Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23017	23095	23173
Band12	1.4	1	#0	QPSK	23.09	23.25	23.32
		1	#Mid		23.17	23.21	23.37
		1	#Max		23.11	23.28	23.42
		3	#0		23.16	23.20	23.37
		3	#Mid		23.25	23.21	23.39
		3	#Max		23.25	23.15	23.38
		6	#0		22.64	22.78	22.95
	1.4	1	#0	QAM16	23.38	22.69	23.81
		1	#Mid		23.39	22.75	**23.82**
		1	#Max		23.37	22.76	23.81
		3	#0		22.78	22.67	22.92
		3	#Mid		22.80	22.65	23.01
		3	#Max		22.80	22.58	23.03
		6	#0		22.02	21.77	21.89

Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23025	23095	23165
Band12	3	1	#0	QPSK	23.06	23.31	23.40
		1	#Mid		23.05	23.28	23.39
		1	#Max		23.06	23.36	23.42
		8	#0		22.63	22.72	22.81
		8	#Mid		22.73	22.63	22.75
		8	#Max		22.70	22.60	22.72
		15	#0		22.65	22.75	22.85
	3	1	#0	QAM16	**23.68**	22.73	22.91
		1	#Mid		23.66	22.77	22.93
		1	#Max		23.59	22.68	22.97
		8	#0		21.97	21.76	21.86
		8	#Mid		22.01	21.71	21.89
		8	#Max		22.04	21.68	21.88
		15	#0		22.16	21.76	21.94

Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23035	23095	23155
Band12	5	1	#0	QPSK	23.11	23.19	23.05
		1	#Mid		23.02	23.21	23.08
		1	#Max		23.09	23.19	23.04
		12	#0		22.65	22.67	22.78
		12	#Mid		22.71	22.79	22.82
		12	#Max		22.71	22.70	22.75
		25	#0		22.64	22.69	22.84
	5	1	#0	QAM16	22.82	22.80	**23.33**
		1	#Mid		22.82	22.89	23.31
		1	#Max		22.74	22.77	23.33
		12	#0		22.05	21.48	21.77
		12	#Mid		21.98	21.58	21.77
		12	#Max		21.97	21.51	21.77
		25	#0		22.20	21.74	21.95

Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23060	23095	23130
Band12	10	1	#0	QPSK	23.19	23.15	23.10
		1	#Mid		23.16	23.30	23.18
		1	#Max		23.18	23.34	23.44
		25	#0		22.76	22.58	22.80
		25	#Mid		22.64	22.83	22.69
		25	#Max		22.77	22.77	22.76
		50	#0		22.76	22.69	22.67
	10	1	#0	QAM16	23.81	23.45	23.19
		1	#Mid		23.76	23.50	23.17
		1	#Max		**23.83**	23.54	23.30
		25	#0		21.97	21.74	21.79
		25	#Mid		22.05	21.82	21.82
		25	#Max		21.66	21.80	21.88
		50	#0		22.09	21.87	21.78

Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23755	23790	23825
Band17	5	1	#0	QPSK	23.07	22.99	23.21
		1	#Mid		23.11	22.97	23.24
		1	#Max		23.12	23.02	23.23
		12	#0		22.75	22.71	22.70
		12	#Mid		22.72	22.68	22.85
		12	#Max		22.72	22.74	22.81
		25	#0		22.73	22.81	22.75
	5	1	#0	QAM16	22.35	23.24	22.83
		1	#Mid		22.34	23.25	22.83
		1	#Max		22.42	**23.34**	22.89
		12	#0		21.57	21.62	21.68
		12	#Mid		21.53	21.68	21.67
		12	#Max		21.60	21.68	21.69
		25	#0		21.69	21.80	21.99

Band	Bandwidth (MHz)	RB Size	RB Position	Modulation	Channel		
					23780	23790	23800
Band17	10	1	#0	QPSK	23.10	23.16	23.19
		1	#Mid		23.17	23.20	23.12
		1	#Max		23.30	23.24	23.39
		25	#0		22.66	22.65	22.87
		25	#Mid		22.67	22.72	22.74
		25	#Max		22.68	22.82	22.86
		50	#0		22.74	22.82	22.88
	10	1	#0	QAM16	23.73	23.51	23.14
		1	#Mid		23.80	23.48	23.16
		1	#Max		**23.88**	23.53	23.26
		25	#0		21.52	21.79	21.72
		25	#Mid		21.57	21.84	21.82
		25	#Max		21.65	21.80	21.85
		50	#0		21.64	21.85	21.76

WLAN 2.4G			
Mode	Frequency	Maximum Conducted Output Power	Tune-up power
	(MHz)	(dBm)	(dBm)
802.11b	2412	10.19	12.0
	2437	**11.50**	
	2462	10.95	
802.11g	2412	10.09	11.5
	2437	10.79	
	2462	10.82	
802.11n20	2412	9.21	10.5
	2437	9.86	
	2462	9.77	
802.11n40	2422	8.53	9.5
	2437	9.12	
	2452	8.95	

Note:
1. When the same transmission mode configurations have the same maximum output power on the same channel for the 802.11 b/g/n modes, the channel in the lower order/sequence 802.11 mode (i.e. g, n) is selected. Therefore the SAR measurements performed for the 802.11b modes, as the lowest order modulation, cover 802.11g/n modes.
2. SAR is not required for the following 2.4 GHz OFDM conditions as the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
3. Per KDB 248227 D01 v02r02, For 802.11b DSSS SAR measurements ,when the reported SAR of the highest measured maximum output power channel for the exposure configuration is ⩽ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration. When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

WLAN 5.1G			
Mode	Frequency	Maximum Conducted Output Power	Tune-up power
	(MHz)	(dBm)	(dBm)
802.11a	5180	**11.46**	12.0
	5200	11.05	
	5240	9.91	
802.11n20	5180	10.13	10.5
	5200	9.23	
	5240	9.40	
802.11n40	5190	8.86	10.0
	5230	9.56	
802.11nac20	5180	9.99	10.5
	5200	8.85	
	5240	9.96	
802.11nac40	5190	8.97	10.0
	5230	9.61	
802.11nac80	5210	8.30	9.0

WLAN 5.8G			
Mode	Frequency	Maximum Conducted Output Power	Tune-up power
	(MHz)	(dBm)	(dBm)
802.11a	5745	**11.59**	12.0
	5785	10.70	
	5825	10.42	
802.11n20	5745	10.44	11.0
	5785	9.67	
	5825	9.46	
802.11n40	5755	9.01	9.5
	5795	8.54	
802.11nac20	5745	10.49	11.0
	5785	9.73	
	5825	9.38	
802.11nac40	5755	9.48	10.0
	5795	8.67	
802.11nac80	5775	7.90	8.5

Bluetooth			
Modulation	Frequency (MHz)	Output Power (dBm)	Tune-up power (dBm)
1-DH1	2402	-1.11	0.5
	2441	-0.07	
	2480	0.08	
2-DH1	2402	-0.17	2.0
	2441	1.12	
	2480	1.33	
3-DH1	2402	0.25	2.0
	2441	1.50	
	2480	**1.72**	

BLE			
Modulation	Frequency (MHz)	Output Power (dBm)	Tune-up power (dBm)
GFSK 1Mbps	2402	-0.72	1.0
	2440	0.48	
	2480	**0.69**	
GFSK 2Mbps	2402	-0.92	
	2440	0.27	
	2480	0.49	

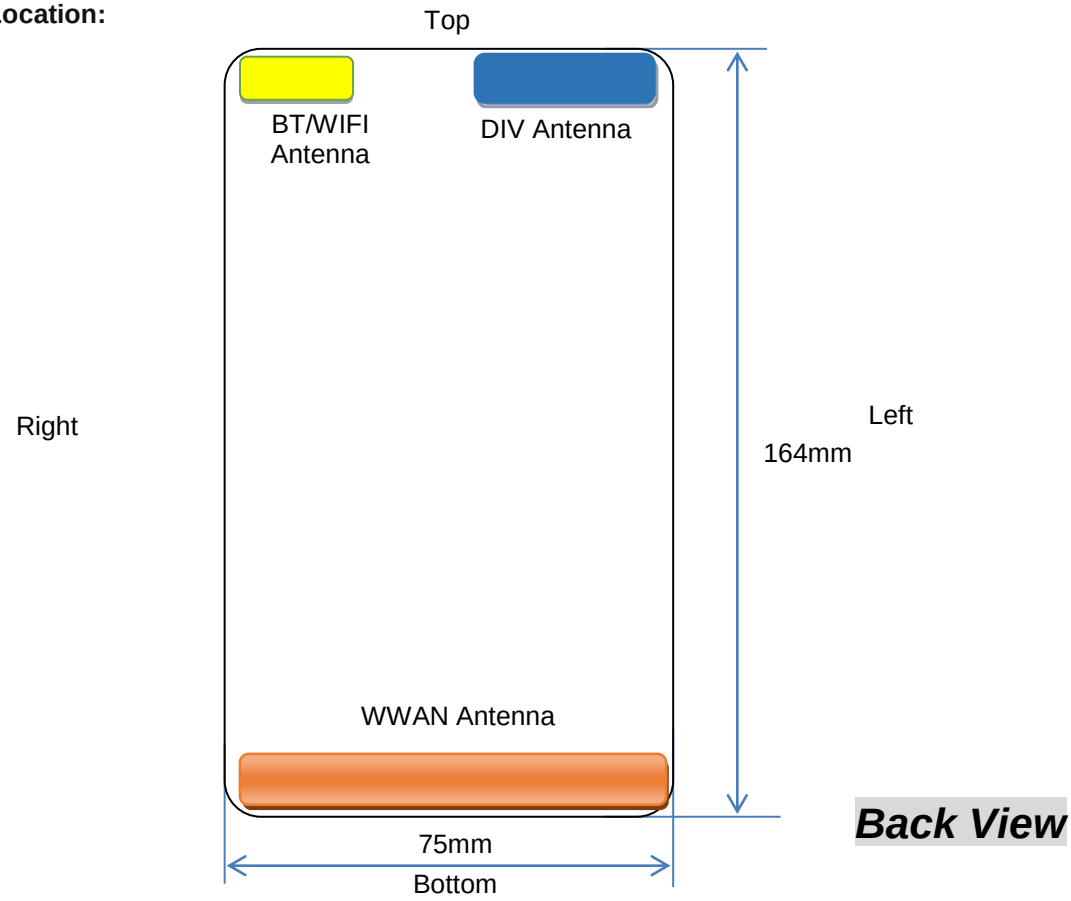
Note:
Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] •[√f(GHz)] ≤ 3.0 for1-g SAR and ≤ 7.5 for 10-g extremity SAR
f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation
The result is rounded to one decimal place for comparison

Bluetooth Turn up Power (dBm)	Bluetooth Turn up Power (mW)	Separation Distance (mm)	Frequency (GHz)	Result	Exclusion Thresholds
2.0	1.58	5	2.48	0.5	3.0

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
According to the calculation results in the table above, BT SAR does not need to be tested.

