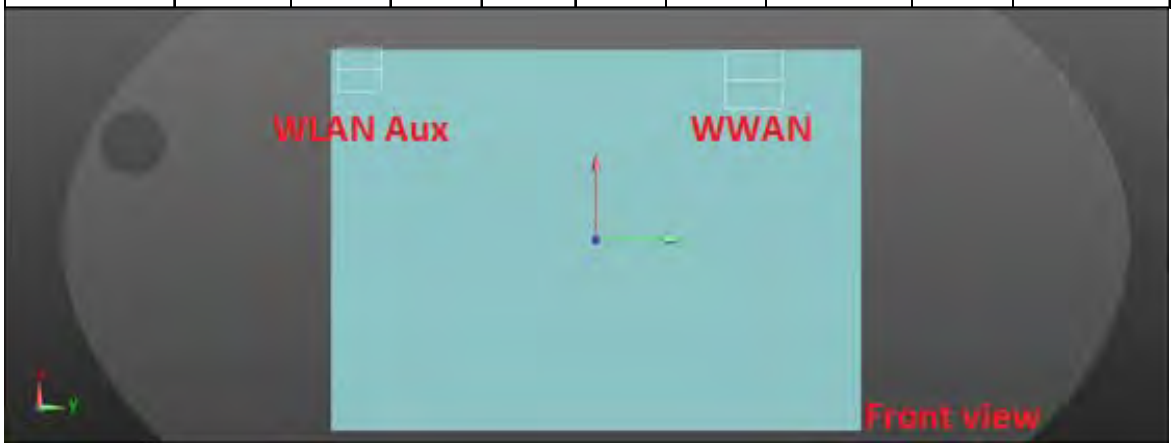
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
19	LTE FDD Band 2	Back side	0	1.167	1.153	0.931	**3.251**	Analyzed as below
		Top side	0	0.793	0.615	0.989	**2.397**	Analyzed as below
		Bottom side	0	0.005	0.318	0.167	0.490	ΣSAR<1.6, Not required
		Right side	0	0.250	0.023	0.019	0.292	ΣSAR<1.6, Not required
		Left side	0	0.146	0.004	1.193	1.343	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	2.320	133.24	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

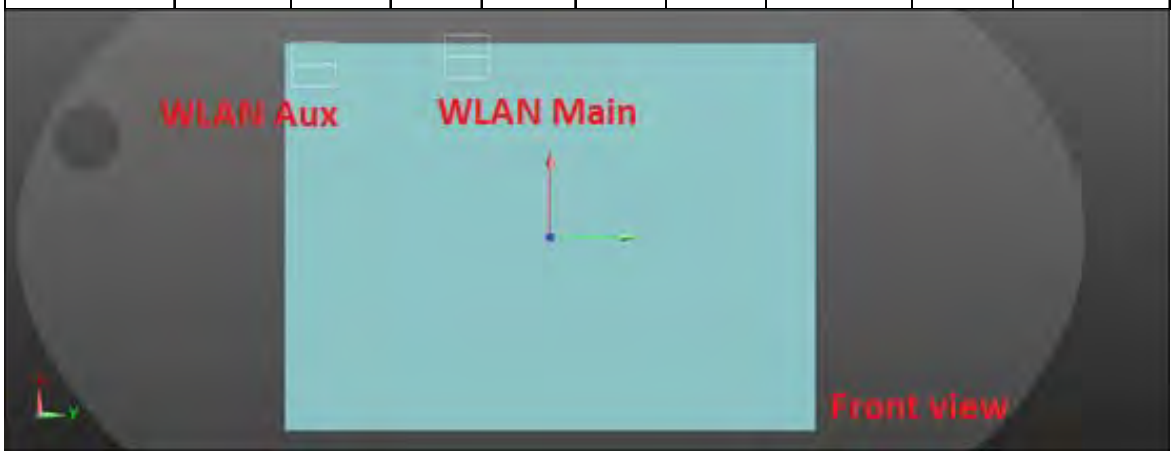
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	2.098	217.87	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



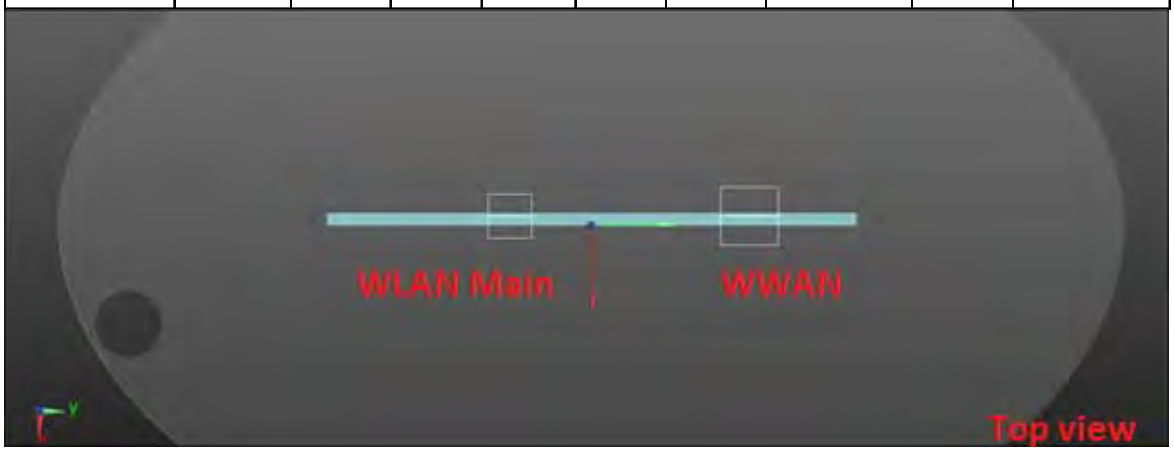
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



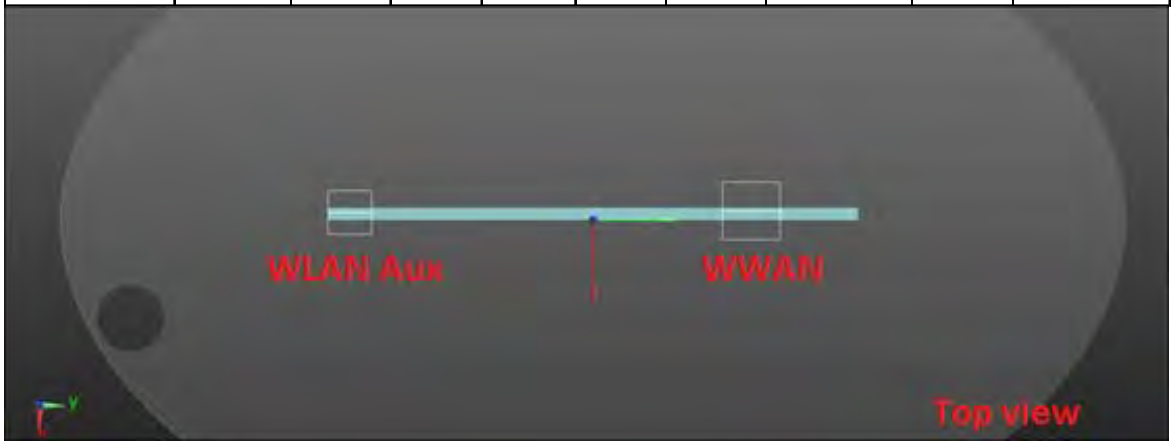
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.793	-0.50	8.54	-0.33	1.408	128.81	0.013	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



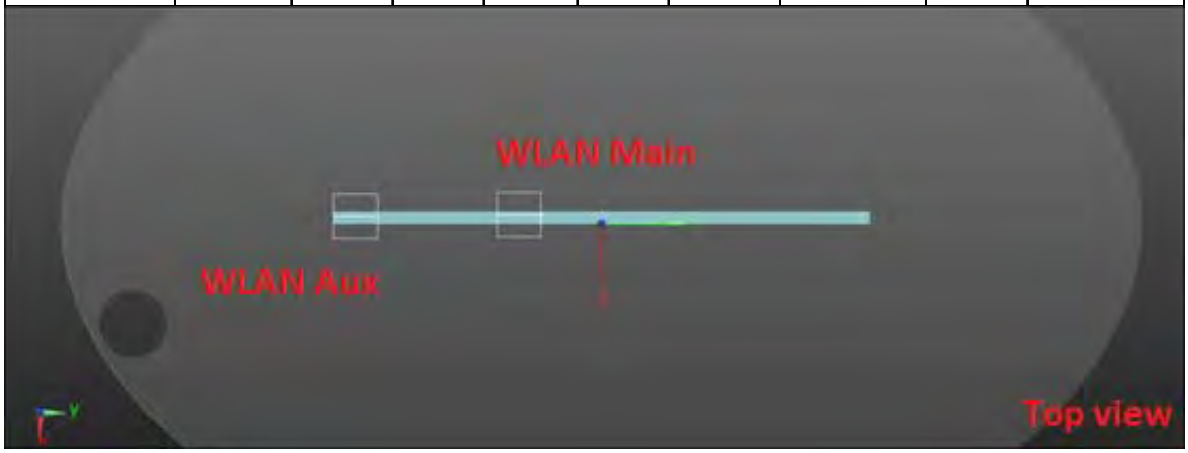
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.793	-0.24	-13.80	-0.27	1.782	223.24	0.011	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.50	8.54	-0.33				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 4 + 5GHz WLAN MIMO

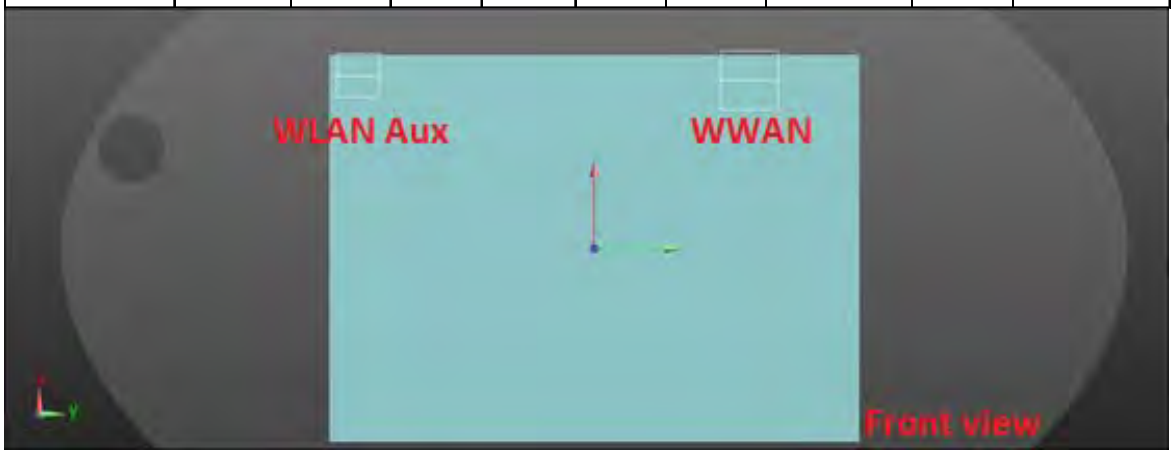
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
20	LTE FDD Band 4	Back side	0	1.151	1.153	0.931	**3.235**	Analyzed as below
		Top side	0	0.602	0.615	0.989	**2.206**	Analyzed as below
		Bottom side	0	0.009	0.318	0.167	0.494	ΣSAR<1.6, Not required
		Right side	0	1.365	0.023	0.019	1.407	ΣSAR<1.6, Not required
		Left side	0	0.075	0.004	1.193	1.272	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	2.304	131.59	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

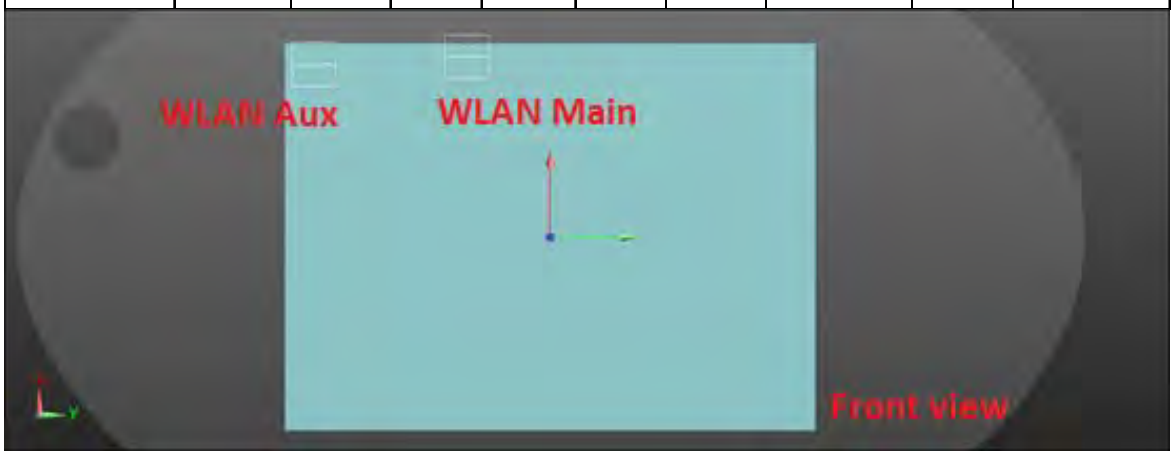
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	2.082	216.31	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



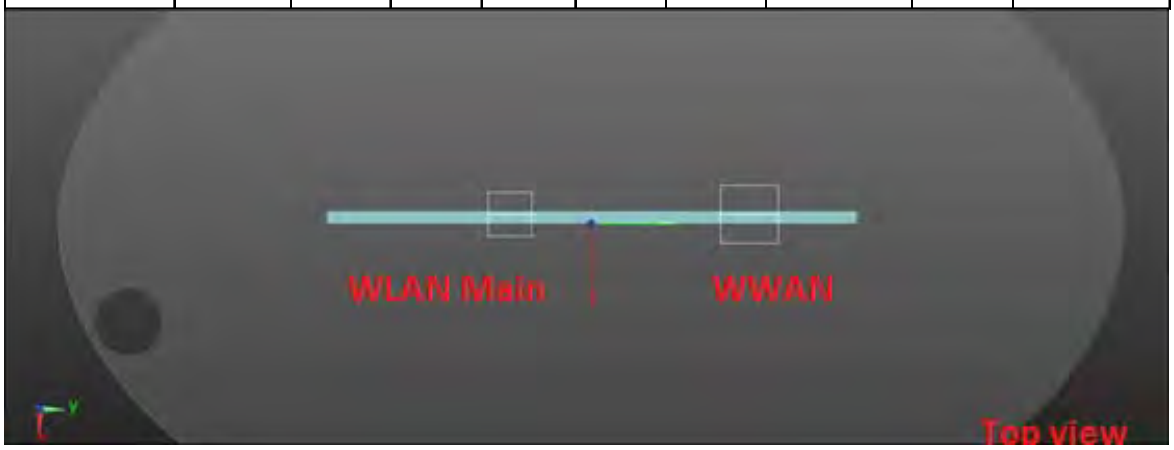
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



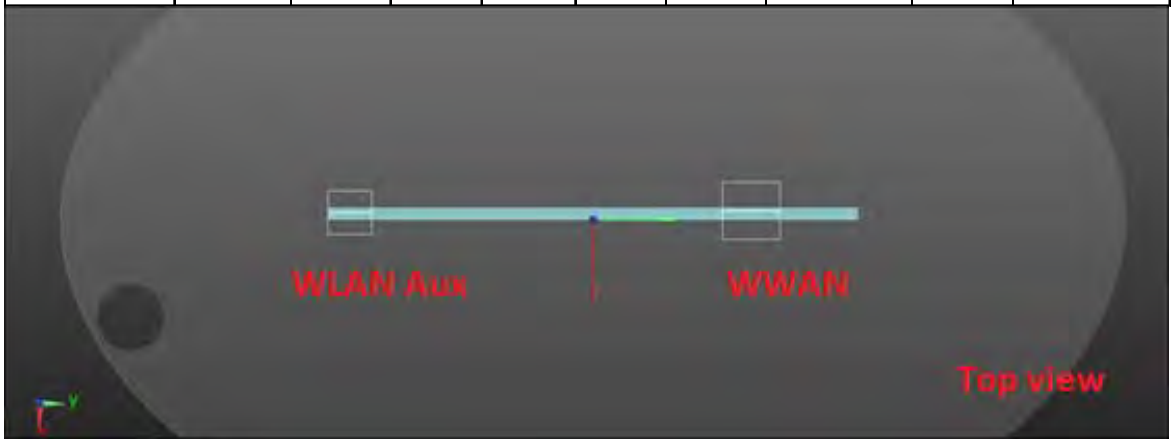
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.602	-0.42	-4.34	-0.24	1.217	128.81	0.010	SPLSR<0.04, Not required
WLAN Main		0.615	-0.50	8.54	-0.34				



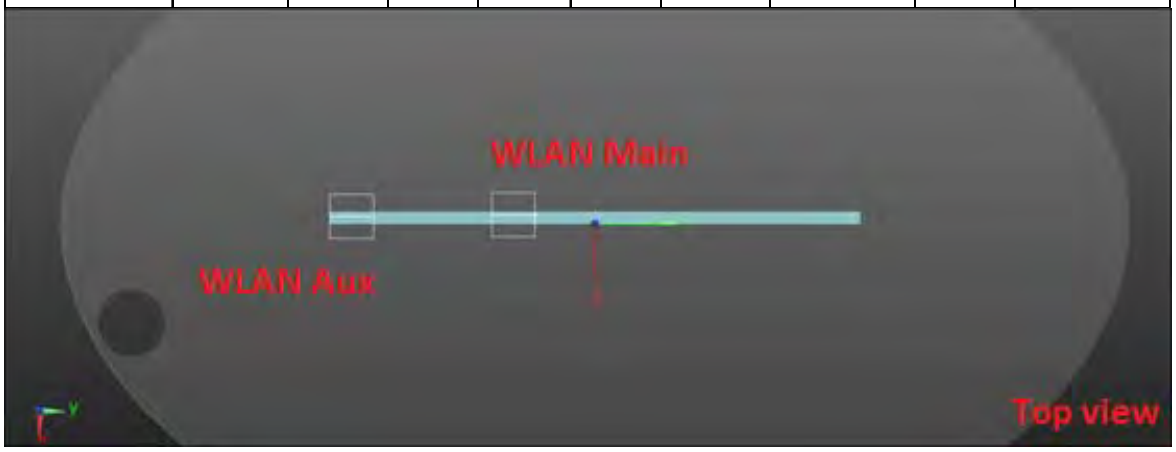
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.602	-0.50	8.54	-0.34	1.591	223.42	0.009	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 5 + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
21	LTE FDD Band 5	Back side	0	1.042	1.153	0.931	**3.126**	Analyzed as below
		Top side	0	0.989	0.615	0.989	**2.593**	Analyzed as below
		Bottom side	0	0.005	0.318	0.167	0.490	ΣSAR<1.6, Not required
		Right side	0	0.304	0.023	0.019	0.346	ΣSAR<1.6, Not required
		Left side	0	0.071	0.004	1.193	1.268	ΣSAR<1.6, Not required

WWAN + WLAN Main

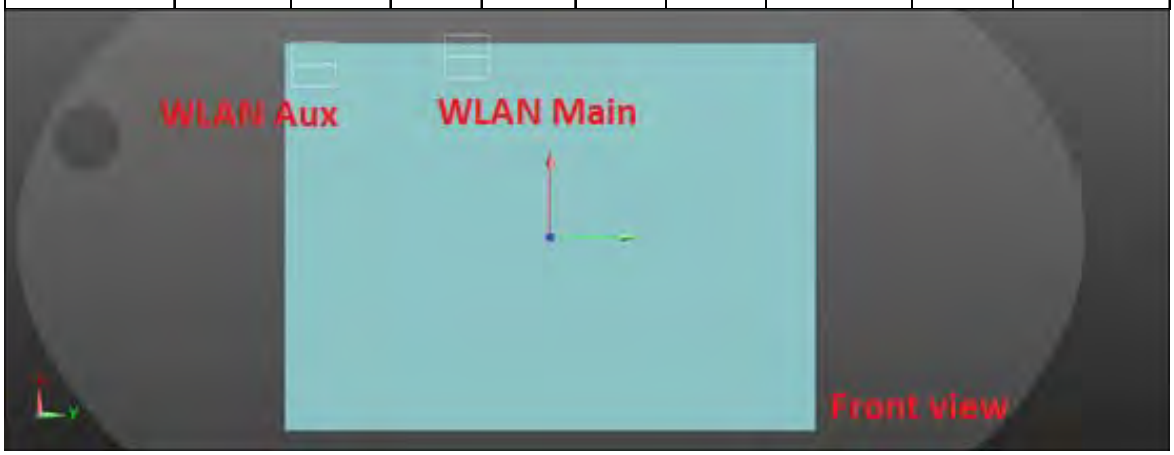
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	2.195	109.17	0.030	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	1.973	194	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				

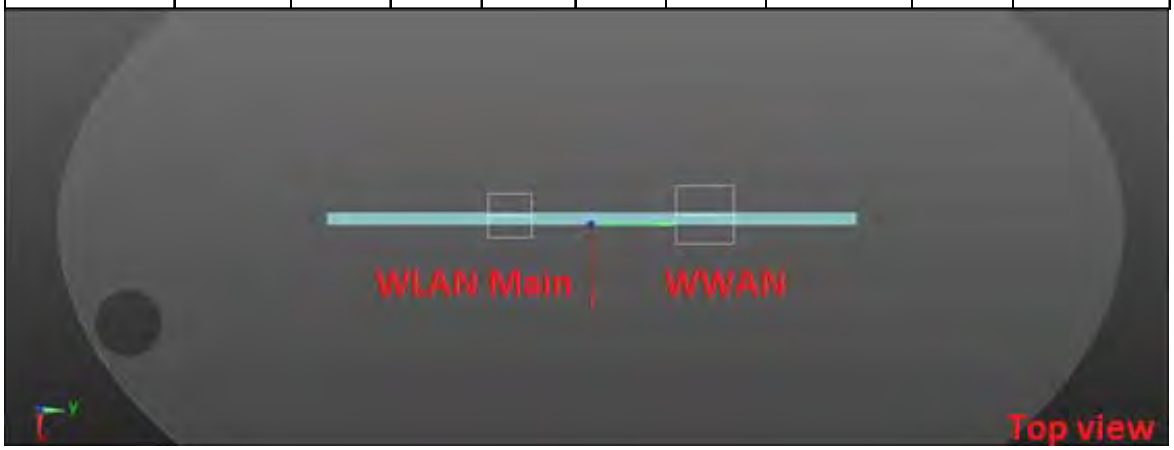
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



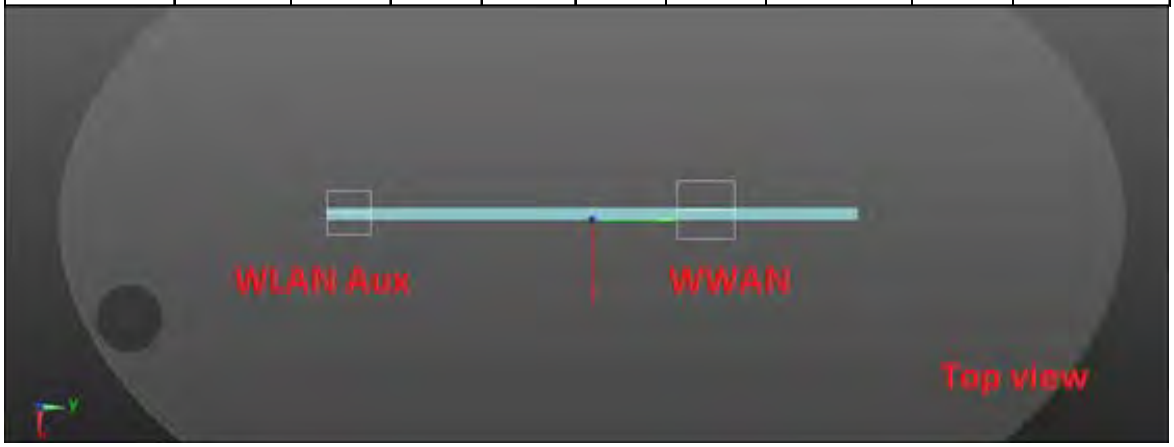
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.989	-0.39	6.09	-0.38	1.604	104.31	0.019	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



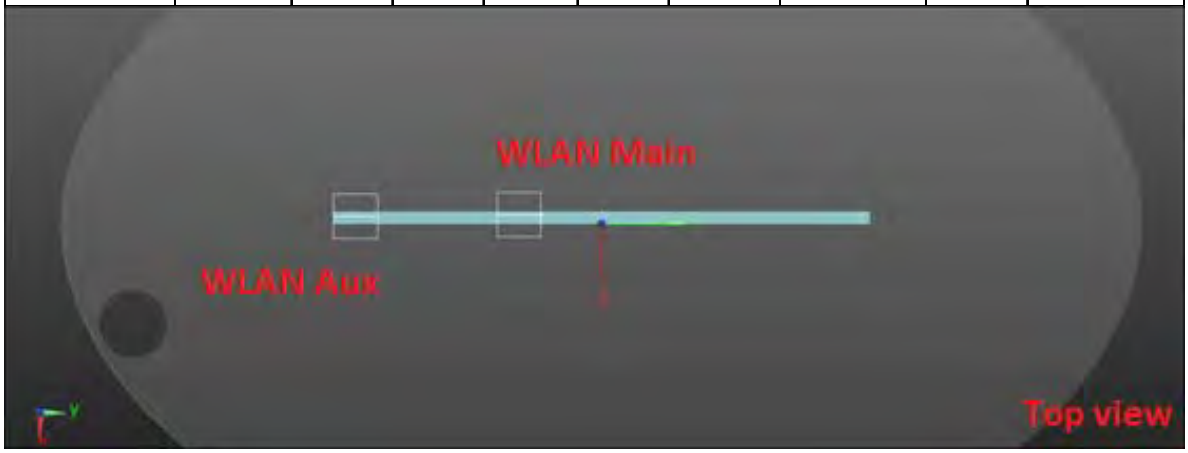
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.989	-0.39	6.09	-0.38	1.978	198.91	0.014	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				

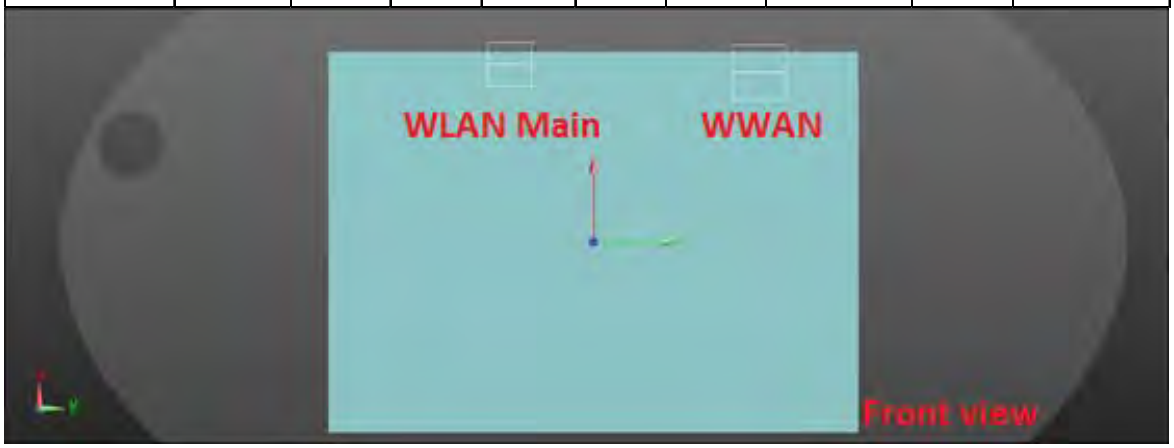


LTE FDD Band 7 + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
22	LTE FDD Band 7	Back side	0	1.173	1.153	0.931	**3.257**	Analyzed as below
		Top side	0	0.884	0.615	0.989	**2.488**	Analyzed as below
		Bottom side	0	0.004	0.318	0.167	0.489	ΣSAR<1.6, Not required
		Right side	0	0.250	0.023	0.019	0.292	ΣSAR<1.6, Not required
		Left side	0	0.146	0.004	1.193	1.343	ΣSAR<1.6, Not required

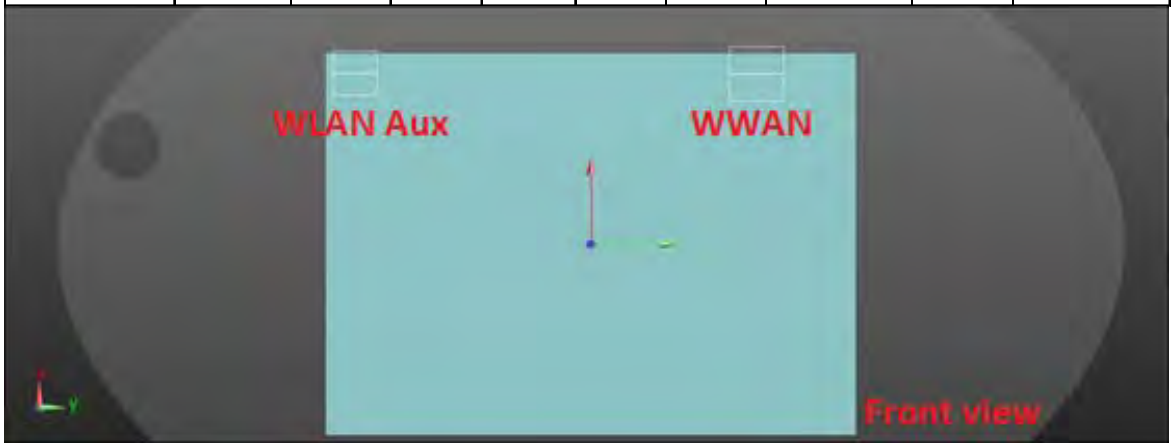
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	2.326	138.21	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				



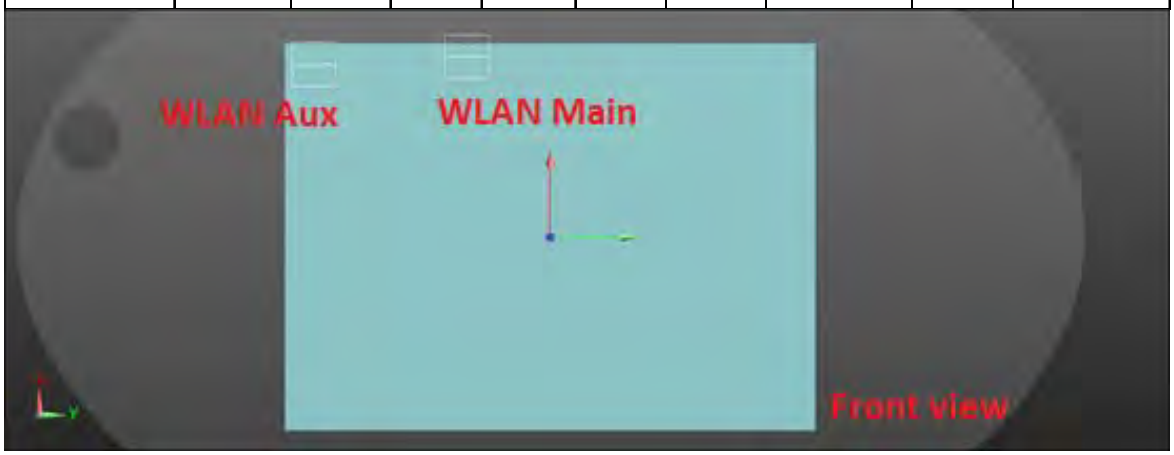
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	2.104	223	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



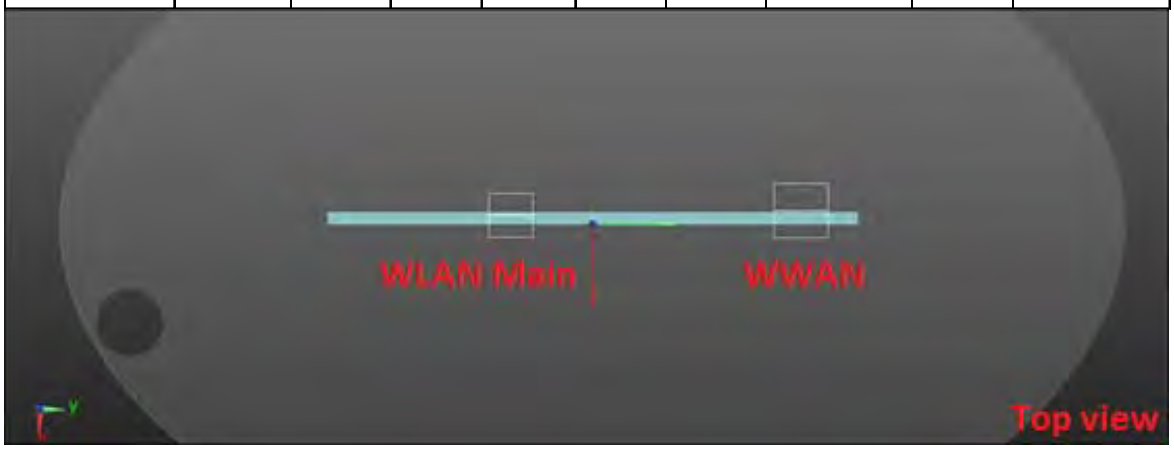
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



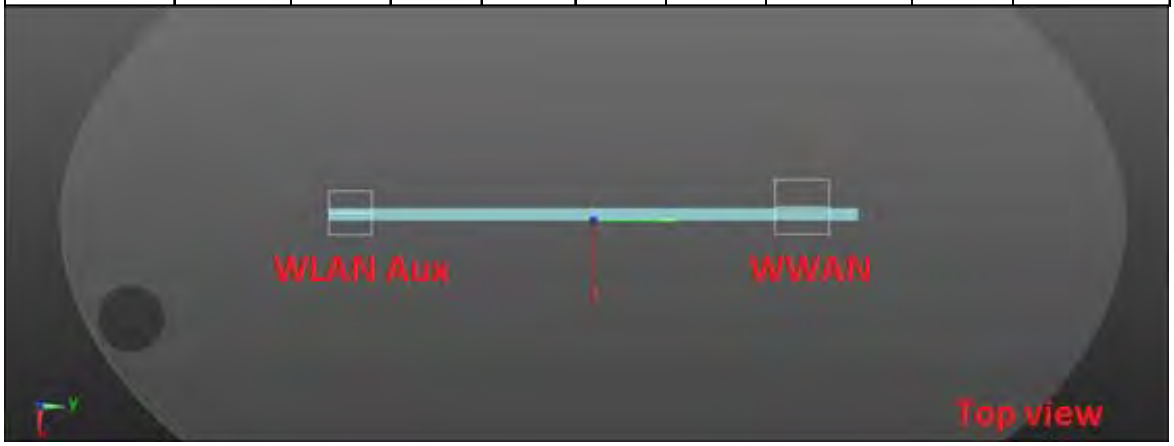
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.884	-0.64	9.98	-0.30	1.499	143.22	0.013	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



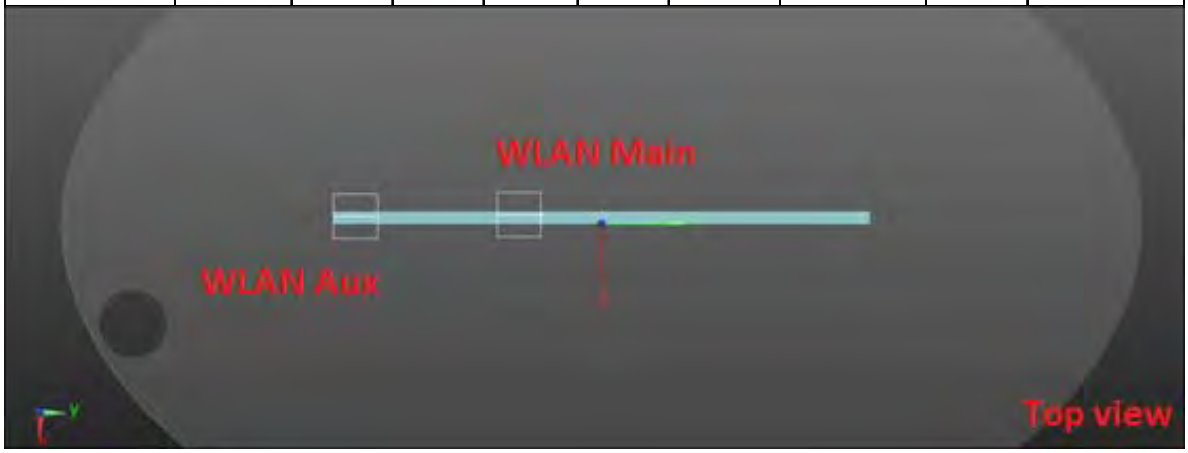
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.884	-0.64	9.98	-0.30	1.873	237.83	0.011	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 12 + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
23	LTE FDD Band 12	Back side	0	0.919	1.153	0.931	**3.003**	Analyzed as below
		Top side	0	0.995	0.615	0.989	**2.599**	Analyzed as below
		Bottom side	0	0.002	0.318	0.167	0.487	ΣSAR<1.6, Not required
		Right side	0	0.358	0.023	0.019	0.400	ΣSAR<1.6, Not required
		Left side	0	0.091	0.004	1.193	1.288	ΣSAR<1.6, Not required

WWAN + WLAN Main

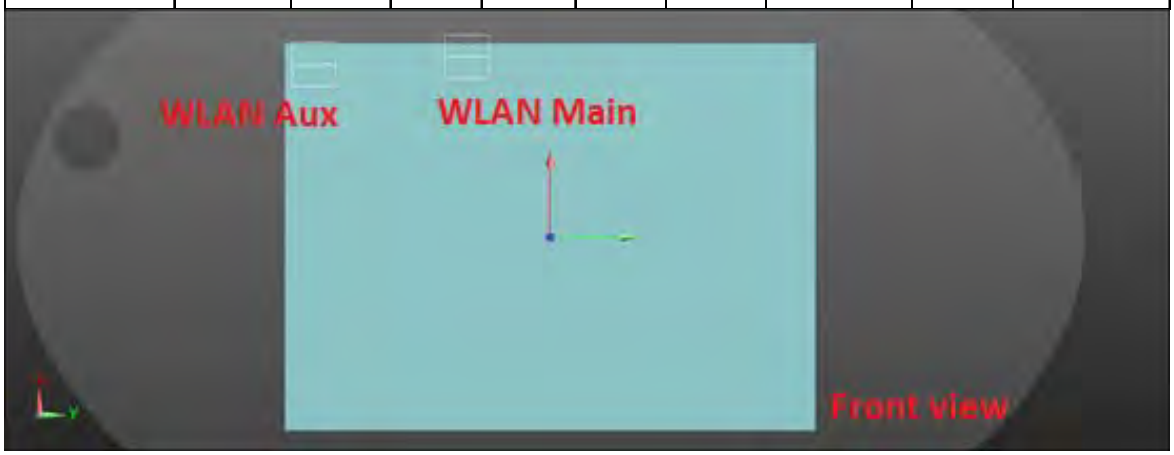
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	2.072	109.08	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.850	193.91	0.013	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				

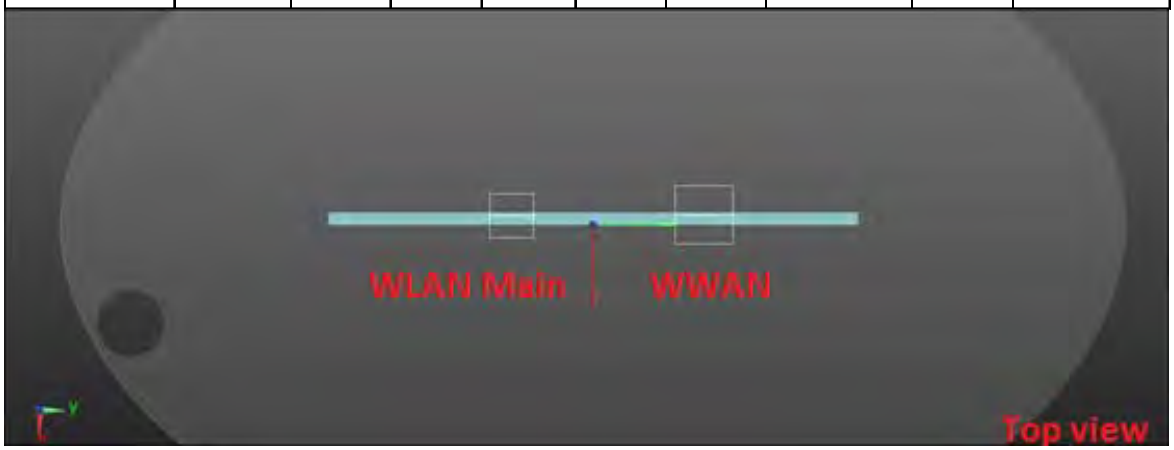
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



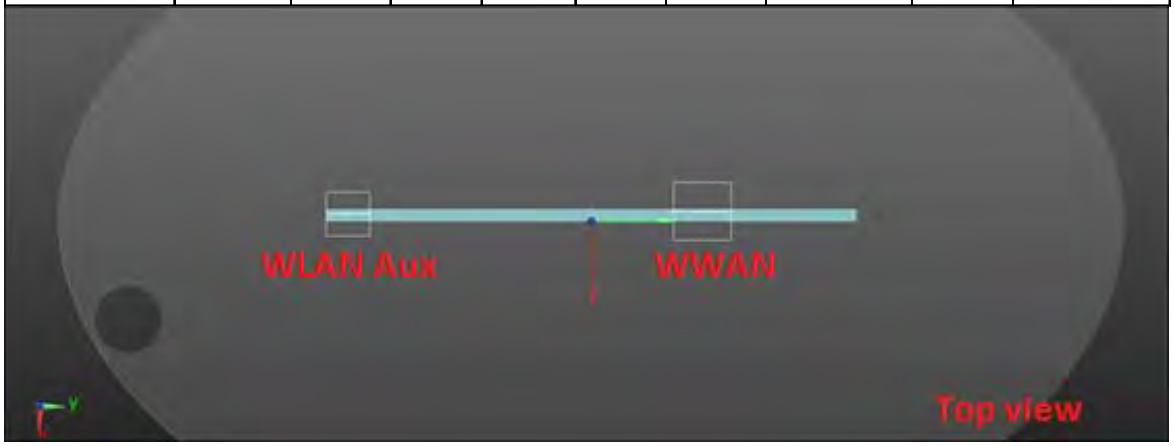
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.995	-0.39	4.50	-0.37	1.610	88.41	0.023	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



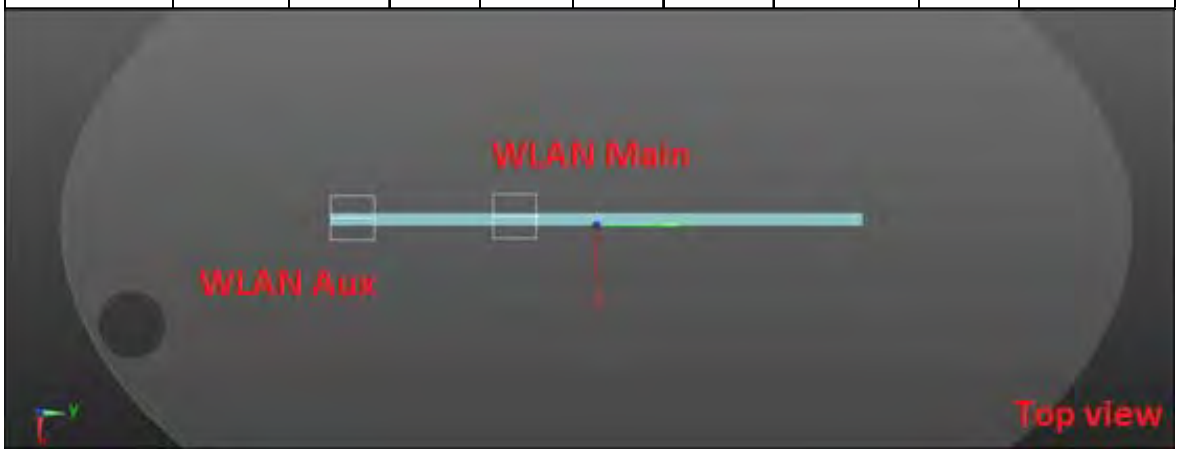
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.995	-0.39	4.50	-0.37	1.984	183.01	0.015	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 13 + 5GHz WLAN MIMO

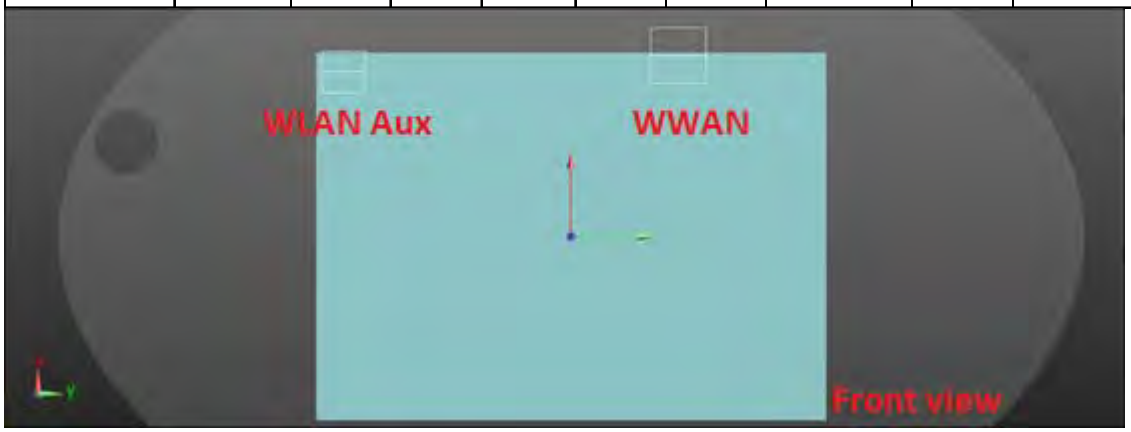
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
24	LTE FDD Band 13	Back side	0	1.187	1.153	0.931	**3.271**	Analyzed as below
		Top side	0	1.289	0.615	0.989	**2.893**	Analyzed as below
		Bottom side	0	0.003	0.318	0.167	0.488	ΣSAR<1.6, Not required
		Right side	0	0.521	0.023	0.019	0.563	ΣSAR<1.6, Not required
		Left side	0	0.039	0.004	1.193	1.236	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	2.340	104.38	0.034	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

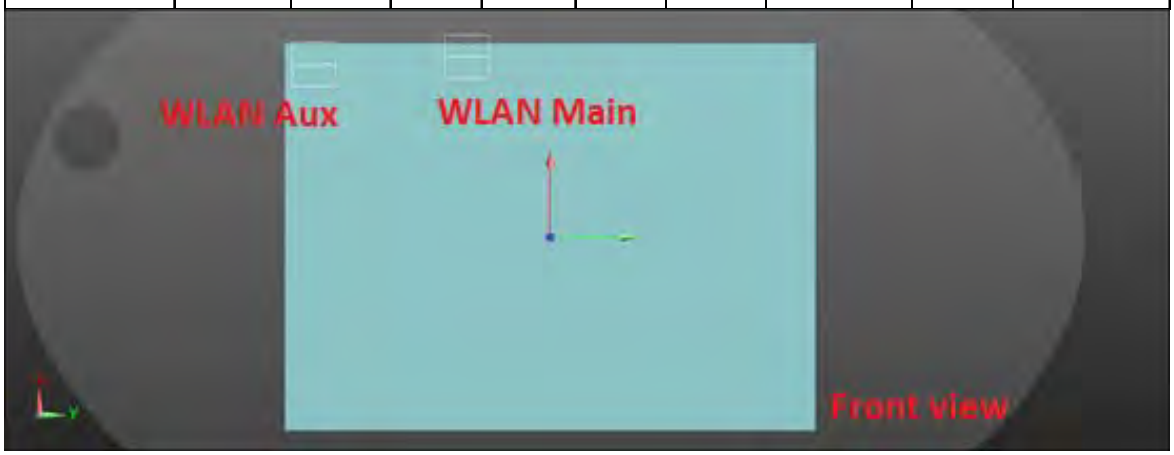
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	2.118	189.21	0.016	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



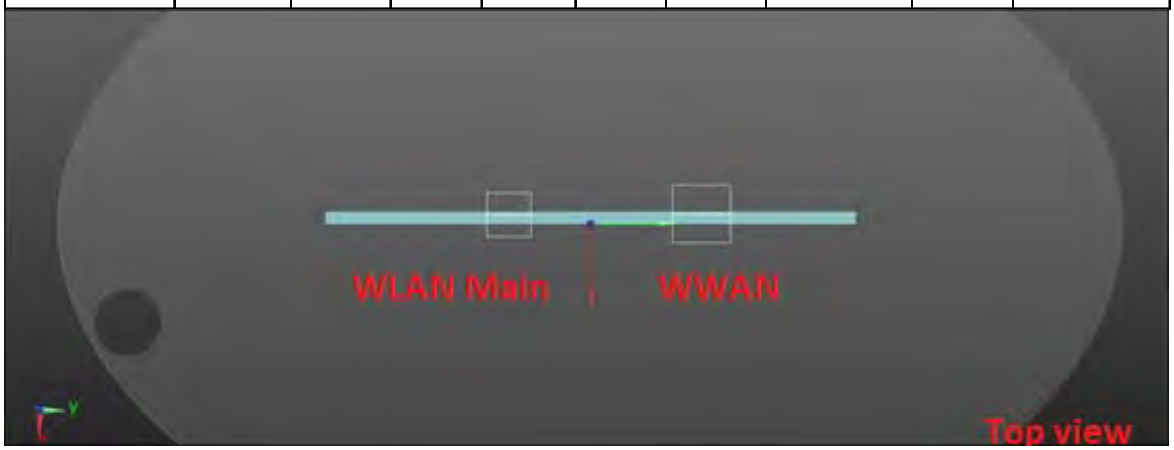
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



