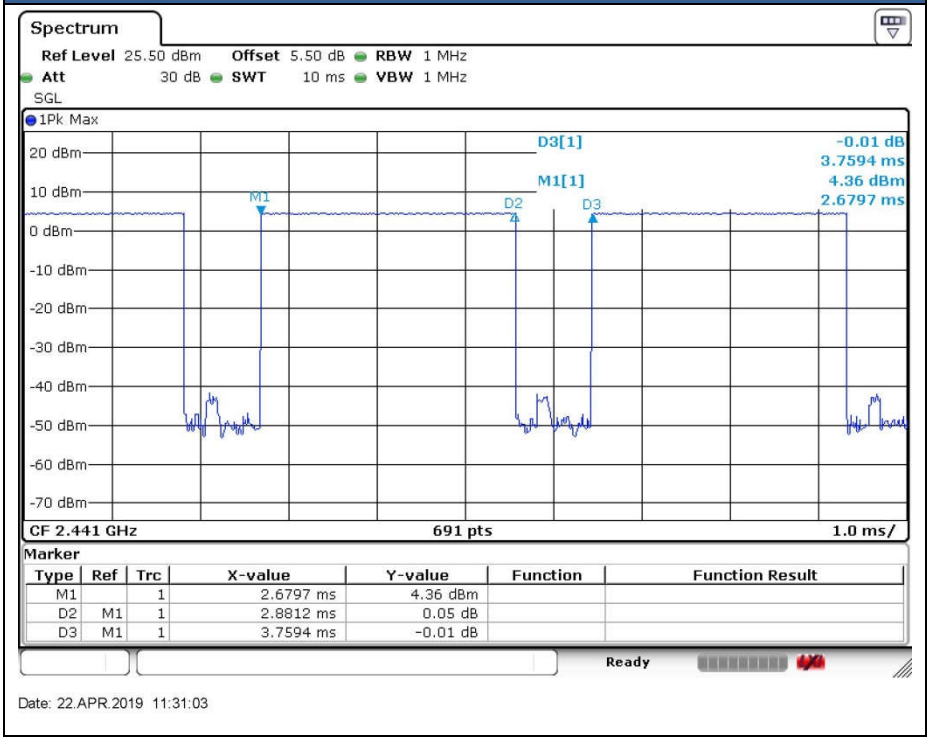
<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.64 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation

Bluetooth time-domain plot

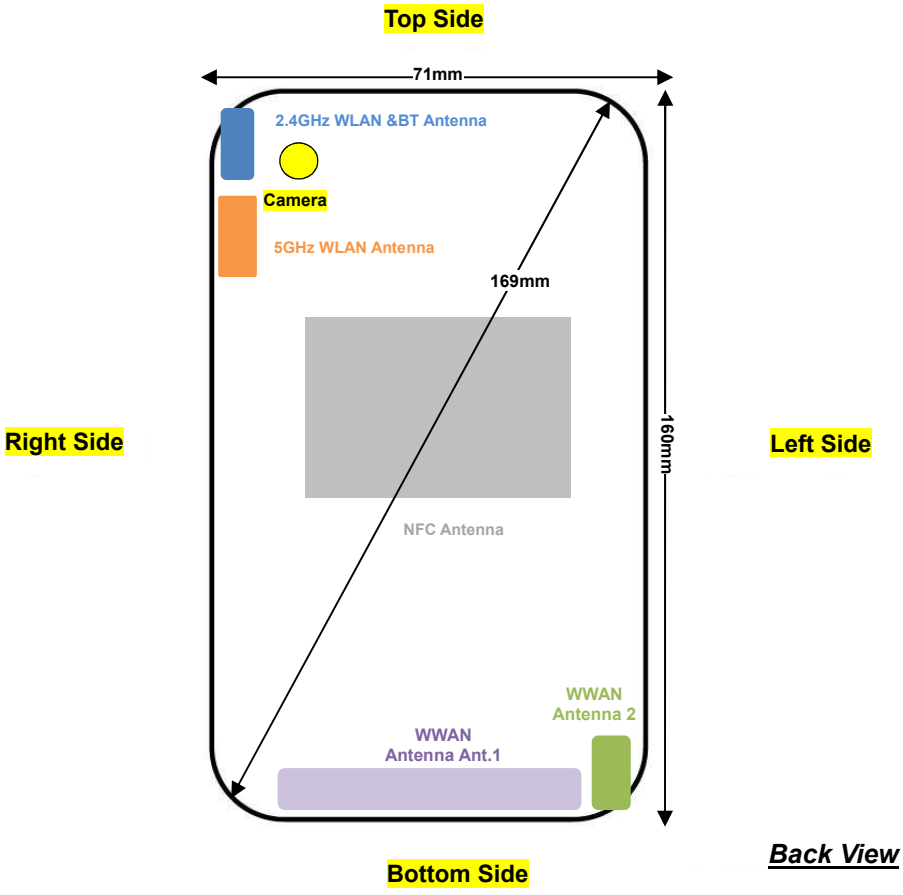


Mode	Channel	Frequency (MHz)	Average power (dBm)
			1Mbps
BR/EDR	CH 00	2402	8.05
	CH 39	2441	8.74
	CH 78	2480	7.74
Tune-up limit (dBm)			10.00

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
v4.0 LE	CH 00	2402	8.88
	CH 19	2440	8.52
	CH 39	2480	8.65
Tune-up Limit			10.00

Mode	Channel	Frequency (MHz)	Average power (dBm)
			GFSK
v5.0 LE	CH 00	2402	9.25
	CH 19	2440	8.95
	CH 39	2480	9.37
Tune-up Limit			10.00

14. Antenna Location



Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna 1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Antenna 2	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm	≤ 25mm
2.4GHz WLAN & BT	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
5GHz WLAN	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN Antenna 1	Yes	Yes	No	Yes	Yes	Yes
WWAN Antenna 2	Yes	Yes	No	Yes	No	Yes
2.4GHz WLAN & BT	Yes	Yes	Yes	No	Yes	No
5GHz WLAN	Yes	Yes	Yes	No	Yes	No

General Note:

1. This device has two WWAN transmitter antennas. WWAN antenna 1 is located at the right of bottom edge of the device and WWAN antenna 2 is located at the left side of bottom edge of the device which can refer to antenna location chapter. WWAN antenna 1 frequency bands include GSM850/1900, WCDMA Band II/V and LTE Band 5, WWAN antenna 2 frequency band only include LTE Band 7/38/41.
2. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge.

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
2. Per KDB 447498 D01v06, for each exposure position, 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
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, 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.
4. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
5. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
6. When the phone is in talking mode and receiver worked, then power reduction will be implemented immediately at WLAN2.4GHz and WLAN5GHz.
7. The device employs proximity sensors that detect the presence of the user's body at the front or back faces of the device. When front or back body worn condition is detected, GSM850, WCDMA band II/V, LTE band 5/7/38/41 and WLAN5GHz reduced power will be active. (P-sensor can't work at detecting presence of the user's body at the four edges of the device.)
8. When hotspot mode is enabled, power reduction will be activated to limit the maximum power of GSM850/1900, WCDMA band II/V, LTE band 5/7/38/41 and WLAN5.2GHz/5.8GHz.
9. For full power level is higher than hotspot reduced power for GSM1900, so for front/back full power SAR can represent conservatively for front/back hotspot SAR.
10. P-sensor can detect handheld state, WCDMA band II and LTE band 7 for front/back/bottom sides of product specific 10g SAR condition reduced powers will be active.
11. This device has two WWAN transmitter antennas. WWAN antenna 1 is located at the right of bottom edge of the device and WWAN antenna 2 is located at the left side of bottom edge of the device which can refer to antenna location chapter. WWAN antenna 1 frequency bands include GSM850/1900, WCDMA Band II/V and LTE Band 5, WWAN antenna 2 frequency bands include LTE Band 7/38/41.
12. Per KDB648474 D04v01r03, 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, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power (for handheld on state, the maximum full power means reduced power), including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
    a. For this device SAR for WWAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850/1900, WCDMA Band II/V, LTE Band 5/7/41, therefore product specific 10g SAR is necessary.
    b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
    c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS 3Tx slots for GSM850/GSM1900 are considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.
3. Power reduction which is triggered by hotspot mode are implemented in GSM850/1900 band, for SAR testing EUT was set in reduced power mode and GPRS 3Tx slots due to its highest frame-average power.
4. Power reduction which is triggered by p-sensor on are implemented in GSM850 band, for SAR testing EUT was set in reduced power mode and GPRS 3Tx slots due to its highest frame-average power.

WCDMA Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all “1’s”.
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B5 /B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B 38 SAR test was covered by LTE B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
   a. the maximum output power, including tolerance, for the smaller band is ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when 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.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, 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.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

15.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
01	GSM850	GPRS 3 Tx slots	Right Cheek	Full	251	848.8	29.58	30.00	1.102	0.08	0.395	**0.435**
	GSM850	GPRS 3 Tx slots	Right Tilted	Full	251	848.8	29.58	30.00	1.102	0.02	0.162	0.178
	GSM850	GPRS 3 Tx slots	Left Cheek	Full	251	848.8	29.58	30.00	1.102	0.05	0.239	0.263
	GSM850	GPRS 3 Tx slots	Left Tilted	Full	251	848.8	29.58	30.00	1.102	-0.07	0.156	0.172
	GSM1900	GPRS 3 Tx slots	Right Cheek	Full	810	1909.8	26.34	27.00	1.164	0.07	0.046	0.054
	GSM1900	GPRS 3 Tx slots	Right Tilted	Full	810	1909.8	26.34	27.00	1.164	0.03	0.026	0.030
02	GSM1900	GPRS 3 Tx slots	Left Cheek	Full	810	1909.8	26.34	27.00	1.164	0.06	0.067	**0.078**
	GSM1900	GPRS 3 Tx slots	Left Tilted	Full	810	1909.8	26.34	27.00	1.164	0.07	0.022	0.025

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA Band V	RMC 12.2Kbps	Right Cheek	Full	4132	826.4	23.15	24.00	1.216	0.02	0.291	**0.354**
	WCDMA Band V	RMC 12.2Kbps	Right Tilted	Full	4132	826.4	23.15	24.00	1.216	-0.01	0.124	0.151
	WCDMA Band V	RMC 12.2Kbps	Left Cheek	Full	4132	826.4	23.15	24.00	1.216	0.12	0.208	0.253
	WCDMA Band V	RMC 12.2Kbps	Left Tilted	Full	4132	826.4	23.15	24.00	1.216	0.04	0.168	0.204
	WCDMA Band II	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	23.17	24.00	1.211	0.03	0.061	0.074
	WCDMA Band II	RMC 12.2Kbps	Right Tilted	Full	9262	1852.4	23.17	24.00	1.211	-0.04	0.046	0.056
04	WCDMA Band II	RMC 12.2Kbps	Left Cheek	Full	9262	1852.4	23.17	24.00	1.211	0.01	0.090	**0.109**
	WCDMA Band II	RMC 12.2Kbps	Left Tilted	Full	9262	1852.4	23.17	24.00	1.211	-0.03	0.036	0.044

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
05	LTE Band 5	10M	QPSK	1	0	Right Cheek	Full	20525	836.5	23.16	24.00	1.213	0.09	0.214	**0.260**
	LTE Band 5	10M	QPSK	25	12	Right Cheek	Full	20525	836.5	22.07	23.00	1.239	0.09	0.182	0.225
	LTE Band 5	10M	QPSK	1	0	Right Tilted	Full	20525	836.5	23.16	24.00	1.213	0.03	0.081	0.099
	LTE Band 5	10M	QPSK	25	12	Right Tilted	Full	20525	836.5	22.07	23.00	1.239	0.02	0.069	0.086
	LTE Band 5	10M	QPSK	1	0	Left Cheek	Full	20525	836.5	23.16	24.00	1.213	0.1	0.137	0.166
	LTE Band 5	10M	QPSK	25	12	Left Cheek	Full	20525	836.5	22.07	23.00	1.239	0.02	0.102	0.126
	LTE Band 5	10M	QPSK	1	0	Left Tilted	Full	20525	836.5	23.16	24.00	1.213	-0.01	0.069	0.084
	LTE Band 5	10M	QPSK	25	12	Left Tilted	Full	20525	836.5	22.07	23.00	1.239	0.02	0.046	0.057
	LTE Band 7	20M	QPSK	1	0	Right Cheek	Full	20850	2510	22.99	24.00	1.262	0.05	0.205	0.259
	LTE Band 7	20M	QPSK	50	50	Right Cheek	Full	20850	2510	22.04	23.00	1.247	-0.04	0.158	0.197
	LTE Band 7	20M	QPSK	1	0	Right Tilted	Full	20850	2510	22.99	24.00	1.262	-0.02	0.140	0.177
	LTE Band 7	20M	QPSK	50	50	Right Tilted	Full	20850	2510	22.04	23.00	1.247	0.06	0.105	0.131
06	LTE Band 7	20M	QPSK	1	0	Left Cheek	Full	20850	2510	22.99	24.00	1.262	0.06	0.331	**0.418**
	LTE Band 7	20M	QPSK	50	50	Left Cheek	Full	20850	2510	22.04	23.00	1.247	-0.04	0.232	0.289
	LTE Band 7	20M	QPSK	1	0	Left Tilted	Full	20850	2510	22.99	24.00	1.262	-0.1	0.106	0.134
	LTE Band 7	20M	QPSK	50	50	Left Tilted	Full	20850	2510	22.04	23.00	1.247	0.01	0.069	0.086

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Right Cheek	Full	41140	2645	23.49	24.00	1.125	62.9	1.006	0.03	0.066	0.075
	LTE Band 41	20M	QPSK	50	0	Right Cheek	Full	41140	2645	22.40	23.00	1.148	62.9	1.006	-0.01	0.052	0.060
	LTE Band 41	20M	QPSK	1	0	Right Tilted	Full	41140	2645	23.49	24.00	1.125	62.9	1.006	0.12	0.065	0.073
	LTE Band 41	20M	QPSK	50	0	Right Tilted	Full	41140	2645	22.40	23.00	1.148	62.9	1.006	0.06	0.046	0.053
07	LTE Band 41	20M	QPSK	1	0	Left Cheek	Full	41140	2645	23.49	24.00	1.125	62.9	1.006	0.09	0.113	**0.128**
	LTE Band 41	20M	QPSK	50	0	Left Cheek	Full	41140	2645	22.40	23.00	1.148	62.9	1.006	0.03	0.086	0.100
	LTE Band 41	20M	QPSK	1	0	Left Tilted	Full	41140	2645	23.49	24.00	1.125	62.9	1.006	-0.04	0.042	0.047
	LTE Band 41	20M	QPSK	50	0	Left Tilted	Full	41140	2645	22.40	23.00	1.148	62.9	1.006	0.05	0.030	0.035

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Reduced	6	2437	17.12	17.50	1.091	100	1.000		1.000		
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Reduced	6	2437	17.12	17.50	1.091	100	1.000		1.050		
08	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Reduced	6	2437	17.12	17.50	1.091	100	1.000	-0.06	2.160	0.917	**1.001**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Reduced	6	2437	17.12	17.50	1.091	100	1.000	0.03	1.340	0.722	0.788
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Reduced	1	2412	17.04	17.50	1.112	100	1.000	-0.03		0.785	0.873

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.07	0.049	0.070
	Bluetooth	1Mbps	Right Tilted	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.03	0.059	0.086
09	Bluetooth	1Mbps	Left Cheek	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.06	0.133	**0.193**
	Bluetooth	1Mbps	Left Tilted	Full	39	2441	8.74	10.00	1.337	76.64	1.087	-0.03	0.055	0.080

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Reduced	64	5320	17.30	18.50	1.317	95.63	1.046		0.354		
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Reduced	64	5320	17.30	18.50	1.317	95.63	1.046		0.400		
10	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Reduced	64	5320	17.30	18.50	1.317	95.63	1.046	0.06	1.32	0.520	**0.716**
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Reduced	64	5320	17.30	18.50	1.317	95.63	1.046	-0.09	0.907	0.357	0.492
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	Reduced	116	5580	17.00	18.50	1.411	95.63	1.046		0.452		
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	Reduced	116	5580	17.00	18.50	1.411	95.63	1.046		0.499		
11	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Reduced	116	5580	17.00	18.50	1.411	95.63	1.046	0.07	1.16	0.481	**0.710**
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	Reduced	116	5580	17.00	18.50	1.411	95.63	1.046	0.01	0.711	0.294	0.434
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	Reduced	100	5500	16.86	18.50	1.459	95.63	1.046	0.02		0.401	0.612
	WLAN 5.8GHz	802.11a 6Mbps	Right Cheek	Reduced	157	5785	16.22	17.50	1.343	95.63	1.046		0.497		
	WLAN 5.8GHz	802.11a 6Mbps	Right Tilted	Reduced	157	5785	16.22	17.50	1.343	95.63	1.046		0.484		
12	WLAN 5.8GHz	802.11a 6Mbps	Left Cheek	Reduced	157	5785	16.22	17.50	1.343	95.63	1.046	0.01	1.18	0.501	**0.704**
	WLAN 5.8GHz	802.11a 6Mbps	Left Tilted	Reduced	157	5785	16.22	17.50	1.343	95.63	1.046	-0.01	0.686	0.280	0.393

15.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	251	848.8	28.69	29.50	1.205	-0.05	0.980	1.181
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	128	824.2	28.64	29.50	1.219	-0.05	0.652	0.795
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	189	836.4	28.60	29.50	1.230	-0.08	0.952	1.171
	GSM850	GPRS 3 Tx slots	Back	5	Reduced	251	848.8	28.69	29.50	1.205	0.03	0.990	1.193
	GSM850	GPRS 3 Tx slots	Back	5	Reduced	128	824.2	28.64	29.50	1.219	-0.11	0.760	0.926
	GSM850	GPRS 3 Tx slots	Back	5	Reduced	189	836.4	28.60	29.50	1.230	-0.11	0.930	1.144
	GSM850	GPRS 3 Tx slots	Left Side	5	Reduced	251	848.8	28.36	29.50	1.300	0.03	0.126	0.164
	GSM850	GPRS 3 Tx slots	Right Side	5	Reduced	251	848.8	28.36	29.50	1.300	-0.03	0.522	0.679
	GSM850	GPRS 3 Tx slots	Bottom Side	5	Reduced	251	848.8	28.36	29.50	1.300	0.08	0.960	1.248
	GSM850	GPRS 3 Tx slots	Bottom Side	5	Reduced	128	824.2	28.28	29.50	1.324	0.05	0.660	0.874
13	GSM850	GPRS 3 Tx slots	Bottom Side	5	Reduced	189	836.4	28.31	29.50	1.315	0.09	0.966	**1.271**
	GSM1900	GPRS 3 Tx slots	Front	5	Full	810	1909.8	26.34	27.00	1.164	0.01	0.613	0.714
	GSM1900	GPRS 3 Tx slots	Back	5	Full	810	1909.8	26.34	27.00	1.164	0.09	0.721	0.839
	GSM1900	GPRS 3 Tx slots	Back	5	Full	512	1850.2	26.26	27.00	1.186	0.01	0.730	0.866
	GSM1900	GPRS 3 Tx slots	Back	5	Full	661	1880	26.26	27.00	1.186	0.03	0.802	0.951
	GSM1900	GPRS 3 Tx slots	Left Side	5	Reduced	810	1909.8	24.36	25.00	1.159	0.01	0.024	0.027
	GSM1900	GPRS 3 Tx slots	Right Side	5	Reduced	810	1909.8	24.36	25.00	1.159	0.06	0.327	0.379
	GSM1900	GPRS 3 Tx slots	Bottom Side	5	Reduced	810	1909.8	24.36	25.00	1.159	-0.08	0.744	0.862
14	GSM1900	GPRS 3 Tx slots	Bottom Side	5	Reduced	512	1850.2	24.01	25.00	1.256	0.04	0.795	**0.999**
	GSM1900	GPRS 3 Tx slots	Bottom Side	5	Reduced	661	1880	24.30	25.00	1.175	0.14	0.765	0.899

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4132	826.4	21.48	22.50	1.265	0.1	0.758	0.959
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4182	836.4	21.44	22.50	1.276	-0.06	0.809	1.033
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4233	846.6	21.45	22.50	1.274	-0.09	0.733	0.933
	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4132	826.4	21.48	22.50	1.265	-0.03	0.769	0.973
	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4182	836.4	21.44	22.50	1.276	0.170	0.761	0.971
	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4233	846.6	21.45	22.50	1.274	-0.14	0.868	1.105
	WCDMA Band V	RMC 12.2Kbps	Left Side	5	Reduced	4132	826.4	21.48	22.50	1.265	0.05	0.123	0.156
	WCDMA Band V	RMC 12.2Kbps	Right Side	5	Reduced	4132	826.4	21.48	22.50	1.265	-0.08	0.464	0.587
	WCDMA Band V	RMC 12.2Kbps	Bottom Side	5	Reduced	4132	826.4	21.48	22.50	1.265	-0.07	0.813	1.028
15	WCDMA Band V	RMC 12.2Kbps	Bottom Side	5	Reduced	4182	836.4	21.44	22.50	1.276	0.05	1.030	**1.315**
	WCDMA Band V	RMC 12.2Kbps	Bottom Side	5	Reduced	4233	846.6	21.45	22.50	1.274	0.03	0.826	1.052
	WCDMA Band II	RMC 12.2Kbps	Front	5	Reduced	9262	1852.4	18.94	20.00	1.276	0.01	0.620	0.791
	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9262	1852.4	18.94	20.00	1.276	0.01	0.807	1.030
	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9400	1880	18.81	20.00	1.315	-0.04	0.653	0.859
	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9538	1907.6	18.93	20.00	1.279	0.06	0.833	1.066
	WCDMA Band II	RMC 12.2Kbps	Left Side	5	Reduced	9262	1852.4	17.27	18.50	1.327	0.01	0.047	0.063
	WCDMA Band II	RMC 12.2Kbps	Right Side	5	Reduced	9262	1852.4	17.27	18.50	1.327	0.03	0.305	0.405
16	WCDMA Band II	RMC 12.2Kbps	Bottom Side	5	Reduced	9262	1852.4	17.27	18.50	1.327	0.05	0.946	**1.256**
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	5	Reduced	9400	1880	17.03	18.50	1.403	0.15	0.860	1.206
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	5	Reduced	9538	1907.6	17.24	18.50	1.337	0.01	0.923	1.234

