Table 14.1-19: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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	/	30.33	30.5	0.110	0.11	0.188	0.20	0.09
1880	661	Left	Touch	/	30.38	30.5	0.105	0.11	0.180	0.19	-0.04
1850.2	**512**	**Left**	**Touch**	**Fig.19**	**30.45**	**30.5**	**0.146**	**0.15**	**0.234**	**0.24**	**-0.16**
1880	661	Left	Tilt	/	30.38	30.5	0.071	0.07	0.124	0.13	-0.17
1880	661	Right	Touch	/	30.38	30.5	0.088	0.09	0.151	0.16	0.14
1880	661	Right	Tilt	/	30.38	30.5	0.056	0.06	0.102	0.10	0.10
1850.2	512	Left	Touch	**Note1**	30.45	30.5	0.118	0.12	0.205	0.21	-0.14
1850.2	512	Left	Touch	**Note2**	30.45	30.5	0.111	0.11	0.193	0.20	0.08
1850.2	512	Left	Touch	**Note3**	30.45	30.5	0.091	0.09	0.159	0.16	0.12

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

Note3: SAR Values For SIM1

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Table 14.1-20: SAR Values (GSM 1900 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.20**	**28.49**	**28.5**	**0.178**	**0.18**	**0.317**	**0.32**	**0.02**
1880	661	GPRS (2)	Front	/	28.49	28.5	0.149	0.15	0.265	0.27	0.10
1850.2	512	GPRS (2)	Front	/	28.45	28.5	0.149	0.15	0.259	0.26	0.16
1880	661	GPRS (2)	Rear	/	28.49	28.5	0.109	0.11	0.180	0.18	0.16
1880	661	GPRS (2)	Left	/	28.49	28.5	0.058	0.06	0.099	0.10	0.02
1880	661	GPRS (2)	Right	/	28.49	28.5	0.061	0.06	0.105	0.11	-0.19
1880	661	GPRS (2)	Bottom	/	28.49	28.5	0.118	0.12	0.217	0.22	0.07
1909.8	810	EGPRS (2)	Front	/	28.49	28.5	0.171	0.17	0.302	0.30	0.10
1909.8	810	GPRS (2)	Front	**Note1**	28.49	28.5	0.178	0.18	0.310	0.31	0.03
1909.8	810	GPRS (2)	Front	**Note2**	28.49	28.5	0.168	0.17	0.305	0.31	0.10
1909.8	810	GPRS (2)	Front	**Note3**	28.49	28.5	0.171	0.17	0.303	0.30	0.13

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

Table 14.1-21: SAR Values (GSM 1900 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.21**	**28.49**	**28.5**	**0.081**	**0.08**	**0.141**	**0.14**	**0.19**
1880	661	GPRS (2)	Front	/	28.49	28.5	0.062	0.06	0.109	0.11	0.10
1850.2	512	GPRS (2)	Front	/	28.45	28.5	0.071	0.07	0.114	0.12	0.08
1880	661	GPRS (2)	Rear	/	28.49	28.5	0.065	0.07	0.105	0.11	0.03
1909.8	810	EGPRS (2)	Front	/	28.49	28.5	0.078	0.08	0.136	0.14	-0.05
1909.8	810	GPRS (2)	Front	**Note1**	28.49	28.5	0.078	0.08	0.135	0.14	0.02
1909.8	810	GPRS (2)	Front	**Note2**	28.49	28.5	0.078	0.08	0.135	0.14	0.04
1909.8	810	GPRS (2)	Front	**Note3**	28.49	28.5	0.078	0.08	0.135	0.14	0.13

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

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Table 14.1-22: SAR Values (WCDMA 850 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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	/	23.81	24.5	0.184	0.22	0.267	0.31	-0.07
836.4	4182	Left	Tilt	/	23.81	24.5	0.123	0.14	0.178	0.21	0.09
846.6	4233	Right	Touch	/	23.98	24.5	0.209	0.24	0.302	0.34	0.15
836.4	**4182**	**Right**	**Touch**	**Fig.22**	**23.81**	**24.5**	**0.250**	**0.29**	**0.324**	**0.38**	**0.08**
826.4	4132	Right	Touch	/	23.97	24.5	0.209	0.24	0.300	0.34	0.03
836.4	4182	Right	Tilt	/	23.81	24.5	0.120	0.14	0.172	0.20	-0.03
836.4	4182	Right	Touch	**Note1**	23.81	24.5	0.214	0.25	0.311	0.36	0.00
836.4	4182	Right	Touch	**Note2**	23.81	24.5	0.187	0.22	0.272	0.32	-0.18
836.4	4182	Right	Touch	**Note3**	23.81	24.5	0.207	0.24	0.299	0.35	0.00

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

Note3: SAR Values For SIM1

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Table 14.1-23: SAR Values (WCDMA 850 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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	/	23.81	24.5	0.247	0.29	0.342	0.40	0.00
836.4	4182	Rear	/	23.81	24.5	0.261	0.31	0.361	0.42	0.04
836.4	4182	Left	/	23.81	24.5	0.152	0.18	0.222	0.26	-0.09
846.6	4233	Right	/	23.98	24.5	0.251	0.28	0.366	0.41	-0.02
836.4	4182	Right	/	23.81	24.5	0.260	0.30	0.377	0.44	0.01
826.4	**4132**	**Right**	**Fig.23**	**23.97**	**24.5**	**0.273**	**0.31**	**0.413**	**0.47**	**0.00**
836.4	4182	Bottom	/	23.81	24.5	0.091	0.11	0.168	0.20	0.03
826.4	4132	Right	**Note1**	23.97	24.5	0.239	0.27	0.346	0.39	0.02
826.4	4132	Right	**Note2**	23.97	24.5	0.265	0.30	0.383	0.43	-0.02
826.4	4132	Right	**Note3**	23.97	24.5	0.284	0.32	0.406	0.46	0.02

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

Table 14.1-24: SAR Values (WCDMA 850 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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	/	23.81	24.5	0.178	0.21	0.246	0.29	-0.01
846.6	4233	Rear	/	23.98	24.5	0.237	0.27	0.329	0.37	0.02
836.4	4182	Rear	/	23.81	24.5	0.189	0.22	0.260	0.30	0.01
826.4	**4132**	**Rear**	**Fig.24**	**23.97**	**24.5**	**0.273**	**0.31**	**0.353**	**0.40**	**0.02**
826.4	4132	Rear	**Note1**	23.97	24.5	0.179	0.20	0.249	0.28	0.00
826.4	4132	Rear	**Note2**	23.97	24.5	0.245	0.28	0.339	0.38	-0.05
826.4	4132	Rear	**Note3**	23.97	24.5	0.182	0.21	0.252	0.28	0.00

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

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Table 14.1-25: SAR Values (LTE Band5 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
844	20600	1RB_Mid	Left	Touch	/	23.94	24	0.173	0.18	0.249	0.25	-0.04
844	20600	1RB_Mid	Left	Tilt	/	23.94	24	0.152	0.15	0.220	0.22	-0.06
844	**20600**	**1RB_Mid**	**Right**	**Touch**	**Fig.25**	**23.94**	**24**	**0.242**	**0.25**	**0.314**	**0.32**	**-0.06**
844	20600	1RB_Mid	Right	Tilt	/	23.94	23	0.151	0.12	0.220	0.18	-0.02
836.5	20525	25RB_Mid	Left	Touch	/	22.85	23	0.110	0.11	0.159	0.16	0.10
836.5	20525	25RB_Mid	Left	Tilt	/	22.85	23	0.095	0.10	0.137	0.14	0.04
836.5	20525	25RB_Mid	Right	Touch	/	22.85	23	0.131	0.14	0.196	0.20	-0.04
836.5	20525	25RB_Mid	Right	Tilt	/	22.85	23	0.095	0.10	0.139	0.14	-0.01
844	20600	1RB_Mid	Right	Touch	**Note1**	23.94	24	0.193	0.20	0.287	0.29	-0.02
844	20600	1RB_Mid	Right	Touch	**Note2**	23.94	24	0.161	0.16	0.240	0.24	0.04
844	20600	1RB_Mid	Right	Touch	**Note3**	23.94	24	0.198	0.20	0.297	0.30	-0.02

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

Note3: SAR Values For SIM1

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Table 14.1-26: SAR Values (LTE Band5 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.26**	**23.94**	**24**	**0.257**	**0.26**	**0.333**	**0.34**	**-0.04**
844	20600	1RB_Mid	Rear	/	23.94	24	0.206	0.21	0.291	0.30	0.02
844	20600	1RB_Mid	Left	/	23.94	24	0.193	0.20	0.286	0.29	-0.01
844	20600	1RB_Mid	Right	/	23.94	24	0.162	0.16	0.240	0.24	-0.06
844	20600	1RB_Mid	Bottom	/	23.94	24	0.096	0.10	0.172	0.17	-0.05
836.5	20525	25RB_Mid	Front	/	22.85	23	0.145	0.15	0.205	0.21	0.08
836.5	20525	25RB_Mid	Rear	/	22.85	23	0.128	0.13	0.182	0.19	0.04
836.5	20525	25RB_Mid	Left	/	22.85	23	0.081	0.08	0.121	0.13	0.04
836.5	20525	25RB_Mid	Right	/	22.85	23	0.096	0.10	0.143	0.15	0.11
836.5	20525	25RB_Mid	Bottom	/	22.85	23	0.056	0.06	0.101	0.10	-0.04
844	20600	1RB_Mid	Front	**Note1**	23.94	24	0.225	0.23	0.319	0.32	-0.04
844	20600	1RB_Mid	Front	**Note2**	23.94	24	0.220	0.22	0.313	0.32	0.03
844	20600	1RB_Mid	Front	**Note3**	23.94	24	0.221	0.22	0.317	0.32	-0.01

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

Table 14.1-27: SAR Values (LTE Band5 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.27**	**23.94**	**24**	**0.210**	**0.21**	**0.269**	**0.27**	**-0.01**
844	20600	1RB_Mid	Rear	/	23.94	24	0.173	0.18	0.244	0.25	-0.01
836.5	20525	25RB_Mid	Front	/	22.85	23	0.112	0.12	0.158	0.16	-0.07
836.5	20525	25RB_Mid	Rear	/	22.85	23	0.108	0.11	0.153	0.16	0.00
844	20600	1RB_Mid	Front	**Note1**	23.94	24	0.189	0.19	0.263	0.27	0.00
844	20600	1RB_Mid	Front	**Note2**	23.94	24	0.181	0.18	0.257	0.26	0.02
844	20600	1RB_Mid	Front	**Note3**	23.94	24	0.182	0.18	0.256	0.26	0.05

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

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Table 14.1-28: SAR Values (LTE Band7 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
2535	21100	1RB_Low	Left	Touch	/	23.37	24	0.085	0.10	0.156	0.18	-0.06
2535	21100	1RB_Low	Left	Tilt	/	23.37	24	0.084	0.10	0.176	0.20	0.12
2535	**21100**	**1RB_Low**	**Right**	**Touch**	**Fig.28**	**23.37**	**24**	**0.198**	**0.23**	**0.365**	**0.42**	**0.13**
2535	21100	1RB_Low	Right	Tilt	/	23.37	24	0.043	0.05	0.099	0.11	0.03
2560	21350	50RB_Mid	Left	Touch	/	22.2	23	0.052	0.06	0.096	0.12	0.11
2560	21350	50RB_Mid	Left	Tilt	/	22.2	23	0.042	0.05	0.086	0.10	0.09
2560	21350	50RB_Mid	Right	Touch	/	22.2	23	0.117	0.14	0.227	0.27	0.08
2560	21350	50RB_Mid	Right	Tilt	/	22.2	23	0.030	0.04	0.070	0.08	0.12
2535	21100	1RB_Low	Right	Touch	**Note1**	23.37	24	0.180	0.21	0.345	0.40	0.11
2535	21100	1RB_Low	Right	Touch	**Note2**	23.37	24	0.181	0.21	0.346	0.40	0.17
2535	21100	1RB_Low	Right	Touch	**Note3**	23.37	24	0.085	0.10	0.156	0.18	-0.06

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

Note3: SAR Values For SIM1

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Table 14.1-29: SAR Values (LTE Band7 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2560	21350	1RB_Low	Front	/	23.2	24	0.290	0.35	0.561	0.67	-0.05
2535	**21100**	**1RB_Low**	**Front**	**Fig.29**	**23.37**	**24**	**0.394**	**0.46**	**0.768**	**0.89**	**-0.01**
2510	20850	1RB_Low	Front	/	23.21	24	0.337	0.40	0.634	0.76	0.06
2535	21100	1RB_Low	Rear	/	23.37	24	0.318	0.37	0.616	0.71	0.07
2535	21100	1RB_Low	Left	/	23.37	24	0.028	0.03	0.047	0.05	0.09
2535	21100	1RB_Low	Right	/	23.37	24	0.232	0.27	0.421	0.49	-0.07
2535	21100	1RB_Low	Bottom	/	23.37	24	0.280	0.32	0.594	0.69	0.10
2560	21350	50RB_Mid	Front	/	22.2	23	0.236	0.28	0.454	0.55	0.03
2560	21350	50RB_Mid	Rear	/	22.2	23	0.233	0.28	0.448	0.54	0.09
2560	21350	50RB_Mid	Left	/	22.2	23	0.014	0.02	0.029	0.04	0.03
2560	21350	50RB_Mid	Right	/	22.2	23	0.145	0.17	0.269	0.32	0.11
2560	21350	50RB_Mid	Bottom	/	22.2	23	0.191	0.23	0.388	0.47	-0.04
2535	21100	100RB	Front	/	23.37	24	0.331	0.38	0.648	0.75	0.03
2535	21100	1RB_Low	Front	**Note1**	23.37	24	0.350	0.40	0.670	0.77	-0.05
2535	21100	1RB_Low	Front	**Note2**	23.37	24	0.354	0.41	0.687	0.79	0.09
2535	21100	1RB_Low	Front	**Note3**	22.07	23	0.257	0.32	0.483	0.60	0.06

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

Table 14.1-30: SAR Values (LTE Band7 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2535	**21100**	**1RB_Low**	**Front**	**Fig.30**	**23.37**	**24**	**0.198**	**0.23**	**0.370**	**0.43**	**0.03**
2535	21100	1RB_Low	Rear	/	23.37	24	0.200	0.23	0.369	0.43	-0.07
2560	21350	50RB_Mid	Front	/	22.2	23	0.111	0.13	0.210	0.25	0.07
2560	21350	50RB_Mid	Rear	/	22.2	23	0.116	0.14	0.212	0.25	0.08
2535	21100	1RB_Low	Front	**Note1**	23.37	24	0.193	0.22	0.365	0.42	-0.05
2535	21100	1RB_Low	Front	**Note2**	23.37	24	0.195	0.23	0.365	0.42	0.08
2535	21100	1RB_Low	Front	**Note3**	23.37	24	0.185	0.21	0.352	0.41	0.03

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

Note3: SAR Values For SIM1

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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.

Div Antenna

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

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.										
836.6	**190**	**Right**	**Touch**	**Fig.1**	**33.14**	**33.5**	**0.398**	**0.43**	**0.708**	**0.77**	**0.01**

Table 14.2-2: SAR Values (GSM 850 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.2**	**31.3**	**31.5**	**0.093**	**0.10**	**0.133**	**0.14**	**0.00**

Table 14.2-3: SAR Values (GSM 850 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.3**	**31.3**	**31.5**	**0.078**	**0.08**	**0.101**	**0.11**	**-0.03**

Table 14.2-4: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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**	**Right**	**Touch**	**Fig.4**	**30.16**	**30.5**	**0.425**	**0.46**	**0.812**	**0.88**	**0.05**

Table 14.2-5: SAR Values (GSM 1900 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.5**	**28.19**	**28.5**	**0.065**	**0.07**	**0.109**	**0.12**	**-0.04**

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Table 14.2-6: SAR Values (GSM 1900 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.6**	**28.19**	**28.5**	**0.033**	**0.04**	**0.053**	**0.06**	**-0.06**

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

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.7**	**23.86**	**24.5**	**0.363**	**0.42**	**0.659**	**0.76**	**-0.07**

Table 14.2-8: SAR Values (WCDMA 850 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.									
826.4	**4132**	**Front**	**Fig.8**	**23.82**	**24.5**	**0.104**	**0.12**	**0.142**	**0.17**	**-0.14**

Table 14.2-9: SAR Values (WCDMA 850 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.									
826.4	**4132**	**Front**	**Fig.9**	**23.82**	**24.5**	**0.076**	**0.09**	**0.100**	**0.12**	**0.07**

Table 14.2-10: SAR Values (LTE Band5 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
844	**20600**	**1RB_Mid**	**Left**	**Touch**	**Fig.10**	**23.92**	**24**	**0.346**	**0.35**	**0.543**	**0.55**	**-0.03**

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Table 14.2-11: SAR Values (LTE Band5 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.11**	**23.92**	**24**	**0.113**	**0.12**	**0.156**	**0.16**	**0.00**

Table 14.2-12: SAR Values (LTE Band5 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.12**	**23.92**	**24**	**0.080**	**0.08**	**0.104**	**0.11**	**0.08**

Table 14.2-13: SAR Values (LTE Band7 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
2560	**21350**	**1RB_Low**	**Right**	**Tilt**	**Fig.13**	**23.63**	**24**	**0.274**	**0.30**	**0.719**	**0.78**	**0.11**

Table 14.2-14: SAR Values (LTE Band7 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2560	**21350**	**1RB_Low**	**Top**	**Fig.14**	**23.63**	**24**	**0.059**	**0.06**	**0.131**	**0.14**	**0.07**

Table 14.2-15: SAR Values (LTE Band7 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2560	**21350**	**1RB_Low**	**Front**	**Fig.15**	**23.63**	**24**	**0.029**	**0.03**	**0.061**	**0.07**	**0.04**

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Main Antenna

Table 14.2-16: SAR Values (GSM 850 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.16**	**33.45**	**33.5**	**0.238**	**0.24**	**0.311**	**0.31**	**0.07**

Table 14.2-17: SAR Values (GSM 850 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.										
824.2	**128**	**GPRS (2)**	**Right**	**Fig.17**	**31.41**	**31.5**	**0.348**	**0.36**	**0.498**	**0.51**	**-0.01**

Table 14.2-18: SAR Values (GSM 850 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.										
824.2	**128**	**GPRS (2)**	**Rear**	**Fig.18**	**31.41**	**31.5**	**0.318**	**0.32**	**0.413**	**0.42**	**-0.01**

Table 14.2-19: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.										
1850.2	**512**	**Left**	**Touch**	**Fig.19**	**30.45**	**30.5**	**0.146**	**0.15**	**0.234**	**0.24**	**-0.16**

Table 14.2-20: SAR Values (GSM 1900 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.20**	**28.49**	**28.5**	**0.178**	**0.18**	**0.317**	**0.32**	**0.02**

