Table 14.1-12: SAR Values (LTE Band2 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
19100	1900	1RB_Mid	Front	Note1	24.06	24.2	0.329	**0.34**	0.193	**0.20**	-0.10
19100	1900	1RB_Mid	Rear	Note2	24.06	24.2	0.364	**0.38**	0.217	**0.22**	-0.15
19100	1900	1RB_Mid	Left	/	24.06	24.2	0.116	**0.12**	0.069	**0.07**	-0.19
19100	1900	1RB_Mid	Right	/	24.06	24.2	0.213	**0.22**	0.124	**0.13**	0.09
19100	1900	1RB_Mid	Bottom	Note2	24.06	24.2	0.475	**0.49**	0.28	**0.29**	-0.17
19100	1900	50RB_High	Front	Note1	22.97	23.2	0.207	**0.22**	0.125	**0.13**	-0.03
19100	1900	50RB_High	Rear	Note2	22.97	23.2	0.182	**0.19**	0.11	**0.12**	0.18
19100	1900	50RB_High	Left	/	22.97	23.2	0.118	**0.12**	0.071	**0.07**	-0.13
19100	1900	50RB_High	Right	/	22.97	23.2	0.164	**0.17**	0.094	**0.10**	-0.17
19100	1900	50RB_High	Bottom	Note2	22.97	23.2	0.287	**0.30**	0.168	**0.18**	-0.19
19100	1900	1RB_Mid	Front	/	21.49	21.5	0.372	**0.37**	0.203	**0.20**	-0.15
19100	1900	1RB_Mid	Rear	/	21.49	21.5	0.543	**0.54**	0.299	**0.30**	0.05
19100	1900	1RB_Mid	Bottom	Fig.12	21.49	21.5	0.83	**0.83**	0.436	**0.44**	-0.19
18900	1880	1RB_Mid	Bottom	/	21.46	21.5	0.779	**0.79**	0.42	**0.42**	0.06
18700	1860	1RB_Mid	Bottom	/	21.43	21.5	0.781	**0.79**	0.411	**0.42**	-0.03
19100	1900	50RB_Mid	Front	/	20.47	20.5	0.275	**0.28**	0.148	**0.15**	0.16
19100	1900	50RB_Mid	Rear	/	20.47	20.5	0.495	**0.50**	0.259	**0.26**	-0.15
19100	1900	50RB_Mid	Bottom	/	20.47	20.5	0.664	**0.67**	0.337	**0.34**	0.08
18700	1860	100RB	Bottom	/	20.37	20.5	0.647	**0.67**	0.312	**0.32**	-0.07
19100	1900	1RB_Mid	Bottom	B2	21.49	21.5	0.763	**0.76**	0.382	**0.38**	-0.05

Note: The distance between the EUT and the phantom bottom is 10mm.
Note1: The distance between the EUT and the phantom bottom is 15mm.
Note2: The distance between the EUT and the phantom bottom is 19mm.
Note3: The LTE mode is QPSK_20MHz.

Table 14.1-13: SAR Values (LTE Band5 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20450	829	1RB_Mid	Left	Cheek	/	23.98	24.2	0.228	**0.24**	0.178	**0.19**	0.12
20450	829	1RB_Mid	Left	Tilt	/	23.98	24.2	0.16	**0.17**	0.128	**0.13**	0.17
20450	829	1RB_Mid	Right	Cheek	Fig.13	23.98	24.2	0.237	**0.25**	0.183	**0.19**	0.01
20450	829	1RB_Mid	Right	Tilt	/	23.98	24.2	0.18	**0.19**	0.143	**0.15**	0.06
20450	829	25RB_Mid	Left	Cheek	/	22.66	23.2	0.184	**0.21**	0.145	**0.16**	0.07

20450	829	25RB_Mid	Left	Tilt	/	22.66	23.2	0.134	**0.15**	0.106	**0.12**	-0.19
20450	829	25RB_Mid	Right	Cheek	/	22.66	23.2	0.2	**0.23**	0.154	**0.17**	-0.02
20450	829	25RB_Mid	Right	Tilt	/	22.66	23.2	0.135	**0.15**	0.107	**0.12**	0.17
20450	829	1RB_Mid	Right	Cheek	B2	23.98	24.2	0.214	**0.23**	0.167	**0.18**	0.03

Note: The LTE mode is QPSK_10MHz.

Table 14.1-14: SAR Values (LTE Band5 - Body)

Ambient Temperature: 22.9 °C						Liquid Temperature: 22.5°C						
Frequency		**Mode**	**Test Position**	**Figure No./ Note**	**Conducted Power (dBm)**	**Max. tune-up Power (dBm)**	**Measured SAR(1g) (W/kg)**	**Reported SAR(1g) (W/kg)**	**Measured SAR(10g) (W/kg)**	**Reported SAR(10g) (W/kg)**	**Power Drift (dB)**
Ch.	MHz										
20300	1745	1RB_Mid	Front	/	23.98	24.2	0.183	**0.19**	0.142	**0.15**	0.16
20300	1745	1RB_Mid	Rear	Fig.14	23.98	24.2	0.309	**0.33**	0.239	**0.25**	0.02
20300	1745	1RB_Mid	Left	/	23.98	24.2	0.187	**0.20**	0.131	**0.14**	-0.07
20300	1745	1RB_Mid	Right	/	23.98	24.2	0.186	**0.20**	0.13	**0.14**	0.02
20300	1745	1RB_Mid	Bottom	/	23.98	24.2	0.156	**0.16**	0.112	**0.12**	-0.02
20300	1745	25RB_Mid	Front	/	22.66	23.2	0.15	**0.17**	0.117	**0.13**	-0.14
20300	1745	25RB_Mid	Rear	/	22.66	23.2	0.241	**0.27**	0.186	**0.21**	0.11
20300	1745	25RB_Mid	Left	/	22.66	23.2	0.143	**0.16**	0.1	**0.11**	0.19
20300	1745	25RB_Mid	Right	/	22.66	23.2	0.156	**0.18**	0.109	**0.12**	0.18
20300	1745	25RB_Mid	Bottom	/	22.66	23.2	0.103	**0.12**	0.079	**0.09**	0.14
20175	1732.5	1RB_Mid	Rear	B2	23.98	24.2	0.283	**0.30**	0.204	**0.21**	0.06

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.1-15: SAR Values (LTE Band7 - Head)

Ambient Temperature: 22.9 °C							Liquid Temperature: 22.5°C						
Frequency		**Mode**	**Side**	**Test Position**	**Figure No./ Note**	**Conducted Power (dBm)**	**Max. tune-up Power (dBm)**	**Measured SAR(1g) (W/kg)**	**Reported SAR(1g) (W/kg)**	**Measured SAR(10g) (W/kg)**	**Reported SAR(10g) (W/kg)**	**Power Drift (dB)**
Ch.	MHz											
20850	2510	1RB_Mid	Left	Cheek	/	23.86	24.2	0.041	**0.04**	0.022	**0.02**	0.15
20850	2510	1RB_Mid	Left	Tilt	/	23.86	24.2	0.035	**0.04**	0.019	**0.02**	0.11
20850	2510	1RB_Mid	Right	Cheek	Fig.15	23.86	24.2	0.097	**0.10**	0.051	**0.06**	0.09
20850	2510	1RB_Mid	Right	Tilt	/	23.86	24.2	0.033	**0.04**	0.018	**0.02**	-0.01
20850	2510	50RB_Low	Left	Cheek	/	22.90	23.2	0.03	**0.03**	0.017	**0.02**	0.07
20850	2510	50RB_Low	Left	Tilt	/	22.90	23.2	0.03	**0.03**	0.017	**0.02**	-0.12
20850	2510	50RB_Low	Right	Cheek	/	22.90	23.2	0.073	**0.08**	0.038	**0.04**	-0.14
20850	2510	50RB_Low	Right	Tilt	/	22.90	23.2	0.039	**0.04**	0.023	**0.02**	0.14
20850	2510	1RB_Mid	Right	Cheek	B2	23.86	24.2	0.082	**0.09**	0.041	**0.04**	-0.03

Note: The LTE mode is QPSK_20MHz.

Table 14.1-16: SAR Values (LTE Band7 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20850	2510	1RB_Mid	Front	Note1	23.86	24.2	0.194	**0.21**	0.098	**0.11**	0.13
20850	2510	1RB_Mid	Rear	Note2	23.86	24.2	0.381	**0.41**	0.188	**0.20**	0.06
20850	2510	1RB_Mid	Left	/	23.86	24.2	0.088	**0.10**	0.047	**0.05**	-0.09
20850	2510	1RB_Mid	Right	/	23.86	24.2	0.1	**0.11**	0.055	**0.06**	0.04
20850	2510	1RB_Mid	Bottom	Note2	23.86	24.2	0.312	**0.34**	0.166	**0.18**	0.15
20850	2510	50RB_Low	Front	Note1	22.90	23.2	0.15	**0.16**	0.076	**0.08**	0.13
20850	2510	50RB_Low	Rear	Note2	22.90	23.2	0.31	**0.33**	0.153	**0.16**	0.10
20850	2510	50RB_Low	Left	/	22.90	23.2	0.079	**0.08**	0.041	**0.04**	-0.09
20850	2510	50RB_Low	Right	/	22.90	23.2	0.08	**0.09**	0.044	**0.05**	0.16
20850	2510	50RB_Low	Bottom	Note2	22.90	23.2	0.22	**0.24**	0.116	**0.12**	0.13
20850	2510	1RB_Mid	Front	/	21.17	21.5	0.232	**0.25**	0.112	**0.12**	0.04
20850	2510	1RB_Mid	Rear	Fig.16	21.17	21.5	0.733	**0.79**	0.325	**0.35**	0.16
21350	2560	1RB_Mid	Bottom	/	21.17	21.5	0.501	**0.54**	0.223	**0.24**	-0.15
21350	2560	50RB_ Mid	Front	/	22.93	20.5	0.174	**0.10**	0.085	**0.05**	0.05
21350	2560	50RB_ Mid	Rear	/	22.93	20.5	0.572	**0.33**	0.256	**0.15**	0.05
20850	2510	50RB_ Mid	Bottom	/	22.93	20.5	0.456	**0.26**	0.2	**0.11**	0.12
20850	2510	1RB_Mid	Rear	B2	21.17	21.5	0.712	**0.77**	0.295	**0.32**	0.08

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

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

Note2: The distance between the EUT and the phantom bottom is 19mm.

Note3: The LTE mode is QPSK_20MHz.

Table 14.1-17: SAR Values (LTE Band12 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23130	711	1RB_Mid	Left	Cheek	/	24.11	24.2	0.161	**0.16**	0.127	**0.13**	-0.17
23130	711	1RB_Mid	Left	Tilt	/	24.11	24.2	0.145	**0.15**	0.115	**0.12**	0.01
23130	711	1RB_Mid	Right	Cheek	Fig.17	24.11	24.2	0.209	**0.21**	0.163	**0.17**	0.06
23130	711	1RB_Mid	Right	Tilt	/	24.11	24.2	0.148	**0.15**	0.118	**0.12**	-0.14
23130	711	25RB_Mid	Left	Cheek	/	22.96	23.2	0.11	**0.12**	0.087	**0.09**	0.03
23130	711	25RB_Mid	Left	Tilt	/	22.96	23.2	0.096	**0.10**	0.076	**0.08**	0.06
23130	711	25RB_Mid	Right	Cheek	/	22.96	23.2	0.14	**0.15**	0.11	**0.12**	0.19
23130	711	25RB_Mid	Right	Tilt	/	22.96	23.2	0.098	**0.10**	0.079	**0.08**	-0.10
23130	711	1RB_Mid	Right	Cheek	B2	24.11	24.2	0.173	**0.18**	0.141	**0.14**	-0.07

Note: The LTE mode is QPSK_10MHz.

Table 14.1-18: SAR Values (LTE Band12 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
23130	711	1RB_Mid	Front	/	24.11	24.2	0.283	**0.29**	0.216	**0.22**	-0.15
23130	711	1RB_Mid	Rear	Fig.18	24.11	24.2	0.412	**0.42**	0.317	**0.32**	0.15
23130	711	1RB_Mid	Left	/	24.11	24.2	0.301	**0.31**	0.213	**0.22**	-0.04
23130	711	1RB_Mid	Right	/	24.11	24.2	0.327	**0.33**	0.231	**0.24**	-0.07
23130	711	1RB_Mid	Bottom	/	24.11	24.2	0.183	**0.19**	0.103	**0.11**	-0.09
23130	711	25RB_Mid	Front	/	22.96	23.2	0.211	**0.22**	0.163	**0.17**	-0.11
23130	711	25RB_Mid	Rear	/	22.96	23.2	0.313	**0.33**	0.242	**0.26**	-0.10
23130	711	25RB_Mid	Left	/	22.96	23.2	0.221	**0.23**	0.156	**0.16**	0.04
23130	711	25RB_Mid	Right	/	22.96	23.2	0.239	**0.25**	0.169	**0.18**	0.07
23130	711	25RB_Mid	Bottom	/	22.96	23.2	0.102	**0.11**	0.067	**0.07**	0.06
23130	711	1RB_Mid	Rear	B2	24.11	24.2	0.384	**0.39**	0.273	**0.28**	-0.06

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.1-19: SAR Values (LTE Band66 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
132572	1770	1RB_Low	Left	Cheek	/	23.44	23.7	0.124	**0.13**	0.085	**0.09**	0.08
132572	1770	1RB_Low	Left	Tilt	/	23.44	23.7	0.087	**0.09**	0.055	**0.06**	0.15
132572	1770	1RB_Low	Right	Cheek	Fig.19	23.44	23.7	0.2	**0.21**	0.127	**0.13**	0.03
132572	1770	1RB_Low	Right	Tilt	/	23.44	23.7	0.074	**0.08**	0.05	**0.05**	-0.15
132572	1770	50RB_Low	Left	Cheek	/	22.43	22.7	0.093	**0.10**	0.064	**0.07**	-0.14
132572	1770	50RB_Low	Left	Tilt	/	22.43	22.7	0.08	**0.09**	0.05	**0.05**	-0.12
132572	1770	50RB_Low	Right	Cheek	/	22.43	22.7	0.151	**0.16**	0.096	**0.10**	-0.02
132572	1770	50RB_Low	Right	Tilt	/	22.43	22.7	0.055	**0.06**	0.037	**0.04**	-0.14
132572	1770	1RB_Low	Right	Cheek	B2	23.44	23.7	0.181	**0.19**	0.103	**0.11**	-0.07

Note: The LTE mode is QPSK_20MHz.

Table 14.1-20: SAR Values (LTE Band66 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20850	2510	1RB_Low	Front	Note1	23.44	23.7	0.346	**0.37**	0.204	**0.22**	0.01
20850	2510	1RB_Low	Rear	Note2	23.44	23.7	0.424	**0.45**	0.256	**0.27**	0.12
20850	2510	1RB_Low	Left	/	23.44	23.7	0.09	**0.10**	0.053	**0.06**	0.16
20850	2510	1RB_Low	Right	/	23.44	23.7	0.102	**0.11**	0.057	**0.06**	-0.18
20850	2510	1RB_Low	Bottom	Note2	23.44	23.7	0.536	**0.57**	0.323	**0.34**	-0.17
20850	2510	50RB_Low	Front	Note1	22.43	22.7	0.262	**0.28**	0.155	**0.16**	-0.18
20850	2510	50RB_Low	Rear	Note2	22.43	22.7	0.314	**0.33**	0.191	**0.20**	-0.11
20850	2510	50RB_Low	Left	/	22.43	22.7	0.065	**0.07**	0.044	**0.05**	-0.05
20850	2510	50RB_Low	Right	/	22.43	22.7	0.079	**0.08**	0.048	**0.05**	0.12
20850	2510	50RB_Low	Bottom	Note2	22.43	22.7	0.427	**0.45**	0.249	**0.26**	0.02
20850	2510	1RB_Mid	Front	/	18.84	19	0.252	**0.26**	0.138	**0.14**	0.09
20850	2510	1RB_Mid	Rear	/	18.84	19	0.564	**0.59**	0.303	**0.31**	-0.12
21350	2560	1RB_Mid	Bottom	Fig.20	18.84	19	0.77	**0.80**	0.413	**0.43**	-0.02
21350	2560	50RB_ High	Front	/	17.63	18	0.202	**0.22**	0.11	**0.12**	0.02
21350	2560	50RB_ High	Rear	/	17.63	18	0.445	**0.48**	0.24	**0.26**	-0.09
20850	2510	50RB_ High	Bottom	/	17.63	18	0.563	**0.61**	0.301	**0.33**	-0.10
20850	2510	1RB_Mid	Bottom	B2	18.84	19	0.679	**0.70**	0.381	**0.40**	-0.05

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

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

Note2: The distance between the EUT and the phantom bottom is 19mm.

Note3: The LTE mode is QPSK_20MHz.

Table 14.1-21: SAR Values (LTE Band71 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
133222	673	1RB_Mid	Left	Cheek	/	23.77	24.2	0.148	**0.16**	0.113	**0.12**	-0.19
133222	673	1RB_Mid	Left	Tilt	/	23.77	24.2	0.105	**0.12**	0.085	**0.09**	-0.05
133222	673	1RB_Mid	Right	Cheek	Fig.21	23.77	24.2	0.157	**0.17**	0.122	**0.13**	0.02
133222	673	1RB_Mid	Right	Tilt	/	23.77	24.2	0.12	**0.13**	0.094	**0.10**	-0.05
133222	673	50RB_Mid	Left	Cheek	/	22.22	23.2	0.121	**0.15**	0.095	**0.12**	0.18
133222	673	50RB_Mid	Left	Tilt	/	22.22	23.2	0.081	**0.10**	0.065	**0.08**	-0.14
133222	673	50RB_Mid	Right	Cheek	/	22.22	23.2	0.127	**0.16**	0.099	**0.12**	-0.03
133222	673	50RB_Mid	Right	Tilt	/	22.22	23.2	0.093	**0.12**	0.072	**0.09**	0.08
133222	673	1RB_Mid	Right	Cheek	B2	23.77	24.2	0.143	**0.16**	0.102	**0.11**	-0.05

Note: The LTE mode is QPSK_20MHz.

