

RF TEST REPORT



Report No.: FCC_IC_RF_SL15070901-SLX-013_UNII Rev. 1.0
 Supersede Report No.: : FCC_IC_RF_SL15070901-SLX-013_UNII

Applicant	:	Silex Technology, Inc.
Product Name	:	Wireless LAN SDIO module
Model No.	:	SX-SDMAN2
Host Model No.	:	cRIO-9037
Test Standard	:	47 CFR 15.407 RSS 247 Iss.1 : May 2015
Test Method	:	ANSI C63.10: 2013 RSS Gen Iss 4: Nov 2014 789033 D02 General UNII Test Procedures New Rules v01
FCC ID	:	N6C- SDMAN2
IC ID	:	4908A- SDMAN2
Dates of test	:	01/15/2016-01/19/2016
Issue Date	:	02/26/2016
Test Result	:	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Equipment complied with the specification [X]		
Equipment did not comply with the specification []		

This Test Report is Issued Under the Authority of:	
Teody Manansala	Chen Ge
Test Engineer	Engineer Reviewer
This test report may be reproduced in full only Test result presented in this test report is applicable to the tested sample only	

Issued By:
SIEMIC Laboratories
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Laboratory Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope
USA	FCC, A2LA	EMC, RF/Wireless, Telecom
Canada	IC, A2LA, NIST	EMC, RF/Wireless, Telecom
Taiwan	BSMI, NCC, NIST	EMC, RF, Telecom, Safety
Hong Kong	OFTA, NIST	RF/Wireless, Telecom
Australia	NATA, NIST	EMC, RF, Telecom, Safety
Korea	KCC/RRA, NIST	EMI, EMS, RF, Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC, RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom, Safety
Israel	MOC, NIST	EMC, RF, Telecom, Safety

Accreditations for Product Certifications

Country	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC, RF, Telecom
Canada	IC FCB, NIST	EMC, RF, Telecom
Singapore	iDA, NIST	EMC, RF, Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC (RCB 208)	RF, Telecom
Hong Kong	OFTA (US002)	RF, Telecom

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1 Report Revision History

Report No.	Report Version	Description	Issue Date
FCC_IC_RF_SL15070901-SLX-013_UNII	None	Original	02/19/2016
FCC_IC_RF_SL15070901-SLX-013_UNII Rev. 1.0	1.0	Change equipment class from DTS to UNII	02/26/2015
		Change power setting of 5230 and 5270MHz	
		Add USB LED Board in the internal photo	
		Change Test Software name	

2 Executive Summary

The purpose of this test program was to demonstrate compliance of following product

Company: Silix Technology, Inc.
Product: Wireless LAN SDIO module
Model: SX-SDMAN2
Host Model: cRIO-9037

against the current Stipulated Standards. The specified model product stated above has demonstrated compliance with the Stipulated Standard listed on 1st page.

3 Customer information

Applicant Name	:	Silix Technology, Inc.
Applicant Address	:	2-3-1 Hikaridai, Seika-cho, Kyoto 619-0237, Japan
Manufacturer Name	:	Silix Technology, Inc.
Manufacturer Address	:	2-3-1 Hikaridai, Seika-cho, Kyoto 619-0237, Japan

4 Test site information

Lab performing tests	SIEMIC Laboratories
Lab Address	775 Montague Expressway, Milpitas, CA 95035
FCC Test Site No.	881796
IC Test Site No.	4842D-2
VCCI Test Site No.	A0133

5 Modification

Index	Item	Description	Note
-	-	-	-

6 EUT Information

6.1 EUT Description

Product Name	:	Wireless LAN SDIO module
Model No.	:	SX-SDMAN2
Host Model No.	:	cRIO-9037
Trade Name	:	Silex
Serial No.	:	N/A
EUT Power AC/DC Adapter Input Power	:	100-240VAC
EUT Power AC/DC Adapter Output Power	:	24VDC
EUT Power AC/DC Adapter Manu/Model	:	Condor SA-245A01V-S/T-ROHS
Product Hardware version	:	A
Product Software version	:	athtestcmd v1.0
Radio Hardware version	:	PX20614XA
Radio Software version	:	3.5.99.18
Equipment Class / Category	:	UNII
Operating/Clock Frequencies	:	26 MHz
Port/Connectors	:	Proprietary, u.FL x 2, Ethernet, Serial, USB

6.2 Radio Description

Radio Type	802.11a	802.11n-20M	802.11n-40M
Operating Frequency	5180-5240MHz 5260-5320MHz 5500-5700MHz 5745-5825MHz	5180-5240MHz 5260-5320MHz 5500-5700MHz 5745-5825MHz	5190-5230MHz 5270-5310MHz 5510-5670MHz 5755-5795MHz
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM)	OFDM (BPSK, QPSK, 16QAM, 64QAM)	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing	20MHz	20MHz (5GHz)	40MHz
Number of Channels	22	22 (5GHz)	10 (5GHz)
Antenna Type	Dual-band Dipole		
Antenna Gain	2.5 dBi (5GHz)		
Antenna Connector Type	Reverse Polar SMA		

EUT Power Setting (power setting is same for both antenna type)

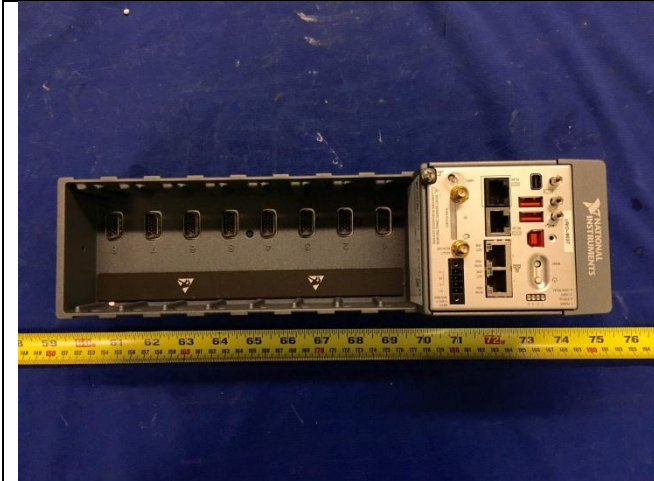
5.2 GHz			
Test mode	Freq(MHz)	CH	Power settings
802.11a	5180	Low	10.5
	5200	Mid	10.5
	5240	High	10.5
802.11n20	5180	Low	10.5
	5200	Mid	10.5
	5240	High	10.5
802.11n40	5190	Low	7
	5230	High	10.5

5.3 GHz			
Test mode	Freq(MHz)	CH	Power settings
802.11a	5260	Low	10.5
	5280	Mid	10.5
	5320	High	10.5
802.11n20	5260	Low	10.5
	5280	Mid	10.5
	5320	High	10.5
802.11n40	5270	Low	10.5
	5310	High	8

5.5 GHz			
Test mode	Freq(MHz)	CH	Power settings
802.11a	5500	Low	10.5
	5580	Mid	10.5
	5700	High	10.5
802.11n20	5500	Low	10.5
	5580	Mid	10.5
	5700	High	10.5
802.11n40	5510	Low	9.5
	5550	Mid	10.5
	5670	High	10.5

5.8 GHz			
Test mode	Freq(MHz)	CH	Conducted Power (dBm)
802.11a	5745	Low	10
	5785	Mid	10
	5825	High	10
802.11n20	5745	Low	10
	5785	Mid	10
	5825	High	10
802.11n40	5755	Low	10
	5795	High	10

