SAR EVALUATION REPORT

FCC 47 CFR § 2.1093
IEEE Std 1528-2003
For
Cellular Phone with Bluetooth and WLAN Radio
Model: A1586, A1549
FCC ID: BCG-E2816A

Report Number: 14U17673-S1C
Issue Date: 8/15/2014

Prepared for
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NVLAP LAB CODE 200065-0

REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
--	7/24/2014	Initial Issue	--
A	8/1/2014	Report revised based on reviewer's comments: 1. Sec. 1: Updated table. 2. Sec. 6.1.: Updated description. 3. Sec. 6.2, 6.3., 6.4., 6.5.: Updated table. 4. Sec. 6.7.: Removed diagram. 5. Sec. 8.: Removed note. 6. Sec. 8.1.: Revised note. 7. Sec. 8.3.: Removed 1xAdvanced. 8. Sec. 8.4.1., 8.4.2., 8.4.3., & 8.4.6.: Updated tables. 9. Sec. 8.7.: Updated tables. 10. Sec. 11.18., 11.19.: Updated tables. 11. Sec. 11.21: Added worst case spot check SAR for A1549. 12. Sec. 13: Revised simultaneous transmission SAR tables.	Kenneth Mak
B	8/11/2014	1. Sec. 11.17.2.: Updated table to show all channels	Kenneth Mak
C	8/15/2014	Report revised based on reviewer's comments: 1. Added Section 10.3. SAR Scan Procedure	Kenneth Mak

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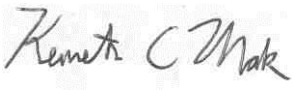
1. Attestation of Test Results

Applicant Name	APPLE INC.			
FCC ID	BCG-E2816A			
DUT Description	Cellular Phone with Bluetooth and WLAN Radio			
Exposure Category	General Population/Uncontrolled Exposure (1g SAR limit: 1.6 W/kg)			
The highest reported SAR	RF Exposure Conditions	Equipment Class		
		Licensed	DTS	UNII
	Head	1.18 W/kg	1.150 W/kg	0.490 W/kg
	Body-worn Accessory	1.18 W/kg	1.150 W/kg	0.404 W/kg
	Wireless Router (Hotspot)	1.18 W/kg	1.150 W/kg	0.404 W/kg
	Simultaneous Transmission	Head: 1.508 W/kg Body: 1.583 W/kg	Head: 1.508 W/kg Body: 1.581 W/kg	Head: 1.476 W/kg Body: 1.583 W/kg
Applicable Standards	FCC 47 CFR § 2.1093 Published RF exposure KDB procedures IEEE Std 1528-2013			
Test Results	Pass			
Date tested	6/19/2014 – 7/18/2014			

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government (NIST Handbook 150, Annex A). This report is written to support regulatory compliance of the applicable standards stated above.

Approved & Released By:	Prepared By:
	
Bobby Bayani Senior Engineer UL Verification Services Inc.	Kenneth Mak Laboratory Engineer UL Verification Services Inc.

2. Test Specification, Methods and Procedures

The tests documented in this report were performed in accordance with FCC 47 CFR § 2.1093, IEEE STD 1528-2003, the following FCC Published RF exposure KDB procedures, and TCB workshop updates:

- 447498 D01 General RF Exposure Guidance v05r02
- 648474 D04 Handset SAR v01r02
- 941225 D01 SAR test for 3G devices v02
- 941225 D02 HSPA and 1x Advanced v02r02
- 941225 D03 SAR Test Reduction GSM GPRS EDGE v01
- 941225 D04 SAR for GSM E GPRS Dual Xfer Mode v01
- 941225 D05 SAR for LTE Devices v02r03
- 941225 D05A LTE Rel.10 KDB Inquiry Sheet v01
- 941225 D06 Hotspot Mode SAR v01r01
- 248227 D01 SAR Meas for 802 11abg v01r02
- 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r03
- 865664 D02 SAR Reporting v01r01
- 690783 D01 SAR Listings on Grants v01r03

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at

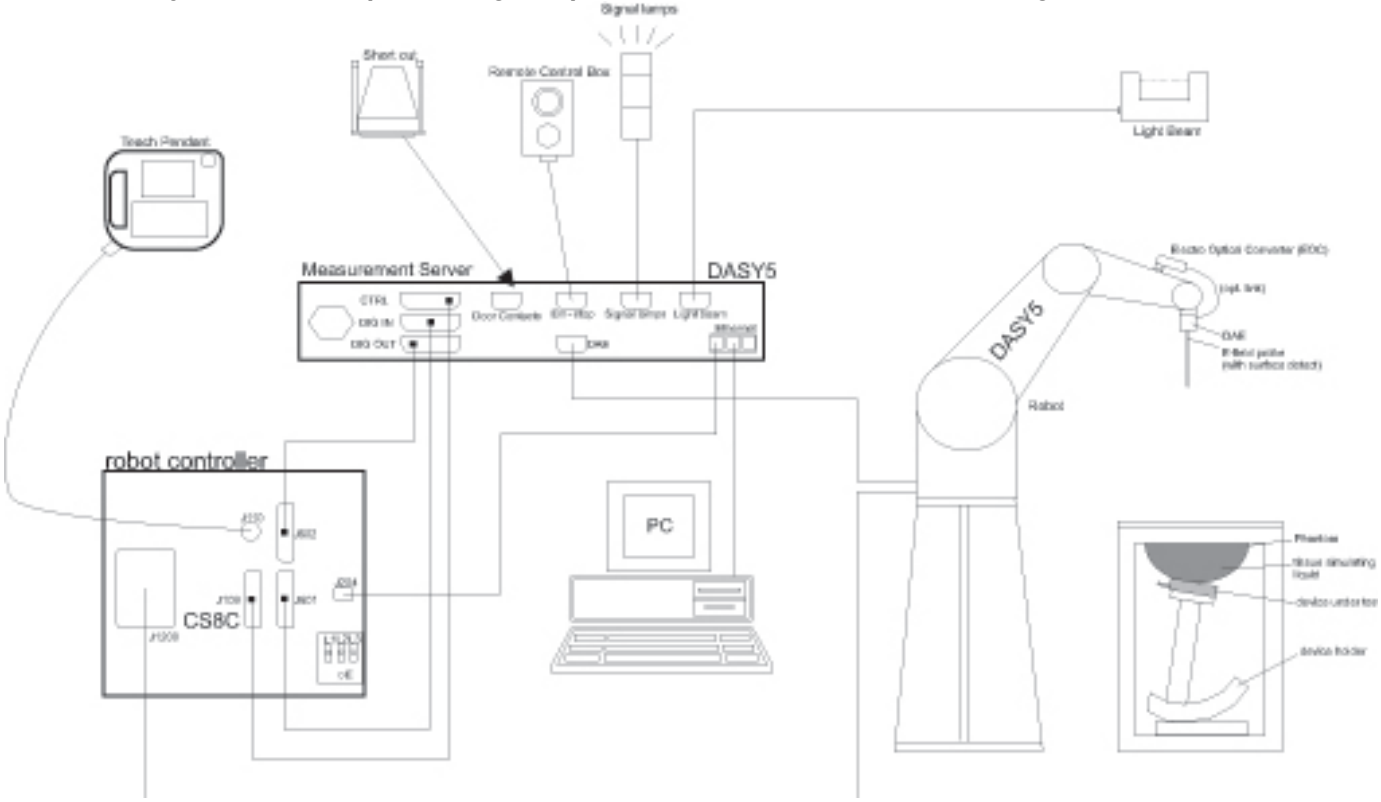
47173 Benicia Street	47266 Benicia Street
SAR Lab A	SAR Lab 1
SAR Lab B	SAR Lab 2
SAR Lab C	SAR Lab 3
SAR Lab D	SAR Lab 4
SAR Lab E	SAR Lab 5
SAR Lab F	
SAR Lab G	
SAR Lab H	

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. SAR Measurement System & Test Equipment

4.1. SAR Measurement System

The DASY5 system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

4.2.Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations, and is traceable to recognized national standards.

Dielectric Property Measurements

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Network Analyzer	Agilent	8753ES	MY40001647	7/11/2014
Network Analyzer	Agilent	E8363C	1391298J	12/3/2014
Dielectronic Probe kit	SPEAG	DAK-3.5	1082	9/10/2014
Dielectronic Probe kit	SPEAG	DAK-3.5 Short	SM DAK 200 BA	N/A
Thermometer	Control Company	4242	122529162	9/19/2014

System Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Synthesized Signal Generator	HP	8665B	3744A01084	5/20/2015
Power Meter	Agilent	N1912A	MY50001018	8/23/2014
Power Sensor	Agilent	E9323A	MY53070005	5/1/2015
Power Sensor	Agilent	E9323A	US40411556	8/9/2014
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795093	N/A
Directional coupler	Werlatone	C8060-102	2149	N/A
DC Power Supply	AMETEK	XT 20-3	1318A00530	N/A
Synthesized Signal Generator	HP	8665B	3744A01155	3/12/2015
Power Meter	HP	437B	3125U11364	8/26/2014
Power Meter	HP	437B	3125U12345	7/29/2014
Power Sensor	HP	8481A	1926A27048	7/29/2014
Power Sensor	HP	8481A	2702A76223	9/17/2014
Amplifier	MITEQ	AMF-4D-00400600-50-30P	1795092	N/A
Directional coupler	Werlatone	C8060-102	2141	N/A
DC Power Supply	BK PRECISION	1611	215-02292	N/A
E-Field Probe	SPEAG	EX3DV4	3885	9/18/2014
E-Field Probe	SPEAG	EX3DV4	3751	11/21/2014
E-Field Probe	SPEAG	EX3DV4	3749	1/29/2015
E-Field Probe	SPEAG	EX3DV4	3901	2/25/2015
E-Field Probe	SPEAG	EX3DV4	3772	2/26/2015
E-Field Probe	SPEAG	EX3DV4	3686	3/18/2015
E-Field Probe	SPEAG	EX3DV4	3989	4/15/2015
E-Field Probe	SPEAG	EX3DV4	3990	4/15/2015
Data Acquisition Electronics	SPEAG	DAE4	1259	1/23/2015
Data Acquisition Electronics	SPEAG	DAE4	1357	2/17/2015
Data Acquisition Electronics	SPEAG	DAE4	1360	3/17/2015
Data Acquisition Electronics	SPEAG	DAE4	1433	4/14/2015
Data Acquisition Electronics	SPEAG	DAE4	1434	4/14/2015
Data Acquisition Electronics	SPEAG	DAE4	1239	4/15/2015
Data Acquisition Electronics	SPEAG	DAE3	500	5/15/2015
Data Acquisition Electronics	SPEAG	DAE4	1258	5/15/2015
System Validation Dipole	SPEAG	D750V3	1024	5/16/2015
System Validation Dipole	SPEAG	D835V2	4d142	9/17/2014
System Validation Dipole	SPEAG	D1750V2	1050	4/22/2015
System Validation Dipole	SPEAG	D1750V2	1053	8/27/2014
System Validation Dipole	SPEAG	D1900V2	5d140	4/23/2015
System Validation Dipole	SPEAG	D1900V2	5d163	9/17/2014
System Validation Dipole	SPEAG	D2450V2	748	2/18/2015
System Validation Dipole	SPEAG	D2450V2	706	5/20/2015
System Validation Dipole	SPEAG	D2600V2	1036	3/12/2015
System Validation Dipole	SPEAG	D5GHzV2	1003	2/26/2015
System Validation Dipole	SPEAG	D5GHzV2	1168	12/12/2014

Others

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Base Station Simulator	R & S	CMU200	838114	7/23/2014
Base Station Simulator	R & S	CMW500	124593-ss	7/25/2014
Base Station Simulator	R & S	CMW500	113915-da	8/14/2014
Base Station Simulator	R & S	CMW500	135390-ws	7/3/2015
Base Station Simulator	R & S	CMW500	132911-tu	2/27/2015
Base Station Simulator	R & S	CMW500	103766-ly	8/19/2014
Base Station Simulator	R & S	CMW500	112268-rf	6/6/2015
Power Meter	Agilent	N1911A	MY53060009	5/5/2015
Power Sensor	Agilent	E9323A	US40411681	10/4/2014

5. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg, the extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2003 is not required in SAR reports submitted for equipment approval.

6. Device Under Test (DUT) Information

6.1. DUT Description

The device is the next generation iPhone.

For operational and marketing reasons, there will be two models, A1586 and A1549.

Model A1586 is a mobile phone with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1x Advanced/EVDO Rev.A/EVDO Rev.B/WCDMA/HSPA+/DC-HSDPA/LTE FDD & Carrier Aggregation/TDD/TD-SCDMA radio, IEEE 802.11a/b/g/n/ac radio, Bluetooth radio and NFC. The rechargeable battery is not user accessible.

Model A1549 is identical to Model A1586 and has the same MLB as Model A1586, but with TD-LTE/TD-SCDMA components de-populated.

This device has two antennas. The Primary Cellular Antenna (LAT) is located on the bottom edge of the device and the Secondary Cellular Antenna (UAT) is located on the top edge of the device.

The device is capable of switching between the LAT and UAT based on signal strength.

The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for cellular transmission at a time.

There are three vendors of the WiFi/Bluetooth radio modules: Variant 1, Variant 2 and Variant 3 and they have the same mechanical outline, same on board antenna, matching circuit, antenna structure and same specification. Complete SAR evaluation is performed on the Variant 3 that has the highest SAR, and then, the test is repeated for the other variants at the highest peak SAR value.

Device Dimension	Overall (Length x Width): 138.1mm x 67mm Overall Diagonal: 147mm Display Diagonal: 120mm
Battery Back Cover	The rechargeable battery is not user accessible.
Battery Options	The rechargeable battery is not user accessible.
Accessory	Headset
Wireless Router (Hotspot)	Wi-Fi Hotspot mode permits the device to share its cellular data connection with other Wi-Fi-enabled devices. ☒ Mobile Hotspot (Wi-Fi 2.4 GHz with $P_{Cell\_ON} = P_{Low}$) ☐ Mobile Hotspot (Wi-Fi 5 GHz)
AirPlay	AirPlay mode enabled devices transfer data directly between each other ☒ AirPlay (Wi-Fi 2.4 GHz) ☒ AirPlay (Wi-Fi 5 GHz)

6.2. Wireless Technologies

Wireless technologies	Frequency bands	Operating mode	Duty Cycle used for SAR testing
GSM	850, 1900	Voice (GMSK), GPRS (GMSK) and EGPRS (8PSK)	GSM Voice: 12.5%; GPRS 1 Slot: 12.5%; 2 Slots: 25%
	GPRS Multi-Slot Class: ☐ Class 8 - One Up ☒ Class 10 - Two Up ☐ Class 12 - Four Up DTM (Dual Transfer Mode): Not support		
CDMA2000	BC0, BC1, BC10, and BC15	1xRTT (Voice & Data) 1xEV-DO Rel. 0 1xEV-DO Rev. A 1xEV-DO Rev. B (BC0 only)	1xRTT: 100% 1xEV-DO Rel. 0: 100% 1xEV-DO Rev. B: 100%
	Does this device SV-DO (1xRTT-1xEVDO)? ☐Yes ☒ No		
W-CDMA (UMTS)	Band V, IV, and II	UMTS Rel. 99 (Voice & Data) HSDPA (Rel. 7, CAT 14) HSUPA (Rel. 6, CAT 6) DC-HSDPA (Rel. 8, CAT 24) HSPA+ (Rel. 6, CAT 6)	Rel. 99: 100%
LTE (FDD)	Band 2 / 4 / 5/ 13 / 17 / 25 / 26	QPSK, 16QAM Rel. 10 Carrier Aggregation (1 Uplink and 2 Downlinks)	100%
	Does this device SV-LTE (1xRTT-LTE)? ☐Yes ☒ No		
LTE (TDD)	Band 41 (Only for model A1586)	QPSK, 16QAM	63.3%
Wi-Fi	2.4 GHz	802.11b 802.11g 802.11n (HT20)	100%
	5 GHz	802.11a 802.11n (HT20) 802.11n (HT40) 802.11ac (HT20) 802.11ac (HT40) 802.11ac (HT80)	100%
Bluetooth	2.4 GHz	Version 1.2 Version 2.0 + EDR Version 2.1 + EDR Version 3.0 + HS Version 4.0 LE	77.52% (DH5)

6.3. Maximum Output Power

RF Air interface	Mode	Maximum Output Power (dBm)			
		Head		Body	
		UAT	LAT	UAT	LAT
GSM850	Voice	**33.20**	**33.50**	**33.20**	**33.50**
	GPRS 1 slot	**33.20**	**33.50**	**33.20**	**33.50**
	GPRS 2 slots	**32.20**	**32.50**	**32.20**	**32.50**
	EGPRS 1 slot	**28.70**	**29.00**	**28.70**	**29.00**
	EGPRS 2 slots	**28.70**	**29.00**	**28.70**	**29.00**
GSM1900	Voice	**29.90**	**30.00**	**29.90**	**28.80**
	GPRS 1 slot	**29.90**	**30.00**	**29.90**	**28.80**
	GPRS 2 slots	**27.10**	**29.50**	**28.90**	**25.80**
	EGPRS 1 slot	**27.40**	**28.00**	**27.40**	**28.00**
	EGPRS 2 slots	**27.40**	**28.00**	**27.40**	**26.80**
W-CDMA Band V	R99	**24.70**	**25.00**	**24.70**	**25.00**
	HSDPA	**24.70**	**25.00**	**24.70**	**25.00**
	HSUPA	**24.70**	**25.00**	**24.70**	**25.00**
	DC-HSDPA	**24.70**	**25.00**	**24.70**	**25.00**
W-CDMA Band IV	R99	**19.90**	**25.00**	**23.10**	**19.00**
	HSDPA	**19.90**	**25.00**	**23.10**	**19.00**
	HSUPA	**19.90**	**25.00**	**23.10**	**19.00**
	DC-HSDPA	**19.90**	**25.00**	**23.10**	**19.00**
W-CDMA Band II	R99	**20.10**	**24.25**	**23.30**	**18.50**
	HSDPA	**20.10**	**24.25**	**23.30**	**18.50**
	HSUPA	**20.10**	**24.25**	**23.30**	**18.50**
	DC-HSDPA	**20.10**	**24.25**	**23.30**	**18.50**
CDMA BC0	1xRTT	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rel. 0	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. A	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. B	**21.40**	**21.70**	**21.40**	**21.70**
CDMA BC1	1xRTT	**20.10**	**24.25**	**23.30**	**18.50**
	1xEVDO Rel. 0	**20.10**	**24.25**	**23.30**	**18.50**
	1xEVDO Rev. A	**20.10**	**24.25**	**23.30**	**18.50**
CDMA BC10	1xRTT	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rel. 0	**24.70**	**25.00**	**24.70**	**25.00**
	1xEVDO Rev. A	**24.70**	**25.00**	**24.70**	**25.00**
CDMA BC15	1xRTT	**19.90**	**25.00**	**23.10**	**19.00**
	1xEVDO Rel. 0	**19.90**	**25.00**	**23.10**	**19.00**
	1xEVDO Rev. A	**19.90**	**25.00**	**23.10**	**19.00**

RF Air interface	Mode	Maximum Output Power (dBm)			
		Head		Body	
		UAT	LAT	UAT	LAT
LTE Band 2	QPSK	**20.10**	**23.75**	**23.40**	**18.50**
LTE Band 4	QPSK	**19.90**	**24.00**	**23.10**	**19.00**
LTE Band 5	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 13	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 17	QPSK	**23.70**	**24.00**	**23.70**	**24.00**
LTE Band 25	QPSK	**20.10**	**23.50**	**23.40**	**18.50**
LTE Band 26	QPSK	**23.00**	**23.00**	**23.00**	**23.00**
LTE Band 41	QPSK	**22.50**	**22.50**	**22.50**	**19.00**

RF Air interface	Mode	Maximum Output Power (dBm)	
		P_{Cell_ON} (Low Power)	P_{Cell_OFF} (Max Power)
Wi-Fi 2.4 GHz	802.11b/g/n	**15.00**	**18.00**
Bluetooth		**12.00**	
RF Air interface	Mode	Maximum Output Power (dBm)	
		Head	Body
Wi-Fi 5.2 GHz	802.11a	**12.00**	**18.00**
	802.11n/ac HT20	**12.00**	**18.00**
	802.11n/ac HT40	**12.00**	**16.00**
	802.11ac HT80	**12.00**	**15.00**
Wi-Fi 5.3 GHz	802.11a	**11.00**	**17.00**
	802.11n/ac HT20	**11.00**	**17.00**
	802.11n/ac HT40	**11.00**	**17.00**
	802.11ac HT80	**11.00**	**14.50**
Wi-Fi 5.5 GHz	802.11a	**9.00**	**14.50**
	802.11n/ac HT20	**9.00**	**14.50**
	802.11n/ac HT40	**9.00**	**14.50**
	802.11ac HT80	**9.00**	**12.50**
Wi-Fi 5.8 GHz	802.11a	**11.50**	**17.00**
	802.11n/ac HT20	**11.50**	**17.00**
	802.11n/ac HT40	**11.50**	**15.00**
	802.11ac HT80	**11.50**	**14.00**

6.4. Simultaneous Transmission Condition

RF Exposure Condition	Capable Transmit Configurations
Head	1. GSM 850 / 1900 Voice + Wi-Fi 2.4 / 5GHz 2. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4 / 5GHz 3. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz 4. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz 5. WCDMA Band V / IV / II + Wi-Fi 2.4 / 5GHz 6. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4 / 5GHz 7. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41+ Wi-Fi 2.4 / 5GHz (Only for model A1586)
Body-worn Accessory	1. GSM 850 / 1900 Voice + Wi-Fi 2.4 / 5GHz + BT 2. GSM 850 / 1900 Voice + BT 3. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4 / 5GHz + BT 4. GSM 850 / 1900 (GPRS/EDGE) + BT 5. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz + BT 6. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + BT 7. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4 / 5GHz + BT 8. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + BT 9. WCDMA Band V / IV / II + Wi-Fi 2.4 / 5GHz + BT 10. WCDMA Band V / IV / II + BT 11. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4 / 5GHz + BT 12. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + Wi-Fi 2.4 / 5GHz + BT (Only for model A1586) 13. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + BT 14. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + BT(Only for model A1586)
Wireless Router (Hotspot)	1. GSM 850 / 1900 (GPRS/EDGE) + Wi-Fi 2.4GHz 2. CDMA 1xRTT BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4GHz 3. CDMA 1xEV-DO BC0 / BC1 / BC10 / BC15 + Wi-Fi 2.4GHz 4. WCDMA Band V / IV / II + Wi-Fi 2.4GHz 5. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 + Wi-Fi 2.4GHz 6. LTE B2 / B4 / B5/ B13 / B17 / B25 / B26 / B41 + Wi-Fi 2.4GHz (Only for model A1586)

Notes:
1. Wi-Fi only 2.4GHz supports Hotspot.
2. GPRS/EDGE, CDMA, WCDMA, LTE support Hotspot.
3. VoIP is supported in CDMA, LTE, WCDMA, GPRS, Wi-Fi 2.4GHz & 5GHz.
4. Wi-Fi 2.4GHz Radio cannot transmit simultaneously with Bluetooth Radio.
5. Wi-Fi 2.4GHz is using P_{Cell_ON} power table when cellular transmitter is on.
6. Wi-Fi 5GHz uses Head and Body Power Tables (Section 8.7)

6.5. General LTE SAR Test and Reporting Considerations

Item	Description						
Frequency range, Channel Bandwidth, Numbers and Frequencies	Band 2	Frequency range: 1850 - 1910 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	18700 /1860	18675/ 1857.5	18650/ 1855	18625/ 1852.5	18615/ 1851.5	18607/ 1850.7
	Mid	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880	18900/ 1880
	High	19100/ 1900	19125/ 1902.5	19150/ 1905	19175/ 1907.5	19185/ 1908.5	19193/ 1909.3
	Band 4	Frequency range: 1710 - 1755 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low	20050/ 1720	20025/ 1717.5	20000/ 1715	19975/ 1712.5	19965/ 1711.5	19957/ 1710.7
	Mid	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5	20175/ 1732.5
	High	20300/ 1745	20325/ 1747.5	20350/ 1750	20375/ 1752.5	20385/ 1753.5	20393/ 1754.3
	Band 5	Frequency range: 824 - 849 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low			20450/ 829	20425/ 826.5	20415/ 825.5	20407/ 824.7
	Mid			20525/ 836.5	20525/ 836.5	20525/ 836.5	20525/ 836.5
	High			20600/ 844	20625/ 846.5	20635/ 847.5	20643/ 848.3
	Band 13	Frequency range: 777 - 787 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23205/ 779.5		
	Mid			23230/ 782	23230/ 782		
	High				23255/ 784.5		
	Band 17	Frequency range: 704 - 716 MHz					
		Channel Bandwidth					
		20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
	Low				23755/ 706.5		
	Mid			23790/ 710	23790/ 710		
	High				23825/ 713.5		

General LTE SAR Test and Reporting Considerations (Continued)

Frequency range, Channel Bandwidth, Numbers and Frequencies

Band 25	Frequency range: 1850 - 1915 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	26140/ 1860	26115/ 1857.5	26090/ 1855	26065/ 1852.5	26055/ 1851.5	26047/ 1850.7
Mid	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5	26365/ 1882.5
High	26590/ 1905	26615/ 1907.5	26640/ 1910	26665/ 1912.5	26675/ 1913.5	26683/ 1914.3

Band 26	Frequency range: 814 – 824 MHz (Channels straddle part 22 and part 90 not supported)					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low					26705/ 820.3	
Mid			26740/ 819	26865/ 821.3	26865/ 821.3	
High					27025/ 822.3	

Band 41	Frequency range: 2496 - 2690 MHz					
	Channel Bandwidth					
	20 MHz	15 MHz	10 MHz	5 MHz	3 MHz	1.4 MHz
Low	39750/ 2506.0	39725/ 2503.5	39700/ 2501			
Low-Mid	40185/ 2549.5	40173/ 2548.3	40160/ 2547.0			
Mid	40620/ 2593.0	40620/ 2593.0	40620/ 2593.0			
Mid-High	41055/ 2636.5	41068/ 2547.8	41080/ 2639.0			
High	41490/ 2680.0	41515/ 2682.5	41540/ 2685.0			

LTE transmitter and antenna implementation

LTE can transmit from either UAT (Secondary Antenna) or LAT (Primary Antenna). The antenna switching is implemented with a physical, “break-before-make” switch such that only one antenna can be used for LTE transmission at a time.

Maximum power reduction (MPR)

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

MPR Built-in by design

A-MPR (additional MPR) was disabled during SAR testing

Spectrum plots for RB configurations

A properly configured base station simulator was used for the SAR and power measurements; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.

6.6. LTE (TDD) Considerations

According to KDB 941225 D05 SAR for LTE Devices v02r03, for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33%) using Uplink-downlink configuration 0 and Special subframe configuration 7.

LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Calculated Duty Cycle

Uplink-Downlink Configuration	Downlink-to-Uplink Switch-point Periodicity	Subframe Number										Calculated Duty Cycle (%)
		0	1	2	3	4	5	6	7	8	9	
0	5 ms	D	S	U	U	U	D	S	U	U	U	63.33
1	5 ms	D	S	U	U	D	D	S	U	U	D	43.33
2	5 ms	D	S	U	D	D	D	S	U	D	D	23.33
3	10 ms	D	S	U	U	U	D	D	D	D	D	31.67
4	10 ms	D	S	U	U	D	D	D	D	D	D	21.67
5	10 ms	D	S	U	D	D	D	D	D	D	D	11.67
6	5 ms	D	S	U	U	U	D	S	U	U	D	53.33

Calculated Duty Cycle = Extended cyclic prefix in uplink x (T_s) x # of S + # of U

Example for Calculated Duty Cycle for Uplink-Downlink Configuration 0:
Calculated Duty Cycle = 5120 x [1/(15000 x 2048)] x 2 + 6 ms = 63.33%
where
T_s = 1/(15000 x 2048) seconds

6.7. Antenna Dimensions and Separation Distances

Refer to separate filing document.

7. RF Exposure Conditions (Test Configurations)

Refer to “Antenna Dimensions and Separation Distances” for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

7.1. Head

For GSM, W-CDMA, CDMA, LTE and Wi-Fi/BT

Test Configurations	SAR Required	Note
Left Touch	Yes	
Left Tilt (15°)	Yes	
Right Touch	Yes	
Right Tilt (15°)	Yes	

7.2. Body-worn Accessory

The Body-worn accessory test configurations were tested using a conservative minimum test separation distance of 5 mm.

For WWAN and LTE (LAT/Primary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

For WWAN and LTE (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

For Wi-Fi/BT

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	

7.3. Wireless Router (Hotspot)

Per KDB inquiry submitted in the manufacturer KDB titled Detect Mode, hotspot operation SAR test cases are covered by worse-cases in Body-worn SAR at 5 mm separation distance.

For WWAN and LTE (LAT/Primary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode SAR
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	0 mm	Yes	
Edge 4 (Left)	0 mm	Yes	

For WWAN, LTE, & 2.4GHz/Bluetooth (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	0 mm	Yes	
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot Mode SAR
Edge 4 (Left)	0 mm	Yes	

7.4. Airplay

For Wi-Fi 2.4GHz (UAT/Secondary Antenna)

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	0 mm	Yes	
Edge 2 (Right)	0 mm	Yes	
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 4 (Left)	0 mm	Yes	

For Wi-Fi 5GHz

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	<25 mm	Yes	
Front	<25 mm	Yes	
Edge 1 (Top)	<25 mm	Yes	
Edge 2 (Right)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 3 (Bottom)	>25 mm	No	SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 648474 D04 Handset SAR
Edge 4 (Left)	<25 mm	Yes	

8. Conducted Output Power Measurements

The proprietary logic is used to determine when head/body power table is used.

8.1. GSM850 and GSM1900

GSM850

GSM (GMSK) - Voice Mode

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			HEAD		BODY	
			UAT	LAT	UAT	LAT
850	128	824.2	33.20	33.00	32.20	31.80
	190	836.6	33.20	33.00	32.20	31.80
	251	848.8	33.20	33.00	32.20	31.80

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	33.20	**32.20**	32.90	**31.80**	33.20	**32.20**	32.90	**31.80**
	190	836.6	33.20	**32.20**	33.00	**31.80**	33.20	**32.20**	33.00	**31.80**
	251	848.8	33.20	**32.20**	33.10	**31.80**	33.20	**32.20**	33.10	**31.80**
Frame Power (dBm)										
850	128	824.2	24.17	26.18	23.87	25.78	24.17	26.18	23.87	25.78
	190	836.6	24.17	26.18	23.97	25.78	24.17	26.18	23.97	25.78
	251	848.8	24.17	26.18	24.07	25.78	24.17	26.18	24.07	25.78

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
Burst Power (dBm)										
850	128	824.2	28.70	28.60	29.00	29.00	28.70	28.60	29.00	29.00
	190	836.6	28.70	28.70	29.00	28.90	28.70	28.70	29.00	28.90
	251	848.8	28.70	28.70	29.00	28.90	28.70	28.70	29.00	28.90
Frame Power (dBm)										
850	128	824.2	19.67	22.58	19.97	22.98	19.67	22.58	19.97	22.98
	190	836.6	19.67	22.68	19.97	22.88	19.67	22.68	19.97	22.88
	251	848.8	19.67	22.68	19.97	22.88	19.67	22.68	19.97	22.88

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- Head & Body-worn Accessory: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots, based on the output power measurements above
- SAR is not required for EGPRS (8PSK) mode because its output power is less than that of GPRS Mode

GSM1900

GSM (GMSK) - Voice Mode

Band	Ch No.	Freq. (MHz)	Avg Power (dBm)			
			HEAD		BODY	
			UAT	LAT	UAT	LAT
1900	512	1850.2	29.90	29.80	29.90	28.70
	661	1880.0	29.90	29.70	29.90	28.70
	810	1909.8	29.70	29.90	29.70	28.70

GPRS (GMSK) - Coding Scheme: CS1

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900	512	1850.2	29.90	**27.10**	29.80	**29.40**	29.90	**28.90**	28.70	**25.60**
	661	1880.0	29.90	**27.10**	29.80	**29.40**	29.90	**28.90**	28.70	**25.60**
	810	1909.8	29.70	**27.10**	29.80	**29.40**	29.70	**28.80**	28.70	**25.80**
			Frame Power (dBm)				Frame Power (dBm)			
1900	512	1850.2	20.87	21.08	20.77	23.38	20.87	22.88	19.67	19.58
	661	1880.0	20.87	21.08	20.77	23.38	20.87	22.88	19.67	19.58
	810	1909.8	20.67	21.08	20.77	23.38	20.67	22.78	19.67	19.78

EGPRS (8PSK) - Coding Scheme: MCS5

Band	Ch No.	Freq. (MHz)	HEAD				BODY			
			UAT		LAT		UAT		LAT	
			1 slot	2 slots	1 slot	2 slots	1 slot	2 slots	1 slot	2 slots
			Burst Power (dBm)				Burst Power (dBm)			
1900	512	1850.2	27.40	**27.40**	28.00	27.90	27.40	27.20	27.00	**26.80**
	661	1880.0	27.40	**27.40**	28.00	27.90	27.40	27.20	27.00	**26.80**
	810	1909.8	27.30	**27.40**	28.00	27.90	27.30	27.20	27.00	**26.80**
			Frame Power (dBm)				Frame Power (dBm)			
1900	512	1850.2	18.37	21.38	18.97	21.88	18.37	21.18	17.97	20.78
	661	1880.0	18.37	21.38	18.97	21.88	18.37	21.18	17.97	20.78
	810	1909.8	18.27	21.38	18.97	21.88	18.27	21.18	17.97	20.78

Notes:

The worst-case configuration and mode for SAR testing is determined to be as follows:

- Head & Body-worn Accessory: GMSK Voice Mode
- Hotspot mode: GMSK (GPRS) mode with 2 time slots, based on the output power measurements above
- SAR is not required for EGPRS (8PSK) mode on UAT Body and LAT Head because its output power is less than that of GPRS Mode
- SAR is required for EGPRS (8PSK) mode on UAT Head and LAT Body because its output power is greater than that of GPRS Mode

8.2. W-CDMA Band V, IV, and II

Release 99

The following tests were completed according to the test requirements outlined in section 5.2 of the 3GPP TS34.121-1 specification. The DUT supports power Class 3, which has a nominal maximum output power of 24 dBm (+1.7/-3.7).

Mode	Subtest	Rel99
WCDMA General Settings	Loopback Mode	Test Mode 1
	Rel99 RMC	12.2kbps RMC
	Power Control Algorithm	Algorithm2
	βc/βd	8/15

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Rel 99 (RMC, 12.2 kbps)	4132	826.4	24.00	25.00	24.00	25.00
		4183	836.6	24.00	25.00	24.00	25.00
		4233	846.6	24.00	25.00	24.00	25.00
W-CDMA Band IV	Rel 99 (RMC, 12.2 kbps)	1312	1712.4	19.80	25.00	23.10	19.00
		1413	1732.6	19.80	25.00	23.10	19.00
		1513	1752.6	19.90	25.00	23.00	19.00
W-CDMA Band II	Rel 99 (RMC, 12.2 kbps)	9262	1852.4	19.90	24.25	23.30	18.50
		9400	1880.0	20.10	24.25	23.30	18.50
		9538	1907.6	20.00	24.25	23.30	18.50

HSDPA

The following 4 Sub-tests were completed according to Release 7 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
W-CDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm 2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	Bd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	1	1.5	1.5
HSDPA Specific Settings	D_{ACK}	8			
	D_{NAK}	8			
	DCQI	8			
	Ack-Nack repetition factor	3			
	CQI Feedback (Table 5.2B.4)	4ms			
	CQI Repetition Factor (Table 5.2B.4)	2			
	Ahs =βhs/βc	30/15			

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.69	23.84	23.69	23.84
		4183	836.6	23.60	23.95	23.60	23.95
		4233	846.6	23.70	23.87	23.70	23.87
	Subtest 2	4132	826.4	23.25	23.97	23.25	23.97
		4183	836.6	23.24	23.98	23.24	23.98
		4233	846.6	23.42	24.00	23.42	24.00
	Subtest 3	4132	826.4	23.26	23.90	23.26	23.90
		4183	836.6	23.12	23.63	23.12	23.63
		4233	846.6	23.44	23.48	23.44	23.48
	Subtest 4	4132	826.4	23.26	23.53	23.26	23.53
		4183	836.6	23.12	23.55	23.12	23.55
		4233	846.6	23.30	23.60	23.30	23.60
W-CDMA Band IV	Subtest 1	1312	1712.4	18.80	23.63	22.00	18.00
		1413	1732.6	18.71	23.83	21.88	18.00
		1513	1752.6	18.79	23.46	22.10	18.00
	Subtest 2	1312	1712.4	18.54	23.66	21.63	18.00
		1413	1732.6	18.77	24.00	21.66	18.00
		1513	1752.6	18.98	23.66	21.71	18.00
	Subtest 3	1312	1712.4	18.30	23.20	21.52	17.50
		1413	1732.6	18.39	23.67	21.64	18.00
		1513	1752.6	18.51	23.19	21.64	17.60
	Subtest 4	1312	1712.4	18.30	23.18	21.61	17.50
		1413	1732.6	18.32	23.17	21.63	17.70
		1513	1752.6	18.51	23.53	21.65	17.60
W-CDMA Band II	Subtest 1	9262	1852.4	18.40	23.21	22.23	17.10
		9400	1880.0	18.80	23.18	22.29	17.50
		9538	1907.6	18.90	23.20	22.28	17.20
	Subtest 2	9262	1852.4	18.80	23.25	22.07	17.00
		9400	1880.0	18.80	23.23	22.15	17.00
		9538	1907.6	18.40	22.91	22.09	17.10
	Subtest 3	9262	1852.4	18.40	22.26	22.11	16.90
		9400	1880.0	18.30	22.78	22.14	17.00
		9538	1907.6	18.30	22.42	22.12	16.60
	Subtest 4	9262	1852.4	18.30	22.75	21.90	16.60
		9400	1880.0	18.30	22.79	22.17	17.00
		9538	1907.6	18.70	22.44	22.12	16.80

HSPA (HSDPA & HSUPA)

The following 5 Sub-tests were completed according to Release 6 procedures in section 5.2 of 3GPP TS34.121. A summary of these settings are illustrated below:

	Mode	HSPA	HSPA	HSPA	HSPA	HSPA
	Subtest	1	2	3	4	5
WCDMA General Settings	Loopback Mode	Test Mode 1				
	Rel99 RMC	12.2kbps RMC				
	HSDPA FRC	H-Set1				
	HSUPA Test	HSUPA Loopback				
	Power Control Algorithm	Algorithm2				
	βc	11/15	6/15	15/15	2/15	15/15
	βd	15/15	15/15	9/15	15/15	15/15
	βec	209/225	12/15	30/15	2/15	24/15
	βc/βd	11/15	6/15	15/9	2/15	15/15
	βhs	22/15	12/15	30/15	4/15	30/15
	βed	1309/225	94/75	47/15 47/15	56/75	134/15
	CM (dB)	1.0	3.0	2.0	3.0	1.0
	MPR (dB)	0	2	1	2	0
HSDPA Specific Settings	DACK	8				
	DNAK	8				
	DCQI	8				
	Ack-Nack repetition factor	3				
	CQI Feedback (Table 5.2B.4)	4ms				
	CQI Repetition Factor (Table 5.2B.4)	2				
	Ahs = βhs/βc	30/15				
HSUPA Specific Settings	D E-DPCCH	6	8	8	5	7
	DHARQ	0	0	0	0	0
	AG Index	20	12	15	17	21
	ETFCI (from 34.121 Table C.11.1.3)	75	67	92	71	81
	Associated Max UL Data Rate kbps	242.1	174.9	482.8	205.8	308.9
	Reference E_TFCIs	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27		E-TFCI 11 E-TFCI PO 4 E-TFCI 92 E-TFCI PO 18	E-TFCI 11 E-TFCI PO 4 E-TFCI 67 E-TFCI PO 18 E-TFCI 71 E-TFCI PO 23 E-TFCI 75 E-TFCI PO 26 E-TFCI 81 E-TFCI PO 27	

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.66	23.74	23.66	23.74
		4183	836.6	23.51	23.67	23.51	23.67
		4233	846.6	23.65	23.65	23.65	23.65
	Subtest 2	4132	826.4	23.48	23.61	23.48	23.61
		4183	836.6	23.61	23.69	23.61	23.69
		4233	846.6	23.53	23.75	23.53	23.75
	Subtest 3	4132	826.4	23.56	23.73	23.56	23.73
		4183	836.6	23.53	23.74	23.53	23.74
		4233	846.6	23.57	23.51	23.57	23.51
	Subtest 4	4132	826.4	23.60	23.66	23.60	23.66
		4183	836.6	23.52	23.50	23.52	23.50
		4233	846.6	23.68	23.51	23.68	23.51
	Subtest 5	4132	826.4	23.67	23.74	23.67	23.74
		4183	836.6	23.51	23.72	23.51	23.72
		4233	846.6	23.59	23.74	23.59	23.74
W-CDMA Band IV	Subtest 1	1312	1712.4	18.60	23.48	22.00	17.80
		1413	1732.6	18.53	23.81	21.98	17.80
		1513	1752.6	18.56	23.60	22.10	17.80
	Subtest 2	1312	1712.4	17.88	23.55	22.06	16.70
		1413	1732.6	18.01	23.92	22.09	16.80
		1513	1752.6	18.10	23.54	21.90	16.90
	Subtest 3	1312	1712.4	17.37	23.53	22.09	15.90
		1413	1732.6	17.38	23.62	22.08	16.00
		1513	1752.6	17.67	23.60	22.00	16.10
	Subtest 4	1312	1712.4	18.34	23.56	21.95	17.10
		1413	1732.6	18.36	23.58	21.98	17.00
		1513	1752.6	18.57	23.48	21.95	17.30
	Subtest 5	1312	1712.4	18.32	23.56	22.09	17.50
		1413	1732.6	18.38	23.60	22.08	17.30
		1513	1752.6	18.57	23.60	22.02	17.40
W-CDMA Band II	Subtest 1	9262	1852.4	18.80	22.67	22.28	17.20
		9400	1880.0	18.80	22.96	22.25	17.40
		9538	1907.6	18.90	22.80	22.27	17.30
	Subtest 2	9262	1852.4	18.30	22.68	22.25	16.90
		9400	1880.0	18.40	23.03	22.24	16.40
		9538	1907.6	18.30	22.85	22.24	16.40
	Subtest 3	9262	1852.4	17.60	22.67	22.26	15.70
		9400	1880.0	17.80	23.00	22.26	15.70
		9538	1907.6	18.10	22.84	22.19	15.80
	Subtest 4	9262	1852.4	18.60	22.67	22.17	16.40
		9400	1880.0	18.80	22.70	22.20	16.60
		9538	1907.6	18.80	22.83	22.25	16.50
	Subtest 5	9262	1852.4	18.80	22.69	22.26	16.70
		9400	1880.0	18.80	23.00	22.27	16.80
		9538	1907.6	18.60	22.83	22.27	16.80

DC-HSDPA

The following tests were completed according to procedures in section 7.3.13 of 3GPP TS34.108 v9.5.0. A summary of these settings are illustrated below:

Downlink Physical Channels are set as per 3GPP TS34.121-1 v9.0.0 E.5.0

Table E.5.0: Levels for HSDPA connection setup

Parameter During Connection setup	Unit	Value
P-CPICH_Ec/Ior	dB	-10
P-CCPCH and SCH_Ec/Ior	dB	-12
PICH _Ec/Ior	dB	-15
HS-PDSCH	dB	off
HS-SCCH_1	dB	off
DPCH_Ec/Ior	dB	-5
OCNS_Ec/Ior	dB	-3.1

Call is set up as per 3GPP TS34.108 v9.5.0 sub clause 7.3.13

The configurations of the fixed reference channels for HSDPA RF tests are described in 3GPP TS 34.121, annex C for FDD and 3GPP TS 34.122.

Table C.8.1.12: Fixed Reference Channel H-Set 12

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

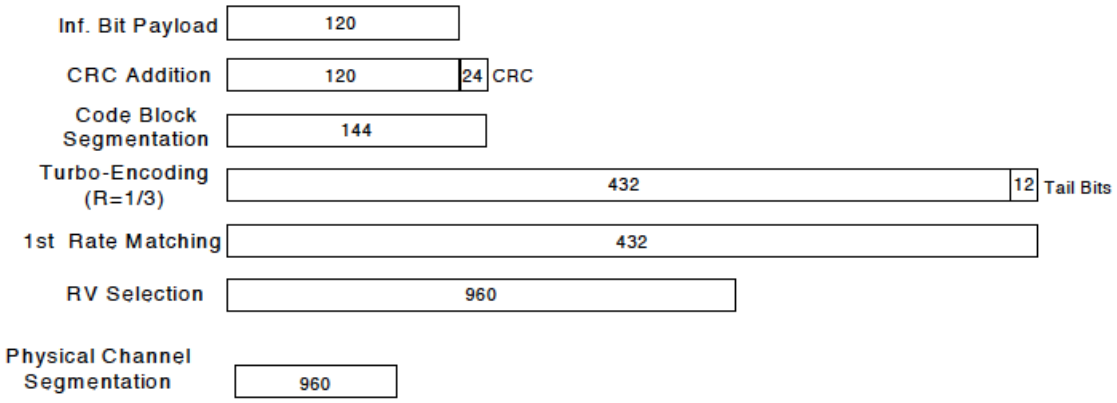


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

The following 4 Sub-tests for HSDPA were completed according to Release 8 procedures in section 5.2 of 3GPP TS34.121. A summary of subtest settings are illustrated below:

	Mode	HSDPA	HSDPA	HSDPA	HSDPA
	Subtest	1	2	3	4
WCDMA General Settings	Loopback Mode	Test Mode 1			
	Rel99 RMC	12.2kbps RMC			
	HSDPA FRC	H-Set1			
	Power Control Algorithm	Algorithm2			
	βc	2/15	12/15	15/15	15/15
	βd	15/15	15/15	8/15	4/15
	βd (SF)	64			
	βc/βd	2/15	12/15	15/8	15/4
	βhs	4/15	24/15	30/15	30/15
	MPR (dB)	0	0	0.5	0.5
HSDPA Specific Settings	DACK	8			
	DNAK	8			
	DCQI	8			
	Ack-Nack Repetition factor	3			
	CQI Feedback	4ms			
	CQI Repetition Factor	2			
	Ahs = βhs/ βc	30/15			

Up commands are set continuously to set the UE to Max power.

Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
W-CDMA Band V	Subtest 1	4132	826.4	23.33	23.75	23.33	23.75
		4183	836.6	23.22	23.72	23.22	23.72
		4233	846.6	23.14	23.60	23.14	23.60
	Subtest 2	4132	826.4	23.35	23.73	23.35	23.73
		4183	836.6	23.23	23.71	23.23	23.71
		4233	846.6	23.28	23.61	23.28	23.61
	Subtest 3	4132	826.4	22.85	23.30	22.85	23.30
		4183	836.6	22.73	23.25	22.73	23.25
		4233	846.6	22.79	23.22	22.79	23.22
	Subtest 4	4132	826.4	22.86	23.28	22.86	23.28
		4183	836.6	22.77	23.26	22.77	23.26
		4233	846.6	22.78	23.23	22.78	23.23
W-CDMA Band IV	Subtest 1	1312	1712.4	18.70	23.76	21.67	17.80
		1413	1732.6	18.48	23.75	21.45	17.80
		1513	1752.6	18.78	23.74	21.55	17.70
	Subtest 2	1312	1712.4	18.68	23.80	21.65	17.80
		1413	1732.6	18.53	23.76	21.57	17.80
		1513	1752.6	18.78	23.75	21.55	17.80
	Subtest 3	1312	1712.4	18.33	23.37	21.20	17.40
		1413	1732.6	18.33	23.30	21.06	17.30
		1513	1752.6	18.48	23.30	21.12	17.30
	Subtest 4	1312	1712.4	18.33	23.38	21.20	17.40
		1413	1732.6	18.10	23.29	21.07	17.30
		1513	1752.6	18.43	23.27	21.11	17.30
W-CDMA Band II	Subtest 1	9262	1852.4	18.70	23.10	21.88	17.40
		9400	1880.0	18.80	23.04	22.01	17.30
		9538	1907.6	18.70	23.08	21.85	17.40
	Subtest 2	9262	1852.4	18.90	23.08	21.96	17.40
		9400	1880.0	18.90	23.05	22.06	17.40
		9538	1907.6	18.70	23.05	21.88	17.40
	Subtest 3	9262	1852.4	18.30	22.63	21.45	16.90
		9400	1880.0	18.40	22.58	21.54	16.90
		9538	1907.6	18.30	22.58	21.42	16.90
	Subtest 4	9262	1852.4	18.30	22.63	21.42	16.90
		9400	1880.0	18.40	22.58	21.54	16.90
		9538	1907.6	18.30	22.59	21.45	16.90

HSPA+

Since 16QAM is not used for uplink, the uplink Category and release is same as HSUPA, i.e., CAT 6 Rel 6. Therefore, the RF conducted power is not measured.