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5	10M	QPSK	1	0	Front	5	Reduced	20525	836.5	21.50	22.50	1.259	-0.01	0.812	1.022
	LTE Band 5	10M	QPSK	25	12	Front	5	Reduced	20525	836.5	21.43	22.50	1.279	0.03	0.656	0.839
	LTE Band 5	10M	QPSK	50	0	Front	5	Reduced	20525	836.5	21.30	22.50	1.318	-0.07	0.656	0.865
17	LTE Band 5	10M	QPSK	1	0	Back	5	Reduced	20525	836.5	21.50	22.50	1.259	0.07	0.856	**1.078**
	LTE Band 5	10M	QPSK	25	12	Back	5	Reduced	20525	836.5	21.43	22.50	1.279	0.02	0.734	0.939
	LTE Band 5	10M	QPSK	50	0	Back	5	Reduced	20525	836.5	21.30	22.50	1.318	0.18	0.731	0.964
	LTE Band 5	10M	QPSK	1	0	Left Side	5	Reduced	20525	836.5	21.20	22.50	1.349	-0.05	0.084	0.114
	LTE Band 5	10M	QPSK	25	12	Left Side	5	Reduced	20525	836.5	21.18	22.50	1.355	0.06	0.068	0.092
	LTE Band 5	10M	QPSK	1	0	Right Side	5	Reduced	20525	836.5	21.20	22.50	1.349	-0.02	0.337	0.455
	LTE Band 5	10M	QPSK	25	12	Right Side	5	Reduced	20525	836.5	21.18	22.50	1.355	0.08	0.275	0.373
	LTE Band 5	10M	QPSK	1	0	Bottom Side	5	Reduced	20525	836.5	21.20	22.50	1.349	0.02	0.682	0.920
	LTE Band 5	10M	QPSK	25	12	Bottom Side	5	Reduced	20525	836.5	21.18	22.50	1.355	0.06	0.555	0.752
	LTE Band 5	10M	QPSK	50	0	Bottom Side	5	Reduced	20525	836.5	21.18	22.50	1.355	0.04	0.552	0.748
	LTE Band 7	20M	QPSK	1	0	Front	5	Reduced	20850	2510	19.38	20.00	1.153	0.01	0.598	0.690
	LTE Band 7	20M	QPSK	50	50	Front	5	Reduced	20850	2510	19.24	20.00	1.191	0.02	0.615	0.733
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	20850	2510	19.38	20.00	1.153	-0.02	0.652	0.752
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21100	2535	19.37	20.00	1.156	-0.04	0.693	0.801
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21350	2560	19.21	20.00	1.199	-0.18	0.591	0.709
	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	20850	2510	19.24	20.00	1.191	0.01	0.682	0.812
	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	21100	2535	19.21	20.00	1.199	0.01	0.717	0.860
	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	21350	2560	19.17	20.00	1.211	0.03	0.741	0.897
	LTE Band 7	20M	QPSK	100	0	Back	5	Reduced	20850	2510	19.22	20.00	1.197	0.03	0.676	0.809
	LTE Band 7	20M	QPSK	1	0	Left Side	5	Reduced	20850	2510	15.43	16.00	1.140	0.03	0.154	0.176
	LTE Band 7	20M	QPSK	50	50	Left Side	5	Reduced	20850	2510	15.41	16.00	1.146	0.03	0.141	0.162
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	20850	2510	15.43	16.00	1.140	-0.01	0.674	0.769
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	21100	2535	15.27	16.00	1.183	0.04	0.763	0.903
	LTE Band 7	20M	QPSK	1	0	Bottom Side	5	Reduced	21350	2560	15.30	16.00	1.175	0.03	0.681	0.800
	LTE Band 7	20M	QPSK	50	50	Bottom Side	5	Reduced	20850	2510	15.41	16.00	1.146	0.11	0.667	0.764
	LTE Band 7	20M	QPSK	50	50	Bottom Side	5	Reduced	21100	2535	15.39	16.00	1.151	0.03	0.759	0.873
18	LTE Band 7	20M	QPSK	50	50	Bottom Side	5	Reduced	21350	2560	15.21	16.00	1.199	0.06	0.793	**0.951**
	LTE Band 7	20M	QPSK	100	0	Bottom Side	5	Reduced	20850	2510	15.36	16.00	1.159	0.01	0.590	0.684

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41140	2645	23.09	23.50	1.099	62.9	1.006	0.01	0.898	0.993
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40400	2571	22.91	23.50	1.146	62.9	1.006	0.02	0.801	0.923
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40670	2598	22.98	23.50	1.127	62.9	1.006	0.05	0.822	0.932
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40140	2545	22.96	23.50	1.132	62.9	1.006	0.04	0.744	0.848
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41140	2645	22.33	23.00	1.167	62.9	1.006	0.05	0.750	0.880
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40400	2571	22.04	23.00	1.247	62.9	1.006	0.08	0.634	0.796
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40670	2598	22.31	23.00	1.172	62.9	1.006	0.02	0.687	0.810
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40140	2545	22.08	23.00	1.236	62.9	1.006	0.01	0.600	0.746
	LTE Band 41	20M	QPSK	100	0	Front	5	Reduced	41140	2645	22.28	23.00	1.180	62.9	1.006	0.02	0.690	0.819
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41140	2645	23.09	23.50	1.099	62.9	1.006	0.03	0.936	1.035
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40400	2571	22.91	23.50	1.146	62.9	1.006	0.05	0.742	0.855
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40670	2598	22.98	23.50	1.127	62.9	1.006	-0.05	0.904	1.025
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40140	2545	22.96	23.50	1.132	62.9	1.006	0.07	0.672	0.766
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41140	2645	22.33	23.00	1.167	62.9	1.006	0.19	0.690	0.810
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40140	2545	22.04	23.00	1.247	62.9	1.006	0.11	0.546	0.685
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40400	2571	22.31	23.00	1.172	62.9	1.006	-0.01	0.608	0.717
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40670	2598	22.08	23.00	1.236	62.9	1.006	0.05	0.699	0.869
	LTE Band 41	20M	QPSK	100	0	Back	5	Reduced	41140	2645	22.28	23.00	1.180	62.9	1.006	0.01	0.794	0.943
	LTE Band 41	20M	QPSK	1	0	Left Side	5	Reduced	41140	2645	20.59	21.00	1.099	62.9	1.006	0.01	0.235	0.260
	LTE Band 41	20M	QPSK	50	0	Left Side	5	Reduced	41140	2645	20.51	21.00	1.119	62.9	1.006	0.11	0.235	0.265
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	41140	2645	20.59	21.00	1.099	62.9	1.006	0.05	1.080	1.194
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40140	2545	20.29	21.00	1.178	62.9	1.006	0.04	1.020	1.208
	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40400	2571	20.37	21.00	1.156	62.9	1.006	0.06	1.170	1.361
19	LTE Band 41	20M	QPSK	1	0	Bottom Side	5	Reduced	40670	2598	20.45	21.00	1.135	62.9	1.006	0.06	1.210	**1.382**
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	41140	2645	20.51	21.00	1.119	62.9	1.006	0.11	1.030	1.160
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40140	2545	20.21	21.00	1.199	62.9	1.006	0.02	1.040	1.255
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40400	2571	20.27	21.00	1.183	62.9	1.006	0.05	1.130	1.345
	LTE Band 41	20M	QPSK	50	0	Bottom Side	5	Reduced	40670	2598	20.36	21.00	1.159	62.9	1.006	0.09	1.180	1.376
	LTE Band 41	20M	QPSK	100	0	Bottom Side	5	Reduced	41140	2645	20.33	21.00	1.167	62.9	1.006	0.05	1.160	1.362

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	Full	6	2437	19.32	19.50	1.042	100	1.000	-0.08	0.74	0.351	0.366
20	WLAN2.4GHz	802.11b 1Mbps	Back	5	Full	6	2437	19.32	19.50	1.042	100	1.000	0.06	0.836	0.648	**0.675**
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5	Full	6	2437	19.32	19.50	1.042	100	1.000		0.436		
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5	Full	6	2437	19.32	19.50	1.042	100	1.000		0.709		

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.04	0.051	0.075
21	Bluetooth	1Mbps	Back	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.04	0.065	**0.094**
	Bluetooth	1Mbps	Right Side	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.06	0.034	0.049
	Bluetooth	1Mbps	Top Side	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.01	0.048	0.070

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.2GHz	802.11a 6Mbps	Front	5	Reduced	48	5240	16.31	17.50	1.314	95.63	1.046	0.01	0.415	0.163	0.224
22	WLAN5.2GHz	802.11a 6Mbps	Back	5	Reduced	48	5240	16.31	17.50	1.314	95.63	1.046	0.07	0.702	0.303	**0.416**
	WLAN5.2GHz	802.11a 6Mbps	Right Side	5	Reduced	48	5240	16.31	17.50	1.314	95.63	1.046		0.394		
	WLAN5.2GHz	802.11a 6Mbps	Top Side	5	Reduced	48	5240	16.31	17.50	1.314	95.63	1.046		0.337		
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046		:0.279		
23	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046	-0.01	0.605	0.265	**0.347**
	WLAN 5.8GHz	802.11a 6Mbps	Right Side	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046		0.387		
	WLAN 5.8GHz	802.11a 6Mbps	Top Side	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046		0.192		

15.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	251	848.8	28.69	29.50	1.205	-0.05	0.980	1.181
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	128	824.2	28.64	29.50	1.219	-0.05	0.652	0.795
	GSM850	GPRS 3 Tx slots	Front	5	Reduced	189	836.4	28.60	29.50	1.230	-0.08	0.952	1.171
24	GSM850	GPRS 3 Tx slots	Back	5	Reduced	251	848.8	28.69	29.50	1.205	0.03	0.990	**1.193**
	GSM850	GPRS 3 Tx slots	Back	5	Reduced	128	824.2	28.64	29.50	1.219	-0.11	0.760	0.926
	GSM850	GPRS 3 Tx slots	Back	5	Reduced	189	836.4	28.60	29.50	1.230	-0.11	0.930	1.144
	GSM1900	GPRS 3 Tx slots	Front	5	Full	810	1909.8	26.34	27.00	1.164	0.01	0.613	0.714
	GSM1900	GPRS 3 Tx slots	Back	5	Full	810	1909.8	26.34	27.00	1.164	0.09	0.721	0.839
	GSM1900	GPRS 3 Tx slots	Back	5	Full	512	1850.2	26.26	27.00	1.186	0.01	0.730	0.866
25	GSM1900	GPRS 3 Tx slots	Back	5	Full	661	1880	26.26	27.00	1.186	0.03	0.802	**0.951**

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4132	826.4	21.48	22.50	1.265	0.1	0.758	0.959
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4182	836.4	21.44	22.50	1.276	-0.06	0.809	1.033
	WCDMA Band V	RMC 12.2Kbps	Front	5	Reduced	4233	846.6	21.45	22.50	1.274	-0.09	0.733	0.933
	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4132	826.4	21.48	22.50	1.265	-0.03	0.769	0.973
	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4182	836.4	21.44	22.50	1.276	0.170	0.761	0.971
26	WCDMA Band V	RMC 12.2Kbps	Back	5	Reduced	4233	846.6	21.45	22.50	1.274	-0.14	0.868	**1.105**
	WCDMA Band II	RMC 12.2Kbps	Front	5	Reduced	9262	1852.4	18.94	20.00	1.276	0.01	0.620	0.791
	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9262	1852.4	18.94	20.00	1.276	0.01	0.807	1.030
	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9400	1880	18.81	20.00	1.315	-0.04	0.653	0.859
27	WCDMA Band II	RMC 12.2Kbps	Back	5	Reduced	9538	1907.6	18.93	20.00	1.279	0.06	0.833	**1.066**

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5	10M	QPSK	1	0	Front	5	Reduced	20525	836.5	21.50	22.50	1.259	-0.01	0.812	1.022
	LTE Band 5	10M	QPSK	25	12	Front	5	Reduced	20525	836.5	21.43	22.50	1.279	0.03	0.656	0.839
	LTE Band 5	10M	QPSK	50	0	Front	5	Reduced	20525	836.5	21.30	22.50	1.318	-0.07	0.656	0.865
28	LTE Band 5	10M	QPSK	1	0	Back	5	Reduced	20525	836.5	21.50	22.50	1.259	0.07	0.856	**1.078**
	LTE Band 5	10M	QPSK	25	12	Back	5	Reduced	20525	836.5	21.43	22.50	1.279	0.02	0.734	0.939
	LTE Band 5	10M	QPSK	50	0	Back	5	Reduced	20525	836.5	21.30	22.50	1.318	0.18	0.731	0.964
	LTE Band 7	20M	QPSK	1	0	Front	5	Reduced	20850	2510	19.38	20.00	1.153	0.01	0.598	0.690
	LTE Band 7	20M	QPSK	50	50	Front	5	Reduced	20850	2510	19.24	20.00	1.191	0.02	0.615	0.733
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	20850	2510	19.38	20.00	1.153	-0.02	0.652	0.752
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21100	2535	19.37	20.00	1.156	-0.04	0.693	0.801
	LTE Band 7	20M	QPSK	1	0	Back	5	Reduced	21350	2560	19.21	20.00	1.199	-0.18	0.591	0.709
	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	20850	2510	19.24	20.00	1.191	0.01	0.682	0.812
	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	21100	2535	19.21	20.00	1.199	0.01	0.717	0.860
29	LTE Band 7	20M	QPSK	50	50	Back	5	Reduced	21350	2560	19.17	20.00	1.211	0.03	0.741	**0.897**
	LTE Band 7	20M	QPSK	100	0	Back	5	Reduced	20850	2510	19.22	20.00	1.197	0.03	0.676	0.809

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	41140	2645	23.09	23.50	1.099	62.9	1.006	0.01	0.898	0.993
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40400	2571	22.91	23.50	1.146	62.9	1.006	0.02	0.801	0.923
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40670	2598	22.98	23.50	1.127	62.9	1.006	0.05	0.822	0.932
	LTE Band 41	20M	QPSK	1	0	Front	5	Reduced	40140	2545	22.96	23.50	1.132	62.9	1.006	0.04	0.744	0.848
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	41140	2645	22.33	23.00	1.167	62.9	1.006	0.05	0.750	0.880
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40400	2571	22.04	23.00	1.247	62.9	1.006	0.08	0.634	0.796
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40670	2598	22.31	23.00	1.172	62.9	1.006	0.02	0.687	0.810
	LTE Band 41	20M	QPSK	50	0	Front	5	Reduced	40140	2545	22.08	23.00	1.236	62.9	1.006	0.01	0.600	0.746
	LTE Band 41	20M	QPSK	100	0	Front	5	Reduced	41140	2645	22.28	23.00	1.180	62.9	1.006	0.02	0.690	0.819
30	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	41140	2645	23.09	23.50	1.099	62.9	1.006	0.03	0.936	**1.035**
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40400	2571	22.91	23.50	1.146	62.9	1.006	0.05	0.742	0.855
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40670	2598	22.98	23.50	1.127	62.9	1.006	-0.05	0.904	1.025
	LTE Band 41	20M	QPSK	1	0	Back	5	Reduced	40140	2545	22.96	23.50	1.132	62.9	1.006	0.07	0.672	0.766
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	41140	2645	22.33	23.00	1.167	62.9	1.006	0.19	0.690	0.810
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40140	2545	22.04	23.00	1.247	62.9	1.006	0.11	0.546	0.685
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40400	2571	22.31	23.00	1.172	62.9	1.006	-0.01	0.608	0.717
	LTE Band 41	20M	QPSK	50	0	Back	5	Reduced	40670	2598	22.08	23.00	1.236	62.9	1.006	0.05	0.699	0.869
	LTE Band 41	20M	QPSK	100	0	Back	5	Reduced	41140	2645	22.28	23.00	1.180	62.9	1.006	0.01	0.794	0.943

<WLAN 2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	5	Full	6	2437	19.32	19.50	1.042	100	1.000	-0.08	0.74	0.351	0.366
31	WLAN2.4GHz	802.11b 1Mbps	Back	5	Full	6	2437	19.32	19.50	1.042	100	1.000	0.06	0.836	0.648	**0.675**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.04	0.051	0.075
32	Bluetooth	1Mbps	Back	5	Full	39	2441	8.74	10.00	1.337	76.64	1.087	0.04	0.065	**0.094**

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Front	5	Reduced	64	5320	16.47	17.50	1.268	95.63	1.046	-0.03	0.327	0.122	0.162
33	WLAN5.3GHz	802.11a 6Mbps	Back	5	Reduced	64	5320	16.47	17.50	1.268	95.63	1.046	0.06	0.656	0.296	**0.392**
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	Reduced	116	5580	16.18	17.50	1.354	95.63	1.046		0.23		
34	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Reduced	116	5580	16.18	17.50	1.354	95.63	1.046	-0.01	0.361	0.147	**0.208**
	WLAN 5.8GHz	802.11a 6Mbps	Front	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046		0.279		
35	WLAN 5.8GHz	802.11a 6Mbps	Back	5	Reduced	157	5785	15.52	16.50	1.252	95.63	1.046	-0.01	0.605	0.265	**0.347**

15.4 Product specific 10g SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	GSM850	GPRS 3 Tx slots	Front	0	Full	251	848.8	29.58	30.00	1.102	0.18	0.857	0.944
36	GSM850	GPRS 3 Tx slots	Back	0	Full	251	848.8	29.58	30.00	1.102	0.18	0.962	**1.060**
	GSM850	GPRS 3 Tx slots	Bottom Side	0	Full	251	848.8	29.58	30.00	1.102	-0.07	0.757	0.834
	GSM1900	GPRS 3 Tx slots	Back	0	Full	810	1909.8	26.34	27.00	1.164	0.06	1.340	1.560
37	GSM1900	GPRS 3 Tx slots	Bottom Side	0	Full	810	1909.8	26.34	27.00	1.164	0.03	1.530	**1.781**

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA Band V	RMC 12.2Kbps	Front	0	Full	4132	826.4	23.15	24.00	1.216	0.06	2.060	2.505
	WCDMA Band V	RMC 12.2Kbps	Front	0	Full	4182	836.4	23.12	24.00	1.225	-0.03	1.594	1.952
	WCDMA Band V	RMC 12.2Kbps	Front	0	Full	4233	846.6	23.05	24.00	1.245	-0.08	1.020	1.269
38	WCDMA Band V	RMC 12.2Kbps	Back	0	Full	4132	826.4	23.15	24.00	1.216	0.07	2.080	**2.530**
	WCDMA Band V	RMC 12.2Kbps	Back	0	Full	4182	836.4	23.12	24.00	1.225	-0.07	1.650	2.021
	WCDMA Band V	RMC 12.2Kbps	Back	0	Full	4233	846.6	23.05	24.00	1.245	0.06	1.130	1.406
	WCDMA Band V	RMC 12.2Kbps	Bottom Side	0	Full	4132	826.4	23.15	24.00	1.216	0.02	1.270	1.545
	WCDMA Band II	RMC 12.2Kbps	Front	0	Reduced	9262	1852.4	21.07	22.00	1.239	-0.04	1.900	2.354
	WCDMA Band II	RMC 12.2Kbps	Front	0	Reduced	9400	1880	21.05	22.00	1.245	0.06	1.830	2.277
	WCDMA Band II	RMC 12.2Kbps	Front	0	Reduced	9538	1907.6	21.12	22.00	1.225	0.01	2.020	2.474
	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced	9262	1852.4	21.07	22.00	1.239	0.03	1.850	2.292
	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced	9400	1880	21.05	22.00	1.245	0.06	1.920	2.389
	WCDMA Band II	RMC 12.2Kbps	Back	0	Reduced	9538	1907.6	21.12	22.00	1.225	0.15	1.930	2.364
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced	9262	1852.4	21.07	22.00	1.239	0.01	2.400	2.973
	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced	9400	1880	21.05	22.00	1.245	0.03	2.260	2.813
39	WCDMA Band II	RMC 12.2Kbps	Bottom Side	0	Reduced	9538	1907.6	21.12	22.00	1.225	0.18	2.490	**3.049**

<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 5	10M	QPSK	1	0	Front	0	Full	20525	836.5	23.16	24.00	1.213	0.03	1.260	1.529
	LTE Band 5	10M	QPSK	25	12	Front	0	Full	20525	836.5	22.07	23.00	1.239	0.02	1.010	1.251
40	LTE Band 5	10M	QPSK	1	0	Back	0	Full	20525	836.5	23.16	24.00	1.213	0.01	1.570	**1.905**
	LTE Band 5	10M	QPSK	25	12	Back	0	Full	20525	836.5	22.07	23.00	1.239	0.03	1.330	1.648
	LTE Band 5	10M	QPSK	1	0	Bottom Side	0	Full	20525	836.5	23.16	24.00	1.213	0.01	1.150	1.395
	LTE Band 5	10M	QPSK	25	12	Bottom Side	0	Full	20525	836.5	22.07	23.00	1.239	0.02	0.969	1.200
41	LTE Band 7	20M	QPSK	1	0	Bottom Side	0	Reduced	20850	2510	19.96	20.50	1.132	0.04	1.600	**1.812**
	LTE Band 7	20M	QPSK	50	50	Bottom Side	0	Reduced	20850	2510	19.95	20.50	1.135	0.18	1.540	1.748

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
42	LTE Band 41	20M	QPSK	1	0	Bottom Side	0	Full	41140	2645	23.49	24.00	1.125	62.9	1.006	-0.05	1.690	**1.912**
	LTE Band 41	20M	QPSK	50	0	Bottom Side	0	Full	41140	2645	22.40	23.00	1.148	62.9	1.006	0.03	1.200	1.386

<WLAN 5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Max Area Scan SAR	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Front	0	Full	64	5320	18.57	19.50	1.239	95.63	1.046		1.48		
43	WLAN5.3GHz	802.11a 6Mbps	Back	0	Full	64	5320	18.57	19.50	1.239	95.63	1.046	0.07	3.65	0.657	**0.851**
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0	Full	64	5320	18.57	19.50	1.239	95.63	1.046		1.13		
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0	Full	64	5320	18.57	19.50	1.239	95.63	1.046		0.923		
	WLAN 5.5GHz	802.11a 6Mbps	Front	0	Full	116	5580	18.55	19.50	1.245	95.63	1.046		1.62		
44	WLAN 5.5GHz	802.11a 6Mbps	Back	0	Full	116	5580	18.55	19.50	1.245	95.63	1.046	0.09	3.81	0.654	**0.851**
	WLAN 5.5GHz	802.11a 6Mbps	Right Side	0	Full	116	5580	18.55	19.50	1.245	95.63	1.046		0.374		
	WLAN 5.5GHz	802.11a 6Mbps	Top Side	0	Full	116	5580	18.55	19.50	1.245	95.63	1.046		0.194		

15.5 Repeated SAR Measurement

<1g SAR>

No.	Band	Mode	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	802.11b 1Mbps	-	-	-	-	Left Cheek	0	Reduced	6	2437	17.12	17.50	1.091	100	1.000	-0.06	0.917	1	1.001
2nd	WLAN2.4GHz	802.11b 1Mbps	-	-	-	-	Left Cheek	0	Reduced	6	2437	17.12	17.50	1.091	100	1.000	0.05	0.892	1.028	0.974
1st	WCDMA V	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	Reduced	4182	836.4	21.44	22.50	1.276	-	-	0.05	1.030	1	1.315
2nd	WCDMA V	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	Reduced	4182	836.4	21.44	22.50	1.276	-	-	0.03	0.984	1.047	1.256
1st	WCDMA II	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	Reduced	9262	1852.4	17.27	18.50	1.327	-	-	0.05	0.946	1	1.256
2nd	WCDMA II	RMC 12.2Kbps	-	-	-	-	Bottom Side	5	Reduced	9262	1852.4	17.27	18.50	1.327	-	-	-0.02	0.922	1.026	1.224
1st	LTE Band 41		20M	QPSK	1	0	Bottom Side	5	Reduced	40670	2598	20.45	21.00	1.135	62.9	1.006	0.06	1.210	1	1.382
2nd	LTE Band 41		20M	QPSK	1	0	Bottom Side	5	Reduced	40670	2598	20.45	21.00	1.135	62.9	1.006	0.04	1.170	1.034	1.336

<10g SAR>

No.	Band	Mode	BW (MHz)	Modulation	RB Size	RB Offset	Test Position	Gap (mm)	Power Mode	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA V	RMC 12.2Kbps	-	-	-	-	Back	0	Full	4132	826.4	23.15	24.00	1.216		0.07	2.080	1	2.530
2nd	WCDMA V	RMC 12.2Kbps	-	-	-	-	Back	0	Full	4132	826.4	23.15	24.00	1.216		0.03	1.980	1.051	2.408
1st	WCDMA II	RMC 12.2Kbps	-	-	-	-	Bottom Side	0	Reduced	9538	1907.6	21.12	22.00	1.225		0.18	2.490	1	3.049
2nd	WCDMA II	RMC 12.2Kbps	-	-	-	-	Bottom Side	0	Reduced	9538	1907.6	21.12	22.00	1.225		-0.03	2.370	1.051	2.902

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR <1.45W/kg, only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, 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.
4. The ratio is the difference in percentage between original and repeated *measured SAR*.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	GSM Voice + WLAN2.4GHz	Yes	Yes		
2.	GPRS/EDGE + WLAN2.4GHz	Yes	Yes	Yes	Yes
3.	WCDMA + WLAN2.4GHz	Yes	Yes	Yes	Yes
4.	LTE + WLAN2.4GHz	Yes	Yes	Yes	Yes
5.	GSM Voice + WLAN5.3/5.5GHz	Yes	Yes		
6.	GPRS/EDGE + WLAN5.3/5.5GHz	Yes	Yes		Yes
7.	WCDMA + WLAN5.3/5.5GHz	Yes	Yes		Yes
8.	LTE + WLAN5.3/5.5GHz	Yes	Yes		Yes
9.	GSM Voice + WLAN5.2/5.8GHz	Yes	Yes		
10.	GPRS/EDGE + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
11.	WCDMA + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
12.	LTE + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
13.	GSM Voice + Bluetooth	Yes	Yes		
14.	GPRS/EDGE + Bluetooth	Yes	Yes	Yes	Yes
15.	WCDMA + Bluetooth	Yes	Yes	Yes	Yes
16.	LTE + Bluetooth	Yes	Yes	Yes	Yes
17.	Bluetooth + WLAN5.3/5.5GHz	Yes	Yes		Yes
18.	Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
19.	GSM Voice + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes		
20.	GPRS/EDGE + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes		Yes
21.	WCDMA + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes		Yes
22.	LTE + Bluetooth + WLAN5.3/5.5GHz	Yes	Yes		Yes
23.	GSM Voice + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes		
24.	GPRS/EDGE + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
25.	WCDMA + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes
26.	LTE + Bluetooth + WLAN5.2/5.8GHz	Yes	Yes	Yes	Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), and LTE supports VoLTE function.
2. EUT will choose each GSM, WCDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. This device WLAN 2.4GHz supports hotspot operation and Bluetooth support tethering applications.
4. WLAN 2.4GHz and Bluetooth share the same antenna so can't transmit simultaneously.
5. Chose the worse zoom scan SAR of WLAN2.4GHz SAR respectively for co-located with WWAN analysis.
6. All licensed modes share the same antenna part and cannot transmit simultaneously.
7. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
8. The reported SAR summation is calculated based on the same configuration and test position
9. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
   i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
   ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
   iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
   iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
   v) The SPLSR calculated results please refer to section 16.5.

