149(5745 MHz)	10.83	10.73	10.81	10.76	10.75	10.74	10.74	10.85
153(5765 MHz)	10.72	10.67	10.77	10.71	10.69	10.75	10.68	10.79
157(5785 MHz)	10.68	10.63	10.70	10.65	10.65	10.63	10.67	10.74
161(5805 MHz	11.11	11.08	11.16	11.10	11.07	11.08	11.09	11.15
165(5825 MHz)	11.16	11.11	11.17	11.67	11.61	11.14	11.13	11.20

802.11n（dBm）- HT40 (5G)

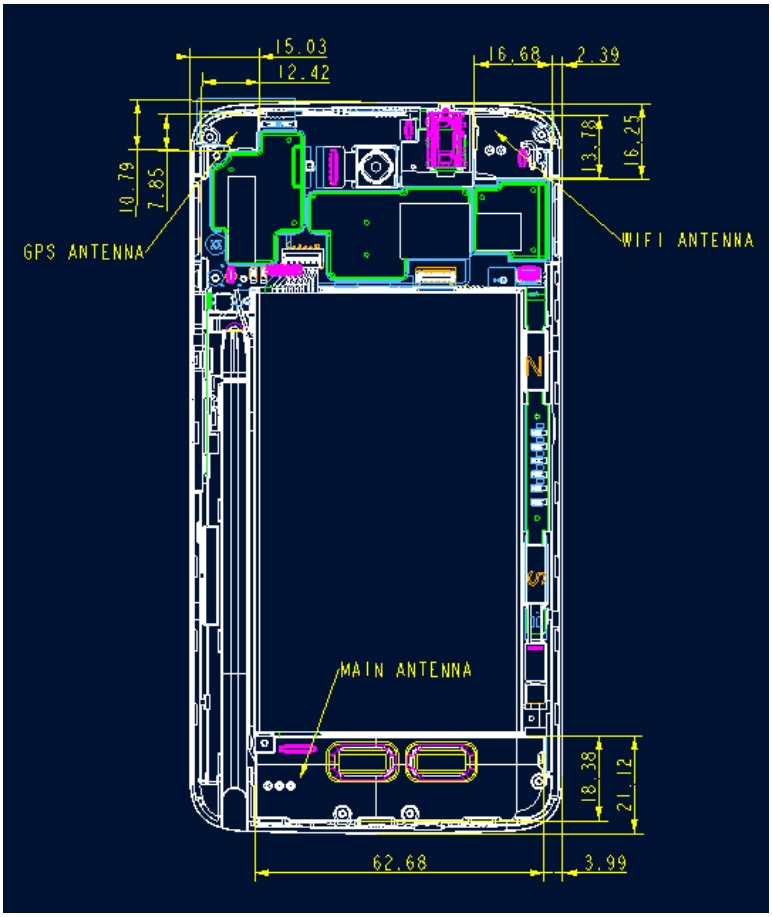
Channel\data rate	MCS0	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
38(5190 MHz)	11.18	11.58	11.62	11.44	11.56	11.50	11.63	11.54
46(5230 MHz)	11.82	12.21	12.25	12.09	12.20	12.10	12.26	12.19
54(5270 MHz)	11.42	11.31	11.34	11.22	11.29	11.29	11.37	11.26
62(5310 MHz)	11.24	11.14	11.13	11.04	11.09	11.09	11.12	11.09
102(5510 MHz)	11.10	11.00	11.00	11.37	11.42	10.97	10.99	10.94
110(5550 MHz)	10.02	10.43	10.40	10.34	10.37	10.39	10.43	10.35
134(5670 MHz)	10.81	10.74	10.69	10.62	10.68	10.67	10.74	10.63
151(5755 MHz)	11.05	10.96	10.96	10.87	10.92	10.90	10.96	10.90
159(5795 MHz)	11.41	11.36	11.30	11.74	11.28	11.78	11.32	11.24

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
Main antenna	Yes	Yes	Yes	Yes	No	Yes
WLAN	Yes	Yes	Yes	No	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:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, where

- f(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	6.48	4.45	Yes
		Body	19.20	6.48	4.45	Yes
2.4GHz WLAN 802.11 b	2.45	Head	9.58	14.26	26.67	No
		Body	19.17	14.26	26.67	No
WLAN 5GHz	5.2	Head	6.58	12.97	19.82	No
		Body	13.16	12.97	19.82	No
	5.3	Head	6.52	12.12	16.29	No
		Body	13.03	12.12	16.29	No
	5.6	Head	6.34	12.29	16.94	No
		Body	12.68	12.29	16.94	No
	5.8	Head	6.23	12.53	17.91	No
		Body	12.46	12.53	17.91	No

13 Evaluation of Simultaneous

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

	Position	GSM/WCDMA	WiFi (DTS)	Sum1	WiFi (UNII)	Sum2
Maximum reported SAR value for Head	Left hand, Touch cheek	0.31	0.09	**0.40**	0.19	**0.50**
	Right hand, Touch cheek	0.22	0.21	**0.43**	0.23	**0.45**
	Right hand, Tilt 15°	0.14	0.18	**0.32**	0.25	**0.39**
Maximum reported SAR value for Body	Rear 10mm	1.27	0.16	**1.43**	0.15	**1.42**

Note1: Sum1 is GSM/WCDMA + WiFi (DTS). Sum2 is GSM/WCDMA + WiFi (UNII).

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

	Position	Main antenna	BT*	Sum
Highest reported SAR value for Head	Left hand, Touch cheek	0.31	0.21	**0.52**
Highest reported SAR value for Body	Rear 10mm	1.27	0.10	**1.37**

BT* - 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	7	5.01	0.21
Bluetooth	2.441	Body	10	7	5.01	0.10

* - 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 10mm 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-g SAR 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:

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

Where P_{Target} is the power of manufacturing upper limit;
$P_{Measured}$ is the measured power in chapter 11.

Table 14.1: Duty Cycle

AP ON	**Duty Cycle**
WCDMA1900	**1:1**
AP OFF	**Duty Cycle**
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850/1900	1:4
WCDMA850/1900& WiFi	1:1

14.1 SAR results for Fast SAR

According to the client request, we'll perform the head measurement in all bands without the flip cover and retest on highest value point with the flip cover in each band. Then, repeat the measurement in the Body test.

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

Ambient Temperature: 22.4 °C					Liquid Temperature: 21.9 °C						
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.										
848.8	251	Left	Touch	Fig.1	32.90	33.8	0.192	**0.24**	0.250	**0.31**	0.17
836.6	190	Left	Touch	/	32.91	33.8	0.154	**0.19**	0.225	**0.28**	0.19
824.2	128	Left	Touch	/	32.88	33.8	0.129	**0.16**	0.189	**0.23**	-0.19
848.8	251	Left	Tilt	/	32.90	33.8	0.084	**0.10**	0.121	**0.15**	0.10
836.6	190	Left	Tilt	/	32.91	33.8	0.080	**0.10**	0.114	**0.14**	0.12
824.2	128	Left	Tilt	/	32.88	33.8	0.062	**0.08**	0.089	**0.11**	0.05
848.8	251	Right	Touch	/	32.90	33.8	0.122	**0.15**	0.177	**0.22**	0.19
836.6	190	Right	Touch	/	32.91	33.8	0.133	**0.16**	0.169	**0.21**	0.12
824.2	128	Right	Touch	/	32.88	33.8	0.085	**0.11**	0.122	**0.15**	0.12
848.8	251	Right	Tilt	/	32.90	33.8	0.081	**0.10**	0.117	**0.14**	0.11
836.6	190	Right	Tilt	/	32.91	33.8	0.075	**0.09**	0.108	**0.13**	0.06
824.2	128	Right	Tilt	/	32.88	33.8	0.059	**0.07**	0.085	**0.11**	0.15

Table 14.3: SAR Values (GSM 850 MHz Band - Head) with Flip cover

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
Frequency		Side	Test Position	Flip cover	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.										
848.8	251	Left	Touch	1	32.90	33.8	0.186	**0.23**	0.243	**0.30**	-0.08
848.8	251	Left	Touch	2	32.90	33.8	0.183	**0.23**	0.237	**0.29**	0.16
848.8	251	Left	Touch	3	32.90	33.8	0.174	**0.21**	0.221	**0.27**	-0.09

Note: the detail of Flip cover is presented in section 4.4.

Table 14.4: SAR Values (GSM 850 MHz Band - Body)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
Frequency		Mode (number of timeslots)	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.										
836.6	190	GPRS (2)	Front	/	31.16	32	0.280	**0.34**	0.420	**0.51**	-0.11
848.8	251	GPRS (2)	Rear	Fig.2	31.14	32	0.601	**0.73**	0.831	**1.01**	-0.03
836.6	190	GPRS (2)	Rear	/	31.16	32	0.517	**0.63**	0.757	**0.92**	-0.06
824.2	128	GPRS (2)	Rear	/	31.14	32	0.455	**0.55**	0.663	**0.81**	0.05
836.6	190	GPRS (2)	Left	/	31.16	32	0.279	**0.34**	0.412	**0.50**	-0.06
836.6	190	GPRS (2)	Right	/	31.16	32	0.101	**0.12**	0.148	**0.18**	0.02
836.6	190	GPRS (2)	Bottom	/	31.16	32	0.133	**0.16**	0.226	**0.27**	0.03
848.8	251	EGPRS (2)	Rear	/	31.15	32	0.598	**0.73**	0.825	**1.00**	0.06
848.8	251	Speech	Rear Headset1	/	32.90	33.8	0.394	**0.48**	0.588	**0.72**	0.10
848.8	251	Speech	Rear Headset2	/	32.90	33.8	0.396	**0.49**	0.590	**0.73**	-0.17

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

Note2: Headset1 is CCB3001A15C1, Headset2 is CCB3001A15C2.