8.3. CDMA BC0, BC1, BC10, and BC15

1xRTT Measured Results

Band	Mode	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
BC 0	RC1 SO55 (Loopback)	1013	824.70	24.70	25.00	24.70	25.00
		384	836.52	24.70	25.00	24.70	25.00
		777	848.31	24.50	24.70	24.50	24.70
	RC3 SO55 (Loopback)	1013	824.70	24.70	25.00	24.70	25.00
		384	836.52	24.70	25.00	24.70	25.00
		777	848.31	24.60	24.70	24.60	24.70
	RC3 SO32 (+F-SCH)	1013	824.70	24.70	25.00	24.70	25.00
		384	836.52	24.70	25.00	24.70	24.90
		777	848.31	24.50	24.70	24.50	24.70
BC 1	RC1 SO55 (Loopback)	25	1851.25	20.10	24.10	23.10	18.50
		600	1880.00	20.00	24.10	23.20	18.50
		1175	1908.75	20.10	24.20	23.10	18.50
	RC3 SO55 (Loopback)	25	1851.25	20.10	24.10	23.20	18.50
		600	1880.00	20.00	24.20	23.10	18.50
		1175	1908.75	20.10	24.20	23.00	18.50
	RC3 SO32 (+F-SCH)	25	1851.25	20.10	24.25	23.20	18.50
		600	1880.00	20.00	24.25	23.10	18.50
		1175	1908.75	20.10	24.25	23.10	18.50
BC 10	RC1 SO55 (Loopback)	476	817.9	24.60	25.00	24.60	25.00
		580	820.5	24.60	25.00	24.60	25.00
		684	823.1	24.60	25.00	24.60	25.00
	RC3 SO55 (Loopback)	476	817.9	24.60	25.00	24.60	25.00
		580	820.5	24.60	25.00	24.50	25.00
		684	823.1	24.60	25.00	24.50	25.00
	RC3 SO32 (+F-SCH)	476	817.9	24.60	25.00	24.60	25.00
		580	820.5	24.60	25.00	24.60	25.00
		684	823.1	24.60	25.00	24.60	25.00
BC 15	RC1 SO55 (Loopback)	25	1711.25	19.90	25.00	23.00	19.00
		450	1732.50	19.90	25.00	23.00	19.00
		875	1753.75	19.90	25.00	22.90	19.00
	RC3 SO55 (Loopback)	25	1711.25	19.90	25.00	23.00	19.00
		450	1732.50	19.90	25.00	23.00	19.00
		875	1753.75	19.90	25.00	22.90	19.00
	RC3 SO32 (+F-SCH)	25	1711.25	19.90	25.00	23.10	19.00
		450	1732.50	19.90	25.00	23.10	19.00
		875	1753.75	19.90	25.00	23.10	19.00

1xEV-DO Rel. 0 Measured Results

Band	FTAP Rate	RTAP Rate	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					HEAD		BODY	
					UAT	LAT	UAT	LAT
BC 0	307.2 kbps (2 slot, QPSK)	153.6 kbps	1013	824.70	24.50	24.70	24.50	24.70
			384	836.52	24.50	24.80	24.50	24.80
			777	848.31	24.40	24.60	24.40	24.60
BC1	307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1851.25	20.10	24.25	23.20	18.50
			600	1880.00	20.00	24.25	23.20	18.50
			1175	1908.75	20.00	24.25	23.20	18.50
BC10	307.2 kbps (2 slot, QPSK)	153.6 kbps	476	817.9	24.40	25.00	24.40	25.00
			580	820.5	24.50	25.00	24.60	25.00
			684	823.1	24.60	24.90	24.60	24.90
BC15	307.2 kbps (2 slot, QPSK)	153.6 kbps	25	1711.25	19.90	24.90	23.10	19.00
			450	1732.50	19.90	24.70	23.10	19.00
			875	1753.75	19.90	24.80	23.10	19.00

1xEV-DO Rev. A Measured Results

Band	FETAP Traffic Format	RETAP Data Payload Size	UL Ch No.	Freq. (MHz)	Avg Pwr (dBm)			
					HEAD		BODY	
					UAT	LAT	UAT	LAT
BC 0	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	1013	824.70	24.50	24.70	24.50	24.70
			384	836.52	24.50	24.90	24.50	24.90
			777	848.31	24.40	24.50	24.40	24.50
BC1	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1851.25	20.10	24.30	23.10	18.50
			600	1880.00	20.00	24.20	23.20	18.50
			1175	1908.75	20.00	24.20	23.10	18.50
BC10	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	476	817.9	24.50	24.90	24.50	24.90
			580	820.5	24.50	25.00	24.50	25.00
			684	823.1	24.60	25.00	24.50	25.00
BC15	307.2k, QPSK/ ACK channel is transmitted at all the slots	4096	25	1711.25	19.80	24.90	22.90	19.00
			450	1732.50	19.80	24.70	23.10	19.00
			875	1753.75	19.80	24.80	23.00	19.00

1xEV-DO Rev. B

Call box setup procedure

1xEV-DO Release B

- CMW 500 Signal Generator > 1xEV-DO Taskbar Enable
- CMW 500 1xEV-DO Signaling Configuration Window >
- 1xEV-DO Signaling On Window:
  Under Access Network Control:
  Band Class: BC0: US Cellular
  RF Channel: 31
  1xEV-DO Power: -70 dBm
  Release B

- 1xEV-DO Signaling Configuration Window

  Under RF Frequency Band / Channel: Enter Ch. Frequency
  - Under Carrier Configuration: RF Frequency
    For Two Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	31	0
Carrier [1]	1013	982

  - Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
	CA/S1	✓	✓

    For Three Carriers: Low Channel (1013)

	RF Channel	RF Channel Offset
Carrier [0]	72	0
Carrier [1]	31	-41
Carrier [2]	1013	941

  - Under Carrier Configuration: RF Pilot

	Carrier Sector	Active on AN	Assigned to AT
Pilot [0]	C0/S0	✓	✓
Pilot [1]	C1/S1	✓	✓
Pilot [2]	C2/S2	✓	✓

- Rvs Power Ctrl > All Up bits (to get the maximum power)

1xEV-DO Rev. B Measured Results

Band	Test Set #	Channel	f (MHz)	Avg Pwr (dBm)			
				HEAD		BODY	
				UAT	LAT	UAT	LAT
BC0	Two Carrier Mini Separation	1013+31	824.70+825.93	21.10	21.70	21.10	21.70
		384+425	836.52+837.75	21.10	21.70	21.10	21.70
		736+777	847.08+848.31	21.00	21.60	21.00	21.60
	Two Carrier Max Separation	1013+156	824.70+829.68	21.10	21.80	21.10	21.80
		384+550	836.52+841.50	21.10	21.80	21.10	21.80
		611+777	843.33+848.31	21.10	21.70	21.10	21.70
	Three Carrier Max Separation	1013+31+72	824.70+825.93+827.16	21.10	21.60	21.10	21.60
		384+425+466	836.52+837.75+838.98	21.10	21.60	21.10	21.60
		695+736+777	845.85+847.08+848.31	21.10	21.60	21.10	21.60

8.4. LTE Bands 2, 4, 5, 13, 17, 25, 26, & 41

8.4.1. LTE Band 2

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	18700	1860.0	QPSK	1	0	0	20.00	23.30	23.20	18.40
				1	49	0	20.00	23.30	23.20	18.40
				1	99	0	20.00	23.20	23.20	18.30
				50	0	1	19.00	22.30	22.20	17.00
				50	24	1	19.10	22.30	22.20	17.00
				50	49	1	19.10	22.30	22.20	17.00
				100	0	1	19.10	22.30	22.20	17.00
			16QAM	1	0	1	19.00	22.35	22.00	17.00
				1	49	1	19.00	22.33	21.94	17.00
				1	99	1	19.00	22.42	22.11	17.00
				50	0	2	18.00	21.75	21.24	16.50
				50	24	2	18.00	21.69	21.29	16.50
				50	49	2	18.00	21.76	21.43	16.50
				100	0	2	18.00	21.85	21.36	16.50
	18900	1880.0	QPSK	1	0	0	20.10	23.70	23.40	18.40
				1	49	0	20.10	23.75	23.40	18.50
				1	99	0	20.10	23.70	23.40	18.40
				50	0	1	19.00	22.70	22.40	17.00
				50	24	1	19.10	22.75	22.40	17.00
				50	49	1	19.10	22.70	22.40	17.00
				100	0	1	19.10	22.70	22.40	17.00
			16QAM	1	0	1	19.00	22.34	22.12	17.00
				1	49	1	19.00	22.40	22.10	17.00
				1	99	1	19.00	22.38	22.02	17.00
				50	0	2	18.00	21.76	21.35	16.50
				50	24	2	18.00	21.74	21.42	16.50
				50	49	2	18.00	21.81	21.34	16.50
				100	0	2	18.00	21.82	21.42	16.50
	19100	1900.0	QPSK	1	0	0	20.00	23.60	23.20	18.40
				1	49	0	20.00	23.60	23.30	18.50
				1	99	0	20.00	23.60	23.20	18.40
				50	0	1	19.00	22.75	22.20	17.00
				50	24	1	19.00	22.75	22.20	17.00
				50	49	1	19.00	22.75	22.20	17.00
				100	0	1	19.00	22.75	22.20	17.00
			16QAM	1	0	1	19.00	22.60	22.00	17.00
				1	49	1	19.00	22.60	22.00	17.00
				1	99	1	19.00	22.60	22.00	17.00
				50	0	2	18.00	21.60	21.05	16.50
				50	24	2	18.00	21.60	21.12	16.50
				50	49	2	18.00	21.60	21.05	16.50
				100	0	2	18.00	21.60	21.13	16.50

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	18675	1857.5	QPSK	1	0	0	19.90	23.11	23.07	18.40
				1	37	0	20.00	23.10	23.01	18.40
				1	74	0	19.80	23.10	22.96	18.30
				36	0	1	19.00	22.18	22.16	17.00
				36	16	1	19.10	22.27	22.18	17.00
				36	35	1	19.10	22.28	22.08	17.00
				75	0	1	19.10	22.22	22.15	17.00
			16QAM	1	0	1	19.00	21.93	21.91	17.00
				1	37	1	19.00	21.93	21.91	17.00
				1	74	1	19.00	21.89	21.91	17.00
				36	0	2	18.00	21.26	21.15	16.50
				36	16	2	18.00	21.25	21.18	16.50
				36	35	2	18.00	21.26	21.06	16.50
				75	0	2	18.00	21.30	21.09	16.50
	18900	1880.0	QPSK	1	0	0	20.00	23.55	23.10	18.40
				1	37	0	20.10	23.50	23.11	18.50
				1	74	0	20.00	23.58	23.34	18.40
				36	0	1	19.00	22.69	22.31	17.00
				36	16	1	19.10	22.62	22.30	17.00
				36	35	1	19.10	22.63	22.37	17.00
				75	0	1	19.10	22.67	22.36	17.00
			16QAM	1	0	1	19.00	22.28	22.11	17.00
				1	37	1	19.00	22.23	22.14	17.00
				1	74	1	19.00	22.27	22.08	17.00
				36	0	2	18.00	21.57	21.28	16.50
				36	16	2	18.00	21.51	21.23	16.50
				36	35	2	18.00	21.46	21.29	16.50
				75	0	2	18.00	21.55	21.22	16.50
	19125	1902.5	QPSK	1	0	0	20.00	23.51	23.19	18.40
				1	37	0	20.00	23.53	23.27	18.50
				1	74	0	20.00	23.50	23.16	18.40
				36	0	1	19.00	22.67	22.17	17.00
				36	16	1	19.00	22.67	22.15	17.00
				36	35	1	19.00	22.69	22.14	17.00
				75	0	1	19.00	22.69	22.17	17.00
			16QAM	1	0	1	19.00	22.37	22.05	17.00
				1	37	1	19.00	22.35	22.08	17.00
				1	74	1	19.00	22.32	21.95	17.00
				36	0	2	18.00	21.50	21.23	16.50
				36	16	2	18.00	21.49	21.26	16.50
				36	35	2	18.00	21.51	21.25	16.50
				75	0	2	18.00	21.57	21.25	16.50

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	18650	1855.0	QPSK	1	0	0	19.90	23.13	23.06	18.40
				1	24	0	20.00	23.12	23.07	18.40
				1	49	0	19.80	23.05	23.10	18.30
				25	0	1	19.00	22.13	22.16	17.00
				25	12	1	19.10	22.12	22.16	17.00
				25	24	1	19.10	22.12	22.15	17.00
				50	0	1	19.10	22.15	22.18	17.00
			16QAM	1	0	1	19.00	21.99	21.93	17.00
				1	24	1	19.00	21.90	21.95	17.00
				1	49	1	19.00	21.92	21.93	17.00
				25	0	2	18.00	21.22	21.15	16.50
				25	12	2	18.00	21.20	21.23	16.50
				25	24	2	18.00	21.19	21.21	16.50
				50	0	2	18.00	21.19	21.23	16.50
	18900	1880.0	QPSK	1	0	0	20.00	23.33	23.21	18.40
				1	24	0	20.10	23.39	23.24	18.50
				1	49	0	20.00	23.43	23.18	18.40
				25	0	1	19.00	22.45	22.31	17.00
				25	12	1	19.10	22.52	22.33	17.00
				25	24	1	19.10	22.53	22.35	17.00
				50	0	1	19.10	22.47	22.37	17.00
			16QAM	1	0	1	19.00	22.20	22.12	17.00
				1	24	1	19.00	22.19	22.15	17.00
				1	49	1	19.00	22.29	22.10	17.00
				25	0	2	18.00	21.51	21.21	16.50
				25	12	2	18.00	21.52	21.30	16.50
				25	24	2	18.00	21.58	21.24	16.50
				50	0	2	18.00	21.49	21.23	16.50
	19150	1905.0	QPSK	1	0	0	20.00	23.42	22.97	18.40
				1	24	0	20.00	23.56	23.01	18.50
				1	49	0	20.00	23.55	22.92	18.40
				25	0	1	19.00	22.56	22.15	17.00
				25	12	1	19.00	22.66	22.08	17.00
				25	24	1	19.00	22.66	22.01	17.00
				50	0	1	19.00	22.74	22.04	17.00
			16QAM	1	0	1	19.00	22.38	22.18	17.00
				1	24	1	19.00	22.46	21.90	17.00
				1	49	1	19.00	22.55	21.92	17.00
				25	0	2	18.00	21.52	21.10	16.50
				25	12	2	18.00	21.53	21.01	16.50
				25	24	2	18.00	21.55	21.00	16.50
				50	0	2	18.00	21.58	21.01	16.50

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	18625	1852.5	QPSK	1	0	0	20.00	23.12	23.06	18.40
				1	12	0	20.00	23.11	23.14	18.40
				1	24	0	20.00	23.13	23.13	18.30
				12	0	1	19.00	22.11	22.16	17.00
				12	6	1	19.10	22.16	22.13	17.00
				12	11	1	19.10	22.13	22.15	17.00
				25	0	1	19.10	22.14	22.15	17.00
			16QAM	1	0	1	19.00	21.94	22.12	17.00
				1	12	1	19.00	21.93	22.19	17.00
				1	24	1	19.00	21.99	22.14	17.00
				12	0	2	18.00	21.13	21.10	16.50
				12	6	2	18.00	21.09	21.01	16.50
				12	11	2	18.00	21.07	21.16	16.50
				25	0	2	18.00	21.20	21.22	16.50
	18900	1880.0	QPSK	1	0	0	20.10	23.33	23.19	18.40
				1	12	0	20.10	23.34	23.18	18.50
				1	24	0	20.10	23.39	23.25	18.40
				12	0	1	19.00	22.47	22.25	17.00
				12	6	1	19.10	22.42	22.31	17.00
				12	11	1	19.10	22.45	22.27	17.00
				25	0	1	19.10	22.39	22.27	17.00
			16QAM	1	0	1	19.00	22.18	22.37	17.00
				1	12	1	19.00	22.24	22.32	17.00
				1	24	1	19.00	22.29	22.27	17.00
				12	0	2	18.00	21.49	21.27	16.50
				12	6	2	18.00	21.44	21.23	16.50
				12	11	2	18.00	21.47	21.29	16.50
				25	0	2	18.00	21.56	21.23	16.50
	19175	1907.5	QPSK	1	0	0	20.00	23.54	22.90	18.40
				1	12	0	20.00	23.53	23.00	18.50
				1	24	0	20.00	23.54	22.97	18.40
				12	0	1	19.00	22.65	22.03	17.00
				12	6	1	19.00	22.55	22.00	17.00
				12	11	1	19.00	22.62	22.00	17.00
				25	0	1	19.00	22.58	21.96	17.00
			16QAM	1	0	1	19.00	22.55	22.17	17.00
				1	12	1	19.00	22.52	22.13	17.00
				1	24	1	19.00	22.48	22.18	17.00
				12	0	2	18.00	21.50	21.01	16.50
				12	6	2	18.00	21.46	21.01	16.50
				12	11	2	18.00	21.47	21.01	16.50
				25	0	2	18.00	21.57	21.10	16.50

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	18615	1851.5	QPSK	1	0	0	20.00	23.06	23.05	18.40
				1	7	0	20.00	22.97	22.97	18.40
				1	14	0	20.00	23.03	23.13	18.30
				8	0	1	19.00	22.05	22.12	17.00
				8	4	1	19.10	22.05	22.12	17.00
				8	7	1	19.10	22.02	22.12	17.00
				15	0	1	19.10	21.98	22.06	17.00
			16QAM	1	0	1	19.00	21.94	21.98	17.00
				1	7	1	19.00	21.87	21.90	17.00
				1	14	1	19.00	21.93	22.06	17.00
				8	0	2	18.00	21.15	21.13	16.50
				8	4	2	18.00	21.16	21.12	16.50
				8	7	2	18.00	21.15	21.11	16.50
				15	0	2	18.00	21.14	21.09	16.50
	18900	1880.0	QPSK	1	0	0	20.10	23.61	23.26	18.40
				1	7	0	20.10	23.51	23.18	18.50
				1	14	0	20.10	23.63	23.28	18.40
				8	0	1	19.00	22.67	22.29	17.00
				8	4	1	19.10	22.63	22.26	17.00
				8	7	1	19.00	22.64	22.28	17.00
				15	0	1	19.10	22.61	22.29	17.00
			16QAM	1	0	1	19.00	22.29	22.14	17.00
				1	7	1	19.00	22.20	22.11	17.00
				1	14	1	19.00	22.28	22.14	17.00
				8	0	2	18.00	21.51	21.25	16.50
				8	4	2	18.00	21.50	21.23	16.50
				8	7	2	18.00	21.53	21.26	16.50
				15	0	2	18.00	21.47	21.24	16.50
	19185	1908.5	QPSK	1	0	0	20.00	23.55	22.91	18.40
				1	7	0	20.10	23.51	23.02	18.50
				1	14	0	20.10	23.56	23.00	18.50
				8	0	1	19.00	22.57	21.96	17.00
				8	4	1	19.00	22.60	22.03	17.00
				8	7	1	19.00	22.58	22.04	17.00
				15	0	1	19.00	22.58	21.94	17.00
			16QAM	1	0	1	19.00	22.45	21.92	17.00
				1	7	1	19.00	22.37	21.91	17.00
				1	14	1	19.00	22.45	21.94	17.00
				8	0	2	18.00	21.60	21.02	16.50
				8	4	2	18.00	21.54	21.03	16.50
				8	7	2	18.00	21.54	21.06	16.50
				15	0	2	18.00	21.57	21.00	16.50

LTE Band 2 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	18607	1850.7	QPSK	1	0	0	19.80	23.18	23.02	18.40
				1	2	0	20.00	23.11	22.98	18.40
				1	5	0	19.90	23.18	23.09	18.30
				3	0	0	19.90	23.10	23.00	18.30
				3	1	0	19.90	23.20	23.05	18.40
				3	2	0	19.80	23.15	23.00	18.30
				6	0	1	19.10	22.22	22.10	17.00
			16QAM	1	0	1	19.00	21.98	22.12	17.00
				1	2	1	19.00	21.98	22.10	17.00
				1	5	1	19.00	21.95	22.20	17.00
				3	0	1	19.00	21.90	22.21	17.00
				3	1	1	19.10	21.92	22.00	17.00
				3	2	1	19.00	21.96	22.10	17.00
				6	0	2	18.00	21.23	22.10	16.50
	18900	1880.0	QPSK	1	0	0	20.00	23.56	23.26	18.40
				1	2	0	20.10	23.46	23.22	18.50
				1	5	0	20.00	23.57	23.28	18.40
				3	0	0	20.00	23.30	23.20	18.40
				3	1	0	20.10	23.20	23.15	18.40
				3	2	0	19.90	23.25	23.16	18.40
				6	0	1	19.10	22.56	22.28	17.00
			16QAM	1	0	1	19.00	22.23	22.30	17.00
				1	2	1	19.00	22.22	22.24	17.00
				1	5	1	19.00	22.25	22.28	17.00
				3	0	1	19.10	21.53	22.20	17.00
				3	1	1	19.00	21.51	22.25	17.00
				3	2	1	19.00	21.53	22.18	17.00
				6	0	2	18.00	21.50	21.24	16.50
	19193	1909.3	QPSK	1	0	0	20.00	23.55	23.04	18.40
				1	2	0	20.10	23.53	23.01	18.50
				1	5	0	20.10	23.57	22.97	18.50
				3	0	0	20.00	23.30	22.87	18.40
				3	1	0	20.00	23.25	23.00	18.50
				3	2	0	20.00	23.29	22.14	18.50
				6	0	1	19.00	22.53	22.02	17.00
			16QAM	1	0	1	19.00	22.46	22.03	17.00
				1	2	1	19.00	22.40	21.99	17.00
				1	5	1	19.00	22.43	22.04	17.00
				3	0	1	19.00	22.32	22.00	17.00
				3	1	1	19.10	22.30	22.05	17.00
				3	2	1	19.00	22.25	22.02	17.00
				6	0	2	18.00	21.53	21.11	16.50

8.4.2. LTE Band 4

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	20050	1720.0	QPSK	1	0	0	19.80	24.00	22.98	19.00
				1	49	0	19.80	23.80	23.10	19.00
				1	99	0	19.80	23.80	23.07	19.00
				50	0	1	18.90	23.00	22.10	17.90
				50	24	1	18.90	23.00	22.10	18.00
				50	49	1	18.90	23.00	22.10	18.00
				100	0	1	18.90	23.00	22.10	18.00
			16QAM	1	0	1	18.90	23.00	22.10	18.00
				1	49	1	18.90	23.00	22.10	18.00
				1	99	1	18.90	23.00	22.10	18.00
				50	0	2	17.90	22.00	21.10	17.00
				50	24	2	17.90	22.00	21.10	17.00
				50	49	2	17.90	22.00	21.00	17.00
				100	0	2	17.90	22.00	21.10	17.00
	20175	1732.5	QPSK	1	0	0	19.90	24.00	23.00	18.90
				1	49	0	19.90	24.00	23.10	19.00
				1	99	0	19.90	24.00	23.00	19.00
				50	0	1	18.90	23.00	22.10	17.90
				50	24	1	18.90	23.00	22.10	17.90
				50	49	1	18.90	23.00	22.10	17.90
				100	0	1	18.90	23.00	22.10	18.00
			16QAM	1	0	1	18.90	23.00	22.10	18.00
				1	49	1	18.90	23.00	22.10	18.00
				1	99	1	18.90	23.00	22.10	18.00
				50	0	2	17.90	22.00	21.10	17.00
				50	24	2	17.90	22.00	21.10	17.00
				50	49	2	17.90	22.00	21.06	17.00
				100	0	2	17.90	22.00	21.10	17.00
	20300	1745.0	QPSK	1	0	0	19.90	24.00	22.97	18.90
				1	49	0	19.90	24.00	23.00	19.00
				1	99	0	19.80	24.00	23.10	19.00
				50	0	1	18.90	23.00	22.00	18.00
				50	24	1	18.90	23.00	22.00	18.00
				50	49	1	18.90	23.00	22.10	18.00
				100	0	1	18.90	23.00	22.10	18.00
			16QAM	1	0	1	18.90	23.00	22.10	18.00
				1	49	1	18.90	23.00	22.10	18.00
				1	99	1	18.90	23.00	22.10	18.00
				50	0	2	17.90	22.00	21.10	17.00
				50	24	2	17.90	22.00	21.10	17.00
				50	49	2	17.90	22.00	21.00	17.00
				100	0	2	17.90	22.00	21.10	17.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	20025	1717.5	QPSK	1	0	0	19.80	23.72	22.90	19.00
				1	37	0	19.80	23.63	22.90	19.00
				1	74	0	19.80	23.76	22.90	19.00
				36	0	1	18.90	22.91	22.04	17.90
				36	16	1	18.90	22.90	22.03	18.00
				36	35	1	18.90	22.88	22.05	18.00
				75	0	1	18.90	22.97	22.07	18.00
			16QAM	1	0	1	18.90	22.72	21.81	18.00
				1	37	1	18.90	22.72	21.81	18.00
				1	74	1	18.90	22.85	21.84	18.00
				36	0	2	17.90	21.83	21.04	17.00
				36	16	2	17.90	21.83	21.05	17.00
				36	35	2	17.90	21.84	20.98	17.00
				75	0	2	17.90	21.88	21.06	17.00
	20175	1732.5	QPSK	1	0	0	19.90	23.77	22.88	18.90
				1	37	0	19.90	23.72	22.92	19.00
				1	74	0	19.90	23.88	22.95	19.00
				36	0	1	18.90	22.99	22.05	17.90
				36	16	1	18.90	22.93	22.10	17.90
				36	35	1	18.90	22.96	22.06	17.90
				75	0	1	18.90	22.98	22.08	18.00
			16QAM	1	0	1	18.90	22.80	21.85	18.00
				1	37	1	18.90	22.76	21.81	18.00
				1	74	1	18.90	22.70	21.81	18.00
				36	0	2	17.90	21.89	20.98	17.00
				36	16	2	17.90	21.86	20.98	17.00
				36	35	2	17.90	21.87	20.97	17.00
				75	0	2	17.90	21.91	21.09	17.00
	20325	1747.5	QPSK	1	0	0	19.90	23.84	22.90	18.90
				1	37	0	19.90	23.85	22.93	19.00
				1	74	0	19.80	23.79	22.76	19.00
				36	0	1	18.90	22.99	21.96	18.00
				36	16	1	18.90	23.00	21.97	18.00
				36	35	1	18.90	22.88	22.09	18.00
				75	0	1	18.90	22.92	22.10	18.00
			16QAM	1	0	1	18.90	22.70	21.81	18.00
				1	37	1	18.90	22.70	21.83	18.00
				1	74	1	18.90	22.71	21.83	18.00
				36	0	2	17.90	21.95	21.08	17.00
				36	16	2	17.90	21.93	21.06	17.00
				36	35	2	17.90	21.84	20.90	17.00
				75	0	2	17.90	21.91	21.09	17.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	20000	1715.0	QPSK	1	0	0	19.80	23.81	22.89	19.00
				1	24	0	19.80	23.77	22.88	19.00
				1	49	0	19.80	23.79	22.87	19.00
				25	0	1	18.90	22.93	21.98	17.90
				25	12	1	18.90	22.97	22.02	18.00
				25	24	1	18.90	22.94	21.97	18.00
				50	0	1	18.90	22.95	21.98	18.00
			16QAM	1	0	1	18.90	22.74	21.81	18.00
				1	24	1	18.90	22.74	21.81	18.00
				1	49	1	18.90	22.78	21.81	18.00
				25	0	2	17.90	21.98	20.99	17.00
				25	12	2	17.90	21.96	21.02	17.00
				25	24	2	17.90	21.95	20.95	17.00
				50	0	2	18.00	21.97	21.04	17.00
	20175	1732.5	QPSK	1	0	0	19.80	23.97	22.86	18.90
				1	24	0	19.90	23.92	22.87	19.00
				1	49	0	19.80	23.99	22.90	19.00
				25	0	1	18.70	22.97	21.98	17.90
				25	12	1	18.80	22.99	22.01	17.90
				25	24	1	18.90	22.97	22.05	17.90
				50	0	1	18.70	22.97	22.00	18.00
			16QAM	1	0	1	18.90	22.91	21.81	18.00
				1	24	1	18.90	22.81	21.81	18.00
				1	49	1	18.90	22.83	21.80	18.00
				25	0	2	17.90	21.94	20.93	17.00
				25	12	2	17.90	21.90	20.91	17.00
				25	24	2	17.90	21.92	20.95	17.00
				50	0	2	17.90	21.93	21.03	17.00
	20350	1750.0	QPSK	1	0	0	19.90	23.93	22.87	18.90
				1	24	0	19.90	23.88	22.91	19.00
				1	49	0	19.80	23.87	22.71	19.00
				25	0	1	18.90	22.96	21.96	18.00
				25	12	1	18.90	22.97	21.97	18.00
				25	24	1	18.90	22.99	22.08	18.00
				50	0	1	18.90	22.92	22.02	18.00
			16QAM	1	0	1	18.90	22.82	21.81	18.00
				1	24	1	18.90	22.83	21.81	18.00
				1	49	1	18.90	22.86	21.80	18.00
				25	0	2	17.90	21.99	21.04	17.00
				25	12	2	17.90	21.97	21.00	17.00
				25	24	2	17.90	22.00	20.99	17.00
				50	0	2	17.90	21.88	21.02	17.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	19975	1712.5	QPSK	1	0	0	19.80	23.76	22.88	19.00
				1	12	0	19.80	23.74	22.87	19.00
				1	24	0	19.80	23.76	22.91	19.00
				12	0	1	18.90	22.87	21.97	17.90
				12	6	1	18.90	22.95	21.94	18.00
				12	11	1	18.90	22.97	21.95	18.00
				25	0	1	18.90	22.95	21.98	18.00
			16QAM	1	0	1	18.90	22.99	22.01	18.00
				1	12	1	18.90	22.97	22.08	18.00
				1	24	1	18.90	22.95	22.01	18.00
				12	0	2	17.90	21.91	20.94	17.00
				12	6	2	17.90	21.99	20.96	17.00
				12	11	2	17.90	21.97	20.95	17.00
				25	0	2	18.00	21.96	21.08	17.00
	20175	1732.5	QPSK	1	0	0	19.80	23.94	22.87	18.90
				1	12	0	19.90	23.91	22.88	19.00
				1	24	0	19.80	23.96	22.89	19.00
				12	0	1	18.70	22.95	22.00	17.90
				12	6	1	18.80	22.94	22.00	17.90
				12	11	1	18.90	22.92	21.92	17.90
				25	0	1	18.70	22.96	21.92	18.00
			16QAM	1	0	1	18.90	22.96	22.05	18.00
				1	12	1	18.90	22.98	22.03	18.00
				1	24	1	18.90	22.96	22.05	18.00
				12	0	2	17.90	21.94	20.96	17.00
				12	6	2	17.90	21.95	20.95	17.00
				12	11	2	17.90	21.94	20.96	17.00
				25	0	2	17.90	21.97	21.06	17.00
	20375	1752.5	QPSK	1	0	0	19.90	23.89	22.90	18.90
				1	12	0	19.90	23.92	22.96	19.00
				1	24	0	19.80	23.97	22.79	19.00
				12	0	1	18.90	22.92	21.98	18.00
				12	6	1	18.90	22.96	21.91	18.00
				12	11	1	18.90	22.96	22.04	18.00
				25	0	1	18.90	22.91	22.01	18.00
			16QAM	1	0	1	18.90	22.99	22.07	18.00
				1	12	1	18.90	22.92	22.06	18.00
				1	24	1	18.90	22.98	22.06	18.00
				12	0	2	17.90	21.93	21.07	17.00
				12	6	2	17.90	21.90	21.05	17.00
				12	11	2	17.90	21.92	20.97	17.00
				25	0	2	17.90	21.98	21.08	17.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	19965	1711.5	QPSK	1	0	0	19.80	23.82	22.83	19.00
				1	7	0	19.80	23.71	22.84	19.00
				1	14	0	19.80	23.79	22.93	19.00
				8	0	1	18.90	22.87	21.98	17.90
				8	4	1	18.90	22.94	21.95	18.00
				8	7	1	18.90	22.91	21.92	18.00
				15	0	1	18.90	22.96	21.97	18.00
			16QAM	1	0	1	18.90	22.73	21.81	18.00
				1	7	1	18.90	22.77	21.81	18.00
				1	14	1	18.90	22.82	21.81	18.00
				8	0	2	17.90	21.88	21.02	17.00
				8	4	2	17.90	21.96	21.02	17.00
				8	7	2	17.90	21.96	20.97	17.00
				15	0	2	18.00	21.92	21.03	17.00
	20175	1732.5	QPSK	1	0	0	19.80	23.97	22.90	18.90
				1	7	0	19.90	23.89	22.84	19.00
				1	14	0	19.80	23.95	22.90	19.00
				8	0	1	18.70	22.96	21.98	17.90
				8	4	1	18.80	22.95	21.93	17.90
				8	7	1	18.90	22.88	21.95	17.90
				15	0	1	18.70	22.95	21.95	18.00
			16QAM	1	0	1	18.90	22.89	21.81	18.00
				1	7	1	18.90	22.81	21.81	18.00
				1	14	1	18.90	22.86	21.85	18.00
				8	0	2	17.90	21.90	20.97	17.00
				8	4	2	17.90	21.93	20.97	17.00
				8	7	2	17.90	21.93	20.94	17.00
				15	0	2	17.90	21.90	20.99	17.00
	20385	1753.5	QPSK	1	0	0	19.90	23.98	22.86	18.90
				1	7	0	19.90	23.94	22.93	19.00
				1	14	0	19.80	23.95	22.76	19.00
				8	0	1	18.90	22.94	21.96	18.00
				8	4	1	18.90	22.97	21.95	18.00
				8	7	1	18.90	22.96	22.04	18.00
				15	0	1	18.90	22.93	21.98	18.00
			16QAM	1	0	1	18.90	22.85	21.97	18.00
				1	7	1	18.90	22.78	21.82	18.00
				1	14	1	18.90	22.89	21.88	18.00
				8	0	2	17.90	21.95	21.07	17.00
				8	4	2	17.90	21.98	21.07	17.00
				8	7	2	17.90	21.99	20.97	17.00
				15	0	2	17.90	21.89	21.10	17.00

LTE Band 4 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	19957	1710.7	QPSK	1	0	0	19.80	23.82	22.88	19.00
				1	2	0	19.80	23.75	22.89	19.00
				1	5	0	19.80	23.75	22.98	19.00
				3	0	0	19.90	23.70	22.70	18.90
				3	1	0	19.90	23.75	22.75	19.00
				3	2	0	19.90	23.78	22.80	19.00
				6	0	1	18.90	22.94	21.94	18.00
			16QAM	1	0	1	18.90	22.95	21.97	18.00
				1	2	1	18.90	22.90	21.91	18.00
				1	5	1	18.90	22.96	21.96	18.00
				3	0	1	18.90	22.85	21.80	18.00
				3	1	1	18.90	22.90	21.75	18.00
				3	2	1	18.90	22.87	21.80	18.00
				6	0	2	18.00	21.98	21.07	17.00
	20175	1732.5	QPSK	1	0	0	19.80	23.97	23.00	18.90
				1	2	0	19.90	23.98	22.92	19.00
				1	5	0	19.80	23.96	22.95	19.00
				3	0	0	19.70	23.90	22.70	18.90
				3	1	0	19.80	23.85	22.75	18.90
				3	2	0	19.90	23.88	22.73	18.90
				6	0	1	18.70	22.95	21.97	18.00
			16QAM	1	0	1	18.90	22.98	21.97	18.00
				1	2	1	18.90	22.92	21.94	18.00
				1	5	1	18.90	22.96	21.96	18.10
				3	0	1	18.90	22.90	21.87	18.00
				3	1	1	18.90	22.95	21.80	18.00
				3	2	1	18.90	22.90	21.85	18.00
				6	0	2	17.90	22.01	21.08	17.00
	20393	1754.3	QPSK	1	0	0	19.70	23.99	22.85	18.90
				1	2	0	19.80	23.92	22.99	19.00
				1	5	0	19.70	23.90	22.76	19.00
				3	0	0	19.80	23.85	22.70	19.00
				3	1	0	19.80	23.90	22.75	19.00
				3	2	0	19.80	23.86	22.72	18.90
				6	0	1	18.80	22.97	22.06	18.00
			16QAM	1	0	1	18.70	22.96	22.03	18.00
				1	2	1	18.60	22.91	21.97	18.00
				1	5	1	18.70	22.94	22.04	18.10
				3	0	1	18.90	22.87	21.85	18.00
				3	1	1	18.90	22.90	21.90	18.00
				3	2	1	18.90	22.95	21.87	17.90
				6	0	2	17.90	21.93	21.04	17.00

8.4.3. LTE Band 5

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	20450	829.0	QPSK	1	0	0	23.60	24.00	23.60	24.00
				1	24	0	23.60	24.00	23.60	24.00
				1	49	0	23.60	24.00	23.60	24.00
				25	0	1	22.67	23.00	22.67	23.00
				25	12	1	22.60	23.00	22.60	23.00
				25	24	1	22.73	23.00	22.73	23.00
				50	0	1	22.70	23.00	22.70	23.00
			16QAM	1	0	1	22.40	22.73	22.40	22.73
				1	24	1	22.47	22.61	22.47	22.61
				1	49	1	22.49	22.71	22.49	22.71
				25	0	2	21.62	21.86	21.62	21.86
				25	12	2	21.67	21.87	21.67	21.87
				25	24	2	21.71	21.88	21.71	21.88
				50	0	2	21.67	21.91	21.67	21.91
	20525	836.5	QPSK	1	0	0	23.60	24.00	23.60	24.00
				1	24	0	23.70	24.00	23.70	24.00
				1	49	0	23.70	24.00	23.70	24.00
				25	0	1	22.70	23.00	22.70	23.00
				25	12	1	22.70	23.00	22.70	23.00
				25	24	1	22.70	23.00	22.70	23.00
				50	0	1	22.70	23.00	22.70	23.00
			16QAM	1	0	1	22.50	22.65	22.50	22.65
				1	24	1	22.44	22.68	22.44	22.68
				1	49	1	22.40	22.62	22.40	22.62
				25	0	2	21.70	21.81	21.70	21.81
				25	12	2	21.68	21.83	21.68	21.83
				25	24	2	21.63	21.79	21.63	21.79
				50	0	2	21.63	21.84	21.63	21.84
	20600	844.0	QPSK	1	0	0	23.70	24.00	23.70	24.00
				1	24	0	23.70	24.00	23.70	24.00
				1	49	0	23.70	24.00	23.70	24.00
				25	0	1	22.70	23.00	22.70	23.00
				25	12	1	22.60	23.00	22.60	23.00
				25	24	1	22.70	23.00	22.70	23.00
				50	0	1	22.70	23.00	22.70	23.00
			16QAM	1	0	1	22.37	22.64	22.37	22.64
				1	24	1	22.34	22.72	22.34	22.72
				1	49	1	22.31	22.74	22.31	22.74
				25	0	2	21.61	21.74	21.61	21.74
				25	12	2	21.59	21.84	21.59	21.84
				25	24	2	21.68	21.85	21.68	21.85
				50	0	2	21.56	21.85	21.56	21.85

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	20425	826.5	QPSK	1	0	0	23.49	23.79	23.49	23.79
				1	12	0	23.48	23.78	23.48	23.78
				1	24	0	23.57	23.73	23.57	23.73
				12	0	1	22.55	22.97	22.55	22.97
				12	6	1	22.57	22.90	22.57	22.90
				12	11	1	22.57	22.94	22.57	22.94
				25	0	1	22.66	22.90	22.66	22.90
			16QAM	1	0	1	22.65	22.62	22.65	22.62
				1	12	1	22.65	22.60	22.65	22.60
				1	24	1	22.65	22.70	22.65	22.70
				12	0	2	21.65	21.84	21.65	21.84
				12	6	2	21.60	21.79	21.60	21.79
				12	11	2	21.62	21.83	21.62	21.83
				25	0	2	21.67	21.95	21.67	21.95
	20525	836.5	QPSK	1	0	0	23.53	23.75	23.53	23.75
				1	12	0	23.50	23.72	23.50	23.72
				1	24	0	23.51	23.73	23.51	23.73
				12	0	1	22.66	22.83	22.66	22.83
				12	6	1	22.66	22.82	22.66	22.82
				12	11	1	22.64	22.80	22.64	22.80
				25	0	1	22.68	22.85	22.68	22.85
			16QAM	1	0	1	22.66	22.65	22.66	22.65
				1	12	1	22.68	22.66	22.68	22.66
				1	24	1	22.66	22.55	22.66	22.55
				12	0	2	21.65	21.78	21.65	21.78
				12	6	2	21.61	21.72	21.61	21.72
				12	11	2	21.67	21.73	21.67	21.73
				25	0	2	21.68	21.73	21.68	21.73
	20625	846.5	QPSK	1	0	0	23.51	23.76	23.51	23.76
				1	12	0	23.45	23.71	23.45	23.71
				1	24	0	23.41	23.87	23.41	23.87
				12	0	1	22.66	22.84	22.66	22.84
				12	6	1	22.59	22.85	22.59	22.85
				12	11	1	22.56	22.86	22.56	22.86
				25	0	1	22.62	22.90	22.62	22.90
			16QAM	1	0	1	22.57	22.65	22.57	22.65
				1	12	1	22.54	22.62	22.54	22.62
				1	24	1	22.55	22.66	22.55	22.66
				12	0	2	21.68	21.63	21.68	21.63
				12	6	2	21.59	21.77	21.59	21.77
				12	11	2	21.57	21.74	21.57	21.74
				25	0	2	21.63	21.71	21.63	21.71

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	20415	825.5	QPSK	1	0	0	23.57	23.84	23.57	23.84
				1	7	0	23.51	23.75	23.51	23.75
				1	14	0	23.55	23.80	23.55	23.80
				8	0	1	22.53	22.92	22.53	22.92
				8	4	1	22.57	22.74	22.57	22.74
				8	7	1	22.56	22.94	22.56	22.94
				15	0	1	22.67	22.96	22.67	22.96
			16QAM	1	0	1	22.47	22.57	22.47	22.57
				1	7	1	22.42	22.61	22.42	22.61
				1	14	1	22.49	22.60	22.49	22.60
				8	0	2	21.67	21.89	21.67	21.89
				8	4	2	21.66	21.78	21.66	21.78
				8	7	2	21.67	21.87	21.67	21.87
				15	0	2	21.67	21.89	21.67	21.89
	20525	836.5	QPSK	1	0	0	23.57	23.75	23.57	23.75
				1	7	0	23.51	23.70	23.51	23.70
				1	14	0	23.50	23.77	23.50	23.77
				8	0	1	22.67	22.85	22.67	22.85
				8	4	1	22.65	22.83	22.65	22.83
				8	7	1	22.61	22.85	22.61	22.85
				15	0	1	22.70	22.82	22.70	22.82
			16QAM	1	0	1	22.53	22.67	22.53	22.67
				1	7	1	22.48	22.66	22.48	22.66
				1	14	1	22.45	22.46	22.45	22.46
				8	0	2	21.66	21.79	21.66	21.79
				8	4	2	21.67	21.61	21.67	21.61
				8	7	2	21.68	21.61	21.68	21.61
				15	0	2	21.70	21.80	21.70	21.80
	20635	847.5	QPSK	1	0	0	23.52	23.79	23.52	23.79
				1	7	0	23.44	23.75	23.44	23.75
				1	14	0	23.41	23.86	23.41	23.86
				8	0	1	22.64	22.82	22.64	22.82
				8	4	1	22.57	22.94	22.57	22.94
				8	7	1	22.45	22.89	22.45	22.89
				15	0	1	22.60	22.91	22.60	22.91
			16QAM	1	0	1	22.46	22.60	22.46	22.60
				1	7	1	22.39	22.69	22.39	22.69
				1	14	1	22.33	22.61	22.33	22.61
				8	0	2	21.66	21.63	21.66	21.63
				8	4	2	21.64	21.70	21.64	21.70
				8	7	2	21.53	21.70	21.53	21.70
				15	0	2	21.64	21.76	21.64	21.76

LTE Band 5 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	20407	824.7	QPSK	1	0	0	23.60	23.88	23.60	23.88
				1	2	0	23.55	23.86	23.55	23.86
				1	5	0	23.58	23.77	23.58	23.77
				3	0	0	23.50	23.70	23.50	23.70
				3	1	0	23.48	23.72	23.48	23.72
				3	2	0	23.52	23.65	23.52	23.65
				6	0	1	22.68	22.88	22.68	22.88
			16QAM	1	0	1	22.67	22.59	22.67	22.59
				1	2	1	22.65	22.57	22.65	22.57
				1	5	1	22.69	22.44	22.69	22.44
				3	0	1	22.50	22.30	22.50	22.30
				3	1	1	22.51	22.35	22.51	22.35
				3	2	1	22.60	22.40	22.60	22.40
				6	0	2	21.67	21.90	21.67	21.90
	20525	836.5	QPSK	1	0	0	23.58	23.76	23.58	23.76
				1	2	0	23.53	23.72	23.53	23.72
				1	5	0	23.57	23.76	23.57	23.76
				3	0	0	23.40	23.60	23.40	23.60
				3	1	0	23.45	23.55	23.45	23.55
				3	2	0	23.48	23.58	23.48	23.58
				6	0	1	22.66	22.84	22.66	22.84
			16QAM	1	0	1	22.66	22.48	22.66	22.48
				1	2	1	22.67	22.48	22.67	22.48
				1	5	1	22.70	22.47	22.70	22.47
				3	0	1	22.60	22.30	22.60	22.30
				3	1	1	22.50	22.25	22.50	22.25
				3	2	1	22.61	22.35	22.61	22.35
				6	0	2	21.61	21.70	21.61	21.70
	20643	848.3	QPSK	1	0	0	23.40	23.94	23.40	23.94
				1	2	0	23.41	23.86	23.41	23.86
				1	5	0	23.40	23.92	23.40	23.92
				3	0	0	23.30	23.70	23.30	23.70
				3	1	0	23.35	23.75	23.35	23.75
				3	2	0	23.36	23.80	23.36	23.80
				6	0	1	22.52	22.87	22.52	22.87
			16QAM	1	0	1	22.48	22.61	22.48	22.61
				1	2	1	22.48	22.62	22.48	22.62
				1	5	1	22.52	22.58	22.52	22.58
				3	0	1	22.40	22.40	22.40	22.40
				3	1	1	22.45	22.45	22.45	22.45
				3	2	1	22.48	22.50	22.48	22.50
				6	0	2	21.57	21.71	21.57	21.71

8.4.4. LTE Band 13

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	23230	782.0	QPSK	1	0	0	23.70	24.00	23.70	24.00
				1	24	0	23.70	24.00	23.70	24.00
				1	49	0	23.60	24.00	23.60	24.00
				25	0	1	22.60	23.00	22.60	23.00
				25	12	1	22.70	23.00	22.70	23.00
				25	24	1	22.60	23.00	22.60	23.00
				50	0	1	22.70	23.00	22.70	23.00
			16QAM	1	0	1	22.60	22.76	22.60	22.76
				1	24	1	22.70	22.65	22.70	22.65
				1	49	1	22.70	22.78	22.70	22.78
				25	0	2	21.85	21.91	21.85	21.91
				25	12	2	21.82	21.86	21.82	21.86
				25	24	2	21.79	21.83	21.79	21.83
				50	0	2	21.83	21.91	21.83	21.91

LTE Band 13 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	23207	779.5	QPSK	1	0	0	23.61	23.74	23.61	23.74
				1	12	0	23.58	23.73	23.58	23.73
				1	24	0	23.51	23.77	23.51	23.77
				12	0	1	22.57	22.87	22.57	22.87
				12	6	1	22.58	22.87	22.58	22.87
				12	11	1	22.44	22.87	22.44	22.87
				25	0	1	22.67	22.85	22.67	22.85
			16QAM	1	0	1	22.40	22.76	22.40	22.76
				1	12	1	22.55	22.72	22.55	22.72
				1	24	1	22.63	22.64	22.63	22.64
				12	0	2	21.46	21.82	21.46	21.82
				12	6	2	21.50	21.81	21.50	21.81
				12	11	2	21.52	21.81	21.52	21.81
				25	0	2	21.54	21.78	21.54	21.78
	23230	782.0	QPSK	1	0	0	23.61	23.74	23.61	23.74
				1	12	0	23.58	23.73	23.58	23.73
				1	24	0	23.56	23.77	23.56	23.77
				12	0	1	22.57	22.87	22.57	22.87
				12	6	1	22.68	22.87	22.68	22.87
				12	11	1	22.59	22.87	22.59	22.87
				25	0	1	22.67	22.85	22.67	22.85
			16QAM	1	0	1	22.55	22.76	22.55	22.76
				1	12	1	22.65	22.77	22.65	22.77
				1	24	1	22.63	22.74	22.63	22.74
				12	0	2	21.56	21.82	21.56	21.82
				12	6	2	21.55	21.81	21.55	21.81
				12	11	2	21.57	21.81	21.57	21.81
				25	0	2	21.59	21.88	21.59	21.88
	23255	784.5	QPSK	1	0	0	23.61	23.74	23.61	23.74
				1	12	0	23.58	23.73	23.58	23.73
				1	24	0	23.56	23.77	23.56	23.77
				12	0	1	22.57	22.87	22.57	22.87
				12	6	1	22.68	22.87	22.68	22.87
				12	11	1	22.54	22.87	22.54	22.87
				25	0	1	22.67	22.85	22.67	22.85
			16QAM	1	0	1	22.55	22.76	22.55	22.76
				1	12	1	22.65	22.77	22.65	22.77
				1	24	1	22.68	22.64	22.68	22.64
				12	0	2	21.56	21.82	21.56	21.82
				12	6	2	21.55	21.81	21.55	21.81
				12	11	2	21.57	21.81	21.57	21.81
				25	0	2	21.59	21.88	21.59	21.88

8.4.5. LTE Band 17

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	23780	709.0	QPSK	1	0	0	23.67	23.75	23.67	23.75
				1	24	0	23.58	23.85	23.58	23.85
				1	49	0	23.63	23.82	23.63	23.82
				25	0	1	22.82	22.93	22.82	22.93
				25	12	1	22.74	23.01	22.74	23.01
				25	24	1	22.74	22.99	22.74	22.99
				50	0	1	22.79	23.02	22.79	23.02
			16QAM	1	0	1	22.56	22.76	22.56	22.76
				1	24	1	22.52	22.80	22.52	22.80
				1	49	1	22.50	22.74	22.50	22.74
				25	0	2	21.78	21.91	21.78	21.91
				25	12	2	21.80	21.96	21.80	21.96
				25	24	2	21.80	22.02	21.80	22.02
				50	0	2	21.73	22.03	21.73	22.03
	23790	710.0	QPSK	1	0	0	23.70	24.00	23.70	24.00
				1	24	0	23.70	24.00	23.70	24.00
				1	49	0	23.70	24.00	23.70	24.00
				25	0	1	22.70	23.00	22.70	23.00
				25	12	1	22.70	23.00	22.70	23.00
				25	24	1	22.60	23.00	22.60	23.00
				50	0	1	22.70	23.00	22.70	23.00
			16QAM	1	0	1	22.59	22.70	22.59	22.70
				1	24	1	22.48	22.74	22.48	22.74
				1	49	1	22.72	22.78	22.72	22.78
				25	0	2	21.78	22.01	21.78	22.01
				25	12	2	21.79	22.02	21.79	22.02
				25	24	2	21.81	21.99	21.81	21.99
				50	0	2	21.74	22.02	21.74	22.02
	23800	711.0	QPSK	1	0	0	23.65	23.73	23.65	23.73
				1	24	0	23.59	23.87	23.59	23.87
				1	49	0	23.70	23.81	23.70	23.81
				25	0	1	22.82	23.04	22.82	23.04
				25	12	1	22.76	23.00	22.76	23.00
				25	24	1	22.78	22.95	22.78	22.95
				50	0	1	22.77	23.03	22.77	23.03
			16QAM	1	0	1	22.57	22.70	22.57	22.70
				1	24	1	22.54	22.76	22.54	22.76
				1	49	1	22.70	22.76	22.70	22.76
				25	0	2	21.79	22.00	21.79	22.00
				25	12	2	21.76	21.98	21.76	21.98
				25	24	2	21.75	21.99	21.75	21.99
				50	0	2	21.77	21.99	21.77	21.99