16.1 Head Exposure Conditions

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN 1g SAR (W/kg)	3 5GHz WLAN 1g SAR (W/kg)	4 Bluetooth 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
GSM	GSM850	Right Cheek	0.435	1.001	0.716	0.070	1.44	1.22
		Right Tilted	0.178	1.001	0.716	0.086	1.18	0.98
		Left Cheek	0.263	1.001	0.716	0.193	1.26	1.17
		Left Tilted	0.172	0.788	0.492	0.080	0.96	0.74
	GSM1900	Right Cheek	0.054	1.001	0.716	0.070	1.06	0.84
		Right Tilted	0.030	1.001	0.716	0.086	1.03	0.83
		Left Cheek	0.078	1.001	0.716	0.193	1.08	0.99
		Left Tilted	0.025	0.788	0.492	0.080	0.81	0.60
WCDMA	Band V	Right Cheek	0.354	1.001	0.716	0.070	1.36	1.14
		Right Tilted	0.151	1.001	0.716	0.086	1.15	0.95
		Left Cheek	0.253	1.001	0.716	0.193	1.25	1.16
		Left Tilted	0.204	0.788	0.492	0.080	0.99	0.78
	Band II	Right Cheek	0.074	1.001	0.716	0.070	1.08	0.86
		Right Tilted	0.056	1.001	0.716	0.086	1.06	0.86
		Left Cheek	0.109	1.001	0.716	0.193	1.11	1.02
		Left Tilted	0.044	0.788	0.492	0.080	0.83	0.62
LTE	Band 5	Right Cheek	0.260	1.001	0.716	0.070	1.26	1.05
		Right Tilted	0.099	1.001	0.716	0.086	1.10	0.90
		Left Cheek	0.166	1.001	0.716	0.193	1.17	1.08
		Left Tilted	0.084	0.788	0.492	0.080	0.87	0.66
	Band 7	Right Cheek	0.259	1.001	0.716	0.070	1.26	1.05
		Right Tilted	0.177	1.001	0.716	0.086	1.18	0.98
		Left Cheek	0.418	1.001	0.716	0.193	1.42	1.33
		Left Tilted	0.134	0.788	0.492	0.080	0.92	0.71
	Band 41	Right Cheek	0.075	1.001	0.716	0.070	1.08	0.86
		Right Tilted	0.073	1.001	0.716	0.086	1.07	0.88
		Left Cheek	0.128	1.001	0.716	0.193	1.13	1.04
		Left Tilted	0.047	0.788	0.492	0.080	0.84	0.62

16.2 Hotspot Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3+4		
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	Case No	SPLSR	Summed 1g SAR (W/kg)	Case No	SPLSR
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
GSM	GSM850	Front	1.181	0.366	0.224	0.075	1.55			1.48		
		Back	1.193	0.675	0.416	0.094	**1.87**	**#01**	**0.02**	**1.70**	**#07**	**0.02**
		Left Side	0.164				0.16			0.16		
		Right Side	0.679	0.675	0.416	0.049	1.35			1.14		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	1.271				1.27			1.27		
	GSM1900	Front	0.714	0.366	0.224	0.075	1.08			1.01		
		Back	0.951	0.675	0.416	0.094	**1.63**	**#02**	**0.01**	1.46		
		Left Side	0.027				0.03			0.03		
		Right Side	0.379	0.675	0.416	0.049	1.05			0.84		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	0.999				1.00			1.00		
WCDMA	Band V	Front	1.033	0.366	0.224	0.075	1.40			1.33		
		Back	1.105	0.675	0.416	0.094	**1.78**	**#03**	**0.02**	**1.62**	**#08**	**0.01**
		Left Side	0.156				0.16			0.16		
		Right Side	0.587	0.675	0.416	0.049	1.26			1.05		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	1.315				1.32			1.32		
	Band II	Front	0.791	0.366	0.224	0.075	1.16			1.09		
		Back	1.066	0.675	0.416	0.094	**1.74**	**#04**	**0.02**	1.58		
		Left Side	0.063				0.06			0.06		
		Right Side	0.405	0.675	0.416	0.049	1.08			0.87		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	1.256				1.26			1.26		
LTE	Band 5	Front	1.022	0.366	0.224	0.075	1.39			1.32		
		Back	1.078	0.675	0.416	0.094	**1.75**	**#05**	**0.01**	**1.59**		
		Left Side	0.114				0.11			0.11		
		Right Side	0.455	0.675	0.416	0.049	1.13			0.92		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	0.920				0.92			0.92		
	Band 7	Front	0.733	0.366	0.224	0.075	1.10			1.03		
		Back	0.897	0.675	0.416	0.094	**1.57**			1.41		
		Left Side	0.176				0.18			0.18		
		Right Side		0.675	0.416	0.049	0.68			0.47		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	0.951				0.95			0.95		
	Band 41	Front	0.993	0.366	0.224	0.075	1.36			1.29		
		Back	1.035	0.675	0.416	0.094	**1.71**	**#06**	**0.02**	1.55		
		Left Side	0.265				0.27			0.27		
		Right Side		0.675	0.416	0.049	0.68			0.47		
		Top Side		0.675	0.416	0.070	0.68			0.49		
		Bottom Side	1.382				1.38			1.38		

16.3 Body-Worn Accessory Exposure Conditions

WWAN Band		Exposure Position	1	2	3	4	1+2			1+3+4		
			WWAN	2.4GHz WLAN	5GHz WLAN	Bluetooth	Summed 1g SAR (W/kg)	Case No	SPLSR	Summed 1g SAR (W/kg)	Case No	SPLSR
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)						
GSM	GSM850	Front	1.181	0.366	0.162	0.075	1.55			1.42		
		Back	1.193	0.675	0.392	0.094	**1.87**	**#01**	**0.02**	**1.68**	**#09**	**0.02**
	GSM1900	Front	0.714	0.366	0.162	0.075	1.08			0.95		
		Back	0.951	0.675	0.392	0.094	**1.63**	**#02**	**0.01**	1.44		
WCDMA	Band V	Front	1.033	0.366	0.162	0.075	1.40			1.27		
		Back	1.105	0.675	0.392	0.094	**1.78**	**#03**	**0.02**	1.59		
	Band II	Front	0.791	0.366	0.162	0.075	1.16			1.03		
		Back	1.066	0.675	0.392	0.094	**1.74**	**#04**	**0.02**	1.55		
LTE	Band 5	Front	1.022	0.366	0.162	0.075	1.39			1.26		
		Back	1.078	0.675	0.392	0.094	**1.75**	**#05**	**0.01**	1.56		
	Band 7	Front	0.733	0.366	0.162	0.075	1.10			0.97		
		Back	0.897	0.675	0.392	0.094	1.57			1.38		
	Band 41	Front	0.993	0.366	0.162	0.075	1.36			1.23		
		Back	1.035	0.675	0.392	0.094	**1.71**	**#06**	**0.02**	1.52		

16.4 Product specific 10g SAR Exposure Conditions

WWAN Band		Exposure Position	1	2	1+2
			WWAN	5GHz WLAN	Summed 10g SAR (W/kg)
			10g SAR (W/kg)	10g SAR (W/kg)	
GSM	GSM850	Front	0.944	0.851	1.80
		Back	1.060	0.851	1.91
		Bottom Side	0.834		0.83
	GSM1900	Front		0.851	0.85
		Back	1.560	0.851	2.41
		Bottom Side	1.781		1.78
WCDMA	Band V	Front	2.505	0.851	3.36
		Back	2.530	0.851	**3.38**
		Bottom Side	1.545		1.55
	Band II	Front	2.474	0.851	3.33
		Back	2.389	0.851	3.24
		Bottom Side	3.049		3.05
LTE	Band 5	Front	1.529	0.851	2.38
		Back	1.905	0.851	2.76
		Bottom Side	1.395		1.40
	Band 7	Front		0.851	0.85
		Back		0.851	0.85
		Bottom Side	1.812		1.81
	Band 41	Front		0.851	0.85
		Back		0.851	0.85
		Bottom Side	1.912		1.91

Remark:
For Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

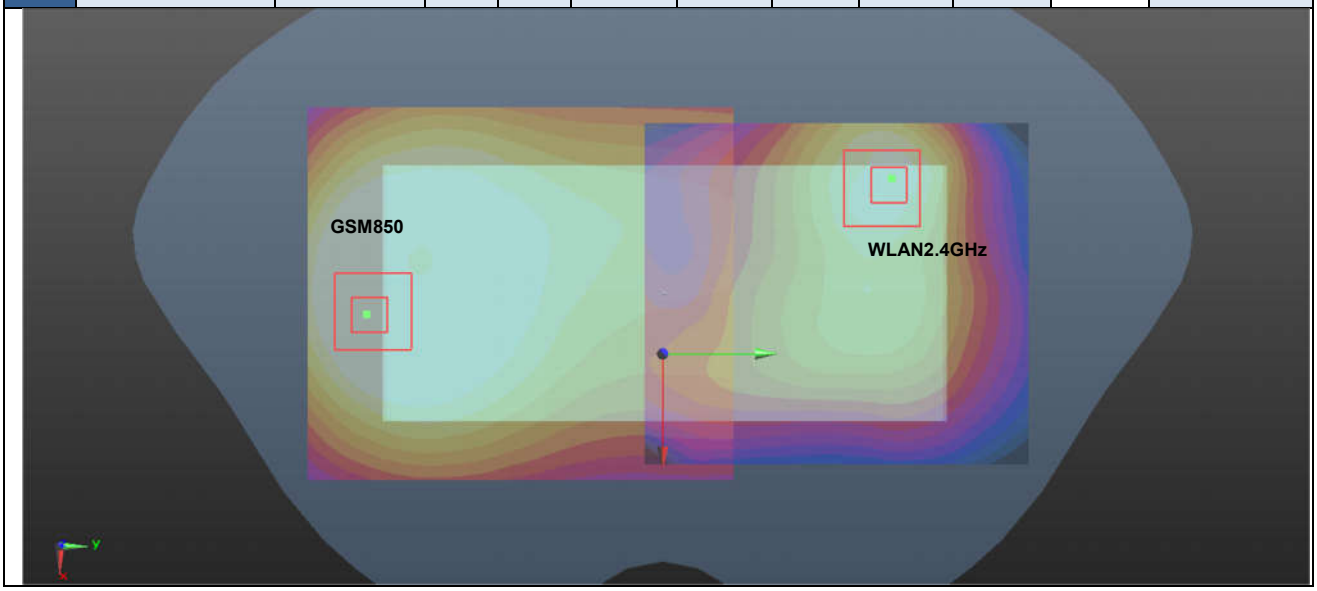
Test Engineer：Nick Hu

16.5 SPLSR Evaluation and Analysis

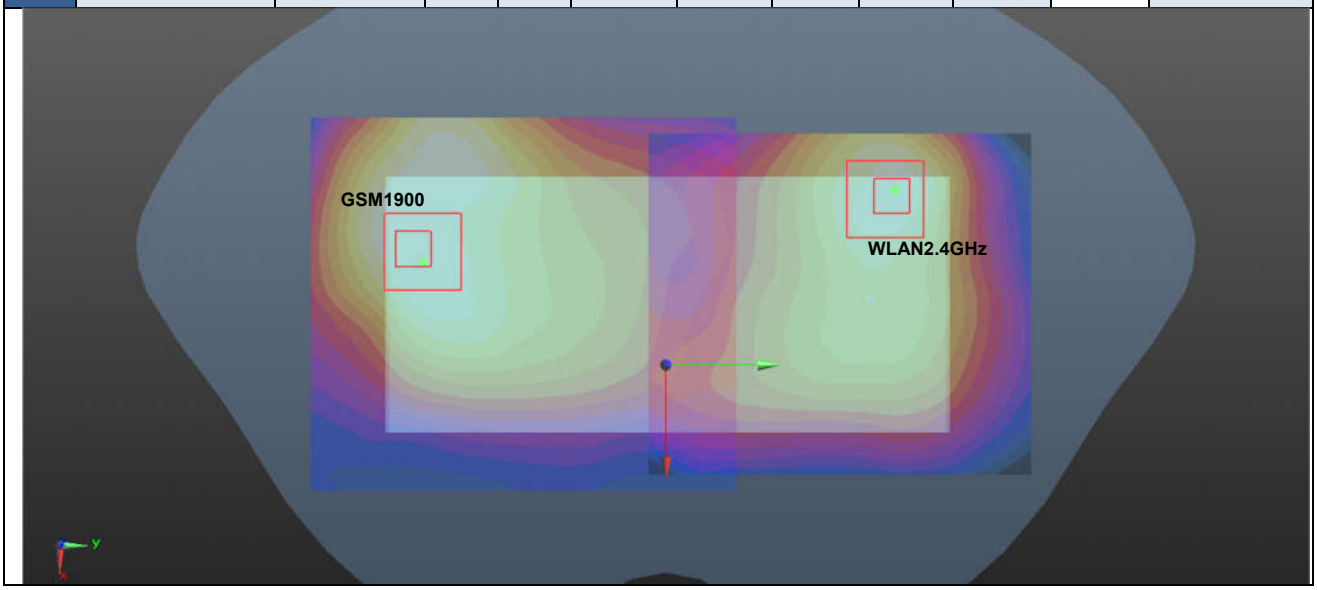
General Note:

1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of [(x1−x2)2 + (y1−y2)2 + (z1−z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. SPLSR = (SAR1 + SAR2)1.5 / (min. separation distance, mm). If SPLSR ≤ 0.04 for 1g SAR, simultaneously transmission SAR measurement is not necessary.

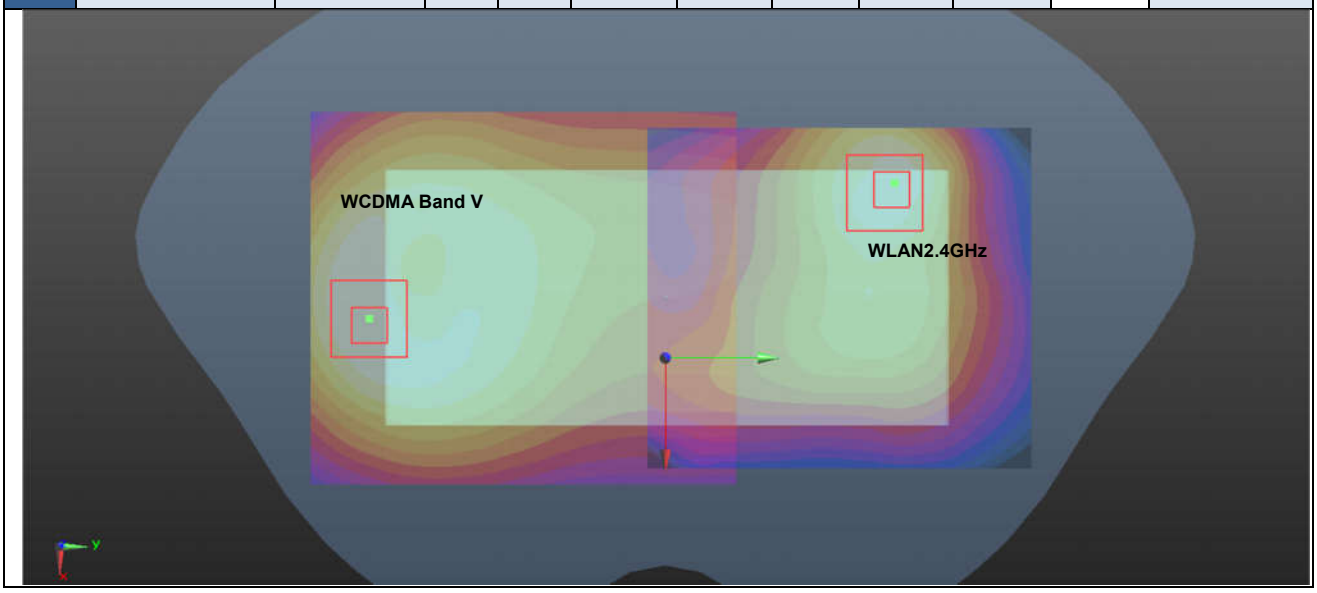
Case #1	Band	Position	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
				(mm)	X	Y	Z				
	GSM850	Back	1.193	5mm	7.6	-81.9	-1.82	151.3	1.87	0.02	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



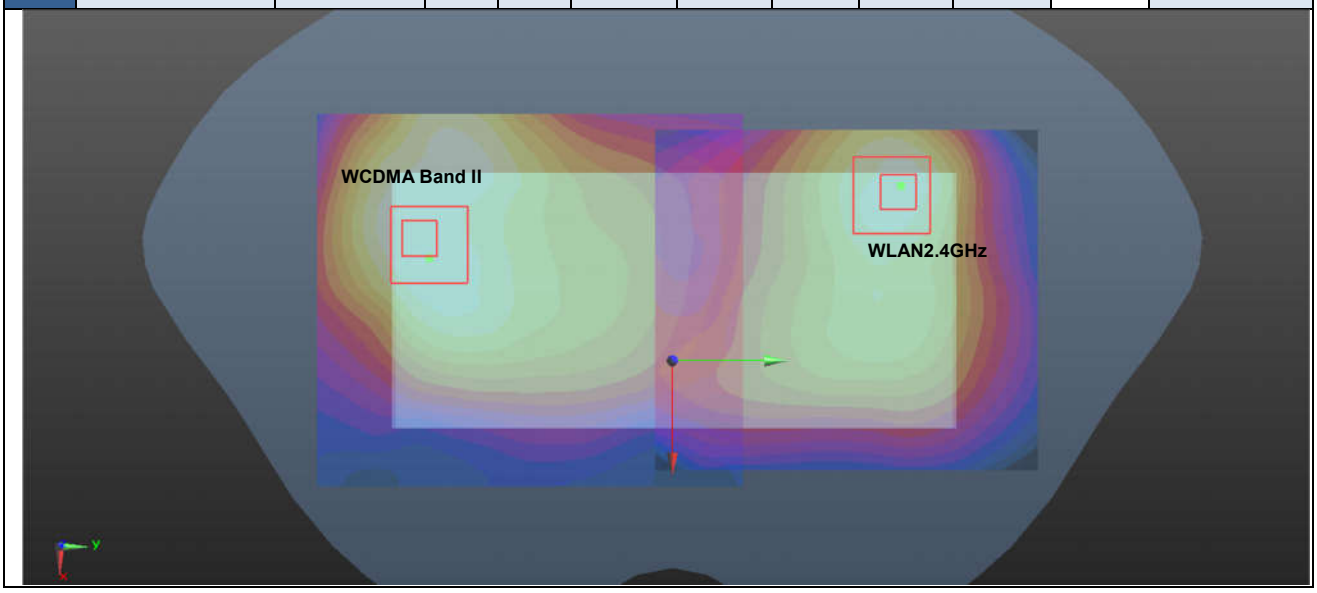
Case #2	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Back	0.951	5mm	-15.2	-73.3	-2.23	138.7	1.63	0.01	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



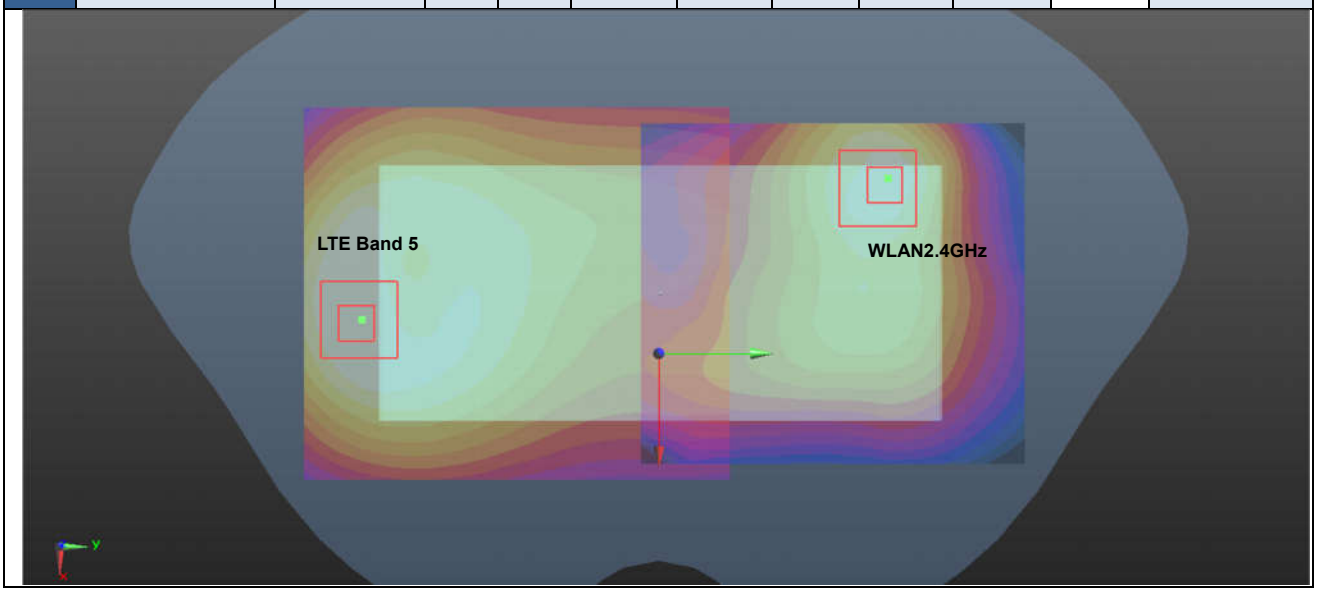
Case #3	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band V	Back	1.105	5mm	7.6	-83.5	-2.41	152.9	1.78	0.02	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



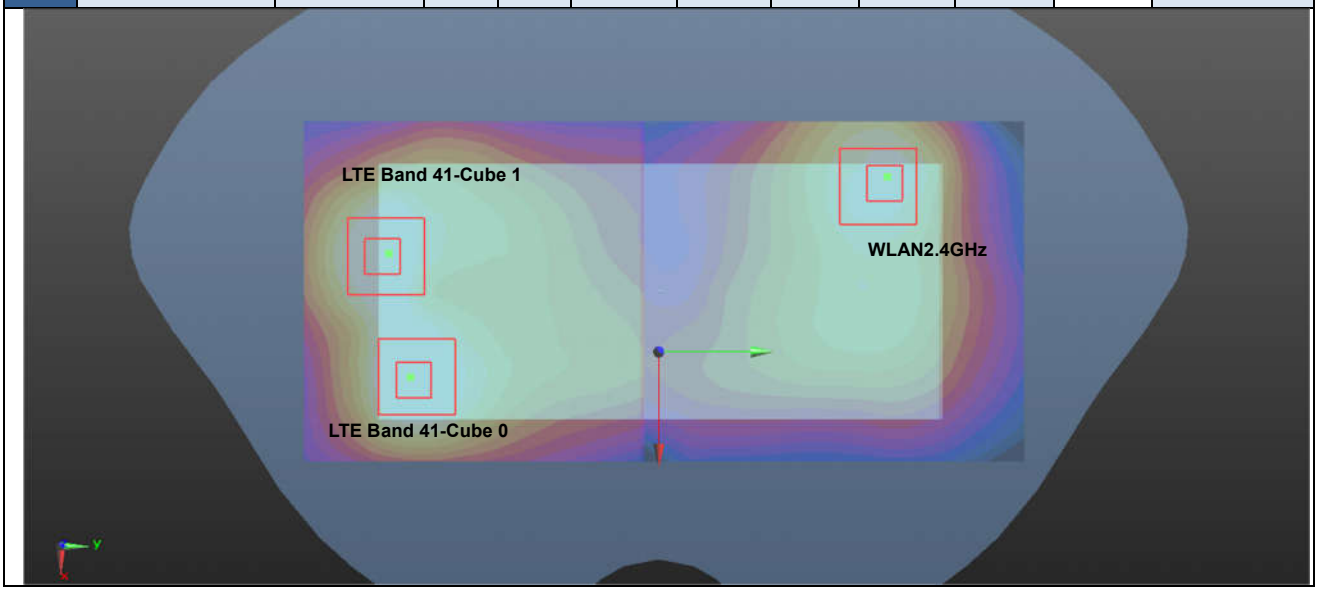
Case #4	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA Band II	Back	1.066	5mm	-16.8	-73.3	-2.33	138.6	1.74	0.02	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