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Table 14.2-21: SAR Values (GSM 1900 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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)**	**Front**	**Fig.21**	**28.49**	**28.5**	**0.081**	**0.08**	**0.141**	**0.14**	**0.19**

Table 14.2-22: SAR Values (WCDMA 850 MHz Band - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.22**	**23.81**	**24.5**	**0.250**	**0.29**	**0.324**	**0.38**	**0.08**

Table 14.2-23: SAR Values (WCDMA 850 MHz Band - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.									
826.4	**4132**	**Right**	**Fig.23**	**23.97**	**24.5**	**0.273**	**0.31**	**0.413**	**0.47**	**0.00**

Table 14.2-24: SAR Values (WCDMA 850 MHz Band – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°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.									
826.4	**4132**	**Rear**	**Fig.24**	**23.97**	**24.5**	**0.273**	**0.31**	**0.353**	**0.40**	**0.02**

Table 14.2-25: SAR Values (LTE Band5 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
844	**20600**	**1RB_Mid**	**Right**	**Touch**	**Fig.25**	**23.94**	**24**	**0.242**	**0.25**	**0.314**	**0.32**	**-0.06**

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Table 14.2-26: SAR Values (LTE Band5 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.26**	**23.94**	**24**	**0.257**	**0.26**	**0.333**	**0.34**	**-0.04**

Table 14.2-27: SAR Values (LTE Band5 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
844	**20600**	**1RB_Mid**	**Front**	**Fig.27**	**23.94**	**24**	**0.210**	**0.21**	**0.269**	**0.27**	**-0.01**

Table 14.2-28: SAR Values (LTE Band7 - Head)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C												
Frequency		Mode	Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
2535	**21100**	**1RB_Low**	**Right**	**Touch**	**Fig.28**	**23.37**	**24**	**0.198**	**0.23**	**0.365**	**0.42**	**0.13**

Table 14.2-29: SAR Values (LTE Band7 - Body) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2535	**21100**	**1RB_Low**	**Front**	**Fig.29**	**23.37**	**24**	**0.394**	**0.46**	**0.768**	**0.89**	**-0.01**

Table 14.2-30: SAR Values (LTE Band7 – Body worn) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2535	**21100**	**1RB_Low**	**Front**	**Fig.30**	**23.37**	**24**	**0.198**	**0.23**	**0.370**	**0.43**	**0.03**

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14.3 WLAN Evaluation

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

Head Evaluation

Table 14.3-1: SAR Values (WLAN - Head) – 802.11b 1Mbps (Fast SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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	/	16	16.5	0.400	0.45	0.799	0.90	0.12
2412	1	Left	Tilt	/	16	16.5	0.292	0.33	0.631	0.71	0.12
2412	1	Right	Touch	/	16	16.5	0.202	0.23	0.361	0.41	-0.12
2412	1	Right	Tilt	/	16	16.5	0.149	0.17	0.276	0.31	-0.04

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

Table 14.3-2: SAR Values (WLAN - Head) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Side	Test Position	Figure No/ Note.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2412	1	Left	Touch	Fig.31	16	16.5	0.379	0.43	0.827	0.93	0.12
2412	1	Left	Tilt	/	16	16.5	0.289	0.32	0.735	0.82	0.12
2412	1	Right	Touch	/	16	16.5	0.191	0.21	0.372	0.42	-0.12
2437	6	Left	Touch	/	15.8	16.5	0.453	0.53	1.010	1.19	0.15
2462	11	Left	Touch	/	**15.9**	**16.5**	**0.474**	**0.54**	**1.080**	**1.24**	**0.15**
2462	11	Left	Tilt	/	15.9	16.5	0.289	0.33	0.730	0.84	0.12

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

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

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Table 14.3-3: SAR Values For Other Batteries And SIM

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Side	Test Position	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)	Note
MHz	Ch.										
2462	11	Left	Touch	15.9	16.5	0.476	0.55	1.070	1.23	-0.14	1
2462	11	Left	Touch	15.9	16.5	0.446	0.51	0.975	1.12	-0.03	2

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. A maximum transmission duty factor is achievable for WLAN in this project and the scaled reported SAR is presented as below.

Table 14.3-4: SAR Values (WLAN - Head) – 802.11b 1Mbps (Scaled Reported SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C							
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
2462	11	Left	Touch	98.2%	100%	**1.24**	**1.26**
2412	1	Right	Touch	98.2%	100%	**0.42**	**0.43**
2437	6	Left	Touch	98.2%	100%	**1.19**	**1.21**
2412	1	Left	Touch	98.2%	100%	**1.09**	**1.11**

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

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Body Evaluation

Table 14.3-5: SAR Values (WLAN - Body) – 802.11b 1Mbps (Fast SAR) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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.									
2412	1	Front	/	16	16.5	0.067	0.07	0.118	0.13	0.11
2412	1	Rear	/	16	16.5	0.053	0.06	0.096	0.11	-0.11
2412	1	Right	/	16	16.5	0.058	0.07	0.111	0.12	0.12
2412	1	Top	/	16	16.5	0.036	0.04	0.069	0.08	0.02

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

Table 14.3-6: SAR Values (WLAN - Body) – 802.11b 1Mbps (Full SAR) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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.									
2412	1	Front	Fig.32	16	16.5	0.065	0.07	0.117	**0.13**	0.11

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

Table 14.3-7: SAR Values For Other Batteries 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C										
Frequency		Test Position	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)	Note
MHz	Ch.									
2412	1	Front	16	16.5	0.043	0.05	0.076	0.09	0.08	1
2412	1	Front	16	16.5	0.058	0.07	0.099	0.11	0.03	2

Note1: SAR Values For Battery (HB366481ECW (Desay))
Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

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According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. A maximum transmission duty factor is achievable for WLAN in this project and the scaled reported SAR is presented as below.

Table 14.3-8: SAR Values (WLAN - Body) – 802.11b 1Mbps (Scaled Reported SAR) 10mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C						
Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.					
2412	1	Front	98.2%	100%	**0.13**	**0.13**

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

Body-worn Evaluation

Table 14.3-9: SAR Values (WLAN - Body) – 802.11b 1Mbps (Fast SAR) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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.									
2412	1	Front	/	16	16.5	0.043	0.05	0.078	0.09	-0.19
2412	1	Rear	/	16	16.5	0.024	0.03	0.045	0.05	0.14

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

Table 14.3-10: SAR Values (WLAN - Body) – 802.11b 5.5Mbps (Full SAR) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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.									
2412	1	Front	Fig.33	16	16.5	0.047	0.05	0.084	**0.09**	-0.19

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

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Table 14.3-11: SAR Values For Other Batteries 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5°C										
Frequency		Test Position	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)	Note
MHz	Ch.									
2412	1	Front	16	16.5	0.025	0.03	0.043	0.05	0.09	1
2412	1	Front	16	16.5	0.034	0.04	0.060	0.07	0.18	2

Note1: SAR Values For Battery (HB366481ECW (Desay))

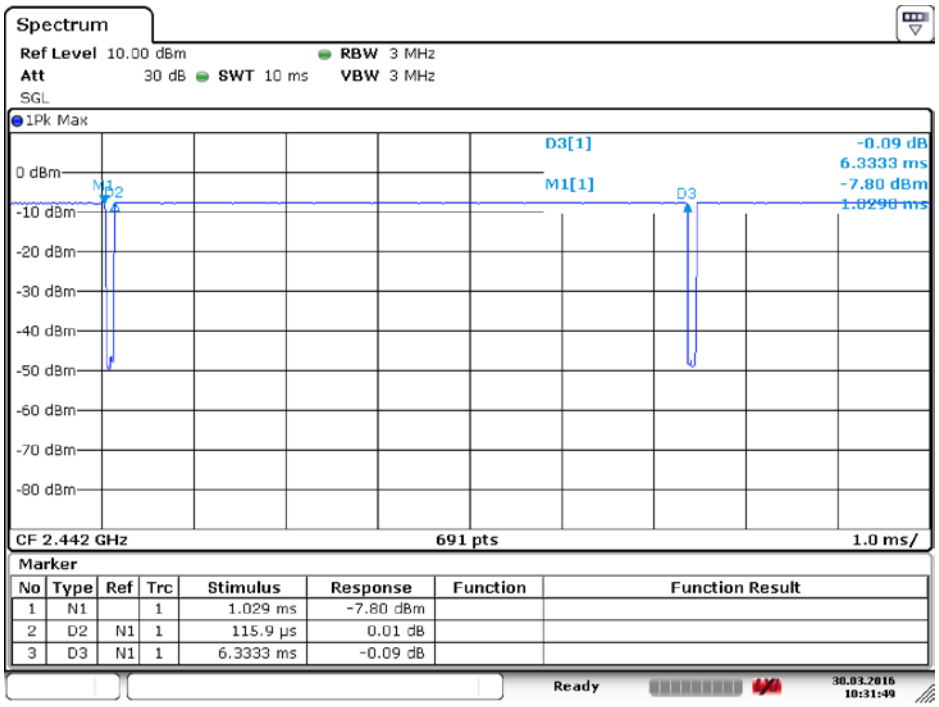
Note2: SAR Values For Battery (HB366481ECW (Sunwoda electronic Co., Ltd.))

According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. A maximum transmission duty factor is achievable for WLAN in this project and the scaled reported SAR is presented as below.

Table 14.3-12: SAR Values (WLAN - Body) – 802.11b 1Mbps (Scaled Reported SAR) 15mm

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C						
Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.					
2412	1	Front	98.2%	100%	**0.09**	**0.09**

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



Picture 14.1 The plot of duty factor

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Head Evaluation With Reduced Conducted Power

Table 14.3-13: SAR Values (WLAN - Head) – 802.11b 1Mbps (Fast SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °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	/	12.5	13	0.207	0.23	0.427	0.48	0.03
2412	1	Left	Tilt	/	12.5	13	0.158	0.18	0.348	0.39	0.09
2412	1	Right	Touch	/	12.5	13	0.096	0.11	0.171	0.19	-0.11
2412	1	Right	Tilt	/	12.5	13	0.072	0.08	0.143	0.16	0.09

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

Table 14.3-14: SAR Values (WLAN - Head) – 802.11b 1Mbps (Full SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Side	Test Position	Figure No/ Note.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2412	1	Left	Touch	Fig.34	12.5	13	0.185	0.21	0.415	**0.47**	0.03

Note1: When the reported SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest estimated 1-g SAR conditions determined by area scans, on the highest maximum output power channel, until the reported SAR is ≤ 0.8 W/kg.
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.

Table 14.3-15: SAR Values For Other Batteries And SIM

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C											
Frequency		Side	Test Position	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)	Note
MHz	Ch.										
2412	1	Left	Touch	12.5	13	0.193	0.22	0.406	0.46	0.07	1
2412	1	Left	Touch	12.5	13	0.197	0.22	0.410	0.46	-0.05	2

Note1: SAR Values For Battery (HB366481ECW (Desay))

Note2: SAR Values For Battery (HB366481ECW (SCUD(FUJIAN) Electronics Co.,Ltd))

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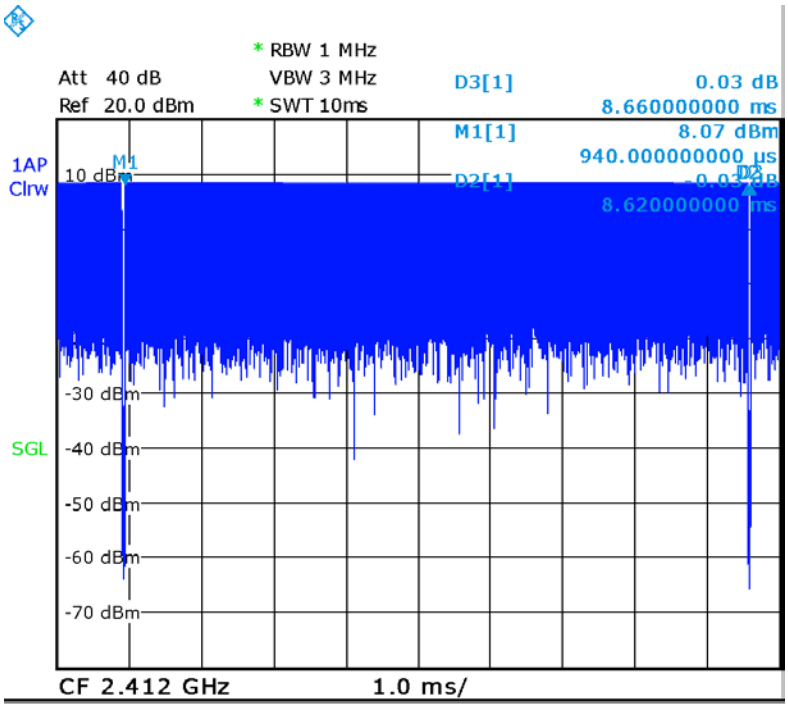
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. A maximum transmission duty factor is achievable for WLAN in this project and the scaled reported SAR is presented as below.

Table 14.3-16: SAR Values (WLAN - Head) – 802.11b 1Mbps (Scaled Reported SAR)

Ambient Temperature: 23.0 °C Liquid Temperature: 22.5 °C							
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
MHz	Ch.						
2412	1	Left	Touch	99.53%	100%	**0.47**	**0.47**
2412	1	Right	Touch	99.53%	100%	**0.19**	**0.19**

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



Picture 14.2 The plot of duty factor

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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 Head GSM1900 (1g) Div Antenna

Frequency		Side	Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
1909.8	810	Right	Touch	0.812	0.799	1.02	/

Table 15.2: SAR Measurement Variability for Head WLAN (1g)

Frequency		Side	Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
MHz	Ch.						
2462	11	Left	Touch	1.080	0.995	1.08	/

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16 Measurement Uncertainty

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
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

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

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	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

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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		$u_c' = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	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	∞

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Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						10.4	10.3	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	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										

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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		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

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17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 26, 2016	One year
02	Dielectric Probe Kit	85070E	Agilent	No Calibration Requested	
03	Power meter	NRVD	102196	March 03, 2016	One year
04	Power sensor	NRV-Z5	100596		
05	Power sensor	NRV-Z5	100595	September 16,2015	One year
06	Signal Generator	E4438C	MY49071430	February 01, 2016	One year
07	Amplifier	60S1G4	0331848	No Calibration Requested	
08	Directional Coupler	778D	MY48220584	No Calibration Requested	
09	Directional Coupler	772D	MY46151265	No Calibration Requested	
10	BTS	E5515C	MY50263375	January 30, 2016	One year
11	BTS	CMW500	129942	March 03, 2016	One year
12	E-field Probe	SPEAG EX3DV4	3617	August 26, 2015	One year
13	DAE	SPEAG DAE4	777	August 26, 2015	One year
14	Dipole Validation Kit	SPEAG D835V2	4d069	July 23, 2015	One year
15	Dipole Validation Kit	SPEAG D1900V2	5d101	July 23, 2015	One year
16	Dipole Validation Kit	SPEAG D2450V2	853	July 24, 2015	One year
17	Dipole Validation Kit	SPEAG D2600V2	1012	July 24, 2015	One year

END OF REPORT BODY

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ANNEX A Graph Results

Div Antenna

850 Right Cheek Middle

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 836.6 MHz; σ = 0.888 mho/m; εr = 41.61; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 Frequency: 836.6 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3617 ConvF(9.58, 9.58, 9.58)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.809 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 27.01 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.708 W/kg; SAR(10 g) = 0.398 W/kg
Maximum value of SAR (measured) = 0.944 W/kg