LTE Band 17 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	23755	706.5	QPSK	1	0	0	23.70	23.80	23.70	23.80
				1	12	0	23.64	23.76	23.64	23.76
				1	24	0	23.66	23.90	23.66	23.90
				12	0	1	22.67	22.96	22.67	22.96
				12	6	1	22.67	22.94	22.67	22.94
				12	11	1	22.59	22.96	22.59	22.96
				25	0	1	22.67	22.90	22.67	22.90
			16QAM	1	0	1	22.29	22.75	22.29	22.75
				1	12	1	22.29	22.80	22.29	22.80
				1	24	1	22.18	22.74	22.18	22.74
				12	0	2	21.15	21.88	21.15	21.88
				12	6	2	21.22	21.87	21.22	21.87
				12	11	2	21.26	21.98	21.26	21.98
				25	0	2	21.27	21.96	21.27	21.96
	23790	710.0	QPSK	1	0	0	23.62	23.78	23.62	23.78
				1	12	0	23.59	23.83	23.59	23.83
				1	24	0	23.63	23.87	23.63	23.87
				12	0	1	22.67	22.96	22.67	22.96
				12	6	1	22.67	23.00	22.67	23.00
				12	11	1	22.57	22.97	22.57	22.97
				25	0	1	22.64	22.98	22.64	22.98
			16QAM	1	0	1	22.26	22.79	22.26	22.79
				1	12	1	22.25	22.74	22.25	22.74
				1	24	1	22.16	22.77	22.16	22.77
				12	0	2	21.15	21.93	21.15	21.93
				12	6	2	21.25	21.94	21.25	21.94
				12	11	2	21.25	21.95	21.25	21.95
				25	0	2	21.27	21.98	21.27	21.98
	23825	713.5	QPSK	1	0	0	23.60	23.86	23.60	23.86
				1	12	0	23.62	23.79	23.62	23.79
				1	24	0	23.67	23.81	23.67	23.81
				12	0	1	22.69	22.97	22.69	22.97
				12	6	1	22.68	22.97	22.68	22.97
				12	11	1	22.59	22.94	22.59	22.94
				25	0	1	22.67	22.98	22.67	22.98
			16QAM	1	0	1	22.27	22.79	22.27	22.79
				1	12	1	22.27	22.79	22.27	22.79
				1	24	1	22.19	22.79	22.19	22.79
				12	0	2	21.17	21.94	21.17	21.94
				12	6	2	21.24	21.91	21.24	21.91
				12	11	2	21.24	21.91	21.24	21.91
				25	0	2	21.24	21.93	21.24	21.93

8.4.6. LTE Band 25

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	26140	1860.0	QPSK	1	0	0	19.90	23.40	23.10	18.40
				1	49	0	19.90	23.50	23.20	18.50
				1	99	0	19.90	23.40	23.10	18.30
				50	0	1	19.10	22.40	22.10	17.50
				50	24	1	19.10	22.40	22.20	17.50
				50	49	1	19.10	22.40	22.10	17.40
				100	0	1	19.10	22.40	22.30	17.50
			16QAM	1	0	1	19.10	22.40	21.80	17.50
				1	49	1	19.10	22.40	21.92	17.40
				1	99	1	19.10	22.40	22.05	17.43
				50	0	2	18.10	21.40	21.06	16.80
				50	24	2	18.10	21.40	21.14	16.56
				50	49	2	18.10	21.40	21.30	16.50
				100	0	2	18.10	21.40	21.16	16.50
	26365	1882.5	QPSK	1	0	0	20.10	23.50	23.40	18.30
				1	49	0	20.10	23.50	23.40	18.50
				1	99	0	20.10	23.50	23.30	18.40
				50	0	1	19.10	22.50	22.30	17.50
				50	24	1	19.10	22.50	22.40	17.50
				50	49	1	19.10	22.50	22.40	17.50
				100	0	1	19.10	22.40	22.30	17.50
			16QAM	1	0	1	19.00	22.40	22.02	17.50
				1	49	1	19.00	22.40	21.99	17.50
				1	99	1	19.10	22.40	21.92	17.43
				50	0	2	18.10	21.50	21.35	16.80
				50	24	2	18.10	21.50	21.28	16.56
				50	49	2	18.10	21.50	21.20	16.50
				100	0	2	18.10	21.50	21.28	16.50
	26590	1905.0	QPSK	1	0	0	19.90	23.30	23.20	18.40
				1	49	0	19.90	23.40	23.40	18.50
				1	99	0	19.90	23.40	23.30	18.30
				50	0	1	19.10	22.40	22.20	17.40
				50	24	1	19.10	22.40	22.40	17.50
				50	49	1	19.10	22.40	22.30	17.50
				100	0	1	19.10	22.40	22.30	17.50
			16QAM	1	0	1	19.00	22.40	21.98	17.50
				1	49	1	19.10	22.30	21.98	17.40
				1	99	1	19.10	22.40	22.00	17.43
				50	0	2	18.10	21.40	21.38	16.80
				50	24	2	18.10	21.50	21.40	16.56
				50	49	2	18.10	21.50	21.39	16.50
				100	0	2	18.10	21.50	21.39	16.50

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	26115	1857.5	QPSK	1	0	0	19.90	23.21	23.04	18.40
				1	37	0	19.90	23.21	23.08	18.50
				1	74	0	19.90	23.21	23.09	18.30
				36	0	1	19.10	22.36	22.08	17.50
				36	16	1	19.10	22.39	22.19	17.50
				36	35	1	19.10	22.34	22.04	17.40
				75	0	1	19.10	22.33	22.24	17.50
			16QAM	1	0	1	19.10	22.14	21.84	17.50
				1	37	1	19.10	22.11	21.88	17.40
				1	74	1	19.10	22.11	21.98	17.43
				36	0	2	18.10	21.37	21.05	16.80
				36	16	2	18.10	21.35	21.08	16.56
				36	35	2	18.10	21.33	21.16	16.50
				75	0	2	18.10	21.35	21.13	16.50
	26365	1882.5	QPSK	1	0	0	20.10	23.22	23.24	18.30
				1	37	0	20.10	23.21	23.18	18.50
				1	74	0	20.10	23.24	23.07	18.40
				36	0	1	19.10	22.44	22.28	17.50
				36	16	1	19.10	22.48	22.31	17.50
				36	35	1	19.10	22.36	22.24	17.50
				75	0	1	19.10	22.30	22.24	17.50
			16QAM	1	0	1	19.00	22.11	21.96	17.50
				1	37	1	19.00	22.11	21.94	17.50
				1	74	1	19.10	22.12	21.84	17.43
				36	0	2	18.10	21.47	21.36	16.80
				36	16	2	18.10	21.50	21.27	16.56
				36	35	2	18.10	21.39	21.20	16.50
				75	0	2	18.10	21.57	21.28	16.50
	26615	1907.5	QPSK	1	0	0	19.90	23.04	23.16	18.40
				1	37	0	19.90	23.11	23.26	18.50
				1	74	0	19.90	23.10	23.20	18.30
				36	0	1	19.10	22.24	22.07	17.40
				36	16	1	19.10	22.27	22.34	17.50
				36	35	1	19.10	22.19	22.30	17.50
				75	0	1	19.10	22.28	22.20	17.50
			16QAM	1	0	1	19.00	22.11	21.97	17.50
				1	37	1	19.10	22.00	22.00	17.40
				1	74	1	19.10	22.11	21.97	17.43
				36	0	2	18.10	21.23	21.35	16.80
				36	16	2	18.10	21.26	21.37	16.56
				36	35	2	18.10	21.21	21.36	16.50
				75	0	2	18.10	21.26	21.38	16.50

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	26090	1855.0	QPSK	1	0	0	19.90	23.37	23.02	18.40
				1	24	0	20.10	23.32	23.06	18.30
				1	49	0	20.00	23.30	23.07	18.30
				25	0	1	18.90	22.37	22.04	17.40
				25	12	1	18.90	22.34	22.13	17.30
				25	24	1	19.00	22.37	22.08	17.40
				50	0	1	19.00	22.39	22.07	17.40
			16QAM	1	0	1	18.90	22.21	21.83	17.40
				1	24	1	18.80	22.17	21.89	17.40
				1	49	1	18.80	22.19	21.90	17.40
				25	0	2	17.90	21.37	21.10	16.40
				25	12	2	18.00	21.33	21.09	16.50
				25	24	2	18.00	21.36	21.12	16.30
				50	0	2	18.00	21.35	21.05	16.40
	26365	1882.5	QPSK	1	0	0	20.10	23.40	23.24	18.40
				1	24	0	19.90	23.44	23.18	18.40
				1	49	0	19.90	23.50	23.08	18.40
				25	0	1	19.00	22.46	22.24	17.50
				25	12	1	19.00	22.40	22.27	17.30
				25	24	1	19.00	22.38	22.18	17.30
				50	0	1	19.00	22.32	22.27	17.40
			16QAM	1	0	1	19.10	22.28	21.93	17.40
				1	24	1	18.80	22.30	21.99	17.40
				1	49	1	18.80	22.37	21.96	17.40
				25	0	2	18.00	21.40	21.32	16.50
				25	12	2	18.00	21.45	21.21	16.50
				25	24	2	18.10	21.46	21.16	16.30
				50	0	2	18.00	21.46	21.26	16.40
	26640	1910.0	QPSK	1	0	0	20.10	23.18	23.06	18.30
				1	24	0	19.90	23.30	23.32	18.50
				1	49	0	19.90	23.39	23.14	18.50
				25	0	1	19.00	22.28	22.12	17.40
				25	12	1	19.00	22.29	22.36	17.40
				25	24	1	19.00	22.30	22.30	17.30
				50	0	1	19.10	22.15	22.29	17.50
			16QAM	1	0	1	19.10	22.31	21.91	17.50
				1	24	1	19.00	22.26	21.98	17.50
				1	49	1	18.90	22.26	21.96	17.50
				25	0	2	18.00	21.33	21.30	16.50
				25	12	2	18.00	21.25	21.33	16.40
				25	24	2	18.00	21.27	21.39	16.40
				50	0	2	18.10	21.49	21.31	16.40

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	26065	1852.5	QPSK	1	0	0	20.00	23.31	23.02	18.30
				1	12	0	19.90	23.31	22.99	18.30
				1	24	0	19.90	23.36	23.08	18.40
				12	0	1	19.00	22.36	22.07	17.30
				12	6	1	19.10	22.34	22.08	17.30
				12	11	1	18.80	22.36	22.08	17.30
				25	0	1	18.80	22.39	22.09	17.30
			16QAM	1	0	1	18.80	22.35	21.97	17.30
				1	12	1	18.80	22.31	21.94	17.30
				1	24	1	19.00	22.34	22.08	17.40
				12	0	2	17.90	21.39	21.05	16.40
				12	6	2	18.00	21.39	21.00	16.40
				12	11	2	18.00	21.36	21.00	16.30
				25	0	2	18.00	21.33	21.20	16.30
	26365	1882.5	QPSK	1	0	0	19.90	23.27	23.24	18.30
				1	12	0	19.90	23.21	23.14	18.30
				1	24	0	19.90	23.24	23.07	18.30
				12	0	1	19.00	22.43	22.27	17.40
				12	6	1	19.00	22.38	22.22	17.40
				12	11	1	18.80	22.33	22.20	17.40
				25	0	1	19.00	22.33	22.19	17.40
			16QAM	1	0	1	19.00	22.37	21.96	17.40
				1	12	1	19.00	22.38	21.97	17.40
				1	24	1	19.00	22.36	21.98	17.40
				12	0	2	18.10	21.37	21.28	16.30
				12	6	2	18.10	21.38	21.22	16.30
				12	11	2	18.10	21.23	21.19	16.30
				25	0	2	18.10	21.57	21.26	16.40
	26665	1912.5	QPSK	1	0	0	19.90	23.07	23.09	18.30
				1	12	0	20.00	23.10	23.28	18.40
				1	24	0	20.00	23.12	23.17	18.30
				12	0	1	19.10	22.19	22.10	17.40
				12	6	1	19.00	22.15	22.36	17.40
				12	11	1	19.10	22.13	22.23	17.40
				25	0	1	19.10	22.13	22.29	17.40
			16QAM	1	0	1	18.80	22.33	21.92	17.40
				1	12	1	19.00	22.23	21.94	17.40
				1	24	1	19.10	22.26	21.97	17.50
				12	0	2	18.00	21.15	21.30	16.30
				12	6	2	18.10	21.21	21.31	16.30
				12	11	2	18.10	21.20	21.36	16.40
				25	0	2	18.10	21.26	21.38	16.40

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	26055	1851.5	QPSK	1	0	0	20.00	23.37	23.05	18.50
				1	7	0	20.00	23.24	23.01	18.50
				1	14	0	20.00	23.33	23.06	18.50
				8	0	1	19.00	22.36	22.05	17.40
				8	4	1	19.00	22.35	22.08	17.30
				8	7	1	19.00	22.39	22.04	17.30
				15	0	1	19.00	22.34	22.07	17.30
			16QAM	1	0	1	19.00	22.24	21.98	17.40
				1	7	1	19.00	22.20	21.84	17.40
				1	14	1	19.00	22.28	21.92	17.40
				8	0	2	18.00	21.39	21.07	16.30
				8	4	2	17.90	21.33	21.08	16.50
				8	7	2	18.00	21.39	21.07	16.50
				15	0	2	17.90	21.34	21.06	16.50
	26365	1882.5	QPSK	1	0	0	20.00	23.32	23.30	18.50
				1	7	0	19.90	23.22	23.14	18.50
				1	14	0	19.90	23.25	23.09	18.50
				8	0	1	19.10	22.39	22.20	17.40
				8	4	1	19.00	22.39	22.19	17.50
				8	7	1	19.00	22.30	22.26	17.30
				15	0	1	19.00	22.34	22.19	17.30
			16QAM	1	0	1	19.00	22.23	21.95	17.30
				1	7	1	19.00	22.11	21.99	17.30
				1	14	1	19.00	22.18	21.98	17.50
				8	0	2	18.10	21.45	21.27	16.40
				8	4	2	17.90	21.46	21.24	16.40
				8	7	2	18.00	21.40	21.24	16.40
				15	0	2	18.00	21.41	21.27	16.40
	26675	1913.5	QPSK	1	0	0	19.90	23.09	23.11	18.40
				1	7	0	19.90	23.12	23.26	18.40
				1	14	0	20.10	23.11	23.22	18.40
				8	0	1	19.10	22.17	22.09	17.40
				8	4	1	19.00	22.10	22.39	17.50
				8	7	1	19.10	22.12	22.27	17.30
				15	0	1	19.10	22.19	22.27	17.40
			16QAM	1	0	1	19.10	22.11	21.99	17.30
				1	7	1	19.00	22.02	21.98	17.30
				1	14	1	19.10	22.10	21.97	17.50
				8	0	2	18.00	21.21	21.34	16.40
				8	4	2	18.10	21.21	21.33	16.40
				8	7	2	18.10	21.21	21.35	16.40
				15	0	2	18.00	21.21	21.37	16.40

LTE Band 25 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
1.4	26047	1850.7	QPSK	1	0	0	20.00	23.32	23.04	18.30
				1	2	0	19.80	23.32	23.03	18.50
				1	5	0	19.80	23.36	23.06	18.30
				3	0	0	19.80	23.25	23.00	18.30
				3	1	0	19.80	23.20	22.99	18.40
				3	2	0	19.80	23.26	23.01	18.40
				6	0	1	19.00	22.12	22.11	17.50
			16QAM	1	0	1	18.90	22.11	21.96	17.50
				1	2	1	18.90	22.13	21.95	17.50
				1	5	1	18.90	22.13	22.09	17.40
				3	0	1	18.90	22.10	21.80	17.40
				3	1	1	19.10	22.05	21.85	17.40
				3	2	1	19.10	22.00	21.82	17.30
				6	0	2	18.00	21.10	21.14	16.50
	26365	1882.5	QPSK	1	0	0	19.90	23.37	23.24	18.40
				1	2	0	19.80	23.30	23.19	18.40
				1	5	0	19.80	23.28	23.29	18.30
				3	0	0	19.90	23.41	23.10	18.30
				3	1	0	19.90	23.30	23.05	18.30
				3	2	0	19.90	23.28	23.12	18.30
				6	0	1	18.90	22.37	22.22	17.40
			16QAM	1	0	1	19.00	22.32	21.96	17.40
				1	2	1	19.00	22.34	21.95	17.30
				1	5	1	19.10	22.28	21.98	17.30
				3	0	1	19.10	22.25	21.80	17.30
				3	1	1	18.90	22.20	21.75	17.30
				3	2	1	18.90	22.18	21.76	17.30
				6	0	2	18.00	21.47	21.29	16.50
	26683	1914.3	QPSK	1	0	0	19.90	23.10	23.16	18.40
				1	2	0	20.00	23.11	23.39	18.40
				1	5	0	20.00	23.13	23.25	18.40
				3	0	0	19.90	23.16	23.12	18.30
				3	1	0	19.90	23.09	23.20	18.30
				3	2	0	19.90	23.15	23.25	18.30
				6	0	1	18.90	22.15	22.30	17.50
			16QAM	1	0	1	19.10	22.15	21.98	17.40
				1	2	1	19.00	22.11	21.99	17.40
				1	5	1	19.10	22.11	21.98	17.30
				3	0	1	19.10	22.15	21.70	17.30
				3	1	1	18.90	22.11	21.75	17.30
				3	2	1	18.90	22.09	21.80	17.50
				6	0	2	17.80	21.31	21.37	16.40

8.4.7. LTE Band 26

Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	26740	819.0	QPSK	1	0	0	22.90	23.00	22.90	23.00
				1	24	0	23.00	23.00	23.00	23.00
				1	49	0	23.00	23.00	23.00	23.00
				25	0	1	21.80	21.90	21.80	21.90
				25	12	1	22.00	22.00	22.00	22.00
				25	24	1	21.90	22.00	21.90	22.00
				50	0	1	22.00	22.00	22.00	22.00
			16QAM	1	0	1	21.64	21.64	21.64	21.64
				1	24	1	21.97	21.77	21.97	21.77
				1	49	1	21.86	21.76	21.86	21.76
				25	0	2	20.74	20.73	20.74	20.73
				25	12	2	20.70	20.76	20.70	20.76
				25	24	2	20.46	20.70	20.46	20.70
				50	0	2	20.72	20.60	20.72	20.60

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
5	26865	821.3	QPSK	1	0	0	22.80	22.86	22.80	22.86
				1	12	0	22.77	22.81	22.77	22.81
				1	24	0	22.79	22.82	22.79	22.82
				12	0	1	21.90	22.00	21.90	22.00
				12	6	1	21.91	21.97	21.91	21.97
				12	11	1	21.91	21.94	21.91	21.94
				25	0	1	21.88	21.96	21.88	21.96
			16QAM	1	0	1	21.99	21.99	21.99	21.99
				1	12	1	21.98	21.98	21.98	21.98
				1	24	1	22.00	22.00	22.00	22.00
				12	0	2	20.89	20.95	20.89	20.95
				12	6	2	20.89	20.89	20.89	20.89
				12	11	2	20.88	20.90	20.88	20.90
				25	0	2	20.80	20.90	20.80	20.90

LTE Band 26 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
3	26705	820.3	QPSK	1	0	0	22.84	22.89	22.84	22.89
				1	7	0	22.79	22.80	22.79	22.80
				1	14	0	22.79	22.84	22.79	22.84
				8	0	1	21.94	22.02	21.94	22.02
				8	4	1	21.94	21.99	21.94	21.99
				8	7	1	21.87	21.97	21.87	21.97
				15	0	1	21.96	21.97	21.96	21.97
			16QAM	1	0	1	21.80	21.81	21.80	21.81
				1	7	1	21.69	21.72	21.69	21.72
				1	14	1	21.72	21.75	21.72	21.75
				8	0	2	20.97	21.00	20.97	21.00
				8	4	2	20.96	21.00	20.96	21.00
				8	7	2	20.94	20.97	20.94	20.97
				15	0	2	20.96	20.97	20.96	20.97
	26865	821.3	QPSK	1	0	0	22.83	22.88	22.83	22.88
				1	7	0	22.75	22.76	22.75	22.76
				1	14	0	22.81	22.82	22.81	22.82
				8	0	1	21.89	21.97	21.89	21.97
				8	4	1	21.91	21.99	21.91	21.99
				8	7	1	21.86	21.97	21.86	21.97
				15	0	1	21.94	21.94	21.94	21.94
			16QAM	1	0	1	21.72	21.83	21.72	21.83
				1	7	1	21.66	21.75	21.66	21.75
				1	14	1	21.71	21.76	21.71	21.76
				8	0	2	20.97	20.98	20.97	20.98
				8	4	2	20.94	20.98	20.94	20.98
				8	7	2	20.96	20.98	20.96	20.98
				15	0	2	20.97	20.98	20.97	20.98
	27025	822.3	QPSK	1	0	0	22.85	22.91	22.85	22.91
				1	7	0	22.74	22.79	22.74	22.79
				1	14	0	22.80	22.84	22.80	22.84
				8	0	1	21.91	21.95	21.91	21.95
				8	4	1	21.88	21.96	21.88	21.96
				8	7	1	21.86	21.99	21.86	21.99
				15	0	1	21.92	21.99	21.92	21.99
			16QAM	1	0	1	21.73	21.81	21.73	21.81
				1	7	1	21.70	21.74	21.70	21.74
				1	14	1	21.68	21.77	21.68	21.77
				8	0	2	20.96	20.97	20.96	20.97
				8	4	2	20.95	20.98	20.95	20.98
				8	7	2	20.94	20.95	20.94	20.95
				15	0	2	20.89	20.96	20.89	20.96

Note(s):

10/5 MHz Bandwidths does not support at least three non-overlapping channels in certain channel bandwidths. 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 per KDB941225 D05 SAR for LTE Devices.

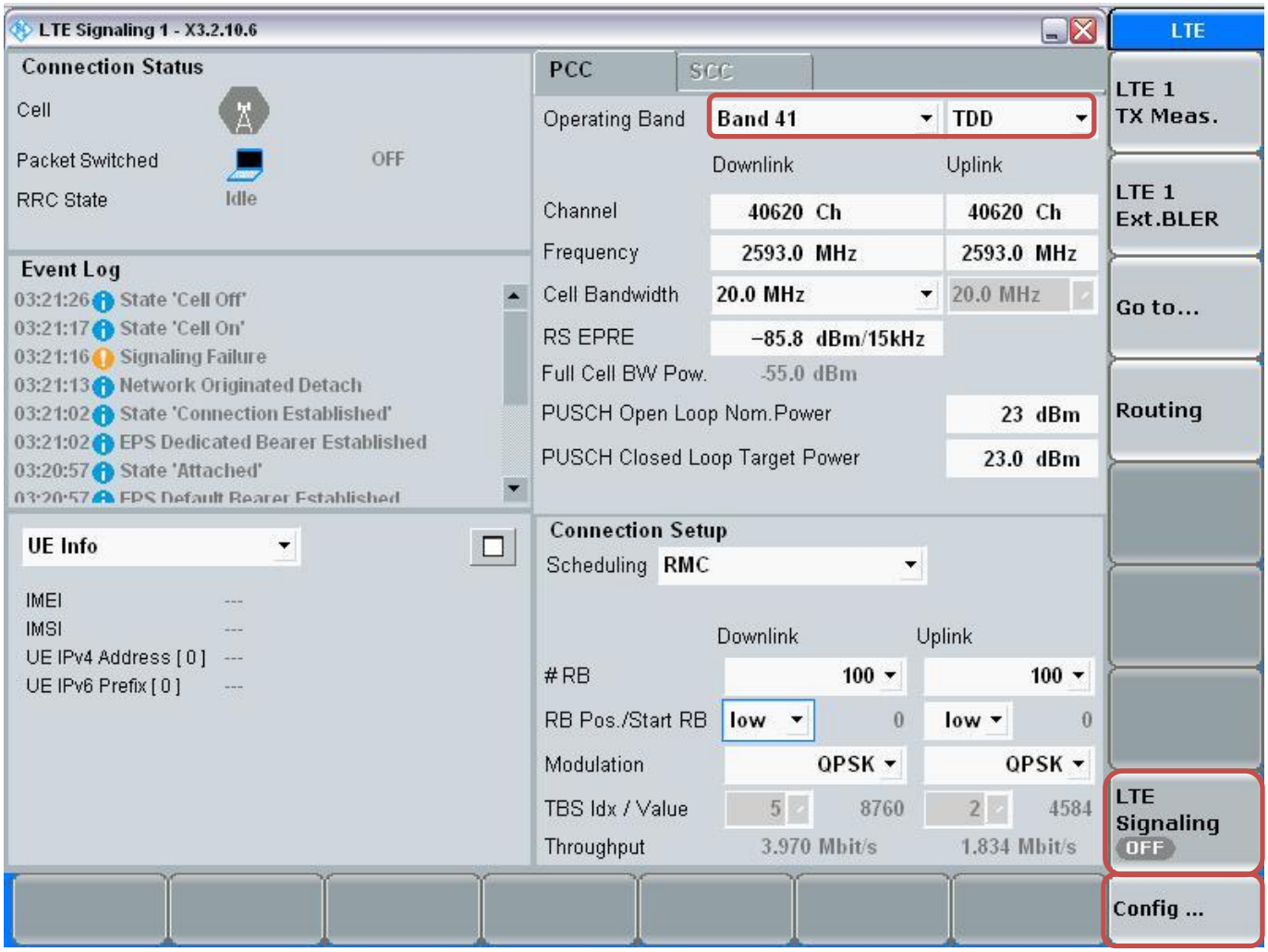
8.4.8. LTE Band 41

Measured Results

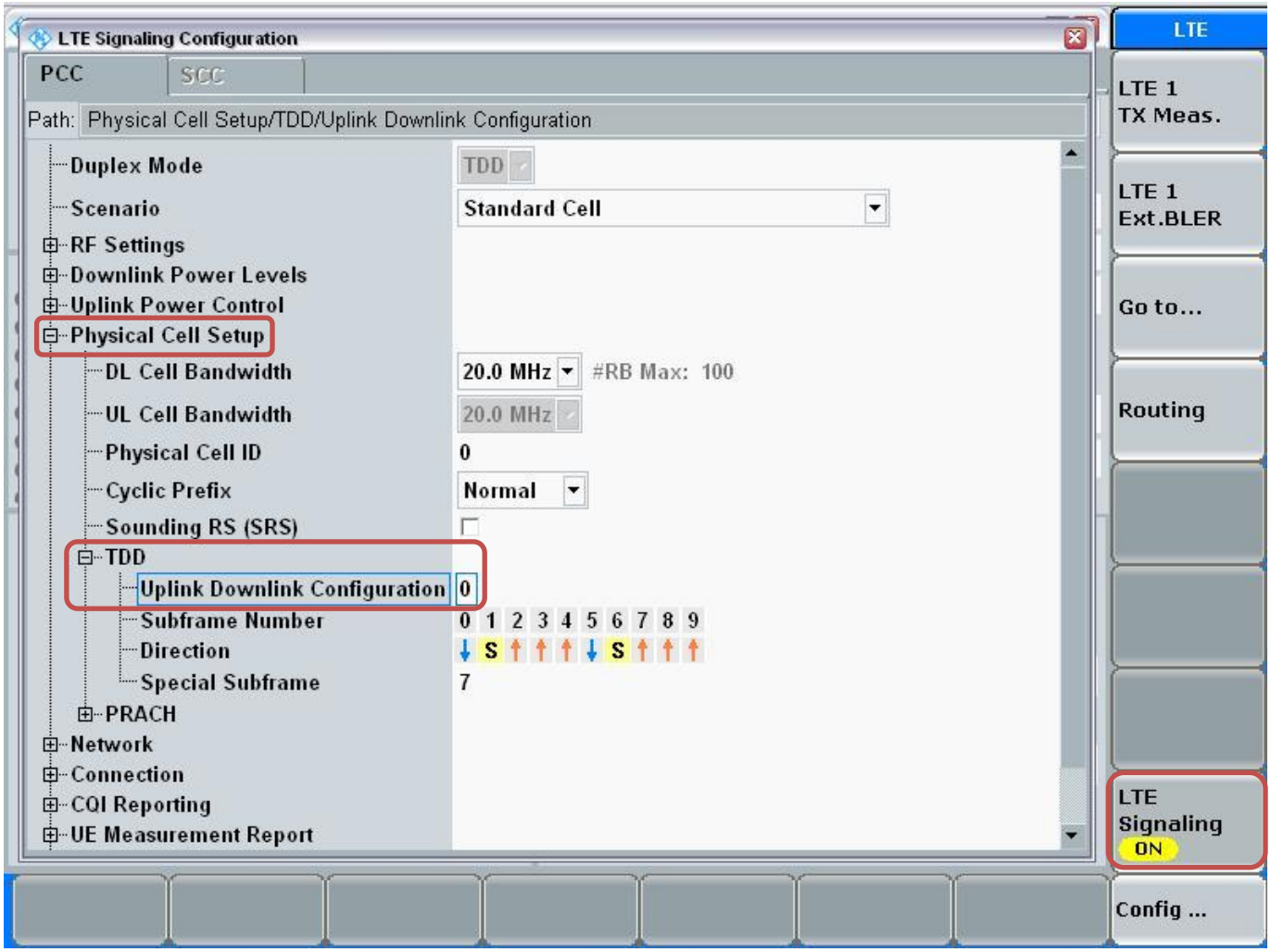
Procedure used to establish SAR test signal for LTE TDD Band 41

Set to CMW-500 with following parameters:

- Turn the LTE Signaling off using “ON | OFF” key
- Operating Band: Select Band 41 and TDD
- Go to “Config….”

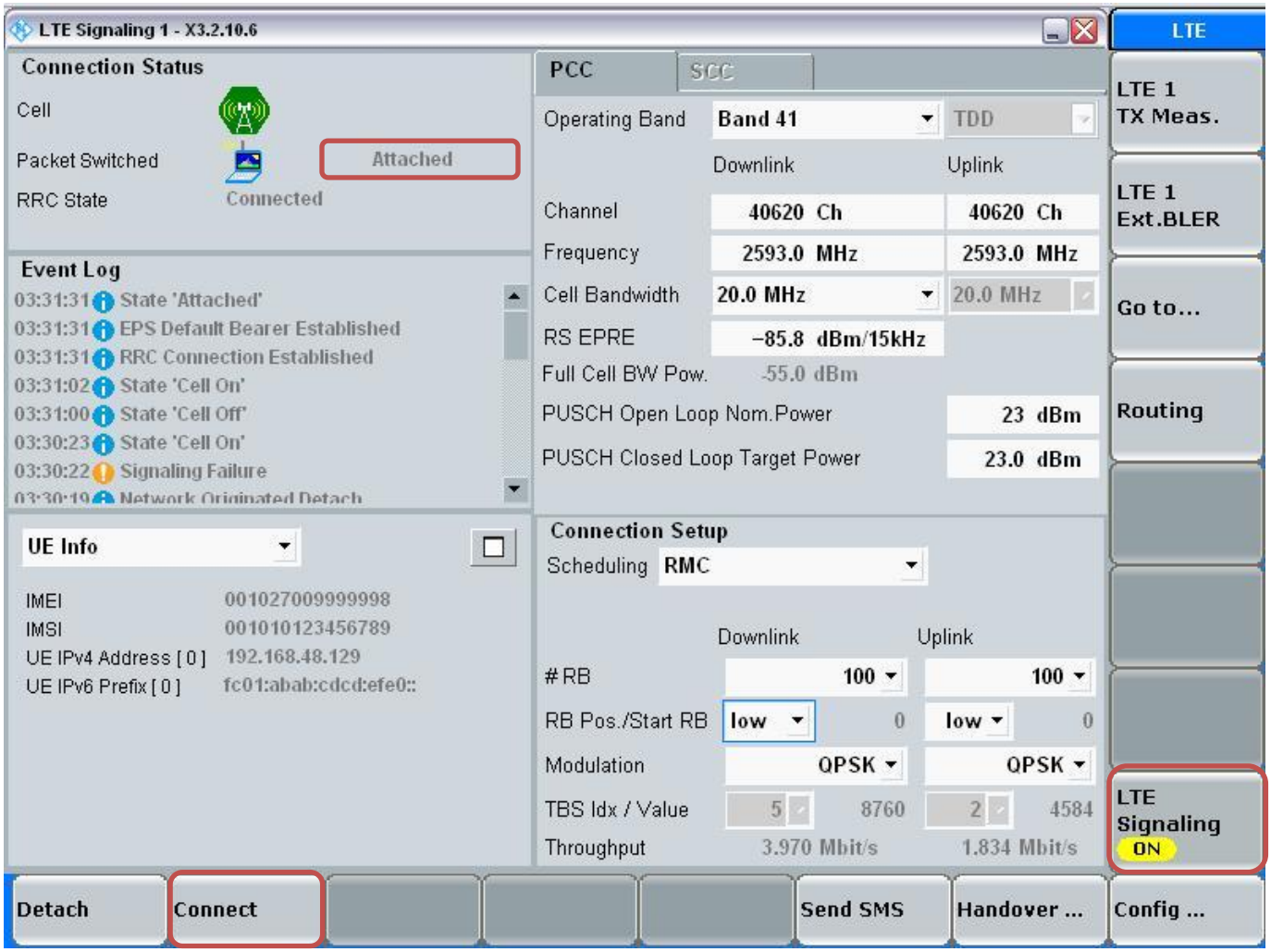


- Go to “Physical Cell Setup”
- Select “TDD” and Set “Uplink Downlink Configuration” to “0”
- Turn the cell on using “ON | OFF” key



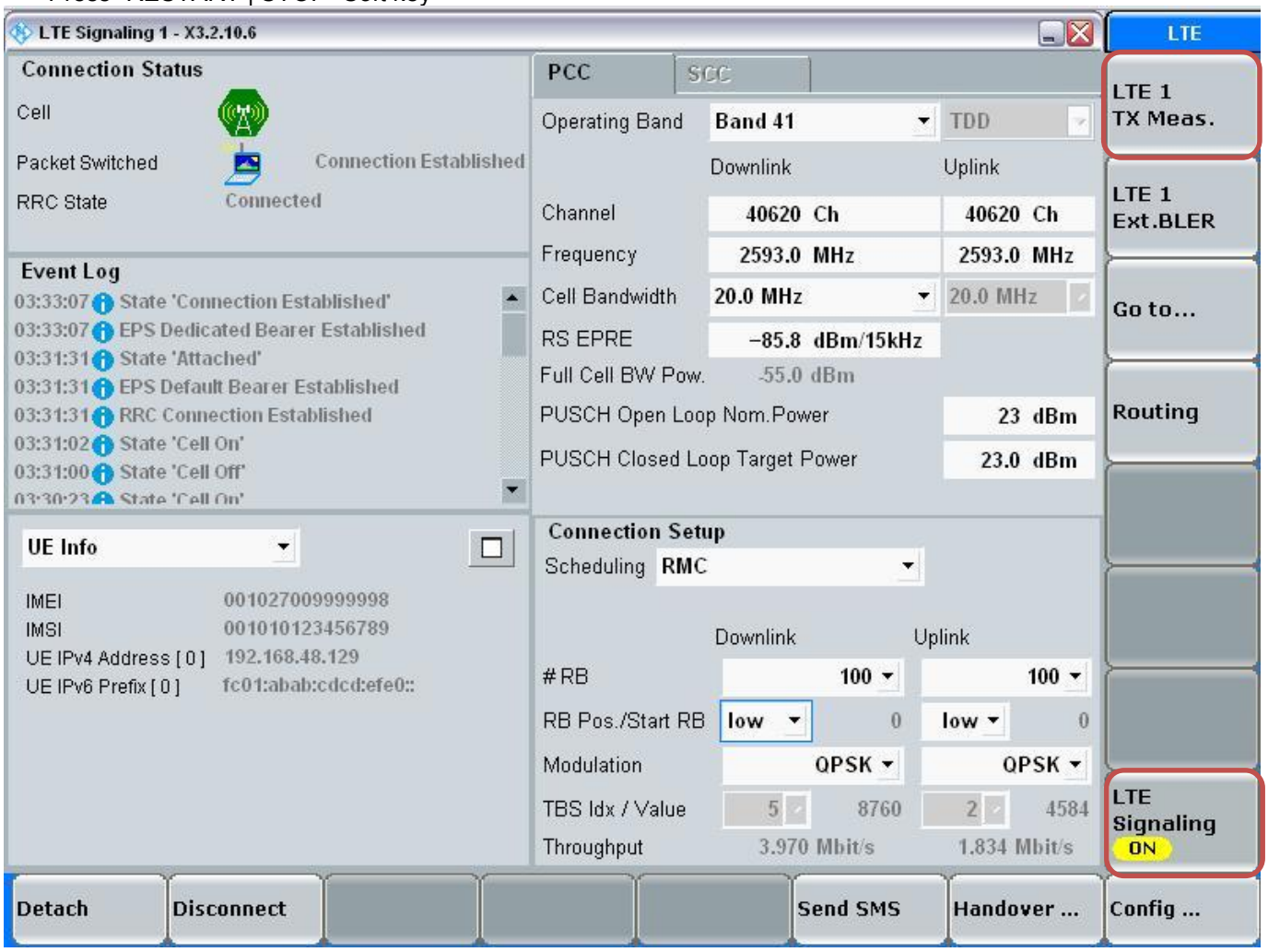
Connect to EUT

- Turn the cell on using “ON | OFF” key
- After EUT is Attached
- Select “Connect”

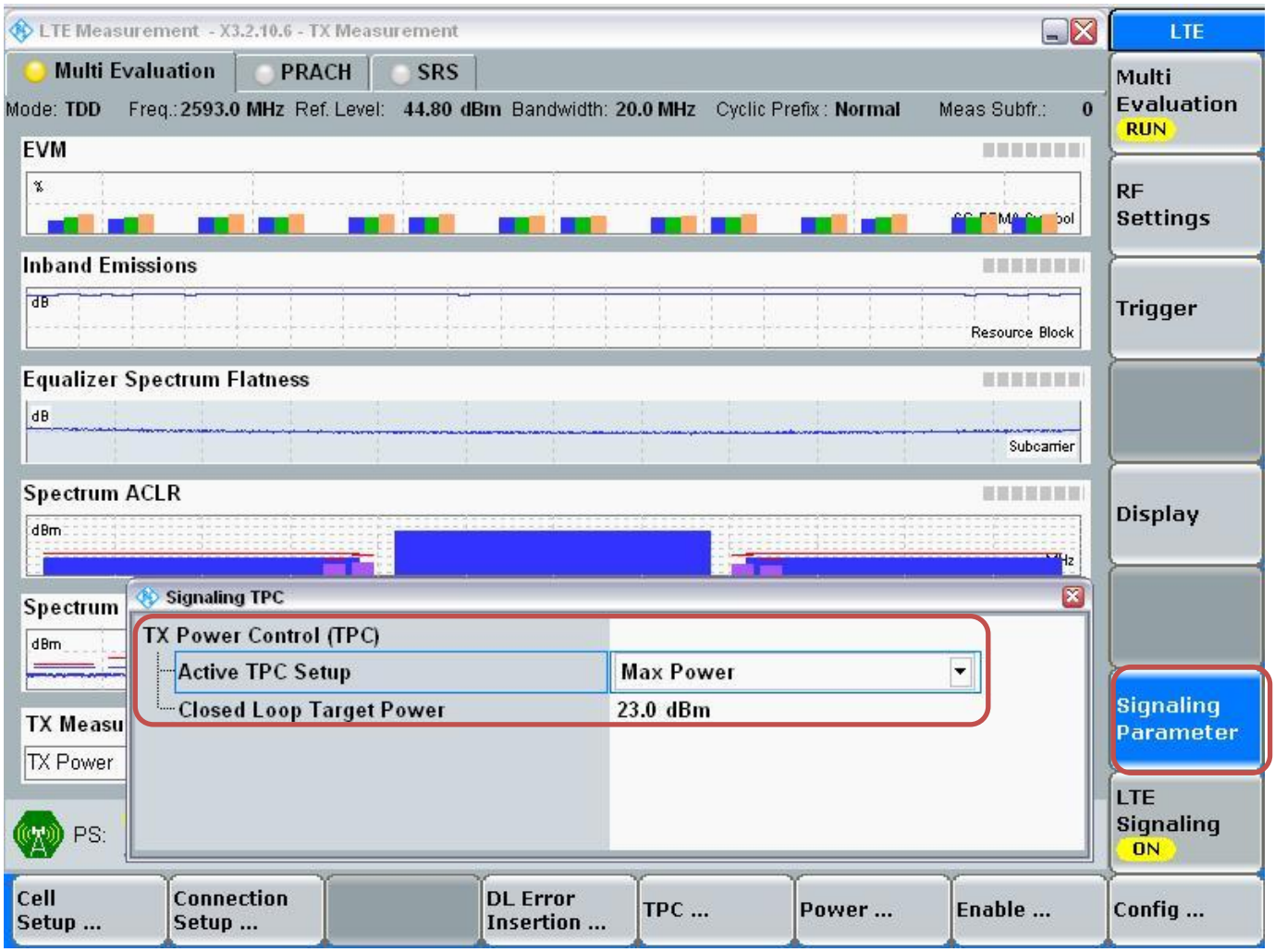


Max Power Setting

- Select “LTE 1 TX Meas.”
- Press “RESTART | STOP” Soft key

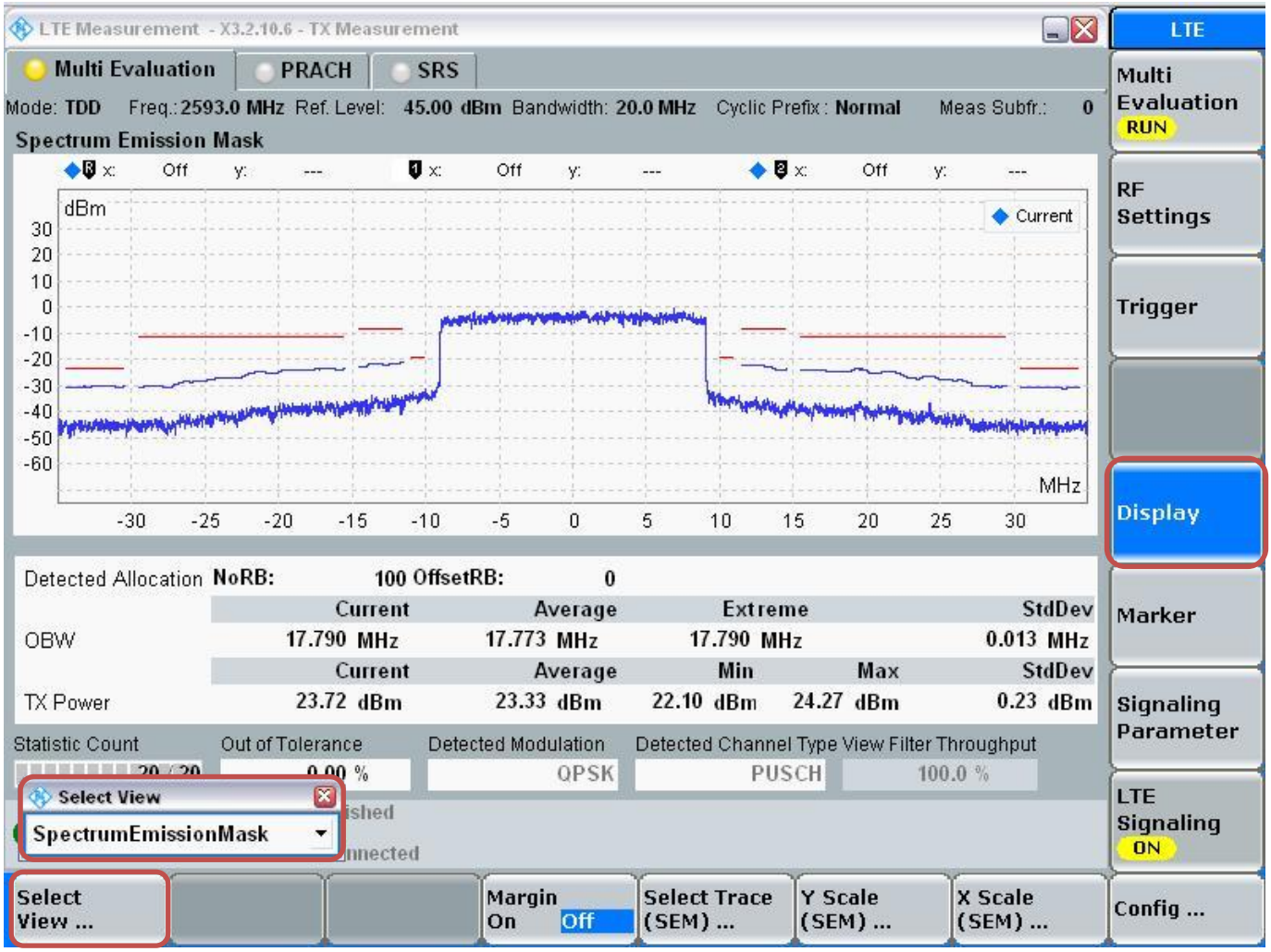


- Select “Signaling Parameter”
- Select “TX Power Control (TPC)” > Select “Active TPC Setup” to “Max Power” > Set “Closed Loop Target Power” to “23 dBm”



View TX Power

- Go to “Display”
- Select “Select View…”
- Select “Spectrum Emission Mask”



Measured Results

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	39750	2506.0	QPSK	1	0	0	22.50	22.50	22.50	19.00
				1	49	0	22.50	22.50	22.50	19.00
				1	99	0	22.40	22.50	22.40	19.00
				50	0	1	21.50	21.40	21.50	18.00
				50	24	1	21.50	21.40	21.50	18.00
				50	49	1	21.40	21.40	21.40	18.00
				100	0	1	21.50	21.40	21.50	18.00
			16QAM	1	0	1	21.40	21.44	21.40	18.00
				1	49	1	21.40	21.62	21.40	18.00
				1	99	1	21.40	21.63	21.40	18.00
				50	0	2	20.40	20.62	20.40	17.00
				50	24	2	20.40	20.70	20.40	17.00
				50	49	2	20.40	20.62	20.40	17.00
				100	0	2	20.50	20.63	20.50	17.00
	40185	2549.5	QPSK	1	0	0	22.50	22.50	22.50	18.90
				1	49	0	22.50	22.50	22.50	19.00
				1	99	0	22.40	22.50	22.40	19.00
				50	0	1	21.50	21.50	21.50	18.00
				50	24	1	21.50	21.40	21.50	18.00
				50	49	1	21.50	21.50	21.50	18.00
				100	0	1	21.50	21.50	21.50	18.00
			16QAM	1	0	1	21.50	21.48	21.50	18.00
				1	49	1	21.50	21.47	21.50	18.00
				1	99	1	21.50	21.46	21.50	18.00
				50	0	2	20.50	20.51	20.50	17.00
				50	24	2	20.50	20.49	20.50	17.00
				50	49	2	20.50	20.47	20.50	17.00
				100	0	2	20.50	20.51	20.50	17.00
	40620	2593.0	QPSK	1	0	0	22.40	22.50	22.40	19.00
				1	49	0	22.50	22.50	22.50	19.00
				1	99	0	22.50	22.50	22.50	19.00
				50	0	1	21.50	21.40	21.50	18.00
				50	24	1	21.50	21.40	21.50	18.00
				50	49	1	21.50	21.40	21.50	18.00
				100	0	1	21.50	21.50	21.50	18.00
			16QAM	1	0	1	21.50	21.48	21.50	18.00
				1	49	1	21.50	21.47	21.50	18.00
				1	99	1	21.50	21.46	21.50	18.00
				50	0	2	20.40	20.51	20.40	17.00
				50	24	2	20.50	20.49	20.50	17.00
				50	49	2	20.50	20.47	20.50	17.00
				100	0	2	20.50	20.51	20.50	17.00

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
20	41055	2636.5	QPSK	1	0	0	22.50	22.50	22.50	19.00
				1	49	0	22.50	22.30	22.50	18.80
				1	99	0	22.50	22.20	22.50	18.70
				50	0	1	21.50	21.50	21.50	18.00
				50	24	1	21.50	21.20	21.50	18.00
				50	49	1	21.50	21.20	21.50	18.00
				100	0	1	21.50	21.30	21.50	18.00
			16QAM	1	0	1	21.50	21.48	21.50	18.00
				1	49	1	21.50	21.47	21.50	18.00
				1	99	1	21.40	21.46	21.40	18.00
				50	0	2	20.50	20.51	20.50	17.00
				50	24	2	20.50	20.49	20.50	17.00
				50	49	2	20.50	20.47	20.50	17.00
				100	0	2	20.50	20.51	20.50	17.00
	41490	2680.0	QPSK	1	0	0	22.40	22.00	22.40	19.00
				1	49	0	22.40	22.30	22.40	19.00
				1	99	0	22.40	22.30	22.40	19.00
				50	0	1	21.30	21.00	21.30	18.00
				50	24	1	21.40	21.30	21.40	18.00
				50	49	1	21.30	21.30	21.30	18.00
				100	0	1	21.40	21.10	21.40	18.00
			16QAM	1	0	1	21.40	21.48	21.40	18.00
				1	49	1	21.40	21.47	21.40	18.00
				1	99	1	21.40	21.46	21.40	18.00
				50	0	2	20.40	20.51	20.40	17.00
				50	24	2	20.40	20.49	20.40	17.00
				50	49	2	20.40	20.47	20.40	17.00
				100	0	2	20.40	20.51	20.40	17.00

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	39725	2503.5	QPSK	1	0	0	22.32	22.44	22.32	18.90
				1	37	0	22.22	22.49	22.22	18.90
				1	74	0	22.25	22.48	22.25	18.90
				36	0	1	21.20	21.31	21.20	17.90
				36	16	1	21.21	21.37	21.21	17.70
				36	35	1	21.24	21.39	21.24	17.80
				75	0	1	21.22	21.29	21.22	17.80
			16QAM	1	0	1	21.15	21.14	21.15	17.70
				1	37	1	21.13	21.10	21.13	17.70
				1	74	1	21.13	21.11	21.13	17.70
				36	0	2	20.25	20.34	20.25	16.90
				36	16	2	20.21	20.31	20.21	17.00
				36	35	2	20.30	20.36	20.30	16.90
				75	0	2	20.26	20.46	20.26	16.90
	40173	2548.3	QPSK	1	0	0	22.40	22.40	22.40	18.90
				1	37	0	22.40	22.40	22.40	18.90
				1	74	0	22.40	22.40	22.40	18.90
				36	0	1	21.40	21.50	21.40	17.90
				36	16	1	21.40	21.40	21.40	17.90
				36	35	1	21.40	21.20	21.40	17.90
				75	0	1	21.40	21.20	21.40	17.90
			16QAM	1	0	1	21.40	21.20	21.40	17.90
				1	37	1	21.40	21.10	21.40	18.00
				1	74	1	21.40	21.20	21.40	17.80
				36	0	2	20.20	20.40	20.20	16.80
				36	16	2	20.20	20.30	20.20	16.80
				36	35	2	20.20	20.30	20.20	16.80
				75	0	2	20.20	20.30	20.20	16.80
	40620	2593.0	QPSK	1	0	0	22.18	22.35	22.18	18.90
				1	37	0	22.20	22.43	22.20	18.90
				1	74	0	22.26	22.49	22.26	18.90
				36	0	1	21.21	21.40	21.21	17.90
				36	16	1	21.26	21.30	21.26	17.90
				36	35	1	21.22	21.44	21.22	17.90
				75	0	1	21.23	21.44	21.23	17.70
			16QAM	1	0	1	21.28	21.21	21.28	17.70
				1	37	1	21.20	21.22	21.20	17.70
				1	74	1	21.21	21.22	21.21	17.70
				36	0	2	20.24	20.32	20.24	16.80
				36	16	2	20.21	20.44	20.21	16.80
				36	35	2	20.22	20.41	20.22	16.80
				75	0	2	20.22	20.48	20.22	16.80

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
15	41068	2637.8	QPSK	1	0	0	22.40	22.30	22.40	18.90
				1	37	0	22.40	22.30	22.40	18.90
				1	74	0	22.30	22.30	22.30	18.70
				36	0	1	21.50	21.50	21.50	17.90
				36	16	1	21.50	21.20	21.50	17.90
				36	35	1	21.50	21.20	21.50	17.90
				75	0	1	21.50	21.30	21.50	17.70
			16QAM	1	0	1	21.50	21.50	21.50	17.70
				1	37	1	21.50	21.50	21.50	17.70
				1	74	1	21.40	21.40	21.40	17.80
				36	0	2	20.40	20.50	20.40	16.90
				36	16	2	20.40	20.50	20.40	16.90
				36	35	2	20.40	20.50	20.40	16.90
				75	0	2	20.40	20.30	20.40	16.80
	41515	2682.5	QPSK	1	0	0	22.36	21.98	22.36	18.90
				1	37	0	22.14	22.25	22.14	18.90
				1	74	0	22.11	22.18	22.11	18.90
				36	0	1	21.02	20.95	21.02	17.90
				36	16	1	21.15	21.22	21.15	17.90
				36	35	1	21.01	21.23	21.01	17.90
				75	0	1	21.13	21.01	21.13	17.70
			16QAM	1	0	1	21.12	21.11	21.12	17.70
				1	37	1	21.12	21.11	21.12	17.70
				1	74	1	21.14	21.11	21.14	17.70
				36	0	2	20.15	20.15	20.15	17.00
				36	16	2	20.13	20.14	20.13	16.90
				36	35	2	20.11	20.27	20.11	16.90
				75	0	2	20.10	20.27	20.10	16.80

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	39700	2501.0	QPSK	1	0	0	22.31	22.48	22.31	18.80
				1	24	0	22.20	22.50	22.20	18.80
				1	49	0	22.19	22.48	22.19	18.80
				25	0	1	21.23	21.37	21.23	17.80
				25	12	1	21.22	21.31	21.22	17.70
				25	24	1	21.11	21.39	21.11	17.80
				50	0	1	21.22	21.37	21.22	17.80
			16QAM	1	0	1	21.17	21.14	21.17	17.70
				1	24	1	21.16	21.12	21.16	17.80
				1	49	1	21.15	21.11	21.15	17.80
				25	0	2	20.23	20.30	20.23	16.90
				25	12	2	20.21	20.31	20.21	17.00
				25	24	2	20.22	20.40	20.22	16.70
				50	0	2	20.20	20.48	20.20	16.80
	40160	2547.0	QPSK	1	0	0	22.40	22.20	22.40	18.70
				1	24	0	22.50	22.20	22.50	18.70
				1	49	0	22.50	22.40	22.50	18.90
				25	0	1	21.50	21.50	21.50	17.70
				25	12	1	21.50	21.40	21.50	17.70
				25	24	1	21.50	21.20	21.50	17.70
				50	0	1	21.50	21.20	21.50	17.70
			16QAM	1	0	1	21.50	21.20	21.50	17.90
				1	24	1	21.50	21.10	21.50	17.80
				1	49	1	21.50	21.20	21.50	17.80
				25	0	2	20.30	20.40	20.30	16.80
				25	12	2	20.30	20.50	20.30	16.80
				25	24	2	20.30	20.30	20.30	16.80
				50	0	2	20.30	20.10	20.30	16.80
	40620	2593.0	QPSK	1	0	0	22.24	22.41	22.24	18.80
				1	24	0	22.22	22.44	22.22	18.80
				1	49	0	22.25	22.43	22.25	18.80
				25	0	1	21.21	21.32	21.21	17.80
				25	12	1	21.22	21.35	21.22	17.80
				25	24	1	21.22	21.38	21.22	17.80
				50	0	1	21.22	21.47	21.22	17.80
			16QAM	1	0	1	21.28	21.20	21.28	17.80
				1	24	1	21.23	21.24	21.23	17.70
				1	49	1	21.24	21.23	21.24	17.80
				25	0	2	20.11	20.38	20.11	16.80
				25	12	2	20.21	20.40	20.21	16.80
				25	24	2	20.21	20.47	20.21	16.90
				50	0	2	20.22	20.42	20.22	16.80

LTE Band 41 Measured Results (continued)

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Start	MPR	Avg Pwr (dBm)			
							HEAD		BODY	
							UAT	LAT	UAT	LAT
10	41080	2639.0	QPSK	1	0	0	22.50	22.40	22.50	18.70
				1	24	0	22.50	22.30	22.50	18.70
				1	49	0	22.50	22.30	22.50	18.80
				25	0	1	21.50	21.30	21.50	17.70
				25	12	1	21.50	21.30	21.50	17.90
				25	24	1	21.50	21.20	21.50	17.90
				50	0	1	21.50	21.30	21.50	17.70
			16QAM	1	0	1	21.50	21.30	21.50	17.70
				1	24	1	21.50	21.30	21.50	17.70
				1	49	1	21.40	21.40	21.40	17.80
				25	0	2	20.30	20.40	20.30	16.90
				25	12	2	20.30	20.40	20.30	16.90
				25	24	2	20.30	20.40	20.30	16.80
				50	0	2	20.30	20.20	20.30	16.80
	41540	2685.0	QPSK	1	0	0	22.14	21.97	22.14	18.80
				1	24	0	22.13	22.18	22.13	18.80
				1	49	0	22.14	22.15	22.14	18.80
				25	0	1	21.03	20.97	21.03	17.80
				25	12	1	21.14	21.26	21.14	17.80
				25	24	1	21.02	21.26	21.02	17.80
				50	0	1	21.15	21.07	21.15	17.80
			16QAM	1	0	1	21.10	21.11	21.10	17.80
				1	24	1	21.11	21.11	21.11	17.80
				1	49	1	21.15	21.11	21.15	17.80
				25	0	2	20.11	20.30	20.11	17.00
				25	12	2	20.14	20.27	20.14	16.90
				25	24	2	20.12	20.25	20.12	16.90
				50	0	2	20.12	20.21	20.12	16.80

8.5. LTE Rel. 10 Carrier Aggregation

Carrier Aggregation is implemented for downlink only; therefore uplink maximum output power (single carrier) was measured.