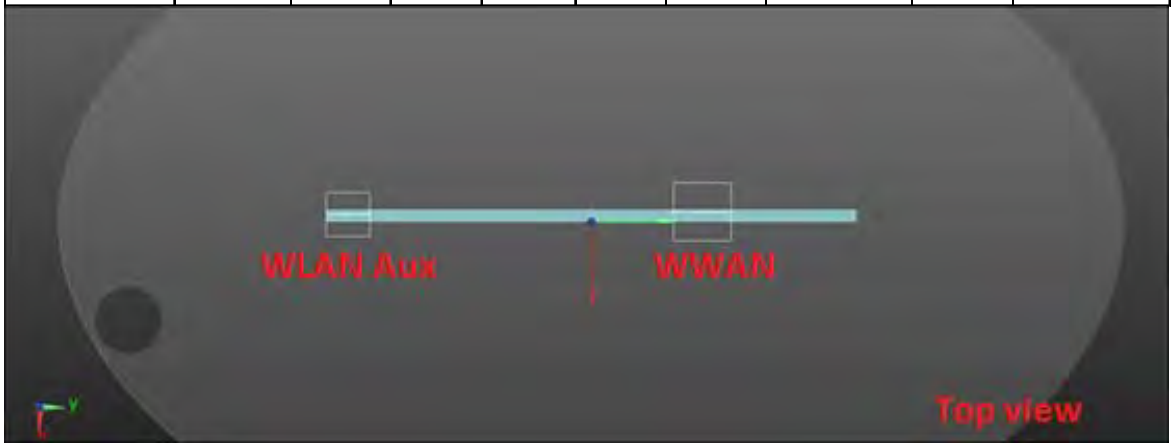
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.904	102.81	0.026	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



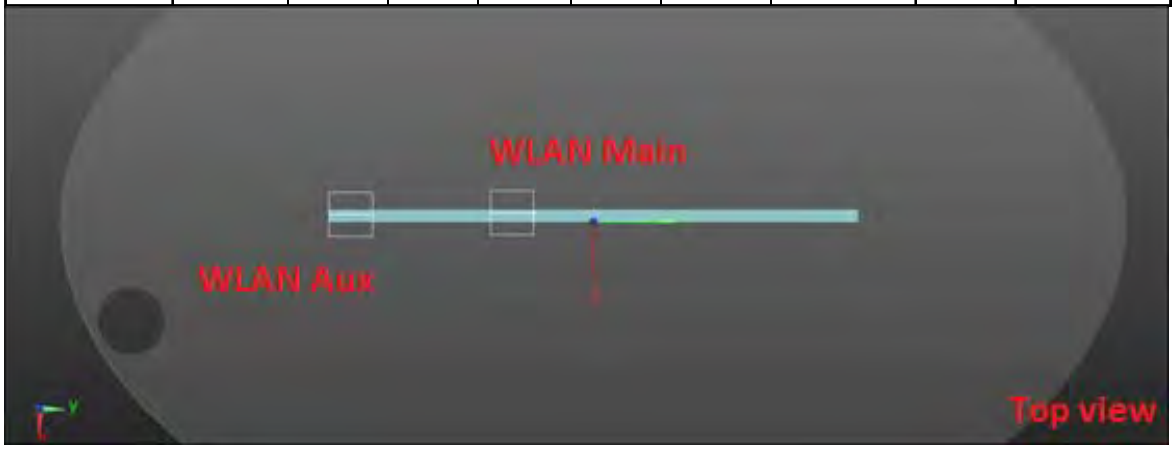
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	2.278	197.41	0.017	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 17 + 5GHz WLAN MIMO

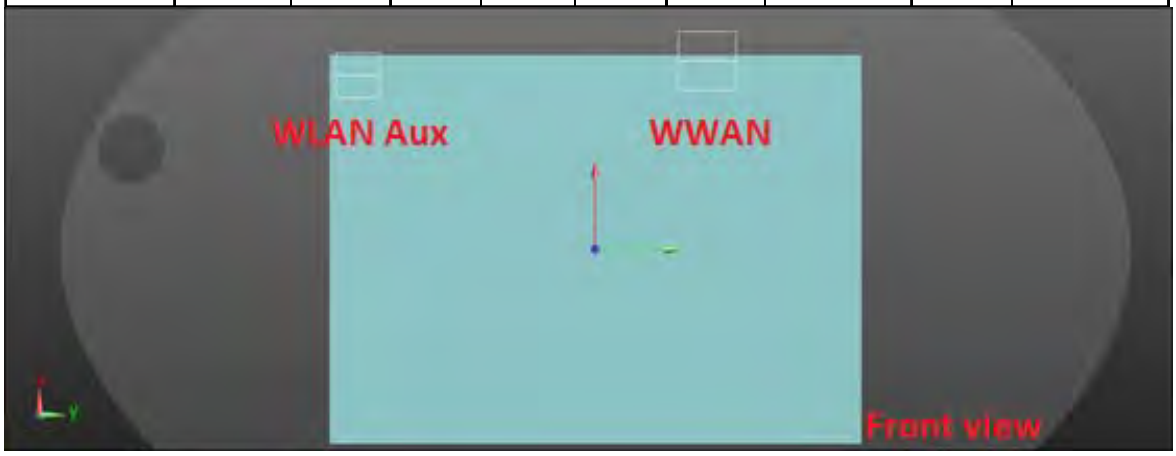
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
25	LTE FDD Band 17	Back side	0	1.053	1.153	0.931	**3.137**	Analyzed as below
		Top side	0	1.280	0.615	0.989	**2.884**	Analyzed as below
		Bottom side	0	0.002	0.318	0.167	0.487	ΣSAR<1.6, Not required
		Right side	0	0.330	0.023	0.019	0.372	ΣSAR<1.6, Not required
		Left side	0	0.115	0.004	1.193	1.312	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	2.206	101.19	0.032	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

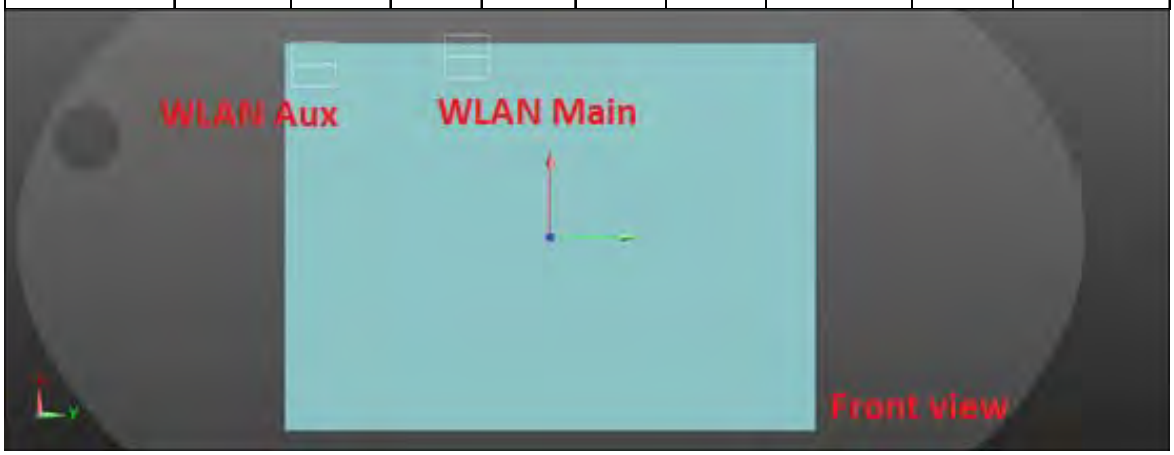
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	1.984	186.01	0.015	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



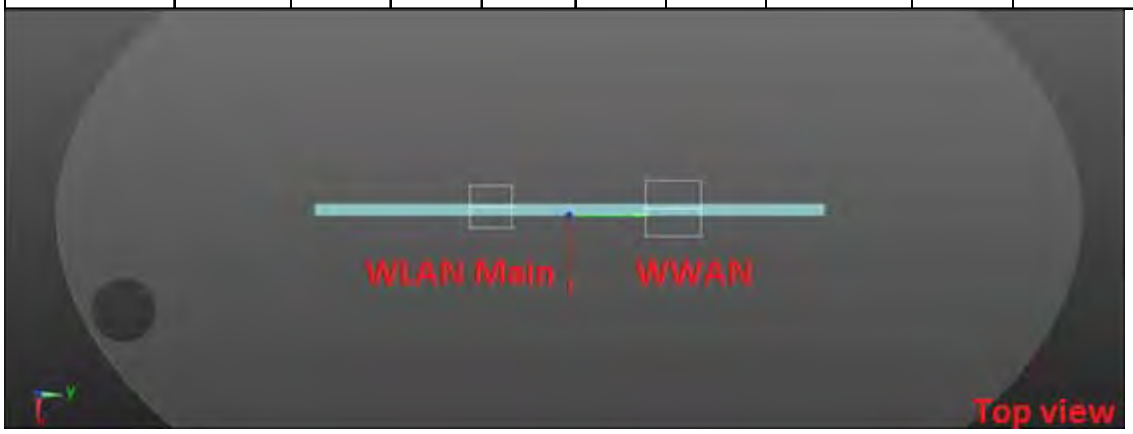
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



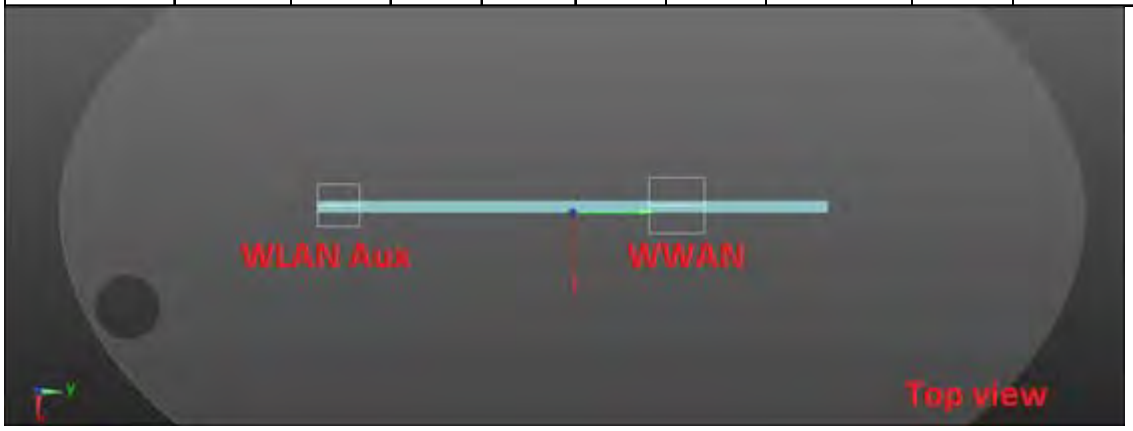
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.895	86.93	0.030	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



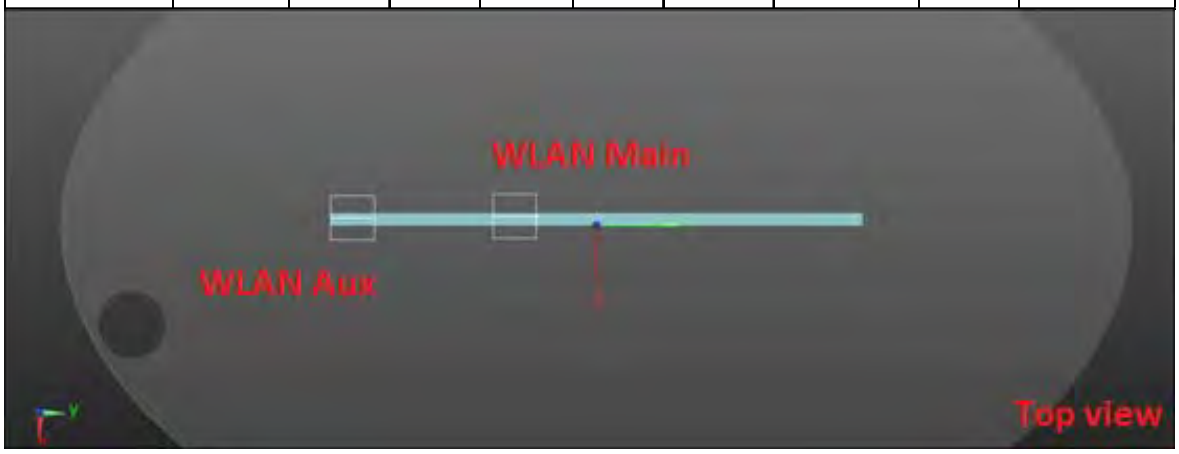
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	2.269	181.52	0.019	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 26 + 5GHz WLAN MIMO

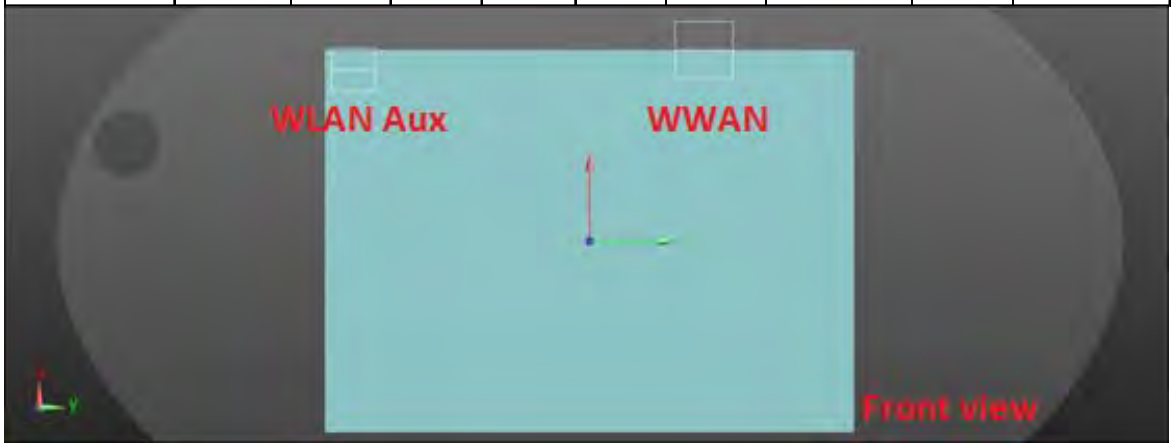
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
26	LTE FDD Band 26	Back side	0	1.120	1.153	0.931	**3.204**	Analyzed as below
		Top side	0	0.968	0.615	0.989	**2.572**	Analyzed as below
		Bottom side	0	0.005	0.318	0.167	0.490	ΣSAR<1.6, Not required
		Right side	0	0.229	0.023	0.019	0.271	ΣSAR<1.6, Not required
		Left side	0	0.080	0.004	1.193	1.277	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	2.273	105.87	0.032	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

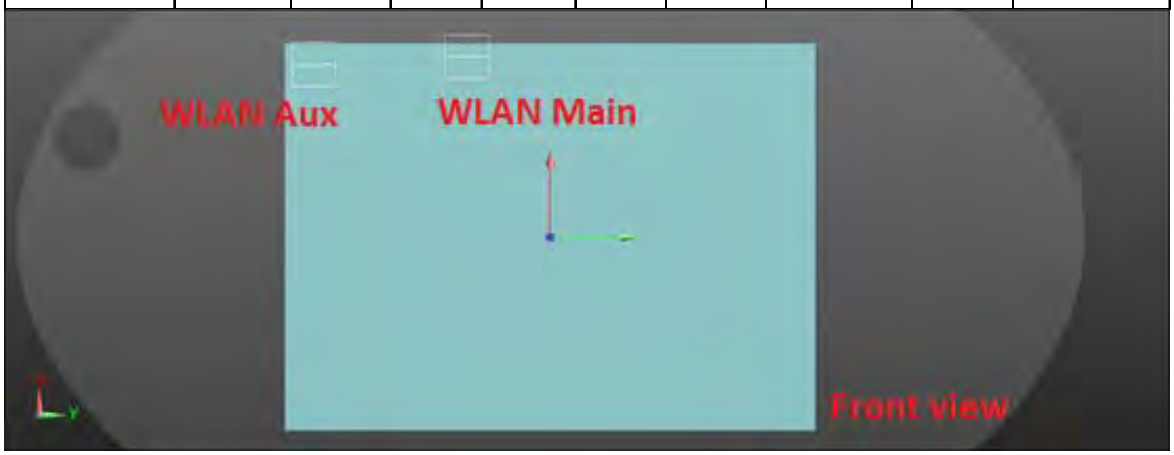
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	2.051	190.7	0.015	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



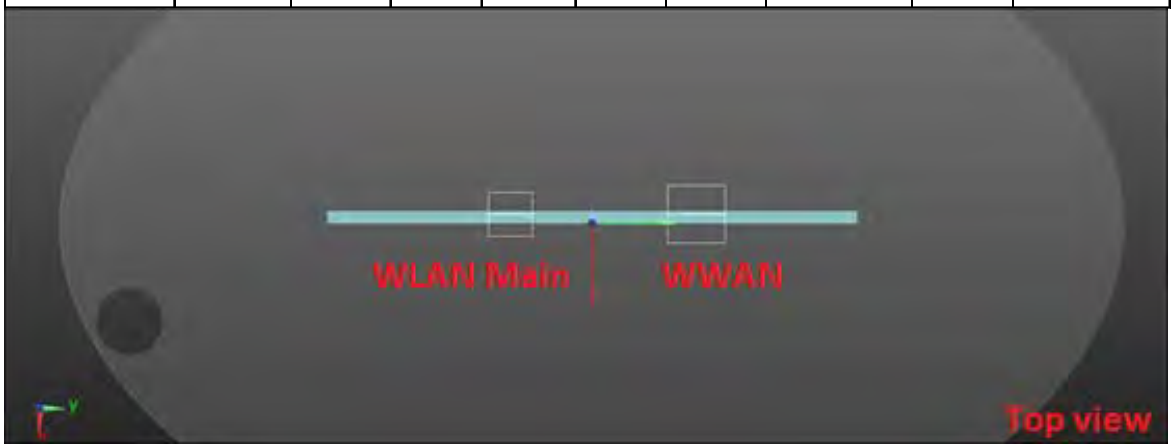
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



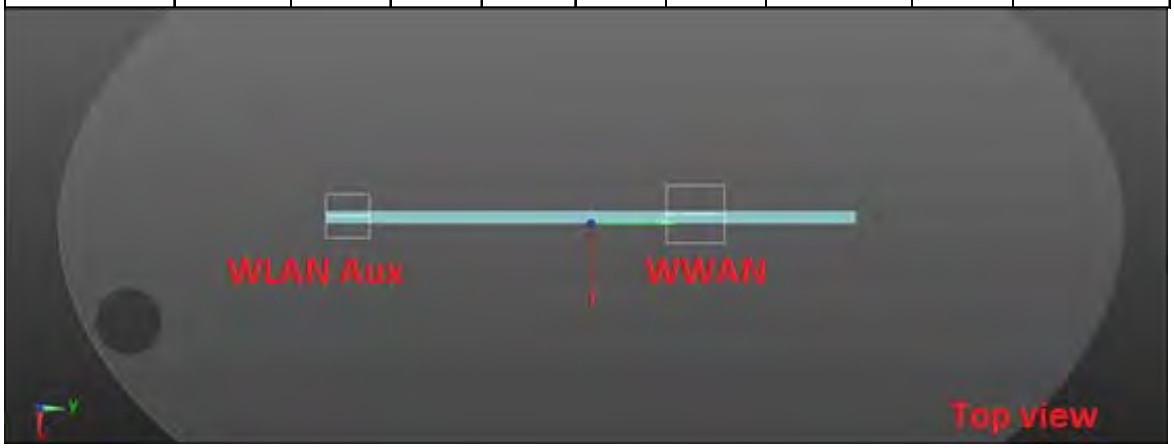
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.968	-0.50	5.91	-0.38	1.583	102.51	0.019	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



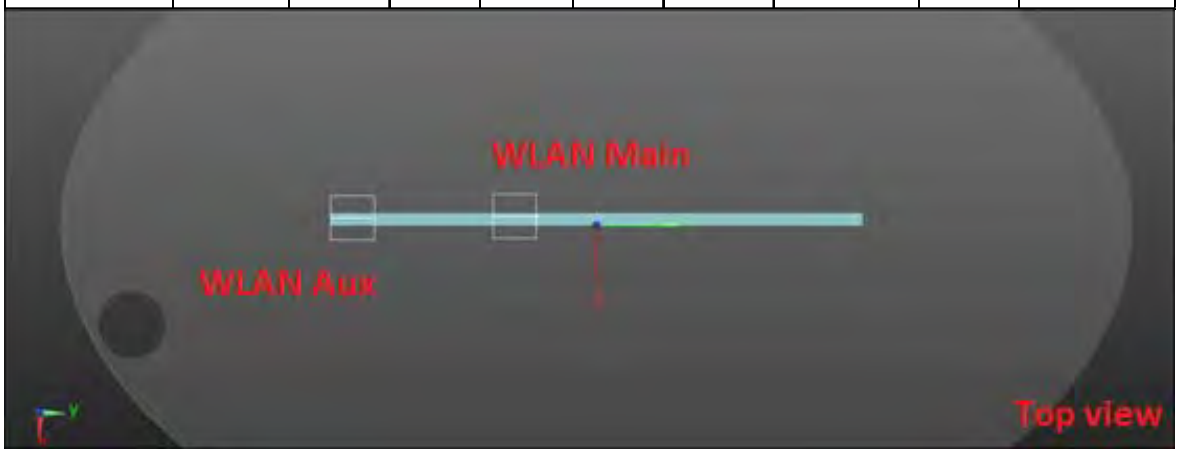
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.968	-0.50	5.91	-0.38	1.957	197.12	0.014	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 30 + 5GHz WLAN MIMO

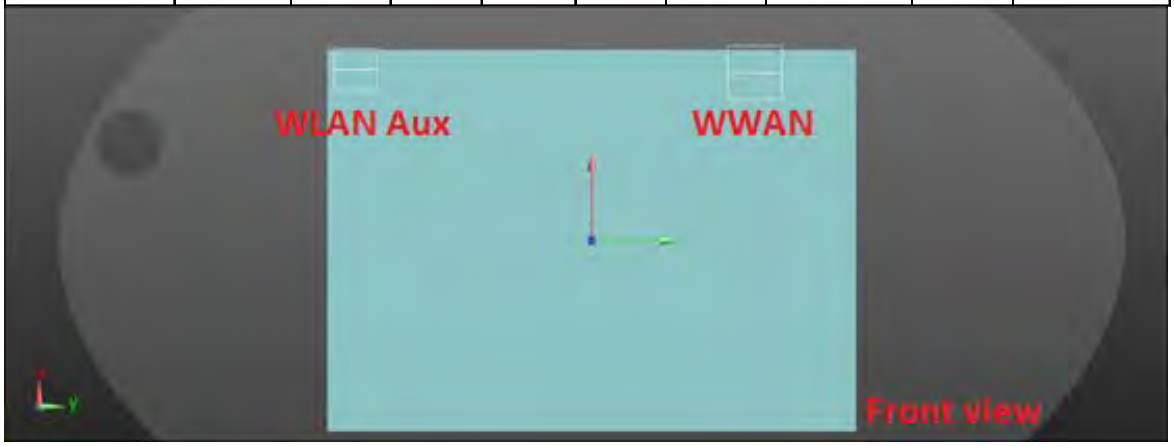
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
27	LTE FDD Band 30	Back side	0	1.109	1.153	0.931	**3.193**	Analyzed as below
		Top side	0	0.427	0.615	0.989	**2.031**	Analyzed as below
		Bottom side	0	0.004	0.318	0.167	0.489	ΣSAR<1.6, Not required
		Right side	0	0.154	0.023	0.019	0.196	ΣSAR<1.6, Not required
		Left side	0	0.160	0.004	1.193	1.357	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	2.262	137.02	0.025	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

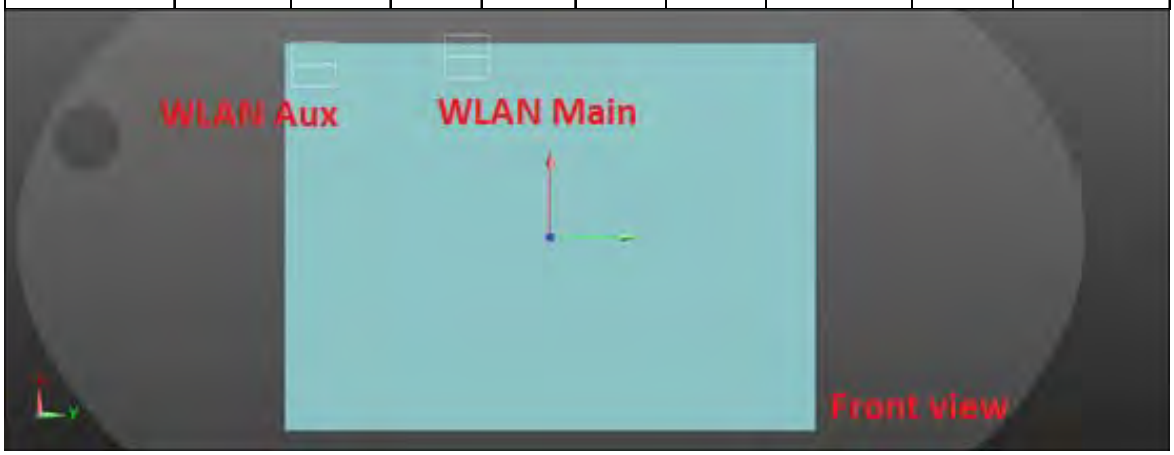
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	2.040	221.8	0.013	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



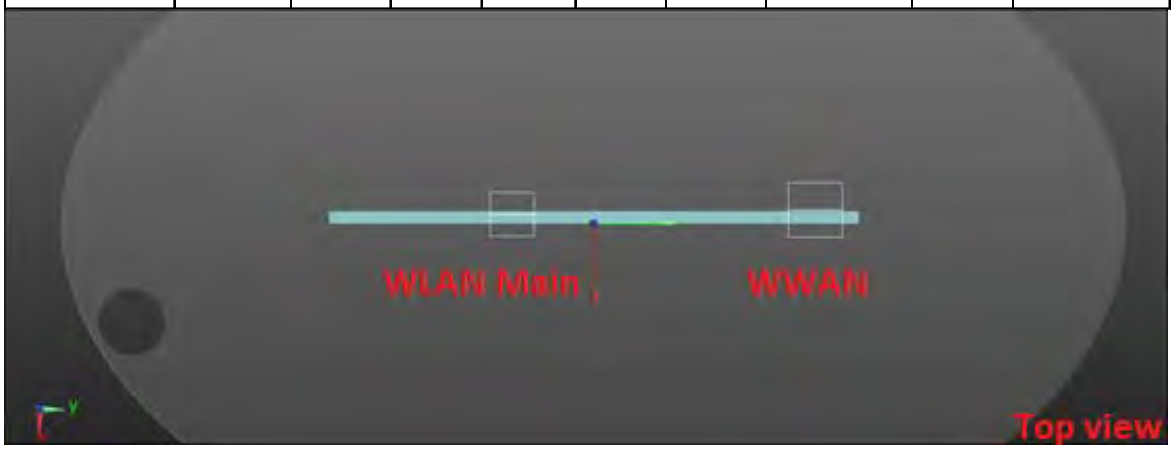
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



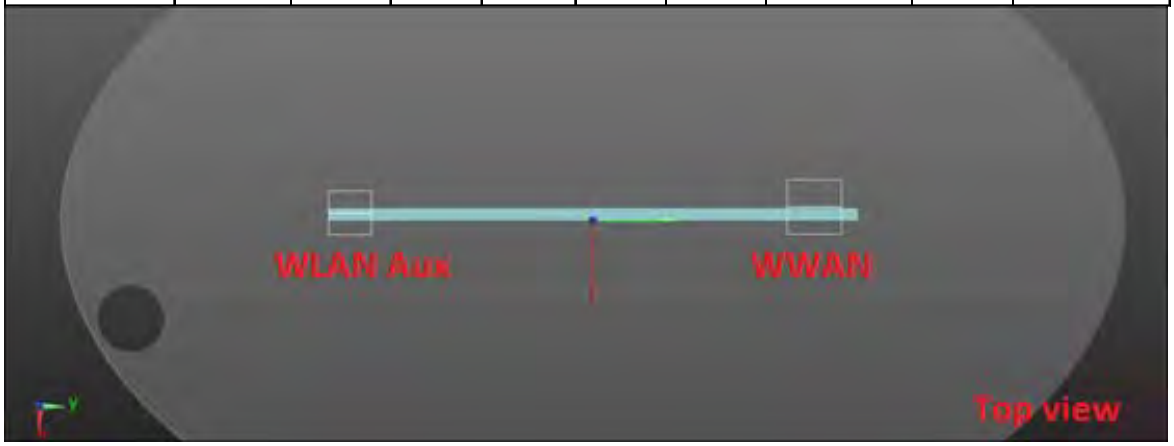
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.427	-0.84	12.10	-0.28	1.042	164.45	0.006	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



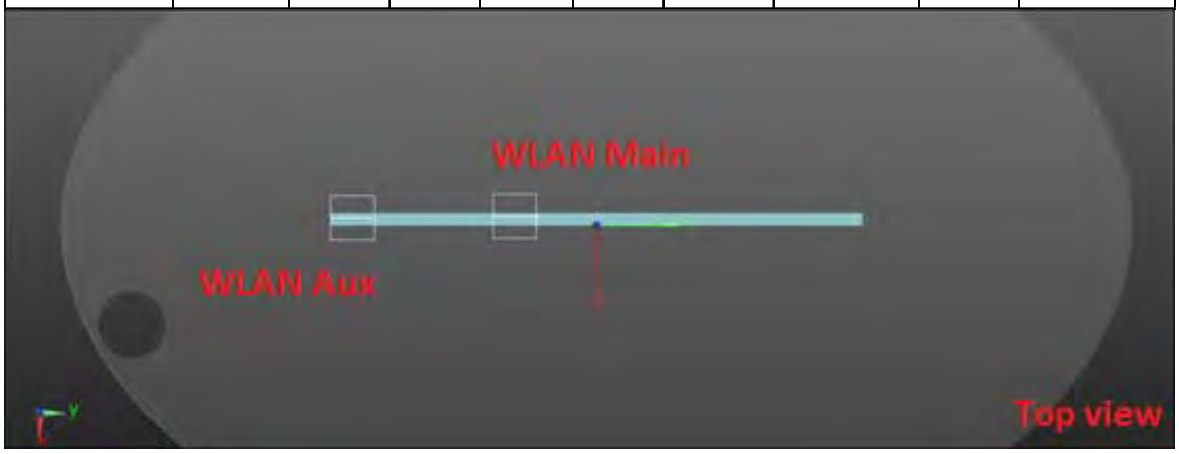
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.427	-0.84	12.10	-0.28	1.416	259.07	0.007	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



LTE FDD Band 38 + 5GHz WLAN MIMO

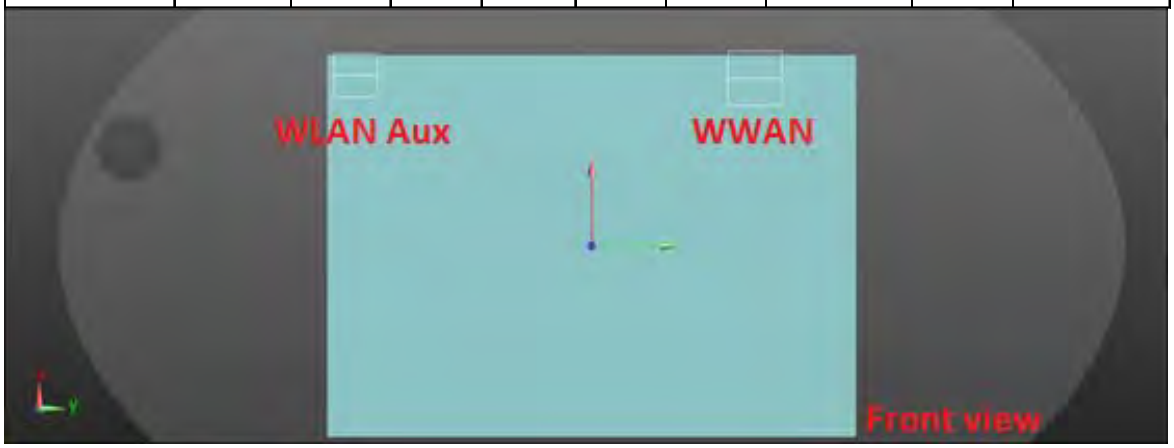
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
28	LTE FDD Band 38	Back side	0	1.152	1.153	0.931	**3.236**	Analyzed as below
		Top side	0	0.487	0.615	0.989	**2.091**	Analyzed as below
		Bottom side	0	0.002	0.318	0.167	0.487	ΣSAR<1.6, Not required
		Right side	0	0.176	0.023	0.019	0.218	ΣSAR<1.6, Not required
		Left side	0	0.057	0.004	1.193	1.254	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.80	-4.60	-0.15	2.305	135.05	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.44	8.90	-0.25				

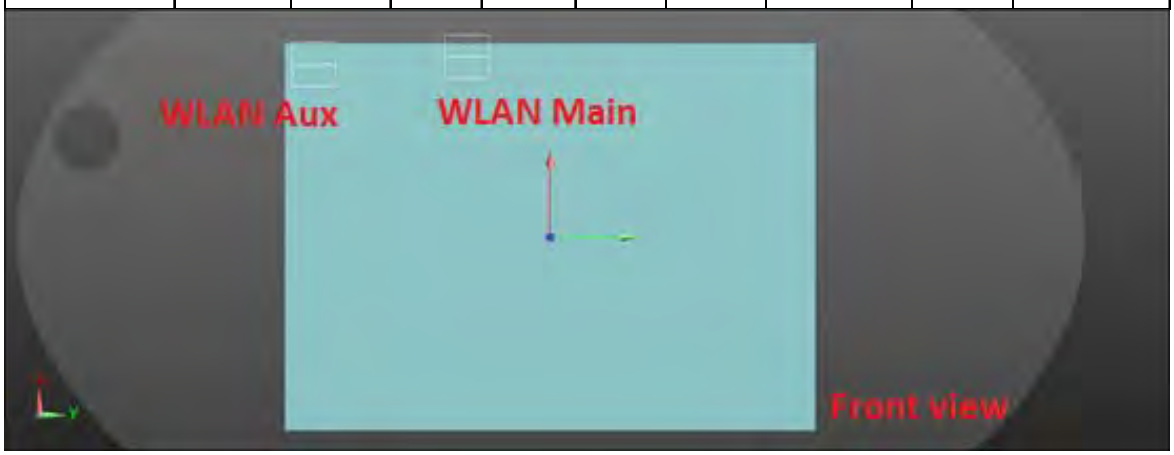
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	2.083	219.82	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



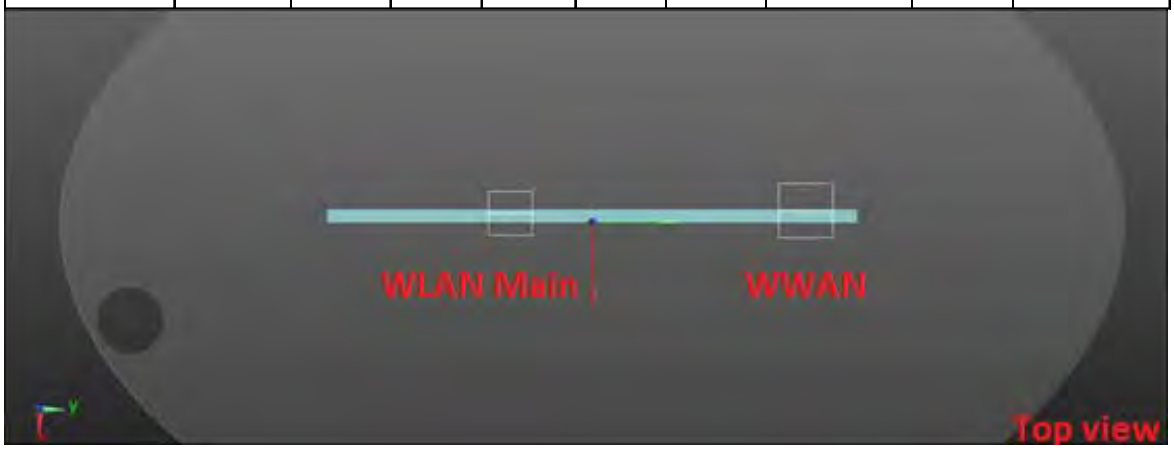
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



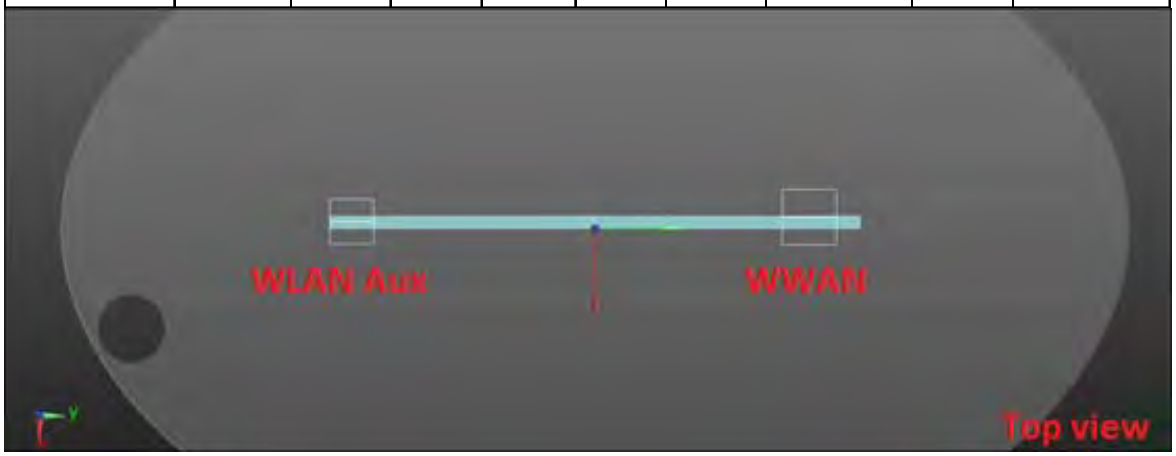
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.487	-0.62	11.86	-0.37	1.102	162.02	0.007	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



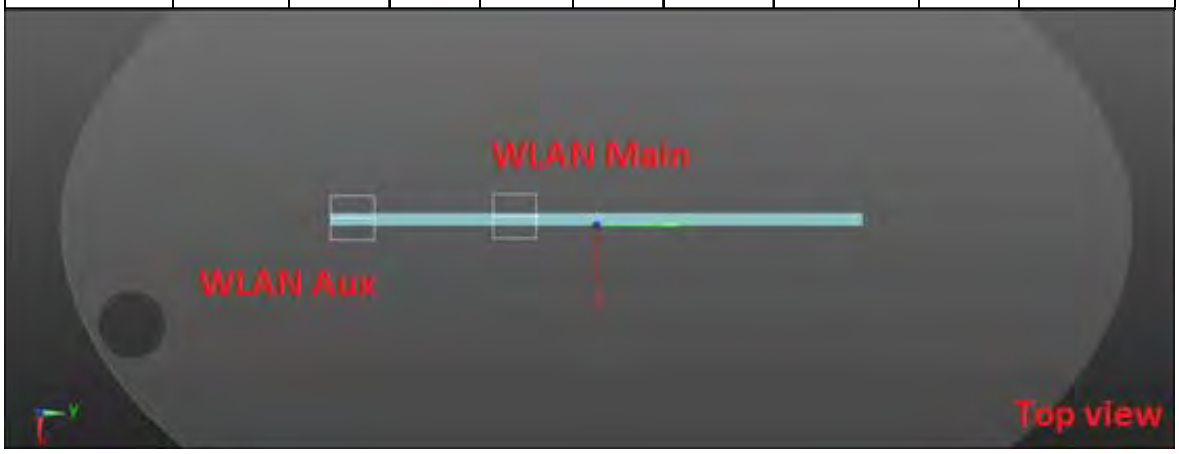
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.487	-0.62	11.86	-0.37	1.476	256.65	0.007	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				

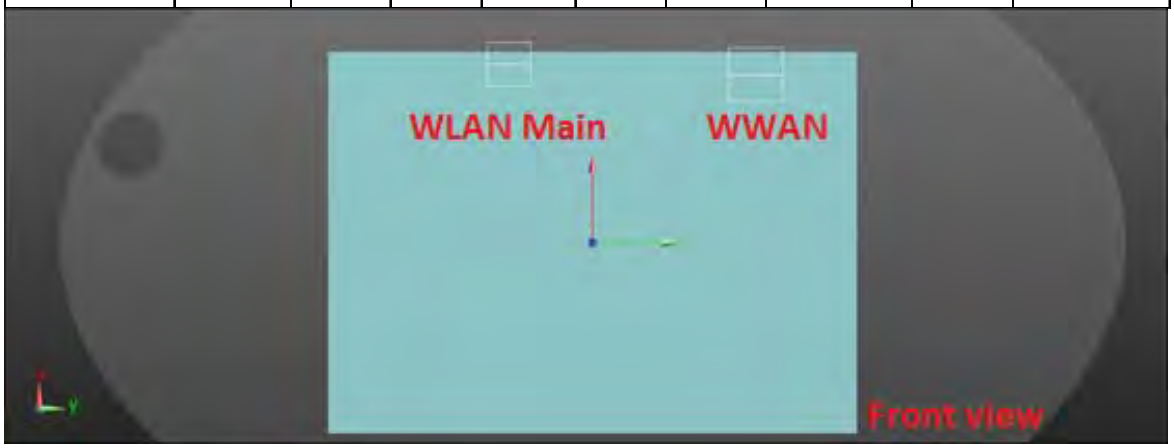


LTE TDD Band 41 + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
29	LTE FDD Band 41	Back side	0	1.176	1.153	0.931	**3.260**	Analyzed as below
		Top side	0	0.350	0.615	0.989	**1.954**	Analyzed as below
		Bottom side	0	0.003	0.318	0.167	0.488	ΣSAR<1.6, Not required
		Right side	0	0.092	0.023	0.019	0.134	ΣSAR<1.6, Not required
		Left side	0	0.109	0.004	1.193	1.306	ΣSAR<1.6, Not required

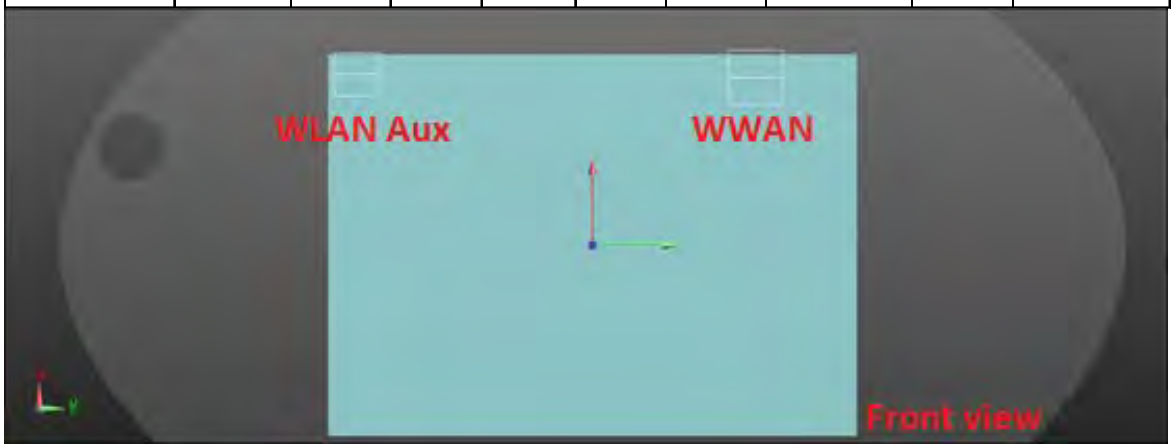
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	2.329	135.05	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				



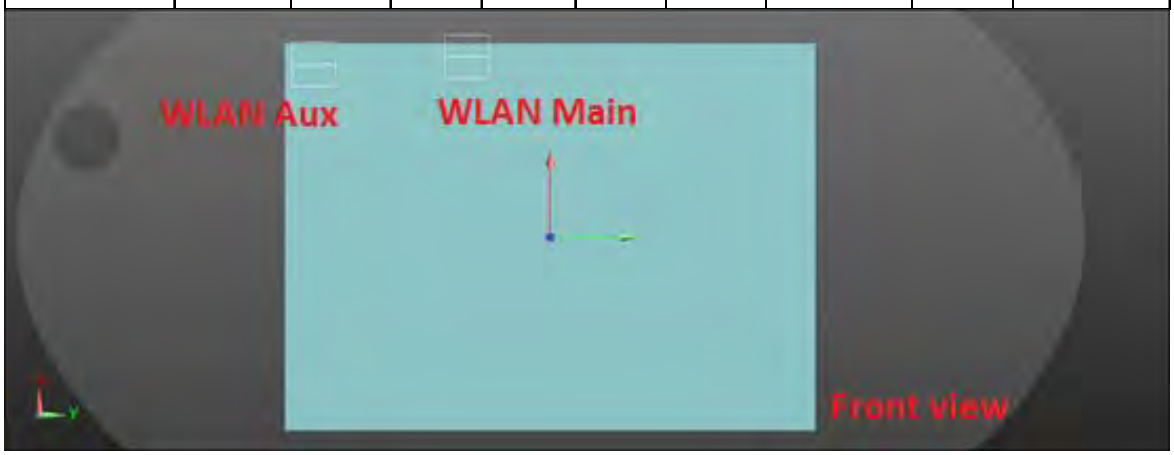
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	2.107	219.81	0.014	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



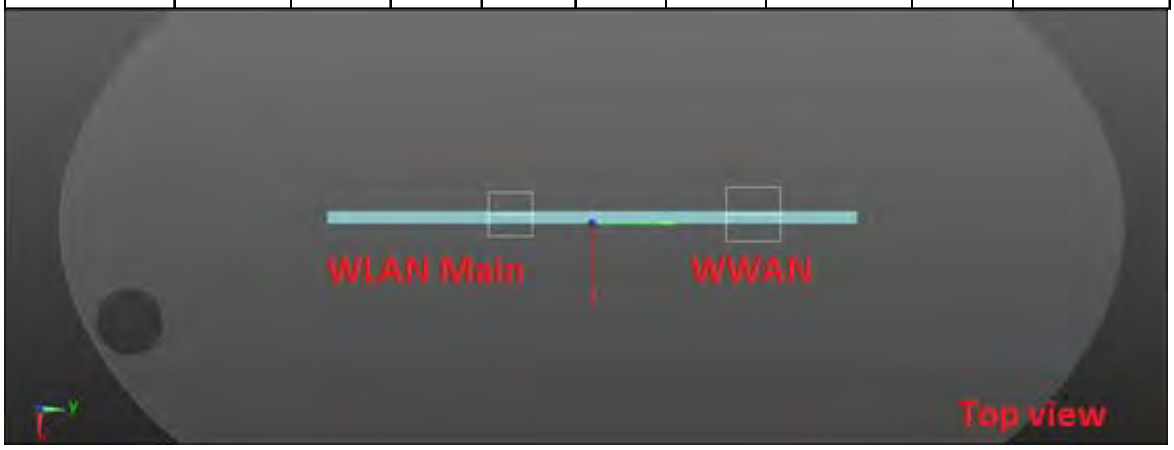
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



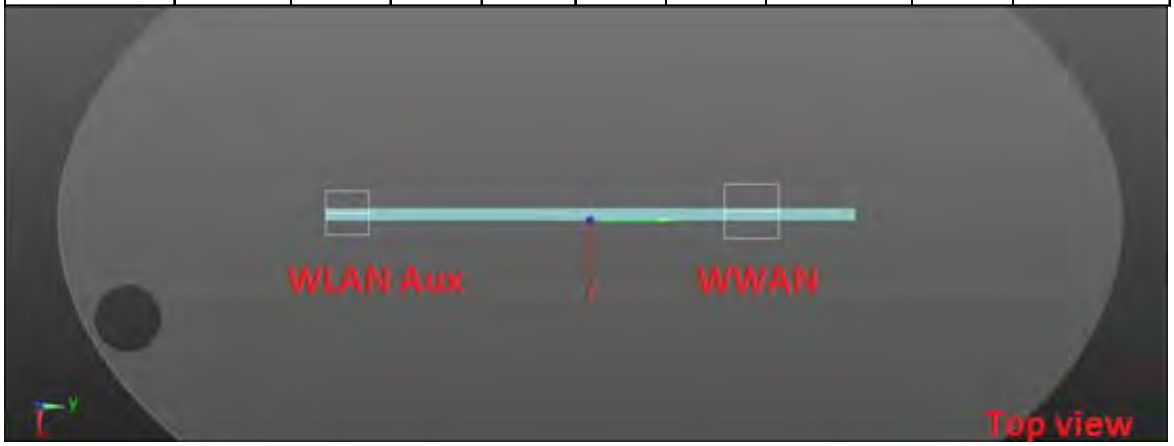
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.350	-0.50	9.28	-0.39	0.965	136.21	0.007	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



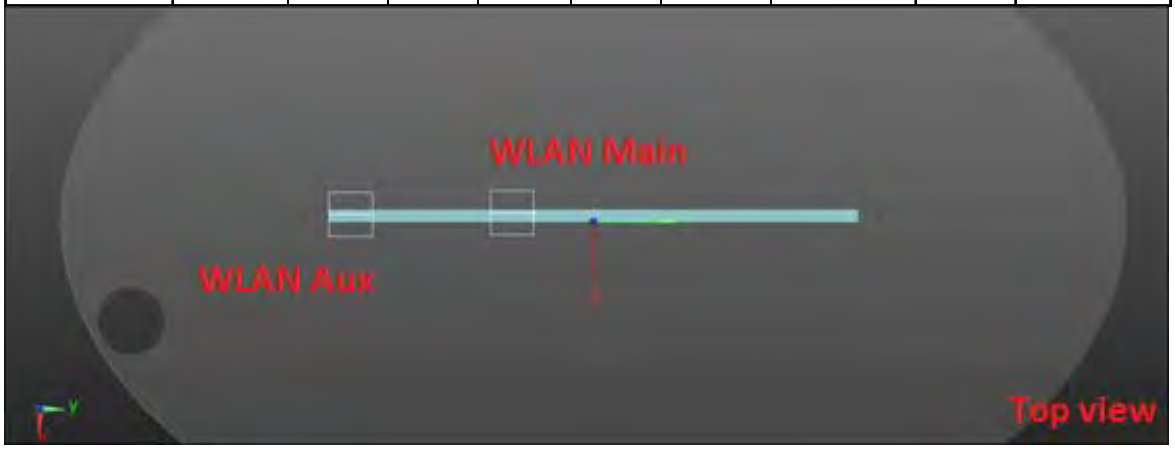
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.350	-0.50	9.28	-0.39	1.339	230.82	0.007	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				

