FCC 47 CFR Parts 1 & 2
Published RF Exposure KDB Procedures
IEEE Std 1528-2003 and IEEE Std 1528a-2005

Class II Permissive Change

SAR EVALUATION REPORT

For
802.11a/g/n/ac 3X3 MIMO WLAN + Bluetooth PCI-E Mini Card
(Tested inside of 13-inch MacBook Pro Model A1502)

Model: BCM94360CS
FCC ID: QDS-BRCM1069

Report Number: 13U15196-1A
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Prepared for
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Revision History

Rev.	Issue Date	Revisions	Revised By
--	8/21/2013	Initial Issue	--
A	11/8/2013	Revised based on Reviewer's Comments: 1. Sec. 4 & 16.11: Added 5 GHz Dipole S/N 1003. 2. Sec. 9 & 10: Corrected Typo for 2.4 GHz, 5.2 GHz, & 5.5 GHz. 3. Sec. 10.1: Updated Note for 2.4 GHz. 4. Sec. 13.2, 13.4, 7 14.4: Additional Testing performed for UNII Band (5.2 GHz). Updated Table to add the SAR Test results.	Bobby Bayani

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1. Attestation of Test Results

Applicant	BROADCOM CORPORATION			
DUT description	802.11a/g/n/ac 3X3 MIMO WLAN + BT combo PCI-E Mini Card (Tested inside of 13-inch MacBook Pro Model A1502)			
Model numbers	BCM94360CS			
Test device is	An identical prototype			
Device category	Portable device			
Exposure category	General Population/Uncontrolled Exposure			
Date tested	7/2/2013 – 7/18/2013, 11/6/2013 – 11/7/2013			
The highest reported SAR values	RF exposure conditions	Licensed	DTS	UNII
	Laptop (Vendor A)	N/A W/kg	1.190 W/kg	1.190 W/kg
	Laptop (Vendor B)	N/A W/kg	1.190 W/kg	1.190 W/kg
Applicable Standards	FCC 47 CFR Parts 1 & 2 Published RF Exposure KDB Procedures, and TCB workshop updates IEEE Std 1528-2003 and IEEE Std 1528a-2005			
Test Results	Pass			

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:

Sunny Shih
WiSE Operations Manager
UL Verification Services Inc.

Prepared By:

Bobby Bayani
WiSE Engineer
UL Verification Services Inc.

2. Test Methodology

The tests documented in this report were performed in accordance with FCC 47 CFR Parts 1 & 2, IEEE STD 1528-2003, IEEE Std 1528a-2005, the following FCC Published RF exposure KDB procedures, and TCB workshop updates:

- KDB 447498 D01 General RF Exposure Guidance v05r01
- KDB 616217 D04 SAR for laptop and tablets v01r01
- KDB 248227 D01 SAR meas for 802 11abg v01r02
- KDB 865664 D01 SAR measurement 100 MHz to 6 GHz v01r01
- KDB 865664 D02 SAR Reporting v01r01
- April 2013 TCB Workshop Updates

3. Facilities and Accreditation

The test sites and measurement facilities used to collect data are located at 18920 Forge Drive, Cupertino, California, USA.

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. Calibration and Uncertainty

4.1. Measuring Instrument Calibration

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

Tissue Dielectric Properties

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
S-Parameter Network Analyzer	Agilent	N5230C	MY49001813	4/30/2014
Thermometer	Control Company	4353	122102412	2/24/2014
Dielectronic Probe kit	SPEAG	DAK-3.5	1055	4/30/2014

System Performance Check

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Vector Signal Generator	R & S	SMU200A	104592	7/27/2014
Vector Signal Generator	R & S	SMU200A	104591	7/26/2014
Power Meter	R & S	NRP2	102822	6/18/2014
Power Meter	R & S	NRP2	102823	6/18/2014
Power Sensor	R & S	NRP - Z81	112143	6/18/2014
Power Sensor	R & S	NRP - Z81	112142	6/18/2014
Amplifier	Amplifier Research	15S1G4M41, 0.7-4.2 GHz	335565	N/A
Amplifier	Amplifier Research	35S4G8A, 4-8 GHz	336934	N/A
Amplifier	Amplifier Research	15S1G4M41, 0.7-4.2 GHz	320316	N/A
Amplifier	Amplifier Research	35S4G8A, 4-8 GHz	341209	N/A
Directional coupler	KRYTAR	158010	142253	N/A
Directional coupler	KRYTAR	158010	92552	N/A
E-Field Probe	SPEAG	EX3DV4	3778	1/14/2014
E-Field Probe	SPEAG	EX3DV4	3720	1/14/2014
E-Field Probe	SPEAG	EX3DV4	3757	1/14/2014
E-Field Probe	SPEAG	EX3DV4	3676	1/14/2014
Data Acquisition Electronics	SPEAG	DAE4	1263	1/14/2014
Data Acquisition Electronics	SPEAG	DAE4	1264	1/14/2014
Data Acquisition Electronics	SPEAG	DAE4	1261	1/16/2014
Data Acquisition Electronics	SPEAG	DAE4	1278	1/30/2014
System Validation Dipole	SPEAG	D2450V2	900	10/5/2013
System Validation Dipole	SPEAG	D5GHzV2	1139	10/9/2013
System Validation Dipole	SPEAG	D5GHzV2	1072	2/8/2014
System Validation Dipole	SPEAG	D5GHzV2	1003	9/19/2014

Others

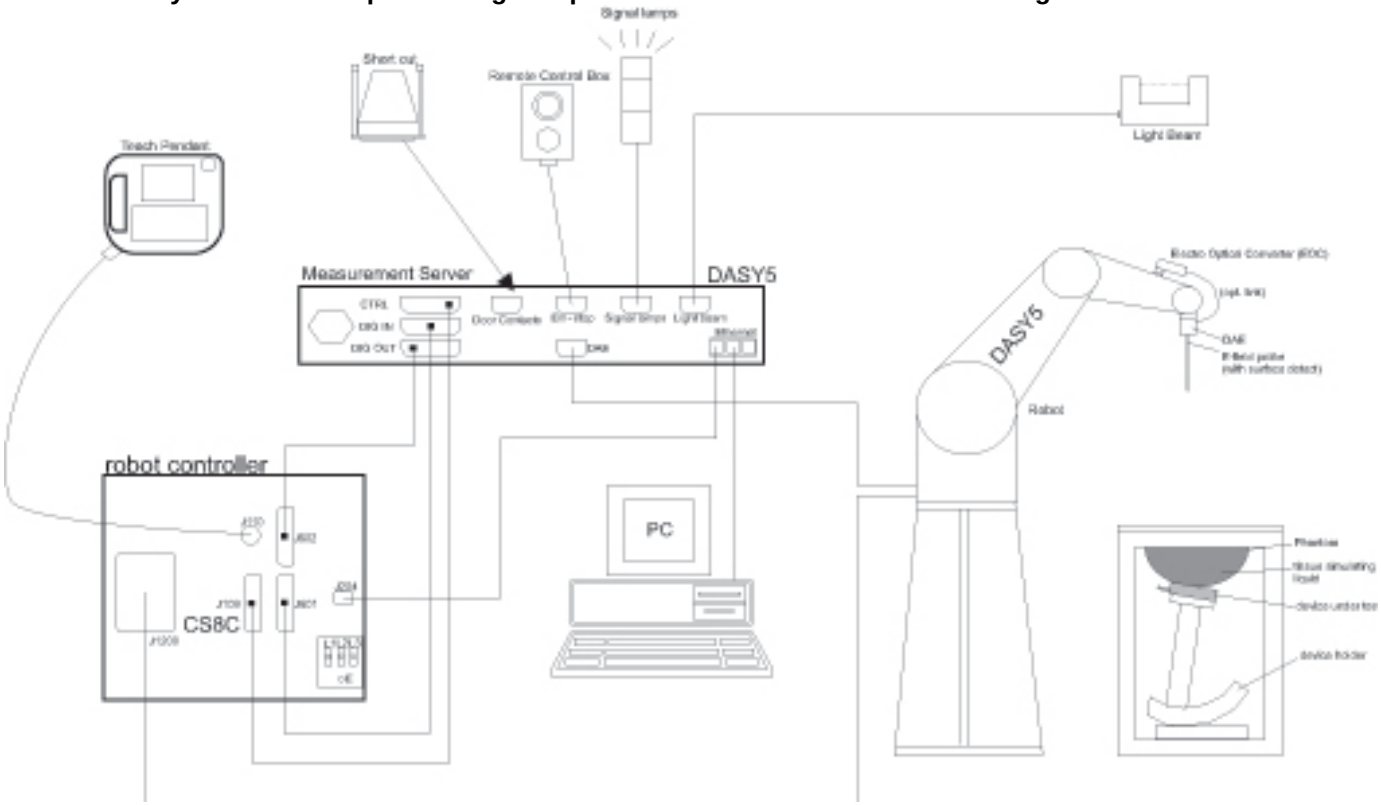
Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Power Meter	R & S	NRP2	101663	4/24/2014
Power Meter	R & S	NRP2	101664	4/24/2014
Power Sensor	R & S	NRP - Z81	101298	4/24/2014
Power Sensor	R & S	NRP - Z81	112138	4/26/2014

4.2. Measurement Uncertainty

Per KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r01 Section 2.8.1., 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.

5. Measurement System Description and Setup

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.

6. SAR Measurement Procedures

6.1. Normal SAR Measurement 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 v01

	≤ 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 v01

			≤ 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.

6.2. Volume Scan Procedures

Step 1: Repeat Step 1-4 in Section 6.1

Step 2: Volume Scan
Volume Scans are used to assess peak SAR and averaged SAR measurements in largely extended 3-dimensional volumes within any phantom. This measurement does not need any previous area scan. The grid can be anchored to a user specific point or to the current probe location.

Step 3: 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.

7. Device Under Test

7.1. General Information

802.11a/g/n/ac 3X3 MIMO WLAN + BT combo PCI-E Mini Card (Tested inside of 13-inch MacBook Pro Model A1502) Model: BCM94360CS		
Operating Configuration(s)	Laptop Mode (Notebook)	
Antennas Tested	Vendor Molex (A) / Amphenol (B) The Antenna-to-module mapping: Chain 1 - WiFi Antenna 3 Chain 0 - WiFi Antenna 2 Chain 2 - WiFi Antenna 1	Part Number WiFi 3 & Bluetooth: 613-1631 (for chain 1) WiFi 2: 613-1631 (for chain 0) WiFi 1 613-1631 (for chain 2)

7.2. Wireless Technologies

Wireless Mode and Frequency Bands	WiFi 802.11a/b/g/n/ac Bluetooth 2.4 GHz
Modulation	WiFi 802.11a/b/g/n HT20/HT40/HT80 /ac VHT20/VHT40/VHT80 Bluetooth Ver. 4.0
Duty Cycle	WiFi 802.11a/b/g/n/ac: 100%
Simultaneous Transmission Condition	WiFi 5 GHz Bands can transmit simultaneously with BT WiFi 2.4 GHz Band cannot transmit simultaneously with BT

7.3. Possible Combinations of 802.11 Modes vs. Tx Diversity Configurations

Band	802.11 Modes	Tx diversity configurations	Original	C2PC
2.4GHz (DTS)	11b	1 Tx	√	√
		2 Tx CDD	√	√
		3 Tx CDD	√	√
	11g	1 Tx	√	√
		2 Tx (CDD)	√	√
		2 Tx (TXBF)	√	√
		3 Tx (CDD)	√	√
		3 Tx (TXBF)	√	√
	11n	HT20 (1 Tx)	√	√
		HT40 (1 Tx)	disabled	disabled
		HT20 All non TXBF (2 Tx)	√	√
		HT20 TXBF (2 Tx)	√	√
		HT40 All/TXBF (2 Tx)	disabled	disabled
		HT20 All non TXBF (3 Tx)	√	√
		HT20 TXBF (3 Tx)	√	√
		HT40 All/TXBF (3 Tx)	disabled	disabled
	11ac	VHT20 (1 Tx)	√	√
		VHT40 (1 Tx)	disabled	disabled
		VHT80 (1 Tx)	disabled	disabled
		VHT20 All (2 Tx)	√	√
		VHT20 TXBF (2 Tx)	√	√
		VHT40 All/TXBF (2 Tx)	disabled	disabled
		VHT80 All/TXBF (2 Tx)	disabled	disabled
		VHT20 All (3 Tx)	√	√
		VHT20 TXBF (3 Tx)	√	√
		VHT40 All/TXBF (3 Tx)	disabled	disabled
		VHT80 All/TXBF (3 Tx)	disabled	disabled
*Note: The 11n 2Tx/3Tx, 11ac 2Tx/3Tx VHT20/VHT40/VHT80 "All" modes detailed apply to all of CDD/STBC/SDM modes.				

Possible Combinations of 802.11 Modes vs. Tx Diversity Configurations (continued)

Band	802.11 modes	Tx diversity configurations	Original	C2PC
5.2GHz (UNII)	11a	1 Tx	√	√
		2 Tx CDD	√	√
		2 Tx TXBF	√	√
		3 Tx CDD	disabled	disabled
		3 Tx TXBF	disabled	disabled
	11n	HT20 SISO (1 Tx)	√	√
		HT40 SISO (1 Tx)	√	√
		HT20 CDD (2 Tx)	√	√
		HT20 STBC/SDM (2 Tx)	√	√
		HT20 TXBF (2 Tx)	√	√
		HT40 CDD (2 Tx)	√	√
		HT40 STBC/SDM (2 Tx)	√	√
		HT40 TXBF (2 Tx)	√	√
		HT20 CDD (3 Tx)	disabled	disabled
		HT20 STBC/SDM (3 Tx)	√	√
		HT20 TXBF (3 Tx)	disabled	disabled
		HT40 CDD (3 Tx)	√	√
		HT40 STBC/SDM (3 Tx)	√	√
		HT40 TXBF (3 Tx)	√	√
	11ac	VHT20 SISO (1 Tx)	√	√
		VHT40 SISO (1 Tx)	√	√
		VHT80 SISO (1 Tx)	√	√
		VHT20 CDD (2 Tx)	√	√
		VHT20 STBC/SDM (2 Tx)	√	√
		VHT20 TXBF (2 Tx)	√	√
		VHT40 CDD (2 Tx)	√	√
		VHT40 STBC/SDM (2 Tx)	√	√
		VHT40 TXBF (2 Tx)	√	√
		VHT80 CDD (2 Tx)	√	√
		VHT80 STBC/SDM (2 Tx)	√	√
		VHT80 TXBF (2 Tx)	√	√
		VHT20 CDD (3 Tx)	disabled	disabled
		VHT20 STBC/SDM (3 Tx)	√	√
		VHT20 TXBF (3 Tx)	disabled	disabled
		VHT40 CDD (3 Tx)	√	√
		VHT40 STBC/SDM (3 Tx)	√	√
		VHT40 TXBF (3 Tx)	√	√
		VHT80 CDD (3 Tx)	√	√
		VHT80 STBC/SDM (3 Tx)	√	√
		VHT80 TXBF (3 Tx)	√	√

Possible Combinations of 802.11 Modes vs. Tx Diversity Configurations (continued)

Band	802.11 modes	Tx diversity configurations	Original	C2PC
5.3GHz (UNII)	11a	1 Tx	√	√
		2 Tx CDD	√	√
		2 Tx TXBF	√	√
		3 Tx CDD	√	√
		3 Tx TXBF	√	√
	11n	HT20 SISO (1 Tx)	√	√
		HT40 SISO (1 Tx)	√	√
		HT20 CDD (2 Tx)	√	√
		HT20 STBC/SDM (2 Tx)	√	√
		HT20 TXBF (2 Tx)	√	√
		HT40 CDD (2 Tx)	√	√
		HT40 STBC/SDM (2 Tx)	√	√
		HT40 TXBF (2 Tx)	√	√
		HT20 CDD (3 Tx)	√	√
		HT20 STBC/SDM (3 Tx)	√	√
		HT20 TXBF (3 Tx)	√	√
		HT40 CDD (3 Tx)	√	√
		HT40 STBC/SDM (3 Tx)	√	√
		HT40 TXBF (3 Tx)	√	√
	11ac	VHT20 SISO (1 Tx)	√	√
		VHT40 SISO (1 Tx)	√	√
		VHT80 SISO (1 Tx)	√	√
		VHT20 CDD (2 Tx)	√	√
		VHT20 STBC/SDM (2 Tx)	√	√
		VHT20 TXBF (2 Tx)	√	√
		VHT40 CDD (2 Tx)	√	√
		VHT40 STBC/SDM (2 Tx)	√	√
		VHT40 TXBF (2 Tx)	√	√
		VHT80 CDD (2 Tx)	√	√
		VHT80 STBC/SDM (2 Tx)	√	√
		VHT80 TXBF (2 Tx)	√	√
		VHT20 CDD (3 Tx)	√	√
		VHT20 STBC/SDM (3 Tx)	√	√
		VHT20 TXBF (3 Tx)	√	√
		VHT40 CDD (3 Tx)	√	√
		VHT40 STBC/SDM (3 Tx)	√	√
		VHT40 TXBF (3 Tx)	√	√
		VHT80 CDD (3 Tx)	√	√
		VHT80 STBC/SDM (3 Tx)	√	√
		VHT80 TXBF (3 Tx)	√	√

Possible Combinations of 802.11 Modes vs. Tx Diversity Configurations (continued)

Band	802.11 modes	Tx diversity configurations	Original	C2PC
5.5GHz (UNII)	11a	1 Tx	√	√
		2 Tx CDD	√	√
		2 Tx TXBF	√	√
		3 Tx CDD	√	√
		3 Tx TXBF	√	√
	11n	HT20 SISO (1 Tx)	√	√
		HT40 SISO (1 Tx)	√	√
		HT20 CDD (2 Tx)	√	√
		HT20 STBC/SDM (2 Tx)	√	√
		HT20 TXBF (2 Tx)	√	√
		HT40 CDD (2 Tx)	√	√
		HT40 STBC/SDM (2 Tx)	√	√
		HT40 TXBF (2 Tx)	√	√
		HT20 CDD (3 Tx)	√	√
		HT20 STBC/SDM (3 Tx)	√	√
		HT20 TXBF (3 Tx)	√	√
		HT40 CDD (3 Tx)	√	√
		HT40 STBC/SDM (3 Tx)	√	√
		HT40 TXBF (3 Tx)	√	√
	11ac	VHT20 SISO (1 Tx)	√	√
		VHT40 SISO (1 Tx)	√	√
		VHT80 SISO (1 Tx)	√	√
		VHT20 CDD (2 Tx)	√	√
		VHT20 STBC/SDM (2 Tx)	√	√
		VHT20 TXBF (2 Tx)	√	√
		VHT40 CDD (2 Tx)	√	√
		VHT40 STBC/SDM (2 Tx)	√	√
		VHT40 TXBF (2 Tx)	√	√
		VHT80 CDD (2 Tx)	√	√
		VHT80 STBC/SDM (2 Tx)	√	√
		VHT80 TXBF (2 Tx)	√	√
		VHT20 CDD (3 Tx)	√	√
		VHT20 STBC/SDM (3 Tx)	√	√
		VHT20 TXBF (3 Tx)	√	√
		VHT40 CDD (3 Tx)	√	√
		VHT40 STBC/SDM (3 Tx)	√	√
		VHT40 TXBF (3 Tx)	√	√
		VHT80 CDD (3 Tx)	√	√
		VHT80 STBC/SDM (3 Tx)	√	√
		VHT80 TXBF (3 Tx)	√	√

Possible Combinations of 802.11 Modes vs. Tx Diversity Configurations (continued)

Band	802.11 modes	Tx diversity configurations	Original	C2PC
5.8GHz (DTS)	11a	1 Tx	√	√
		2 Tx CDD	√	√
		2 Tx TXBF	√	√
		3 Tx CDD	√	√
		3 Tx TXBF	√	√
	11n	HT20 SISO (1 Tx)	√	√
		HT40 SISO (1 Tx)	√	√
		HT20 CDD (2 Tx)	√	√
		HT20 STBC/SDM (2 Tx)	√	√
		HT20 TXBF (2 Tx)	√	√
		HT40 CDD (2 Tx)	√	√
		HT40 STBC/SDM (2 Tx)	√	√
		HT40 TXBF (2 Tx)	√	√
		HT20 CDD (3 Tx)	√	√
		HT20 STBC/SDM (3 Tx)	√	√
		HT20 TXBF (3 Tx)	√	√
		HT40 CDD (3 Tx)	√	√
		HT40 STBC/SDM (3 Tx)	√	√
		HT40 TXBF (3 Tx)	√	√
	11ac	VHT20 SISO (1 Tx)	√	√
		VHT40 SISO (1 Tx)	√	√
		VHT80 SISO (1 Tx)	√	√
		VHT20 CDD (2 Tx)	√	√
		VHT20 STBC/SDM (2 Tx)	√	√
		VHT20 TXBF (2 Tx)	√	√
		VHT40 CDD (2 Tx)	√	√
		VHT40 STBC/SDM (2 Tx)	√	√
		VHT40 TXBF (2 Tx)	√	√
		VHT80 CDD (2 Tx)	√	√
		VHT80 STBC/SDM (2 Tx)	√	√
		VHT80 TXBF (2 Tx)	√	√
		VHT20 CDD (3 Tx)	√	√
		VHT20 STBC/SDM (3 Tx)	√	√
		VHT20 TXBF (3 Tx)	√	√
		VHT40 CDD (3 Tx)	√	√
		VHT40 STBC/SDM (3 Tx)	√	√
		VHT40 TXBF (3 Tx)	√	√
		VHT80 CDD (3 Tx)	√	√
		VHT80 STBC/SDM (3 Tx)	√	√
		VHT80 TXBF (3 Tx)	√	√

8. RF Exposure Conditions

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

8.1. Laptop

Test Configurations	Antenna-to-edge/surface	SAR Required	Note
Rear	6.89 mm	Yes	

9. Summary of Required Test Modes

9.1. WiFi (2.4 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11b Legacy	**1 Tx**	**1**	**2412**	**20.00**			**16.25**			**Yes**	
		6	**2437**	**20.00**			**16.25**				
		11	**2462**	**19.00**			**16.25**				
		1	**2412**		**20.00**			**17.50**			
		6	**2437**		**20.00**			**17.50**			
		11	**2462**		**19.00**			**17.50**			
		1	**2412**			**20.00**			**16.50**		
		6	**2437**			**20.00**			**16.50**		
		11	**2462**			**19.00**			**16.50**		
	2 Tx CDD	**1**	**2412**	**20.00**	**20.00**		**16.25**	**17.50**		**Yes**	
		6	**2437**	**20.00**	**20.00**		**16.25**	**17.50**			
		11	**2462**	**19.00**	**19.00**		**16.25**	**17.50**			
		1	**2412**	**20.00**		**20.00**	**16.25**		**16.50**		
		6	**2437**	**20.00**		**20.00**	**16.25**		**16.50**		
		11	**2462**	**19.00**		**19.00**	**16.25**		**16.50**		
		1	**2412**		**20.00**	**20.00**		**17.50**	**16.50**		
		6	**2437**		**20.00**	**20.00**		**17.50**	**16.50**		
		11	**2462**		**19.00**	**19.00**		**17.50**	**16.50**		
	3 Tx CDD	**1**	**2412**	**20.00**	**20.00**	**20.00**	**16.25**	**17.50**	**16.50**	**Yes**	
		6	**2437**	**20.00**	**20.00**	**20.00**	**16.25**	**17.50**	**16.50**		
		11	**2462**	**19.00**	**19.00**	**19.00**	**16.25**	**17.50**	**16.50**		
802.11g	1 Tx	1	2412	17.50			16.25			No	3
		2	2417	20.00			16.25				
		6	2437	20.00			16.25				
		10	2457	20.00			16.25				
		11	2462	18.00			16.25				
		1	2412		17.50			17.50			
		2	2417		20.00			17.50			
		6	2437		20.00			17.50			
		10	2457		20.00			17.50			
		11	2462		18.00			17.50			
		1	2412			17.50			16.50		
		2	2417			20.00			16.50		
		6	2437			20.00			16.50		
		10	2457			20.00			16.50		
		11	2462			18.00			16.50		
	2 Tx CDD	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2417	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	17.00	17.00		16.25	17.00			
		1	2412	14.50		14.50	14.50		14.50		
		2	2417	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	17.00		17.00	16.25		16.50		
		1	2412		14.50	14.50		14.50	14.50		
		2	2417		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		17.00	17.00		17.00	16.50		

Summary of Required Test Modes for WiFi 2.4 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11g	3 Tx CDD	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2417	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	17.00	17.00	17.00	16.25	17.00	16.50		
	2 Tx TXBF	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2417	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	16.50	16.50		16.25	16.50			
		1	2412	14.50		14.50	14.50		14.50		
		2	2417	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	16.50		16.50	16.25		16.50		
		1	2412		14.50	14.50		14.50	14.50		
		2	2417		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		16.50	16.50		16.50	16.50		
	3 Tx TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2417	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	16.50	16.50	16.50	16.25	16.50	16.50		
802.11n	1 Tx HT20	1	2412	17.50			16.25			No	3
		2	2422	20.00			16.25				
		6	2437	20.00			16.25				
		10	2457	20.00			16.25				
		11	2462	18.00			16.25				
		1	2412		17.50			17.50			
		2	2422		20.00			17.50			
		6	2437		20.00			17.50			
		10	2457		20.00			17.50			
		11	2462		18.00			17.50			
		1	2412			17.50			16.50		
		2	2422			20.00			16.50		
		6	2437			20.00			16.50		
		10	2457			20.00			16.50		
		11	2462			18.00			16.50		
	2 Tx HT20 All[2] nonTXBF	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2422	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	17.00	17.00		16.25	17.00			
		1	2412	14.50		14.50	14.50		14.50		
		2	2422	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	17.00		17.00	16.25		16.50		
		1	2412		14.50	14.50		14.50	14.50		
		2	2422		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		17.00	17.00		17.00	16.50		

Summary of Required Test Modes for WiFi 2.4 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	3 Tx HT20 All[2] nonTXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2422	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	17.00	17.00	17.00	16.25	17.00	16.50		
	2 Tx HT20 TXBF	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2422	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	16.50	16.50		16.25	16.50			
		1	2412	14.50		14.50	14.50		14.50		
		2	2422	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	16.50		16.50	16.25		16.50		
		1	2412		14.50	14.50		14.50	14.50		
		2	2422		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		16.50	16.50		16.50	16.50		
	3 Tx HT20 TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2422	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	16.50	16.50	16.50	16.25	16.50	16.50		
	1 Tx HT40	40MHz Transmission disabled in the 2.4GHz Band									
	2 Tx HT40 All[2]/TXBF	40MHz Transmission disabled in the 2.4GHz Band									
	3 Tx HT40 All[2]/TXBF	40MHz Transmission disabled in the 2.4GHz Band									
802.11ac	1 Tx VHT20	1	2412	17.50			16.25			No	3
		2	2422	20.00			16.25				
		6	2437	20.00			16.25				
		10	2457	20.00			16.25				
		11	2462	18.00			16.25				
		1	2412		17.50			17.50			
		2	2422		20.00			17.50			
		6	2437		20.00			17.50			
		10	2457		20.00			17.50			
		11	2462		18.00			17.50			
		1	2412			17.50			16.50		
		2	2422			20.00			16.50		
		6	2437			20.00			16.50		
		10	2457			20.00			16.50		
		11	2462			18.00			16.50		