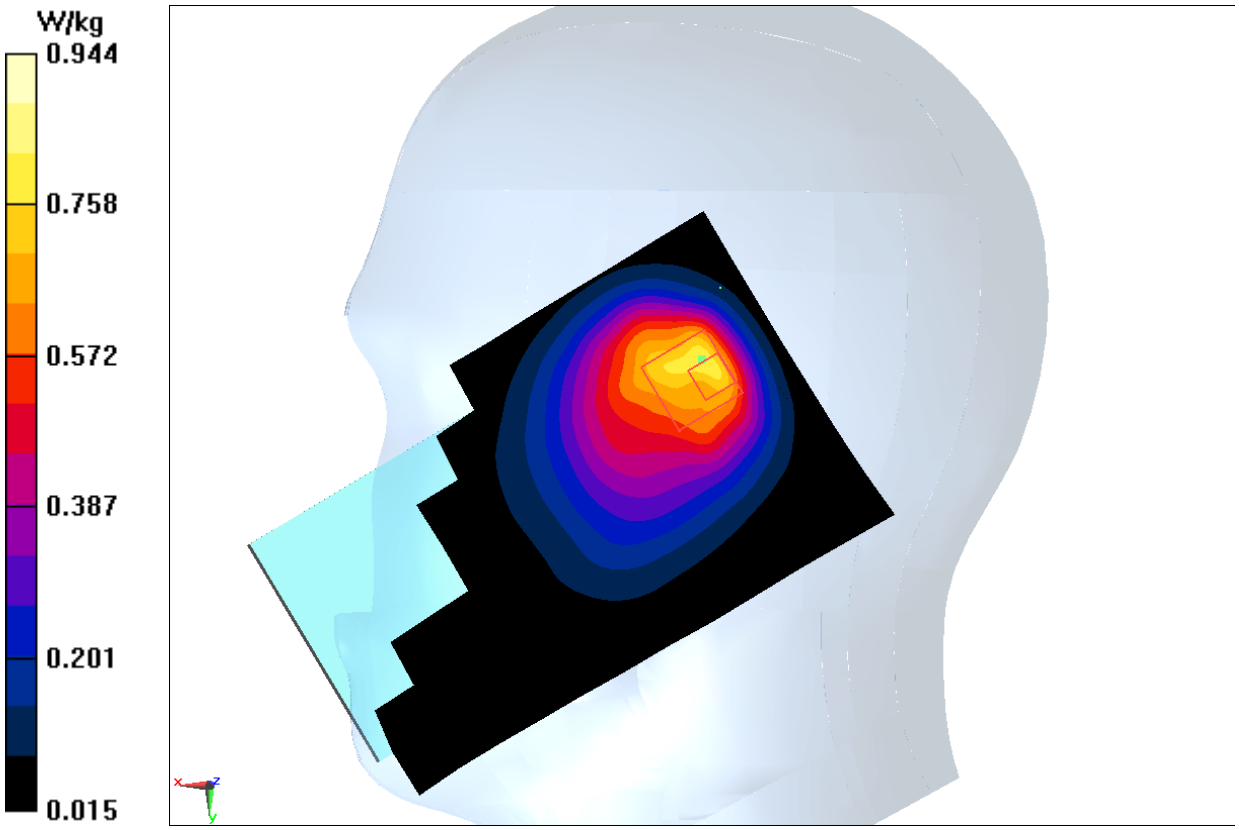

Fig.1 850MHz

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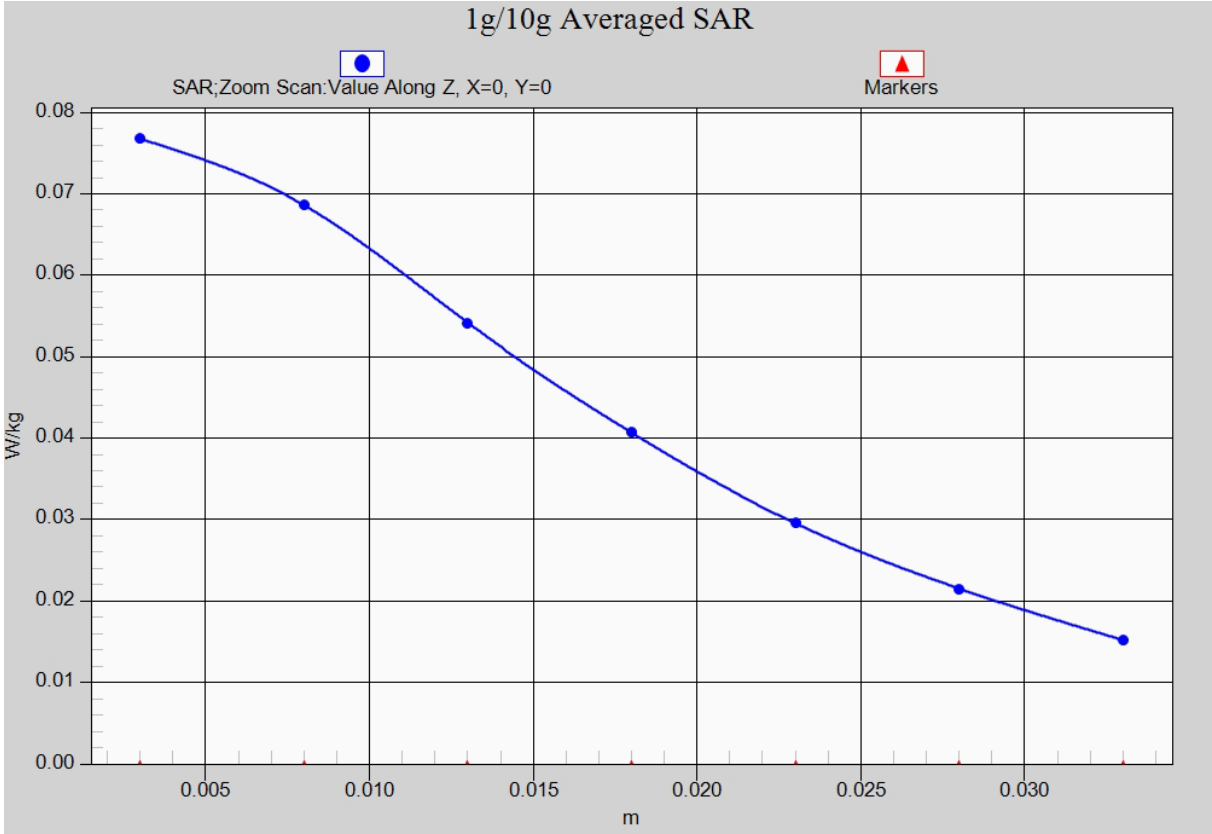

Fig. 1-1 Z-Scan at power reference point (850 MHz)

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850 Body Front High

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.995 mho/m; εr = 54.81; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

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

Maximum value of SAR (interpolated) = 0.162 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.223 V/m; Power Drift = -0.00 dB
Peak SAR (extrapolated) = 0.200 W/kg
SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.093 W/kg

Maximum value of SAR (measured) = 0.162 W/kg

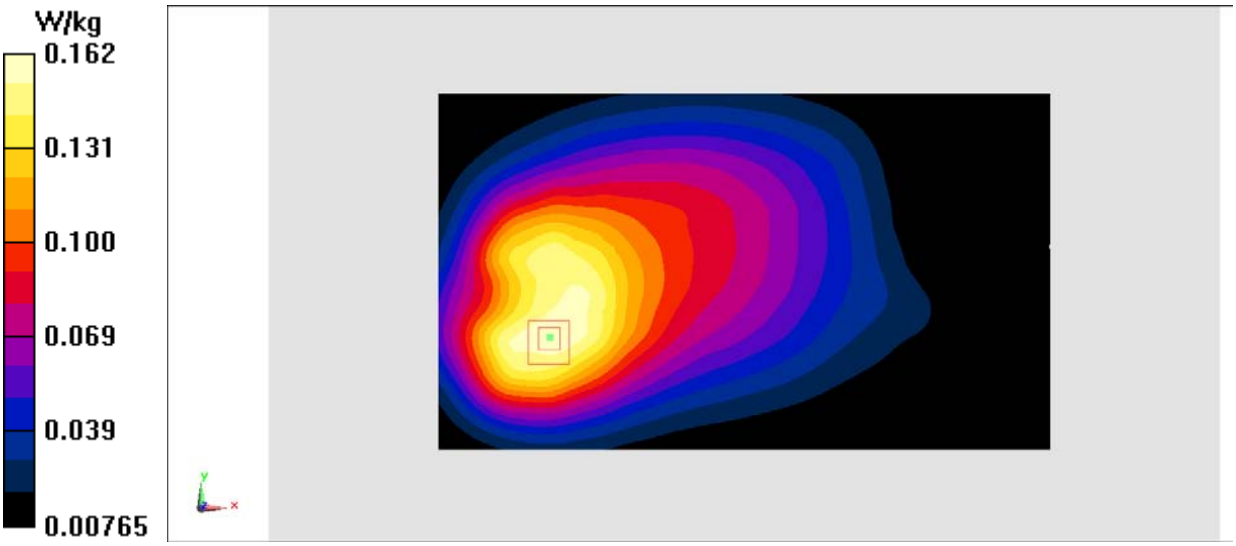

Fig.2 850 MHz

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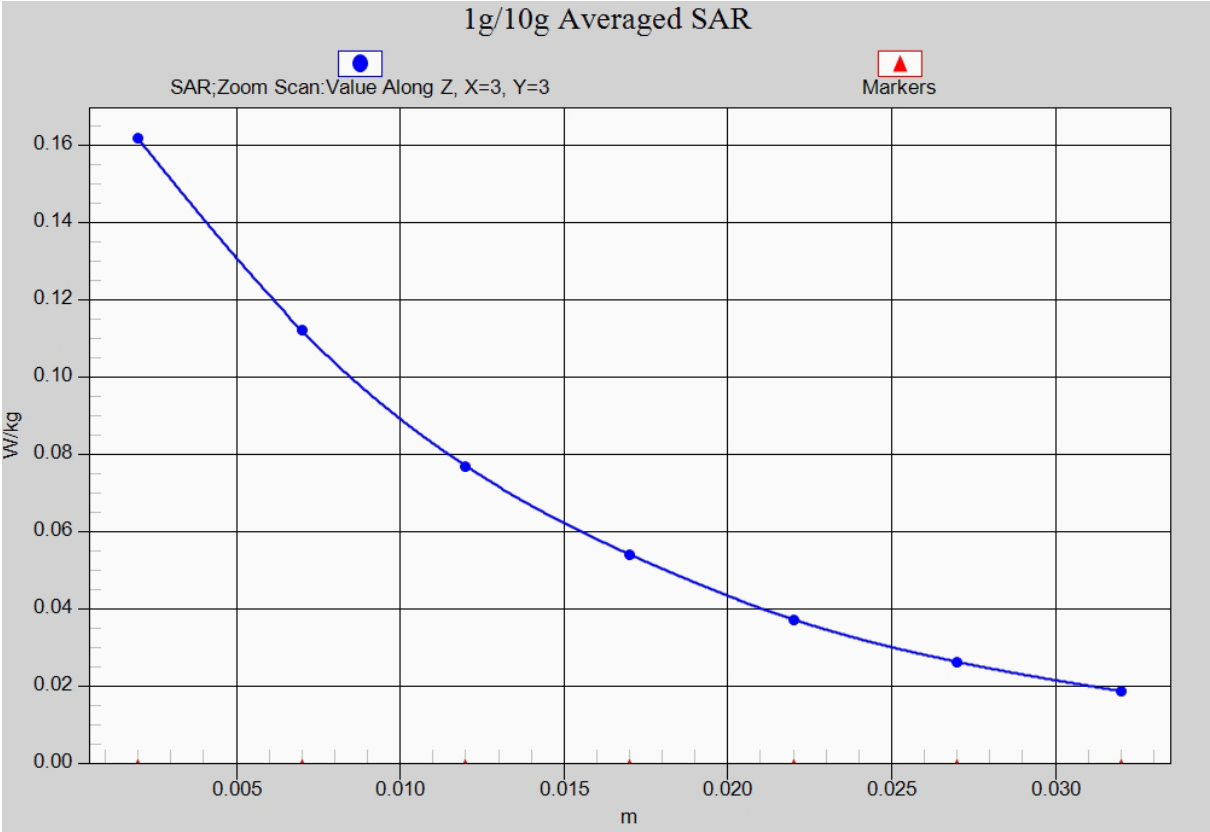

Fig. 2-1 Z-Scan at power reference point (850 MHz)

©Copyright. All rights reserved by CTTL.

850 Body Front High (Body-worn)
Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.995 mho/m; εr = 54.81; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 GPRS Frequency: 848.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

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

Maximum value of SAR (interpolated) = 0.118 W/kg

Zoom Scan (7x6x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.791 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.131 W/kg
SAR(1 g) = 0.101 W/kg; SAR(10 g) = 0.078 W/kg

Maximum value of SAR (measured) = 0.116 W/kg

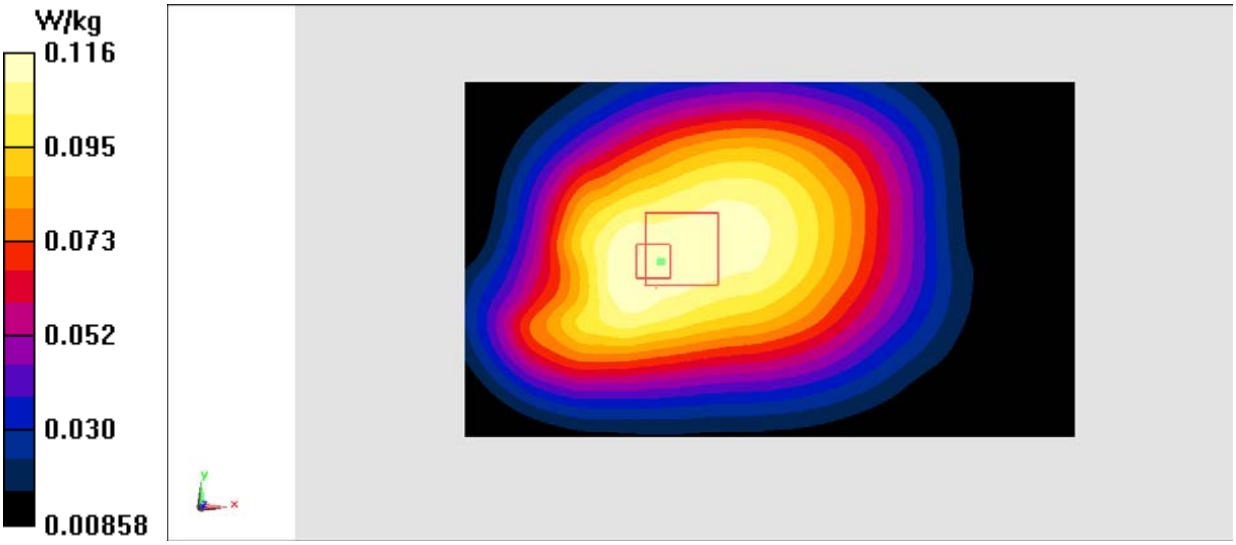

Fig.3 850 MHz

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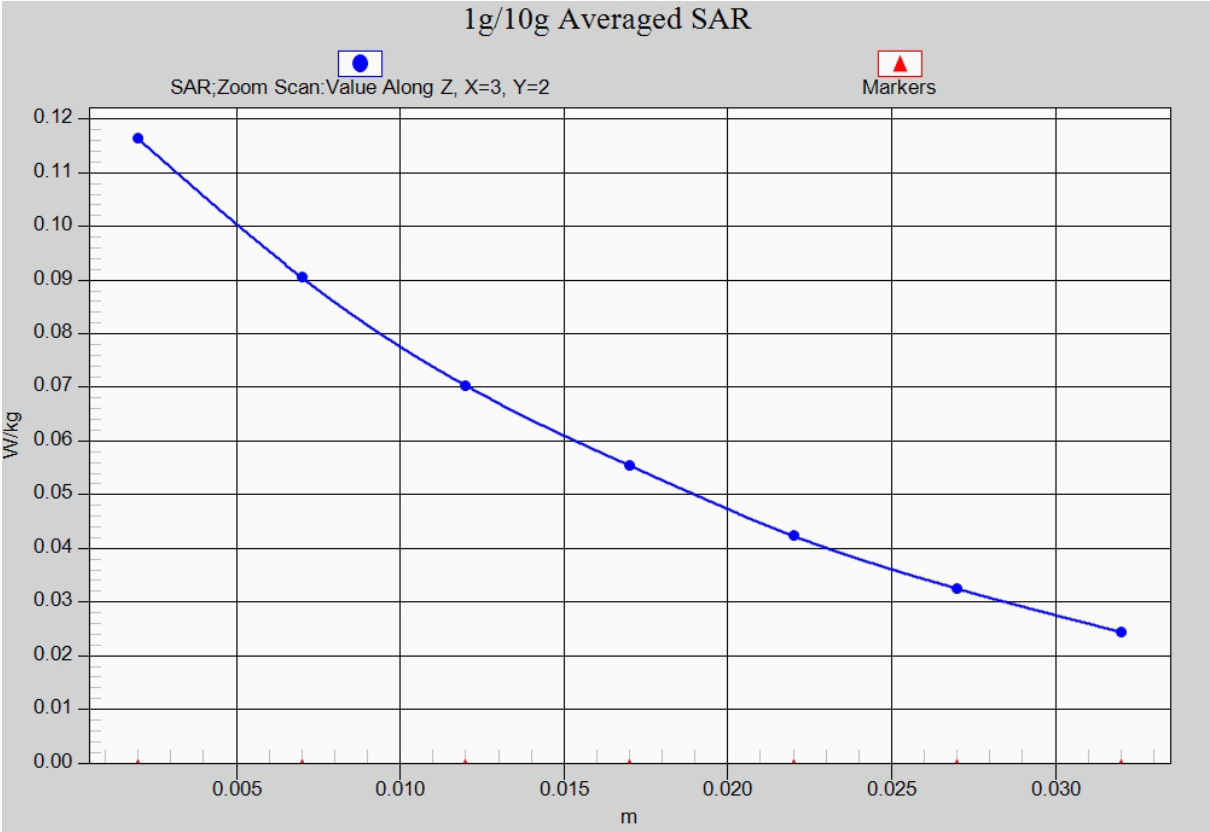

Fig. 3-1 Z-Scan at power reference point (850 MHz)

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1900 Right Cheek High

Date: 2016-4-6
Electronics: DAE4 Sn777
Medium: Head 1900 MHz
Medium parameters use (interpolated): f = 1909.8 MHz; σ = 1.432 mho/m; εr = 39.97; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 1900MHz Frequency: 1909.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3617 ConvF(8.07, 8.07, 8.07)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.04 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.92 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.56 W/kg
SAR(1 g) = 0.812 W/kg; SAR(10 g) = 0.425 W/kg
Maximum value of SAR (measured) = 1.02 W/kg

