Table 14.2-12: SAR Values (n77–Head) – SA

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz										
633334	3500.01	Left	Cheek	Note1	14.44	15	0.317	**0.36**	0.116	**0.13**	0.15
636000	3540	Left	Tilt	Note1	14.4	15	0.361	**0.41**	0.128	**0.15**	0.18
633334	3500.01	Left	Tilt	Note1	14.44	15	0.376	**0.43**	0.133	**0.15**	-0.08
630668	3460.02	Left	Tilt	Note1	14.43	15	0.4	**0.46**	0.143	**0.16**	-0.08
633334	3500.01	Right	Cheek	Note1	14.44	15	0.172	**0.20**	0.068	**0.08**	0.09
633334	3500.01	Right	Tilt	Note1	14.44	15	0.181	**0.21**	0.07	**0.08**	-0.12
664666	3969.99	Left	Cheek	Note1	14.85	15	0.76	**0.79**	0.273	**0.28**	-0.13
664666	3969.99	Left	Tilt	Note1/ Fig.54	14.85	15	0.997	**1.03**	0.357	**0.37**	-0.06
661200	3918	Left	Tilt	Note1	14.62	15	0.927	**1.01**	0.33	**0.36**	0.15
657733	3866	Left	Tilt	Note1	14.68	15	0.887	**0.95**	0.311	**0.33**	-0.1
654267	3814	Left	Tilt	Note1	14.61	15	0.827	**0.90**	0.284	**0.31**	0.11
650800	3762	Left	Tilt	Note1	14.48	15	0.835	**0.94**	0.284	**0.32**	0.12
647334	3710.01	Left	Tilt	Note1	14.5	15	0.775	**0.87**	0.262	**0.29**	-0.15
664666	3969.99	Right	Cheek	Note1	14.85	15	0.431	**0.45**	0.17	**0.18**	0.13
664666	3969.99	Right	Tilt	Note1	14.85	15	0.585	**0.61**	0.217	**0.22**	-0.15
633334	3500.01	Left	Cheek	Note2	12.4	13	0.225	**0.26**	0.078	**0.09**	0.11
633334	3500.01	Left	Tilt	Note2	12.4	13	0.256	**0.29**	0.088	**0.10**	0.18
633334	3500.01	Right	Cheek	Note2	12.4	13	0.132	**0.15**	0.05	**0.06**	-0.07
633334	3500.01	Right	Tilt	Note2	12.4	13	0.142	**0.16**	0.053	**0.06**	0.18
664666	3969.99	Left	Cheek	Note2	12.75	13	0.565	**0.60**	0.199	**0.21**	0.01
664666	3969.99	Left	Tilt	Note2	12.75	13	0.638	**0.68**	0.226	**0.24**	0.01
664666	3969.99	Right	Cheek	Note2	12.75	13	0.294	**0.31**	0.106	**0.11**	0.18
664666	3969.99	Right	Tilt	Note2	12.75	13	0.333	**0.35**	0.123	**0.13**	-0.16

Note1: The results are only for WWAN transmit alone.

Note2: The results are only for WWAN transmit with WIFI.

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Table 14.2-13: SAR Values (n77– Body worn) – SA

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC										
Frequency		Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
633334	3500.01	Front	/	26.52	27	0.447	**0.50**	0.216	**0.24**	0.14
664666	3969.99	Front	Fig.55	26.81	27	0.876	**0.92**	0.396	**0.41**	0.08
661200	3918	Front	/	26.71	27	0.717	**0.77**	0.347	**0.37**	0.11
657733	3866	Front	/	26.7	27	0.737	**0.79**	0.337	**0.36**	0.08
654267	3814	Front	/	26.63	27	0.559	**0.61**	0.263	**0.29**	-0.01
650800	3762	Front	/	26.6	27	0.481	**0.53**	0.226	**0.25**	-0.06
647334	3710.01	Front	/	26.77	27	0.526	**0.55**	0.248	**0.26**	0.16
633334	3500.01	Rear 19mm	Note3	26.52	27	0.434	**0.48**	0.21	**0.23**	0.15
664666	3969.99	Rear 19mm	Note3	26.81	27	0.701	**0.73**	0.322	**0.34**	0.06
633334	3500.01	Rear	/	20.48	21	0.356	**0.40**	0.154	**0.17**	0.11
664666	3969.99	Rear	/	20.71	21	0.548	**0.59**	0.23	**0.25**	-0.01

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

Note2: The distance between the EUT and the phantom bottom is 19mm by sensor. The detail information of sensor is in ANNEX I.

Table 14.2-14: SAR Values (n77 –Hotspot) – SA/NSA

Ambient Temperature: 22.9 ºC Liquid Temperature: 22.5ºC										
Frequency		Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
633334	3500.01	Front	/	20.48	21	0.243	**0.27**	0.115	**0.13**	0.03
633334	3500.01	Rear	/	20.48	21	0.331	**0.37**	0.146	**0.16**	0.03
633334	3500.01	Left	/	20.48	21	0.037	**0.04**	0.018	**0.02**	0.02
633334	3500.01	Right	/	20.48	21	0.12	**0.14**	0.062	**0.07**	-0.14
633334	3500.01	Top	/	20.48	21	0.328	**0.37**	0.137	**0.15**	-0.17
664666	3969.99	Front	/	20.71	21	0.542	**0.58**	0.233	**0.25**	0.15
664666	3969.99	Rear	/	20.71	21	0.517	**0.55**	0.223	**0.24**	-0.05
664666	3969.99	Left	/	20.71	21	0.065	**0.07**	0.032	**0.03**	-0.04
664666	3969.99	Right	/	20.71	21	0.307	**0.33**	0.149	**0.16**	-0.04
664666	3969.99	Top	Fig.56	20.71	21	0.691	**0.74**	0.282	**0.30**	-0.13

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

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14.3 SAR Evaluation for WIFI 2.4G

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

Head Evaluation

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

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃											
Frequency		**Side**	**Test Position**	**Note**	**Conducted Power (dBm)**	**Max. tune-up Power (dBm)**	**Measured SAR(1g) (W/kg)**	**Reported SAR(1g)(W/kg)**	**Measured SAR(10g) (W/kg)**	**Reported SAR(10g)(W/kg)**	**Power Drift (dB)**
Ch.	MHz										
11	2462	Left	Cheek	Note1	19.82	20	0.783	**0.82**	0.405	**0.42**	-0.06
6	2437	Left	Cheek	Note1/ Fig.57	19.97	20	0.977	**0.98**	0.511	**0.51**	0.01
1	2412	Left	Cheek	Note1	19.83	20	0.79	**0.82**	0.407	**0.42**	0.12
11	2462	Left	Tilt	Note1	19.82	20	0.812	**0.85**	0.383	**0.40**	0.18
6	2437	Left	Tilt	Note1	19.97	20	0.905	**0.91**	0.422	**0.42**	0.13
1	2412	Left	Tilt	Note1	19.83	20	0.776	**0.81**	0.371	**0.39**	0.07
6	2437	Right	Cheek	Note1	19.97	20	0.387	**0.39**	0.213	**0.21**	0.1
6	2437	Right	Tilt	Note1	19.97	20	0.374	**0.38**	0.19	**0.19**	0.12
6	2437	Left	Cheek	Note2	16.88	17	0.581	**0.60**	0.289	**0.30**	0.12
6	2437	Left	Tilt	Note2	16.88	17	0.524	**0.54**	0.236	**0.24**	-0.09
6	2437	Right	Cheek	Note2	16.88	17	0.236	**0.24**	0.126	**0.13**	0.16
6	2437	Right	Tilt	Note2	16.88	17	0.237	**0.24**	0.121	**0.12**	-0.08

Note1: The results are for WiFi antenna transmit standalone.

Note2: The results are for WiFi antenna transmit with WWAN.

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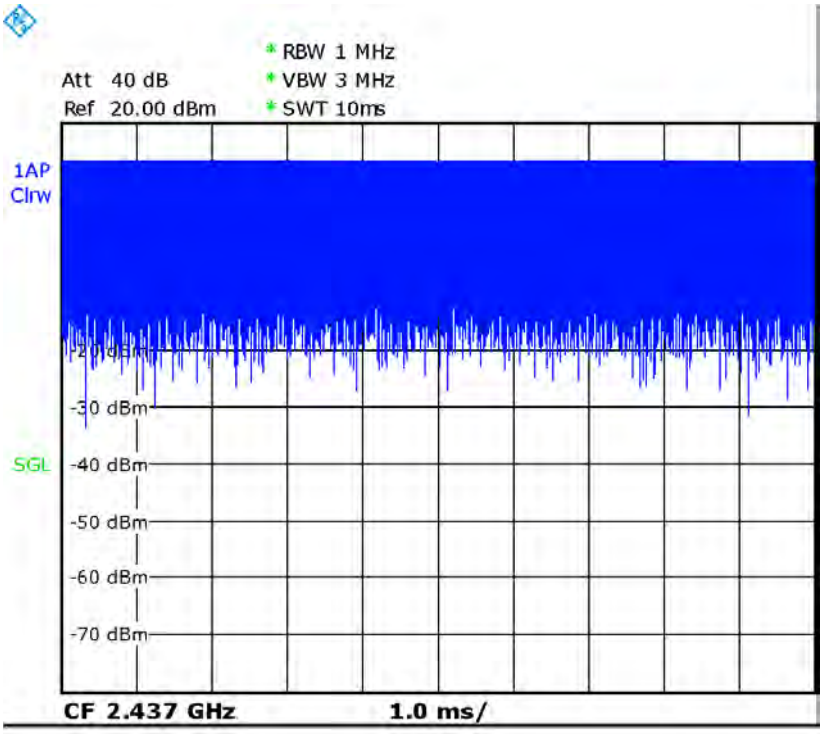
Table 14.3-2: SAR Values (WLAN - Head) – 802.11b (Scaled Reported SAR)

Ambient Temperature: 22.9 ºC			Liquid Temperature: 22.5ºC				
Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
MHz	Ch.						
2437	6	Left	Cheek	100%	100%	**0.98**	**0.98**

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



Picture 14.3-1 Duty factor plot

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Body Evaluation

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

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃										
Frequency		Test Position	Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
Ch.	MHz									
6	2437	Front	Fig.58	21.96	22	0.224	**0.23**	0.127	**0.13**	-0.13
6	2437	Rear	/	21.96	22	0.212	**0.21**	0.114	**0.12**	-0.09

Note1: The results are used for body worn mode, the distance between the EUT and the phantom bottom is 15mm.

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

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃										
Frequency		Test Position	Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
6	2437	Front	Note1/ Fig.59	19.97	20	0.215	**0.22**	0.107	**0.11**	-0.03
6	2437	Rear	Note1	19.97	20	0.224	**0.23**	0.114	**0.11**	-0.12
6	2437	Right	Note1	19.97	20	0.206	**0.21**	0.108	**0.11**	-0.13
6	2437	Top	Note1	19.97	20	0.128	**0.13**	0.067	**0.07**	-0.11
6	2437	Front	Note2	16.88	17	0.11	**0.11**	0.062	**0.06**	0.16
6	2437	Rear	Note2	16.88	17	0.131	**0.13**	0.063	**0.06**	0.06
6	2437	Right	Note2	16.88	17	0.097	**0.10**	0.052	**0.05**	-0.14
6	2437	Top	Note2	16.88	17	0.086	**0.09**	0.045	**0.05**	-0.11

Note2: The results are used for WIFI transmit alone, the distance between the EUT and the phantom bottom is 10mm.

Note2: The results are used for WIFI transmit with WWAN, the distance between the EUT and the phantom bottom is 10mm.

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

Ambient Temperature: 22.9 ℃ Liquid Temperature: 22.5℃						
Frequency		Test Position	Actual duty factor	Maximum duty factor	Reported SAR (1g)(W/kg)	Scaled reported SAR (1g)(W/kg)
Ch.	MHz					
6	2437	Front 15mm	100%	100%	**0.23**	**0.23**
6	2437	Rear 10mm	100%	100%	**0.23**	**0.23**

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

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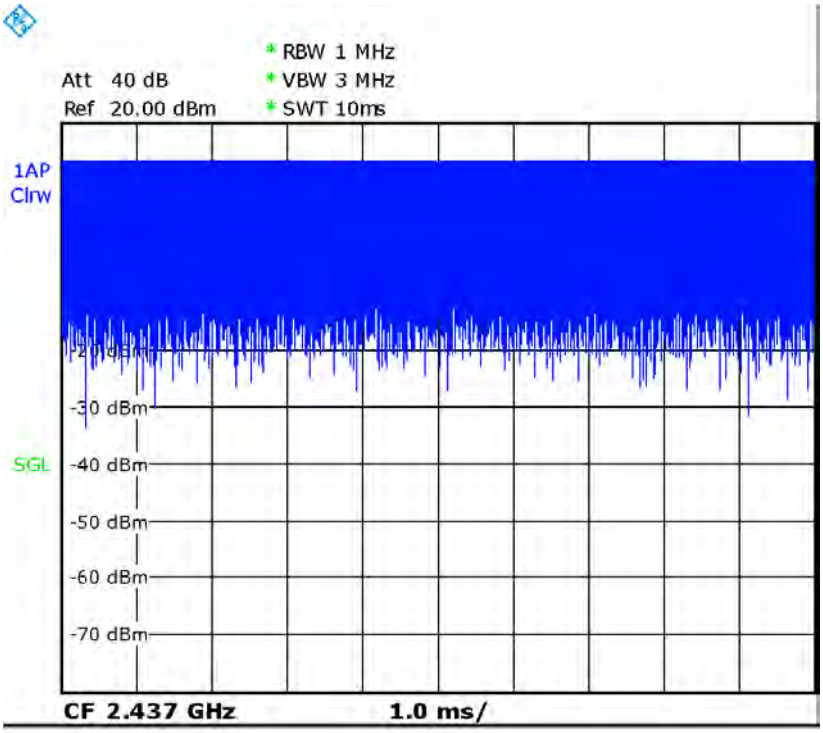

Picture 14.3-2 Duty factor plot

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14.4 SAR Evaluation For WIFI 5G

The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures.

When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 a/g/n/ac/ax modes, the channel in the lower order/sequence 802.11 mode (i.e. a, g, n ac then ax) is selected.

SAR Test reduction was applied from KDB 248227 guidance, when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration, for each frequency band. Additional output power measurements were not deemed necessary.

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Table 14.4-1: SAR Values (WLAN 5G - Head)

Frequency		Side	Test Position	Figure No.	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Power Drift (dB)
Ch.	MHz										
58	5290	Left	Cheek	Note1	13.8	15	0.347	**0.46**	0.087	**0.11**	0.17
58	5290	Left	Tilt	Note1	13.8	15	0.48	**0.63**	0.114	**0.15**	-0.07
58	5290	Right	Cheek	Note1	13.8	15	0.162	**0.21**	0.042	**0.06**	0.07
58	5290	Right	Tilt	Note1	13.8	15	0.202	**0.27**	0.053	**0.07**	-0.16
138	5690	Left	Cheek	Note1	14.58	15	0.54	**0.59**	0.129	**0.14**	-0.08
138	5690	Left	Tilt	Note1/ Fig.60	14.58	15	0.676	**0.74**	0.169	**0.19**	0.1
138	5690	Right	Cheek	Note1	14.58	15	0.348	**0.38**	0.088	**0.10**	0.18
138	5690	Right	Tilt	Note1	14.58	15	0.39	**0.43**	0.098	**0.11**	0.02
155	5775	Left	Cheek	Note1	14.69	15	0.526	**0.56**	0.125	**0.13**	0.04
155	5775	Left	Tilt	Note1	14.69	15	0.649	**0.70**	0.151	**0.16**	0.05
155	5775	Right	Cheek	Note1	14.69	15	0.303	**0.33**	0.077	**0.08**	0.02
155	5775	Right	Tilt	Note1	14.69	15	0.384	**0.41**	0.099	**0.11**	0.12
58	5290	Left	Cheek	Note2	11.61	13	0.206	**0.28**	0.062	**0.09**	-0.03
58	5290	Left	Tilt	Note2	11.61	13	0.29	**0.40**	0.0873	**0.12**	-0.04
58	5290	Right	Cheek	Note2	11.61	13	0.153	**0.21**	0.044	**0.06**	-0.11
58	5290	Right	Tilt	Note2	11.61	13	0.197	**0.27**	0.055	**0.08**	0.18
138	5690	Left	Cheek	Note2	12.61	13	0.242	**0.26**	0.067	**0.07**	0.03
138	5690	Left	Tilt	Note2	12.61	13	0.318	**0.35**	0.082	**0.09**	0.11
138	5690	Right	Cheek	Note2	12.61	13	0.13	**0.14**	0.039	**0.04**	0.02
138	5690	Right	Tilt	Note2	12.61	13	0.167	**0.18**	0.049	**0.05**	0.07
155	5775	Left	Cheek	Note2	12.75	13	0.193	**0.20**	0.054	**0.06**	0.08
155	5775	Left	Tilt	Note2	12.75	13	0.254	**0.27**	0.07	**0.07**	-0.18
155	5775	Right	Cheek	Note2	12.75	13	0.13	**0.14**	0.039	**0.04**	0.16
155	5775	Right	Tilt	Note2	12.75	13	0.14	**0.15**	0.039	**0.04**	-0.12

Note1: The results are for WIFI transmit standalone.

Note2: The results are for WIFI transmit with WWAN.

Table 14.4-15: SAR Values (WLAN 5G – Body worn)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
52	5260	Front	/	18.85	20	0.169	**0.22**	0.065	**0.08**	-0.06
52	5260	Rear	/	18.85	20	0.39	**0.51**	0.151	**0.20**	0.12
144	5720	Front	/	19.85	20	0.334	**0.35**	0.126	**0.13**	0.06
144	5720	Rear	Fig.61	19.85	20	0.509	**0.53**	0.19	**0.20**	0.06
153	5765	Front	/	19.92	20	0.308	**0.31**	0.118	**0.12**	-0.15
153	5765	Rear	/	19.92	20	0.416	**0.42**	0.154	**0.16**	-0.07

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

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Table 14.4-16: SAR Values (WLAN 5G – Hotspot)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g) (W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
58	5290	Front	Note1	16.73	18	0.131	**0.18**	0.048	**0.06**	0.14
58	5290	Rear	Note1	16.73	18	0.263	**0.35**	0.096	**0.13**	0.11
58	5290	Right	Note1	16.73	18	0.126	**0.17**	0.049	**0.07**	0.02
58	5290	Top	Note1	16.73	18	0.359	**0.48**	0.125	**0.17**	-0.18
138	5690	Front	Note1	17.47	18	0.215	**0.24**	0.072	**0.08**	0.04
138	5690	Rear	Note1	17.47	18	0.295	**0.33**	0.105	**0.12**	-0.08
138	5690	Right	Note1	17.47	18	0.133	**0.15**	0.053	**0.06**	0.06
138	5690	Top	Note1/ Fig.62	17.47	18	0.443	**0.50**	0.152	**0.17**	0.04
155	5775	Front	Note1	17.58	18	0.216	**0.24**	0.071	**0.08**	0.07
155	5775	Rear	Note1	17.58	18	0.266	**0.29**	0.097	**0.11**	-0.02
155	5775	Right	Note1	17.58	18	0.124	**0.14**	0.005	**0.01**	0.05
155	5775	Top	Note1	17.58	18	0.368	**0.41**	0.132	**0.15**	-0.17
58	5290	Front	Note2	13.8	15	0.105	**0.14**	0.036	**0.05**	-0.18
58	5290	Rear	Note2	13.8	15	0.191	**0.25**	0.065	**0.09**	0.05
58	5290	Right	Note2	13.8	15	0.087	**0.11**	0.033	**0.04**	-0.08
58	5290	Top	Note2	13.8	15	0.246	**0.32**	0.0823	**0.11**	0.05
138	5690	Front	Note2	14.58	15	0.145	**0.16**	0.05	**0.06**	0.05
138	5690	Rear	Note2	14.58	15	0.219	**0.24**	0.075	**0.08**	0.1
138	5690	Right	Note2	14.58	15	0.086	**0.09**	0.034	**0.04**	0.12
138	5690	Top	Note2	14.58	15	0.3	**0.33**	0.101	**0.11**	0.04
155	5775	Front	Note2	14.69	15	0.113	**0.12**	0.042	**0.05**	-0.04
155	5775	Rear	Note2	14.69	15	0.178	**0.19**	0.063	**0.07**	0.06
155	5775	Right	Note2	14.69	15	0.072	**0.08**	0.029	**0.03**	-0.11
155	5775	Top	Note2	14.69	15	0.273	**0.29**	0.098	**0.11**	0.03

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

Note1: The results are for WIFI transmit standalone.

Note2: The results are for WIFI transmit with WWAN.

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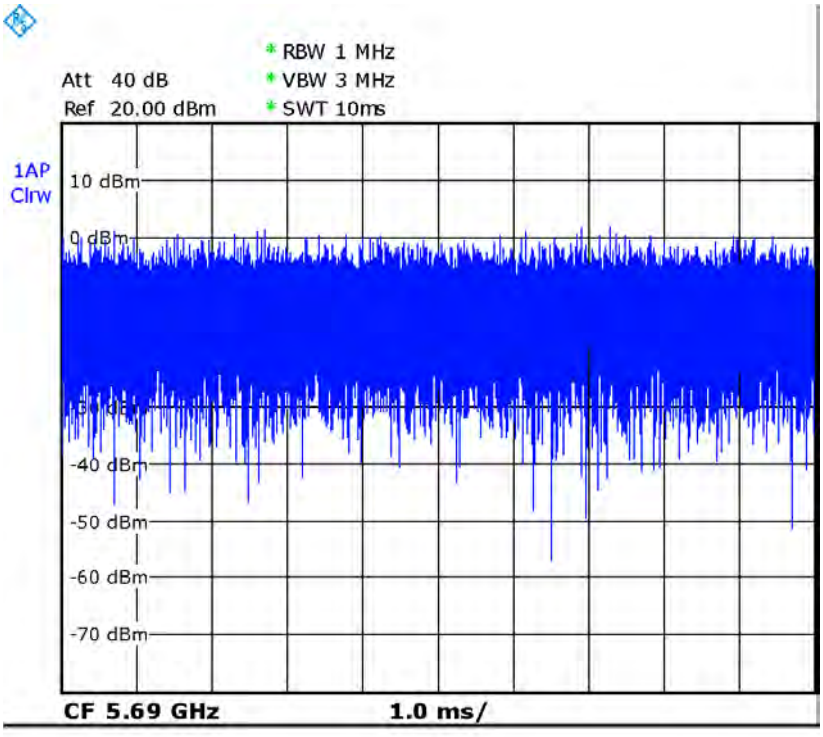
According to the KDB248227 D01, The reported SAR must be scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit. The scaled reported SAR is presented as below.

Table 14.4-16: SAR Values (WLAN 5G - Head) (Scaled Reported SAR)

Frequency		Side	Test Position	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
138	5690	Left	Tilt	100%	100%	**0.74**	**0.74**

Table 14.4-17: SAR Values (WLAN 5G - Body) (Scaled Reported SAR)

Frequency		Test Position	D (mm)	Actual duty factor	maximum duty factor	Reported SAR (1g) (W/kg)	Scaled reported SAR (1g) (W/kg)
Ch.	MHz						
144	5720	Rear	15	100%	100%	**0.53**	**0.53**
138	5690	Top	10	100%	100%	**0.50**	**0.50**



Picture 14.4-1 The plot of duty factor for WIFI5G

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14.5 SAR Evaluation For BT

Table 14.5-1: SAR Values (BT - Head)

Frequency		Side	Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g)(W/kg)	Power Drift (dB)
Ch.	MHz										
0	2402	Left	Cheek	Fig.63	10.02	11	0.063	**0.08**	0.03	**0.04**	0.07
0	2402	Left	Tilt	/	10.02	11	0.054	**0.07**	0.026	**0.03**	-0.05
0	2402	Right	Cheek	/	10.02	11	<0.01	**<0.01**	<0.01	**<0.01**	/
0	2402	Right	Tilt	/	10.02	11	<0.01	**<0.01**	<0.01	**<0.01**	/

Table 14.5-2: SAR Values (BT - Body)

Frequency		Test Position	Figure No./Note	Conducted Power (dBm)	Max. tune-up Power (dBm)	Measured SAR(1g) (W/kg)	Reported SAR(1g)(W/kg)	Measured SAR(10g) (W/kg)	Reported SAR(10g) (W/kg)	Power Drift (dB)
Ch.	MHz									
0	2402	Front	/	9.45	11	<0.01	**<0.01**	<0.01	**<0.01**	/
0	2402	Rear	Fig.64	10.02	11	0.01	**0.01**	0.004	**0.01**	0.09
0	2402	Right	/	9.45	11	<0.01	**<0.01**	<0.01	**<0.01**	/
0	2402	Top	/	9.45	11	<0.01	**<0.01**	<0.01	**<0.01**	/

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

14.6 SAR results for 10-g extremity SAR

According to the KDB648474 D04, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB Publication 865664 D01 to address interactive hand use exposure conditions. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

For this device, SAR is not required for 10-g extremity SAR because the scaled SAR is ⩽ 1.2 W/kg.

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15 SAR Measurement Variability

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

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

1) Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; 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

Mode	CH	Freq	Test Position	Original SAR(W/kg)	First Repeated SAR(W/kg)	The Ratio
GSM1900	512	1850.2	Rear 10mm	0.948	0.892	1.06
N77	664666	3969.99	Left Tilt	0.997	0.973	1.02
N77	664666	3969.99	Front 15mm	0.876	0.856	1.02
WLAN2.4G	6	2437	Left Cheek	0.977	0.932	1.05
WLAN2.4G	6	2437	Left Tilt	0.905	0.881	1.03

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16 Measurement Uncertainty

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	√3	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	√3	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	√3	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	N	1	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	√3	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	√3	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	√3	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	√3	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	√3	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.4	R	√3	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	√3	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	√3	1	1	0.6	0.6	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	√3	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	√3	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	√3	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	√3	0.6	0.49	1.7	1.4	∞
21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521

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

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	√3	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	√3	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	√3	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	√3	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	√3	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	√3	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	√3	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	√3	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	√3	1	1	0	0	∞
11	Probe positioned mech. restrictions	B	0.8	R	√3	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	√3	1	1	3.9	3.9	∞
13	Post-processing	B	4.0	R	√3	1	1	2.3	2.3	∞
Test sample related										
14	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
15	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
16	Drift of output power	B	5.0	R	√3	1	1	2.9	2.9	∞
Phantom and set-up										
17	Phantom uncertainty	B	4.0	R	√3	1	1	2.3	2.3	∞
18	Liquid conductivity (target)	B	5.0	R	√3	0.64	0.43	1.8	1.2	∞
19	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
20	Liquid permittivity (target)	B	5.0	R	√3	0.6	0.49	1.7	1.4	∞

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21	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{21} c_i^2 u_i^2}$						10.7	10.6	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						21.4	21.1	

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.0	N	1	1	1	6.0	6.0	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.4	R	$\sqrt{3}$	1	1	0.2	0.2	∞
12	Probe positioning with respect to phantom shell	B	2.9	R	$\sqrt{3}$	1	1	1.7	1.7	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	7.0	R	$\sqrt{3}$	1	1	4.0	4.0	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5
17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞

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

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

No.	Error Description	Type	Uncertainty value	Probably Distribution	Div.	(Ci) 1g	(Ci) 10g	Std. Unc. (1g)	Std. Unc. (10g)	Degree of freedom
Measurement system										
1	Probe calibration	B	6.55	N	1	1	1	6.55	6.55	∞
2	Isotropy	B	4.7	R	$\sqrt{3}$	0.7	0.7	1.9	1.9	∞
3	Boundary effect	B	2.0	R	$\sqrt{3}$	1	1	1.2	1.2	∞
4	Linearity	B	4.7	R	$\sqrt{3}$	1	1	2.7	2.7	∞
5	Detection limit	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
6	Readout electronics	B	0.3	R	$\sqrt{3}$	1	1	0.3	0.3	∞
7	Response time	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
8	Integration time	B	2.6	R	$\sqrt{3}$	1	1	1.5	1.5	∞
9	RF ambient conditions-noise	B	0	R	$\sqrt{3}$	1	1	0	0	∞
10	RFambient conditions-reflection	B	0	R	$\sqrt{3}$	1	1	0	0	∞
11	Probe positioned mech. Restrictions	B	0.8	R	$\sqrt{3}$	1	1	0.5	0.5	∞
12	Probe positioning with respect to phantom shell	B	6.7	R	$\sqrt{3}$	1	1	3.9	3.9	∞
13	Post-processing	B	1.0	R	$\sqrt{3}$	1	1	0.6	0.6	∞
14	Fast SAR z-Approximation	B	14.0	R	$\sqrt{3}$	1	1	8.1	8.1	∞
Test sample related										
15	Test sample positioning	A	3.3	N	1	1	1	3.3	3.3	71
16	Device holder uncertainty	A	3.4	N	1	1	1	3.4	3.4	5

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17	Drift of output power	B	5.0	R	$\sqrt{3}$	1	1	2.9	2.9	∞
Phantom and set-up										
18	Phantom uncertainty	B	4.0	R	$\sqrt{3}$	1	1	2.3	2.3	∞
19	Liquid conductivity (target)	B	5.0	R	$\sqrt{3}$	0.64	0.43	1.8	1.2	∞
20	Liquid conductivity (meas.)	A	2.06	N	1	0.64	0.43	1.32	0.89	43
21	Liquid permittivity (target)	B	5.0	R	$\sqrt{3}$	0.6	0.49	1.7	1.4	∞
22	Liquid permittivity (meas.)	A	1.6	N	1	0.6	0.49	1.0	0.8	521
Combined standard uncertainty		$u_c^{'} = \sqrt{\sum_{i=1}^{22} c_i^2 u_i^2}$						13.5	13.4	257
Expanded uncertainty (confidence interval of 95 %)		$u_e = 2u_c$						27.0	26.8	

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17 MAIN TEST INSTRUMENTS

Table 17.1: List of Main Instruments

No.	Name	Type	Serial Number	Calibration Date	Valid Period
01	Network analyzer	E5071C	MY46110673	January 5, 2023	One year
02	Power sensor	NRP50S	101488	June 17, 2022	One year
03	Power sensor	NRP50S	101489		One year
04	Signal Generator	E4438C	MY49070393	May 17, 2022	One Year
05	Amplifier	60S1G4	0331848	No Calibration Requested	
06	BTS	CMW500	159889	January 6, 2023	One year
07	E-field Probe	SPEAG EX3DV4	7548	August 1, 2022	One year
08	DAE	SPEAG DAE4	1331	September 15, 2022	One year
09	Dipole Validation Kit	SPEAG D750V3	1017	July 20,2022	One year
10	Dipole Validation Kit	SPEAG D835V2	4d069	July 20,2022	One year
11	Dipole Validation Kit	SPEAG D1750V2	1003	July 18,2022	One year
12	Dipole Validation Kit	SPEAG D1900V2	5d101	July 26,2022	One year
13	Dipole Validation Kit	SPEAG D2450V2	853	July 20,2022	One year
14	Dipole Validation Kit	SPEAG D2600V2	1012	July 20,2022	One year
15	Dipole Validation Kit	SPEAG D3500V2	1016	July 01,2022	One year
16	Dipole Validation Kit	SPEAG D3700V2	1004	July 01,2022	One year
17	Dipole Validation Kit	SPEAG D3900V2	1024	July 01,2022	One year
18	Dipole Validation Kit	SPEAG D5GHzV2	1060	July 5,2022	One year

END OF REPORT BODY

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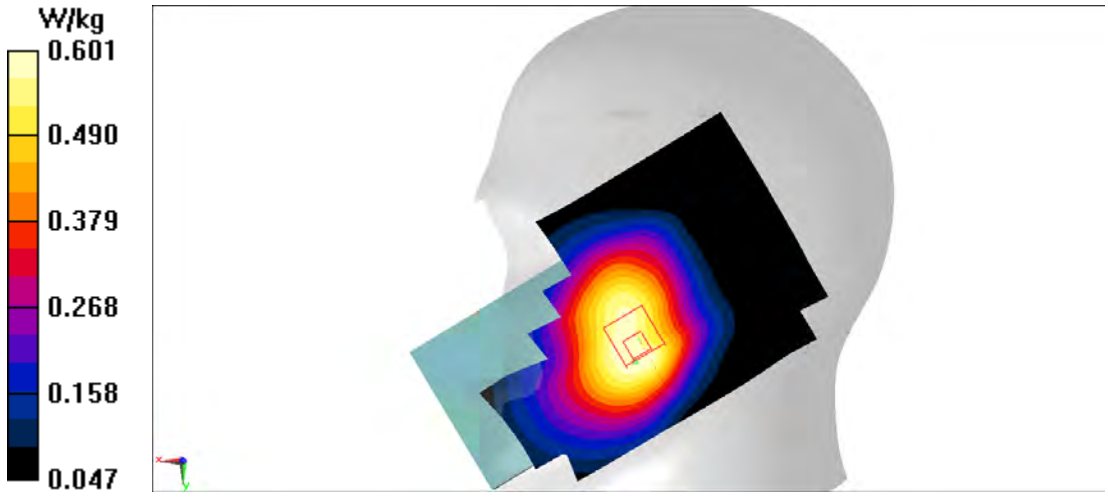
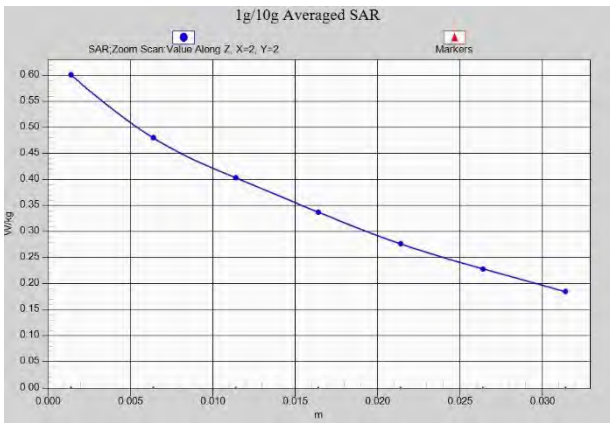
ANNEX A Graph Results

GSM850 Head
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 848.8 MHz; σ = 0.913 S/m; ε_r = 41.321; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: GSM850 4TX 848.8 MHz Duty Cycle: 1:1.99986
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.599 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.282 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.659 W/kg
SAR(1 g) = 0.513 W/kg; SAR(10 g) = 0.404 W/kg
Maximum value of SAR (measured) = 0.601 W/kg





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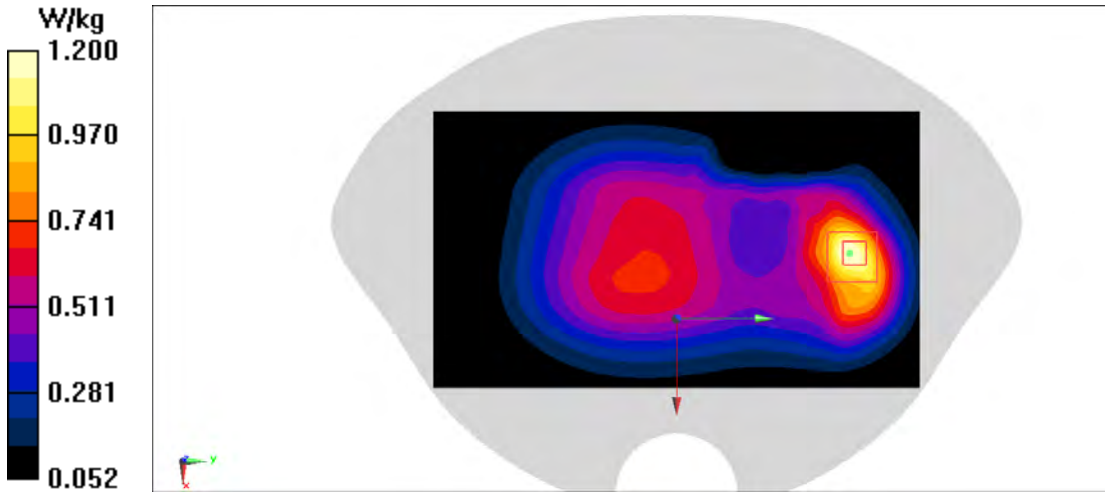
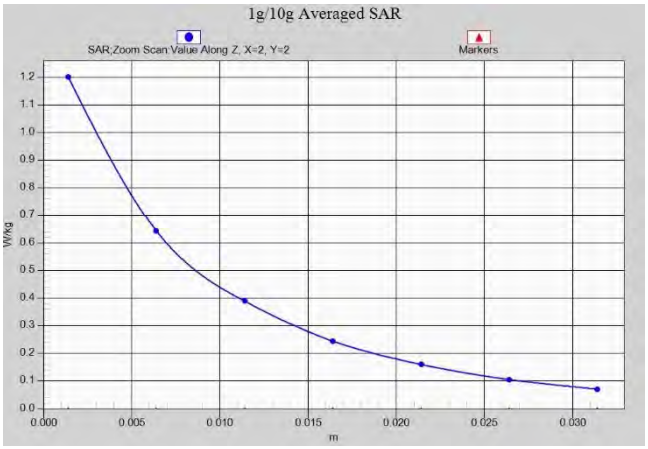
GSM850 Body 10mm
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 848.8 MHz; σ = 0.913 S/m; ε_r = 41.321; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: GSM850 4TX 848.8 MHz Duty Cycle: 1:1.99986
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.23 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 26.69 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.47 W/kg
SAR(1 g) = 0.787 W/kg; SAR(10 g) = 0.462 W/kg
Maximum value of SAR (measured) = 1.20 W/kg