Table 14.1-22: SAR Values (LTE Band71 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		**Mode**	**Test Position**	**Figure No./ Note**	**Conducted Power (dBm)**	**Max. tune-up Power (dBm)**	**Measured SAR(1g) (W/kg)**	**Reported SAR(1g) (W/kg)**	**Measured SAR(10g) (W/kg)**	**Reported SAR(10g) (W/kg)**	**Power Drift (dB)**
Ch.	MHz										
133222	673	1RB_Mid	Front	/	23.77	24.2	0.166	**0.18**	0.115	**0.13**	0.08
133222	673	1RB_Mid	Rear	Fig.22	23.77	24.2	0.255	**0.28**	0.175	**0.19**	-0.15
133222	673	1RB_Mid	Left	/	23.77	24.2	0.126	**0.14**	0.081	**0.09**	-0.08
133222	673	1RB_Mid	Right	/	23.77	24.2	0.123	**0.14**	0.078	**0.09**	0.17
133222	673	1RB_Mid	Bottom	/	23.77	24.2	0.08	**0.09**	0.055	**0.06**	-0.01
133222	673	50RB_Mid	Front	/	22.22	23.2	0.122	**0.15**	0.084	**0.11**	-0.10
133222	673	50RB_Mid	Rear	/	22.22	23.2	0.191	**0.24**	0.131	**0.16**	-0.12
133222	673	50RB_Mid	Left	/	22.22	23.2	0.096	**0.12**	0.062	**0.08**	-0.11
133222	673	50RB_Mid	Right	/	22.22	23.2	0.094	**0.12**	0.06	**0.08**	0.18
133222	673	50RB_Mid	Bottom	/	22.22	23.2	0.074	**0.09**	0.044	**0.06**	0.07
133222	673	1RB_Mid	Rear	B2	23.77	24.2	0.217	**0.24**	0.141	**0.16**	0.08

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

Note2: The LTE mode is QPSK_20MHz.

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

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC											
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	Right	Cheek	Fig.1	27.61	28.2	0.336	0.38	0.258	**0.30**	0.03

Note: the head SAR of GSM850 is tested with GPRS (4Txslots) mode because of VoIP.

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

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC											
Frequency		Mode (number of timeslots)	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
251	848.8	GPRS (4)	Rear	Fig.2	27.61	28.2	0.405	0.46	0.311	**0.36**	0.07

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

Table 14.2-3: SAR Values (GSM 1900 MHz Band - Head)

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC											
Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
661	1880	Right	Cheek	Fig.3	25.30	25.7	0.238	0.26	0.147	**0.16**	0.05

Note: the head SAR of GSM1900 is tested with GPRS (4Txslots) mode because of VoIP.

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

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC											
Frequency		Mode (number of timeslots)	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
512	1850.2	GPRS (4)	Bottom	Fig.4	22.00	23	0.519	0.65	0.282	**0.35**	0.14

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

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

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC											
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
9262	1852.4	Right	Cheek	Fig.5	24.26	24.7	0.414	0.46	0.255	**0.28**	0.01

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

Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C										
Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
9262	1852.4	Bottom	Fig.6	20.95	21.2	1.02	1.08	0.536	**0.57**	0.08

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

Table 14.2-7: SAR Values (WCDMA 1700 MHz Band - Head)

Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C											
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
1513	1752.6	Right	Cheek	Fig.7	23.25	23.5	0.204	0.22	0.129	**0.14**	0.06

Table 14.2-8: SAR Values (WCDMA 1700 MHz Band - Body)

Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C										
Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
1312	1712.4	Bottom	Fig.8	18.21	18.8	0.974	1.12	0.526	**0.60**	0.06

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

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

Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C											
Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
4233	846.6	Right	Cheek	Fig.9	24.04	24.7	0.345	0.40	0.263	**0.31**	0.07

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

Ambient Temperature: 22.9 °C Liquid Temperature: 22.5°C										
Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
4183	836.6	Rear	Fig.10	23.90	24.7	0.383	0.46	0.294	**0.35**	-0.09

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

Table 14.2-11: SAR Values (LTE Band2 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
19100	1900	1RB_Mid	Right	Cheek	Fig.11	24.06	24.2	0.458	**0.47**	0.284	**0.29**	0.13

Note: The LTE mode is QPSK_20MHz.

Table 14.2-12: SAR Values (LTE Band2 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
19100	1900	1RB_Mid	Bottom	Fig.12	21.49	21.5	0.83	**0.83**	0.436	**0.44**	-0.19

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_20MHz.

Table 14.2-13: SAR Values (LTE Band5 - Head)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃												
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20450	829	1RB_Mid	Right	Cheek	Fig.13	23.98	24.2	0.237	**0.25**	0.183	**0.19**	0.01

Note: The LTE mode is QPSK_10MHz.

Table 14.2-14: SAR Values (LTE Band5 - Body)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
20300	1745	1RB_Mid	Rear	Fig.14	23.98	24.2	0.309	**0.33**	0.239	**0.25**	0.02

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_10MHz.

Table 14.2-15: SAR Values (LTE Band7 - Head)

Ambient Temperature: 22.9 ºC								Liquid Temperature: 22.5ºC				
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
20850	2510	1RB_Mid	Right	Cheek	Fig.15	23.86	24.2	0.097	**0.10**	0.051	**0.06**	0.09

Note: The LTE mode is QPSK_20MHz.

Table 14.2-16: SAR Values (LTE Band7 - Body)

Ambient Temperature: 22.9 ºC								Liquid Temperature: 22.5ºC				
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)	
Ch.	MHz											
20850	2510	1RB_Mid	Rear	Fig.16	21.17	21.5	0.733	**0.79**	0.325	**0.35**	0.16	

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

Note2: The LTE mode is QPSK_20MHz.

Table 14.2-17: SAR Values (LTE Band12 - Head)

Ambient Temperature: 22.9 ºC								Liquid Temperature: 22.5ºC				
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
23130	711	1RB_Mid	Right	Cheek	Fig.17	24.11	24.2	0.209	**0.21**	0.163	**0.17**	0.06

Note: The LTE mode is QPSK_10MHz.

Table 14.2-18: SAR Values (LTE Band12 - Body)

Ambient Temperature: 22.9 ºC								Liquid Temperature: 22.5ºC				
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)	
Ch.	MHz											
23130	711	1RB_Mid	Rear	Fig.18	24.11	24.2	0.412	**0.42**	0.317	**0.32**	0.15	

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

Note2: The LTE mode is QPSK_10MHz.

Table 14.2-19: SAR Values (LTE Band66 - Head)

Ambient Temperature: 22.9 °C								Liquid Temperature: 22.5°C				
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
132572	1770	1RB_Low	Right	Cheek	Fig.19	23.44	23.7	0.2	**0.21**	0.127	**0.13**	0.03

Note: The LTE mode is QPSK_20MHz.

Table 14.2-20: SAR Values (LTE Band66 - Body)

Ambient Temperature: 22.9 °C								Liquid Temperature: 22.5°C				
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)	
Ch.	MHz											
21350	2560	1RB_Mid	Bottom	Fig.20	18.84	19	0.77	**0.80**	0.413	**0.43**	-0.02	

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_20MHz.

Table 14.2-21: SAR Values (LTE Band71 - Head)

Ambient Temperature: 22.9 °C								Liquid Temperature: 22.5°C				
Frequency		Mode	Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz											
133222	673	1RB_Mid	Right	Cheek	Fig.21	23.77	24.2	0.157	**0.17**	0.122	**0.13**	0.02

Note: The LTE mode is QPSK_20MHz.

Table 14.2-22: SAR Values (LTE Band71 - Body)

Ambient Temperature: 22.9 °C								Liquid Temperature: 22.5°C				
Frequency		Mode	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)	
Ch.	MHz											
133222	673	1RB_Mid	Rear	Fig.22	23.77	24.2	0.255	**0.28**	0.175	**0.19**	-0.15	

Note1: The distance between the EUT and the phantom bottom is 10mm.
Note2: The LTE mode is QPSK_20MHz.

14.3 WLAN Evaluation for 2.4G

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 (Fast SAR)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃										
Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2412	1	Left	Touch	/	18.3	19	0.298	**0.35**	0.185	**0.22**	0.02
2412	1	Left	Tilt	/	18.3	19	0.343	**0.40**	0.187	**0.22**	-0.15
2412	1	Right	Touch	/	18.3	19	0.581	**0.68**	0.300	**0.35**	-0.07
2412	1	Right	Tilt	/	18.3	19	0.449	**0.53**	0.218	**0.26**	-0.03
2412	1	Right	Touch	B2	18.3	19	0.563	**0.66**	0.285	**0.33**	0.06

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

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

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Side	Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.										
2412	1	Right	Touch	Fig.23	18.3	19.00	0.647	**0.76**	0.328	**0.39**	-0.07
2412	1	Right	Tilt	/	18.3	19.00	0.505	**0.59**	0.230	**0.27**	-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.

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

Table 14.3-3: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃							
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	Right	Touch	100%	100%	**0.76**	**0.76**

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

Body Evaluation

Table 14.3-4: SAR Values (WLAN - Body)– 802.11b (Fast SAR)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃										
Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
MHz	Ch.									
2412	1	Front	/	19.48	**19.50**	0.157	**0.16**	0.088	**0.09**	-0.10
2412	1	Rear	/	19.48	**19.50**	0.197	**0.20**	0.106	**0.11**	0.05
2412	1	Left	/	19.48	**19.50**	0.032	**0.03**	0.018	**0.02**	0.09
2412	1	Top	/	19.48	**19.50**	0.169	**0.17**	0.088	**0.09**	-0.04
2412	1	Rear	B2	19.48	**19.50**	0.188	**0.19**	0.104	**0.10**	0.02

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

Table 14.3-5: SAR Values (WLAN - Body)– 802.11b (Full SAR)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃										
Frequency		Test Position	Figure No./ Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
MHz	Ch.									
2412	1	Rear	Fig.24	19.48	19.50	0.193	**0.19**	0.105	**0.11**	0.05

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.

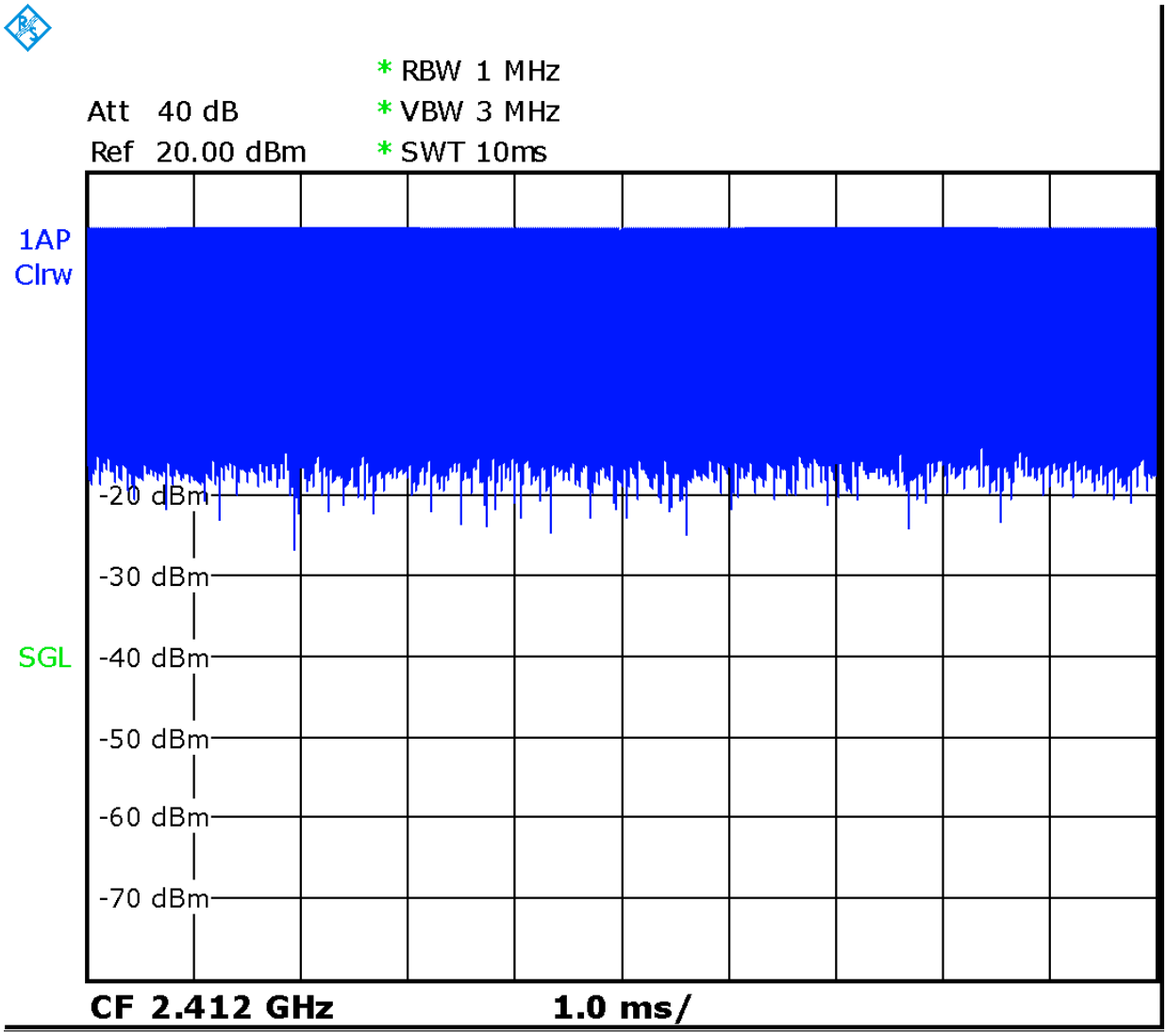
Note2: For all positions/configurations tested using the initial test position and subsequent test positions, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel until the reported SAR is ≤ 1.2 W/kg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

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

Table 14.3-6: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃						
Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.					
2412	1	Rear	100%	100%	**0.19**	**0.19**

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



Picture 14.1 Duty factor plot

14.4 WLAN Evaluation For 5G

Table 14.4-1: OFDM mode specified maximum output power of WLAN antenna

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	X		X	X				
U-NII-2A	X		X	X				
U-NII-2C	X		X	X				
U-NII-3	X		X	X				
§ 15.247 (5.8 GHz)								
X: maximum(conducted) output power(mW), including tolerance, specified for production units								

Table 14.4-2: Maximum output power specified of WLAN antenna - Head

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

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

Table 14.4-3: Maximum output power specified of WLAN antenna - Body

802.11 mode	a	g	n		ac			
Ch. BW(MHz)	20	20	20	40	20	40	80	160
U-NII-1	79		79	79				
U-NII-2A	79		79	79				
U-NII-2C	79		79	79				
U-NII-3	50		50	50				
§ 15.247 (5.8 GHz)								

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

Table 14.4-4: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations - Head

802.11 mode	a	n	
BW(MHz)	20	20	40
U-NII-1	36/40/44/48 Lower power	36/40/44/48 Lower power	38/46 39/39
U-NII-2A	52/56/60/64 Lower power	52/56/60/64 Lower power	54/62 39/37
U-NII-2C	100/104/108/112/124/128/132/136/140/144 Lower power	100/104/108/112/124/128/132/136/140/144 Lower power	102/110/118/126/134/142 34/34/37/38/39/39
U-NII-3	149/153/157/161/165 Lower power	149/153/157/161/165 Lower power	151/159 34/36

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are highlighted in yellow.

Table 14.4-5: Maximum output power measured of WLAN antenna, for the applicable OFDM configurations according to the default power measurement procedures for selection initial test configurations - Body

802.11 mode	a	n	
BW(MHz)	20	20	40
U-NII-1	36/40/44/48 Lower power	36/40/44/48 Lower power	38/46 60/63
U-NII-2A	52/56/60/64 Lower power	52/56/60/64 Lower power	54/62 64/60
U-NII-2C	100/104/108/112/124/128/132/136/140/144 Lower power	100/104/108/112/124/128/132/136/140/144 Lower power	102/110/118/126/134/142 49/49/54/59/61/56
U-NII-3	149/153/157/161/165 Lower power	149/153/157/161/165 Lower power	151/159 38/40

- The **bold numbers** is the maximum output measured power (mW).
- Channels with measured maximum power within 0.25dB are considered to have the same measured output. Channels selected for initial test configuration are highlighted in yellow.

Table 14.4-6: Reported SAR of initial test configuration for Head

802.11 mode	a	n	
BW(MHz)	20	20	40
U-NII-2A	52/56/60/64	52/56/60/64	54/62 **0.08**
U-NII-2C	100/104/108/112/124/128/132/136/140/144	100/104/108/112/124/128/132/136/140/144	102/110/118/126/134/142 **0.10**
U-NII-3	149/153/157/161/165	149/153/157/161/165	151/159 **0.09**
Highest measured output power channel tested initially are in yellow highlight.			

Table 14.4-7: Reported SAR of initial test configuration for Body – 10mm

802.11 mode	a	n	
BW(MHz)	20	20	40
U-NII-2A	52/56/60/64	52/56/60/64	54/62 **0.60**
U-NII-2C	100/104/108/112/124/128/132/136/140/144	100/104/108/112/124/128/132/136/140/144	102/110/118/126/134/142 **0.35**
U-NII-3	149/153/157/161/165	149/153/157/161/165	151/159 **0.30**
Highest measured output power channel tested initially are in yellow highlight.			