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Table 14.5: SAR Values (GSM 850 MHz Band - Body) with Flip cover

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
Frequency		Mode (number of timeslots)	Test Position	Flip cover	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.										
848.8	251	GPRS (2)	Rear	1	31.14	32	0.457	**0.56**	0.676	**0.82**	-0.07
848.8	251	GPRS (2)	Rear	2	31.14	32	0.458	**0.56**	0.679	**0.83**	-0.02
848.8	251	GPRS (2)	Rear	3	31.14	32	0.442	**0.54**	0.649	**0.79**	-0.04

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

Note2: the detail of Flip cover is presented in section 4.4.

Table 14.6: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
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.										
1909.8	810	Left	Touch	Fig.3	29.55	30.3	0.049	**0.06**	0.075	**0.09**	0.13
1880	661	Left	Touch	/	29.64	30.3	0.038	**0.04**	0.062	**0.07**	0.13
1850.2	512	Left	Touch	/	29.54	30.3	0.031	**0.04**	0.050	**0.06**	0.12
1909.8	810	Left	Tilt	/	29.55	30.3	0.025	**0.03**	0.043	**0.05**	0.14
1880	661	Left	Tilt	/	29.64	30.3	0.026	**0.03**	0.043	**0.05**	-0.01
1850.2	512	Left	Tilt	/	29.54	30.3	0.018	**0.02**	0.031	**0.04**	0.12
1909.8	810	Right	Touch	/	29.55	30.3	0.035	**0.04**	0.058	**0.07**	0.08
1880	661	Right	Touch	/	29.64	30.3	0.042	**0.05**	0.063	**0.07**	0.15
1850.2	512	Right	Touch	/	29.54	30.3	0.030	**0.04**	0.051	**0.06**	0.11
1909.8	810	Right	Tilt	/	29.55	30.3	0.034	**0.04**	0.060	**0.07**	0.15
1880	661	Right	Tilt	/	29.64	30.3	0.029	**0.03**	0.052	**0.06**	0.05
1850.2	512	Right	Tilt	/	29.54	30.3	0.021	**0.03**	0.038	**0.05**	-0.15

Table 14.7: SAR Values (GSM 1900 MHz Band - Head) with Flip cover

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
Frequency		Side	Test Position	Flip cover	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.										
1909.8	810	Left	Touch	1	29.55	30.3	0.043	**0.05**	0.073	**0.09**	-0.15
1909.8	810	Left	Touch	2	29.55	30.3	0.042	**0.05**	0.072	**0.09**	0.14
1909.8	810	Left	Touch	3	29.55	30.3	0.042	**0.05**	0.072	**0.09**	-0.15

Note: the detail of Flip cover is presented in section 4.4.

Table 14.8: SAR Values (GSM 1900 MHz Band - Body)

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
Frequency		Mode (number of timeslots)	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.										
1880	661	GPRS (2)	Front	/	28.02	29	0.157	**0.20**	0.283	**0.35**	0.18
1909.8	810	GPRS (2)	Rear	Fig.4	28.19	29	0.557	**0.67**	1.05	**1.27**	-0.01
1880	661	GPRS (2)	Rear	/	28.02	29	0.511	**0.64**	0.956	**1.20**	0.13
1850.2	512	GPRS (2)	Rear	/	27.67	29	0.402	**0.55**	0.781	**1.06**	0.16
1880	661	GPRS (2)	Left	/	28.02	29	0.048	**0.06**	0.082	**0.10**	0.10
1880	661	GPRS (2)	Right	/	28.02	29	0.018	**0.02**	0.032	**0.04**	0.12
1909.8	810	GPRS (2)	Bottom	/	28.19	29	0.483	**0.58**	0.929	**1.12**	-0.14
1880	661	GPRS (2)	Bottom	/	28.02	29	0.423	**0.53**	0.814	**1.02**	-0.10
1850.2	512	GPRS (2)	Bottom	/	27.67	29	0.348	**0.47**	0.667	**0.91**	-0.13
1909.8	810	EGPRS (2)	Rear	/	28.18	29	0.548	**0.66**	1.03	**1.24**	0.04

1909.8	810	Speech	Rear Headset1	/	29.55	30.3	0.312	**0.37**	0.559	**0.66**	0.14
1909.8	810	Speech	Rear Headset2	/	29.55	30.3	0.315	**0.37**	0.559	**0.66**	0.02

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

Note2: Headset1 is CCB3001A15C1, Headset2 is CCB3001A15C2.

Table 14.9: SAR Values (GSM 1900 MHz Band - Body) with Flip cover

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
Frequency		Mode (number of timeslots)	Test Position	Flip cover	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.										
1909.8	810	GPRS (2)	Rear	1	28.19	29	0.497	**0.60**	0.926	**1.12**	0.03
1909.8	810	GPRS (2)	Rear	2	28.19	29	0.468	**0.56**	0.903	**1.09**	0.12
1909.8	810	GPRS (2)	Rear	3	28.19	29	0.470	**0.57**	0.907	**1.09**	0.06

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

Note2: the detail of Flip cover is presented in section 4.4.

Table 14.10: SAR Values (WCDMA 850 MHz Band - Head)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
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.										
846.6	4233	Left	Touch	/	22.98	24	0.133	**0.17**	0.195	**0.25**	0.14
836.4	4182	Left	Touch	Fig.5	23.28	24	0.175	**0.21**	0.228	**0.27**	0.11
826.4	4132	Left	Touch	/	23.27	24	0.139	**0.16**	0.203	**0.24**	0.10
846.6	4233	Left	Tilt	/	22.98	24	0.069	**0.09**	0.099	**0.13**	0.07
836.4	4182	Left	Tilt	/	23.28	24	0.081	**0.10**	0.116	**0.14**	0.15
826.4	4132	Left	Tilt	/	23.27	24	0.081	**0.10**	0.115	**0.14**	0.14
846.6	4233	Right	Touch	/	22.98	24	0.101	**0.13**	0.147	**0.19**	0.17
836.4	4182	Right	Touch	/	23.28	24	0.139	**0.16**	0.177	**0.21**	0.01
826.4	4132	Right	Touch	/	23.27	24	0.105	**0.12**	0.152	**0.18**	0.14
846.6	4233	Right	Tilt	/	22.98	24	0.076	**0.10**	0.110	**0.14**	-0.02
836.4	4182	Right	Tilt	/	23.28	24	0.085	**0.10**	0.122	**0.14**	0.10
826.4	4132	Right	Tilt	/	23.27	24	0.079	**0.09**	0.113	**0.13**	0.12

Table 14.11: SAR Values (WCDMA 850 MHz Band - Head) with Flip cover

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
Frequency		Side	Test Position	Flip cover	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.										
836.4	4182	Left	Touch	1	23.28	24	0.160	**0.19**	0.206	**0.24**	0.13
836.4	4182	Left	Touch	2	23.28	24	0.163	**0.19**	0.214	**0.25**	-0.09
836.4	4182	Left	Touch	3	23.28	24	0.154	**0.18**	0.201	**0.24**	0.06

Table 14.12: SAR Values (WCDMA 850 MHz Band - Body)

Ambient Temperature: 22.4 °C						Liquid Temperature: 21.9 °C				
Frequency		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.									
836.4	4182	Front	/	23.28	24	0.198	**0.23**	0.291	**0.34**	-0.06
846.6	4233	Rear	/	22.98	24	0.315	**0.40**	0.459	**0.58**	-0.03
836.4	4182	Rear	Fig.6	23.28	24	0.394	**0.47**	0.528	**0.62**	-0.01
826.4	4132	Rear	/	23.27	24	0.334	**0.40**	0.484	**0.57**	0.03
836.4	4182	Left	/	23.28	24	0.225	**0.27**	0.332	**0.39**	-0.07
836.4	4182	Right	/	23.28	24	0.091	**0.11**	0.134	**0.16**	-0.04
836.4	4182	Bottom	/	23.28	24	0.107	**0.13**	0.174	**0.21**	0.17
836.4	4182	Rear Headset1	/	23.28	24	0.338	**0.40**	0.500	**0.59**	0.06
836.4	4182	Rear Headset2	/	23.28	24	0.320	**0.38**	0.472	**0.56**	0.00

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

Note2: Headset1 is CCB3001A15C1, Headset2 is CCB3001A15C2.

Table 14.13: SAR Values (WCDMA 850 MHz Band - Body) with Flip cover

Ambient Temperature: 22.4 °C						Liquid Temperature: 21.9 °C				
Frequency		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.									
836.4	4182	Rear	1	23.28	24	0.362	**0.43**	0.497	**0.59**	0.11
836.4	4182	Rear	2	23.28	24	0.354	**0.42**	0.483	**0.57**	-0.03
836.4	4182	Rear	3	23.28	24	0.356	**0.42**	0.486	**0.57**	0.06

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

Note2: the detail of Flip cover is presented in section 4.4.

