FCC SAR Test Report

APPLICANT	:	Lenovo(Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT	:	Portable Tablet Computer
BRAND NAME	:	Lenovo
MODEL NAME	:	Lenovo YB1-X90L
FCC ID	:	O57YB1X90L1
STANDARD	:	FCC 47 CFR Part 2 (2.1093) ANSI/IEEE C95.1-1992 IEEE 1528-2013

This is a data re-used report which is only valid together with the original test report. We, Sporton International (KunShan) INC., would like to declare that the tested sample has been evaluated in accordance with the procedures and had been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (KunShan) INC., the test report shall not be reproduced except in full.

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Testing Laboratory 2627

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Table of Contents

1. Statement of Compliance **4**
2. Administration Data **5**
3. Guidance Applied **5**
4. Equipment Under Test (EUT) Information **6**
4.1 General Information 6
4.2 General LTE SAR Test and Reporting Considerations 7
4.3 Re-use of Measured Data 9
5. Simultaneous Transmission Analysis **12**
5.1 Body Exposure Conditions 13
5.2 SPLSR Evaluation and Analysis 25
Appendix A. Reference Report

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA710608	Rev. 01	Initial issue of report	Apr. 12, 2017

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Lenovo(Shanghai) Electronics Technology Co., Ltd., Portable Tablet Computer, Lenovo YB1-X90L** are as follows.

Equipment Class	Frequency Band		Highest SAR Summary Body 1g SAR (W/kg)	Highest Simultaneous Transmission 1g SAR (W/kg)
Licensed	GSM	GSM850	0.89	1.59
		GSM1900	1.25	
	WCDMA	WCDMA V	1.27	
		WCDMA IV	0.95	
		WCDMA II	1.30	
	LTE	LTE Band 12	0.94	
		LTE Band 5	1.23	
		LTE Band 4	0.87	
		LTE Band 25	1.28	
		LTE Band 7	1.29	
		LTE Band 38	0.63	
DTS	WLAN	2.4GHz WLAN	1.07	1.52
NII		5GHz WLAN	**1.47**	1.59
DSS	2.4GHz Band	Bluetooth	0.17	1.40
Date of Testing:			2016/07/25 ~ 2016/08/05	

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

Testing Site	
Test Site	Sporton International (KunShan) INC.
Test Site Location	No.3-2, Pingxiang Road, Kunshan Development Zone, Jiangsu, China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958

Applicant	
Company Name	Lenovo(Shanghai) Electronics Technology Co., Ltd.
Address	NO. 68 BUILDING, 199 FENJU RD., China (Shanghai) Pilot Free Trade Zone, 200131, CHINA

Manufacturer	
Company Name	Lenovo PC HK Limited
Address	23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong

3. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Portable Tablet Computer
Brand Name	Lenovo
Model Name	Lenovo YB1-X90L
FCC ID	O57YB1X90L1
IMEI Code	868672020019847
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 38: 2570 MHz ~ 2620 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Mode	· GPRS/EGPRS · RMC 12.2Kbps · HSDPA · HSUPA · DC-HSDPA · HSPA+ (16QAM uplink is not supported) · LTE: QPSK, 16QAM · WLAN 2.4GHz 802.11b/g/n HT20 · WLAN 5GHz 802.11a/n HT20/HT40 · WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 · Bluetooth BR/EDR/LE/HS
HW Version	Lenovo YB1-X90L
SW Version	YB1-X90L_170110
EUT Stage	Identical Prototype

Remark:
1. 802.11n-HT40 is not supported in 2.4GHz WLAN.
2. This device supports GRPS/EGPRS mode up to multi-slot class 33.
3. This device has no voice function.
4. The device implanted P-sensor function, when worked near the body, power reduction will be active immediately for 2.4GHz/5GHz WLAN and all WWAN bands.

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	O57YB1X90L1
Equipment Name	Portable Tablet Computer
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 38: 2570 MHz ~ 2620 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK, and 16QAM
LTE Voice / Data requirements	Data only
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3** Modulation | Channel bandwidth / Transmission bandwidth (RB) | MPR (dB) 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, Proximity Sensor.
LTE Release	R9, Cat 4
CA Support	No

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 4

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745

LTE Band 5

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844

LTE Band 7

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560

LTE Band 12

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 17

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711

LTE Band 25

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 38

	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

4.3 Re-use of Measured Data

4.3.1 Introduction Section

This application re-uses data collected on a similar device. The subject device of this application (Model: Lenovo YB1-X90L, FCC ID: O57YB1X90L1) is electrically identical to the reference device (Model: Lenovo YB1-X90L, FCC ID: O57YB1X90L) for the portions of the circuitry corresponding to the data being re-used, as treated by KDB Publication 178919 D01.

4.3.2 Difference Section

For details concerning the similarity with respect to component placement, mechanical/electrical design etc., please refer to the Product Equality Declaration “PED” file.

The re-used RF data includes the following bands provided in Appendix A (Sporton RF Report No. FA662015 for the reference device Model: Lenovo YB1-X90L, FCC ID: O57YB1X90L):

- GSM850/1900,
- WCDMA Band V/IV/II,
- LTE Band 2/4/5/7/12/17/25/38
- 2.4G/5G WLAN
- Bluetooth

Spot check for WWAN and WLAN are performed for ensure that SAR measurement for both device are the same. So, the original SAR value can represent this application.

4.4.3 Spot Check Verification Data Section

Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Original model (FCC ID: O57YB1X90L)				Spot check model (FCC ID: O57YB1X90L1)				Deviation
												Average Power (dBm)	Tune-Up Limit (dBm)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	Average Power (dBm)	Tune-Up Limit (dBm)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)	
GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Face	0mm	-	Sensor On	189	836.4	19.37	20	0.769	0.889	19.37	20	0.650	0.751	-15.52%
GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom	0mm	-	Sensor On	512	1850.2	16.42	17	1.090	1.246	16.42	17	0.878	1.003	-19.50%
WCDMA Band V	-	-	-	-	RMC 12.2Kbps	Bottom	0mm	-	Sensor On	4182	836.4	18.89	19	1.240	1.272	18.89	19	1.020	1.046	-17.77%
WCDMA Band IV	-	-	-	-	RMC 12.2Kbps	Edge 1	0mm	-	Sensor Off	1513	1752.6	23.28	23.5	0.907	0.954	23.28	23.5	0.825	0.868	-9.01%
WCDMA Band II	-	-	-	-	RMC 12.2Kbps	Edge 4	15mm	-	Sensor Off	9262	1852.4	23.4	23.5	1.270	1.300	23.4	23.5	1.046	1.070	-17.69%
LTE Band 5	10M	QPSK	1RB	25Offset	-	Bottom Face	0mm	-	Sensor On	20525	836.5	18.37	18.5	1.190	1.226	18.37	18.5	0.955	0.984	-19.74%
LTE Band 12	10M	QPSK	1RB	25Offset	-	Bottom	0mm	-	Sensor On	23095	707.5	18.59	19	0.858	0.943	18.59	19	0.816	0.897	-4.88%
LTE Band 4	20M	QPSK	1RB	49Offset	-	Edge 1	0mm	-	Sensor Off	20175	1732.5	22.34	23	0.745	0.867	22.34	23	0.721	0.839	-3.23%
LTE Band 25	20M	QPSK	1RB	49Offset	-	Edge 4	15mm	-	Sensor Off	26590	1905	21.92	22.5	1.120	1.280	21.92	22.5	0.898	1.026	-19.84%
LTE Band 7	20M	QPSK	1RB	0Offset	-	Edge 1	0mm	-	Sensor Off	21100	2535	21.86	22	1.250	1.291	21.86	22	1.006	1.039	-19.52%
LTE Band 38	20M	QPSK	1RB	49Offset	-	Edge 1	0mm	-	Sensor Off	37850	2580	22.65	23	0.577	0.629	22.65	23	0.516	0.563	-10.49%
WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Bottom	0mm	Ant 1	Sensor On	1	2412	11.70	12.5	0.878	1.070	11.70	12.5	0.711	0.866	-19.07%
WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Bottom Face	17mm	Ant 2	Sensor Off	6	2437	17.72	18	0.102	0.110	17.72	18	0.083	0.089	-19.09%
WLAN2.4GHz	-	-	-	-	802.11n-HT20 MCS0	Edge 4	15mm	Ant 1+2	Sensor Off	6	2437	13.37	13.5	0.046	0.052	13.37	13.5	0.038	0.043	-17.31%
WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	0mm	Ant 1	Sensor On	48	5240	10.69	11	1.280	1.467	10.69	11	1.030	1.179	-19.63%
WLAN5.2GHz	-	-	-	-	802.11a 6Mbps	Edge 4	15mm	Ant 2	Sensor Off	48	5240	15.88	16	0.178	0.196	15.88	16	0.169	0.186	-5.10%
WLAN5.2GHz	-	-	-	-	802.11n-HT20 MCS0	Edge 4	15mm	Ant 1+2	Sensor Off	48	5240	19.06	19.5	0.277	0.338	19.06	19.5	0.235	0.287	-15.09%
WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	0mm	Ant 1	Sensor On	52	5260	11.40	11.5	1.310	1.430	11.40	11.5	1.060	1.156	-19.16%
WLAN5.3GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	17mm	Ant 2	Sensor Off	52	5260	16.42	17	0.243	0.297	16.42	17	0.209	0.256	-13.80%
WLAN5.3GHz	-	-	-	-	802.11n-HT20 MCS0	Bottom Face	17mm	Ant 1+2	Sensor Off	60	5300	19.87	20	0.321	0.365	19.87	20	0.268	0.304	-16.71%
WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	0mm	Ant 1	Sensor On	116	5580	11.20	11.5	0.678	0.775	11.20	11.5	0.617	0.705	-9.03%
WLAN5.5GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	17mm	Ant 2	Sensor Off	116	5580	15.83	16	0.193	0.215	15.83	16	0.159	0.177	-17.67%
WLAN5.5GHz	-	-	-	-	802.11n-HT20 MCS0	Edge 4	15mm	Ant 1+2	Sensor Off	116	5580	19.69	20	0.270	0.320	19.69	20	0.251	0.297	-7.19%
WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Bottom Face	0mm	Ant 1	Sensor On	157	5785	12.05	12.5	1.200	1.420	12.05	12.5	0.978	1.156	-18.59%
WLAN5.8GHz	-	-	-	-	802.11a 6Mbps	Edge 4	15mm	Ant 2	Sensor Off	165	5825	16.24	16.5	0.018	0.020	16.24	16.5	0.020	0.023	15.00%
WLAN5.8GHz	-	-	-	-	802.11n-HT20 MCS0	Bottom Face	17mm	Ant 1+2	Sensor Off	165	5825	19.08	19.5	0.273	0.331	19.08	19.5	0.064	0.278	-16.01%
Bluetooth	-	-	-	-	1Mbps	Bottom Face	0mm	Ant 1	-	39	2441	9.37	10	0.150	0.173	9.37	10	0.210	0.143	-17.34%

Note: In the table above, all the deviation of SAR test results are compliant with uncertainty budget.

4.4.4 Reference detail Section

Equipment Class	Reference FCC ID	Folder Test/RF Exposure	Report Title/Section
PCE (2G/3G/4G)	O57YB1X90L	RF Exposure(FA662015)	All sections applicable
DTS (BLE)	O57YB1X90L	RF Exposure(FA662015)	All sections applicable
DSS(BER)	O57YB1X90L	RF Exposure(FA662015)	All sections applicable
DTS (2.4G WLAN)	O57YB1X90L	RF Exposure(FA662015)	All sections applicable
NII (5G WLAN)	O57YB1X90L	RF Exposure(FA662015)	All sections applicable

5. Simultaneous Transmission Analysis

NO.	Simultaneous Transmission Configurations	Portable Tablet Computer
		Body
1.	GPRS/EDGE + WLAN2.4GHz SISO	Yes
2.	WCDMA + WLAN2.4GHz SISO	Yes
3.	LTE + WLAN2.4GHz SISO	Yes
4.	GPRS/EDGE + WLAN2.4GHz MIMO	Yes
5.	WCDMA + WLAN2.4GHz MIMO	Yes
6.	LTE + WLAN2.4GHz MIMO	Yes
7.	GPRS/EDGE + Bluetooth	Yes
8.	WCDMA+ Bluetooth	Yes
9.	LTE + Bluetooth	Yes
10.	GPRS/EDGE + WLAN5GHz SISO	Yes
11.	WCDMA + WLAN5GHz SISO	Yes
12.	LTE + WLAN5GHz SISO	Yes
13.	GPRS/EDGE + WLAN5GHz MIMO	Yes
14.	WCDMA + WLAN5GHz MIMO	Yes
15.	LTE + WLAN5GHz MIMO	Yes

5.1 Body Exposure Conditions

<WWAN + WLAN 2.4GHZ DTS>

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
GSM	GSM850	Bottom Face at 17mm	0.122	0.118	0.110	0.043	0.24	0.23	0.17		
		Edge 4 at 15mm	0.345	0.145	0.074	0.052	0.49	0.42	0.40		
		Bottom at 0mm	0.785	1.070	0.251	0.251	**1.86**	1.04	1.04	**0.02**	**#01**
		Bottom Face at 0mm	0.889	0.858	0.251	0.251	**1.75**	1.14	1.14	**0.02**	**#02**
		Edge 1 at 0mm	0.476				0.48	0.48	0.48		
		Edge 4 at 0mm	0.404	0.227	0.251	0.251	0.63	0.66	0.66		
	GSM1900	Bottom Face at 17mm	0.669	0.118	0.110	0.043	0.79	0.78	0.71		
		Edge 4 at 15mm	0.736	0.145	0.074	0.052	0.88	0.81	0.79		
		Bottom at 0mm	1.246	1.070	0.251	0.251	**2.32**	1.50	1.50	**0.03**	**#03**
		Bottom Face at 0mm	0.590	0.858	0.251	0.251	1.45	0.84	0.84		
		Edge 1 at 0mm	0.590				0.59	0.59	0.59		
		Edge 4 at 0mm	1.030	0.227	0.251	0.251	1.26	1.28	1.28		

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 2.4GHz WLAN Ant 1 1g SAR (W/kg)	3 2.4GHz WLAN Ant 2 1g SAR (W/kg)	4 2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
WCDMA	WCDMA II	Bottom Face at 17mm	1.041	0.118	0.110	0.043	1.16	1.15	1.08		
		Edge 4 at 15mm	1.300	0.145	0.074	0.052	1.45	1.37	1.35		
		Bottom at 0mm	1.179	1.070	0.251	0.251	**2.25**	1.43	1.43	**0.03**	**#04**
		Bottom Face at 0mm	0.564	0.858	0.251	0.251	1.42	0.82	0.82		
		Edge 1 at 0mm	0.949				0.95	0.95	0.95		
		Edge 4 at 0mm	0.936	0.227	0.251	0.251	1.16	1.19	1.19		
	WCDMA IV	Bottom Face at 17mm	0.699	0.118	0.110	0.043	0.82	0.81	0.74		
		Edge 4 at 15mm	0.743	0.145	0.074	0.052	0.89	0.82	0.80		
		Bottom at 0mm	0.718	1.070	0.251	0.251	**1.79**	0.97	0.97	**0.02**	**#05**
		Bottom Face at 0mm	0.504	0.858	0.251	0.251	1.36	0.76	0.76		
		Edge 1 at 0mm	0.954				0.95	0.95	0.95		
		Edge 4 at 0mm	0.640	0.227	0.251	0.251	0.87	0.89	0.89		
	WCDMA V	Bottom Face at 17mm	0.282	0.118	0.110	0.043	0.40	0.39	0.33		
		Edge 4 at 15mm	0.199	0.145	0.074	0.052	0.34	0.27	0.25		
		Bottom at 0mm	1.272	1.070	0.251	0.251	**2.34**	**1.52**	**1.52**	**0.03**	**#06**
		Bottom Face at 0mm	1.087	0.858	0.251	0.251	**1.95**	1.34	1.34	**0.02**	**#07**
		Edge 1 at 0mm	0.275				0.28	0.28	0.28		
		Edge 4 at 0mm	0.656	0.227	0.251	0.251	0.88	0.91	0.91		

