

Band 7							
Bandwidth (MHz)	RB allocation	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
	RB offset (Start RB)			Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
5 MHz	1RB High (24)	2567.5	20	18.52	0	18.68	0
		2535	20	18.82	0	18.93	0
		2502.5	20	18.81	0	18.82	0
	1RB Middle (12)	2567.5	20	18.46	0	18.75	0
		2535	20	18.68	0	18.98	0
		2502.5	20	18.88	0	18.86	0
	1RB Low (0)	2567.5	20	18.57	0	18.84	0
		2535	20	18.77	0	19.00	0
		2502.5	20	18.81	0	18.91	0
	12RB High (13)	2567.5	20	18.42	0	18.52	0
		2535	20	18.58	0	18.75	0
		2502.5	20	18.74	0	18.82	0
	12RB Middle (6)	2567.5	20	18.40	0	18.56	0
		2535	20	18.60	0	18.76	0
		2502.5	20	18.67	0	18.78	0
	12RB Low (0)	2567.5	20	18.47	0	18.59	0
		2535	20	18.60	0	18.73	0
		2502.5	20	18.76	0	18.93	0
	25RB (0)	2567.5	20	18.41	0	18.45	0
		2535	20	18.63	0	18.65	0
		2502.5	20	18.67	0	18.75	0
10 MHz	1RB High (49)	2565	20	18.64	0	18.63	0
		2535	20	18.84	0	18.95	0
		2505	20	18.84	0	18.95	0
	1RB Middle (24)	2565	20	18.49	0	18.57	0
		2535	20	18.59	0	18.76	0
		2505	20	18.70	0	18.86	0
	1RB Low (0)	2565	20	18.61	0	18.76	0
		2535	20	18.89	0	18.99	0
		2505	20	18.87	0	18.99	0
	25RB High (25)	2565	20	18.43	0	18.44	0
		2535	20	18.64	0	18.70	0
		2505	20	18.75	0	18.67	0
	25RB Middle (12)	2565	20	18.36	0	18.38	0
		2535	20	18.61	0	18.64	0
		2505	20	18.63	0	18.79	0
	25RB Low (0)	2565	20	18.43	0	18.45	0
		2535	20	18.54	0	18.59	0
		2505	20	18.72	0	18.76	0
	50RB (0)	2565	20	18.47	0	18.55	0
		2535	20	18.57	0	18.58	0
		2505	20	18.68	0	18.72	0



15 MHz	1RB High (74)	2562.5	20	19.34	0	19.60	0
		2535	20	19.75	0	19.88	0
		2507.5	20	19.73	0	19.92	0
	1RB Middle (37)	2562.5	20	19.26	0	19.36	0
		2535	20	19.66	0	19.70	0
		2507.5	20	19.68	0	19.76	0
	1RB Low (0)	2562.5	20	19.50	0	19.54	0
		2535	20	19.91	0	19.99	0
		2507.5	20	19.96	0	20.00	0
	36RB High (38)	2562.5	20	19.33	0	19.39	0
		2535	20	19.71	0	19.76	0
		2507.5	20	19.74	0	19.76	0
	36RB Middle (19)	2562.5	20	19.45	0	19.51	0
		2535	20	19.72	0	19.79	0
		2507.5	20	19.76	0	19.83	0
	36RB Low (0)	2562.5	20	19.42	0	19.47	0
		2535	20	19.69	0	19.75	0
		2507.5	20	19.85	0	19.79	0
	75RB (0)	2562.5	20	19.51	0	19.47	0
		2535	20	19.68	0	19.72	0
		2507.5	20	19.80	0	19.80	0
20 MHz	1RB High (99)	2560	20	19.61	0	19.58	0
		2535	20	19.82	0	19.96	0
		2510	20	19.84	0	19.90	0
	1RB Middle (50)	2560	20	19.35	0	19.54	0
		2535	20	19.70	0	19.89	0
		2510	20	19.77	0	19.92	0
	1RB Low (0)	2560	20	19.32	0	19.45	0
		2535	20	19.85	0	19.96	0
		2510	20	19.83	0	19.92	0
	50RB High (50)	2560	20	19.42	0	19.50	0
		2535	20	19.76	0	19.82	0
		2510	20	19.79	0	19.80	0
	50RB Middle (25)	2560	20	19.38	0	19.39	0
		2535	20	19.64	0	19.68	0
		2510	20	19.72	0	19.68	0
	50RB Low (0)	2560	20	19.41	0	19.41	0
		2535	20	19.71	0	19.76	0
		2510	20	19.72	0	19.71	0
	100RB (0)	2560	20	19.56	0	19.48	0
		2535	20	19.68	0	19.72	0
		2510	20	19.76	0	19.85	0

Band 30							
Bandwidth (MHz)	RB allocation RB offset (Start RB)	Frequency (MHz)	Max. Target Power (dBm)	QPSK		16QAM	
				Actual output power (dBm)	MPR	Actual output power (dBm)	MPR
5 MHz	1RB High (24)	2312.5	22	20.64	0	21.00	0
		2310	22	20.45	0	20.78	0
		2307.5	22	20.60	0	20.92	0
	1RB Middle (12)	2312.5	22	20.67	0	21.09	0
		2310	22	20.63	0	20.87	0
		2307.5	22	20.62	0	21.07	0
	1RB Low (0)	2312.5	22	20.84	0	21.18	0
		2310	22	20.85	0	20.87	0
		2307.5	22	20.78	0	20.94	0
	12RB High (13)	2312.5	22	20.65	0	20.80	0
		2310	22	20.67	0	20.81	0
		2307.5	22	20.58	0	20.76	0
	12RB Middle (6)	2312.5	22	20.73	0	20.82	0
		2310	22	20.66	0	20.80	0
		2307.5	22	20.69	0	20.83	0
	12RB Low (0)	2312.5	22	20.66	0	20.84	0
		2310	22	20.67	0	20.79	0
		2307.5	22	20.74	0	20.85	0
	25RB (0)	2312.5	22	20.67	0	20.72	0
		2310	22	20.73	0	20.88	0
		2307.5	22	20.64	0	20.57	0
10 MHz	1RB High (49)	2310	22	20.97	0	21.41	0
	1RB Middle (24)	2310	22	20.76	0	21.07	0
	1RB Low (0)	2310	22	21.33	0	21.64	0
	25RB High (25)	2310	22	20.87	0	20.88	0
	25RB Middle (12)	2310	22	20.88	0	20.86	0
	25RB Low (0)	2310	22	20.94	0	20.94	0
	50RB (0)	2310	22	21.06	0	20.91	0



The following conducted power measurement results of downlink LTE carrier aggregation are provided to quantify downlink only carrier aggregation SAR test exclusion per KDB 941225 D05A. Uplink maximum output power is measured with downlink carrier aggregation active, using the channel with highest measured maximum output power when downlink carrier aggregation is inactive, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

The conducted power measurement results of downlink LTE CA conducted power are as below
(Normal Power):

DL LTE CA Class	PCC								SCC			Power		
	PCC Band	PCC Band Width (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Band Width (MHz)	SCC DL Channel	Rel 8 LTE Tx Power (dBm)	Rel 10 DL LTE CA Tx Power (dBm)	Tune up
4A-4A	4	15	1	74	75	0	20325	2325	4	20	2050	23.79	23.41	24
5A-5A	5	10	1	25	50	0	20600	2600	5	10	2450	23.70	23.24	24
7C	7	15	1	0	75	0	20825	2825	7	15	2975	23.05	22.82	24
7B	7	15	1	0	75	0	20825	2825	7	5	2918	23.05	22.81	24
7A-7A	7	10	1	0	50	0	20800	2800	7	20	3350	23.27	22.44	24
2A-4A	2	15	1	74	75	0	19125	1125	4	20	2175	24.25	23.54	25
4A-2A	4	15	1	74	75	0	20325	2325	2	20	900	23.79	23.32	24
2A-5A	2	15	1	74	75	0	19125	1125	5	10	2525	24.25	23.42	25
5A-2A	5	10	1	25	50	0	20600	2600	2	20	900	23.70	23.28	24
2A-12A	2	15	1	74	75	0	19125	1125	12	10	5095	24.25	23.55	25
12A-2A	12	5	1	0	25	0	23035	5035	2	20	900	23.47	23.44	24
2A-13A	2	15	1	74	75	0	19125	1125	13	10	5230	24.25	23.58	25
13A-2A	13	10	1	24	50	0	23230	5230	2	20	900	23.40	23.36	24
2A-29A	2	15	1	74	75	0	19125	1125	29	10	9715	24.25	23.51	25
4A-5A	4	15	1	74	75	0	20325	2325	5	10	2525	23.79	23.33	24
5A-4A	5	10	1	25	50	0	20600	2600	4	20	2175	23.70	23.26	24
4A-7A	4	15	1	74	75	0	20325	2325	7	20	3100	23.79	23.35	24
7A-4A	7	10	1	0	50	0	20800	2800	4	20	2175	23.27	22.62	24
4A-12A	4	15	1	74	75	0	20325	2325	12	10	5095	23.79	23.37	24
12A-4A	12	5	1	0	25	0	23035	5035	4	20	2175	23.47	23.41	24
4A-13A	4	15	1	74	75	0	20325	2325	13	10	5230	23.79	23.32	24
13A-4A	13	10	1	24	50	0	23230	5230	4	20	2175	23.40	23.34	24
4A-29A	4	15	1	74	75	0	20325	2325	29	10	9715	23.79	23.34	24
5A-7A	5	10	1	25	50	0	20600	2600	7	20	3100	23.70	23.11	24
7A-5A	7	10	1	0	50	0	20800	2800	5	10	2525	23.27	22.41	24

Note: Testing is not required in bands or modes not intended/allowed for US operation.



The conducted power measurement results of downlink LTE CA Conduced Power are as below
(Low Power):

DL LTE CA Class	PCC								SCC			Power		
	PCC Band	PCC Band Width (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Band Width (MHz)	SCC DL Channel	Rel 8 LTE Tx Power (dBm)	Rel 10 DL LTE CA Tx Power (dBm)	Tune up
4A-4A	4	5	1	0	25	0	19975	1975	4	20	2300	21.74	20.05	22
7C	7	15	1	0	75	0	20825	2825	7	15	2945	19.96	19.01	20
7B	7	15	1	0	75	0	20825	2825	7	5	2918	19.96	19.03	20
7A-7A	7	15	1	0	75	0	20825	2825	7	20	3350	19.96	18.98	20
2A-4A	2	15	1	74	75	0	19125	1125	4	20	2175	20.62	19.15	21
4A-2A	4	5	1	0	25	0	19975	1975	2	20	900	21.74	20.06	22
2A-5A	2	15	1	74	75	0	19125	1125	5	10	2525	20.62	19.21	21
2A-12A	2	15	1	74	75	0	19125	1125	12	10	5095	20.62	19.19	21
2A-13A	2	15	1	74	75	0	19125	1125	13	10	5230	20.62	19.11	21
2A-29A	2	15	1	74	75	0	19125	1125	29	10	9715	20.62	19.17	21
4A-5A	4	5	1	0	25	0	19975	1975	5	10	2525	21.74	20.13	22
4A-7A	4	5	1	0	25	0	19975	1975	7	20	3100	21.74	20.15	22
7A-4A	7	15	1	0	75	0	20825	2825	4	20	2175	19.96	19.06	20
4A-12A	4	5	1	0	25	0	19975	1975	12	10	5095	21.74	20.14	22
4A-13A	4	5	1	0	25	0	19975	1975	13	10	5230	21.74	20.16	22
4A-29A	4	5	1	0	25	0	19975	1975	29	10	9715	21.74	20.19	22
7A-5A	7	15	1	0	75	0	20825	2825	5	10	2525	19.96	19.01	20

Note: Testing is not required in bands or modes not intended/allowed for US operation.

11.4 Wi-Fi and BT Measurement result

The output power of BT antenna is as following:

Mode	Conducted Power (dBm)			
	Channel 0 (2402MHz)	Channel 39 (2441MHz)	Channel 78(2480MHz)	Tune up
GFSK	7.96	8.69	7.78	9
EDR2M-4_DQPSK	7.78	8.52	7.65	9
EDR3M-8DPSK	7.00	7.72	6.91	8

The average conducted power for Wi-Fi is as following:

802.11b (dBm)

Channel\data rate	1Mbps	2Mbps	5.5Mbps	11Mbps
1	20.77	/	/	/
6	20.97	20.87	20.93	20.89
11	19.98	/	/	/
Tune up	21	21	21	21

802.11g (dBm)

Channel\data rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
1	19.68	/	/	/	/	/	/	/
6	19.81	19.78	19.76	19.75	19.71	18.46	17.60	16.58
11	18.95	/	/	/	/	/	/	/
Tune up	20	20	20	20	20	20	18	18

802.11n (dBm) - HT20 (2.4G)

Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
1	18.87	18.89	/	/	/	/	/	/
6	19.04	19.05	19.03	18.98	18.96	17.66	16.64	16.15
11	18.10	18.12	/	/	/	/	/	/
Tune up	20	20	20	20	20	18	18	18

802.11n (dBm) – HT40 (2.4G)

Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
3	19.50	19.46	19.45	19.38	19.35	17.89	16.90	16.28
6	19.43	/	/	/	/	/	/	/
9	19.24	/	/	/	/	/	/	/
Tune up	20	20	20	20	20	18	18	18

The Tune up and conducted power of Wi-Fi 5G are presented in section 14.5.

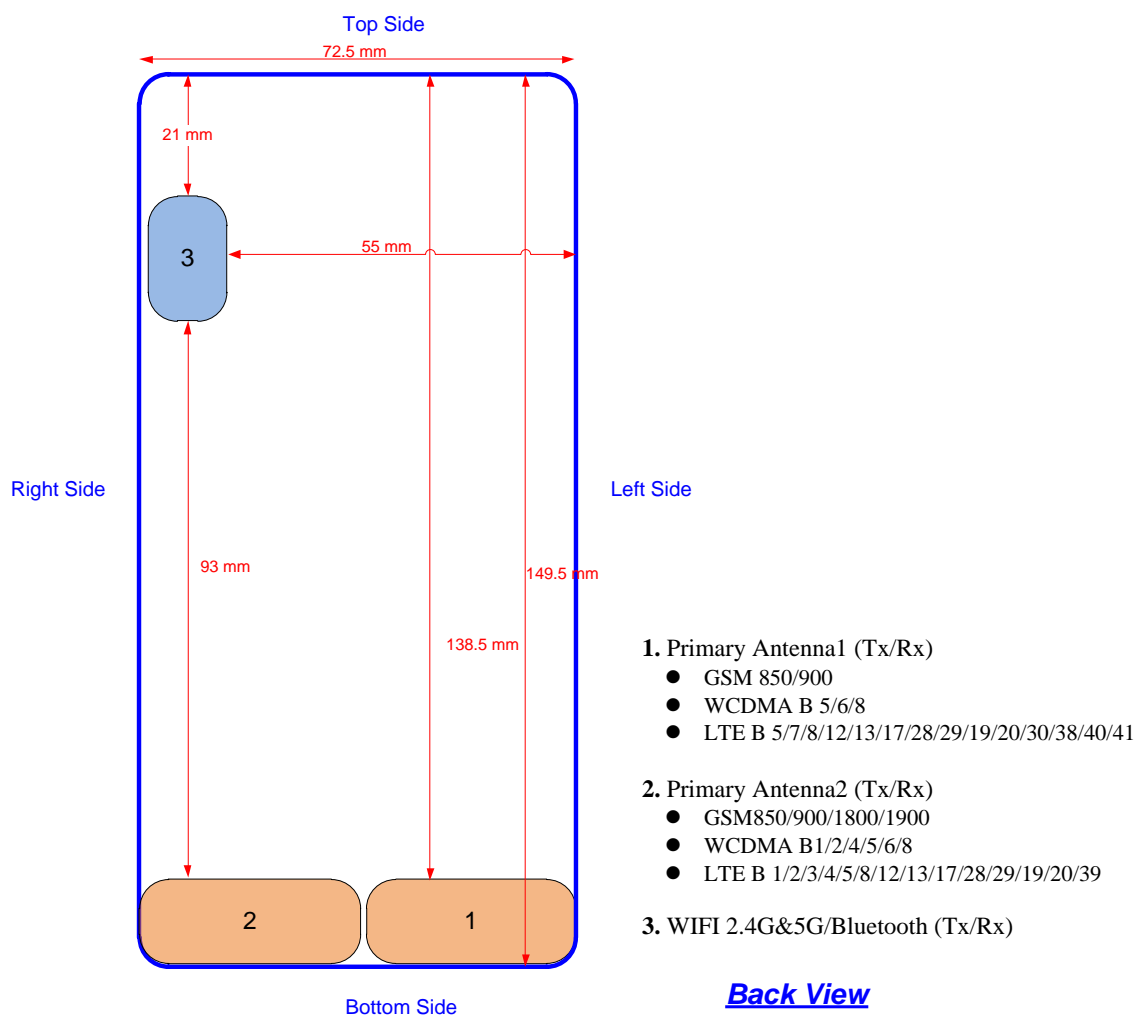
12 Simultaneous TX SAR Considerations

12.1 Introduction

The following procedures adopted from “FCC SAR Considerations for Cell Phones with Multiple Transmitters” are applicable to handsets with built-in unlicensed transmitters such as 802.11 a/b/g and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

For this device, the BT and Wi-Fi can transmit simultaneous with other transmitters.

12.2 Transmit Antenna Separation Distances



Picture 12.1 Antenna Locations

12.3 SAR Measurement Positions

According to the KDB941225 D06 Hot Spot SAR v01, the edges with less than 2.5 cm distance to the antennas need to be tested for SAR.

SAR measurement positions						
Mode	Front	Rear	Left edge	Right edge	Top edge	Bottom edge
Primary antenna 1	Yes	Yes	Yes	Yes	No	Yes
Primary antenna 2	Yes	Yes	Yes	Yes	No	Yes
WLAN	Yes	Yes	No	Yes	Yes	No

12.4 Standalone SAR Test Exclusion Considerations

Standalone 1-g head or body SAR evaluation by measurement or numerical simulation is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied. The 1-g SAR test exclusion threshold for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

Table 12.1: Standalone SAR test exclusion considerations

Band/Mode	F(GHz)	Position	SAR test exclusion threshold(mW)	RF output power		SAR test exclusion
				dBm	mW	
Bluetooth	2.441	Head	9.60	9	7.94	Yes
		Body	19.20	9	7.94	Yes
2.4GHz WLAN	2.45	Head	9.58	21	125.9	No
		Body	19.17	21	125.9	No

13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for main antenna and WiFi

	Position	Main antenna	WiFi	Sum
Highest reported SAR value for Head	Left hand, Touch cheek	0.47	0.29	0.76
	Right hand, Touch cheek	0.52	0.11	0.63
Highest reported SAR value for Body	Rear	0.88	0.59	1.47
	Bottom	1.31	/	1.31

Note1: we have evaluated and chose the highest value of both main antennae in the above table

Note2: we have evaluated and chose the highest value of WiFi 2.4G and 5G in the above table

Table 13.2: The sum of reported SAR values for main antenna and BT

	Position	Main antenna	BT	Sum
Maximum reported SAR value for Head	Right hand, Touch cheek	0.52	0.33 ^[1]	0.85
Maximum reported SAR value for Body	Rear	0.88	0.17 ^[1]	1.05
	Bottom	1.31	/	1.31

[1] - Estimated SAR for Bluetooth (see the table 13.3)

Table 13.3: Estimated SAR for Bluetooth

Mode/Band	F (GHz)	Position	Distance (mm)	Upper limit of power *		Estimated _{1g} (W/kg)
				dBm	mW	
Bluetooth	2.441	Head	5	9	7.94	0.33
Bluetooth	2.441	Body	10	9	7.94	0.17

* - Maximum possible output power declared by manufacturer

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

(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance,mm)·[√f(GHz)/x] W/kg for test separation distances ≤ 50 mm;

where x = 7.5 for 1-g SAR.

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

Conclusion:

According to the above tables, the sum of reported SAR values is < 1.6W/kg. So the simultaneous transmission SAR with volume scans is not required.

14 SAR Test Result

It is determined by user manual for the distance between the EUT and the phantom bottom.

The distance is 10 mm and just applied to the condition of body worn accessory.

It is performed for all SAR measurements with area scan based 1-g SAR estimation (Fast SAR). A zoom scan measurement is added when the estimated 1-gSAR is the highest measured SAR in each exposure configuration, wireless mode and frequency band combination or more than 1.2W/kg.

The calculated SAR is obtained by the following formula:

$$\text{Reported SAR} = \text{Measured SAR} \times 10^{(P_{\text{Target}} - P_{\text{Measured}})/10}$$

Where P_{Target} is the power of manufacturing upper limit;

P_{Measured} is the measured power in chapter 11.

There are two primary antennae in the EUT. Both antennae support GSM850, WCDMA850 and LTE Band5/12/13. So these bands are tested with antenna1 and antenna2 respectively.

Table 14.1: Duty Cycle

Mode	Duty Cycle
Speech for GSM850	1:2.67
Speech for GSM1900	1:4
GPRS&EGPRS for GSM850	1:2.67
GPRS&EGPRS for GSM1900	1:8.3
WCDMA<E FDD	1:1
LTE TDD	1:1.58

14.1 The evaluation of multi-batteries

We'll perform the head measurement in all bands with the primary battery depending on the evaluation of multi-batteries and retest on highest value point with other batteries. Then, repeat the measurement in the Body test.

Table 14.1-1: The evaluation of multi-batteries for Head Test

Frequency		Mode/Band	Side	Test Position	Battery Type	SAR(1g)	Power Drift(dB)
MHz	Ch.					(W/kg)	
707.5	23095	LTE Band 12	Left	Touch	BAT-63108-003	0.139	0.04
707.5	23095	LTE Band 12	Left	Touch	TLp034E1	0.123	-0.16

Note: According to the values in the above table, the battery, BAT-63108-003, is the primary battery. We'll perform the head measurement with this battery and retest on highest value point with others.

Table 14.1-2: The evaluation of multi-batteries for Body Test

Frequency		Mode/Band	Test Position	Spacing (mm)	Battery Type	SAR(1g)	Power Drift(dB)
MHz	Ch.					(W/kg)	
707.5	23095	LTE Band 12	Left	10	BAT-63108-003	0.263	-0.07
707.5	23095	LTE Band 12	Left	10	TLp034E1	0.238	-0.08

Note: According to the values in the above table, the battery, BAT-63108-003, is the primary battery. We'll perform the body measurement with this battery and retest on highest value point with others.

14.2 SAR results for Fast SAR

Note:

B1: The battery of BAT-63108-003

B2: The battery of TLp034E1

H1: The headset of CCB0045A16C3

Table 14.2-1: SAR Values (GSM 850 MHz Band - Head) – antenna1

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
251	848.8	Left	Touch	Fig.1	28.98	30	0.265	0.34	0.369	0.47	0.02
190	836.6	Left	Touch	/	28.99	30	0.200	0.25	0.288	0.36	0.03
128	824.2	Left	Touch	/	28.97	30	0.150	0.19	0.209	0.26	-0.01
190	836.6	Left	Tilt	/	28.99	30	0.128	0.16	0.179	0.23	-0.04
190	836.6	Right	Touch	/	28.99	30	0.169	0.21	0.239	0.30	0.02
190	836.6	Right	Tilt	/	28.99	30	0.114	0.14	0.155	0.20	-0.03
251	848.8	Left	Touch	B2	28.98	30	0.249	0.31	0.331	0.42	0.03
251	848.8	Left	Touch	DTM	28.50	29	0.215	0.24	0.298	0.33	0.05

Note: the head SAR of GSM850 is tested with GPRS (3Txslots) mode because of VoIP.

Table 14.2-2: SAR Values (GSM 850 MHz Band - Body) – antenna1

Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
190	836.6	GPRS (3)	Front	/	28.99	30	0.222	0.28	0.281	0.35	0.03
190	836.6	GPRS (3)	Rear	/	28.99	30	0.219	0.28	0.276	0.35	0.01
251	848.8	GPRS (3)	Left	Fig.2	28.98	30	0.312	0.39	0.455	0.58	-0.01
190	836.6	GPRS (3)	Left	/	28.99	30	0.247	0.31	0.341	0.43	0.08
128	824.2	GPRS (3)	Left	/	28.97	30	0.182	0.23	0.255	0.32	0.13
190	836.6	GPRS (3)	Right	/	28.99	30	0.178	0.22	0.245	0.31	0.02
190	836.6	GPRS (3)	Bottom	/	28.99	30	0.143	0.18	0.249	0.31	0.06
251	848.8	EGPRS (3)	Left	/	29.00	30	0.292	0.37	0.418	0.53	-0.08
251	848.8	GPRS (3)	Left	B2	28.98	30	0.308	0.39	0.449	0.57	0.14
251	848.8	DTM	Left	/	28.28	29	0.238	0.28	0.352	0.42	-0.03

Note: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-3: SAR Values (GSM 850 MHz Band - Head) – antenna2

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
190	836.6	Left	Touch	/	28.99	30	0.173	0.22	0.228	0.29	0.05
190	836.6	Left	Tilt	/	28.99	30	0.101	0.13	0.127	0.16	-0.01
251	848.8	Right	Touch	Fig.3	28.98	30	0.238	0.30	0.316	0.40	-0.04
190	836.6	Right	Touch	/	28.99	30	0.207	0.26	0.272	0.34	0.08
128	824.2	Right	Touch	/	28.97	30	0.152	0.19	0.210	0.27	0.04
190	836.6	Right	Tilt	/	28.99	30	0.132	0.17	0.167	0.21	-0.02
251	848.8	Right	Touch	B2	28.98	30	0.218	0.28	0.286	0.36	0.17
251	848.8	Right	Touch	DTM	28.50	29	0.184	0.21	0.243	0.27	-0.09

Note: the head SAR of GSM850 is tested with GPRS (3Txslots) mode because of VoIP.

