

Table 14.24: SAR Values (LTE Band 7 - Body)

Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Ambient Temperature: 22.8°C					Liquid Temperature: 22.2°C				
Hotspot Test Data (10mm)									
2535	21100	1RB_Low	Front	/	19.92	20.5	0.416	0.48	0.07
2535	21100	50RB_Low	Front	/	19.53	20.5	0.307	0.38	0.07
2535	21100	1RB_Low	Rear	/	19.92	20.5	0.428	0.49	0.04
2535	21100	50RB_Low	Rear	/	19.53	20.5	0.410	0.51	0.07
2535	21100	1RB_Low	Left	/	19.92	20.5	0.207	0.24	0.01
2535	21100	50RB_Low	Left	/	19.53	20.5	0.185	0.23	0.03
2535	21100	1RB_Low	Right	/	19.92	20.5	0.058	0.07	0.09
2535	21100	50RB_Low	Right	/	19.53	20.5	0.053	0.07	-0.14
2535	21100	1RB_Low	Bottom	/	19.92	20.5	0.978	1.12	-0.02
2535	21100	50RB_Low	Bottom	/	19.53	20.5	0.888	1.11	-0.02
2560	21350	1RB_Low	Bottom	/	19.95	20.5	1.060	1.20	-0.06
2510	20850	1RB_Low	Bottom	Fig.24	20.24	20.5	1.170	1.24	0.02
2560	21350	50RB_Low	Bottom	/	19.43	20.5	0.903	1.16	-0.01
2510	20850	50RB_Low	Bottom	/	19.84	20.5	0.957	1.11	0.02
2535	21100	100RB	Bottom	/	19.41	20.5	0.906	1.16	0.02
Body-Worn Test Data (15mm)									
836.5	20525	1RB_Low	Front	/	23.76	24.5	0.668	0.79	0.05
836.5	20525	50RB_Low	Front	/	22.37	23.5	0.468	0.61	0.05
836.5	20525	1RB_Low	Rear	/	23.76	24.5	0.744	0.88	0.00
836.5	20525	50RB_Low	Rear	/	22.37	23.5	0.523	0.68	-0.08
2560	21350	1RB_Low	Rear	/	23.71	24.5	0.750	0.90	0.10
2510	20850	1RB_Low	Rear	/	24.07	24.5	0.710	0.78	0.10
2535	21100	100RB	Rear	/	22.37	23.5	0.448	0.58	0.10
The worst case with B2									
836.5	20525	1RB_Low	Rear	/	23.58	24	0.645	0.71	-0.04
The worst case with 0mm									
Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift(dB)
MHz	Ch.								
2510	20850	1RB_Low	Bottom	/	20.24	20.5	1.800	2.25	0.03

Table 14.25: SAR Values (LTE Band 12 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.5°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
707.5	23095	1RB_Mid	Left Touch	Fig.25	22.80	24	0.099	0.13	0.03
707.5	23095	25RB_Mid	Left Touch	/	22.08	23	0.083	0.10	-0.19
707.5	23095	1RB_Mid	Left Tilt	/	22.80	24	0.062	0.08	0.05
707.5	23095	25RB_Mid	Left Tilt	/	22.08	23	0.052	0.06	0.15
707.5	23095	1RB_Mid	Right Touch	/	22.80	24	0.090	0.12	0.05
707.5	23095	25RB_Mid	Right Touch	/	22.08	23	0.080	0.10	0.11
707.5	23095	1RB_Mid	Right Tilt	/	22.80	24	0.048	0.06	0.05
707.5	23095	25RB_Mid	Right Tilt	/	22.08	23	0.040	0.05	0.15
The worst case with B2									
707.5	23095	1RB_Mid	Left Touch	/	22.80	24	0.095	0.13	-0.08

Table 14.26: SAR Values (LTE Band 12 - Body)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.8°C		Liquid Temperature: 22.2°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
707.5	23095	1RB_Mid	Front	/	22.80	24	0.170	0.22	0.04
707.5	23095	25RB_Mid	Front	/	22.08	23	0.141	0.17	0.02
707.5	23095	1RB_Mid	Rear	Fig.26	22.80	24	0.238	0.31	0.05
707.5	23095	25RB_Mid	Rear	/	22.08	23	0.177	0.22	0.04
707.5	23095	1RB_Mid	Left	/	22.80	24	0.105	0.14	-0.01
707.5	23095	25RB_Mid	Left	/	22.08	23	0.082	0.10	-0.03
707.5	23095	1RB_Mid	Right	/	22.80	24	0.165	0.22	-0.02
707.5	23095	25RB_Mid	Right	/	22.08	23	0.134	0.17	-0.02
707.5	23095	1RB_Mid	Bottom	/	22.80	24	0.113	0.15	0.05
707.5	23095	25RB_Mid	Bottom	/	22.08	23	0.094	0.12	0.05
Body-Worn Test Data (15mm)									
707.5	23095	1RB_Mid	Front	/	22.80	24	0.097	0.13	0.02
707.5	23095	25RB_Mid	Front	/	22.08	23	0.079	0.10	-0.01
707.5	23095	1RB_Mid	Rear	/	22.80	24	0.113	0.15	0.03
707.5	23095	25RB_Mid	Rear	/	22.08	23	0.085	0.11	0.02
The worst case with B2									
707.5	23095	1RB_Mid	Rear	/	22.80	24	0.173	0.23	0.04

Table 14.27: SAR Values (LTE Band 13 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.5°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
782	23230	1RB_Low	Left Touch	/	23.29	24	0.124	0.15	0.04
782	23230	25RB_Low	Left Touch	/	22.18	23	0.096	0.12	0.09
782	23230	1RB_Low	Left Tilt	/	23.29	24	0.075	0.09	0.18
782	23230	25RB_Low	Left Tilt	/	22.18	23	0.057	0.07	0.07
782	23230	1RB_Low	Right Touch	/	23.29	24	0.126	0.15	0.09
782	23230	25RB_Low	Right Touch	/	22.18	23	0.100	0.12	0.07
782	23230	1RB_Low	Right Tilt	/	23.29	24	0.056	0.07	0.03
782	23230	25RB_Low	Right Tilt	/	22.18	23	0.045	0.05	0.07
The worst case with B2									
782	23230	1RB_Low	Right Touch	Fig.27	23.29	24	0.137	0.17	-0.07

Table 14.28: SAR Values (LTE Band 13 - Body)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.8°C		Liquid Temperature: 22.2°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
782	23230	1RB_Mid	Front	/	23.29	24	0.234	0.28	0.04
782	23230	25RB_Mid	Front	/	22.18	23	0.188	0.23	0.11
782	23230	1RB_Mid	Rear	Fig.28	23.29	24	0.304	0.36	0.05
782	23230	25RB_Mid	Rear	/	22.18	23	0.219	0.26	0.04
782	23230	1RB_Mid	Left	/	23.29	24	0.138	0.16	0.02
782	23230	25RB_Mid	Left	/	22.18	23	0.108	0.13	0.00
782	23230	1RB_Mid	Right	/	23.29	24	0.239	0.28	0.05
782	23230	25RB_Mid	Right	/	22.18	23	0.191	0.23	-0.05
782	23230	1RB_Mid	Bottom	/	23.29	24	0.173	0.20	0.07
782	23230	25RB_Mid	Bottom	/	22.18	23	0.136	0.16	0.06
Body-Worn Test Data (15mm)									
782	23230	1RB_Mid	Front	/	23.29	24	0.139	0.16	0.08
782	23230	25RB_Mid	Front	/	22.18	23	0.112	0.14	0.14
782	23230	1RB_Mid	Rear	/	23.29	24	0.160	0.19	0.07
782	23230	25RB_Mid	Rear	/	22.18	23	0.125	0.15	0.05
The worst case with B2									
782	23230	1RB_Mid	Rear	/	23.29	24	0.251	0.30	0.07

Table 14.29: SAR Values (LTE Band 25 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.5°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
1882.5	26365	1RB_Low	Left Touch	Fig.29	22.43	23.5	0.123	0.16	0.03
1882.5	26365	50RB_Mid	Left Touch	/	21.43	22.5	0.095	0.12	0.09
1882.5	26365	1RB_Low	Left Tilt	/	22.43	23.5	0.055	0.07	0.04
1882.5	26365	50RB_Mid	Left Tilt	/	21.43	22.5	0.037	0.05	0.05
1882.5	26365	1RB_Low	Right Touch	/	22.43	23.5	0.106	0.14	-0.09
1882.5	26365	50RB_Mid	Right Touch	/	21.43	22.5	0.082	0.10	0.04
1882.5	26365	1RB_Low	Right Tilt	/	22.43	23.5	0.038	0.05	0.04
1882.5	26365	50RB_Mid	Right Tilt	/	21.43	22.5	0.028	0.04	0.02
The worst case with B2									
1882.5	26365	1RB_Low	Left Touch	/	22.43	23.5	0.121	0.15	0.04

Table 14.30: SAR Values (LTE Band 25 - Body)

Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Ambient Temperature: 22.8°C					Liquid Temperature: 22.2°C				
Hotspot Test Data (10mm)									
1882.5	26365	1RB_Low	Front	/	19.41	20.5	0.418	0.54	0.05
1882.5	26365	50RB_High	Front	/	19.41	20.5	0.423	0.54	0.02
1882.5	26365	1RB_Low	Rear	/	19.41	20.5	0.436	0.56	0.05
1882.5	26365	50RB_High	Rear	/	19.41	20.5	0.441	0.57	0.09
1882.5	26365	1RB_Low	Left	/	19.41	20.5	0.058	0.07	0.06
1882.5	26365	50RB_High	Left	/	19.41	20.5	0.055	0.07	0.10
1882.5	26365	1RB_Low	Right	/	19.41	20.5	0.063	0.08	0.03
1882.5	26365	50RB_High	Right	/	19.41	20.5	0.063	0.08	0.18
1882.5	26365	1RB_Low	Bottom	/	19.41	20.5	0.855	1.10	-0.07
1882.5	26365	50RB_High	Bottom	/	19.41	20.5	0.872	1.12	-0.11
1905	26590	1RB_Low	Bottom	/	19.49	20.5	0.903	1.14	-0.06
1860	26140	1RB_Low	Bottom	/	19.45	20.5	0.780	0.99	-0.09
1905	26590	50RB_Low	Bottom	Fig.30	19.39	20.5	0.922	1.19	-0.07
1860	26140	50RB_Low	Bottom	/	19.44	20.5	0.778	0.99	-0.08
1882.5	26365	100RB	Bottom	/	19.44	20.5	0.872	1.11	-0.07
Body-Worn Test Data (15mm)									
1882.5	26365	1RB_Low	Front	/	22.43	23.5	0.746	0.95	0.10
1882.5	26365	50RB_Mid	Front	/	21.43	22.5	0.604	0.77	0.05
1882.5	26365	1RB_Low	Rear	/	22.43	23.5	0.837	1.07	0.05
1882.5	26365	50RB_Mid	Rear	/	21.43	22.5	0.675	0.86	0.03
1905	26590	1RB_Low	Front	/	22.43	23.5	0.812	1.04	0.05
1860	26140	1RB_Low	Front	/	22.41	23.5	0.704	0.90	0.10
1882.5	26365	100RB	Front	/	21.48	22.5	0.573	0.72	-0.09
1905	26590	1RB_Low	Rear	/	22.43	23.5	0.882	1.13	0.01
1860	26140	1RB_Low	Rear	/	22.41	23.5	0.768	0.99	0.06
1905	26590	50RB_Low	Rear	/	21.42	22.5	0.731	0.94	0.00
1860	26140	50RB_Low	Rear	/	21.46	22.5	0.622	0.79	0.08
1882.5	26365	100RB	Rear	/	21.48	22.5	0.606	0.77	0.05
The worst case with B2									
1905	26590	50RB_Low	Bottom	/	19.39	20.5	0.914	1.18	0.02

Table 14.31: SAR Values (LTE Band 26 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.5°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
831.5	26865	1RB_High	Left Touch	/	23.67	24	0.144	0.16	0.04
831.5	26865	36RB_Low	Left Touch	/	22.58	23	0.092	0.10	-0.03
831.5	26865	1RB_High	Left Tilt	/	23.67	24	0.104	0.11	0.08
831.5	26865	36RB_Low	Left Tilt	/	22.58	23	0.071	0.08	0.03
831.5	26865	1RB_High	Right Touch	/	23.67	24	0.198	0.21	0.03
831.5	26865	36RB_Low	Right Touch	/	22.58	23	0.126	0.14	0.15
831.5	26865	1RB_High	Right Tilt	/	23.67	24	0.096	0.10	0.03
831.5	26865	36RB_Low	Right Tilt	/	22.58	23	0.061	0.07	0.07
The worst case with B2									
831.5	26865	1RB_High	Right Touch	Fig.31	23.67	24	0.199	0.21	0.10

Table 14.32: SAR Values (LTE Band 26 - Body)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.8°C		Liquid Temperature: 22.2°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
831.5	26865	1RB_High	Front	/	23.67	24	0.367	0.40	0.05
831.5	26865	36RB_Low	Front	/	22.58	23	0.255	0.28	0.06
831.5	26865	1RB_High	Rear	Fig.32	23.67	24	0.411	0.44	-0.13
831.5	26865	36RB_Low	Rear	/	22.58	23	0.321	0.35	0.05
831.5	26865	1RB_High	Left	/	23.67	24	0.081	0.09	0.02
831.5	26865	36RB_Low	Left	/	22.58	23	0.065	0.07	0.07
831.5	26865	1RB_High	Right	/	23.67	24	0.207	0.22	-0.01
831.5	26865	36RB_Low	Right	/	22.58	23	0.156	0.17	0.00
831.5	26865	1RB_High	Bottom	/	23.67	24	0.245	0.26	0.08
831.5	26865	36RB_Low	Bottom	/	22.58	23	0.170	0.19	0.09
Body-Worn Test Data (15mm)									
831.5	26865	1RB_High	Front	/	23.67	24	0.199	0.21	0.16
831.5	26865	36RB_Low	Front	/	22.58	23	0.135	0.15	0.09
831.5	26865	1RB_High	Rear	/	23.67	24	0.214	0.23	-0.10
831.5	26865	36RB_Low	Rear	/	22.58	23	0.148	0.16	0.10
The worst case with B2									
831.5	26865	1RB_High	Rear	/	23.67	24	0.402	0.43	0.05

Table 14.33: SAR Values (LTE Band 41 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.5°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
2593	40620	1RB_Mid	Left Touch	/	22.86	23.5	0.055	0.06	-0.10
2593	40620	50RB_Mid	Left Touch	/	21.94	22.5	0.041	0.05	0.01
2593	40620	1RB_Mid	Left Tilt	/	22.86	23.5	0.049	0.06	0.08
2593	40620	50RB_Mid	Left Tilt	/	21.94	22.5	0.013	0.01	0.04
2593	40620	1RB_Mid	Right Touch	/	22.86	23.5	0.047	0.05	0.01
2593	40620	50RB_Mid	Right Touch	/	21.94	22.5	0.040	0.05	0.00
2593	40620	1RB_Mid	Right Tilt	/	22.86	23.5	0.054	0.06	0.04
2593	40620	50RB_Mid	Right Tilt	/	21.94	22.5	0.045	0.05	0.03
The worst case with CA									
2549.5	40185	1RB_Mid	Left Touch	/	22.83	23.5	0.048	0.06	0.05
The worst case with PC2									
2593	40620	1RB_Mid	Left Touch	Fig.33	25.44	26.5	0.066	0.08	-0.09
The worst case with B2									
2593	40620	1RB_Mid	Left Touch	/	22.86	23.5	0.046	0.05	0.02

Note: Per **TCB workshop May 2017** Guidance, all SAR tests were performed using power class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see **ANNEX G** for linearity results.