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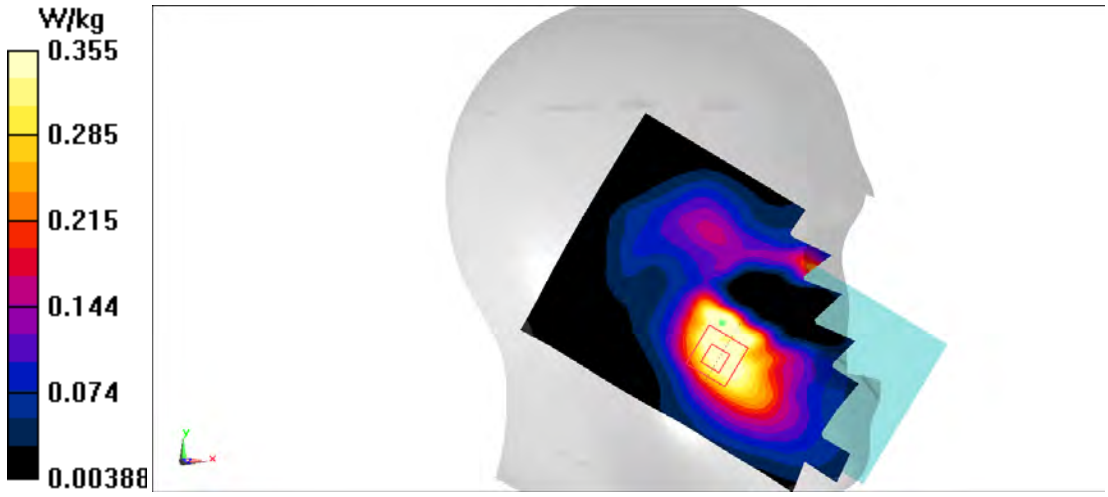
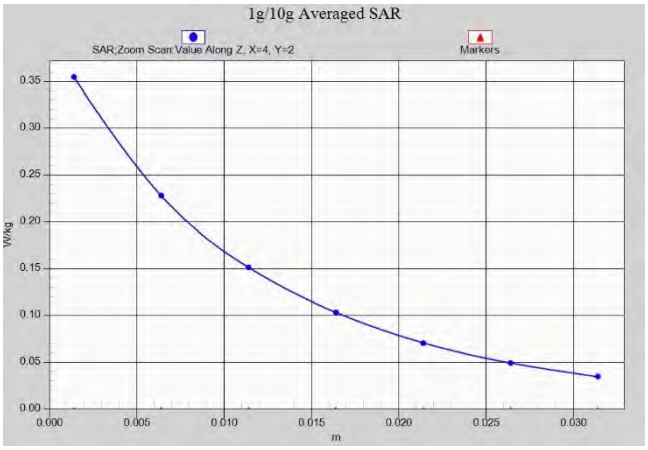
GSM1900 Head
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used : f =1850.2 MHz; σ =1.399 S/m; ε_r =39.959; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: GSM 1900 1850.2 MHz Duty Cycle: 1:1.99986
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.489 W/kg

Zoom Scan (7x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.441 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.408 W/kg
SAR(1 g) = 0.262 W/kg; SAR(10 g) = 0.168 W/kg
Maximum value of SAR (measured) = 0.355 W/kg





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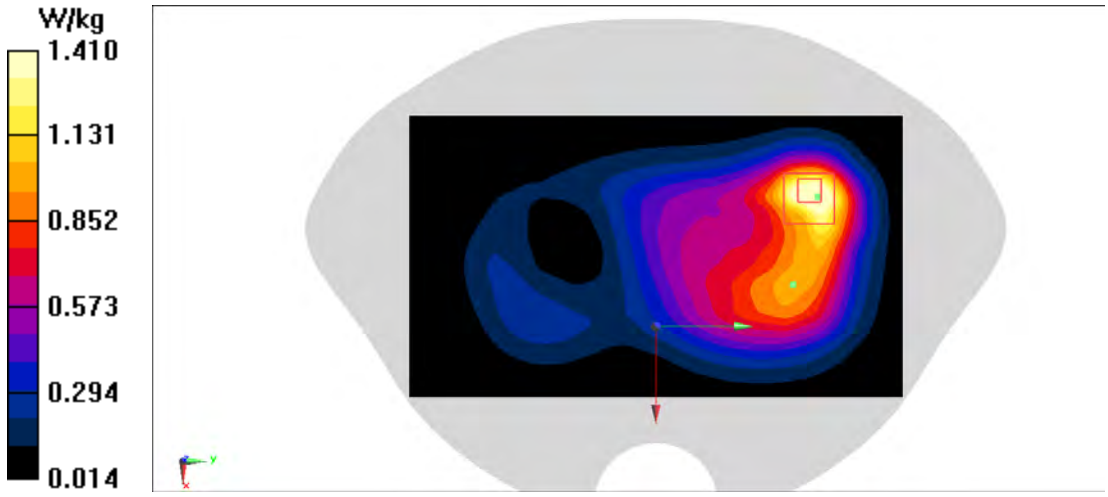
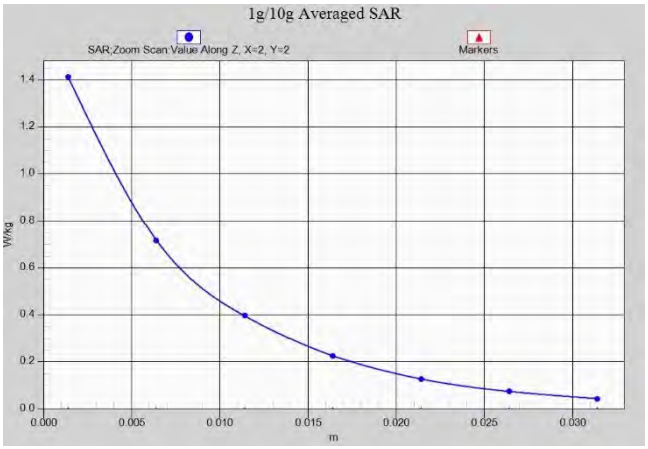
GSM1900 Body 10mm
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used : f =1850.2 MHz; σ =1.399 S/m; ε_r =39.959; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: GSM1900 4TX 1850.2 MHz Duty Cycle: 1:1.99986
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.56 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.11 V/m; Power Drift = -0.08 dB
Peak SAR (extrapolated) = 1.79 W/kg
SAR(1 g) = 0.948 W/kg; SAR(10 g) = 0.529 W/kg
Maximum value of SAR (measured) = 1.41 W/kg





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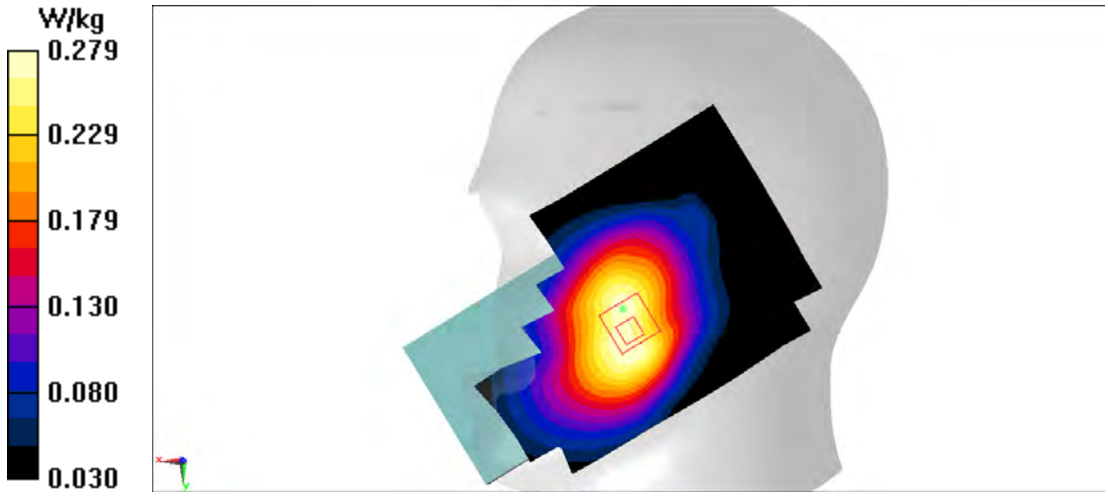
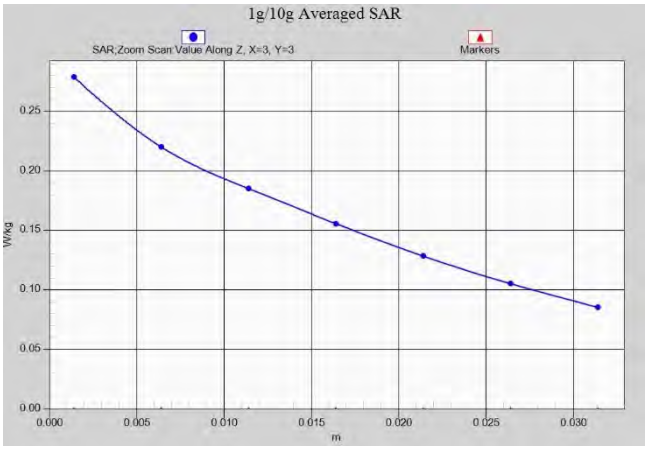
WCDMA850 Head
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 826.4 MHz; σ = 0.9 S/m; ε_r = 41.312; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA 850 (0) 826.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.277 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.246 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.307 W/kg
SAR(1 g) = 0.236 W/kg; SAR(10 g) = 0.185 W/kg
Maximum value of SAR (measured) = 0.279 W/kg





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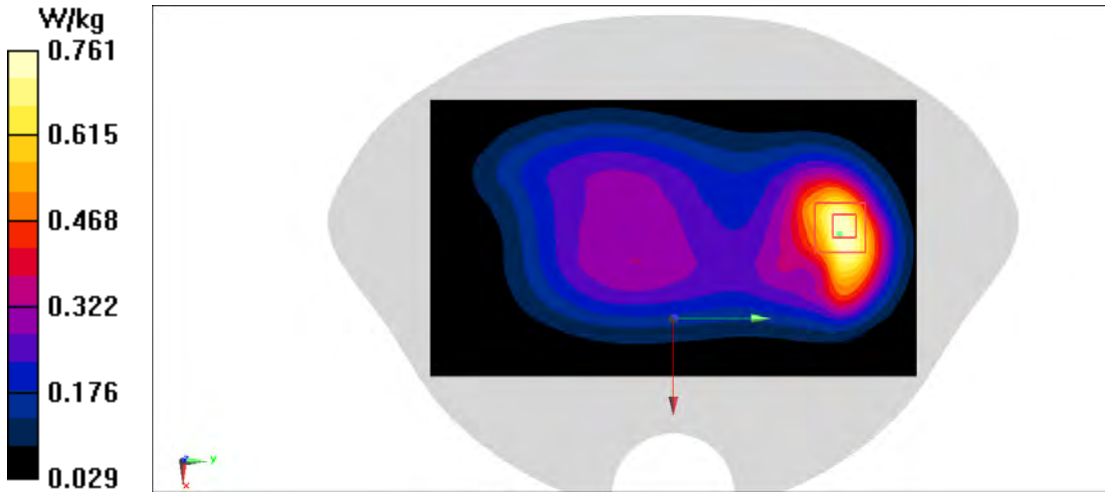
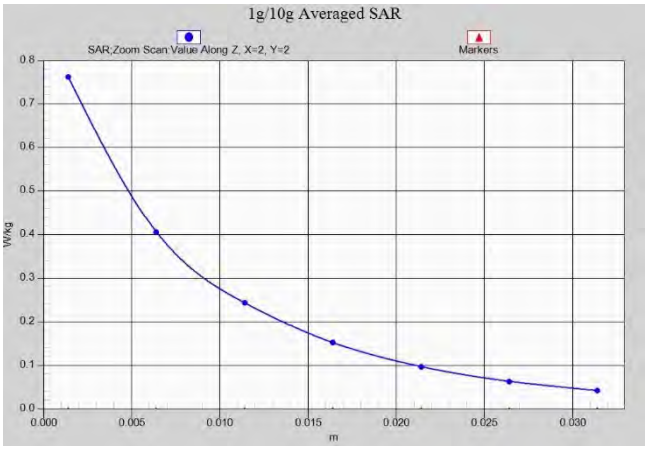
WCDMA850 Body 10mm
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 846.6 MHz; σ = 0.91 S/m; ε_r = 41.32; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA850(B5) 846.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.770 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 16.05 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 0.977 W/kg
SAR(1 g) = 0.515 W/kg; SAR(10 g) = 0.299 W/kg
Maximum value of SAR (measured) = 0.761 W/kg





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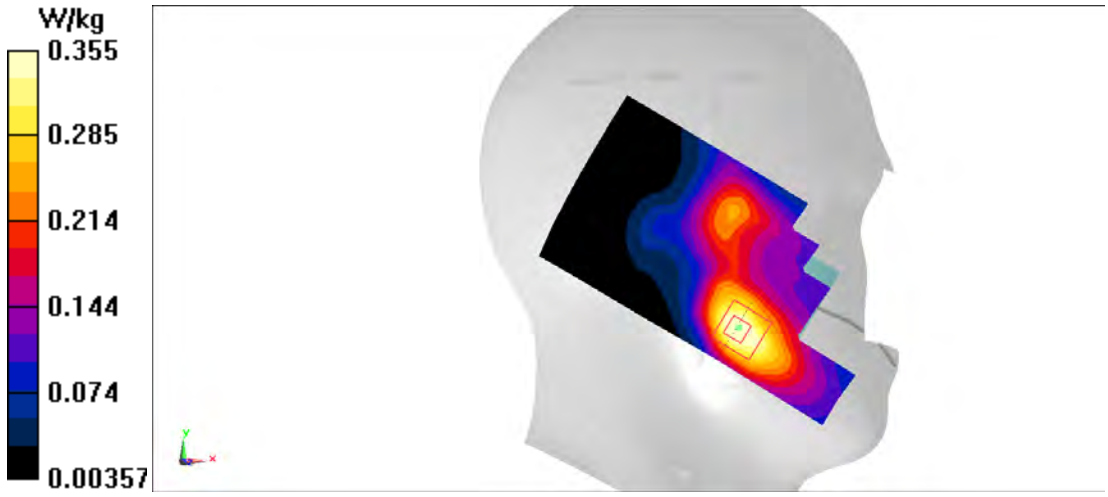
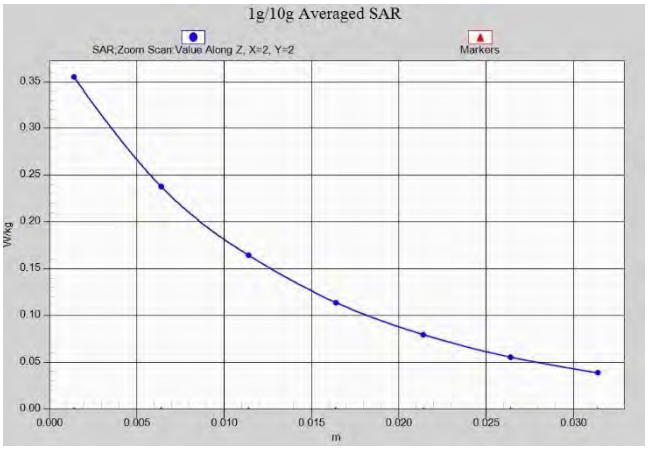
WCDMA1900 Head
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f =1852.5 MHz; σ =1.403 S/m; ε_r = 39.965; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA1900 1852.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.385 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.942 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.403 W/kg
SAR(1 g) = 0.267 W/kg; SAR(10 g) = 0.172 W/kg
Maximum value of SAR (measured) = 0.355 W/kg





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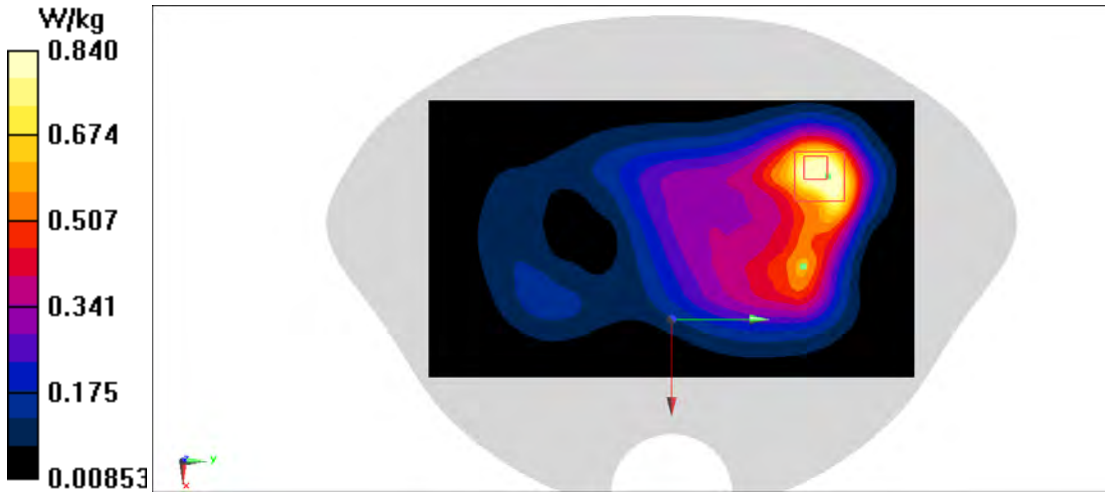
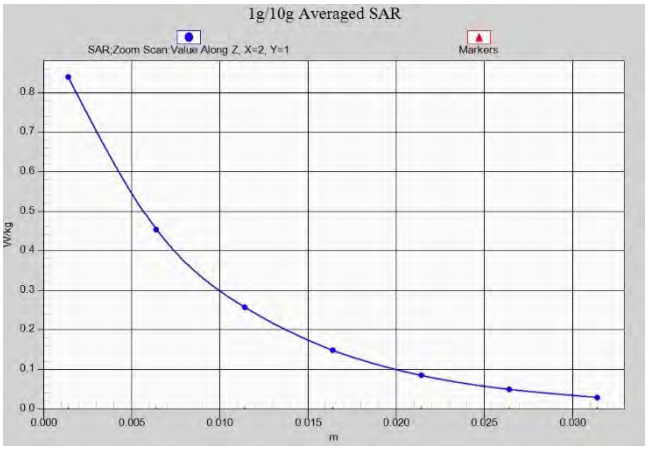
WCDMA1900 Body 10mm
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1907.6 MHz; σ 1.439 S/m; ε_r = 39.853; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA 1900 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.911 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.19 V/m; Power Drift = 0.17 dB
Peak SAR (extrapolated) = 1.06 W/kg
SAR(1 g) = 0.569 W/kg; SAR(10 g) = 0.319 W/kg
Maximum value of SAR (measured) = 0.840 W/kg





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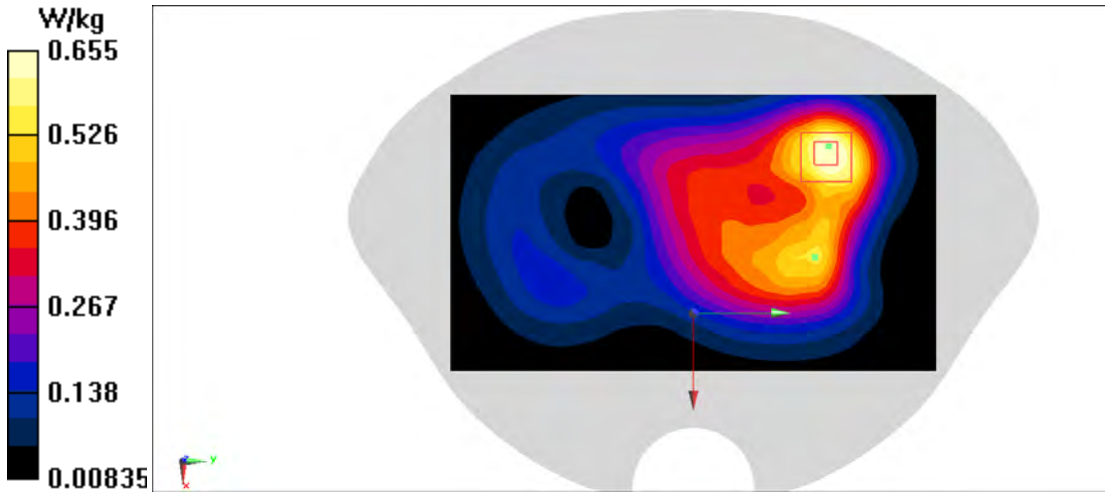
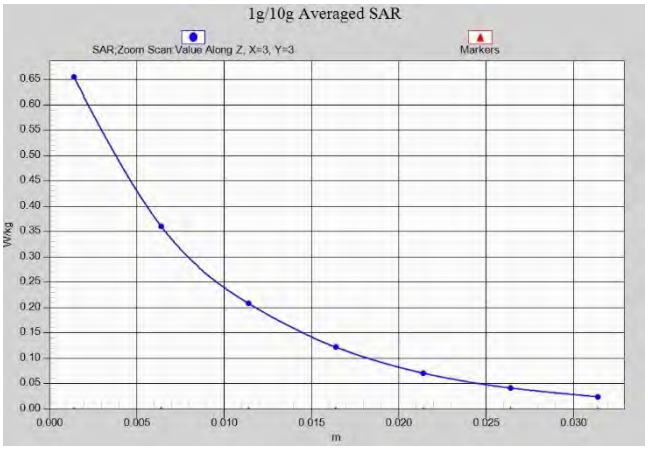
WCDMA1900 Body 15mm
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1907.6 MHz; σ 1.439 S/m; ε_r = 39.853; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA1900(B2) 1907.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.654 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 12.73 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.811 W/kg
SAR(1 g) = 0.453 W/kg; SAR(10 g) = 0.264 W/kg
Maximum value of SAR (measured) = 0.655 W/kg





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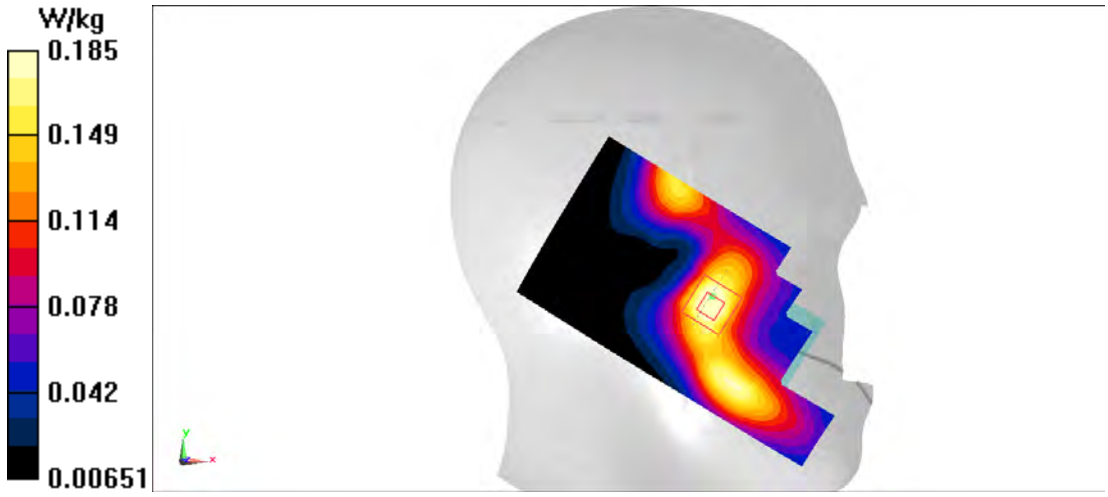
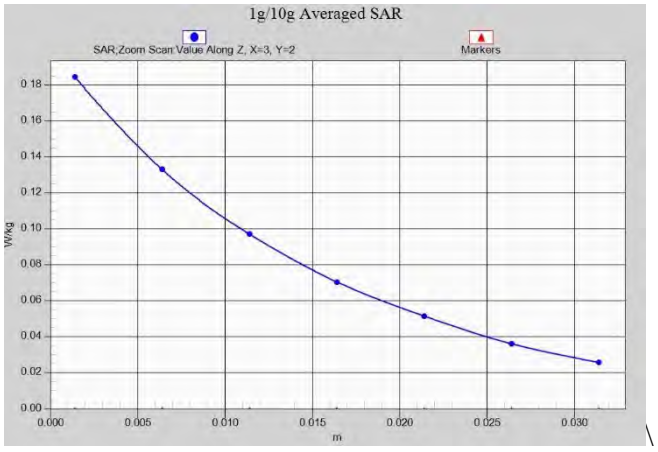
WCDMA1700 Head
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1712.4 MHz; σ = 1.332 S/m; ε_r = 41.196; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA1700(B4) 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13);

Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.191 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 3.342 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.211 W/kg
SAR(1 g) = 0.150 W/kg; SAR(10 g) = 0.099 W/kg
Maximum value of SAR (measured) = 0.185 W/kg





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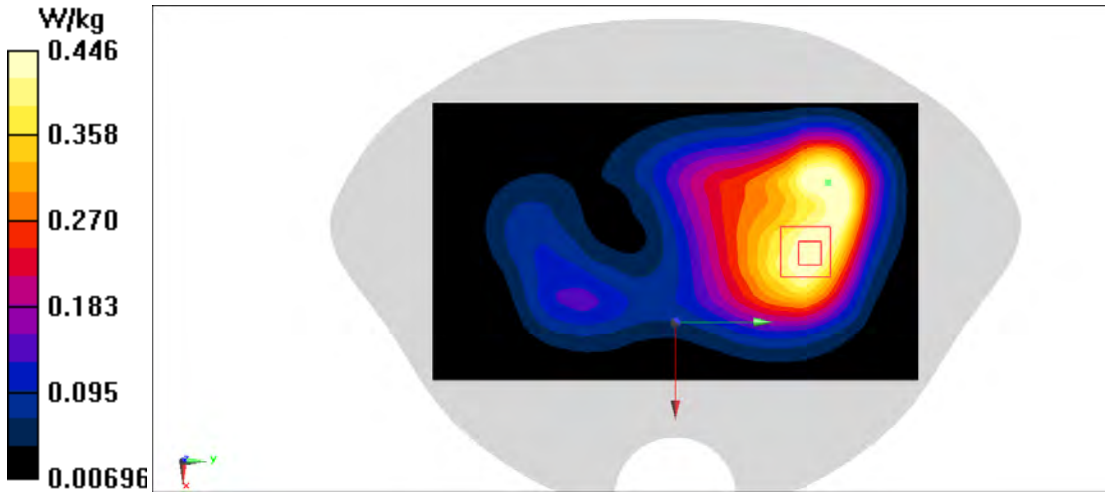
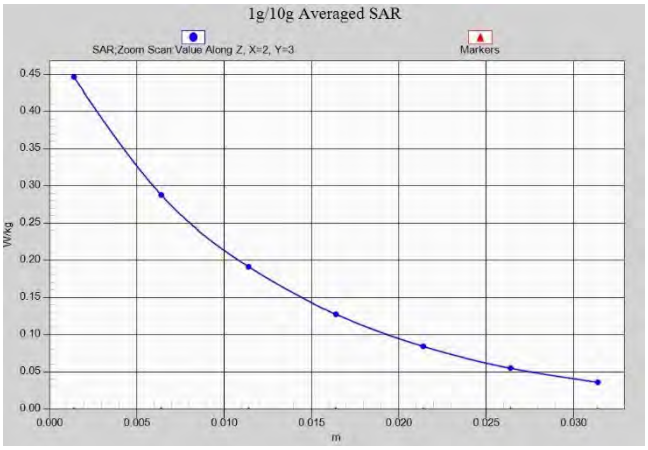
WCDMA1700 Body 10mm
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f =1752.6 MHz; σ =1.357 S/m; ε_r = 41.12; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA 1700 Band4 1752.6 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.479 W/kg

Zoom Scan (9x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.164 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.549 W/kg
SAR(1 g) = 0.332 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.446 W/kg





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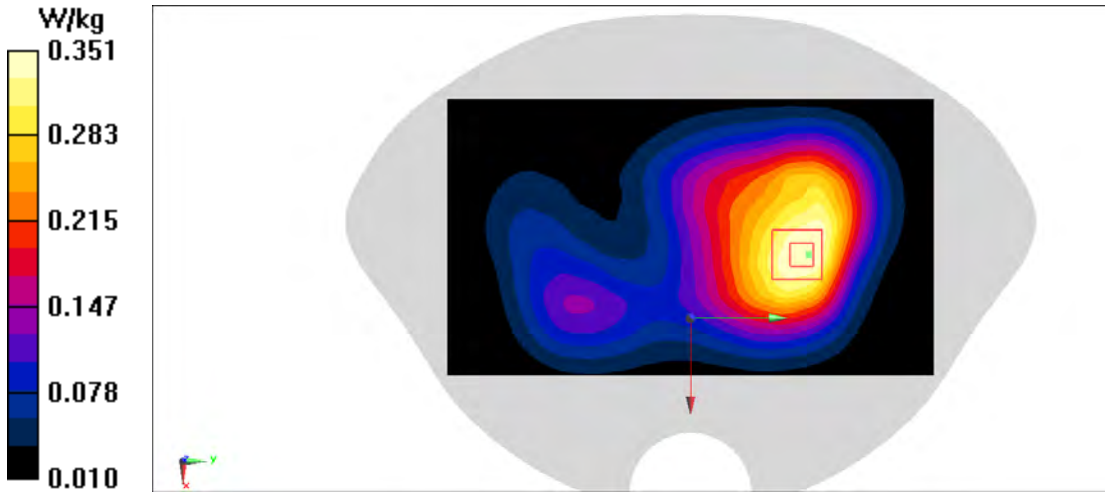
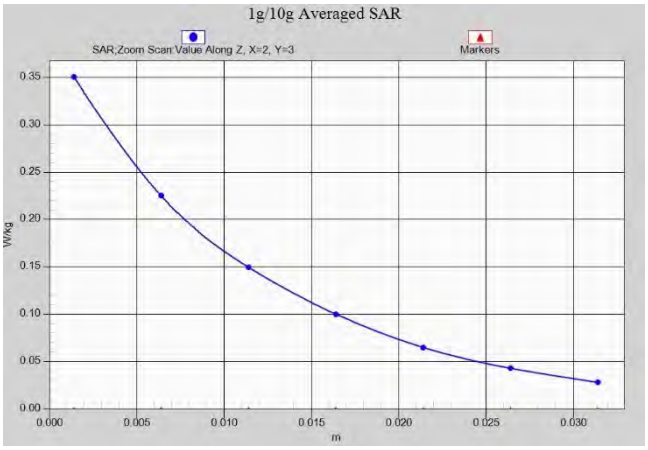
WCDMA1700 Body 15mm
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1712.4 MHz; σ = 1.332 S/m; ε_r = 41.196; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WCDMA1700(B4) 1712.4 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.355 W/kg

Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.658 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 0.406 W/kg
SAR(1 g) = 0.263 W/kg; SAR(10 g) = 0.173 W/kg
Maximum value of SAR (measured) = 0.351 W/kg





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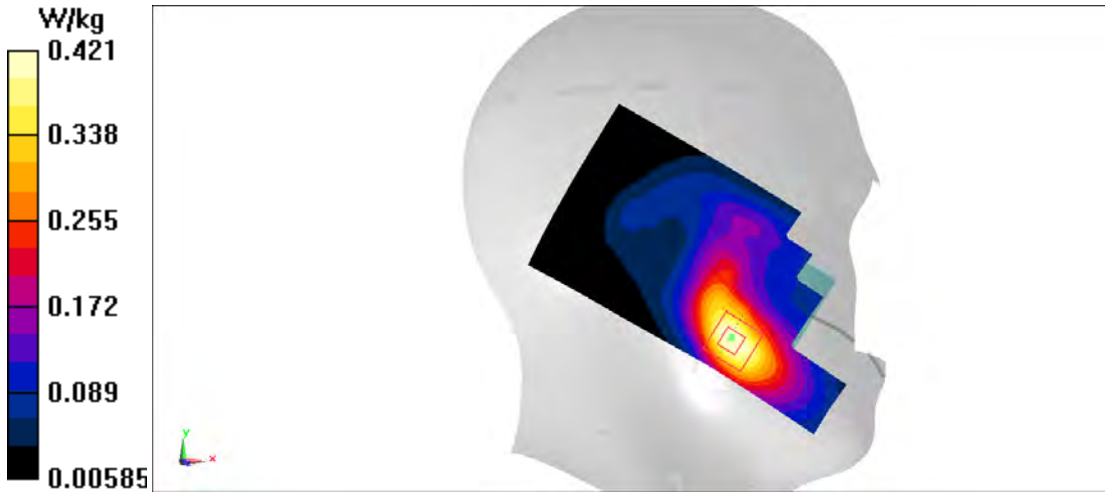
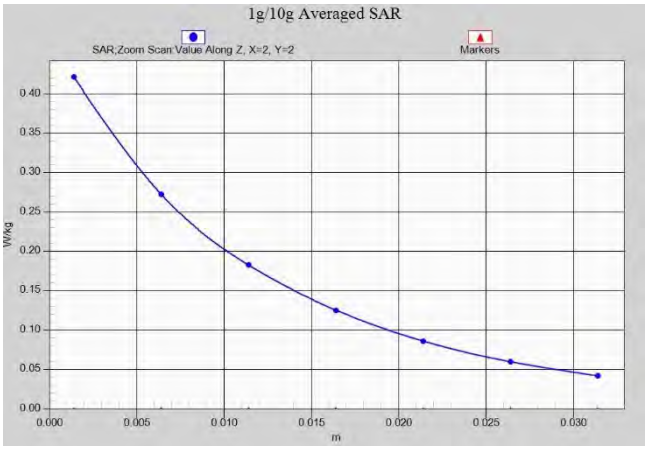
LTE B2 Head
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 39.87; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.440 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.744 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 0.483 W/kg
SAR(1 g) = 0.309 W/kg; SAR(10 g) = 0.195 W/kg
Maximum value of SAR (measured) = 0.421 W/kg





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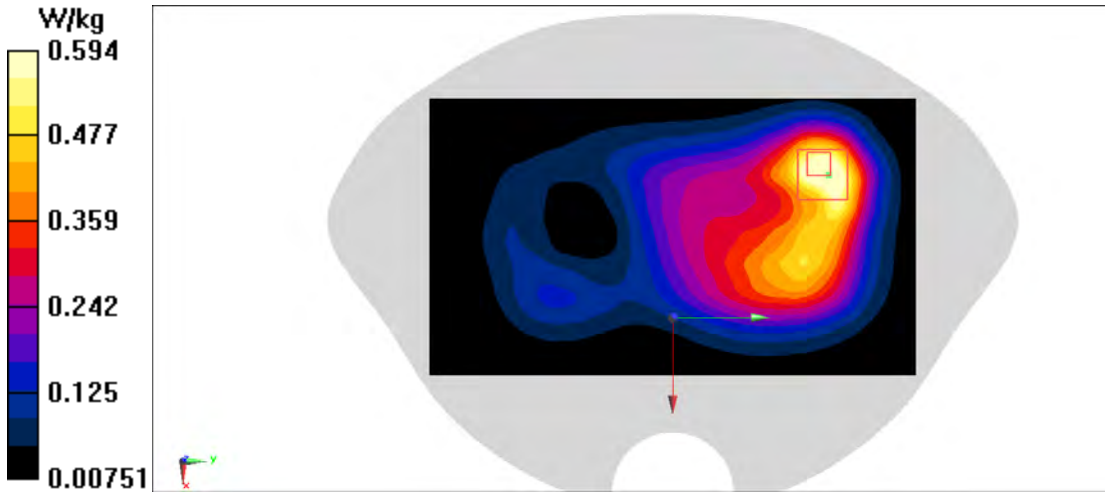
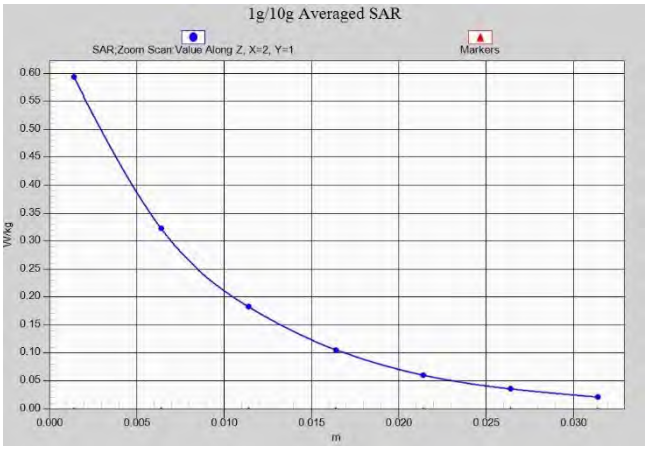
LTE B2 Body 10mm
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1860 MHz; σ = 1.406 S/m; ε_r = 39.967; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.658 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.24 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.768 W/kg
SAR(1 g) = 0.412 W/kg; SAR(10 g) = 0.235 W/kg
Maximum value of SAR (measured) = 0.594 W/kg





