Testing and Certification

TEST REPORT

SAR Test for certification of ACJ9TGRI23C

APPLICANT
Panasonic Corporation of North America.

REPORT NO.
HCT-SR-2406-FC003-R3

DATE OF ISSUE
Aug. 05 2024

Tested by Hae sun Park	(signature)	
Technical Manager Yun Jeang, Heo	(signature)	

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TEST REPORT

RFID SAR Test for certification

REPORT NO.
HCT-SR-2406-FC003-R3

DATE OF ISSUE
Aug. 05 2024

FCC ID
ACJ9TGRI23C

Applicant	Panasonic Corporation of North America Two Riverfront Plaza, 9th Floor, Newark, NJ 07102-5490, USA
Product Name	HF-RFID module
Model Name	RI23C
Host Model Name	CF-33
Date of Test	Apr. 29, 2024 ~ Jun. 17, 2024
Location of Test	■ Permanent Testing Lab ☐ On Site Testing Lab (Address: 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA)
FCC Rule Part(s)	CFR §2.1093
Test Results	PASS (SAR Limit: 1.6 W/kg)
	This device has been performed SAR testing in accordance with FCC KDB 447498 D01 General RF Exposure Guidance v06.

REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	Jul. 03 2024	Initial Release
1	Jul. 31 2024	Revised Page 7,8, Section 8
2	Aug. 02 2024	Revised Page 7, Section 8
3	Aug. 05 2024	Revised Section 8

Notice

Content
The results shown in this test report only apply to the sample(s), as received, provided by the applicant, unless otherwise stated. The test results have only been applied with the test methods required by the standard(s). The laboratory is not accredited for the test results marked *. Information provided by the applicant is marked **. Test results provided by external providers are marked ***. When confirmation of authenticity of this test report is required, please contact www.hct.co.kr The test results in this test report are not associated with the ((KS Q) ISO/IEC 17025) accreditation by KOLAS (Korea Laboratory Accreditation Scheme) / A2LA (American Association for Laboratory Accreditation) that are under the ILAC (International Laboratory Accreditation Cooperation) Mutual Recognition Agreement (MRA).

CONTENTS

1. Test Regulations

The tests documented in this report were performed in accordance with FCC CFR § 2.1093, IEEE 1528-2013, ANSI C63.26-2015 the following FCC Published RF exposure KDB procedures:

- FCC KDB Publication 447498 D01 General RF Exposure Guidance v06
- FCC KDB Publication 616217 D04 SAR Tablets v01r02
- FCC KDB Publication 690783 D01 SAR Listings on Grants v01r03
- FCC KDB Publication 865664 D02 SAR Reporting v01r02

2. Test Location

2.1 Test Laboratory

Company Name	HCT Co., Ltd.
Address	74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, 17383 KOREA
Telephone	031-645-6300
Fax.	031-645-6401

2.2 Test Facilities

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

Korea	National Radio Research Agency (Designation No. KR0032)
	KOLAS (Testing No. KT197)

3. Information of the EUT

3.1 General Information of the EUT

Model Name	RI23C
Host Model Name	CF-33
Equipment Type	HF-RFID module
FCC ID	ACJ9TGRI23C
Application Type	Certification
Applicant	Panasonic Corporation of North America

3.2 Attestation of test result of device under test

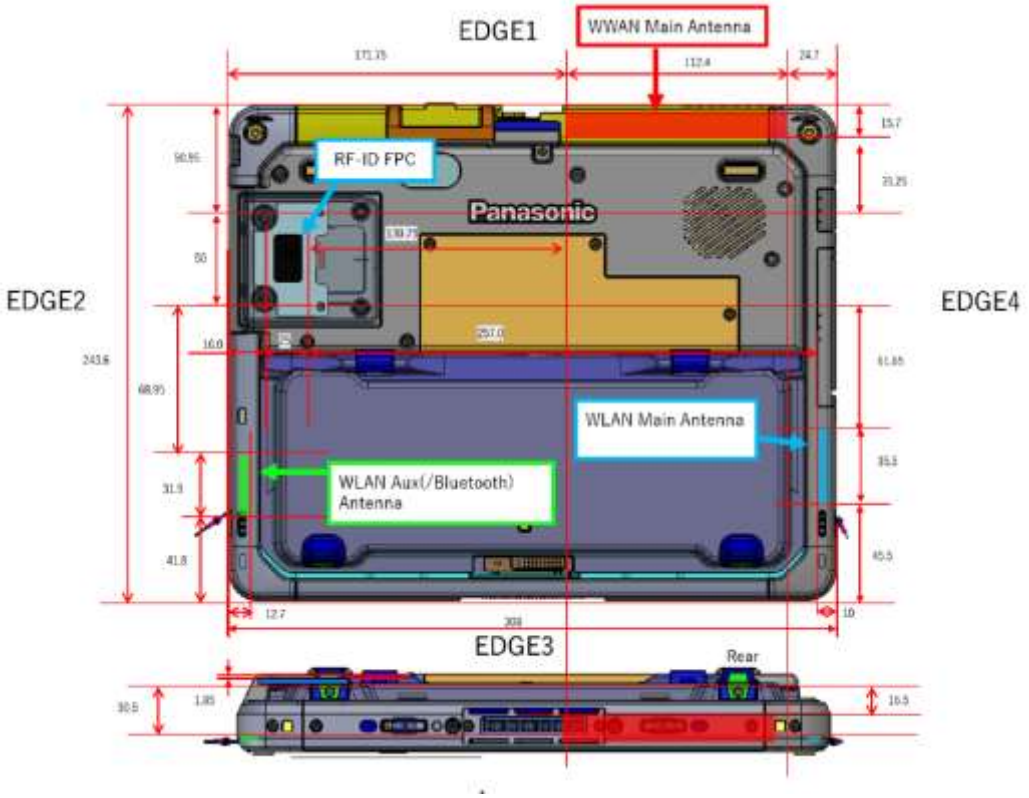
The Highest Reported SAR			
Band	Tx. Frequency	Equipment Class	Reported SAR (W/kg)
			1 g Body
RFID	13.56 ㎒	DXX	0.04
Simultaneous SAR per KDB 690783 D01v01r03			**1.59**
Date(s) of Tests:	Apr. 29, 2024 ~ Jun. 17, 2024		

4. Device Under Test Description

4.1 DUT specification

Device Wireless specification overview	
Band & Mode	Tx Frequency
RFID	13.56 ㎒
Device Serial Numbers	Serial Number
	S0P-24-00229

4.2 DUT Antenna Locations



Mode	Device Configurations for Testing							
	Rear	Front	Edge 4	Edge 2	Edge 1	Edge 3	Edge 2 Tilt	Edge 4 Tilt
RFID	Yes	No	Yes	Yes	Yes	No	Yes	Yes

5. Limits

RF Exposure Limits for Frequencies Below 6 GHz

HUMAN EXPOSURE	UNCONTROLLED ENVIRONMENT General Population (W/kg)	CONTROLLED ENVIRONMENT Occupational (W/kg)
SPATIAL PEAK SAR * (Partial Body)	1.6	8.0
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.4
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.0	20.0

NOTES:

* The Spatial Peak value of the SAR averaged over any 1 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

** The Spatial Average value of the SAR averaged over the whole-body.

*** The Spatial Peak value of the SAR averaged over any 10 g of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

6. System Verification

6.1 Tissue Verification

The head simulating material is calibrated by HCT using the DAKS 3.5 to determine the conductivity and permittivity.

Table for Head Tissue Verification									
Date of Tests	Tissue Temp. (°C)	Tissue Type	Freq. (㎒)	Measured Conductivity σ (S/m)	Measured Dielectric Constant, ε	Target Conductivity σ (S/m)	Target Dielectric Constant, ε	% dev σ	% dev ε
06/14/2024	22.3	13H	12	0.744	54.334	0.75	55	-0.80	-1.21
			13	0.724	54.346	0.75	55	-3.47	-1.19
			14	0.756	54.308	0.75	55	0.80	-1.26

The characteristics of the 13 ㎒ tissue were applied with reference to the calibration report of SPEAG's current loop antenna in the 13 ㎒ frequency band.

6.2 System Verification

Input Power: 50 ㎽

Freq.	Date	Probe	Dipole	Liquid	Amb. Temp.	Liquid Temp.	1 W Target SAR_{1g} (SPEAG)	50mW Measured SAR_{1g}	1 W Normalized SAR_{1g}	Deviation	Limit
[㎒]		(S/N)	(S/N)		[°C]	[°C]	[W/kg]	[W/kg]	[W/kg]	[%]	[%]
3 900	06/14/2024	3076	1016	Head	22.4	22.3	0.553	0.029	0.58	4.88	± 10

7. SAR Test Data Summary

7.1 Body SAR Measurement Results

RFID Body SAR							
Frequency		Mode	Power Drift	Test Position	Distance	Meas. SAR	Plot No.
MHz	Ch.		(dB)		(mm)	(W/kg)	
13.56	13600	Type A	-0.13	Rear	0	0.033	-
13.56	13600	Type B	0.15	Rear	0	0.033	-
13.56	13600	Felica	0.00	Rear	0	0.034	-
13.56	13600	ISO 15693	0.00	Rear	0	0.037	B1
13.56	13600	ISO 15693	0.00	Edge 4	0	0	-
13.56	13600	ISO 15693	0.00	Edge 2	0	0	-
13.56	13600	ISO 15693	0.00	Edge 1	0	0	-
13.56	13600	ISO 15693	0.00	Rear Tilt	0	0	-
13.56	13600	ISO 15693	0.00	Edge 4 Tilt	0	0	-
13.56	13600	ISO 15693	0.00	Edge 2 Tilt	0	0	-
ANSI/ IEEE C95.1 - 2005– Safety Limit Spatial Peak Uncontrolled Exposure/ General Population				Body 1.6 W/kg Averaged over 1 gram			

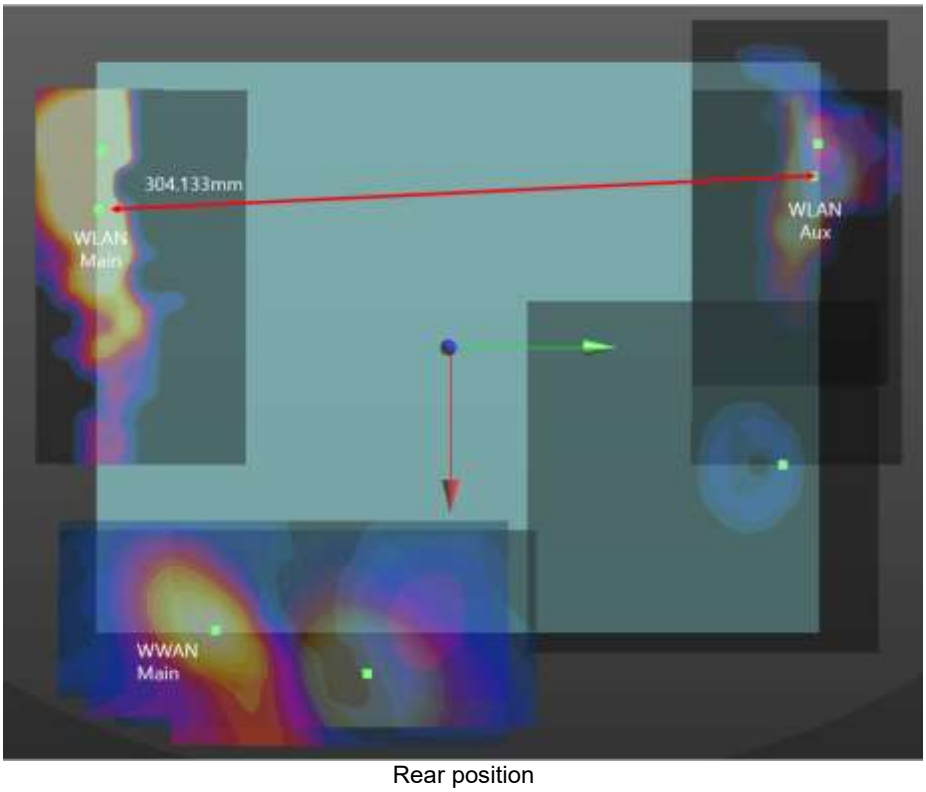
8. Simultaneous Transmission Summation.

The highest reported SAR for each exposure condition is used for SAR summation purpose.

The highest reported SAR for each exposure condition is used for SAR summation purpose. The WLAN/BT SAR testing results were used to perform transmission simultaneous analysis from SAR Test Report[HCT-SR-2206-FC004-R1],Module model: WL22B with FCC: ACJ9TGWL22B.

The WWAN testing results and SPLSR evaluation were used to perform transmission simultaneous analysis from SAR Test Report[HCT-SR-2406-FC004-R1],Module model: WW23D, with FCC: ACJ9TGWW23D

Per KDB Publication 248227 D01 802.11 Wi-Fi SAR v02r02, WLAN Main and WLAN Aux antennas are spatially separated, not considered for simultaneous transmission summation.



Rear position

Band	Configuration	Main	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	Main + RFID + 2.4GHz MIMO	Main + RFID + 2.4GHz Main + BT	SPLSR
		1	2	3	4	5	6	1+2+6	1+2+3+4	
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
UMTS Band 2	Rear	0.068	0.037	0.085	0.174	0.201	0.375	0.480	0.364	No
	Rear Tilt	0.498	0.000					0.873	0.757	No
	Edge 4	0.462	0.000	0.000	1.095	0.000	1.095	1.557	1.557	No
	Edge 2	0.058	0.000	0.269	0.002	1.084	1.086	1.144	0.329	No
	Edge 1	0.568	0.000	0.000	0.013	0.017	0.030	0.598	0.581	No
	Edge 4 Tilt	0.129	0.000	0.000	1.317	0.007	1.324	1.453	1.446	No
	Edge 2 Tilt	0.070	0.000	0.292	0.007	1.133	1.140	1.210	0.369	No
UMTS Band 4	Rear	0.184	0.037	0.085	0.174	0.201	0.375	0.596	0.480	No
	Rear Tilt	0.364	0.000					0.739	0.623	No
	Edge 4	0.259	0.000	0.000	1.095	0.000	1.095	1.354	1.354	No
	Edge 2	0.021	0.000	0.269	0.002	1.084	1.086	1.107	0.292	No
	Edge 1	0.659	0.000	0.000	0.013	0.017	0.030	0.689	0.672	No
	Edge 4 Tilt	0.115	0.000	0.000	1.317	0.007	1.324	1.439	1.432	No
	Edge 2 Tilt	0.059	0.000	0.292	0.007	1.133	1.140	1.199	0.358	No
UMTS Band 5	Rear	0.119	0.037	0.085	0.174	0.201	0.375	0.531	0.415	No
	Rear Tilt	0.329	0.000					0.704	0.588	No
	Edge 4	0.250	0.000	0.000	1.095	0.000	1.095	1.345	1.345	No
	Edge 2	0.148	0.000	0.269	0.002	1.084	1.086	1.234	0.419	No
	Edge 1	0.550	0.000	0.000	0.013	0.017	0.030	0.580	0.563	No
	Edge 4 Tilt	0.062	0.000	0.000	1.317	0.007	1.324	1.386	1.379	No
	Edge 2 Tilt	0.086	0.000	0.292	0.007	1.133	1.140	1.226	0.385	No

Band	Configuration	Main	RFID	Bluetooth	5GHz MIMO	WI-FI 6E MIMO	Main + RFID + 5GHz MIMO	Main + RFID + 6E MIMO	Main + RFID + 5GHz MIMO + BT	Main + RFID + 6E MIMO + BT	SPLSR
		1	2	3	4	5	1+2+4	1+2+5	1+2+3+4	1+2+3+5	
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
UMTS Band 2	Rear	0.068	0.037	0.085	0.640	0.182	0.745	0.287	0.830	0.372	No
	Rear Tilt	0.498	0.000				1.138	0.680	1.223	0.765	No
	Edge 4	0.462	0.000	0.000	0.827	0.431	1.289	0.893	1.289	0.893	No
	Edge 2	0.058	0.000	0.269	0.971	0.447	1.029	0.505	1.298	0.774	No
	Edge 1	0.568	0.000	0.000	0.077	0.008	0.645	0.576	0.645	0.576	No
	Edge 4 Tilt	0.129	0.000	0.000	1.089	0.627	1.218	0.756	1.218	0.756	No
	Edge 2 Tilt	0.070	0.000	0.292	1.197	0.647	1.267	0.717	1.559	1.009	No
UMTS Band 4	Rear	0.184	0.037	0.085	0.640	0.182	0.861	0.403	0.946	0.488	No
	Rear Tilt	0.364	0.000				1.004	0.546	1.089	0.631	No
	Edge 4	0.259	0.000	0.000	0.827	0.431	1.086	0.690	1.086	0.690	No
	Edge 2	0.021	0.000	0.269	0.971	0.447	0.992	0.468	1.261	0.737	No
	Edge 1	0.659	0.000	0.000	0.077	0.008	0.736	0.667	0.736	0.667	No
	Edge 4 Tilt	0.115	0.000	0.000	1.089	0.627	1.204	0.742	1.204	0.742	No
	Edge 2 Tilt	0.059	0.000	0.292	1.197	0.647	1.256	0.706	1.548	0.998	No
UMTS Band 5	Rear	0.119	0.037	0.085	0.640	0.182	0.796	0.338	0.881	0.423	No
	Rear Tilt	0.329	0.000				0.969	0.511	1.054	0.596	No
	Edge 4	0.250	0.000	0.000	0.827	0.431	1.077	0.681	1.077	0.681	No
	Edge 2	0.148	0.000	0.269	0.971	0.447	1.119	0.595	1.388	0.864	No
	Edge 1	0.550	0.000	0.000	0.077	0.008	0.627	0.558	0.627	0.558	No
	Edge 4 Tilt	0.062	0.000	0.000	1.089	0.627	1.151	0.689	1.151	0.689	No
	Edge 2 Tilt	0.086	0.000	0.292	1.197	0.647	1.283	0.733	1.575	1.025	No

Band	Configuration	Main	RFID	Bluetooth	2.4GHz Main	2.4GHz Main	2.4GHz MIMO	Main + 2.4GHz MIMO	Main + 2.4GHz Main + BT	SPLSR
		1	2	3	4	5	6	1+2+6	1+2+3+4	
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
LTE Band 7	Rear	0.250	0.037	0.085	0.174	0.201	0.375	0.662	0.546	No
	Rear Tilt	0.581	0.000					0.956	0.840	No
	Edge 4	0.245	0.000	0.000	1.095	0.000	1.095	1.340	1.340	No
	Edge 2	0.056	0.000	0.269	0.002	1.084	1.086	1.142	0.327	No
	Edge 1	0.496	0.000	0.000	0.013	0.017	0.030	0.526	0.509	No
	Edge 4 Tilt	0.029	0.000	0.000	1.317	0.007	1.324	1.353	1.346	No
	Edge 2 Tilt	0.058	0.000	0.292	0.007	1.133	1.140	1.198	0.357	No
LTE Band 12	Rear	0.093	0.037	0.085	0.174	0.201	0.375	0.505	0.389	No
	Rear Tilt	0.320	0.000					0.695	0.579	No
	Edge 4	0.094	0.000	0.000	1.095	0.000	1.095	1.189	1.189	No
	Edge 2	0.026	0.000	0.269	0.002	1.084	1.086	1.112	0.297	No
	Edge 1	0.521	0.000	0.000	0.013	0.017	0.030	0.551	0.534	No
	Edge 4 Tilt	0.063	0.000	0.000	1.317	0.007	1.324	1.387	1.380	No
	Edge 2 Tilt	0.043	0.000	0.292	0.007	1.133	1.140	1.183	0.342	No
LTE Band 13	Rear	0.111	0.037	0.085	0.174	0.201	0.375	0.523	0.407	No
	Rear Tilt	0.422	0.000					0.797	0.681	No
	Edge 4	0.229	0.000	0.000	1.095	0.000	1.095	1.324	1.324	No
	Edge 2	0.037	0.000	0.269	0.002	1.084	1.086	1.123	0.308	No
	Edge 1	0.590	0.000	0.000	0.013	0.017	0.030	0.620	0.603	No
	Edge 4 Tilt	0.119	0.000	0.000	1.317	0.007	1.324	1.443	1.436	No
	Edge 2 Tilt	0.088	0.000	0.292	0.007	1.133	1.140	1.228	0.387	No
LTE Band 14	Rear	0.116	0.037	0.085	0.174	0.201	0.375	0.528	0.412	No
	Rear Tilt	0.428	0.000					0.803	0.687	No
	Edge 4	0.258	0.000	0.000	1.095	0.000	1.095	1.353	1.353	No
	Edge 2	0.055	0.000	0.269	0.002	1.084	1.086	1.141	0.326	No
	Edge 1	0.626	0.000	0.000	0.013	0.017	0.030	0.656	0.639	No
	Edge 4 Tilt	0.128	0.000	0.000	1.317	0.007	1.324	1.452	1.445	No
	Edge 2 Tilt	0.084	0.000	0.292	0.007	1.133	1.140	1.224	0.383	No
LTE Band 25	Rear	0.084	0.037	0.085	0.174	0.201	0.375	0.496	0.380	No
	Rear Tilt	0.507	0.000					0.882	0.766	No
	Edge 4	0.496	0.000	0.000	1.095	0.000	1.095	1.591	1.591	No
	Edge 2	0.056	0.000	0.269	0.002	1.084	1.086	1.142	0.327	No
	Edge 1	0.633	0.000	0.000	0.013	0.017	0.030	0.663	0.646	No
	Edge 4 Tilt	0.135	0.000	0.000	1.317	0.007	1.324	1.459	1.452	No
	Edge 2 Tilt	0.040	0.000	0.292	0.007	1.133	1.140	1.180	0.339	No
LTE Band 26	Rear	0.105	0.037	0.085	0.174	0.201	0.375	0.517	0.401	No
	Rear Tilt	0.419	0.000					0.794	0.678	No
	Edge 4	0.295	0.000	0.000	1.095	0.000	1.095	1.390	1.390	No
	Edge 2	0.074	0.000	0.269	0.002	1.084	1.086	1.160	0.345	No
	Edge 1	0.707	0.000	0.000	0.013	0.017	0.030	0.737	0.720	No
	Edge 4 Tilt	0.107	0.000	0.000	1.317	0.007	1.324	1.431	1.424	No
	Edge 2 Tilt	0.125	0.000	0.292	0.007	1.133	1.140	1.265	0.424	No
LTE Band 38	Rear	0.153	0.037	0.085	0.174	0.201	0.375	0.565	0.449	No
	Rear Tilt	0.583	0.000					0.958	0.842	No
	Edge 4	0.093	0.000	0.000	1.095	0.000	1.095	1.188	1.188	No
	Edge 2	0.026	0.000	0.269	0.002	1.084	1.086	1.112	0.297	No
	Edge 1	0.732	0.000	0.000	0.013	0.017	0.030	0.762	0.745	No
	Edge 4 Tilt	0.026	0.000	0.000	1.317	0.007	1.324	1.350	1.343	No
	Edge 2 Tilt	0.016	0.000	0.292	0.007	1.133	1.140	1.156	0.315	No