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE	LTE Band 4	Bottom Face at 17mm	0.837	0.118	0.110	0.043	0.96	0.95	0.88		
		Edge 4 at 15mm	0.860	0.145	0.074	0.052	1.01	0.93	0.91		
		Bottom at 0mm	0.623	1.070	0.251	0.251	**1.69**	0.87	0.87	**0.02**	**#08**
		Bottom Face at 0mm	0.427	0.858	0.251	0.251	1.29	0.68	0.68		
		Edge 1 at 0mm	0.867				0.87	0.87	0.87		
		Edge 4 at 0mm	0.594	0.227	0.251	0.251	0.82	0.85	0.85		
	LTE Band 5	Bottom Face at 17mm	0.356	0.118	0.110	0.043	0.47	0.47	0.40		
		Edge 4 at 15mm	0.249	0.145	0.074	0.052	0.39	0.32	0.30		
		Bottom at 0mm	1.154	1.070	0.251	0.251	**2.22**	1.41	1.41	**0.03**	**#09**
		Bottom Face at 0mm	1.226	0.858	0.251	0.251	**2.08**	1.48	1.48	**0.02**	**#10**
		Edge 1 at 0mm	0.413				0.41	0.41	0.41		
		Edge 4 at 0mm	0.666	0.227	0.251	0.251	0.89	0.92	0.92		
	LTE Band 7	Bottom Face at 17mm	0.456	0.118	0.110	0.043	0.57	0.57	0.50		
		Edge 4 at 15mm	0.148	0.145	0.074	0.052	0.29	0.22	0.20		
		Bottom at 0mm	0.869	1.070	0.251	0.251	**1.94**	1.12	1.12	**0.02**	**#11**
		Bottom Face at 0mm	0.614	0.858	0.251	0.251	1.47	0.87	0.87		
		Edge 1 at 0mm	1.291				1.29	1.29	1.29		
		Edge 4 at 0mm	0.297	0.227	0.251	0.251	0.52	0.55	0.55		
	LTE Band 12	Bottom Face at 17mm	0.212	0.118	0.110	0.043	0.33	0.32	0.26		
		Edge 4 at 15mm	0.141	0.145	0.074	0.052	0.29	0.22	0.19		
		Bottom at 0mm	0.943	1.070	0.251	0.251	**2.01**	1.19	1.19	**0.02**	**#12**
		Bottom Face at 0mm	0.940	0.858	0.251	0.251	**1.80**	1.19	1.19	**0.02**	**#13**
		Edge 1 at 0mm	0.312				0.31	0.31	0.31		
		Edge 4 at 0mm	0.382	0.227	0.251	0.251	0.61	0.63	0.63		
	LTE Band 25	Bottom Face at 17mm	1.118	0.118	0.110	0.043	1.24	1.23	1.16		
		Edge 4 at 15mm	1.280	0.145	0.074	0.052	1.43	1.35	1.33		
		Bottom at 0mm	0.780	1.070	0.251	0.251	**1.85**	1.03	1.03	**0.02**	**#14**
		Bottom Face at 0mm	0.380	0.858	0.251	0.251	1.24	0.63	0.63		
		Edge 1 at 0mm	1.137				1.14	1.14	1.14		
		Edge 4 at 0mm	0.633	0.227	0.251	0.251	0.86	0.88	0.88		

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	2.4GHz WLAN Ant 1	2.4GHz WLAN Ant 2	2.4GHz WLAN Ant 1+2					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE	LTE Band 38	Bottom Face at 17mm	0.352	0.118	0.110	0.043	0.47	0.46	0.40		
		Edge 4 at 15mm	0.376	0.145	0.074	0.052	0.52	0.45	0.43		
		Bottom at 0mm	0.602	1.070	0.251	0.251	**1.67**	0.85	0.85	**0.01**	**#15**
		Bottom Face at 0mm	0.424	0.858	0.251	0.251	1.28	0.68	0.68		
		Edge 1 at 0mm	0.629				0.63	0.63	0.63		
		Edge 4 at 0mm	0.200	0.227	0.251	0.251	0.43	0.45	0.45		

<WWAN + WLAN 5GHz NII>

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	5GHz WLAN Ant 1+2					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
GSM	GSM850	Bottom Face at 17mm	0.122	0.361	0.297	0.365	0.48	0.42	0.49		
		Edge 4 at 15mm	0.345	0.349	0.281	0.361	0.69	0.63	0.71		
		Bottom at 0mm	0.785	1.185	0.322	0.322	**1.97**	1.11	1.11	**0.02**	**#16**
		Bottom Face at 0mm	0.889	1.467	0.322	0.322	**2.36**	1.21	1.21	**0.03**	**#17**
		Edge 1 at 0mm	0.476				0.48	0.48	0.48		
		Edge 4 at 0mm	0.404	0.799	0.322	0.322	1.20	0.73	0.73		
	GSM1900	Bottom Face at 17mm	0.669	0.361	0.297	0.365	1.03	0.97	1.03		
		Edge 4 at 15mm	0.736	0.349	0.281	0.361	1.09	1.02	1.10		
		Bottom at 0mm	1.246	1.185	0.322	0.322	**2.43**	1.57	1.57	**0.03**	**#18**
		Bottom Face at 0mm	0.590	1.467	0.322	0.322	**2.06**	0.91	0.91	**0.02**	**#19**
		Edge 1 at 0mm	0.590				0.59	0.59	0.59		
		Edge 4 at 0mm	1.030	0.799	0.322	0.322	**1.83**	1.35	1.35	**0.02**	**#20**

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 5GHz WLAN Ant 1 1g SAR (W/kg)	3 5GHz WLAN Ant 2 1g SAR (W/kg)	4 5GHz WLAN Ant 1+2 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
WCDMA	WCDMA II	Bottom Face at 17mm	1.041	0.361	0.297	0.365	1.40	1.34	1.41		
		Edge 4 at 15mm	1.300	0.349	0.281	0.361	**1.65**	1.58		**0.02**	**#21**
									1.66	**0.02**	**#22**
		Bottom at 0mm	1.179	1.185	0.322	0.322	**2.36**	1.50	1.50	**0.03**	**#23**
		Bottom Face at 0mm	0.564	1.467	0.322	0.322	**2.03**	0.89	0.89	**0.02**	**#24**
		Edge 1 at 0mm	0.949				0.95	0.95	0.95		
		Edge 4 at 0mm	0.936	0.799	0.322	0.322	**1.74**	1.26	1.26	**0.02**	**#25**
	WCDMA IV	Bottom Face at 17mm	0.699	0.361	0.297	0.365	1.06	1.00	1.06		
		Edge 4 at 15mm	0.743	0.349	0.281	0.361	1.09	1.02	1.10		
		Bottom at 0mm	0.718	1.185	0.322	0.322	**1.90**	1.04	1.04	**0.02**	**#26**
		Bottom Face at 0mm	0.504	1.467	0.322	0.322	**1.97**	0.83	0.83	**0.02**	**#27**
		Edge 1 at 0mm	0.954				0.95	0.95	0.95		
		Edge 4 at 0mm	0.640	0.799	0.322	0.322	1.44	0.96	0.96		
	WCDMA V	Bottom Face at 17mm	0.282	0.361	0.297	0.365	0.64	0.58	0.65		
		Edge 4 at 15mm	0.199	0.349	0.281	0.361	0.55	0.48	0.56		
		Bottom at 0mm	1.272	1.185	0.322	0.322	**2.46**	**1.59**	**1.59**	**0.03**	**#28**
		Bottom Face at 0mm	1.087	1.467	0.322	0.322	**2.55**	1.41	1.41	**0.03**	**#29**
		Edge 1 at 0mm	0.275				0.28	0.28	0.28		
		Edge 4 at 0mm	0.656	0.799	0.322	0.322	1.46	0.98	0.98		

WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 5GHz WLAN Ant 1 1g SAR (W/kg)	3 5GHz WLAN Ant 2 1g SAR (W/kg)	4 5GHz WLAN Ant 1+2 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
LTE	LTE Band 4	Bottom Face at 17mm	0.837	0.361	0.297	0.365	1.20	1.13	1.20		
		Edge 4 at 15mm	0.860	0.349	0.281	0.361	1.21	1.14	1.22		
		Bottom at 0mm	0.623	1.185	0.322	0.322	**1.81**	0.95	0.95	**0.02**	**#30**
		Bottom Face at 0mm	0.427	1.467	0.322	0.322	**1.89**	0.75	0.75	**0.02**	**#31**
		Edge 1 at 0mm	0.867				0.87	0.87	0.87		
		Edge 4 at 0mm	0.594	0.799	0.322	0.322	1.39	0.92	0.92		
	LTE Band 5	Bottom Face at 17mm	0.356	0.361	0.297	0.365	0.72	0.65	0.72		
		Edge 4 at 15mm	0.249	0.349	0.281	0.361	0.60	0.53	0.61		
		Bottom at 0mm	1.154	1.185	0.322	0.322	**2.34**	1.48	1.48	**0.03**	**#32**
		Bottom Face at 0mm	1.226	1.467	0.322	0.322	**2.69**	1.55	1.55	**0.03**	**#33**
		Edge 1 at 0mm	0.413				0.41	0.41	0.41		
		Edge 4 at 0mm	0.666	0.799	0.322	0.322	1.47	0.99	0.99		
	LTE Band 7	Bottom Face at 17mm	0.456	0.361	0.297	0.365	0.82	0.75	0.82		
		Edge 4 at 15mm	0.148	0.349	0.281	0.361	0.50	0.43	0.51		
		Bottom at 0mm	0.869	1.185	0.322	0.322	**2.05**	1.19	1.19	**0.02**	**#34**
		Bottom Face at 0mm	0.614	1.467	0.322	0.322	**2.08**	0.94	0.94	**0.02**	**#35**
		Edge 1 at 0mm	1.291				1.29	1.29	1.29		
		Edge 4 at 0mm	0.297	0.799	0.322	0.322	1.10	0.62	0.62		
	LTE Band 12	Bottom Face at 17mm	0.212	0.361	0.297	0.365	0.57	0.51	0.58		
		Edge 4 at 15mm	0.141	0.349	0.281	0.361	0.49	0.42	0.50		
		Bottom at 0mm	0.943	1.185	0.322	0.322	**2.13**	1.27	1.27	**0.02**	**#36**
		Bottom Face at 0mm	0.940	1.467	0.322	0.322	**2.41**	1.26	1.26	**0.04**	**#37**
		Edge 1 at 0mm	0.312				0.31	0.31	0.31		
		Edge 4 at 0mm	0.382	0.799	0.322	0.322	1.18	0.70	0.70		
	LTE Band 25	Bottom Face at 17mm	1.118	0.361	0.297	0.365	1.48	1.42	1.48		
		Edge 4 at 15mm	1.280	0.349	0.281	0.361	**1.63**	1.56		**0.02**	**#38**
									1.64	**0.02**	**#39**
		Bottom at 0mm	0.780	1.185	0.322	0.322	**1.97**	1.10	1.10	**0.02**	**#40**
		Bottom Face at 0mm	0.380	1.467	0.322	0.322	**1.85**	0.70	0.70	**0.02**	**#41**
		Edge 1 at 0mm	1.137				1.14	1.14	1.14		
		Edge 4 at 0mm	0.633	0.799	0.322	0.322	1.43	0.96	0.96		

WWAN Band		Exposure Position	1	2	3	4	1+2 Summed 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	5GHz WLAN Ant 1	5GHz WLAN Ant 2	5GHz WLAN Ant 1+2					
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
LTE	LTE Band 38	Bottom Face at 17mm	0.352	0.361	0.297	0.365	0.71	0.65	0.72		
		Edge 4 at 15mm	0.376	0.349	0.281	0.361	0.73	0.66	0.74		
		Bottom at 0mm	0.602	1.185	0.322	0.322	**1.79**	0.92	0.92	**0.02**	**#42**
		Bottom Face at 0mm	0.424	1.467	0.322	0.322	**1.89**	0.75	0.75	**0.02**	**#43**
		Edge 1 at 0mm	0.629				0.63	0.63	0.63		
		Edge 4 at 0mm	0.200	0.799	0.322	0.322	1.00	0.52	0.52		

<WWAN + Bluetooth DSS>

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	Bluetooth Ant 1			
			1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850	Bottom Face at 17mm	0.122		0.12		
		Edge 4 at 15mm	0.345		0.35		
		Bottom at 0mm	0.785	0.094	0.88		
		Bottom Face at 0mm	0.889	0.173	1.06		
		Edge 1 at 0mm	0.476		0.48		
		Edge 4 at 0mm	0.404	0.055	0.46		
	GSM1900	Bottom Face at 17mm	0.669		0.67		
		Edge 4 at 15mm	0.736		0.74		
		Bottom at 0mm	1.246	0.094	1.34		
		Bottom Face at 0mm	0.590	0.173	0.76		
		Edge 1 at 0mm	0.590		0.59		
		Edge 4 at 0mm	1.030	0.055	1.09		

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	Bluetooth Ant 1			
			1g SAR (W/kg)	1g SAR (W/kg)			
WCDMA	WCDMA II	Bottom Face at 17mm	1.041		1.04		
		Edge 4 at 15mm	1.300		1.30		
		Bottom at 0mm	1.179	0.094	1.27		
		Bottom Face at 0mm	0.564	0.173	0.74		
		Edge 1 at 0mm	0.949		0.95		
		Edge 4 at 0mm	0.936	0.055	0.99		
	WCDMA IV	Bottom Face at 17mm	0.699		0.70		
		Edge 4 at 15mm	0.743		0.74		
		Bottom at 0mm	0.718	0.094	0.81		
		Bottom Face at 0mm	0.504	0.173	0.68		
		Edge 1 at 0mm	0.954		0.95		
		Edge 4 at 0mm	0.640	0.055	0.70		
	WCDMA V	Bottom Face at 17mm	0.282		0.28		
		Edge 4 at 15mm	0.199		0.20		
		Bottom at 0mm	1.272	0.094	1.37		
		Bottom Face at 0mm	1.087	0.173	1.26		
		Edge 1 at 0mm	0.275		0.28		
		Edge 4 at 0mm	0.656	0.055	0.71		

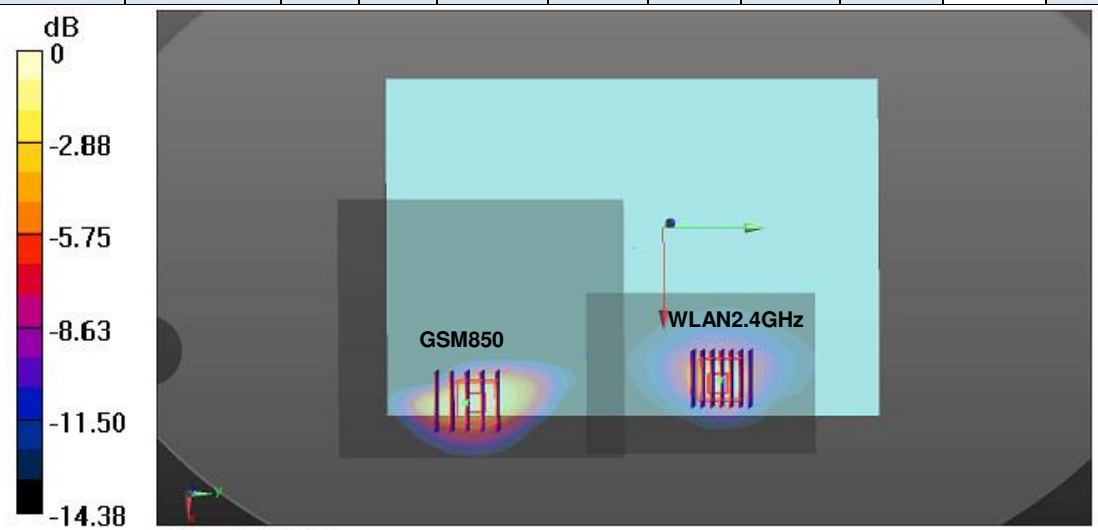
WWAN Band		Exposure Position	1 WWAN 1g SAR (W/kg)	2 Bluetooth Ant 1 1g SAR (W/kg)	1+2 Summed 1g SAR (W/kg)	SPLSR	Case No
LTE	LTE Band 4	Bottom Face at 17mm	0.837		0.84		
		Edge 4 at 15mm	0.860		0.86		
		Bottom at 0mm	0.623	0.094	0.72		
		Bottom Face at 0mm	0.427	0.173	0.60		
		Edge 1 at 0mm	0.867		0.87		
		Edge 4 at 0mm	0.594	0.055	0.65		
	LTE Band 5	Bottom Face at 17mm	0.356		0.36		
		Edge 4 at 15mm	0.249		0.25		
		Bottom at 0mm	1.154	0.094	1.25		
		Bottom Face at 0mm	1.226	0.173	**1.40**		
		Edge 1 at 0mm	0.413		0.41		
		Edge 4 at 0mm	0.666	0.055	0.72		
	LTE Band 7	Bottom Face at 17mm	0.456		0.46		
		Edge 4 at 15mm	0.148		0.15		
		Bottom at 0mm	0.869	0.094	0.96		
		Bottom Face at 0mm	0.614	0.173	0.79		
		Edge 1 at 0mm	1.291		1.29		
		Edge 4 at 0mm	0.297	0.055	0.35		
	LTE Band 12	Bottom Face at 17mm	0.212		0.21		
		Edge 4 at 15mm	0.141		0.14		
		Bottom at 0mm	0.943	0.094	1.04		
		Bottom Face at 0mm	0.940	0.173	1.11		
		Edge 1 at 0mm	0.312		0.31		
		Edge 4 at 0mm	0.382	0.055	0.44		
	LTE Band 25	Bottom Face at 17mm	1.118		1.12		
		Edge 4 at 15mm	1.280		1.28		
		Bottom at 0mm	0.780	0.094	0.87		
		Bottom Face at 0mm	0.380	0.173	0.55		
		Edge 1 at 0mm	1.137		1.14		
		Edge 4 at 0mm	0.633	0.055	0.69		