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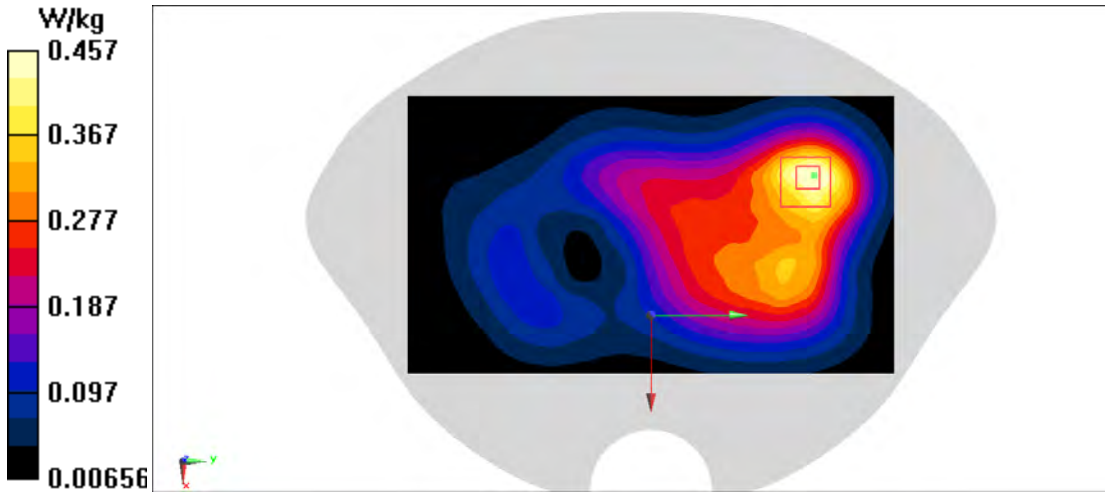
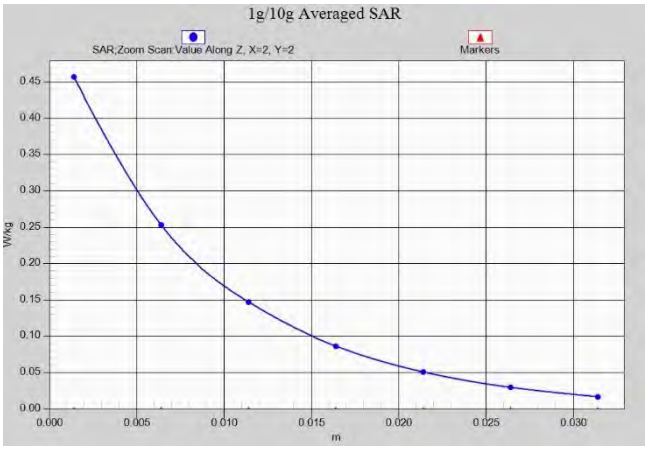
LTE B2 Body 15mm
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; ε_r = 39.87; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.475 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.96 V/m; Power Drift = -0.17 dB
Peak SAR (extrapolated) = 0.553 W/kg
SAR(1 g) = 0.314 W/kg; SAR(10 g) = 0.185 W/kg
Maximum value of SAR (measured) = 0.457 W/kg





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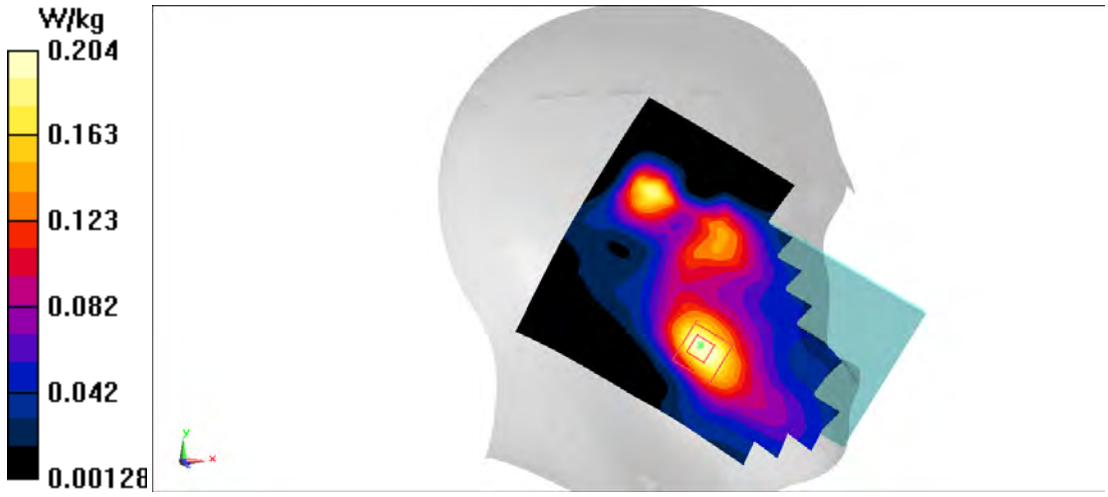
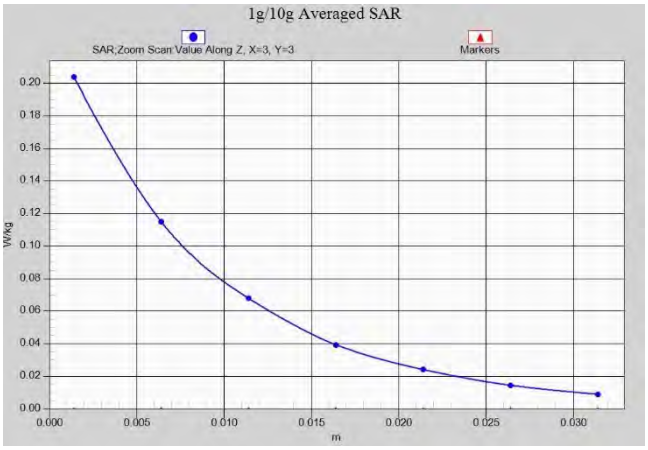
LTE B7 Head
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2510 MHz; σ = 1.874 S/m; ε_r = 39.719; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band7-20M 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (111x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.207 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.287 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.245 W/kg
SAR(1 g) = 0.138 W/kg; SAR(10 g) = 0.077 W/kg
Maximum value of SAR (measured) = 0.204 W/kg





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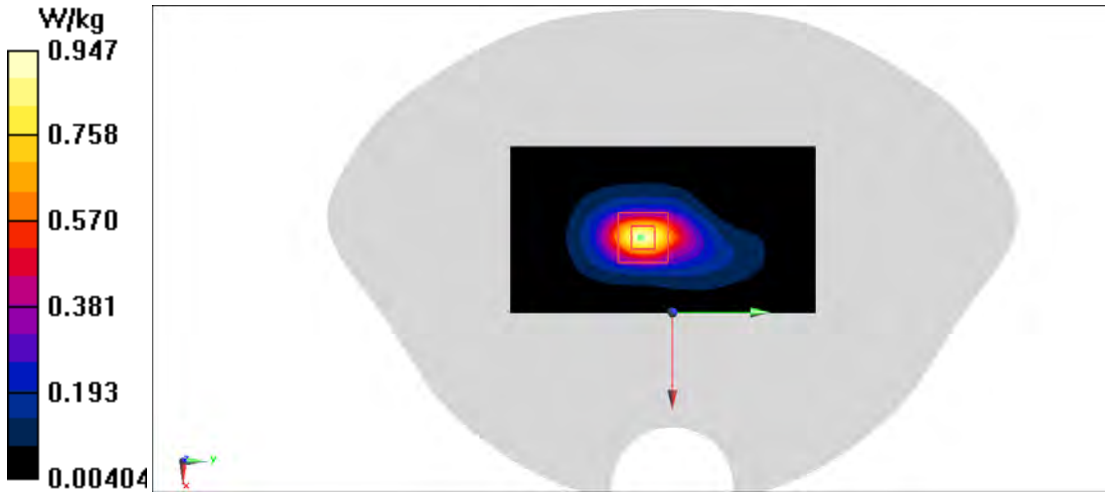
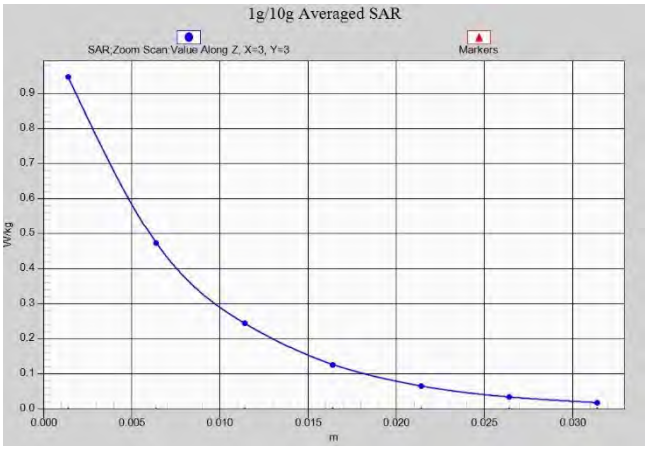
LTE B7 Body 10mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2510 MHz; σ = 1.874 S/m; ε_r = 39.719; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band7-20M (0) 2510 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.917 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 14.57 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 1.16 W/kg
SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.259 W/kg
Maximum value of SAR (measured) = 0.947 W/kg





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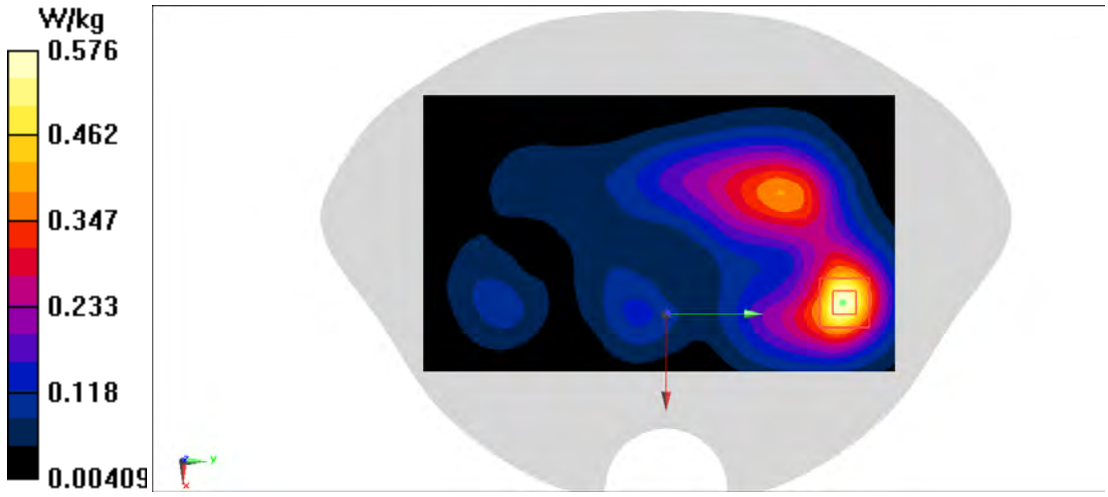
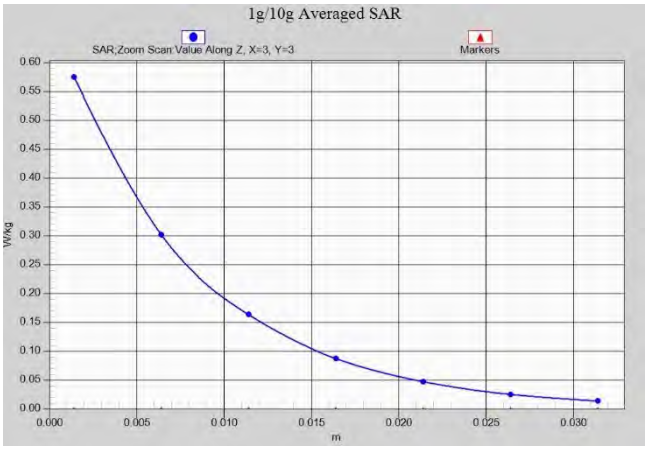
LTE B7 Body 15mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2560 MHz; σ = 1.913 S/m; ε_r = 39.734;ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band7 2560 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.574 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.194 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.702 W/kg
SAR(1 g) = 0.370 W/kg; SAR(10 g) = 0.191 W/kg
Maximum value of SAR (measured) = 0.576 W/kg





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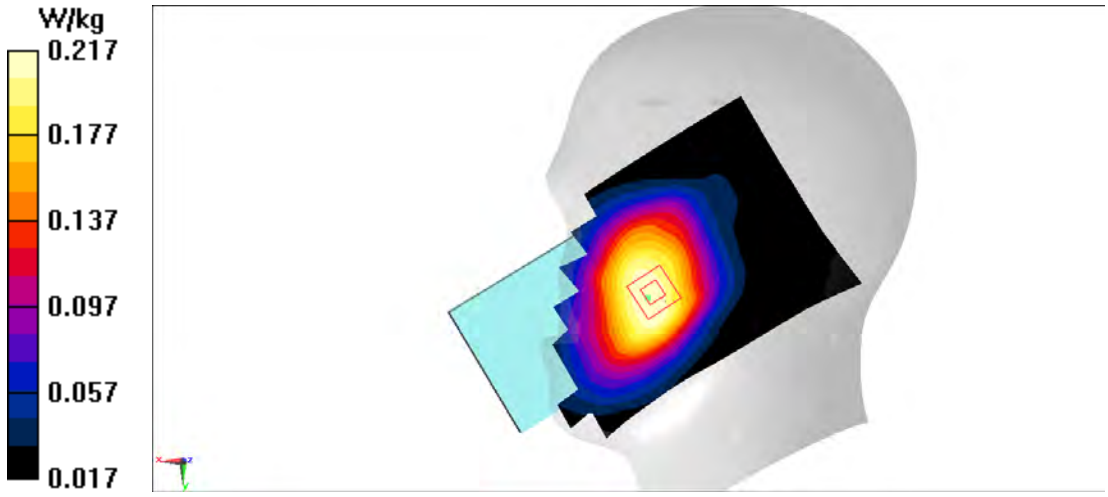
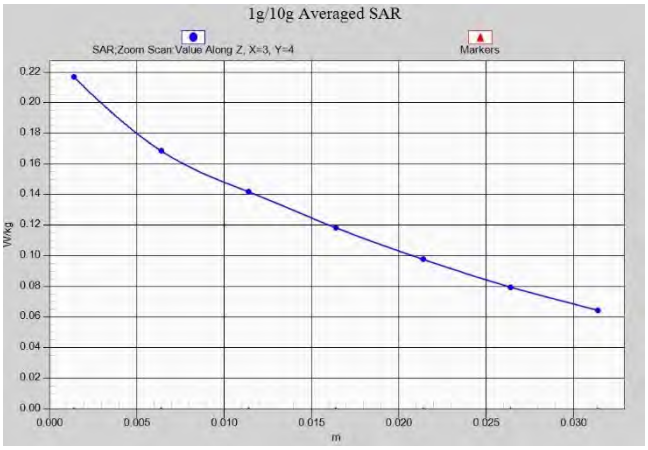
LTE B12 Head
Date: 3/10/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 711 MHz; σ = 0.893 S/m; ε_r = 43.042; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band12 (0) 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.219 W/kg

Zoom Scan (6x7x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.688 V/m; Power Drift = 0.04dB
Peak SAR (extrapolated) = 0.239 W/kg
SAR(1 g) = 0.183 W/kg; SAR(10 g) = 0.144 W/kg
Maximum value of SAR (measured) = 0.217 W/kg





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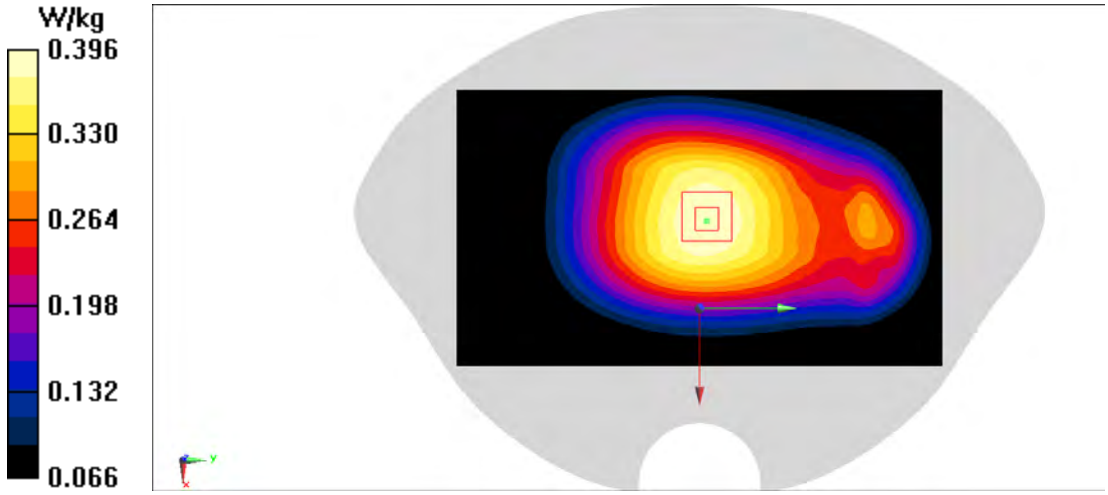
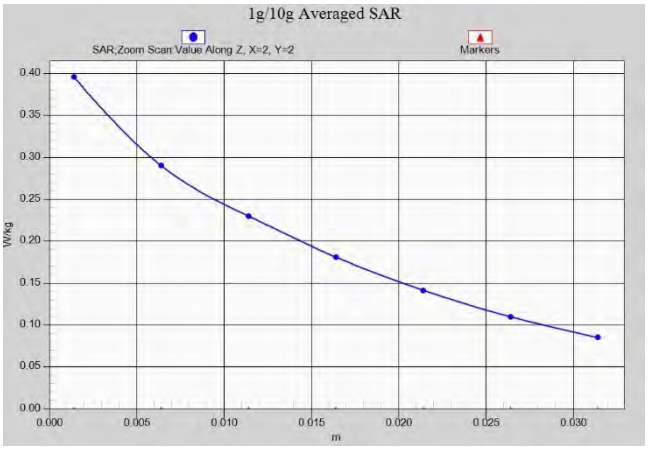
LTE B12 Body 10mm
Date: 3/10/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 711 MHz; σ = 0.893 S/m; ε_r = 43.042; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band12 (0) 711 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 0.395 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.50 V/m; Power Drift = 0.13 dB
Peak SAR (extrapolated) = 0.440 W/kg
SAR(1 g) = 0.321 W/kg; SAR(10 g) = 0.245 W/kg
Maximum value of SAR (measured) = 0.396 W/kg





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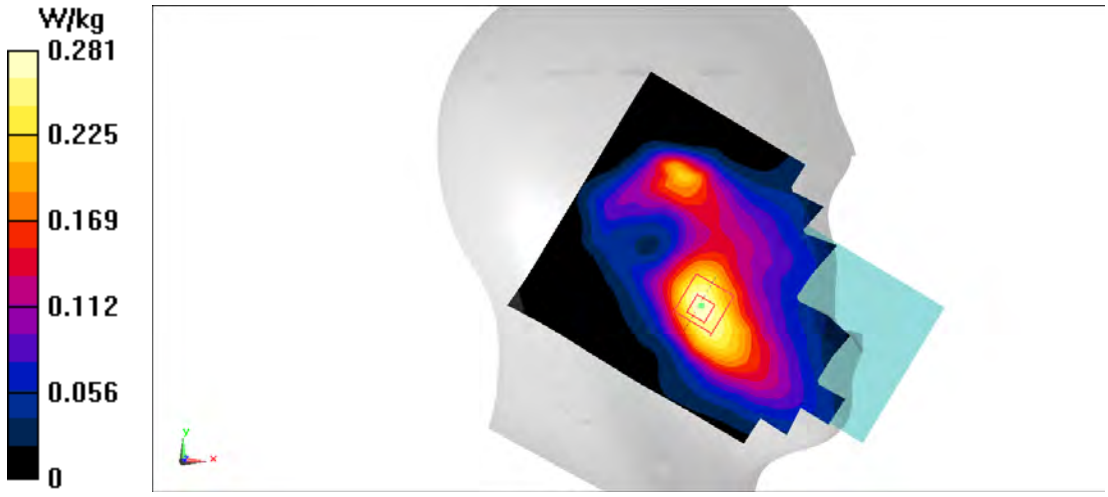
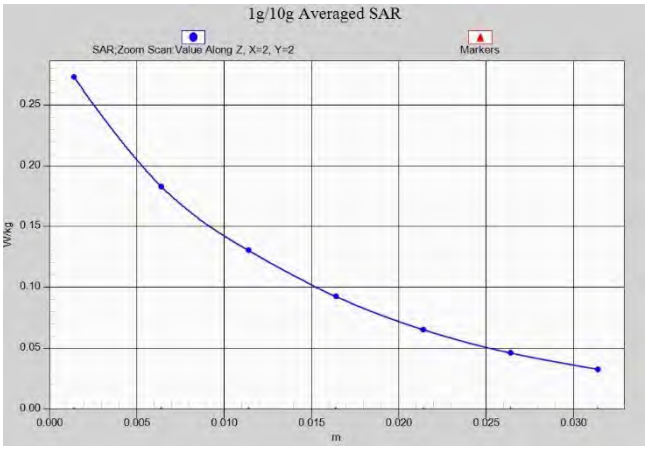
LTE B25 Head
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1905 MHz; σ = 1.445 S/m; ε_r = 39.637; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band25 1905 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (91x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.281 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.979 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 0.312 W/kg
SAR(1 g) = 0.205 W/kg; SAR(10 g) = 0.134 W/kg
Maximum value of SAR (measured) = 0.273 W/kg





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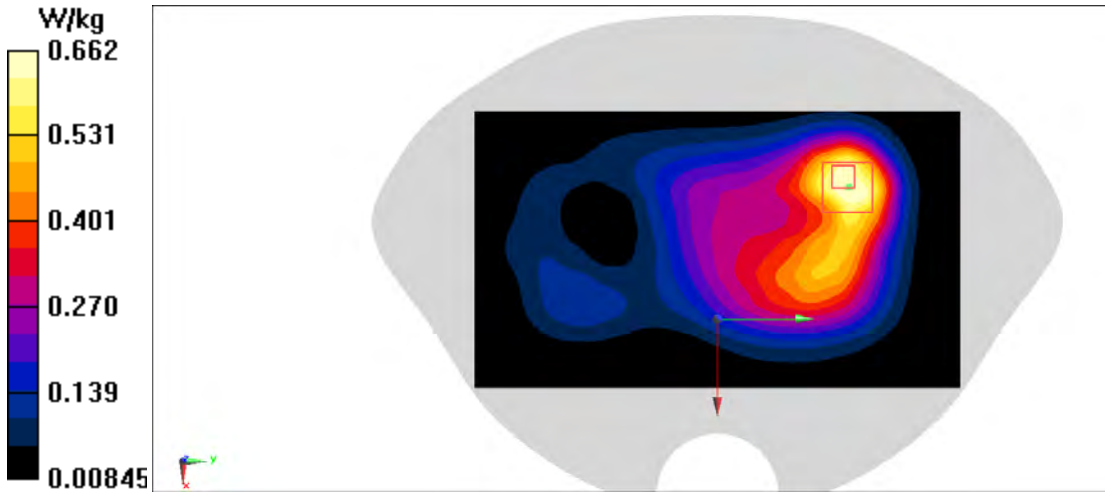
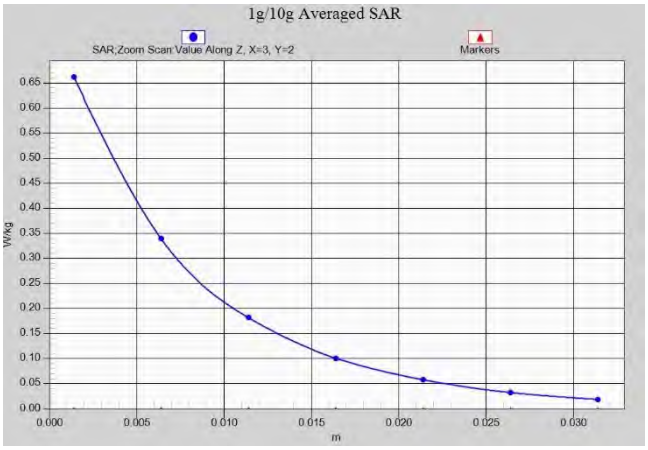
LTE B25 Body 10mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1860 MHz; σ = 1.412 S/m; ε_r = 39.751; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band25 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.704 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.53 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.852 W/kg
SAR(1 g) = 0.451 W/kg; SAR(10 g) = 0.256 W/kg
Maximum value of SAR (measured) = 0.662 W/kg





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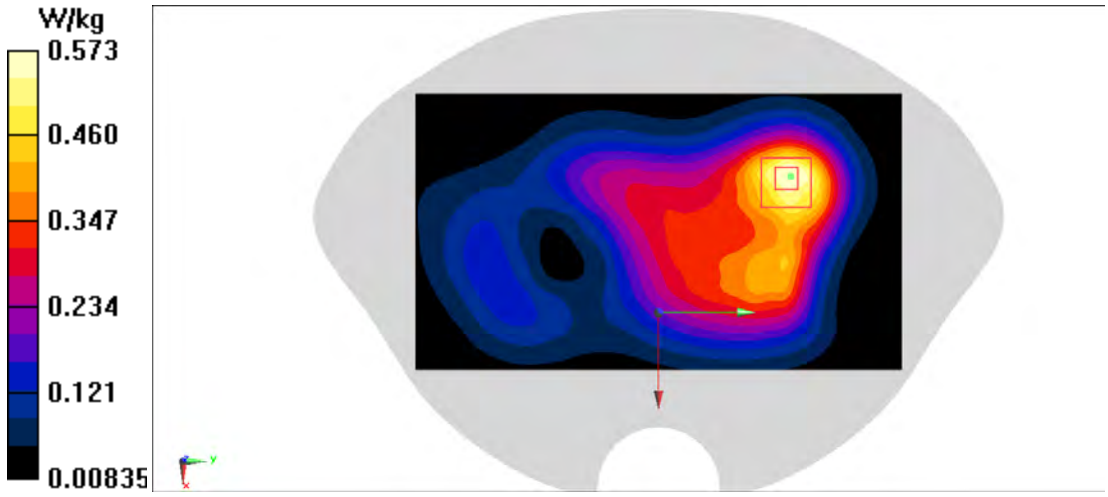
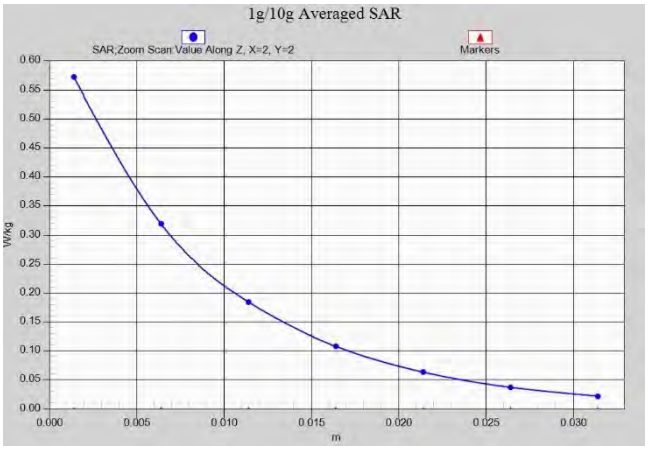
LTE B25 Body 15mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1905 MHz; σ = 1.445 S/m; ε_r = 39.637; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band25 1905 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.591 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 14.57 V/m; Power Drift = -0.07 dB
Peak SAR (extrapolated) = 0.688 W/kg
SAR(1 g) = 0.391 W/kg; SAR(10 g) = 0.230 W/kg
Maximum value of SAR (measured) = 0.573 W/kg





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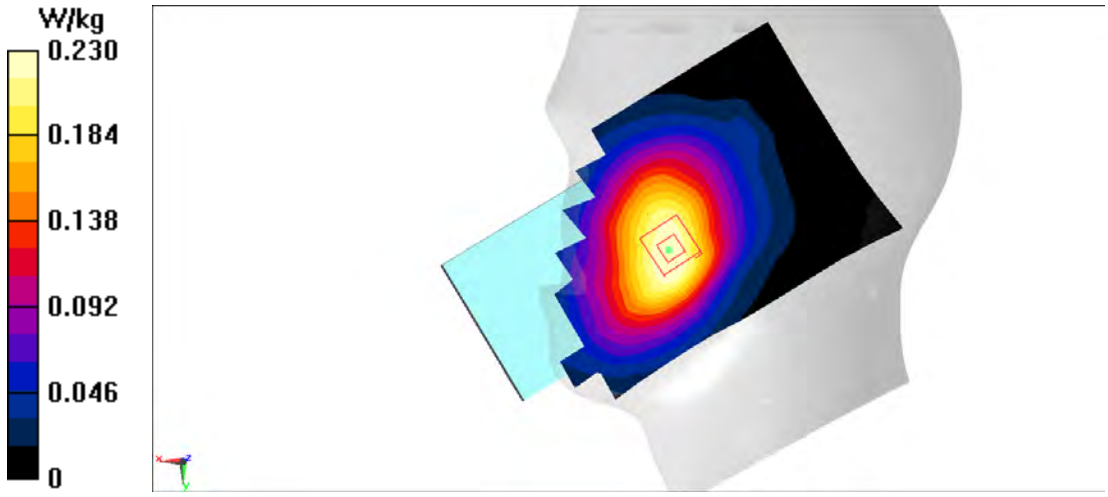
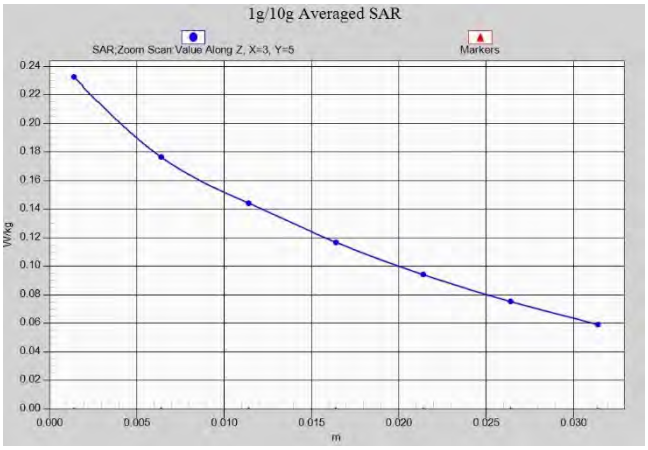
LTE B26 Head
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 841.5 MHz; σ = 0.908 S/m; ε_r = 41.316; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band26 841.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(9.81, 9.81, 9.81)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.230 W/kg

Zoom Scan (6x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.488 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.259 W/kg
SAR(1 g) = 0.193 W/kg; SAR(10 g) = 0.147 W/kg
Maximum value of SAR (measured) = 0.233 W/kg





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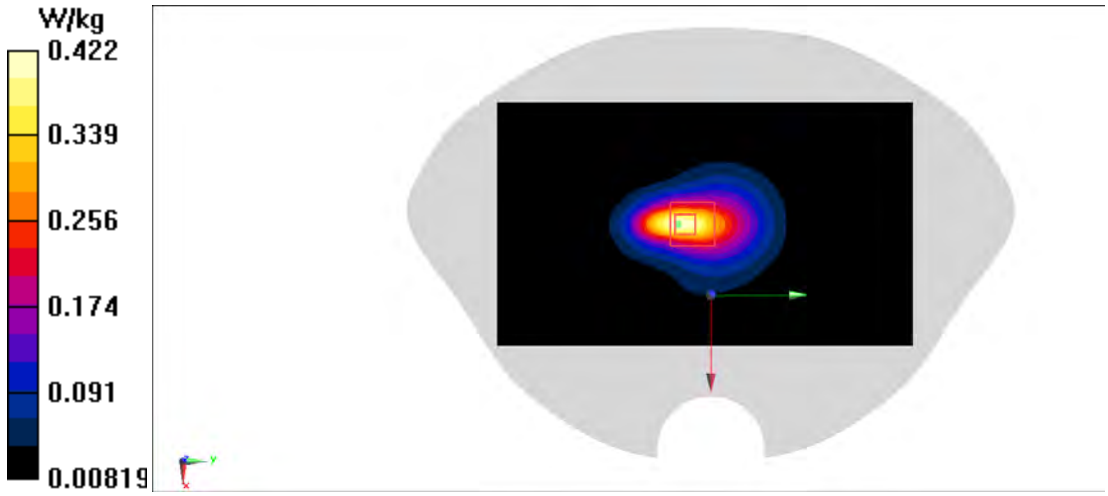
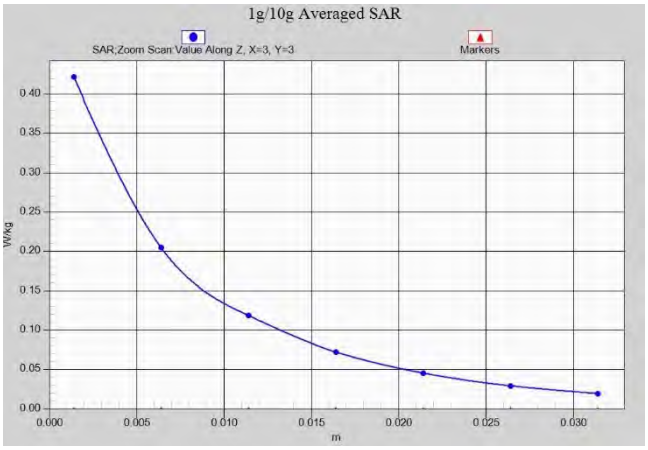
LTE B26 Body 10mm
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 841.5 MHz; σ = 0.908 S/m; ε_r = 41.316; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band26 841.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(9.81, 9.81, 9.81)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.424 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.18 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.540 W/kg
SAR(1 g) = 0.261 W/kg; SAR(10 g) = 0.142 W/kg
Maximum value of SAR (measured) = 0.422 W/kg





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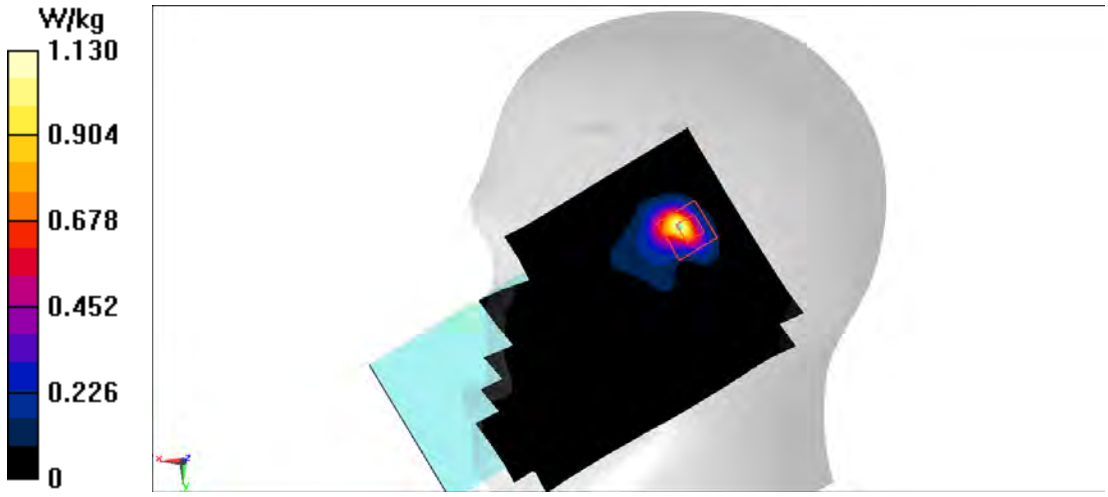
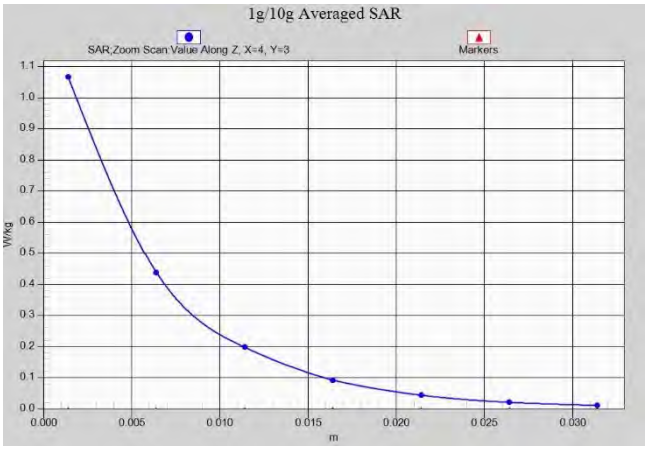
LTE B41 PC2 Head
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.580 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.44 W/kg
SAR(1 g) = 0.567 W/kg; SAR(10 g) = 0.225 W/kg
Maximum value of SAR (measured) = 1.07 W/kg