Table 14.14: SAR Values (WCDMA 1900 MHz Band - Head)

Ambient Temperature: 22.3 °C							Liquid Temperature: 21.8 °C				
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.										
1907.6	9538	Left	Touch	Fig.7	22.41	24	0.073	**0.11**	0.112	**0.16**	0.16
1880	9400	Left	Touch	/	22.86	24	0.065	**0.08**	0.108	**0.14**	0.15
1852.4	9262	Left	Touch	/	22.81	24	0.062	**0.08**	0.102	**0.13**	0.14
1907.6	9538	Left	Tilt	/	22.41	24	0.041	**0.06**	0.070	**0.10**	0.10
1880	9400	Left	Tilt	/	22.86	24	0.048	**0.06**	0.081	**0.11**	0.17
1852.4	9262	Left	Tilt	/	22.81	24	0.042	**0.06**	0.071	**0.09**	0.11
1907.6	9538	Right	Touch	/	22.41	24	0.053	**0.08**	0.090	**0.13**	0.16
1880	9400	Right	Touch	/	22.86	24	0.068	**0.09**	0.104	**0.14**	0.10
1852.4	9262	Right	Touch	/	22.81	24	0.053	**0.07**	0.090	**0.12**	0.14
1907.6	9538	Right	Tilt	/	22.41	24	0.039	**0.06**	0.069	**0.10**	0.16

1880	9400	Right	Tilt	/	22.86	24	0.035	**0.05**	0.063	**0.08**	0.17
1852.4	9262	Right	Tilt	/	22.81	24	0.026	**0.03**	0.047	**0.06**	0.12

Table 14.15: SAR Values (WCDMA 1900 MHz Band - Head) with Flip cover

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
Frequency		Side	Test Position	Flip cover	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.										
1907.6	9538	Left	Touch	1	22.41	24	0.049	**0.07**	0.082	**0.12**	0.19
1907.6	9538	Left	Touch	2	22.41	24	0.057	**0.08**	0.093	**0.13**	0.15
1907.6	9538	Left	Touch	3	22.41	24	0.048	**0.07**	0.084	**0.12**	0.14

Table 14.16: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C										
Frequency		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.									
1880	9400	Front	/	20.35	21	0.137	**0.16**	0.245	**0.28**	0.05
1907.6	9538	Rear	/	19.98	21	0.470	**0.59**	0.897	**1.13**	0.11
1880	9400	Rear	/	20.35	21	0.496	**0.58**	0.941	**1.09**	-0.15
1852.4	9262	Rear	Fig.8	20.25	21	0.542	**0.64**	1.03	**1.22**	0.07
1880	9400	Left	/	20.35	21	0.060	**0.07**	0.104	**0.12**	0.03
1880	9400	Right	/	20.35	21	0.016	**0.02**	0.029	**0.03**	-0.04
1907.6	9538	Bottom	/	19.98	21	0.361	**0.46**	0.693	**0.88**	-0.12
1880	9400	Bottom	/	20.35	21	0.379	**0.44**	0.729	**0.85**	-0.16
1852.4	9262	Bottom	/	20.25	21	0.414	**0.49**	0.797	**0.95**	0.09
1907.6	9538	Rear Headset1	/	19.98	21	0.368	**0.47**	0.740	**0.94**	-0.08
1880	9400	Rear Headset1	/	20.35	21	0.385	**0.45**	0.777	**0.90**	0.15
1852.4	9262	Rear Headset1	/	20.25	21	0.423	**0.50**	0.853	**1.01**	0.13
1907.6	9538	Rear Headset2	/	19.98	21	0.402	**0.51**	0.772	**0.98**	0.10
1880	9400	Rear Headset2	/	20.35	21	0.424	**0.49**	0.813	**0.94**	0.07
1852.4	9262	Rear Headset2	/	20.25	21	0.463	**0.55**	0.889	**1.06**	0.06

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

Note2: Headset1 is CCB3001A15C1, Headset2 is CCB3001A15C2.

Table 14.17: SAR Values (WCDMA 1900 MHz Band - Body) – AP OFF

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °C				
Frequency		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.									
1907.6	9538	Front	/	22.41	24	0.113	**0.16**	0.194	**0.28**	-0.06
1880	9400	Front	/	22.86	24	0.127	**0.17**	0.219	**0.28**	-0.03
1852.4	9262	Front	/	22.81	24	0.143	**0.19**	0.235	**0.31**	-0.01
1907.6	9538	Rear	/	22.41	24	0.384	**0.55**	0.680	**0.98**	0.13
1880	9400	Rear	/	22.86	24	0.481	**0.63**	0.851	**1.11**	0.05
1852.4	9262	Rear	/	22.81	24	0.449	**0.59**	0.791	**1.04**	0.07

Note1: The distance between the EUT and the phantom bottom is 15mm.

Table 14.18: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON with Flip cover

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °C				
Frequency		Test Position	Flip cover	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.									
1852.4	9262	Rear	1	20.25	21	0.426	**0.51**	0.859	**1.02**	-0.01
1852.4	9262	Rear	2	20.25	21	0.432	**0.51**	0.869	**1.03**	0.13
1852.4	9262	Rear	3	20.25	21	0.418	**0.50**	0.846	**1.01**	-0.09

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

Note2: the detail of Flip cover is presented in section 4.4.

Table 14.19: SAR Values (Wi-Fi 802.11b - Head)

Ambient Temperature: 22.2 °C							Liquid Temperature: 21.7 °C				
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.										
2437	6	Left	Touch	/	14.21	15	0.042	**0.05**	0.075	**0.09**	0.11
2437	6	Left	Tilt	/	14.21	15	0.035	**0.04**	0.074	**0.09**	0.19
2437	6	Right	Touch	Fig.9	14.21	15	0.082	**0.10**	0.173	**0.21**	0.12
2437	6	Right	Tilt	/	14.21	15	0.067	**0.08**	0.148	**0.18**	0.18

Table 14.20: SAR Values (Wi-Fi 802.11b - Head) with Flip cover

Ambient Temperature: 22.2 °C							Liquid Temperature: 21.7 °C				
Frequency		Side	Test Position	Flip cover	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	Right	Touch	1	14.21	15	0.080	**0.10**	0.169	**0.20**	0.16
2437	6	Right	Touch	2	14.21	15	0.081	**0.10**	0.171	**0.21**	0.10
2437	6	Right	Touch	3	14.21	15	0.080	**0.10**	0.168	**0.20**	0.11

Table 14.21: SAR Values (Wi-Fi 802.11b - Body)

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C										
Frequency		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.									
2437	6	Front	/	14.21	15	0.018	**0.02**	0.033	**0.04**	0.10
2437	6	Rear	Fig.10	14.21	15	0.027	**0.03**	0.057	**0.07**	0.15
2437	6	Left	/	14.21	15	0.015	**0.02**	0.029	**0.03**	0.13
2437	6	Top	/	14.21	15	0.00778	**0.01**	0.014	**0.02**	-0.14

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

Table 14.22: SAR Values (Wi-Fi 802.11b - Body) with Flip cover

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C										
Frequency		Test Position	Flip cover	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	Rear	1	14.21	15	0.019	**0.02**	0.040	**0.05**	0.18
2437	6	Rear	2	14.21	15	0.019	**0.02**	0.039	**0.05**	0.10
2437	6	Rear	3	14.21	15	0.016	**0.02**	0.035	**0.04**	0.19

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: the detail of Flip cover is presented in section 4.4.

Table 14.23: SAR Values (Wi-Fi 802.11a - Head)

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C											
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.										
5240	48	Left	Touch	/	12.87	13	0.051	**0.05**	0.125	**0.13**	0.18
5240	48	Left	Tilt	/	12.87	13	0.054	**0.06**	0.135	**0.14**	0.11
5240	48	Right	Touch	/	12.87	13	0.047	**0.05**	0.151	**0.16**	0.16
5240	48	Right	Tilt	/	12.87	13	0.061	**0.06**	0.188	**0.19**	0.15
5280	56	Left	Touch	/	12.12	13	0.064	**0.08**	0.154	**0.19**	0.10
5280	56	Left	Tilt	/	12.12	13	0.069	**0.08**	0.172	**0.21**	0.13
5280	56	Right	Touch	/	12.12	13	0.060	**0.07**	0.187	**0.23**	0.10
5280	56	Right	Tilt	Fig.11	12.12	13	0.067	**0.08**	0.208	**0.25**	0.19
5660	132	Left	Touch	/	12.29	12.5	0.032	**0.03**	0.077	**0.08**	0.15
5660	132	Left	Tilt	/	12.29	12.5	0.046	**0.05**	0.114	**0.12**	0.11
5660	132	Right	Touch	/	12.29	12.5	0.030	**0.03**	0.093	**0.10**	0.17
5660	132	Right	Tilt	/	12.29	12.5	0.044	**0.05**	0.138	**0.14**	0.12
5825	165	Left	Touch	/	12.29	13	0.037	**0.04**	0.089	**0.10**	0.10
5825	165	Left	Tilt	/	12.29	13	0.051	**0.06**	0.128	**0.15**	0.15
5825	165	Right	Touch	/	12.29	13	0.035	**0.04**	0.108	**0.13**	0.17
5825	165	Right	Tilt	/	12.29	13	0.050	**0.06**	0.156	**0.18**	0.14

Table 14.24: SAR Values (Wi-Fi 802.11a - Head) with Flip cover

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C											
Frequency		Side	Test Position	Flip cover	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.										
5280	56	Right	Tilt	1	12.12	13	0.065	**0.08**	0.204	**0.25**	0.18
5280	56	Right	Tilt	2	12.12	13	0.066	**0.08**	0.206	**0.25**	0.16
5280	56	Right	Tilt	3	12.12	13	0.065	**0.08**	0.202	**0.25**	0.11

Table 14.25: SAR Values (Wi-Fi 802.11a - Body)

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C										
Frequency		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.									
5240	48	Front	/	12.87	13	0.00867	**0.01**	0.031	**0.03**	0.14
5240	48	Rear	/	12.87	13	0.058	**0.06**	0.132	**0.14**	0.13
5240	48	Left	/	12.87	13	0.000136	**0.00**	0.00114	**0.00**	0.14
5240	48	Top	/	12.87	13	0.052	**0.05**	0.120	**0.12**	0.10
5280	56	Front	/	12.12	13	0.00695	**0.01**	0.033	**0.04**	0.11
5280	56	Rear	/	12.12	13	0.039	**0.05**	0.120	**0.15**	0.17
5280	56	Left	/	12.12	13	0.000128	**0.00**	0.00104	**0.00**	0.14
5280	56	Top	/	12.12	13	0.039	**0.05**	0.115	**0.14**	0.05
5660	132	Front	/	12.29	12.5	0.0068	**0.01**	0.031	**0.03**	0.19
5660	132	Rear	/	12.29	12.5	0.052	**0.05**	0.130	**0.14**	0.18
5660	132	Left	/	12.29	12.5	0.000345	**0.00**	0.00239	**0.00**	0.13
5660	132	Top	/	12.29	12.5	0.033	**0.03**	0.100	**0.10**	-0.11
5825	165	Front	/	12.29	13	0.010	**0.01**	0.038	**0.04**	0.14
5825	165	Rear	Fig.12	12.29	13	0.038	**0.04**	0.138	**0.16**	0.10
5825	165	Left	/	12.29	13	0.000506	**0.00**	0.0039	**0.00**	-0.10
5825	165	Top	/	12.29	13	0.011	**0.01**	0.051	**0.06**	-0.17

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

Table 14.26: SAR Values (Wi-Fi 802.11a - Body) with Flip cover

Ambient Temperature: 22.2 °C Liquid Temperature: 21.7 °C										
Frequency		Test Position	Flip cover	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.									
5825	165	Rear	1	12.29	13	0.027	**0.03**	0.098	**0.12**	0.11
5825	165	Rear	2	12.29	13	0.026	**0.03**	0.096	**0.11**	0.15
5825	165	Rear	3	12.29	13	0.026	**0.03**	0.095	**0.11**	0.19

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

Note2: the detail of Flip cover is presented in section 4.4.