14.2 Transmit Antennas and SAR Measurement Position

EUT Antenna Location:



Antennas	Support Band
WWAN	GSM 850+WCDMA Band 5+LTE Band 5/12/17 TX&RX
DIV	GSM 1900+WCDMA Band 2/4+LTE Band 2/4/7 TX&RX
BT/WIFI	BT+2.4G WIFI+5G WIFI

Distance of The Antenna to the EUT surface and edge (mm)						
Antennas	Front	Back	Top Side	Bottom Side	Left Side	Right Side
WWAN	<25	<25	145	<25	<25	<25
DIV	<25	<25	<25	156	<25	41
BT/WIFI	<25	<25	<25	149	53	<25

EUT Testing Location Evaluation:

Positions for SAR tests; Hotspot mode						
Antennas	Front	Back	Top Side	Bottom Side	Left Side	Right Side
WWAN	Yes	Yes	No	Yes	Yes	Yes
DIV	Yes	Yes	Yes	No	Yes	No
BT/WIFI	Yes	Yes	Yes	No	No	Yes

Note:

1. According to the KDB 941225 D06 Hot Spot SAR v02, the edges with less than 25 mm distance to the antennas need to be tested for SAR.
2. According to the KDB 941225 D06 Hot Spot SAR v02, When the overall length and width of a device is > 9 cm x 5 cm (~3.5” x 2”), a test separation distance of 10 mm is required for hotspot mode SAR measurements.

14.3 Measured and Reported (Scaled) SAR Results

The calculated SAR is obtained by the following formula:
1. Reported SAR for WWAN=Measured SAR * Tune-up Scaling factor
2. Reported SAR for WLAN and Bluetooth=Measured SAR * Tune-up Scaling factor * Duty Cycle Scaling factor
3. Duty Cycle Scaling factor=1/ Duty Cycle (%)

KDB 447498 D01 General RF Exposure Guidance:
Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:
- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 648474 D04 Handset SAR v01r03:
1. When the *reported* SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest *reported* SAR configuration for that wireless mode and frequency band should be repeated for the body-worn accessory with a headset attached to the handset.
2. when the separation distance required for body-worn accessory testing is larger than or equal to that tested for hotspot mode, using the same wireless mode test configuration for voice and data, such as UMTS, LTE and Wi-Fi, and for the same surface of the phone, the hotspot mode SAR data may be used to support body-worn accessory SAR compliance for that particular configuration (surface)
3. For Smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, 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.

KDB 941225 D01 3G SAR Procedures:
When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤1/4dB higher than the primary mode (RMC12.2kbps) or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

KDB 941225 D05 SAR for LTE Devices:
1. Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel.
2. When the reported SAR is > 0.8 W/kg, testing for other Channels is performed at the highest output power level for 1RB, and 50% RB configuration for that channel.
3. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High Channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg. Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg.
4. SAR measurement is not required for the 16QAM and 64QAM. When the highest maximum output power for 16QAM and 64QAM is ≤ ½ dB higher than the QPSK or when the reported SAR for the QPSK configuration is ≤ 1.45 W/kg.
5. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/Kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

KDB 248227 D01 802.11 Wi-Fi SAR

SAR test reduction for 802.11 Wi-Fi transmission mode configurations are considered separately for DSSS and OFDM. An initial test position is determined to reduce the number of tests required for certain exposure configurations with multiple test positions. An initial test configuration is determined for each frequency band and aggregated band according to maximum output power, channel bandwidth, wireless mode configurations and other operating parameters to streamline the measurement requirements.

For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions.

DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.16 The initial test position procedure is described in the following:

a) When the *reported* SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other (remaining) test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band. SAR is also not required for that exposure configuration in the subsequent test configuration(s).
b) When the *reported* SAR of the initial test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position using subsequent highest extrapolated or estimated 1-g SAR conditions determined by area scans or next closest/smallest test separation distance and maximum RF coupling test positions based on manufacturer justification, on the highest maximum output power channel, until the *reported* SAR is ≤ 0.8 W/kg or all required test positions (left, right, touch, tilt or subsequent surfaces and edges) are tested.
c) For all positions/configurations tested using the initial test position and subsequent test positions, when the *reported* SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the *reported* SAR is ≤ 1.2 W/kg or all required channels are tested.

Additional power measurements may be required for this step, which should be limited to those necessary for identifying the subsequent highest output power channels.

When the specified maximum output power is the same for both UNII 1 and UNII 2A, begin SAR measurements in UNII 2A with the channel with the highest measured output power. If the reported SAR for UNII 2A is ≤ 1.2 W/kg, SAR is not required for UNII 1; otherwise treat the remaining bands separately and test them independently for SAR.

When the specified maximum output power is different between UNII 1 and UNII 2A, begin SAR with the band that has the higher specified maximum output. If the highest reported SAR for the band with the highest specified power is ≤ 1.2 W/kg, testing for the band with the lower specified output power is not required; otherwise test the remaining bands independently for SAR

TCB workshop April 2015:

SAR test exclusion can be applied for testing overlapping LTE bands as follows:

a) The maximum output power, including tolerance, for the smaller band must be s the larger band to qualify for the SAR test exclusion.
b) The channel bandwidth and other operating parameters for the smaller band must be fully supported by the larger band.

LTE Band 17 (704-716 MHz) is covered by LTE Band 12 (699-716 MHz)

GSM 850											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	GSM	Left Cheek	251	848.8	32.86	33.5	1.159	0.324	**0.375**	1
		GSM	Left Tilt	251	848.8	32.86	33.5	1.159	0.297	0.344	
		GSM	Right Cheek	251	848.8	32.86	33.5	1.159	0.270	0.313	
		GSM	Right Tilt	251	848.8	32.86	33.5	1.159	0.215	0.249	
Body & Hotspot	10	GPRS-1Tx	Back	128	824.2	33.22	33.5	1.067	0.396	**0.422**	2
		GPRS-1Tx	Front	128	824.2	33.22	33.5	1.067	0.311	0.332	
Hotspot	10	GPRS-1Tx	Right Side	128	824.2	33.22	33.5	1.067	0.219	0.234	
		GPRS-1Tx	Left Side	128	824.2	33.22	33.5	1.067	0.206	0.220	
		GPRS-1Tx	Bottom Side	128	824.2	33.22	33.5	1.067	0.235	0.251	

GSM 1900											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	GSM	Left Cheek	661	1880	27.06	27.5	1.107	0.161	0.178	
		GSM	Left Tilt	661	1880	27.06	27.5	1.107	0.081	0.090	
		GSM	Right Cheek	661	1880	27.06	27.5	1.107	0.490	**0.542**	3
		GSM	Right Tilt	661	1880	27.06	27.5	1.107	0.364	0.181	
Body & Hotspot	10	GPRS-1Tx	Back	661	1880	27.10	27.5	1.096	0.367	**0.402**	4
		GPRS-1Tx	Front	661	1880	27.10	27.5	1.096	0.196	0.215	
Hotspot	10	GPRS-1Tx	Left Side	661	1880	27.10	27.5	1.096	0.074	0.081	
		GPRS-1Tx	Top Side	661	1880	27.10	27.5	1.096	0.214	0.235	

WCDMA Band II											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	RMC*	Left Cheek	9538	1907.6	22.50	23.0	1.122	0.177	0.199	
		RMC*	Left Tilt	9538	1907.6	22.50	23.0	1.122	0.102	0.114	
		RMC*	Right Cheek	9538	1907.6	22.50	23.0	1.122	0.383	**0.430**	5
		RMC*	Right Tilt	9538	1907.6	22.50	23.0	1.122	0.290	0.325	
Body & Hotspot	10	RMC*	Back	9538	1907.6	22.50	23.0	1.122	0.270	0.303	
		RMC*	Front	9538	1907.6	22.50	23.0	1.122	0.201	0.226	
Hotspot	10	RMC*	Left Side	9538	1907.6	22.50	23.0	1.122	0.131	0.147	
		RMC*	Top Side	9538	1907.6	22.50	23.0	1.122	0.295	**0.331**	6

WCDMA Band IV											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	RMC*	Left Cheek	1312	1712.4	22.55	23.0	1.109	0.176	0.195	
		RMC*	Left Tilt	1312	1712.4	22.55	23.0	1.109	0.037	0.041	
		RMC*	Right Cheek	1312	1712.4	22.55	23.0	1.109	0.744	**0.825**	7
		RMC*	Right Cheek	1312	1712.4	22.55	23.0	1.109	0.701	0.778	
		RMC*	Right Cheek	1312	1712.4	22.55	23.0	1.109	0.719	0.797	
		RMC*	Right Tilt	1312	1712.4	22.55	23.0	1.109	0.510	0.566	
Body & Hotspot	10	RMC*	Back	1312	1712.4	22.55	23.0	1.109	0.398	**0.441**	8
		RMC*	Front	1312	1712.4	22.55	23.0	1.109	0.327	0.363	
Hotspot	10	RMC*	Left Side	1312	1712.4	22.55	23.0	1.109	0.276	0.306	
		RMC*	Top Side	1312	1712.4	22.55	23.0	1.109	0.227	0.252	

WCDMA Band V											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	RMC*	Left Cheek	4233	846.6	22.91	23.5	1.146	0.362	**0.415**	9
		RMC*	Left Tilt	4233	846.6	22.91	23.5	1.146	0.271	0.310	
		RMC*	Right Cheek	4233	846.6	22.91	23.5	1.146	0.193	0.221	
		RMC*	Right Tilt	4233	846.6	22.91	23.5	1.146	0.180	0.206	
Body & Hotspot	10	RMC*	Back	4233	846.6	22.91	23.5	1.146	0.246	0.282	
		RMC*	Front	4233	846.6	22.91	23.5	1.146	0.210	0.241	
Hotspot	10	RMC*	Right Side	4233	846.6	22.91	23.5	1.146	0.072	0.082	
		RMC*	Left Side	4233	846.6	22.91	23.5	1.146	0.138	0.158	
		RMC*	Bottom Side	4233	846.6	22.91	23.5	1.146	0.272	**0.312**	10

