Table 13.17: SAR Values(LTE Band 12-Head) Up Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Left	Touch	/	23.15	23.5	1.084	0.051	0.055	-0.13
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Left	Tilt	/	23.15	23.5	1.084	0.043	0.047	-0.17
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Right	Touch	Fig.17	23.15	23.5	1.084	0.085	0.092	-0.14
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Right	Tilt	/	23.15	23.5	1.084	0.08	0.087	-0.06
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Left	Touch	/	22.19	23	1.205	0.045	0.054	-0.06
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Left	Tilt	/	22.19	23	1.205	0.042	0.051	-0.31
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Right	Touch	/	22.19	23	1.205	0.072	0.087	0.12
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Right	Tilt	/	22.19	23	1.205	0.067	0.081	0.02

Table 13.18: SAR Values (LTE Band 12-Body) Up Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Phantom	10	Fig.18	23.15	23.5	1.084	0.015	0.016	-0.15
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Ground	10	/	23.15	23.5	1.084	0.014	0.015	-0.17
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Left	10	/	23.15	23.5	1.084	0.009	0.010	0.12
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Right	10	/	23.15	23.5	1.084	0.001	0.001	-0.18
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Top	10	/	23.15	23.5	1.084	0.01	0.011	-0.01
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Phantom	10	/	22.19	23	1.205	0.011	0.013	-0.12
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Ground	10	/	22.19	23	1.205	0.011	0.013	-0.19
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Left	10	/	22.19	23	1.205	0.009	0.011	0.17
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Right	10	/	22.19	23	1.205	0.001	0.001	-0.15
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Top	10	/	22.19	23	1.205	0.007	0.008	0.11

Table 13.19: SAR Values(LTE Band 66-Head) Up Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Left	Touch	/	23.34	23.5	1.038	0.401	0.416	0.18
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Left	Tilt	/	23.34	23.5	1.038	0.431	0.447	0.10
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Touch	/	23.34	23.5	1.038	0.865	0.897	-0.07
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Tilt	Fig.19	23.34	23.5	1.038	0.906	0.940	0.03
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Left	Touch	/	22.56	23.5	1.242	0.312	0.387	0.12
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Left	Tilt	/	22.56	23.5	1.242	0.337	0.418	0.16
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Right	Touch	/	22.56	23.5	1.242	0.677	0.841	0.15
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Right	Tilt	/	22.56	23.5	1.242	0.704	0.874	0.08
1745	132322	QPSK_20MHz_1RB_ 50 offset Middle	Right	Touch	/	23.13	23.5	1.089	0.825	0.898	0.01
1770	132572	QPSK_20MHz_1RB_ 50 offset High	Right	Touch	/	22.91	23.5	1.146	0.769	0.881	0.06
1745	132322	QPSK_20MHz_1RB_ 50 offset Middle	Right	Tilt	/	23.13	23.5	1.089	0.845	0.920	0.02
1770	132572	QPSK_20MHz_1RB_ 50 offset High	Right	Tilt	/	22.91	23.5	1.146	0.853	0.977	0.07
1745	132322	QPSK_20MHz_50RB_ 0 offset Middle	Right	Touch	/	22.49	23.5	1.262	0.621	0.784	0.10
1770	132572	QPSK_20MHz_50RB_ 0 offset High	Right	Touch	/	22.36	23.5	1.300	0.635	0.826	-0.07
1745	132322	QPSK_20MHz_50RB_ 0 offset Middle	Right	Tilt	/	22.49	23.5	1.262	0.645	0.814	0.03
1770	132572	QPSK_20MHz_50RB_ 0 offset High	Right	Tilt	/	22.36	23.5	1.300	0.657	0.854	0.12
1745	132322	QPSK_20MHz_100RB_ 0 offset Middle	Right	Tilt	/	22.06	22.5	1.107	0.598	0.662	0.16
Repeated											
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Tilt	/	23.34	23.5	1.038	0.839	0.87	-0.13

Table 13.20: SAR Values (LTE Band 66-Body) Up Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Toward Phantom	10	/	23.34	23.5	1.038	0.203	0.211	0.13
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Toward Ground	10	/	23.34	23.5	1.038	0.258	0.268	0.16
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Toward Left	10	Fig.20	23.34	23.5	1.038	0.268	0.278	0.03
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Toward Right	10	/	23.34	23.5	1.038	0.041	0.043	0.13
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Toward Top	10	/	23.34	23.5	1.038	0.257	0.267	0.16
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Toward Phantom	10	/	22.56	23.5	1.242	0.155	0.192	0.07
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Toward Ground	10	/	22.56	23.5	1.242	0.201	0.250	0.12
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Toward Left	10	/	22.56	23.5	1.242	0.209	0.260	-0.04
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Toward Right	10	/	22.56	23.5	1.242	0.033	0.041	0.11
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Toward Top	10	/	22.56	23.5	1.242	0.221	0.274	0.15

Table 13.21: SAR Values(GSM 850 MHz Band-Head) Down Antenna

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
836.6	190	GSM850	Left	Touch	/	32.44	33	1.138	0.128	0.146	-0.05
836.6	190	GSM850	Left	Tilt	/	32.44	33	1.138	0.099	0.113	-0.04
836.6	190	GSM850	Right	Touch	Fig.21	32.44	33	1.138	0.156	0.178	-0.07
836.6	190	GSM850	Right	Tilt	/	32.44	33	1.138	0.117	0.133	0.02

Table 13.22: SAR Values (GSM 850 MHz Band-Body) Down Antenna

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
836.6	190	GPRS 4TS	Class12	Toward Phantom	10	/	28.53	29	1.114	0.268	0.299	-0.11
836.6	190	GPRS 4TS	Class12	Toward Ground	10	Fig.22	28.53	29	1.114	0.509	0.567	-0.04
836.6	190	GPRS 4TS	Class12	Toward Left	10	/	28.53	29	1.114	0.100	0.111	-0.20
836.6	190	GPRS 4TS	Class12	Toward Right	10	/	28.53	29	1.114	0.431	0.480	-0.05
836.6	190	GPRS 4TS	Class12	Toward Bottom	10	/	28.53	29	1.114	0.48	0.535	-0.13

Table 13.23: SAR Values(GSM 1900 MHz Band- Head) Down Antenna

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1880	661	GSM1900	Left	Touch	/	29.76	30	1.057	0.091	0.096	0.16
1880	661	GSM1900	Left	Tilt	/	29.76	30	1.057	0.082	0.087	-0.01
1880	661	GSM1900	Right	Touch	Fig.23	29.76	30	1.057	0.147	0.155	0.13
1880	661	GSM1900	Right	Tilt	/	29.76	30	1.057	0.063	0.067	0.17

Table 13.24: SAR Values (GSM 1900 MHz Band-Body) Down Antenna

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
1880	661	GPRS 4TS	Class12	Toward Phantom	10	/	25.6	26	1.096	0.308	0.338	-0.07
1880	661	GPRS 4TS	Class12	Toward Ground	10	Fig.24	25.6	26	1.096	0.353	0.387	-0.01
1880	661	GPRS 4TS	Class12	Toward Left	10	/	25.6	26	1.096	0.127	0.139	0.15
1880	661	GPRS 4TS	Class12	Toward Right	10	/	25.6	26	1.096	0.303	0.332	0.07
1880	661	GPRS 4TS	Class12	Toward Bottom	10	/	25.6	26	1.096	0.076	0.083	-0.12

Table 13.25: SAR Values(WCDMA Band II- Head) Down Antenna

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1880	9400	Band II	Left	Touch	/	23.27	24	1.183	0.229	0.271	0.13
1880	9400	Band II	Left	Tilt	/	23.27	24	1.183	0.101	0.119	0.09
1880	9400	Band II	Right	Touch	Fig.25	23.27	24	1.183	0.242	0.286	-0.16
1880	9400	Band II	Right	Tilt	/	23.27	24	1.183	0.113	0.134	0.19

Table 13.26: SAR Values (WCDMA Band II-Body) Down Antenna

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
1880	9400	Band II	12.2kbps RMC	Toward Phantom	10	/	23.27	24	1.183	0.223	0.264	-0.19
1880	9400	Band II	12.2kbps RMC	Toward Ground	10	Fig.26	23.27	24	1.183	0.301	0.356	-0.04
1880	9400	Band II	12.2kbps RMC	Toward Left	10	/	23.27	24	1.183	0.153	0.181	-0.14
1880	9400	Band II	12.2kbps RMC	Toward Right	10	/	23.27	24	1.183	0.148	0.175	0.08
1880	9400	Band II	12.2kbps RMC	Toward Bottom	10	/	23.27	24	1.183	0.01	0.012	-0.08

Table 13.27: SAR Values(WCDMA Band IV- Head) Down Antenna

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1732.6	1413	Band IV	Left	Touch	/	22.12	23	1.225	0.22	0.270	0.12
1732.6	1413	Band IV	Left	Tilt	/	22.12	23	1.225	0.168	0.206	0.05
1732.6	1413	Band IV	Right	Touch	Fig.27	22.12	23	1.225	0.282	0.345	0.18
1732.6	1413	Band IV	Right	Tilt	/	22.12	23	1.225	0.147	0.180	0.14

Table 13.28: SAR Values (WCDMA Band IV-Body) Down Antenna

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
1732.6	1413	Band IV	12.2kbps RMC	Toward Phantom	10	Fig.28	22.12	23	1.225	0.333	0.408	-0.08
1732.6	1413	Band IV	12.2kbps RMC	Toward Ground	10	/	22.12	23	1.225	0.256	0.314	0.14
1732.6	1413	Band IV	12.2kbps RMC	Toward Left	10	/	22.12	23	1.225	0.168	0.206	-0.01
1732.6	1413	Band IV	12.2kbps RMC	Toward Right	10	/	22.12	23	1.225	0.27	0.331	-0.03
1732.6	1413	Band IV	12.2kbps RMC	Toward Bottom	10	/	22.12	23	1.225	0.028	0.034	-0.12

Table 13.29: SAR Values(WCDMA Band V- Head) Down Antenna

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
836.6	4183	Band V	Left	Touch	/	22.28	23	1.180	0.12	0.142	-0.16
836.6	4183	Band V	Left	Tilt	/	22.28	23	1.180	0.066	0.078	0.03
836.6	4183	Band V	Right	Touch	Fig.29	22.28	23	1.180	0.157	0.185	-0.15
836.6	4183	Band V	Right	Tilt	/	22.28	23	1.180	0.09	0.106	-0.05

Table 13.30: SAR Values (WCDMA Band V-Body) Down Antenna

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
836.6	4183	Band V	12.2kbps RMC	Toward Phantom	10	Fig.30	22.28	23	1.180	0.299	0.353	0.09
836.6	4183	Band V	12.2kbps RMC	Toward Ground	10	/	22.28	23	1.180	0.255	0.301	-0.12
836.6	4183	Band V	12.2kbps RMC	Toward Left	10	/	22.28	23	1.180	0.001	0.001	-0.1
836.6	4183	Band V	12.2kbps RMC	Toward Right	10	/	22.28	23	1.180	0.153	0.181	0.14
836.6	4183	Band V	12.2kbps RMC	Toward Bottom	10	/	22.28	23	1.180	0.295	0.348	0.12

Table 13.31: SAR Values(LTE Band 2- Head) Down Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1860	18700	QPSK_20MHz_1RB_50 offset Low	Left	Touch	/	22.77	23	1.054	0.17	0.179	0.15
1860	18700	QPSK_20MHz_1RB_50 offset Low	Left	Tilt	/	22.77	23	1.054	0.17	0.179	0.15
1860	18700	QPSK_20MHz_1RB_50 offset Low	Right	Touch	Fig.31	22.77	23	1.054	0.266	0.280	0.18
1860	18700	QPSK_20MHz_1RB_50 offset Low	Right	Tilt	/	22.77	23	1.054	0.114	0.120	0.20
1860	18700	QPSK_20MHz_50RB_0 offset Low	Left	Touch	/	21.84	23	1.306	0.139	0.182	0.13
1860	18700	QPSK_20MHz_50RB_0 offset Low	Left	Tilt	/	21.84	23	1.306	0.135	0.176	0.13
1860	18700	QPSK_20MHz_50RB_0 offset Low	Right	Touch	/	21.84	23	1.306	0.201	0.263	0.17
1860	18700	QPSK_20MHz_50RB_0 offset Low	Right	Tilt	/	21.84	23	1.306	0.107	0.140	0.12

Table 13.32: SAR Values (LTE Band 2-Body) Down Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Phantom	10	/	22.77	23	1.054	0.325	0.343	-0.07
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Ground	10	/	22.77	23	1.054	0.232	0.245	0.04
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Left	10	/	22.77	23	1.054	0.154	0.162	0.15
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Right	10	/	22.77	23	1.054	0.292	0.308	-0.19
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Bottom	10	Fig.32	22.77	23	1.054	0.811	0.855	0.08
1860	18700	QPSK_20MHz_50RB_ 0 offset Low	Toward Phantom	10	/	21.84	23	1.306	0.345	0.451	0.12
1860	18700	QPSK_20MHz_50RB_ 0 offset Low	Toward Ground	10	/	21.84	23	1.306	0.466	0.609	-0.06
1860	18700	QPSK_20MHz_50RB_ 0 offset Low	Toward Left	10	/	21.84	23	1.306	0.122	0.159	0.12
1860	18700	QPSK_20MHz_50RB_ 0 offset Low	Toward Right	10	/	21.84	23	1.306	0.234	0.306	0.13
1860	18700	QPSK_20MHz_50RB_ 0 offset Low	Toward Bottom	10	/	21.84	23	1.306	0.688	0.899	0.20
1880	18900	QPSK_20MHz_1RB_ 50 offset Middle	Toward Bottom	10	/	22.73	23	1.064	0.586	0.624	0.11
1900	19100	QPSK_20MHz_1RB_ 50 offset High	Toward Bottom	10	/	22.61	23	1.094	0.5	0.547	0.13
1880	18900	QPSK_20MHz_50RB_ 0 offset Middle	Toward Bottom	10	/	21.81	23	1.315	0.478	0.629	0.05
1900	19100	QPSK_20MHz_50RB_ 0 offset High	Toward Bottom	10	/	21.65	23	1.365	0.424	0.579	0.09
Repeated											
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Bottom	10	/	22.77	23	1.054	0.795	0.838	0.20

Table 13.33: SAR Values(LTE Band 5- Head) Down Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Left	Touch	/	22.52	23	1.117	0.167	0.187	-0.17
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Left	Tilt	/	22.52	23	1.117	0.088	0.098	-0.04
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Right	Touch	Fig.33	22.52	23	1.117	0.177	0.198	-0.09
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Right	Tilt	/	22.52	23	1.117	0.076	0.085	-0.03
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Left	Touch	/	21.7	23	1.349	0.128	0.173	-0.16
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Left	Tilt	/	21.7	23	1.349	0.069	0.093	-0.02
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Right	Touch	/	21.7	23	1.349	0.161	0.217	-0.06
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Right	Tilt	/	21.7	23	1.349	0.076	0.103	-0.07

Table 13.34: SAR Values (LTE Band 5-Body) Down Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Toward Phantom	10	Fig.34	22.52	23	1.117	0.297	0.332	0.08
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Toward Ground	10	/	22.52	23	1.117	0.216	0.241	-0.08
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Toward Left	10	/	22.52	23	1.117	0.121	0.135	-0.18
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Toward Right	10	/	22.52	23	1.117	0.263	0.294	-0.13
836.5	20525	QPSK_10MHz_1RB_ 25 offset Middle	Toward Bottom	10	/	22.52	23	1.117	0.264	0.295	0.04
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Toward Phantom	10	/	21.7	23	1.349	0.235	0.317	0.01
836.5	20525	QPSK_10MHz_25RB_ 13 offset Middle	Toward Ground	10	/	21.7	23	1.349	0.173	0.233	-0.06

836.5	20525	QPSK_10MHz_25RB_13 offset Middle	Toward Left	10	/	21.7	23	1.349	0.096	0.130	-0.02
836.5	20525	QPSK_10MHz_25RB_13 offset Middle	Toward Right	10	/	21.7	23	1.349	0.207	0.279	-0.05
836.5	20525	QPSK_10MHz_25RB_13 offset Middle	Toward Bottom	10	/	21.7	23	1.349	0.206	0.278	0.10

Table 13.35: SAR Values(LTE Band 7- Head) Down Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Left	Touch	/	19.95	20	1.012	0.237	0.240	0.06
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Left	Tilt	/	19.95	20	1.012	0.198	0.200	0.13
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Right	Touch	/	19.95	20	1.012	0.096	0.097	0.16
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Right	Tilt	Fig.35	19.95	20	1.012	0.255	0.258	0.12
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Left	Touch	/	19.11	20	1.227	0.173	0.212	0.18
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Left	Tilt	/	19.11	20	1.227	0.155	0.190	0.08
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Right	Touch	/	19.11	20	1.227	0.067	0.082	0.12
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Right	Tilt	/	19.11	20	1.227	0.201	0.247	-0.06

Table 13.36: SAR Values (LTE Band 7-Body) Down Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Toward Phantom	10	/	19.95	20	1.012	0.225	0.228	0.10
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Toward Ground	10	/	19.95	20	1.012	0.242	0.245	0.12
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Toward Left	10	/	19.95	20	1.012	0.281	0.284	0.19
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Toward Right	10	/	19.95	20	1.012	0.094	0.095	0.13
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Toward Bottom	10	Fig.36	19.95	20	1.012	0.518	0.524	0.17
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Toward Phantom	10	/	19.11	20	1.227	0.18	0.221	0.14
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Toward Ground	10	/	19.11	20	1.227	0.194	0.238	0.07
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Toward Left	10	/	19.11	20	1.227	0.223	0.274	0.18
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Toward Right	10	/	19.11	20	1.227	0.075	0.092	0.18
2535	21100	QPSK_20MHz_50RB_ 25 offset Middle	Toward Bottom	10	/	19.11	20	1.227	0.413	0.507	0.16

Table 13.37: SAR Values(LTE Band 12- Head) Down Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Left	Touch	/	23.15	23.5	1.084	0.117	0.127	-0.05
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Left	Tilt	/	23.15	23.5	1.084	0.083	0.090	0.00
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Right	Touch	Fig.37	23.15	23.5	1.084	0.124	0.134	0.15
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Right	Tilt	/	23.15	23.5	1.084	0.075	0.081	-0.14
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Left	Touch	/	22.19	23	1.205	0.095	0.114	0.12
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Left	Tilt	/	22.19	23	1.205	0.067	0.081	0.09
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Right	Touch	/	22.19	23	1.205	0.101	0.122	-0.13
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Right	Tilt	/	22.19	23	1.205	0.061	0.074	-0.19

Table 13.38: SAR Values (LTE Band 12-Body) Down Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Phantom	10	/	23.15	23.5	1.084	0.153	0.166	0.01
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Ground	10	/	23.15	23.5	1.084	0.172	0.186	-0.04
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Left	10	/	23.15	23.5	1.084	0.125	0.136	0.19
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Right	10	Fig.38	23.15	23.5	1.084	0.25	0.271	-0.17
707.5	23095	QPSK_10MHz_1RB_ 25 offset Middle	Toward Bottom	10	/	23.15	23.5	1.084	0.071	0.077	-0.16
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Phantom	10	/	22.19	23	1.205	0.124	0.149	-0.04
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Ground	10	/	22.19	23	1.205	0.14	0.169	-0.05
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Left	10	/	22.19	23	1.205	0.103	0.124	0.12
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Right	10	/	22.19	23	1.205	0.18	0.217	-0.13
707.5	23095	QPSK_10MHz_25RB_ 0 offset Middle	Toward Bottom	10	/	22.19	23	1.205	0.06	0.072	-0.18

Table 13.39: SAR Values(LTE Band 66-Head) Down Antenna

Frequency		Configuration	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Left	Touch	/	23.34	23.5	1.038	0.501	0.520	-0.01
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Left	Tilt	/	23.34	23.5	1.038	0.401	0.416	0.05
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Touch	Fig.39	23.34	23.5	1.038	0.684	0.710	0.16
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Tilt	/	23.34	23.5	1.038	0.397	0.412	0.09
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Left	Touch	/	22.56	23.5	1.242	0.382	0.474	0.17
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Left	Tilt	/	22.56	23.5	1.242	0.31	0.385	0.07
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Right	Touch	/	22.56	23.5	1.242	0.523	0.650	0.13
1720	132072	QPSK_20MHz_50RB_ 0 offset Low	Right	Tilt	/	22.56	23.5	1.242	0.308	0.383	0.05
Secondary supply											
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	Touch	/	23.34	23.5	1.038	0.426	0.442	0.01

