

FCC 47 CFR PART 15 SUBPART E

Applicant : EDIMAX TECHNOLOGY CO., LTD.
Product Type : AC900 Outdoor AP
Trade Name : EDIMAX
Model Number : EW-7429HOA, GAP-429HOA, OAP900
Test Specification : FCC 47 CFR PART 15 SUBPART E
ANSI C63.10:2013
Receive Date : Feb. 22, 2016
Test Period : Feb. 26 ~ Apr. 28, 2016
Issue Date : Jun. 30, 2016

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jun. 30, 2016	Initial Issue	Snow Wang



Verification of Compliance

Issued Date: Jun. 30, 2016

Applicant : EDIMAX TECHNOLOGY CO., LTD.

Product Type : AC900 Outdoor AP

Trade Name : EDIMAX

Model Number : EW-7429HOA, GAP-429HOA, OAP900

FCC ID : NDD9574291601

EUT Rated Voltage : DC 48V, 1A

Test Voltage : 120 Vac / 60 Hz

Applicable Standard : FCC 47 CFR PART 15 SUBPART E
ANSI C63.10:2013

Test Result : Complied

Performing Lab. : A Test Lab Techno Corp.

No. 140-1, Changan Street, Bade District,

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Taiwan Accreditation Foundation accreditation number: 1330

<http://www.atl-lab.com.tw/e-index.htm>

A Test Lab Techno Corp. 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 A Test Lab Techno Corp. 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.

Approved By :

Fly Lu

(Manager)

(Fly Lu)

Reviewed By :

Eric Ou Yang

(Testing Engineer)

(Eric Ou Yang)

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1 General Information

1.1. Summary of Test Result

Standard	Item	Result	Remark
FCC			
15.407(b)(6) 15.207	AC Power Conducted Emission	PASS	---
15.407(b) 15.205 / 15.209	Transmitter Radiated Emissions	PASS	---
15.407(a)	Maximum Conducted Output Power and e.i.r.p.	PASS	Note
15.407(a)	26dB RF Bandwidth	Reference	---
15.407(e)	6dB RF Bandwidth	PASS	-----
15.407(a)	Peak Power Spectral Density	PASS	---
15.407(g)	Frequency Stability	PASS	---
15.407(a) 15.203	Antenna Requirement	PASS	---

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

Note : maximum e.i.r.p at any elevation angle above 30 degrees.

1.2. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conducted Emission	9kHz ~ 150KHz	2.7 dB
	150kHz ~ 30MHz	2.8 dB
Radiated Emission	9kHz ~ 30MHz	1.457 dB
	30MHz ~ 1000MHz	6.300 dB
	1000MHz ~ 18000MHz	5.474 dB
	18000MHz ~ 26500MHz	5.630 dB
	26500MHz ~ 40000MHz	5.054 dB
Conducted Output Power		+0.27 dB / -0.28 dB
RF Bandwidth		4.96%
Power Spectral Density		+0.71 dB / -0.77 dB
Frequency Stability		+ 2.212 x 10 ⁻⁷ / - 2.170 x 10 ⁻⁷
Duty Cycle		1.06%
Time Occupancy		1.40%



2 EUT Description

Applicant	EDIMAX TECHNOLOGY CO., LTD. No.3, Wu-Chuan 3rd Road, Wu-Gu, New Taipei City 24891, Taiwan			
Manufacturer	EDIMAX TECHNOLOGY CO., LTD. No.3, Wu-Chuan 3rd Road, Wu-Gu, New Taipei City 24891, Taiwan			
Product Type	AC900 Outdoor AP			
Trade Name	EDIMAX			
Model No.	EW-7429HOA, GAP-429HOA, OAP900			
Model Number Different Description	Those model numbers differ from each other in selling region.			
FCC ID	NDD9574291601			
Operate Frequency	Frequency Band		Frequency Range (MHz)	Number of Channels
	IEEE 802.11a	U-NII Band I	5180 – 5240	4
		U-NII Band III	5745 – 5825	5
	IEEE 802.11n 20 MHz / IEEE 802.11ac 20 MHz	U-NII Band I	5180 – 5240	4
		U-NII Band III	5745 – 5825	5
	IEEE 802.11n 40 MHz / IEEE 802.11ac 40 MHz	U-NII Band I	5190 – 5230	2
		U-NII Band III	5755 – 5795	2
	IEEE 802.11ac 80 MHz	U-NII Band I	5210	1
U-NII Band III		5775	1	
Modulation Type	OFDM			
Equipment Type	Outdoor access point have (master / client) function			
Antenna information	Antenna	Model	Type	Max. Gain (dBi)
	Internal	C059-690332-A	PCB Antenna (I-PEX Connector)	13.9
	External	C059-690332-FOD	PCB Antenna (Reversed-SMA Connector)	12.9
Antenna Delivery	IEEE 802.11a : 1TX + 1RX IEEE 802.11ac 20 MHz / 40 MHz / 80 MHz : 2TX + 2RX			
Frequency stability specification	± 20 ppm			
Component List				
Power adapter	Trade Name	DVE	Model Number	DSA-48PFA-48 2 480100
	I/P: 100-240VAC, 50/60Hz, 1.2A			
	O/P: +48VDC, 1A			
	Cable in: Non-Shielded, 1.4m, Detachable at Power Adapter			
	Cable out: Non-Shielded, 1.4m, Non-Detachable at Power Adapter			
PoE adapter	Trade Name	EDIMAX	Model Number	PE-1000IPF
	I/P: 100-240VAC, 50-60Hz, 0.75A O/P: 48VDC, 1A			



Frequency Band		RF Output Power (W)
IEEE 802.11a	U-NII Band I	0.004
	U-NII Band III	0.083
IEEE 802.11ac 20 MHz	U-NII Band I	0.002
	U-NII Band III	0.042
IEEE 802.11ac 40 MHz	U-NII Band I	0.002
	U-NII Band III	0.044
IEEE 802.11ac 80 MHz	U-NII Band I	0.002
	U-NII Band III	0.054

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

Test Mode
Mode 1: Normal Operation Mode
Mode 2: IEEE 802.11a Link Mode
Mode 3: IEEE 802.11ac 20MHz Link Mode
Mode 4: IEEE 802.11ac 40MHz Link Mode
Mode 5: IEEE 802.11ac 80MHz Link Mode

Software used to control the EUT for staying in continuous transmitting mode was programmed.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

Note: 1.The EUT has two antenna options for internal and external. The EUT is via software control choosing internal or external antenna for transmission. (Every time only one antenna is available.)

2. Because the master and the client's power setting are the same, there is only one data to perform.

Equipment Type	
Outdoor access point	V
Indoor access point	---
Fixed point-to-point access points	---
Client devices	V

Test Mode	ANT-0	ANT-1	ANT-0+1
Mode 2	V	---	---
Mode 3	V	V	V
Mode 4	V	V	V
Mode 5	V	V	V

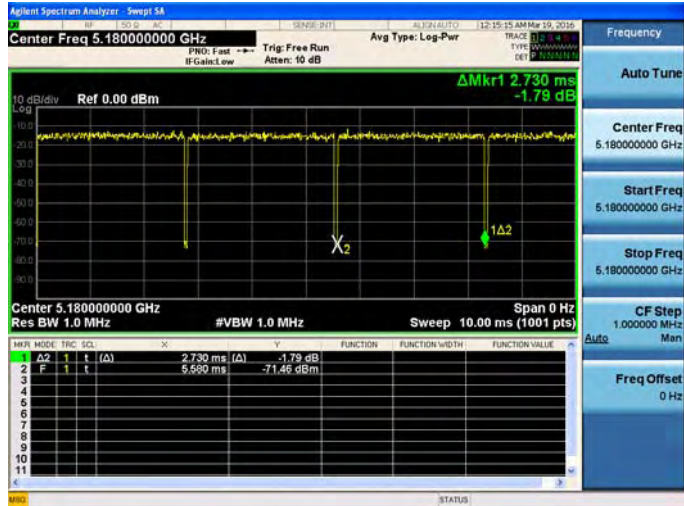
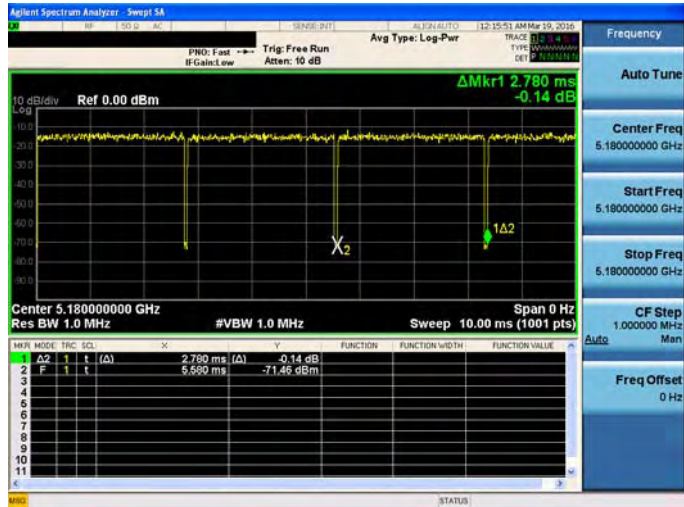
Test Mode	Band	Data Rate	Test Channel
Mode 2	U-NII Band I	6M	36, 40, 44, 48
	U-NII Band III		149,153,157,161,165
Mode 3	U-NII Band I	13M	36, 40, 44, 48
	U-NII Band III		149,153,157,161,165
Mode 4	U-NII Band I	27M	38, 46
	U-NII Band III		151,159
Mode 5	U-NII Band I	58.6M	42
	U-NII Band III		155

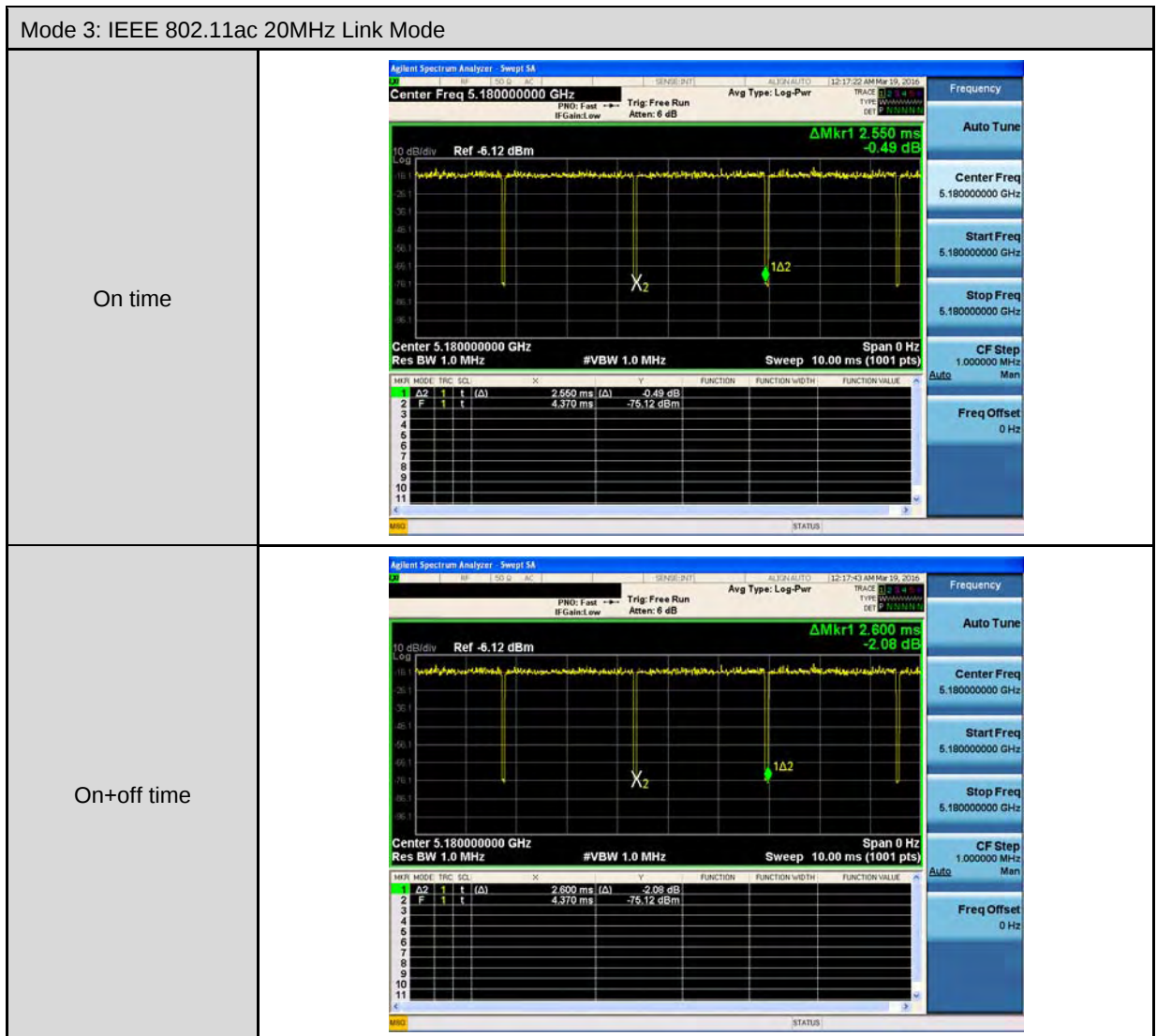


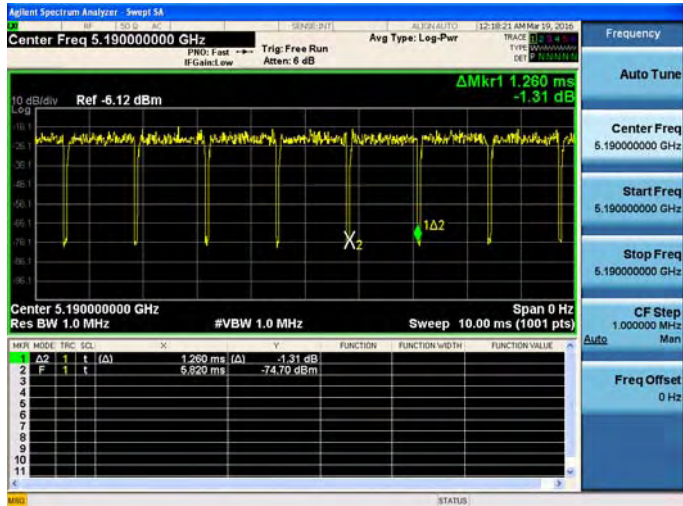
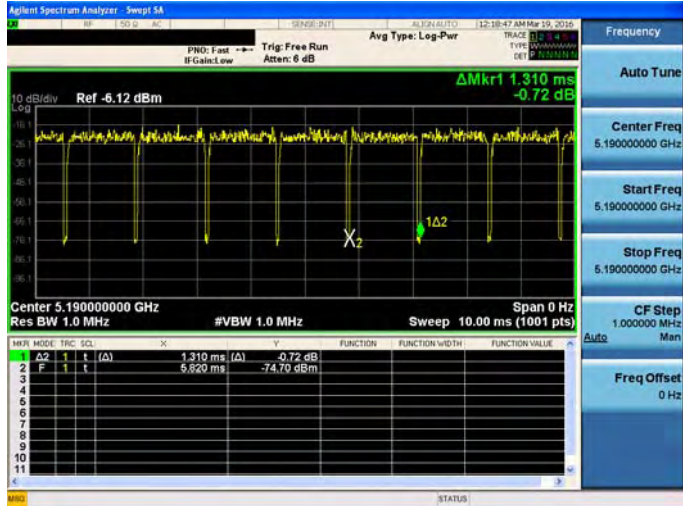
Duty cycle

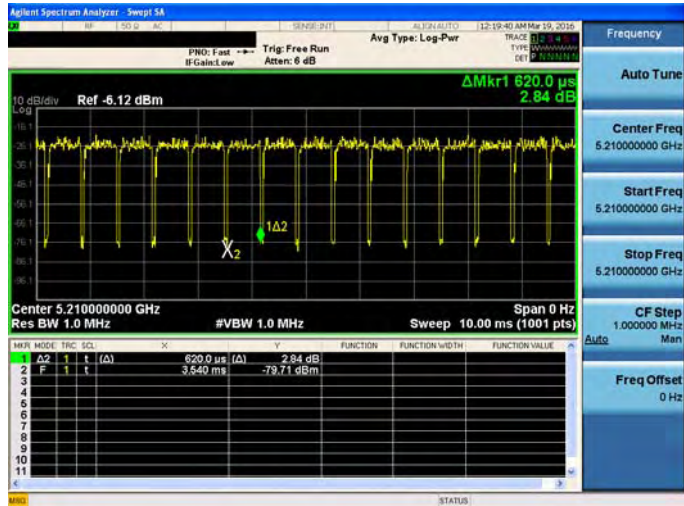
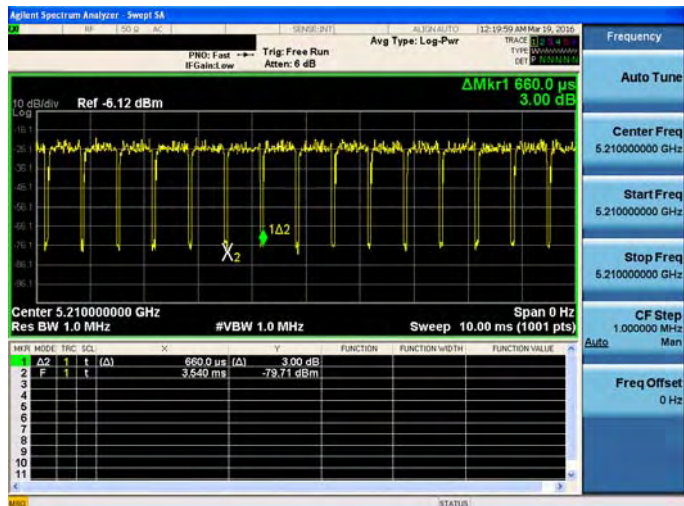
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2: IEEE 802.11a Link Mode	5180.0	2.730	2.780	0.982	0.079	0.010
Mode 3: IEEE 802.11ac 20MHz Link Mode	5180.0	2.550	2.600	0.981	0.084	0.010
Mode 4: IEEE 802.11ac 40MHz Link Mode	5190.0	1.260	1.310	0.962	0.169	0.794
Mode 5: IEEE 802.11ac 80MHz Link Mode	5210.0	0.620	0.660	0.939	0.272	1.613

Duty Cycle Graphs

Mode 2: IEEE 802.11a Link Mode	
On time	
On+off time	



Mode 4: IEEE 802.11ac 40MHz Link Mode																												
On time	 <table><thead><tr><th>MARK</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>Δ2</td><td>t</td><td>(Δ)</td><td>1.260 ms</td><td>(Δ)</td><td>-1.31 dB</td><td></td><td></td></tr><tr><td>2</td><td>F</td><td>t</td><td></td><td>5.820 ms</td><td></td><td>-74.70 dBm</td><td></td><td></td></tr></tbody></table>	MARK	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ2	t	(Δ)	1.260 ms	(Δ)	-1.31 dB			2	F	t		5.820 ms		-74.70 dBm		
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On+off time	 <table><thead><tr><th>MARK</th><th>MODE</th><th>TRC</th><th>SOL</th><th>X</th><th>Y</th><th>FUNCTION</th><th>FUNCTION WIDTH</th><th>FUNCTION VALUE</th></tr></thead><tbody><tr><td>1</td><td>Δ2</td><td>t</td><td>(Δ)</td><td>1.310 ms</td><td>(Δ)</td><td>-0.72 dB</td><td></td><td></td></tr><tr><td>2</td><td>F</td><td>t</td><td></td><td>5.820 ms</td><td></td><td>-74.70 dBm</td><td></td><td></td></tr></tbody></table>	MARK	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE	1	Δ2	t	(Δ)	1.310 ms	(Δ)	-0.72 dB			2	F	t		5.820 ms		-74.70 dBm		
MARK	MODE	TRC	SOL	X	Y	FUNCTION	FUNCTION WIDTH	FUNCTION VALUE																				
1	Δ2	t	(Δ)	1.310 ms	(Δ)	-0.72 dB																						
2	F	t		5.820 ms		-74.70 dBm																						