Table 14.2-4: SAR Values (GSM 850 MHz Band - Body) – antenna2

Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
190	836.6	GPRS (3)	Front	/	28.99	30	0.168	0.21	0.264	0.33	0.13
190	836.6	GPRS (3)	Rear	/	28.99	30	0.174	0.22	0.282	0.36	0.07
190	836.6	GPRS (3)	Left	/	28.99	30	0.124	0.16	0.178	0.22	0.06
251	848.8	GPRS (3)	Right	Fig.4	28.98	30	0.294	0.37	0.426	0.54	-0.13
190	836.6	GPRS (3)	Right	/	28.99	30	0.244	0.31	0.350	0.44	-0.06
128	824.2	GPRS (3)	Right	/	28.97	30	0.197	0.25	0.282	0.36	-0.01
190	836.6	GPRS (3)	Bottom	/	28.99	30	0.158	0.20	0.269	0.34	0.17
251	848.8	EGPRS (3)	Right	/	29.00	30	0.287	0.36	0.411	0.52	0.12
251	848.8	GPRS (3)	Right	B2	28.98	30	0.276	0.35	0.400	0.51	0.05
251	848.8	DTM	Right	/	28.28	29	0.286	0.34	0.414	0.49	0.08

Note: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-5: SAR Values (GSM 1900 MHz Band - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
661	1880	Left	Touch	/	28.25	29	0.080	0.10	0.121	0.14	0.04
661	1880	Left	Tilt	/	28.25	29	0.060	0.07	0.090	0.11	-0.01
810	1909.8	Right	Touch	/	28.38	29	0.091	0.10	0.145	0.17	-0.06
661	1880	Right	Touch	/	28.25	29	0.106	0.13	0.165	0.20	0.04
512	1850.2	Right	Touch	Fig.5	28.02	29	0.123	0.15	0.193	0.24	0.18
661	1880	Right	Tilt	/	28.25	29	0.046	0.05	0.067	0.08	-0.09
512	1850.2	Right	Touch	B2	28.02	29	0.111	0.14	0.177	0.22	0.03
512	1850.2	Right	Touch	DTM	25.05	26	0.115	0.14	0.190	0.24	0.11

Note: the head SAR of GSM1900 is tested with GPRS (2Txslots) mode because of VoIP.

Table 14.2-6: SAR Values (GSM 1900 MHz Band - Body)

Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
661	1880	GPRS (1)	Front	/	29.09	30.5	0.273	0.38	0.509	0.70	0.06
661	1880	GPRS (1)	Rear	/	29.09	30.5	0.281	0.39	0.539	0.75	0.09
661	1880	GPRS (1)	Left	/	29.09	30.5	0.036	0.05	0.075	0.10	-0.06
661	1880	GPRS (1)	Right	/	29.09	30.5	0.076	0.10	0.123	0.17	0.11
810	1909.8	GPRS (1)	Bottom	/	29.14	30.5	0.458	0.63	0.859	1.18	0.17
661	1880	GPRS (1)	Bottom	Fig.6	29.09	30.5	0.466	0.64	0.875	1.21	0.19
512	1850.2	GPRS (1)	Bottom	/	28.86	30.5	0.377	0.55	0.760	1.11	-0.11
661	1880	EGPRS (1)	Bottom	/	29.38	30.5	0.439	0.57	0.852	1.10	0.12
661	1880	GPRS (1)	Bottom	B2	29.09	30.5	0.434	0.60	0.843	1.17	0.04
661	1880	Speech	Bottom	H1	29.44	30.5	0.449	0.57	0.851	1.09	0.09
661	1880	DTM	Bottom	/	24.12	25	0.438	0.54	0.859	1.05	0.13

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-7: SAR Values (WCDMA 850 MHz Band - Head) – antenna1

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
4233	846.6	Left	Touch	/	23.50	24	0.171	0.19	0.247	0.28	-0.12
4182	836.4	Left	Touch	/	23.23	24	0.190	0.23	0.275	0.33	0.08
4132	826.4	Left	Touch	Fig.7	23.35	24	0.240	0.28	0.321	0.37	-0.03
4182	836.4	Left	Tilt	/	23.23	24	0.129	0.15	0.181	0.22	0.06
4182	836.4	Right	Touch	/	23.23	24	0.154	0.18	0.227	0.27	-0.18
4182	836.4	Right	Tilt	/	23.23	24	0.112	0.13	0.158	0.19	0.02
4132	826.4	Left	Touch	B2	23.35	24	0.142	0.16	0.206	0.24	0.08

Table 14.2-8: SAR Values (WCDMA 850 MHz Band - Body) – antenna1

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
4182	836.4	Front	/	23.23	24	0.184	0.22	0.252	0.30	0.09
4182	836.4	Rear	/	23.23	24	0.145	0.17	0.243	0.29	0.11
4233	846.6	Left	Fig.8	23.50	24	0.267	0.30	0.394	0.44	0.05
4182	836.4	Left	/	23.23	24	0.229	0.27	0.355	0.42	0.04
4132	826.4	Left	/	23.35	24	0.176	0.20	0.272	0.32	0.02
4182	836.4	Right	/	23.23	24	0.140	0.17	0.216	0.26	0.16
4182	836.4	Bottom	/	23.23	24	0.112	0.13	0.215	0.26	0.03
4233	846.6	Left	B2	23.50	24	0.265	0.30	0.386	0.43	0.19

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-9: SAR Values (WCDMA 850 MHz Band - Head) – antenna2

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
4182	836.4	Left	Touch	/	23.23	24	0.179	0.21	0.249	0.30	-0.08
4182	836.4	Left	Tilt	/	23.23	24	0.122	0.15	0.164	0.20	0.03
4233	846.6	Right	Touch	/	23.50	24	0.207	0.23	0.282	0.32	-0.01
4182	836.4	Right	Touch	Fig.9	23.23	24	0.218	0.26	0.301	0.36	-0.01
4132	826.4	Right	Touch	/	23.35	24	0.185	0.21	0.260	0.30	-0.06
4182	836.4	Right	Tilt	/	23.23	24	0.141	0.17	0.184	0.22	0.06
4182	836.4	Right	Touch	B2	23.23	24	0.148	0.18	0.193	0.23	0.02

Table 14.2-10: SAR Values (WCDMA 850 MHz Band - Body) – antenna2

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C				
Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz									
4182	836.4	Front	/	23.23	24	0.169	0.20	0.211	0.25	0.09
4182	836.4	Rear	/	23.23	24	0.151	0.18	0.233	0.28	-0.01
4182	836.4	Left	/	23.23	24	0.086	0.10	0.121	0.15	0.06
4233	846.6	Right	Fig.10	23.50	24	0.206	0.23	0.300	0.34	-0.02
4182	836.4	Right	/	23.23	24	0.177	0.21	0.252	0.30	0.16
4132	826.4	Right	/	23.35	24	0.161	0.19	0.231	0.27	0.17
4182	836.4	Bottom	/	23.23	24	0.122	0.15	0.202	0.24	0.05
4233	846.6	Right	B2	23.50	24	0.190	0.21	0.266	0.30	0.07

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-11: SAR Values (WCDMA 1700 MHz Band - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
1637	1732.4	Left	Touch	/	23.22	24	0.173	0.21	0.262	0.31	-0.04
1637	1732.4	Left	Tilt	/	23.22	24	0.100	0.12	0.152	0.18	0.07
1738	1752.6	Right	Touch	/	23.14	24	0.257	0.31	0.411	0.50	0.01
1637	1732.4	Right	Touch	/	23.22	24	0.271	0.32	0.419	0.50	-0.04
1537	1712.4	Right	Touch	Fig.11	23.22	24	0.276	0.33	0.431	0.52	-0.02
1637	1732.4	Right	Tilt	/	23.22	24	0.089	0.11	0.131	0.16	-0.02
1537	1712.4	Right	Touch	B2	23.22	24	0.255	0.31	0.389	0.47	-0.02

Table 14.2-12: SAR Values (WCDMA 1700 MHz Band - Body)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz									
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C										
1738	1752.6	Front	/	20.91	21	0.411	0.42	0.819	0.84	0.04
1637	1732.4	Front	/	21.00	21	0.412	0.41	0.820	0.82	0.02
1537	1712.4	Front	/	20.95	21	0.380	0.38	0.754	0.76	-0.05
1738	1752.6	Rear	/	20.91	21	0.429	0.44	0.855	0.87	-0.19
1637	1732.4	Rear	/	21.00	21	0.444	0.44	0.881	0.88	0.07
1537	1712.4	Rear	/	20.95	21	0.404	0.41	0.807	0.82	0.03
1637	1732.4	Left	/	21.00	21	0.035	0.04	0.062	0.06	0.06
1637	1732.4	Right	/	21.00	21	0.174	0.17	0.320	0.32	0.16
1738	1752.6	Bottom	Fig.12	20.91	21	0.536	0.55	1.05	1.07	0.01
1637	1732.4	Bottom	/	21.00	21	0.468	0.47	0.942	0.94	0.01
1537	1712.4	Bottom	/	20.95	21	0.410	0.41	0.818	0.83	-0.02
1738	1752.6	Bottom	B2	20.91	21	0.332	0.34	0.652	0.67	-0.06

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-13: SAR Values(WCDMA 1900 MHz Band - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
9800	1880	Left	Touch	/	23.72	24	0.103	0.11	0.144	0.15	0.03
9800	1880	Left	Tilt	/	23.72	24	0.070	0.07	0.100	0.11	-0.04
9938	1907.6	Right	Touch	/	23.93	24	0.131	0.13	0.188	0.19	0.01
9800	1880	Right	Touch	/	23.72	24	0.129	0.14	0.211	0.23	0.06
9662	1852.4	Right	Touch	Fig.13	23.76	24	0.183	0.19	0.269	0.28	0.05
9800	1880	Right	Tilt	/	23.72	24	0.070	0.07	0.102	0.11	0.03
9662	1852.4	Right	Touch	B2	23.76	24	0.101	0.11	0.187	0.20	0.09

Table 14.2-14: SAR Values (WCDMA 1900 MHz Band - Body)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz									
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C										
9800	1880	Front	/	19.42	20	0.349	0.40	0.669	0.76	-0.04
9938	1907.6	Rear	/	19.61	20	0.405	0.44	0.766	0.84	0.05
9800	1880	Rear	/	19.42	20	0.397	0.45	0.751	0.86	0.01
9662	1852.4	Rear	/	19.59	20	0.389	0.43	0.742	0.82	-0.04
9800	1880	Left	/	19.42	20	0.027	0.03	0.040	0.05	-0.05
9800	1880	Right	/	19.42	20	0.085	0.10	0.147	0.17	0.09
9938	1907.6	Bottom	Fig.14	19.61	20	0.598	0.65	1.16	1.27	-0.02
9800	1880	Bottom	/	19.42	20	0.573	0.65	1.11	1.27	-0.11
9662	1852.4	Bottom	/	19.59	20	0.591	0.65	1.13	1.24	-0.02
9938	1907.6	Bottom	B2	19.61	20	0.372	0.41	0.705	0.77	-0.05
9938	1907.6	Bottom	H1	19.61	20	0.583	0.64	1.07	1.17	0.12

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.2-15: SAR Values (LTE Band2 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
19100	1900	1RB_Low	Left	Touch	/	24.12	25	0.064	0.08	0.096	0.12	0.03
19100	1900	1RB_Low	Left	Tilt	/	24.12	25	0.042	0.05	0.070	0.09	0.01
19100	1900	1RB_Low	Right	Touch	Fig.15	24.12	25	0.123	0.15	0.178	0.22	0.14
19100	1900	1RB_Low	Right	Tilt	/	24.12	25	0.049	0.06	0.080	0.10	0.08
19100	1900	50RB_Mid	Left	Touch	/	23.10	24	0.063	0.08	0.097	0.12	0.07
19100	1900	50RB_Mid	Left	Tilt	/	23.10	24	0.047	0.06	0.077	0.09	0.04
19100	1900	50RB_Mid	Right	Touch	/	23.10	24	0.088	0.11	0.145	0.18	0.19
19100	1900	50RB_Mid	Right	Tilt	/	23.10	24	0.053	0.06	0.084	0.10	0.01
19100	1900	1RB_Low	Right	Touch	B2	24.12	25	0.092	0.11	0.133	0.16	0.07

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-16: SAR Values (LTE Band2 - Body)

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
19100	1900	1RB_Low	Front	/	20.42	21	0.292	0.33	0.558	0.64	0.06
19100	1900	1RB_Low	Rear	/	20.42	21	0.367	0.42	0.679	0.78	-0.02
19100	1900	1RB_Low	Left	/	20.42	21	0.025	0.03	0.037	0.04	0.14
19100	1900	1RB_Low	Right	/	20.42	21	0.078	0.09	0.135	0.15	0.09
19100	1900	1RB_Low	Bottom	Fig.16	20.42	21	0.590	0.67	1.15	1.31	0.04
18900	1880	1RB_Low	Bottom	/	20.39	21	0.580	0.67	1.12	1.29	0.05
18700	1860	1RB_Low	Bottom	/	20.31	21	0.566	0.66	1.08	1.26	-0.02
19100	1900	50RB_Mid	Front	/	20.38	21	0.303	0.35	0.581	0.67	-0.08
19100	1900	50RB_Mid	Rear	/	20.38	21	0.357	0.41	0.663	0.76	0.11
19100	1900	50RB_Mid	Left	/	20.38	21	0.027	0.03	0.039	0.04	0.17
19100	1900	50RB_Mid	Right	/	20.38	21	0.082	0.09	0.142	0.16	0.03
19100	1900	50RB_Mid	Bottom	/	20.38	21	0.583	0.67	1.12	1.29	0.01
18900	1880	50RB_Mid	Bottom	/	20.36	21	0.575	0.67	1.11	1.29	0.09
18700	1860	50RB_Mid	Bottom	/	20.34	21	0.565	0.66	1.10	1.28	0.12
19100	1900	100RB	Bottom	/	20.43	21	0.339	0.39	0.650	0.74	0.14
19100	1900	1RB_Low	Bottom	B2	20.42	21	0.425	0.49	0.805	0.92	-0.06
19100	1900	1RB_Low	Bottom	H1	20.42	21	0.579	0.66	1.12	1.28	0.04

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-17: SAR Values(LTE Band4 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
20300	1745	1RB_Low	Left	Touch	/	23.62	24	0.152	0.17	0.226	0.25	-0.01
20300	1745	1RB_Low	Left	Tilt	/	23.62	24	0.082	0.09	0.122	0.13	0.04
20300	1745	1RB_Low	Right	Touch	Fig.17	23.62	24	0.212	0.23	0.320	0.35	0.04
20300	1745	1RB_Low	Right	Tilt	/	23.62	24	0.079	0.09	0.114	0.12	-0.06
20300	1745	50RB_High	Left	Touch	/	22.61	23	0.123	0.13	0.177	0.19	0.01
20300	1745	50RB_High	Left	Tilt	/	22.61	23	0.069	0.08	0.102	0.11	-0.03
20300	1745	50RB_High	Right	Touch	/	22.61	23	0.204	0.22	0.312	0.34	-0.02
20300	1745	50RB_High	Right	Tilt	/	22.61	23	0.070	0.08	0.098	0.11	0.02
20300	1745	1RB_Low	Right	Touch	B2	23.62	24	0.137	0.15	0.210	0.23	-0.09

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-18: SAR Values (LTE Band4 - Body)

Frequency		Mode	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
20050	1720	1RB_Low	Front	/	21.58	22	0.357	0.39	0.667	0.73	0.07
20050	1720	1RB_Low	Rear	/	21.58	22	0.396	0.44	0.714	0.79	0.12
20050	1720	1RB_Low	Left	/	21.58	22	0.027	0.03	0.044	0.05	-0.05
20050	1720	1RB_Low	Right	/	21.58	22	0.167	0.18	0.275	0.30	0.11
20300	1745	1RB_Low	Bottom	/	21.55	22	0.493	0.55	0.968	1.07	-0.14
20175	1732.5	1RB_Low	Bottom	/	21.46	22	0.505	0.57	0.994	1.13	0.04
20050	1720	1RB_Low	Bottom	/	21.58	22	0.509	0.56	0.959	1.06	0.03
20300	1745	50RB_Mid	Front	/	21.52	22	0.378	0.42	0.711	0.79	-0.06
20300	1745	50RB_Mid	Rear	/	21.52	22	0.411	0.46	0.743	0.83	0.08
20175	1732.5	50RB_Mid	Rear	/	21.37	22	0.419	0.48	0.744	0.86	0.09
20050	1720	50RB_Low	Rear	/	21.38	22	0.417	0.48	0.741	0.85	-0.02
20300	1745	50RB_Mid	Left	/	21.52	22	0.037	0.04	0.060	0.07	-0.13
20300	1745	50RB_Mid	Right	/	21.52	22	0.165	0.18	0.275	0.31	0.16
20300	1745	50RB_Mid	Bottom	/	21.52	22	0.512	0.57	0.977	1.09	0.14
20175	1732.5	50RB_Mid	Bottom	/	21.37	22	0.490	0.57	0.959	1.11	-0.07
20050	1720	50RB_Low	Bottom	/	21.38	22	0.511	0.59	0.974	1.12	0.07
20300	1745	100RB	Rear	/	21.57	22	0.445	0.49	0.790	0.87	-0.11
20300	1745	100RB	Bottom	Fig.18	21.57	22	0.524	0.58	1.03	1.14	0.08
20300	1745	100RB	Bottom	B2	21.57	22	0.421	0.46	0.832	0.92	-0.13

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-19: SAR Values (LTE Band5 - Head) – antenna1

Frequency		Mode	Side	Test Position	Figure No.	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C				
Ch.	MHz					Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
20450	829	1RB_High	Left	Touch	/	23.70	24	0.105	0.11	0.151	0.16	-0.09
20450	829	1RB_High	Left	Tilt	/	23.70	24	0.065	0.07	0.092	0.10	0.02
20450	829	1RB_High	Right	Touch	/	23.70	24	0.083	0.09	0.124	0.13	-0.10
20450	829	1RB_High	Right	Tilt	/	23.70	24	0.061	0.07	0.086	0.09	-0.09
20600	844	25RB_High	Left	Touch	Fig.19	22.62	23	0.167	0.18	0.224	0.24	0.16
20600	844	25RB_High	Left	Tilt	/	22.62	23	0.097	0.11	0.137	0.15	0.11
20600	844	25RB_High	Right	Touch	/	22.62	23	0.115	0.13	0.172	0.19	0.07
20600	844	25RB_High	Right	Tilt	/	22.62	23	0.097	0.11	0.138	0.15	0.12
20600	844	25RB_High	Left	Touch	B2	22.62	23	0.127	0.14	0.167	0.18	0.03

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-20: SAR Values (LTE Band5 - Body) – antenna1

Frequency		Mode	Test Position	Figure No.	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C				
Ch.	MHz				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
20450	829	1RB_High	Front	/	23.70	24	0.119	0.13	0.164	0.18	0.04
20450	829	1RB_High	Rear	/	23.70	24	0.118	0.13	0.162	0.17	0.02
20450	829	1RB_High	Left	/	23.70	24	0.146	0.16	0.210	0.23	0.04
20450	829	1RB_High	Right	/	23.70	24	0.079	0.08	0.123	0.13	0.08
20450	829	1RB_High	Bottom	/	23.70	24	0.064	0.07	0.120	0.13	-0.08
20600	844	25RB_High	Front	/	22.62	23	0.132	0.14	0.182	0.20	0.03
20600	844	25RB_High	Rear	/	22.62	23	0.139	0.15	0.192	0.21	0.12
20600	844	25RB_High	Left	Fig.20	22.62	23	0.187	0.20	0.276	0.30	0.02
20600	844	25RB_High	Right	/	22.62	23	0.108	0.12	0.169	0.18	0.01
20600	844	25RB_High	Bottom	/	22.62	23	0.086	0.09	0.158	0.17	0.06
20600	844	25RB_High	Left	B2	22.62	23	0.145	0.16	0.210	0.23	-0.06

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-21: SAR Values (LTE Band5 - Head) – antenna2

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C						
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20450	829	1RB_High	Left	Touch	Fig.21	23.70	24	0.159	0.17	0.209	0.22	0.05
20450	829	1RB_High	Left	Tilt	/	23.70	24	0.089	0.10	0.111	0.12	-0.01
20450	829	1RB_High	Right	Touch	/	23.70	24	0.107	0.11	0.139	0.15	0.02
20450	829	1RB_High	Right	Tilt	/	23.70	24	0.046	0.05	0.057	0.06	0.05
20600	844	25RB_High	Left	Touch	/	22.62	23	0.090	0.10	0.117	0.13	-0.08
20600	844	25RB_High	Left	Tilt	/	22.62	23	0.074	0.08	0.096	0.10	-0.02
20600	844	25RB_High	Right	Touch	/	22.62	23	0.089	0.10	0.116	0.13	-0.01
20600	844	25RB_High	Right	Tilt	/	22.62	23	0.035	0.04	0.044	0.05	0.06
20450	829	1RB_High	Left	Touch	B2	23.70	24	0.147	0.16	0.186	0.20	-0.04

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-22: SAR Values (LTE Band5 - Body) – antenna2

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20450	829	1RB_High	Front	/	23.70	24	0.115	0.12	0.172	0.18	0.08
20450	829	1RB_High	Rear	/	23.70	24	0.113	0.12	0.165	0.18	0.16
20450	829	1RB_High	Left	/	23.70	24	0.067	0.07	0.090	0.10	0.04
20450	829	1RB_High	Right	/	23.70	24	0.151	0.16	0.210	0.23	-0.04
20450	829	1RB_High	Bottom	Fig.22	23.70	24	0.177	0.19	0.297	0.32	0.04
20600	844	25RB_High	Front	/	22.62	23	0.103	0.11	0.158	0.17	0.11
20600	844	25RB_High	Rear	/	22.62	23	0.097	0.11	0.149	0.16	0.14
20600	844	25RB_High	Left	/	22.62	23	0.050	0.05	0.069	0.08	0.02
20600	844	25RB_High	Right	/	22.62	23	0.105	0.11	0.148	0.16	0.04
20600	844	25RB_High	Bottom	/	22.62	23	0.153	0.17	0.249	0.27	0.11
20450	829	1RB_High	Bottom	B2	23.70	24	0.163	0.17	0.269	0.29	0.14

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-23: SAR Values (LTE Band7 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
21100	2535	1RB_Low	Left	Touch	/	23.03	24	0.039	0.05	0.073	0.09	0.12
21100	2535	1RB_Low	Left	Tilt	/	23.03	24	0.025	0.03	0.042	0.05	0.06
21100	2535	1RB_Low	Right	Touch	Fig.23	23.03	24	0.078	0.10	0.146	0.18	0.12
21100	2535	1RB_Low	Right	Tilt	/	23.03	24	0.023	0.03	0.040	0.05	0.02
20850	2510	50RB_Mid	Left	Touch	/	21.89	23	0.031	0.04	0.058	0.07	0.11
20850	2510	50RB_Mid	Left	Tilt	/	21.89	23	0.020	0.03	0.034	0.04	0.09
20850	2510	50RB_Mid	Right	Touch	/	21.89	23	0.054	0.07	0.105	0.14	0.06
20850	2510	50RB_Mid	Right	Tilt	/	21.89	23	0.015	0.02	0.025	0.03	0.02
21100	2535	1RB_Low	Right	Touch	B2	23.03	24	0.070	0.09	0.137	0.17	0.04

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-24: SAR Values (LTE Band7 - Body)

Frequency		Mode	Test Position	Figure No./Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
21100	2535	1RB_Low	Front	/	19.85	20	0.267	0.28	0.550	0.57	0.10
21100	2535	1RB_Low	Rear	/	19.85	20	0.218	0.23	0.475	0.49	0.08
21100	2535	1RB_Low	Left	/	19.85	20	0.058	0.06	0.108	0.11	0.13
21100	2535	1RB_Low	Right	/	19.85	20	0.035	0.04	0.063	0.06	0.06
21350	2560	1RB_High	Bottom	/	19.61	20	0.417	0.46	0.908	0.99	-0.04
21100	2535	1RB_Low	Bottom	Fig.18	19.85	20	0.502	0.52	1.08	1.12	-0.07
20850	2510	1RB_High	Bottom	/	19.84	20	0.492	0.51	1.06	1.10	0.01
20850	2510	50RB_High	Front	/	19.79	20	0.248	0.26	0.512	0.54	0.16
20850	2510	50RB_High	Rear	/	19.79	20	0.222	0.23	0.477	0.50	0.02
20850	2510	50RB_High	Left	/	19.79	20	0.057	0.06	0.107	0.11	0.08
20850	2510	50RB_High	Right	/	19.79	20	0.034	0.04	0.058	0.06	0.11
21350	2560	50RB_High	Bottom	/	19.42	20	0.427	0.49	0.934	1.07	-0.02
21100	2535	50RB_High	Bottom	/	19.76	20	0.485	0.51	1.04	1.10	-0.06
20850	2510	50RB_High	Bottom	/	19.79	20	0.492	0.52	1.05	1.10	0.09
20850	2510	100RB	Bottom	/	19.76	20	0.492	0.52	1.05	1.10	-0.01
21100	2535	1RB_Low	Bottom	B2	19.85	20	0.407	0.42	0.868	0.90	-0.07

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-25: SAR Values (LTE Band12 - Head) – antenna1

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C												
23095	707.5	1RB_Mid	Left	Touch	Fig.25	23.30	24	0.109	0.13	0.139	0.16	0.04
23095	707.5	1RB_Mid	Left	Tilt	/	23.30	24	0.082	0.10	0.105	0.12	0.02
23095	707.5	1RB_Mid	Right	Touch	/	23.30	24	0.080	0.09	0.103	0.12	-0.06
23095	707.5	1RB_Mid	Right	Tilt	/	23.30	24	0.077	0.09	0.099	0.12	-0.03
23060	704	25RB_Mid	Left	Touch	/	22.32	23	0.081	0.09	0.105	0.12	-0.08
23060	704	25RB_Mid	Left	Tilt	/	22.32	23	0.067	0.08	0.084	0.10	0.07
23060	704	25RB_Mid	Right	Touch	/	22.32	23	0.071	0.08	0.092	0.11	0.09
23060	704	25RB_Mid	Right	Tilt	/	22.32	23	0.062	0.07	0.081	0.09	-0.12
23095	707.5	1RB_Mid	Left	Touch	B2	23.30	24	0.096	0.11	0.123	0.14	-0.16

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-26: SAR Values (LTE Band12 - Body) – antenna1