Table 14.40: SAR Values (LTE Band 66-Body) Down Antenna

Frequency		Configuration	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
1720	132072	QPSK_20MHz_1RB_50 offset Low	Toward Phantom	10	Fig.40	23.34	23.5	1.038	0.498	0.517	-0.12
1720	132072	QPSK_20MHz_1RB_50 offset Low	Toward Ground	10	/	23.34	23.5	1.038	0.436	0.453	-0.06
1720	132072	QPSK_20MHz_1RB_50 offset Low	Toward Left	10	/	23.34	23.5	1.038	0.329	0.342	-0.08
1720	132072	QPSK_20MHz_1RB_50 offset Low	Toward Right	10	/	23.34	23.5	1.038	0.475	0.493	-0.02
1720	132072	QPSK_20MHz_1RB_50 offset Low	Toward Bottom	10	/	23.34	23.5	1.038	0.183	0.190	0.10
1720	132072	QPSK_20MHz_50RB_0 offset Low	Toward Phantom	10	/	22.56	23.5	1.242	0.416	0.517	-0.06
1720	132072	QPSK_20MHz_50RB_0 offset Low	Toward Ground	10	/	22.56	23.5	1.242	0.352	0.437	-0.09
1720	132072	QPSK_20MHz_50RB_0 offset Low	Toward Left	10	/	22.56	23.5	1.242	0.264	0.328	-0.13
1720	132072	QPSK_20MHz_50RB_0 offset Low	Toward Right	10	/	22.56	23.5	1.242	0.363	0.451	-0.12
1720	132072	QPSK_20MHz_50RB_0 offset Low	Toward Bottom	10	/	22.56	23.5	1.242	0.134	0.166	0.19

Table 13.41: SAR Values (Wi-Fi 802.11b - Head)

Frequency		Mode /Band	Side	Test Position	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.										
2412	1	Wi-Fi 2450	Left	Touch	/	13.12	13.5	1.091	0.357	0.389	0.24
2412	1	Wi-Fi 2450	Left	Tilt	/	13.12	13.5	1.091	0.269	0.293	0.12
2412	1	Wi-Fi 2450	Right	Touch	/	13.12	13.5	1.091	0.319	0.348	0.08
2412	1	Wi-Fi 2450	Right	Tilt	Fig.41	13.12	13.5	1.091	0.369	0.403	0.12

Table 13.42: SAR Values (Wi-Fi 802.11b - Body)

Frequency		Mode /Band	Service /Headset	Test Position	Spacing (mm)	Figure No.	Measured average power (dBm)	Maximum allowed Power (dBm)	Scaling factor	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
MHz	Ch.											
2412	1	Wi-Fi 2450	802.11b	Toward Phantom	10	/	13.12	13.5	1.091	0.212	0.231	0.08
2412	1	Wi-Fi 2450	802.11b	Toward Ground	10	/	13.12	13.5	1.091	0.164	0.179	0.08
2412	1	Wi-Fi 2450	802.11b	Toward Left	10	/	13.12	13.5	1.091	0.008	0.009	0.12
2412	1	Wi-Fi 2450	802.11b	Toward Right	10	/	13.12	13.5	1.091	0.021	0.023	0.16
2412	1	Wi-Fi 2450	802.11b	Toward Top	10	Fig.42	13.12	13.5	1.091	0.396	0.432	0.10

14. Evaluation of Simultaneous

Table14.1 Simultaneous transmission SAR (WWAN Up Antenna +WLAN)

Standalone SAR for 2G(W/Kg) Up Antenna					
Test Position			GSM 850	GSM 1900	Highest SAR
Head	Left	Cheek	0.776	0.293	0.776
		Tilt 15°	0.954	0.314	0.954
	Right	Cheek	0.929	0.719	0.929
		Tilt 15°	0.862	0.689	0.862
Hotspot &Body-worn 10 mm	Phantom Side		0.740	0.515	0.740
	Ground Side		0.547	0.489	0.547
Hotspot 10 mm	Left Side		0.451	0.181	0.451
	Right Side		0.131	0.298	0.298
	Top Side		0.818	0.464	0.818
	Bottom Side		--	--	--

Standalone SAR for 3G(W/Kg) Up Antenna						
Test Position			WCDMA Band II	WCDMA Band IV	WCDMA Band V	Highest SAR
Head	Left	Cheek	0.329	0.345	0.826	0.826
		Tilt 15°	0.075	0.371	0.818	0.818
	Right	Cheek	0.761	0.946	1.123	1.123
		Tilt 15°	0.574	0.681	1.117	1.117
Hotspot &Body-worn 10 mm	Phantom Side		0.131	0.202	0.517	0.517
	Ground Side		0.173	0.180	0.326	0.326
Hotspot 10 mm	Left Side		0.112	0.168	0.281	0.281
	Right Side		0.027	0.027	0.096	0.096
	Top Side		0.093	0.173	0.404	0.404
	Bottom Side		--	--	--	--

Standalone SAR for 4G (W/Kg) Up Antenna								
Test Position			LTE Band 2	LTE Band 5	LTE Band7	LTE Band 12	LTE Band 66	Highest SAR
Head	Left	Cheek	0.257	0.698	0.457	0.055	0.416	0.457
		Tilt 15°	0.227	1.038	0.550	0.051	0.447	1.038
	Right	Cheek	0.585	0.984	1.039	0.092	0.898	1.039
		Tilt 15°	0.522	0.982	1.052	0.087	0.977	1.052
Hotspot &Body- worn 10 mm	Phantom Side		0.091	0.371	0.535	0.016	0.211	0.535
	Ground Side		0.148	0.346	0.324	0.015	0.268	0.346
Hotspot 10 mm	Left Side		0.159	0.159	0.242	0.011	0.278	0.278
	Right Side		0.030	0.032	0.035	0.001	0.043	0.043
	Top Side		0.079	0.439	0.509	0.011	0.274	0.509
	Bottom Side		--	--	--	--	--	--

Simultaneous multi-band transmission (Up Antenna + WLAN)								
Test Position			2G	3G	4G	2.4GHz		SUM
						BT	WiFi	2.4GHz
Head	Left	Cheek	0.776	0.826	0.457	0.133	0.389	1.215
		Tilt 15°	0.954	0.818	1.038	0.133	0.293	1.331
	Right	Cheek	0.929	1.123	1.039	0.133	0.348	1.471
		Tilt 15°	0.862	1.117	1.052	0.133	0.403	1.520
Hotspot &Body-worn 10 mm	Phantom Side		0.740	0.517	0.535	0.066	0.231	0.971
	Ground Side		0.547	0.326	0.346	0.066	0.179	0.726
Hotspot 10 mm	Left Side		0.451	0.281	0.278	0.066	0.009	0.517
	Right Side		0.298	0.096	0.043	0.066	0.023	0.364
	Top Side		0.818	0.404	0.509	0.066	0.432	1.250
	Bottom Side		--	--	--	0.066	--	0.084

Table14.2 Simultaneous transmission SAR (WWAN Down Antenna +WLAN)

Standalone SAR for 2G(W/Kg) Down Antenna					
Test Position			GSM 850	GSM 1900	Highest SAR
Head	Left	Cheek	0.146	0.096	0.146
		Tilt 15°	0.113	0.087	0.113
	Right	Cheek	0.178	0.155	0.178
		Tilt 15°	0.133	0.067	0.133
Hotspot &Body-worn 10 mm	Phantom Side		0.299	0.338	0.338
	Ground Side		0.567	0.387	0.567
Hotspot 10 mm	Left Side		0.111	0.139	0.139
	Right Side		0.480	0.332	0.480
	Top Side		--	--	--
	Bottom Side		0.535	0.083	0.535

Standalone SAR for 3G(W/Kg) Down Antenna						
Test Position			WCDMA Band II	WCDMA Band IV	WCDMA Band V	Highest SAR
Head	Left	Cheek	0.271	0.270	0.142	0.271
		Tilt 15°	0.119	0.206	0.078	0.206
	Right	Cheek	0.286	0.345	0.185	0.345
		Tilt 15°	0.134	0.180	0.106	0.180
Hotspot &Body-worn 10 mm	Phantom Side		0.264	0.408	0.353	0.408
	Ground Side		0.356	0.314	0.301	0.356
Hotspot 10 mm	Left Side		0.181	0.206	0.001	0.206
	Right Side		0.175	0.331	0.181	0.331
	Top Side		--	--	--	--
	Bottom Side		0.012	0.034	0.348	0.348

Standalone SAR for 4G (W/Kg) Down Antenna								
Test Position			LTE Band 2	LTE Band 5	LTE Band7	LTE Band 12	LTE Band 66	Highest SAR
Head	Left	Cheek	0.182	0.187	0.240	0.127	0.520	0.520
		Tilt 15°	0.179	0.098	0.200	0.090	0.416	0.416
	Right	Cheek	0.280	0.217	0.097	0.134	0.710	0.710
		Tilt 15°	0.140	0.103	0.258	0.081	0.412	0.412
Hotspot &Body- worn 10 mm	Phantom Side		0.451	0.332	0.228	0.166	0.517	0.517
	Ground Side		0.609	0.241	0.245	0.186	0.453	0.609
Hotspot 10 mm	Left Side		0.162	0.135	0.284	0.136	0.342	0.342
	Right Side		0.308	0.294	0.095	0.271	0.493	0.493
	Top Side		--	--	--	--	--	--
	Bottom Side		0.899	0.295	0.524	0.077	0.190	0.899

Simultaneous multi-band transmission (Down Antenna + WLAN)								
Test Position			2G	3G	4G	2.4GHz		SUM
						BT	WiFi	2.4GHz
Head	Left	Cheek	0.271	0.271	0.520	0.133	0.389	0.909
		Tilt 15°	0.206	0.206	0.416	0.133	0.293	0.709
	Right	Cheek	0.345	0.345	0.710	0.133	0.348	1.058
		Tilt 15°	0.180	0.180	0.412	0.133	0.403	0.815
Hotspot &Body- worn 10 mm	Phantom Side		0.408	0.408	0.517	0.066	0.231	0.748
	Ground Side		0.356	0.356	0.609	0.066	0.179	0.788
Hotspot 10 mm	Left Side		0.206	0.206	0.342	0.066	0.009	0.408
	Right Side		0.331	0.331	0.493	0.066	0.023	0.559
	Top Side		--	--	--	0.066	0.432	0.432
	Bottom Side		0.348	0.348	0.899	0.066	--	0.983

According to the conducted power measurement result, we can draw the conclusion that: stand-alone SAR for WiFi should be performed. Then, simultaneous transmission SAR for WiFi/BT is considered with measurement results of GSM/WCDMA/LTE and WiFi/BT. According to the above table, the sum of reported SAR values for GSM/WCDMA/LTE and WiFi<1.6W/kg. So the simultaneous transmission SAR is not required for WiFi/BT transmitter.

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 Head Value (1g)

Frequency		Configuration	Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio
MHz	Ch.					
836.6	190	GSM850	Right	0.817	0.839	1.027
826.4	4132	Band V	Right	0.937	0.945	1.009
826.4	4132	Band V	Right	0.937	0.94	1.003
829	20450	QPSK_10MHz_1RB_ 25 offset Low	Right	0.939	0.942	1.003
2535	21100	QPSK_20MHz_1RB_ 50 offset Middle	Right	1.04	1.02	1.020
1720	132072	QPSK_20MHz_1RB_ 50 offset Low	Right	0.906	0.839	1.080

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

Frequency		Configuration	Test Position	Original SAR (W/kg)	First Repeated SAR (W/kg)	The Ratio
MHz	Ch.					
1860	18700	QPSK_20MHz_1RB_ 50 offset Low	Toward Bottom	0.811	0.795	1.020

Note: According to the KDB 865664 D01repeated measurement is not required when the original highest measured SAR is < 0.8 W/kg.

16. Measurement Uncertainty

Measurement uncertainty for 750 MHz to 3 GHz averaged over 1 gram						
Uncertainty Component	Uncertainty	Prob.	Div.	$c_{i\ (1g)}$	Std. Unc. (1-g)	v_i or Veff
Measurement System						
Probe Calibration (*k*=1)	5.4	Normal	2	1	5.40	∞
Probe Isotropy	4.70	Rectangular	√3	0.7	1.90	∞
Modulation Response	2.40	Rectangular	√3	1	1.39	∞
Hemispherical Isotropy	2.60	Rectangular	√3	0.7	1.05	∞
Boundary Effect	1.00	Rectangular	√3	1	0.58	∞
Linearity	4.70	Rectangular	√3	1	2.71	∞
System Detection Limit	1.00	Rectangular	√3	1	0.58	∞
Readout Electronics	0.30	Normal	1	1	0.30	∞
Response Time	0.80	Rectangular	√3	1	0.46	∞
Integration Time	2.60	Rectangular	√3	1	1.50	∞
RF Ambient Noise	0.00	Rectangular	√3	1	0.00	∞
RF Ambient Reflections	0.00	Rectangular	√3	1	0.00	∞
Probe Positioner	0.40	Rectangular	√3	1	0.23	∞
Probe Positioning	2.90	Rectangular	√3	1	1.67	∞
Post-processing	1.00	Rectangular	√3	1	0.58	∞
Test sample Related						
Test sample Positioning	1.2	Normal	1	1	1.2	5
Device Holder Uncertainty	3.2	Normal	1	1	3.2	71
Power drift	5	Rectangular	√3	1	2.89	∞
Power Scaling	0	Rectangular	√3	1	0.00	∞
Phantom and Tissue Parameters						
Phantom Uncertainty	4	Rectangular	√3	1	2.31	∞
SAR correction	1.9	Rectangular	√3	1	1.10	∞
Liquid Conductivity (meas)	4.19	Rectangular	1	0.78	3.27	∞
Liquid Permittivity (meas)	4.4	Rectangular	1	0.26	1.14	∞
Temp. unc. - Conductivity	0.18	Rectangular	√3	0.78	0.08	∞
Temp. unc. - Permittivity	0.54	Rectangular	√3	0.23	0.07	∞
Combined Std. Uncertainty		RSS			9.39	
Expanded STD Uncertainty		*k*=2			18.77%	

System check uncertainty for 750 MHz to 3 GHz averaged over 1 gram						
Uncertainty Component	Uncertainty	Prob.	Div.	$c_{i\ (1g)}$	Std. Unc. (1-g)	v_i or Veff
Measurement System						
Probe Calibration (*k*=1)	5.40	Normal	1	1	5.40	∞
Probe Isotropy	4.70	Rectangular	√3	0.7	1.90	∞
Modulation Response	2.40	Rectangular	√3	1	1.39	∞
Hemispherical Isotropy	2.60	Rectangular	√3	0.7	1.05	∞
Boundary Effect	1.00	Rectangular	√3	1	0.58	∞
Linearity	4.70	Rectangular	√3	1	2.71	∞
System Detection Limit	1.00	Rectangular	√3	1	0.58	∞
Readout Electronics	0.30	Normal	1	1	0.30	∞
Response Time	0.80	Rectangular	√3	1	0.46	∞
Integration Time	2.60	Rectangular	√3	1	1.50	∞
RF Ambient Noise	0.00	Rectangular	√3	1	0.00	∞
RF Ambient Reflections	0.00	Rectangular	√3	1	0.00	∞
Probe Positioner	0.40	Rectangular	√3	1	0.23	∞
Probe Positioning	2.90	Rectangular	√3	1	1.67	∞
Post-processing	1.00	Rectangular	√3	1	0.58	∞
Field source						
Deviation of the experimental source from numerical source	5.5	Normal	1	1	5.5	∞
Source to liquid distance	2	Rectangular	√3	1	1.15	∞
Power drift	5	Rectangular	√3	1	2.89	∞
Phantom and Tissue Parameters						
Phantom Uncertainty	4	Rectangular	√3	1	2.31	∞
SAR correction	1.9	Rectangular	√3	1	1.10	∞
Liquid Conductivity (meas)	4.19	Normal	1	0.78	3.27	∞
Liquid Permittivity (meas)	4.4	Normal	1	0.26	1.14	∞
Temp. unc. - Conductivity	0.18	Rectangular	√3	0.78	0.08	∞
Temp. unc. - Permittivity	0.54	Rectangular	√3	0.23	0.07	∞
Combined Std. Uncertainty		RSS			10.39	
Expanded STD Uncertainty		*k*=2			20.79%	

17. Main Test Instrument

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	N5242A	MY51221755	Dec 25, 2017	1 year
02	Power meter	NRVD	102257	May 11, 2018	1 year
03	Power sensor	NRV-Z5	100241		
			100644		
04	Signal Generator	E4438C	MY49072044	May 11, 2018	1 Year
05	Amplifier	NTWPA-0086010F	12023024	No Calibration Requested	
06	Coupler	778D	MY4825551	May 11, 2018	1 year
07	BTS	E5515C	MY50266468	Dec 25, 2017	1 year
08	BTS	MT8820C	6201240338	May 11, 2018	1 year
09	E-field Probe	ES3DV3	3252	Aug 31, 2017	1 year
				Sep 4, 2018	1 year
10	DAE	SPEAG DAE4	1244	Dec 4,2017	1 year
11	Dipole Validation Kit	SPEAG D750V3	1144	Aug 03,2015	3 year
		SPEAG D835V2	4d112	Oct 22, 2015	3 year
		SPEAG D1750V2	1044	Nov. 3,2015	3 year
		SPEAG D1900V2	5d151	Dec 6,2017	1 year
		SPEAG D2450V2	858	Oct 30,2015	3 year
		SPEAG D2600V2	1031	Oct 30,2015	3 year

ANNEX A. Highest SAR GRAPH RESULTS

Fig.1 GSM850 Right Cheek Middle Repeated

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 0.935 S/m; ε_r = 42.671; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM Professional 850MHz; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
GSM850 Right Cheek Middle Repeated/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.978 W/kg
GSM850 Right Cheek Middle Repeated/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 23.84 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 1.97 W/kg
SAR(1 g) = 0.839 W/kg; SAR(10 g) = 0.413 W/kg
Maximum value of SAR (measured) = 0.858 W/kg

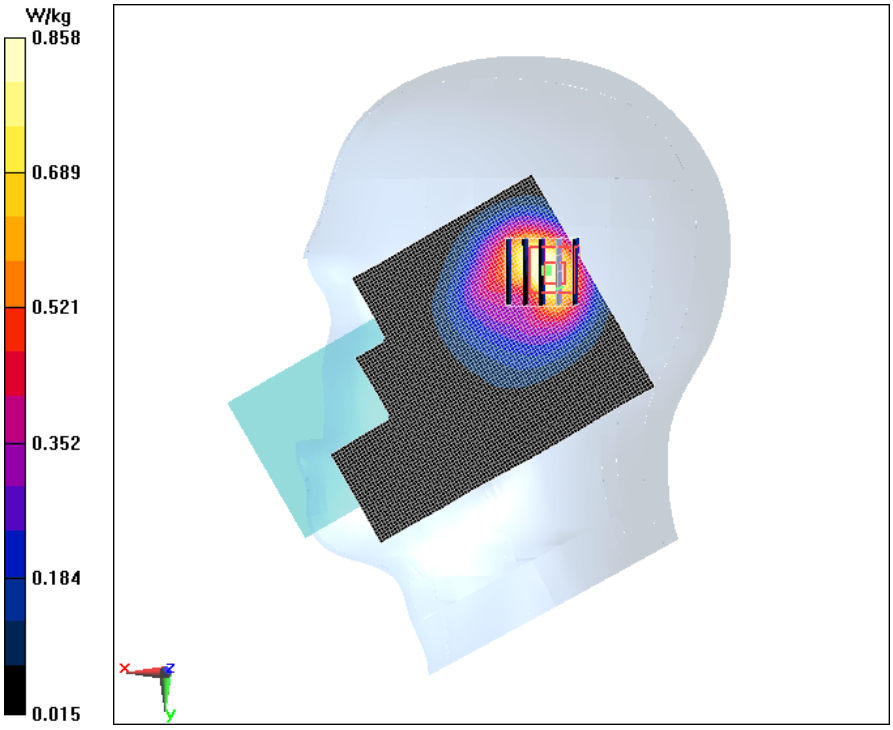


Fig.2 GSM850 4TS Top Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 1.001 S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM 850MHz GPRS 4TS (0); Frequency: 836.6 MHz;
Duty Cycle: 1:2
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
GSM850 4TS Top Mode Middle/Area Scan (31x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.748 W/kg
GSM850 4TS Top Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 19.02 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 1.55 W/kg
SAR(1 g) = 0.734 W/kg; SAR(10 g) = 0.352 W/kg
Maximum of SAR (measured) = 0.796 W/kg