Mode 5: IEEE 802.11ac 80MHz Link Mode	
On time	
On+off time	

3.2. EUT Exercise Software

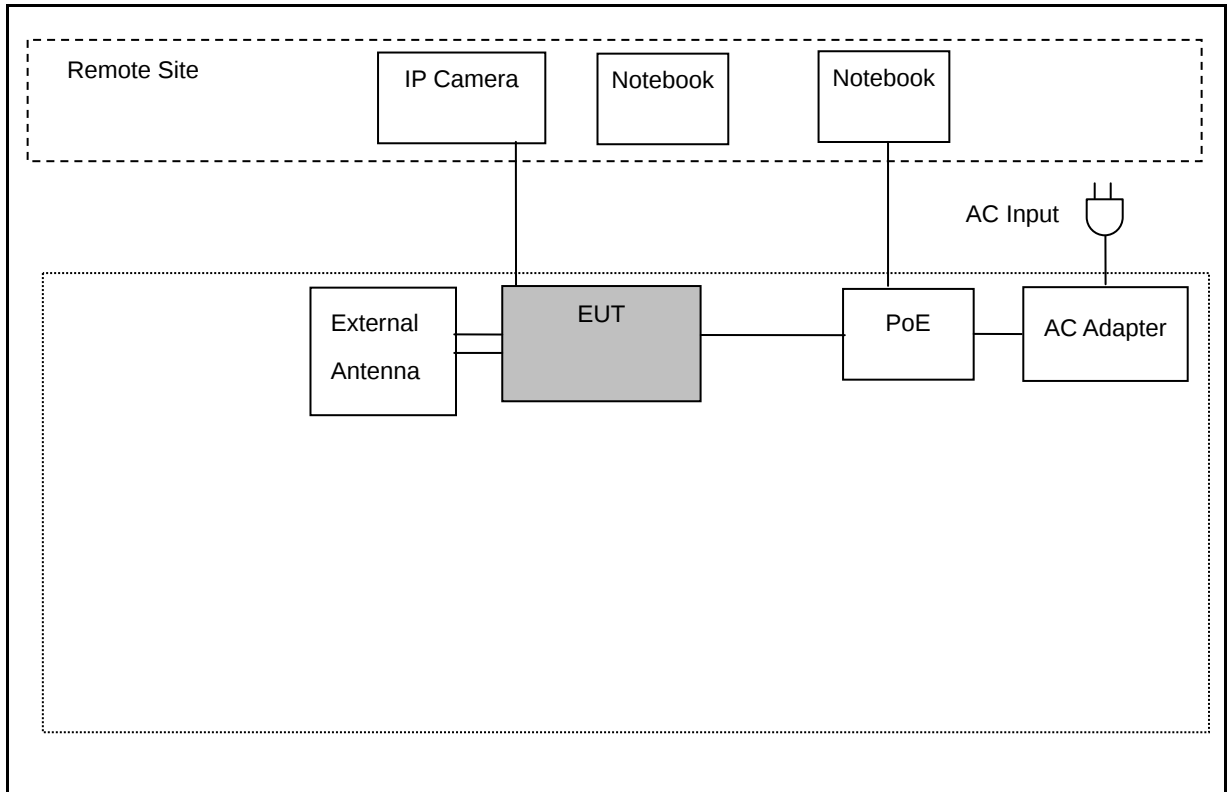
The EUT is operated in the engineering mode to fix the TX frequency for the purposes of measurement. According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

1.	Setup the EUT shown on 3.3.
2.	Turn on the power of all equipment.
3.	EUT run test program.

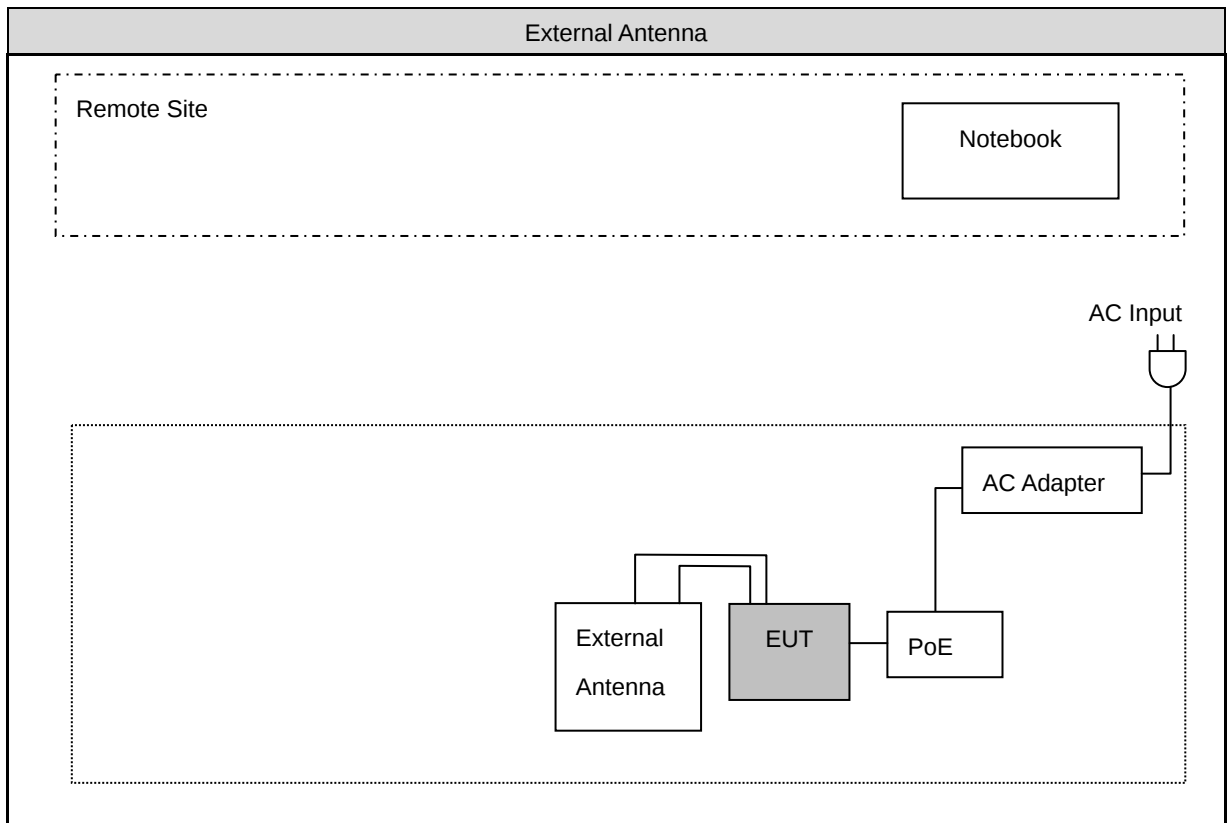
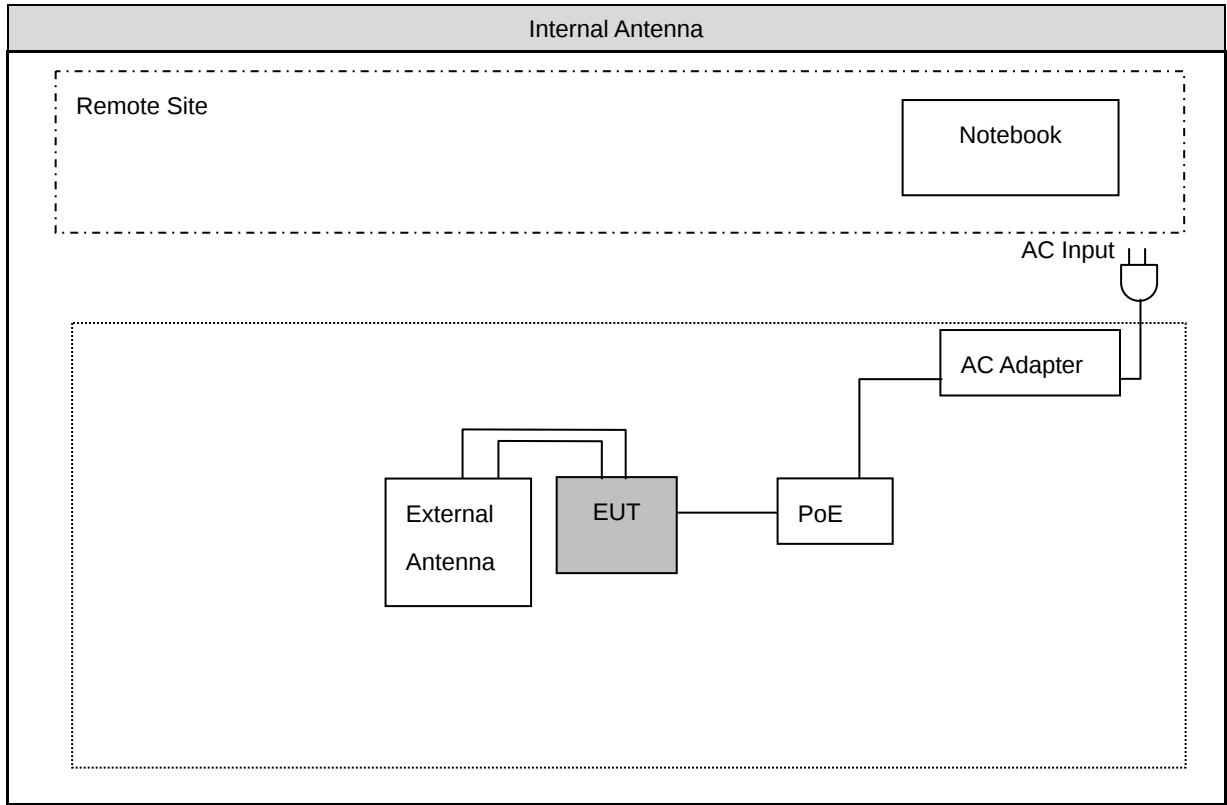
Measurement Software	
1	EZ-EMC Ver. ATL-03A1-1
2	EZ-EMC Ver ATL-ITC-3A1-1

3.3. Configuration of Test System Details

Conducted Emission



Radiated Emission





3.4. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

4 Test Results

4.1. AC Power Conducted Emission Measurement

■ Limit

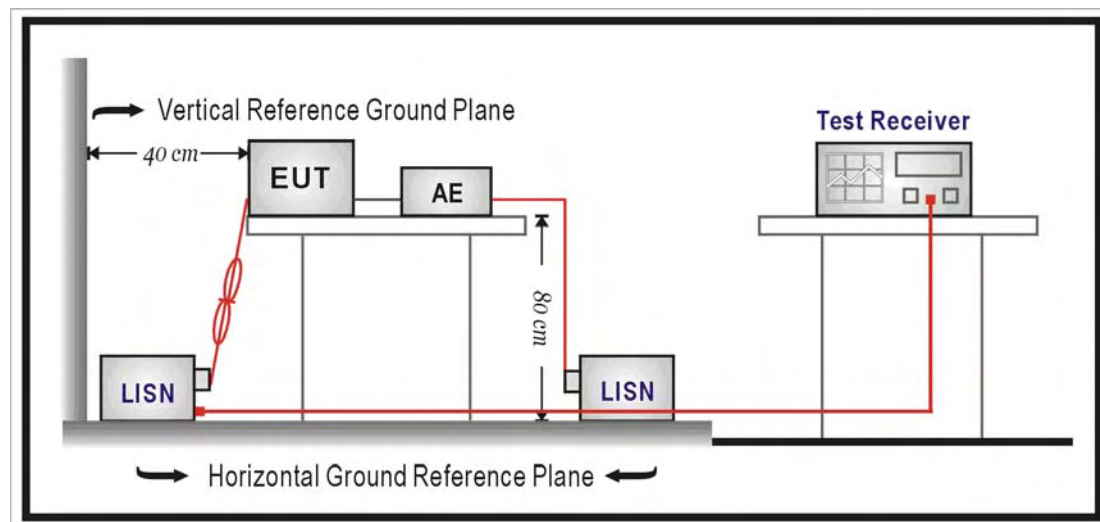
Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

■ Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/25/2015	1 year
LISN	R&S	ENV216	101040	03/10/2015	1 year
LISN	R&S	ENV216	101041	03/06/2015	1 year
RF Cable	Woken	00100D1380194M	TE-02-02	06/26/2015	1 year
Test Site	ATL	TE02	TE02	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Setup



4.2. Test Procedure

The EUT and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a $50\Omega//50\mu\text{H}$ coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a $50\Omega//50\mu\text{H}$ coupling impedance with 50ohm termination.

Tabletop device shall be placed on a non-conducting platform, of nominal size 1 m by 1.5 m, raised 80 cm above the reference ground plane. The wall of screened room shall be located 40cm to the rear of the EUT. Other surfaces of tabletop or floor standing EUT shall be at least 80cm from any other ground conducting surface including one or more LISNs. For floor-standing device shall be placed under the EUT with a 12mm insulating material.

Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average detector and quasi-peak detector measured in accordance with the methods described of related standard. When all of peak value were complied with quasi-peak and average limit from 150kHz to 30MHz then quasi-peak and average measurement was unnecessary.

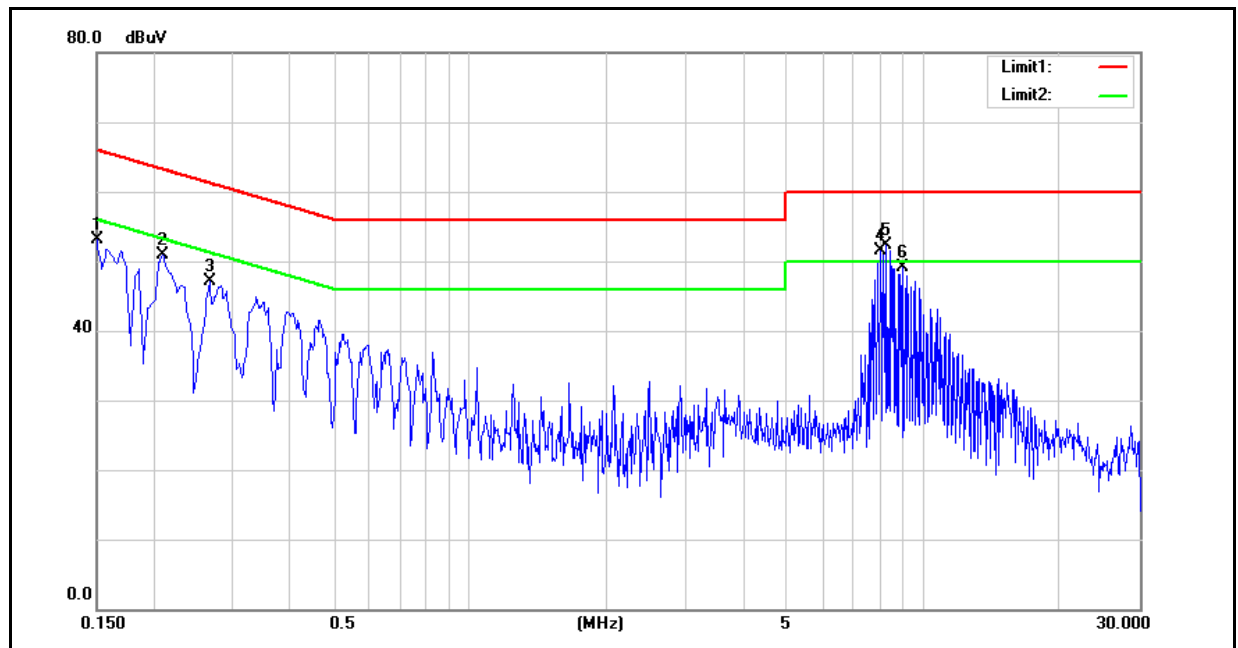
The AMN shall be placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for AMNs mounted on top of the ground reference plane. This distance is between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment shall be at least 0,8 m from the AMN. If the mains power cable is longer than 1m then the cable shall be folded back and forth at the centre of the lead to form a bundle no longer than 0.4m. All of interconnecting cables that hang closer than 40cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long. All of EUT and AE shall be separate place more than 0.1m. All 50 Ω ports of the LISN shall be resistively terminated into 50 Ω loads when not connected to the measuring instrument.

If the reading of the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 s at each measurement frequency; the higher reading shall be recorded with the exception of any brief isolated high reading which shall be ignored.



Test Result

Standard:	FCC Part 15E	Line:	L1
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	Mode 1	Date:	02/26/2016
		Test By:	Eric Ou Yang
Description:			

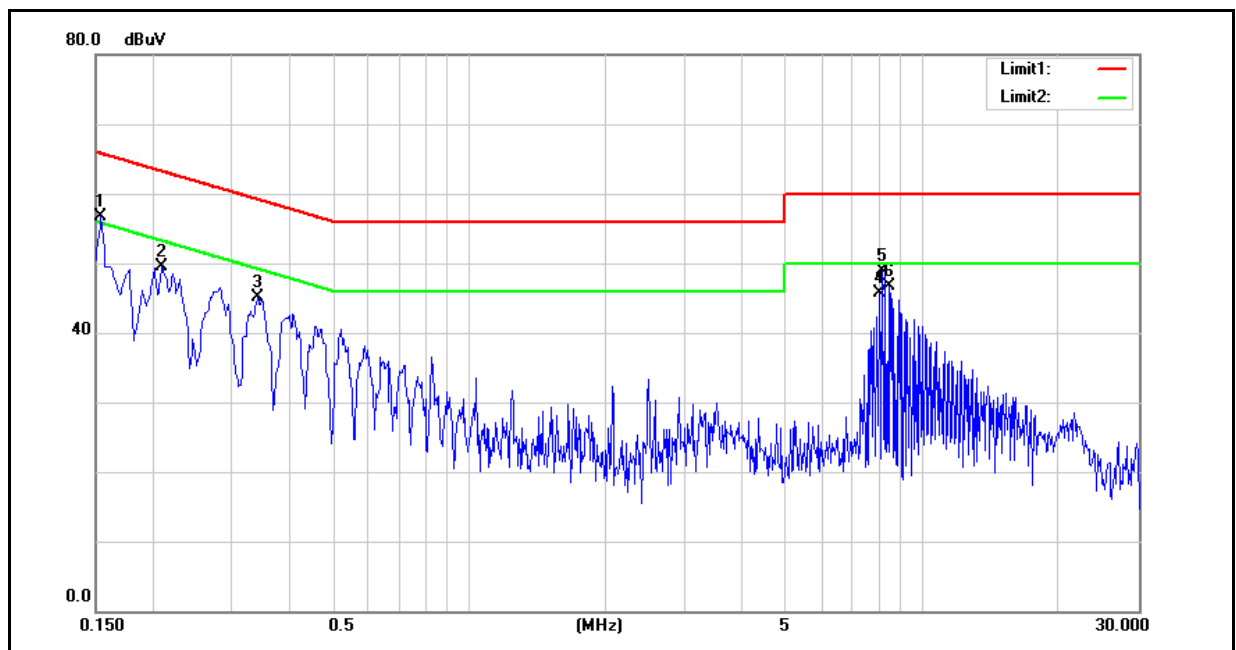


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1500	43.82	33.92	9.69	53.51	43.61	66.00	56.00	-12.49	-12.39	Pass
2	0.2100	36.42	29.75	9.68	46.10	39.43	63.21	53.21	-17.11	-13.78	Pass
3	0.2660	31.73	24.45	9.69	41.42	34.14	61.24	51.24	-19.82	-17.10	Pass
4	7.9380	34.70	30.29	9.93	44.63	40.22	60.00	50.00	-15.37	-9.78	Pass
5	8.3020	41.28	38.59	9.94	51.22	48.53	60.00	50.00	-8.78	-1.47	Pass
6	9.0340	37.73	36.54	9.96	47.69	46.50	60.00	50.00	-12.31	-3.50	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

Standard:	FCC Part 15E	Line:	N
Test item:	Conducted Emission	Power:	AC 120V/60Hz
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	Mode 1	Date:	02/26/2016
		Test By:	Eric Ou Yang
Description:			



No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1540	42.49	30.52	9.66	52.15	40.18	65.78	55.78	-13.63	-15.60	Pass
2	0.2100	36.21	29.38	9.65	45.86	39.03	63.21	53.21	-17.35	-14.18	Pass
3	0.3420	33.06	25.94	9.66	42.72	35.60	59.15	49.15	-16.43	-13.55	Pass
4	7.9380	36.45	32.51	9.92	46.37	42.43	60.00	50.00	-13.63	-7.57	Pass
5	8.1820	40.45	36.98	9.93	50.38	46.91	60.00	50.00	-9.62	-3.09	Pass
6	8.5460	34.85	32.58	9.94	44.79	42.52	60.00	50.00	-15.21	-7.48	Pass

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

4.3. Transmitter Radiated Emissions Measurement

■ Limit

(1)Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(a)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 e.i.r.p. of -27 dBm/MHz.

(b)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 e.i.r.p. of -27 dBm/MHz.

(c)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 e.i.r.p. of -27 dBm/MHz.

(d)For transmitters operating in the 5.725-5.85 GHz band:

(i)All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(2)Limits of Radiated Emission Measurement

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequency Range (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	10	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note: 1. The lower limit shall apply at the transition frequencies.