WWAN Band		Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)	SPLSR	Case No
			WWAN	Bluetooth Ant 1			
			1g SAR (W/kg)	1g SAR (W/kg)			
LTE	LTE Band 38	Bottom Face at 17mm	0.352		0.35		
		Edge 4 at 15mm	0.376		0.38		
		Bottom at 0mm	0.602	0.094	0.70		
		Bottom Face at 0mm	0.424	0.173	0.60		
		Edge 1 at 0mm	0.629		0.63		
		Edge 4 at 0mm	0.200	0.055	0.26		

5.2 SPLSR Evaluation and Analysis

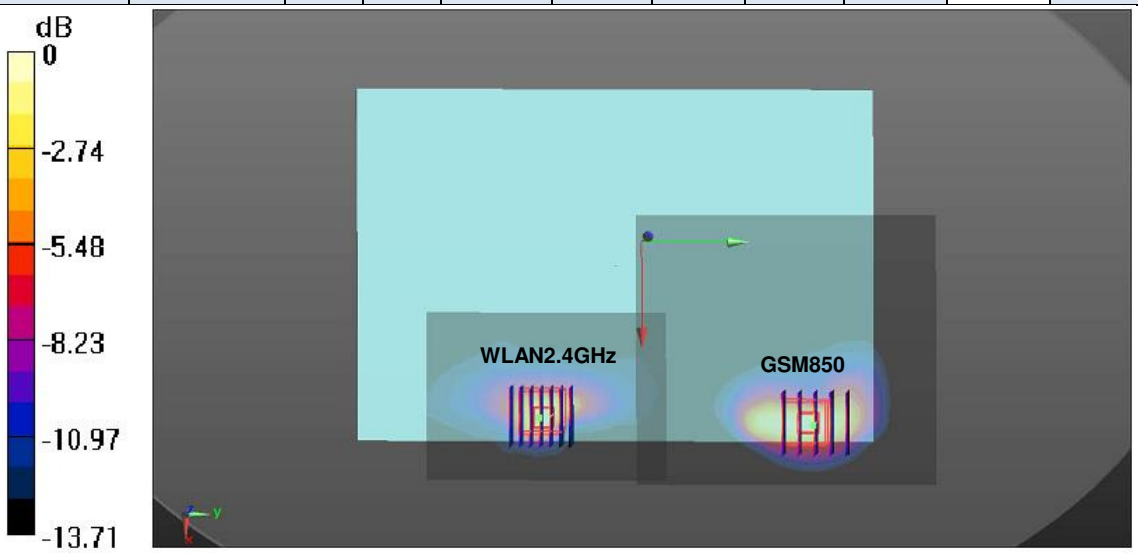
General Note:
SPLSR = $(SAR_1 + SAR_2)^{1.5}$ / (*min. separation distance, mm*). If SPLSR ≤ 0.04, simultaneously transmission SAR measurement is not necessary

Case #01	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Bottom	0.785	0	0.0815	-0.089	-0.18	134.1	1.86	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



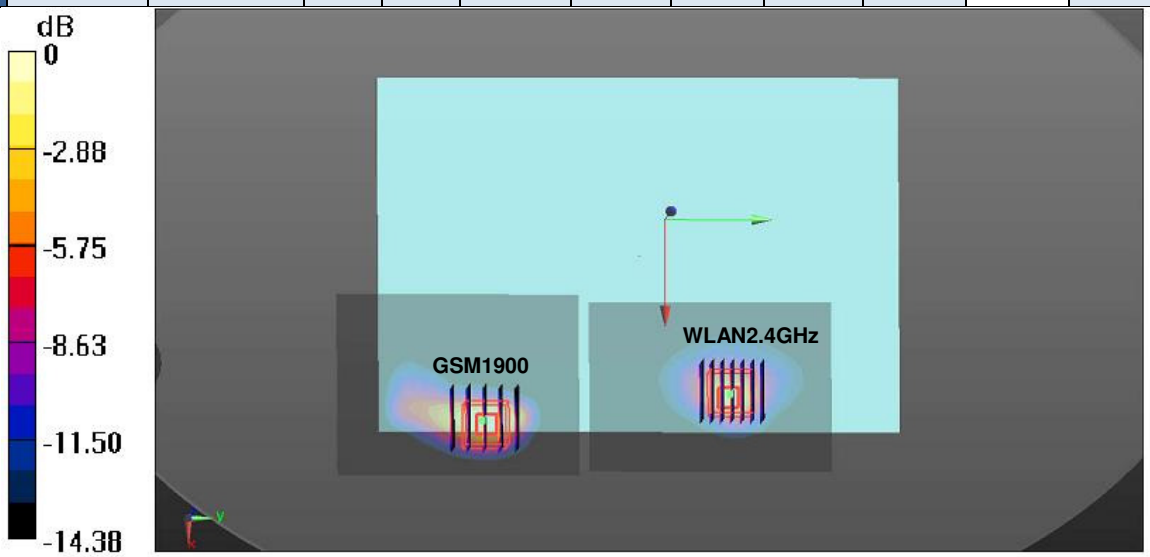
0 dB = 1.15 W/kg

Case #02	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Bottom Face	0.889	0	0.08	0.0985	-0.18	132.1	1.75	0.02	Not required
	WLAN2.4GHz		0.858	0	0.0768	-0.0336	-0.18				



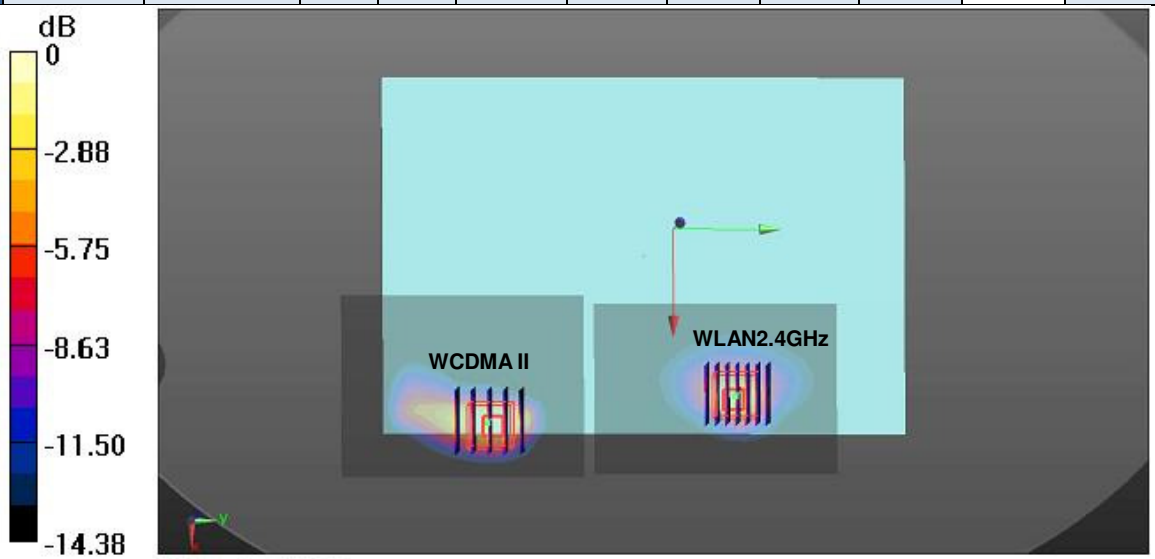
0 dB = 1.19 W/kg

Case #03	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Bottom	1.246	0	0.083	-0.078	-0.179	123.3	2.32	0.03	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



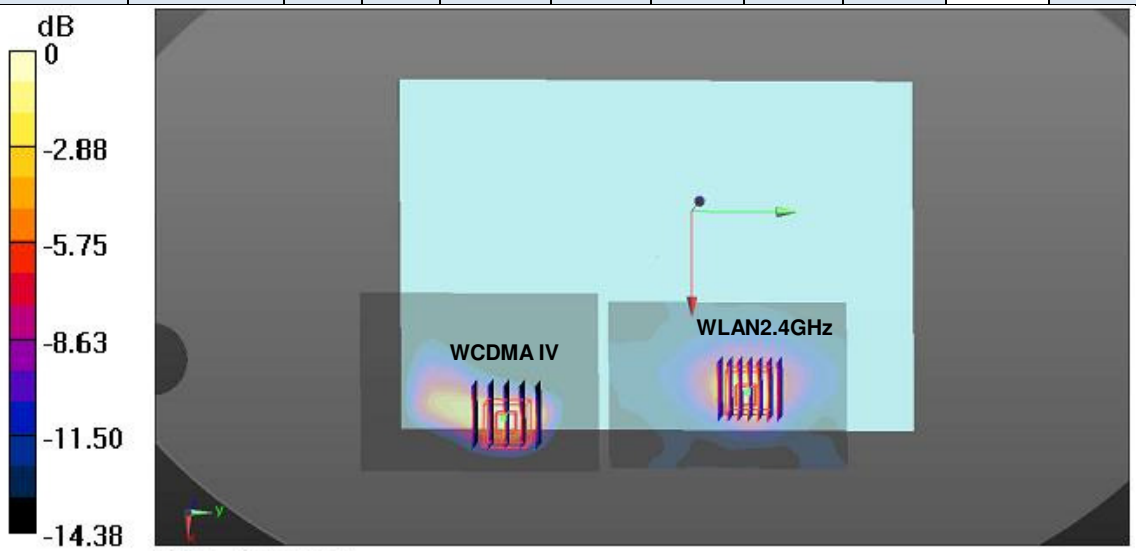
0 dB = 1.65 W/kg

Case #04	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Bottom	1.179	0	0.083	-0.078	-0.179	123.3	2.25	0.03	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



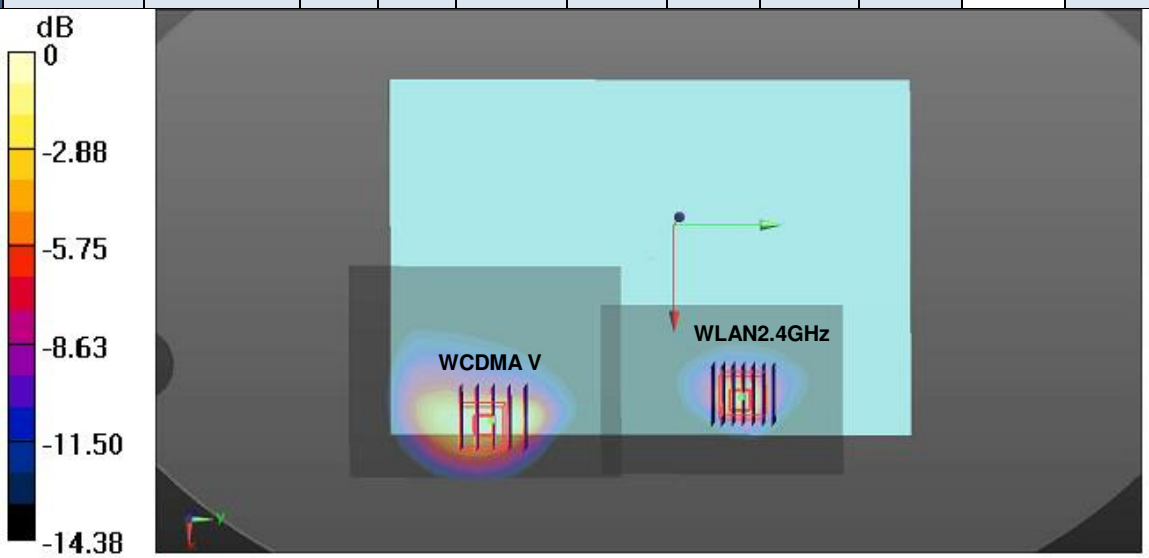
0 dB = 1.51 W/kg

Case #05	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom	0.718	0	0.083	-0.078	-0.179	123.3	1.79	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



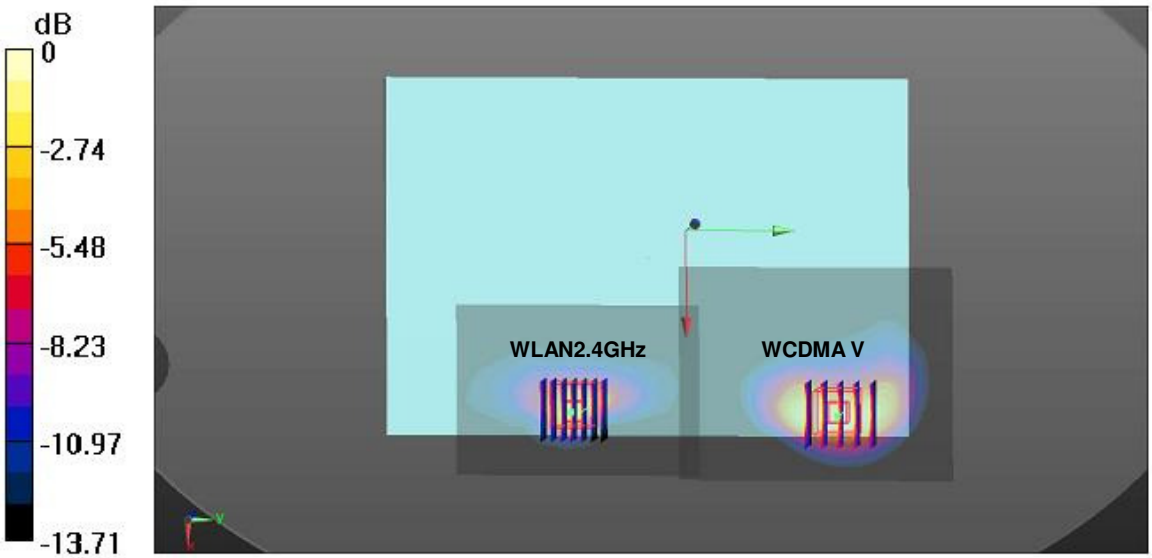
0 dB = 0.989 W/kg

Case #06	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Bottom	1.272	0	0.0815	-0.0795	-0.179	124.7	2.34	0.03	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