FDD-LTE Band 2 (20MHz Bandwidth)											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	QPSK,1RB	Left Cheek	18900	1880.0	23.58	24.0	1.102	0.237	0.261	
		QPSK,1RB	Left Tilt	18900	1880.0	23.58	24.0	1.102	0.136	0.150	
		QPSK,1RB	Right Cheek	18900	1880.0	23.58	24.0	1.102	0.769	**0.847**	11
		QPSK,1RB	Right Cheek	18700	1860.0	23.58	24.0	1.102	0.716	0.789	
		QPSK,1RB	Right Cheek	19100	1900.0	23.58	24.0	1.102	0.764	0.842	
		QPSK,1RB	Right Tilt	18900	1880.0	23.58	24.0	1.102	0.642	0.707	
		QPSK,50%RB	Left Cheek	18900	1880.0	23.58	24.0	1.102	0.246	0.271	
		QPSK,50%RB	Left Tilt	18900	1880.0	23.58	24.0	1.102	0.210	0.231	
		QPSK,50%RB	Right Cheek	18900	1880.0	23.58	24.0	1.102	0.542	0.597	
		QPSK,50%RB	Right Tilt	18900	1880.0	23.58	24.0	1.102	0.575	0.633	
Body & Hotspot	10	QPSK,1RB	Back	18900	1880.0	23.58	24.0	1.102	0.513	**0.565**	12
		QPSK,1RB	Front	18900	1880.0	23.58	24.0	1.102	0.464	0.511	
		QPSK,50%RB	Back	18900	1880.0	23.58	24.0	1.102	0.507	0.558	
		QPSK,50%RB	Front	18900	1880.0	23.58	24.0	1.102	0.391	0.431	
Hotspot	10	QPSK,1RB	Left Side	18900	1880.0	23.58	24.0	1.102	0.264	0.291	
		QPSK,1RB	Top Side	18900	1880.0	23.58	24.0	1.102	0.461	0.508	
		QPSK,50%RB	Left Side	18900	1880.0	23.58	24.0	1.102	0.331	0.365	
		QPSK,50%RB	Top Side	18900	1880.0	23.58	24.0	1.102	0.388	0.427	

FDD-LTE Band 4 (20MHz Bandwidth)											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	QPSK,1RB	Left Cheek	20175	1732.5	23.82	24.5	1.169	0.348	0.407	
		QPSK,1RB	Left Tilt	20175	1732.5	23.82	24.5	1.169	0.264	0.309	
		QPSK,1RB	Right Cheek	20175	1732.5	23.82	24.5	1.169	0.860	**1.006**	13
		QPSK,1RB	Right Cheek	20050	1720.0	23.82	24.5	1.169	0.796	0.931	
		QPSK,1RB	Right Cheek	20300	1745.0	23.82	24.5	1.169	0.811	0.948	
		QPSK,1RB	Right Tilt	20175	1732.5	23.82	24.5	1.169	0.539	0.630	
		QPSK,50%RB	Left Cheek	20175	1732.5	23.82	24.5	1.169	0.375	0.439	
		QPSK,50%RB	Left Tilt	20175	1732.5	23.82	24.5	1.169	0.186	0.218	
		QPSK,50%RB	Right Cheek	20175	1732.5	23.82	24.5	1.169	0.740	0.865	
		QPSK,50%RB	Right Cheek	20050	1720.0	23.82	24.5	1.169	0.701	0.820	
		QPSK,50%RB	Right Cheek	20300	1745.0	23.82	24.5	1.169	0.763	0.892	
		QPSK,50%RB	Right Tilt	20175	1732.5	23.82	24.5	1.169	0.517	0.605	
		QPSK,100%RB	Right Cheek	20175	1732.5	23.82	24.5	1.169	0.637	0.745	
Body & Hotspot	10	QPSK,1RB	Back	20175	1732.5	23.82	24.5	1.169	0.439	0.513	
		QPSK,1RB	Front	20175	1732.5	23.82	24.5	1.169	0.333	0.389	
		QPSK,50%RB	Back	20175	1732.5	23.82	24.5	1.169	0.394	0.461	
		QPSK,50%RB	Front	20175	1732.5	23.82	24.5	1.169	0.275	0.322	
Hotspot	10	QPSK,1RB	Left Side	20175	1732.5	23.82	24.5	1.169	0.261	0.305	
		QPSK,1RB	Top Side	20175	1732.5	23.82	24.5	1.169	0.490	**0.573**	14
		QPSK,50%RB	Left Side	20175	1732.5	23.82	24.5	1.169	0.213	0.249	
		QPSK,50%RB	Top Side	20175	1732.5	23.82	24.5	1.169	0.435	0.509	

FDD-LTE Band 5 (10MHz Bandwidth)											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	QPSK,1RB	Left Cheek	20525	836.5	23.64	24.0	1.086	0.411	**0.447**	15
		QPSK,1RB	Left Tilt	20525	836.5	23.64	24.0	1.086	0.340	0.369	
		QPSK,1RB	Right Cheek	20525	836.5	23.64	24.0	1.086	0.318	0.345	
		QPSK,1RB	Right Tilt	20525	836.5	23.64	24.0	1.086	0.303	0.329	
		QPSK,50%RB	Left Cheek	20525	836.5	23.64	24.0	1.086	0.395	0.429	
		QPSK,50%RB	Left Tilt	20525	836.5	23.64	24.0	1.086	0.311	0.338	
		QPSK,50%RB	Right Cheek	20525	836.5	23.64	24.0	1.086	0.261	0.284	
		QPSK,50%RB	Right Tilt	20525	836.5	23.64	24.0	1.086	0.217	0.236	
Body & Hotspot	10	QPSK,1RB	Back	20525	836.5	23.64	24.0	1.086	0.440	**0.478**	16
		QPSK,1RB	Front	20525	836.5	23.64	24.0	1.086	0.244	0.265	
		QPSK,50%RB	Back	20525	836.5	23.64	24.0	1.086	0.409	0.444	
		QPSK,50%RB	Front	20525	836.5	23.64	24.0	1.086	0.178	0.193	
Hotspot	10	QPSK,1RB	Right Side	20525	836.5	23.64	24.0	1.086	0.309	0.336	
		QPSK,1RB	Left Side	20525	836.5	23.64	24.0	1.086	0.328	0.356	
		QPSK,1RB	Bottom Side	20525	836.5	23.64	24.0	1.086	0.297	0.323	
		QPSK,50%RB	Right Side	20525	836.5	23.64	24.0	1.086	0.282	0.306	
		QPSK,50%RB	Left Side	20525	836.5	23.64	24.0	1.086	0.297	0.323	
		QPSK,50%RB	Bottom Side	20525	836.5	23.64	24.0	1.086	0.362	0.393	

FDD-LTE Band 7 (20MHz Bandwidth)											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	QPSK,1RB	Left Cheek	21350	2560	23.01	23.5	1.119	0.217	0.243	
		QPSK,1RB	Left Tilt	21350	2560	23.01	23.5	1.119	0.283	0.317	
		QPSK,1RB	Right Cheek	21350	2560	23.01	23.5	1.119	0.706	0.790	
		QPSK,1RB	Right Cheek	20850	2510	23.01	23.5	1.119	0.768	0.860	
		QPSK,1RB	Right Cheek	21100	2535	23.01	23.5	1.119	0.780	0.873	
		QPSK,1RB	Right Tilt	21350	2560	23.01	23.5	1.119	0.860	**0.963**	17
		QPSK,1RB	Right Tilt	20850	2510	23.01	23.5	1.119	0.817	0.915	
		QPSK,1RB	Right Tilt	21100	2535	23.01	23.5	1.119	0.849	0.950	
		QPSK,50%RB	Left Cheek	21350	2560	23.01	23.5	1.119	0.260	0.291	
		QPSK,50%RB	Left Tilt	21350	2560	23.01	23.5	1.119	0.281	0.315	
		QPSK,50%RB	Right Cheek	21350	2560	23.01	23.5	1.119	0.645	0.722	
		QPSK,50%RB	Right Tilt	21350	2560	23.01	23.5	1.119	0.717	0.803	
		QPSK,50%RB	Right Tilt	20850	2510	23.01	23.5	1.119	0.736	0.824	
		QPSK,50%RB	Right Tilt	21100	2535	23.01	23.5	1.119	0.730	0.817	
		QPSK,100%RB	Right Tilt	20850	2510	23.01	23.5	1.119	0.664	0.743	
Body & Hotspot	10	QPSK,1RB	Back	21350	2560	23.01	23.5	1.119	0.437	**0.489**	18
		QPSK,1RB	Front	21350	2560	23.01	23.5	1.119	0.261	0.292	
		QPSK,50%RB	Back	21350	2560	23.01	23.5	1.119	0.410	0.459	
		QPSK,50%RB	Front	21350	2560	23.01	23.5	1.119	0.207	0.232	
Hotspot	10	QPSK,1RB	Left Side	21350	2560	23.01	23.5	1.119	0.136	0.152	
		QPSK,1RB	Top Side	21350	2560	23.01	23.5	1.119	0.390	0.437	
		QPSK,50%RB	Left Side	21350	2560	23.01	23.5	1.119	0.114	0.128	
		QPSK,50%RB	Top Side	21350	2560	23.01	23.5	1.119	0.351	0.393	