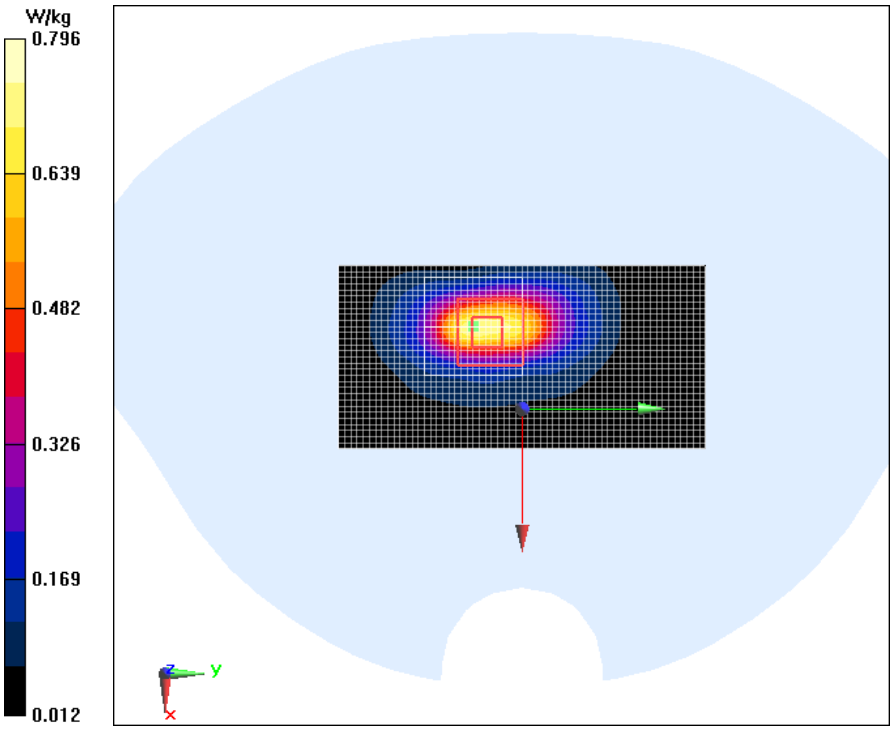


Fig.3 GSM1900 Right Cheek Middle

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.293 S/m; ε_r = 41.918; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM Professional 1900MHz; Frequency: 1880 MHz;
Duty Cycle: 1:8.3
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
GSM1900 Right Cheek Middle/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.936 W/kg
GSM1900 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.34 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.40 W/kg
SAR(1 g) = 0.680 W/kg; SAR(10 g) = 0.381 W/kg
Maximum of SAR (measured) = 0.722 W/kg

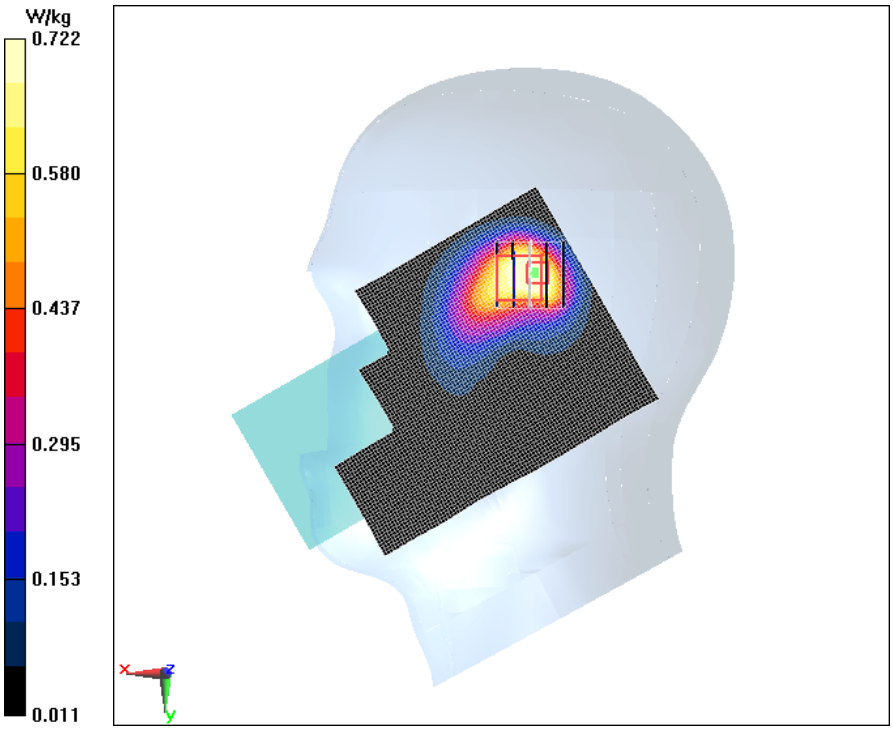


Fig.4 GSM1900 4TS Phantom Mode Middle

Date/Time: 2018/9/15
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.479 S/m; ε_r = 51.996; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM 1900MHz GPRS 4TS (0); Frequency: 1880 MHz;
Duty Cycle: 1:2
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
GSM1900 4TS Phantom Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.725 W/kg
GSM1900 4TS Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.058 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.808 W/kg
SAR(1 g) = 0.470 W/kg; SAR(10 g) = 0.265 W/kg
Maximum value of SAR (measured) = 0.536 W/kg

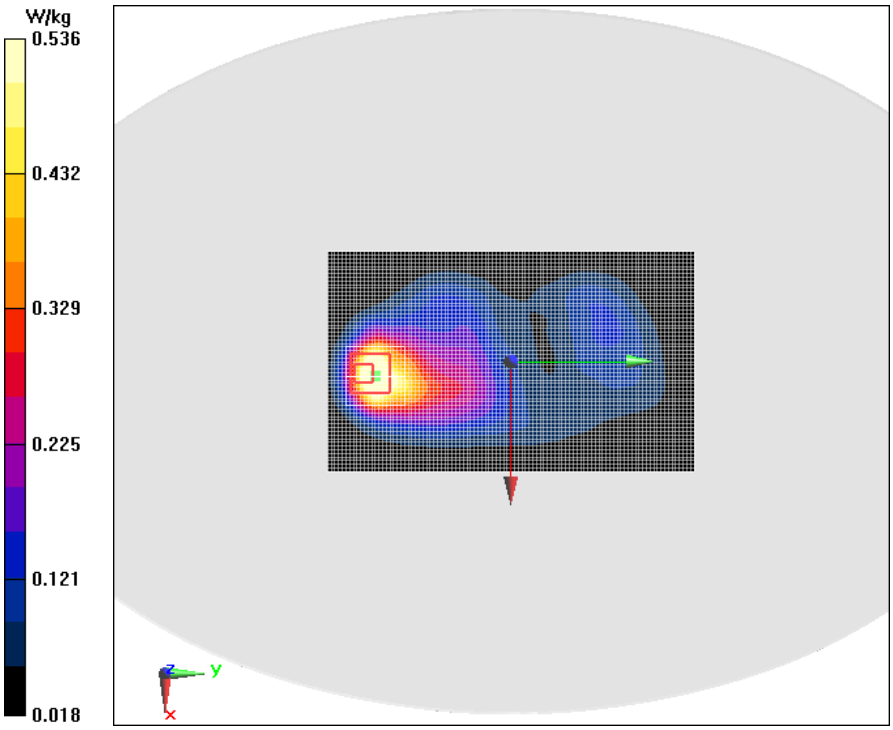


Fig.5 WCDMA Band 2 Right Cheek Middle

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.293 S/m; ε_r = 41.918; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅱ; Frequency: 1880 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
WCDMA Band 2 Right Cheek Middle/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.797 W/kg
WCDMA Band 2 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.97 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.643 W/kg; SAR(10 g) = 0.382 W/kg
Maximum value of SAR (measured) = 0.698 W/kg

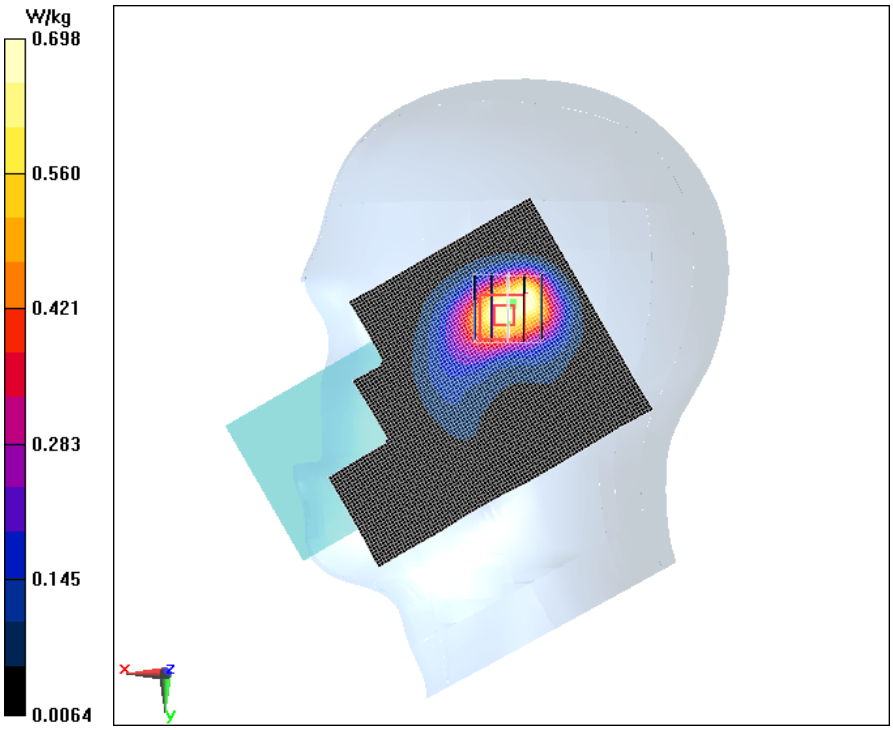


Fig.6WCDMA Band 2 Ground Mode Middle

Date/Time: 2018/9/15
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.479 S/m; ε_r = 51.996; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅱ; Frequency: 1880 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
WCDMA Band 2 Ground Mode Middle/Area Scan (61x111x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.156 W/kg
WCDMA Band 2 Ground Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.490 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.217 W/kg
SAR(1 g) = 0.146 W/kg; SAR(10 g) = 0.096 W/kg
Maximum value of SAR (measured) = 0.152 W/kg

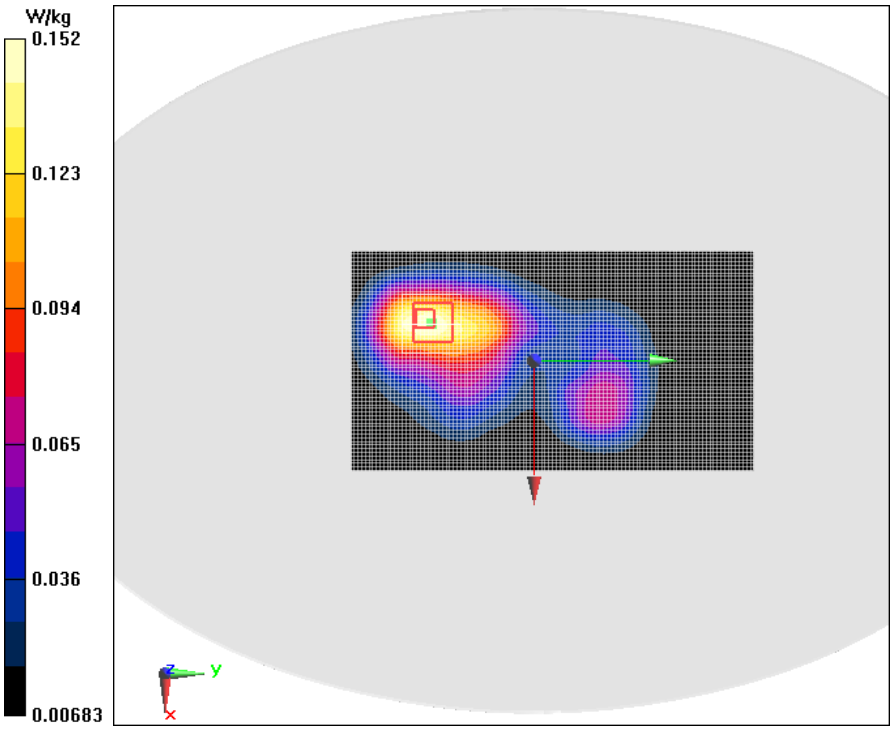


Fig.7WCDMA Band 4 Right Cheek Low

Date/Time: 2018/9/10
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 1712.4 MHz; σ = 1.299 S/m; ε_r = 41.015; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: WCDMA Professional 1800MHz; Frequency: 1712.4 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.39, 5.39, 5.39); Calibrated: 9/4/2018
WCDMA Band 4 Right Cheek Low/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 1.04 W/kg
WCDMA Band 4 Right Cheek Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.51 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.774 W/kg; SAR(10 g) = 0.455 W/kg
Maximum of SAR (measured) = 0.832 W/kg

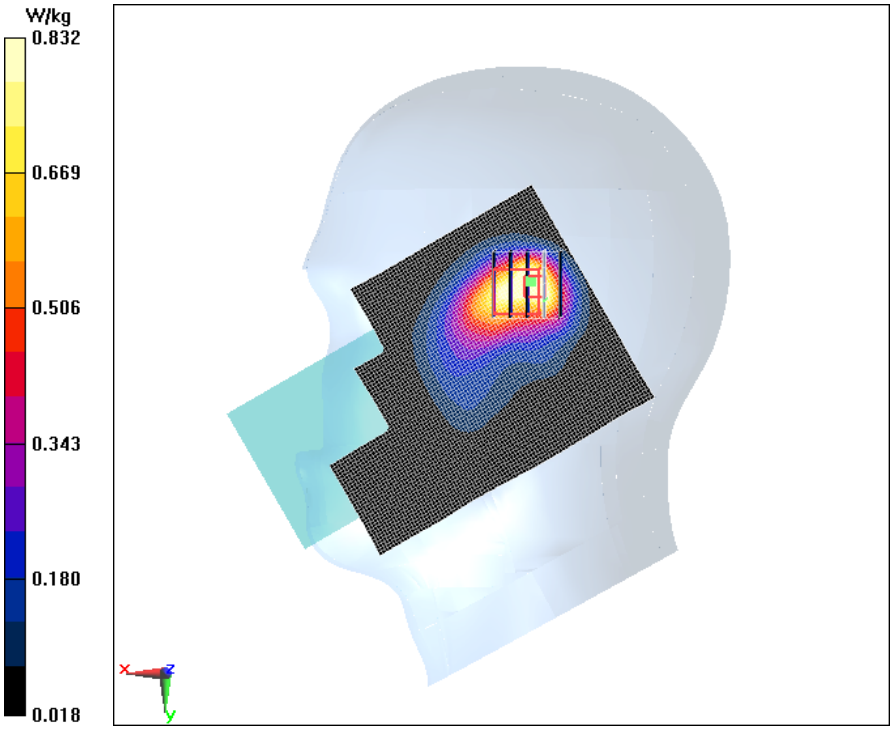


Fig.8 WCDMA Band 4 Phantom Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1733 MHz; σ = 1.402 S/m; ε_r = 55.189; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: WCDMA Professional 1800MHz; Frequency: 1732.6 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.99, 4.99, 4.99); Calibrated: 9/4/2018
WCDMA Band 4 Phantom Mode Middle/Area Scan (61x111x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.230 W/kg
WCDMA Band 4 Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.005 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.283 W/kg
SAR(1 g) = 0.165 W/kg; SAR(10 g) = 0.093 W/kg
Maximum value of SAR (measured) = 0.183 W/kg

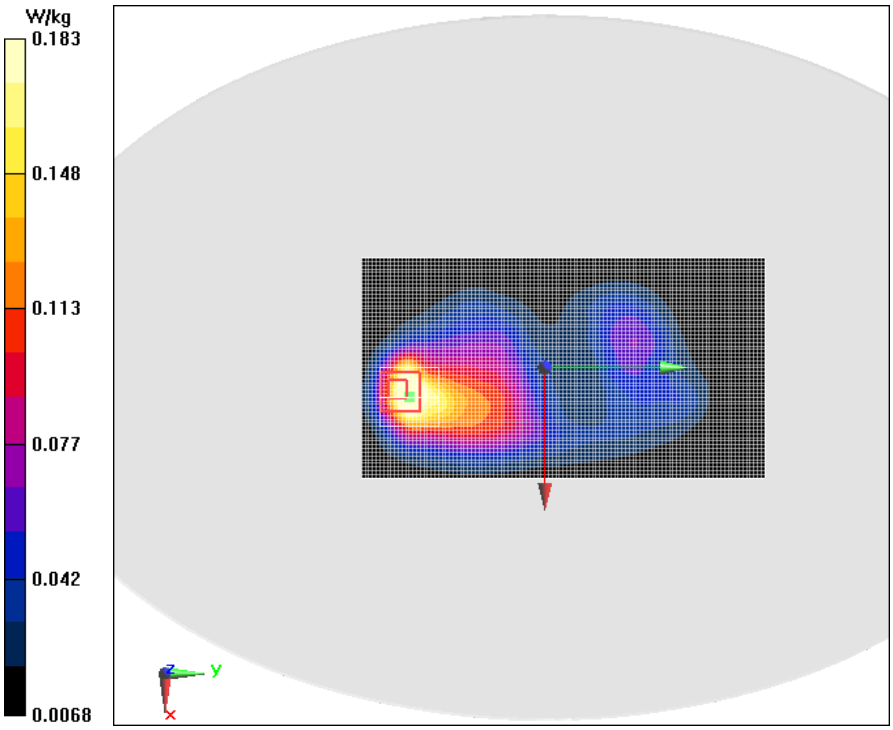


Fig.9 WCDMA Band5 Right Cheek Low Repeated

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 826.4 MHz; σ = 0.931 S/m; ε_r = 43.056; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅴ; Frequency: 826.4 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
WCDMA Band5 Right Cheek Low Repeated/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 1.00 W/kg
WCDMA Band5 Right Cheek Low Repeated/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 26.53 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 2.03 W/kg
SAR(1 g) = 0.945 W/kg; SAR(10 g) = 0.481 W/kg
Maximum value of SAR (measured) = 1.10 W/kg

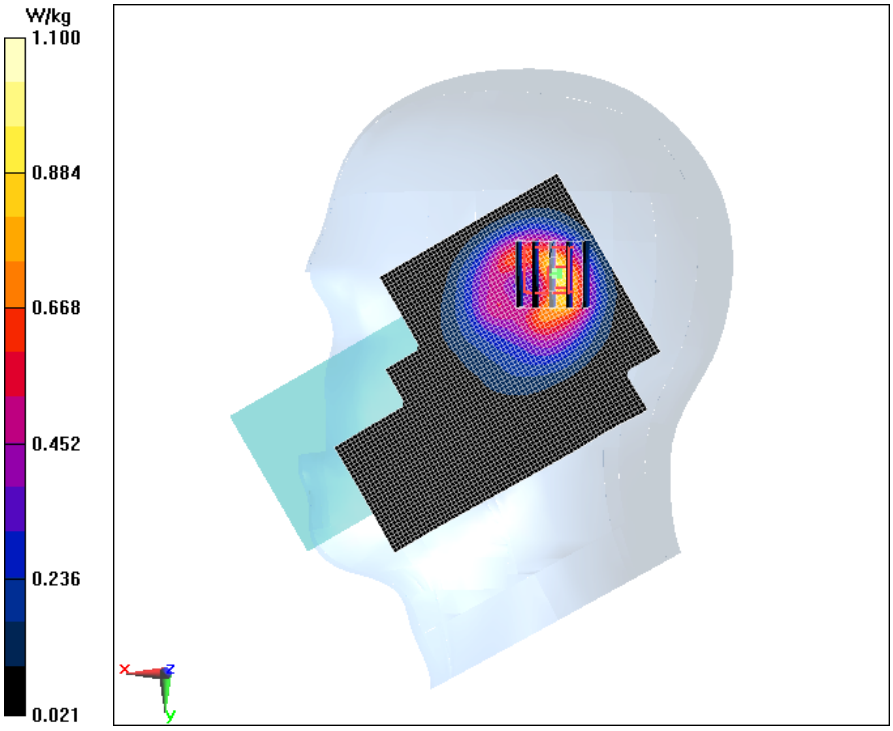


Fig.10 WCDMA Band5 Phantom Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 1.001S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: WCDMA Professional 835MHz; Frequency: 836.6 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
WCDMA Band5 Phantom Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.494 W/kg
WCDMA Band5 Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.45 V/m; Power Drift = -0.11 dB
Peak SAR (extrapolated) = 0.857 W/kg
SAR(1 g) = 0.438 W/kg; SAR(10 g) = 0.236 W/kg
Maximum value of SAR (measured) = 0.471 W/kg

