

13 Evaluation of Simultaneous

Table 13.1: The sum of reported SAR values for main antenna and WiFi-2.4G

	Position	GSM/UMTS	WiFi-2.4G	Sum
Maximum reported SAR value for Head	Left hand, Touch cheek	0.48	0.49	0.97
Maximum reported SAR value for Body	Front 10mm	0.79	0.15	0.94
	Rear 10mm	0.74	0.52	1.26

Table 13.2: The sum of reported SAR values for main antenna, WiFi-5G and BT

	Position	GSM/UMTS	WiFi-5G	BT	Sum
Maximum reported SAR value for Head	Left hand, Touch cheek	0.48	0.19	0.37 ^[1]	1.04
Maximum reported SAR value for Body	Front 10mm	0.79	0.02	0.19 ^[1]	1.00
	Rear 10mm	0.74	0.16	0.19 ^[1]	1.09
	Front 15mm	0.43	0.54	0.12 ^[1]	1.09
	Rear 15mm	0.52	0.03	0.12 ^[1]	0.67

[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	9.5	8.91	0.37
Bluetooth	2.441	Body	10	9.5	8.91	0.19
Bluetooth	2.441	Body	15	9.5	8.91	0.12

* - 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 for AP ON and 15mm for AP OFF/speech/WLAN-5G 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:

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

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

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

Table 14.1: Duty Cycle

AP OFF	Duty Cycle
Speech for GSM850/1900	1:8.3
GPRS&EGPRS for GSM850	1:2.67
GPRS&EGPRS for PCS1900	1:2
WCDMA<E&WiFi	1:1
AP ON	Duty Cycle
GPRS&EGPRS for PCS1900	1:8.3
WCDMA<E&WiFi	1:1

14.1 SAR results for Fast SAR

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

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.										
848.8	251	Left	Touch	/	33.26	33.3	0.215	0.22	0.280	0.28	0.04
836.6	190	Left	Touch	/	33.27	33.3	0.178	0.18	0.258	0.26	-0.16
824.2	128	Left	Touch	/	33.30	33.3	0.151	0.15	0.218	0.22	0.06
836.6	190	Left	Tilt	/	33.27	33.3	0.120	0.12	0.172	0.17	-0.06
848.8	251	Right	Touch	Fig.1	33.26	33.3	0.268	0.27	0.354	0.36	-0.14
836.6	190	Right	Touch	/	33.27	33.3	0.230	0.23	0.335	0.34	-0.12
824.2	128	Right	Touch	/	33.30	33.3	0.199	0.20	0.290	0.29	-0.04
836.6	190	Right	Tilt	/	33.27	33.3	0.130	0.13	0.188	0.19	0.02

Table 14.3: SAR Values (GSM 850 MHz Band - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (3)	Front	/	28.53	28.8	0.295	0.31	0.440	0.47	-0.11
848.8	251	GPRS (3)	Rear	Fig.2	28.56	28.8	0.339	0.36	0.545	0.58	-0.02
836.6	190	GPRS (3)	Rear	/	28.53	28.8	0.316	0.34	0.461	0.49	0.06
824.2	128	GPRS (3)	Rear	/	28.58	28.8	0.316	0.33	0.481	0.51	-0.07
836.6	190	GPRS (3)	Left	/	28.53	28.8	0.100	0.11	0.161	0.17	0.00
836.6	190	GPRS (3)	Bottom	/	28.53	28.8	0.139	0.15	0.250	0.27	-0.14
848.8	251	EGPRS (3)	Rear	/	28.59	28.8	0.337	0.35	0.541	0.57	0.05
848.8	251	Speech	Rear MH410c	/	33.26	33.3	0.198	0.20	0.287	0.29	0.06

Note1: The distance between the EUT and the phantom bottom is 10mm for data and 15mm for speech.

Table 14.4: SAR Values (GSM 1900 MHz Band - Head) – AP OFF

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.										
1909.8	810	Left	Touch	Fig.3	30.61	31.0	0.183	0.20	0.294	0.32	-0.17
1880	661	Left	Touch	/	30.71	31.0	0.142	0.15	0.246	0.26	0.12
1850.2	512	Left	Touch	/	30.69	31.0	0.133	0.14	0.231	0.25	0.16
1880	661	Left	Tilt	/	30.71	31.0	0.075	0.08	0.135	0.14	-0.01
1909.8	810	Right	Touch	/	30.61	31.0	0.084	0.09	0.141	0.15	0.00
1880	661	Right	Touch	/	30.71	31.0	0.093	0.10	0.149	0.16	0.16
1850.2	512	Right	Touch	/	30.69	31.0	0.066	0.07	0.112	0.12	0.15
1880	661	Right	Tilt	/	30.71	31.0	0.067	0.07	0.129	0.14	0.14

Table 14.5: SAR Values (GSM 1900 MHz Band - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (4)	Front	Fig.4	24.87	25.0	0.197	0.20	0.335	0.35	-0.02
1880	661	GPRS (4)	Front	/	24.86	25.0	0.163	0.17	0.276	0.29	-0.01
1850.2	512	GPRS (4)	Front	/	24.90	25.0	0.149	0.15	0.257	0.26	0.08
1880	661	GPRS (4)	Rear	/	24.86	25.0	0.127	0.13	0.223	0.23	-0.06
1880	661	GPRS (4)	Left	/	24.86	25.0	0.071	0.07	0.116	0.12	0.01
1880	661	GPRS (4)	Bottom	/	24.86	25.0	0.152	0.16	0.279	0.29	-0.10
1909.8	810	EGPRS (4)	Front	/	24.84	25.0	0.196	0.20	0.333	0.35	0.06
1909.8	810	Speech	Front MH410c	/	30.61	31.0	0.133	0.15	0.250	0.27	-0.02

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

Table 14.6: SAR Values (GSM 1900 MHz Band - Body) – AP On

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (1)	Front	Fig.5	28.72	29.0	0.259	0.28	0.474	0.51	0.02
1880	661	GPRS (1)	Front	/	28.70	29.0	0.248	0.27	0.464	0.50	0.10
1850.2	512	GPRS (1)	Front	/	28.78	29.0	0.216	0.23	0.395	0.42	-0.01
1880	661	GPRS (1)	Rear	/	28.70	29.0	0.189	0.20	0.328	0.35	0.00
1880	661	GPRS (1)	Left	/	28.70	29.0	0.089	0.10	0.149	0.16	-0.16
1880	661	GPRS (1)	Bottom	/	28.70	29.0	0.197	0.21	0.380	0.41	-0.10
1909.8	810	EGPRS (1)	Front	/	28.71	29.0	0.258	0.28	0.471	0.50	-0.13

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

Table 14.7: SAR Values (WCDMA 850 MHz Band - Head) – AP OFF

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.										
846.6	4233	Left	Touch	/	23.95	25.0	0.100	0.13	0.145	0.18	0.15
836.4	4182	Left	Touch	/	23.96	25.0	0.172	0.22	0.221	0.28	-0.02
826.4	4132	Left	Touch	/	23.94	25.0	0.118	0.15	0.170	0.22	0.04
836.4	4182	Left	Tilt	/	23.96	25.0	0.124	0.16	0.178	0.23	0.09
846.6	4233	Right	Touch	/	23.95	25.0	0.225	0.29	0.328	0.42	0.16
836.4	4182	Right	Touch	Fig.6	23.96	25.0	0.267	0.34	0.348	0.44	-0.06
826.4	4132	Right	Touch	/	23.94	25.0	0.192	0.25	0.279	0.36	0.02
836.4	4182	Right	Tilt	/	23.96	25.0	0.138	0.18	0.198	0.25	0.08

Table 14.8: SAR Values (WCDMA 850 MHz Band - Body) – AP OFF

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.									
836.4	4182	Front	/	23.96	25.0	0.322	0.41	0.502	0.64	-0.04
846.6	4233	Rear	Fig.7	23.95	25.0	0.354	0.45	0.584	0.74	-0.04
836.4	4182	Rear	/	23.96	25.0	0.347	0.44	0.533	0.68	0.00
826.4	4132	Rear	/	23.94	25.0	0.319	0.41	0.486	0.62	-0.03
836.4	4182	Left	/	23.96	25.0	0.103	0.13	0.153	0.19	0.03
836.4	4182	Bottom	/	23.96	25.0	0.105	0.13	0.186	0.24	-0.10
846.6	4233	Rear MH410c	/	23.95	25.0	0.221	0.28	0.323	0.41	-0.11

Note1: The distance between the EUT and the phantom bottom is 10mm for data and 15mm for speech.

Table 14.9: SAR Values (WCDMA 1700 MHz Band - Head) – APP OFF

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.										
1752.6	1513	Left	Touch	Fig.8	23.32	24.0	0.247	0.29	0.389	0.45	-0.10
1732.4	1412	Left	Touch	/	23.25	24.0	0.188	0.22	0.321	0.38	0.17
1712.4	1312	Left	Touch	/	23.28	24.0	0.174	0.21	0.290	0.34	0.18
1732.4	1412	Left	Tilt	/	23.25	24.0	0.073	0.09	0.127	0.15	-0.16
1752.6	1513	Right	Touch	/	23.32	24.0	0.100	0.12	0.165	0.19	0.13
1732.4	1412	Right	Touch	/	23.25	24.0	0.117	0.14	0.179	0.21	-0.12
1712.4	1312	Right	Touch	/	23.28	24.0	0.099	0.12	0.162	0.19	0.11
1732.4	1412	Right	Tilt	/	23.25	24.0	0.089	0.11	0.161	0.19	0.16

Table 14.10: SAR Values (WCDMA 1700 MHz Band - Body) – AP OFF

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.									
1752.6	1513	Front	/	23.32	24.0	0.260	0.30	0.424	0.50	0.07
1732.4	1412	Front	Fig.9	23.25	24.0	0.277	0.33	0.441	0.52	-0.02
1712.4	1312	Front	/	23.28	24.0	0.253	0.30	0.423	0.50	-0.12
1732.4	1412	Rear	/	23.25	24.0	0.213	0.25	0.341	0.41	0.01
1732.4	1412	Left	/	23.25	24.0	0.133	0.16	0.216	0.26	0.04
1732.4	1412	Bottom	/	23.25	24.0	0.179	0.21	0.300	0.36	-0.10
1732.4	1412	Rear MH410c	/	23.25	24.0	0.256	0.30	0.425	0.51	0.06

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

Table 14.11: SAR Values (WCDMA 1700 MHz Band - Body) – AP ON

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.									
1752.6	1513	Front	/	23.34	23.5	0.406	0.42	0.709	0.74	-0.06
1732.4	1412	Front	Fig.10	23.39	23.5	0.460	0.47	0.771	0.79	-0.05
1712.4	1312	Front	/	23.26	23.5	0.422	0.45	0.737	0.78	0.00
1732.4	1412	Rear	/	23.39	23.5	0.257	0.26	0.414	0.42	0.01
1732.4	1412	Left	/	23.39	23.5	0.171	0.18	0.286	0.29	0.02
1732.4	1412	Bottom	/	23.39	23.5	0.234	0.24	0.429	0.44	-0.01

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

Table 14.12: SAR Values (WCDMA 1900 MHz Band - Head) – AP OFF

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.										
1907.6	9538	Left	Touch	/	22.26	22.3	0.232	0.23	0.398	0.40	-0.18
1880	9400	Left	Touch	Fig.11	22.24	22.3	0.292	0.30	0.471	0.48	0.12
1852.4	9262	Left	Touch	/	22.13	22.3	0.222	0.23	0.377	0.39	-0.18
1880	9400	Left	Tilt	/	22.24	22.3	0.134	0.14	0.233	0.24	-0.10
1907.6	9538	Right	Touch	/	22.26	22.3	0.131	0.13	0.229	0.23	0.15
1880	9400	Right	Touch	/	22.24	22.3	0.164	0.17	0.263	0.27	0.16
1852.4	9262	Right	Touch	/	22.13	22.3	0.130	0.14	0.219	0.23	0.12
1880	9400	Right	Tilt	/	22.24	22.3	0.155	0.16	0.247	0.25	-0.10

Table 14.13: SAR Values (WCDMA 1900 MHz Band - Body) – AP OFF

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.									
1880	9400	Front	/	22.24	22.3	0.216	0.22	0.366	0.37	0.00
1907.6	9538	Rear	Fig.12	22.26	22.3	0.249	0.25	0.426	0.43	0.01
1880	9400	Rear	/	22.24	22.3	0.240	0.24	0.415	0.42	-0.08
1852.4	9262	Rear	/	22.13	22.3	0.216	0.22	0.371	0.39	-0.06
1880	9400	Left	/	22.24	22.3	0.140	0.14	0.232	0.24	0.06
1880	9400	Bottom	/	22.24	22.3	0.209	0.21	0.378	0.38	0.03
1907.6	9538	Rear MH410c	/	22.26	22.3	0.065	0.07	0.101	0.10	-0.01

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

Table 14.14: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON

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.									
1907.6	9538	Front	Fig.13	19.95	20.3	0.326	0.35	0.581	0.63	0.01
1880	9400	Front	/	20.09	20.3	0.257	0.27	0.487	0.51	0.13
1852.4	9262	Front	/	20.00	20.3	0.270	0.29	0.499	0.53	-0.01
1880	9400	Rear	/	20.09	20.3	0.188	0.20	0.350	0.37	0.16
1880	9400	Left	/	20.09	20.3	0.135	0.14	0.230	0.24	0.05
1880	9400	Bottom	/	20.09	20.3	0.246	0.26	0.464	0.49	-0.15

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

Table 14.15: SAR Values (LTE Band2 - Head) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.											
1880	18900	1RB_Mid	Left	Touch	Fig.14	22.19	22.3	0.234	0.24	0.363	0.37	-0.11
1880	18900	1RB_Mid	Left	Tilt	/	22.19	22.3	0.116	0.12	0.200	0.21	0.10
1880	18900	1RB_Mid	Right	Touch	/	22.19	22.3	0.135	0.14	0.212	0.22	0.19
1880	18900	1RB_Mid	Right	Tilt	/	22.19	22.3	0.152	0.16	0.278	0.29	0.13
1880	18900	50RB_Mid	Left	Touch	/	21.17	21.3	0.153	0.16	0.266	0.27	-0.05
1880	18900	50RB_Mid	Left	Tilt	/	21.17	21.3	0.097	0.10	0.167	0.17	0.08
1880	18900	50RB_Mid	Right	Touch	/	21.17	21.3	0.093	0.10	0.154	0.16	0.10
1880	18900	50RB_Mid	Right	Tilt	/	21.17	21.3	0.122	0.13	0.223	0.23	0.17

Note1: The LTE mode is QPSK_20MHz.

Table 14.16: SAR Values (LTE Band2 - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1880	18900	1RB_Mid	Front	/	22.19	22.3	0.218	0.22	0.373	0.38	-0.02
1880	18900	1RB_Mid	Rear	/	22.19	22.3	0.170	0.17	0.288	0.30	-0.01
1880	18900	1RB_Mid	Left	/	22.19	22.3	0.137	0.14	0.226	0.23	-0.05
1880	18900	1RB_Mid	Bottom	Fig.15	22.19	22.3	0.222	0.23	0.393	0.40	-0.18
1880	18900	50RB_Mid	Front	/	21.17	21.3	0.175	0.18	0.299	0.31	-0.01
1880	18900	50RB_Mid	Rear	/	21.17	21.3	0.134	0.14	0.227	0.23	-0.03
1880	18900	50RB_Mid	Left	/	21.17	21.3	0.110	0.11	0.181	0.19	0.02
1880	18900	50RB_Mid	Bottom	/	21.17	21.3	0.173	0.18	0.312	0.32	-0.12

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.17: SAR Values (LTE Band2 - Body) – AP ON

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1860	18700	1RB_Mid	Front	/	20.06	20.3	0.207	0.22	0.369	0.39	0.06
1860	18700	1RB_Mid	Rear	Fig.16	20.06	20.3	0.309	0.33	0.550	0.58	0.04
1860	18700	1RB_Mid	Left	/	20.06	20.3	0.188	0.20	0.316	0.33	-0.17
1860	18700	1RB_Mid	Bottom	/	20.06	20.3	0.275	0.29	0.539	0.57	-0.09

1900	19100	50RB_Mid	Front	/	20.03	20.3	0.220	0.23	0.391	0.42	0.04
1900	19100	50RB_Mid	Rear	/	20.03	20.3	0.181	0.19	0.320	0.34	0.04
1900	19100	50RB_Mid	Left	/	20.03	20.3	0.165	0.18	0.280	0.30	-0.17
1900	19100	50RB_Mid	Bottom	/	20.03	20.3	0.205	0.22	0.395	0.42	0.00

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.18: SAR Values (LTE Band4 - Head) – AP OFF

Ambient Temperature: 22.2 °C							Liquid Temperature: 21.7 °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)
MHz	Ch.											
1745	20300	1RB_High	Left	Touch	Fig.17	23.37	24.0	0.182	0.21	0.286	0.33	-0.10
1745	20300	1RB_High	Left	Tilt	/	23.37	24.0	0.067	0.08	0.121	0.14	0.10
1745	20300	1RB_High	Right	Touch	/	23.37	24.0	0.080	0.09	0.119	0.14	0.14
1745	20300	1RB_High	Right	Tilt	/	23.37	24.0	0.088	0.10	0.160	0.18	0.13
1732.5	20175	50RB_Low	Left	Touch	/	22.33	23.0	0.108	0.13	0.181	0.21	0.17
1732.5	20175	50RB_Low	Left	Tilt	/	22.33	23.0	0.046	0.05	0.093	0.11	-0.16
1732.5	20175	50RB_Low	Right	Touch	/	22.33	23.0	0.058	0.07	0.093	0.11	0.16
1732.5	20175	50RB_Low	Right	Tilt	/	22.33	23.0	0.053	0.06	0.100	0.12	0.11

Note1: The LTE mode is QPSK_20MHz.