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
23095	707.5	1RB_Mid	Front	/	23.30	24	0.134	0.16	0.170	0.20	0.04
23095	707.5	1RB_Mid	Rear	/	23.30	24	0.134	0.16	0.169	0.20	0.01
23095	707.5	1RB_Mid	Left	Fig.26	23.30	24	0.189	0.22	0.263	0.31	-0.07
23095	707.5	1RB_Mid	Right	/	23.30	24	0.096	0.11	0.135	0.16	0.07
23095	707.5	1RB_Mid	Bottom	/	23.30	24	0.059	0.07	0.101	0.12	0.04
23060	704	25RB_Mid	Front	/	22.32	23	0.120	0.14	0.151	0.18	-0.02
23060	704	25RB_Mid	Rear	/	22.32	23	0.125	0.15	0.157	0.18	0.12
23060	704	25RB_Mid	Left	/	22.32	23	0.157	0.18	0.219	0.26	0.04
23060	704	25RB_Mid	Right	/	22.32	23	0.082	0.10	0.116	0.14	0.08
23060	704	25RB_Mid	Bottom	/	22.32	23	0.050	0.06	0.086	0.10	-0.06
23095	707.5	1RB_Mid	Left	B2	23.30	24	0.164	0.19	0.238	0.28	-0.08

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-27: SAR Values (LTE Band12 - Head) – antenna2

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C												
23095	707.5	1RB_Mid	Left	Touch	Fig.27	23.30	24	0.135	0.16	0.174	0.20	0.08
23095	707.5	1RB_Mid	Left	Tilt	/	23.30	24	0.095	0.11	0.150	0.18	-0.04
23095	707.5	1RB_Mid	Right	Touch	/	23.30	24	0.101	0.12	0.134	0.16	0.02
23095	707.5	1RB_Mid	Right	Tilt	/	23.30	24	0.068	0.08	0.088	0.10	0.04
23060	704	25RB_Mid	Left	Touch	/	22.32	23	0.092	0.11	0.142	0.17	0.01
23060	704	25RB_Mid	Left	Tilt	/	22.32	23	0.075	0.09	0.129	0.15	-0.07
23060	704	25RB_Mid	Right	Touch	/	22.32	23	0.082	0.10	0.107	0.13	0.05
23060	704	25RB_Mid	Right	Tilt	/	22.32	23	0.054	0.06	0.071	0.08	0.03
23095	707.5	1RB_Mid	Left	Touch	B2	23.30	24	0.099	0.12	0.127	0.15	0.08

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-28: SAR Values (LTE Band12 - Body) – antenna2

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
23095	707.5	1RB_Mid	Front	/	23.30	24	0.090	0.11	0.132	0.15	0.18
23095	707.5	1RB_Mid	Rear	/	23.30	24	0.104	0.12	0.138	0.16	0.05
23095	707.5	1RB_Mid	Left	/	23.30	24	0.080	0.09	0.114	0.13	-0.03
23095	707.5	1RB_Mid	Right	Fig.28	23.30	24	0.189	0.22	0.266	0.31	0.18
23095	707.5	1RB_Mid	Bottom	/	23.30	24	0.065	0.08	0.110	0.13	-0.04
23060	704	25RB_Mid	Front	/	22.32	23	0.085	0.10	0.107	0.13	0.09
23060	704	25RB_Mid	Rear	/	22.32	23	0.083	0.10	0.104	0.12	0.11
23060	704	25RB_Mid	Left	/	22.32	23	0.064	0.07	0.091	0.11	0.06
23060	704	25RB_Mid	Right	/	22.32	23	0.138	0.16	0.196	0.23	-0.12
23060	704	25RB_Mid	Bottom	/	22.32	23	0.048	0.06	0.083	0.10	0.19
23095	707.5	1RB_Mid	Right	B2	23.30	24	0.167	0.20	0.234	0.27	0.06

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-29: SAR Values (LTE Band13 - Head) – antenna1

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C												
23230	782	1RB_Mid	Left	Touch	Fig.29	23.40	24	0.161	0.18	0.210	0.24	0.15
23230	782	1RB_Mid	Left	Tilt	/	23.40	24	0.105	0.12	0.134	0.15	-0.04
23230	782	1RB_Mid	Right	Touch	/	23.40	24	0.113	0.13	0.151	0.17	0.05
23230	782	1RB_Mid	Right	Tilt	/	23.40	24	0.095	0.11	0.124	0.14	0.01
23230	782	25RB_Mid	Left	Touch	/	22.41	23	0.112	0.13	0.147	0.17	0.11
23230	782	25RB_Mid	Left	Tilt	/	22.41	23	0.086	0.10	0.108	0.12	0.06
23230	782	25RB_Mid	Right	Touch	/	22.41	23	0.095	0.11	0.127	0.15	-0.14
23230	782	25RB_Mid	Right	Tilt	/	22.41	23	0.085	0.10	0.107	0.12	-0.13
23230	782	1RB_Mid	Left	Touch	B2	23.40	24	0.143	0.16	0.189	0.22	0.18

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-30: SAR Values (LTE Band13 - Body) – antenna1

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C											
23230	782	1RB_Mid	Front	/	23.40	24	0.192	0.22	0.243	0.28	0.04
23230	782	1RB_Mid	Rear	/	23.40	24	0.192	0.22	0.246	0.28	0.01
23230	782	1RB_Mid	Left	Fig.30	23.40	24	0.259	0.30	0.372	0.43	0.02
23230	782	1RB_Mid	Right	/	23.40	24	0.128	0.15	0.181	0.21	0.06
23230	782	1RB_Mid	Bottom	/	23.40	24	0.093	0.11	0.167	0.19	-0.09
23230	782	25RB_Mid	Front	/	22.41	23	0.177	0.20	0.226	0.26	0.14
23230	782	25RB_Mid	Rear	/	22.41	23	0.169	0.19	0.212	0.24	0.19
23230	782	25RB_Mid	Left	/	22.41	23	0.186	0.21	0.263	0.30	0.08
23230	782	25RB_Mid	Right	/	22.41	23	0.106	0.12	0.150	0.17	0.04
23230	782	25RB_Mid	Bottom	/	22.41	23	0.078	0.09	0.138	0.16	0.02
23230	782	1RB_Mid	Left	B2	23.40	24	0.209	0.24	0.298	0.34	-0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-31: SAR Values (LTE Band13 - Head) – antenna2

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
23230	782	1RB_Mid	Left	Touch	Fig.31	23.40	24	0.154	0.18	0.204	0.23	-0.09
23230	782	1RB_Mid	Left	Tilt	/	23.40	24	0.119	0.14	0.150	0.17	0.02
23230	782	1RB_Mid	Right	Touch	/	23.40	24	0.150	0.17	0.195	0.22	0.03
23230	782	1RB_Mid	Right	Tilt	/	23.40	24	0.086	0.10	0.109	0.13	0.07
23230	782	25RB_Mid	Left	Touch	/	22.41	23	0.123	0.14	0.161	0.18	0.08
23230	782	25RB_Mid	Left	Tilt	/	22.41	23	0.074	0.08	0.093	0.11	0.09
23230	782	25RB_Mid	Right	Touch	/	22.41	23	0.090	0.10	0.120	0.14	0.09
23230	782	25RB_Mid	Right	Tilt	/	22.41	23	0.071	0.08	0.091	0.10	0.05
23230	782	1RB_Mid	Left	Touch	B2	23.40	24	0.153	0.18	0.198	0.23	0.06

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-32: SAR Values (LTE Band13 - Body) – antenna2

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
23230	782	1RB_Mid	Front	/	23.40	24	0.126	0.15	0.142	0.16	0.06
23230	782	1RB_Mid	Rear	/	23.40	24	0.121	0.14	0.136	0.16	0.10
23230	782	1RB_Mid	Left	/	23.40	24	0.088	0.10	0.112	0.13	-0.19
23230	782	1RB_Mid	Right	Fig.32	23.40	24	0.198	0.23	0.250	0.29	0.15
23230	782	1RB_Mid	Bottom	/	23.40	24	0.091	0.10	0.135	0.16	0.01
23230	782	25RB_Mid	Front	/	22.41	23	0.105	0.12	0.118	0.14	0.05
23230	782	25RB_Mid	Rear	/	22.41	23	0.101	0.12	0.115	0.13	-0.14
23230	782	25RB_Mid	Left	/	22.41	23	0.067	0.08	0.086	0.10	0.01
23230	782	25RB_Mid	Right	/	22.41	23	0.131	0.15	0.167	0.19	0.19
23230	782	25RB_Mid	Bottom	/	22.41	23	0.072	0.08	0.110	0.13	0.10
23230	782	1RB_Mid	Right	B2	23.40	24	0.158	0.18	0.199	0.23	0.06

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-33: SAR Values (LTE Band30 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
27710	2310	1RB_High	Left	Touch	/	24.00	24	0.033	0.03	0.066	0.07	0.02
27710	2310	1RB_High	Left	Tilt	/	24.00	24	0.015	0.02	0.026	0.03	0.07
27710	2310	1RB_High	Right	Touch	Fig.33	24.00	24	0.071	0.07	0.131	0.13	0.11
27710	2310	1RB_High	Right	Tilt	/	24.00	24	0.021	0.02	0.037	0.04	-0.04
27710	2310	25RB_High	Left	Touch	/	22.70	23	0.029	0.03	0.057	0.06	0.18
27710	2310	25RB_High	Left	Tilt	/	22.70	23	0.012	0.01	0.020	0.02	0.19
27710	2310	25RB_High	Right	Touch	/	22.70	23	0.055	0.06	0.102	0.11	0.09
27710	2310	25RB_High	Right	Tilt	/	22.70	23	0.014	0.01	0.034	0.04	0.02
27710	2310	1RB_High	Right	Touch	B2	24.00	24	0.043	0.04	0.082	0.08	0.17

Note1: The LTE mode is QPSK_10MHz.

Table 14.2-34: SAR Values (LTE Band30 - Body)

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
27710	2310	1RB_Low	Front	/	21.33	22	0.238	0.28	0.463	0.54	0.09
27710	2310	1RB_Low	Rear	/	21.33	22	0.258	0.30	0.515	0.60	0.10
27710	2310	1RB_Low	Left	/	21.33	22	0.065	0.08	0.108	0.13	0.04
27710	2310	1RB_Low	Right	/	21.33	22	0.034	0.04	0.055	0.06	0.02
27710	2310	1RB_Low	Bottom	Fig.34	21.33	22	0.508	0.59	1.04	1.21	-0.14
27710	2310	25RB_Low	Front	/	21.14	22	0.227	0.28	0.442	0.54	0.18
27710	2310	25RB_Low	Rear	/	21.14	22	0.241	0.29	0.482	0.59	0.12
27710	2310	25RB_Low	Left	/	21.14	22	0.062	0.08	0.105	0.13	-0.09
27710	2310	25RB_Low	Right	/	21.14	22	0.032	0.04	0.052	0.06	-0.01
27710	2310	25RB_Low	Bottom	/	21.14	22	0.477	0.58	0.980	1.19	0.06
27710	2310	50RB	Bottom	/	21.06	22	0.474	0.59	0.965	1.20	0.15
27710	2310	1RB_Low	Bottom	B2	21.33	22	0.474	0.55	0.957	1.12	0.02
27710	2310	1RB_Low	Bottom	H1	21.33	22	0.471	0.55	0.928	1.08	0.09

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-35: SAR Values (LTE Band41 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
39750	2506	1RB_Mid	Left	Touch	/	23.43	24	0.020	0.02	0.038	0.04	0.04
39750	2506	1RB_Mid	Left	Tilt	/	23.43	24	0.012	0.01	0.020	0.02	0.11
39750	2506	1RB_Mid	Right	Touch	Fig.35	23.43	24	0.038	0.04	0.074	0.08	0.06
39750	2506	1RB_Mid	Right	Tilt	/	23.43	24	0.010	0.01	0.018	0.02	0.13
39750	2506	50RB_High	Left	Touch	/	22.65	23	0.014	0.02	0.027	0.03	0.11
39750	2506	50RB_High	Left	Tilt	/	22.65	23	0.009	0.01	0.015	0.02	0.09
39750	2506	50RB_High	Right	Touch	/	22.65	23	0.028	0.03	0.053	0.06	0.02
39750	2506	50RB_High	Right	Tilt	/	22.65	23	0.007	0.01	0.013	0.01	0.08
39750	2506	1RB_Mid	Right	Touch	B2	23.43	24	0.034	0.04	0.064	0.07	0.06

Note1: The LTE mode is QPSK_20MHz.

Table 14.2-36: SAR Values (LTE Band41 - Body)

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
39750	2506	1RB_Mid	Front	/	23.43	24	0.209	0.24	0.417	0.48	0.06
39750	2506	1RB_Mid	Rear	/	23.43	24	0.196	0.22	0.391	0.45	0.12
39750	2506	1RB_Mid	Left	/	23.43	24	0.044	0.05	0.076	0.09	0.02
39750	2506	1RB_Mid	Right	/	23.43	24	0.028	0.03	0.049	0.06	0.09
41490	2680	1RB_Mid	Bottom	/	23.00	24	0.288	0.36	0.598	0.75	0.11
41055	2636.5	1RB_High	Bottom	/	22.86	24	0.340	0.44	0.704	0.92	0.14
40620	2593	1RB_High	Bottom	/	23.19	24	0.345	0.42	0.633	0.76	0.02
40185	2549.5	1RB_High	Bottom	/	23.39	24	0.347	0.40	0.776	0.89	0.10
39750	2506	1RB_Mid	Bottom	Fig.36	23.43	24	0.473	0.54	1.03	1.17	-0.09
39750	2506	50RB_High	Front	/	22.65	23	0.162	0.18	0.323	0.35	0.09
39750	2506	50RB_High	Rear	/	22.65	23	0.153	0.17	0.306	0.33	0.07
39750	2506	50RB_High	Left	/	22.65	23	0.038	0.04	0.065	0.07	-0.13
39750	2506	50RB_High	Right	/	22.65	23	0.022	0.02	0.039	0.04	0.04
39750	2506	50RB_High	Bottom	/	22.65	23	0.262	0.28	0.557	0.60	-0.08
39750	2506	100RB	Bottom	/	22.50	23	0.329	0.37	0.676	0.76	0.11
39750	2506	1RB_Mid	Bottom	B2	23.43	24	0.389	0.44	0.839	0.96	-0.08

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

14.3 SAR results for Standard procedure

There is zoom scan measurement to be added for the highest measured SAR in each exposure configuration/band.

Table 14.3-1: SAR Values (GSM 850 MHz Band - Head) – antenna1

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	Left	Touch	Fig.1	28.98	30	0.265	0.34	0.369	0.47	0.02

Note: the head SAR of GSM850 is tested with GPRS (3Txslots) mode because of VoIP.

Table 14.3-2: SAR Values (GSM 850 MHz Band - Body) – antenna1

Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	GPRS (3)	Left	Fig.2	28.98	30	0.312	0.39	0.455	0.58	-0.01

Note: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-3: SAR Values (GSM 850 MHz Band - Head) – antenna2

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	Right	Touch	Fig.3	28.98	30	0.238	0.30	0.316	0.40	-0.04

Note: the head SAR of GSM850 is tested with GPRS (3Txslots) mode because of VoIP.

Table 14.3-4: SAR Values (GSM 850 MHz Band - Body) – antenna2

Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	GPRS (3)	Right	Fig.4	28.98	30	0.294	0.37	0.426	0.54	-0.13

Note: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-5: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
512	1850.2	Right	Touch	Fig.5	28.02	29	0.123	0.15	0.193	0.24	0.18

Note: the head SAR of GSM1900 is tested with GPRS (2Txslots) mode because of VoIP.

Table 14.3-6: SAR Values (GSM 1900 MHz Band - Body)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode (number of timeslots)	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
661	1880	GPRS (1)	Bottom	Fig.6	29.09	30.5	0.466	0.64	0.875	1.21	0.19

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-7: SAR Values (WCDMA 850 MHz Band - Head) – antenna1

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
4132	826.4	Left	Touch	Fig.7	23.35	24	0.240	0.28	0.321	0.37	-0.03

Table 14.3-8: SAR Values (WCDMA 850 MHz Band - Body) – antenna1

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)	
Ch.	MHz										
4233	846.6	Left	Fig.8	23.50	24	0.267	0.30	0.394	0.44	0.05	

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-9: SAR Values (WCDMA 850 MHz Band - Head) – antenna2

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
4182	836.4	Right	Touch	Fig.9	23.23	24	0.218	0.26	0.301	0.36	-0.01

Table 14.3-10: SAR Values (WCDMA 850 MHz Band - Body) – antenna2

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
4233	846.6	Right	Fig.10	23.50	24	0.206	0.23	0.300	0.34	-0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-11: SAR Values (WCDMA 1700 MHz Band - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
1537	1712.4	Right	Touch	Fig.11	23.22	24	0.276	0.33	0.431	0.52	-0.02

Table 14.3-12: SAR Values (WCDMA 1700 MHz Band - Body)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
1738	1752.6	Bottom	Fig.12	20.91	21	0.536	0.55	1.05	1.07	0.01

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-13: SAR Values(WCDMA 1900 MHz Band - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
9662	1852.4	Right	Touch	Fig.13	23.76	24	0.183	0.19	0.269	0.28	0.05

Table 14.3-14: SAR Values (WCDMA 1900 MHz Band - Body)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
Ch.	MHz					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
9938	1907.6	Bottom	Fig.14	19.61	20	0.598	0.65	1.16	1.27	-0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Table 14.3-15: SAR Values (LTE Band2 - Head)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C						
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
19100	1900	1RB_Low	Right	Touch	Fig.15	24.12	25	0.123	0.15	0.178	0.22	0.14

Note1: The LTE mode is QPSK_20MHz.

Table 14.3-16: SAR Values (LTE Band2 - Body)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
19100	1900	1RB_Low	Bottom	Fig.16	20.42	21	0.590	0.67	1.15	1.31	0.04

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.3-17: SAR Values(LTE Band4 - Head)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C						
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20300	1745	1RB_Low	Right	Touch	Fig.17	23.62	24	0.212	0.23	0.320	0.35	0.04

Note1: The LTE mode is QPSK_20MHz.

Table 14.3-18: SAR Values (LTE Band4 - Body)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20300	1745	100RB	Bottom	Fig.18	21.57	22	0.524	0.58	1.03	1.14	0.08

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.3-19: SAR Values (LTE Band5 - Head) – antenna1

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C						
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20600	844	25RB_High	Left	Touch	Fig.19	22.62	23	0.167	0.18	0.224	0.24	0.16

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-20: SAR Values (LTE Band5 - Body) – antenna1

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20600	844	25RB_High	Left	Fig.20	22.62	23	0.187	0.20	0.276	0.30	0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-21: SAR Values (LTE Band5 - Head) – antenna2

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C						
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20450	829	1RB_High	Left	Touch	Fig.21	23.70	24	0.159	0.17	0.209	0.22	0.05

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-22: SAR Values (LTE Band5 - Body) – antenna2

Ambient Temperature: 22.9°C						Liquid Temperature: 22.5°C					
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20450	829	1RB_High	Bottom	Fig.22	23.70	24	0.177	0.19	0.297	0.32	0.04

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-23: SAR Values (LTE Band7 - Head)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C						
Frequency		Mode	Side	Test Position	Figure No./ Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
21100	2535	1RB_Low	Right	Touch	Fig.23	23.03	24	0.078	0.10	0.146	0.18	0.12

Note1: The LTE mode is QPSK_20MHz.

Table 14.3-24: SAR Values (LTE Band7 - Body)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No./Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
21100	2535	1RB_Low	Bottom	Fig.18	19.85	20	0.502	0.52	1.08	1.12	-0.07

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

Table 14.3-25: SAR Values (LTE Band12 - Head) – antenna1

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C						
Frequency		Mode	Side	Test Position	Figure No./ Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23095	707.5	1RB_Mid	Left	Touch	Fig.25	23.30	24	0.109	0.13	0.139	0.16	0.04

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-26: SAR Values (LTE Band12 - Body) – antenna1

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Mode	Test Position	Figure No./ Note	Conduct ed Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
23095	707.5	1RB_Mid	Left	Fig.26	23.30	24	0.189	0.22	0.263	0.31	-0.07

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-27: SAR Values (LTE Band12 - Head) – antenna2

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23095	707.5	1RB_Mid	Left	Touch	Fig.27	23.30	24	0.135	0.16	0.174	0.20	0.08

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-28: SAR Values (LTE Band12 - Body) – antenna1

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
23095	707.5	1RB_Mid	Right	Fig.28	23.30	24	0.189	0.22	0.266	0.31	0.18

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-29: SAR Values (LTE Band13 - Head) – antenna1

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23230	782	1RB_Mid	Left	Touch	Fig.29	23.40	24	0.161	0.18	0.210	0.24	0.15

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-30: SAR Values (LTE Band13 - Body) – antenna1

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
23230	782	1RB_Mid	Left	Fig.30	23.40	24	0.259	0.30	0.372	0.43	0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-31: SAR Values (LTE Band13 - Head) – antenna2

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23230	782	1RB_Mid	Left	Touch	Fig.31	23.40	24	0.154	0.18	0.204	0.23	-0.09

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-32: SAR Values (LTE Band13 - Body) – antenna2

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
23230	782	1RB_Mid	Right	Fig.32	23.40	24	0.198	0.23	0.250	0.29	0.15

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-33: SAR Values (LTE Band30 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz											
27710	2310	1RB_High	Right	Touch	Fig.33	24.00	24	0.071	0.07	0.131	0.13	0.11

Note1: The LTE mode is QPSK_10MHz.

Table 14.3-34: SAR Values (LTE Band30 - Body)

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
27710	2310	1RB_Low	Bottom	Fig.34	21.33	22	0.508	0.59	1.04	1.21	-0.14

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_10MHz.

Table 14.3-35: SAR Values (LTE Band41 - Head)

Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz							Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
39750	2506	1RB_Mid	Right	Touch	Fig.35	23.43	24	0.038	0.04	0.074	0.08	0.06

Note1: The LTE mode is QPSK_20MHz.

Table 14.3-36: SAR Values (LTE Band41 - Body)

Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9°C		Liquid Temperature: 22.5°C		Power Drift (dB)
Ch.	MHz						Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	
39750	2506	1RB_Mid	Bottom	Fig.36	23.43	24	0.473	0.54	1.03	1.17	-0.09

Note1: The distance between the EUT and the phantom bottom is 10mm.

Note2: The LTE mode is QPSK_20MHz.

14.4 WLAN Evaluation

According to the KDB248227 D01, SAR is measured for 2.4GHz 802.11b DSSS using the initial test position procedure.

Head Evaluation

Table 14.4-1: SAR Values (WLAN - Head)– 802.11b 1Mbps (Fast SAR)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Left	Touch	/	20.97	21	0.122	0.12	0.234	0.24	0.09
2437	6	Left	Tilt	/	20.97	21	0.050	0.05	0.094	0.09	0.05
2437	6	Right	Touch	/	20.97	21	0.059	0.06	0.114	0.11	0.07
2437	6	Right	Tilt	/	20.97	21	0.039	0.04	0.084	0.08	0.04
2437	6	Left	Touch	B2	20.97	21	0.085	0.09	0.157	0.16	0.01

As shown above table, the initial test position for head is “Left Touch”. So the head SAR of WLAN is presented as below:

Table 14.4-2: SAR Values (WLAN - Head)– 802.11b 1Mbps (Full SAR)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C					
Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2437	6	Left	Touch	Fig.37	20.97	21	0.138	0.14	0.285	0.29	0.09

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is \leq 0.8 W/kg.

Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is \leq 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-3: SAR Values (WLAN - Head) – 802.11b 1Mbps (Scaled Reported SAR)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5 °C	
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.						
2437	6	Left	Touch	98.75%	100%	0.29	0.29
2437	6	Right	Touch	98.75%	100%	0.11	0.11

SAR is not required for OFDM because the 802.11b adjusted SAR \leq 1.2 W/kg.

Body Evaluation

Table 14.4-4: SAR Values(WLAN - Body)– 802.11b 1Mbps (Fast SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
MHz	Ch.					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	
2437	6	Front	/	20.97	21	0.020	0.02	0.036	0.04	0.00
2437	6	Rear	/	20.97	21	0.209	0.21	0.431	0.43	0.13
2437	6	Right	/	20.97	21	0.064	0.06	0.122	0.12	-0.11
2437	6	Top	/	20.97	21	0.017	0.02	0.029	0.03	0.11
2437	6	Rear	B2	20.97	21	0.112	0.11	0.240	0.24	0.13

As shown above table, the initial test position for body is “Front”. So the body SAR of WLAN is presented as below:

Table 14.4-5: SAR Values(WLAN - Body)– 802.11b 1Mbps (Full SAR)

Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C		Power Drift (dB)
MHz	Ch.					Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	
2437	6	Rear	Fig.38	20.97	21	0.246	0.25	0.548	0.55	0.13
2437	6	Right	/	20.97	21	0.069	0.07	0.133	0.13	-0.11

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is \leq 0.8 W/kg.

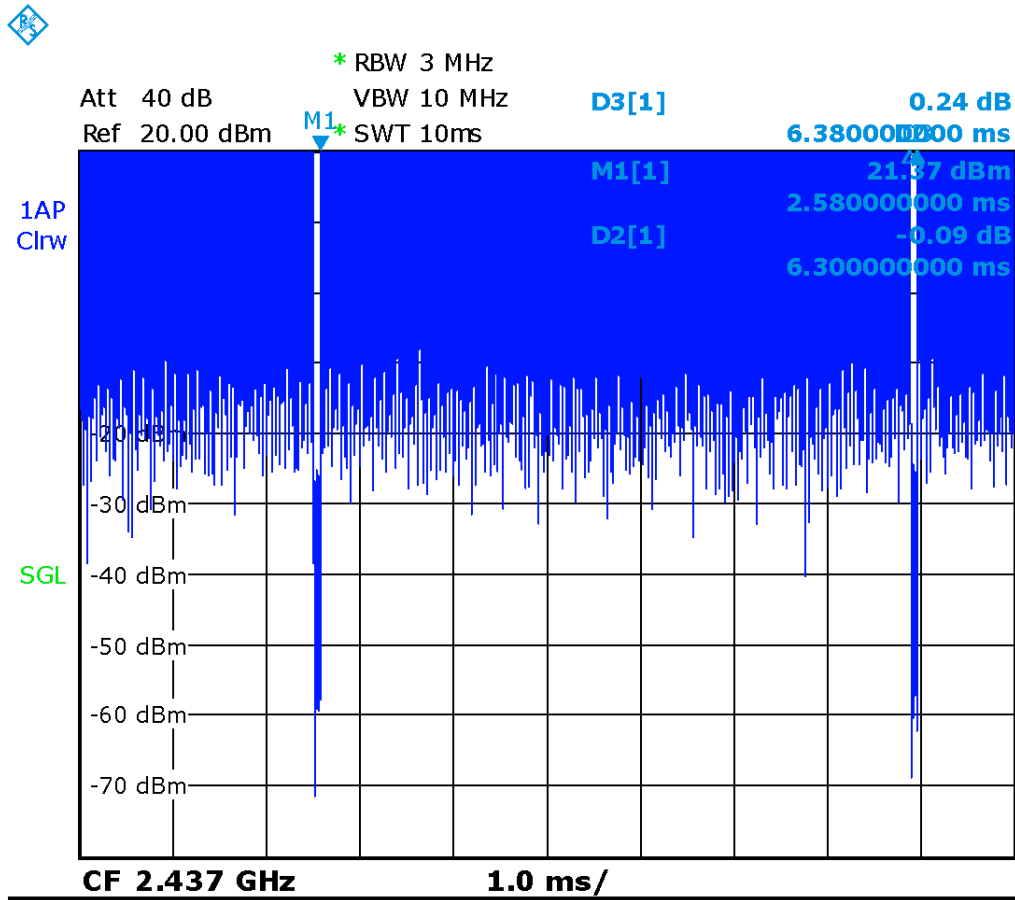
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is \leq 1.2 W/kg or all required channels are tested.