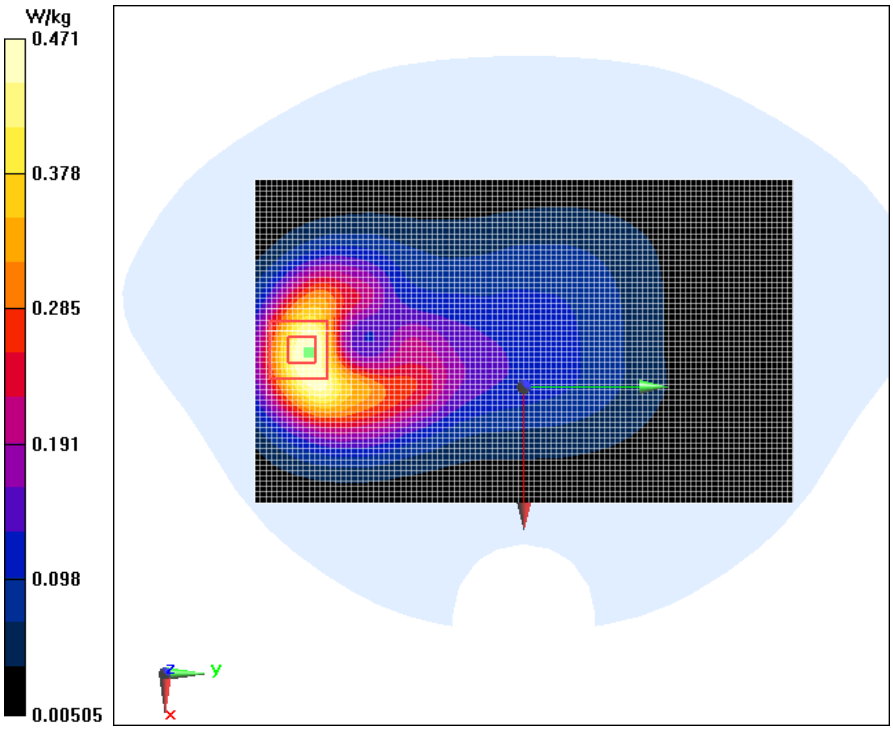


Fig.11 LTE Band 2 20M 1RB 50offset Right Cheek Low

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1860 MHz; σ = 1.447 S/m; ε_r = 40.493; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 2 Professional 1800MHz; Frequency: 1860 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
LTE Band 2 20M 1RB 50offset Right Cheek Low/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.744 W/kg
LTE Band 2 20M 1RB 50offset Right Cheek Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.01 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 1.07 W/kg
SAR(1 g) = 0.555 W/kg; SAR(10 g) = 0.318 W/kg
Maximum of SAR (measured) = 0.638 W/kg

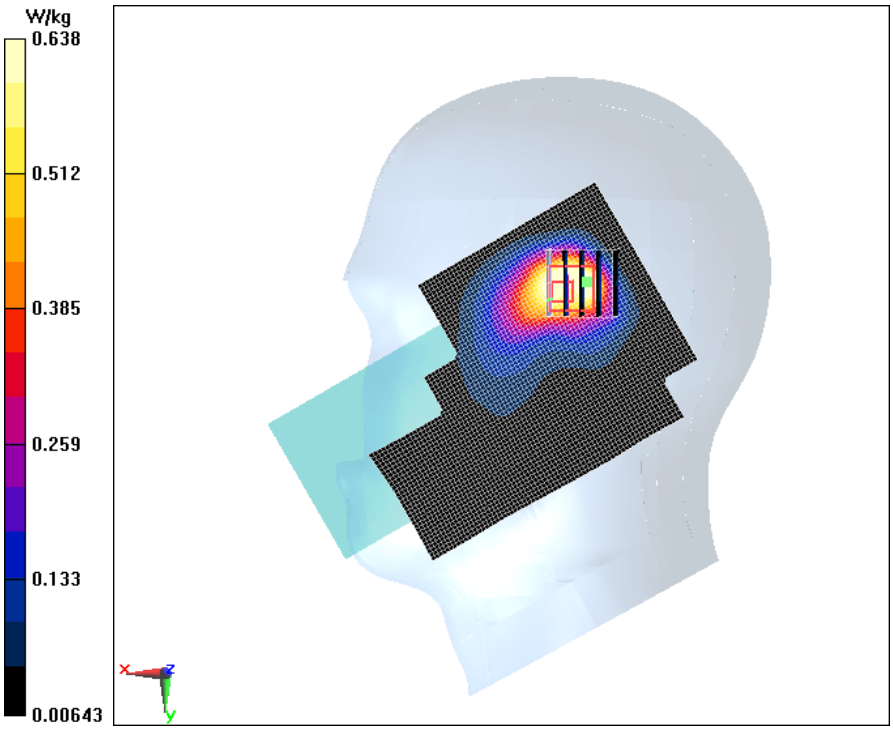


Fig.12 LTE Band 2 20M 1RB 50 offset Left Mode Low

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1860 MHz; σ = 1.457 S/m; ε_r = 52.063; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 2 Professional 1800MHz; Frequency: 1860 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
LTE Band 2 20M 1RB 50 offset Left Mode Low/Area Scan (41x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.136 W/kg
LTE Band 2 20M 1RB 50 offset Left Mode Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.812 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.185 W/kg
SAR(1 g) = 0.123 W/kg; SAR(10 g) = 0.076 W/kg
Maximum of SAR (measured) = 0.134 W/kg

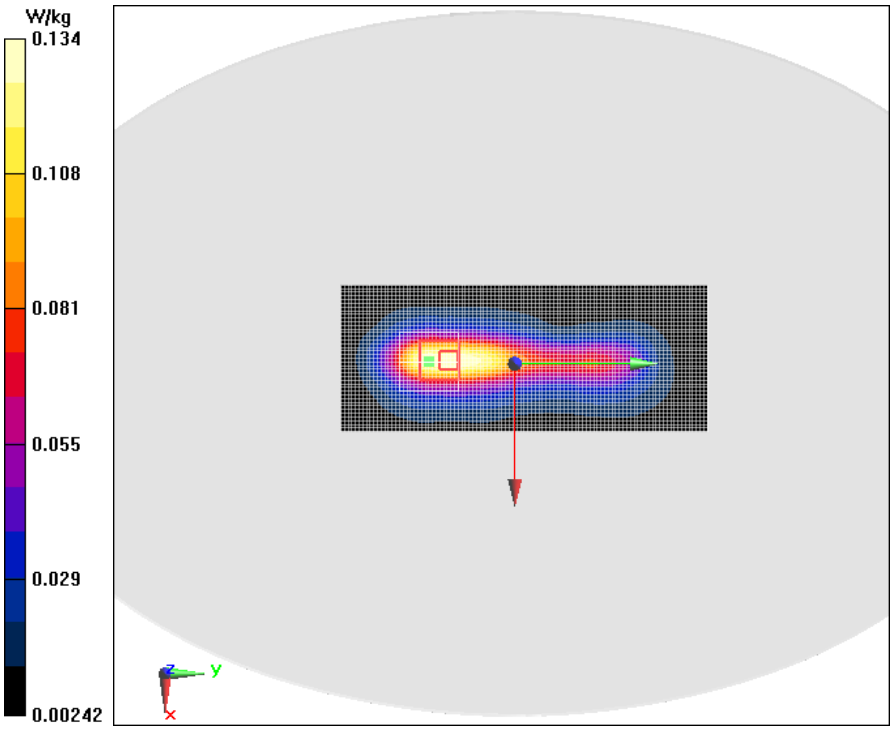


Fig.13 LTE Band 5 10M 1RB 25 offset Right Tilt Low Repeated

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 829 MHz; σ = 0.928 S/m; ε_r = 42.765; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 5 Professional 850MHz; Frequency: 829 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
LTE Band 5 10M 1RB 25 offset Right Tilt Low Repeated/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 1.08 W/kg
LTE Band 5 10M 1RB 25 offset Right Tilt Low Repeated/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.24 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 2.24 W/kg
SAR(1 g) = 0.942 W/kg; SAR(10 g) = 0.440 W/kg
Maximum value of SAR (measured) = 1.12 W/kg

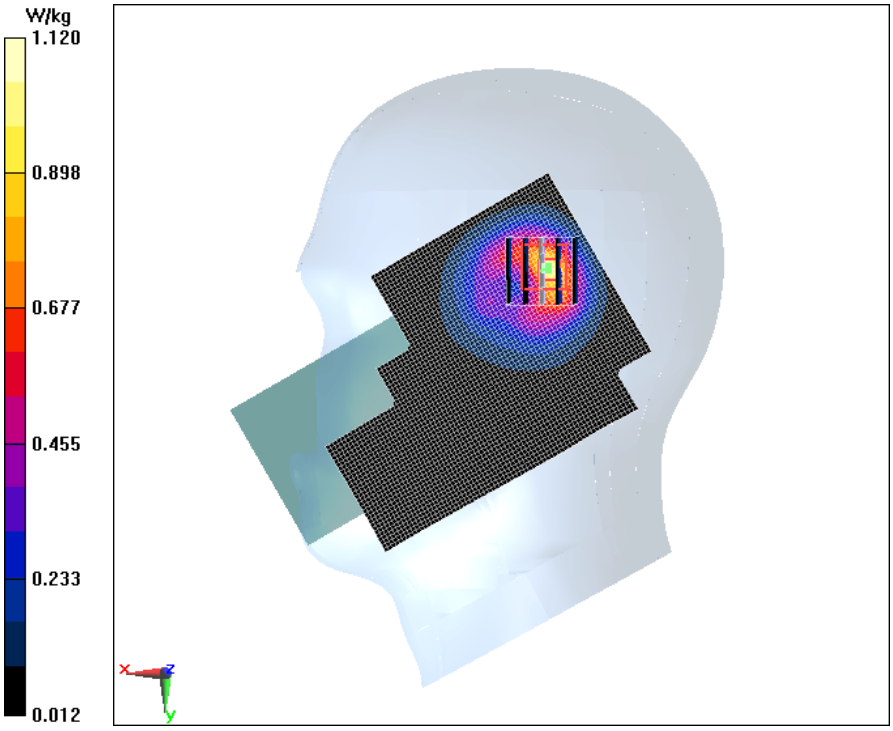


Fig.14 LTE Band 5 10M 1RB 25 offset Top Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 836.5 MHz; σ = 1.001 S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 5 Professional 835MHz; Frequency: 836.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
LTE Band 5 10M 1RB 25 offset Top Mode Middle/Area Scan (31x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.637 W/kg
LTE Band 5 10M 1RB 25 offset Top Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.81 V/m; Power Drift = 1.05 dB
Peak SAR (extrapolated) = 0.833 W/kg
SAR(1 g) = 0.393 W/kg; SAR(10 g) = 0.187 W/kg
Maximum value of SAR (measured) = 0.394 W/kg

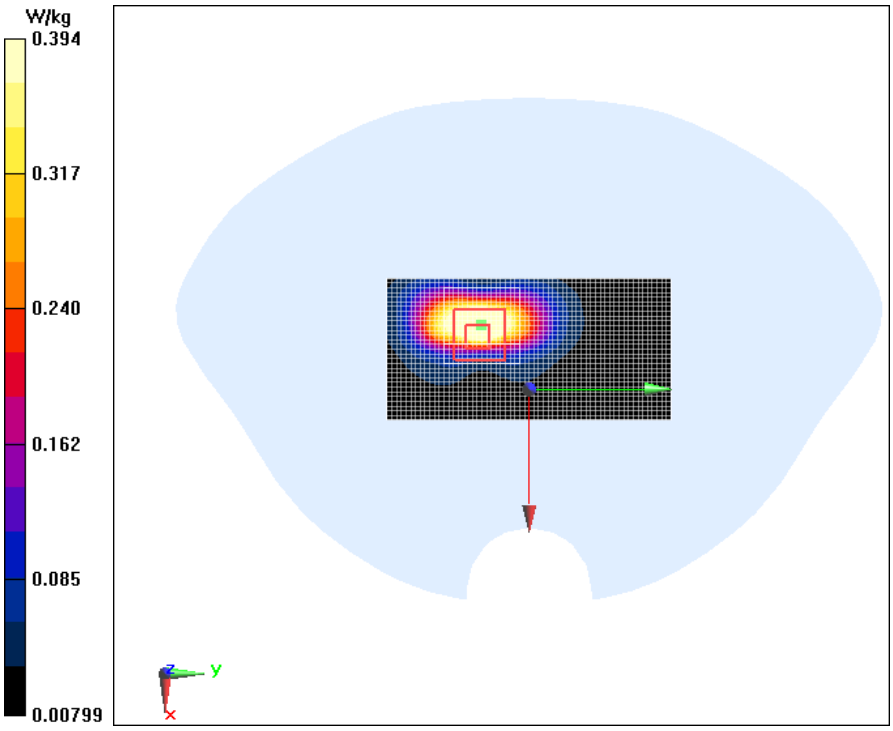


Fig.15 LTE Band 7 20M 1RB 50 offset Right Tilt Middle

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 2535 MHz; σ = 1.906 S/m; ε_r = 40.132; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 7 Professional 2600MHz; Frequency: 2535 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.46, 4.46, 4.46); Calibrated: 9/4/2018
LTE Band 7 20M 1RB 50 offset Right Tilt Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 1.29 W/kg
LTE Band 7 20M 1RB 50 offset Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.909 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 2.69 W/kg
SAR(1 g) = 1.04 W/kg; SAR(10 g) = 0.449 W/kg
Maximum value of SAR (measured) = 1.16 W/kg

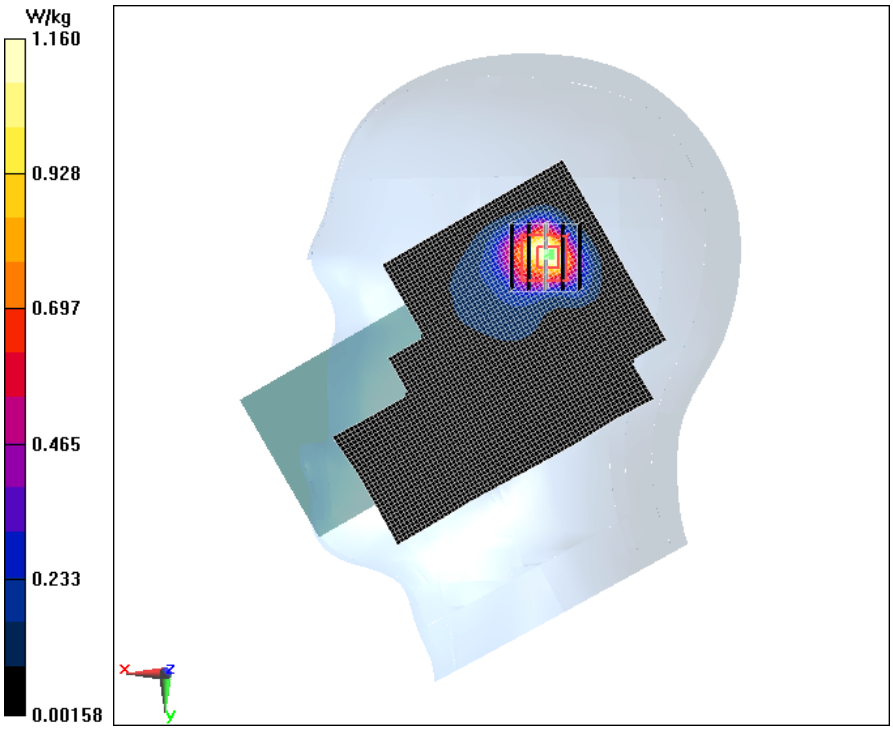


Fig.16 LTE Band 7 20M 1RB 50 offset Phantom Mode Middle

Date/Time: 2018/9/18
Electronics: DAE4 Sn1244
Medium parameters used: f = 2535 MHz; σ = 2.031 S/m; ε_r = 54.546; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 7 Professional 2600MHz; Frequency: 2535 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.19, 4.19, 4.19); Calibrated: 9/4/2018
LTE Band 7 20M 1RB 50 offset Phantom Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.668 W/kg
LTE Band 7 20M 1RB 50 offset Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.880 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.03 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.261 W/kg
Maximum of SAR (measured) = 0.590 W/kg

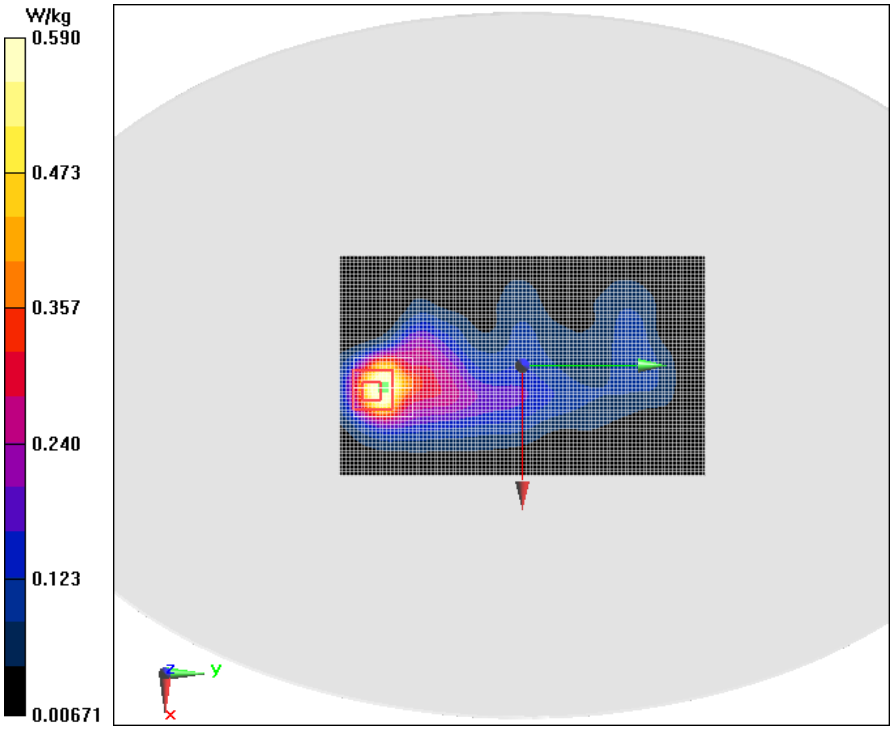


Fig.17 LTE Band 12 10M 1RB 25 offset Right Cheek Middle

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.84 S/m; ε_r = 42.183; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 12 Professional 750MHz; Frequency: 707.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.25, 6.25, 6.25); Calibrated: 8/31/2017
LTE Band 12 10M 1RB 25 offset Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.0870 W/kg
LTE Band 12 10M 1RB 25 offset Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.362 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 0.200 W/kg
SAR(1 g) = 0.085 W/kg; SAR(10 g) = 0.044 W/kg
Maximum of SAR (measured) = 0.0976 W/kg

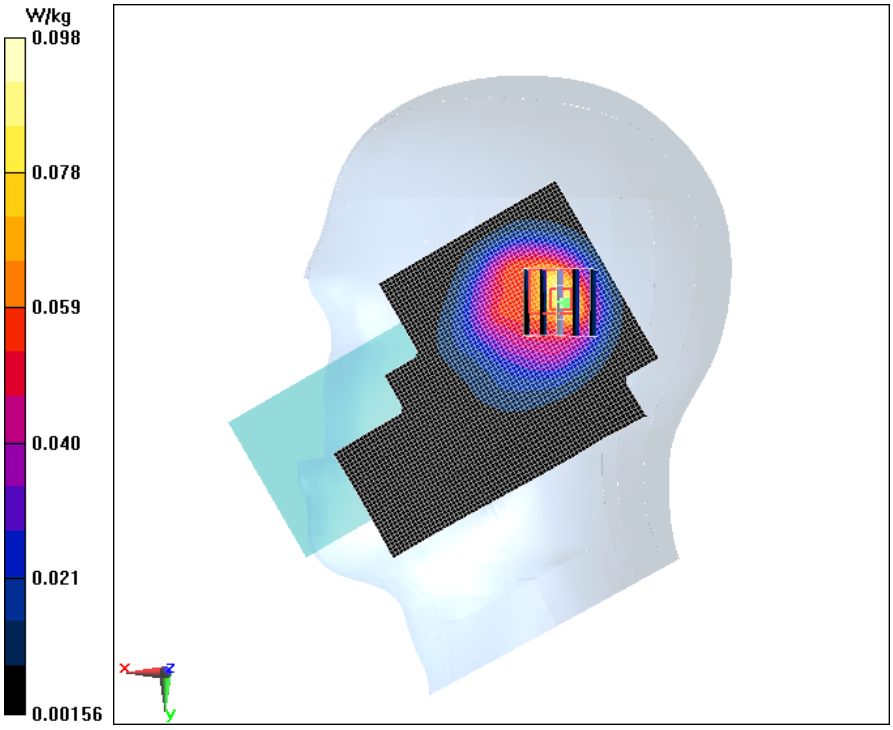


Fig.18LTE Band12 10M 1RB 25 offset Phantom Mode Middle

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.894 S/m; ε_r = 57.219; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 12 Professional 750MHz; Frequency: 707.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.34, 6.34, 6.34); Calibrated: 8/31/2017