14.2 SAR results for Standard procedure

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

Table 14.27: SAR Values (GSM 850 MHz Band - Head)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
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.										
848.8	251	Left	Touch	Fig.1	32.90	33.8	0.192	**0.24**	0.250	**0.31**	0.17

Table 14.28: SAR Values (GSM 850 MHz Band - Body)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
Frequency		Mode (number of timeslots)	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.										
848.8	251	GPRS (2)	Rear	Fig.2	31.14	32	0.601	**0.73**	0.831	**1.01**	-0.03

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

.Table 14.29: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
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.										
1909.8	810	Left	Touch	Fig.3	29.55	30.3	0.049	**0.06**	0.075	**0.09**	0.13

Table 14.30: SAR Values (GSM 1900 MHz Band - Body)

Ambient Temperature: 22.3 °C Liquid Temperature: 21.8 °C											
Frequency		Mode (number of timeslots)	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.										
1909.8	810	GPRS (2)	Rear	Fig.4	28.19	29	0.557	**0.67**	1.05	**1.27**	-0.01

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

Table 14.31: SAR Values (WCDMA 850 MHz Band - Head)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C											
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.										
836.4	4182	Left	Touch	Fig.5	23.28	24	0.175	**0.21**	0.228	**0.27**	0.11

Table 14.32: SAR Values (WCDMA 850 MHz Band - Body)

Ambient Temperature: 22.4 °C Liquid Temperature: 21.9 °C										
Frequency		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.									
836.4	4182	Rear	Fig.6	23.28	24	0.394	**0.47**	0.528	**0.62**	-0.01

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

Table 14.33: SAR Values (WCDMA 1900 MHz Band - Head)

Ambient Temperature: 22.3 °C					Liquid Temperature: 21.8 °C						
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.										
1907.6	9538	Left	Touch	Fig.7	22.41	24	0.073	**0.11**	0.112	**0.16**	0.16

Table 14.34: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON

Ambient Temperature: 22.3 °C					Liquid Temperature: 21.8 °C					
Frequency		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.									
1852.4	9262	Rear	Fig.8	20.25	21	0.542	**0.64**	1.03	**1.22**	0.07

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

Table 14.35: SAR Values (Wi-Fi 802.11b - Head)

Ambient Temperature: 22.2 °C					Liquid Temperature: 21.7 °C						
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.										
2437	6	Right	Touch	Fig.9	14.21	15	0.082	**0.10**	0.173	**0.21**	0.12

Table 14.36: SAR Values (Wi-Fi 802.11b - Body)

Ambient Temperature: 22.2 °C					Liquid Temperature: 21.7 °C					
Frequency		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.									
2437	6	Rear	Fig.10	14.21	15	0.027	**0.03**	0.057	**0.07**	0.15

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

Table 14.37: SAR Values (Wi-Fi 802.11a - Head)

Ambient Temperature: 22.2 °C					Liquid Temperature: 21.7 °C						
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.										
5280	56	Right	Tilt	Fig.11	12.12	13	0.067	**0.08**	0.208	**0.25**	0.19

Table 14.38: SAR Values (Wi-Fi 802.11a - Body)

Ambient Temperature: 22.2 °C					Liquid Temperature: 21.7 °C					
Frequency		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.									
5825	165	Rear	Fig.12	12.29	13	0.038	**0.04**	0.138	**0.16**	0.10

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

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 (~ 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 GSM 850 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
848.8	251	Rear	10	0.831	0.826	1.01	/

Table 15.2: SAR Measurement Variability for Body GSM 1900 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
1909.8	810	Rear	10	1.05	1.04	1.01	/

Table 15.3: SAR Measurement Variability for Body WCDMA 1900 (1g) – AP ON

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
1852.4	9262	Rear	10	1.03	1.02	1.01	/

Table 15.4: SAR Measurement Variability for Body WCDMA 1900 (1g) – AP OFF

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
1880	9400	Rear	15	0.851	0.845	1.01	/

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	5.5	N	1	1	1	5.5	5.5	∞
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	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	$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$					9.25	9.12	257
Expanded uncertainty (confidence interval of 95 %)	$u_e = 2u_c$					18.5	18.2	

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	6.5	N	1	1	1	6.5	6.5	∞
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	RF ambient 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 (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		$u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.8	10.7	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.6	21.4	

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	5.5	N	1	1	1	5.5	5.5	∞
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	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	∞
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		$u_c' = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.1	9.95	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.2	19.9	

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	6.5	N	1	1	1	6.5	6.5	∞
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	RF ambient 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	A	3.3	N	1	1	1	3.3	3.3	71

	positioning									
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		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.3	13.2	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						26.6	26.4	

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	February 15, 2013	One year
02	Power meter	NRVD	102083	September 11, 2013	One year
03	Power sensor	NRV-Z5	100542		
04	Signal Generator	E4438C	MY49071430	February 08, 2013	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	E5515C	MY50263375	January 30, 2013	One year
07	E-field Probe	SPEAG EX3DV4	3846	September 03, 2013	One year
08	DAE	SPEAG DAE4	771	November 12, 2013	One year
09	Dipole Validation Kit	SPEAG D835V2	443	August 29, 2013	One year
10	Dipole Validation Kit	SPEAG D1900V2	5d101	July 09, 2013	One year
11	Dipole Validation Kit	SPEAG D2450V2	853	July 08, 2013	One year
12	Dipole Validation Kit	SPEAG D5GHzV2	1060	July 03, 2013	One year

END OF REPORT BODY

ANNEX A Graph Results

850 Left Cheek High

Date: 2013-12-20
Electronics: DAE4 Sn771
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.92 mho/m; εr = 41.838; ρ = 1000 kg/m^3
Ambient Temperature: 22.4°C Liquid Temperature: 21.9°C
Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3846 ConvF(8.92, 8.92, 8.92)

Cheek High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.269 W/kg

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.334 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 0.310 W/kg
SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.192 W/kg
Maximum value of SAR (measured) = 0.258 W/kg