FDD-LTE Band 12 (10MHz Bandwidth)											
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
						Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	QPSK,1RB	Left Cheek	23095	707.5	23.83	24.5	1.167	0.416	**0.485**	19
		QPSK,1RB	Left Tilt	23095	707.5	23.83	24.5	1.167	0.301	0.351	
		QPSK,1RB	Right Cheek	23095	707.5	23.83	24.5	1.167	0.264	0.308	
		QPSK,1RB	Right Tilt	23095	707.5	23.83	24.5	1.167	0.151	0.176	
		QPSK,50%RB	Left Cheek	23095	707.5	23.83	24.5	1.167	0.264	0.308	
		QPSK,50%RB	Left Tilt	23095	707.5	23.83	24.5	1.167	0.159	0.186	
		QPSK,50%RB	Right Cheek	23095	707.5	23.83	24.5	1.167	0.264	0.308	
		QPSK,50%RB	Right Tilt	23095	707.5	23.83	24.5	1.167	0.076	0.089	
Body & Hotspot	10	QPSK,1RB	Back	23095	707.5	23.83	24.5	1.167	0.468	**0.546**	20
		QPSK,1RB	Front	23095	707.5	23.83	24.5	1.167	0.279	0.326	
		QPSK,50%RB	Back	23095	707.5	23.83	24.5	1.167	0.386	0.450	
		QPSK,50%RB	Front	23095	707.5	23.83	24.5	1.167	0.211	0.246	
Hotspot	10	QPSK,1RB	Right Side	23095	707.5	23.83	24.5	1.167	0.161	0.188	
		QPSK,1RB	Left Side	23095	707.5	23.83	24.5	1.167	0.113	0.132	
		QPSK,1RB	Bottom Side	23095	707.5	23.83	24.5	1.167	0.294	0.343	
		QPSK,50%RB	Right Side	23095	707.5	23.83	24.5	1.167	0.037	0.043	
		QPSK,50%RB	Left Side	23095	707.5	23.83	24.5	1.167	0.069	0.081	
		QPSK,50%RB	Bottom Side	23095	707.5	23.83	24.5	1.167	0.303	0.354	

WLAN 2.4G												
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Duty Cycle (%)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
							Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	802.11b	Left Cheek	6	2437	100	11.50	12.0	1.122	0.316	0.355	
		802.11b	Left Tilt	6	2437	100	11.50	12.0	1.122	0.360	**0.404**	21
		802.11b	Right Cheek	6	2437	100	11.50	12.0	1.122	0.176	0.197	
		802.11b	Right Tilt	6	2437	100	11.50	12.0	1.122	0.137	0.154	
Body & Hotspot	10	802.11b	Back	6	2437	100	11.50	12.0	1.122	0.319	**0.358**	22
		802.11b	Front	6	2437	100	11.50	12.0	1.122	0.192	0.215	
Hotspot	10	802.11b	Right Side	6	2437	100	11.50	12.0	1.122	0.133	0.149	
		802.11b	Top Side	6	2437	100	11.50	12.0	1.122	0.284	0.319	

WLAN 5.1G												
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Duty Cycle (%)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
							Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	802.11a	Left Cheek	36	5180	100	11.46	12.0	1.132	0.376	**0.426**	23
		802.11a	Left Tilt	36	5180	100	11.46	12.0	1.132	0.317	0.359	
		802.11a	Right Cheek	36	5180	100	11.46	12.0	1.132	0.141	0.160	
		802.11a	Right Tilt	36	5180	100	11.46	12.0	1.132	0.110	0.125	
Body & Hotspot	10	802.11a	Back	36	5180	100	11.46	12.0	1.132	0.309	**0.350**	24
		802.11a	Front	36	5180	100	11.46	12.0	1.132	0.184	0.208	
Hotspot	10	802.11a	Right Side	36	5180	100	11.46	12.0	1.132	0.099	0.112	
		802.11a	Top Side	36	5180	100	11.46	12.0	1.132	0.272	0.308	

WLAN 5.8G												
RF Exposure Conditions	Dist. (mm)	Mode	Test Position	CH.	Freq. (MHz)	Duty Cycle (%)	Output Power (dBm)			SAR1g (W/kg)		Plot No.
							Meas.	Turn-up	Scaling Factor	Meas.	Scaled	
Head	0	802.11a	Left Cheek	149	5745	100	11.59	12.0	1.099	0.407	**0.447**	25
		802.11a	Left Tilt	149	5745	100	11.59	12.0	1.099	0.340	0.374	
		802.11a	Right Cheek	149	5745	100	11.59	12.0	1.099	0.261	0.287	
		802.11a	Right Tilt	149	5745	100	11.59	12.0	1.099	0.146	0.160	
Body & Hotspot	10	802.11a	Back	149	5745	100	11.59	12.0	1.099	0.299	**0.329**	26
		802.11a	Front	149	5745	100	11.59	12.0	1.099	0.118	0.130	
Hotspot	10	802.11a	Right Side	149	5745	100	11.59	12.0	1.099	0.039	0.043	
		802.11a	Top Side	149	5745	100	11.59	12.0	1.099	0.261	0.287	

Remark:
1. The value with the bold is the maximum SAR Value of each test band.
2. Per FCC KDB Publication 447498 D01, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels SAR tests are not necessary.

14.4 SAR Measurement Variability

According to KDB865664, Repeated measurements are required only when the measured SAR is ≥ 0.80 W/kg. If the measured SAR value of the initial repeated measurement is < 1.45 W/kg with ≤ 20% variation, only one repeated measurement is required to reaffirm that the results are not expected to have substantial variations, which may introduce significant compliance concerns. A second repeated measurement is required only if the measured result for the initial repeated measurement is within 10% of the SAR limit and vary by more than 20%, which are often related to device and measurement setup difficulties. The following procedures are applied to determine if repeated measurements are required. The same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.19 The repeated measurement results must be clearly identified in the SAR report. All measured SAR, including the repeated results, must be considered to determine compliance and for reporting according to KDB 690783.Repeated measurement is not required when the original highest measured SAR is < 0.80 W/kg; steps 2) through 4) do not apply.

1) When the original highest measured SAR is ≥ 0.80 W/kg, repeat that measurement once.
2) Perform a second repeated measurement only if the ratio of largest to smallest SAR for the original and first repeated measurements is > 1.20 or when the original or repeated measurement is ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3) 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.
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

Test Mode	Frequency Band (MHz)	RF Exposure Configuration	Test Position	Repeated SAR (yes/no)	Highest Measured SAR1-g (W/Kg)	First Repeated	
						Measued SAR1-g (W/Kg)	Largest to Smallest SAR Ratio
WCDMA Band IV	1712.4	Head	Right Cheek	Yes	0.825	0.818	1.009
FDD-LTE Band 2 1RB	1880.0	Head	Right Cheek	Yes	0.847	0.815	1.039
FDD-LTE Band 4 1RB	1732.5	Head	Right Cheek	Yes	1.006	0.971	1.036
FDD-LTE Band 4 50%RB	1745.0	Head	Right Cheek	Yes	0.892	0.836	1.067
FDD-LTE Band 7 1RB	2560	Head	Right Tilt	Yes	**0.963**	0.911	1.057
FDD-LTE Band 7 50%RB	2510	Head	Right Tilt	Yes	0.824	0.803	1.026

14.5 Simultaneous Transmission Evaluation

Simultaneous transmission SAR test exclusion is determined for each operating configuration and exposure condition according to the reported standalone SAR of each applicable simultaneous transmiting antenna.

Application Simultaneous Transmission information:

No.	Configurations	Head SAR	Body SAR	Hotspot SAR
1	WWAN+WLAN 2.4G (Data)	Yes	Yes	Yes
2	WWAN+WLAN 5G(Data)	Yes	Yes	Yes
3	WWAN+ Bluetooth (Data)	Yes	Yes	Yes

Remark:
1. WWAN cannot transmit simultaneously.
2. WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
3. WLAN 2.4G and WLAN 5G cannot transmit simultaneously.
3. According to the KDB 447498 D01 v06, when standalone SAR test exclusion applies to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:
● (max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]·[$\sqrt{}$ f(GHz)/x] W/kg for test separation distances ≤ 50 mm;
where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
● 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm

Estimated stand alone SAR						
Communication system	Frequency (MHz)	Maximum Power (dBm)	Maximum Power (mW)	Separation Distance (mm)	X	Estimated SAR1-g (W/kg)
Bluetooth*	2480	2.0	1.58	5	7.5	0.067
Bluetooth*	2480	2.0	1.58	10	7.5	0.033

Note:
1. Bluetooth*- Including Lower power Bluetooth
2. Maximum average power including tune-up tolerance;
3. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

4. Per FCC KD B447498 D01, simultaneous transmission SAR test exclusion may be applied when the sum of the 1-g SAR for all the transmitting antenna in a specific a physical test configuration is ≤1.6 W/Kg. When the sum is greater than the SAR limit, SAR test exclusion is determined by the SAR to peak location separation ratio.

$$\text{Ratio}=\frac{(SAR_1+SAR_2)^{1.5}}{(\text{peak location separation,mm})}<0.04$$

5. Simultaneous transmission of maximum SAR sum calculation.

RF Exposure Conditions	Test Position	WWAN Scaled SAR (W/kg)	WLAN 2.4G Scaled SAR (W/kg)	Summed SAR (W/kg)	SAR1-g Limit (W/kg)
Head	Left Cheek	0.485	0.474	0.959	1.6
	Left Tilt	0.369	0.484	0.853	1.6
	Right Cheek	1.006	0.343	**1.349**	1.6
	Right Tilt	0.963	0.259	1.222	1.6
Body-worn & Hotspot	Back	0.565	0.358	**0.923**	1.6
	Front	0.511	0.215	0.726	1.6
Hotspot	Right side	0.336	0.149	0.485	1.6
	Left side	0.356	N/A	0.356	1.6
	Top side	0.573	0.319	0.892	1.6
	Bottom side	0.393	N/A	0.393	1.6

RF Exposure Conditions	Test Position	WWAN Scaled SAR (W/kg)	WLAN 5G Scaled SAR (W/kg)	Summed SAR (W/kg)	SAR1-g Limit (W/kg)
Head	Left Cheek	0.485	0.449	0.934	1.6
	Left Tilt	0.369	0.374	0.743	1.6
	Right Cheek	1.006	0.287	**1.293**	1.6
	Right Tilt	0.963	0.160	1.123	1.6
Body-worn & Hotspot	Back	0.565	0.350	**0.915**	1.6
	Front	0.511	0.208	0.719	1.6
Hotspot	Right side	0.336	0.112	0.448	1.6
	Left side	0.356	N/A	0.356	1.6
	Top side	0.573	0.308	0.881	1.6
	Bottom side	0.393	N/A	0.393	1.6