Table 14.4-8: SAR Values (WLAN 5G - Head)

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)
Ch.	MHz										
54	5270	Left	Touch	/	15.94	16.00	0.055	**0.06**	0.021	**0.02**	0.04
54	5270	Left	Tilt	/	15.94	16.00	0.041	**0.04**	0.017	**0.02**	0.12
54	5270	Right	Touch	/	15.94	16.00	0.077	**0.08**	0.035	**0.04**	-0.08
54	5270	Right	Tilt	/	15.94	16.00	0.083	**0.08**	0.028	**0.03**	-0.05
134	5670	Left	Touch	/	15.95	16.00	0.047	**0.05**	0.020	**0.02**	0.09
134	5670	Left	Tilt	/	15.95	16.00	0.041	**0.04**	0.014	**0.01**	-0.10
134	5670	Right	Touch	Fig.25	15.95	16.00	0.098	**0.10**	0.032	**0.03**	0.09
134	5670	Right	Tilt	/	15.95	16.00	0.091	**0.09**	0.031	**0.03**	-0.13
159	5795	Left	Touch	/	15.55	16.00	0.046	**0.05**	0.019	**0.02**	0.07
159	5795	Left	Tilt	/	15.55	16.00	0.043	**0.05**	0.018	**0.02**	0.16
159	5795	Right	Touch	/	15.55	16.00	0.080	**0.09**	0.028	**0.03**	0.04
159	5795	Right	Tilt	/	15.55	16.00	0.078	**0.09**	0.026	**0.03**	0.01
54	5270	Right	Touch	B2	15.95	16.00	0.084	**0.08**	0.041	**0.04**	0.06

Table 14.4-10: SAR Values (WLAN 5G - Body)

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)
Ch.	MHz									
54	5270	Front	/	18.07	19.00	0.105	**0.13**	0.056	**0.07**	0.04
54	5270	Rear	Fig.26	18.07	19.00	0.484	**0.60**	0.161	**0.20**	-0.09
54	5270	Left	/	18.07	19.00	0.439	**0.54**	0.148	**0.18**	0.05
54	5270	Top	/	18.07	19.00	0.282	**0.35**	0.090	**0.11**	-0.02
134	5670	Front	/	17.85	19.00	0.072	**0.09**	0.047	**0.06**	0.13
134	5670	Rear	/	17.85	19.00	0.087	**0.11**	0.053	**0.07**	0.07
134	5670	Left	/	17.85	19.00	0.272	**0.35**	0.093	**0.12**	0.02
134	5670	Top	/	17.85	19.00	0.161	**0.21**	0.054	**0.07**	0.06
159	5795	Front	/	16.01	17.00	0.073	**0.09**	0.044	**0.06**	-0.01
159	5795	Rear	/	16.01	17.00	0.081	**0.10**	0.051	**0.06**	0.12
159	5795	Left	/	16.01	17.00	0.240	**0.30**	0.084	**0.11**	0.16
159	5795	Top	/	16.01	17.00	0.155	**0.19**	0.053	**0.07**	-0.08
54	5270	Rear	B2	18.07	19.00	0.464	**0.57**	0.153	**0.19**	0.04

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

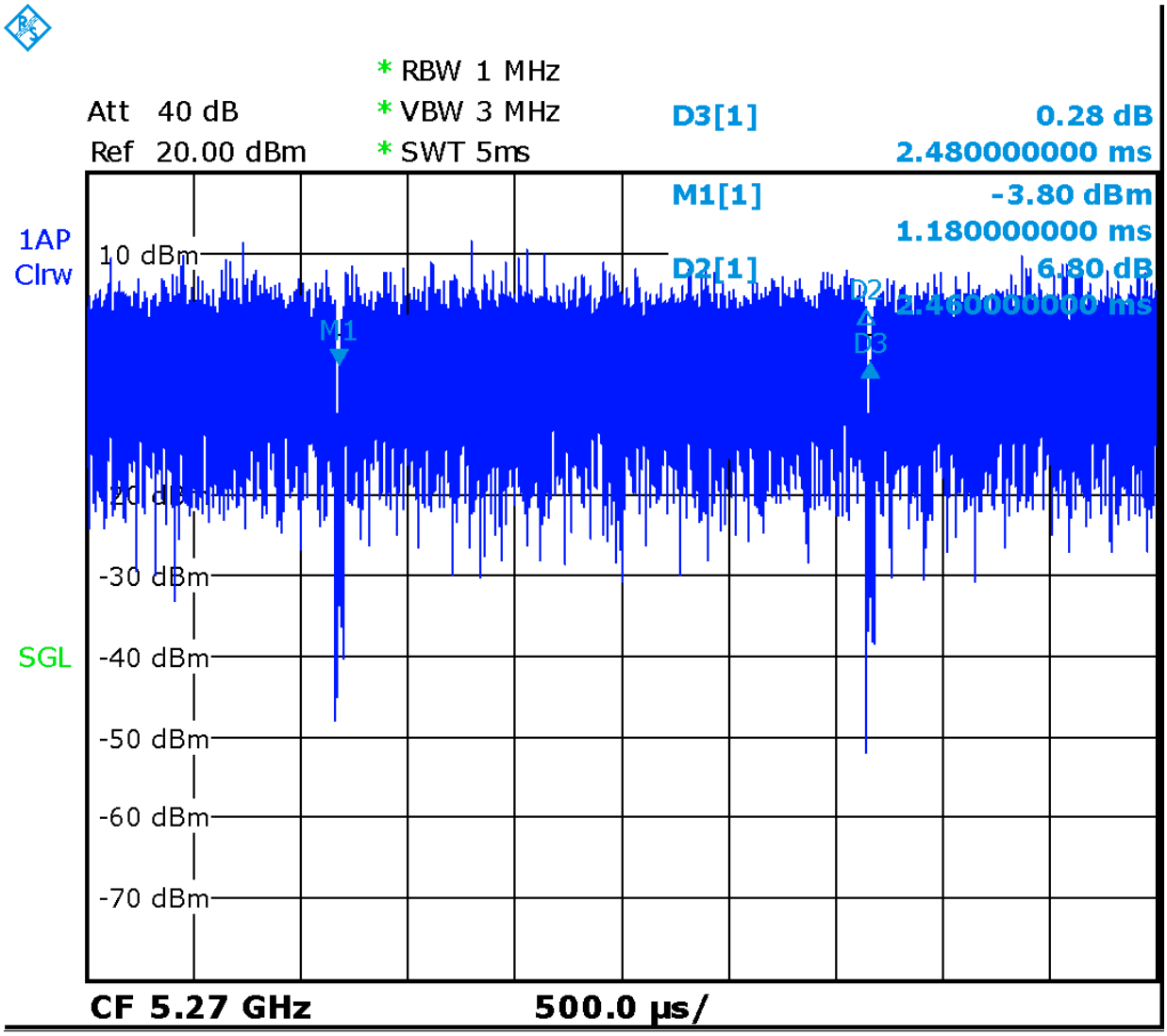
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-12: SAR Values (WLAN 5G - Head) (Scaled Reported SAR)

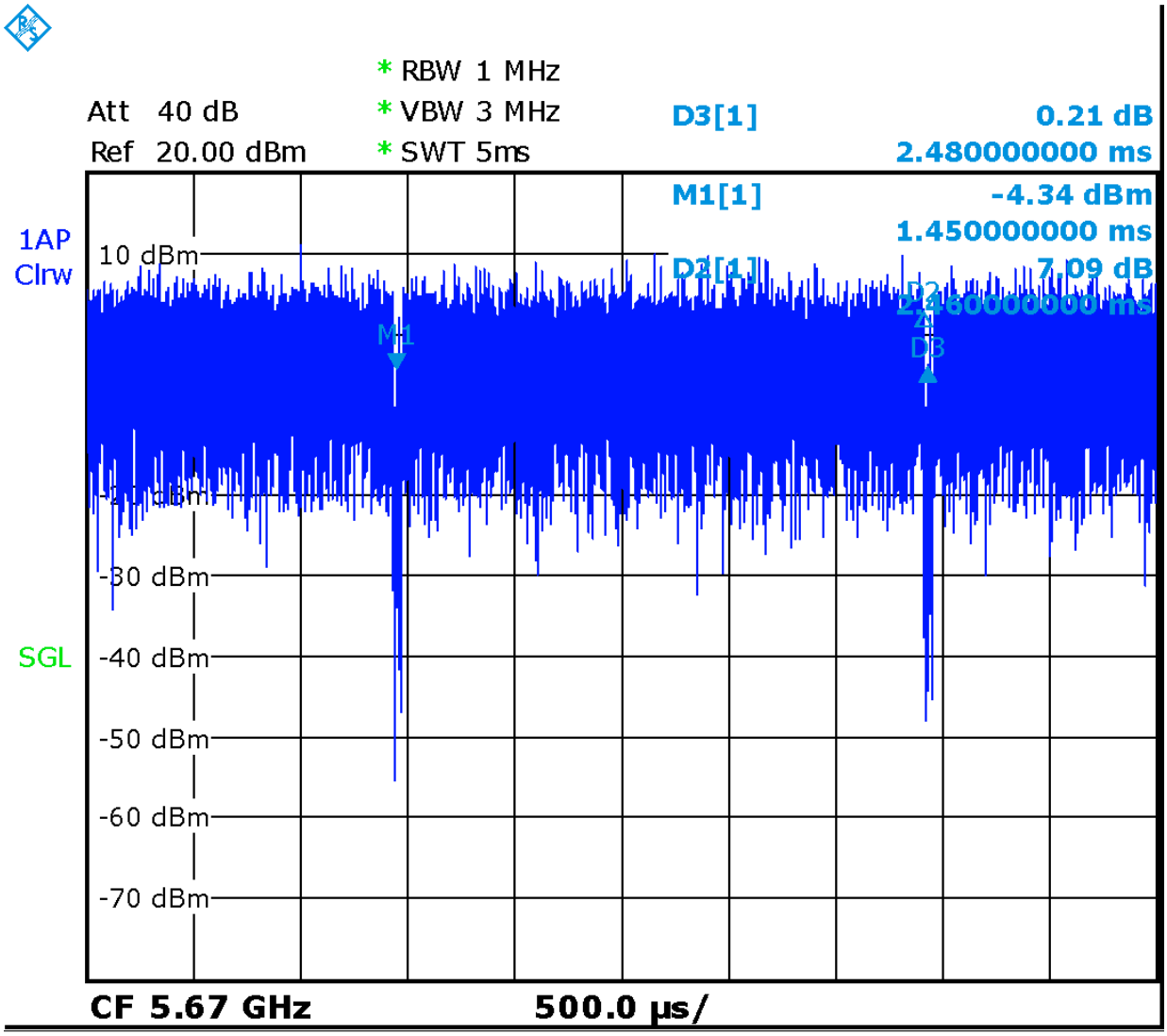
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
134	5670	Right	Touch	99%	100%	**0.10**	**0.10**

Table 14.4-13 SAR Values (WLAN 5G - Body) (Scaled Reported SAR)

Frequency		Test Position	D (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
54	5270	Rear	10	99%	100%	**0.60**	**0.61**



Picture 14.4-1 The plot of duty factor (5270MHz)



Picture 14.4-2 The plot of duty factor (5670MHz)

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; steps2) 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 ≥ 1.45W/kg (~ 10% from the 1-g SAR limit).

4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Table 15.1: SAR Measurement Variability for Body WCDMA1700 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz						
1312	1712.4	Bottom	10	0.974	0.951	1.02	/

Table 15.2: SAR Measurement Variability for Body WCDMA1900 (1g)

Frequency		Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz						
9262	1852.4	Bottom	10	1.02	0.965	1.06	/

Table 15.3: SAR Measurement Variability for Body LTE B2 (1g)

Frequency		Mode	Test Position	Spacing (mm)	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio	Second Repeated SAR (W/kg)
Ch.	MHz							
19100	1900	1RB_Mid	Bottom	10	0.83	0.783	1.06	/

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

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	√3	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	√3	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	√3	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	√3	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	√3	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	√3	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	√3	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	√3	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	√3	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	√3	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	√3	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	√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	√3	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	√3	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	√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	√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	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞

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

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

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

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 24, 2019	One year
02	Power meter	NRVD	102083	October 24, 2018	One year
03	Power sensor	NRV-Z5	100542		
04	Power sensor	NRP6A	101369	April 11, 2019	One Year
05	Signal Generator	E4438C	MY49071430	January 23, 2019	One Year
06	Amplifier	60S1G4	0331848	No Calibration Requested	
07	Directional Coupler	778D	MY48220584	No Calibration Requested	
08	Directional Coupler	772D	MY46151265	No Calibration Requested	
09	BTS	E5515C	MY50263375	January 17, 2019	One year
10	BTS	CMW500	159890	January 3, 2019	One year
11	E-field Probe	SPEAG EX3DV4	3617	January 31, 2019	One year
12	DAE	SPEAG DAE4	771	January 11,2019	One year
13	Dipole Validation Kit	SPEAG D750V3	1017	July 18, 2019	One year
14	Dipole Validation Kit	SPEAG D835V2	4d069	July 18, 2019	One year
15	Dipole Validation Kit	SPEAG D1750V2	1003	July 16, 2019	One year
16	Dipole Validation Kit	SPEAG D1900V2	5d101	July 17, 2019	One year
17	Dipole Validation Kit	SPEAG D2450V2	853	July 17, 2019	One year
18	Dipole Validation Kit	SPEAG D2600V2	1012	July 17, 2019	One year
19	Dipole Validation Kit	SPEAG D5GHzV2	1060	July 22, 2019	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850_CH251 Right Cheek
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: head 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.902 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: GSM850 848.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.4 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.035 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.416 W/kg
SAR(1 g) = 0.336 W/kg; SAR(10 g) = 0.258 W/kg
Maximum value of SAR (measured) = 0.377 W/kg

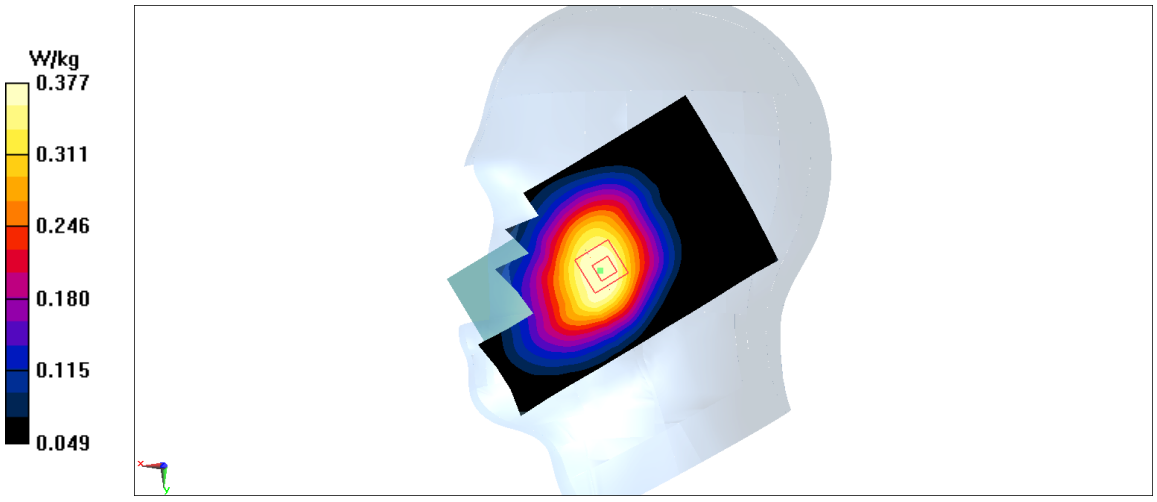


Fig A.1

GSM850_CH251 Rear
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: body 835 MHz
Medium parameters used: f = 848.8 MHz; σ = 0.902 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: GSM850 848.8 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.455 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.83 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.548 W/kg
SAR(1 g) = 0.405 W/kg; SAR(10 g) = 0.311 W/kg
Maximum value of SAR (measured) = 0.495 W/kg

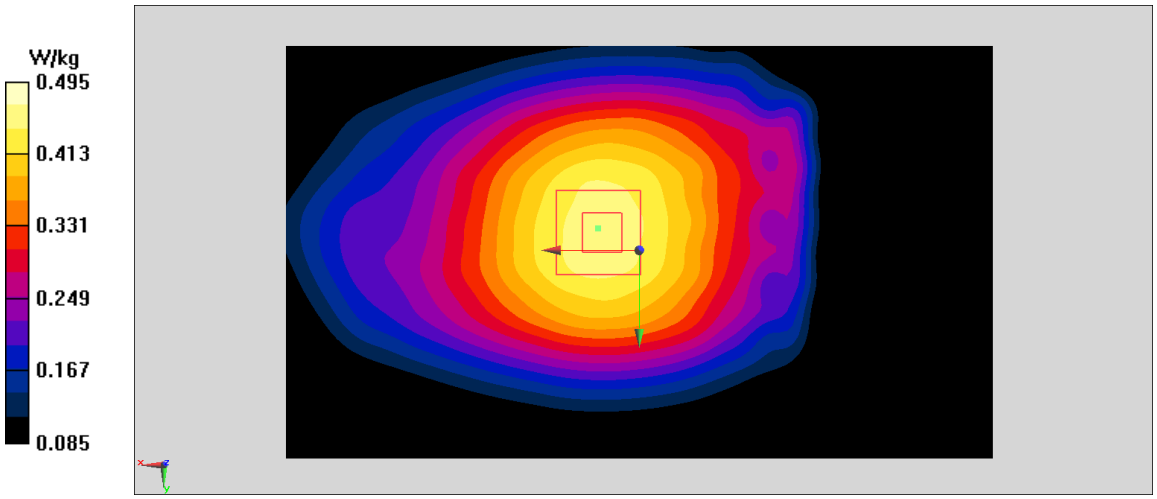


Fig A.2

PCS1900_CH661 Right Cheek
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: head 1900 MHz
Medium parameters used: f = 1880 MHz; σ = 1.399 mho/m; εr = 40.19; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: PCS1900 1880 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.307 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.293 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.355 W/kg
SAR(1 g) = 0.238 W/kg; SAR(10 g) = 0.147 W/kg
Maximum value of SAR (measured) = 0.296 W/kg

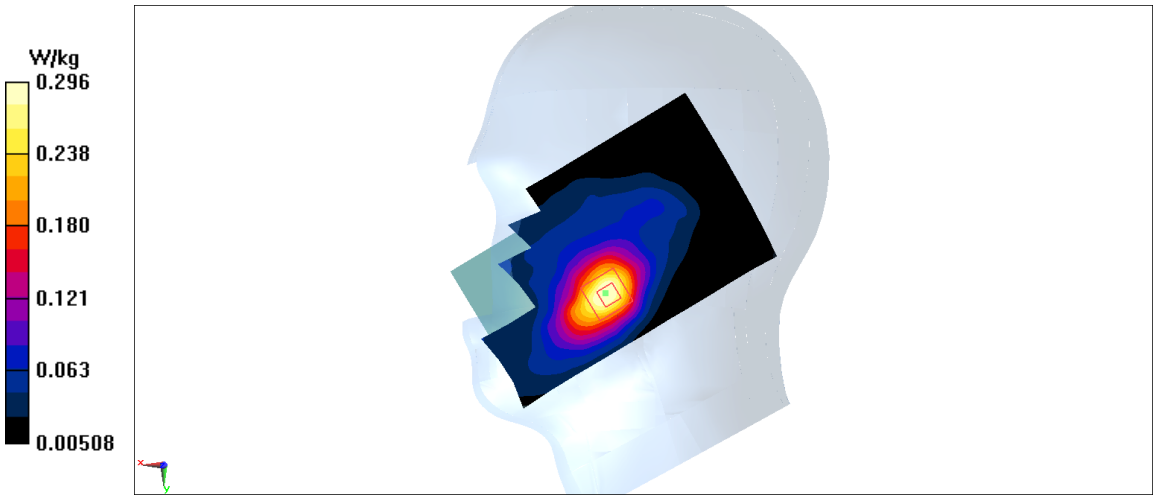


Fig A.3

PCS1900_CH512 Bottom
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: body 1900 MHz
Medium parameters used: f = 1850.2 MHz; σ = 1.37 mho/m; εr = 40.23; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: PCS1900 1850.2 MHz Duty Cycle: 1:2
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.795 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.45 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.918 W/kg
SAR(1 g) = 0.519 W/kg; SAR(10 g) = 0.282 W/kg
Maximum value of SAR (measured) = 0.776 W/kg