2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

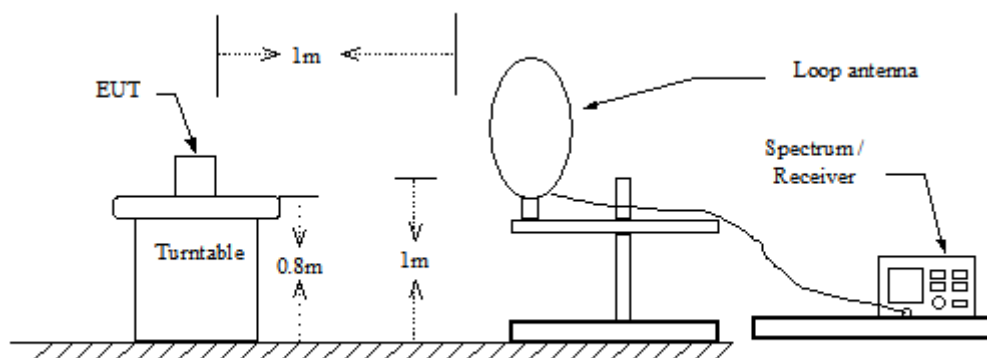
Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/08/2016	1 year
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/08/2016	1 year
Pre Amplifier	Agilent	8449B	3008A02237	10/07/2015	1 year
Pre Amplifier	Agilent	8447D	2944A11119	01/11/2016	1 year
Broadband Antenna	Schwarzbeck	VULB9168	416	09/25/2015	1 year
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/12/2015	1 year
Horn Antenna (18~40GHz)	ETS	3116	86467	09/01/2015	1 year
Microwave Cable	EMCI	EMC102-KM-KM- 14000	151001	10/15/2015	1 year
Microwave Cable	EMCI	EMC-104-SM-SM- 14000	140202	10/15/2015	1 year
Microwave Cable	EMCI	EMC104-SM-SM- 600	140301	10/15/2015	1 year
Test Site	ATL	TE01	888001	08/27/2015	1 year

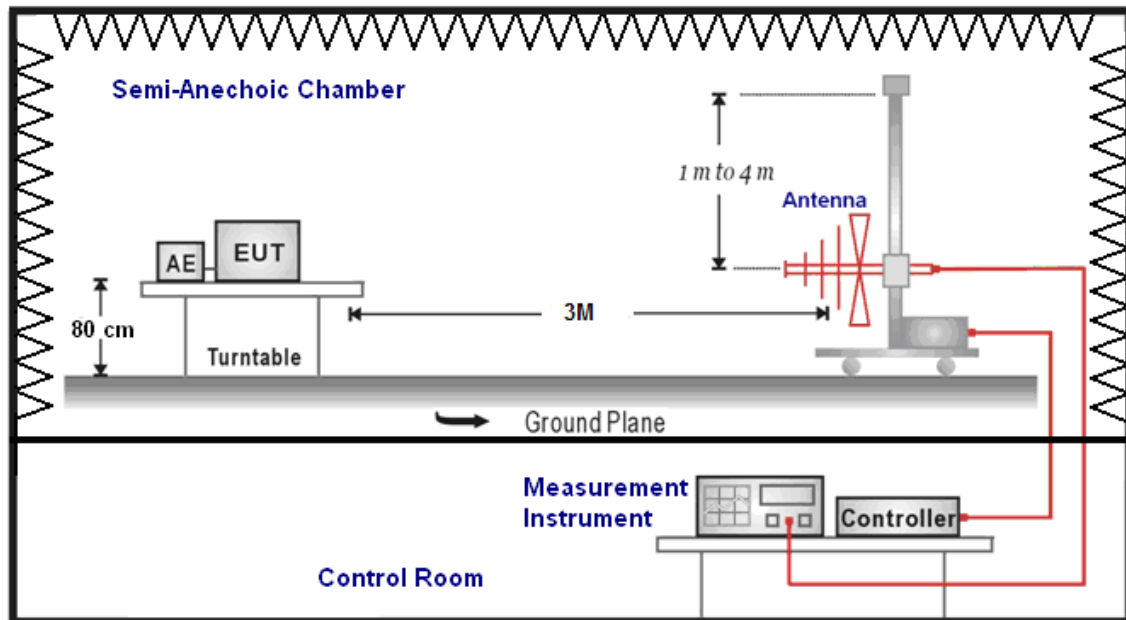
Note: N.C.R. = No Calibration Request.

Setup

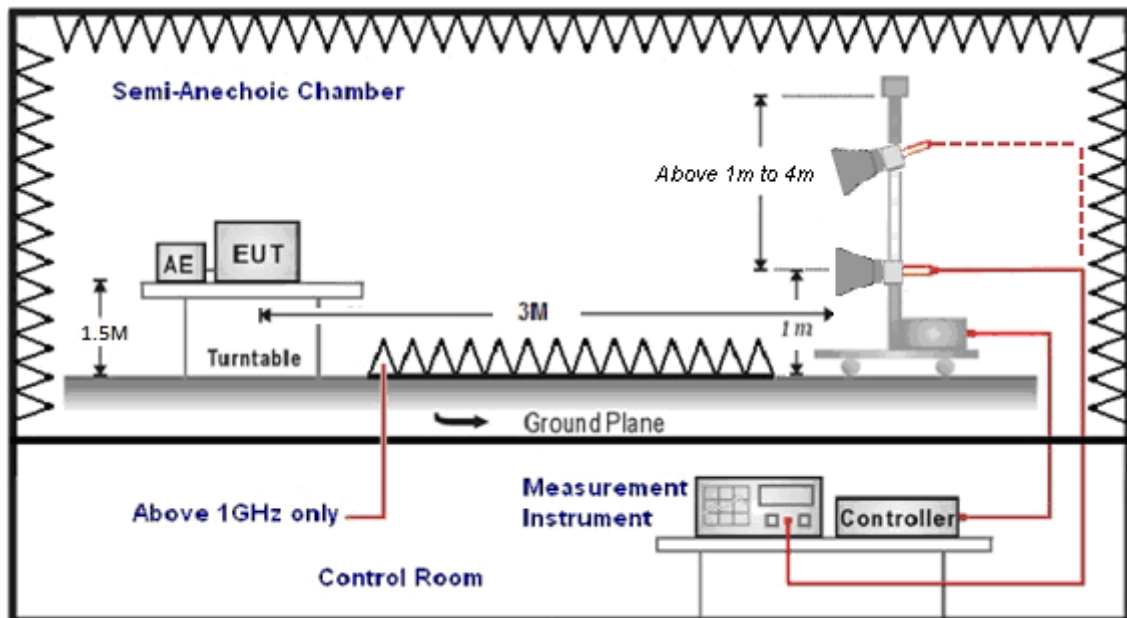
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1GHz



■ Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 or 1.5 meters height (below 1GHz use 0.8m turntable / above 1GHz use 1.5m turntable), top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 9 kHz to 40 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For restricted measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements and 10 Hz for average measurements when Duty cycle > 0.98 / 1/T for average measurements when Duty cycle < 0.98.

For out of band measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 3 MHz for peak measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Trilog-Broadband Antenna at 3 Meter and the ETS-Lindgren Double-Ridged Waveguide Horn antenna Schwarzbeck Mess-Elektronik Broadband Horn Antenna was used in frequencies 1 – 40 GHz at a distance of 3 meter. The antenna at an angle toward the source of the emission. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

$$(1) \text{ Amplitude (dBuV/m) = FI (dBuV) + AF (dBuV) + CL (dBuV) - Gain (dB)}$$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

$$(2) \text{ Actual Amplitude (dBuV/m) = Amplitude (dBuV) - Dis(dB)}$$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

Measuring Instruments and setting

The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000MHz
Stop Frequency	40GHz
RBW/VBW(Emission in restricted band)	1MHz / 3MHz for Peak 1MHz / (1/T) for Average
RBW/VBW(Emission in non-restricted band)	1MHz / 3MHz for Peak



■ Test Result

Below 1GHz

Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 1			Date:	03/27/2016		
Description:				Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
311.3000	31.58	-3.73	27.85	46.00	-18.15	QP	H
432.5500	27.23	-1.11	26.12	46.00	-19.88	QP	H
522.7600	29.54	0.71	30.25	46.00	-15.75	QP	H
662.4400	27.74	3.67	31.41	46.00	-14.59	QP	H
781.7500	28.40	6.18	34.58	46.00	-11.42	QP	H
850.6200	26.75	7.22	33.97	46.00	-12.03	QP	H
271.5300	26.56	-5.03	21.53	46.00	-24.47	QP	V
402.4800	27.44	-1.97	25.47	46.00	-20.53	QP	V
475.2300	27.58	-0.11	27.47	46.00	-18.53	QP	V
654.6800	27.92	3.54	31.46	46.00	-14.54	QP	V
773.0200	27.02	6.06	33.08	46.00	-12.92	QP	V
837.0400	28.48	7.01	35.49	46.00	-10.51	QP	V

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

2. Result = Correction factor + Reading

3. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 1			Date:	04/28/2016		
Description:				Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
225.0000	28.94	-7.28	21.66	46.00	-24.34	QP	H
374.0000	27.82	-2.21	25.61	46.00	-20.39	QP	H
517.0000	30.32	0.98	31.30	46.00	-14.70	QP	H
666.5000	26.85	4.15	31.00	46.00	-15.00	QP	H
808.0000	26.63	6.82	33.45	46.00	-12.55	QP	H
956.5000	24.59	9.68	34.27	46.00	-11.73	QP	H
250.0000	25.70	-5.28	20.42	46.00	-25.58	QP	V
380.5000	25.10	-2.09	23.01	46.00	-22.99	QP	V
490.0000	28.02	0.56	28.58	46.00	-17.42	QP	V
640.5000	27.22	3.72	30.94	46.00	-15.06	QP	V
839.5000	25.39	7.38	32.77	46.00	-13.23	QP	V
878.0000	26.43	8.14	34.57	46.00	-11.43	QP	V

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

2. Result = Correction factor + Reading

3. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Above 1GHz

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5180MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	45.41	4.92	50.33	68.20	-17.87	peak	H
10360.000	50.44	4.92	55.36	68.20	-12.84	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5200MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	46.43	5.04	51.47	68.20	-16.73	peak	H
10400.000	49.76	5.04	54.80	68.20	-13.40	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5240MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	43.38	5.24	48.62	68.20	-19.58	peak	H
10480.000	48.69	5.24	53.93	68.20	-14.27	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5745MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	44.72	6.40	51.12	74.00	-22.88	peak	H
11490.000	60.93	6.40	67.33	74.00	-6.67	peak	V
11490.000	46.55	6.40	52.95	54.00	-1.05	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5785MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	44.82	6.30	51.12	74.00	-22.88	peak	H
11570.000	61.73	6.30	68.03	74.00	-5.97	peak	V
11570.000	46.77	6.30	53.07	54.00	-0.93	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	03/24/2016				
Frequency:	5825MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	44.70	6.20	50.90	74.00	-23.10	peak	H
11650.000	62.06	6.20	68.26	74.00	-5.74	peak	V
11650.000	46.77	6.20	52.97	54.00	-1.03	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5180MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	43.63	4.92	48.55	68.20	-19.65	peak	H
10360.000	46.34	4.92	51.26	68.20	-16.94	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5200MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	44.05	5.04	49.09	68.20	-19.11	peak	H
10400.000	46.38	5.04	51.42	68.20	-16.78	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5240MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	44.17	5.24	49.41	68.20	-18.79	peak	H
10480.000	43.85	5.24	49.09	68.20	-19.11	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5745MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	44.32	6.40	50.72	74.00	-23.28	peak	H
11490.000	60.42	6.40	66.82	74.00	-7.18	peak	V
11490.000	46.35	6.40	52.75	54.00	-1.25	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5785MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	44.89	6.30	51.19	74.00	-22.81	peak	H
11570.000	62.04	6.30	68.34	74.00	-5.66	peak	V
11570.000	46.91	6.30	53.21	54.00	-0.79	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	03/24/2016				
Frequency:	5825MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	45.26	6.20	51.46	74.00	-22.54	peak	H
11650.000	61.90	6.20	68.10	74.00	-5.90	peak	V
11650.000	46.76	6.20	52.96	54.00	-1.04	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 4	Date:	03/24/2016				
Frequency:	5190MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10380.000	44.59	4.99	49.58	68.20	-18.62	peak	H
10380.000	44.25	4.99	49.24	68.20	-18.96	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 4	Date:	03/24/2016				
Frequency:	5230MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10460.000	42.55	5.19	47.74	68.20	-20.46	peak	H
10460.000	43.54	5.19	48.73	68.20	-19.47	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 4	Date:	03/24/2016				
Frequency:	5755MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11510.000	43.25	6.38	49.63	74.00	-24.37	peak	H
11510.000	60.65	6.38	67.03	74.00	-6.97	peak	V
11510.000	46.70	6.38	53.08	54.00	-0.92	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 4	Date:	03/24/2016				
Frequency:	5795MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11590.000	44.12	6.28	50.40	74.00	-23.60	peak	H
11590.000	61.35	6.28	67.63	74.00	-6.37	peak	V
11590.000	46.83	6.28	53.11	54.00	-0.89	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 5	Date:	03/24/2016				
Frequency:	5210MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10420.000	43.25	5.08	48.33	68.20	-19.87	peak	H
10420.000	44.50	5.08	49.58	68.20	-18.62	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 5	Date:	03/24/2016				
Frequency:	5775MHz	Test By:	Eric Ou Yang				
Description:							
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11550.000	43.12	6.33	49.45	74.00	-24.55	peak	H
11550.000	58.99	6.33	65.32	74.00	-8.68	peak	V
11550.000	46.68	6.33	53.01	54.00	-0.99	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5180MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	47.74	5.21	52.95	68.20	-15.25	peak	H
10360.000	48.17	5.21	53.38	68.20	-14.82	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5200MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	46.25	5.33	51.58	68.20	-16.62	peak	H
10400.000	47.96	5.33	53.29	68.20	-14.91	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5240MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	46.35	5.55	51.90	68.20	-16.30	peak	H
10480.000	47.01	5.55	52.56	68.20	-15.64	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5745MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	51.63	6.44	58.07	74.00	-15.93	peak	H
11490.000	39.94	6.44	46.38	54.00	-7.62	AVG	H
11490.000	56.99	6.44	63.43	74.00	-10.57	peak	V
11490.000	42.75	6.44	49.19	54.00	-4.81	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5785MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	51.19	6.63	57.82	74.00	-16.18	peak	H
11570.000	40.84	6.63	47.47	54.00	-6.53	AVG	H
11570.000	56.61	6.63	63.24	74.00	-10.76	peak	V
11570.000	43.05	6.63	49.68	54.00	-4.32	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 2	Date:	04/28/2016				
Frequency:	5825MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	44.98	6.85	51.83	74.00	-22.17	peak	H
11650.000	53.75	6.85	60.60	74.00	-13.40	peak	V
11650.000	43.16	6.85	50.01	54.00	-3.99	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5180MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	46.07	5.21	51.28	68.20	-16.92	peak	H
10360.000	48.75	5.21	53.96	68.20	-14.24	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5200MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	47.71	5.33	53.04	68.20	-15.16	peak	H
10400.000	46.36	5.33	51.69	68.20	-16.51	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5240MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	46.29	5.55	51.84	68.20	-16.36	peak	H
10480.000	45.35	5.55	50.90	68.20	-17.30	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5745MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	45.04	6.44	51.48	74.00	-22.52	peak	H
11490.000	52.51	6.44	58.95	74.00	-15.05	peak	V
11490.000	42.20	6.44	48.64	54.00	-5.36	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5785MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	45.33	6.63	51.96	74.00	-22.04	peak	H
11570.000	53.43	6.63	60.06	74.00	-13.94	peak	V
11570.000	41.65	6.63	48.28	54.00	-5.72	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 3	Date:	04/28/2016				
Frequency:	5825MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	44.53	6.85	51.38	74.00	-22.62	peak	H
11650.000	52.21	6.85	59.06	74.00	-14.94	peak	V
11650.000	41.39	6.85	48.24	54.00	-5.76	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 4	Date:	04/28/2016				
Frequency:	5190MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10380.000	46.17	5.27	51.44	68.20	-16.76	peak	H
10380.000	46.51	5.27	51.78	68.20	-16.42	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 4	Date:	04/28/2016				
Frequency:	5230MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10460.000	47.07	5.50	52.57	68.20	-15.63	peak	H
10460.000	47.26	5.50	52.76	68.20	-15.44	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 4	Date:	04/28/2016				
Frequency:	5755MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11510.000	44.80	6.47	51.27	74.00	-22.73	peak	H
11510.000	53.29	6.47	59.76	74.00	-14.24	peak	V
11510.000	41.05	6.47	47.52	54.00	-6.48	AVG	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 4	Date:	04/28/2016				
Frequency:	5795MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11590.000	45.23	6.69	51.92	74.00	-22.08	peak	H
11590.000	44.75	6.69	51.44	74.00	-22.56	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 5	Date:	04/28/2016				
Frequency:	5210MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10420.000	46.92	5.37	52.29	68.20	-15.91	peak	H
10420.000	47.39	5.37	52.76	68.20	-15.44	peak	V

Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH				
Test Mode:	Mode 5	Date:	03/24/2016				
Frequency:	5775MHz	Test By:	Eric Ou Yang				
Description:							
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11550.000	43.97	6.58	50.55	74.00	-23.45	peak	H
11550.000	44.79	6.58	51.37	74.00	-22.63	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Band Edge