Band	Configuration	Main	RFID	Bluetooth	2.4GHz Main	2.4GHz Main	2.4GHz MIMO	Main + 2.4GHz MIMO	Main + 2.4GHz Main + BT	SPLSR
		1	2	3	4	5	6	1+2+6	1+2+3+4	
		(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
LTE Band 41	Rear	0.195	0.037	0.085	0.174	0.201	0.375	0.607	0.491	No
	Rear Tilt	0.689	0.000					1.064	0.948	No
	Edge 4	0.119	0.000	0.000	1.095	0.000	1.095	1.214	1.214	No
	Edge 2	0.030	0.000	0.269	0.002	1.084	1.086	1.116	0.301	No
	Edge 1	0.702	0.000	0.000	0.013	0.017	0.030	0.732	0.715	No
	Edge 4 Tilt	0.018	0.000	0.000	1.317	0.007	1.324	1.342	1.335	No
	Edge 2 Tilt	0.021	0.000	0.292	0.007	1.133	1.140	1.161	0.320	No
LTE Band 42	Rear	0.008	0.037	0.085	0.174	0.201	0.375	0.420	0.304	No
	Rear Tilt	0.091	0.000					0.466	0.350	No
	Edge 4	0.020	0.000	0.000	1.095	0.000	1.095	1.115	1.115	No
	Edge 2	0.000	0.000	0.269	0.002	1.084	1.086	1.086	0.271	No
	Edge 1	0.284	0.000	0.000	0.013	0.017	0.030	0.314	0.297	No
	Edge 4 Tilt	0.001	0.000	0.000	1.317	0.007	1.324	1.325	1.318	No
	Edge 2 Tilt	0.000	0.000	0.292	0.007	1.133	1.140	1.140	0.299	No
LTE Band 48	Rear	0.007	0.037	0.085	0.174	0.201	0.375	0.419	0.303	No
	Rear Tilt	0.066	0.000					0.441	0.325	No
	Edge 4	0.021	0.000	0.000	1.095	0.000	1.095	1.116	1.116	No
	Edge 2	0.000	0.000	0.269	0.002	1.084	1.086	1.086	0.271	No
	Edge 1	0.239	0.000	0.000	0.013	0.017	0.030	0.269	0.252	No
	Edge 4 Tilt	0.004	0.000	0.000	1.317	0.007	1.324	1.328	1.321	No
	Edge 2 Tilt	0.000	0.000	0.292	0.007	1.133	1.140	1.140	0.299	No
LTE Band 66	Rear	0.146	0.037	0.085	0.174	0.201	0.375	0.558	0.442	No
	Rear Tilt	0.433	0.000					0.808	0.692	No
	Edge 4	0.327	0.000	0.000	1.095	0.000	1.095	1.422	1.422	No
	Edge 2	0.011	0.000	0.269	0.002	1.084	1.086	1.097	0.282	No
	Edge 1	0.698	0.000	0.000	0.013	0.017	0.030	0.728	0.711	No
	Edge 4 Tilt	0.158	0.000	0.000	1.317	0.007	1.324	1.482	1.475	No
	Edge 2 Tilt	0.022	0.000	0.292	0.007	1.133	1.140	1.162	0.321	No

LTE	LTE	Configuration	LTE	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	LTE +RFID+ 2.4GHz MIMO	LTE + 2.4GHz Main + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
LTE Band 2/25	LTE Band 5/26	Rear	0.084	0.105	0.037	0.085	0.174	0.201	0.375	0.601	0.485	No
		Rear Tilt	0.507	0.419	0.000					1.301	1.185	No
		Edge 4	0.496	0.295	0.000	0.000	1.095	0.000	1.095	1.886	1.886	Yes
		Edge 2	0.056	0.074	0.000	0.269	0.002	1.084	1.086	1.216	0.401	No
		Edge 1	0.633	0.707	0.000	0.000	0.013	0.017	0.030	1.370	1.353	No
		Edge 4 Tilt	0.135	0.107	0.000	0.000	1.317	0.007	1.324	1.566	1.559	No
		Edge 2 Tilt	0.040	0.125	0.000	0.292	0.007	1.133	1.140	1.305	0.464	No
	LTE Band 12	Rear	0.084	0.093	0.037	0.085	0.174	0.201	0.375	0.589	0.473	No
		Rear Tilt	0.507	0.320	0.000					1.202	1.086	No
		Edge 4	0.496	0.094	0.000	0.000	1.095	0.000	1.095	1.685	1.685	Yes
		Edge 2	0.056	0.026	0.000	0.269	0.002	1.084	1.086	1.168	0.353	No
		Edge 1	0.633	0.521	0.000	0.000	0.013	0.017	0.030	1.184	1.167	No
		Edge 4 Tilt	0.135	0.063	0.000	0.000	1.317	0.007	1.324	1.522	1.515	No
		Edge 2 Tilt	0.040	0.043	0.000	0.292	0.007	1.133	1.140	1.223	0.382	No
	LTE Band 13	Rear	0.084	0.111	0.037	0.085	0.174	0.201	0.375	0.607	0.491	No
		Rear Tilt	0.507	0.422	0.000					1.304	1.188	No
		Edge 4	0.496	0.229	0.000	0.000	1.095	0.000	1.095	1.82	1.82	Yes
		Edge 2	0.056	0.037	0.000	0.269	0.002	1.084	1.086	1.179	0.364	No
		Edge 1	0.633	0.590	0.000	0.000	0.013	0.017	0.030	1.253	1.236	No
		Edge 4 Tilt	0.135	0.119	0.000	0.000	1.317	0.007	1.324	1.578	1.571	No
		Edge 2 Tilt	0.040	0.088	0.000	0.292	0.007	1.133	1.140	1.268	0.427	No
LTE Band 4/66	LTE Band 5/26	Rear	0.146	0.105	0.037	0.085	0.174	0.201	0.375	0.663	0.547	No
		Rear Tilt	0.433	0.419	0.000					1.227	1.111	No
		Edge 4	0.327	0.295	0.000	0.000	1.095	0.000	1.095	1.717	1.717	Yes
		Edge 2	0.011	0.074	0.000	0.269	0.002	1.084	1.086	1.171	0.356	No
		Edge 1	0.698	0.707	0.000	0.000	0.013	0.017	0.030	1.435	1.418	No
		Edge 4 Tilt	0.158	0.107	0.000	0.000	1.317	0.007	1.324	1.589	1.582	No
		Edge 2 Tilt	0.022	0.125	0.000	0.292	0.007	1.133	1.140	1.287	0.446	No
	LTE Band 12	Rear	0.146	0.093	0.037	0.085	0.174	0.201	0.375	0.651	0.535	No
		Rear Tilt	0.433	0.320	0.000					1.128	1.012	No
		Edge 4	0.327	0.094	0.000	0.000	1.095	0.000	1.095	1.516	1.516	No
		Edge 2	0.011	0.026	0.000	0.269	0.002	1.084	1.086	1.123	0.308	No
		Edge 1	0.698	0.521	0.000	0.000	0.013	0.017	0.030	1.249	1.232	No
		Edge 4 Tilt	0.158	0.063	0.000	0.000	1.317	0.007	1.324	1.545	1.538	No
		Edge 2 Tilt	0.022	0.043	0.000	0.292	0.007	1.133	1.140	1.205	0.364	No
	LTE Band 13	Rear	0.146	0.111	0.037	0.085	0.174	0.201	0.375	0.669	0.553	No
		Rear Tilt	0.433	0.422	0.000					1.230	1.114	No
		Edge 4	0.327	0.229	0.000	0.000	1.095	0.000	1.095	1.651	1.651	Yes
		Edge 2	0.011	0.037	0.000	0.269	0.002	1.084	1.086	1.134	0.319	No
		Edge 1	0.698	0.590	0.000	0.000	0.013	0.017	0.030	1.318	1.301	No
		Edge 4 Tilt	0.158	0.119	0.000	0.000	1.317	0.007	1.324	1.601	1.594	Yes
		Edge 2 Tilt	0.022	0.088	0.000	0.292	0.007	1.133	1.140	1.250	0.409	No

LTE	LTE	Configuration	LTE	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	LTE +RFID+ 2.4GHz MIMO	LTE + 2.4GHz Main + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
LTE Band 5	LTE Band 7	Rear	0.105	0.250	0.037	0.085	0.174	0.201	0.375	0.767	0.651	No
		Rear Tilt	0.419	0.581	0.000					1.375	1.259	No
		Edge 4	0.295	0.245	0.000	0.000	1.095	0.000	1.095	1.635	1.635	Yes
		Edge 2	0.074	0.056	0.000	0.269	0.002	1.084	1.086	1.216	0.401	No
		Edge 1	0.707	0.496	0.000	0.000	0.013	0.017	0.030	1.233	1.216	No
		Edge 4 Tilt	0.107	0.029	0.000	0.000	1.317	0.007	1.324	1.460	1.453	No
		Edge 2 Tilt	0.125	0.058	0.000	0.292	0.007	1.133	1.140	1.323	0.482	No
LTE Band 41	LTE Band 42	Rear	0.195	0.008	0.037	0.085	0.174	0.201	0.375	0.615	0.499	No
		Rear Tilt	0.689	0.091	0.000					1.155	1.039	No
		Edge 4	0.119	0.020	0.000	0.000	1.095	0.000	1.095	1.234	1.234	No
		Edge 2	0.030	0.000	0.000	0.269	0.002	1.084	1.086	1.116	0.301	No
		Edge 1	0.702	0.284	0.000	0.000	0.013	0.017	0.030	1.016	0.999	No
		Edge 4 Tilt	0.018	0.001	0.000	0.000	1.317	0.007	1.324	1.343	1.336	No
		Edge 2 Tilt	0.021	0.000	0.000	0.292	0.007	1.133	1.140	1.161	0.320	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	NR + LTE + RFID + 2.4GHz MIMO	NR + LTE + RFID + 2.4GHz Ant1 + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
NR Band n2	LTE Band 5/26	Rear	0.203	0.105	0.037	0.085	0.174	0.201	0.375	0.720	0.604	No
		Rear Tilt	0.207	0.419	0.000					1.001	0.885	No
		Edge 4	0.671	0.295	0.000	0.000	1.095	0.000	1.095	2.061	2.061	Yes
		Edge 2	0.053	0.074	0.000	0.269	0.002	1.084	1.086	1.213	0.398	No
		Edge 1	0.230	0.707	0.000	0.000	0.013	0.017	0.030	0.967	0.950	No
		Edge 4 Tilt	0.056	0.107	0.000	0.000	1.317	0.007	1.324	1.487	1.480	No
		Edge 2 Tilt	0.029	0.125	0.000	0.292	0.007	1.133	1.140	1.294	0.453	No
	LTE Band 12	Rear	0.203	0.093	0.037	0.085	0.174	0.201	0.375	0.708	0.592	No
		Rear Tilt	0.207	0.320	0.000					0.902	0.786	No
		Edge 4	0.671	0.094	0.000	0.000	1.095	0.000	1.095	1.860	1.860	Yes
		Edge 2	0.053	0.026	0.000	0.269	0.002	1.084	1.086	1.165	0.350	No
		Edge 1	0.230	0.521	0.000	0.000	0.013	0.017	0.030	0.781	0.764	No
		Edge 4 Tilt	0.056	0.063	0.000	0.000	1.317	0.007	1.324	1.443	1.436	No
		Edge 2 Tilt	0.029	0.043	0.000	0.292	0.007	1.133	1.140	1.212	0.371	No
	LTE Band 13	Rear	0.203	0.111	0.037	0.085	0.174	0.201	0.375	0.726	0.610	No
		Rear Tilt	0.207	0.422	0.000					1.004	0.888	No
		Edge 4	0.671	0.229	0.000	0.000	1.095	0.000	1.095	1.995	1.995	Yes
		Edge 2	0.053	0.037	0.000	0.269	0.002	1.084	1.086	1.176	0.361	No
		Edge 1	0.230	0.590	0.000	0.000	0.013	0.017	0.030	0.850	0.833	No
		Edge 4 Tilt	0.056	0.119	0.000	0.000	1.317	0.007	1.324	1.499	1.492	No
		Edge 2 Tilt	0.029	0.088	0.000	0.292	0.007	1.133	1.140	1.257	0.416	No
	LTE Band 14	Rear	0.203	0.116	0.037	0.085	0.174	0.201	0.375	0.731	0.615	No
		Rear Tilt	0.207	0.428	0.000					1.010	0.894	No
		Edge 4	0.671	0.258	0.000	0.000	1.095	0.000	1.095	2.024	2.024	Yes
		Edge 2	0.053	0.055	0.000	0.269	0.002	1.084	1.086	1.194	0.379	No
		Edge 1	0.230	0.626	0.000	0.000	0.013	0.017	0.030	0.886	0.869	No
		Edge 4 Tilt	0.056	0.128	0.000	0.000	1.317	0.007	1.324	1.508	1.501	No
		Edge 2 Tilt	0.029	0.084	0.000	0.292	0.007	1.133	1.140	1.253	0.412	No
	LTE Band 48	Rear	0.203	0.007	0.037	0.085	0.174	0.201	0.375	0.622	0.506	No
		Rear Tilt	0.207	0.066	0.000					0.648	0.532	No
		Edge 4	0.671	0.021	0.000	0.000	1.095	0.000	1.095	1.787	1.787	Yes
		Edge 2	0.053	0.000	0.000	0.269	0.002	1.084	1.086	1.139	0.324	No
		Edge 1	0.230	0.239	0.000	0.000	0.013	0.017	0.030	0.499	0.482	No
		Edge 4 Tilt	0.056	0.004	0.000	0.000	1.317	0.007	1.324	1.384	1.377	No
		Edge 2 Tilt	0.029	0.000	0.000	0.292	0.007	1.133	1.140	1.169	0.328	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	NR + LTE + RFID + 2.4GHz MIMO	NR + LTE + RFID + 2.4GHz Ant1 + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
NR Band n5	LTE Band 2/25	Rear	0.165	0.084	0.037	0.085	0.174	0.201	0.375	0.661	0.545	No
		Rear Tilt	0.177	0.507	0.000					1.059	0.943	No
		Edge 4	0.323	0.496	0.000	0.000	1.095	0.000	1.095	1.914	1.914	Yes
		Edge 2	0.095	0.056	0.000	0.269	0.002	1.084	1.086	1.237	0.422	No
		Edge 1	0.267	0.633	0.000	0.000	0.013	0.017	0.030	0.930	0.913	No
		Edge 4 Tilt	0.030	0.135	0.000	0.000	1.317	0.007	1.324	1.489	1.482	No
		Edge 2 Tilt	0.152	0.040	0.000	0.292	0.007	1.133	1.140	1.332	0.491	No
	LTE Band 7	Rear	0.165	0.250	0.037	0.085	0.174	0.201	0.375	0.827	0.711	No
		Rear Tilt	0.177	0.581	0.000					1.133	1.017	No
		Edge 4	0.323	0.245	0.000	0.000	1.095	0.000	1.095	1.663	1.663	Yes
		Edge 2	0.095	0.056	0.000	0.269	0.002	1.084	1.086	1.237	0.422	No
		Edge 1	0.267	0.496	0.000	0.000	0.013	0.017	0.030	0.793	0.776	No
		Edge 4 Tilt	0.030	0.029	0.000	0.000	1.317	0.007	1.324	1.383	1.376	No
		Edge 2 Tilt	0.152	0.058	0.000	0.292	0.007	1.133	1.140	1.350	0.509	No
	LTE Band 66	Rear	0.165	0.146	0.037	0.085	0.174	0.201	0.375	0.723	0.607	No
		Rear Tilt	0.177	0.433	0.000					0.985	0.869	No
		Edge 4	0.323	0.327	0.000	0.000	1.095	0.000	1.095	1.745	1.745	Yes
		Edge 2	0.095	0.011	0.000	0.269	0.002	1.084	1.086	1.192	0.377	No
		Edge 1	0.267	0.698	0.000	0.000	0.013	0.017	0.030	0.995	0.978	No
		Edge 4 Tilt	0.030	0.158	0.000	0.000	1.317	0.007	1.324	1.512	1.505	No
		Edge 2 Tilt	0.152	0.022	0.000	0.292	0.007	1.133	1.140	1.314	0.473	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	NR + LTE + RFID + 2.4GHz MIMO	NR + LTE + RFID + 2.4GHz Ant1 + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
NR Band n66	LTE Band 5/26	Rear	0.226	0.105	0.037	0.085	0.174	0.201	0.375	0.743	0.627	No
		Rear Tilt	0.144	0.419	0.000					0.938	0.822	No
		Edge 4	0.430	0.295	0.000	0.000	1.095	0.000	1.095	1.820	1.820	Yes
		Edge 2	0.008	0.074	0.000	0.269	0.002	1.084	1.086	1.168	0.353	No
		Edge 1	0.297	0.707	0.000	0.000	0.013	0.017	0.030	1.034	1.017	No
		Edge 4 Tilt	0.050	0.107	0.000	0.000	1.317	0.007	1.324	1.481	1.474	No
		Edge 2 Tilt	0.033	0.125	0.000	0.292	0.007	1.133	1.140	1.298	0.457	No
	LTE Band 12	Rear	0.226	0.093	0.037	0.085	0.174	0.201	0.375	0.731	0.615	No
		Rear Tilt	0.144	0.320	0.000					0.839	0.723	No
		Edge 4	0.430	0.094	0.000	0.000	1.095	0.000	1.095	1.619	1.619	Yes
		Edge 2	0.008	0.026	0.000	0.269	0.002	1.084	1.086	1.120	0.305	No
		Edge 1	0.297	0.521	0.000	0.000	0.013	0.017	0.030	0.848	0.831	No
		Edge 4 Tilt	0.050	0.063	0.000	0.000	1.317	0.007	1.324	1.437	1.430	No
		Edge 2 Tilt	0.033	0.043	0.000	0.292	0.007	1.133	1.140	1.216	0.375	No
	LTE Band 13	Rear	0.226	0.111	0.037	0.085	0.174	0.201	0.375	0.749	0.633	No
		Rear Tilt	0.144	0.422	0.000					0.941	0.825	No
		Edge 4	0.430	0.229	0.000	0.000	1.095	0.000	1.095	1.754	1.754	Yes
		Edge 2	0.008	0.037	0.000	0.269	0.002	1.084	1.086	1.131	0.316	No
		Edge 1	0.297	0.590	0.000	0.000	0.013	0.017	0.030	0.917	0.900	No
		Edge 4 Tilt	0.050	0.119	0.000	0.000	1.317	0.007	1.324	1.493	1.486	No
		Edge 2 Tilt	0.033	0.088	0.000	0.292	0.007	1.133	1.140	1.261	0.420	No
	LTE Band 14	Rear	0.226	0.116	0.037	0.085	0.174	0.201	0.375	0.754	0.638	No
		Rear Tilt	0.144	0.428	0.000					0.947	0.831	No
		Edge 4	0.430	0.258	0.000	0.000	1.095	0.000	1.095	1.783	1.783	Yes
		Edge 2	0.008	0.055	0.000	0.269	0.002	1.084	1.086	1.149	0.334	No
		Edge 1	0.297	0.626	0.000	0.000	0.013	0.017	0.030	0.953	0.936	No
		Edge 4 Tilt	0.050	0.128	0.000	0.000	1.317	0.007	1.324	1.502	1.495	No
		Edge 2 Tilt	0.033	0.084	0.000	0.292	0.007	1.133	1.140	1.257	0.416	No
	LTE Band 48	Rear	0.226	0.007	0.037	0.085	0.174	0.201	0.375	0.645	0.529	No
		Rear Tilt	0.144	0.066	0.000					0.585	0.469	No
		Edge 4	0.430	0.021	0.000	0.000	1.095	0.000	1.095	1.546	1.546	No
		Edge 2	0.008	0.000	0.000	0.269	0.002	1.084	1.086	1.094	0.279	No
		Edge 1	0.297	0.239	0.000	0.000	0.013	0.017	0.030	0.566	0.549	No
		Edge 4 Tilt	0.050	0.004	0.000	0.000	1.317	0.007	1.324	1.378	1.371	No
		Edge 2 Tilt	0.033	0.000	0.000	0.292	0.007	1.133	1.140	1.173	0.332	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	2.4GHz Main	2.4GHz Aux	2.4GHz MIMO	NR + LTE + RFID + 2.4GHz MIMO	NR + LTE + RFID + 2.4GHz Ant1 + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+7	1+2+3+4+5	
NR Band n77	LTE Band 2/25	Rear	0.192	0.084	0.037	0.085	0.174	0.201	0.375	0.688	0.572	No
		Rear Tilt	0.085	0.507	0.000					0.967	0.851	No
		Edge 4	0.379	0.496	0.000	0.000	1.095	0.000	1.095	1.970	1.970	Yes
		Edge 2	0.130	0.056	0.000	0.269	0.002	1.084	1.086	1.272	0.457	No
		Edge 1	0.564	0.633	0.000	0.000	0.013	0.017	0.030	1.227	1.210	No
		Edge 4 Tilt	0.012	0.135	0.000	0.000	1.317	0.007	1.324	1.471	1.464	No
		Edge 2 Tilt	0.076	0.040	0.000	0.292	0.007	1.133	1.140	1.256	0.415	No
	LTE Band 5/26	Rear	0.192	0.105	0.037	0.085	0.174	0.201	0.375	0.709	0.593	No
		Rear Tilt	0.085	0.419	0.000					0.879	0.763	No
		Edge 4	0.379	0.295	0.000	0.000	1.095	0.000	1.095	1.769	1.769	Yes
		Edge 2	0.130	0.074	0.000	0.269	0.002	1.084	1.086	1.290	0.475	No
		Edge 1	0.564	0.707	0.000	0.000	0.013	0.017	0.030	1.301	1.284	No
		Edge 4 Tilt	0.012	0.107	0.000	0.000	1.317	0.007	1.324	1.443	1.436	No
		Edge 2 Tilt	0.076	0.125	0.000	0.292	0.007	1.133	1.140	1.341	0.500	No
	LTE Band 7	Rear	0.192	0.250	0.037	0.085	0.174	0.201	0.375	0.854	0.738	No
		Rear Tilt	0.085	0.581	0.000					1.041	0.925	No
		Edge 4	0.379	0.245	0.000	0.000	1.095	0.000	1.095	1.719	1.719	Yes
		Edge 2	0.130	0.056	0.000	0.269	0.002	1.084	1.086	1.272	0.457	No
		Edge 1	0.564	0.496	0.000	0.000	0.013	0.017	0.030	1.090	1.073	No
		Edge 4 Tilt	0.012	0.029	0.000	0.000	1.317	0.007	1.324	1.365	1.358	No
		Edge 2 Tilt	0.076	0.058	0.000	0.292	0.007	1.133	1.140	1.274	0.433	No
	LTE Band 12	Rear	0.192	0.093	0.037	0.085	0.174	0.201	0.375	0.697	0.581	No
		Rear Tilt	0.085	0.320	0.000					0.780	0.664	No
		Edge 4	0.379	0.094	0.000	0.000	1.095	0.000	1.095	1.568	1.568	No
		Edge 2	0.130	0.026	0.000	0.269	0.002	1.084	1.086	1.242	0.427	No
		Edge 1	0.564	0.521	0.000	0.000	0.013	0.017	0.030	1.115	1.098	No
		Edge 4 Tilt	0.012	0.063	0.000	0.000	1.317	0.007	1.324	1.399	1.392	No
		Edge 2 Tilt	0.076	0.043	0.000	0.292	0.007	1.133	1.140	1.259	0.418	No
	LTE Band 13	Rear	0.192	0.111	0.037	0.085	0.174	0.201	0.375	0.715	0.599	No
		Rear Tilt	0.085	0.422	0.000					0.882	0.766	No
		Edge 4	0.379	0.229	0.000	0.000	1.095	0.000	1.095	1.703	1.703	Yes
		Edge 2	0.130	0.037	0.000	0.269	0.002	1.084	1.086	1.253	0.438	No
		Edge 1	0.564	0.590	0.000	0.000	0.013	0.017	0.030	1.184	1.167	No
		Edge 4 Tilt	0.012	0.119	0.000	0.000	1.317	0.007	1.324	1.455	1.448	No
		Edge 2 Tilt	0.076	0.088	0.000	0.292	0.007	1.133	1.140	1.304	0.463	No
	LTE Band 14	Rear	0.192	0.116	0.037	0.085	0.174	0.201	0.375	0.720	0.604	No
		Rear Tilt	0.085	0.428	0.000					0.888	0.772	No
		Edge 4	0.379	0.258	0.000	0.000	1.095	0.000	1.095	1.732	1.732	Yes
		Edge 2	0.130	0.055	0.000	0.269	0.002	1.084	1.086	1.271	0.456	No
		Edge 1	0.564	0.626	0.000	0.000	0.013	0.017	0.030	1.220	1.203	No
		Edge 4 Tilt	0.012	0.128	0.000	0.000	1.317	0.007	1.324	1.464	1.457	No
		Edge 2 Tilt	0.076	0.084	0.000	0.292	0.007	1.133	1.140	1.300	0.459	No
	LTE Band 41	Rear	0.192	0.195	0.037	0.085	0.174	0.201	0.375	0.799	0.683	No
		Rear Tilt	0.085	0.689	0.000					1.149	1.033	No
		Edge 4	0.379	0.119	0.000	0.000	1.095	0.000	1.095	1.593	1.593	No
		Edge 2	0.130	0.030	0.000	0.269	0.002	1.084	1.086	1.246	0.431	No
		Edge 1	0.564	0.702	0.000	0.000	0.013	0.017	0.030	1.296	1.279	No
		Edge 4 Tilt	0.012	0.018	0.000	0.000	1.317	0.007	1.324	1.354	1.347	No
		Edge 2 Tilt	0.076	0.021	0.000	0.292	0.007	1.133	1.140	1.237	0.396	No
	LTE Band 66	Rear	0.192	0.146	0.037	0.085	0.174	0.201	0.375	0.750	0.634	No
		Rear Tilt	0.085	0.433	0.000					0.893	0.777	No
		Edge 4	0.379	0.327	0.000	0.000	1.095	0.000	1.095	1.801	1.801	Yes
		Edge 2	0.130	0.011	0.000	0.269	0.002	1.084	1.086	1.227	0.412	No
		Edge 1	0.564	0.698	0.000	0.000	0.013	0.017	0.030	1.292	1.275	No
		Edge 4 Tilt	0.012	0.158	0.000	0.000	1.317	0.007	1.324	1.494	1.487	No
		Edge 2 Tilt	0.076	0.022	0.000	0.292	0.007	1.133	1.140	1.238	0.397	No