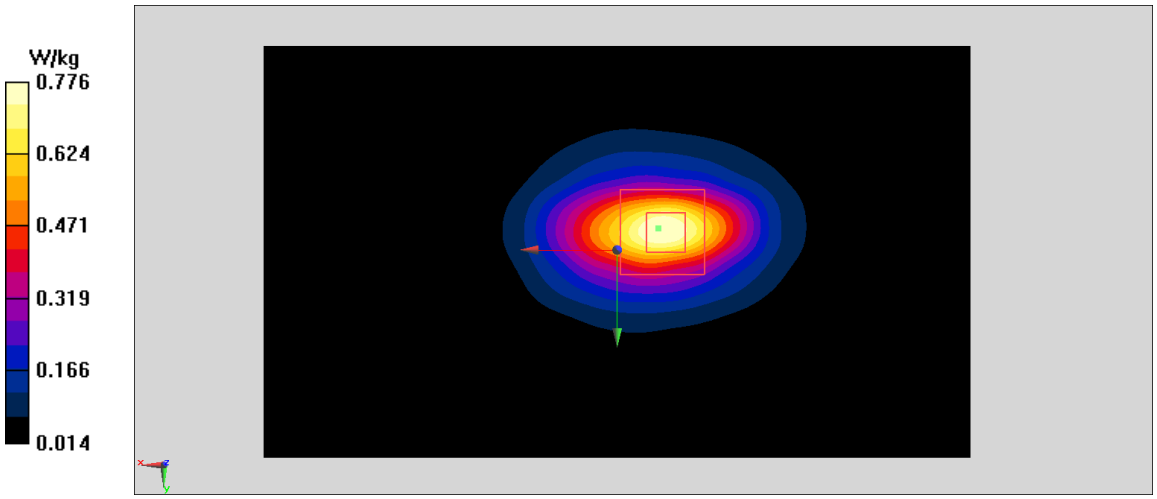


Fig A.4

WCDMA1900-BII_CH9262 Right Cheek
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: head 1900 MHz
Medium parameters used: f = 1852.4 MHz; σ = 1.372 mho/m; εr = 40.23; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.535 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.544 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.631 W/kg
SAR(1 g) = 0.414 W/kg; SAR(10 g) = 0.255 W/kg
Maximum value of SAR (measured) = 0.514 W/kg

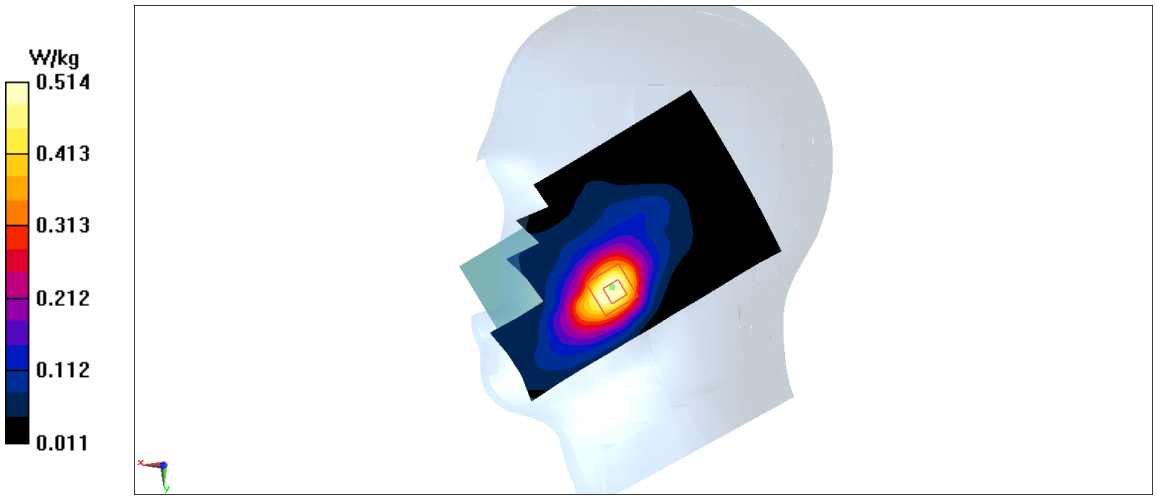


Fig A.5

WCDMA1900-BII_CH9262 Bottom
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: body 1900 MHz
Medium parameters used: f = 1852.4 MHz; σ = 1.372 mho/m; εr = 40.23; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA1900-BII 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.5 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.56 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 1.02 W/kg; SAR(10 g) = 0.536 W/kg
Maximum value of SAR (measured) = 1.53 W/kg

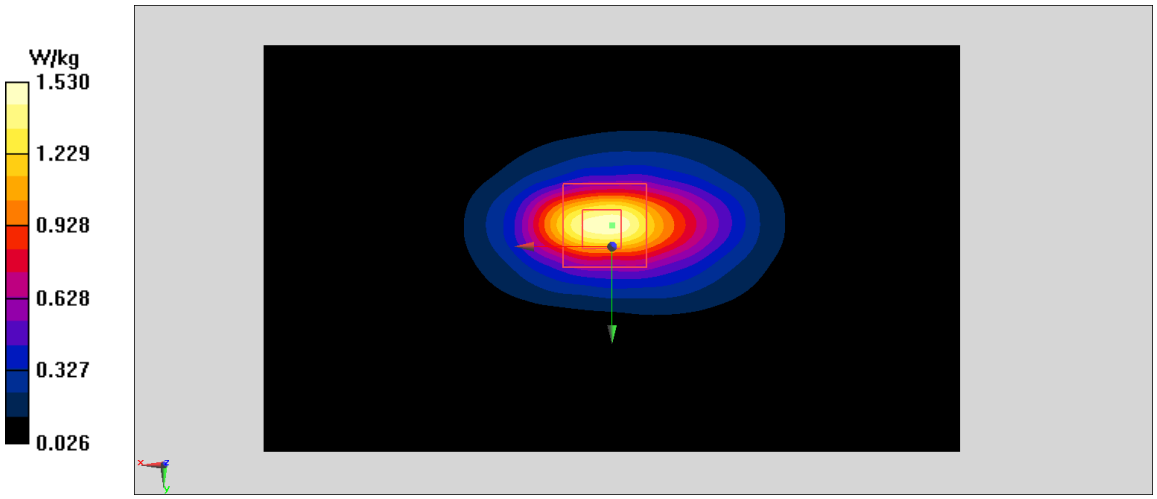


Fig A.6

WCDMA1700-BIV_CH1513 Right Cheek
Date: 1/4/2020
Electronics: DAE4 Sn771
Medium: head 1750 MHz
Medium parameters used: f = 1752.6 MHz; σ = 1.361 mho/m; εr = 40.85; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA1700-BIV 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.38,8.38,8.38)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.256 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.285 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.307 W/kg
SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.129 W/kg
Maximum value of SAR (measured) = 0.255 W/kg

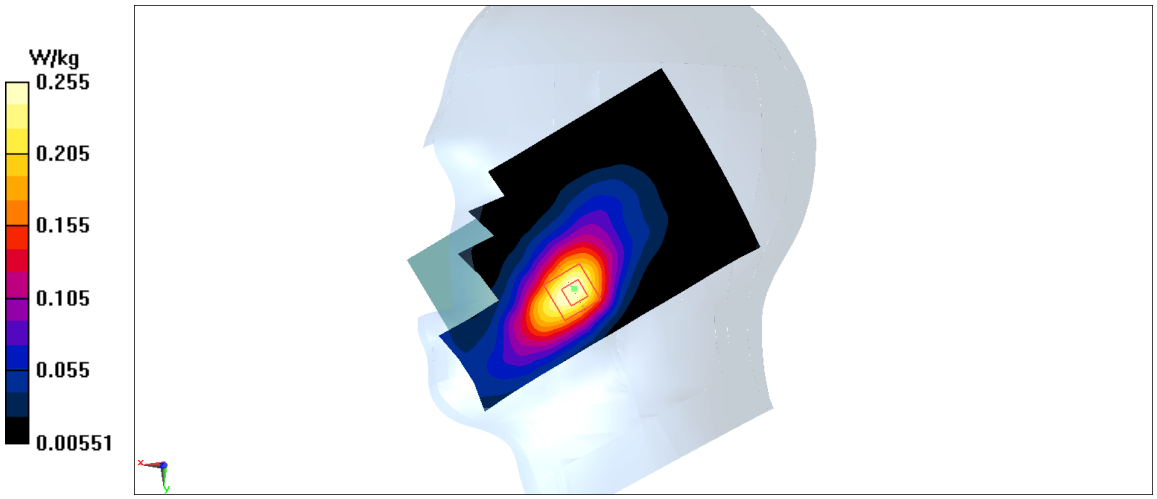


Fig A.7

WCDMA1700-BIV_CH1312 Bottom
Date: 1/4/2020
Electronics: DAE4 Sn771
Medium: body 1750 MHz
Medium parameters used: f = 1712.4 MHz; σ = 1.322 mho/m; εr = 40.9; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA1700-BIV 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.38,8.38,8.38)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.45 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 24.3 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.73 W/kg
SAR(1 g) = 0.974 W/kg; SAR(10 g) = 0.526 W/kg
Maximum value of SAR (measured) = 1.43 W/kg

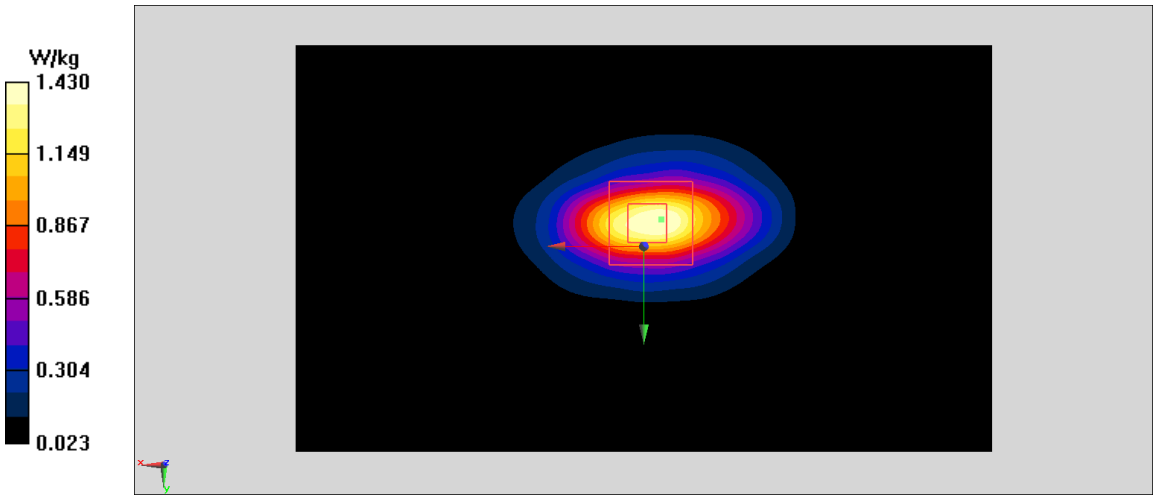


Fig A.8

WCDMA850-BV_CH4233 Right Cheek
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: head 835 MHz
Medium parameters used: f = 846.6 MHz; σ = 0.9 mho/m; εr = 42.28; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA850-BV 846.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.396 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.766 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.432 W/kg
SAR(1 g) = 0.345 W/kg; SAR(10 g) = 0.263 W/kg
Maximum value of SAR (measured) = 0.393 W/kg

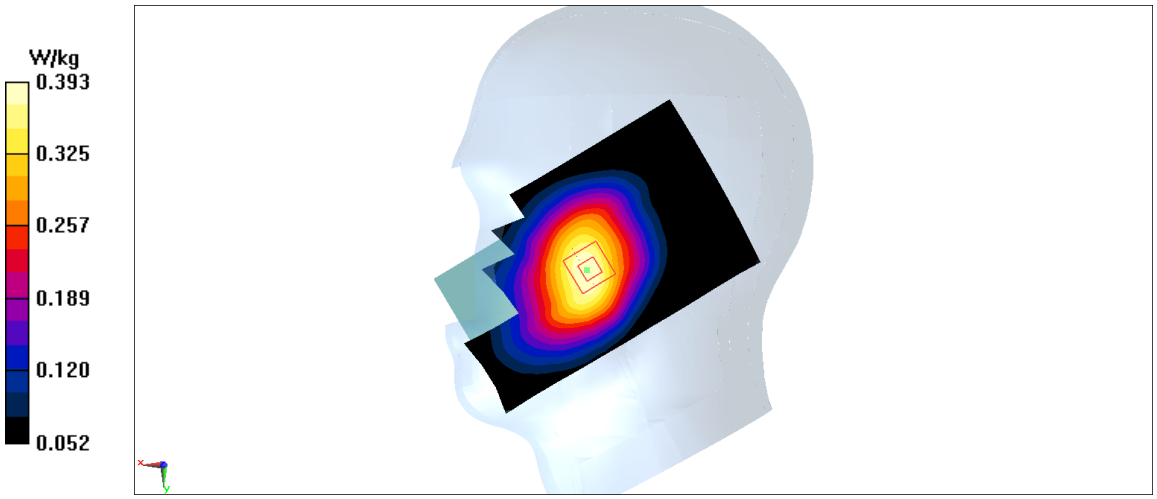


Fig A.9

WCDMA850-BV_CH4183 Rear
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: body 835 MHz
Medium parameters used: f = 836.6 MHz; σ = 0.891 mho/m; εr = 42.29; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WCDMA850-BV 836.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.473 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.9 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.519 W/kg
SAR(1 g) = 0.383 W/kg; SAR(10 g) = 0.294 W/kg
Maximum value of SAR (measured) = 0.465 W/kg

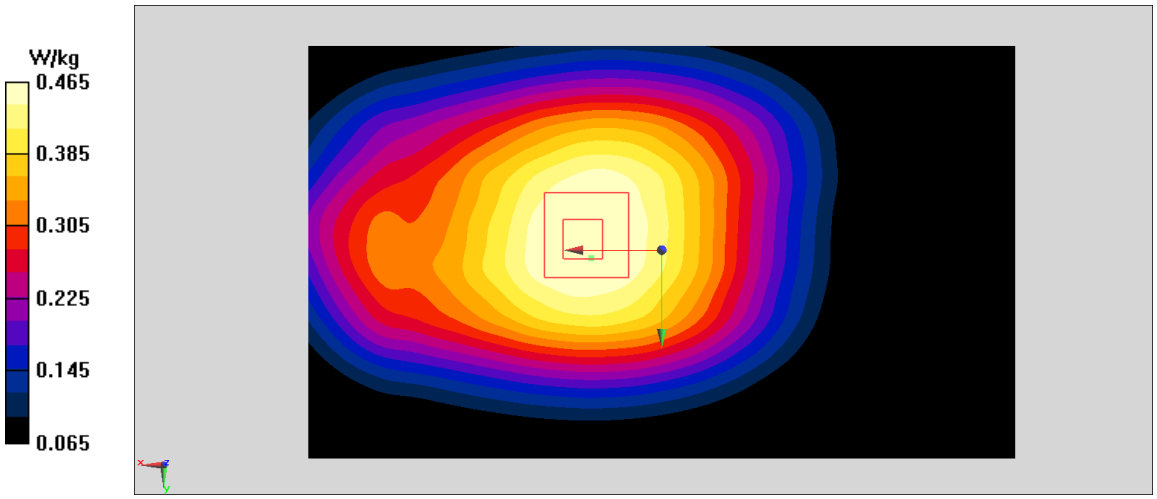


Fig A.10

LTE1900-FDD2_CH19100 Right Cheek
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: head 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.418 mho/m; εr = 40.17; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.609 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.412 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.706 W/kg
SAR(1 g) = 0.458 W/kg; SAR(10 g) = 0.284 W/kg
Maximum value of SAR (measured) = 0.587 W/kg

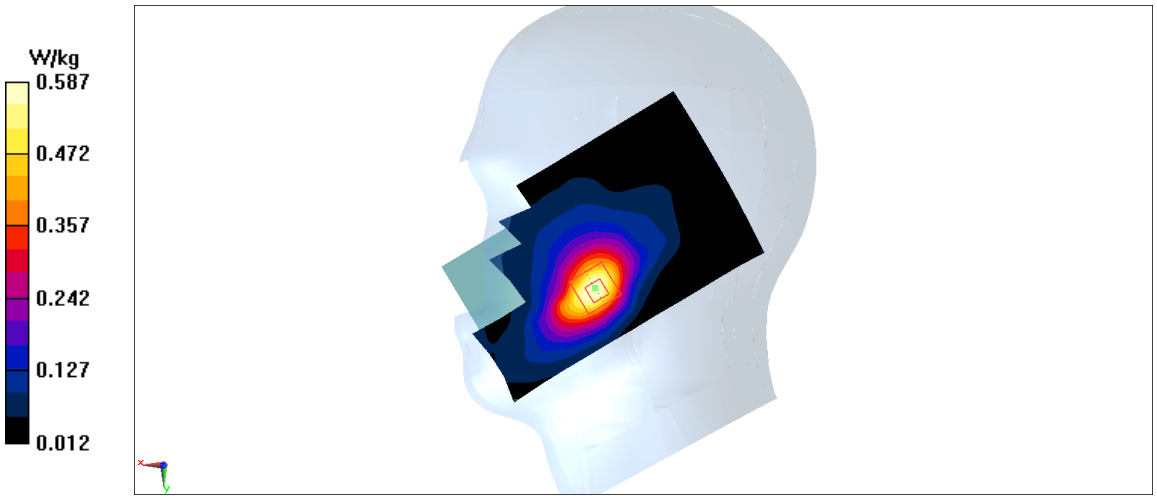


Fig A.11

LTE1900-FDD2_CH19100 Bottom
Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: body 1900 MHz
Medium parameters used: f = 1900 MHz; σ = 1.418 mho/m; εr = 40.17; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE1900-FDD2 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

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 = 24.13 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 1.46 W/kg
SAR(1 g) = 0.83 W/kg; SAR(10 g) = 0.436 W/kg
Maximum value of SAR (measured) = 1.23 W/kg

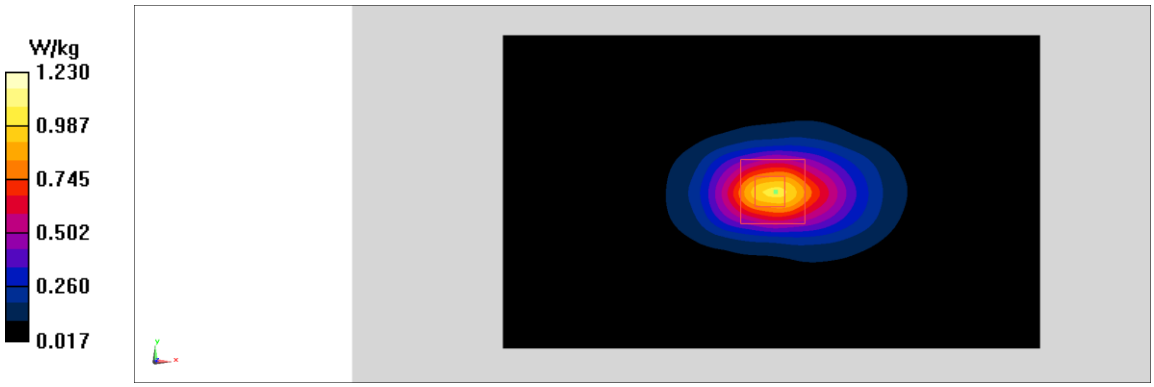


Fig A.12

LTE850-FDD5_CH20450 Right Cheek
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: head 835 MHz
Medium parameters used: f = 829 MHz; σ = 0.883 mho/m; εr = 42.3; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.273 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.657 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.298 W/kg
SAR(1 g) = 0.237 W/kg; SAR(10 g) = 0.183 W/kg
Maximum value of SAR (measured) = 0.272 W/kg