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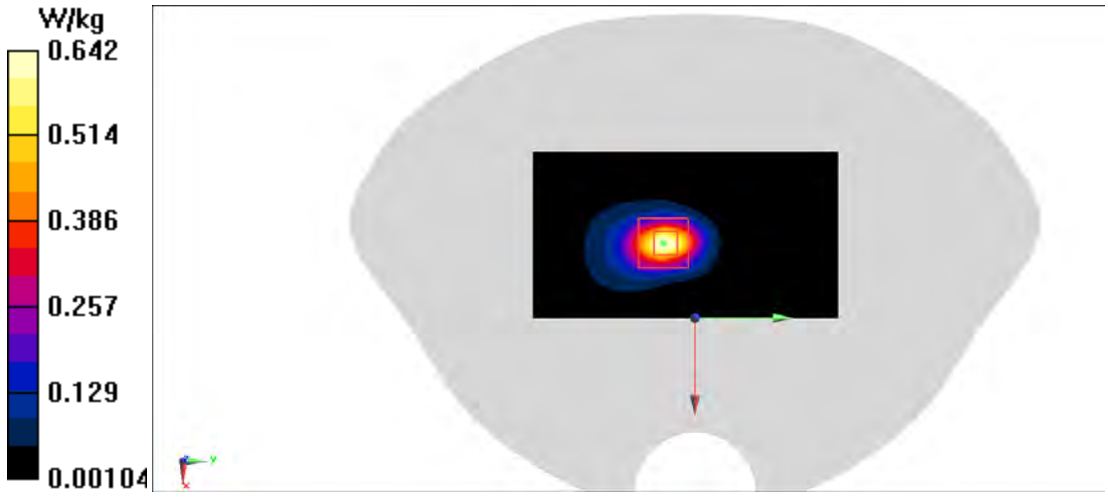
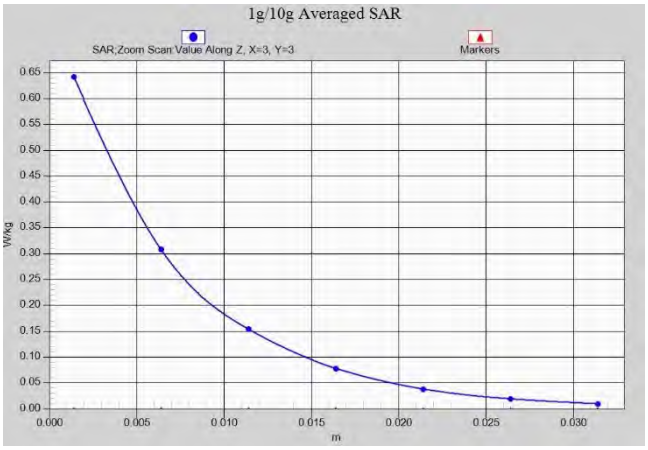
LTE B41 PC2 Body 10mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.674 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.628 V/m; Power Drift = 0.16 dB
Peak SAR (extrapolated) = 0.798 W/kg
SAR(1 g) = 0.371 W/kg; SAR(10 g) = 0.160 W/kg
Maximum value of SAR (measured) = 0.642 W/kg





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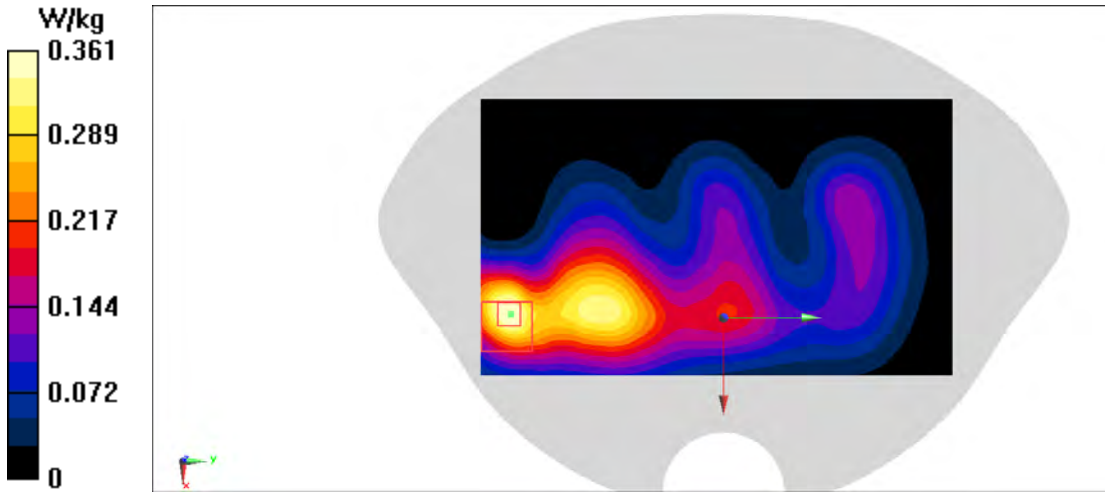
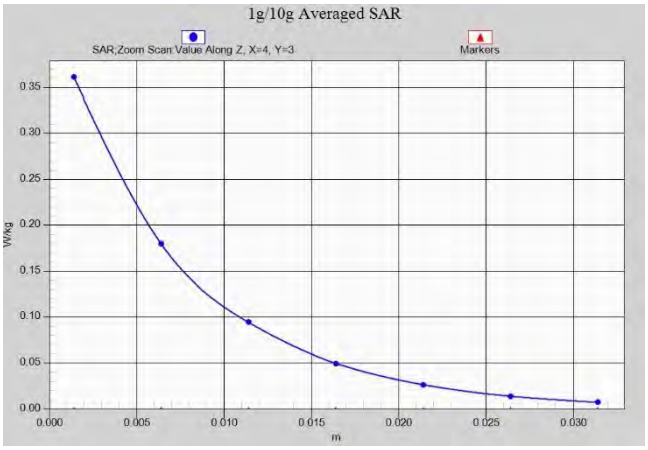
LTE B41 PC2 Body 15mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.372 W/kg

Zoom Scan (8x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 9.073 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 0.934 W/kg
SAR(1 g) = 0.279 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.361 W/kg





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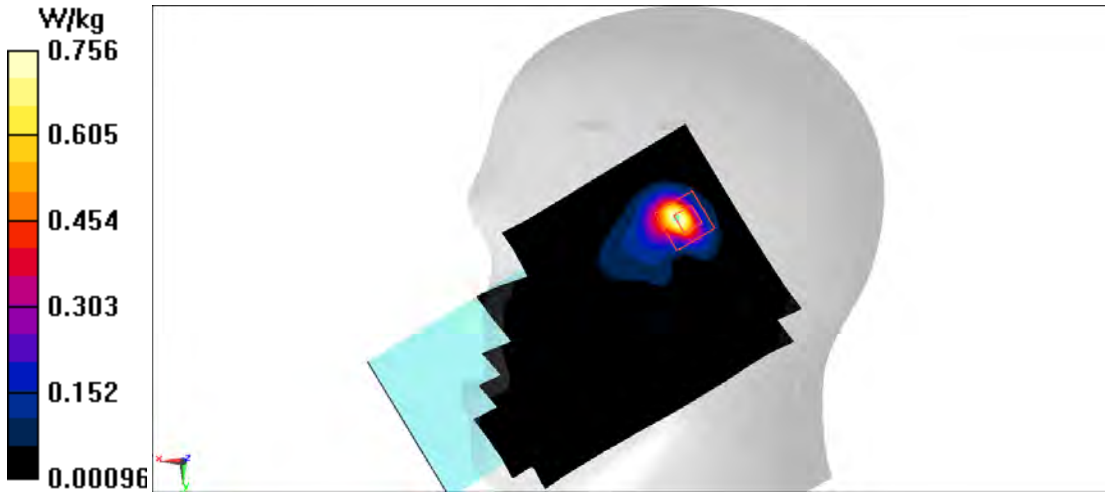
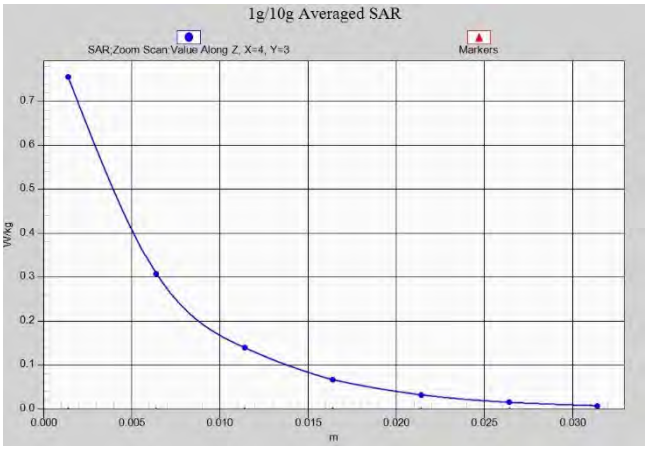
LTE B41 PC3 Head
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.811 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.405 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.167 W/kg
Maximum value of SAR (measured) = 0.756 W/kg





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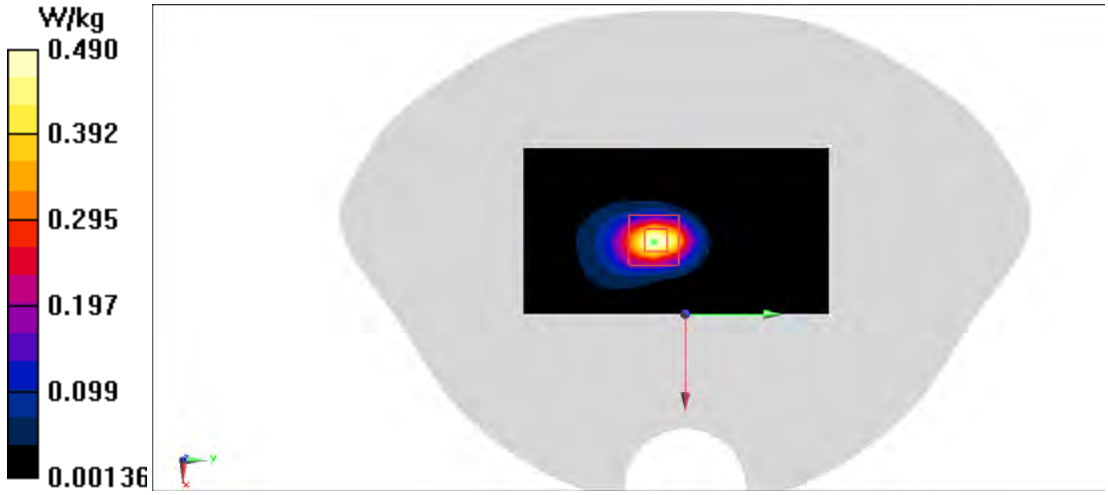
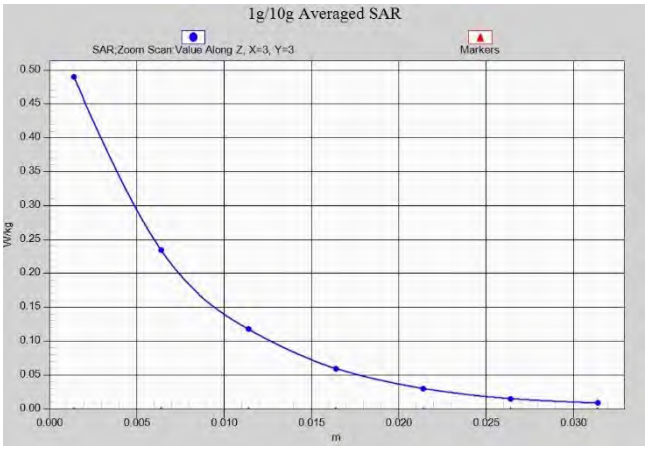
LTE B41 PC3 Body 10mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32);

Area Scan (61x111x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.529 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.788 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.613 W/kg
SAR(1 g) = 0.285 W/kg; SAR(10 g) = 0.122 W/kg
Maximum value of SAR (measured) = 0.490 W/kg





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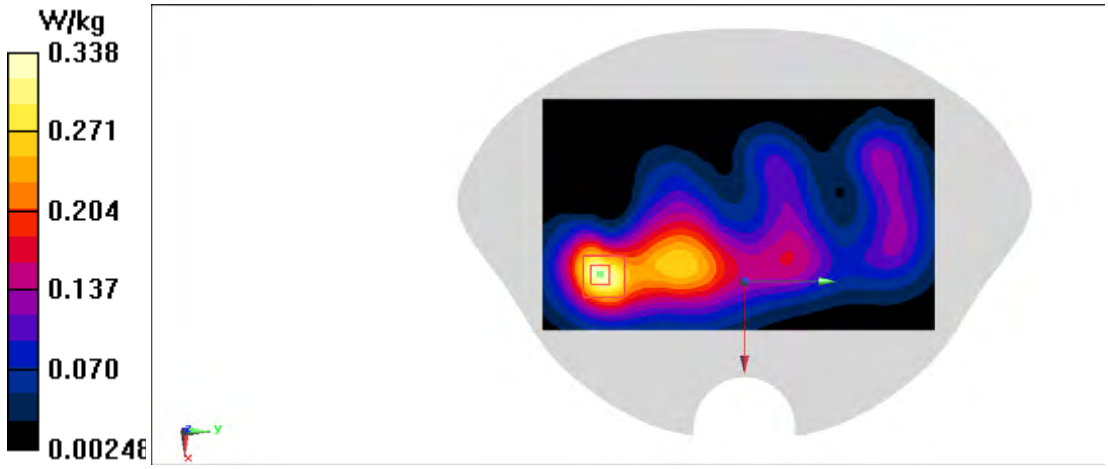
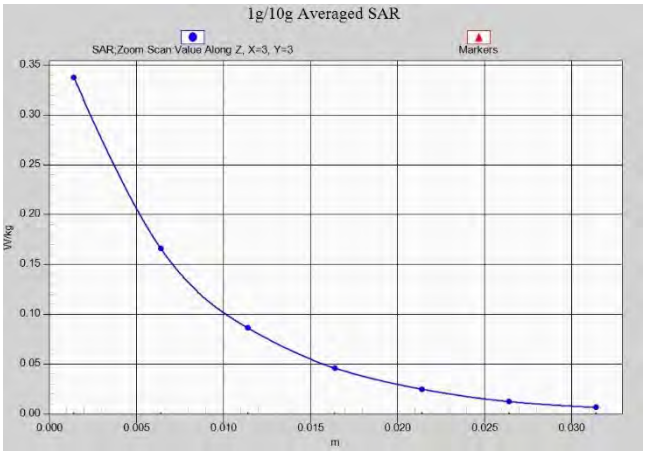
LTE B41 PC3 Body 15mm
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2506 MHz; σ = 1.869 S/m; ε_r = 39.733; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band41 PC3 2506 MHz Duty Cycle: 1:1.5787
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.336 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.829 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 0.421 W/kg
SAR(1 g) = 0.212 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.338 W/kg





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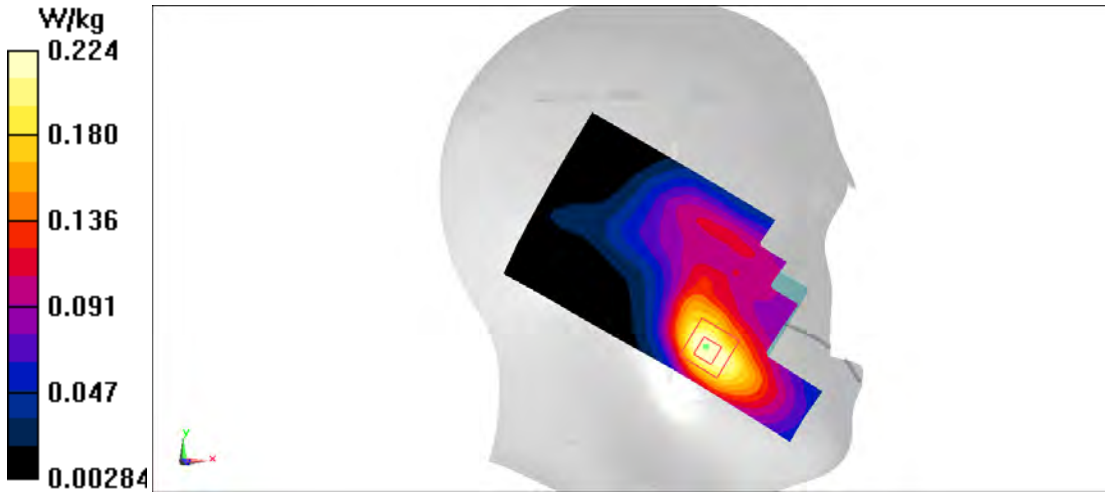
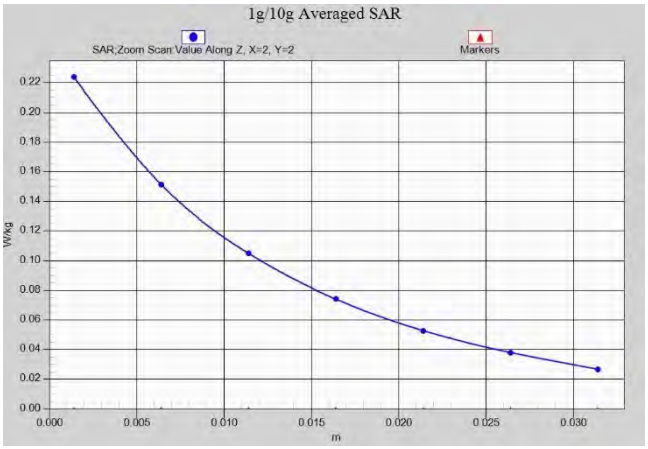
LTE B66 Head
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ = 1.352 S/m; ε_r = 41.129; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (61x111x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.237 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.010 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 0.255 W/kg
SAR(1 g) = 0.169 W/kg; SAR(10 g) = 0.110 W/kg
Maximum value of SAR (measured) = 0.224 W/kg





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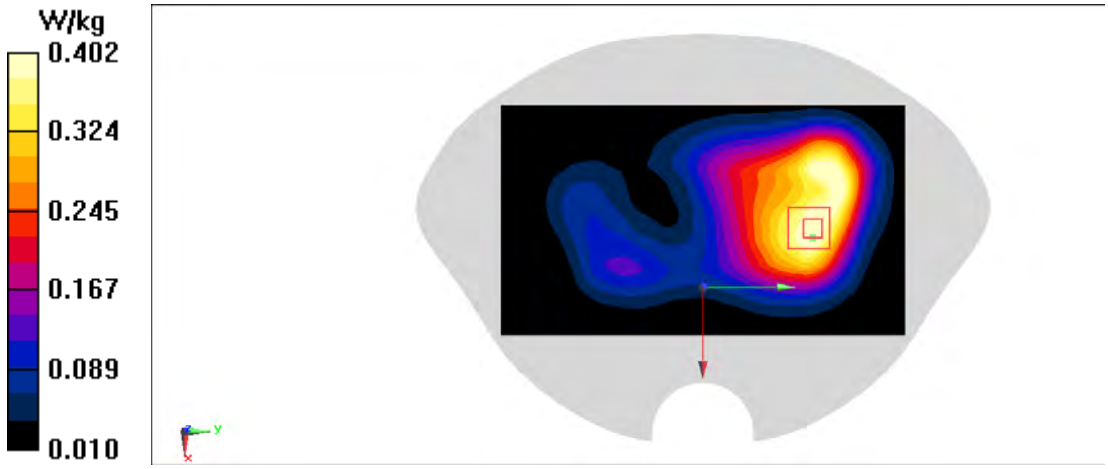
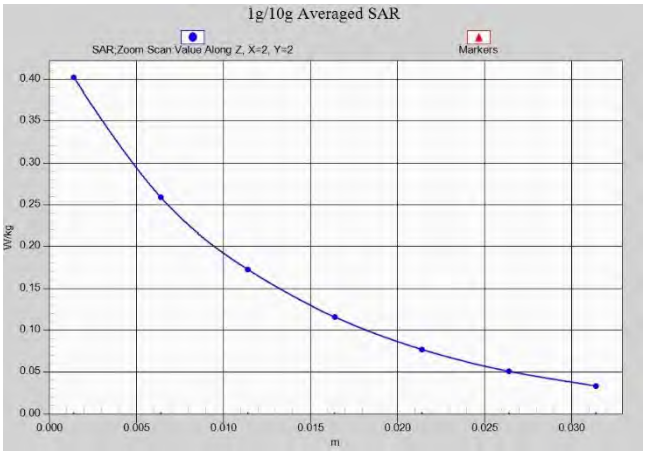
LTE B66 Body 10mm
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ = 1.352 S/m; ε_r = 41.129; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.412 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 6.723 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.465 W/kg
SAR(1 g) = 0.301 W/kg; SAR(10 g) = 0.196 W/kg
Maximum value of SAR (measured) = 0.402 W/kg





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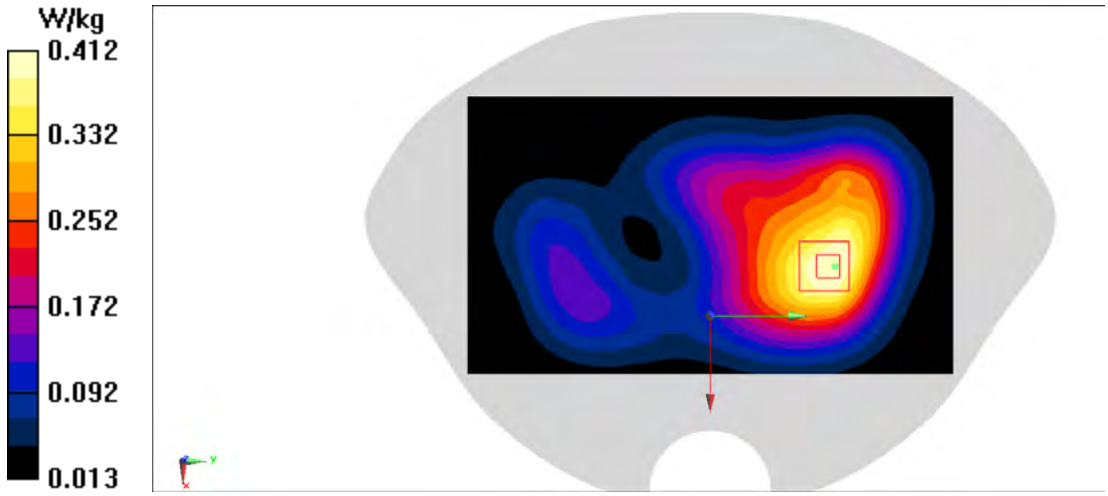
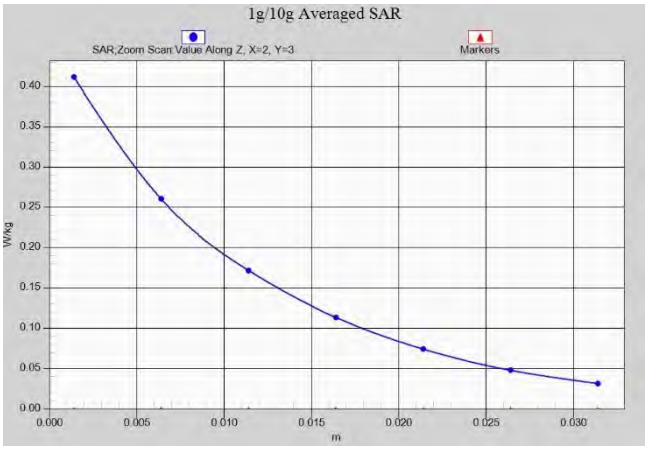
LTE B66 Body 15mm
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ = 1.352 S/m; ε_r = 41.129; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.422 W/kg

Zoom Scan (5x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.804 V/m; Power Drift = -0.10 dB
Peak SAR (extrapolated) = 0.481 W/kg
SAR(1 g) = 0.307 W/kg; SAR(10 g) = 0.199 W/kg
Maximum value of SAR (measured) = 0.412 W/kg





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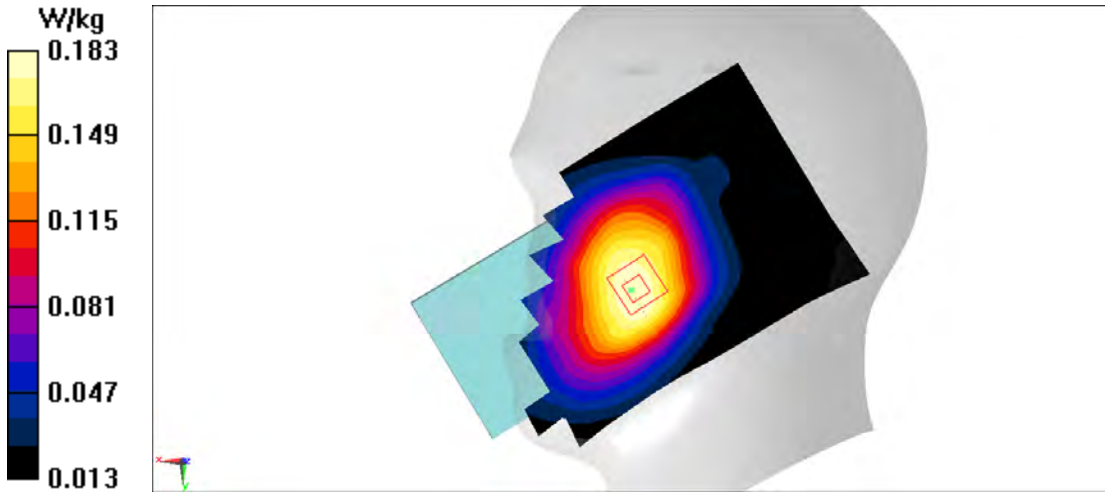
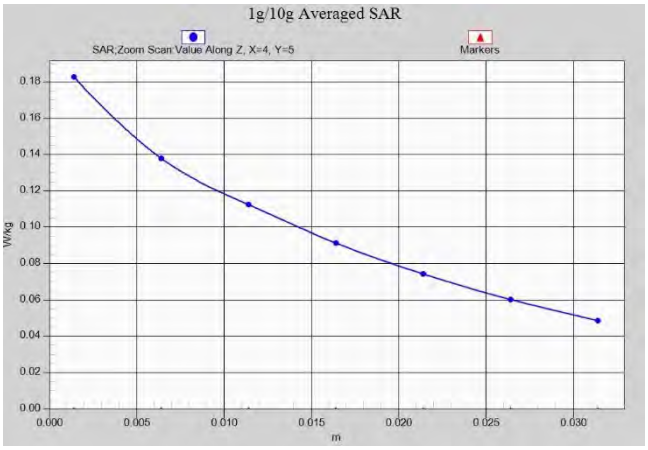
LTE B71 Head
Date: 3/11/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 673 MHz; σ = 0.881 S/m; ε_r = 43.194; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band71 673 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7548 ConvF(10.3, 10.3, 10.3);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.184 W/kg

Zoom Scan (6x8x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.819 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.202 W/kg
SAR(1 g) = 0.154 W/kg; SAR(10 g) = 0.121 W/kg
Maximum value of SAR (measured) = 0.183 W/kg





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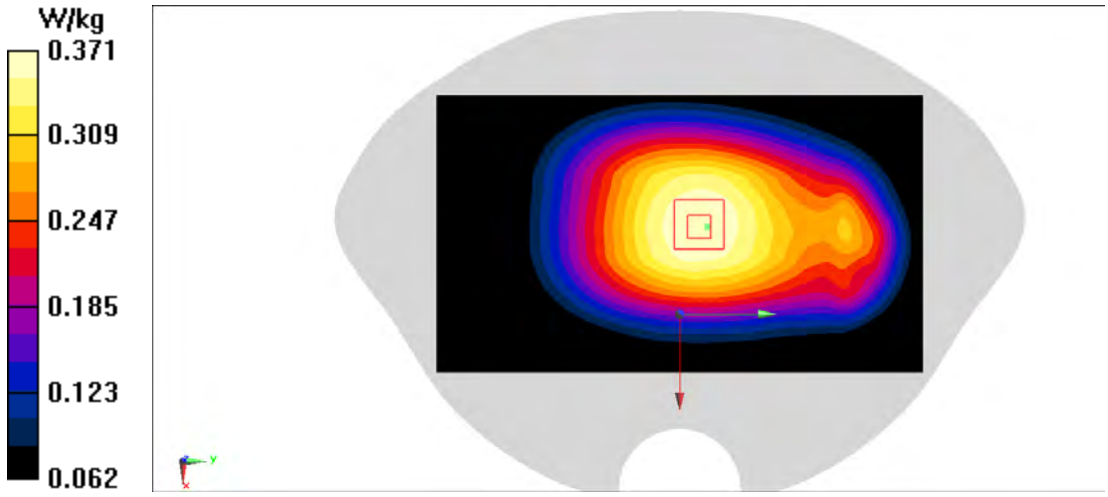
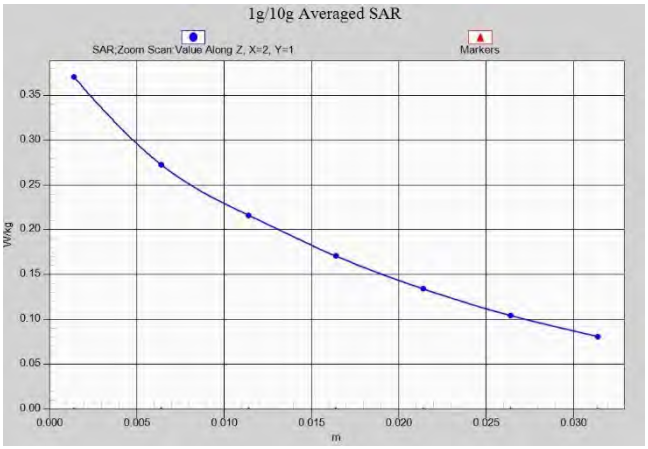
LTE B71 Body 10mm
Date: 3/11/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 673 MHz; σ = 0.881 S/m; ε_r = 43.194; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band71 673 MHz Duty Cycle: 1:1
Probe: EX3DV4 – SN7548 ConvF(10.3, 10.3, 10.3);

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.373 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.07 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.414 W/kg
SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.232 W/kg
Maximum value of SAR (measured) = 0.371 W/kg





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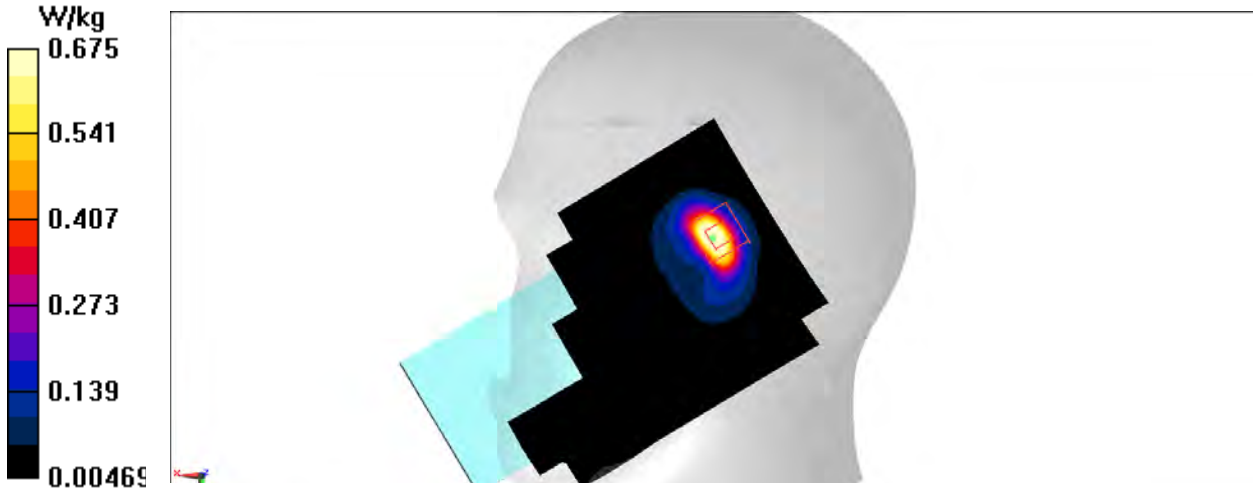
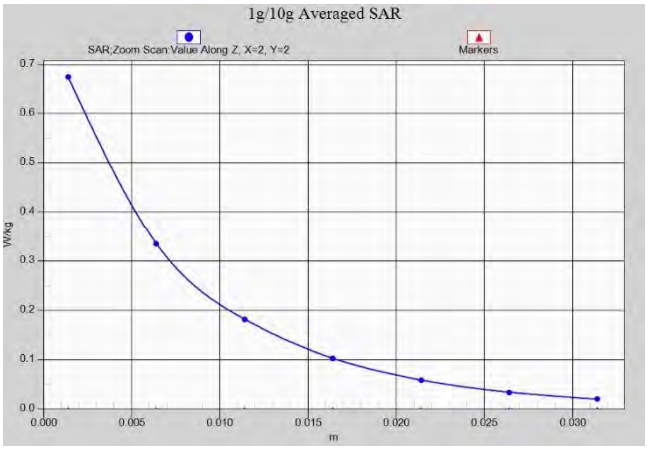
LTE B2 ANT3 Head
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1860 MHz; σ = 1.412 S/m; ε_r = 39.751; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.817 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.64 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 1.02 W/kg
SAR(1 g) = 0.480 W/kg; SAR(10 g) = 0.210 W/kg
Maximum value of SAR (measured) = 0.675 W/kg





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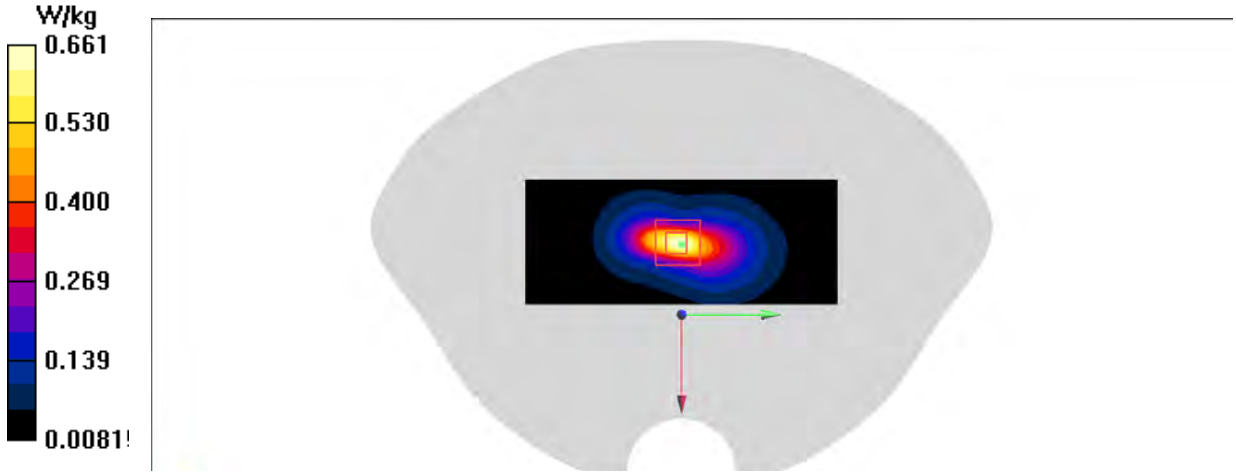
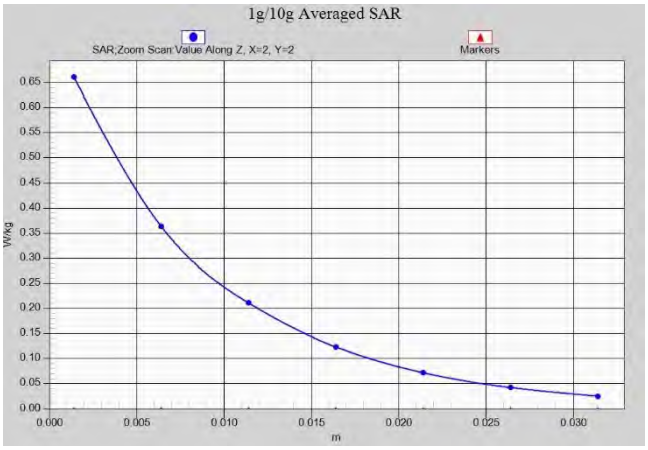
LTE B2 ANT3 Body 10mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1860 MHz; σ = 1.412 S/m; ε_r = 39.751; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (41x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.664 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 15.59 V/m; Power Drift = 0.12 dB
Peak SAR (extrapolated) = 0.800 W/kg
SAR(1 g) = 0.428 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.661 W/kg





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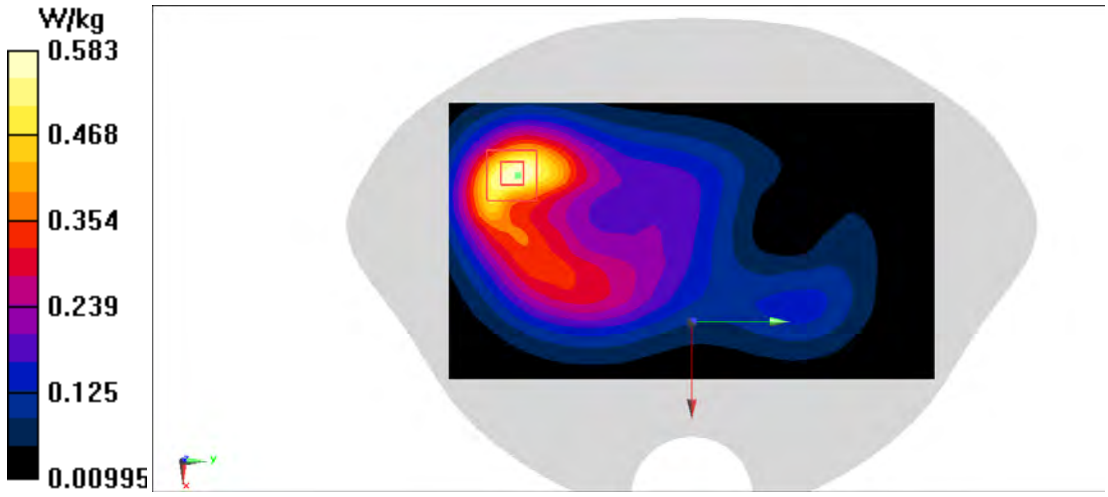
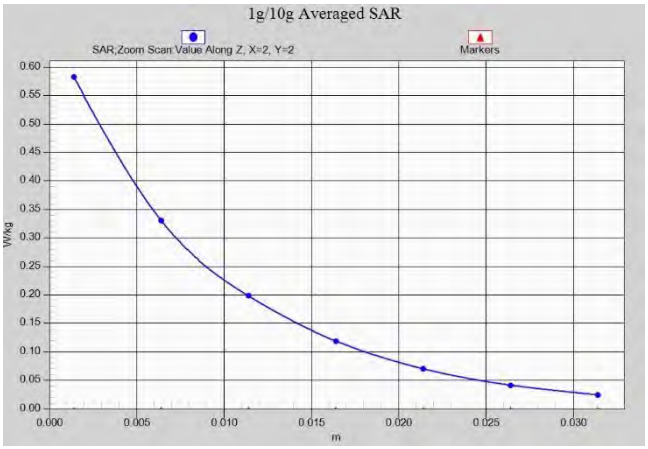
LTE B2 ANT3 Body 15mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1860 MHz; σ = 1.412 S/m; ε_r = 39.751; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band2 1860 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.587 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.05 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.696 W/kg
SAR(1 g) = 0.400 W/kg; SAR(10 g) = 0.231 W/kg
Maximum value of SAR (measured) = 0.583 W/kg