Summary of Required Test Modes for WiFi 2.4 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	2 Tx VHT20 All[2]	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2422	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	16.50	16.50		16.25	16.50			
		1	2412	14.50		14.50	14.50		14.50		
		2	2422	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	16.50		16.50	16.25		16.50		
		1	2412		14.50	14.50		14.50	14.50		
		2	2422		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		16.50	16.50		16.50	16.50		
	3 Tx VHT20 All[2]	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2422	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	17.00	17.00	17.00	16.25	17.00	16.50		
	2 Tx VHT20 TXBF	1	2412	14.50	14.50		14.50	14.50		No	3
		2	2422	19.00	19.00		16.25	17.50			
		6	2437	20.00	20.00		16.25	17.50			
		10	2457	18.00	18.00		16.25	17.50			
		11	2462	16.50	16.50		16.25	16.50			
		1	2412	14.50		14.50	14.50		14.50		
		2	2422	19.00		19.00	16.25		16.50		
		6	2437	20.00		20.00	16.25		16.50		
		10	2457	18.00		18.00	16.25		16.50		
		11	2462	16.50		16.50	16.25		16.50		
		1	2412		14.50	14.50		14.50	16.50		
		2	2422		19.00	19.00		17.50	16.50		
		6	2437		20.00	20.00		17.50	16.50		
		10	2457		18.00	18.00		17.50	16.50		
		11	2462		16.50	16.50		16.50	16.50		
	3 Tx VHT20 TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		2	2422	19.00	19.00	19.00	16.25	17.50	16.50		
		6	2437	20.00	20.00	20.00	16.25	17.50	16.50		
		10	2457	18.00	18.00	18.00	16.25	17.50	16.50		
		11	2462	16.50	16.50	16.50	16.25	16.50	16.50		
	1 Tx VHT40	40MHz Transmission disabled in the 2.4GHz Band									
	2 Tx VHT40 All[2]/TXBF	40MHz Transmission disabled in the 2.4GHz Band									
	3 Tx HT40 All[2]/TXBF	40MHz Transmission disabled in the 2.4GHz Band									
	1 Tx VHT80	80MHz Transmission disabled in the 2.4GHz Band									
	2 Tx VHT80 All[2]/TXBF	80MHz Transmission disabled in the 2.4GHz Band									
	3 Tx VHT80 All[2]/TXBF	80MHz Transmission disabled in the 2.4GHz Band									

Note(s):

1. The “Original Approval” power levels were based upon FCC modular approval testing of the BCM94360CS radio. These power levels were approved up to maximum regulatory levels to cover a number of different potential applications. The original maximum regulatory power levels may be reduced further by the driver for one of the following two reasons:
   a) For performance (i.e. non-regulatory) reasons to ensure that PER and EVM of the radio meet internal specifications.
   b) For application specifics. In this case the power is reduced to meet the specific SAR requirement per transmit chain over frequency band/channel. SAR specifics are addressed in a Class II permissive change as applicable.
2. The 11n 2Tx, 3Tx HT20/HT40 and 11ac 2Tx, 3Tx VHT20/VHT40/VHT80 "All" modes detailed apply to all of the CDD/STBC/SDM non-transmit beamforming modes.
3. 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.
4. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.
   a) Vendor A
   b) Vendor B

9.2. WiFi (5.2 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	**1 Tx**	**36**	**5180**	**15.00**			**15.00**			**Yes**	
		40	**5200**	**15.00**			**15.00**				
		44	**5220**	**15.00**			**15.00**				
		48	**5240**	**15.00**			**15.00**				
		36	**5180**		**15.00**			**15.00**			
		40	**5200**		**15.00**			**15.00**			
		44	**5220**		**15.00**			**15.00**			
		48	**5240**		**15.00**			**15.00**			
		36	**5180**			**15.00**			**15.00**		
		40	**5200**			**15.00**			**15.00**		
		44	**5220**			**15.00**			**15.00**		
		48	**5240**			**15.00**			**15.00**		
	2 Tx CDD	**36**	**5180**	**11.00**	**11.00**		**11.00**	**11.00**		**Yes**	
		40	**5200**	**11.00**	**11.00**		**11.00**	**11.00**			
		44	**5220**	**11.00**	**11.00**		**11.00**	**11.00**			
		48	**5240**	**11.00**	**11.00**		**11.00**	**11.00**			
		36	**5180**	**11.00**		**11.00**	**11.00**		**11.00**		
		40	**5200**	**11.00**		**11.00**	**11.00**		**11.00**		
		44	**5220**	**11.00**		**11.00**	**11.00**		**11.00**		
		48	**5240**	**11.00**		**11.00**	**11.00**		**11.00**		
		36	**5180**		**11.00**	**11.00**		**11.00**	**11.00**		
		40	**5200**		**11.00**	**11.00**		**11.00**	**11.00**		
		44	**5220**		**11.00**	**11.00**		**11.00**	**11.00**		
		48	**5240**		**11.00**	**11.00**		**11.00**	**11.00**		
	3 Tx CDD	36	5180	This mode disabled in driver.							
		40	5200								
		44	5220								
		48	5240								
	2 Tx TXBF	36	5180	11.00	11.00		11.00	11.00		No	3
		40	5200	11.00	11.00		11.00	11.00			
		44	5220	11.00	11.00		11.00	11.00			
		48	5240	11.00	11.00		11.00	11.00			
		36	5180	11.00		11.00	11.00		11.00		
		40	5200	11.00		11.00	11.00		11.00		
		44	5220	11.00		11.00	11.00		11.00		
		48	5240	11.00		11.00	11.00		11.00		
		36	5180		11.00	11.00		11.00	11.00		
		40	5200		11.00	11.00		11.00	11.00		
		44	5220		11.00	11.00		11.00	11.00		
		48	5240		11.00	11.00		11.00	11.00		
	3 Tx TXBF	36	5180	This mode disabled in driver.							
		40	5200								
		44	5220								
		48	5240								
802.11n	1 Tx HT20 SISO	36	5180	15.00			15.00			No	3
		44	5220	15.00			15.00				
		48	5240	15.00			15.00				
		36	5180		15.00			15.00			
		44	5220		15.00			15.00			
		48	5240		15.00			15.00			
		36	5180			15.00			15.00		
		44	5220			15.00			15.00		
		48	5240			15.00			15.00		

Summary of Required Test Modes for WiFi 5.2 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT20 CDD	36	5180	11.00	11.00		11.00	11.00		No	3
		40	5200	11.00	11.00		11.00	11.00			
		48	5240	11.00	11.00		11.00	11.00			
		36	5180	11.00		11.00	11.00		11.00		
		40	5200	11.00		11.00	11.00		11.00		
		48	5240	11.00		11.00	11.00		11.00		
		36	5180		11.00	11.00		11.00	11.00		
		40	5200		11.00	11.00		11.00	11.00		
		48	5240		11.00	11.00		11.00	11.00		
	3 Tx HT20 CDD	36	5180	This mode disabled in driver.							
		40	5200								
		48	5240								
	2 Tx HT20 STBC/SDM	**36**	**5180**	**12.50**	**12.50**		**12.50**	**12.50**		**Yes**	
		40	**5200**	**12.50**	**12.50**		**12.50**	**12.50**			
		48	**5240**	**12.50**	**12.50**		**12.50**	**12.50**			
		36	**5180**	**12.50**		**12.50**	**12.50**		**12.50**		
		40	**5200**	**12.50**		**12.50**	**12.50**		**12.50**		
		48	**5240**	**12.50**		**12.50**	**12.50**		**12.50**		
		36	**5180**		**12.50**	**12.50**		**12.50**	**12.50**		
		40	**5200**		**12.50**	**12.50**		**12.50**	**12.50**		
		48	**5240**		**12.50**	**12.50**		**12.50**	**12.50**		
	3 Tx HT20 STBC/SDM	36	5180	11.50	11.50	11.50	11.50	11.50	11.50	No	**3**
		40	5200	11.50	11.50	11.50	11.50	11.50	11.50		
		48	5240	11.50	11.50	11.50	11.50	11.50	11.50		
	2 Tx HT20 TXBF	36	5180	11.00	11.00		11.00	11.00		No	3
		40	5200	11.00	11.00		11.00	11.00			
		48	5240	11.00	11.00		11.00	11.00			
		36	5180	11.00		11.00	11.00		11.00		
		40	5200	11.00		11.00	11.00		11.00		
		48	5240	11.00		11.00	11.00		11.00		
		36	5180		11.00	11.00		11.00	11.00		
		40	5200		11.00	11.00		11.00	11.00		
		48	5240		11.00	11.00		11.00	11.00		
	3 Tx HT20 TXBF	36	5180	This mode disabled in driver.							
		40	5200								
		48	5240								
	1 Tx HT40 SISO	**38**	**5190**	**15.50**			**15.50**			**Yes**	
		46	**5230**	**15.50**			**15.50**				
		38	**5190**		**15.50**			**15.50**			
		46	**5230**		**15.50**			**15.50**			
		38	**5190**			**15.50**			**15.50**		
		46	**5230**			**15.50**			**15.50**		
	2 Tx HT40 CDD	38	5190	12.00	12.00		12.00	12.00		No	3
		46	5230	12.00	12.00		12.00	12.00			
		38	5190	12.00		12.00	12.00		12.00		
		46	5230	12.00		12.00	12.00		12.00		
		38	5190		12.00	12.00		12.00	12.00		
		46	5230		12.00	12.00		12.00	12.00		
	3 Tx HT40 CDD	38	5190	11.00	11.00	11.00	11.00	11.00	11.00	No	3
		46	5230	11.50	11.50	11.50	11.50	11.50	11.50		

Summary of Required Test Modes for WiFi 5.2 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT40 STBC/SDM	38	5190	12.00	12.00		12.00	12.00		No	3
		46	5230	12.00	12.00		12.00	12.00			
		38	5190	12.00		12.00	12.00		12.00		
		46	5230	12.00		12.00	12.00		12.00		
		38	5190		12.00	12.00		12.00	12.00		
		46	5230		12.00	12.00		12.00	12.00		
	3 Tx HT40 STBC/SDM	**38**	**5190**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**Yes**	**4a, 4b**
		46	**5230**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**		
	2 Tx HT40 TXBF	38	5190	9.50	9.50		9.50	9.50		No	3
		46	5230	9.50	9.50		9.50	9.50			
		38	5190	9.50		9.50	9.50		9.50		
		46	5230	9.50		9.50	9.50		9.50		
		38	5190		9.50	9.50		9.50	9.50		
		46	5230		9.50	9.50		9.50	9.50		
	3 Tx HT40 TXBF	38	5190	7.50	7.50	7.50	7.50	7.50	7.50	No	3
		46	5230	7.50	7.50	7.50	7.50	7.50	7.50		
802.11ac	**1 Tx VHT20 SISO**	36	5180	15.00			15.00			No	3
		44	5220	15.00			15.00				
		48	5240	15.00			15.00				
		36	**5180**		**15.00**			**15.00**		**Yes**	**4a, 4b**
		44	5220		15.00			15.00		No	3
		48	5240		15.00			15.00			
		36	5180			15.00			15.00		
		44	5220			15.00			15.00		
		48	5240			15.00			15.00		
	1 Tx VHT80 SISO	42	5210	14.50			14.50			No	3
		42	5210		14.50			14.50			
		42	5210			14.50			14.50		
	2 Tx VHT20 CDD	36	5180	11.00	11.00		11.00	11.00		No	3
		40	5200	11.00	11.00		11.00	11.00			
		48	5240	11.00	11.00		11.00	11.00			
		36	5180	11.00		11.00	11.00		11.00		
		40	5200	11.00		11.00	11.00		11.00		
		48	5240	11.00		11.00	11.00		11.00		
		36	5180		11.00	11.00		11.00	11.00		
		40	5200		11.00	11.00		11.00	11.00		
		48	5240		11.00	11.00		11.00	11.00		
	3 Tx VHT20 CDD	36	5180	This mode disabled in driver.							
		40	5200								
		48	5240								
	2 Tx VHT20 STBC/SDM	36	5180	12.50	12.50		12.50	12.50		No	3
		40	5200	12.50	12.50		12.50	12.50			
		48	5240	12.50	12.50		12.50	12.50			
		36	5180	12.50		12.50	12.50		12.50		
		40	5200	12.50		12.50	12.50		12.50		
		48	5240	12.50		12.50	12.50		12.50		
		36	5180		12.50	12.50		12.50	12.50		
		40	5200		12.50	12.50		12.50	12.50		
		48	5240		12.50	12.50		12.50	12.50		
	3 Tx VHT20 STBC/SDM	36	5180	11.50	11.50	11.50	11.50	11.50	11.50	No	3
		40	5200	11.50	11.50	11.50	11.50	11.50	11.50		
		48	5240	11.50	11.50	11.50	11.50	11.50	11.50		

Summary of Required Test Modes for WiFi 5.2 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	2 Tx VHT20 TXBF	36	5180	11.00	11.00		11.00	11.00		No	3
		40	5200	11.00	11.00		11.00	11.00			
		48	5240	11.00	11.00		11.00	11.00			
		36	5180	11.00		11.00	11.00		11.00		
		40	5200	11.00		11.00	11.00		11.00		
		48	5240	11.00		11.00	11.00		11.00		
		36	5180		11.00	11.00		11.00	11.00		
		40	5200		11.00	11.00		11.00	11.00		
		48	5240		11.00	11.00		11.00	11.00		
	3 Tx VHT20 TXBF	36	5180	This mode disabled in driver.							
		40	5200								
		48	5240								
	1 Tx VHT40 SISO	38	5190	15.50			15.50			No	3
		46	5230	15.50			15.50				
		38	5190		15.50			15.50			
		46	5230		15.50			15.50			
		38	5190			15.50			15.50		
		46	5230			15.50			15.50		
	2 Tx VHT40 CDD	38	5190	12.00	12.00		12.00	12.00		No	3
		46	5230	12.00	12.00		12.00	12.00			
		38	5190	12.00		12.00	12.00		12.00		
		46	5230	12.00		12.00	12.00		12.00		
		38	5190		12.00	12.00		12.00	12.00		
		46	5230		12.00	12.00		12.00	12.00		
	3 Tx VHT40 CDD	38	5190	11.00	11.00	11.00	11.00	11.00	11.00	No	3
		46	5230	11.50	11.50	11.50	11.50	11.50	11.50		
	2 Tx VHT40 STBC/SDM	38	5190	12.00	12.00		12.00	12.00		No	3
		46	5230	12.00	12.00		12.00	12.00			
		38	5190	12.00		12.00	12.00		12.00		
		46	5230	12.00		12.00	12.00		12.00		
		38	5190		12.00	12.00		12.00	12.00		
		46	5230		12.00	12.00		12.00	12.00		
	3 Tx VHT40 STBC/SDM	38	5190	12.00	12.00	12.00	12.00	12.00	12.00	No	3
		46	5230	12.00	12.00	12.00	12.00	12.00	12.00		
	2 Tx VHT40 TXBF	38	5190	9.50	9.50		9.50	9.50		No	3
		46	5230	9.50	9.50		9.50	9.50			
		38	5190	9.50		9.50	9.50		9.50		
		46	5230	9.50		9.50	9.50		9.50		
		38	5190		9.50	9.50		9.50	9.50		
		46	5230		9.50	9.50		9.50	9.50		
	3 Tx VHT40 TXBF	38	5190	7.50	7.50	7.50	7.50	7.50	7.50	No	3
		46	5230	7.50	7.50	7.50	7.50	7.50	7.50		
	1 Tx VHT80 SISO	42	5210	14.50			14.50			No	3
		42	5210		14.50			14.50			
		42	5210			14.50			14.50		
	2 Tx VHT80 CDD	42	5210	12.50	12.50		12.50	12.50		No	3
		42	5210	12.50		12.50	12.50		12.50		
		42	5210		12.50	12.50		12.50	12.50		

Summary of Required Test Modes for WiFi 5.2 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT80 CDD	42	5210	12.00	12.00	12.00	12.00	12.00	12.00	No	3
	2 Tx VHT80 STBC/SDM	42	5210	12.50	12.50		12.50	12.50		No	3
		42	5210	12.50		12.50	12.50		12.50		
		42	5210		12.50	12.50		12.50	12.50		
	3 Tx VHT80 STBC/SDM	42	5210	12.00	12.00	12.00	12.00	12.00	12.00	No	3
	2 Tx VHT80 TXBF	42	5210	10.00	10.00		10.00	10.00		No	3
		42	5210	10.00	10.00	10.00	10.00		10.00		
		42	5210		10.00	10.00		10.00	10.00		
	3 Tx VHT80 TXBF	42	5210	7.50	7.50	7.50	7.50	7.50	7.50	No	3

Note(s):

1. The “Original Approval” power levels were based upon FCC modular approval testing of the BCM94360CS radio. These power levels were approved up to maximum regulatory levels to cover a number of different potential applications. The original maximum regulatory power levels may be reduced further by the driver for one of the following two reasons:
   a) For performance (i.e. non-regulatory) reasons to ensure that PER and EVM of the radio meet internal specifications.
   b) For application specifics. In this case the power is reduced to meet the specific SAR requirement per transmit chain over frequency band/channel. SAR specifics are addressed in a Class II permissive change as applicable.
2. The 11n 2Tx HT20/HT40 and 11ac 2Tx VHT20/VHT40/VHT80 "All" modes detailed apply to all of the CDD/STBC/SDM non-transmit beamforming modes.
3. 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.
4. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.
   a) Vendor A
   b) Vendor B

9.3. WiFi (5.3 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	**1 Tx**	**52**	**5260**	**20.00**			**15.50**			**Yes**	
		56	**5280**	**20.00**			**15.50**				
		60	**5300**	**20.00**			**15.50**				
		64	**5320**	**20.00**			**15.50**				
		52	**5260**		**20.00**			**15.50**			
		56	**5280**		**20.00**			**15.50**			
		60	**5300**		**20.00**			**15.50**			
		64	**5320**		**20.00**			**15.50**			
		52	**5260**			**20.00**			**15.50**		
		56	**5280**			**20.00**			**15.50**		
		60	**5300**			**20.00**			**15.50**		
		64	**5320**			**20.00**			**15.50**		
	2 Tx CDD	**52**	**5260**	**17.00**	**17.00**		**15.50**	**15.50**		**Yes**	
		56	**5280**	**17.00**	**17.00**		**15.50**	**15.50**			
		60	**5300**	**17.00**	**17.00**		**15.50**	**15.50**			
		64	**5320**	**16.50**	**16.50**		**15.50**	**15.50**			
		52	**5260**	**17.00**		**17.00**	**15.50**		**15.50**		
		56	**5280**	**17.00**		**17.00**	**15.50**		**15.50**		
		60	**5300**	**17.00**		**17.00**	**15.50**		**15.50**		
		64	**5320**	**16.50**		**16.50**	**15.50**		**15.50**		
		52	**5260**		**17.00**	**17.00**		**15.50**	**15.50**		
		56	**5280**		**17.00**	**17.00**		**15.50**	**15.50**		
		60	**5300**		**17.00**	**17.00**		**15.50**	**15.50**		
		64	**5320**		**16.50**	**16.50**		**15.50**	**15.50**		
	3 Tx CDD	**52**	**5260**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**Yes**	
		56	**5280**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**		
		60	**5300**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**		
		64	**5320**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**		
	2 Tx TXBF	52	5260	17.00	17.00		15.50	15.50		No	3
		56	5280	17.00	17.00		15.50	15.50			
		60	5300	17.00	17.00		15.50	15.50			
		64	5320	16.50	16.50		15.50	15.50			
		52	5260	17.00		17.00	15.50		15.50		
		56	5280	17.00		17.00	15.50		15.50		
		60	5300	17.00		17.00	15.50		15.50		
		64	5320	16.50		16.50	15.50		15.50		
		52	5260		17.00	17.00		15.50	15.50		
		56	5280		17.00	17.00		15.50	15.50		
		60	5300		17.00	17.00		15.50	15.50		
		64	5320		16.50	16.50		15.50	15.50		
	3 Tx TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00		
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00		
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00		
802.11n	1 Tx HT20 SISO	52	5260	20.00			15.50			No	3
		60	5300	20.00			15.50				
		64	5320	20.00			15.50				
		52	5260		20.00			15.50			
		60	5300		20.00			15.50			
		64	5320		20.00			15.50			
		52	5260			20.00			15.50		
		60	5300			20.00			15.50		
		64	5320			20.00			15.50		

Summary of Required Test Modes for WiFi 5.3 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT20 CDD	52	5260	17.00	17.00		15.50	15.50		No	3
		60	5300	17.00	17.00		15.50	15.50			
		64	5320	16.50	16.50		15.50	15.50			
		52	5260	17.00		17.00	15.50		15.50		
		60	5300	17.00		17.00	15.50		15.50		
		64	5320	16.50		16.50	15.50		15.50		
		52	5260		17.00	17.00		15.50	15.50		
		60	5300		17.00	17.00		15.50	15.50		
		64	5320		16.50	16.50		15.50	15.50		
	3 Tx HT20 CDD	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00		
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00		
	2 Tx HT20 STBC/SDM	52	5260	19.00	19.00		15.50	15.50		No	3
		56	5280	19.00	19.00		15.50	15.50			
		64	5320	19.00	19.00		15.50	15.50			
		52	5260	19.00		19.00	15.50		15.50		
		56	5280	19.00		19.00	15.50		15.50		
		64	5320	19.00		19.00	15.50		15.50		
		52	5260		19.00	19.00		15.50	15.50		
		56	5280		19.00	19.00		15.50	15.50		
		64	5320		19.00	19.00		15.50	15.50		
	3 Tx HT20 STBC/SDM	**52**	**5260**	**18.50**	**18.50**	**18.50**	**15.50**	**15.50**	**15.50**	**Yes**	
		56	**5280**	**18.50**	**18.50**	**18.50**	**15.50**	**15.50**	**15.50**		
		64	**5320**	**18.00**	**18.00**	**18.00**	**15.50**	**15.50**	**15.50**		
	2 Tx HT20 TXBF	52	5260	17.00	17.00		15.50	15.50		No	3
		56	5280	17.00	17.00		15.50	15.50			
		64	5320	16.50	16.50		15.50	15.50			
		52	5260	17.00		17.00	15.50		15.50		
		56	5280	17.00		17.00	15.50		15.50		
		64	5320	16.50		16.50	15.50		15.50		
		52	5260		17.00	17.00		15.50	15.50		
		56	5280		17.00	17.00		15.50	15.50		
		64	5320		16.50	16.50		15.50	15.50		
	3 Tx HT20 TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00		
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00		
	1 Tx HT40 SISO	54	5270	19.00			15.50			No	3
		62	5310	16.00			15.50				
		54	5270		19.00			15.50			
		62	5310		16.00			15.50			
		54	5270			19.00			15.50		
		62	5310			16.00			15.50		
	2 Tx HT40 CDD	54	5270	19.50	19.50		15.50	15.50		No	3
		62	5310	14.00	14.00		14.00	14.00			
		54	5270	19.50		19.50	15.50		15.50		
		62	5310	14.00		14.00	14.00		14.00		
		54	5270		19.50	19.50		15.50	15.50		
		62	5310		14.00	14.00		14.00	14.00		

Summary of Required Test Modes for WiFi 5.3 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	3 Tx HT40 CDD	54	5270	17.50	17.50	17.50	15.50	15.50	15.50	No	3
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50		
	2 Tx HT40 STBC/SDM	54	5270	19.50	19.50		15.50	15.50		No	3
		62	5310	14.00	14.00		14.00	14.00			
		54	5270	19.50		19.50	15.50		15.50		
		62	5310	14.00		14.00	14.00		14.00		
		54	5270		19.50	19.50		15.50	15.50		
		62	5310		14.00	14.00		14.00	14.00		
	3 Tx HT40 STBC/SDM	54	5270	18.50	18.50	18.50	15.50	15.50	15.50	No	3
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50		
	2 Tx HT40 TXBF	54	5270	16.50	16.50		15.50	15.50		No	3
		62	5310	13.50	13.50		13.50	13.50			
		54	5270	16.50		16.50	15.50		15.50		
		62	5310	13.50		13.50	13.50		13.50		
		54	5270		16.50	16.50		15.50	15.50		
		62	5310		13.50	13.50		13.50	13.50		
	3 Tx HT40 TXBF	54	5270	14.00	14.00	14.00	14.00	14.00	14.00	No	3
		62	5310	13.00	13.00	13.00	13.00	13.00	13.00		
802.11ac	**1 Tx VHT20 SISO**	52	5260	20.00			15.50			No	**3**
		60	5300	20.00			15.50				
		64	5320	20.00			15.50				
		52	5260		20.00			15.50			
		60	5300		20.00			15.50			
		64	**5320**		**20.00**			**15.50**		**Yes**	**4a**
		52	5260			20.00			15.50	No	**3**
		60	5300			20.00			15.50		
		64	5320			20.00			15.50		
	2 Tx VHT20 CDD	52	5260	17.00	17.00		15.50	15.50		No	3
		60	5300	17.00	17.00		15.50	15.50			
		64	5320	16.50	16.50		15.50	15.50			
		52	5260	17.00		17.00	15.50		15.50		
		60	5300	17.00		17.00	15.50		15.50		
		64	5320	16.50		16.50	15.50		15.50		
		52	5260		17.00	17.00		15.50	15.50		
		60	5300		17.00	17.00		15.50	15.50		
		64	**5320**		**16.50**	**16.50**		**15.50**	**15.50**	**Yes**	**4b**
	3 Tx VHT20 CDD	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00		
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00		
	2 Tx VHT20 STBC/SDM	52	5260	19.00	19.00		15.50	15.50		No	3
		56	5280	19.00	19.00		15.50	15.50			
		64	5320	19.00	19.00		15.50	15.50			
		52	5260	19.00		19.00	15.50		15.50		
		56	5280	19.00		19.00	15.50		15.50		
		64	5320	19.00		19.00	15.50		15.50		
		52	5260		19.00	19.00		15.50	15.50		
		56	5280		19.00	19.00		15.50	15.50		
		64	5320		19.00	19.00		15.50	15.50		