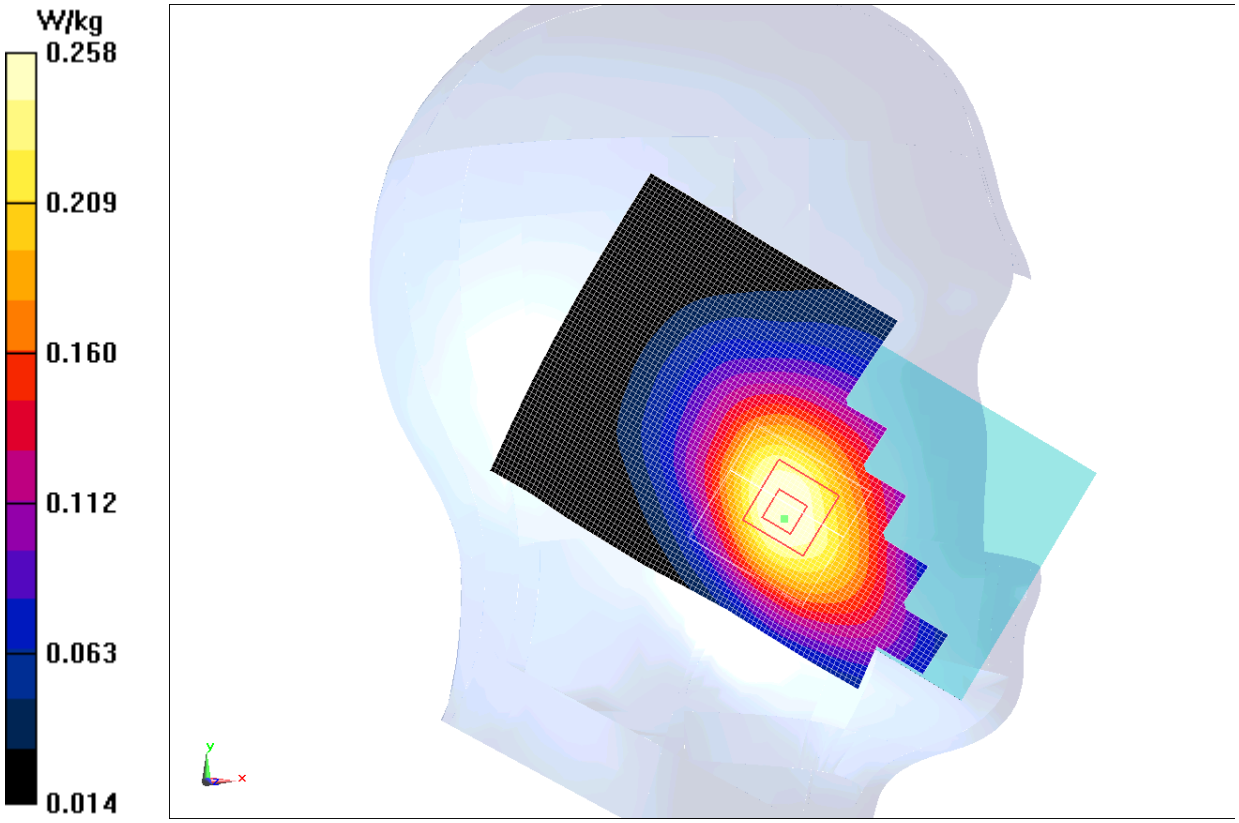

Fig.1 850MHz CH251

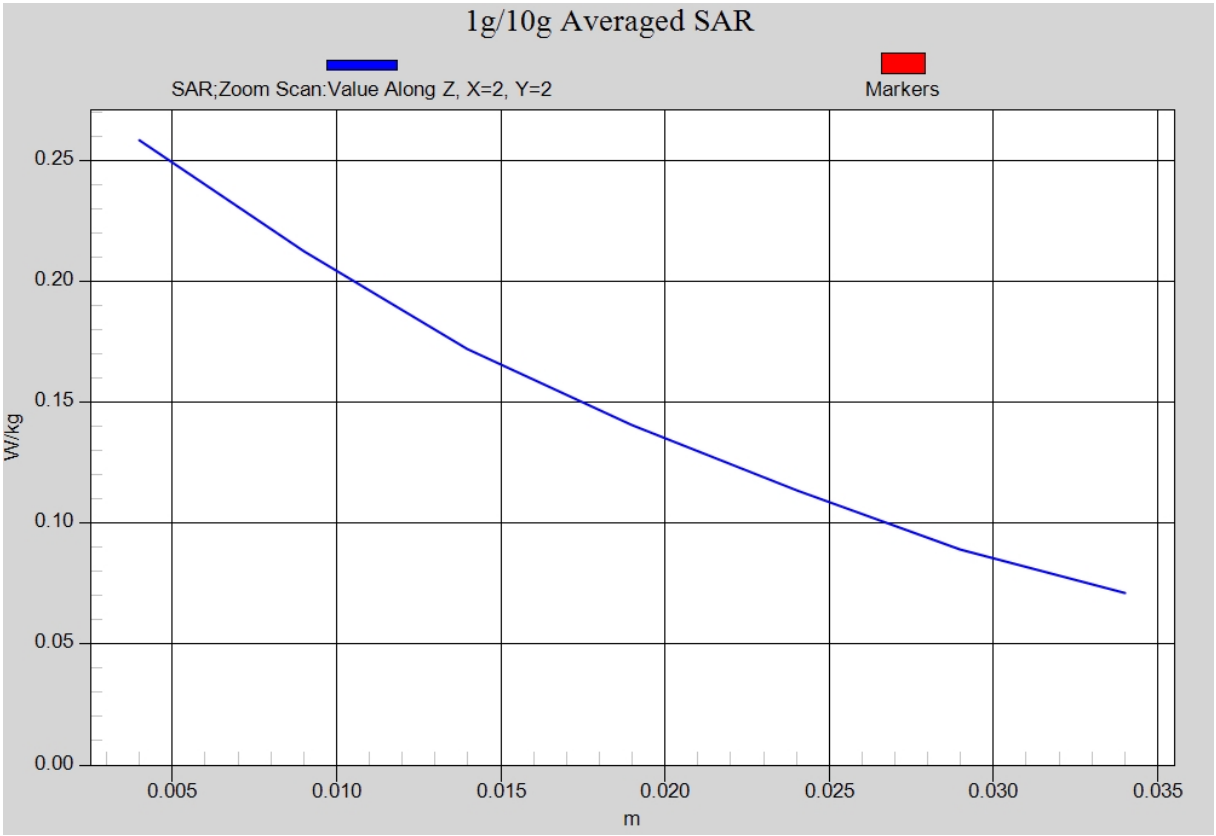

Fig. 1-1 Z-Scan at power reference point (850 MHz CH251)

850 Left Cheek High with Flip cover 1

Date: 2013-12-20
Electronics: DAE4 Sn771
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.92 mho/m; εr = 41.838; ρ = 1000 kg/m^3
Ambient Temperature: 22.4°C Liquid Temperature: 21.9°C
Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3846 ConvF(8.92, 8.92, 8.92)

Cheek High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.268 W/kg

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.327 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.309 W/kg
SAR(1 g) = 0.243 W/kg; SAR(10 g) = 0.186 W/kg
Maximum value of SAR (measured) = 0.258 W/kg

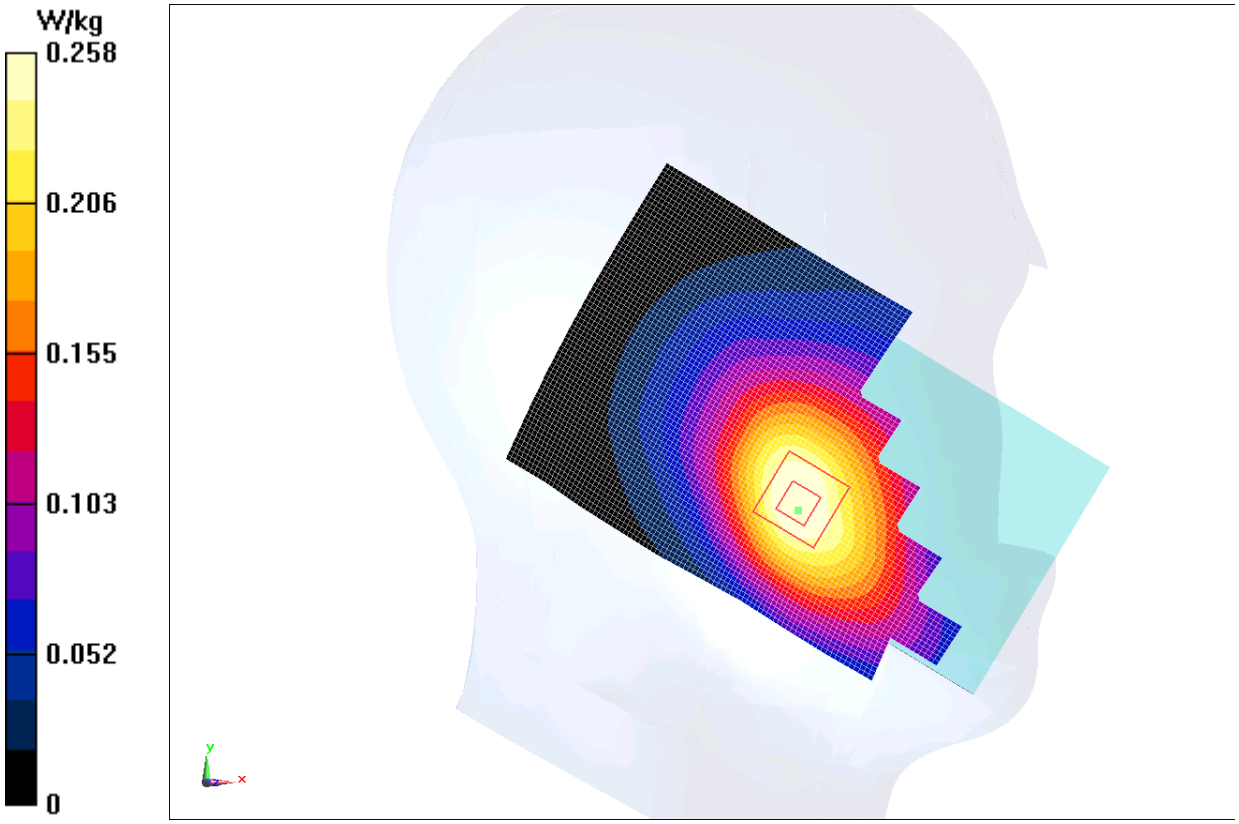

Fig.1-2 850MHz CH251

850 Body Rear High

Date: 2013-12-20
Electronics: DAE4 Sn771
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.997 mho/m; εr = 55.439; ρ = 1000 kg/m^3
Ambient Temperature: 22.4°C Liquid Temperature: 21.9°C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

Rear High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.862 W/kg

Rear High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.720 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 1.11 W/kg
SAR(1 g) = 0.831 W/kg; SAR(10 g) = 0.601 W/kg
Maximum value of SAR (measured) = 0.876 W/kg