Refer to standalone output power.

8.6. Wi-Fi (2.4 GHz Band)

Required Test Channels per KDB 248227 D01

Mode	Band	GHz	Channel	"Default Test Channels"	
				802.11b	802.11g
802.11b/g	2.4 GHz	**2.412**	1#	√	∇
		2.437	6	√	∇
		2.462	11#	√	∇

Notes:
√ = "default test channels"
∇ = possible 802.11g channels with maximum average output ¼ dB ≥ the "default test channels"
= when output power is reduced for channel 1 and /or 11 to meet restricted band requirements the highest output channels closest to each of these channels should be tested.

For 2.4 GHz band, there are two use cases:

- P_{Cell_ON}: This will be used when both Cellular and Wi-Fi radios are ON.
- P_{Cell_OFF}: This will be used when only Wi-Fi radio is ON

8.6.1. P_{Cell_ON} (P_{low})

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm)	SAR Test (Yes/No)
					Variant 3	
2.4	802.11b	1 Mbps	1	2412	15.00	Yes
			6	2437	15.00	
			11	2462	15.00	
			12	2467	15.00	
			13	2472	15.00	
	802.11g	6 Mbps	1	2412	15.00	No
			6	2437	15.00	
			11	2462	15.00	
			12	2467	15.00	
			13	2472	15.00	
	802.11n (HT20)	MCS 0	1	2412	15.00	No
			6	2437	15.00	
			11	2462	15.00	
			12	2467	15.00	
			13	2472	15.00	

Note(s):

1. Per KDB 248227 D01, SAR is not required for 802.11g/HT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

Power measurements to determine worst-case data rates

Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm)	SAR test (Yes/No)
				Variant 3	
802.11b	6	2437	1 Mbps	15.00	Yes
			2 Mbps	15.00	No
			5.5 Mbps	15.00	No
			11 Mbps	15.00	No

8.6.2. P_{Cell_OFF} (P_{max})

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 3	SAR Test (Yes/No)
2.4	802.11b	1 Mbps	1	2412	18.00	Yes
			6	2437	18.00	
			11	2462	18.00	
			12	2467	16.50	
			13	2472	15.50	
	802.11g	6 Mbps	1	2412	14.00	No
			4	2427	18.00	
			6	2437	18.00	
			9	2452	17.90	
			11	2462	16.00	
			12	2467	12.00	
			13	2472	5.00	
	802.11n (HT20)	MCS 0	1	2412	13.90	No
			6	2437	17.90	
			11	2462	16.00	
			12	2467	12.00	
			13	2472	5.00	

Note(s):

1. Per KDB 248227 D01, SAR is not required for 802.11g/HT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.
2. Additionally, SAR is not required for Channels 12 and 13 because the tune-up limit and the measured output power for these two channels are no greater than those for the default test channels.

Power measurements to determine worst-case data rates

Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm) Variant 3	SAR test (Yes/No)
802.11b	6	2437	1 Mbps	18.00	Yes
			2 Mbps	18.00	No
			5.5 Mbps	18.00	No
			11 Mbps	18.00	No

8.7. Wi-Fi (5 GHz Bands)

Required Test Channels per KDB 248227 D01

8.7.1. Head Power Table

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 3	SAR Test (Yes/No)
5.2	802.11a	6 Mbps	36	5180	12.00	Yes
			40	5200	11.90	
			44	5220	11.90	
			48	5240	12.00	
	802.11n (HT20)	MCS0	36	5180	11.90	No
			40	5200	11.90	
			48	5240	11.90	
	802.11n (HT40)	MCS0	38	5190	11.90	No
			46	5230	11.90	
	802.11ac (HT20)	MCS0	36	5180	12.00	Yes
			40	5200	11.90	
			48	5240	11.90	
	802.11ac (HT40)	MCS0	38	5190	11.90	No
			46	5230	11.90	
	802.11ac (HT80)	MCS0	42	5210	11.90	No
5.3	802.11a	6 Mbps	52	5260	11.00	Yes
			56	5280	11.00	
			60	5300	11.00	
			64	5320	11.00	
	802.11n (HT20)	MCS0	52	5260	11.00	No
			60	5300	11.00	
			64	5320	11.00	
	802.11n (HT40)	MCS0	54	5270	11.00	No
			62	5310	11.00	
	802.11ac (HT20)	MCS0	52	5260	11.00	Yes
			60	5300	11.00	
			64	5320	11.00	
	802.11ac (HT40)	MCS0	54	5270	11.00	No
			62	5310	11.00	
	802.11ac (HT80)	MCS0	58	5290	11.00	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Wi-Fi (5 GHz Bands) Measured Results (continued)

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 3	SAR Test (Yes/No)
5.5	802.11a	6 Mbps	100	5500	9.00	Yes
			104	5520	9.00	
			108	5540	8.80	
			112	5560	9.00	
			116	5580	9.00	
			120	5600	9.00	
			124	5620	9.00	
			128	5640	9.00	
			132	5660	9.00	
			136	5680	8.90	
			140	5700	9.00	
	802.11n (HT20)	MCS0	100	5500	9.00	No
			116	5580	9.00	
			140	5700	9.00	
	802.11n (HT40)	MCS0	102	5510	8.90	No
			110	5550	9.00	
			134	5670	9.00	
	802.11ac (HT20)	MCS0	100	5500	9.00	Yes
			116	5580	9.00	
			144	5720	8.90	
	802.11ac (HT40)	MCS0	102	5510	8.90	No
			110	5550	8.90	
			142	5710	8.90	
	802.11ac (HT80)	MCS0	106	5530	8.90	No
			138	5690	8.90	
5.8	802.11a	6 Mbps	149	5745	11.50	Yes
			153	5765	11.50	
			157	5785	11.50	
			161	5805	11.50	
			165	5825	11.50	
	802.11n (HT20)	MCS0	149	5745	11.50	No
			157	5785	11.50	
			161	5805	11.50	
	802.11n (HT40)	MCS0	151	5755	11.50	No
			159	5795	11.50	
	802.11ac (HT20)	MCS0	149	5745	11.50	Yes
			157	5785	11.50	
			165	5825	11.50	
	802.11ac (HT40)	MCS0	151	5755	11.40	No
			159	5795	11.40	
	802.11ac (HT80)	MCS0	155	5775	11.40	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Power measurements to determine worst-case data rates

Band	Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm) Variant 3	SAR test (Yes/No)
5.2 GHz	802.11a	36	5180	6 Mbps	12.00	Yes
				9 Mbps	12.00	No
				12 Mbps	12.00	No
				18 Mbps	12.00	No
				24 Mbps	12.00	No
				36 Mbps	12.00	No
				48 Mbps	11.90	No
				54 Mbps	12.00	No
5.3 GHz	802.11a	56	5280	6 Mbps	11.00	Yes
				9 Mbps	10.90	No
				12 Mbps	10.90	No
				18 Mbps	11.00	No
				24 Mbps	11.00	No
				36 Mbps	11.00	No
				48 Mbps	11.00	No
				54 Mbps	11.00	No
5.5 GHz	802.11a	116	5580	6 Mbps	9.00	Yes
				9 Mbps	9.00	No
				12 Mbps	9.00	No
				18 Mbps	9.00	No
				24 Mbps	9.00	No
				36 Mbps	8.90	No
				48 Mbps	8.90	No
				54 Mbps	8.90	No
5.8 GHz	802.11a	149	5745	6 Mbps	11.50	Yes
				9 Mbps	11.50	No
				12 Mbps	11.50	No
				18 Mbps	11.40	No
				24 Mbps	11.40	No
				36 Mbps	11.40	No
				48 Mbps	11.50	No
				54 Mbps	11.50	No

8.7.2. Body Power Table

Measured Results

Band (GHz)	Mode	Data Rate	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 3	SAR Test (Yes/No)
5.2	802.11a	6 Mbps	36	5180	17.50	Yes
			40	5200	18.00	
			44	5220	18.00	
			48	5240	18.00	
	802.11n (HT20)	MCS0	36	5180	17.60	No
			40	5200	17.98	
			48	5240	17.85	
	802.11n (HT40)	MCS0	38	5190	14.96	No
			46	5230	15.95	
	802.11ac (HT20)	MCS0	36	5180	17.40	Yes
			48	5240	17.90	
			44	5220	17.90	
			48	5240	17.90	
	802.11ac (HT40)	MCS0	38	5190	14.90	No
			46	5230	15.90	
	802.11ac (HT80)	MCS0	42	5210	15.03	No
5.3	802.11a	6 Mbps	52	5260	16.90	Yes
			56	5280	16.90	
			60	5300	16.90	
			64	5320	16.90	
	802.11n (HT20)	MCS0	52	5260	16.85	No
			60	5300	16.83	
			64	5320	16.84	
	802.11n (HT40)	MCS0	54	5270	16.87	No
			62	5310	15.45	
	802.11ac (HT20)	MCS0	52	5260	16.80	Yes
			60	5300	16.80	
			60	5300	16.80	
			64	5320	16.80	
	802.11ac (HT40)	MCS0	54	5270	16.90	No
			62	5310	15.40	
	802.11ac (HT80)	MCS0	58	5290	14.53	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Wi-Fi (5 GHz Bands) Measured Results (continued)

Band (GHz)	Mode	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm) Variant 3	SAR Test (Yes/No)
5.5	802.11a	6 Mbps	100	5500	14.50	Yes
			104	5520	14.50	
			108	5540	14.50	
			112	5560	14.50	
			116	5580	14.50	
			120	5600	14.50	
			124	5620	14.50	
			128	5640	14.50	
			132	5660	14.40	
			136	5680	14.40	
			140	5700	14.50	
	802.11n (HT20)	MCS0	100	5500	14.49	No
			116	5580	14.49	
			140	5700	14.48	
	802.11n (HT40)	MCS0	102	5510	13.40	No
			110	5550	14.50	
			134	5670	14.40	
	802.11ac (HT20)	MCS0	100	5500	14.50	Yes
			116	5580	14.40	
			144	5720	14.48	
	802.11ac (HT40)	MCS0	102	5510	13.40	No
			110	5550	14.46	
			142	5710	13.40	
	802.11ac (HT80)	MCS0	106	5530	12.50	No
			138	5690	12.40	
5.8	802.11a	6 Mbps	149	5745	14.90	Yes
			153	5765	15.90	
			157	5785	17.00	
			161	5805	17.00	
			165	5825	17.00	
	802.11n (HT20)	MCS0	149	5745	14.97	No
			157	5785	16.95	
			161	5805	16.96	
	802.11n (HT40)	MCS0	151	5755	12.90	No
			159	5795	14.90	
	802.11ac (HT20)	MCS0	149	5745	14.90	Yes
			157	5785	16.90	
			165	5825	16.90	
	802.11ac (HT40)	MCS0	151	5755	13.00	No
			159	5795	14.90	
	802.11ac (HT80)	MCS0	155	5775	13.90	No

Note(s):

1. For each frequency band, testing at higher data rates and higher order modulations is not required when the maximum average output power for each of these configurations is < ¼ dB higher than those measured at the lowest data rate.
2. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.

Power measurements to determine worst-case data rates

Band	Mode	Ch #	Freq. (MHz)	Data Rate	Avg Pwr (dBm) Variant 3	SAR test (Yes/No)
5.2 GHz	802.11a	36	5180	6 Mbps	18.00	Yes
				9 Mbps	18.00	No
				12 Mbps	18.00	No
				18 Mbps	17.90	No
				24 Mbps	17.90	No
				36 Mbps	17.90	No
				48 Mbps	18.00	No
				54 Mbps	18.00	No
5.3 GHz	802.11a	56	5280	6 Mbps	16.90	Yes
				9 Mbps	16.80	No
				12 Mbps	16.80	No
				18 Mbps	16.80	No
				24 Mbps	16.80	No
				36 Mbps	16.80	No
				48 Mbps	16.80	No
				54 Mbps	16.80	No
5.5 GHz	802.11a	116	5580	6 Mbps	14.50	Yes
				9 Mbps	14.50	No
				12 Mbps	14.50	No
				18 Mbps	14.40	No
				24 Mbps	14.40	No
				36 Mbps	14.40	No
				48 Mbps	14.40	No
				54 Mbps	14.40	No
5.8 GHz	802.11a	149	5745	6 Mbps	17.00	Yes
				9 Mbps	16.90	No
				12 Mbps	17.00	No
				18 Mbps	17.00	No
				24 Mbps	17.00	No
				36 Mbps	17.00	No
				48 Mbps	16.90	No
				54 Mbps	16.90	No

8.8. Bluetooth

Band (GHz)	Mode	Ch #	Freq. (MHz)	Avg Pwr (dBm)
				Variant 3
2.4	V3.0 + EDR, GFSK	0	2402	10.43
		39	2441	12.00
		78	2480	10.46
	V3.0 + EDR, 8-DPSK	0	2402	9.03
		39	2441	10.70
		78	2480	8.86
	V4.0 LE, GFSK	0	2402	10.12
		19	2440	11.95
		39	2480	10.30

9. Dielectric Property Measurements

The temperature of the tissue-equivalent medium used during measurement must also be within 18°C to 25°C and within ± 2°C of the temperature when the tissue parameters are characterized.

The dielectric parameters must be measured before the tissue-equivalent medium is used in a series of SAR measurements. The parameters should be re-measured after each 3 – 4 days of use; or earlier if the dielectric parameters can become out of tolerance; for example, when the parameters are marginal at the beginning of the measurement series.

Tissue dielectric parameters were measured at the low, middle and high frequency of each operating frequency range of the test device.

9.1. Tissue Dielectric Parameters

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.80
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.90	55.2	0.97
900	41.5	0.97	55.0	1.05
915	41.5	0.98	55.0	1.06
1450	40.5	1.20	54.0	1.30
1610	40.3	1.29	53.8	1.40
1800 – 2000	40.0	1.40	53.3	1.52
2450	39.2	1.80	52.7	1.95
3000	38.5	2.40	52.0	2.73
5000	36.2	4.45	49.3	5.07
5100	36.1	4.55	49.1	5.18
5200	36.0	4.66	49.0	5.30
5300	35.9	4.76	48.9	5.42
5400	35.8	4.86	48.7	5.53
5500	35.6	4.96	48.6	5.65
5600	35.5	5.07	48.5	5.77
5700	35.4	5.17	48.3	5.88
5800	35.3	5.27	48.2	6.00

IEEE Std 1528-2013

Refer to Table 3

9.2. Dielectric Property Measurements Results

SAR Lab A

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Body 750	e'	55.38	Relative Permittivity (ϵ_r):	55.38	55.55	-0.30	5
		e''	23.24	Conductivity (σ):	0.97	0.96	0.63	5
	Body 700	e'	55.99	Relative Permittivity (ϵ_r):	55.99	55.74	0.45	5
		e''	23.62	Conductivity (σ):	0.92	0.96	-4.16	5
	Body 790	e'	54.98	Relative Permittivity (ϵ_r):	54.98	55.39	-0.74	5
		e''	22.95	Conductivity (σ):	1.01	0.97	4.34	5
6/19/2014	Head 750	e'	40.55	Relative Permittivity (ϵ_r):	40.55	41.96	-3.36	5
		e''	21.63	Conductivity (σ):	0.90	0.89	1.00	5
	Head 700	e'	41.30	Relative Permittivity (ϵ_r):	41.30	42.22	-2.17	5
		e''	22.01	Conductivity (σ):	0.86	0.89	-3.66	5
	Head 790	e'	39.99	Relative Permittivity (ϵ_r):	39.99	41.76	-4.23	5
		e''	21.39	Conductivity (σ):	0.94	0.90	4.85	5
6/23/2014	Head 750	e'	40.60	Relative Permittivity (ϵ_r):	40.60	41.96	-3.24	5
		e''	21.54	Conductivity (σ):	0.90	0.89	0.58	5
	Head 700	e'	41.22	Relative Permittivity (ϵ_r):	41.22	42.22	-2.36	5
		e''	21.84	Conductivity (σ):	0.85	0.89	-4.40	5
	Head 790	e'	39.98	Relative Permittivity (ϵ_r):	39.98	41.76	-4.25	5
		e''	21.16	Conductivity (σ):	0.93	0.90	3.72	5
6/23/2014	Body 750	e'	53.99	Relative Permittivity (ϵ_r):	53.99	55.55	-2.80	5
		e''	23.21	Conductivity (σ):	0.97	0.96	0.50	5
	Body 700	e'	54.48	Relative Permittivity (ϵ_r):	54.48	55.74	-2.26	5
		e''	23.58	Conductivity (σ):	0.92	0.96	-4.32	5
	Body 790	e'	53.43	Relative Permittivity (ϵ_r):	53.43	55.39	-3.54	5
		e''	22.80	Conductivity (σ):	1.00	0.97	3.66	5
6/24/2014	Head 2600	e'	38.88	Relative Permittivity (ϵ_r):	38.88	39.01	-0.34	5
		e''	13.42	Conductivity (σ):	1.94	1.96	-1.12	5
	Head 2500	e'	39.25	Relative Permittivity (ϵ_r):	39.25	39.14	0.29	5
		e''	13.17	Conductivity (σ):	1.83	1.85	-1.26	5
	Head 2700	e'	38.50	Relative Permittivity (ϵ_r):	38.50	38.88	-0.99	5
		e''	13.66	Conductivity (σ):	2.05	2.07	-0.94	5
6/24/2014	Body 2600	e'	52.13	Relative Permittivity (ϵ_r):	52.13	52.51	-0.73	5
		e''	14.52	Conductivity (σ):	2.10	2.16	-2.85	5
	Body 2500	e'	52.40	Relative Permittivity (ϵ_r):	52.40	52.64	-0.45	5
		e''	14.29	Conductivity (σ):	1.99	2.02	-1.68	5
	Body 2700	e'	51.83	Relative Permittivity (ϵ_r):	51.83	52.38	-1.06	5
		e''	14.79	Conductivity (σ):	2.22	2.30	-3.52	5
6/30/2014	Head 2600	e'	39.2900	Relative Permittivity (ϵ_r):	39.29	39.01	0.72	5
		e''	14.0500	Conductivity (σ):	2.03	1.96	3.52	5
	Head 2500	e'	39.6600	Relative Permittivity (ϵ_r):	39.66	39.14	1.34	5
		e''	13.8200	Conductivity (σ):	1.92	1.85	3.62	5
	Head 2700	e'	38.9400	Relative Permittivity (ϵ_r):	38.94	38.88	0.14	5
		e''	14.2600	Conductivity (σ):	2.14	2.07	3.41	5
6/30/2014	Body 2600	e'	50.4300	Relative Permittivity (ϵ_r):	50.43	52.51	-3.96	5
		e''	15.2000	Conductivity (σ):	2.20	2.16	1.69	5
	Body 2500	e'	50.7700	Relative Permittivity (ϵ_r):	50.77	52.64	-3.55	5
		e''	14.9800	Conductivity (σ):	2.08	2.02	3.07	5
	Body 2700	e'	50.1400	Relative Permittivity (ϵ_r):	50.14	52.38	-4.29	5
		e''	15.4000	Conductivity (σ):	2.31	2.30	0.46	5

SAR Lab A (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/7/2014	Head 2600	e'	39.4500	Relative Permittivity (ϵ_r):	39.45	39.01	1.13	5
		e''	13.8000	Conductivity (σ):	2.00	1.96	1.68	5
	Head 2500	e'	39.8200	Relative Permittivity (ϵ_r):	39.82	39.14	1.75	5
		e''	13.6100	Conductivity (σ):	1.89	1.85	2.04	5
	Head 2700	e'	39.2000	Relative Permittivity (ϵ_r):	39.20	38.88	0.81	5
		e''	14.0200	Conductivity (σ):	2.10	2.07	1.67	5
7/7/2014	Body 2600	e'	50.5700	Relative Permittivity (ϵ_r):	50.57	52.51	-3.70	5
		e''	15.0400	Conductivity (σ):	2.17	2.16	0.62	5
	Body 2500	e'	50.9000	Relative Permittivity (ϵ_r):	50.90	52.64	-3.30	5
		e''	14.8800	Conductivity (σ):	2.07	2.02	2.38	5
	Body 2700	e'	50.3300	Relative Permittivity (ϵ_r):	50.33	52.38	-3.92	5
		e''	15.2300	Conductivity (σ):	2.29	2.30	-0.65	5

SAR Lab B

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Head 2450	e'	39.97	Relative Permittivity (ε_r):	39.97	39.20	1.96	5
		e''	13.12	Conductivity (σ):	1.79	1.80	-0.71	5
	Head 2410	e'	40.08	Relative Permittivity (ε_r):	40.08	39.28	2.04	5
		e''	13.03	Conductivity (σ):	1.75	1.76	-0.82	5
	Head 2475	e'	39.89	Relative Permittivity (ε_r):	39.89	39.17	1.84	5
		e''	13.19	Conductivity (σ):	1.82	1.83	-0.65	5
6/19/2014	Body 2450	e'	51.40	Relative Permittivity (ε_r):	51.40	52.70	-2.47	5
		e''	14.50	Conductivity (σ):	1.98	1.95	1.30	5
	Body 2410	e'	51.48	Relative Permittivity (ε_r):	51.48	52.76	-2.42	5
		e''	14.42	Conductivity (σ):	1.93	1.91	1.30	5
	Body 2475	e'	51.34	Relative Permittivity (ε_r):	51.34	52.67	-2.52	5
		e''	14.57	Conductivity (σ):	2.01	1.99	1.01	5
6/23/2014	Head 2450	e'	38.33	Relative Permittivity (ε_r):	38.33	39.20	-2.22	5
		e''	13.51	Conductivity (σ):	1.84	1.80	2.25	5
	Head 2410	e'	38.46	Relative Permittivity (ε_r):	38.46	39.28	-2.09	5
		e''	13.38	Conductivity (σ):	1.79	1.76	1.85	5
	Head 2475	e'	38.82	Relative Permittivity (ε_r):	38.82	39.17	-0.89	5
		e''	13.56	Conductivity (σ):	1.87	1.83	2.14	5
6/23/2014	Body 2450	e'	51.32	Relative Permittivity (ε_r):	51.32	52.70	-2.62	5
		e''	14.64	Conductivity (σ):	1.99	1.95	2.28	5
	Body 2410	e'	51.41	Relative Permittivity (ε_r):	51.41	52.76	-2.56	5
		e''	14.55	Conductivity (σ):	1.95	1.91	2.22	5
	Body 2475	e'	51.35	Relative Permittivity (ε_r):	51.35	52.67	-2.50	5
		e''	14.73	Conductivity (σ):	2.03	1.99	2.11	5
6/26/2014	Head 2450	e'	39.83	Relative Permittivity (ε_r):	39.83	39.20	1.61	5
		e''	13.12	Conductivity (σ):	1.79	1.80	-0.71	5
	Head 2410	e'	39.93	Relative Permittivity (ε_r):	39.93	39.28	1.66	5
		e''	13.01	Conductivity (σ):	1.74	1.76	-0.97	5
	Head 2475	e'	39.77	Relative Permittivity (ε_r):	39.77	39.17	1.54	5
		e''	13.17	Conductivity (σ):	1.81	1.83	-0.80	5
6/26/2014	Body 2450	e'	51.05	Relative Permittivity (ε_r):	51.05	52.70	-3.13	5
		e''	14.94	Conductivity (σ):	2.04	1.95	4.37	5
	Body 2410	e'	51.07	Relative Permittivity (ε_r):	51.07	52.76	-3.20	5
		e''	14.72	Conductivity (σ):	1.97	1.91	3.41	5
	Body 2475	e'	51.06	Relative Permittivity (ε_r):	51.06	52.67	-3.05	5
		e''	14.93	Conductivity (σ):	2.05	1.99	3.50	5
6/30/2014	Head 2450	e'	39.2700	Relative Permittivity (ε_r):	39.27	39.20	0.18	5
		e''	13.0200	Conductivity (σ):	1.77	1.80	-1.46	5
	Head 2410	e'	39.4100	Relative Permittivity (ε_r):	39.41	39.28	0.33	5
		e''	12.9100	Conductivity (σ):	1.73	1.76	-1.73	5
	Head 2475	e'	39.2000	Relative Permittivity (ε_r):	39.20	39.17	0.08	5
		e''	13.0800	Conductivity (σ):	1.80	1.83	-1.48	5
6/30/2014	Body 2450	e'	51.7500	Relative Permittivity (ε_r):	51.75	52.70	-1.80	5
		e''	14.3500	Conductivity (σ):	1.95	1.95	0.25	5
	Body 2410	e'	51.8400	Relative Permittivity (ε_r):	51.84	52.76	-1.74	5
		e''	14.2400	Conductivity (σ):	1.91	1.91	0.04	5
	Body 2475	e'	51.6700	Relative Permittivity (ε_r):	51.67	52.67	-1.90	5
		e''	14.4200	Conductivity (σ):	1.98	1.99	-0.03	5

SAR Lab C

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/30/2014	Head 1900	e'	38.7000	Relative Permittivity (ϵ_r):	38.70	40.00	-3.25	5
		e''	13.1200	Conductivity (σ):	1.39	1.40	-0.99	5
	Head 1850	e'	38.8800	Relative Permittivity (ϵ_r):	38.88	40.00	-2.80	5
		e''	13.0800	Conductivity (σ):	1.35	1.40	-3.89	5
	Head 1910	e'	38.6700	Relative Permittivity (ϵ_r):	38.67	40.00	-3.33	5
		e''	13.1500	Conductivity (σ):	1.40	1.40	-0.25	5
6/30/2014	Body 1900	e'	51.8800	Relative Permittivity (ϵ_r):	51.88	53.30	-2.66	5
		e''	14.8800	Conductivity (σ):	1.57	1.52	3.42	5
	Body 1850	e'	52.0400	Relative Permittivity (ϵ_r):	52.04	53.30	-2.36	5
		e''	14.8800	Conductivity (σ):	1.53	1.52	0.70	5
	Body 1910	e'	51.8600	Relative Permittivity (ϵ_r):	51.86	53.30	-2.70	5
		e''	14.9000	Conductivity (σ):	1.58	1.52	4.11	5

SAR Lab D

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Head 835	e'	43.01	Relative Permittivity (ϵ_r):	43.01	41.50	3.64	5
		e''	20.02	Conductivity (σ):	0.93	0.90	3.28	5
	Head 820	e'	43.20	Relative Permittivity (ϵ_r):	43.20	41.60	3.84	5
		e''	20.09	Conductivity (σ):	0.92	0.90	1.95	5
	Head 850	e'	42.81	Relative Permittivity (ϵ_r):	42.81	41.50	3.16	5
		e''	19.97	Conductivity (σ):	0.94	0.92	3.15	5
6/19/2014	Body 835	e'	53.49	Relative Permittivity (ϵ_r):	53.49	55.20	-3.10	5
		e''	21.37	Conductivity (σ):	0.99	0.97	2.29	5
	Body 820	e'	53.69	Relative Permittivity (ϵ_r):	53.69	55.28	-2.87	5
		e''	21.46	Conductivity (σ):	0.98	0.97	1.03	5
	Body 850	e'	53.35	Relative Permittivity (ϵ_r):	53.35	55.16	-3.28	5
		e''	21.31	Conductivity (σ):	1.01	0.99	2.03	5
6/23/2014	Head 835	e'	42.40	Relative Permittivity (ϵ_r):	42.40	41.50	2.17	5
		e''	19.84	Conductivity (σ):	0.92	0.90	2.35	5
	Head 820	e'	42.55	Relative Permittivity (ϵ_r):	42.55	41.60	2.28	5
		e''	19.87	Conductivity (σ):	0.91	0.90	0.84	5
	Head 850	e'	42.26	Relative Permittivity (ϵ_r):	42.26	41.50	1.83	5
		e''	19.83	Conductivity (σ):	0.94	0.92	2.43	5
6/23/2014	Body 835	e'	55.51	Relative Permittivity (ϵ_r):	55.51	55.20	0.56	5
		e''	21.56	Conductivity (σ):	1.00	0.97	3.20	5
	Body 820	e'	55.64	Relative Permittivity (ϵ_r):	55.64	55.28	0.66	5
		e''	21.62	Conductivity (σ):	0.99	0.97	1.79	5
	Body 850	e'	55.42	Relative Permittivity (ϵ_r):	55.42	55.16	0.48	5
		e''	21.53	Conductivity (σ):	1.02	0.99	3.08	5
6/26/2014	Head 835	e'	41.75	Relative Permittivity (ϵ_r):	41.75	41.50	0.60	5
		e''	19.93	Conductivity (σ):	0.93	0.90	2.81	5
	Head 820	e'	41.87	Relative Permittivity (ϵ_r):	41.87	41.60	0.64	5
		e''	19.97	Conductivity (σ):	0.91	0.90	1.34	5
	Head 850	e'	41.57	Relative Permittivity (ϵ_r):	41.57	41.50	0.17	5
		e''	19.95	Conductivity (σ):	0.94	0.92	3.05	5
6/26/2014	Body 835	e'	53.61	Relative Permittivity (ϵ_r):	53.61	55.20	-2.88	5
		e''	21.63	Conductivity (σ):	1.00	0.97	3.53	5
	Body 820	e'	53.67	Relative Permittivity (ϵ_r):	53.67	55.28	-2.91	5
		e''	21.68	Conductivity (σ):	0.99	0.97	2.07	5
	Body 850	e'	53.46	Relative Permittivity (ϵ_r):	53.46	55.16	-3.08	5
		e''	21.66	Conductivity (σ):	1.02	0.99	3.70	5
6/30/2014	Head 835	e'	41.2900	Relative Permittivity (ϵ_r):	41.29	41.50	-0.51	5
		e''	19.0300	Conductivity (σ):	0.88	0.90	-1.83	5
	Head 820	e'	41.4700	Relative Permittivity (ϵ_r):	41.47	41.60	-0.32	5
		e''	19.0600	Conductivity (σ):	0.87	0.90	-3.28	5
	Head 850	e'	41.1200	Relative Permittivity (ϵ_r):	41.12	41.50	-0.92	5
		e''	19.0100	Conductivity (σ):	0.90	0.92	-1.81	5
6/30/2014	Body 835	e'	55.0600	Relative Permittivity (ϵ_r):	55.06	55.20	-0.25	5
		e''	21.6100	Conductivity (σ):	1.00	0.97	3.44	5
	Body 820	e'	55.1800	Relative Permittivity (ϵ_r):	55.18	55.28	-0.18	5
		e''	21.6500	Conductivity (σ):	0.99	0.97	1.93	5
	Body 850	e'	54.9400	Relative Permittivity (ϵ_r):	54.94	55.16	-0.39	5
		e''	21.5400	Conductivity (σ):	1.02	0.99	3.13	5
7/8/2014	Body 750	e'	53.3400	Relative Permittivity (ϵ_r):	53.34	55.55	-3.97	5
		e''	23.3100	Conductivity (σ):	0.97	0.96	0.93	5
	Body 700	e'	53.9300	Relative Permittivity (ϵ_r):	53.93	55.74	-3.24	5
		e''	23.7200	Conductivity (σ):	0.92	0.96	-3.75	5
	Body 790	e'	52.9400	Relative Permittivity (ϵ_r):	52.94	55.39	-4.43	5
		e''	22.9400	Conductivity (σ):	1.01	0.97	4.30	5

SAR Lab D (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/17/2014	Head 835	e'	40.7800	Relative Permittivity (ϵ_r):	40.78	41.50	-1.73	5
		e''	19.2100	Conductivity (σ):	0.89	0.90	-0.90	5
	Head 820	e'	40.9600	Relative Permittivity (ϵ_r):	40.96	41.60	-1.54	5
		e''	19.2500	Conductivity (σ):	0.88	0.90	-2.31	5
	Head 850	e'	40.6000	Relative Permittivity (ϵ_r):	40.60	41.50	-2.17	5
		e''	19.1300	Conductivity (σ):	0.90	0.92	-1.19	5
7/17/2014	Body 835	e'	55.9800	Relative Permittivity (ϵ_r):	55.98	55.20	1.41	5
		e''	21.6900	Conductivity (σ):	1.01	0.97	3.82	5
	Body 820	e'	56.1100	Relative Permittivity (ϵ_r):	56.11	55.28	1.51	5
		e''	21.7900	Conductivity (σ):	0.99	0.97	2.59	5
	Body 850	e'	55.8400	Relative Permittivity (ϵ_r):	55.84	55.16	1.24	5
		e''	21.6200	Conductivity (σ):	1.02	0.99	3.51	5

SAR Lab E

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Head 5180	e'	36.2300	Relative Permittivity (ε_r):	36.23	36.01	0.60	5
		e''	15.4200	Conductivity (σ):	4.44	4.63	-4.09	5
	Head 5200	e'	36.2300	Relative Permittivity (ε_r):	36.23	35.99	0.67	5
		e''	15.4800	Conductivity (σ):	4.48	4.65	-3.77	5
	Head 5600	e'	35.6800	Relative Permittivity (ε_r):	35.68	35.53	0.41	5
		e''	15.5500	Conductivity (σ):	4.84	5.06	-4.31	5
	Head 5800	e'	35.3700	Relative Permittivity (ε_r):	35.37	35.30	0.20	5
		e''	15.6500	Conductivity (σ):	5.05	5.27	-4.23	5
	Head 5825	e'	35.3700	Relative Permittivity (ε_r):	35.37	35.30	0.20	5
		e''	15.7100	Conductivity (σ):	5.09	5.27	-3.45	5
6/19/2014	Body 5180	e'	48.1700	Relative Permittivity (ε_r):	48.17	49.05	-1.79	5
		e''	17.4400	Conductivity (σ):	5.02	5.27	-4.71	5
	Body 5200	e'	48.1900	Relative Permittivity (ε_r):	48.19	49.02	-1.69	5
		e''	17.5300	Conductivity (σ):	5.07	5.29	-4.27	5
	Body 5600	e'	47.6900	Relative Permittivity (ε_r):	47.69	48.48	-1.62	5
		e''	17.7100	Conductivity (σ):	5.51	5.76	-4.28	5
	Body 5800	e'	47.3600	Relative Permittivity (ε_r):	47.36	48.20	-1.74	5
		e''	17.8400	Conductivity (σ):	5.75	6.00	-4.11	5
	Body 5825	e'	47.4000	Relative Permittivity (ε_r):	47.40	48.20	-1.66	5
		e''	17.9200	Conductivity (σ):	5.80	6.00	-3.27	5
6/23/2014	Head 5180	e'	36.1100	Relative Permittivity (ε_r):	36.11	36.01	0.27	5
		e''	15.6900	Conductivity (σ):	4.52	4.63	-2.41	5
	Head 5200	e'	36.1700	Relative Permittivity (ε_r):	36.17	35.99	0.50	5
		e''	15.8300	Conductivity (σ):	4.58	4.65	-1.59	5
	Head 5600	e'	35.7200	Relative Permittivity (ε_r):	35.72	35.53	0.52	5
		e''	15.9400	Conductivity (σ):	4.96	5.06	-1.91	5
	Head 5800	e'	35.4400	Relative Permittivity (ε_r):	35.44	35.30	0.40	5
		e''	15.9800	Conductivity (σ):	5.15	5.27	-2.21	5
	Head 5825	e'	35.4600	Relative Permittivity (ε_r):	35.46	35.30	0.45	5
		e''	16.1000	Conductivity (σ):	5.21	5.27	-1.05	5
6/23/2014	Body 5180	e'	47.0200	Relative Permittivity (ε_r):	47.02	49.05	-4.13	5
		e''	18.1300	Conductivity (σ):	5.22	5.27	-0.94	5
	Body 5200	e'	47.1200	Relative Permittivity (ε_r):	47.12	49.02	-3.88	5
		e''	18.3200	Conductivity (σ):	5.30	5.29	0.04	5
	Body 5600	e'	46.6700	Relative Permittivity (ε_r):	46.67	48.48	-3.73	5
		e''	18.4600	Conductivity (σ):	5.75	5.76	-0.23	5
	Body 5800	e'	46.3800	Relative Permittivity (ε_r):	46.38	48.20	-3.78	5
		e''	18.6000	Conductivity (σ):	6.00	6.00	-0.03	5
	Body 5825	e'	46.4500	Relative Permittivity (ε_r):	46.45	48.20	-3.63	5
		e''	18.7700	Conductivity (σ):	6.08	6.00	1.32	5
6/26/2014	Head 5180	e'	37.0200	Relative Permittivity (ε_r):	37.02	36.01	2.80	5
		e''	16.1300	Conductivity (σ):	4.65	4.63	0.33	5
	Head 5200	e'	37.0200	Relative Permittivity (ε_r):	37.02	35.99	2.86	5
		e''	16.1300	Conductivity (σ):	4.66	4.65	0.27	5
	Head 5600	e'	36.3900	Relative Permittivity (ε_r):	36.39	35.53	2.41	5
		e''	16.3400	Conductivity (σ):	5.09	5.06	0.55	5
	Head 5800	e'	36.0700	Relative Permittivity (ε_r):	36.07	35.30	2.18	5
		e''	16.4900	Conductivity (σ):	5.32	5.27	0.91	5
	Head 5825	e'	36.0600	Relative Permittivity (ε_r):	36.06	35.30	2.15	5
		e''	16.5000	Conductivity (σ):	5.34	5.27	1.41	5

SAR Lab E (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/26/2014	Body 5180	e'	47.4400	Relative Permittivity (ε_r):	47.44	49.05	-3.28	5
		e''	18.0800	Conductivity (σ):	5.21	5.27	-1.21	5
	Body 5200	e'	47.5800	Relative Permittivity (ε_r):	47.58	49.02	-2.94	5
		e''	18.2500	Conductivity (σ):	5.28	5.29	-0.34	5
	Body 5600	e'	47.1500	Relative Permittivity (ε_r):	47.15	48.48	-2.74	5
		e''	18.3800	Conductivity (σ):	5.72	5.76	-0.66	5
	Body 5800	e'	46.8200	Relative Permittivity (ε_r):	46.82	48.20	-2.86	5
		e''	18.5200	Conductivity (σ):	5.97	6.00	-0.46	5
	Body 5825	e'	46.9700	Relative Permittivity (ε_r):	46.97	48.20	-2.55	5
		e''	18.7200	Conductivity (σ):	6.06	6.00	1.05	5
6/30/2014	Head 5180	e'	34.6700	Relative Permittivity (ε_r):	34.67	36.01	-3.73	5
		e''	15.7400	Conductivity (σ):	4.53	4.63	-2.10	5
	Head 5200	e'	34.6800	Relative Permittivity (ε_r):	34.68	35.99	-3.64	5
		e''	15.7700	Conductivity (σ):	4.56	4.65	-1.96	5
	Head 5600	e'	34.1700	Relative Permittivity (ε_r):	34.17	35.53	-3.84	5
		e''	15.8600	Conductivity (σ):	4.94	5.06	-2.41	5
	Head 5800	e'	35.0200	Relative Permittivity (ε_r):	35.02	35.30	-0.79	5
		e''	16.1000	Conductivity (σ):	5.19	5.27	-1.48	5
	Head 5825	e'	34.9500	Relative Permittivity (ε_r):	34.95	35.30	-0.99	5
		e''	16.1700	Conductivity (σ):	5.24	5.27	-0.62	5
6/30/2014	Body 5180	e'	48.3800	Relative Permittivity (ε_r):	48.38	49.05	-1.36	5
		e''	18.6200	Conductivity (σ):	5.36	5.27	1.74	5
	Body 5200	e'	48.2900	Relative Permittivity (ε_r):	48.29	49.02	-1.49	5
		e''	18.6200	Conductivity (σ):	5.38	5.29	1.68	5
	Body 5600	e'	47.6700	Relative Permittivity (ε_r):	47.67	48.48	-1.67	5
		e''	19.0100	Conductivity (σ):	5.92	5.76	2.75	5
	Body 5800	e'	47.2600	Relative Permittivity (ε_r):	47.26	48.20	-1.95	5
		e''	19.0000	Conductivity (σ):	6.13	6.00	2.12	5
	Body 5825	e'	47.2000	Relative Permittivity (ε_r):	47.20	48.20	-2.07	5
		e''	19.1200	Conductivity (σ):	6.19	6.00	3.21	5
7/7/2014	Head 5180	e'	34.8500	Relative Permittivity (ε_r):	34.85	36.01	-3.23	5
		e''	15.6400	Conductivity (σ):	4.50	4.63	-2.72	5
	Head 5200	e'	34.8300	Relative Permittivity (ε_r):	34.83	35.99	-3.22	5
		e''	15.6400	Conductivity (σ):	4.52	4.65	-2.77	5
	Head 5600	e'	34.2300	Relative Permittivity (ε_r):	34.23	35.53	-3.67	5
		e''	15.8600	Conductivity (σ):	4.94	5.06	-2.41	5
	Head 5800	e'	33.9100	Relative Permittivity (ε_r):	33.91	35.30	-3.94	5
		e''	15.6800	Conductivity (σ):	5.06	5.27	-4.05	5
	Head 5825	e'	33.8500	Relative Permittivity (ε_r):	33.85	35.30	-4.11	5
		e''	15.8600	Conductivity (σ):	5.14	5.27	-2.53	5
7/7/2014	Body 5180	e'	48.6400	Relative Permittivity (ε_r):	48.64	49.05	-0.83	5
		e''	18.1400	Conductivity (σ):	5.22	5.27	-0.88	5
	Body 5200	e'	48.6400	Relative Permittivity (ε_r):	48.64	49.02	-0.77	5
		e''	18.2100	Conductivity (σ):	5.27	5.29	-0.56	5
	Body 5600	e'	48.0400	Relative Permittivity (ε_r):	48.04	48.48	-0.90	5
		e''	18.6300	Conductivity (σ):	5.80	5.76	0.69	5
	Body 5800	e'	47.6200	Relative Permittivity (ε_r):	47.62	48.20	-1.20	5
		e''	18.4300	Conductivity (σ):	5.94	6.00	-0.94	5
	Body 5825	e'	47.6200	Relative Permittivity (ε_r):	47.62	48.20	-1.20	5
		e''	18.7200	Conductivity (σ):	6.06	6.00	1.05	5

SAR Lab E (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/17/2014	Head 5180	e'	37.3600	Relative Permittivity (ε_r):	37.36	36.01	3.74	5
		e''	15.5300	Conductivity (σ):	4.47	4.63	-3.40	5
	Head 5200	e'	37.3200	Relative Permittivity (ε_r):	37.32	35.99	3.69	5
		e''	15.5400	Conductivity (σ):	4.49	4.65	-3.39	5
	Head 5600	e'	36.7500	Relative Permittivity (ε_r):	36.75	35.53	3.42	5
		e''	15.7600	Conductivity (σ):	4.91	5.06	-3.02	5
	Head 5800	e'	36.4900	Relative Permittivity (ε_r):	36.49	35.30	3.37	5
		e''	15.9100	Conductivity (σ):	5.13	5.27	-2.64	5
	Head 5825	e'	36.4700	Relative Permittivity (ε_r):	36.47	35.30	3.31	5
		e''	15.9100	Conductivity (σ):	5.15	5.27	-2.22	5
7/17/2014	Body 5180	e'	48.4700	Relative Permittivity (ε_r):	48.47	49.05	-1.18	5
		e''	18.6000	Conductivity (σ):	5.36	5.27	1.63	5
	Body 5200	e'	48.4300	Relative Permittivity (ε_r):	48.43	49.02	-1.20	5
		e''	18.6000	Conductivity (σ):	5.38	5.29	1.57	5
	Body 5600	e'	47.7300	Relative Permittivity (ε_r):	47.73	48.48	-1.54	5
		e''	18.9900	Conductivity (σ):	5.91	5.76	2.64	5
	Body 5800	e'	47.4200	Relative Permittivity (ε_r):	47.42	48.20	-1.62	5
		e''	19.2200	Conductivity (σ):	6.20	6.00	3.31	5
	Body 5825	e'	47.3900	Relative Permittivity (ε_r):	47.39	48.20	-1.68	5
		e''	19.2300	Conductivity (σ):	6.23	6.00	3.81	5