Band	Configuration	Main	RFID	Bluetooth	5GHz MIMO	6E MIMO	Main +RFID 5GHz MIMO	Main +RFID 6E MIMO	Main +RFID 5GHz MIMO + BT	Main +RFID 6E MIMO + BT	SPLSR
		1	2	3	4	5	1+2+4	1+2+5	1+2+3+4	1+2+3+5	
		(W/kg)	(W/kg))	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
LTE Band 7	Rear	0.250	0.037	0.085	0.640	0.182	0.927	0.469	1.012	0.554	No
	Rear Tilt	0.581	0.000				1.221	0.763	1.306	0.848	No
	Edge 4	0.245	0.000	0.000	0.827	0.431	1.072	0.676	1.072	0.676	No
	Edge 2	0.056	0.000	0.269	0.971	0.447	1.027	0.503	1.296	0.772	No
	Edge 1	0.496	0.000	0.000	0.077	0.008	0.573	0.504	0.573	0.504	No
	Edge 4 Tilt	0.029	0.000	0.000	1.089	0.627	1.118	0.656	1.118	0.656	No
	Edge 2 Tilt	0.058	0.000	0.292	1.197	0.647	1.255	0.705	1.547	0.997	No
LTE Band 12	Rear	0.093	0.037	0.085	0.640	0.182	0.770	0.312	0.855	0.397	No
	Rear Tilt	0.320	0.000				0.960	0.502	1.045	0.587	No
	Edge 4	0.094	0.000	0.000	0.827	0.431	0.921	0.525	0.921	0.525	No
	Edge 2	0.026	0.000	0.269	0.971	0.447	0.997	0.473	1.266	0.742	No
	Edge 1	0.521	0.000	0.000	0.077	0.008	0.598	0.529	0.598	0.529	No
	Edge 4 Tilt	0.063	0.000	0.000	1.089	0.627	1.152	0.690	1.152	0.690	No
	Edge 2 Tilt	0.043	0.000	0.292	1.197	0.647	1.240	0.690	1.532	0.982	No
LTE Band 13	Rear	0.111	0.037	0.085	0.640	0.182	0.788	0.330	0.873	0.415	No
	Rear Tilt	0.422	0.000				1.062	0.604	1.147	0.689	No
	Edge 4	0.229	0.000	0.000	0.827	0.431	1.056	0.660	1.056	0.660	No
	Edge 2	0.037	0.000	0.269	0.971	0.447	1.008	0.484	1.277	0.753	No
	Edge 1	0.590	0.000	0.000	0.077	0.008	0.667	0.598	0.667	0.598	No
	Edge 4 Tilt	0.119	0.000	0.000	1.089	0.627	1.208	0.746	1.208	0.746	No
	Edge 2 Tilt	0.088	0.000	0.292	1.197	0.647	1.285	0.735	1.577	1.027	No
LTE Band 14	Rear	0.116	0.037	0.085	0.640	0.182	0.793	0.335	0.878	0.420	No
	Rear Tilt	0.428	0.000				1.068	0.610	1.153	0.695	No
	Edge 4	0.258	0.000	0.000	0.827	0.431	1.085	0.689	1.085	0.689	No
	Edge 2	0.055	0.000	0.269	0.971	0.447	1.026	0.502	1.295	0.771	No
	Edge 1	0.626	0.000	0.000	0.077	0.008	0.703	0.634	0.703	0.634	No
	Edge 4 Tilt	0.128	0.000	0.000	1.089	0.627	1.217	0.755	1.217	0.755	No
	Edge 2 Tilt	0.084	0.000	0.292	1.197	0.647	1.281	0.731	1.573	1.023	No
LTE Band 25	Rear	0.084	0.037	0.085	0.640	0.182	0.761	0.303	0.846	0.388	No
	Rear Tilt	0.507	0.000				1.147	0.689	1.232	0.774	No
	Edge 4	0.496	0.000	0.000	0.827	0.431	1.323	0.927	1.323	0.927	No
	Edge 2	0.056	0.000	0.269	0.971	0.447	1.027	0.503	1.296	0.772	No
	Edge 1	0.633	0.000	0.000	0.077	0.008	0.710	0.641	0.710	0.641	No
	Edge 4 Tilt	0.135	0.000	0.000	1.089	0.627	1.224	0.762	1.224	0.762	No
	Edge 2 Tilt	0.040	0.000	0.292	1.197	0.647	1.237	0.687	1.529	0.979	No
LTE Band 26	Rear	0.105	0.037	0.085	0.640	0.182	0.782	0.324	0.867	0.409	No
	Rear Tilt	0.419	0.000				1.059	0.601	1.144	0.686	No
	Edge 4	0.295	0.000	0.000	0.827	0.431	1.122	0.726	1.122	0.726	No
	Edge 2	0.074	0.000	0.269	0.971	0.447	1.045	0.521	1.314	0.790	No
	Edge 1	0.707	0.000	0.000	0.077	0.008	0.784	0.715	0.784	0.715	No
	Edge 4 Tilt	0.107	0.000	0.000	1.089	0.627	1.196	0.734	1.196	0.734	No
	Edge 2 Tilt	0.125	0.000	0.292	1.197	0.647	1.322	0.772	1.614	1.064	Yes
LTE Band 38	Rear	0.153	0.037	0.085	0.640	0.182	0.830	0.372	0.915	0.457	No
	Rear Tilt	0.583	0.000				1.223	0.765	1.308	0.850	No
	Edge 4	0.093	0.000	0.000	0.827	0.431	0.920	0.524	0.920	0.524	No
	Edge 2	0.026	0.000	0.269	0.971	0.447	0.997	0.473	1.266	0.742	No
	Edge 1	0.732	0.000	0.000	0.077	0.008	0.809	0.740	0.809	0.740	No
	Edge 4 Tilt	0.026	0.000	0.000	1.089	0.627	1.115	0.653	1.115	0.653	No
	Edge 2 Tilt	0.016	0.000	0.292	1.197	0.647	1.213	0.663	1.505	0.955	No

Band	Configuration	Main	RFID	Bluetooth	5GHz MIMO	6E MIMO	Main +RFID 5GHz MIMO	Main +RFID 6E MIMO	Main +RFID 5GHz MIMO + BT	Main +RFID 6E MIMO + BT	SPLSR
		1	2	3	4	5	1+2+4	1+2+5	1+2+3+4	1+2+3+5	
		(W/kg)	(W/kg))	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	(W/kg)	
LTE Band 41	Rear	0.195	0.037	0.085	0.640	0.182	0.872	0.414	0.957	0.499	No
	Rear Tilt	0.689	0.000				1.329	0.871	1.414	0.956	No
	Edge 4	0.119	0.000	0.000	0.827	0.431	0.946	0.550	0.946	0.550	No
	Edge 2	0.030	0.000	0.269	0.971	0.447	1.001	0.477	1.270	0.746	No
	Edge 1	0.702	0.000	0.000	0.077	0.008	0.779	0.710	0.779	0.710	No
	Edge 4 Tilt	0.018	0.000	0.000	1.089	0.627	1.107	0.645	1.107	0.645	No
	Edge 2 Tilt	0.021	0.000	0.292	1.197	0.647	1.218	0.668	1.510	0.960	No
LTE Band 42	Rear	0.008	0.037	0.085	0.640	0.182	0.685	0.227	0.770	0.312	No
	Rear Tilt	0.091	0.000				0.731	0.273	0.816	0.358	No
	Edge 4	0.020	0.000	0.000	0.827	0.431	0.847	0.451	0.847	0.451	No
	Edge 2	0.000	0.000	0.269	0.971	0.447	0.971	0.447	1.240	0.716	No
	Edge 1	0.284	0.000	0.000	0.077	0.008	0.361	0.292	0.361	0.292	No
	Edge 4 Tilt	0.001	0.000	0.000	1.089	0.627	1.090	0.628	1.090	0.628	No
	Edge 2 Tilt	0.000	0.000	0.292	1.197	0.647	1.197	0.647	1.489	0.939	No
LTE Band 48	Rear	0.007	0.037	0.085	0.640	0.182	0.684	0.226	0.769	0.311	No
	Rear Tilt	0.066	0.000				0.706	0.248	0.791	0.333	No
	Edge 4	0.021	0.000	0.000	0.827	0.431	0.848	0.452	0.848	0.452	No
	Edge 2	0.000	0.000	0.269	0.971	0.447	0.971	0.447	1.240	0.716	No
	Edge 1	0.239	0.000	0.000	0.077	0.008	0.316	0.247	0.316	0.247	No
	Edge 4 Tilt	0.004	0.000	0.000	1.089	0.627	1.093	0.631	1.093	0.631	No
	Edge 2 Tilt	0.000	0.000	0.292	1.197	0.647	1.197	0.647	1.489	0.939	No
LTE Band 66	Rear	0.146	0.037	0.085	0.640	0.182	0.823	0.365	0.908	0.450	No
	Rear Tilt	0.433	0.000				1.073	0.615	1.158	0.700	No
	Edge 4	0.327	0.000	0.000	0.827	0.431	1.154	0.758	1.154	0.758	No
	Edge 2	0.011	0.000	0.269	0.971	0.447	0.982	0.458	1.251	0.727	No
	Edge 1	0.698	0.000	0.000	0.077	0.008	0.775	0.706	0.775	0.706	No
	Edge 4 Tilt	0.158	0.000	0.000	1.089	0.627	1.247	0.785	1.247	0.785	No
	Edge 2 Tilt	0.022	0.000	0.292	1.197	0.647	1.219	0.669	1.511	0.961	No

LTE	LTE	Configuration	LTE	LTE	RFID	5GHz Main	5GHz Aux	5GHz MIMO	LTE +RFID 5GHz Main	LTE + RFID 5GHz Aux	LTE +RFID 5GHz MIMO	SPLSR
			1	2	3	4	5	6	1+2+3+4	1+2+3+5	1+2+3+6	
LTE Band 2/25	LTE Band 5/26	Rear	0.084	0.105	0.037	0.436	0.204	0.640	0.662	0.430		No
		Rear Tilt	0.507	0.419	0.000				1.362	1.13		No
		Edge 4	0.496	0.295	0.000	0.827	0.000	0.827			1.618	Yes
		Edge 2	0.056	0.074	0.000	0.000	0.971	0.971			1.101	No
		Edge 1	0.633	0.707	0.000	0.056	0.021	0.077			1.417	No
		Edge 4 Tilt	0.135	0.107	0.000	1.089	0.000	1.089			1.331	No
		Edge 2 Tilt	0.040	0.125	0.000	0.002	1.195	1.197			1.362	No
	LTE Band 12	Rear	0.084	0.093	0.037	0.436	0.204	0.640	0.650	0.418		No
		Rear Tilt	0.507	0.320	0.000				1.263	1.031		No
		Edge 4	0.496	0.094	0.000	0.827	0.000	0.827			1.417	No
		Edge 2	0.056	0.026	0.000	0.000	0.971	0.971			1.053	No
		Edge 1	0.633	0.521	0.000	0.056	0.021	0.077			1.231	No
		Edge 4 Tilt	0.135	0.063	0.000	1.089	0.000	1.089			1.287	No
		Edge 2 Tilt	0.040	0.043	0.000	0.002	1.195	1.197			1.280	No
	LTE Band 13	Rear	0.084	0.111	0.037	0.436	0.204	0.640	0.668	0.436		No
		Rear Tilt	0.507	0.422	0.000				1.365	1.133		No
		Edge 4	0.496	0.229	0.000	0.827	0.000	0.827			1.552	No
		Edge 2	0.056	0.037	0.000	0.000	0.971	0.971			1.064	No
		Edge 1	0.633	0.590	0.000	0.056	0.021	0.077			1.300	No
		Edge 4 Tilt	0.135	0.119	0.000	1.089	0.000	1.089			1.343	No
		Edge 2 Tilt	0.040	0.088	0.000	0.002	1.195	1.197			1.325	No
LTE Band 4/66	LTE Band 5/26	Rear	0.146	0.105	0.037	0.436	0.204	0.640	0.724	0.492		No
		Rear Tilt	0.433	0.419	0.000				1.288	1.056		No
		Edge 4	0.327	0.295	0.000	0.827	0.000	0.827			1.449	No
		Edge 2	0.011	0.074	0.000	0.000	0.971	0.971			1.056	No
		Edge 1	0.698	0.707	0.000	0.056	0.021	0.077			1.482	No
		Edge 4 Tilt	0.158	0.107	0.000	1.089	0.000	1.089			1.354	No
		Edge 2 Tilt	0.022	0.125	0.000	0.002	1.195	1.197			1.344	No
	LTE Band 12	Rear	0.146	0.093	0.037	0.436	0.204	0.640	0.712	0.480		No
		Rear Tilt	0.433	0.320	0.000				1.189	0.957		No
		Edge 4	0.327	0.094	0.000	0.827	0.000	0.827			1.248	No
		Edge 2	0.011	0.026	0.000	0.000	0.971	0.971			1.008	No
		Edge 1	0.698	0.521	0.000	0.056	0.021	0.077			1.296	No
		Edge 4 Tilt	0.158	0.063	0.000	1.089	0.000	1.089			1.310	No
		Edge 2 Tilt	0.022	0.043	0.000	0.002	1.195	1.197			1.262	No
	LTE Band 13	Rear	0.146	0.111	0.037	0.436	0.204	0.640	0.730	0.498		No
		Rear Tilt	0.433	0.422	0.000				1.291	1.059		No
		Edge 4	0.327	0.229	0.000	0.827	0.000	0.827			1.383	No
		Edge 2	0.011	0.037	0.000	0.000	0.971	0.971			1.019	No
		Edge 1	0.698	0.590	0.000	0.056	0.021	0.077			1.365	No
		Edge 4 Tilt	0.158	0.119	0.000	1.089	0.000	1.089			1.366	No
		Edge 2 Tilt	0.022	0.088	0.000	0.002	1.195	1.197			1.307	No

LTE	LTE	Configuration	LTE	LTE	RFID	5GHz Main	5GHz Aux	5GHz MIMO	LTE +RFID 5GHz Main	LTE + RFID 5GHz Aux	LTE +RFID 5GHz MIMO	SPLSR
			1	2	3	4	5	6	1+2+3+4	1+2+3+5	1+2+3+6	
LTE Band 5	LTE Band 7	Rear	0.105	0.250	0.037	0.436	0.204	0.640	0.828	0.596		No
		Rear Tilt	0.419	0.581	0.000				1.436	1.204		No
		Edge 4	0.295	0.245	0.000	0.827	0.000	0.827			1.367	No
		Edge 2	0.074	0.056	0.000	0.000	0.971	0.971			1.101	No
		Edge 1	0.707	0.496	0.000	0.056	0.021	0.077			1.280	No
		Edge 4 Tilt	0.107	0.029	0.000	1.089	0.000	1.089			1.225	No
		Edge 2 Tilt	0.125	0.058	0.000	0.002	1.195	1.197			1.380	No
LTE Band 41	LTE Band 42	Rear	0.195	0.008	0.037	0.436	0.204	0.640	0.676	0.444		No
		Rear Tilt	0.689	0.091	0.000				1.216	0.984		No
		Edge 4	0.119	0.020	0.000	0.827	0.000	0.827			0.966	No
		Edge 2	0.030	0.000	0.000	0.000	0.971	0.971			1.001	No
		Edge 1	0.702	0.284	0.000	0.056	0.021	0.077			1.063	No
		Edge 4 Tilt	0.018	0.001	0.000	1.089	0.000	1.089			1.108	No
		Edge 2 Tilt	0.021	0.000	0.000	0.002	1.195	1.197			1.218	No

LTE	LTE	Configuration	LTE	LTE	RFID	BT	5GHz Main	5GHz Aux	5GHz MIMO	LTE + RFID+5GHz Main + BT	LTE +RFID 5GHz Aux + BT	LTE +RFID 5GHz MIMO + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+4+5	1+2+3+4+6	1+2+3+4+7	
LTE Band 2/25	LTE Band 5/26	Rear	0.084	0.105	0.037	0.085	0.436	0.204	0.640	0.747	0.515		No
		Rear Tilt	0.507	0.419	0.000	0.085				1.447	1.215		No
		Edge 4	0.496	0.295	0.000	0.000	0.827	0.000	0.827			1.618	Yes
		Edge 2	0.056	0.074	0.000	0.269	0.000	0.971	0.971			1.370	No
		Edge 1	0.633	0.707	0.000	0.000	0.056	0.021	0.077			1.417	No
		Edge 4 Tilt	0.135	0.107	0.000	0.000	1.089	0.000	1.089			1.331	No
		Edge 2 Tilt	0.040	0.125	0.000	0.292	0.002	1.195	1.197			1.654	Yes
	LTE Band 12	Rear	0.084	0.093	0.037	0.085	0.436	0.204	0.640	0.735	0.503		No
		Rear Tilt	0.507	0.320	0.000	0.085				1.348	1.116		No
		Edge 4	0.496	0.094	0.000	0.000	0.827	0.000	0.827			1.417	No
		Edge 2	0.056	0.026	0.000	0.269	0.000	0.971	0.971			1.322	No
		Edge 1	0.633	0.521	0.000	0.000	0.056	0.021	0.077			1.231	No
		Edge 4 Tilt	0.135	0.063	0.000	0.000	1.089	0.000	1.089			1.287	No
		Edge 2 Tilt	0.040	0.043	0.000	0.292	0.002	1.195	1.197			1.572	No
	LTE Band 13	Rear	0.084	0.111	0.037	0.085	0.436	0.204	0.640	0.753	0.521		No
		Rear Tilt	0.507	0.422	0.000	0.085				1.45	1.218		No
		Edge 4	0.496	0.229	0.000	0.000	0.827	0.000	0.827			1.552	No
		Edge 2	0.056	0.037	0.000	0.269	0.000	0.971	0.971			1.333	No
		Edge 1	0.633	0.590	0.000	0.000	0.056	0.021	0.077			1.300	No
		Edge 4 Tilt	0.135	0.119	0.000	0.000	1.089	0.000	1.089			1.343	No
		Edge 2 Tilt	0.040	0.088	0.000	0.292	0.002	1.195	1.197			1.197	No
LTE Band 4/66	LTE Band 5/26	Rear	0.146	0.105	0.037	0.085	0.436	0.204	0.640	0.809	0.577		No
		Rear Tilt	0.433	0.419	0.000	0.085				1.373	1.141		No
		Edge 4	0.327	0.295	0.000	0.000	0.827	0.000	0.827			1.449	No
		Edge 2	0.011	0.074	0.000	0.269	0.000	0.971	0.971			1.325	No
		Edge 1	0.698	0.707	0.000	0.000	0.056	0.021	0.077			1.482	No
		Edge 4 Tilt	0.158	0.107	0.000	0.000	1.089	0.000	1.089			1.354	No
		Edge 2 Tilt	0.022	0.125	0.000	0.292	0.002	1.195	1.197			1.636	Yes
	LTE Band 12	Rear	0.146	0.093	0.037	0.085	0.436	0.204	0.640	0.797	0.565		No
		Rear Tilt	0.433	0.320	0.000	0.085				1.274	1.042		No
		Edge 4	0.327	0.094	0.000	0.000	0.827	0.000	0.827			1.248	No
		Edge 2	0.011	0.026	0.000	0.269	0.000	0.971	0.971			1.277	No
		Edge 1	0.698	0.521	0.000	0.000	0.056	0.021	0.077			1.296	No
		Edge 4 Tilt	0.158	0.063	0.000	0.000	1.089	0.000	1.089			1.310	No
		Edge 2 Tilt	0.022	0.043	0.000	0.292	0.002	1.195	1.197			1.554	No
	LTE Band 13	Rear	0.146	0.111	0.037	0.085	0.436	0.204	0.640	0.815	0.583		No
		Rear Tilt	0.433	0.422	0.000	0.085				1.376	1.144		No
		Edge 4	0.327	0.229	0.000	0.000	0.827	0.000	0.827			1.383	No
		Edge 2	0.011	0.037	0.000	0.269	0.000	0.971	0.971			1.288	No
		Edge 1	0.698	0.590	0.000	0.000	0.056	0.021	0.077			1.365	No
		Edge 4 Tilt	0.158	0.119	0.000	0.000	1.089	0.000	1.089			1.366	No
		Edge 2 Tilt	0.022	0.088	0.000	0.292	0.002	1.195	1.197			1.599	Yes