Summary of Required Test Modes for WiFi 5.3 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT20 STBC/SDM	52	5260	18.50	18.50	18.50	15.50	15.50	15.50	No	3
		56	5280	18.50	18.50	18.50	15.50	15.50	15.50		
		64	5320	18.00	18.00	18.00	15.50	15.50	15.50		
	2 Tx VHT20 TXBF	52	5260	17.00	17.00		15.50	15.50		No	3
		56	5280	17.00	17.00		15.50	15.50			
		64	5320	16.50	16.50		15.50	15.50			
		52	5260	17.00		17.00	15.50		15.50		
		56	5280	17.00		17.00	15.50		15.50		
		64	5320	16.50		16.50	15.50		15.50		
		52	5260		17.00	17.00		15.50	15.50		
		56	5280		17.00	17.00		15.50	15.50		
		64	5320		16.50	16.50		15.50	15.50		
	3 Tx VHT20 TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00		
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00		
	1 Tx VHT40 SISO	54	5270	19.00			15.50			No	3
		62	5310	16.00			15.50				
		54	5270		19.00			15.50			
		62	5310		16.00			15.50			
		54	5270			19.00			15.50		
		62	5310			16.00			15.50		
	2 Tx VHT40 CDD	54	5270	19.50	19.50		15.50	15.50		No	3
		62	5310	14.00	14.00		14.00	14.00			
		54	5270	19.50		19.50	15.50		15.50		
		62	5310	14.00		14.00	14.00		14.00		
		54	5270		19.50	19.50		15.50	15.50		
		62	5310		14.00	14.00		14.00	14.00		
	3 Tx VHT40 CDD	54	5270	17.50	17.50	17.50	15.50	15.50	15.50	No	3
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50		
	2 Tx VHT40 STBC/SDM	54	5270	19.50	19.50		15.50	15.50		No	3
		62	5310	14.00	14.00		14.00	14.00			
		54	5270	19.50		19.50	15.50		15.50		
		62	5310	14.00		14.00	14.00		14.00		
		54	5270		19.50	19.50		15.50	15.50		
		62	5310		14.00	14.00		14.00	14.00		
	3 Tx VHT40 STBC/SDM	54	5270	18.50	18.50	18.50	15.50	15.50	15.50	No	3
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50		
	2 Tx VHT40 TXBF	54	5270	16.50	16.50		15.50	15.50		No	3
		62	5310	13.50	13.50		13.50	13.50			
		54	5270	16.50		16.50	15.50		15.50		
		62	5310	13.50		13.50	13.50		13.50		
		54	5270		16.50	16.50		15.50	15.50		
		62	5310		13.50	13.50		13.50	13.50		
	3 Tx VHT40 TXBF	54	5270	14.00	14.00	14.00	14.00	14.00	14.00	No	3
		62	5310	13.00	13.00	13.00	13.00	13.00	13.00		
	1 Tx VHT80 SISO	58	5290	16.00			15.50			No	3
		58	5290		16.00			15.50			
		58	5290			16.00			15.50		

Summary of Required Test Modes for WiFi 5.3 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	2 Tx VHT80 CDD	58	5290	13.00	13.00		13.00	13.00		No	3
		58	5290	13.00		13.00	13.00		13.00		
		58	5290		13.00	13.00		13.00	13.00		
	3 Tx VHT80 CDD	58	5290	12.00	12.00	12.00	12.00	12.00	12.00	No	3
	2 Tx VHT80 STBC/SDM	58	5290	13.00	13.00		13.00	13.00		No	3
		58	5290	13.00		13.00	13.00		13.00		
		58	5290		13.00	13.00		13.00	13.00		
	3 Tx VHT80 STBC/SDM	58	5290	12.00	12.00	12.00	12.00	12.00	12.00	No	3
	2 Tx VHT80 TXBF	58	5290	13.50	13.50		13.50	13.50		No	3
		58	5290	13.50		13.50	13.50		13.50		
		58	5290		13.50	13.50		13.50	13.50		
	3 Tx VHT80 TXBF	58	5290	13.00	13.00	13.00	13.00	13.00	13.00	No	3

Note(s):

1. The "Original Approval" power levels were based upon FCC modular approval testing of the BCM94360CSradio. These power levels were approved up to maximum regulatory levels to cover a number of different potential applications. The original maximum regulatory power levels may be reduced further by the driver for one of the following two reasons:
   a) For performance (i.e. non-regulatory) reasons to ensure that PER and EVM of the radio meet internal specifications.
   b) For application specifics. In this case the power is reduced to meet the specific SAR requirement per transmit chain over frequency band/channel. SAR specifics are addressed in a Class II permissive change as applicable.
2. The 11n 2Tx HT20/HT40 and 11ac 2Tx VHT20/VHT40/VHT80"All" modes detailed apply to all of the CDD/STBC/SDM non-transmit beamforming modes.
3. 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.
4. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.
   a) Vendor A
   b) Vendor B

9.4. WiFi (5.5 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	1 Tx	100	5500	19.00			15.50			Yes	
		104	5520	19.00			15.50				
		108	5540	19.00			15.50				
		112	5560	19.00			15.50				
		116	5580	19.00			15.50				
		120	5600	19.00			15.50				
		124	5620	19.00			15.50				
		128	5640	19.00			15.50				
		132	5660	19.00			15.50				
		136	5680	19.00			15.50				
		140	5700	18.00			15.50				
		144	5720	18.00			15.50				
		100	5500		19.00			15.50			
		104	5520		19.00			15.50			
		108	5540		19.00			15.50			
		112	5560		19.00			15.50			
		116	5580		19.00			15.50			
		120	5600		19.00			15.50			
		124	5620		19.00			15.50			
		128	5640		19.00			15.50			
		132	5660		19.00			15.50			
		136	5680		19.00			15.50			
		140	5700		18.00			15.50			
		144	5720		18.00			15.50			
		100	5500			19.00			15.50		
		104	5520			19.00			15.50		
		108	5540			19.00			15.50		
		112	5560			19.00			15.50		
		116	5580			19.00			15.50		
		120	5600			19.00			15.50		
		124	5620			19.00			15.50		
		128	5640			19.00			15.50		
		132	5660			19.00			15.50		
		136	5680			19.00			15.50		
		140	5700			18.00			15.50		
		144	5720			18.00			15.50		
	2 Tx CDD	100	5500	17.50	17.50		15.50	15.50		Yes	
		104	5520	17.50	17.50		15.50	15.50			
		108	5540	17.50	17.50		15.50	15.50			
		112	5560	17.50	17.50		15.50	15.50			
		116	5580	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		124	5620	17.50	17.50		15.50	15.50			
		128	5640	17.50	17.50		15.50	15.50			
		132	5660	17.50	17.50		15.50	15.50			
		136	5680	17.50	17.50		15.50	15.50			
		140	5700	17.50	17.50		15.50	15.50			
		144	5720	17.50	17.50		15.50	15.50			

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	**2 Tx CDD**	**100**	**5500**	**17.50**		**17.50**	**15.50**		**15.50**	**Yes**	
		104	**5520**	**17.50**		**17.50**	**15.50**		**15.50**		
		108	**5540**	**17.50**		**17.50**	**15.50**		**15.50**		
		112	**5560**	**17.50**		**17.50**	**15.50**		**15.50**		
		116	**5580**	**17.50**		**17.50**	**15.50**		**15.50**		
		120	**5600**	**17.50**		**17.50**	**15.50**		**15.50**		
		124	**5620**	**17.50**		**17.50**	**15.50**		**15.50**		
		128	**5640**	**17.50**		**17.50**	**15.50**		**15.50**		
		132	**5660**	**17.50**		**17.50**	**15.50**		**15.50**		
		136	**5680**	**17.50**		**17.50**	**15.50**		**15.50**		
		140	**5700**	**17.50**		**17.50**	**15.50**		**15.50**		
		144	**5720**	**17.50**		**17.50**	**15.50**		**15.50**		
		100	**5500**		**17.50**	**17.50**		**15.50**	**15.50**		
		104	**5520**		**17.50**	**17.50**		**15.50**	**15.50**		
		108	**5540**		**17.50**	**17.50**		**15.50**	**15.50**		
		112	**5560**		**17.50**	**17.50**		**15.50**	**15.50**		
		116	**5580**		**17.50**	**17.50**		**15.50**	**15.50**		
		120	**5600**		**17.50**	**17.50**		**15.50**	**15.50**		
		124	**5620**		**17.50**	**17.50**		**15.50**	**15.50**		
		128	**5640**		**17.50**	**17.50**		**15.50**	**15.50**		
		132	**5660**		**17.50**	**17.50**		**15.50**	**15.50**		
		136	**5680**		**17.50**	**17.50**		**15.50**	**15.50**		
		140	**5700**		**17.50**	**17.50**		**15.50**	**15.50**		
		144	**5720**		**17.50**	**17.50**		**15.50**	**15.50**		
	3 Tx CDD	**100**	**5500**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**Yes**	
		104	**5520**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		108	**5540**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		112	**5560**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		116	**5580**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		120	**5600**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		124	**5620**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		128	**5640**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		132	**5660**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		136	**5680**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		140	**5700**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
		144	**5720**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**		
	2 Tx TXBF	100	5500	17.50	17.50		15.50	15.50		No	3
		104	5520	17.50	17.50		15.50	15.50			
		108	5540	17.50	17.50		15.50	15.50			
		112	5560	17.50	17.50		15.50	15.50			
		116	5580	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		124	5620	17.50	17.50		15.50	15.50			
		128	5640	17.50	17.50		15.50	15.50			
		132	5660	17.50	17.50		15.50	15.50			
		136	5680	17.50	17.50		15.50	15.50			
		140	5700	16.50	16.50		15.50	15.50			
		144	5720	17.50	17.50		15.50	15.50			

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	2 Tx TXBF	100	5500	17.50		17.50	15.50		15.50	No	3
		104	5520	17.50		17.50	15.50		15.50		
		108	5540	17.50		17.50	15.50		15.50		
		112	5560	17.50		17.50	15.50		15.50		
		116	5580	17.50		17.50	15.50		15.50		
		120	5600	17.50		17.50	15.50		15.50		
		124	5620	17.50		17.50	15.50		15.50		
		128	5640	17.50		17.50	15.50		15.50		
		132	5660	17.50		17.50	15.50		15.50		
		136	5680	17.50		17.50	15.50		15.50		
		140	5700	16.50		16.50	15.50		15.50		
		144	5720	17.50		17.50	15.50		15.50		
		100	5500		17.50	17.50		15.50	15.50	No	3
		104	5520		17.50	17.50		15.50	15.50		
		108	5540		17.50	17.50		15.50	15.50		
		112	5560		17.50	17.50		15.50	15.50		
		116	5580		17.50	17.50		15.50	15.50		
		120	5600		17.50	17.50		15.50	15.50		
		124	5620		17.50	17.50		15.50	15.50		
		128	5640		17.50	17.50		15.50	15.50		
		132	5660		17.50	17.50		15.50	15.50		
		136	5680		17.50	17.50		15.50	15.50		
		140	5700		16.50	16.50		15.50	15.50		
		144	5720		17.50	17.50		15.50	15.50		
	3 Tx TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50		
		108	5540	14.50	14.50	14.50	14.50	14.50	14.50		
		112	5560	14.50	14.50	14.50	14.50	14.50	14.50		
		116	5580	14.50	14.50	14.50	14.50	14.50	14.50		
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50		
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50		
		128	5640	14.50	14.50	14.50	14.50	14.50	14.50		
		132	5660	14.50	14.50	14.50	14.50	14.50	14.50		
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50		
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50		
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50		
802.11n	1 Tx HT20 SISO	100	5500	19.00			15.50			No	3
		104	5520	19.00			15.50				
		120	5600	19.00			15.50				
		136	5680	19.00			15.50				
		140	5700	18.00			15.50				
		144	5720	18.00			15.50				
		100	5500		19.00			15.50			
		104	5520		19.00			15.50			
		120	5600		19.00			15.50			
		136	5680		19.00			15.50			
		140	5700		18.00			15.50			
		144	5720		18.00			15.50			
		100	5500			19.00			15.50		
		104	5520			19.00			15.50		
		120	5600			19.00			15.50		
		136	5680			19.00			15.50		
		140	5700			18.00			15.50		
		144	5720			18.00			15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT20 CDD	100	5500	17.50	17.50		15.50	15.50		No	3
		104	5520	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		136	5680	17.50	17.50		15.50	15.50			
		140	5700	17.50	17.50		15.50	15.50			
		144	5710	17.50	17.50		15.50	15.50			
		100	5500	17.50		17.50	15.50		15.50		
		104	5520	17.50		17.50	15.50		15.50		
		120	5600	17.50		17.50	15.50		15.50		
		136	5680	17.50		17.50	15.50		15.50		
		140	5700	17.50		17.50	15.50		15.50		
		144	5710	17.50		17.50	15.50		15.50		
	2 Tx HT20 CDD	100	5500		17.50	17.50		15.50	15.50	No	3
		104	5520		17.50	17.50		15.50	15.50		
		120	5600		17.50	17.50		15.50	15.50		
		136	5680		17.50	17.50		15.50	15.50		
		140	5700		17.50	17.50		15.50	15.50		
		144	5710		17.50	17.50		15.50	15.50		
	3 Tx HT20 CDD	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50		
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50		
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50		
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50		
		144	5710	14.50	14.50	14.50	14.50	14.50	14.50		
	2 Tx HT20 STBC/SDM	100	5500	18.50	18.50		15.50	15.50		No	3
		104	5520	18.50	18.50		15.50	15.50			
		120	5600	18.50	18.50		15.50	15.50			
		136	5680	18.50	18.50		15.50	15.50			
		140	5700	18.50	18.50		15.50	15.50			
		144	5710	18.50	18.50		15.50	15.50			
		100	5500	18.50		18.50	15.50		15.50		
		104	5520	18.50		18.50	15.50		15.50		
		120	5600	18.50		18.50	15.50		15.50		
		136	5680	18.50		18.50	15.50		15.50		
		140	5700	18.50		18.50	15.50		15.50		
		144	5710	18.50		18.50	15.50		15.50		
		100	5500		18.50	18.50		15.50	15.50		
		104	5520		18.50	18.50		15.50	15.50		
		120	5600		18.50	18.50		15.50	15.50		
		136	5680		18.50	18.50		15.50	15.50		
		140	5700		18.50	18.50		15.50	15.50		
		144	5710		18.50	18.50		15.50	15.50		
	3 Tx HT20 STBC/SDM	**100**	**5500**	**17.50**	**17.50**	**17.50**	**15.50**	**15.50**	**15.50**	**Yes**	
		104	**5520**	**17.50**	**17.50**	**17.50**	**15.50**	**15.50**	**15.50**		
		120	**5600**	**17.50**	**17.50**	**17.50**	**15.50**	**15.50**	**15.50**		
		136	**5680**	**17.50**	**17.50**	**17.50**	**15.50**	**15.50**	**15.50**		
		140	**5700**	**17.50**	**17.50**	**17.50**	**15.50**	**15.50**	**15.50**		
		144	**5710**	**19.00**	**19.00**	**19.00**	**15.50**	**15.50**	**15.50**		
	2 Tx HT20 TXBF	100	5500	17.50	17.50		15.50	15.50		No	3
		104	5520	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		136	5680	17.50	17.50		15.50	15.50			
		140	5700	17.50	17.50		15.50	15.50			
		144	5710	17.50	17.50		15.50	15.50			

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT20 TXBF	100	5500	17.50		17.50	15.50		15.50	No	3
		104	5520	17.50		17.50	15.50		15.50		
		120	5600	17.50		17.50	15.50		15.50		
		136	5680	17.50		17.50	15.50		15.50		
		140	5700	17.50		17.50	15.50		15.50		
		144	5710	17.50		17.50	15.50		15.50		
		100	5500		17.50	17.50		15.50	15.50		
		104	5520		17.50	17.50		15.50	15.50		
		120	5600		17.50	17.50		15.50	15.50		
		136	5680		17.50	17.50		15.50	15.50		
		140	5700		17.50	17.50		15.50	15.50		
		144	5710		17.50	17.50		15.50	15.50		
	3 Tx HT20 TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50		
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50		
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50		
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50		
		144	5710	14.50	14.50	14.50	14.50	14.50	14.50		
	1 Tx HT40 SISO	102	5510	19.00			15.50			No	3
		110	5550	20.00			15.50				
		134	5670	18.50			15.50				
		142	5710	18.50			15.50				
		102	5510		19.00			15.50			
		110	5550		20.00			15.50			
		134	5670		18.50			15.50			
		142	5710		18.50			15.50			
		102	5510			19.00			15.50		
		110	5550			20.00			15.50		
		134	5670			18.50			15.50		
		142	5710			18.50			15.50		
	2 Tx HT40 CDD	102	5510	15.50	15.50		15.50	15.50		No	3
		110	5550	18.50	18.50		15.50	15.50			
		134	5670	18.00	18.00		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	15.50		15.50	15.50		15.50		
		110	5550	18.50		18.50	15.50		15.50		
		134	5670	18.00		18.00	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		15.50	15.50		15.50	15.50		
		110	5550		18.50	18.50		15.50	15.50		
		134	5670		18.00	18.00		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		
	3 Tx HT40 CDD	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	No	3
		110	5550	17.50	17.50	17.50	15.50	15.50	15.50		
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50		
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50		
	2 Tx HT40 STBC/SDM	102	5510	15.50	15.50		15.50	15.50		No	3
		110	5550	18.50	18.50		15.50	15.50			
		134	5670	18.00	18.00		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	15.50		15.50	15.50		15.50		
		110	5550	18.50		18.50	15.50		15.50		
		134	5670	18.00		18.00	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		15.50	15.50		15.50	15.50		
		110	5550		18.50	18.50		15.50	15.50		
		134	5670		18.00	18.00		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	3 Tx HT40 STBC/SDM	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	No	3
		110	5550	18.50	18.50	18.50	15.50	15.50	15.50		
		134	5670	18.50	18.50	18.50	15.50	15.50	15.50		
		142	5710	18.50	18.50	18.50	15.50	15.50	15.50		
	2 Tx HT40 TXBF	102	5510	13.50	13.50		13.50	13.50		No	3
		110	5550	18.00	18.00		15.50	15.50			
		134	5670	17.50	17.50		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	13.50		13.50	13.50		13.50		
		110	5550	18.00		18.00	15.50		15.50		
		134	5670	17.50		17.50	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		13.50	13.50		13.50	13.50		
		110	5550		18.00	18.00		15.50	15.50		
		134	5670		17.50	17.50		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		
	3 Tx HT40 TXBF	102	5510	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		110	5550	17.50	17.50	17.50	15.50	15.50	15.50		
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50		
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50		
802.11ac	1 Tx VHT20 SISO	100	5500	19.00			15.50			No	3
		104	5520	19.00			15.50				
		120	5600	19.00			15.50				
		136	5680	19.00			15.50				
		140	5700	18.00			15.50				
		144	5720	18.00			15.50				
		100	5500		19.00			15.50			
		104	5520		19.00			15.50			
		120	5600		19.00			15.50			
		136	5680		19.00			15.50			
		140	5700		18.00			15.50			
		144	5720		18.00			15.50			
		100	5500			19.00			15.50		
		104	5520			19.00			15.50		
		120	5600			19.00			15.50		
		136	5680			19.00			15.50		
		140	5700			18.00			15.50		
		144	5720			18.00			15.50		
	2 Tx VHT20 CDD	100	5500	17.50	17.50		15.50	15.50		No	3
		104	5520	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		124	5620	17.50	17.50		15.50	15.50			
		136	**5680**	**17.50**	**17.50**		**15.50**	**15.50**		**Yes**	**4a, 4b**
		140	5700	17.50	17.50		15.50	15.50		No	3
		144	5720	17.50	17.50		15.50	15.50			
		100	5500	17.50		17.50	15.50		15.50		
		104	5520	17.50		17.50	15.50		15.50		
		120	5600	17.50		17.50	15.50		15.50		
		124	5620	17.50		17.50	15.50		15.50		
		136	5680	17.50		17.50	15.50		15.50		
		140	5700	17.50		17.50	15.50		15.50		
		144	5720	17.50		17.50	15.50		15.50		
		100	5500		17.50	17.50		15.50	15.50		
		104	5520		17.50	17.50		15.50	15.50		
		120	5600		17.50	17.50		15.50	15.50		
		124	5620		17.50	17.50		15.50	15.50		
		136	5680		17.50	17.50		15.50	15.50		
		140	5700		17.50	17.50		15.50	15.50		
		144	5720		17.50	17.50		15.50	15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT20 CDD	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50		
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50		
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50		
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50		
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50		
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50		
	2 Tx VHT20 STBC/SDM	100	5500	18.50	18.50		15.50	15.50		No	3
		104	5520	18.50	18.50		15.50	15.50			
		120	5600	18.50	18.50		15.50	15.50			
		124	5620	18.50	18.50		15.50	15.50			
		136	5680	18.50	18.50		15.50	15.50			
		140	5700	18.50	18.50		15.50	15.50			
		144	5720	18.50	18.50		15.50	15.50			
	2 Tx VHT20 STBC/SDM	100	5500	18.50		18.50	15.50		15.50		
		104	5520	18.50		18.50	15.50		15.50		
		120	5600	18.50		18.50	15.50		15.50		
		124	5620	18.50		18.50	15.50		15.50		
		136	5680	18.50		18.50	15.50		15.50		
		140	5700	18.50		18.50	15.50		15.50		
		144	5720	18.50		18.50	15.50		15.50		
		100	5500		18.50	18.50		15.50	15.50		
		104	5520		18.50	18.50		15.50	15.50		
		120	5600		18.50	18.50		15.50	15.50		
		124	5620		18.50	18.50		15.50	15.50		
		136	5680		18.50	18.50		15.50	15.50		
		140	5700		18.50	18.50		15.50	15.50		
		144	5720		18.50	18.50		15.50	15.50		
	3 Tx VHT20 STBC/SDM	100	5500	17.50	17.50	17.50	15.50	15.50	15.50	No	3
		104	5520	17.50	17.50	17.50	15.50	15.50	15.50		
		120	5600	17.50	17.50	17.50	15.50	15.50	15.50		
		124	5620	17.50	17.50	17.50	15.50	15.50	15.50		
		136	5680	17.50	17.50	17.50	15.50	15.50	15.50		
		140	5700	17.50	17.50	17.50	15.50	15.50	15.50		
		144	5720	19.00	19.00	19.00	15.50	15.50	15.50		
	2 Tx VHT20 TXBF	100	5500	17.50	17.50		15.50	15.50		No	3
		104	5520	17.50	17.50		15.50	15.50			
		120	5600	17.50	17.50		15.50	15.50			
		124	5620	17.50	17.50		15.50	15.50			
		136	5680	17.50	17.50		15.50	15.50			
		140	5700	17.50	17.50		15.50	15.50			
		144	5720	17.50	17.50		15.50	15.50			
		100	5500	17.50		17.50	15.50		15.50		
		104	5520	17.50		17.50	15.50		15.50		
		120	5600	17.50		17.50	15.50		15.50		
		124	5620	17.50		17.50	15.50		15.50		
		136	5680	17.50		17.50	15.50		15.50		
		140	5700	17.50		17.50	15.50		15.50		
		144	5720	17.50		17.50	15.50		15.50		
		100	5500		17.50	17.50		15.50	15.50		
		104	5520		17.50	17.50		15.50	15.50		
		120	5600		17.50	17.50		15.50	15.50		
		124	5620		17.50	17.50		15.50	15.50		
		136	5680		17.50	17.50		15.50	15.50		
		140	5700		17.50	17.50		15.50	15.50		
		144	5720		17.50	17.50		15.50	15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT20 TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50		
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50		
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50		
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50		
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50		
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50		
	1 Tx VHT40 SISO	102	5510	19.00			15.50			No	3
		110	5550	20.00			15.50				
		134	5670	18.50			15.50				
		142	5710	18.50			15.50				
		102	5510		19.00			15.50			
		110	5550		20.00			15.50			
		134	5670		18.50			15.50			
		142	5710		18.50			15.50			
		102	5510			19.00			15.50		
		110	5550			20.00			15.50		
		134	5670			18.50			15.50		
		142	5710			18.50			15.50		
	2 Tx VHT40 CDD	102	5510	15.50	15.50		15.50	15.50		No	3
		110	5550	18.50	18.50		15.50	15.50			
		134	5670	18.00	18.00		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	15.50		15.50	15.50		15.50		
		110	5550	18.50		18.50	15.50		15.50		
		134	5670	18.00		18.00	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		15.50	15.50		15.50	15.50		
		110	5550		18.50	18.50		15.50	15.50		
		134	5670		18.00	18.00		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		
	3 Tx VHT40 CDD	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	No	3
		110	5550	17.50	17.50	17.50	15.50	15.50	15.50		
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50		
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50		
	2 Tx VHT40 STBC/SDM	102	5510	15.50	15.50		15.50	15.50		No	3
		110	5550	18.50	18.50		15.50	15.50			
		134	5670	18.00	18.00		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	15.50		15.50	15.50		15.50		
		110	5550	18.50		18.50	15.50		15.50		
		134	5670	18.00		18.00	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		15.50	15.50		15.50	15.50		
		110	5550		18.50	18.50		15.50	15.50		
		134	5670		18.00	18.00		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT40 STBC/SDM	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	No	3
		110	5550	18.50	18.50	18.50	15.50	15.50	15.50		
		134	5670	18.50	18.50	18.50	15.50	15.50	15.50		
		142	5710	18.50	18.50	18.50	15.50	15.50	15.50		
	2 Tx VHT40 TXBF	102	5510	13.50	13.50		13.50	13.50		No	3
		110	5550	18.00	18.00		15.50	15.50			
		134	5670	17.50	17.50		15.50	15.50			
		142	5710	18.00	18.00		15.50	15.50			
		102	5510	13.50		13.50	13.50		13.50		
		110	5550	18.00		18.00	15.50		15.50		
		134	5670	17.50		17.50	15.50		15.50		
		142	5710	18.00		18.00	15.50		15.50		
		102	5510		13.50	13.50		13.50	13.50		
		110	5550		18.00	18.00		15.50	15.50		
		134	5670		17.50	17.50		15.50	15.50		
		142	5710		18.00	18.00		15.50	15.50		
	3 Tx VHT40 TXBF	102	5510	14.50	14.50	14.50	14.50	14.50	14.50	No	3
		110	5550	17.50	17.50	17.50	15.50	15.50	15.50		
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50		
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50		
	1 Tx VHT80 SISO	106	5530	19.00			15.50			No	3
		122	5610	19.00			15.50				
		138	5690	20.00			15.50				
		106	5530		19.00			15.50			
		122	5610		19.00			15.50			
		138	5690		20.00			15.50			
		106	5530			19.00			15.50		
		122	5610			19.00			15.50		
		138	5690			20.00			15.50		
	2 Tx VHT80 CDD	106	5530	14.00	14.00		14.00	14.00		No	3
		122	5610	19.00	19.00		15.50	15.50			
		138	5690	20.00	20.00		15.50	15.50			
		106	5530	14.00		14.00	14.00		14.00		
		122	5610	19.00		19.00	15.50		15.50		
		138	5690	20.00		20.00	15.50		15.50		
		106	5530		14.00	14.00		14.00	14.00		
		122	5610		19.00	19.00		15.50	15.50		
		138	5690		20.00	20.00		15.50	15.50		
	3 Tx VHT80 CDD	106	5530	12.50	12.50	12.50	12.50	12.50	12.50	No	3
		122	5610	19.00	19.00	19.00	15.50	15.50	15.50		
		138	5690	20.00	20.00	20.00	15.50	15.50	15.50		
	2 Tx VHT80 STBC/SDM	106	5530	14.00	14.00		14.00	14.00		No	3
		122	5610	19.00	19.00		15.50	15.50			
		138	5690	20.00	20.00		15.50	15.50			
		106	5530	14.00		14.00	14.00		14.00		
		122	5610	19.00		19.00	15.50		15.50		
		138	5690	20.00		20.00	15.50		15.50		
		106	5530		14.00	14.00		14.00	14.00		
		122	5610		19.00	19.00		15.50	15.50		
		138	5690		20.00	20.00		15.50	15.50		