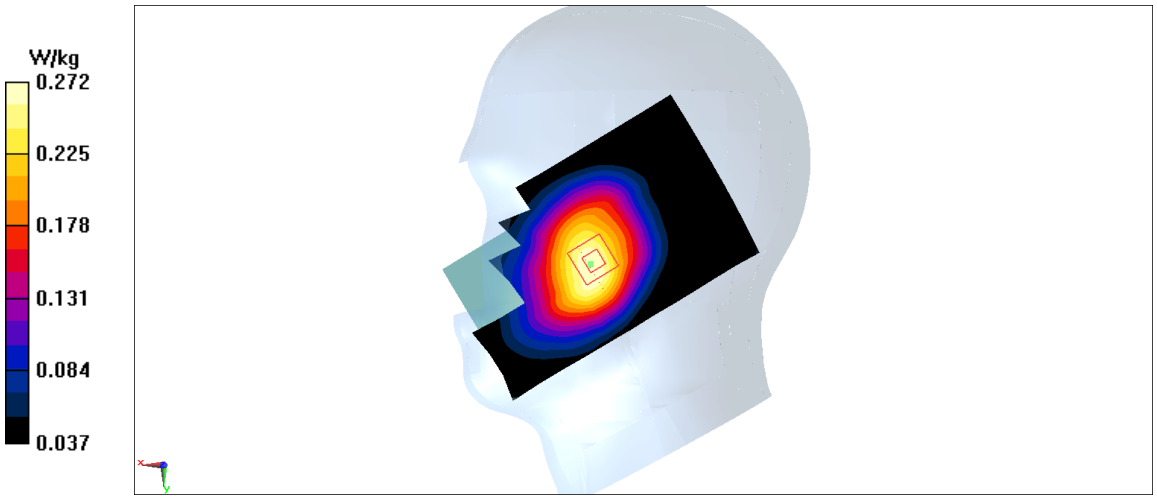


Fig A.13

LTE850-FDD5_CH20450 Rear
Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: body 835 MHz
Medium parameters used: f = 829 MHz; σ = 0.883 mho/m; εr = 42.3; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE850-FDD5 829 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.353 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.36 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.408 W/kg
SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.239 W/kg
Maximum value of SAR (measured) = 0.369 W/kg

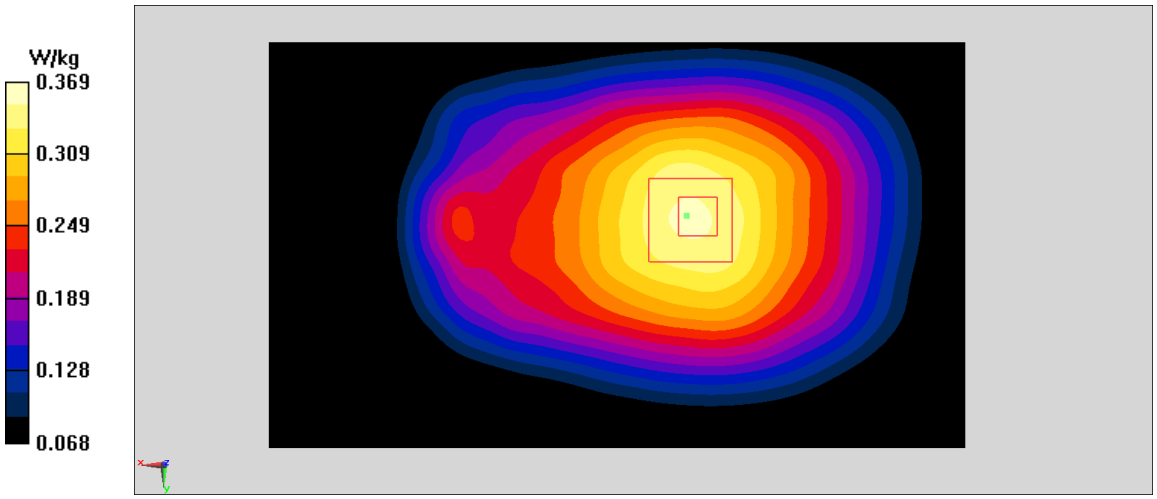


Fig A.14

LTE2500-FDD7_CH20850 Right Cheek
Date: 1/7/2020
Electronics: DAE4 Sn771
Medium: head 2600 MHz
Medium parameters used: f = 2510 MHz; σ = 1.9 mho/m; εr = 39.07; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(7.19,7.19,7.19)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.151 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.175 W/kg
SAR(1 g) = 0.097 W/kg; SAR(10 g) = 0.051 W/kg
Maximum value of SAR (measured) = 0.138 W/kg

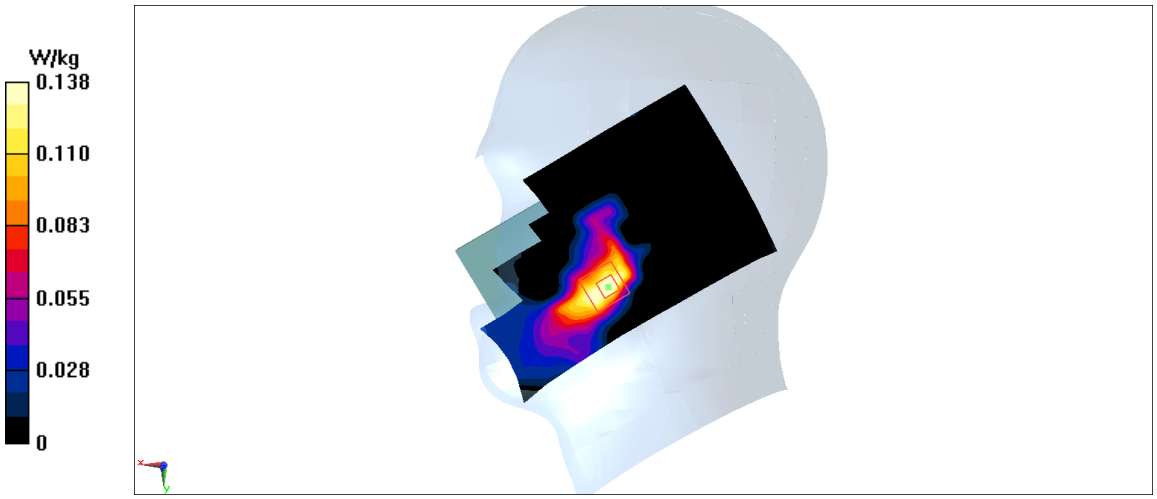


Fig A.15

LTE2500-FDD7_CH20850 Rear
Date: 1/7/2020
Electronics: DAE4 Sn771
Medium: body 2600 MHz
Medium parameters used: f = 2510 MHz; σ = 1.9 mho/m; εr = 39.07; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE2500-FDD7 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(7.19,7.19,7.19)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.23 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.124 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.5 W/kg
SAR(1 g) = 0.733 W/kg; SAR(10 g) = 0.325 W/kg
Maximum value of SAR (measured) = 1.15 W/kg

Fig A.16

LTE700-FDD12_CH23130 Right Cheek
Date: 1/2/2020
Electronics: DAE4 Sn771
Medium: head 750 MHz
Medium parameters used: f = 711 MHz; σ = 0.844 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE700-FDD12 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(10.03,10.03,10.03)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.235 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.885 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.269 W/kg
SAR(1 g) = 0.209 W/kg; SAR(10 g) = 0.163 W/kg
Maximum value of SAR (measured) = 0.243 W/kg

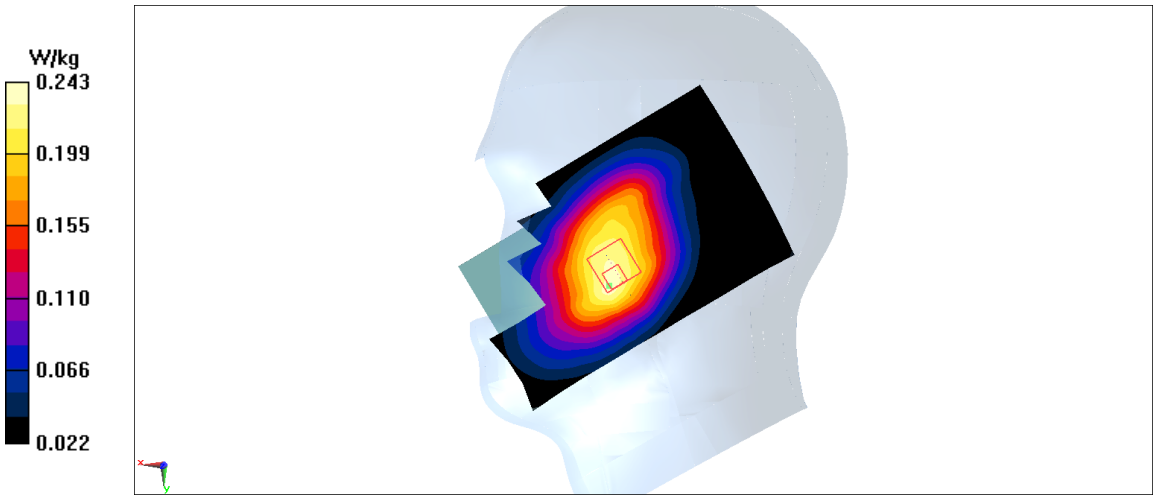


Fig A.17

LTE700-FDD12_CH23130 Rear
Date: 1/2/2020
Electronics: DAE4 Sn771
Medium: body 750 MHz
Medium parameters used: f = 711 MHz; σ = 0.844 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE700-FDD12 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(10.03,10.03,10.03)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.445 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.85 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.538 W/kg
SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.317 W/kg
Maximum value of SAR (measured) = 0.497 W/kg

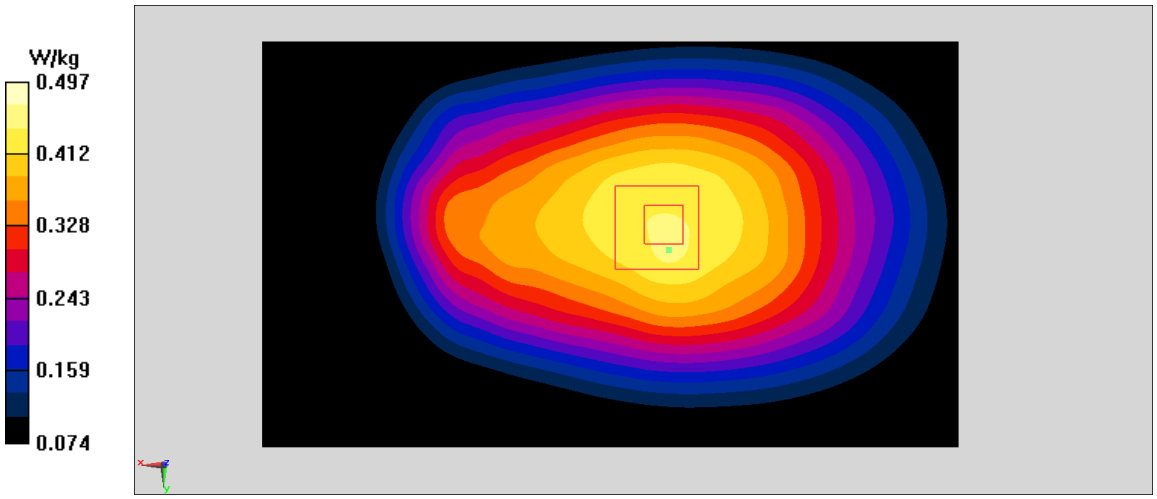


Fig A.18

LTE1700-FDD66_CH132572 Right Cheek
Date: 1/4/2020
Electronics: DAE4 Sn771
Medium: head 1750 MHz
Medium parameters used: f = 711 MHz; σ = 0.371 mho/m; εr = 42.1; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE1700-FDD66 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.38,8.38,8.38)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.25 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.761 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.299 W/kg
SAR(1 g) = 0.2 W/kg; SAR(10 g) = 0.127 W/kg
Maximum value of SAR (measured) = 0.241 W/kg

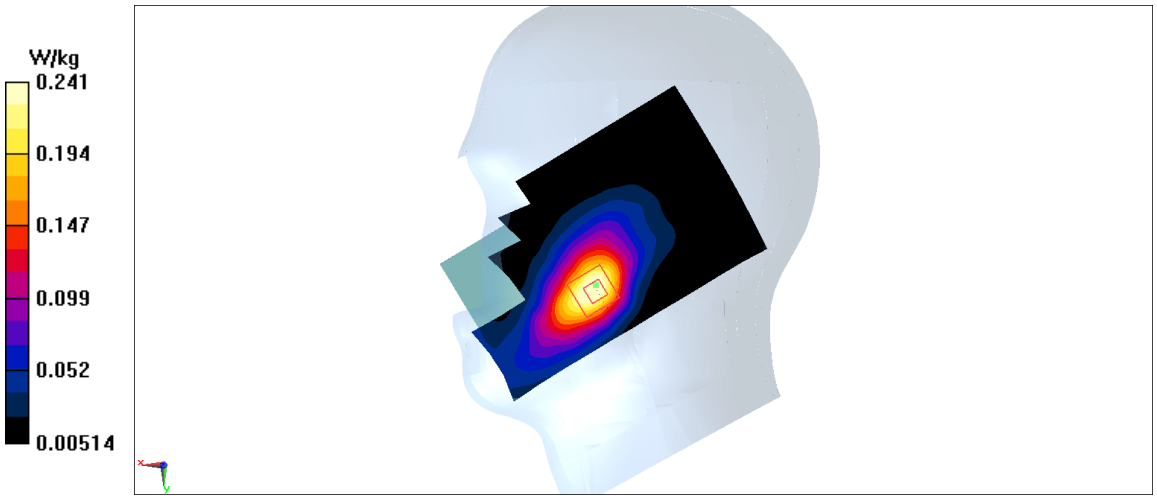


Fig A.19

LTE1700-FDD66_CH132572 Bottom
Date: 1/4/2020
Electronics: DAE4 Sn771
Medium: body 1750 MHz
Medium parameters used: f = 711 MHz; σ = 0.371 mho/m; εr = 42.1; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE1700-FDD66 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.38,8.38,8.38)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.22 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 1.35 W/kg
SAR(1 g) = 0.77 W/kg; SAR(10 g) = 0.413 W/kg
Maximum value of SAR (measured) = 1.12 W/kg

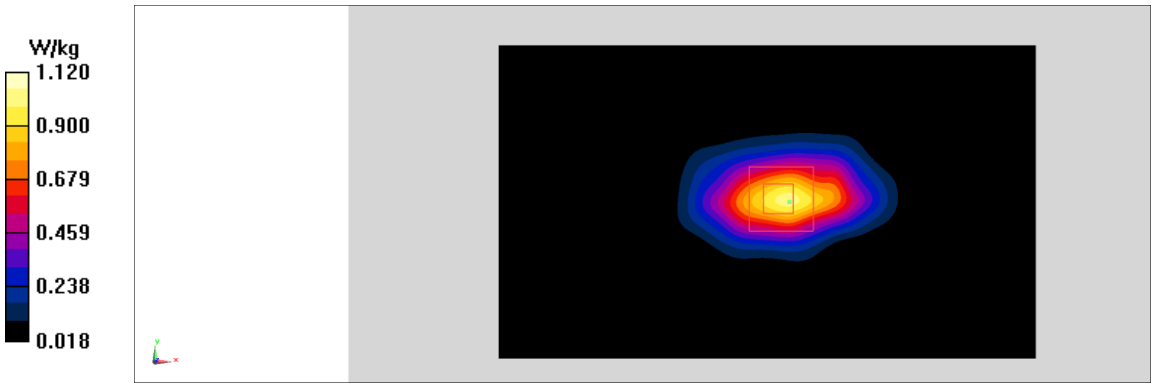


Fig A.20

LTE700-FDD71_CH133222 Right Cheek
Date: 1/2/2020
Electronics: DAE4 Sn771
Medium: head 750 MHz
Medium parameters used: f = 711 MHz; σ = 0.844 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE700-FDD71 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(10.03,10.03,10.03)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.176 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.087 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.195 W/kg
SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.179 W/kg

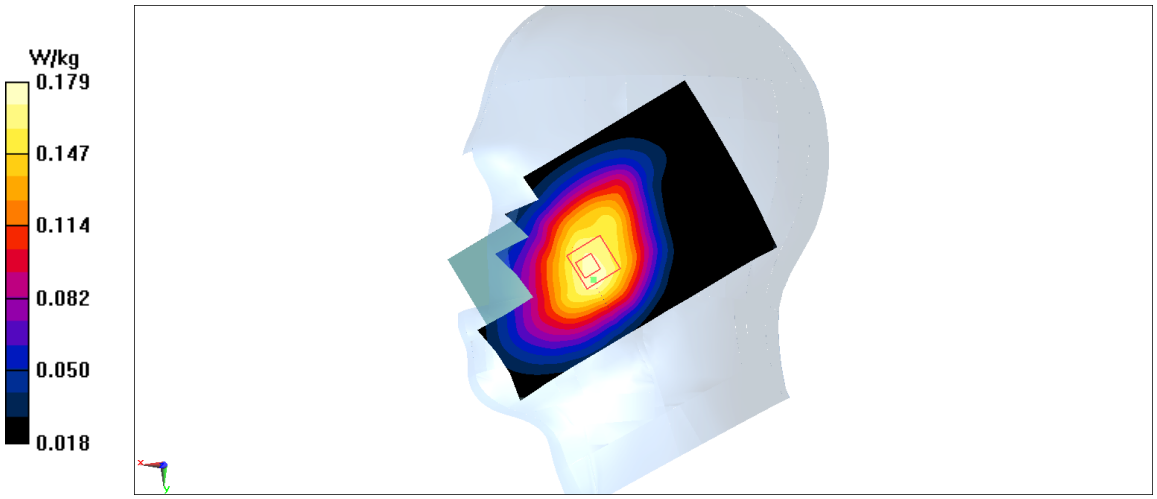


Fig A.21

LTE700-FDD71_CH133222 Rear
Date: 1/2/2020
Electronics: DAE4 Sn771
Medium: body 750 MHz
Medium parameters used: f = 711 MHz; σ = 0.844 mho/m; εr = 42.27; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: LTE700-FDD71 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(10.03,10.03,10.03)

Area Scan (71x121x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.336 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.6 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.397 W/kg
SAR(1 g) = 0.255 W/kg; SAR(10 g) = 0.175 W/kg
Maximum value of SAR (measured) = 0.336 W/kg