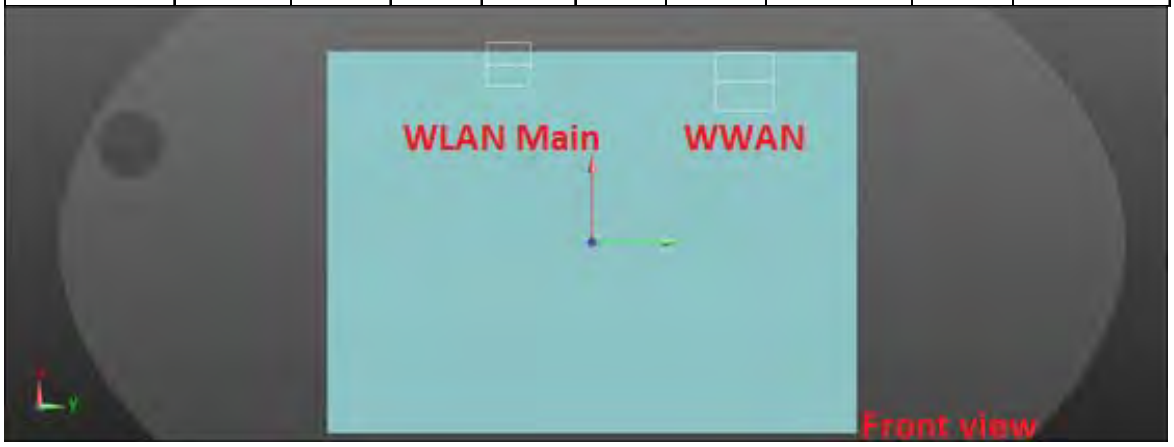


LTE FDD Band 66 + 5GHz WLAN MIMO

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	Max. WLAN Aux	SAR Sum	SPLSR
30	LTE FDD Band 66	Back side	0	1.102	1.153	0.931	**3.186**	Analyzed as below
		Top side	0	0.593	0.615	0.989	**2.197**	Analyzed as below
		Bottom side	0	0.003	0.318	0.167	0.488	ΣSAR<1.6, Not required
		Right side	0	1.052	0.023	0.019	1.094	ΣSAR<1.6, Not required
		Left side	0	0.108	0.004	1.193	1.305	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	2.255	130.24	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

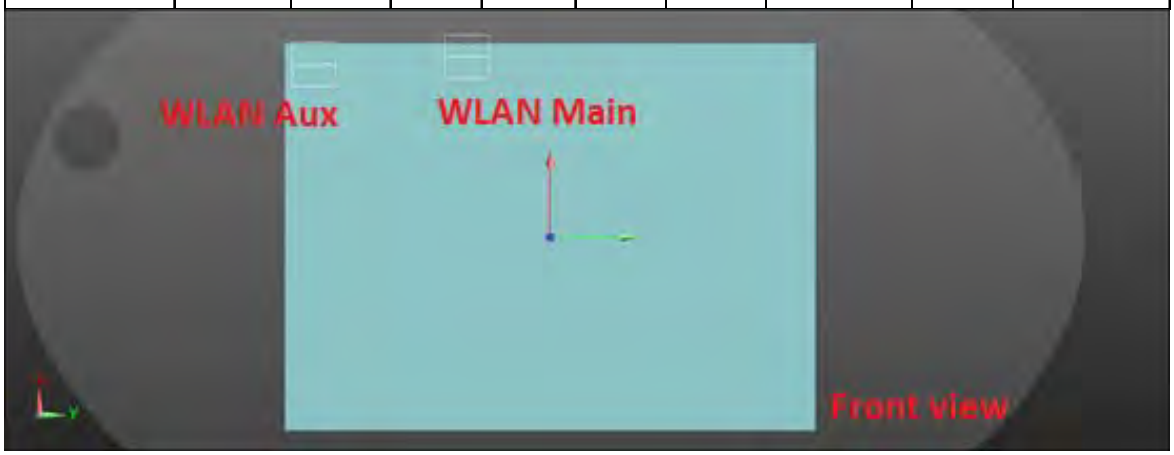


WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.56	-13.08	-0.16	2.033	219.81	0.013	SPLSR<0.04, Not required
WLAN Aux		0.931	9.01	8.40	-0.25				

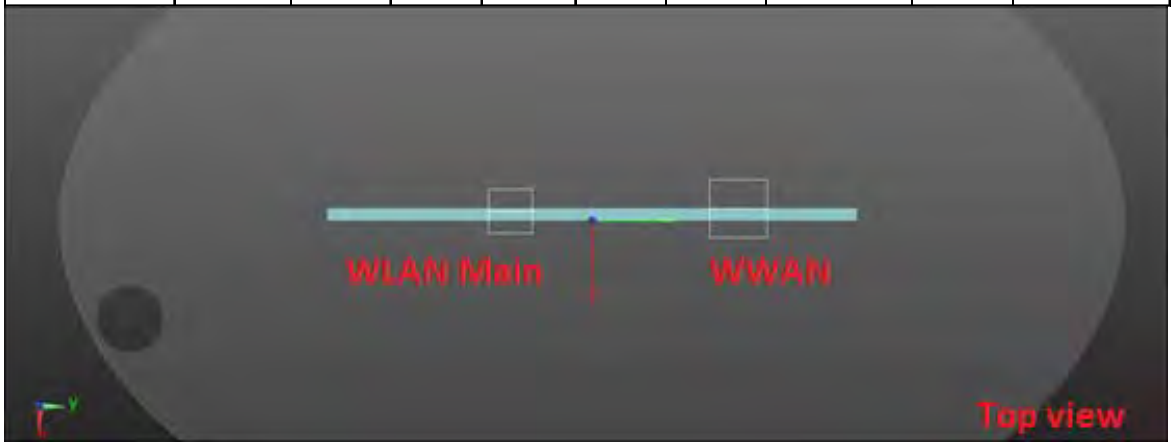
WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	2.084	84.8	0.035	SPLSR<0.04, Not required
WLAN Aux		0.931	9.56	-13.08	-0.16				



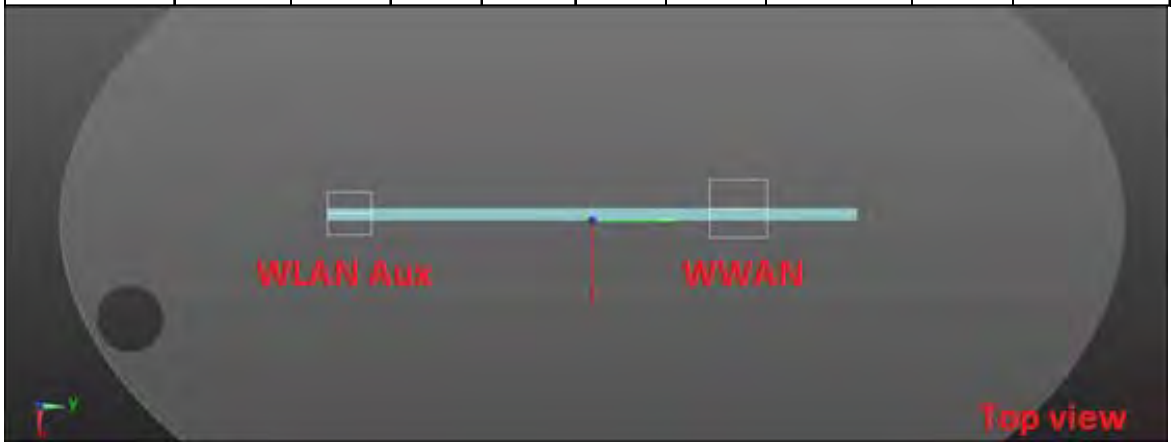
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.593	-0.65	7.89	-0.41	1.208	123.33	0.011	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



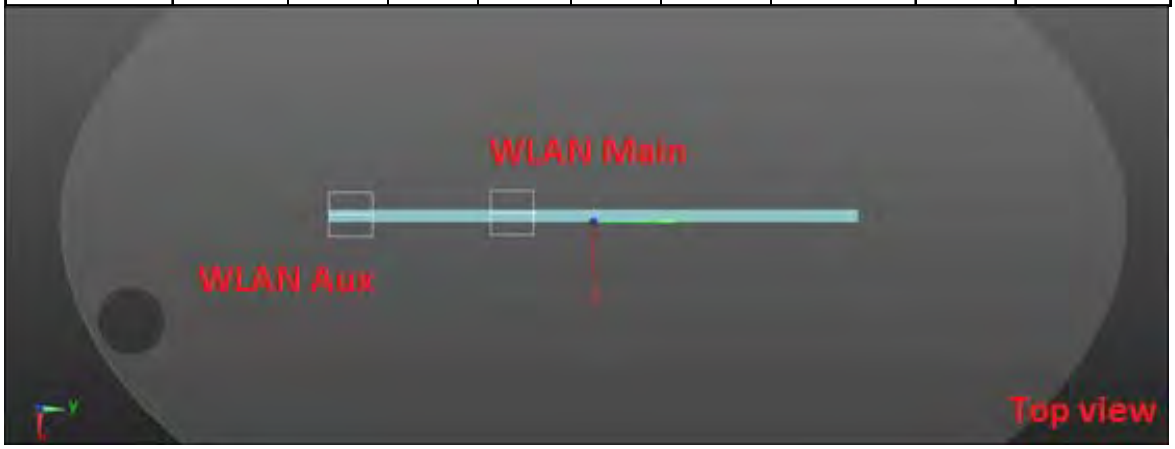
WWAN + WLAN Aux

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.593	-0.65	7.89	-0.41	1.582	216.94	0.009	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				



WLAN MIMO

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	1.604	94.6	0.021	SPLSR<0.04, Not required
WLAN Aux		0.989	-0.24	-13.80	-0.27				

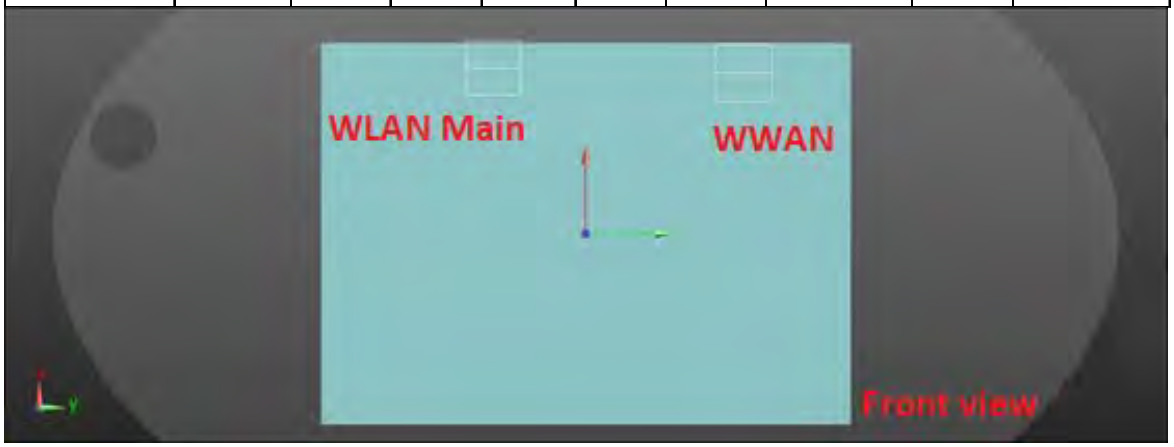


WCDMA Band II + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
31	WCDMA Band II	Back side	0	1.187	0.986	0.240	**2.413**	Analyzed as below
		Top side	0	0.783	0.291	0.075	1.149	ΣSAR<1.6, Not required
		Bottom side	0	0.006	0.004	0.010	0.020	ΣSAR<1.6, Not required
		Right side	0	1.351	0.010	0.000	1.361	ΣSAR<1.6, Not required
		Left side	0	0.138	0.022	0.228	0.388	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	2.173	138.4	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

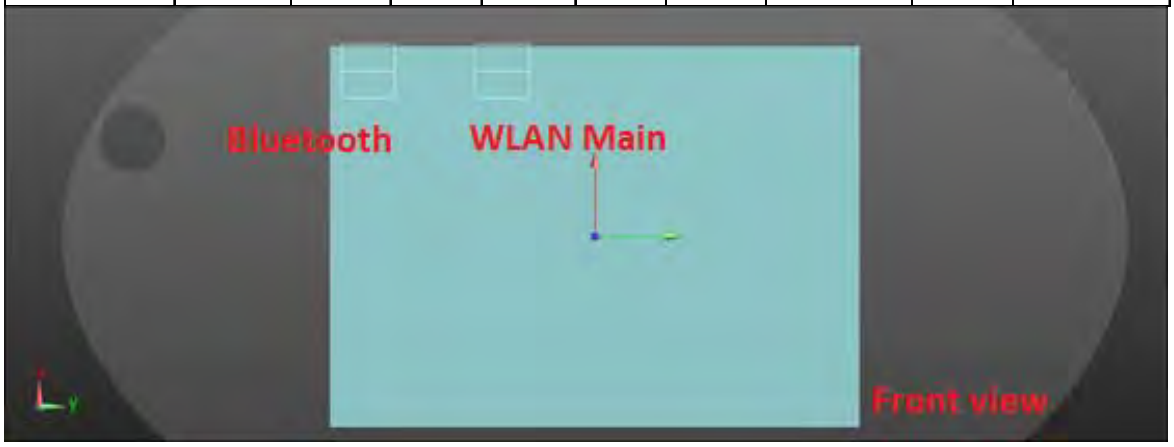


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	1.427	209.8	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

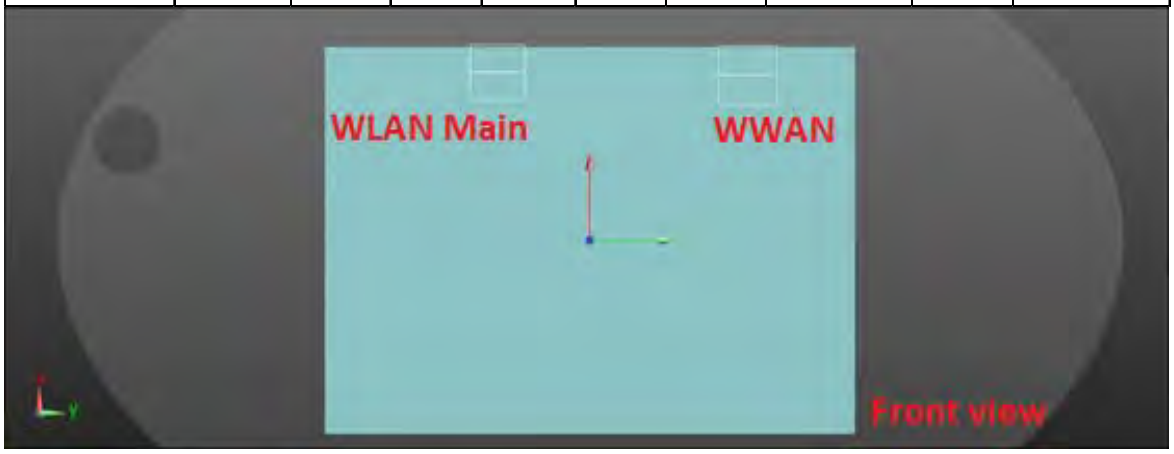


WCDMA Band IV + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
32	WCDMA Band IV	Back side	0	1.187	0.986	0.240	**2.413**	Analyzed as below
		Top side	0	0.641	0.291	0.075	1.007	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.010	0.019	ΣSAR<1.6, Not required
		Right side	0	1.352	0.010	0.000	1.362	ΣSAR<1.6, Not required
		Left side	0	0.128	0.022	0.228	0.378	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	2.173	138.41	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

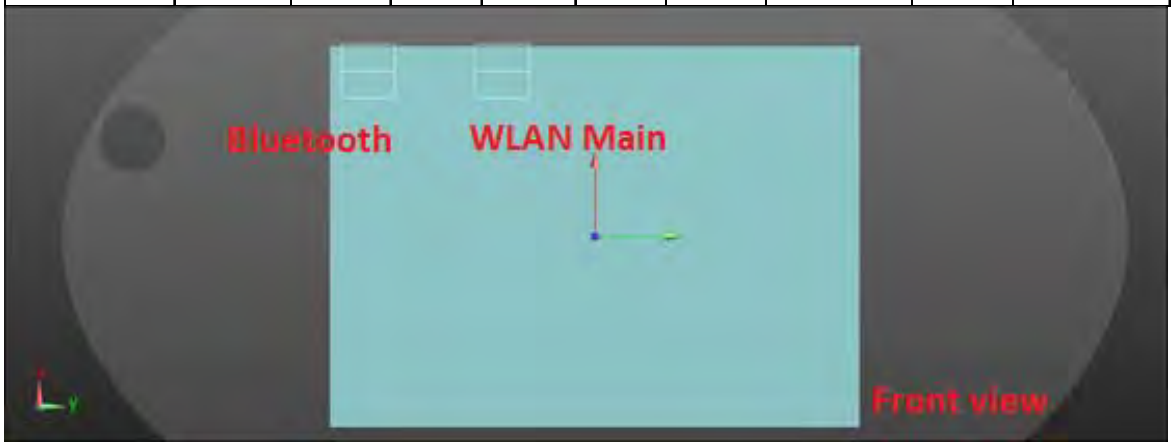


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	1.427	209.8	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WCDMA Band V + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
33	WCDMA Band V	Back side	0	1.000	0.986	0.240	**2.226**	Analyzed as below
		Top side	0	0.737	0.291	0.075	1.103	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.010	0.018	ΣSAR<1.6, Not required
		Right side	0	0.325	0.010	0.000	0.335	ΣSAR<1.6, Not required
		Left side	0	0.085	0.022	0.228	0.335	ΣSAR<1.6, Not required

WWAN + WLAN Main

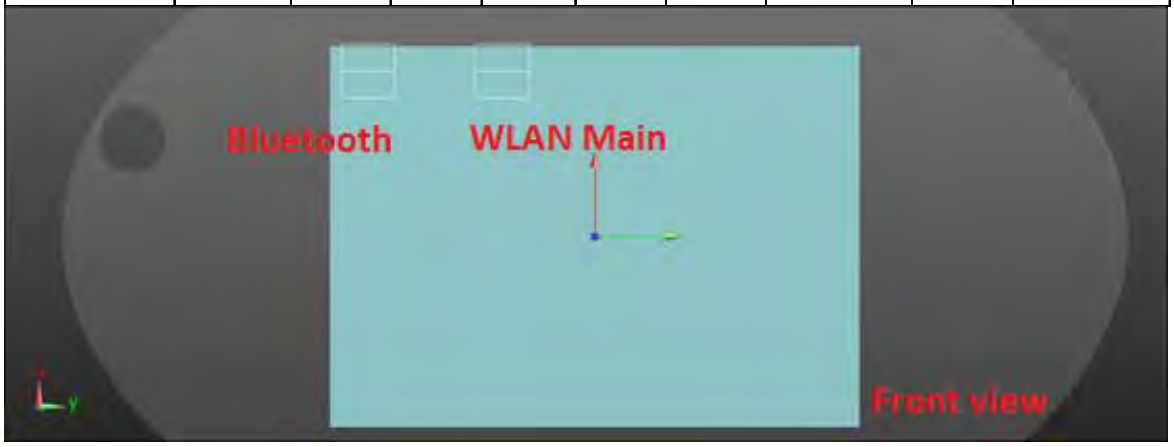
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.986	104.31	0.027	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.240	179.67	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 2 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
34	LTE FDD Band 2	Back side	0	1.167	0.986	0.240	**2.393**	Analyzed as below
		Top side	0	0.793	0.291	0.075	1.159	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.010	0.019	ΣSAR<1.6, Not required
		Right side	0	0.250	0.010	0.000	0.260	ΣSAR<1.6, Not required
		Left side	0	0.146	0.022	0.228	0.396	ΣSAR<1.6, Not required

WWAN + WLAN Main

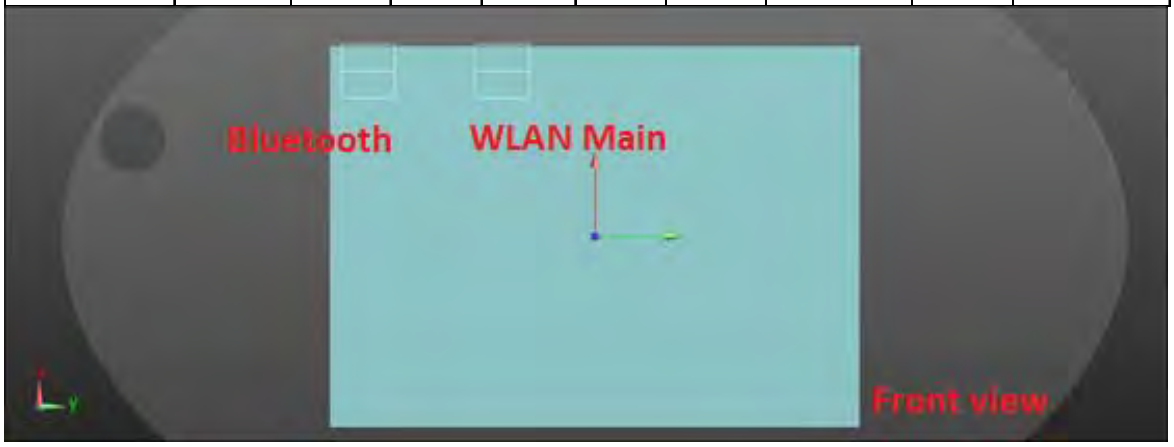
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	2.153	136.8	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	1.407	208.2	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

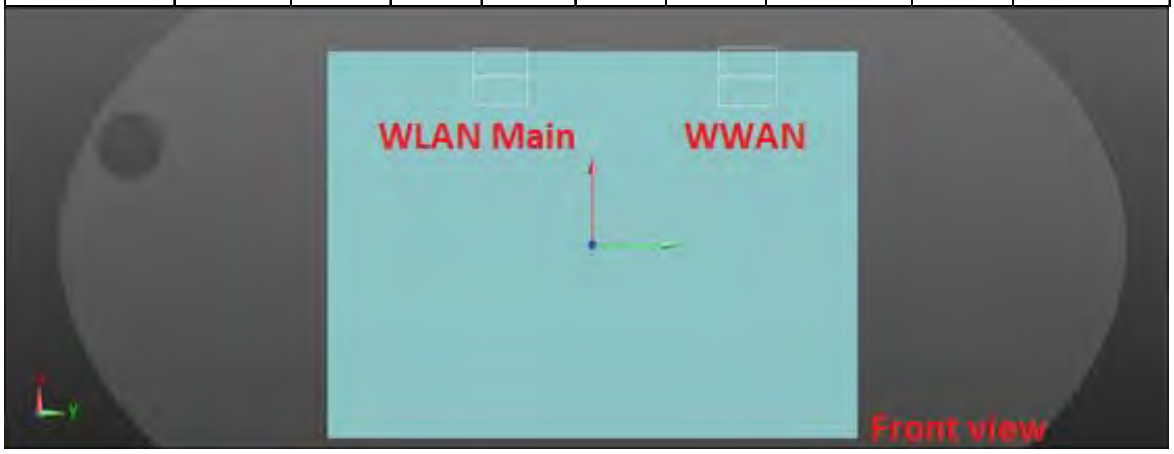


LTE FDD Band 4 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
35	LTE FDD Band 4	Back side	0	1.151	0.986	0.240	**2.377**	Analyzed as below
		Top side	0	0.602	0.291	0.075	0.968	ΣSAR<1.6, Not required
		Bottom side	0	0.009	0.004	0.010	0.023	ΣSAR<1.6, Not required
		Right side	0	1.365	0.010	0.000	1.375	ΣSAR<1.6, Not required
		Left side	0	0.075	0.022	0.228	0.325	ΣSAR<1.6, Not required

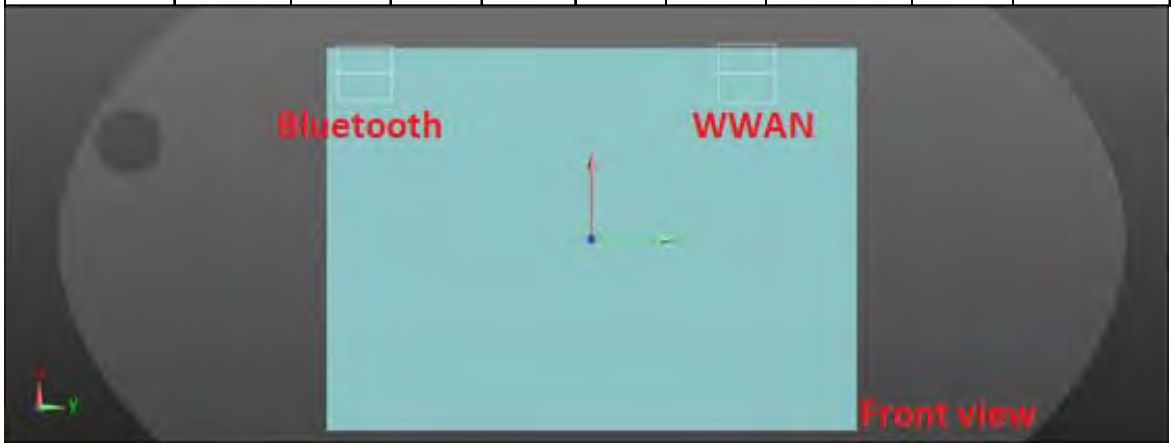
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	2.137	135.33	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



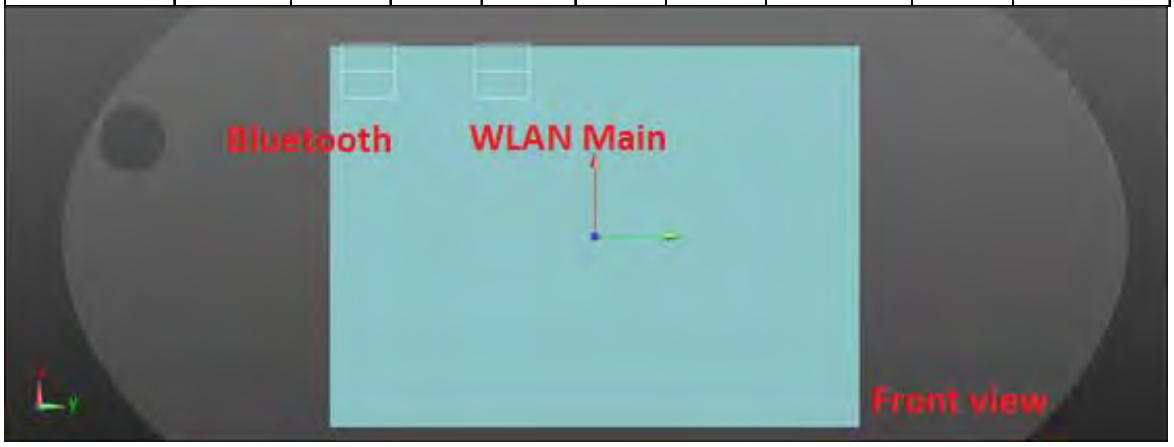
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	1.391	206.71	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 5 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
36	LTE FDD Band 5	Back side	0	1.042	0.986	0.240	**2.268**	Analyzed as below
		Top side	0	0.989	0.291	0.075	1.355	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.010	0.019	ΣSAR<1.6, Not required
		Right side	0	0.304	0.010	0.000	0.314	ΣSAR<1.6, Not required
		Left side	0	0.071	0.022	0.228	0.321	ΣSAR<1.6, Not required

WWAN + WLAN Main

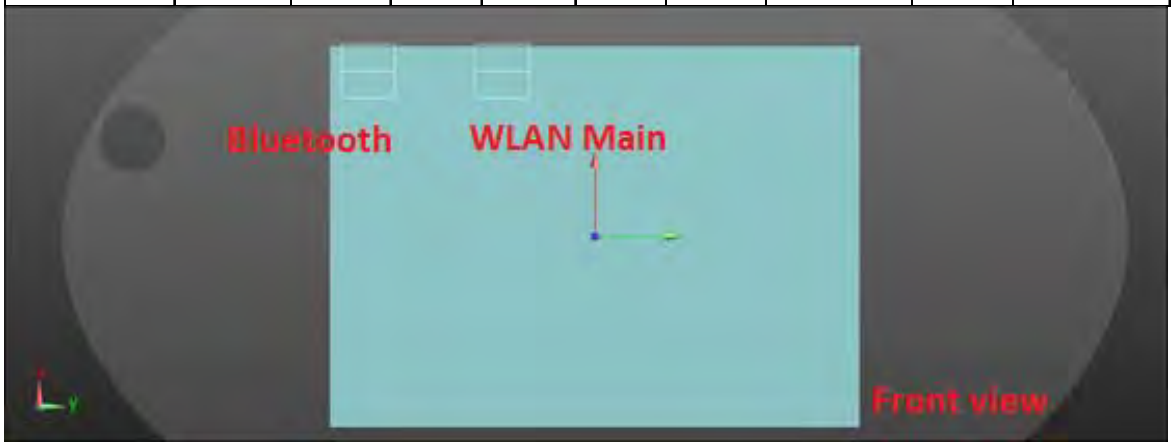
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	2.028	113.49	0.025	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	1.282	184.61	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

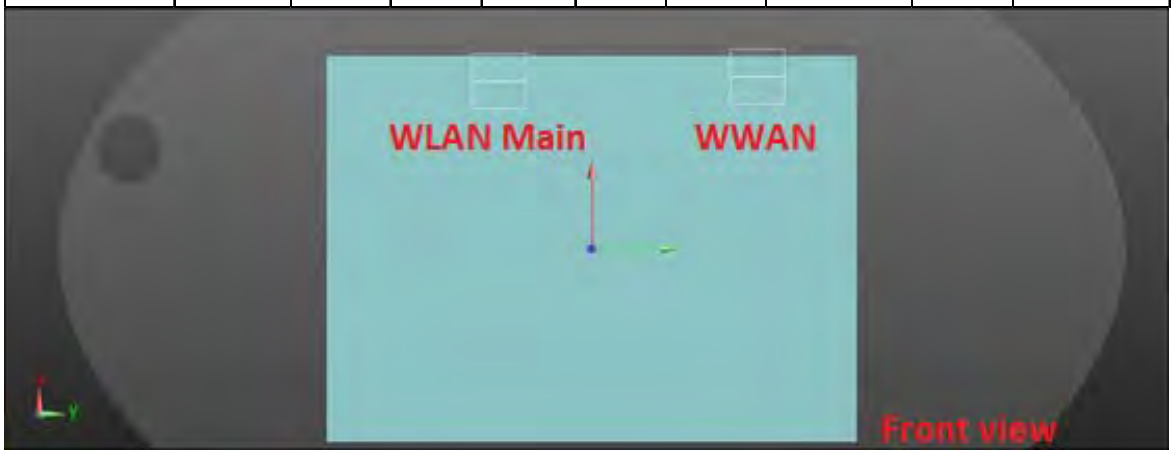


LTE FDD Band 7 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
37	LTE FDD Band 7	Back side	0	1.173	0.986	0.240	**2.399**	Analyzed as below
		Top side	0	0.884	0.291	0.075	1.250	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.010	0.018	ΣSAR<1.6, Not required
		Right side	0	0.250	0.010	0.000	0.260	ΣSAR<1.6, Not required
		Left side	0	0.146	0.022	0.228	0.396	ΣSAR<1.6, Not required

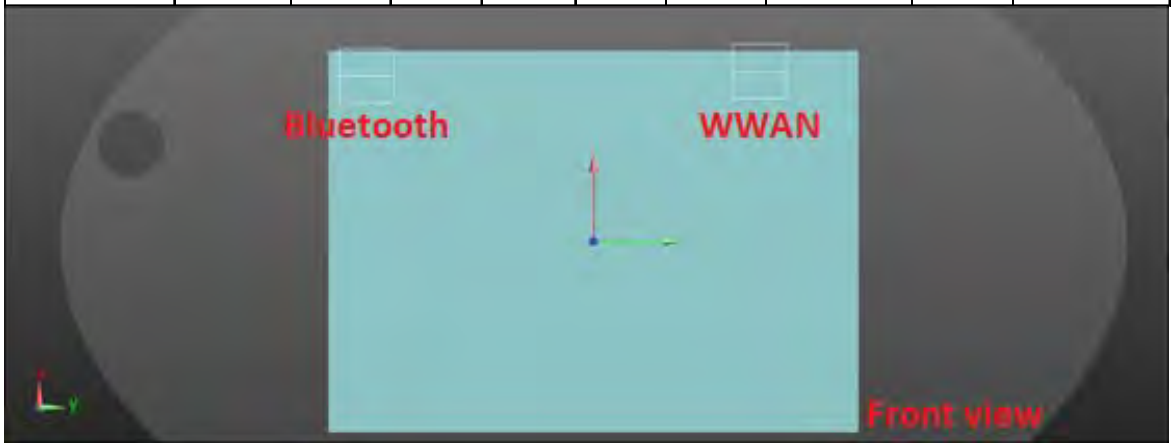
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	2.159	142.15	0.022	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				



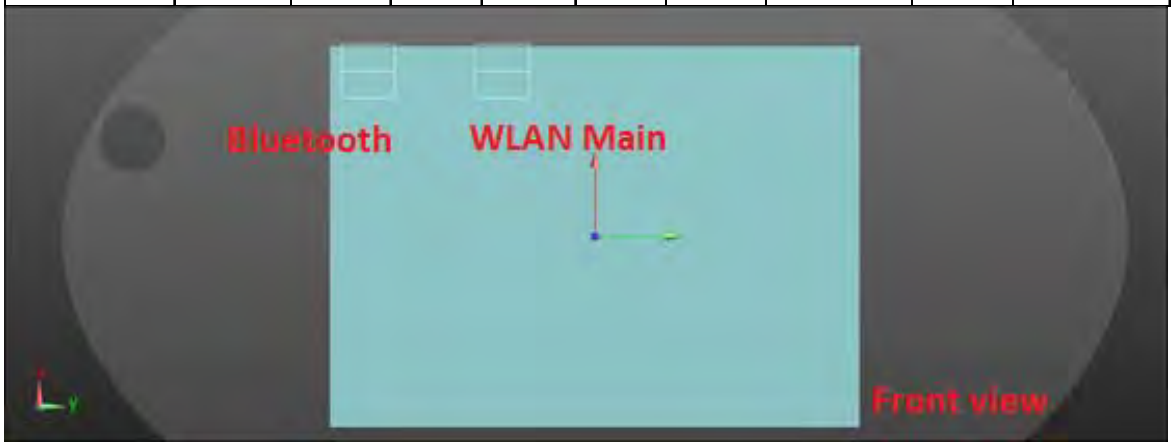
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	1.413	213.47	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 12 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
38	LTE FDD Band 12	Back side	0	0.919	0.986	0.240	**2.145**	Analyzed as below
		Top side	0	0.995	0.291	0.075	1.361	ΣSAR<1.6, Not required
		Bottom side	0	0.002	0.004	0.010	0.016	ΣSAR<1.6, Not required
		Right side	0	0.358	0.010	0.000	0.368	ΣSAR<1.6, Not required
		Left side	0	0.091	0.022	0.228	0.341	ΣSAR<1.6, Not required

WWAN + WLAN Main

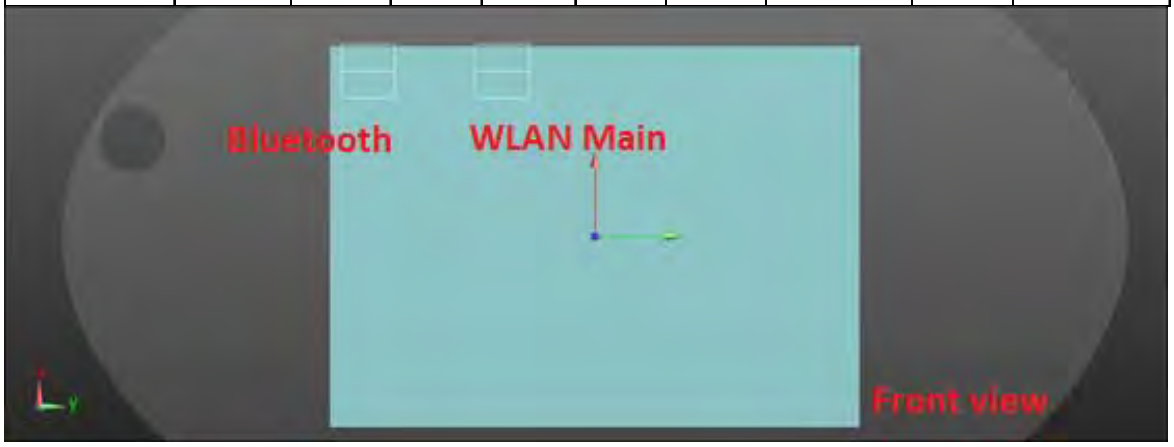
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.905	113.42	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.159	184.52	0.007	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 13 + BT + 2.4GHz WLAN Aux

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
39	LTE FDD Band 13	Back side	0	1.187	0.986	0.240	**2.413**	Analyzed as below
		Top side	0	1.289	0.291	0.075	**1.655**	Analyzed as below
		Bottom side	0	0.003	0.004	0.010	0.017	ΣSAR<1.6, Not required
		Right side	0	0.521	0.010	0.000	0.531	ΣSAR<1.6, Not required
		Left side	0	0.039	0.022	0.228	0.289	ΣSAR<1.6, Not required

WWAN + WLAN Main

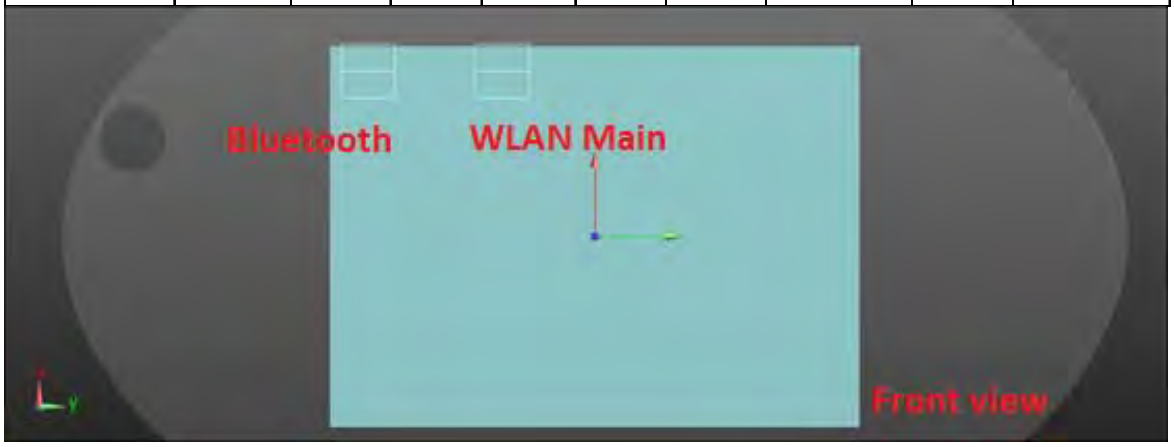
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	2.173	108.73	0.029	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	1.427	179.82	0.009	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

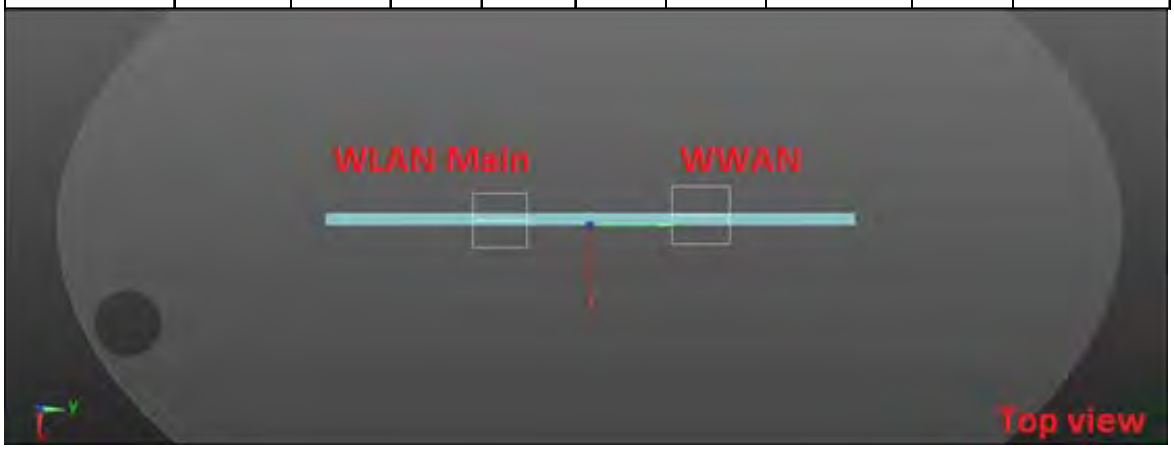
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



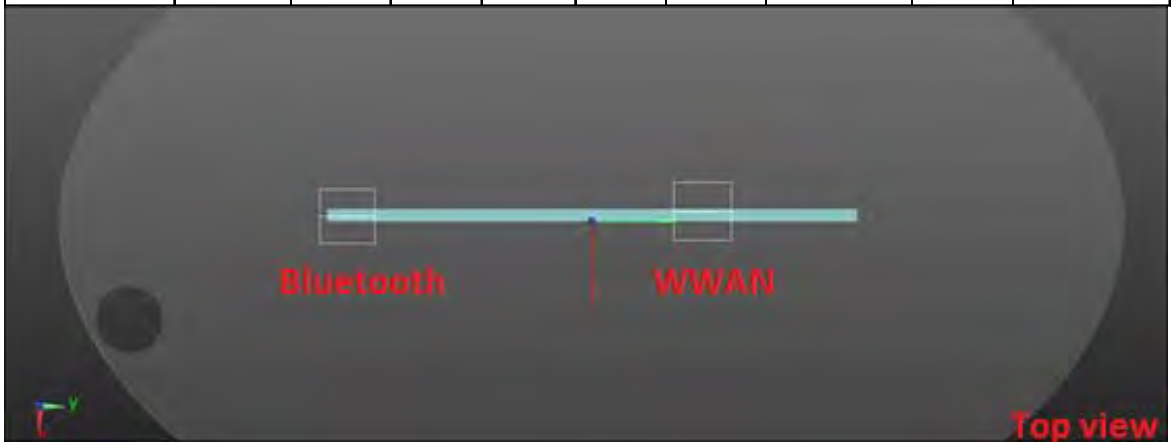
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.580	109.01	0.018	SPLSR<0.04, Not required
WLAN Main		0.291	-0.46	-4.96	-0.24				



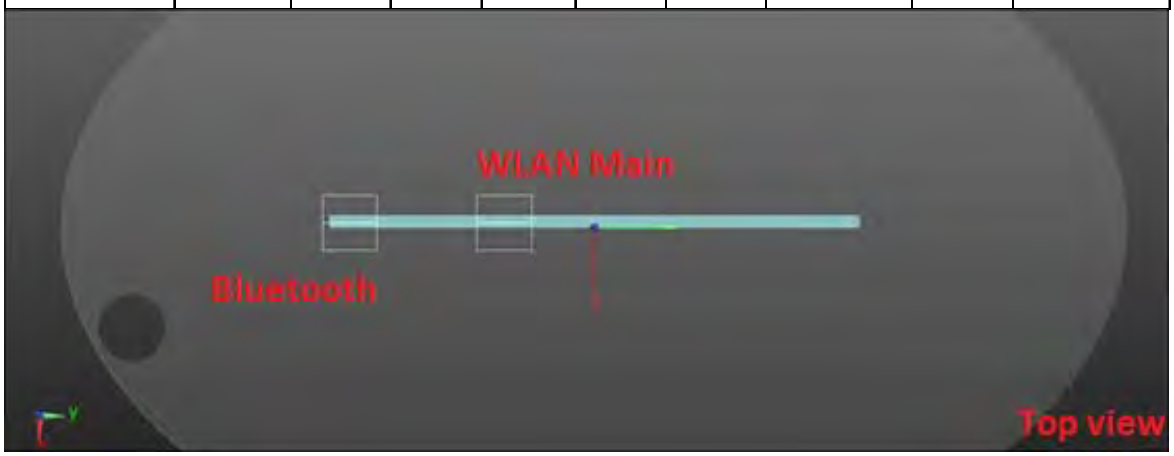
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.26	-13.18	-0.13	1.364	191.22	0.008	SPLSR<0.04, Not required
BT		0.075	-0.39	5.94	-0.39				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.291	-0.46	-4.96	-0.24	0.366	82.2	0.003	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



LTE FDD Band 17 + 2.4GHz WLAN Main + BT

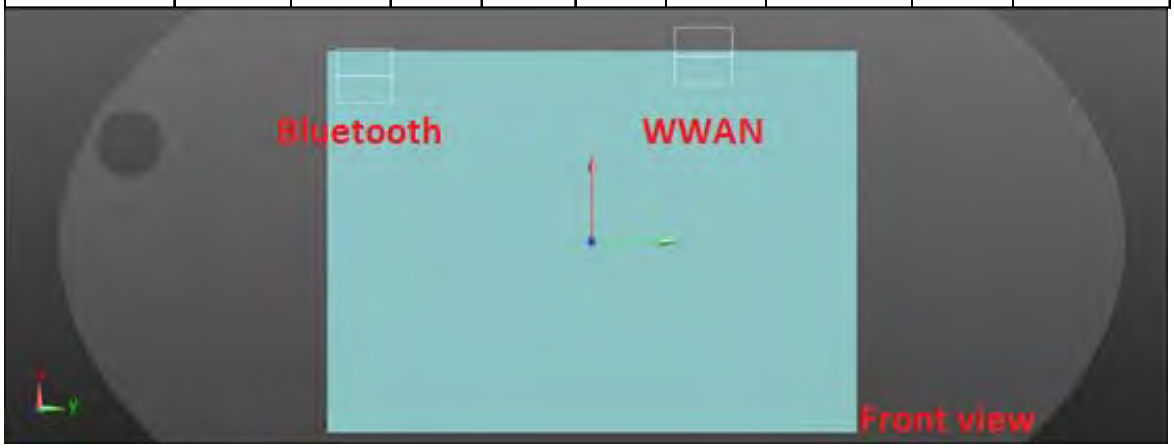
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
40	LTE FDD Band 17	Back side	0	1.053	0.986	0.240	**2.279**	Analyzed as below
		Top side	0	1.280	0.291	0.075	**1.646**	Analyzed as below
		Bottom side	0	0.002	0.004	0.010	0.016	ΣSAR<1.6, Not required
		Right side	0	0.330	0.010	0.000	0.340	ΣSAR<1.6, Not required
		Left side	0	0.115	0.022	0.228	0.365	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	2.039	105.56	0.028	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

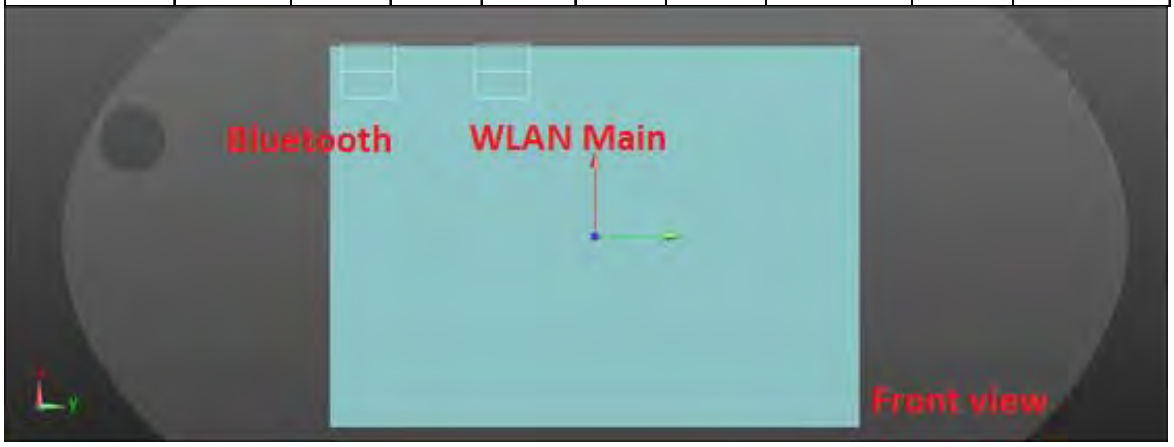
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	1.293	176.64	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



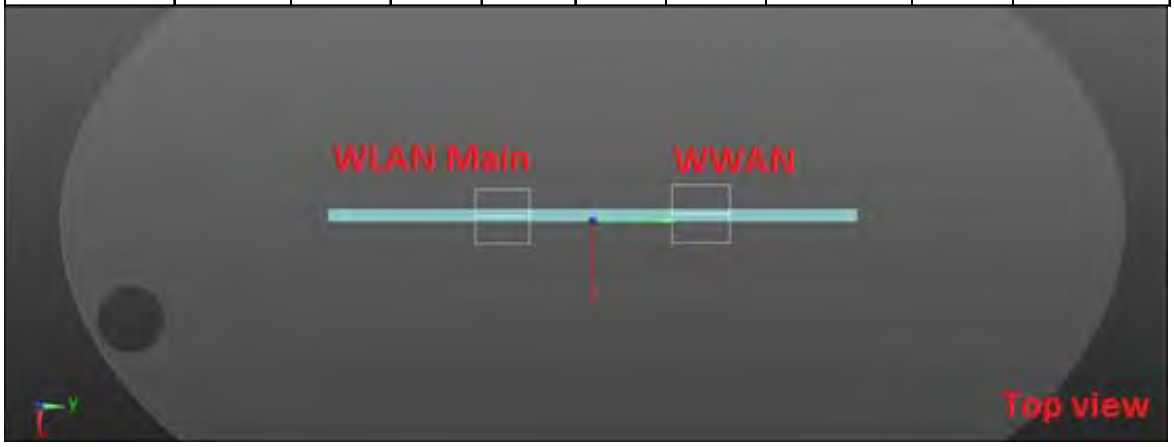
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



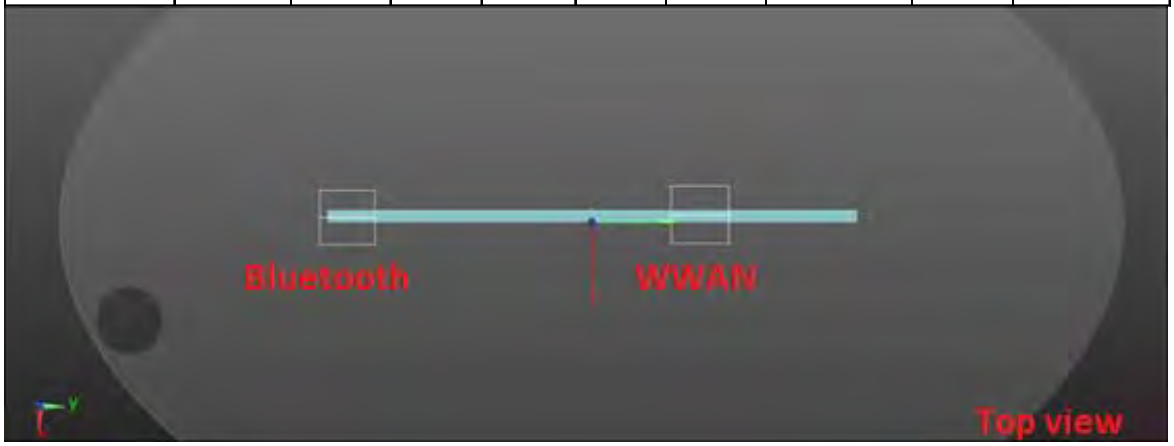
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.571	93.13	0.021	SPLSR<0.04, Not required
WLAN Main		0.291	-0.46	-4.96	-0.24				