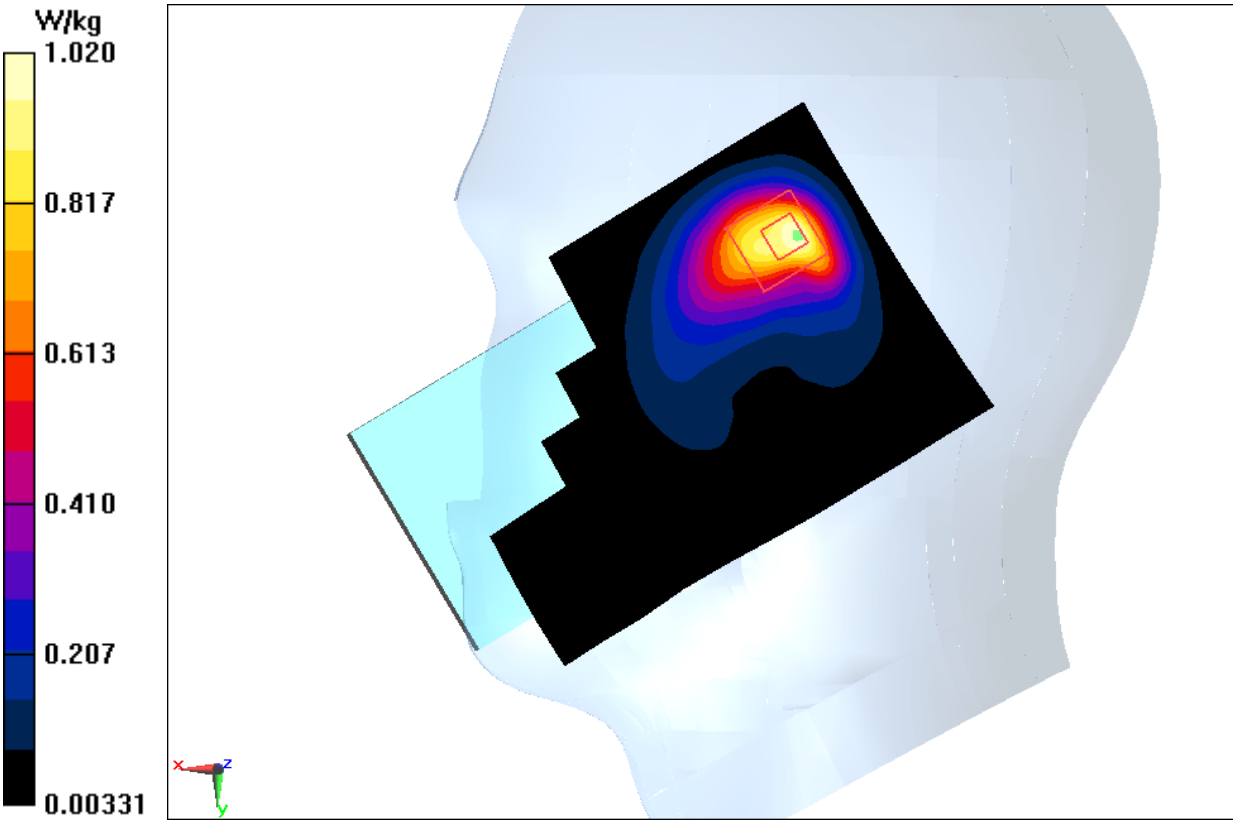

Fig.4 1900 MHz

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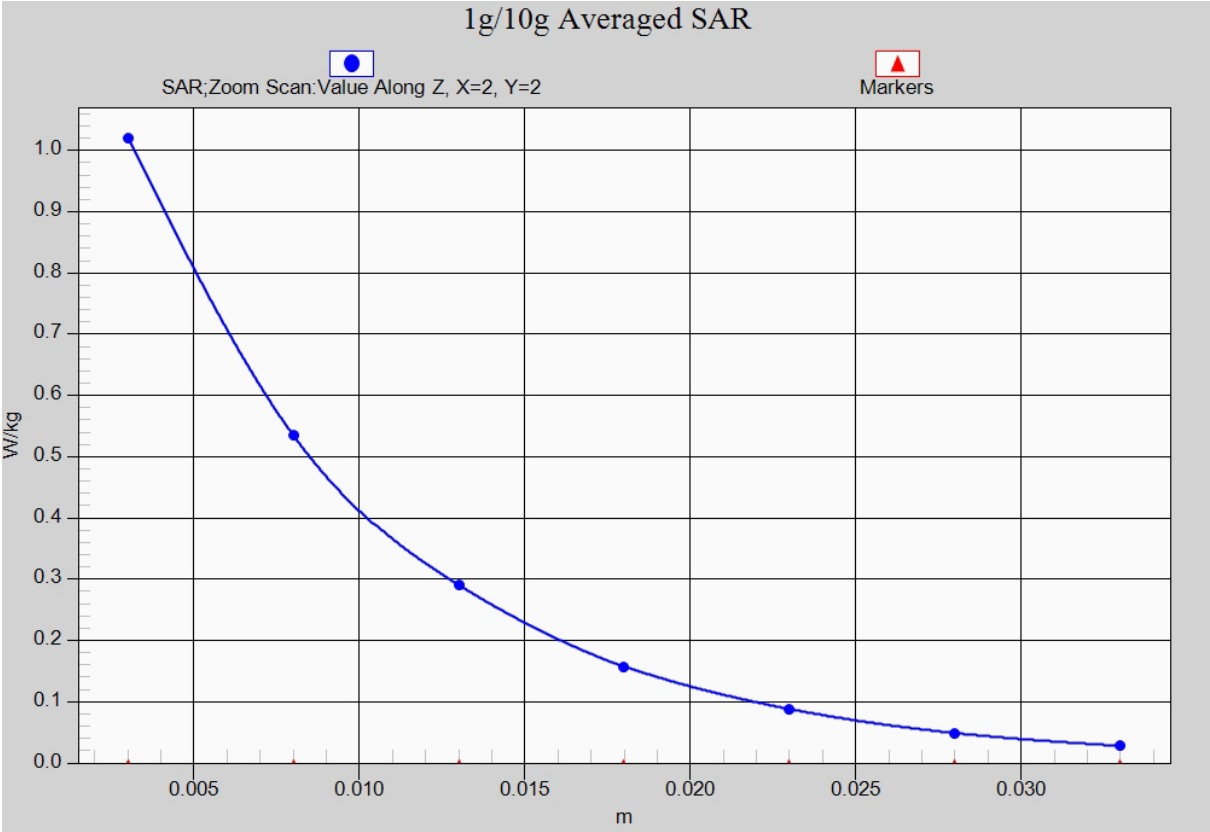

Fig. 4-1 Z-Scan at power reference point (1900 MHz)

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1900 Body Front High

Date: 2016-4-6
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used (interpolated): f = 1909.8 MHz; σ = 1.549 mho/m; εr = 53.71; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.124 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.576 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.167 W/kg
SAR(1 g) = 0.109 W/kg; SAR(10 g) = 0.065 W/kg
Maximum value of SAR (measured) = 0.120 W/kg

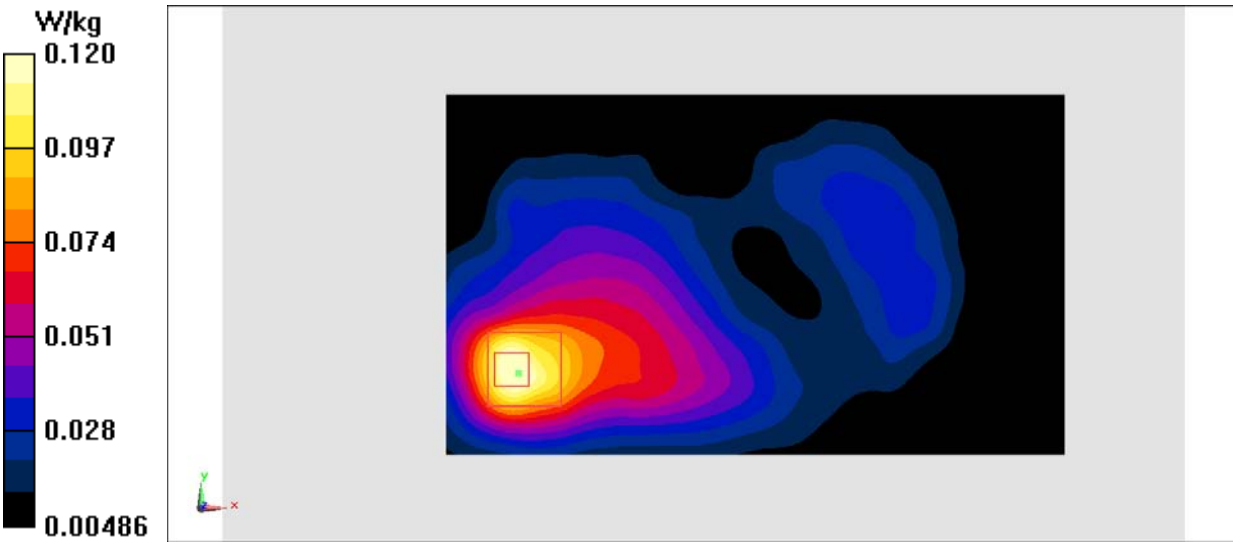

Fig.5 1900 MHz

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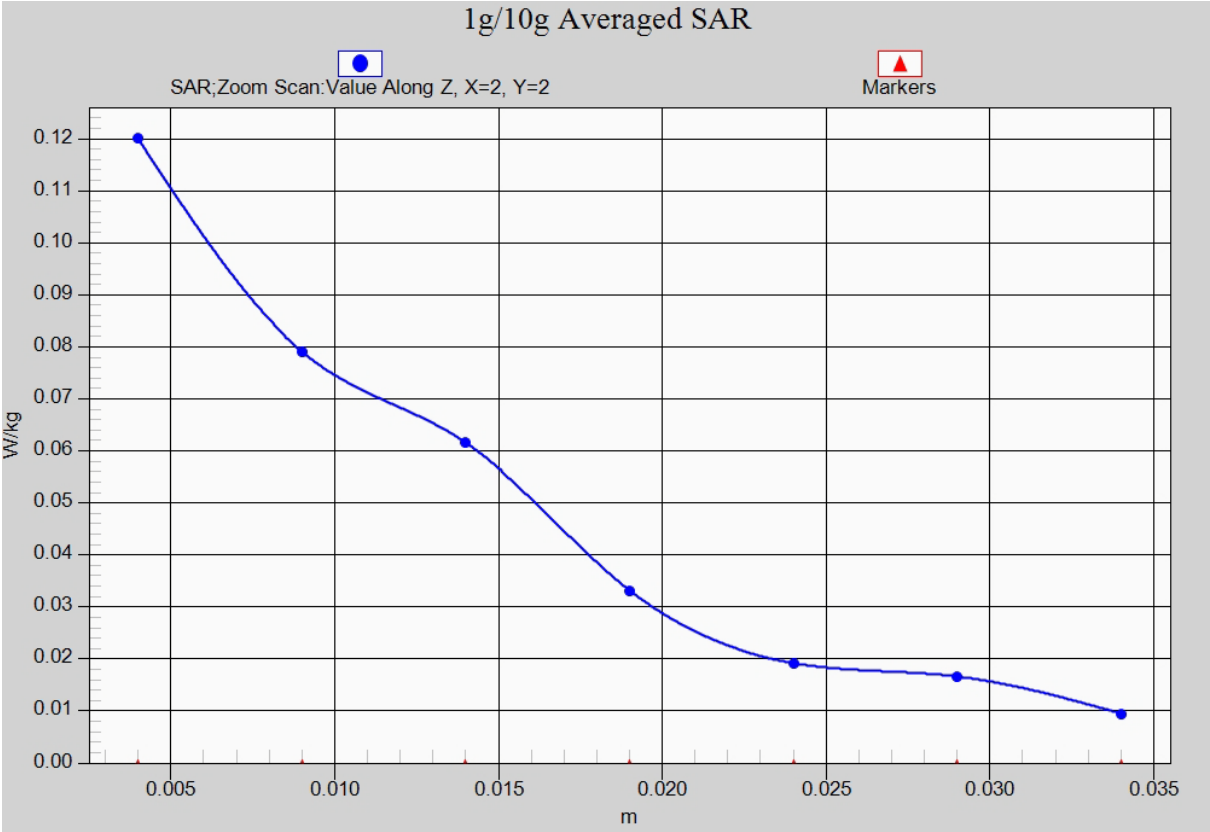

Fig.5-1 Z-Scan at power reference point (1900 MHz)

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1900 Body Front High (Body-worn)

Date: 2016-4-6
Electronics: DAE4 Sn777
Medium: Body 1900 MHz
Medium parameters used (interpolated): f = 1909.8 MHz; σ = 1.549 mho/m; εr = 53.71; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 1900MHz GPRS Frequency: 1909.8 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(7.74, 7.74, 7.74)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0613 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.759 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.0820 W/kg
SAR(1 g) = 0.053 W/kg; SAR(10 g) = 0.033 W/kg
Maximum value of SAR (measured) = 0.0587 W/kg

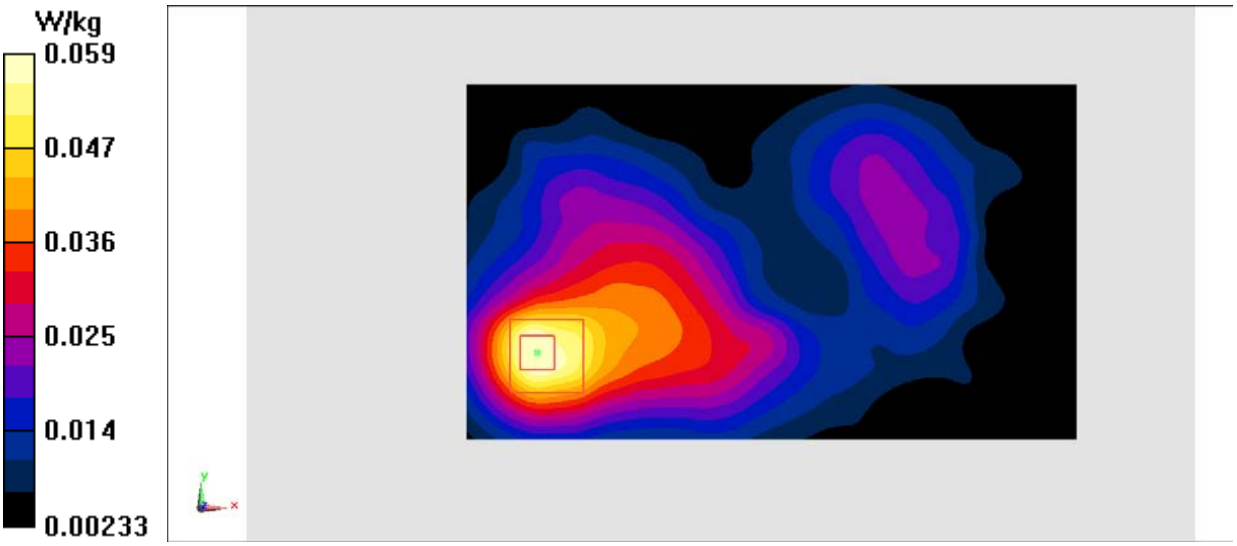

Fig.6 1900 MHz

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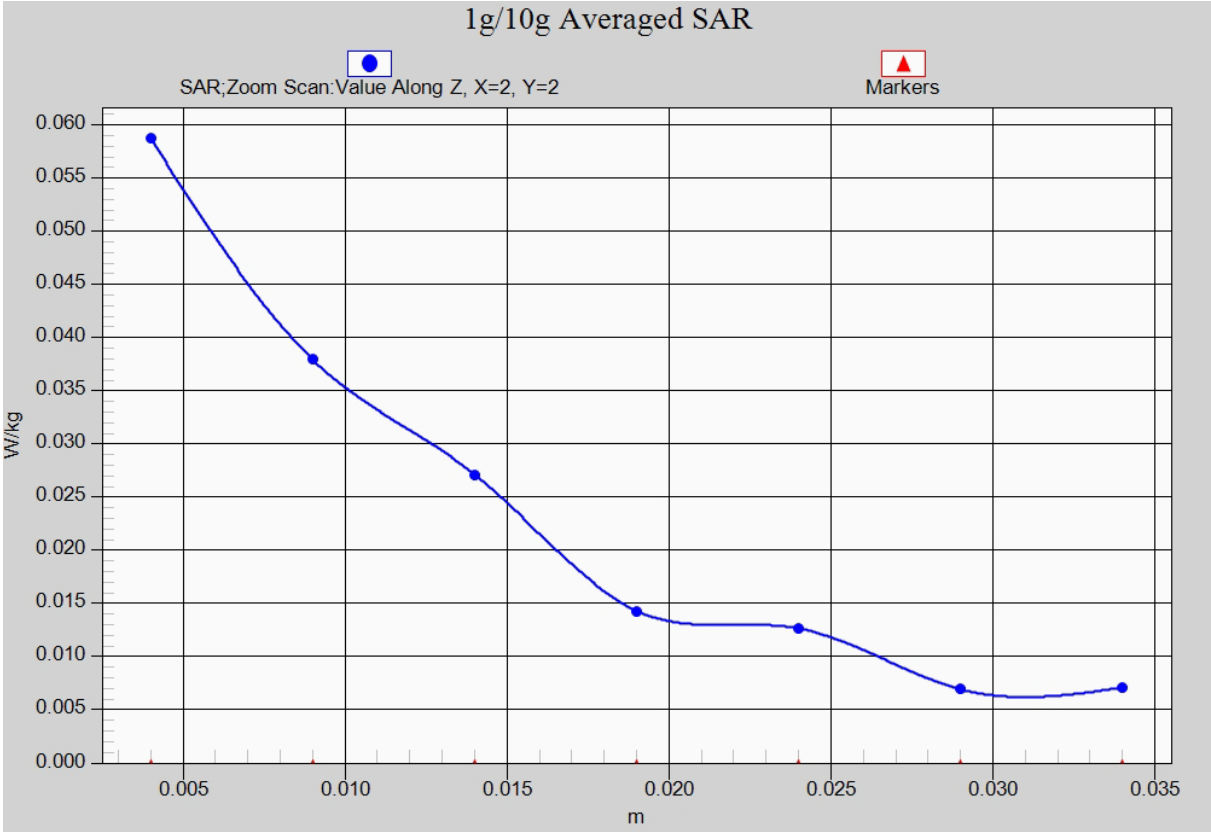

Fig.6-1 Z-Scan at power reference point (1900 MHz)

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WCDMA 850 Right Cheek Middle

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 836.4 MHz; σ = 0.881 mho/m; εr = 41.65; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA; Frequency: 836.4 MHz; Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.58, 9.58, 9.58)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.02 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.24 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.659 W/kg; SAR(10 g) = 0.363 W/kg
Maximum value of SAR (measured) = 0.890 W/kg