Table 14.19: SAR Values (LTE Band4 - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1745	20300	1RB_High	Front	Fig.18	23.37	24.0	0.215	0.25	0.339	0.39	-0.04
1745	20300	1RB_High	Rear	/	23.37	24.0	0.168	0.19	0.279	0.32	0.04
1745	20300	1RB_High	Left	/	23.37	24.0	0.096	0.11	0.156	0.18	0.05
1745	20300	1RB_High	Bottom	/	23.37	24.0	0.106	0.12	0.182	0.21	0.15
1732.5	20175	50RB_Low	Front	/	22.33	23.0	0.144	0.17	0.239	0.28	0.12
1732.5	20175	50RB_Low	Rear	/	22.33	23.0	0.118	0.14	0.198	0.23	-0.05
1732.5	20175	50RB_Low	Left	/	22.33	23.0	0.111	0.13	0.183	0.21	-0.01
1732.5	20175	50RB_Low	Bottom	/	22.33	23.0	0.089	0.10	0.151	0.18	0.02

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.20: SAR Values (LTE Band4 - Body) – AP ON

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1720	20050	1RB_High	Front	/	23.04	23.5	0.320	0.36	0.558	0.62	-0.04
1720	20050	1RB_High	Rear	/	23.04	23.5	0.227	0.25	0.392	0.44	0.14
1720	20050	1RB_High	Left	/	23.04	23.5	0.138	0.15	0.231	0.26	-0.01
1720	20050	1RB_High	Bottom	/	23.04	23.5	0.169	0.19	0.303	0.34	-0.16
1745	20300	50RB_High	Front	Fig.19	21.99	23.5	0.270	0.38	0.468	0.66	-0.04
1745	20300	50RB_High	Rear	/	21.99	23.5	0.186	0.26	0.319	0.45	0.14
1745	20300	50RB_High	Left	/	21.99	23.5	0.113	0.16	0.188	0.27	0.08
1745	20300	50RB_High	Bottom	/	21.99	23.5	0.128	0.18	0.267	0.38	-0.04

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.21: SAR Values (LTE Band17 - Head) – AP OFF

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °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)
MHz	Ch.											
709	23780	1RB_Low	Left	Touch	/	23.38	24.0	0.067	0.08	0.080	0.09	-0.10
709	23780	1RB_Low	Left	Tilt	/	23.38	24.0	0.030	0.03	0.043	0.05	0.17
709	23780	1RB_Low	Right	Touch	Fig.20	23.38	24.0	0.082	0.09	0.102	0.12	0.08
709	23780	1RB_Low	Right	Tilt	/	23.38	24.0	0.034	0.04	0.048	0.05	0.12
710	23790	25RB_Low	Left	Touch	/	22.39	23.0	0.043	0.05	0.061	0.07	0.14
710	23790	25RB_Low	Left	Tilt	/	22.39	23.0	0.024	0.03	0.033	0.04	0.19
710	23790	25RB_Low	Right	Touch	/	22.39	23.0	0.053	0.06	0.076	0.09	0.15
710	23790	25RB_Low	Right	Tilt	/	22.39	23.0	0.026	0.03	0.037	0.04	0.17

Note1: The LTE mode is QPSK_10MHz.

Table 14.22: SAR Values (LTE Band17 - Body) – AP OFF

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °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)
MHz	Ch.										
709	23780	1RB_Low	Front	/	23.38	24.0	0.094	0.11	0.132	0.15	-0.02
709	23780	1RB_Low	Rear	Fig.21	23.38	24.0	0.140	0.16	0.172	0.20	-0.17
709	23780	1RB_Low	Left	/	23.38	24.0	0.068	0.08	0.099	0.11	-0.12
709	23780	1RB_Low	Bottom	/	23.38	24.0	0.019	0.02	0.031	0.04	-0.14
710	23790	25RB_Low	Front	/	22.39	23.0	0.075	0.09	0.104	0.12	-0.02

710	23790	25RB_Low	Rear	/	22.39	23.0	0.097	0.11	0.135	0.16	-0.01
710	23790	25RB_Low	Left	/	22.39	23.0	0.054	0.06	0.079	0.09	-0.18
710	23790	25RB_Low	Bottom	/	22.39	23.0	0.015	0.02	0.026	0.03	-0.12

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.23: SAR Values (Wi-Fi 802.11b - Head) – AP OFF

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.										
2462	11	Left	Touch	/	19.65	20.0	0.162	0.18	0.331	0.36	0.10
2437	6	Left	Touch	/	19.90	20.0	0.177	0.18	0.360	0.37	-0.04
2412	1	Left	Touch	Fig.22	19.64	20.0	0.208	0.23	0.449	0.49	0.16
2437	6	Left	Tilt	/	19.90	20.0	0.098	0.10	0.192	0.20	0.15
2437	6	Right	Touch	/	19.90	20.0	0.099	0.10	0.191	0.20	0.12
2437	6	Right	Tilt	/	19.90	20.0	0.084	0.09	0.170	0.17	0.11

Table 14.24: SAR Values (Wi-Fi 802.11b - 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.									
2437	6	Front	/	19.90	20.0	0.077	0.08	0.145	0.15	0.11
2462	11	Rear	/	19.65	20.0	0.182	0.20	0.360	0.39	0.11
2437	6	Rear	Fig.23	19.90	20.0	0.259	0.27	0.508	0.52	-0.15
2412	1	Rear	/	19.64	20.0	0.233	0.25	0.457	0.50	-0.12
2437	6	Right	/	19.90	20.0	0.122	0.12	0.250	0.26	-0.12
2437	6	Top	/	19.90	20.0	0.044	0.05	0.080	0.08	0.13

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

Table 14.25: SAR Values (Wi-Fi 802.11a - Head) – AP OFF

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.										
5240	48	Left	Touch	Fig.24	15.36	16.0	0.054	0.06	0.160	0.19	0.00
5240	48	Left	Tilt	/	15.36	16.0	0.014	0.02	0.038	0.04	0.13
5240	48	Right	Touch	/	15.36	16.0	0.049	0.06	0.128	0.15	0.18
5240	48	Right	Tilt	/	15.36	16.0	0.015	0.02	0.040	0.05	0.00
5260	52	Left	Touch	/	15.40	16.0	0.043	0.05	0.122	0.14	0.17
5260	52	Left	Tilt	/	15.40	16.0	0.013	0.01	0.039	0.04	0.00
5260	52	Right	Touch	/	15.40	16.0	0.026	0.03	0.089	0.10	0.13

5260	52	Right	Tilt	/	15.40	16.0	0.007	0.01	0.034	0.04	0.00
5540	108	Left	Touch	/	15.82	16.0	0.052	0.05	0.152	0.16	0.17
5540	108	Left	Tilt	/	15.82	16.0	0.017	0.02	0.046	0.05	0.00
5540	108	Right	Touch	/	15.82	16.0	0.049	0.05	0.146	0.15	0.18
5540	108	Right	Tilt	/	15.82	16.0	0.016	0.02	0.039	0.04	0.00
5785	157	Left	Touch	/	15.52	16.0	0.051	0.06	0.152	0.17	0.00
5785	157	Left	Tilt	/	15.52	16.0	0.015	0.02	0.042	0.05	0.00
5785	157	Right	Touch	/	15.52	16.0	0.047	0.05	0.127	0.14	0.00
5785	157	Right	Tilt	/	15.52	16.0	0.009	0.01	0.030	0.03	0.00

Table 14.26: SAR Values (Wi-Fi 802.11ac 80M - Head) – AP OFF

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.										
5210	42	Left	Touch	/	13.09	14.0	0.029	0.04	0.094	0.12	0.00
5290	58	Left	Touch	/	13.19	14.0	0.025	0.03	0.077	0.09	0.15
5530	106	Left	Touch	/	13.36	14.0	0.035	0.04	0.114	0.13	0.17
5610	122	Left	Touch	/	13.23	14.0	0.029	0.03	0.088	0.11	0.10
5775	155	Left	Touch	/	13.67	14.0	0.025	0.03	0.079	0.09	0.16

Table 14.27: SAR Values (Wi-Fi 802.11a - 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.									
5240	48	Front	/	15.36	16.0	0.002	0.00	0.011	0.01	0.00
5240	48	Rear	/	15.36	16.0	0.158	0.18	0.448	0.52	0.13
5240	48	Right	/	15.36	16.0	0.086	0.10	0.226	0.26	0.12
5240	48	Top	/	15.36	16.0	0.004	0.00	0.015	0.02	0.00
5260	52	Front	/	15.40	16.0	0.002	0.00	0.011	0.01	0.00
5260	52	Rear	Fig.25	15.40	16.0	0.166	0.19	0.468	0.54	0.12
5260	52	Right	/	15.40	16.0	0.087	0.10	0.219	0.25	-0.16
5260	52	Top	/	15.40	16.0	0.004	0.00	0.014	0.02	0.00
5540	108	Front	/	15.82	16.0	0.003	0.00	0.018	0.02	0.10
5540	108	Rear	/	15.82	16.0	0.143	0.15	0.417	0.43	0.10
5540	108	Right	/	15.82	16.0	0.105	0.11	0.266	0.28	0.13
5540	108	Top	/	15.82	16.0	0.005	0.01	0.018	0.02	-0.10
5785	157	Front	/	15.52	16.0	0.005	0.01	0.027	0.03	0.00
5785	157	Rear	/	15.52	16.0	0.101	0.11	0.277	0.31	0.15
5785	157	Right	/	15.52	16.0	0.065	0.07	0.162	0.18	0.11
5785	157	Top	/	15.52	16.0	0.003	0.00	0.009	0.01	0.00

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

Table 14.28: SAR Values (Wi-Fi 802.11a - 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.									
5785	157	Front	/	12.66	13.0	0.005	0.01	0.015	0.02	0.00
5785	157	Rear	/	12.66	13.0	0.048	0.05	0.148	0.16	0.16
5785	157	Right	/	12.66	13.0	0.040	0.04	0.110	0.12	0.16
5785	157	Top	/	12.66	13.0	0.002	0.00	0.007	0.01	0.10

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

Table 14.29: SAR Values (Wi-Fi 802.11ac 80M - 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.									
5210	42	Rear	/	13.09	14.0	0.090	0.11	0.261	0.32	-0.12
5290	58	Rear	/	13.19	14.0	0.075	0.09	0.222	0.27	0.00
5530	106	Rear	/	13.36	14.0	0.085	0.10	0.250	0.29	0.00
5610	122	Rear	/	13.23	14.0	0.084	0.10	0.241	0.29	0.00
5775	155	Rear	/	13.67	14.0	0.092	0.10	0.251	0.27	0.17

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

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 14.30: SAR Values (GSM 850 MHz Band - Head) – AP OFF

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.										
848.8	251	Right	Touch	Fig.1	33.26	33.3	0.268	0.27	0.354	0.36	-0.14

Table 14.31: SAR Values (GSM 850 MHz Band - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (3)	Rear	Fig.2	28.56	28.8	0.339	0.36	0.545	0.58	-0.02

Note1: The distance between the EUT and the phantom bottom is 10mm for data and 15mm for speech.

Table 14.32: SAR Values (GSM 1900 MHz Band - Head) – AP OFF

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.										
1909.8	810	Left	Touch	Fig.3	30.61	31.0	0.183	0.20	0.294	0.32	-0.17

Table 14.33: SAR Values (GSM 1900 MHz Band - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (4)	Front	Fig.4	24.87	25.0	0.197	0.20	0.335	0.35	-0.02

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

Table 14.34: SAR Values (GSM 1900 MHz Band - Body) – AP On

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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 (1)	Front	Fig.5	28.72	29.0	0.259	0.28	0.474	0.51	0.02

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

Table 14.35: SAR Values (WCDMA 850 MHz Band - Head) – AP OFF

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.										
836.4	4182	Right	Touch	Fig.6	23.96	25.0	0.267	0.34	0.348	0.44	-0.06

Table 14.36: SAR Values (WCDMA 850 MHz Band - Body) – AP OFF

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.									
846.6	4233	Rear	Fig.7	23.95	25.0	0.354	0.45	0.584	0.74	-0.04

Note1: The distance between the EUT and the phantom bottom is 10mm for data and 15mm for speech.

Table 14.37: SAR Values (WCDMA 1700 MHz Band - Head) – APP OFF

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.										
1752.6	1513	Left	Touch	Fig.8	23.32	24.0	0.247	0.29	0.389	0.45	-0.10

Table 14.38: SAR Values (WCDMA 1700 MHz Band - Body) – AP OFF

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.									
1732.4	1412	Front	Fig.9	23.25	24.0	0.277	0.33	0.441	0.52	-0.02

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

Table 14.39: SAR Values (WCDMA 1700 MHz Band - Body) – AP ON

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.									
1732.4	1412	Front	Fig.10	23.39	23.5	0.460	0.47	0.771	0.79	-0.05

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

Table 14.40: SAR Values (WCDMA 1900 MHz Band - Head) – AP OFF

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.										
1880	9400	Left	Touch	Fig.11	22.24	22.3	0.292	0.30	0.471	0.48	0.12

Table 14.41: SAR Values (WCDMA 1900 MHz Band - Body) – AP OFF

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.									
1907.6	9538	Rear	Fig.12	22.26	22.3	0.249	0.25	0.426	0.43	0.01

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

Table 14.42: SAR Values (WCDMA 1900 MHz Band - Body) – AP ON

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.									
1907.6	9538	Front	Fig.13	19.95	20.3	0.326	0.35	0.581	0.63	0.01

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

Table 14.43: SAR Values (LTE Band2 - Head) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.											
1880	18900	1RB_Mid	Left	Touch	Fig.14	22.19	22.3	0.234	0.24	0.363	0.37	-0.11

Note1: The LTE mode is QPSK_20MHz.

Table 14.44: SAR Values (LTE Band2 - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1880	18900	1RB_Mid	Bottom	Fig.15	22.19	22.3	0.222	0.23	0.393	0.40	-0.18

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.45: SAR Values (LTE Band2 - Body) – AP ON

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1860	18700	1RB_Mid	Rear	Fig.16	20.06	20.3	0.309	0.33	0.550	0.58	0.04

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.46: SAR Values (LTE Band4 - Head) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.											
1745	20300	1RB_High	Left	Touch	Fig.17	23.37	24.0	0.182	0.21	0.286	0.33	-0.10

Note1: The LTE mode is QPSK_20MHz.

Table 14.47: SAR Values (LTE Band4 - Body) – AP OFF

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1745	20300	1RB_High	Front	Fig.18	23.37	24.0	0.215	0.25	0.339	0.39	-0.04

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.48: SAR Values (LTE Band4 - Body) – AP ON

Ambient Temperature: 22.2 °C						Liquid Temperature: 21.7 °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)
MHz	Ch.										
1745	20300	50RB_High	Front	Fig.19	21.99	23.5	0.270	0.38	0.468	0.66	-0.04

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.49: SAR Values (LTE Band17 - Head) – AP OFF

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °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)
MHz	Ch.											
709	23780	1RB_Low	Right	Touch	Fig.20	23.38	24.0	0.082	0.09	0.102	0.12	0.08

Note1: The LTE mode is QPSK_10MHz.

Table 14.50: SAR Values (LTE Band17 - Body) – AP OFF

Ambient Temperature: 22.3 °C						Liquid Temperature: 21.8 °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)
MHz	Ch.										
709	23780	1RB_Low	Rear	Fig.21	23.38	24.0	0.140	0.16	0.172	0.20	-0.17

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.51: SAR Values (Wi-Fi 802.11b - Head) – AP OFF

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.										
2412	1	Left	Touch	Fig.22	19.64	20.0	0.208	0.23	0.449	0.49	0.16

Table 14.52: SAR Values (Wi-Fi 802.11b - 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.									
2437	6	Rear	Fig.23	19.90	20.0	0.259	0.27	0.508	0.52	-0.15

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

Table 14.53: SAR Values (Wi-Fi 802.11a - Head) – AP OFF

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.										
5240	48	Left	Touch	Fig.24	15.36	16.0	0.054	0.06	0.160	0.19	0.00

Table 14.54: SAR Values (Wi-Fi 802.11a - 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.									
5260	52	Rear	Fig.25	15.40	16.0	0.166	0.19	0.468	0.54	0.12

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

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 .