Table 14.34: SAR Values (LTE Band 41 - Body)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.8°C		Liquid Temperature: 22.2°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
2593	40620	1RB_Mid	Front	/	19.97	21	0.295	0.37	0.10
2593	40620	50RB_Mid	Front	/	20.00	21	0.300	0.38	0.07
2593	40620	1RB_Mid	Rear	/	19.97	21	0.340	0.43	0.05
2593	40620	50RB_Mid	Rear	/	20.00	21	0.343	0.43	0.07
2593	40620	1RB_Mid	Left	/	19.97	21	0.136	0.17	0.06
2593	40620	50RB_Mid	Left	/	20.00	21	0.135	0.17	0.12
2593	40620	1RB_Mid	Right	/	19.97	21	0.049	0.06	0.02
2593	40620	50RB_Mid	Right	/	20.00	21	0.048	0.06	0.07
2593	40620	1RB_Mid	Bottom	/	19.97	21	0.617	0.78	0.08
2593	40620	50RB_Mid	Bottom	Fig.34	20.00	21	0.627	0.79	0.07
Hotspot - The worst case with CA									
2593	40620	1RB_Mid	Bottom	/	19.88	21	0.606	0.78	0.11
Hotspot - The worst case with PC2									
2593	40620	50RB_Mid	Bottom	/	19.57	20.5	0.454	0.56	-0.18
Body-Worn Test Data (15mm)									
2593	40620	1RB_Mid	Front	/	22.86	23.5	0.335	0.39	0.06
2593	40620	50RB_Mid	Front	/	21.94	22.5	0.272	0.31	0.05
2593	40620	1RB_Mid	Rear	/	22.86	23.5	0.413	0.48	0.07
2593	40620	50RB_Mid	Rear	/	21.94	22.5	0.286	0.33	0.07
Body-Worn - The worst case with CA									
2549.5	40185	1RB_Mid	Rear	/	22.83	23.5	0.388	0.45	-0.03
Body-Worn - The worst case with PC2									
2593	40620	50RB_Mid	Rear	/	25.44	26.5	0.476	0.61	0.05
The worst case with B2									
2593	40620	50RB_Mid	Bottom	/	20.00	21	0.469	0.59	0.02

Note: Per **TCB workshop May 2017** Guidance, all SAR tests were performed using power class 3. SAR with power class 2 at the available duty factor was additionally performed for the power class 3 configuration with the highest SAR configuration for each exposure conditions. Please see **ANNEX G** for linearity results.

Table 14.35: SAR Values (LTE Band 66 - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.2°C		Liquid Temperature: 21.7°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
1745	132322	1RB_High	Left Touch	/	24.52	25	0.148	0.17	0.02
1745	132322	50RB_High	Left Touch	/	23.52	24	0.117	0.13	0.03
1745	132322	1RB_High	Left Tilt	/	24.52	25	0.069	0.08	-0.05
1745	132322	50RB_High	Left Tilt	/	23.52	24	0.057	0.06	0.03
1745	132322	1RB_High	Right Touch	/	24.52	25	0.087	0.10	0.03
1745	132322	50RB_High	Right Touch	/	23.52	24	0.076	0.09	0.15
1745	132322	1RB_High	Right Tilt	/	24.52	25	0.085	0.09	0.03
1745	132322	50RB_High	Right Tilt	/	23.52	24	0.066	0.07	0.11
The worst case with B2									
1745	132322	1RB_High	Left Touch	Fig.35	24.52	25	0.172	0.19	0.01

Table 14.36: SAR Values (LTE Band 66 - Body)

Frequency		Test Mode	Test Position	Figure No. / Note	Ambient Temperature: 22.2°C		Liquid Temperature: 21.7°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
Hotspot Test Data (10mm)									
1745	132322	1RB_High	Front	/	19.58	20.5	0.407	0.50	0.03
1745	132322	50RB_High	Front	/	19.54	20.5	0.379	0.47	0.04
1745	132322	1RB_High	Rear	/	19.58	20.5	0.504	0.62	0.03
1745	132322	50RB_High	Rear	/	19.54	20.5	0.557	0.69	0.06
1745	132322	1RB_High	Left	/	19.58	20.5	0.075	0.09	0.02
1745	132322	50RB_High	Left	/	19.54	20.5	0.071	0.09	0.03
1745	132322	1RB_High	Right	/	19.58	20.5	0.047	0.06	0.17
1745	132322	50RB_High	Right	/	19.54	20.5	0.044	0.06	0.19
1745	132322	1RB_High	Bottom	/	19.58	20.5	0.740	0.91	-0.08
1745	132322	50RB_High	Bottom	/	19.54	20.5	0.904	1.13	-0.01
1770	132572	1RB_High	Bottom	/	19.45	20.5	0.826	1.05	-0.05
1720	132072	1RB_High	Bottom	/	19.61	20.5	0.654	0.80	-0.07
1770	132572	50RB_Mid	Bottom	/	19.61	20.5	0.866	1.06	-0.01
1720	132072	50RB_Mid	Bottom	/	19.50	20.5	0.661	0.83	0.01
1745	132322	100RB	Bottom	/	19.52	20.5	0.824	1.03	0.30
Body-Worn Test Data (15mm)									
1745	132322	1RB_Mid	Front	/	24.52	25	0.711	0.79	-0.03
1745	132322	50RB_Low	Front	/	23.52	24	0.577	0.64	-0.06
1745	132322	1RB_Mid	Rear	/	24.52	25	0.894	1.00	0.02
1745	132322	50RB_Low	Rear	/	23.52	24	0.731	0.82	0.02
1770	132572	1RB_High	Rear	Fig.36	24.57	25	1.000	1.10	-0.05
1720	132072	1RB_High	Rear	/	24.67	25	0.867	0.94	0.01
1770	132572	50RB_Mid	Rear	/	23.56	24	0.811	0.90	0.12
1720	132072	50RB_Mid	Rear	/	23.54	24	0.675	0.75	0.05
1745	132322	100RB	Rear	/	23.51	24	0.714	0.80	0.03
The worst case with B2									
1745	132322	50RB_High	Bottom	/	19.54	20.5	0.727	0.91	0.10

Table 14.37: SAR Values (LTE Band 71 - Head)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.7°C				
Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
683	133322	1RB_Low	Left Touch	/	23.08	24	0.017	0.02	-0.08
683	133322	50RB_Low	Left Touch	/	21.99	23	0.011	0.01	0.08
683	133322	1RB_Low	Left Tilt	/	23.08	24	0.010	0.01	0.03
683	133322	50RB_Low	Left Tilt	/	21.99	23	0.004	0.01	0.08
683	133322	1RB_Low	Right Touch	Fig.37	23.08	24	0.021	0.03	0.04
683	133322	50RB_Low	Right Touch	/	21.99	23	0.013	0.02	0.06
683	133322	1RB_Low	Right Tilt	/	23.08	24	0.007	0.01	0.07
683	133322	50RB_Low	Right Tilt	/	21.99	23	0.006	0.01	0.01
The worst case with B2									
683	133322	1RB_Low	Right Touch	/	23.08	24	0.019	0.02	0.03

Table 14.38: SAR Values (LTE Band 71 - Body)

Ambient Temperature: 22.2°C					Liquid Temperature: 21.7°C				
Frequency		Test Mode	Test Position	Figure No. / Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Hotspot Test Data (10mm)									
683	133322	1RB_Low	Front	Fig.38	23.08	24	0.073	0.09	0.03
683	133322	50RB_Low	Front	/	21.99	23	0.053	0.07	0.07
683	133322	1RB_Low	Rear	/	23.08	24	0.069	0.09	0.16
683	133322	50RB_Low	Rear	/	21.99	23	0.049	0.06	0.04
683	133322	1RB_Low	Left	/	23.08	24	0.012	0.02	0.13
683	133322	50RB_Low	Left	/	21.99	23	0.009	0.01	0.07
683	133322	1RB_Low	Right	/	23.08	24	0.020	0.02	0.08
683	133322	50RB_Low	Right	/	21.99	23	0.014	0.02	0.06
683	133322	1RB_Low	Bottom	/	23.08	24	0.042	0.05	0.16
683	133322	50RB_Low	Bottom	/	21.99	23	0.029	0.04	-0.06
Body-Worn Test Data (15mm)									
683	133322	1RB_Low	Front	/	23.08	24	0.035	0.04	0.02
683	133322	50RB_Low	Front	/	21.99	23	0.022	0.03	0.03
683	133322	1RB_Low	Rear	/	23.08	24	0.037	0.05	-0.08
683	133322	50RB_Low	Rear	/	21.99	23	0.026	0.03	0.02
The worst case with B2									
683	133322	1RB_Low	Front	/	23.08	24	0.070	0.09	0.05

14.2 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.

Table 14.39: SAR Values (WLAN 2.4G - Head)

Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Ambient Temperature: 22.6°C Liquid Temperature: 22.0°C									
2412	1	802.11 b	Left Touch	/	17.15	18	0.536	0.65	-0.02
2412	1	802.11 b	Left Tilt	/	17.15	18	0.517	0.63	0.08
2412	1	802.11 b	Right Touch	/	17.15	18	0.203	0.25	0.00
2412	1	802.11 b	Right Tilt	/	17.15	18	0.250	0.30	0.02
The worst case with B2									
2412	1	802.11 b	Left Touch	Fig.39	17.15	18	0.642	0.78	0.18

Note1: 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.

Table 14.40: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch					
2412	1	Left Touch	100%	100%	0.78	0.78

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

Table 14.41: SAR Values (WLAN 2.4G - Body)

Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Ambient Temperature: 22.6°C Liquid Temperature: 22.0°C									
Test Data (10mm)									
2412	1	802.11 b	Front	/	17.15	18	0.073	0.09	-0.04
2412	1	802.11 b	Rear	/	17.15	18	0.092	0.11	-0.01
2412	1	802.11 b	Right	/	17.15	18	0.038	0.05	0.02
2412	1	802.11 b	Top	/	17.15	18	0.196	0.24	0.01
Test Data (15mm)									
2412	1	802.11 b	Front	/	17.15	18	0.052	0.06	0.01
2412	1	802.11 b	Rear	/	17.15	18	0.066	0.08	-0.04
The worst case with B2									
2412	1	802.11 b	Top	Fig.40	17.15	18	0.243	0.30	0.09

Note1: 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..

Table 14.42: SAR Values (WLAN - Body) – 802.11b (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.					
Ambient Temperature: 22.6°C Liquid Temperature: 22.0°C						
2412	1	Top	100%	100%	0.30	0.30

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

14.3 WLAN Evaluation for 5G

Table 14.43: SAR Values (WLAN 5G - Head)

Frequency		Test Mode	Test Position	Figure No.	Ambient Temperature: 22.6°C		Liquid Temperature: 22.0°C		
MHz	Ch.				Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
U-NII-2A									
5260	52	802.11 a	Left Touch	/	13.18	14	0.684	0.83	0.01
5260	52	802.11 a	Left Tilt	/	13.18	14	0.667	0.81	0.05
5260	52	802.11 a	Right Touch	/	13.18	14	0.589	0.71	0.09
5260	52	802.11 a	Right Tilt	/	13.18	14	0.611	0.74	0.02
5280	56	802.11 a	Left Touch	/	13.07	14	0.733	0.91	0.03
5280	56	802.11 a	Left Tilt	/	13.07	14	0.611	0.76	0.02
U-NII-2C									
5700	140	802.11 a	Left Touch	/	13.38	14	0.840	0.97	0.02
5700	140	802.11 a	Left Tilt	/	13.38	14	0.647	0.75	0.09
5700	140	802.11 a	Right Touch	/	13.38	14	0.489	0.56	0.09
5700	140	802.11 a	Right Tilt	/	13.38	14	0.448	0.52	0.02
5580	116	802.11 a	Left Touch	/	13.25	14	1.060	1.26	0.07
5500	100	802.11 a	Left Touch	/	13.10	14	1.020	1.25	0.06
U-NII-3									
5825	165	802.11 a	Left Touch	/	14.95	15.5	0.629	0.71	0.09
5825	165	802.11 a	Left Tilt	/	14.95	15.5	0.608	0.69	0.02
5825	165	802.11 a	Right Touch	/	14.95	15.5	0.349	0.40	0.03
5825	165	802.11 a	Right Tilt	/	14.95	15.5	0.377	0.43	-0.08
The worst case with B2									
5580	116	802.11 a	Left Touch	Fig.41	13.25	14	1.150	1.37	-0.05

Note1: U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

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.