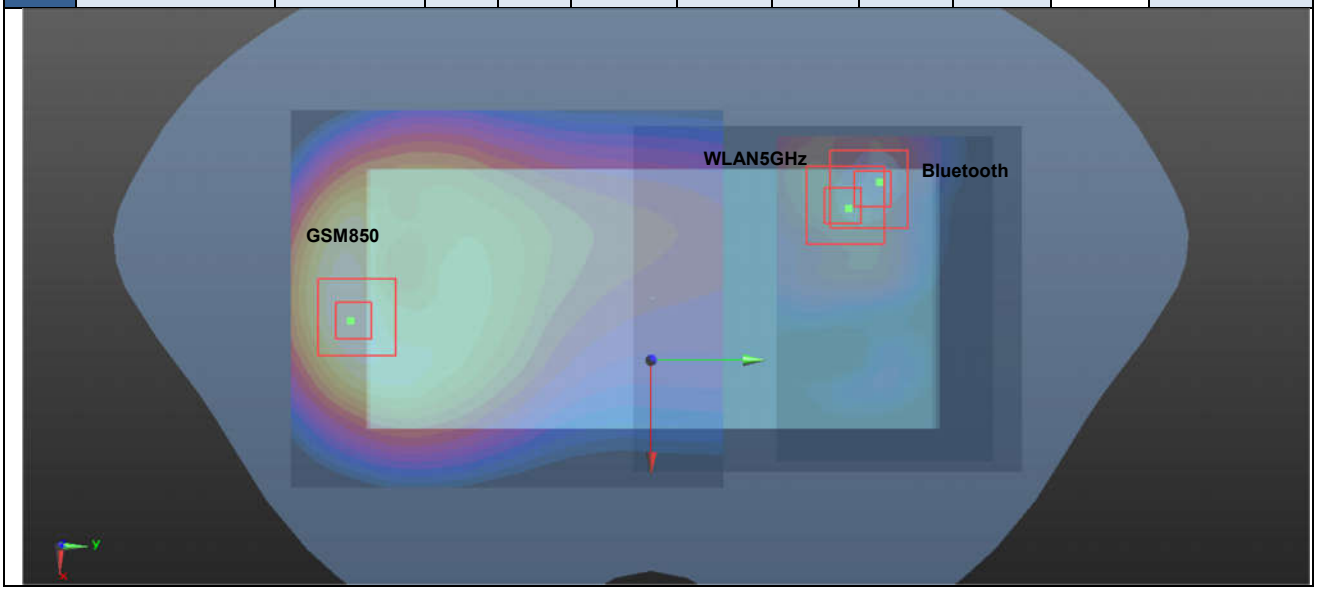
Case #5	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Back	1.078	5mm	9.1	-85.1	-2.5	154.8	1.75	0.01	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



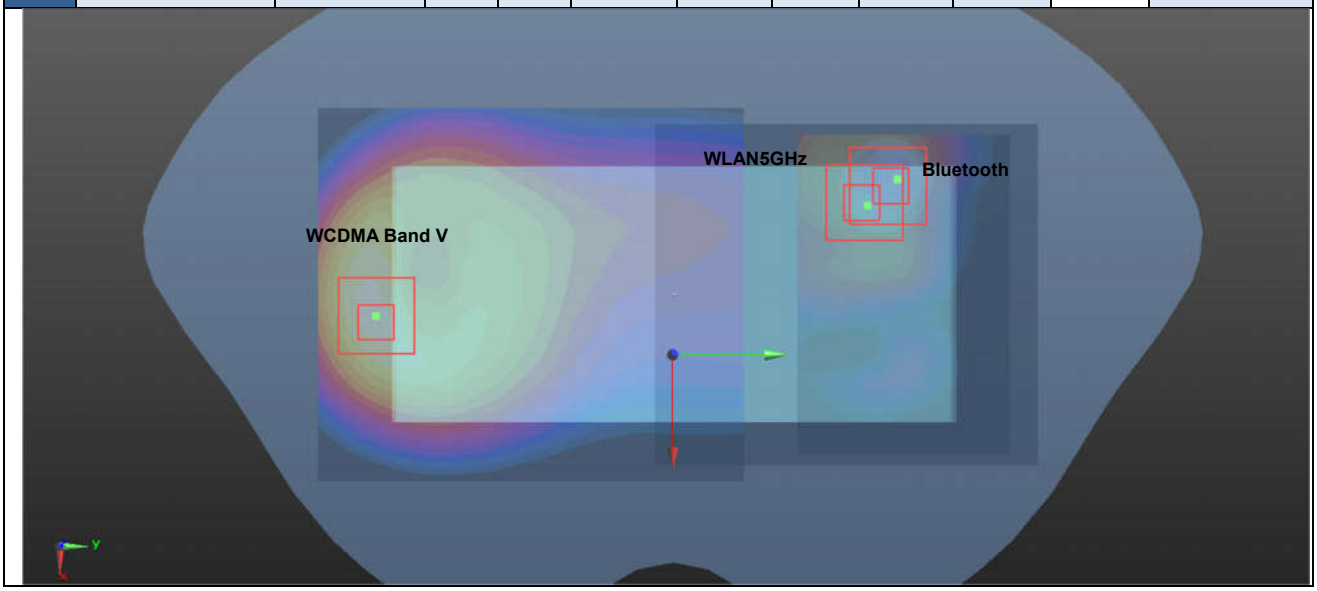
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #6	LTE Band 41-Cube0	Back	1.035	5mm	26	-69	-1.66	145.0	1.71	0.02	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				
	LTE Band 41-Cube1	Back	0.913	5mm	-9.8	-78	-1.74	144.1	1.59	0.01	Not required
	WLAN2.4GHz		0.675	5mm	-30.4	64.6	-1.84				



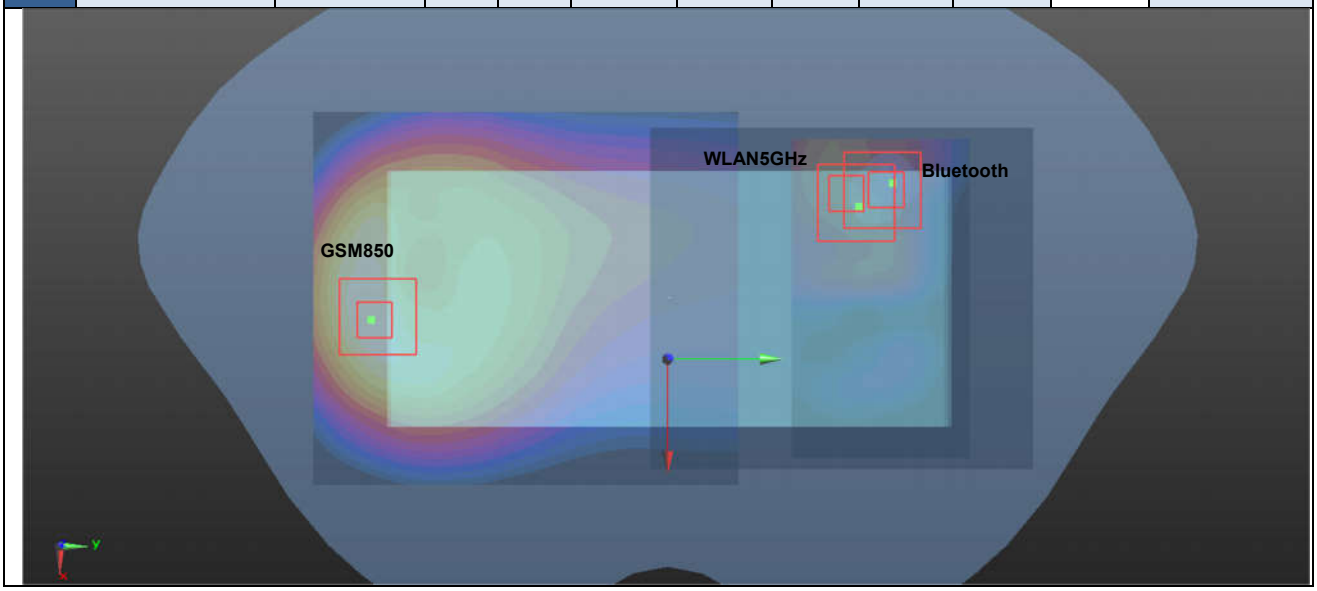
	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #7	GSM850	Back	1.193	5mm	7.6	-81.9	-1.82	149.5	1.70	0.01	Not required
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				
	WLAN5GHz		0.416	5mm	-24.2	55	-2.52				
	GSM850	Back	1.193	5mm	7.6	-81.9	-1.82	140.5	1.70	0.02	Not required
	WLAN5GHz		0.416	5mm	-24.2	55	-2.52				
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				



	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #8	WCDMA Band V	Back	1.105	5mm	7.6	-83.5	-2.41	151.0	1.62	0.01	Not required
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				
	WLAN5GHz		0.416	5mm	-24.2	55	-2.52				
	WCDMA Band V	Back	1.105	5mm	7.6	-83.5	-2.41	142.1	1.62	0.01	Not required
	WLAN5GHz		0.416	5mm	-24.2	55	-2.52				
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				



	Band	Position	SAR (W/kg)	Gap (mm)	SAR peak location (mm) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
Case #9	GSM850	Back	1.193	5mm	7.6	-81.9	-1.82	149.5	1.68	0.01	Not required
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				
	WLAN5GHz		0.392	5mm	-26.8	54	-2.51				
	GSM850	Back	1.193	5mm	7.6	-81.9	-1.82	140.2	1.68	0.02	Not required
	WLAN5GHz		0.392	5mm	-26.8	54	-2.51				
	Bluetooth		0.094	5mm	-31.4	62.4	-1.86				



17. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be ≤ 30%, for a confidence interval of k = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

18. References

[1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4] SPEAG DASY System Handbook

[5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[6] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.

[7] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

[8] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

[9] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[10] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[11] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[13] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[14] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

Appendix A. Plots of System Performance Check

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

System Check_Head_835MHz

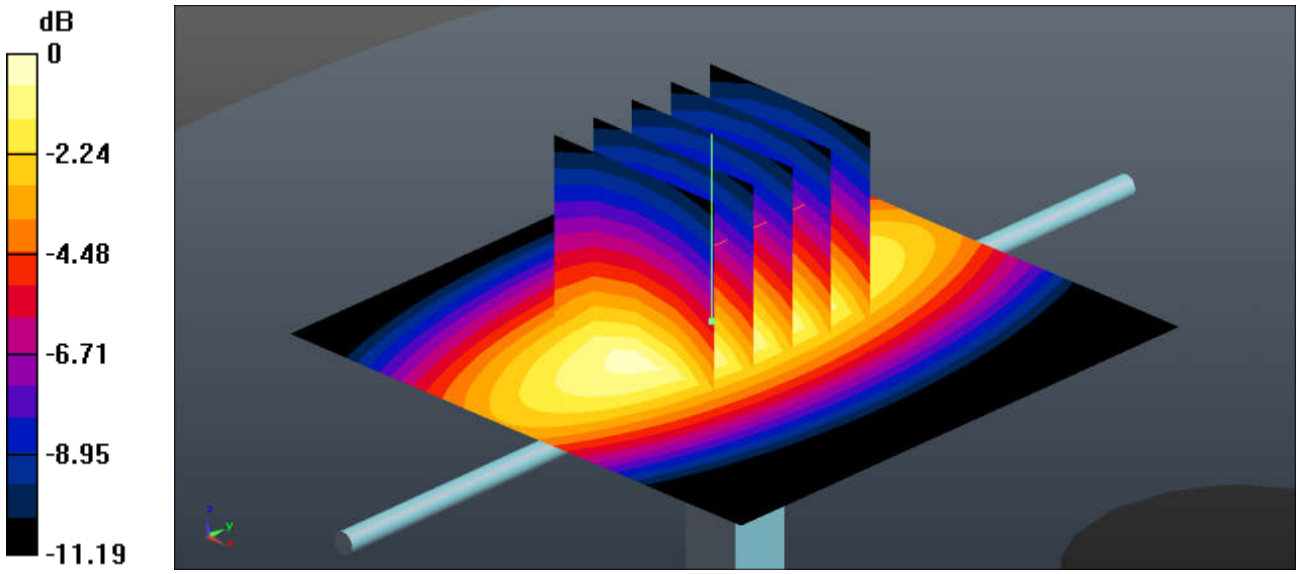
DUT: D835V2 - SN:4d151

Communication System: UID 0, CW (0); Frequency: 835 MHz;Duty Cycle: 1:1
Medium: HSL_850 Medium parameters used: f = 835 MHz; σ = 0.914 S/m; ε_r = 40.991; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 3.15 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 53.01 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 3.79 W/kg
SAR(1 g) = 2.5 W/kg; SAR(10 g) = 1.61 W/kg
Maximum value of SAR (measured) = 3.20 W/kg



0 dB = 3.20 W/kg = 5.05 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.6

System Check_Head_1900MHz

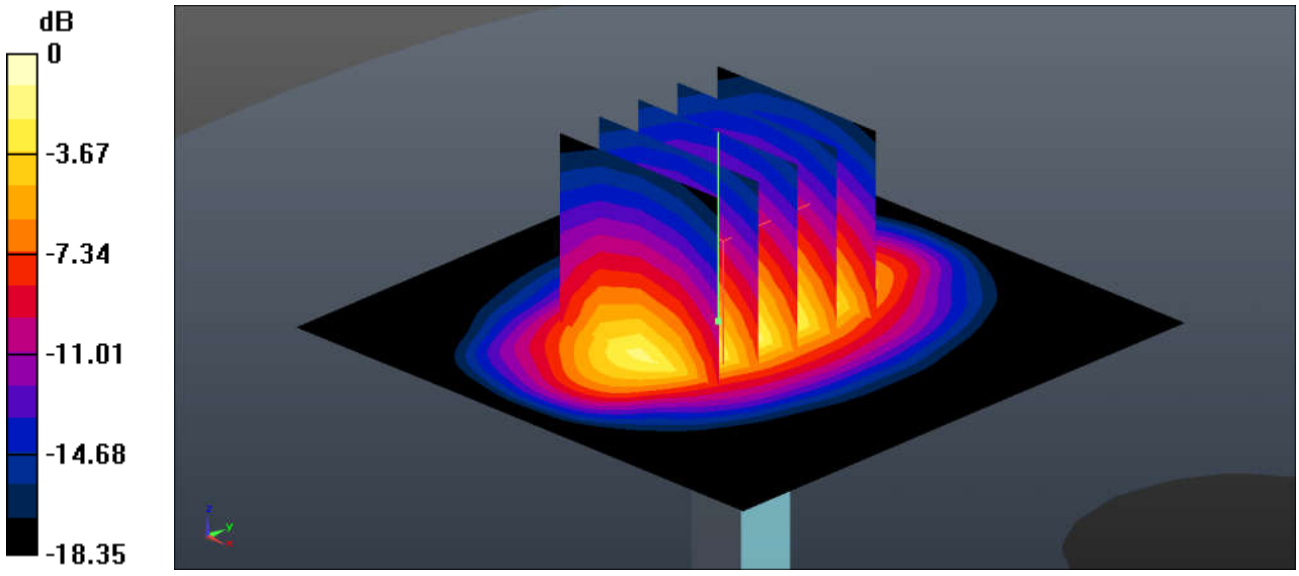
DUT: D1900V2 - SN:5d170

Communication System: UID 0, CW (0); Frequency: 1900 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1900 MHz; σ = 1.439 S/m; ε_r = 38.966; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (61x61x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 14.3 W/kg

Pin=250mW/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 85.57 V/m; Power Drift = 0.18 dB
Peak SAR (extrapolated) = 18.5 W/kg
SAR(1 g) = 9.97 W/kg; SAR(10 g) = 5.13 W/kg
Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.4 W/kg = 11.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.26

System Check_Head_2450MHz

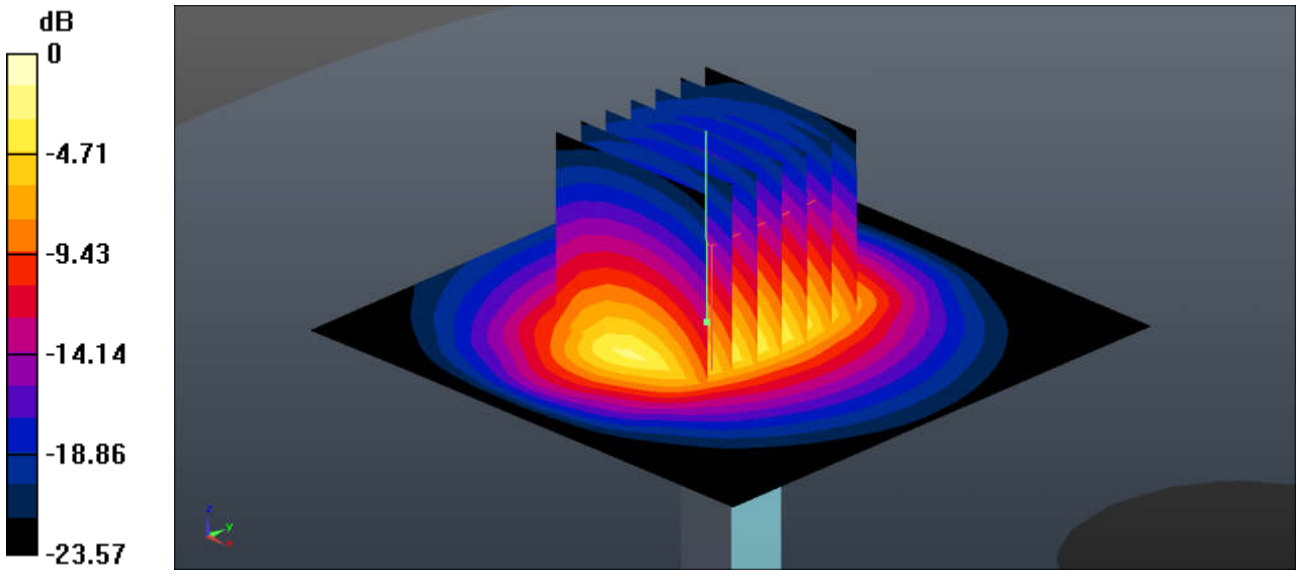
DUT: D2450V2 - SN:908

Communication System: UID 0, CW (0); Frequency: 2450 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2450 MHz; σ = 1.828 S/m; ε_r = 39.05; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 21.1 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 87.35 V/m; Power Drift = 0.11 dB
Peak SAR (extrapolated) = 28.5 W/kg
SAR(1 g) = 13.1 W/kg; SAR(10 g) = 5.92 W/kg
Maximum value of SAR (measured) = 20.6 W/kg



0 dB = 20.6 W/kg = 13.14 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.17

System Check_Head_2600MHz

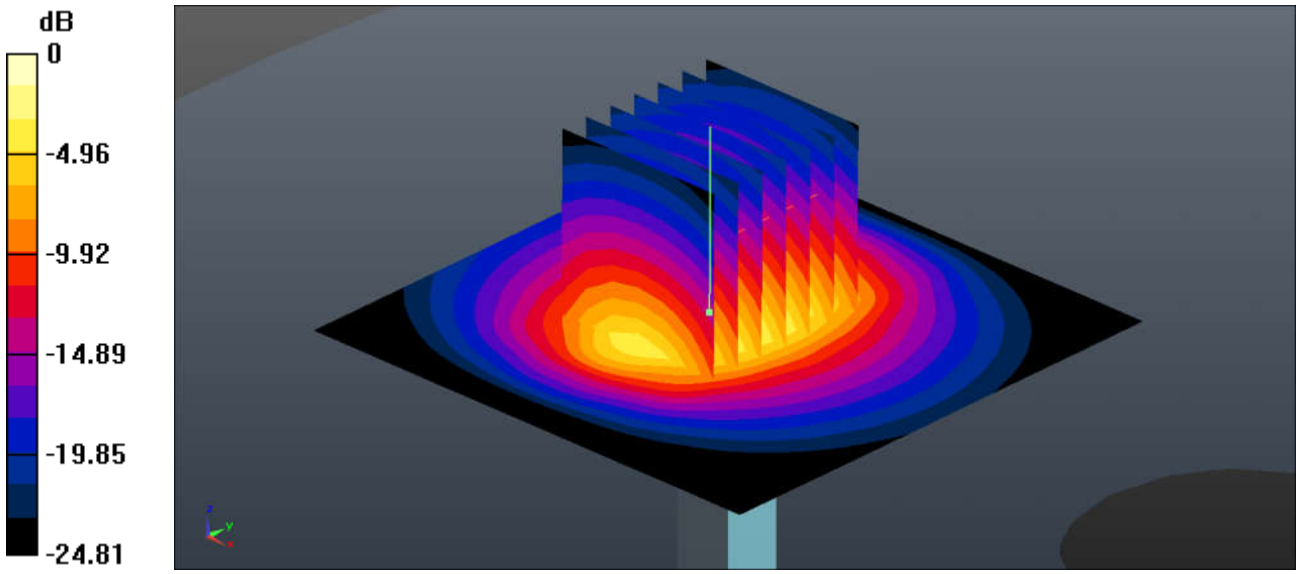
DUT: D2600V2 - SN:1061

Communication System: UID 0, CW; Frequency: 2600 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2600 MHz; σ = 1.998 S/m; ε_r = 38.452; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Pin=250mW/Area Scan (71x71x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 22.4 W/kg

Pin=250mW/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 89.84 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 30.4 W/kg
SAR(1 g) = 13.9 W/kg; SAR(10 g) = 6.13 W/kg
Maximum value of SAR (measured) = 22.0 W/kg



0 dB = 22.0 W/kg = 13.42 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

System Check_Head_5250MHz

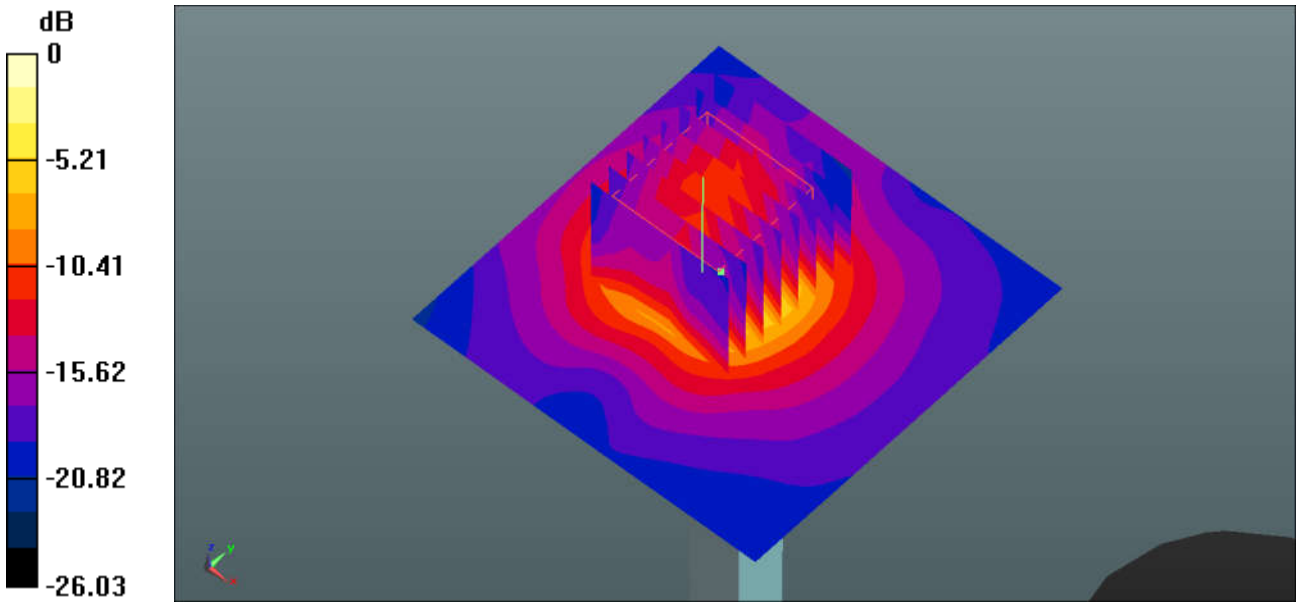
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5250 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5250 MHz; σ = 4.603 S/m; ε_r = 36.734; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 14.7 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 30.73 V/m; Power Drift = -0.04 dB
Peak SAR (extrapolated) = 20.3 W/kg
SAR(1 g) = 7.48 W/kg; SAR(10 g) = 2.37 W/kg
Maximum value of SAR (measured) = 14.2 W/kg