Summary of Required Test Modes for WiFi 5.5 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	3 Tx VHT80 STBC/SDM	106	5530	12.50	12.50	12.50	12.50	12.50	12.50	No	3
		122	5610	19.00	19.00	19.00	15.50	15.50	15.50		
		138	5690	20.00	20.00	20.00	15.50	15.50	15.50		
	2 Tx VHT80 TXBF	106	5530	15.00	15.00		15.00	15.00		No	3
		122	5610	17.50	17.50		15.50	15.50			
		138	5690	17.50	17.50		15.50	15.50			
		106	5530	15.00		15.00	15.00		15.00		
		122	5610	17.50		17.50	15.50		15.50		
		138	5690	17.50		17.50	15.50		15.50		
		106	5530		15.00	15.00		15.00	15.00		
		122	5610		17.50	17.50		15.50	15.50		
		138	5690		17.50	17.50		15.50	15.50		
	3 Tx VHT80 TXBF	106	5530	13.00	13.00	13.00	13.00	13.00	13.00	No	3
		122	5610	15.00	15.00	15.00	15.00	15.00	15.00		
		138	5690	14.00	14.00	14.00	14.00	14.00	14.00		

Note(s):

1. The "Original Approval" power levels were based upon FCC modular approval testing of the BCM94360CS radio. These power levels were approved up to maximum regulatory levels to cover a number of different potential applications. The original maximum regulatory power levels may be reduced further by the driver for one of the following two reasons:
   a) For performance (i.e. non-regulatory) reasons to ensure that PER and EVM of the radio meet internal specifications.
   b) For application specifics. In this case the power is reduced to meet the specific SAR requirement per transmit chain over frequency band/channel. SAR specifics are addressed in a Class II permissive change as applicable.
2. The 11n 2Tx HT20/HT40 and 11ac 2Tx VHT20/VHT40/VHT80 "All" modes detailed apply to all of the CDD/STBC/SDM non-transmit beamforming modes.
3. 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.
4. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.
   a) Vendor A
   b) Vendor B

9.5. WiFi (5.8 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11a	**1 Tx**	**149**	**5745**	**19.00**			**16.25**			**Yes**	
		153	**5765**	**19.00**			**16.25**				
		157	**5785**	**20.00**			**16.25**				
		161	**5805**	**20.00**			**16.25**				
		165	**5825**	**20.00**			**16.25**				
		149	**5745**		**19.00**			**16.25**			
		153	**5765**		**19.00**			**16.25**			
		157	**5785**		**20.00**			**16.25**			
		161	**5805**		**20.00**			**16.25**			
		165	**5825**		**20.00**			**16.25**			
		149	**5745**			**19.00**			**16.50**		
		153	**5765**			**19.00**			**16.50**		
		157	**5785**			**20.00**			**16.50**		
		161	**5805**			**20.00**			**16.50**		
		165	**5825**			**20.00**			**16.50**		
	2 Tx CDD	**149**	**5745**	**19.00**	**19.00**		**16.25**	**16.25**		**Yes**	
		153	**5765**	**19.00**	**19.00**		**16.25**	**16.25**			
		157	**5785**	**20.00**	**20.00**		**16.25**	**16.25**			
		161	**5805**	**20.00**	**20.00**		**16.25**	**16.25**			
		165	**5825**	**20.00**	**20.00**		**16.25**	**16.25**			
		149	**5745**	**19.00**		**19.00**	**16.25**		**16.50**		
		153	**5765**	**19.00**		**19.00**	**16.25**		**16.50**		
		157	**5785**	**20.00**		**20.00**	**16.25**		**16.50**		
		161	**5805**	**20.00**		**20.00**	**16.25**		**16.50**		
		165	**5825**	**20.00**		**20.00**	**16.25**		**16.50**		
		149	**5745**		**19.00**	**19.00**		**16.25**	**16.50**		
		153	**5765**		**19.00**	**19.00**		**16.25**	**16.50**		
		157	**5785**		**20.00**	**20.00**		**16.25**	**16.50**		
		161	**5805**		**20.00**	**20.00**		**16.25**	**16.50**		
		165	**5825**		**20.00**	**20.00**		**16.25**	**16.50**		
	3 Tx CDD	**149**	**5745**	**18.50**	**18.50**	**18.50**	**16.25**	**16.25**	**16.50**	**Yes**	
		153	**5765**	**18.50**	**18.50**	**18.50**	**16.25**	**16.25**	**16.50**		
		157	**5785**	**20.00**	**20.00**	**20.00**	**16.25**	**16.25**	**16.50**		
		161	**5805**	**20.00**	**20.00**	**20.00**	**16.25**	**16.25**	**16.50**		
		165	**5825**	**20.00**	**20.00**	**20.00**	**16.25**	**16.25**	**16.50**		
	2 Tx TXBF	149	5745	19.00	19.00		16.25	16.25		No	3
		153	5765	19.00	19.00		16.25	16.25			
		157	5785	20.00	20.00		16.25	16.25			
		161	5805	20.00	20.00		16.25	16.25			
		165	5825	20.00	20.00		16.25	16.25			
		149	5745	19.00		19.00	16.25		16.50		
		153	5765	19.00		19.00	16.25		16.50		
		157	5785	20.00		20.00	16.25		16.50		
		161	5805	20.00		20.00	16.25		16.50		
		165	5825	20.00		20.00	16.25		16.50		
		149	5745		19.00	19.00		16.25	16.50		
		153	5765		19.00	19.00		16.25	16.50		
		157	5785		20.00	20.00		16.25	16.50		
		161	5805		20.00	20.00		16.25	16.50		
		165	5825		20.00	20.00		16.25	16.50		
	3 Tx TXBF	149	5745	18.50	18.50	18.50	16.25	16.25	16.50	No	3
		153	5765	18.50	18.50	18.50	16.25	16.25	16.50		
		157	5785	20.00	20.00	20.00	16.25	16.25	16.50		
		161	5805	20.00	20.00	20.00	16.25	16.25	16.50		
		165	5825	20.00	20.00	20.00	16.25	16.25	16.50		

Summary of Required Test Modes for WiFi 5.8 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	1 Tx HT20 SISO	149	5745	19.00			16.25			No	3
		157	5785	20.00			16.25				
		165	5825	20.00			16.25				
		149	5745		19.00			16.25			
		157	5785		20.00			16.25			
		165	5825		20.00			16.25			
		149	5745			19.00			16.50		
		157	5785			20.00			16.50		
		165	5825			20.00			16.50		
	2 Tx HT20 CDD/STBC/SDM	149	5745	19.00	19.00		16.25	16.25		No	3
		157	5785	20.00	20.00		16.25	16.25			
		165	5825	20.00	20.00		16.25	16.25			
		149	5745	19.00		19.00	16.25		16.50		
		157	5785	20.00		20.00	16.25		16.50		
		165	5825	20.00		20.00	16.25		16.50		
		149	5745		19.00	19.00		16.25	16.50		
		157	5785		20.00	20.00		16.25	16.50		
		165	5825		20.00	20.00		16.25	16.50		
	3 Tx HT20 CDD/STBC/SDM	149	5745	18.50	18.50	18.50	16.25	16.25	16.50	No	3
		157	5785	20.00	20.00	20.00	16.25	16.25	16.50		
		165	5825	20.00	20.00	20.00	16.25	16.25	16.50		
	2 Tx HT20 TXBF	149	5745	19.00	19.00		16.25	16.25		No	3
		157	5785	20.00	20.00		16.25	16.25			
		165	5825	20.00	20.00		16.25	16.25			
		149	5745	19.00		19.00	16.25		16.50		
		157	5785	20.00		20.00	16.25		16.50		
		165	5825	20.00		20.00	16.25		16.50		
		149	5745		19.00	19.00		16.25	16.50		
		157	5785		20.00	20.00		16.25	16.50		
		165	5825		20.00	20.00		16.25	16.50		
	3 Tx HT20 TXBF	149	5745	18.50	18.50	18.50	16.25	16.25	16.50	No	3
		157	5785	20.00	20.00	20.00	16.25	16.25	16.50		
		165	5825	20.00	20.00	20.00	16.25	16.25	16.50		
	1 Tx HT40 SISO	151	5755	17.00			16.25			No	3
		159	5795	20.00			16.25				
		151	5755		17.00			16.25			
		159	5795		20.00			16.25			
		151	5755			17.00			16.50		
		159	5795			20.00			16.50		
	2 Tx HT40 CDD/STBC/SDM	151	5755	16.50	16.50		16.25	16.25		No	3
		159	5795	20.00	20.00		16.25	16.25			
		151	5755	16.50		16.50	16.25		16.50		
		159	5795	20.00		20.00	16.25		16.50		
		151	5755		16.50	16.50		16.25	16.50		
		159	5795		20.00	20.00		16.25	16.50		
	3 Tx HT40 CDD/STBC/SDM	151	5755	16.50	16.50	16.50	16.25	16.25	16.50	No	3
		159	5795	20.00	20.00	20.00	16.25	16.25	16.50		

Summary of Required Test Modes for WiFi 5.8 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11n	2 Tx HT40 TXBF	151	5755	16.50	16.50		16.25	16.25		No	3
		159	5795	20.00	20.00		16.25	16.25			
		151	5755	16.50		16.50	16.25		16.50		
		159	5795	20.00		20.00	16.25		16.50		
		151	5755		16.50	16.50		16.25	16.50		
		159	5795		20.00	20.00		16.25	16.50		
	3 Tx HT40 TXBF	151	5755	16.50	16.50	16.50	16.25	16.25	16.50	No	3
		159	5795	20.00	20.00	20.00	16.25	16.25	16.50		
802.11ac	1 Tx VHT20 SISO	149	5745	19.00			16.25			No	3
		157	5785	20.00			16.25				
		165	5825	20.00			16.25				
		149	5745		19.00			16.25			
		157	5785		20.00			16.25			
		165	5825		20.00			16.25			
		149	5745			19.00			16.50		
		157	5785			20.00			16.50		
		165	5825			20.00			16.50		
	2 Tx VHT20 CDD/STBC/SDM	149	5745	19.00	19.00		16.25	16.25		No	3
		157	5785	20.00	20.00		16.25	16.25			
		165	5825	20.00	20.00		16.25	16.25			
		149	5745	19.00		19.00	16.25		16.50		
		157	5785	20.00		20.00	16.25		16.50		
		165	5825	20.00		20.00	16.25		16.50		
		149	5745		19.00	19.00		16.25	16.50		
		157	5785		20.00	20.00		16.25	16.50		
		165	5825		20.00	20.00		16.25	16.50		
	3 Tx VHT20 CDD/STBC/SDM	**149**	**5745**	**18.50**	**18.50**	**18.50**	**16.25**	**16.25**	**16.50**	**Yes**	**4b**
		157	**5785**	**20.00**	**20.00**	**20.00**	**16.25**	**16.25**	**16.50**	**Yes**	**4a**
		165	5825	20.00	20.00	20.00	16.25	16.25	16.50	No	3
	2 Tx VHT20 TXBF	149	5745	19.00	19.00		16.25	16.25		No	3
		157	5785	20.00	20.00		16.25	16.25			
		165	5825	20.00	20.00		16.25	16.25			
		149	5745	19.00		19.00	16.25		16.50		
		157	5785	20.00		20.00	16.25		16.50		
		165	5825	20.00		20.00	16.25		16.50		
		149	5745		19.00	19.00		16.25	16.50		
		157	5785		20.00	20.00		16.25	16.50		
		165	5825		20.00	20.00		16.25	16.50		
	3 Tx VHT20 TXBF	149	5745	18.50	18.50	18.50	16.25	16.25	16.50	No	3
		157	5785	20.00	20.00	20.00	16.25	16.25	16.50		
		165	5825	20.00	20.00	20.00	16.25	16.25	16.50		

Summary of Required Test Modes for WiFi 5.8 GHz (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Maximum Target power setting from original approval[1] (dBm)			Maximum Target power setting from C2PC/A1502 Host (dBm)			SAR Test (Yes/No)	Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1		
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
802.11ac	1 Tx VHT40 SISO	151	5755	17.00			16.25			No	3
		159	5795	20.00			16.25				
		151	5755		17.00			16.25			
		159	5795		20.00			16.25			
		151	5755			17.00			16.50		
		159	5795			20.00			16.50		
	2 Tx VHT40 CDD/STBC/SDM	151	5755	16.50	16.50		16.25	16.25		No	3
		159	5795	20.00	20.00		16.25	16.25			
		151	5755	16.50		16.50	16.25		16.50		
		159	5795	20.00		20.00	16.25		16.50		
		151	5755		16.50	16.50		16.25	16.50		
		159	5795		20.00	20.00		16.25	16.50		
	3 Tx VHT40 CDD/STBC/SDM	151	5755	16.50	16.50	16.50	16.25	16.25	16.50	No	3
		159	5795	20.00	20.00	20.00	16.25	16.25	16.50		
	2 Tx VHT40 TXBF	151	5755	16.50	16.50		16.25	16.25		No	3
		159	5795	20.00	20.00		16.25	16.25			
		151	5755	16.50		16.50	16.25		16.50		
		159	5795	20.00		20.00	16.25		16.50		
		151	5755		16.50	16.50		16.25	16.50		
		159	5795		20.00	20.00		16.25	16.50		
	3 Tx VHT40 TXBF	151	5755	16.50	16.50	16.50	16.25	16.25	16.50	No	3
		159	5795	20.00	20.00	20.00	16.25	16.25	16.50		
	1 Tx VHT80 SISO	155	5775	18.00			16.25			No	3
		155	5775		18.00			16.25			
		155	5775			18.00			16.50		
	2 Tx VHT80 CDD/STBC/SDM	155	5775	15.50	15.50		15.50	15.50		No	3
		155	5775	15.50		15.50	15.50		15.50		
		155	5775		15.50	15.50		15.50	15.50		
	3 Tx VHT80 CDD/STBC/SDM	155	5775	16.00	16.00	16.00	16.00	16.00	16.00	No	3
	2 Tx VHT80 TXBF	155	5775	15.50	15.50		15.50	15.50		No	3
		155	5775	15.50		15.50	15.50		15.50		
		155	5775		15.50	15.50		15.50	15.50		
	3 Tx VHT80 TXBF	155	5775	16.00	16.00	16.00	16.00	16.00	16.00	No	3

Note(s):

1. The “Original Approval” power levels were based upon FCC modular approval testing of the BCM94360CS radio. These power levels were approved up to maximum regulatory levels to cover a number of different potential applications. The original maximum regulatory power levels may be reduced further by the driver for one of the following two reasons:
   a) For performance (i.e. non-regulatory) reasons to ensure that PER and EVM of the radio meet internal specifications.
   b) For application specifics. In this case the power is reduced to meet the specific SAR requirement per transmit chain over frequency band/channel. SAR specifics are addressed in a Class II permissive change as applicable.
2. The 11n 2Tx HT20/HT40 and 11ac 2Tx VHT20/VHT40/VHT80 "All" modes detailed apply to all of the CDD/STBC/SDM non-transmit beamforming modes.
3. 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.
4. SAR evaluation for 802.11ac is required based on the highest 802.11a configuration per April 2013 TCB Workshop.
   a) Vendor A
   b) Vendor B

10. RF Output Power Measurement

10.1. WiFi (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.

Note(s):

Per KDB 248227 D01, SAR is not required for 802.11g/HT20/VHT20 channels when the maximum average output power is less than 1/4 dB higher than that measured on the corresponding 802.11b channels.

Measured Results

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11b Legacy	**1 Tx**	**1**	**2412**	**16.25**			**16.25**			**1a, 1b**
		6	**2437**	**16.25**			**16.25**			
		11	**2462**	**16.25**			**16.25**			
		1	**2412**		**17.50**			**17.50**		
		6	**2437**		**17.50**			**17.50**		
		11	**2462**		**17.50**			**17.50**		
		1	**2412**			**16.50**			**16.50**	
		6	**2437**			**16.50**			**16.50**	
		11	**2462**			**16.50**			**16.50**	
	2 Tx CDD	**1**	**2412**	**16.25**	**17.50**		**16.25**	**17.50**		**1a, 1b**
		6	**2437**	**16.25**	**17.50**		**16.25**	**17.50**		
		11	**2462**	**16.25**	**17.50**		**16.25**	**17.50**		
		1	**2412**	**16.25**		**16.50**	**16.25**		**16.50**	
		6	**2437**	**16.25**		**16.50**	**16.25**		**16.50**	
		11	**2462**	**16.25**		**16.50**	**16.25**		**16.50**	
		1	**2412**		**17.50**	**16.50**		**17.50**	**16.50**	
		6	**2437**		**17.50**	**16.50**		**17.50**	**16.50**	
		11	**2462**		**17.50**	**16.50**		**17.50**	**16.50**	
	3 Tx CDD	**1**	**2412**	**16.25**	**17.50**	**16.50**	**16.25**	**17.50**	**16.50**	**1a, 1b**
		6	**2437**	**16.25**	**17.50**	**16.50**	**16.25**	**17.50**	**16.50**	
		11	**2462**	**16.25**	**17.50**	**16.50**	**16.25**	**17.50**	**16.50**	
802.11g	1 Tx	1	2412	16.25			16.25			
		2	2417	16.25			16.25			
		6	2437	16.25			16.25			
		10	2457	16.25			16.25			
		11	2462	16.25			16.25			
		1	2412		17.50			17.50		
		2	2417		17.50			17.50		
		6	2437		17.50			17.50		
		10	2457		17.50			17.50		
		11	2462		17.50			17.50		
		1	2412			16.50			16.50	
		2	2417			16.50			16.50	
		6	2437			16.50			16.50	
		10	2457			16.50			16.50	
		11	2462			16.50			16.50	
	2 Tx CDD	1	2412	14.50	14.50		14.50	14.50		
		2	2417	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	17.00		16.25	17.00		
		1	2412	14.50		14.50	14.50		14.50	
		2	2417	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2417		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		17.00	16.50		17.00	16.50	

WiFi 2.4GHz Measured Results (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11g	3 Tx CDD	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2417	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	17.00	16.50	16.25	17.00	16.50	
	2 Tx TXBF	1	2412	14.50	14.50		14.50	14.50		
		2	2417	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	16.50		16.25	16.50		
		1	2412	14.50		14.50	14.50		14.50	
		2	2417	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2417		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		16.50	16.50		16.50	16.50	
	3 Tx TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2417	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	16.50	16.50	16.25	16.50	16.50	
802.11n	1 Tx HT20	1	2412	16.25			16.25			
		2	2422	16.25			16.25			
		6	2437	16.25			16.25			
		10	2457	16.25			16.25			
		11	2462	16.25			16.25			
		1	2412		17.50			17.50		
		2	2422		17.50			17.50		
		6	2437		17.50			17.50		
		10	2457		17.50			17.50		
		11	2462		17.50			17.50		
		1	2412			16.50			16.50	
		2	2422			16.50			16.50	
		6	2437			16.50			16.50	
		10	2457			16.50			16.50	
		11	2462			16.50			16.50	
	2 Tx HT20 All nonTXBF	1	2412	14.50	14.50		14.50	14.50		
		2	2422	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	17.00		16.25	17.00		
		1	2412	14.50		14.50	14.50		14.50	
		2	2422	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2422		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		17.00	16.50		17.00	16.50	

WiFi 2.4GHz Measured Results (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	3 Tx HT20 All nonTXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	17.00	16.50	16.25	17.00	16.50	
	2 Tx HT20 TXBF	1	2412	14.50	14.50		14.50	14.50		
		2	2422	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	16.50		16.25	16.50		
		1	2412	14.50		14.50	14.50		14.50	
		2	2422	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2422		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		16.50	16.50		16.50	16.50	
	3 Tx HT20 TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	16.50	16.50	16.25	16.50	16.50	
	1 Tx HT40	40MHz Transmission disabled in the 2.4GHz Band								
	2 Tx HT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
	3 Tx HT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
802.11ac	1 Tx VHT20	1	2412	16.25			16.25			
		2	2422	16.25			16.25			
		6	2437	16.25			16.25			
		10	2457	16.25			16.25			
		11	2462	16.25			16.25			
		1	2412		17.50			17.50		
		2	2422		17.50			17.50		
		6	2437		17.50			17.50		
		10	2457		17.50			17.50		
		11	2462		17.50			17.50		
		1	2412			16.50			16.50	
		2	2422			16.50			16.50	
		6	2437			16.50			16.50	
		10	2457			16.50			16.50	
		11	2462			16.50			16.50	

WiFi 2.4GHz Measured Results (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	3 Tx HT20 All nonTXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	17.00	16.50	16.25	17.00	16.50	
	2 Tx HT20 TXBF	1	2412	14.50	14.50		14.50	14.50		
		2	2422	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	16.50		16.25	16.50		
		1	2412	14.50		14.50	14.50		14.50	
		2	2422	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2422		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		16.50	16.50		16.50	16.50	
	3 Tx HT20 TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	16.50	16.50	16.25	16.50	16.50	
	1 Tx HT40	40MHz Transmission disabled in the 2.4GHz Band								
	2 Tx HT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
	3 Tx HT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
802.11ac	1 Tx VHT20	1	2412	16.25			16.25			
		2	2422	16.25			16.25			
		6	2437	16.25			16.25			
		10	2457	16.25			16.25			
		11	2462	16.25			16.25			
		1	2412		17.50			17.50		
		2	2422		17.50			17.50		
		6	2437		17.50			17.50		
		10	2457		17.50			17.50		
		11	2462		17.50			17.50		
		1	2412			16.50			16.50	
		2	2422			16.50			16.50	
		6	2437			16.50			16.50	
		10	2457			16.50			16.50	
		11	2462			16.50			16.50	

WiFi 2.4GHz Measured Results (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	2 Tx VHT20 All	1	2412	14.50	14.50		14.50	14.50		
		2	2422	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	16.50		16.25	16.50		
		1	2412	14.50		14.50	14.50		14.50	
		2	2422	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	14.50		14.50	14.50	
		2	2422		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		16.50	16.50		16.50	16.50	
	3 Tx VHT20 All	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	17.00	16.50	16.25	17.00	16.50	
	2 Tx VHT20 TXBF	1	2412	14.50	14.50		14.50	14.50		
		2	2422	16.25	17.50		16.25	17.50		
		6	2437	16.25	17.50		16.25	17.50		
		10	2457	16.25	17.50		16.25	17.50		
		11	2462	16.25	16.50		16.25	16.50		
		1	2412	14.50		14.50	14.50		14.50	
		2	2422	16.25		16.50	16.25		16.50	
		6	2437	16.25		16.50	16.25		16.50	
		10	2457	16.25		16.50	16.25		16.50	
		11	2462	16.25		16.50	16.25		16.50	
		1	2412		14.50	16.50		14.50	16.50	
		2	2422		17.50	16.50		17.50	16.50	
		6	2437		17.50	16.50		17.50	16.50	
		10	2457		17.50	16.50		17.50	16.50	
		11	2462		16.50	16.50		16.50	16.50	
	3 Tx VHT20 TXBF	1	2412	14.50	14.50	14.50	14.50	14.50	14.50	
		2	2422	16.25	17.50	16.50	16.25	17.50	16.50	
		6	2437	16.25	17.50	16.50	16.25	17.50	16.50	
		10	2457	16.25	17.50	16.50	16.25	17.50	16.50	
		11	2462	16.25	16.50	16.50	16.25	16.50	16.50	
	1 Tx VHT40	40MHz Transmission disabled in the 2.4GHz Band								
	2 Tx VHT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
	3 Tx HT40 All/TXBF	40MHz Transmission disabled in the 2.4GHz Band								
	1 Tx VHT80	80MHz Transmission disabled in the 2.4GHz Band								
	2 Tx VHT80 All/TXBF	80MHz Transmission disabled in the 2.4GHz Band								
	3 Tx VHT80 All/TXBF	80MHz Transmission disabled in the 2.4GHz Band								

Note(s):

1. Required Test Mode(s) for:
   a) Vendor A
   b) Vendor B

10.2. WiFi (5 GHz Bands)

Required Test Channels per KDB 248227 D01

Mode		Band	GHz	Channel	"Default Test Channels"	
					802.11a	
802.11a	UNII (15.407)	5.2 GHz	5.180	36	√	
			5.200	40		*
			2.220	44		*
			5.240	48	√	
		5.3 GHz	5.260	52	√	
			5.280	56		*
			5.300	60		*
			5.320	64	√	
		5.5 GHz	5.500	100		
			5.520	104	√	
			5.540	108		*
			5.560	112		*
			5.580	116	√	
			5.600	120		*
			5.620	124	√	
			5.640	128		*
			5.660	132		*
			5.680	136	√	
			5.700	140		*
	DTS (15.247)	5.8 GHz	5.745	149	√	
			5.765	153		*
			5.785	157	√	
			5.805	161		*
			5.825	165	√	

√ = "default test channels"

* = possible 802.11a channels with maximum average output > 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.