Standard:		FCC Part 15E		Test Distance:		3m	
Test item:		Radiated Emission		Power:		AC 120V/60Hz	
Model Number:		EW-7429HOA		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Test Mode:		Mode 2		Date:		03/12/2016	
Frequency:		5180 MHz		Test By:		Eric Ou Yang	
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5146.100	49.81	8.25	58.06	74.00	-15.94	peak	H
5146.100	40.11	8.25	48.36	54.00	-5.64	AVG	H
5150.000	50.11	8.25	58.36	74.00	-15.64	peak	H
5150.000	42.06	8.25	50.31	54.00	-3.69	AVG	H
5147.500	59.09	8.25	67.34	74.00	-6.66	peak	V
5147.500	42.80	8.25	51.05	54.00	-2.95	AVG	V
5150.000	58.91	8.25	67.16	74.00	-6.84	peak	V
5150.000	44.58	8.25	52.83	54.00	-1.17	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	03/12/2016		
Frequency:	5200 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5145.120	47.97	8.25	56.22	74.00	-17.78	peak	H
5145.120	39.68	8.25	47.93	54.00	-6.07	AVG	H
5150.000	49.96	8.25	58.21	74.00	-15.79	peak	H
5150.000	42.22	8.25	50.47	54.00	-3.53	AVG	H
5350.000	41.90	8.49	50.39	74.00	-23.61	peak	H
5409.120	44.53	8.56	53.09	74.00	-20.91	peak	H
5409.120	36.69	8.56	45.25	54.00	-8.75	AVG	H
5147.040	53.04	8.25	61.29	74.00	-12.71	peak	V
5147.040	42.97	8.25	51.22	54.00	-2.78	AVG	V
5150.000	54.13	8.25	62.38	74.00	-11.62	peak	V
5150.000	44.36	8.25	52.61	54.00	-1.39	AVG	V
5350.000	43.98	8.49	52.47	74.00	-21.53	peak	V
5350.000	36.07	8.49	44.56	54.00	-9.44	AVG	V
5415.840	47.18	8.56	55.74	74.00	-18.26	peak	V
5415.840	35.82	8.56	44.38	54.00	-9.62	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	03/12/2016		
Frequency:	5240 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	46.29	8.49	54.78	74.00	-19.22	peak	H
5350.000	37.17	8.49	45.66	54.00	-8.34	AVG	H
5393.120	50.77	8.54	59.31	74.00	-14.69	peak	H
5393.120	36.87	8.54	45.41	54.00	-8.59	AVG	H
5350.000	46.66	8.49	55.15	74.00	-18.85	peak	V
5350.000	36.70	8.49	45.19	54.00	-8.81	AVG	V
5405.440	48.83	8.55	57.38	74.00	-16.62	peak	V
5405.440	36.78	8.55	45.33	54.00	-8.67	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5745 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5633.600	46.33	8.97	55.30	68.20	-12.90	peak	H
5667.200	47.43	9.04	56.47	80.93	-24.46	peak	H
5719.400	61.21	9.17	70.38	110.63	-40.25	peak	H
5723.450	66.81	9.18	75.99	118.67	-42.68	peak	H
5627.150	47.67	8.96	56.63	68.20	-11.57	peak	V
5692.850	47.28	9.10	56.38	99.91	-43.53	peak	V
5716.550	60.66	9.16	69.82	109.83	-40.01	peak	V
5723.750	67.52	9.18	76.70	119.35	-42.65	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5785 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5607.600	51.56	8.91	60.47	68.20	-7.73	peak	H
5691.200	53.06	9.10	62.16	98.69	-36.53	peak	H
5706.800	56.54	9.14	65.68	107.10	-41.42	peak	H
5723.600	60.29	9.18	69.47	119.01	-49.54	peak	H
5850.000	57.50	9.46	66.96	122.20	-55.24	peak	H
5860.000	57.66	9.48	67.14	109.40	-42.26	peak	H
5879.200	52.90	9.53	62.43	102.09	-39.66	peak	H
5952.000	48.56	9.70	58.26	68.20	-9.94	peak	H
5600.400	52.22	8.89	61.11	68.20	-7.09	peak	V
5691.600	58.23	9.10	67.33	98.98	-31.65	peak	V
5717.200	58.61	9.16	67.77	110.02	-42.25	peak	V
5723.200	62.69	9.18	71.87	118.10	-46.23	peak	V
5854.000	57.61	9.48	67.09	113.08	-45.99	peak	V
5872.400	57.54	9.51	67.05	105.93	-38.88	peak	V
5892.800	53.63	9.56	63.19	92.03	-28.84	peak	V
5933.200	48.33	9.66	57.99	68.20	-10.21	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5825 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.420	60.28	9.46	69.74	121.24	-51.50	peak	H
5856.540	61.26	9.48	70.74	110.37	-39.63	peak	H
5880.480	46.23	9.53	55.76	101.14	-45.38	peak	H
5967.960	45.13	9.74	54.87	68.20	-13.33	peak	H
5850.780	64.19	9.46	73.65	120.42	-46.77	peak	V
5854.740	59.69	9.48	69.17	111.39	-42.22	peak	V
5879.400	47.26	9.53	56.79	101.94	-45.15	peak	V
5959.860	46.03	9.72	55.75	68.20	-12.45	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	03/11/2016		
Frequency:	5180 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5147.500	55.04	8.25	63.29	74.00	-10.71	peak	H
5147.500	43.53	8.25	51.78	54.00	-2.22	AVG	H
5150.000	54.66	8.25	62.91	74.00	-11.09	peak	H
5150.000	44.72	8.25	52.97	54.00	-1.03	AVG	H
5148.200	62.53	8.25	70.78	74.00	-3.22	peak	V
5148.200	43.17	8.25	51.42	54.00	-2.58	AVG	V
5150.000	62.89	8.25	71.14	74.00	-2.86	peak	V
5150.000	44.07	8.25	52.32	54.00	-1.68	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	03/11/2016		
Frequency:	5200 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5146.080	53.42	8.25	61.67	74.00	-12.33	peak	H
5146.080	42.12	8.25	50.37	54.00	-3.63	AVG	H
5150.000	53.89	8.25	62.14	74.00	-11.86	peak	H
5150.000	44.66	8.25	52.91	54.00	-1.09	AVG	H
5350.000	47.83	8.49	56.32	74.00	-17.68	peak	H
5350.000	36.15	8.49	44.64	54.00	-9.36	AVG	H
5368.800	49.72	8.51	58.23	74.00	-15.77	peak	H
5368.800	35.88	8.51	44.39	54.00	-9.61	AVG	H
5143.200	54.37	8.25	62.62	74.00	-11.38	peak	V
5143.200	42.84	8.25	51.09	54.00	-2.91	AVG	V
5150.000	57.87	8.25	66.12	74.00	-7.88	peak	V
5150.000	44.30	8.25	52.55	54.00	-1.45	AVG	V
5350.000	46.11	8.49	54.60	74.00	-19.40	peak	V
5350.000	35.80	8.49	44.29	54.00	-9.71	AVG	V
5392.800	48.40	8.54	56.94	74.00	-17.06	peak	V
5392.800	35.64	8.54	44.18	54.00	-9.82	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	03/11/2016		
Frequency:	5240 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	51.37	8.49	59.86	74.00	-14.14	peak	H
5350.000	41.77	8.49	50.26	54.00	-3.74	AVG	H
5351.540	51.56	8.49	60.05	74.00	-13.95	peak	H
5351.540	40.48	8.49	48.97	54.00	-5.03	AVG	H
5350.000	47.98	8.49	56.47	74.00	-17.53	peak	V
5350.000	39.73	8.49	48.22	54.00	-5.78	AVG	V
5363.200	50.18	8.51	58.69	74.00	-15.31	peak	V
5363.200	35.12	8.51	43.63	54.00	-10.37	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	04/26/2016		
Frequency:	5745 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5623.250	47.57	8.94	56.51	68.20	-11.69	peak	H
5697.950	46.99	9.12	56.11	103.68	-47.57	peak	H
5720.150	56.36	9.17	65.53	111.14	-45.61	peak	H
5723.750	67.37	9.18	76.55	119.35	-42.80	peak	H
5607.200	48.04	8.91	56.95	68.20	-11.25	peak	V
5699.900	46.98	9.12	56.10	105.13	-49.03	peak	V
5720.300	60.86	9.18	70.04	111.48	-41.44	peak	V
5724.350	67.79	9.18	76.97	120.72	-43.75	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	04/26/2016		
Frequency:	5785 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5618.800	52.38	8.94	61.32	68.20	-6.88	peak	H
5689.600	51.11	9.10	60.21	97.50	-37.29	peak	H
5714.400	57.48	9.16	66.64	109.23	-42.59	peak	H
5723.600	57.90	9.18	67.08	119.01	-51.93	peak	H
5850.400	58.33	9.46	67.79	121.29	-53.50	peak	H
5856.800	57.87	9.48	67.35	110.30	-42.95	peak	H
5880.400	53.03	9.53	62.56	101.20	-38.64	peak	H
5949.200	47.68	9.70	57.38	68.20	-10.82	peak	H
5620.400	50.07	8.94	59.01	68.20	-9.19	peak	V
5690.400	54.09	9.10	63.19	98.10	-34.91	peak	V
5717.600	59.54	9.16	68.70	110.13	-41.43	peak	V
5723.200	59.08	9.18	68.26	118.10	-49.84	peak	V
5852.800	58.55	9.47	68.02	115.82	-47.80	peak	V
5854.400	59.85	9.48	69.33	112.17	-42.84	peak	V
5876.400	55.49	9.53	65.02	104.16	-39.14	peak	V
5929.600	48.34	9.65	57.99	68.20	-10.21	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 3			Date:	04/26/2016		
Frequency:	5825 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.780	60.91	9.46	70.37	120.42	-50.05	peak	H
5856.540	58.36	9.48	67.84	110.37	-42.53	peak	H
5875.080	48.79	9.53	58.32	105.14	-46.82	peak	H
5991.000	46.24	9.79	56.03	68.20	-12.17	peak	H
5850.600	61.98	9.46	71.44	120.83	-49.39	peak	V
5855.820	60.71	9.48	70.19	110.57	-40.38	peak	V
5885.340	48.91	9.54	58.45	97.55	-39.10	peak	V
5979.840	45.69	9.76	55.45	68.20	-12.75	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	03/12/2016		
Frequency:	5190 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5148.200	53.83	8.25	62.08	74.00	-11.92	peak	H
5148.200	43.91	8.25	52.16	54.00	-1.84	AVG	H
5150.000	55.63	8.25	63.88	74.00	-10.12	peak	H
5150.000	44.70	8.25	54.95	54.00	-1.05	AVG	H
5148.200	58.02	8.25	66.27	74.00	-7.73	peak	V
5148.200	43.41	8.25	51.66	54.00	-2.34	AVG	V
5150.000	60.15	8.25	68.40	74.00	-5.60	peak	V
5150.000	44.69	8.25	52.94	54.00	-1.06	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	03/12/2016		
Frequency:	5230 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5140.320	53.01	8.24	61.25	74.00	-12.75	peak	H
5140.320	41.97	8.24	50.21	54.00	-3.79	AVG	H
5150.000	55.24	8.25	63.49	74.00	-10.51	peak	H
5150.000	44.63	8.25	52.88	54.00	-1.12	AVG	H
5350.000	49.55	8.49	58.04	74.00	-15.96	peak	H
5350.000	39.37	8.49	47.86	54.00	-6.14	AVG	H
5381.280	49.42	8.53	57.95	74.00	-16.05	peak	H
5381.280	38.82	8.53	47.35	54.00	-6.65	AVG	H
5137.440	56.29	8.23	64.52	74.00	-9.48	peak	V
5137.440	43.04	8.23	51.27	54.00	-2.73	AVG	V
5150.000	56.43	8.25	64.68	74.00	-9.32	peak	V
5150.000	44.56	8.25	52.81	54.00	-1.19	AVG	V
5350.000	46.80	8.49	55.29	74.00	-18.71	peak	V
5350.000	37.76	8.49	46.25	54.00	-7.75	AVG	V
5357.280	49.80	8.49	58.29	74.00	-15.71	peak	V
5357.280	37.85	8.49	46.34	54.00	-7.66	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	04/26/2016		
Frequency:	5755 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5626.560	46.02	8.96	54.98	68.20	-13.22	peak	H
5667.520	46.17	9.04	55.21	81.16	-25.95	peak	H
5716.000	55.82	9.16	64.98	109.68	-44.70	peak	H
5722.080	57.98	9.18	67.16	115.54	-48.38	peak	H
5630.080	46.33	8.96	55.29	68.20	-12.91	peak	V
5697.760	46.92	9.12	56.04	103.54	-47.50	peak	V
5719.200	61.24	9.17	70.41	110.58	-40.17	peak	V
5723.840	62.38	9.18	71.56	119.56	-48.00	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	04/26/2016		
Frequency:	5795 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.690	57.77	9.46	67.23	120.63	-53.40	peak	H
5854.470	55.52	9.48	65.00	112.01	-47.01	peak	H
5879.250	49.54	9.53	59.07	102.06	-42.99	peak	H
5989.710	46.19	9.79	55.98	68.20	-12.22	peak	H
5851.740	59.32	9.47	68.79	118.23	-49.44	peak	V
5855.940	58.16	9.48	67.64	110.54	-42.90	peak	V
5874.840	51.71	9.51	61.22	105.24	-44.02	peak	V
5996.640	45.71	9.81	55.52	68.20	-12.68	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 5			Date:	03/12/2016		
Frequency:	5210 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5145.120	56.32	8.25	64.57	74.00	-9.43	peak	H
5145.120	42.03	8.25	50.28	54.00	-3.72	AVG	H
5150.000	56.56	8.25	64.81	74.00	-9.19	peak	H
5150.000	44.62	8.25	52.87	54.00	-1.13	AVG	H
5350.000	45.04	8.49	53.53	74.00	-20.47	peak	H
5350.000	37.10	8.49	45.59	54.00	-8.41	AVG	H
5372.640	46.61	8.51	55.12	74.00	-18.88	peak	H
5372.640	37.20	8.51	45.71	54.00	-8.29	AVG	H
5132.640	55.48	8.23	63.71	74.00	-10.29	peak	V
5132.640	42.48	8.23	50.71	54.00	-3.29	AVG	V
5150.000	57.93	8.25	66.18	74.00	-7.82	peak	V
5150.000	44.27	8.25	52.52	54.00	-1.48	AVG	V
5350.000	48.07	8.49	56.56	74.00	-17.44	peak	V
5350.000	38.53	8.49	47.02	54.00	-6.98	AVG	V
5412.960	47.98	8.56	56.54	74.00	-17.46	peak	V
5412.960	38.23	8.56	46.79	54.00	-7.21	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 5			Date:	04/26/2016		
Frequency:	5775 MHz			Test By:	Eric Ou Yang		
Internal Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5617.600	46.89	8.93	55.82	68.20	-12.38	peak	H
5690.000	56.64	9.10	65.74	97.80	-32.06	peak	H
5719.200	59.08	9.17	68.25	110.58	-42.33	peak	H
5724.000	61.77	9.18	70.95	119.92	-48.97	peak	H
5853.600	54.08	9.48	63.56	113.99	-50.43	peak	H
5863.200	54.26	9.50	63.76	108.50	-44.74	peak	H
5875.200	48.81	9.53	58.34	105.05	-46.71	peak	H
5960.800	44.86	9.73	54.59	68.20	-13.61	peak	H
5624.800	46.75	8.94	55.69	68.20	-12.51	peak	V
5692.400	57.62	9.10	66.72	99.58	-32.86	peak	V
5718.400	58.25	9.17	67.42	110.35	-42.93	peak	V
5724.000	60.78	9.18	69.96	119.92	-49.96	peak	V
5851.200	54.82	9.47	64.29	119.46	-55.17	peak	V
5856.800	55.02	9.48	64.50	110.30	-45.80	peak	V
5874.400	49.00	9.51	58.51	105.37	-46.86	peak	V
5939.200	43.74	9.67	53.41	68.20	-14.79	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5180 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5146.800	46.84	8.28	55.12	74.00	-18.88	peak	H
5146.800	37.94	8.28	46.22	54.00	-7.78	AVG	H
5150.000	46.03	8.29	54.32	74.00	-19.68	peak	H
5150.000	39.14	8.29	47.43	54.00	-6.57	AVG	H
5145.400	52.51	8.28	60.79	74.00	-13.21	peak	V
5145.400	39.29	8.28	47.57	54.00	-6.43	AVG	V
5150.000	54.08	8.29	62.37	74.00	-11.63	peak	V
5150.000	41.20	8.29	49.49	54.00	-4.51	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5200 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5144.600	46.87	8.28	55.15	74.00	-18.85	peak	H
5144.600	35.79	8.28	44.07	54.00	-9.93	AVG	H
5150.000	45.74	8.29	54.03	74.00	-19.97	peak	H
5150.000	35.97	8.29	44.26	54.00	-9.74	AVG	H
5350.000	42.06	8.50	50.56	74.00	-23.44	peak	H
5592.300	44.48	8.88	53.36	74.00	-20.64	peak	H
5592.300	34.63	8.88	43.51	54.00	-10.49	AVG	H
5142.400	51.04	8.28	59.32	74.00	-14.68	peak	V
5142.400	38.28	8.28	46.56	54.00	-7.44	AVG	V
5150.000	52.81	8.29	61.10	74.00	-12.90	peak	V
5150.000	39.71	8.29	48.00	54.00	-6.00	AVG	V
5350.000	43.90	8.50	52.40	74.00	-21.60	peak	V
5350.000	35.21	8.50	43.71	54.00	-10.29	AVG	V
5385.500	44.91	8.54	53.45	74.00	-20.55	peak	V
5385.500	34.84	8.54	43.38	54.00	-10.62	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5240 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	42.59	8.50	51.09	74.00	-22.91	peak	H
5353.040	45.23	8.51	53.74	74.00	-20.26	peak	H
5353.040	35.46	8.51	43.97	54.00	-10.03	AVG	H
5350.000	43.52	8.50	52.02	74.00	-21.98	peak	V
5350.000	35.17	8.50	43.67	54.00	-10.33	AVG	V
5408.120	45.22	8.56	53.78	74.00	-20.22	peak	V
5408.120	34.96	8.56	43.52	54.00	-10.48	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5745 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	42.97	9.01	51.98	68.20	-16.22	peak	H
5700.000	43.17	9.13	52.30	105.20	-52.90	peak	H
5720.000	43.94	9.17	53.11	110.80	-57.69	peak	H
5725.000	54.07	9.19	63.26	122.20	-58.94	peak	H
5650.000	43.10	9.01	52.11	68.20	-16.09	peak	V
5700.000	42.65	9.13	51.78	105.20	-53.42	peak	V
5720.000	44.27	9.17	53.44	110.80	-57.36	peak	V
5725.000	52.26	9.19	61.45	122.20	-60.75	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5785 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	42.30	9.01	51.31	68.20	-16.89	peak	H
5700.000	43.00	9.13	52.13	105.20	-53.07	peak	H
5720.000	43.04	9.17	52.21	110.80	-58.59	peak	H
5725.000	42.94	9.19	52.13	122.20	-70.07	peak	H
5850.000	42.54	9.46	52.00	122.20	-70.20	peak	H
5855.000	42.65	9.48	52.13	110.80	-58.67	peak	H
5875.000	42.73	9.53	52.26	105.20	-52.94	peak	H
5925.000	42.69	9.65	52.34	68.20	-15.86	peak	H
5650.000	43.43	9.01	52.44	68.20	-15.76	peak	V
5700.000	42.99	9.13	52.12	105.20	-53.08	peak	V
5720.000	42.93	9.17	52.10	110.80	-58.70	peak	V
5725.000	42.32	9.19	51.51	122.20	-70.69	peak	V
5850.000	43.16	9.46	52.62	122.20	-69.58	peak	V
5855.000	42.58	9.48	52.06	110.80	-58.74	peak	V
5875.000	41.83	9.53	51.36	105.20	-53.84	peak	V
5925.000	41.97	9.65	51.62	68.20	-16.58	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 2			Date:	04/26/2016		
Frequency:	5825 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	47.13	9.46	56.59	122.20	-65.61	peak	H
5855.000	44.26	9.48	53.74	110.80	-57.06	peak	H
5875.000	42.67	9.53	52.20	105.20	-53.00	peak	H
5925.000	42.60	9.65	52.25	68.20	-15.95	peak	H
5850.000	42.80	9.46	52.26	122.20	-69.94	peak	V
5855.000	43.35	9.48	52.83	110.80	-57.97	peak	V
5875.000	42.26	9.53	51.79	105.20	-53.41	peak	V
5925.000	43.51	9.65	53.16	68.20	-15.04	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 3	Date:	04/27/2016				
Frequency:	5180 MHz	Test By:	Eric Ou Yang				
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5095.700	44.12	8.22	52.34	74.00	-21.66	peak	H
5095.700	35.79	8.22	44.01	54.00	-9.99	AVG	H
5150.000	41.67	8.29	49.96	74.00	-24.04	peak	H
4658.900	45.75	6.93	52.68	74.00	-21.32	peak	V
4658.900	36.58	6.93	43.51	54.00	-10.49	AVG	V
5150.000	43.39	8.29	51.68	74.00	-22.32	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	04/27/2016		
Frequency:	5200 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4897.440	44.84	7.76	52.60	74.00	-21.40	peak	H
4897.440	35.86	7.76	43.62	54.00	-10.38	AVG	H
5150.000	44.44	8.29	52.73	74.00	-21.27	peak	H
5150.000	35.80	8.29	44.09	54.00	-9.91	AVG	H
5350.000	40.60	8.50	49.10	74.00	-24.90	peak	H
5443.680	43.82	8.61	52.43	74.00	-21.57	peak	H
5443.680	34.77	8.61	43.38	54.00	-10.62	AVG	H
5141.280	48.47	8.27	56.74	74.00	-17.26	peak	V
5141.280	35.85	8.27	44.12	54.00	-9.88	AVG	V
5150.000	46.06	8.29	54.35	74.00	-19.65	peak	V
5150.000	36.48	8.29	44.77	54.00	-9.23	AVG	V
5350.000	42.84	8.50	51.34	74.00	-22.66	peak	V
5375.520	44.39	8.54	52.93	74.00	-21.07	peak	V
5375.520	35.10	8.54	43.64	54.00	-10.36	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 3	Date:	04/27/2016				
Frequency:	5240 MHz	Test By:	Eric Ou Yang				
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	43.19	8.50	51.69	74.00	-22.31	peak	H
5425.240	45.01	8.59	53.60	74.00	-20.40	peak	H
5425.240	34.85	8.59	43.44	54.00	-10.56	AVG	H
5350.000	42.99	8.50	51.49	74.00	-22.51	peak	V
5424.360	45.02	8.58	53.60	74.00	-20.40	peak	V
5424.360	35.15	8.58	43.73	54.00	-10.27	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 3			Date:	04/27/2016		
Frequency:	5745 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	43.53	9.01	52.54	68.20	-15.66	peak	H
5700.000	43.07	9.13	52.20	105.20	-53.00	peak	H
5720.000	43.05	9.17	52.22	110.80	-58.58	peak	H
5725.000	44.78	9.19	53.97	122.20	-68.23	peak	H
5650.000	43.87	9.01	52.88	68.20	-15.32	peak	V
5700.000	44.33	9.13	53.46	105.20	-51.74	peak	V
5720.000	44.54	9.17	53.71	110.80	-57.09	peak	V
5725.000	45.81	9.19	55.00	122.20	-67.20	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 3			Date:	04/26/2016		
Frequency:	5785 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	42.87	9.01	51.88	68.20	-16.32	peak	H
5700.000	44.19	9.13	53.32	105.20	-51.88	peak	H
5720.000	43.87	9.17	53.04	110.80	-57.76	peak	H
5725.000	43.14	9.19	52.33	122.20	-69.87	peak	H
5850.000	43.11	9.46	52.57	122.20	-69.63	peak	H
5855.000	42.11	9.48	51.59	110.80	-59.21	peak	H
5875.000	41.72	9.53	51.25	105.20	-53.95	peak	H
5925.000	41.99	9.65	51.64	68.20	-16.56	peak	H
5650.000	42.81	9.01	51.82	68.20	-16.38	peak	V
5700.000	42.98	9.13	52.11	105.20	-53.09	peak	V
5720.000	44.03	9.17	53.20	110.80	-57.60	peak	V
5725.000	42.47	9.19	51.66	122.20	-70.54	peak	V
5850.000	42.26	9.46	51.72	122.20	-70.48	peak	V
5855.000	44.13	9.48	53.61	110.80	-57.19	peak	V
5875.000	42.73	9.53	52.26	105.20	-52.94	peak	V
5925.000	42.05	9.65	51.70	68.20	-16.50	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 3			Date:	04/27/2016		
Frequency:	5825 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	46.45	9.46	55.91	122.20	-66.29	peak	H
5855.000	43.59	9.48	53.07	110.80	-57.73	peak	H
5875.000	42.73	9.53	52.26	105.20	-52.94	peak	H
5925.000	42.61	9.65	52.26	68.20	-15.94	peak	H
5850.000	44.31	9.46	53.77	122.20	-68.43	peak	V
5855.000	43.32	9.48	52.80	110.80	-58.00	peak	V
5875.000	43.44	9.53	52.97	105.20	-52.23	peak	V
5925.000	43.10	9.65	52.75	68.20	-15.45	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E	Test Distance:	3m				
Test item:	Radiated Emission	Power:	AC 120V/60Hz				
Model Number:	EW-7429HOA	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH				
Test Mode:	Mode 4	Date:	04/27/2016				
Frequency:	5190 MHz	Test By:	Eric Ou Yang				
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4780.000	45.86	7.35	53.21	74.00	-20.79	peak	H
4780.000	36.46	7.35	43.81	54.00	-10.19	AVG	H
5150.000	42.41	8.29	50.70	74.00	-23.30	peak	H
4824.100	44.73	7.50	52.23	74.00	-21.77	peak	V
4824.100	36.17	7.50	43.67	54.00	-10.33	AVG	V
5150.000	42.15	8.29	50.44	74.00	-23.56	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	04/27/2016		
Frequency:	5230 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4763.040	45.77	7.28	53.05	74.00	-20.95	peak	H
4763.040	36.51	7.28	43.79	54.00	-10.21	AVG	H
5150.000	43.45	8.29	51.74	74.00	-22.26	peak	H
5350.000	41.98	8.50	50.48	74.00	-23.52	peak	H
5395.680	44.43	8.55	52.98	74.00	-21.02	peak	H
5395.680	35.47	8.55	44.02	54.00	-9.98	AVG	H
4748.640	46.04	7.24	53.28	74.00	-20.72	peak	V
4748.640	36.91	7.24	44.15	54.00	-9.85	AVG	V
5150.000	42.27	8.29	50.56	74.00	-23.44	peak	V
5350.000	42.89	8.50	51.39	74.00	-22.61	peak	V
5409.120	43.10	8.57	51.67	74.00	-22.33	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(℃)/Hum.(%RH):	26(℃)/60%RH		
Test Mode:	Mode 4			Date:	04/27/2016		
Frequency:	5755 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	43.11	9.01	52.12	68.20	-16.08	peak	H
5700.000	42.54	9.13	51.67	105.20	-53.53	peak	H
5720.000	44.32	9.17	53.49	110.80	-57.31	peak	H
5725.000	43.38	9.19	52.57	122.20	-69.63	peak	H
5650.000	43.23	9.01	52.24	68.20	-15.96	peak	V
5700.000	43.12	9.13	52.25	105.20	-52.95	peak	V
5720.000	43.13	9.17	52.30	110.80	-58.50	peak	V
5725.000	43.97	9.19	53.16	122.20	-69.04	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 4			Date:	04/27/2016		
Frequency:	5795 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	43.01	9.46	52.47	122.20	-69.73	peak	H
5855.000	43.10	9.48	52.58	110.80	-58.22	peak	H
5875.000	43.76	9.53	53.29	105.20	-51.91	peak	H
5925.000	44.73	9.65	54.38	68.20	-13.82	peak	H
5850.000	41.81	9.46	51.27	122.20	-70.93	peak	V
5855.000	41.73	9.48	51.21	110.80	-59.59	peak	V
5875.000	42.75	9.53	52.28	105.20	-52.92	peak	V
5925.000	42.20	9.65	51.85	68.20	-16.35	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 5			Date:	04/27/2016		
Frequency:	5210 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4709.280	46.20	7.09	53.29	74.00	-20.71	peak	H
4709.280	37.10	7.09	44.19	54.00	-9.81	AVG	H
5150.000	43.16	8.29	51.45	74.00	-22.55	peak	H
5350.000	43.06	8.50	51.56	74.00	-22.44	peak	H
5358.240	43.79	8.51	52.30	74.00	-21.70	peak	H
5358.240	35.74	8.51	44.25	54.00	-9.75	AVG	H
4860.000	45.11	7.62	52.73	74.00	-21.27	peak	V
4860.000	35.82	7.62	43.44	54.00	-10.56	AVG	V
5150.000	42.49	8.29	50.78	74.00	-23.22	peak	V
5350.000	42.83	8.50	51.33	74.00	-22.67	peak	V
5357.280	44.22	8.51	52.73	74.00	-21.27	peak	V
5357.280	35.22	8.51	43.73	54.00	-10.27	AVG	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.