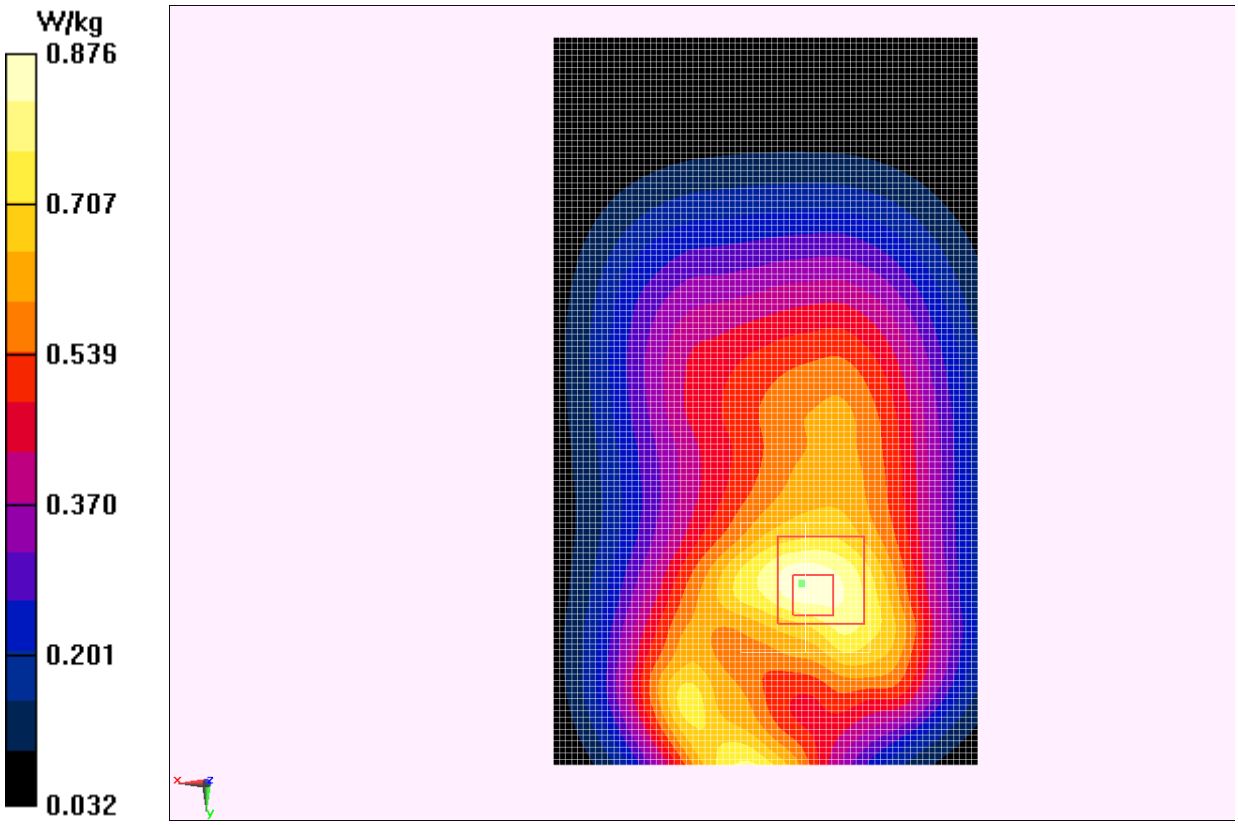

Fig.2 850 MHz CH251

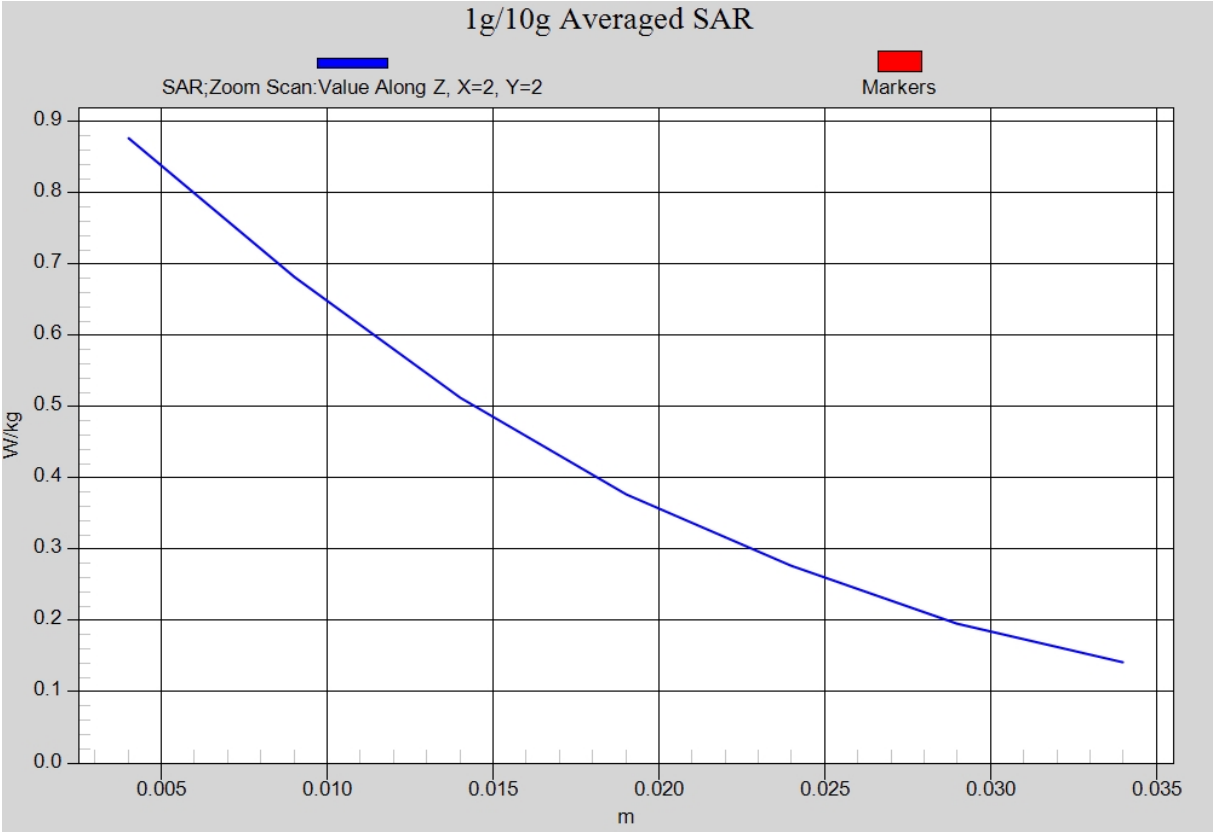

Fig. 2-1 Z-Scan at power reference point (850 MHz CH251)

850 Body Rear High with Flip cover 1

Date: 2013-12-20
Electronics: DAE4 Sn771
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.997 mho/m; εr = 55.439; ρ = 1000 kg/m^3
Ambient Temperature: 22.4°C Liquid Temperature: 21.9°C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

Rear High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.723 W/kg

Rear High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.770 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.971 W/kg
SAR(1 g) = 0.676 W/kg; SAR(10 g) = 0.457 W/kg
Maximum value of SAR (measured) = 0.736 W/kg

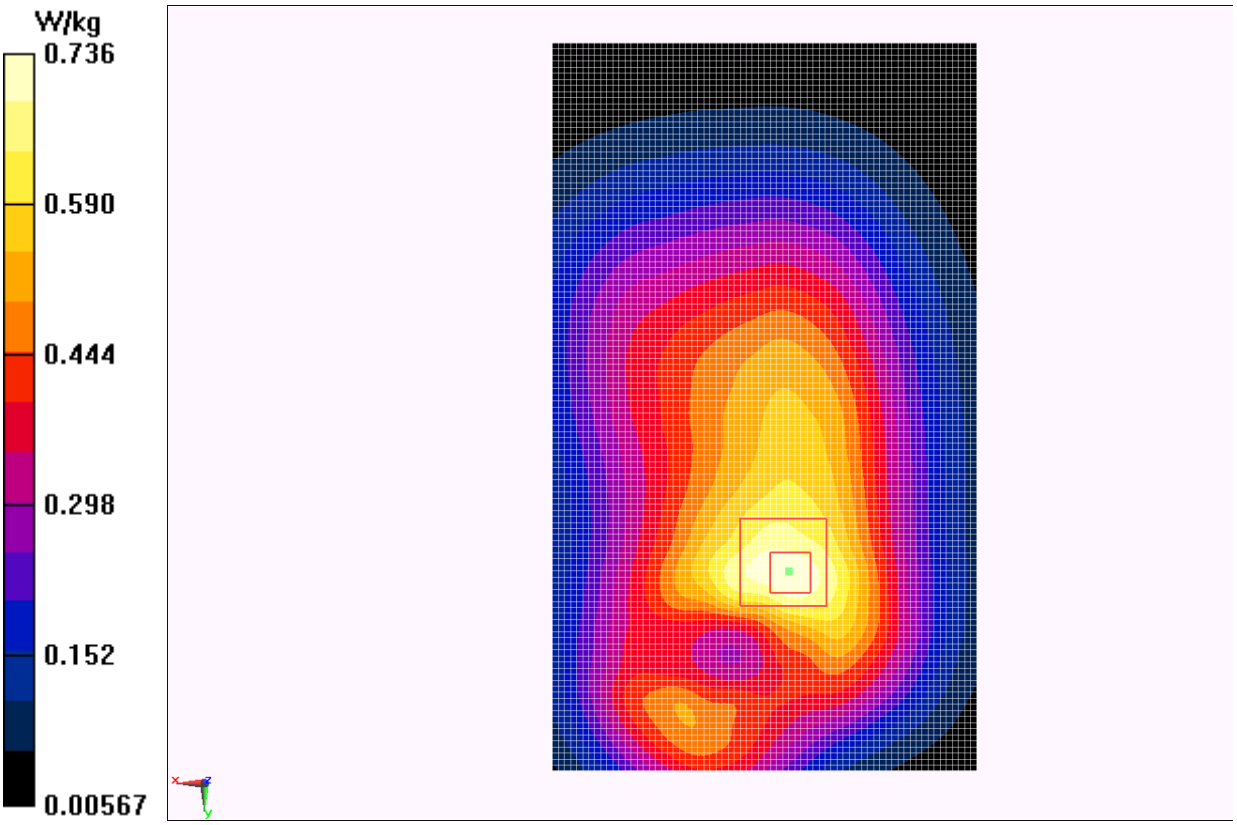

Fig.2-2 850 MHz CH251

1900 Left Cheek High
Date: 2013-12-21
Electronics: DAE4 Sn771
Medium: Head 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.416 mho/m; εr = 39.164; ρ = 1000 kg/m^3
Ambient Temperature: 22.3°C Liquid Temperature: 21.8°C
Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

Cheek High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0866 W/kg

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.281 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.118 W/kg
SAR(1 g) = 0.075 W/kg; SAR(10 g) = 0.049 W/kg
Maximum value of SAR (measured) = 0.0790 W/kg