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-6: SAR Values (WLAN - Body) – 802.11b 1Mbps (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Ambient Temperature: 22.9 °C		Liquid Temperature: 22.5 °C	
MHz	Ch.				Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)		
2437	6	Rear	98.75%	100%	0.55	0.56		

SAR is not required for OFDM because the 802.11b adjusted SAR \leq 1.2 W/kg.



Picture 14.1 Duty factor plot

14.5 WLAN Evaluation For 5G

Table 14.5-1: OFDM mode specified maximum output power of WLAN antenna

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	X		X	X	X	X	X	
U-NII-2A	X		X	X	X	X	X	
U-NII-2C	X		X	X	X	X	X	
U-NII-3	X		X	X	X	X	X	
§ 15.247 (5.8 GHz)								

X: maximum(conducted) output power(mW), including tolerance, specified for production units

Table 14.5-2: Maximum output power specified of WLAN antenna

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	79		79	63	79	63	79	
U-NII-2A	100		100	63	100	63	79	
U-NII-2C	79		79	79	79	79	79	
U-NII-3	32		32	25	32	32	32	
§ 15.247 (5.8 GHz)								

- The maximum output power specified for production units is the same for all channels, modulations and data rates in each channel bandwidth configuration of the 802.11a/g/n/ac modes.
- The blue highlighted cells represent highest output configurations in each standalone or aggregated frequency band, with tune-up tolerance included.

Table 14.5-3: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations

802.11 mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 77/75/69/66	36/40/44/48 Lower power	38/46 Lower power	36/40/44/48 Lower power	38/46 Lower power	42 Lower power
U-NII-2A	52/56/60/64 67/72/78/85	52/56/60/64 Lower power	54/62 Lower power	52/56/60/64 Lower power	54/62 Lower power	58 Lower power
U-NII-2C	100/104/108/112 75/68/62/62 116/132/136/140/144 64/56/49/44/42	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	100/104/108/112 116/132/136/140 Lower power	102/110/134 Lower power	106 Lower power
U-NII-3	149/153/157/161/165 25/25/26/25/24	149/153/157/161 /165 Lower power	151/159 Lower power	149/153/157/161 /165 Lower power	151/159 Lower power	155 Lower power

- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are highlighted in yellow.

Table 14.5-4: Reported SAR of initial test configuration for Head

802.11 mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 U-NII-2A exclusion applied	36/40/44/48	38/46	36/40/44/48	38/46	42
U-NII-2A	52/56/60/64 0.04	52/56/60/64	54/62	52/56/60/64	54/62	58
U-NII-2C	100/104/108/112 116/132/136/140/144 0.02	100/104/108/112 116/132/136/140	102/110/118/ 126/134	100/104/108/112 116/132/136/140	102/110/134	106
U-NII-3	149/153/157/161/165 0.05	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155

U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is $\leq 1.2W/kg$, SAR is not required for U-NII-1 band.

Table 14.5-5: Reported SAR of initial test configuration for Body

802.11 mode	a	n		ac		
BW(MHz)	20	20	40	20	40	80
U-NII-1	36/40/44/48 U-NII-2A exclusion applied	36/40/44/48	38/46	36/40/44/48	38/46	42
U-NII-2A	52/56/60/64 0.59	52/56/60/64	54/62	52/56/60/64	54/62	58
U-NII-2C	100/104/108/112 116/132/136/140/144 0.30	100/104/108/112 116/132/136/140	102/110/118/ 126/134	100/104/108/112 116/132/136/140	102/110/134	106
U-NII-3	149/153/157/161/165 0.41	149/153/157/161 /165	151/159	149/153/157/161 /165	151/159	155

U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is $\leq 1.2W/kg$, SAR is not required for U-NII-1 band.

Table 14.5-6: SAR Values (WLAN - Head) – 802.11a 6Mbps

Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
5320	64	Left	Touch	/	19.27	20	0.011	0.01	0.032	0.04	0.03
5320	64	Left	Tilt	/	19.27	20	0.010	0.01	0.027	0.03	0.00
5320	64	Right	Touch	/	19.27	20	0.003	<0.01	0.012	0.01	0.00
5320	64	Right	Tilt	/	19.27	20	0.009	0.01	0.029	0.03	0.07
5500	100	Left	Touch	/	18.77	19	0.005	0.01	0.017	0.02	0.00
5500	100	Left	Tilt	/	18.77	19	0	<0.01	0.006	0.01	0.06
5500	100	Right	Touch	/	18.77	19	0	<0.01	0.003	<0.01	0.00
5500	100	Right	Tilt	/	18.77	19	0	<0.01	0.004	<0.01	0.00
5785	157	Left	Touch	Fig.39	14.12	15	0.013	0.02	0.038	0.05	0.00
5785	157	Left	Tilt	/	14.12	15	0.004	0.01	0.017	0.02	0.00
5785	157	Right	Touch	/	14.12	15	0	<0.01	0	<0.01	0.00
5785	157	Right	Tilt	/	14.12	15	0	<0.01	0.003	<0.01	0.05
5785	157	Left	Touch	B2	14.12	15	0.003	<0.01	0.014	0.02	0.08

Table 14.5-7: SAR Values (WLAN - Body) – 802.11a 6Mbps

Frequency		Test Position	D (mm)	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
5320	64	Front	10	/	19.27	20	0.003	<0.01	0.012	0.01	0.08
5320	64	Rear	10	Fig.40	19.27	20	0.182	0.22	0.489	0.58	0.05
5320	64	Right	10	/	19.27	20	0.064	0.08	0.153	0.18	0.01
5320	64	Top	10	/	19.27	20	0.025	0.03	0.058	0.07	0.00
5500	100	Front	10	/	18.77	19	0	<0.01	0	<0.01	0.06
5500	100	Rear	10	/	18.77	19	0.097	0.10	0.272	0.29	0.07
5500	100	Right	10	/	18.77	19	0.040	0.04	0.097	0.10	0.04
5500	100	Top	10	/	18.77	19	0.014	0.01	0.037	0.04	0.04
5785	157	Front	10	/	14.12	15	0	<0.01	0	<0.01	0.00
5785	157	Rear	10	/	14.12	15	0.108	0.13	0.327	0.40	0.02
5785	157	Right	10	/	14.12	15	0.058	0.07	0.151	0.18	0.09
5785	157	Top	10	/	14.12	15	0.009	0.01	0.030	0.04	0.00
5320	64	Rear	10	B2	19.27	20	0.158	0.19	0.394	0.47	0.04

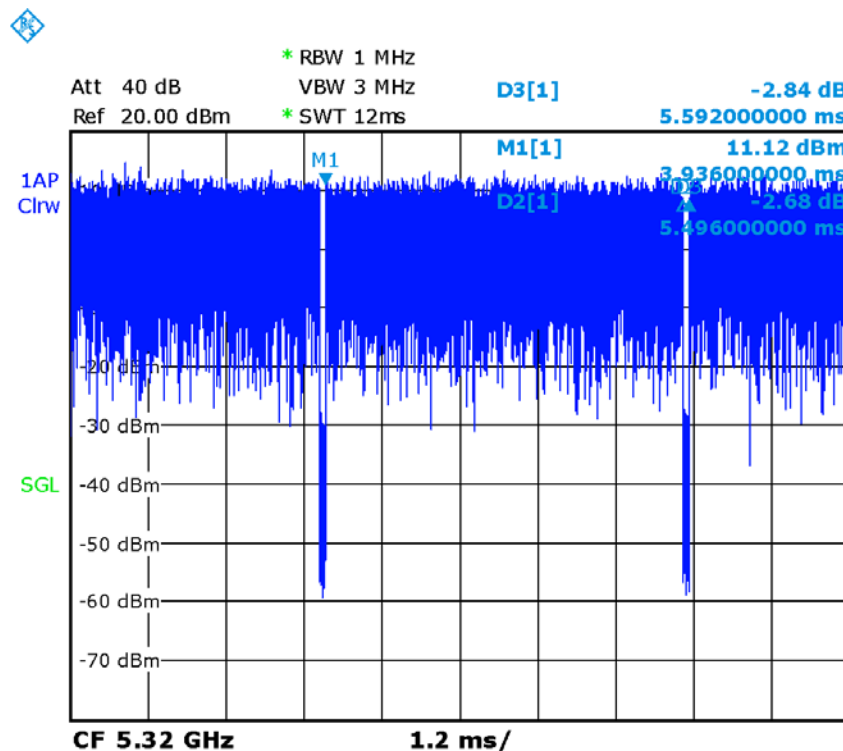
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.5-8: SAR Values (WLAN - Head) – 802.11a 6Mbps (Scaled Reported SAR)

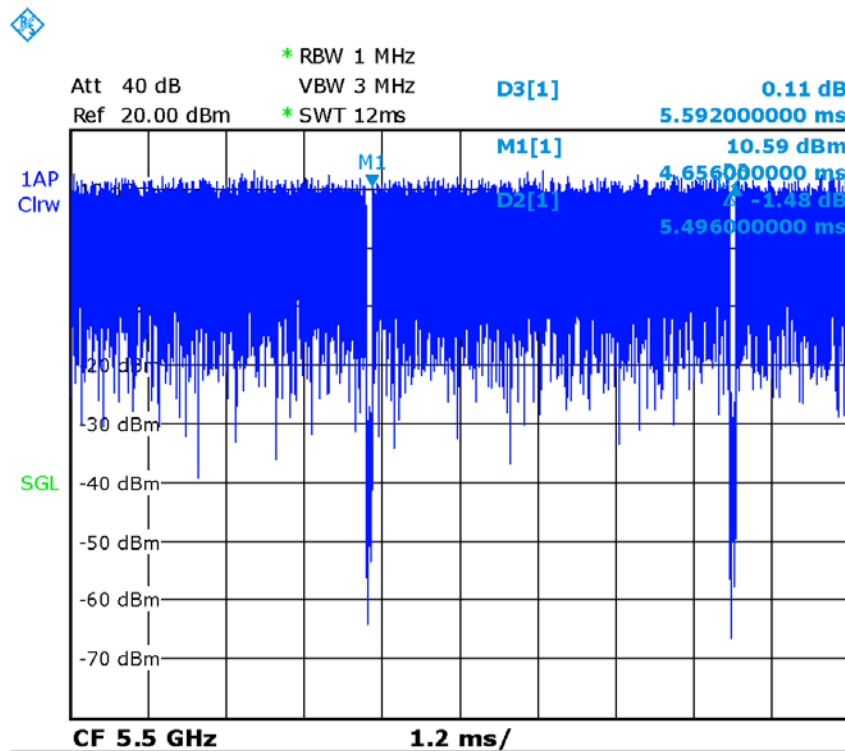
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5320	64	Left	Touch	98.28%	100%	0.04	0.04
5500	100	Left	Touch	98.28%	100%	0.02	0.02
5785	157	Left	Touch	98.28%	100%	0.05	0.05

Table 14.5-9: SAR Values (WLAN - Body) – 802.11a 6Mbps (Scaled Reported SAR)

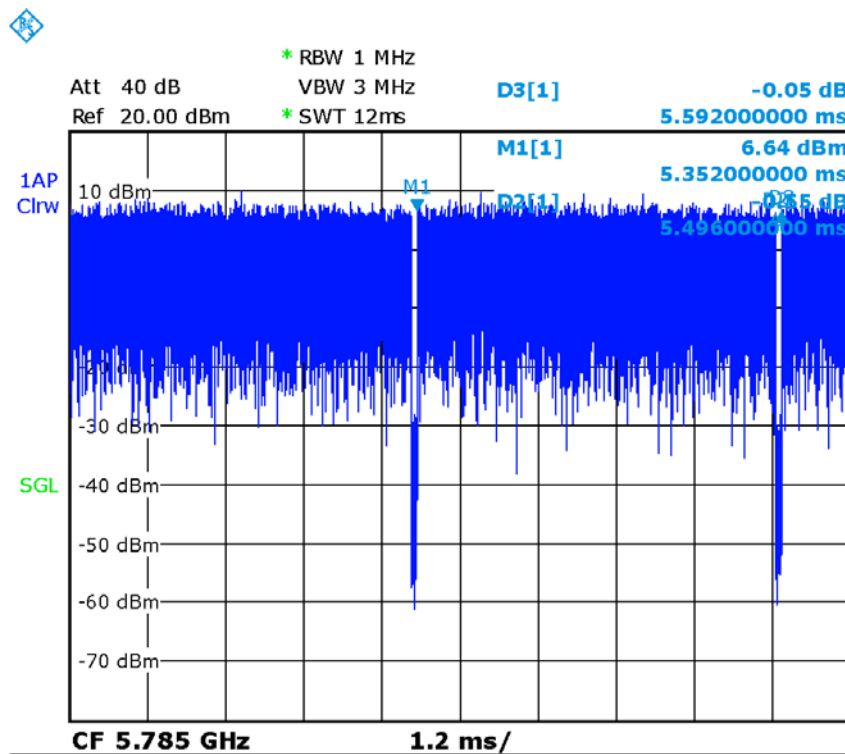
Frequency		Test Position	D (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
5320	64	Rear	10	98.28%	100%	0.58	0.59
5500	100	Rear	10	98.28%	100%	0.29	0.30
5785	157	Rear	10	98.28%	100%	0.40	0.41



Picture 14.2 The plot of duty factor for U-NII-2A



Picture 14.3 The plot of duty factor for U-NII-2C



Picture 14.4 The plot of duty factor for U-NII-3

15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg ($\sim 10\%$ from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20 .

Table 15.1: SAR Measurement Variability for Body PCS1900 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz						
661	1880	Bottom	10	0.875	0.869	1.01	/

Table 15.2: SAR Measurement Variability for Body W1700 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz						
1738	1752.6	Bottom	10	1.05	1.04	1.01	/

Table 15.3: SAR Measurement Variability for Body W1900 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz						
9800	1880	Bottom	10	1.16	1.12	1.04	/

Table 15.4: SAR Measurement Variability for Body LTE B2 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
19100	1900	1RB_Low	Bottom	10	1.15	1.14	1.01	/

Table 15.5: SAR Measurement Variability for Body LTE B4 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
20300	1745	100RB	Bottom	10	1.03	1.03	1.00	/

Table 15.6: SAR Measurement Variability for Body LTE B7 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
21110	2535	1RB_Low	Bottom	10	1.08	1.06	1.02	/

Table 15.7: SAR Measurement Variability for Body LTE B30 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
27710	2310	1RB_Low	Bottom	10	1.04	1.03	1.01	/

Table 15.8: SAR Measurement Variability for Body LTE B41 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
39750	2506	1RB_Mid	Bottom	10	1.03	1.01	1.02	/

16 Measurement Uncertainty

16.1 Measurement Uncertainty for Normal SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RF ambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

Combined standard uncertainty	$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					9.55	9.43	257
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$					19.1	18.9	

16.2 Measurement Uncertainty for Normal SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞

	(target)									
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

16.3 Measurement Uncertainty for Fast SAR Tests (300MHz~3GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞

19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.4	10.3	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

16.4 Measurement Uncertainty for Fast SAR Tests (3~6GHz)

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder	A	3.4	N	1	1	1	3.4	3.4	5

	uncertainty									
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 13, 2017	One year
02	Power meter	NRVD	102196	March 03,2016	One year
03	Power sensor	NRV-Z5	100596		
04	Signal Generator	E4438C	MY49071430	January 13,2017	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	E5515C	MY50263375	January 16, 2017	One year
07	BTS	CMW500	129942	March 03, 2016	One year
08	E-field Probe	SPEAG EX3DV4	7307	February19, 2016	One year
09	DAE	SPEAG DAE4	1331	January 19, 2017	One year
10	Dipole Validation Kit	SPEAG D750V3	1017	July 20,2016	One year
11	Dipole Validation Kit	SPEAG D835V2	4d069	July 20,2016	One year
12	Dipole Validation Kit	SPEAG D1750V2	1003	July 21,2016	One year
13	Dipole Validation Kit	SPEAG D1900V2	5d101	July 28,2016	One year
14	Dipole Validation Kit	SPEAG D2300V2	1018	July 25,2016	One year
15	Dipole Validation Kit	SPEAG D2450V2	853	July 25,2016	One year
16	Dipole Validation Kit	SPEAG D2600V2	1012	July 25,2016	One year
17	Dipole Validation Kit	SPEAG D5GHZV2	1060	July 27,2016	One year

END OF REPORT BODY

ANNEX A Graph Results

850 Left Cheek High – antenna1

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.917$ mho/m; $\epsilon_r = 41.52$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.67

Probe: EX3DV4 – SN7307 ConvF(10.01, 10.01, 10.01)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.384 W/kg

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

Reference Value = 7.125 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.545 W/kg

SAR(1 g) = 0.369 W/kg; SAR(10 g) = 0.265 W/kg

Maximum value of SAR (measured) = 0.373 W/kg

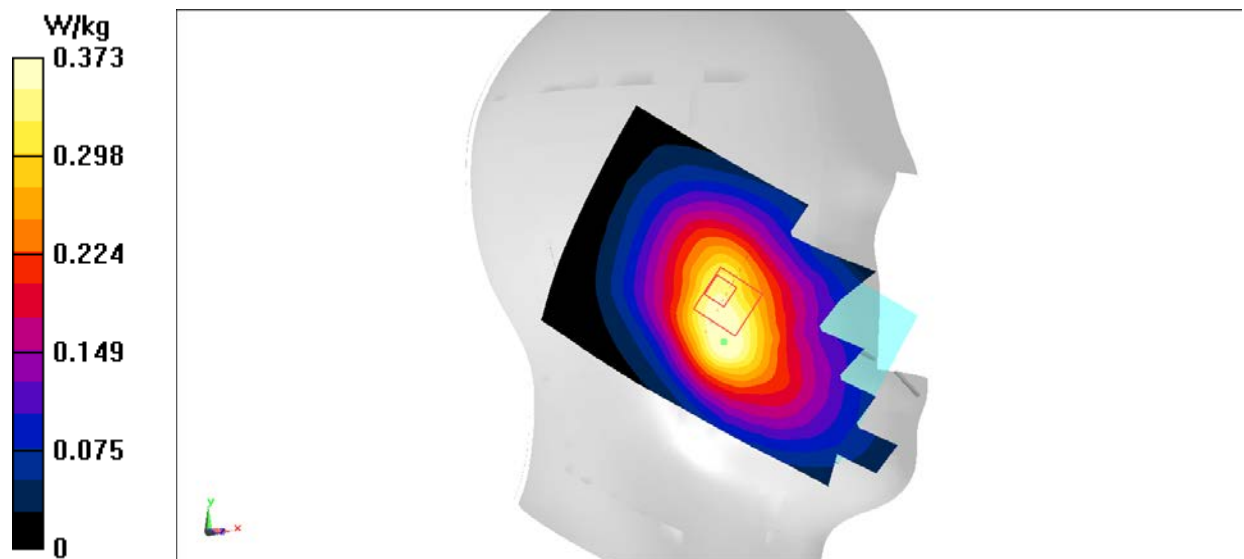


Fig.1 850MHz

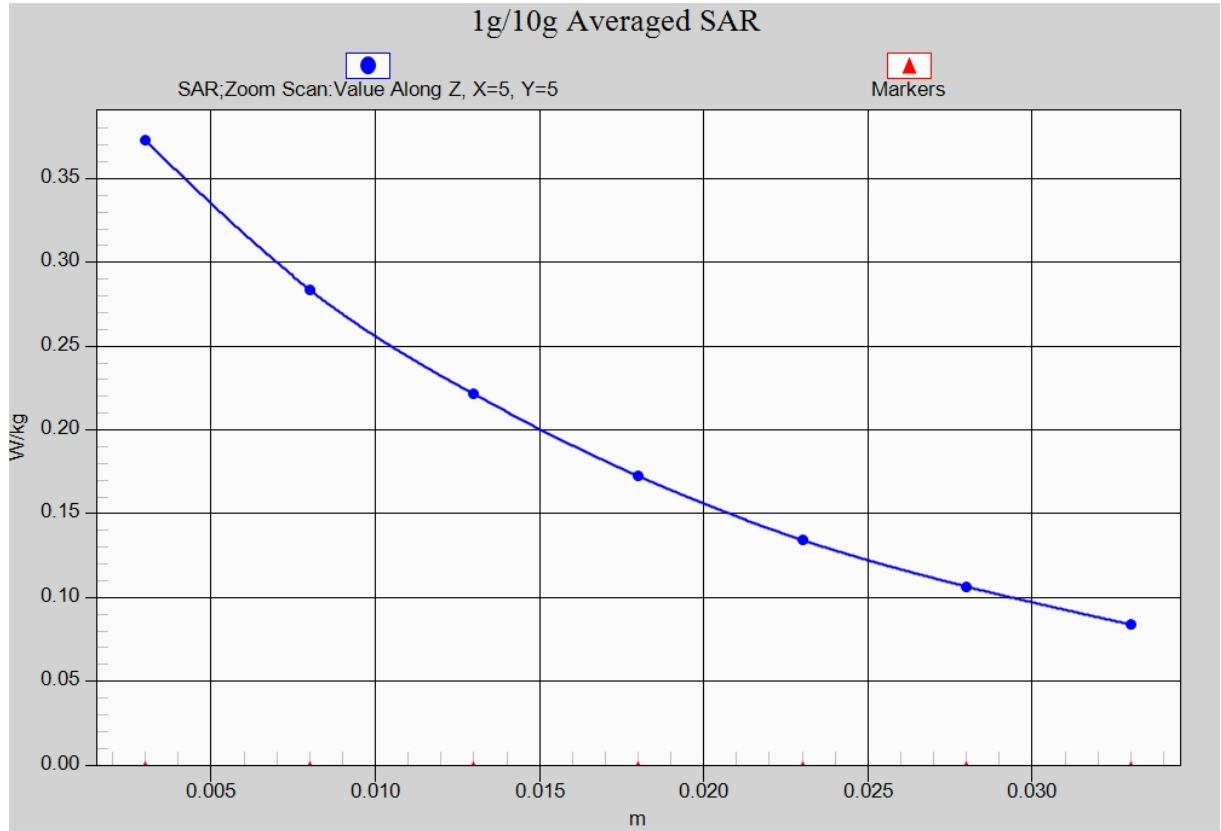


Fig. 1-1 Z-Scan at power reference point (850 MHz)

850 Body Left High – antenna1

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.976$ mho/m; $\epsilon_r = 56.07$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.67

Probe: EX3DV4 – SN7307 ConvF(9.83, 9.83, 9.83)

Area Scan (131x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.518 W/kg

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

Reference Value = 21.63 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.641 W/kg