10.2.1. WiFi (5.2 GHz Band)

Measured Results

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	**1 Tx**	**36**	**5180**	**15.00**			**15.00**			**1a,1b**
		40	**5200**	**15.00**			**15.00**			
		44	**5220**	**15.00**			**15.00**			
		48	**5240**	**15.00**			**15.00**			
		36	**5180**		**15.00**			**15.00**		
		40	**5200**		**15.00**			**15.00**		
		44	**5220**		**15.00**			**15.00**		
		48	**5240**		**15.00**			**15.00**		
		36	**5180**			**15.00**			**15.00**	
		40	**5200**			**15.00**			**15.00**	
		44	**5220**			**15.00**			**15.00**	
		48	**5240**			**15.00**			**15.00**	
	2 Tx CDD	**36**	**5180**	**11.00**	**11.00**		**11.00**	**11.00**		**1a,1b**
		40	**5200**	**11.00**	**11.00**		**11.00**	**11.00**		
		44	**5220**	**11.00**	**11.00**		**11.00**	**11.00**		
		48	**5240**	**11.00**	**11.00**		**11.00**	**11.00**		
		36	**5180**	**11.00**		**11.00**	**11.00**		**11.00**	
		40	**5200**	**11.00**		**11.00**	**11.00**		**11.00**	
		44	**5220**	**11.00**		**11.00**	**11.00**		**11.00**	
		48	**5240**	**11.00**		**11.00**	**11.00**		**11.00**	
		36	**5180**		**11.00**	**11.00**		**11.00**	**11.00**	
		40	**5200**		**11.00**	**11.00**		**11.00**	**11.00**	
		44	**5220**		**11.00**	**11.00**		**11.00**	**11.00**	
		48	**5240**		**11.00**	**11.00**		**11.00**	**11.00**	
	3 Tx CDD	36	5180	This mode disabled in driver.						
		40	5200							
		44	5220							
		48	5240							
	2 Tx TXBF	36	5180	11.00	11.00		11.00	11.00		
		40	5200	11.00	11.00		11.00	11.00		
		44	5220	11.00	11.00		11.00	11.00		
		48	5240	11.00	11.00		11.00	11.00		
		36	5180	11.00		11.00	11.00		11.00	
		40	5200	11.00		11.00	11.00		11.00	
		44	5220	11.00		11.00	11.00		11.00	
		48	5240	11.00		11.00	11.00		11.00	
		36	5180		11.00	11.00		11.00	11.00	
		40	5200		11.00	11.00		11.00	11.00	
		44	5220		11.00	11.00		11.00	11.00	
		48	5240		11.00	11.00		11.00	11.00	
	3 Tx TXBF	36	5180	This mode disabled in driver.						
		40	5200							
		44	5220							
		48	5240							
802.11n	1 Tx HT20 SISO	36	5180	15.00			15.00			
		44	5220	15.00			15.00			
		48	5240	15.00			15.00			
		36	5180		15.00			15.00		
		44	5220		15.00			15.00		
		48	5240		15.00			15.00		
		36	5180			15.00			15.00	
		44	5220			15.00			15.00	
		48	5240			15.00			15.00	

WiFi 5.2GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT20 CDD	36	5180	11.00	11.00		11.00	11.00		
		40	5200	11.00	11.00		11.00	11.00		
		48	5240	11.00	11.00		11.00	11.00		
		36	5180	11.00		11.00	11.00		11.00	
		40	5200	11.00		11.00	11.00		11.00	
		48	5240	11.00		11.00	11.00		11.00	
		36	5180		11.00	11.00		11.00	11.00	
		40	5200		11.00	11.00		11.00	11.00	
		48	5240		11.00	11.00		11.00	11.00	
	3 Tx HT20 CDD	36	5180	This mode disabled in driver.						
		40	5200							
		48	5240							
	2 Tx HT20 STBC/SDM	**36**	**5180**	**12.50**	**12.50**		**12.50**	**12.50**		**1a,1b**
		40	**5200**	**12.50**	**12.50**		**12.50**	**12.50**		
		48	**5240**	**12.50**	**12.50**		**12.50**	**12.50**		
		36	**5180**	**12.50**		**12.50**	**12.50**		**12.50**	
		40	**5200**	**12.50**		**12.50**	**12.50**		**12.50**	
		48	**5240**	**12.50**		**12.50**	**12.50**		**12.50**	
		36	**5180**		**12.50**	**12.50**		**12.50**	**12.50**	
		40	**5200**		**12.50**	**12.50**		**12.50**	**12.50**	
		48	**5240**		**12.50**	**12.50**		**12.50**	**12.50**	
	3 Tx HT20 STBC/SDM	36	5180	11.50	11.50	11.50	11.50	11.50	11.50	
		40	5200	11.50	11.50	11.50	11.50	11.50	11.50	
		48	5240	11.50	11.50	11.50	11.50	11.50	11.50	
	2 Tx HT20 TXBF	36	5180	11.00	11.00		11.00	11.00		
		40	5200	11.00	11.00		11.00	11.00		
		48	5240	11.00	11.00		11.00	11.00		
		36	5180	11.00		11.00	11.00		11.00	
		40	5200	11.00		11.00	11.00		11.00	
		48	5240	11.00		11.00	11.00		11.00	
		36	5180		11.00	11.00		11.00	11.00	
		40	5200		11.00	11.00		11.00	11.00	
		48	5240		11.00	11.00		11.00	11.00	
	3 Tx HT20 TXBF	36	5180	This mode disabled in driver.						
		40	5200							
		48	5240							
	1 Tx HT40 SISO	**38**	**5190**	**15.50**			**15.50**			**1a,1b**
		46	**5230**	**15.50**			**15.50**			
		38	**5190**		**15.50**			**15.50**		
		46	**5230**		**15.50**			**15.50**		
		38	**5190**			**15.50**			**15.50**	
		46	**5230**			**15.50**			**15.50**	
	2 Tx HT40 CDD	38	5190	12.00	12.00		12.00	12.00		
		46	5230	12.00	12.00		12.00	12.00		
		38	5190	12.00		12.00	12.00		12.00	
		46	5230	12.00		12.00	12.00		12.00	
		38	5190		12.00	12.00		12.00	12.00	
		46	5230		12.00	12.00		12.00	12.00	
	3 Tx HT40 CDD	38	5190	11.00	11.00	11.00	11.00	11.00	11.00	
		46	5230	11.50	11.50	11.50	11.50	11.50	11.50	

WiFi 5.2GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT40 STBC/SDM	38	5190	12.00	12.00		12.00	12.00		
		46	5230	12.00	12.00		12.00	12.00		
		38	5190	12.00		12.00	12.00		12.00	
		46	5230	12.00		12.00	12.00		12.00	
		38	5190		12.00	12.00		12.00	12.00	
		46	5230		12.00	12.00		12.00	12.00	
	3 Tx HT40 STBC/SDM	**38**	**5190**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**1a,1b**
		46	**5230**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	**12.00**	
	2 Tx HT40 TXBF	38	5190	9.50	9.50		9.50	9.50		
		46	5230	9.50	9.50		9.50	9.50		
		38	5190	9.50		9.50	9.50		9.50	
		46	5230	9.50		9.50	9.50		9.50	
		38	5190		9.50	9.50		9.50	9.50	
		46	5230		9.50	9.50		9.50	9.50	
	3 Tx HT40 TXBF	38	5190	7.50	7.50	7.50	7.50	7.50	7.50	
		46	5230	7.50	7.50	7.50	7.50	7.50	7.50	
802.11ac	**1 Tx VHT20 SISO**	36	5180	15.00			15.00			
		44	5220	15.00			15.00			
		48	5240	15.00			15.00			
		36	**5180**		**15.00**			**15.00**		**1a, 1b**
		44	5220		15.00			15.00		
		48	5240		15.00			15.00		
		36	5180			15.00			15.00	
		44	5220			15.00			15.00	
		48	5240			15.00			15.00	
	1 Tx VHT80 SISO	42	5210	14.50			14.50			
		42	5210		14.50			14.50		
		42	5210			14.50			14.50	
	2 Tx VHT20 CDD	36	5180	11.00	11.00		11.00	11.00		
		40	5200	11.00	11.00		11.00	11.00		
		48	5240	11.00	11.00		11.00	11.00		
		36	5180	11.00		11.00	11.00		11.00	
		40	5200	11.00		11.00	11.00		11.00	
		48	5240	11.00		11.00	11.00		11.00	
		36	5180		11.00	11.00		11.00	11.00	
		40	5200		11.00	11.00		11.00	11.00	
		48	5240		11.00	11.00		11.00	11.00	
	3 Tx VHT20 CDD	36	5180	This mode disabled in driver.						
		40	5200							
		48	5240							
	2 Tx VHT20 STBC/SDM	36	5180	12.50	12.50		12.50	12.50		
		40	5200	12.50	12.50		12.50	12.50		
		48	5240	12.50	12.50		12.50	12.50		
		36	5180	12.50		12.50	12.50		12.50	
		40	5200	12.50		12.50	12.50		12.50	
		48	5240	12.50		12.50	12.50		12.50	
		36	5180		12.50	12.50		12.50	12.50	
		40	5200		12.50	12.50		12.50	12.50	
		48	5240		12.50	12.50		12.50	12.50	
	3 Tx VHT20 STBC/SDM	36	5180	11.50	11.50	11.50	11.50	11.50	11.50	
		40	5200	11.50	11.50	11.50	11.50	11.50	11.50	
		48	5240	11.50	11.50	11.50	11.50	11.50	11.50	

WiFi 5.2GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	2 Tx VHT20 TXBF	36	5180	11.00	11.00		11.00	11.00		
		40	5200	11.00	11.00		11.00	11.00		
		48	5240	11.00	11.00		11.00	11.00		
		36	5180	11.00		11.00	11.00		11.00	
		40	5200	11.00		11.00	11.00		11.00	
		48	5240	11.00		11.00	11.00		11.00	
		36	5180		11.00	11.00		11.00	11.00	
		40	5200		11.00	11.00		11.00	11.00	
		48	5240		11.00	11.00		11.00	11.00	
	3 Tx VHT20 TXBF	36	5180	This mode disabled in driver.						
		40	5200							
		48	5240							
	1 Tx VHT40 SISO	38	5190	15.50			15.50			
		46	5230	15.50			15.50			
		38	5190		15.50			15.50		
		46	5230		15.50			15.50		
		38	5190			15.50			15.50	
		46	5230			15.50			15.50	
	2 Tx VHT40 CDD	38	5190	12.00	12.00		12.00	12.00		
		46	5230	12.00	12.00		12.00	12.00		
		38	5190	12.00		12.00	12.00		12.00	
		46	5230	12.00		12.00	12.00		12.00	
		38	5190		12.00	12.00		12.00	12.00	
		46	5230		12.00	12.00		12.00	12.00	
	3 Tx VHT40 CDD	38	5190	11.00	11.00	11.00	11.00	11.00	11.00	
		46	5230	11.50	11.50	11.50	11.50	11.50	11.50	
	2 Tx VHT40 STBC/SDM	38	5190	12.00	12.00		12.00	12.00		
		46	5230	12.00	12.00		12.00	12.00		
		38	5190	12.00		12.00	12.00		12.00	
		46	5230	12.00		12.00	12.00		12.00	
		38	5190		12.00	12.00		12.00	12.00	
		46	5230		12.00	12.00		12.00	12.00	
	3 Tx VHT40 STBC/SDM	38	5190	12.00	12.00	12.00	12.00	12.00	12.00	
		46	5230	12.00	12.00	12.00	12.00	12.00	12.00	
	2 Tx VHT40 TXBF	38	5190	9.50	9.50		9.50	9.50		
		46	5230	9.50	9.50		9.50	9.50		
		38	5190	9.50		9.50	9.50		9.50	
		46	5230	9.50		9.50	9.50		9.50	
		38	5190		9.50	9.50		9.50	9.50	
		46	5230		9.50	9.50		9.50	9.50	
	3 Tx VHT40 TXBF	38	5190	7.50	7.50	7.50	7.50	7.50	7.50	
		46	5230	7.50	7.50	7.50	7.50	7.50	7.50	
	1 Tx VHT80 SISO	42	5210	14.50			14.50			
		42	5210		14.50			14.50		
		42	5210			14.50			14.50	
	2 Tx VHT80 CDD	42	5210	12.50	12.50		12.50	12.50		
		42	5210	12.50		12.50	12.50		12.50	
		42	5210		12.50	12.50		12.50	12.50	

WiFi 5.2GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT80 CDD	42	5210	12.00	12.00	12.00	12.00	12.00	12.00	
	2 Tx VHT80 STBC/SDM	42	5210	12.50	12.50		12.50	12.50		
		42	5210	12.50		12.50	12.50		12.50	
		42	5210		12.50	12.50		12.50	12.50	
	3 Tx VHT80 STBC/SDM	42	5210	12.00	12.00	12.00	12.00	12.00	12.00	
	2 Tx VHT80 TXBF	42	5210	10.00	10.00		10.00	10.00		
		42	5210	10.00		10.00	10.00		10.00	
		42	5210		10.00	10.00		10.00	10.00	
	3 Tx VHT80 TXBF	42	5210	7.50	7.50	7.50	7.50	7.50	7.50	

Note(s):

1. Required Test Mode(s) for:
   a) Vendor A
   b) Vendor B

10.2.2. WiFi (5.3 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	**1 Tx**	**52**	**5260**	**15.50**			**15.50**			**1a, 1b**
		56	**5280**	**15.50**			**15.50**			
		60	**5300**	**15.50**			**15.50**			
		64	**5320**	**15.50**			**15.50**			
		52	**5260**		**15.50**			**15.50**		
		56	**5280**		**15.50**			**15.50**		
		60	**5300**		**15.50**			**15.50**		
		64	**5320**		**15.50**			**15.50**		
		52	**5260**			**15.50**			**15.50**	
		56	**5280**			**15.50**			**15.50**	
		60	**5300**			**15.50**			**15.50**	
		64	**5320**			**15.50**			**15.50**	
	2 Tx CDD	**52**	**5260**	**15.50**	**15.50**		**15.50**	**15.50**		**1a, 1b**
		56	**5280**	**15.50**	**15.50**		**15.50**	**15.50**		
		60	**5300**	**15.50**	**15.50**		**15.50**	**15.50**		
		64	**5320**	**15.50**	**15.50**		**15.50**	**15.50**		
		52	**5260**	**15.50**		**15.50**	**15.50**		**15.50**	
		56	**5280**	**15.50**		**15.50**	**15.50**		**15.50**	
		60	**5300**	**15.50**		**15.50**	**15.50**		**15.50**	
		64	**5320**	**15.50**		**15.50**	**15.50**		**15.50**	
		52	**5260**		**15.50**	**15.50**		**15.50**	**15.50**	
		56	**5280**		**15.50**	**15.50**		**15.50**	**15.50**	
		60	**5300**		**15.50**	**15.50**		**15.50**	**15.50**	
		64	**5320**		**15.50**	**15.50**		**15.50**	**15.50**	
	3 Tx CDD	**52**	**5260**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**1a, 1b**
		56	**5280**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	
		60	**5300**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	
		64	**5320**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	**14.00**	
	2 Tx TXBF	52	5260	15.50	15.50		15.50	15.50		
		56	5280	15.50	15.50		15.50	15.50		
		60	5300	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		56	5280	15.50		15.50	15.50		15.50	
		60	5300	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		56	5280		15.50	15.50		15.50	15.50	
		60	5300		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	
	3 Tx TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00	
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00	
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00	
802.11n	1 Tx HT20 SISO	52	5260	15.50			15.50			
		60	5300	15.50			15.50			
		64	5320	15.50			15.50			
		52	5260		15.50			15.50		
		60	5300		15.50			15.50		
		64	5320		15.50			15.50		
		52	5260			15.50			15.50	
		60	5300			15.50			15.50	
		64	5320			15.50			15.50	

WiFi 5.3GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT20 CDD	52	5260	15.50	15.50		15.50	15.50		
		60	5300	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		60	5300	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		60	5300		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	
	3 Tx HT20 CDD	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00	
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00	
	2 Tx HT20 STBC/SDM	52	5260	15.50	15.50		15.50	15.50		
		56	5280	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		56	5280	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		56	5280		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	
	3 Tx HT20 STBC/SDM	**52**	**5260**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**1a, 1b**
		56	**5280**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
		64	**5320**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
	2 Tx HT20 TXBF	52	5260	15.50	15.50		15.50	15.50		
		56	5280	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		56	5280	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		56	5280		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	
	3 Tx HT20 TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00	
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00	
	1 Tx HT40 SISO	54	5270	15.50			15.50			
		62	5310	15.50			15.50			
		54	5270		15.50			15.50		
		62	5310		15.50			15.50		
		54	5270			15.50			15.50	
		62	5310			15.50			15.50	
	2 Tx HT40 CDD	54	5270	15.50	15.50		15.50	15.50		
		62	5310	14.00	14.00		14.00	14.00		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	14.00		14.00	14.00		14.00	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		14.00	14.00		14.00	14.00	

WiFi 5.3GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	3 Tx HT40 CDD	54	5270	15.50	15.50	15.50	15.50	15.50	15.50	
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50	
	2 Tx HT40 STBC/SDM	54	5270	15.50	15.50		15.50	15.50		
		62	5310	14.00	14.00		14.00	14.00		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	14.00		14.00	14.00		14.00	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		14.00	14.00		14.00	14.00	
	3 Tx HT40 STBC/SDM	54	5270	15.50	15.50	15.50	15.50	15.50	15.50	
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50	
	2 Tx HT40 TXBF	54	5270	15.50	15.50		15.50	15.50		
		62	5310	13.50	13.50		13.50	13.50		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	13.50		13.50	13.50		13.50	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		13.50	13.50		13.50	13.50	
	3 Tx HT40 TXBF	54	5270	14.00	14.00	14.00	14.00	14.00	14.00	
		62	5310	13.00	13.00	13.00	13.00	13.00	13.00	
802.11ac	**1 Tx VHT20 SISO**	52	5260	15.50			15.50			
		60	5300	15.50			15.50			
		64	5320	15.50			15.50			
		52	5260		15.50			15.50		
		60	5300		15.50			15.50		
		64	**5320**		**15.50**			**15.50**		**1a**
		52	5260			15.50			15.50	
		60	5300			15.50			15.50	
		64	5320			15.50			15.50	
	2 Tx VHT20 CDD	52	5260	15.50	15.50		15.50	15.50		
		60	5300	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		60	5300	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		60	5300		15.50	15.50		15.50	15.50	
		64	**5320**		**15.50**	**15.50**		**15.50**	**15.50**	**1b**
	3 Tx VHT20 CDD	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	
		60	5300	14.00	14.00	14.00	14.00	14.00	14.00	
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00	
	2 Tx VHT20 STBC/SDM	52	5260	15.50	15.50		15.50	15.50		
		56	5280	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		56	5280	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		56	5280		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	

WiFi 5.3GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT20 STBC/SDM	52	5260	15.50	15.50	15.50	15.50	15.50	15.50	
		56	5280	15.50	15.50	15.50	15.50	15.50	15.50	
		64	5320	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT20 TXBF	52	5260	15.50	15.50		15.50	15.50		
		56	5280	15.50	15.50		15.50	15.50		
		64	5320	15.50	15.50		15.50	15.50		
		52	5260	15.50		15.50	15.50		15.50	
		56	5280	15.50		15.50	15.50		15.50	
		64	5320	15.50		15.50	15.50		15.50	
		52	5260		15.50	15.50		15.50	15.50	
		56	5280		15.50	15.50		15.50	15.50	
		64	5320		15.50	15.50		15.50	15.50	
	3 Tx VHT20 TXBF	52	5260	14.50	14.50	14.50	14.50	14.50	14.50	
		56	5280	14.00	14.00	14.00	14.00	14.00	14.00	
		64	5320	14.00	14.00	14.00	14.00	14.00	14.00	
	1 Tx VHT40 SISO	54	5270	15.50			15.50			
		62	5310	15.50			15.50			
		54	5270		15.50			15.50		
		62	5310		15.50			15.50		
		54	5270			15.50			15.50	
		62	5310			15.50			15.50	
	2 Tx VHT40 CDD	54	5270	15.50	15.50		15.50	15.50		
		62	5310	14.00	14.00		14.00	14.00		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	14.00		14.00	14.00		14.00	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		14.00	14.00		14.00	14.00	
	3 Tx VHT40 CDD	54	5270	15.50	15.50	15.50	15.50	15.50	15.50	
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50	
	2 Tx VHT40 STBC/SDM	54	5270	15.50	15.50		15.50	15.50		
		62	5310	14.00	14.00		14.00	14.00		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	14.00		14.00	14.00		14.00	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		14.00	14.00		14.00	14.00	
	3 Tx VHT40 STBC/SDM	54	5270	15.50	15.50	15.50	15.50	15.50	15.50	
		62	5310	12.50	12.50	12.50	12.50	12.50	12.50	
	2 Tx VHT40 TXBF	54	5270	15.50	15.50		15.50	15.50		
		62	5310	13.50	13.50		13.50	13.50		
		54	5270	15.50		15.50	15.50		15.50	
		62	5310	13.50		13.50	13.50		13.50	
		54	5270		15.50	15.50		15.50	15.50	
		62	5310		13.50	13.50		13.50	13.50	
	3 Tx VHT40 TXBF	54	5270	14.00	14.00	14.00	14.00	14.00	14.00	
		62	5310	13.00	13.00	13.00	13.00	13.00	13.00	
	1 Tx VHT80 SISO	58	5290	15.50			15.50			
		58	5290		15.50			15.50		
		58	5290			15.50			15.50	

WiFi 5.3GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	2 Tx VHT80 CDD	58	5290	13.00	13.00		13.00	13.00		
		58	5290	13.00		13.00	13.00		13.00	
		58	5290		13.00	13.00		13.00	13.00	
	3 Tx VHT80 CDD	58	5290	12.00	12.00	12.00	12.00	12.00	12.00	
	2 Tx VHT80 STBC/SDM	58	5290	13.00	13.00		13.00	13.00		
		58	5290	13.00		13.00	13.00		13.00	
		58	5290		13.00	13.00		13.00	13.00	
	3 Tx VHT80 STBC/SDM	58	5290	12.00	12.00	12.00	12.00	12.00	12.00	
	2 Tx VHT80 TXBF	58	5290	13.50	13.50		13.50	13.50		
		58	5290	13.50		13.50	13.50		13.50	
		58	5290		13.50	13.50		13.50	13.50	
	3 Tx VHT80 TXBF	58	5290	13.00	13.00	13.00	13.00	13.00	13.00	

Note(s):

1. Required Test Mode(s) for:
   a) Vendor A
   b) Vendor B

10.2.3. WiFi (5.5 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	1 Tx	100	5500	15.50			15.50			1a, 1b
		104	5520	15.50			15.50			
		108	5540	15.50			15.50			
		112	5560	15.50			15.50			
		116	5580	15.50			15.50			
		120	5600	15.50			15.50			
		124	5620	15.50			15.50			
		128	5640	15.50			15.50			
		132	5660	15.50			15.50			
		136	5680	15.50			15.50			
		140	5700	15.50			15.50			
		144	5720	15.50			15.50			
		100	5500		15.50			15.50		
		104	5520		15.50			15.50		
		108	5540		15.50			15.50		
		112	5560		15.50			15.50		
		116	5580		15.50			15.50		
		120	5600		15.50			15.50		
		124	5620		15.50			15.50		
		128	5640		15.50			15.50		
		132	5660		15.50			15.50		
		136	5680		15.50			15.50		
		140	5700		15.50			15.50		
		144	5720		15.50			15.50		
		100	5500			15.50			15.50	
		104	5520			15.50			15.50	
		108	5540			15.50			15.50	
		112	5560			15.50			15.50	
		116	5580			15.50			15.50	
		120	5600			15.50			15.50	
		124	5620			15.50			15.50	
		128	5640			15.50			15.50	
		132	5660			15.50			15.50	
		136	5680			15.50			15.50	
		140	5700			15.50			15.50	
		144	5720			15.50			15.50	
	2 Tx CDD	100	5500	15.50	15.50		15.50	15.50		1a, 1b
		104	5520	15.50	15.50		15.50	15.50		
		108	5540	15.50	15.50		15.50	15.50		
		112	5560	15.50	15.50		15.50	15.50		
		116	5580	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		124	5620	15.50	15.50		15.50	15.50		
		128	5640	15.50	15.50		15.50	15.50		
		132	5660	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5720	15.50	15.50		15.50	15.50		

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	**2 Tx CDD**	**100**	**5500**	**15.50**		**15.50**	**15.50**		**15.50**	**1a, 1b**
		104	**5520**	**15.50**		**15.50**	**15.50**		**15.50**	
		108	**5540**	**15.50**		**15.50**	**15.50**		**15.50**	
		112	**5560**	**15.50**		**15.50**	**15.50**		**15.50**	
		116	**5580**	**15.50**		**15.50**	**15.50**		**15.50**	
		120	**5600**	**15.50**		**15.50**	**15.50**		**15.50**	
		124	**5620**	**15.50**		**15.50**	**15.50**		**15.50**	
		128	**5640**	**15.50**		**15.50**	**15.50**		**15.50**	
		132	**5660**	**15.50**		**15.50**	**15.50**		**15.50**	
		136	**5680**	**15.50**		**15.50**	**15.50**		**15.50**	
		140	**5700**	**15.50**		**15.50**	**15.50**		**15.50**	
		144	**5720**	**15.50**		**15.50**	**15.50**		**15.50**	
		100	**5500**		**15.50**	**15.50**		**15.50**	**15.50**	**1a, 1b**
		104	**5520**		**15.50**	**15.50**		**15.50**	**15.50**	
		108	**5540**		**15.50**	**15.50**		**15.50**	**15.50**	
		112	**5560**		**15.50**	**15.50**		**15.50**	**15.50**	
		116	**5580**		**15.50**	**15.50**		**15.50**	**15.50**	
		120	**5600**		**15.50**	**15.50**		**15.50**	**15.50**	
		124	**5620**		**15.50**	**15.50**		**15.50**	**15.50**	
		128	**5640**		**15.50**	**15.50**		**15.50**	**15.50**	
		132	**5660**		**15.50**	**15.50**		**15.50**	**15.50**	
		136	**5680**		**15.50**	**15.50**		**15.50**	**15.50**	
		140	**5700**		**15.50**	**15.50**		**15.50**	**15.50**	
		144	**5720**		**15.50**	**15.50**		**15.50**	**15.50**	
	3 Tx CDD	**100**	**5500**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**1a, 1b**
		104	**5520**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		108	**5540**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		112	**5560**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		116	**5580**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		120	**5600**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		124	**5620**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		128	**5640**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		132	**5660**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		136	**5680**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		140	**5700**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
		144	**5720**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	**14.50**	
	2 Tx TXBF	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		108	5540	15.50	15.50		15.50	15.50		
		112	5560	15.50	15.50		15.50	15.50		
		116	5580	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		124	5620	15.50	15.50		15.50	15.50		
		128	5640	15.50	15.50		15.50	15.50		
		132	5660	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5720	15.50	15.50		15.50	15.50		

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	2 Tx TXBF	100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		108	5540	15.50		15.50	15.50		15.50	
		112	5560	15.50		15.50	15.50		15.50	
		116	5580	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		124	5620	15.50		15.50	15.50		15.50	
		128	5640	15.50		15.50	15.50		15.50	
		132	5660	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5720	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		108	5540		15.50	15.50		15.50	15.50	
		112	5560		15.50	15.50		15.50	15.50	
		116	5580		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		124	5620		15.50	15.50		15.50	15.50	
		128	5640		15.50	15.50		15.50	15.50	
		132	5660		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5720		15.50	15.50		15.50	15.50	
	3 Tx TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50	
		108	5540	14.50	14.50	14.50	14.50	14.50	14.50	
		112	5560	14.50	14.50	14.50	14.50	14.50	14.50	
		116	5580	14.50	14.50	14.50	14.50	14.50	14.50	
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50	
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50	
		128	5640	14.50	14.50	14.50	14.50	14.50	14.50	
		132	5660	14.50	14.50	14.50	14.50	14.50	14.50	
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50	
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50	
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50	
802.11n	1 Tx HT20 SISO	100	5500	15.50			15.50			
		104	5520	15.50			15.50			
		120	5600	15.50			15.50			
		136	5680	15.50			15.50			
		140	5700	15.50			15.50			
		144	5720	15.50			15.50			
		100	5500		15.50			15.50		
		104	5520		15.50			15.50		
		120	5600		15.50			15.50		
		136	5680		15.50			15.50		
		140	5700		15.50			15.50		
		144	5720		15.50			15.50		
		100	5500			15.50			15.50	
		104	5520			15.50			15.50	
		120	5600			15.50			15.50	
		136	5680			15.50			15.50	
		140	5700			15.50			15.50	
		144	5720			15.50			15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT20 CDD	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5710	15.50	15.50		15.50	15.50		
		100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5710	15.50		15.50	15.50		15.50	
	2 Tx HT20 CDD	100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5710		15.50	15.50		15.50	15.50	
	3 Tx HT20 CDD	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50	
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50	
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50	
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50	
		144	5710	14.50	14.50	14.50	14.50	14.50	14.50	
	2 Tx HT20 STBC/SDM	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5710	15.50	15.50		15.50	15.50		
		100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5710	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5710		15.50	15.50		15.50	15.50	
	3 Tx HT20 STBC/SDM	**100**	**5500**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**1a, 1b**
		104	**5520**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
		120	**5600**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
		136	**5680**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
		140	**5700**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
		144	**5710**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	**15.50**	
	2 Tx HT20 TXBF	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5710	15.50	15.50		15.50	15.50		