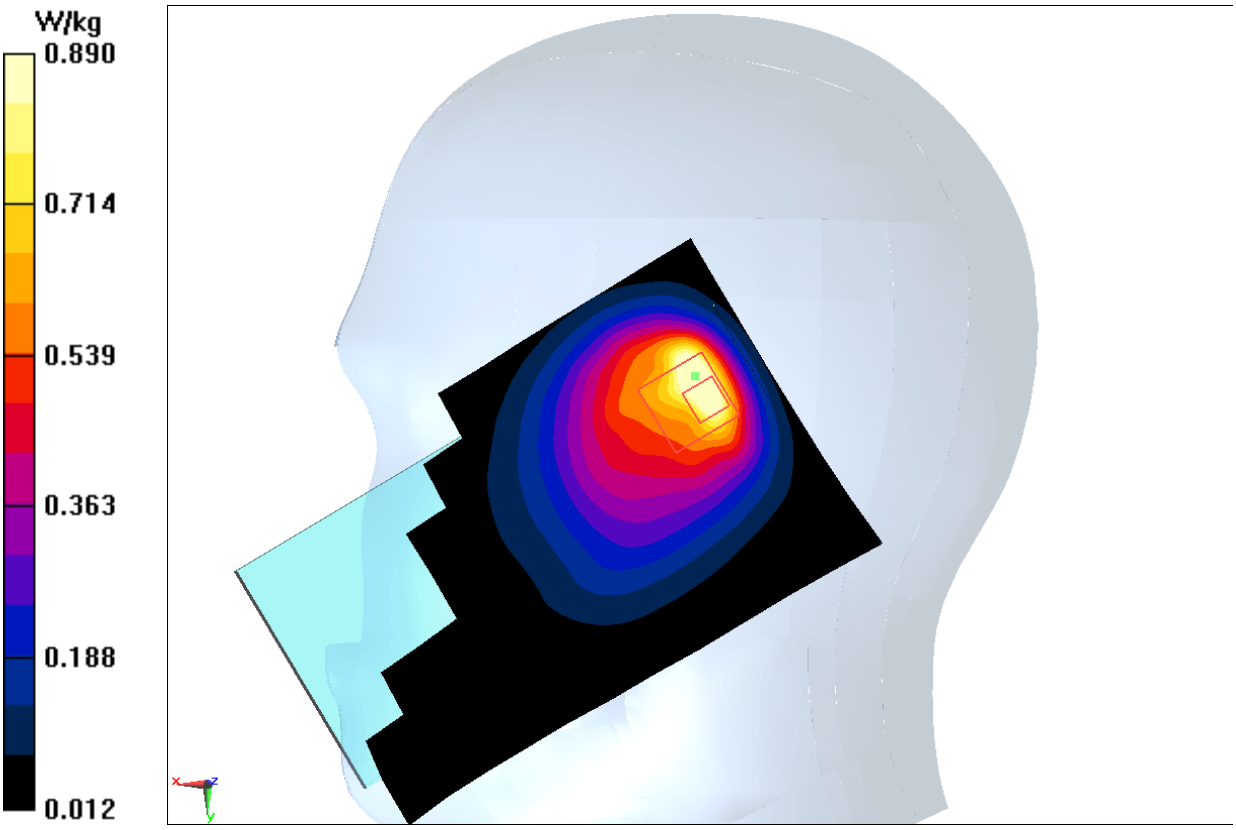

Fig.7 WCDMA 850

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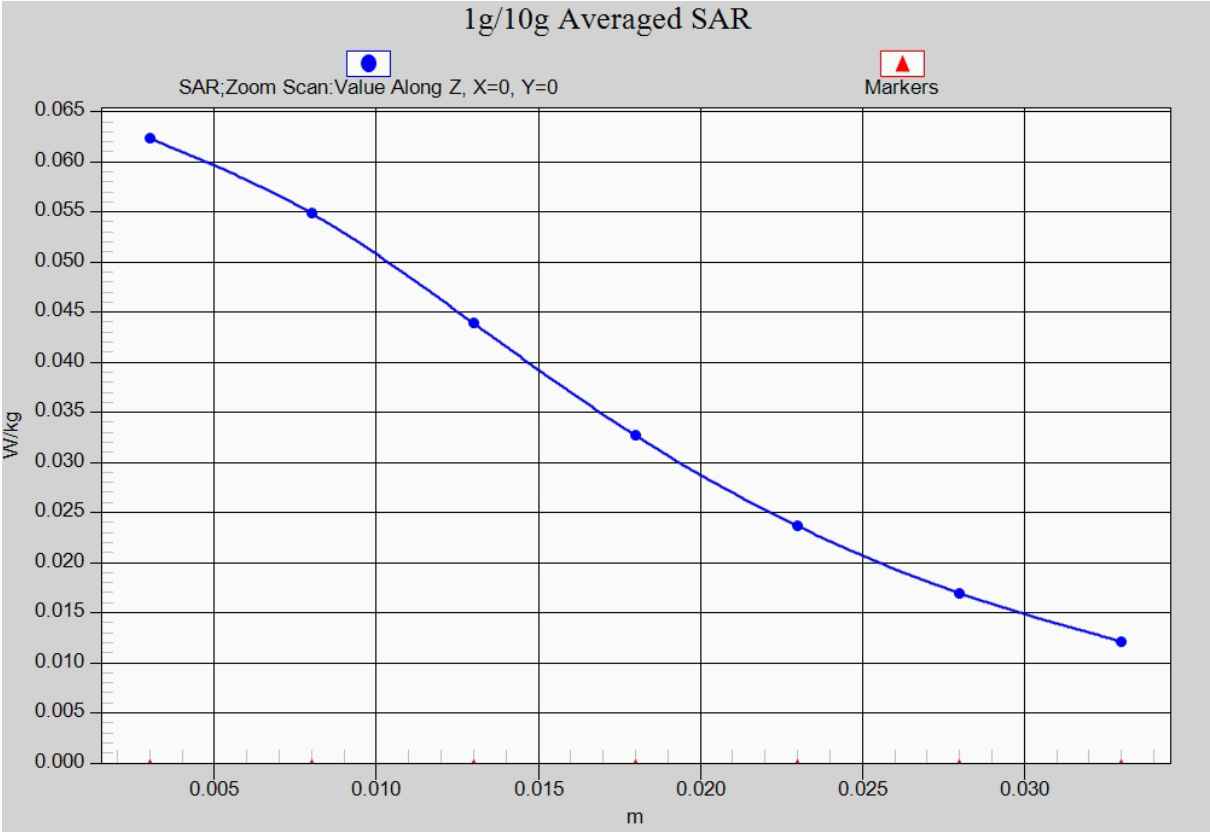

Fig. 7-1 Z-Scan at power reference point (WCDMA 850)

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WCDMA 850 Body Front Low

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.955 mho/m; εr = 55.24; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

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

Maximum value of SAR (interpolated) = 0.160 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.770 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.203 W/kg
SAR(1 g) = 0.142 W/kg; SAR(10 g) = 0.104 W/kg

Maximum value of SAR (measured) = 0.161 W/kg

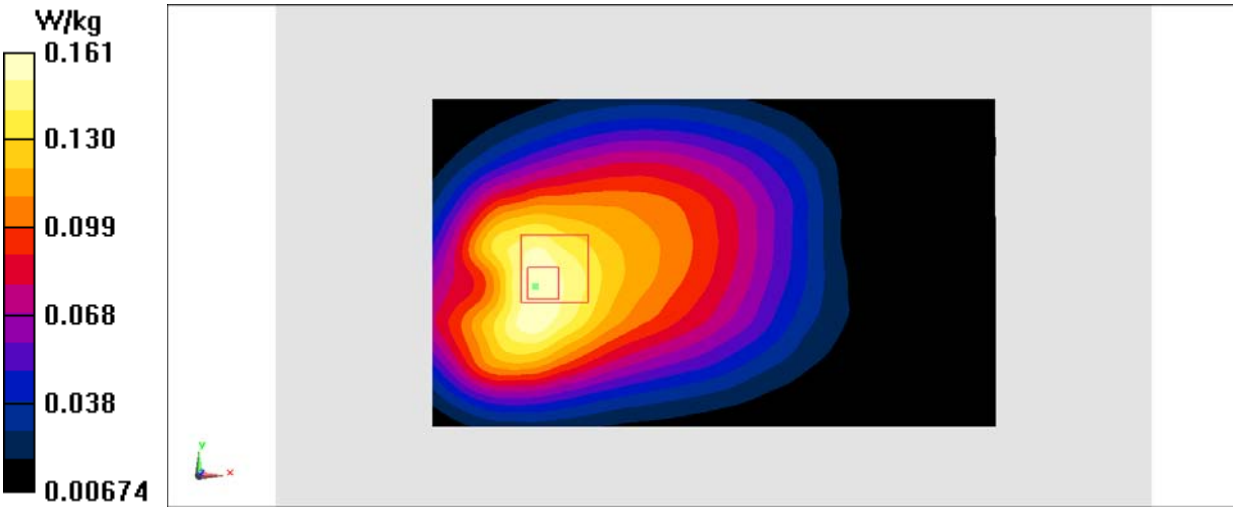

Fig.8 WCDMA 850

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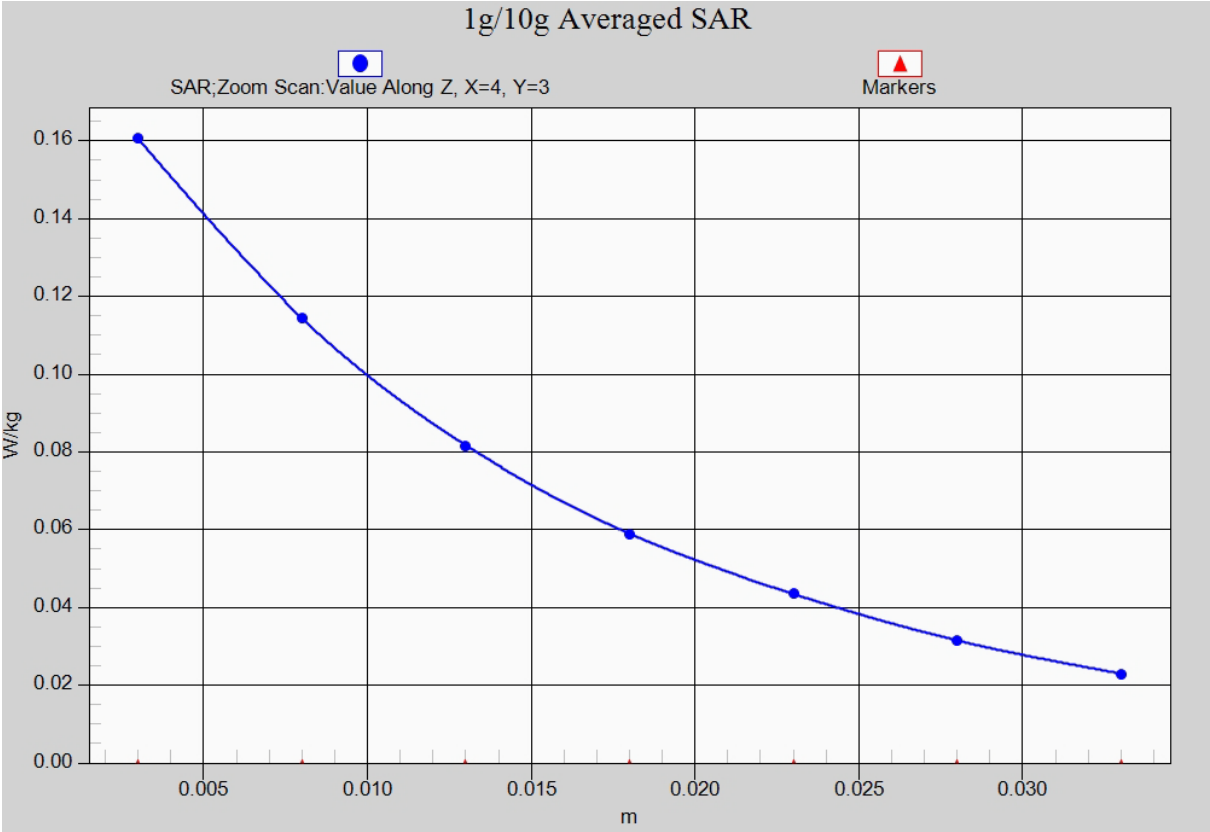

Fig. 8-1 Z-Scan at power reference point (WCDMA850)

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WCDMA 850 Body Front Low (Body-worn)

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.955 mho/m; εr = 55.24; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: WCDMA; Frequency: 826.4 MHz; Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

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

.

Maximum value of SAR (interpolated) = 0.109 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.894 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.130 W/kg
SAR(1 g) = 0.100 W/kg; SAR(10 g) = 0.076 W/kg

Maximum value of SAR (measured) = 0.110 W/kg

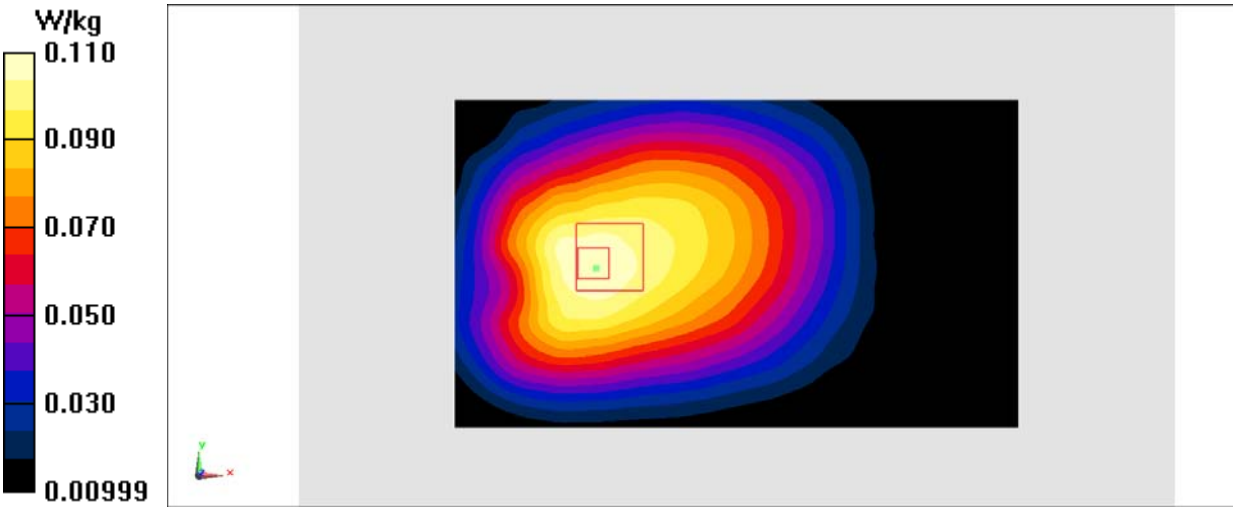

Fig.9 WCDMA 850

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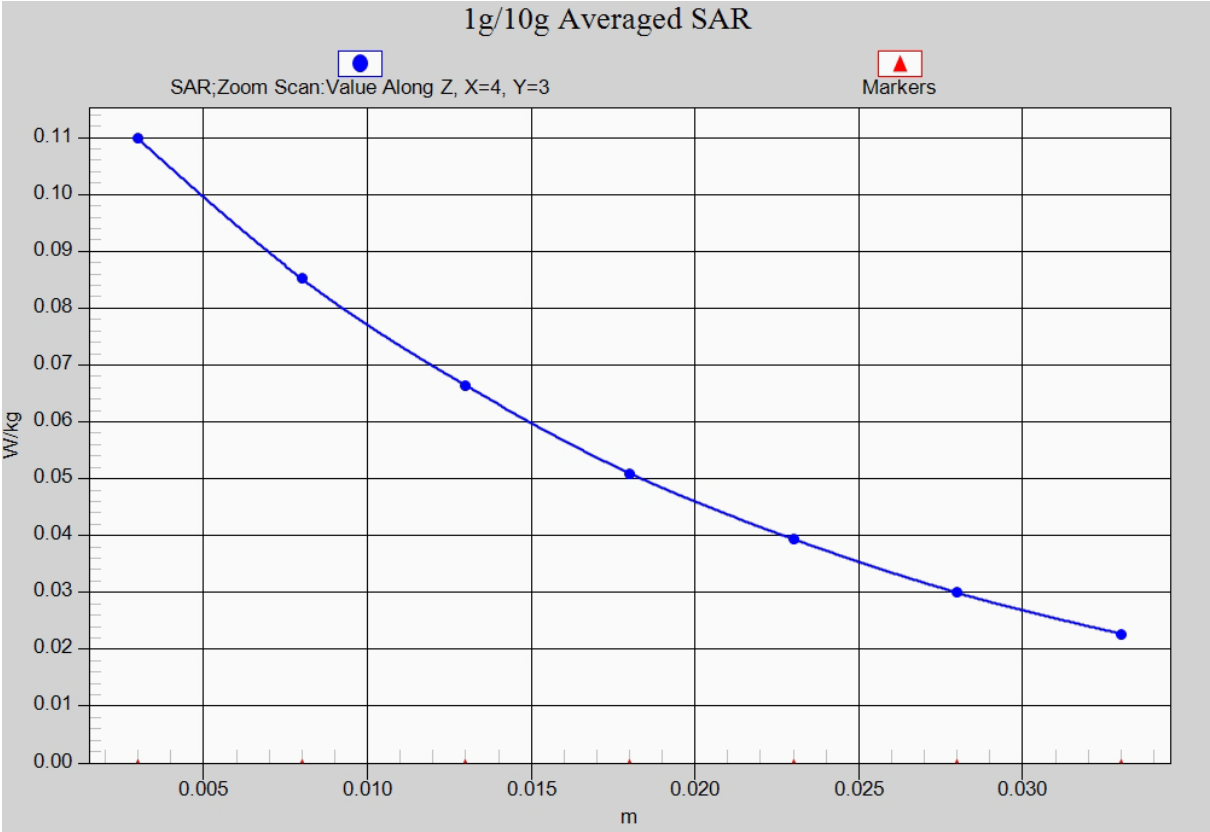

Fig. 9-1 Z-Scan at power reference point (WCDMA850)

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LTE Band5 Left Cheek High with QPSK_10M_1RB_Middle

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 844 MHz; σ =0.892 mho/m; εr = 41.51; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band5 Frequency: 844 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.58, 9.58, 9.58)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.654 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.93 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.944 W/kg
SAR(1 g) = 0.543 W/kg; SAR(10 g) = 0.346 W/kg
Maximum value of SAR (measured) = 0.642 W/kg