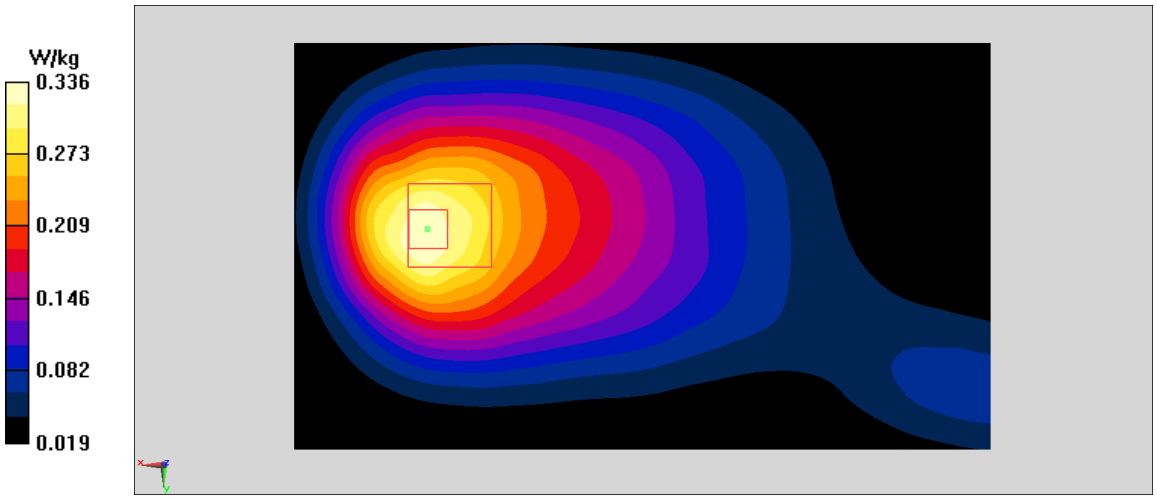


Fig A.22

WLAN2450_CH1 Right Cheek
Date: 1/6/2020
Electronics: DAE4 Sn771
Medium: head 2450 MHz
Medium parameters used: f = 2412; σ = 1.763 mho/m; εr = 39.32; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WLAN2450 2412 Duty Cycle: 1：1
Probe: EX3DV4 – SN3617 ConvF(7.62,7.62,7.62)

Area Scan (71x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.877 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.83 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 1.26 W/kg
SAR(1 g) = 0.647 W/kg; SAR(10 g) = 0.328 W/kg
Maximum value of SAR (measured) = 0.939 W/kg

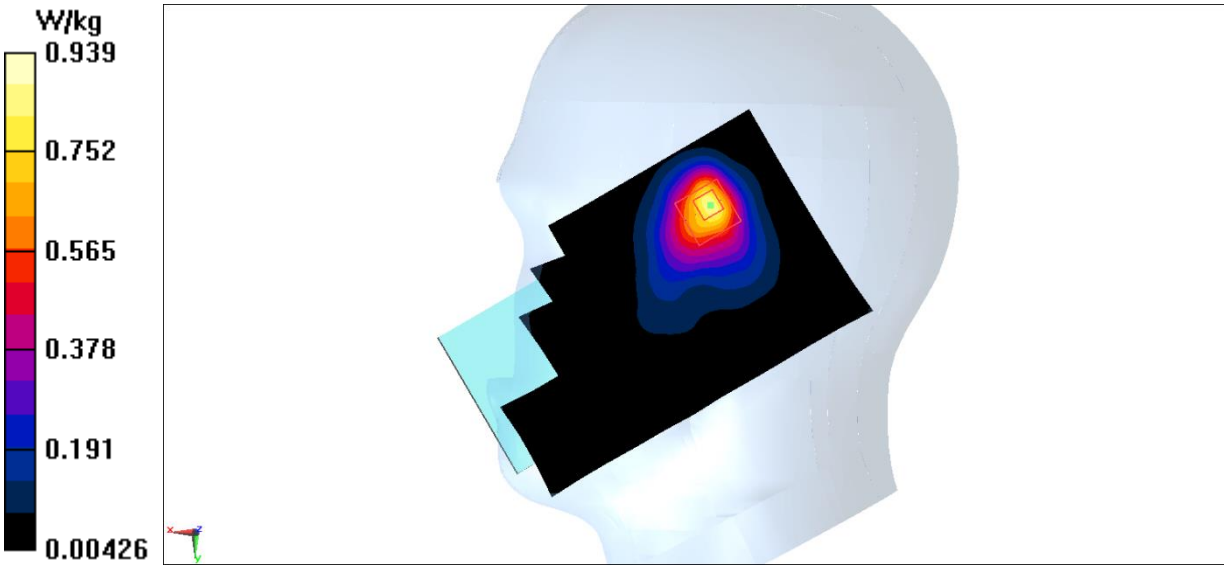


Fig A.23

WLAN2450_CH6 Rear
Date: 1/6/2020
Electronics: DAE4 Sn771
Medium: head 2450 MHz
Medium parameters used: f = 2412; σ = 1.763 mho/m; εr = 39.32; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WLAN2450 2412 Duty Cycle: 1：1
Probe: EX3DV4 – SN3617 ConvF(7.62,7.62,7.62)

Area Scan (121x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.280 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.145 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.381 W/kg
SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.105 W/kg
Maximum value of SAR (measured) = 0.308 W/kg

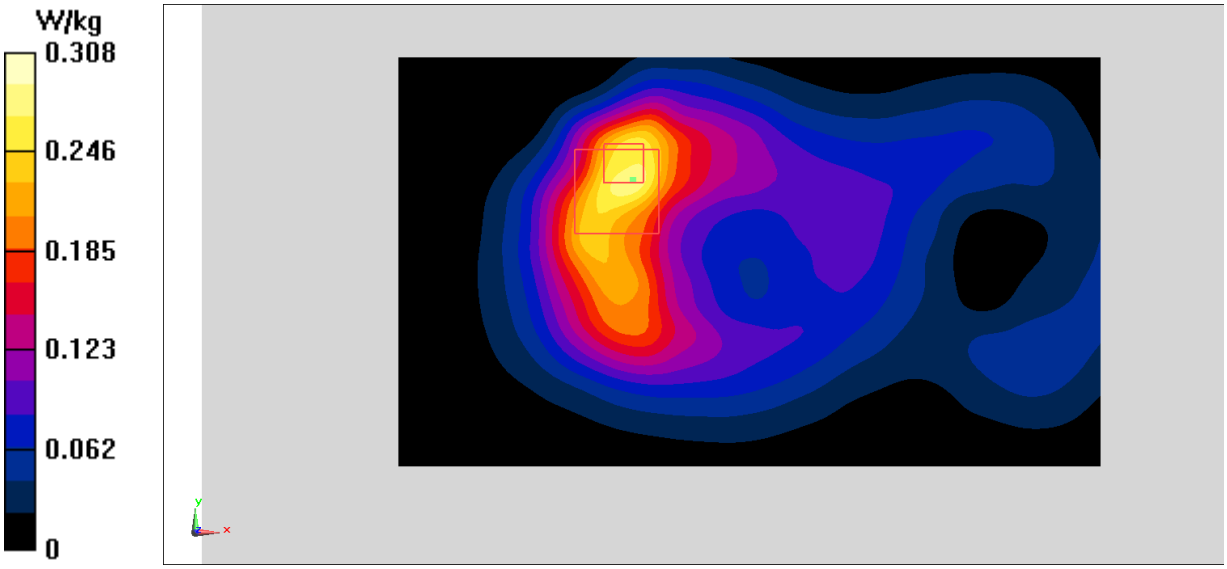


Fig A.24

WLAN_CH54 Right Cheek
Date: 1/9/2020
Electronics: DAE4 Sn771
Medium: head 5600 MHz
Medium parameters used: f = 5670; σ = 4.941 mho/m; εr = 35.785; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WLAN 5670 Duty Cycle: 1：1
Probe: EX3DV4 – SN3617 ConvF(5.06, 5.06, 5.06)

Area Scan (91x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.219 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0 V/m; Power Drift = -0.09dB
Peak SAR (extrapolated) = 0.473 W/kg
SAR(1 g) = 0.098 W/kg; SAR(10 g) = 0.032 W/kg
Maximum value of SAR (measured) = 0.211 W/kg

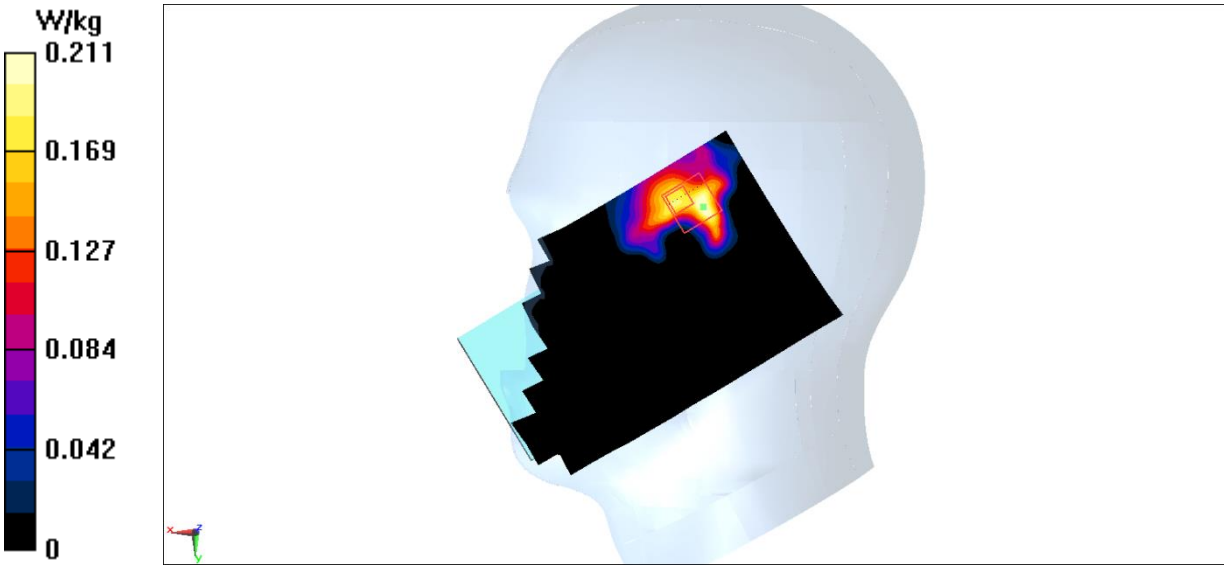


Fig A.25

WLAN_CH54 Rear
Date: 1/9/2020
Electronics: DAE4 Sn771
Medium: head 5250 MHz
Medium parameters used: f = 5270; σ = 4.744 mho/m; εr = 35.38; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC, Liquid Temperature: 22.5ºC
Communication System: WLAN 5270 Duty Cycle: 1：1
Probe: EX3DV4 – SN3617 ConvF(5.39,5.39,5.39)

Area Scan (91x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.996 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.212 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.484 W/kg; SAR(10 g) = 0.161 W/kg
Maximum value of SAR (measured) = 0.965 W/kg

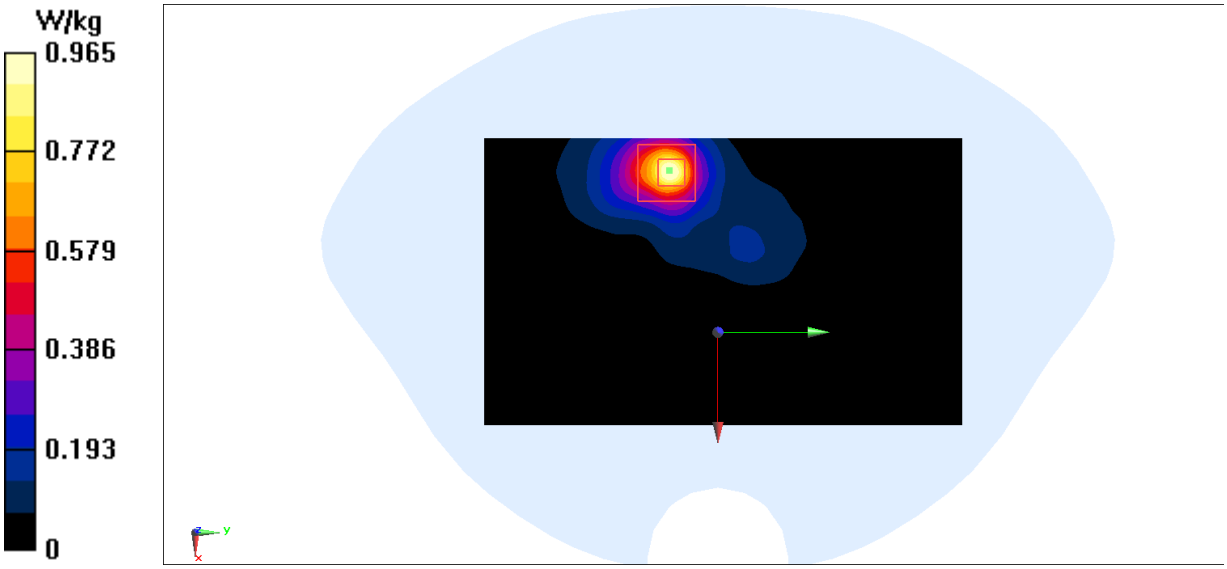


Fig A.26

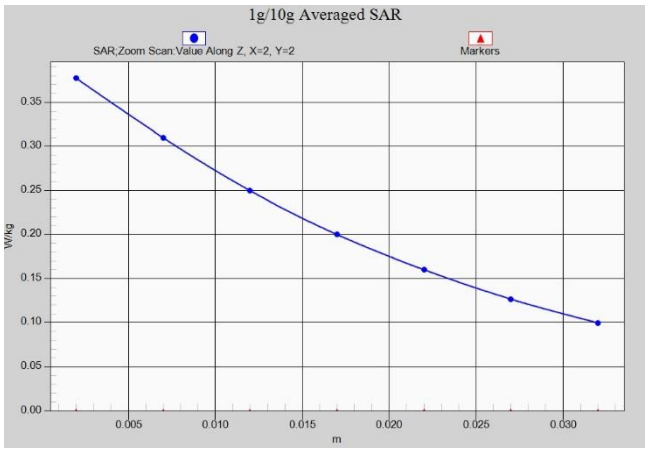


Fig. 1-1 Z-Scan at power reference point (850 MHz Head)

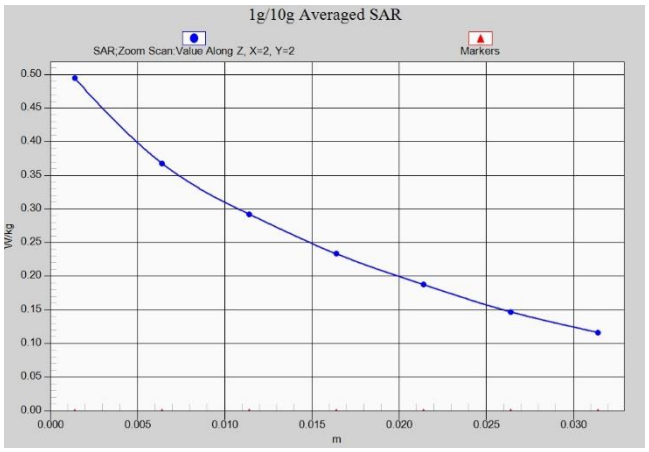


Fig. 1-2 Z-Scan at power reference point (850 MHz Body)

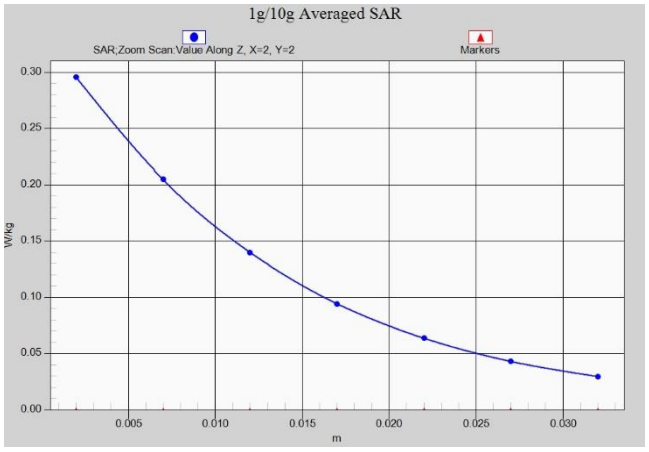


Fig. 1-3 Z-Scan at power reference point (1900 MHz Head)

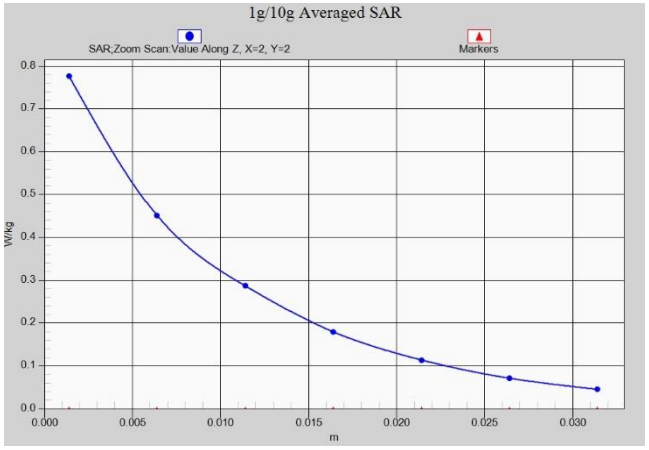


Fig. 1-4 Z-Scan at power reference point (1900 MHz Body)

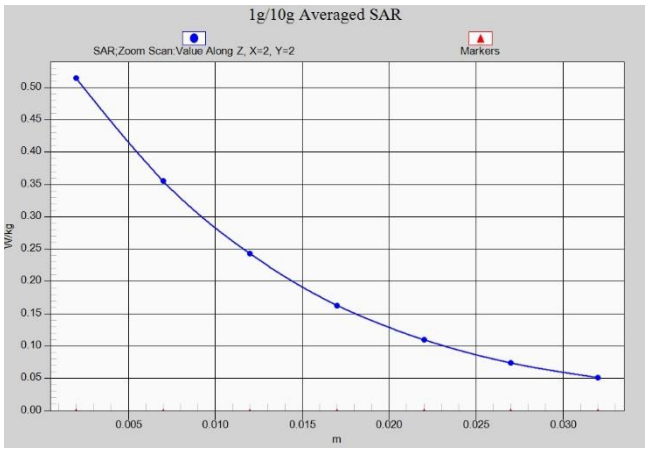


Fig. 1-5 Z-Scan at power reference point (WCDMA1900 Head)

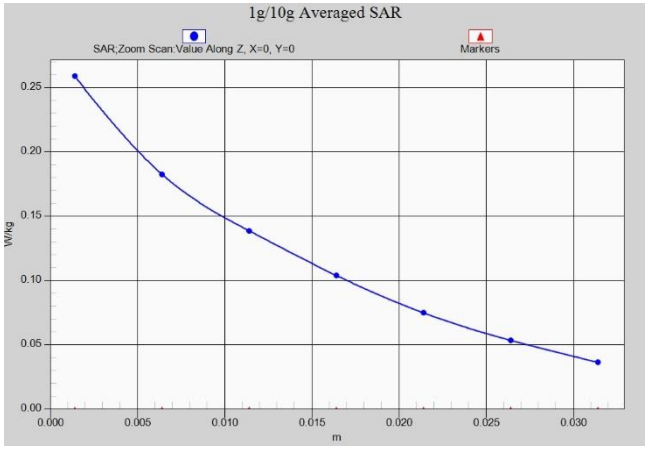


Fig. 1-6 Z-Scan at power reference point (WCDMA1900 Body)