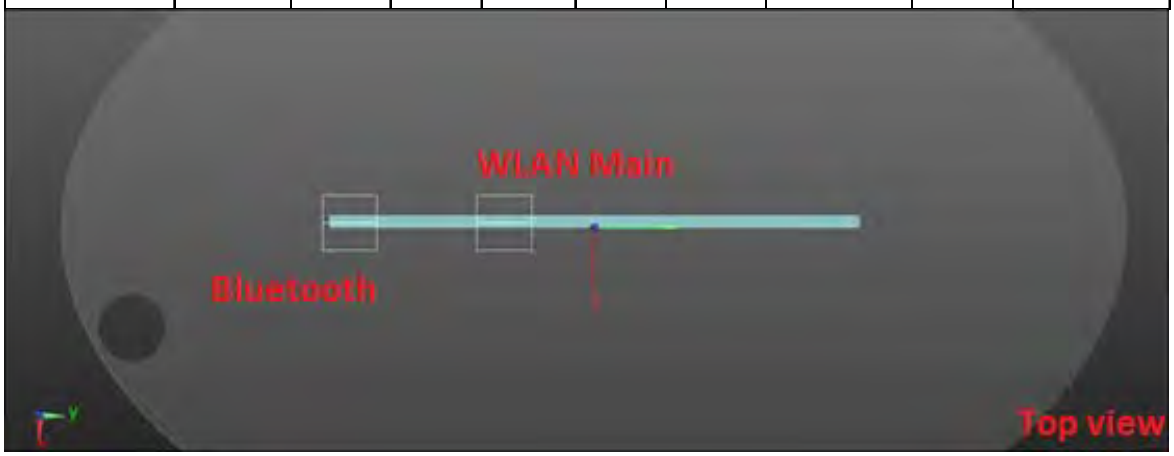
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.355	175.34	0.009	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.291	-0.46	-4.96	-0.24	0.366	82.2	0.003	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

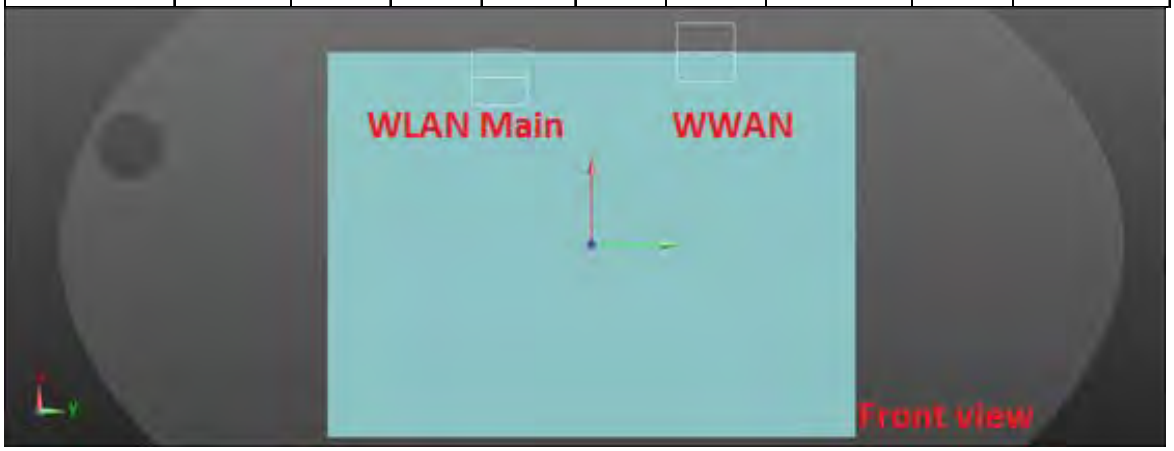


LTE FDD Band 26 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
41	LTE FDD Band 26	Back side	0	1.120	0.986	0.240	**2.346**	Analyzed as below
		Top side	0	0.968	0.291	0.075	1.334	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.004	0.010	0.019	ΣSAR<1.6, Not required
		Right side	0	0.229	0.010	0.000	0.239	ΣSAR<1.6, Not required
		Left side	0	0.080	0.022	0.228	0.330	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	2.106	110.21	0.028	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

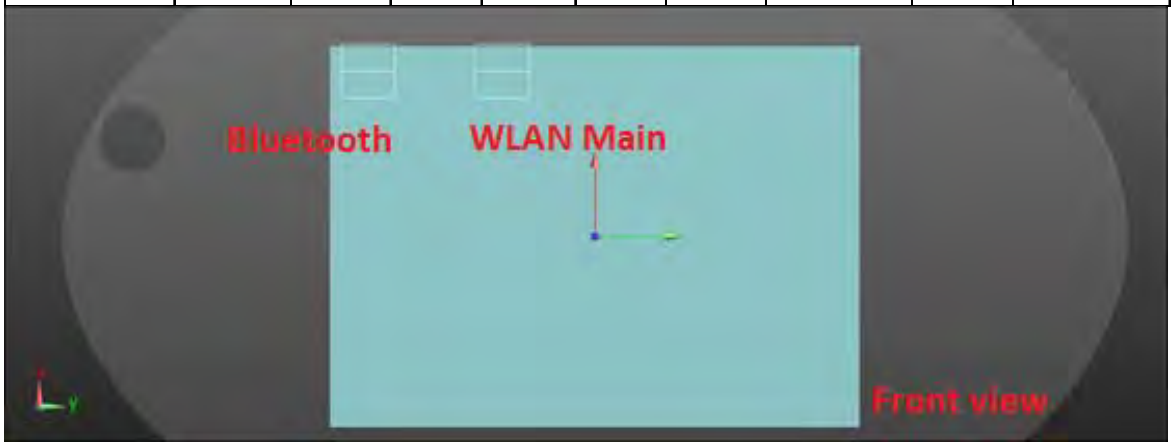


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	1.360	181.31	0.009	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 30 + 2.4GHz WLAN Main + BT

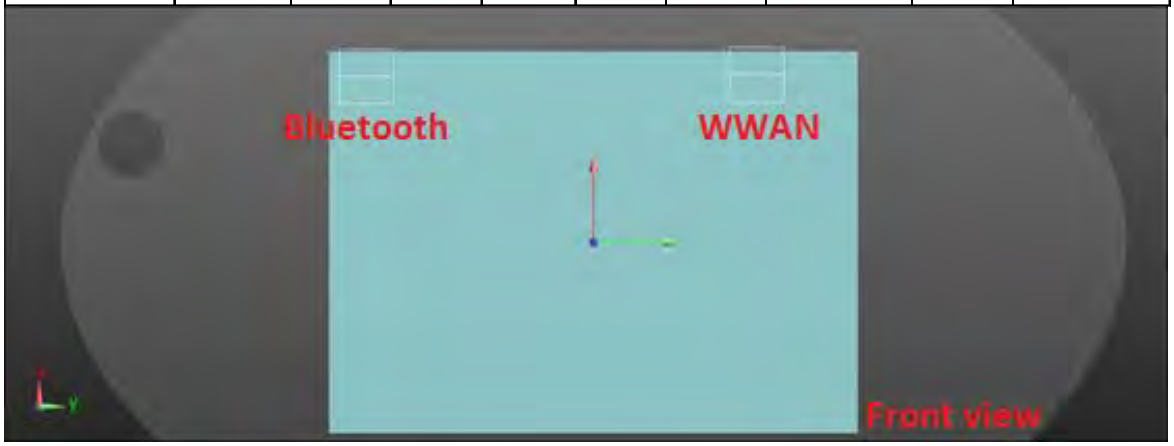
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
42	LTE FDD Band 30	Back side	0	1.109	0.986	0.240	**2.335**	Analyzed as below
		Top side	0	0.427	0.291	0.075	0.793	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.004	0.010	0.018	ΣSAR<1.6, Not required
		Right side	0	0.154	0.010	0.000	0.164	ΣSAR<1.6, Not required
		Left side	0	0.160	0.022	0.228	0.410	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	2.095	140.9	0.022	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

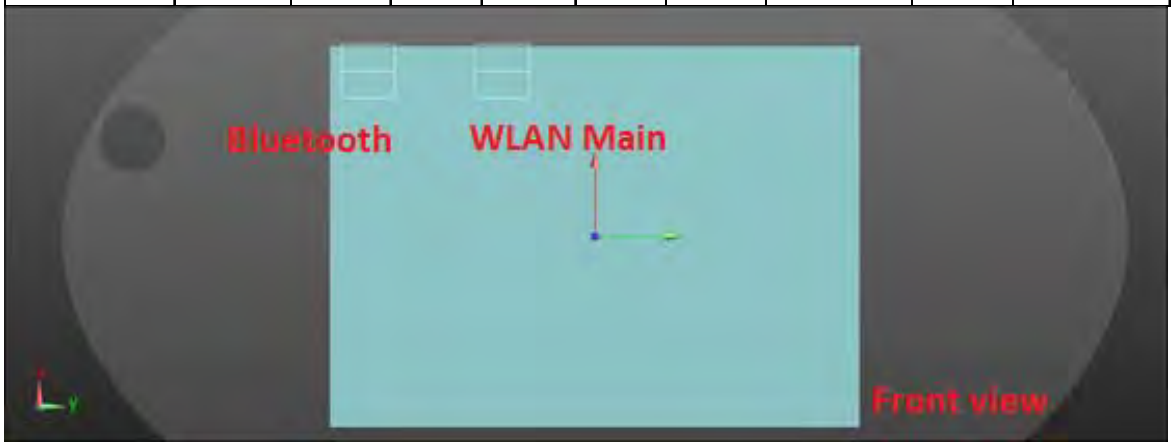
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	1.349	212.24	0.007	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 38 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
43	LTE FDD Band 38	Back side	0	1.152	0.986	0.240	**2.378**	Analyzed as below
		Top side	0	0.487	0.291	0.075	0.853	ΣSAR<1.6, Not required
		Bottom side	0	0.002	0.004	0.010	0.016	ΣSAR<1.6, Not required
		Right side	0	0.176	0.010	0.000	0.186	ΣSAR<1.6, Not required
		Left side	0	0.057	0.022	0.228	0.307	ΣSAR<1.6, Not required

WWAN + WLAN Main

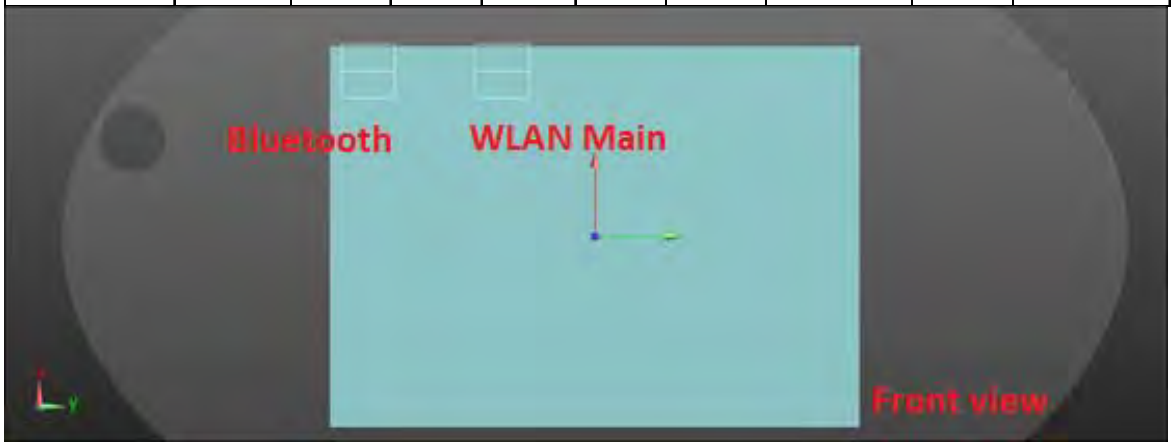
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	2.138	138.86	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	1.392	210.23	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

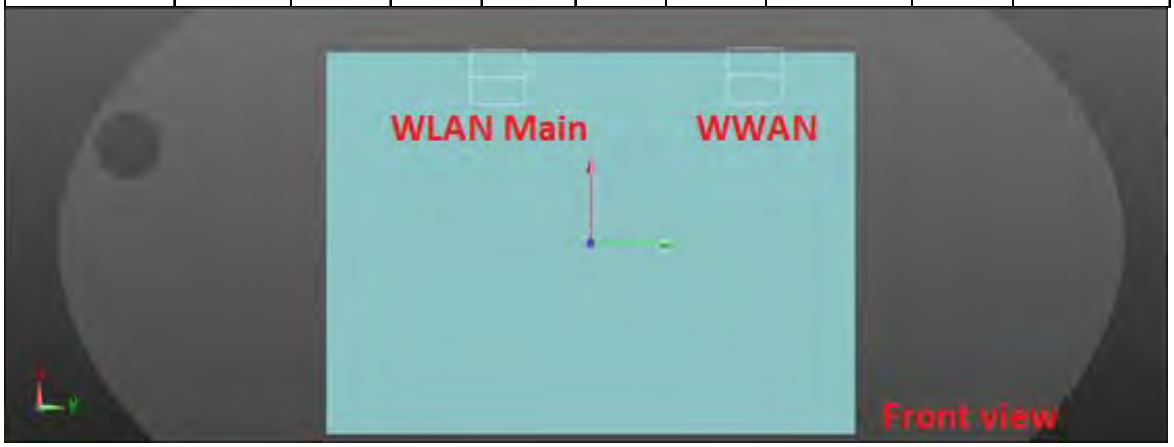


LTE FDD Band 41 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
44	LTE FDD Band 41	Back side	0	1.176	0.986	0.240	**2.402**	Analyzed as below
		Top side	0	0.350	0.291	0.075	0.716	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.004	0.010	0.017	ΣSAR<1.6, Not required
		Right side	0	0.092	0.010	0.000	0.102	ΣSAR<1.6, Not required
		Left side	0	0.109	0.022	0.228	0.359	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	2.162	138.86	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

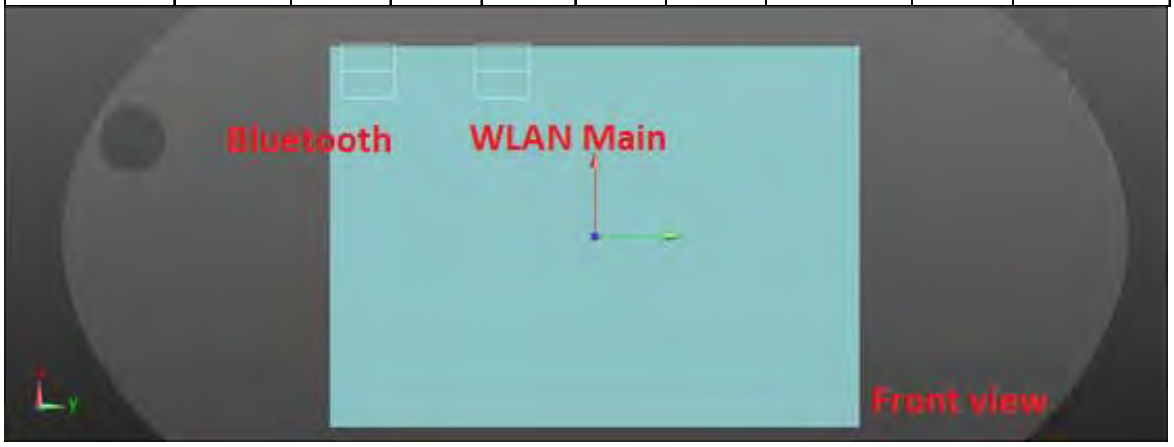


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	1.416	210.23	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

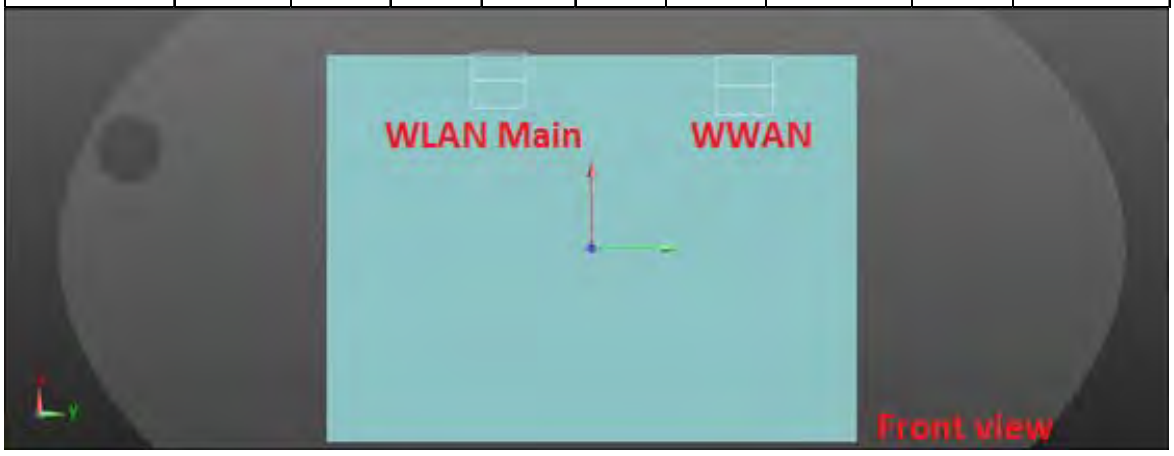


LTE FDD Band 66 + 2.4GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
45	LTE FDD Band 66	Back side	0	1.102	0.986	0.240	**2.328**	Analyzed as below
		Top side	0	0.593	0.291	0.075	0.959	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.004	0.010	0.017	ΣSAR<1.6, Not required
		Right side	0	1.052	0.010	0.000	1.062	ΣSAR<1.6, Not required
		Left side	0	0.108	0.022	0.228	0.358	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	2.088	133.8	0.023	SPLSR<0.04, Not required
WLAN Main		0.986	9.02	-4.98	-0.21				

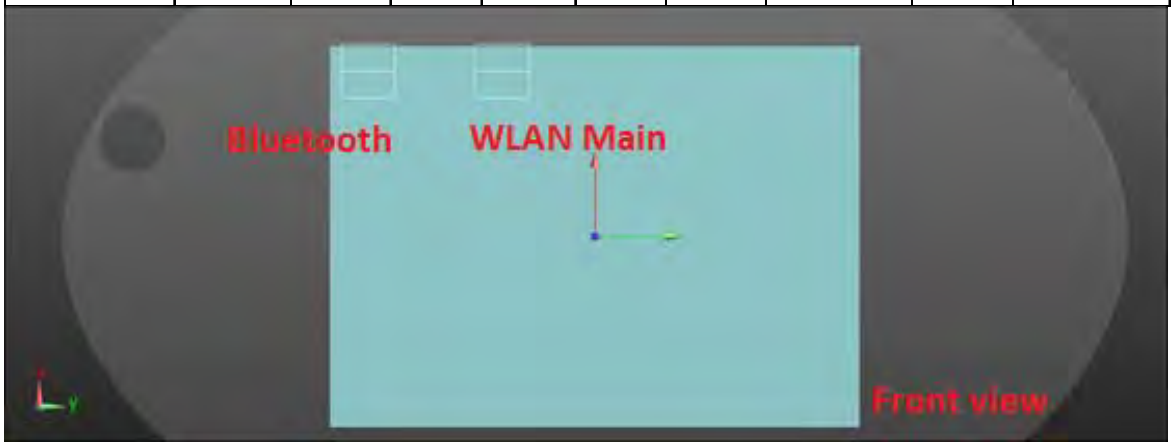


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	1.342	205.21	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	0.986	9.02	-4.98	-0.21	1.226	71.4	0.019	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WCDMA Band II + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
45	WCDMA Band II	Back side	0	1.187	1.153	0.240	**2.580**	Analyzed as below
		Top side	0	0.783	0.615	0.075	1.473	ΣSAR<1.6, Not required
		Bottom side	0	0.006	0.318	0.010	0.334	ΣSAR<1.6, Not required
		Right side	0	1.351	0.023	0.000	1.374	ΣSAR<1.6, Not required
		Left side	0	0.138	0.004	0.228	0.370	ΣSAR<1.6, Not required

WWAN + WLAN Main

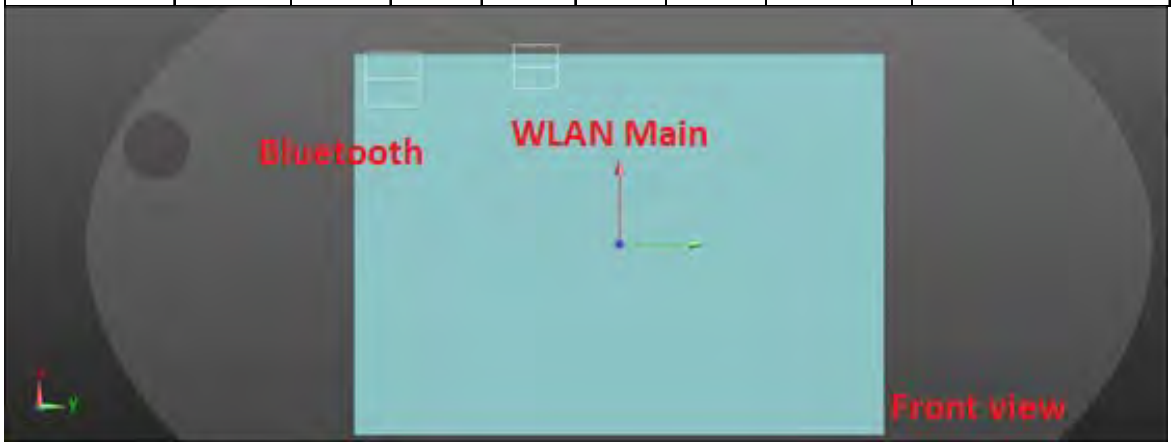
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	2.340	134.83	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.01	8.86	-0.18	1.427	209.8	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

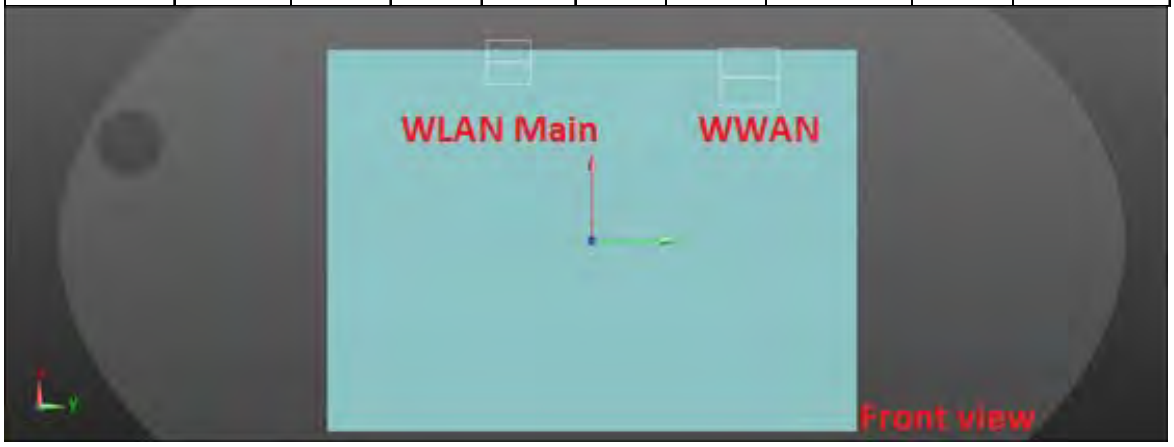


WCDMA Band IV + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
46	WCDMA Band IV	Back side	0	1.187	1.153	0.240	**2.580**	Analyzed as below
		Top side	0	0.641	0.615	0.075	1.331	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.318	0.010	0.333	ΣSAR<1.6, Not required
		Right side	0	1.352	0.023	0.000	1.375	ΣSAR<1.6, Not required
		Left side	0	0.128	0.004	0.228	0.360	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	2.340	134.75	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

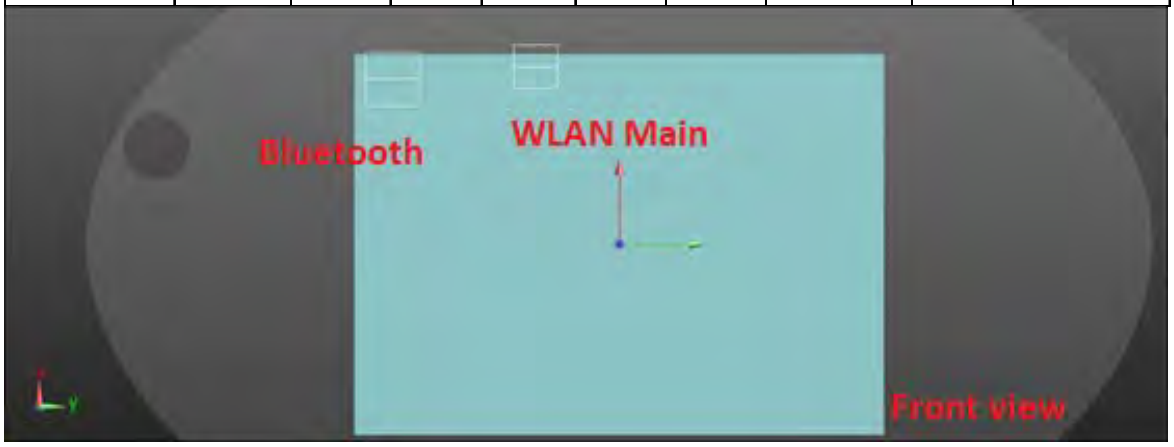


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	9.16	8.86	-0.18	1.427	209.8	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WCDMA Band V + 5GHz WLAN Main + BT

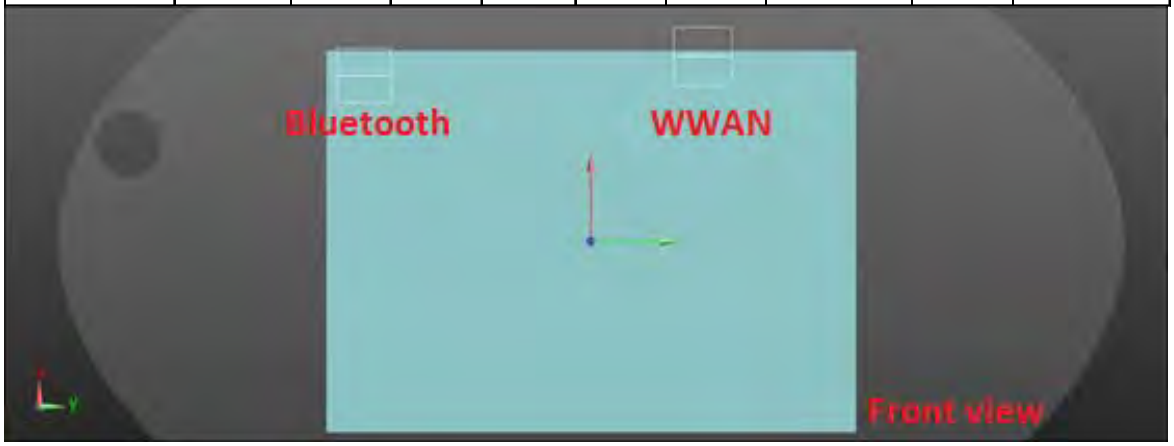
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
47	WCDMA Band V	Back side	0	1.000	1.153	0.240	**2.393**	Analyzed as below
		Top side	0	0.737	0.615	0.075	1.427	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.318	0.010	0.332	ΣSAR<1.6, Not required
		Right side	0	0.325	0.023	0.000	0.348	ΣSAR<1.6, Not required
		Left side	0	0.085	0.004	0.228	0.317	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	2.153	104.31	0.030	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

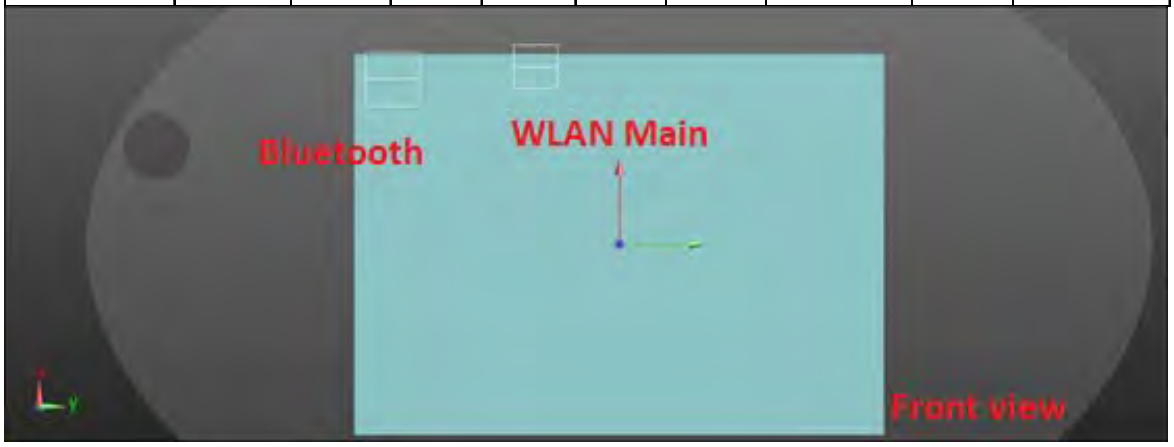
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.000	9.88	5.83	-0.29	1.240	179.67	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 2 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
48	LTE FDD Band 2	Back side	0	1.167	1.153	0.240	**2.560**	Analyzed as below
		Top side	0	0.793	0.615	0.075	1.483	ΣSAR<1.6, Not required
		Bottom side	0	0.005	0.318	0.010	0.333	ΣSAR<1.6, Not required
		Right side	0	0.250	0.023	0.000	0.273	ΣSAR<1.6, Not required
		Left side	0	0.146	0.004	0.228	0.378	ΣSAR<1.6, Not required

WWAN + WLAN Main

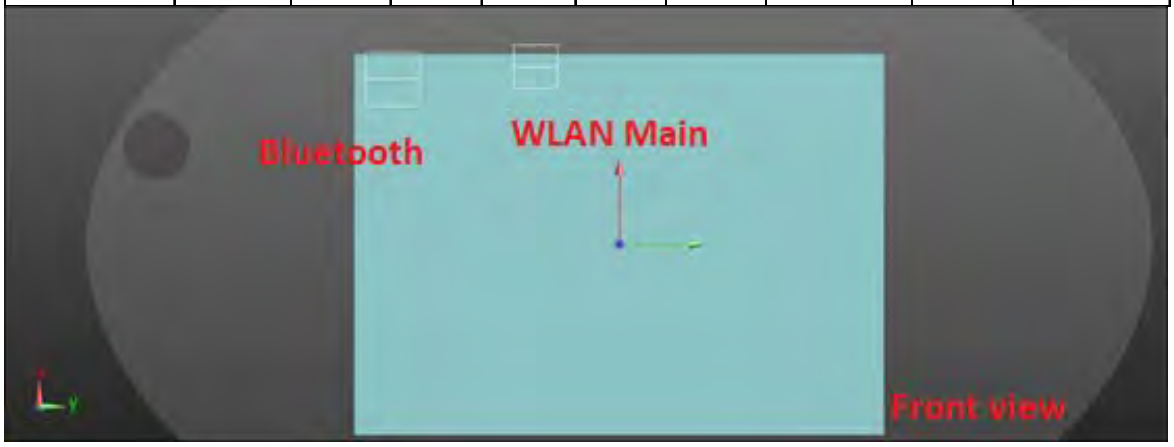
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	2.320	133.24	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.167	9.01	8.70	-0.22	1.407	208.2	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 4 + 5GHz WLAN Main + BT

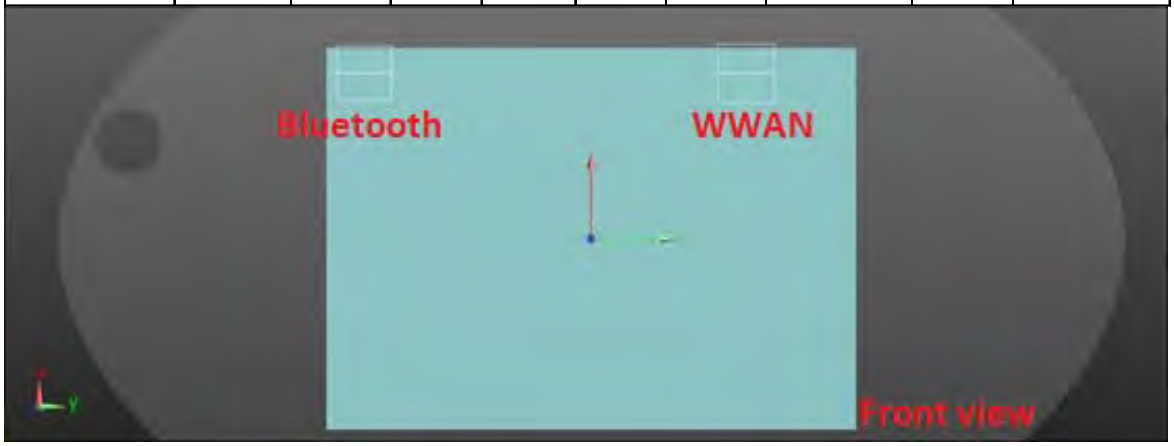
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
49	LTE FDD Band 4	Back side	0	1.151	1.153	0.240	**2.544**	Analyzed as below
		Top side	0	0.602	0.615	0.075	1.292	ΣSAR<1.6, Not required
		Bottom side	0	0.009	0.318	0.010	0.337	ΣSAR<1.6, Not required
		Right side	0	1.365	0.023	0.000	1.388	ΣSAR<1.6, Not required
		Left side	0	0.075	0.004	0.228	0.307	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	2.304	131.59	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

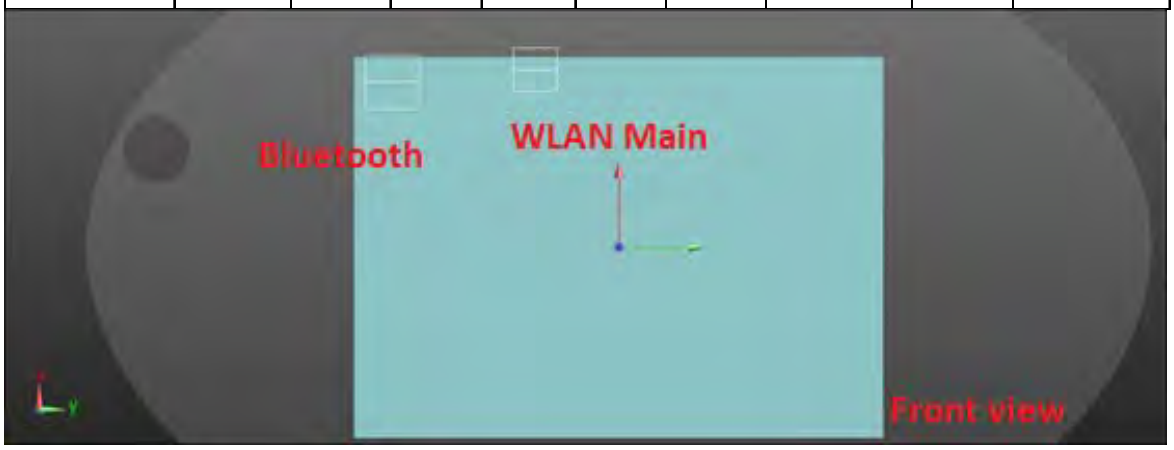
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.151	9.31	8.55	-0.19	1.391	206.71	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 5 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
50	LTE FDD Band 5	Back side	0	1.042	1.153	0.240	**2.435**	Analyzed as below
		Top side	0	0.989	0.615	0.075	**1.679**	Analyzed as below
		Bottom side	0	0.005	0.318	0.010	0.333	ΣSAR<1.6, Not required
		Right side	0	0.304	0.023	0.000	0.327	ΣSAR<1.6, Not required
		Left side	0	0.071	0.004	0.228	0.303	ΣSAR<1.6, Not required

WWAN + WLAN Main

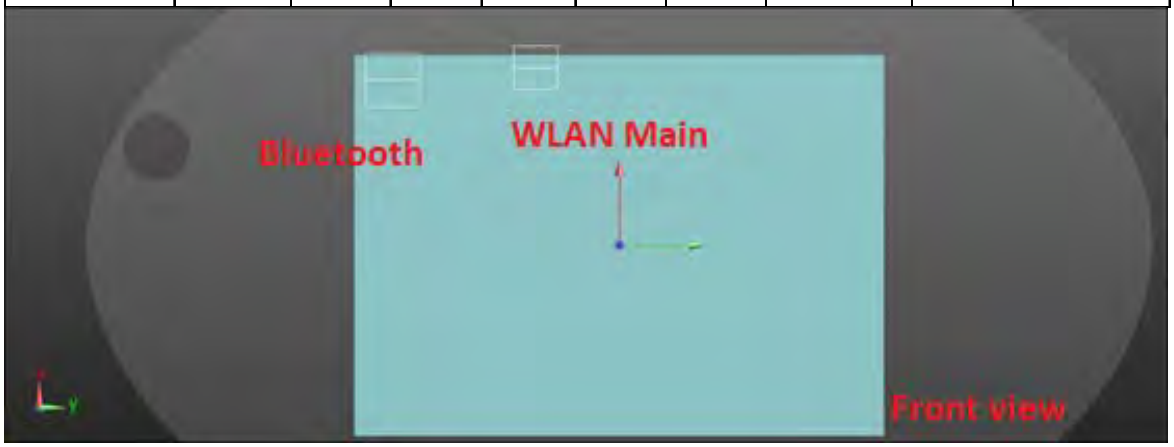
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	2.195	109.17	0.030	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.042	10.18	6.31	-0.25	1.282	184.61	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

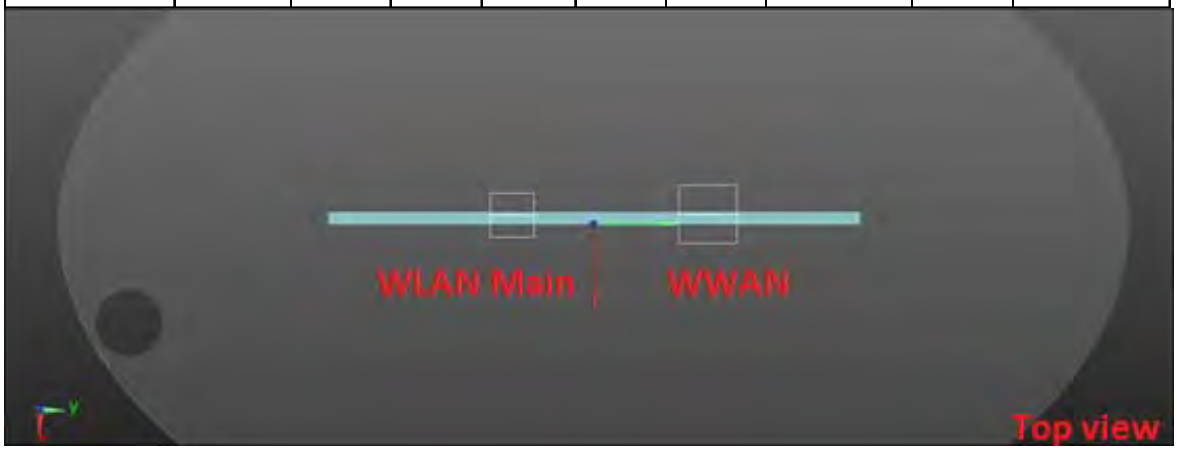
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



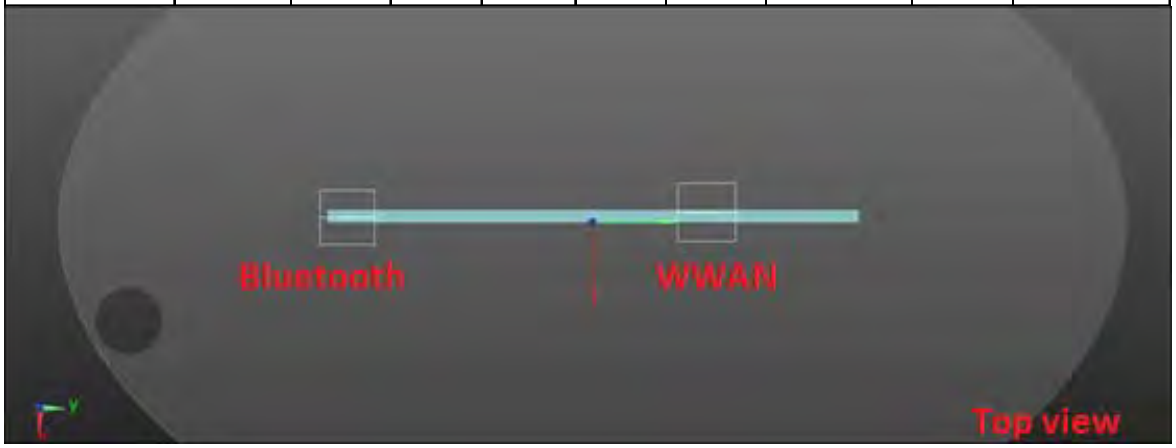
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.989	-0.39	4.50	-0.38	1.604	104.31	0.019	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.989	-0.39	6.09	-0.38	1.064	192.72	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	0.690	88.4	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

LTE FDD Band 7 + 5GHz WLAN Main + BT

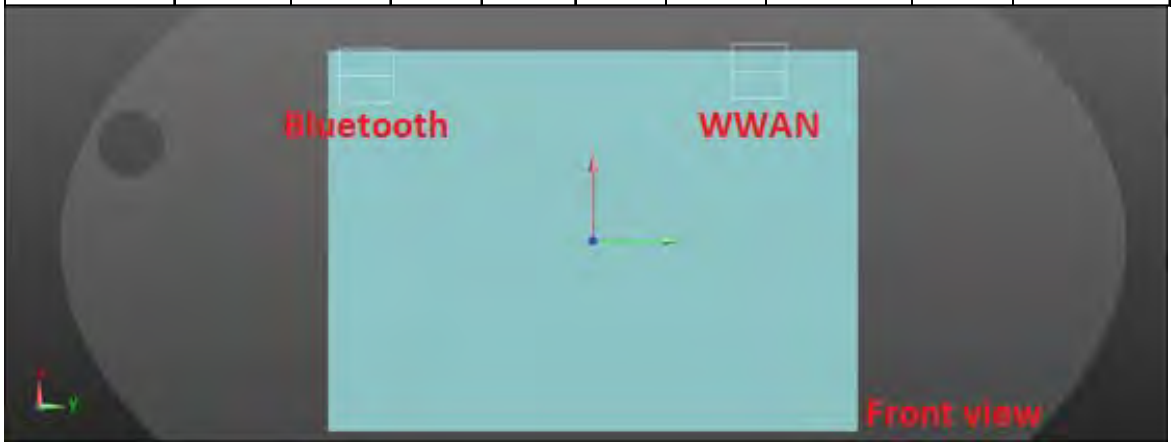
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
51	LTE FDD Band 7	Back side	0	1.173	1.153	0.240	**2.566**	Analyzed as below
		Top side	0	0.884	0.615	0.075	1.574	Analyzed as below
		Bottom side	0	0.004	0.318	0.010	0.332	ΣSAR<1.6, Not required
		Right side	0	0.250	0.023	0.000	0.273	ΣSAR<1.6, Not required
		Left side	0	0.146	0.004	0.228	0.378	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	2.326	138.21	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

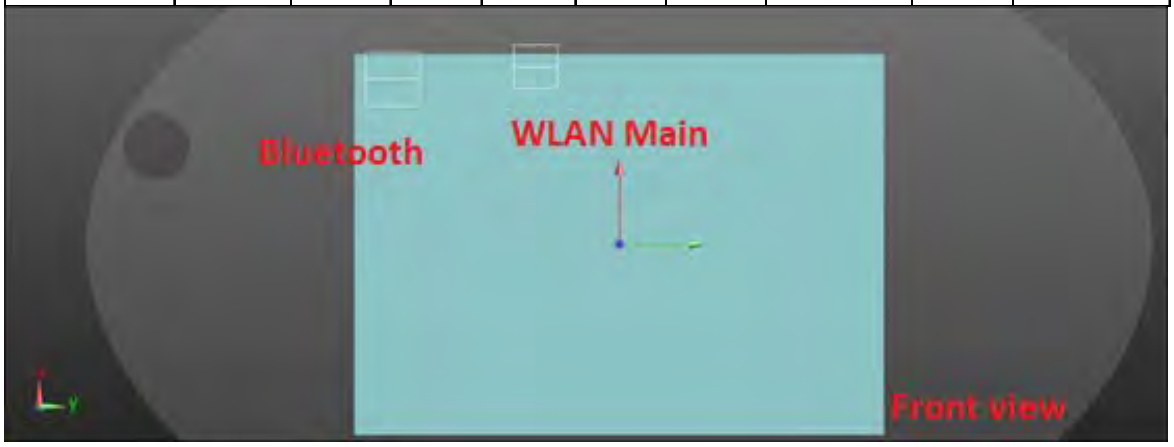
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.173	9.66	9.22	-0.16	1.413	213.47	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 12 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
52	LTE FDD Band 12	Back side	0	0.919	1.153	0.240	**2.312**	Analyzed as below
		Top side	0	0.995	0.615	0.075	**1.685**	Analyzed as below
		Bottom side	0	0.002	0.318	0.010	0.330	ΣSAR<1.6, Not required
		Right side	0	0.358	0.023	0.000	0.381	ΣSAR<1.6, Not required
		Left side	0	0.091	0.004	0.228	0.323	ΣSAR<1.6, Not required

WWAN + WLAN Main

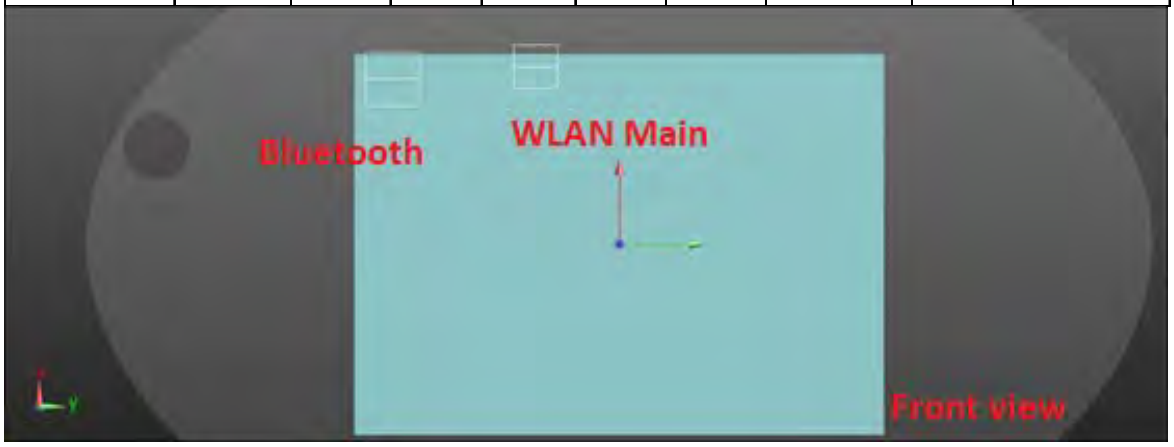
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	2.072	109.08	0.027	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	0.919	10.20	6.30	-0.25	1.159	184.52	0.007	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

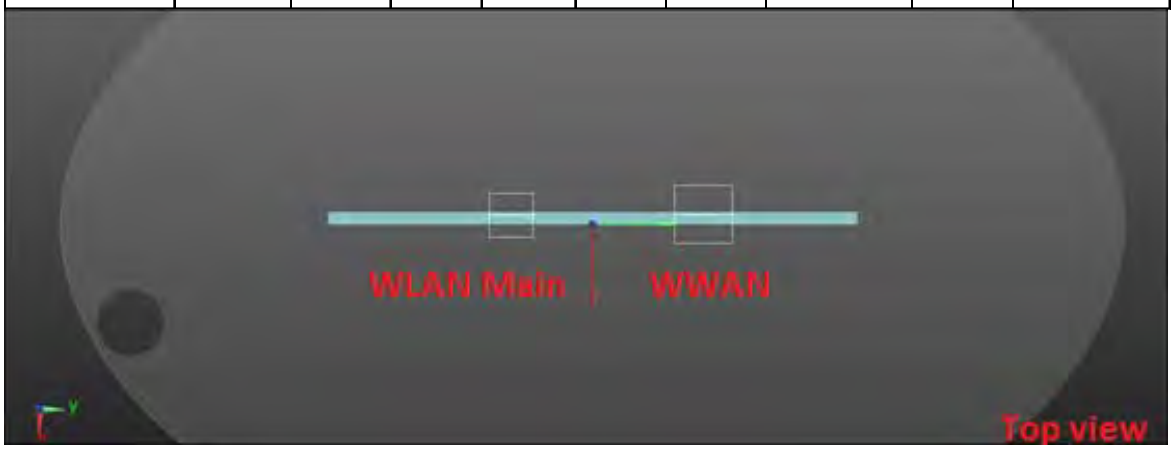
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



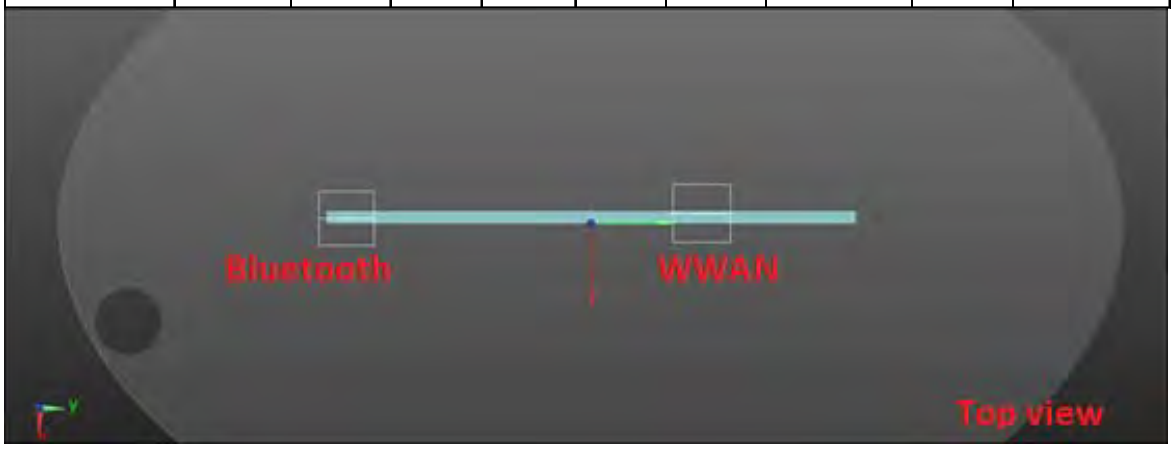
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.995	-0.39	4.50	-0.37	1.610	88.41	0.023	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.995	-0.39	4.50	-0.37	1.070	176.82	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	0.690	88.4	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