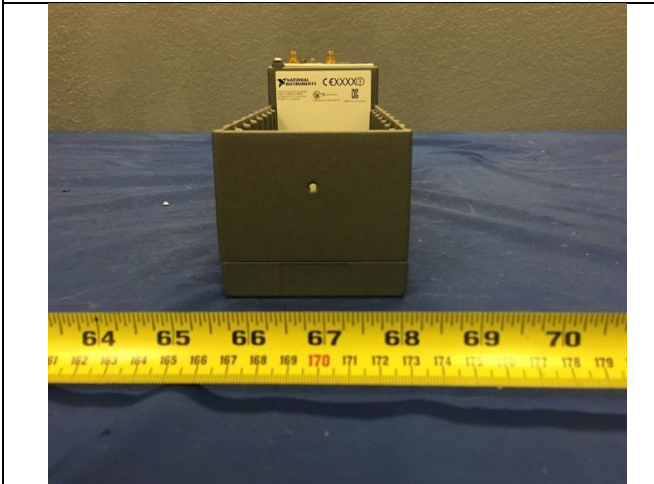
6.3 Host Photos – External



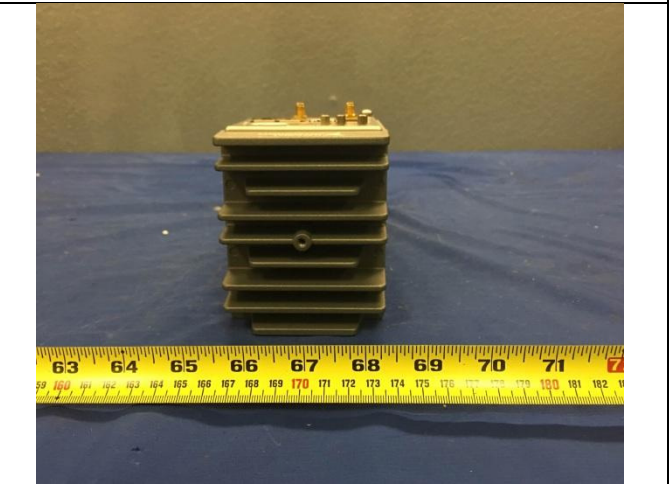
Host Top View



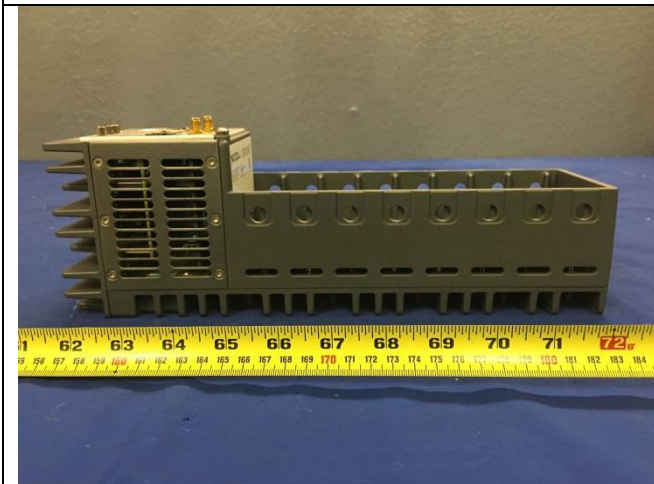
Host Bottom View



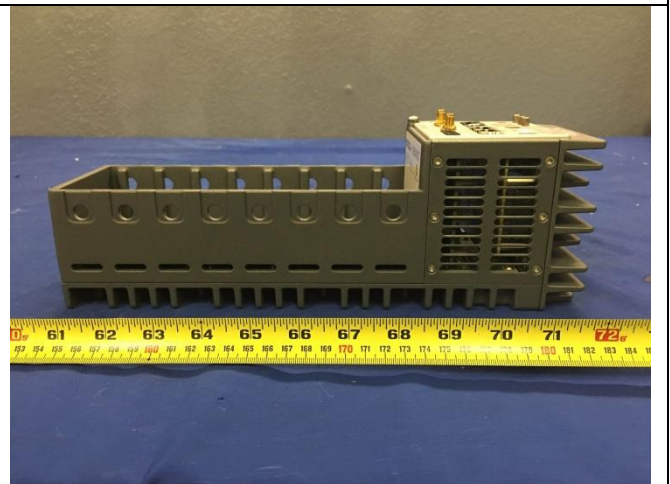
Host Front View



Host Rear View



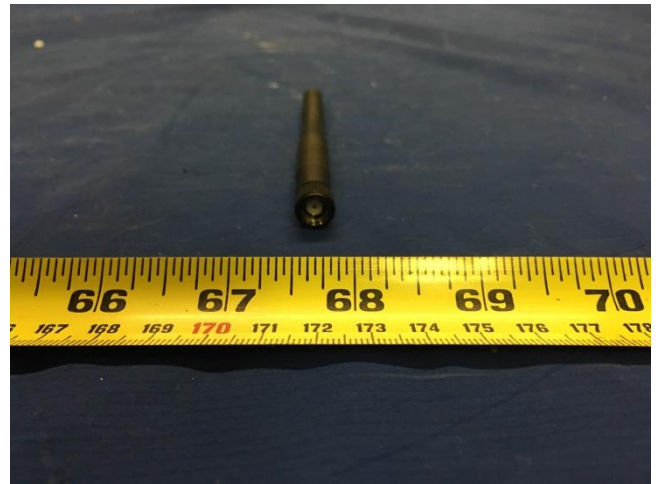
Host Left Side View



Host Right Side View



Omnidirectional Antenna



Omnidirectional Antenna

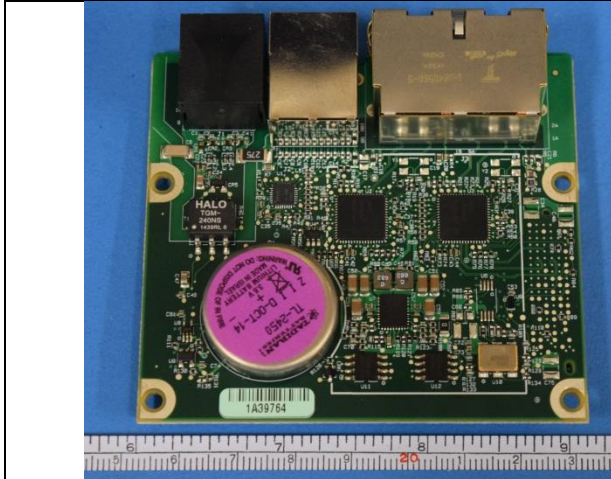


Support Equipment Power Supply Top View



Support Equipment Power Supply Bottom View

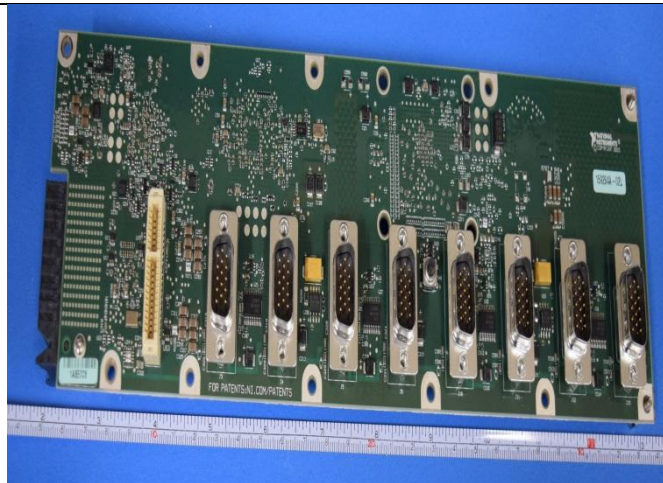
6.4 Host Photos – Internal



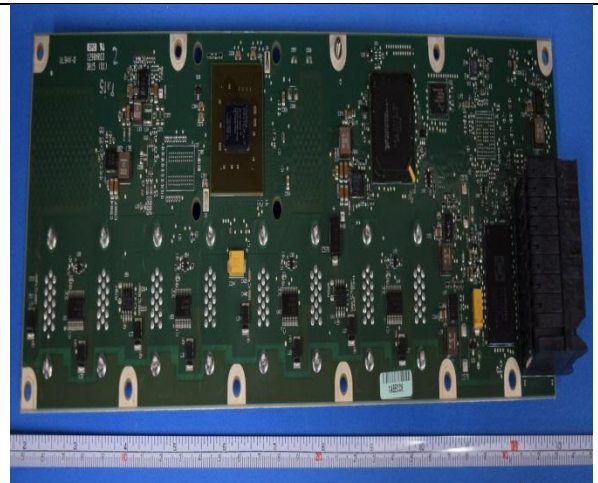
Ethernet Serial Board Top View



Ethernet Serial Board Bottom View



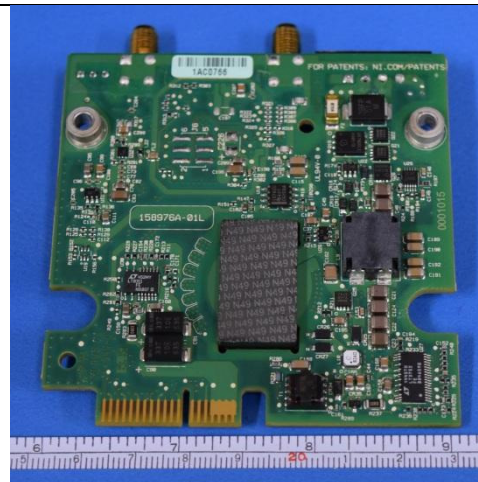
Slotted Backplan Board Top View



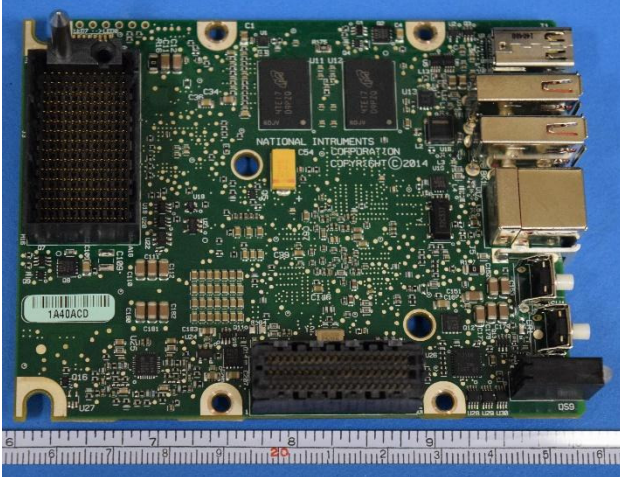
Radiated Emissions (>1GHz) – Rear View



Radio Board Top View



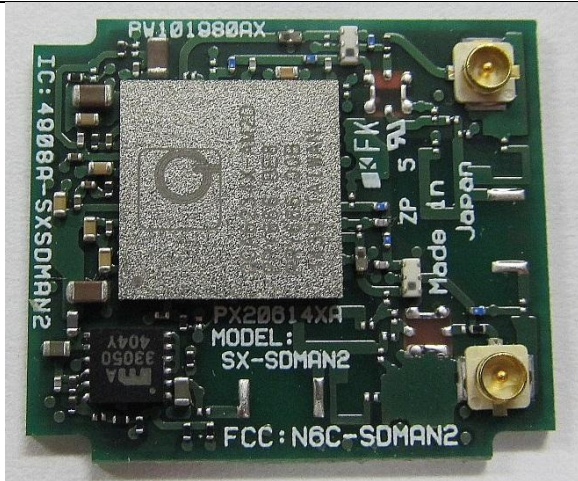
Radio Board Bottom View



USB_LED Board Top View



USB_LED Board Bottom View



EUT Radio - Top View



EUT Radio - Bottom View

6.5 EUT Test Setup Photos



Radiated Emissions (<1GHz) – Front View



Radiated Emissions (<1GHz) – Rear View



Radiated Emissions (>1GHz) – Front View



Radiated Emissions (>1GHz) – Rear View

7 Supporting Equipment/Software and cabling Description

7.1 Supporting Equipment

Item	Supporting Equipment Description	Model	Serial Number	Manufacturer	Note
1	Laptop	Latitude E6510	N/A	Dell	-

7.2 Cabling Description

Name	Connection Start		Connection Stop		Length / shielding Info		Note
	From	I/O Port	To	I/O Port	Length (m)	Shielding	
Communication	EUT	Serial	Laptop	USB	1	Unshielded	-

7.3 Test Software Description

Test Item	Software	Description
RF Testing	athtestcmd	Set the EUT to transmit continuously in diferent test mode

8 Test Summary

Test Item	Test standard		Test Method/Procedure	Pass / Fail
Restricted Band of Operation	FCC	15.205	ANSI C63.10 – 2013 789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
AC Conducted Emissions Voltage	FCC	15.207(a)	ANSI C63.10 – 2013	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
26 & 6 dB Emission Bandwidth	FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Maximum conducted Output Power	FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Power reduction (Antenna Gain > 6 dBi)	FCC	15.407 (a) (2)	-	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Band Edge and Radiated Spurious Emissions	FCC	15.407(b)(2), 15.407(b)(6)	ANSI C63.10 – 2013 789033 D02 General UNII Test Procedures New Rules v01	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Power Spectral Density	FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
User Manual	FCC	-	-	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Remark	<ol style="list-style-type: none"> All measurement uncertainties are not taken into consideration for all presented test result. The applicant shall ensure frequency stability by showing that an emission is maintained within the band of operation under all normal operating conditions as specified in the user's manual. For all other test items (N/A) refer to Original Test Report No: 10748020H-C-R1 with FCC ID: N6C-SDMAN2, 10748020H-D-R1 with FCC ID: N6C-SDMAN2, 10748020H-G-R1 with IC ID: 4908A-SDMAN2 and 10748020H-H-R1with IC ID: 4908A-SDMAN2 			

Test Item	Test standard		Test Method/Procedure	Pass / Fail
Restricted Band of Operation	IC	RSS Gen, (8.10)	ANSI C63.10 – 2013 789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
AC Conducted Emissions Voltage	IC	RSS Gen, (8.8)	ANSI C63.10 – 2013 RSS Gen Issue 4.0, Nov 2014 (8.8)	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
6 dB Emission Bandwidth	IC	RSS 247, (6.2.4) (1)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
26 dB & 99% Bandwidth	IC	RSS Gen, (6.6)	RSS Gen Issue 4.0, Nov 2014 (6.6)	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Maximum conducted Output Power	IC	RSS 247, (6.2)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Band Edge and Radiated Spurious Emissions	IC	RSS 247, (5.5) & (6.2)	ANSI C63.10 – 2013 789033 D02 General UNII Test Procedures New Rules v01	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Power Spectral Density	IC	RSS 247, (6.2)	789033 D02 General UNII Test Procedures New Rules v01	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
User Manual	IC	-	-	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A
Remark	<ol style="list-style-type: none"> All measurement uncertainties are not taken into consideration for all presented test result. The applicant shall ensure frequency stability by showing that an emission is maintained within the band of operation under all normal operating conditions as specified in the user's manual\ For all other test items (N/A) refer to Original Test Report No: 10748020H-C-R1 with FCC ID: N6C-SDMAN2, 10748020H-D-R1 with FCC ID: N6C-SDMAN2, 10748020H-G-R1 with IC ID: 4908A-SDMAN2 and 10748020H-H-R1with IC ID: 4908A-SDMAN2 			

9 Measurement Uncertainty

Emissions			
Test Item	Frequency Range	Description	Uncertainty
Band Edge and Radiated Spurious Emissions	30MHz – 1GHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
Band Edge and Radiated Spurious Emissions	1GHz – 40GHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+4.3dB/-4.1dB