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

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, 2014	One year
02	Power meter	NRVD	102083	September 11, 2013	One year
03	Power sensor	NRV-Z5	100542		
04	Signal Generator	E4438C	MY49070393	November 08, 2013	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	E5515C	MY50263375	January 30, 2014	One year
07	BTS	CMW500	129942	March 12, 2013	One year
08	E-field Probe	SPEAG EX3DV4	3846	September 03, 2013	One year
09	DAE	SPEAG DAE4	771	November 12, 2013	One year
10	Dipole Validation Kit	SPEAG D750V3	1017	August 29, 2013	One year
11	Dipole Validation Kit	SPEAG D835V2	443	August 29, 2013	One year
12	Dipole Validation Kit	SPEAG D1750V2	1003	September 03, 2013	One year
13	Dipole Validation Kit	SPEAG D1900V2	5d101	July 09, 2013	One year
14	Dipole Validation Kit	SPEAG D2450V2	853	July 08, 2013	One year
15	Dipole Validation Kit	SPEAG D5GHzV2	1060	July 03, 2013	One year

END OF REPORT BODY

ANNEX A Graph Results

850 Right Cheek High – AP OFF

Date: 2014-2-7

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.937$ mho/m; $\epsilon_r = 40.718$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°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) = 0.382 W/kg

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

Reference Value = 6.774 V/m; Power Drift = -0.14 dB

Peak SAR (extrapolated) = 0.454 W/kg

SAR(1 g) = 0.354 W/kg; SAR(10 g) = 0.268 W/kg

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

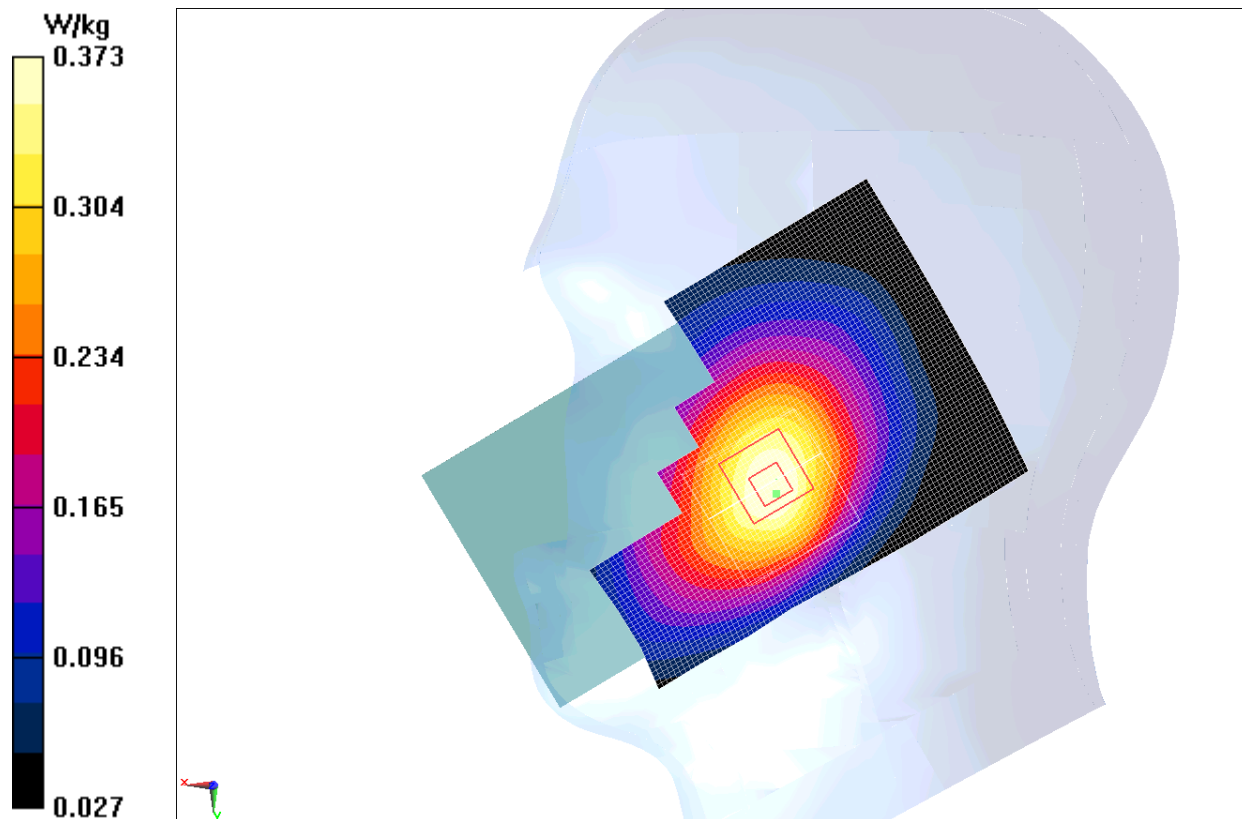


Fig.1 850MHz CH251

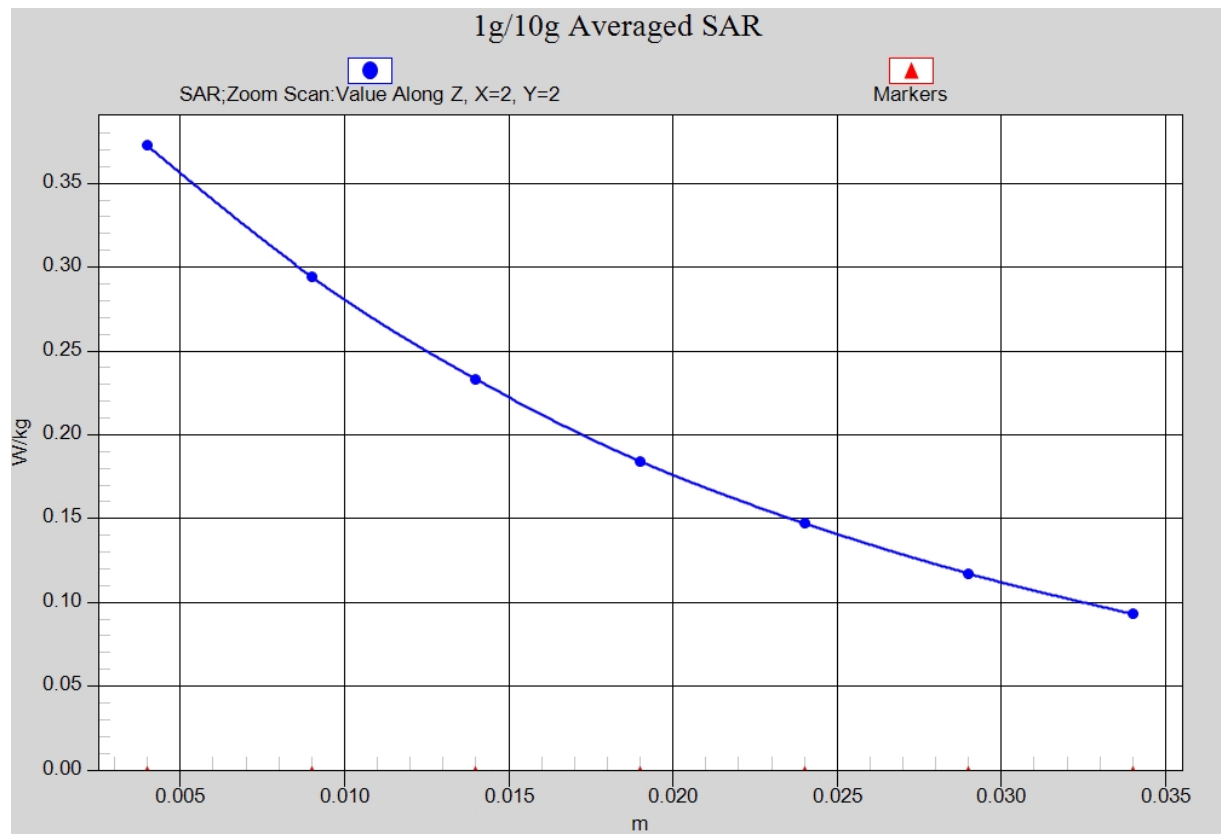


Fig. 1-1 Z-Scan at power reference point (850 MHz CH251)

850 Body Rear High – AP OFF

Date: 2014-2-7

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 848.8$ MHz; $\sigma = 0.986$ mho/m; $\epsilon_r = 56.199$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

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

Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

Rear High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.571 W/kg

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

Reference Value = 21.796 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.848 W/kg

SAR(1 g) = 0.545 W/kg; SAR(10 g) = 0.339 W/kg

Maximum value of SAR (measured) = 0.584 W/kg

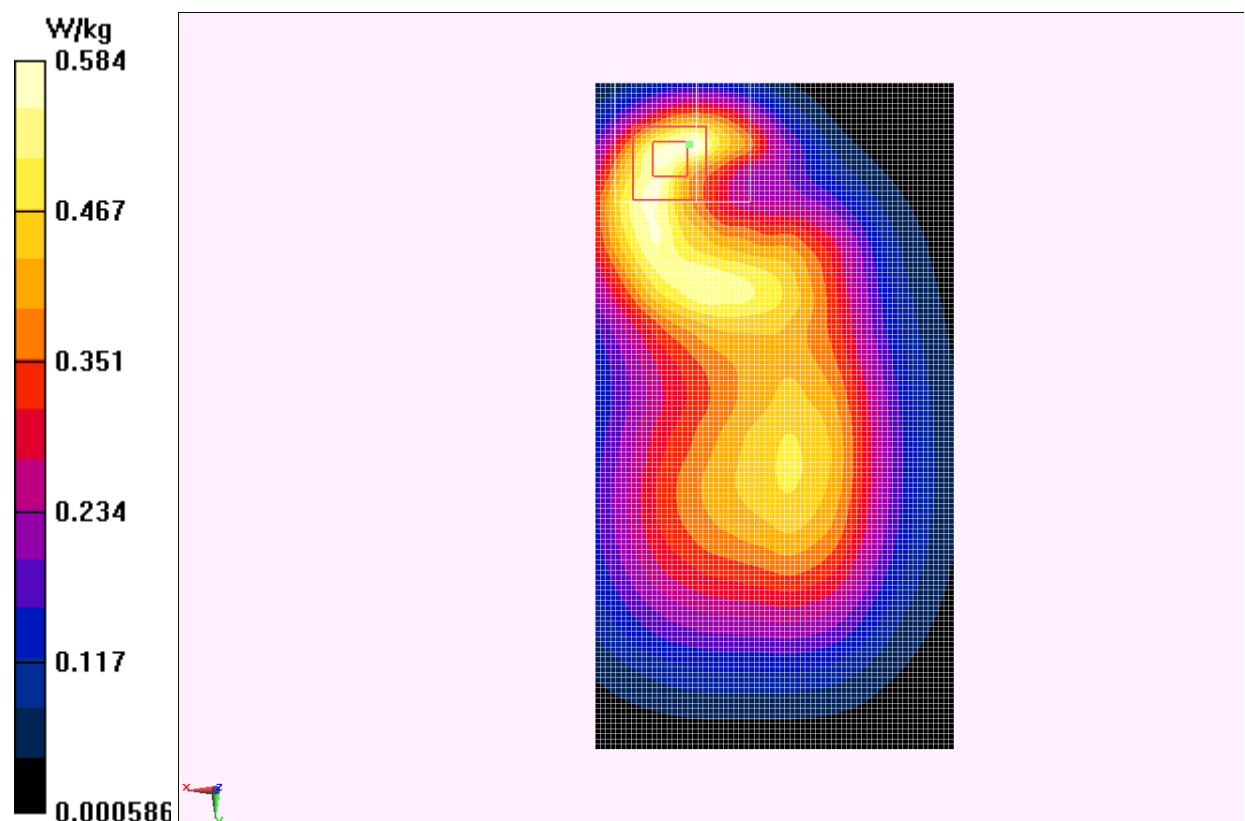


Fig.2 850 MHz CH251

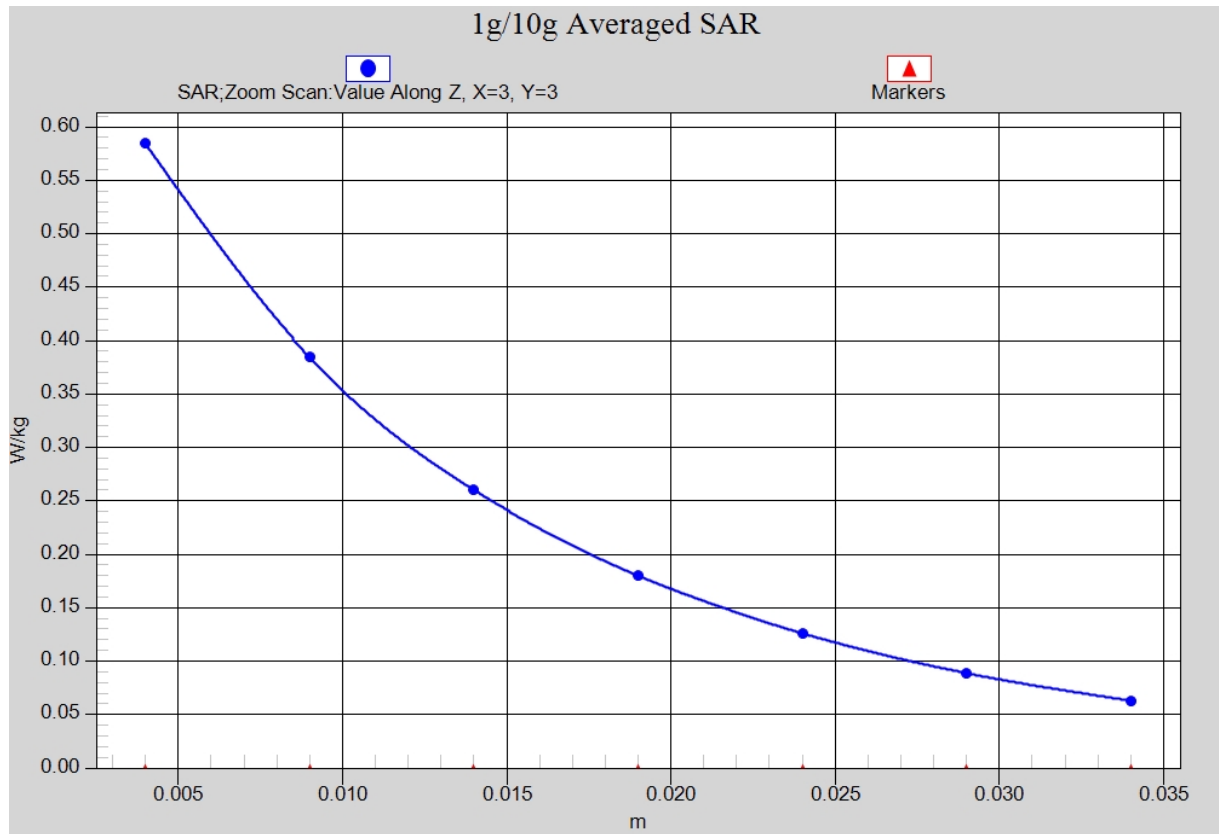


Fig. 2-1 Z-Scan at power reference point (850 MHz CH251)

1900 Left Cheek High – AP OFF

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.421$ mho/m; $\epsilon_r = 39.514$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°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 (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.389 W/kg