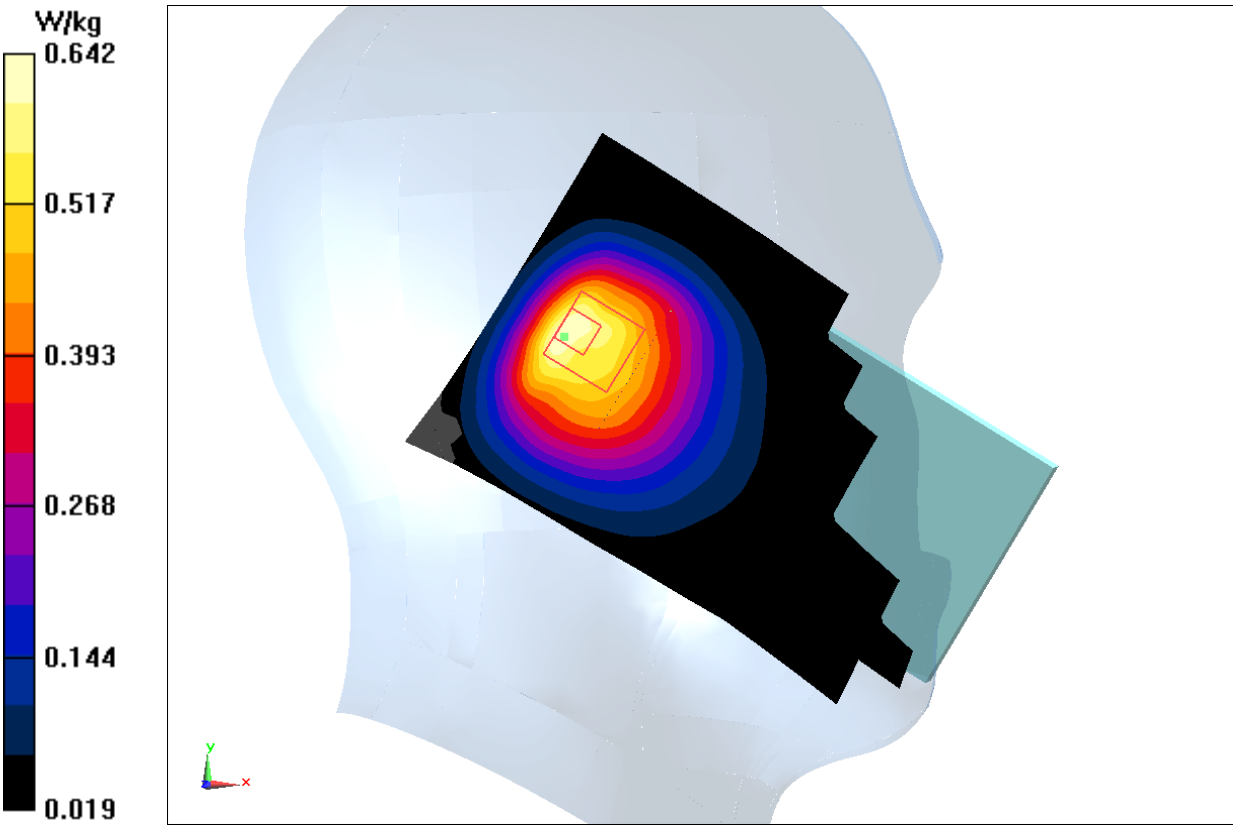

Fig.10 LTE Band5

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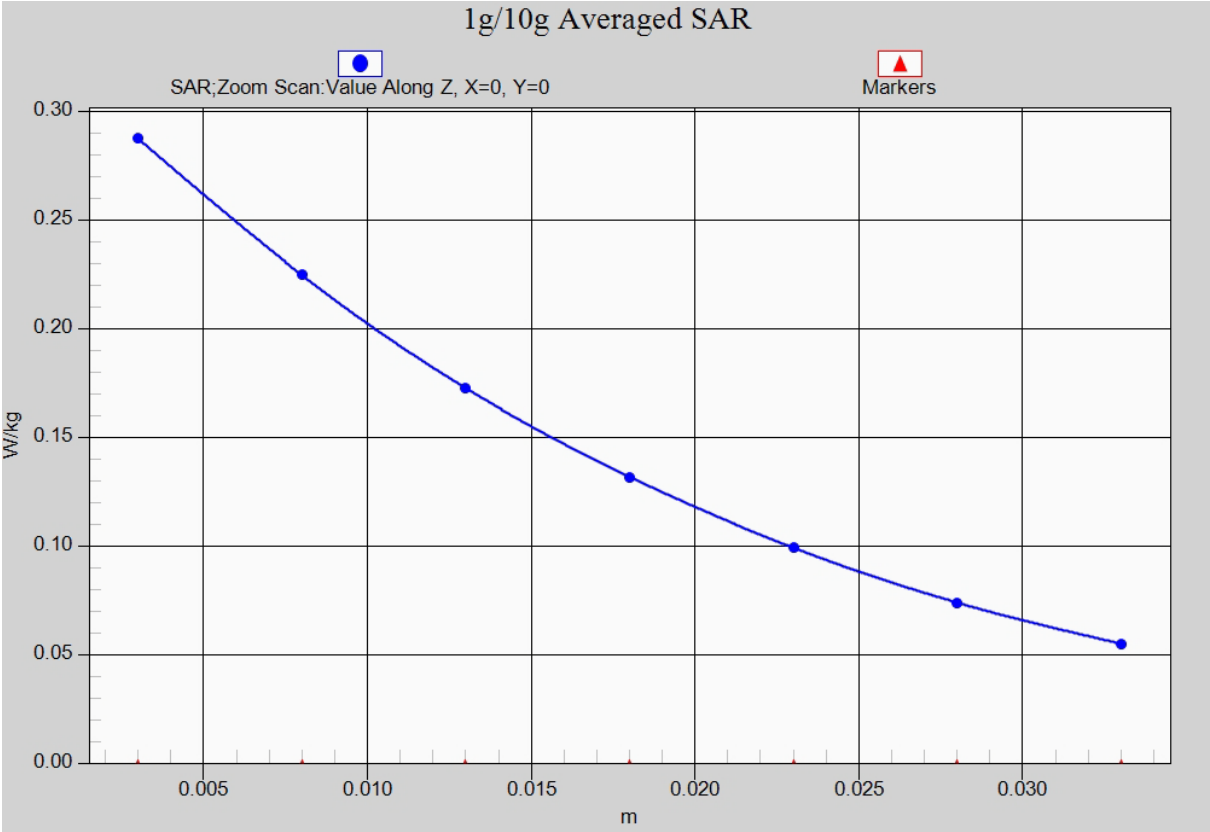

Fig. 10-1 Z-Scan at power reference point (LTE Band5)

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LTE Band5 Body Front High with QPSK_10M_1RB_Middle

Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 844 MHz; σ = 0.991 mho/m; εr = 54.86; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band5 Frequency: 844 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.169 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.07 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 0.213 W/kg
SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.113 W/kg
Maximum value of SAR (measured) = 0.163 W/kg

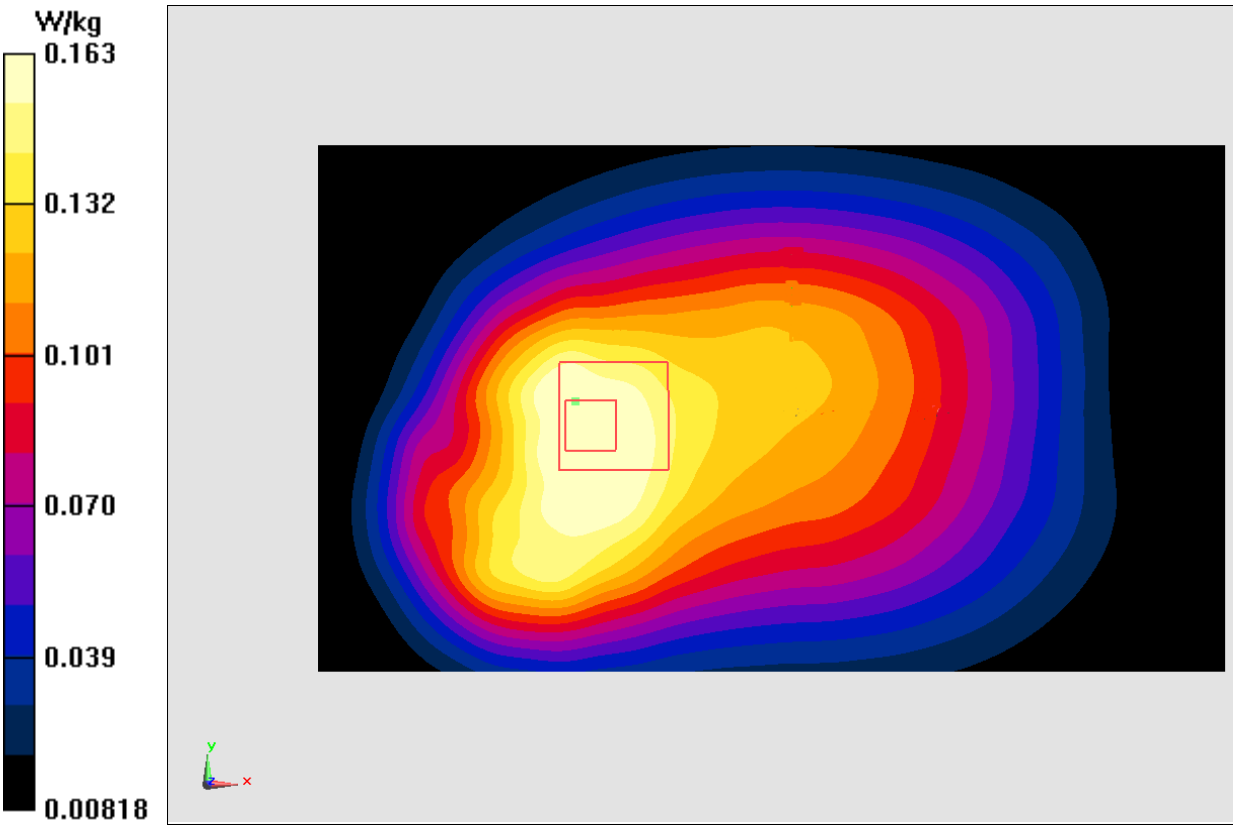

Fig.11 LTE Band5

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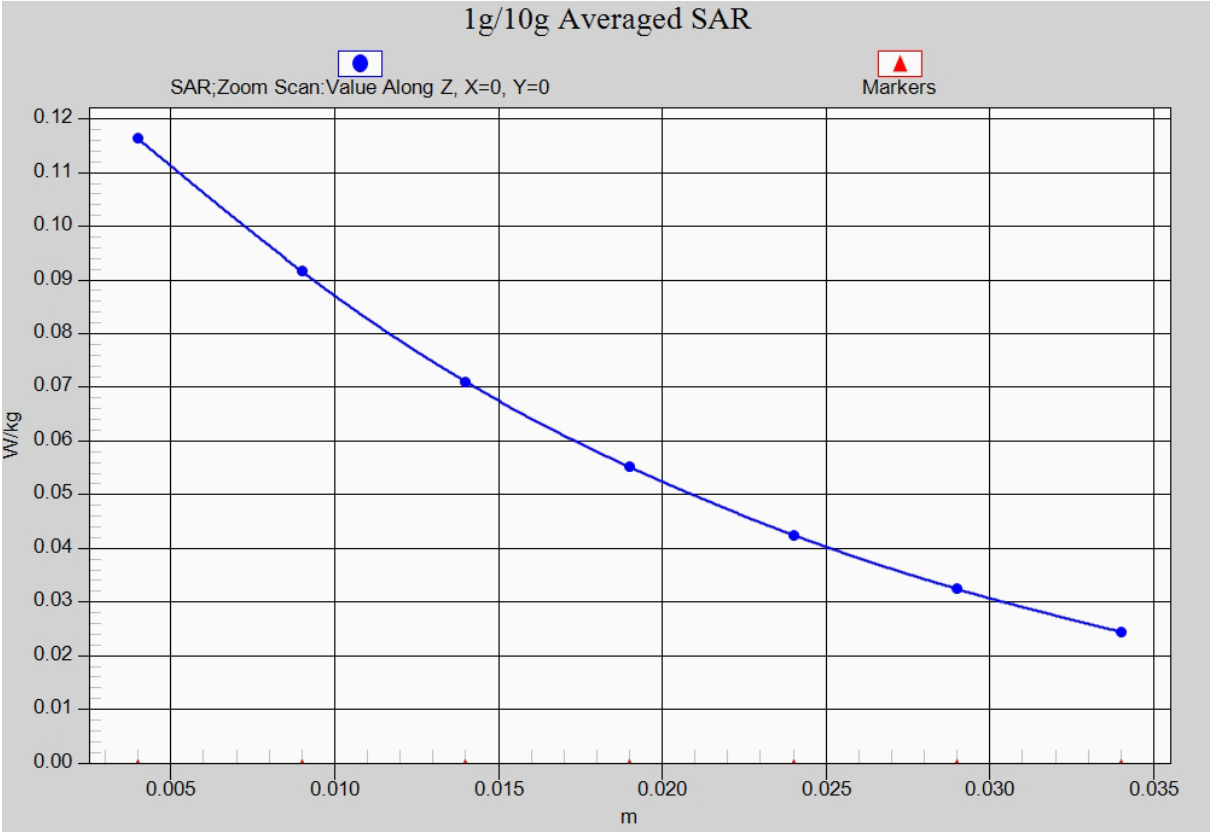

Fig. 11-1 Z-Scan at power reference point (LTE Band5)

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LTE Band5 Body Front High with QPSK_10M_1RB_Middle (Body-worn)
Date: 2016-4-5
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 844 MHz; σ = 0.991 mho/m; εr = 54.86; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band5 Frequency: 844 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.115 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.28 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.104 W/kg; SAR(10 g) = 0.080 W/kg
Maximum value of SAR (measured) = 0.109 W/kg

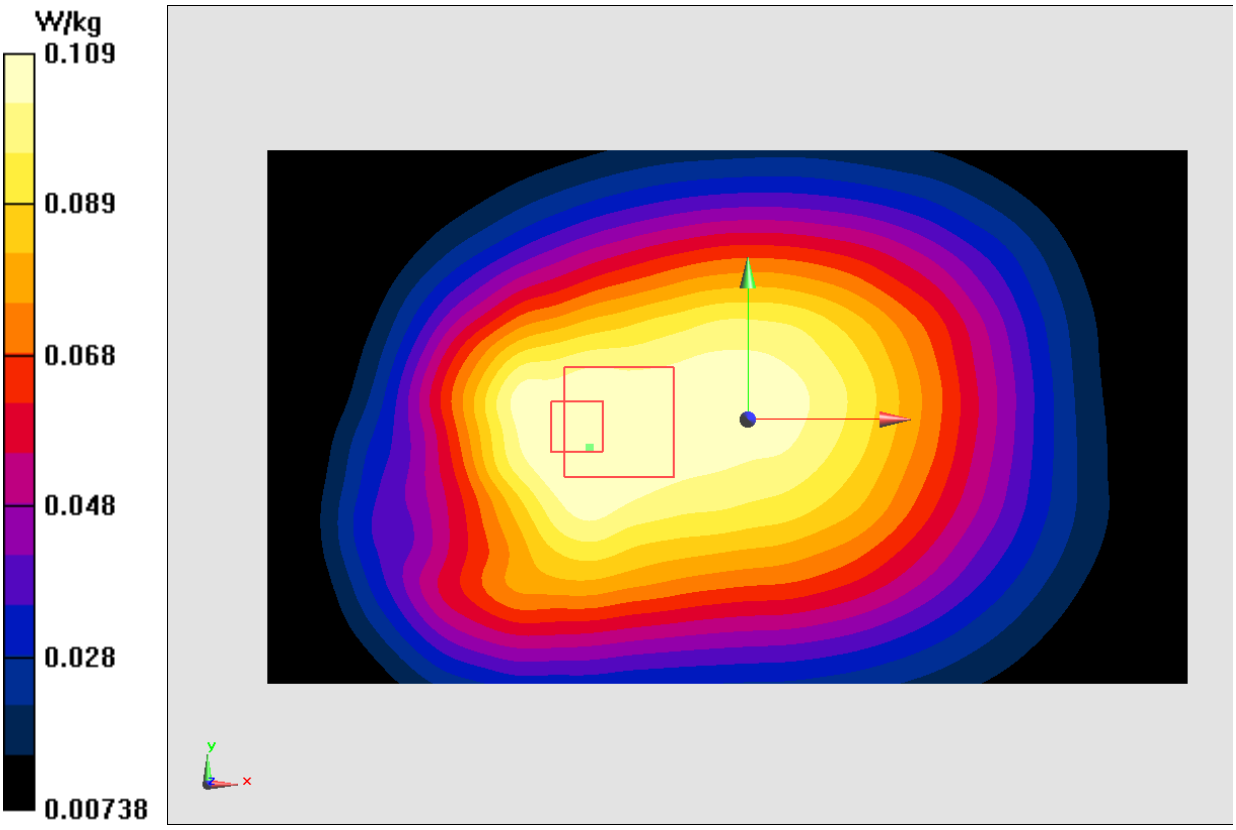

Fig.12 LTE Band5

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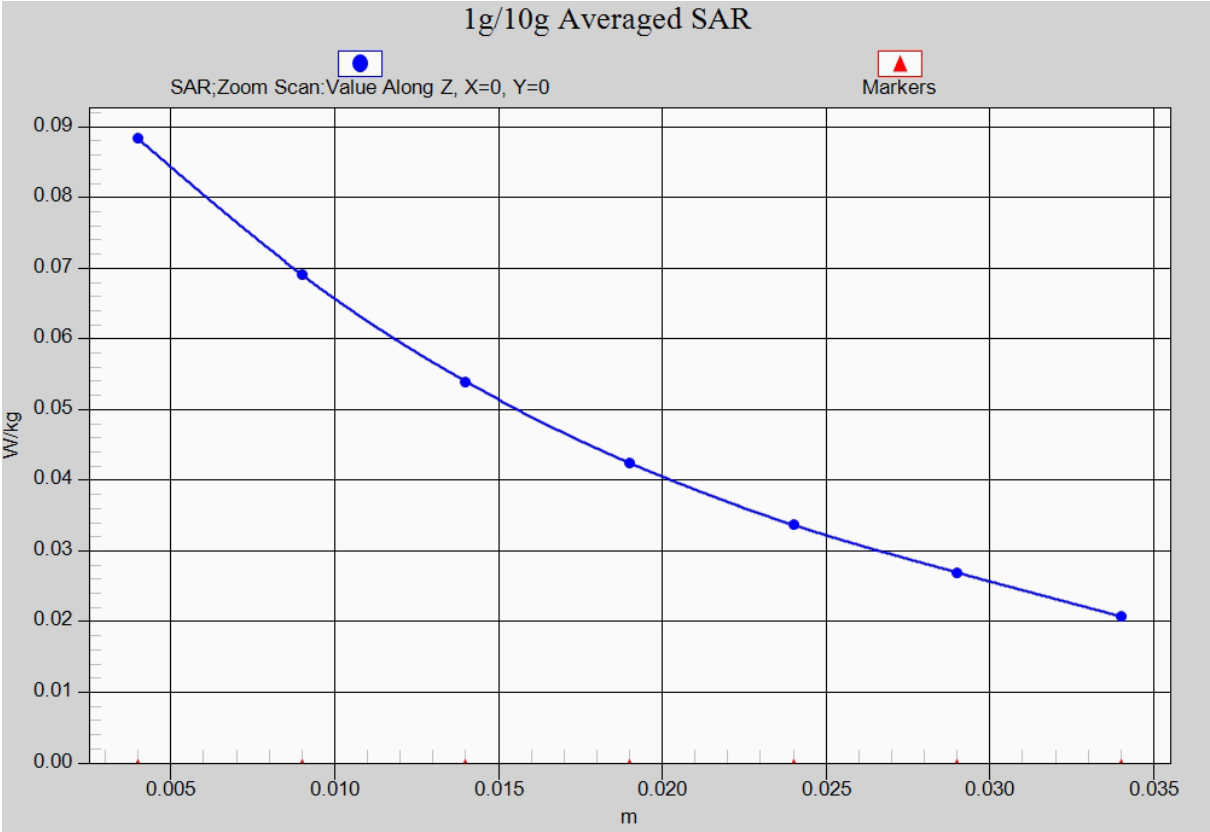

Fig. 12-1 Z-Scan at power reference point (LTE Band5)

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LTE Band7 Right Tilt High with QPSK_20M_1RB_Low

Date: 2016-4-8
Electronics: DAE4 Sn777
Medium: Head 2450 MHz
Medium parameters used: f = 2560 MHz; σ = 1.826 mho/m; εr = 38.99; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band7 Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN3617 ConvF(7.24, 7.24, 7.24)

Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.989 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.538 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.72 W/kg
SAR(1 g) = 0.719 W/kg; SAR(10 g) = 0.274 W/kg
Maximum value of SAR (measured) = 0.984 W/kg