LTE Band12 10M 1RB 25 offset Phantom Mode Middle 10mm/Area Scan (61x101x1):

Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.0147 W/kg

LTE Band12 10M 1RB 25 offset Phantom Mode Middle 10mm/Zoom Scan (7x7x7)/Cube 0:

Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.118 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.0300 W/kg
SAR(1 g) = 0.015 W/kg; SAR(10 g) = 0.00827 W/kg
Maximum value of SAR (measured) = 0.0157 W/kg

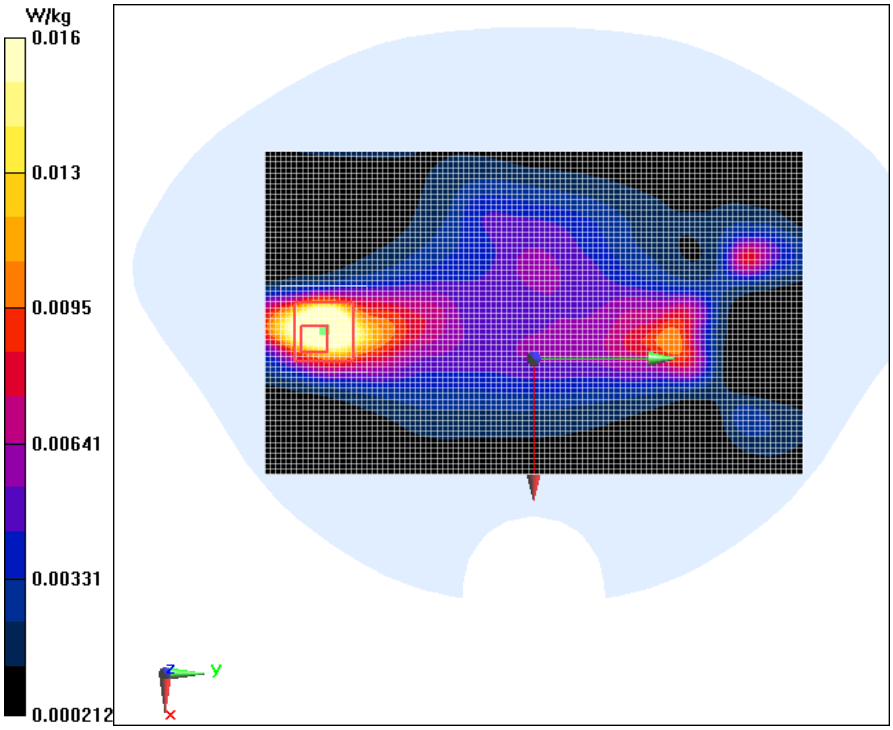


Fig.19 LTE Band 66 20M 1RB 50offset Right Tilt Low

Date/Time: 2018/9/10
Electronics: DAE4 Sn1244
Medium parameters used: f = 1720 MHz; σ = 1.305 S/m; ε_r = 40.995; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 66 Professional 1800MHz; Frequency: 1720 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.39, 5.39, 5.39); Calibrated: 9/4/2018
LTE Band 66 20M 1RB 50offset Right Tilt Low/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.897 W/kg
LTE Band 66 20M 1RB 50offset Right Tilt Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.75 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.92 W/kg
SAR(1 g) = 0.906 W/kg; SAR(10 g) = 0.445 W/kg
Maximum value of SAR (measured) = 1.02 W/kg

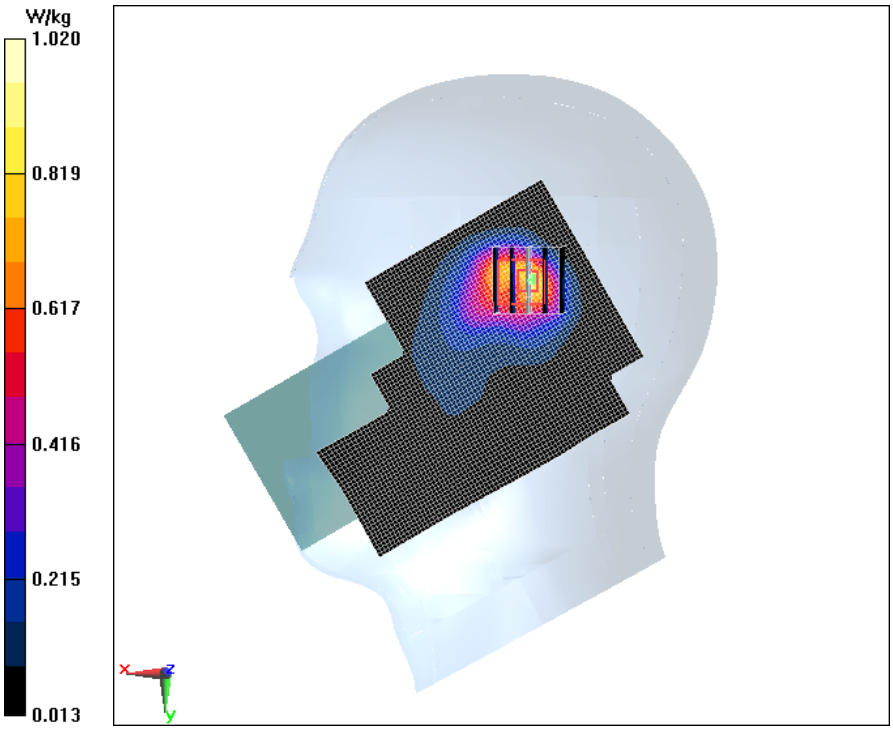


Fig.20 LTE Band 66 20M 1RB 50offset Left Mode Low

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1720 MHz; σ = 1.389 S/m; ε_r = 55.224; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 66 Professional 1800MHz; Frequency: 1720 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.99, 4.99, 4.99); Calibrated: 9/4/2018
LTE Band 66 20M 1RB 50offset Left Mode Low/Area Scan (41x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.301 W/kg
LTE Band 66 20M 1RB 50offset Left Mode Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.716 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.403 W/kg
SAR(1 g) = 0.268 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 0.292 W/kg

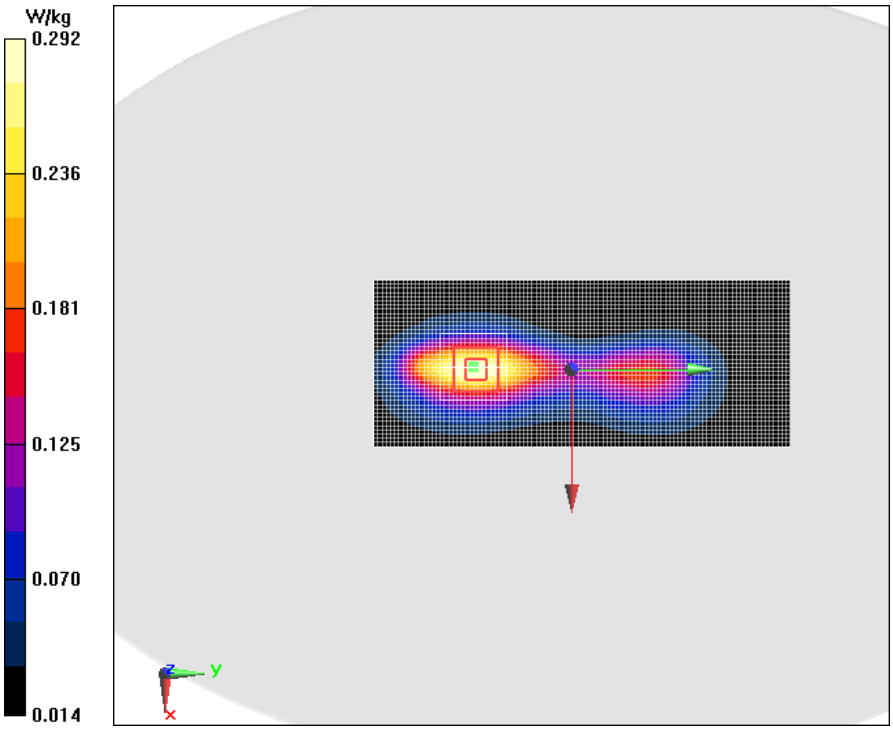


Fig.21 GSM850 Right Cheek Middle

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 0.935 S/m; ε_r = 42.671; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM Professional 850MHz; Frequency: 836.6 MHz; Duty Cycle: 1:8.3
Probe: ES3DV3 - SN3252ConvF(6.51, 6.51, 6.51); Calibrated: 9/4/2018
GSM850 Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.168 W/kg
GSM850 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.139 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.195 W/kg
SAR(1 g) = 0.156 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.163 W/kg

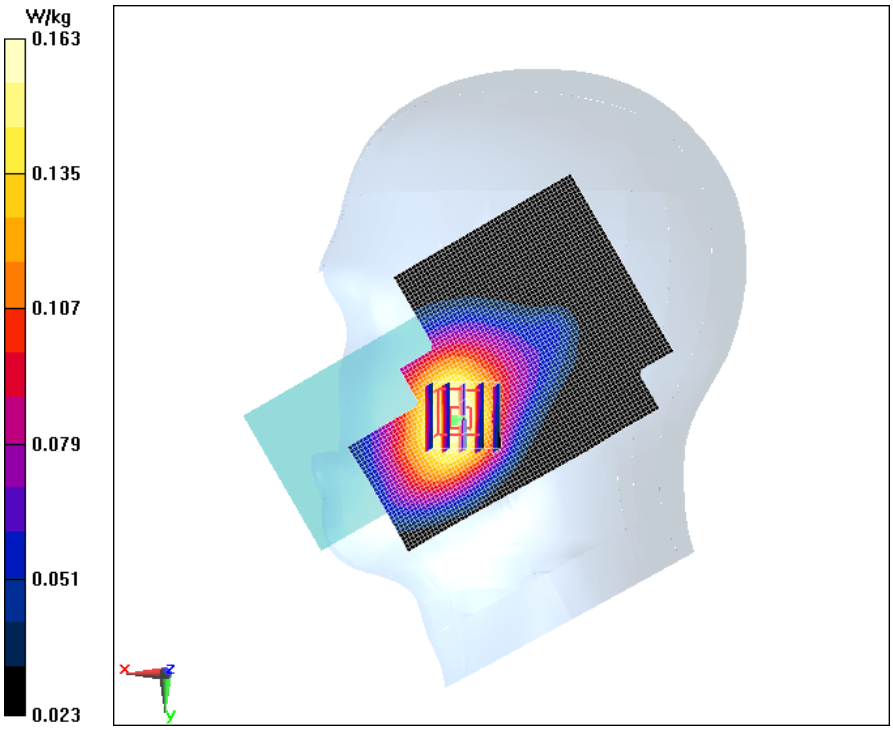


Fig.22 GSM850 4TS Ground Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 1.001 S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM 835MHz GPRS 4TS (0); Frequency: 836.6 MHz;
Duty Cycle: 1:2
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
GSM850 4TS Ground Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.743 W/kg
GSM850 4TS Ground Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.81 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.50 W/kg
SAR(1 g) = 0.509 W/kg; SAR(10 g) = 0.146 W/kg
Maximum value of SAR (measured) = 0.522 W/kg

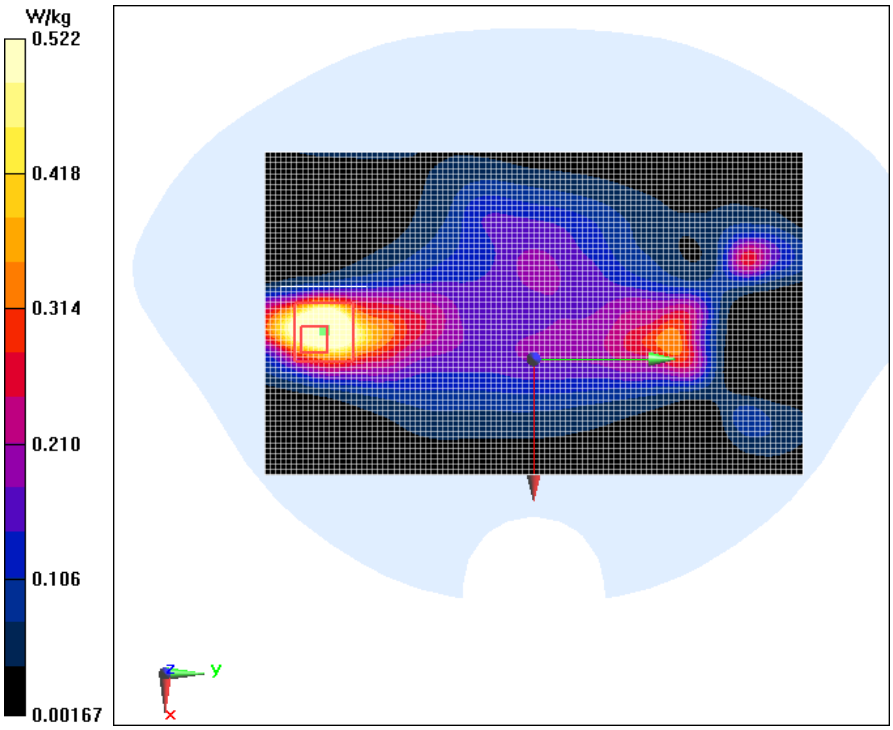


Fig.23 GSM1900 Right Cheek Middle

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.293 S/m; ε_r = 41.918; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM Professional 1900MHz; Frequency: 1880 MHz;
Duty Cycle: 1:8.3
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
GSM1900 Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.156 W/kg
GSM1900 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.537 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.206 W/kg
SAR(1 g) = 0.147 W/kg; SAR(10 g) = 0.097 W/kg
Maximum value of SAR (measured) = 0.156 W/kg

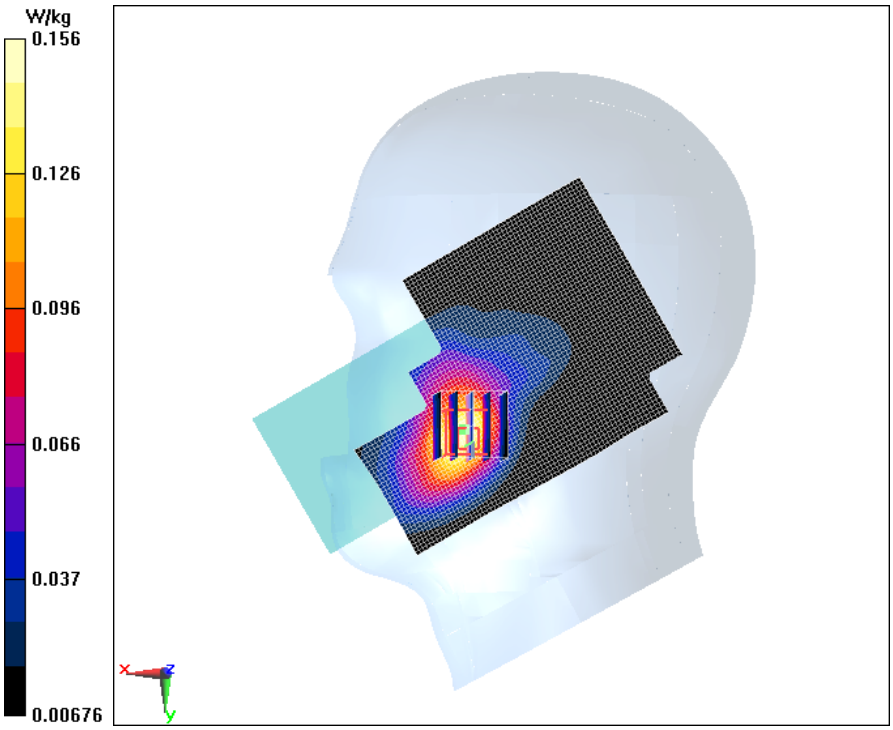


Fig.24 GSM1900 4TS Ground Mode Middle

Date/Time: 2018/9/15
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.479 S/m; ε_r = 51.996; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: GSM 1900MHz GPRS 4TS (0); Frequency: 1880 MHz;
Duty Cycle: 1:2
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
GSM1900 4TS Ground Mode Middle/Area Scan (61x111x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.384 W/kg
GSM1900 4TS Ground Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.281 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.521 W/kg
SAR(1 g) = 0.353 W/kg; SAR(10 g) = 0.236 W/kg
Maximum value of SAR (measured) = 0.377 W/kg

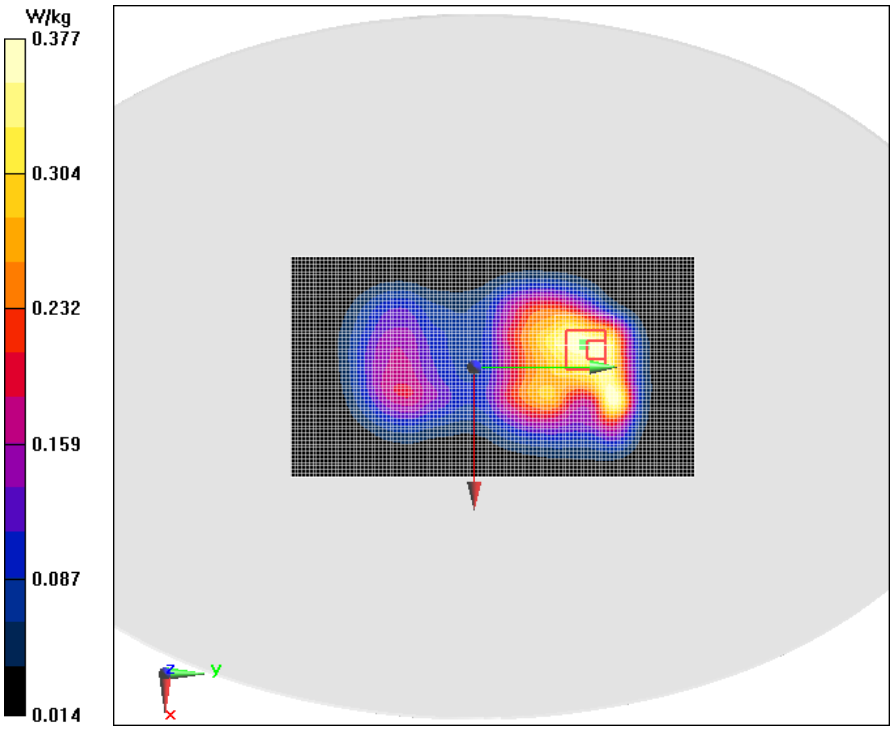


Fig.25 WCDMA Band 2 Right Cheek Middle

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.293 S/m; ε_r = 41.918; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅱ; Frequency: 1880 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
WCDMA Band 2 Right Cheek Middle/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.252 W/kg
WCDMA Band 2 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.593 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 0.362 W/kg
SAR(1 g) = 0.242 W/kg; SAR(10 g) = 0.151 W/kg
Maximum value of SAR (measured) = 0.253 W/kg

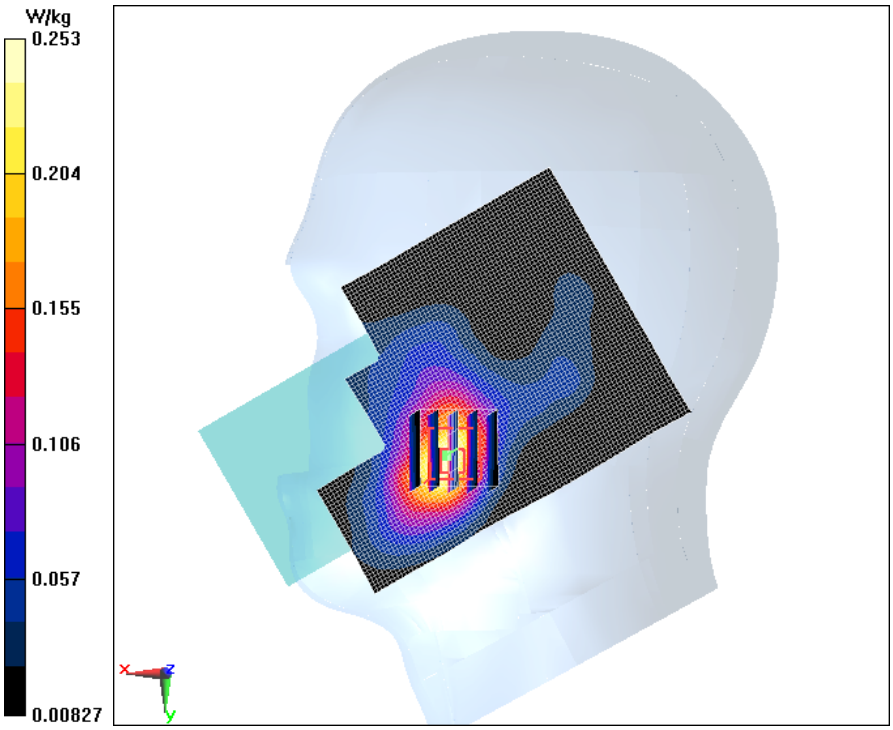


Fig.26 WCDMA Band 2 Ground Mode Middle

Date/Time: 2018/9/15
Electronics: DAE4 Sn1244
Medium parameters used: f = 1880 MHz; σ = 1.479 S/m; ε_r = 51.996; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅱ; Frequency: 1880 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
WCDMA Band 2 Ground Mode Middle/Area Scan (61x111x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.340 W/kg
WCDMA Band 2 Ground Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.085 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 0.508 W/kg
SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.175 W/kg
Maximum value of SAR (measured) = 0.332 W/kg