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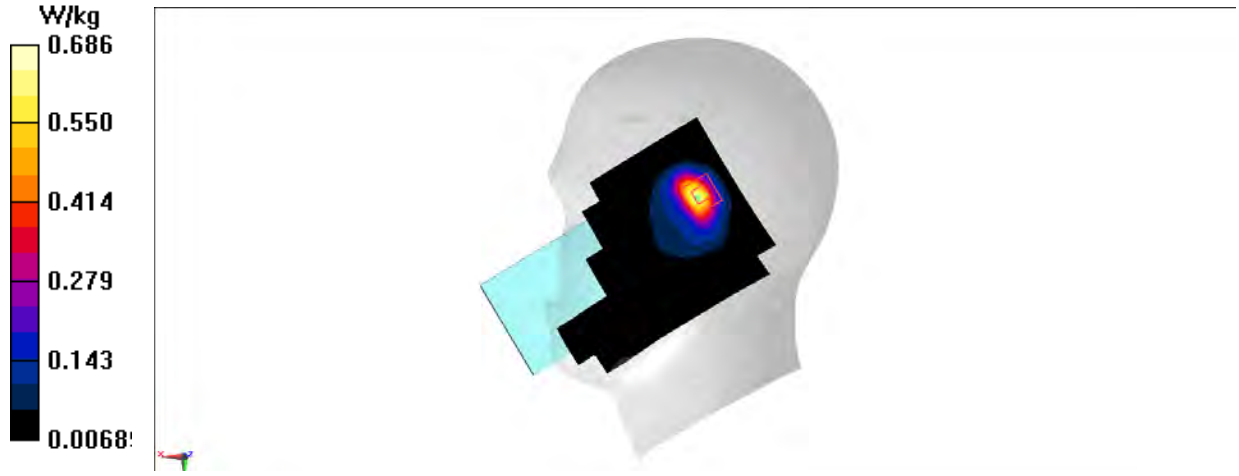
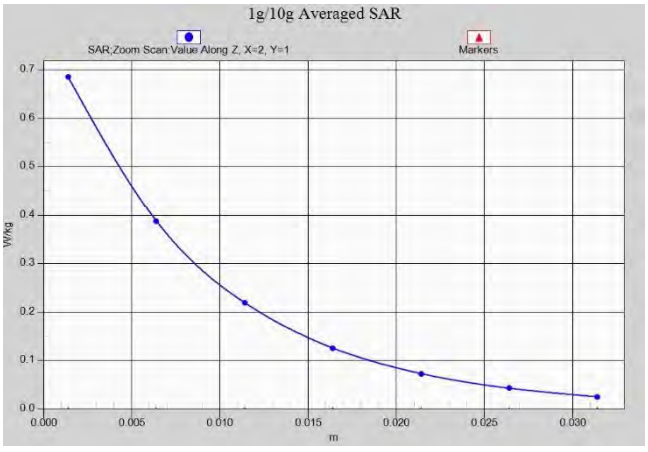
LTE B66 ANT3 Head
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1720 MHz; σ = 1.351 S/m; ε_r = 41.412; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.643 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.37 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.981 W/kg
SAR(1 g) = 0.479 W/kg; SAR(10 g) = 0.220 W/kg
Maximum value of SAR (measured) = 0.686 W/kg





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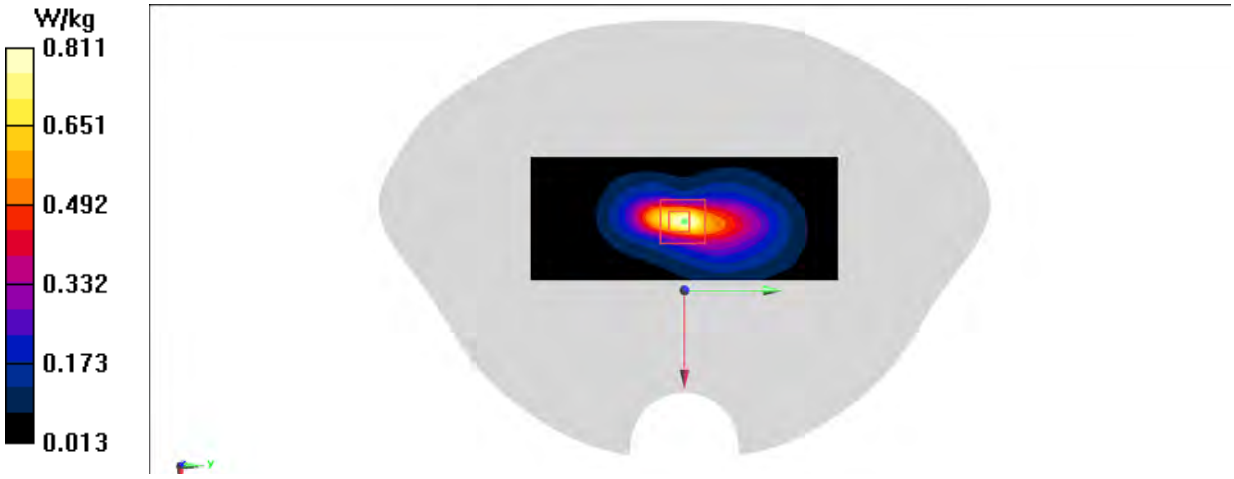
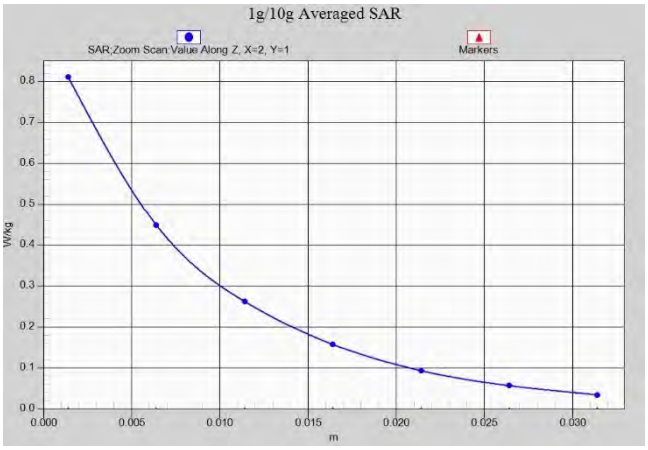
LTE B66 ANT3 Body 10mm
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1720 MHz; σ = 1.351 S/m; ε_r = 41.412; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (41x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.826 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 18.35 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.988 W/kg
SAR(1 g) = 0.529 W/kg; SAR(10 g) = 0.270 W/kg
Maximum value of SAR (measured) = 0.811 W/kg





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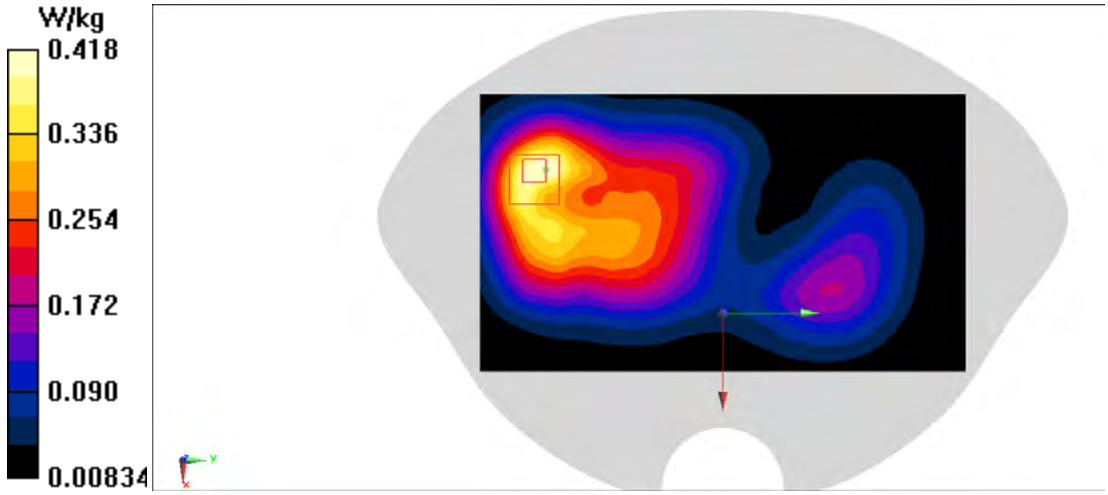
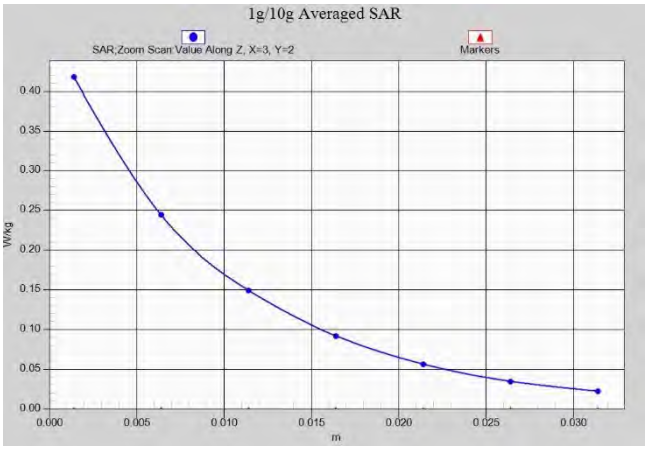
LTE B66 ANT3 Body 15mm
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1720 MHz; σ = 1.351 S/m; ε_r = 41.412; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: LTE Band66 1720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.420 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 8.839 V/m; Power Drift = -0.05 dB
Peak SAR (extrapolated) = 0.509 W/kg
SAR(1 g) = 0.293 W/kg; SAR(10 g) = 0.175 W/kg
Maximum value of SAR (measured) = 0.418 W/kg





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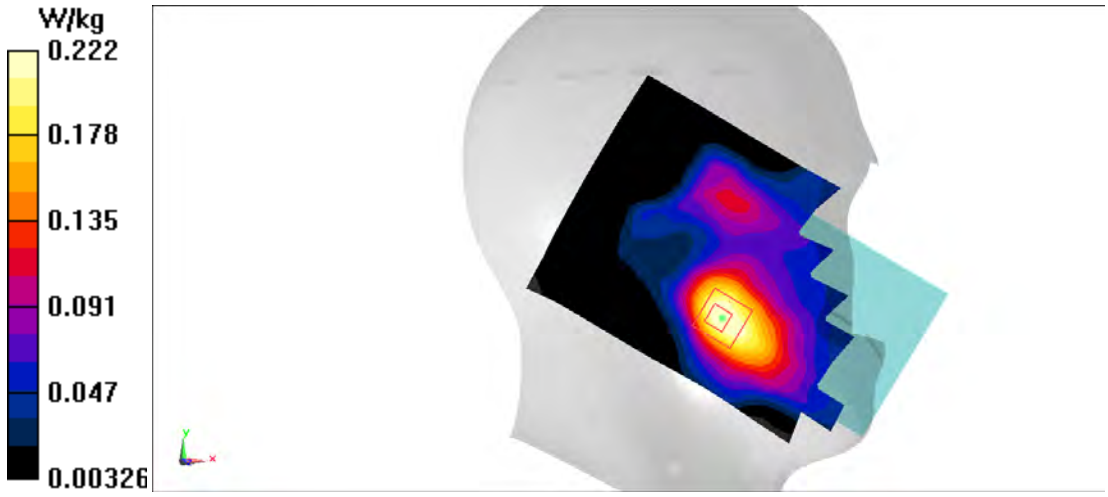
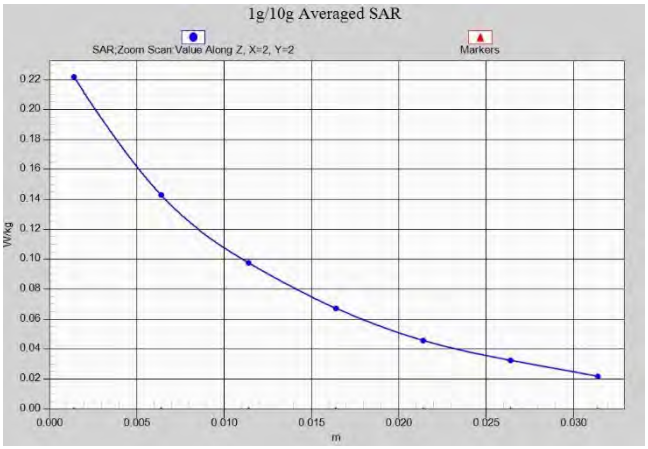
5G NR n25 Head
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1882.5 MHz; σ = 1.425 S/m; ε_r = 39.716; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N25 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.233 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.453 V/m; Power Drift = -0.19 dB
Peak SAR (extrapolated) = 0.257 W/kg
SAR(1 g) = 0.164 W/kg; SAR(10 g) = 0.104 W/kg
Maximum value of SAR (measured) = 0.222 W/kg





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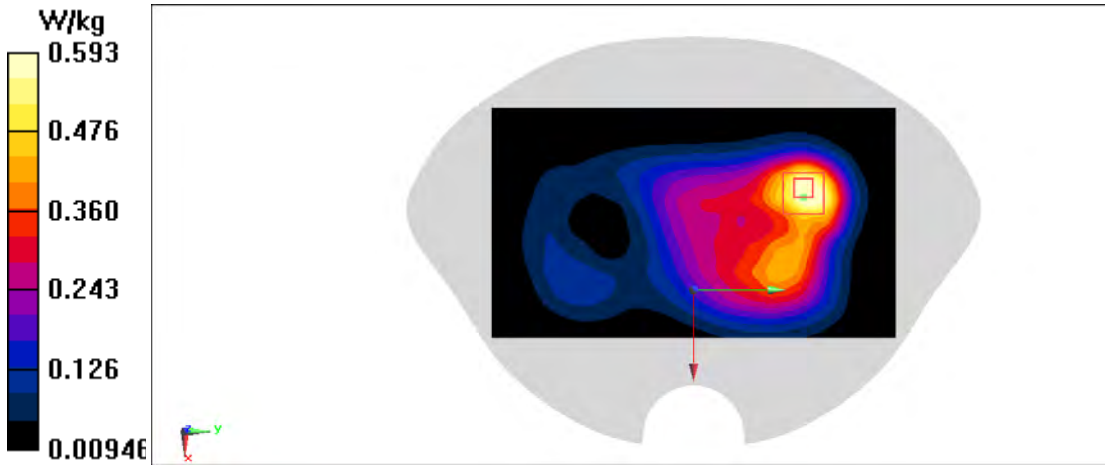
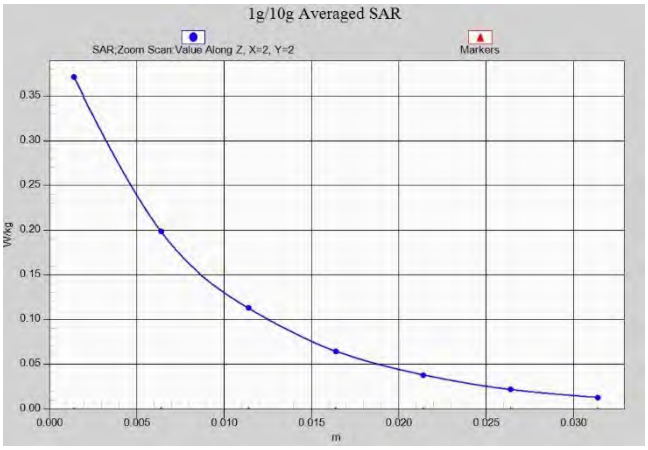
5G NR n25 Body 10mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1882.5 MHz; σ = 1.425 S/m; ε_r = 39.716; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N25 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.606 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 11.72 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 0.756 W/kg
SAR(1 g) = 0.406 W/kg; SAR(10 g) = 0.228 W/kg
Maximum value of SAR (measured) = 0.593 W/kg





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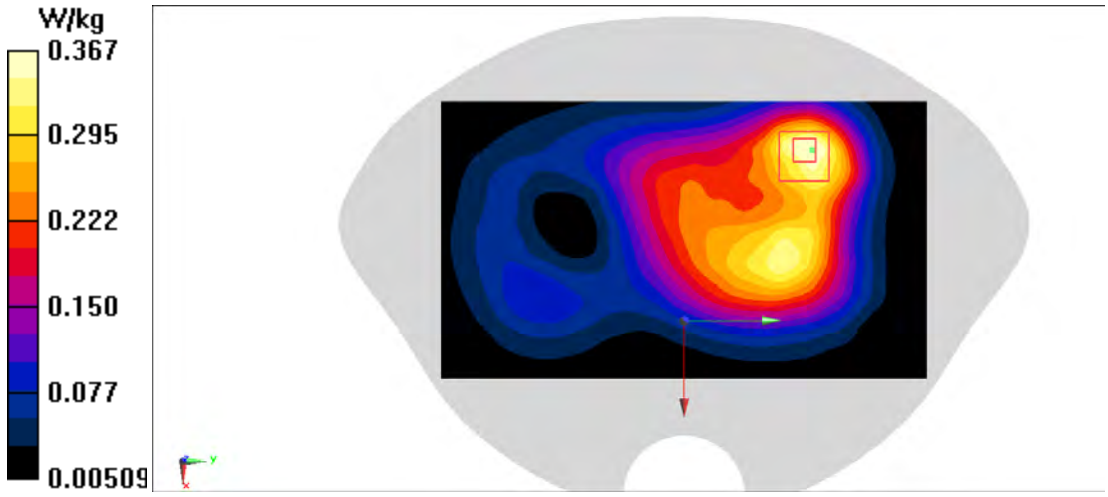
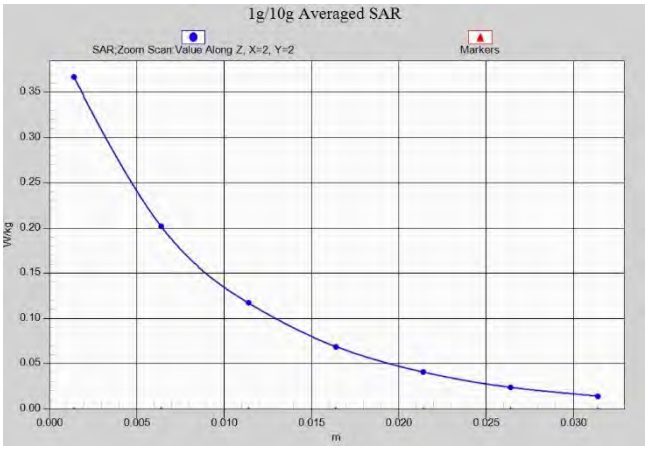
5G NR n25 Body 15mm
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1882.5 MHz; σ = 1.425 S/m; ε_r = 39.716; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N25 1882.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.375 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.49 V/m; Power Drift = 0.19 dB
Peak SAR (extrapolated) = 0.448 W/kg
SAR(1 g) = 0.252 W/kg; SAR(10 g) = 0.148 W/kg
Maximum value of SAR (measured) = 0.367 W/kg





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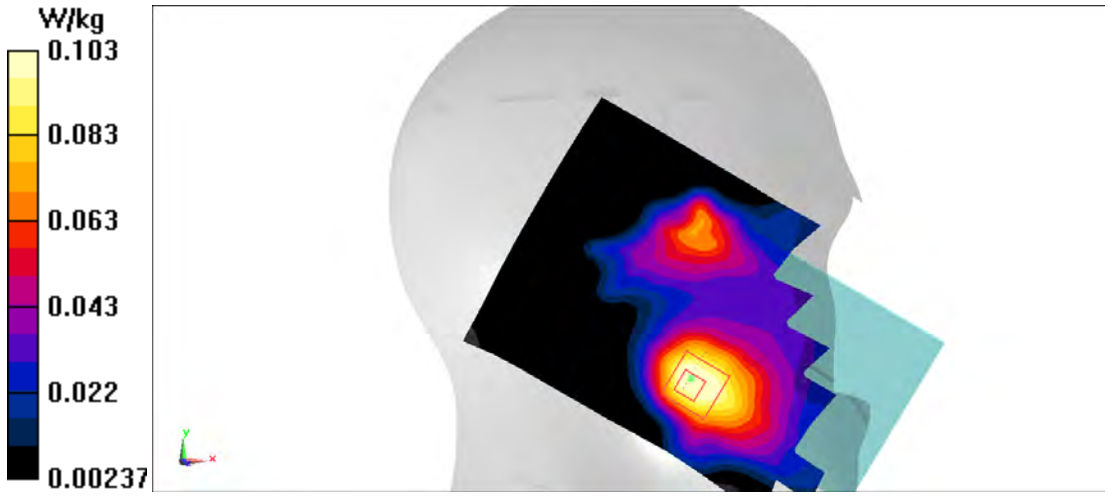
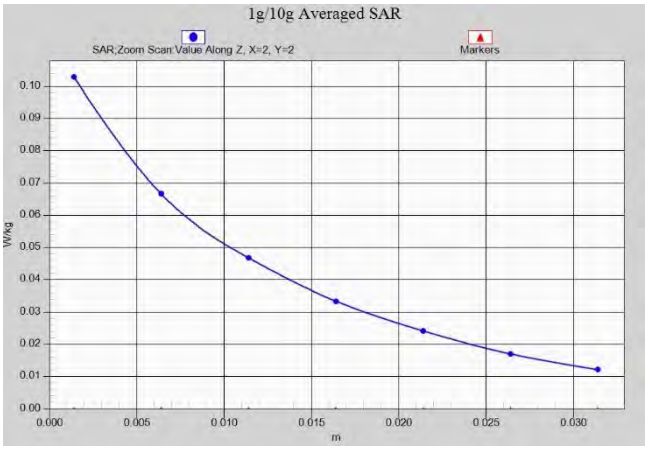
5G NR n66 Head
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ= 1.365 S/m; ε_r = 41.371; ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N66 Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.109 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.09dB
Peak SAR (extrapolated) = 0.122 W/kg
SAR(1 g) = 0.077 W/kg; SAR(10 g) = 0.050 W/kg
Maximum value of SAR (measured) = 0.103 W/kg





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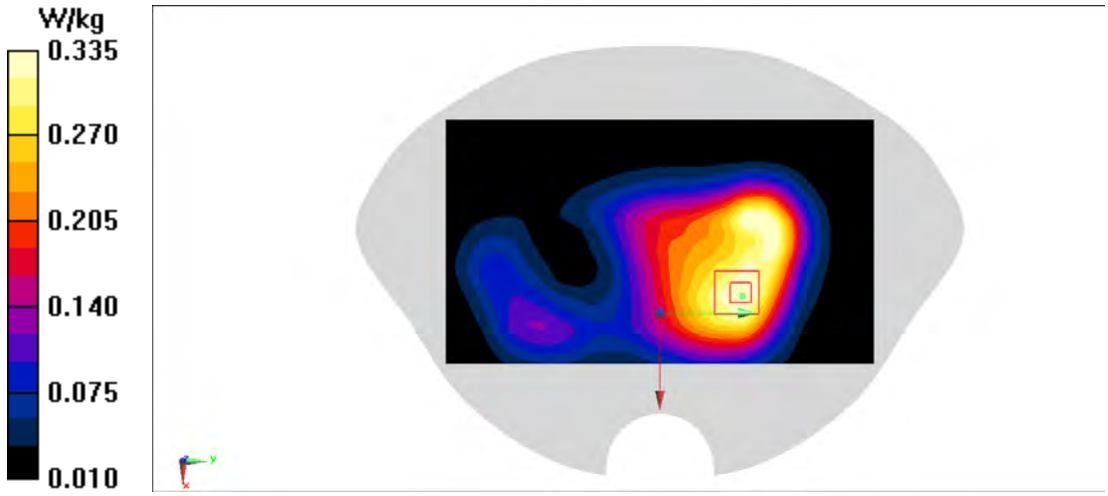
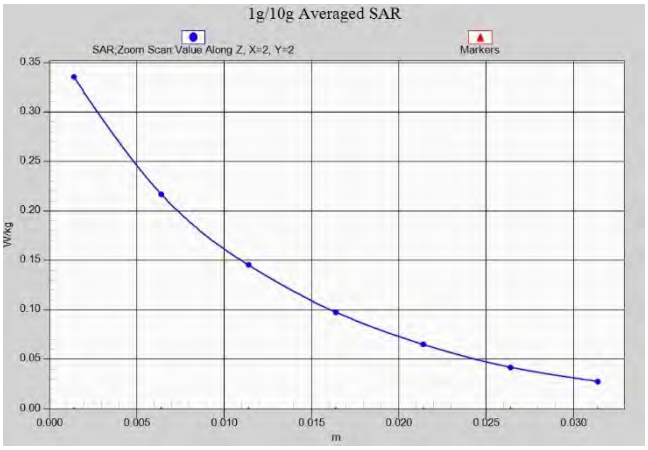
5G NR n66 Body 10mm
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ= 1.365 S/m; ε_r = 41.371; ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N66 Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.351 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 10.42 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.386 W/kg
SAR(1 g) = 0.250 W/kg; SAR(10 g) = 0.164 W/kg
Maximum value of SAR (measured) = 0.335 W/kg





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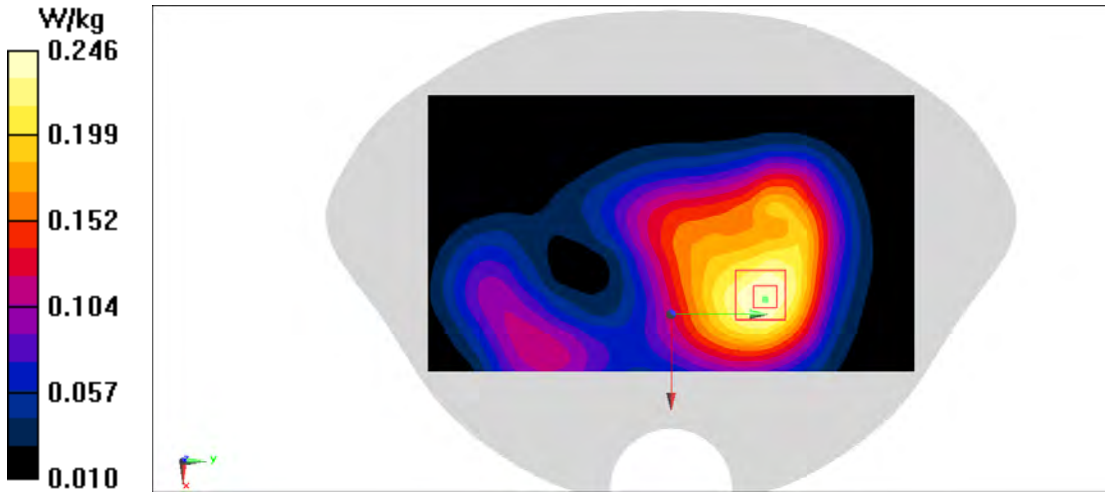
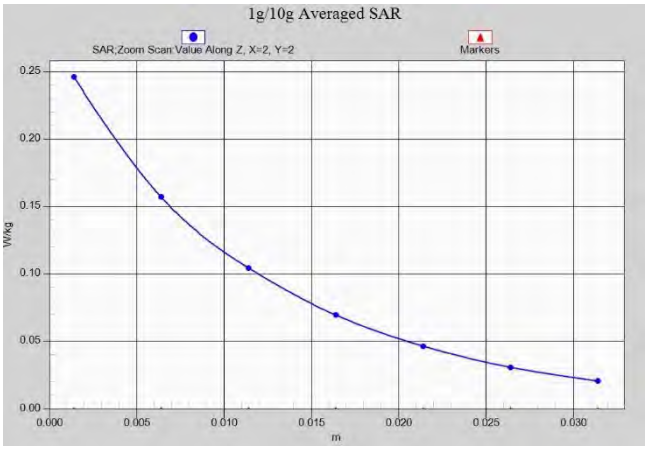
5G NR n66 Body 15mm
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 1745 MHz; σ= 1.365 S/m; ε_r = 41.371; ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N66 Frequency: 1745 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.253 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 9.299 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.282 W/kg
SAR(1 g) = 0.182 W/kg; SAR(10 g) = 0.120 W/kg
Maximum value of SAR (measured) = 0.246 W/kg





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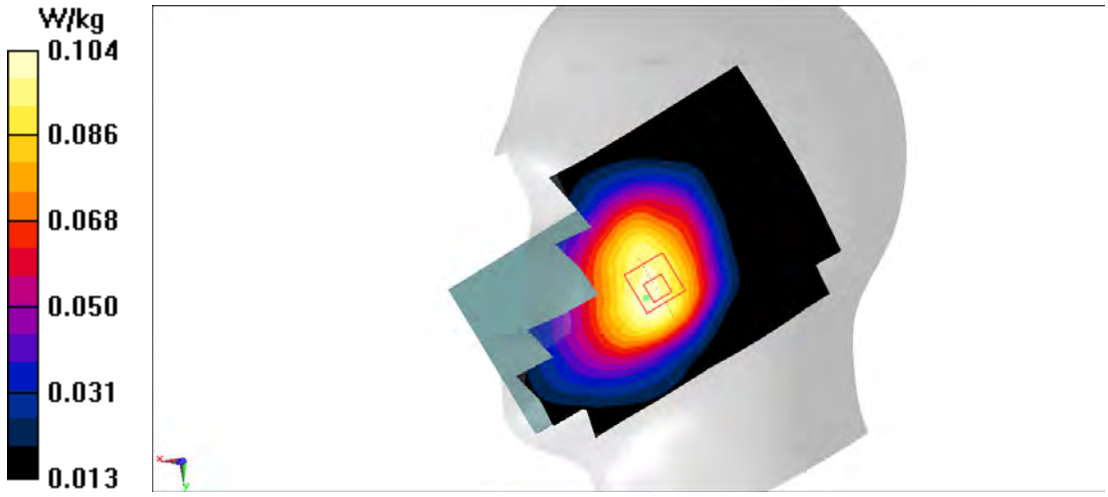
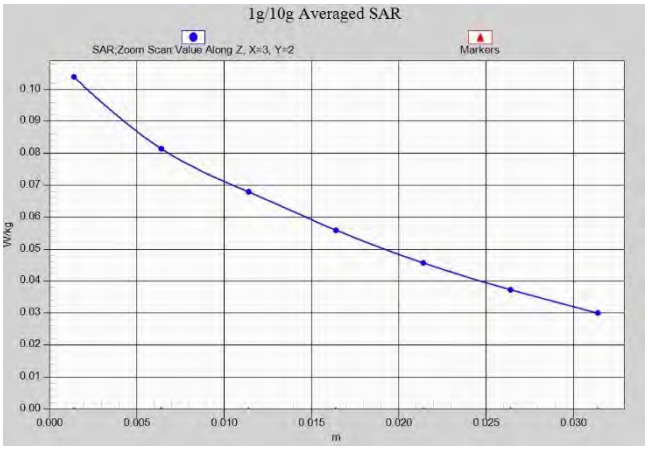
5G NR n71 Head
Date: 3/11/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 680.5 MHz; σ= 0.867 S/m; ε_r =41.539; ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N71 Frequency: 680.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (81x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.103 W/kg

Zoom Scan (6x6x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0 V/m; Power Drift = 0.09dB
Peak SAR (extrapolated) = 0.114 W/kg
SAR(1 g) = 0.088 W/kg; SAR(10 g) = 0.069 W/kg
Maximum value of SAR (measured) = 0.104 W/kg





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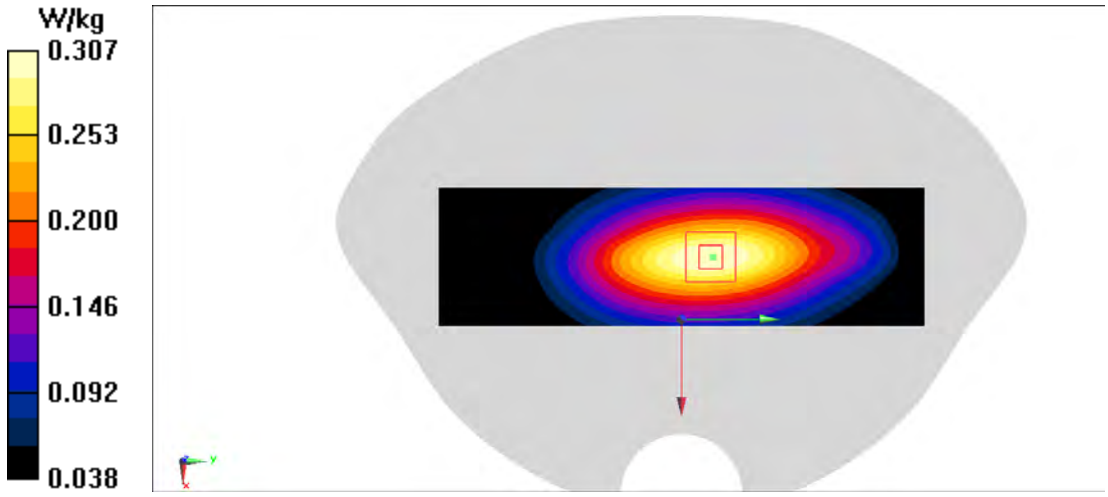
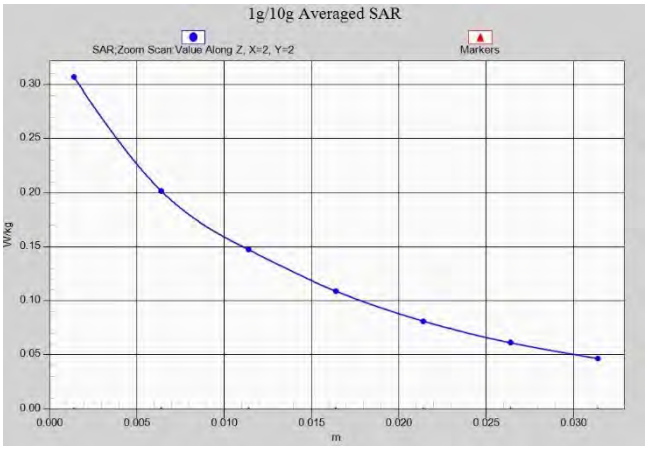
5G NR n71 Body 10mm
Date: 3/11/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 680.5 MHz; σ= 0.867 S/m; ε_r =41.539; ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N71 Frequency: 680.5 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (41x141x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.309 W/kg

Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.96 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 0.356 W/kg
SAR(1 g) = 0.232 W/kg; SAR(10 g) = 0.162 W/kg
Maximum value of SAR (measured) = 0.307 W/kg





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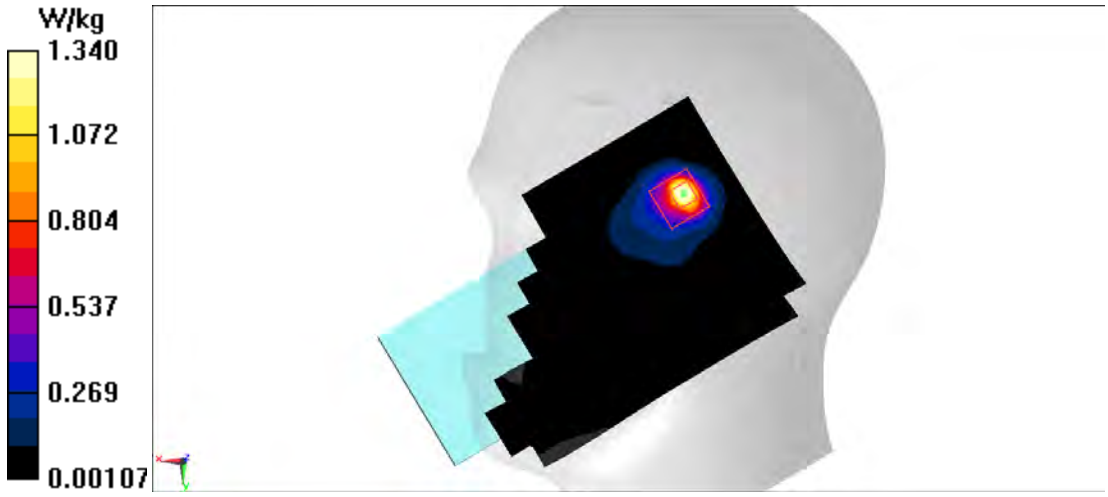
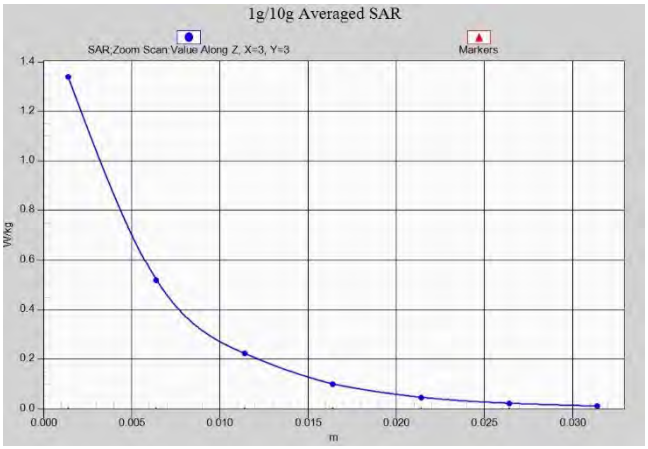
5G NR n41 Head
Date: 3/27/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2592.99 MHz; σ= 1.896 S/m; ε_r = 39.674; ρ=1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System:5G n41 Frequency: 2592.99 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.12, 7.12, 7.12)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.56 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.477 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 1.77 W/kg
SAR(1 g) = 0.686 W/kg; SAR(10 g) = 0.282 W/kg
Maximum value of SAR (measured) = 1.34 W/kg