SAR Lab F

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/23/2014	Head 5180	e'	36.5200	Relative Permittivity (ε_r):	36.52	36.01	1.41	5
		e''	15.7100	Conductivity (σ):	4.52	4.63	-2.28	5
	Head 5200	e'	36.4800	Relative Permittivity (ε_r):	36.48	35.99	1.36	5
		e''	15.6200	Conductivity (σ):	4.52	4.65	-2.90	5
	Head 5600	e'	35.8900	Relative Permittivity (ε_r):	35.89	35.53	1.00	5
		e''	15.7900	Conductivity (σ):	4.92	5.06	-2.84	5
	Head 5800	e'	35.5700	Relative Permittivity (ε_r):	35.57	35.30	0.76	5
		e''	15.9200	Conductivity (σ):	5.13	5.27	-2.58	5
	Head 5825	e'	35.5000	Relative Permittivity (ε_r):	35.50	35.30	0.57	5
		e''	15.8800	Conductivity (σ):	5.14	5.27	-2.40	5
6/23/2014	Body 5180	e'	47.9300	Relative Permittivity (ε_r):	47.93	49.05	-2.28	5
		e''	18.6500	Conductivity (σ):	5.37	5.27	1.90	5
	Body 5200	e'	47.8200	Relative Permittivity (ε_r):	47.82	49.02	-2.45	5
		e''	18.5300	Conductivity (σ):	5.36	5.29	1.19	5
	Body 5600	e'	47.0900	Relative Permittivity (ε_r):	47.09	48.48	-2.86	5
		e''	18.9200	Conductivity (σ):	5.89	5.76	2.26	5
	Body 5800	e'	46.7200	Relative Permittivity (ε_r):	46.72	48.20	-3.07	5
		e''	19.1400	Conductivity (σ):	6.17	6.00	2.88	5
	Body 5825	e'	46.6100	Relative Permittivity (ε_r):	46.61	48.20	-3.30	5
		e''	19.1000	Conductivity (σ):	6.19	6.00	3.10	5
6/26/2014	Head 5180	e'	36.1800	Relative Permittivity (ε_r):	36.18	36.01	0.46	5
		e''	15.5100	Conductivity (σ):	4.47	4.63	-3.53	5
	Head 5200	e'	36.0200	Relative Permittivity (ε_r):	36.02	35.99	0.08	5
		e''	15.4500	Conductivity (σ):	4.47	4.65	-3.95	5
	Head 5600	e'	35.4700	Relative Permittivity (ε_r):	35.47	35.53	-0.18	5
		e''	15.6300	Conductivity (σ):	4.87	5.06	-3.82	5
	Head 5800	e'	35.4600	Relative Permittivity (ε_r):	35.46	35.30	0.45	5
		e''	15.6500	Conductivity (σ):	5.05	5.27	-4.23	5
	Head 5825	e'	35.2200	Relative Permittivity (ε_r):	35.22	35.30	-0.23	5
		e''	15.6300	Conductivity (σ):	5.06	5.27	-3.94	5
6/26/2014	Body 5180	e'	49.6800	Relative Permittivity (ε_r):	49.68	49.05	1.29	5
		e''	18.7800	Conductivity (σ):	5.41	5.27	2.61	5
	Body 5200	e'	49.4200	Relative Permittivity (ε_r):	49.42	49.02	0.82	5
		e''	18.7500	Conductivity (σ):	5.42	5.29	2.39	5
	Body 5600	e'	48.7200	Relative Permittivity (ε_r):	48.72	48.48	0.50	5
		e''	19.3400	Conductivity (σ):	6.02	5.76	4.53	5
	Body 5800	e'	48.7900	Relative Permittivity (ε_r):	48.79	48.20	1.22	5
		e''	19.3400	Conductivity (σ):	6.24	6.00	3.95	5
	Body 5825	e'	48.4400	Relative Permittivity (ε_r):	48.44	48.20	0.50	5
		e''	19.3600	Conductivity (σ):	6.27	6.00	4.51	5
6/30/2014	Head 5180	e'	34.9600	Relative Permittivity (ε_r):	34.96	36.01	-2.92	5
		e''	15.7100	Conductivity (σ):	4.52	4.63	-2.28	5
	Head 5200	e'	34.9500	Relative Permittivity (ε_r):	34.95	35.99	-2.89	5
		e''	15.7300	Conductivity (σ):	4.55	4.65	-2.21	5
	Head 5600	e'	34.4400	Relative Permittivity (ε_r):	34.44	35.53	-3.08	5
		e''	15.8400	Conductivity (σ):	4.93	5.06	-2.53	5
	Head 5800	e'	34.1000	Relative Permittivity (ε_r):	34.10	35.30	-3.40	5
		e''	15.8100	Conductivity (σ):	5.10	5.27	-3.25	5
	Head 5825	e'	34.1000	Relative Permittivity (ε_r):	34.10	35.30	-3.40	5
		e''	15.8900	Conductivity (σ):	5.15	5.27	-2.34	5

SAR Lab F (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/30/2014	Body 5180	e'	47.6800	Relative Permittivity (ε_r):	47.68	49.05	-2.79	5
		e''	18.4400	Conductivity (σ):	5.31	5.27	0.75	5
	Body 5200	e'	47.6600	Relative Permittivity (ε_r):	47.66	49.02	-2.77	5
		e''	18.4900	Conductivity (σ):	5.35	5.29	0.97	5
	Body 5600	e'	47.0500	Relative Permittivity (ε_r):	47.05	48.48	-2.95	5
		e''	18.8900	Conductivity (σ):	5.88	5.76	2.10	5
	Body 5800	e'	46.5800	Relative Permittivity (ε_r):	46.58	48.20	-3.36	5
		e''	18.9400	Conductivity (σ):	6.11	6.00	1.80	5
	Body 5825	e'	46.6100	Relative Permittivity (ε_r):	46.61	48.20	-3.30	5
		e''	19.1500	Conductivity (σ):	6.20	6.00	3.37	5
7/7/2014	Head 5180	e'	35.4400	Relative Permittivity (ε_r):	35.44	36.01	-1.59	5
		e''	15.8700	Conductivity (σ):	4.57	4.63	-1.29	5
	Head 5200	e'	35.4100	Relative Permittivity (ε_r):	35.41	35.99	-1.61	5
		e''	15.8700	Conductivity (σ):	4.59	4.65	-1.34	5
	Head 5600	e'	34.7900	Relative Permittivity (ε_r):	34.79	35.53	-2.09	5
		e''	16.1000	Conductivity (σ):	5.01	5.06	-0.93	5
	Head 5800	e'	34.4700	Relative Permittivity (ε_r):	34.47	35.30	-2.35	5
		e''	15.9300	Conductivity (σ):	5.14	5.27	-2.52	5
	Head 5825	e'	34.3800	Relative Permittivity (ε_r):	34.38	35.30	-2.61	5
		e''	16.1100	Conductivity (σ):	5.22	5.27	-0.99	5
7/72014	Body 5180	e'	47.4000	Relative Permittivity (ε_r):	47.40	49.05	-3.36	5
		e''	18.5200	Conductivity (σ):	5.33	5.27	1.19	5
	Body 5200	e'	47.3500	Relative Permittivity (ε_r):	47.35	49.02	-3.41	5
		e''	18.5400	Conductivity (σ):	5.36	5.29	1.24	5
	Body 5600	e'	46.6600	Relative Permittivity (ε_r):	46.66	48.48	-3.75	5
		e''	19.0000	Conductivity (σ):	5.92	5.76	2.69	5
	Body 5800	e'	46.2100	Relative Permittivity (ε_r):	46.21	48.20	-4.13	5
		e''	18.8400	Conductivity (σ):	6.08	6.00	1.26	5
	Body 5825	e'	46.1500	Relative Permittivity (ε_r):	46.15	48.20	-4.25	5
		e''	19.0900	Conductivity (σ):	6.18	6.00	3.05	5
7/17/2014	Head 5180	e'	37.4300	Relative Permittivity (ε_r):	37.43	36.01	3.93	5
		e''	15.5700	Conductivity (σ):	4.48	4.63	-3.15	5
	Head 5200	e'	37.4000	Relative Permittivity (ε_r):	37.40	35.99	3.92	5
		e''	15.5800	Conductivity (σ):	4.50	4.65	-3.14	5
	Head 5600	e'	36.8200	Relative Permittivity (ε_r):	36.82	35.53	3.62	5
		e''	15.8000	Conductivity (σ):	4.92	5.06	-2.78	5
	Head 5800	e'	36.5600	Relative Permittivity (ε_r):	36.56	35.30	3.57	5
		e''	15.9300	Conductivity (σ):	5.14	5.27	-2.52	5
	Head 5825	e'	36.5400	Relative Permittivity (ε_r):	36.54	35.30	3.51	5
		e''	15.9300	Conductivity (σ):	5.16	5.27	-2.10	5
7/17/2014	Body 5180	e'	47.6400	Relative Permittivity (ε_r):	47.64	49.05	-2.87	5
		e''	18.4300	Conductivity (σ):	5.31	5.27	0.70	5
	Body 5200	e'	47.6000	Relative Permittivity (ε_r):	47.60	49.02	-2.90	5
		e''	18.4300	Conductivity (σ):	5.33	5.29	0.64	5
	Body 5600	e'	46.9100	Relative Permittivity (ε_r):	46.91	48.48	-3.23	5
		e''	18.8300	Conductivity (σ):	5.86	5.76	1.77	5
	Body 5800	e'	46.6200	Relative Permittivity (ε_r):	46.62	48.20	-3.28	5
		e''	19.0500	Conductivity (σ):	6.14	6.00	2.39	5
	Body 5825	e'	46.5900	Relative Permittivity (ε_r):	46.59	48.20	-3.34	5
		e''	19.0500	Conductivity (σ):	6.17	6.00	2.83	5

SAR Lab G

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Head 1750	e'	40.3900	Relative Permittivity (ε_r):	40.39	40.08	0.76	5
		e''	13.5600	Conductivity (σ):	1.32	1.37	-3.62	5
	Head 1710	e'	40.5800	Relative Permittivity (ε_r):	40.58	40.15	1.08	5
		e''	13.4800	Conductivity (σ):	1.28	1.35	-4.81	5
	Head 1755	e'	40.3800	Relative Permittivity (ε_r):	40.38	40.08	0.76	5
		e''	13.5900	Conductivity (σ):	1.33	1.37	-3.33	5
6/19/2014	Body 1750	e'	52.0100	Relative Permittivity (ε_r):	52.01	53.44	-2.68	5
		e''	14.9600	Conductivity (σ):	1.46	1.49	-2.05	5
	Body 1710	e'	52.1700	Relative Permittivity (ε_r):	52.17	53.54	-2.57	5
		e''	14.9300	Conductivity (σ):	1.42	1.46	-2.87	5
	Body 1755	e'	52.0000	Relative Permittivity (ε_r):	52.00	53.43	-2.67	5
		e''	14.9800	Conductivity (σ):	1.46	1.49	-1.84	5
6/23/2014	Head 1750	e'	38.4000	Relative Permittivity (ε_r):	38.40	40.08	-4.20	5
		e''	13.6200	Conductivity (σ):	1.33	1.37	-3.19	5
	Head 1710	e'	38.5900	Relative Permittivity (ε_r):	38.59	40.15	-3.88	5
		e''	13.4900	Conductivity (σ):	1.28	1.35	-4.74	5
	Head 1755	e'	38.3900	Relative Permittivity (ε_r):	38.39	40.08	-4.21	5
		e''	13.6500	Conductivity (σ):	1.33	1.37	-2.90	5
6/23/2014	Body 1750	e'	51.8000	Relative Permittivity (ε_r):	51.80	53.44	-3.07	5
		e''	15.1500	Conductivity (σ):	1.47	1.49	-0.81	5
	Body 1710	e'	51.9400	Relative Permittivity (ε_r):	51.94	53.54	-2.99	5
		e''	15.0400	Conductivity (σ):	1.43	1.46	-2.16	5
	Body 1755	e'	51.7900	Relative Permittivity (ε_r):	51.79	53.43	-3.07	5
		e''	15.1600	Conductivity (σ):	1.48	1.49	-0.66	5
6/26/2014	Head 1750	e'	39.2300	Relative Permittivity (ε_r):	39.23	40.08	-2.13	5
		e''	13.7200	Conductivity (σ):	1.34	1.37	-2.48	5
	Head 1710	e'	39.3000	Relative Permittivity (ε_r):	39.30	40.15	-2.11	5
		e''	13.6600	Conductivity (σ):	1.30	1.35	-3.54	5
	Head 1755	e'	39.2200	Relative Permittivity (ε_r):	39.22	40.08	-2.14	5
		e''	13.7500	Conductivity (σ):	1.34	1.37	-2.19	5
6/26/2014	Body 1750	e'	52.0300	Relative Permittivity (ε_r):	52.03	53.44	-2.64	5
		e''	15.4100	Conductivity (σ):	1.50	1.49	0.90	5
	Body 1710	e'	52.0500	Relative Permittivity (ε_r):	52.05	53.54	-2.79	5
		e''	15.3900	Conductivity (σ):	1.46	1.46	0.12	5
	Body 1755	e'	52.0400	Relative Permittivity (ε_r):	52.04	53.43	-2.60	5
		e''	15.4400	Conductivity (σ):	1.51	1.49	1.17	5
6/30/2014	Head 1750	e'	41.4600	Relative Permittivity (ε_r):	41.46	40.08	3.43	5
		e''	13.7500	Conductivity (σ):	1.34	1.37	-2.27	5
	Head 1710	e'	41.6500	Relative Permittivity (ε_r):	41.65	40.15	3.75	5
		e''	13.7100	Conductivity (σ):	1.30	1.35	-3.18	5
	Head 1755	e'	41.4200	Relative Permittivity (ε_r):	41.42	40.08	3.35	5
		e''	13.8100	Conductivity (σ):	1.35	1.37	-1.76	5
6/30/2014	Body 1750	e'	52.0200	Relative Permittivity (ε_r):	52.02	53.44	-2.66	5
		e''	15.3100	Conductivity (σ):	1.49	1.49	0.24	5
	Body 1710	e'	52.1700	Relative Permittivity (ε_r):	52.17	53.54	-2.57	5
		e''	15.3000	Conductivity (σ):	1.45	1.46	-0.46	5
	Body 1755	e'	51.9800	Relative Permittivity (ε_r):	51.98	53.43	-2.71	5
		e''	15.3400	Conductivity (σ):	1.50	1.49	0.52	5

SAR Lab G (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/2/2014	Body 1900	e'	52.5100	Relative Permittivity (ε_r):	52.51	53.30	-1.48	5
		e''	14.2700	Conductivity (σ):	1.51	1.52	-0.82	5
	Body 1850	e'	52.6200	Relative Permittivity (ε_r):	52.62	53.30	-1.28	5
		e''	14.3100	Conductivity (σ):	1.47	1.52	-3.16	5
	Body 1910	e'	52.4900	Relative Permittivity (ε_r):	52.49	53.30	-1.52	5
		e''	14.2600	Conductivity (σ):	1.51	1.52	-0.37	5
7/7/2014	Body 1900	e'	51.9900	Relative Permittivity (ε_r):	51.99	53.30	-2.46	5
		e''	14.5900	Conductivity (σ):	1.54	1.52	1.41	5
	Body 1850	e'	52.1800	Relative Permittivity (ε_r):	52.18	53.30	-2.10	5
		e''	14.6200	Conductivity (σ):	1.50	1.52	-1.06	5
	Body 1910	e'	51.9900	Relative Permittivity (ε_r):	51.99	53.30	-2.46	5
		e''	14.6300	Conductivity (σ):	1.55	1.52	2.22	5
7/7/2014	Body 1750	e'	52.0900	Relative Permittivity (ε_r):	52.09	53.44	-2.53	5
		e''	15.3100	Conductivity (σ):	1.49	1.49	0.24	5
	Body 1710	e'	52.3000	Relative Permittivity (ε_r):	52.30	53.54	-2.32	5
		e''	15.3900	Conductivity (σ):	1.46	1.46	0.12	5
	Body 1755	e'	52.0500	Relative Permittivity (ε_r):	52.05	53.43	-2.58	5
		e''	15.3100	Conductivity (σ):	1.49	1.49	0.32	5
7/17/2014	Body 1900	e'	51.3800	Relative Permittivity (ε_r):	51.38	53.30	-3.60	5
		e''	14.9100	Conductivity (σ):	1.58	1.52	3.63	5
	Body 1850	e'	51.2600	Relative Permittivity (ε_r):	51.26	53.30	-3.83	5
		e''	14.9200	Conductivity (σ):	1.53	1.52	0.97	5
	Body 1910	e'	51.2500	Relative Permittivity (ε_r):	51.25	53.30	-3.85	5
		e''	14.9100	Conductivity (σ):	1.58	1.52	4.18	5

SAR Lab H

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
6/19/2014	Head 1900	e'	38.6500	Relative Permittivity (ε_r):	38.65	40.00	-3.38	5
		e''	13.5600	Conductivity (σ):	1.43	1.40	2.33	5
	Head 1850	e'	38.8900	Relative Permittivity (ε_r):	38.89	40.00	-2.78	5
		e''	13.4500	Conductivity (σ):	1.38	1.40	-1.18	5
	Head 1910	e'	38.6200	Relative Permittivity (ε_r):	38.62	40.00	-3.45	5
		e''	13.6000	Conductivity (σ):	1.44	1.40	3.17	5
6/19/2014	Body 1900	e'	51.3600	Relative Permittivity (ε_r):	51.36	53.30	-3.64	5
		e''	14.4500	Conductivity (σ):	1.53	1.52	0.43	5
	Body 1850	e'	51.5400	Relative Permittivity (ε_r):	51.54	53.30	-3.30	5
		e''	14.3200	Conductivity (σ):	1.47	1.52	-3.09	5
	Body 1910	e'	51.3500	Relative Permittivity (ε_r):	51.35	53.30	-3.66	5
		e''	14.4900	Conductivity (σ):	1.54	1.52	1.24	5
6/23/2014	Head 1900	e'	38.9100	Relative Permittivity (ε_r):	38.91	40.00	-2.73	5
		e''	13.4100	Conductivity (σ):	1.42	1.40	1.19	5
	Head 1850	e'	39.0600	Relative Permittivity (ε_r):	39.06	40.00	-2.35	5
		e''	13.3500	Conductivity (σ):	1.37	1.40	-1.91	5
	Head 1910	e'	38.9100	Relative Permittivity (ε_r):	38.91	40.00	-2.73	5
		e''	13.4100	Conductivity (σ):	1.42	1.40	1.73	5
6/23/2014	Body 1900	e'	51.3500	Relative Permittivity (ε_r):	51.35	53.30	-3.66	5
		e''	14.6400	Conductivity (σ):	1.55	1.52	1.75	5
	Body 1850	e'	51.4800	Relative Permittivity (ε_r):	51.48	53.30	-3.41	5
		e''	14.5800	Conductivity (σ):	1.50	1.52	-1.33	5
	Body 1910	e'	51.3500	Relative Permittivity (ε_r):	51.35	53.30	-3.66	5
		e''	14.6500	Conductivity (σ):	1.56	1.52	2.36	5
6/26/2014	Head 1900	e'	39.5000	Relative Permittivity (ε_r):	39.50	40.00	-1.25	5
		e''	13.1800	Conductivity (σ):	1.39	1.40	-0.54	5
	Head 1850	e'	39.7100	Relative Permittivity (ε_r):	39.71	40.00	-0.72	5
		e''	13.0500	Conductivity (σ):	1.34	1.40	-4.11	5
	Head 1910	e'	39.4500	Relative Permittivity (ε_r):	39.45	40.00	-1.37	5
		e''	13.2000	Conductivity (σ):	1.40	1.40	0.13	5
6/26/2014	Body 1900	e'	50.9900	Relative Permittivity (ε_r):	50.99	53.30	-4.33	5
		e''	14.5800	Conductivity (σ):	1.54	1.52	1.34	5
	Body 1850	e'	51.1800	Relative Permittivity (ε_r):	51.18	53.30	-3.98	5
		e''	14.4800	Conductivity (σ):	1.49	1.52	-2.01	5
	Body 1910	e'	50.9500	Relative Permittivity (ε_r):	50.95	53.30	-4.41	5
		e''	14.6200	Conductivity (σ):	1.55	1.52	2.15	5
6/30/2014	Head 1900	e'	39.5600	Relative Permittivity (ε_r):	39.56	40.00	-1.10	5
		e''	13.2700	Conductivity (σ):	1.40	1.40	0.14	5
	Head 1850	e'	39.7900	Relative Permittivity (ε_r):	39.79	40.00	-0.53	5
		e''	13.1300	Conductivity (σ):	1.35	1.40	-3.53	5
	Head 1910	e'	39.5200	Relative Permittivity (ε_r):	39.52	40.00	-1.20	5
		e''	13.3200	Conductivity (σ):	1.41	1.40	1.04	5
6/30/2014	Body 1900	e'	51.6800	Relative Permittivity (ε_r):	51.68	53.30	-3.04	5
		e''	14.3300	Conductivity (σ):	1.51	1.52	-0.40	5
	Body 1850	e'	51.8800	Relative Permittivity (ε_r):	51.88	53.30	-2.66	5
		e''	14.2200	Conductivity (σ):	1.46	1.52	-3.77	5
	Body 1910	e'	51.6600	Relative Permittivity (ε_r):	51.66	53.30	-3.08	5
		e''	14.4000	Conductivity (σ):	1.53	1.52	0.61	5

SAR Lab H (continued)

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/7/2014	Head 1900	e'	40.5600	Relative Permittivity (ε_r):	40.56	40.00	1.40	5
		e''	13.3500	Conductivity (σ):	1.41	1.40	0.74	5
	Head 1850	e'	40.8600	Relative Permittivity (ε_r):	40.86	40.00	2.15	5
		e''	13.2400	Conductivity (σ):	1.36	1.40	-2.72	5
	Head 1910	e'	40.5400	Relative Permittivity (ε_r):	40.54	40.00	1.35	5
		e''	13.4200	Conductivity (σ):	1.43	1.40	1.80	5
7/7/2014	Body 1900	e'	51.4400	Relative Permittivity (ε_r):	51.44	53.30	-3.49	5
		e''	14.8700	Conductivity (σ):	1.57	1.52	3.35	5
	Body 1850	e'	51.7000	Relative Permittivity (ε_r):	51.70	53.30	-3.00	5
		e''	14.7300	Conductivity (σ):	1.52	1.52	-0.31	5
	Body 1910	e'	51.4400	Relative Permittivity (ε_r):	51.44	53.30	-3.49	5
		e''	14.9500	Conductivity (σ):	1.59	1.52	4.46	5
7/17/2014	Head 1900	e'	40.0900	Relative Permittivity (ε_r):	40.09	40.00	0.23	5
		e''	13.3300	Conductivity (σ):	1.41	1.40	0.59	5
	Head 1850	e'	40.2900	Relative Permittivity (ε_r):	40.29	40.00	0.72	5
		e''	13.2200	Conductivity (σ):	1.36	1.40	-2.87	5
	Head 1910	e'	40.0500	Relative Permittivity (ε_r):	40.05	40.00	0.12	5
		e''	13.3500	Conductivity (σ):	1.42	1.40	1.27	5
7/17/2014	Body 1900	e'	51.1900	Relative Permittivity (ε_r):	51.19	53.30	-3.96	5
		e''	14.7900	Conductivity (σ):	1.56	1.52	2.80	5
	Body 1850	e'	51.3700	Relative Permittivity (ε_r):	51.37	53.30	-3.62	5
		e''	14.6600	Conductivity (σ):	1.51	1.52	-0.79	5
	Body 1910	e'	51.1500	Relative Permittivity (ε_r):	51.15	53.30	-4.03	5
		e''	14.8200	Conductivity (σ):	1.57	1.52	3.55	5

10. System Check & SAR Scan Procedure

SAR system verification is required to confirm measurement accuracy, according to the tissue dielectric media, probe calibration points and other system operating parameters required for measuring the SAR of a test device. The system verification must be performed for each frequency band and within the valid range of each probe calibration point required for testing the device. The same SAR probe(s) and tissue-equivalent media combinations used with each specific SAR system for system verification must be used for device testing. When multiple probe calibration points are required to cover substantially large transmission bands, independent system verifications are required for each probe calibration point. A system verification must be performed before each series of SAR measurements using the same probe calibration point and tissue-equivalent medium. Additional system verification should be considered according to the conditions of the tissue-equivalent medium and measured tissue dielectric parameters, typically every three to four days when the liquid parameters are remeasured or sooner when marginal liquid parameters are used at the beginning of a series of measurements.

10.1. Reference Target SAR Values

The reference SAR values can be obtained from the calibration certificate of system validation dipoles

System Dipole	Serial No.	Cal. Date	Freq. (MHz)	Target SAR Values (W/kg)		
				1g/10g	Head	Body
D750V3	1024	5/16/2014	750	1g	8.12	8.77
				10g	5.26	5.79
D835V2	4d142	9/17/2013	835	1g	9.44	9.36
				10g	6.12	6.20
D1750V2	1050	4/22/2014	1750	1g	36.6	37.2
				10g	19.4	20.0
D1750V2	1053	8/27/2013	1750	1g	36.7	37.7
				10g	19.5	20.3
D1900V2	5d140	4/23/2014	1900	1g	40.1	40.2
				10g	21.0	21.3
D1900V2	5d163	9/17/2013	1900	1g	40.9	40.1
				10g	21.2	21.2
D2450V2	748	2/18/2014	2450	1g	51.6	50.7
				10g	24.0	23.7
D2450V2	706	5/20/2014	2450	1g	53.0	50.2
				10g	24.5	23.4
D2600V2	1036	3/12/2014	2600	1g	57.4	56.4
				10g	25.7	25.0
D5GHzV2	1003	2/26/2014	5200	1g	77.7	73.5
				10g	22.2	20.5
			5600	1g	81.8	79.6
				10g	23.2	22.1
			5800	1g	78.3	73.8
				10g	22.1	20.4
D5GHzV2	1168	12/12/2013	5200	1g	79.3	75.2
				10g	22.7	21.0
			5600	1g	85.3	80.6
				10g	24.3	22.3
			5800	1g	81.0	75.7
				10g	22.9	20.9

10.2. System Check Results

The 1-g and 10-g SAR measured with a reference dipole, using the required tissue-equivalent medium at the test frequency, must be within 10% of the manufacturer calibrated dipole SAR target.

SAR Lab A

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D750V3	1024	Head	1g	0.865	0.825	8.25	8.12	1.60	4.62	
				10g	0.586	0.540	5.40	5.26	2.66		
6/19/2014	D750V3	1024	Body	1g	0.988	0.896	8.96	8.77	2.17	9.31	
				10g	0.665	0.596	5.96	5.79	2.94		
6/23/2014	D750V3	1024	Head	1g	0.812	0.784	7.84	8.12	-3.45	3.45	1,2
				10g	0.551	0.514	5.14	5.26	-2.28		
6/23/2014	D750V3	1024	Body	1g	0.856	0.848	8.48	8.77	-3.31	0.93	
				10g	0.579	0.563	5.63	5.79	-2.76		
6/24/2014	D2600V2	1036	Head	1g	6.04	5.80	58.0	57.4	1.05	3.97	
				10g	2.69	2.53	25.3	25.7	-1.56		
6/24/2014	D2600V2	1036	Body	1g	6.11	5.92	59.2	56.4	4.96	3.11	3,4
				10g	2.67	2.59	25.9	25.0	3.60		
6/30/2014	D2600V2	1036	Head	1g	5.87	5.61	56.1	57.4	-2.26	4.43	
				10g	2.61	2.46	24.6	25.7	-4.28		
6/30/2014	D2600V2	1036	Body	1g	6.08	5.81	58.1	56.4	3.01	4.44	
				10g	2.64	2.55	25.5	25.0	2.00		
7/7/2014	D2600V2	1036	Head	1g	6.44	5.96	59.6	57.4	3.83	7.45	
				10g	2.84	2.59	25.9	25.7	0.78		
7/7/2014	D2600V2	1036	Body	1g	6.23	5.90	59.0	56.4	4.61	5.30	
				10g	2.71	2.57	25.7	25.0	2.80		

SAR Lab B

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D2450V2	748	Head	1g	5.41	5.07	50.7	51.6	-1.74	6.28	
				10g	2.39	2.32	23.2	24.0	-3.33		
6/19/2014	D2450V2	748	Body	1g	5.73	5.32	53.2	50.7	4.93	7.16	5,6
				10g	2.47	2.44	24.4	23.7	2.95		
6/23/2014	D2450V2	706	Head	1g	5.43	5.40	54.0	53.0	1.89	0.55	
				10g	2.39	2.46	24.6	24.5	0.41		
6/23/2014	D2450V2	706	Body	1g	4.98	4.99	49.9	50.2	-0.60	-0.20	
				10g	2.15	2.28	22.8	23.4	-2.56		
6/26/2014	D2450V2	706	Head	1g	5.35	5.33	53.3	53.0	0.57	0.37	
				10g	2.37	2.43	24.3	24.5	-0.82		
6/26/2014	D2450V2	706	Body	1g	5.20	5.32	53.2	50.2	5.98	-2.31	
				10g	2.27	2.44	24.4	23.4	4.27		
6/30/2014	D2450V2	706	Head	1g	5.29	5.22	52.2	53.0	-1.51	1.32	
				10g	2.33	2.41	24.1	24.5	-1.63		
6/30/2014	D2450V2	706	Body	1g	5.33	5.49	54.9	50.2	9.36	-3.00	7,8
				10g	2.29	2.53	25.3	23.4	8.12		

SAR Lab C

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/30/2014	D1900V2	5d163	Head	1g	4.38	4.30	43.0	40.9	5.13	1.83	
				10g	2.25	2.22	22.2	21.2	4.72		
6/30/2014	D1900V2	5d163	Body	1g	4.27	4.26	42.6	40.1	6.23	0.23	9,10
				10g	2.14	2.21	22.1	21.2	4.25		

SAR Lab D

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D835V2	4d142	Head	1g	0.915	0.892	8.92	9.44	-5.51	2.51	
				10g	0.615	0.584	5.84	6.12	-4.58		
6/19/2014	D835V2	4d142	Body	1g	0.935	0.917	9.17	9.36	-2.03	1.93	
				10g	0.626	0.602	6.02	6.20	-2.90		
6/23/2014	D835V2	4d142	Head	1g	0.911	0.890	8.90	9.44	-5.72	2.31	
				10g	0.612	0.582	5.82	6.12	-4.90		
6/23/2014	D835V2	4d142	Body	1g	0.967	0.938	9.38	9.36	0.21	3.00	
				10g	0.647	0.617	6.17	6.20	-0.48		
6/24/2014	D1900V2	5d163	Body	1g	4.07	4.05	40.5	40.1	1.00	0.49	11,12
				10g	2.04	2.10	21.0	21.2	-0.94		
6/26/2014	D835V2	4d142	Head	1g	0.998	0.976	9.76	9.44	3.39	2.20	
				10g	0.669	0.639	6.39	6.12	4.41		
6/26/2014	D835V2	4d142	Body	1g	1.02	1.01	10.1	9.36	7.91	0.98	13,14
				10g	0.685	0.659	6.59	6.20	6.29		
6/30/2014	D835V2	4d142	Head	1g	1.03	0.999	9.99	9.44	5.83	3.01	
				10g	0.692	0.653	6.53	6.12	6.70		
6/30/2014	D835V2	4d142	Body	1g	1.00	0.953	9.53	9.36	1.82	4.70	
				10g	0.669	0.626	6.26	6.20	0.97		
7/8/2014	D750V3	1024	Body	1g	0.882	0.860	8.60	8.77	-1.94	2.49	15,16
				10g	0.597	0.573	5.73	5.79	-1.04		
7/17/2014	D835V2	4d142	Head	1g	0.922	0.897	8.97	9.44	-4.98	2.71	
				10g	0.619	0.586	5.86	6.12	-4.25		
7/17/2014	D835V2	4d142	Body	1g	0.993	0.961	9.61	9.36	2.67	3.22	
				10g	0.664	0.630	6.30	6.20	1.61		

SAR Lab E

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D5600V2	1168	Head	1g	7.43	8.06	80.6	85.3	-5.51	-8.48	
				10g	2.09	2.30	23.0	24.3	-5.35		
6/19/2014	D5600V2	1168	Body	1g	7.62	8.11	81.1	80.6	0.62	-6.43	
				10g	2.10	2.27	22.7	22.3	1.79		
6/23/2014	D5600V2	1168	Head	1g	7.39	7.92	79.2	85.3	-7.15	-7.17	
				10g	2.06	2.24	22.4	24.3	-7.82		
6/23/2014	D5600V2	1168	Body	1g	7.45	7.92	79.2	80.6	-1.74	-6.31	
				10g	2.03	2.21	22.1	22.3	-0.90		
6/26/2014	D5600V2	1168	Head	1g	8.26	8.44	84.4	85.3	-1.06	-2.18	
				10g	2.32	2.41	24.1	24.3	-0.82		
6/26/2014	D5600V2	1168	Body	1g	8.05	8.31	83.1	80.6	3.10	-3.23	
				10g	2.18	2.33	23.3	22.3	4.48		
6/26/2014	D5200V2	1168	Head	1g	8.11	8.57	85.7	79.3	8.07	-5.67	
				10g	2.26	2.45	24.5	22.7	7.93		
6/26/2014	D5200V2	1168	Body	1g	7.34	7.66	76.6	75.2	1.86	-4.36	
				10g	2.04	2.18	21.8	21.0	3.81		
6/30/2014	D5600V2	1168	Head	1g	6.66	8.47	84.7	85.3	-0.70	-27.18	
				10g	1.89	2.41	24.1	24.3	-0.82		
6/30/2014	D5600V2	1168	Body	1g	7.73	8.21	82.1	80.6	1.86	-6.21	
				10g	2.09	2.30	23.0	22.3	3.14		
7/1/2014	D5200V2	1168	Head	1g	7.78	7.57	75.7	79.3	-4.54	2.70	
				10g	2.22	2.17	21.7	22.7	-4.41		
7/1/2014	D5200V2	1168	Body	1g	7.06	7.39	73.9	75.2	-1.73	-4.67	
				10g	1.94	2.10	21.0	21.0	0.00		
7/7/2014	D5600V2	1168	Head	1g	8.03	8.77	87.7	85.3	2.81	-9.22	
				10g	2.28	2.50	25.0	24.3	2.88		
7/7/2014	D5600V2	1168	Body	1g	8.05	8.40	84.0	80.6	4.22	-4.35	
				10g	2.18	2.35	23.5	22.3	5.38		
7/17/2014	D5200V2	1168	Head	1g	7.17	7.96	79.6	79.3	0.38	-11.02	
				10g	2.06	2.26	22.6	22.7	-0.44		
7/17/2014	D5200V2	1168	Body	1g	6.87	7.38	73.8	75.2	-1.86	-7.42	
				10g	1.94	2.09	20.9	21.0	-0.48		
7/17/2014	D5600V2	1168	Head	1g	7.28	7.96	79.6	85.3	-6.68	-9.34	
				10g	2.06	2.27	22.7	24.3	-6.58		
7/17/2014	D5600V2	1168	Body	1g	7.56	8.09	80.9	80.6	0.37	-7.01	
				10g	2.08	2.30	23.0	22.3	3.14		
7/17/2014	D5800V2	1168	Head	1g	6.87	7.71	77.1	81.0	-4.81	-12.23	
				10g	1.93	2.18	21.8	22.9	-4.80		
7/17/2014	D5800V2	1168	Body	1g	6.39	6.90	69.0	75.7	-8.85	-7.98	17,18
				10g	1.77	1.93	19.3	20.9	-7.66		

SAR Lab F

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/23/2014	D5200V2	1003	Head	1g	7.61	7.95	79.50	77.70	2.32	-4.47	
				10g	2.11	2.29	22.90	22.20	3.15		
6/23/2014	D5200V2	1003	Body	1g	7.14	7.49	74.90	73.50	1.90	-4.90	
				10g	1.95	2.13	21.30	20.50	3.90		
6/23/2014	D5800V2	1003	Head	1g	6.75	7.29	72.90	78.30	-6.90	-8.00	
				10g	1.82	2.05	20.50	22.10	-7.24		
6/23/2014	D5800V2	1003	Body	1g	7.00	7.54	75.40	73.80	2.17	-7.71	
				10g	1.91	2.15	21.50	20.40	5.39		
6/26/2014	D5800V2	1003	Head	1g	6.83	7.42	74.20	78.3	-5.24	-8.64	
				10g	1.84	2.07	20.70	22.1	-6.33		
6/26/2014	D5800V2	1003	Body	1g	7.19	7.57	75.70	73.8	2.57	-5.29	
				10g	1.98	2.17	21.70	20.4	6.37		
6/27/2014	D5200V2	1003	Head	1g	7.20	7.43	74.30	77.7	-4.38	-3.19	
				10g	1.99	2.14	21.40	22.2	-3.60		
6/27/2014	D5200V2	1003	Body	1g	7.14	7.60	76.00	73.50	3.40	-6.44	
				10g	1.96	2.15	21.50	20.50	4.88		
6/30/2014	D5200V2	1003	Head	1g	6.86	7.77	77.70	77.7	0.00	-13.27	
				10g	1.95	2.25	22.50	22.2	1.35		
6/30/2014	D5200V2	1003	Body	1g	7.36	7.78	77.80	73.5	5.85	-5.71	
				10g	2.03	2.23	22.30	20.5	8.78		
6/30/2014	D5800V2	1003	Head	1g	7.36	7.49	74.90	78.3	-4.34	-1.77	
				10g	2.05	2.16	21.60	22.1	-2.26		
6/30/2014	D5800V2	1003	Body	1g	5.92	7.50	75.00	73.8	1.63	-26.69	
				10g	1.65	2.15	21.50	20.4	5.39		
7/7/2014	D5200V2	1003	Head	1g	6.70	7.31	73.1	77.7	-5.92	-9.10	
				10g	1.91	2.10	21.0	22.2	-5.41		
7/7/2014	D5200V2	1003	Body	1g	6.50	6.89	68.9	73.5	-6.26	-6.00	
				10g	1.78	1.96	19.6	20.5	-4.39		
7/7/2014	D5800V2	1003	Head	1g	6.72	7.44	74.4	78.3	-4.98	-10.71	
				10g	1.88	2.10	21.0	22.1	-4.98		
7/7/2014	D5800V2	1003	Body	1g	6.39	6.80	68.0	73.8	-7.86	-6.42	19,20
				10g	1.74	1.91	19.1	20.4	-6.37		
7/17/2014	D5200V2	1003	Head	1g	7.64	8.32	83.2	77.7	7.08	-8.90	
				10g	2.12	2.33	23.3	22.2	4.95		
7/17/2014	D5200V2	1003	Body	1g	7.24	7.84	78.4	73.5	6.67	-8.29	
				10g	2.04	2.23	22.3	20.5	8.78		
7/17/2014	D5800V2	1003	Head	1g	6.42	8.10	81.0	78.3	3.45	-26.17	
				10g	1.81	2.28	22.8	22.1	3.17		
7/17/2014	D5800V2	1003	Body	1g	6.66	7.14	71.4	73.8	-3.25	-7.21	
				10g	1.83	2.01	20.1	20.4	-1.47		

SAR Lab G

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D1750V2	1050	Head	1g	3.79	3.63	36.3	36.6	-0.82	4.22	
				10g	2.02	1.93	19.3	19.4	-0.52		
6/19/2014	D1750V2	1050	Body	1g	3.81	3.71	37.1	37.2	-0.27	2.62	
				10g	1.98	1.98	19.8	20.0	-1.00		
6/23/2014	D1750V2	1050	Head	1g	3.77	3.49	34.9	36.6	-4.64	7.43	21,22
				10g	2.01	1.87	18.7	19.4	-3.61		
6/23/2014	D1750V2	1050	Body	1g	3.92	3.86	38.6	37.2	3.76	1.53	
				10g	2.04	2.06	20.6	20.0	3.00		
6/26/2014	D1750V2	1050	Head	1g	3.72	3.60	36.0	36.6	-1.64	3.23	
				10g	1.99	1.92	19.2	19.4	-1.03		
6/26/2014	D1750V2	1050	Body	1g	3.88	3.82	38.2	37.2	2.69	1.55	
				10g	2.03	2.04	20.4	20.0	2.00		
6/30/2014	D1750V2	1053	Head	1g	3.86	3.71	37.1	36.7	1.09	3.89	
				10g	2.06	1.98	19.8	19.5	1.54		
6/30/2014	D1750V2	1053	Body	1g	3.87	3.83	38.3	37.7	1.59	1.03	
				10g	2.05	2.05	20.5	20.3	0.99		
7/2/2014	D1900V2	5d163	Body	1g	3.96	3.93	39.3	40.1	-2.00	0.76	
				10g	1.98	2.03	20.3	21.2	-4.25		
7/7/2014	D1900V2	5d163	Body	1g	4.18	4.12	41.2	40.1	2.74	1.44	23,24
				10g	2.09	2.13	21.3	21.2	0.47		
7/7/2014	D1750V2	1053	Body	1g	4.02	3.95	39.5	37.7	4.77	1.74	25,26
				10g	2.10	2.10	21.0	20.3	3.45		
7/17/2014	D1900V2	5d163	Body	1g	4.07	3.99	39.9	40.1	-0.50	1.97	
				10g	2.04	2.05	20.5	21.2	-3.30		

SAR Lab H

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Est./Zoom Ratio	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W				
6/19/2014	D1900V2	5d140	Head	1g	4.00	3.98	39.8	40.1	-0.75	0.50	
				10g	2.09	2.06	20.6	21.0	-1.90		
6/19/2014	D1900V2	5d140	Body	1g	4.05	4.01	40.1	40.2	-0.25	0.99	
				10g	2.05	2.08	20.8	21.3	-2.35		
6/23/2014	D1900V2	5d140	Head	1g	4.03	3.92	39.2	40.1	-2.24	2.73	
				10g	2.09	2.03	20.3	21.0	-3.33		
6/23/2014	D1900V2	5d140	Body	1g	3.82	3.78	37.8	40.2	-5.97	1.05	
				10g	1.90	1.96	19.6	21.3	-7.98		
6/26/2014	D1900V2	5d140	Head	1g	3.86	3.75	37.5	40.1	-6.48	2.85	27,28
				10g	1.98	1.94	19.4	21.0	-7.62		
6/26/2014	D1900V2	5d140	Body	1g	4.01	3.96	39.6	40.2	-1.49	1.25	
				10g	1.99	2.05	20.5	21.3	-3.76		
6/30/2014	D1900V2	5d140	Head	1g	4.08	4.01	40.1	40.1	0.00	1.72	
				10g	2.09	2.09	20.9	21.0	-0.48		
6/30/2014	D1900V2	5d140	Body	1g	4.08	4.09	40.9	40.2	1.74	-0.25	
				10g	2.02	2.13	21.3	21.3	0.00		
7/7/2014	D1900V2	5d140	Head	1g	4.23	4.09	40.9	40.1	2.00	3.31	
				10g	2.18	2.12	21.2	21.0	0.95		
7/7/2014	D1900V2	5d140	Body	1g	4.29	4.25	42.5	40.2	5.72	0.93	
				10g	2.14	2.22	22.2	21.3	4.23		
7/17/2014	D1900V2	5d140	Head	1g	3.92	3.93	39.3	40.1	-2.00	-0.26	
				10g	2.03	2.05	20.5	21.0	-2.38		
7/17/2014	D1900V2	5d140	Body	1g	4.05	4.02	40.2	40.2	0.00	0.74	
				10g	2.05	2.09	20.9	21.3	-1.88		

10.3. SAR Scan Procedure

Step 1: Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. The minimum distance of probe sensors to surface is 2.1 mm. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

Step 2: Area Scan

The Area Scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum locations even in relatively coarse grids. When an Area Scan has measured all reachable points, it computes the field maximal found in the scanned area, within a range of the global maximum. The range (in dB) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE Standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan). If only one Zoom Scan follows the Area Scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of Zoom Scans has to be increased accordingly.

Area Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

Step 3: Zoom Scan

Zoom Scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 g and 10 g of simulated tissue. The Zoom Scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the Zoom Scan evaluates the averaged SAR for 1 g and 10 g and displays these values next to the job's label.

Zoom Scan Parameters extracted from KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the area scan based *1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

Step 4: Power drift measurement

The Power Drift Measurement measures the field at the same location as the most recent power reference measurement within the same procedure, and with the same settings. The Power Drift Measurement gives the field difference in dB from the reading conducted within the last Power Reference Measurement. This allows a user to monitor the power drift of the device under test within a batch process. The measurement procedure is the same as Step 1.

Step 5: Z-Scan (FCC only)

The Z Scan measures points along a vertical straight line. The line runs along the Z-axis of a one-dimensional grid. In order to get a reasonable extrapolation the extrapolated distance should not be larger than the step size in Z-direction.

11. Measured and Reported (Scaled) SAR Results

SAR Test Reduction criteria are as follows:

KDB 447498 D01 General RF Exposure Guidance:
Testing of other required channels within the operating mode of a frequency band is not required when the reported 1-g or 10-g SAR for the mid-band or highest output power channel is:

- ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
- ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
- ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz

KDB 648474 D04 Handset SAR:
With headset attached, when the reported SAR for body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

KDB 941225 D01 SAR test for 3G devices:
Body SAR is also measured for HSPA when the maximum average output of each RF channel with HSPA active is at least ¼ dB higher than that measured without HSPA using 12.2 kbps RMC or the maximum SAR for 12.2 kbps RMC is above 75% of the SAR limit. Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 with power control algorithm 2.

KDB 941225 D05 SAR for LTE Devices:
SAR test reduction is applied using the following criteria:

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

April 2013 TCB Workshop Updates:
Apply usual 802.11 test exclusion considerations, but include 802.11ac SAR for highest 802.11a configuration in each frequency band and each exposure condition.