SAR(1 g) = 0.455 W/kg; SAR(10 g) = 0.312 W/kg

Maximum value of SAR (measured) = 0.485 W/kg

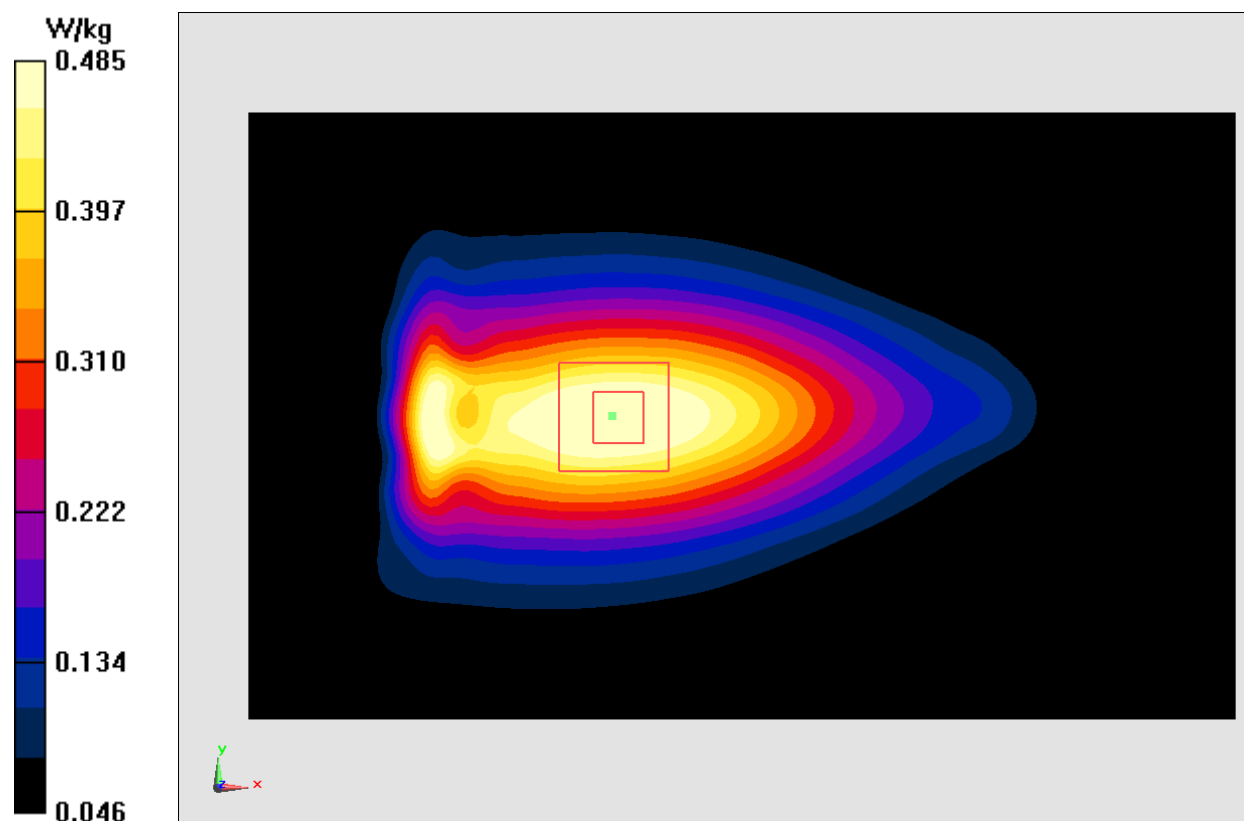


Fig.2 850 MHz

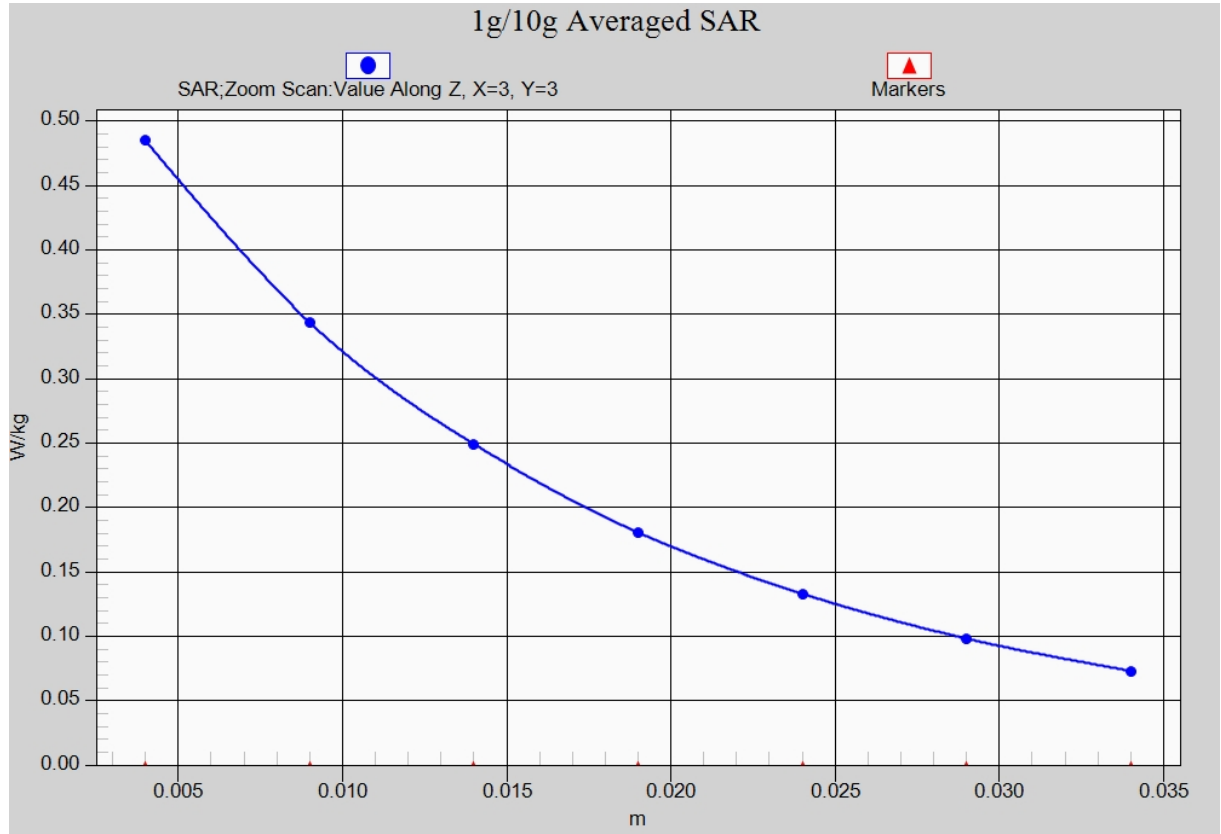


Fig. 2-1 Z-Scan at power reference point (850 MHz)

850 Right Cheek High – antenna2

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.917$ mho/m; $\epsilon_r = 41.52$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.67

Probe: EX3DV4 – SN7307 ConvF(10.01, 10.01, 10.01)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.346 W/kg

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

Reference Value = 7.170 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.414 W/kg

SAR(1 g) = 0.316 W/kg; SAR(10 g) = 0.238 W/kg

Maximum value of SAR (measured) = 0.352 W/kg

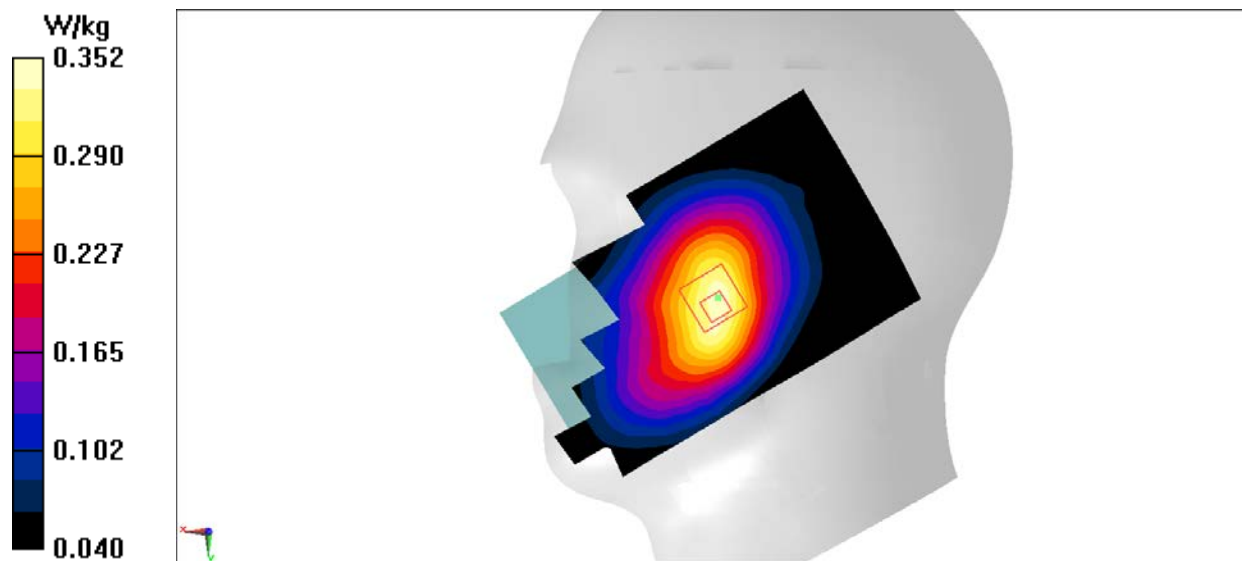


Fig.3 850MHz

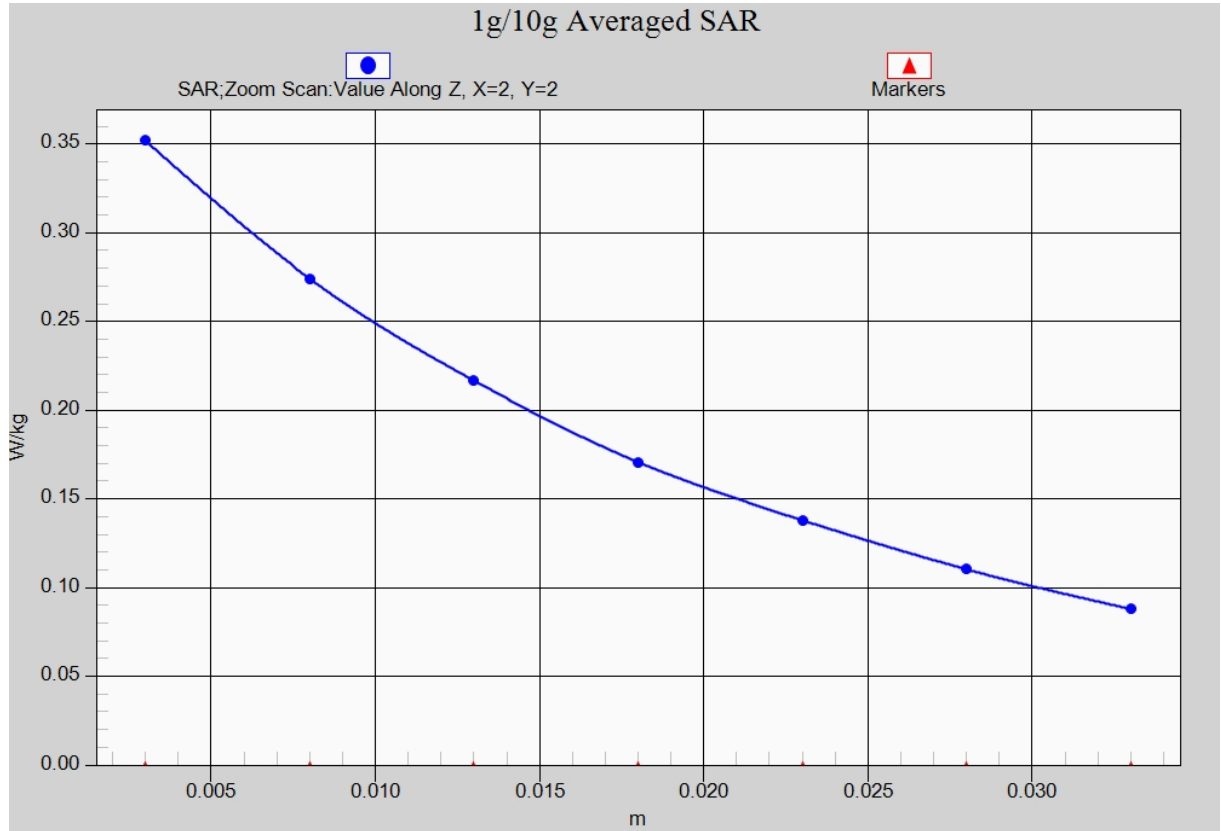


Fig. 3-1 Z-Scan at power reference point (850 MHz)

850 Body Right High – antenna2

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.976$ mho/m; $\epsilon_r = 56.07$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:2.67

Probe: EX3DV4 – SN7307 ConvF(9.83, 9.83, 9.83)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.492 W/kg

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

Reference Value = 21.30 V/m; Power Drift = -0.13 dB

Peak SAR (extrapolated) = 0.608 W/kg

SAR(1 g) = 0.426 W/kg; SAR(10 g) = 0.294 W/kg

Maximum value of SAR (measured) = 0.486 W/kg

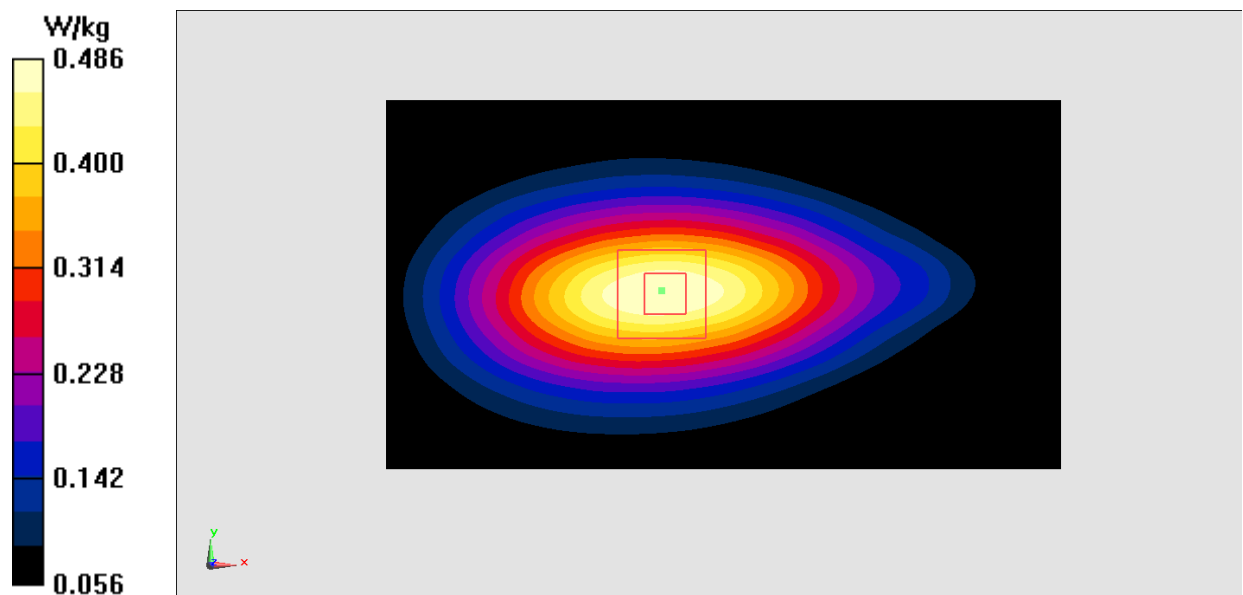


Fig.4 850 MHz

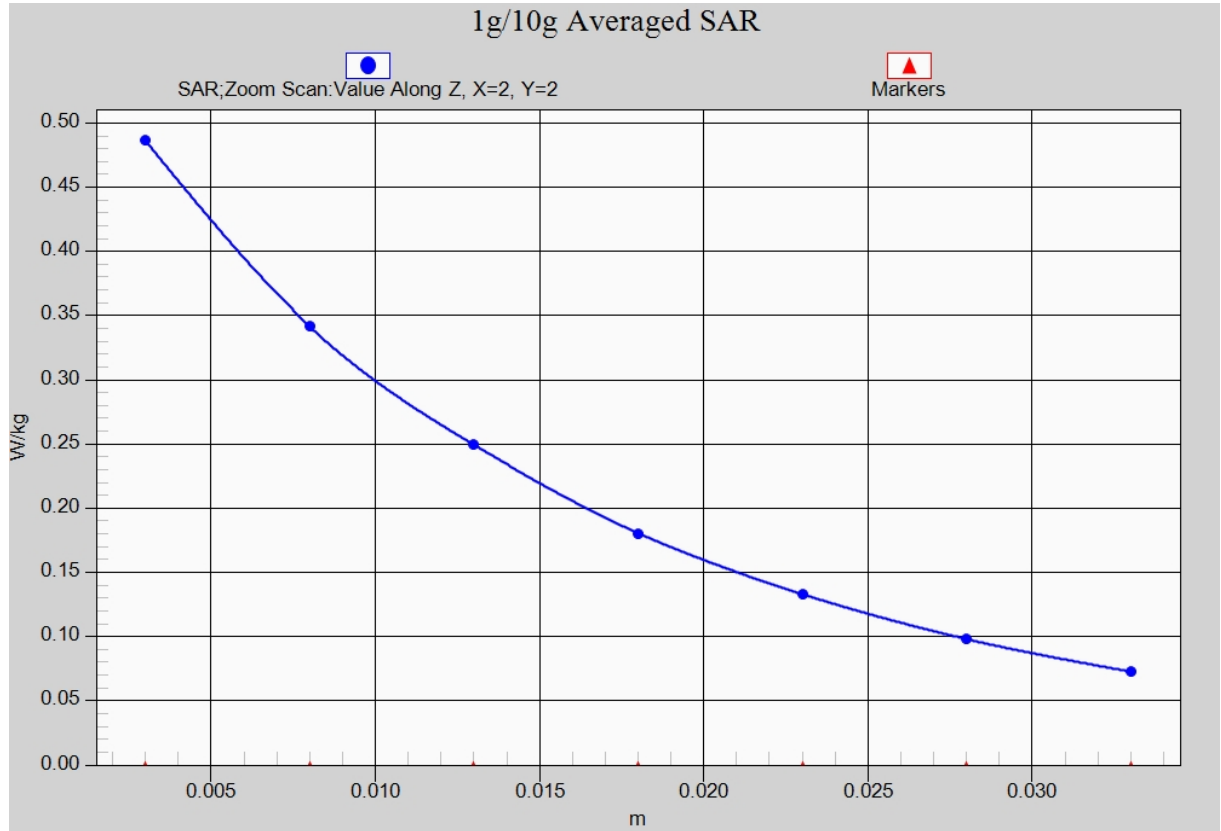


Fig. 4-1 Z-Scan at power reference point (850 MHz)

1900 Right Cheek Low

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.409$ mho/m; $\epsilon_r = 40.86$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GRPS Frequency: 1850.2 MHz Duty Cycle: 1:4

Probe: EX3DV4- SN7307 ConvF(8.10, 8.10, 8.10)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.301 W/kg

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

Reference Value = 4.262 V/m; Power Drift = 0.18 dB

Peak SAR (extrapolated) = 0.299 W/kg

SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.123 W/kg

Maximum value of SAR (measured) = 0.224 W/kg

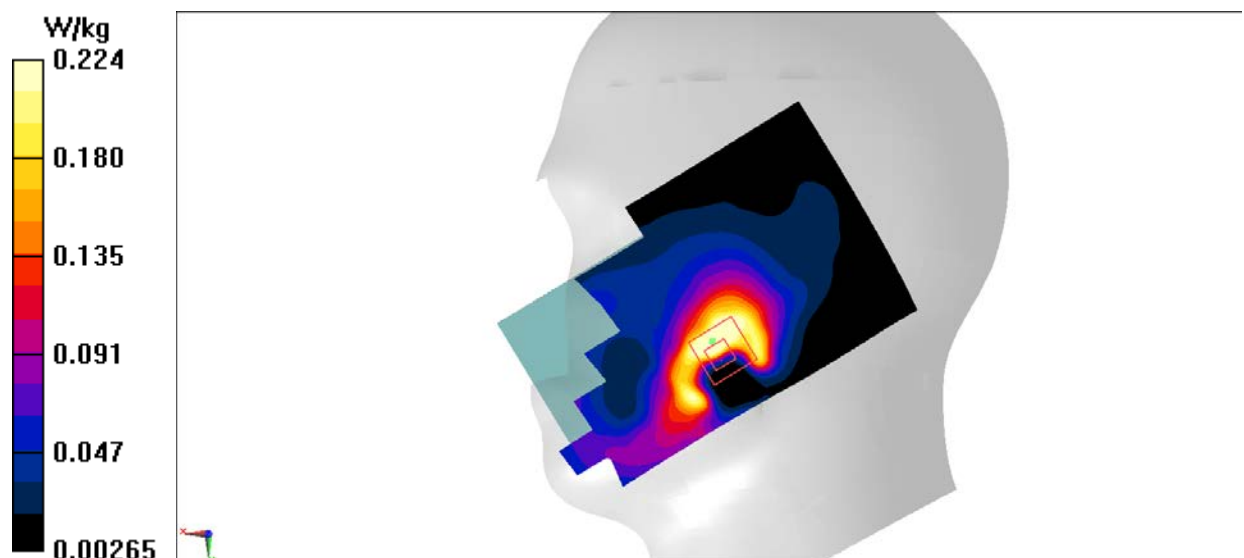


Fig.5 1900 MHz

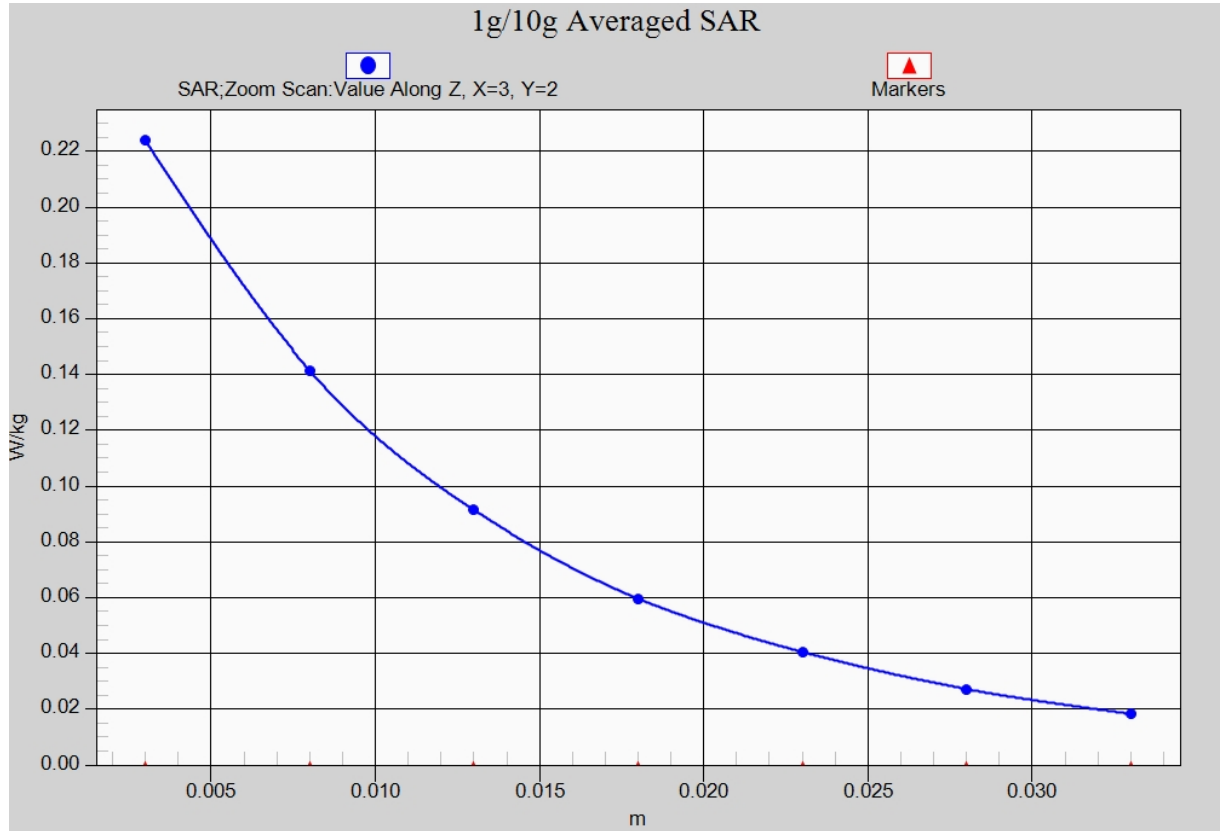


Fig. 5-1 Z-Scan at power reference point (1900 MHz)

1900 Body Bottom Middle

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Body 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.535$ mho/m; $\epsilon_r = 52.23$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: GSM 1900MHz GPRS Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: EX3DV4– SN7307 ConvF(7.67, 7.67, 7.67)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.14 W/kg

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

Reference Value = 22.76 V/m; Power Drift = 0.19 dB

Peak SAR (extrapolated) = 1.41 W/kg

SAR(1 g) = 0.875 W/kg; SAR(10 g) = 0.466 W/kg

Maximum value of SAR (measured) = 1.10 W/kg

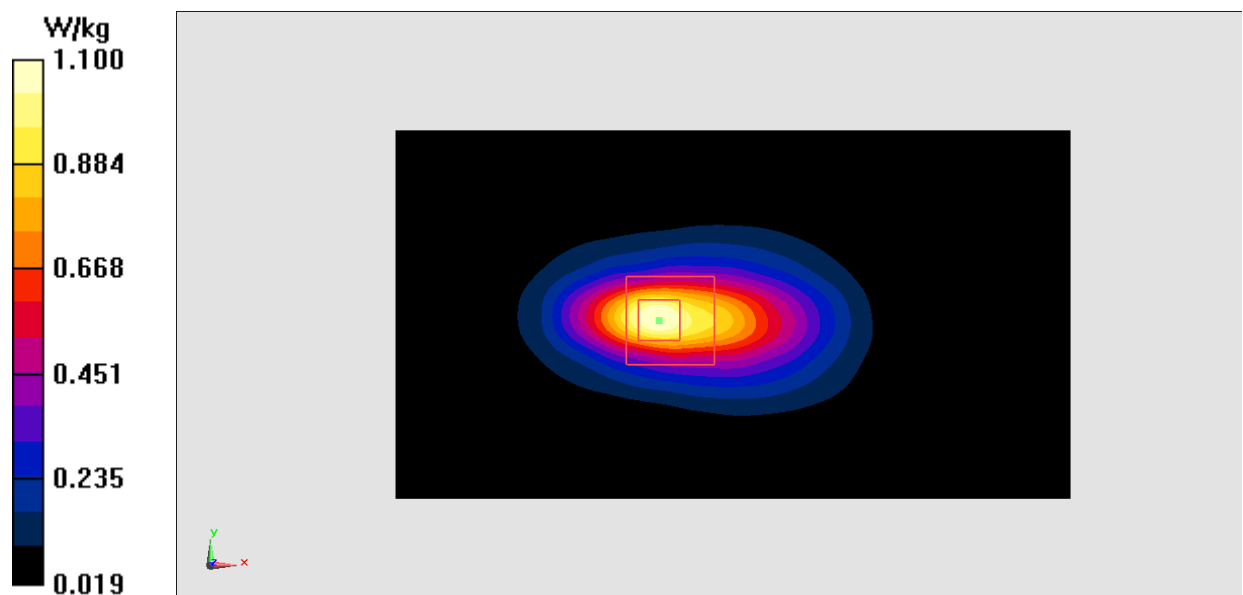


Fig.6 1900 MHz

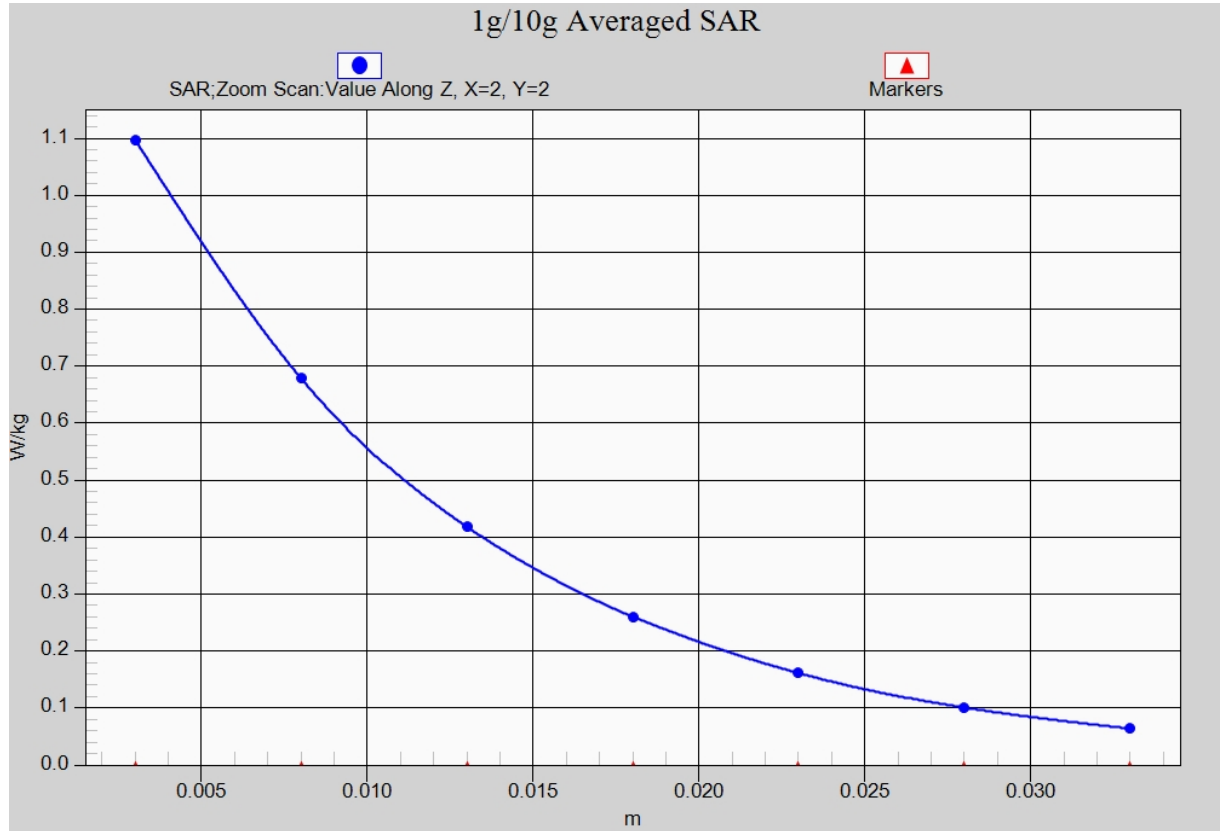


Fig. 6-1 Z-Scan at power reference point (1900 MHz)