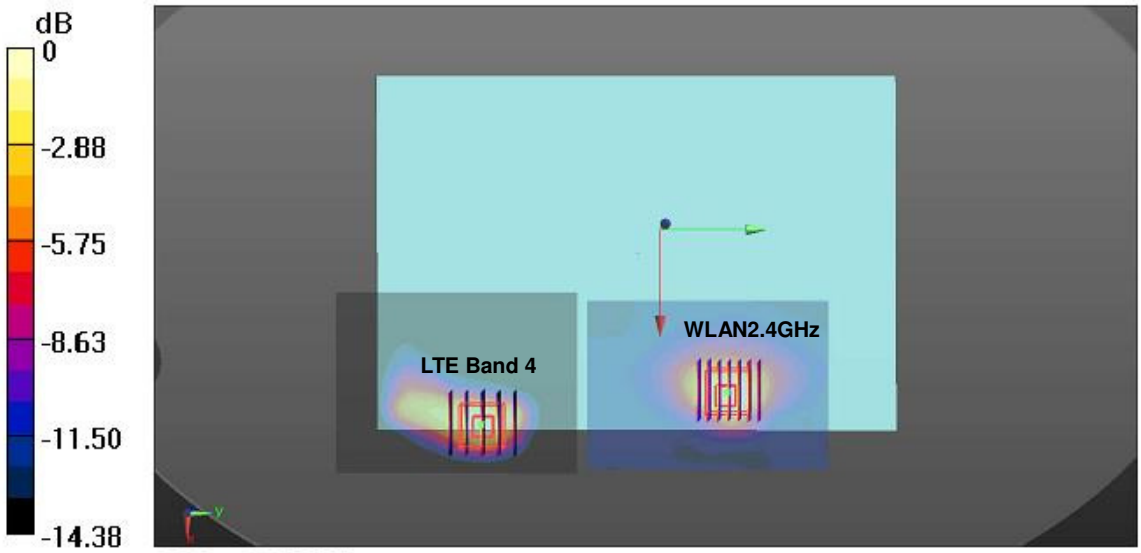
0 dB = 1.90 W/kg

Case #07	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Bottom Face	1.087	0	0.0785	0.093	-0.18	126.6	1.95	0.02	Not required
	WLAN2.4GHz		0.858	0	0.0768	-0.0336	-0.18				



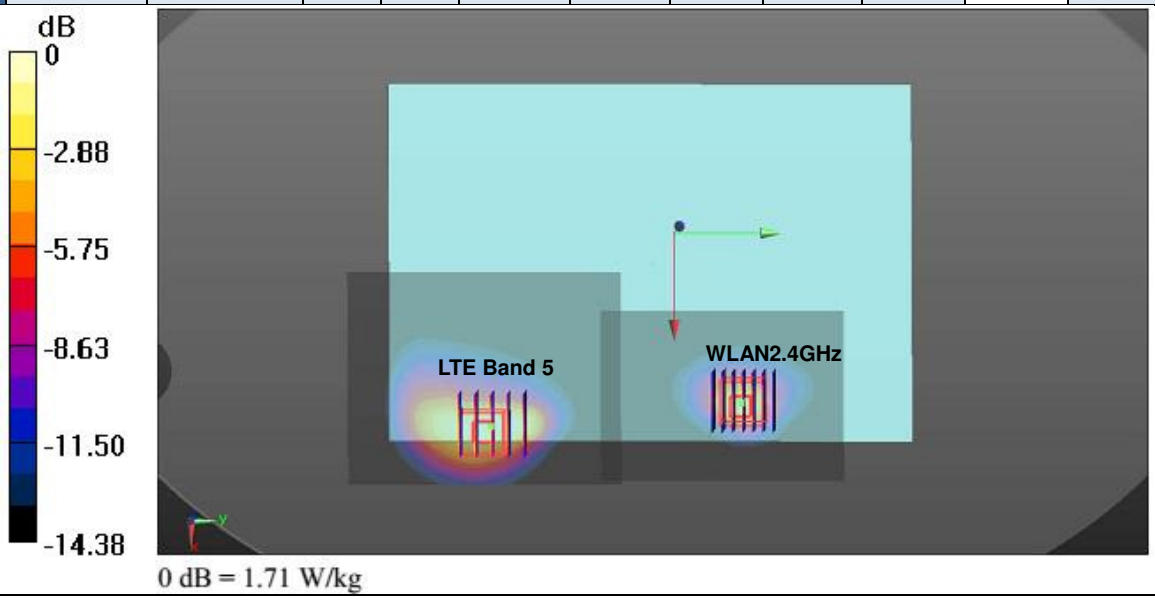
0 dB = 1.31 W/kg

Case #08	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Bottom	0.623	0	0.086	-0.078	-0.179	123.7	1.69	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				

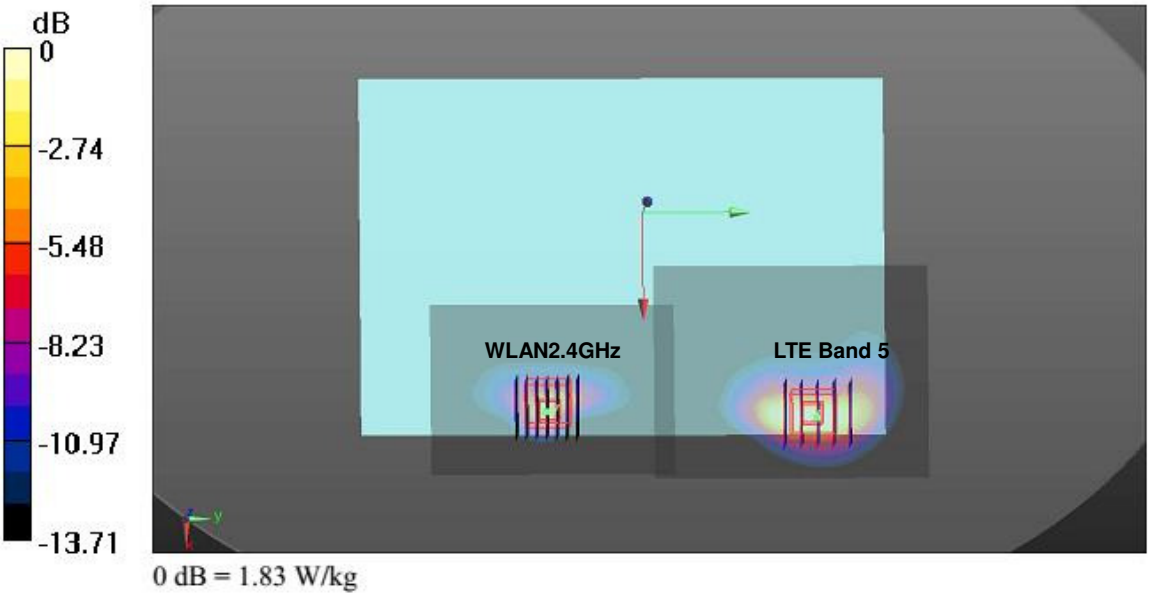


0 dB = 0.755 W/kg

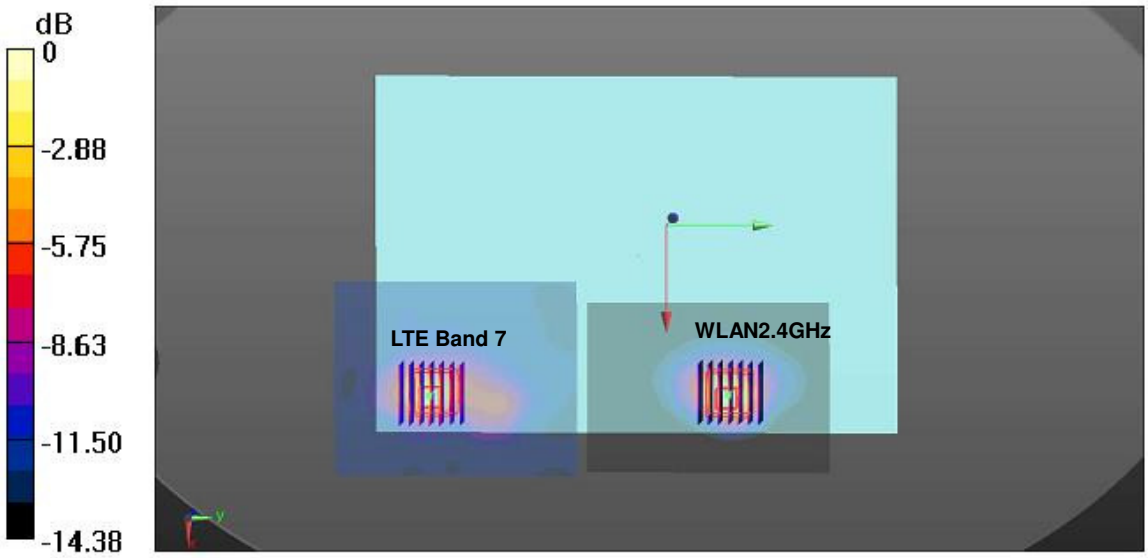
Case #09	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom	1.154	0	0.0815	-0.0795	-0.179	124.7	2.22	0.03	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



Case #10	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom Face	1.226	0	0.08	0.0945	-0.18	128.1	2.08	0.02	Not required
	WLAN2.4GHz		0.858	0	0.0768	-0.0336	-0.18				

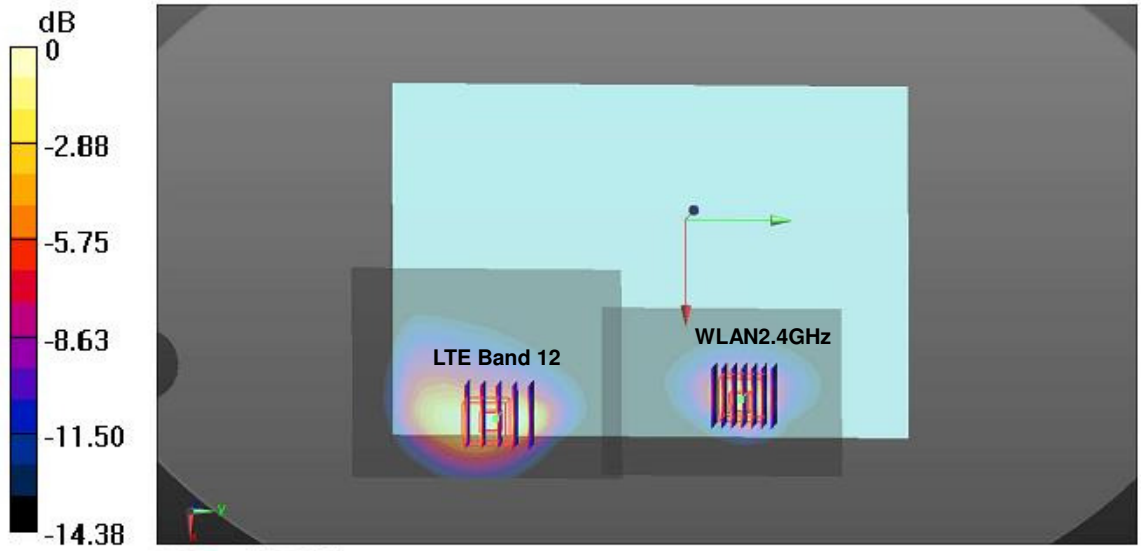


Case #11	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom	0.869	0	0.0704	-0.103	-0.179	147.6	1.94	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



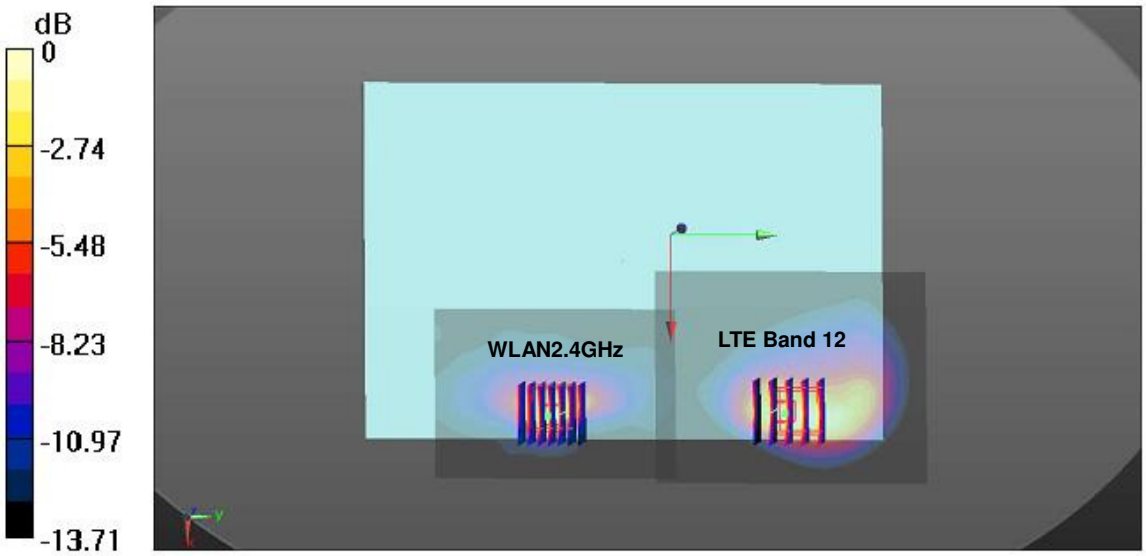
0 dB = 1.51 W/kg

Case #12	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom	0.943	0	0.08	-0.078	-0.179	123.0	2.01	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



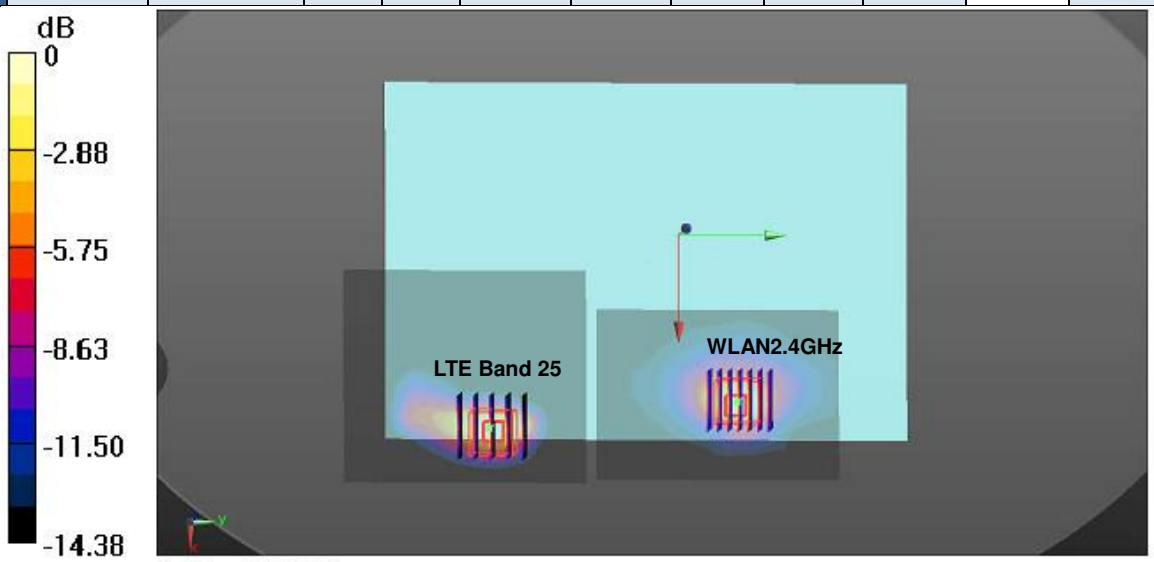
0 dB = 1.45 W/kg

Case #13	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.94	0	0.0755	0.0715	-0.18	105.1	1.80	0.02	Not required
	WLAN2.4GHz		0.858	0	0.0768	-0.0336	-0.18				



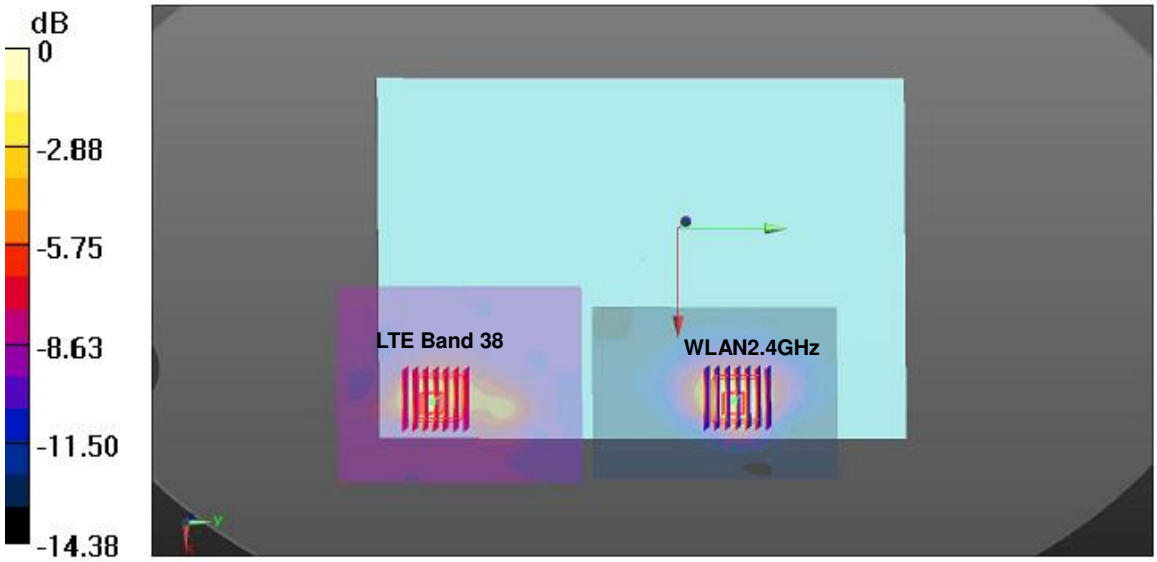
0 dB = 1.11 W/kg

Case #14	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom	0.78	0	0.083	-0.078	-0.179	123.3	1.85	0.02	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