Table 14.44: SAR Values (WLAN - Head) – 802.11a (Scaled Reported SAR)

Frequency		Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.					
5580	116	Left Touch	100%	100%	1.37	1.37

Table 14.45: SAR Values (WLAN 5G - Body)

Frequency		Test Mode	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift(dB)
MHz	Ch.								
Ambient Temperature: 22.9°C Liquid Temperature: 22.4°C									
U-NII-2A Test Data (10mm)									
5260	52	802.11 a	Front	/	13.18	14	0.116	0.14	0.01
5260	52	802.11 a	Rear	/	13.18	14	0.184	0.22	0.00
5260	52	802.11 a	Right	/	13.18	14	0.034	0.04	0.03
5260	52	802.11 a	Top	/	13.18	14	0.034	0.04	0.03
U-NII-2A Test Data (15mm)									
5260	52	802.11 a	Front	/	13.18	14	0.074	0.09	0.03
5260	52	802.11 a	Rear	/	13.18	14	0.097	0.12	0.00
U-NII-2C Test Data (10mm)									
5700	140	802.11 a	Front	/	13.38	14	0.183	0.21	0.00
5700	140	802.11 a	Rear	/	13.38	14	0.429	0.49	0.00
5700	140	802.11 a	Right	/	13.38	14	0.067	0.08	0.09
5700	140	802.11 a	Top	/	13.38	14	0.166	0.19	0.01
U-NII-2C Test Data (15mm)									
5700	140	802.11 a	Front	/	13.38	14	0.122	0.14	0.00
5700	140	802.11 a	Rear	/	13.38	14	0.272	0.31	0.00
U-NII-3 Test Data (10mm)									
5825	165	802.11 a	Front	/	14.95	15.5	0.126	0.14	0.00
5825	165	802.11 a	Rear	Fig.42	14.95	15.5	0.480	0.54	0.00
5825	165	802.11 a	Right	/	14.95	15.5	0.073	0.08	0.00
5825	165	802.11 a	Top	/	14.95	15.5	0.145	0.16	-0.06
U-NII-3 Test Data (15mm)									
5825	165	802.11 a	Front	/	14.95	15.5	0.070	0.08	0.09
5825	165	802.11 a	Rear	/	14.95	15.5	0.268	0.30	-0.03
The worst case with B2									
5825	165	802.11 a	Rear	/	14.95	15.5	0.341	0.39	-0.07

Note1: U-NII-1 and U-NII-2A bands have the same specified maximum output and tolerance; SAR is measured for U-NII-2A band first. Adjusted SAR of U-NII-2A band is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.

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.

Table 14.46: SAR Values (WLAN - Body) – 802.11a (Scaled Reported SAR)

Frequency		Test Position	Ambient Temperature: 22.6°C		Liquid Temperature: 22.0°C	
MHz	Ch.		Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
5825	165	Rear	100%	100%	0.54	0.54

15 SAR Measurement Variability

SAR measurement variability must be assessed for each frequency band, which is determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media are required for SAR measurements in a frequency band, the variability measurement procedures should be applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium.

The following procedures are applied to determine if repeated measurements are required.

- 1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.
- 2) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
- 3) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
- 4) Perform a third repeated measurement only if the original, first or second repeated measurement is ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.

Table 15.1: SAR Measurement Variability for Body – GSM1900

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1850.2	512	Bottom	1.17	1.14	1.03	/

Table 15.2: SAR Measurement Variability for Body – CDMA BC1

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1908.75	1175	Bottom	1.13	1.11	1.02	/

Table 15.3: SAR Measurement Variability for Body – WCDMA 1900

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1907.6	9538	Bottom	1.02	0.995	1.03	/

Table 15.4: SAR Measurement Variability for Body – WCDMA 1700

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1752.6	1513	Bottom	0.822	0.809	1.02	/

Table 15.5: SAR Measurement Variability for Body – LTE Band 2

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1900	19100	Bottom	1.18	1.13	1.04	/

Table 15.6: SAR Measurement Variability for Body – LTE Band 4

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1745	20300	Bottom	0.976	0.954	1.02	/

Table 15.7: SAR Measurement Variability for Body – LTE Band 7

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
2510	20850	Bottom	1.17	1.16	1.01	/

Table 15.8: SAR Measurement Variability for Body – LTE Band 25

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1905	26590	Bottom	0.922	0.908	1.02	/

Table 15.9: SAR Measurement Variability for Body – LTE Band 66

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
1770	132572	Rear	1.00	0.986	1.01	/

Table 15.10: SAR Measurement Variability for Head – WIFI 5G

Frequency		Test Position	Original	1 st Repeated	Ratio	2 nd Repeated
MHz	Ch.		SAR (W/kg)	SAR (W/kg)		SAR (W/kg)
5580	116	Left Touch	1.15	1.11	1.04	/

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	12	N	2	1	1	6.0	6.0	∞
2	Isotropy	B	7.4	R	$\sqrt{3}$	1	1	4.3	4.3	∞
3	Boundary effect	B	1.1	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	1.0	N	1	1	1	1.0	1.0	∞
7	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
8	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
9	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
10	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
11	Probe positioned mech. restrictions	B	0.35	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	5
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	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	9
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	0.96	0.78	9
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.4	10.3	95.5
Expanded uncertainty (Confidence interval of 95 %)		$u_e = 2u_c$						20.8	20.6	

16.2 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	12	N	2	1	1	6.0	6.0	∞
2	Isotropy	B	7.4	R	$\sqrt{3}$	1	1	4.3	4.3	∞
3	Boundary effect	B	1.1	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	1.0	N	1	1	1	1.0	1.0	∞
7	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
8	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
9	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
10	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
11	Probe positioned mech. Restrictions	B	0.35	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	5
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	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	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	0.96	0.78	521
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						11.1	11.0	257
Expanded uncertainty (Confidence interval of 95 %)		$u_e = 2u_c$						22.2	22.0	

16.3 Measurement Uncertainty for Normal SAR Tests (3GHz~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	13	N	2	1	1	6.5	6.5	∞
2	Isotropy	B	7.4	R	$\sqrt{3}$	1	1	4.3	4.3	∞
3	Boundary effect	B	2.3	R	$\sqrt{3}$	1	1	1.3	1.3	∞
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	1.0	N	1	1	1	1.0	1.0	∞
7	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
8	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
9	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
10	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
11	Probe positioned mech. restrictions	B	0.71	R	$\sqrt{3}$	1	1	0.4	0.4	∞
12	Probe positioning with respect to phantom shell	B	5.7	R	$\sqrt{3}$	1	1	3.3	3.3	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	5
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	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
18	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	9
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	0.96	0.78	9
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						11.3	11.2	95.5
Expanded uncertainty (Confidence interval of 95 %)		$u_e = 2u_c$						22.6	22.4	

16.4 Measurement Uncertainty for Fast SAR Tests (3GHz~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	13	N	2	1	1	6.5	6.5	∞
2	Isotropy	B	7.4	R	$\sqrt{3}$	1	1	4.3	4.3	∞
3	Boundary effect	B	2.3	R	$\sqrt{3}$	1	1	1.3	1.3	∞
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	1.0	N	1	1	1	1.0	1.0	∞
7	Response time	B	0.0	R	$\sqrt{3}$	1	1	0.0	0.0	∞
8	Integration time	B	1.7	R	$\sqrt{3}$	1	1	1.0	1.0	∞
9	RF ambient conditions-noise	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
10	RF ambient conditions-reflection	B	3.0	R	$\sqrt{3}$	1	1	1.7	1.7	∞
11	Probe positioned mech. Restrictions	B	0.71	R	$\sqrt{3}$	1	1	0.4	0.4	∞
12	Probe positioning with respect to phantom shell	B	5.7	R	$\sqrt{3}$	1	1	3.3	3.3	∞
13	Post-processing	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
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	5
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	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞

20	Liquid conductivity (meas.)	A	1.3	N	1	0.64	0.43	0.83	0.56	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	0.96	0.78	521	
Combined standard uncertainty		$u_c = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$							13.9	13.9	257
Expanded uncertainty (Confidence interval of 95 %)		$u_e = 2u_c$							27.8	27.7	

17 Main Test Instruments

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	Agilent E5071C	MY46103759	2018-11-16	One year
02	Dielectric probe	85070E	MY44300317	/	/
03	Power meter	E4418B	MY50000366	2018-12-14	One year
04	Power sensor	E9304A	MY50000188		
05	Power meter	NRP	101460	2019-02-04	One year
06	Power sensor	NRP-Z91	100553		
07	Signal Generator	E8257D	MY47461211	2018-06-04	One year
08	Amplifier	VTL5400	0404	/	/
09	E-field Probe	SPEAG EX3DV4	3633	2019-02-26	One year
10	DAE	SPEAG DAE4	786	2019-01-11	One year
11	Dipole Validation Kit	SPEAG D750V3	1163	2016-09-19	Three year
12	Dipole Validation Kit	SPEAG D835V2	4d057	2018-10-09	Three year
13	Dipole Validation Kit	SPEAG D1750V2	1152	2016-09-09	Three year
14	Dipole Validation Kit	SPEAG D1900V2	5d088	2018-10-24	Three year
15	Dipole Validation Kit	SPEAG D2450V2	873	2018-10-26	Three year
16	Dipole Validation Kit	SPEAG D2550V2	1058	2018-08-24	Three year
17	Dipole Validation Kit	SPEAG D5GHzV2	1238	2016-09-21	Three year
18	Radio Communication Analyzer	Anristu MT8820C	6201341853	2019-03-07	One year
19	BTS	E5515C	GB46110722	2019-01-18	One year
20	Radio Communication Analyzer	Anristu MT8821C	6201563766	2018-05-17	One year

END OF REPORT BODY

ANNEX A Graph Results

GSM850 Head

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.359$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GSM (0) Frequency: 836.6 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.182 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 5.787 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.227 W/kg

SAR(1 g) = 0.171 W/kg; SAR(10 g) = 0.129 W/kg

Maximum value of SAR (measured) = 0.189 W/kg

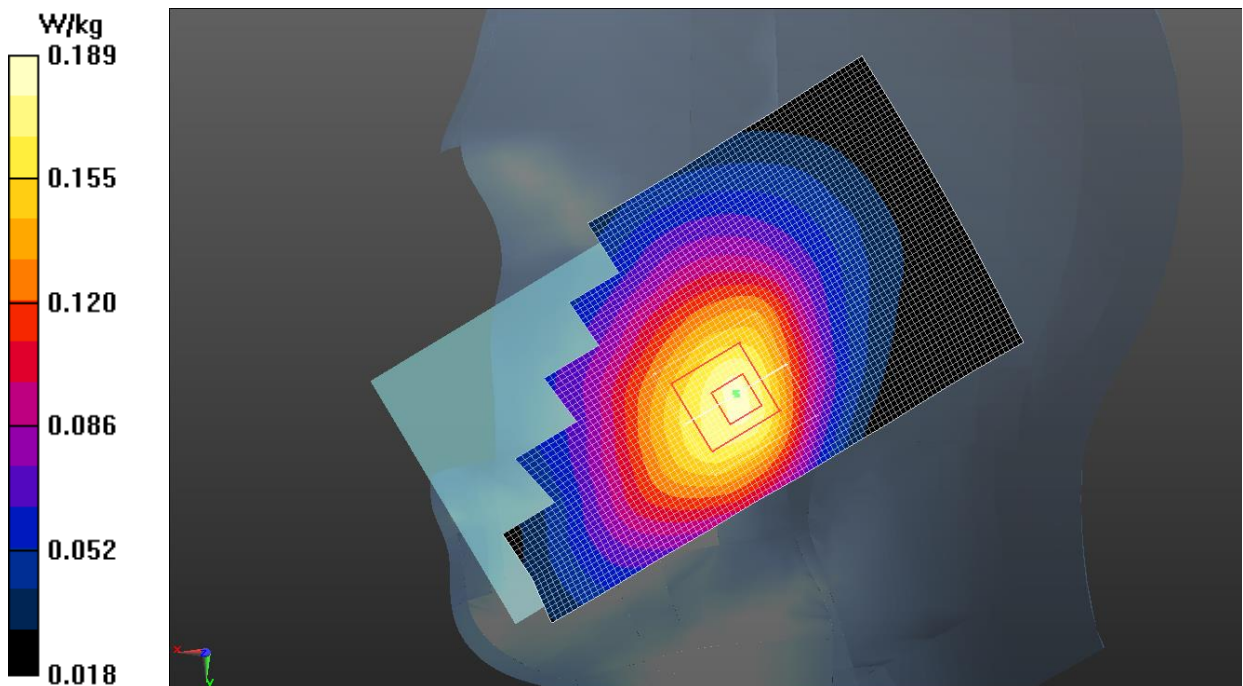


Fig.1 GSM 850

GSM850 Body

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.6$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.359$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 4Txslot (0) Frequency: 836.6 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Rear Side Middle/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.580 W/kg

Rear Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.34 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 0.809 W/kg