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

Reference Value = 4.776 V/m; Power Drift = -0.17 dB

Peak SAR (extrapolated) = 0.413 W/kg

SAR(1 g) = 0.294 W/kg; SAR(10 g) = 0.183 W/kg

Maximum value of SAR (measured) = 0.318 W/kg

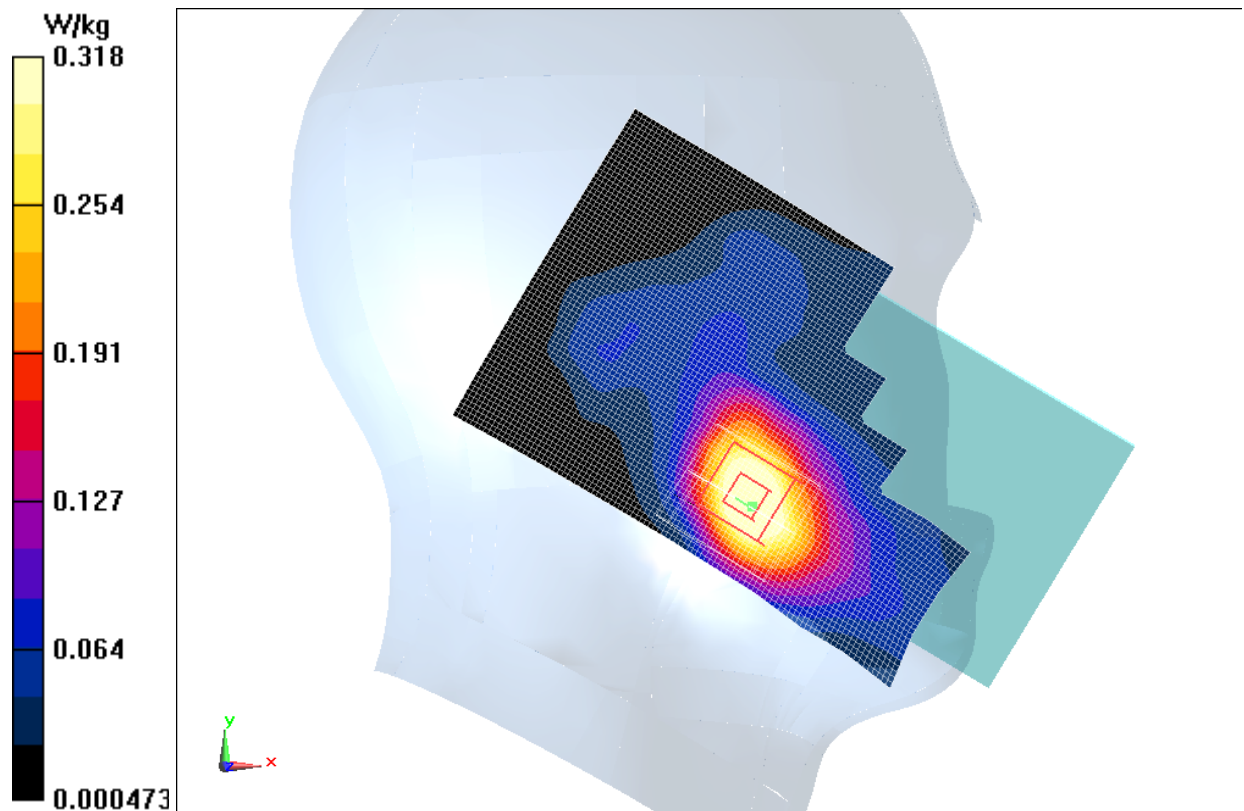


Fig.3 1900 MHz CH810

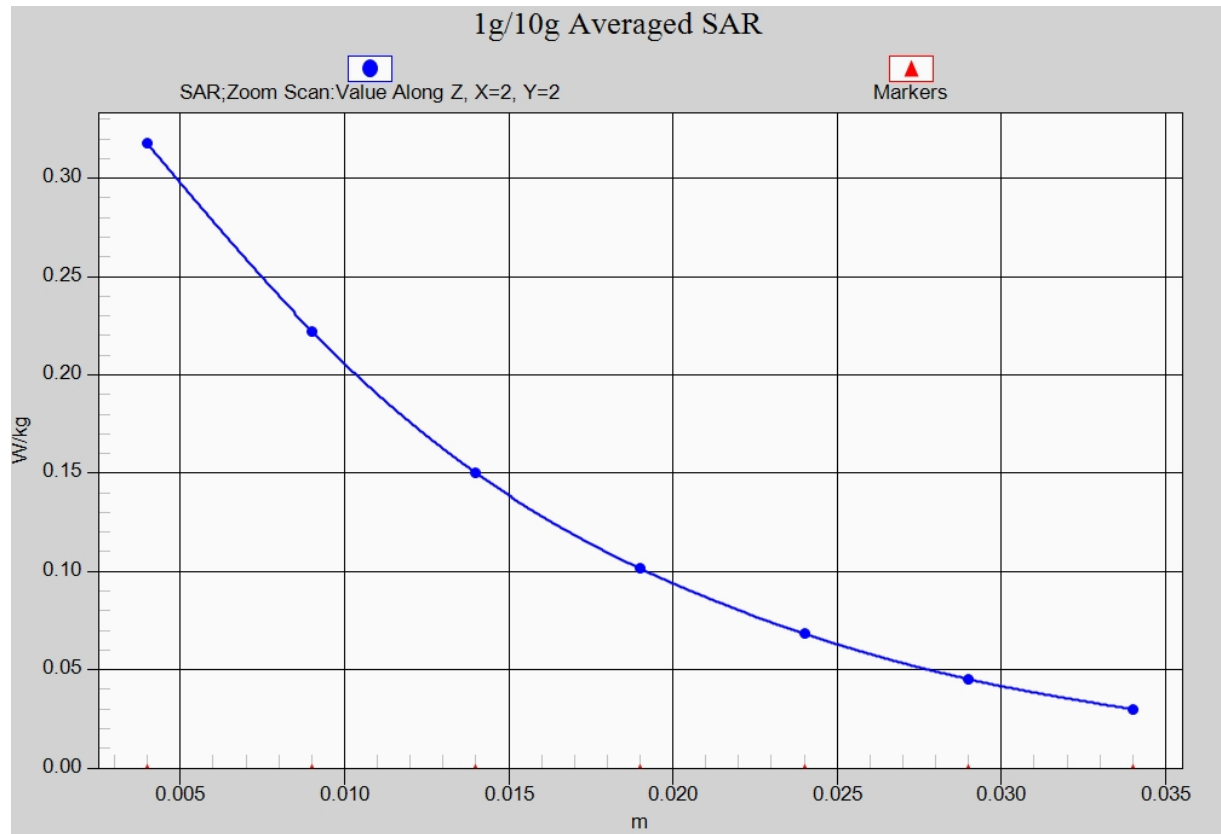


Fig. 3-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Body Front High – AP OFF

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.502$ mho/m; $\epsilon_r = 52.027$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:2

Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Front High/Area Scan (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.375 W/kg

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

Reference Value = 8.386 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.558 W/kg

SAR(1 g) = 0.335 W/kg; SAR(10 g) = 0.197 W/kg

Maximum value of SAR (measured) = 0.390 W/kg

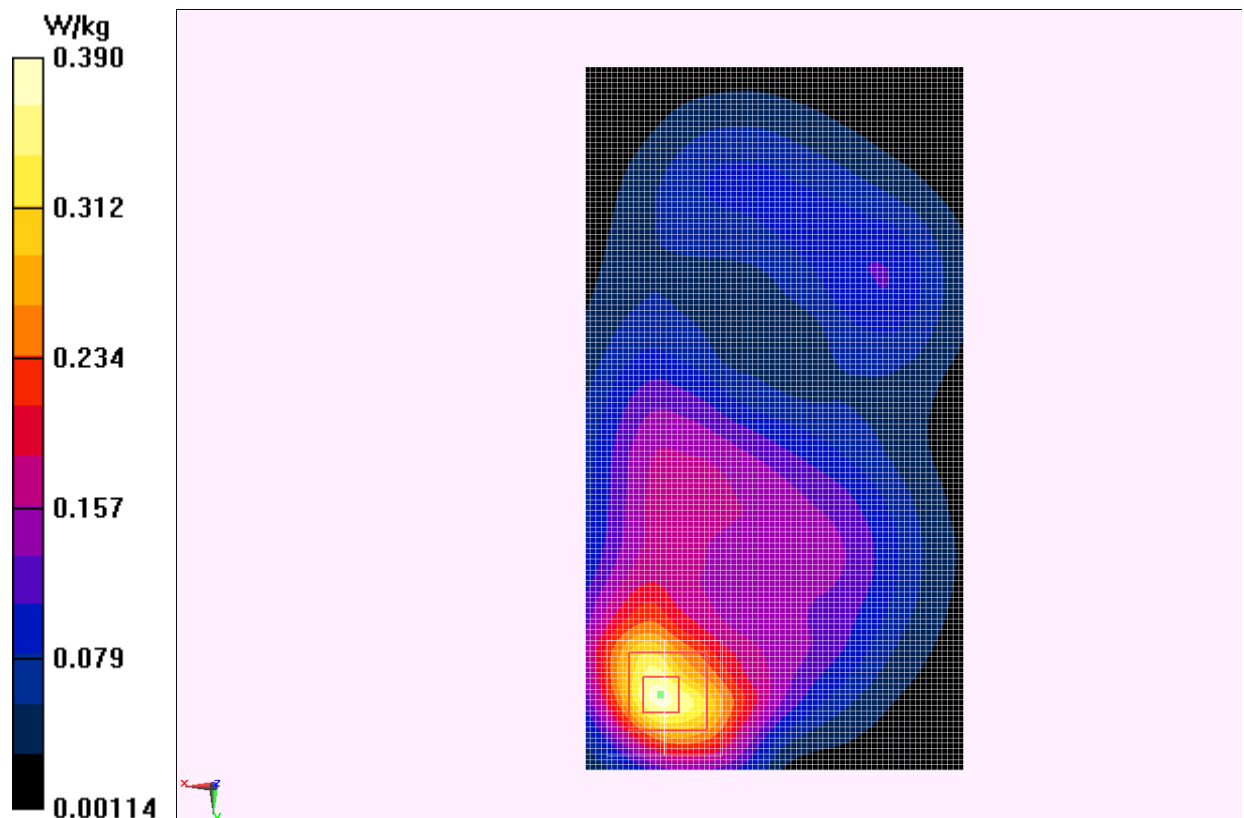


Fig.4 1900 MHz CH810

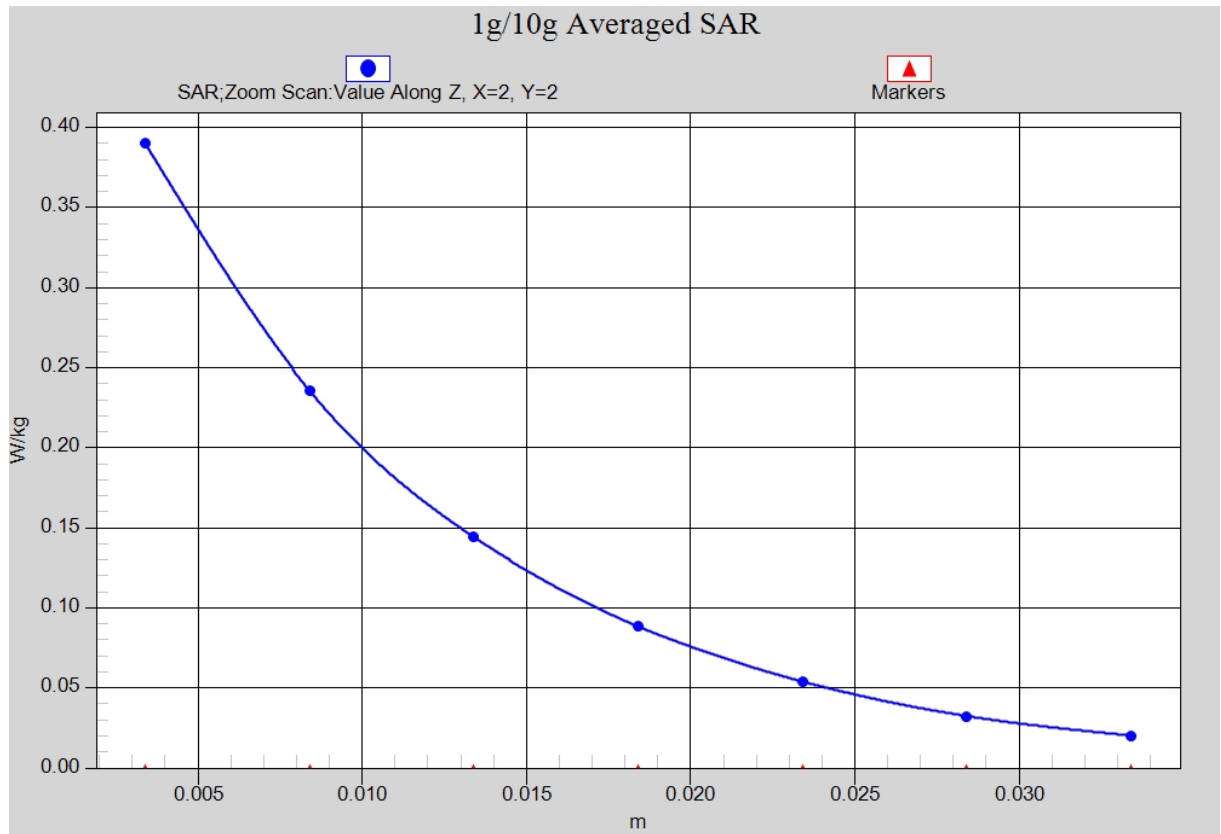


Fig.4-1 Z-Scan at power reference point (1900 MHz CH810)

1900 Body Front High – AP ON

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used: $f = 1910$ MHz; $\sigma = 1.502$ mho/m; $\epsilon_r = 52.027$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Front High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.558 W/kg

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

Reference Value = 10.088 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 0.848 W/kg