10 Measurements, Examination and Derived Results

10.1 Radiated Emissions below 1GHz

Requirement(s):

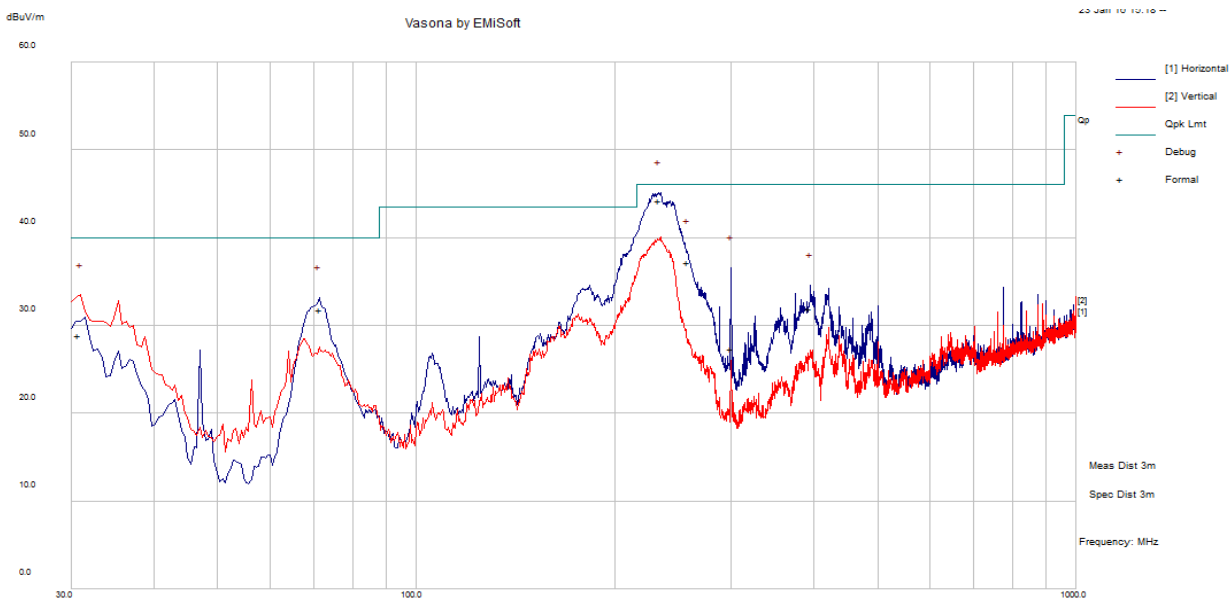
Spec	Requirement	Applicable										
47CFR§ 15.407(b) 15.209 (a)	<p>Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges</p> <table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Field Strength (uV/m)</th> </tr> </thead> <tbody> <tr> <td>30 – 88</td> <td>100</td> </tr> <tr> <td>88 – 216</td> <td>150</td> </tr> <tr> <td>216 960</td> <td>200</td> </tr> <tr> <td>Above 960</td> <td>500</td> </tr> </tbody> </table>	Frequency range (MHz)	Field Strength (uV/m)	30 – 88	100	88 – 216	150	216 960	200	Above 960	500	☒
Frequency range (MHz)	Field Strength (uV/m)											
30 – 88	100											
88 – 216	150											
216 960	200											
Above 960	500											
Test Setup												
Procedure	<ol style="list-style-type: none"> The EUT was switched on and allowed to warm up to its normal operating condition. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: <ol style="list-style-type: none"> Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. The EUT was then rotated to the direction that gave the maximum emission. Finally, the antenna height was adjusted to the height that gave the maximum emission. A Quasi-peak measurement was then made for that frequency point. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured. 											
Remark	Both horizontal and vertical polarities were investigated. The results show only the worst case.											
Result	☒ Pass ☐ Fail											

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Radiated Emission Test Results (Below 1GHz)

Test specification	Above 1GHz			Result	Pass
Environmental Conditions:	Temp (°C):	25.7			
	Humidity (%)	29			
	Atmospheric (mPa):	1021			
Mains Power:	110VAC, 60Hz				
Tested by:	Teody Manansala				
Test Date:	01/15/2016				
Remarks:	5.2GHz 11a 5200MHz				



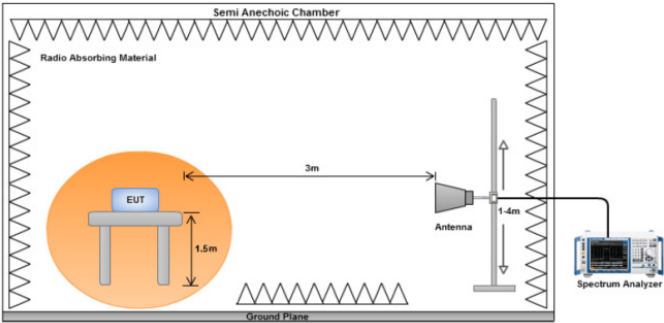
Quasi Max Measurement

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
232.97	68.69	2.62	-27.09	44.21	Quasi Max	H	130.00	310.00	46.02	-1.81	Pass
30.77	43.20	0.81	-15.10	28.90	Quasi Max	V	146.00	356.00	40.00	-11.10	Pass
71.33	60.54	1.37	-30.12	31.79	Quasi Max	H	323.00	220.00	40.00	-8.21	Pass
257.63	61.08	2.76	-26.58	37.26	Quasi Max	H	121.00	255.00	46.02	-8.76	Pass
299.91	49.74	3.01	-25.34	27.41	Quasi Max	H	129.00	208.00	46.02	-18.61	Pass
394.97	51.68	3.48	-23.20	31.97	Quasi Max	H	273.00	251.00	46.02	-14.05	Pass

Note: Both horizontal and vertical polarities were investigated. The results above show only the worst case.

10.2 Radiated Spurious Emissions above 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§ 15.407(b)(2), 15.407(b)(6)	(1)	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.	<input checked="" type="checkbox"/>
	(2)	For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.	<input checked="" type="checkbox"/>
	(3)	For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.	<input checked="" type="checkbox"/>
	(4)	For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.	<input checked="" type="checkbox"/>
	(5)	Restricted band, emission must also comply with the radiated emission limits specified in 15.209	<input checked="" type="checkbox"/>
Test Setup			
Procedure	<ol style="list-style-type: none"> The EUT was switched on and allowed to warm up to its normal operating condition. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner: <ol style="list-style-type: none"> Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. The EUT was then rotated to the direction that gave the maximum emission. Finally, the antenna height was adjusted to the height that gave the maximum emission. An average measurement was then made for that frequency point. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured. 		
Remark	The EUT was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.		
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail		

Test Data Yes (See below) N/A
Test Plot Yes (See below) N/A

Radiated Emission Test Results (Above 1GHz)
5.2 GHz

802.11a – 5180MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
4083.00	37.21	8.71	11.86	57.78	Peak Max	V	107.00	1.00	74.00	-16.22	Pass
6142.45	36.70	10.66	10.72	58.08	Peak Max	H	148.00	224.00	74.00	-15.92	Pass
2070.67	40.30	4.34	11.25	55.90	Peak Max	H	250.00	276.00	74.00	-18.10	Pass
4083.00	25.91	8.71	11.86	46.48	Average Max	V	107.00	1.00	54.00	-7.52	Pass
6142.45	25.01	10.66	10.72	46.39	Average Max	H	148.00	224.00	54.00	-7.61	Pass
2070.67	28.90	4.34	11.25	44.49	Average Max	H	250.00	276.00	54.00	-9.51	Pass

802.11a – 5200MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17563.89	35.20	16.68	10.46	62.34	Peak Max	H	122.00	254.00	74.00	-11.66	Pass
4241.82	37.60	9.10	11.18	57.89	Peak Max	H	107.00	130.00	74.00	-16.11	Pass
5205.61	41.96	10.06	9.62	61.64	Peak Max	H	227.00	168.00	74.00	-12.36	Pass
17563.89	23.40	16.68	10.46	50.54	Average Max	H	122.00	254.00	54.00	-3.46	Pass
4241.82	25.86	9.10	11.18	46.14	Average Max	H	107.00	130.00	54.00	-7.86	Pass
5205.61	30.54	10.06	9.62	50.21	Average Max	H	227.00	168.00	54.00	-3.79	Pass

802.11a – 5240MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17849.51	35.31	16.19	10.76	62.26	Peak Max	H	245.00	60.00	74.00	-11.74	Pass
4239.44	37.75	9.10	11.19	58.04	Peak Max	V	185.00	121.00	74.00	-15.96	Pass
6236.44	36.59	10.77	10.50	57.87	Peak Max	H	251.00	259.00	74.00	-16.13	Pass
17849.51	23.41	16.19	10.76	50.35	Average Max	H	245.00	60.00	54.00	-3.65	Pass
4239.44	25.81	9.10	11.19	46.10	Average Max	V	185.00	121.00	54.00	-7.90	Pass
6236.44	24.70	10.77	10.50	45.98	Average Max	H	251.00	259.00	54.00	-8.02	Pass

802.11n20 – 5180MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17392.56	35.33	16.78	10.07	62.18	Peak Max	H	181.00	89.00	74.00	-11.82	Pass
4103.22	36.89	8.76	11.77	57.43	Peak Max	H	148.00	321.00	74.00	-16.57	Pass
6088.18	36.20	10.59	10.85	57.65	Peak Max	V	113.00	232.00	74.00	-16.35	Pass
17392.56	23.41	16.78	10.07	50.26	Average Max	H	181.00	89.00	54.00	-3.75	Pass
4103.22	25.44	8.76	11.77	45.98	Average Max	H	148.00	321.00	54.00	-8.03	Pass
6088.18	24.73	10.59	10.85	46.18	Average Max	V	113.00	232.00	54.00	-7.82	Pass

802.11n20 – 5200MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17502.02	35.93	16.79	10.40	63.12	Peak Max	V	238.00	2.00	74.00	-10.88	Pass
1011.90	43.84	3.37	9.66	56.87	Peak Max	V	181.00	123.00	74.00	-17.13	Pass
4177.51	37.27	8.95	11.45	57.67	Peak Max	H	204.00	344.00	74.00	-16.33	Pass
17502.02	23.51	16.79	10.40	50.70	Average Max	V	238.00	2.00	54.00	-3.30	Pass
1011.90	31.90	3.37	9.66	44.92	Average Max	V	181.00	123.00	54.00	-9.08	Pass
4177.51	25.84	8.95	11.45	46.24	Average Max	H	204.00	344.00	54.00	-7.76	Pass

802.11n20 – 5240MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17521.46	34.82	16.75	10.42	61.99	Peak Max	H	204.00	356.00	74.00	-12.01	Pass
4250.09	37.61	9.12	11.15	57.88	Peak Max	V	166.00	10.00	74.00	-16.12	Pass
6013.88	36.85	10.50	11.03	58.38	Peak Max	V	135.00	305.00	74.00	-15.62	Pass
17521.46	23.40	16.75	10.42	50.57	Average Max	H	204.00	356.00	54.00	-3.43	Pass
4250.09	25.72	9.12	11.15	45.99	Average Max	V	166.00	10.00	54.00	-8.02	Pass
6013.88	24.68	10.50	11.03	46.22	Average Max	V	135.00	305.00	54.00	-7.79	Pass