LTE FDD Band 13 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
53	LTE FDD Band 13	Back side	0	1.187	1.153	0.240	**2.580**	Analyzed as below
		Top side	0	1.289	0.615	0.075	**1.979**	Analyzed as below
		Bottom side	0	0.003	0.318	0.010	0.331	ΣSAR<1.6, Not required
		Right side	0	0.521	0.023	0.000	0.544	ΣSAR<1.6, Not required
		Left side	0	0.039	0.004	0.228	0.271	ΣSAR<1.6, Not required

WWAN + WLAN Main

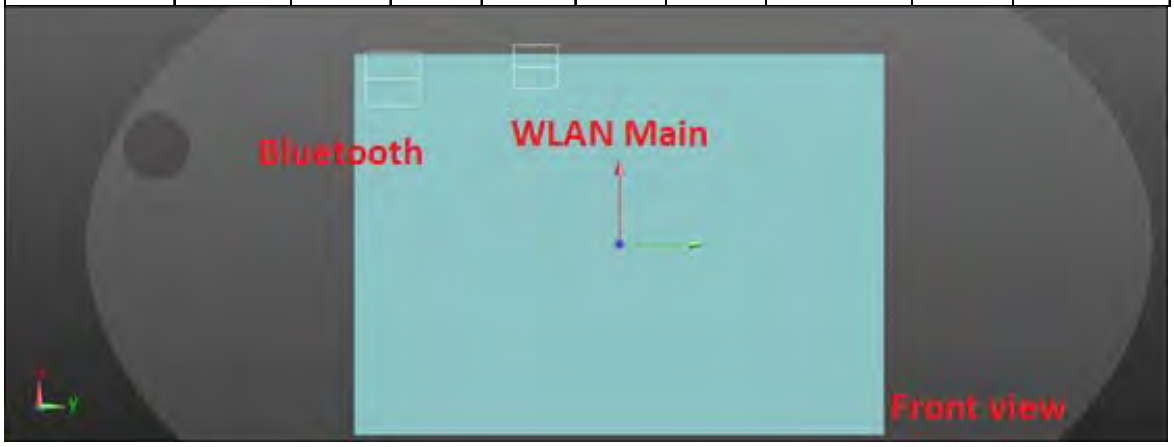
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	2.340	104.38	0.034	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.187	10.19	5.83	-0.28	1.427	179.82	0.009	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

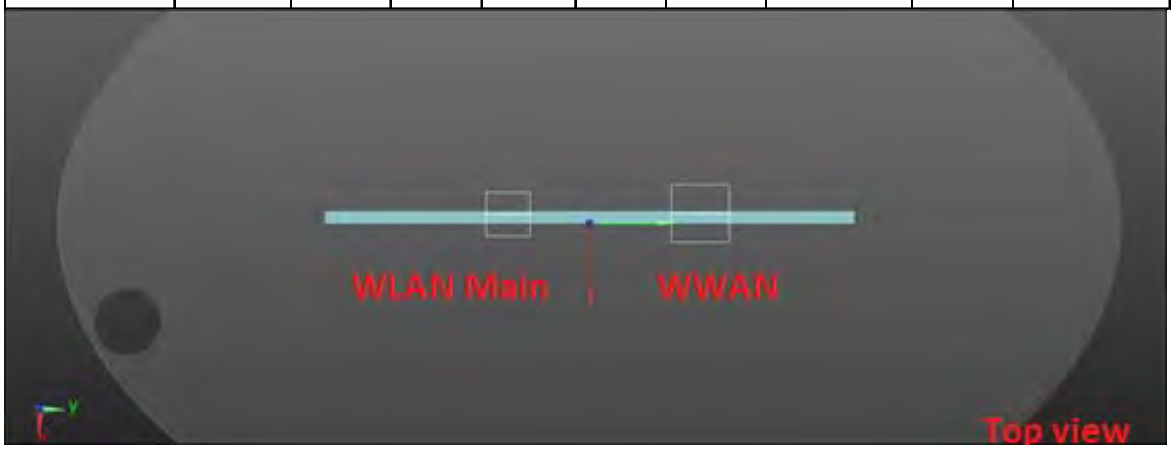
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



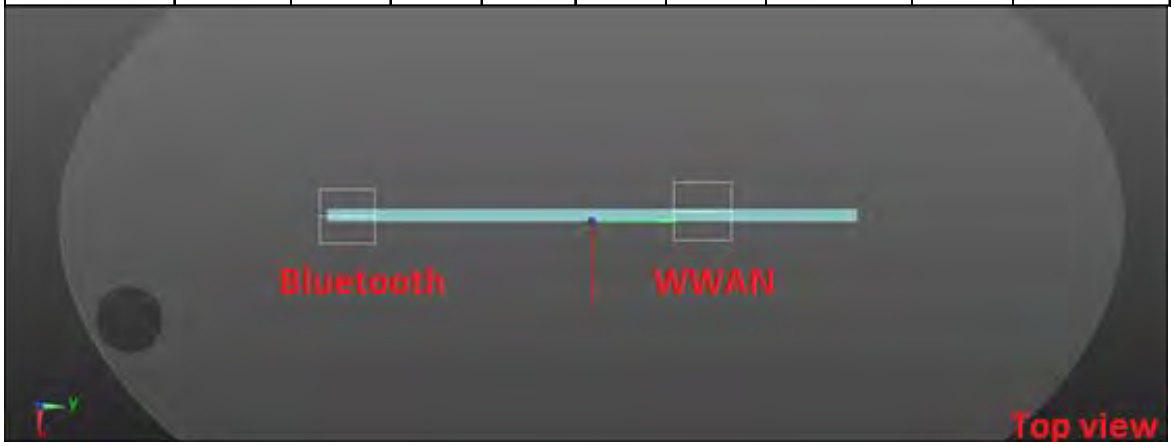
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.904	102.81	0.026	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.289	-0.39	5.94	-0.39	1.364	191.22	0.008	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	0.690	88.4	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

LTE FDD Band 17 + 5GHz WLAN Main + BT

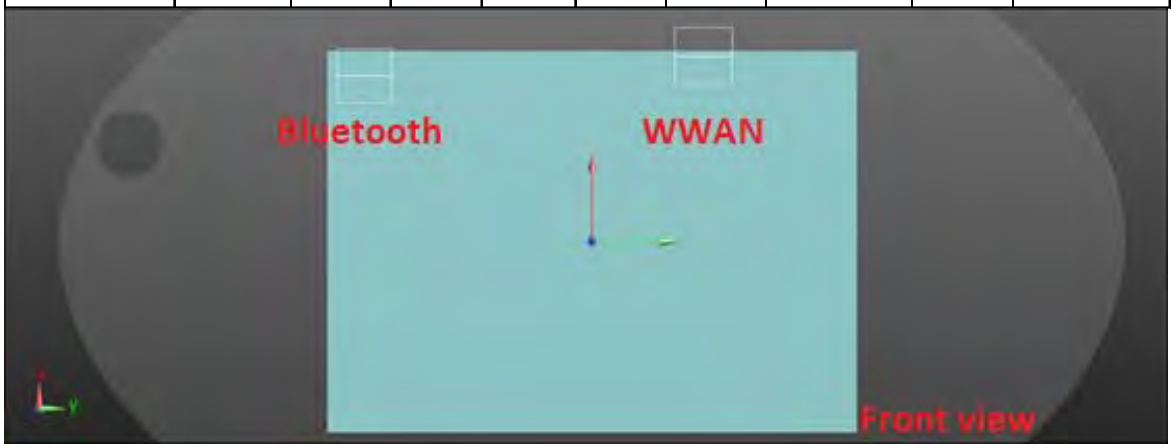
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
54	LTE FDD Band 17	Back side	0	1.053	1.153	0.240	**2.446**	Analyzed as below
		Top side	0	1.280	0.615	0.075	**1.970**	Analyzed as below
		Bottom side	0	0.002	0.318	0.010	0.330	ΣSAR<1.6, Not required
		Right side	0	0.330	0.023	0.000	0.353	ΣSAR<1.6, Not required
		Left side	0	0.115	0.004	0.228	0.347	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	2.206	101.19	0.032	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

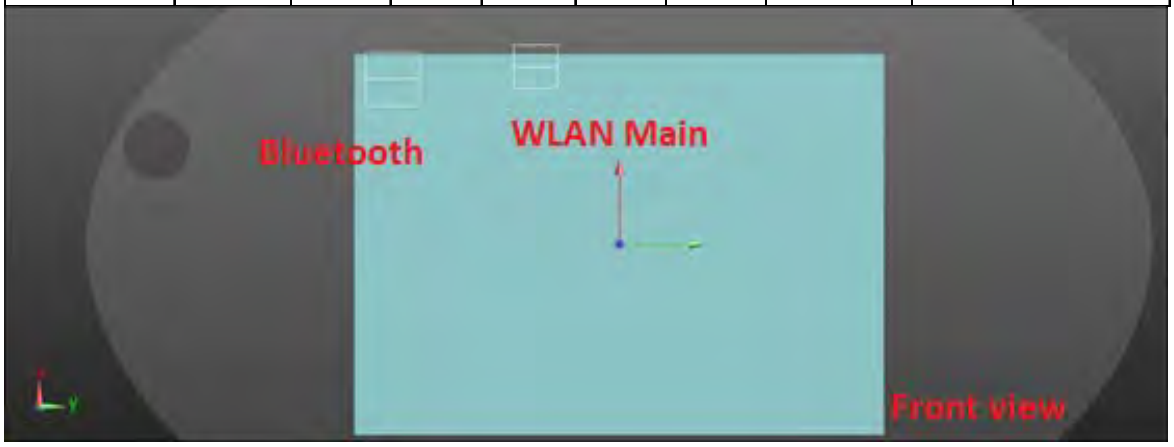
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.053	10.20	5.51	-0.28	1.293	176.64	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



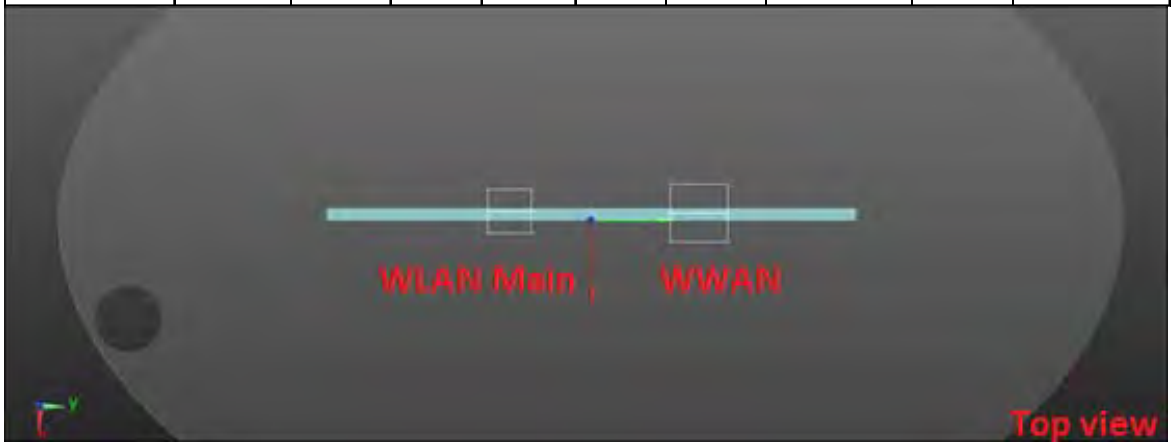
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



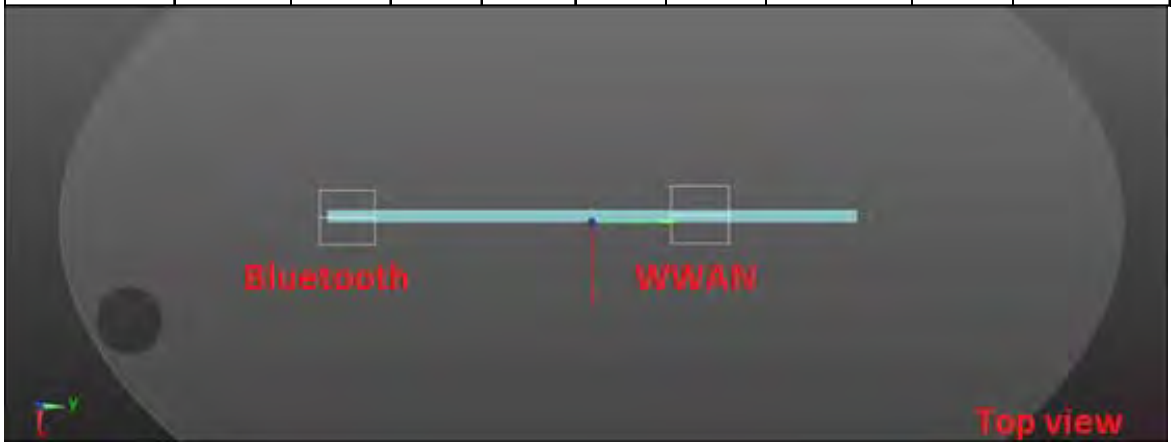
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.895	86.93	0.030	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	1.280	-0.40	4.35	-0.46	1.355	175.34	0.009	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	0.690	88.4	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

LTE FDD Band 26 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
55	LTE FDD Band 26	Back side	0	1.120	1.153	0.240	**2.513**	Analyzed as below
		Top side	0	0.968	0.615	0.075	**1.658**	Analyzed as below
		Bottom side	0	0.005	0.318	0.010	0.333	ΣSAR<1.6, Not required
		Right side	0	0.229	0.023	0.000	0.252	ΣSAR<1.6, Not required
		Left side	0	0.080	0.004	0.228	0.312	ΣSAR<1.6, Not required

WWAN + WLAN Main

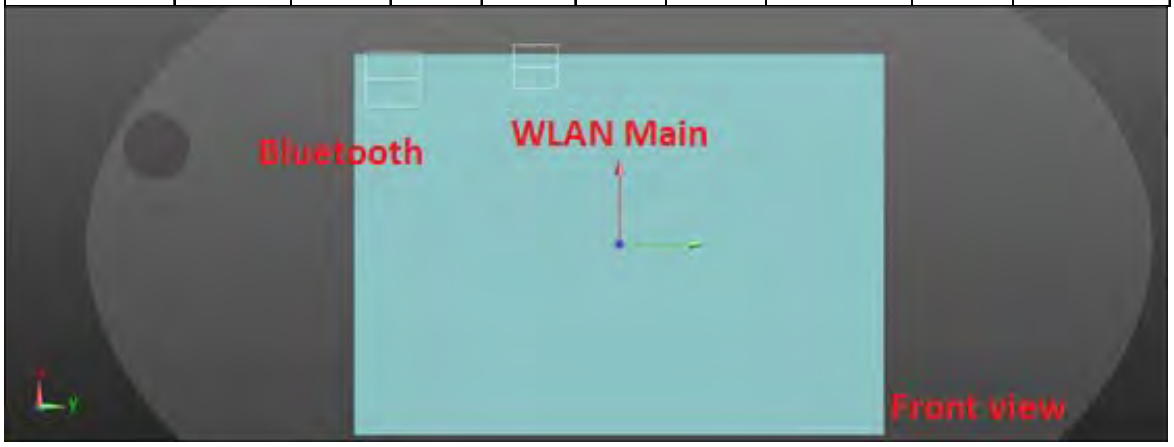
Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	2.273	105.87	0.032	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.120	10.18	5.98	-0.25	1.360	181.31	0.009	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

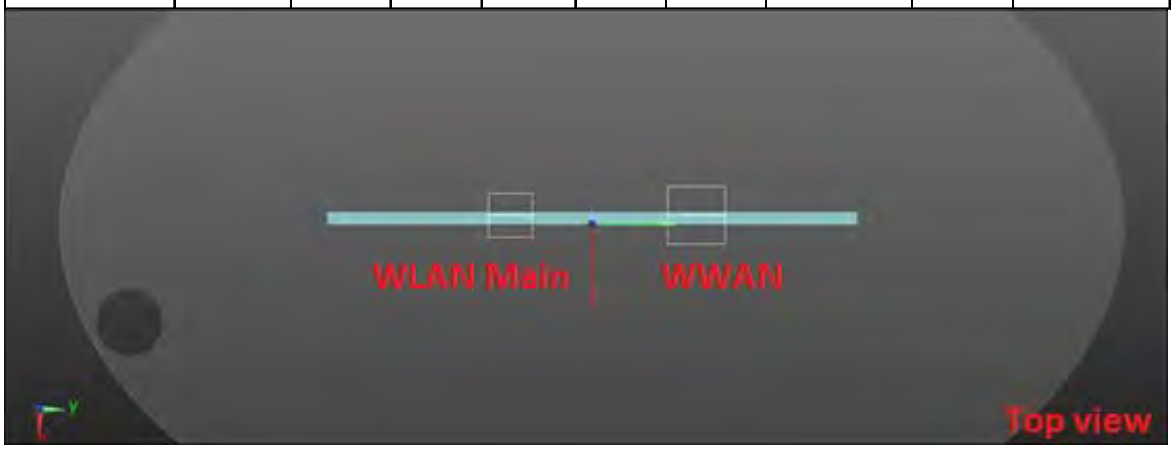
WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



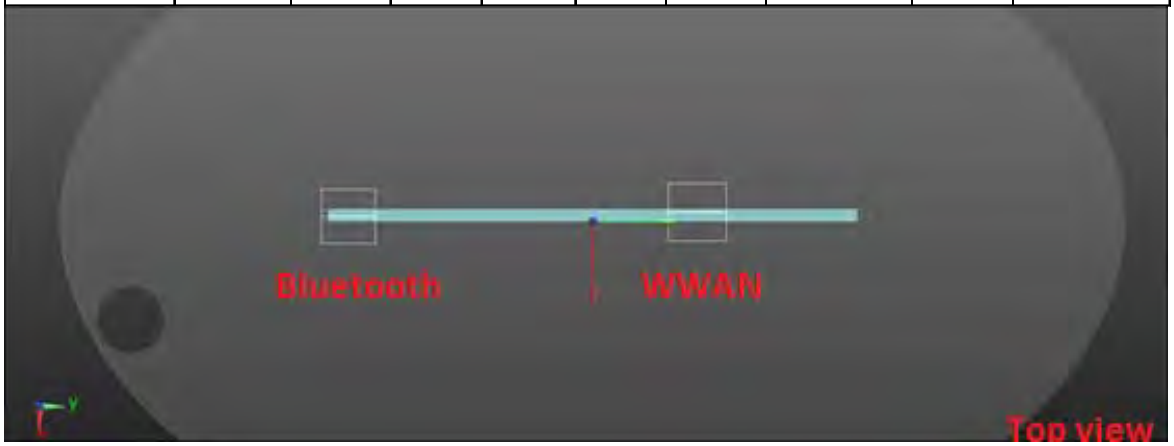
WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.968	-0.50	5.91	-0.38	1.583	102.51	0.019	SPLSR<0.04, Not required
WLAN Main		0.615	-0.42	-4.34	-0.24				



WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Top side	0.968	-0.50	5.91	-0.38	1.043	190.93	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Top side	0.615	-0.42	-4.34	-0.24	0.690	88.4	0.006	SPLSR<0.04, Not required
BT		0.075	-0.26	-13.18	-0.13				

LTE FDD Band 30 + 5GHz WLAN Main + BT

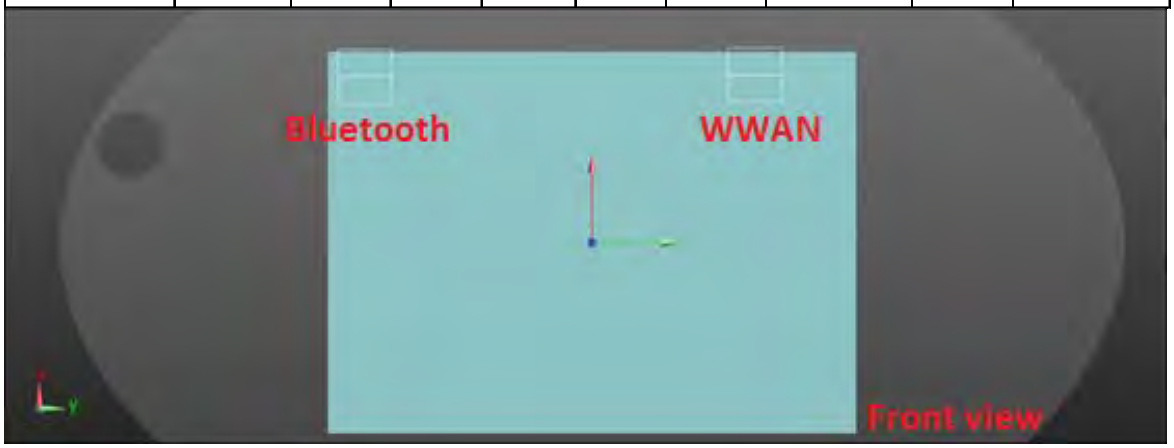
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
56	LTE FDD Band 30	Back side	0	1.109	1.153	0.240	**2.502**	Analyzed as below
		Top side	0	0.427	0.615	0.075	1.117	ΣSAR<1.6, Not required
		Bottom side	0	0.004	0.318	0.010	0.332	ΣSAR<1.6, Not required
		Right side	0	0.154	0.023	0.000	0.177	ΣSAR<1.6, Not required
		Left side	0	0.160	0.004	0.228	0.392	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	2.262	137.02	0.025	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

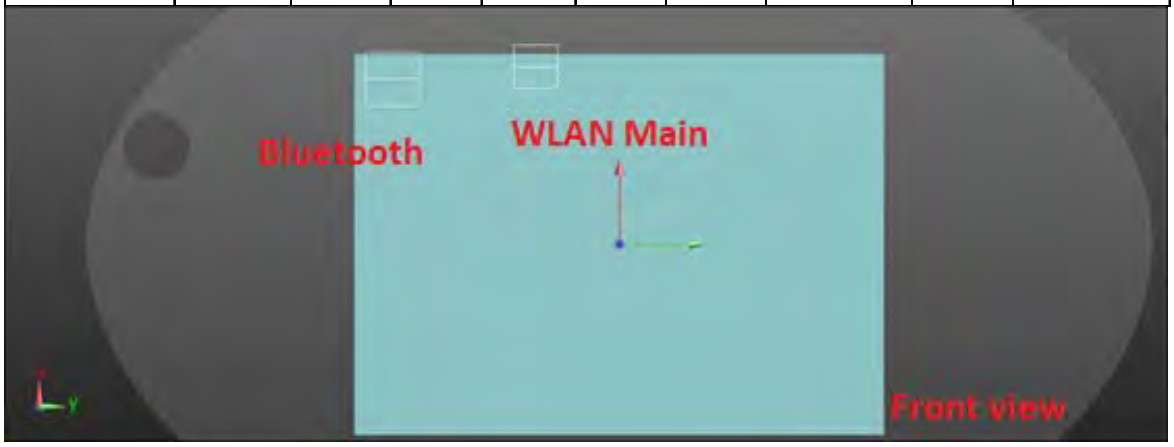
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.109	9.54	9.10	-0.18	1.349	212.24	0.007	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



LTE FDD Band 38 + 5GHz WLAN Main + BT

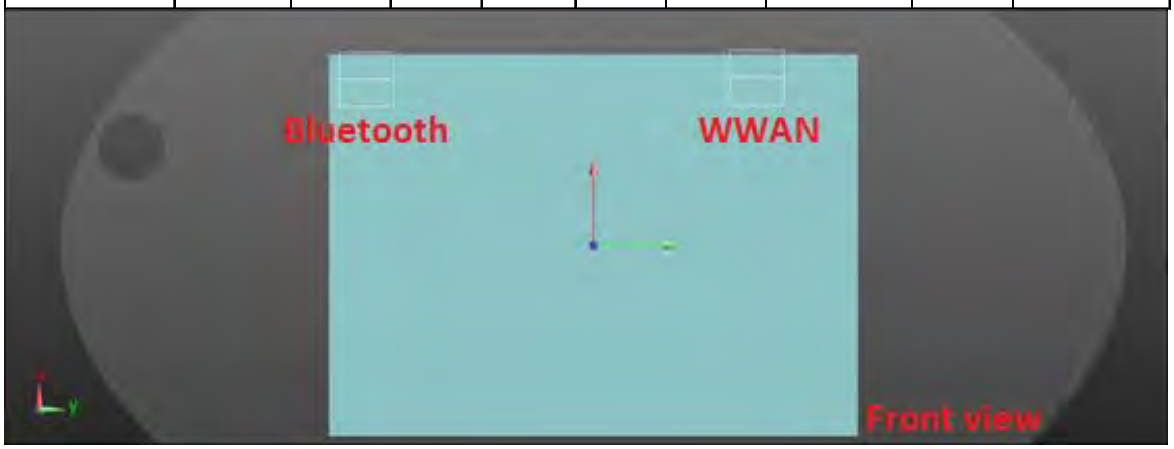
No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
57	LTE FDD Band 38	Back side	0	1.152	1.153	0.240	**2.545**	Analyzed as below
		Top side	0	0.487	0.615	0.075	1.177	ΣSAR<1.6, Not required
		Bottom side	0	0.002	0.318	0.010	0.330	ΣSAR<1.6, Not required
		Right side	0	0.176	0.023	0.000	0.199	ΣSAR<1.6, Not required
		Left side	0	0.057	0.004	0.228	0.289	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.80	-4.60	-0.15	2.305	135.05	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.44	8.90	-0.25				

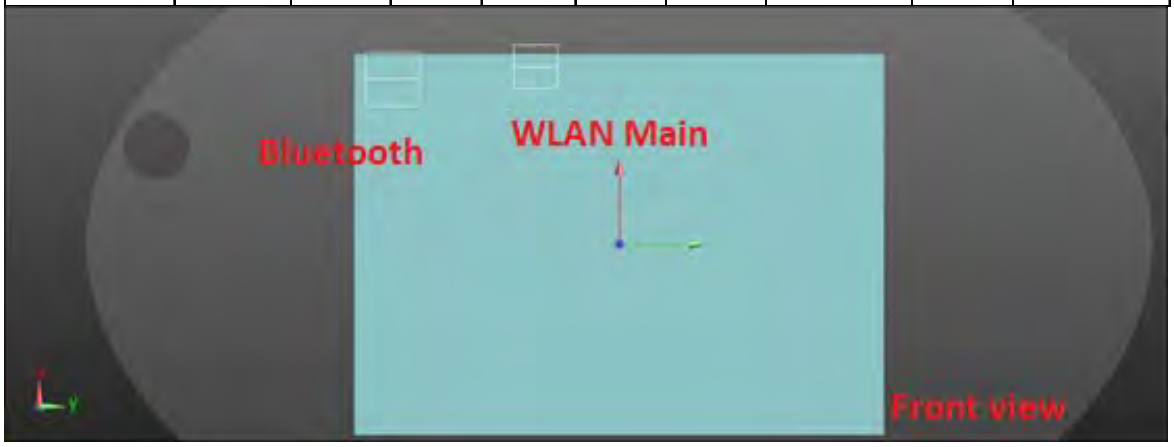
WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.152	9.44	8.90	-0.25	1.392	210.23	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

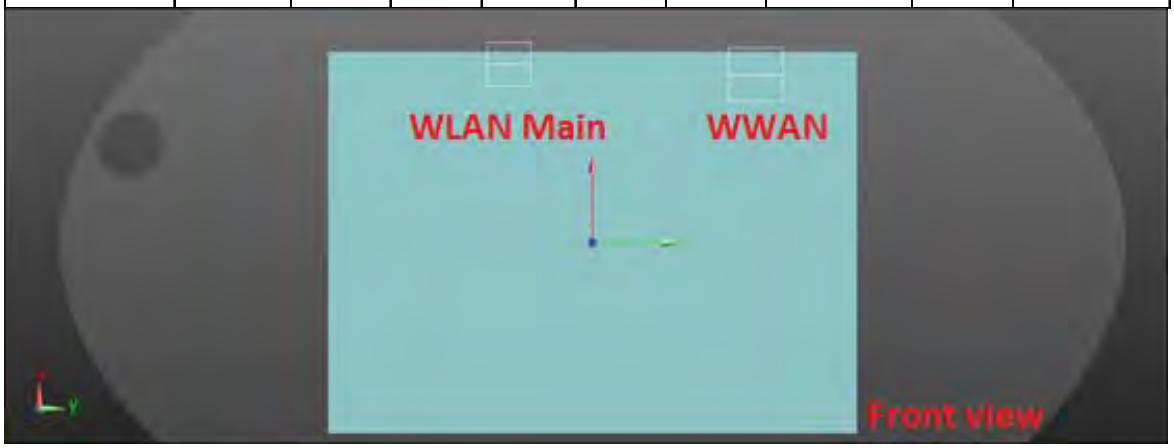


LTE FDD Band 41 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
58	LTE FDD Band 41	Back side	0	1.176	1.153	0.240	**2.569**	Analyzed as below
		Top side	0	0.350	0.615	0.075	1.040	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.318	0.010	0.331	ΣSAR<1.6, Not required
		Right side	0	0.092	0.023	0.000	0.115	ΣSAR<1.6, Not required
		Left side	0	0.109	0.004	0.228	0.341	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	2.329	135.05	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

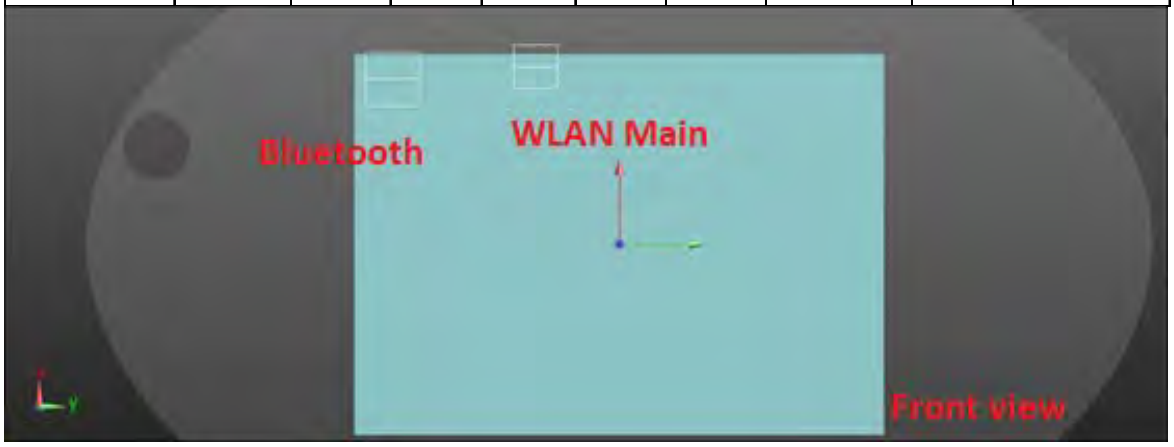


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.176	9.44	8.90	-0.24	1.416	210.23	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

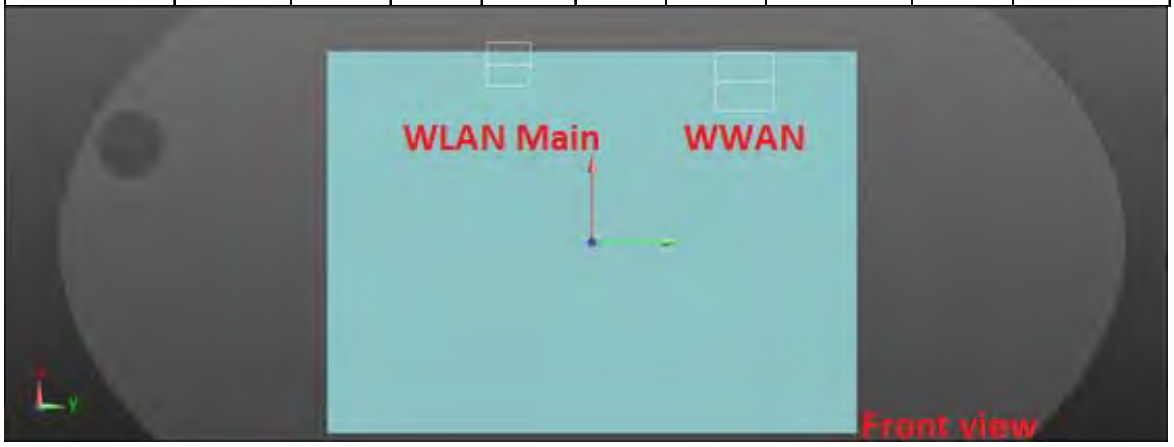


LTE FDD Band 66 + 5GHz WLAN Main + BT

No.	Conditions	Position	Distance (mm)	Max. WWAN	Max. WLAN Main	BT	SAR Sum	SPLSR
59	LTE FDD Band 66	Back side	0	1.102	1.153	0.240	**2.495**	Analyzed as below
		Top side	0	0.593	0.615	0.075	1.283	ΣSAR<1.6, Not required
		Bottom side	0	0.003	0.318	0.010	0.331	ΣSAR<1.6, Not required
		Right side	0	1.052	0.023	0.000	1.075	ΣSAR<1.6, Not required
		Left side	0	0.108	0.004	0.228	0.340	ΣSAR<1.6, Not required

WWAN + WLAN Main

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	2.255	130.24	0.026	SPLSR<0.04, Not required
WLAN Main		1.153	9.80	-4.60	-0.15				

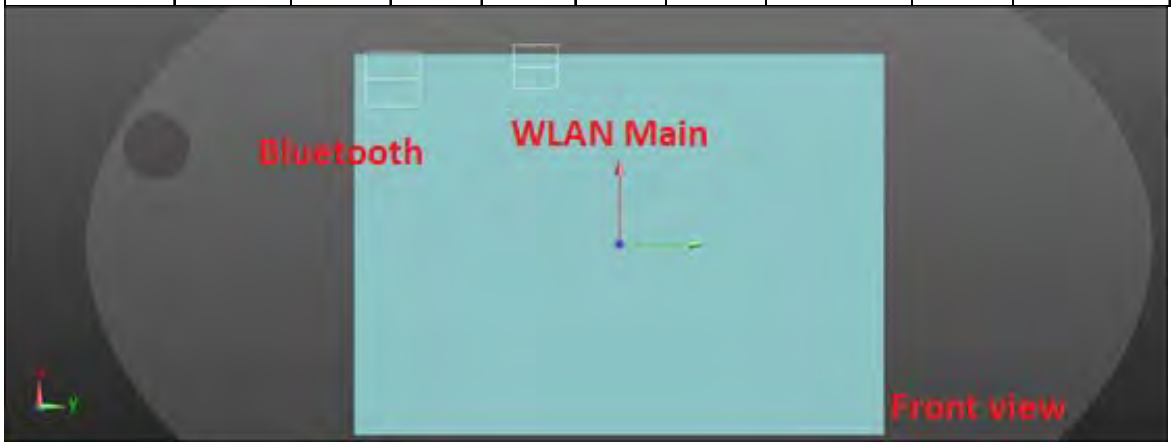


WWAN + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WWAN	Back side	1.102	9.01	8.40	-0.25	1.342	205.21	0.008	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				

WLAN Main + BT

Conditions	Position	SAR Value (W/kg)	Coordinates (cm)			ΣSAR (W/kg)	Peak Location Separation Distance (mm)	SPLSR	Simultaneous Transmission SAR Test
			x	y	z				
WLAN Main	Back side	1.153	9.80	-4.60	-0.15	1.393	75.5	0.022	SPLSR<0.04, Not required
BT		0.240	9.12	-12.12	-0.14				



Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because either the sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is ≦ 0.04 for all circumstances that require SPLSR calculation.

4. Instruments List

Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
Schmid & Partner Engineering AG	Dosimetric E-Field Probe	EX3DV4	3770	Apr.27,2017	Apr.26,2018
Schmid & Partner Engineering AG	System Validation Dipole	D750V2	1015	Aug.21,2017	Aug.20,2018
		D835V2	4d063	Aug.21,2017	Aug.20,2018
		D1750V2	1008	Aug.21,2017	Aug.20,2018
		D1900V2	5d173	May.31,2017	May.30,2018
		D2300V2	1023	Aug.17,2017	Aug.16,2018
		D2450V2	727	Apr.21,2017	Apr.20,2018
		D2600V2	1005	Jan.25,2017	Jan.24,2018
		D5GHzV2	1023	Jan.20,2017	Jan.19,2018
Schmid & Partner Engineering AG	Data acquisition Electronics	DAE4	856	Apr.28,2017	Apr.2,2018
Schmid & Partner Engineering AG	Software	DASY 52 V52.8.8	N/A	Calibration not required	Calibration not required
Schmid & Partner Engineering AG	Phantom	ELI	N/A	Calibration not required	Calibration not required
Agilent	Network Analyzer	E5071C	MY46107530	Jan.20,2017	Jan.19,2018
Agilent	Dielectric Probe Kit	85070E	MY44300677	Calibration not required	Calibration not required

Manufacturer	Device	Type	Serial number	Date of last calibration	Date of next calibration
Agilent	Dual-directional coupler	772D	MY52180142	Apr.13,2017	Apr.12,2018
		778D	MY52180302	Apr.13,2017	Apr.12,2018
Agilent	RF Signal Generator	N5181A	MY50144143	Mar.01,2017	Feb.28,2018
Agilent	Power Meter	E4417A	MY51410006	Jan.20,2017	Jan.19,2018
Agilent	Power Sensor	E9301H	MY51470001	Jan.20,2017	Jan.19,2018
			MY51470002	Jan.20,2017	Jan.19,2018
TECPEL	Digital thermometer	DTM-303A	TP130075	Mar.09,2017	Mar.08,2018
Anritsu	Radio Communication Test	MT8820C	6201061014	Jan.05,2017	Jan.04,2018
R&S	Radio Communication Test	CMW 500	125470	Aug.22,2017	Aug.21,2018

5. Measurements

Date: 2017/11/30

WCDMA Band II_Body_Right side_CH 9262_0mm

Communication System: WCDMA; Frequency: 1852.4 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1852.4 MHz; σ = 1.528 S/m; ε_r = 51.062; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.12, 8.12, 8.12); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x81x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 2.31 W/kg

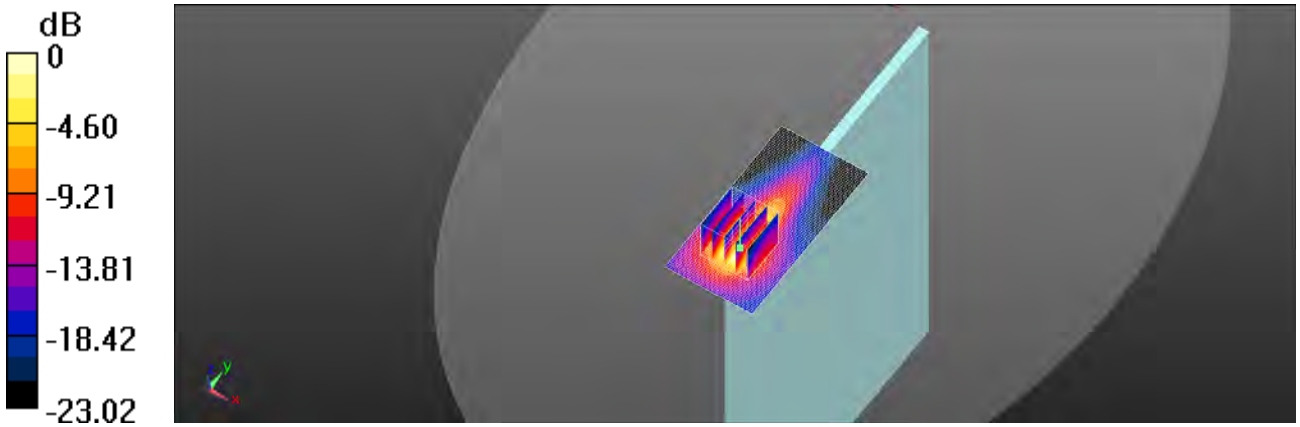
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.515 V/m; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 3.13 W/kg

SAR(1 g) = 1.32 W/kg; SAR(10 g) = 0.574 W/kg

Maximum value of SAR (measured) = 2.37 W/kg



0 dB = 2.37 W/kg = 3.75 dBW/kg

Date: 2017/12/1

WCDMA Band IV_Body_Right side_CH 1513_0mm

Communication System: WCDMA; Frequency: 1752.6 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1753 MHz; σ = 1.471 S/m; ε_r = 51.41; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.43, 8.43, 8.43); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x81x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 2.18 W/kg

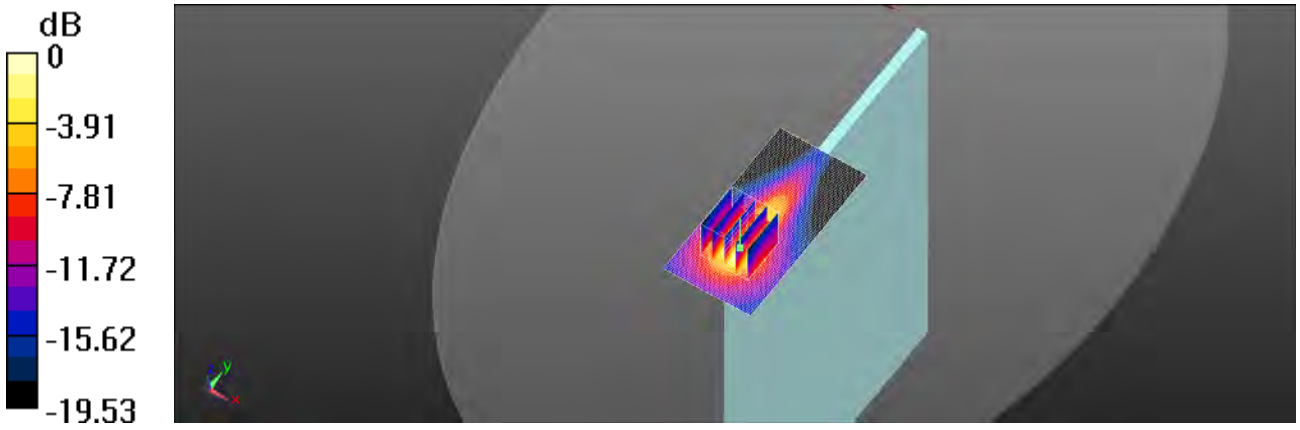
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.088 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 3.00 W/kg

SAR(1 g) = 1.34 W/kg; SAR(10 g) = 0.626 W/kg

Maximum value of SAR (measured) = 2.31 W/kg



0 dB = 2.31 W/kg = 3.64 dBW/kg

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Date: 2017/12/2

WCDMA Band V_Body_Back side_CH 4132_10mm

Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1

Medium parameters used: f = 826.4 MHz; σ = 0.987 S/m; ε_r = 56.907; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.5°C; Liquid temperature: 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.65, 9.65, 9.65); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.32 W/kg

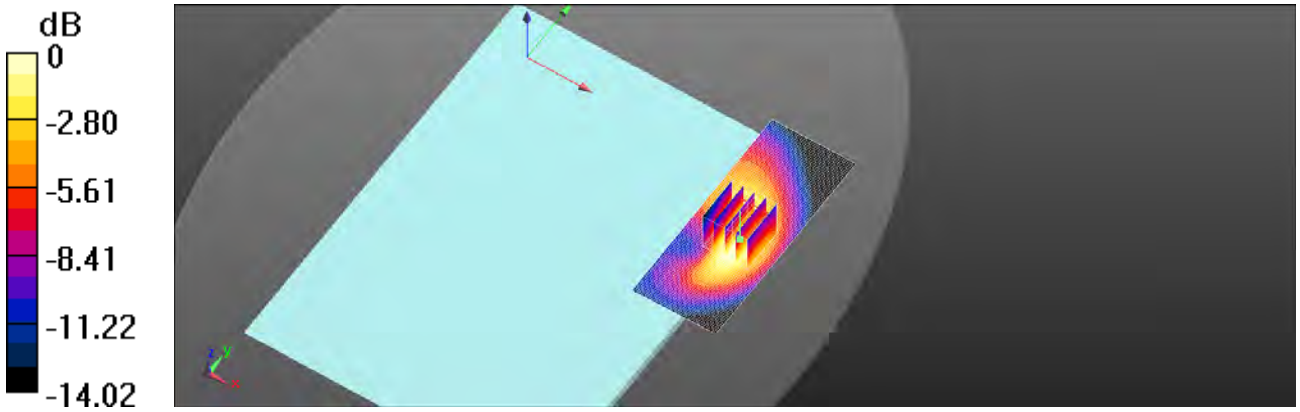
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.174 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.51 W/kg

SAR(1 g) = 0.995 W/kg; SAR(10 g) = 0.630 W/kg

Maximum value of SAR (measured) = 1.27 W/kg



0 dB = 1.27 W/kg = 1.04 dBW/kg

Date: 2017/11/30

LTE Band 2 (20MHz)_Body_Right side_CH 18700_QPSK_1-0_0mm

Communication System: LTE; Frequency: 1860 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1860 MHz; σ = 1.535 S/m; ε_r = 51.002; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.12, 8.12, 8.12); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x81x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 2.25 W/kg

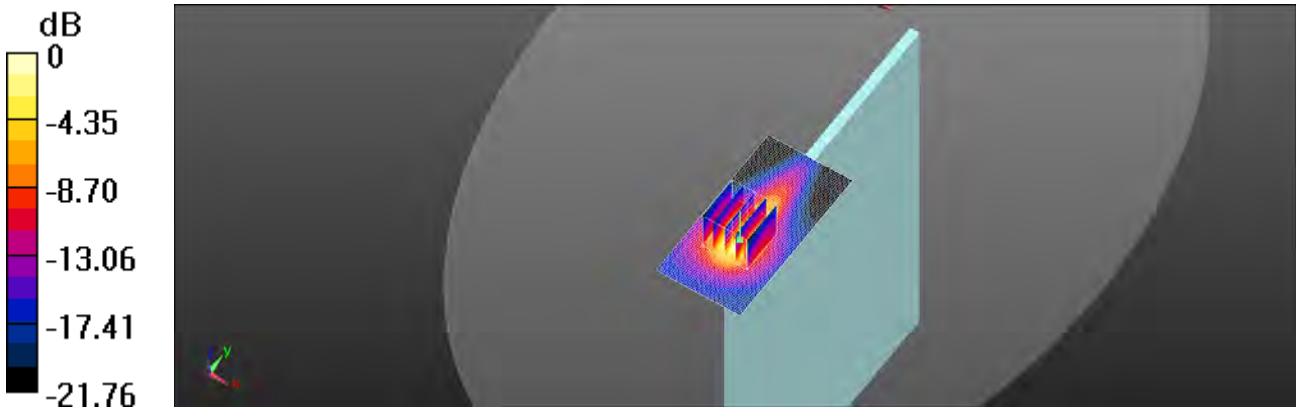
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.319 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.82 W/kg

SAR(1 g) = 1.24 W/kg; SAR(10 g) = 0.550 W/kg

Maximum value of SAR (measured) = 2.14 W/kg



0 dB = 2.14 W/kg = 3.30 dBW/kg

Date: 2017/12/1

LTE Band 4 (20MHz)_Body_Right side_CH 20300_QPSK_1-99_0mm

Communication System: LTE; Frequency: 1745 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1745 MHz; σ = 1.461 S/m; ε_r = 51.428; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.43, 8.43, 8.43); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x81x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 2.42 W/kg

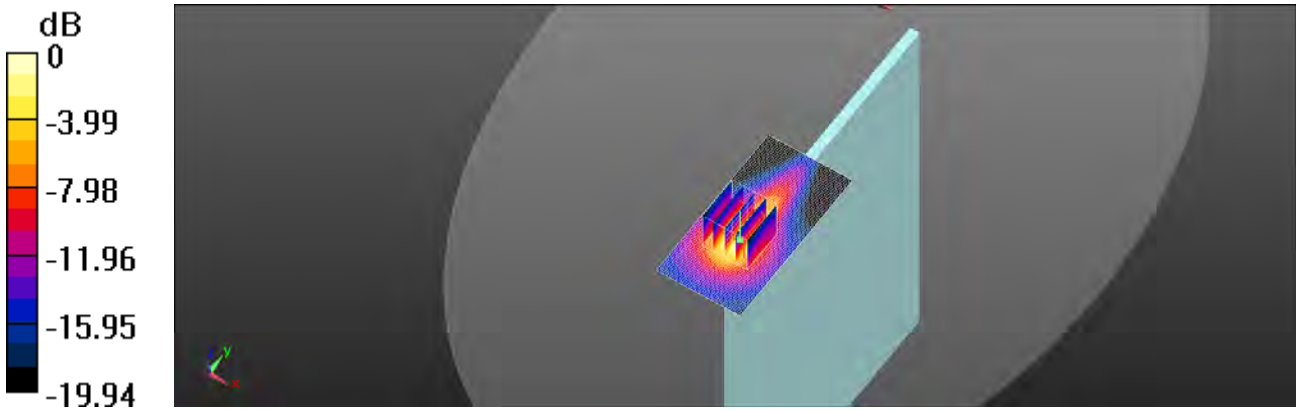
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.302 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 3.11 W/kg

SAR(1 g) = 1.29 W/kg; SAR(10 g) = 0.638 W/kg

Maximum value of SAR (measured) = 2.36 W/kg



0 dB = 2.36 W/kg = 3.73 dBW/kg

Date: 2017/12/2

LTE Band 5 (10MHz)_Body_Back side_CH 20525_QPSK_1-0_10mm

Communication System: LTE; Frequency: 836.5 MHz; Duty Cycle: 1:1

Medium parameters used: f = 836.5 MHz; σ = 0.996 S/m; ε_r = 56.922; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.5°C; Liquid temperature: 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.65, 9.65, 9.65); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.49 W/kg

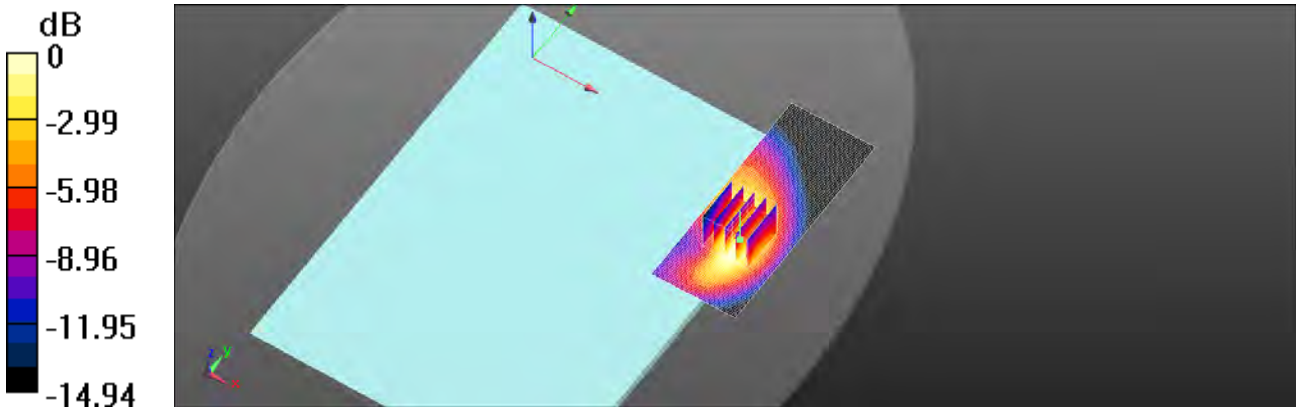
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.031 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.79 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.663 W/kg