SAR(1 g) = 0.474 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.558 W/kg

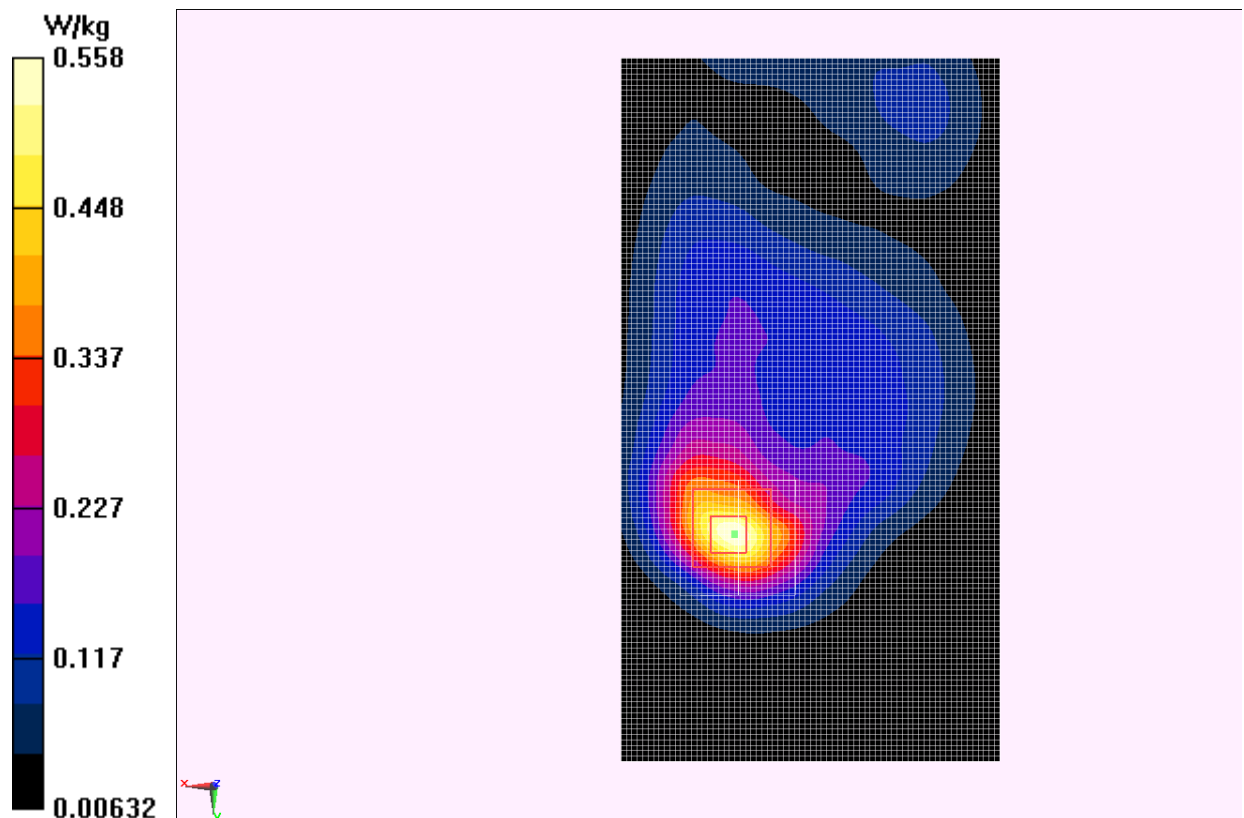


Fig.5 1900 MHz CH810

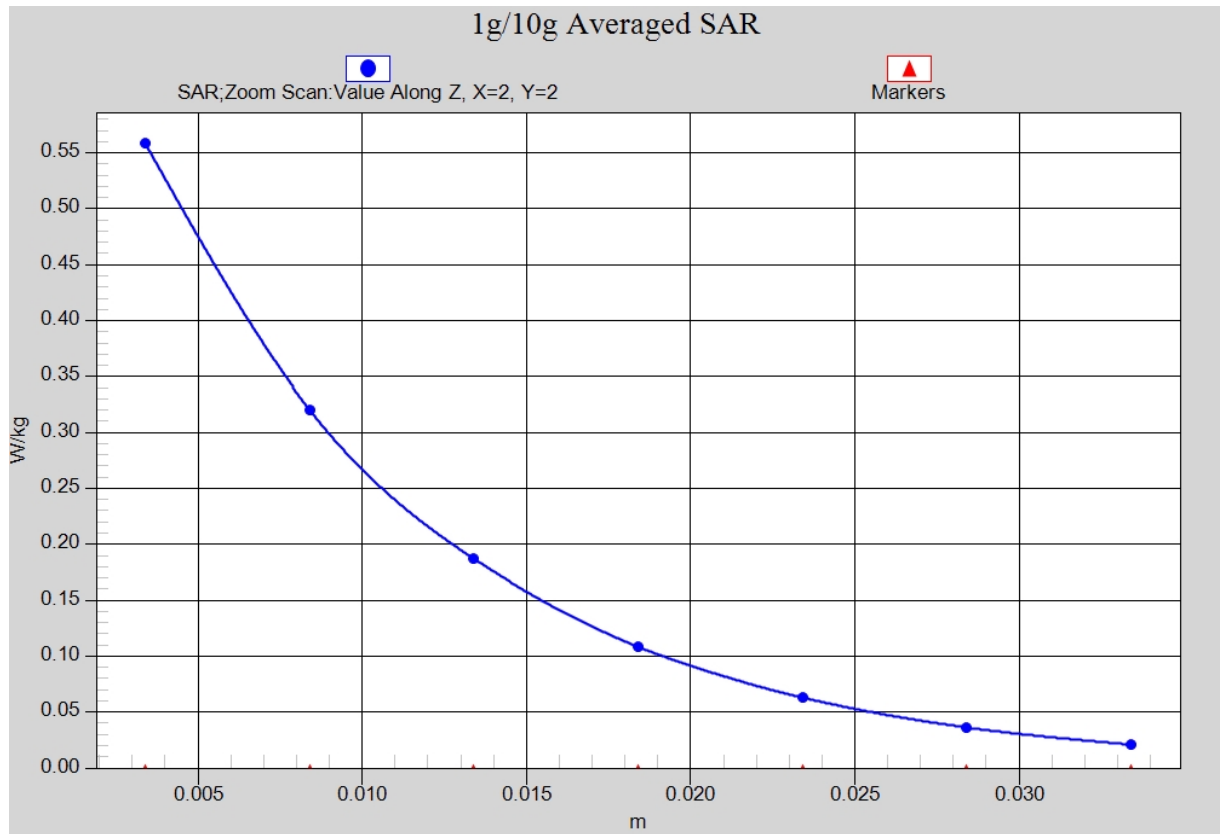


Fig.5-1 Z-Scan at power reference point (1900 MHz CH810)

WCDMA 850 Right Cheek Middle – AP OFF

Date: 2014-2-7

Electronics: DAE4 Sn771

Medium: Head 850 MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.926$ mho/m; $\epsilon_r = 40.922$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

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

Probe: EX3DV4 - SN3846 ConvF(8.92, 8.92, 8.92)

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

Maximum value of SAR (interpolated) = 0.362 W/kg

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

Reference Value = 6.842 V/m; Power Drift = -0.06 dB

Peak SAR (extrapolated) = 0.435 W/kg

SAR(1 g) = 0.348 W/kg; SAR(10 g) = 0.267 W/kg

Maximum value of SAR (measured) = 0.365 W/kg

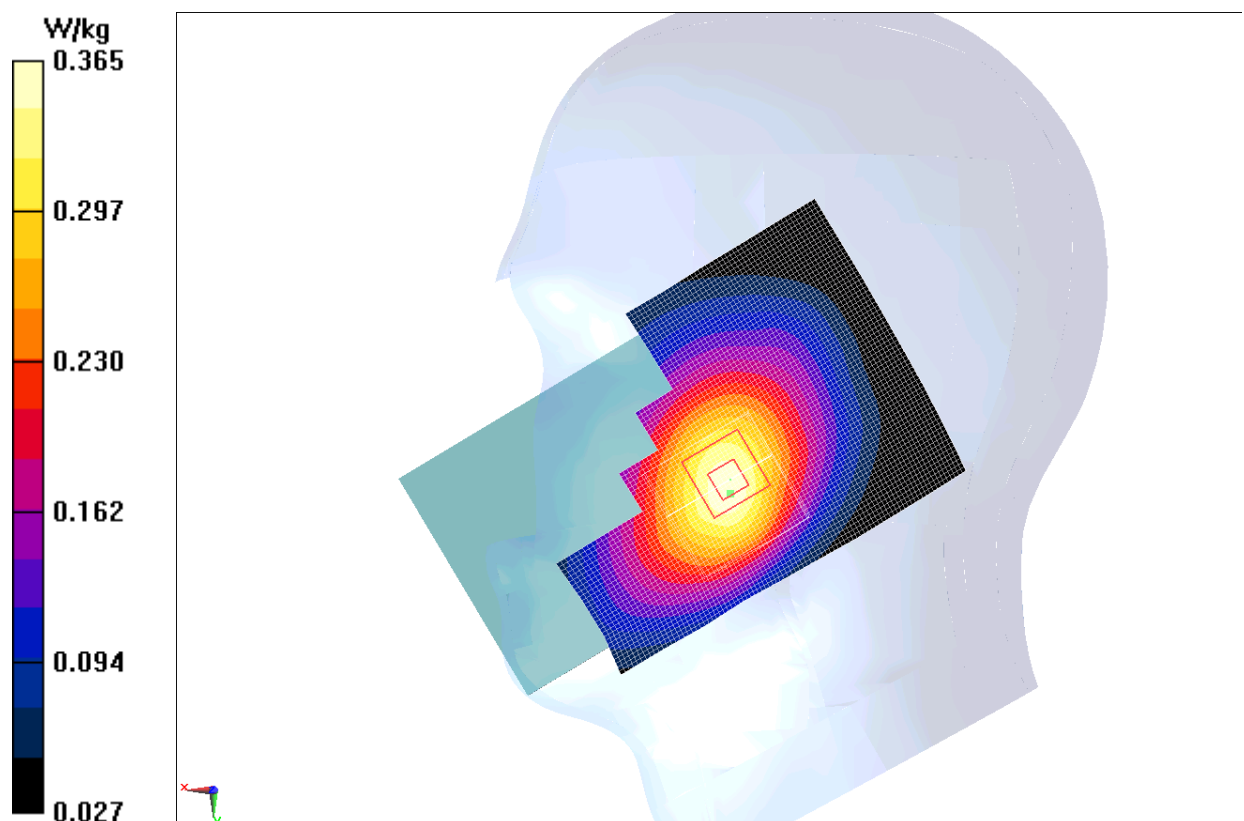


Fig.6 WCDMA 850 CH4182

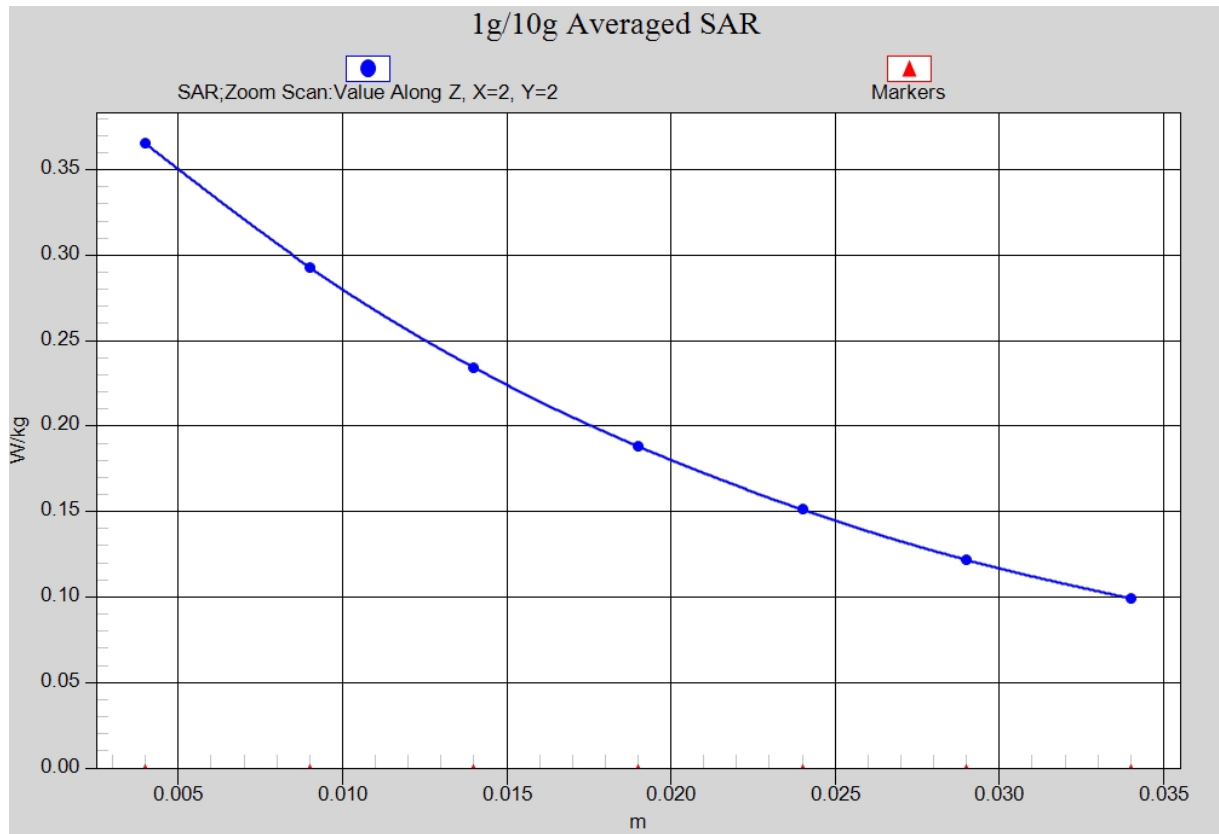


Fig. 6-1 Z-Scan at power reference point (WCDMA 850 CH4182)

WCDMA 850 Body Rear High – AP OFF

Date: 2014-2-7

Electronics: DAE4 Sn771

Medium: Body 850 MHz

Medium parameters used (interpolated): $f = 846.6$ MHz; $\sigma = 0.984$ mho/m; $\epsilon_r = 56.226$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

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

Probe: EX3DV4 - SN3846 ConvF(8.73, 8.73, 8.73)

Rear High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.628 W/kg

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

Reference Value = 17.704 V/m; Power Drift = -0.04 dB

Peak SAR (extrapolated) = 0.934 W/kg

SAR(1 g) = 0.584 W/kg; SAR(10 g) = 0.354 W/kg

Maximum value of SAR (measured) = 0.657 W/kg

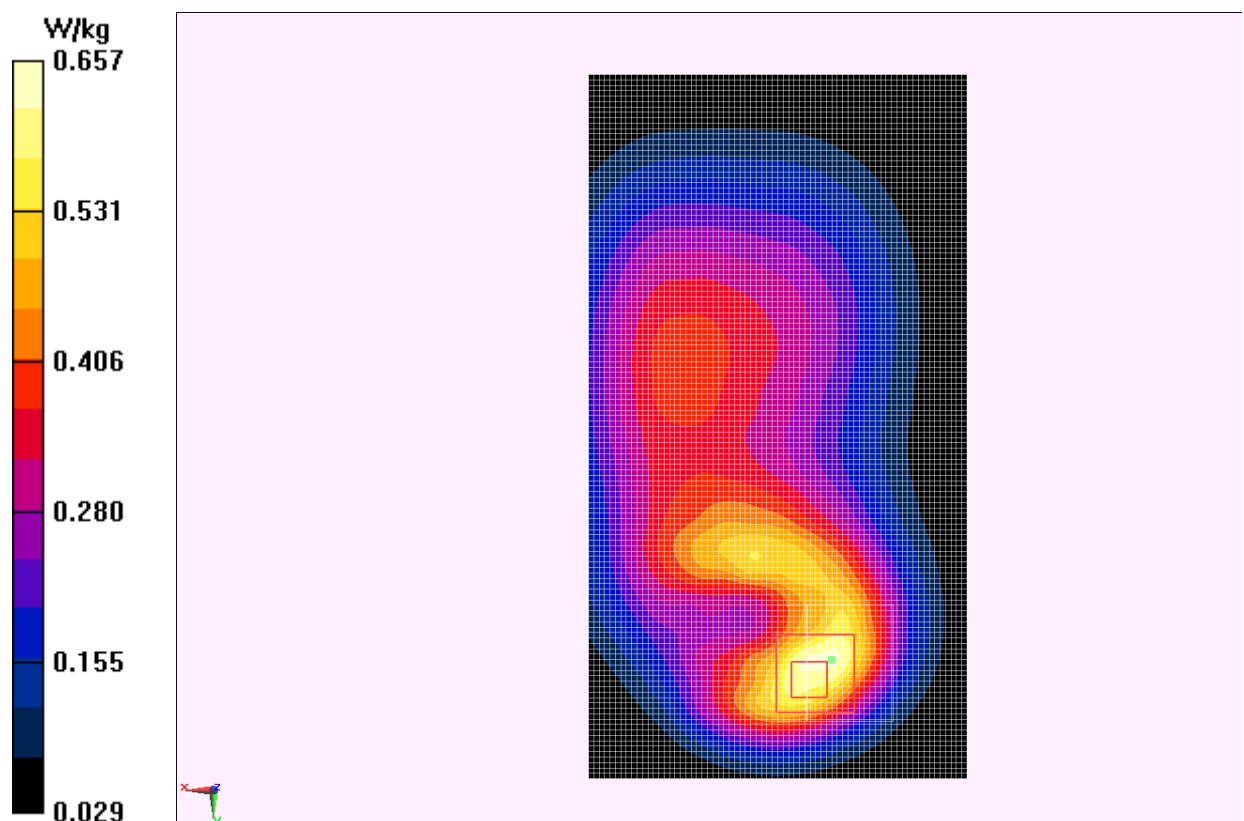


Fig.7 WCDMA 850 CH4233

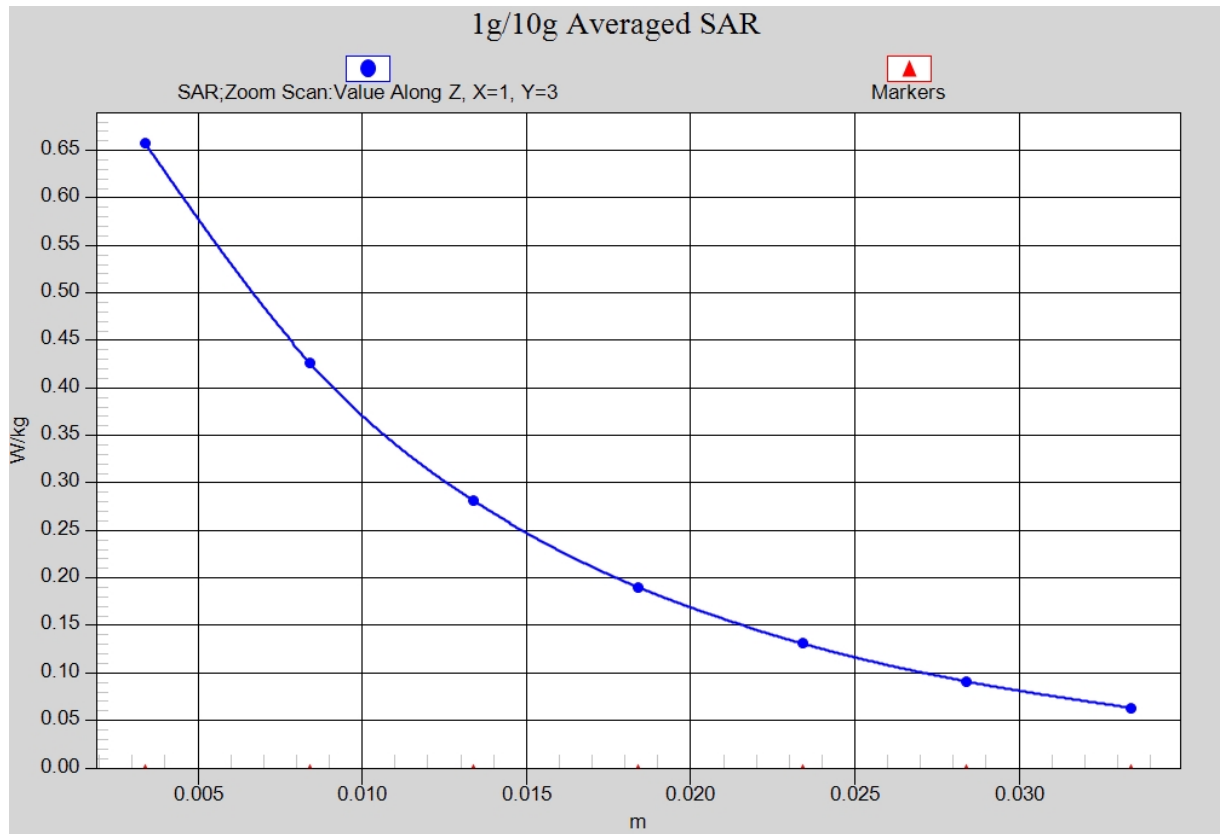


Fig. 7-1 Z-Scan at power reference point (WCDMA850 CH4233)