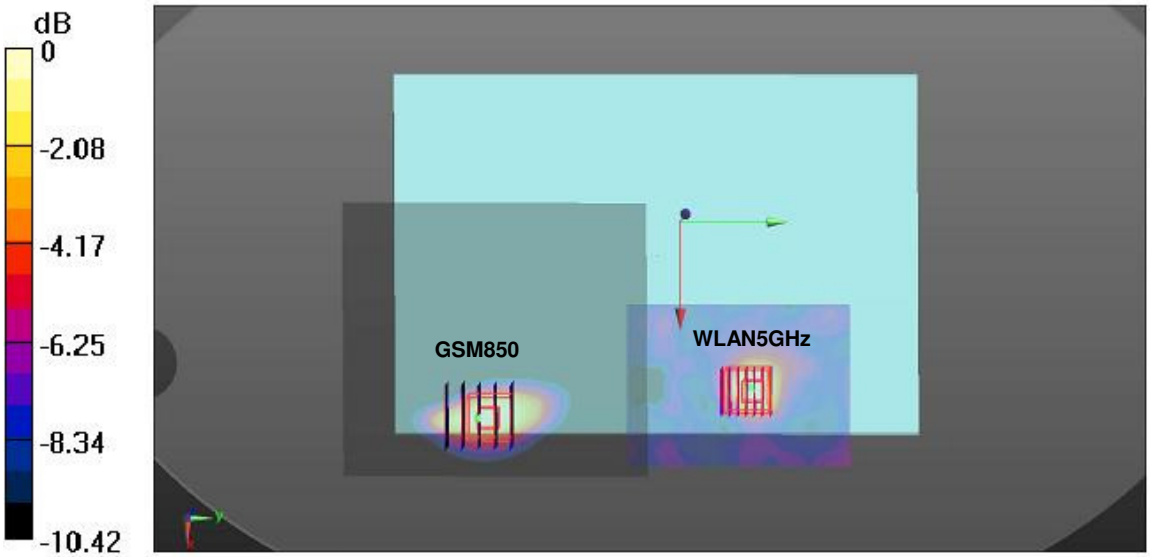
0 dB = 1.09 W/kg

Case #15	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 38	Bottom	0.602	0	0.0704	-0.103	-0.179	147.6	1.67	0.01	Not required
	WLAN2.4GHz		1.07	0	0.0696	0.0446	-0.18				



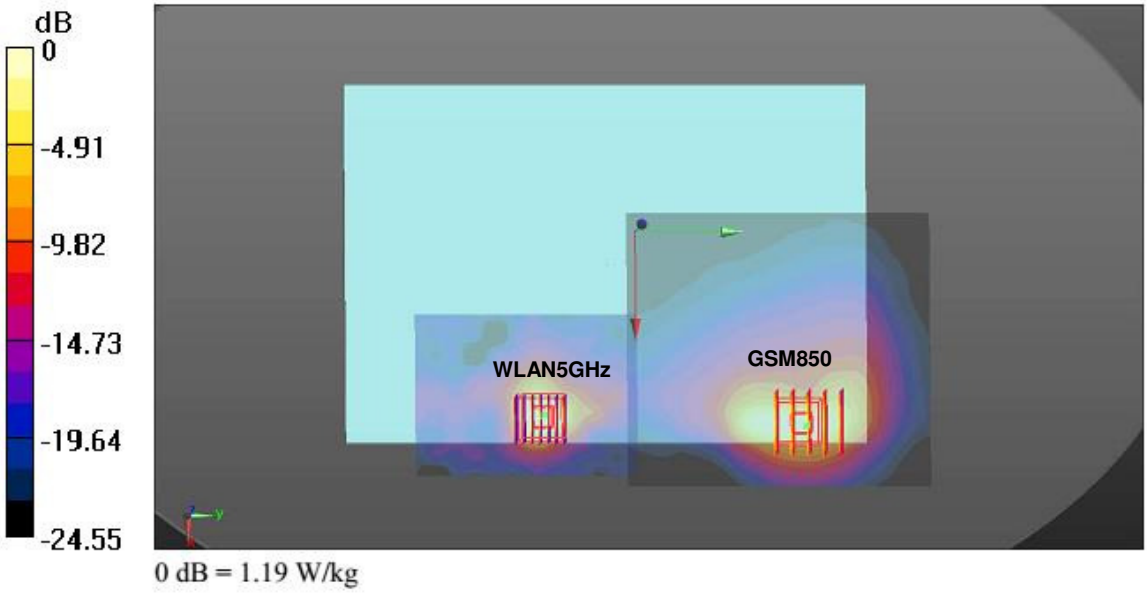
0 dB = 0.903 W/kg

Case #16	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Bottom	0.785	0	0.0815	-0.089	-0.18	136.6	1.97	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

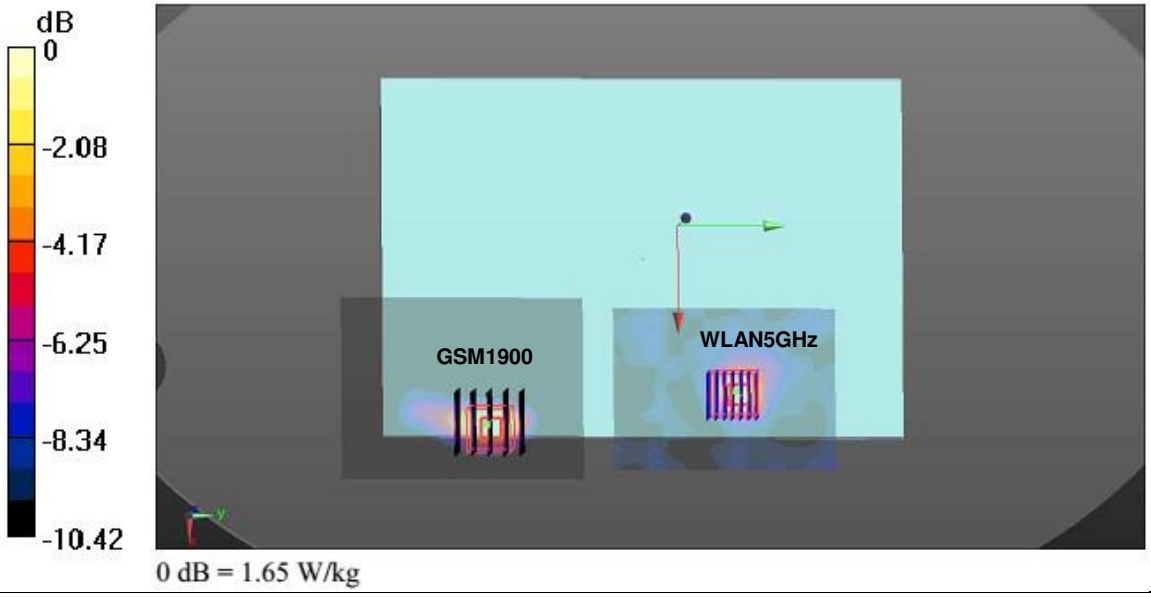


0 dB = 1.15 W/kg

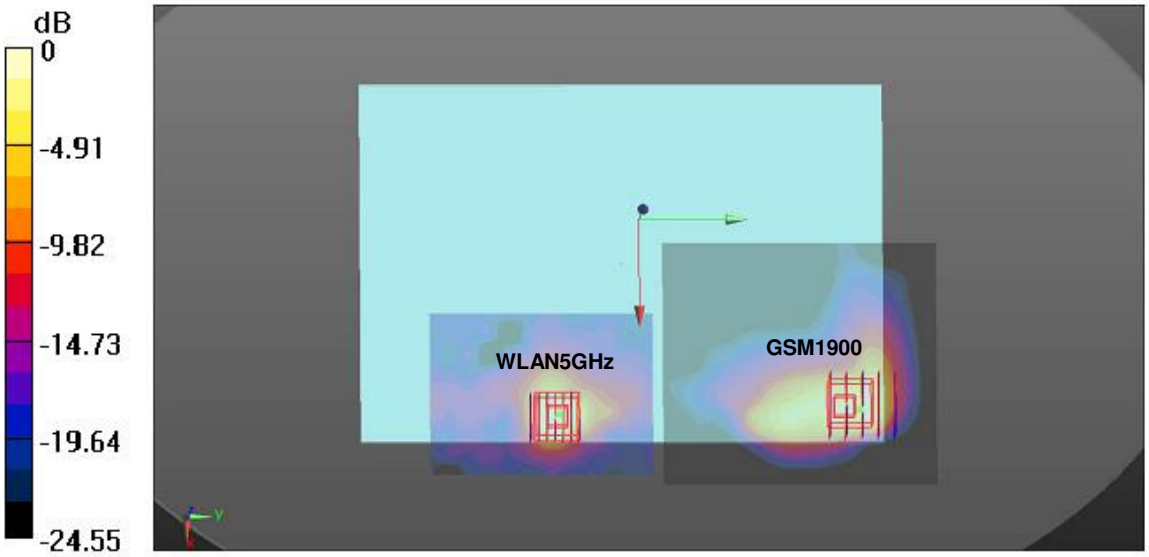
Case #17	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850	Bottom Face	0.889	0	0.08	0.0985	-0.18	132.5	2.36	0.03	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



Case #18	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Bottom	1.246	0	0.083	-0.078	-0.179	125.8	2.43	0.03	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

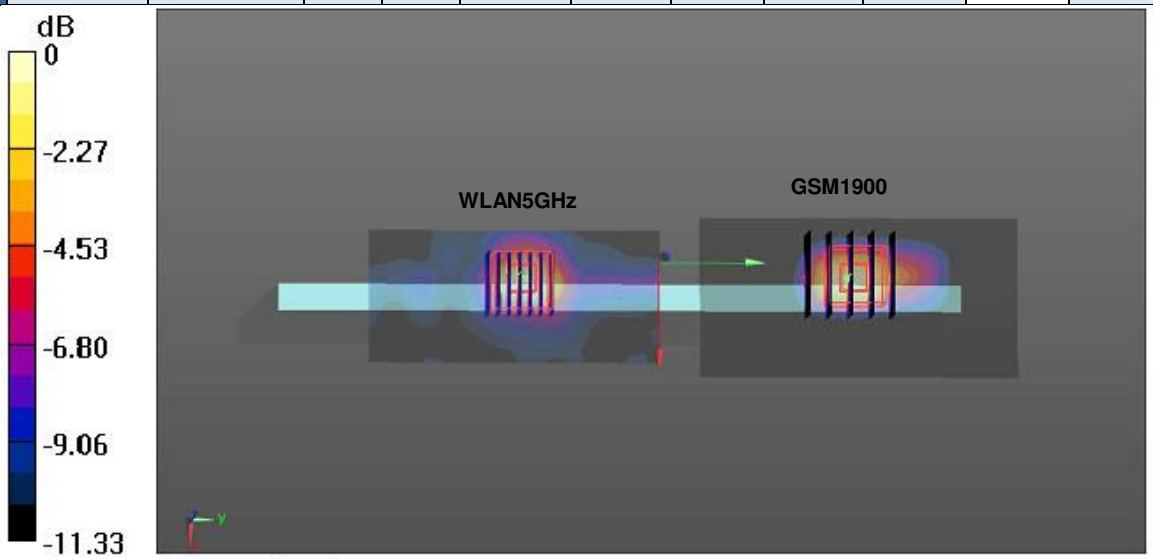


Case #19	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Bottom Face	0.59	0	0.0725	0.11	-0.18	144.1	2.06	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



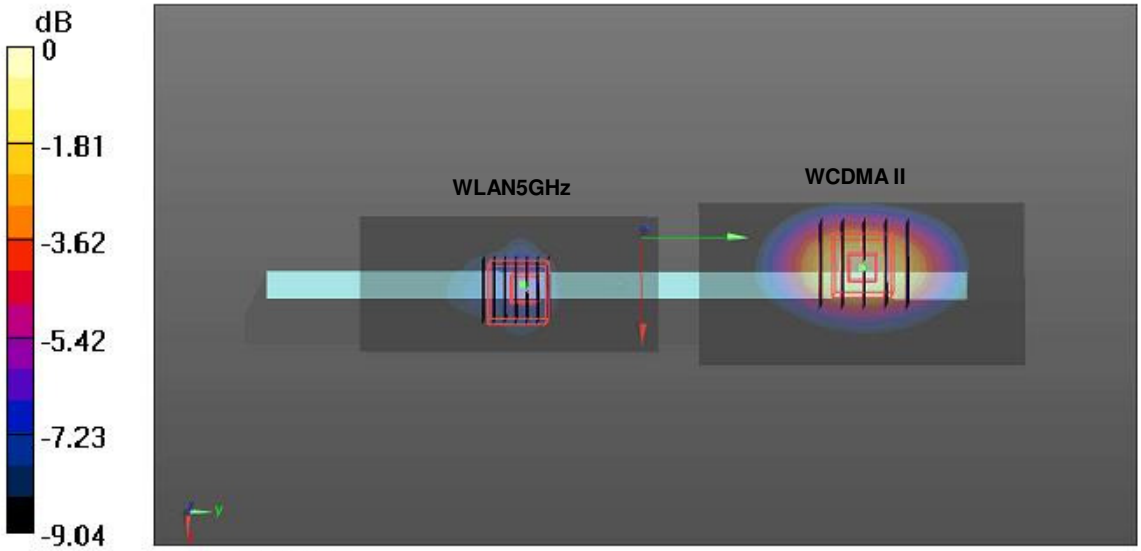
0 dB = 1.07 W/kg

Case #20	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900	Edge 4	1.03	0	-0.0075	0.0855	-0.181	124.5	1.83	0.02	Not required
	WLAN5GHz		0.799	0	-0.008	-0.039	-0.182				



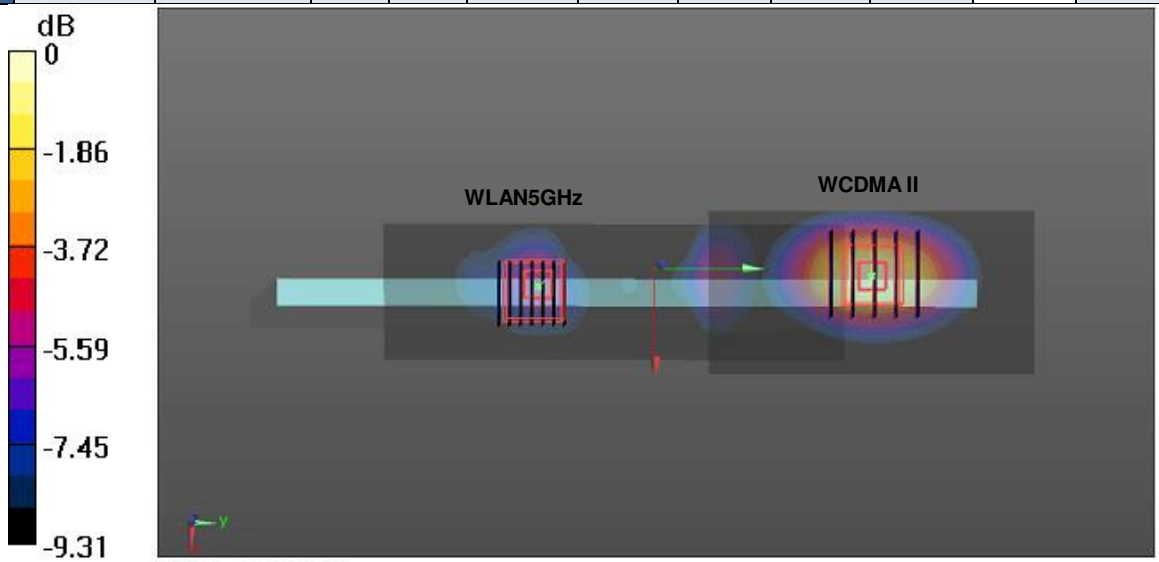
0 dB = 1.42 W/kg

Case #21	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Edge 4	1.3	1.5	-0.006	0.09	-0.181	124.3	1.65	0.02	Not required
	WLAN5GHz		0.349	1.5	0.003	-0.034	-0.182				