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

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

System Check_Head_5600MHz

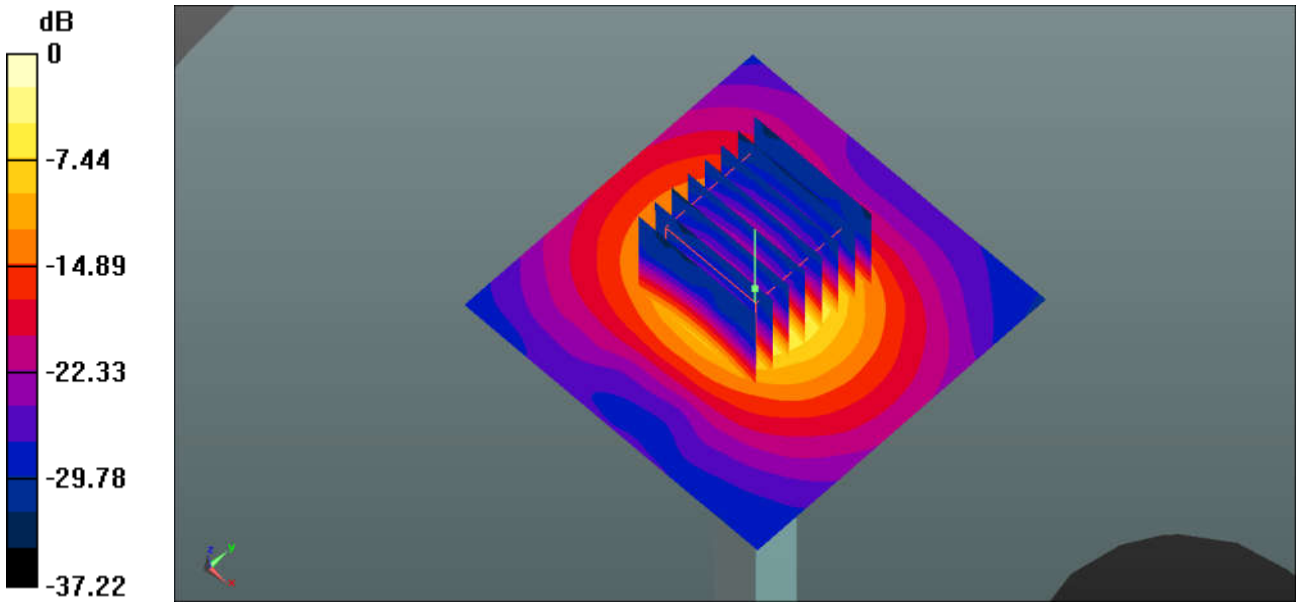
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5600 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5600 MHz; σ = 5.005 S/m; ε_r = 35.956; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.94, 4.94, 4.94); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 18.4 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 39.03 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 32.9 W/kg
SAR(1 g) = 7.74 W/kg; SAR(10 g) = 2.26 W/kg
Maximum value of SAR (measured) = 17.7 W/kg



0 dB = 17.7 W/kg = 12.48 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

System Check_Head_5750MHz

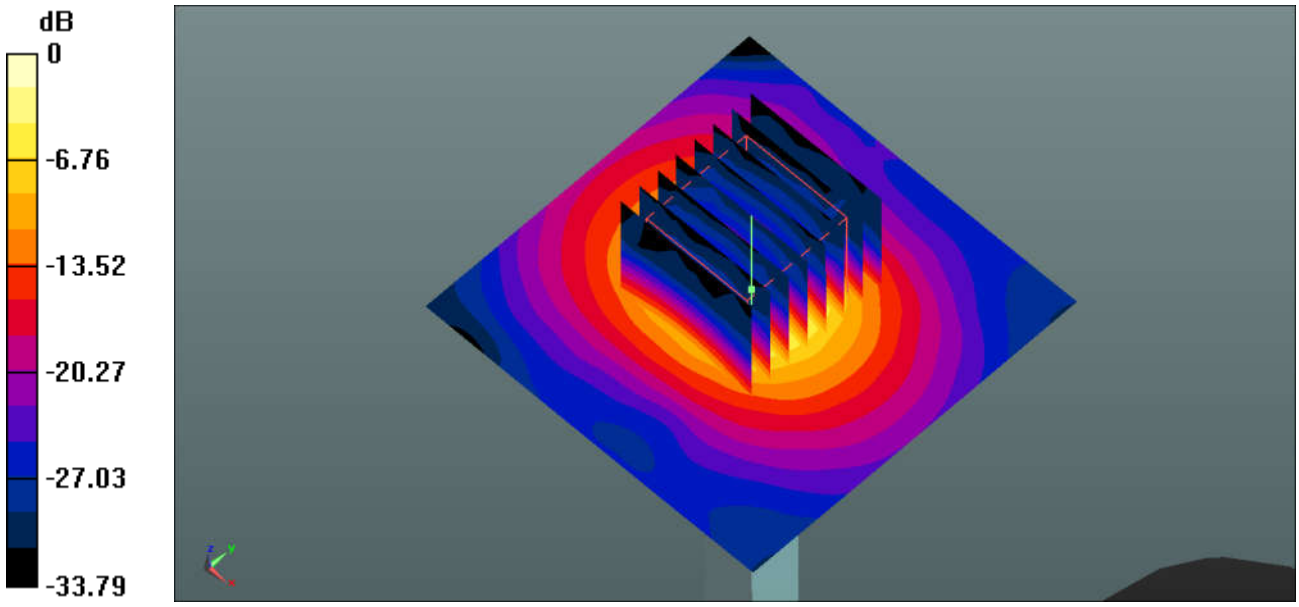
DUT: D5GHzV2-SN:1006

Communication System: UID 0, CW (0); Frequency: 5750 MHz;Duty Cycle: 1:1
Medium: HSL_5000 Medium parameters used: f = 5750 MHz; σ = 5.185 S/m; ε_r = 35.617; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Pin=100mW/Area Scan (71x71x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 16.7 W/kg

Pin=100mW/Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 37.12 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 32.4 W/kg
SAR(1 g) = 7.52 W/kg; SAR(10 g) = 2.14 W/kg
Maximum value of SAR (measured) = 17.0 W/kg



0 dB = 17.0 W/kg = 12.30 dBW/kg

Appendix B. Plots of High SAR Measurement

The plots are shown as follows.

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

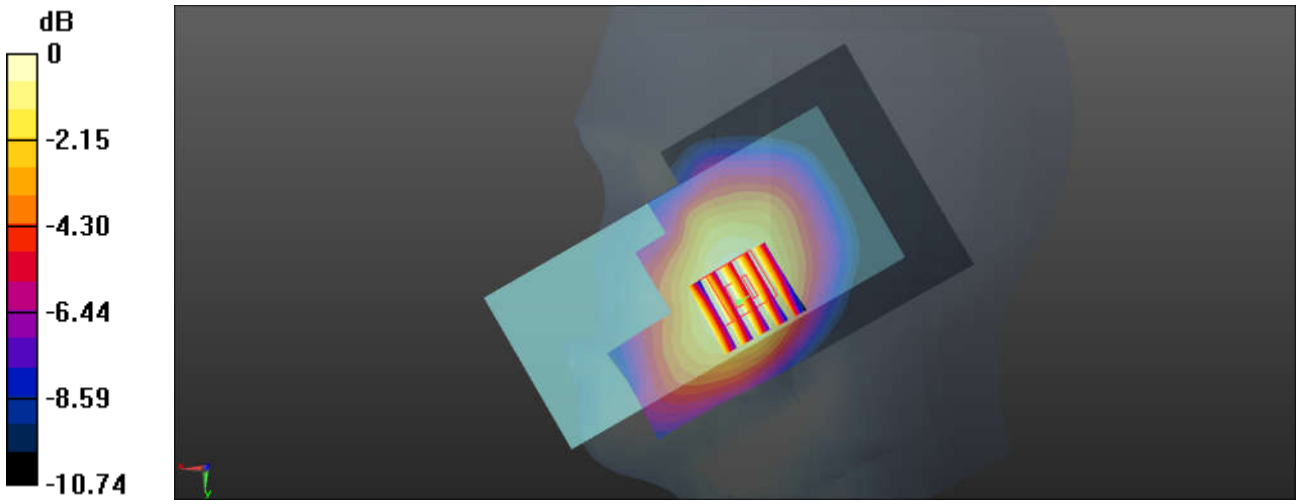
01_GSM850_GPRS 3 Tx slots_Right Cheek_0mm_Ch251

Communication System: UID 0, GSM850-3UP (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.77
Medium: HSL_835 Medium parameters used: f = 848.8 MHz; σ = 0.927 S/m; ε_r = 40.812; ρ = 1000kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch251/Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.451 W/kg

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 5.300 V/m; Power Drift = 0.08 dB
Peak SAR (extrapolated) = 0.508 W/kg
SAR(1 g) = 0.395 W/kg; SAR(10 g) = 0.294 W/kg
Maximum value of SAR (measured) = 0.434 W/kg



0 dB = 0.434 W/kg = -3.63 dBW/kg

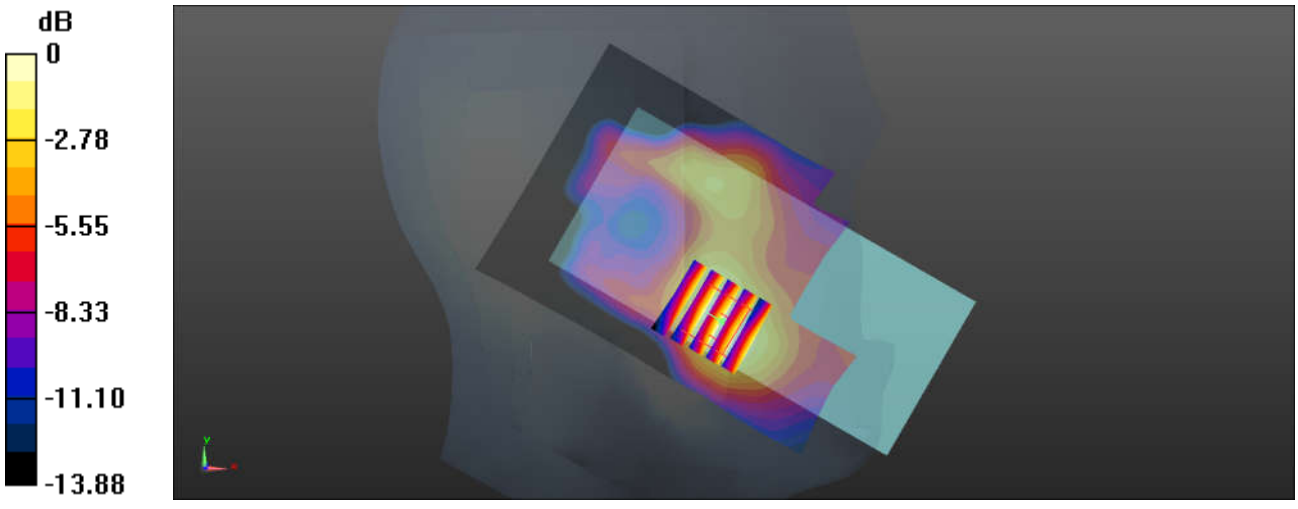
02_GSM1900_GPRS 3 Tx slots_Left Cheek_0mm_Ch810

Communication System: UID 0, PCS-3UP (0); Frequency: 1909.8 MHz;Duty Cycle: 1:2.77
Medium: HSL_1900 Medium parameters used: f = 1909.8 MHz; σ = 1.45 S/m; ε_r = 38.921; ρ = $1000 kg/m^3$
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch810/Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.0870 W/kg

Ch810/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.821 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.105 W/kg
SAR(1 g) = 0.067 W/kg; SAR(10 g) = 0.041 W/kg
Maximum value of SAR (measured) = 0.0881 W/kg



0 dB = 0.0881 W/kg = -10.55 dBW/kg

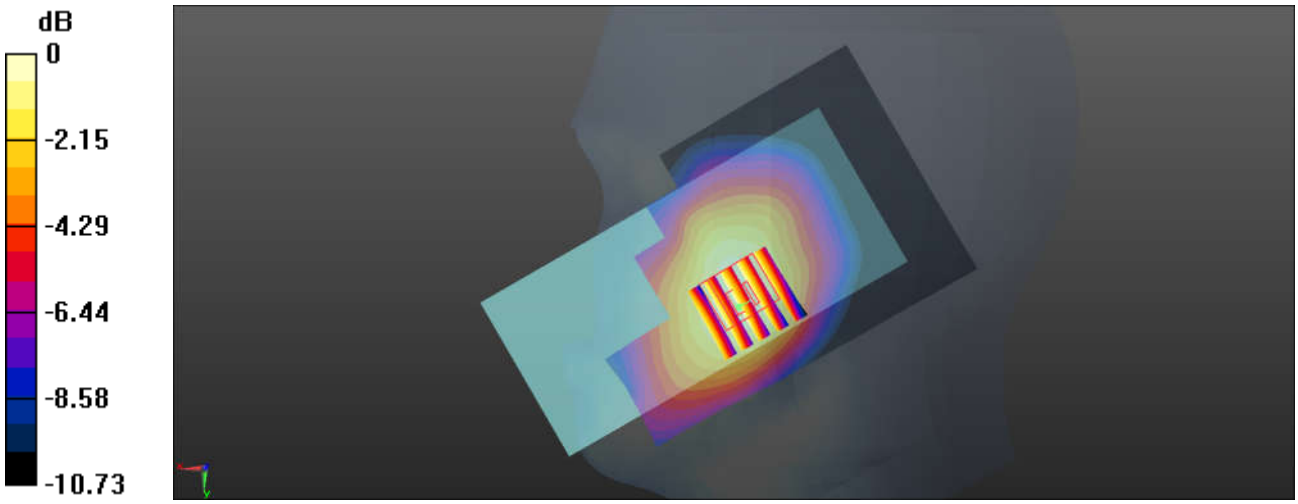
03_WCDMA V_RMC 12.2Kbps_Right Cheek_0mm_Ch4132

Communication System: UID 0, WCDMA (0); Frequency: 826.4 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 826.4 MHz; σ = 0.906 S/m; ε_r = 41.105; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4132/Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.330 W/kg

Ch4132/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 0.7020 V/m; Power Drift = 0.02 dB
Peak SAR (extrapolated) = 0.380 W/kg
SAR(1 g) = 0.291 W/kg; SAR(10 g) = 0.216 W/kg
Maximum value of SAR (measured) = 0.323 W/kg



0 dB = 0.323 W/kg = -4.91 dBW/kg

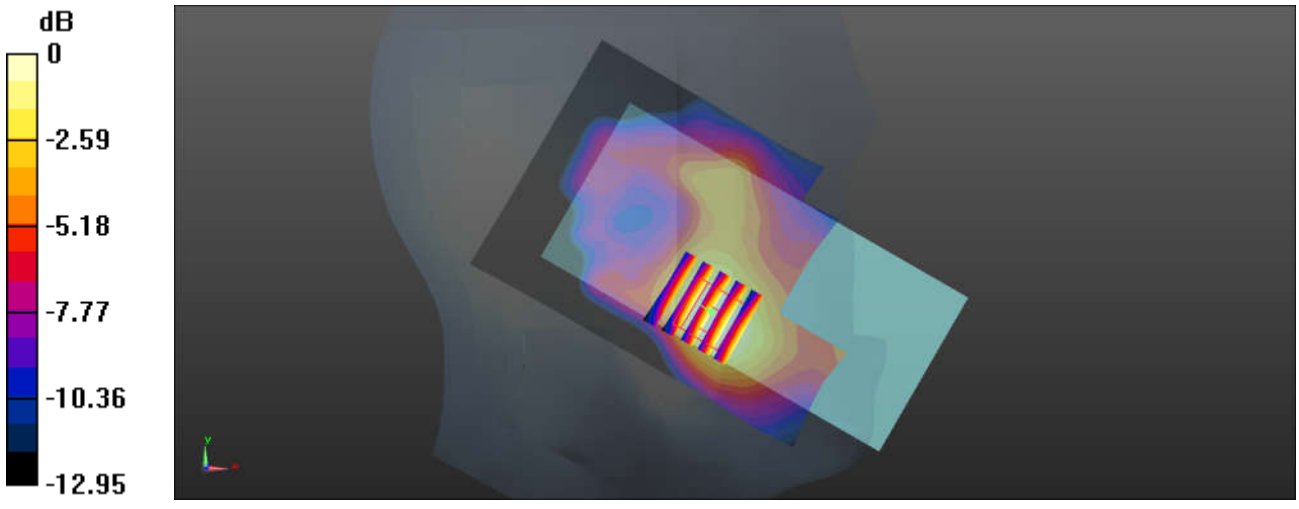
04_WCDMA II_RMC 12.2Kbps_Left Cheek_0mm_Ch9262

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1852.4 MHz; σ = 1.388 S/m; ε_r = 39.179; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9262/Area Scan (71x101x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.105 W/kg

Ch9262/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.469 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 0.133 W/kg
SAR(1 g) = 0.090 W/kg; SAR(10 g) = 0.057 W/kg
Maximum value of SAR (measured) = 0.0993 W/kg



0 dB = 0.0993 W/kg = -10.03 dBW/kg

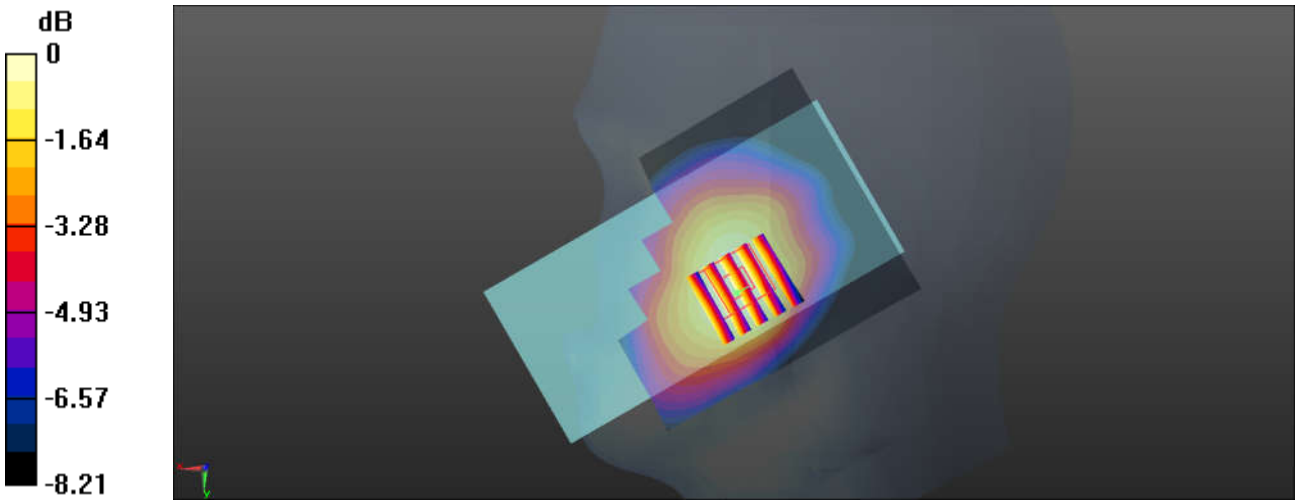
05_LTE Band 5_10M_QPSK_1RB_0Offset_Right Cheek_0mm_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 836.5 MHz; σ = 0.915 S/m; ε_r = 40.971; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20525/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.357 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 4.878 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.382 W/kg
SAR(1 g) = 0.214 W/kg; SAR(10 g) = 0.127 W/kg
Maximum value of SAR (measured) = 0.347 W/kg



0 dB = 0.347 W/kg = -4.60 dBW/kg

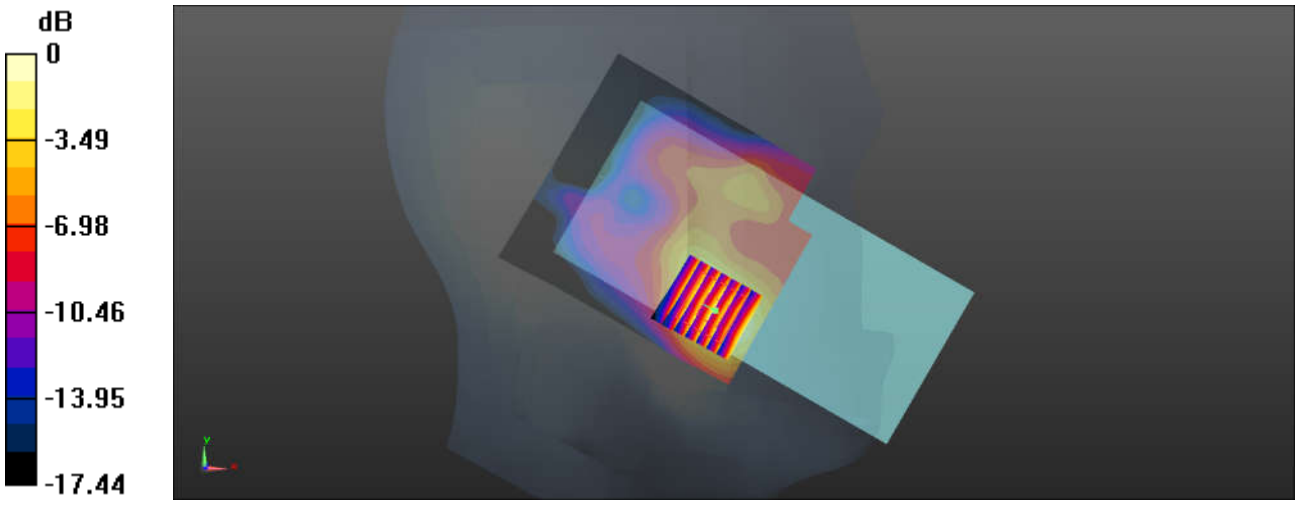
06_LTE Band 7_20M_QPSK_1RB_0Offset_Left Cheek_0mm_Ch20850

Communication System: UID 0, LTE-FDD (0); Frequency: 2510 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2510 MHz; σ = 1.895 S/m; ε_r = 38.821; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20850/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.500 W/kg

Ch20850/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.144 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.575 W/kg
SAR(1 g) = 0.331 W/kg; SAR(10 g) = 0.182 W/kg
Maximum value of SAR (measured) = 0.484 W/kg