5.2 GHz

802.11n40 – 5190MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17637.80	34.64	16.55	10.54	61.73	Peak Max	V	244.00	257.00	74.00	-12.27	Pass
4239.58	38.12	9.10	11.19	58.41	Peak Max	H	246.00	274.00	74.00	-15.59	Pass
6122.46	37.15	10.63	10.77	58.55	Peak Max	V	189.00	116.00	74.00	-15.45	Pass
17637.80	22.95	16.55	10.54	50.04	Average Max	V	244.00	257.00	54.00	-3.96	Pass
4239.58	26.05	9.10	11.19	46.34	Average Max	H	246.00	274.00	54.00	-7.66	Pass
6122.46	25.12	10.63	10.77	46.53	Average Max	V	189.00	116.00	54.00	-7.47	Pass

802.11n40 – 5230MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17605.32	36.46	16.61	10.51	63.58	Peak Max	H	173.00	275.00	74.00	-10.42	Pass
4249.29	38.14	9.12	11.15	58.42	Peak Max	V	192.00	118.00	74.00	-15.59	Pass
6098.93	36.75	10.60	10.83	58.19	Peak Max	H	113.00	20.00	74.00	-15.82	Pass
17605.32	23.48	16.61	10.51	50.59	Average Max	H	173.00	275.00	54.00	-3.41	Pass
4249.29	26.02	9.12	11.15	46.29	Average Max	V	192.00	118.00	54.00	-7.71	Pass
6098.93	24.88	10.60	10.83	46.31	Average Max	H	113.00	20.00	54.00	-7.69	Pass

5.3 GHz

802.11a – 5260MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
5259.08	40.62	9.78	9.65	60.04	Peak Max	H	226.00	94.00	74.00	-13.96	Pass
17725.30	34.95	16.40	10.63	61.97	Peak Max	H	138.00	357.00	74.00	-12.03	Pass
4210.00	37.17	9.03	11.32	57.51	Peak Max	H	214.00	323.00	74.00	-16.49	Pass
5259.08	27.73	9.78	9.65	47.15	Average Max	H	226.00	94.00	54.00	-6.85	Pass
17725.30	23.38	16.40	10.63	50.41	Average Max	H	138.00	357.00	54.00	-3.60	Pass
4210.00	25.76	9.03	11.32	46.10	Average Max	H	214.00	323.00	54.00	-7.90	Pass

802.11a – 5300MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17457.71	34.84	16.78	10.27	61.90	Peak Max	V	118.00	138.00	74.00	-12.10	Pass
4100.52	37.83	8.75	11.79	58.37	Peak Max	V	200.00	117.00	74.00	-15.63	Pass
6068.22	36.43	10.57	10.90	57.90	Peak Max	V	196.00	133.00	74.00	-16.10	Pass
17457.71	23.44	16.78	10.27	50.49	Average Max	V	118.00	138.00	54.00	-3.51	Pass
4100.52	25.49	8.75	11.79	46.03	Average Max	V	200.00	117.00	54.00	-7.97	Pass
6068.22	24.76	10.57	10.90	46.23	Average Max	V	196.00	133.00	54.00	-7.77	Pass

802.11a – 5320MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17502.35	35.43	16.79	10.40	62.62	Peak Max	V	226.00	226.00	74.00	-11.38	Pass
4218.74	38.02	9.05	11.28	58.35	Peak Max	H	211.00	48.00	74.00	-15.65	Pass
2063.12	40.23	4.34	11.28	55.85	Peak Max	V	166.00	197.00	74.00	-18.15	Pass
17502.35	23.48	16.79	10.40	50.66	Average Max	V	226.00	226.00	54.00	-3.34	Pass
4218.74	25.70	9.05	11.28	46.02	Average Max	H	211.00	48.00	54.00	-7.98	Pass
2063.12	28.70	4.34	11.28	44.32	Average Max	V	166.00	197.00	54.00	-9.68	Pass

5.3 GHz

802.11n20 – 5260MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17650.33	34.27	16.53	10.55	61.35	Peak Max	H	189.00	338.00	74.00	-12.65	Pass
4240.65	37.40	9.10	11.19	57.68	Peak Max	V	219.00	220.00	74.00	-16.32	Pass
6153.91	37.93	10.67	10.70	59.29	Peak Max	V	196.00	288.00	74.00	-14.71	Pass
17650.33	23.27	16.53	10.55	50.35	Average Max	H	189.00	338.00	54.00	-3.65	Pass
4240.65	25.78	9.10	11.19	46.06	Average Max	V	219.00	220.00	54.00	-7.94	Pass
6153.91	24.91	10.67	10.70	46.28	Average Max	V	196.00	288.00	54.00	-7.72	Pass

802.11n20 – 5300MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17106.40	35.08	16.74	9.21	61.02	Peak Max	V	112.00	114.00	74.00	-12.98	Pass
4080.68	36.98	8.71	11.87	57.56	Peak Max	V	246.00	180.00	74.00	-16.44	Pass
6143.61	37.19	10.66	10.72	58.57	Peak Max	H	110.00	136.00	74.00	-15.43	Pass
17106.40	23.41	16.74	9.21	49.35	Average Max	V	112.00	114.00	54.00	-4.65	Pass
4080.68	25.72	8.71	11.87	46.30	Average Max	V	246.00	180.00	54.00	-7.71	Pass
6143.61	24.94	10.66	10.72	46.32	Average Max	H	110.00	136.00	54.00	-7.68	Pass

802.11n20 – 5320MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17509.47	35.08	16.77	10.41	62.26	Peak Max	V	125.00	58.00	74.00	-11.74	Pass
4004.92	37.57	8.51	12.21	58.29	Peak Max	H	113.00	81.00	74.00	-15.71	Pass
1053.81	43.28	3.43	9.59	56.31	Peak Max	V	106.00	161.00	74.00	-17.69	Pass
17509.47	23.45	16.77	10.41	50.63	Average Max	V	125.00	58.00	54.00	-3.37	Pass
4004.92	25.58	8.51	12.21	46.30	Average Max	H	113.00	81.00	54.00	-7.71	Pass
1053.81	31.30	3.43	9.59	44.32	Average Max	V	106.00	161.00	54.00	-9.68	Pass

5.3 GHz

802.11n40 – 5270MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17490.08	34.85	16.79	10.37	62.01	Peak Max	H	159.00	313.00	74.00	-11.99	Pass
4016.36	37.48	8.54	12.16	58.18	Peak Max	V	146.00	0.00	74.00	-15.82	Pass
6229.14	37.37	10.77	10.52	58.65	Peak Max	H	155.00	126.00	74.00	-15.35	Pass
17490.08	23.53	16.79	10.37	50.68	Average Max	H	159.00	313.00	54.00	-3.32	Pass
4016.36	25.58	8.54	12.16	46.28	Average Max	V	146.00	0.00	54.00	-7.73	Pass
6229.14	24.73	10.77	10.52	46.01	Average Max	H	155.00	126.00	54.00	-7.99	Pass

802.11n40 – 5310MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17340.29	36.21	16.77	9.92	62.90	Peak Max	V	178.00	136.00	74.00	-11.10	Pass
4154.01	37.94	8.89	11.55	58.38	Peak Max	V	185.00	286.00	74.00	-15.62	Pass
2115.68	40.29	4.38	11.11	55.78	Peak Max	V	153.00	330.00	74.00	-18.22	Pass
17340.29	23.45	16.77	9.92	50.14	Average Max	V	178.00	136.00	54.00	-3.86	Pass
4154.01	26.07	8.89	11.55	46.51	Average Max	V	185.00	286.00	54.00	-7.49	Pass
2115.68	28.69	4.38	11.11	44.18	Average Max	V	153.00	330.00	54.00	-9.82	Pass

5.5 GHz

802.11a – 5500MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17490.12	35.64	16.79	10.37	62.79	Peak Max	V	181.00	236.00	74.00	-11.21	Pass
4175.49	37.90	8.94	11.46	58.31	Peak Max	H	200.00	11.00	74.00	-15.69	Pass
6101.63	35.93	10.61	10.82	57.36	Peak Max	V	143.00	277.00	74.00	-16.65	Pass
17490.12	23.53	16.79	10.37	50.69	Average Max	V	181.00	236.00	54.00	-3.31	Pass
4175.49	25.80	8.94	11.46	46.20	Average Max	H	200.00	11.00	54.00	-7.80	Pass
6101.63	24.73	10.61	10.82	46.16	Average Max	V	143.00	277.00	54.00	-7.84	Pass

802.11a – 5580MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17193.57	34.90	16.75	9.47	61.11	Peak Max	V	124.00	258.00	74.00	-12.89	Pass
6078.01	36.60	10.58	10.88	58.06	Peak Max	H	148.00	210.00	74.00	-15.94	Pass
4047.99	37.32	8.62	12.02	57.96	Peak Max	H	110.00	177.00	74.00	-16.04	Pass
17193.57	23.52	16.75	9.47	49.73	Average Max	V	124.00	258.00	54.00	-4.27	Pass
6078.01	24.82	10.58	10.88	46.28	Average Max	H	148.00	210.00	54.00	-7.72	Pass
4047.99	25.53	8.62	12.02	46.17	Average Max	H	110.00	177.00	54.00	-7.83	Pass

802.11a – 5700MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17894.16	35.31	16.11	10.80	62.23	Peak Max	H	251.00	63.00	74.00	-11.78	Pass
4220.50	37.06	9.05	11.27	57.38	Peak Max	V	207.00	296.00	74.00	-16.62	Pass
6132.97	36.02	10.65	10.75	57.42	Peak Max	V	227.00	27.00	74.00	-16.58	Pass
17894.16	23.39	16.11	10.80	50.30	Average Max	H	251.00	63.00	54.00	-3.70	Pass
4220.50	25.80	9.05	11.27	46.13	Average Max	V	207.00	296.00	54.00	-7.88	Pass
6132.97	25.10	10.65	10.75	46.50	Average Max	V	227.00	27.00	54.00	-7.50	Pass

5.5 GHz

802.11n20 – 5500MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17627.77	35.13	16.57	10.53	62.23	Peak Max	V	185.00	81.00	74.00	-11.77	Pass
4059.91	37.20	8.65	11.96	57.81	Peak Max	V	208.00	317.00	74.00	-16.19	Pass
6173.94	36.36	10.70	10.65	57.71	Peak Max	V	109.00	344.00	74.00	-16.29	Pass
17627.77	23.29	16.57	10.53	50.39	Average Max	V	185.00	81.00	54.00	-3.61	Pass
4059.91	25.48	8.65	11.96	46.10	Average Max	V	208.00	317.00	54.00	-7.90	Pass
6173.94	24.77	10.70	10.65	46.12	Average Max	V	109.00	344.00	54.00	-7.88	Pass

802.11n20 – 5580MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17381.87	35.24	16.77	10.04	62.06	Peak Max	V	185.00	56.00	74.00	-11.94	Pass
4229.48	37.49	9.07	11.23	57.80	Peak Max	V	214.00	67.00	74.00	-16.20	Pass
6163.51	37.35	10.68	10.67	58.71	Peak Max	H	150.00	75.00	74.00	-15.29	Pass
17381.87	23.37	16.77	10.04	50.18	Average Max	V	185.00	56.00	54.00	-3.82	Pass
4229.48	25.71	9.07	11.23	46.02	Average Max	V	214.00	67.00	54.00	-7.98	Pass
6163.51	24.86	10.68	10.67	46.21	Average Max	H	150.00	75.00	54.00	-7.79	Pass