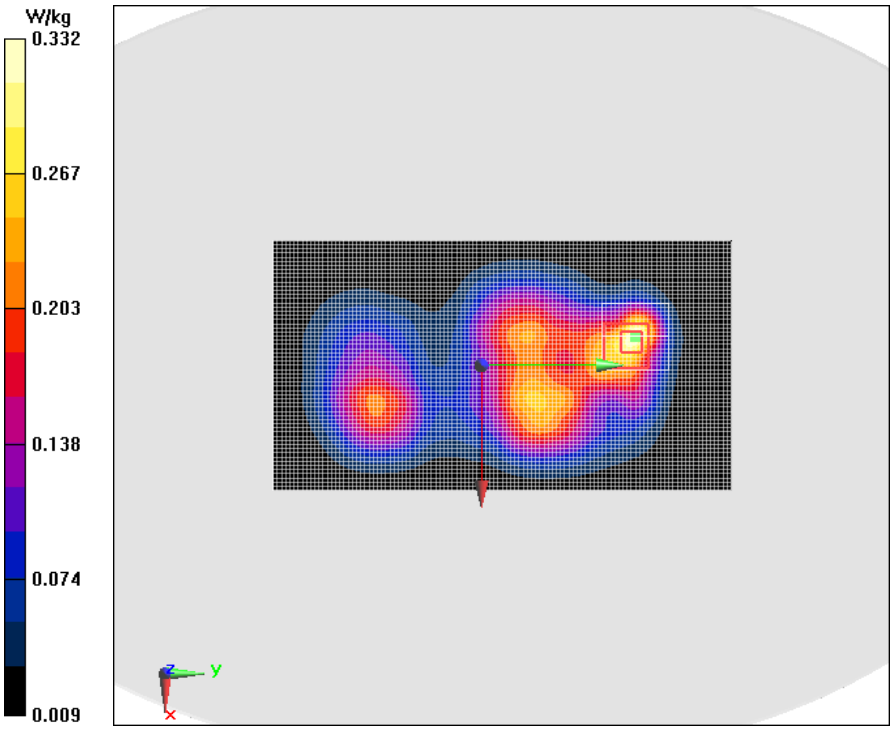


Fig.27 WCDMA Band 4 Right Cheek Middle

Date/Time: 2018/9/10
Electronics: DAE4 Sn1244
Medium parameters used: f = 1733 MHz; σ = 1.317 S/m; ε_r = 40.953; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: WCDMA Professional 1800MHz; Frequency: 1732.6 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.39, 5.39, 5.39); Calibrated: 9/4/2018
WCDMA Band 4 Right Cheek Middle/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.302 W/kg
WCDMA Band 4 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.883 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.375 W/kg
SAR(1 g) = 0.282 W/kg; SAR(10 g) = 0.191 W/kg
Maximum value of SAR (measured) = 0.293 W/kg

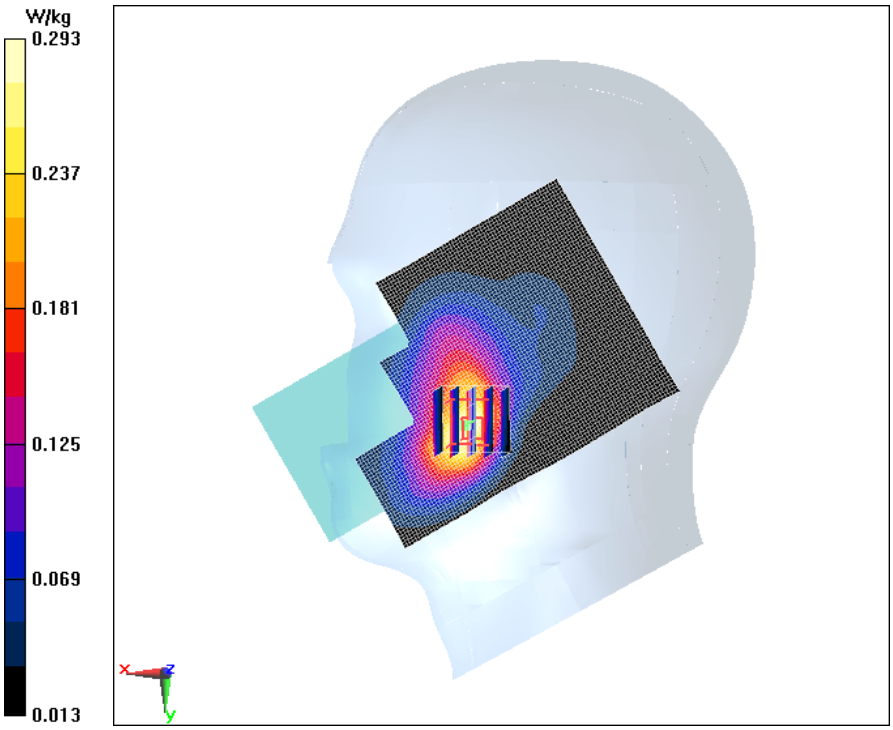


Fig.28 WCDMA Band 4 Phantom Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1733 MHz; σ = 1.402 S/m; ε_r = 55.189; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: WCDMA Professional 1800MHz; Frequency: 1732.6 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.99, 4.99, 4.99); Calibrated: 9/4/2018
WCDMA Band 4 Phantom Mode Middle/Area Scan (61x111x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.380 W/kg
WCDMA Band 4 Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.011 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 0.441 W/kg
SAR(1 g) = 0.333 W/kg; SAR(10 g) = 0.247 W/kg
Maximum value of SAR (measured) = 0.348 W/kg

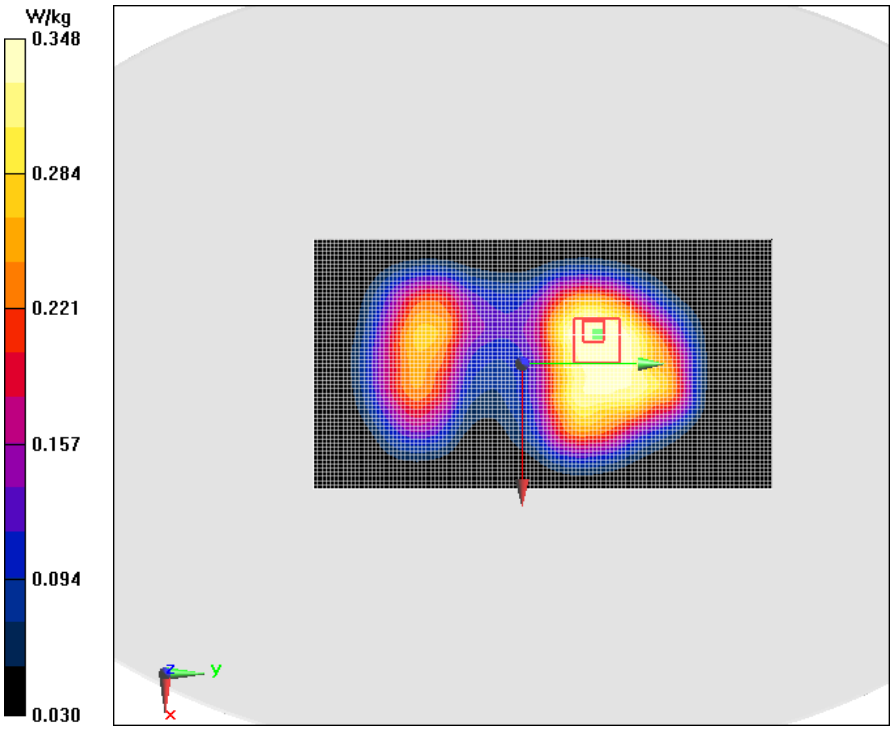


Fig.29 WCDMA Band5 Right Cheek Middle

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 0.935 S/m; ε_r = 42.671; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional Band Ⅴ; Frequency: 836.6 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
WCDMA Band5 Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.172 W/kg
WCDMA Band5 Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.330 V/m; Power Drift = -0.15 dB
Peak SAR (extrapolated) = 0.194 W/kg
SAR(1 g) = 0.157 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.163 W/kg

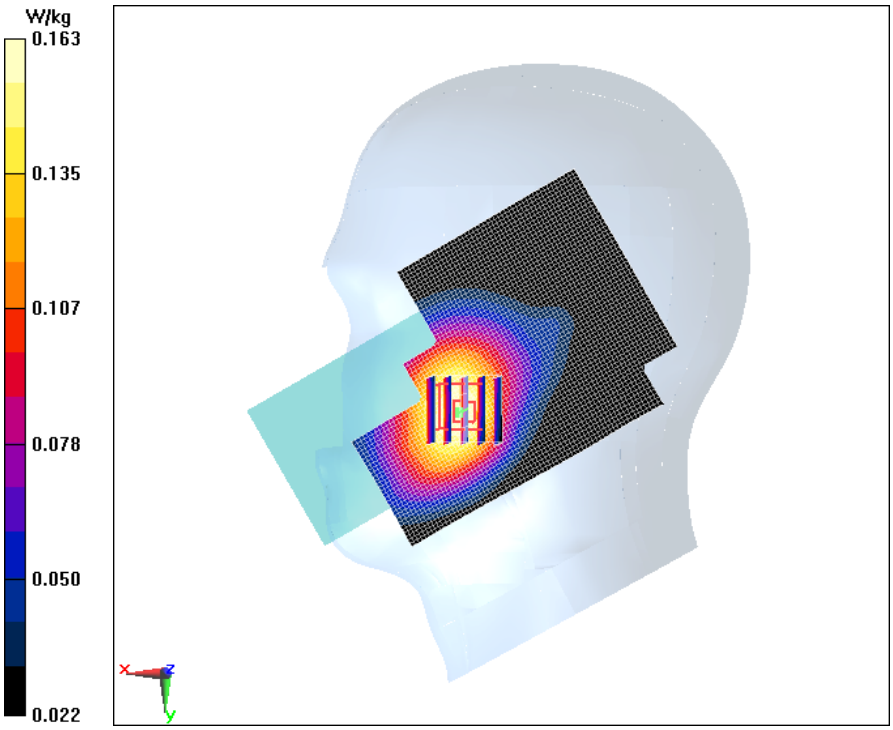


Fig.30 WCDMA Band5 Phantom Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 837 MHz; σ = 1.001S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5℃ Liquid Temperature:22.5℃
Communication System: WCDMA Professional 835MHz; Frequency: 836.6 MHz;
Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
WCDMA Band5 Phantom Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.317 W/kg
WCDMA Band5 Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 10.21 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.536 W/kg
SAR(1 g) = 0.299 W/kg; SAR(10 g) = 0.170 W/kg
Maximum of SAR (measured) = 0.321 W/kg

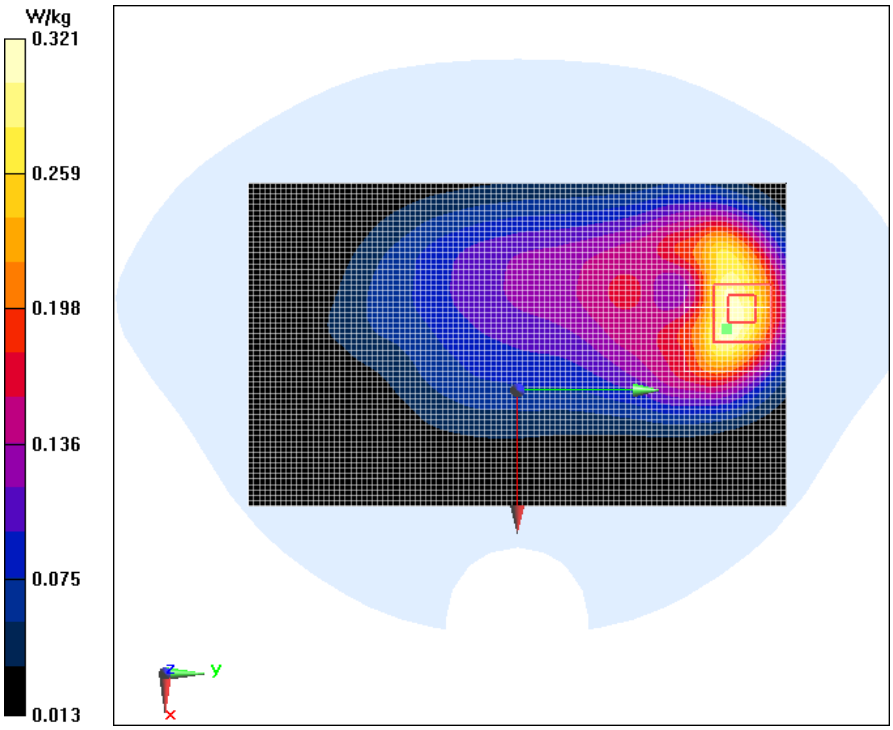


Fig.31 LTE Band 2 20M 1RB 50 offset Right Cheek Low

Date/Time: 2018/9/11
Electronics: DAE4 Sn1244
Medium parameters used: f = 1860 MHz; σ = 1.447 S/m; ε_r = 40.493; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 2 Professional 1800MHz; Frequency: 1860 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.18, 5.18, 5.18); Calibrated: 9/4/2018
LTE Band 2 20M 1RB 50 offset Right Cheek Low/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.269 W/kg
LTE Band 2 20M 1RB 50 offset Right Cheek Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.961 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 0.388 W/kg
SAR(1 g) = 0.266 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 0.282 W/kg

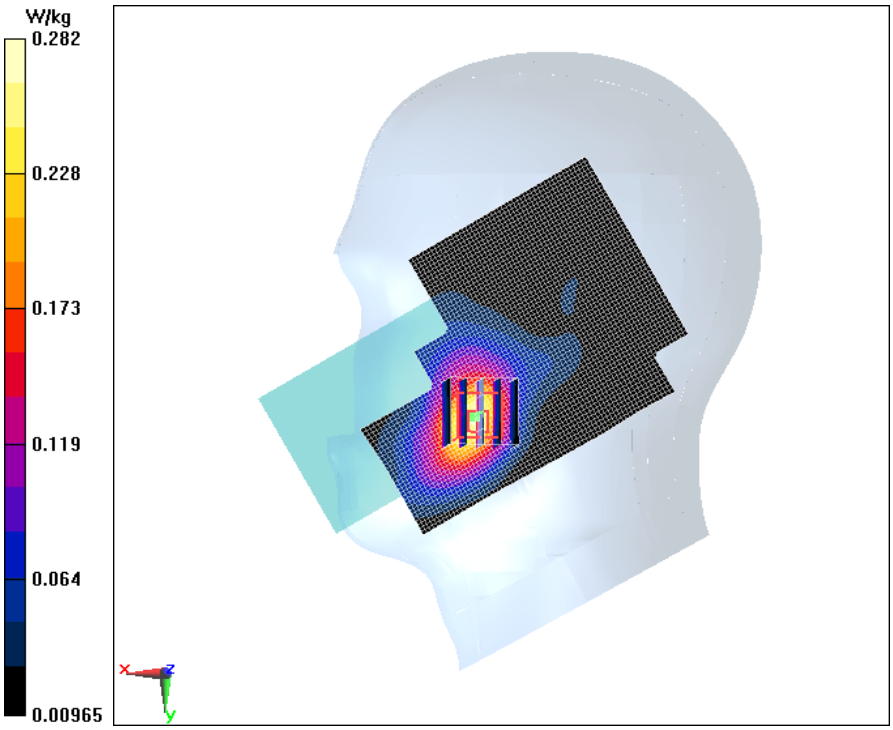


Fig.32 LTE Band 2 20M 1RB 50 offset Bottom Mode Low

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1860 MHz; σ = 1.457 S/m; ε_r = 52.063; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 2 Professional 1800MHz; Frequency: 1860 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.77, 4.77, 4.77); Calibrated: 9/4/2018
LTE Band 2 20M 1RB 50 offset Bottom Mode Low/Area Scan (31x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.988 W/kg
LTE Band 2 20M 1RB 50 offset Bottom Mode Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 20.48 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.32 W/kg
SAR(1 g) = 0.811 W/kg; SAR(10 g) = 0.461 W/kg
Maximum value of SAR (measured) = 0.888 W/kg

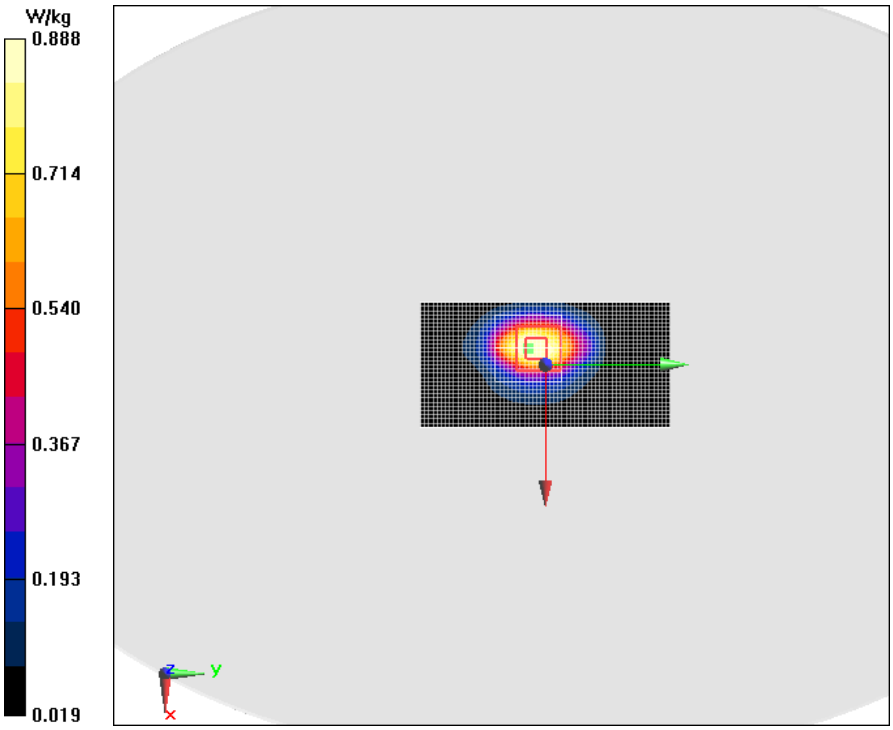


Fig.33 LTE Band 5 10M 1RB 25 offset Right Cheek Middle

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 836.5 MHz; σ = 0.935 S/m; ε_r = 42.671; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 5 Professional 850MHz; Frequency: 836.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
LTE Band 5 10M 1RB 25 offset Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.187 W/kg
LTE Band 5 10M 1RB 25 offset Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 6.327 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.215 W/kg
SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.138 W/kg
Maximum value of SAR (measured) = 0.184 W/kg