LTE	LTE	Configuration	LTE	LTE	RFID	BT	5GHz Main	5GHz Aux	5GHz MIMO	LTE + RFID+5GHz Main + BT	LTE +RFID 5GHz Aux + BT	LTE +RFID 5GHz MIMO + BT	SPLSR
			1	2	3	4	5	6	7	1+2+3+4+5	1+2+3+4+6	1+2+3+4+7	
LTE Band 5	LTE Band 7	Rear	0.105	0.250	0.037	0.085	0.436	0.204	0.640	0.913	0.681		No
		Rear Tilt	0.419	0.581	0.000	0.085				1.521	1.289		No
		Edge 4	0.295	0.245	0.000	0.000	0.827	0.000	0.827			1.367	No
		Edge 2	0.074	0.056	0.000	0.269	0.000	0.971	0.971			1.370	No
		Edge 1	0.707	0.496	0.000	0.000	0.056	0.021	0.077			1.280	No
		Edge 4 Tilt	0.107	0.029	0.000	0.000	1.089	0.000	1.089			1.225	No
		Edge 2 Tilt	0.125	0.058	0.000	0.292	0.002	1.195	1.197			1.672	Yes
LTE Band 41	LTE Band 42	Rear	0.195	0.008	0.037	0.085	0.436	0.204	0.640	0.761	0.529		No
		Rear Tilt	0.689	0.091	0.000	0.085				1.301	1.069		No
		Edge 4	0.119	0.020	0.000	0.000	0.827	0.000	0.827			0.966	No
		Edge 2	0.030	0.000	0.000	0.269	0.000	0.971	0.971			1.270	No
		Edge 1	0.702	0.284	0.000	0.000	0.056	0.021	0.077			1.063	No
		Edge 4 Tilt	0.018	0.001	0.000	0.000	1.089	0.000	1.089			1.108	No
		Edge 2 Tilt	0.021	0.000	0.000	0.292	0.002	1.195	1.197			1.510	No

LTE	LTE	Configuration	LTE	LTE	RFID	Bluetooth	6E MIMO	LTE +RFID 6E MIMO	LTE + RFID+6E MIMO + BT	SPLSR
			1	2	3	4	5	1+2+3+5	1+2+3+4+5	
LTE Band 2	LTE Band 5/26	Rear	0.084	0.105	0.037	0.085	0.182	0.408	0.493	No
		Rear Tilt	0.507	0.419	0.000			1.108	1.193	No
		Edge 4	0.496	0.295	0.000	0.000	0.431	1.222	1.222	No
		Edge 2	0.056	0.074	0.000	0.269	0.447	0.577	0.846	No
		Edge 1	0.633	0.707	0.000	0.000	0.008	1.348	1.348	No
		Edge 4 Tilt	0.135	0.107	0.000	0.000	0.627	0.869	0.869	No
		Edge 2 Tilt	0.040	0.125	0.000	0.292	0.647	0.812	1.104	No
	LTE Band 12	Rear	0.084	0.093	0.037	0.085	0.182	0.396	0.481	No
		Rear Tilt	0.507	0.320	0.000			1.009	1.094	No
		Edge 4	0.496	0.094	0.000	0.000	0.431	1.021	1.021	No
		Edge 2	0.056	0.026	0.000	0.269	0.447	0.529	0.798	No
		Edge 1	0.633	0.521	0.000	0.000	0.008	1.162	1.162	No
		Edge 4 Tilt	0.135	0.063	0.000	0.000	0.627	0.825	0.825	No
		Edge 2 Tilt	0.040	0.043	0.000	0.292	0.647	0.730	1.022	No
	LTE Band 13	Rear	0.084	0.111	0.037	0.085	0.182	0.414	0.499	No
		Rear Tilt	0.507	0.422	0.000			1.111	1.196	No
		Edge 4	0.496	0.229	0.000	0.000	0.431	1.156	1.156	No
		Edge 2	0.056	0.037	0.000	0.269	0.447	0.540	0.809	No
		Edge 1	0.633	0.590	0.000	0.000	0.008	1.231	1.231	No
		Edge 4 Tilt	0.135	0.119	0.000	0.000	0.627	0.881	0.881	No
		Edge 2 Tilt	0.040	0.088	0.000	0.292	0.647	0.775	1.067	No
LTE Band 4/66	LTE Band 5/26	Rear	0.146	0.105	0.037	0.085	0.182	0.470	0.555	No
		Rear Tilt	0.433	0.419	0.000			1.034	1.119	No
		Edge 4	0.327	0.295	0.000	0.000	0.431	1.053	1.053	No
		Edge 2	0.011	0.074	0.000	0.269	0.447	0.532	0.801	No
		Edge 1	0.698	0.707	0.000	0.000	0.008	1.413	1.413	No
		Edge 4 Tilt	0.158	0.107	0.000	0.000	0.627	0.892	0.892	No
		Edge 2 Tilt	0.022	0.125	0.000	0.292	0.647	0.794	1.086	No
	LTE Band 12	Rear	0.146	0.093	0.037	0.085	0.182	0.458	0.543	No
		Rear Tilt	0.433	0.320	0.000			0.935	1.020	No
		Edge 4	0.327	0.094	0.000	0.000	0.431	0.852	0.852	No
		Edge 2	0.011	0.026	0.000	0.269	0.447	0.484	0.753	No
		Edge 1	0.698	0.521	0.000	0.000	0.008	1.227	1.227	No
		Edge 4 Tilt	0.158	0.063	0.000	0.000	0.627	0.848	0.848	No
		Edge 2 Tilt	0.022	0.043	0.000	0.292	0.647	0.712	1.004	No
	LTE Band 13	Rear	0.146	0.111	0.037	0.085	0.182	0.476	0.561	No
		Rear Tilt	0.433	0.422	0.000			1.037	1.122	No
		Edge 4	0.327	0.229	0.000	0.000	0.431	0.987	0.987	No
		Edge 2	0.011	0.037	0.000	0.269	0.447	0.495	0.764	No
		Edge 1	0.698	0.590	0.000	0.000	0.008	1.296	1.296	No
		Edge 4 Tilt	0.158	0.119	0.000	0.000	0.627	0.904	0.904	No
		Edge 2 Tilt	0.022	0.088	0.000	0.292	0.647	0.757	1.049	No

LTE	LTE	Configuration	LTE	LTE	RFID	Bluetooth	6E MIMO	LTE +RFID 6E MIMO	LTE + RFID+6E MIMO + BT	SPLSR
			1	2	3	4	5	1+2+3+5	1+2+3+4+5	
LTE Band 5	LTE Band 7	Rear	0.105	0.250	0.037	0.085	0.182	0.574	0.659	No
		Rear Tilt	0.419	0.581	0.000			1.182	1.267	No
		Edge 4	0.295	0.245	0.000	0.000	0.431	0.971	0.971	No
		Edge 2	0.074	0.056	0.000	0.269	0.447	0.577	0.846	No
		Edge 1	0.707	0.496	0.000	0.000	0.008	1.211	1.211	No
		Edge 4 Tilt	0.107	0.029	0.000	0.000	0.627	0.763	0.763	No
		Edge 2 Tilt	0.125	0.058	0.000	0.292	0.647	0.830	1.122	No
LTE Band 41	LTE Band 42	Rear	0.195	0.008	0.037	0.085	0.182	0.422	0.507	No
		Rear Tilt	0.689	0.091	0.000			0.962	1.047	No
		Edge 4	0.119	0.020	0.000	0.000	0.431	0.570	0.570	No
		Edge 2	0.030	0.000	0.000	0.269	0.447	0.477	0.746	No
		Edge 1	0.702	0.284	0.000	0.000	0.008	0.994	0.994	No
		Edge 4 Tilt	0.018	0.001	0.000	0.000	0.627	0.646	0.646	No
		Edge 2 Tilt	0.021	0.000	0.000	0.292	0.647	0.668	0.960	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	5GHz MIMO	WI-FI 6E MIMO	NR + LTE + RFID + 5GHz MIMO	NR + LTE + RFID + 6E MIMO	NR + LTE + RFID+5GHz MIMO + BT	NR + LTE +RFID + 6E MIMO + BT	SPLSR
			1	2	3	4	5	6	1+2+3+5	1+2+3+6	1+2+3+4+5	1+2+3+4+6	
NR Band n2	LTE Band 5/26	Rear	0.203	0.105	0.037	0.085	0.640	0.182	0.985	0.527	1.070	0.612	No
		Rear Tilt	0.207	0.419	0.000				1.266	0.808	1.351	0.893	No
		Edge 4	0.671	0.295	0.000	0.000	0.827	0.431	1.793	1.397	1.793	1.397	Yes
		Edge 2	0.053	0.074	0.000	0.269	0.971	0.447	1.098	0.574	1.367	0.843	No
		Edge 1	0.230	0.707	0.000	0.000	0.077	0.008	1.014	0.945	1.014	0.945	No
		Edge 4 Tilt	0.056	0.107	0.000	0.000	1.089	0.627	1.252	0.790	1.252	0.790	No
		Edge 2 Tilt	0.029	0.125	0.000	0.292	1.197	0.647	1.351	0.801	1.643	1.093	Yes
	LTE Band 12	Rear	0.203	0.093	0.037	0.085	0.640	0.182	0.973	0.515	1.058	0.600	No
		Rear Tilt	0.207	0.320	0.000				1.167	0.709	1.252	0.794	No
		Edge 4	0.671	0.094	0.000	0.000	0.827	0.431	1.592	1.196	1.592	1.196	No
		Edge 2	0.053	0.026	0.000	0.269	0.971	0.447	1.050	0.526	1.319	0.795	No
		Edge 1	0.230	0.521	0.000	0.000	0.077	0.008	0.828	0.759	0.828	0.759	No
		Edge 4 Tilt	0.056	0.063	0.000	0.000	1.089	0.627	1.208	0.746	1.208	0.746	No
		Edge 2 Tilt	0.029	0.043	0.000	0.292	1.197	0.647	1.269	0.719	1.561	1.011	No
	LTE Band 13	Rear	0.203	0.111	0.037	0.085	0.640	0.182	0.991	0.533	1.076	0.618	No
		Rear Tilt	0.207	0.422	0.000				1.269	0.811	1.354	0.896	No
		Edge 4	0.671	0.229	0.000	0.000	0.827	0.431	1.727	1.331	1.727	1.331	Yes
		Edge 2	0.053	0.037	0.000	0.269	0.971	0.447	1.061	0.537	1.330	0.806	No
		Edge 1	0.230	0.590	0.000	0.000	0.077	0.008	0.897	0.828	0.897	0.828	No
		Edge 4 Tilt	0.056	0.119	0.000	0.000	1.089	0.627	1.264	0.802	1.264	0.802	No
		Edge 2 Tilt	0.029	0.088	0.000	0.292	1.197	0.647	1.314	0.764	1.606	1.056	Yes
	LTE Band 14	Rear	0.203	0.116	0.037	0.085	0.640	0.182	0.996	0.538	1.081	0.623	No
		Rear Tilt	0.207	0.428	0.000				1.275	0.817	1.360	0.902	No
		Edge 4	0.671	0.258	0.000	0.000	0.827	0.431	1.756	1.360	1.756	1.360	Yes
		Edge 2	0.053	0.055	0.000	0.269	0.971	0.447	1.079	0.555	1.348	0.824	No
		Edge 1	0.230	0.626	0.000	0.000	0.077	0.008	0.933	0.864	0.933	0.864	No
		Edge 4 Tilt	0.056	0.128	0.000	0.000	1.089	0.627	1.273	0.811	1.273	0.811	No
		Edge 2 Tilt	0.029	0.084	0.000	0.292	1.197	0.647	1.310	0.760	1.602	1.052	Yes
	LTE Band 48	Rear	0.203	0.007	0.037	0.085	0.640	0.182	0.887	0.429	0.972	0.514	No
		Rear Tilt	0.207	0.066	0.000				0.913	0.455	0.998	0.540	No
		Edge 4	0.671	0.021	0.000	0.000	0.827	0.431	1.519	1.123	1.519	1.123	No
		Edge 2	0.053	0.000	0.000	0.269	0.971	0.447	1.024	0.500	1.293	0.769	No
		Edge 1	0.230	0.239	0.000	0.000	0.077	0.008	0.546	0.477	0.546	0.477	No
		Edge 4 Tilt	0.056	0.004	0.000	0.000	1.089	0.627	1.149	0.687	1.149	0.687	No
		Edge 2 Tilt	0.029	0.000	0.000	0.292	1.197	0.647	1.226	0.676	1.518	0.968	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	5GHz MIMO	WI-FI 6E MIMO	NR + LTE + RFID + 5GHz MIMO	NR + LTE + RFID + 6E MIMO	NR + LTE + RFID+5GHz MIMO + BT	NR + LTE +RFID + 6E MIMO + BT	SPLSR
			1	2	3	4	5	6	1+2+3+5	1+2+3+6	1+2+3+4+5	1+2+3+4+6	
NR Band n5	LTE Band 2/25	Rear	0.165	0.084	0.037	0.085	0.640	0.182	0.926	0.468	1.011	0.553	No
		Rear Tilt	0.177	0.507	0.000				1.324	0.866	1.409	0.951	No
		Edge 4	0.323	0.496	0.000	0.000	0.827	0.431	1.646	1.250	1.646	1.250	Yes
		Edge 2	0.095	0.056	0.000	0.269	0.971	0.447	1.122	0.598	1.391	0.867	No
		Edge 1	0.267	0.633	0.000	0.000	0.077	0.008	0.977	0.908	0.977	0.908	No
		Edge 4 Tilt	0.030	0.135	0.000	0.000	1.089	0.627	1.254	0.792	1.254	0.792	No
		Edge 2 Tilt	0.152	0.040	0.000	0.292	1.197	0.647	1.389	0.839	1.681	1.131	Yes
	LTE Band 7	Rear	0.165	0.250	0.037	0.085	0.640	0.182	1.092	0.634	1.177	0.719	No
		Rear Tilt	0.177	0.581	0.000				1.398	0.940	1.483	1.025	No
		Edge 4	0.323	0.245	0.000	0.000	0.827	0.431	1.395	0.999	1.395	0.999	No
		Edge 2	0.095	0.056	0.000	0.269	0.971	0.447	1.122	0.598	1.391	0.867	No
		Edge 1	0.267	0.496	0.000	0.000	0.077	0.008	0.840	0.771	0.840	0.771	No
		Edge 4 Tilt	0.030	0.029	0.000	0.000	1.089	0.627	1.148	0.686	1.148	0.686	No
		Edge 2 Tilt	0.152	0.058	0.000	0.292	1.197	0.647	1.407	0.857	1.699	1.149	Yes
	LTE Band 66	Rear	0.165	0.146	0.037	0.085	0.640	0.182	0.988	0.530	1.073	0.615	No
		Rear Tilt	0.177	0.433	0.000				1.250	0.792	1.335	0.877	No
		Edge 4	0.323	0.327	0.000	0.000	0.827	0.431	1.477	1.081	1.477	1.081	No
		Edge 2	0.095	0.011	0.000	0.269	0.971	0.447	1.077	0.553	1.346	0.822	No
		Edge 1	0.267	0.698	0.000	0.000	0.077	0.008	1.042	0.973	1.042	0.973	No
		Edge 4 Tilt	0.030	0.158	0.000	0.000	1.089	0.627	1.277	0.815	1.277	0.815	No
		Edge 2 Tilt	0.152	0.022	0.000	0.292	1.197	0.647	1.371	0.821	1.663	1.113	Yes

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	5GHz MIMO	WI-FI 6E MIMO	NR + LTE + RFID + 5GHz MIMO	NR + LTE + RFID + 6E MIMO	NR + LTE + RFID+5GHz MIMO + BT	NR + LTE +RFID + 6E MIMO + BT	SPLSR
			1	2	3	4	5	6	1+2+3+5	1+2+3+6	1+2+3+4+5	1+2+3+4+6	
NR Band n66	LTE Band 5/26	Rear	0.226	0.105	0.037	0.085	0.640	0.182	1.008	0.550	1.093	0.635	No
		Rear Tilt	0.144	0.419	0.000				1.203	0.745	1.288	0.830	No
		Edge 4	0.430	0.295	0.000	0.000	0.827	0.431	1.552	1.156	1.552	1.156	No
		Edge 2	0.008	0.074	0.000	0.269	0.971	0.447	1.053	0.529	1.322	0.798	No
		Edge 1	0.297	0.707	0.000	0.000	0.077	0.008	1.081	1.012	1.081	1.012	No
		Edge 4 Tilt	0.050	0.107	0.000	0.000	1.089	0.627	1.246	0.784	1.246	0.784	No
		Edge 2 Tilt	0.033	0.125	0.000	0.292	1.197	0.647	1.355	0.805	1.647	1.097	Yes
	LTE Band 12	Rear	0.226	0.093	0.037	0.085	0.640	0.182	0.996	0.538	1.081	0.623	No
		Rear Tilt	0.144	0.320	0.000				1.104	0.646	1.189	0.731	No
		Edge 4	0.430	0.094	0.000	0.000	0.827	0.431	1.351	0.955	1.351	0.955	No
		Edge 2	0.008	0.026	0.000	0.269	0.971	0.447	1.005	0.481	1.274	0.750	No
		Edge 1	0.297	0.521	0.000	0.000	0.077	0.008	0.895	0.826	0.895	0.826	No
		Edge 4 Tilt	0.050	0.063	0.000	0.000	1.089	0.627	1.202	0.740	1.202	0.740	No
		Edge 2 Tilt	0.033	0.043	0.000	0.292	1.197	0.647	1.273	0.723	1.565	1.015	No
	LTE Band 13	Rear	0.226	0.111	0.037	0.085	0.640	0.182	1.014	0.556	1.099	0.641	No
		Rear Tilt	0.144	0.422	0.000				1.206	0.748	1.291	0.833	No
		Edge 4	0.430	0.229	0.000	0.000	0.827	0.431	1.486	1.090	1.486	1.090	No
		Edge 2	0.008	0.037	0.000	0.269	0.971	0.447	1.016	0.492	1.285	0.761	No
		Edge 1	0.297	0.590	0.000	0.000	0.077	0.008	0.964	0.895	0.964	0.895	No
		Edge 4 Tilt	0.050	0.119	0.000	0.000	1.089	0.627	1.258	0.796	1.258	0.796	No
		Edge 2 Tilt	0.033	0.088	0.000	0.292	1.197	0.647	1.318	0.768	1.610	1.060	Yes
	LTE Band 14	Rear	0.226	0.116	0.037	0.085	0.640	0.182	1.019	0.561	1.104	0.646	No
		Rear Tilt	0.144	0.428	0.000				1.212	0.754	1.297	0.839	No
		Edge 4	0.430	0.258	0.000	0.000	0.827	0.431	1.515	1.119	1.515	1.119	No
		Edge 2	0.008	0.055	0.000	0.269	0.971	0.447	1.034	0.510	1.303	0.779	No
		Edge 1	0.297	0.626	0.000	0.000	0.077	0.008	1.000	0.931	1.000	0.931	No
		Edge 4 Tilt	0.050	0.128	0.000	0.000	1.089	0.627	1.267	0.805	1.267	0.805	No
		Edge 2 Tilt	0.033	0.084	0.000	0.292	1.197	0.647	1.314	0.764	1.606	1.056	Yes
	LTE Band 48	Rear	0.226	0.007	0.037	0.085	0.640	0.182	0.910	0.452	0.995	0.537	No
		Rear Tilt	0.144	0.066	0.000				0.850	0.392	0.935	0.477	No
		Edge 4	0.430	0.021	0.000	0.000	0.827	0.431	1.278	0.882	1.278	0.882	No
		Edge 2	0.008	0.000	0.000	0.269	0.971	0.447	0.979	0.455	1.248	0.724	No
		Edge 1	0.297	0.239	0.000	0.000	0.077	0.008	0.613	0.544	0.613	0.544	No
		Edge 4 Tilt	0.050	0.004	0.000	0.000	1.089	0.627	1.143	0.681	1.143	0.681	No
		Edge 2 Tilt	0.033	0.000	0.000	0.292	1.197	0.647	1.230	0.680	1.522	0.972	No