802.11n20 – 5700MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17661.44	34.75	16.51	10.56	61.83	Peak Max	V	219.00	189.00	74.00	-12.17	Pass
4156.94	38.10	8.90	11.54	58.54	Peak Max	H	140.00	0.00	74.00	-15.46	Pass
6122.47	36.66	10.63	10.77	58.07	Peak Max	H	113.00	15.00	74.00	-15.94	Pass
17661.44	23.27	16.51	10.56	50.34	Average Max	V	219.00	189.00	54.00	-3.66	Pass
4156.94	25.93	8.90	11.54	46.37	Average Max	H	140.00	0.00	54.00	-7.64	Pass
6122.47	24.94	10.63	10.77	46.34	Average Max	H	113.00	15.00	54.00	-7.66	Pass

5.5 GHz

802.11n40 – 5510MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17553.41	35.16	16.70	10.45	62.31	Peak Max	V	134.00	137.00	74.00	-11.69	Pass
6098.77	36.21	10.60	10.83	57.64	Peak Max	H	142.00	261.00	74.00	-16.36	Pass
4059.11	36.92	8.65	11.97	57.54	Peak Max	H	215.00	76.00	74.00	-16.46	Pass
17553.41	23.50	16.70	10.45	50.65	Average Max	V	134.00	137.00	54.00	-3.35	Pass
6098.77	24.88	10.60	10.83	46.31	Average Max	H	142.00	261.00	54.00	-7.69	Pass
4059.11	25.66	8.65	11.97	46.28	Average Max	H	215.00	76.00	54.00	-7.72	Pass

802.11n40 – 5590MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17554.84	34.74	16.69	10.45	61.89	Peak Max	H	237.00	349.00	74.00	-12.11	Pass
4029.05	37.14	8.57	12.10	57.81	Peak Max	V	184.00	88.00	74.00	-16.19	Pass
6130.38	37.10	10.64	10.75	58.50	Peak Max	H	168.00	359.00	74.00	-15.50	Pass
17554.84	23.54	16.69	10.45	50.69	Average Max	H	237.00	349.00	54.00	-3.31	Pass
4029.05	25.49	8.57	12.10	46.16	Average Max	V	184.00	88.00	54.00	-7.84	Pass
6130.38	25.07	10.64	10.75	46.46	Average Max	H	168.00	359.00	54.00	-7.54	Pass

802.11n40 – 5670MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17565.78	35.71	16.68	10.47	62.85	Peak Max	V	218.00	91.00	74.00	-11.15	Pass
4271.47	37.67	9.17	11.06	57.90	Peak Max	H	135.00	131.00	74.00	-16.10	Pass
10614.08	36.84	11.73	8.46	57.04	Peak Max	H	224.00	77.00	74.00	-16.97	Pass
17565.78	23.49	16.68	10.47	50.64	Average Max	V	218.00	91.00	54.00	-3.36	Pass
4271.47	25.45	9.17	11.06	45.69	Average Max	H	135.00	131.00	54.00	-8.32	Pass
10614.08	24.40	11.73	8.46	44.59	Average Max	H	224.00	77.00	54.00	-9.41	Pass

5.8 GHz

802.11a – 5745MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17509.29	36.06	16.77	10.41	63.24	Peak Max	H	228.00	149.00	74.00	-10.76	Pass
4220.09	37.05	9.05	11.27	57.37	Peak Max	H	166.00	359.00	74.00	-16.63	Pass
1010.25	43.70	3.37	9.66	56.73	Peak Max	H	123.00	117.00	74.00	-17.27	Pass
17509.29	23.51	16.77	10.41	50.69	Average Max	H	228.00	149.00	54.00	-3.31	Pass
4220.09	25.75	9.05	11.27	46.07	Average Max	H	166.00	359.00	54.00	-7.93	Pass
1010.25	31.91	3.37	9.66	44.94	Average Max	H	123.00	117.00	54.00	-9.06	Pass

802.11a – 5785MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17702.28	35.11	16.44	10.61	62.15	Peak Max	H	108.00	296.00	74.00	-11.85	Pass
4174.94	38.48	8.94	11.46	58.88	Peak Max	H	204.00	173.00	74.00	-15.12	Pass
6099.31	36.95	10.61	10.83	58.38	Peak Max	H	245.00	239.00	74.00	-15.62	Pass
17702.28	23.45	16.44	10.61	50.50	Average Max	H	108.00	296.00	54.00	-3.50	Pass
4174.94	25.87	8.94	11.46	46.27	Average Max	H	204.00	173.00	54.00	-7.73	Pass
6099.31	24.81	10.61	10.83	46.24	Average Max	H	245.00	239.00	54.00	-7.76	Pass

802.11a – 5825MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17458.69	35.17	16.78	10.27	62.22	Peak Max	V	147.00	105.00	74.00	-11.78	Pass
4177.28	37.06	8.95	11.45	57.46	Peak Max	V	238.00	2.00	74.00	-16.54	Pass
6142.68	36.61	10.66	10.72	57.99	Peak Max	H	163.00	94.00	74.00	-16.01	Pass
17458.69	23.41	16.78	10.27	50.47	Average Max	V	147.00	105.00	54.00	-3.53	Pass
4177.28	25.85	8.95	11.45	46.25	Average Max	V	238.00	2.00	54.00	-7.75	Pass
6142.68	24.99	10.66	10.72	46.37	Average Max	H	163.00	94.00	54.00	-7.63	Pass

5.8 GHz

802.11n20 – 5745MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17509.71	36.14	16.77	10.41	63.32	Peak Max	H	130.00	0.00	74.00	-10.68	Pass
4070.54	37.30	8.68	11.92	57.89	Peak Max	V	154.00	213.00	74.00	-16.11	Pass
2092.93	41.22	4.36	11.18	56.77	Peak Max	H	179.00	315.00	74.00	-17.23	Pass
17509.71	23.44	16.77	10.41	50.62	Average Max	H	130.00	0.00	54.00	-3.38	Pass
4070.54	25.59	8.68	11.92	46.19	Average Max	V	154.00	213.00	54.00	-7.81	Pass
2092.93	28.73	4.36	11.18	44.28	Average Max	H	179.00	315.00	54.00	-9.72	Pass

802.11n20 – 5785MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17712.06	34.56	16.42	10.62	61.60	Peak Max	V	159.00	309.00	74.00	-12.40	Pass
4240.78	37.16	9.10	11.19	57.44	Peak Max	V	166.00	159.00	74.00	-16.56	Pass
6131.42	36.48	10.65	10.75	57.87	Peak Max	V	109.00	149.00	74.00	-16.13	Pass
17712.06	23.38	16.42	10.62	50.42	Average Max	V	159.00	309.00	54.00	-3.58	Pass
4240.78	25.77	9.10	11.19	46.06	Average Max	V	166.00	159.00	54.00	-7.94	Pass
6131.42	24.93	10.65	10.75	46.32	Average Max	V	109.00	149.00	54.00	-7.68	Pass

802.11n20 – 5825MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17818.31	35.44	16.24	10.72	62.40	Peak Max	V	124.00	318.00	74.00	-11.60	Pass
5823.79	42.23	10.59	10.64	63.45	Peak Max	V	196.00	0.00	74.00	-10.55	Pass
4144.42	36.88	8.86	11.60	57.34	Peak Max	V	173.00	21.00	74.00	-16.66	Pass
17818.31	23.40	16.24	10.72	50.37	Average Max	V	124.00	318.00	54.00	-3.63	Pass
5823.79	30.57	10.59	10.64	51.79	Average Max	V	196.00	0.00	54.00	-2.21	Pass
4144.42	25.84	8.86	11.60	46.30	Average Max	V	173.00	21.00	54.00	-7.70	Pass

5.8 GHz

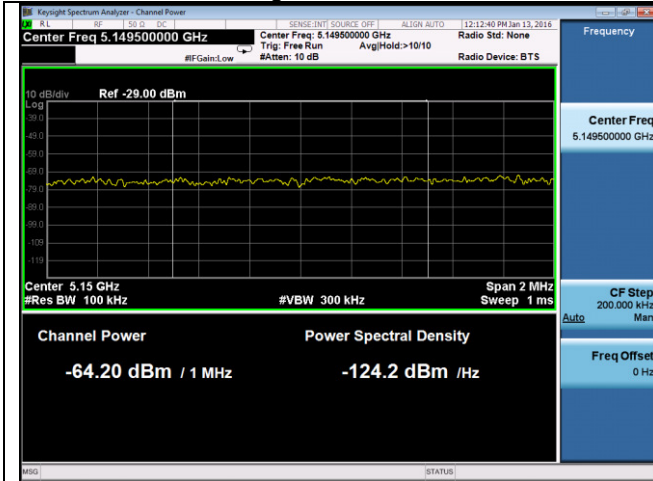
802.11n40 – 5755MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17459.66	34.75	16.78	10.28	61.81	Peak Max	H	106.00	114.00	74.00	-12.19	Pass
4079.49	37.69	8.70	11.88	58.27	Peak Max	H	146.00	201.00	74.00	-15.73	Pass
6006.37	36.40	10.49	11.05	57.95	Peak Max	V	106.00	250.00	74.00	-16.06	Pass
17459.66	23.50	16.78	10.28	50.56	Average Max	H	106.00	114.00	54.00	-3.44	Pass
4079.49	25.98	8.70	11.88	46.56	Average Max	H	146.00	201.00	54.00	-7.44	Pass
6006.37	24.77	10.49	11.05	46.31	Average Max	V	106.00	250.00	54.00	-7.69	Pass

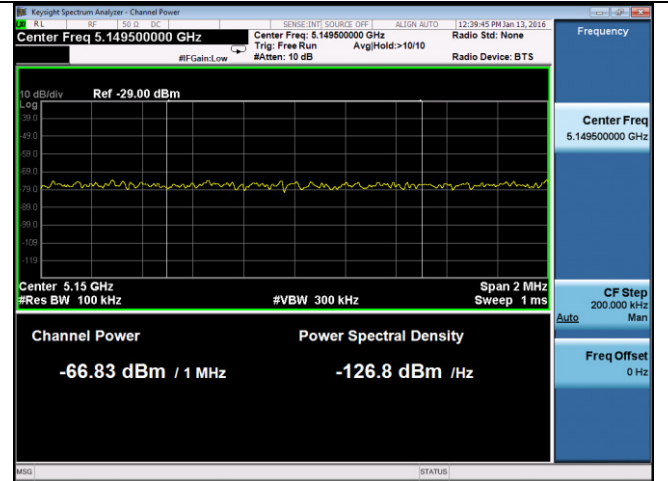
802.11n40 – 5795MHz

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
17562.50	35.56	16.68	10.46	62.70	Peak Max	V	174.00	86.00	74.00	-11.30	Pass
4165.86	37.48	8.92	11.50	57.90	Peak Max	V	109.00	364.00	74.00	-16.10	Pass
6036.73	36.74	10.53	10.98	58.24	Peak Max	H	220.00	186.00	74.00	-15.76	Pass
17562.50	23.52	16.68	10.46	50.67	Average Max	V	174.00	86.00	54.00	-3.33	Pass
4165.86	25.92	8.92	11.50	46.34	Average Max	V	109.00	364.00	54.00	-7.66	Pass
6036.73	24.83	10.53	10.98	46.34	Average Max	H	220.00	186.00	54.00	-7.66	Pass