RF Exposure Conditions	Test Position	WWAN Scaled SAR (W/kg)	Bluetooth Scaled SAR (W/kg)	Summed SAR (W/kg)	SAR1-g Limit (W/kg)
Head	Left Cheek	0.485	0.281	0.766	1.6
	Left Tilt	0.369	0.260	0.629	1.6
	Right Cheek	1.006	0.234	**1.240**	1.6
	Right Tilt	0.963	0.141	1.104	1.6
Body-worn & Hotspot	Back	0.565	0.029	0.594	1.6
	Front	0.511	0.029	0.540	1.6
Hotspot	Right side	0.336	0.029	0.365	1.6
	Left side	0.356	N/A	0.356	1.6
	Top side	0.573	0.029	**0.602**	1.6
	Bottom side	0.393	N/A	0.393	1.6

15. Test Plots

15.1 System Performance Check

System check at 750 MHz

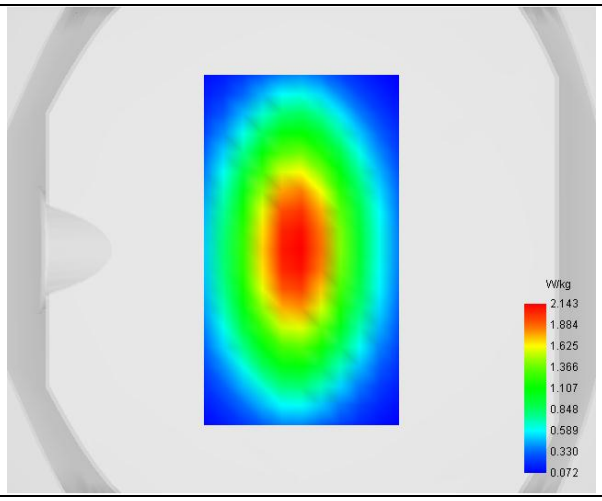
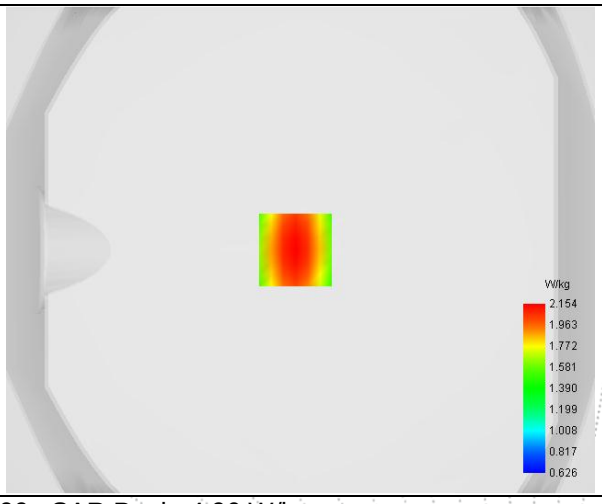
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	0.80
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW750
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	750.000
Relative permitivity (real part)	40.257
Relative permitivity (imaginary part)	21.354
Conductivity (S/m)	0.924

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

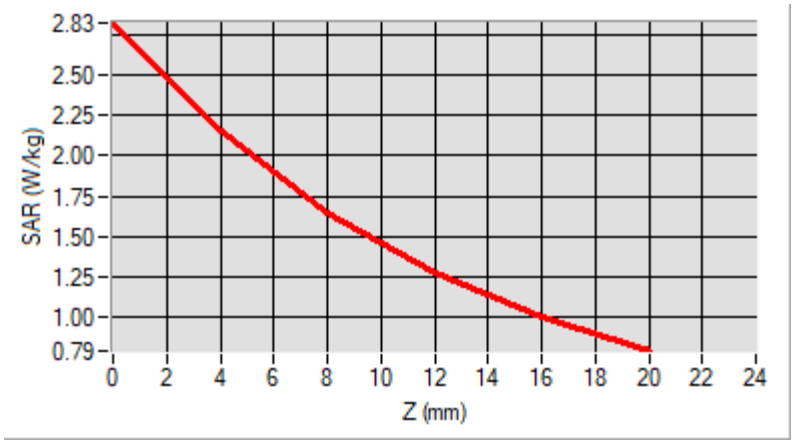
Maximum location: X=-2.00, Y=0.00 ; SAR Peak: 4.96 W/kg

D. SAR 1g & 10g

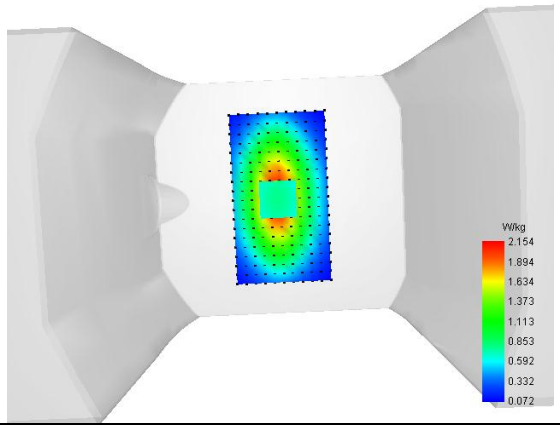
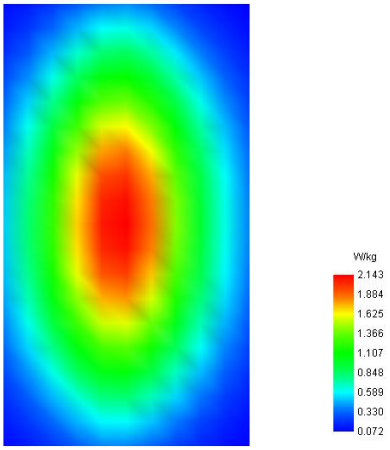
SAR 10g (W/Kg)	1.530
SAR 1g (W/Kg)	2.116
Variation (%)	3.511
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	2.832	2.176	1.674	1.285	1.064



F. 3D Image

3D screen shot	Hot spot position
	

System check at 835 MHz

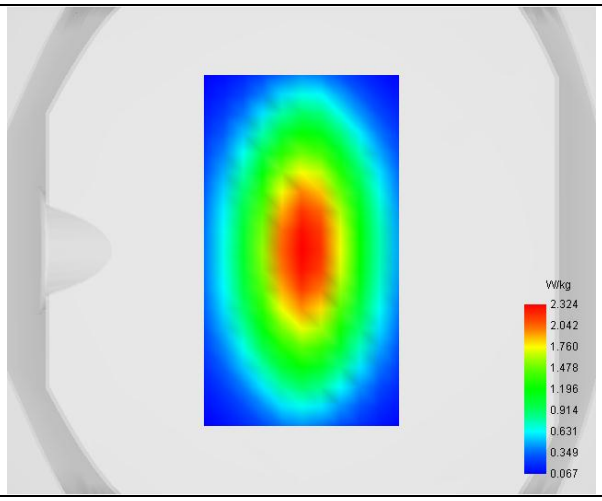
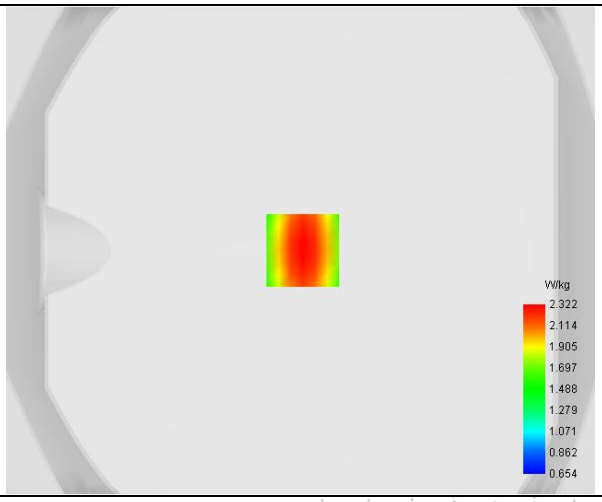
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	0.81
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW835
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	835.000
Relative permitivity (real part)	42.930
Relative permitivity (imaginary part)	20.910
Conductivity (S/m)	0.920

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

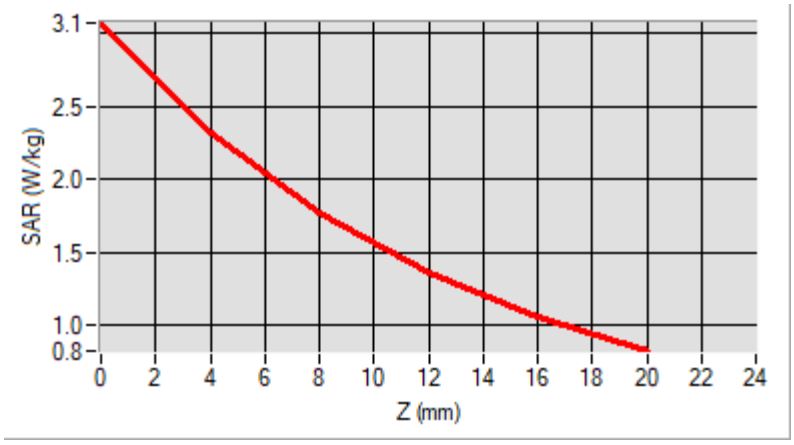
Maximum location: X=1.00, Y=0.00 ; SAR Peak: 5.68 W/kg

D. SAR 1g & 10g

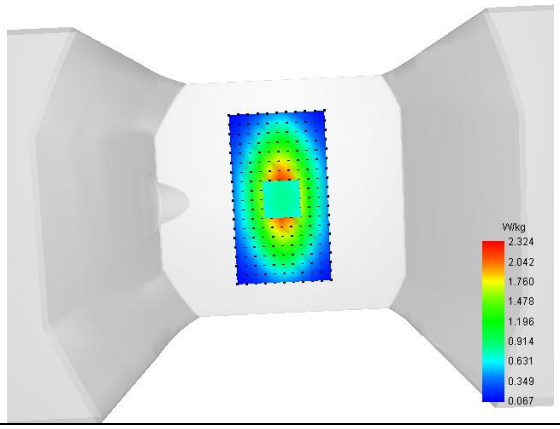
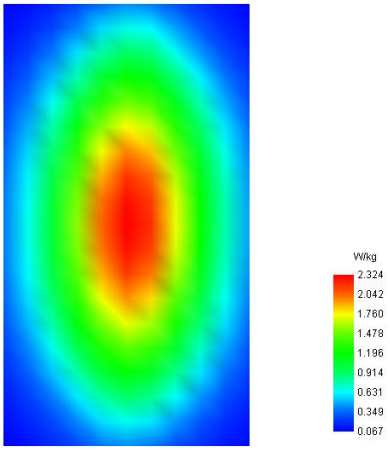
SAR 10g (W/Kg)	1.831
SAR 1g (W/Kg)	2.517
Variation (%)	-0.250
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	3.108	2.344	1.786	1.395	1.109