NR	LTE	Configuration	NR	LTE	RFID	Bluetooth	5GHz MIMO	WI-FI 6E MIMO	NR + LTE + RFID + 5GHz MIMO	NR + LTE + RFID + 6E MIMO	NR + LTE + RFID+5GHz MIMO + BT	NR + LTE +RFID + 6E MIMO + BT	SPLSR
			1	2	3	4	5	6	1+2+3+5	1+2+3+6	1+2+3+4+5	1+2+3+4+6	
NR Band n77	LTE Band 2/25	Rear	0.192	0.084	0.037	0.085	0.640	0.182	0.953	0.495	1.038	0.580	No
		Rear Tilt	0.085	0.507	0.000				1.232	0.774	1.317	0.859	No
		Edge 4	0.379	0.496	0.000	0.000	0.827	0.431	1.702	1.306	1.702	1.306	Yes
		Edge 2	0.130	0.056	0.000	0.269	0.971	0.447	1.157	0.633	1.426	0.902	No
		Edge 1	0.564	0.633	0.000	0.000	0.077	0.008	1.274	1.205	1.274	1.205	No
		Edge 4 Tilt	0.012	0.135	0.000	0.000	1.089	0.627	1.236	0.774	1.236	0.774	No
		Edge 2 Tilt	0.076	0.040	0.000	0.292	1.197	0.647	1.313	0.763	1.605	1.055	Yes
	LTE Band 5/26	Rear	0.192	0.105	0.037	0.085	0.640	0.182	0.974	0.516	1.059	0.601	No
		Rear Tilt	0.085	0.419	0.000				1.144	0.686	1.229	0.771	No
		Edge 4	0.379	0.295	0.000	0.000	0.827	0.431	1.501	1.105	1.501	1.105	No
		Edge 2	0.130	0.074	0.000	0.269	0.971	0.447	1.175	0.651	1.444	0.920	No
		Edge 1	0.564	0.707	0.000	0.000	0.077	0.008	1.348	1.279	1.348	1.279	No
		Edge 4 Tilt	0.012	0.107	0.000	0.000	1.089	0.627	1.208	0.746	1.208	0.746	No
		Edge 2 Tilt	0.076	0.125	0.000	0.292	1.197	0.647	1.398	0.848	1.690	1.140	Yes
	LTE Band 7	Rear	0.192	0.250	0.037	0.085	0.640	0.182	1.119	0.661	1.204	0.746	No
		Rear Tilt	0.085	0.581	0.000				1.306	0.848	1.391	0.933	No
		Edge 4	0.379	0.245	0.000	0.000	0.827	0.431	1.451	1.055	1.451	1.055	No
		Edge 2	0.130	0.056	0.000	0.269	0.971	0.447	1.157	0.633	1.426	0.902	No
		Edge 1	0.564	0.496	0.000	0.000	0.077	0.008	1.137	1.068	1.137	1.068	No
		Edge 4 Tilt	0.012	0.029	0.000	0.000	1.089	0.627	1.130	0.668	1.130	0.668	No
		Edge 2 Tilt	0.076	0.058	0.000	0.292	1.197	0.647	1.331	0.781	1.623	1.073	Yes
	LTE Band 12	Rear	0.192	0.093	0.037	0.085	0.640	0.182	0.962	0.504	1.047	0.589	No
		Rear Tilt	0.085	0.320	0.000				1.045	0.587	1.130	0.672	No
		Edge 4	0.379	0.094	0.000	0.000	0.827	0.431	1.300	0.904	1.300	0.904	No
		Edge 2	0.130	0.026	0.000	0.269	0.971	0.447	1.127	0.603	1.396	0.872	No
		Edge 1	0.564	0.521	0.000	0.000	0.077	0.008	1.162	1.093	1.162	1.093	No
		Edge 4 Tilt	0.012	0.063	0.000	0.000	1.089	0.627	1.164	0.702	1.164	0.702	No
		Edge 2 Tilt	0.076	0.043	0.000	0.292	1.197	0.647	1.316	0.766	1.608	1.058	Yes
	LTE Band 13	Rear	0.192	0.111	0.037	0.085	0.640	0.182	0.980	0.522	1.065	0.607	No
		Rear Tilt	0.085	0.422	0.000				1.147	0.689	1.232	0.774	No
		Edge 4	0.379	0.229	0.000	0.000	0.827	0.431	1.435	1.039	1.435	1.039	No
		Edge 2	0.130	0.037	0.000	0.269	0.971	0.447	1.138	0.614	1.407	0.883	No
		Edge 1	0.564	0.590	0.000	0.000	0.077	0.008	1.231	1.162	1.231	1.162	No
		Edge 4 Tilt	0.012	0.119	0.000	0.000	1.089	0.627	1.220	0.758	1.220	0.758	No
		Edge 2 Tilt	0.076	0.088	0.000	0.292	1.197	0.647	1.361	0.811	1.653	1.103	Yes
	LTE Band 14	Rear	0.192	0.116	0.037	0.085	0.640	0.182	0.985	0.527	1.070	0.612	No
		Rear Tilt	0.085	0.428	0.000				1.153	0.695	1.238	0.780	No
		Edge 4	0.379	0.258	0.000	0.000	0.827	0.431	1.464	1.068	1.464	1.068	No
		Edge 2	0.130	0.055	0.000	0.269	0.971	0.447	1.156	0.632	1.425	0.901	No
		Edge 1	0.564	0.626	0.000	0.000	0.077	0.008	1.267	1.198	1.267	1.198	No
		Edge 4 Tilt	0.012	0.128	0.000	0.000	1.089	0.627	1.229	0.767	1.229	0.767	No
		Edge 2 Tilt	0.076	0.084	0.000	0.292	1.197	0.647	1.357	0.807	1.649	1.099	Yes
	LTE Band 41	Rear	0.192	0.195	0.037	0.085	0.640	0.182	1.064	0.606	1.149	0.691	No
		Rear Tilt	0.085	0.689	0.000				1.414	0.956	1.499	1.041	No
		Edge 4	0.379	0.119	0.000	0.000	0.827	0.431	1.325	0.929	1.325	0.929	No
		Edge 2	0.130	0.030	0.000	0.269	0.971	0.447	1.131	0.607	1.400	0.876	No
		Edge 1	0.564	0.702	0.000	0.000	0.077	0.008	1.343	1.274	1.343	1.274	No
		Edge 4 Tilt	0.012	0.018	0.000	0.000	1.089	0.627	1.119	0.657	1.119	0.657	No
		Edge 2 Tilt	0.076	0.021	0.000	0.292	1.197	0.647	1.294	0.744	1.586	1.036	No
	LTE Band 66	Rear	0.192	0.146	0.037	0.085	0.640	0.182	1.015	0.557	1.100	0.642	No
		Rear Tilt	0.085	0.433	0.000				1.158	0.700	1.243	0.785	No
		Edge 4	0.379	0.327	0.000	0.000	0.827	0.431	1.533	1.137	1.533	1.137	No
		Edge 2	0.130	0.011	0.000	0.269	0.971	0.447	1.112	0.588	1.381	0.857	No
		Edge 1	0.564	0.698	0.000	0.000	0.077	0.008	1.339	1.270	1.339	1.270	No
		Edge 4 Tilt	0.012	0.158	0.000	0.000	1.089	0.627	1.259	0.797	1.259	0.797	No
		Edge 2 Tilt	0.076	0.022	0.000	0.292	1.197	0.647	1.295	0.745	1.587	1.037	No

8.1 SAR to Peak Location Separation Ratio (SPLSR)

FCC KDB 447498 D01v06 General RF Exposure Guidance introduces a new formula for calculating the SAR a Peak Location Separation Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$\boldsymbol{SPLSR_i = (SAR_1 + SAR_2)^{1.5}/R_i}$$

Where:

$\boldsymbol{SAR_1}$ is the highest measured or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

$\boldsymbol{SAR_2}$ is the highest measured of estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

$\boldsymbol{R_i}$ is the separation distance between the pair of simultaneous transmitting antennas, When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $\boldsymbol{[(X_1 - X_2)^2 + (Y_1 - Y_2)^2 + (Z_1 - Z_2)^2]}$

In order for a pair of simultaneous transmitting antennas with the sum 1-g of SAR> 1.6 W/kg and with the sum 10-g of SAR >4 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$\boldsymbol{(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.04}$ for 1g SAR and $\boldsymbol{(SAR_1 + SAR_2)^{1.5}/R_i \leq 0.1}$ for 10g SAR

The SAR measurement results between the antennas of each WWAN/WLAN/BT mode of the DUT are spatially spaced apart to verify the SPLSR of the WWAN/WLAN/BT mode of the distribution map in Sec. 16 to verify that the simultaneous transmission evaluation is exempted.

SPLSR Evaluation

Position	Mode/Band	X(mm)	Y(mm)	Z(mm)	Reported SAR [W/kg]
Edge 4	LTE Band 7	3.6	88.4	-181.0	0.245
	LTE Band 12	3.0	101.0	-181.0	0.094
	LTE Band 13	3.0	99.5	-181.0	0.229
	LTE Band 14	4.5	99.5	-181.0	0.258
	LTE Band 25	3.0	103.0	-181.0	0.496
	LTE Band 26	3.0	95.0	-181.0	0.295
	LTE Band 41	22.0	83.0	-174.0	0.119
	LTE Band 48	11.0	99.0	-174.0	0.017
	LTE Band 66	4.5	72.5	-181.0	0.327
	NR Band n2	7.5	101.0	-178.0	0.671
	NR Band n5	7.5	97.5	-178.0	0.323
	NR Band n66	0.0	79.5	-178.0	0.430
	NR Band n77	9.6	108.0	-178.0	0.379
	WLAN 2.4 GHz Main	12.0	-67.8	-178.0	1.095
	WLAN 5 GHz Main	12.0	-67.0	-178.0	0.827
Edge 2 Tilt	LTE Band 7	-1.2	-103.0	-178.0	0.058
	LTE Band 12	-2.5	-97.5	-178.0	0.043
	LTE Band 13	23.0	-93.0	-178.0	0.088
	LTE Band 14	11.0	-91.5	-178.0	0.084
	LTE Band 25	9.5	-107.0	-178.0	0.040
	LTE Band 26	9.5	-91.5	-178.0	0.125
	LTE Band 66	-17.5	-96.0	-178.0	0.022
	NR Band n2	8.0	-104.0	-178.0	0.029
	NR Band n5	8.0	-101.0	-178.0	0.152
	NR Band n66	-16.0	-91.5	-178.0	0.033
	NR Band n77	-7.2	-90.0	-178.0	0.076
	WLAN 5 GHz Aux	-3.0	67.0	-178.0	1.195
Edge 4 Tilt	LTE Band 13	4.5	92.0	-181.0	0.119
	LTE Band 66	6.0	106.0	-180.0	0.158
	WLAN 2.4 GHz Main	-2.4	-69.8	-178.0	1.317
	WLAN 2.4 GHz Aux	-3.0	-101.0	-177.0	0.007

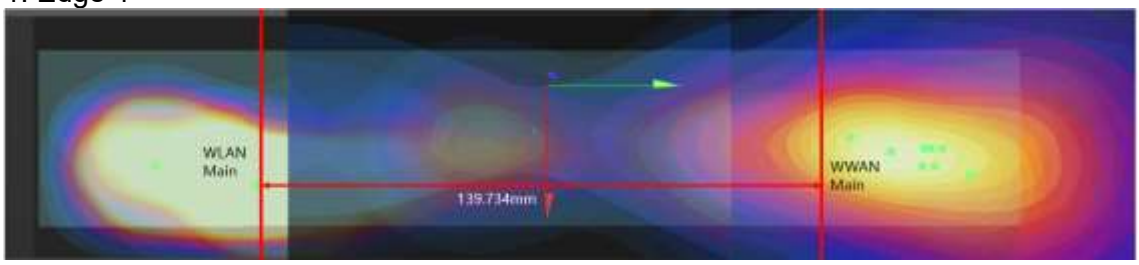
Position	Max Mode		Sum 1g SAR	Peak SAR Separation Distance [mm]	SPLSR
	1	2	1+2	1+2	
Edge 4	LTE Band 7 + NR Band n5	WLAN 2.4 GHz Main+RFID	1.663	156.454	0.014
	LTE Band 7 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.719	156.454	0.014
	LTE Band 12 + NR Band n2	WLAN 2.4 GHz Main+RFID	1.860	168.860	0.015
	LTE Band 12 + NR Band n66	WLAN 2.4 GHz Main+RFID	1.619	147.788	0.014
	LTE Band 13 + NR Band n2	WLAN 2.4 GHz Main+RFID	1.995	167.569	0.017
	LTE Band 13 + NR Band n66	WLAN 2.4 GHz Main+RFID	1.754	147.788	0.016
	LTE Band 13 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.703	167.569	0.013
	LTE Band 14 + NR Band n2	WLAN 2.4 GHz Main+RFID	2.024	167.495	0.017
	LTE Band 14 + NR Band n66	WLAN 2.4 GHz Main+RFID	1.783	147.788	0.016
	LTE Band 14 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.732	167.495	0.014
	LTE Band 25 + NR Band n5	WLAN 2.4 GHz Main+RFID	1.914	171.063	0.015
	LTE Band 25 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.970	171.063	0.016
	LTE Band 26 +NR Band n2	WLAN 2.4 GHz Main+RFID	2.067	163.076	0.018
	LTE Band 26 + NR Band n66	WLAN 2.4 GHz Main+RFID	1.82	147.788	0.017
	LTE Band 26 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.769	163.076	0.015
	LTE Band 48 + NR Band n2	WLAN 2.4 GHz Main+RFID	1.787	166.851	0.014
	LTE Band 66 + NR Band n5	WLAN 2.4 GHz Main+RFID	1.745	140.532	0.016
	LTE Band 66 + NR Band n77	WLAN 2.4 GHz Main+RFID	1.801	140.532	0.017
	LTE Band 13 + NR Band n2	WLAN 5 GHz Main+RFID	1.727	166.770	0.014
	LTE Band 14 + NR Band n2	WLAN 5 GHz Main+RFID	1.756	166.696	0.014
	LTE Band 25 + NR Band n5	WLAN 5 GHz Main+RFID	1.646	170.265	0.012
	LTE Band 25 + NR Band n77	WLAN 5 GHz Main+RFID	1.702	170.265	0.013
	LTE Band 26 + NR Band n2	WLAN 5 GHz Main+RFID	1.793	162.278	0.015
	LTE Band 2/25 +LTE Band 12	WLAN 2.4 GHz Main+RFID	1.685	169.066	0.013
	LTE Band 2/25 +LTE Band 13	WLAN 2.4 GHz Main+RFID	1.820	167.569	0.015
	LTE Band 2/25 +LTE Band 26	WLAN 2.4 GHz Main+RFID	1.886	163.076	0.016
	LTE Band 4/66 + LTE Band 13	WLAN 2.4 GHz Main+RFID	1.651	140.532	0.015
	LTE Band 4/66 + LTE Band 26	WLAN 2.4 GHz Main+RFID	1.717	140.532	0.016
	LTE Band 5/26 + LTE Band 7	WLAN 2.4 GHz Main+RFID	1.635	156.455	0.013
	LTE Band 2/25 + LTE Band 5/26	WLAN 5 GHz Main+RFID	1.618	162.278	0.013

Position	Max Mode		Sum 1g SAR	Peak SAR Separation Distance [mm]	SPLSR
	1	2	1+2	1+2	
Edge 2 Tilt	LTE Band 7 + NR Band n5	WLAN 5 GHz Aux+RFID	1.699	170.010	0.013
	LTE Band 7 + NR Band n77	WLAN 5 GHz Aux+RFID	1.624	157.056	0.013
	LTE Band 12 + NR Band n77	WLAN 5 GHz Aux+RFID	1.609	157.056	0.013
	LTE Band 13 + NR Band n2	WLAN 5 GHz Aux+RFID	1.606	162.099	0.013
	LTE Band 13+ NR Band n66	WLAN 5 GHz Aux+RFID	1.610	157.537	0.013
	LTE Band 13 + NR Band n77	WLAN 5 GHz Aux+RFID	1.654	157.056	0.014
	LTE Band 14 + NR Band n2	WLAN 5 GHz Aux+RFID	1.602	159.117	0.013
	LTE Band 14 + NR Band n66	WLAN 5 GHz Aux+RFID	1.606	157.537	0.013
	LTE Band 14 + NR Band n77	WLAN 5 GHz Aux+RFID	1.650	157.056	0.013
	LTE Band 2/25 + NR Band n5	WLAN 5 GHz Aux+RFID	1.681	174.448	0.012
	LTE Band 2/25 + NR Band n77	WLAN 5 GHz Aux+RFID	1.606	157.056	0.013
	LTE Band 5/26 + NR Band n2	WLAN 5 GHz Aux+RFID	1.643	158.992	0.013
	LTE Band 5/26 + NR Band n66	WLAN 5 GHz Aux+RFID	1.647	157.537	0.013
	LTE Band 5/26 + NR Band n77	WLAN 5 GHz Aux+RFID	1.691	157.056	0.014
	LTE Band 4/66 + NR Band n5	WLAN 5 GHz Aux+RFID	1.663	163.644	0.013
	LTE Band 5/26	WLAN 5 GHz Aux+RFID	1.614	160.488	0.013
	LTE Band 2/25 + LTE Band 13	WLAN 5 GHz Aux+RFID	1.617	162.099	0.013
	LTE Band 2/25 + LTE Band 26	WLAN 5 GHz Aux+RFID	1.654	158.992	0.013
	LTE Band 5/26 + LTE Band 7	WLAN 5 GHz Aux+RFID	1.672	158.992	0.014
	LTE Band 4/66 + LTE Band 5/26	WLAN 5 GHz Aux+RFID	1.636	158.992	0.013
	LTE Band 4/66 + LTE Band 13	WLAN 5 GHz Aux+RFID	1.599	162.099	0.012

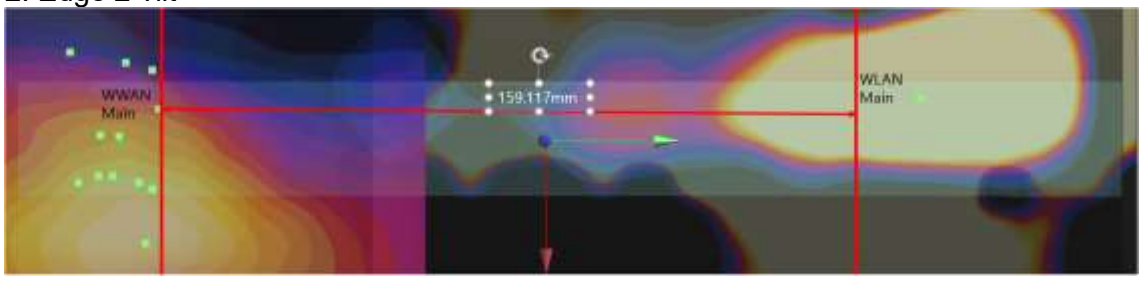
Position	Max Mode		Sum 1g SAR	Peak SAR Separation Distance [mm]	SPLSR
	1	2	1+2	1+2	
Edge 4 Tilt	LTE Band 4/66 + LTE Band 13	WLAN 2.4 GHz Main+RFID	1.601	161.975	0.013

SPLSR Plot

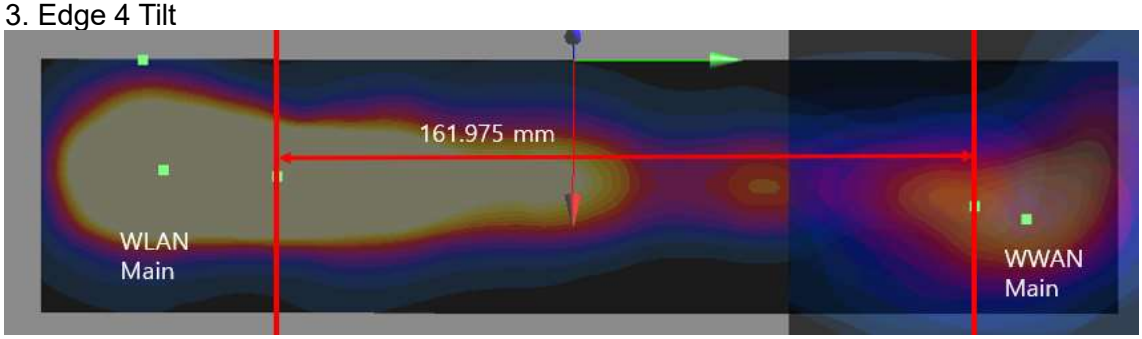
1. Edge 4



2. Edge 2 Tilt



3. Edge 4 Tilt



8.2 Simultaneous Transmission Conclusion

The above numerical summed SAR Results are sufficient to determine that simultaneous transmission cases will not exceed the SAR Limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and the IEEE1528-2013.

9. Measurement Uncertainty

Measurement Uncertainty for DUT SAR test								
a	*c*	*d*	*e*	*f*	*g*	*h* = *c* x *f* / *e*	*i* = *c* x *g* / *e*	*k*
Source of uncertainty	**Uncertainty ± %**	**Probability distribution**	**Div.**	**ci**	**ci**	**Standard Uncertainty**	**Standard Uncertainty**	**vi or veff**
				(1 g)	**(10 g)**	**± % (1 g)**	**± % (10 g)**	
Measurement system								
Probe calibration	6.65	N	1	1	1	6.65	6.65	∞
Axial isotropy	4.70	R	1.73	0.71	0.71	1.92	1.92	∞
Hemispherical isotropy	9.60	R	1.73	0.71	0.71	3.92	3.92	∞
Boundary effect	2.00	R	1.73	1	1	1.15	1.15	∞
Linearity	4.70	R	1.73	1	1	2.71	2.71	∞
Detection limits	1.00	R	1.73	1	1	0.58	0.58	∞
Readout electronics	0.30	N	1	1	1	0.30	0.30	∞
Response time	0.80	R	1.73	1	1	0.46	0.46	∞
Integration time	2.60	R	1.73	1	1	1.50	1.50	∞
RF ambient conditions - noise	3.00	R	1.73	1	1	1.73	1.73	∞
RF ambient conditions - reflections	3.00	R	1.73	1	1	1.73	1.73	∞
Probe positioner mechanical tolerance	0.80	R	1.73	1	1	0.46	0.46	∞
Probe positioning with respect to phantom shell	6.70	R	1.73	1	1	3.87	3.87	∞
Max. SAR Evaluation	4.00	R	1.73	1	1	2.31	2.31	∞
Test sample related								
Test sample positioning	3.50	N	1	1	1	3.50	3.50	∞
Device holder uncertainity	2.01	N	1	1	1	2.01	2.01	∞
SAR drift measurement	5.00	R	1.73	1	1	2.89	2.89	∞
SAR scaling	0.00	R	1.73	1	1	0.00	0.00	∞
Phantom and set-up								
Phantom uncertainty (shape and thickness uncertainty)	7.60	R	1.73	1	1	4.39	4.39	∞
Liquid conductivity (measured)	0.25	N	1	0.78	0.71	0.20	0.18	∞
Liquid permittivity (measured)	1.51	N	1	0.23	0.26	0.22	0.25	∞
Liquid conductivity (temperature uncertainty)	0.52	R	1.73	0.78	0.71	0.23	0.21	∞
Liquid permittivity (temperature uncertainty)	1.21	R	1.73	0.23	0.26	0.16	0.18	∞
Liquid conductivity - deviation from target	5.00	R	1.73	0.64	0.43	1.85	1.24	∞
Liquid permittivity - deviation from target	5.00	R	1.73	0.6	0.49	1.73	1.41	∞
Combined standard uncertainty		RSS				12.32	12.20	
Expanded uncertainty (95% confidence interval)		*k = 2*				**24.64**	**24.40**	