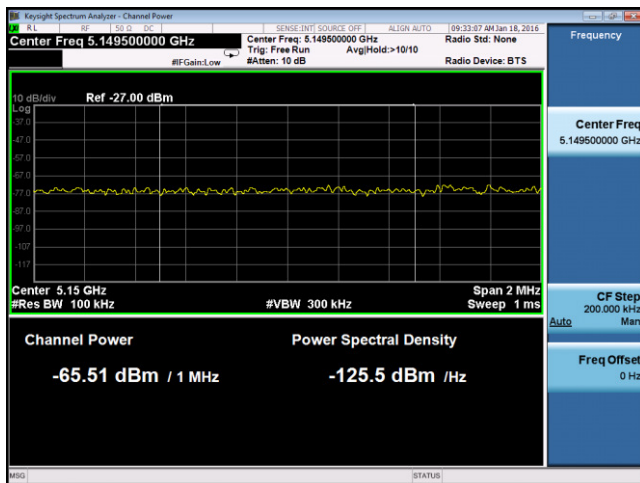
Conducted Band Edge Measurement Plots



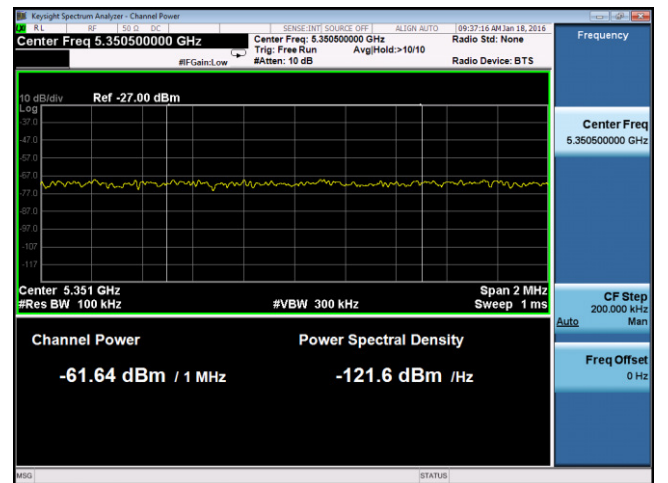
Band Edge-802.11a 5180 MHz (Limit: -17 eirp)



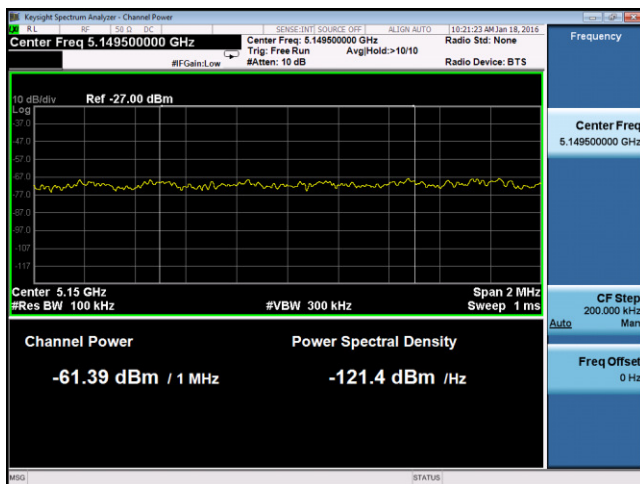
Band Edge-802.11a 5240 MHz (Limit: -17 eirp)



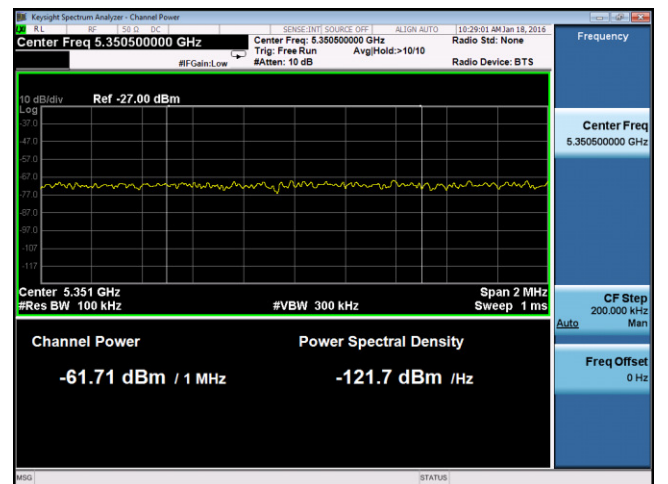
Band Edge-802.11n20 5180 MHz (Limit: -17 eirp)



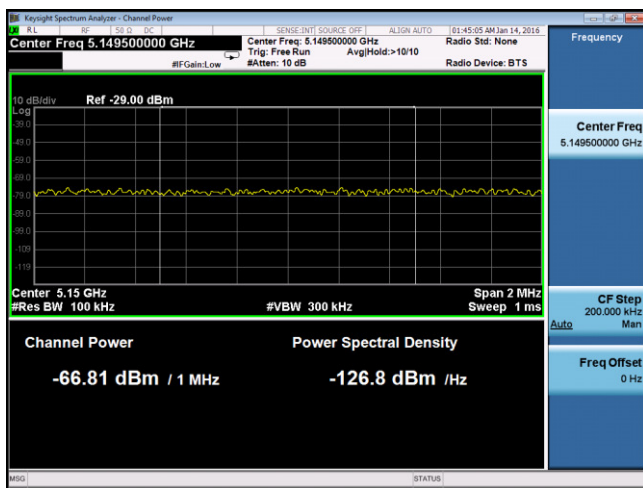
Band Edge-802.11n20 5240 MHz (Limit: -17 eirp)



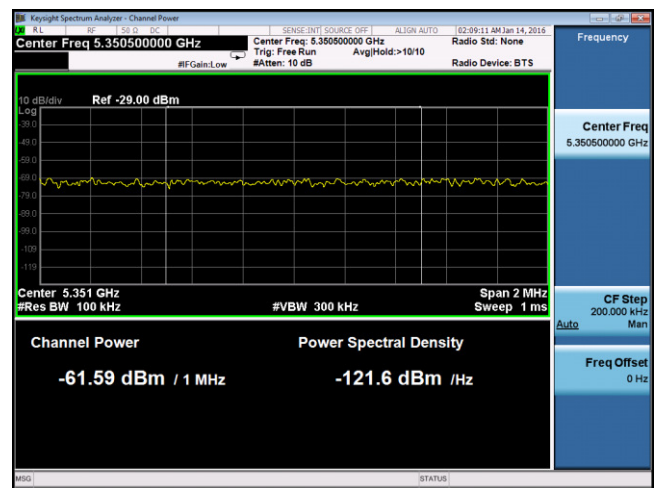
Band Edge-802.11n40 5190 MHz (Limit: -17 eirp)



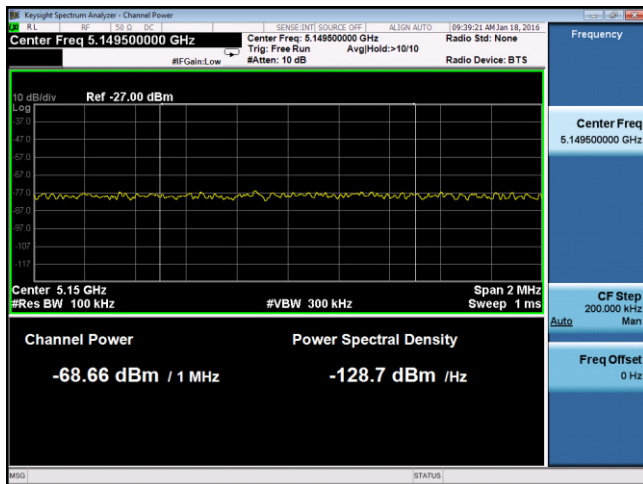
Band Edge-802.11n40 5230 MHz (Limit: -17 eirp)



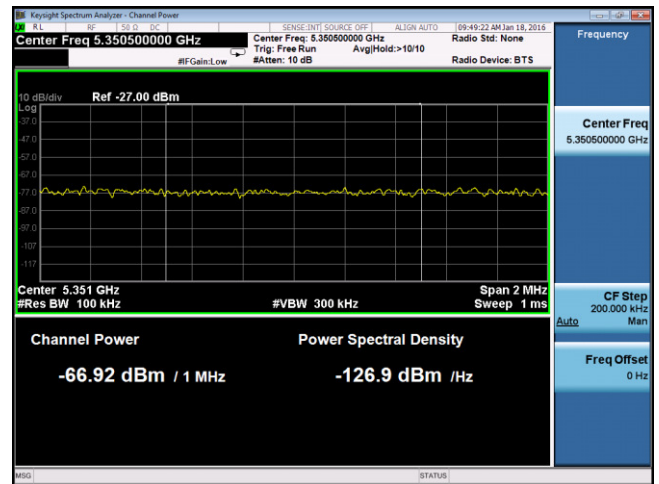
Band Edge-802.11a 5260 MHz (Limit: -17 eirp)



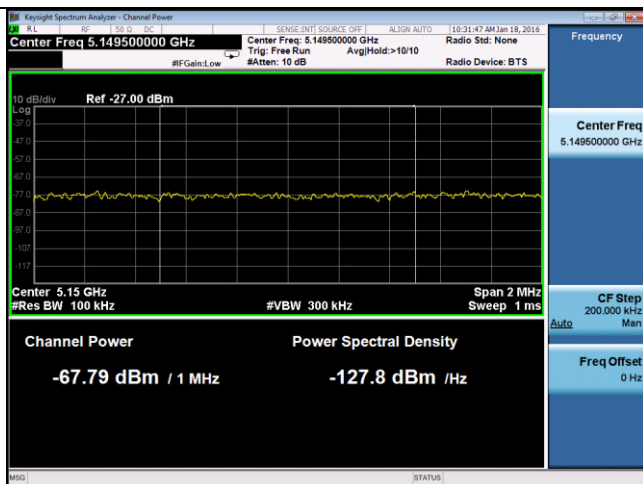
Band Edge-802.11a 5320 MHz (Limit: -17 eirp)



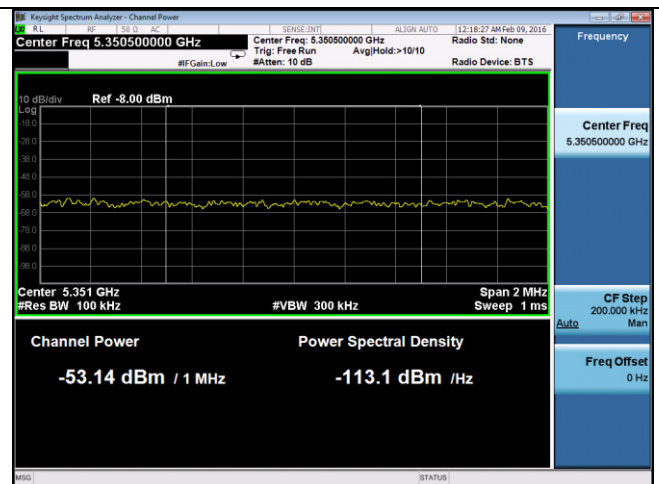
Band Edge-802.11n20 5260 MHz (Limit: -17 eirp)



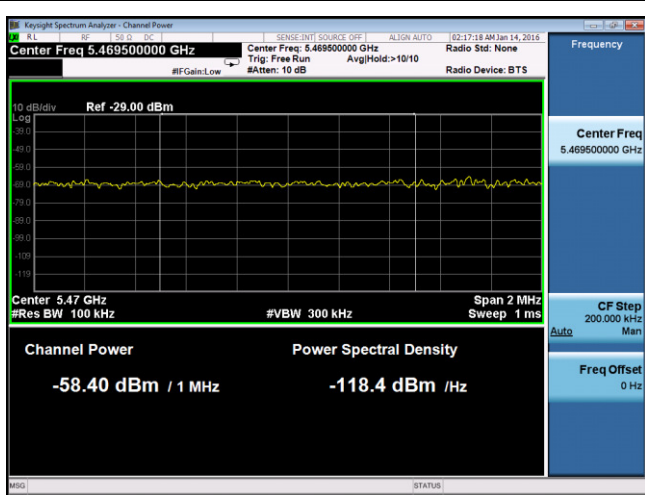
Band Edge-802.11n20 5320 MHz (Limit: -17 eirp)