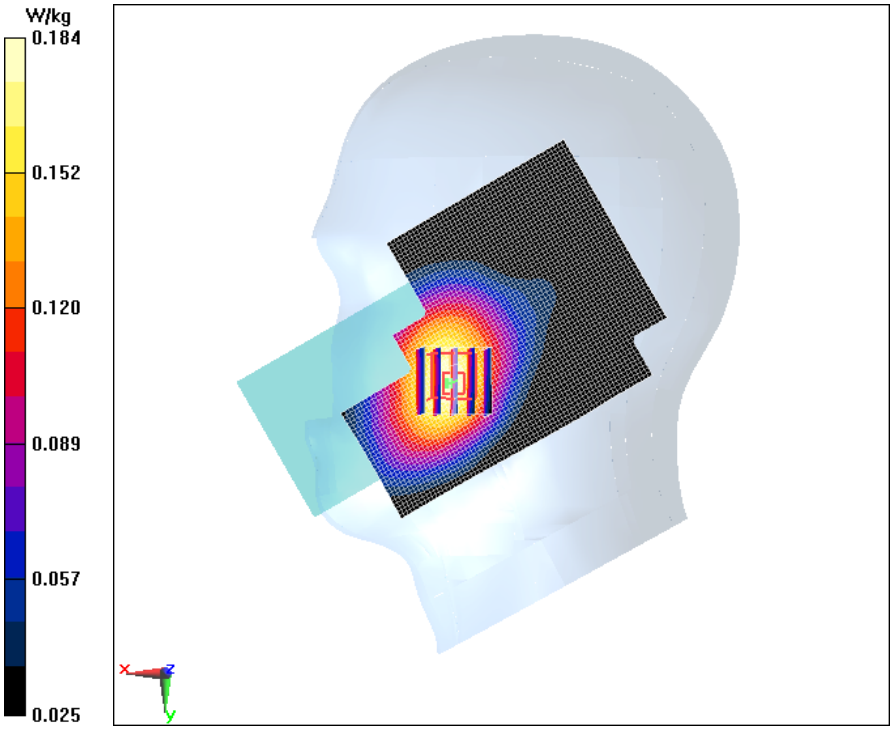


Fig.34 LTE Band 5 10M 1RB 25 offset Phantom Mode Middle

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 836.5 MHz; σ = 1.001 S/m; ε_r = 56.687; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 5 Professional 835MHz; Frequency: 836.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
LTE Band 5 10M 1RB 25 offset Phantom Mode Middle/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.333 W/kg
LTE Band 5 10M 1RB 25 offset Phantom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 12.58 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.547 W/kg
SAR(1 g) = 0.297 W/kg; SAR(10 g) = 0.167 W/kg
Maximum value of SAR (measured) = 0.331 W/kg

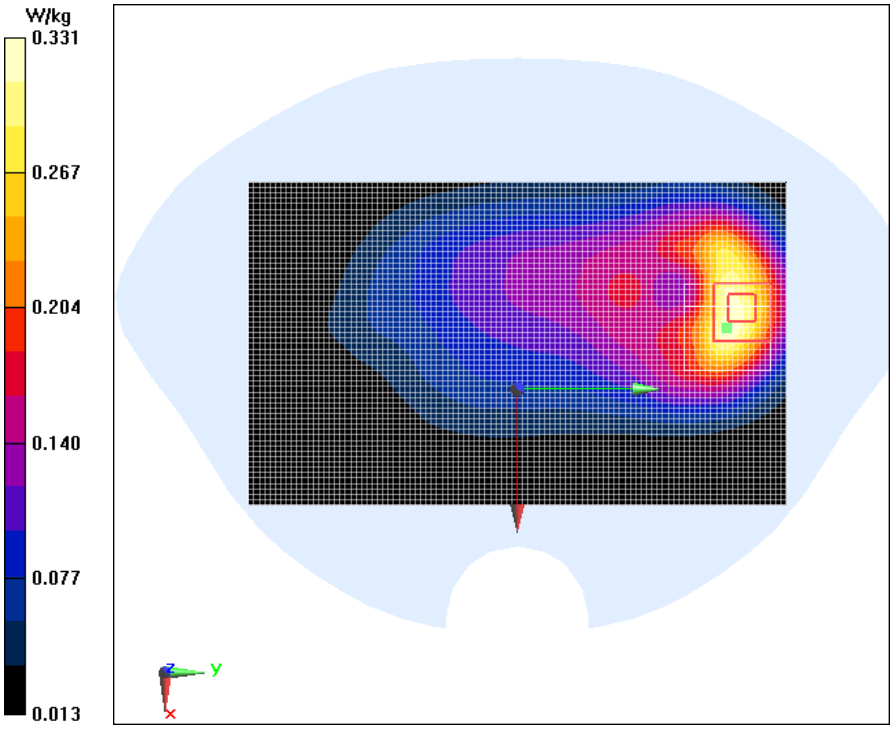


Fig.35 LTE Band 7 20M 1RB 50 offset Right Tilt Middle

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 2535 MHz; σ = 1.906 S/m; ε_r = 40.132; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 7 Professional 2600MHz; Frequency: 2535 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.46, 4.46, 4.46); Calibrated: 9/4/2018
LTE Band 7 20M 1RB 50 offset Right Tilt Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.281 W/kg
LTE Band 7 20M 1RB 50 offset Right Tilt Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.406 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.551 W/kg
SAR(1 g) = 0.255 W/kg; SAR(10 g) = 0.119 W/kg
Maximum value of SAR (measured) = 0.280 W/kg

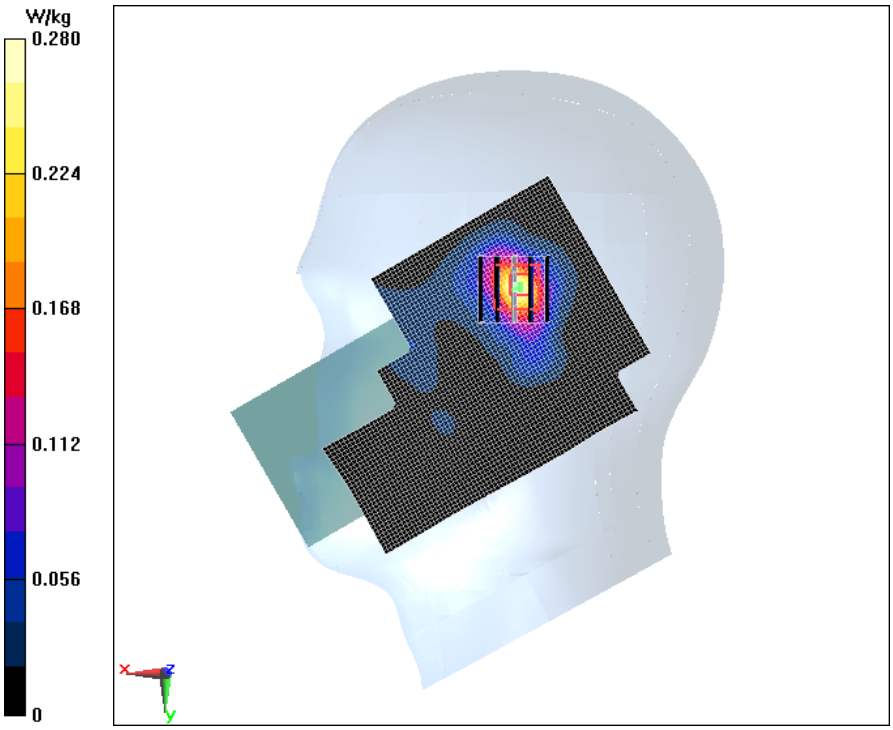


Fig.36 LTE Band 7 20M 1RB 50 offset Bottom Mode Middle

Date/Time: 2018/9/18
Electronics: DAE4 Sn1244
Medium parameters used: f = 2535 MHz; σ = 2.031 S/m; ε_r = 54.546; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 7 Professional 2600MHz; Frequency: 2535 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.19, 4.19, 4.19); Calibrated: 9/4/2018
LTE Band 7 20M 1RB 50 offset Bottom Mode Middle/Area Scan (31x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.450 W/kg
LTE Band 7 20M 1RB 50 offset Bottom Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.822 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.14 W/kg
SAR(1 g) = 0.518 W/kg; SAR(10 g) = 0.204 W/kg
Maximum of SAR (measured) = 0.538 W/kg

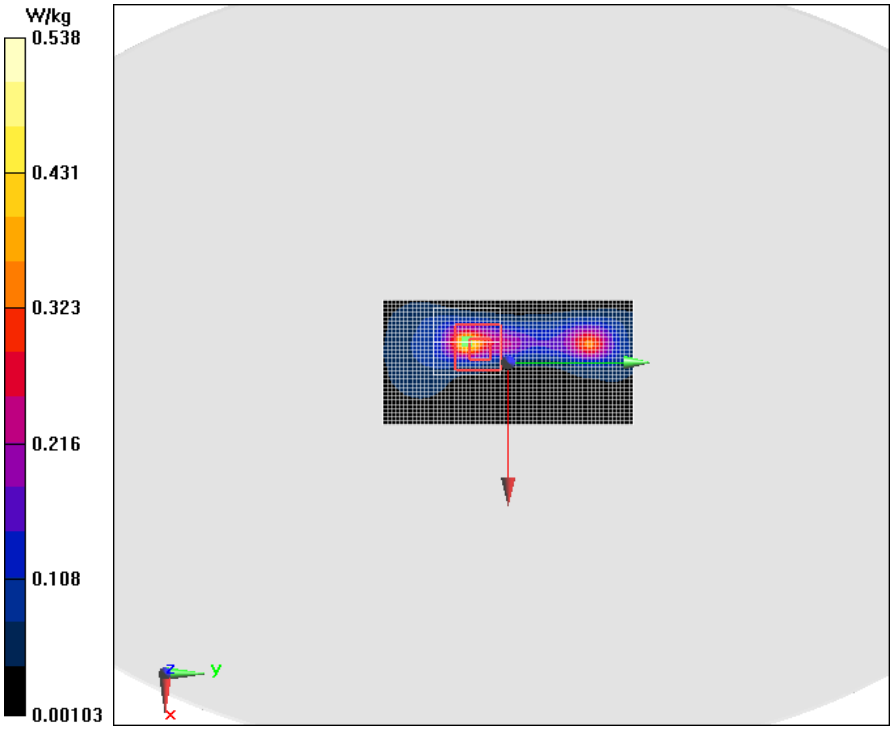


Fig.37 LTE Band 12 10M 1RB 25 offset Right Cheek Middle

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.84 S/m; ε_r = 42.183; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 12 Professional 750MHz; Frequency: 707.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.25, 6.25, 6.25); Calibrated: 8/31/2017
LTE Band 12 10M 1RB 25 offset Right Cheek Middle/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.130 W/kg
LTE Band 12 10M 1RB 25 offset Right Cheek Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.527 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 0.146 W/kg
SAR(1 g) = 0.124 W/kg; SAR(10 g) = 0.101 W/kg
Maximum value of SAR (measured) = 0.128 W/kg

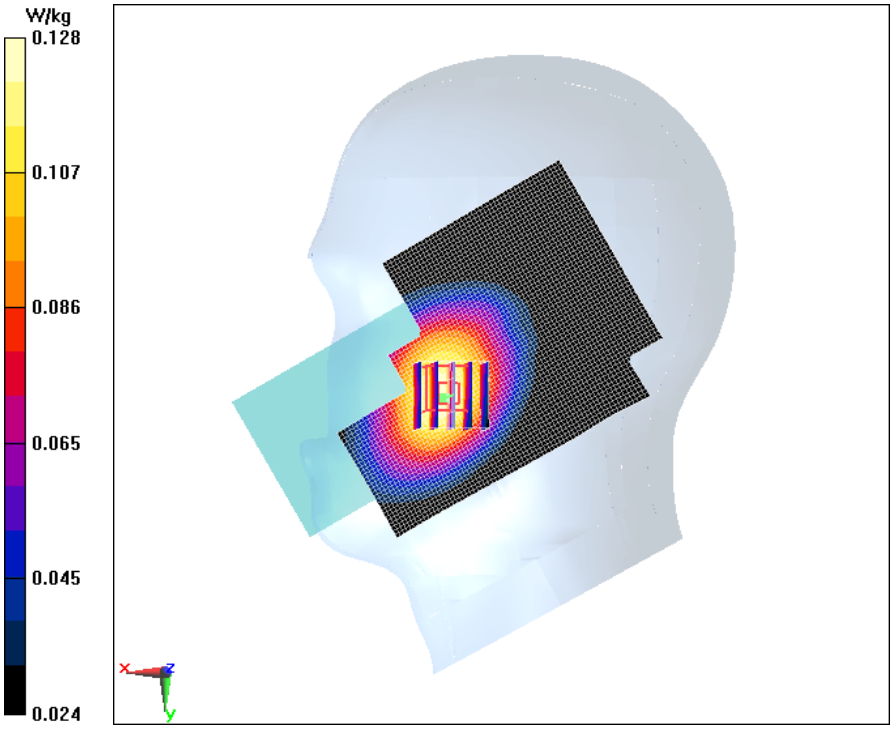


Fig.38 LTE Band12 10M 1RB 25 offset Right Mode Middle

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used (interpolated): f = 707.5 MHz; σ = 0.894 S/m; ε_r = 57.219; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 12 Professional 750MHz; Frequency: 707.5 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.34, 6.34, 6.34); Calibrated: 8/31/2017
LTE Band12 10M 1RB 25 offset Right Mode Middle/Area Scan (41x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.260 W/kg
LTE Band12 10M 1RB 25 offset Right Mode Middle/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.61 V/m; Power Drift = -0.27 dB
Peak SAR (extrapolated) = 0.344 W/kg
SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.179 W/kg
Maximum value of SAR (measured) = 0.264 W/kg

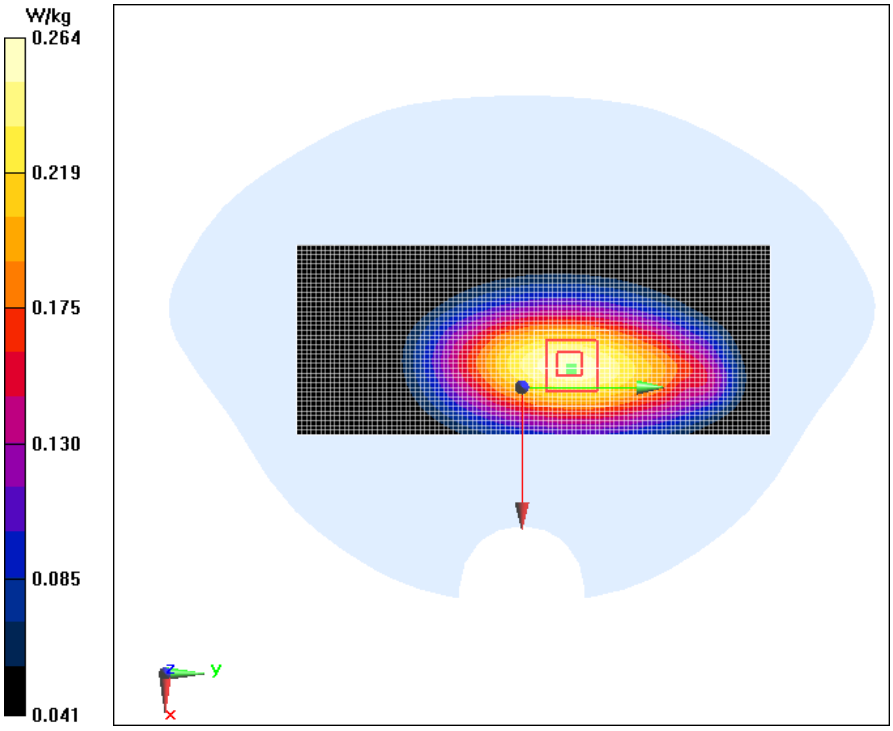


Fig.39 LTE Band 66 20M 1RB 50offset Right Cheek Low

Date/Time: 2018/9/10
Electronics: DAE4 Sn1244
Medium parameters used: f = 1720 MHz; σ = 1.305 S/m; ε_r = 40.995; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 66 Professional 1800MHz; Frequency: 1720 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.39, 5.39, 5.39); Calibrated: 9/4/2018
LTE Band 66 20M 1RB 50offset Right Cheek Low/Area Scan (101x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.757 W/kg
LTE Band 66 20M 1RB 50offset Right Cheek Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.328 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.973 W/kg
SAR(1 g) = 0.684 W/kg; SAR(10 g) = 0.446 W/kg
Maximum value of SAR (measured) = 0.728 W/kg

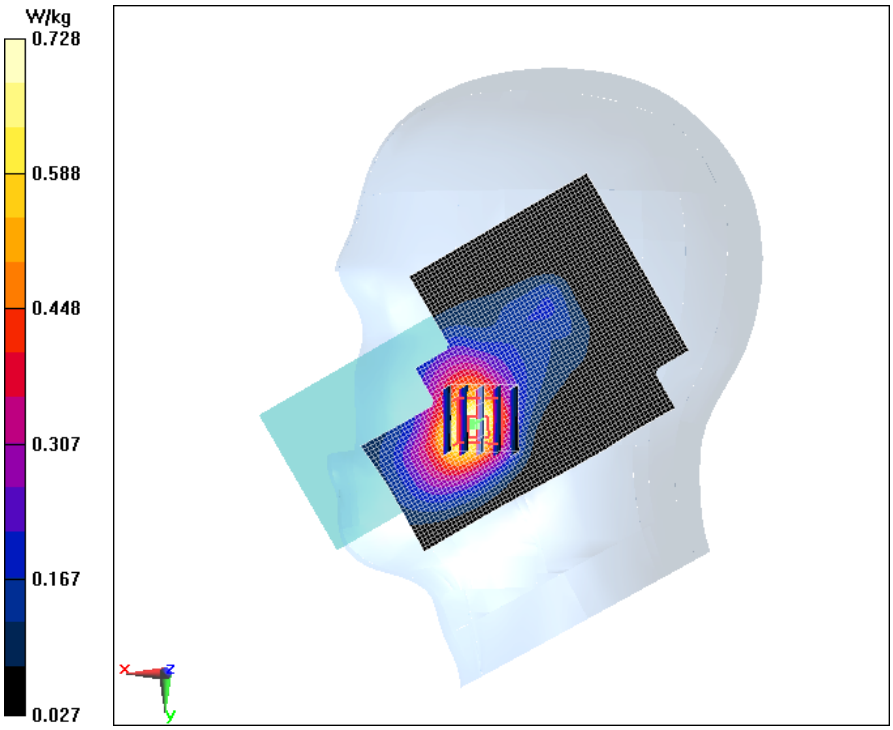


Fig.40 LTE Band 66 20M 1RB 50offset Phantom Mode Low

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1720 MHz; σ = 1.389 S/m; ε_r = 55.224; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: LTE Band 66 Professional 1800MHz; Frequency: 1720 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.99, 4.99, 4.99); Calibrated: 9/4/2018
LTE Band 66 20M 1RB 50offset Phantom Mode Low/Area Scan (61x101x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.563 W/kg
LTE Band 66 20M 1RB 50offset Phantom Mode Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.33 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.668 W/kg
SAR(1 g) = 0.498 W/kg; SAR(10 g) = 0.361 W/kg
Maximum value of SAR (measured) = 0.524 W/kg

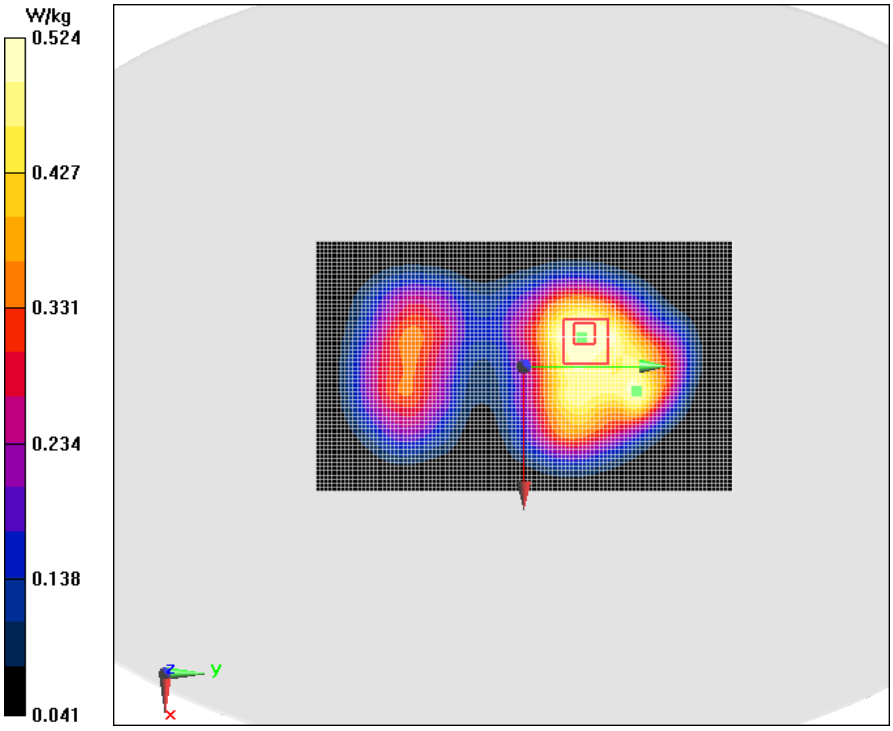


Fig.41 wifi Right Tilt Low

Date/Time: 2018/9/12
Electronics: DAE4 Sn1244
Medium parameters used: f = 2412 MHz; σ = 1.825 S/m; ε_r = 39.105; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: Wifi 2450 2600MHz; Frequency: 2412 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.74, 4.74, 4.74); Calibrated: 9/4/2018
wifi Right Tilt Low/Area Scan (111x71x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.410 W/kg
wifi Right Tilt Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 11.54 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.747 W/kg
SAR(1 g) = 0.369 W/kg; SAR(10 g) = 0.173 W/kg
Maximum value of SAR (measured) = 0.404 W/kg