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT20 TXBF	100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5710	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5710		15.50	15.50		15.50	15.50	
	3 Tx HT20 TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50	
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50	
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50	
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50	
		144	5710	14.50	14.50	14.50	14.50	14.50	14.50	
	1 Tx HT40 SISO	102	5510	15.50			15.50			
		110	5550	15.50			15.50			
		134	5670	15.50			15.50			
		142	5710	15.50			15.50			
		102	5510		15.50			15.50		
		110	5550		15.50			15.50		
		134	5670		15.50			15.50		
		142	5710		15.50			15.50		
		102	5510			15.50			15.50	
		110	5550			15.50			15.50	
		134	5670			15.50			15.50	
		142	5710			15.50			15.50	
	2 Tx HT40 CDD	102	5510	15.50	15.50		15.50	15.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	15.50		15.50	15.50		15.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		15.50	15.50		15.50	15.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	
	3 Tx HT40 CDD	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx HT40 STBC/SDM	102	5510	15.50	15.50		15.50	15.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	15.50		15.50	15.50		15.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		15.50	15.50		15.50	15.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	3 Tx HT40 STBC/SDM	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx HT40 TXBF	102	5510	13.50	13.50		13.50	13.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	13.50		13.50	13.50		13.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		13.50	13.50		13.50	13.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	
	3 Tx HT40 TXBF	102	5510	14.50	14.50	14.50	14.50	14.50	14.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
802.11ac	1 Tx VHT20 SISO	100	5500	15.50			15.50			
		104	5520	15.50			15.50			
		120	5600	15.50			15.50			
		136	5680	15.50			15.50			
		140	5700	15.50			15.50			
		144	5720	15.50			15.50			
		100	5500		15.50			15.50		
		104	5520		15.50			15.50		
		120	5600		15.50			15.50		
		136	5680		15.50			15.50		
		140	5700		15.50			15.50		
		144	5720		15.50			15.50		
		100	5500			15.50			15.50	
		104	5520			15.50			15.50	
		120	5600			15.50			15.50	
		136	5680			15.50			15.50	
		140	5700			15.50			15.50	
		144	5720			15.50			15.50	
	2 Tx VHT20 CDD	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		124	5620	15.50	15.50		15.50	15.50		
		136	**5680**	**15.50**	**15.50**		**15.50**	**15.50**		**1a, 1b**
		140	5700	15.50	15.50		15.50	15.50		
		144	5720	15.50	15.50		15.50	15.50		
		100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		124	5620	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5720	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		124	5620		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5720		15.50	15.50		15.50	15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT20 CDD	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50	
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50	
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50	
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50	
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50	
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50	
	2 Tx VHT20 STBC/SDM	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		124	5620	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5720	15.50	15.50		15.50	15.50		
		100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		124	5620	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5720	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		124	5620		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5720		15.50	15.50		15.50	15.50	
	3 Tx VHT20 STBC/SDM	100	5500	15.50	15.50	15.50	15.50	15.50	15.50	
		104	5520	15.50	15.50	15.50	15.50	15.50	15.50	
		120	5600	15.50	15.50	15.50	15.50	15.50	15.50	
		124	5620	15.50	15.50	15.50	15.50	15.50	15.50	
		136	5680	15.50	15.50	15.50	15.50	15.50	15.50	
		140	5700	15.50	15.50	15.50	15.50	15.50	15.50	
		144	5720	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT20 TXBF	100	5500	15.50	15.50		15.50	15.50		
		104	5520	15.50	15.50		15.50	15.50		
		120	5600	15.50	15.50		15.50	15.50		
		124	5620	15.50	15.50		15.50	15.50		
		136	5680	15.50	15.50		15.50	15.50		
		140	5700	15.50	15.50		15.50	15.50		
		144	5720	15.50	15.50		15.50	15.50		
		100	5500	15.50		15.50	15.50		15.50	
		104	5520	15.50		15.50	15.50		15.50	
		120	5600	15.50		15.50	15.50		15.50	
		124	5620	15.50		15.50	15.50		15.50	
		136	5680	15.50		15.50	15.50		15.50	
		140	5700	15.50		15.50	15.50		15.50	
		144	5720	15.50		15.50	15.50		15.50	
		100	5500		15.50	15.50		15.50	15.50	
		104	5520		15.50	15.50		15.50	15.50	
		120	5600		15.50	15.50		15.50	15.50	
		124	5620		15.50	15.50		15.50	15.50	
		136	5680		15.50	15.50		15.50	15.50	
		140	5700		15.50	15.50		15.50	15.50	
		144	5720		15.50	15.50		15.50	15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT20 TXBF	100	5500	14.50	14.50	14.50	14.50	14.50	14.50	
		104	5520	14.50	14.50	14.50	14.50	14.50	14.50	
		120	5600	14.50	14.50	14.50	14.50	14.50	14.50	
		124	5620	14.50	14.50	14.50	14.50	14.50	14.50	
		136	5680	14.50	14.50	14.50	14.50	14.50	14.50	
		140	5700	14.50	14.50	14.50	14.50	14.50	14.50	
		144	5720	14.50	14.50	14.50	14.50	14.50	14.50	
	1 Tx VHT40 SISO	102	5510	15.50			15.50			
		110	5550	15.50			15.50			
		134	5670	15.50			15.50			
		142	5710	15.50			15.50			
		102	5510		15.50			15.50		
		110	5550		15.50			15.50		
		134	5670		15.50			15.50		
		142	5710		15.50			15.50		
		102	5510			15.50			15.50	
		110	5550			15.50			15.50	
		134	5670			15.50			15.50	
		142	5710			15.50			15.50	
	2 Tx VHT40 CDD	102	5510	15.50	15.50		15.50	15.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	15.50		15.50	15.50		15.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		15.50	15.50		15.50	15.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	
	3 Tx VHT40 CDD	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT40 STBC/SDM	102	5510	15.50	15.50		15.50	15.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	15.50		15.50	15.50		15.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		15.50	15.50		15.50	15.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT40 STBC/SDM	102	5510	13.50	13.50	13.50	13.50	13.50	13.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT40 TXBF	102	5510	13.50	13.50		13.50	13.50		
		110	5550	15.50	15.50		15.50	15.50		
		134	5670	15.50	15.50		15.50	15.50		
		142	5710	15.50	15.50		15.50	15.50		
		102	5510	13.50		13.50	13.50		13.50	
		110	5550	15.50		15.50	15.50		15.50	
		134	5670	15.50		15.50	15.50		15.50	
		142	5710	15.50		15.50	15.50		15.50	
		102	5510		13.50	13.50		13.50	13.50	
		110	5550		15.50	15.50		15.50	15.50	
		134	5670		15.50	15.50		15.50	15.50	
		142	5710		15.50	15.50		15.50	15.50	
	3 Tx VHT40 TXBF	102	5510	14.50	14.50	14.50	14.50	14.50	14.50	
		110	5550	15.50	15.50	15.50	15.50	15.50	15.50	
		134	5670	15.50	15.50	15.50	15.50	15.50	15.50	
		142	5710	15.50	15.50	15.50	15.50	15.50	15.50	
	1 Tx VHT80 SISO	106	5530	15.50			15.50			
		122	5610	15.50			15.50			
		138	5690	15.50			15.50			
		106	5530		15.50			15.50		
		122	5610		15.50			15.50		
		138	5690		15.50			15.50		
		106	5530			15.50			15.50	
		122	5610			15.50			15.50	
		138	5690			15.50			15.50	
	2 Tx VHT80 CDD	106	5530	14.00	14.00		14.00	14.00		
		122	5610	15.50	15.50		15.50	15.50		
		138	5690	15.50	15.50		15.50	15.50		
		106	5530	14.00		14.00	14.00		14.00	
		122	5610	15.50		15.50	15.50		15.50	
		138	5690	15.50		15.50	15.50		15.50	
		106	5530		14.00	14.00		14.00	14.00	
		122	5610		15.50	15.50		15.50	15.50	
		138	5690		15.50	15.50		15.50	15.50	
	3 Tx VHT80 CDD	106	5530	12.50	12.50	12.50	12.50	12.50	12.50	
		122	5610	15.50	15.50	15.50	15.50	15.50	15.50	
		138	5690	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT80 STBC/SDM	106	5530	14.00	14.00		14.00	14.00		
		122	5610	15.50	15.50		15.50	15.50		
		138	5690	15.50	15.50		15.50	15.50		
		106	5530	14.00		14.00	14.00		14.00	
		122	5610	15.50		15.50	15.50		15.50	
		138	5690	15.50		15.50	15.50		15.50	
		106	5530		14.00	14.00		14.00	14.00	
		122	5610		15.50	15.50		15.50	15.50	
		138	5690		15.50	15.50		15.50	15.50	

WiFi 5.5GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	3 Tx VHT80 STBC/SDM	106	5530	12.50	12.50	12.50	12.50	12.50	12.50	
		122	5610	15.50	15.50	15.50	15.50	15.50	15.50	
		138	5690	15.50	15.50	15.50	15.50	15.50	15.50	
	2 Tx VHT80 TXBF	106	5530	15.00	15.00		15.00	15.00		
		122	5610	15.50	15.50		15.50	15.50		
		138	5690	15.50	15.50		15.50	15.50		
		106	5530	15.00		15.00	15.00		15.00	
		122	5610	15.50		15.50	15.50		15.50	
		138	5690	15.50		15.50	15.50		15.50	
		106	5530		15.00	15.00		15.00	15.00	
		122	5610		15.50	15.50		15.50	15.50	
		138	5690		15.50	15.50		15.50	15.50	
	3 Tx VHT80 TXBF	106	5530	13.00	13.00	13.00	13.00	13.00	13.00	
		122	5610	15.00	15.00	15.00	15.00	15.00	15.00	
		138	5690	14.00	14.00	14.00	14.00	14.00	14.00	

Note(s):

1. Required Test Mode(s) for:
   a) Vendor A
   b) Vendor B

10.2.4. WiFi (5.8 GHz Band)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11a	**1 Tx**	**149**	**5745**	**16.25**			**16.25**			**1a, 1b**
		153	**5765**	**16.25**			**16.25**			
		157	**5785**	**16.25**			**16.25**			
		161	**5805**	**16.25**			**16.25**			
		165	**5825**	**16.25**			**16.25**			
		149	**5745**		**16.25**			**16.25**		
		153	**5765**		**16.25**			**16.25**		
		157	**5785**		**16.25**			**16.25**		
		161	**5805**		**16.25**			**16.25**		
		165	**5825**		**16.25**			**16.25**		
		149	**5745**			**16.50**			**16.50**	
		153	**5765**			**16.50**			**16.50**	
		157	**5785**			**16.50**			**16.50**	
		161	**5805**			**16.50**			**16.50**	
		165	**5825**			**16.50**			**16.50**	
	2 Tx CDD	**149**	**5745**	**16.25**	**16.25**		**16.25**	**16.25**		**1a, 1b**
		153	**5765**	**16.25**	**16.25**		**16.25**	**16.25**		
		157	**5785**	**16.25**	**16.25**		**16.25**	**16.25**		
		161	**5805**	**16.25**	**16.25**		**16.25**	**16.25**		
		165	**5825**	**16.25**	**16.25**		**16.25**	**16.25**		
		149	**5745**	**16.25**		**16.50**	**16.25**		**16.50**	
		153	**5765**	**16.25**		**16.50**	**16.25**		**16.50**	
		157	**5785**	**16.25**		**16.50**	**16.25**		**16.50**	
		161	**5805**	**16.25**		**16.50**	**16.25**		**16.50**	
		165	**5825**	**16.25**		**16.50**	**16.25**		**16.50**	
		149	**5745**		**16.25**	**16.50**		**16.25**	**16.50**	
		153	**5765**		**16.25**	**16.50**		**16.25**	**16.50**	
		157	**5785**		**16.25**	**16.50**		**16.25**	**16.50**	
		161	**5805**		**16.25**	**16.50**		**16.25**	**16.50**	
		165	**5825**		**16.25**	**16.50**		**16.25**	**16.50**	
	3 Tx CDD	**149**	**5745**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	**1a, 1b**
		153	**5765**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	
		157	**5785**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	
		161	**5805**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	
		165	**5825**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	
	2 Tx TXBF	149	5745	16.25	16.25		16.25	16.25		
		153	5765	16.25	16.25		16.25	16.25		
		157	5785	16.25	16.25		16.25	16.25		
		161	5805	16.25	16.25		16.25	16.25		
		165	5825	16.25	16.25		16.25	16.25		
		149	5745	16.25		16.50	16.25		16.50	
		153	5765	16.25		16.50	16.25		16.50	
		157	5785	16.25		16.50	16.25		16.50	
		161	5805	16.25		16.50	16.25		16.50	
		165	5825	16.25		16.50	16.25		16.50	
		149	5745		16.25	16.50		16.25	16.50	
		153	5765		16.25	16.50		16.25	16.50	
		157	5785		16.25	16.50		16.25	16.50	
		161	5805		16.25	16.50		16.25	16.50	
		165	5825		16.25	16.50		16.25	16.50	
	3 Tx TXBF	149	5745	16.25	16.25	16.50	16.25	16.25	16.50	
		153	5765	16.25	16.25	16.50	16.25	16.25	16.50	
		157	5785	16.25	16.25	16.50	16.25	16.25	16.50	
		161	5805	16.25	16.25	16.50	16.25	16.25	16.50	
		165	5825	16.25	16.25	16.50	16.25	16.25	16.50	

WiFi 5.8GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	1 Tx HT20 SISO	149	5745	16.25			16.25			
		157	5785	16.25			16.25			
		165	5825	16.25			16.25			
		149	5745		16.25			16.25		
		157	5785		16.25			16.25		
		165	5825		16.25			16.25		
		149	5745			16.50			16.50	
		157	5785			16.50			16.50	
		165	5825			16.50			16.50	
	2 Tx HT20 CDD/STBC/SDM	149	5745	16.25	16.25		16.25	16.25		
		157	5785	16.25	16.25		16.25	16.25		
		165	5825	16.25	16.25		16.25	16.25		
		149	5745	16.25		16.50	16.25		16.50	
		157	5785	16.25		16.50	16.25		16.50	
		165	5825	16.25		16.50	16.25		16.50	
		149	5745		16.25	16.50		16.25	16.50	
		157	5785		16.25	16.50		16.25	16.50	
		165	5825		16.25	16.50		16.25	16.50	
	3 Tx HT20 CDD/STBC/SDM	149	5745	16.25	16.25	16.50	16.25	16.25	16.50	
		157	5785	16.25	16.25	16.50	16.25	16.25	16.50	
		165	5825	16.25	16.25	16.50	16.25	16.25	16.50	
	2 Tx HT20 TXBF	149	5745	16.25	16.25		16.25	16.25		
		157	5785	16.25	16.25		16.25	16.25		
		165	5825	16.25	16.25		16.25	16.25		
		149	5745	16.25		16.50	16.25		16.50	
		157	5785	16.25		16.50	16.25		16.50	
		165	5825	16.25		16.50	16.25		16.50	
		149	5745		16.25	16.50		16.25	16.50	
		157	5785		16.25	16.50		16.25	16.50	
		165	5825		16.25	16.50		16.25	16.50	
	3 Tx HT20 TXBF	149	5745	16.25	16.25	16.50	16.25	16.25	16.50	
		157	5785	16.25	16.25	16.50	16.25	16.25	16.50	
		165	5825	16.25	16.25	16.50	16.25	16.25	16.50	
	1 Tx HT40 SISO	151	5755	16.25			16.25			
		159	5795	16.25			16.25			
		151	5755		16.25			16.25		
		159	5795		16.25			16.25		
		151	5755			16.50			16.50	
		159	5795			16.50			16.50	
	2 Tx HT40 CDD/STBC/SDM	151	5755	16.25	16.25		16.25	16.25		
		159	5795	16.25	16.25		16.25	16.25		
		151	5755	16.25		16.50	16.25		16.50	
		159	5795	16.25		16.50	16.25		16.50	
		151	5755		16.25	16.50		16.25	16.50	
		159	5795		16.25	16.50		16.25	16.50	
	3 Tx HT40 CDD/STBC/SDM	151	5755	16.25	16.25	16.50	16.25	16.25	16.50	
		159	5795	16.25	16.25	16.50	16.25	16.25	16.50	

WiFi 5.8GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11n	2 Tx HT40 TXBF	151	5755	16.25	16.25		16.25	16.25		
		159	5795	16.25	16.25		16.25	16.25		
		151	5755	16.25		16.50	16.25		16.50	
		159	5795	16.25		16.50	16.25		16.50	
		151	5755		16.25	16.50		16.25	16.50	
		159	5795		16.25	16.50		16.25	16.50	
	3 Tx HT40 TXBF	151	5755	16.25	16.25	16.50	16.25	16.25	16.50	
		159	5795	16.25	16.25	16.50	16.25	16.25	16.50	
802.11ac	1 Tx VHT20 SISO	149	5745	16.25			16.25			
		157	5785	16.25			16.25			
		165	5825	16.25			16.25			
		149	5745		16.25			16.25		
		157	5785		16.25			16.25		
		165	5825		16.25			16.25		
		149	5745			16.50			16.50	
		157	5785			16.50			16.50	
		165	5825			16.50			16.50	
	2 Tx VHT20 CDD/STBC/SDM	149	5745	16.25	16.25		16.25	16.25		
		157	5785	16.25	16.25		16.25	16.25		
		165	5825	16.25	16.25		16.25	16.25		
		149	5745	16.25		16.50	16.25		16.50	
		157	5785	16.25		16.50	16.25		16.50	
		165	5825	16.25		16.50	16.25		16.50	
		149	5745		16.25	16.50		16.25	16.50	
		157	5785		16.25	16.50		16.25	16.50	
		165	5825		16.25	16.50		16.25	16.50	
	3 Tx VHT20 CDD/STBC/SDM	**149**	**5745**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	**1b**
		157	**5785**	**16.25**	**16.25**	**16.50**	**16.25**	**16.25**	**16.50**	**1a**
		165	5825	16.25	16.25	16.50	16.25	16.25	16.50	
	2 Tx VHT20 TXBF	149	5745	16.25	16.25		16.25	16.25		
		157	5785	16.25	16.25		16.25	16.25		
		165	5825	16.25	16.25		16.25	16.25		
		149	5745	16.25		16.50	16.25		16.50	
		157	5785	16.25		16.50	16.25		16.50	
		165	5825	16.25		16.50	16.25		16.50	
		149	5745		16.25	16.50		16.25	16.50	
		157	5785		16.25	16.50		16.25	16.50	
		165	5825		16.25	16.50		16.25	16.50	
	3 Tx VHT20 TXBF	149	5745	16.25	16.25	16.50	16.25	16.25	16.50	
		157	5785	16.25	16.25	16.50	16.25	16.25	16.50	
		165	5825	16.25	16.25	16.50	16.25	16.25	16.50	

WiFi 5.8GHz Measured Result (continued)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Target Maximum Average Power per chain for C2PC (dBm)			Measured Average Output Power (dBm)			Note
				WiFi 3	WiFi 2	WiFi 1	WiFi 3	WiFi 2	WiFi 1	
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11ac	1 Tx VHT40 SISO	151	5755	16.25			16.25			
		159	5795	16.25			16.25			
		151	5755		16.25			16.25		
		159	5795		16.25			16.25		
		151	5755			16.50			16.50	
		159	5795			16.50			16.50	
	2 Tx VHT40 CDD/STBC/SDM	151	5755	16.25	16.25		16.25	16.25		
		159	5795	16.25	16.25		16.25	16.25		
		151	5755	16.25		16.50	16.25		16.50	
		159	5795	16.25		16.50	16.25		16.50	
		151	5755		16.25	16.50		16.25	16.50	
		159	5795		16.25	16.50		16.25	16.50	
	3 Tx VHT40 CDD/STBC/SDM	151	5755	16.25	16.25	16.50	16.25	16.25	16.50	
		159	5795	16.25	16.25	16.50	16.25	16.25	16.50	
	2 Tx VHT40 TXBF	151	5755	16.25	16.25		16.25	16.25		
		159	5795	16.25	16.25		16.25	16.25		
		151	5755	16.25		16.50	16.25		16.50	
		159	5795	16.25		16.50	16.25		16.50	
		151	5755		16.25	16.50		16.25	16.50	
		159	5795		16.25	16.50		16.25	16.50	
	3 Tx VHT40 TXBF	151	5755	16.25	16.25	16.50	16.25	16.25	16.50	
		159	5795	16.25	16.25	16.50	16.25	16.25	16.50	
	1 Tx VHT80 SISO	155	5775	16.25			16.25			
		155	5775		16.25			16.25		
		155	5775			16.50			16.50	
	2 Tx VHT80 CDD/STBC/SDM	155	5775	15.50	15.50		15.50	15.50		
		155	5775	15.50		15.50	15.50		15.50	
		155	5775		15.50	15.50		15.50	15.50	
	3 Tx VHT80 CDD/STBC/SDM	155	5775	16.00	16.00	16.00	16.00	16.00	16.00	
	2 Tx VHT80 TXBF	155	5775	15.50	15.50		15.50	15.50		
		155	5775	15.50		15.50	15.50		15.50	
		155	5775		15.50	15.50		15.50	15.50	
	3 Tx VHT80 TXBF	155	5775	16.00	16.00	16.00	16.00	16.00	16.00	

Note(s):

1. Required Test Mode(s) for:
   a) Vendor A
   b) Vendor B

10.3. Bluetooth

Maximum tune-up tolerance limit is 8.25 dBm from the rated nominal maximum output power. This power level qualifies for exclusion of SAR testing. Refer to Standalone SAR Test Exclusion Considerations

11. Tissue Dielectric Property

IEEE Std 1528-2003 Table 2

Target Frequency (MHz)	Head	
	ε_r	σ (S/m)
300	45.3	0.87
450	43.5	0.87
835	41.5	0.90
900	41.5	0.97
1450	40.5	1.20
1800 – 2000	40.0	1.40
2450	39.2	1.80
2600	39.0	1.96
3000	38.5	2.40

FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r01

Target Frequency (MHz)	Head		Body	
	ε_r	σ (S/m)	ε_r	σ (S/m)
150	52.3	0.76	61.9	0.8
300	45.3	0.87	58.2	0.92
450	43.5	0.87	56.7	0.94
835	41.5	0.9	55.2	0.97
900	41.5	0.97	55	1.05
915	41.5	0.98	55	1.06
1450	40.5	1.2	54	1.3
1610	40.3	1.29	53.8	1.4
1800 – 2000	40	1.4	53.3	1.52
2450	39.2	1.8	52.7	1.95
3000	38.5	2.4	52	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

11.1. Composition of ingredients for the tissue material used in the SAR tests

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Ingredients (% by weight)	Frequency (MHz)									
	450		835		915		1900		2450	
Tissue Type	Head	Body	Head	Body	Head	Body	Head	Body	Head	Body
Water	38.56	51.16	41.45	52.4	41.05	56.0	54.9	40.4	62.7	73.2
Salt (NaCl)	3.95	1.49	1.45	1.4	1.35	0.76	0.18	0.5	0.5	0.04
Sugar	56.32	46.78	56.0	45.0	56.5	41.76	0.0	58.0	0.0	0.0
HEC	0.98	0.52	1.0	1.0	1.0	1.21	0.0	1.0	0.0	0.0
Bactericide	0.19	0.05	0.1	0.1	0.1	0.27	0.0	0.1	0.0	0.0
Triton X-100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	0.0
DGBE	0.0	0.0	0.0	0.0	0.0	0.0	44.92	0.0	0.0	26.7
Dielectric Constant	43.42	58.0	42.54	56.1	42.0	56.8	39.9	54.0	39.8	52.5
Conductivity (S/m)	0.85	0.83	0.91	0.95	1.0	1.07	1.42	1.45	1.88	1.78

Salt: 99+% Pure Sodium Chloride Sugar: 98+% Pure Sucrose
Water: De-ionized, 16 MΩ+ resistivity HEC: Hydroxyethyl Cellulose
DGBE: 99+% Di(ethylene glycol) butyl ether, [2-(2-butoxyethoxy)ethanol]
Triton X-100 (ultra pure): Polyethylene glycol mono [4-(1,1, 3, 3-tetramethylbutyl)phenyl]ether

Simulating Liquids for 5 GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	78
Mineral oil	11
Emulsifiers	9
Additives and Salt	2

11.2. Tissue dielectric parameters check results

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.