Measured SAR Results for Model A1586

11.1. GSM850

11.1.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	0	Left Touch	190	836.6	33.2	33.2	0.436	0.436	0.287	0.287	
			Left Tilt	190	836.6	33.2	33.2	0.330	0.330	0.193	0.193	
			Right Touch	190	836.6	33.2	33.2	0.485	0.485	0.298	0.298	
			Right Tilt	190	836.6	33.2	33.2	0.298	0.298	0.166	0.166	
	GPRS 2 slots	0	Left Touch	128	824.2	32.2	32.2	0.671	0.671	0.446	0.446	
				190	836.6	32.2	32.2	0.803	0.803	0.532	0.532	1
				251	848.8	32.2	32.2	0.777	0.777	0.513	0.513	
			Left Tilt	190	836.6	32.2	32.2	0.514	0.514	0.301	0.301	
			Right Touch	190	836.6	32.2	32.2	0.759	0.759	0.465	0.465	
			Right Tilt	190	836.6	32.2	32.2	0.472	0.472	0.264	0.264	
LAT	Voice	0	Left Touch	190	836.6	33.5	33.0	0.244	0.274	0.186	0.209	
			Left Tilt	190	836.6	33.5	33.0	0.096	0.108	0.074	0.083	
			Right Touch	190	836.6	33.5	33.0	0.203	0.228	0.152	0.171	
			Right Tilt	190	836.6	33.5	33.0	0.124	0.139	0.092	0.104	
	GPRS 2 slots	0	Left Touch	190	836.6	32.5	31.8	0.331	0.389	0.254	0.298	
			Left Tilt	190	836.6	32.5	31.8	0.256	0.301	0.197	0.231	
			Right Touch	190	836.6	32.5	31.8	0.282	0.331	0.217	0.255	
			Right Tilt	190	836.6	32.5	31.8	0.190	0.223	0.142	0.167	

11.1.2. Body-worn Accessory

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	5	Rear	190	836.6	33.2	33.2	0.243	0.243	0.150	0.150	
			Front	190	836.6	33.2	33.2	0.247	0.247	0.162	0.162	
LAT	Voice	5	Rear	190	836.6	33.5	33.0	0.333	0.374	0.217	0.243	2
			Front	190	836.6	33.5	33.0	0.333	0.374	0.199	0.223	

11.1.3. Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	GPRS 2 slots	5	Rear	190	836.6	32.2	32.2	0.379	0.379	0.234	0.234	
			Front	190	836.6	32.2	32.2	0.374	0.374	0.245	0.245	
			Edge 1	190	836.6	32.2	32.2	0.198	0.198	0.089	0.089	
			Edge 2	190	836.6	32.2	32.2	0.337	0.337	0.220	0.220	
			Edge 4	190	836.6	32.2	32.2	0.213	0.213	0.136	0.136	
LAT	GPRS 2 slots	5	Rear	190	836.6	32.5	31.8	0.445	0.523	0.290	0.341	
			Front	190	836.6	32.5	31.8	0.439	0.516	0.259	0.304	
			Edge 2	190	836.6	32.5	31.8	0.342	0.402	0.224	0.263	
			Edge 3	190	836.6	32.5	31.8	0.250	0.294	0.118	0.139	
			Edge 4	190	836.6	32.5	31.8	0.467	0.549	0.309	0.363	3

11.2. GSM1900

11.2.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	0	Left Touch	661	1880.0	29.9	29.9	0.291	0.291	0.157	0.157	
			Left Tilt	661	1880.0	29.9	29.9	0.259	0.259	0.129	0.129	
			Right Touch	661	1880.0	29.9	29.9	0.760	0.760	0.412	0.412	
			Right Tilt	661	1880.0	29.9	29.9	0.650	0.650	0.312	0.312	
	GPRS 2 slots	0	Left Touch	661	1880.0	27.1	27.1	0.269	0.269	0.141	0.141	
			Left Tilt	661	1880.0	27.1	27.1	0.261	0.261	0.129	0.129	
			Right Touch	661	1880.0	27.1	27.1	0.725	0.725	0.399	0.399	
			Right Tilt	661	1880.0	27.1	27.1	0.641	0.641	0.309	0.309	
	EGPRS 2 slots	0	Left Touch	661	1880.0	27.4	27.4	0.308	0.308	0.157	0.157	
			Left Tilt	661	1880.0	27.4	27.4	0.342	0.342	0.178	0.178	
			Right Touch	512	1850.2	27.4	27.4	0.840	0.840	0.434	0.434	
				661	1880.0	27.4	27.4	0.885	0.885	0.455	0.455	
				810	1909.8	27.4	27.4	0.907	0.907	0.471	0.471	4
			Right Tilt	661	1880.0	27.4	27.4	0.723	0.723	0.371	0.371	
LAT	Voice	0	Left Touch	661	1880.0	30.0	29.7	0.192	0.206	0.125	0.134	
			Left Tilt	661	1880.0	30.0	29.7	0.191	0.205	0.110	0.118	
			Right Touch	661	1880.0	30.0	29.7	0.393	0.421	0.242	0.259	
			Right Tilt	661	1880.0	30.0	29.7	0.190	0.204	0.116	0.124	
	GPRS 2 slots	0	Left Touch	661	1880.0	29.5	29.4	0.361	0.369	0.237	0.243	
			Left Tilt	661	1880.0	29.5	29.4	0.375	0.384	0.219	0.224	
			Right Touch	661	1880.0	29.5	29.4	0.745	0.762	0.458	0.469	
			Right Tilt	661	1880.0	29.5	29.4	0.347	0.355	0.212	0.217	

11.2.2. Body-worn Accessory

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Voice	5	Rear	661	1880.0	29.9	29.9	0.530	0.530	0.256	0.256	
			Front	661	1880.0	29.9	29.9	0.566	0.566	0.276	0.276	
LAT	Voice	5	Rear	512	1850.2	28.8	28.7	0.798	0.817	0.390	0.399	
				661	1880.0	28.8	28.7	0.850	0.870	0.410	0.420	
				810	1909.8	28.8	28.7	1.020	1.044	0.494	0.506	5
			Front	512	1850.2	28.8	28.7	0.776	0.794	0.365	0.374	
				661	1880.0	28.8	28.7	0.841	0.861	0.393	0.402	
				810	1909.8	28.8	28.7	0.987	1.010	0.461	0.472	

11.2.3. Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	GPRS 2 slots	5	Rear	512	1850.2	28.9	28.9	0.825	0.825	0.402	0.402	
				661	1880.0	28.9	28.9	0.883	0.883	0.431	0.431	
				810	1909.8	28.9	28.8	0.804	0.823	0.396	0.405	
			Front	512	1850.2	28.9	28.9	0.808	0.808	0.392	0.392	
				661	1880.0	28.9	28.9	0.824	0.824	0.397	0.397	
				810	1909.8	28.9	28.8	0.889	0.910	0.435	0.445	
			Edge 1	512	1850.2	28.9	28.9	0.793	0.793	0.361	0.361	
				661	1880.0	28.9	28.9	0.848	0.848	0.389	0.389	
				810	1909.8	28.9	28.8	0.893	0.914	0.407	0.416	
			Edge 2	512	1850.2	28.9	28.9	0.918	0.918	0.515	0.515	
				661	1880.0	28.9	28.9	0.980	0.980	0.548	0.548	
				810	1909.8	28.9	28.8	0.897	0.918	0.504	0.516	
			Edge 4	661	1880.0	28.9	28.9	0.250	0.250	0.136	0.136	
LAT	GPRS 2 slots	5	Rear	512	1850.2	25.8	25.6	0.890	0.932	0.436	0.457	
				661	1880.0	25.8	25.6	1.030	1.079	0.501	0.525	
				810	1909.8	25.8	25.8	1.000	1.000	0.497	0.497	
			Front	512	1850.2	25.8	25.6	0.718	0.752	0.349	0.365	
				661	1880.0	25.8	25.6	0.836	0.875	0.400	0.419	
				810	1909.8	25.8	25.8	1.000	1.000	0.477	0.477	
			Edge 2	661	1880.0	25.8	25.6	0.483	0.506	0.268	0.281	
			Edge 3	512	1850.2	25.8	25.6	0.639	0.669	0.299	0.313	
				661	1880.0	25.8	25.6	0.881	0.923	0.411	0.430	
				810	1909.8	25.8	25.8	0.878	0.878	0.395	0.395	
			Edge 4	661	1880.0	25.8	25.6	0.175	0.183	0.095	0.100	
	EGPRS 2 slots	5	Rear	512	1850.2	26.8	26.8	0.915	0.915	0.435	0.435	
				661	1880.0	26.8	26.8	0.990	0.990	0.472	0.472	
				810	1909.8	26.8	26.8	1.160	1.160	0.569	0.569	6
			Front	512	1850.2	26.8	26.8	0.724	0.724	0.343	0.343	
				661	1880.0	26.8	26.8	0.875	0.875	0.412	0.412	
				810	1909.8	26.8	26.8	1.120	1.120	0.531	0.531	
			Edge 2	661	1880.0	26.8	26.8	0.525	0.525	0.294	0.294	
			Edge 3	512	1850.2	26.8	26.8	0.915	0.915	0.434	0.434	
				661	1880.0	26.8	26.8	1.060	1.060	0.495	0.495	
				810	1909.8	26.8	26.8	1.090	1.090	0.509	0.509	
			Edge 4	661	1880.0	26.8	26.8	0.149	0.149	0.082	0.082	

11.3. W-CDMA Band V

11.3.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	4132	826.4	24.7	24.0	0.685	0.805	0.449	0.528	
				4183	836.6	24.7	24.0	0.763	0.896	0.509	0.598	
				4233	846.6	24.7	24.0	0.766	0.900	0.496	0.583	7
			Left Tilt	4183	836.6	24.7	24.0	0.553	0.650	0.319	0.375	
			Right Touch	4132	826.4	24.7	24.0	0.730	0.858	0.493	0.579	
				4183	836.6	24.7	24.0	0.739	0.868	0.461	0.542	
				4233	846.6	24.7	24.0	0.755	0.887	0.468	0.550	
			Right Tilt	4183	836.6	24.7	24.0	0.463	0.544	0.269	0.316	
LAT	Rel. 99 RMC	0	Left Touch	4183	836.6	25.0	25.0	0.408	0.408	0.309	0.309	
			Left Tilt	4183	836.6	25.0	25.0	0.225	0.225	0.174	0.174	
			Right Touch	4183	836.6	25.0	25.0	0.336	0.336	0.261	0.261	
			Right Tilt	4183	836.6	25.0	25.0	0.218	0.218	0.170	0.170	

11.3.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	4183	836.6	24.7	24.0	0.393	0.462	0.254	0.298	
			Front	4183	836.6	24.7	24.0	0.432	0.508	0.278	0.327	
LAT	Rel. 99 RMC	5	Rear	4183	836.6	25.0	25.0	0.491	0.491	0.329	0.329	
			Front	4183	836.6	25.0	25.0	0.518	0.518	0.319	0.319	8

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	4183	836.6	24.7	24.0	0.210	0.247	0.095	0.112	
			Edge 2	4183	836.6	24.7	24.0	0.280	0.329	0.182	0.214	
			Edge 4	4183	836.6	24.7	24.0	0.499	0.586	0.326	0.383	
LAT	Rel. 99 RMC	5	Edge 2	4183	836.6	25.0	25.0	0.419	0.419	0.271	0.271	
			Edge 3	4183	836.6	25.0	25.0	0.317	0.317	0.152	0.152	
			Edge 4	4132	826.4	25.0	25.0	0.716	0.716	0.470	0.470	
				4183	836.6	25.0	25.0	0.859	0.859	0.564	0.564	9
				4233	846.6	25.0	25.0	0.821	0.821	0.533	0.533	

11.4. W-CDMA Band IV

11.4.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	1413	1732.6	19.9	19.8	0.277	0.283	0.148	0.151	
			Left Tilt	1413	1732.6	19.9	19.8	0.307	0.314	0.167	0.171	
			Right Touch	1413	1732.6	19.9	19.8	0.737	0.754	0.385	0.394	
			Right Tilt	1413	1732.6	19.9	19.8	0.585	0.599	0.292	0.299	
LAT	Rel. 99 RMC	0	Left Touch	1413	1732.6	25.0	25.0	0.310	0.310	0.214	0.214	
			Left Tilt	1413	1732.6	25.0	25.0	0.277	0.277	0.178	0.178	
			Right Touch	1413	1732.6	25.0	25.0	0.755	0.755	0.485	0.485	10
			Right Tilt	1413	1732.6	25.0	25.0	0.297	0.297	0.191	0.191	

11.4.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	1312	1712.4	23.1	23.1	0.872	0.872	0.433	0.433	
				1413	1732.6	23.1	23.1	0.838	0.838	0.414	0.414	
				1513	1752.6	23.1	23.0	0.815	0.834	0.403	0.412	
			Front	1312	1712.4	23.1	23.1	0.977	0.977	0.472	0.472	11
				1413	1732.6	23.1	23.1	0.895	0.895	0.428	0.428	
				1513	1752.6	23.1	23.0	0.846	0.866	0.409	0.419	
LAT	Rel. 99 RMC	5	Rear	1413	1732.6	19.0	19.0	0.732	0.732	0.368	0.368	
			Front	1312	1712.4	19.0	19.0	0.701	0.701	0.362	0.362	
				1413	1732.6	19.0	19.0	0.798	0.798	0.402	0.402	
				1513	1752.6	19.0	19.0	0.851	0.851	0.419	0.419	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	1312	1712.4	23.1	23.1	0.999	0.999	0.463	0.463	12
				1413	1732.6	23.1	23.1	0.929	0.929	0.430	0.430	
				1513	1752.6	23.1	23.0	0.858	0.878	0.395	0.404	
			Edge 2	1413	1732.6	23.1	23.1	0.015	0.015	0.009	0.009	
			Edge 4	1413	1732.6	23.1	23.1	0.606	0.606	0.335	0.335	
LAT	Rel. 99 RMC	5	Edge 2	1413	1732.6	19.0	19.0	0.421	0.421	0.234	0.234	
			Edge 3	1413	1732.6	19.0	19.0	0.744	0.744	0.365	0.365	
			Edge 4	1413	1732.6	19.0	19.0	0.041	0.041	0.023	0.023	

11.5. W-CDMA Band II

11.5.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	0	Left Touch	9400	1880.0	20.1	20.1	0.404	0.404	0.209	0.209	
			Left Tilt	9400	1880.0	20.1	20.1	0.353	0.353	0.181	0.181	
			Right Touch	9262	1852.4	20.1	19.9	0.848	0.888	0.436	0.457	
				9400	1880.0	20.1	20.1	0.978	0.978	0.508	0.508	
				9538	1907.6	20.1	20.0	0.938	0.960	0.492	0.503	
			Right Tilt	9400	1880.0	20.1	20.1	0.767	0.767	0.374	0.374	
LAT	Rel. 99 RMC	0	Left Touch	9400	1880.0	24.25	24.25	0.549	0.549	0.361	0.361	
			Left Tilt	9400	1880.0	24.25	24.25	0.537	0.537	0.312	0.312	
			Right Touch	9262	1852.4	24.25	24.25	1.170	1.170	0.712	0.712	
				9400	1880.0	24.25	24.25	1.180	1.180	0.713	0.713	13
				9538	1907.6	24.25	24.25	1.100	1.100	0.664	0.664	
			Right Tilt	9400	1880.0	24.25	24.25	0.440	0.440	0.282	0.282	
SAR Measurement Variability												
LAT	Rel. 99 RMC	0	Right Touch	9400	1880.0	24.25	24.25	1.140	1.140	0.716	0.716	

11.5.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Rear	9262	1852.4	23.3	23.3	0.794	0.794	0.386	0.386	
				9400	1880.0	23.3	23.3	0.924	0.924	0.445	0.445	
				9538	1907.6	23.3	23.3	0.958	0.958	0.476	0.476	
			Front	9262	1852.4	23.3	23.3	0.758	0.758	0.363	0.363	
				9400	1880.0	23.3	23.3	0.876	0.876	0.422	0.422	
				9538	1907.6	23.3	23.3	0.959	0.959	0.462	0.462	
LAT	Rel. 99 RMC	5	Rear	9262	1852.4	18.5	18.5	0.957	0.957	0.467	0.467	
				9400	1880.0	18.5	18.5	0.988	0.988	0.478	0.478	
				9538	1907.6	18.5	18.5	1.020	1.020	0.491	0.491	14
			Front	9262	1852.4	18.5	18.5	0.929	0.929	0.436	0.436	
				9400	1880.0	18.5	18.5	0.967	0.967	0.453	0.453	
				9538	1907.6	18.5	18.5	0.988	0.988	0.462	0.462	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	Rel. 99 RMC	5	Edge 1	9262	1852.4	23.3	23.3	0.817	0.817	0.364	0.364	
				9400	1880.0	23.3	23.3	0.906	0.906	0.397	0.397	
				9538	1907.6	23.3	23.3	0.955	0.955	0.409	0.409	15
			Edge 2	9400	1880.0	23.3	23.3	0.086	0.086	0.046	0.046	
			Edge 4	9400	1880.0	23.3	23.3	0.596	0.596	0.330	0.330	
LAT	Rel. 99 RMC	5	Edge 2	9400	1880.0	18.5	18.5	0.501	0.501	0.276	0.276	
			Edge 3	9262	1852.4	18.5	18.5	0.878	0.878	0.405	0.405	
				9400	1880.0	18.5	18.5	0.925	0.925	0.420	0.420	
				9538	1907.6	18.5	18.5	0.953	0.953	0.423	0.423	
			Edge 4	9400	1880.0	18.5	18.5	0.108	0.108	0.058	0.058	

11.6. CDMA BC0

11.6.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	24.7	24.7	0.663	0.663	0.433	0.433	
			Left Tilt	384	836.5	24.7	24.7	0.483	0.483	0.277	0.277	
			Right Touch	384	836.5	24.7	24.7	0.510	0.510	0.324	0.324	
			Right Tilt	384	836.5	24.7	24.7	0.301	0.301	0.181	0.181	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	24.7	24.5	0.649	0.680	0.430	0.450	16
			Left Tilt	384	836.5	24.7	24.5	0.326	0.341	0.203	0.213	
			Right Touch	384	836.5	24.7	24.5	0.442	0.463	0.279	0.292	
			Right Tilt	384	836.5	24.7	24.5	0.244	0.255	0.151	0.158	
LAT	1xRTT (RC3 SO55)	0	Left Touch	384	836.5	25.0	25.0	0.374	0.374	0.289	0.289	
			Left Tilt	384	836.5	25.0	25.0	0.198	0.198	0.152	0.152	
			Right Touch	384	836.5	25.0	25.0	0.318	0.318	0.247	0.247	
			Right Tilt	384	836.5	25.0	25.0	0.188	0.188	0.147	0.147	
	1xEVDO (Rel. 0)	0	Left Touch	384	836.5	25.0	24.8	0.349	0.365	0.275	0.288	
			Left Tilt	384	836.5	25.0	24.8	0.192	0.201	0.148	0.155	
			Right Touch	384	836.5	25.0	24.8	0.304	0.318	0.243	0.254	
			Right Tilt	384	836.5	25.0	24.8	0.185	0.194	0.145	0.152	

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Meas.	Scaled	Meas.	Scaled	
UAT	1xEVDO (Rev. B) Two Carrier Mini.	0	Left Touch	384+425	836.52+837.75	21.4	21.1	0.333	0.357	0.217	0.233	
			Left Tilt	384+425	836.52+837.75	21.4	21.1	0.240	0.257	0.137	0.147	
			Right Touch	384+425	836.52+837.75	21.4	21.1	0.282	0.302	0.174	0.186	
			Right Tilt	384+425	836.52+837.75	21.4	21.1	0.163	0.175	0.094	0.101	
LAT		0	Left Touch	384+425	836.52+837.75	21.7	21.7	0.125	0.125	0.096	0.096	
			Left Tilt	384+425	836.52+837.75	21.7	21.7	0.067	0.067	0.051	0.051	
			Right Touch	384+425	836.52+837.75	21.7	21.7	0.106	0.106	0.082	0.082	
			Right Tilt	384+425	836.52+837.75	21.7	21.7	0.060	0.060	0.046	0.046	
UAT	1xEVDO (Rev. B) Three Carrier Mini.	0	Left Touch	384+425+466	836.52+837.75+838.98	21.4	21.1	0.327	0.350	0.214	0.229	
			Left Tilt	384+425+466	836.52+837.75+838.98	21.4	21.1	0.237	0.254	0.135	0.145	
			Right Touch	384+425+466	836.52+837.75+838.98	21.4	21.1	0.280	0.300	0.178	0.191	
			Right Tilt	384+425+466	836.52+837.75+838.98	21.4	21.1	0.158	0.169	0.090	0.096	
LAT		0	Left Touch	384+425+466	836.52+837.75+838.98	21.7	21.6	0.124	0.127	0.095	0.097	
			Left Tilt	384+425+466	836.52+837.75+838.98	21.7	21.6	0.061	0.062	0.047	0.048	
			Right Touch	384+425+466	836.52+837.75+838.98	21.7	21.6	0.105	0.107	0.081	0.083	
			Right Tilt	384+425+466	836.52+837.75+838.98	21.7	21.6	0.060	0.061	0.046	0.047	

11.6.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	384	836.5	24.7	24.7	0.389	0.389	0.239	0.239	
			Front	384	836.5	24.7	24.7	0.394	0.394	0.238	0.238	
	1xEVDO (Rel. 0)	5	Rear	384	836.5	24.7	24.5	0.354	0.371	0.233	0.244	
			Front	384	836.5	24.7	24.5	0.346	0.362	0.209	0.219	
LAT	1xRTT (RC3 SO32)	5	Rear	384	836.5	25.0	24.9	0.517	0.529	0.341	0.349	
			Front	384	836.5	25.0	24.9	0.521	0.533	0.403	0.412	17
	1xEVDO (Rel. 0)	5	Rear	384	836.5	25.0	24.8	0.472	0.494	0.317	0.332	
			Front	384	836.5	25.0	24.8	0.499	0.523	0.386	0.404	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	384	836.5	24.7	24.7	0.219	0.219	0.099	0.099	
			Edge 2	384	836.5	24.7	24.7	0.385	0.385	0.254	0.254	
			Edge 4	384	836.5	24.7	24.7	0.236	0.236	0.154	0.154	
	1xEVDO (Rel. 0)	5	Edge 1	384	836.5	24.7	24.5	0.164	0.172	0.076	0.080	
			Edge 2	384	836.5	24.7	24.5	0.325	0.340	0.216	0.226	
			Edge 4	384	836.5	24.7	24.5	0.223	0.234	0.145	0.152	
LAT	1xRTT (RC3 SO32)	5	Edge 2	384	836.5	25.0	25.0	0.439	0.439	0.282	0.282	
			Edge 3	384	836.5	25.0	25.0	0.318	0.318	0.151	0.151	
			Edge 4	1013	824.7	25.0	25.0	0.715	0.715	0.460	0.460	
				384	836.5	25.0	25.0	0.796	0.796	0.520	0.520	
				777	848.3	25.0	24.7	0.877	0.940	0.571	0.612	18
	1xEVDO (Rel. 0)	5	Edge 2	384	836.5	25.0	24.8	0.408	0.427	0.265	0.277	
			Edge 3	384	836.5	25.0	24.8	0.255	0.267	0.125	0.131	
			Edge 4	384	836.5	25.0	24.8	0.737	0.772	0.487	0.510	
SAR Measurement Variability												
LAT	1xRTT (RC3 SO32)	5	Edge 4	777	848.3	25.0	24.7	0.865	0.927	0.548	0.587	

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
								Meas.	Scaled	Meas.	Scaled	
UAT	1xEVDO (Rev. B) Two Carrier Mini.	5	Rear	384+425	836.52+837.75	21.4	21.1	0.155	0.166	0.096	0.103	
			Front	384+425	836.52+837.75	21.4	21.1	0.160	0.171	0.098	0.105	
			Edge 1	384+425	836.52+837.75	21.4	21.1	0.091	0.098	0.040	0.043	
			Edge 2	384+425	836.52+837.75	21.4	21.1	0.164	0.176	0.108	0.116	
			Edge 4	384+425	836.52+837.75	21.4	21.1	0.134	0.144	0.086	0.092	
LAT		5	Rear	384+425	836.52+837.75	21.7	21.7	0.184	0.184	0.121	0.121	
			Front	384+425	836.52+837.75	21.7	21.7	0.196	0.196	0.119	0.119	
			Edge 2	384+425	836.52+837.75	21.7	21.7	0.147	0.147	0.094	0.094	
			Edge 3	384+425	836.52+837.75	21.7	21.7	0.128	0.128	0.059	0.059	
			Edge 4	384+425	836.52+837.75	21.7	21.7	0.232	0.232	0.152	0.152	
UAT	1xEVDO (Rev. B) Three Carrier Mini.	5	Rear	384+425+466	836.52+837.75+838.98	21.4	21.1	0.154	0.165	0.100	0.107	
			Front	384+425+466	836.52+837.75+838.98	21.4	21.1	0.158	0.169	0.097	0.104	
			Edge 1	384+425+466	836.52+837.75+838.98	21.4	21.1	0.087	0.093	0.039	0.042	
			Edge 2	384+425+466	836.52+837.75+838.98	21.4	21.1	0.162	0.174	0.106	0.114	
			Edge 4	384+425+466	836.52+837.75+838.98	21.4	21.1	0.131	0.140	0.084	0.090	
LAT		5	Rear	384+425+466	836.52+837.75+838.98	21.7	21.6	0.172	0.176	0.114	0.117	
			Front	384+425+466	836.52+837.75+838.98	21.7	21.6	0.161	0.165	0.100	0.102	
			Edge 2	384+425+466	836.52+837.75+838.98	21.7	21.6	0.135	0.138	0.087	0.089	
			Edge 3	384+425+466	836.52+837.75+838.98	21.7	21.6	0.109	0.112	0.052	0.053	
			Edge 4	384+425+466	836.52+837.75+838.98	21.7	21.6	0.221	0.226	0.145	0.148	

11.7. CDMA BC1

11.7.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	20.1	20.0	0.302	0.309	0.156	0.160	
			Left Tilt	600	1880.0	20.1	20.0	0.287	0.294	0.143	0.146	
			Right Touch	25	1851.3	20.1	20.1	0.828	0.828	0.435	0.435	
				600	1880.0	20.1	20.0	0.947	0.969	0.518	0.530	
				1175	1908.8	20.1	20.1	0.980	0.980	0.539	0.539	
			Right Tilt	600	1880.0	20.1	20.0	0.734	0.751	0.356	0.364	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	20.1	20.0	0.325	0.333	0.171	0.175	
			Left Tilt	600	1880.0	20.1	20.0	0.292	0.299	0.145	0.148	
			Right Touch	25	1851.3	20.1	20.1	0.817	0.817	0.431	0.431	
				600	1880.0	20.1	20.0	0.850	0.870	0.452	0.463	
				1175	1908.8	20.1	20.0	0.893	0.914	0.477	0.488	
			Right Tilt	600	1880.0	20.1	20.0	0.732	0.749	0.338	0.346	
LAT	1xRTT (RC3 SO55)	0	Left Touch	600	1880.0	24.25	24.20	0.536	0.542	0.351	0.355	
			Left Tilt	600	1880.0	24.25	24.20	0.524	0.530	0.311	0.315	
			Right Touch	25	1851.3	24.25	24.10	0.868	0.899	0.542	0.561	
				600	1880.0	24.25	24.20	0.979	0.990	0.606	0.613	
				1175	1908.8	24.25	24.20	1.030	1.042	0.637	0.644	
			Right Tilt	600	1880.0	24.25	24.20	0.363	0.367	0.235	0.238	
	1xEVDO (Rel. 0)	0	Left Touch	600	1880.0	24.25	24.25	0.553	0.553	0.359	0.359	
			Left Tilt	600	1880.0	24.25	24.25	0.516	0.516	0.305	0.305	
			Right Touch	25	1851.3	24.25	24.25	0.957	0.957	0.605	0.605	
				600	1880.0	24.25	24.25	1.120	1.120	0.706	0.706	
				1175	1908.8	24.25	24.25	1.180	1.180	0.737	0.737	19
			Right Tilt	600	1880.0	24.25	24.25	0.532	0.532	0.343	0.343	

11.7.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	25	1851.3	23.3	23.2	0.813	0.832	0.395	0.404	
				600	1880.0	23.3	23.1	0.906	0.949	0.435	0.456	
				1175	1908.8	23.3	23.1	0.886	0.928	0.426	0.446	
			Front	25	1851.3	23.3	23.2	0.757	0.775	0.363	0.371	
				600	1880.0	23.3	23.1	0.841	0.881	0.403	0.422	
				1175	1908.8	23.3	23.1	0.948	0.993	0.452	0.473	20
	1xEVDO (Rel. 0)	5	Rear	25	1851.3	23.3	23.2	0.778	0.796	0.389	0.398	
				600	1880.0	23.3	23.2	0.862	0.882	0.426	0.436	
				1175	1908.8	23.3	23.2	0.829	0.848	0.414	0.424	
			Front	25	1851.3	23.3	23.2	0.810	0.829	0.390	0.399	
				600	1880.0	23.3	23.2	0.953	0.975	0.456	0.467	
				1175	1908.8	23.3	23.2	0.969	0.992	0.462	0.473	
LAT	1xRTT (RC3 SO32)	5	Rear	25	1851.3	18.5	18.5	0.941	0.941	0.456	0.456	
				600	1880.0	18.5	18.5	0.932	0.932	0.448	0.448	
				1175	1908.8	18.5	18.5	0.977	0.977	0.467	0.467	
			Front	600	1880.0	18.5	18.5	0.712	0.712	0.337	0.337	
	1xEVDO (Rel. 0)	5	Rear	25	1851.3	18.5	18.5	0.921	0.921	0.450	0.450	
				600	1880.0	18.5	18.5	0.949	0.949	0.464	0.464	
				1175	1908.8	18.5	18.5	0.984	0.984	0.481	0.481	
			Front	600	1880.0	18.5	18.5	0.650	0.650	0.314	0.314	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	25	1851.3	23.3	23.2	0.884	0.905	0.413	0.423	
				600	1880.0	23.3	23.1	0.898	0.940	0.398	0.417	
				1175	1908.8	23.3	23.1	0.804	0.842	0.366	0.383	
			Edge 2	600	1880.0	23.3	23.1	0.089	0.093	0.048	0.050	
			Edge 4	600	1880.0	23.3	23.1	0.625	0.654	0.345	0.361	
	1xEVDO (Rel. 0)	5	Edge 1	25	1851.3	23.3	23.2	0.860	0.880	0.383	0.392	
				600	1880.0	23.3	23.2	0.953	0.975	0.423	0.433	
				1175	1908.8	23.3	23.2	0.889	0.910	0.395	0.404	
			Edge 2	600	1880.0	23.3	23.2	0.086	0.088	0.046	0.047	
			Edge 4	600	1880.0	23.3	23.2	0.605	0.619	0.333	0.341	
LAT	1xRTT (RC3 SO32)	5	Edge 2	600	1880.0	18.5	18.5	0.467	0.467	0.257	0.257	
			Edge 3	600	1880.0	18.5	18.5	0.771	0.771	0.358	0.358	
			Edge 4	600	1880.0	18.5	18.5	0.108	0.108	0.058	0.058	
	1xEVDO (Rel. 0)	5	Edge 2	600	1880.0	18.5	18.5	0.437	0.437	0.242	0.242	
			Edge 3	600	1880.0	18.5	18.5	0.774	0.774	0.357	0.357	
			Edge 4	600	1880.0	18.5	18.5	0.110	0.110	0.060	0.060	

11.8. CDMA BC10

11.8.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	24.7	24.6	0.617	0.631	0.410	0.420	21
			Left Tilt	580	820.5	24.7	24.6	0.507	0.519	0.284	0.291	
			Right Touch	580	820.5	24.7	24.6	0.557	0.570	0.359	0.367	
			Right Tilt	580	820.5	24.7	24.6	0.387	0.396	0.226	0.231	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	24.7	24.5	0.616	0.645	0.409	0.428	
			Left Tilt	580	820.5	24.7	24.5	0.472	0.494	0.260	0.272	
			Right Touch	580	820.5	24.7	24.5	0.556	0.582	0.354	0.371	
			Right Tilt	580	820.5	24.7	24.5	0.365	0.382	0.213	0.223	
LAT	1xRTT (RC3 SO55)	0	Left Touch	580	820.5	25.0	25.0	0.395	0.395	0.302	0.302	
			Left Tilt	580	820.5	25.0	25.0	0.182	0.182	0.142	0.142	
			Right Touch	580	820.5	25.0	25.0	0.330	0.330	0.244	0.244	
			Right Tilt	580	820.5	25.0	25.0	0.193	0.193	0.150	0.150	
	1xEVDO (Rel. 0)	0	Left Touch	580	820.5	25.0	25.0	0.392	0.392	0.299	0.299	
			Left Tilt	580	820.5	25.0	25.0	0.175	0.175	0.136	0.136	
			Right Touch	580	820.5	25.0	25.0	0.311	0.311	0.230	0.230	
			Right Tilt	580	820.5	25.0	25.0	0.183	0.183	0.142	0.142	

11.8.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	580	820.5	24.7	24.6	0.316	0.323	0.198	0.203	
			Front	580	820.5	24.7	24.6	0.337	0.345	0.268	0.274	
	1xEVDO (Rel. 0)	5	Rear	580	820.5	24.7	24.6	0.313	0.320	0.196	0.201	
			Front	580	820.5	24.7	24.6	0.295	0.302	0.200	0.205	
LAT	1xRTT (RC3 SO32)	5	Rear	580	820.5	25.0	25.0	0.547	0.547	0.366	0.366	
			Front	580	820.5	25.0	25.0	0.616	0.616	0.363	0.363	22
	1xEVDO (Rel. 0)	5	Rear	580	820.5	25.0	25.0	0.545	0.545	0.361	0.361	
			Front	580	820.5	25.0	25.0	0.585	0.585	0.347	0.347	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	580	820.5	24.7	24.6	0.136	0.139	0.063	0.064	
			Edge 2	580	820.5	24.7	24.6	0.508	0.520	0.335	0.343	
			Edge 4	580	820.5	24.7	24.6	0.170	0.174	0.111	0.114	
	1xEVDO (Rel. 0)	5	Edge 1	580	820.5	24.7	24.6	0.136	0.139	0.063	0.064	
			Edge 2	580	820.5	24.7	24.6	0.495	0.507	0.328	0.336	
			Edge 4	580	820.5	24.7	24.6	0.136	0.139	0.091	0.093	
LAT	1xRTT (RC3 SO32)	5	Edge 2	580	820.5	25.0	25.0	0.308	0.308	0.204	0.204	
			Edge 3	580	820.5	25.0	25.0	0.374	0.374	0.178	0.178	
			Edge 4	580	820.5	25.0	25.0	0.657	0.657	0.437	0.437	23
	1xEVDO (Rel. 0)	5	Edge 2	580	820.5	25.0	25.0	0.306	0.306	0.200	0.200	
			Edge 3	580	820.5	25.0	25.0	0.343	0.343	0.166	0.166	
			Edge 4	580	820.5	25.0	25.0	0.656	0.656	0.437	0.437	

11.9. CDMA BC15

11.9.1. Head

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	19.9	19.9	0.350	0.350	0.191	0.191	
			Left Tilt	450	1732.5	19.9	19.9	0.393	0.393	0.214	0.214	
			Right Touch	25	1711.3	19.9	19.9	0.884	0.884	0.460	0.460	
				450	1732.5	19.9	19.9	0.845	0.845	0.438	0.438	
				875	1753.8	19.9	19.9	0.809	0.809	0.420	0.420	
			Right Tilt	450	1732.5	19.9	19.9	0.596	0.596	0.299	0.299	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	19.9	19.9	0.346	0.346	0.189	0.189	
			Left Tilt	450	1732.5	19.9	19.9	0.383	0.383	0.207	0.207	
			Right Touch	25	1711.3	19.9	19.9	0.875	0.875	0.455	0.455	
				450	1732.5	19.9	19.9	0.842	0.842	0.437	0.437	
				875	1753.8	19.9	19.9	0.799	0.799	0.415	0.415	
			Right Tilt	450	1732.5	19.9	19.9	0.592	0.592	0.296	0.296	
LAT	1xRTT (RC3 SO55)	0	Left Touch	450	1732.5	25.0	25.0	0.319	0.319	0.220	0.220	
			Left Tilt	450	1732.5	25.0	25.0	0.321	0.321	0.204	0.204	
			Right Touch	450	1732.5	25.0	25.0	0.765	0.765	0.490	0.490	
			Right Tilt	450	1732.5	25.0	25.0	0.366	0.366	0.226	0.226	
	1xEVDO (Rel. 0)	0	Left Touch	450	1732.5	25.0	24.7	0.318	0.341	0.220	0.236	
			Left Tilt	450	1732.5	25.0	24.7	0.320	0.343	0.204	0.219	
			Right Touch	25	1711.3	25.0	24.9	0.618	0.632	0.400	0.409	
				450	1732.5	25.0	24.7	0.748	0.801	0.481	0.515	
				875	1753.8	25.0	24.8	0.888	0.930	0.569	0.596	24
			Right Tilt	450	1732.5	25.0	24.7	0.347	0.372	0.220	0.236	

11.9.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Rear	25	1711.3	23.1	23.1	0.969	0.969	0.482	0.482	
				450	1732.5	23.1	23.1	0.860	0.860	0.428	0.428	
				875	1753.8	23.1	23.1	0.874	0.874	0.432	0.432	
			Front	25	1711.3	23.1	23.1	0.997	0.997	0.479	0.479	25
				450	1732.5	23.1	23.1	0.947	0.947	0.458	0.458	
				875	1753.8	23.1	23.1	0.990	0.990	0.471	0.471	
	1xEVDO (Rel. 0)	5	Rear	25	1711.3	23.1	23.1	0.880	0.880	0.446	0.446	
				450	1732.5	23.1	23.1	0.816	0.816	0.413	0.413	
				875	1753.8	23.1	23.1	0.862	0.862	0.424	0.424	
			Front	25	1711.3	23.1	23.1	0.994	0.994	0.483	0.483	
				450	1732.5	23.1	23.1	0.922	0.922	0.447	0.447	
				875	1753.8	23.1	23.1	0.873	0.873	0.417	0.417	
LAT	1xRTT (RC3 SO32)	5	Rear	25	1711.3	19.0	19.0	0.755	0.755	0.376	0.376	
				450	1732.5	19.0	19.0	0.843	0.843	0.419	0.419	
				875	1753.8	19.0	19.0	0.917	0.917	0.456	0.456	
			Front	25	1711.3	19.0	19.0	0.816	0.816	0.438	0.438	
				450	1732.5	19.0	19.0	0.859	0.859	0.448	0.448	
				875	1753.8	19.0	19.0	0.921	0.921	0.466	0.466	
	1xEVDO (Rel. 0)	5	Rear	450	1732.5	19.0	19.0	0.797	0.797	0.395	0.395	
			Front	450	1732.5	19.0	19.0	0.760	0.760	0.402	0.402	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
UAT	1xRTT (RC3 SO32)	5	Edge 1	25	1711.3	23.1	23.1	0.970	0.970	0.467	0.467	
				450	1732.5	23.1	23.1	0.983	0.983	0.463	0.463	
				875	1753.8	23.1	23.1	0.842	0.842	0.389	0.389	
			Edge 2	450	1732.5	23.1	23.1	0.025	0.025	0.015	0.015	
			Edge 4	450	1732.5	23.1	23.1	0.564	0.564	0.314	0.314	
	1xEVDO (Rel. 0)	5	Edge 1	25	1711.3	23.1	23.1	0.945	0.945	0.438	0.438	
				450	1732.5	23.1	23.1	0.876	0.876	0.406	0.406	
				875	1753.8	23.1	23.1	0.811	0.811	0.387	0.387	
			Edge 2	450	1732.5	23.1	23.1	0.024	0.024	0.014	0.014	
			Edge 4	450	1732.5	23.1	23.1	0.556	0.556	0.310	0.310	
LAT	1xRTT (RC3 SO32)	5	Edge 2	450	1732.5	19.0	19.0	0.465	0.465	0.259	0.259	
			Edge 3	25	1711.3	19.0	19.0	0.983	0.983	0.480	0.480	
				450	1732.5	19.0	19.0	0.945	0.945	0.463	0.463	
				875	1753.8	19.0	19.0	1.020	1.020	0.491	0.491	26
			Edge 4	450	1732.5	19.0	19.0	0.049	0.049	0.028	0.028	
	1xEVDO (Rel. 0)	5	Edge 2	450	1732.5	19.0	19.0	0.434	0.434	0.242	0.242	
			Edge 3	25	1711.3	19.0	19.0	0.891	0.891	0.441	0.441	
				450	1732.5	19.0	19.0	0.880	0.880	0.435	0.435	
				875	1753.8	19.0	19.0	0.916	0.916	0.449	0.449	
			Edge 4	450	1732.5	19.0	19.0	0.047	0.047	0.027	0.027	

11.10. LTE Band 2 (20MHz Bandwidth)

11.10.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	18900	1880.0	1	49	20.1	20.1	0.369	0.369	0.192	0.192	
						50	24	19.1	19.1	0.289	0.289	0.150	0.150	
			Left Tilt	18900	1880.0	1	49	20.1	20.1	0.357	0.357	0.174	0.174	
						50	24	19.1	19.1	0.286	0.286	0.139	0.139	
			Right Touch	18700	1860.0	1	49	20.1	20.0	0.940	0.962	0.490	0.501	
				18900	1880.0	1	49	20.1	20.1	0.969	0.969	0.504	0.504	
						50	24	19.1	19.1	0.792	0.792	0.411	0.411	
				19100	1900.0	1	49	20.1	20.0	0.930	0.952	0.482	0.493	
			Right Tilt	18900	1880.0	1	49	20.1	20.1	0.745	0.745	0.377	0.377	
						50	24	19.1	19.1	0.587	0.587	0.296	0.296	
LAT	QPSK	0	Left Touch	18900	1880.0	1	49	23.75	23.75	0.516	0.516	0.335	0.335	
						50	24	22.75	22.75	0.414	0.414	0.269	0.269	
			Left Tilt	18900	1880.0	1	49	23.75	23.75	0.485	0.485	0.280	0.280	
						50	24	22.75	22.75	0.385	0.385	0.221	0.221	
			Right Touch	18700	1860.0	1	49	23.75	23.30	0.817	0.906	0.507	0.562	
				18900	1880.0	1	49	23.75	23.75	0.975	0.975	0.600	0.600	27
						50	24	22.75	22.75	0.784	0.784	0.483	0.483	
				19100	1900.0	1	49	23.75	23.60	0.884	0.915	0.543	0.562	
			Right Tilt	18900	1880.0	1	49	23.75	23.75	0.473	0.473	0.293	0.293	
						50	24	22.75	22.75	0.387	0.387	0.240	0.240	

11.10.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	18700	1860.0	1	49	23.4	23.2	0.917	0.960	0.446	0.467	
				18900	1880.0	1	49	23.4	23.4	0.936	0.936	0.455	0.455	
						50	24	22.4	22.4	0.763	0.763	0.371	0.371	
				19100	1900.0	1	49	23.4	23.3	0.951	0.973	0.463	0.474	
			Front	18700	1860.0	1	49	23.4	23.2	0.829	0.868	0.404	0.423	
				18900	1880.0	1	49	23.4	23.4	0.820	0.820	0.401	0.401	
						50	24	22.4	22.4	0.663	0.663	0.324	0.324	
				19100	1900.0	1	49	23.4	23.2	0.851	0.891	0.417	0.437	
LAT	QPSK	5	Rear	18700	1860.0	1	49	18.5	18.4	1.010	1.034	0.483	0.494	
						50	24	17.5	17.0	0.781	0.876	0.372	0.417	
				18900	1880.0	1	49	18.5	18.5	1.050	1.050	0.505	0.505	
						50	24	17.5	17.0	0.797	0.894	0.383	0.430	
						100	0	17.5	17.0	0.682	0.765	0.327	0.367	
				19100	1900.0	1	49	18.5	18.5	1.140	1.140	0.540	0.540	28
						50	24	17.5	17.0	0.685	0.769	0.328	0.368	
			Front	18700	1860.0	1	49	18.5	18.4	0.819	0.838	0.382	0.391	
				18900	1880.0	1	49	18.5	18.5	0.877	0.877	0.406	0.406	
						50	24	17.5	17.0	0.644	0.723	0.298	0.334	
				19100	1900.0	1	49	18.5	18.5	0.856	0.856	0.400	0.400	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	18700	1860.0	1	49	23.4	23.2	0.930	0.974	0.425	0.445	
				18900	1880.0	1	49	23.4	23.4	0.976	0.976	0.447	0.447	
						50	24	22.4	22.4	0.780	0.780	0.357	0.357	
				19100	1900.0	1	49	23.4	23.2	0.824	0.863	0.376	0.394	
			Edge 2	18900	1880.0	1	49	23.4	23.4	0.073	0.073	0.041	0.041	
						50	24	22.4	22.4	0.056	0.056	0.030	0.030	
			Edge 4	18900	1880.0	1	49	23.4	23.4	0.622	0.622	0.342	0.342	
						50	24	22.4	22.4	0.384	0.384	0.211	0.211	
LAT	QPSK	5	Edge 2	18900	1880.0	1	49	18.5	18.5	0.369	0.369	0.203	0.203	
						50	24	17.5	17.0	0.273	0.306	0.150	0.168	
			Edge 3	18900	1880.0	1	49	18.5	18.5	0.659	0.659	0.300	0.300	
						50	24	17.5	17.0	0.497	0.558	0.225	0.252	
			Edge 4	18900	1880.0	1	49	18.5	18.5	0.102	0.102	0.057	0.057	
						50	24	17.5	17.0	0.076	0.085	0.042	0.047	

11.11. LTE Band 4 (20MHz Bandwidth)

11.11.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	20175	1732.5	1	49	19.9	19.9	0.325	0.325	0.179	0.179	
						50	24	18.9	18.9	0.251	0.251	0.136	0.136	
			Left Tilt	20175	1732.5	1	49	19.9	19.9	0.375	0.375	0.208	0.208	
						50	24	18.9	18.9	0.292	0.292	0.162	0.162	
			Right Touch	20050	1720.0	1	49	19.9	19.8	0.975	0.998	0.510	0.522	29
				20175	1732.5	1	49	19.9	19.9	0.968	0.968	0.504	0.504	
						50	24	18.9	18.9	0.747	0.747	0.388	0.388	
				20300	1745.0	1	49	19.9	19.9	0.940	0.940	0.489	0.489	
			Right Tilt	20175	1732.5	1	49	19.9	19.9	0.684	0.684	0.349	0.349	
						50	24	18.9	18.9	0.534	0.534	0.270	0.270	
LAT	QPSK	0	Left Touch	20175	1732.5	1	49	24.0	24.0	0.252	0.252	0.172	0.172	
						50	24	23.0	23.0	0.189	0.189	0.130	0.130	
			Left Tilt	20175	1732.5	1	49	24.0	24.0	0.220	0.220	0.140	0.140	
						50	24	23.0	23.0	0.182	0.182	0.115	0.115	
			Right Touch	20175	1732.5	1	49	24.0	24.0	0.645	0.645	0.410	0.410	
						50	24	23.0	23.0	0.499	0.499	0.318	0.318	
			Right Tilt	20175	1732.5	1	49	24.0	24.0	0.194	0.194	0.125	0.125	
						50	24	23.0	23.0	0.150	0.150	0.096	0.096	

11.11.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	20050	1720.0	1	49	23.1	23.1	0.980	0.980	0.492	0.492	
						50	24	22.1	22.1	0.784	0.784	0.392	0.392	
				20175	1732.5	1	49	23.1	23.1	0.995	0.995	0.494	0.494	
						50	24	22.1	22.1	0.829	0.829	0.410	0.410	
						100	0	22.1	22.1	0.757	0.757	0.379	0.379	
				20300	1745.0	1	49	23.1	23.0	0.923	0.944	0.461	0.472	
						50	24	22.1	22.0	0.747	0.764	0.372	0.381	
			Front	20050	1720.0	1	49	23.1	23.1	0.963	0.963	0.473	0.473	
				20175	1732.5	1	49	23.1	23.1	0.984	0.984	0.476	0.476	
						50	24	22.1	22.1	0.794	0.794	0.383	0.383	
				20300	1745.0	1	49	23.1	23.0	0.889	0.910	0.435	0.445	
LAT	QPSK	5	Rear	20050	1720.0	1	49	19.0	19.0	0.960	0.960	0.469	0.469	
				20175	1732.5	1	49	19.0	19.0	1.020	1.020	0.497	0.497	
						50	24	18.0	18.0	0.791	0.791	0.383	0.383	
				20300	1745.0	1	49	19.0	19.0	1.100	1.100	0.532	0.532	30
			Front	20050	1720.0	1	49	19.0	19.0	0.663	0.663	0.359	0.359	
				20175	1732.5	1	49	19.0	19.0	0.829	0.829	0.435	0.435	
						50	24	18.0	18.0	0.638	0.638	0.334	0.334	
				20300	1745.0	1	49	19.0	19.0	0.749	0.749	0.393	0.393	
SAR Measurement Variability														
LAT	QPSK	5	Rear	20300	1745	1	49	19.0	19.0	1.040	1.040	0.505	0.505	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	20050	1720.0	1	49	23.1	23.1	0.979	0.979	0.472	0.472	
				20175	1732.5	1	49	23.1	23.1	0.930	0.930	0.448	0.448	
						50	24	22.1	22.1	0.737	0.737	0.353	0.353	
				20300	1745.0	1	49	23.1	23.0	0.879	0.899	0.421	0.431	
			Edge 2	20175	1732.5	1	49	23.1	23.1	0.033	0.033	0.020	0.020	
						50	24	22.1	22.1	0.027	0.027	0.016	0.016	
			Edge 4	20175	1732.5	1	49	23.1	23.1	0.667	0.667	0.372	0.372	
						50	24	22.1	22.1	0.540	0.540	0.301	0.301	
LAT	QPSK	5	Edge 2	20175	1732.5	1	49	19.0	19.0	0.423	0.423	0.236	0.236	
						50	24	18.0	17.9	0.324	0.332	0.180	0.184	
			Edge 3	20050	1720.0	1	49	19.0	19.0	0.850	0.850	0.418	0.418	
				20175	1732.5	1	49	19.0	19.0	0.855	0.855	0.420	0.420	
						50	24	18.0	17.9	0.669	0.685	0.327	0.335	
				20300	1745.0	1	49	19.0	19.0	0.895	0.895	0.437	0.437	
			Edge 4	20175	1732.5	1	49	19.0	19.0	0.045	0.045	0.026	0.026	
						50	24	18.0	17.9	0.035	0.036	0.020	0.020	

11.12. LTE Band 5 (10MHz Bandwidth)

11.12.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	20525	836.6	1	24	23.7	23.7	0.592	0.592	0.390	0.390	
						25	12	22.7	22.7	0.468	0.468	0.310	0.310	
			Left Tilt	20525	836.6	1	24	23.7	23.7	0.485	0.485	0.280	0.280	
						25	12	22.7	22.7	0.378	0.378	0.218	0.218	
			Right Touch	20525	836.6	1	24	23.7	23.7	0.612	0.612	0.380	0.380	31
						25	12	22.7	22.7	0.476	0.476	0.295	0.295	
			Right Tilt	20525	836.6	1	24	23.7	23.7	0.326	0.326	0.185	0.185	
						25	12	22.7	22.7	0.254	0.254	0.144	0.144	
LAT	QPSK	0	Left Touch	20525	836.6	1	24	24.0	24.0	0.288	0.288	0.220	0.220	
						25	12	23.0	23.0	0.219	0.219	0.168	0.168	
			Left Tilt	20525	836.6	1	24	24.0	24.0	0.150	0.150	0.115	0.115	
						25	12	23.0	23.0	0.115	0.115	0.088	0.088	
			Right Touch	20525	836.6	1	24	24.0	24.0	0.230	0.230	0.177	0.177	
						25	12	23.0	23.0	0.175	0.175	0.134	0.134	
			Right Tilt	20525	836.6	1	24	24.0	24.0	0.163	0.163	0.123	0.123	
						25	12	23.0	23.0	0.125	0.125	0.095	0.095	

11.12.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	20525	836.6	1	24	23.7	23.7	0.243	0.243	0.152	0.152	
						25	12	22.7	22.7	0.210	0.210	0.130	0.130	
			Front	20525	836.6	1	24	23.7	23.7	0.236	0.236	0.140	0.140	
						25	12	22.7	22.7	0.224	0.224	0.132	0.132	
LAT	QPSK	5	Rear	20525	836.6	1	24	24.0	24.0	0.372	0.372	0.244	0.244	
						25	12	23.0	23.0	0.289	0.289	0.189	0.189	
			Front	20525	836.6	1	24	24.0	24.0	0.437	0.437	0.250	0.250	32
						25	12	23.0	23.0	0.339	0.339	0.193	0.193	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	20525	836.6	1	24	23.7	23.7	0.134	0.134	0.060	0.060	
						25	12	22.7	22.7	0.115	0.115	0.051	0.051	
			Edge 2	20525	836.6	1	24	23.7	23.7	0.342	0.342	0.223	0.223	
						25	12	22.7	22.7	0.320	0.320	0.209	0.209	
			Edge 4	20525	836.6	1	24	23.7	23.7	0.219	0.219	0.142	0.142	
						25	12	22.7	22.7	0.172	0.172	0.111	0.111	
LAT	QPSK	5	Edge 2	20525	836.6	1	24	24.0	24.0	0.249	0.249	0.162	0.162	
						25	12	23.0	23.0	0.196	0.196	0.126	0.126	
			Edge 3	20525	836.6	1	24	24.0	24.0	0.258	0.258	0.122	0.122	
						25	12	23.0	23.0	0.211	0.211	0.100	0.100	
			Edge 4	20525	836.6	1	24	24.0	24.0	0.638	0.638	0.415	0.415	33
						25	12	23.0	23.0	0.493	0.493	0.320	0.320	

11.13. LTE Band 13 (10MHz Bandwidth)

11.13.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	23230	782.0	1	24	23.7	23.7	0.543	0.543	0.356	0.356	34
						25	12	22.7	22.7	0.443	0.443	0.291	0.291	
			Left Tilt	23230	782.0	1	24	23.7	23.7	0.407	0.407	0.253	0.253	
						25	12	22.7	22.7	0.342	0.342	0.210	0.210	
			Right Touch	23230	782.0	1	24	23.7	23.7	0.482	0.482	0.295	0.295	
						25	12	22.7	22.7	0.391	0.391	0.237	0.237	
			Right Tilt	23230	782.0	1	24	23.7	23.7	0.378	0.378	0.221	0.221	
						25	12	22.7	22.7	0.308	0.308	0.180	0.180	
LAT	QPSK	0	Left Touch	23230	782.0	1	24	24.0	24.0	0.360	0.360	0.277	0.277	
						25	12	23.0	23.0	0.291	0.291	0.224	0.224	
			Left Tilt	23230	782.0	1	24	24.0	24.0	0.211	0.211	0.164	0.164	
						25	12	23.0	23.0	0.169	0.169	0.131	0.131	
			Right Touch	23230	782.0	1	24	24.0	24.0	0.291	0.291	0.221	0.221	
						25	12	23.0	23.0	0.238	0.238	0.180	0.180	
			Right Tilt	23230	782.0	1	24	24.0	24.0	0.200	0.200	0.156	0.156	
						25	12	23.0	23.0	0.156	0.156	0.122	0.122	

11.13.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	23230	782.0	1	24	23.7	23.7	0.251	0.251	0.148	0.148	
						25	12	22.7	22.7	0.203	0.203	0.120	0.120	
			Front	23230	782.0	1	24	23.7	23.7	0.252	0.252	0.150	0.150	
						25	12	22.7	22.7	0.202	0.202	0.120	0.120	
LAT	QPSK	5	Rear	23230	782.0	1	24	24.0	24.0	0.525	0.525	0.380	0.380	
						25	12	23.0	23.0	0.431	0.431	0.311	0.311	
			Front	23230	782.0	1	24	24.0	24.0	0.528	0.528	0.338	0.338	35
						25	12	23.0	23.0	0.430	0.430	0.275	0.275	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	23230	782.0	1	24	23.7	23.7	0.170	0.170	0.078	0.078	
						25	12	22.7	22.7	0.132	0.132	0.061	0.061	
			Edge 2	23230	782.0	1	24	23.7	23.7	0.384	0.384	0.252	0.252	
						25	12	22.7	22.7	0.312	0.312	0.205	0.205	
			Edge 4	23230	782.0	1	24	23.7	23.7	0.253	0.253	0.166	0.166	
						25	12	22.7	22.7	0.206	0.206	0.135	0.135	
LAT	QPSK	5	Edge 2	23230	782.0	1	24	24.0	24.0	0.388	0.388	0.254	0.254	
						25	12	23.0	23.0	0.384	0.384	0.250	0.250	
			Edge 3	23230	782.0	1	24	24.0	24.0	0.386	0.386	0.181	0.181	
						25	12	23.0	23.0	0.300	0.300	0.141	0.141	
			Edge 4	23230	782.0	1	24	24.0	24.0	0.696	0.696	0.459	0.459	36
						25	12	23.0	23.0	0.571	0.571	0.376	0.376	

11.14. LTE Band 17 (10MHz Bandwidth)

11.14.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	23790	710.0	1	24	23.7	23.7	0.394	0.394	0.296	0.296	
						25	12	22.7	22.7	0.348	0.348	0.260	0.260	
			Left Tilt	23790	710.0	1	24	23.7	23.7	0.251	0.251	0.169	0.169	
						25	12	22.7	22.7	0.218	0.218	0.146	0.146	
			Right Touch	23790	710.0	1	24	23.7	23.7	0.471	0.471	0.293	0.293	
						25	12	22.7	22.7	0.377	0.377	0.235	0.235	
			Right Tilt	23790	710.0	1	24	23.7	23.7	0.473	0.473	0.273	0.273	37
						25	12	22.7	22.7	0.381	0.381	0.219	0.219	
LAT	QPSK	0	Left Touch	23790	710.0	1	24	24.0	24.0	0.198	0.198	0.154	0.154	
						25	12	23.0	23.0	0.162	0.162	0.126	0.126	
			Left Tilt	23790	710.0	1	24	24.0	24.0	0.109	0.109	0.084	0.084	
						25	12	23.0	23.0	0.086	0.086	0.067	0.067	
			Right Touch	23790	710.0	1	24	24.0	24.0	0.175	0.175	0.134	0.134	
						25	12	23.0	23.0	0.140	0.140	0.107	0.107	
			Right Tilt	23790	710.0	1	24	24.0	24.0	0.128	0.128	0.088	0.088	
						25	12	23.0	23.0	0.130	0.130	0.098	0.098	