WCDMA 850 Left Cheek Low – antenna1

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 826.4$ MHz; $\sigma = 0.896$ mho/m; $\epsilon_r = 41.765$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

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

Probe: EX3DV4 – SN7307ConvF(10.01, 10.01, 10.01)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.363 W/kg

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

Reference Value = 7.746 V/m; Power Drift = -0.03 dB

Peak SAR (extrapolated) = 0.420 W/kg

SAR(1 g) = 0.321 W/kg; SAR(10 g) = 0.240 W/kg

Maximum value of SAR (measured) = 0.350 W/kg

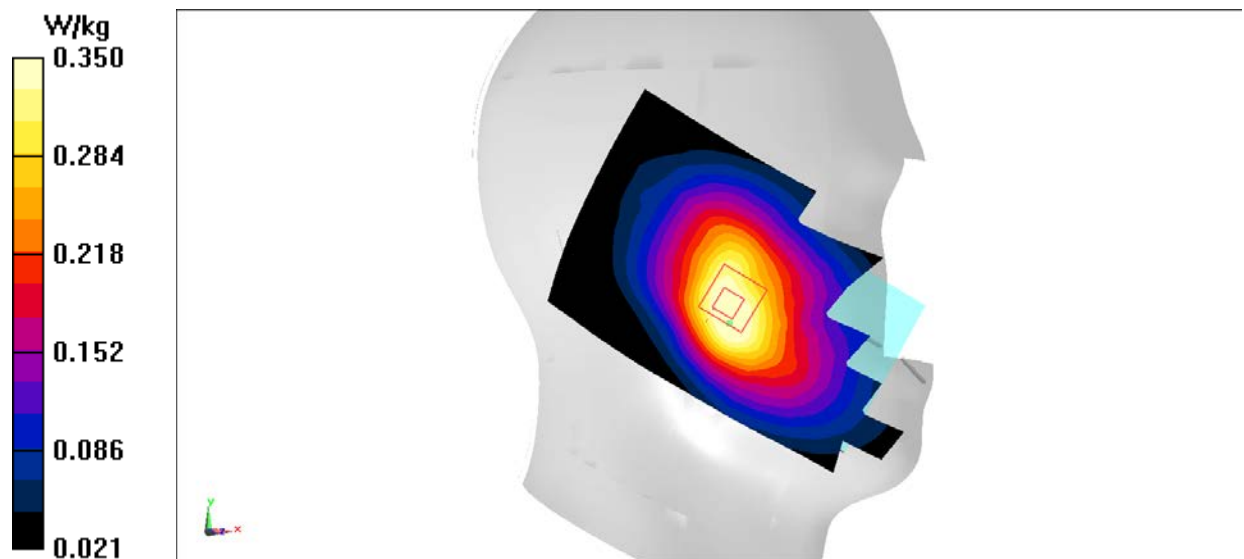


Fig.7 WCDMA 850

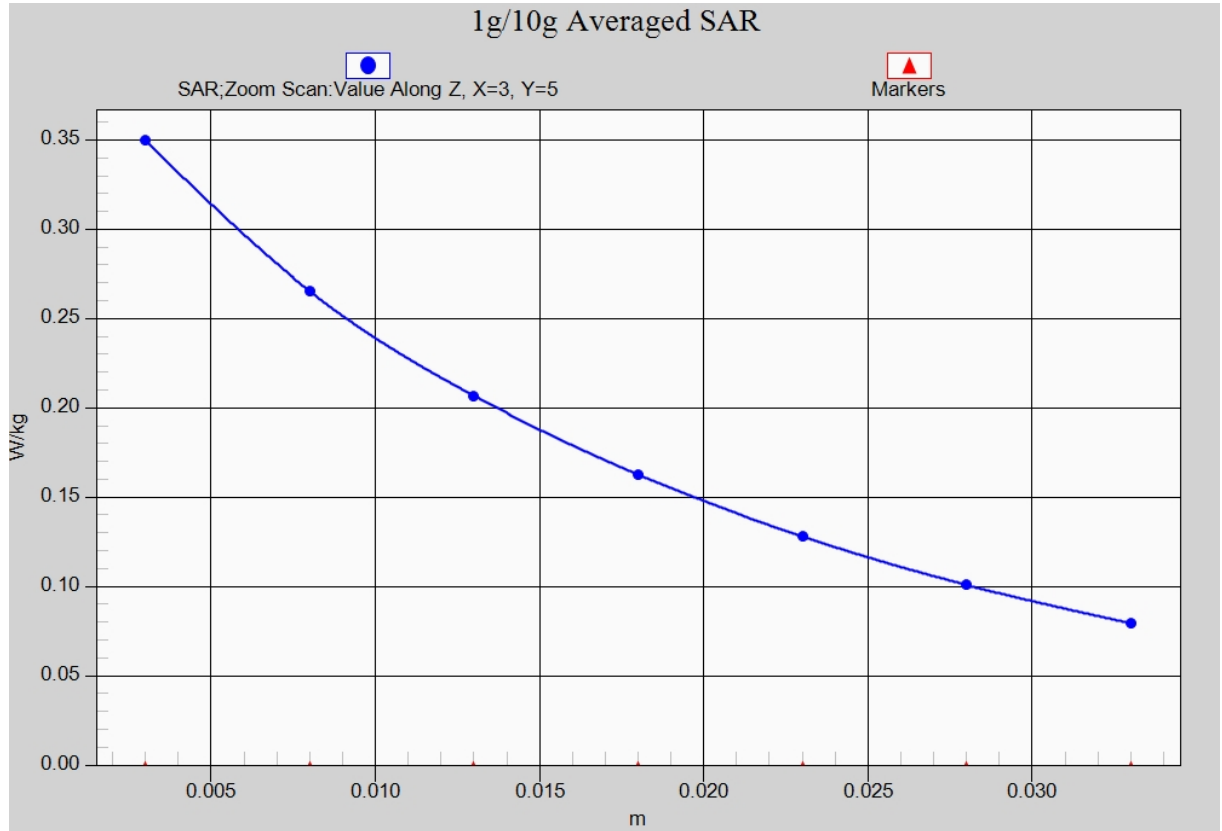


Fig. 7-1 Z-Scan at power reference point (850 MHz)

WCDMA 850 Body Left High – antenna1

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 56.076$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7307 ConvF(9.83, 9.83, 9.83)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.455 W/kg

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

Reference Value = 17.10 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.574 W/kg

SAR(1 g) = 0.394 W/kg; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 0.457 W/kg

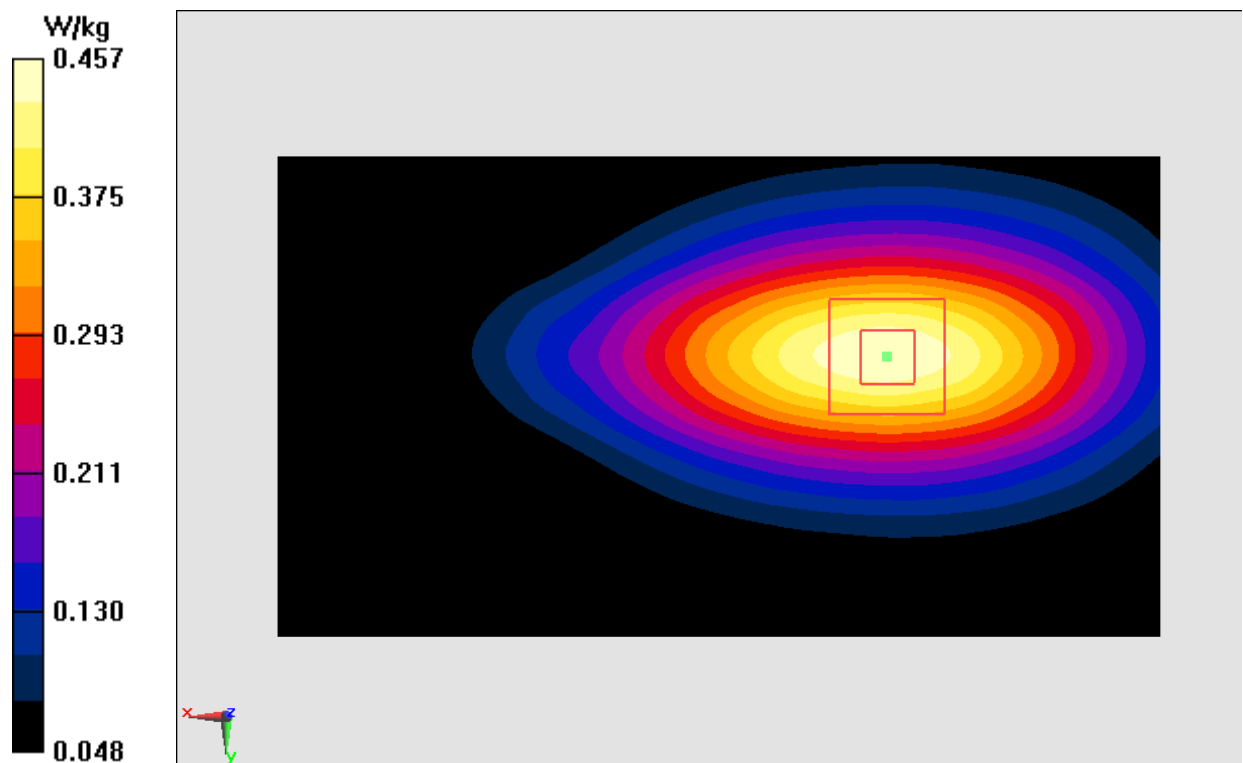


Fig.8 WCDMA 850

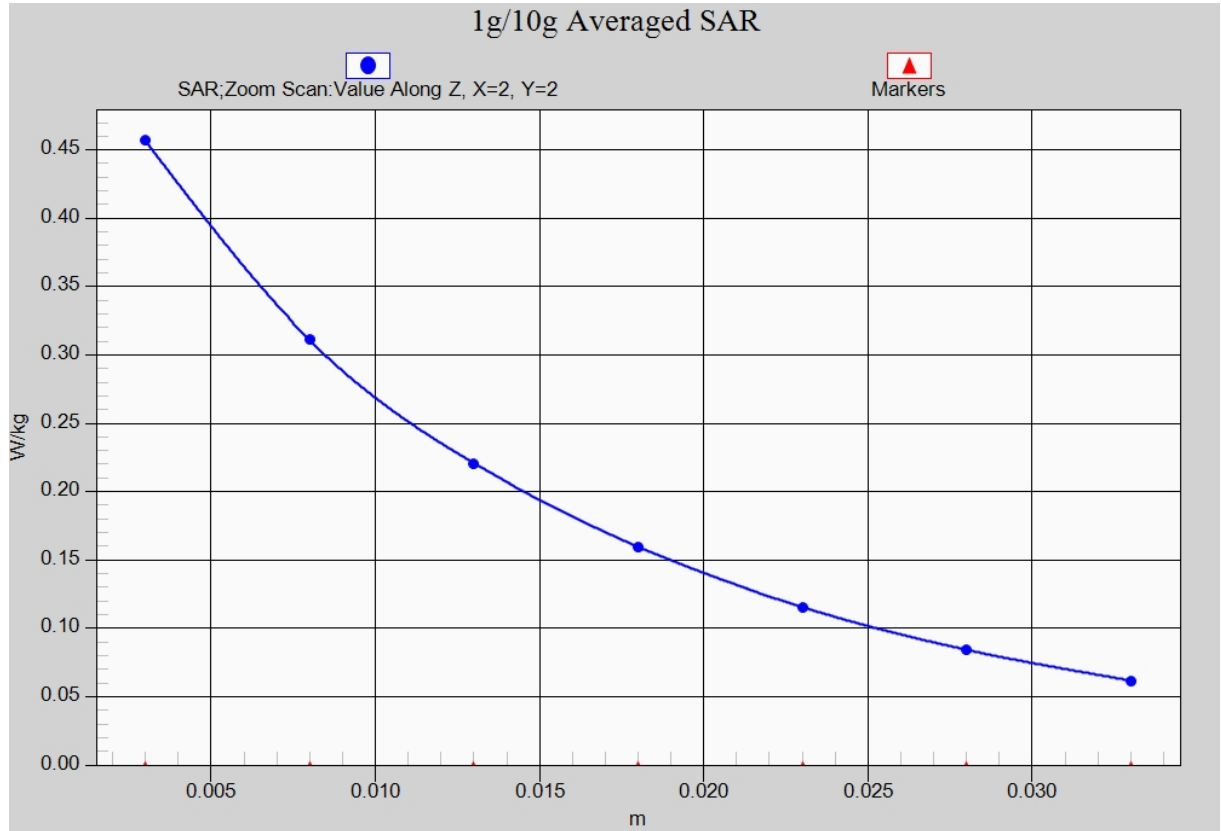


Fig. 8-1 Z-Scan at power reference point (WCDMA850)

WCDMA 850 Right Cheek Middle – antenna2

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.926$ mho/m; $\epsilon_r = 42.115$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7307ConvF(10.01, 10.01, 10.01)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.303 W/kg

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

Reference Value = 7.770 V/m; Power Drift = -0.01 dB

Peak SAR (extrapolated) = 0.425 W/kg

SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.218 W/kg

Maximum value of SAR (measured) = 0.310 W/kg

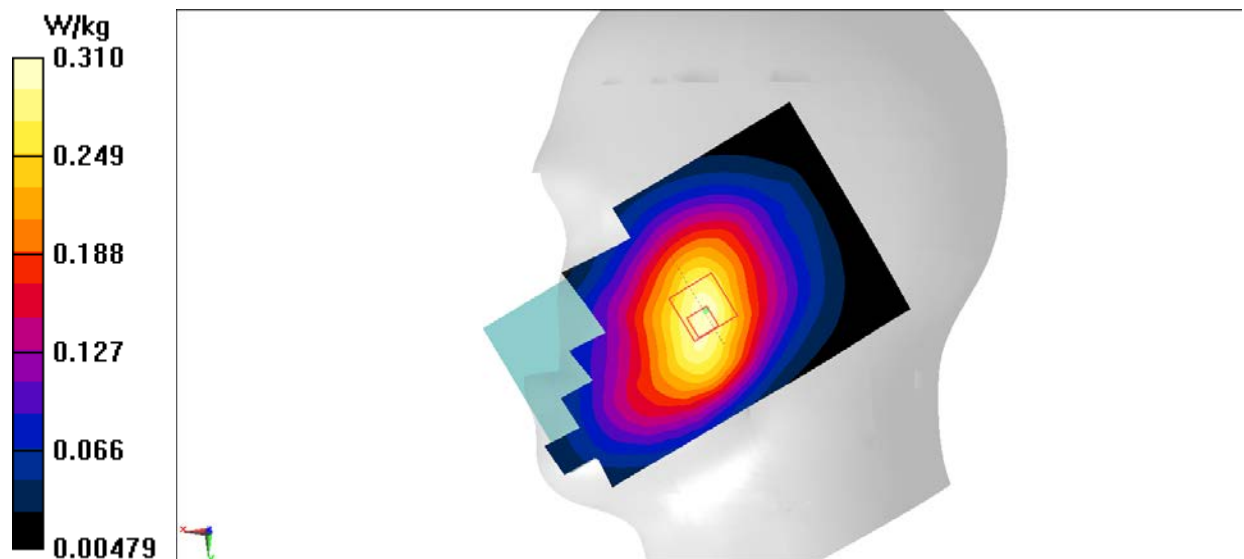


Fig.9 WCDMA 850

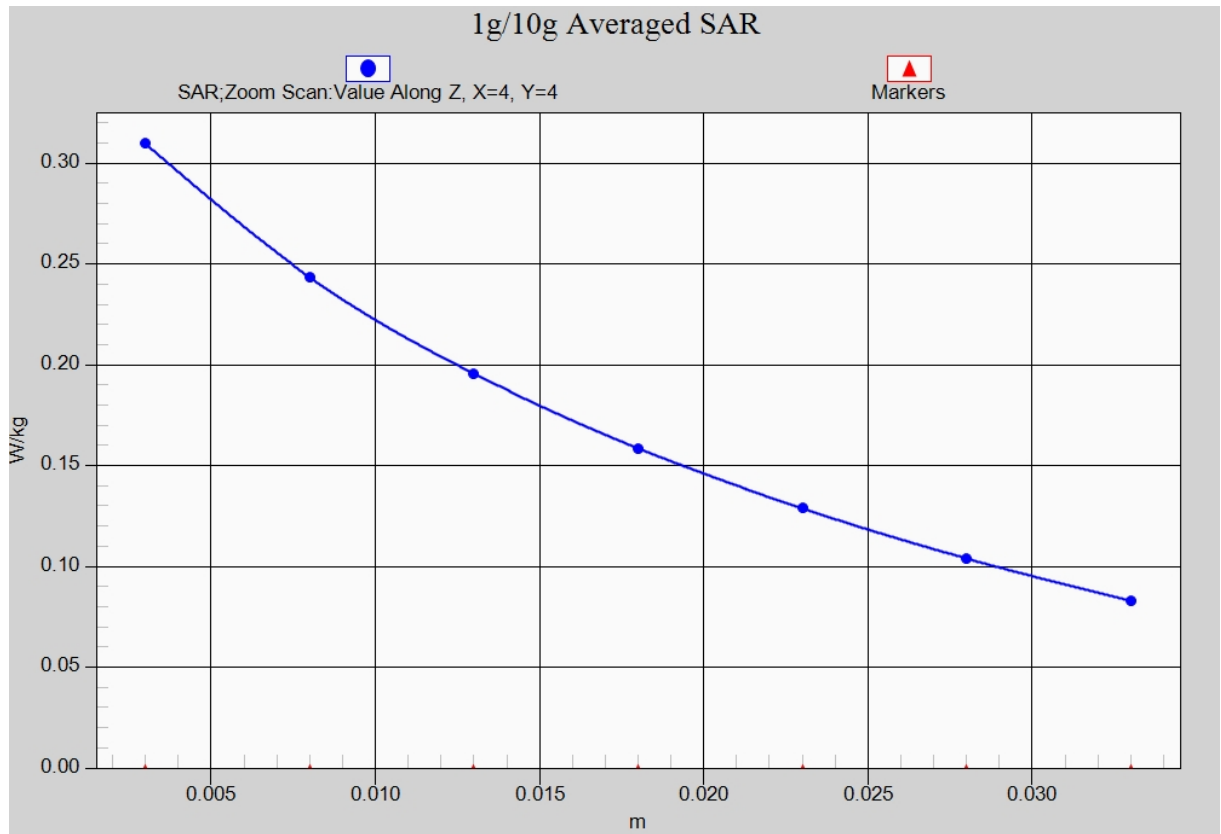


Fig. 9-1 Z-Scan at power reference point (850 MHz)

WCDMA 850 Body Right High – antenna2

Date: 2017-1-13

Electronics: DAE4 Sn1331

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.973$ mho/m; $\epsilon_r = 56.076$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA; Frequency: 846.6 MHz; Duty Cycle: 1:1

Probe: EX3DV4 – SN7307 ConvF(9.83, 9.83, 9.83)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.347 W/kg

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

Reference Value = 17.66 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.427 W/kg

SAR(1 g) = 0.300 W/kg; SAR(10 g) = 0.206 W/kg

Maximum value of SAR (measured) = 0.345 W/kg

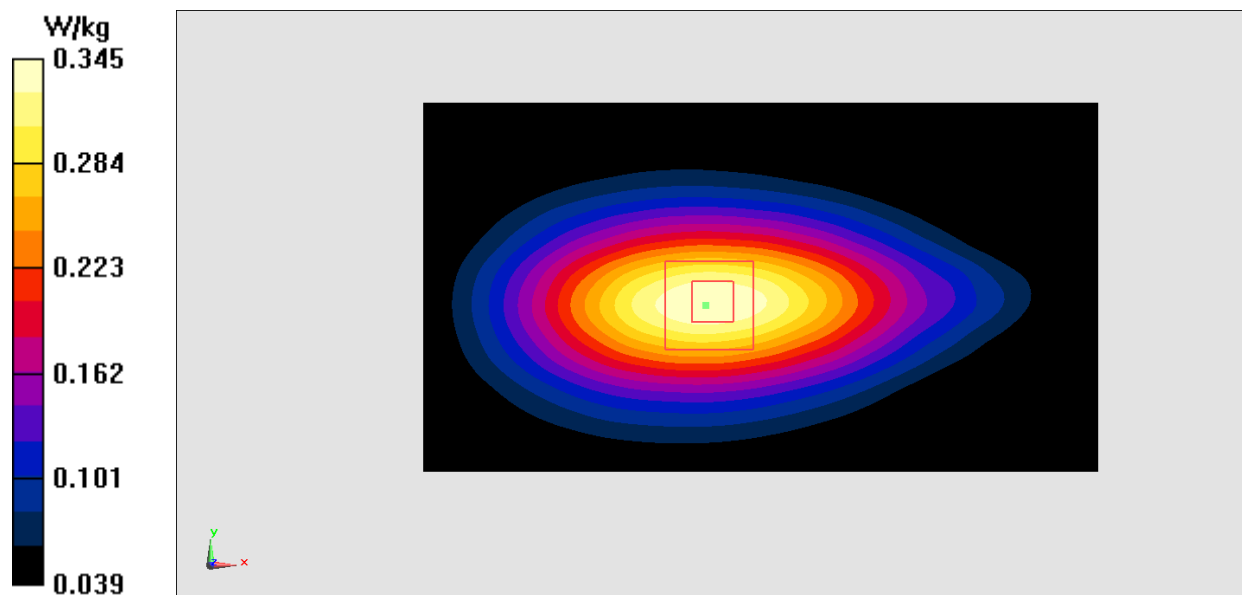


Fig.10 WCDMA 850

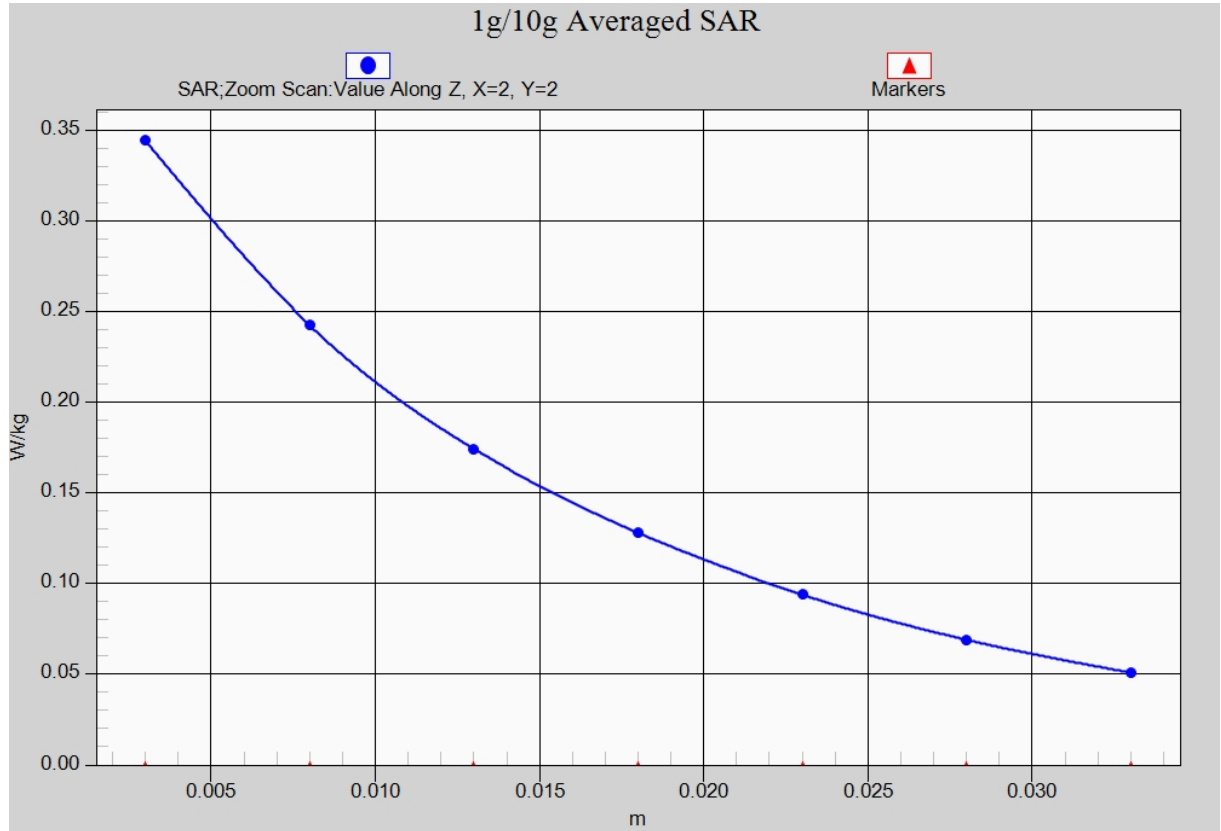


Fig. 10-1 Z-Scan at power reference point (WCDMA850)