10. SAR Test Equipment

Manufacturer	Type / Model	S/N	Calib. Date	Calib.Interval	Calib.Due
SPEAG	ELI Phantom	-	N/A	N/A	N/A
HP	SAR System Control PC	-	N/A	N/A	N/A
Staubli	CS8Cspeag-TX90	F11/ 5K3RA1/C/01	N/A	N/A	N/A
Staubli	TX90 XLspeag	F11/ 5K3RA1/A/01	N/A	N/A	N/A
Staubli	Teach Pendant (Joystick)	S-1203 0309	N/A	N/A	N/A
TESTO	175-H1/Thermometer	40331936309	12/26/2023	Annual	12/26/2024
SPEAG	DAE4	504	01/30/2024	Annual	01/30/2025
SPEAG	E-Field Probe ES3DV3	3076	07/18/2023	Annual	07/18/2024
SPEAG	Dipole CLA13	1016	09/21/2023	Annual	09/21/2024
Agilent	WIRELESS COMMUNICATION E5515C	MY48361100	09/21/2023	Annual	09/21/2024
Agilent	Power Meter E4419B	MY41291386	09/21/2023	Annual	09/21/2024
Agilent	Power Meter N1911A	MY45101406	05/21/2024	Annual	05/21/2025
Agilent	Power Sensor 8481A	SG1091286	09/21/2023	Annual	09/21/2024
H.P	Power Sensor 8481A	MY41090675	09/21/2023	Annual	09/21/2024
Agilent	Wideband Power Sensor N1921A	MY55220026	07/28/2023	Annual	07/28/2024
Agilent	11636B/Power Divider	58698	01/15/2024	Annual	01/15/2025
SPEAG	DAKS 3.5	1038	01/22/2024	Annual	01/22/2025
SPEAG	Vector Reflectometer	0141013	01/11/2024	Annual	01/11/2025
H.P	Network Analyzer /8753ES	JP39240221	12/26/2023	Annual	12/26/2024
Agilent	SIGNAL GENERATOR N5182A	MY47070230	03/19/2024	Annual	03/19/2025
Keysight	PSG Vector Signal Generator	MY50350097	03/05/2024	Annual	03/05/2025
EMPOWER	RF Power Amplifier	1084	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1084	05/21/2024	Annual	05/21/2025
EMPOWER	RF Power Amplifier	1041D/C0508	05/26/2023	Annual	05/26/2024
EMPOWER	RF Power Amplifier	1041D/C0508	05/21/2024	Annual	05/21/2025
EMPOWER	RF Power Amplifier	1011	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-15N	10453	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-30N	-	09/21/2023	Annual	09/21/2024
MICRO LAB	LP Filter / LA-60N	32011	09/21/2023	Annual	09/21/2024
Agilent	Attenuator (3dB) 8693B	MY39260298	08/22/2023	Annual	08/22/2024
HP	Attenuator (3dB) 33340A	02427	08/22/2023	Annual	08/22/2024
HP	Attenuator (20dB) 8493C	09271	08/22/2023	Annual	08/22/2024
Agilent	Directional Bridge 86205A	3140A04581	04/22/2024	Annual	04/22/2025
HP	Dual Directional Coupler	16072	09/21/2023	Annual	09/21/2024

Appendix A. DUT Ant. Information & SETUP PHOTO

Please refer to test DUT Ant. Information &setup photo file no. as follows:

Report No.
HCT-SR-2406-FC003-P

Appendix B. – SAR Test Plots

Test Laboratory:	HCT CO., LTD
EUT Type:	RFID Module
Liquid Temperature:	22.3 ℃
Ambient Temperature:	22.4 ℃
Test Date:	06/14/2024
Plot No.:	B1

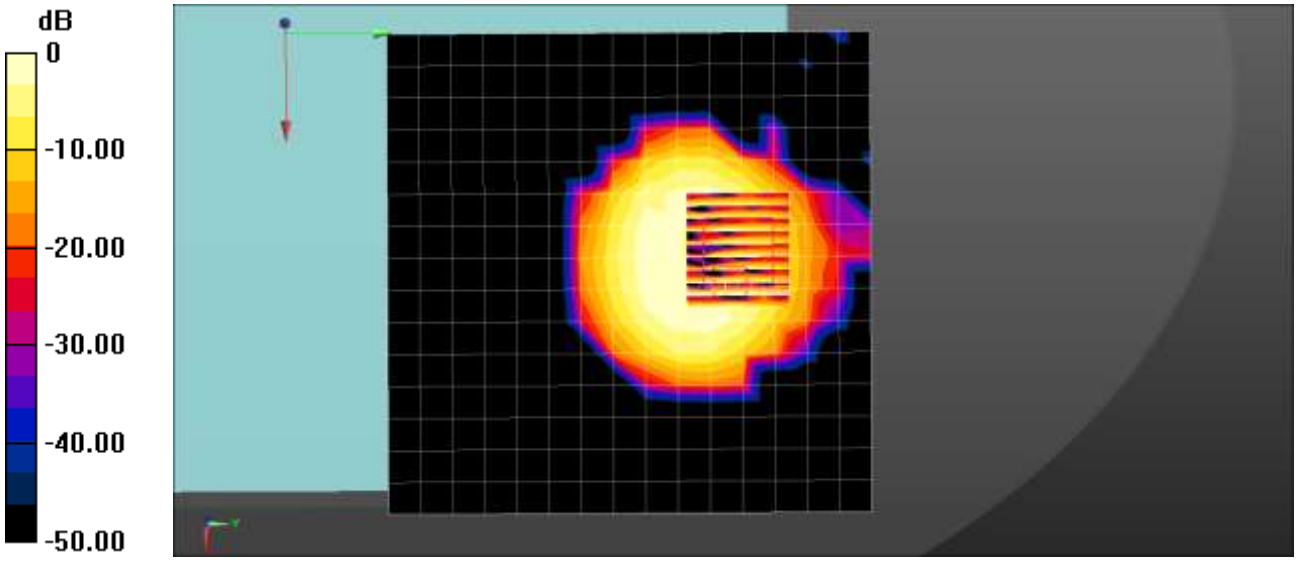
Communication System: UID 0, RFID (0); Frequency: 13.56 MHz;Duty Cycle: 1:1
Medium parameters used: f = 14 MHz; σ = 0.756 S/m; ε_r = 54.308; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(5.8, 5.8, 5.8) @ 13.56 MHz; Calibrated: 2023-07-18
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2024-01-30
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

RFID Body Rear ISO15693 26.48kbps/Area Scan (16x16x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0457 W/kg

RFID Body Rear ISO15693 26.48kbps/Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.155 W/kg
SAR(1 g) = 0.037 W/kg; SAR(10 g) = 0.014 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 66.8%
Maximum value of SAR (measured) = 0.0492 W/kg



0 dB = 0.0492 W/kg = -13.08 dBW/kg

Appendix C. –Verification Plots

■Verification Data (13 ㎒)

Test Laboratory:	HCT CO., LTD
Input Power	50 ㎽
Liquid Temp:	22.3 ℃
Test Date:	06/14/2024

DUT: CLA-13 - SN1016; Type: CLA-13; Serial: SN1016

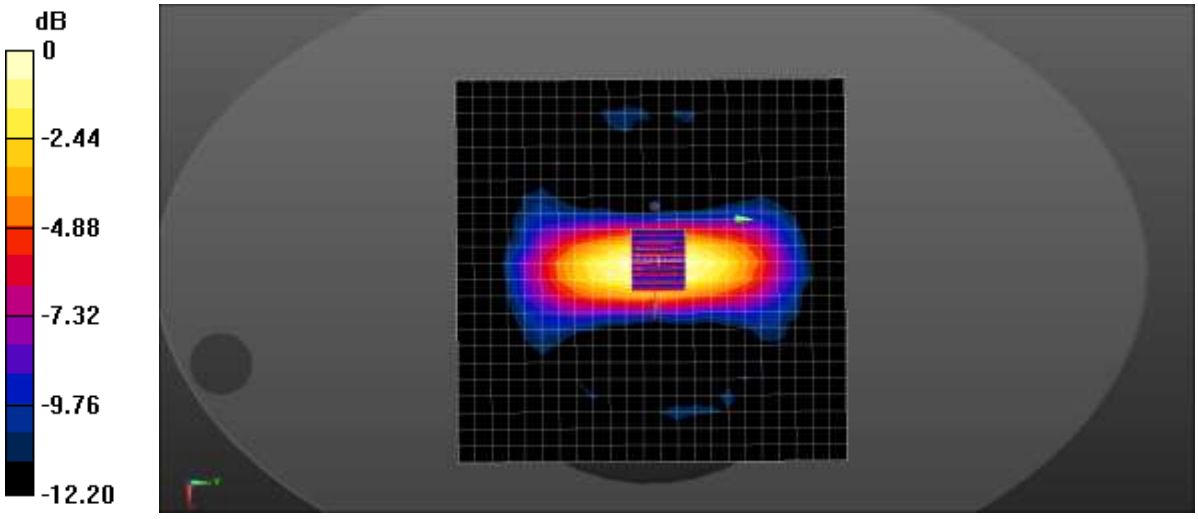
Communication System: UID 0, RFID (0); Frequency: 13 MHz;Duty Cycle: 1:1
Medium parameters used: f = 13 MHz; σ = 0.724 S/m; ε_r = 54.346; ρ = 1000 kg/m^3
Phantom section: Flat Section

DASY5 Configuration:

- Probe: ES3DV3 - SN3076; ConvF(5.8, 5.8, 5.8) @ 13 MHz; Calibrated: 2023-07-18
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn504; Calibrated: 2024-01-30
- Phantom: ELI V4.0 (20deg probe tilt); Type: QD OVA 001 Bx; Serial: xxxx
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7483)

CLA-13/13MHz Head Verification/Area Scan (24x24x1): Measurement grid: dx=10mm, dy=10mm
Maximum value of SAR (measured) = 0.0329 W/kg

CLA-13/13MHz Head Verification/Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.766 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.0590 W/kg
SAR(1 g) = 0.029 W/kg; SAR(10 g) = 0.018 W/kg
Smallest distance from peaks to all points 3 dB below: Larger than measurement grid
Ratio of SAR at M2 to SAR at M1 = 82.9%
Maximum value of SAR (measured) = 0.0342 W/kg



0 dB = 0.0342 W/kg = -14.66 dBW/kg

Appendix D. – Probe Calibration Data

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 **HCT**
Gyeonggi-do, Republic of Korea

Certificate No. **ES-3076_Jul23**

CALIBRATION CERTIFICATE

Object	ES3DV3 - SN:3076
Calibration procedure(s)	QA CAL-01.v10, QA CAL-12.v10, QA CAL-23.v6, QA CAL-25.v8 Calibration procedure for dosimetric E-field probes
Calibration date	July 18, 2023

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 NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
OCP DAK-3.5 (weighted)	SN: 1249	20-Oct-22 (OCP-DAK3.5-1249_Oct22)	Oct-23
OCP DAK-12	SN: 1016	20-Oct-22 (OCP-DAK12-1016_Oct22)	Oct-23
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
DAE4	SN: 660	16-Mar-23 (No. DAE4-660_Mar23)	Mar-24
Reference Probe ES3DV2	SN: 3013	06-Jan-23 (No. ES3-3013_Jan23)	Jan-24

Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-22)	In house check: Jun-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by	Jeffrey Katzman	Laboratory Technician	
Approved by	Sven Kühn	Technical Manager	

Issued: July 18, 2023

결재	담당자	확인자
직위/성명	DL / 내장호	CJ / 허준호
일자	2023 / 08.23	2023 / 08.23

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)
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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., $\vartheta = 0$ 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) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices – Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) 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 $\vartheta = 0$ ($f \le 900$ 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. 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 $f \le 800$ 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).

Parameters of Probe: ES3DV3 - SN:3076

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc ($k = 2$)
Norm ($\mu V/(V/m)^2$) [A]	1.21	1.24	1.18	±10.1%
DCP (mV) [B]	106.0	105.0	104.0	±4.7%

Calibration Results for Modulation Response

UID	Communication System Name		A dB	B $dB\sqrt{\mu V}$	C	D dB	VR mV	Max dev.	Max Unc[E] $k = 2$
0	CW	X	0.00	0.00	1.00	0.00	209.5	±3.0%	±4.7%
		Y	0.00	0.00	1.00		208.5		
		Z	0.00	0.00	1.00		199.2		
10352	Pulse Waveform (200Hz, 10%)	X	12.55	85.70	23.45	10.00	60.0	±1.6%	±9.6%
		Y	12.36	85.52	23.29		60.0		
		Z	14.22	87.77	23.67		60.0		
10353	Pulse Waveform (200Hz, 20%)	X	20.00	94.07	24.61	6.99	80.0	±2.5%	±9.6%
		Y	20.00	94.11	24.55		80.0		
		Z	20.00	93.40	23.84		80.0		
10354	Pulse Waveform (200Hz, 40%)	X	20.00	95.82	23.46	3.98	95.0	±3.7%	±9.6%
		Y	20.00	96.10	23.57		95.0		
		Z	20.00	94.83	22.58		95.0		
10355	Pulse Waveform (200Hz, 60%)	X	20.00	99.55	23.57	2.22	120.0	±3.9%	±9.6%
		Y	20.00	100.53	24.06		120.0		
		Z	20.00	97.63	22.25		120.0		
10387	QPSK Waveform, 1 MHz	X	1.96	67.22	16.17	1.00	150.0	±2.5%	±9.6%
		Y	2.02	68.40	16.83		150.0		
		Z	1.76	66.00	15.20		150.0		
10388	QPSK Waveform, 10 MHz	X	2.71	70.78	17.03	0.00	150.0	±1.0%	±9.6%
		Y	2.87	72.05	17.80		150.0		
		Z	2.37	68.73	15.94		150.0		
10396	64-QAM Waveform, 100 kHz	X	4.51	75.83	21.27	3.01	150.0	±0.6%	±9.6%
		Y	4.70	77.67	22.25		150.0		
		Z	3.75	72.58	19.73		150.0		
10399	64-QAM Waveform, 40 MHz	X	3.67	67.81	16.18	0.00	150.0	±1.8%	±9.6%
		Y	3.74	68.30	16.53		150.0		
		Z	3.60	67.47	15.91		150.0		
10414	WLAN CCDF, 64-QAM, 40 MHz	X	5.05	65.79	15.64	0.00	150.0	±3.8%	±9.6%
		Y	5.07	66.04	15.84		150.0		
		Z	5.02	65.86	15.63		150.0		

Note: For details on UID parameters see Appendix

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 Page 5).
[B] Linearization parameter uncertainty for maximum specified field strength.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Parameters of Probe: ES3DV3 - SN:3076

Sensor Model Parameters

	C1 fF	C2 fF	α V^{-1}	T1 $ms\,V^{-2}$	T2 $ms\,V^{-1}$	T3 ms	T4 V^{-2}	T5 V^{-1}	T6
x	69.3	493.86	35.07	29.81	3.34	5.10	0.66	0.66	1.01
y	63.3	451.09	35.12	29.79	3.18	5.10	1.05	0.51	1.01
z	60.7	436.50	35.52	29.40	2.83	5.10	0.34	0.69	1.01

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle	145.0°
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	10 mm
Tip Diameter	4 mm
Probe Tip to Sensor X Calibration Point	2 mm
Probe Tip to Sensor Y Calibration Point	2 mm
Probe Tip to Sensor Z Calibration Point	2 mm
Recommended Measurement Distance from Surface	3 mm

Parameters of Probe: ES3DV3 - SN:3076

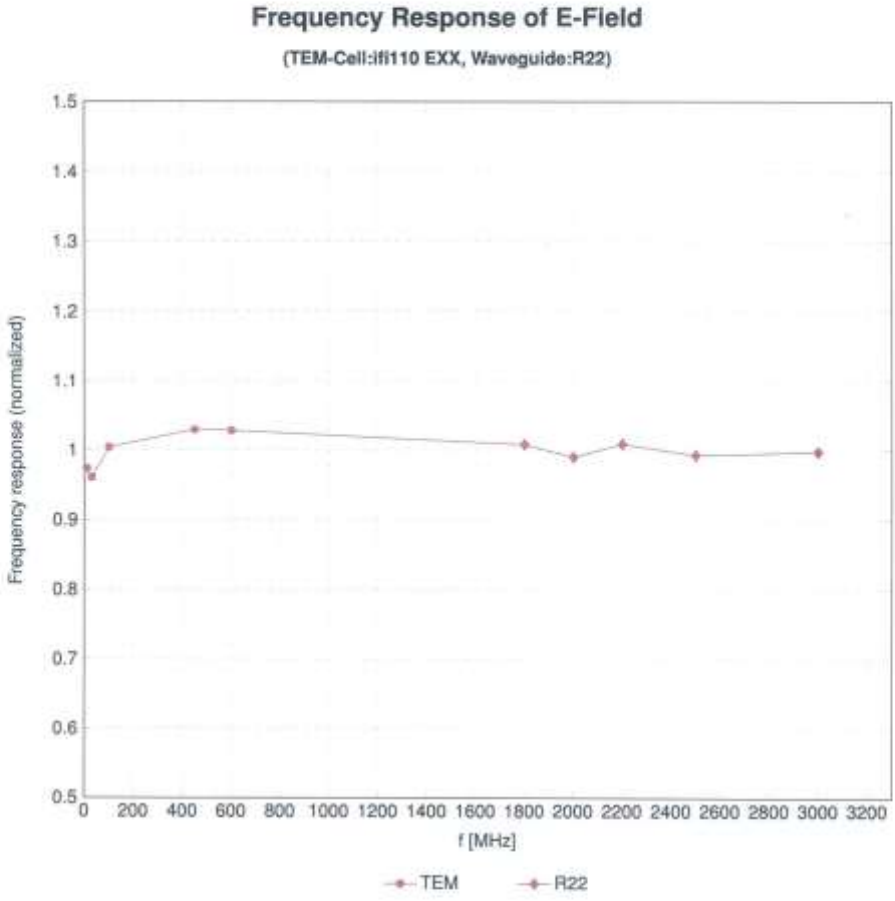
Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz)[C]	Relative Permittivity[F]	Conductivity[F] (S/m)	ConvF X	ConvF Y	ConvF Z	Alpha[G]	Depth[G] (mm)	Unc ($k = 2$)
6	55.0	0.75	5.33	5.33	5.33	0.00	1.00	±13.3%
13	55.0	0.75	5.80	5.80	5.80	0.00	1.00	±13.3%
750	41.9	0.89	6.37	6.37	6.37	0.40	1.64	±12.0%
835	41.5	0.90	6.11	6.11	6.11	0.62	1.28	±12.0%
900	41.5	0.97	5.98	5.98	5.98	0.66	1.25	±12.0%
1450	40.5	1.20	5.53	5.53	5.53	0.34	1.71	±12.0%
1750	40.1	1.37	5.35	5.35	5.35	0.74	1.11	±12.0%
1900	40.0	1.40	5.05	5.05	5.05	0.80	1.13	±12.0%
2300	39.5	1.67	5.00	5.00	5.00	0.53	1.47	±12.0%
2450	39.2	1.80	4.81	4.81	4.81	0.73	1.31	±12.0%
2600	39.0	1.96	4.59	4.59	4.59	0.80	1.27	±12.0%

[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, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4–8 MHz, and ConvF assessed at 13 MHz is 9–19 MHz. Above 5 GHz frequency validity can be extended to ±110 MHz.

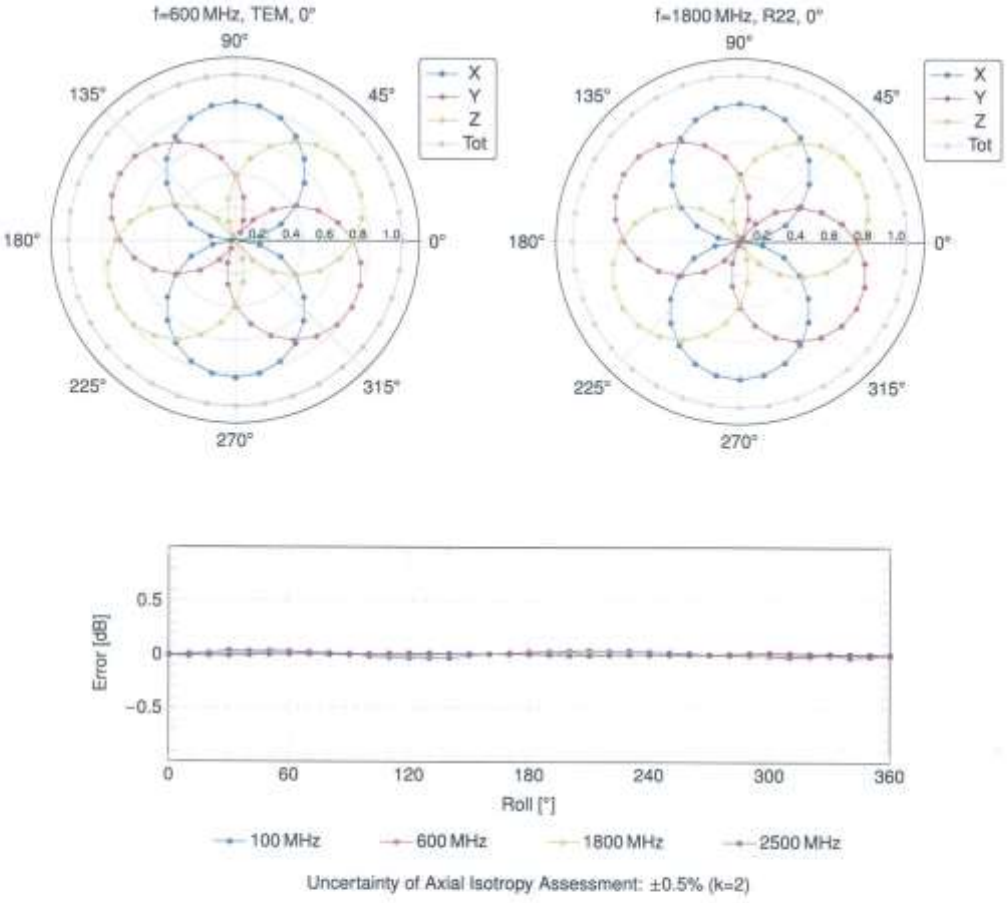
[F] The probes are calibrated using tissue simulating liquids (TSL) that deviate for ε and σ by less than ±5% from the target values (typically better than ±3%) and are valid for TSL with deviations of up to ±10%. If TSL with deviations from the target of less than ±5% are used, the calibration uncertainties are 11.1% for 0.7 - 3 GHz and 13.1% for 3 - 6 GHz.

[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.