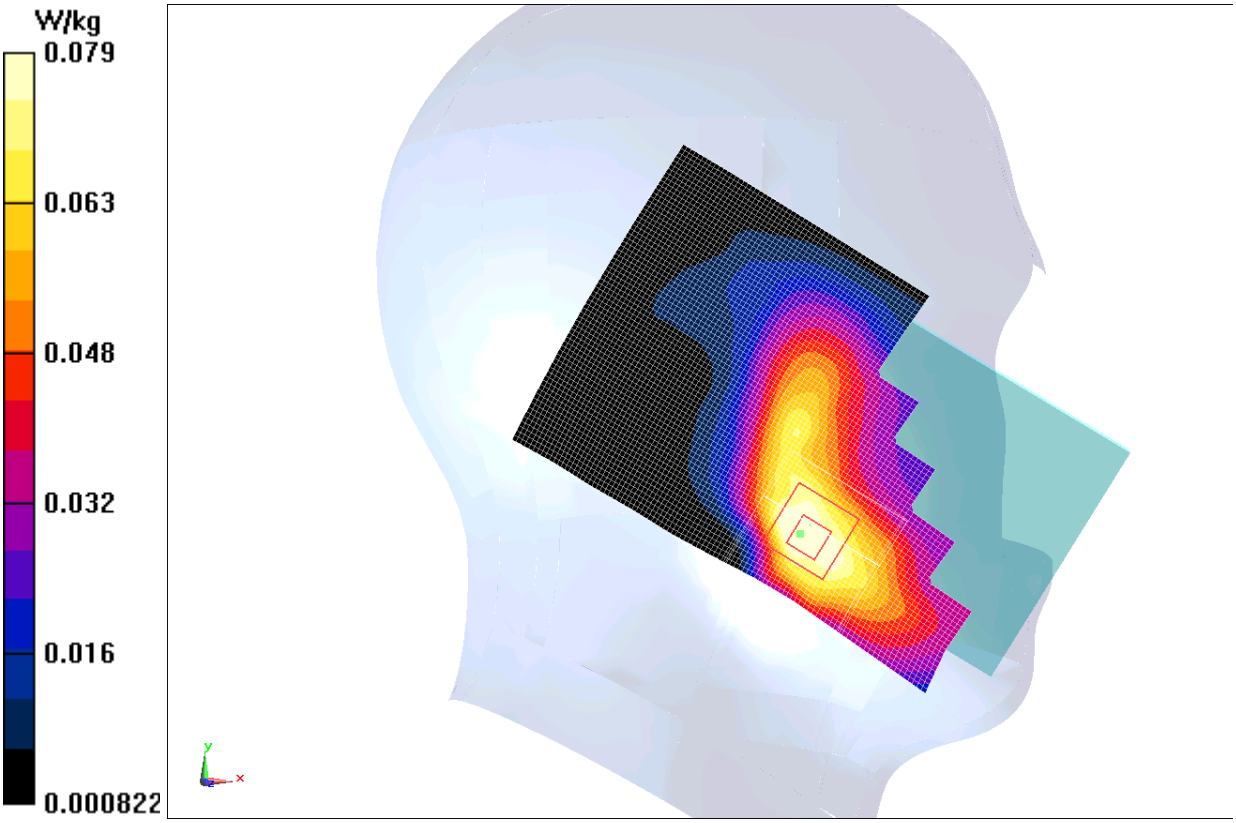

Fig.3 1900 MHz CH810

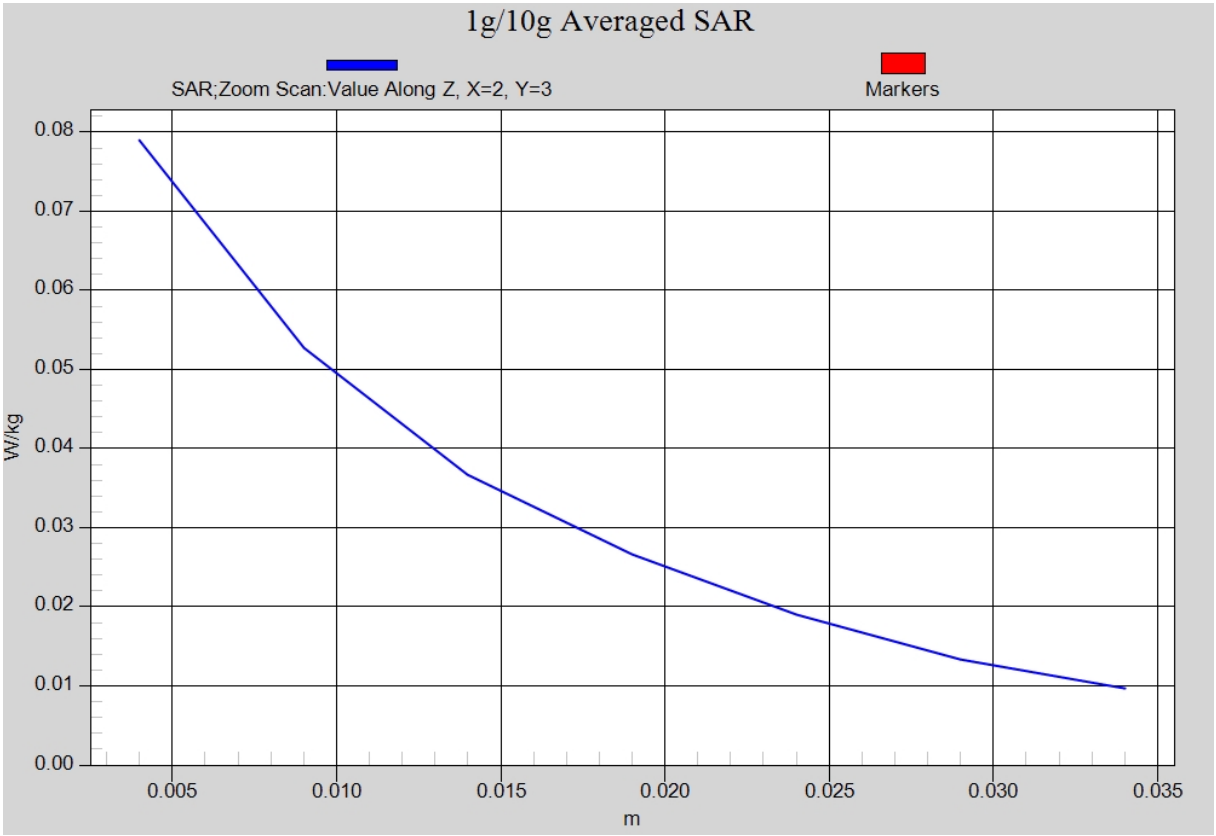

Fig. 3-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Left Cheek High with Flip cover 1
Date: 2013-12-21
Electronics: DAE4 Sn771
Medium: Head 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.416 mho/m; εr = 39.164; ρ = 1000 kg/m^3
Ambient Temperature: 22.3°C Liquid Temperature: 21.8°C
Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

Cheek High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.112 W/kg

Cheek High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.740 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.145 W/kg
SAR(1 g) = 0.073 W/kg; SAR(10 g) = 0.043 W/kg
Maximum value of SAR (measured) = 0.107 W/kg

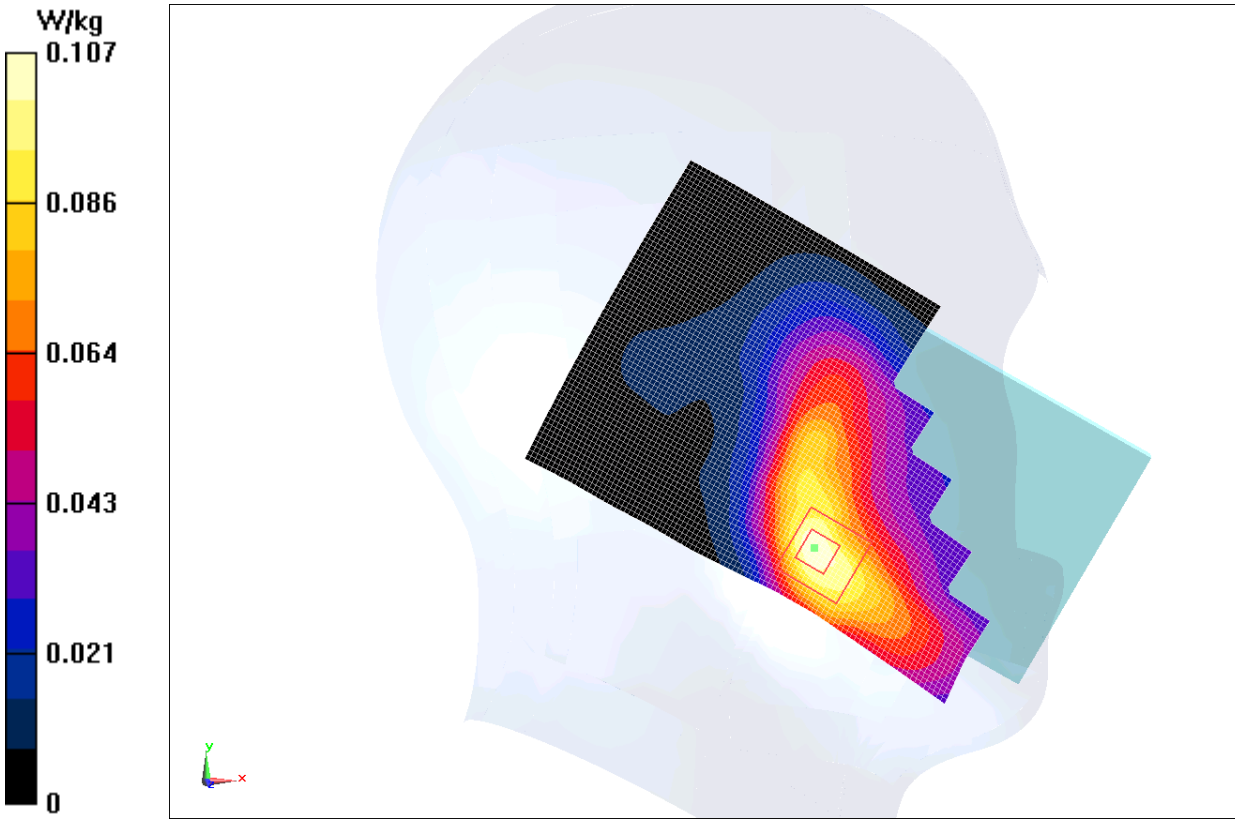

Fig.3-2 1900 MHz CH810

1900 Body Rear High
Date: 2013-12-21
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.497 mho/m; εr = 50.687; ρ = 1000 kg/m^3
Ambient Temperature: 22.3°C Liquid Temperature: 21.8°C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Rear High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.19 W/kg

Rear High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.457 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.77 W/kg
SAR(1 g) = 1.05 W/kg; SAR(10 g) = 0.557 W/kg
Maximum value of SAR (measured) = 1.14 W/kg