WCDMA 1700 Left Cheek High – AP OFF

Date: 2014-2-8

Electronics: DAE4 Sn771

Medium: Head 1750 MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.391$ mho/m; $\epsilon_r = 39.597$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: WCDMA 1700 Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.85, 7.85, 7.85)

Cheek High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

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

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

Reference Value = 4.822 V/m; Power Drift = -0.10 dB

Peak SAR (extrapolated) = 0.535 W/kg

SAR(1 g) = 0.389 W/kg; SAR(10 g) = 0.247 W/kg

Maximum value of SAR (measured) = 0.427 W/kg

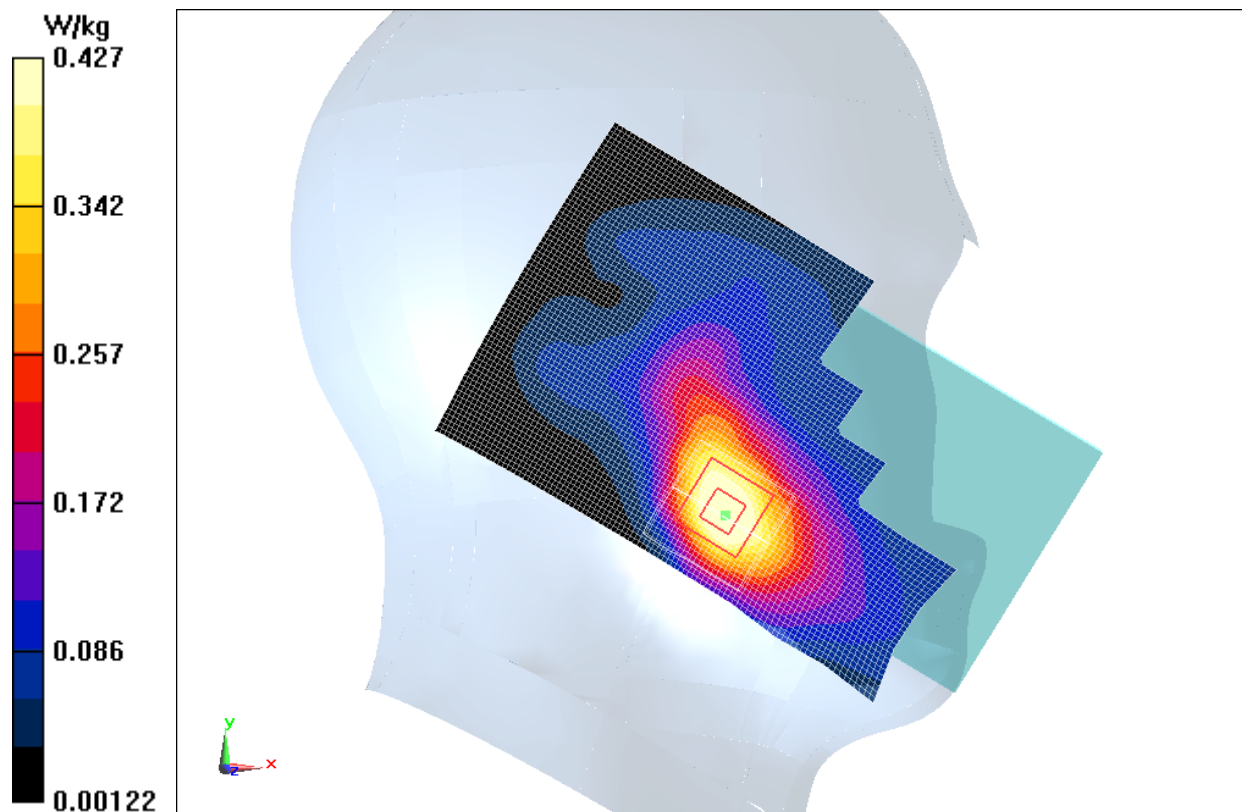


Fig.8 1700MHz CH1513

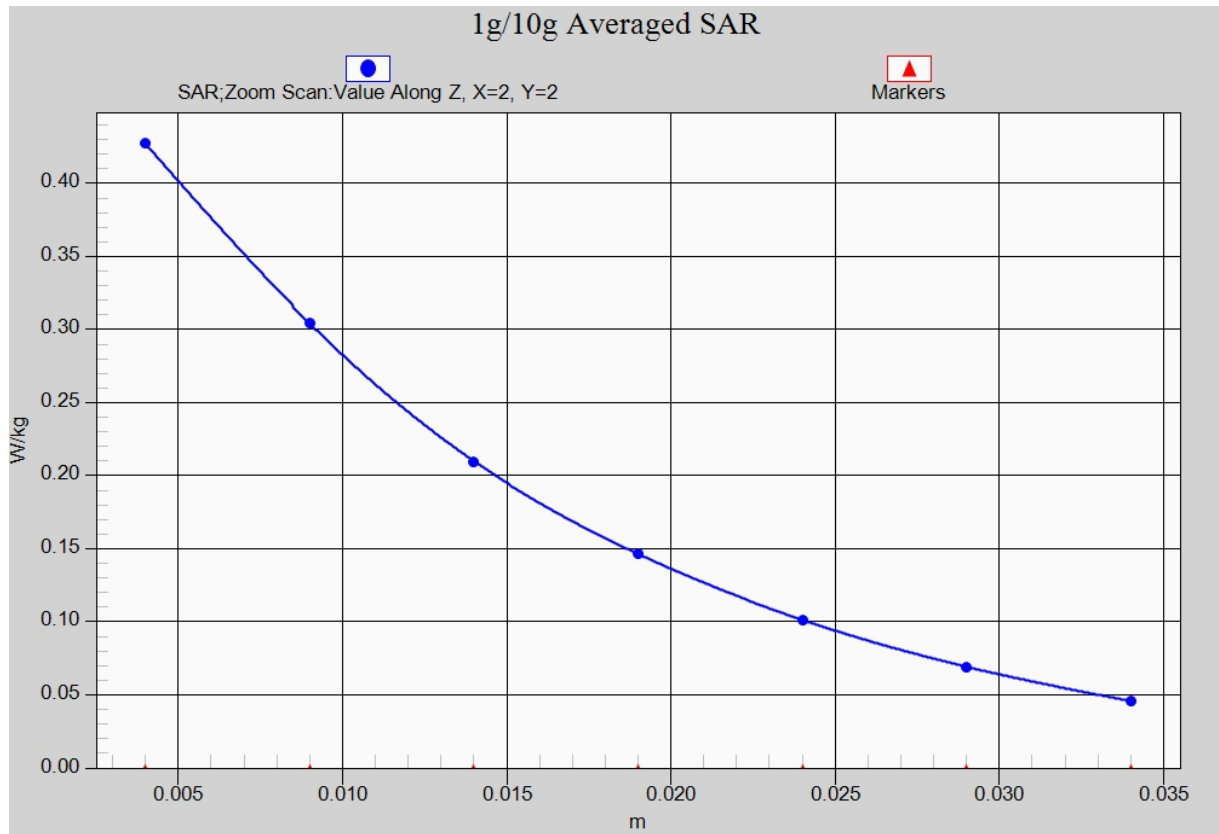


Fig. 8-1 Z-Scan at power reference point (1700 MHz CH1513)

WCDMA 1700 Body Front Middle – AP OFF

Date: 2014-2-8

Electronics: DAE4 Sn771

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.486$ mho/m; $\epsilon_r = 54.095$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.56, 7.56, 7.56)

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

Maximum value of SAR (interpolated) = 0.587 W/kg

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

Reference Value = 11.664 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.639 W/kg

SAR(1 g) = 0.441 W/kg; SAR(10 g) = 0.277 W/kg

Maximum value of SAR (measured) = 0.477 W/kg

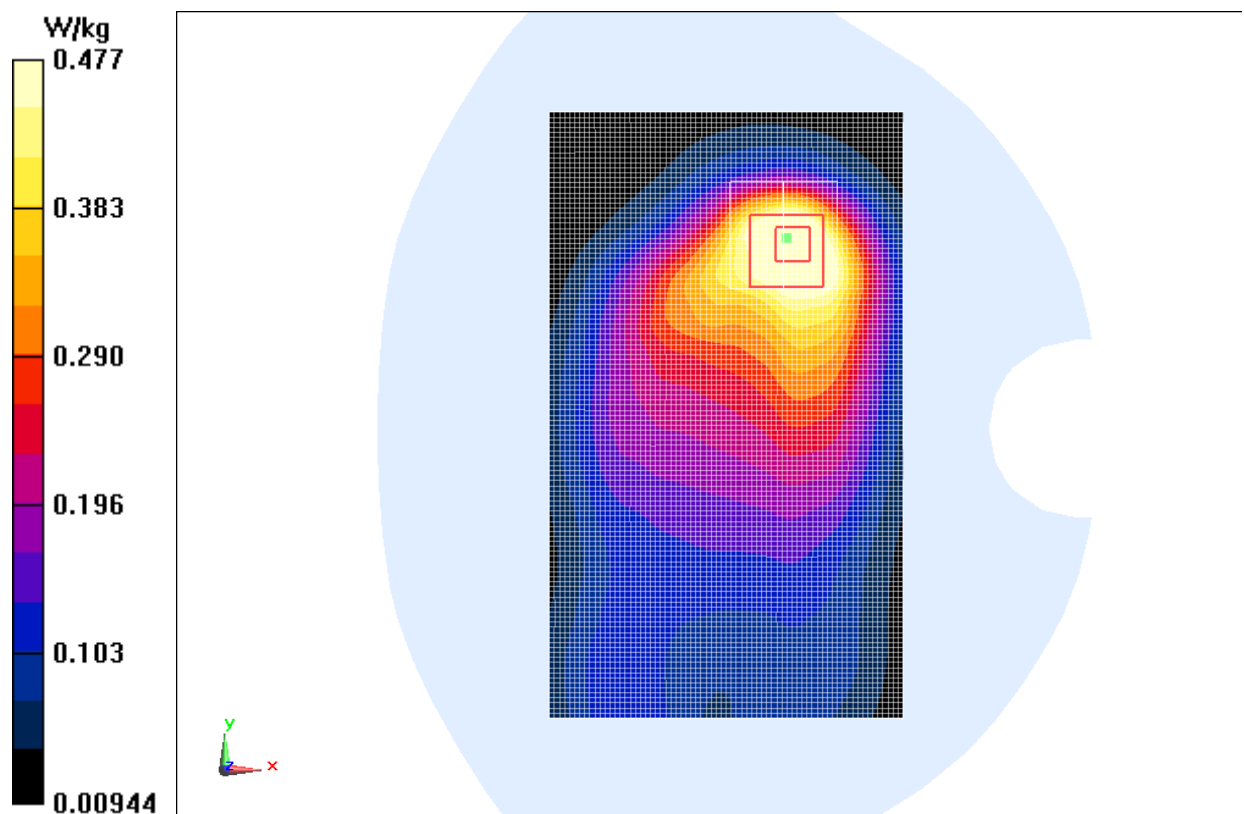


Fig.9 1700 MHz CH1412

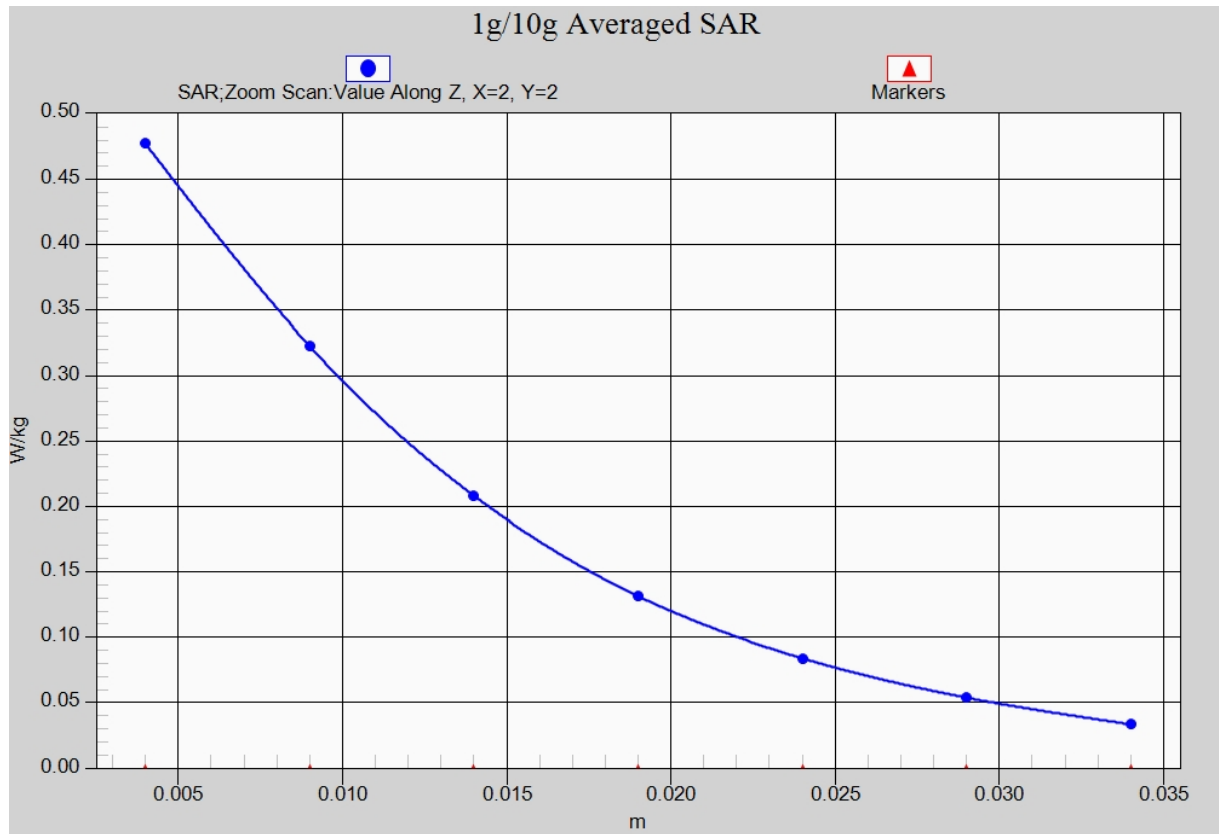


Fig. 9-1 Z-Scan at power reference point (1700 MHz CH1412)

WCDMA 1700 Body Front Middle – AP ON

Date: 2014-2-8

Electronics: DAE4 Sn771

Medium: Body 1750 MHz

Medium parameters used (interpolated): $f = 1732.4$ MHz; $\sigma = 1.486$ mho/m; $\epsilon_r = 54.095$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: WCDMA 1700 Frequency: 1732.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.56, 7.56, 7.56)

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

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

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

Reference Value = 12.072 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 1.17 W/kg