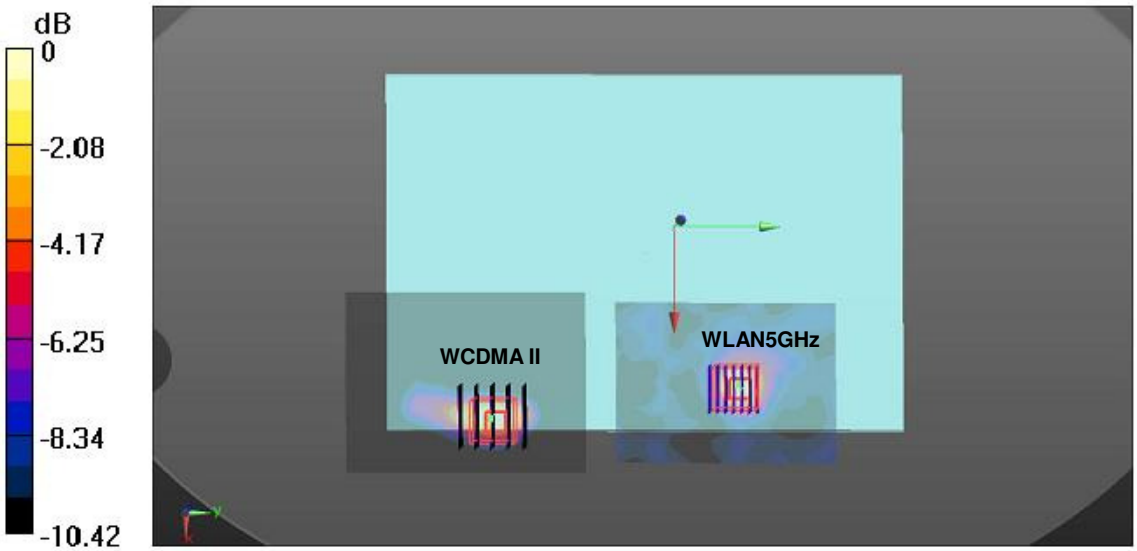
0 dB = 1.77 W/kg

Case #22	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Edge 4	1.3	1.5	-0.006	0.09	-0.181	122.0	1.66	0.02	Not required
	WLAN5GHz		0.361	1.5	-0.003	-0.032	-0.182				



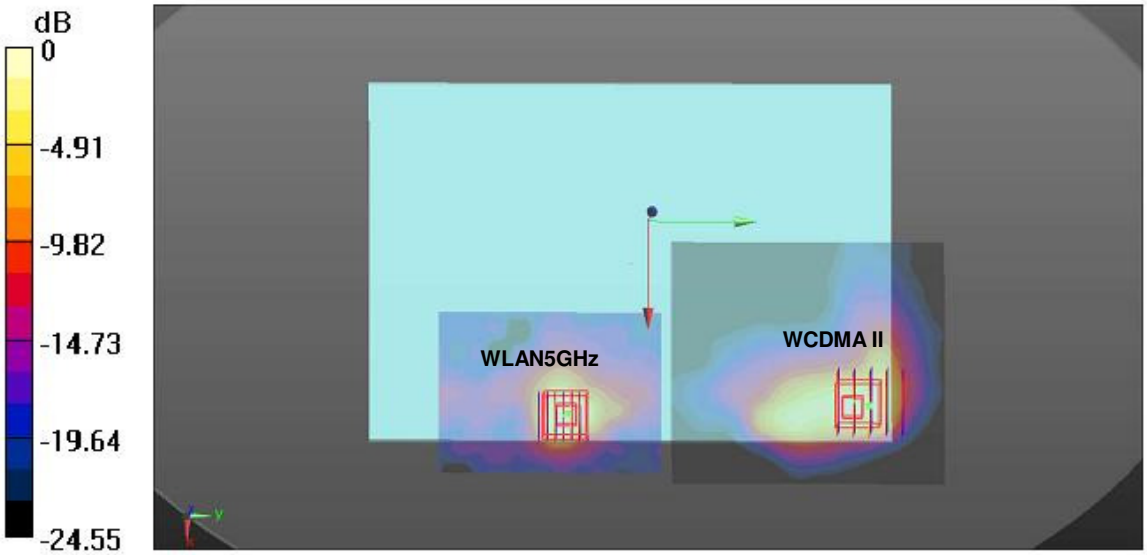
0 dB = 1.77 W/kg

Case #23	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Bottom	1.179	0	0.083	-0.078	-0.179	125.8	2.36	0.03	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				



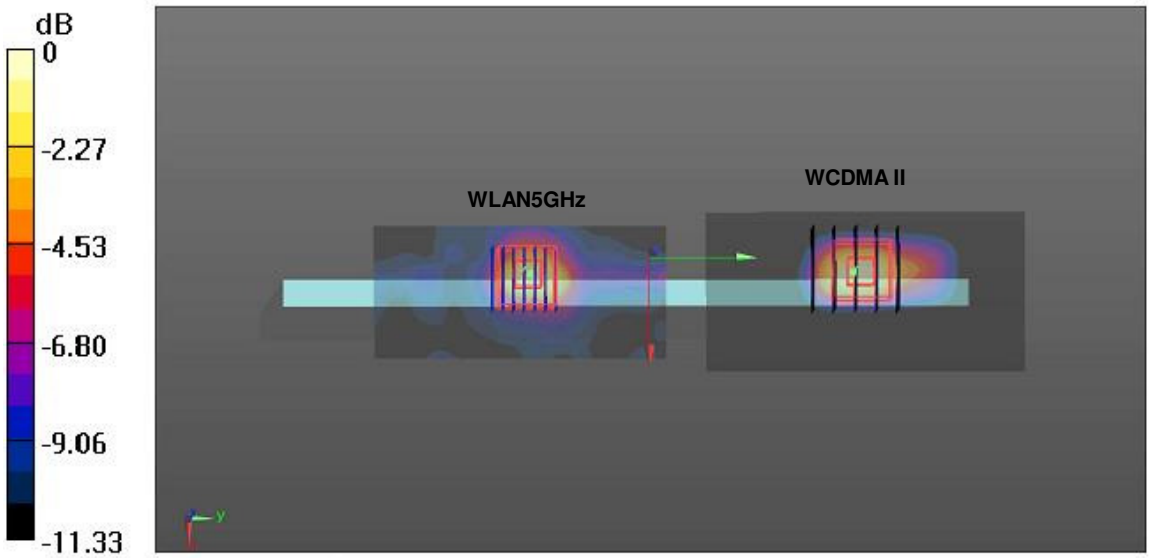
0 dB = 1.63 W/kg

Case #24	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Bottom Face	0.564	0	0.071	0.11	-0.18	144.2	2.03	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



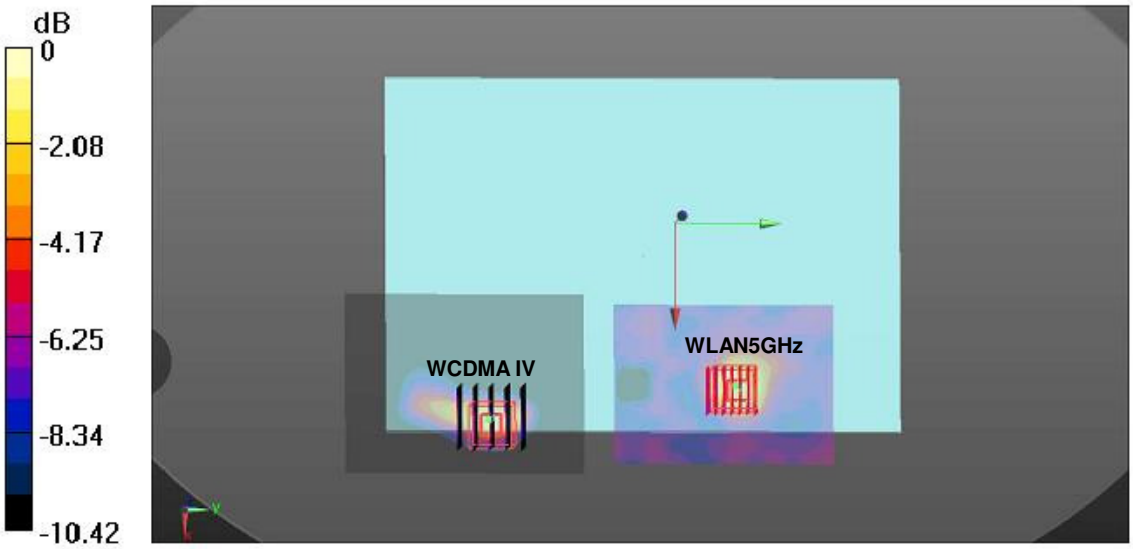
0 dB = 1.00 W/kg

Case #25	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II	Edge 4	0.936	0	-0.0075	0.0855	-0.181	124.5	1.74	0.02	Not required
	WLAN5GHz		0.799	0	-0.008	-0.039	-0.182				



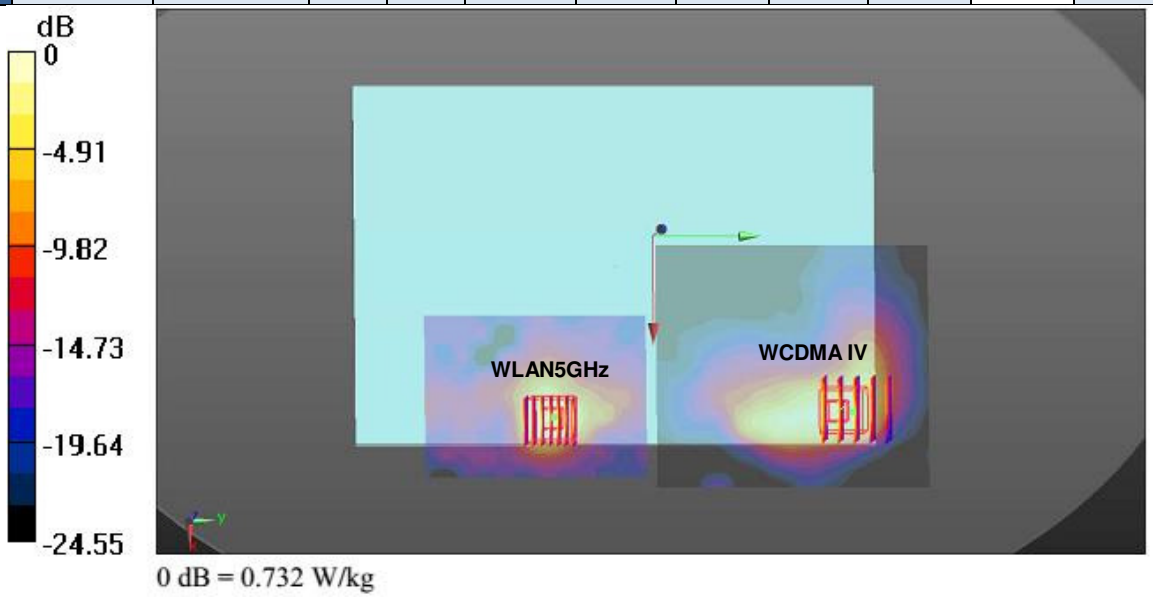
0 dB = 1.40 W/kg

Case #26	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom	0.718	0	0.083	-0.078	-0.179	125.8	1.90	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

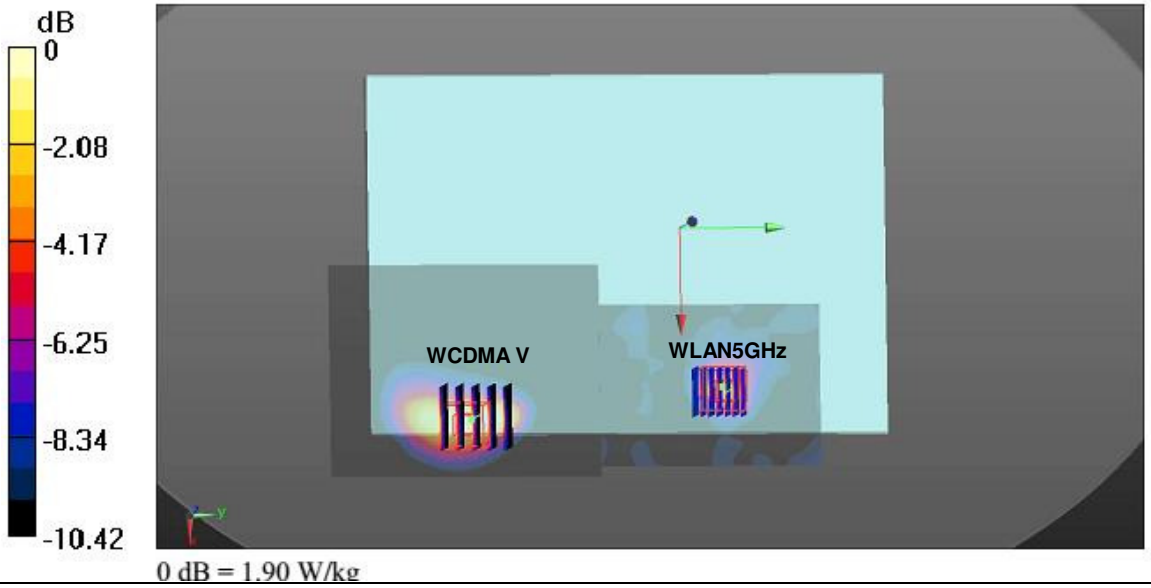


0 dB = 0.989 W/kg

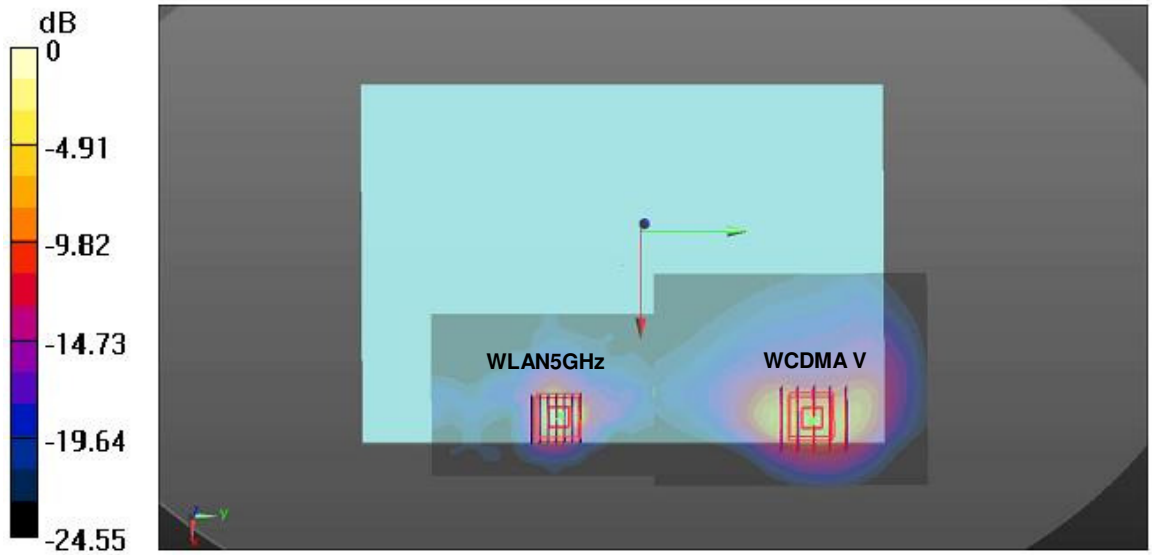
Case #27	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA IV	Bottom Face	0.504	0	0.0725	0.11	-0.18	144.1	1.97	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



Case #28	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Bottom	1.272	0	0.0815	-0.0795	-0.179	127.1	2.46	0.03	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