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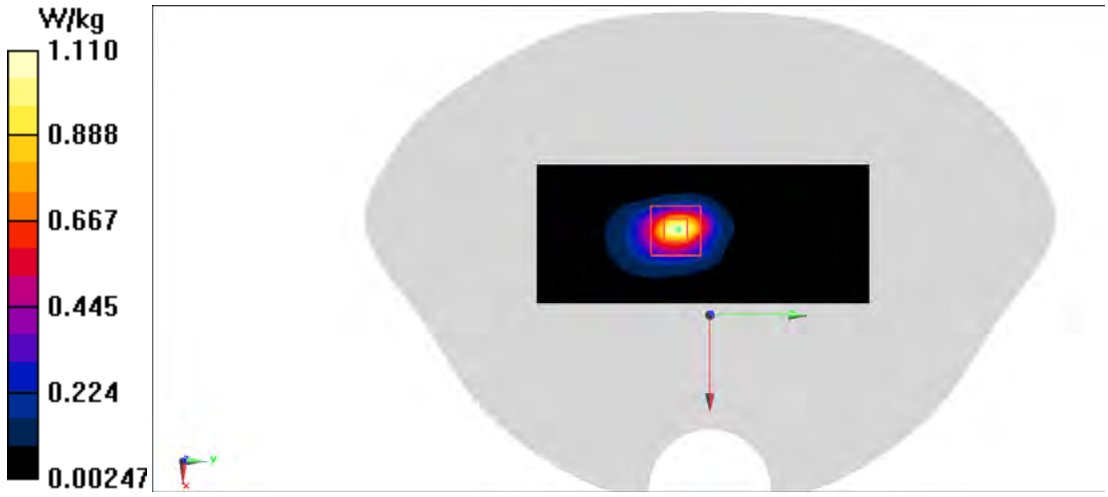
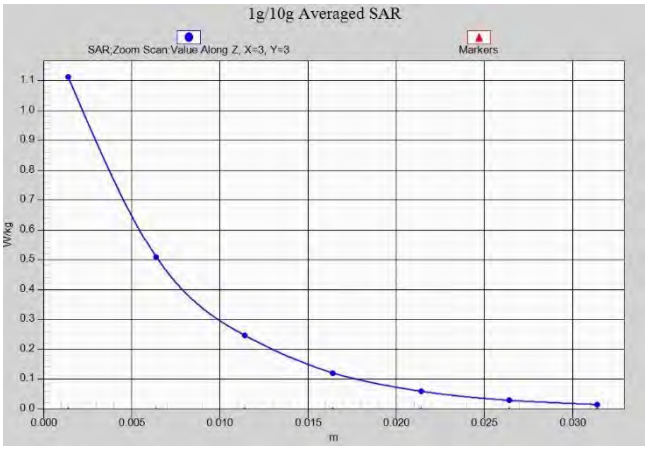
5G NR n41 Body 10mm
Date: 3/27/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2592.99 MHz; σ= 1.896 S/m; ε_r = 39.674; ρ=1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System:5G n41 Frequency: 2592.99 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.12, 7.12, 7.12)

Area Scan (51x121x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 8.135 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 1.42 W/kg
SAR(1 g) = 0.619 W/kg; SAR(10 g) = 0.251 W/kg
Maximum value of SAR (measured) = 1.11 W/kg





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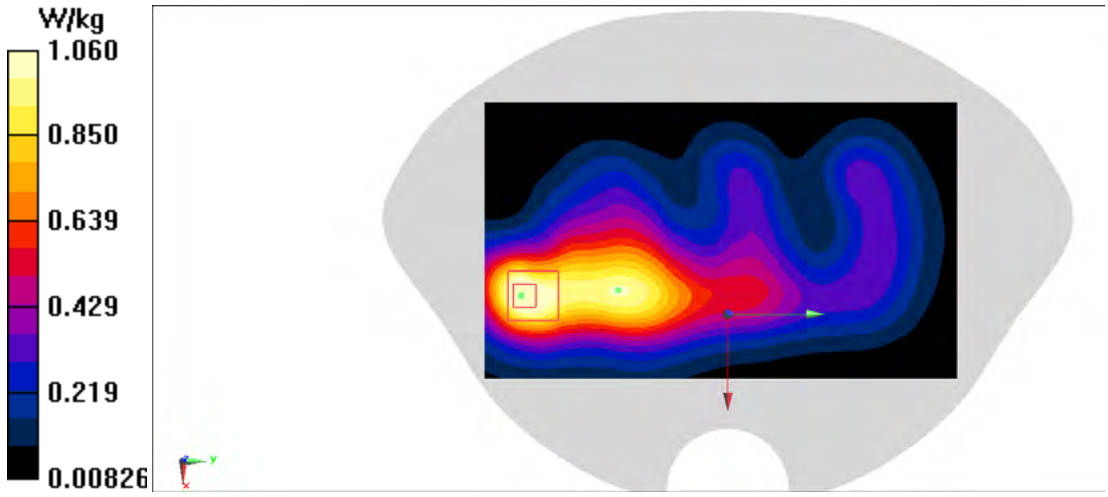
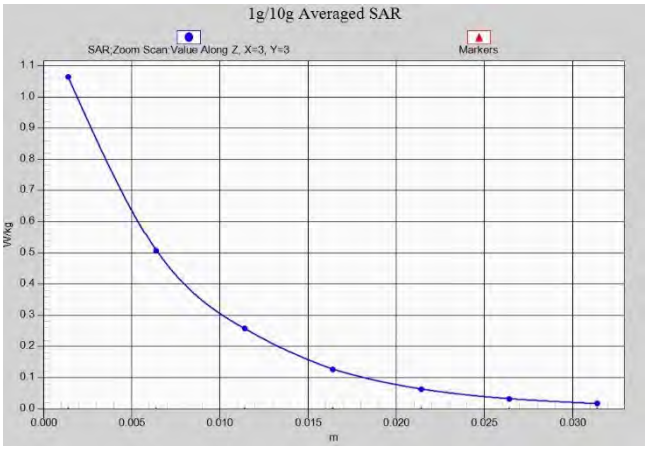
5G NR n41 Body 15mm
Date: 3/27/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2592.99 MHz; σ= 1.896 S/m; ε_r = 39.674; ρ=1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System:5G n41 Frequency: 2592.99 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.12, 7.12, 7.12)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.17 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 15.28 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.660 W/kg; SAR(10 g) = 0.348 W/kg
Maximum value of SAR (measured) = 1.06 W/kg





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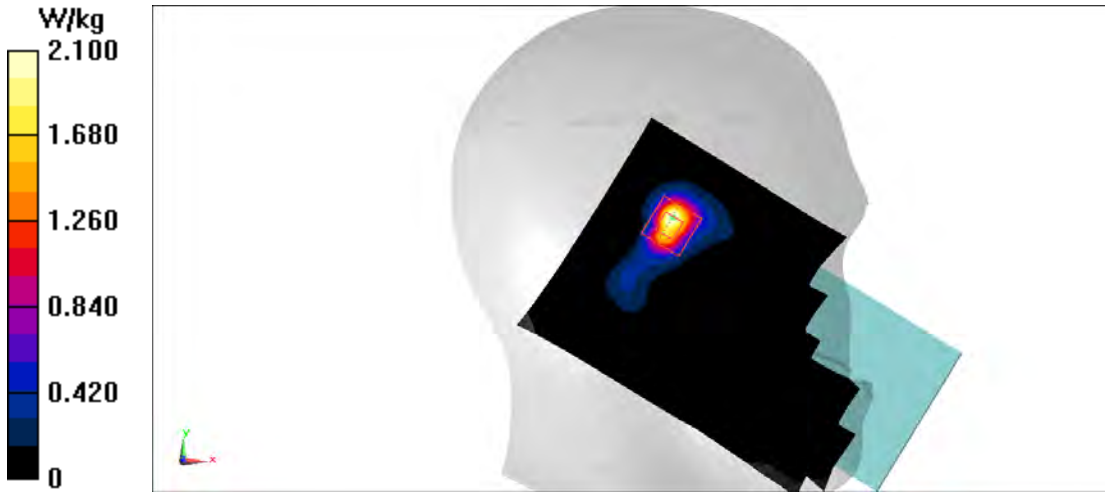
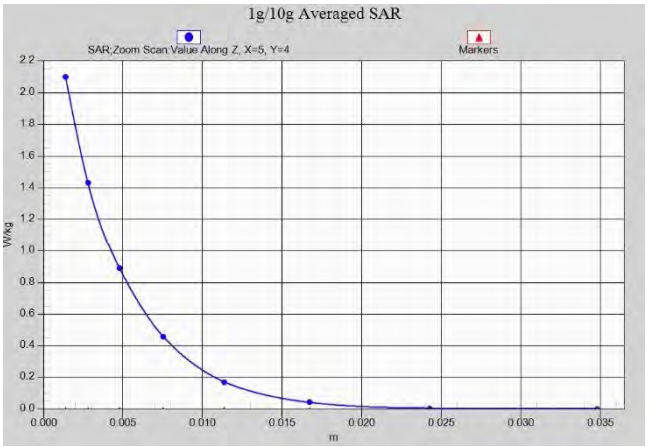
5G NR n77 Head
Date: 4/2/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 3970 MHz; σ = 3.354 S/m; ε_r = 38.884;ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N77 Frequency: 3970 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.3, 6.3, 6.3)

Area Scan (121x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 2.28 W/kg

Zoom Scan (9x9x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 11.56 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.28 W/kg
SAR(1 g) = 0.997 W/kg; SAR(10 g) = 0.357 W/kg
Maximum value of SAR (measured) = 2.10 W/kg





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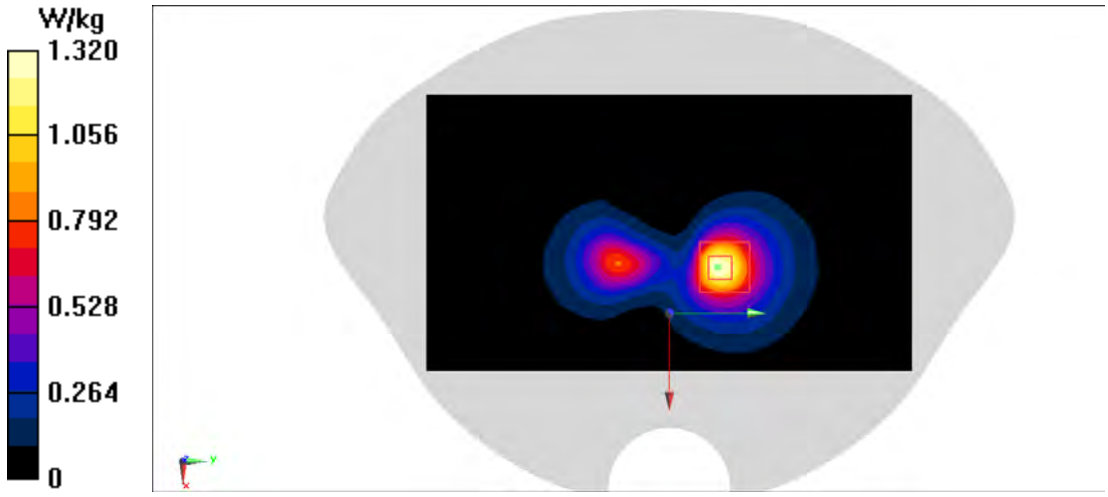
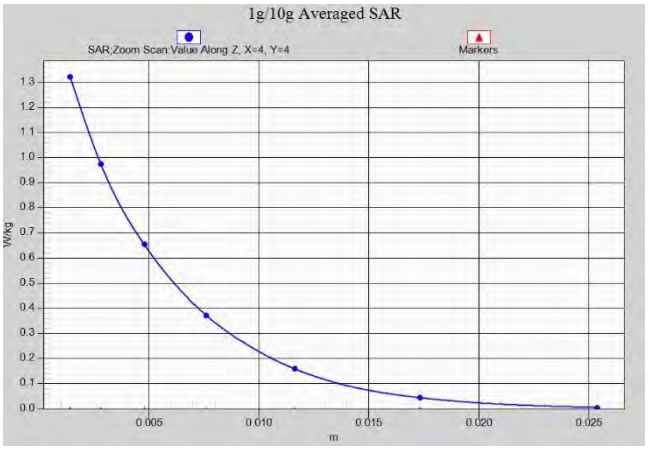
5G NR n77 Body 10mm
Date: 4/2/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 3970 MHz; σ = 3.354 S/m; ε_r = 38.884;ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N77 Frequency: 3970 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.3, 6.3, 6.3)

Area Scan (121x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.35 W/kg

Zoom Scan (8x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.673 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 1.84 W/kg
SAR(1 g) = 0.691 W/kg; SAR(10 g) = 0.282 W/kg
Maximum value of SAR (measured) = 1.32 W/kg





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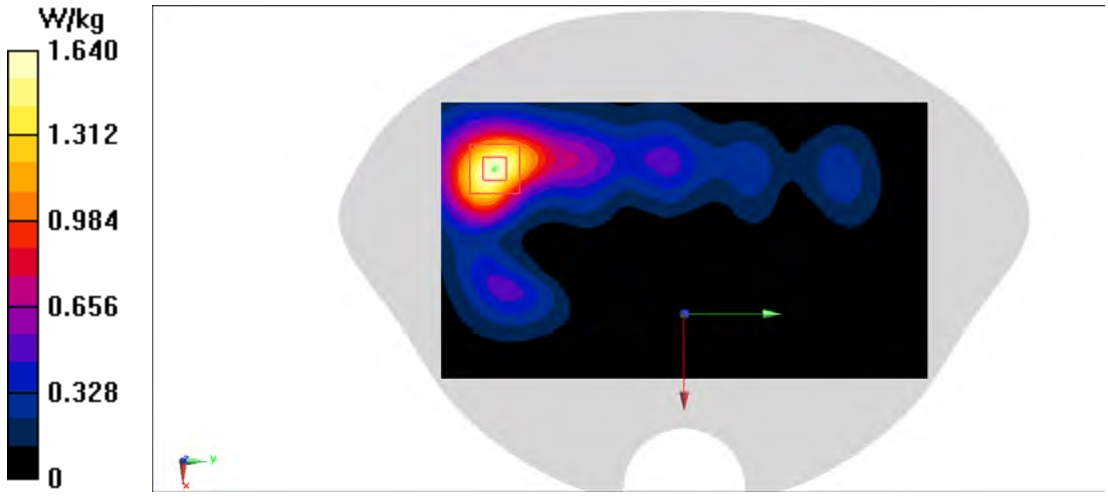
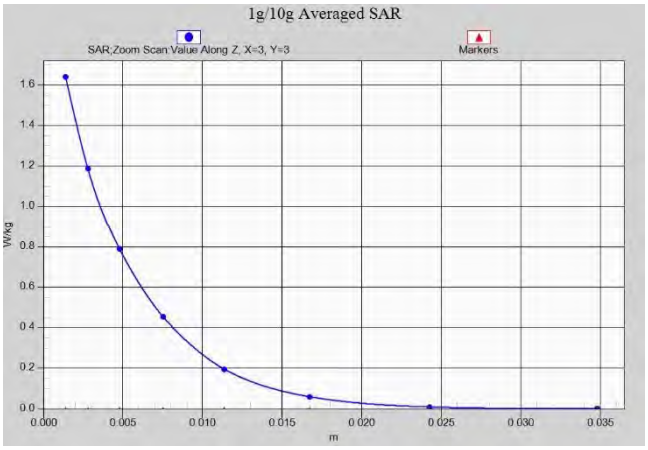
5G NR n77 Body 15mm
Date: 4/2/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 3970 MHz; σ = 3.354 S/m; ε_r = 38.884;ρ= 1000 kg/m3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: 5G N77 Frequency: 3970 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.3, 6.3, 6.3)

Area Scan (121x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.65 W/kg

Zoom Scan (7x7x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 0.8690 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 2.34 W/kg
SAR(1 g) = 0.876 W/kg; SAR(10 g) = 0.396 W/kg
Maximum value of SAR (measured) = 1.64 W/kg





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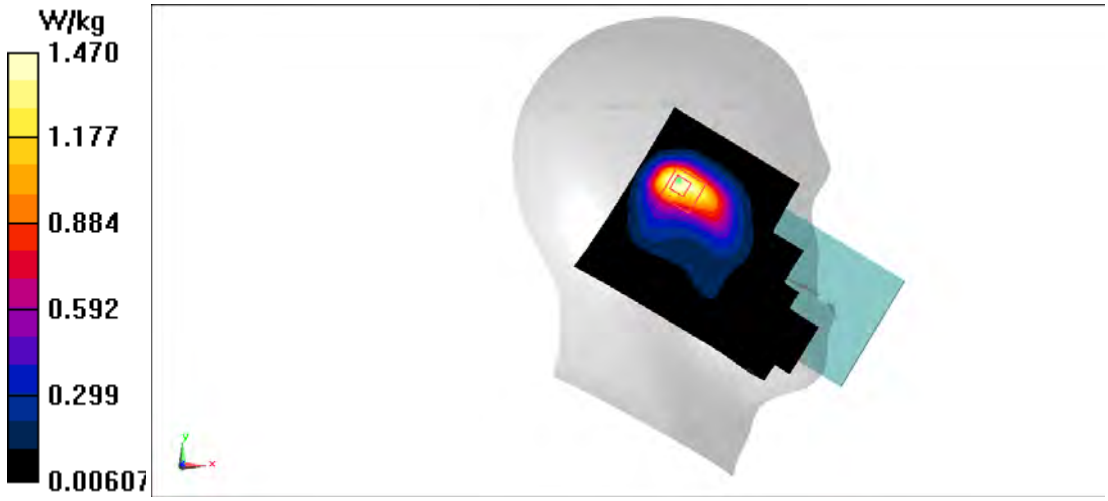
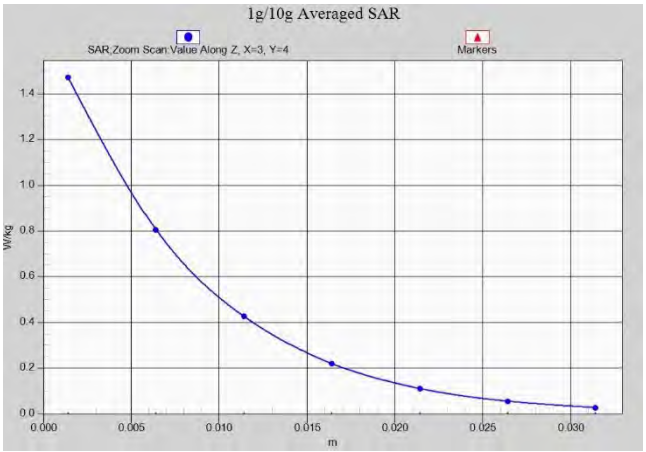
WALN 2.4G Head
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2437.5 MHz; σ = 1.815 S/m; ε_r = 39.85; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WIFI 2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.65 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 18.04 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 1.83 W/kg
SAR(1 g) = 0.977 W/kg; SAR(10 g) = 0.511 W/kg
Maximum value of SAR (measured) = 1.47 W/kg





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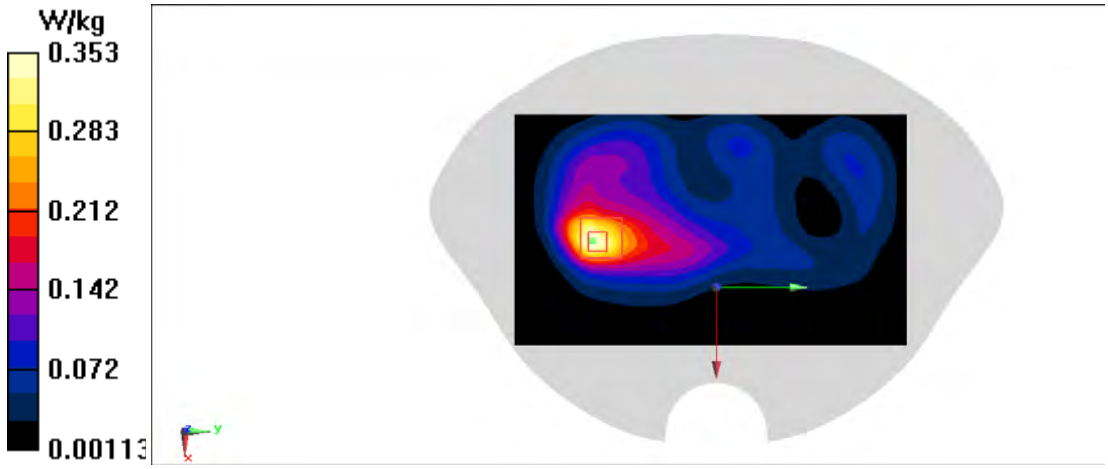
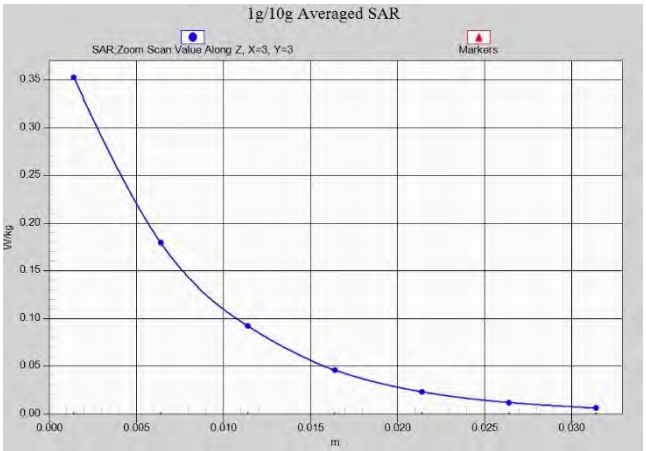
WALN 2.4G Body 10mm
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2437.5 MHz; σ = 1.815 S/m; ε_r = 39.85; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WLan 2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.368 W/kg

Zoom Scan (7x8x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.907 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 0.434 W/kg
SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.353 W/kg





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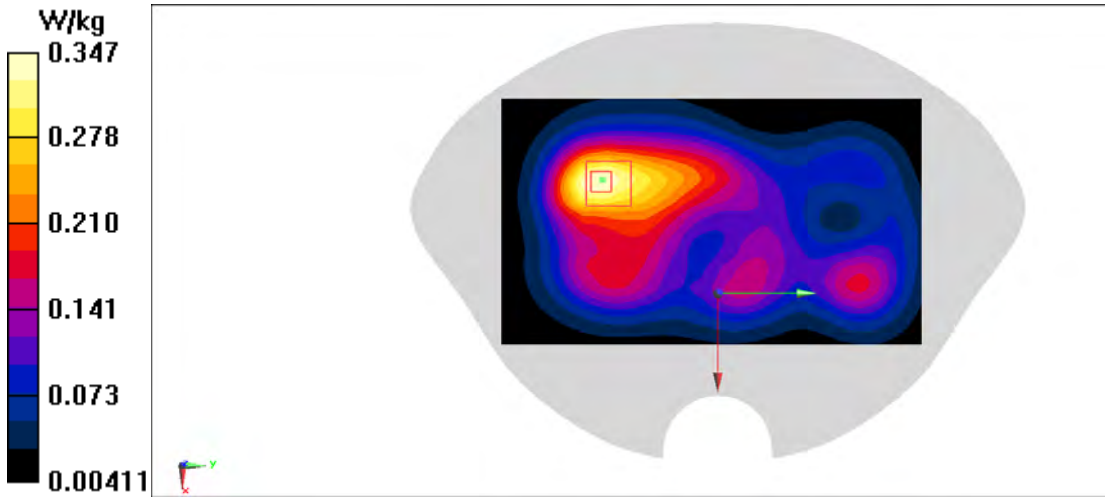
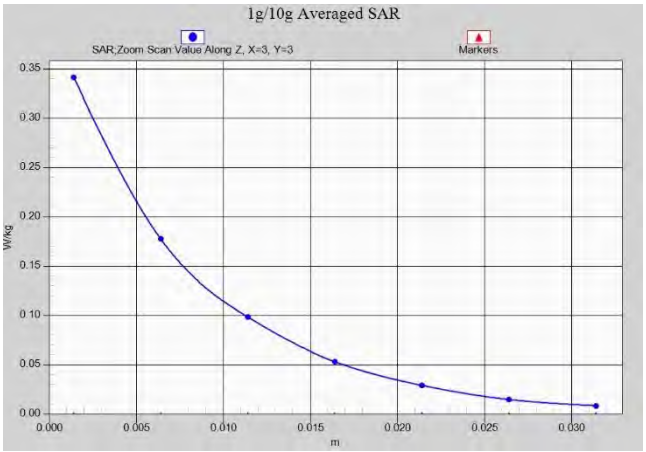
WALN 2.4G Body 15mm
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 2437.5 MHz; σ = 1.815 S/m; ε_r = 39.85; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: wifi 2450 2437 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.347 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 7.289 V/m; Power Drift = -0.13 dB
Peak SAR (extrapolated) = 0.419 W/kg
SAR(1 g) = 0.224 W/kg; SAR(10 g) = 0.127 W/kg
Maximum value of SAR (measured) = 0.342 W/kg





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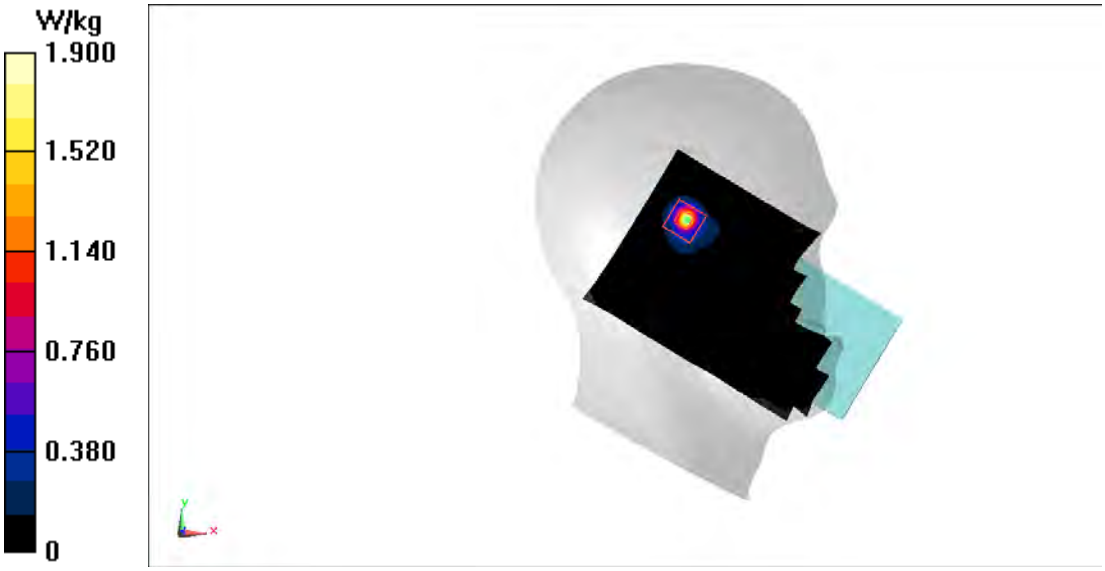
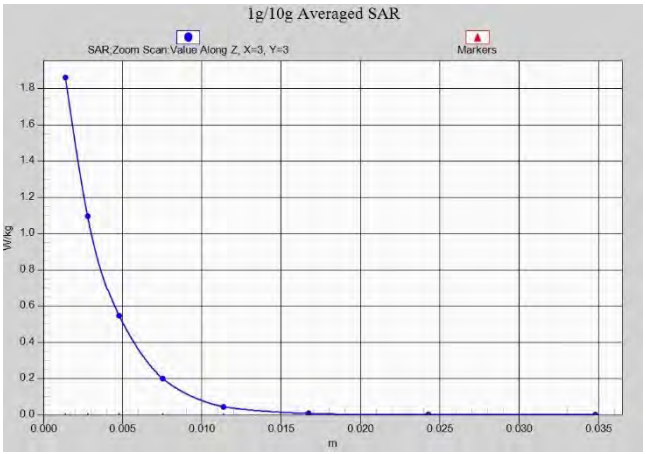
WALN 5G Head
Date: 4/7/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5690 MHz; σ = 5.191 S/m; ε_r = 36.366; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WLAN 11a 5690 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.57, 4.57, 4.57)

Area Scan (121x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.90 W/kg

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 5.600 V/m; Power Drift = 0.10 dB
Peak SAR (extrapolated) = 3.58 W/kg
SAR(1 g) = 0.676 W/kg; SAR(10 g) = 0.169 W/kg
Maximum value of SAR (measured) = 1.86 W/kg





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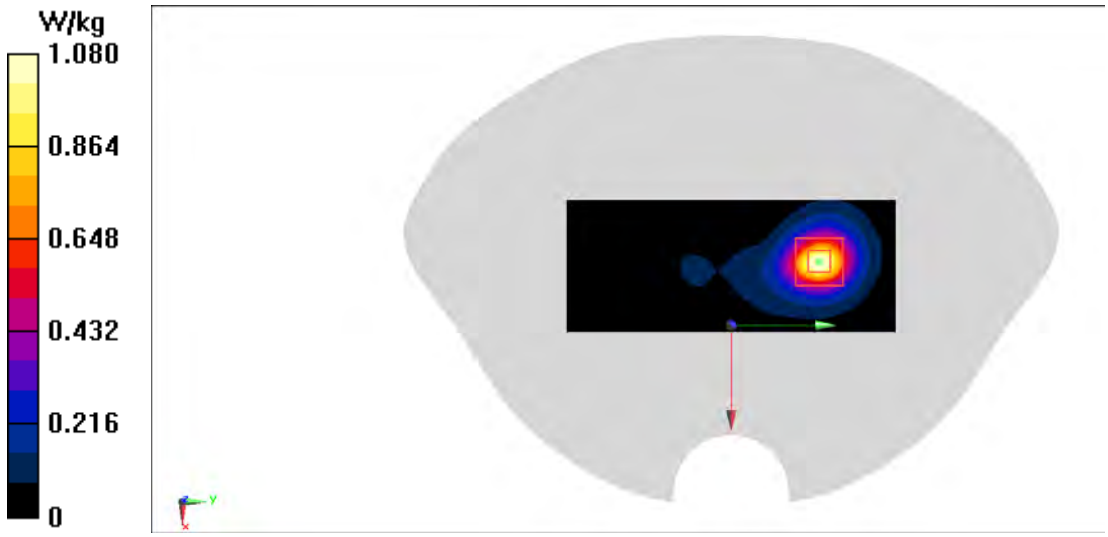
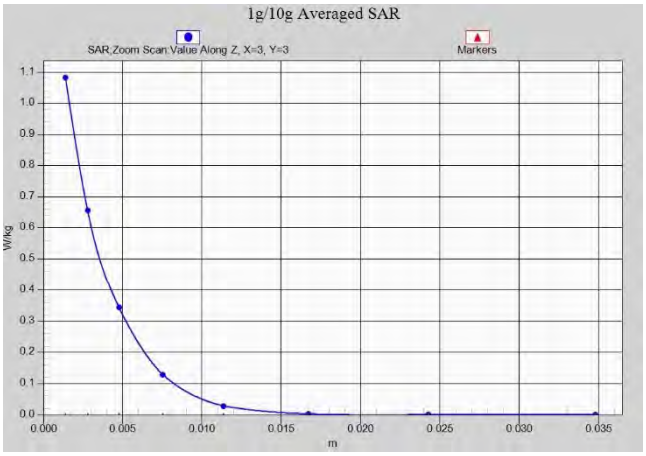
WALN 5G Body 10mm
Date: 4/7/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5690 MHz; σ = 5.191 S/m; ε_r = 36.366; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WLAN 11a 5690 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.57, 4.57, 4.57)

Area Scan (61x151x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.13 W/kg

Zoom Scan (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 3.813 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 0.443 W/kg; SAR(10 g) = 0.152 W/kg
Maximum value of SAR (measured) = 1.08 W/kg





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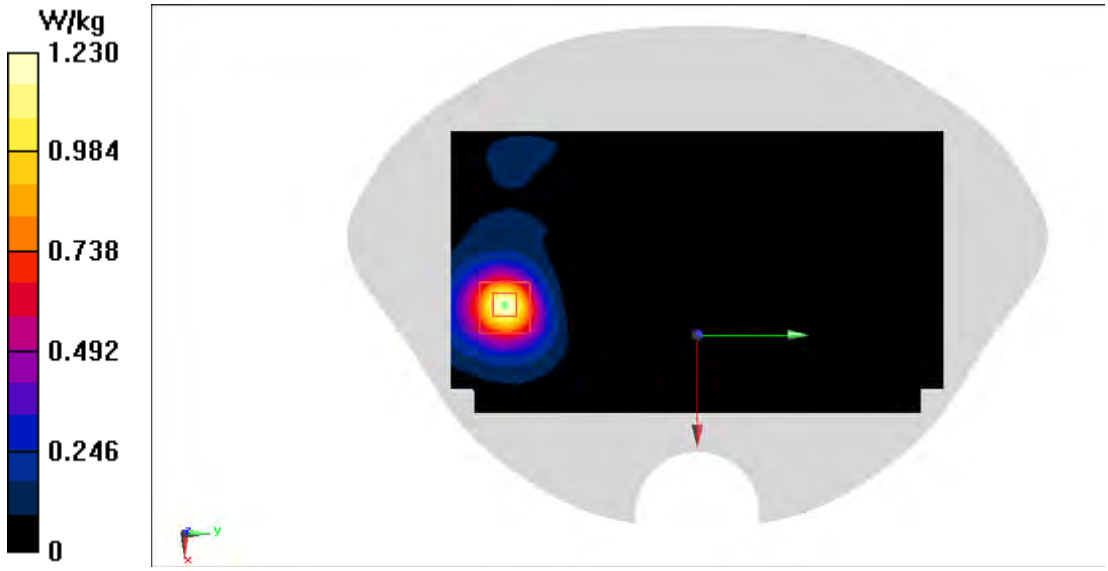
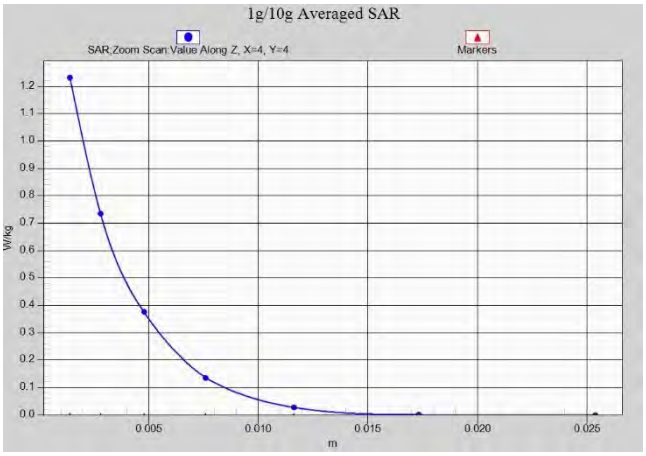
WALN 5G Body 15mm
Date: 4/7/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5720 MHz; σ = 5.206 S/m; ε_r = 36.312; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: WLAN 11a 5720 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.64, 4.64, 4.64)

Area Scan (121x211x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 1.374 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.15 W/kg
SAR(1 g) = 0.509 W/kg; SAR(10 g) = 0.190 W/kg
Maximum value of SAR (measured) = 1.23 W/kg