SAR(1 g) = 0.456 W/kg; SAR(10 g) = 0.265 W/kg

Maximum value of SAR (measured) = 0.557 W/kg

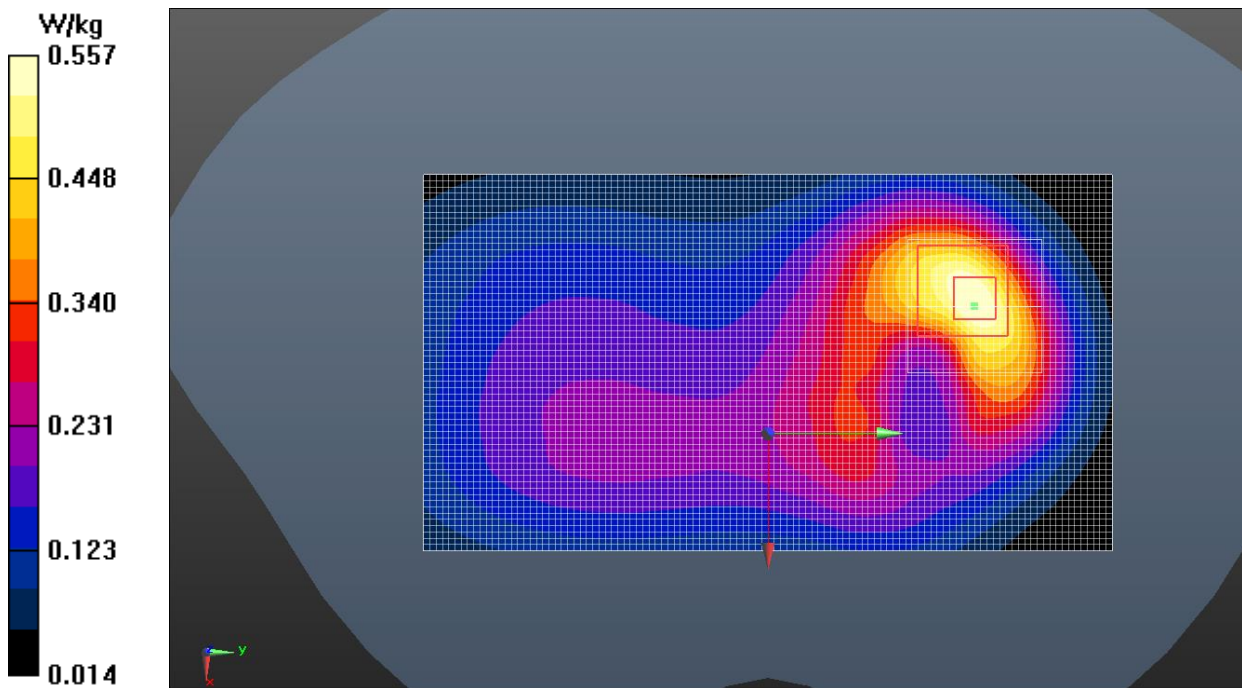


Fig.2 GSM 850

GSM1900 Head

Date: 2019-4-11

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.364 \text{ S/m}$; $\epsilon_r = 40.763$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GSM (0) Frequency: 1880 MHz Duty Cycle: 1:8.3

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.0997 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 2.970 V/m ; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.156 W/kg

SAR(1 g) = 0.095 W/kg ; SAR(10 g) = 0.056 W/kg

Maximum value of SAR (measured) = 0.114 W/kg

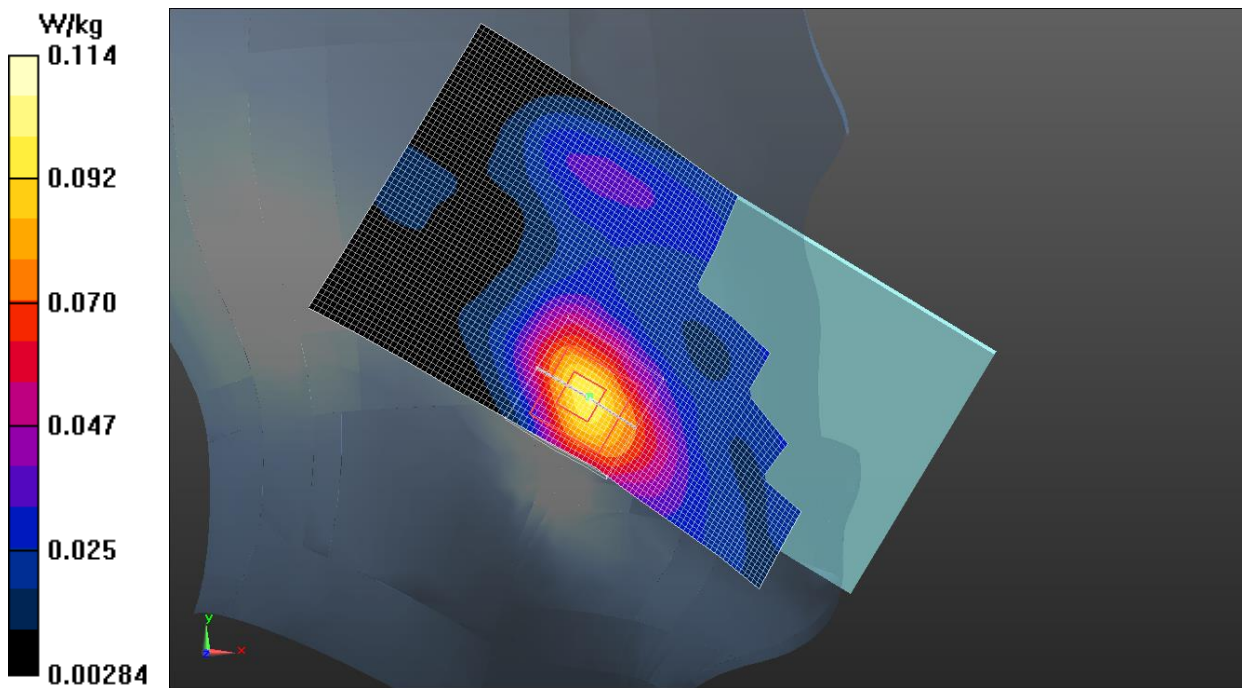


Fig.3 GSM 1900

GSM1900 Body

Date: 2019-4-12

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used (interpolated): $f = 1850.2$ MHz; $\sigma = 1.333$ S/m; $\epsilon_r = 40.665$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, GPRS 4Txslot (0) Frequency: 1850.2 MHz Duty Cycle: 1:2

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Bottom Side Low/Area Scan (41x71x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.54 W/kg

Bottom Side Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 30.73 V/m; Power Drift = -0.05 dB

Peak SAR (extrapolated) = 2.04 W/kg

SAR(1 g) = 1.17 W/kg; SAR(10 g) = 0.632 W/kg

Maximum value of SAR (measured) = 1.29 W/kg

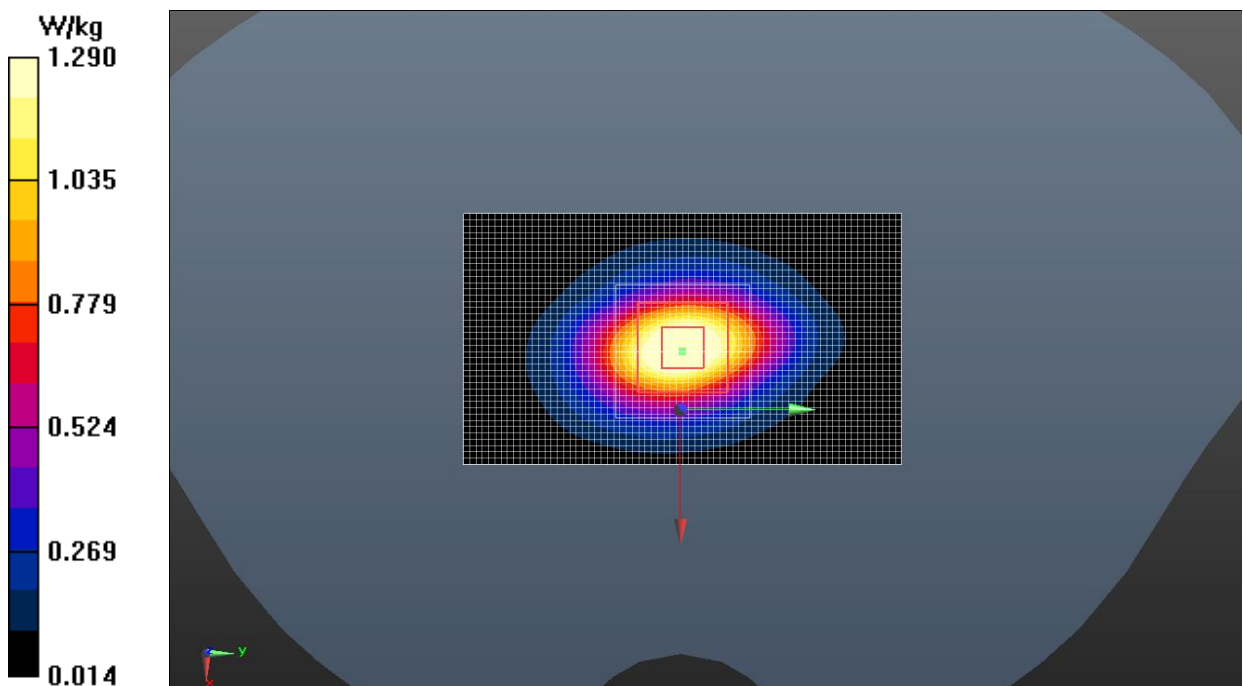


Fig.4 GSM 1900

CDMA BC0 Head

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.52$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.359$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.250 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.864 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.321 W/kg

SAR(1 g) = 0.241 W/kg; SAR(10 g) = 0.178 W/kg

Maximum value of SAR (measured) = 0.283 W/kg

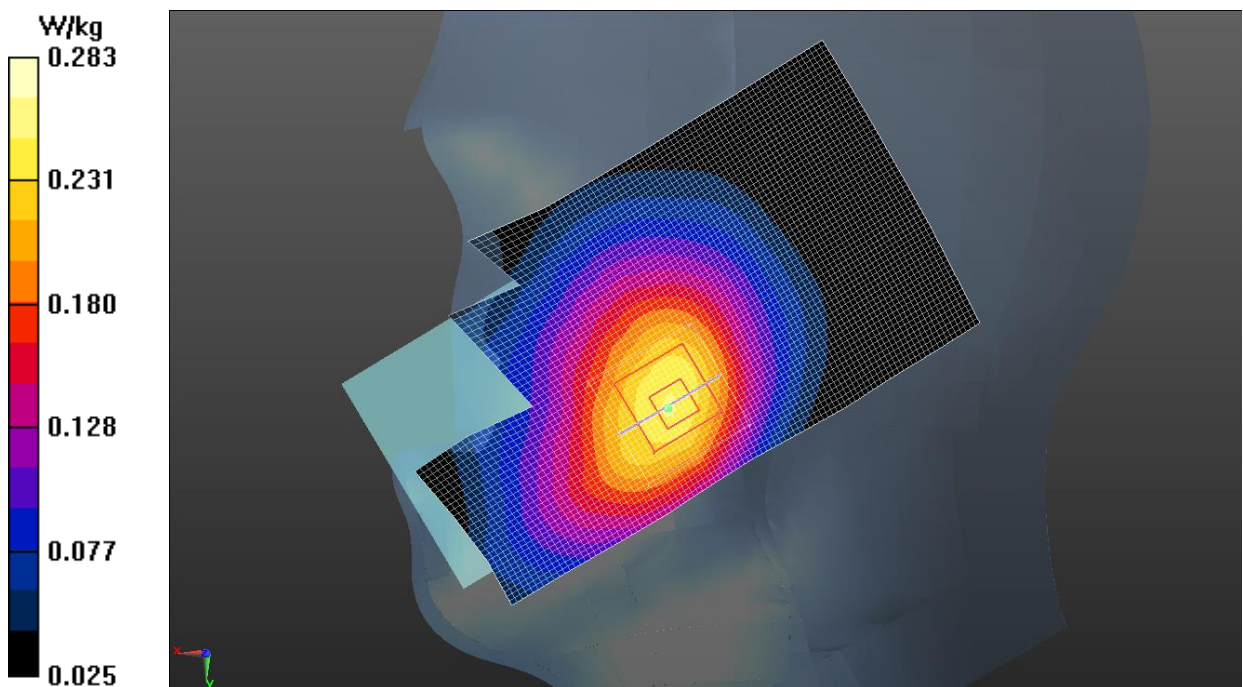


Fig.5 CDMA BC0

CDMA BC0 Body

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.52$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.359$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 836.52 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Front Side Middle/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.517 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 13.72 V/m; Power Drift = 0.03 dB