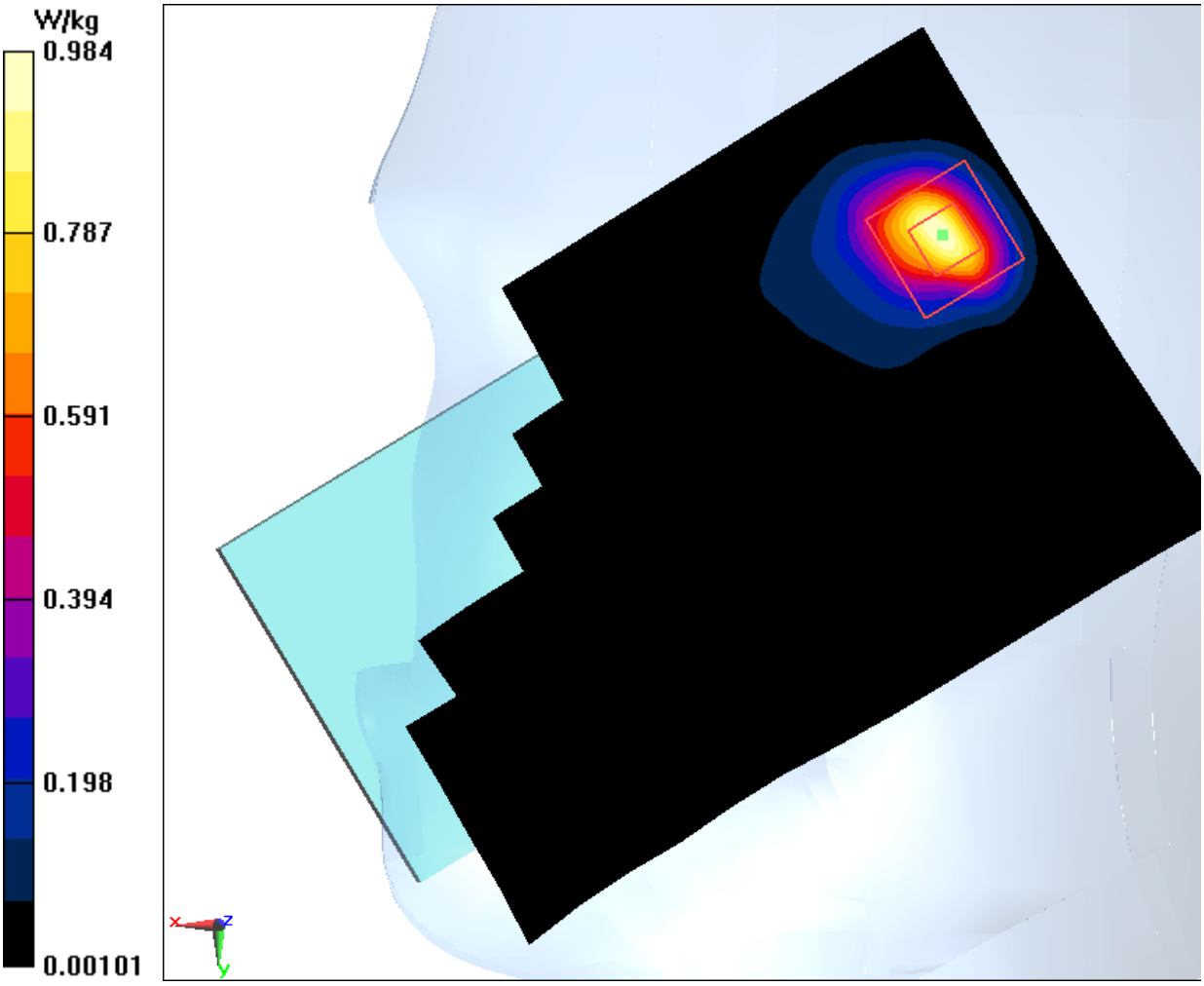

Fig.13 LTE Band7

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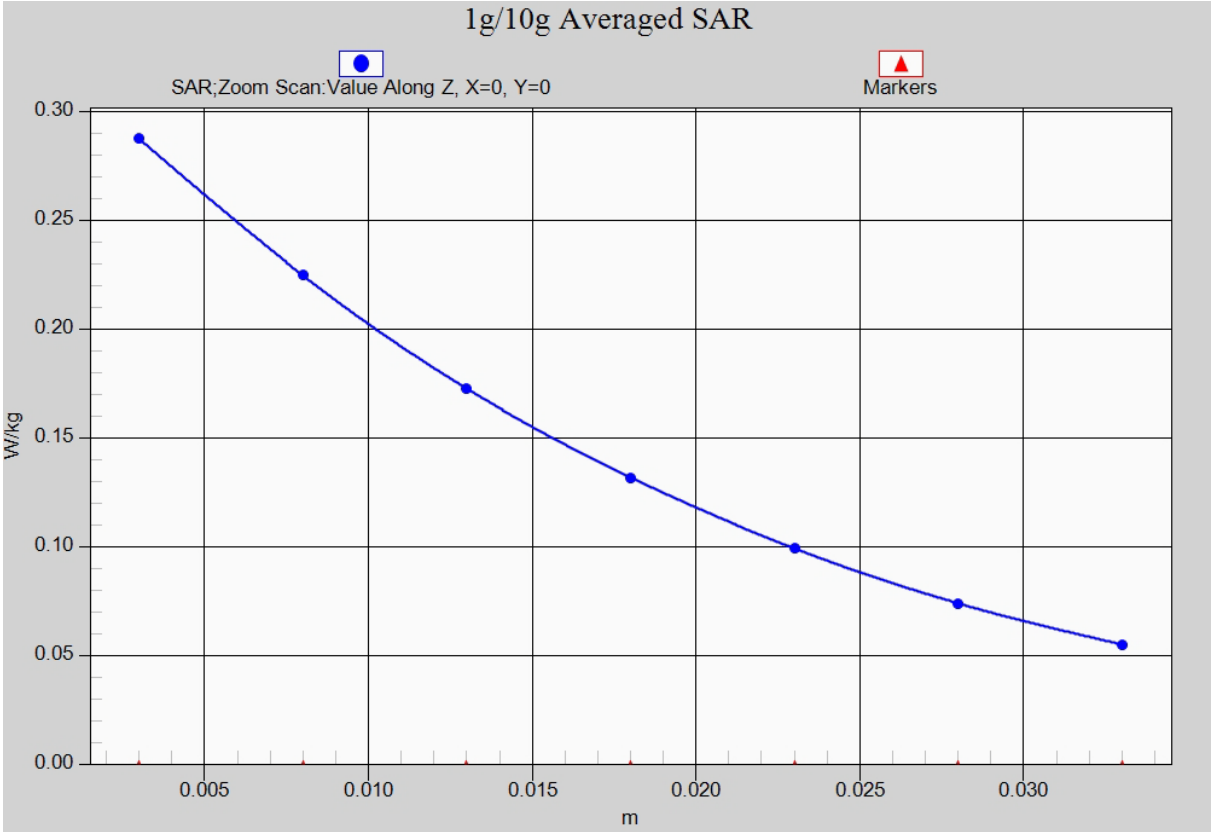

Fig. 13-1 Z-Scan at power reference point (LTE Band7)

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LTE Band7 Body Top High with QPSK_20M_1RB_Low

Date: 2016-4-8
Electronics: DAE4 Sn777
Medium: Body 2450 MHz
Medium parameters used: f = 2560 MHz; σ = 2.206 mho/m; εr = 51.05; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(7.35, 7.35, 7.35)

Area Scan (141x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.211 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.062 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.260 W/kg
SAR(1 g) = 0.131 W/kg; SAR(10 g) = 0.059 W/kg
Maximum value of SAR (measured) = 0.191 W/kg

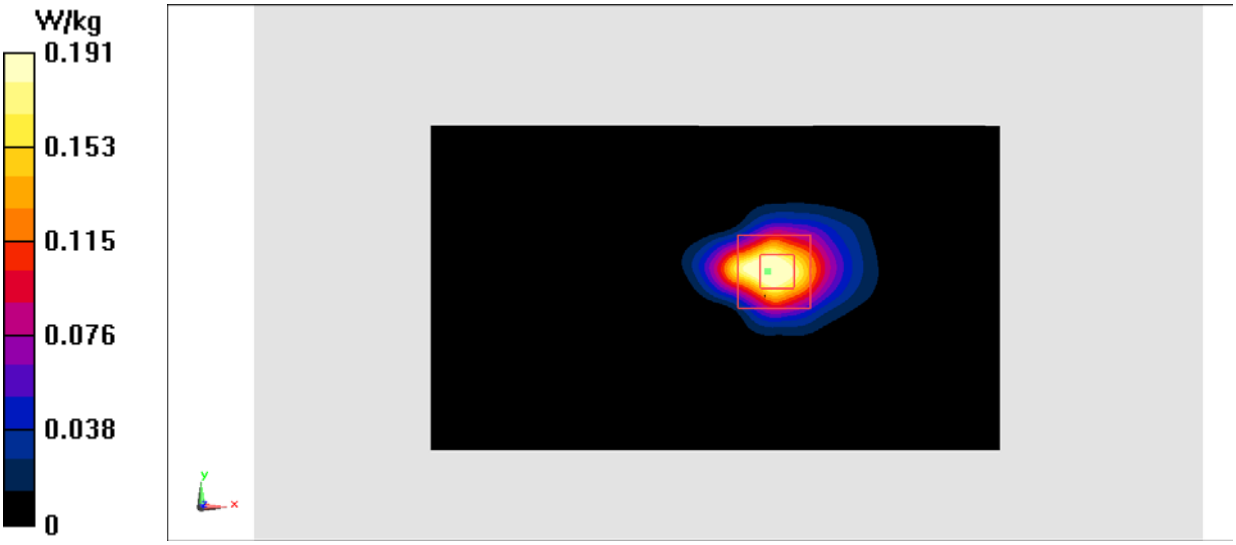

Fig.14 LTE Band7

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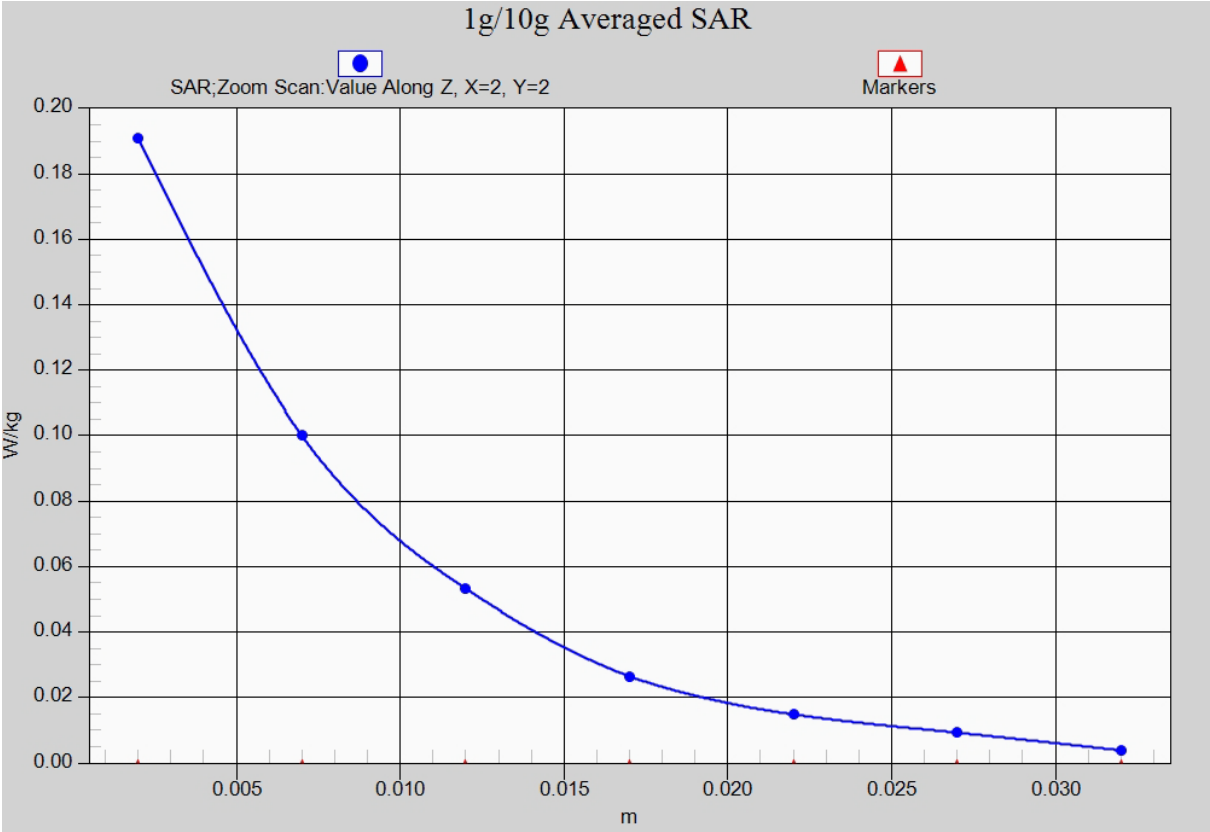

Fig. 14-1 Z-Scan at power reference point (LTE Band7)

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LTE Band7 Body Top High with QPSK_20M_1RB_Low (Body-worn)
Date: 2016-4-8
Electronics: DAE4 Sn777
Medium: Body 2450 MHz
Medium parameters used: f = 2560 MHz; σ = 2.206 mho/m; εr = 51.05; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: LTE Band17 Frequency: 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(7.35, 7.35, 7.35)

Area Scan (141x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.0898 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.244 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.113 W/kg
SAR(1 g) = 0.061 W/kg; SAR(10 g) = 0.029 W/kg
Maximum value of SAR (measured) = 0.0877 W/kg

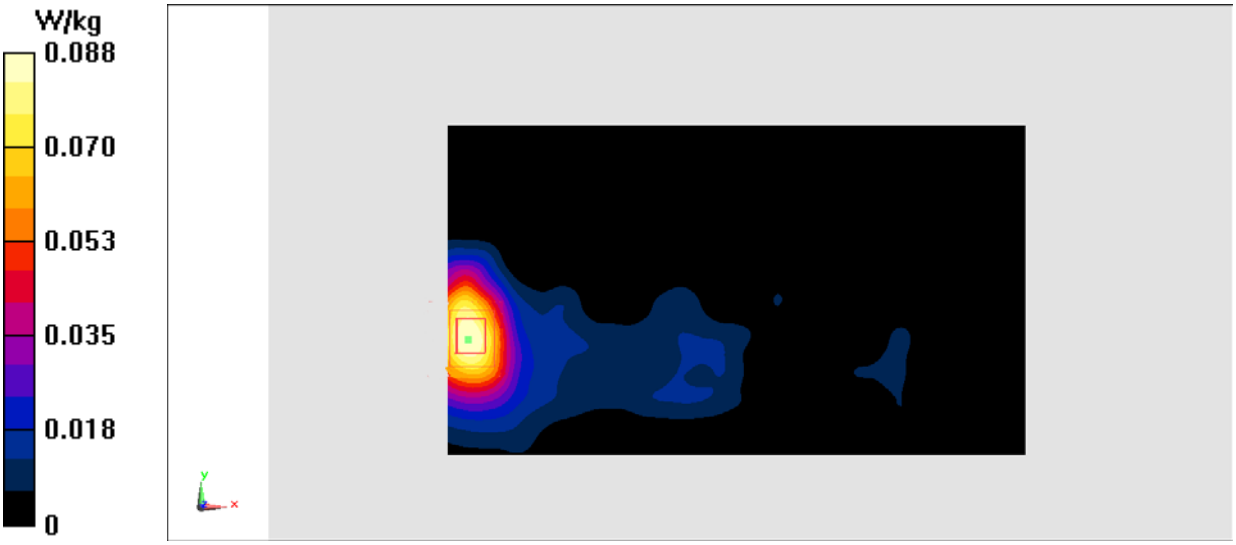

Fig.15 LTE Band7

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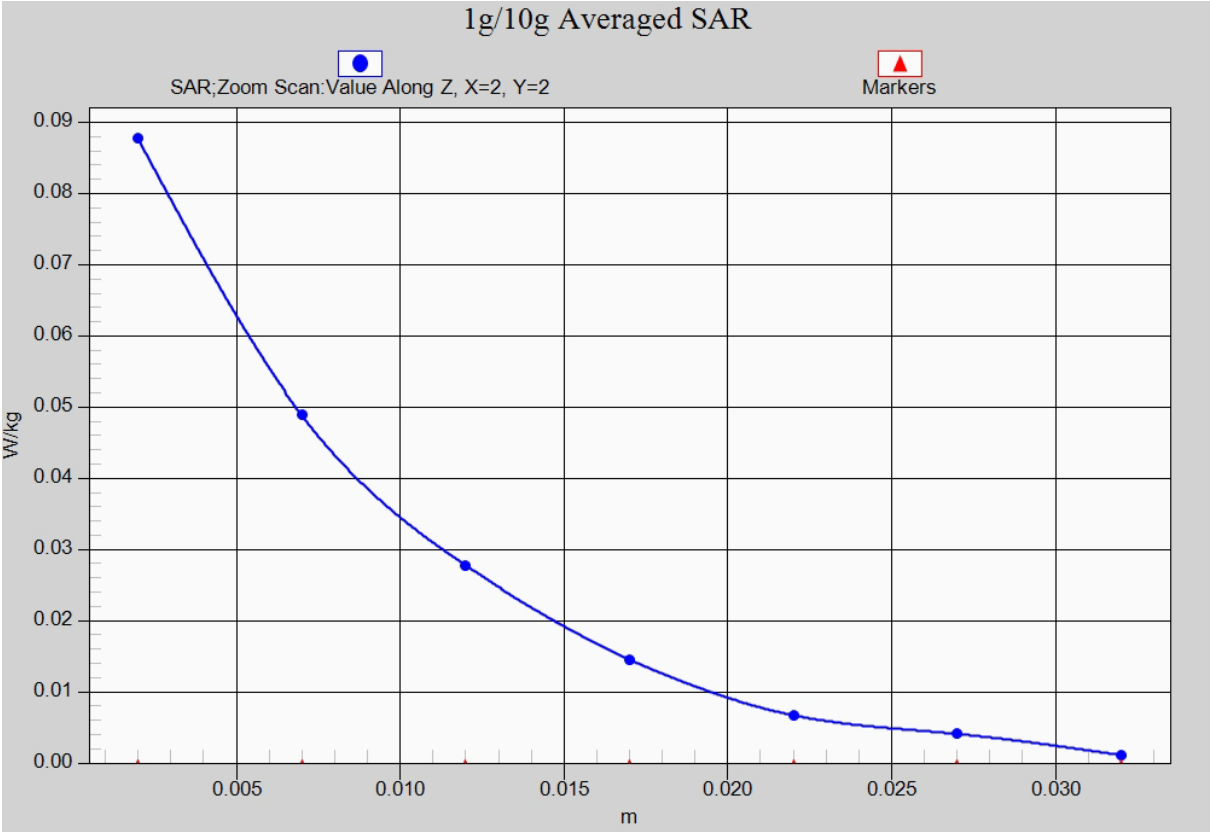

Fig. 15-1 Z-Scan at power reference point (LTE Band7)

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Main Antenna

850 Right Cheek High

Date: 2016-4-9
Electronics: DAE4 Sn777
Medium: Head 850 MHz
Medium parameters used (interpolated): f = 848.8 MHz; σ = 0.898 mho/m; εr = 41.41; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 Frequency: 848.8 MHz Duty Cycle: 1:8.3
Probe: EX3DV4 - SN3617 ConvF(9.58, 9.58, 9.58)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.344 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.328 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.402 W/kg
SAR(1 g) = 0.311 W/kg; SAR(10 g) = 0.238 W/kg
Maximum value of SAR (measured) = 0.342 W/kg