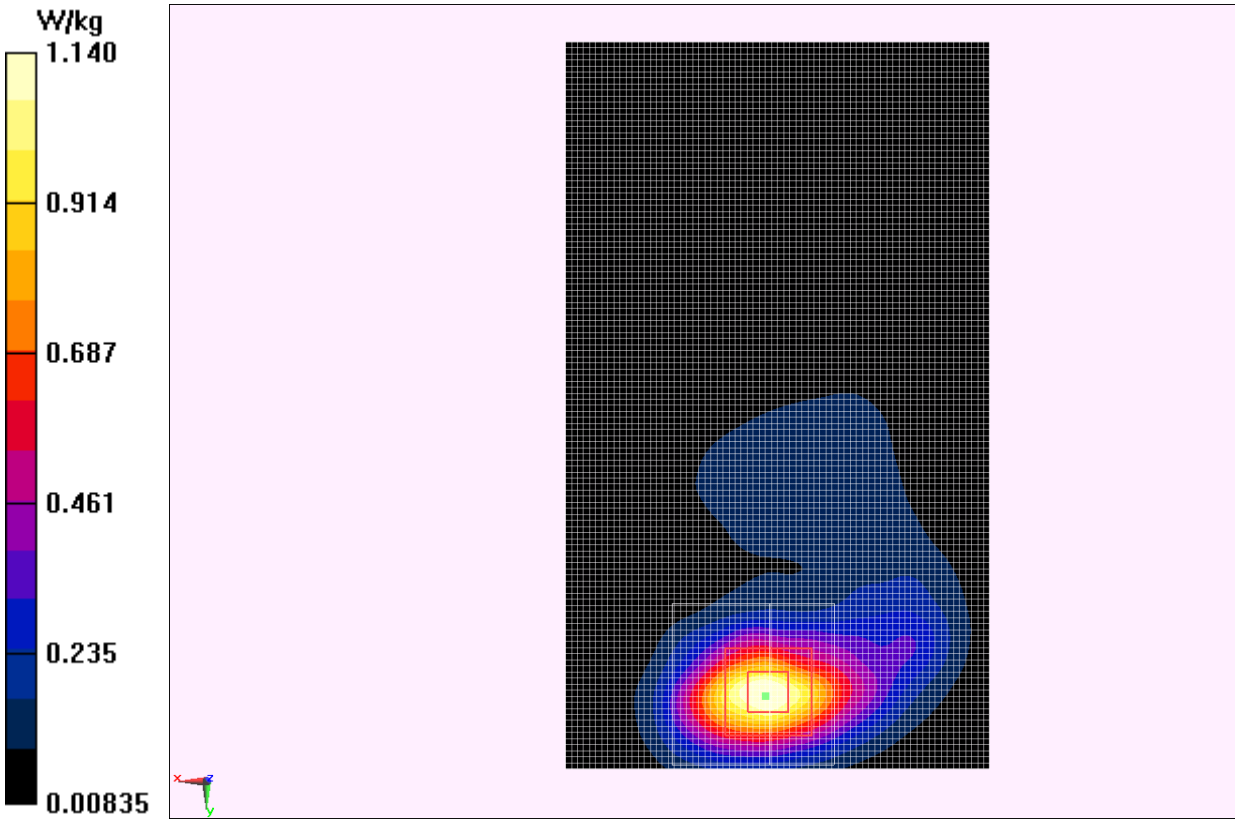

Fig.4 1900 MHz CH810

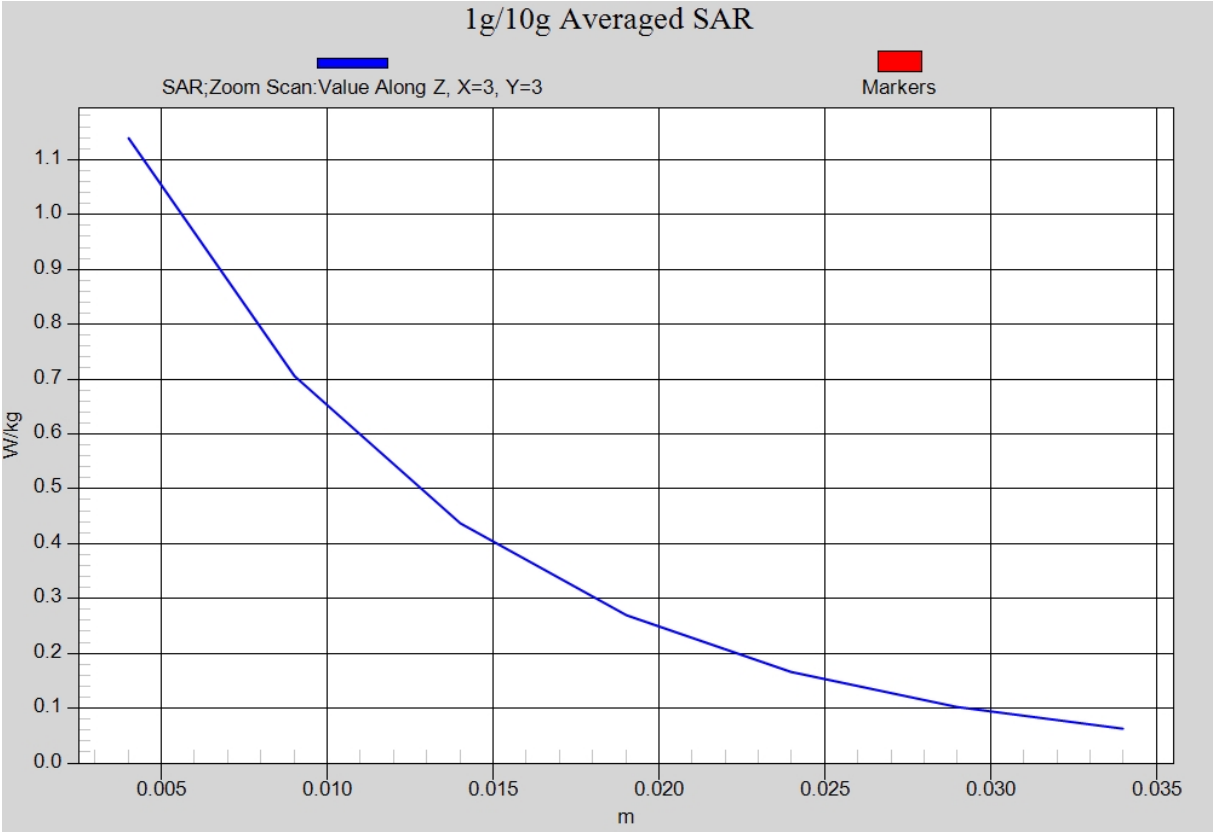

Fig.4-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Body Rear High with Flip cover 1
Date: 2013-12-21
Electronics: DAE4 Sn771
Medium: Body 1900 MHz
Medium parameters used: f = 1910 MHz; σ = 1.497 mho/m; εr = 50.687; ρ = 1000 kg/m^3
Ambient Temperature: 22.3°C Liquid Temperature: 21.8°C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Rear High/Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.06 W/kg

Rear High/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.200 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.64 W/kg
SAR(1 g) = 0.926 W/kg; SAR(10 g) = 0.497 W/kg
Maximum value of SAR (measured) = 1.01 W/kg

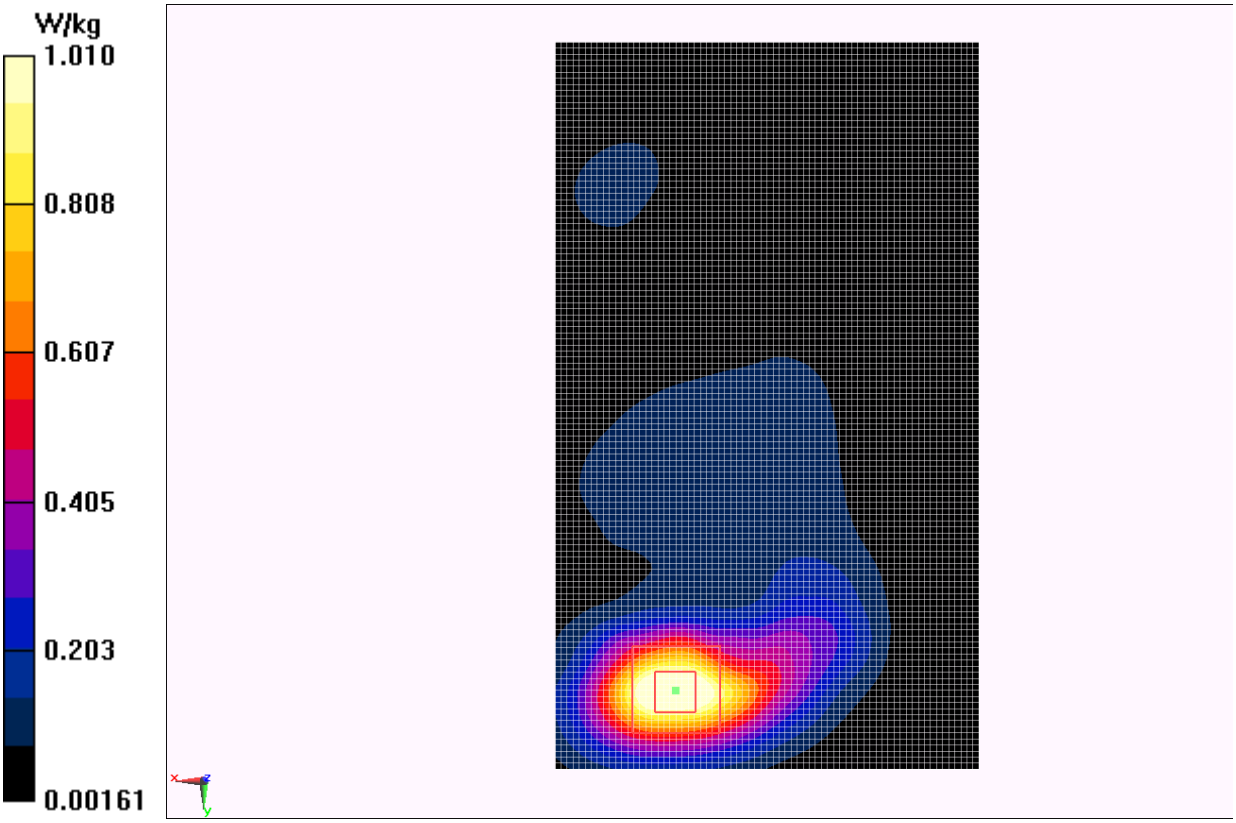

Fig.4-2 1900 MHz CH810