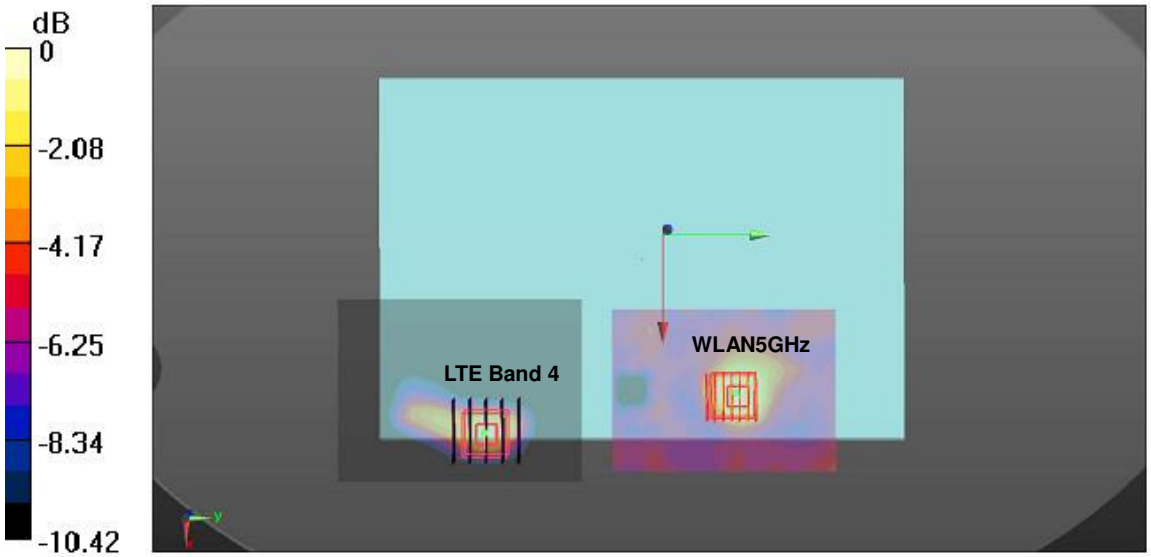


Case #29	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA V	Bottom Face	1.087	0	0.0785	0.093	-0.18	127.0	2.55	0.03	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



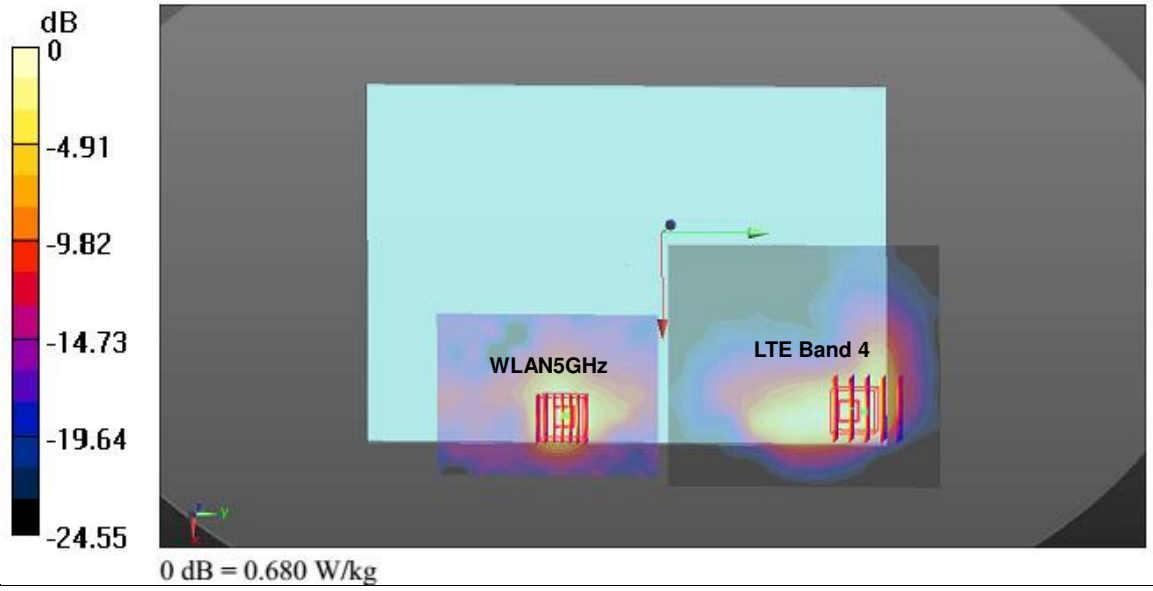
0 dB = 3.73 W/kg

Case #30	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Bottom	0.623	0	0.086	-0.078	-0.179	126.2	1.81	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

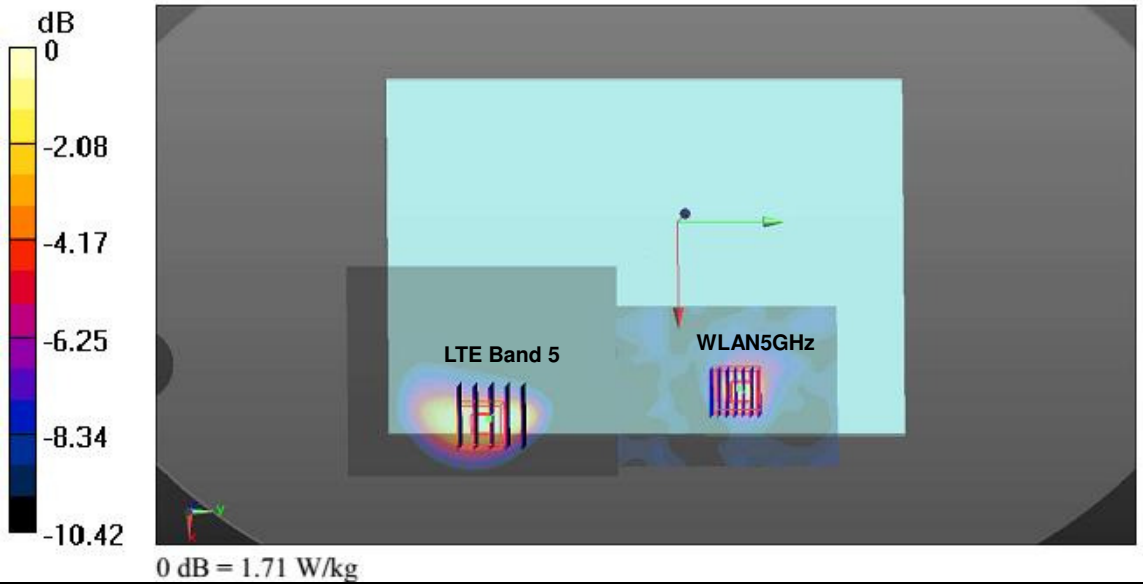


0 dB = 0.755 W/kg

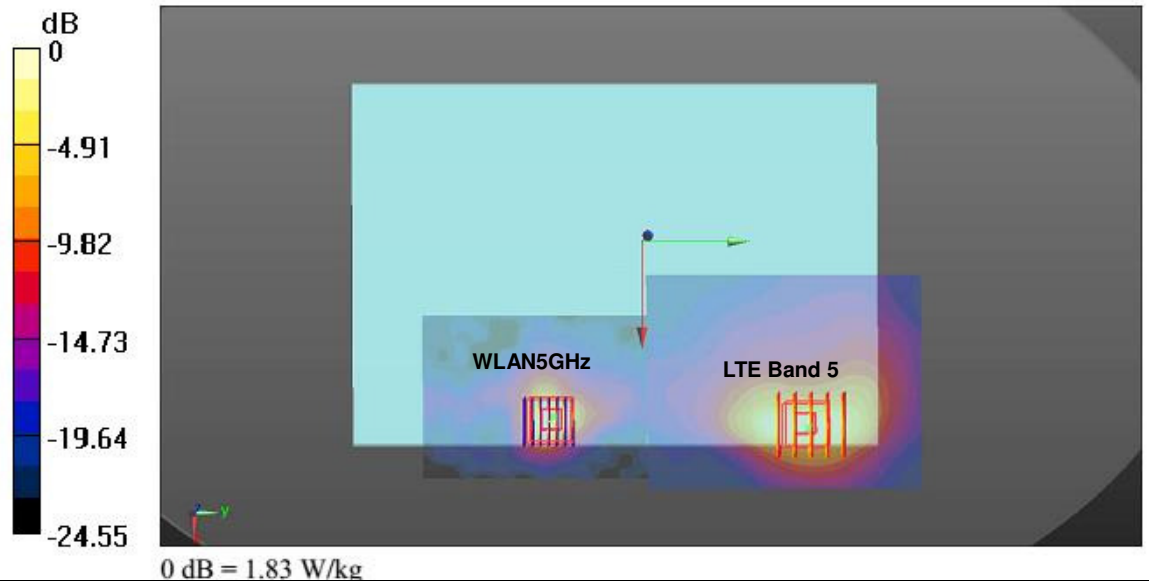
Case #31	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 4	Bottom Face	0.427	0	0.0725	0.11	-0.18	144.1	1.89	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



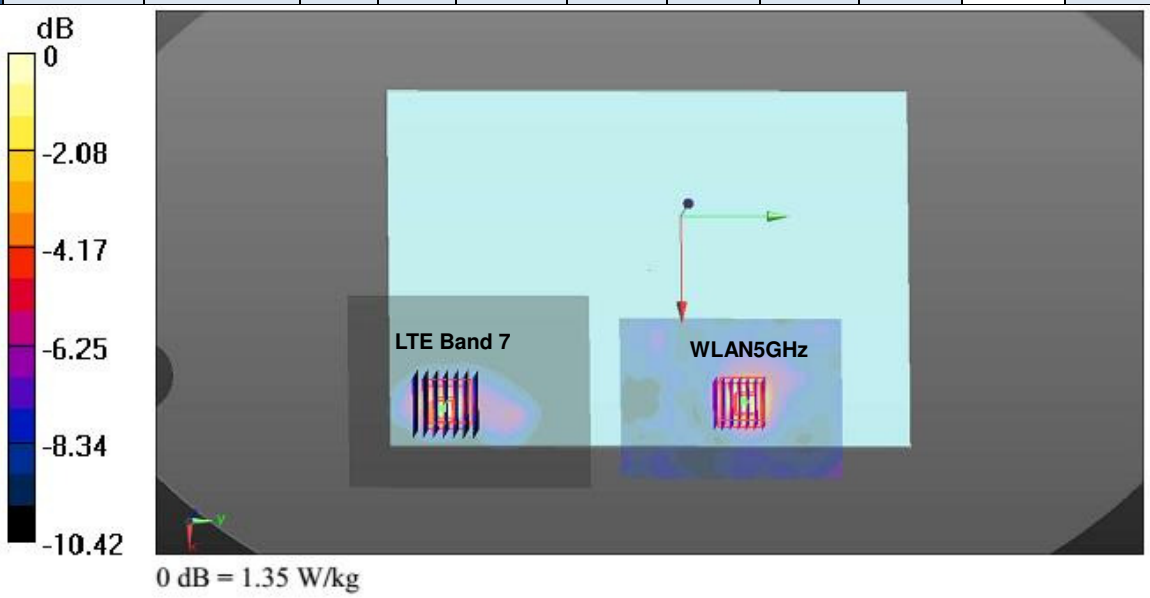
Case #32	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom	1.154	0	0.0815	-0.0795	-0.179	127.1	2.34	0.03	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				



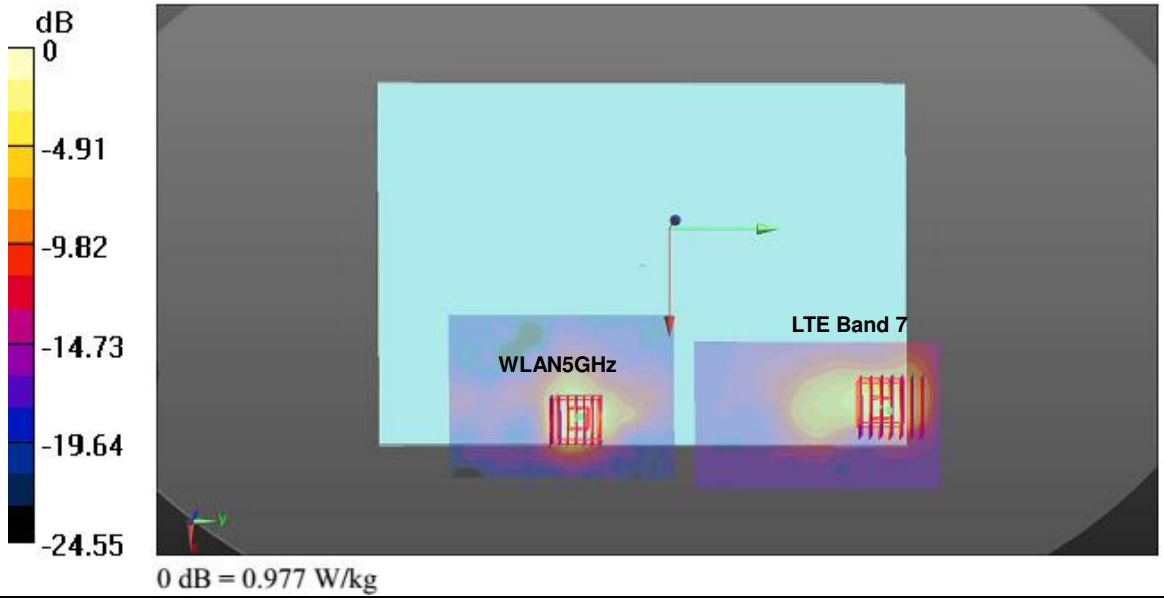
Case #33	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 5	Bottom Face	1.226	0	0.08	0.0945	-0.18	128.5	2.69	0.03	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



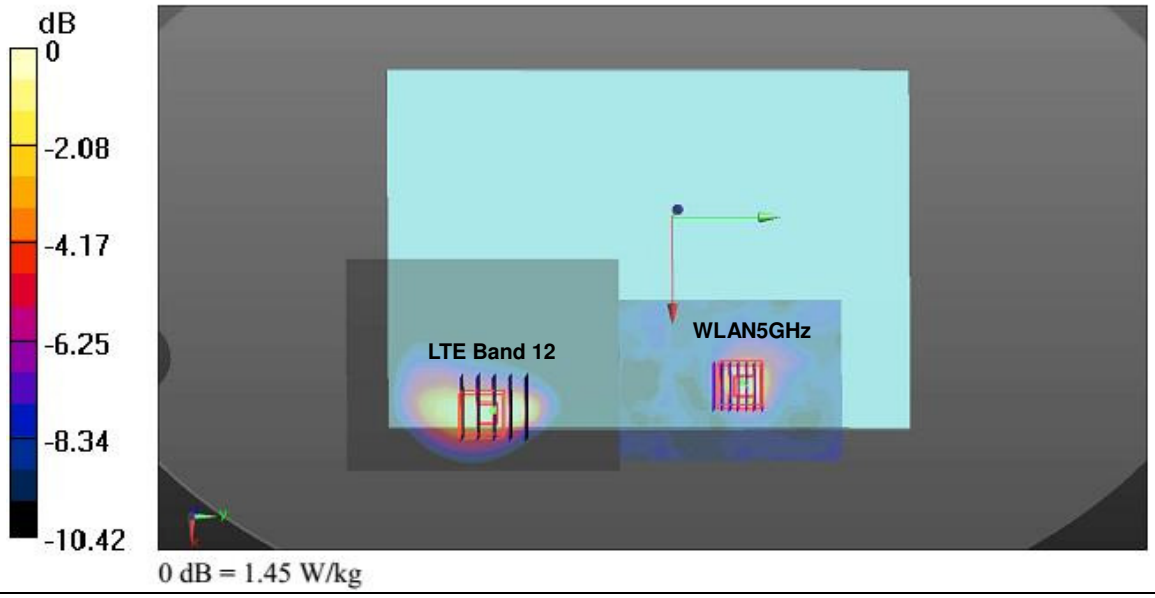
Case #34	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom	0.869	0	0.0704	-0.103	-0.179	150.0	2.05	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				