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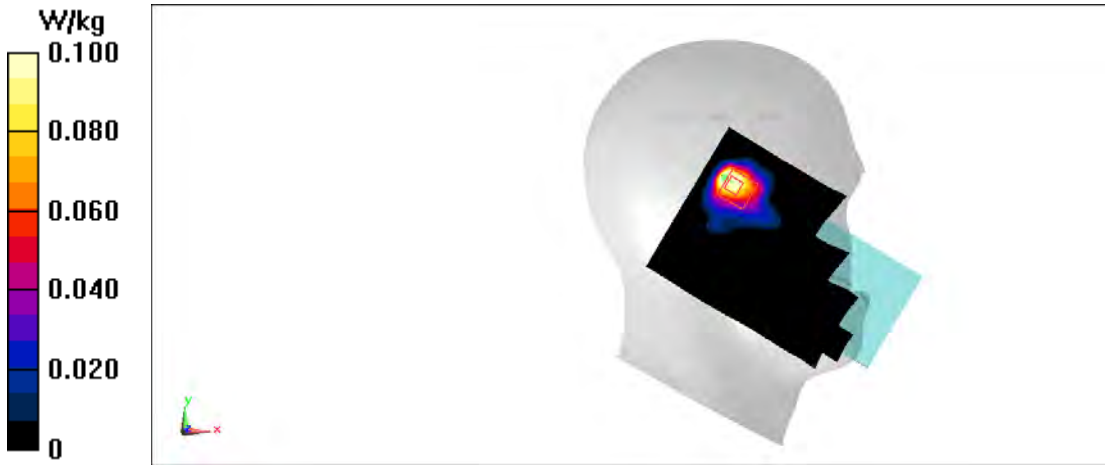
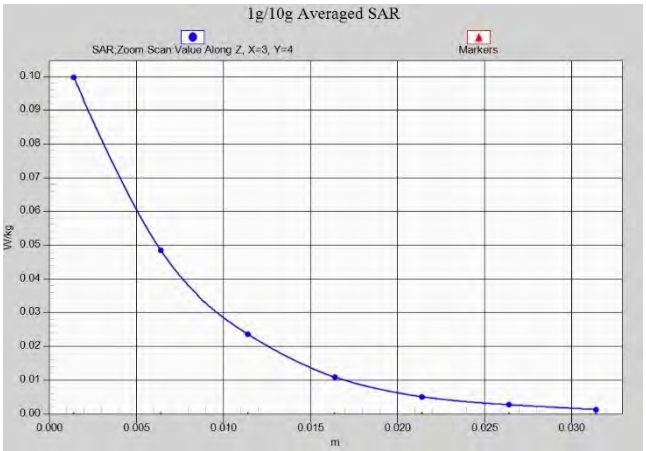
BT Head
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used : f = 2402 MHz; σ = 1.782 S/m; ε_r =39.952; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: Bluetooth 2402 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.144 W/kg

Zoom Scan (8x9x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 2.308 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 0.132 W/kg
SAR(1 g) = 0.062 W/kg; SAR(10 g) = 0.030 W/kg
Maximum value of SAR (measured) = 0.0998 W/kg





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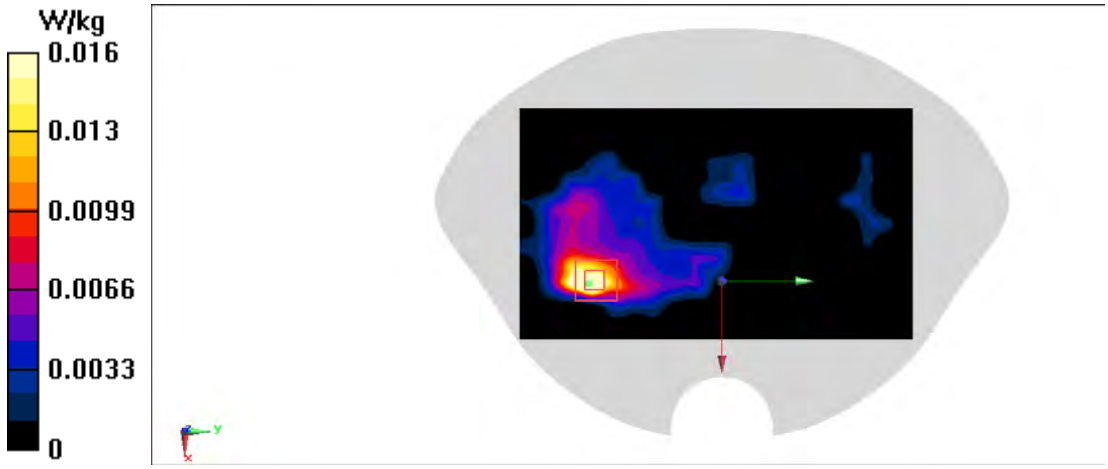
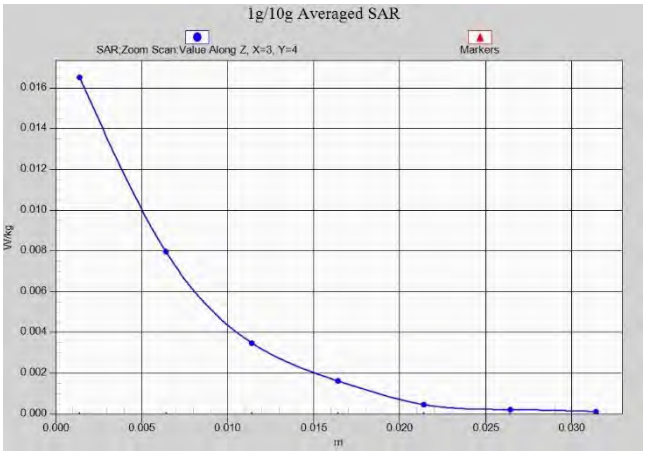
BT Body 10mm
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used : f = 2402 MHz; σ = 1.782 S/m; ε_r =39.952; ρ = 1000 kg/m^3
Ambient Temperature:22.9ºC Liquid Temperature: 22.5ºC
Communication System: Bluetooth 2402 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (101x171x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0251 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.6170 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.0400 W/kg
SAR(1 g) = 0.010 W/kg; SAR(10 g) = 0.00428 W/kg
Maximum value of SAR (measured) = 0.0165 W/kg





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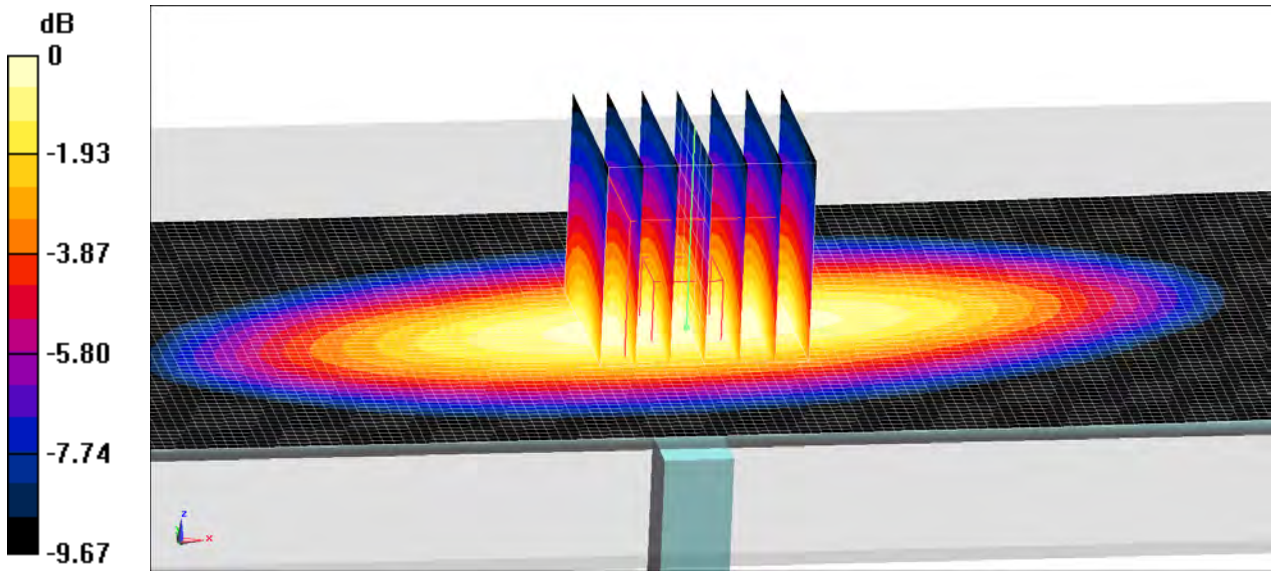
ANNEX B System Verification Results

750MHz
Date: 3/10/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 750 MHz; σ = 0.912 S/m; εr = 42.891; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 57.38 V/m; Power Drift = 0.09 dB
Fast SAR: SAR(1 g) = 2.2 W/kg; SAR(10 g) = 1.44 W/kg
Maximum value of SAR (interpolated) = 2.76 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 57.38 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 3.06 W/kg
SAR(1 g) = 2.21 W/kg; SAR(10 g) = 1.46 W/kg
Maximum value of SAR (measured) = 2.74 W/kg



0 dB = 2.74 W/kg = 4.38 dBW/kg

Fig.B.1 validation 750MHz 250mW

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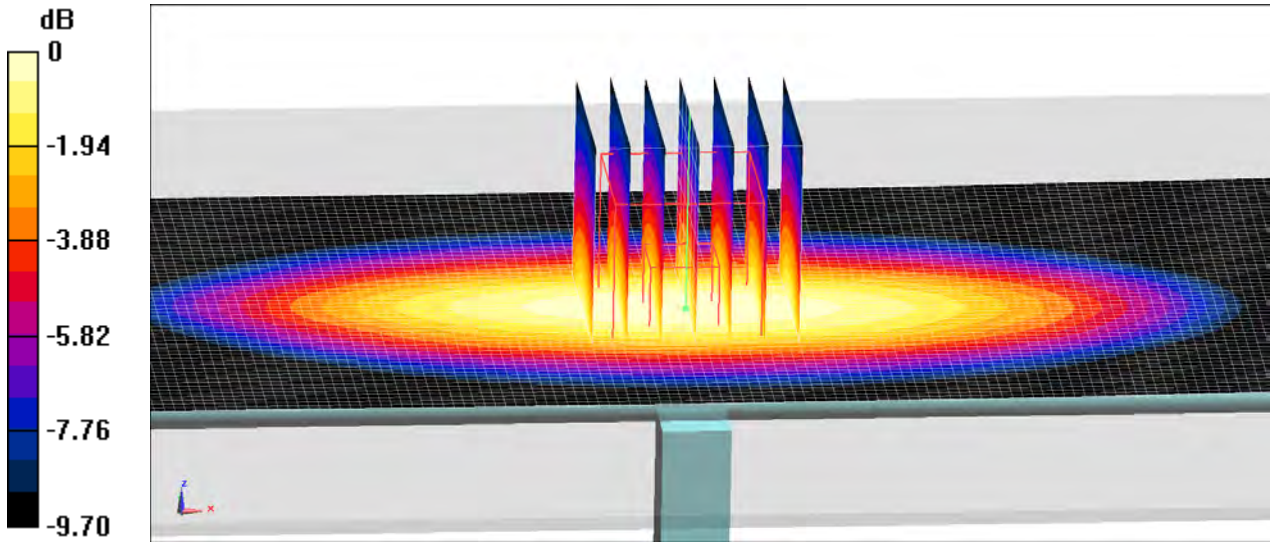
750MHz
Date: 3/11/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 750 MHz; σ = 0.897 S/m; εr = 41.254; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 55.31 V/m; Power Drift =-0.15 dB
Fast SAR: SAR(1 g) = 2.16 W/kg; SAR(10 g) = 1.4 W/kg
Maximum value of SAR (interpolated) = 2.73 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 55.31 V/m; Power Drift =-0.15 dB
Peak SAR (extrapolated) = 3.05 W/kg
SAR(1 g) = 2.15 W/kg; SAR(10 g) = 1.41 W/kg
Maximum value of SAR (measured) = 2.70 W/kg



0 dB = 2.70 W/kg = 4.31 dBW/kg

Fig.B.2 validation 750MHz 250mW

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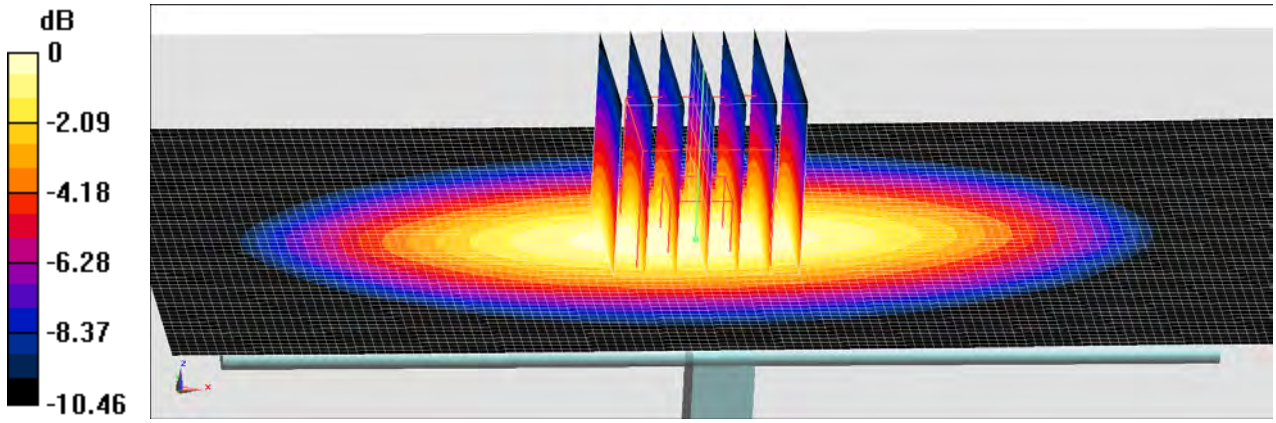
835 MHz
Date: 3/4/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 835 MHz; σ = 0.903 S/m; εr = 41.312; ρ = 1000 kg/m3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: CW Frequency: 835 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(10.3, 10.3, 10.3)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 56.32 V/m; Power Drift = -0.12 dB
Fast SAR: SAR(1 g) = 2.35 W/kg; SAR(10 g) = 1.52 W/kg
Maximum value of SAR (interpolated) = 3.11 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 56.32 V/m; Power Drift = -0.12 dB
Peak SAR (extrapolated) = 3.49 W/kg
SAR(1 g) = 2.37 W/kg; SAR(10 g) = 1.54 W/kg
Maximum value of SAR (measured) = 3.08 W/kg



0 dB = 3.08 W/kg = 4.89 dBW/kg

Fig.B.3 validation 835 MHz 250mW

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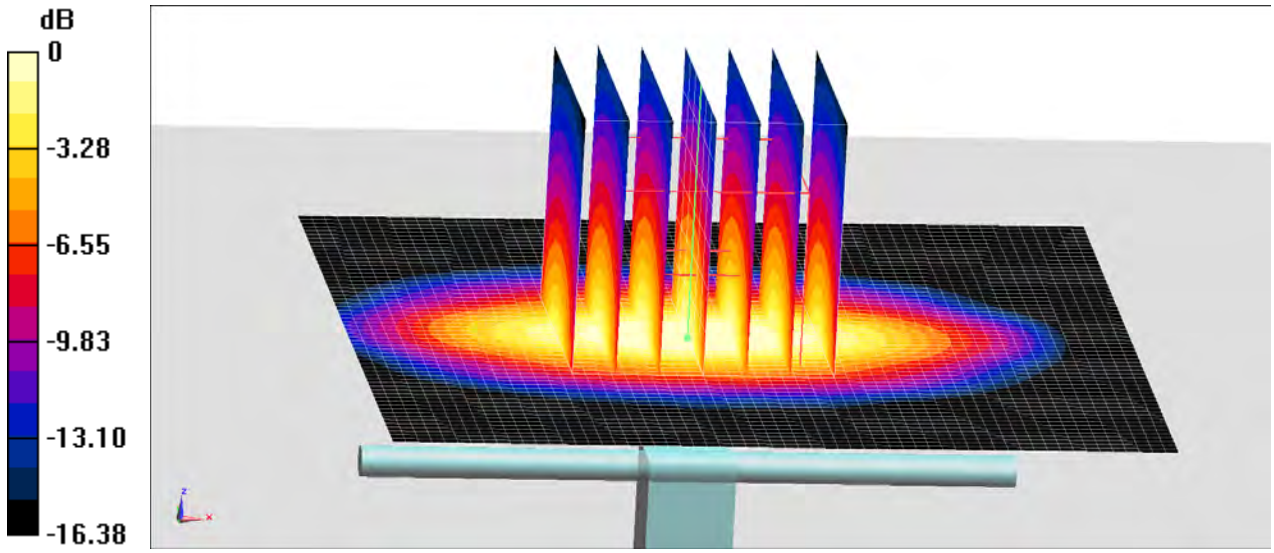
1750 MHz
Date: 3/13/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 1750 MHz; σ = 1.354 S/m; εr = 41.12; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 99.89 V/m; Power Drift = 0.15 dB
Fast SAR: SAR(1 g) = 9.28 W/kg; SAR(10 g) = 4.91 W/kg
Maximum value of SAR (interpolated) = 14.1 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 99.89 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 16.9 W/kg
SAR(1 g) = 9.25 W/kg; SAR(10 g) = 4.87 W/kg
Maximum value of SAR (measured) = 14.2 W/kg



0 dB = 14.2 W/kg = 11.52 dBW/kg

Fig.B.4 validation 1750 MHz 250mW

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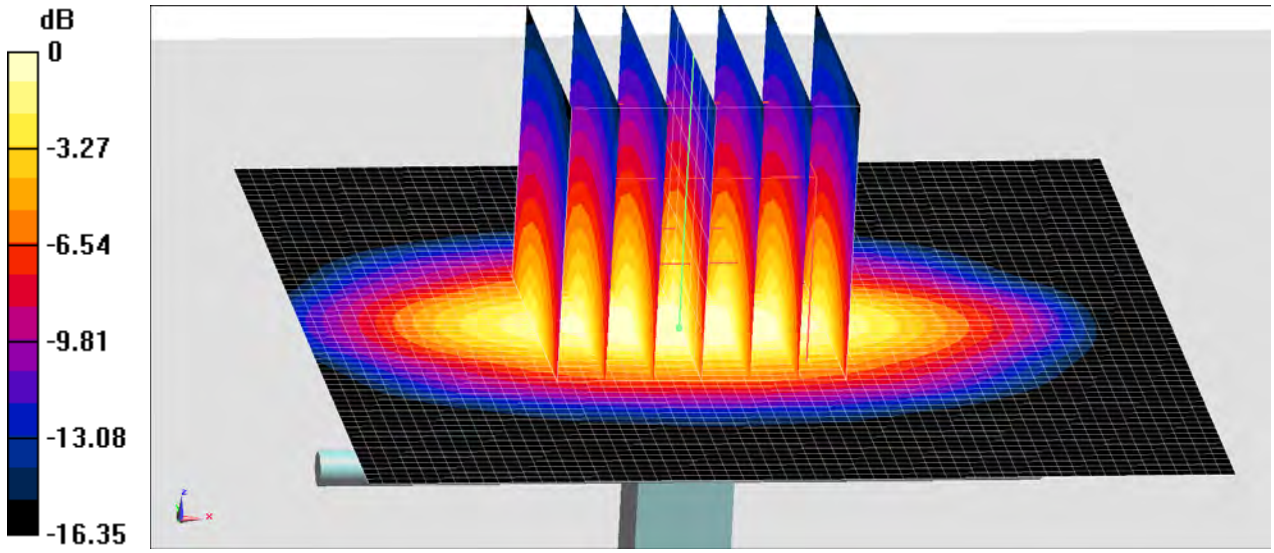
1750 MHz
Date: 3/15/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 1750 MHz; σ = 1.367 S/m; εr = 41.362; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 1750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(8.13, 8.13, 8.13)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 100.3 V/m; Power Drift = 0.01 dB
Fast SAR: SAR(1 g) = 9.21 W/kg; SAR(10 g) = 5.03 W/kg
Maximum value of SAR (interpolated) = 14.1 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 100.3 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 16.6 W/kg
SAR(1 g) = 9.17 W/kg; SAR(10 g) = 4.81 W/kg
Maximum value of SAR (measured) = 13.9 W/kg



0 dB = 13.9 W/kg = 11.43 dBW/kg

Fig.B.5 validation 1750 MHz 250mW

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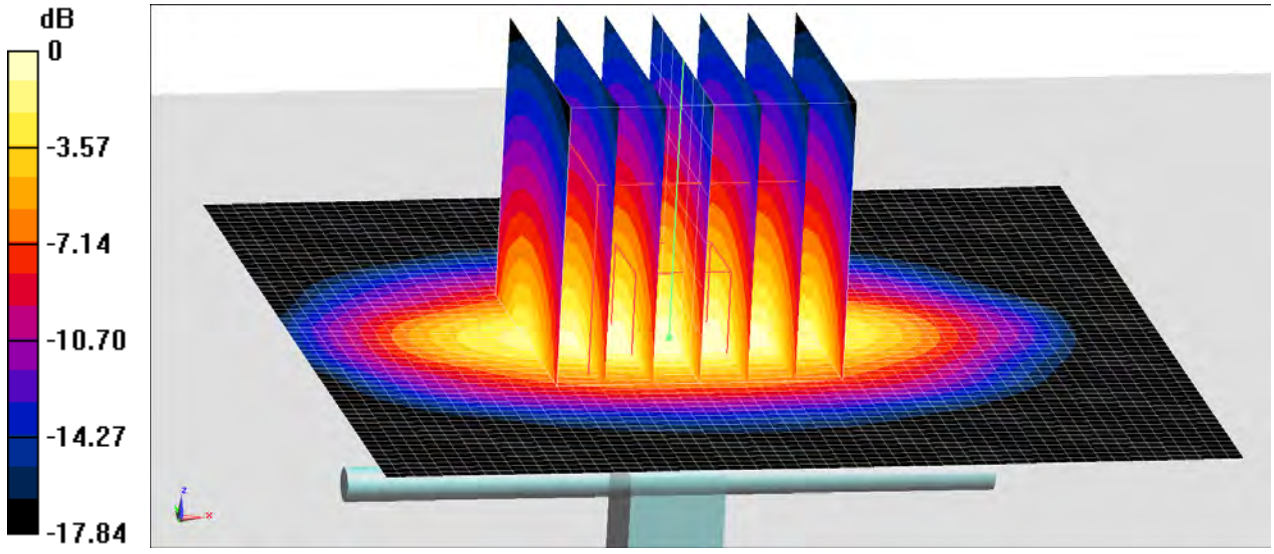
1900MHz
Date: 3/19/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 1900 MHz; σ = 1.434 S/m; εr = 39.87; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 98.74 V/m; Power Drift = -0.09 dB
Fast SAR: SAR(1 g) = 9.83 W/kg; SAR(10 g) = 5.1 W/kg
Maximum value of SAR (interpolated) = 16.1 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 98.74 V/m; Power Drift = -0.09 dB
Peak SAR (extrapolated) = 19.1 W/kg
SAR(1 g) = 9.85 W/kg; SAR(10 g) = 5.13 W/kg
Maximum value of SAR (measured) = 15.8 W/kg



0 dB = 15.8 W/kg = 11.99 dBW/kg

Fig.B.6 validation 1900MHz 250mW

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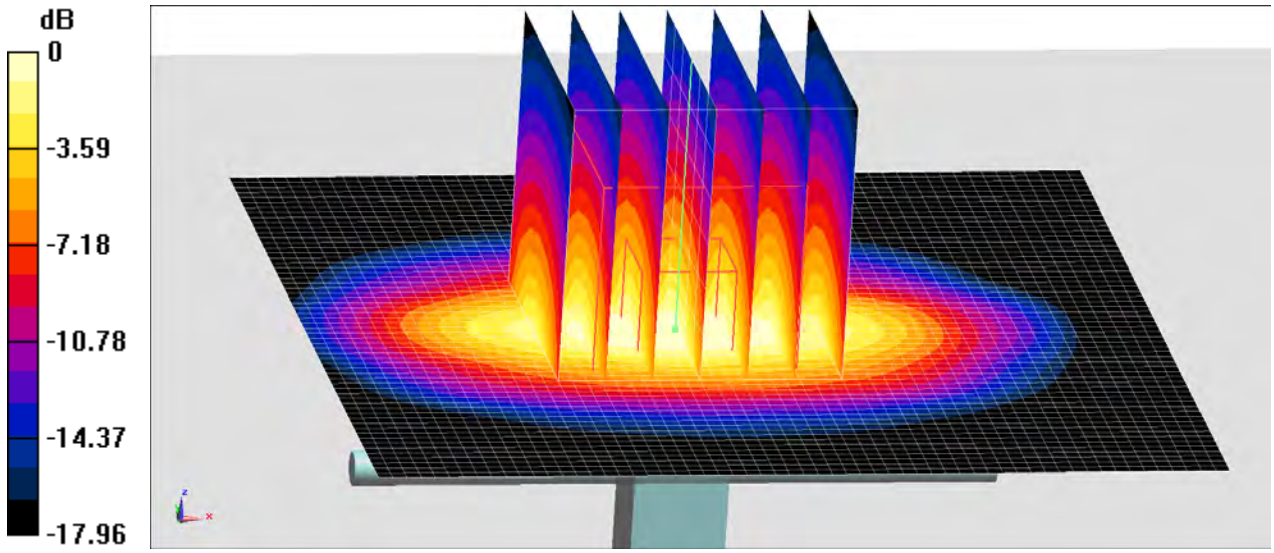
1900MHz
Date: 3/20/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 1900 MHz; σ = 1.44 S/m; εr = 39.654; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 1900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.8, 7.8, 7.8)

Area Scan (51x141x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 102.33 V/m; Power Drift = 0.14 dB
Fast SAR: SAR(1 g) = 9.93 W/kg; SAR(10 g) = 5.15 W/kg
Maximum value of SAR (interpolated) = 15.8 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.33 V/m; Power Drift = 0.14 dB
Peak SAR (extrapolated) = 19.0 W/kg
SAR(1 g) = 9.97 W/kg; SAR(10 g) = 5.19 W/kg
Maximum value of SAR (measured) = 15.7 W/kg



0 dB = 15.7 W/kg = 11.96 dBW/kg

Fig.B.7 validation 1900MHz 250mW

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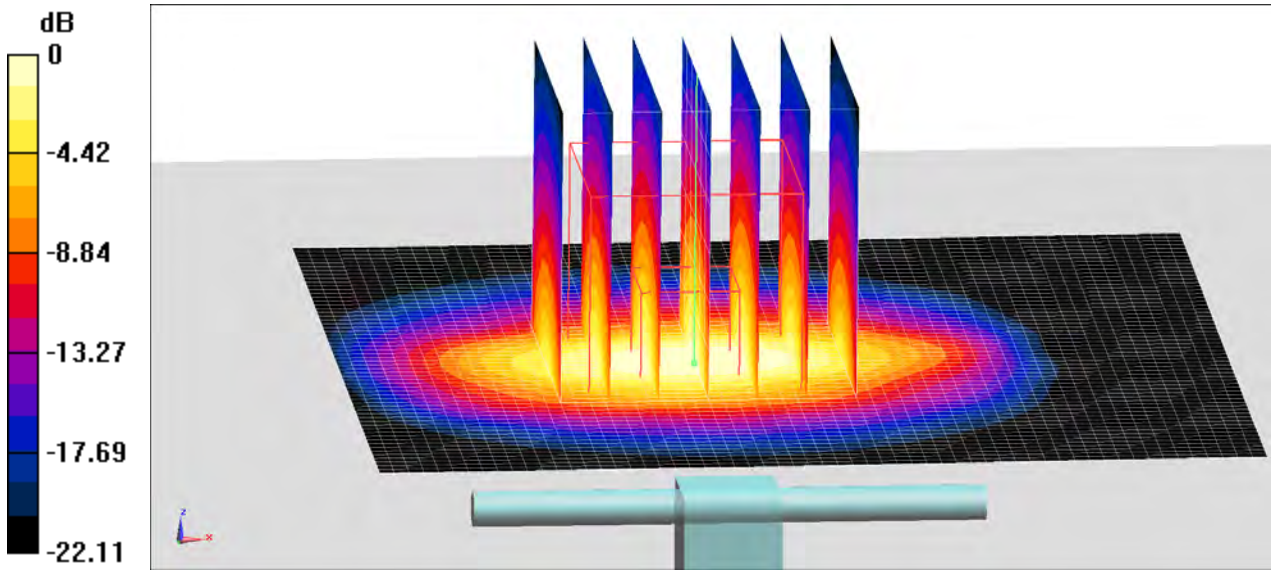
2450MHz
Date: 3/30/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 2450 MHz; σ = 1.822 S/m; εr = 39.84; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 2450 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.32, 7.32, 7.32)

Area Scan (61x171x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 102.35 V/m; Power Drift =-0.06 dB
Fast SAR: SAR(1 g) = 13.02 W/kg; SAR(10 g) = 6.16 W/kg
Maximum value of SAR (interpolated) = 22.1 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 102.35 V/m; Power Drift =-0.06 dB
Peak SAR (extrapolated) = 26.9 W/kg
SAR(1 g) = 12.98 W/kg; SAR(10 g) = 6.13 W/kg
Maximum value of SAR (measured) = 21.8 W/kg



0 dB = 21.8 W/kg = 13.38 dBW/kg

Fig.B.8 validation 2450MHz 250mW

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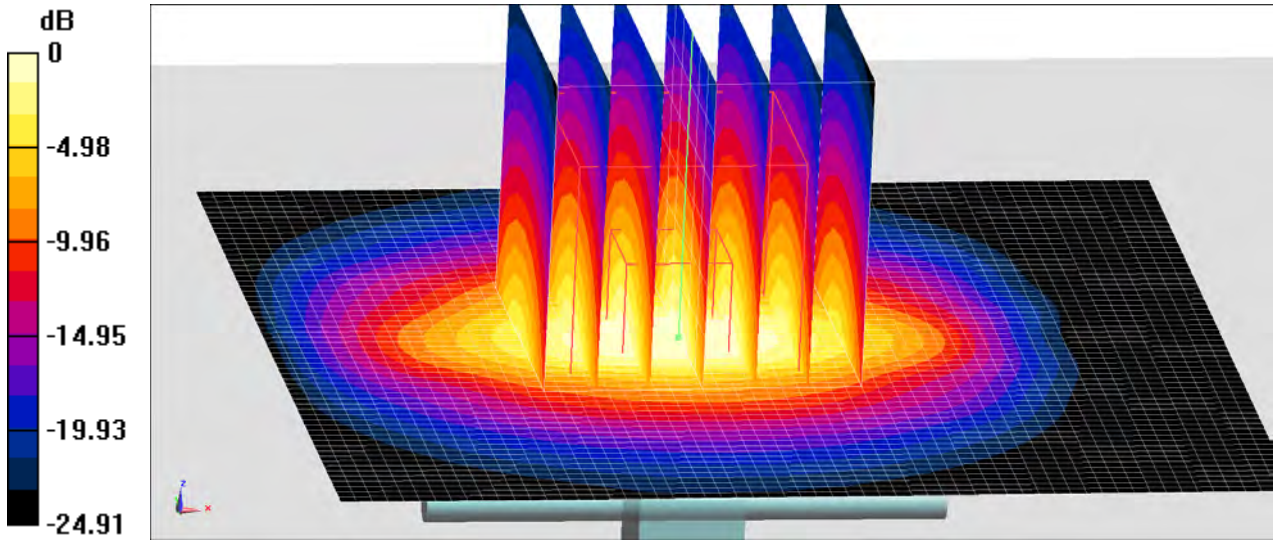
2600MHz
Date: 3/25/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 2600 MHz; σ = 1.912 S/m; εr =39.54; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.12, 7.12, 7.12)

Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 104.2 V/m; Power Drift = 0.15 dB
Fast SAR: SAR(1 g) = 14.33 W/kg; SAR(10 g) = 6.44 W/kg
Maximum value of SAR (interpolated) = 24.9 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 104.2 V/m; Power Drift = 0.15 dB
Peak SAR (extrapolated) = 31.6 W/kg
SAR(1 g) = 14.3 W/kg; SAR(10 g) = 6.46 W/kg
Maximum value of SAR (measured) = 24.8 W/kg



0 dB = 24.8 W/kg = 13.94 dBW/kg

Fig.B.9 validation 2600MHz 250mW

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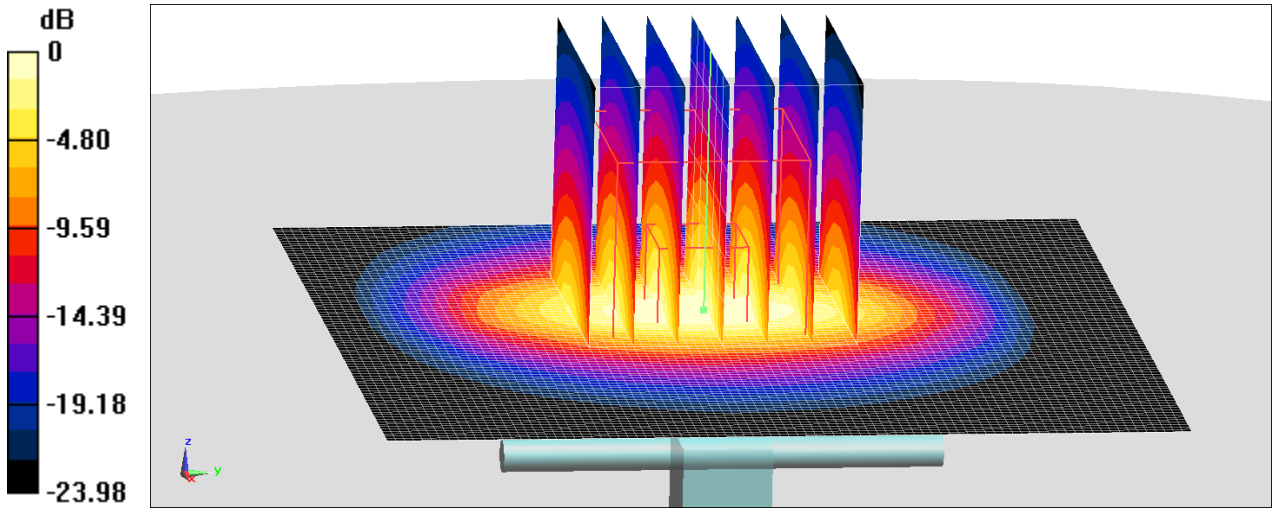
2600MHz
Date: 3/27/2023
Electronics: DAE4 Sn1331
Medium: H700-6000
Medium parameters used: f = 2600 MHz; σ = 1.904 S/m; εr = 39.625; ρ = 1000 kg/m3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: CW Frequency: 2600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(7.12, 7.12, 7.12)

Area Scan (61x81x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Reference Value = 99.32 V/m; Power Drift = 0.07 dB
Fast SAR: SAR(1 g) = 14.15 W/kg; SAR(10 g) = 6.47 W/kg
Maximum value of SAR (interpolated) = 23.8 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 99.32 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 29.6 W/kg
SAR(1 g) = 14.22 W/kg; SAR(10 g) = 6.51 W/kg
Maximum value of SAR (measured) = 23.5 W/kg



0 dB = 23.5 W/kg = 13.71 dBW/kg

Fig.B.10 validation 2600MHz 250mW

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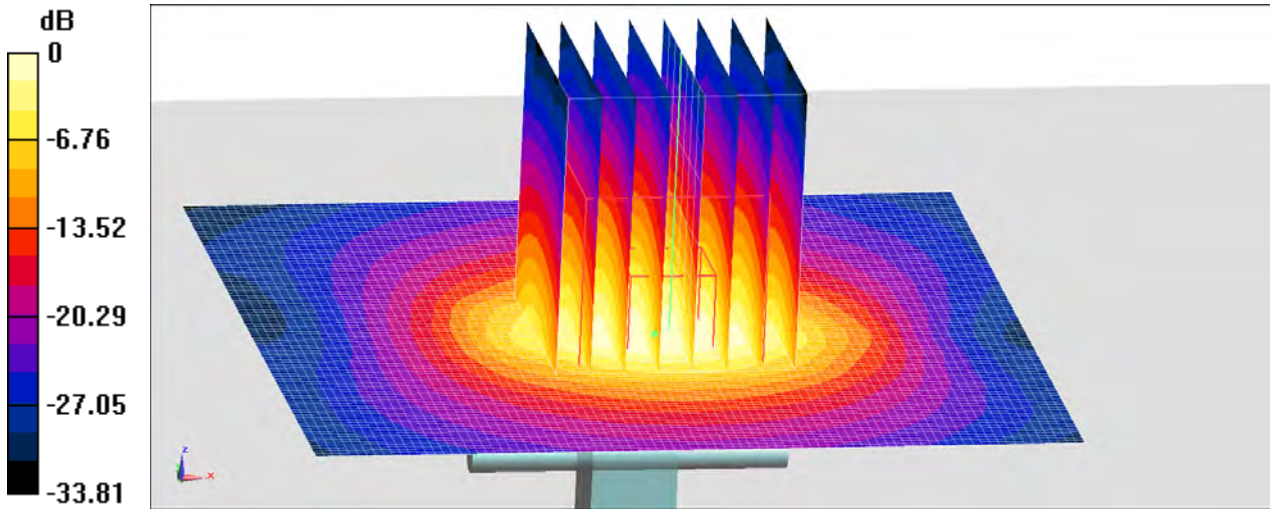
3500MHz
Date: 4/1/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 3500 MHz; σ = 2.854 S/m; ε_r = 39.214; ρ = 1000 kg/m^3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: UID 0, CW (0) Frequency: 3500 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.61, 6.61, 6.61)

System Performance Check/d=10mm, Pin=100mW, f=3400 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 12.0 W/kg

System Performance Check/d=10mm, Pin=100mW, f=3400 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 67.31 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 16.7 W/kg
SAR(1 g) = 6.65 W/kg; SAR(10 g) = 2.49 W/kg
Maximum value of SAR (measured) = 11.9 W/kg