SAR(1 g) = 0.771 W/kg; SAR(10 g) = 0.460 W/kg

Maximum value of SAR (measured) = 0.849 W/kg

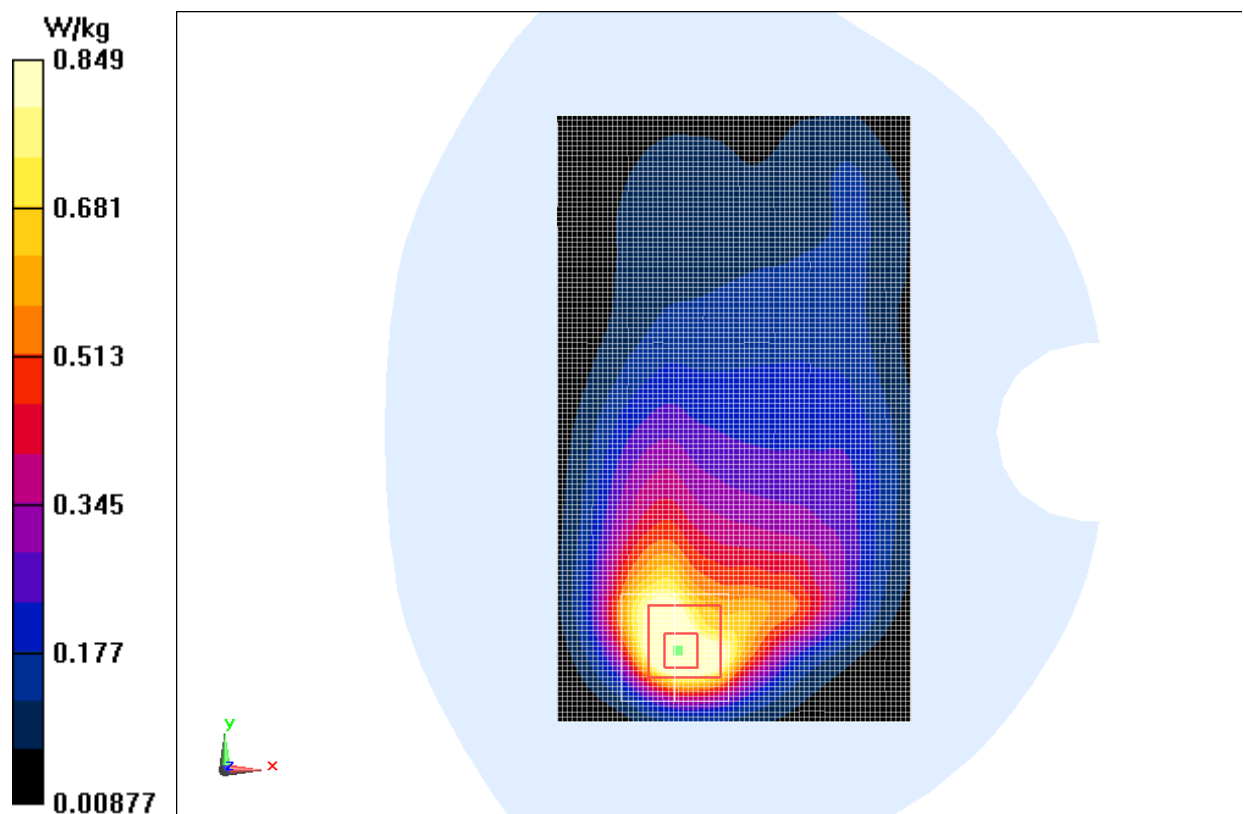


Fig.10 1700 MHz CH1412

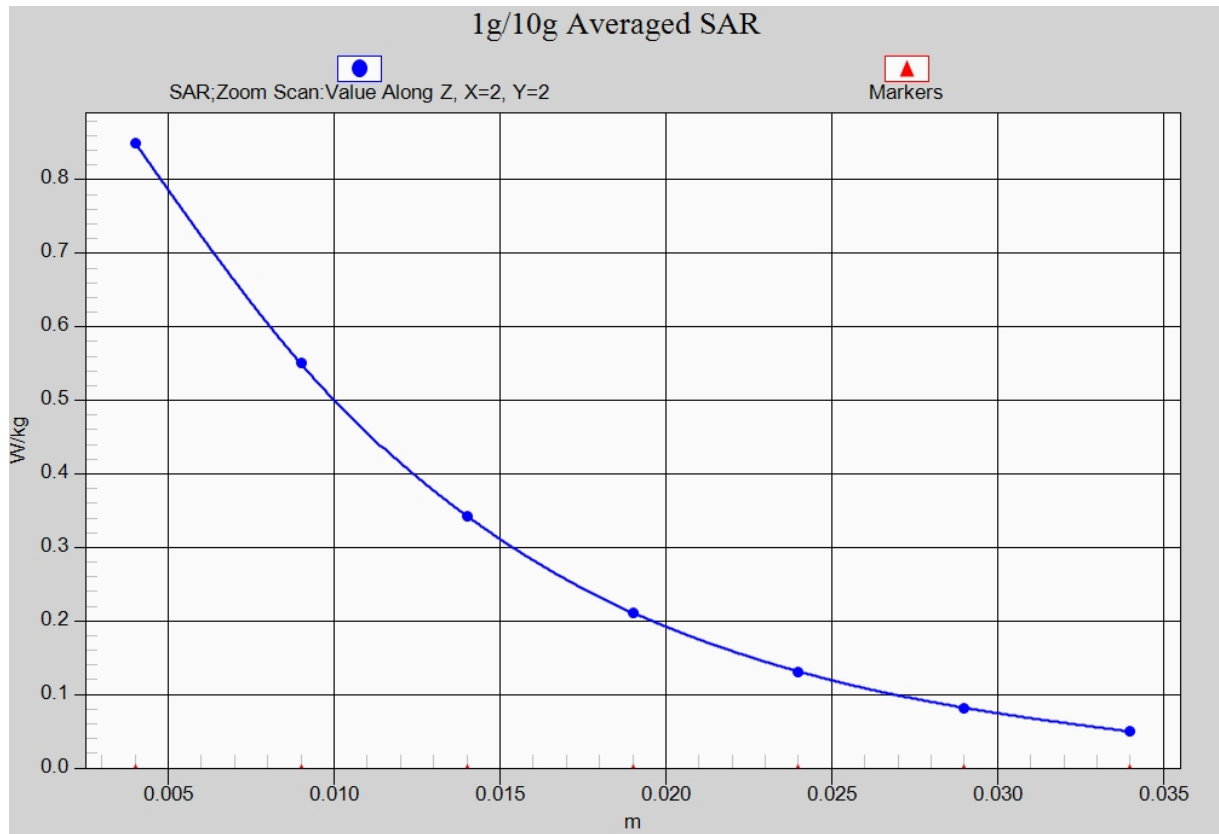


Fig. 10-1 Z-Scan at power reference point (1700 MHz CH1412)

WCDMA 1900 Left Cheek Middle – AP OFF

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ mho/m; $\epsilon_r = 39.666$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: WCDMA 1900 Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

Cheek Middle/Area Scan (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.608 W/kg

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

Reference Value = 5.495 V/m; Power Drift = 0.12 dB

Peak SAR (extrapolated) = 0.649 W/kg

SAR(1 g) = 0.471 W/kg; SAR(10 g) = 0.292 W/kg

Maximum value of SAR (measured) = 0.513 W/kg

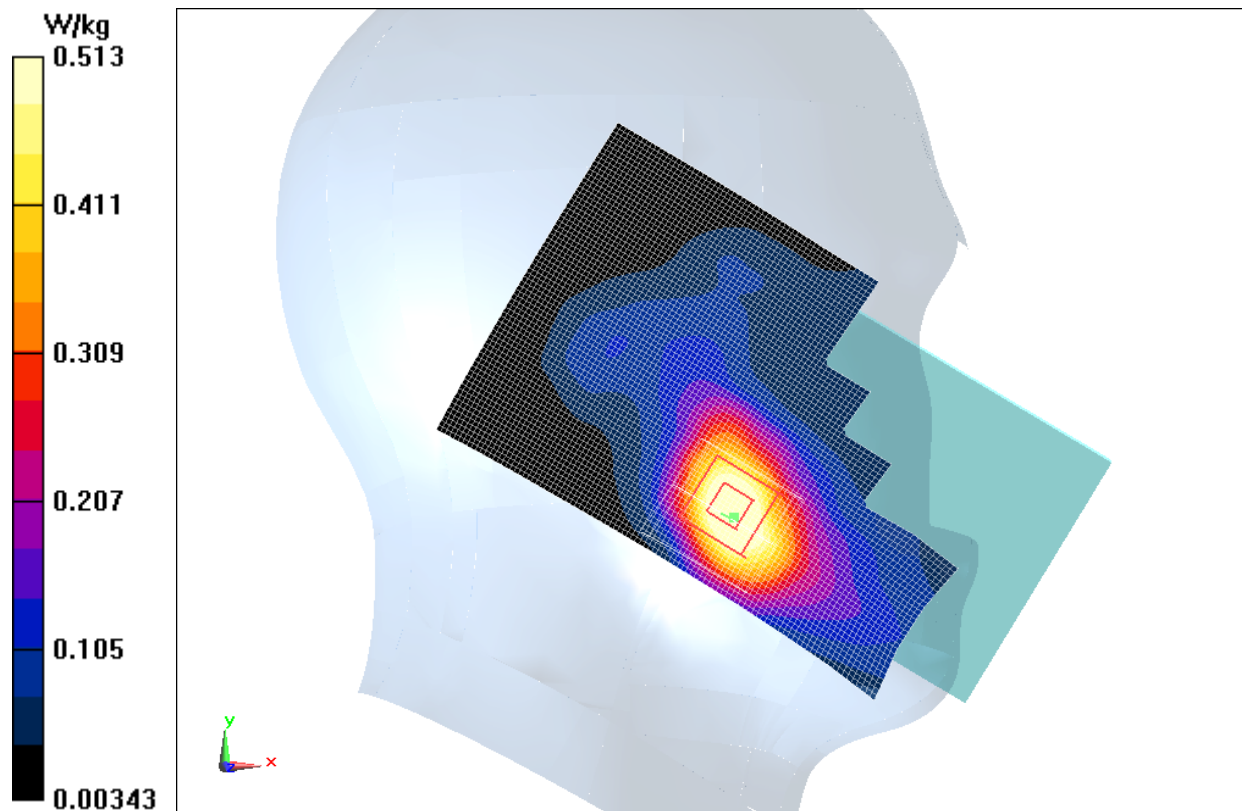


Fig.11 WCDMA1900 CH9400

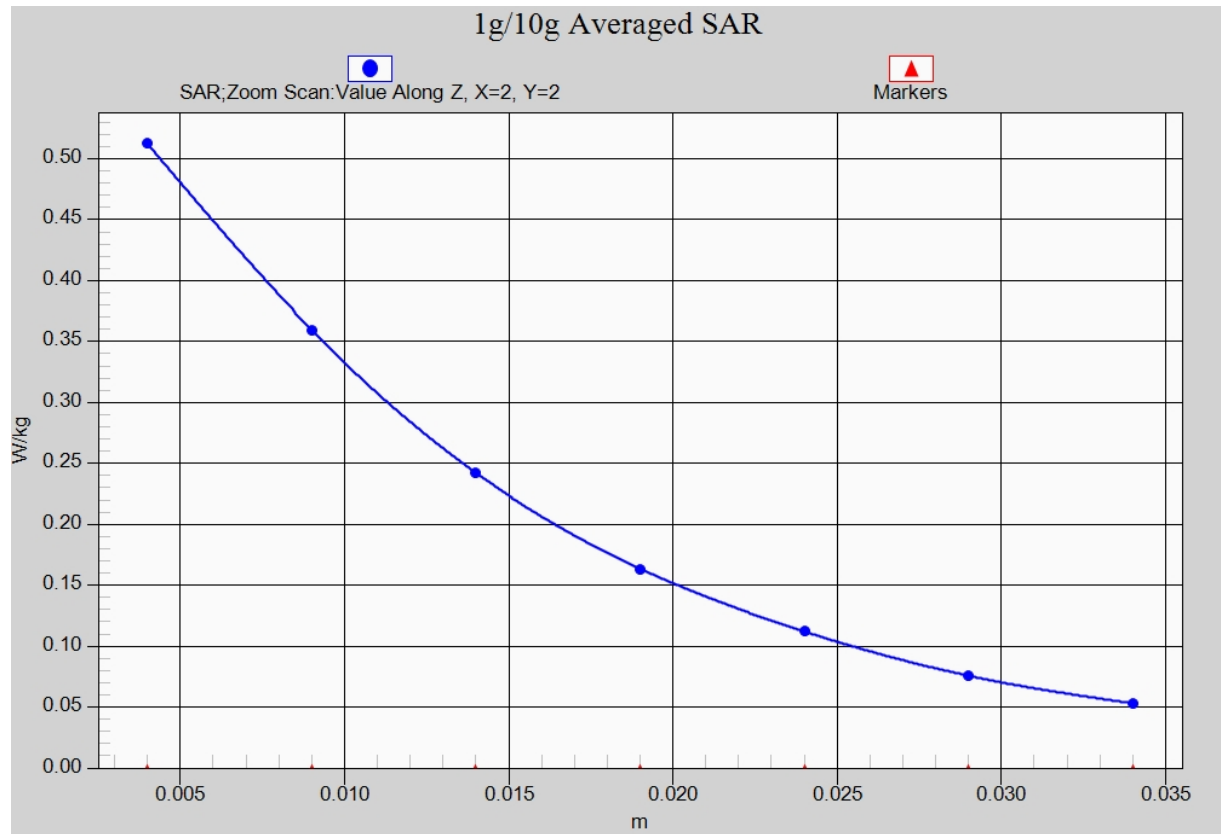


Fig. 11-1 Z-Scan at power reference point (WCDMA1900 CH9400)

WCDMA 1900 Body Rear High – AP OFF

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.501$ mho/m; $\epsilon_r = 52.041$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

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

Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Rear High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.468 W/kg

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

Reference Value = 11.306 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.700 W/kg

SAR(1 g) = 0.426 W/kg; SAR(10 g) = 0.249 W/kg

Maximum value of SAR (measured) = 0.478 W/kg

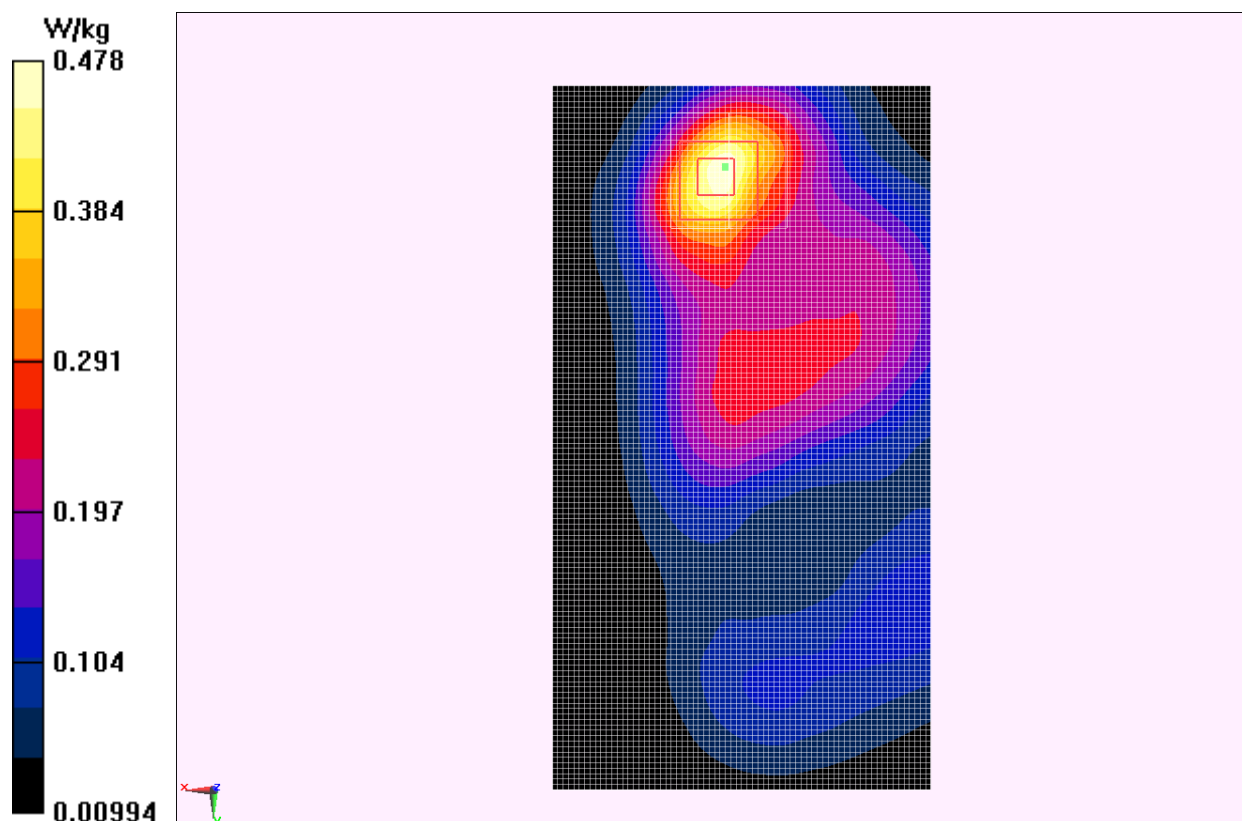


Fig.12 WCDMA1900 CH9538

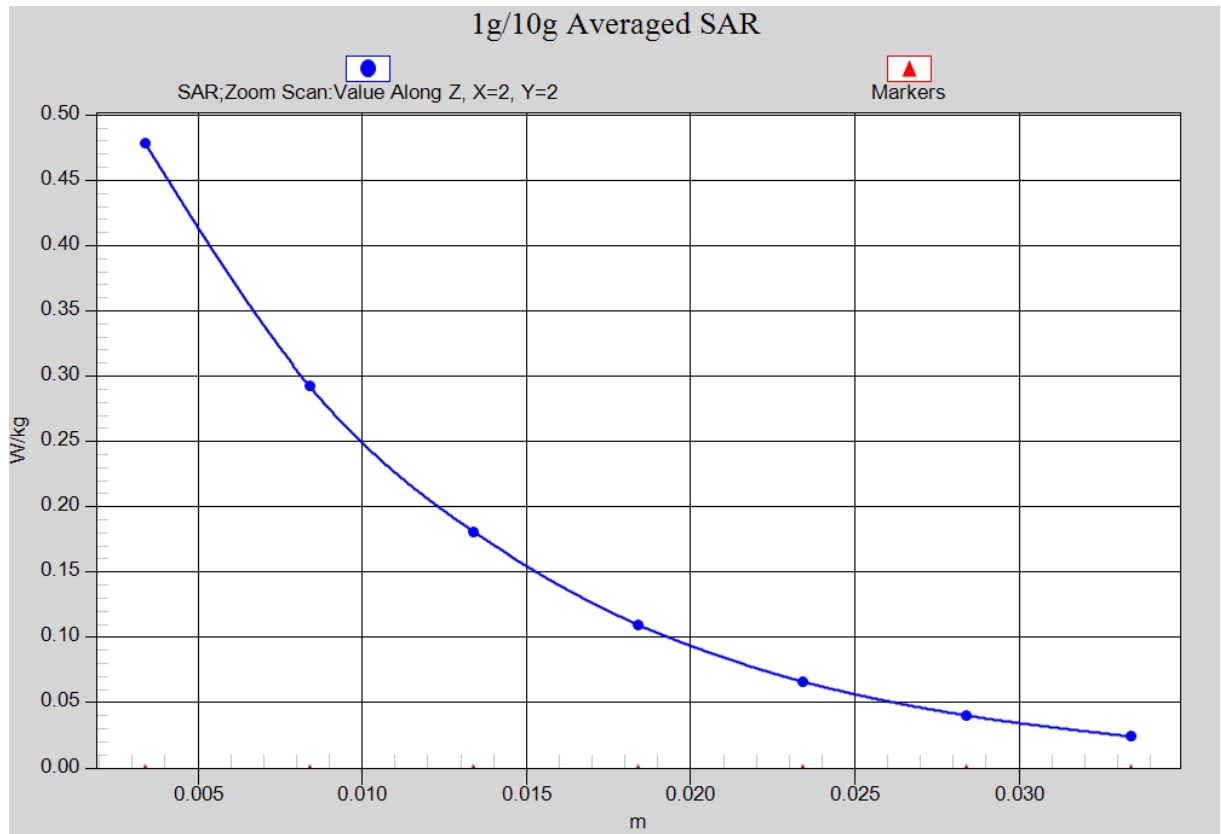


Fig. 12-1 Z-Scan at power reference point (WCDMA1900 CH9538)