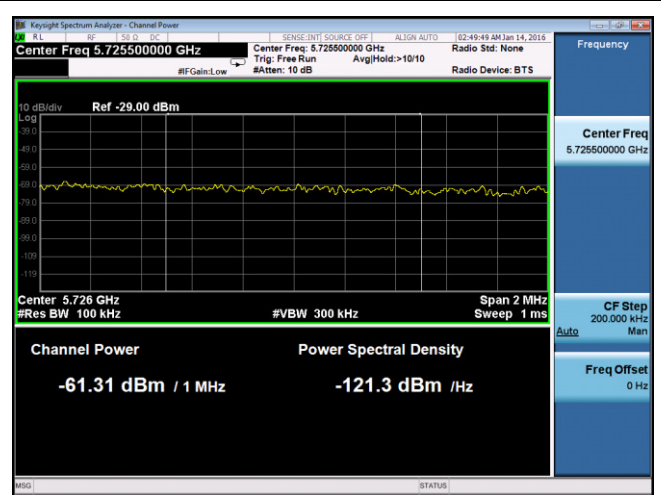
Band Edge-802.11n40 5270 MHz (Limit: -17 eirp)



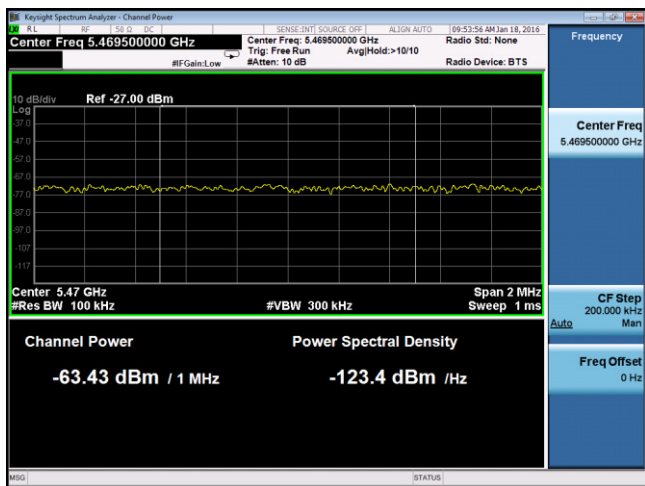
Band Edge-802.11n40 5310 MHz (Limit: -17 eirp)



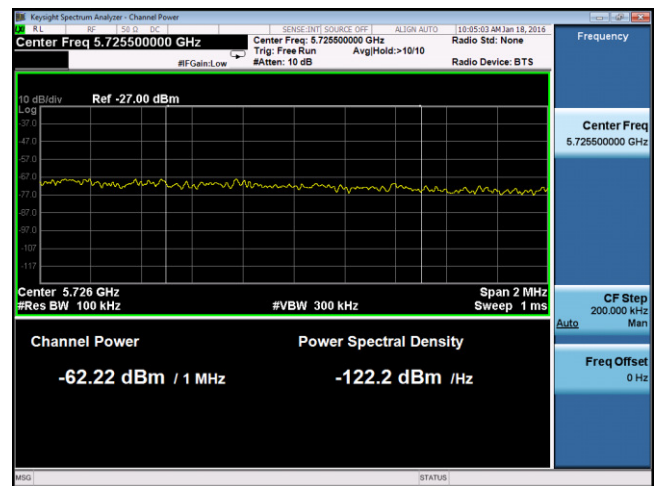
Band Edge-802.11a 5500 MHz (Limit: -17 eirp)



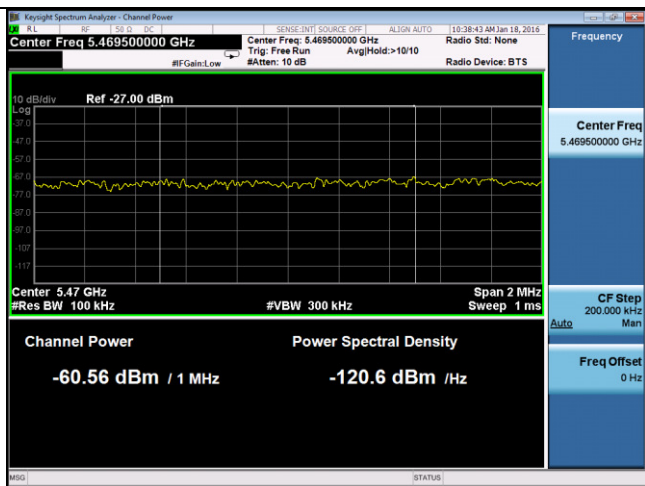
Band Edge-802.11a 5700 MHz (Limit: -17 eirp)



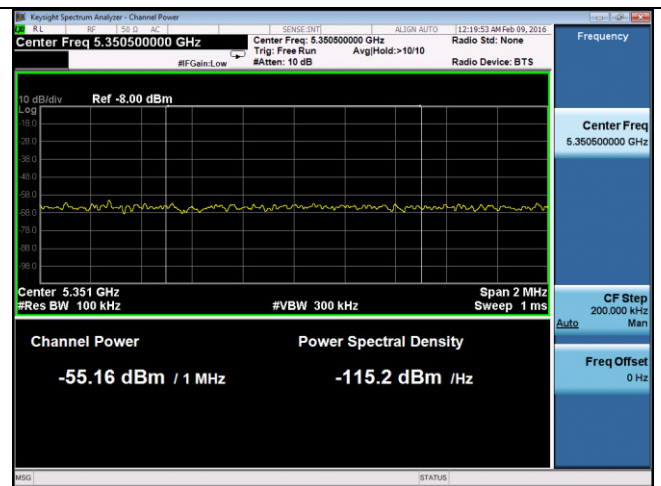
Band Edge-802.11n20 5500 MHz (Limit: -17 eirp)



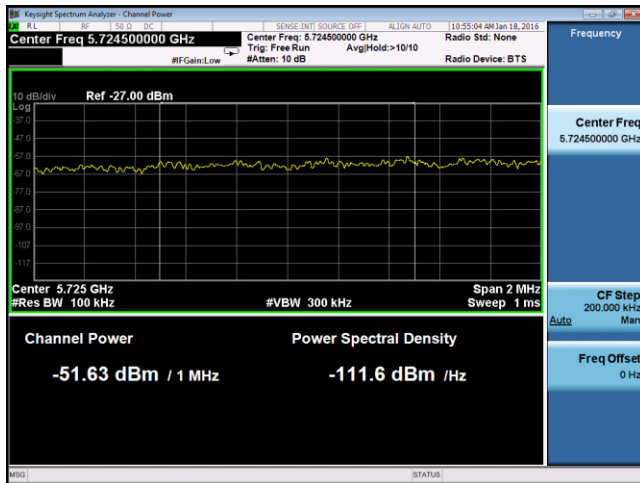
Band Edge-802.11n20 5700 MHz (Limit: -17 eirp)



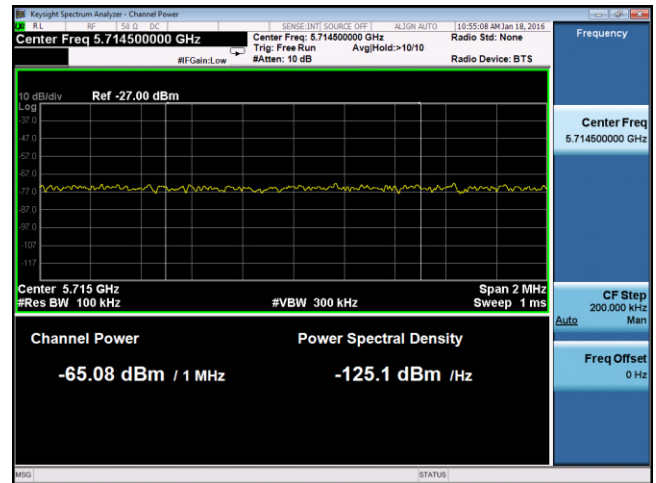
Band Edge-802.11n40 5510 MHz (Limit: -17 eirp)



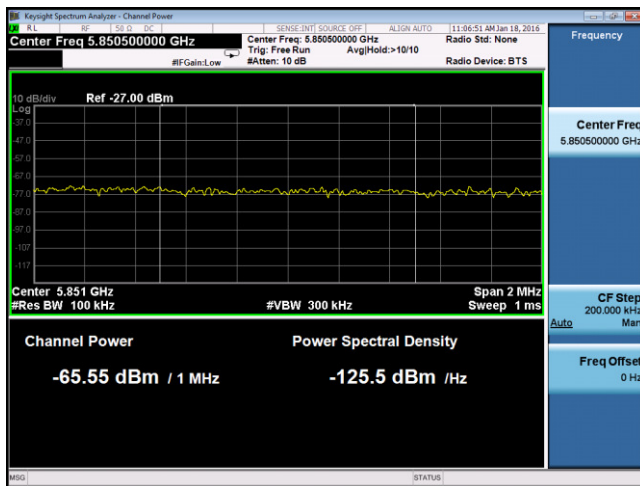
Band Edge-802.11n40 5670 MHz (Limit: -17 eirp)



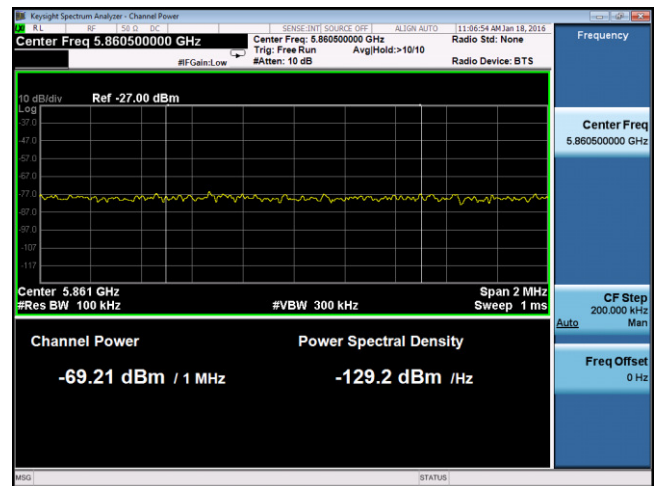
5.8GHz Band Edge-802.11a 5745 MHz (Limit: -17 eirp)



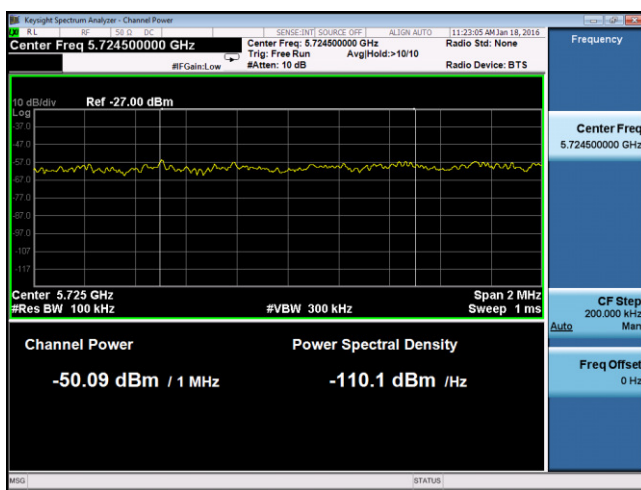
5.8GHz Band Edge-802.11a 5745 MHz (Limit: -27 eirp)