F. 3D Image

3D screen shot	Hot spot position
	

System check at 1800 MHz

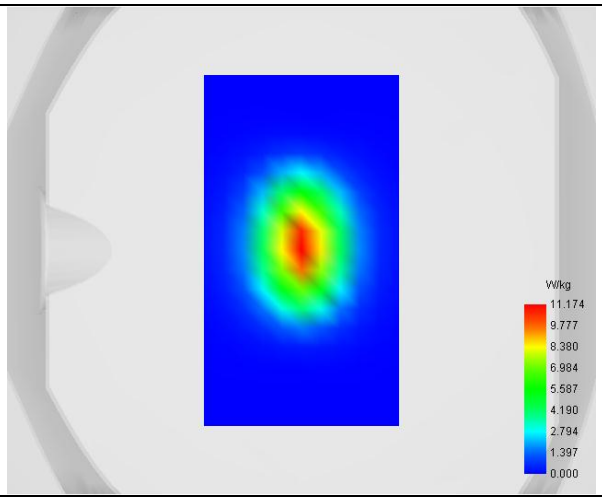
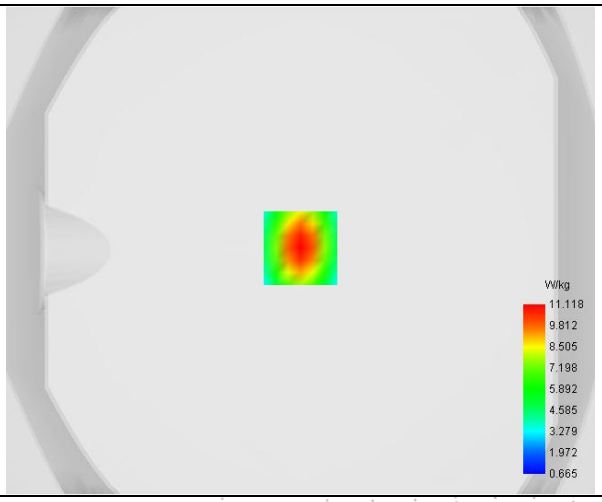
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	0.96
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1800
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	1800.000
Relative permitivity (real part)	39.943
Relative permitivity (imaginary part)	15.186
Conductivity (S/m)	1.365

C. SAR Surface and Volume

SURFACE SAR	**VOLUME SAR**
	

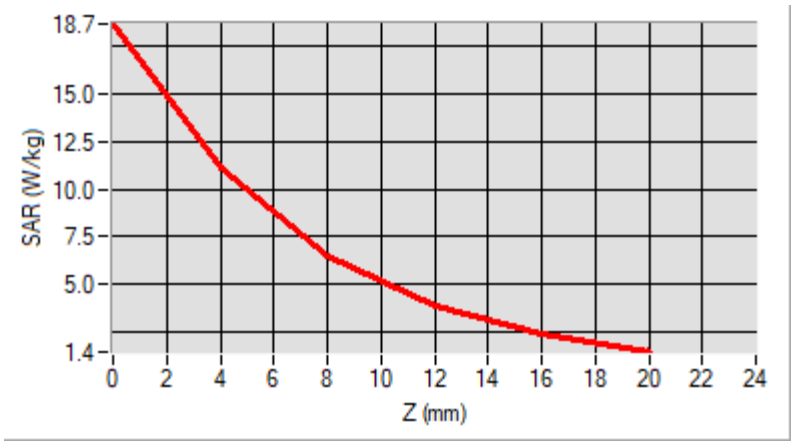
Maximum location: X=0.00, Y=1.00 ; SAR Peak: 22.78 W/kg

D. SAR 1g & 10g

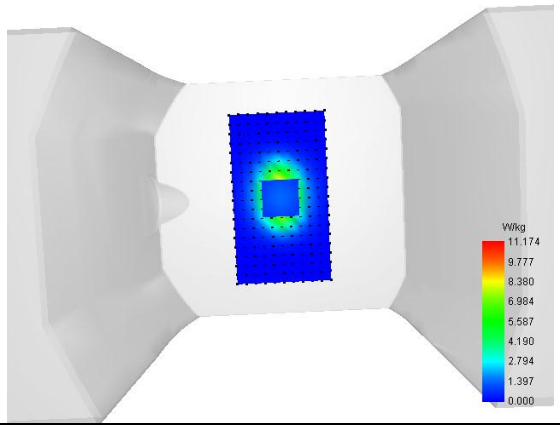
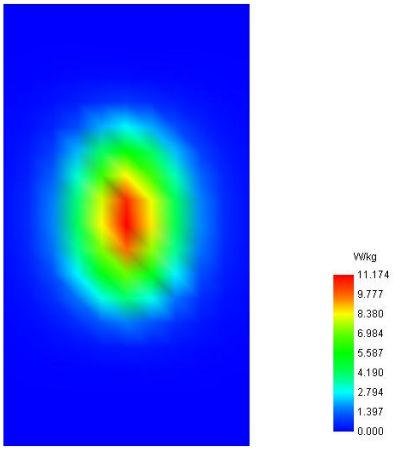
SAR 10g (W/Kg)	5.153
SAR 1g (W/Kg)	10.159
Variation (%)	3.814
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	18.71+	11.234	6.561	3.924	2.453



F. 3D Image

3D screen shot	Hot spot position
	

System check at 1900 MHz

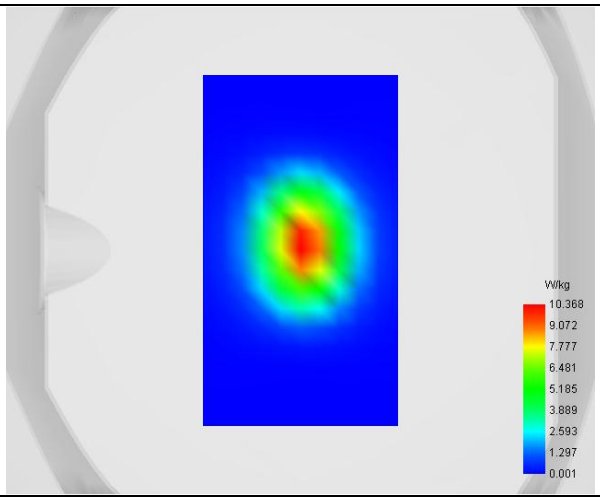
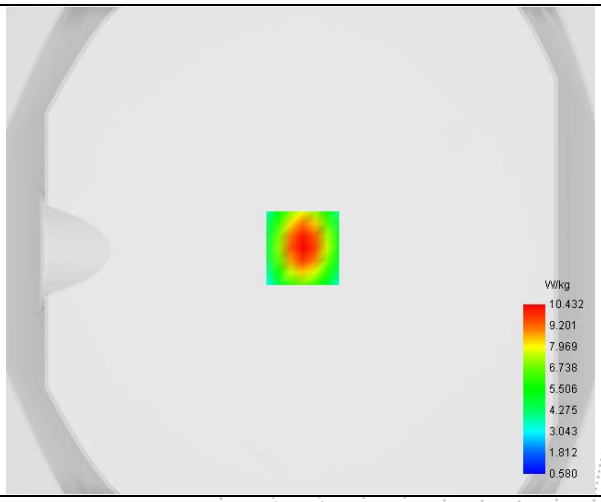
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	1.04
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW1900
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	1900.000
Relative permitivity (real part)	40.990
Relative permitivity (imaginary part)	12.866
Conductivity (S/m)	1.427

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

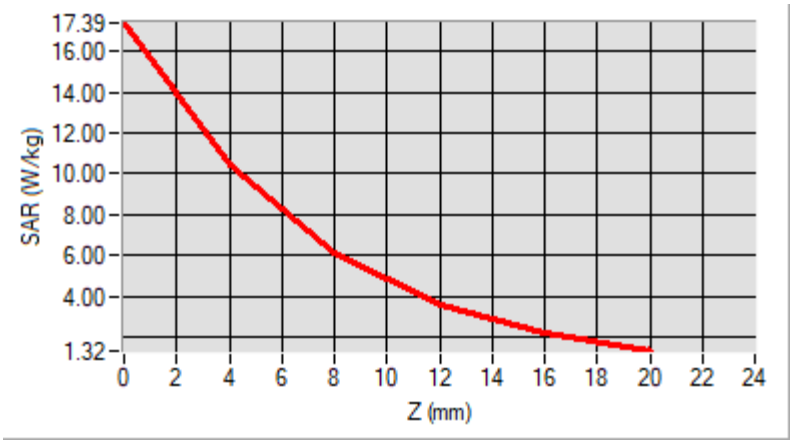
Maximum location: X=1.00, Y=1.00 ; SAR Peak: 22.54 W/kg

D. SAR 1g & 10g

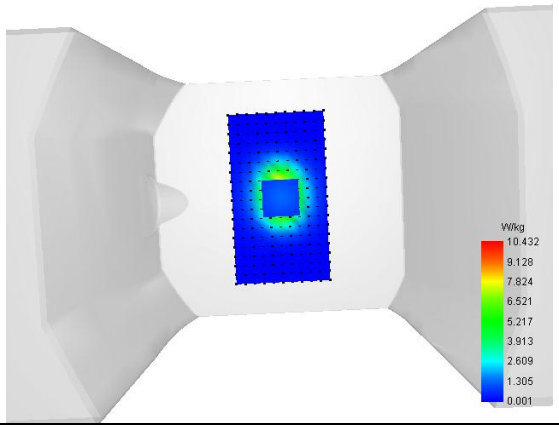
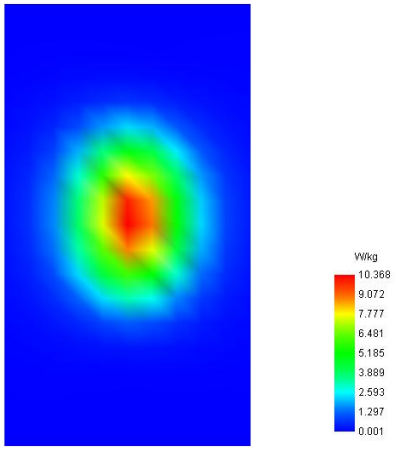
SAR 10g (W/Kg)	5.304
SAR 1g (W/Kg)	10.736
Variation (%)	0.713
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	17.387	10.484	6.206	3.672	2.184