0 dB = 0.484 W/kg = -3.15 dBW/kg

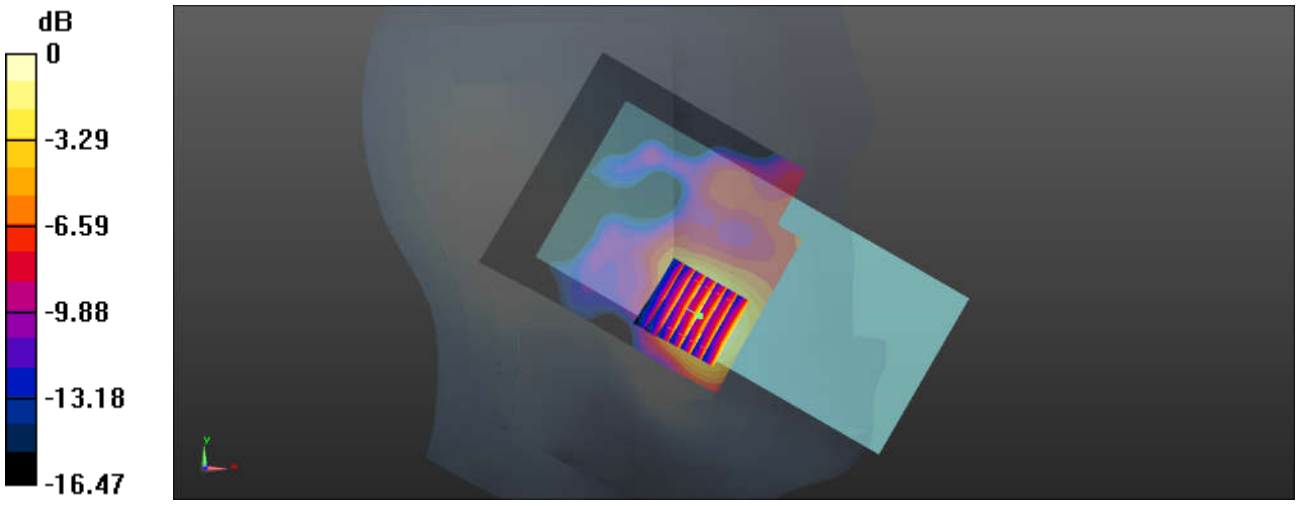
07_LTE Band 41_20M_QPSK_1RB_0Offset_Left Cheek_0mm_Ch41140

Communication System: UID 0, LTE-TDD (0); Frequency: 2645 MHz;Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: f = 2645 MHz; σ = 2.051 S/m; ε_r = 38.281; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch41140/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.182 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 1.174 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 0.213 W/kg
SAR(1 g) = 0.113 W/kg; SAR(10 g) = 0.060 W/kg
Maximum value of SAR (measured) = 0.171 W/kg



0 dB = 0.171 W/kg = -7.67 dBW/kg

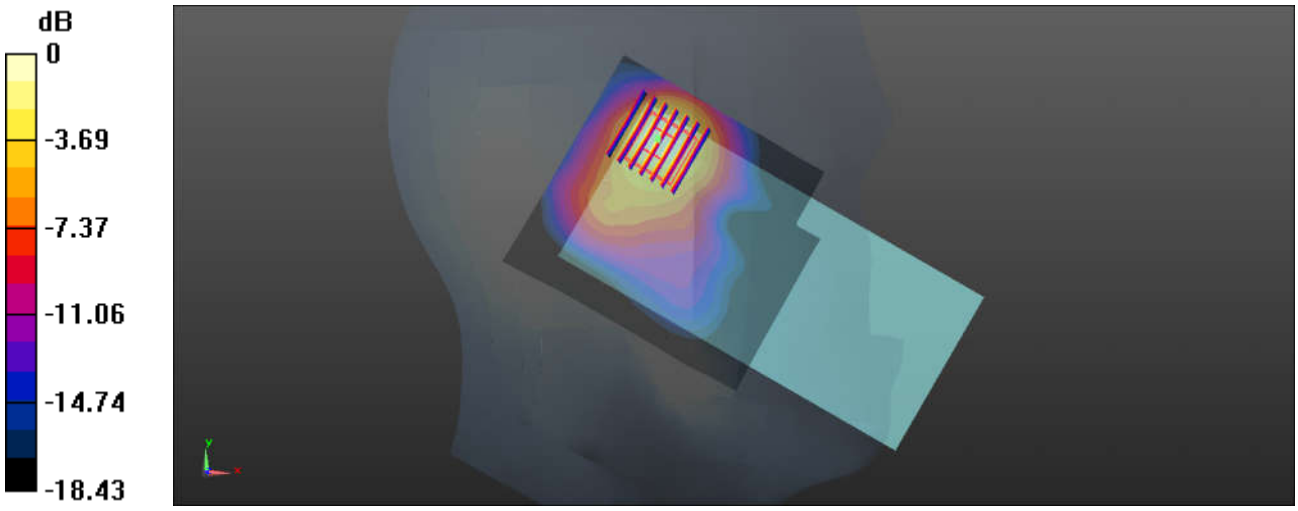
08_WLAN2.4GHz_802.11b 1Mbps_Left Cheek_0mm_Ch6

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2437 MHz; σ = 1.812 S/m; ε_r = 39.11; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch6/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.51 W/kg

Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 13.72 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 1.70 W/kg
SAR(1 g) = 0.917 W/kg; SAR(10 g) = 0.446 W/kg
Maximum value of SAR (measured) = 1.44 W/kg



0 dB = 1.44 W/kg = 1.58 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.26

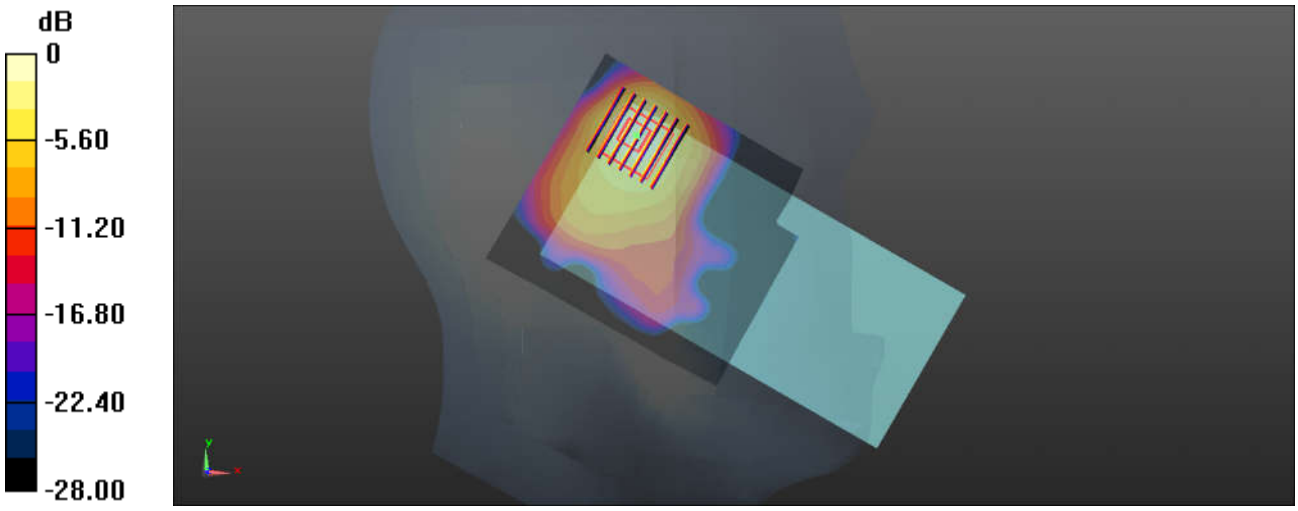
09_Bluetooth_1Mbps_Left Cheek_0mm_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.305
Medium: HSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.817 S/m; ε_r = 39.089; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch39/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.186 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.327 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 0.311 W/kg
SAR(1 g) = 0.133 W/kg; SAR(10 g) = 0.056 W/kg
Maximum value of SAR (measured) = 0.181 W/kg



0 dB = 0.181 W/kg = -7.42 dBW/kg

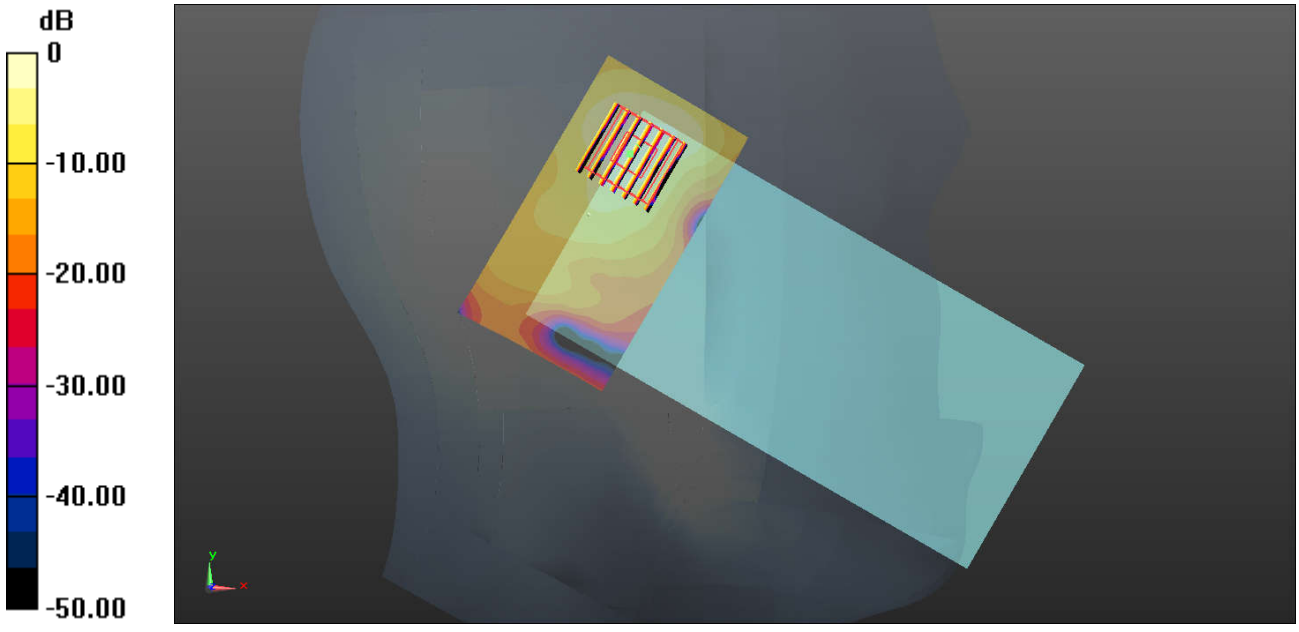
10_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch64

Communication System: UID 0, WIFI (0); Frequency: 5320 MHz;Duty Cycle: 1:1.046
Medium: HSL_5000 Medium parameters used: f = 5320 MHz; σ = 4.675 S/m; ε_r = 36.566; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch64/Area Scan (91x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.32 W/kg

Ch64/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 8.320 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.16 W/kg
SAR(1 g) = 0.520 W/kg; SAR(10 g) = 0.174 W/kg
Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

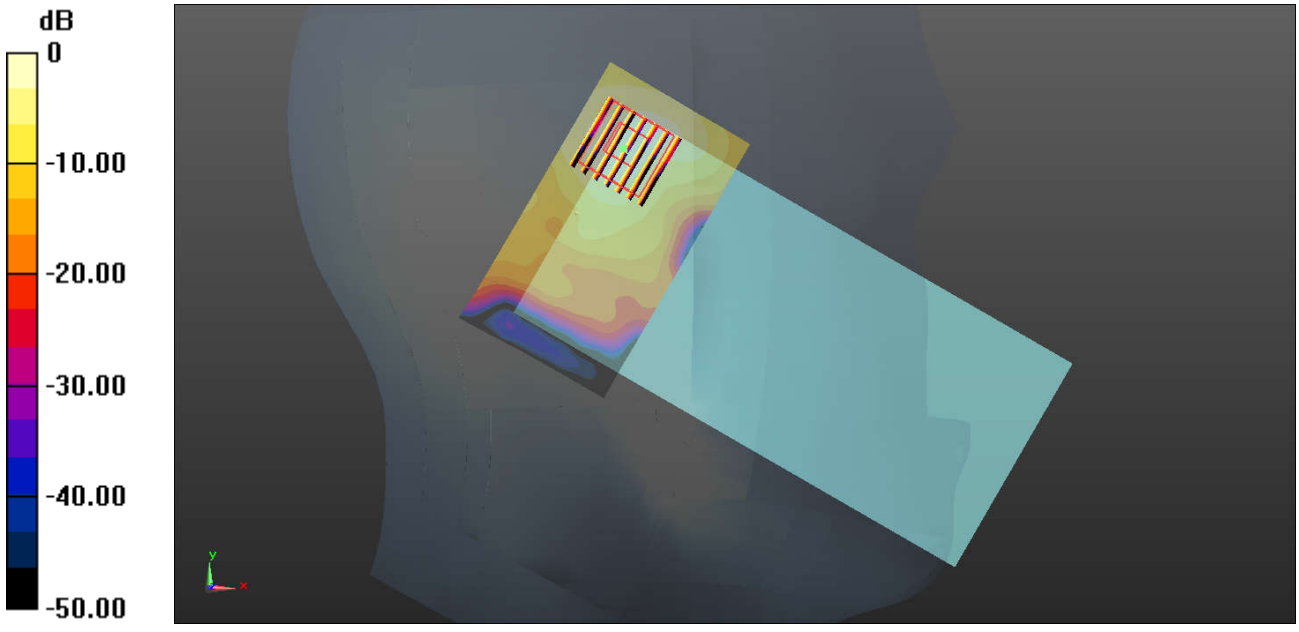
11_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch116

Communication System: UID 0, WIFI (0); Frequency: 5580 MHz;Duty Cycle: 1:1.046
Medium: HSL_5000 Medium parameters used: f = 5580 MHz; σ = 4.983 S/m; ε_r = 36.011; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(4.94, 4.94, 4.94); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch116/Area Scan (91x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

Ch116/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 6.037 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 2.08 W/kg
SAR(1 g) = 0.481 W/kg; SAR(10 g) = 0.170 W/kg
Maximum value of SAR (measured) = 1.19 W/kg



0 dB = 1.19 W/kg = 0.76 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

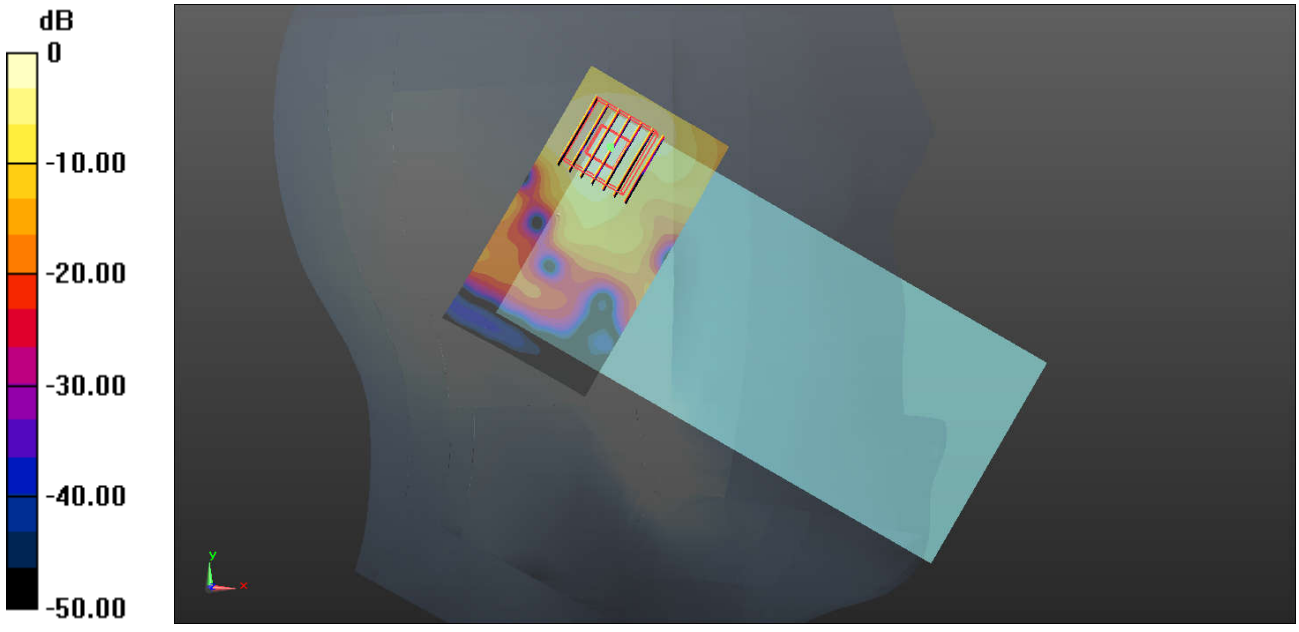
12_WLAN5GHz_802.11a 6Mbps_Left Cheek_0mm_Ch157

Communication System: UID 0, WIFI (0); Frequency: 5785 MHz;Duty Cycle: 1:1.046
Medium: HSL_5000 Medium parameters used: f = 5785 MHz; σ = 5.232 S/m; ε_r = 35.566; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch157/Area Scan (91x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

Ch157/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 4.485 V/m; Power Drift = 0.01 dB
Peak SAR (extrapolated) = 2.35 W/kg
SAR(1 g) = 0.501 W/kg; SAR(10 g) = 0.158 W/kg
Maximum value of SAR (measured) = 1.35 W/kg



0 dB = 1.35 W/kg = 1.30 dBW/kg

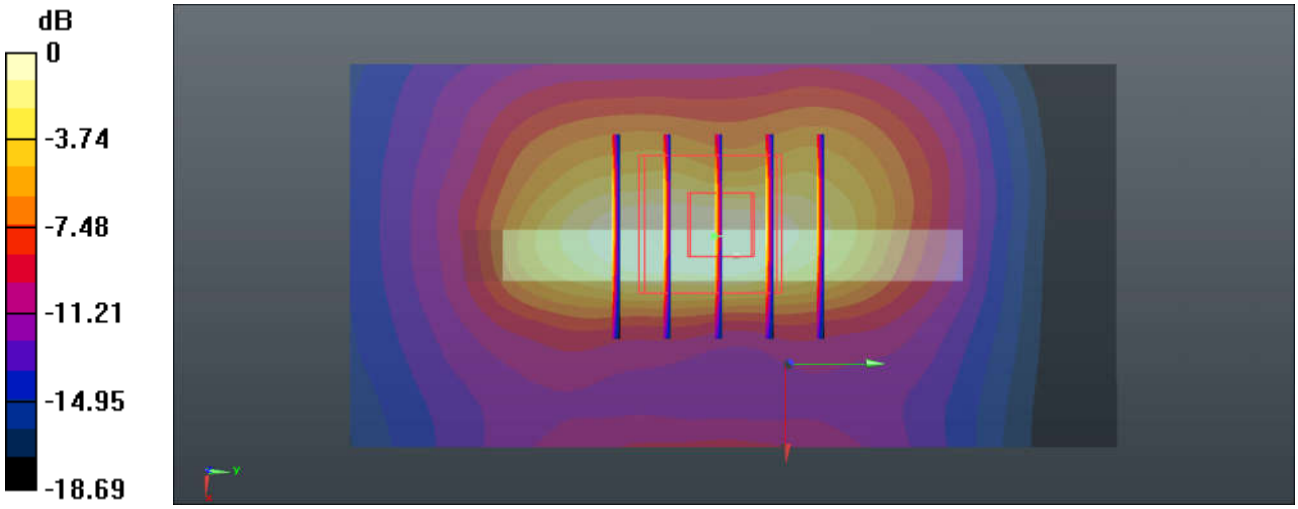
13_GSM850_GPRS 3 Tx slots_Botoom side_5mm_Ch189

Communication System: UID 0, GSM850-3UP (0); Frequency: 836.4 MHz;Duty Cycle: 1:2.77
Medium: HSL_835 Medium parameters used: f = 836.4 MHz; σ = 0.915 S/m; ε_r = 40.973; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch189/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.48 W/kg

Ch189/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.076 V/m; Power Drift = 0.09 dB
Peak SAR (extrapolated) = 2.13 W/kg
SAR(1 g) = 0.966 W/kg; SAR(10 g) = 0.447 W/kg
Maximum value of SAR (measured) = 1.29 W/kg



0 dB = 1.28 W/kg = 1.07 dBW/kg

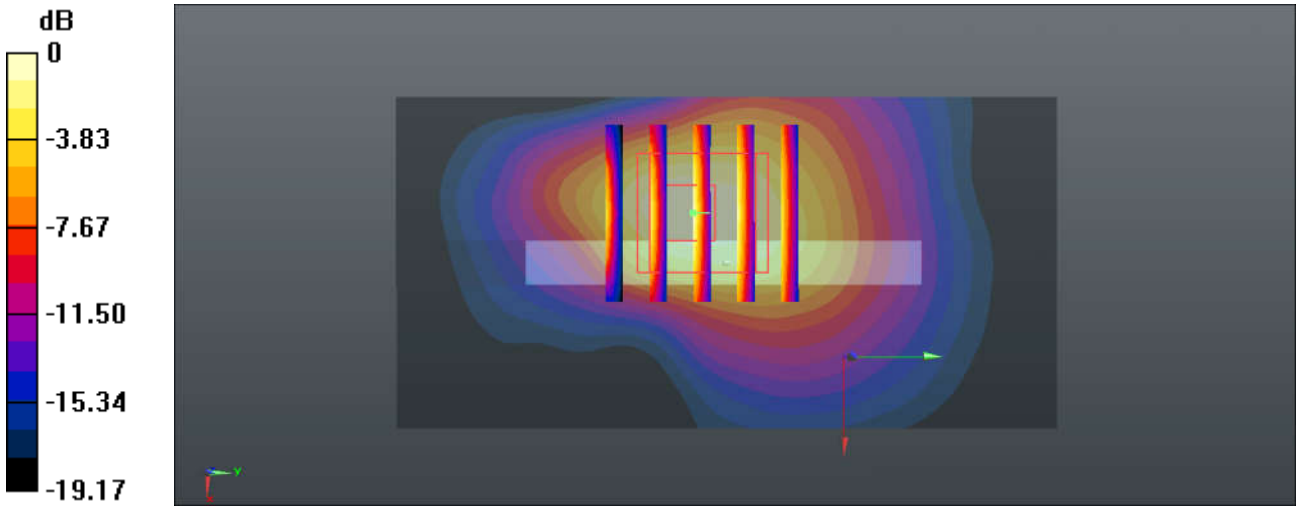
14_GSM1900_GPRS 3 Tx slots_Bottom Side_5mm_Ch512

Communication System: UID 0, PCS-3UP (0); Frequency: 1850.2 MHz;Duty Cycle: 1:2.77
Medium: HSL_1900 Medium parameters used: f = 1850.2 MHz; σ = 1.374 S/m; ε_r = 41.315; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch512/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.08 W/kg

Ch512/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 20.90 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 1.45 W/kg
SAR(1 g) = 0.795 W/kg; SAR(10 g) = 0.407 W/kg
Maximum value of SAR (measured) = 1.02 W/kg



0 dB = 1.02 W/kg = 0.09 dBW/kg

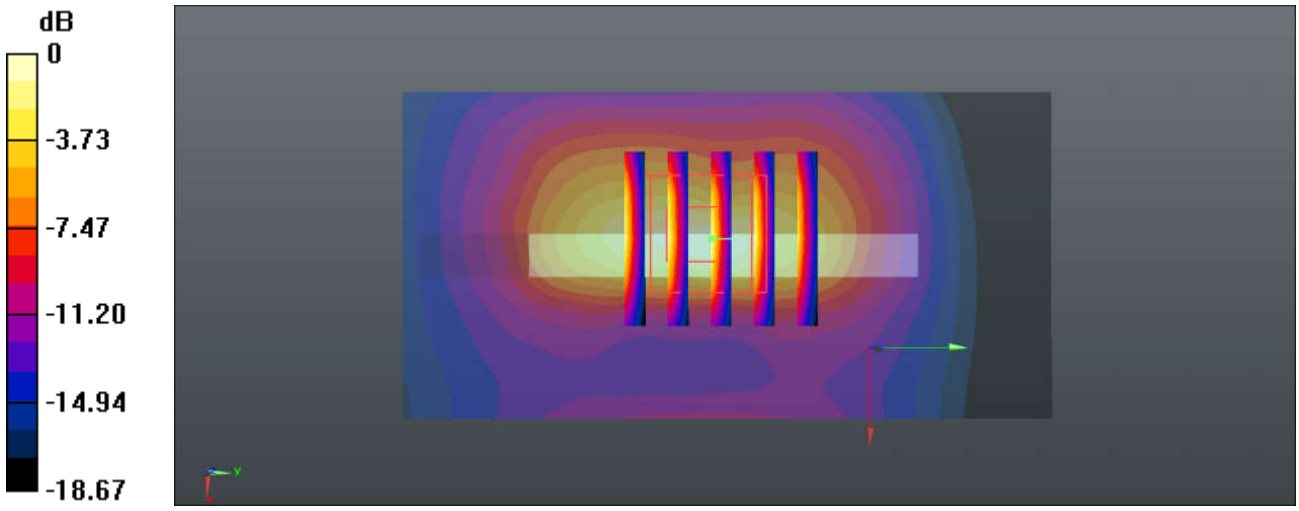
15_WCDMA V_RMC 12.2Kbps_Bottom Side_5mm_Ch4182