WCDMA 1900 Body Front High – AP ON

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Body 1900 MHz

Medium parameters used (interpolated): $f = 1907.6$ MHz; $\sigma = 1.501$ mho/m; $\epsilon_r = 52.041$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

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

Probe: EX3DV4 - SN3846 ConvF(7.03, 7.03, 7.03)

Front High/Area Scan (71x131x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm

Maximum value of SAR (interpolated) = 0.704 W/kg

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

Reference Value = 7.998 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.998 W/kg

SAR(1 g) = 0.581 W/kg; SAR(10 g) = 0.326 W/kg

Maximum value of SAR (measured) = 0.690 W/kg

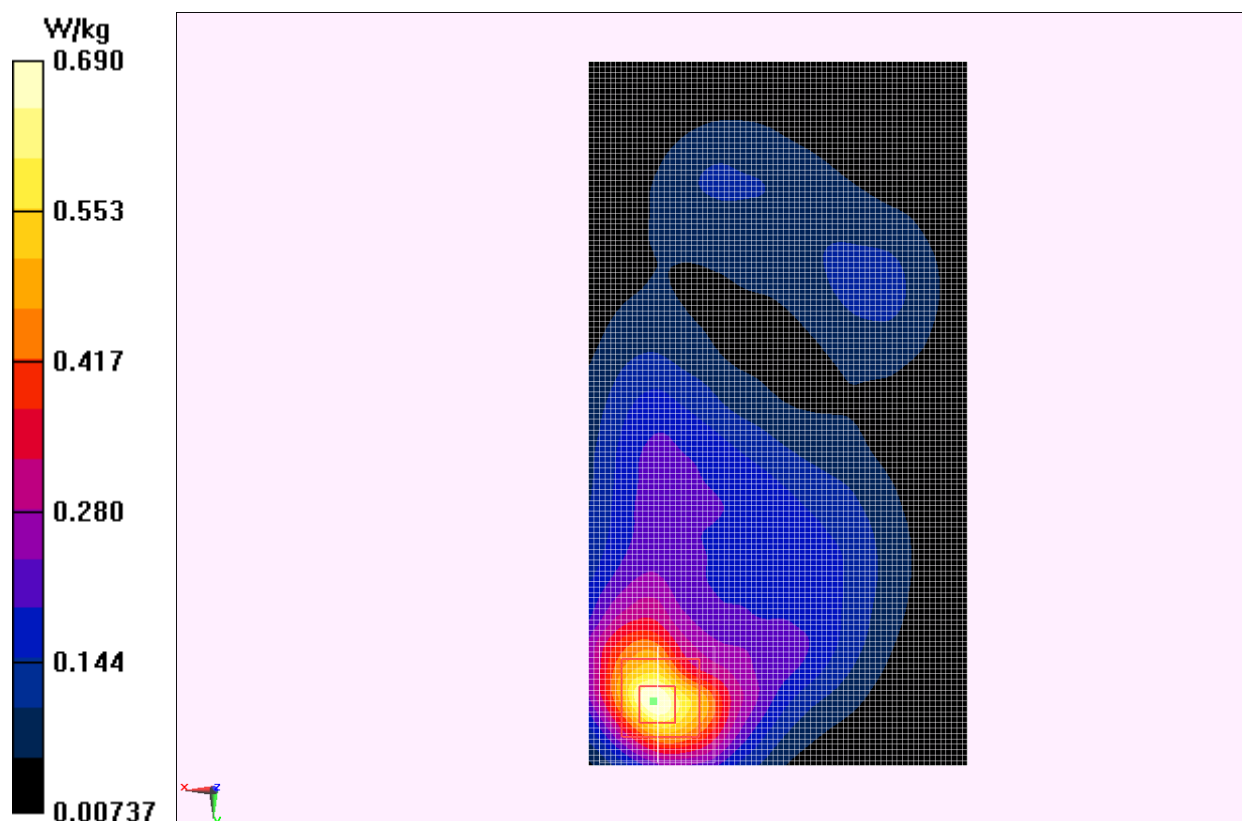


Fig.13 WCDMA1900 CH9538

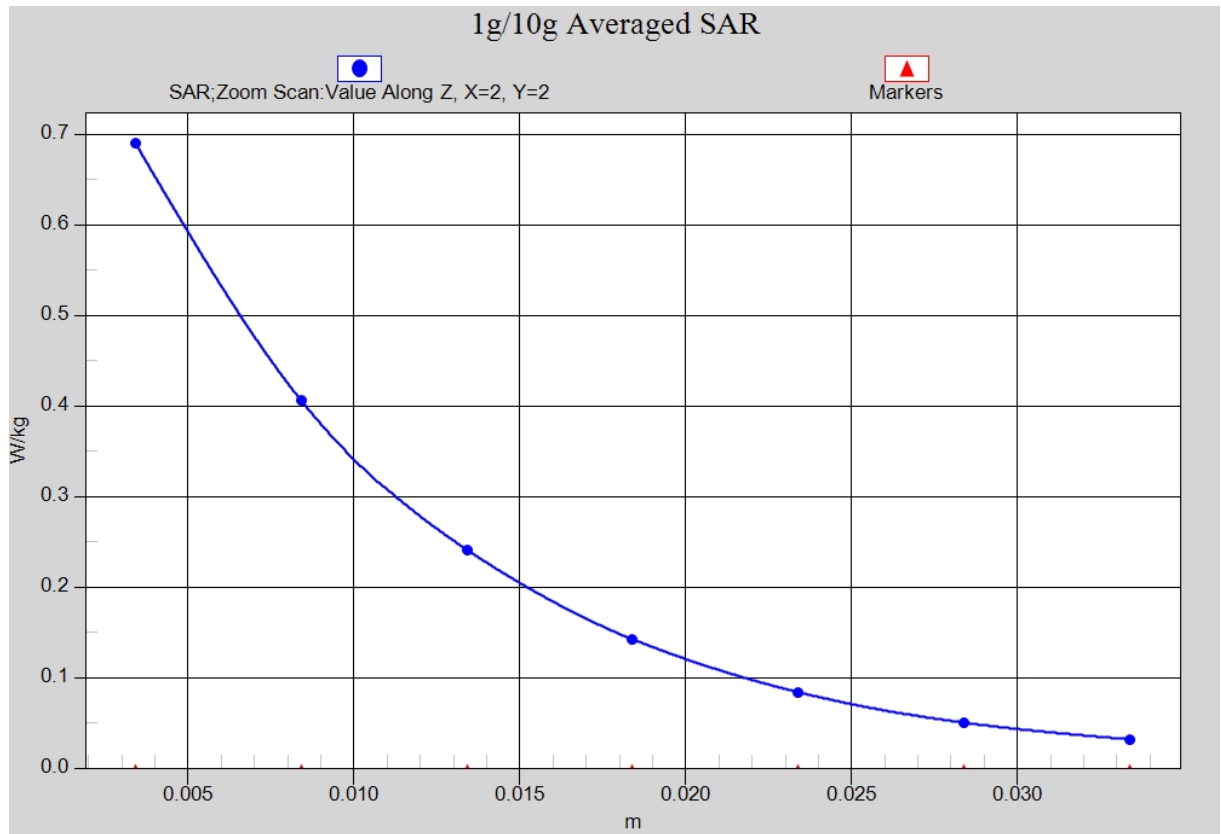


Fig. 13-1 Z-Scan at power reference point (WCDMA1900 CH9538)

LTE Band2 Left Cheek Middle with QPSK_20M_1RB_Middle – AP OFF

Date: 2014-2-9

Electronics: DAE4 Sn771

Medium: Head 1900 MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.394$ mho/m; $\epsilon_r = 39.666$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.2°C Liquid Temperature: 21.7°C

Communication System: LTE Band2 Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 - SN3846 ConvF(7.57, 7.57, 7.57)

Cheek Middle/Area Scan (71x131x1): Interpolated grid: $dx=1.000$ mm, $dy=1.000$ mm

Maximum value of SAR (interpolated) = 0.488 W/kg

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

Reference Value = 6.618 V/m; Power Drift = -0.11 dB

Peak SAR (extrapolated) = 0.485 W/kg

SAR(1 g) = 0.363 W/kg; SAR(10 g) = 0.234 W/kg

Maximum value of SAR (measured) = 0.394 W/kg

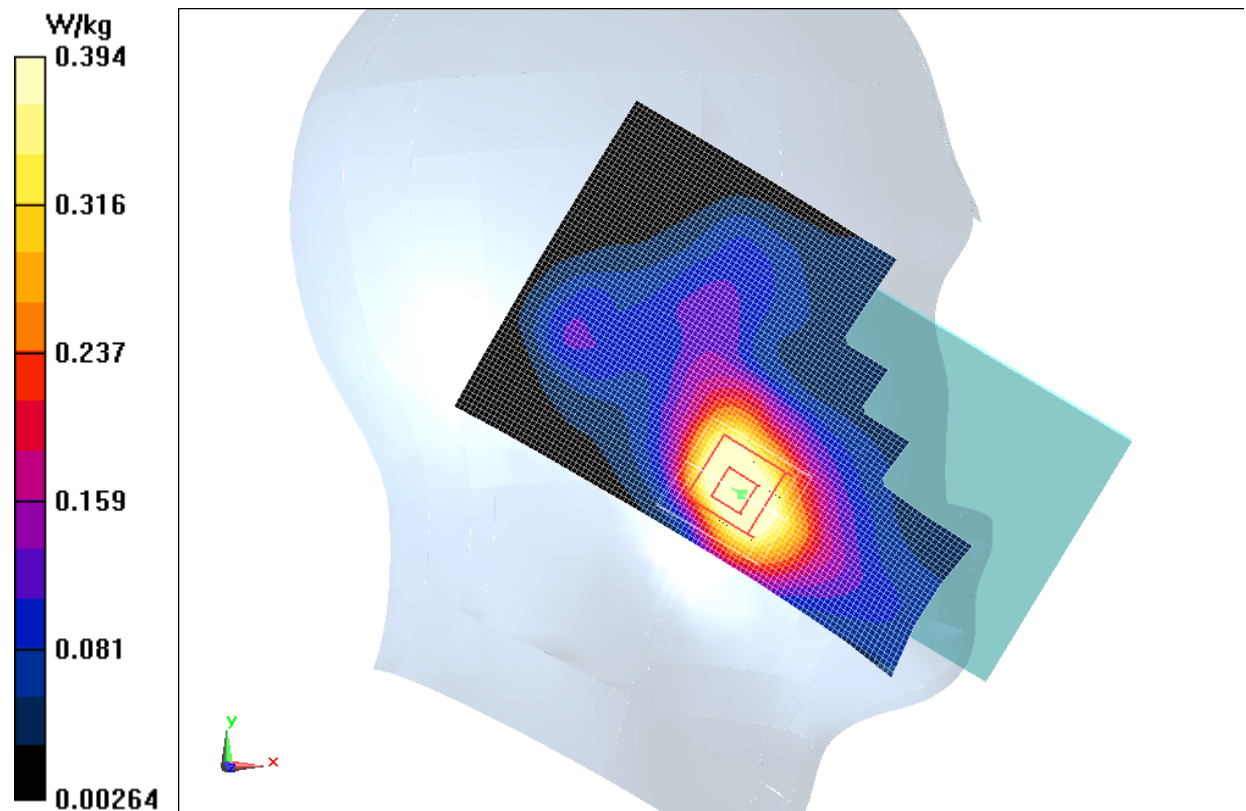


Fig.14 LTE Band2 CH18900

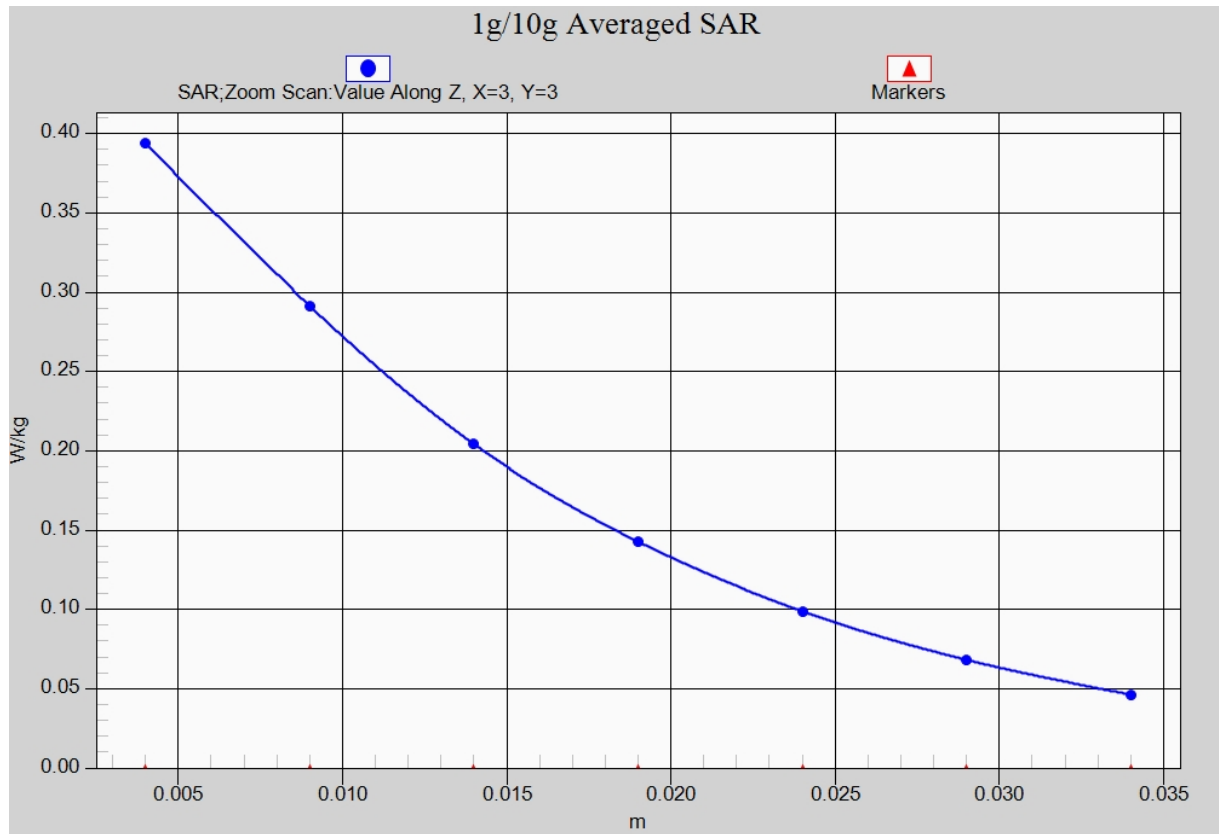


Fig. 14-1 Z-Scan at power reference point (LTE Band2 CH18900)