Peak SAR (extrapolated) = 0.772 W/kg

SAR(1 g) = 0.436 W/kg; SAR(10 g) = 0.259 W/kg

Maximum value of SAR (measured) = 0.594 W/kg

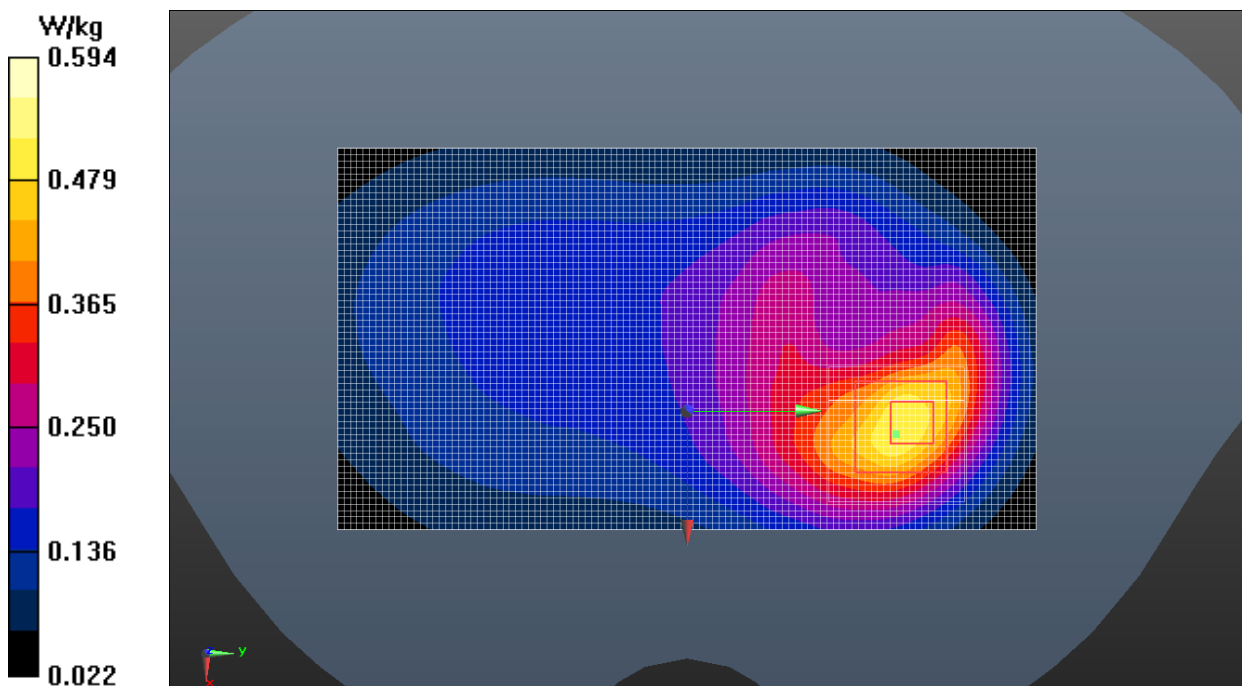


Fig.6 CDMA BC0

CDMA BC1 Head

Date: 2019-4-11

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.763$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Left Cheek Middle/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.163 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.777 V/m; Power Drift = 0.07 dB

Peak SAR (extrapolated) = 0.237 W/kg

SAR(1 g) = 0.150 W/kg; SAR(10 g) = 0.091 W/kg

Maximum value of SAR (measured) = 0.189 W/kg

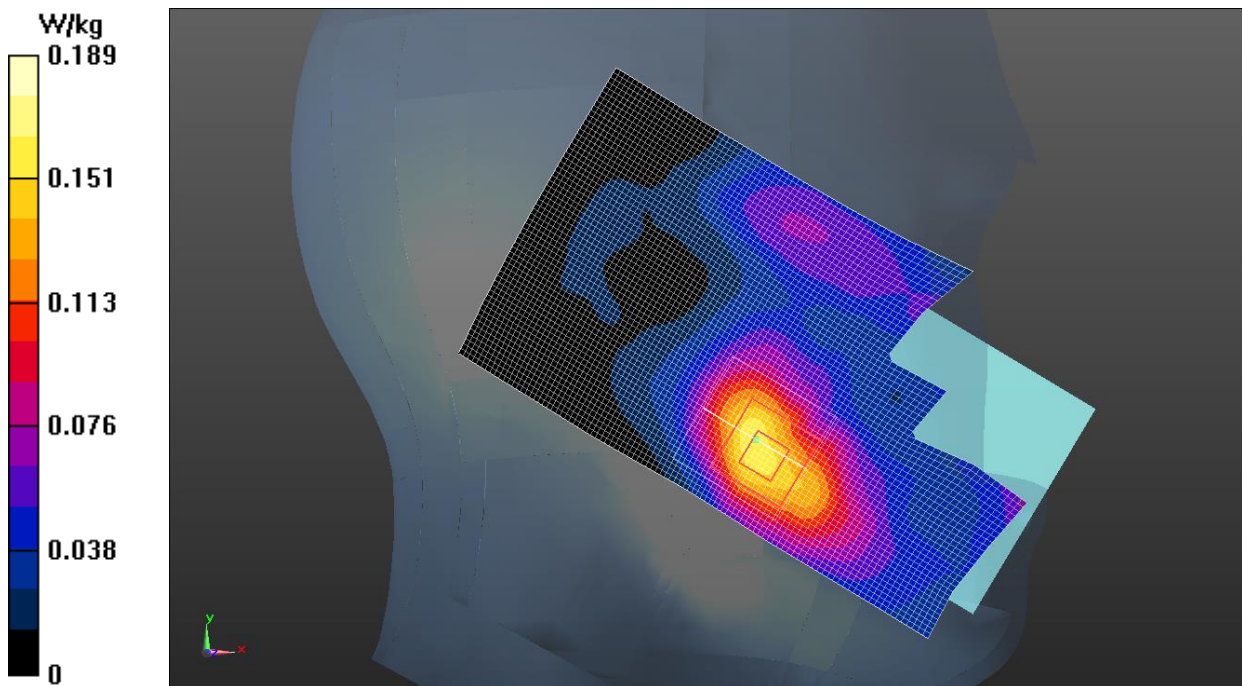


Fig.7 CDMA BC1

CDMA BC1 Body

Date: 2019-4-12

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1909 \text{ MHz}$; $\sigma = 1.401 \text{ S/m}$; $\epsilon_r = 40.536$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 1908.75MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Bottom Side High/Area Scan (51x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.50 W/kg

Bottom Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 24.05 V/m ; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 2.02 W/kg

SAR(1 g) = 1.13 W/kg ; SAR(10 g) = 0.586 W/kg

Maximum value of SAR (measured) = 1.26 W/kg

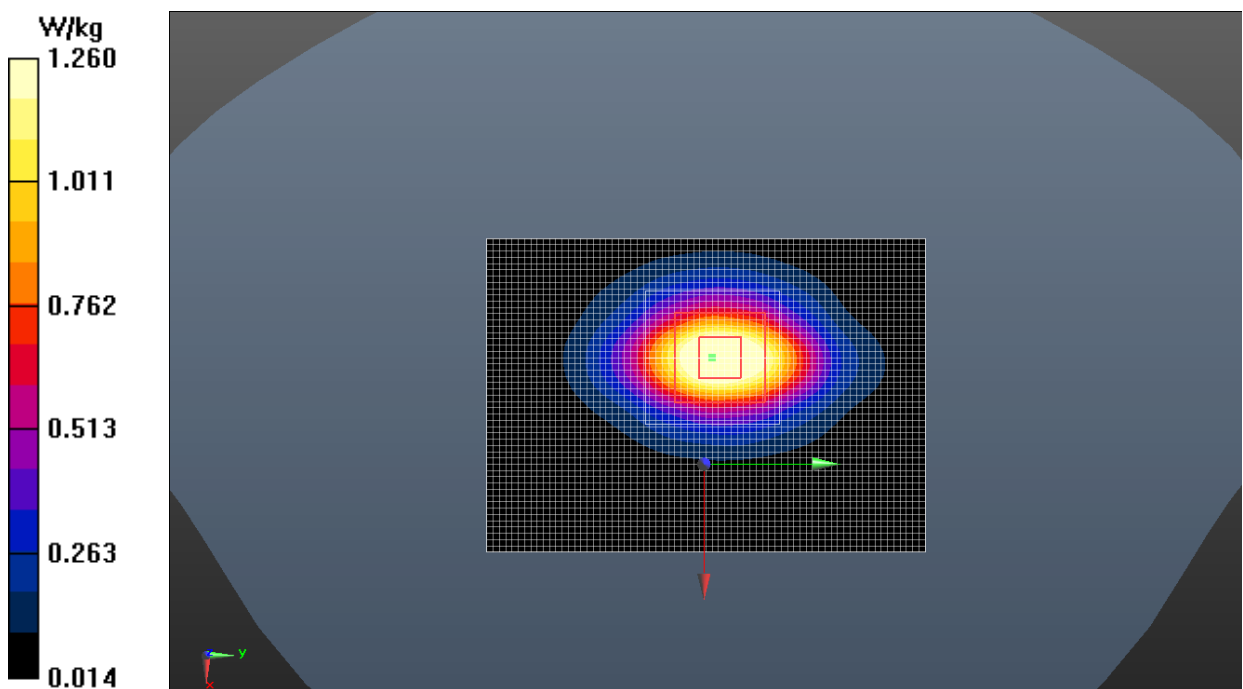


Fig.8 CDMA BC1

CDMA BC10 Head

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.907$ S/m; $\epsilon_r = 40.418$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 820.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.182 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.615 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.231 W/kg

SAR(1 g) = 0.175 W/kg; SAR(10 g) = 0.131 W/kg

Maximum value of SAR (measured) = 0.205 W/kg

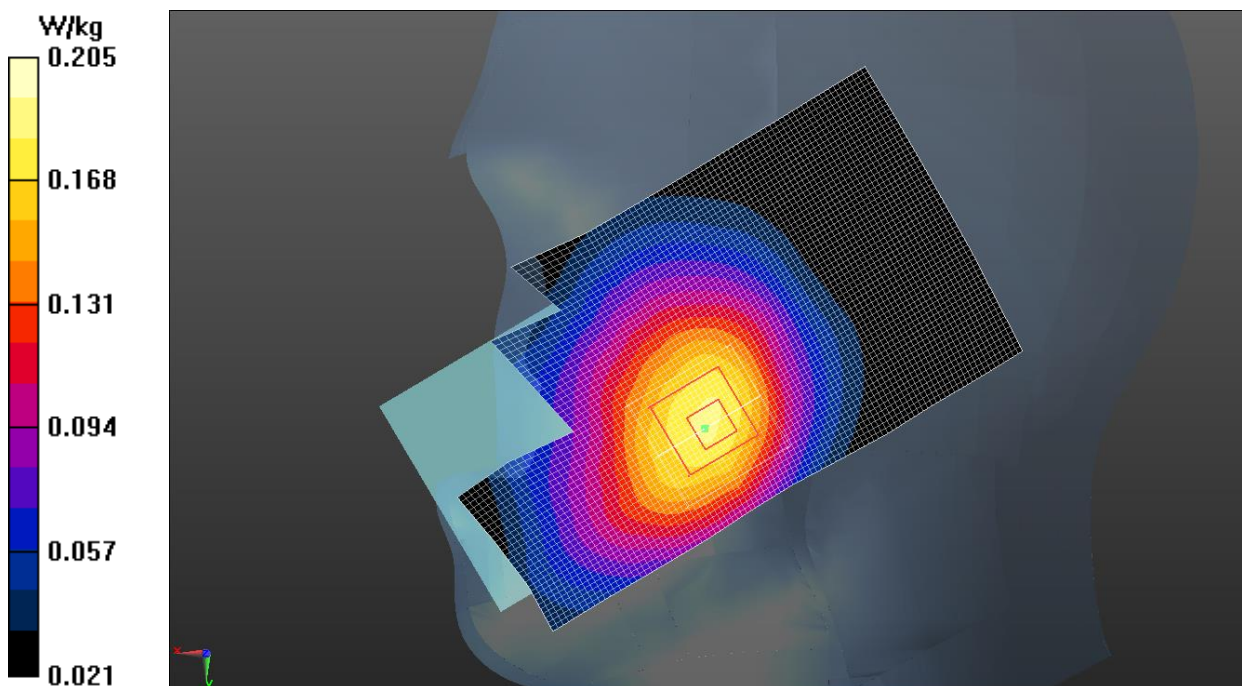


Fig.9 CDMA BC10

CDMA BC10 Body

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 820.5$ MHz; $\sigma = 0.907$ S/m; $\epsilon_r = 40.418$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, CDMA (0) Frequency: 820.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Front Side Middle/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.407 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 12.96 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 0.609 W/kg

SAR(1 g) = 0.342 W/kg; SAR(10 g) = 0.202 W/kg

Maximum value of SAR (measured) = 0.464 W/kg

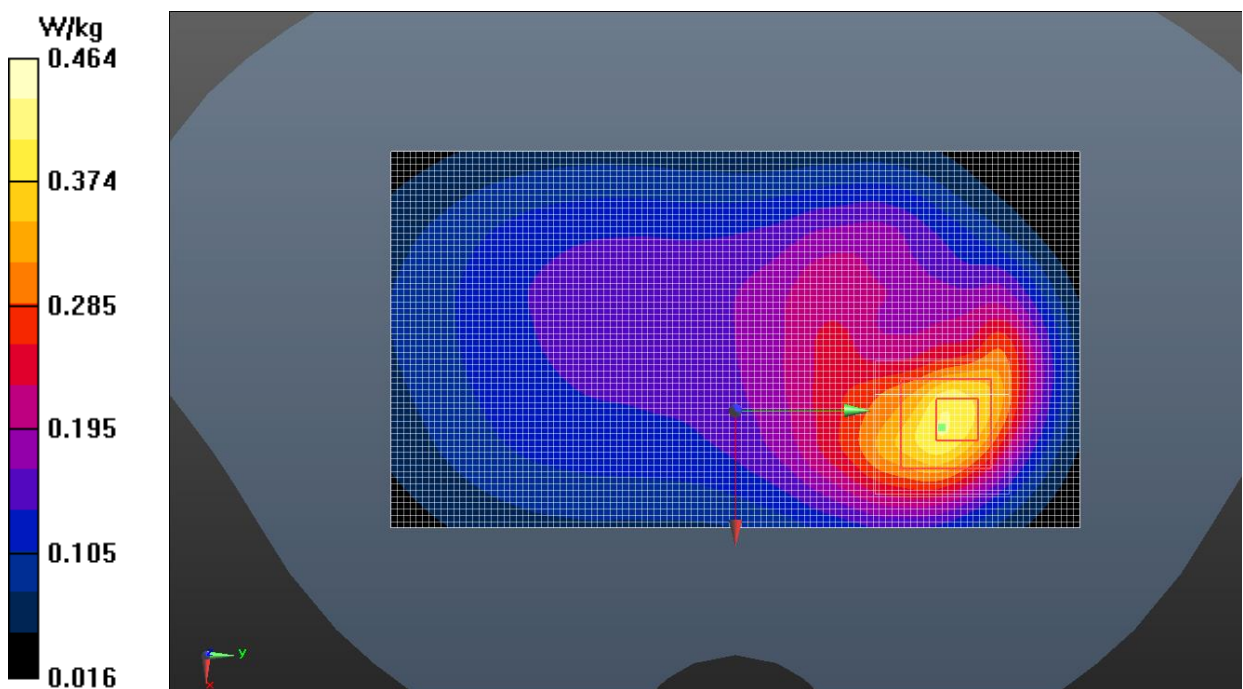


Fig.10 CDMA BC10

WCDMA 850 Head

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.36$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 836.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Right Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.197 W/kg