Standard:	FCC Part 15E			Test Distance:	3m		
Test item:	Radiated Emission			Power:	AC 120V/60Hz		
Model Number:	EW-7429HOA			Temp.(°C)/Hum.(%RH):	26(°C)/60%RH		
Test Mode:	Mode 5			Date:	04/27/2016		
Frequency:	5775 MHz			Test By:	Eric Ou Yang		
External Antenna							
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	43.22	9.01	52.23	68.20	-15.97	peak	H
5700.000	43.15	9.13	52.28	105.20	-52.92	peak	H
5720.000	43.47	9.17	52.64	110.80	-58.16	peak	H
5725.000	45.09	9.19	54.28	122.20	-67.92	peak	H
5850.000	41.99	9.46	51.45	122.20	-70.75	peak	H
5855.000	43.93	9.48	53.41	110.80	-57.39	peak	H
5875.000	42.50	9.53	52.03	105.20	-53.17	peak	H
5925.000	43.46	9.65	53.11	68.20	-15.09	peak	H
5650.000	43.95	9.01	52.96	68.20	-15.24	peak	V
5700.000	42.82	9.13	51.95	105.20	-53.25	peak	V
5720.000	43.67	9.17	52.84	110.80	-57.96	peak	V
5725.000	42.89	9.19	52.08	122.20	-70.12	peak	V
5850.000	43.72	9.46	53.18	122.20	-69.02	peak	V
5855.000	41.81	9.48	51.29	110.80	-59.51	peak	V
5875.000	42.07	9.53	51.60	105.20	-53.60	peak	V
5925.000	41.77	9.65	51.42	68.20	-16.78	peak	V

Note: 1. Result = Correction factor + Reading

2. Correction factor = Antenna Factor + Cable loss – Pre-Amplifier gain.

4.4. Maximum Conducted Output Power and Transmit power control Measurement

■ Limit

Frequency Range (MHz)	FCC Maximum Conducted Output Power Limit	
	Master	Client
5.150 ~ 5.250 GHz	The lesser of 1W (30dBm)	The lesser of 250mW (24dBm)
5.725 ~ 5.850 GHz	The lesser of 1W (30dBm)	---

According FCC KDB 662911 D01 v02r01 – for power measurements on IEEE802.11 devices,

Directional gain = GANT + 10 log(NANT/NSS) dBi

Internal Antenna:

- * SISO mode for ANT-0 : Max. Gain = 13.90 dBi > 6 dBi. -- For Master & Client mode
SISO mode for ANT-0 power limit shall be reduced = $30 - 7.9 = 22.10$ dBm. -- For Master mode(Band 1+3) and Client mode(Band 3)
SISO mode for ANT-0 power limit shall be reduced = $24 - 7.9 = 16.10$ dBm. -- For Client mode(Band 1)
- * MIMO mode : Directional Gain = $13.90 + 10 \cdot \log(2 / 1) = 16.91$ dBi > 6dBi -- For Master & Client mode
MIMO mode power limit shall be reduced = $30 - 10.91 = 19.09$ dBm -- For Master mode(Band 1+3) and Client mode(Band 3)
MIMO mode power limit shall be reduced = $24 - 10.91 = 13.09$ dBm -- For Client mode(Band 1)

External Antenna:

- * SISO mode for ANT-0 : Max. Gain = 12.90 dBi > 6 dBi. -- For Master & Client mode
SISO mode for ANT-0 power limit shall be reduced = $30 - 6.9 = 23.10$ dBm. -- For Master mode(Band 1+3) and Client mode(Band 3)
SISO mode for ANT-0 power limit shall be reduced = $24 - 6.9 = 17.10$ dBm. -- For Client mode(Band 1)
- * MIMO mode : Directional Gain = $12.90 + 10 \cdot \log(2 / 1) = 15.91$ dBi > 6dBi -- For Master & Client mode
MIMO mode power limit = $30 - 9.91 = 20.09$ dBm (for Master mode) -- For Master mode(Band 1+3) and Client mode(Band 3)
MIMO mode power limit shall be reduced = $24 - 9.91 = 14.09$ dBm -- For Client mode(Band 1)



Frequency Range (MHz)	FCC maximum e.i.r.p at any elevation angle above 30 degrees Limit
5.150 ~ 5.250 GHz	The lesser of 125 mW (21 dBm)

According FCC KDB 662911 D01 v02r01 – for power measurements on IEEE802.11 devices,

Directional gain = $G_{ANT} + 10 \log(N_{ANT}/N_{SS})$ dBi

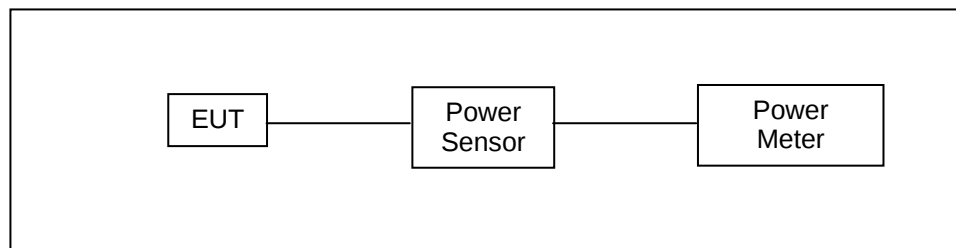
Internal Antenna:

- * SISO mode for ANT-0 : Max. Gain = 13.90 dBi
- * MIMO mode : Directional Gain = $13.90 + 10 \log(2 / 1) = 16.91$ dBi

External Antenna:

- * SISO mode for ANT-0 : Max. Gain = 12.90 dBi
- * MIMO mode : Directional Gain = $12.9 + 10 \log(2 / 1) = 15.91$ dBi

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Power Sensor	Anritsu	MA2411B	1126022	08/24/2015	1 year
Power Meter	Anritsu	ML2495A	1135009	08/24/2015	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01r02, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices

Section (E) Maximum Conducted Output Power

3. Measurement using a Power Meter (PM)

b) Method PM-G (Measurement using a gated RF average power meter)



■ Test Result

Model Number		EW-7429HOA			
Test Item		Maximum Conducted Output Power			
Test Mode		Mode 2: IEEE 802.11a Link Mode			
Date of Test		02/26/2016			
Frequency (MHz)	Data Rate	ANT-0		FCC Limit (dBm)	
		Max. Outup Power		Master	Client
		(dBm)	(W)		
5180	6M	5.49	0.004	≤ 22.10	≤ 16.10
5200		5.48	0.004		
5220		5.17	0.003		
5240		5.09	0.003		
5745		16.39	0.044	≤ 22.10	---
5765		19.18	0.083		
5785		19.17	0.083		
5805		18.95	0.079		
5825	54M	16.88	0.049	≤ 22.10	≤ 16.10
5180		5.44	0.003		
5200		5.43	0.003		
5220		5.12	0.003		
5240		5.03	0.003	≤ 22.10	---
5745		16.33	0.043		
5765		19.14	0.082		
5785		19.15	0.082		
5805	54M	18.89	0.077	≤ 22.10	---
5825		16.83	0.048		



Model Number		EW-7429HOA							
Test Item		Maximum Conducted Output Power							
Test Mode		Mode 3: IEEE 802.11ac 20MHz Link Mode							
Date of Test		02/26/2016							
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)	
		Max. Outup Power							
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	Master	Client
5180	13M	0.47	0.001	0.92	0.001	3.71	0.002	≤ 19.09	≤ 13.09
5200		0.57	0.001	1.13	0.001	3.87	0.002		
5220		0.57	0.001	1.25	0.001	3.93	0.002		
5240		0.47	0.001	1.40	0.001	3.97	0.002		
5745		12.56	0.018	13.35	0.022	15.98	0.040	≤ 19.09	---
5765		12.65	0.018	13.48	0.022	16.10	0.041		
5785		12.37	0.017	13.21	0.021	15.82	0.038		
5805		12.26	0.017	12.93	0.020	15.62	0.036		
5825		12.64	0.018	13.76	0.024	16.25	0.042		
5180	156M	0.43	0.001	0.86	0.001	3.66	0.002	≤ 19.09	≤ 13.09
5200		0.52	0.001	1.08	0.001	3.82	0.002		
5220		0.52	0.001	1.20	0.001	3.88	0.002		
5240		0.42	0.001	1.37	0.001	3.93	0.002		
5745		12.52	0.018	13.32	0.021	15.95	0.039	≤ 19.09	---
5765		12.63	0.018	13.44	0.022	16.06	0.040		
5785		12.31	0.017	13.19	0.021	15.78	0.038		
5805		12.21	0.017	12.88	0.019	15.57	0.036		
5825		12.61	0.018	13.73	0.024	16.22	0.042		



Model Number		EW-7429HOA							
Test Item		Maximum Conducted Output Power							
Test Mode		Mode 4: IEEE 802.11ac 40MHz Link Mode							
Date of Test		02/26/2016							
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)	
		Max. Outup Power							
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	Master	Client
5190	27M	0.57	0.001	1.17	0.001	3.89	0.002	≤ 19.09	≤ 13.09
5230		0.59	0.001	1.28	0.001	3.96	0.002		
5755		13.26	0.021	13.63	0.023	16.46	0.044	≤ 19.09	---
5795		13.18	0.021	13.64	0.023	16.43	0.044		
5190	360M	0.53	0.001	1.12	0.001	3.85	0.002	≤ 19.09	≤ 13.09
5230		0.56	0.001	1.26	0.001	3.93	0.002		
5755		13.21	0.021	13.62	0.023	16.43	0.044	≤ 19.09	---
5755		13.15	0.021	13.60	0.023	16.39	0.044		

Model Number		EW-7429HOA							
Test Item		Maximum Conducted Output Power							
Test Mode		Mode 5: IEEE 802.11ac 80MHz Link Mode							
Date of Test		02/26/2016							
Frequency (MHz)	Data Rate	ANT-0		ANT-1		ANT-0+1		FCC Limit (dBm)	
		Max. Outup Power							
		(dBm)	(W)	(dBm)	(W)	(dBm)	(W)	Master	Client
5210	58.6M	0.11	0.001	0.88	0.001	3.52	0.002	≤ 19.09	≤ 13.09
5775		13.37	0.022	15.09	0.032	17.32	0.054	≤ 19.09	---
5210	780M	0.06	0.001	0.86	0.001	3.49	0.002	≤ 19.09	≤ 13.09
5775		13.34	0.022	15.06	0.032	17.29	0.054	≤ 19.09	---



Model Number		EW-7429HOA				
Test Item		Maximum e.i.r.p at any elevation angle above 30 degrees				
Test Mode		Mode 2: IEEE 802.11a Link Mode				
Date of Test		02/26/2016				
Frequency (MHz)	Data Rate	ANT-0				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	e.i.r.p.		
		(dBm)	(dBi)	(dBm)	(W)	
5180	6M	5.49	13.90	19.39	0.087	< 21
5200		5.48	13.90	19.38	0.087	
5220		5.17	13.90	19.07	0.081	
5240		5.09	13.90	18.99	0.079	
5180	54M	5.44	13.90	19.34	0.086	< 21
5200		5.42	13.90	19.32	0.086	
5220		5.16	13.90	19.06	0.081	
5240		5.04	13.90	18.94	0.078	

Model Number		EW-7429HOA				
Test Item		Maximum e.i.r.p at any elevation angle above 30 degrees				
Test Mode		Mode 3: IEEE 802.11ac 20MHz Link Mode				
Date of Test		02/26/2016				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	e.i.r.p.		
		(dBm)	(dBi)	(dBm)	(W)	
5180	13M	3.71	16.91	20.62	0.115	< 21
5200		3.87	16.91	20.78	0.120	
5220		3.93	16.91	20.84	0.121	
5240		3.97	16.91	20.88	0.122	
5180	156M	3.67	16.91	20.58	0.114	< 21
5200		3.83	16.91	20.74	0.119	
5220		3.89	16.91	20.80	0.120	
5240		3.94	16.91	20.85	0.121	

e.i.r.p. (dBm)=Conducted Power(dBm)+ Directional Gain(dBi)



Model Number		EW-7429HOA				
Test Item		Maximum e.i.r.p at any elevation angle above 30 degrees				
Test Mode		Mode 4: IEEE 802.11ac 40MHz Link Mode				
Date of Test		02/26/2016				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	e.i.r.p.		
		(dBm)	(dBi)	(dBm)	(W)	
5190	27M	3.89	16.91	20.80	0.120	< 21
5230		3.96	16.91	20.87	0.122	
5190	360M	3.86	16.91	20.77	0.119	< 21
5230		3.92	16.91	20.83	0.121	

Model Number		EW-7429HOA				
Test Item		Maximum e.i.r.p at any elevation angle above 30 degrees				
Test Mode		Mode 5: IEEE 802.11ac 80MHz Link Mode				
Date of Test		02/26/2016				
Frequency (MHz)	Data Rate	ANT-0+1				FCC Limit (dBm)
		Max. Outup Power	Directional Gain	e.i.r.p.		
		(dBm)	(dBi)	(dBm)	(W)	
5210	58.6M	3.52	16.91	20.43	0.110	< 21
5210	780M	3.48	16.91	20.39	0.109	< 21

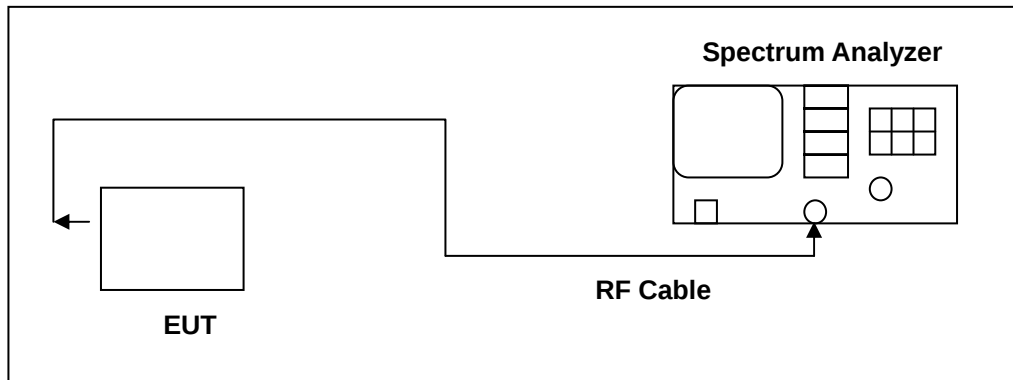
e.i.r.p. (dBm)=Conducted Power(dBm)+ Directional Gain(dBi)

4.5. 26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement

■ Limit

N/A

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/15/2015	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Procedure

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01r02, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	>26dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW > RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto



■ Test Result

Model Number	EW-7429HOA	
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement	
Test Mode	Mode 2: IEEE 802.11a Link Mode	
Date of Test	03/22/2016	
Frequency (MHz)	Ant-0	
	26dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	21.790	16.761
5200	21.220	16.770
5240	22.030	16.759

Model Number	EW-7429HOA			
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement			
Test Mode	Mode 3: IEEE 802.11ac 20MHz Link Mode			
Date of Test	03/22/2016			
Frequency (MHz)	Ant-0		Ant-1	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5180	22.480	17.912	23.110	17.898
5200	22.340	17.835	23.350	17.893.
5240	23.270	17.881	22.550	17.853

Model Number	EW-7429HOA			
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement			
Test Mode	Mode 4: IEEE 802.11ac 40MHz Link Mode			
Date of Test	03/22/2016			
Frequency (MHz)	Ant-0		Ant-1	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5190	46.780	36.859	46.310	36.840
5230	46.950	36.591	47.110	36.821

Note: The 99% occupied bandwidth not crossed 5250MHz.



Model Number	EW-7429HOA			
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement			
Test Mode	Mode 5: IEEE 802.11ac 80MHz Link Mode			
Date of Test	03/22/2016			
Frequency (MHz)	Ant-0		Ant-1	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5210	86.710	75.617	87.540	75.963

Note: The 99% occupied bandwidth not crossed 5250MHz.