Maximum value of SAR (measured) = 1.48 W/kg



0 dB = 1.48 W/kg = 1.70 dBW/kg

Date: 2017/11/28

LTE Band 7 (20MHz)_Body_Back side_CH 21350_QPSK_1-0_0mm

Communication System: LTE; Frequency: 2560 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2560 MHz; σ = 2.196 S/m; ε_r = 52.701; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.17, 7.17, 7.17); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 2.04 W/kg

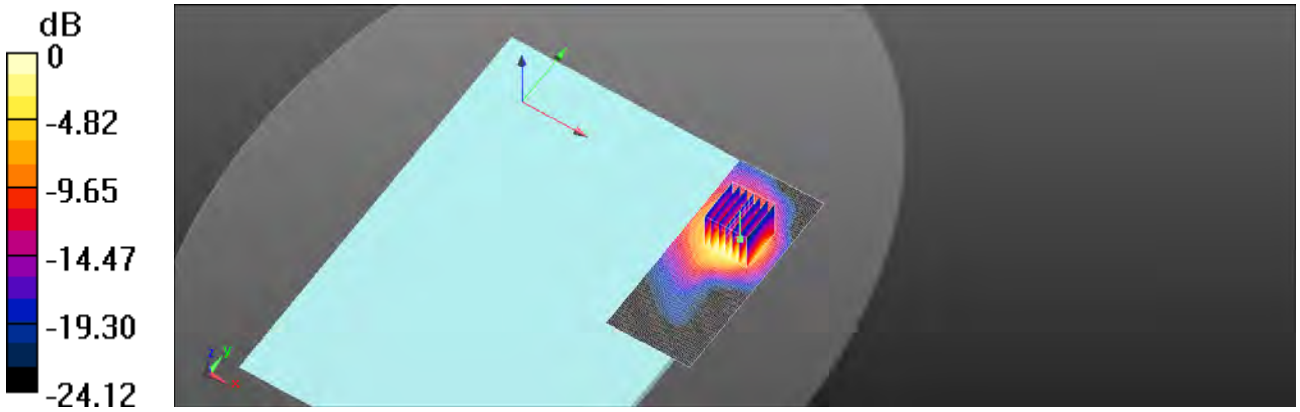
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.497 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.43 W/kg

SAR(1 g) = 1.13 W/kg; SAR(10 g) = 0.523 W/kg

Maximum value of SAR (measured) = 1.71 W/kg



0 dB = 1.71 W/kg = 2.33 dBW/kg

Date: 2017/12/3

LTE Band 12 (10MHz)_Body_Top side_CH 23095_QPSK_1-0_0mm

Communication System: LTE; Frequency: 707.5 MHz; Duty Cycle: 1:1

Medium parameters used: f = 707.5 MHz; σ = 0.921 S/m; ε_r = 57.642; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.5°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.96, 9.96, 9.96); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.15 W/kg

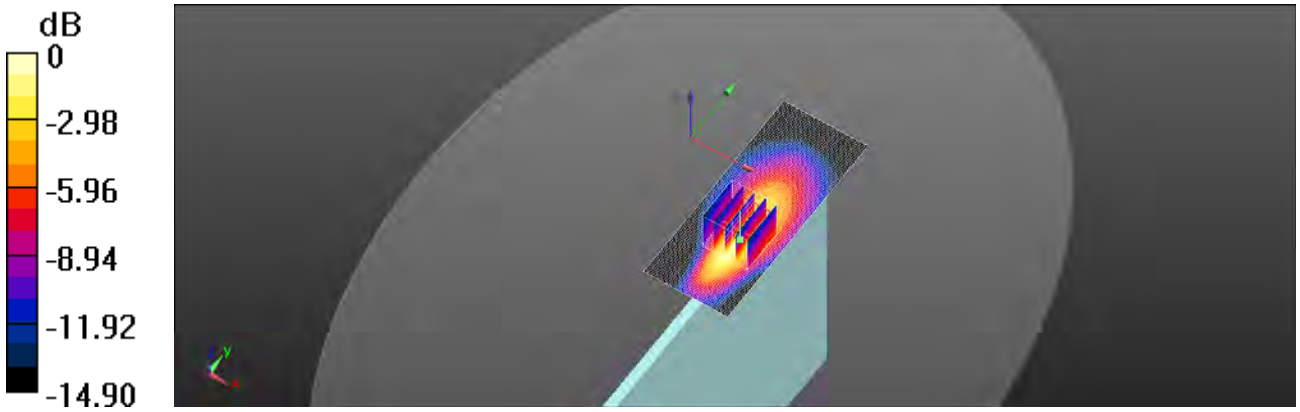
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 11.35 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.96 W/kg

SAR(1 g) = 0.968 W/kg; SAR(10 g) = 0.529 W/kg

Maximum value of SAR (measured) = 1.50 W/kg



0 dB = 1.50 W/kg = 1.76 dBW/kg

Date: 2017/12/3

LTE Band 13 (10MHz)_Body_Top side_CH 23230_QPSK_1-25_0mm

Communication System: LTE; Frequency: 782 MHz; Duty Cycle: 1:1

Medium parameters used: f = 782 MHz; σ = 1.001 S/m; ε_r = 56.922; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.5°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.96, 9.96, 9.96); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.48 W/kg

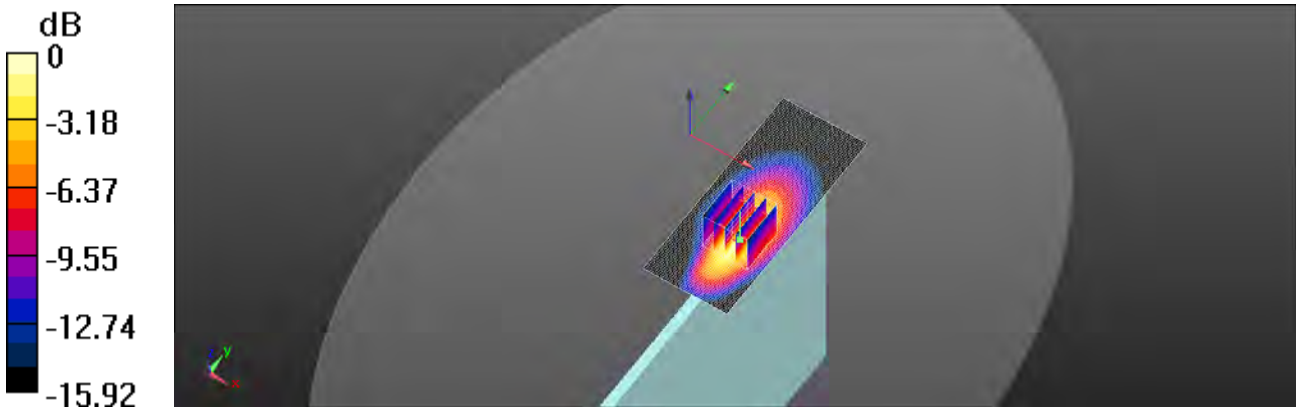
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.355 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 2.56 W/kg

SAR(1 g) = 1.26 W/kg; SAR(10 g) = 0.658 W/kg

Maximum value of SAR (measured) = 1.96 W/kg



0 dB = 1.96 W/kg = 2.92 dBW/kg

Date: 2017/12/3

LTE Band 17 (10MHz)_Body_Top side_CH 23790_QPSK_1-0_0mm

Communication System: LTE; Frequency: 710 MHz; Duty Cycle: 1:1

Medium parameters used: f = 710 MHz; σ = 0.927 S/m; ε_r = 57.642; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.5°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.96, 9.96, 9.96); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.35 W/kg

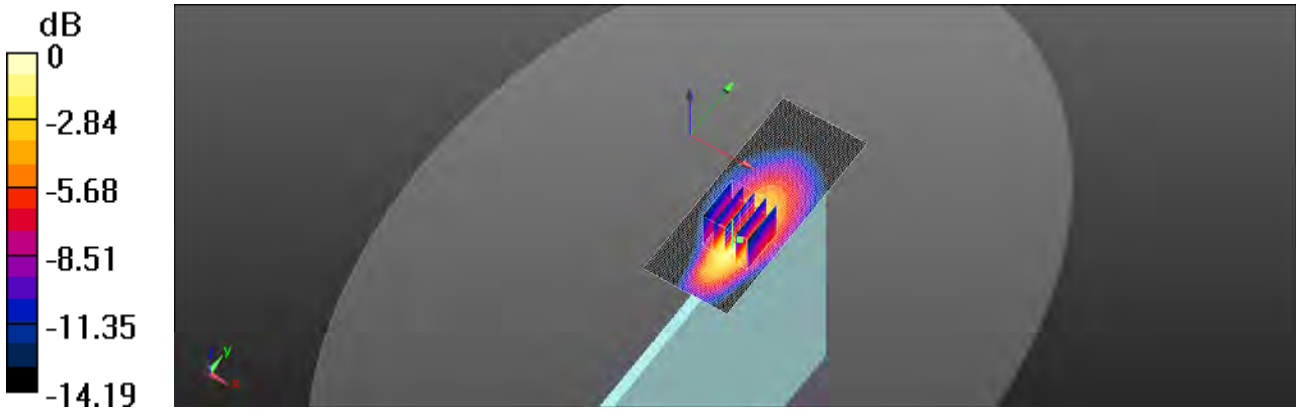
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.35 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 2.50 W/kg

SAR(1 g) = 1.2 W/kg; SAR(10 g) = 0.656 W/kg

Maximum value of SAR (measured) = 1.88 W/kg



0 dB = 1.88 W/kg = 2.74 dBW/kg

Date: 2017/12/2

LTE Band 26 (15MHz)_Body_Back side_CH 26825_QPSK_1-36_10mm

Communication System: LTE; Frequency: 822.5 MHz; Duty Cycle: 1:1

Medium parameters used: f = 822.5 MHz; σ = 0.984 S/m; ε_r = 57.003; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.5°C; Liquid temperature: 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.65, 9.65, 9.65); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x81x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.44 W/kg

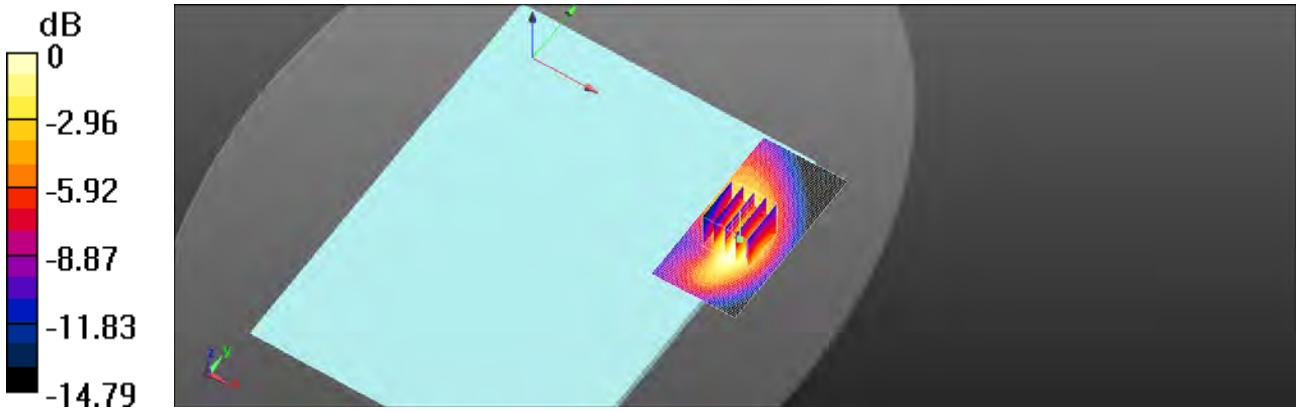
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.231 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.73 W/kg

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.675 W/kg

Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

Date: 2017/11/29

LTE Band 30 (10MHz)_Body_Back side_CH 27710_QPSK_1-49_0mm

Communication System: LTE; Frequency: 2310 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2310 MHz; σ = 1.898 S/m; ε_r = 54.08; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.6°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.68, 7.68, 7.68); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 1.73 W/kg

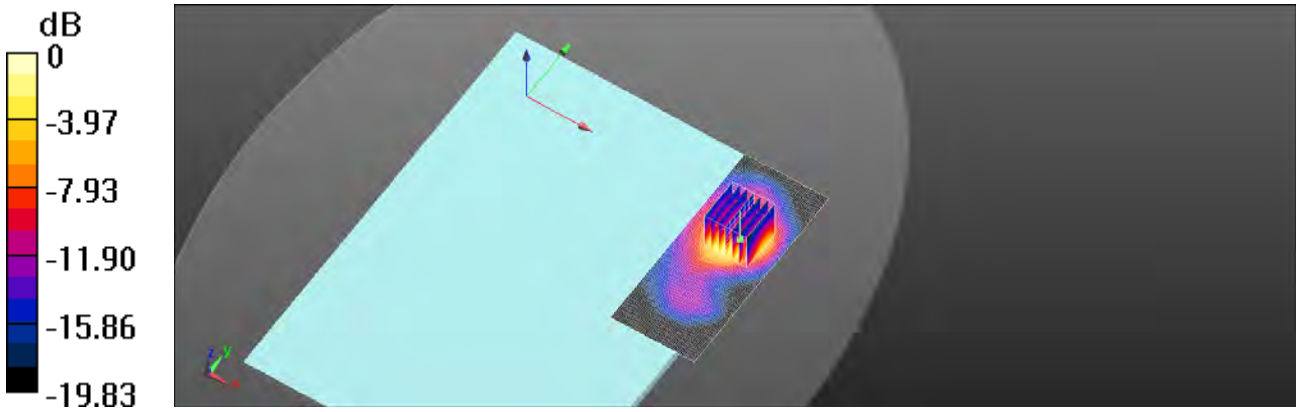
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.227 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 2.13 W/kg

SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.503 W/kg

Maximum value of SAR (measured) = 1.54 W/kg



0 dB = 1.54 W/kg = 1.88 dBW/kg

Date: 2017/11/28

LTE Band 38 (20MHz)_Body_Back side_CH 38000_QPSK_1-99_0mm

Communication System: LTE; Frequency: 2595 MHz; Duty Cycle: 1:0.633

Medium parameters used: f = 2595 MHz; σ = 2.144 S/m; ε_r = 52.608; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.17, 7.17, 7.17); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 1.91 W/kg

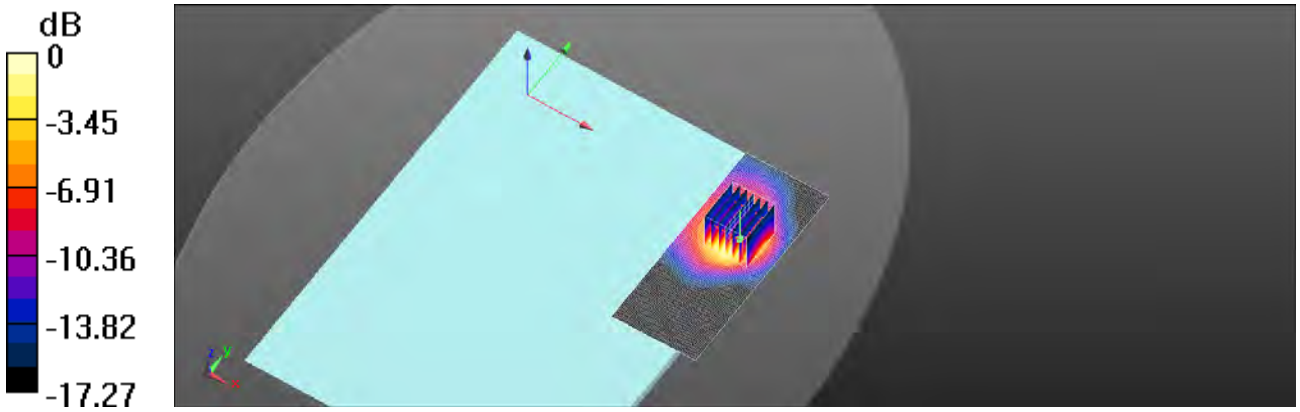
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.359 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 2.34 W/kg

SAR(1 g) = 1.1 W/kg; SAR(10 g) = 0.534 W/kg

Maximum value of SAR (measured) = 1.61 W/kg



0 dB = 1.61 W/kg = 2.07 dBW/kg

Date: 2017/11/28

LTE Band 41 (20MHz)_Body_Back side_CH 39750_QPSK_1-0_0mm

Communication System: LTE; Frequency: 2506 MHz; Duty Cycle: 1:0.633

Medium parameters used: f = 2506 MHz; σ = 2.119 S/m; ε_r = 52.854; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.47, 7.47, 7.47); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 1.91 W/kg

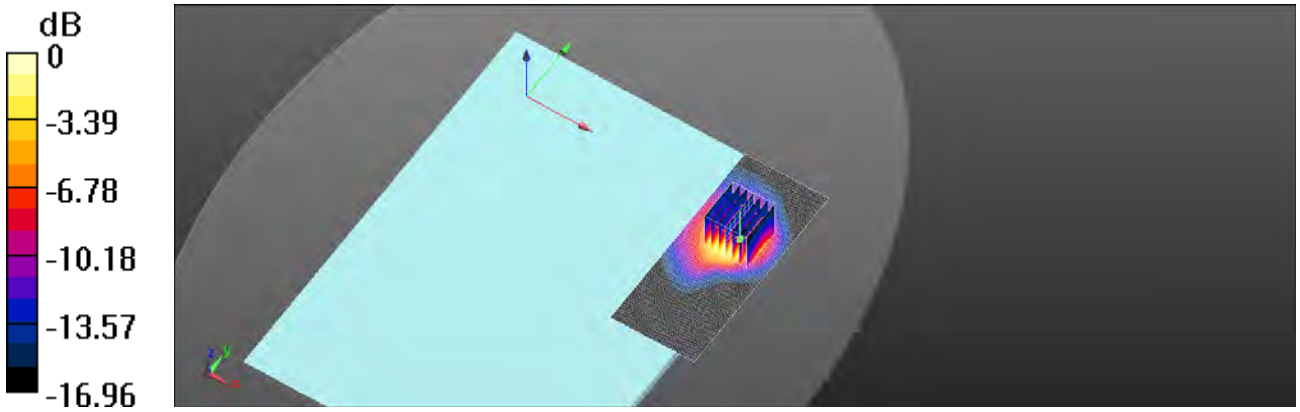
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.984 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 2.25 W/kg

SAR(1 g) = 1.07 W/kg; SAR(10 g) = 0.510 W/kg

Maximum value of SAR (measured) = 1.59 W/kg



0 dB = 1.59 W/kg = 2.01 dBW/kg

Date: 2017/12/1

LTE Band 66 (20MHz)_Body_Back side_CH 132072_QPSK_1-50_0mm

Communication System: LTE; Frequency: 1720 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1720 MHz; σ = 1.435 S/m; ε_r = 51.495; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.43, 8.43, 8.43); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (41x101x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 1.48 W/kg

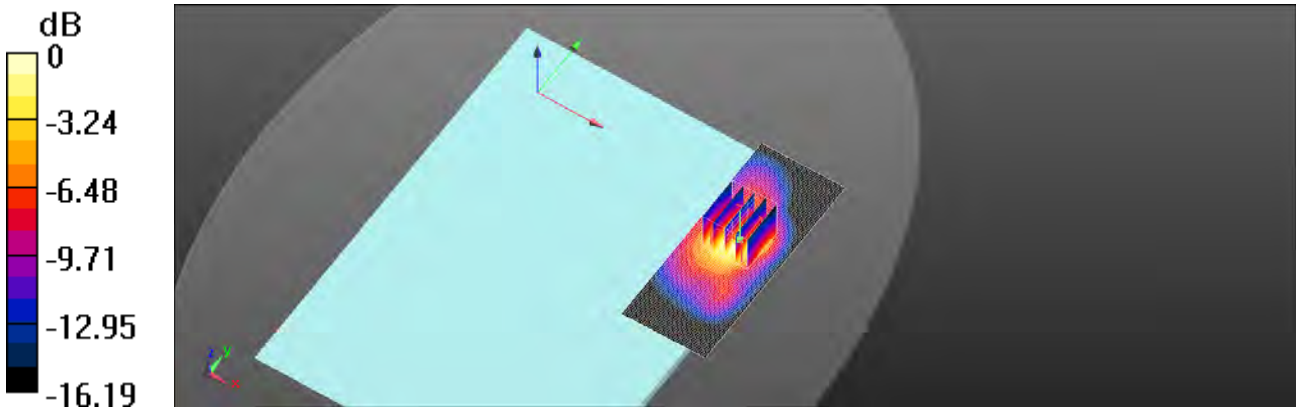
Configuration/Body/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 2.018 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.97 W/kg

SAR(1 g) = 1.06 W/kg; SAR(10 g) = 0.558 W/kg

Maximum value of SAR (measured) = 1.52 W/kg



0 dB = 1.52 W/kg = 1.82 dBW/kg

Date: 2017/11/20

WLAN 802.11n(40M)_Body_Back side_CH 6_Main_0mm

Communication System: WLAN 2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2437 MHz; σ = 1.967 S/m; ε_r = 53.848; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.47, 7.47, 7.47); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 1.28 W/kg

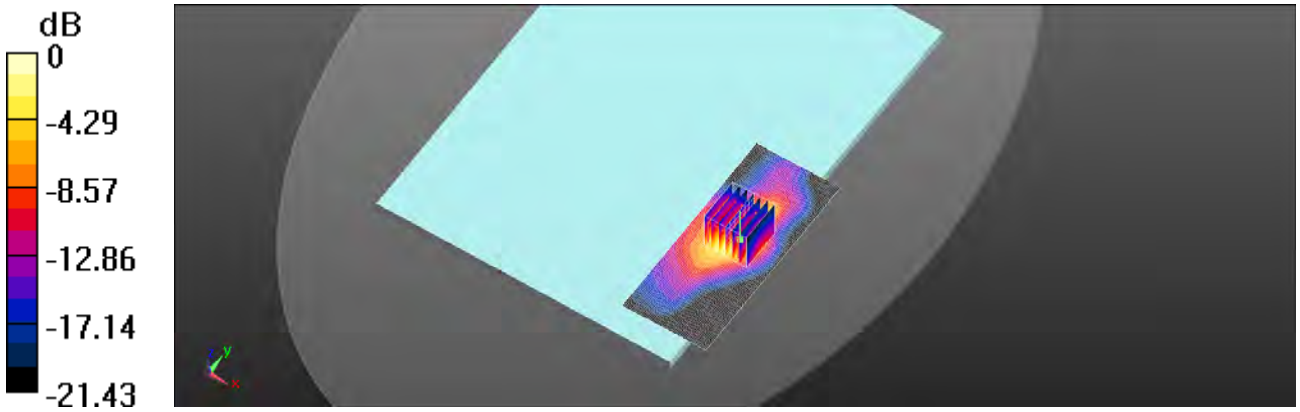
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.587 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 2.03 W/kg

SAR(1 g) = 0.975 W/kg; SAR(10 g) = 0.435 W/kg

Maximum value of SAR (measured) = 1.49 W/kg



0 dB = 1.49 W/kg = 1.73 dBW/kg

Date: 2017/11/21

WLAN 802.11n(40M) 5.2G_Body_Back side_CH 38_Main_0mm

Communication System: WLAN 5G; Frequency: 5190 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5190 MHz; σ = 5.151 S/m; ε_r = 49.591; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.29 W/kg

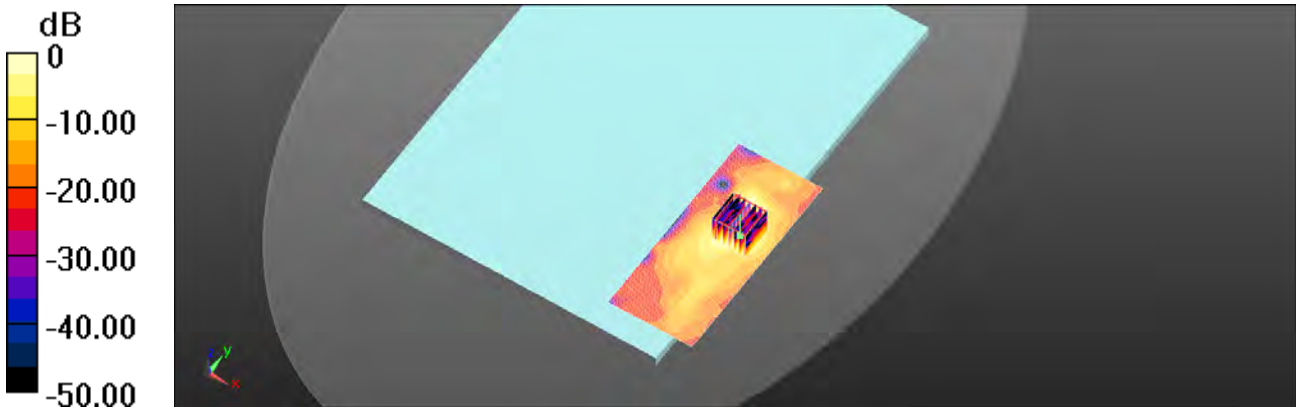
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.275 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 5.02 W/kg

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.315 W/kg

Maximum value of SAR (measured) = 2.42 W/kg



0 dB = 2.42 W/kg = 3.84 dBW/kg

Date: 2017/11/22

WLAN 802.11n(40M) 5.3G_Body_Back side_CH 62_Main_0mm

Communication System: WLAN 5G; Frequency: 5310 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5310 MHz; σ = 5.338 S/m; ε_r = 49.145; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.4°C; Liquid temperature: 22.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.16 W/kg

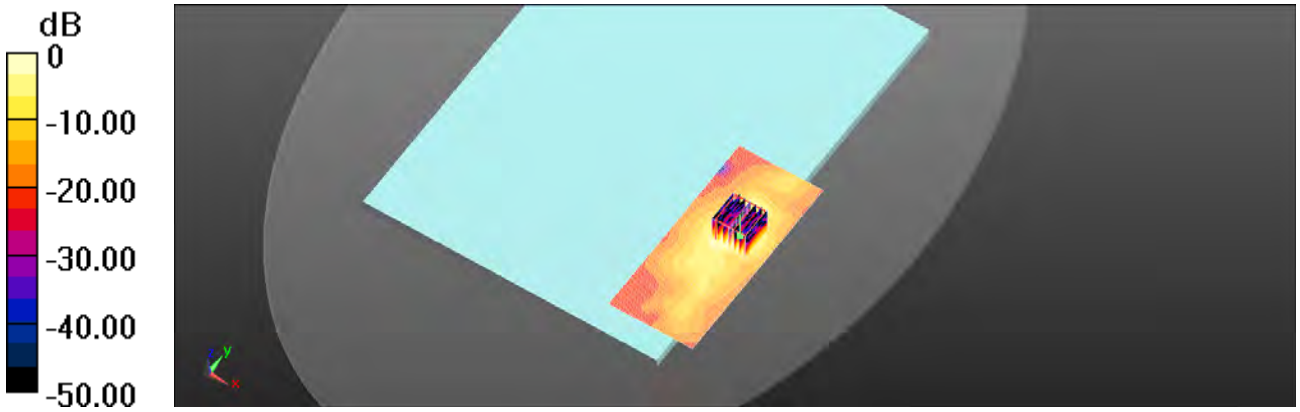
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.145 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 4.43 W/kg

SAR(1 g) = 0.922 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 1.97 W/kg



0 dB = 1.97 W/kg = 2.94 dBW/kg

Date: 2017/11/23

WLAN 802.11n(40M) 5.6G_Body_Back side_CH 134_Main_0mm

Communication System: WLAN 5G; Frequency: 5670 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5670 MHz; σ = 5.926 S/m; ε_r = 48.016; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.3°C; Liquid temperature: 21.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(3.98, 3.98, 3.98); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 1.36 W/kg

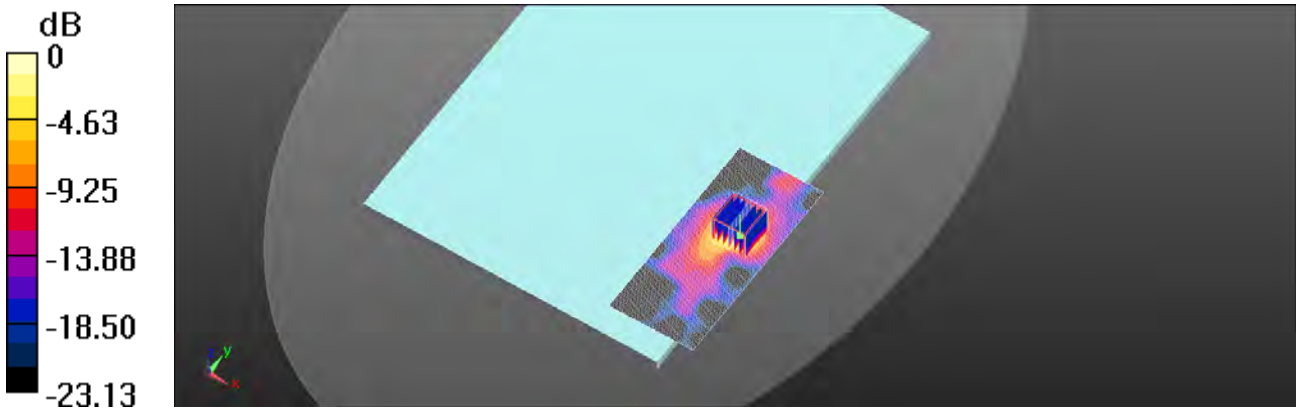
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.473 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.25 W/kg

SAR(1 g) = 0.700 W/kg; SAR(10 g) = 0.228 W/kg

Maximum value of SAR (measured) = 1.41 W/kg



0 dB = 1.41 W/kg = 1.49 dBW/kg

Date: 2017/11/23

WLAN 802.11ac(80M) 5.6G_Body_Back side_CH 138_Main_0mm

Communication System: WLAN 5G; Frequency: 5690 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5690 MHz; σ = 5.975 S/m; ε_r = 47.951; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.3°C; Liquid temperature: 21.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 1.19 W/kg

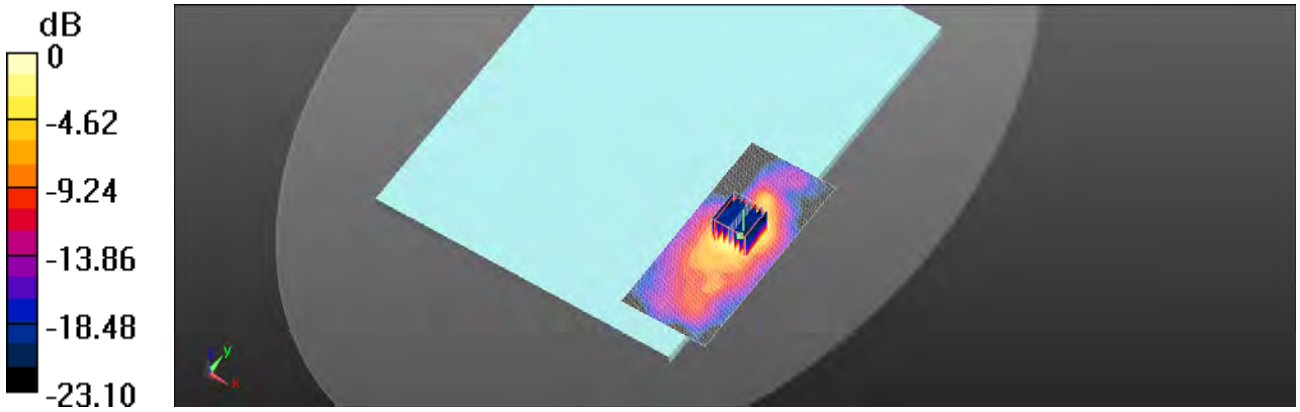
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.442 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 2.85 W/kg

SAR(1 g) = 0.614 W/kg; SAR(10 g) = 0.200 W/kg

Maximum value of SAR (measured) = 1.23 W/kg



0 dB = 1.23 W/kg = 0.90 dBW/kg

Date: 2017/11/24

WLAN 802.11ac(80M) 5.8G_Body_Back side_CH 155_Main_0mm

Communication System: WLAN 5G; Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5775 MHz; σ = 6.107 S/m; ε_r = 47.661; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.6°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 1.11 W/kg

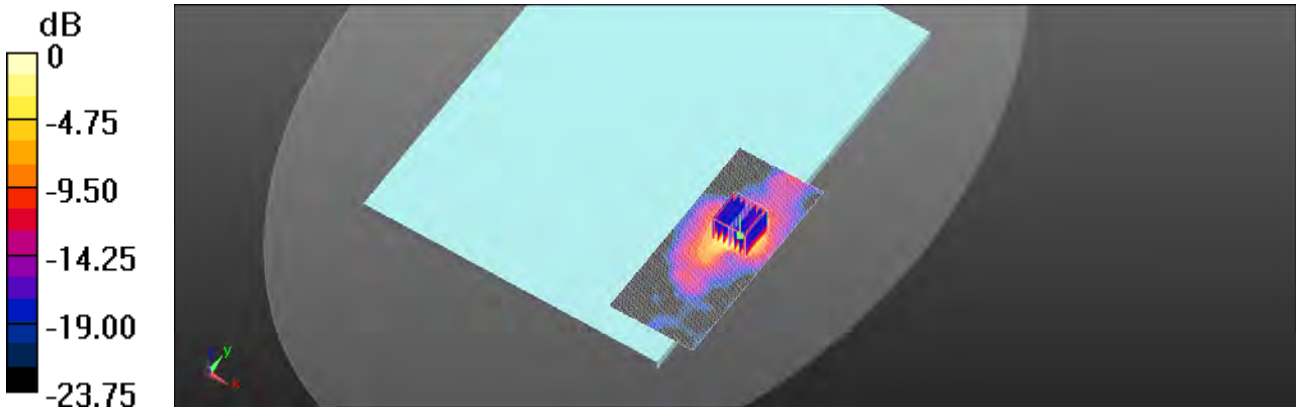
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.486 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 2.98 W/kg

SAR(1 g) = 0.556 W/kg; SAR(10 g) = 0.185 W/kg

Maximum value of SAR (measured) = 1.11 W/kg



0 dB = 1.11 W/kg = 0.45 dBW/kg

Date: 2017/11/20

WLAN 802.11n(40M)_Body_Back side_CH 6_Aux_0mm

Communication System: WLAN 2.4G; Frequency: 2437 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2437 MHz; σ = 1.967 S/m; ε_r = 53.848; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.47, 7.47, 7.47); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 1.24 W/kg

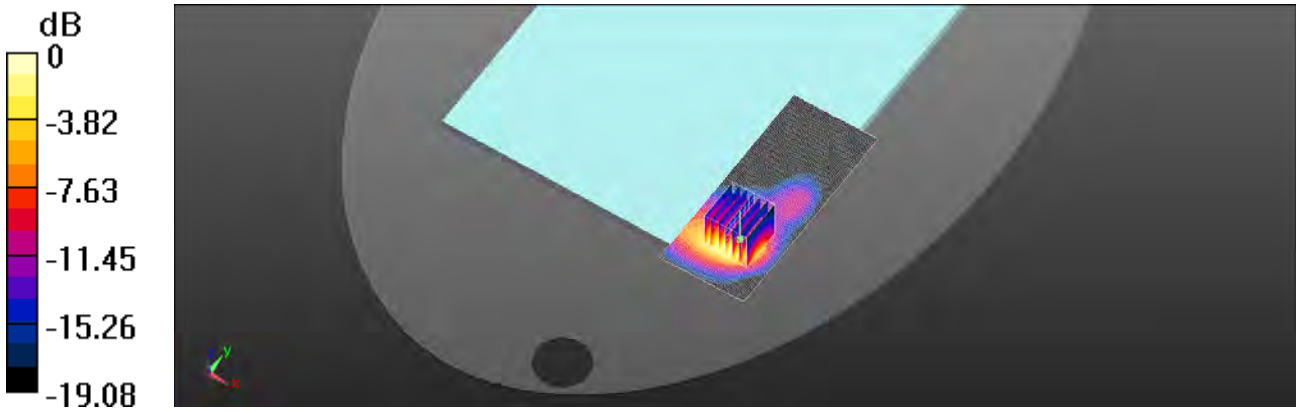
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.514 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 1.68 W/kg

SAR(1 g) = 0.781 W/kg; SAR(10 g) = 0.400 W/kg

Maximum value of SAR (measured) = 1.15 W/kg



0 dB = 1.15 W/kg = 0.61 dBW/kg

Date: 2017/11/20

Bluetooth(GFSK)_Body_Back side_CH 39_Aux_0mm

Communication System: Bluetooth; Frequency: 2441 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2441 MHz; σ = 1.969 S/m; ε_r = 53.813; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.47, 7.47, 7.47); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (51x121x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 0.320 W/kg

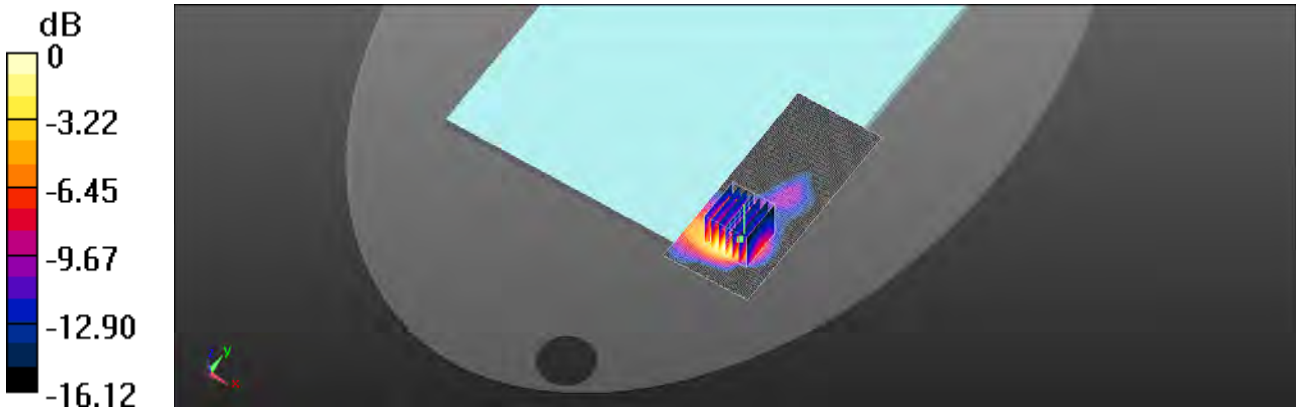
Configuration/Body/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 2.695 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 0.376 W/kg

SAR(1 g) = 0.179 W/kg; SAR(10 g) = 0.097 W/kg

Maximum value of SAR (measured) = 0.269 W/kg



0 dB = 0.269 W/kg = -5.70 dBW/kg

Date: 2017/11/21

WLAN 802.11n(40M) 5.2G_Body_Left side_CH 38_Aux_0mm

Communication System: WLAN 5G; Frequency: 5190 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5190 MHz; σ = 5.151 S/m; ε_r = 49.591; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.66 W/kg

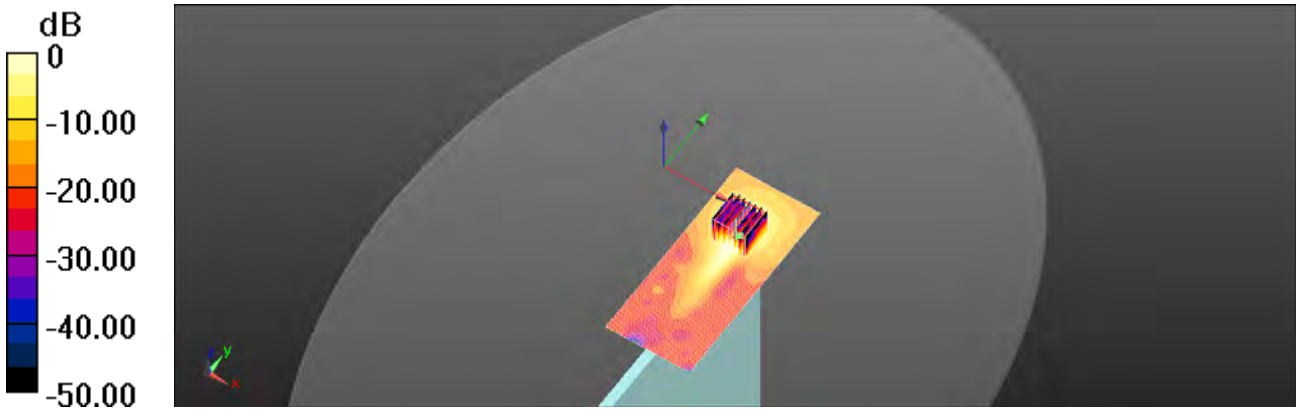
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.109 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 7.08 W/kg

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.371 W/kg

Maximum value of SAR (measured) = 2.62 W/kg



0 dB = 2.62 W/kg = 4.18 dBW/kg

Date: 2017/11/22

WLAN 802.11n(40M) 5.3G_Body_Left side_CH 62_Aux_0mm

Communication System: WLAN 5G; Frequency: 5310 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5310 MHz; σ = 5.338 S/m; ε_r = 49.145; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.4°C; Liquid temperature: 22.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.22 W/kg

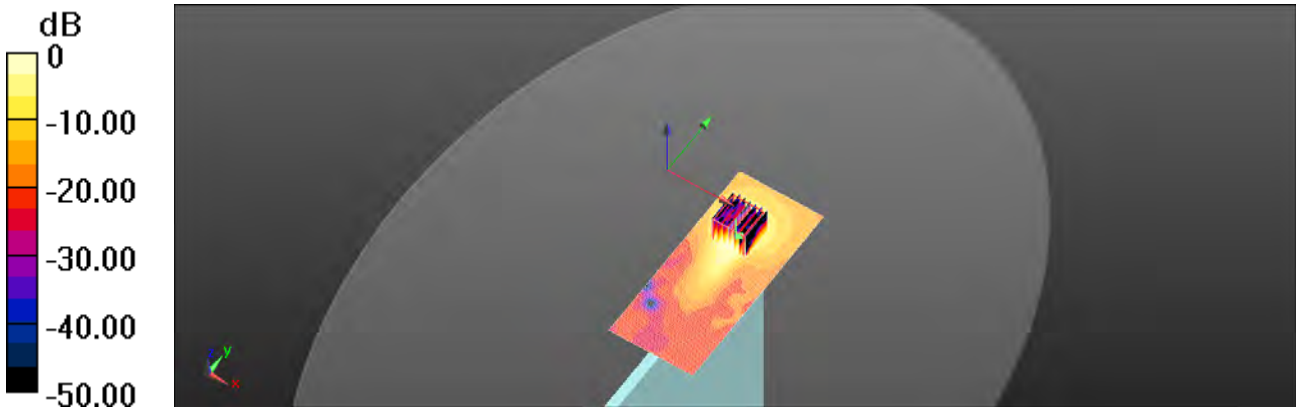
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.480 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 6.05 W/kg

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.373 W/kg

Maximum value of SAR (measured) = 2.85 W/kg



0 dB = 2.85 W/kg = 4.55 dBW/kg

Date: 2017/11/23

WLAN 802.11n(40M) 5.6G_Body_Left side_CH 102_Aux_0mm

Communication System: WLAN 5G; Frequency: 5510 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5510 MHz; σ = 5.657 S/m; ε_r = 48.446; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.3°C; Liquid temperature: 21.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(3.98, 3.98, 3.98); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 1.91 W/kg

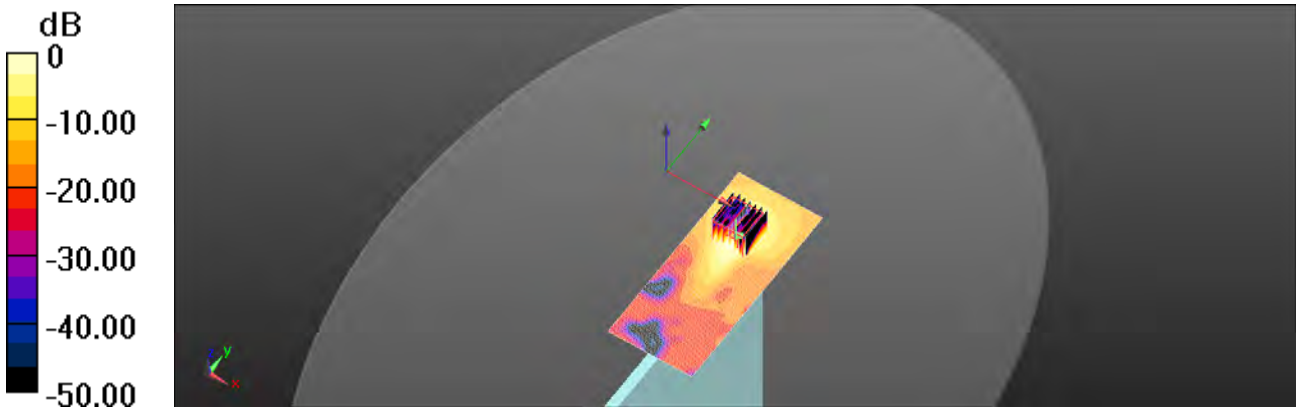
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 1.953 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 5.45 W/kg

SAR(1 g) = 1.12 W/kg; SAR(10 g) = 0.326 W/kg

Maximum value of SAR (measured) = 2.50 W/kg



0 dB = 2.50 W/kg = 3.98 dBW/kg

Date: 2017/11/23

WLAN 802.11ac(80M) 5.6G_Body_Left side_CH 138_Aux_0mm

Communication System: WLAN 5G; Frequency: 5690 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5690 MHz; σ = 5.975 S/m; ε_r = 47.951; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.3°C; Liquid temperature: 21.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.05 W/kg

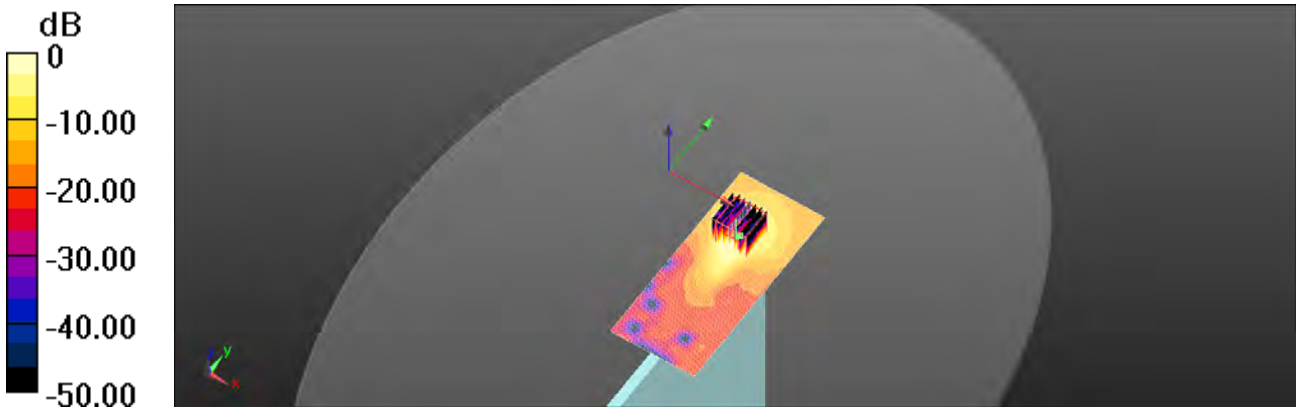
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.075 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 6.47 W/kg

SAR(1 g) = 1.19 W/kg; SAR(10 g) = 0.350 W/kg

Maximum value of SAR (measured) = 2.84 W/kg



0 dB = 2.84 W/kg = 4.53 dBW/kg

Date: 2017/11/24

WLAN 802.11ac(80M) 5.8G_Body_Left side_CH 155_Aux_0mm

Communication System: WLAN 5G; Frequency: 5775 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5775 MHz; σ = 6.107 S/m; ε_r = 47.661; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.6°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Body/Area Scan (61x141x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 2.51 W/kg

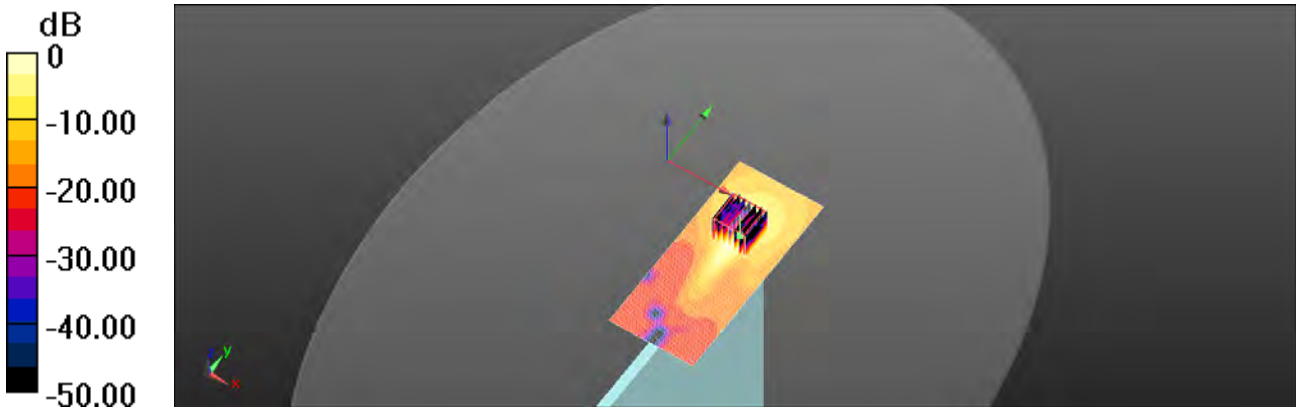
Configuration/Body/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 2.402 V/m; Power Drift = 0.11 dB

Peak SAR (extrapolated) = 5.98 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.323 W/kg

Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.70 W/kg = 4.31 dBW/kg

6. SAR System Performance Verification

Date: 2017/12/3

Dipole 750 MHz_SN:1015

Communication System: CW; Frequency: 750 MHz; Duty Cycle: 1:1

Medium parameters used: f = 750 MHz; σ = 0.969 S/m; ε_r = 57.268; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.5°C; Liquid temperature: 21.7°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.96, 9.96, 9.96); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (41x141x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 2.71 W/kg