Right Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.205 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.240 W/kg

SAR(1 g) = 0.187 W/kg; SAR(10 g) = 0.143 W/kg

Maximum value of SAR (measured) = 0.206 W/kg

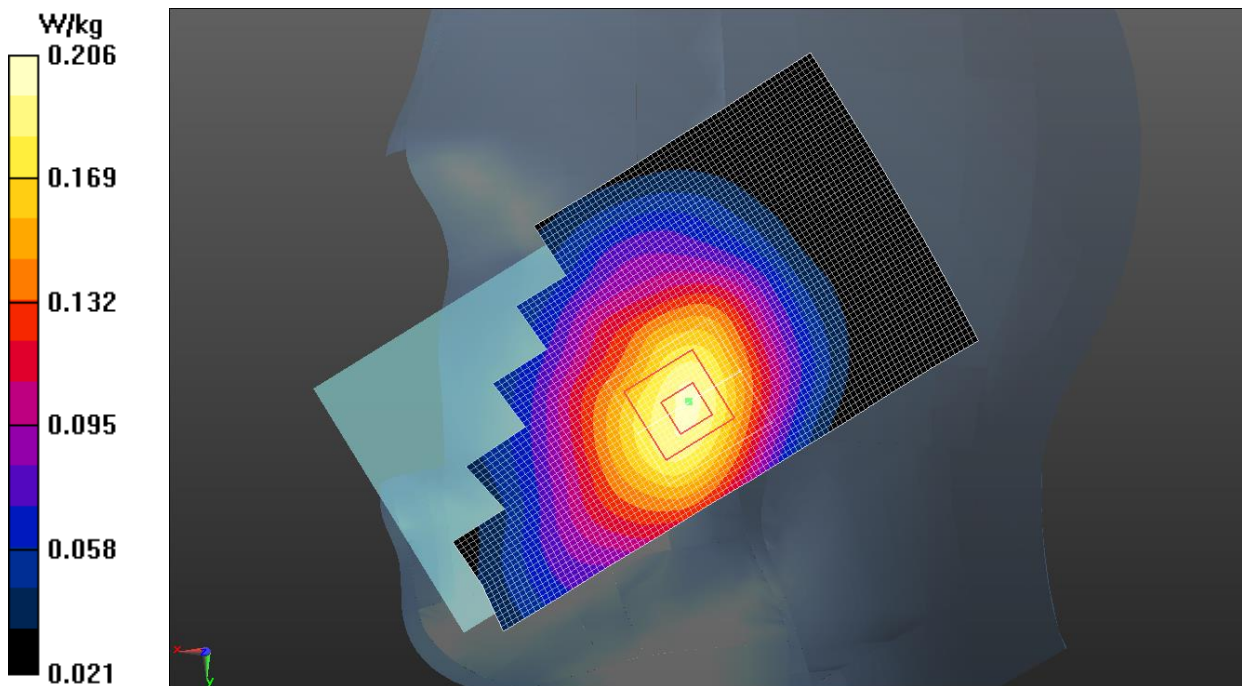


Fig.11 WCDMA 850

WCDMA 850 Body

Date: 2019-4-2

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.4$ MHz; $\sigma = 0.914$ S/m; $\epsilon_r = 40.36$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 836.4 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Front Side Middle/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.461 W/kg

Front Side Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 14.86 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.639 W/kg

SAR(1 g) = 0.378 W/kg; SAR(10 g) = 0.248 W/kg

Maximum value of SAR (measured) = 0.451 W/kg

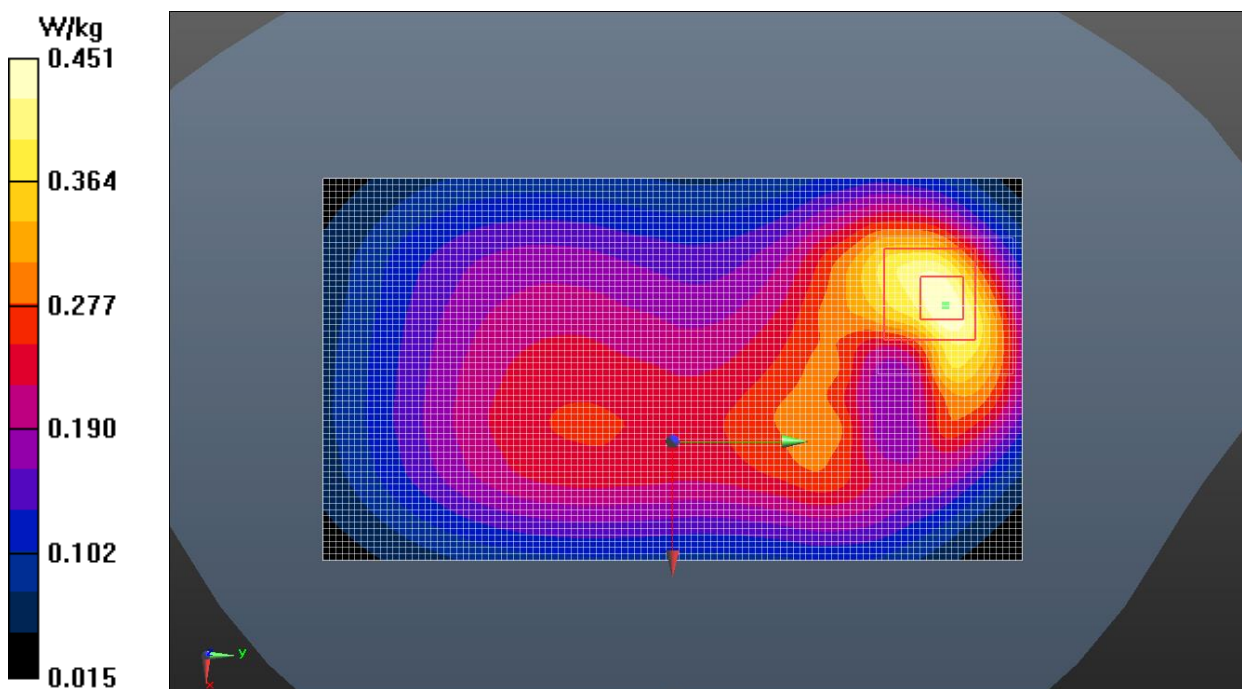


Fig.12 WCDMA 850

WCDMA 1900 Head

Date: 2019-4-11

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1880$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.763$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.189 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 4.876 V/m; Power Drift = 0.13 dB

Peak SAR (extrapolated) = 0.287 W/kg

SAR(1 g) = 0.177 W/kg; SAR(10 g) = 0.105 W/kg

Maximum value of SAR (measured) = 0.213 W/kg

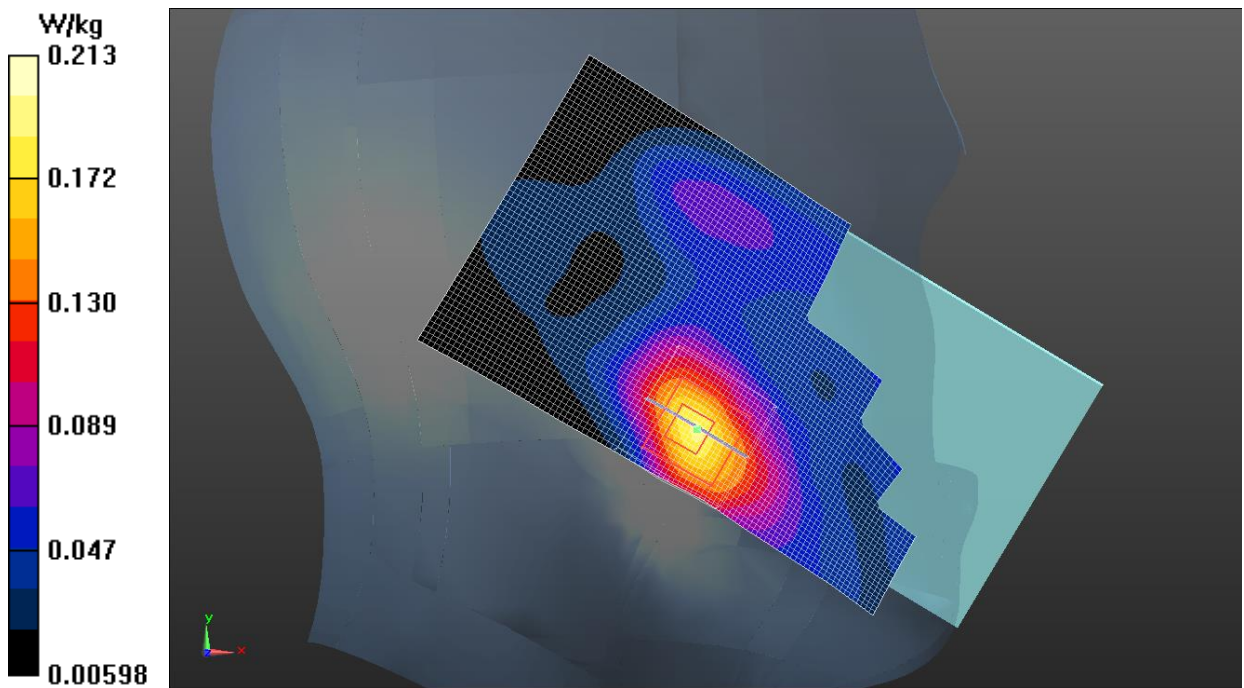


Fig.13 WCDMA 1900

WCDMA 1900 Body

Date: 2019-4-12

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1908 \text{ MHz}$; $\sigma = 1.4 \text{ S/m}$; $\epsilon_r = 40.539$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1907.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Bottom Side High/Area Scan (51x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.37 W/kg

Bottom Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 26.98 V/m ; Power Drift = -0.15 dB

Peak SAR (extrapolated) = 1.80 W/kg

SAR(1 g) = 1.02 W/kg ; SAR(10 g) = 0.531 W/kg

Maximum value of SAR (measured) = 1.43 W/kg

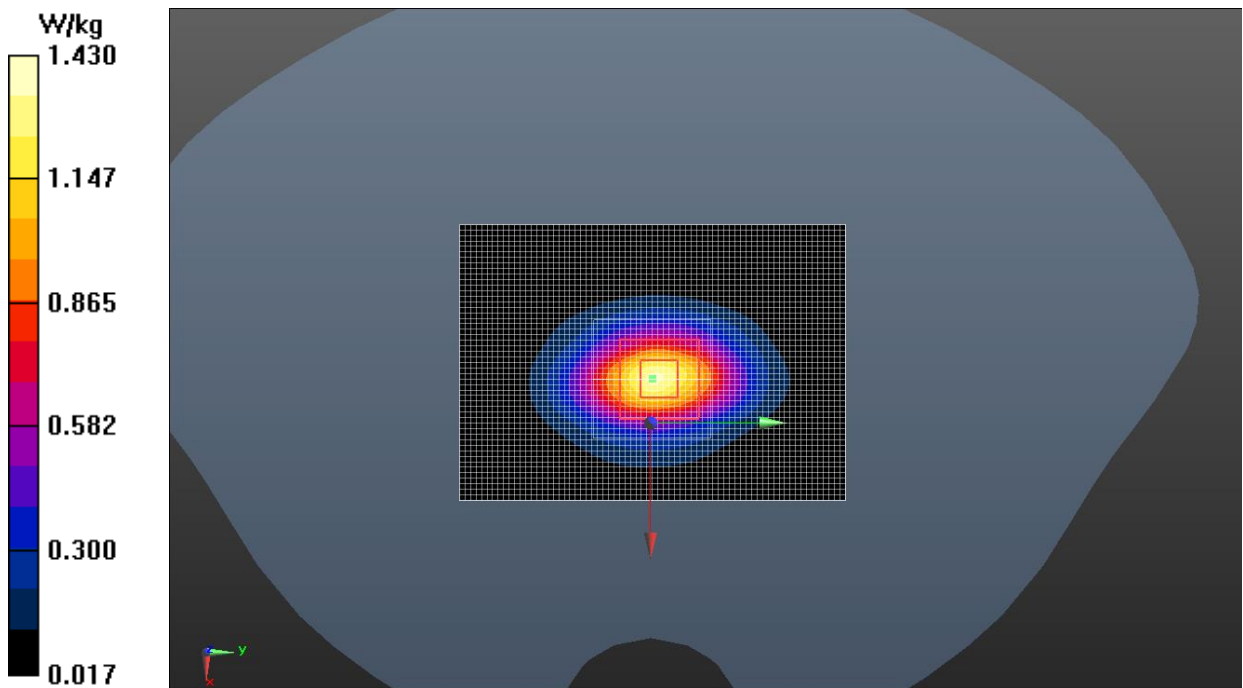


Fig.14 WCDMA 1900

WCDMA 1700 Head

Date: 2019-4-9

Electronics: DAE4 Sn786

Medium: Head 1750MHz

Medium parameters used (interpolated): $f = 1732.6$ MHz; $\sigma = 1.365$ S/m; $\epsilon_r = 39.572$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1732.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.07, 8.07, 8.07);

Left Cheek Middle/Area Scan (61x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.201 W/kg