LAB A

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/1/2013	Body 5180	e'	48.0800	Relative Permittivity (ϵ_r):	48.08	49.05	-1.97	5
		e''	18.1400	Conductivity (σ):	5.22	5.27	-0.88	5
	Body 5200	e'	48.0300	Relative Permittivity (ϵ_r):	48.03	49.02	-2.02	5
		e''	18.1600	Conductivity (σ):	5.25	5.29	-0.83	5
	Body 5500	e'	47.5900	Relative Permittivity (ϵ_r):	47.59	48.61	-2.10	5
		e''	18.4100	Conductivity (σ):	5.63	5.64	-0.25	5
	Body 5800	e'	47.1900	Relative Permittivity (ϵ_r):	47.19	48.20	-2.10	5
		e''	18.6200	Conductivity (σ):	6.00	6.00	0.08	5
	Body 5825	e'	47.1000	Relative Permittivity (ϵ_r):	47.10	48.20	-2.28	5
		e''	18.6700	Conductivity (σ):	6.05	6.00	0.78	5
7/5/2013	Body 5180	e'	47.2400	Relative Permittivity (ϵ_r):	47.24	49.05	-3.68	5
		e''	18.3500	Conductivity (σ):	5.29	5.27	0.26	5
	Body 5200	e'	47.1100	Relative Permittivity (ϵ_r):	47.11	49.02	-3.90	5
		e''	18.3400	Conductivity (σ):	5.30	5.29	0.15	5
	Body 5500	e'	46.6100	Relative Permittivity (ϵ_r):	46.61	48.61	-4.12	5
		e''	18.6500	Conductivity (σ):	5.70	5.64	1.05	5
	Body 5800	e'	46.1500	Relative Permittivity (ϵ_r):	46.15	48.20	-4.25	5
		e''	18.9100	Conductivity (σ):	6.10	6.00	1.64	5
	Body 5825	e'	46.0600	Relative Permittivity (ϵ_r):	46.06	48.20	-4.44	5
		e''	18.8900	Conductivity (σ):	6.12	6.00	1.97	5
7/8/2013	Body 5180	e'	47.7600	Relative Permittivity (ϵ_r):	47.76	49.05	-2.62	5
		e''	18.3700	Conductivity (σ):	5.29	5.27	0.37	5
	Body 5200	e'	47.6400	Relative Permittivity (ϵ_r):	47.64	49.02	-2.81	5
		e''	18.3600	Conductivity (σ):	5.31	5.29	0.26	5
	Body 5500	e'	47.1600	Relative Permittivity (ϵ_r):	47.16	48.61	-2.99	5
		e''	18.6200	Conductivity (σ):	5.69	5.64	0.88	5
	Body 5800	e'	46.7400	Relative Permittivity (ϵ_r):	46.74	48.20	-3.03	5
		e''	18.8600	Conductivity (σ):	6.08	6.00	1.37	5
	Body 5825	e'	46.6700	Relative Permittivity (ϵ_r):	46.67	48.20	-3.17	5
		e''	18.8300	Conductivity (σ):	6.10	6.00	1.65	5
7/11/2013	Body 5180	e'	47.2800	Relative Permittivity (ϵ_r):	47.28	49.05	-3.60	5
		e''	18.4800	Conductivity (σ):	5.32	5.27	0.97	5
	Body 5200	e'	47.2600	Relative Permittivity (ϵ_r):	47.26	49.02	-3.59	5
		e''	18.5000	Conductivity (σ):	5.35	5.29	1.03	5
	Body 5500	e'	46.7800	Relative Permittivity (ϵ_r):	46.78	48.61	-3.77	5
		e''	18.6800	Conductivity (σ):	5.71	5.64	1.21	5
	Body 5800	e'	46.3500	Relative Permittivity (ϵ_r):	46.35	48.20	-3.84	5
		e''	18.9200	Conductivity (σ):	6.10	6.00	1.69	5
	Body 5825	e'	46.3100	Relative Permittivity (ϵ_r):	46.31	48.20	-3.92	5
		e''	18.9300	Conductivity (σ):	6.13	6.00	2.19	5

LAB A Tissue dielectric parameters check results continued

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/13/2013	Body 2450	e'	52.6500	Relative Permittivity (ϵ_r):	52.65	52.70	-0.09	5
		e''	14.7700	Conductivity (σ):	2.01	1.95	3.18	5
	Body 2410	e'	52.8200	Relative Permittivity (ϵ_r):	52.82	52.76	0.11	5
		e''	14.6200	Conductivity (σ):	1.96	1.91	2.71	5
	Body 2435	e'	52.7100	Relative Permittivity (ϵ_r):	52.71	52.73	-0.03	5
		e''	14.7100	Conductivity (σ):	1.99	1.93	3.14	5
	Body 2475	e'	52.5700	Relative Permittivity (ϵ_r):	52.57	52.67	-0.19	5
		e''	14.8400	Conductivity (σ):	2.04	1.99	2.88	5
7/16/2013	Body 2450	e'	51.4300	Relative Permittivity (ϵ_r):	51.43	52.70	-2.41	5
		e''	14.5600	Conductivity (σ):	1.98	1.95	1.72	5
	Body 2410	e'	51.6700	Relative Permittivity (ϵ_r):	51.67	52.76	-2.06	5
		e''	14.3900	Conductivity (σ):	1.93	1.91	1.09	5
	Body 2435	e'	51.5000	Relative Permittivity (ϵ_r):	51.50	52.73	-2.33	5
		e''	14.4800	Conductivity (σ):	1.96	1.93	1.52	5
	Body 2475	e'	51.3900	Relative Permittivity (ϵ_r):	51.39	52.67	-2.43	5
		e''	14.6900	Conductivity (σ):	2.02	1.99	1.84	5

LAB B

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/1/2013	Body 5180	e'	47.9100	Relative Permittivity (ϵ_r):	47.91	49.05	-2.32	5
		e''	18.3200	Conductivity (σ):	5.28	5.27	0.10	5
	Body 5200	e'	47.8500	Relative Permittivity (ϵ_r):	47.85	49.02	-2.39	5
		e''	18.3500	Conductivity (σ):	5.31	5.29	0.21	5
	Body 5500	e'	47.4200	Relative Permittivity (ϵ_r):	47.42	48.61	-2.45	5
		e''	18.6000	Conductivity (σ):	5.69	5.64	0.78	5
	Body 5800	e'	46.9600	Relative Permittivity (ϵ_r):	46.96	48.20	-2.57	5
		e''	18.8500	Conductivity (σ):	6.08	6.00	1.32	5
	Body 5825	e'	46.9100	Relative Permittivity (ϵ_r):	46.91	48.20	-2.68	5
		e''	18.8700	Conductivity (σ):	6.11	6.00	1.86	5
7/8/2013	Body 5180	e'	48.8700	Relative Permittivity (ϵ_r):	48.87	49.05	-0.36	5
		e''	18.0100	Conductivity (σ):	5.19	5.27	-1.59	5
	Body 5200	e'	48.7300	Relative Permittivity (ϵ_r):	48.73	49.02	-0.59	5
		e''	18.0000	Conductivity (σ):	5.20	5.29	-1.70	5
	Body 5500	e'	48.3000	Relative Permittivity (ϵ_r):	48.30	48.61	-0.64	5
		e''	18.2700	Conductivity (σ):	5.59	5.64	-1.01	5
	Body 5800	e'	48.0100	Relative Permittivity (ϵ_r):	48.01	48.20	-0.39	5
		e''	18.4700	Conductivity (σ):	5.96	6.00	-0.72	5
	Body 5825	e'	47.9000	Relative Permittivity (ϵ_r):	47.90	48.20	-0.62	5
		e''	18.3900	Conductivity (σ):	5.96	6.00	-0.73	5
7/11/2013	Body 5180	e'	48.7500	Relative Permittivity (ϵ_r):	48.75	49.05	-0.60	5
		e''	17.7500	Conductivity (σ):	5.11	5.27	-3.02	5
	Body 5200	e'	48.7200	Relative Permittivity (ϵ_r):	48.72	49.02	-0.61	5
		e''	17.7700	Conductivity (σ):	5.14	5.29	-2.96	5
	Body 5500	e'	48.3000	Relative Permittivity (ϵ_r):	48.30	48.61	-0.64	5
		e''	17.9900	Conductivity (σ):	5.50	5.64	-2.53	5
	Body 5800	e'	47.9000	Relative Permittivity (ϵ_r):	47.90	48.20	-0.62	5
		e''	18.2600	Conductivity (σ):	5.89	6.00	-1.85	5
	Body 5825	e'	47.8700	Relative Permittivity (ϵ_r):	47.87	48.20	-0.68	5
		e''	18.2900	Conductivity (σ):	5.92	6.00	-1.27	5
7/15/2013	Body 5180	e'	48.7700	Relative Permittivity (ϵ_r):	48.77	49.05	-0.56	5
		e''	18.0100	Conductivity (σ):	5.19	5.27	-1.59	5
	Body 5200	e'	48.7400	Relative Permittivity (ϵ_r):	48.74	49.02	-0.57	5
		e''	18.0300	Conductivity (σ):	5.21	5.29	-1.54	5
	Body 5500	e'	48.3200	Relative Permittivity (ϵ_r):	48.32	48.61	-0.60	5
		e''	18.2600	Conductivity (σ):	5.58	5.64	-1.07	5
	Body 5800	e'	47.9300	Relative Permittivity (ϵ_r):	47.93	48.20	-0.56	5
		e''	18.5200	Conductivity (σ):	5.97	6.00	-0.46	5
	Body 5825	e'	47.8900	Relative Permittivity (ϵ_r):	47.89	48.20	-0.64	5
		e''	18.5300	Conductivity (σ):	6.00	6.00	0.03	5
7/16/2013	Body 2450	e'	51.5900	Relative Permittivity (ϵ_r):	51.59	52.70	-2.11	5
		e''	14.3900	Conductivity (σ):	1.96	1.95	0.53	5
	Body 2410	e'	51.7300	Relative Permittivity (ϵ_r):	51.73	52.76	-1.95	5
		e''	14.2500	Conductivity (σ):	1.91	1.91	0.11	5
	Body 2435	e'	51.6400	Relative Permittivity (ϵ_r):	51.64	52.73	-2.06	5
		e''	14.3300	Conductivity (σ):	1.94	1.93	0.47	5
	Body 2475	e'	51.5100	Relative Permittivity (ϵ_r):	51.51	52.67	-2.20	5
		e''	14.4800	Conductivity (σ):	1.99	1.99	0.38	5

LAB B Tissue dielectric parameters check results continued

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/18/2013	Body 5180	e'	48.4300	Relative Permittivity (ϵ_r):	48.43	49.05	-1.26	5
		e''	17.6400	Conductivity (σ):	5.08	5.27	-3.62	5
	Body 5200	e'	48.4100	Relative Permittivity (ϵ_r):	48.41	49.02	-1.24	5
		e''	17.6700	Conductivity (σ):	5.11	5.29	-3.51	5
	Body 5500	e'	47.9700	Relative Permittivity (ϵ_r):	47.97	48.61	-1.32	5
		e''	17.8700	Conductivity (σ):	5.46	5.64	-3.18	5
	Body 5800	e'	47.5700	Relative Permittivity (ϵ_r):	47.57	48.20	-1.31	5
		e''	18.1300	Conductivity (σ):	5.85	6.00	-2.55	5
	Body 5825	e'	47.5300	Relative Permittivity (ϵ_r):	47.53	48.20	-1.39	5
		e''	18.1400	Conductivity (σ):	5.88	6.00	-2.08	5

LAB C

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/6/2013	Body 5180	e'	48.4200	Relative Permittivity (ϵ_r):	48.42	49.05	-1.28	5
		e''	18.5300	Conductivity (σ):	5.34	5.27	1.25	5
	Body 5200	e'	48.3000	Relative Permittivity (ϵ_r):	48.30	49.02	-1.47	5
		e''	18.5200	Conductivity (σ):	5.35	5.29	1.14	5
	Body 5500	e'	47.8400	Relative Permittivity (ϵ_r):	47.84	48.61	-1.59	5
		e''	18.8100	Conductivity (σ):	5.75	5.64	1.91	5
	Body 5800	e'	47.4200	Relative Permittivity (ϵ_r):	47.42	48.20	-1.62	5
		e''	19.0300	Conductivity (σ):	6.14	6.00	2.29	5
	Body 5825	e'	47.3300	Relative Permittivity (ϵ_r):	47.33	48.20	-1.80	5
		e''	19.0000	Conductivity (σ):	6.15	6.00	2.56	5
7/9/2013	Body 5180	e'	47.8300	Relative Permittivity (ϵ_r):	47.83	49.05	-2.48	5
		e''	18.1900	Conductivity (σ):	5.24	5.27	-0.61	5
	Body 5200	e'	47.6700	Relative Permittivity (ϵ_r):	47.67	49.02	-2.75	5
		e''	18.1700	Conductivity (σ):	5.25	5.29	-0.78	5
	Body 5500	e'	47.2400	Relative Permittivity (ϵ_r):	47.24	48.61	-2.82	5
		e''	18.5100	Conductivity (σ):	5.66	5.64	0.29	5
	Body 5800	e'	46.8800	Relative Permittivity (ϵ_r):	46.88	48.20	-2.74	5
		e''	18.7200	Conductivity (σ):	6.04	6.00	0.62	5
	Body 5825	e'	46.7700	Relative Permittivity (ϵ_r):	46.77	48.20	-2.97	5
		e''	18.6600	Conductivity (σ):	6.04	6.00	0.73	5
7/12/2013	Body 5180	e'	47.3700	Relative Permittivity (ϵ_r):	47.37	49.05	-3.42	5
		e''	18.5000	Conductivity (σ):	5.33	5.27	1.08	5
	Body 5200	e'	47.3300	Relative Permittivity (ϵ_r):	47.33	49.02	-3.45	5
		e''	18.5200	Conductivity (σ):	5.35	5.29	1.14	5
	Body 5500	e'	46.8700	Relative Permittivity (ϵ_r):	46.87	48.61	-3.59	5
		e''	18.7300	Conductivity (σ):	5.73	5.64	1.48	5
	Body 5800	e'	46.4700	Relative Permittivity (ϵ_r):	46.47	48.20	-3.59	5
		e''	18.9600	Conductivity (σ):	6.11	6.00	1.91	5
	Body 5825	e'	46.4200	Relative Permittivity (ϵ_r):	46.42	48.20	-3.69	5
		e''	18.9500	Conductivity (σ):	6.14	6.00	2.29	5
11/6/2013	Body 5180	e'	49.4375	Relative Permittivity (ϵ_r):	49.44	49.05	0.80	5
		e''	18.5304	Conductivity (σ):	5.34	5.27	1.25	5
	Body 5200	e'	49.4038	Relative Permittivity (ϵ_r):	49.40	49.02	0.78	5
		e''	18.5461	Conductivity (σ):	5.36	5.29	1.28	5
	Body 5500	e'	48.8954	Relative Permittivity (ϵ_r):	48.90	48.61	0.58	5
		e''	18.8029	Conductivity (σ):	5.75	5.64	1.87	5
	Body 5800	e'	48.5870	Relative Permittivity (ϵ_r):	48.59	48.20	0.80	5
		e''	19.1536	Conductivity (σ):	6.18	6.00	2.95	5
	Body 5825	e'	48.5635	Relative Permittivity (ϵ_r):	48.56	48.20	0.75	5
		e''	19.1708	Conductivity (σ):	6.21	6.00	3.49	5

LAB D

Date	Freq. (MHz)	Liquid Parameters			Measured	Target	Delta (%)	Limit ±(%)
7/6/2013	Body 5180	e'	47.6600	Relative Permittivity (ϵ_r):	47.66	49.05	-2.83	5
		e''	18.4000	Conductivity (σ):	5.30	5.27	0.54	5
	Body 5200	e'	47.5300	Relative Permittivity (ϵ_r):	47.53	49.02	-3.04	5
		e''	18.3900	Conductivity (σ):	5.32	5.29	0.43	5
	Body 5500	e'	47.0800	Relative Permittivity (ϵ_r):	47.08	48.61	-3.15	5
		e''	18.6500	Conductivity (σ):	5.70	5.64	1.05	5
	Body 5800	e'	46.6500	Relative Permittivity (ϵ_r):	46.65	48.20	-3.22	5
		e''	18.8700	Conductivity (σ):	6.09	6.00	1.43	5
	Body 5825	e'	46.5700	Relative Permittivity (ϵ_r):	46.57	48.20	-3.38	5
		e''	18.8400	Conductivity (σ):	6.10	6.00	1.70	5
7/9/2013	Body 5180	e'	48.5100	Relative Permittivity (ϵ_r):	48.51	49.05	-1.09	5
		e''	18.2800	Conductivity (σ):	5.27	5.27	-0.12	5
	Body 5200	e'	48.3600	Relative Permittivity (ϵ_r):	48.36	49.02	-1.35	5
		e''	18.2600	Conductivity (σ):	5.28	5.29	-0.28	5
	Body 5500	e'	47.9100	Relative Permittivity (ϵ_r):	47.91	48.61	-1.45	5
		e''	18.6200	Conductivity (σ):	5.69	5.64	0.88	5
	Body 5800	e'	47.5400	Relative Permittivity (ϵ_r):	47.54	48.20	-1.37	5
		e''	18.8400	Conductivity (σ):	6.08	6.00	1.26	5
	Body 5825	e'	47.4300	Relative Permittivity (ϵ_r):	47.43	48.20	-1.60	5
		e''	18.7800	Conductivity (σ):	6.08	6.00	1.38	5
7/12/2013	Body 5180	e'	47.4700	Relative Permittivity (ϵ_r):	47.47	49.05	-3.21	5
		e''	18.6200	Conductivity (σ):	5.36	5.27	1.74	5
	Body 5200	e'	47.4200	Relative Permittivity (ϵ_r):	47.42	49.02	-3.26	5
		e''	18.6400	Conductivity (σ):	5.39	5.29	1.79	5
	Body 5500	e'	46.9600	Relative Permittivity (ϵ_r):	46.96	48.61	-3.40	5
		e''	18.8500	Conductivity (σ):	5.76	5.64	2.13	5
	Body 5800	e'	46.5600	Relative Permittivity (ϵ_r):	46.56	48.20	-3.40	5
		e''	19.0800	Conductivity (σ):	6.15	6.00	2.55	5
	Body 5825	e'	46.5100	Relative Permittivity (ϵ_r):	46.51	48.20	-3.51	5
		e''	19.0700	Conductivity (σ):	6.18	6.00	2.94	5
11/6/2013	Body 5180	e'	49.9632	Relative Permittivity (ϵ_r):	49.96	49.05	1.87	5
		e''	18.4686	Conductivity (σ):	5.32	5.27	0.91	5
	Body 5200	e'	49.9276	Relative Permittivity (ϵ_r):	49.93	49.02	1.85	5
		e''	18.4814	Conductivity (σ):	5.34	5.29	0.92	5
	Body 5500	e'	49.4205	Relative Permittivity (ϵ_r):	49.42	48.61	1.66	5
		e''	18.7377	Conductivity (σ):	5.73	5.64	1.52	5
	Body 5800	e'	49.1278	Relative Permittivity (ϵ_r):	49.13	48.20	1.92	5
		e''	19.0770	Conductivity (σ):	6.15	6.00	2.54	5
	Body 5825	e'	49.1004	Relative Permittivity (ϵ_r):	49.10	48.20	1.87	5
		e''	19.0928	Conductivity (σ):	6.18	6.00	3.07	5

12. System Performance Check

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.

12.1. System Performance Check Measurement Conditions

- The measurements were performed in the flat section of the TWIN SAM or ELI phantom, shell thickness: 2.0 ±0.2 mm (bottom plate) filled with Body or Head simulating liquid of the following parameters.
- The depth of tissue-equivalent liquid in a phantom must be ≥ 15.0 cm ± 0.5 cm for SAR measurements ≤ 3 GHz and ≥ 10.0 cm ± 0.5 cm for measurements > 3 GHz.
- The DASY system with an E-Field Probe was used for the measurements.
- The dipole was mounted on the small tripod so that the dipole feed point was positioned below the center marking of the flat phantom section and the dipole was oriented parallel to the body axis (the long side of the phantom). The standard measuring distance was 10 mm (above 1 GHz) and 15 mm (below 1 GHz) from dipole center to the simulating liquid surface.
- The coarse grid with a grid spacing of 15 mm was aligned with the dipole.
  For 5 GHz band - The coarse grid with a grid spacing of 10 mm was aligned with the dipole.
- Special 7x7x7 (below 3 GHz) and/or 8x8x7 (above 3 GHz) fine cube was chosen for the cube.
- Distance between probe sensors and phantom surface was set to 3 mm.
  For 5 GHz band - Distance between probe sensors and phantom surface was set to 2.5 mm
- The dipole input power (forward power) was 100 mW.
- The results are normalized to 1 W input power.

12.2. Reference SAR Values for System Performance Check

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 (mW/g)		
				1g/10g	Head	Body
D2450V2	900	10/5/2012	2450	1g	52.9	51.7
				10g	24.8	24.2
D5GHzV2	1139	10/9/2012	5200	1g	80.1	74.5
				10g	22.9	20.8
			5500	1g	84.3	79.3
				10g	23.9	22.1
			5800	1g	79.0	73.7
				10g	22.5	20.4
D5GHzV2	1072	2/8/2013	5200	1g	77.0	75.1
				10g	21.8	21.0
			5500	1g	80.7	79.4
				10g	22.7	22.0
			5800	1g	72.9	73.3
				10g	20.6	20.3
D5GHzV2	1003	9/19/2013	5200	1g	78.5	73.3
				10g	22.4	20.5
			5600	1g	81.0	78.6
				10g	23.0	21.8
			5800	1g	76.4	72.7
				10g	21.7	20.1

12.3. System Performance 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.

LAB A

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W			
7/1/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.85	7.21	72.1	73.7	-2.17	
				10g	1.85	2.02	20.2	20.4	-0.98	
7/5/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.91	7.35	73.5	73.7	-0.27	
				10g	1.87	2.05	20.5	20.4	0.49	
7/8/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	7.01	7.45	74.5	73.7	1.09	
				10g	1.91	2.08	20.8	20.4	1.96	
7/8/2013	D5GHzV2 (5.5GHz)	1139	Body	1g	7.86	8.43	84.3	79.3	**6.31**	1,2
				10g	2.13	2.35	23.5	22.1	6.33	
7/8/2013	D5GHzV2 (5.6GHz)	1139	Body	1g	7.71	8.27	82.7	79.3	4.29	
				10g	2.10	2.31	23.1	22.1	4.52	
7/11/2013	D5GHzV2 (5.5GHz)	1139	Body	1g	7.76	8.20	75.5	79.3	-4.79	
				10g	2.07	2.28	21.1	22.1	-4.52	
7/11/2013	D5GHzV2 (5.6GHz)	1139	Body	1g	7.86	8.37	83.7	79.3	5.55	
				10g	2.13	2.34	23.4	22.1	5.88	
7/11/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	7.10	7.64	76.4	73.7	3.66	
				10g	1.93	2.14	21.4	20.4	4.90	
7/13/2013	2.4GHz	900	Body	1g	5.20	5.33	53.3	51.7	**3.09**	3,4
				10g	2.25	2.50	25.0	24.2	3.31	
7/16/2013	2.4GHz	900	Body	1g	5.23	5.23	52.3	51.7	1.16	
				10g	2.26	2.42	24.2	24.2	0.00	

LAB B

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W			
7/1/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.78	7.72	77.2	73.7	4.75	
				10g	1.93	2.16	21.6	20.4	5.88	
7/8/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.73	7.84	78.4	73.7	6.38	
				10g	1.92	2.20	22.0	20.4	7.84	
7/8/2013	D5GHzV2 (5.5GHz)	1139	Body	1g	6.71	8.16	81.6	79.3	2.90	
				10g	1.89	2.24	22.4	22.1	1.36	
7/8/2013	D5GHzV2 (5.6GHz)	1139	Body	1g	6.89	8.28	82.8	79.3	4.41	
				10g	1.92	2.31	23.1	22.1	4.52	
7/11/2013	D5GHzV2 (5.5GHz)	1139	Body	1g	7.52	8.44	84.4	79.3	**6.43**	5,6
				10g	2.09	2.33	23.3	22.1	5.43	
7/11/2013	D5GHzV2 (5.6GHz)	1139	Body	1g	7.42	8.16	81.6	79.3	2.90	
				10g	2.09	2.28	22.8	22.1	3.17	
7/11/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.47	7.50	75.0	73.7	1.76	
				10g	1.85	2.11	21.1	20.4	3.43	
7/15/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	6.49	7.83	78.3	73.7	6.24	
				10g	1.84	2.21	22.1	20.4	8.33	
7/15/2013	D5GHzV2 (5.5GHz)	1139	Body	1g	7.44	7.53	75.3	79.3	-5.04	
				10g	2.05	2.07	20.7	22.1	-6.33	
7/15/2013	D5GHzV2 (5.6GHz)	1139	Body	1g	7.76	8.08	80.8	79.3	1.89	
				10g	2.20	2.25	22.5	22.1	1.81	
7/16/2013	D2450V2 (2.4GHz)	900	Body	1g	5.23	5.29	52.9	51.7	**2.32**	7,8
				10g	2.24	2.46	24.6	24.2	1.65	
7/18/2013	D5GHzV2 (5.8GHz)	1139	Body	1g	7.86	7.51	75.1	73.7	1.90	
				10g	2.24	2.10	21.0	20.4	2.94	

LAB C

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W			
7/6/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	8.47	7.46	74.6	75.1	-0.67	
				10g	2.36	2.10	21.0	21.0	0.00	
7/9/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	6.86	7.33	73.3	75.1	**-2.40**	9,10
				10g	1.87	2.08	20.8	21.0	-0.95	
7/12/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	7.09	7.54	75.4	75.1	0.40	
				10g	1.93	2.14	21.4	21.0	1.90	
11/6/2013	D5GHzV2 (5.2GHz)	1003	Body	1g	6.51	7.14	71.4	73.3	**-2.59**	11,12
				10g	1.79	1.99	19.9	20.5	-2.93	

LAB D

Date Tested	System Dipole		T.S. Liquid		Measured Results			Target (Ref. Value)	Delta ±10 %	Plot No.
	Type	Serial #			Area Scan	Zoom Scan	Normalize to 1 W			
7/6/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	7.58	8.05	80.5	75.1	**7.19**	13,14
				10g	2.06	2.24	22.4	21.0	6.67	
7/9/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	7.74	8.04	80.4	75.1	7.06	
				10g	2.11	2.24	22.4	21.0	6.67	
7/12/2013	D5GHzV2 (5.2GHz)	1072	Body	1g	10.30	7.78	77.8	75.1	3.60	
				10g	2.77	2.17	21.7	21.0	3.33	
11/6/2013	D5GHzV2 (5.2GHz)	1003	Body	1g	7.32	7.57	75.7	73.3	**3.27**	15,16
				10g	1.97	2.10	21.0	20.5	2.44	

13. SAR Test Results

13.1. Wi-Fi (DTS Band) – Vendor A

Laptop

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
2.4GHz	802.11b Legacy	1 Tx	6	2437	16.25			16.25			0.622			0.622				1
			1	2412		17.5			17.5			0.842			0.842			
			6	2437		17.5			17.5			0.893			0.893			
			11	2462		17.5			17.5			0.827			0.827			
			6	2437			16.5			16.5			0.737			0.737		1
		2 Tx CDD	1	2412	16.25	17.5		16.25	17.5		0.844	1.010		0.844	1.010			
			6	2437	16.25	17.5		16.25	17.5		0.876	0.981		0.876	0.981			
			11	2462	16.25	17.5		16.25	17.5		1.060	1.040		1.060	1.040			
			1	2412	16.25		16.5	16.25		16.5	0.695		0.749	0.695		0.749		2
			1	2412		17.5	16.5		17.5	16.5		0.830	1.190		0.830	1.190		
			6	2437		17.5	16.5		17.5	16.5		0.879	1.130		0.879	1.130		
			11	2462		17.5	16.5		17.5	16.5		0.904	1.040		0.904	1.040		
		3 Tx CDD	1	2412	16.25	17.5	16.5	16.25	17.5	16.5	1.030	1.010	1.020	1.030	1.010	1.020		
			6	2437	16.25	17.5	16.5	16.25	17.5	16.5	1.100	1.030	0.924	1.100	1.030	0.924		
			11	2462	16.25	17.5	16.5	16.25	17.5	16.5	1.190	1.100	0.823	**1.190**	1.100	0.823	1	

Wi-Fi (DTS Band) – Vendor A continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.8GHz	802.11a	1 Tx	157	5785	16.25			16.25			0.738			0.738				1
			149	5745		16.25			16.25			0.946			0.946			
			157	5785		16.25			16.25			0.906			0.906			
			165	5825		16.25			16.25			0.815			0.815			
			157	5785			16.5			16.5			0.582			0.582		1
		2 Tx CDD	149	5745	16.25	16.25		16.25	16.25		1.010	1.050		1.010	1.050			
			157	5785	16.25	16.25		16.25	16.25		1.010	1.010		1.010	1.010			
			165	5825	16.25	16.25		16.25	16.25		0.932	1.000		0.932	1.000			
			149	5745	16.25		16.5	16.25		16.5	0.883		0.751	0.883		0.751		2
			149	5745		16.25	16.5		16.25	16.5		1.030	0.97		1.030	0.970		
			157	5785		16.25	16.5		16.25	16.5		0.997	0.889		0.997	0.889		
			165	5825		16.25	16.5		16.25	16.5		0.890	0.778		0.890	0.778		
		3 Tx CDD	149	5745	16.25	16.25	16.5	16.25	16.25	16.5	1.070	1.080	0.947	1.070	1.080	0.947		
			157	5785	16.25	16.25	16.5	16.25	16.25	16.5	1.080	1.180	0.905	1.080	**1.180**	0.905	2	
			165	5825	16.25	16.25	16.5	16.25	16.25	16.5	0.988	1.090	0.827	0.988	1.090	0.827		
	802.11ac	3 Tx VHT20 CDD/STBC/SDM	157	5785	16.25	16.25	16.5	16.25	16.25	16.5	1.040	1.140	0.908	1.040	1.140	0.908		

Note(s):

1. 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
2. Spot Check SAR Testing for Chain 1/Chain 2 MIMO 2X2 configuration was performed based on the Highest SAR MIMO 2X2 Configuration from Chain 1/Chain 0 and Chain 0/Chain 2 combination. Further SAR Testing was deemed unnecessary due to the Antenna Separation distance between Chain 1 and Chain 2 ≥ 134 mm.