Uncertainty of Frequency Response of E-field: ±6.3% (k=2)

Receiving Pattern (ϕ), $\vartheta = 0°$

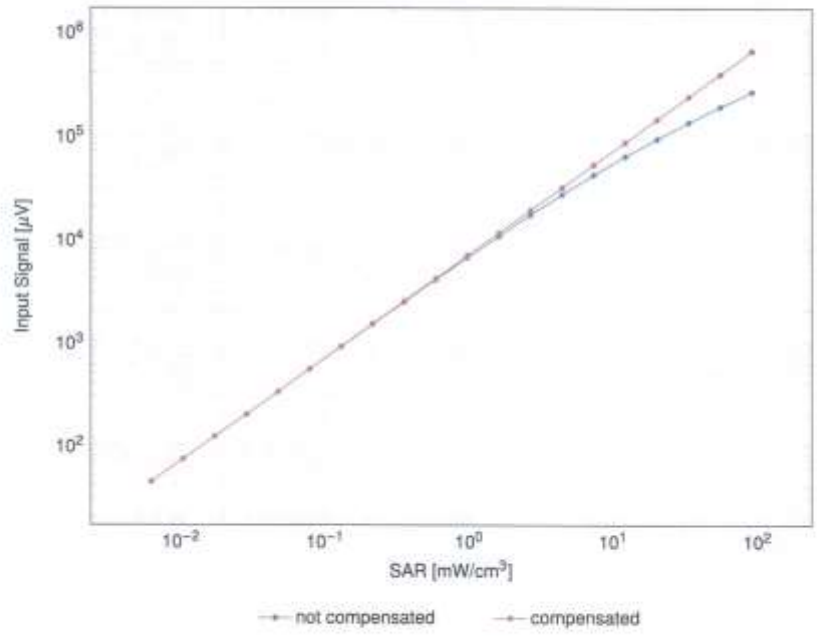


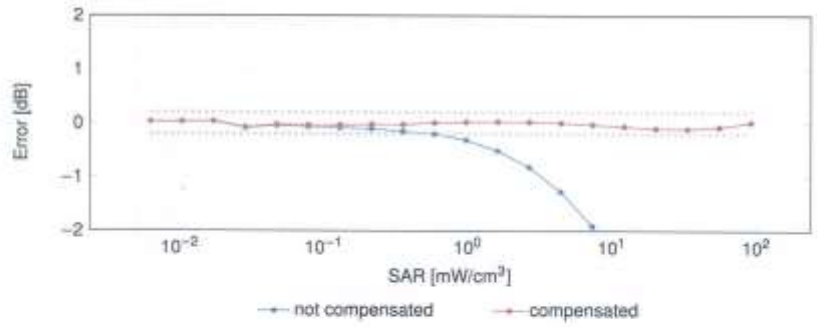
Uncertainty of Axial Isotropy Assessment: ±0.5% (k=2)

ES3DV3 - SN:3076 July 18, 2023

Dynamic Range f(SAR$_{head}$)

(TEM cell, f_{eval} = 1900 MHz)

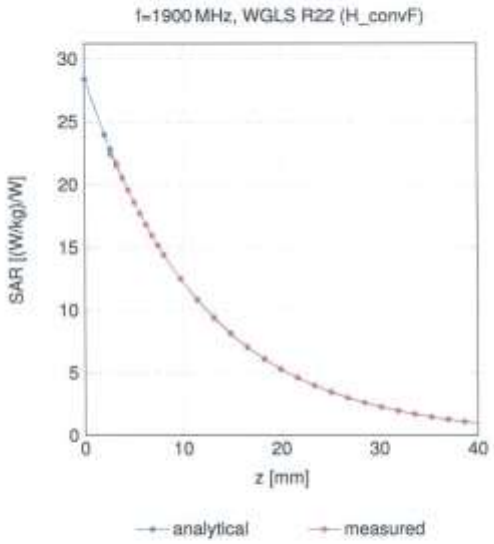




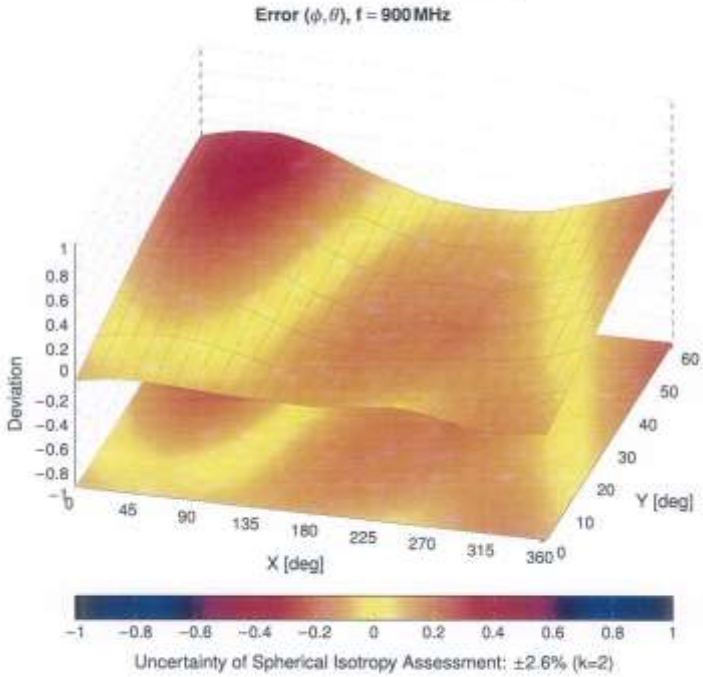
Uncertainty of Linearity Assessment: ±0.6% (k=2)

Certificate No: ES-3076_Jul23 Page 8 of 21

Conversion Factor Assessment



Deviation from Isotropy in Liquid



Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
0		CW	CW	0.00	±4.7
10010	CAB	SAR Validation (Square, 100 ms, 10 ms)	Test	10.00	±9.6
10011	CAC	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6
10012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	±9.6
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	±9.6
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	±9.6
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	±9.6
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	±9.6
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	±9.6
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	±9.6
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	±9.6
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	±9.6
10031	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	±9.6
10032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	±9.6
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	±9.6
10034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	±9.6
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6
10036	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	±9.6
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	±9.6
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	±9.6
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	±9.6
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7.78	±9.6
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6
10056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6
10058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	±9.6
10059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	±9.6
10060	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	±9.6
10061	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	±9.6
10062	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	±9.6
10063	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	±9.6
10064	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	±9.6
10065	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	±9.6
10066	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6
10067	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	±9.6
10068	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	±9.6
10069	CAD	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	±9.6
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	±9.6
10072	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	±9.6
10073	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	±9.6
10074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6
10075	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6
10076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	±9.6
10077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	±9.6
10081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	±9.6
10082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	±9.6
10090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±9.6
10097	CAC	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6
10098	CAC	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	±9.6
10099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6
10100	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6
10101	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10102	CAF	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10103	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6
10104	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	±9.6
10105	CAH	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6
10108	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	5.80	±9.6
10109	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10110	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FDD	5.75	±9.6
10111	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
10112	CAH	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6
10113	CAH	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10114	CAD	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	±9.6
10115	CAD	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6
10116	CAD	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6
10117	CAD	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	±9.6
10118	CAD	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	±9.6
10119	CAD	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	±9.6
10140	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10141	CAF	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6
10142	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10143	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	±9.6
10144	CAF	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	±9.6
10145	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	±9.6
10146	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	±9.6
10147	CAG	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	±9.6
10149	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6
10150	CAF	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10151	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6
10152	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10153	CAH	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6
10154	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	±9.6
10155	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10156	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	±9.6
10157	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	±9.6
10158	CAH	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	±9.6
10159	CAH	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6
10160	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6
10161	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6
10162	CAF	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	±9.6
10166	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6
10167	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6
10168	CAG	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	±9.6
10169	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6
10170	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10171	AAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6
10172	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-TDD	9.21	±9.6
10173	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10174	CAH	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10175	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	5.72	±9.6
10176	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10177	CAJ	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	5.73	±9.6
10178	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10179	CAH	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10180	CAH	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10181	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	5.72	±9.6
10182	CAF	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10183	AAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10184	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD	5.73	±9.6
10185	CAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
10186	AAF	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10187	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	±9.6
10188	CAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10189	AAG	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6
10193	CAD	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.6
10194	CAD	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	±9.6
10195	CAD	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	±9.6
10196	CAD	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	±9.6
10197	CAD	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6
10198	CAD	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9.6
10219	CAD	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6
10220	CAD	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	±9.6
10221	CAD	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	±9.6
10222	CAD	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	±9.6
10223	CAD	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	±9.6
10224	CAD	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
10225	CAC	UMTS-FDD (HSPA+)	WCDMA	5.97	±9.6
10226	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6
10227	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	±9.6
10228	CAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	±9.6
10229	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10230	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10231	CAE	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	±9.6
10232	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10233	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10234	CAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6
10235	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10236	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10237	CAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6
10238	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6
10239	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	±9.6
10240	CAG	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	±9.6
10241	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	±9.6
10242	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	±9.6
10243	CAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	±9.6
10244	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6
10245	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.6
10246	CAE	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6
10247	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.6
10248	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6
10249	CAH	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6
10250	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6
10251	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6
10252	CAH	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	±9.6
10253	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	±9.6
10254	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.6
10255	CAG	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	±9.6
10256	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.96	±9.6
10257	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±9.6
10258	CAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.6
10259	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6
10260	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6
10261	CAE	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±9.6
10262	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6
10263	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	±9.6
10264	CAH	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	±9.6
10265	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6
10266	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	±9.6
10267	CAH	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	±9.6
10268	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	±9.6
10269	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	±9.6
10270	CAG	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	±9.6
10274	CAC	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	±9.6
10275	CAC	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	±9.6
10277	CAA	PHS (QPSK)	PHS	11.81	±9.6
10278	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.5)	PHS	11.81	±9.6
10279	CAA	PHS (QPSK, BW 884 MHz, Rolloff 0.38)	PHS	12.18	±9.6
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	±9.6
10297	AAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	±9.6
10298	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.6
10299	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	±9.6
10300	AAE	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	±9.6
10301	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC)	WiMAX	12.03	±9.6
10302	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, QPSK, PUSC, 3 CTRL symbols)	WiMAX	12.57	±9.6
10303	AAA	IEEE 802.16e WiMAX (31:15, 5 ms, 10 MHz, 64QAM, PUSC)	WiMAX	12.52	±9.6
10304	AAA	IEEE 802.16e WiMAX (29:18, 5 ms, 10 MHz, 64QAM, PUSC)	WiMAX	11.86	±9.6
10305	AAA	IEEE 802.16e WiMAX (31:15, 10 ms, 10 MHz, 64QAM, PUSC, 15 symbols)	WiMAX	15.24	±9.6
10306	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 64QAM, PUSC, 18 symbols)	WiMAX	14.67	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
10307	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, PUSC, 18 symbols)	WiMAX	14.49	±9.6
10308	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, PUSC)	WiMAX	14.46	±9.6
10309	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, 16QAM, AMC 2x3, 18 symbols)	WiMAX	14.58	±9.6
10310	AAA	IEEE 802.16e WiMAX (29:18, 10 ms, 10 MHz, QPSK, AMC 2x3, 18 symbols)	WiMAX	14.57	±9.6
10311	AAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	±9.6
10313	AAA	iDEN 1:3	iDEN	10.51	±9.6
10314	AAA	iDEN 1:6	iDEN	13.48	±9.6
10315	AAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 98pc duty cycle)	WLAN	1.71	±9.6
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 98pc duty cycle)	WLAN	8.38	±9.6
10317	AAD	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 98pc duty cycle)	WLAN	8.38	±9.6
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	±9.6
10353	AAA	Pulse Waveform (200Hz, 20%)	Generic	6.99	±9.6
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	±9.6
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	±9.6
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±9.6
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±9.6
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	±9.6
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	±9.6
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	±9.6
10400	AAE	IEEE 802.11ac WiFi (20 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	±9.6
10401	AAE	IEEE 802.11ac WiFi (40 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	±9.6
10402	AAE	IEEE 802.11ac WiFi (80 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	±9.6
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	±9.6
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	±9.6
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9.6
10410	AAH	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	±9.6
10414	AAA	WLAN CCDF, 64-QAM, 40 MHz	Generic	8.54	±9.6
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	±9.6
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10417	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	±9.6
10419	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	WLAN	8.19	±9.6
10422	AAC	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±9.6
10423	AAC	IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	±9.6
10424	AAC	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8.40	±9.6
10425	AAC	IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)	WLAN	8.41	±9.6
10426	AAC	IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6
10427	AAC	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	±9.6
10430	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±9.6
10431	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6
10432	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10433	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10434	AAB	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	±9.6
10435	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10447	AAE	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9.6
10448	AAE	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	±9.6
10449	AAD	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	±9.6
10450	AAD	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	±9.6
10451	AAB	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	±9.6
10453	AAE	Validation (Square, 10 ms, 1 ms)	Test	10.00	±9.6
10456	AAC	IEEE 802.11ac WiFi (160 MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6
10457	AAB	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	±9.6
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	±9.6
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)	CDMA2000	8.25	±9.6
10460	AAB	UMTS-FDD (WCDMA, AMR)	WCDMA	2.39	±9.6
10461	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10462	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6
10463	AAC	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6
10464	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10465	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10466	AAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10467	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10468	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10469	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.6
10470	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10471	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6

ES3DV3 - SN:3076 July 18, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E k = 2
10472	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10473	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6
10474	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10475	AAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10477	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6
10478	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6
10479	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10480	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.18	±9.6
10481	AAC	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10482	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6
10483	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±9.6
10484	AAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.47	±9.6
10485	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.59	±9.6
10486	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.38	±9.6
10487	AAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.60	±9.6
10488	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.70	±9.6
10489	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10490	AAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10491	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10492	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6
10493	AAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6
10494	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10495	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.37	±9.6
10496	AAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10497	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10498	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.40	±9.6
10499	AAC	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.68	±9.6
10500	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.67	±9.6
10501	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6
10502	AAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.52	±9.6
10503	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.72	±9.6
10504	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.31	±9.6
10505	AAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6
10506	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10507	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.36	±9.6
10508	AAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	±9.6
10509	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.99	±9.6
10510	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6
10511	AAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.6
10512	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6
10513	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.42	±9.6
10514	AAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6
10516	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9.6
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	±9.6
10518	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6
10519	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	±9.6
10520	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.12	±9.6
10521	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)	WLAN	7.97	±9.6
10522	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6
10523	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	±9.6
10524	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	±9.6
10525	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.36	±9.6
10526	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9.6
10527	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.21	±9.6
10528	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.36	±9.6
10529	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.36	±9.6
10531	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.43	±9.6
10532	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
10533	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.38	±9.6
10534	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.45	±9.6
10535	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.45	±9.6
10536	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.32	±9.6
10537	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6
10538	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.54	±9.6
10540	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.6

Certificate No: ES-3076_Jul23 Page 14 of 21

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E $k=2$
10541	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.46	±9.6
10542	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.65	±9.6
10543	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6
10544	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.47	±9.6
10545	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10546	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.35	±9.6
10547	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6
10548	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.37	±9.6
10550	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.38	±9.6
10551	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.50	±9.6
10552	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.42	±9.6
10553	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.45	±9.6
10554	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.48	±9.6
10555	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6
10556	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6
10557	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.52	±9.6
10558	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.61	±9.6
10560	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6
10561	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.56	±9.6
10562	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.69	±9.6
10563	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.77	±9.6
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	±9.6
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	±9.6
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6
10569	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.6
10570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6
10571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.99	±9.6
10572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.99	±9.6
10573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.98	±9.6
10574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.98	±9.6
10575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6
10576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
10577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
10578	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
10579	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6
10580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
10581	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
10583	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6
10584	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.6
10585	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6
10586	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	±9.6
10587	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6
10588	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6
10589	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	±9.6
10590	AAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6
10591	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6
10592	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10593	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6
10594	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10595	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS4, 90pc duty cycle)	WLAN	8.74	±9.6
10596	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS5, 90pc duty cycle)	WLAN	8.71	±9.6
10597	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS6, 90pc duty cycle)	WLAN	8.72	±9.6
10598	AAC	IEEE 802.11n (HT Mixed, 20 MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6
10599	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS0, 90pc duty cycle)	WLAN	8.79	±9.6
10600	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
10601	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS2, 90pc duty cycle)	WLAN	8.82	±9.6
10602	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS3, 90pc duty cycle)	WLAN	8.94	±9.6
10603	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS4, 90pc duty cycle)	WLAN	9.03	±9.6
10604	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS5, 90pc duty cycle)	WLAN	8.76	±9.6
10605	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS6, 90pc duty cycle)	WLAN	8.97	±9.6
10606	AAC	IEEE 802.11n (HT Mixed, 40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6
10607	AAC	IEEE 802.11ac WiFi (20 MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.6
10608	AAC	IEEE 802.11ac WiFi (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[k] k = 2
10609	AAC	IEEE 802.11ac WiFi (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±9.6
10610	AAC	IEEE 802.11ac WiFi (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.78	±9.6
10611	AAC	IEEE 802.11ac WiFi (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10612	AAC	IEEE 802.11ac WiFi (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10613	AAC	IEEE 802.11ac WiFi (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6
10614	AAC	IEEE 802.11ac WiFi (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.59	±9.6
10615	AAC	IEEE 802.11ac WiFi (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10616	AAC	IEEE 802.11ac WiFi (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.82	±9.6
10617	AAC	IEEE 802.11ac WiFi (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.81	±9.6
10618	AAC	IEEE 802.11ac WiFi (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.58	±9.6
10619	AAC	IEEE 802.11ac WiFi (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6
10620	AAC	IEEE 802.11ac WiFi (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.87	±9.6
10621	AAC	IEEE 802.11ac WiFi (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10622	AAC	IEEE 802.11ac WiFi (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6
10623	AAC	IEEE 802.11ac WiFi (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.82	±9.6
10624	AAC	IEEE 802.11ac WiFi (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.96	±9.6
10625	AAC	IEEE 802.11ac WiFi (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6
10626	AAC	IEEE 802.11ac WiFi (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
10627	AAC	IEEE 802.11ac WiFi (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6
10628	AAC	IEEE 802.11ac WiFi (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.71	±9.6
10629	AAC	IEEE 802.11ac WiFi (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
10630	AAC	IEEE 802.11ac WiFi (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.72	±9.6
10631	AAC	IEEE 802.11ac WiFi (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.81	±9.6
10632	AAC	IEEE 802.11ac WiFi (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10633	AAC	IEEE 802.11ac WiFi (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.83	±9.6
10634	AAC	IEEE 802.11ac WiFi (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.80	±9.6
10635	AAC	IEEE 802.11ac WiFi (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6
10636	AAD	IEEE 802.11ac WiFi (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.83	±9.6
10637	AAD	IEEE 802.11ac WiFi (160 MHz, MCS1, 90pc duty cycle)	WLAN	8.79	±9.6
10638	AAD	IEEE 802.11ac WiFi (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.86	±9.6
10639	AAD	IEEE 802.11ac WiFi (160 MHz, MCS3, 90pc duty cycle)	WLAN	8.85	±9.6
10640	AAD	IEEE 802.11ac WiFi (160 MHz, MCS4, 90pc duty cycle)	WLAN	8.98	±9.6
10641	AAD	IEEE 802.11ac WiFi (160 MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
10642	AAD	IEEE 802.11ac WiFi (160 MHz, MCS6, 90pc duty cycle)	WLAN	9.06	±9.6
10643	AAD	IEEE 802.11ac WiFi (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6
10644	AAD	IEEE 802.11ac WiFi (160 MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6
10645	AAD	IEEE 802.11ac WiFi (160 MHz, MCS9, 90pc duty cycle)	WLAN	9.11	±9.6
10646	AAH	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10647	AAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6
10652	AAF	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	±9.6
10653	AAF	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6
10654	AAE	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6
10655	AAF	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	±9.6
10658	AAB	Pulse Waveform (200Hz, 10%)	Test	10.00	±9.6
10659	AAB	Pulse Waveform (200Hz, 20%)	Test	6.99	±9.6
10660	AAB	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6
10661	AAB	Pulse Waveform (200Hz, 60%)	Test	2.22	±9.6
10662	AAB	Pulse Waveform (200Hz, 80%)	Test	0.97	±9.6
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.6
10671	AAC	IEEE 802.11ax (20 MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±9.6
10672	AAC	IEEE 802.11ax (20 MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.6
10673	AAC	IEEE 802.11ax (20 MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±9.6
10674	AAC	IEEE 802.11ax (20 MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6
10675	AAC	IEEE 802.11ax (20 MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6
10676	AAC	IEEE 802.11ax (20 MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6
10677	AAC	IEEE 802.11ax (20 MHz, MCS6, 90pc duty cycle)	WLAN	8.73	±9.6
10678	AAC	IEEE 802.11ax (20 MHz, MCS7, 90pc duty cycle)	WLAN	8.78	±9.6
10679	AAC	IEEE 802.11ax (20 MHz, MCS8, 90pc duty cycle)	WLAN	8.89	±9.6
10680	AAC	IEEE 802.11ax (20 MHz, MCS9, 90pc duty cycle)	WLAN	8.80	±9.6
10681	AAC	IEEE 802.11ax (20 MHz, MCS10, 90pc duty cycle)	WLAN	8.62	±9.6
10682	AAC	IEEE 802.11ax (20 MHz, MCS11, 90pc duty cycle)	WLAN	8.83	±9.6
10683	AAC	IEEE 802.11ax (20 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6
10684	AAC	IEEE 802.11ax (20 MHz, MCS1, 99pc duty cycle)	WLAN	8.26	±9.6
10685	AAC	IEEE 802.11ax (20 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
10686	AAC	IEEE 802.11ax (20 MHz, MCS3, 99pc duty cycle)	WLAN	8.28	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
10687	AAC	IEEE 802.11ax (20 MHz, MCS4, 99pc duty cycle)	WLAN	8.45	±9.6
10688	AAC	IEEE 802.11ax (20 MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6
10689	AAC	IEEE 802.11ax (20 MHz, MCS6, 99pc duty cycle)	WLAN	8.55	±9.6
10690	AAC	IEEE 802.11ax (20 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
10691	AAC	IEEE 802.11ax (20 MHz, MCS8, 99pc duty cycle)	WLAN	8.25	±9.6
10692	AAC	IEEE 802.11ax (20 MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±9.6
10693	AAC	IEEE 802.11ax (20 MHz, MCS10, 99pc duty cycle)	WLAN	8.25	±9.6
10694	AAC	IEEE 802.11ax (20 MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6
10695	AAC	IEEE 802.11ax (40 MHz, MCS0, 90pc duty cycle)	WLAN	8.78	±9.6
10696	AAC	IEEE 802.11ax (40 MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6
10697	AAC	IEEE 802.11ax (40 MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6
10698	AAC	IEEE 802.11ax (40 MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6
10699	AAC	IEEE 802.11ax (40 MHz, MCS4, 90pc duty cycle)	WLAN	8.82	±9.6
10700	AAC	IEEE 802.11ax (40 MHz, MCS5, 90pc duty cycle)	WLAN	8.73	±9.6
10701	AAC	IEEE 802.11ax (40 MHz, MCS6, 90pc duty cycle)	WLAN	8.86	±9.6
10702	AAC	IEEE 802.11ax (40 MHz, MCS7, 90pc duty cycle)	WLAN	8.70	±9.6
10703	AAC	IEEE 802.11ax (40 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10704	AAC	IEEE 802.11ax (40 MHz, MCS9, 90pc duty cycle)	WLAN	8.56	±9.6
10705	AAC	IEEE 802.11ax (40 MHz, MCS10, 90pc duty cycle)	WLAN	8.69	±9.6
10706	AAC	IEEE 802.11ax (40 MHz, MCS11, 90pc duty cycle)	WLAN	8.66	±9.6
10707	AAC	IEEE 802.11ax (40 MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6
10708	AAC	IEEE 802.11ax (40 MHz, MCS1, 99pc duty cycle)	WLAN	8.55	±9.6
10709	AAC	IEEE 802.11ax (40 MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6
10710	AAC	IEEE 802.11ax (40 MHz, MCS3, 99pc duty cycle)	WLAN	8.29	±9.6
10711	AAC	IEEE 802.11ax (40 MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6
10712	AAC	IEEE 802.11ax (40 MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6
10713	AAC	IEEE 802.11ax (40 MHz, MCS6, 99pc duty cycle)	WLAN	8.33	±9.6
10714	AAC	IEEE 802.11ax (40 MHz, MCS7, 99pc duty cycle)	WLAN	8.26	±9.6
10715	AAC	IEEE 802.11ax (40 MHz, MCS8, 99pc duty cycle)	WLAN	8.45	±9.6
10716	AAC	IEEE 802.11ax (40 MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6
10717	AAC	IEEE 802.11ax (40 MHz, MCS10, 99pc duty cycle)	WLAN	8.48	±9.6
10718	AAC	IEEE 802.11ax (40 MHz, MCS11, 99pc duty cycle)	WLAN	8.24	±9.6
10719	AAC	IEEE 802.11ax (80 MHz, MCS0, 90pc duty cycle)	WLAN	8.81	±9.6
10720	AAC	IEEE 802.11ax (80 MHz, MCS1, 90pc duty cycle)	WLAN	8.87	±9.6
10721	AAC	IEEE 802.11ax (80 MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6
10722	AAC	IEEE 802.11ax (80 MHz, MCS3, 90pc duty cycle)	WLAN	8.55	±9.6
10723	AAC	IEEE 802.11ax (80 MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6
10724	AAC	IEEE 802.11ax (80 MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±9.6
10725	AAC	IEEE 802.11ax (80 MHz, MCS6, 90pc duty cycle)	WLAN	8.74	±9.6
10726	AAC	IEEE 802.11ax (80 MHz, MCS7, 90pc duty cycle)	WLAN	8.72	±9.6
10727	AAC	IEEE 802.11ax (80 MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6
10728	AAC	IEEE 802.11ax (80 MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6
10729	AAC	IEEE 802.11ax (80 MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6
10730	AAC	IEEE 802.11ax (80 MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.6
10731	AAC	IEEE 802.11ax (80 MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6
10732	AAC	IEEE 802.11ax (80 MHz, MCS1, 99pc duty cycle)	WLAN	8.46	±9.6
10733	AAC	IEEE 802.11ax (80 MHz, MCS2, 99pc duty cycle)	WLAN	8.40	±9.6
10734	AAC	IEEE 802.11ax (80 MHz, MCS3, 99pc duty cycle)	WLAN	8.25	±9.6
10735	AAC	IEEE 802.11ax (80 MHz, MCS4, 99pc duty cycle)	WLAN	8.33	±9.6
10736	AAC	IEEE 802.11ax (80 MHz, MCS5, 99pc duty cycle)	WLAN	8.27	±9.6
10737	AAC	IEEE 802.11ax (80 MHz, MCS6, 99pc duty cycle)	WLAN	8.36	±9.6
10738	AAC	IEEE 802.11ax (80 MHz, MCS7, 99pc duty cycle)	WLAN	8.42	±9.6
10739	AAC	IEEE 802.11ax (80 MHz, MCS8, 99pc duty cycle)	WLAN	8.29	±9.6
10740	AAC	IEEE 802.11ax (80 MHz, MCS9, 99pc duty cycle)	WLAN	8.48	±9.6
10741	AAC	IEEE 802.11ax (80 MHz, MCS10, 99pc duty cycle)	WLAN	8.40	±9.6
10742	AAC	IEEE 802.11ax (80 MHz, MCS11, 99pc duty cycle)	WLAN	8.43	±9.6
10743	AAC	IEEE 802.11ax (160 MHz, MCS0, 90pc duty cycle)	WLAN	8.94	±9.6
10744	AAC	IEEE 802.11ax (160 MHz, MCS1, 90pc duty cycle)	WLAN	9.16	±9.6
10745	AAC	IEEE 802.11ax (160 MHz, MCS2, 90pc duty cycle)	WLAN	8.93	±9.6
10746	AAC	IEEE 802.11ax (160 MHz, MCS3, 90pc duty cycle)	WLAN	9.11	±9.6
10747	AAC	IEEE 802.11ax (160 MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6
10748	AAC	IEEE 802.11ax (160 MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6
10749	AAC	IEEE 802.11ax (160 MHz, MCS6, 90pc duty cycle)	WLAN	8.90	±9.6
10750	AAC	IEEE 802.11ax (160 MHz, MCS7, 90pc duty cycle)	WLAN	8.79	±9.6
10751	AAC	IEEE 802.11ax (160 MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6
10752	AAC	IEEE 802.11ax (160 MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±9.6