Test Graphs

Mode 2: IEEE 802.11a Link Mode_ Ant-0	
5180 MHz	
5200 MHz	
5240 MHz	

Mode 3: IEEE 802.11ac 20MHz Link Mode_ ANT-0

5180 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Center Freq: 5.180000000 GHz Radio Std: None Trig: Free Run AvgHeld: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.18 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.912 MHz Total Power 6.52 dBm Transmit Freq Error 24.684 kHz OBW Power 99.00 % x dB Bandwidth 22.48 MHz x dB -26.00 dB Frequency Center Freq 5.180000000 GHz CF Step 2.500000 MHz Freq Offset 0 Hz
5200 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.200000000 GHz Center Freq: 5.200000000 GHz Radio Std: None Trig: Free Run AvgHeld: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.2 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.835 MHz Total Power 7.15 dBm Transmit Freq Error 18.368 kHz OBW Power 99.00 % x dB Bandwidth 22.34 MHz x dB -26.00 dB Frequency Center Freq 5.200000000 GHz CF Step 2.500000 MHz Freq Offset 0 Hz
5240 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.240000000 GHz Center Freq: 5.240000000 GHz Radio Std: None Trig: Free Run AvgHeld: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.24 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.881 MHz Total Power 5.98 dBm Transmit Freq Error 14.171 kHz OBW Power 99.00 % x dB Bandwidth 23.27 MHz x dB -26.00 dB Frequency Center Freq 5.240000000 GHz CF Step 2.500000 MHz Freq Offset 0 Hz



Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-0

5190 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.190000000 GHz Center Freq: 5.190000000 GHz Radio Std: None Trig: Free Run AvgHld: 10/10 #IF Gain: Low #Atten: 10 dB Radio Device: BTS 10 dB/div Ref 10.00 dBm Center 5.19 GHz Span 50 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms Occupied Bandwidth 36.859 MHz Total Power 7.67 dBm Transmit Freq Error 143.26 kHz OBW Power 99.00 % x dB Bandwidth 46.78 MHz x dB -26.00 dB Frequency Center Freq 5.190000000 GHz CF Step 5.000000 MHz Auto Man Freq Offset 0 Hz
5230 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.230000000 GHz Center Freq: 5.230000000 GHz Radio Std: None Trig: Free Run AvgHld: 10/10 #IF Gain: Low #Atten: 10 dB Radio Device: BTS 10 dB/div Ref 10.00 dBm Center 5.23 GHz Span 50 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms Occupied Bandwidth 36.591 MHz Total Power 7.74 dBm Transmit Freq Error 95.520 kHz OBW Power 99.00 % x dB Bandwidth 46.95 MHz x dB -26.00 dB Frequency Center Freq 5.230000000 GHz CF Step 5.000000 MHz Auto Man Freq Offset 0 Hz

Mode 5: IEEE 802.11ac 80MHz Link Mode_ ANT-0

5210 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.210000000 GHz Center Freq: 5.210000000 GHz Radio Std: None Trig: Free Run AvgHld: 10/10 #IF Gain: Low #Atten: 10 dB Radio Device: BTS 10 dB/div Ref 10.00 dBm Center 5.21 GHz Span 90 MHz #Res BW 1 MHz #VBW 3 MHz Sweep 1 ms Occupied Bandwidth 75.617 MHz Total Power 7.71 dBm Transmit Freq Error 274.92 kHz OBW Power 99.00 % x dB Bandwidth 86.71 MHz x dB -26.00 dB Frequency Center Freq 5.210000000 GHz CF Step 9.000000 MHz Auto Man Freq Offset 0 Hz
----------	---



Mode 3: IEEE 802.11ac 20MHz Link Mode_ ANT-1

5180 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.180000000 GHz Center Freq: 5.180000000 GHz Radio Std: None Trig: Free Run AvgHold: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.18 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.898 MHz Total Power 6.41 dBm Transmit Freq Error -8.597 kHz OBW Power 99.00 % x dB Bandwidth 23.11 MHz x dB -26.00 dB
5200 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.200000000 GHz Center Freq: 5.200000000 GHz Radio Std: None Trig: Free Run AvgHold: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.2 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.893 MHz Total Power 6.52 dBm Transmit Freq Error 1.192 kHz OBW Power 99.00 % x dB Bandwidth 23.35 MHz x dB -26.00 dB
5240 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.240000000 GHz Center Freq: 5.240000000 GHz Radio Std: None Trig: Free Run AvgHold: 10/10 Radio Device: BTS Ref 10.00 dBm Center 5.24 GHz Span 25 MHz #Res BW 300 kHz #VBW 1 MHz Sweep 1 ms Occupied Bandwidth 17.853 MHz Total Power 6.73 dBm Transmit Freq Error -4.319 kHz OBW Power 99.00 % x dB Bandwidth 22.55 MHz x dB -26.00 dB



Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-1

5190 MHz



5230 MHz



Mode 5: IEEE 802.11ac 80MHz Link Mode_ ANT-1

5210 MHz



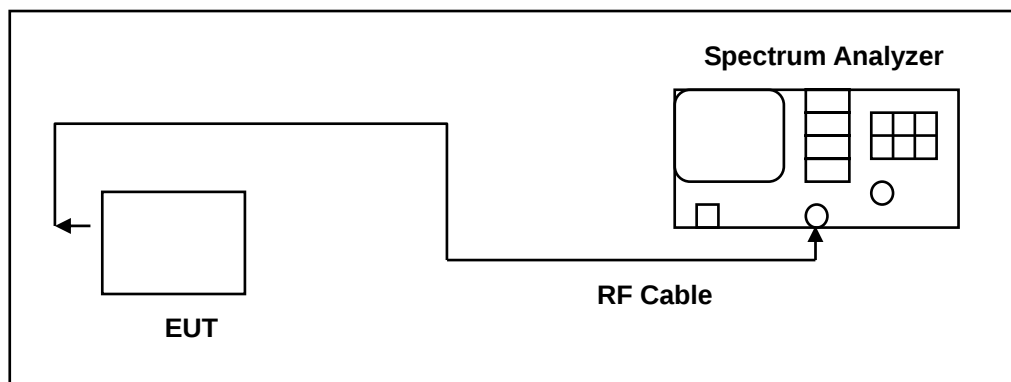
4.6. 6dB RF Bandwidth Measurement

■ Limit

6dB RF Bandwidth

Systems using digital modulation techniques may operate in the 5725~5850MHz bands. The minimum 6 dB band-width shall be at least 500 kHz.

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Cal. Period
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/15/2015	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Procedure

6dB RF Bandwidth

The EUT tested to UNII test procedure of KDB789033 D02 for compliance to FCC 47CFR 15.407 requirements.

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100 kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A peak output reading was taken, a DISPLAY line was drawn 6 dB lower than peak level. The 6 dB bandwidth was determined from where the channel output spectrum intersected the display line.

The test was performed at 3 channels.



■ Test Result

Model Number	EW-7429HOA	
Test Item	6dB RF Bandwidth	
Test Mode	Mode 2: IEEE 802.11a Link Mode	
Date of Test	03/22/2016	
Frequency (MHz)	6dB Bandwidth (kHz)	Limit (kHz)
	ANT-0	
5745	16390	> 500
5785	16410	> 500
5825	16350	> 500

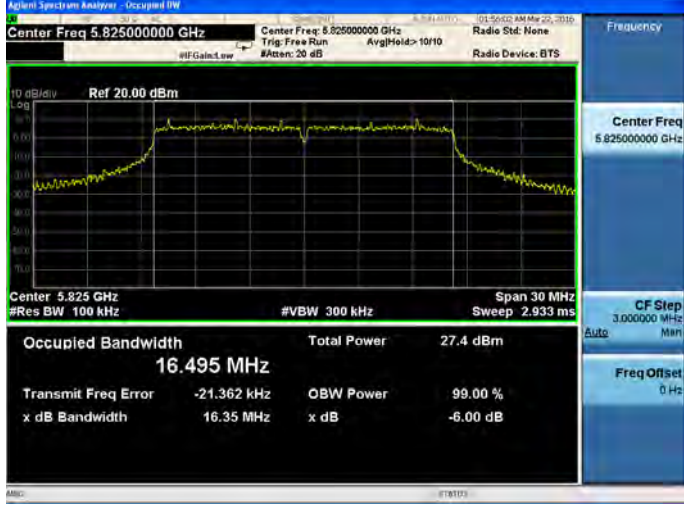
Model Number	EW-7429HOA		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 3: IEEE 802.11ac 20MHz Link Mode		
Date of Test	03/19/2016		
Frequency (MHz)	6dB Bandwidth (kHz)		Limit (kHz)
	ANT-0	ANT-1	
5745	17600	17620	> 500
5785	17590	17600	> 500
5825	17590	17600	> 500

Model Number	EW-7429HOA		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 4: IEEE 802.11ac 40MHz Link Mode		
Date of Test	03/19/2016		
Frequency (MHz)	6dB Bandwidth (kHz)		Limit (kHz)
	ANT-0	ANT-1	
5755	35760	36120	> 500
5795	35690	36330	> 500



Model Number	EW-7429HOA		
Test Item	6dB RF Bandwidth		
Test Mode	Mode 5: IEEE 802.11ac 80MHz Link Mode		
Date of Test	03/19/2016		
Frequency (MHz)	6dB Bandwidth (kHz)		Limit (kHz)
	ANT-0	ANT-1	
5775	73220	76400	> 500

Test Graphs

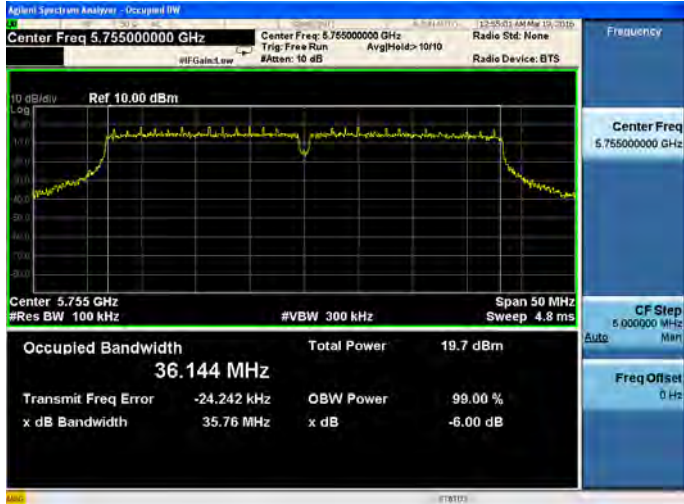
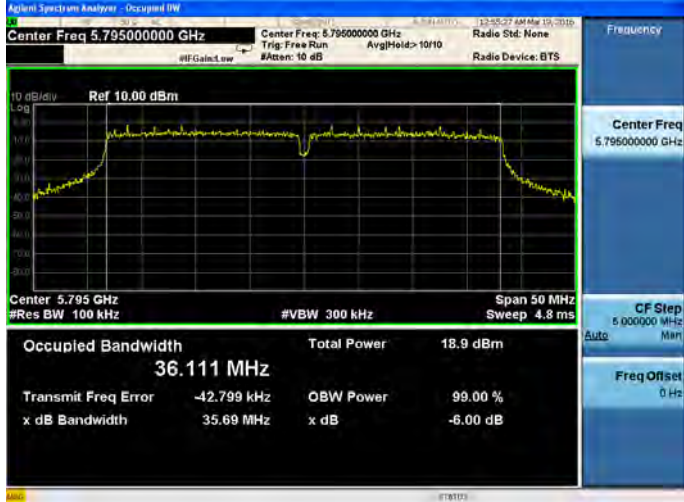
Mode 2: IEEE 802.11a Link Mode_ ANT-0	
5745 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.745000000 GHz Center Freq: 5.745000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 5.745 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.512 MHz Total Power 27.6 dBm Transmit Freq Error -19.828 kHz OBW Power 99.00 % x dB Bandwidth 16.39 MHz x dB -6.00 dB Frequency Center Freq 5.745000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
5785 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.785000000 GHz Center Freq: 5.785000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 5.785 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.497 MHz Total Power 27.4 dBm Transmit Freq Error -19.937 kHz OBW Power 99.00 % x dB Bandwidth 16.41 MHz x dB -6.00 dB Frequency Center Freq 5.785000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz
5825 MHz	 Agilent Spectrum Analyzer - Occupied BW Center Freq 5.825000000 GHz Center Freq: 5.825000000 GHz Trig: Free Run Avg/Hold: 10/10 Radio Std: None Radio Device: BTS Ref 20.00 dBm Center 5.825 GHz #Res BW 100 kHz #VBW 300 kHz Span 30 MHz Sweep 2.933 ms Occupied Bandwidth 16.495 MHz Total Power 27.4 dBm Transmit Freq Error -21.362 kHz OBW Power 99.00 % x dB Bandwidth 16.35 MHz x dB -6.00 dB Frequency Center Freq 5.825000000 GHz CF Step 3.000000 MHz Auto Man Freq Offset 0 Hz



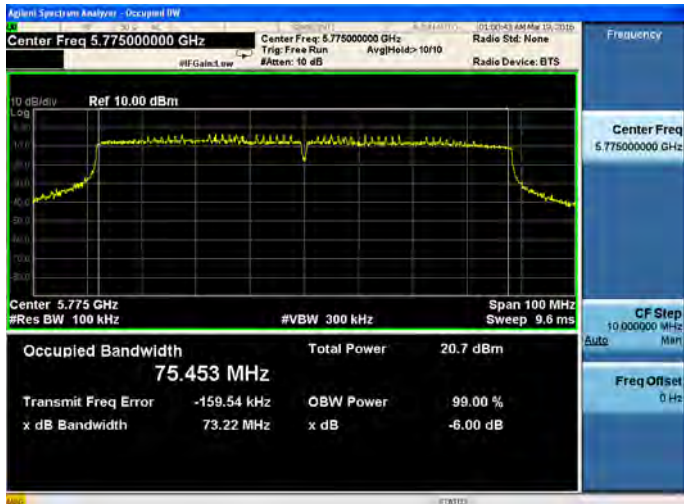
Mode 3: IEEE 802.11ac 20MHz Link Mode_ANT-0

5745 MHz	
5785 MHz	
5825 MHz	

Mode 4: IEEE 802.11ac 40MHz Link Mode_ANT-0

5755 MHz	
5795 MHz	

Mode 5: IEEE 802.11ac 80MHz Link Mode_ANT-0

5775 MHz	
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Mode 3: IEEE 802.11ac 20MHz Link Mode_ANT-1

5745 MHz



5785 MHz



5825 MHz





Mode 4: IEEE 802.11ac 40MHz Link Mode_ANT-1

5755 MHz	
5795 MHz	

Mode 5: IEEE 802.11ac 80MHz Link Mode_ANT-1

5775 MHz	
----------	--

4.7. Peak Power Spectral Density Measurement

■ Limit

Conducted power spectral density

Frequency Range (MHz)	FCC Limit	
	Master	Client
5.150 ~ 5.250 GHz	17 dBm/MHz	11 dBm/MHz
5.725 ~ 5.850 GHz	30 dBm/500KHz	---

According FCC KDB 662911 D01 v02r01 – for power measurements on IEEE802.11 devices,

Directional gain = GANT + 10 log(NANT/NSS) dBi

5.150 ~ 5.250 GHz

Internal Antenna:

- * SISO mode for ANT-0 : Max. Gain = 13.90 dBi > 6 dBi. -- For Master & Client mode
SISO mode for ANT-0 power limit shall be reduced = $17 - 7.9 = 9.10$ dBm/MHz. -- For Master mode (Band 1+3) and Client mode (Band 3)
SISO mode for ANT-0 power limit shall be reduced = $11 - 7.9 = 3.10$ dBm/MHz. -- For Client mode (Band 1)
- * MIMO mode : Directional Gain = $13.90 + 10 \cdot \log(2 / 1) = 16.91$ dBi > 6dBi -- For Master & Client mode
MIMO mode power limit shall be reduced = $17 - 10.91 = 6.09$ dBm/MHz -- For Master mode (Band 1+3) and Client mode (Band 3)
MIMO mode power limit shall be reduced = $11 - 10.91 = 0.09$ dBm/MHz -- For Client mode (Band 3)

External Antenna:

- * SISO mode for ANT-0 : Max. Gain = 12.90 dBi > 6 dBi. -- For Master & Client mode
SISO mode for ANT-0 power limit shall be reduced = $17 - 6.9 = 10.10$ dBm/MHz. -- For Master mode (Band 1+3) and Client mode (Band 3)
SISO mode for ANT-0 power limit shall be reduced = $11 - 6.9 = 4.10$ dBm/MHz. -- For Client mode (Band 3)
- * MIMO mode : Directional Gain = $12.90 + 10 \cdot \log(2 / 1) = 15.91$ dBi > 6dBi -- For Master & Client mode
MIMO mode power limit = $17 - 9.91 = 7.09$ dBm/MHz -- For Master mode (Band 1+3) and Client mode (Band 3)
MIMO mode power limit = $11 - 9.91 = 1.09$ dBm/MHz -- For Client mode (Band 3)

5.725 ~ 5.850 GHz

Internal Antenna

* SISO mode for ANT-0 : Max. Gain = 13.90 dBi > 6 dBi.

SISO mode for ANT-0 power limit shall be reduced = $30 - 7.9 = 22.10$ dBm/ 500KHz.

* MIMO mode : Directional Gain = $13.90 + 10 \cdot \log(2 / 1) = 16.91$ dBi > 6dBi

MIMO mode power limit shall be reduced = $30 - 10.91 = 19.09$ dBm/ 500KHz

External Antenna:

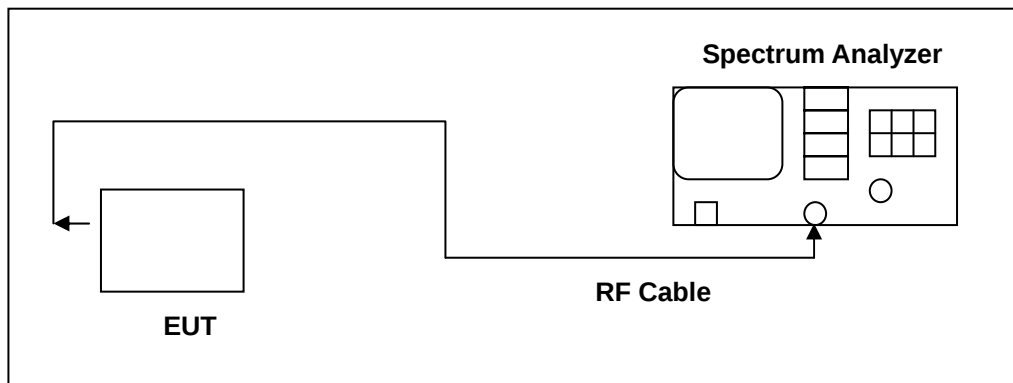
* SISO mode for ANT-0 : Max. Gain = 12.90 dBi > 6 dBi.

SISO mode for ANT-0 power limit shall be reduced = $30 - 6.9 = 23.1$ dBm/ 500KHz.

* MIMO mode : Directional Gain = $12.90 + 10 \cdot \log(2 / 1) = 15.91$ dBi > 6dBi

MIMO mode power limit = $30 - 9.91 = 20.09$ dBm/ 500KHz

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4445A	MY45300744	12/15/2015	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

**■ Test Procedure**

The test is performed in accordance with KDB789033: D02 General UNII Test Procedures New Rules v01r02, Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices - Part 15, Subpart E.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Encompass the entire emissions bandwidth (EBW) of the signal
RBW	1 MHz (5725 ~ 5850MHz use 100 kHz)
VBW	3 MHz (5725 ~ 5850MHz use 300 kHz)
Detector	RMS
Trace	AVERAGE
Sweep Time	Auto
Trace Average	100 times
Note: If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/100\text{kHz})$ to the measured result.	