11.14.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	23790	710.0	1	24	23.7	23.7	0.205	0.205	0.147	0.147	
						25	12	22.7	22.7	0.162	0.162	0.116	0.116	
			Front	23790	710.0	1	24	23.7	23.7	0.254	0.254	0.202	0.202	
						25	12	22.7	22.7	0.200	0.200	0.159	0.159	
LAT	QPSK	5	Rear	23790	710.0	1	24	24.0	24.0	0.347	0.347	0.241	0.241	
						25	12	23.0	23.0	0.275	0.275	0.190	0.190	
			Front	23790	710.0	1	24	24.0	24.0	0.368	0.368	0.216	0.216	38
						25	12	23.0	23.0	0.304	0.304	0.178	0.178	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	23790	710.0	1	24	23.7	23.7	0.075	0.075	0.037	0.037	
						25	12	22.7	22.7	0.058	0.058	0.029	0.029	
			Edge 2	23790	710.0	1	24	23.7	23.7	0.272	0.272	0.182	0.182	
						25	12	22.7	22.7	0.217	0.217	0.145	0.145	
			Edge 4	23790	710.0	1	24	23.7	23.7	0.234	0.234	0.156	0.156	
						25	12	22.7	22.7	0.183	0.183	0.122	0.122	
LAT	QPSK	5	Edge 2	23790	710.0	1	24	24.0	24.0	0.249	0.249	0.167	0.167	
						25	12	23.0	23.0	0.207	0.207	0.139	0.139	
			Edge 3	23790	710.0	1	24	24.0	24.0	0.257	0.257	0.126	0.126	
						25	12	23.0	23.0	0.170	0.170	0.085	0.085	
			Edge 4	23790	710.0	1	24	24.0	24.0	0.516	0.516	0.347	0.347	39
						25	12	23.0	23.0	0.404	0.404	0.272	0.272	

11.15. LTE Band 25 (20MHz Bandwidth)

11.15.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	26365	1882.5	1	49	20.1	20.1	0.392	0.392	0.203	0.203	
						50	24	19.1	19.1	0.312	0.312	0.160	0.160	
			Left Tilt	26365	1882.5	1	49	20.1	20.1	0.367	0.367	0.190	0.190	
						50	24	19.1	19.1	0.294	0.294	0.151	0.151	
			Right Touch	26140	1860.0	1	49	20.1	19.9	0.909	0.952	0.471	0.493	
				26365	1882.5	1	49	20.1	20.1	0.887	0.887	0.462	0.462	
						50	24	19.1	19.1	0.716	0.716	0.372	0.372	
				26590	1905.0	1	49	20.1	19.9	0.926	0.970	0.491	0.514	40
			Right Tilt	26365	1882.5	1	49	20.1	20.1	0.747	0.747	0.378	0.378	
						50	24	19.1	19.1	0.608	0.608	0.308	0.308	
LAT	QPSK	0	Left Touch	26365	1882.5	1	49	23.5	23.5	0.627	0.627	0.408	0.408	
						50	24	22.5	22.5	0.509	0.509	0.330	0.330	
			Left Tilt	26365	1882.5	1	49	23.5	23.5	0.509	0.509	0.308	0.308	
						50	24	22.5	22.5	0.409	0.409	0.247	0.247	
			Right Touch	26140	1860.0	1	49	23.5	23.5	0.926	0.926	0.586	0.586	
				26365	1882.5	1	49	23.5	23.5	0.967	0.967	0.605	0.605	
						50	24	22.5	22.5	0.777	0.777	0.485	0.485	
				26590	1905.0	1	49	23.5	23.4	0.910	0.931	0.565	0.578	
			Right Tilt	26365	1882.5	1	49	23.5	23.5	0.487	0.487	0.294	0.294	
						50	24	22.5	22.5	0.420	0.420	0.251	0.251	

11.15.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	26140	1860.0	1	49	23.4	23.2	0.809	0.847	0.399	0.418	
				26365	1882.5	1	49	23.4	23.4	0.912	0.912	0.443	0.443	
						50	24	22.4	22.4	0.750	0.750	0.368	0.368	
				26590	1905.0	1	49	23.4	23.4	0.973	0.973	0.472	0.472	
			Front	26140	1860.0	1	49	23.4	23.2	0.927	0.971	0.444	0.465	
				26365	1882.5	1	49	23.4	23.4	0.924	0.924	0.445	0.445	
						50	24	22.4	22.4	0.778	0.778	0.375	0.375	
				26590	1905.0	1	49	23.4	23.4	0.958	0.958	0.462	0.462	
LAT	QPSK	5	Rear	26140	1860.0	1	49	18.5	18.5	1.000	1.000	0.467	0.467	
						50	24	17.5	17.5	0.749	0.749	0.348	0.348	
				26365	1882.5	1	49	18.5	18.5	1.080	1.080	0.511	0.511	41
						50	24	17.5	17.5	0.806	0.806	0.381	0.381	
						100	0	17.5	17.5	0.806	0.806	0.382	0.382	
				26590	1905.0	1	49	18.5	18.5	1.040	1.040	0.481	0.481	
						50	24	17.5	17.5	0.794	0.794	0.366	0.366	
			Front	26140	1860.0	1	49	18.5	18.5	0.795	0.795	0.376	0.376	
				26365	1882.5	1	49	18.5	18.5	0.874	0.874	0.406	0.406	
						50	24	17.5	17.5	0.588	0.588	0.274	0.274	
				26590	1905.0	1	49	18.5	18.5	0.766	0.766	0.361	0.361	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	26140	1860.0	1	49	23.4	23.2	0.909	0.952	0.416	0.436	
				26365	1882.5	1	49	23.4	23.4	0.913	0.913	0.420	0.420	
						50	24	22.4	22.4	0.797	0.797	0.362	0.362	
				26590	1905.0	1	49	23.4	23.4	0.933	0.933	0.418	0.418	
			Edge 2	26365	1882.5	1	49	23.4	23.4	0.061	0.061	0.033	0.033	
						50	24	22.4	22.4	0.053	0.053	0.029	0.029	
			Edge 4	26365	1882.5	1	49	23.4	23.4	0.482	0.482	0.267	0.267	
						50	24	22.4	22.4	0.414	0.414	0.231	0.231	
LAT	QPSK	5	Edge 2	26365	1882.5	1	49	18.5	18.5	0.432	0.432	0.236	0.236	
						50	24	17.5	17.5	0.318	0.318	0.174	0.174	
			Edge 3	26365	1882.5	1	49	18.5	18.5	0.757	0.757	0.342	0.342	
						50	24	17.5	17.5	0.565	0.565	0.254	0.254	
			Edge 4	26365	1882.5	1	49	18.5	18.5	0.103	0.103	0.057	0.057	
						50	24	17.5	17.5	0.076	0.076	0.042	0.042	

11.16. LTE Band 26 (10MHz Bandwidth)

12.16.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	26740	819.0	1	24	23.0	23.0	0.421	0.421	0.274	0.274	
						25	12	22.0	22.0	0.349	0.349	0.227	0.227	
			Left Tilt	26740	819.0	1	24	23.0	23.0	0.318	0.318	0.188	0.188	
						25	12	22.0	22.0	0.261	0.261	0.155	0.155	
			Right Touch	26740	819.0	1	24	23.0	23.0	0.464	0.464	0.295	0.295	42
						25	12	22.0	22.0	0.382	0.382	0.243	0.243	
			Right Tilt	26740	819.0	1	24	23.0	23.0	0.264	0.264	0.155	0.155	
						25	12	22.0	22.0	0.219	0.219	0.129	0.129	
LAT	QPSK	0	Left Touch	26740	819.0	1	24	23.0	23.0	0.159	0.159	0.122	0.122	
						25	12	22.0	22.0	0.127	0.127	0.098	0.098	
			Left Tilt	26740	819.0	1	24	23.0	23.0	0.101	0.101	0.078	0.078	
						25	12	22.0	22.0	0.082	0.082	0.063	0.063	
			Right Touch	26740	819.0	1	24	23.0	23.0	0.134	0.134	0.103	0.103	
						25	12	22.0	22.0	0.106	0.106	0.082	0.082	
			Right Tilt	26740	819.0	1	24	23.0	23.0	0.102	0.102	0.079	0.079	
						25	12	22.0	22.0	0.083	0.083	0.064	0.064	

12.16.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	26740	819.0	1	24	23.0	23.0	0.179	0.179	0.115	0.115	
						25	12	22.0	22.0	0.147	0.147	0.095	0.095	
			Front	26740	819.0	1	24	23.0	23.0	0.201	0.201	0.158	0.158	
						25	12	22.0	22.0	0.165	0.165	0.130	0.130	
LAT	QPSK	5	Rear	26740	819.0	1	24	23.0	23.0	0.227	0.227	0.153	0.153	43
						25	12	22.0	22.0	0.186	0.186	0.125	0.125	
			Front	26740	819.0	1	24	23.0	23.0	0.210	0.210	0.134	0.134	
						25	12	22.0	22.0	0.178	0.178	0.113	0.113	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	26740	819.0	1	24	23.0	23.0	0.095	0.095	0.429	0.429	
						25	12	22.0	22.0	0.080	0.080	0.354	0.354	
			Edge 2	26740	819.0	1	24	23.0	23.0	0.294	0.294	0.194	0.194	
						25	12	22.0	22.0	0.245	0.245	0.161	0.161	
			Edge 4	26740	819.0	1	24	23.0	23.0	0.202	0.202	0.132	0.132	
						25	12	22.0	22.0	0.165	0.165	0.107	0.107	
LAT	QPSK	5	Edge 2	26740	819.0	1	24	23.0	23.0	0.170	0.170	0.111	0.111	
						25	12	22.0	22.0	0.137	0.137	0.090	0.090	
			Edge 3	26740	819.0	1	24	23.0	23.0	0.121	0.121	0.059	0.059	
						25	12	22.0	22.0	0.099	0.099	0.048	0.048	
			Edge 4	26740	819.0	1	24	23.0	23.0	0.370	0.370	0.243	0.243	44
						25	12	22.0	22.0	0.299	0.299	0.196	0.196	

11.17. LTE Band 41 (20MHz Bandwidth)

11.17.1. Head

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.5	0.316	0.316	0.133	0.133	
						50	24	21.5	21.5	0.295	0.295	0.123	0.123	
			Left Tilt	40620	2593.0	1	49	22.5	22.5	0.372	0.372	0.154	0.154	
						50	24	21.5	21.5	0.369	0.369	0.150	0.150	
			Right Touch	40620	2593.0	1	49	22.5	22.5	0.712	0.712	0.314	0.314	45
						50	24	21.5	21.5	0.627	0.627	0.281	0.281	
			Right Tilt	40620	2593.0	1	49	22.5	22.5	0.443	0.443	0.220	0.220	
						50	24	21.5	21.5	0.390	0.390	0.191	0.191	
LAT	QPSK	0	Left Touch	40620	2593.0	1	49	22.5	22.5	0.265	0.265	0.146	0.146	
						50	24	21.5	21.4	0.161	0.165	0.084	0.086	
			Left Tilt	40620	2593.0	1	49	22.5	22.5	0.090	0.090	0.040	0.040	
						50	24	21.5	21.4	0.087	0.089	0.033	0.034	
			Right Touch	40620	2593.0	1	49	22.5	22.5	0.501	0.501	0.267	0.267	
						50	24	21.5	21.4	0.408	0.418	0.216	0.221	
			Right Tilt	40620	2593.0	1	49	22.5	22.5	0.183	0.183	0.083	0.083	
						50	24	21.5	21.4	0.148	0.151	0.067	0.068	

11.17.2. Body-worn Accessory & Hotspot

Body-worn Accessory & Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Rear	39750	2506.0	1	49	22.5	22.5	0.843	0.843	0.340	0.340	
				40185	2549.5	1	49	22.5	22.5	0.903	0.903	0.361	0.361	
				40620	2593.0	1	49	22.5	22.5	0.979	0.979	0.384	0.384	
						50	24	21.5	21.5	0.756	0.756	0.301	0.301	
				41055	2636.5	1	49	22.5	22.5	0.967	0.967	0.368	0.368	
				41490	2680.0	1	49	22.5	22.4	0.916	0.937	0.335	0.343	
			Front	40620	2593.0	1	49	22.5	22.5	0.561	0.561	0.240	0.240	
						50	24	21.5	21.5	0.337	0.337	0.144	0.144	
LAT	QPSK	5	Rear	39750	2506.0	1	49	19.0	19.0	0.945	0.945	0.445	0.445	
						50	24	18.0	18.0	0.556	0.556	0.264	0.264	
				40185	2549.5	1	49	19.0	19.0	1.180	1.180	0.410	0.410	
						50	24	18.0	18.0	0.912	0.912	0.316	0.316	
				40620	2593.0	1	49	19.0	19.0	1.010	1.010	0.474	0.474	
						50	24	18.0	18.0	0.891	0.891	0.302	0.302	
						100	0	18.0	18.0	0.662	0.662	0.237	0.237	
				41055	2636.5	1	49	19.0	18.8	1.080	1.131	0.380	0.398	
						50	24	18.0	18.0	0.760	0.760	0.249	0.249	
				41490	2680.0	1	49	19.0	19.0	1.180	1.180	0.406	0.406	46
						50	24	18.0	18.0	0.889	0.889	0.300	0.300	
			Front	40620	2593.0	1	49	19.0	19.0	0.361	0.361	0.150	0.150	
						50	24	18.0	18.0	0.294	0.294	0.120	0.120	
SAR Measurement Variability														
LAT	QPSK	5	Rear	41490	2680	1	49	19.0	19.0	1.150	1.150	0.439	0.439	

Hotspot

Antenna	Mode	Dist. (mm)	Test Position	UL Ch #.	Freq. (MHz)	UL RB Allocation	UL RB Start	Tune-up Limit	Meas. Pwr (dBm)	1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
										Meas.	Scaled	Meas.	Scaled	
UAT	QPSK	5	Edge 1	40620	2593.0	1	49	22.5	22.5	0.265	0.265	0.113	0.113	
						50	24	21.5	21.5	0.225	0.225	0.096	0.096	
			Edge 2	40620	2593.0	1	49	22.5	22.5	0.136	0.136	0.062	0.062	
						50	24	21.5	21.5	0.039	0.039	0.016	0.016	
			Edge 4	40620	2593.0	1	49	22.5	22.5	0.265	0.265	0.127	0.127	
						50	24	21.5	21.5	0.226	0.226	0.108	0.108	
LAT	QPSK	5	Edge 2	40620	2593.0	1	49	19.0	19.0	0.328	0.328	0.147	0.147	
						50	24	18.0	18.0	0.235	0.235	0.108	0.108	
			Edge 3	40620	2593.0	1	49	19.0	19.0	0.509	0.509	0.215	0.215	
						50	24	18.0	18.0	0.314	0.314	0.137	0.137	
			Edge 4	40620	2593.0	1	49	19.0	19.0	0.269	0.269	0.125	0.125	
						50	24	18.0	18.0	0.168	0.168	0.075	0.075	

11.18. Wi-Fi 2.4GHz

11.18.1. Head (P_{Cell_ON})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11b	0	Left Touch	6	2437	15.0	14.9	0.306	0.313	0.128	0.131	
			Left Tilt	6	2437	15.0	14.9	0.336	0.344	0.141	0.144	
			Right Touch	6	2437	15.0	14.9	0.498	0.510	0.230	0.235	
			Right Tilt	6	2437	15.0	14.9	0.394	0.403	0.173	0.177	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	0	Right Touch	6	2437	15.0	15.0	0.498	0.498	0.233	0.233	
Variant 2	802.11b	0	Right Touch	6	2437	15.0	14.9	0.413	0.423	0.193	0.197	

11.18.2. Head (P_{Cell_OFF})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11b	0	Left Touch	6	2437	18.0	18.0	0.600	0.600	0.252	0.252	
			Left Tilt	6	2437	18.0	18.0	0.707	0.707	0.296	0.296	
			Right Touch	1	2412	18.0	18.0	0.803	0.803	0.380	0.380	
				6	2437	18.0	18.0	1.120	1.120	0.520	0.520	
				11	2462	18.0	18.0	1.150	1.150	0.532	0.532	47
			Right Tilt	1	2412	18.0	18.0	0.738	0.738	0.314	0.314	
				6	2437	18.0	18.0	0.850	0.850	0.368	0.368	
				11	2462	18.0	18.0	0.665	0.665	0.339	0.339	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	0	Right Touch	11	2462	18.0	18.0	1.010	1.010	0.469	0.469	
Variant 2	802.11b	0	Right Touch	11	2462	18.0	17.9	0.933	0.955	0.436	0.446	

11.18.3. Body-worn Accessory & Hotspot (P_{Cell_ON})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11b	5	Rear	6	2437	15.0	14.9	0.573	0.586	0.234	0.239	
			Front	6	2437	15.0	14.9	0.270	0.276	0.118	0.121	
			Edge 1	6	2437	15.0	14.9	0.279	0.285	0.124	0.127	
			Edge 2	6	2437	15.0	14.9	0.114	0.117	0.056	0.058	
			Edge 4	6	2437	15.0	14.9	0.272	0.278	0.131	0.134	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	5	Rear	6	2437	15.0	15.0	0.499	0.499	0.204	0.204	
Variant 2	802.11b	5	Rear	6	2437	15.0	14.9	0.492	0.503	0.203	0.208	

11.18.4. Body-worn Accessory & Hotspot (P_{Cell_OFF})

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11b	5	Rear	1	2412	18.0	18.0	0.908	0.908	0.368	0.368	
				6	2437	18.0	18.0	1.150	1.150	0.479	0.479	48
				11	2462	18.0	18.0	1.070	1.070	0.447	0.447	
			Front	6	2437	18.0	18.0	0.550	0.550	0.243	0.243	
			Edge 1	6	2437	18.0	18.0	0.608	0.608	0.276	0.276	
			Edge 2	6	2437	18.0	18.0	0.223	0.223	0.112	0.112	
			Edge 4	6	2437	18.0	18.0	0.650	0.650	0.314	0.314	
SAR Measurement Variability												
Variant 3	802.11b	5	Rear	6	2437	18.0	18.0	1.130	1.130	0.472	0.472	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11b	5	Rear	6	2437	18.0	18.0	0.971	0.971	0.404	0.404	
Variant 2	802.11b	5	Rear	6	2437	18.0	18.0	1.120	1.120	0.463	0.463	

11.19. Wi-Fi 5GHz

11.19.1. Head

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11a 6 Mbps	0	Left Touch	36	5180	12.0	12.0	0.164	0.164	0.054	0.054	
				52	5260	11.0	11.0	0.155	0.155	0.042	0.042	
				124	5620	9.0	9.0	0.219	0.219	0.060	0.060	
				157	5785	11.5	11.5	0.213	0.213	0.061	0.061	
			Left Tilt	36	5180	12.0	12.0	0.174	0.174	0.059	0.059	
				52	5260	11.0	11.0	0.183	0.183	0.051	0.051	
				124	5620	9.0	9.0	0.153	0.153	0.039	0.039	
				157	5785	11.5	11.5	0.189	0.189	0.056	0.056	
			Right Touch	36	5180	12.0	12.0	0.458	0.458	0.082	0.082	49
				52	5260	11.0	11.0	0.396	0.396	0.091	0.091	
				124	5620	9.0	9.0	0.351	0.351	0.074	0.074	
				157	5785	11.5	11.5	0.473	0.473	0.098	0.098	
			Right Tilt	36	5180	12.0	12.0	0.320	0.320	0.057	0.057	
				52	5260	11.0	11.0	0.362	0.362	0.083	0.083	
				124	5620	9.0	9.0	0.270	0.270	0.059	0.059	
				157	5785	11.5	11.5	0.490	0.490	0.102	0.102	50

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11a 6 Mbps	0	Right Touch	36	5180	12.0	12.0	0.371	0.371	0.091	0.091	
				52	5260	11.0	11.0	0.403	0.403	0.085	0.085	51
				124	5620	9.0	9.0	0.312	0.312	0.070	0.070	
			Right Tilt	157	5785	11.5	11.5	0.441	0.441	0.093	0.093	
Variant 2	802.11a 6 Mbps	0	Right Touch	36	5180	12.0	12.0	0.370	0.370	0.090	0.090	
				52	5260	11.0	11.0	0.378	0.378	0.087	0.087	
				124	5620	9.0	8.9	0.467	0.478	0.100	0.102	52
			Right Tilt	157	5785	11.5	11.5	0.423	0.423	0.109	0.109	

11.19.2. Body-worn Accessory & Airplay

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11a 6 Mbps	5	Rear	48	5240	18.0	17.9	0.311	0.318	0.082	0.084	
				52	5320	17.0	16.9	0.316	0.323	0.128	0.131	
				124	5580	14.5	14.5	0.239	0.239	0.061	0.061	
				157	5785	17.0	17.0	0.311	0.311	0.087	0.087	
			Front	48	5240	18.0	17.9	0.367	0.376	0.110	0.113	53
				52	5320	17.0	16.9	0.395	0.404	0.125	0.128	54
				124	5580	14.5	14.5	0.371	0.371	0.101	0.101	
				157	5785	17.0	17.0	0.385	0.385	0.116	0.116	55
			Edge 1	48	5240	18.0	17.9	0.192	0.196	0.066	0.068	
				52	5260	17.0	17.0	0.113	0.113	0.037	0.037	
				124	5620	14.5	14.5	0.112	0.112	0.035	0.035	
				157	5785	17.0	17.0	0.245	0.245	0.099	0.099	
			Edge 4	48	5240	18.0	17.9	0.250	0.256	0.078	0.080	
				52	5260	17.0	17.0	0.344	0.344	0.109	0.109	
				124	5620	14.5	14.5	0.137	0.137	0.043	0.043	
				157	5785	17.0	17.0	0.252	0.252	0.098	0.098	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	802.11a 6 Mbps	5	Front	48	5240	18.0	17.9	0.322	0.330	0.092	0.094	
				52	5260	17.0	17.0	0.331	0.331	0.087	0.087	
				124	5620	14.5	14.5	0.324	0.324	0.087	0.087	
				157	5785	17.0	17.0	0.378	0.378	0.121	0.121	
Variant 2	802.11a 6 Mbps	5	Front	48	5240	18.0	17.9	0.332	0.340	0.097	0.099	
				52	5260	17.0	17.0	0.334	0.334	0.112	0.112	
				124	5620	14.5	14.5	0.395	0.395	0.104	0.104	56
				157	5785	17.0	16.9	0.337	0.345	0.100	0.102	

11.19.3. 802.11ac Mode

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	802.11ac (20MHz)	0	Right Touch	48	5240	18.0	17.9	0.337	0.345	0.080	0.082	
				52	5260	17.0	17.0	0.359	0.359	0.082	0.082	
				104	5520	14.5	14.5	0.281	0.281	0.062	0.062	
			Right Tilt	157	5785	11.5	11.5	0.428	0.428	0.101	0.101	
		5	Front	48	5240	18.0	17.9	0.279	0.285	0.082	0.084	
				52	5260	17.0	17.0	0.275	0.275	0.080	0.080	
				116	5580	14.5	14.5	0.266	0.266	0.076	0.076	
				157	5785	17.0	16.9	0.264	0.270	0.083	0.085	

11.20. Bluetooth

11.20.1. Body-worn Accessory

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 3	GFSK	5	Rear	39	2441	12.0	12.0	0.080	0.080	0.033	0.033	
			Front	39	2441	12.0	12.0	0.031	0.031	0.013	0.013	

Worst Case Spot Check

Wi-Fi Variant	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)		Plot No.
						Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled	
Variant 1	GFSK	5	Rear	39	2441	12.0	12.0	0.078	0.078	0.030	0.030	
Variant 2	GFSK	5	Rear	39	2441	12.0	12.0	0.080	0.080	0.031	0.031	

Measured SAR Results for Model A1549

Testing for Model A1549 was performed on a spot check basis for the worst-case positions established from model A1586.

11.21. Worst Case Spot Check

Band	Antenna	Mode	Dist. (mm)	Test Position	Ch #.	Freq. (MHz)	Power (dBm)		1-g SAR (W/kg)		10-g SAR (W/kg)	
							Tune-up limit	Meas.	Meas.	Scaled	Meas.	Scaled
GSM850	UAT	GPRS 2 Slots	0	Left Touch	190	836.6	32.2	32.2	0.703	0.703	0.508	0.508
GSM1900	LAT	EGPRS 2 Slots	5	Rear	810	1909.8	26.8	26.8	1.140	1.140	0.554	0.554
W-CDMA Band V	LAT	Rel. 99 RMC	5	Edge 4	4183	836.6	25.0	25.0	0.812	0.812	0.530	0.530
W-CDMA Band IV	UAT	Rel. 99 RMC	5	Edge 1	1312	1712.4	23.1	23.1	0.963	0.963	0.474	0.474
W-CDMA Band II	LAT	Rel. 99 RMC	0	Right Touch	9400	1880.0	24.25	24.25	1.030	1.030	0.633	0.633
CDMA BC0	LAT	1xRTT RC3 SO32	5	Edge 4	777	848.3	25.0	24.7	0.822	0.881	0.536	0.574
CDMA BC1	LAT	1xEVDO Rel. 0	0	Right Touch	1175	1908.75	24.25	24.25	1.080	1.080	0.670	0.670
CDMA BC10	LAT	1xRTT RC3 SO32	0	Edge 4	580	820.5	25.0	25.0	0.598	0.598	0.387	0.387
CDMA BC15	LAT	1xRTT RC3 SO32	5	Edge 3	875	1753.75	19.0	19.0	0.920	0.920	0.442	0.442
LTE Band 2	LAT	QPSK, RB 1/49	0	Rear	19100	1900.0	18.5	18.5	1.040	1.040	0.633	0.633
LTE Band 4	LAT	QPSK, RB 1/49	5	Rear	20300	1745.0	19.0	19.0	0.942	0.942	0.456	0.456
LTE Band 5	LAT	QPSK, RB 1/24	5	Edge 4	20525	836.6	24.0	24.0	0.486	0.486	0.319	0.319
LTE Band 13	LAT	QPSK, RB 1/24	5	Edge 4	23230	782.0	24.0	24.0	0.695	0.695	0.462	0.462
LTE Band 17	LAT	QPSK, RB 1/24	5	Edge 4	23790	710.0	24.0	24.0	0.496	0.496	0.336	0.336
LTE Band 25	LAT	QPSK, RB 1/49	5	Rear	26365	1882.5	17.5	17.5	1.070	1.070	0.508	0.508
LTE Band 26	UAT	QPSK, RB 1/24	5	Right Touch	26740	819.0	23.0	23.0	0.466	0.466	0.306	0.306

12. SAR Measurement Variability

In accordance with published RF Exposure KDB procedure 865664 D01 SAR measurement 100 MHz to 6 GHz v01. These additional measurements are repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device should be returned to ambient conditions (normal room temperature) with the battery fully charged before it is re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

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

12.1. The Highest Measured SAR Configuration in Each Frequency Band

Frequency Band (MHz)	Air Interface	Head (W/kg)	Body-worn Accessory (W/kg)	Hotspot/Airplay (W/kg)
750	LTE Band 13	N/A	N/A	N/A
	LTE Band 17	N/A	N/A	N/A
850	GSM 850	N/A	N/A	N/A
	CDMA BC0	N/A	0.877	N/A
	CDMA BC10	N/A	N/A	N/A
	WCDMA Band V	N/A	N/A	N/A
	LTE Band 5	N/A	N/A	N/A
	LTE Band 26	N/A	N/A	N/A
1900	GSM 1900	N/A	N/A	N/A
	CDMA BC1	N/A	N/A	N/A
	WCDMA Band II	1.180	N/A	N/A
	LTE Band 2	N/A	N/A	N/A
	LTE Band 25	N/A	N/A	N/A
1750	LTE Band 4	N/A	1.100	N/A
	WCDMA Band IV	N/A	N/A	N/A
	CDMA BC15	N/A	N/A	N/A
2400	Wi-Fi 802.11b/g/n	N/A	1.150	N/A
2600	LTE Band 41	N/A	1.180	N/A
5200	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5300	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5500	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A
5800	Wi-Fi 802.11a/n/ac	N/A	N/A	N/A

12.2. Repeated Measurement Results

Head

Frequency band	Test Position	Antenna	Mode	Ch #.	Freq. (MHz)	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio	Note
						Original	Repeated		
W-CDMA Band II	Right Touch	LAT	Rel. 99 RMC	9400	1880.0	1.180	1.140	1.04	1

Body-worn

Frequency band	Test Position	Antenna	Mode	Ch #.	Freq. (MHz)	Meas. SAR (W/kg)		Largest to Smallest SAR Ratio	Note
						Original	Repeated		
CDMA BC0	Edge 4	LAT	1xRTT (RC3 SO32)	777	848.3	0.877	0.865	1.01	1
LTE Band 4	Rear	LAT	QPSK	20300	1745.0	1.100	1.040	1.06	1
Wi-Fi 2.4GHz	Rear	UAT	802.11b	6	2437.0	1.150	1.130	1.02	1
LTE Band 41	Rear	LAT	QPSK	41490	2680.0	1.180	1.150	1.03	1

Hotspot

N/A

Note(s):

1. Second Repeated Measurement is not required since the ratio of the largest to smallest SAR for the original and first repeated measurement is not > 1.20.

13. Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance v05, introduces a new formula for calculating the SAR to Peak Location Ratio (SPLSR) between pairs of simultaneously transmitting antennas:

$$SPLSR = (SAR_1 + SAR_2)^{1.5} / Ri$$

Where:

SAR_1 is the highest reported or estimated SAR for the first of a pair of simultaneous transmitting antennas, in a specific test operating mode and exposure condition

SAR_2 is the highest reported or estimated SAR for the second of a pair of simultaneous transmitting antennas, in the same test operating mode and exposure condition as the first

Ri is the separation distance between the pair of simultaneous transmitting antennas. When the SAR is measured, for both antennas in the pair, it is determined by the actual x, y and z coordinates in the 1-g SAR for each SAR peak location, based on the extrapolated and interpolated result in the zoom scan measurement, using the formula of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$

A new threshold of 0.04 is also introduced in the draft KDB. Thus, in order for a pair of simultaneous transmitting antennas with the sum of 1-g SAR > 1.6 W/kg to qualify for exemption from Simultaneous Transmission SAR measurements, it has to satisfy the condition of:

$$(SAR_1 + SAR_2)^{1.5} / Ri < 0.04$$

13.1. Sum of the SAR for GSM850 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 850	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.803	0.313			1.116	No
		0.803		0.219		1.022	No
	Left Tilt	0.514	0.344			0.858	No
		0.514		0.189		0.703	No
	Right Touch	0.759	0.510			1.269	No
		0.759		0.478		1.237	No
	Right Tilt	0.472	0.403			0.875	No
		0.472		0.490		0.962	No
Body-worn Accessory & Hotspot	Rear	0.379	0.586		N/A	0.965	No
		0.379		0.323	0.080	0.782	No
	Front	0.374	0.276		N/A	0.650	No
		0.374		0.404	0.031	0.809	No
Hotspot	Edge 1	0.198	0.285			0.483	No
		0.198		0.196		0.394	No
	Edge 2	0.337	0.117			0.454	No
		0.337		0		0.337	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.213	0.278			0.491	No
		0.213		0.344		0.557	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.2. Sum of the SAR for GSM850 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 850	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.389	0.313			0.702	No
		0.389		0.219		0.608	No
	Left Tilt	0.301	0.344			0.645	No
		0.301		0.189		0.490	No
	Right Touch	0.331	0.510			0.841	No
		0.331		0.478		0.809	No
	Right Tilt	0.223	0.403			0.626	No
		0.223		0.490		0.713	No
Body-worn Accessory & Hotspot	Rear	0.523	0.586		N/A	1.109	No
		0.523		0.323	0.080	0.926	No
	Front	0.516	0.276		N/A	0.792	No
		0.516		0.404	0.031	0.951	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.402	0.117			0.519	No
		0.402		0		0.402	No
	Edge 3	0.294	0			0.294	No
		0.294		0		0.294	No
	Edge 4	0.549	0.278			0.827	No
		0.549		0.344		0.893	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.3. Sum of the SAR for GSM1900 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.308	0.313			0.621	No
		0.308		0.219		0.527	No
	Left Tilt	0.342	0.344			0.686	No
		0.342		0.189		0.531	No
	Right Touch	0.907	0.510			1.417	No
		0.907		0.478		1.385	No
	Right Tilt	0.723	0.403			1.126	No
		0.723		0.490		1.213	No
Body-worn Accessory & Hotspot	Rear	0.883	0.586		N/A	1.469	No
		0.883		0.323	0.080	1.286	No
	Front	0.910	0.276		N/A	1.186	No
		0.910		0.404	0.031	1.345	No
Hotspot	Edge 1	0.914	0.285			1.199	No
		0.914		0.196		1.110	No
	Edge 2	0.980	0.117			1.097	No
		0.980		0		0.980	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.250	0.278			0.528	No
		0.250		0.344		0.594	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.4. Sum of the SAR for GSM1900 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.369	0.313			0.682	No
		0.369		0.219		0.588	No
	Left Tilt	0.384	0.344			0.728	No
		0.384		0.189		0.573	No
	Right Touch	0.762	0.510			1.272	No
		0.762		0.478		1.240	No
	Right Tilt	0.355	0.403			0.758	No
		0.355		0.490		0.845	No
Body-worn Accessory & Hotspot	Rear	1.160	0.586		N/A	1.746	**Yes**
		1.160		0.323	0.080	1.563	No
	Front	1.120	0.276		N/A	1.396	No
		1.120		0.404	0.031	1.555	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.525	0.117			0.642	No
		0.525		0		0.525	No
	Edge 3	1.090	0			1.090	No
		1.090		0		1.090	No
	Edge 4	0.183	0.278			0.461	No
		0.183		0.344		0.527	No

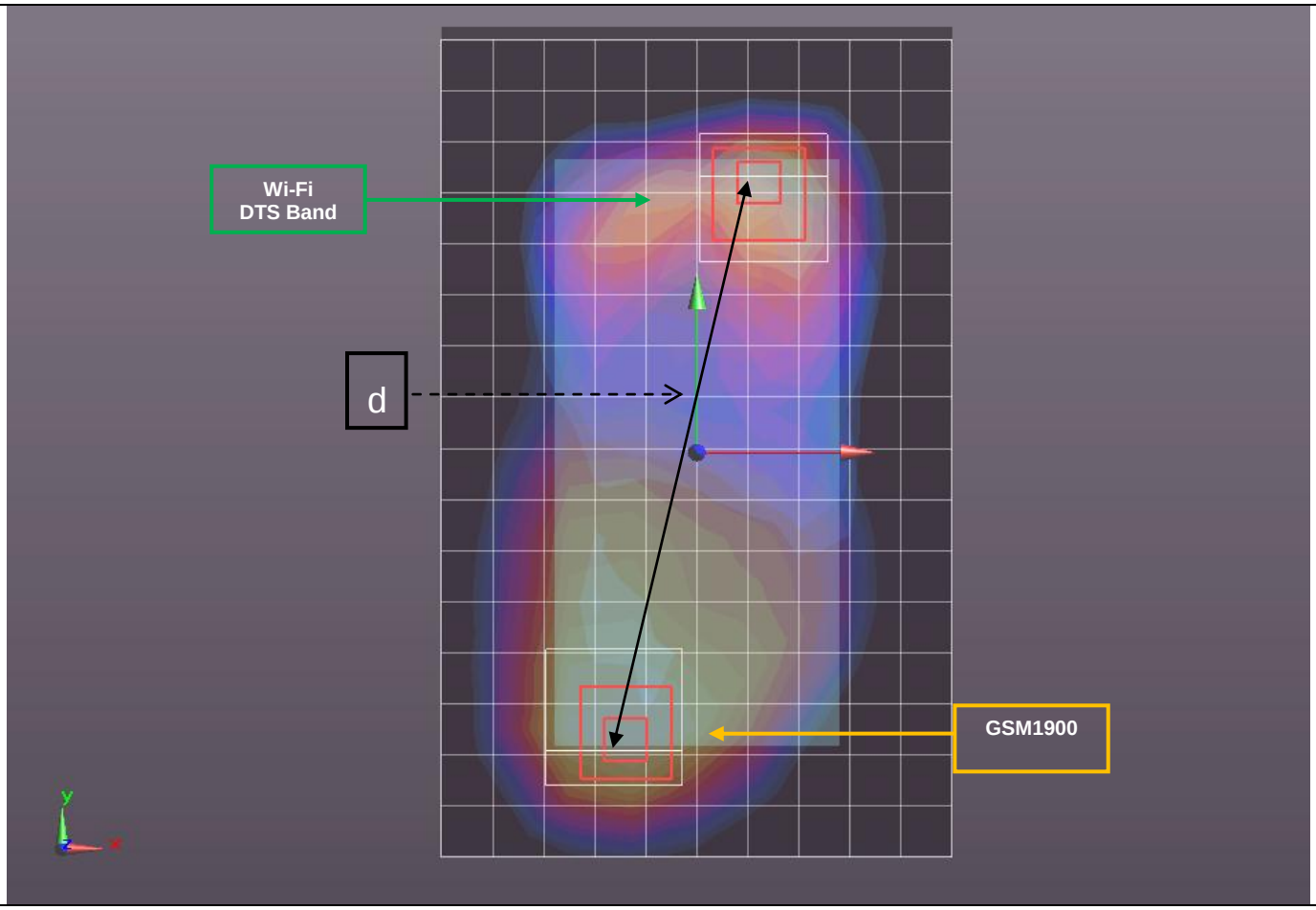
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		GSM 1900	Wi-Fi DTS Band	Wi-Fi UNII Band					
Body-worn Accessory & Hotspot	Rear	1.160	0.586		1.746	135.4	0.017	No	1

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
GSM1900	2.29	-0.0179	-0.0684	-0.184
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
135.4

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.5. Sum of the SAR for W-CDMA Band V (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band V	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.900	0.313			1.213	No
		0.900		0.219		1.119	No
	Left Tilt	0.650	0.344			0.994	No
		0.650		0.189		0.839	No
	Right Touch	0.887	0.510			1.397	No
		0.887		0.478		1.365	No
	Right Tilt	0.544	0.403			0.947	No
		0.544		0.490		1.034	No
Body-worn Accessory & Hotspot	Rear	0.462	0.586		N/A	1.048	No
		0.462		0.323	0.080	0.865	No
	Front	0.508	0.276		N/A	0.784	No
		0.508		0.404	0.031	0.943	No
Hotspot	Edge 1	0.247	0.285			0.532	No
		0.247		0.196		0.443	No
	Edge 2	0.329	0.117			0.446	No
		0.329		0		0.329	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.586	0.278			0.864	No
		0.586		0.344		0.930	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.6. Sum of the SAR for W-CDMA Band V (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band V	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.408	0.313			0.721	No
		0.408		0.219		0.627	No
	Left Tilt	0.225	0.344			0.569	No
		0.225		0.189		0.414	No
	Right Touch	0.336	0.510			0.846	No
		0.336		0.478		0.814	No
	Right Tilt	0.218	0.403			0.621	No
		0.218		0.490		0.708	No
Body-worn Accessory & Hotspot	Rear	0.491	0.586		N/A	1.077	No
		0.491		0.323	0.080	0.894	No
	Front	0.518	0.276		N/A	0.794	No
		0.518		0.404	0.031	0.953	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.419	0.117			0.536	No
		0.419		0		0.419	No
	Edge 3	0.317	0			0.317	No
		0.317		0		0.317	No
	Edge 4	0.859	0.278			1.137	No
		0.859		0.344		1.203	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.7. Sum of the SAR for W-CDMA Band IV (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band IV	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.283	0.313			0.596	No
		0.283		0.219		0.502	No
	Left Tilt	0.314	0.344			0.658	No
		0.314		0.189		0.503	No
	Right Touch	0.754	0.510			1.264	No
		0.754		0.478		1.232	No
	Right Tilt	0.599	0.403			1.002	No
		0.599		0.490		1.089	No
Body-worn Accessory & Hotspot	Rear	0.872	0.586		N/A	1.458	No
		0.872		0.323	0.080	1.275	No
	Front	0.977	0.276		N/A	1.253	No
		0.977		0.404	0.031	1.412	No
Hotspot	Edge 1	0.999	0.285			1.284	No
		0.999		0.196		1.195	No
	Edge 2	0.015	0.117			0.132	No
		0.015		0		0.015	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.606	0.278			0.884	No
		0.606		0.344		0.950	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.8. Sum of the SAR for W-CDMA Band IV (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band IV	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.310	0.313			0.623	No
		0.310		0.219		0.529	No
	Left Tilt	0.277	0.344			0.621	No
		0.277		0.189		0.466	No
	Right Touch	0.755	0.510			1.265	No
		0.755		0.478		1.233	No
	Right Tilt	0.297	0.403			0.700	No
		0.297		0.490		0.787	No
Body-worn Accessory & Hotspot	Rear	0.732	0.586		N/A	1.318	No
		0.732		0.323	0.080	1.135	No
	Front	0.851	0.276		N/A	1.127	No
		0.851		0.404	0.031	1.286	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.421	0.117			0.538	No
		0.421		0		0.421	No
	Edge 3	0.744	0			0.744	No
		0.744		0		0.744	No
	Edge 4	0.041	0.278			0.319	No
		0.041		0.344		0.385	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.9. Sum of the SAR for W-CDMA Band II (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.404	0.313			0.717	No
		0.404		0.219		0.623	No
	Left Tilt	0.353	0.344			0.697	No
		0.353		0.189		0.542	No
	Right Touch	0.978	0.510			1.488	No
		0.978		0.478		1.456	No
	Right Tilt	0.854	0.403			1.257	No
		0.854		0.490		1.344	No
Body-worn Accessory & Hotspot	Rear	0.958	0.586		N/A	1.544	No
		0.958		0.323	0.080	1.361	No
	Front	0.959	0.276		N/A	1.235	No
		0.959		0.404	0.031	1.394	No
Hotspot	Edge 1	0.955	0.285			1.240	No
		0.955		0.196		1.151	No
	Edge 2	0.086	0.117			0.203	No
		0.086		0		0.086	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.596	0.278			0.874	No
		0.596		0.344		0.940	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.10. Sum of the SAR for W-CDMA Band II (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.549	0.313			0.862	No
		0.549		0.219		0.768	No
	Left Tilt	0.537	0.344			0.881	No
		0.537		0.189		0.726	No
	Right Touch	1.180	0.510			1.690	**Yes**
		1.180		0.478		1.658	**Yes**
	Right Tilt	0.440	0.403			0.843	No
		0.440		0.490		0.930	No
Body-worn Accessory & Hotspot	Rear	1.020	0.586		N/A	1.606	**Yes**
		1.020		0.323	0.080	1.423	No
	Front	0.988	0.276		N/A	1.264	No
		0.988		0.404	0.031	1.423	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.501	0.117			0.618	No
		0.501		0		0.501	No
	Edge 3	0.953	0			0.953	No
		0.953		0		0.953	No
	Edge 4	0.108	0.278			0.386	No
		0.108		0.344		0.452	No

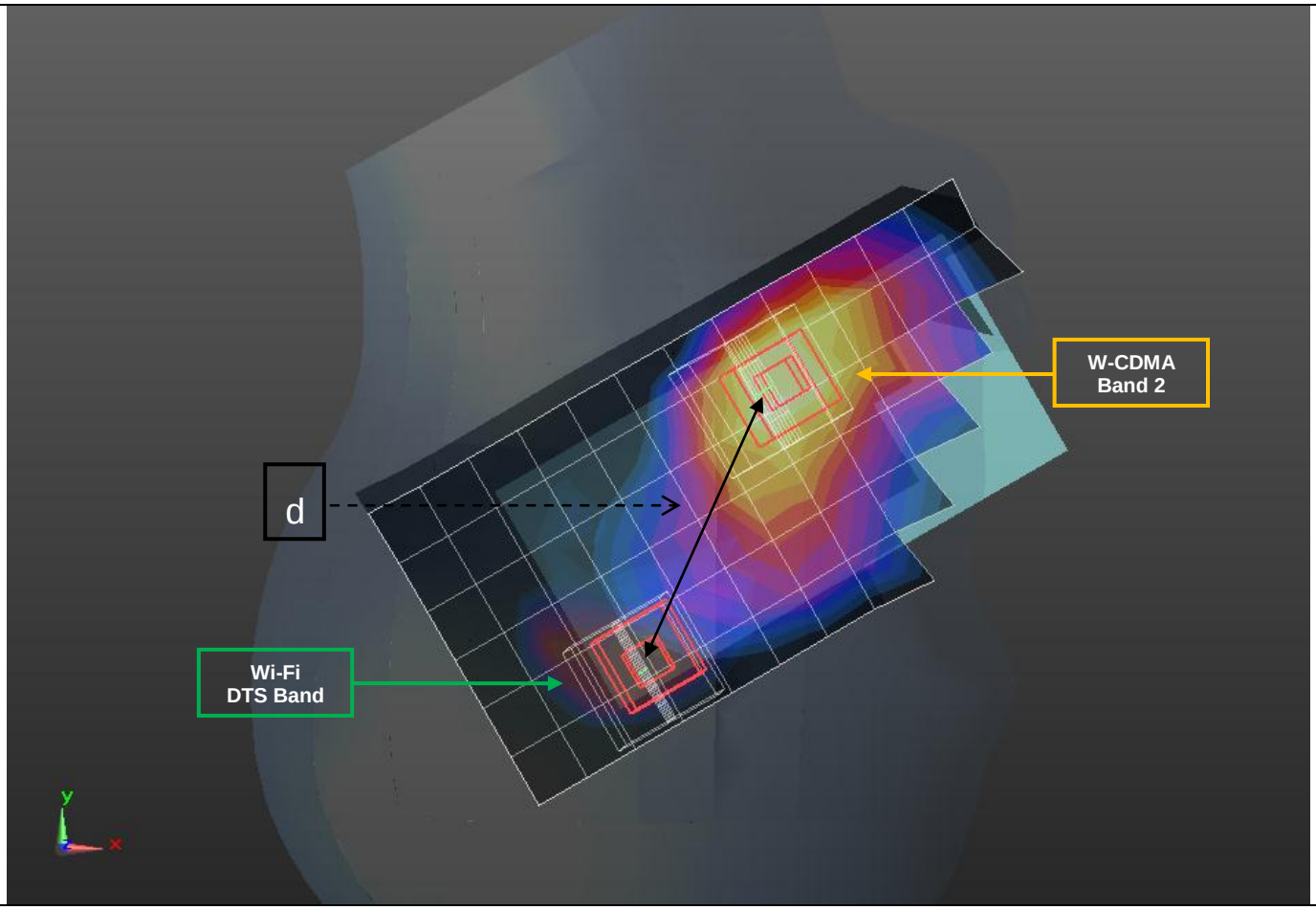
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		W-CDMA Band II	Wi-Fi DTS Band	Wi-Fi UNII Band					
Head	Right Touch	1.180	0.510		1.690	88.9	0.025	No	1
		1.180		0.478	1.658	79.5	0.027	No	2
Body-worn Accessory & Hotspot	Rear	1.020	0.586		1.606	133.9	0.015	No	3

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)

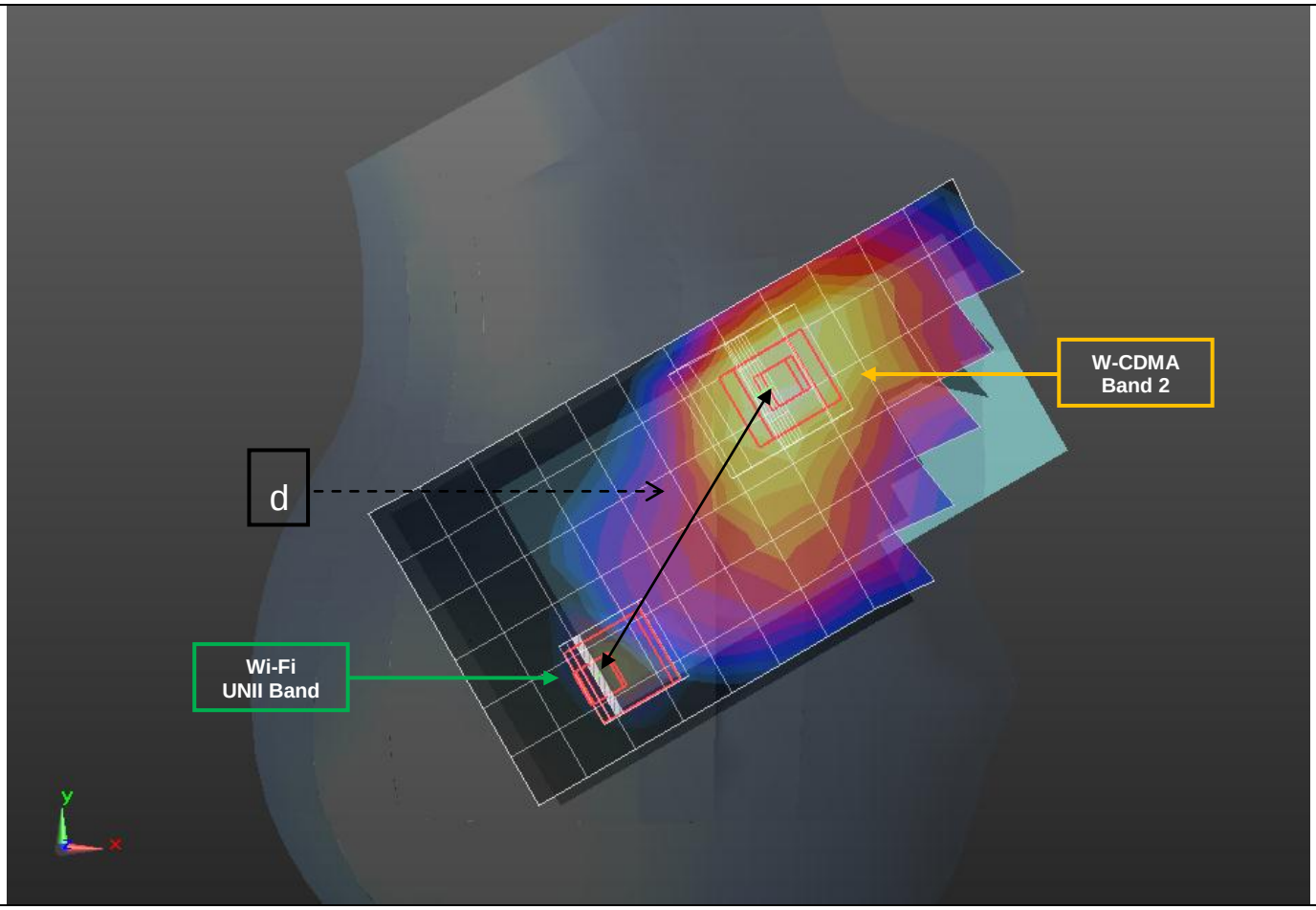


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	1.87	0.068	-0.252	-0.174
Wi-Fi DTS Band	1	0.0292	-0.332	-0.175

d: Calculated distance (mm)
88.9

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)