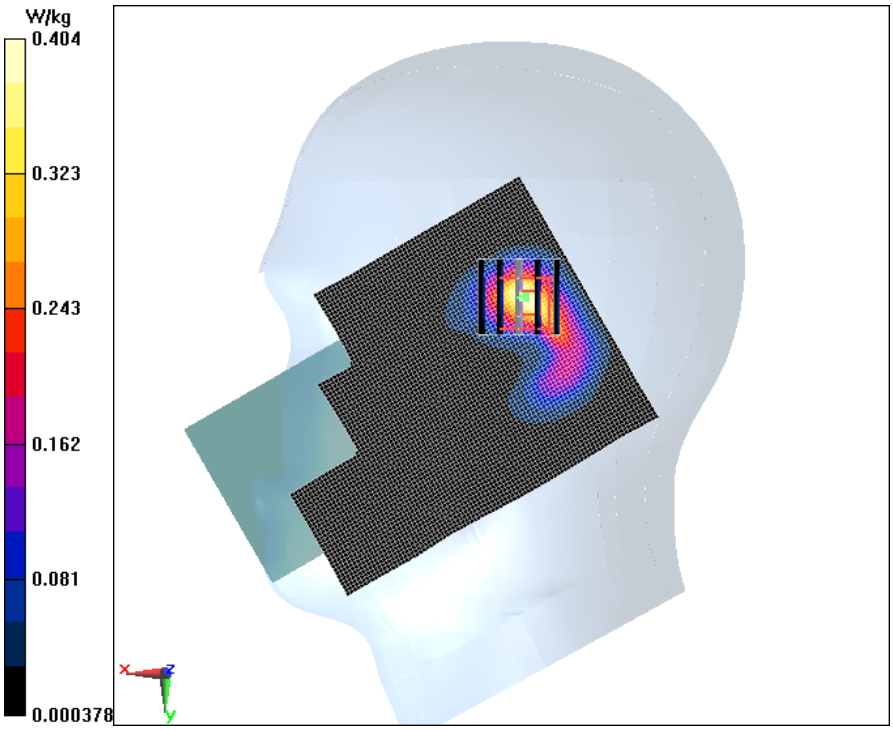
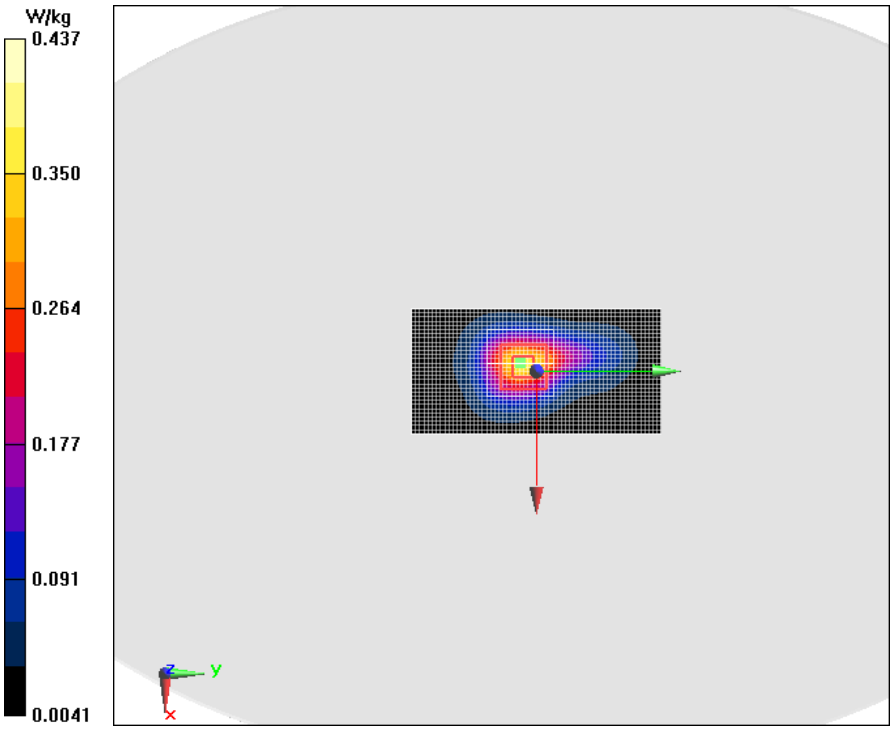


Fig.42 WIFI Top Mode Low

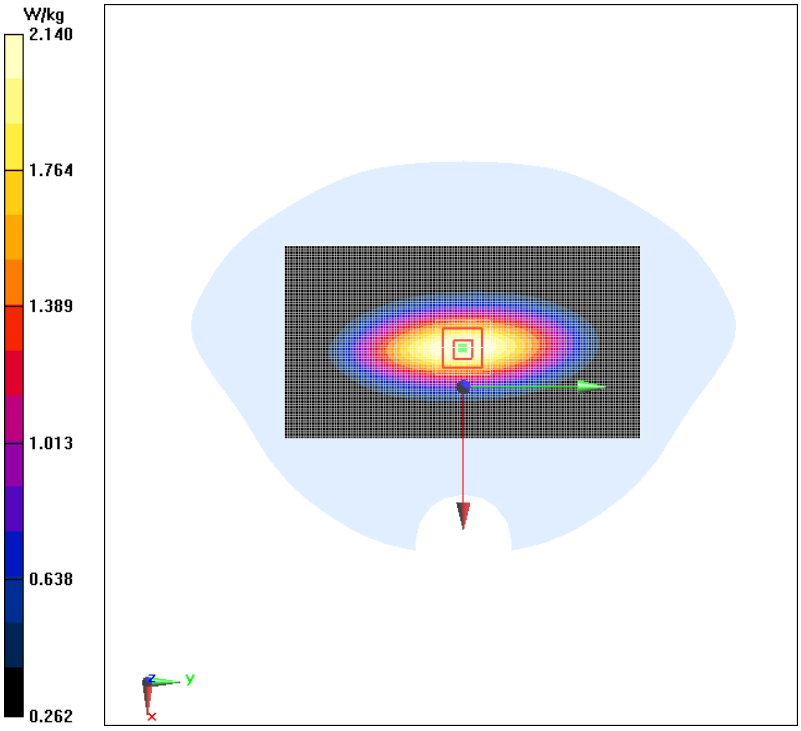
Date/Time: 2018/9/12
Electronics: DAE4 Sn1244
Medium parameters used: f = 2412 MHz; σ = 1.879 S/m; ε_r = 54.872; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: Wifi 2450 2600MHz; Frequency: 2412 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.41, 4.41, 4.41); Calibrated: 9/4/2018
WIFI Top Mode Low/Area Scan (31x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 0.374 W/kg
WIFI Top Mode Low/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.92 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.712 W/kg
SAR(1 g) = 0.396 W/kg; SAR(10 g) = 0.203 W/kg
Maximum value of SAR (measured) = 0.437 W/kg



ANNEX B. SYSTEM VALIDATION RESULTS

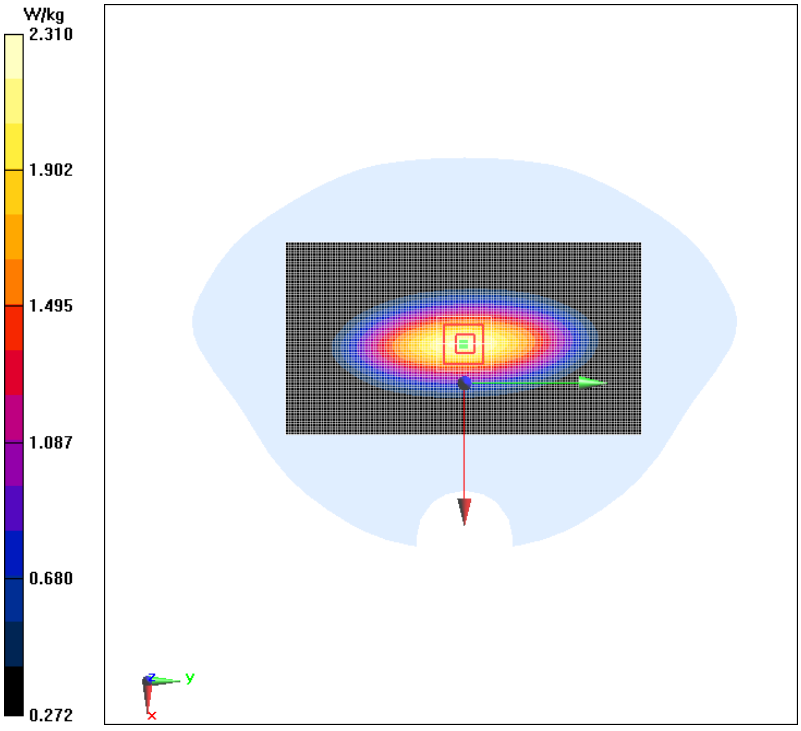
Head 750MHz

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used: f = 750 MHz; σ = 0.878 S/m; ε_r = 41.565; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 750MHz; Frequency: 750 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.25, 6.25, 6.25); Calibrated: 8/31/2017
System Validation/Area Scan (71x131x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 2.21 W/kg
System Validation/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 49.10 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 2.90 W/kg
SAR(1 g) = 2.11 W/kg; SAR(10 g) = 1.39 W/kg
Maximum value of SAR (measured) = 2.14 W/kg



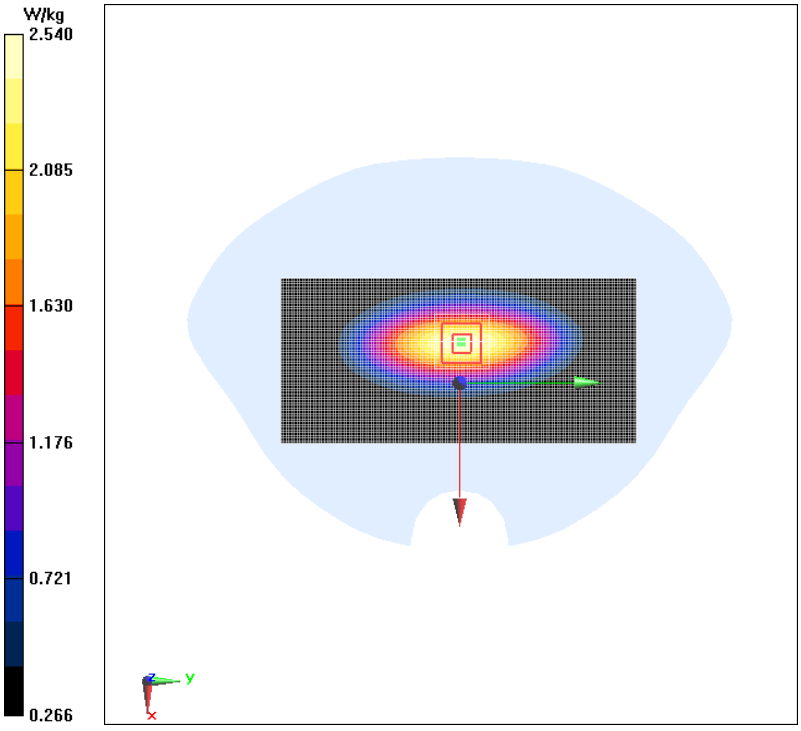
Body 750MHz

Date/Time: 2018/7/29
Electronics: DAE4 Sn1244
Medium parameters used: f = 750 MHz; σ = 0.936 S/m; ε_r = 56.721; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 750MHz; Frequency: 750 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.34, 6.34, 6.34); Calibrated: 8/31/2017
System Validation/Area Scan (71x131x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 2.23 W/kg
System Validation/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 48.75 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 3.12 W/kg
SAR(1 g) = 2.14 W/kg; SAR(10 g) = 1.45 W/kg
Maximum value of SAR (measured) = 2.31 W/kg



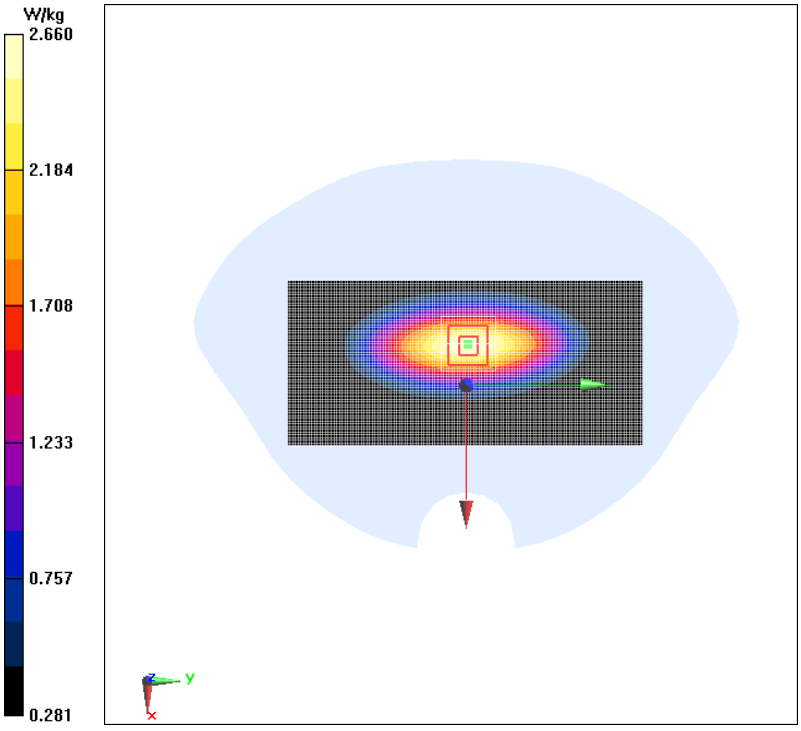
Head 835MHz

Date/Time: 2018/9/20
Electronics: DAE4 Sn1244
Medium parameters used: f = 835 MHz; σ = 0.933 S/m; ε_r = 42.694; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 900MHz; Frequency: 835 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.36, 6.36, 6.36); Calibrated: 9/4/2018
System Validation/Area Scan (61x131x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 2.50 W/kg
System Validation/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.98 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 3.40 W/kg
SAR(1 g) = 2.35 W/kg; SAR(10 g) = 1.54 W/kg
Maximum value of SAR (measured) = 2.54 W/kg



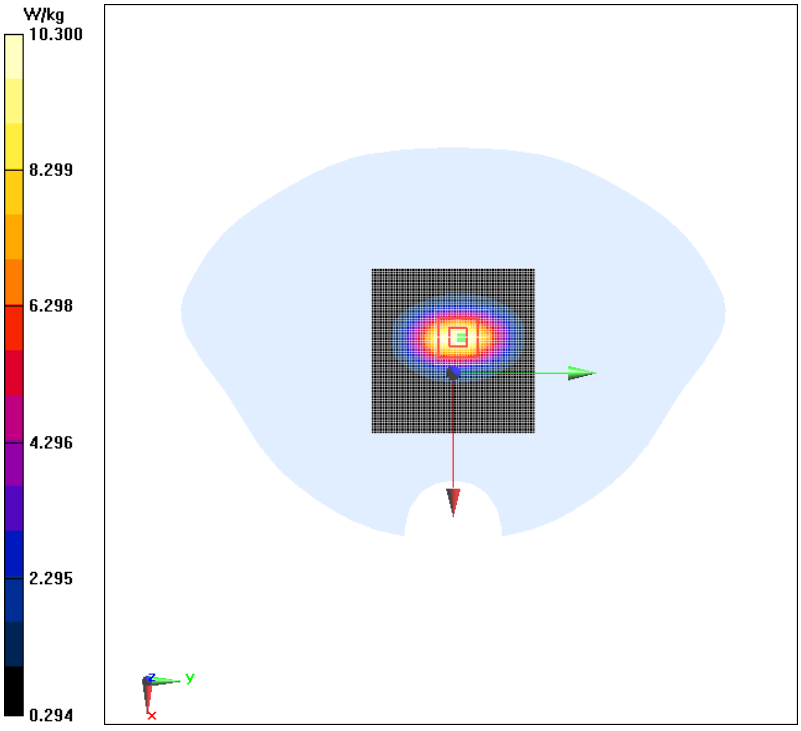
Body 835MHz

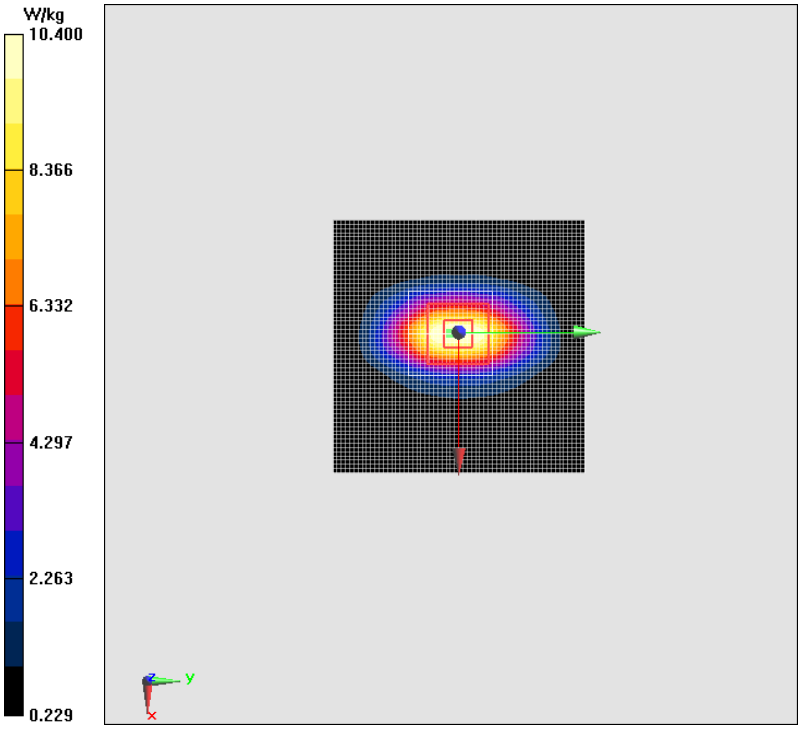
Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 835 MHz; σ = 0.998 S/m; ε_r = 56.705; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 835MHz; Frequency: 835 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(6.29, 6.29, 6.29); Calibrated: 9/4/2018
System Validation/Area Scan (61x131x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 2.65 W/kg
System Validation/Zoom Scan (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 50.91 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 3.54 W/kg
SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.55 W/kg
Maximum value of SAR (measured) = 2.66 W/kg



Head 1750MHz

Date/Time: 2018/9/10
Electronics: DAE4 Sn1244
Medium parameters used: f = 1750 MHz; σ = 1.334 S/m; ε_r = 40.893; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 1800MHz; Frequency: 1750 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(5.39, 5.39, 5.39); Calibrated: 9/4/2018
System check Validation/Area Scan (61x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 10.8 W/kg
System check Validation/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 88.77 V/m; Power Drift = 0.00 dB
Peak SAR (extrapolated) = 15.8 W/kg
SAR(1 g) = 9.3 W/kg; SAR(10 g) = 5.08 W/kg
Maximum value of SAR (measured) = 10.3 W/kg



Body 1750MHz

Date/Time: 2018/9/13
Electronics: DAE4 Sn1244
Medium parameters used: f = 1750 MHz; σ = 1.42 S/m; ε_r = 55.136; ρ = 1000 kg/m^3
Ambient Temperature:22.5 ℃ Liquid Temperature:22.5 ℃
Communication System: CW 1800MHz; Frequency: 1750 MHz; Duty Cycle: 1:1
Probe: ES3DV3 - SN3252ConvF(4.99, 4.99, 4.99); Calibrated: 9/4/2018
System check Validation/Area Scan (61x61x1):
Measurement grid: dx=10 mm, dy=10 mm
Maximum value of SAR (Measurement) = 10.7 W/kg
System check Validation/Zoom Scan (7x7x7) (7x7x7)/Cube 0:
Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.66 V/m; Power Drift = -0.02 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.32 W/kg; SAR(10 g) = 4.98 W/kg
Maximum value of SAR (measured) = 10.4 W/kg