Left Cheek Middle/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.577 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 0.288 W/kg

SAR(1 g) = 0.144 W/kg; SAR(10 g) = 0.089 W/kg

Maximum value of SAR (measured) = 0.204W/kg

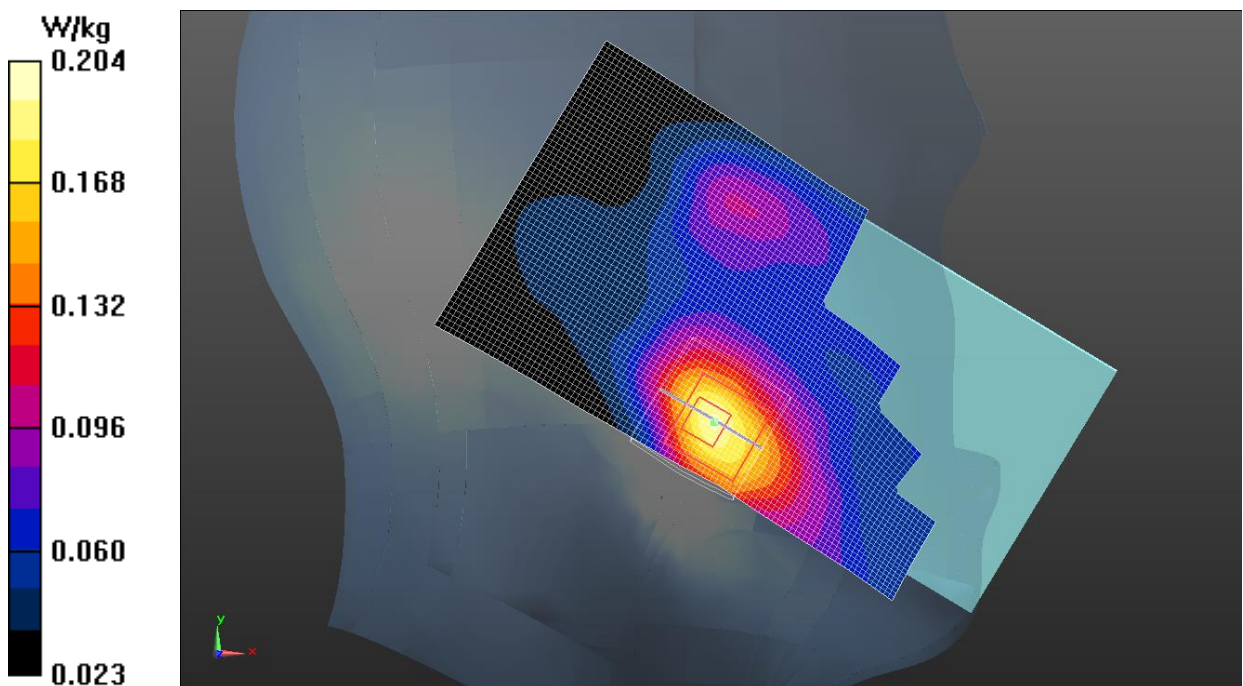


Fig.15 WCDMA 1700

WCDMA 1700 Body

Date: 2019-4-9

Electronics: DAE4 Sn786

Medium: Head 1750MHz

Medium parameters used (interpolated): $f = 1752.6$ MHz; $\sigma = 1.384$ S/m; $\epsilon_r = 39.514$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, WCDMA (0) Frequency: 1752.6 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.07, 8.07, 8.07);

Bottom Side High/Area Scan (41x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 1.05 W/kg

Bottom Side High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 24.56 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 1.29 W/kg

SAR(1 g) = 0.822 W/kg; SAR(10 g) = 0.437 W/kg

Maximum value of SAR (measured) = 1.03 W/kg

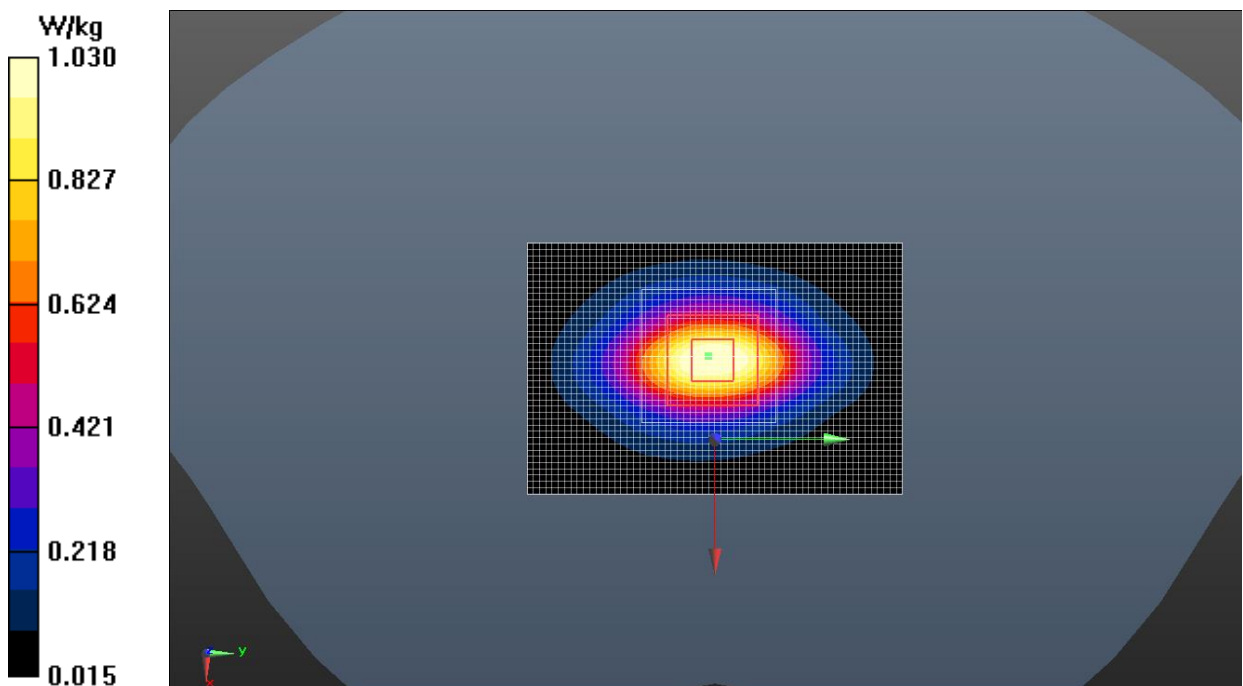


Fig.16 WCDMA 1700

LTE Band 2 Head

Date: 2019-4-11

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1880 \text{ MHz}$; $\sigma = 1.364 \text{ S/m}$; $\epsilon_r = 40.763$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1880 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Left Cheek Middle 1RB_Low/Area Scan (61x111x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 0.132 W/kg

Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 3.428 V/m ; Power Drift = 0.08 dB

Peak SAR (extrapolated) = 0.194 W/kg

SAR(1 g) = 0.124 W/kg ; SAR(10 g) = 0.075 W/kg

Maximum value of SAR (measured) = 0.155 W/kg

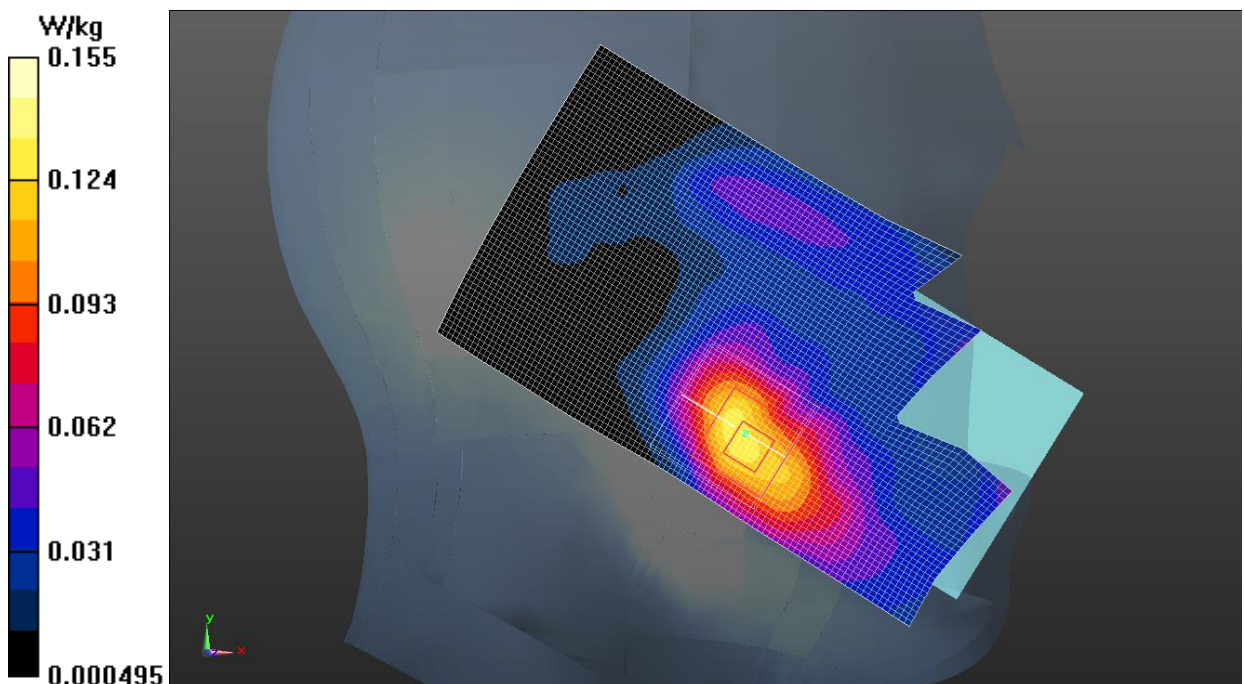


Fig.17 LTE Band 2

LTE Band 2 Body

Date: 2019-4-12

Electronics: DAE4 Sn786

Medium: Head 1900MHz

Medium parameters used: $f = 1900 \text{ MHz}$; $\sigma = 1.391 \text{ S/m}$; $\epsilon_r = 40.552$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1900 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (7.63, 7.63, 7.63);

Bottom Side High 1RB_Low/Area Scan (41x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.70 W/kg

Bottom Side High 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 29.89 V/m; Power Drift = 0.05 dB

Peak SAR (extrapolated) = 1.97 W/kg

SAR(1 g) = 1.18 W/kg; SAR(10 g) = 0.616 W/kg

Maximum value of SAR (measured) = 1.25 W/kg

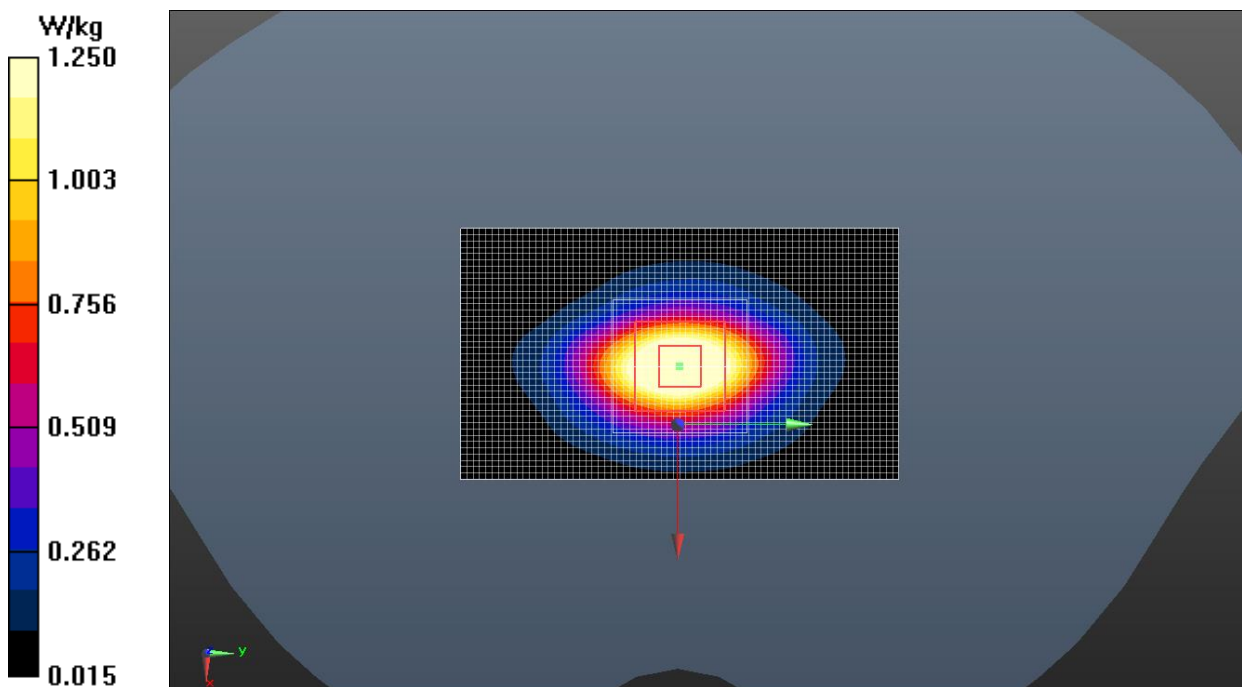


Fig.18 LTE Band 2

LTE Band 4 Head

Date: 2019-4-9

Electronics: DAE4 Sn786

Medium: Head 1750MHz

Medium parameters used (interpolated): $f = 1732.5$ MHz; $\sigma = 1.364$ S/m; $\epsilon_r = 40.573$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1732.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.07, 8.07, 8.07);

Left Cheek Middle 1RB_Low/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.205 W/kg

Left Cheek Middle 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.118 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.305 W/kg