■ Test Result

Model Number	EW-7429HOA				
Test Item	Conducted power spectral density				
Test Mode	Mode 2: IEEE 802.11a link mode				
Date of Test	03/22/2016				
Frequency (MHz)	ANT-0				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5180	-4.474	0.079	-4.395	< 9.10	< 3.10
5200	-4.272	0.079	-4.193		
5240	-4.656	0.079	-4.577		

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Model Number	EW-7429HOA				
Test Item	Conducted power spectral density				
Test Mode	Mode 2: IEEE 802.11a link mode				
Date of Test	03/22/2016				
Frequency (MHz)	ANT-0				
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)	
5745	0.63	0.079	7.69	< 22.10	
5785	0.50	0.079	7.57		
5825	1.16	0.079	8.23		

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)



Model Number	EW-7429HOA				
Test Item	Conducted power spectral density				
Test Mode	Mode 3: IEEE 802.11ac 20MHz link mode				
Date of Test	03/19/2016				
Frequency (MHz)	ANT-0				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5180	-10.827	0.084	-10.743	< 6.09	< 0.09
5200	-10.731	0.084	-10.647		
5240	-11.655	0.084	-11.571		
Frequency (MHz)	ANT-1				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5180	-10.656	0.084	-10.572	< 6.09	< 0.09
5200	-10.528	0.084	-10.444		
5240	-11.073	0.084	-10.989		
Frequency (MHz)	ANT-0+1				
	Calculated (dBm/MHz)			Limit (dBm/MHz)	
				Master	Client
5180	-7.646			< 6.09	< 0.09
5200	-7.534				
5240	-8.260				

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Model Number	EW-7429HOA			
Test Item	Conducted power spectral density			
Test Mode	Mode 3: IEEE 802.11ac 20MHz link mode			
Date of Test	03/19/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-7.99	0.084	-0.92	< 19.09
5785	-8.05	0.084	-0.98	
5825	-7.16	0.084	-0.09	
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-6.05	0.084	1.03	< 19.09
5785	-5.75	0.084	1.33	
5825	-7.20	0.084	-0.13	
Frequency (MHz)	ANT-0+1			Limit (dBm/500KHz)
	Calculated (dBm/500KHz)			
5745	3.17			< 19.09
5785	3.34			
5825	2.90			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)



Model Number	EW-7429HOA				
Test Item	Conducted power spectral density				
Test Mode	Mode 4: IEEE 802.11ac 40MHz link mode				
Date of Test	03/22/2016				
Frequency (MHz)	ANT-0				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5190	-13.949	0.169	-13.780	< 6.09	< 0.09
5230	-14.020	0.169	-13.851		
Frequency (MHz)	ANT-1				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5190	-14.208	0.169	-14.039	< 6.09	< 0.09
5230	-13.484	0.169	-13.315		
Frequency (MHz)	ANT-0+1				
	Calculated (dBm/MHz)			Limit (dBm/MHz)	
				Master	Client
5190	-10.897			< 6.09	< 0.09
5230	-10.564				

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Model Number	EW-7429HOA			
Test Item	Conducted power spectral density			
Test Mode	Mode 4: IEEE 802.11ac 40MHz link mode			
Date of Test	03/19/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5755	-9.73	0.169	-2.58	< 19.09
5795	-9.73	0.169	-2.58	
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5755	-8.58	0.169	-1.42	< 19.09
5795	-8.58	0.169	-1.42	
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/500KHz)
5755	1.05			< 19.09
5795	1.05			

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.

Conversion ratio = 10*Log(500k/100k)



Model Number	EW-7429HOA				
Test Item	Conducted power spectral density				
Test Mode	Mode 5: IEEE 802.11ac 80MHz link mode				
Date of Test	03/22/2016				
Frequency (MHz)	ANT-0				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5210	-18.264	0.272	-17.992	< 6.09	< 0.09
Frequency (MHz)	ANT-1				
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)	
				Master	Client
5210	-17.151	0.272	-17.992	< 6.09	< 0.09
Frequency (MHz)	ANT-0+1				
	Calculated (dBm/MHz)			Limit (dBm/MHz)	
				Master	Client
5210	-14.390			< 6.09	< 0.09

Note: Method SA-2, Power density = measured result + 10log(1/duty cycle) + Conversion ratio = measured result + duty factor.



Model Number	EW-7429HOA			
Test Item	Conducted power spectral density			
Test Mode	Mode 5: IEEE 802.11ac 80MHz link mode			
Date of Test	03/19/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/MHz)
5775	-13.37	0.272	-6.10	< 19.09
Frequency (MHz)	ANT-1			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/MHz)
5775	-11.49	0.272	-4.23	< 19.09
Frequency (MHz)	ANT-0+1			
	Calculated (dBm/500KHz)			Limit (dBm/MHz)
5775	-2.06			< 19.09

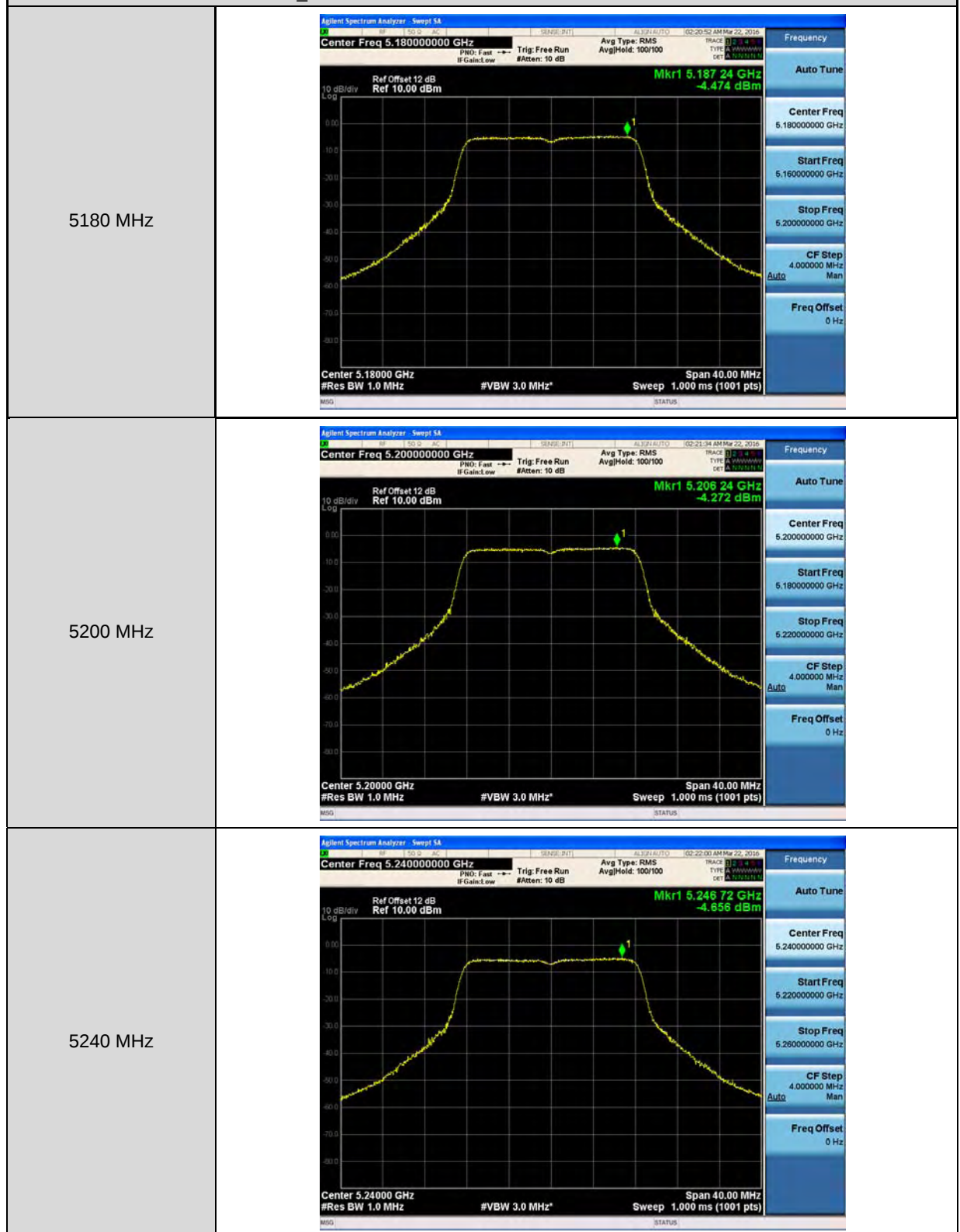
Note: Method SA-2, Power density = measured result + $10\log(1/\text{duty cycle})$ + Conversion ratio = measured result + duty factor.