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E $k=2$
10753	AAC	IEEE 802.11ax (160 MHz, MCS10, 90pc duty cycle)	WLAN	9.00	±9.6
10754	AAC	IEEE 802.11ax (160 MHz, MCS11, 90pc duty cycle)	WLAN	8.94	±9.6
10755	AAC	IEEE 802.11ax (160 MHz, MCS0, 99pc duty cycle)	WLAN	8.64	±9.6
10756	AAC	IEEE 802.11ax (160 MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6
10757	AAC	IEEE 802.11ax (160 MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6
10758	AAC	IEEE 802.11ax (160 MHz, MCS3, 99pc duty cycle)	WLAN	8.69	±9.6
10759	AAC	IEEE 802.11ax (160 MHz, MCS4, 99pc duty cycle)	WLAN	8.58	±9.6
10760	AAC	IEEE 802.11ax (160 MHz, MCS5, 99pc duty cycle)	WLAN	8.49	±9.6
10761	AAC	IEEE 802.11ax (160 MHz, MCS6, 99pc duty cycle)	WLAN	8.58	±9.6
10762	AAC	IEEE 802.11ax (160 MHz, MCS7, 99pc duty cycle)	WLAN	8.49	±9.6
10763	AAC	IEEE 802.11ax (160 MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6
10764	AAC	IEEE 802.11ax (160 MHz, MCS9, 99pc duty cycle)	WLAN	8.54	±9.6
10765	AAC	IEEE 802.11ax (160 MHz, MCS10, 99pc duty cycle)	WLAN	8.54	±9.6
10766	AAC	IEEE 802.11ax (160 MHz, MCS11, 99pc duty cycle)	WLAN	8.51	±9.6
10767	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	7.99	±9.6
10768	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
10769	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6
10770	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10771	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10772	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	±9.6
10773	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.03	±9.6
10774	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	±9.6
10775	AAD	5G NR (CP-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6
10776	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6
10777	AAC	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.30	±9.6
10778	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.34	±9.6
10779	AAC	5G NR (CP-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.42	±9.6
10780	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
10781	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.38	±9.6
10782	AAD	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.43	±9.6
10783	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.31	±9.6
10784	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.29	±9.6
10785	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.40	±9.6
10786	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	±9.6
10787	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	±9.6
10788	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6
10789	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.37	±9.6
10790	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	±9.6
10791	AAE	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.83	±9.6
10792	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.92	±9.6
10793	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.95	±9.6
10794	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
10795	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6
10796	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	±9.6
10797	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6
10798	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10799	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
10801	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.89	±9.6
10802	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.87	±9.6
10803	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.93	±9.6
10805	AAD	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10806	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±9.6
10809	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10810	AAD	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10812	AAD	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6
10817	AAE	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.35	±9.6
10818	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6
10819	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.33	±9.6
10820	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.30	±9.6
10821	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
10822	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
10823	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	±9.6
10824	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±9.6
10825	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	±9.6
10827	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	±9.6
10828	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6

ES3DV3 - SN:3076 July 18, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E k = 2
10829	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	±9.6
10830	AAD	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	±9.6
10831	AAD	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	±9.6
10832	AAD	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	±9.6
10833	AAD	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
10834	AAD	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6
10835	AAD	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
10836	AAD	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6
10837	AAD	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6
10838	AAD	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6
10840	AAD	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	±9.6
10841	AAD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	±9.6
10843	AAD	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6
10844	AAD	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
10846	AAD	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
10854	AAD	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
10855	AAD	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
10856	AAD	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
10857	AAD	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	±9.6
10858	AAD	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	±9.6
10859	AAD	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6
10860	AAD	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
10861	AAD	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	±9.6
10863	AAD	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
10864	AAD	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	±9.6
10865	AAD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6
10866	AAD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10868	AAD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	±9.6
10869	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10870	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.86	±9.6
10871	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10872	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.52	±9.6
10873	AAE	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
10874	AAE	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
10875	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
10876	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.39	±9.6
10877	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	7.95	±9.6
10878	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10879	AAE	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.12	±9.6
10880	AAE	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.38	±9.6
10881	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6
10882	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.96	±9.6
10883	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.57	±9.6
10884	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	6.53	±9.6
10885	AAE	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.61	±9.6
10886	AAE	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	6.65	±9.6
10887	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	7.78	±9.6
10888	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	8.35	±9.6
10889	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.02	±9.6
10890	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	5G NR FR2 TDD	8.40	±9.6
10891	AAE	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.13	±9.6
10892	AAE	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	5G NR FR2 TDD	8.41	±9.6
10897	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.66	±9.6
10898	AAB	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
10899	AAB	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.67	±9.6
10900	AAB	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10901	AAB	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10902	AAB	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10903	AAB	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10904	AAB	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10905	AAB	5G NR (DFT-s-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10906	AAB	5G NR (DFT-s-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6
10907	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.78	±9.6
10908	AAB	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10909	AAB	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.96	±9.6
10910	AAB	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6

ES3DV3 - SN:3076 July 18, 2023

UID	Rev	Communication System Name	Group	PAR (dB)	Unc^E k = 2
10911	AAB	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.93	±9.6
10912	AAB	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10913	AAB	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10914	AAB	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.85	±9.6
10915	AAB	5G NR (DFT-s-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.83	±9.6
10916	AAB	5G NR (DFT-s-OFDM, 50% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10917	AAB	5G NR (DFT-s-OFDM, 50% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10918	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.86	±9.6
10919	AAB	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.88	±9.6
10920	AAB	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.87	±9.6
10921	AAB	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10922	AAB	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.82	±9.6
10923	AAB	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10924	AAB	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10925	AAB	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.95	±9.6
10926	AAB	5G NR (DFT-s-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.84	±9.6
10927	AAB	5G NR (DFT-s-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.94	±9.6
10928	AAC	5G NR (DFT-s-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10929	AAC	5G NR (DFT-s-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10930	AAC	5G NR (DFT-s-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.52	±9.6
10931	AAC	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10932	AAC	5G NR (DFT-s-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10933	AAC	5G NR (DFT-s-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10934	AAC	5G NR (DFT-s-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10935	AAD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.51	±9.6
10936	AAC	5G NR (DFT-s-OFDM, 50% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
10937	AAC	5G NR (DFT-s-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.77	±9.6
10938	AAC	5G NR (DFT-s-OFDM, 50% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.90	±9.6
10939	AAC	5G NR (DFT-s-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.82	±9.6
10940	AAC	5G NR (DFT-s-OFDM, 50% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.89	±9.6
10941	AAC	5G NR (DFT-s-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
10942	AAC	5G NR (DFT-s-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
10943	AAD	5G NR (DFT-s-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.95	±9.6
10944	AAC	5G NR (DFT-s-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.81	±9.6
10945	AAC	5G NR (DFT-s-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.85	±9.6
10946	AAC	5G NR (DFT-s-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.83	±9.6
10947	AAC	5G NR (DFT-s-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10948	AAC	5G NR (DFT-s-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10949	AAC	5G NR (DFT-s-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.87	±9.6
10950	AAC	5G NR (DFT-s-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.94	±9.6
10951	AAD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1 FDD	5.92	±9.6
10952	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.25	±9.6
10953	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.15	±9.6
10954	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.23	±9.6
10955	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.42	±9.6
10956	AAA	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.14	±9.6
10957	AAA	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.31	±9.6
10958	AAA	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.61	±9.6
10959	AAA	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.33	±9.6
10960	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.32	±9.6
10961	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.36	±9.6
10962	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.40	±9.6
10963	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.55	±9.6
10964	AAC	5G NR DL (CP-OFDM, TM 3.1, 5 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.29	±9.6
10965	AAB	5G NR DL (CP-OFDM, TM 3.1, 10 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.37	±9.6
10966	AAB	5G NR DL (CP-OFDM, TM 3.1, 15 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.55	±9.6
10967	AAB	5G NR DL (CP-OFDM, TM 3.1, 20 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.42	±9.6
10968	AAB	5G NR DL (CP-OFDM, TM 3.1, 100 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.49	±9.6
10972	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	11.59	±9.6
10973	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	9.06	±9.6
10974	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, 256-QAM, 30 kHz)	5G NR FR1 TDD	10.28	±9.6
10978	AAA	ULLA BDR	ULLA	1.16	±9.6
10979	AAA	ULLA HDR4	ULLA	8.58	±9.6
10980	AAA	ULLA HDR8	ULLA	10.32	±9.6
10981	AAA	ULLA HDRp4	ULLA	3.19	±9.6
10982	AAA	ULLA HDRp8	ULLA	3.43	±9.6

Certificate No: ES-3076_Jul23 Page 20 of 21

UID	Rev	Communication System Name	Group	PAR (dB)	Unc[E] k = 2
10983	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.31	±9.6
10984	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	9.42	±9.6
10985	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.54	±9.6
10986	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.50	±9.6
10987	AAA	5G NR DL (CP-OFDM, TM 3.1, 60 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.53	±9.6
10988	AAA	5G NR DL (CP-OFDM, TM 3.1, 70 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.38	±9.6
10989	AAA	5G NR DL (CP-OFDM, TM 3.1, 80 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.33	±9.6
10990	AAA	5G NR DL (CP-OFDM, TM 3.1, 90 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	9.52	±9.6
11003	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 TDD	10.24	±9.6
11004	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 TDD	10.73	±9.6
11005	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.70	±9.6
11006	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.55	±9.6
11007	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.46	±9.6
11008	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 15 kHz)	5G NR FR1 FDD	8.51	±9.6
11009	AAA	5G NR DL (CP-OFDM, TM 3.1, 25 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.76	±9.6
11010	AAA	5G NR DL (CP-OFDM, TM 3.1, 30 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.95	±9.6
11011	AAA	5G NR DL (CP-OFDM, TM 3.1, 40 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.96	±9.6
11012	AAA	5G NR DL (CP-OFDM, TM 3.1, 50 MHz, 64-QAM, 30 kHz)	5G NR FR1 FDD	8.88	±9.6
11013	AAA	IEEE 802.11be (320 MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6
11014	AAA	IEEE 802.11be (320 MHz, MCS2, 99pc duty cycle)	WLAN	8.45	±9.6
11015	AAA	IEEE 802.11be (320 MHz, MCS3, 99pc duty cycle)	WLAN	8.44	±9.6
11016	AAA	IEEE 802.11be (320 MHz, MCS4, 99pc duty cycle)	WLAN	8.44	±9.6
11017	AAA	IEEE 802.11be (320 MHz, MCS5, 99pc duty cycle)	WLAN	8.41	±9.6
11018	AAA	IEEE 802.11be (320 MHz, MCS6, 99pc duty cycle)	WLAN	8.40	±9.6
11019	AAA	IEEE 802.11be (320 MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6
11020	AAA	IEEE 802.11be (320 MHz, MCS8, 99pc duty cycle)	WLAN	8.27	±9.6
11021	AAA	IEEE 802.11be (320 MHz, MCS9, 99pc duty cycle)	WLAN	8.46	±9.6
11022	AAA	IEEE 802.11be (320 MHz, MCS10, 99pc duty cycle)	WLAN	8.36	±9.6
11023	AAA	IEEE 802.11be (320 MHz, MCS11, 99pc duty cycle)	WLAN	8.09	±9.6
11024	AAA	IEEE 802.11be (320 MHz, MCS12, 99pc duty cycle)	WLAN	8.42	±9.6
11025	AAA	IEEE 802.11be (320 MHz, MCS13, 99pc duty cycle)	WLAN	8.37	±9.6
11026	AAA	IEEE 802.11be (320 MHz, MCS0, 99pc duty cycle)	WLAN	8.39	±9.6

[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Appendix E. – Dipole Calibration Data

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
Swiss Calibration Service

Accreditation No.: SCS 0108

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

Client: HCT, Gyeonggi-do, Republic of Korea

Certificate No.: CLA13-1016_Sep23

CALIBRATION CERTIFICATE

Object: CLA13 - SN: 1016

Calibration procedure(s): QA CAL-15.v10
Calibration Procedure for SAR Validation Sources below 700 MHz

Calibration date: September 21, 2023

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 NRP2	SN: 104778	30-Mar-23 (No. 217-03804/03805)	Mar-24
Power sensor NRP-Z91	SN: 103244	30-Mar-23 (No. 217-03804)	Mar-24
Power sensor NRP-Z91	SN: 103245	30-Mar-23 (No. 217-03805)	Mar-24
Reference 20 dB Attenuator	SN: CC2552 (20x)	30-Mar-23 (No. 217-03809)	Mar-24
Type-N mismatch combination	SN: 310982 / 06327	30-Mar-23 (No. 217-03810)	Mar-24
Reference Probe EX3DV4	SN: 3877	06-Jan-23 (No. EX3-3877_Jan23)	Jan-24
DAE4	SN: 654	27-Jan-23 (No. DAE4-654_Jan23)	Jan-24

Secondary Standards	ID #	Check Date (in house)	Scheduled Check
Power meter NRP2	SN: 107193	08-Nov-21 (in house check Dec-22)	In house check: Dec-24
Power sensor NRP-Z91	SN: 100922	15-Dec-09 (in house check Dec-22)	In house check: Dec-24
Power sensor NRP-Z91	SN: 100418	01-Jan-04 (in house check Dec-22)	In house check: Dec-24
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-22)	In house check: Jun-24
Network Analyzer Agilent E8358A	SN: US41080477	31-Mar-14 (in house check Oct-22)	In house check: Oct-24

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Sven Kühn	Technical Manager	

Issued: September 21, 2023

This calibration certificate shall not be reproduced except in full without written approval of the laboratory.

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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C Service suisse d'étalonnage
S Servizio svizzero di taratura
Swiss Calibration Service

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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) IEC/IEEE 62209-1528, "Measurement Procedure For The Assessment Of Specific Absorption Rate Of Human Exposure To Radio Frequency Fields From Hand-Held And Body-Worn Wireless Communication Devices - Part 1528: Human Models, Instrumentation And Procedures (Frequency Range of 4 MHz to 10 GHz)", October 2020.
b) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Additional Documentation:

c) DASY 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 source is mounted in a touch configuration below the center marking of the flat phantom.
- *Return Loss:* This parameter is measured with the source positioned under the liquid filled phantom (as described in the measurement condition clause). The Return Loss ensures low reflected power. 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	V52.10.4
Extrapolation	Advanced Extrapolation	
Phantom	ELI4 Flat Phantom	Shell thickness: 2 ± 0.2 mm
EUT Positioning	Touch Position	
Zoom Scan Resolution	dx, dy = 4.0 mm, dz = 1.4 mm	Graded Ratio = 1.4 (Z direction)
Frequency	13 MHz ± 1 MHz	

Head TSL parameters

The following parameters and calculations were applied.

	Temperature	**Permittivity**	**Conductivity**
Nominal Head TSL parameters	22.0 °C	55.0	0.75 mho/m
Measured Head TSL parameters	(22.0 ± 0.2) °C	53.1 ± 6 %	0.72 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	1 W input power	0.539 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**0.553 W/kg ± 18.4 % (k=2)**

SAR averaged over 10 cm³ (10 g) of Head TSL	condition	
SAR measured	1 W input power	0.335 W/kg
SAR for nominal Head TSL parameters	normalized to 1W	**0.343 W/kg ± 18.0 % (k=2)**

Appendix (Additional assessments outside the scope of SCS 0108)

Antenna Parameters with Head TSL

Impedance, transformed to feed point	51.3 Ω + 0.0 jΩ
Return Loss	- 37.8 dB

Additional EUT Data

Manufactured by	SPEAG

DASY5 Validation Report for Head TSL

Date: 21.09.2023

Test Laboratory: SPEAG, Zurich, Switzerland

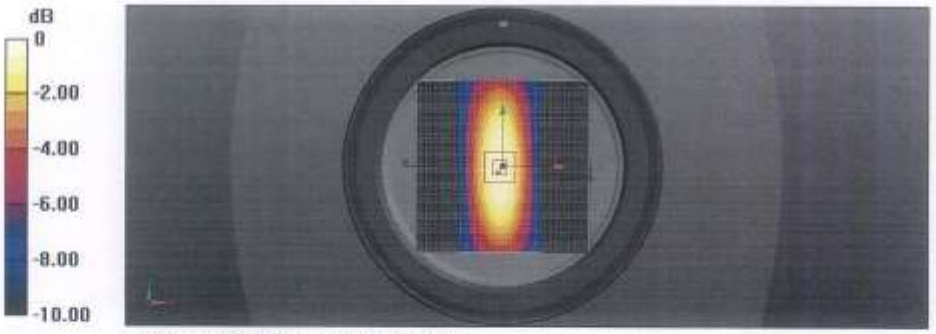
DUT: CLA13; Type: CLA13; Serial: CLA13 - SN: 1016

Communication System: UID 0 - CW; Frequency: 13 MHz
Medium parameters used: f = 13 MHz; σ = 0.72 S/m; ε_r = 53.1; ρ = 1000 kg/m^3
Phantom section: Flat Section
Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007)

DASY52 Configuration:

- Probe: EX3DV4 - SN3877; ConvF(15.33, 15.33, 15.33) @ 13 MHz; Calibrated: 06.01.2023
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn654; Calibrated: 27.01.2023
- Phantom: ELI v6.0; Type: QDOVA003AA; Serial: TP:2034
- DASY52 52.10.4(1535); SEMCAD X 14.6.14(7501)

CLA Calibration for HSL-LF Tissue/CLA-13, touch configuration, Pin=1W/Zoom Scan, dist=1.4mm (8x10x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 30.91 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.09 W/kg
SAR(1 g) = 0.539 W/kg; SAR(10 g) = 0.335 W/kg
Smallest distance from peaks to all points 3 dB below = 17.6 mm
Ratio of SAR at M2 to SAR at M1 = 78.6%
Maximum value of SAR (measured) = 0.796 W/kg



0 dB = 0.796 W/kg = -0.99 dBW/kg

Impedance Measurement Plot for Head TSL