WCDMA 1700 Right Cheek Low

Date: 2017-1-14

Electronics: DAE4 Sn1331

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1712.4$ MHz; $\sigma = 1.3$ mho/m; $\epsilon_r = 40.577$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1750 Frequency: 1712.4 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7307 ConvF(8.37, 8.37, 8.37)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.529 W/kg

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

Reference Value = 5.132 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.655 W/kg

SAR(1 g) = 0.431 W/kg; SAR(10 g) = 0.276 W/kg

Maximum value of SAR (measured) = 0.496 W/kg

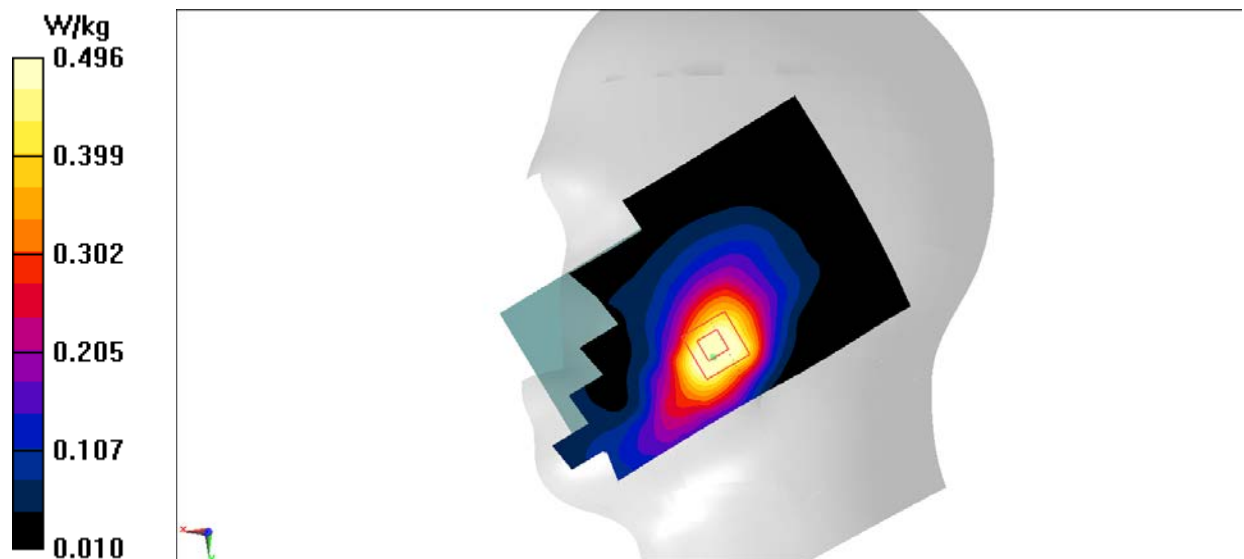


Fig.11 WCDMA1700

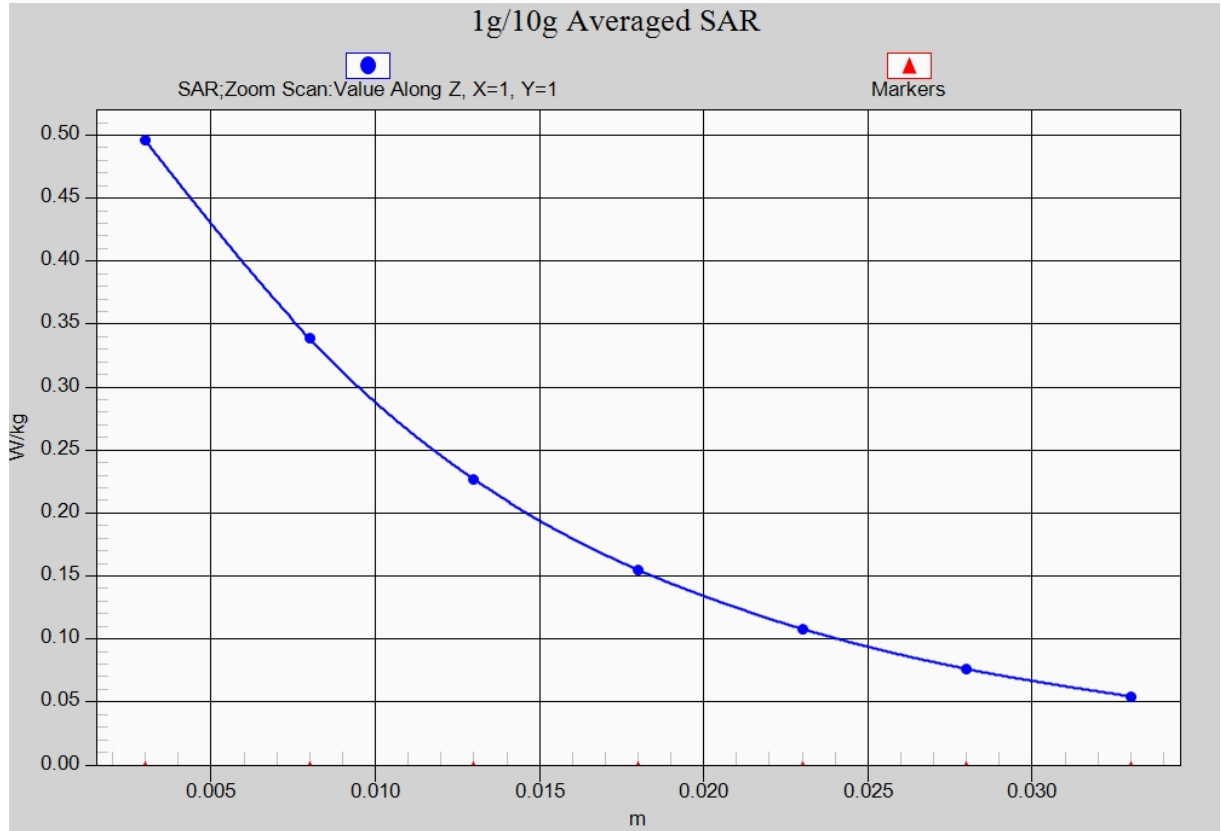


Fig. 11-1 Z-Scan at power reference point (WCDMA1700)

WCDMA 1700 Body Bottom High

Date: 2017-1-14

Electronics: DAE4 Sn1331

Medium: Body 1750 MHz

Medium parameters used: $f = 1752.6$ MHz; $\sigma = 1.514$ mho/m; $\epsilon_r = 53.418$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7307 ConvF(8.18, 8.18, 8.18)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.38 W/kg

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

Reference Value = 21.08 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 1.90 W/kg

SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.536 W/kg

Maximum value of SAR (measured) = 1.19 W/kg

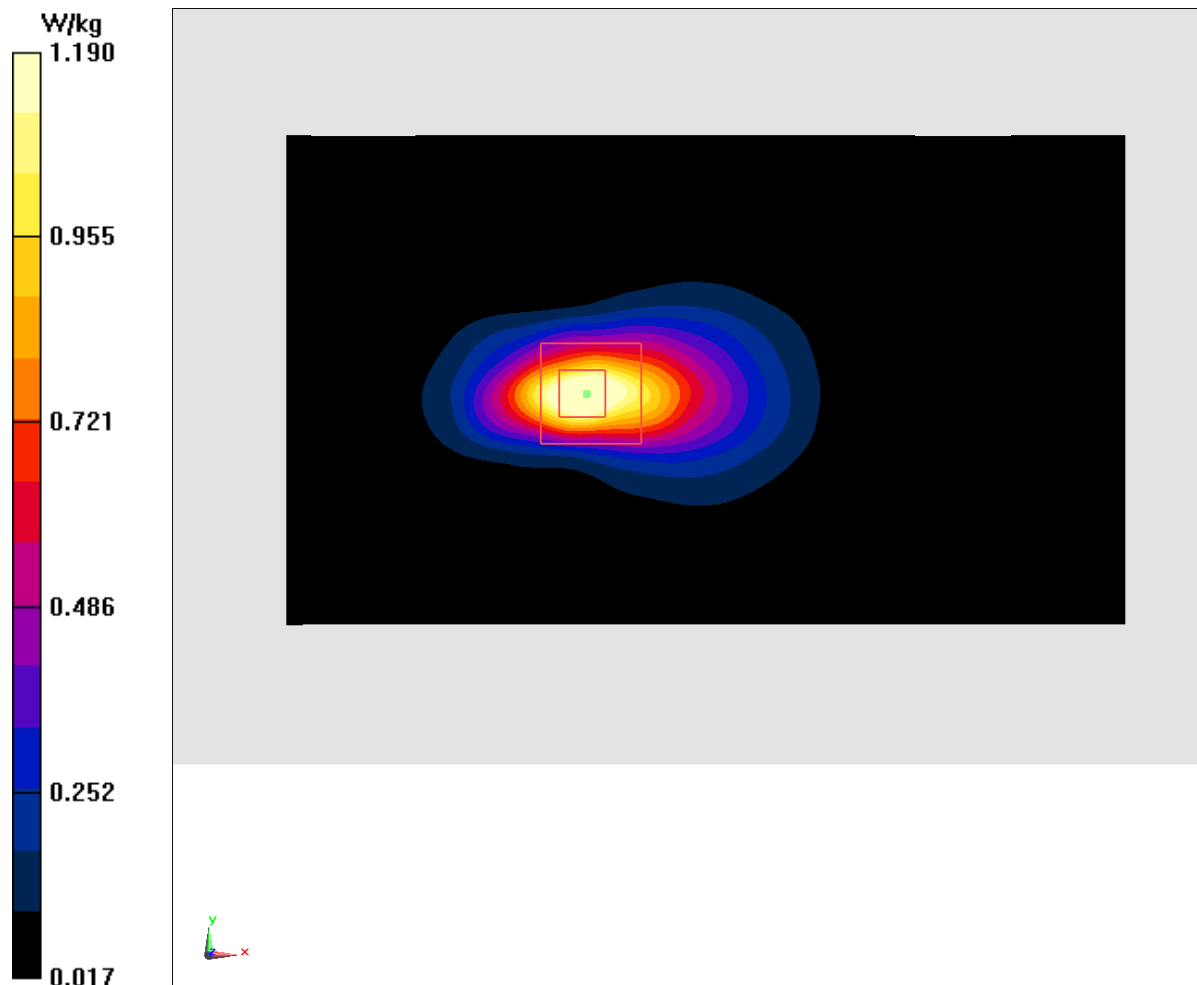


Fig.12 WCDMA1700

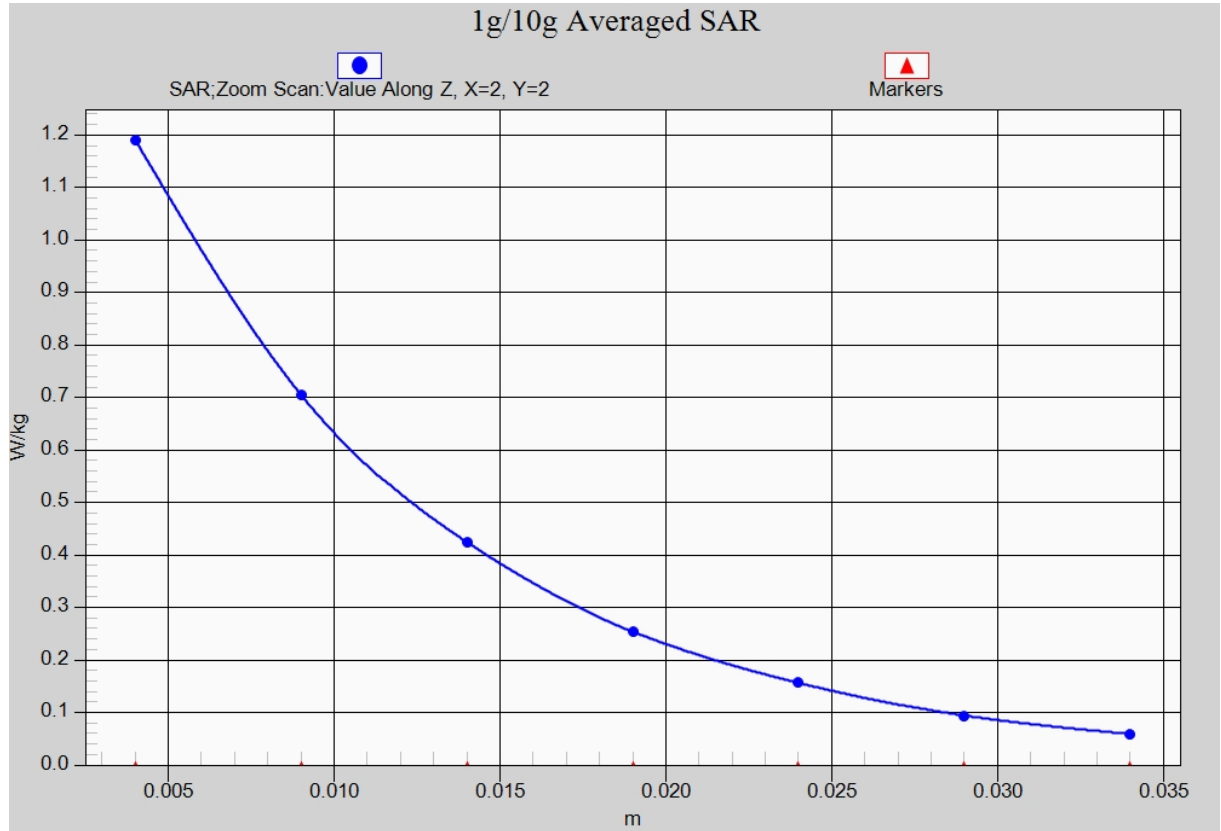


Fig. 12-1 Z-Scan at power reference point (WCDMA1700)

WCDMA 1900 Right Cheek Low

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Head 1900 MHz

Medium parameters used (interpolated): $f = 1852.4$ MHz; $\sigma = 1.432$ mho/m; $\epsilon_r = 41.276$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1852.4 MHz Duty Cycle: 1:1

Probe: EX3DV4- SN7307 ConvF(8.10, 8.10, 8.10)

Area Scan (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.307 W/kg

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

Reference Value = 7.624 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.391 W/kg

SAR(1 g) = 0.269 W/kg; SAR(10 g) = 0.183 W/kg

Maximum value of SAR (measured) = 0.305 W/kg

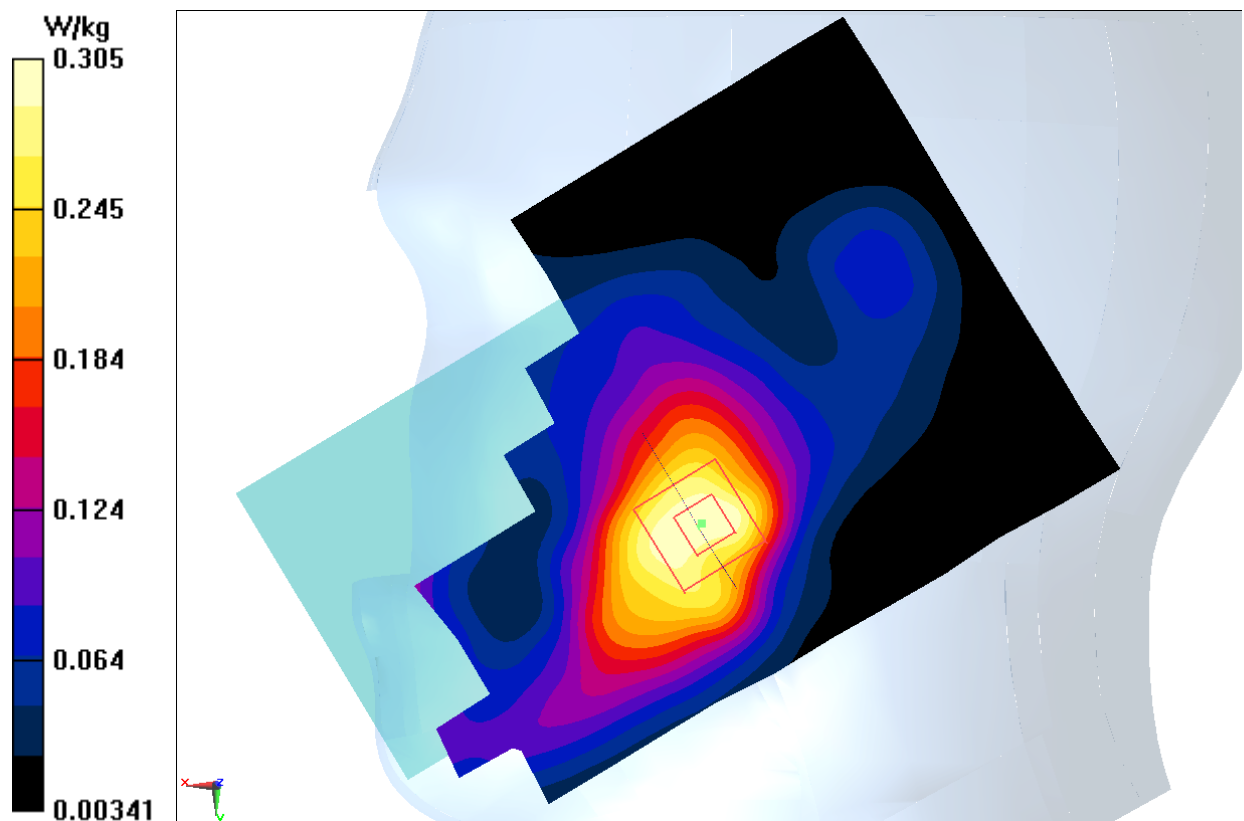


Fig.13 WCDMA1900

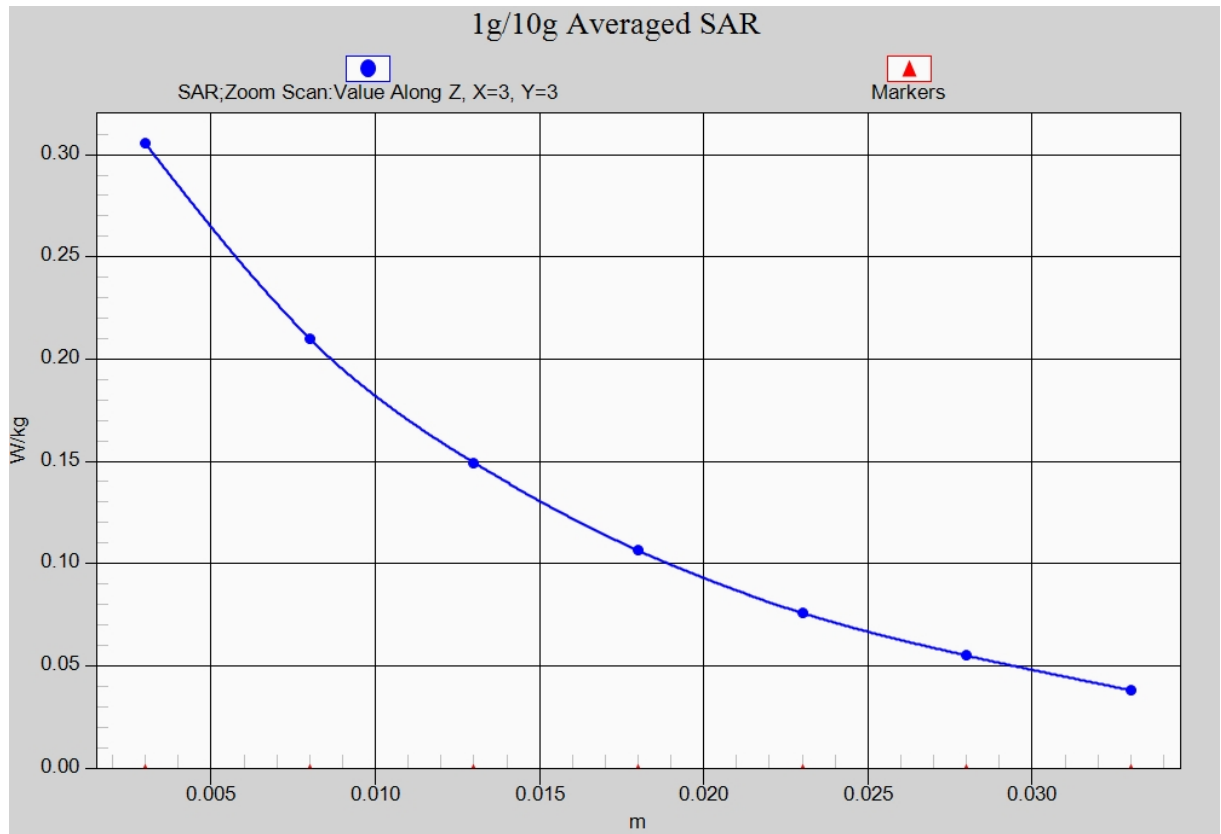


Fig. 13-1 Z-Scan at power reference point (WCDMA1900)

WCDMA 1900 Body Bottom High

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.551$ mho/m; $\epsilon_r = 52.5$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: WCDMA 1900 Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4- SN7307 ConvF(7.67, 7.67, 7.67)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 25.50 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 2.09 W/kg

SAR(1 g) = 1.16 W/kg; SAR(10 g) = 0.598 W/kg

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

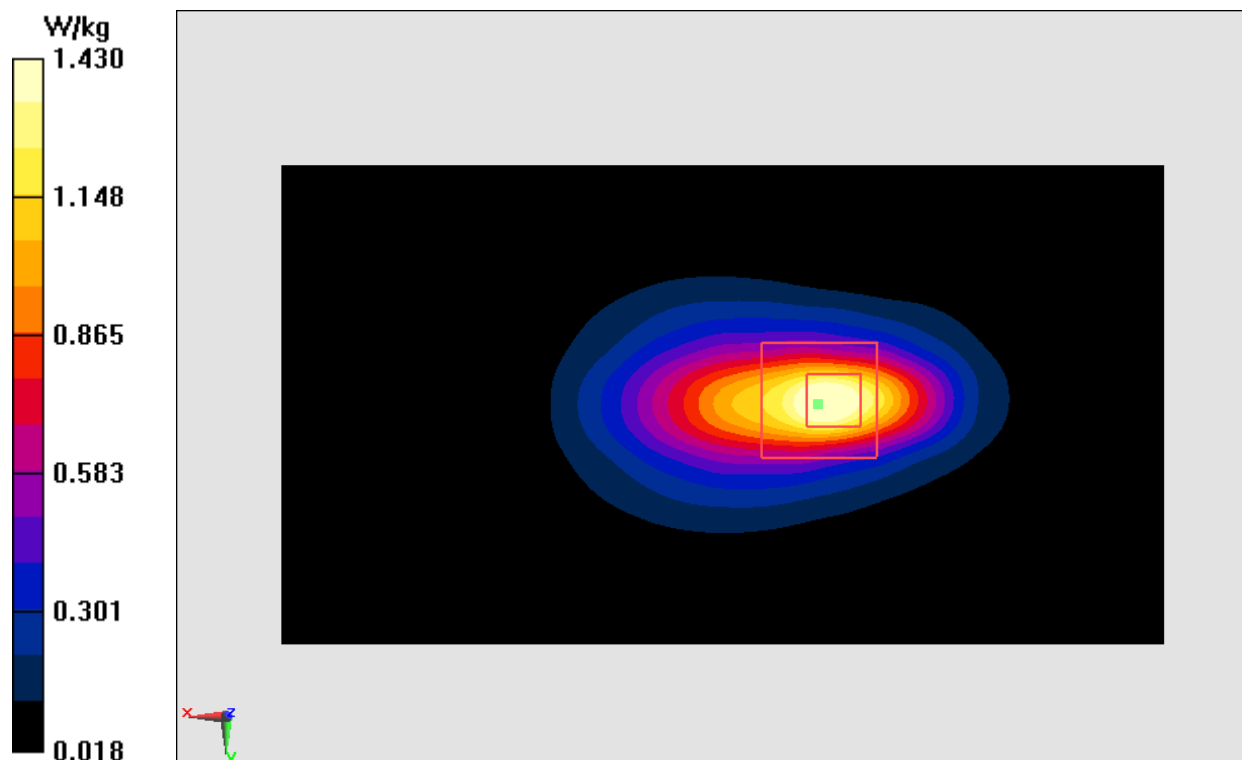


Fig.14 WCDMA1900

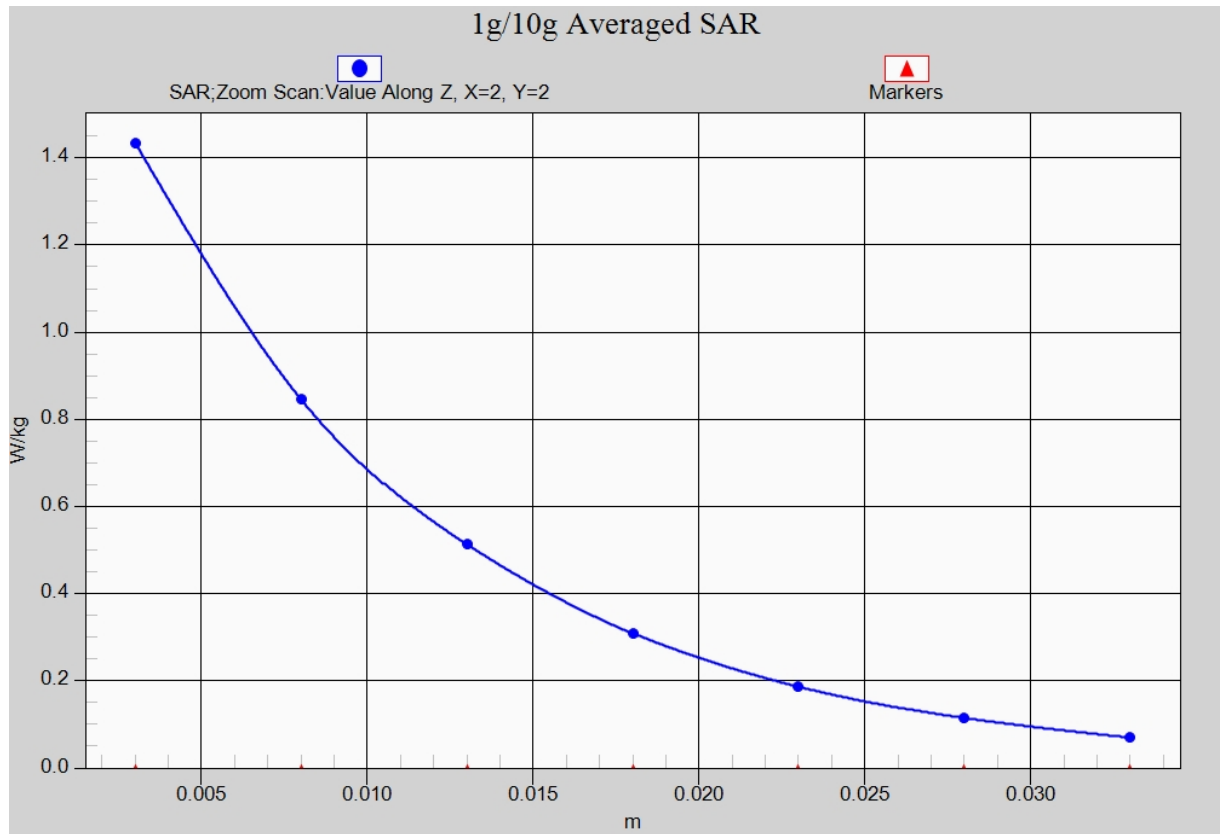


Fig. 14-1 Z-Scan at power reference point (WCDMA1900)