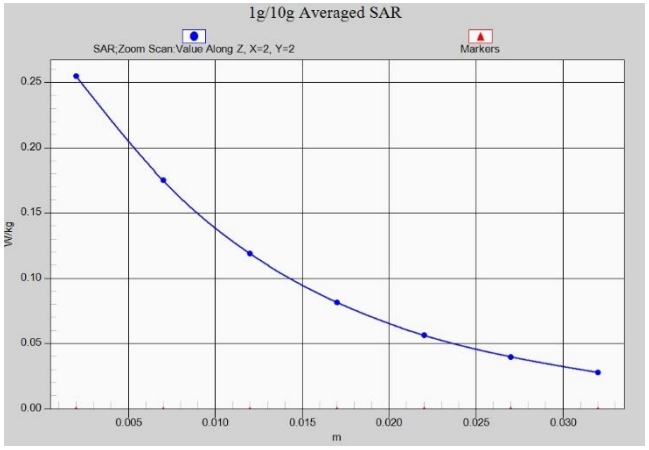


Fig. 1-7 Z-Scan at power reference point (WCDMA1700 Head)

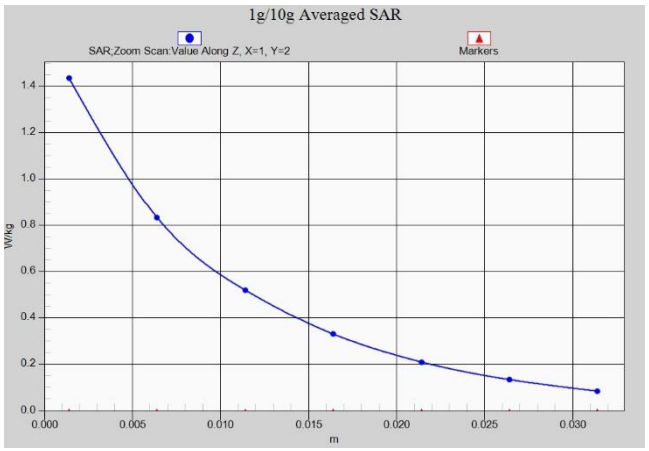


Fig. 1-8 Z-Scan at power reference point (WCDMA1700 Body)

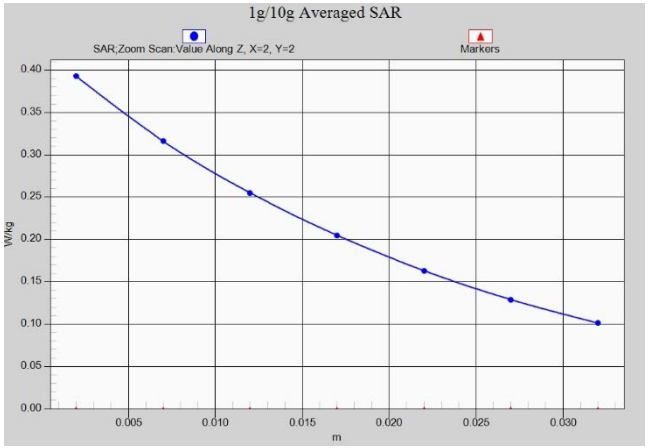


Fig. 1-9 Z-Scan at power reference point (WCDMA850 Head)

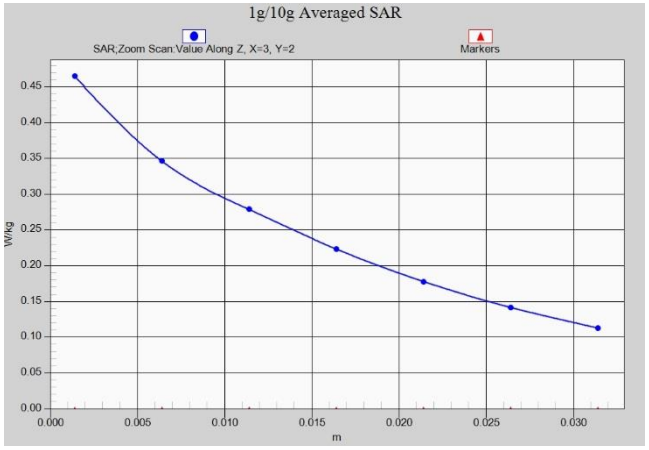


Fig. 1-10 Z-Scan at power reference point (WCDMA850 Body)

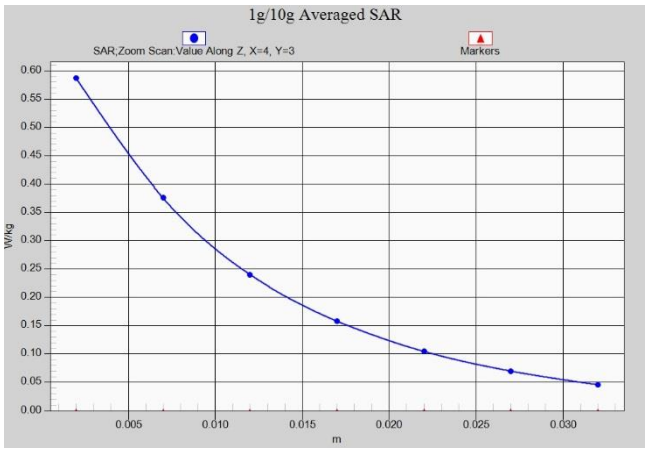


Fig. 1-11 Z-Scan at power reference point (LTE B2 Head)

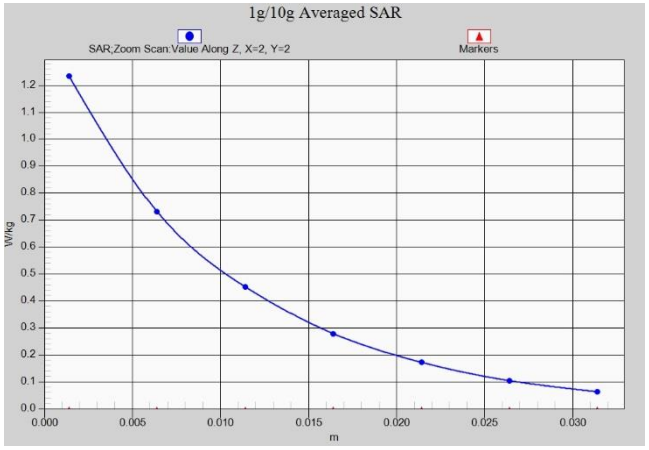


Fig. 1-12 Z-Scan at power reference point (LTE B2 Body)

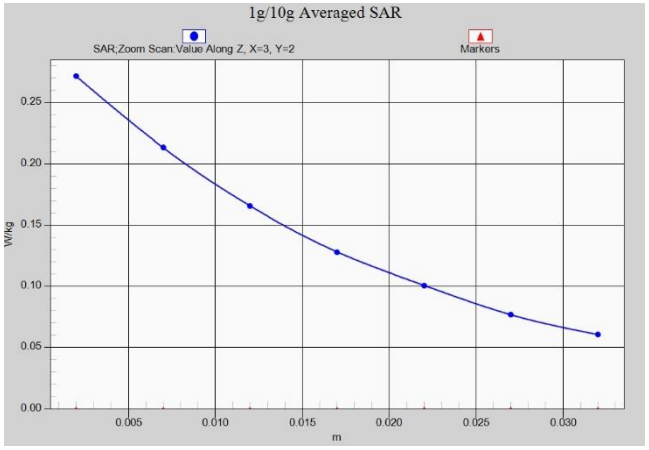


Fig. 1-13 Z-Scan at power reference point (LTE B5 Head)

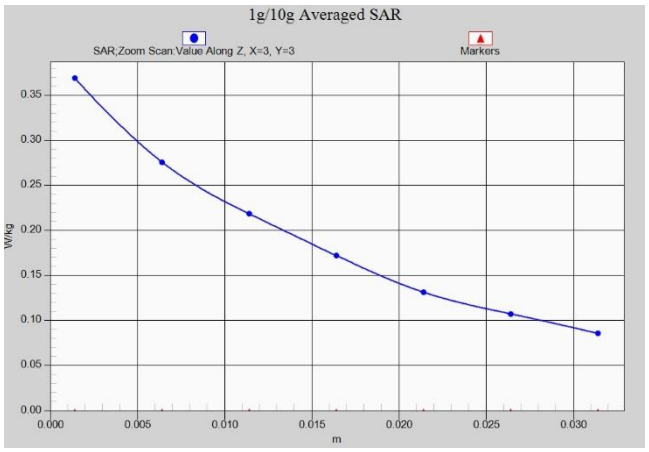


Fig. 1-14 Z-Scan at power reference point (LTE B5 Body)

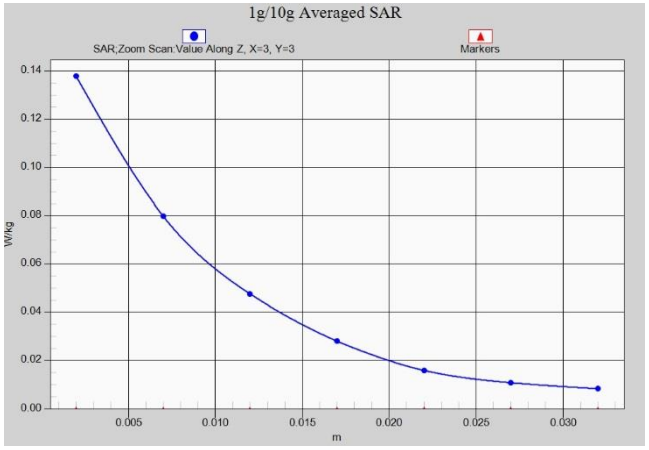


Fig. 1-15 Z-Scan at power reference point (LTE B7 Head)

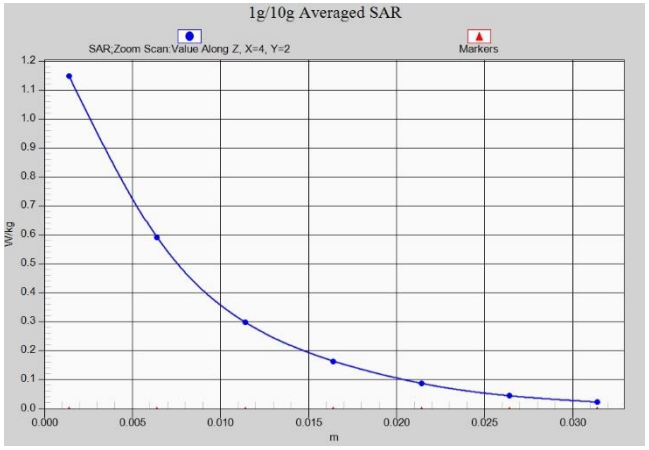


Fig. 1-16 Z-Scan at power reference point (LTE B7 Body)

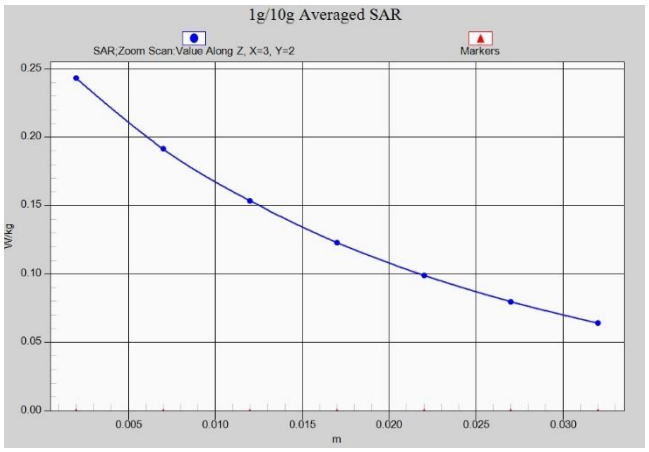


Fig. 1-17 Z-Scan at power reference point (LTE B12 Head)

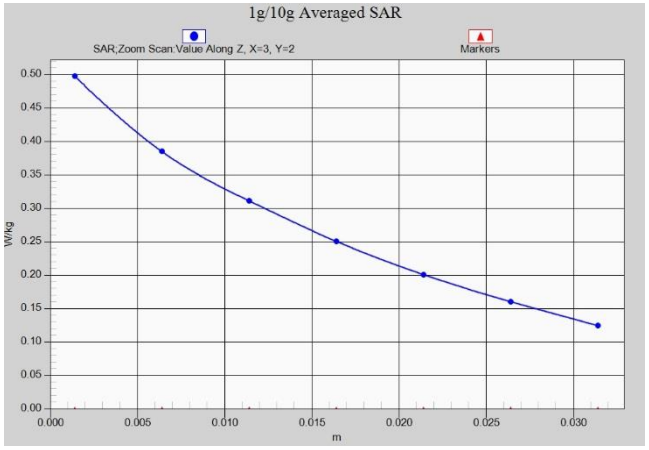


Fig. 1-18 Z-Scan at power reference point (LTE B12 Body)

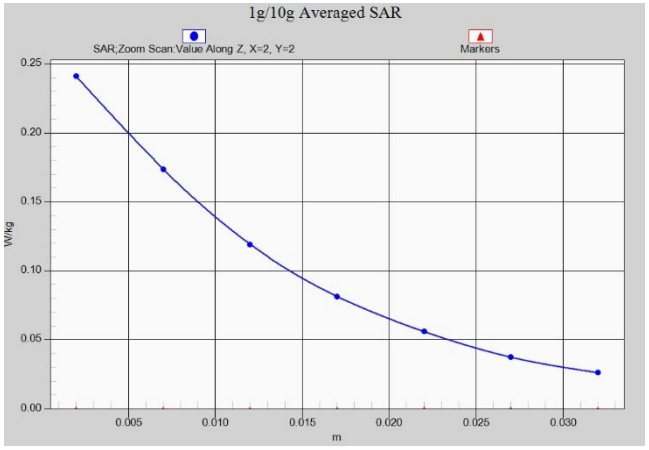


Fig. 1-19 Z-Scan at power reference point (LTE B66 Head)

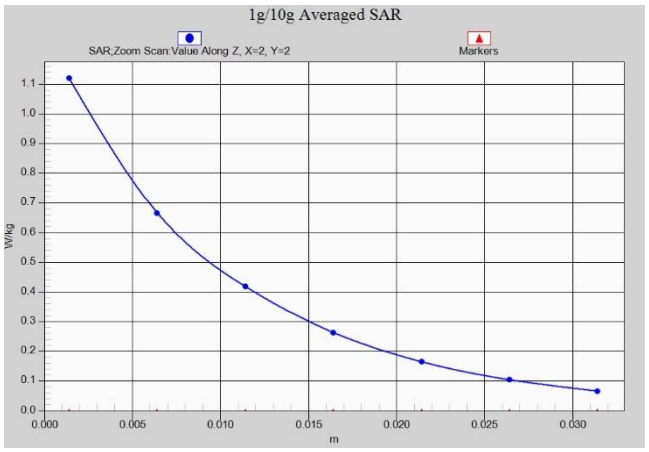


Fig. 1-20 Z-Scan at power reference point (LTE B66 Body)

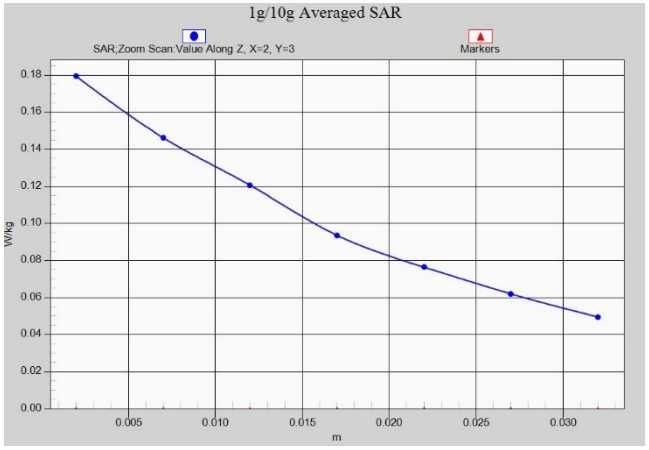


Fig. 1-21 Z-Scan at power reference point (LTE B71 Head)

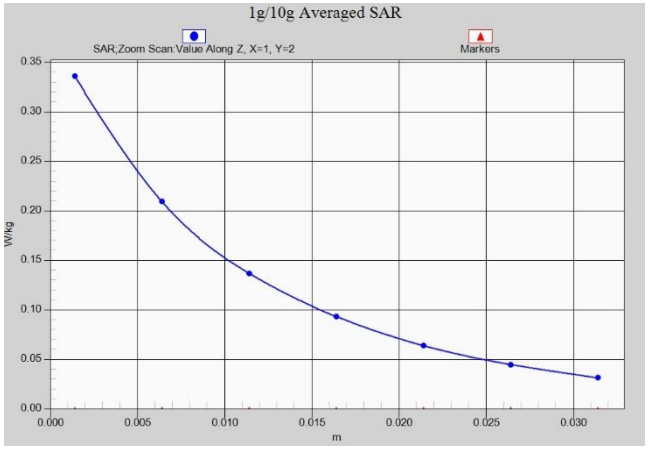


Fig. 1-22 Z-Scan at power reference point (LTE B71 Body)

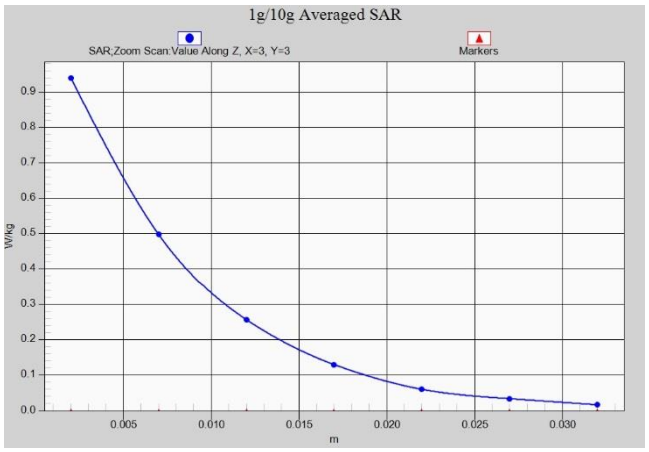


Fig. 1-23 Z-Scan at power reference point (WIFI 2.4G Head)