Communication System: UID 0, UMTS (0); Frequency: 836.4 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 836.4 MHz; σ = 0.915 S/m; ε_r = 40.973; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4182/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.24 W/kg

Ch4182/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 35.74 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 2.23 W/kg
SAR(1 g) = 1.03 W/kg; SAR(10 g) = 0.473 W/kg
Maximum value of SAR (measured) = 1.43 W/kg



0 dB = 1.43 W/kg = 1.55 dBW/kg

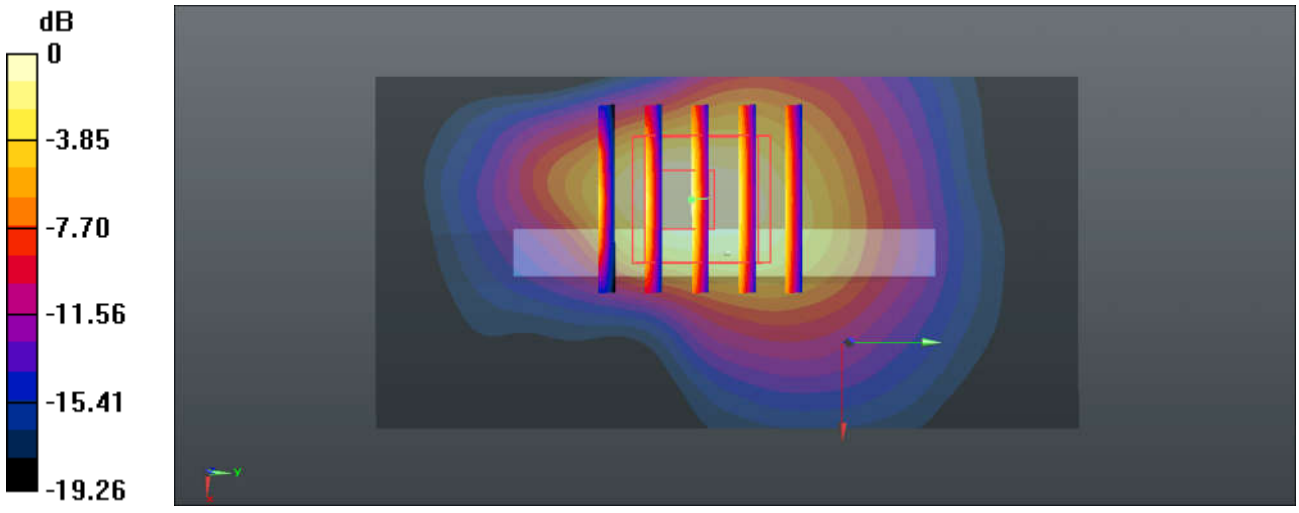
16_WCDMA II_RMC 12.2Kbps_Bottom side_5mm_Ch9262

Communication System: UID 0, WCDMA (0); Frequency: 1852.4 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1852.4 MHz; σ = 1.388 S/m; ε_r = 39.179; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9262/Area Scan (41x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.39 W/kg

Ch9262/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.309 V/m; Power Drift = 0.05 dB
Peak SAR (extrapolated) = 1.75 W/kg
SAR(1 g) = 0.946 W/kg; SAR(10 g) = 0.484 W/kg
Maximum value of SAR (measured) = 1.21 W/kg



0 dB = 1.21 W/kg = 0.83 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

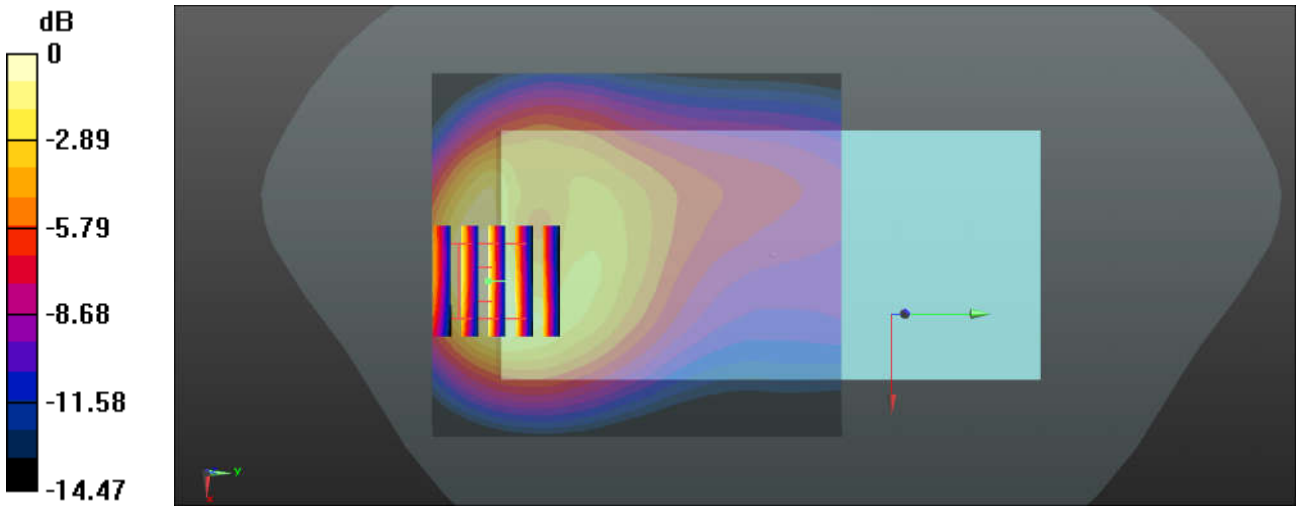
17_LTE Band 5_10M_QPSK_1RB_0Offset_Back_5mm_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 836.5 MHz; σ = 0.915 S/m; ε_r = 40.971; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20525/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.80 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.470 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.17

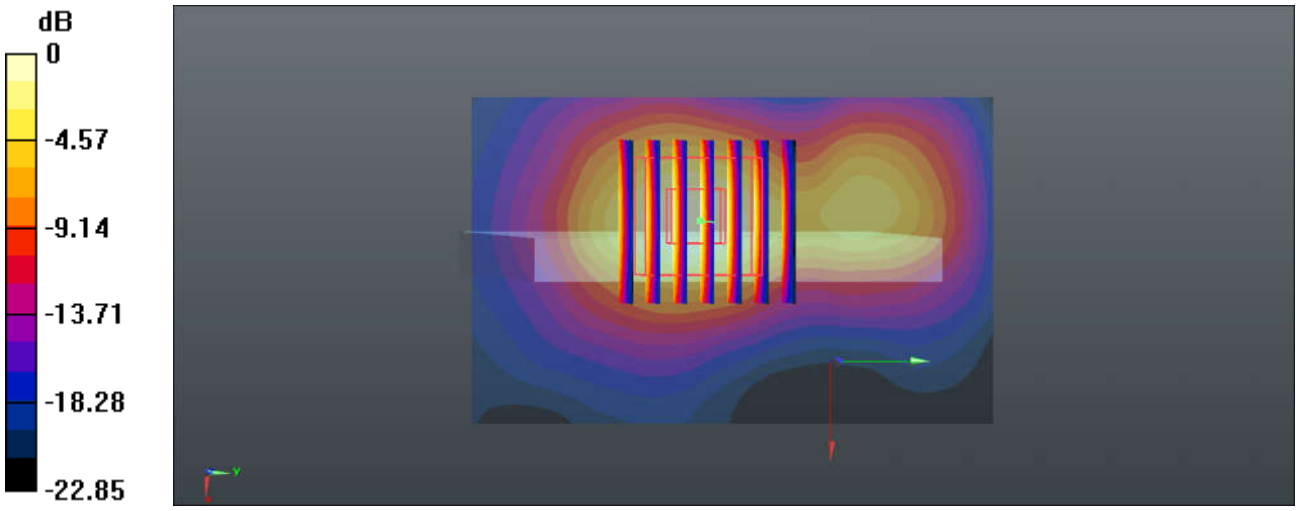
18_LTE Band 7_20M_QPSK_50RB_50Offset_Bottom Side_5mm_Ch21350

Communication System: UID 0, FDD_LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2560 MHz; σ = 1.953 S/m; ε_r = 38.615; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch21350/Area Scan (51x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.16 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 16.56 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.86 W/kg
SAR(1 g) = 0.793 W/kg; SAR(10 g) = 0.336 W/kg
Maximum value of SAR (measured) = 1.08 W/kg



0 dB = 1.08 W/kg = 0.33 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.17

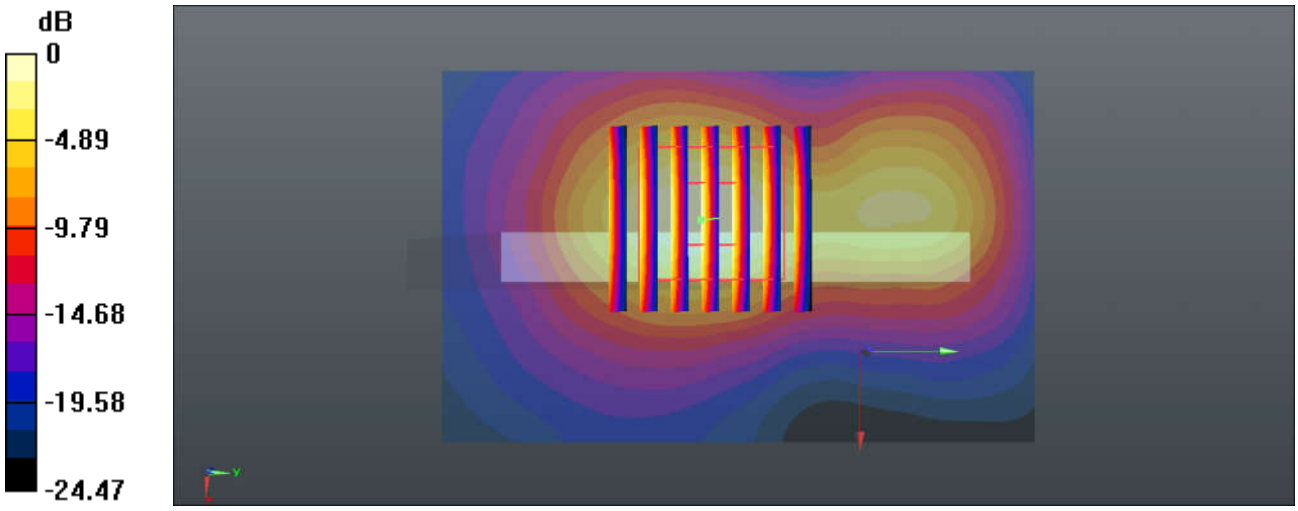
19_LTE Band 41_20M_QPSK_1RB_0Offset_Bottom Side_5mm_Ch40670

Communication System: UID 0, TDD_LTE (0); Frequency: 2598 MHz;Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: f = 2598 MHz; σ = 1.995 S/m; ε_r = 38.46; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch40670/Area Scan (51x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.82 W/kg

Ch40670/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 22.75 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 2.89 W/kg
SAR(1 g) = 1.21 W/kg; SAR(10 g) = 0.520 W/kg
Maximum value of SAR (measured) = 1.68 W/kg



0 dB = 1.68 W/kg = 2.25 dBW/kg

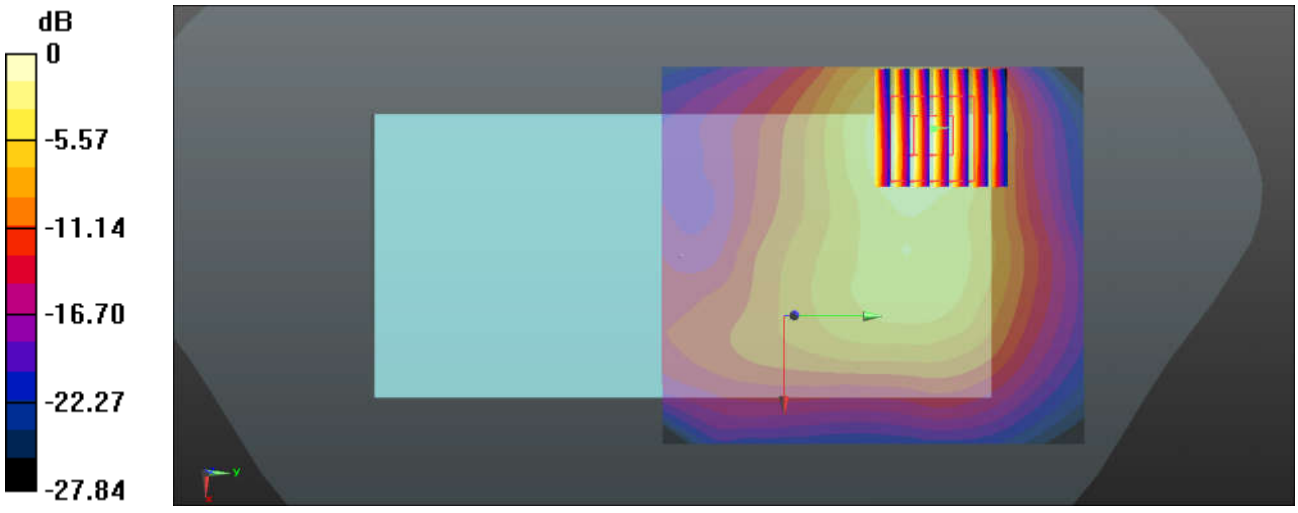
20_WLAN2.4GHz_802.11b 1Mbps_Back_5mm_Ch6

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2437 MHz; σ = 1.812 S/m; ε_r = 39.11; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch6/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.836 W/kg

Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.803 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.289 W/kg
Maximum value of SAR (measured) = 0.857 W/kg



0 dB = 0.857 W/kg = -0.67 dBW/kg

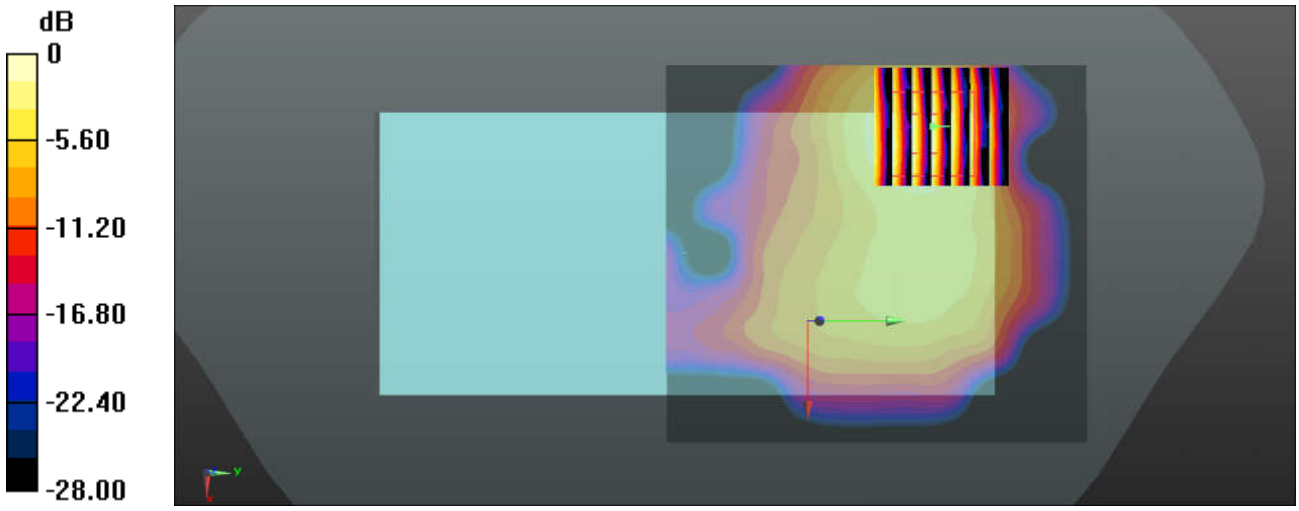
21_Bluetooth_1Mbps_Back_5mm_Ch39

Communication System: UID 0, Bluetooth (0); Frequency: 2441 MHz;Duty Cycle: 1:1.305
Medium: HSL_2450 Medium parameters used: f = 2441 MHz; σ = 1.817 S/m; ε_r = 39.089; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch39/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.0902 W/kg

Ch39/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 0.9970 V/m; Power Drift = 0.04 dB
Peak SAR (extrapolated) = 0.147 W/kg
SAR(1 g) = 0.065 W/kg; SAR(10 g) = 0.028 W/kg
Maximum value of SAR (measured) = 0.0880 W/kg



0 dB = 0.0880 W/kg = -10.56 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

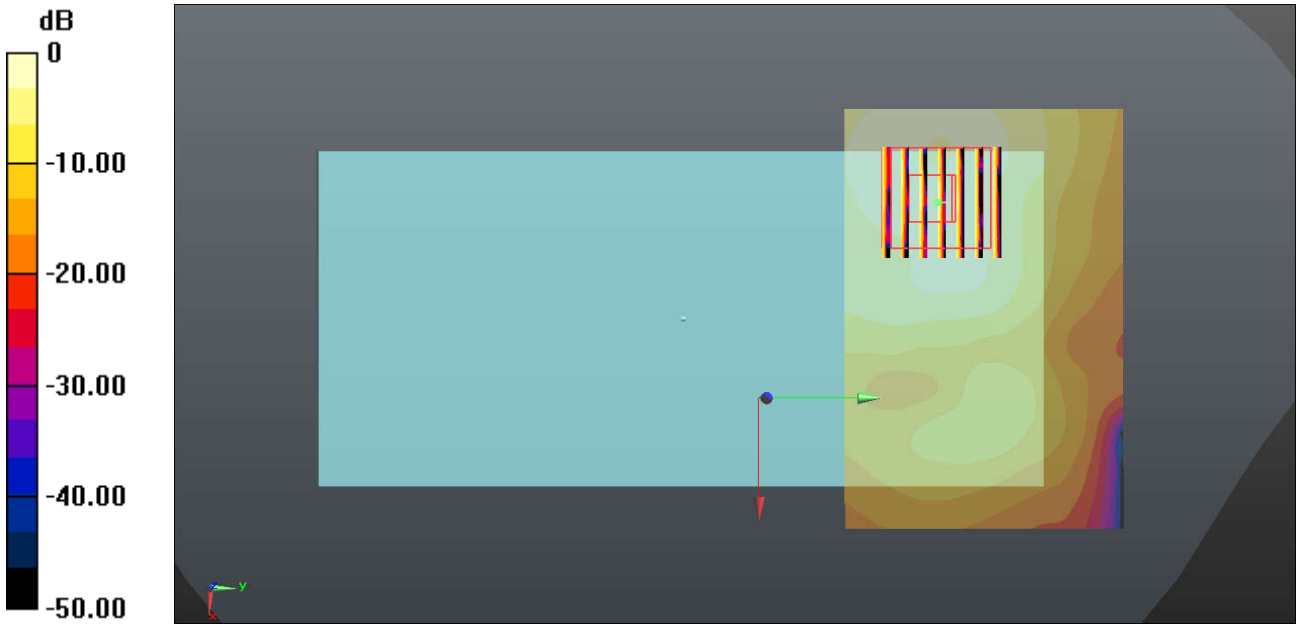
22_WLAN5GHz_802.11a 6Mbps_Back_5mm_Ch48

Communication System: UID 0, WIFI (0); Frequency: 5240 MHz;Duty Cycle: 1:1.046
Medium: HSL_5000 Medium parameters used: f = 5240 MHz; σ = 4.591 S/m; ε_r = 36.738; ρ = 1000 kg/m^3
Ambient Temperature：23.1 ℃； Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.2, 5.2, 5.2); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch48/Area Scan (91x61x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.702 W/kg

Ch48/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 2.742 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.18 W/kg
SAR(1 g) = 0.303 W/kg; SAR(10 g) = 0.114 W/kg
Maximum value of SAR (measured) = 0.711 W/kg



0 dB = 0.711 W/kg = -1.48 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.29

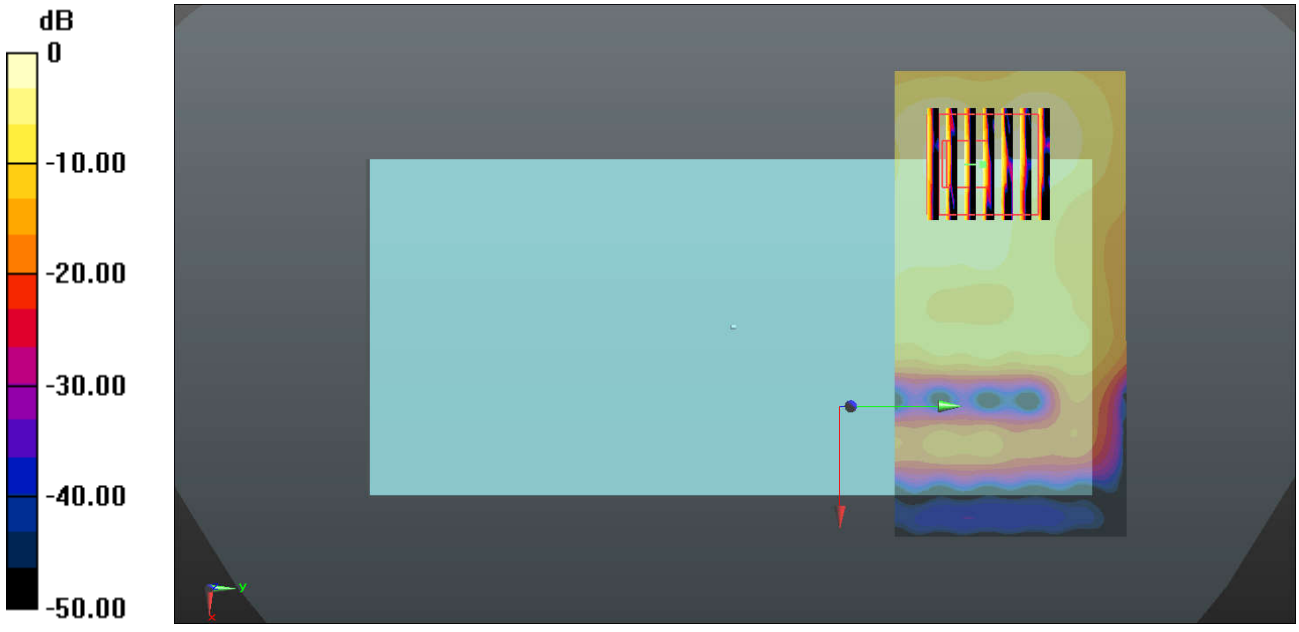
23_WLAN5GHz_802.11a 6Mbps_Back_5mm_Ch157

Communication System: UID 0, WIFI (0); Frequency: 5785 MHz;Duty Cycle: 1:1.046
Medium: HSL_5000 Medium parameters used: f = 5785 MHz; σ = 5.232 S/m; ε_r = 35.566; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃； Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3857; ConvF(5.23, 5.23, 5.23); Calibrated: 2018.5.31;
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn690; Calibrated: 2019.1.23
- Phantom: SAM1; Type: SAM; Serial: TP-1697
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7372)

Ch157/Area Scan (101x51x1): Interpolated grid: dx=1.000 mm, dy=1.000 mm
Maximum value of SAR (interpolated) = 0.605 W/kg

Ch157/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 2.739 V/m; Power Drift = -0.01 dB
Peak SAR (extrapolated) = 1.36 W/kg
SAR(1 g) = 0.265 W/kg; SAR(10 g) = 0.074 W/kg
Maximum value of SAR (measured) = 0.736 W/kg