Conversion ratio = $10*\log(500k/100k)$



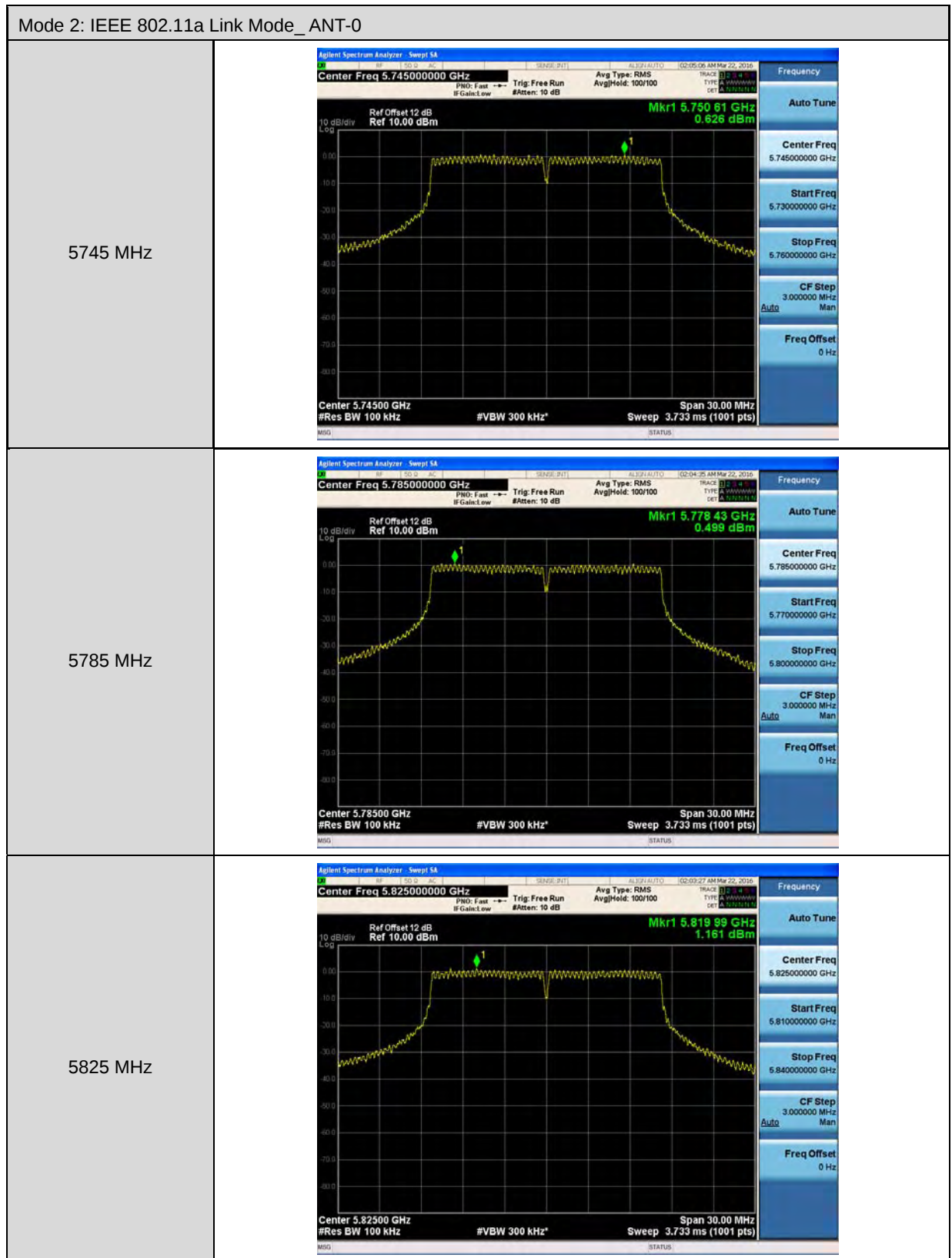
■ Test Graphs

Mode 2: IEEE 802.11a Link Mode_ ANT-0



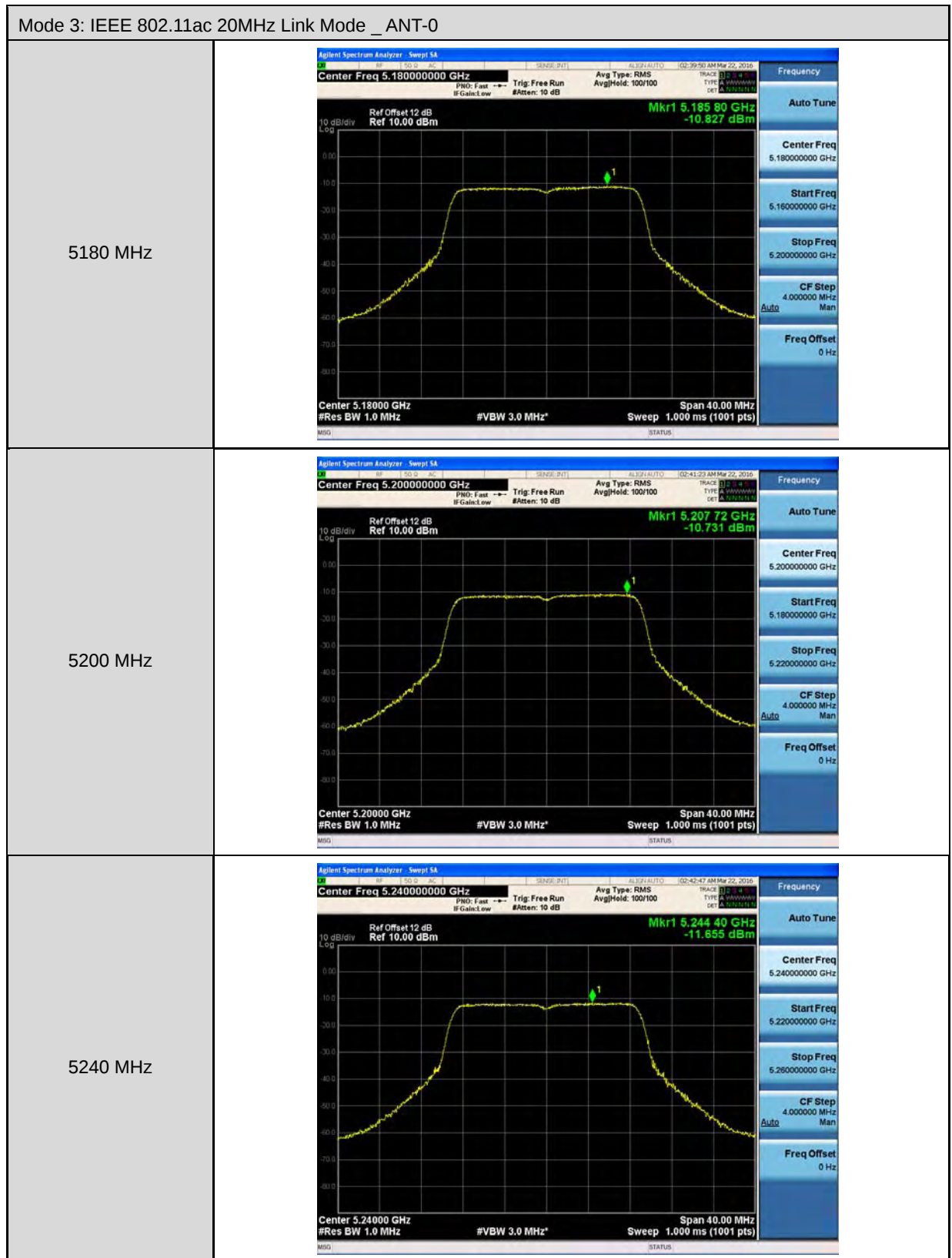


Mode 2: IEEE 802.11a Link Mode_ ANT-0



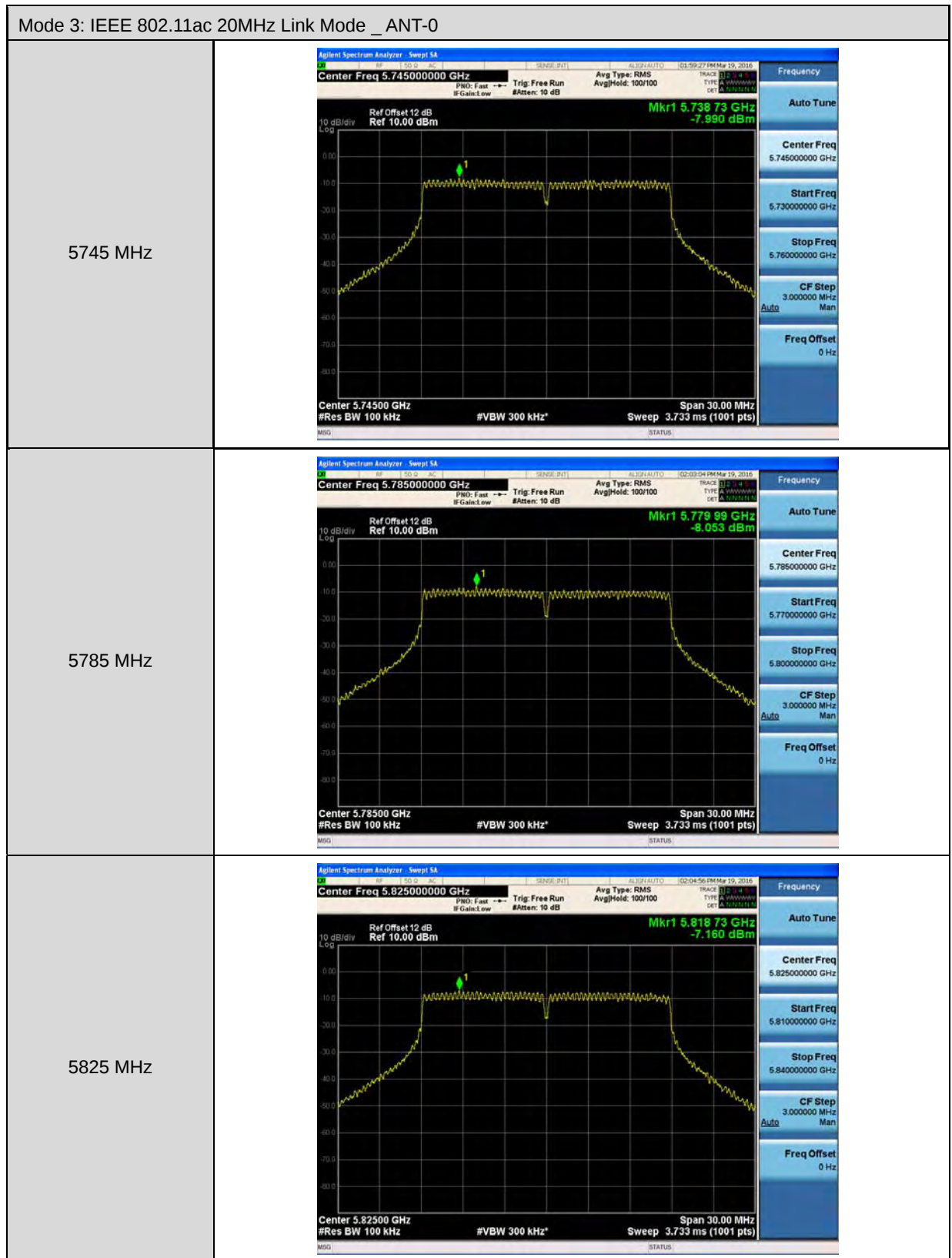


Mode 3: IEEE 802.11ac 20MHz Link Mode _ ANT-0



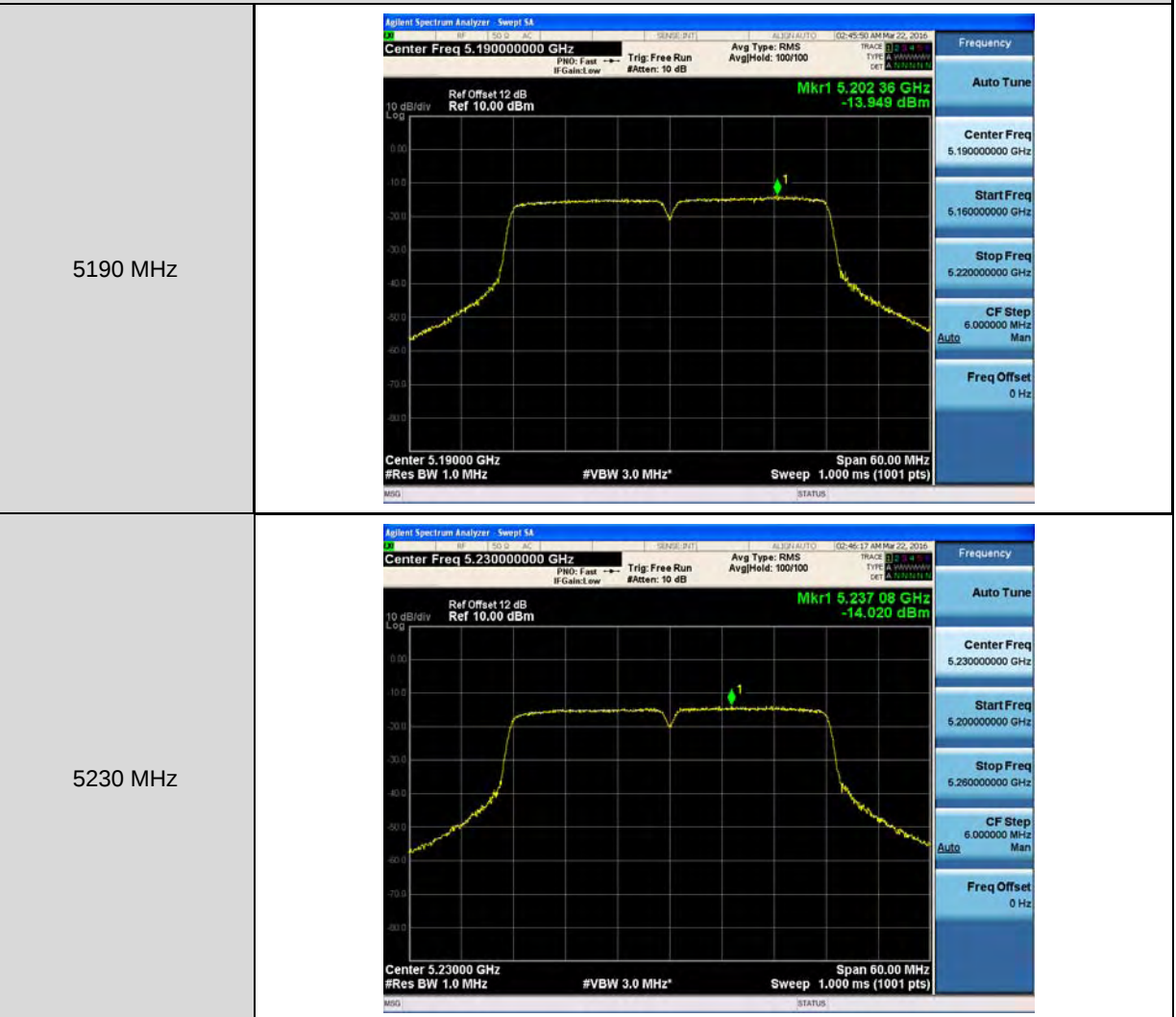


Mode 3: IEEE 802.11ac 20MHz Link Mode _ ANT-0



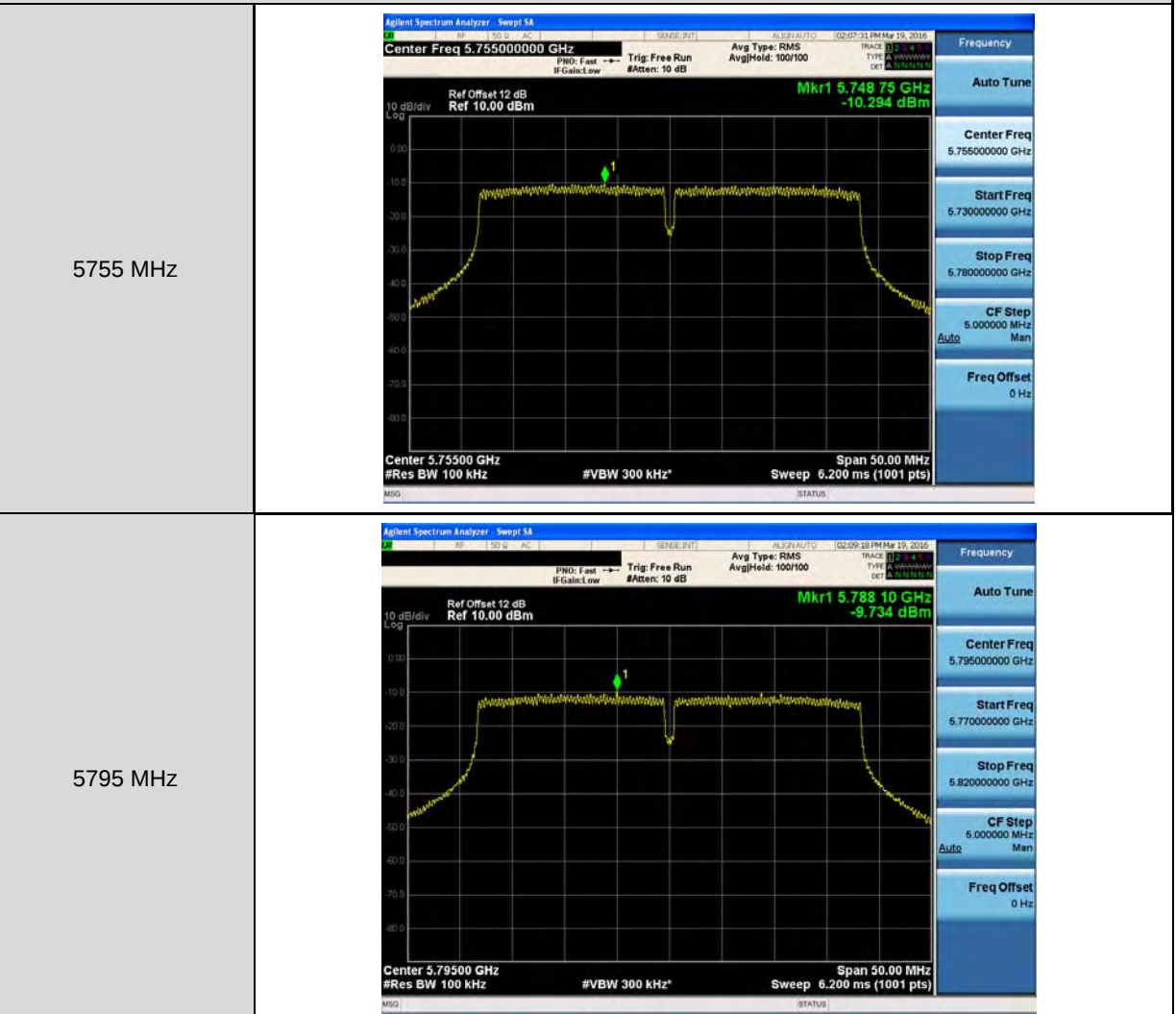


Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-0





Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-0





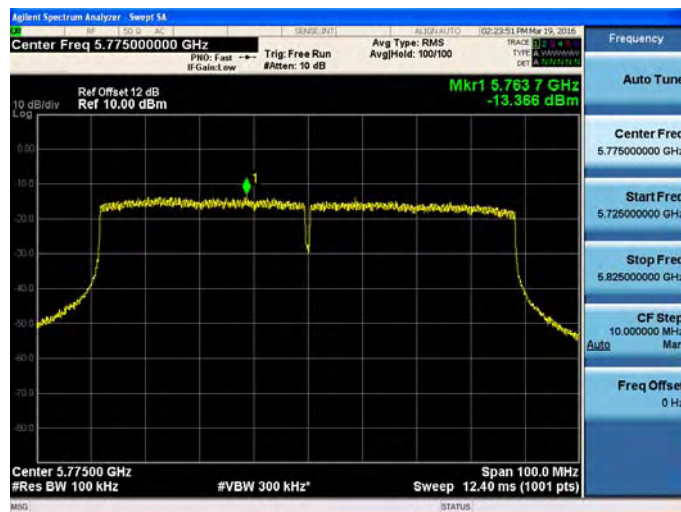
Mode 5: IEEE 802.11ac 80MHz Link Mode _ ANT-0

5210 MHz



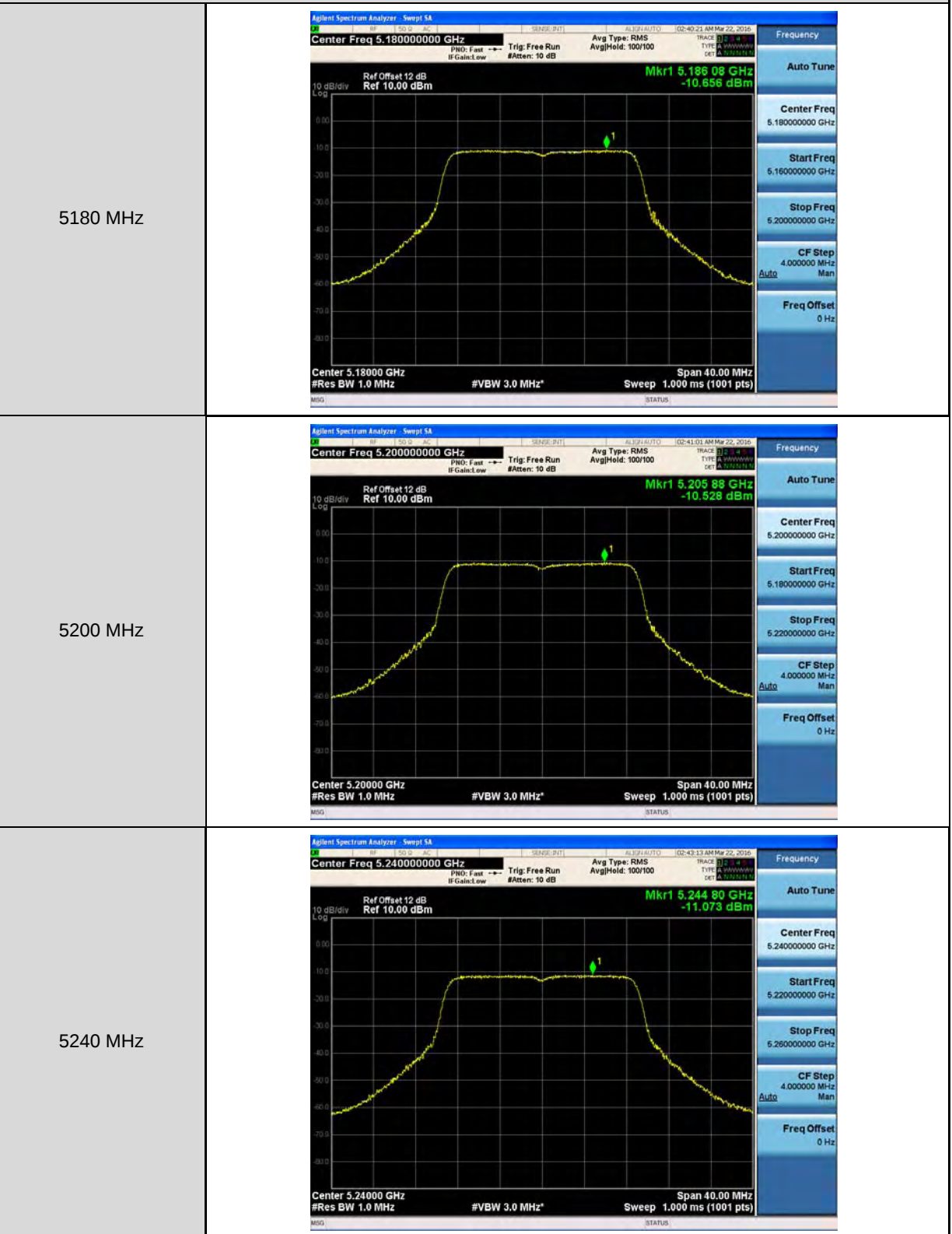
Mode 5: IEEE 802.11ac 80MHz Link Mode _ ANT-0

5775 MHz



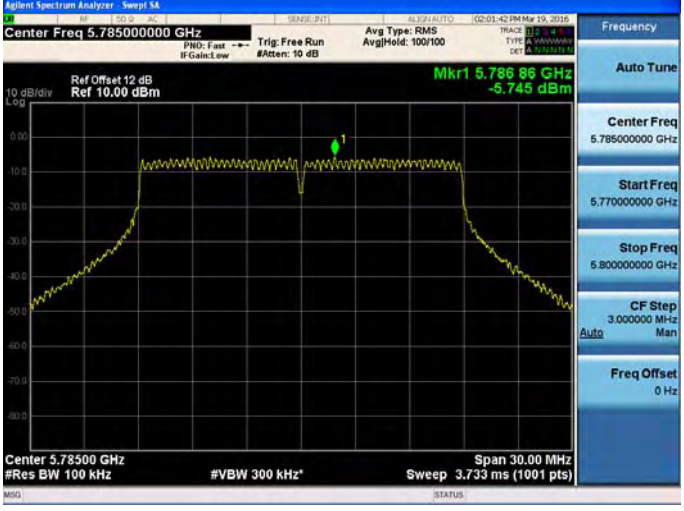
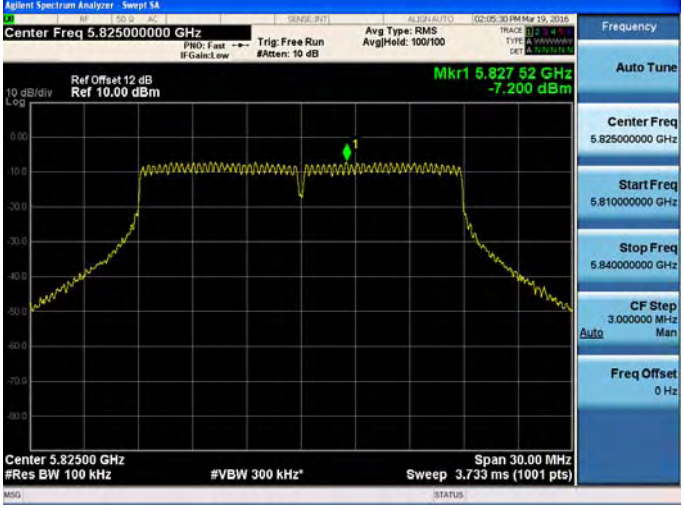


Mode 3: IEEE 802.11ac 20MHz Link Mode _ ANT-1





Mode 3: IEEE 802.11ac 20MHz Link Mode _ ANT-1

5745 MHz	
5785 MHz	
5825 MHz	



5190 MHz

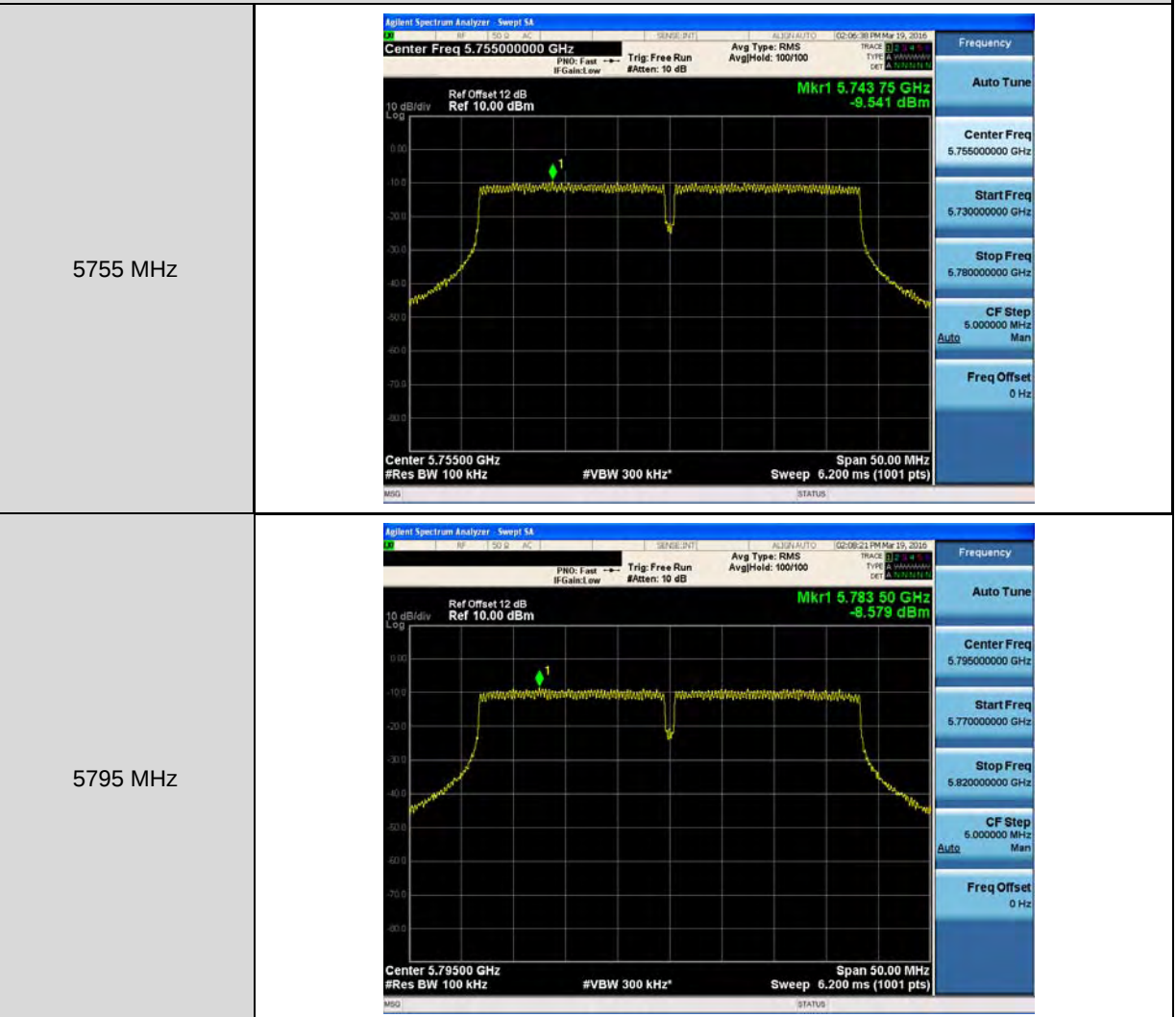


5230 MHz





Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-1





Mode 5: IEEE 802.11ac 80MHz Link Mode _ ANT-1

5210 MHz



Mode 5: IEEE 802.11ac 80MHz Link Mode _ ANT-1

5775 MHz

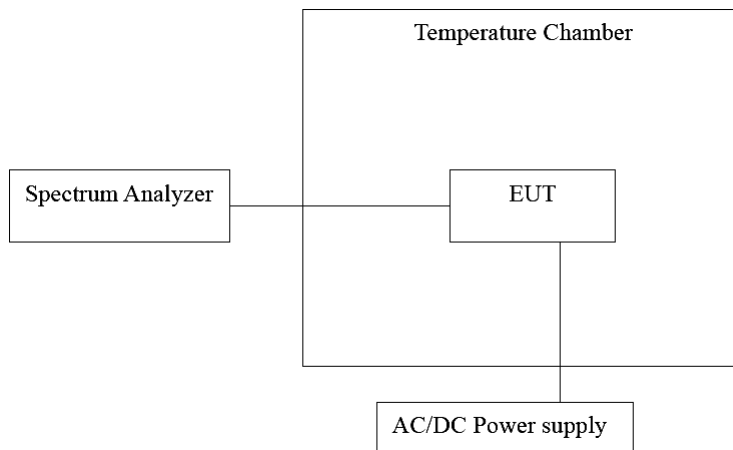


4.8. Frequency Stability Measurement

■ Limit

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

■ Test Setup



■ Test Instruments

Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Spectrum Analyzer	Agilent	E4408B	MY45107753	07/27/2015	1 year
Temperature & Humidity Chamber	TAICHY	MHU-225LA	980729	04/18/2016	1 year
Test Site	ATL	TE05	TE05	N.C.R.	-----

Note: N.C.R. = No Calibration Request.

■ Test Procedure

1. The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.



■ Test Result

Temperature Variations

Model Number	EW-7429HOA					
Test Item	Frequency Stability					
Date of Test	02/26/2016					
Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	-30	120	5200.0532	53200	10.231	Pass
	-20		5199.9968	-3200	-0.615	Pass
	-10		5199.9708	-29200	-5.615	Pass
	0		5200.0399	39900	7.673	Pass
	10		5200.0133	13300	2.558	Pass
	20		5200.0588	58800	11.308	Pass
	30		5200.0739	73900	14.212	Pass
	40		5200.0987	98700	18.981	Pass
	50		5200.0731	73100	14.058	Pass
	60		5200.0638	63800	12.269	Pass
5785 MHz	-30	120	5784.9785	-21500	-3.717	Pass
	-20		5784.9621	-37900	-6.551	Pass
	-10		5785.0159	15900	2.748	Pass
	0		5785.0206	20600	3.561	Pass
	10		5784.9956	-4400	-0.761	Pass
	20		5785.0379	37900	6.551	Pass
	30		5785.0774	77400	13.379	Pass
	40		5785.0394	39400	6.811	Pass
	50		5785.0661	66100	11.426	Pass
	60		5785.0721	72100	12.463	Pass

Voltage Variations

Model Number	EW-7429HOA					
Test Item	Frequency Stability					
Date of Test	02/26/2016					
Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5200.0079	7900	1.519	Pass
		120.00	5200.0588	58800	11.308	Pass
		102.00	5200.0587	58700	11.288	Pass
5785 MHz	20	138.00	5784.9647	-35300	-6.102	Pass
		120.00	5785.0379	37900	6.551	Pass
		102.00	5785.0543	54300	9.386	Pass

Note: The manufacturer's frequency stability specification is better than 20ppm.



4.9. Antenna Requirement

■ Limit

For intentional device, according to 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And According to 15.407 (a), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

■ Antenna Connector Construction

See section 2 – antenna information.

■ Directional Gain Calculated

See section 4.4 – Limit and section 4.7 – Limit