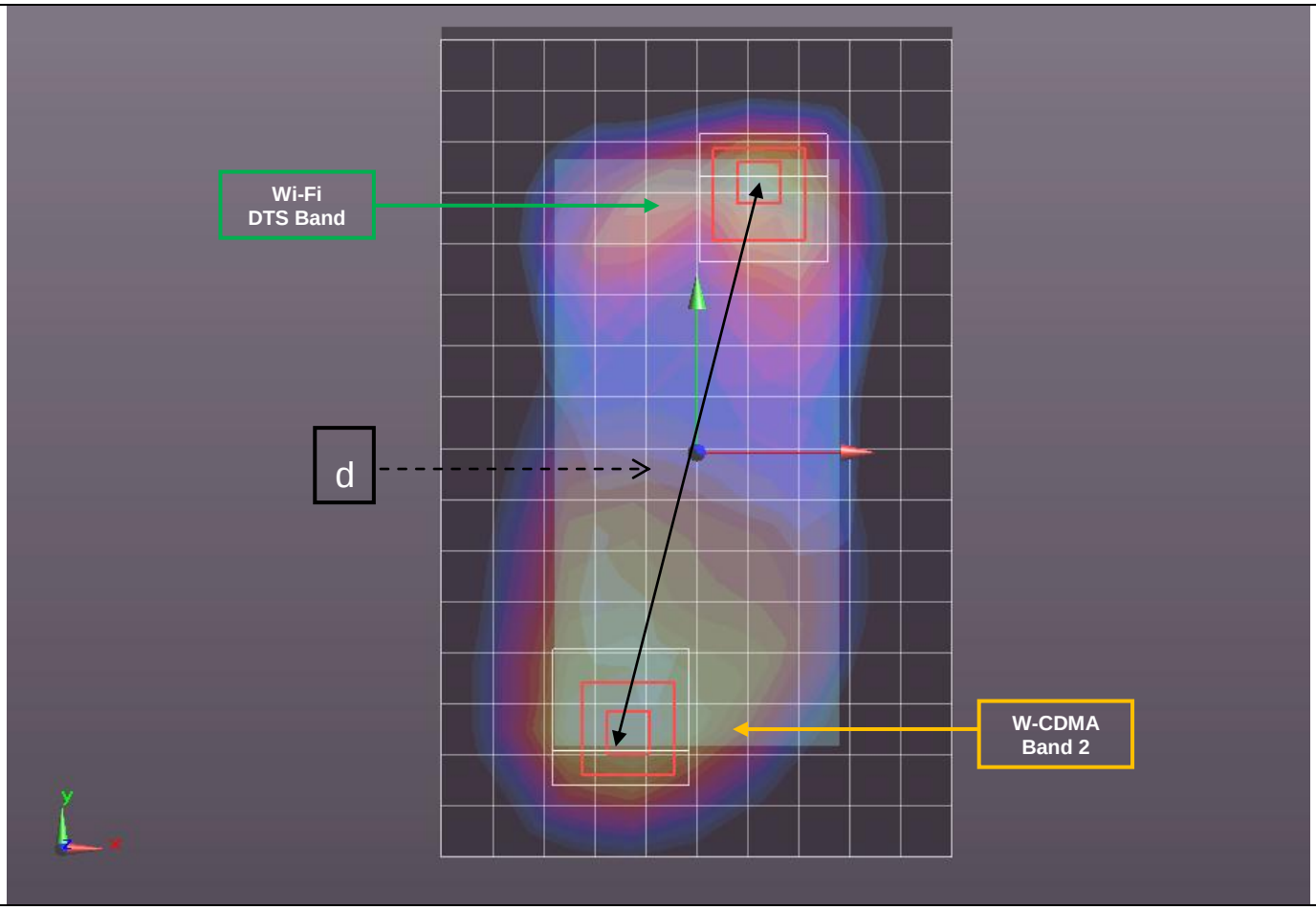


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	1.87	0.068	-0.252	-0.174
Wi-Fi UNII Band	5.25	0.0344	-0.324	-0.175

d: Calculated distance (mm)
79.5

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (3)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
W-CDMA Band II	2.01	-0.018	-0.0668	-0.184
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
133.9

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.11. Sum of the SAR for CDMA BC0 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC0	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.680	0.313			0.993	No
		0.680		0.219		0.899	No
	Left Tilt	0.483	0.344			0.827	No
		0.483		0.189		0.672	No
	Right Touch	0.510	0.510			1.020	No
		0.510		0.478		0.988	No
	Right Tilt	0.301	0.403			0.704	No
		0.301		0.490		0.791	No
Body-worn Accessory & Hotspot	Rear	0.389	0.586		N/A	0.975	No
		0.389		0.323	0.080	0.792	No
	Front	0.394	0.276		N/A	0.670	No
		0.394		0.404	0.031	0.829	No
Hotspot	Edge 1	0.219	0.285			0.504	No
		0.219		0.196		0.415	No
	Edge 2	0.385	0.117			0.502	No
		0.385		0		0.385	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.236	0.278			0.514	No
		0.236		0.344		0.580	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.12. Sum of the SAR for CDMA BC0 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC0	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.365	0.313			0.678	No
		0.365		0.219		0.584	No
	Left Tilt	0.201	0.344			0.545	No
		0.201		0.189		0.390	No
	Right Touch	0.318	0.510			0.828	No
		0.318		0.478		0.796	No
	Right Tilt	0.194	0.403			0.597	No
		0.194		0.490		0.684	No
Body-worn Accessory & Hotspot	Rear	0.517	0.586		N/A	1.103	No
		0.517		0.323	0.080	0.920	No
	Front	0.523	0.276		N/A	0.799	No
		0.523		0.404	0.031	0.958	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.439	0.117			0.556	No
		0.439		0		0.439	No
	Edge 3	0.318	0			0.318	No
		0.318		0		0.318	No
	Edge 4	0.940	0.278			1.218	No
		0.940		0.344		1.284	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.13. Sum of the SAR for CDMA BC1 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC1	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.333	0.313			0.646	No
		0.333		0.219		0.552	No
	Left Tilt	0.299	0.344			0.643	No
		0.299		0.189		0.488	No
	Right Touch	0.980	0.510			1.490	No
		0.980		0.478		1.458	No
	Right Tilt	0.751	0.403			1.154	No
		0.751		0.490		1.241	No
Body-worn Accessory & Hotspot	Rear	0.928	0.586		N/A	1.514	No
		0.928		0.323	0.080	1.331	No
	Front	0.993	0.276		N/A	1.269	No
		0.993		0.404	0.031	1.428	No
Hotspot	Edge 1	0.975	0.285			1.260	No
		0.975		0.196		1.171	No
	Edge 2	0.091	0.117			0.208	No
		0.091		0		0.091	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.640	0.278			0.918	No
		0.640		0.344		0.984	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.14. Sum of the SAR for CDMA BC1 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC1	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.553	0.313			0.866	No
		0.553		0.219		0.772	No
	Left Tilt	0.530	0.344			0.874	No
		0.530		0.189		0.719	No
	Right Touch	1.180	0.510			1.690	**Yes**
		1.180		0.478		1.658	**Yes**
	Right Tilt	0.532	0.403			0.935	No
		0.532		0.490		1.022	No
Body-worn Accessory & Hotspot	Rear	0.984	0.586		N/A	1.570	No
		0.984		0.323	0.080	1.387	No
	Front	0.738	0.276		N/A	1.014	No
		0.738		0.404	0.031	1.173	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.467	0.117			0.584	No
		0.467		0		0.467	No
	Edge 3	0.797	0			0.797	No
		0.797		0		0.797	No
	Edge 4	0.110	0.278			0.388	No
		0.110		0.344		0.454	No

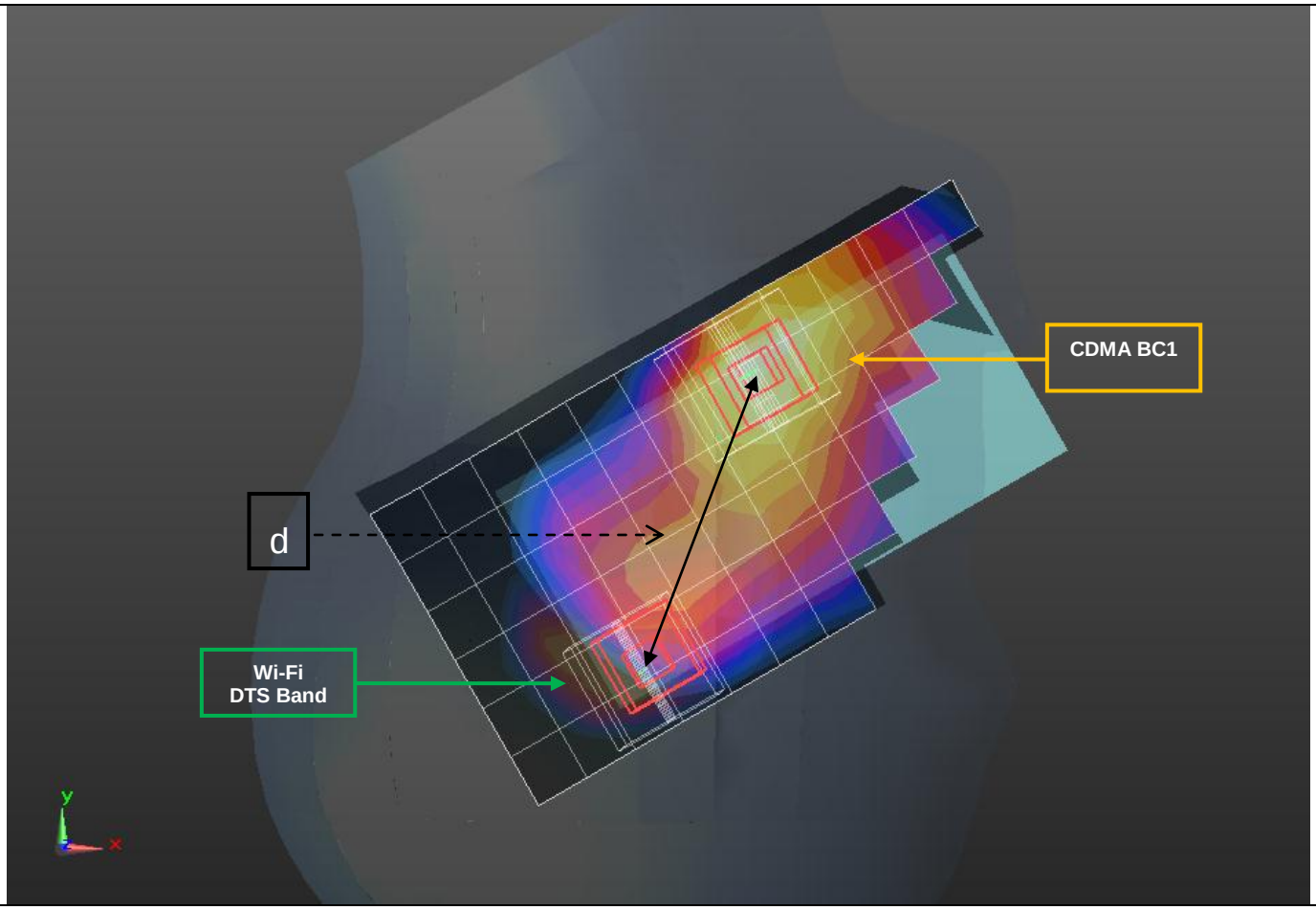
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		CDMA BC1	Wi-Fi DTS Band	Wi-Fi UNII Band					
Head	Right Touch	1.180	0.510		1.690	85.4	0.026	No	1
		1.180		0.478	1.658	76.1	0.028	No	2

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)

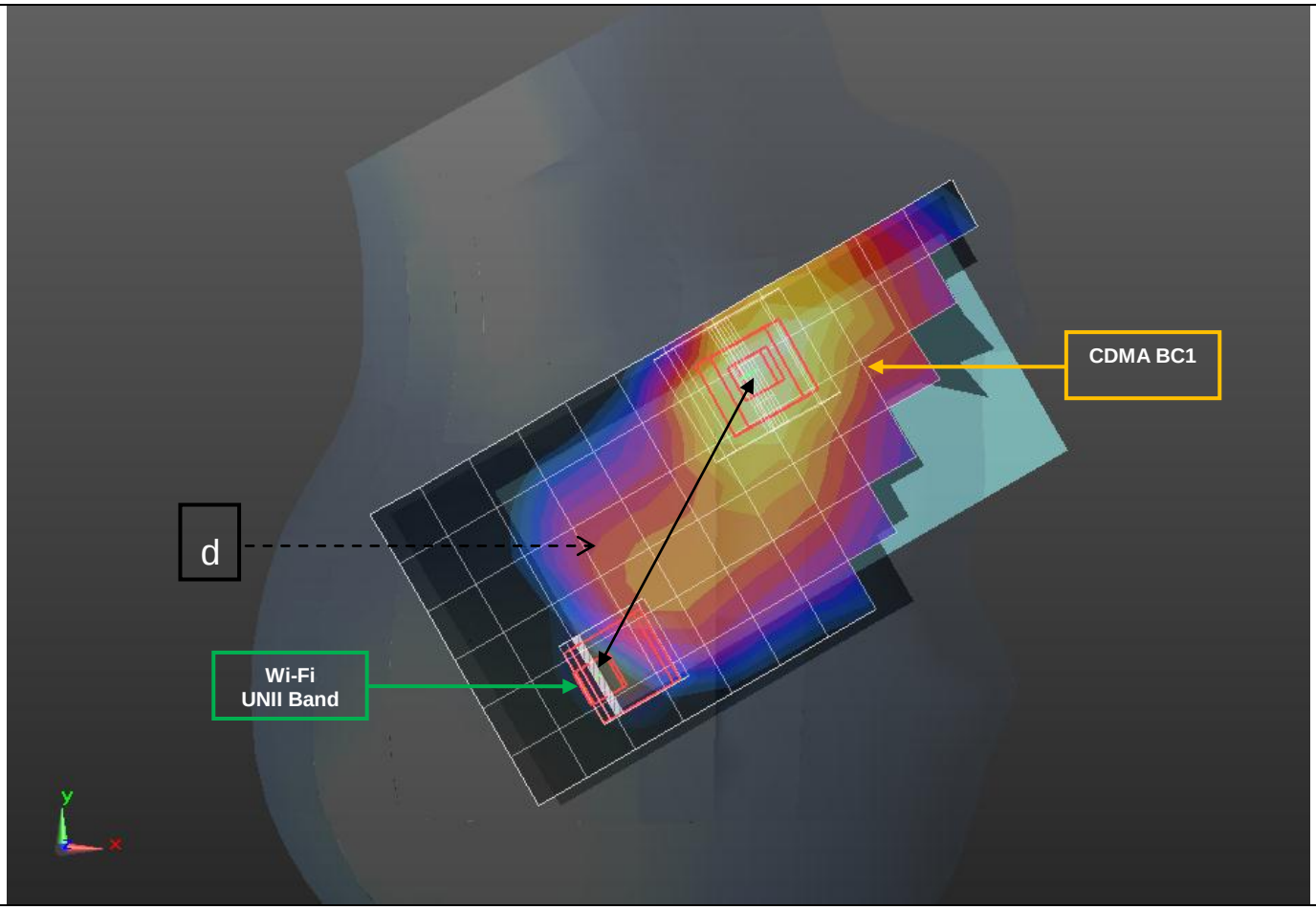


Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
CDMA BC1	1.76	0.059	-0.252	-0.176
Wi-Fi DTS Band	1	0.0292	-0.332	-0.175

d: Calculated distance (mm)
85.4

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

Figure (2)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
CDMA BC1	1.76	0.059	-0.252	-0.176
Wi-Fi UNII Band	5.25	0.0344	-0.324	-0.175

d: Calculated distance (mm)
76.1

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.15. Sum of the SAR for CDMA BC10 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC10	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.645	0.313			0.958	No
		0.645		0.219		0.864	No
	Left Tilt	0.519	0.344			0.863	No
		0.519		0.189		0.708	No
	Right Touch	0.582	0.510			1.092	No
		0.582		0.478		1.060	No
	Right Tilt	0.396	0.403			0.799	No
		0.396		0.490		0.886	No
Body-worn Accessory & Hotspot	Rear	0.323	0.586		N/A	0.909	No
		0.323		0.323	0.080	0.726	No
	Front	0.345	0.276		N/A	0.621	No
		0.345		0.404	0.031	0.780	No
Hotspot	Edge 1	0.139	0.285			0.424	No
		0.139		0.196		0.335	No
	Edge 2	0.520	0.117			0.637	No
		0.520		0		0.520	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.174	0.278			0.452	No
		0.174		0.344		0.518	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.16. Sum of the SAR for CDMA BC10 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC10	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.395	0.313			0.708	No
		0.395		0.219		0.614	No
	Left Tilt	0.182	0.344			0.526	No
		0.182		0.189		0.371	No
	Right Touch	0.330	0.510			0.840	No
		0.330		0.478		0.808	No
	Right Tilt	0.193	0.403			0.596	No
		0.193		0.490		0.683	No
Body-worn Accessory & Hotspot	Rear	0.547	0.586		N/A	1.133	No
		0.547		0.323	0.080	0.950	No
	Front	0.616	0.276		N/A	0.892	No
		0.616		0.404	0.031	1.051	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.308	0.117			0.425	No
		0.308		0		0.308	No
	Edge 3	0.374	0			0.374	No
		0.374		0		0.374	No
	Edge 4	0.657	0.278			0.935	No
		0.657		0.344		1.001	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.17. Sum of the SAR for CDMA BC15 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC15	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.350	0.313			0.663	No
		0.350		0.219		0.569	No
	Left Tilt	0.393	0.344			0.737	No
		0.393		0.189		0.582	No
	Right Touch	0.884	0.510			1.394	No
		0.884		0.478		1.362	No
	Right Tilt	0.596	0.403			0.999	No
		0.596		0.490		1.086	No
Body-worn Accessory & Hotspot	Rear	0.969	0.586		N/A	1.555	No
		0.969		0.323	0.080	1.372	No
	Front	0.997	0.276		N/A	1.273	No
		0.997		0.404	0.031	1.432	No
Hotspot	Edge 1	0.983	0.285			1.268	No
		0.983		0.196		1.179	No
	Edge 2	0.025	0.117			0.142	No
		0.025		0		0.025	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.564	0.278			0.842	No
		0.564		0.344		0.908	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.18. Sum of the SAR for CDMA BC15 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		CDMA BC15	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.341	0.313			0.654	No
		0.341		0.219		0.560	No
	Left Tilt	0.343	0.344			0.687	No
		0.343		0.189		0.532	No
	Right Touch	0.930	0.510			1.440	No
		0.930		0.478		1.408	No
	Right Tilt	0.372	0.403			0.775	No
		0.372		0.490		0.862	No
Body-worn Accessory & Hotspot	Rear	0.917	0.586		N/A	1.503	No
		0.917		0.323	0.080	1.320	No
	Front	0.921	0.276		N/A	1.197	No
		0.921		0.404	0.031	1.356	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.465	0.117			0.582	No
		0.465		0		0.465	No
	Edge 3	1.020	0			1.020	No
		1.020		0		1.020	No
	Edge 4	0.049	0.278			0.327	No
		0.049		0.344		0.393	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.19. Sum of the SAR for LTE Band 2 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.369	0.313			0.682	No
		0.369		0.219		0.588	No
	Left Tilt	0.357	0.344			0.701	No
		0.357		0.189		0.546	No
	Right Touch	0.969	0.510			1.479	No
		0.969		0.478		1.447	No
	Right Tilt	0.745	0.403			1.148	No
		0.745		0.490		1.235	No
Body-worn Accessory & Hotspot	Rear	0.973	0.586		N/A	1.559	No
		0.973		0.323	0.080	1.376	No
	Front	0.891	0.276		N/A	1.167	No
		0.891		0.404	0.031	1.326	No
Hotspot	Edge 1	0.976	0.285			1.261	No
		0.976		0.196		1.172	No
	Edge 2	0.073	0.117			0.190	No
		0.073		0		0.073	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.622	0.278			0.900	No
		0.622		0.344		0.966	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.20. Sum of the SAR for LTE Band 2 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.618	0.313			0.931	No
		0.618		0.219		0.837	No
	Left Tilt	0.550	0.344			0.894	No
		0.550		0.189		0.739	No
	Right Touch	0.975	0.510			1.485	No
		0.975		0.478		1.453	No
	Right Tilt	0.549	0.403			0.952	No
		0.549		0.490		1.039	No
Body-worn Accessory & Hotspot	Rear	1.140	0.586		N/A	1.726	**Yes**
		1.140		0.323	0.080	1.543	No
	Front	0.877	0.276		N/A	1.153	No
		0.877		0.404	0.031	1.312	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.369	0.117			0.486	No
		0.369		0		0.369	No
	Edge 3	0.659	0			0.659	No
		0.659		0		0.659	No
	Edge 4	0.102	0.278			0.380	No
		0.102		0.344		0.446	No

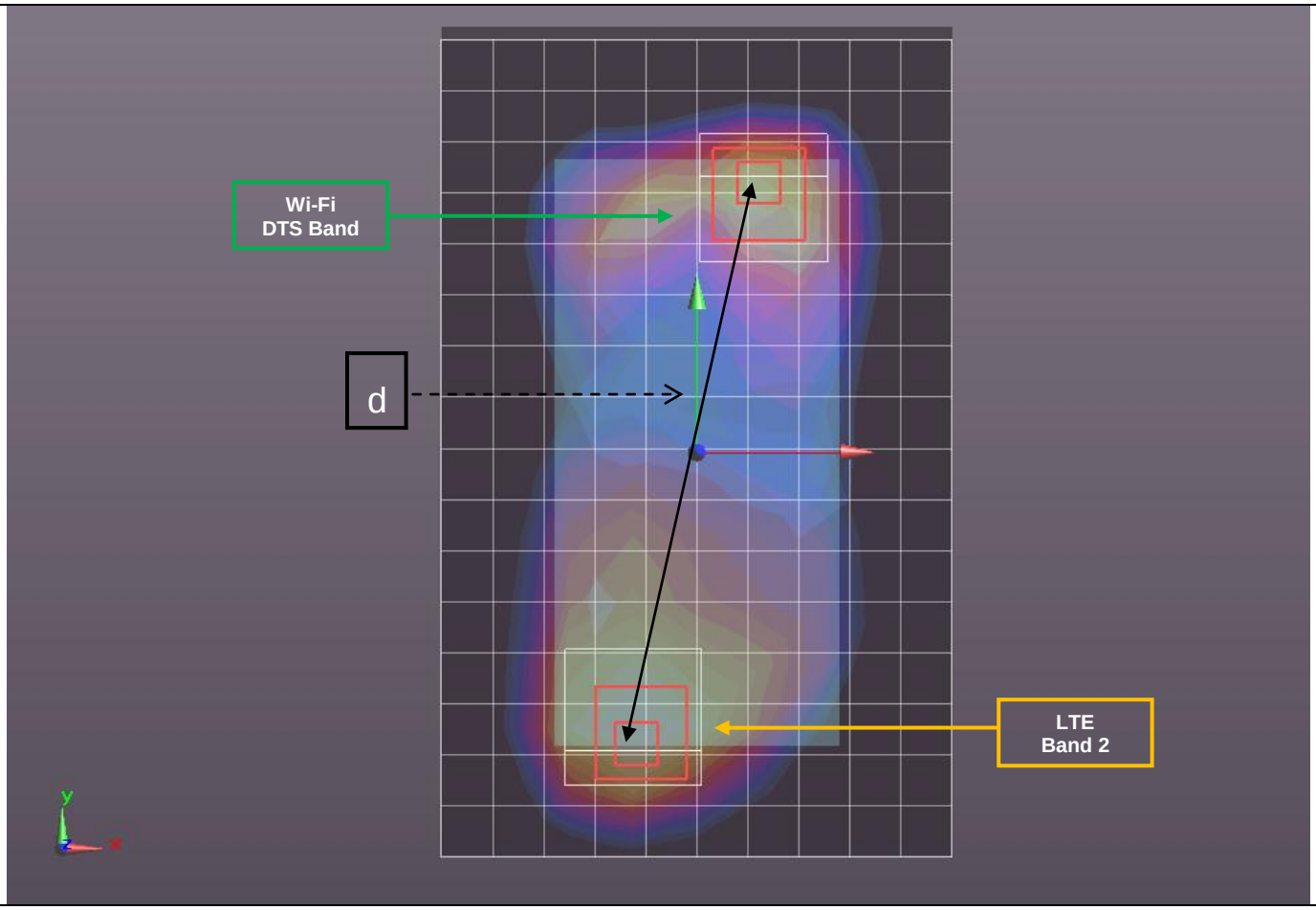
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 2	Wi-Fi DTS Band	Wi-Fi UNII Band					
Body-worn Accessory & Hotspot	Rear	1.140	0.586		1.726	134.8	0.017	No	1

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 2	2.37	-0.015	-0.0684	-0.183
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
134.8

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.21. Sum of the SAR for LTE Band 4 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.325	0.313			0.638	No
		0.325		0.219		0.544	No
	Left Tilt	0.375	0.344			0.719	No
		0.375		0.189		0.564	No
	Right Touch	0.998	0.510			1.508	No
		0.998		0.478		1.476	No
	Right Tilt	0.684	0.403			1.087	No
		0.684		0.490		1.174	No
Body-worn Accessory & Hotspot	Rear	0.995	0.586		N/A	1.581	No
		0.995		0.323	0.080	1.398	No
	Front	0.984	0.276		N/A	1.260	No
		0.984		0.404	0.031	1.419	No
Hotspot	Edge 1	0.979	0.285			1.264	No
		0.979		0.196		1.175	No
	Edge 2	0.033	0.117			0.150	No
		0.033		0		0.033	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.667	0.278			0.945	No
		0.667		0.344		1.011	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.22. Sum of the SAR for LTE Band 4 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.252	0.313			0.565	No
		0.252		0.219		0.471	No
	Left Tilt	0.220	0.344			0.564	No
		0.220		0.189		0.409	No
	Right Touch	0.645	0.510			1.155	No
		0.645		0.478		1.123	No
	Right Tilt	0.194	0.403			0.597	No
		0.194		0.490		0.684	No
Body-worn Accessory & Hotspot	Rear	1.100	0.586		N/A	1.686	**Yes**
		1.100		0.323	0.080	1.503	No
	Front	0.829	0.276		N/A	1.105	No
		0.829		0.404	0.031	1.264	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.423	0.117			0.540	No
		0.423		0		0.423	No
	Edge 3	0.895	0			0.895	No
		0.895		0		0.895	No
	Edge 4	0.045	0.278			0.323	No
		0.045		0.344		0.389	No

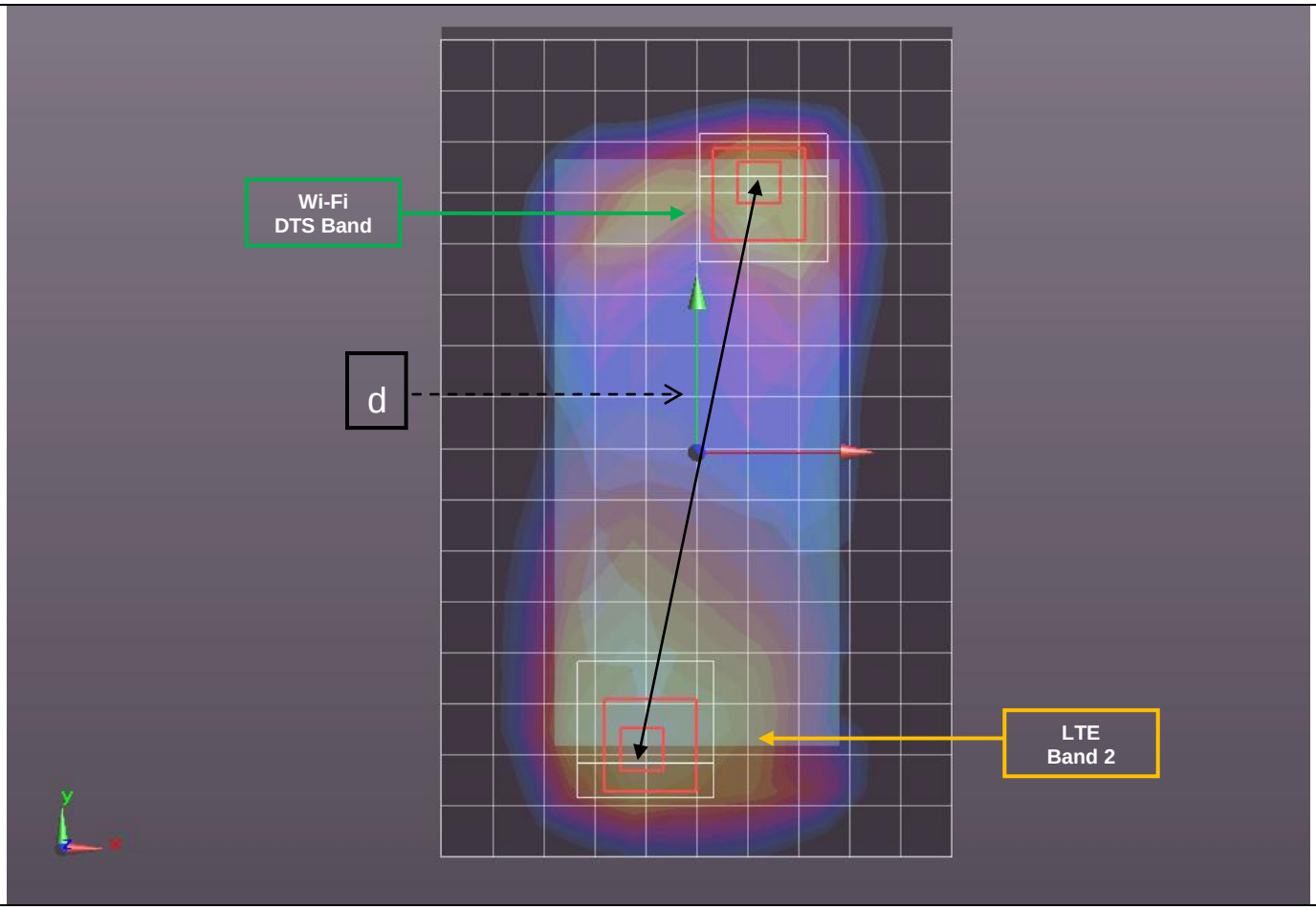
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 4	Wi-Fi DTS Band	Wi-Fi UNII Band					
Body-worn Accessory & Hotspot	Rear	1.100	0.586		1.686	135.8	0.016	No	1

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 4	2.18	-0.0136	-0.0698	-0.184
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
135.8

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.23. Sum of the SAR for LTE Band 5 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 5	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.592	0.313			0.905	No
		0.592		0.219		0.811	No
	Left Tilt	0.485	0.344			0.829	No
		0.485		0.189		0.674	No
	Right Touch	0.612	0.510			1.122	No
		0.612		0.478		1.090	No
	Right Tilt	0.326	0.403			0.729	No
		0.326		0.490		0.816	No
Body-worn Accessory & Hotspot	Rear	0.243	0.586		N/A	0.829	No
		0.243		0.323	0.080	0.646	No
	Front	0.236	0.276		N/A	0.512	No
		0.236		0.404	0.031	0.671	No
Hotspot	Edge 1	0.134	0.285			0.419	No
		0.134		0.196		0.330	No
	Edge 2	0.342	0.117			0.459	No
		0.342		0		0.342	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.219	0.278			0.497	No
		0.219		0.344		0.563	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.24. Sum of the SAR for LTE Band 5 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 5	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.288	0.313			0.601	No
		0.288		0.219		0.507	No
	Left Tilt	0.150	0.344			0.494	No
		0.150		0.189		0.339	No
	Right Touch	0.230	0.510			0.740	No
		0.230		0.478		0.708	No
	Right Tilt	0.163	0.403			0.566	No
		0.163		0.490		0.653	No
Body-worn Accessory & Hotspot	Rear	0.372	0.586		N/A	0.958	No
		0.372		0.323	0.080	0.775	No
	Front	0.437	0.276		N/A	0.713	No
		0.437		0.404	0.031	0.872	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.249	0.117			0.366	No
		0.249		0		0.249	No
	Edge 3	0.258	0			0.258	No
		0.258		0		0.258	No
	Edge 4	0.638	0.278			0.916	No
		0.638		0.344		0.982	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.25. Sum of the SAR for LTE Band 13 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 13	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.543	0.313			0.856	No
		0.543		0.219		0.762	No
	Left Tilt	0.407	0.344			0.751	No
		0.407		0.189		0.596	No
	Right Touch	0.482	0.510			0.992	No
		0.482		0.478		0.960	No
	Right Tilt	0.378	0.403			0.781	No
		0.378		0.490		0.868	No
Body-worn Accessory & Hotspot	Rear	0.251	0.586		N/A	0.837	No
		0.251		0.323	0.080	0.654	No
	Front	0.252	0.276		N/A	0.528	No
		0.252		0.404	0.031	0.687	No
Hotspot	Edge 1	0.170	0.285			0.455	No
		0.170		0.196		0.366	No
	Edge 2	0.384	0.117			0.501	No
		0.384		0		0.384	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.253	0.278			0.531	No
		0.253		0.344		0.597	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.26. Sum of the SAR for LTE Band 13 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 13	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.360	0.313			0.673	No
		0.360		0.219		0.579	No
	Left Tilt	0.211	0.344			0.555	No
		0.211		0.189		0.400	No
	Right Touch	0.291	0.510			0.801	No
		0.291		0.478		0.769	No
	Right Tilt	0.200	0.403			0.603	No
		0.200		0.490		0.690	No
Body-worn Accessory & Hotspot	Rear	0.525	0.586		N/A	1.111	No
		0.525		0.323	0.080	0.928	No
	Front	0.528	0.276		N/A	0.804	No
		0.528		0.404	0.031	0.963	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.388	0.117			0.505	No
		0.388		0		0.388	No
	Edge 3	0.386	0			0.386	No
		0.386		0		0.386	No
	Edge 4	0.696	0.278			0.974	No
		0.696		0.344		1.040	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.27. Sum of the SAR for LTE Band 17 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 17	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.394	0.313			0.707	No
		0.394		0.219		0.613	No
	Left Tilt	0.251	0.344			0.595	No
		0.251		0.189		0.440	No
	Right Touch	0.471	0.510			0.981	No
		0.471		0.478		0.949	No
	Right Tilt	0.473	0.403			0.876	No
		0.473		0.490		0.963	No
Body-worn Accessory & Hotspot	Rear	0.205	0.586		N/A	0.791	No
		0.205		0.323	0.080	0.608	No
	Front	0.254	0.276		N/A	0.530	No
		0.254		0.404	0.031	0.689	No
Hotspot	Edge 1	0.075	0.285			0.360	No
		0.075		0.196		0.271	No
	Edge 2	0.272	0.117			0.389	No
		0.272		0		0.272	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.234	0.278			0.512	No
		0.234		0.344		0.578	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.28. Sum of the SAR for LTE Band 17 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 17	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.198	0.313			0.511	No
		0.198		0.219		0.417	No
	Left Tilt	0.109	0.344			0.453	No
		0.109		0.189		0.298	No
	Right Touch	0.175	0.510			0.685	No
		0.175		0.478		0.653	No
	Right Tilt	0.128	0.403			0.531	No
		0.128		0.490		0.618	No
Body-worn Accessory & Hotspot	Rear	0.347	0.586		N/A	0.933	No
		0.347		0.323	0.080	0.750	No
	Front	0.368	0.276		N/A	0.644	No
		0.368		0.404	0.031	0.803	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.249	0.117			0.366	No
		0.249		0		0.249	No
	Edge 3	0.257	0			0.257	No
		0.257		0		0.257	No
	Edge 4	0.516	0.278			0.794	No
		0.516		0.344		0.860	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.29. Sum of the SAR for LTE Band 25 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.392	0.313			0.705	No
		0.392		0.219		0.611	No
	Left Tilt	0.367	0.344			0.711	No
		0.367		0.189		0.556	No
	Right Touch	0.970	0.510			1.480	No
		0.970		0.478		1.448	No
	Right Tilt	0.747	0.403			1.150	No
		0.747		0.490		1.237	No
Body-worn Accessory & Hotspot	Rear	0.973	0.586		N/A	1.559	No
		0.973		0.323	0.080	1.376	No
	Front	0.971	0.276		N/A	1.247	No
		0.971		0.404	0.031	1.406	No
Hotspot	Edge 1	0.952	0.285			1.237	No
		0.952		0.196		1.148	No
	Edge 2	0.061	0.117			0.178	No
		0.061		0		0.061	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.482	0.278			0.760	No
		0.482		0.344		0.826	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.30. Sum of the SAR for LTE Band 25 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.627	0.313			0.940	No
		0.627		0.219		0.846	No
	Left Tilt	0.509	0.344			0.853	No
		0.509		0.189		0.698	No
	Right Touch	0.967	0.510			1.477	No
		0.967		0.478		1.445	No
	Right Tilt	0.487	0.403			0.890	No
		0.487		0.490		0.977	No
Body-worn Accessory & Hotspot	Rear	1.080	0.586		N/A	1.666	**Yes**
		1.080		0.323	0.080	1.483	No
	Front	0.874	0.276		N/A	1.150	No
		0.874		0.404	0.031	1.309	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.432	0.117			0.549	No
		0.432		0		0.432	No
	Edge 3	0.757	0			0.757	No
		0.757		0		0.757	No
	Edge 4	0.103	0.278			0.381	No
		0.103		0.344		0.447	No

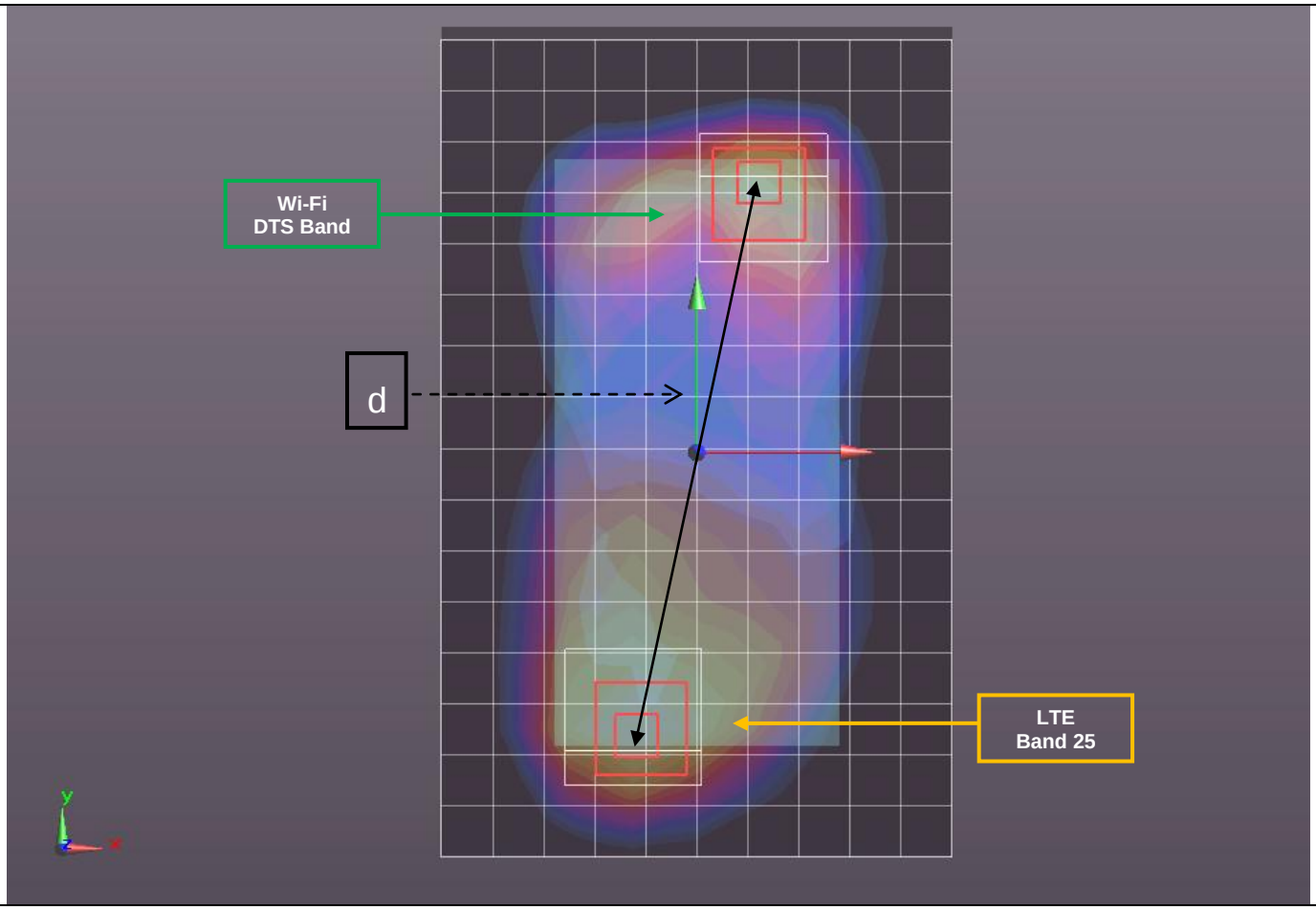
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 25	Wi-Fi DTS Band	Wi-Fi UNII Band					
Body-worn Accessory & Hotspot	Rear	1.080	0.586		1.666	133.2	0.016	No	1

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 25	2.2	-0.015	-0.0668	-0.183
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
133.2

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

13.31. Sum of the SAR for LTE Band 26 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 26	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.421	0.313			0.734	No
		0.421		0.219		0.640	No
	Left Tilt	0.318	0.344			0.662	No
		0.318		0.189		0.507	No
	Right Touch	0.464	0.510			0.974	No
		0.464		0.478		0.942	No
	Right Tilt	0.264	0.403			0.667	No
		0.264		0.490		0.754	No
Body-worn Accessory & Hotspot	Rear	0.179	0.586		N/A	0.765	No
		0.179		0.323	0.080	0.582	No
	Front	0.201	0.276		N/A	0.477	No
		0.201		0.404	0.031	0.636	No
Hotspot	Edge 1	0.095	0.285			0.380	No
		0.095		0.196		0.291	No
	Edge 2	0.294	0.117			0.411	No
		0.294		0		0.294	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.202	0.278			0.480	No
		0.202		0.344		0.546	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.32. Sum of the SAR for LTE Band 26 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 26	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.159	0.313			0.472	No
		0.159		0.219		0.378	No
	Left Tilt	0.101	0.344			0.445	No
		0.101		0.189		0.290	No
	Right Touch	0.134	0.510			0.644	No
		0.134		0.478		0.612	No
	Right Tilt	0.102	0.403			0.505	No
		0.102		0.490		0.592	No
Body-worn Accessory & Hotspot	Rear	0.227	0.586		N/A	0.813	No
		0.227		0.323	0.080	0.630	No
	Front	0.210	0.276		N/A	0.486	No
		0.210		0.404	0.031	0.645	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.170	0.117			0.287	No
		0.170		0		0.170	No
	Edge 3	0.121	0			0.121	No
		0.121		0		0.121	No
	Edge 4	0.466	0.278			0.744	No
		0.466		0.344		0.810	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.33. Sum of the SAR for LTE Band 41 (UAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.316	0.313			0.629	No
		0.316		0.219		0.535	No
	Left Tilt	0.372	0.344			0.716	No
		0.372		0.189		0.561	No
	Right Touch	0.712	0.510			1.222	No
		0.712		0.478		1.190	No
	Right Tilt	0.443	0.403			0.846	No
		0.443		0.490		0.933	No
Body-worn Accessory & Hotspot	Rear	0.979	0.586		N/A	1.565	No
		0.979		0.323	0.080	1.382	No
	Front	0.561	0.276		N/A	0.837	No
		0.561		0.404	0.031	0.996	No
Hotspot	Edge 1	0.265	0.285			0.550	No
		0.265		0.196		0.461	No
	Edge 2	0.136	0.117			0.253	No
		0.136		0		0.136	No
	Edge 3	0	0			0	No
		0		0		0	No
	Edge 4	0.265	0.278			0.543	No
		0.265		0.344		0.609	No

SAR to Peak Location Separation Ratio (SPLSR)

As the Sum of the SAR is not greater than 1.6 W/kg SPLSR assessment is not required.

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

13.34. Sum of the SAR for LTE Band 41 (LAT) + Wi-Fi DTS & UNII Band & BT

RF Exposure conditions	Test Position	Simultaneous Transmission Scenario				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band	Bluetooth		
Head	Left Touch	0.265	0.313			0.578	No
		0.265		0.219		0.484	No
	Left Tilt	0.090	0.344			0.434	No
		0.090		0.189		0.279	No
	Right Touch	0.501	0.510			1.011	No
		0.501		0.478		0.979	No
	Right Tilt	0.183	0.403			0.586	No
		0.183		0.490		0.673	No
Body-worn Accessory & Hotspot	Rear	1.180	0.586		N/A	1.766	**Yes**
		1.180		0.323	0.080	1.583	No
	Front	0.361	0.276		N/A	0.637	No
		0.361		0.404	0.031	0.796	No
Hotspot	Edge 1	0	0.285			0.285	No
		0		0.196		0.196	No
	Edge 2	0.328	0.117			0.445	No
		0.328		0		0.328	No
	Edge 3	0.509	0			0.509	No
		0.509		0		0.509	No
	Edge 4	0.269	0.278			0.547	No
		0.269		0.344		0.613	No

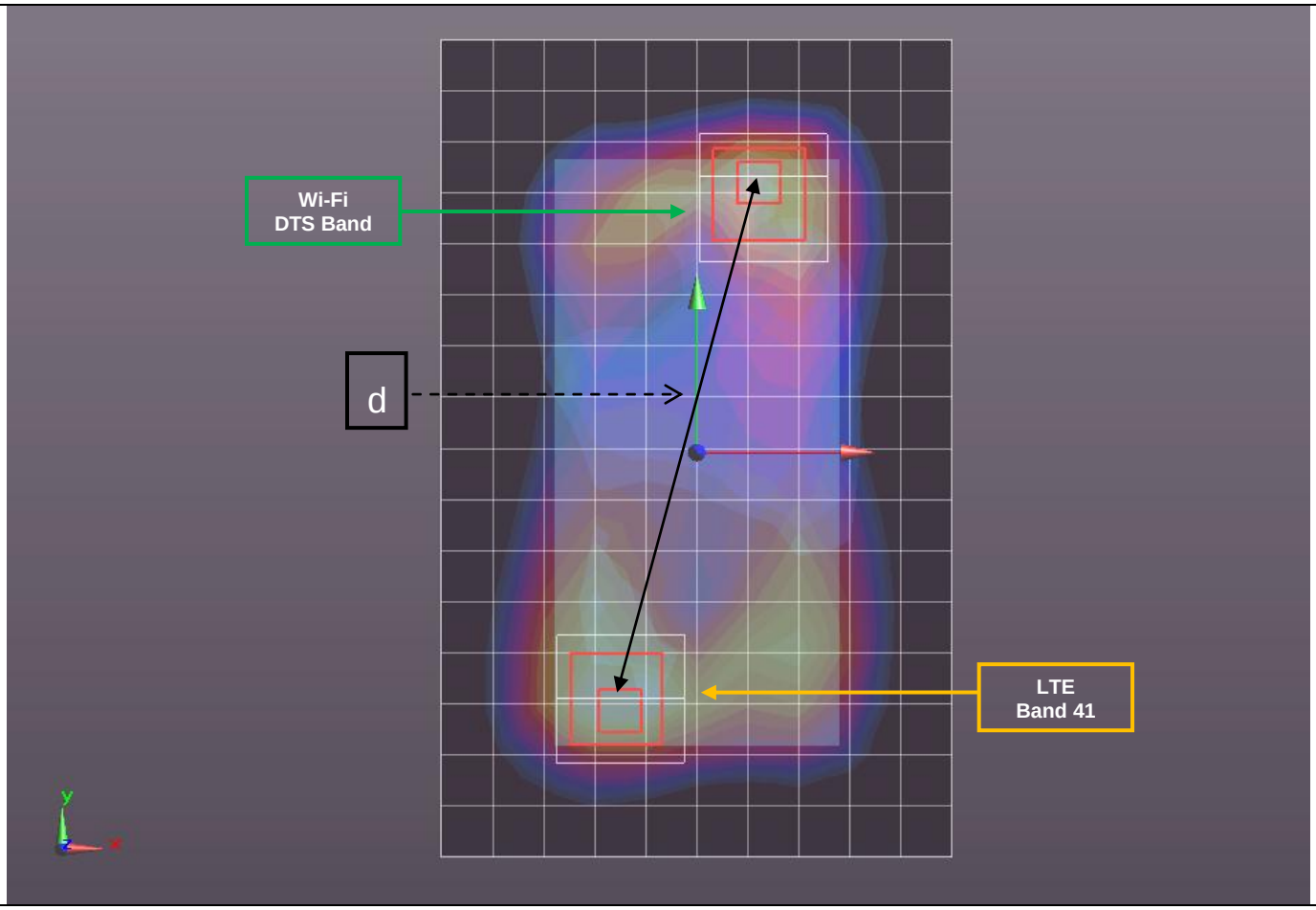
SAR to Peak Location Separation Ratio (SPLSR)

RF Exposure conditions	Test Position	Worst-case combination			∑ 1-g SAR (mW/g)	Calculated distance (mm)	SPLSR (≤ 0.04)	Volume Scan (Yes/ No)	Figure
		LTE Band 41	Wi-Fi DTS Band	Wi-Fi UNII Band					
Body-worn Accessory & Hotspot	Rear	1.180	0.586		1.766	127.2	0.018	No	1

Conclusion:

Simultaneous transmission SAR measurement (Volume Scan) is not required because the either sum of the 1-g SAR is < 1.6 W/kg or the SPLSR is < 0.04 for all circumstances that require SPLSR calculation.

Figure (1)



Mode	Peak SAR	X	Y	Z
	mW/g	m	m	m
LTE Band 41	3.52	-0.018	-0.0598	-0.182
Wi-Fi DTS Band	1.48	0.0156	0.0628	-0.186

d: Calculated distance (mm)
127.2

The Peak Location Separation Distance is computed by using the formula below:
SQRT((X1-X2)^2+(Y1-Y2)^2+(Z1-Z2)^2)

14. Appendixes

Refer to separated files for the following appendixes.

14.1. Photos

14.2. System Performance Check Plots

14.3. Highest SAR Test Plots

14.4. Calibration Certificate for E-Field Probe EX3DV4 - SN 3885

14.5. Calibration Certificate for E-Field Probe EX3DV4 - SN 3751

14.6. Calibration Certificate for E-Field Probe EX3DV4 - SN 3749

14.7. Calibration Certificate for E-Field Probe EX3DV4 - SN 3901

14.8. Calibration Certificate for E-Field Probe EX3DV4 - SN 3772

14.9. Calibration Certificate for E-Field Probe EX3DV4 - SN 3686

14.10. Calibration Certificate for E-Field Probe EX3DV4 - SN 3989

14.11. Calibration Certificate for E-Field Probe EX3DV4 - SN 3990

14.12. Calibration Certificate for D750V3 - SN 1024

14.13. Calibration Certificate for D835V2 - SN 4d142

14.14. Calibration Certificate for D1750V2- SN 1050

14.15. Calibration Certificate for D1750V2- SN 1053

14.16. Calibration Certificate for D1900V2- SN 5d140

14.17. Calibration Certificate for D1900V2- SN 5d163

14.18. Calibration Certificate for D2450V2 - SN 748

14.19. Calibration Certificate for D2450V2 - SN 706

14.20. Calibration Certificate for D2600V2 - SN 1036

14.21. Calibration Certificate for D5GHzV2 - SN 1003

14.22. Calibration Certificate for D5GHzV2 - SN 1168

14.23. Tissue Material Ingredients

END OF REPORT