LTE Band2 Right Cheek High with QPSK_20M_1RB_Low

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Head 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.421$ mho/m; $\epsilon_r = 40.81$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7307 ConvF(8.10, 8.10, 8.10)

Area Scan (81x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.204 W/kg

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

Reference Value = 7.581 V/m; Power Drift = 0.14 dB

Peak SAR (extrapolated) = 0.279 W/kg

SAR(1 g) = 0.178 W/kg; SAR(10 g) = 0.123 W/kg

Maximum value of SAR (measured) = 0.208 W/kg

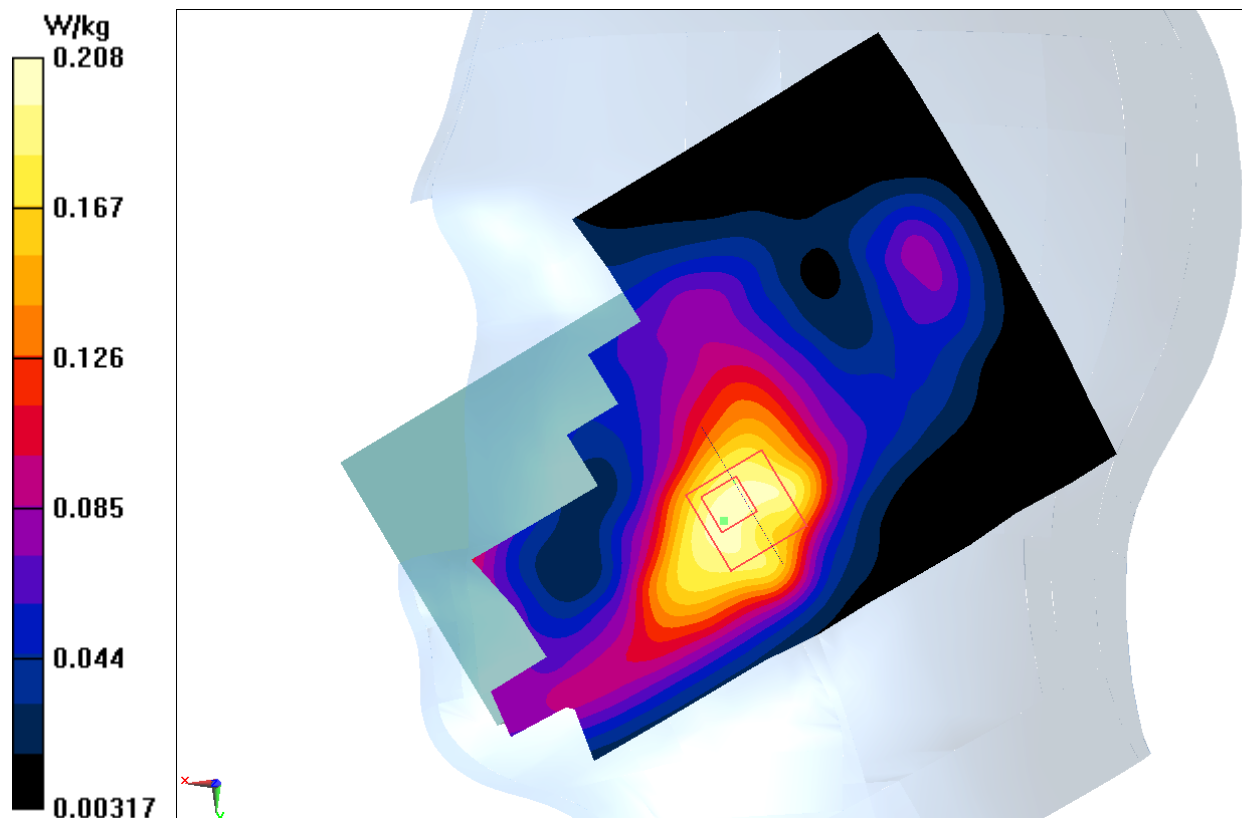


Fig.15 LTE Band2

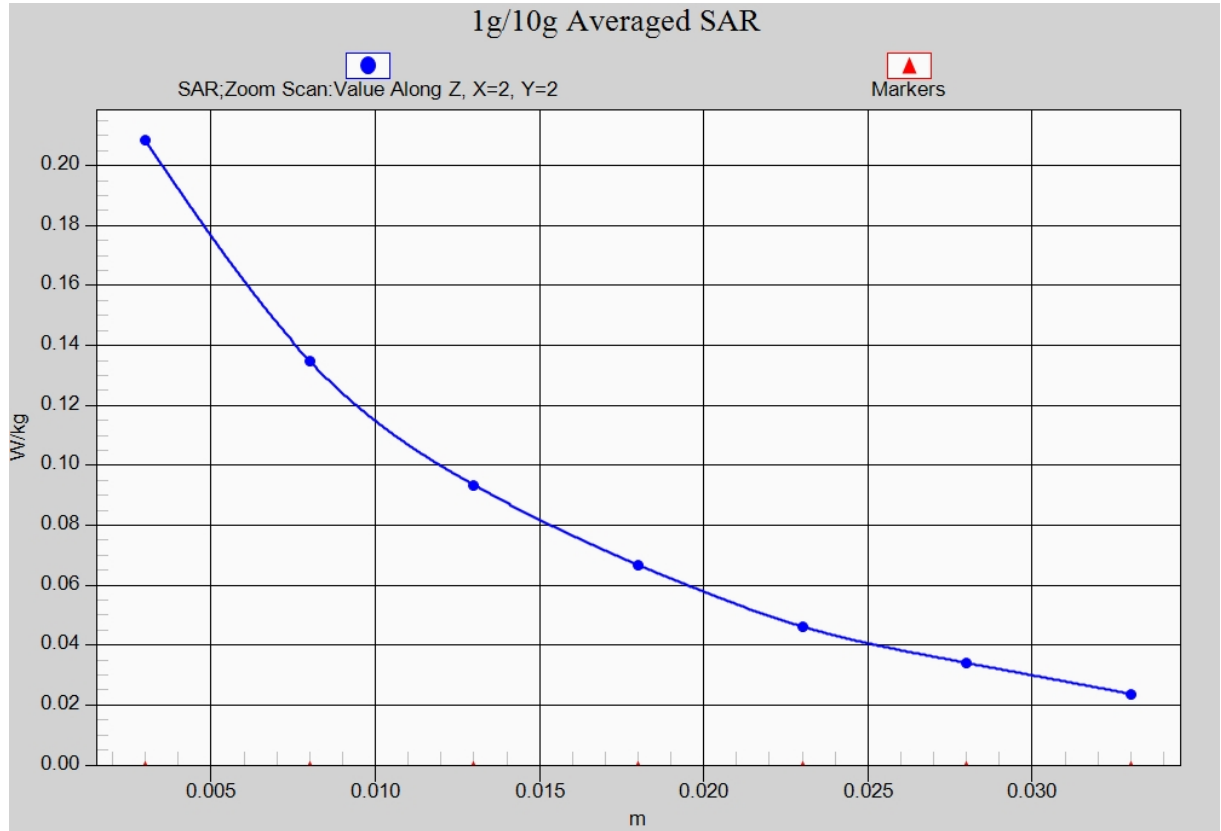


Fig. 15-1 Z-Scan at power reference point (LTE Band2)

LTE Band2 Body Bottom High with QPSK_20M_1RB_Low

Date: 2017-1-15

Electronics: DAE4 Sn1331

Medium: Body 1900 MHz

Medium parameters used: $f = 1900$ MHz; $\sigma = 1.517$ mho/m; $\epsilon_r = 52.21$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band2 Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4– SN7307 ConvF(7.67, 7.67, 7.67)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.56 W/kg

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

Reference Value = 24.95 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 2.05 W/kg

SAR(1 g) = 1.15 W/kg; SAR(10 g) = 0.590 W/kg

Maximum value of SAR (measured) = 1.42 W/kg

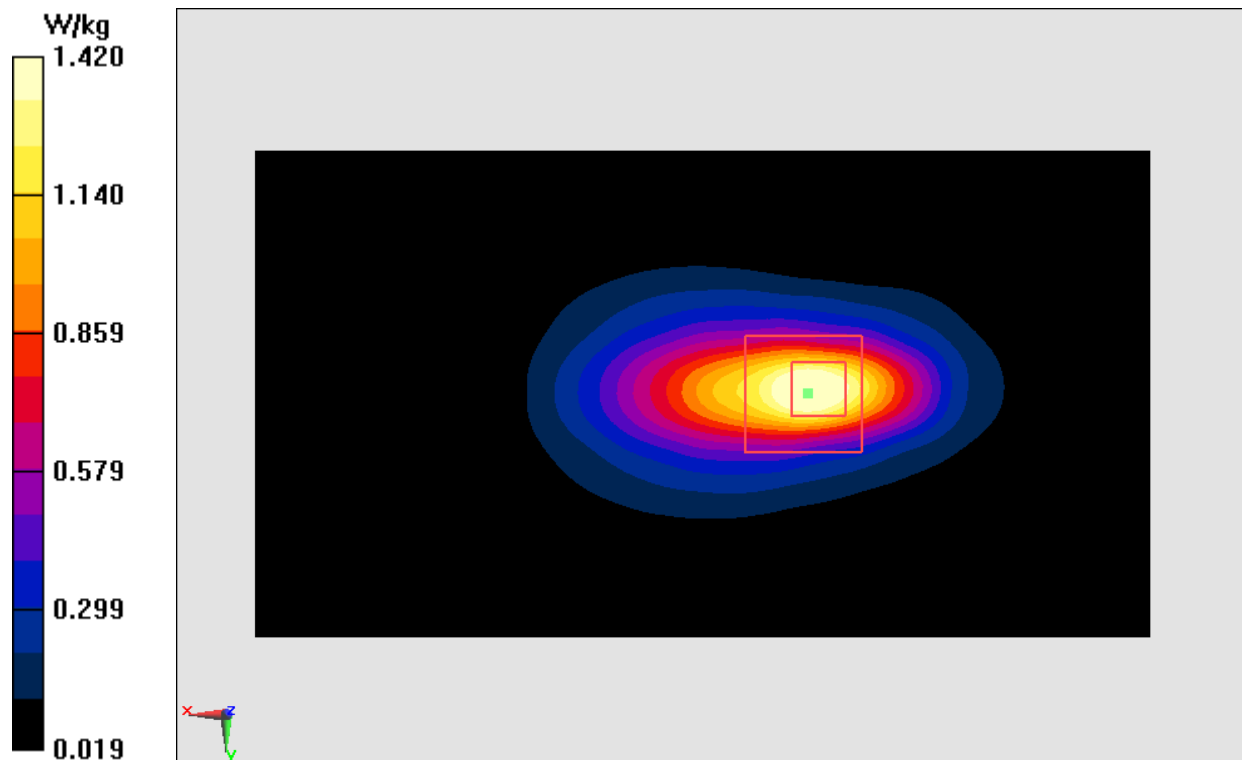


Fig.16 LTE Band2

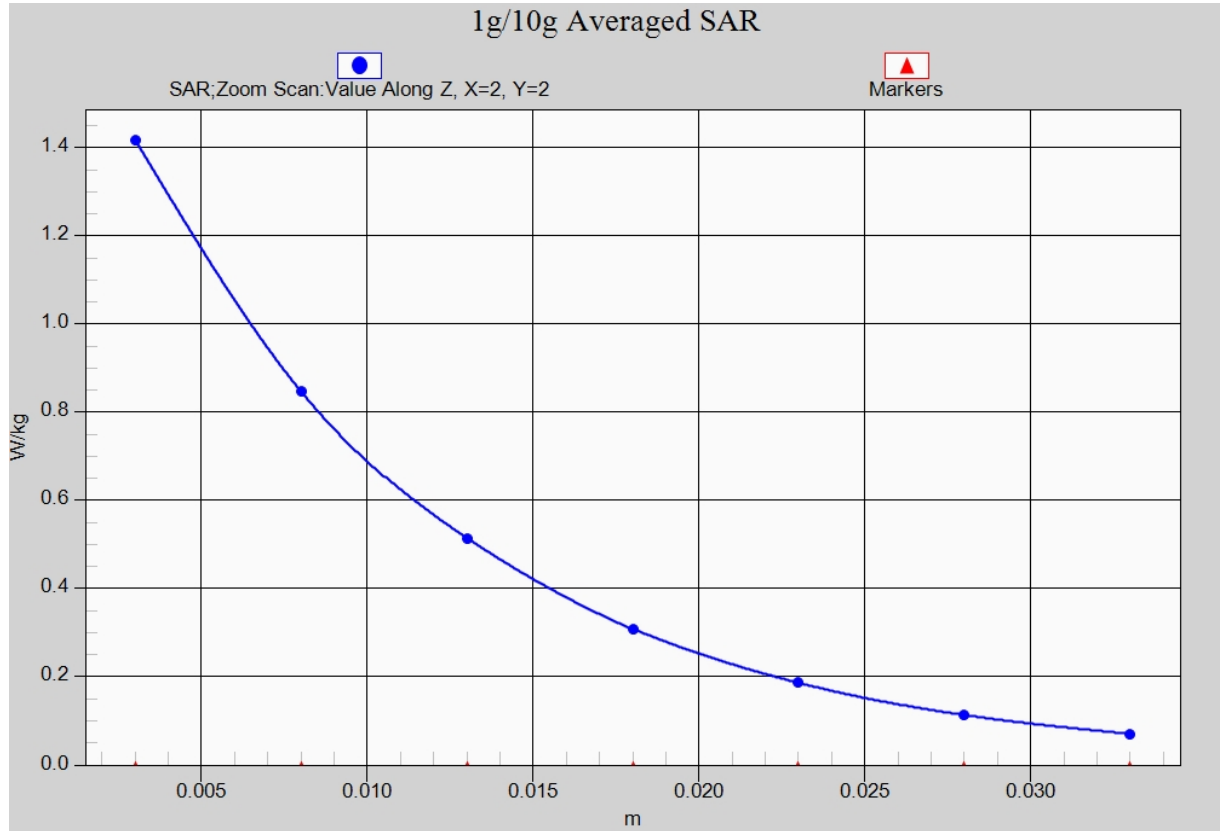


Fig. 16-1 Z-Scan at power reference point (LTE Band2)

LTE Band4 Right Cheek High with QPSK_20M_1RB_Low

Date: 2017-1-14

Electronics: DAE4 Sn1331

Medium: Head 1750 MHz

Medium parameters used $f = 1745$ MHz; $\sigma = 1.329$ mho/m; $\epsilon_r = 40.287$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1745MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7307 ConvF(8.37, 8.37, 8.37)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.461 W/kg

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

Reference Value = 4.143 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.484 W/kg

SAR(1 g) = 0.320 W/kg; SAR(10 g) = 0.212 W/kg

Maximum value of SAR (measured) = 0.369 W/kg

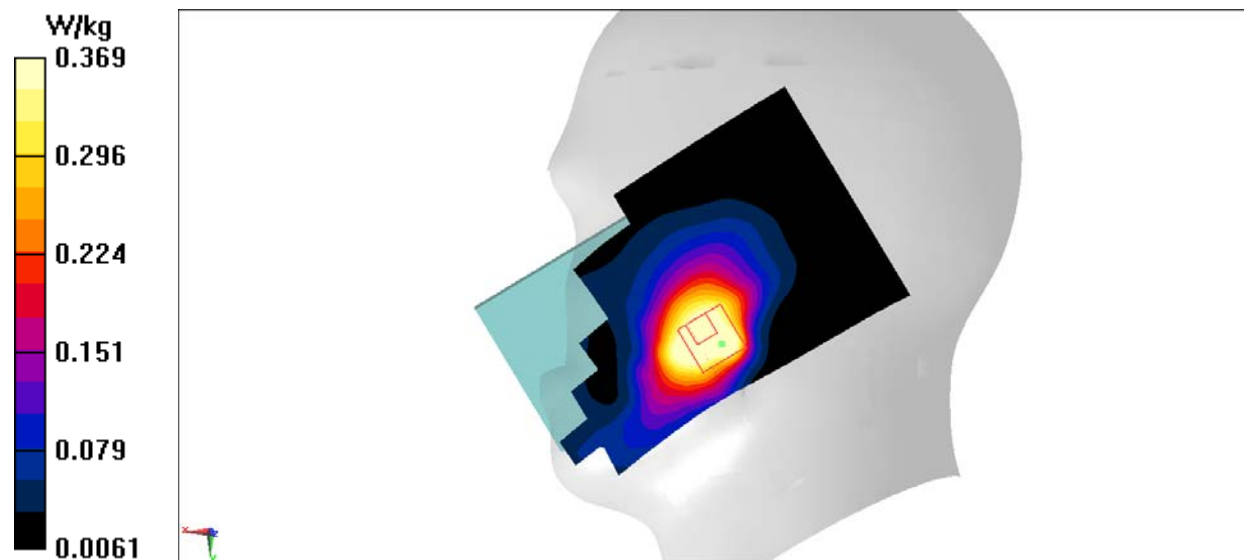


Fig.17 LTE Band4

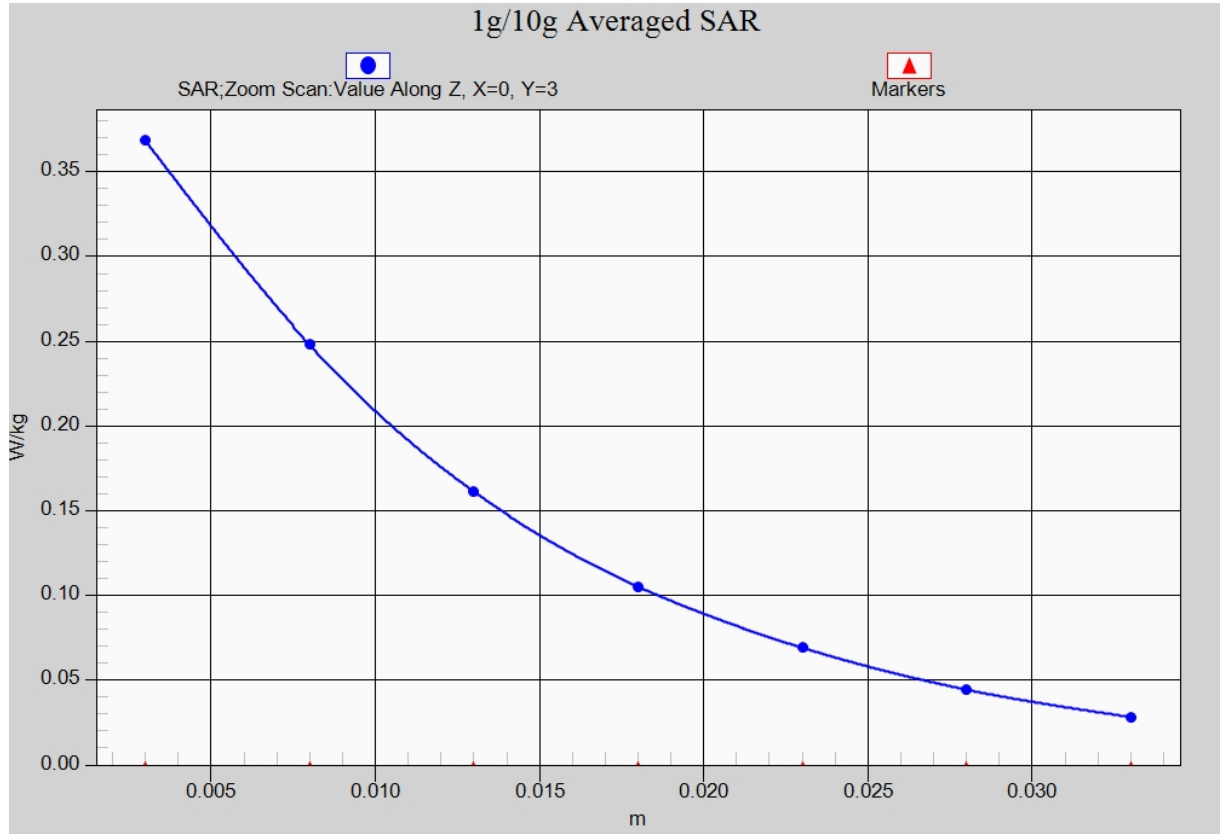


Fig. 17-1 Z-Scan at power reference point (LTE Band4)

LTE Band4 Body Bottom High with QPSK_20M_100RB

Date: 2017-1-14

Electronics: DAE4 Sn1331

Medium: Body 1750 MHz

Medium parameters used: $f = 1745$ MHz; $\sigma = 1.526$ mho/m; $\epsilon_r = 53.329$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C

Communication System: LTE Band4 Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN7307 ConvF(8.18, 8.18, 8.18)

Area Scan (111x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 1.38 W/kg

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

Reference Value = 21.47 V/m; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.524 W/kg

Maximum value of SAR (measured) = 1.31 W/kg

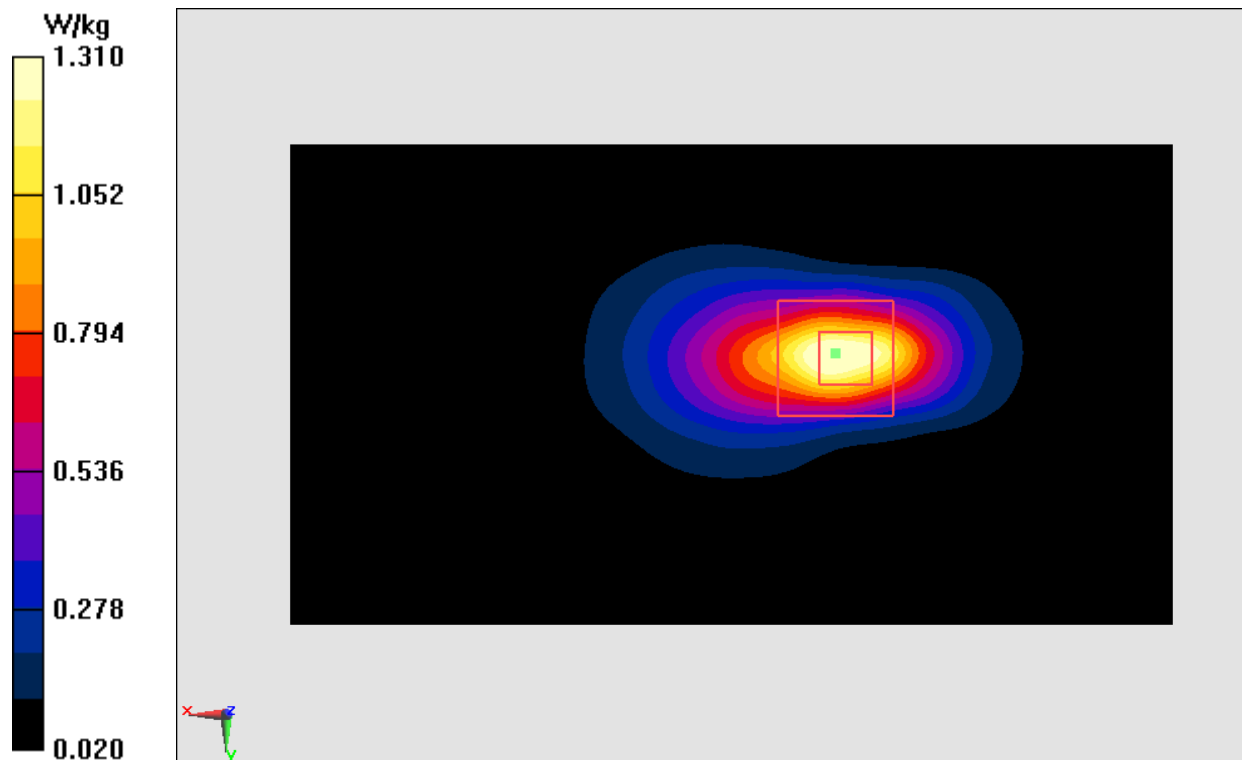


Fig.18 LTE Band4