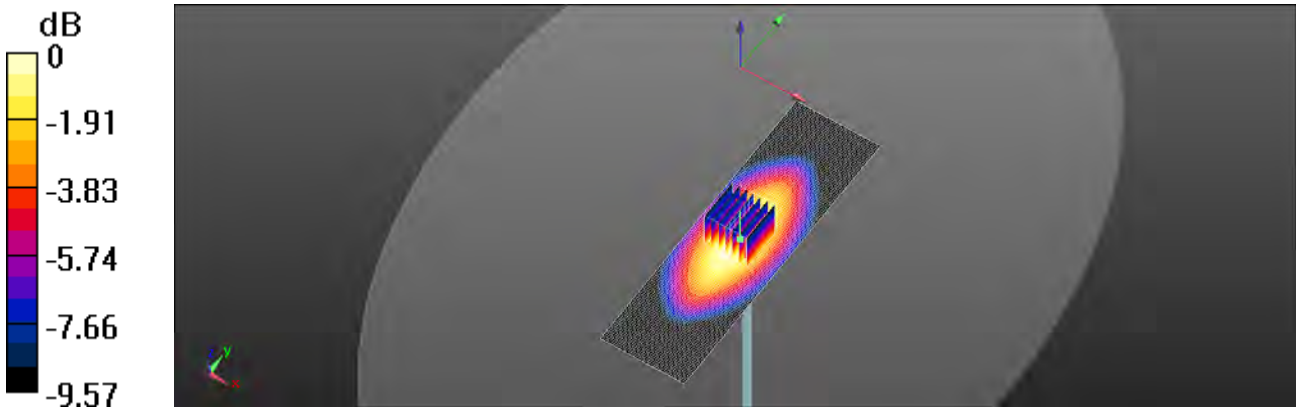
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.83 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 3.14 W/kg

SAR(1 g) = 2.16 W/kg; SAR(10 g) = 1.45 W/kg

Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.70 W/kg = 4.31 dBW/kg

Date: 2017/12/2

Dipole 835 MHz_SN:4d063

Communication System: CW; Frequency: 835 MHz; Duty Cycle: 1:1

Medium parameters used: f = 835 MHz; σ = 0.996 S/m; ε_r = 56.908; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.5°C; Liquid temperature: 22.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(9.65, 9.65, 9.65); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (41x121x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 3.06 W/kg

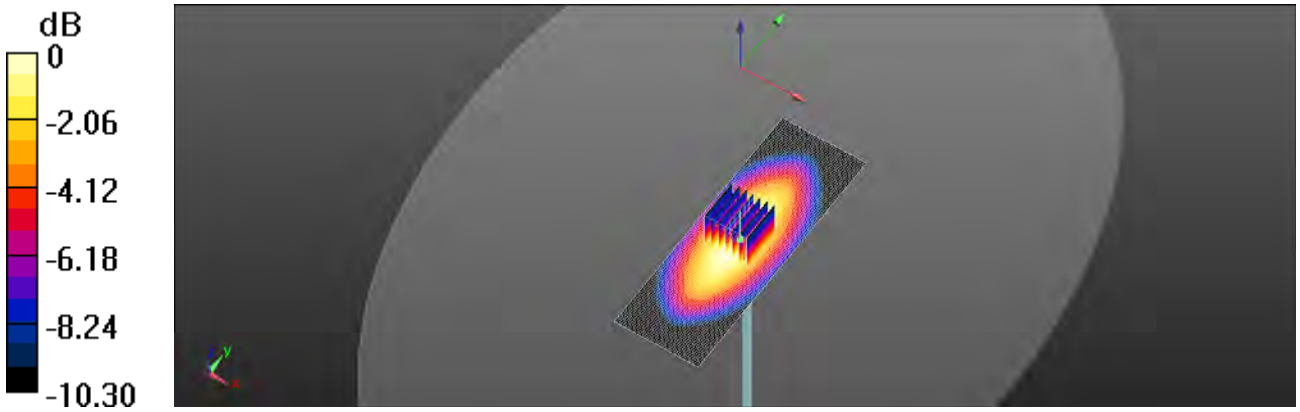
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 56.45 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 3.59 W/kg

SAR(1 g) = 2.43 W/kg; SAR(10 g) = 1.6 W/kg

Maximum value of SAR (measured) = 3.06 W/kg



0 dB = 3.06 W/kg = 4.86 dBW/kg

Date: 2017/12/1

Dipole 1750 MHz_SN:1008

Communication System: CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium parameters used: f = 1750 MHz; σ = 1.468 S/m; ε_r = 51.378; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 22.5°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.43, 8.43, 8.43); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 12.9 W/kg

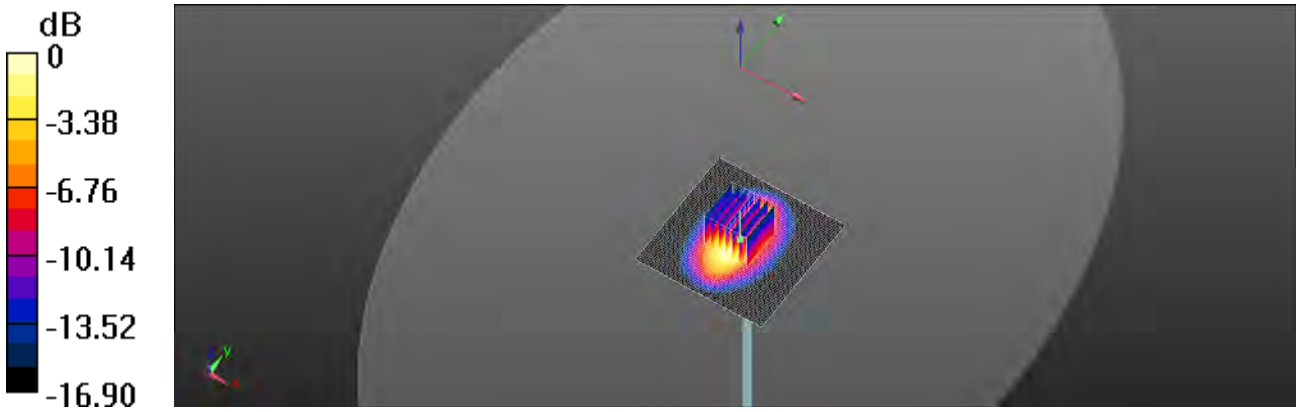
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.48 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 16.5 W/kg

SAR(1 g) = 9.06 W/kg; SAR(10 g) = 4.75 W/kg

Maximum value of SAR (measured) = 13.0 W/kg



0 dB = 13.0 W/kg = 11.14 dBW/kg

Date: 2017/11/30

Dipole 1900 MHz_SN:5d027

Communication System: CW; Frequency: 1900 MHz

Medium parameters used: f = 1900 MHz; σ = 1.571 S/m; ε_r = 50.872; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.1°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(8.12, 8.12, 8.12); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=15 mm, dy=15 mm

Maximum value of SAR (interpolated) = 14.0 W/kg

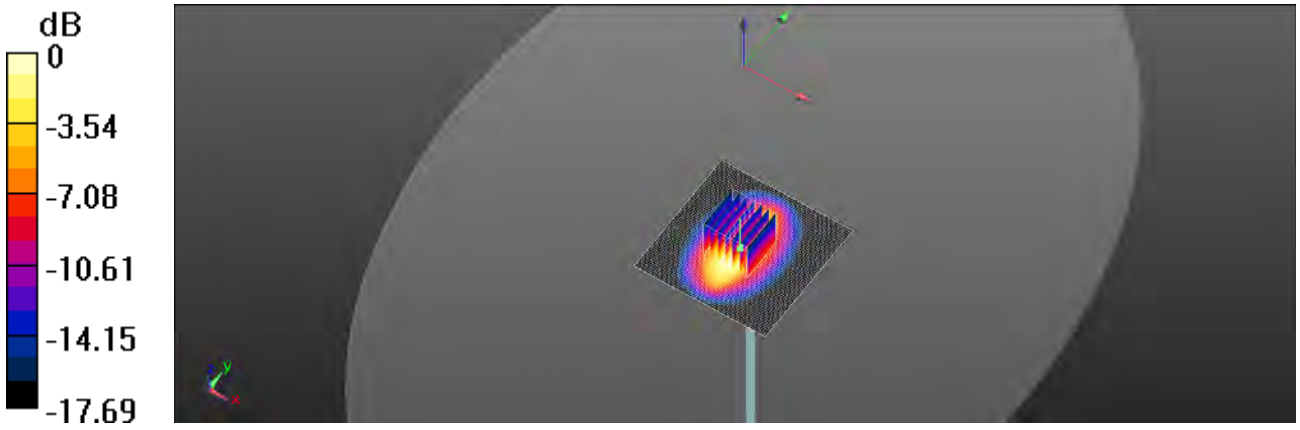
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 94.85 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 17.8 W/kg

SAR(1 g) = 9.65 W/kg; SAR(10 g) = 4.99 W/kg

Maximum value of SAR (measured) = 14.0 W/kg



0 dB = 14.0 W/kg = 11.46 dBW/kg

Date: 2017/11/29

Dipole 2300 MHz_SN:1023

Communication System: CW; Frequency: 2300 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2300 MHz; σ = 1.887 S/m; ε_r = 54.103; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.6°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.68, 7.68, 7.68); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (51x51x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 20.0 W/kg

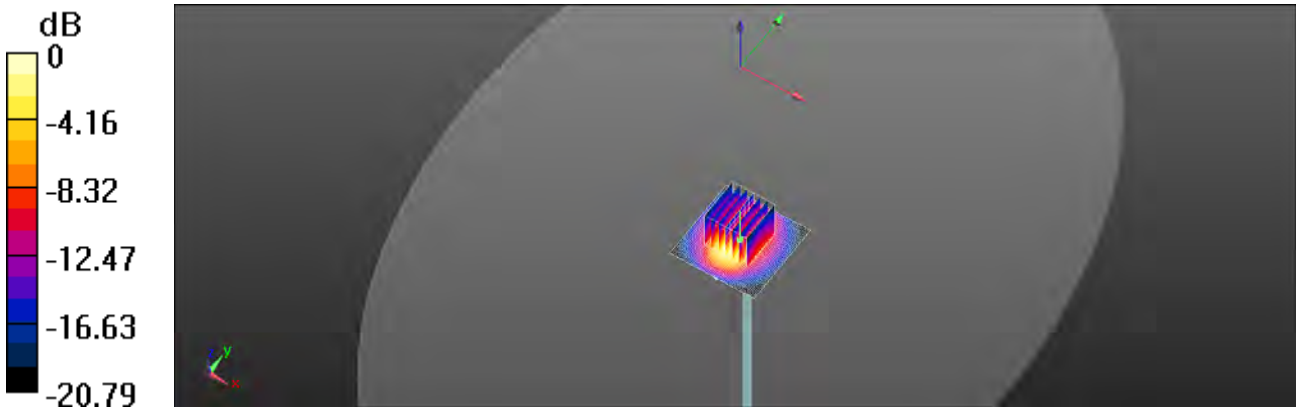
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 98.37 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 25.2 W/kg

SAR(1 g) = 12.6 W/kg; SAR(10 g) = 5.92 W/kg

Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 19.0 W/kg = 12.79 dBW/kg

Date: 2017/11/20

Dipole 2450 MHz_SN:727

Communication System: CW; Frequency: 2450 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2450 MHz; σ = 1.986 S/m; ε_r = 53.832; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.2°C; Liquid temperature: 21.9°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.47, 7.47, 7.47); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (51x51x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 20.6 W/kg

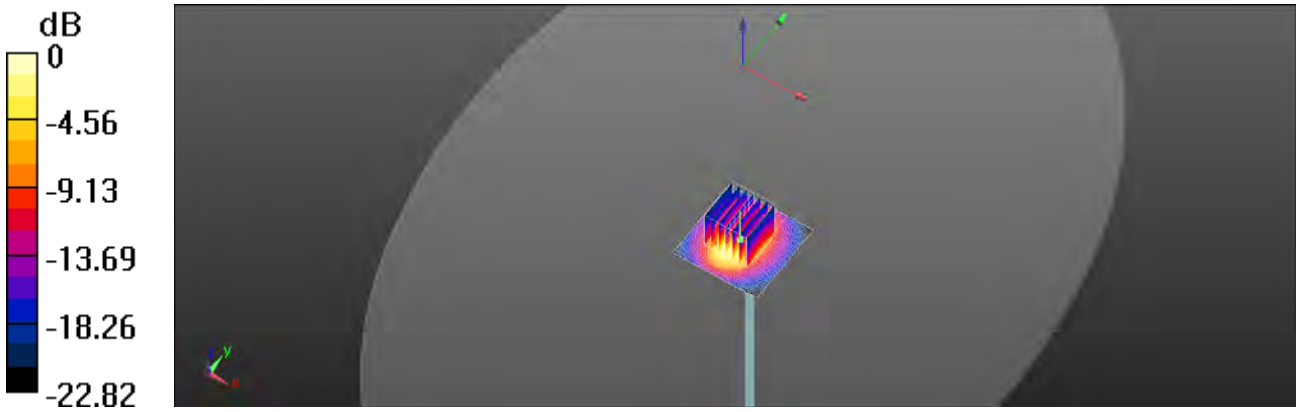
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 99.16 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 26.6 W/kg

SAR(1 g) = 12.5 W/kg; SAR(10 g) = 5.62 W/kg

Maximum value of SAR (measured) = 19.5 W/kg



0 dB = 19.5 W/kg = 12.90 dBW/kg

Date: 2017/11/28

Dipole 2600 MHz_SN:1005

Communication System: CW; Frequency: 2600 MHz; Duty Cycle: 1:1

Medium parameters used: f = 2600 MHz; σ = 2.247 S/m; ε_r = 52.577; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(7.17, 7.17, 7.17); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=12 mm, dy=12 mm

Maximum value of SAR (interpolated) = 22.7 W/kg

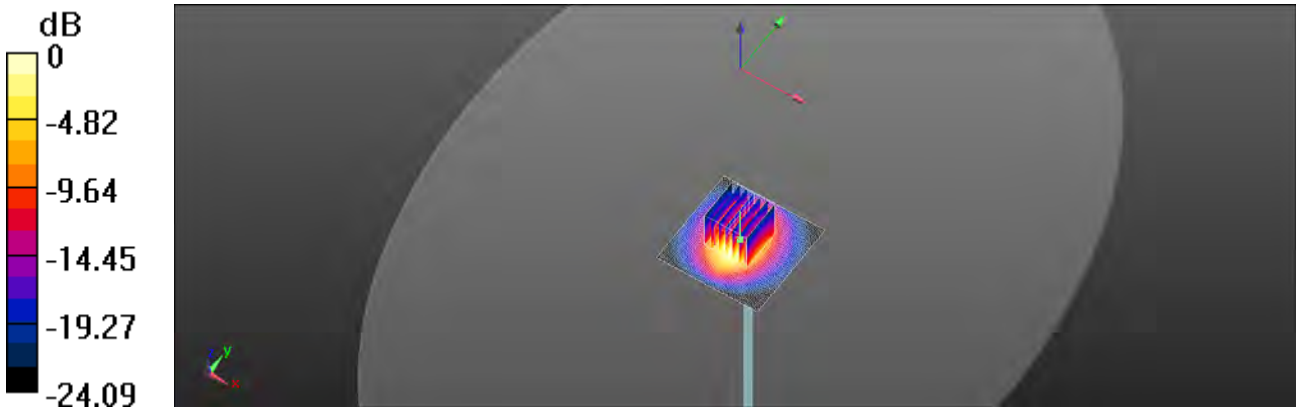
Configuration/Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 97.94 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 31.0 W/kg

SAR(1 g) = 14.2 W/kg; SAR(10 g) = 6.29 W/kg

Maximum value of SAR (measured) = 22.4 W/kg



0 dB = 22.4 W/kg = 13.50 dBW/kg

Date: 2017/11/21

Dipole 5200 MHz_SN:1023

Communication System: CW; Frequency: 5200 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5200 MHz; σ = 5.15 S/m; ε_r = 49.507; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.7°C; Liquid temperature: 21.4°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=100mW/Area Scan (51x51x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 14.7 W/kg

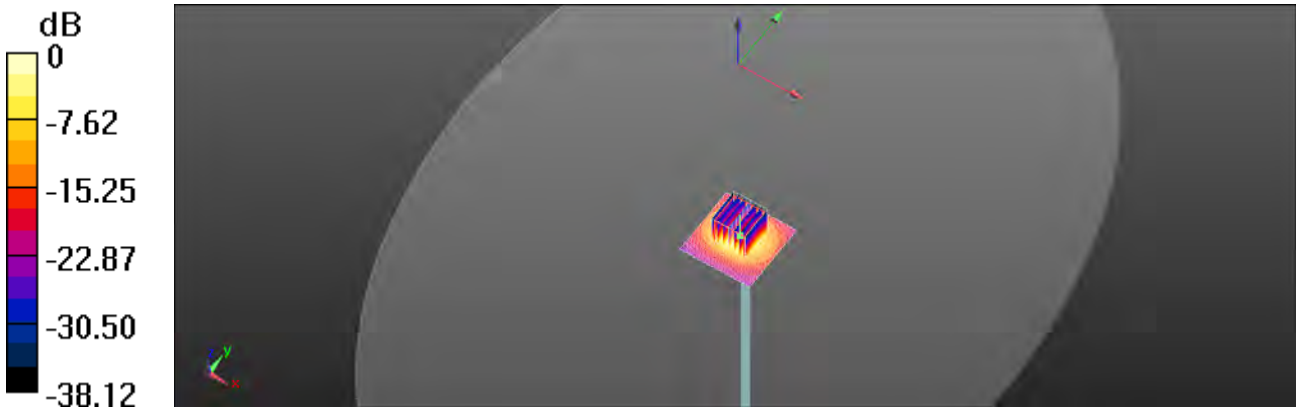
Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 56.09 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 31.2 W/kg

SAR(1 g) = 7.43 W/kg; SAR(10 g) = 2.06 W/kg

Maximum value of SAR (measured) = 15.7 W/kg



0 dB = 15.7 W/kg = 11.96 dBW/kg

Date: 2017/11/22

Dipole 5300 MHz_SN:1023

Communication System: CW; Frequency: 5300 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5300 MHz; σ = 5.331 S/m; ε_r = 49.221; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 22.4°C; Liquid temperature: 22.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.61, 4.61, 4.61); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=100mW/Area Scan (51x51x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 15.4 W/kg

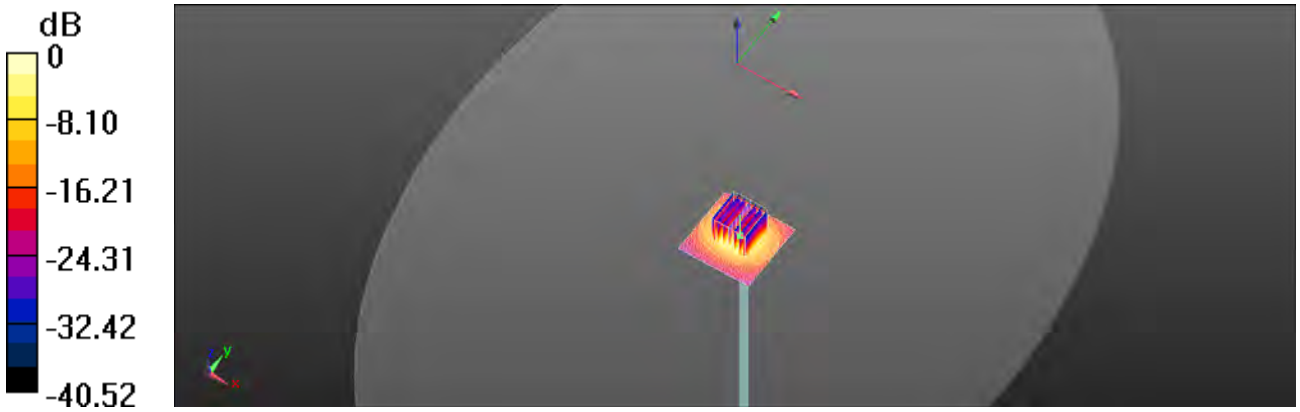
Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 57.58 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 32.6 W/kg

SAR(1 g) = 7.91 W/kg; SAR(10 g) = 2.22 W/kg

Maximum value of SAR (measured) = 16.5 W/kg



0 dB = 16.5 W/kg = 12.17 dBW/kg

Date: 2017/11/23

Dipole 5600 MHz_SN:1023

Communication System: CW; Frequency: 5600 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5600 MHz; σ = 5.811 S/m; ε_r = 48.248; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.3°C; Liquid temperature: 21.0°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=100mW/Area Scan (51x51x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 18.0 W/kg

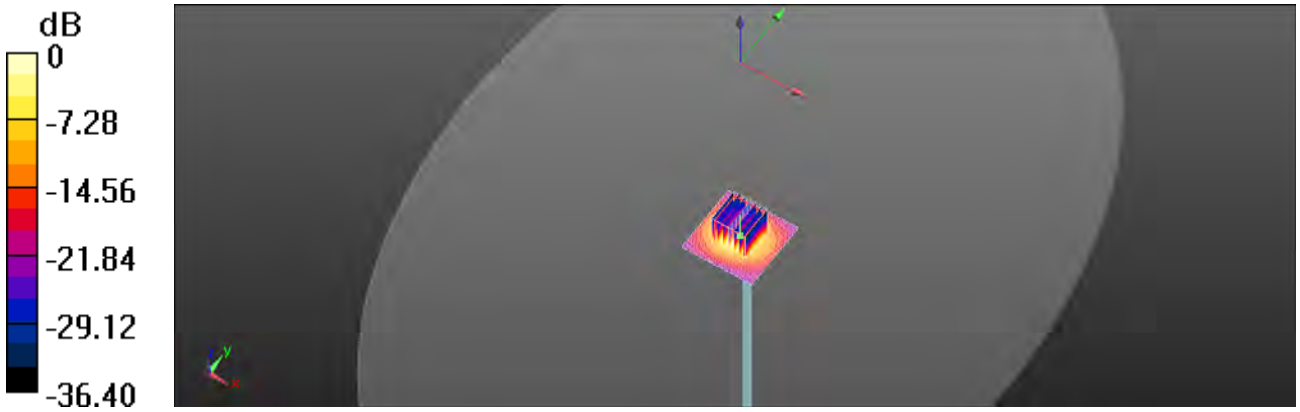
Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 61.75 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 35.9 W/kg

SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.26 W/kg

Maximum value of SAR (measured) = 18.1 W/kg



0 dB = 18.1 W/kg = 12.58 dBW/kg

Date: 2017/11/24

Dipole 5800 MHz_SN:1023

Communication System: CW; Frequency: 5800 MHz; Duty Cycle: 1:1

Medium parameters used: f = 5800 MHz; σ = 6.146 S/m; ε_r = 47.583; ρ = 1000 kg/m^3

Phantom section: Flat Section

Ambient temperature: 21.6°C; Liquid temperature: 21.8°C

DASY5 Configuration:

- Probe: EX3DV4 - SN3770; ConvF(4.38, 4.38, 4.38); Calibrated: 2017/4/27;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn856; Calibrated: 2017/4/28
- Phantom: Body
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

Configuration/Pin=100mW/Area Scan (51x51x1): Interpolated grid: dx=10 mm, dy=10 mm

Maximum value of SAR (interpolated) = 15.9 W/kg

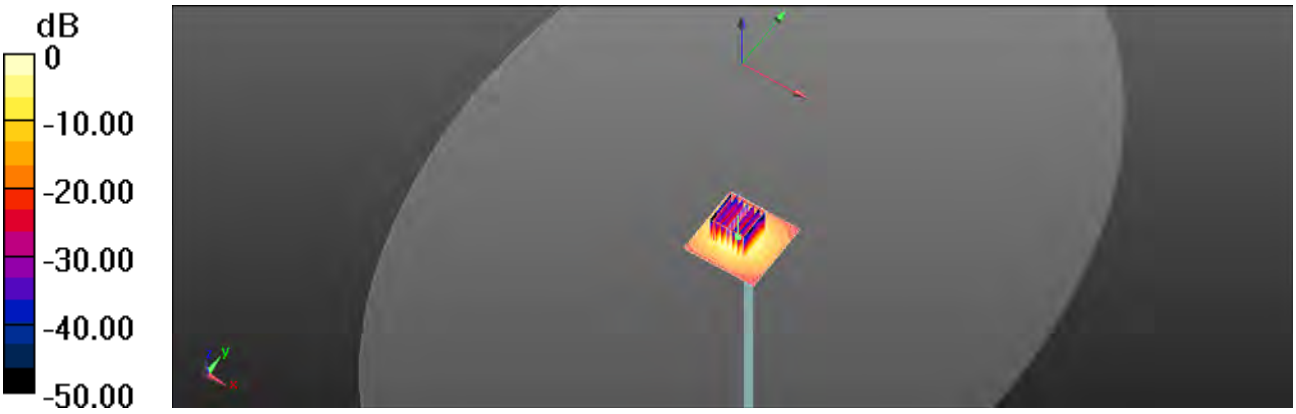
Configuration/Pin=100mW/Zoom Scan (7x7x12)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=2mm

Reference Value = 52.62 V/m; Power Drift = 0.10 dB

Peak SAR (extrapolated) = 34.2 W/kg

SAR(1 g) = 7.33 W/kg; SAR(10 g) = 2.02 W/kg

Maximum value of SAR (measured) = 15.9 W/kg



0 dB = 15.9 W/kg = 12.01 dBW/kg

7. DAE & Probe Calibration Certificate

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Client SGS - TW (Auden)

Certificate No: DAE4-856_Apr17

CALIBRATION CERTIFICATE

Object	DAE4 - SD 000 D04 BM - SN: 856
Calibration procedure(s)	QA CAL-06.v29 Calibration procedure for the data acquisition electronics (DAE)
Calibration date:	April 28, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Keithley Multimeter Type 2001	SN: 0810278	09-Sep-16 (No:19065)	Sep-17
Secondary Standards	**ID #**	**Check Date (in house)**	**Scheduled Check**
Auto DAE Calibration Unit	SE UWS 053 AA 1001	05-Jan-17 (in house check)	In house check: Jan-18
Calibrator Box V2.1	SE UMS 006 AA 1002	05-Jan-17 (in house check)	In house check: Jan-18

	Name	Function	Signature
Calibrated by:	Adrian Gehring	Technician	
Approved by:	Fin Bomholt	Deputy Technical Manager	

Issued: April 28, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: DAE4-856_Apr17 Page 1 of 5

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: SCS 0108

Glossary

DAE	data acquisition electronics
Connector angle	information used in DASY system to align probe sensor X to the robot coordinate system.

Methods Applied and Interpretation of Parameters

- *DC Voltage Measurement:* Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- *Connector angle*: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - *DC Voltage Measurement Linearity:* Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - *Common mode sensitivity:* Influence of a positive or negative common mode voltage on the differential measurement.
  - *Channel separation:* Influence of a voltage on the neighbor channels not subject to an input voltage.
  - *AD Converter Values with inputs shorted:* Values on the internal AD converter corresponding to zero input voltage
  - *Input Offset Measurement*: Output voltage and statistical results over a large number of zero voltage measurements.
  - *Input Offset Current:* Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - *Input resistance:* Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - *Low Battery Alarm Voltage:* Typical value for information. Below this voltage, a battery alarm signal is generated.
  - *Power consumption:* Typical value for information. Supply currents in various operating modes.

DC Voltage Measurement

A/D - Converter Resolution nominal

High Range:	1LSB =	6.1μV,	full range =	-100...+300 mV
Low Range:	1LSB =	61nV,	full range =	-1.....+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Calibration Factors	X	Y	Z
High Range	403.433 ± 0.02% (k=2)	404.548 ± 0.02% (k=2)	403.875 ± 0.02% (k=2)
Low Range	3.97891 ± 1.50% (k=2)	3.97761 ± 1.50% (k=2)	3.97820 ± 1.50% (k=2)

Connector Angle

Connector Angle to be used in DASY system	265.0 ° ± 1 °

Appendix (Additional assessments outside the scope of SCS0108)

1. DC Voltage Linearity

High Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	199990.20	-3.22	-0.00
Channel X	+ Input	19998.56	-2.48	-0.01
Channel X	- Input	-20000.93	0.14	-0.00
Channel Y	+ Input	199991.93	-1.72	-0.00
Channel Y	+ Input	19997.38	-3.74	-0.02
Channel Y	- Input	-20002.46	-1.42	0.01
Channel Z	+ Input	199994.32	0.88	0.00
Channel Z	+ Input	19998.13	-2.80	-0.01
Channel Z	- Input	-20002.06	-0.83	0.00

Low Range		Reading (μV)	Difference (μV)	Error (%)
Channel X	+ Input	2000.92	0.26	0.01
Channel X	+ Input	201.31	0.06	0.03
Channel X	- Input	-198.68	0.02	-0.01
Channel Y	+ Input	2000.75	-0.08	-0.00
Channel Y	+ Input	200.81	-0.45	-0.22
Channel Y	- Input	-199.12	-0.55	0.28
Channel Z	+ Input	2001.03	0.18	0.01
Channel Z	+ Input	200.28	-0.96	-0.47
Channel Z	- Input	-199.73	-1.15	0.58

2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (μV)
Channel X	200	-15.65	-16.66
	- 200	17.23	15.98
Channel Y	200	-1.72	-2.19
	- 200	0.71	0.50
Channel Z	200	10.75	10.48
	- 200	-13.09	-13.42

3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (μV)	Channel Y (μV)	Channel Z (μV)
Channel X	200	-	2.87	-2.83
Channel Y	200	7.31	-	2.81
Channel Z	200	6.33	5.08	-

4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16228	16854
Channel Y	15953	17971
Channel Z	15877	17010

5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec
Input 10MΩ

	Average (μV)	min. Offset (μV)	max. Offset (μV)	Std. Deviation (μV)
Channel X	-0.26	-0.37	1.30	0.27
Channel Y	0.02	-1.04	0.89	0.39
Channel Z	-1.00	-1.74	0.18	0.38

6. Input Offset Current

Nominal input circuitry offset current on all channels: <25fA

7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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Accreditation No.: SCS 0108

Client **SGS-TW (Auden)** Certificate No: **EX3-3770_Apr17**

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:3770
Calibration procedure(s)	QA CAL-01.v9, QA CAL-12.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	April 27, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI). The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02525)	Apr-18
Reference 20 dB Attenuator	SN: 55277 (20x)	07-Apr-17 (No. 217-02528)	Apr-18
Reference Probe ES3DV2	SN: 3013	31-Dec-16 (No. ES3-3013_Dec16)	Dec-17
DAE4	SN: 660	7-Dec-16 (No. DAE4-660_Dec16)	Dec-17
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-16)	In house check: Jun-18
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-16)	In house check: Jun-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by	Claudio Leubler	Laboratory Technician	
Approved by	Katja Pokovic	Technical Manager	

Issued: May 1, 2017

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z*: Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z*: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR*: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z*: *A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters*: Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Probe EX3DV4

SN:3770

Manufactured: July 6, 2010
Calibrated: April 27, 2017

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3770

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.30	0.59	0.39	± 10.1 %
DCP (mV)[B]	105.5	99.9	100.3	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	194.4	±2.7 %
		Y	0.0	0.0	1.0		177.5	
		Z	0.0	0.0	1.0		188.0	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3770

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
450	43.5	0.87	11.41	11.41	11.41	0.14	1.20	± 13.3 %
750	41.9	0.89	10.17	10.17	10.17	0.51	0.80	± 12.0 %
835	41.5	0.90	9.71	9.71	9.71	0.38	0.90	± 12.0 %
900	41.5	0.97	9.52	9.52	9.52	0.42	0.84	± 12.0 %
1750	40.1	1.37	8.49	8.49	8.49	0.36	0.84	± 12.0 %
1900	40.0	1.40	8.08	8.08	8.08	0.42	0.80	± 12.0 %
2000	40.0	1.40	8.13	8.13	8.13	0.41	0.80	± 12.0 %
2300	39.5	1.67	7.90	7.90	7.90	0.37	0.84	± 12.0 %
2450	39.2	1.80	7.46	7.46	7.46	0.43	0.80	± 12.0 %
2600	39.0	1.96	7.18	7.18	7.18	0.32	0.96	± 12.0 %
5250	35.9	4.71	5.37	5.37	5.37	0.35	1.80	± 13.1 %
5600	35.5	5.07	4.88	4.88	4.88	0.40	1.80	± 13.1 %
5750	35.4	5.22	5.25	5.25	5.25	0.40	1.80	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 20, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be restricted to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3770

Calibration Parameter Determined in Body Tissue Simulating Media

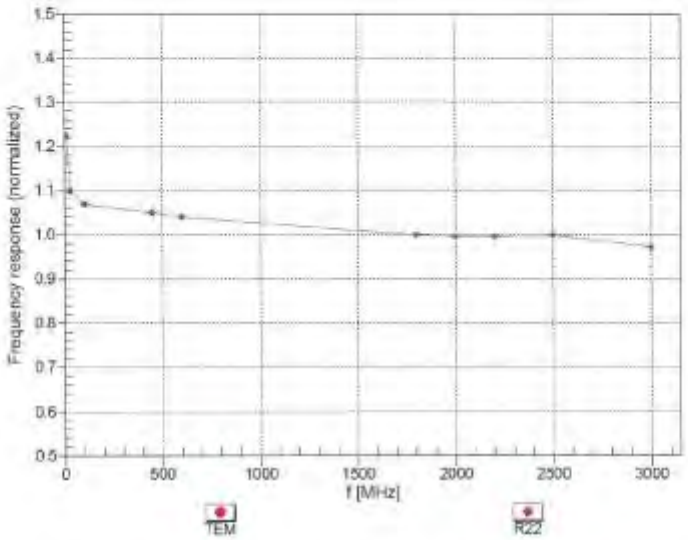
f (MHz)[C]	Relative Permittivity[F]	Conductivity (S/m)[F]	ConvF X	ConvF Y	ConvF Z	Alpha[G]	Depth[G] (mm)	Unc (k=2)
450	56.7	0.94	10.64	10.64	10.64	0.09	1.20	± 13.3 %
750	55.6	0.96	9.96	9.96	9.96	0.52	0.80	± 12.0 %
835	55.2	0.97	9.65	9.65	9.65	0.39	0.91	± 12.0 %
900	55.0	1.05	9.59	9.59	9.59	0.39	0.90	± 12.0 %
1750	53.4	1.49	8.43	8.43	8.43	0.41	0.80	± 12.0 %
1900	53.3	1.52	8.12	8.12	8.12	0.23	1.12	± 12.0 %
2000	53.3	1.52	8.00	8.00	8.00	0.43	0.80	± 12.0 %
2300	52.9	1.81	7.68	7.68	7.68	0.37	0.80	± 12.0 %
2450	52.7	1.95	7.47	7.47	7.47	0.35	0.86	± 12.0 %
2600	52.5	2.16	7.17	7.17	7.17	0.28	0.99	± 12.0 %
5250	48.9	5.36	4.61	4.61	4.61	0.45	1.90	± 13.1 %
5600	48.5	5.77	3.98	3.98	3.98	0.50	1.90	± 13.1 %
5750	48.3	5.94	4.38	4.38	4.38	0.50	1.90	± 13.1 %

[F] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies above 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

Frequency Response of E-Field
(TEM-Cell:ifi110 EXX, Waveguide: R22)

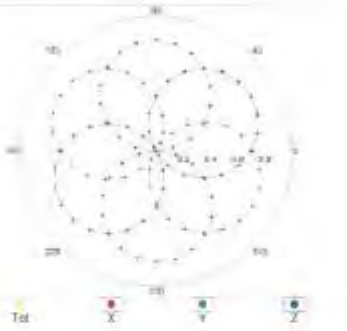


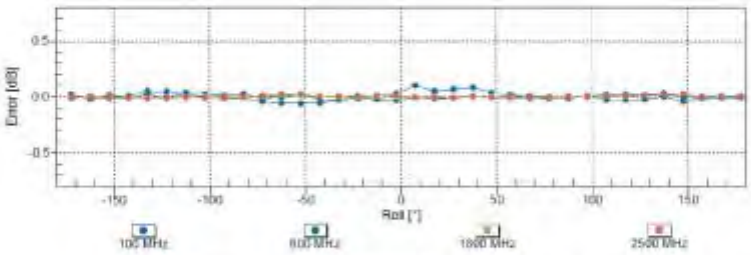
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM

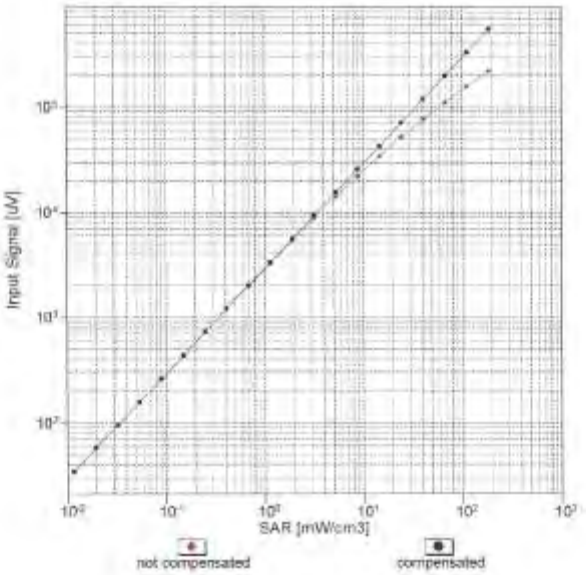
f=1800 MHz,R22

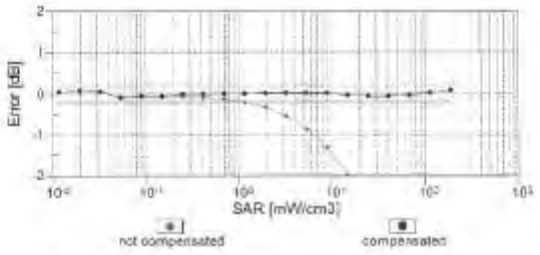




Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

Dynamic Range f(SAR$_{head}$)
(TEM cell , f_{eval}= 1900 MHz)

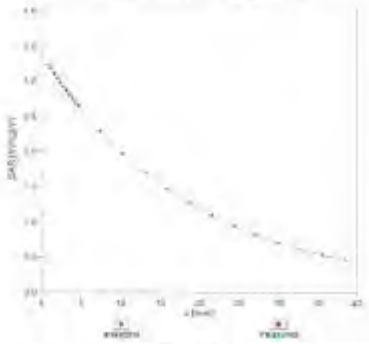




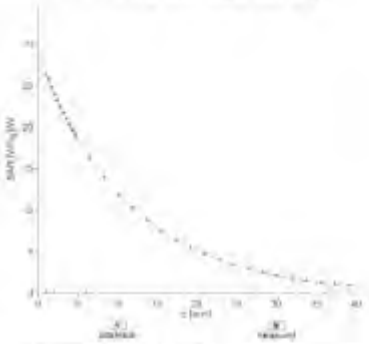
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

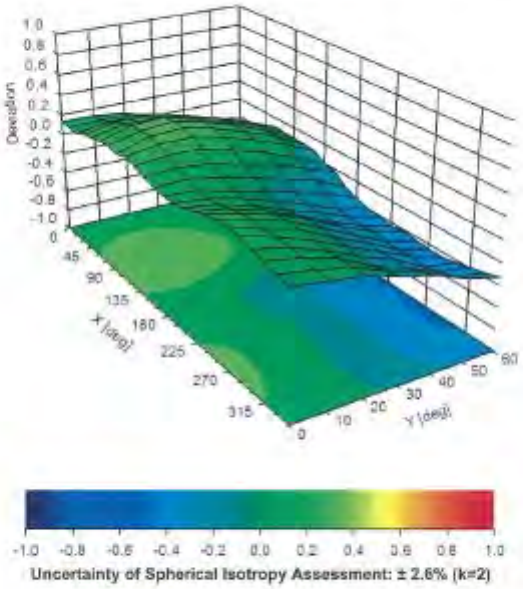


f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3770

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-32.4
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

8. Uncertainty Budget

Measurement Uncertainty evaluation template for DUT SAR test (3-6G)

A	c	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty	Probability	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration	6.55%	N	1	1	1	1	6.55%	6.55%	∞
Isotropy , Axial	3.50%	R	√3	1.732	1	1	2.02%	2.02%	∞
Isotropy, Hemispherical	9.60%	R	√3	1.732	1	1	5.54%	5.54%	∞
Modulation Response	2.40%	R	$\sqrt{3}$	1.732	1	1	1.40%	1.40%	∞
Boundary Effect	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	√3	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	√3	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	√3	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	√3	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions - reflections	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	√3	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom	2.90%	R	√3	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	√3	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	√3	1.732	1	1	2.31%	2.31%	∞
Liquid permittivity (mea.)	1.28%	N	1	1	0.64	0.43	0.82%	0.55%	M
Liquid Conductivity (mea.)	2.93%	N	1	1	0.6	0.49	1.76%	1.44%	M
Combined standard uncertainty		RSS					11.88%	11.81%	
Expant uncertainty (95% confidence							23.75%	23.61%	

Measurement Uncertainty evaluation template for DUT SAR test (0.3-3G)

A	c	D	e		f	g	h=c * f / e	i=c * g / e	k
Source of Uncertainty	Tolerance/ Uncertainty	Probability	Div	Div Value	ci (1g)	ci (10g)	Standard uncertainty	Standard uncertainty	vi, or Veff
Measurement system									
Probe calibration	6.00%	N	1	1	1	1	6.00%	6.00%	∞
Isotropy , Axial	3.50%	R	√3	1.732	1	1	2.02%	2.02%	∞
Isotropy, Hemispherical	9.60%	R	√3	1.732	1	1	5.54%	5.54%	∞
Modulation Response	2.40%	R	√3	1.732	1	1	1.40%	1.40%	∞
Boundary Effect	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Linearity	4.70%	R	√3	1.732	1	1	2.71%	2.71%	∞
Detection Limits	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Readout Electronics	0.30%	N	1	1	1	1	0.30%	0.30%	∞
Response time	0.80%	R	√3	1.732	1	1	0.46%	0.46%	∞
Integration Time	2.60%	R	√3	1.732	1	1	1.50%	1.50%	∞
Measurement drift (class A evaluation)	1.75%	R	√3	1.732	1	1	1.01%	1.01%	∞
RF ambient condition - noise	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
RF ambient conditions - reflections	3.00%	R	√3	1.732	1	1	1.73%	1.73%	∞
Probe positioner Mechanical restrictions	0.40%	R	√3	1.732	1	1	0.23%	0.23%	∞
Probe Positioning with respect to phantom	2.90%	R	√3	1.732	1	1	1.67%	1.67%	∞
Post-processing	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Max SAR Eval	1.00%	R	√3	1.732	1	1	0.58%	0.58%	∞
Test Sample related									
Test sample positioning	2.90%	N	1	1	1	1	2.90%	2.90%	M-1
Device Holder Uncertainty	3.60%	N	1	1	1	1	3.60%	3.60%	M-1
Drift of output power	5.00%	R	√3	1.732	1	1	2.89%	2.89%	∞
Phantom and Setup									
Phantom Uncertainty	4.00%	R	√3	1.732	1	1	2.31%	2.31%	∞
Liquid permittivity (mea.)	4.62%	N	1	1	0.64	0.43	2.96%	1.99%	M
Liquid Conductivity (mea.)	4.50%	N	1	1	0.6	0.49	2.70%	2.21%	M
Combined standard uncertainty		RSS					12.10%	11.79%	

9. System Validation from Original Equipment Supplier

Calibration Laboratory of
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Accreditation No.: SCS 0108

Client: SGS-TW (Auden)

Certificate No: D750V3-1015_Aug17

CALIBRATION CERTIFICATE

Object: D750V3 - SN: 1015

Calibration procedure(s): QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: August 21, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	in house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	in house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	in house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	in house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	in house check: Oct-17

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: August 21, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Certificate No: D750V3-1015_Aug17 Page 1 of 8

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Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.9	0.89 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.1 ± 6 %	0.90 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.09 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**8.25 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**5.35 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.5	0.96 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	55.5 ± 6 %	0.96 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.19 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**8.76 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.44 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**5.76 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	53.9 Ω + 0.3 jΩ
Return Loss	- 28.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	48.6 Ω - 3.4 jΩ
Return Loss	- 28.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.037 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	March 22, 2010

DASY5 Validation Report for Head TSL

Date: 18.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

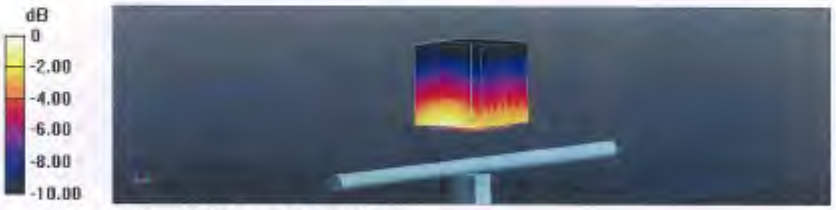
DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1015

Communication System: UID 0 - CW; Frequency: 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.9 S/m; ε_r = 41.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

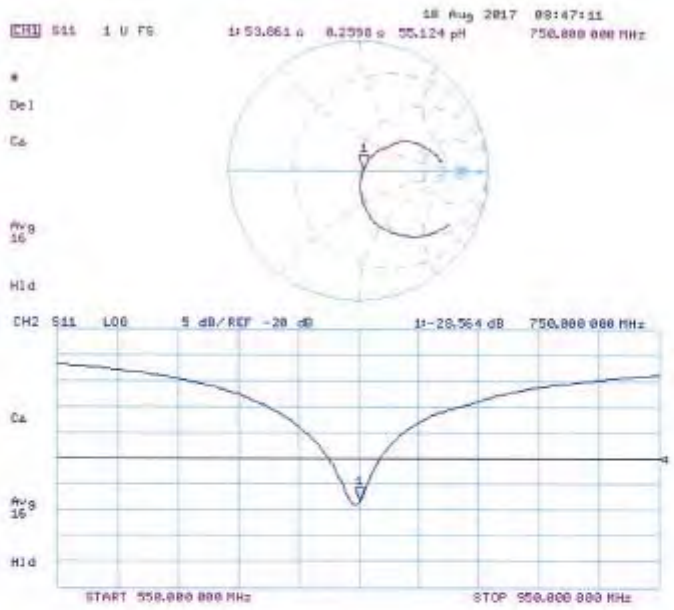
- Probe: EX3DV4 - SN7349; ConvF(10.49, 10.49, 10.49); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 4.9 (front); Type: QD 00L P49 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 58.52 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.21 W/kg
SAR(1 g) = 2.09 W/kg; SAR(10 g) = 1.35 W/kg
Maximum value of SAR (measured) = 2.82 W/kg



0 dB = 2.82 W/kg = 4.50 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 21.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

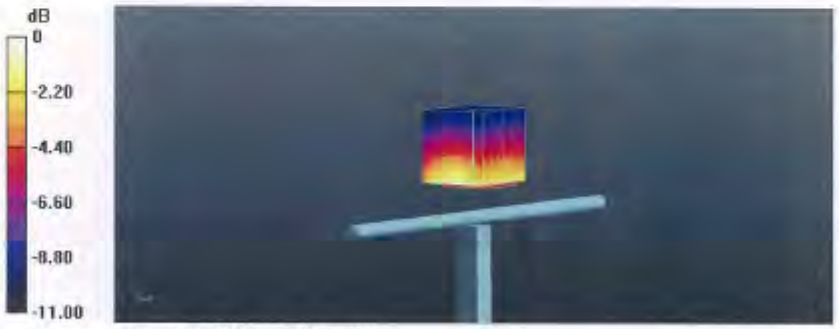
DUT: Dipole 750 MHz; Type: D750V3; Serial: D750V3 - SN:1015

Communication System: UID 0 - CW; Frequency: 750 MHz
Medium parameters used: f = 750 MHz; σ = 0.96 S/m; ε_r = 55.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

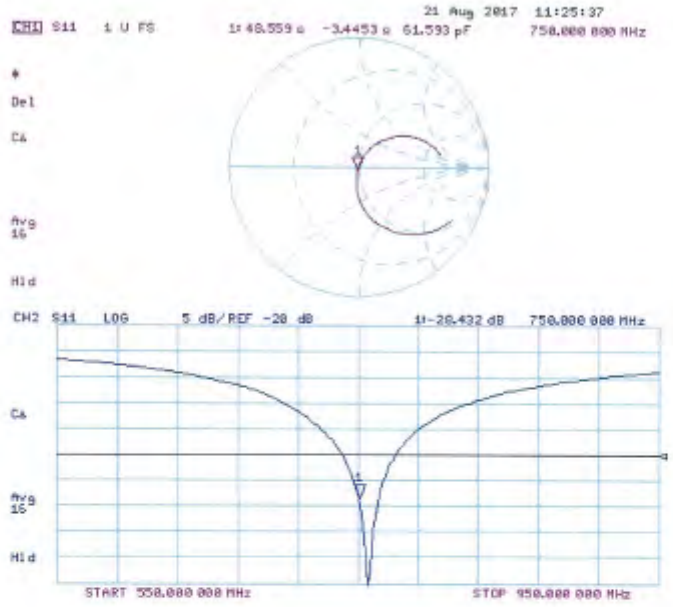
- Probe: EX3DV4 - SN7349; ConvF(10.35, 10.35, 10.35); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 4.9 (Back); Type: QD 00R P49 AA; Serial: 1005
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.77 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 3.27 W/kg
SAR(1 g) = 2.19 W/kg; SAR(10 g) = 1.44 W/kg
Maximum value of SAR (measured) = 2.89 W/kg



0 dB = 2.89 W/kg = 4.61 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client SGS-TW (Auden) Certificate No: D835V2-4d063_Aug17

CALIBRATION CERTIFICATE

Object	D835V2 - SN:4d063
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date	August 21, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility, environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02525)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by	Claudio Leubler	Laboratory Technician	
Approved by	Katja Pokovic	Technical Manager	

Issued: August 21, 2017

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	15 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	835 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	41.5	0.90 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	40.9 ± 6 %	0.93 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm^3 (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	2.40 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**9.34 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Head TSL	condition	
SAR measured	250 mW input power	1.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**6.07 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	55.2	0.97 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	55.3 ± 6 %	0.98 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL

SAR averaged over 1 cm^3 (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	2.41 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**9.57 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm^3 (10 g) of Body TSL	condition	
SAR measured	250 mW input power	1.58 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**6.28 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.1 Ω - 2.7 jΩ
Return Loss	- 30.6 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.2 Ω - 5.2 jΩ
Return Loss	- 24.4 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.367 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	November 27, 2006