SAR(1 g) = 0.200 W/kg; SAR(10 g) = 0.124 W/kg

Maximum value of SAR (measured) = 0.257 W/kg

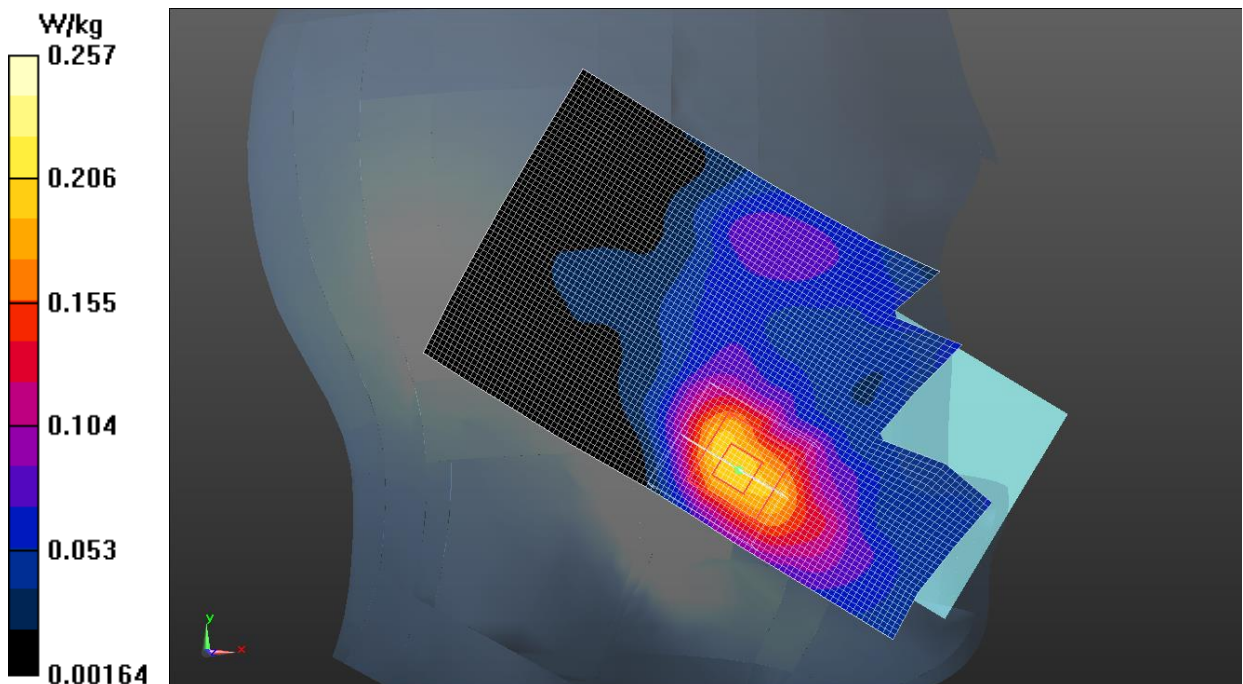


Fig.19 LTE Band 4

LTE Band 4 Body

Date: 2019-4-9

Electronics: DAE4 Sn786

Medium: Head 1750MHz

Medium parameters used: $f = 1745 \text{ MHz}$; $\sigma = 1.377 \text{ S/m}$; $\epsilon_r = 39.534$; $\rho = 1000 \text{ kg/m}^3$

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 1745 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (8.07, 8.07, 8.07);

Bottom Side High 1RB_Low/Area Scan (41x71x1): Interpolated grid: $dx=1.500 \text{ mm}$, $dy=1.500 \text{ mm}$

Maximum value of SAR (interpolated) = 1.43 W/kg

Bottom Side High 1RB_Low/Zoom Scan (5x5x7)/Cube 0: Measurement grid: $dx=8\text{mm}$, $dy=8\text{mm}$, $dz=5\text{mm}$

Reference Value = 27.35 V/m; Power Drift = 0.02 dB

Peak SAR (extrapolated) = 1.69 W/kg

SAR(1 g) = 0.976 W/kg; SAR(10 g) = 0.522 W/kg

Maximum value of SAR (measured) = 1.09 W/kg

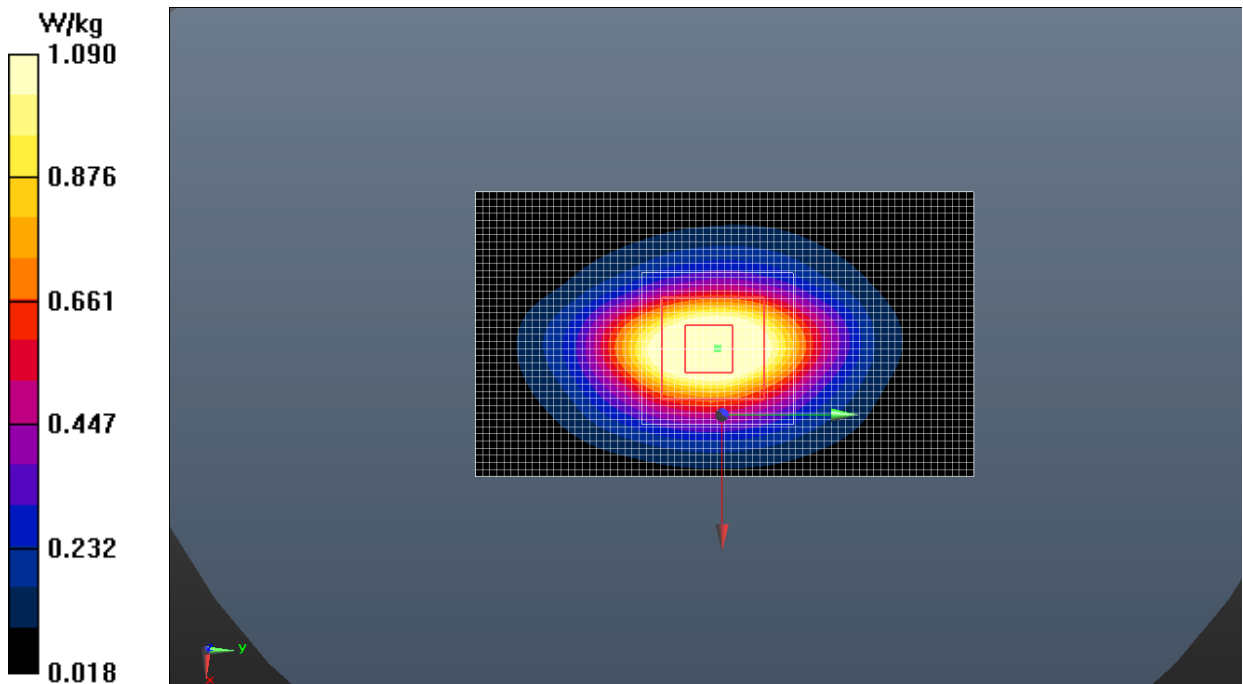


Fig.20 LTE Band 4

LTE Band 5 Head

Date: 2019-4-3

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.911$ S/m; $\epsilon_r = 40.488$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Left Cheek Middle 1RB_High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.178 W/kg

Left Cheek Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 3.417 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.210 W/kg

SAR(1 g) = 0.162 W/kg; SAR(10 g) = 0.122 W/kg

Maximum value of SAR (measured) = 0.186 W/kg

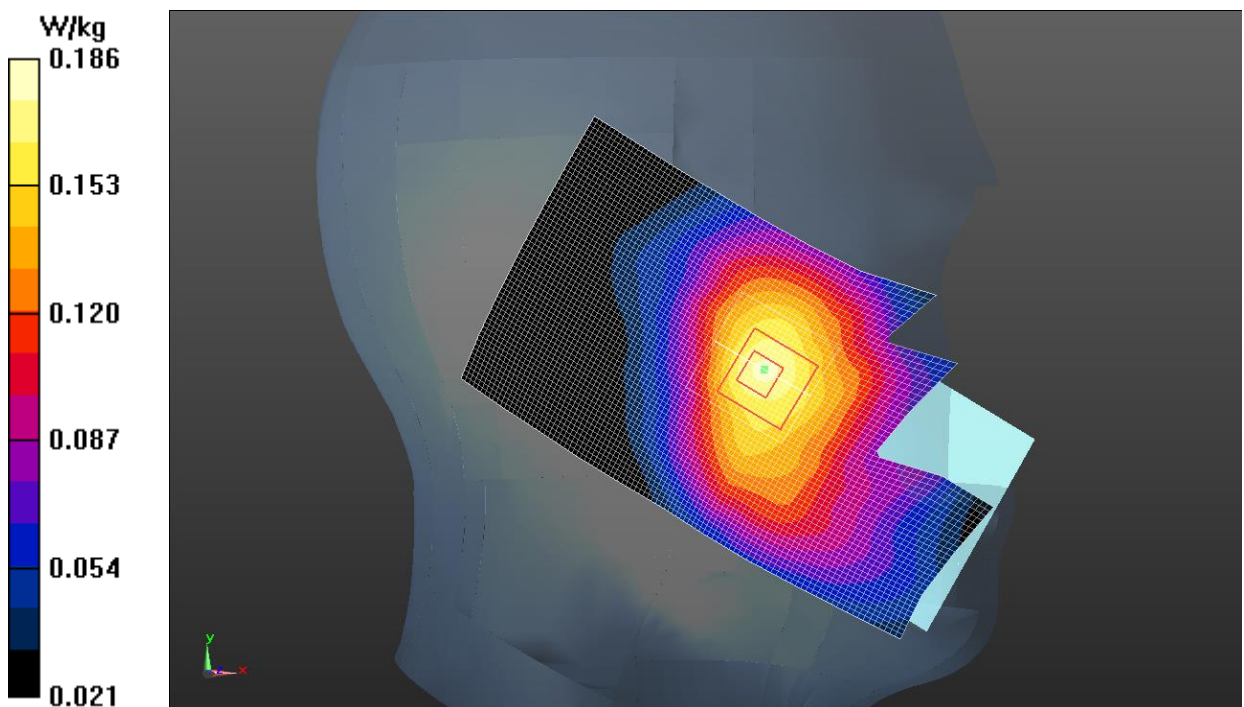


Fig.21 LTE Band 5

LTE Band 5 Body

Date: 2019-4-3

Electronics: DAE4 Sn786

Medium: Head 835MHz

Medium parameters used (interpolated): $f = 836.5$ MHz; $\sigma = 0.911$ S/m; $\epsilon_r = 40.488$; $\rho = 1000$ kg/m³

Ambient Temperature: 22.0°C Liquid Temperature: 21.5°C

Communication System: UID 0, LTE_FDD (0) Frequency: 836.5 MHz Duty Cycle: 1:1

Probe: EX3DV4 – SN3633 ConvF (9.51, 9.51, 9.51);

Rear Side Middle 1RB_High/Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.632 W/kg

Rear Side Middle 1RB_High/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 15.16 V/m; Power Drift = -0.02 dB

Peak SAR (extrapolated) = 1.10 W/kg

SAR(1 g) = 0.540 W/kg; SAR(10 g) = 0.318 W/kg

Maximum value of SAR (measured) = 0.765 W/kg

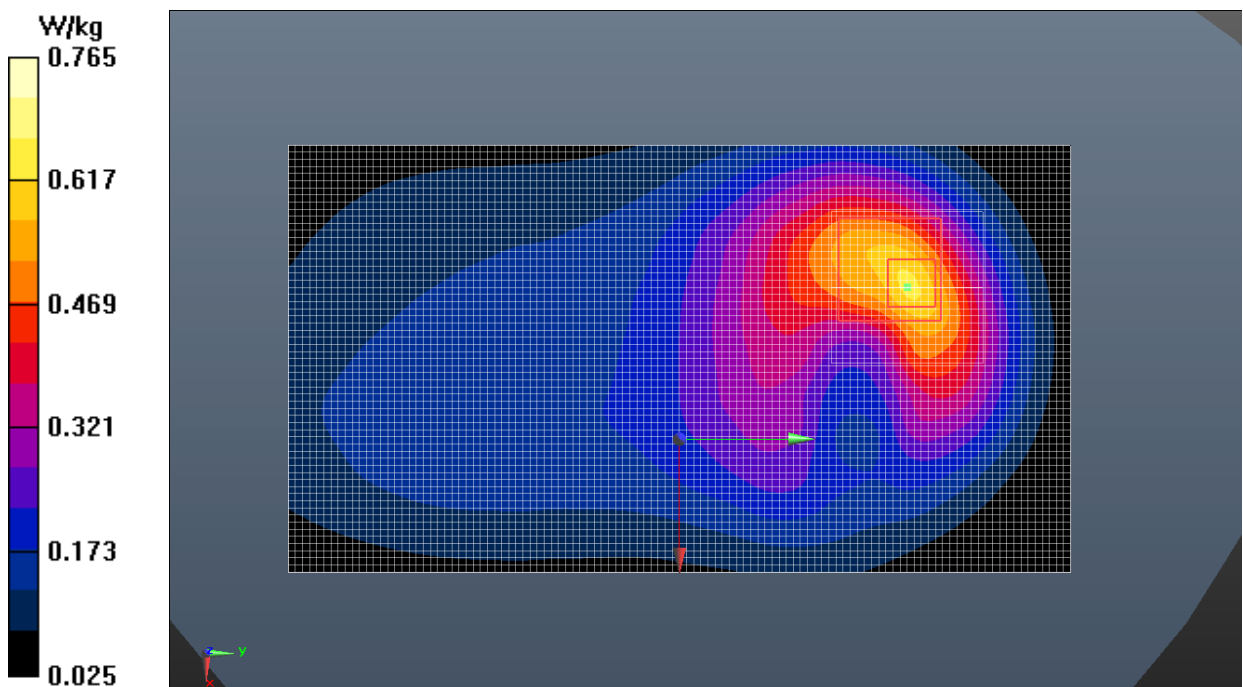


Fig.22 LTE Band 5