0 dB = 0.736 W/kg = -1.33 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

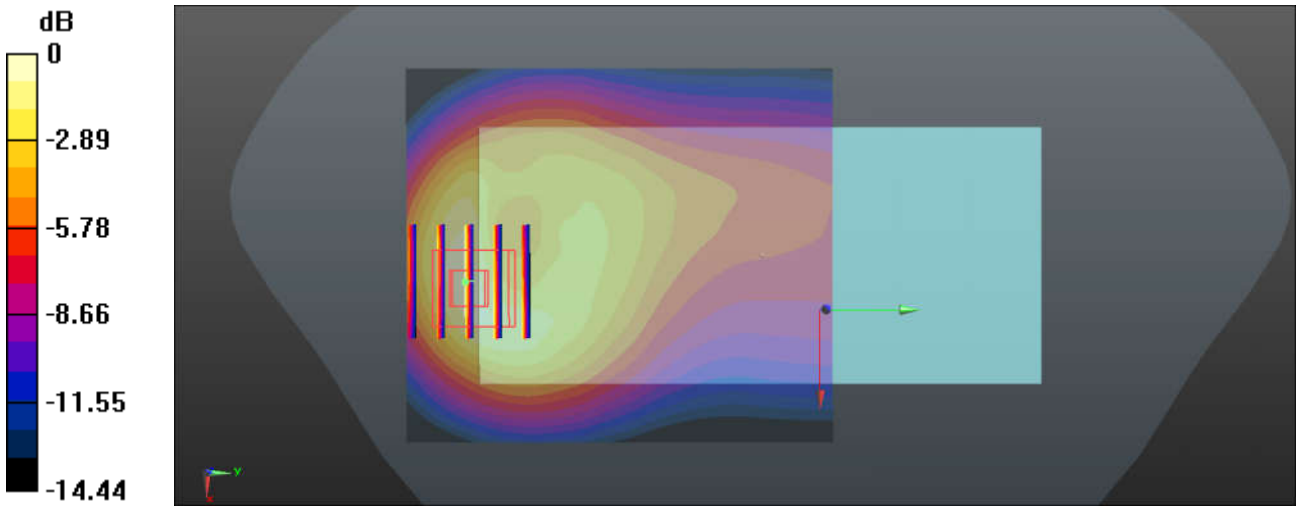
24_GSM850_GPRS 3 Tx slots_Back_5mm_Ch251

Communication System: UID 0, GSM850-3UP (0); Frequency: 848.8 MHz;Duty Cycle: 1:2.77
Medium: HSL_835 Medium parameters used: f = 848.8 MHz; σ = 0.927 S/m; ε_r = 40.812; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch251/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.18 W/kg

Ch251/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 17.32 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.76 W/kg
SAR(1 g) = 0.990 W/kg; SAR(10 g) = 0.563 W/kg
Maximum value of SAR (measured) = 1.25 W/kg



0 dB = 1.25 W/kg = 0.97 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.6

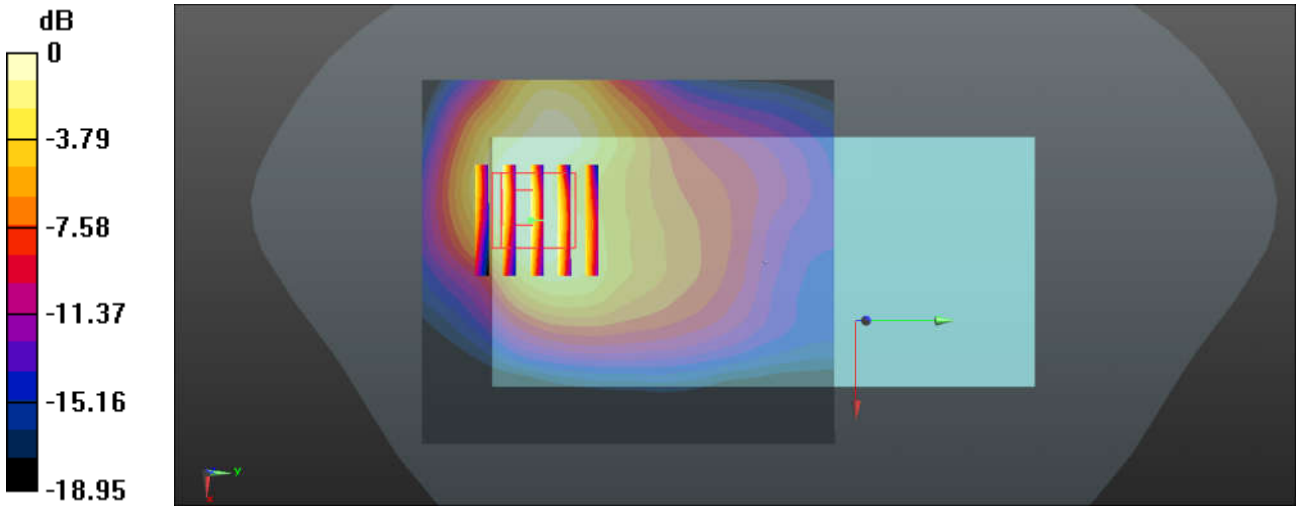
25_GSM1900_GPRS 3 Tx slots_Back_5mm_Ch661

Communication System: UID 0, PCS-3UP (0); Frequency: 1880 MHz;Duty Cycle: 1:2.77
Medium: HSL_1900 Medium parameters used: f = 1880 MHz; σ = 1.407 S/m; ε_r = 41.21; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch661/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.966 W/kg

Ch661/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 1.806 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.28 W/kg
SAR(1 g) = 0.802 W/kg; SAR(10 g) = 0.472 W/kg
Maximum value of SAR (measured) = 0.930 W/kg



0 dB = 0.930 W/kg = -0.32 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

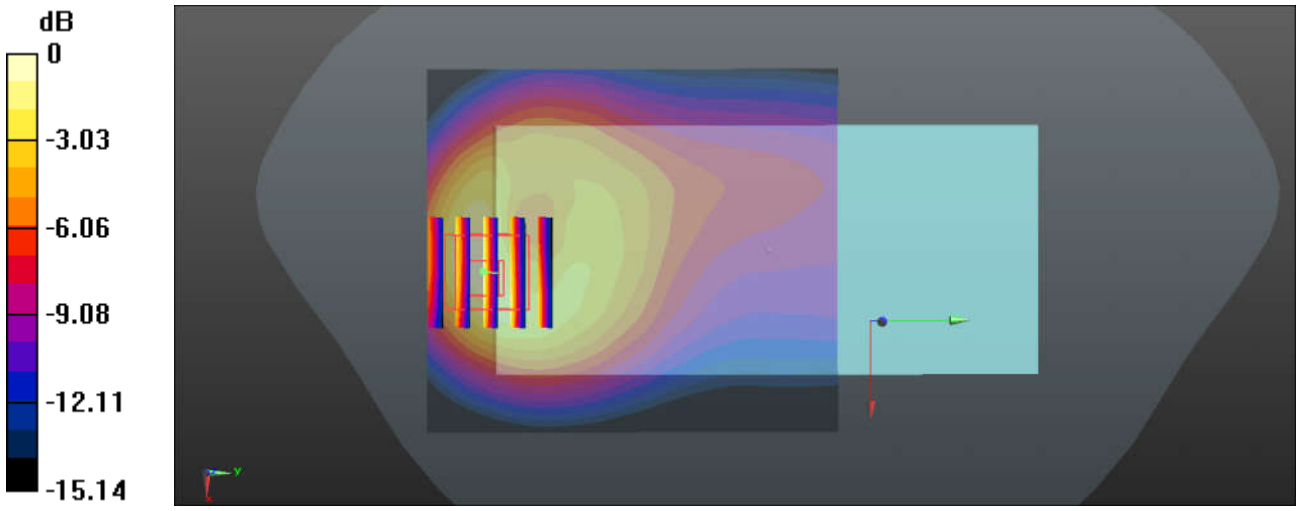
26_WCDMA V_RMC 12.2Kbps_Back_5mm_Ch4233

Communication System: UID 0, UMTS (0); Frequency: 846.6 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 846.6 MHz; σ = 0.925 S/m; ε_r = 40.839; ρ = $1000 kg/m^3$
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch4233/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.04 W/kg

Ch4233/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 2.870 V/m; Power Drift = -0.14 dB
Peak SAR (extrapolated) = 1.59 W/kg
SAR(1 g) = 0.868 W/kg; SAR(10 g) = 0.478 W/kg
Maximum value of SAR (measured) = 1.12 W/kg



0 dB = 1.12 W/kg = 0.49 dBW/kg

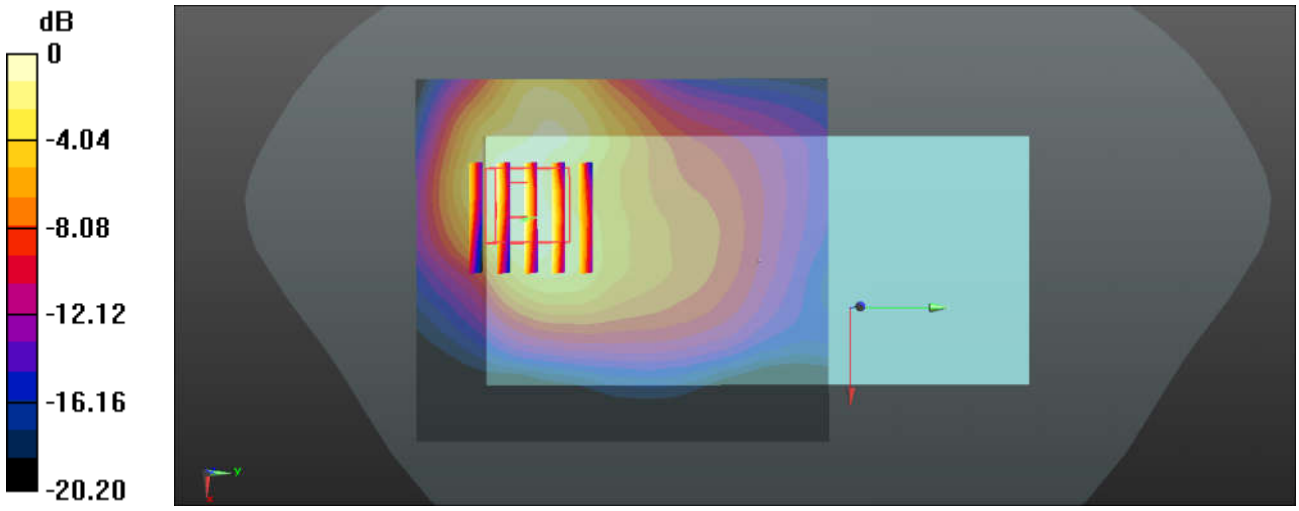
27_WCDMA II_RMC 12.2Kbps_Back_5mm_Ch9538

Communication System: UID 0, WCDMA (0); Frequency: 1907.6 MHz;Duty Cycle: 1:1
Medium: HSL_1900 Medium parameters used: f = 1907.6 MHz; σ = 1.447 S/m; ε_r = 38.934; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.7 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(7.4, 7.4, 7.4); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM1; Type: SAM; Serial: TP-1839
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch9538/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 0.971 W/kg

Ch9538/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 7.994 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.34 W/kg
SAR(1 g) = 0.833 W/kg; SAR(10 g) = 0.486 W/kg
Maximum value of SAR (measured) = 0.972 W/kg



0 dB = 0.972 W/kg = -0.12 dBW/kg

Test Laboratory: Sporton International Inc. SAR/HAC Testing Lab Date: 2019.5.5

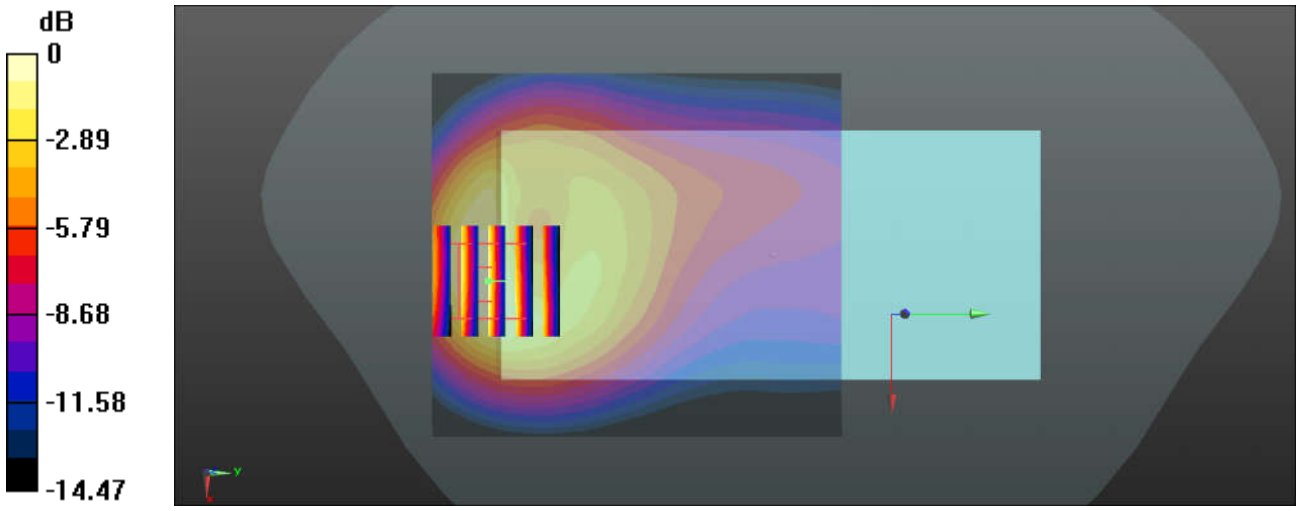
28_LTE Band 5_10M_QPSK_1RB_0Offset_Back_5mm_Ch20525

Communication System: UID 0, LTE-FDD (0); Frequency: 836.5 MHz;Duty Cycle: 1:1
Medium: HSL_835 Medium parameters used: f = 836.5 MHz; σ = 0.915 S/m; ε_r = 40.971; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: EX3DV4 - SN3843; ConvF(9.01, 9.01, 9.01); Calibrated: 2018.9.27
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1338; Calibrated: 2018.12.3
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch20525/Area Scan (71x81x1): Interpolated grid: dx=1.500 mm, dy=1.500 mm
Maximum value of SAR (interpolated) = 1.11 W/kg

Ch20525/Zoom Scan (5x5x7)/Cube 0: Measurement grid: dx=8mm, dy=8mm, dz=5mm
Reference Value = 24.80 V/m; Power Drift = 0.07 dB
Peak SAR (extrapolated) = 1.57 W/kg
SAR(1 g) = 0.856 W/kg; SAR(10 g) = 0.470 W/kg
Maximum value of SAR (measured) = 1.09 W/kg



0 dB = 1.09 W/kg = 0.37 dBW/kg

29_LTE Band 7_20M_QPSK_50RB_50Offset_Back_5mm_Ch21350

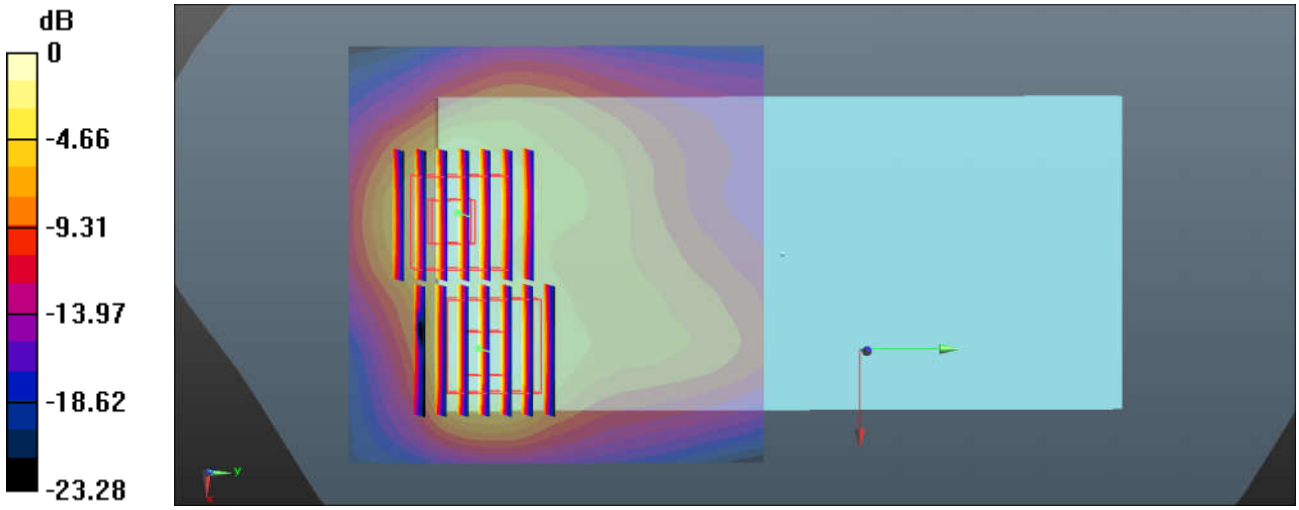
Communication System: UID 0, FDD_LTE (0); Frequency: 2560 MHz;Duty Cycle: 1:1
Medium: HSL_2600 Medium parameters used: f = 2560 MHz; σ = 1.953 S/m; ε_r = 38.615; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch21350/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.09 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.839 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.80 W/kg
SAR(1 g) = 0.741 W/kg; SAR(10 g) = 0.318 W/kg
Maximum value of SAR (measured) = 0.992 W/kg

Ch21350/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 4.839 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.68 W/kg
SAR(1 g) = 0.741 W/kg; SAR(10 g) = 0.343 W/kg
Maximum value of SAR (measured) = 0.985 W/kg



0 dB = 0.985 W/kg = 0.19 dBW/kg

30_LTE Band 41_20M_QPSK_1RB_0Offset_Back_5mm_Ch41140

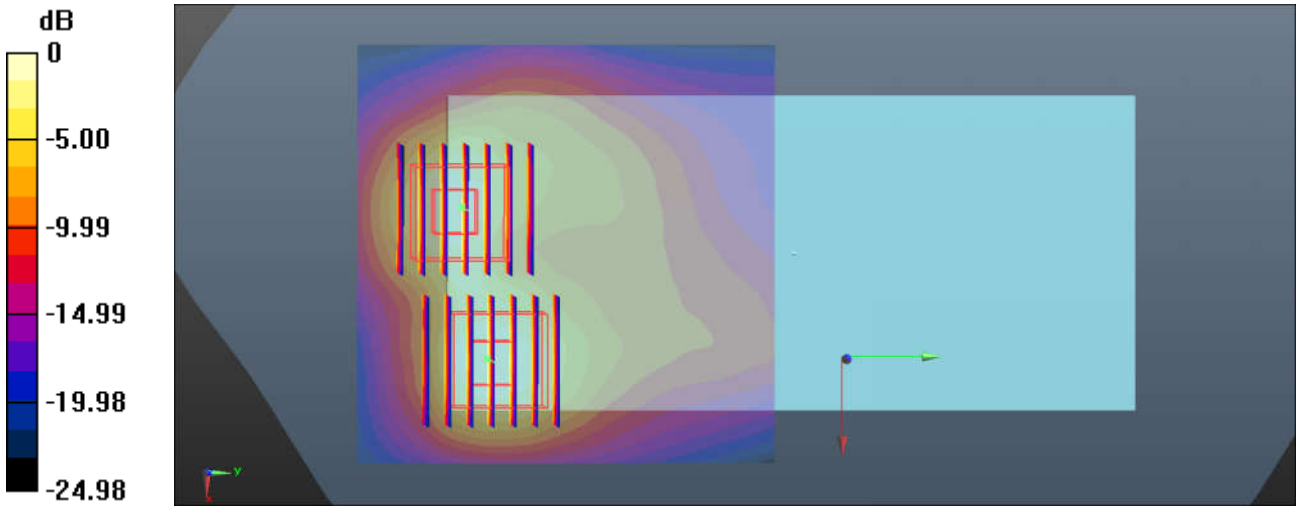
Communication System: UID 0, TDD_LTE (0); Frequency: 2645 MHz;Duty Cycle: 1:1.59
Medium: HSL_2600 Medium parameters used: f = 2645 MHz; σ = 2.051 S/m; ε_r = 38.281; ρ = 1000 kg/m^3
Ambient Temperature：23.3 ℃; Liquid Temperature：22.6 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.44, 4.44, 4.44); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM2; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch41140/Area Scan (81x81x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 1.68 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.454 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.43 W/kg
SAR(1 g) = 0.936 W/kg; SAR(10 g) = 0.393 W/kg
Maximum value of SAR (measured) = 1.78 W/kg

Ch41140/Zoom Scan (7x7x7)/Cube 1: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 5.454 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 1.99 W/kg
SAR(1 g) = 0.826 W/kg; SAR(10 g) = 0.348 W/kg
Maximum value of SAR (measured) = 1.46 W/kg



0 dB = 1.46 W/kg = 1.64 dBW/kg

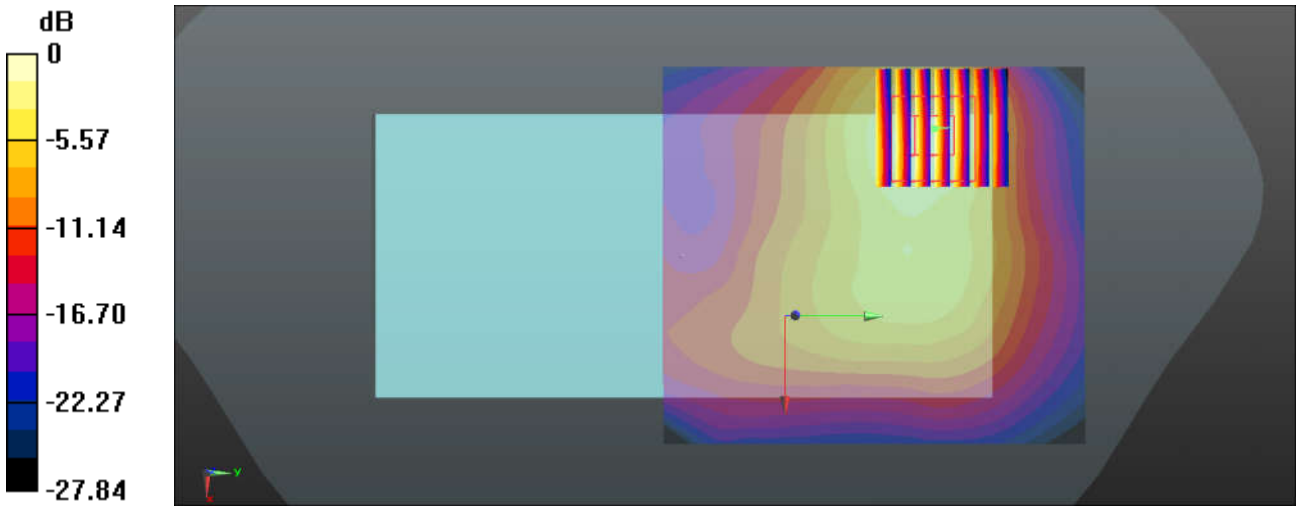
31_WLAN2.4GHz_802.11b 1Mbps_Back_5mm_Ch6

Communication System: UID 0, 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1
Medium: HSL_2450 Medium parameters used: f = 2437 MHz; σ = 1.812 S/m; ε_r = 39.11; ρ = 1000 kg/m^3
Ambient Temperature：23.2 ℃; Liquid Temperature：22.8 ℃

DASY5 Configuration:
- Probe: ES3DV3 - SN3293; ConvF(4.53, 4.53, 4.53); Calibrated: 2018.10.25
- Sensor-Surface: 3mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1210; Calibrated: 2019.1.25
- Phantom: SAM1; Type: SAM; Serial: TP-1503
- Measurement SW: DASY52, Version 52.10 (1); SEMCAD X Version 14.6.11 (7439)

Ch6/Area Scan (81x91x1): Interpolated grid: dx=1.200 mm, dy=1.200 mm
Maximum value of SAR (interpolated) = 0.836 W/kg

Ch6/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 3.803 V/m; Power Drift = 0.06 dB
Peak SAR (extrapolated) = 1.41 W/kg
SAR(1 g) = 0.648 W/kg; SAR(10 g) = 0.289 W/kg
Maximum value of SAR (measured) = 0.857 W/kg



0 dB = 0.857 W/kg = -0.67 dBW/kg