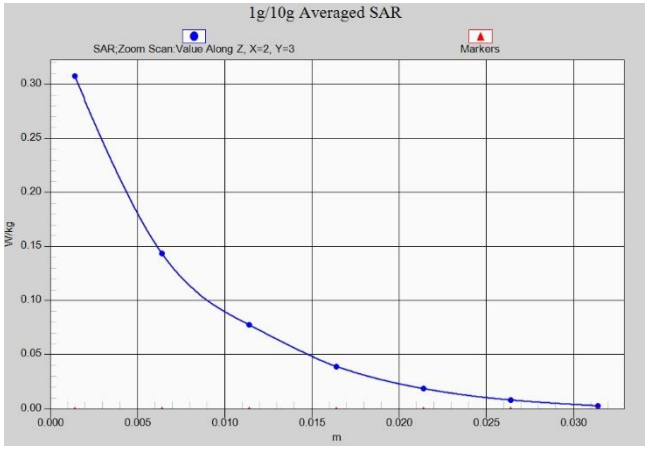


Fig. 1-24 Z-Scan at power reference point (WIFI 2.4G Body)

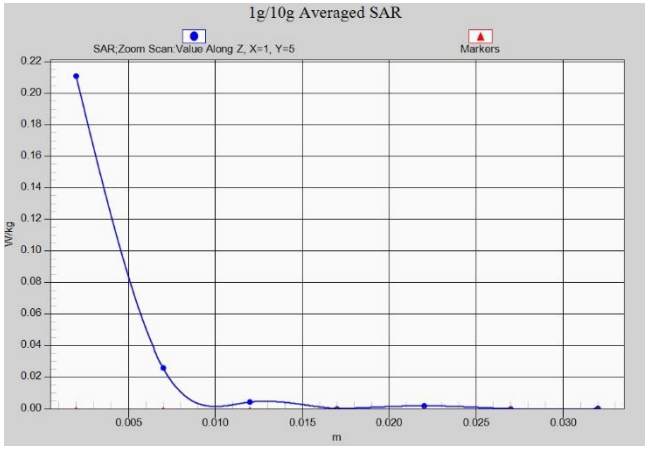


Fig. 1-25 Z-Scan at power reference point (WIFI 5G Head)

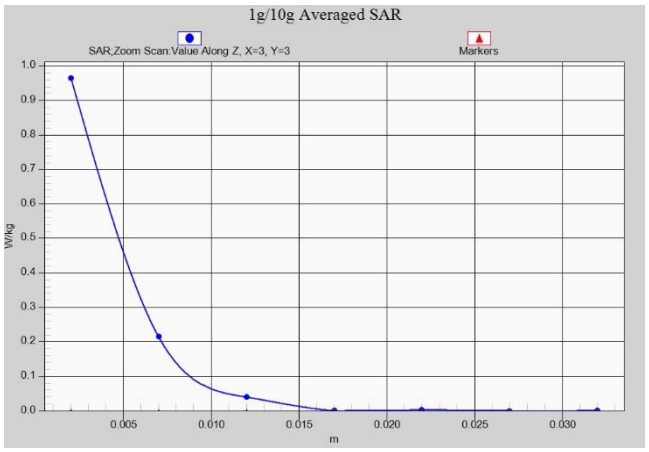


Fig. 1-26 Z-Scan at power reference point (WIFI 5G Body)

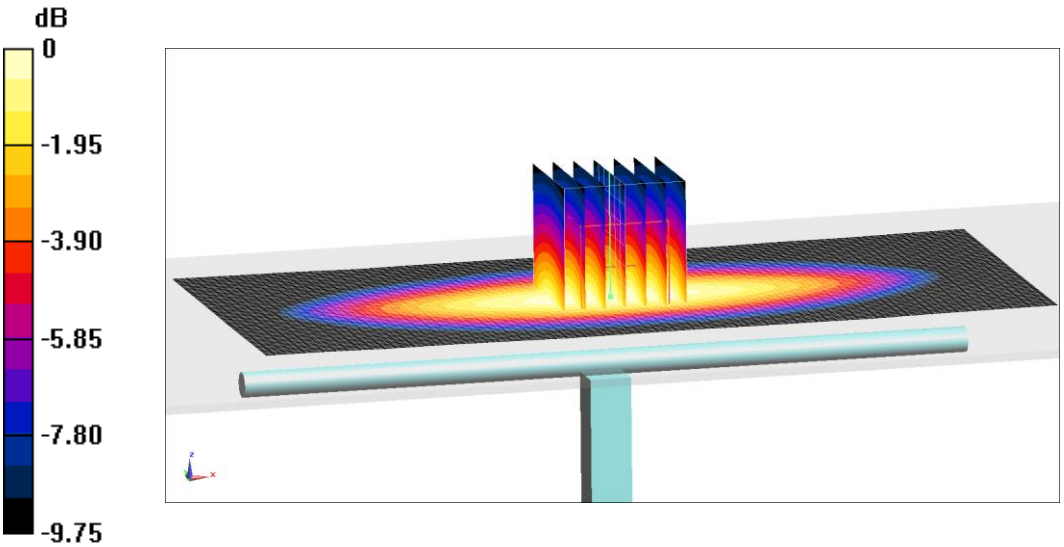
ANNEX B System Verification Results

750 MHz

Date: 1/2/2020
Electronics: DAE4 Sn771
Medium: Head 750 MHz
Medium parameters used: f = 750 MHz; σ =0.881 mho/m; ε_r = 42.22; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(10.03,10.03,10.03)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 60.34 V/m; Power Drift = 0.06
Fast SAR: SAR(1 g) = 2.13 W/kg; SAR(10 g) = 1.38 W/kg
Maximum value of SAR (interpolated) = 2.8 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =60.34 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 3.26 W/kg
SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.37 W/kg
Maximum value of SAR (measured) = 2.86 W/kg



0 dB = 2.86 W/kg = 4.56 dB W/kg

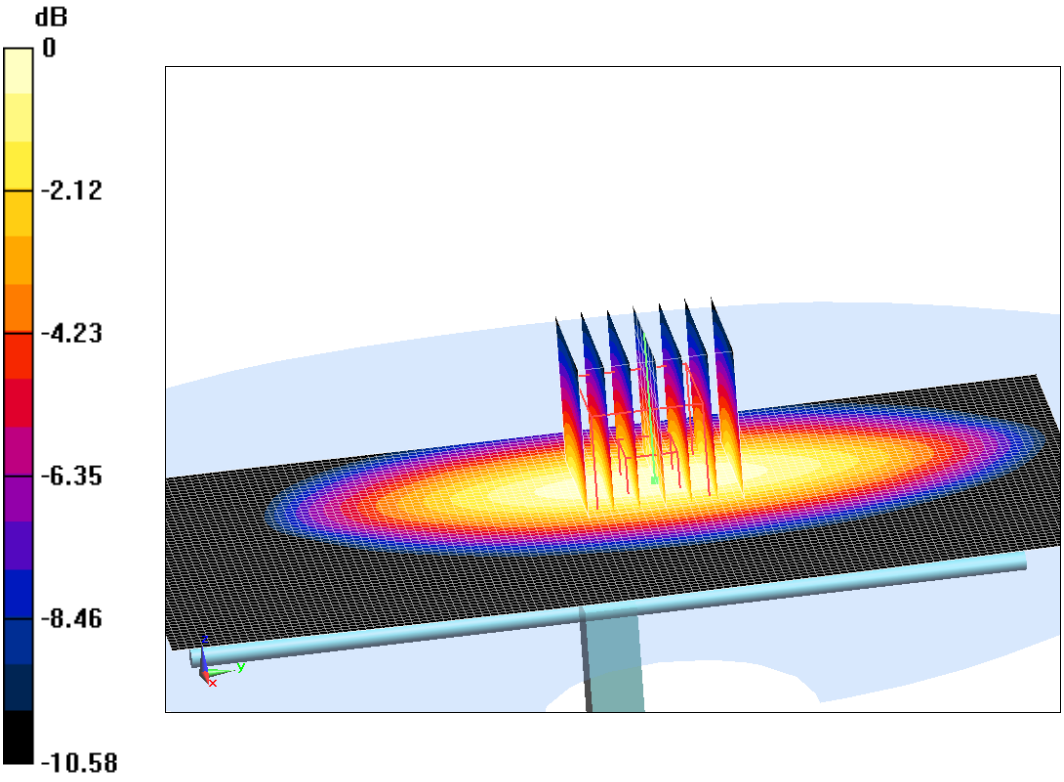
Fig.B.1 validation 750 MHz 250mW

835 MHz

Date: 1/3/2020
Electronics: DAE4 Sn771
Medium: Head 835 MHz
Medium parameters used: f = 835 MHz; σ =0.889 mho/m; ε_r = 42.29; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(9.75,9.75,9.75)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 63.18 V/m; Power Drift = 0.01
Fast SAR: SAR(1 g) = 2.46 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (interpolated) = 3.1 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =63.18 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 3.51 W/kg
SAR(1 g) = 2.45 W/kg; SAR(10 g) = 1.57 W/kg
Maximum value of SAR (measured) = 3.21 W/kg



0 dB = 3.21 W/kg = 5.07 dB W/kg

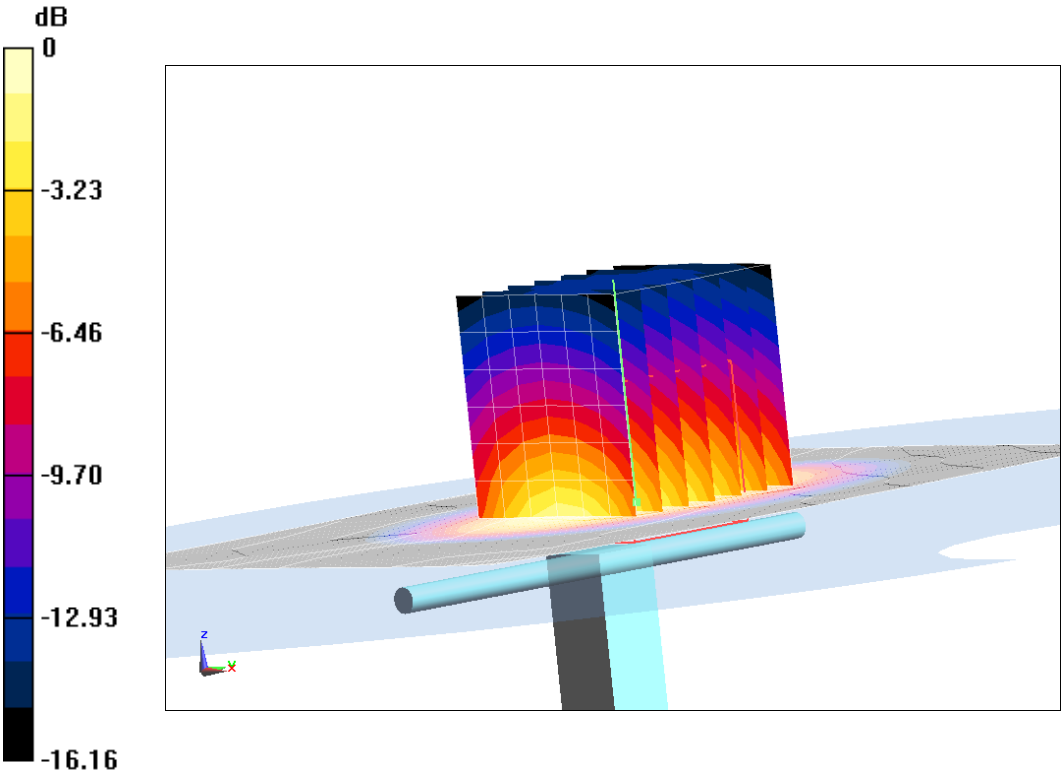
Fig.B.2 validation 835 MHz 250mW

1750 MHz

Date: 1/4/2020
Electronics: DAE4 Sn771
Medium: Head 1750 MHz
Medium parameters used: f = 1750 MHz; σ =1.358 mho/m; ε_r = 40.85; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.38,8.38,8.38)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 106.6 V/m; Power Drift = 0.07
Fast SAR: SAR(1 g) = 9.08 W/kg; SAR(10 g) = 4.82 W/kg
Maximum value of SAR (interpolated) = 14.16 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =106.6 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 16.8 W/kg
SAR(1 g) = 9.19 W/kg; SAR(10 g) = 4.79 W/kg
Maximum value of SAR (measured) = 13.8 W/kg



0 dB = 13.8 W/kg = 11.4 dB W/kg

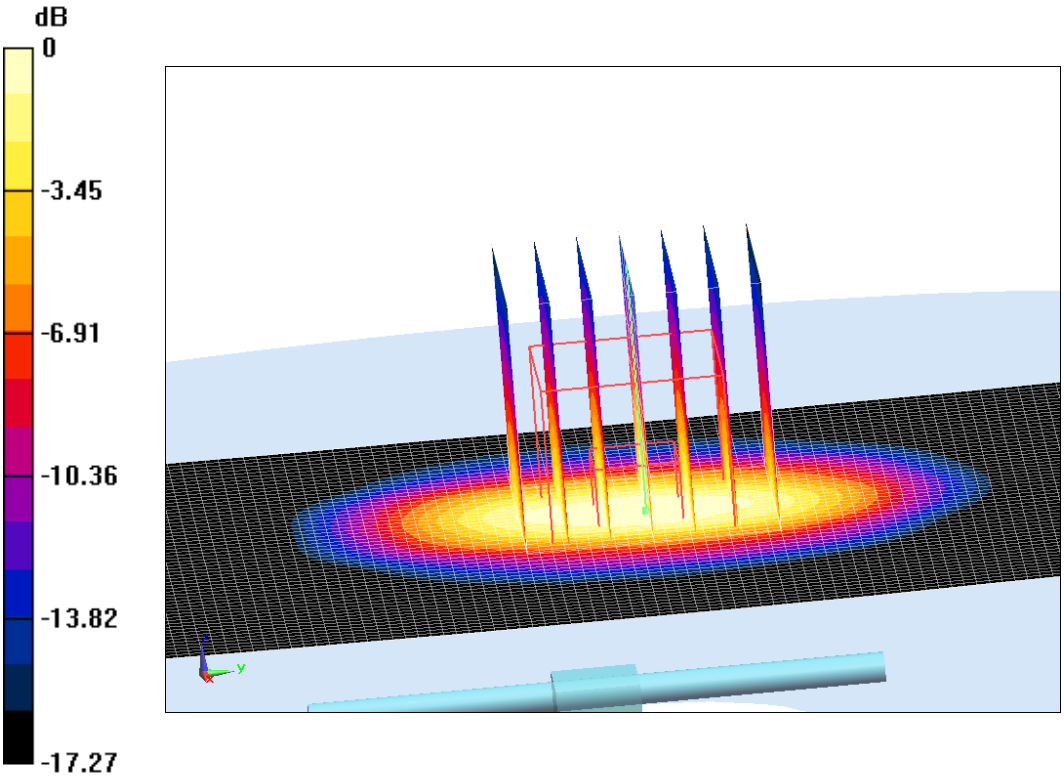
Fig.B.3 validation 1750 MHz 250mW

1900 MHz

Date: 1/5/2020
Electronics: DAE4 Sn771
Medium: Head 1900 MHz
Medium parameters used: f = 1900 MHz; σ =1.418 mho/m; ε_r = 40.17; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(8.14,8.14,8.14)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 110.14 V/m; Power Drift = 0.02
Fast SAR: SAR(1 g) = 10 W/kg; SAR(10 g) = 5.15 W/kg
Maximum value of SAR (interpolated) = 15.2 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =110.14 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 17.79 W/kg
SAR(1 g) = 9.93 W/kg; SAR(10 g) = 5.15 W/kg
Maximum value of SAR (measured) = 14.81 W/kg



0 dB = 14.81 W/kg = 11.71 dB W/kg

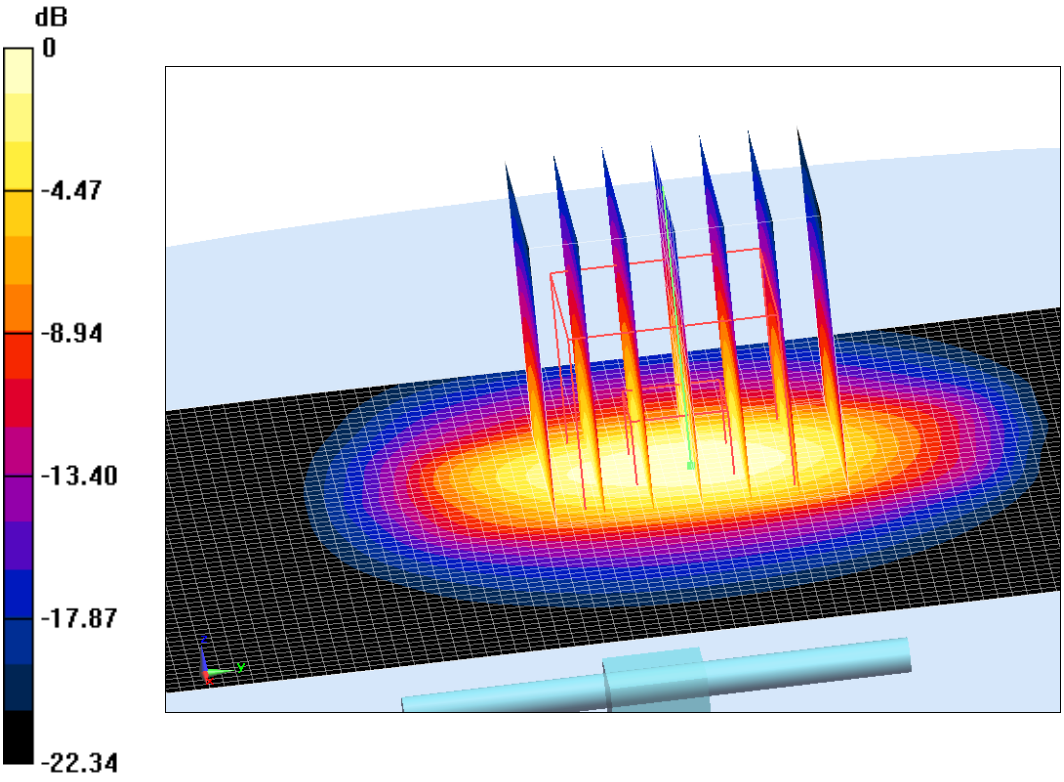
Fig.B.4 validation 1900 MHz 250mW

2450 MHz

Date: 1/6/2020
Electronics: DAE4 Sn771
Medium: Head 2450 MHz
Medium parameters used: f = 2450 MHz; σ =1.797 mho/m; ε_r = 39.01; ρ = 1000 kg/m^3
Ambient Temperature: 22.9ºC Liquid Temperature: 22.5ºC
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN3617 ConvF(7.62,7.62,7.62)

System Validation /Area Scan (81x191x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 116.31 V/m; Power Drift = -0.06
Fast SAR: SAR(1 g) = 13 W/kg; SAR(10 g) = 6.03 W/kg
Maximum value of SAR (interpolated) = 22.11 W/kg

System Validation /Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value =116.31 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 25.28 W/kg
SAR(1 g) = 13 W/kg; SAR(10 g) = 5.94 W/kg
Maximum value of SAR (measured) = 21.11 W/kg



0 dB = 21.11 W/kg = 13.24 dB W/kg

Fig.B.5 validation 2450 MHz 250mW