0 dB = 11.9 W/kg = 10.76 dBW/kg

Fig.B.11 validation 3500 MHz 100mW

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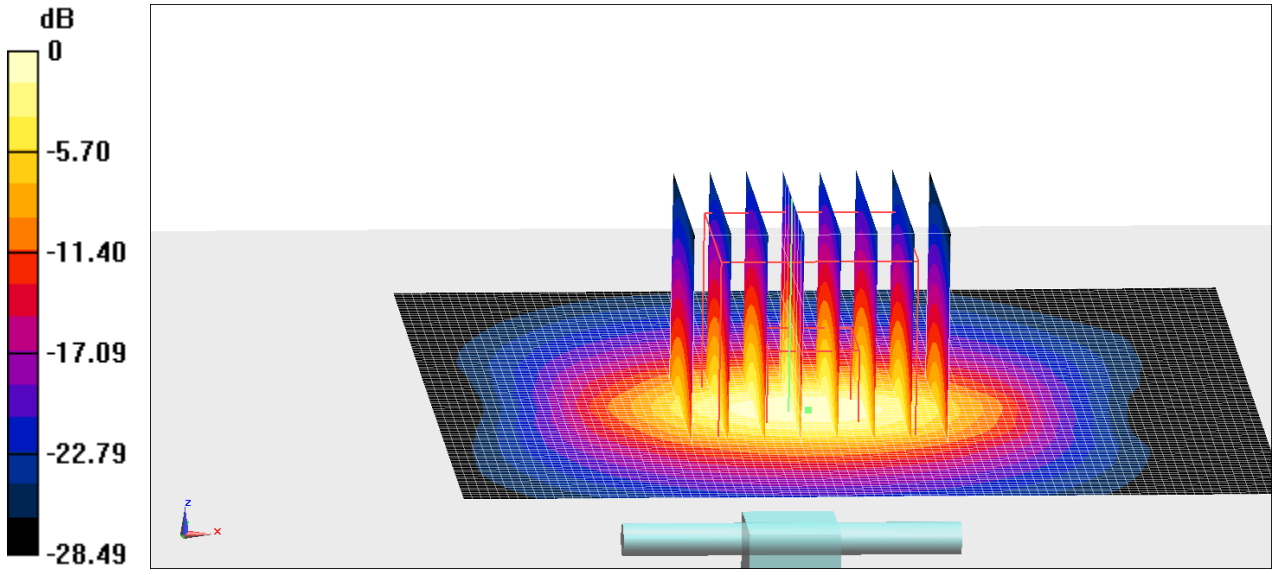
3700MHz
Date: 4/1/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 3700 MHz; σ = 2.956 S/m; ε_r = 39.154; ρ = 1000 kg/m^3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: UID 0, CW (0) Frequency: 3700 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.41, 6.41, 6.41)

System Performance Check/d=10mm, Pin=100mW, f=3600 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 12.7 W/kg

System Performance Check/d=10mm, Pin=100mW, f=3600 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 51.54 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 17.8 W/kg
SAR(1 g) = 6.79 W/kg; SAR(10 g) = 2.47 W/kg
Maximum value of SAR (measured) = 12.6 W/kg



0 dB = 12.6 W/kg = 11.00 dBW/kg

Fig.B.12 validation 3700 MHz 100mW

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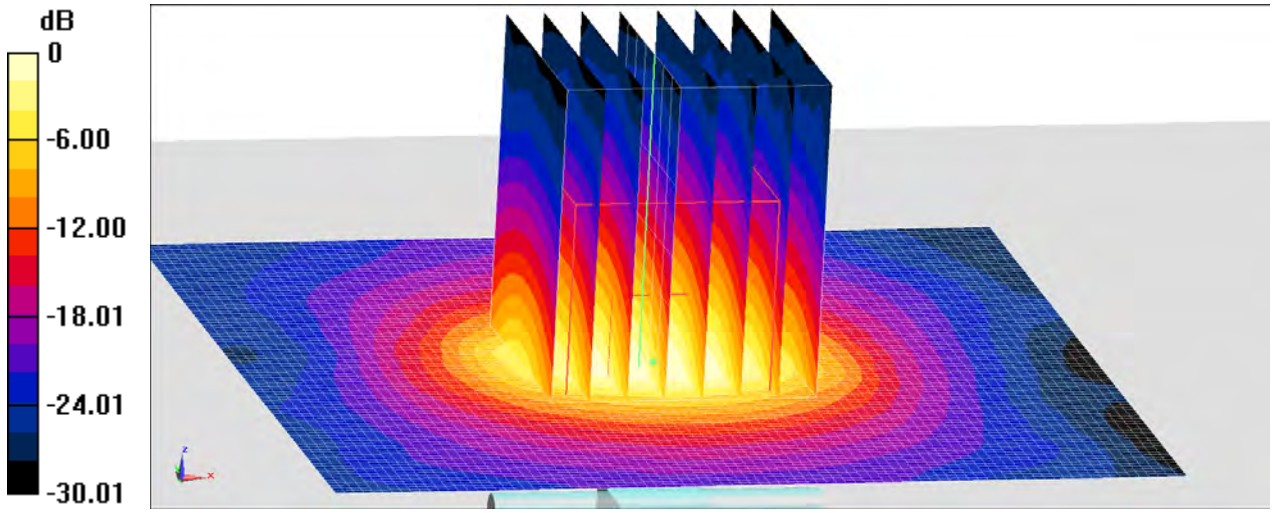
3900MHz
Date: 4/2/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 39800 MHz; σ = 3.274 S/m; ε_r = 39.01; ρ = 1000 kg/m^3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: UID 0, CW (0) Frequency: 3900 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(6.3, 6.3, 6.3)

System Performance Check/d=10mm, Pin=100mW, f=3800 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 12.7 W/kg

System Performance Check/d=10mm, Pin=100mW, f=3800 MHz/Zoom Scan (4x4x1.4mm, graded), dist=1.4mm (8x8x8)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 66.57 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 18.2 W/kg
SAR(1 g) = 6.89 W/kg; SAR(10 g) = 2.38 W/kg
Maximum value of SAR (measured) = 12.6 W/kg



0 dB = 12.6 W/kg = 11.00 dBW/kg

Fig.B.13 validation 3900 MHz 100mW

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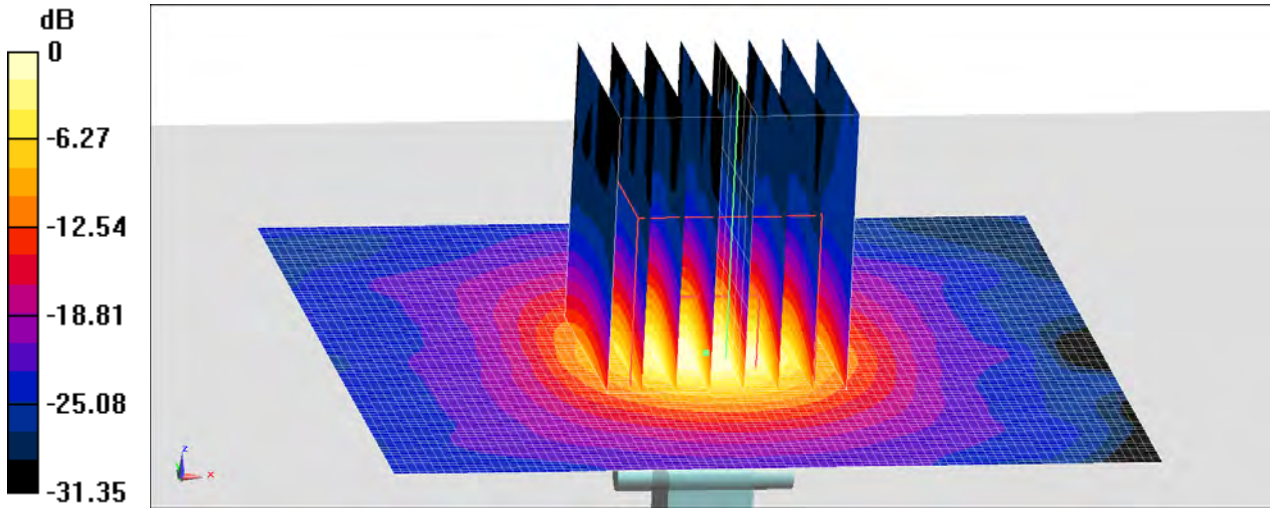
5250MHz
Date: 4/5/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5250 MHz; σ = 4.654 S/m; ε_r = 36.57; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: UID 0, CW (0) Frequency: 5250 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.98, 4.98, 4.98)

System Performance Check/d=10mm, Pin=100mW, f=5250 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.1 W/kg

System Performance Check/d=10mm, Pin=100mW, f=5250 MHz/Zoom Scan (7x7x11)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 67.87 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 33.6 W/kg
SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 19.0 W/kg



0 dB = 19.0 W/kg = 12.79 dBW/kg

Fig.B.14 validation 5250 MHz 100mW

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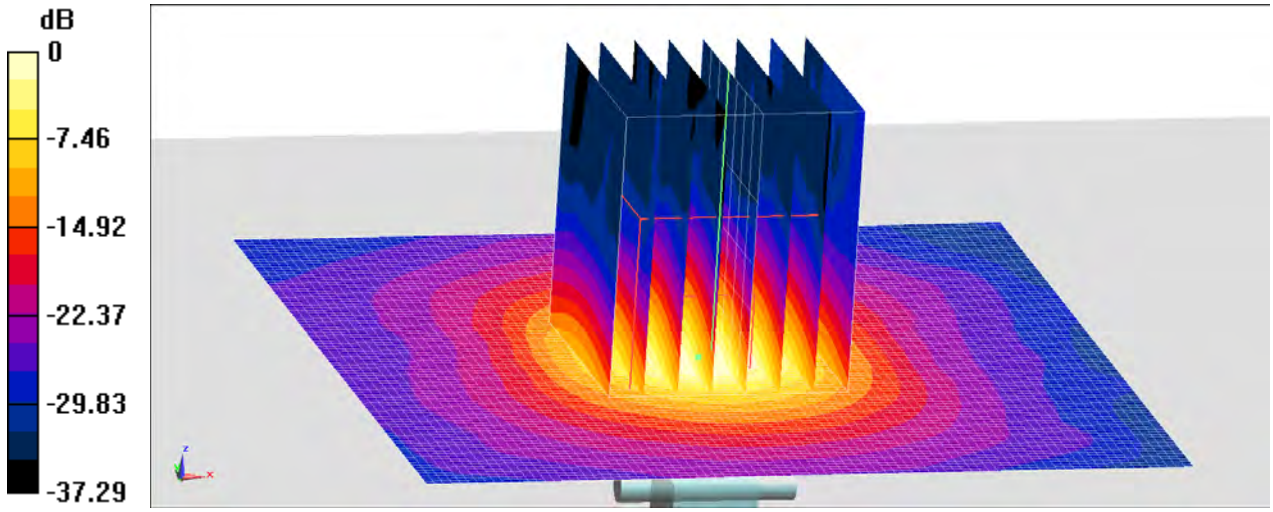
5600MHz
Date: 4/6/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5600 MHz; σ = 4.97 S/m; ε_r = 36.324; ρ = 1000 kg/m^3
Ambient Temperature: 22.9℃ Liquid Temperature: 22.5℃
Communication System: UID 0, CW (0) Frequency: 5600 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.57, 4.57, 4.57)

System Performance Check/d=10mm, Pin=100mW, f=5600 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.4 W/kg

System Performance Check/d=10mm, Pin=100mW, f=5600 MHz/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value =70.61 V/m; Power Drift = -0.03 dB
Peak SAR (extrapolated) = 37.3 W/kg
SAR(1 g) = 8.48 W/kg; SAR(10 g) = 2.41 W/kg
Maximum value of SAR (measured) = 19.2 W/kg



0 dB = 19.2 W/kg = 12.83 dBW/kg

Fig.B.15 validation 5600 MHz 100mW

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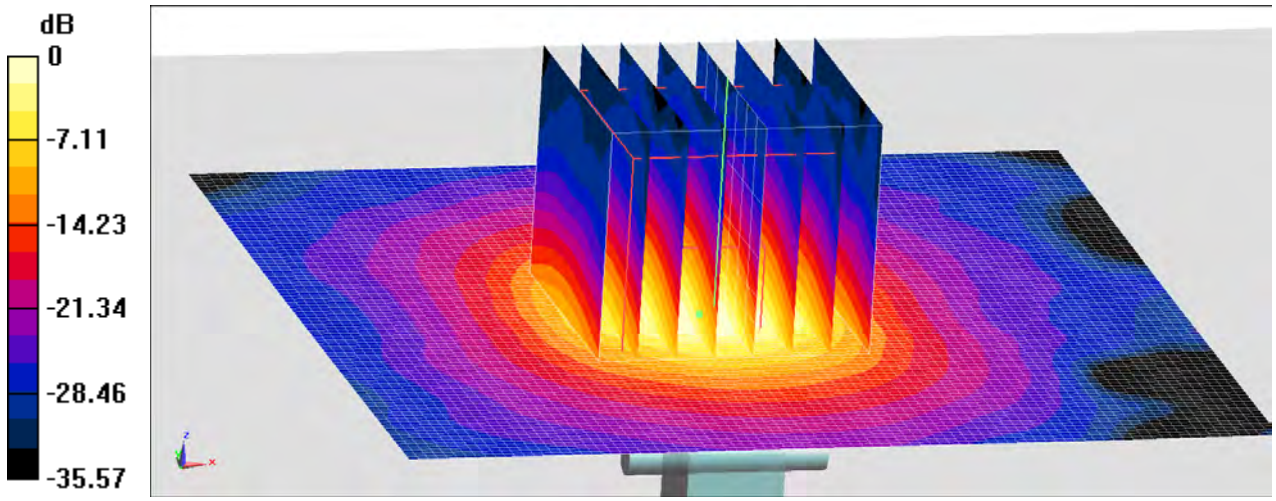
5750MHz
Date: 4/7/2023
Electronics: DAE4 Sn1331
Medium: H700-6000M
Medium parameters used: f = 5750 MHz; σ = 5.245 S/m; ε_r = 36.233; ρ = 1000 kg/m^3
Ambient Temperature: 22.9°C Liquid Temperature: 22.5°C
Communication System: UID 0, CW (0) Frequency: 5750 MHz Duty Cycle: 1:1
Probe: EX3DV4 - SN7548 ConvF(4.64, 4.64, 4.64)

System Performance Check/d=10mm, Pin=100mW, f=5750 MHz/Area Scan (91x91x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 19.2 W/kg

System Performance Check/d=10mm, Pin=100mW, f=5750 MHz/Zoom Scan 2 (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 61.06 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 36.9 W/kg
SAR(1 g) = 7.89 W/kg; SAR(10 g) = 2.21 W/kg
Maximum value of SAR (measured) = 19.3 W/kg



0 dB = 19.3 W/kg = 12.86 dBW/kg

Fig.B.16 validation 5750 MHz 100mW

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The SAR system verification must be required that the area scan estimated 1-g SAR is within 3% of the zoom scan 1-g SAR.

Table B.1 Comparison between area scan and zoom scan for system verification

Date	Band	Position	Area scan (1g)	Zoom scan (1g)	Drift (%)
2023-3-10	750 MHz	Head	2.2	2.21	-0.45
2023-3-11	750 MHz	Head	2.16	2.15	0.47
2023-3-4	835 MHz	Head	2.35	2.37	-0.84
2023-3-13	1750 MHz	Head	9.28	9.25	0.32
2023-3-15	1750 MHz	Head	9.21	9.17	0.44
2023-3-19	1900 MHz	Head	9.83	9.85	-0.20
2023-3-20	1900 MHz	Head	9.93	9.97	-0.40
2023-3-30	2450 MHz	Head	13.02	12.98	0.31
2023-3-25	2600 MHz	Head	14.33	14.3	0.21
2023-3-27	2600 MHz	Head	14.15	14.22	-0.49

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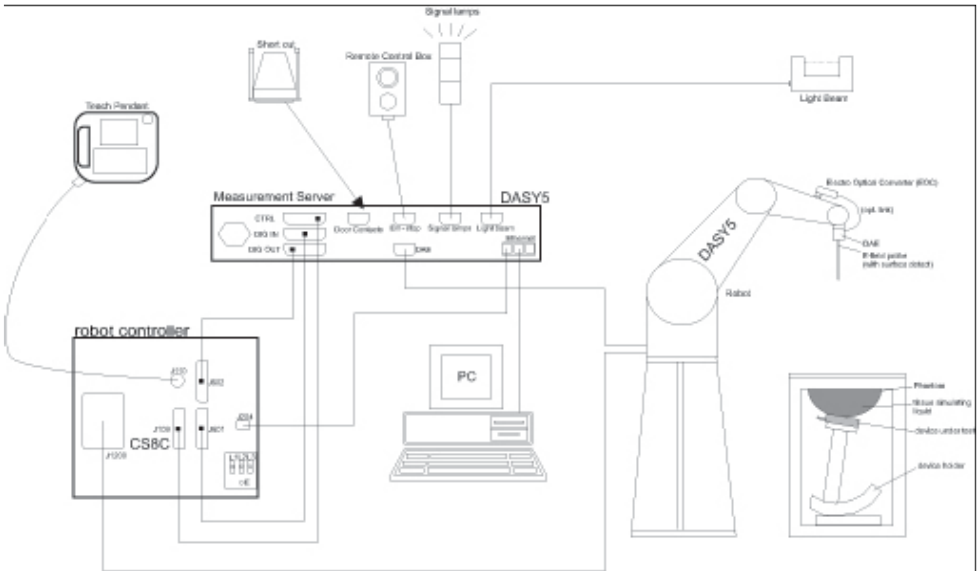
ANNEX C SAR Measurement Setup

C.1 Measurement Set-up

The Dasy4 or DASY5 system for performing compliance tests is illustrated above graphically. This system consists of the following items:



Picture C.1SAR Lab Test Measurement Set-up

- A standard high precision 6-axis robot (StäubliTX=RX family) with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP and the DASY4 or DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as
- warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

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C.2 Dasy4 or DASY5 E-field Probe System

The SAR measurements were conducted with the dosimetric probe designed in the classical triangular configuration and optimized for dosimetric evaluation. The probe is constructed using the thick film technique; with printed resistive lines on ceramic substrates. The probe is equipped with an optical multifiber line ending at the front of the probe tip. It is connected to the EOC box on the robot arm and provides an automatic detection of the phantom surface. Half of the fibers are connected to a pulsed infrared transmitter, the other half to a synchronized receiver. As the probe approaches the surface, the reflection from the surface produces a coupling from the transmitting to the receiving fibers. This reflection increases first during the approach, reaches maximum and then decreases. If the probe is flatly touching the surface, the coupling is zero. The distance of the coupling maximum to the surface is independent of the surface reflectivity and largely independent of the surface to probe angle. The DASY4 or DASY5 software reads the reflection durning a software approach and looks for the maximum using 2nd ord curve fitting. The approach is stopped at reaching the maximum.

Probe Specifications:

Model: ES3DV3, EX3DV4
Frequency 10MHz — 6.0GHz(EX3DV4)
Range: 10MHz — 4GHz(ES3DV3)
Calibration: In head and body simulating tissue at Frequencies from 835 up to 5800MHz
Linearity: ± 0.2 dB(30 MHz to 6 GHz) for EX3DV4
± 0.2 dB(30 MHz to 4 GHz) for ES3DV3
DynamicRange: 10 mW/kg — 100W/kg
Probe Length: 330 mm
Probe Tip
Length: 20 mm
Body Diameter: 12 mm
Tip Diameter: 2.5 mm (3.9 mm for ES3DV3)
Tip-Center: 1 mm (2.0mm for ES3DV3)
Application: SAR Dosimetry Testing
Compliance tests ofmobile phones
Dosimetry in strong gradient fields

Picture C.2Near-field Probe

Picture C.3E-field Probe

C.3 E-field Probe Calibration

Each E-Probe/Probe Amplifier combination has unique calibration parameters. A TEM cell calibration procedure is conducted to determine the proper amplifier settings to enter in the probe parameters. The amplifier settings are determined for a given frequency by subjecting the probe to a known E-field density (1 mW/cm^2) using an RF Signal generator, TEM cell, and RF Power Meter.

The free space E-field from amplified probe outputs is determined in a test chamber. This calibration can be performed in a TEM cell if the frequency is below 1 GHz and inn a waveguide or

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other methodologies above 1 GHz for free space. For the free space calibration, the probe is placed in the volumetric center of the cavity and at the proper orientation with the field. The probe is then rotated 360 degrees until the three channels show the maximum reading. The power density readings equates to 1 mW/cm^2.

E-field temperature correlation calibration is performed in a flat phantom filled with the appropriate simulated brain tissue. The E-field in the medium correlates with the temperature rise in the dielectric medium. For temperature correlation calibration a RF transparent thermistor-based temperature probe is used in conjunction with the E-field probe.

$$SAR = C\frac{\Delta T}{\Delta t}$$

Where:

Δt = Exposure time (30 seconds),

C = Heat capacity of tissue (brain or muscle),

ΔT = Temperature increase due to RF exposure.

$$SAR = \frac{|E|^2 \cdot \sigma}{\rho}$$

Where:

σ = Simulated tissue conductivity,

ρ = Tissue density (kg/m^3).

C.4 Other Test Equipment

C.4.1 Data Acquisition Electronics(DAE)

The data acquisition electronics consist of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder with a control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information, as well as an optical uplink for commands and the clock.

The mechanical probe mounting device includes two different sensor systems for frontal and sideways probe contacts. They are used for mechanical surface detection and probe collision detection.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

PictureC.4: DAE

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C.4.2 Robot

The SPEAG DASY system uses the high precision robots (DASY4: RX90XL; DASY5: RX160L) type from Stäubli SA (France). For the 6-axis controller system, the robot controller version from Stäubli is used. The Stäubli robot series have many features that are important for our application:

- High precision (repeatability 0.02mm)
- High reliability (industrial design)
- Low maintenance costs (virtually maintenance free due to direct drive gears; no belt drives)
- Jerk-free straight movements (brushless synchron motors; no stepper motors)
- Low ELF interference (motor control fields shielded via the closed metallic construction shields)

Picture C.5DASY 4

Picture C.6DASY 5

C.4.3 Measurement Server

The Measurement server is based on a PC/104 CPU broad with CPU (dasy4: 166 MHz, Intel Pentium; DASY5: 400 MHz, Intel Celeron), chipdisk (DASY4: 32 MB; DASY5: 128MB), RAM (DASY4: 64 MB, DASY5: 128MB). The necessary circuits for communication with the DAE electronic box, as well as the 16 bit AD converter system for optical detection and digital I/O interface are contained on the DASY I/O broad, which is directly connected to the PC/104 bus of the CPU broad.

The measurement server performs all real-time data evaluation of field measurements and surface detection, controls robot movements and handles safety operation. The PC operating system cannot interfere with these time critical processes. All connections are supervised by a watchdog, and disconnection of any of the cables to the measurement server will automatically disarm the robot and disable all program-controlled robot movements. Furthermore, the measurement server is equipped with an expansion port which is reserved for future applications. Please note that this expansion port does not have a standardized pinout, and therefore only devices provided by SPEAG can be connected. Devices from any other supplier could seriously damage the measurement server.

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Picture C.7 Server for DASY 4

Picture C.8 Server for DASY 5

C.4.4 Device Holder for Phantom

The SAR in the phantom is approximately inversely proportional to the square of the distance between the source and the liquid surface. For a source at 5mm distance, a positioning uncertainty of ±0.5mm would produce a SAR uncertainty of ±20%. Accurate device positioning is therefore crucial for accurate and repeatable measurements. The positions in which the devices must be measured are defined by the standards.

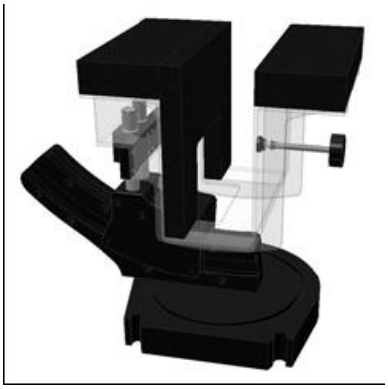
The DASY device holder is designed to cope with the different positions given in the standard. It has two scales for device rotation (with respect to the body axis) and device inclination (with respect to the line between the ear reference points). The rotation centers for both scales are the ear reference point (ERP). Thus the device needs no repositioning when changing the angles.

The DASY device holder is constructed of low-loss POM material having the following dielectric parameters: relative permittivity ε=3 and loss tangent δ=0.02. The amount of dielectric material has been reduced in the closest vicinity of the device, since measurements have suggested that the influence of the clamp on the test results could thus be lowered.

<Laptop Extension Kit>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the Mounting Device in place of the phone positioner. The extension is fully compatible with the Twin-SAM and ELI phantoms.

Picture C.9-1: Device Holder



Picture C.9-2: Laptop Extension Kit

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C.4.5 Phantom

The SAM Twin Phantom V4.0 is constructed of a fiberglass shell integrated in a table. The shape of the shell is based on data from an anatomical study designed to
Represent the 90th percentile of the population. The phantom enables the dissymmetric evaluation of SAR for both left and right handed handset usage, as well as body-worn usage using the flat phantom region. Reference markings on the Phantom allow the complete setup of all predefined phantom positions and measurement grids by manually teaching three points in the robot. The shell phantom has a 2mm shell thickness (except the ear region where shell thickness increases to 6 mm).

Shell Thickness: 2±0. 2 mm
Filling Volume: Approx. 25 liters
Dimensions: 810 x l000 x 500 mm (H x L x W)
Available: Special

Picture C.10: SAM Twin Phantom

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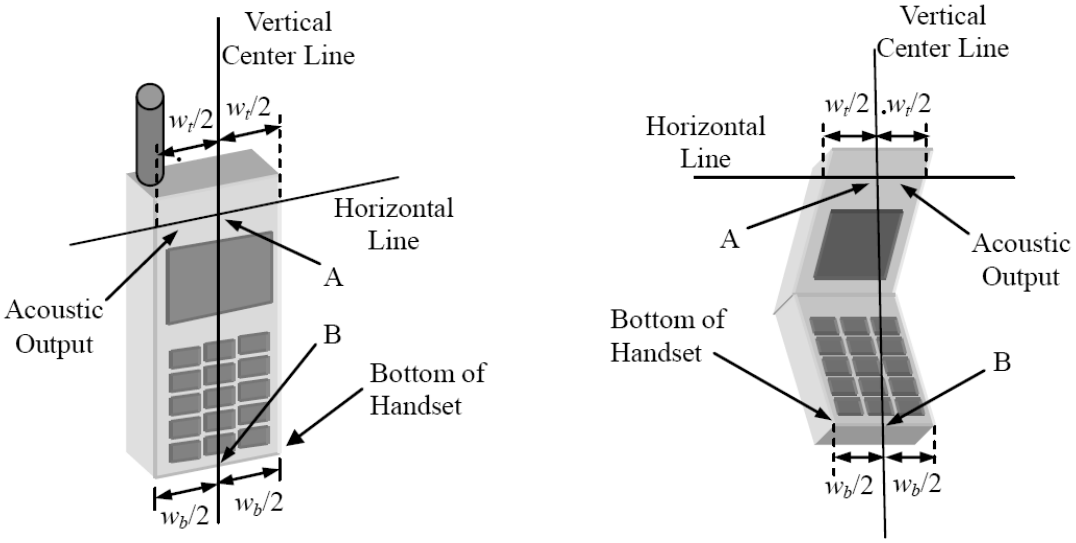
ANNEX D Position of the wireless device in relation to the phantom

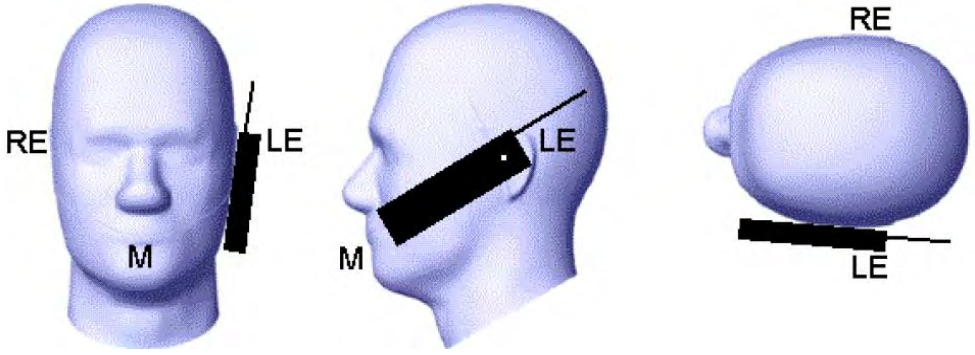
D.1 General considerations

This standard specifies two handset test positions against the head phantom – the “cheek” position and the “tilt” position.



w_t	Width of the handset at the level of the acoustic
w_b	Width of the bottom of the handset
A	Midpoint of the width w_t of the handset at the level of the acoustic output
B	Midpoint of the width w_b of the bottom of the handset

Picture D.1-a Typical “fixed” case handset Picture D.1-b Typical “clam-shell” case handset



Picture D.2 Cheek position of the wireless device on the left side of SAM

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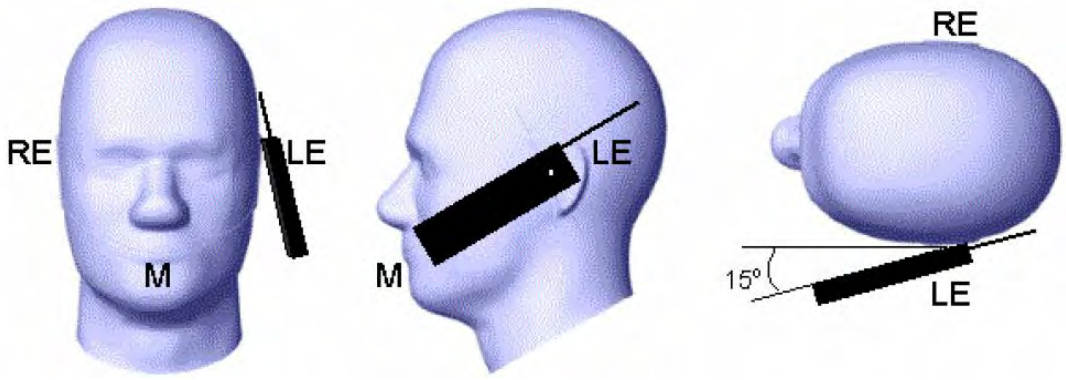
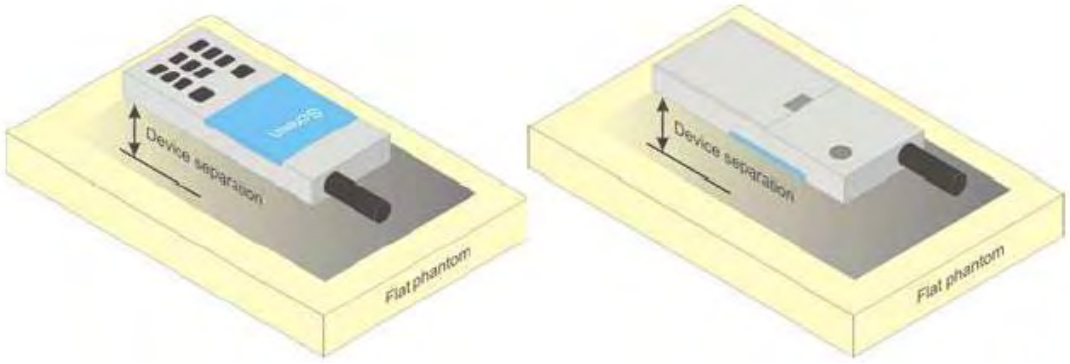


Picture D.3 Tilt position of the wireless device on the left side of SAM

D.2 Body-worn device

A typical example of a body-worn device is a mobile phone, wireless enabled PDA or other battery operated wireless device with the ability to transmit while mounted on a person's body using a carry accessory approved by the wireless device manufacturer.



Picture D.4Test positions for body-worn devices

D.3 Desktop device

A typical example of a desktop device is a wireless enabled desktop computer placed on a table or desk when used.

The DUT shall be positioned at the distance and in the orientation to the phantom that corresponds to the intended use as specified by the manufacturer in the user instructions. For devices that employ an external antenna with variable positions, tests shall be performed for all antenna positions specified. Picture8.5 show positions for desktop device SAR tests. If the intended use is not specified, the device shall be tested directly against the flat phantom.

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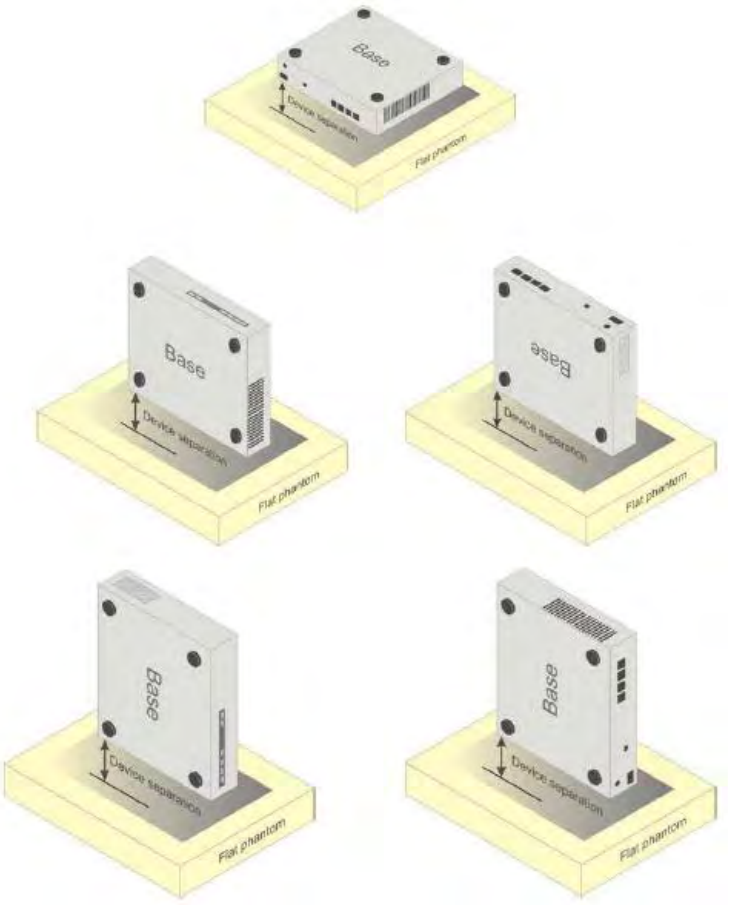

Picture D.5 Test positions for desktop devices

D.4 DUT Setup Photos

Picture D.6

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ANNEX E Equivalent Media Recipes

The liquid used for the frequency range of 800-3000 MHz consisted of water, sugar, salt, preventol, glycol monobutyl and Cellulose. The liquid has been previously proven to be suited for worst-case. The Table E.1 shows the detail solution. It's satisfying the latest tissue dielectric parameters requirements proposed by the IEEE 1528 and IEC 62209.

TableE.1: Composition of the Tissue Equivalent Matter

Frequency (MHz)	835Head	835Body	1900 Head	1900 Body	2450 Head	2450 Body	5800 Head	5800 Body
Ingredients (% by weight)								
Water	41.45	52.5	55.242	69.91	58.79	72.60	65.53	65.53
Sugar	56.0	45.0	\	\	\	\	\	\
Salt	1.45	1.4	0.306	0.13	0.06	0.18	\	\
Preventol	0.1	0.1	\	\	\	\	\	\
Cellulose	1.0	1.0	\	\	\	\	\	\
Glycol Monobutyl	\	\	44.452	29.96	41.15	27.22	\	\
Diethylenglycol monohexylether	\	\	\	\	\	\	17.24	17.24
Triton X-100	\	\	\	\	\	\	17.24	17.24
Dielectric Parameters Target Value	ε=41.5 σ=0.90	ε=55.2 σ=0.97	ε=40.0 σ=1.40	ε=53.3 σ=1.52	ε=39.2 σ=1.80	ε=52.7 σ=1.95	ε=35.3 σ=5.27	ε=48.2 σ=6.00

Note: There are a little adjustment respectively for 750, 1750, 2600, 5200, 5300 and 5600 based on the recipe of closest frequency in table E.1.

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ANNEX F System Validation

The SAR system must be validated against its performance specifications before it is deployed. When SAR probes, system components or software are changed, upgraded or recalibrated, these must be validated with the SAR system(s) that operates with such components.

Table F.1: System Validation for 7548

Probe SN.	Liquid name	Validation date	Frequency point	Status (OK or Not)
7548	Head 750MHz	July.15,2020	750 MHz	OK
7548	Head 850MHz	July.15,2020	835 MHz	OK
7548	Head 900MHz	July.15,2020	900 MHz	OK
7548	Head 1750MHz	July.15,2020	1750 MHz	OK
7548	Head 1810MHz	July.15,2020	1810 MHz	OK
7548	Head 1900MHz	July.16,2020	1900 MHz	OK
7548	Head 2000MHz	July.16,2020	2000 MHz	OK
7548	Head 2100MHz	July.16,2020	2100 MHz	OK
7548	Head 2300MHz	July.16,2020	2300 MHz	OK
7548	Head 2450MHz	July.16,2020	2450 MHz	OK
7548	Head 2600MHz	July.17,2020	2600 MHz	OK
7548	Head 3500MHz	July.17,2020	3500 MHz	OK
7548	Head 3700MHz	July.17,2020	3700 MHz	OK
7548	Head 5200MHz	July.17,2020	5250 MHz	OK
7548	Head 5500MHz	July.17,2020	5600 MHz	OK
7548	Head 5800MHz	July.17,2020	5800 MHz	OK

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