DASY5 Validation Report for Head TSL

Date: 18.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

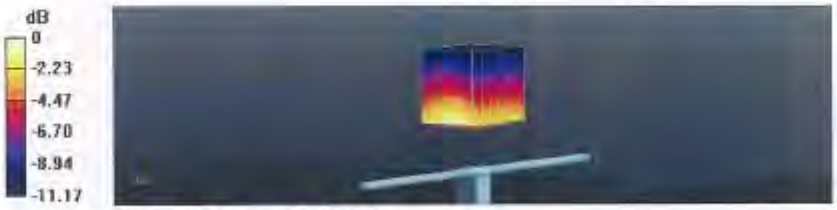
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.93 S/m; ε_r = 40.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

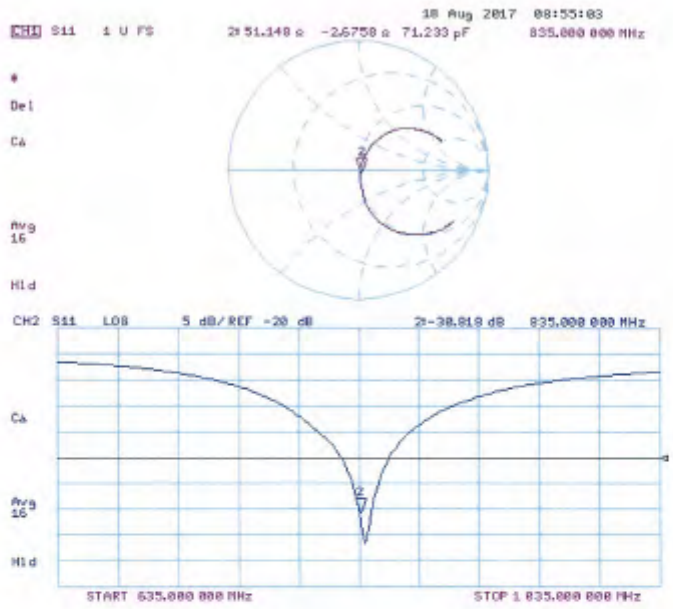
- Probe: EX3DV4 - SN7349; ConvF(10.07, 10.07, 10.07); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 4.9 (front); Type: QD 000 P49 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 61.74 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.71 W/kg
SAR(1 g) = 2.4 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 3.26 W/kg



0 dB = 3.26 W/kg = 5.13 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 21.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

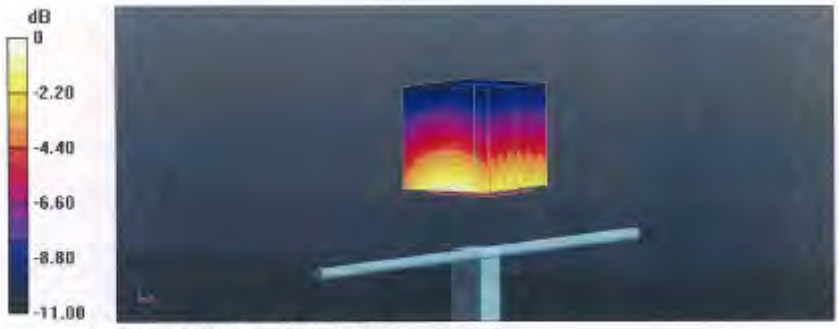
DUT: Dipole 835 MHz; Type: D835V2; Serial: D835V2 - SN:4d063

Communication System: UID 0 - CW; Frequency: 835 MHz
Medium parameters used: f = 835 MHz; σ = 0.98 S/m; ε_r = 55.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

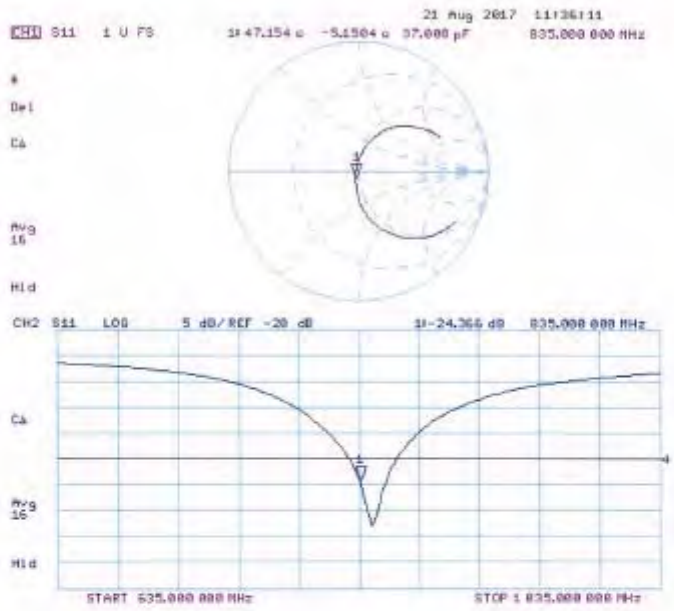
- Probe: EX3DV4 - SN7349; ConvF(10.2, 10.2, 10.2); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 4.9 (Back); Type: QD 00R P49 AA; Serial: 1005
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=15mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 59.86 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.64 W/kg
SAR(1 g) = 2.41 W/kg; SAR(10 g) = 1.58 W/kg
Maximum value of SAR (measured) = 3.20 W/kg



0 dB = 3.20 W/kg = 5.05 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client SGS-TW (Auden)

Certificate No: D1750V2-1008_Aug17

CALIBRATION CERTIFICATE

Object	D1750V2 - SN:1008
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date	August 21, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: August 21, 2017

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Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1750 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.1	1.37 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	39.1 ± 6 %	1.35 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	8.98 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**36.0 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	4.75 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**19.0 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.4	1.49 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	53.9 ± 6 %	1.47 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.09 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**36.7 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	4.87 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**19.6 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.9 Ω - 0.4 jΩ
Return Loss	- 46.7 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	46.3 Ω - 1.4 jΩ
Return Loss	- 27.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.221 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	February 11, 2009

DASY5 Validation Report for Head TSL

Date: 21.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

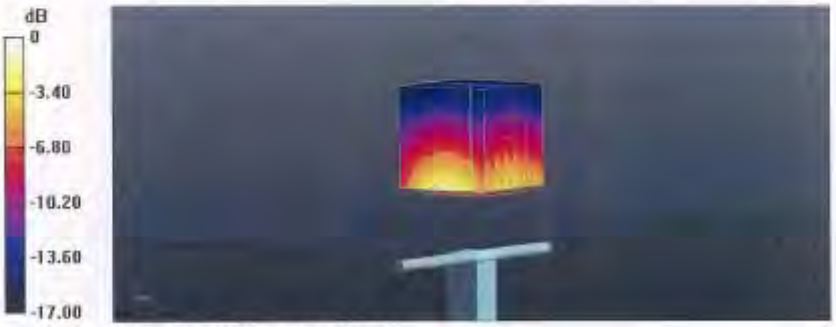
DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 1750 MHz
Medium parameters used: f = 1750 MHz; σ = 1.35 S/m; ε_r = 39.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

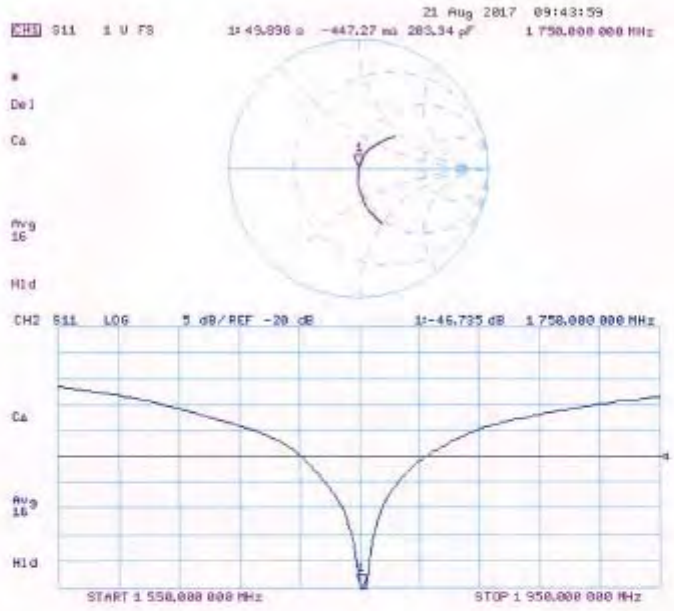
- Probe: EX3DV4 - SN7349; ConvF(8.73, 8.73, 8.73); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.0 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 16.8 W/kg
SAR(1 g) = 8.98 W/kg; SAR(10 g) = 4.75 W/kg
Maximum value of SAR (measured) = 13.7 W/kg



0 dB = 13.7 W/kg = 11.37 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 18.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

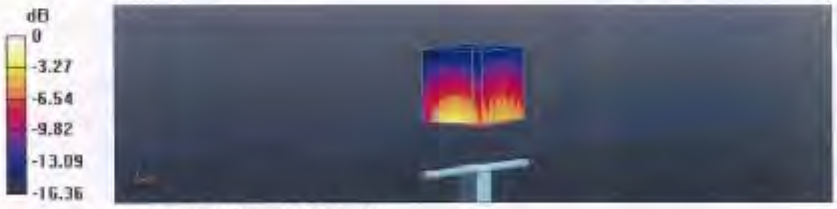
DUT: Dipole 1750 MHz; Type: D1750V2; Serial: D1750V2 - SN:1008

Communication System: UID 0 - CW; Frequency: 1750 MHz
Medium parameters used: f = 1750 MHz; σ = 1.47 S/m; ε_r = 53.9; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

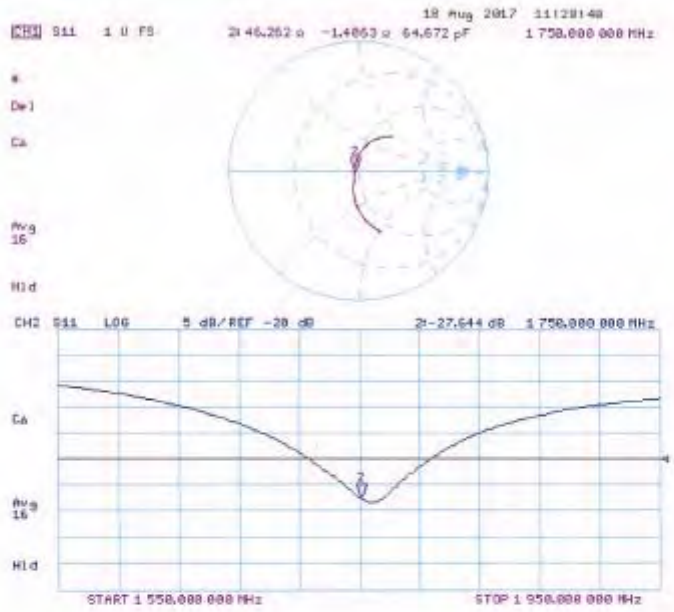
- Probe: EX3DV4 - SN7349; ConvF(8.46, 8.46, 8.46); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 99.85 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.09 W/kg; SAR(10 g) = 4.87 W/kg
Maximum value of SAR (measured) = 13.3 W/kg



0 dB = 13.3 W/kg = 11.24 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **SGS-TW (Auden)**

Certificate No: **D1900V2-5d173_May17**

CALIBRATION CERTIFICATE

Object	D1900V2 - SN:5d173
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date:	May 31, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7460	19-May-17 (No. EX3-7460_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: May 31, 2017

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Accreditation No.: SCS 0108

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	1900 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	40.0	1.40 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	41.3 ± 6 %	1.40 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	10.1 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**40.7 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.26 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**21.1 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	53.3	1.52 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	54.2 ± 6 %	1.51 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	9.96 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**40.2 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.30 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**21.3 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.3 Ω + 4.9 jΩ
Return Loss	- 26.1 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	47.5 Ω + 6.0 jΩ
Return Loss	- 23.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.199 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	June 06, 2012

DASY5 Validation Report for Head TSL

Date: 31.05.2017

Test Laboratory: SPEAG, Zurich, Switzerland

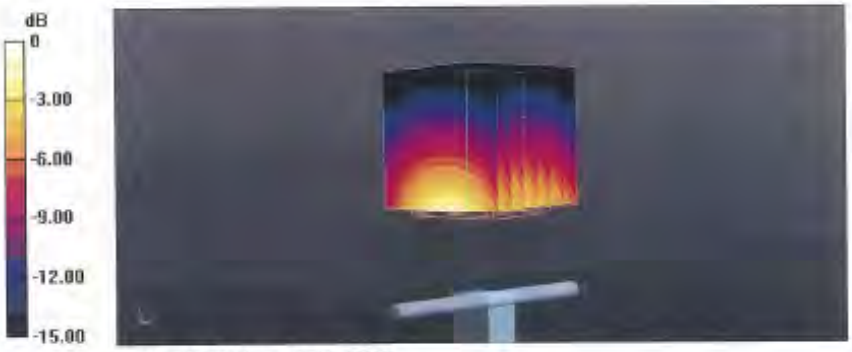
DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d173

Communication System: UID 0 - CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.4 S/m; ε_r = 41.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

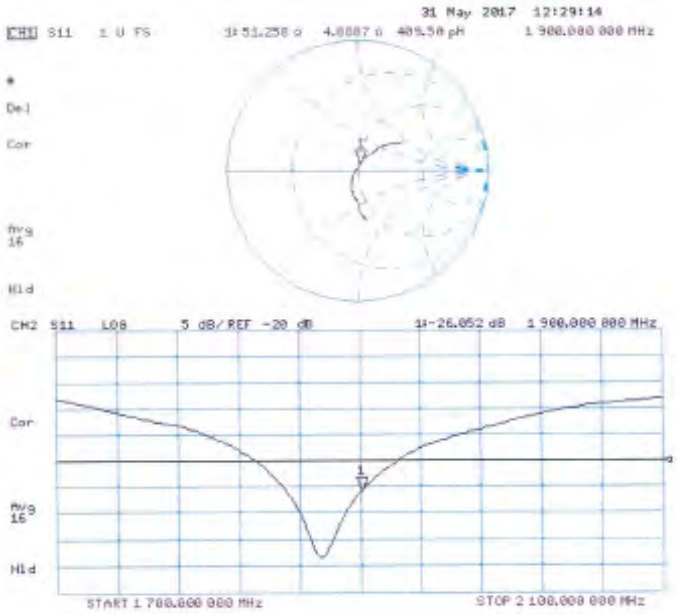
- Probe: EX3DV4 - SN7460; ConvF(7.98, 7.98, 7.98); Calibrated: 19.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 107.7 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 18.9 W/kg
SAR(1 g) = 10.1 W/kg; SAR(10 g) = 5.26 W/kg
Maximum value of SAR (measured) = 15.3 W/kg



0 dB = 15.3 W/kg = 11.85 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 31.05.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 1900 MHz; Type: D1900V2; Serial: D1900V2 - SN:5d173

Communication System: UID 0 - CW; Frequency: 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.51 S/m; ε_r = 54.2; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

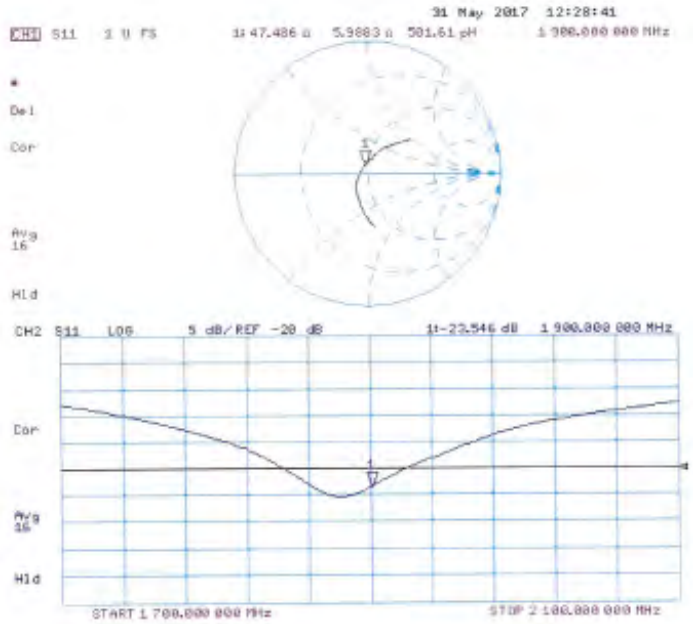
DASY52 Configuration:

- Probe: EX3DV4 - SN7460; ConvF(7.82, 7.82, 7.82); Calibrated: 19.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.9 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 17.5 W/kg
SAR(1 g) = 9.98 W/kg; SAR(10 g) = 5.3 W/kg
Maximum value of SAR (measured) = 14.3 W/kg

0 dB = 14.3 W/kg = 11.55 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client SGS-TW (Auden)

Certificate No: D2300V2-1023_Aug17

CALIBRATION CERTIFICATE

Object	D2300V2 - SN:1023
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date:	August 17, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 06327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-May-17 (No. EX3-7349_May17)	May-18
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: August 17, 2017

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Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2300 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39.5	1.67 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	38.3 ± 6 %	1.70 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	12.0 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**47.2 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	5.74 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**22.7 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Body TSL parameters	22.0 °C	52.9	1.81 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.3 ± 6 %	1.86 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	11.8 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**46.4 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	5.68 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**22.5 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	48.4 Ω - 3.1 jΩ
Return Loss	- 29.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	44.9 Ω - 2.2 jΩ
Return Loss	- 24.7 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.171 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	March 30, 2009

DASY5 Validation Report for Head TSL

Date: 17.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

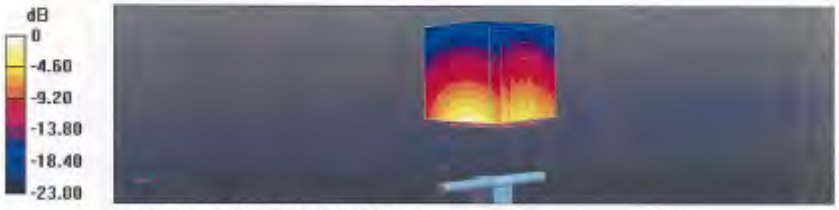
DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1023

Communication System: UID 0 - CW; Frequency: 2300 MHz
Medium parameters used: f = 2300 MHz; σ = 1.7 S/m; ε_r = 38.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

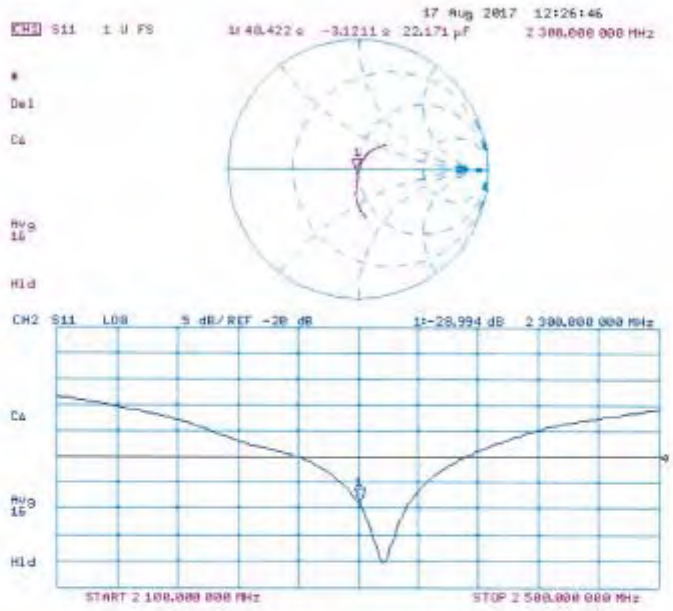
- Probe: EX3DV4 - SN7349; ConvF(8.31, 8.31, 8.31); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 109.5 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 23.6 W/kg
SAR(1 g) = 12 W/kg; SAR(10 g) = 5.74 W/kg
Maximum value of SAR (measured) = 18.5 W/kg



0 dB = 18.5 W/kg = 12.67 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 17.08.2017

Test Laboratory: SPEAG, Zurich, Switzerland

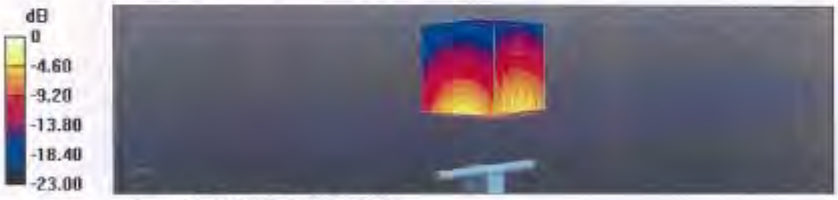
DUT: Dipole 2300 MHz; Type: D2300V2; Serial: D2300V2 - SN: 1023

Communication System: UID 0 - CW; Frequency: 2300 MHz
Medium parameters used: f = 2300 MHz; σ = 1.86 S/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

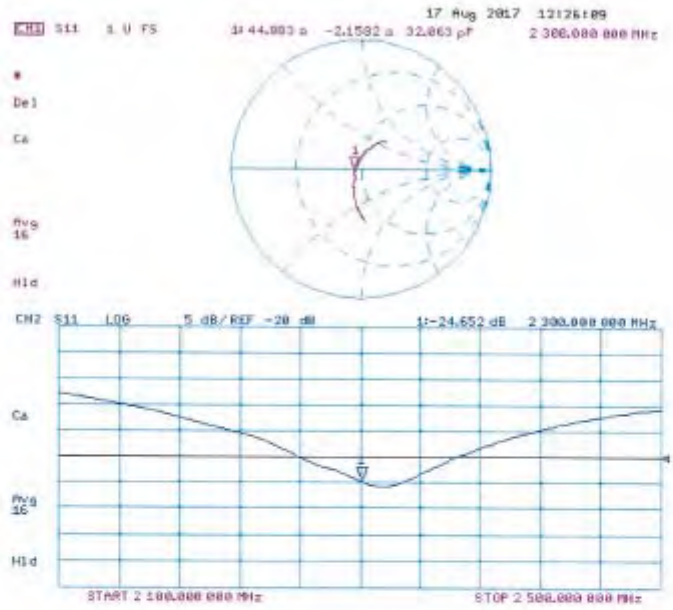
- Probe: EX3DV4 - SN7349; ConvF(8.22, 8.22, 8.22); Calibrated: 31.05.2017;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1446); SEMCAD X 14.6.10(7417)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.2 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 22.3 W/kg
SAR(1 g) = 11.8 W/kg; SAR(10 g) = 5.68 W/kg
Maximum value of SAR (measured) = 17.6 W/kg



0 dB = 17.6 W/kg = 12.46 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **SGS -TW (Auden)**

Certificate No: **D2450V2-727_Apr17**

CALIBRATION CERTIFICATE

Object	D2450V2 - SN: 727
Calibration procedure(s)	QA CAL-05.v9 Calibration procedure for dipole validation kits above 700 MHz
Calibration date	April 21, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-17 (No. 217-02521/02522)	Apr-18
Power sensor NRP-Z91	SN: 103244	04-Apr-17 (No. 217-02521)	Apr-18
Power sensor NRP-Z91	SN: 103245	04-Apr-17 (No. 217-02522)	Apr-18
Reference 20 dB Attenuator	SN: 5058 (20k)	07-Apr-17 (No. 217-02528)	Apr-18
Type-N mismatch combination	SN: 5047.2 / 03327	07-Apr-17 (No. 217-02529)	Apr-18
Reference Probe EX3DV4	SN: 7349	31-Dec-16 (No. EX3-7349_Dec16)	Dec-17
DAE4	SN: 601	28-Mar-17 (No. DAE4-601_Mar17)	Mar-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Michael Weber	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: April 21, 2017

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Accreditation No.: **SCS 0108**

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

e) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.10.0
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2450 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	39.2	1.80 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.7 ± 6 %	1.87 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	----	----

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	13.4 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**52.2 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.18 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**24.3 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Body TSL parameters	22.0 °C	52.7	1.95 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.5 ± 6 %	2.03 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	----	----

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	12.9 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**50.6 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.01 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**23.8 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	56.3 Ω + 2.1 jΩ
Return Loss	- 24.0 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	51.1 Ω + 4.1 jΩ
Return Loss	- 27.5 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.149 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	January 09, 2003

DASY5 Validation Report for Head TSL

Date: 21.04.2017

Test Laboratory: SPEAG, Zurich, Switzerland

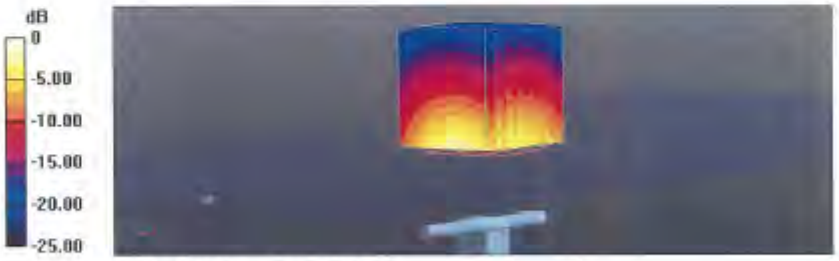
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 727

Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 1.87 S/m; ε_r = 37.7; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

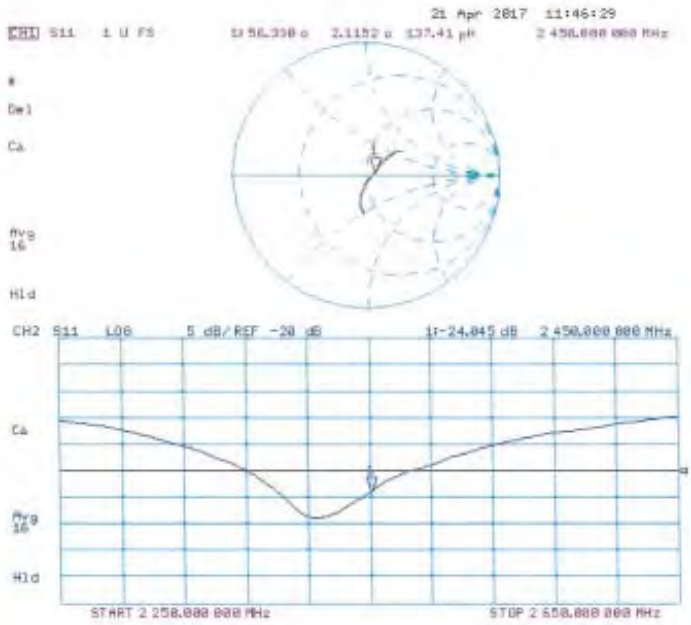
- Probe: EX3DV4 - SN7349; ConvF(7.72, 7.72, 7.72); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 109.8 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 27.3 W/kg
SAR(1 g) = 13.4 W/kg; SAR(10 g) = 6.18 W/kg
Maximum value of SAR (measured) = 21.1 W/kg



0 dB = 21.1 W/kg = 13.24 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 21.04.2017

Test Laboratory: SPEAG, Zurich, Switzerland

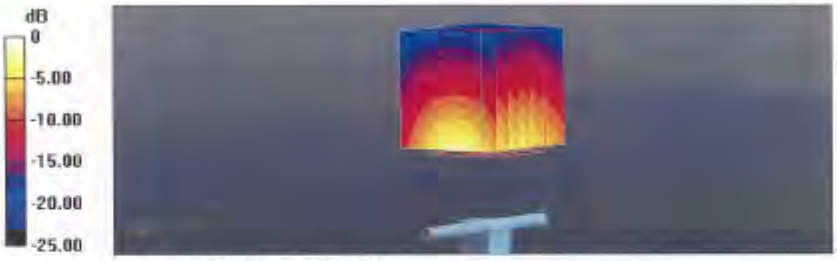
DUT: Dipole 2450 MHz; Type: D2450V2; Serial: D2450V2 - SN: 727

Communication System: UID 0 - CW; Frequency: 2450 MHz
Medium parameters used: f = 2450 MHz; σ = 2.03 S/m; ε_r = 52.5; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

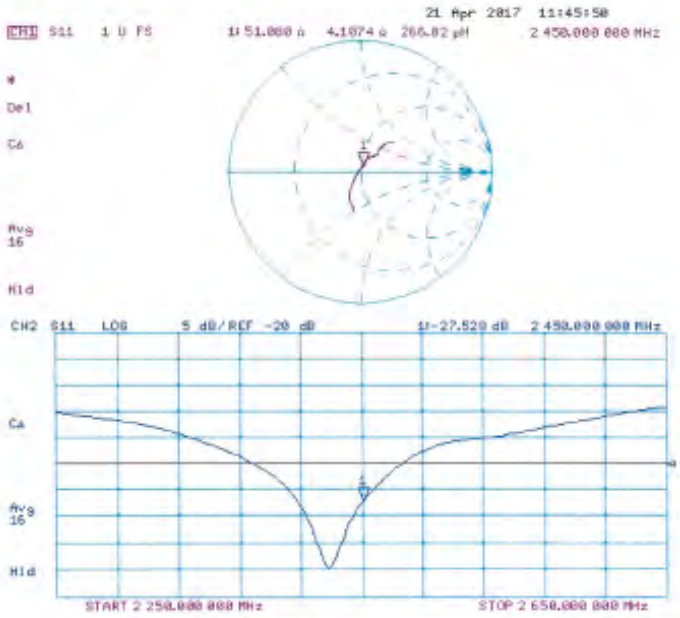
- Probe: EX3DV4 - SN7349; ConvF(7.79, 7.79, 7.79); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 28.03.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.10.0(1442); SEMCAD X 14.6.10(7413)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 105.0 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 25.4 W/kg
SAR(1 g) = 12.9 W/kg; SAR(10 g) = 6.01 W/kg
Maximum value of SAR (measured) = 20.0 W/kg



0 dB = 20.0 W/kg = 13.01 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: **SCS 0108**

Client **SGS-TW (Auden)** Certificate No: **D2600V2-1005_Jan17**

CALIBRATION CERTIFICATE

Object: D2600V2 - SN:1005

Calibration procedure(s): QA CAL-05.v9
Calibration procedure for dipole validation kits above 700 MHz

Calibration date: January 25, 2017

The calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: 5058 (20k)	05-Apr-16 (No. 217-02292)	Apr-17
Type-N mismatch combination	SN: 5047.2 / 06327	05-Apr-16 (No. 217-02295)	Apr-17
Reference Probe EX3DV4	SN: 7349	31-Dec-16 (No. EX3-7349_Dec16)	Dec-17
DAE4	SN: 601	04-Jan-17 (No. DAE4-601_Jan17)	Jan-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Johannes Kurikka	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 25, 2017

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, "Procedure to measure the Specific Absorption Rate (SAR) for hand-held devices used in close proximity to the ear (frequency range of 300 MHz to 3 GHz)", February 2005
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

a) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.8
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy, dz = 5 mm	
Frequency	2600 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	39.0	1.96 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	37.4 ± 6 %	2.05 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	---	---

SAR result with Head TSL

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	250 mW input power	14.3 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**55.5 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	250 mW input power	6.32 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**24.8 W/kg ± 16.5 % (k=2)**

Body TSL parameters

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	52.5	2.16 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	52.3 ± 6 %	2.20 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	---	---

SAR result with Body TSL

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	250 mW input power	13.9 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**55.1 W/kg ± 17.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	250 mW input power	6.20 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**24.7 W/kg ± 16.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	49.3 Ω - 4.7 jΩ
Return Loss	- 26.5 dB

Antenna Parameters with Body TSL

Impedance, transformed to feed point	44.7 Ω - 3.2 jΩ
Return Loss	- 23.7 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.154 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the 'Measurement Conditions' paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	December 23, 2006

DASY5 Validation Report for Head TSL

Date: 25.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1005

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.05 S/m; ε_r = 37.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

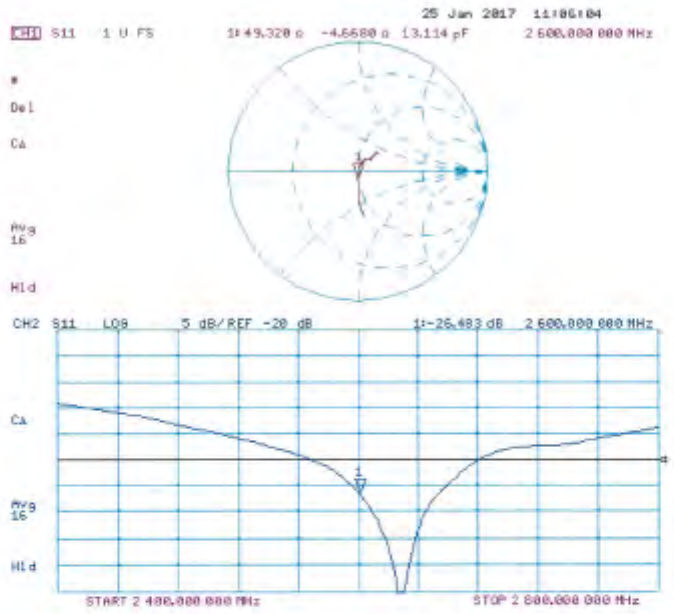
DASY52 Configuration:

- Probe: EX3DV4 - SN7349; ConvF(7.56, 7.56, 7.56); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Head Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 116.2 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 30.5 W/kg
SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.32 W/kg
Maximum value of SAR (measured) = 24.2 W/kg

0 dB = 25.2 W/kg = 13.84 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 18.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

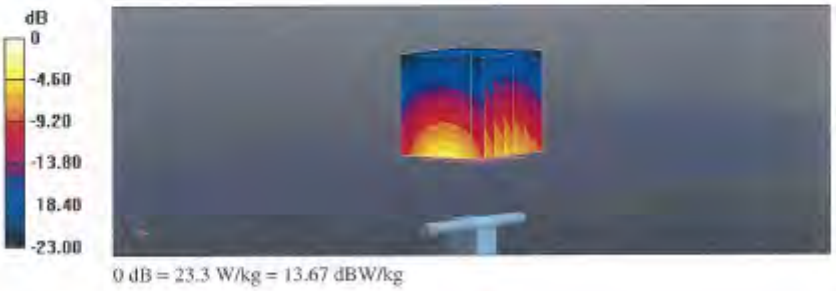
DUT: Dipole 2600 MHz; Type: D2600V2; Serial: D2600V2 - SN:1005

Communication System: UID 0 - CW; Frequency: 2600 MHz
Medium parameters used: f = 2600 MHz; σ = 2.2 S/m; ε_r = 52.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

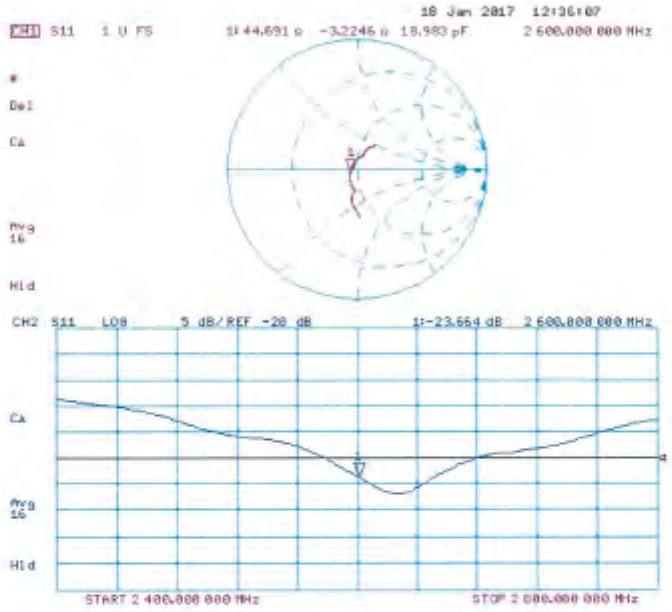
- Probe: EX3DV4 - SN7349; ConvF(7.48, 7.48, 7.48); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Body Tissue/Pin=250 mW, d=10mm/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 108.8 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 28.8 W/kg
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.2 W/kg
Maximum value of SAR (measured) = 23.3 W/kg



0 dB = 23.3 W/kg = 13.67 dBW/kg

Impedance Measurement Plot for Body TSL



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Accreditation No.: SCS 0108

Client SGS-TW (Auden)

Certificate No: D5GHzV2-1023_Jan17

CALIBRATION CERTIFICATE

Object	D5GHzV2 - SN:1023
Calibration procedure(s)	QA CAL-22.v2 Calibration procedure for dipole validation kits between 3-6 GHz
Calibration date:	January 20, 2017

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID #	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	06-Apr-16 (No. 217-02288/02289)	Apr-17
Power sensor NRP-Z91	SN: 103244	06-Apr-16 (No. 217-02288)	Apr-17
Power sensor NRP-Z91	SN: 103245	06-Apr-16 (No. 217-02289)	Apr-17
Reference 20 dB Attenuator	SN: 5058 (20k)	05-Apr-16 (No. 217-02292)	Apr-17
Type-N mismatch combination	SN: 5047.2 / 06327	05-Apr-16 (No. 217-02295)	Apr-17
Reference Probe EX3DV4	SN: 3503	31-Dec-16 (No. EX3-3503_Dec16)	Dec-17
DAE4	SN: 601	04-Jan-17 (No. DAE4-601_Jan17)	Jan-18

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter EPM-442A	SN: GB37480704	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: US37292783	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
Power sensor HP 8481A	SN: MY41092317	07-Oct-15 (in house check Oct-16)	In house check: Oct-18
RF generator R&S SMT-06	SN: 100972	15-Jun-15 (in house check Oct-16)	In house check: Oct-18
Network Analyzer HP 8753E	SN: US37390585	18-Oct-01 (in house check Oct-16)	In house check: Oct-17

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: January 24, 2017

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Glossary:

TSL	tissue simulating liquid
ConvF	sensitivity in TSL / NORM x,y,z
N/A	not applicable or not measured

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
c) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

d) DASY4/5 System Handbook

Methods Applied and Interpretation of Parameters:

- *Measurement Conditions:* Further details are available from the Validation Report at the end of the certificate. All figures stated in the certificate are valid at the frequency indicated.
- *Antenna Parameters with TSL:* The dipole is mounted with the spacer to position its feed point exactly below the center marking of the flat phantom section, with the arms oriented parallel to the body axis.
- *Feed Point Impedance and Return Loss:* These parameters are measured with the dipole positioned under the liquid filled phantom. The impedance stated is transformed from the measurement at the SMA connector to the feed point. The Return Loss ensures low reflected power. No uncertainty required.
- *Electrical Delay:* One-way delay between the SMA connector and the antenna feed point. No uncertainty required.
- *SAR measured:* SAR measured at the stated antenna input power.
- *SAR normalized:* SAR as measured, normalized to an input power of 1 W at the antenna connector.
- *SAR for nominal TSL parameters:* The measured TSL parameters are used to calculate the nominal SAR result.

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

Measurement Conditions

DASY system configuration, as far as not given on page 1.

DASY Version	DASY5	V52.8.8
Extrapolation	Advanced Extrapolation	
Phantom	Modular Flat Phantom V5.0	
Distance Dipole Center - TSL	10 mm	with Spacer
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	5200 MHz ± 1 MHz 5300 MHz ± 1 MHz 5600 MHz ± 1 MHz 5800 MHz ± 1 MHz	

Head TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	36.0	4.66 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.4 ± 6 %	4.45 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL at 5200 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.55 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**75.2 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.16 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**21.5 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5300 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.9	4.76 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	35.2 ± 6 %	4.55 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL at 5300 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**81.8 W / kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.35 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.3 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.5	5.07 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.7 ± 6 %	4.85 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	8.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**81.7 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.33 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**23.1 W/kg ± 19.5 % (k=2)**

Head TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Head TSL parameters	22.0 °C	35.3	5.27 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	34.4 ± 6 %	5.05 mho/m ± 6 %
Head TSL temperature change during test	< 0.5 °C	—	—

SAR result with Head TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Head TSL	Condition	
SAR measured	100 mW input power	7.82 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**77.6 W/kg ± 19.0 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	100 mW input power	2.22 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**22.0 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5200 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	49.0	5.30 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.5 ± 6 %	5.36 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL at 5200 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.32 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**72.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.05 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**20.3 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5300 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.9	5.42 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	47.3 ± 6 %	5.50 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL at 5300 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.66 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**76.1 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.15 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**21.3 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5600 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.5	5.77 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.6 ± 6 %	5.90 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL at 5600 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	8.02 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**79.6 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.26 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**22.4 W/kg ± 19.5 % (k=2)**

Body TSL parameters at 5800 MHz

The following parameters and calculations were applied.

	Temperature	Permittivity	Conductivity
Nominal Body TSL parameters	22.0 °C	48.2	6.00 mho/m
Measured Body TSL parameters	(22.0 ± 0.2) °C	46.3 ± 6 %	6.17 mho/m ± 6 %
Body TSL temperature change during test	< 0.5 °C	—	—

SAR result with Body TSL at 5800 MHz

SAR averaged over 1 cm³ (1 g) of Body TSL	Condition	
SAR measured	100 mW input power	7.64 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**75.9 W/kg ± 19.9 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Body TSL	condition	
SAR measured	100 mW input power	2.13 W/kg
SAR for nominal Body TSL parameters	normalized to 1W	**21.1 W/kg ± 19.5 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL at 5200 MHz

Impedance, transformed to feed point	49.6 Ω - 6.7 jΩ
Return Loss	- 23.4 dB

Antenna Parameters with Head TSL at 5300 MHz

Impedance, transformed to feed point	49.0 Ω - 1.8 jΩ
Return Loss	- 33.5 dB

Antenna Parameters with Head TSL at 5600 MHz

Impedance, transformed to feed point	54.1 Ω - 0.2 jΩ
Return Loss	- 28.2 dB

Antenna Parameters with Head TSL at 5800 MHz

Impedance, transformed to feed point	55.4 Ω + 2.8 jΩ
Return Loss	- 24.8 dB

Antenna Parameters with Body TSL at 5200 MHz

Impedance, transformed to feed point	48.9 Ω - 7.0 jΩ
Return Loss	- 22.9 dB

Antenna Parameters with Body TSL at 5300 MHz

Impedance, transformed to feed point	51.0 Ω - 1.0 jΩ
Return Loss	- 37.0 dB

Antenna Parameters with Body TSL at 5600 MHz

Impedance, transformed to feed point	55.6 Ω + 1.5 jΩ
Return Loss	- 25.2 dB

Antenna Parameters with Body TSL at 5800 MHz

Impedance, transformed to feed point	56.6 Ω + 2.7 jΩ
Return Loss	- 23.6 dB

General Antenna Parameters and Design

Electrical Delay (one direction)	1.199 ns

After long term use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.

The dipole is made of standard semirigid coaxial cable. The center conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals. On some of the dipoles, small end caps are added to the dipole arms in order to improve matching when loaded according to the position as explained in the "Measurement Conditions" paragraph. The SAR data are not affected by this change. The overall dipole length is still according to the Standard.
No excessive force must be applied to the dipole arms, because they might bend or the soldered connections near the feedpoint may be damaged.

Additional EUT Data

Manufactured by	SPEAG
Manufactured on	February 05, 2004

DASY5 Validation Report for Head TSL

Date: 20.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1023

Communication System: UID 0 - CW;
Frequency: 5200 MHz, Frequency: 5300 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz
Medium parameters used: f = 5200 MHz; σ = 4.45 S/m; ε_r = 35.4; ρ = 1000 kg/m^3,
Medium parameters used: f = 5300 MHz; σ = 4.55 S/m; ε_r = 35.2; ρ = 1000 kg/m^3,
Medium parameters used: f = 5600 MHz; σ = 4.85 S/m; ε_r = 34.7; ρ = 1000 kg/m^3,
Medium parameters used: f = 5800 MHz; σ = 5.05 S/m; ε_r = 34.4; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

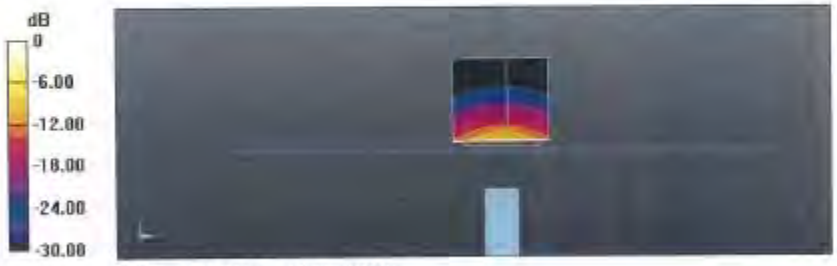
- Probe: EX3DV4 - SN3503; ConvF(5.76, 5.76, 5.76); Calibrated: 31.12.2016, ConvF(5.35, 5.35, 5.35); Calibrated: 31.12.2016, ConvF(5.09, 5.09, 5.09); Calibrated: 31.12.2016, ConvF(5.01, 5.01, 5.01); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (front); Type: QD 000 P50 AA; Serial: 1001
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 70.58 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 27.6 W/kg
SAR(1 g) = 7.55 W/kg; SAR(10 g) = 2.16 W/kg
Maximum value of SAR (measured) = 17.4 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 73.01 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.35 W/kg
Maximum value of SAR (measured) = 19.3 W/kg

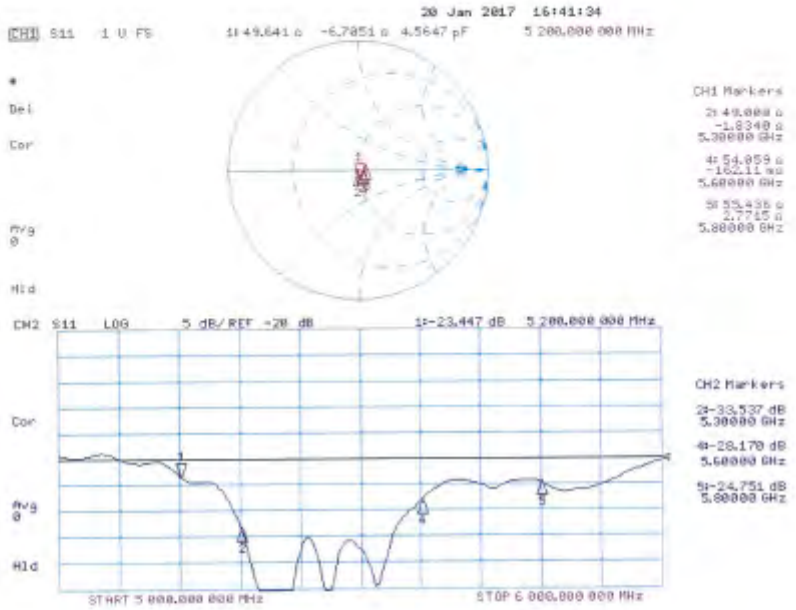
Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 71.94 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 33.2 W/kg
SAR(1 g) = 8.22 W/kg; SAR(10 g) = 2.33 W/kg
Maximum value of SAR (measured) = 19.8 W/kg

Dipole Calibration for Head Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 69.84 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 32.7 W/kg
SAR(1 g) = 7.82 W/kg; SAR(10 g) = 2.22 W/kg
Maximum value of SAR (measured) = 19.5 W/kg



0 dB = 17.4 W/kg = 12.41 dBW/kg

Impedance Measurement Plot for Head TSL



DASY5 Validation Report for Body TSL

Date: 19.01.2017

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole D5GHzV2; Type: D5GHzV2; Serial: D5GHzV2 - SN:1023

Communication System: UID 0 - CW;
Frequency: 5200 MHz, Frequency: 5300 MHz, Frequency: 5600 MHz, Frequency: 5800 MHz
Medium parameters used: f = 5200 MHz; σ = 5.36 S/m; ε_r = 47.5; ρ = 1000 kg/m^3;
Medium parameters used: f = 5300 MHz; σ = 5.5 S/m; ε_r = 47.3; ρ = 1000 kg/m^3;
Medium parameters used: f = 5600 MHz; σ = 5.9 S/m; ε_r = 46.6; ρ = 1000 kg/m^3;
Medium parameters used: f = 5800 MHz; σ = 6.17 S/m; ε_r = 46.3; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2011)

DASY52 Configuration:

- Probe: EX3DV4 - SN3503; ConvF(5.29, 5.29, 5.29); Calibrated: 31.12.2016, ConvF(5.04, 5.04, 5.04); Calibrated: 31.12.2016, ConvF(4.57, 4.57, 4.57); Calibrated: 31.12.2016, ConvF(4.48, 4.48, 4.48); Calibrated: 31.12.2016;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn601; Calibrated: 04.01.2017
- Phantom: Flat Phantom 5.0 (back); Type: QD 000 P50 AA; Serial: 1002
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7372)

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5200 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.54 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 28.1 W/kg
SAR(1 g) = 7.32 W/kg; SAR(10 g) = 2.05 W/kg
Maximum value of SAR (measured) = 16.6 W/kg

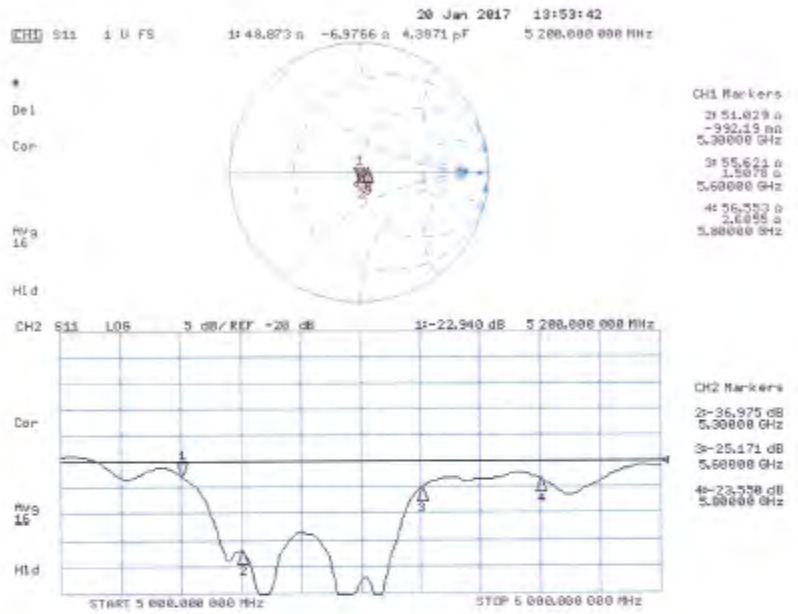
Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5300 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 66.93 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 30.1 W/kg
SAR(1 g) = 7.66 W/kg; SAR(10 g) = 2.15 W/kg
Maximum value of SAR (measured) = 17.6 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5600 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 67.09 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 33.7 W/kg
SAR(1 g) = 8.02 W/kg; SAR(10 g) = 2.26 W/kg
Maximum value of SAR (measured) = 18.9 W/kg

Dipole Calibration for Body Tissue/Pin=100mW, dist=10mm, f=5800 MHz/Zoom Scan, dist=1.4mm (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 65.14 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 34.0 W/kg
SAR(1 g) = 7.64 W/kg; SAR(10 g) = 2.13 W/kg
Maximum value of SAR (measured) = 18.3 W/kg

0 dB = 16.6 W/kg = 12.20 dBW/kg

Impedance Measurement Plot for Body TSL



- End of 1st part of report -