F. 3D Image

3D screen shot	Hot spot position
	

System check at 2450 MHz

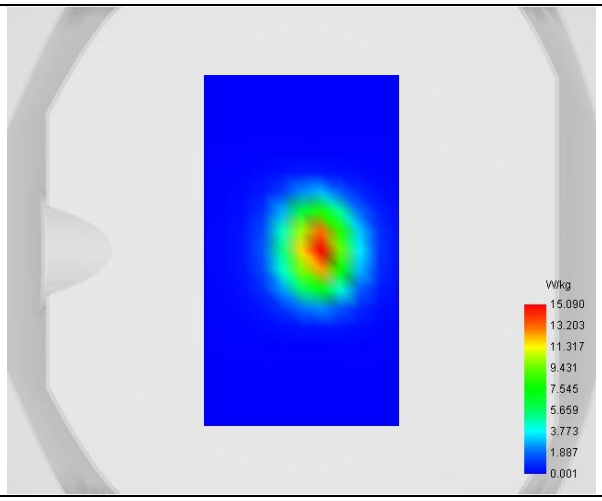
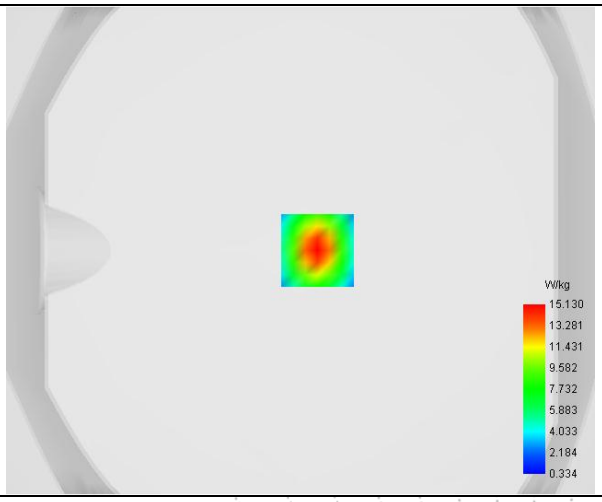
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	1.11
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2450
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	2450.000
Relative permitivity (real part)	39.085
Relative permitivity (imaginary part)	13.242
Conductivity (S/m)	1.841

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

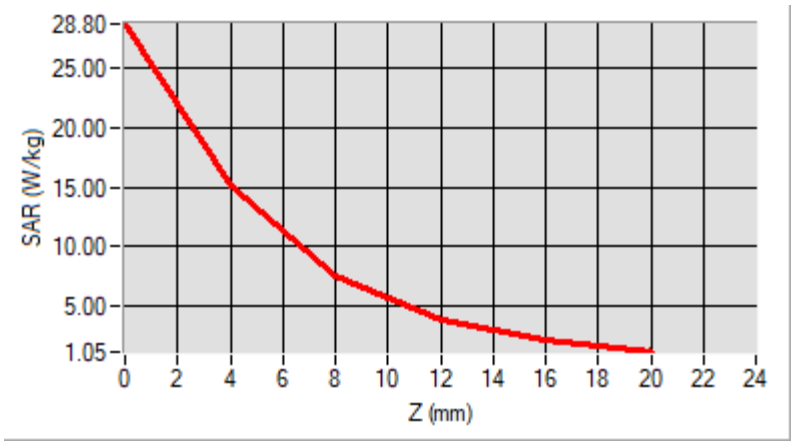
Maximum location: X=7.00, Y=0.00 ; SAR Peak: 29.42 W/kg

D. SAR 1g & 10g

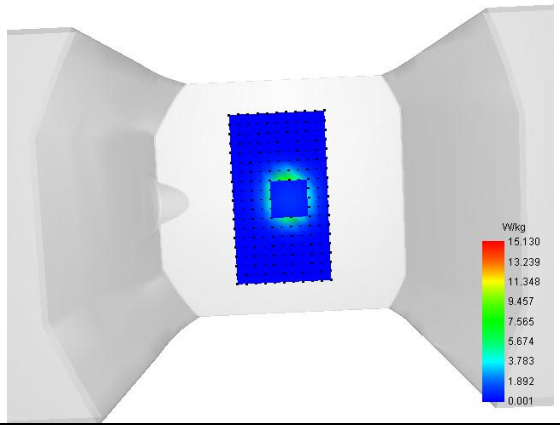
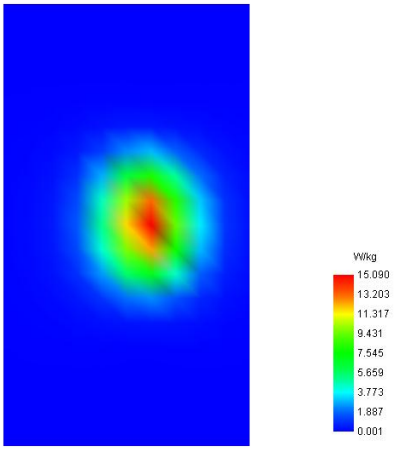
SAR 10g (W/Kg)	5.987
SAR 1g (W/Kg)	13.785
Variation (%)	-2.781
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	28.802	15.018	7.416	3.658	1.912



F. 3D Image

3D screen shot	Hot spot position
	

System check at 2600 MHz

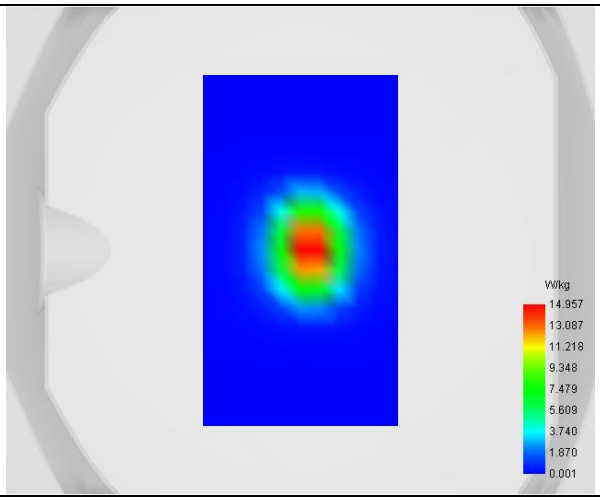
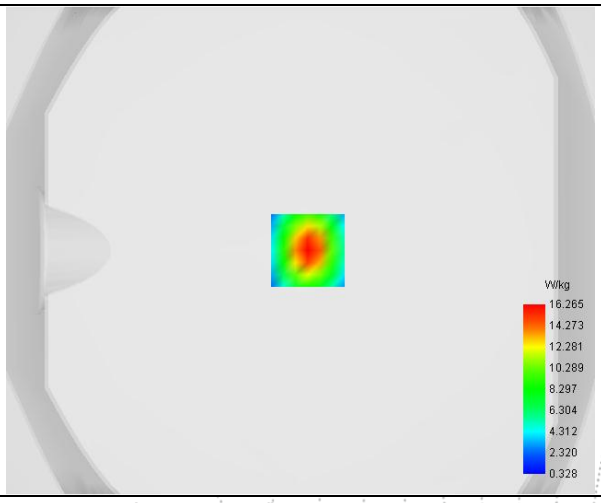
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	1.03
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x8,dx=5mm dy=5mm dz=4mm
Phantom	Validation plane
Device Position	Dipole
Band	CW2600
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	2600.000
Relative permitivity (real part)	39.292
Relative permitivity (imaginary part)	13.906
Conductivity (S/m)	1.872

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

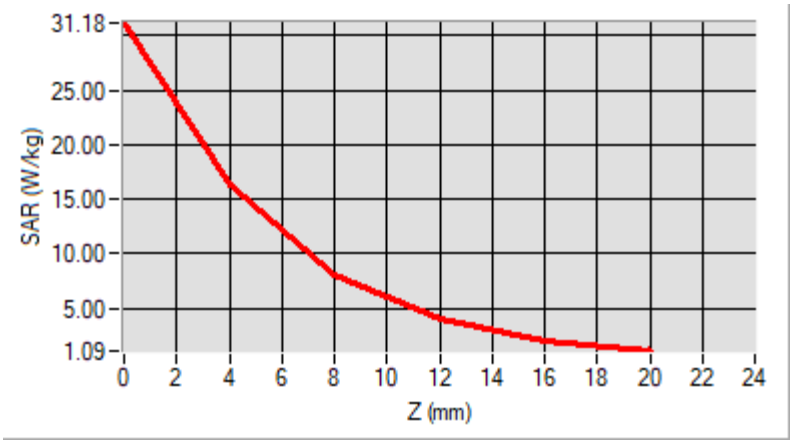
Maximum location: X=3.00, Y=0.00 ; SAR Peak: 31.98 W/kg

D. SAR 1g & 10g

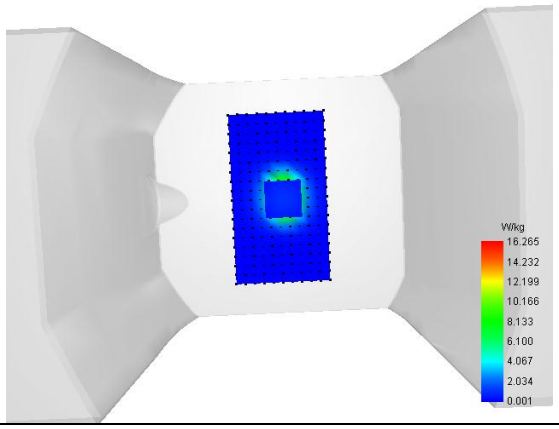
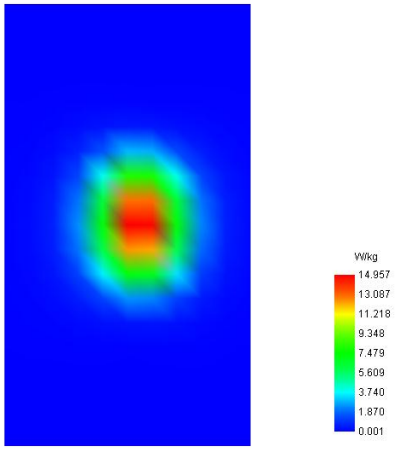
SAR 10g (W/Kg)	6.174
SAR 1g (W/Kg)	14.617
Variation (%)	3.630
Horizontal validation criteria: minimum distance (mm)	-
Vertical validation criteria: SAR ratio M2/M1 (%)	-