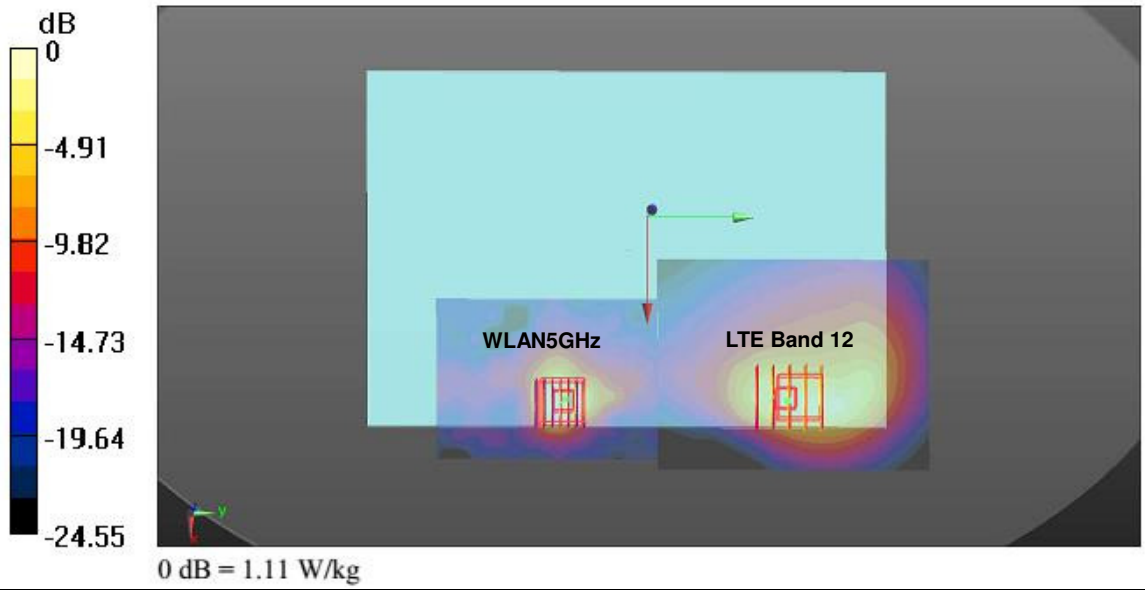
Case #35	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7	Bottom Face	0.614	0	0.0716	0.115	-0.179	149.2	2.08	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



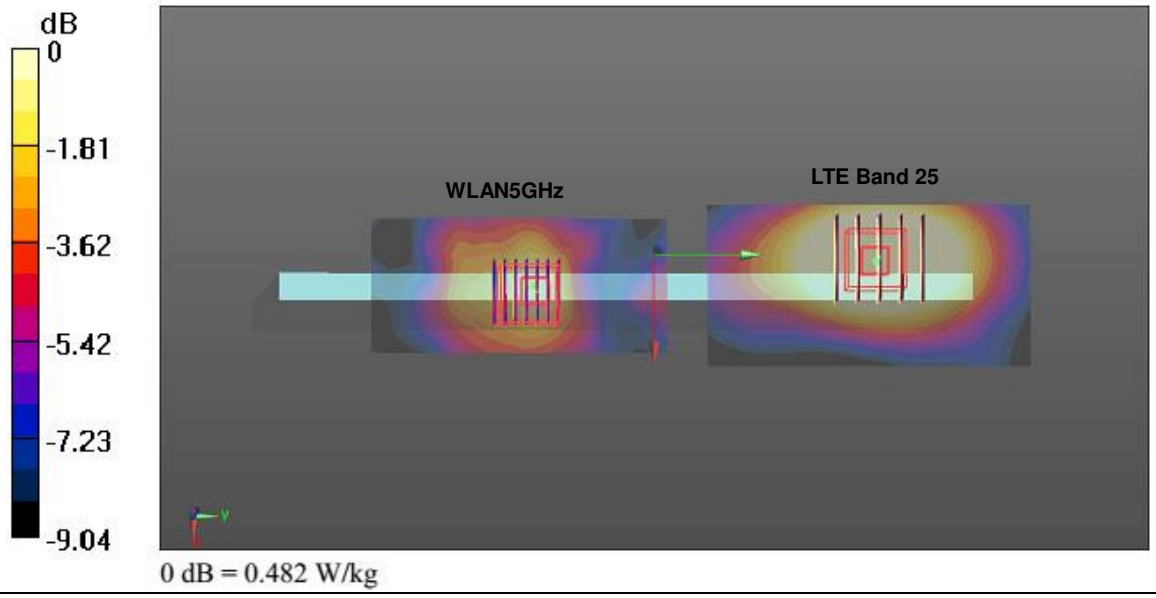
Case #36	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom	0.943	0	0.08	-0.078	-0.179	125.5	2.13	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				



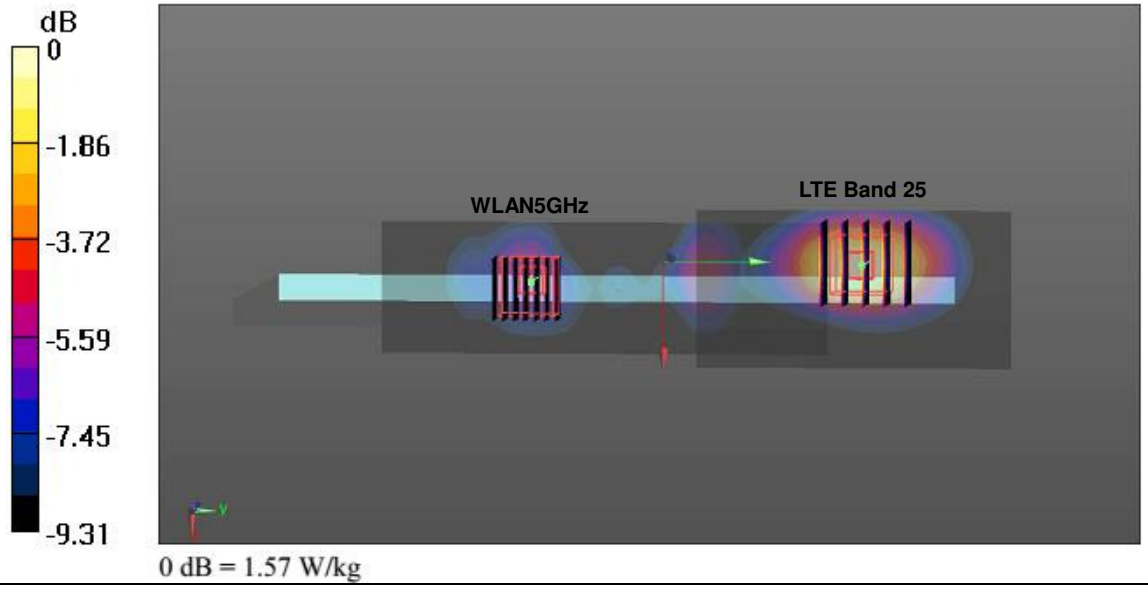
Case #37	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 12	Bottom Face	0.94	0	0.0755	0.0715	-0.18	105.5	2.41	0.04	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



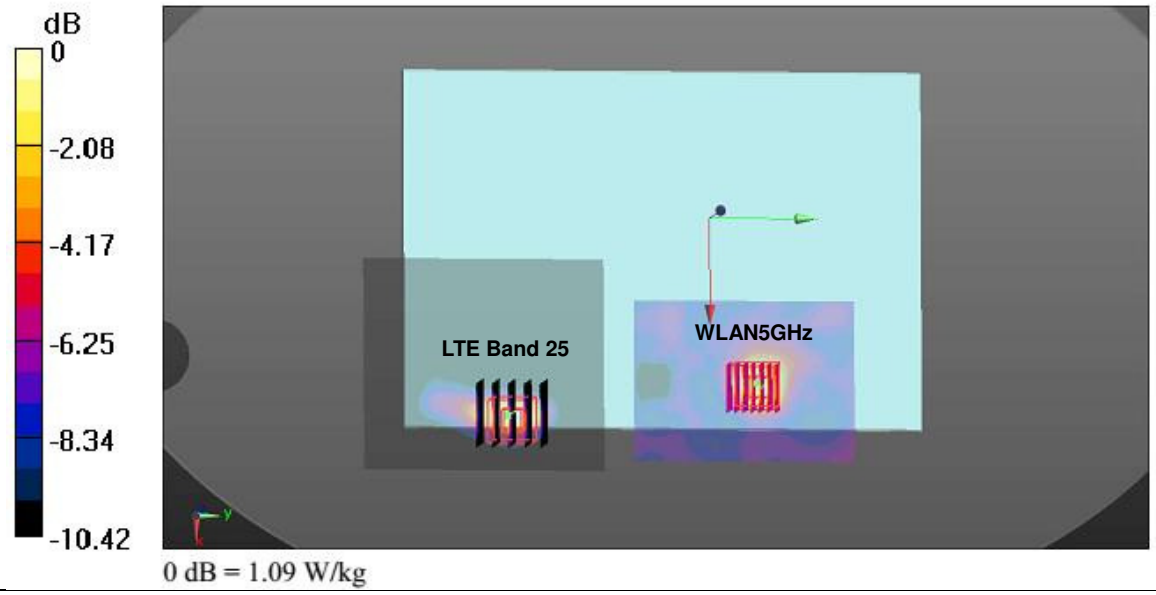
Case #38	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Edge 4	1.28	1.5	-0.009	0.093	-0.181	127.6	1.63	0.02	Not required
	WLAN5GHz		0.349	1.5	0.003	-0.034	-0.182				



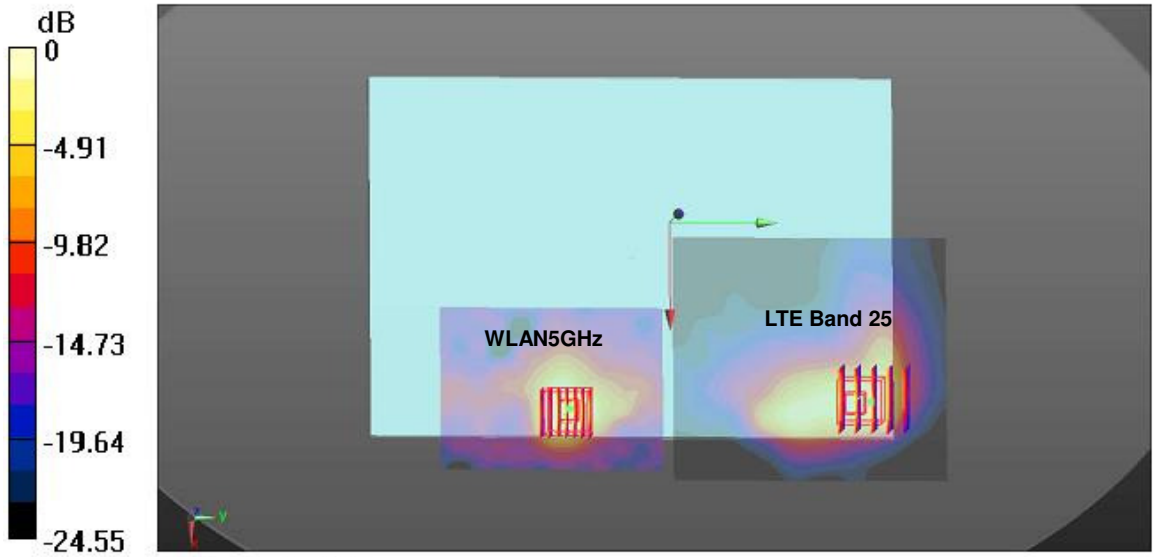
Case #39	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Edge 4	1.28	1.5	-0.009	0.093	-0.181	125.1	1.64	0.02	Not required
	WLAN5GHz		0.361	1.5	-0.003	-0.032	-0.182				



Case #40	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom	0.78	0	0.083	-0.078	-0.179	125.8	1.97	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				

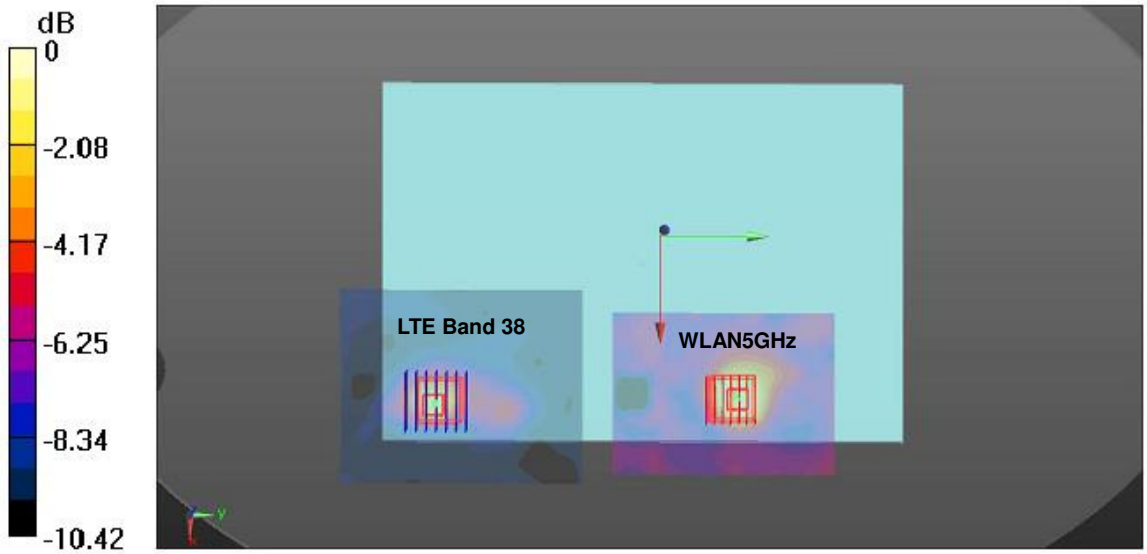


Case #41	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25	Bottom Face	0.38	0	0.071	0.11	-0.18	144.2	1.85	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



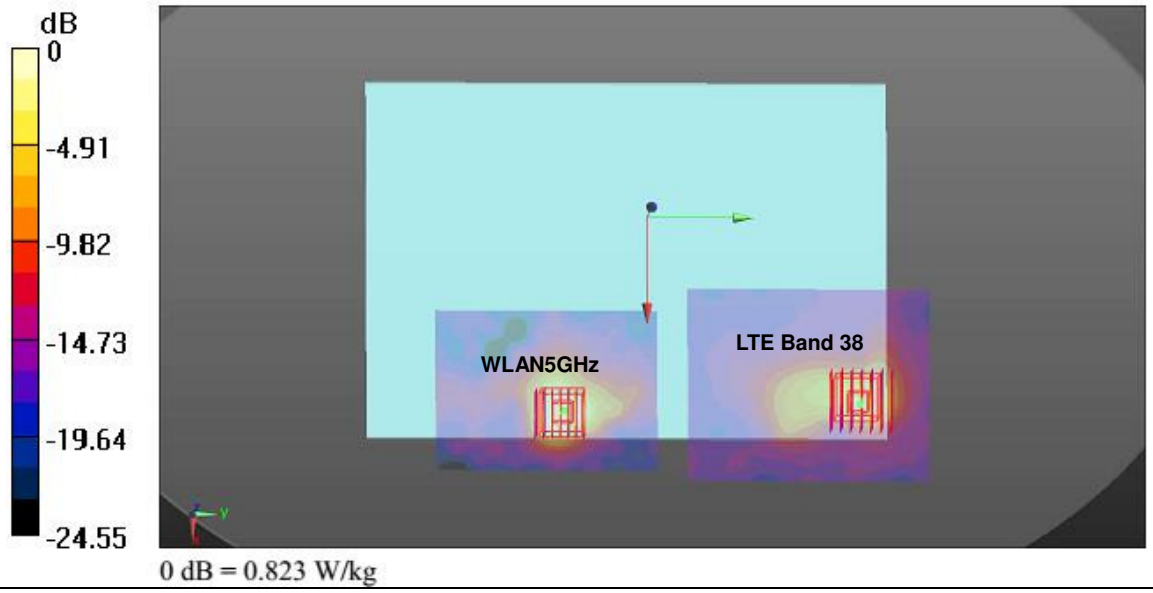
0 dB = 0.623 W/kg

Case #42	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 38	Bottom	0.602	0	0.0704	-0.103	-0.179	150.0	1.79	0.02	Not required
	WLAN5GHz		1.185	0	0.069	0.047	-0.181				



0 dB = 0.903 W/kg

Case #43	Band	Position	SAR (W/kg)	Gap (cm)	SAR peak location (m) X	Y	Z	3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 38	Bottom Face	0.424	0	0.0716	0.115	-0.179	149.2	1.89	0.02	Not required
	WLAN5GHz		1.467	0	0.078	-0.034	-0.181				



Test Engineer: Gavin Gao

Appendix A. Reference Report

Please refer to Sporton report number FA662015 which is issued separately.