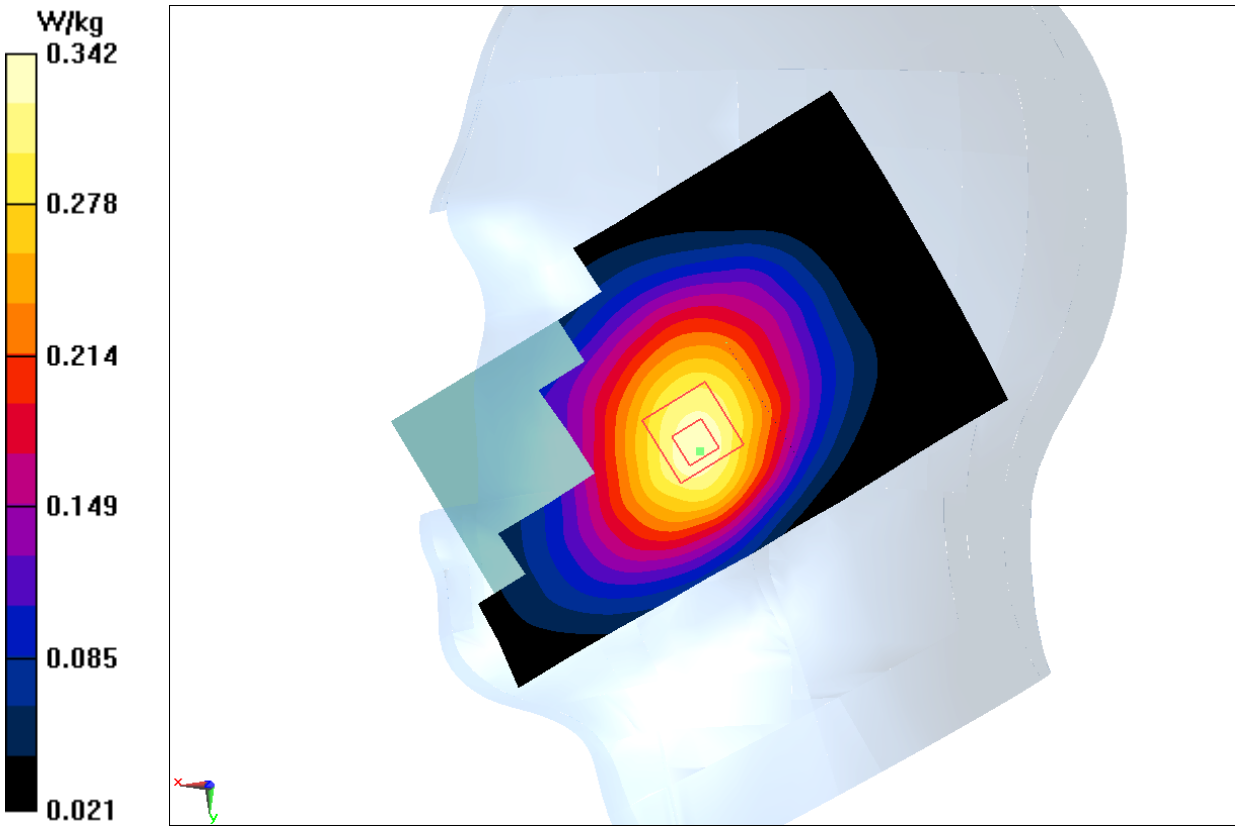

Fig.16 850MHz

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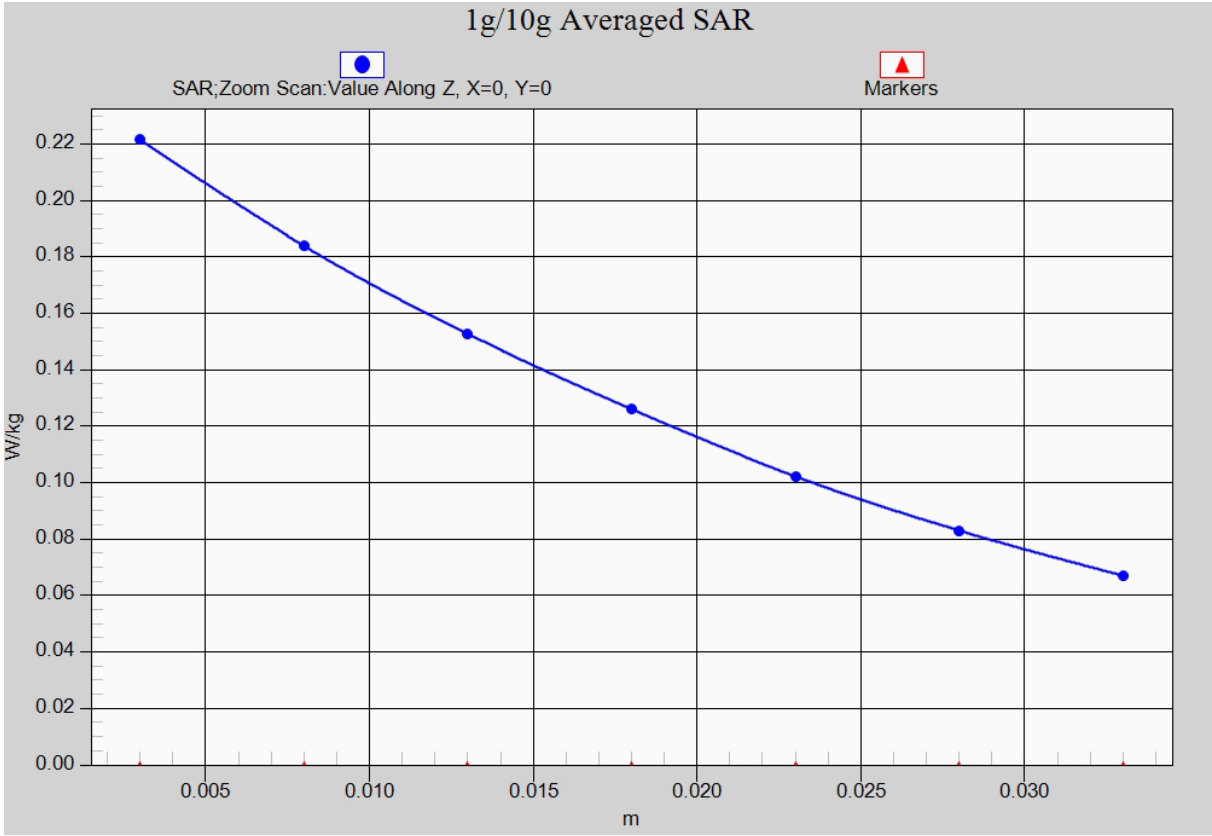

Fig. 16-1 Z-Scan at power reference point (850 MHz)

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850 Body Right Low

Date: 2016-4-9
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.951 mho/m; εr = 55.21; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.606 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.50 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.701 W/kg
SAR(1 g) = 0.498 W/kg; SAR(10 g) = 0.348 W/kg
Maximum value of SAR (measured) = 0.606 W/kg

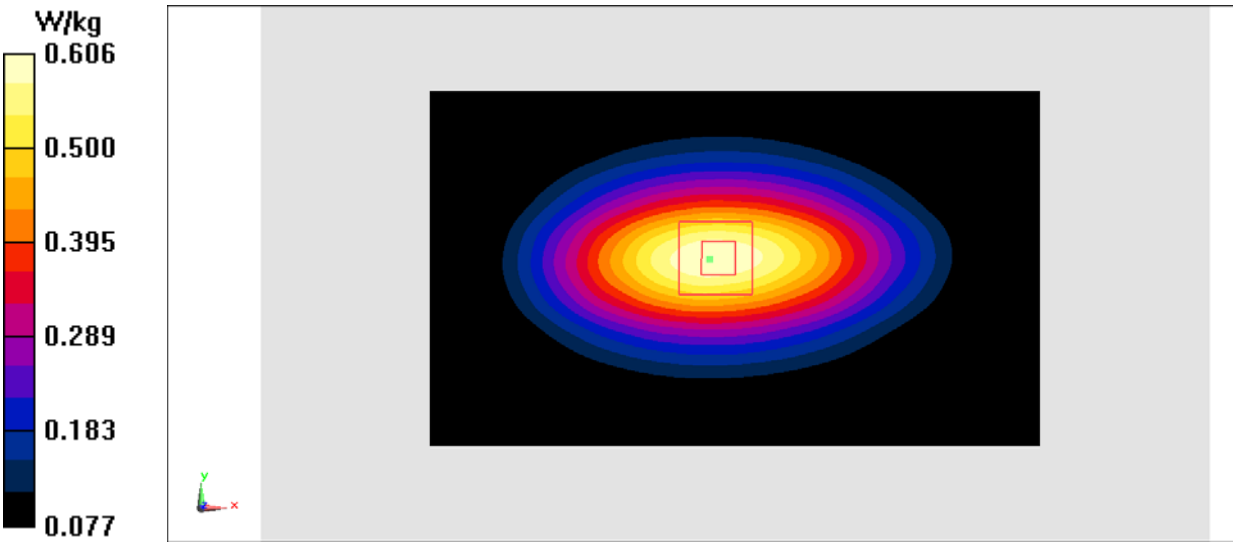

Fig.17 850 MHz

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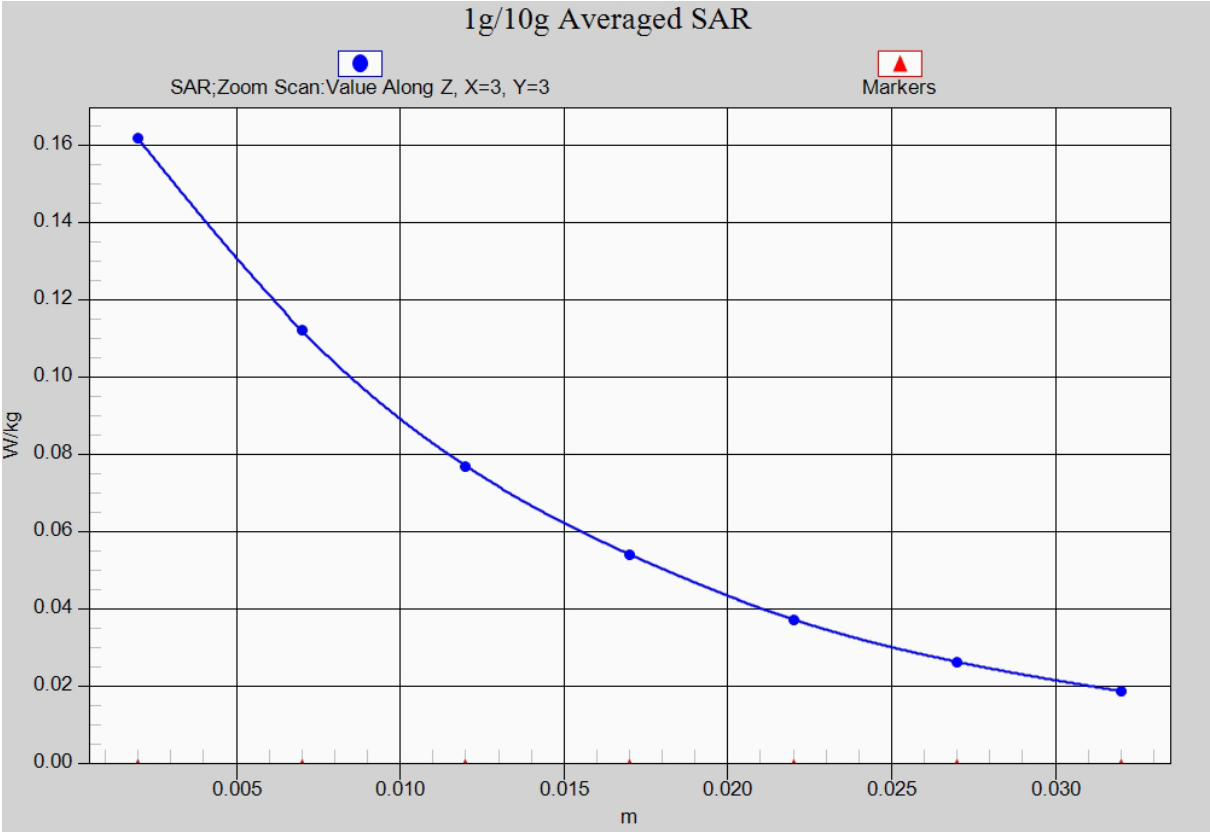

Fig. 17-1 Z-Scan at power reference point (850 MHz)

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850 Body Right Low (Body-worn)

Date: 2016-4-9
Electronics: DAE4 Sn777
Medium: Body 850 MHz
Medium parameters used (interpolated): f = 824.2 MHz; σ = 0.951 mho/m; εr = 55.21; ρ = 1000 kg/m^3
Ambient Temperature: 23.0^{o}C Liquid Temperature: 22.5^{o}C
Communication System: GSM 850 GPRS Frequency: 824.2 MHz Duty Cycle: 1:4
Probe: EX3DV4 - SN3617 ConvF(9.71, 9.71, 9.71)

Area Scan (121x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.479 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.82 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.527 W/kg
SAR(1 g) = 0.413 W/kg; SAR(10 g) = 0.318 W/kg
Maximum value of SAR (measured) = 0.478 W/kg

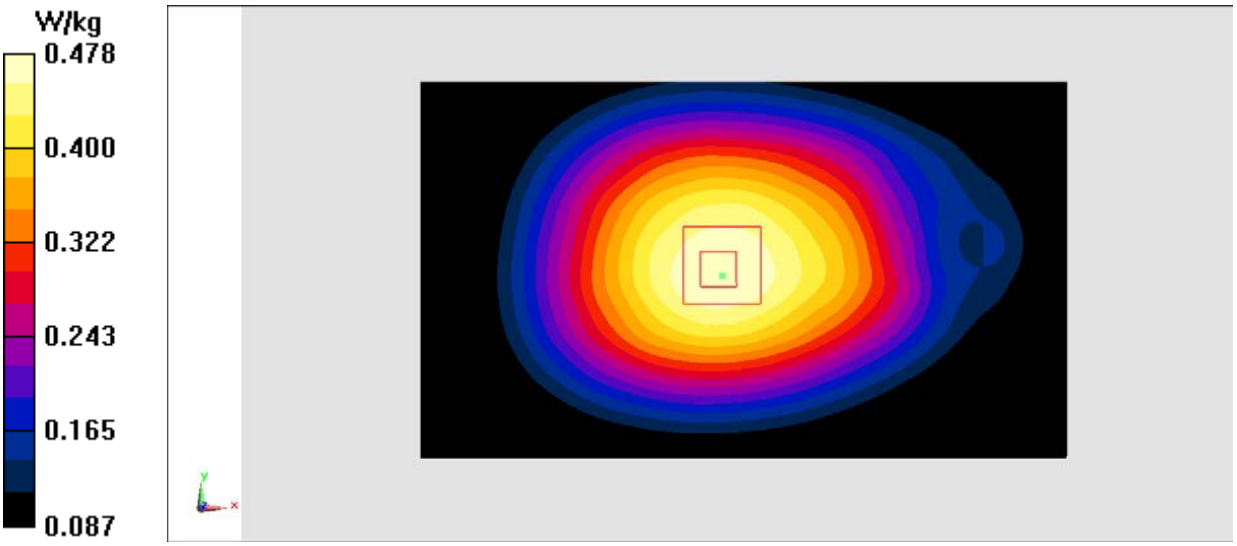

Fig.18 850 MHz

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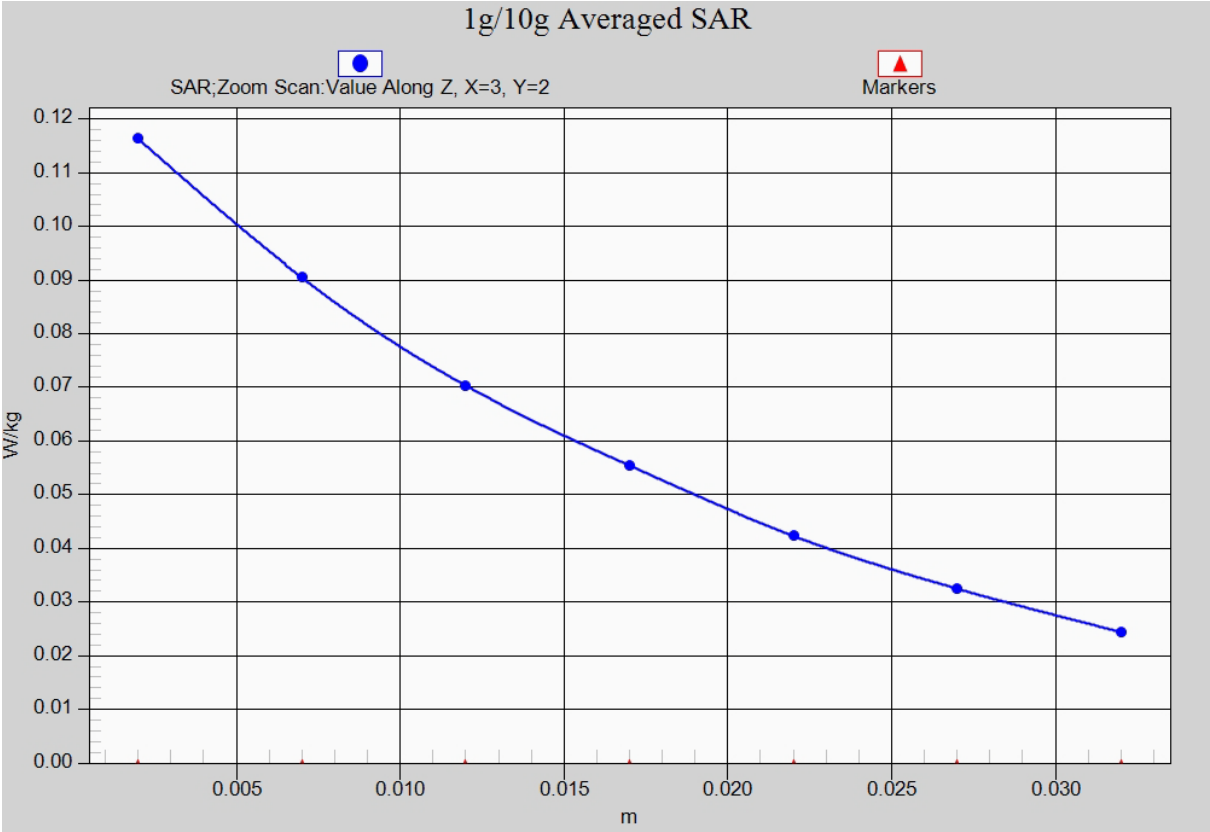

Fig. 18-1 Z-Scan at power reference point (850 MHz)

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