E. Z Axis Scan

Z (mm)	0.00	4.00	8.00	12.00	16.00
SAR (W/Kg)	31.172	16.108	7.982	3.835	1.964



F. 3D Image

3D screen shot	Hot spot position
	

System check at 5200 MHz

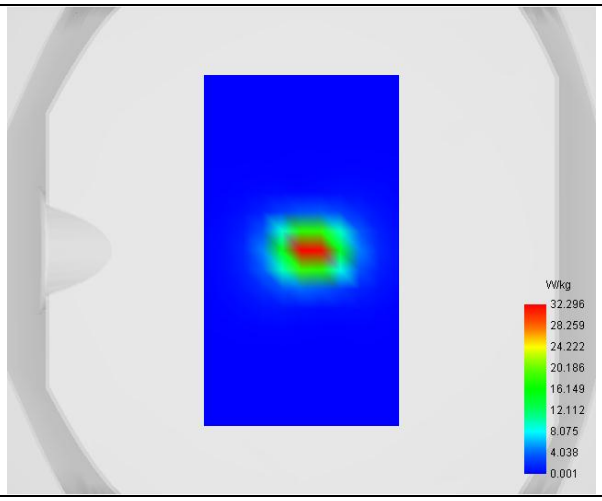
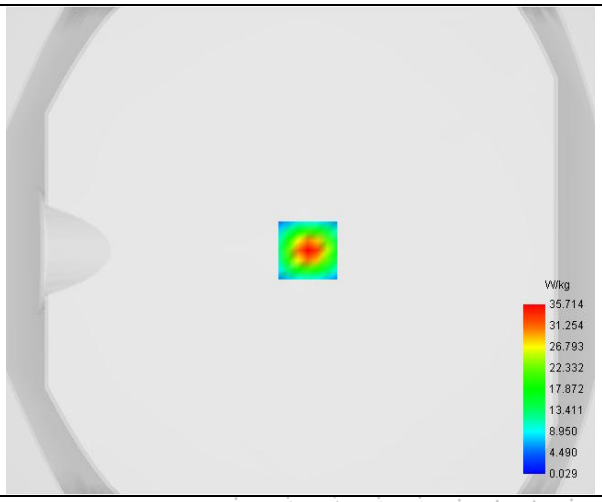
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	1.18
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5200
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	5200.000
Relative permitivity (real part)	36.294
Relative permitivity (imaginary part)	16.130
Conductivity (S/m)	4.488

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

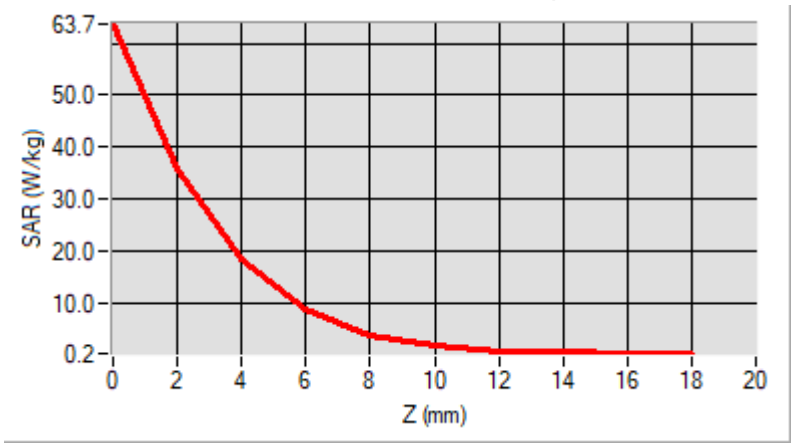
Maximum location: X=3.00, Y=0.00 ; SAR Peak: 64.02 W/kg

D. SAR 1g & 10g

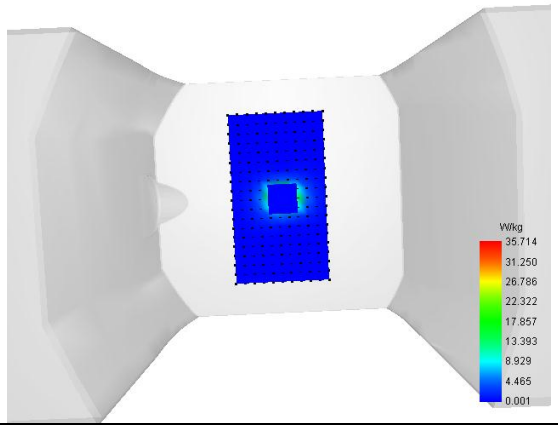
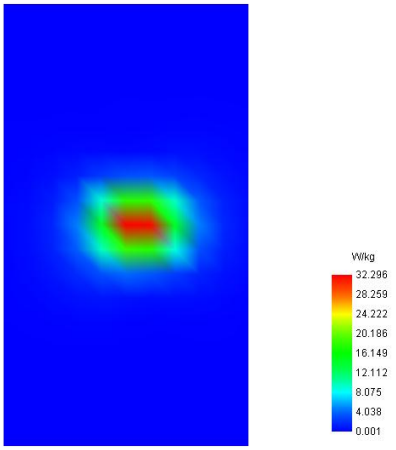
SAR 10g (W/Kg)	5.377
SAR 1g (W/Kg)	18.511
Variation (%)	1.900
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	63.614	35.528	18.106	8.235	3.407	1.502	0.710	0.358	0.255



F. 3D Image

3D screen shot	Hot spot position
	

System check at 5800 MHz

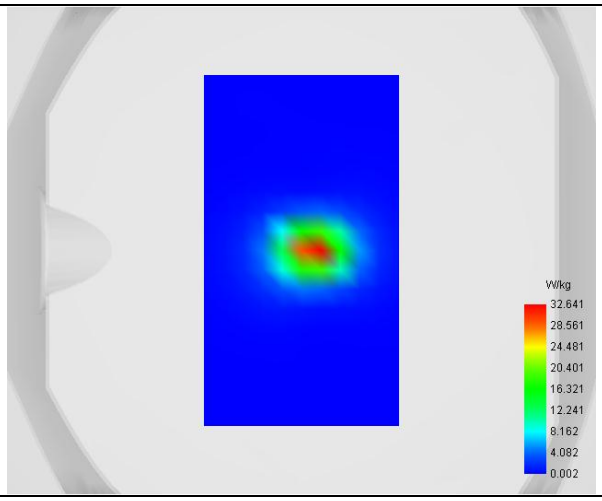
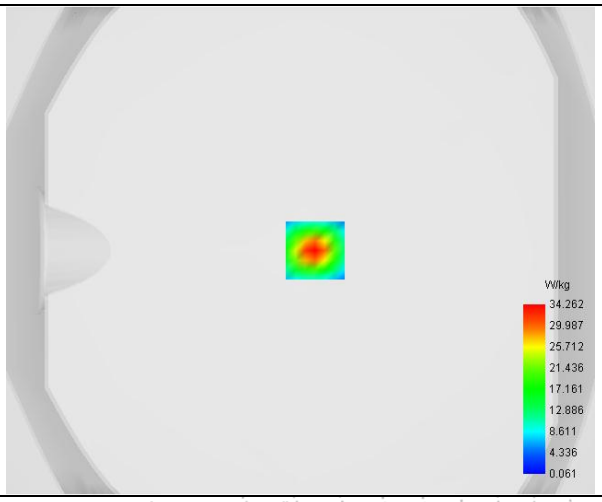
A. Experimental conditions.

Probe	SN 26/23 EPGO420
ConvF	1.15
Area Scan	surf_sam_plan.txt
Zoom Scan	7x7x12,dx=4mm dy=4mm dz=2mm
Phantom	Validation plane
Device Position	Dipole
Band	CW5800
Channels	Middle
Signal	CW (Crest factor: 1.0)

B. Permitivity

Frequency (MHz)	5800.000
Relative permitivity (real part)	34.028
Relative permitivity (imaginary part)	18.420
Conductivity (S/m)	5.184

C. SAR Surface and Volume

SURFACE SAR	VOLUME SAR
	

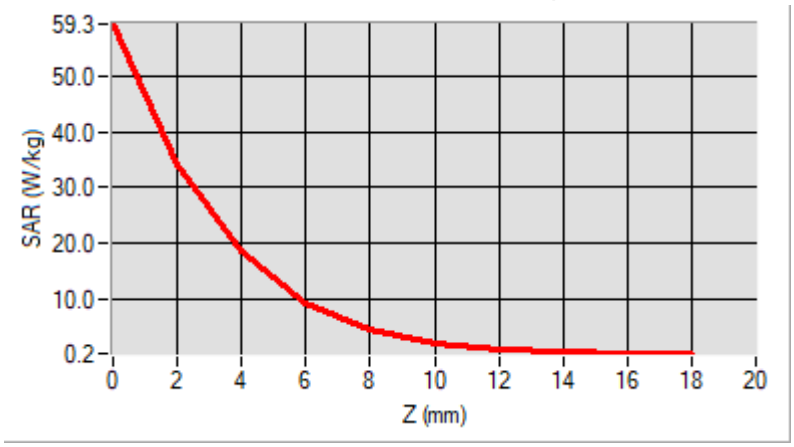
Maximum location: X=0.00, Y=0.00 ; SAR Peak: 61.04 W/kg

D. SAR 1g & 10g

SAR 10g (W/Kg)	5.519
SAR 1g (W/Kg)	18.979
Variation (%)	-1.022
Horizontal validation criteria: minimum distance (mm)	0.000000
Vertical validation criteria: SAR ratio M2/M1 (%)	0.000000

E. Z Axis Scan

Z (mm)	0.00	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00
SAR (W/Kg)	59.275	34.082	18.374	9.012	4.026	2.008	1.014	0.521	0.304



F. 3D Image

3D screen shot	Hot spot position