UL Verification Services Inc.
47173 BENICIA STREET, FREMONT, CA 94538, USA
FORM NO: CCSUP4031B
TEL: (510) 771-1000 FAX: (510) 661-0888

13.2. Wi-Fi (UNII Band) – Vendor A

Laptop

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.2GHz	802.11a	1 Tx	48	5240	15.0			15.0			0.677			0.677				1
			48	5240		15.0			15.0			0.735			**0.735**		3	1
			48	5240			15.0			15.0			0.586			0.586		1
		2 Tx CDD	36	5180	11.0	11.0		11.0	11.0		0.281	0.343		0.281	0.343			
			48	5240	11.0	11.0		11.0	11.0		0.280	0.320		0.280	0.320			
			36	5180	11.0		11.0	11.0		11.0	0.257		0.208	0.257		0.208		2
			36	5180		11.0	11.0		11.0	11.0		0.328	0.200		0.328	0.200		
			48	5240		11.0	11.0		11.0	11.0		0.335	0.248		0.335	0.248		
	802.11n	1 Tx HT40 SISO	46	5230	15.5			15.5			0.688			0.688				1
			46	5230		15.5			15.5			0.726			0.726			1
			46	5230			15.5			15.5			0.543			0.543		1
		2 Tx HT20 STBC/SDM	36	5180	12.5	12.5		12.5	12.5		0.421	0.485		0.421	0.485			
			48	5240	12.5	12.5		12.5	12.5		0.436	0.482		0.436	0.482			
			48	5240	12.5		12.5	12.5		12.5	0.421		0.319	0.421		0.319		2
			36	5180		12.5	12.5		12.5	12.5		0.464	0.301		0.464	0.301		
			48	5240		12.5	12.5		12.5	12.5		0.525	0.356		0.525	0.356		
		3 Tx HT40 STBC/SDM	38	5190	12.0	12.0	12.0	12.0	12.0	12.0	0.369	0.470	0.273	0.369	0.470	0.273		
			46	5230	12.0	12.0	12.0	12.0	12.0	12.0	0.391	0.508	0.347	0.391	0.508	0.347		
	802.11ac	1 Tx VHT20 SISO	36	5180		15.0			15.0			0.693			0.693			

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Wi-Fi (UNII Band) – Vendor A continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.3GHz	802.11a	1 Tx	64	5320	15.5			15.5			0.724			0.724				1
			52	5260		15.5			15.5			0.994			0.994			
			64	5320		15.5			15.5			1.190			**1.190**		4	
			52	5260			15.5			15.5			0.763			0.763		
			64	5320			15.5			15.5			0.887			0.887		
		2 Tx CDD	52	5260	15.5	15.5		15.5	15.5		0.841	0.963		0.841	0.963			
			64	5320	15.5	15.5		15.5	15.5		0.998	1.030		0.998	1.030			
			64	5320	15.5		15.5	15.5		15.5	0.819		0.913	0.819		0.913		2
			52	5260		15.5	15.5		15.5	15.5		1.130	0.822		1.130	0.822		
			64	5320		15.5	15.5		15.5	15.5		1.140	1.010		1.140	1.010		
		3 Tx CDD	52	5260	14.5	14.5	14.5	14.5	14.5	14.5	0.734	1.180	0.835	0.734	1.180	0.835		
			64	5320	14.0	14.0	14.0	14.0	14.0	14.0	0.741	1.150	0.785	0.741	1.150	0.785		
	802.11n	3 Tx HT20 STBC/SDM	52	5260	14.5	14.5	14.5	14.5	14.5	14.5	0.711	1.030	0.661	0.711	1.030	0.661		
			64	5320	14.5	14.5	14.5	14.5	14.5	14.5	0.845	1.170	0.897	0.845	1.170	0.897		
	802.11ac	1 Tx VHT20 SISO	64	5320		15.5			15.5			1.090			1.090			

Wi-Fi (UNII Band) – Vendor A continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.5GHz	802.11a	1 Tx	104	5520	16.5			16.5			1.110			1.110				
			116	5580	16.5			16.5			1.100			1.100				
			124	5620	16.5			16.5			1.160			1.160				
			136	5680	16.5			16.5			1.080			1.080				
			104	5520		16.5			16.5			0.955			0.955			
			116	5580		16.5			16.5			1.050			1.050			
			124	5620		16.5			16.5			1.080			1.080			
			136	5680		16.5			16.5			1.120			1.120			
			104	5520			17.0			17.0			1.040			1.040		
			116	5580			17.0			17.0			1.070			1.070		
			124	5620			17.0			17.0			1.160			1.160		
			136	5680			17.0			17.0			1.110			1.110		
		2 Tx CDD	104	5520	15.8	15.8		15.8	15.8		0.994	0.961		0.994	0.961			
			116	5580	15.8	15.8		15.8	15.8		1.020	0.992		1.020	0.992			
			124	5620	15.8	15.8		15.8	15.8		1.040	0.999		1.040	0.999			
			136	5680	15.8	15.8		15.8	15.8		1.060	1.170		1.060	**1.170**		5	
			136	5680	15.8		15.8	15.8		15.8	0.974		0.993	0.974		0.993		2
			104	5520		15.8	15.8		15.8	15.8		0.870	0.929		0.870	0.929		
			116	5580		15.8	15.8		15.8	15.8		0.929	1.060		0.929	1.060		
			124	5620		15.8	15.8		15.8	15.8		1.030	1.140		1.030	1.140		
			136	5680		15.8	15.8		15.8	15.8		1.140	1.160		1.140	1.160		
		3 Tx CDD	104	5520	14.5	14.5	14.5	14.5	14.5	14.5	0.800	0.896	0.692	0.800	0.896	0.692		
			116	5580	14.5	14.5	14.5	14.5	14.5	14.5	0.809	0.895	0.842	0.809	0.895	0.842		
			124	5620	14.5	14.5	14.5	14.5	14.5	14.5	0.851	0.934	0.948	0.851	0.934	0.948		
			136	5680	14.5	14.5	14.5	14.5	14.5	14.5	0.851	0.965	0.971	0.851	0.965	0.971		
	802.11n	3 Tx HT20 STBC/SDM	100	5500	15.5	15.5	15.5	15.5	15.5	15.5	0.918	1.140	0.884	0.918	1.140	0.884		
			120	5600	15.5	15.5	15.5	15.5	15.5	15.5	1.010	1.100	1.130	1.010	1.100	1.130		
			140	5700	15.5	15.5	15.5	15.5	15.5	15.5	0.867	0.984	0.987	0.867	0.984	0.987		
	802.11ac	2 Tx VHT20 CDD	136	5680	15.8	15.8		15.8	15.8		1.050	1.160		1.050	1.160			

Note(s):

1. 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
2. Spot Check SAR Testing for Chain 1/Chain 2 MIMO 2X2 configuration was performed based on the Highest SAR MIMO 2X2 Configuration from Chain 1/Chain 0 and Chain 0/Chain 2 combination. Further SAR Testing was deemed unnecessary due to the Antenna Separation distance between Chain 1 and Chain 2 ≥ 134 mm.

13.3. Wi-Fi (DTS Band) – Vendor B

Laptop

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
2.4GHz	802.11b Legacy	1 Tx	6	2437	16.25			16.25			0.487			0.487				1
			1	2412		17.5			17.5			0.928			0.928			
			6	2437		17.5			17.5			0.916			0.916			
			11	2462		17.5			17.5			0.823			0.823			
			6	2437			16.5			16.5			0.687			0.687		1
		2 Tx CDD	1	2412	16.25	17.5		16.25	17.5		0.719	1.090		0.719	1.090			
			6	2437	16.25	17.5		16.25	17.5		0.765	1.120		0.765	1.120			
			11	2462	16.25	17.5		16.25	17.5		0.794	1.030		0.794	1.030			
			1	2412	16.25		16.5	16.25		16.5	0.504		0.663	0.504		0.663		2
			1	2412		17.5	16.5		17.5	16.5		0.836	1.170		0.836	**1.170**	1	
			6	2437		17.5	16.5		17.5	16.5		0.890	1.090		0.890	1.090		
			11	2462		17.5	16.5		17.5	16.5		0.833	0.971		0.833	0.971		
		3 Tx CDD	1	2412	16.25	17.5	16.5	16.25	17.5	16.5	0.947	0.949	0.967	0.947	0.949	0.967		
			6	2437	16.25	17.5	16.5	16.25	17.5	16.5	0.973	0.999	0.876	0.973	0.999	0.876		
			11	2462	16.25	17.5	16.5	16.25	17.5	16.5	1.020	0.946	0.752	1.020	0.946	0.752		

Wi-Fi (DTS Band) – Vendor B continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.8GHz	802.11a	1 Tx	149	5745	16.25			16.25			0.932			0.932				
			157	5785	16.25			16.25			0.876			0.876				
			165	5825	16.25			16.25			0.810			0.810				
			149	5745		16.25			16.25			0.897			0.897			
			157	5785		16.25			16.25			0.865			0.865			
			165	5825		16.25			16.25			0.776			0.776			
			157	5785			16.5			16.5			0.536			0.536		1
		2 Tx CDD	149	5745	16.25	16.25		16.25	16.25		1.090	0.969		1.090	0.969			
			157	5785	16.25	16.25		16.25	16.25		1.030	0.930		1.030	0.930			
			165	5825	16.25	16.25		16.25	16.25		0.978	0.873		0.978	0.873			
			149	5745	16.25		16.5	16.25		16.5	1.030		0.611	1.030		0.611		2
			149	5745		16.25	16.5		16.25	16.5		0.910	0.703		0.910	0.703		
			157	5785		16.25	16.5		16.25	16.5		0.956	0.698		0.956	0.698		
			165	5825		16.25	16.5		16.25	16.5		0.902	0.638		0.902	0.638		
		3 Tx CDD	149	5745	16.25	16.25	16.5	16.25	16.25	16.5	1.190	1.130	0.875	**1.190**	1.130	0.875	2	
			157	5785	16.25	16.25	16.5	16.25	16.25	16.5	1.160	1.120	0.891	1.160	1.120	0.891		
			165	5825	16.25	16.25	16.5	16.25	16.25	16.5	1.010	1.050	0.851	1.010	1.050	0.851		
	802.11ac	3 Tx VHT20 CDD/STBC/SDM	149	5745	16.25	16.25	16.5	16.25	16.25	16.5	1.170	1.110	0.884	1.170	1.110	0.884		

Note(s):

1. 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
2. Spot Check SAR Testing for Chain 1/Chain 2 MIMO 2X2 configuration was performed based on the Highest SAR MIMO 2X2 Configuration from Chain 1/Chain 0 and Chain 0/Chain 2 combination. Further SAR Testing was deemed unnecessary due to the Antenna Separation distance between Chain 1 and Chain 2 $\geq$ 134 mm.

13.4. Wi-Fi (UNII Band) – Vendor B

Laptop

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.2GHz	802.11a	1 Tx	48	5240	15.0			15.0			0.669			0.669				1
			36	5180		15.0			15.0			0.888			**0.888**		3	
			48	5240		15.0			15.0			0.856			0.856			
			48	5240			15.0			15.0			0.731			0.731		1
		2 Tx CDD	36	5180	11.0	11.0		11.0	11.0		0.269	0.391		0.269	0.391			
			48	5240	11.0	11.0		11.0	11.0		0.274	0.399		0.274	0.399			
			36	5180	11.0		11.0	11.0		11.0	0.247		0.222	0.247		0.222		2
			36	5180		11.0	11.0		11.0	11.0		0.356	0.218		0.356	0.218		
			48	5240		11.0	11.0		11.0	11.0		0.416	0.282		0.416	0.282		
	802.11n	1 Tx HT40 SISO	46	5230	15.5			15.5			0.688			0.657				1
			46	5230		15.5			15.5			0.726			0.825			1
			46	5230			15.5			15.5			0.543			0.662		1
		2 Tx HT20 STBC/SDM	36	5180	12.5	12.5		12.5	12.5		0.417	0.584		0.417	0.584			
			48	5240	12.5	12.5		12.5	12.5		0.443	0.558		0.443	0.558			
			36	5180	12.5		12.5	12.5		12.5	0.387		0.321	0.387		0.321		2
			36	5180		12.5	12.5		12.5	12.5		0.525	0.327		0.525	0.327		
			48	5240		12.5	12.5		12.5	12.5		0.537	0.388		0.537	0.388		
		3 Tx HT40 STBC/SDM	38	5190	12.0	12.0	12.0	12.0	12.0	12.0	0.368	0.569	0.322	0.368	0.569	0.322		
			46	5230	12.0	12.0	12.0	12.0	12.0	12.0	0.402	0.647	0.415	0.402	0.647	0.415		
	802.11ac	1 Tx VHT20 SISO	36	5180		15.0			15.0			0.880			0.880			

Wi-Fi (UNII Band) – Vendor B continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.3GHz	802.11a	1 Tx	52	5260	15.5			15.5			1.090			1.090				
			64	5320	15.5			15.5			1.110			1.110				
			52	5260		15.5			15.5			1.010			1.010			
			64	5320		15.5			15.5			1.110			1.110			
			52	5260			15.5			15.5			0.900			0.900		
			64	5320			15.5			15.5			0.913			0.913		
		2 Tx CDD	52	5260	15.5	15.5		15.5	15.5		0.981	1.090		0.981	1.090			
			64	5320	15.5	15.5		15.5	15.5		1.040	1.160		1.040	1.160			
			64	5320	15.5		15.5	15.5		15.5	0.966		0.979	0.966		0.979		2
			52	5260		15.5	15.5		15.5	15.5		1.130	0.989		1.130	0.989		
			64	5320		15.5	15.5		15.5	15.5		1.190	1.020		**1.190**	1.020	4	
		3 Tx CDD	52	5260	14.5	14.5	14.5	14.5	14.5	14.5	0.689	1.180	0.861	0.689	1.180	0.861		
			64	5320	14.0	14.0	14.0	14.0	14.0	14.0	0.665	1.110	0.828	0.665	1.110	0.828		
	802.11n	3 Tx HT20 STBC/SDM	52	5260	14.3	14.3	14.3	14.3	14.3	14.3	0.611	1.140	0.759	0.611	1.140	0.759		
			64	5320	14.3	14.3	14.3	14.3	14.3	14.3	0.635	1.150	0.806	0.635	1.150	0.806		
	802.11ac	2 Tx VHT20 CDD	64	5320		15.5	15.5		15.5	15.5		1.130	0.992		1.130	0.992		

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Wi-Fi (UNII Band) – Vendor B continued

Band	Mode	No. of Transmitters	Ch #.	Freq. (MHz)	Power (dBm)						1-g SAR (W/kg)						Plot No.	Note
					Tune-up limit			Measured			Measured			Scaled				
					Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2		
5.5GHz	802.11a	1 Tx	104	5520	15.5			15.5			1.040			1.040				
			116	5580	15.5			15.5			1.040			1.040				
			124	5620	15.5			15.5			1.010			1.010				
			136	5680	15.5			15.5			0.963			0.963				
			104	5520		15.5			15.5			0.711			0.711			
			116	5580		15.5			15.5			0.712			0.712			
			124	5620		15.5			15.5			0.758			0.758			
			136	5680		15.5			15.5			0.795			0.795			
			104	5520			15.5			15.5			0.731			0.731		
			116	5580			15.5			15.5			0.772			0.772		
			124	5620			15.5			15.5			0.751			0.751		
			136	5680			15.5			15.5			0.608			0.608		
		2 Tx CDD	104	5520	15.5	15.5		15.5	15.5		1.120	0.864		1.120	0.864			
			116	5580	15.5	15.5		15.5	15.5		1.100	0.887		1.100	0.887			
			124	5620	15.5	15.5		15.5	15.5		1.090	0.891		1.090	0.891			
			136	5680	15.5	15.5		15.5	15.5		1.120	0.980		1.120	0.980			
			136	5680	15.5		15.5	15.5		15.5	0.996		0.650	0.996		0.650		2
			104	5520		15.5	15.5		15.5	15.5		0.921	0.952		0.921	0.952		
			116	5580		15.5	15.5		15.5	15.5		0.935	0.957		0.935	0.957		
			124	5620		15.5	15.5		15.5	15.5		0.894	0.994		0.894	0.994		
			136	5680		15.5	15.5		15.5	15.5		0.918	0.859		0.918	0.859		
		3 Tx CDD	104	5520	14.5	14.5	14.5	14.5	14.5	14.5	0.884	0.849	0.675	0.884	0.849	0.675		
			116	5580	14.5	14.5	14.5	14.5	14.5	14.5	0.852	0.877	0.814	0.852	0.877	0.814		
			124	5620	14.5	14.5	14.5	14.5	14.5	14.5	0.889	0.891	0.856	0.889	0.891	0.856		
			136	5680	14.5	14.5	14.5	14.5	14.5	14.5	0.871	0.827	0.721	0.871	0.827	0.721		
	802.11n	3 Tx HT20 STBC/SDM	100	5500	15.5	15.5	15.5	15.5	15.5	15.5	1.120	1.100	0.832	1.120	1.100	0.832		
			120	5600	15.5	15.5	15.5	15.5	15.5	15.5	1.110	1.160	1.060	1.110	**1.160**	1.060	5	
			140	5700	15.5	15.5	15.5	15.5	15.5	15.5	0.993	0.971	0.793	0.993	0.971	0.793		
	802.11ac	2 Tx VHT20 CDD	136	5680	15.5	15.5		15.5	15.5		1.090	0.915		1.090	0.915			

Note(s):

1. 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
2. Spot Check SAR Testing for Chain 1/Chain 2 MIMO 2X2 configuration was performed based on the Highest SAR MIMO 2X2 Configuration from Chain 1/Chain 0 and Chain 0/Chain 2 combination. Further SAR Testing was deemed unnecessary due to the Antenna Separation distance between Chain 1 and Chain 2 $\geq$ 134 mm.

13.5. Bluetooth

13.5.1. Standalone SAR Test Exclusion Considerations

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[√f(GHz)] ≤ 3.0, for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Laptop

Max. tune-up tolerance limit		Min. test separation distance (mm)	Frequency (GHz)	Result
(dBm)	(mW)			
8.3	7	5	2.480	2.105

Conclusion:

The computed value is < 3; therefore, Bluetooth qualifies for Standalone SAR test exclusion.

13.5.2. Estimated SAR

When the standalone SAR test exclusion is applied to an antenna that transmits simultaneously with other antennas, the standalone SAR must be estimated according to following to determine simultaneous transmission SAR test exclusion:

- *(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)]·[√$f_{(GHz)}$/x]* W/kg for test separation distances ≤ 50 mm;
  where x = 7.5 for 1-g SAR, and x = 18.75 for 10-g SAR.
- 0.4 W/kg for 1-g SAR and 1.0 W/kg for 10-g SAR, when the test separation distances is > 50 mm.

Estimated SAR Result for Body-worn Accessory Conditions:

Test Configuration	Max. tune-up tolerance limit (mW)	Min. test separation distance (mm)	Frequency (GHz)	Estimated 1-g SAR (W/kg)
Laptop	7	5	2.480	0.294

14. 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.

14.1. The Highest Measured SAR Configuration in Each Frequency Band (Vendor A)

Band	Test Position	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	1-g SAR (W/kg) Measured		
						Chain 1	Chain 0	Chain 2
2.4GHz	Laptop	802.11b Legacy	3 Tx CDD	11	2462	1.190	1.100	0.823
5.2GHz	Laptop	802.11a	1 Tx	48	5240		0.735	
5.3GHz	Laptop	802.11a	1 Tx	64	5320		1.190	
5.5GHz	Laptop	802.11a	2 Tx CDD	136	5680	1.060	1.170	
5.8GHz	Laptop	802.11a	3 Tx CDD	157	5785	1.080	1.180	0.905

14.2. Repeated Measurement Results (Vendor A)

Band	Test Position	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	1-g SAR (W/kg) Original			1-g SAR (W/kg) Repeated			Largest to Smallest SAR Ratio			Note
						Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
2.4GHz	Laptop	802.11b Legacy	3 Tx CDD	11	2462	1.190	1.100	0.823	1.140	1.080	0.813	1.04	1.02	1.01	2
5.2GHz	Laptop	802.11a	1 Tx	48	5240		0.735			N/A			N/A		1
5.3GHz	Laptop	802.11a	1 Tx	64	5320		1.190			1.150			1.03		2
5.5GHz	Laptop	802.11a	2 Tx CDD	136	5680	1.060	1.170		1.030	1.130		1.03	1.04		2
5.8GHz	Laptop	802.11a	3 Tx CDD	157	5785	1.080	1.180	0.905	1.070	1.170	0.861	1.01	1.01	1.05	2

Note(s):
1. Not Applicable. Highest measured SAR is < 0.80 W/kg.
2. 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.

14.3. The Highest Measured SAR Configuration in Each Frequency Band (Vendor B)

Band	Test Position	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	1-g SAR (W/kg) Measured		
						Chain 1	Chain 0	Chain 2
2.4GHz	Laptop	802.11b Legacy	2 Tx	1	2412		0.836	1.170
5.2GHz	Laptop	802.11a	1 Tx	36	5180		0.888	
5.3GHz	Laptop	802.11a	2 Tx CDD	64	5320		1.190	1.020
5.5GHz	Laptop	802.11n	3 Tx HT20 STBC/SDM	120	5600	1.110	1.160	1.060
5.8GHz	Laptop	802.11a	3 Tx CDD	149	5745	1.190	1.130	0.875

14.4. Repeated Measurement Results (Vendor B)

Mode	No. of Transmitters	Ch. #	Freq. (MHz)	1-g SAR (W/kg) Original			1-g SAR (W/kg) Repeated			Largest to Smallest SAR Ratio			Note
				Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	Chain 1	Chain 0	Chain 2	
802.11b Legacy	2 Tx	1	2412		0.836	1.170		0.787	1.150		1.06	1.02	2
802.11a	1 Tx	36	5180		0.888			0.876			1.01		2
802.11a	2 Tx CDD	64	5320		1.190	1.020		1.170	1.010		1.02	1.01	2
802.11n	3 Tx HT20 STBC/SDM	120	5600	1.110	1.160	1.060	1.100	1.070	1.010	1.01	1.08	1.05	2
802.11a	3 Tx CDD	149	5745	1.190	1.130	0.875	1.140	1.060	0.843	1.04	1.07	1.04	2

Note(s):

1. Not Applicable. Highest measured SAR is < 0.80 W/kg.
2. 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.

15. Simultaneous Transmission SAR Analysis

KDB 447498 D01 General RF Exposure Guidance v05 requires the following equation 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 measured 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 measured 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 in millimeters. 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 $\mathbf{[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]}$

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:

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

15.1. Sum of the SAR for WiFi DTS Band & Bluetooth (Vendor A)

Laptop

Band	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Data				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
					Chain 1	Chain 0	Chain 2	Bluetooth		
5.8GHz	802.11a	3 Tx CDD	157	5785		1.180		0.294	1.474	No

Sum of the SAR with Scaled Values for the Worst-case Configuration
As the SAR for these configurations were measured at the maximum of tune-up tolerance limit, SAR scaling does not need to be applied.

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.

15.2. Sum of the SAR for WiFi UNII Band & Bluetooth (Vendor A)

Laptop

Band	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Data				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
					Chain 1	Chain 0	Chain 2	Bluetooth		
5.3GHz	802.11a	1 Tx	64	5320		1.190		0.294	1.484	No

Sum of the SAR with Scaled Values for the Worst-case Configuration
As the SAR for these configurations were measured at the maximum of tune-up tolerance limit, SAR scaling does not need to be applied.

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.

15.3. Sum of the SAR for WiFi DTS Band & Bluetooth (Vendor B)

Laptop

Band	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Data				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
					Chain 1	Chain 0	Chain 2	Bluetooth		
5.8GHz	802.11a	3 Tx CDD	149	5745	1.190			0.294	1.484	No

Sum of the SAR with Scaled Values for the Worst-case Configuration
As the SAR for these configurations were measured at the maximum of tune-up tolerance limit, SAR scaling does not need to be applied.

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.

15.4. Sum of the SAR for WiFi UNII Band & Bluetooth (Vendor B)

Laptop

Band	Mode	No. of Transmitters	Ch. #	Freq. (MHz)	Data				∑ 1-g SAR (mW/g)	SPLSR (Yes/ No)
					Chain 1	Chain 0	Chain 2	Bluetooth		
5.3GHz	802.11a	2 Tx CDD	64	5320		1.190		0.294	1.484	No

Sum of the SAR with Scaled Values for the Worst-case Configuration
As the SAR for these configurations were measured at the maximum of tune-up tolerance limit, SAR scaling does not need to be applied.

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.

16. Appendixes

Refer to separated files for the following appendixes.

16.1. System Performance Check Plots

16.2. Highest SAR Test Plots for Vendor A

16.3. Highest SAR Test Plots for Vendor B

16.4. Calibration Certificate for E-Field Probe EX3DV4 SN 3778

16.5. Calibration Certificate for E-Field Probe EX3DV4 SN 3720

16.6. Calibration Certificate for E-Field Probe EX3DV4 SN 3757

16.7. Calibration Certificate for E-Field Probe EX3DV4 SN 3676

16.8. Calibration Certificate for D2450V2 SN 900

16.9. Calibration Certificate for D5GHzV2 SN 1139

16.10. Calibration Certificate for D5GHzV2 SN 1072

16.11. Calibration Certificate for D5GHzV2 SN 1003