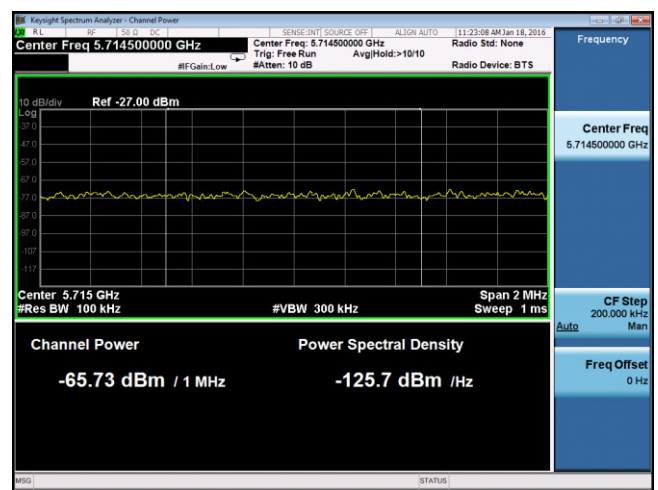
5.8GHz Band Edge-802.11a 5825 MHz (Limit: -17 eirp)



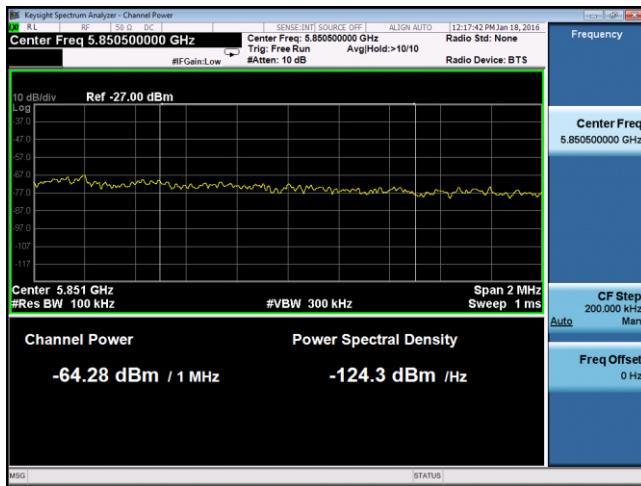
5.8GHz Band Edge-802.11a 5825 MHz (Limit: -27 eirp)



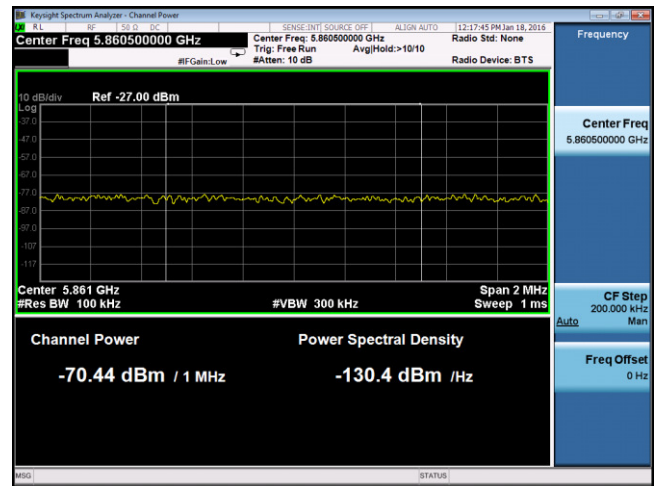
5.8GHz Band Edge-802.11n20 5745 MHz (Limit: -17 eirp)



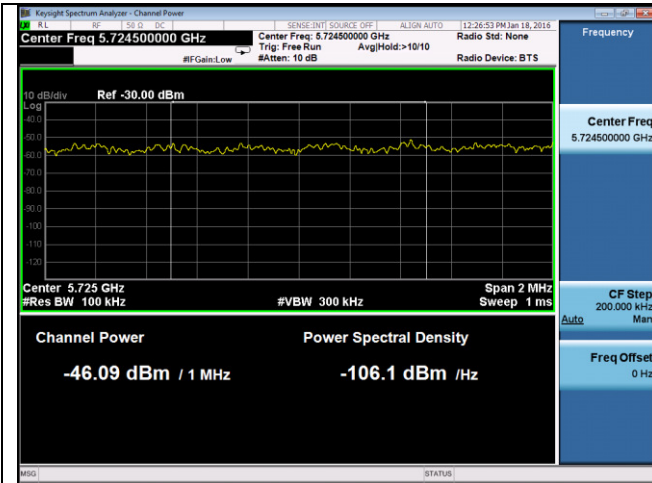
5.8GHz Band Edge-802.11n20 5745 MHz (Limit: -27 eirp)



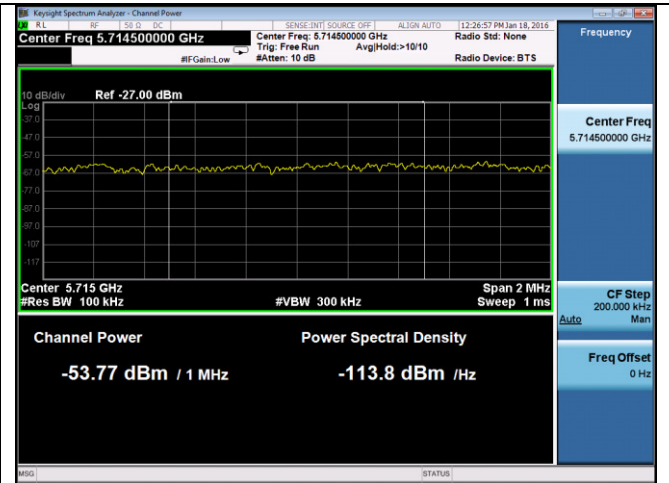
5.8GHz Band Edge-802.11n20 5825 MHz (Limit: -17 eirp)



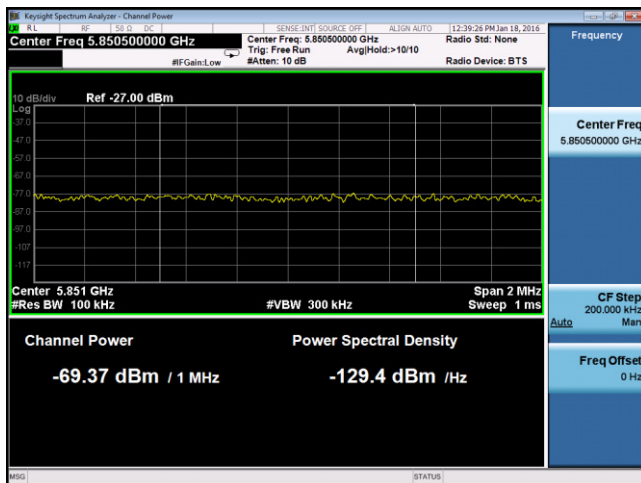
5.8GHz Band Edge-802.11n20 5825 MHz (Limit: -27 eirp)



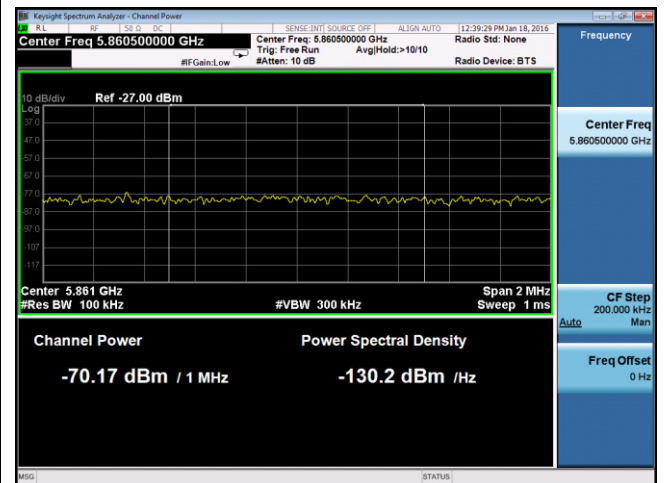
5.8GHz Band Edge-802.11n40 5755 MHz (Limit: -17 eirp)



5.8GHz Band Edge-802.11n40 5755 MHz (Limit: -27 eirp)



5.8GHz Band Edge-802.11n40 5795 MHz (Limit: -17 eirp)

























5.8GHz Band Edge-802.11n40 5795 MHz (Limit: -27 eirp)

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input type="checkbox"/>
CHASE LISN	MN2050B	1018	08/07/2015	1 Year	08/07/2016	<input type="checkbox"/>
Radiated Emissions						
R & S Receiver	ESL6	100178	05/27/2015	1 Year	05/27/2016	<input checked="" type="checkbox"/>
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input checked="" type="checkbox"/>
ETS-Lingren Loop Antenna	6512	00049120	05/12/2015	1 Year	05/12/2016	<input checked="" type="checkbox"/>
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	08/12/2015	1 Year	08/12/2016	<input checked="" type="checkbox"/>
3 Meters SAC	3M	N/A	08/08/2015	1 Year	08/08/2016	<input checked="" type="checkbox"/>
10 Meters SAC	10M	N/A	09/05/2015	1 Year	09/05/2016	<input checked="" type="checkbox"/>
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	08/20/2015	1 Year	08/20/2016	<input checked="" type="checkbox"/>
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	<input checked="" type="checkbox"/>
Test Equity Environment Chamber	1007H	61201	07/31/2015	1 Year	07/31/2016	<input type="checkbox"/>
USB RF Power Sensor	7002-006	10SL0190	09/03/2015	1 Year	09/03/2016	<input type="checkbox"/>

Annex B. SIEMIC Accreditation

Accreditations	Document	Scope / Remark
ISO 17025 (A2LA)		Please see the documents for the detailed scope
ISO Guide 65 (A2LA)		Please see the documents for the detailed scope
TCB Designation		A1, A2, A3, A4, B1, B2, B3, B4, C
FCC DoC Accreditation		FCC Declaration of Conformity Accreditation
FCC Site Registration		3 meter site
FCC Site Registration		10 meter site
IC Site Registration		3 meter site
IC Site Registration		10 meter site
EU NB		Radio & Telecommunications Terminal Equipment: EN45001 – EN ISO/IEC 17025
		Electromagnetic Compatibility: EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		Phase I, Phase II
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong OFCA		(Phase II) OFCA Foreign Certification Body for Radio and Telecom
		(Phase I) Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		Radio: Scope A – All Radio Standard Specification in Category I
		Telecom: CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		<p>Radio: A1. Terminal equipment for purpose of calling</p> <p>Telecom: B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law</p>
Korea CAB Accreditation		<p>EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI</p> <p>EMS: KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS</p>
		<p>Radio: RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21, RRL Notice 2007-80, RRL Notice 2004-68</p> <p>Telecom: President Notice 20664, RRL Notice 2007-30, RRL Notice 2008-7 with attachments 1, 3, 5, 6; President Notice 20664, RRL Notice 2008-7 with attachment 4</p>
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI		<p>R-3083: Radiation 3 meter site</p> <p>C-3421: Main Ports Conducted Interference Measurement</p> <p>T-1597: Telecommunication Ports Conducted Interference Measurement</p>
Australia CAB Recognition		<p>EMC: AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4</p>
		<p>Radio communications: AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770, AS/NZS 4771</p>
		<p>Telecommunications: AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06 AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/ACIF S60950.1</p>
Australia NATA Recognition		AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016, AS/ACIF S031, AS/ACIF S038, AS/ACIF S040, AS/ACIF S041, AS/ACIF S043.2