FCC 47 CFR PART 15 SUBPART E

Applicant	:	TP-LINK TECHNOLOGIES CO., LTD.
Product Type	:	AC900 Wireless Dual Band Gigabit Router
Trade Name	:	TP-LINK
Model Number	:	Archer C2
Test Specification	:	FCC 47 CFR PART 15 SUBPART E ANSI C63.10:2013
Receive Date	:	Jul. 20, 2016
Test Period	:	Jul. 26 ~ Aug. 28, 2016
Issue Date	:	Sep. 14, 2016

Issue by

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

Revision History

Rev.	Issue Date	Revisions	Revised By
00	Sep. 14, 2016	Initial Issue	Snow Wang

Verification of Compliance

Issued Date: Sep. 14, 2016

Applicant	:	TP-LINK TECHNOLOGIES CO., LTD.
Product Type	:	AC900 Wireless Dual Band Gigabit Router
Trade Name	:	TP-LINK
Model Number	:	Archer C2
FCC ID	:	TE7C2V3
EUT Rated Voltage	:	DC 12V, 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, Taoyuan City 33465, Taiwan (R.O.C) Tel：+86-3-2710188 / Fax：+86-3-2710190 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	Reviewed By	:	Eric Ou Yang
(Manager)		(Fly Lu)	(Testing Engineer)		(Eric Ou Yang)

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1 General Information

1.1. Summary of Test Result

Standard FCC	Item	Result	Remark
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	PASS	---
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.

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	TP-LINK TECHNOLOGIES CO., LTD. Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China			
Manufacturer	TP-LINK TECHNOLOGIES CO., LTD. Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China			
Product Type	AC900 Wireless Dual Band Gigabit Router			
Trade Name	TP-LINK			
Model No.	Archer C2			
FCC ID	TE7C2V3			
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	Indoor access point			
Antenna information	Type		Max. Gain (dBi)	
	Dipole Antenna		U-NII Band I	2.24
			U-NII Band III	2.30
Antenna Delivery	See section 3.1			
Frequency stability specification	± 20 ppm			

Frequency Band		RF Output Power (W)
IEEE 802.11a	U-NII Band I	0.086
	U-NII Band III	0.088
IEEE 802.11ac 20 MHz	U-NII Band I	0.089
	U-NII Band III	0.087
IEEE 802.11ac 40 MHz	U-NII Band I	0.089
	U-NII Band III	0.089
IEEE 802.11ac 80 MHz	U-NII Band I	0.028
	U-NII Band III	0.083

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.

By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that “X axis” position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

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

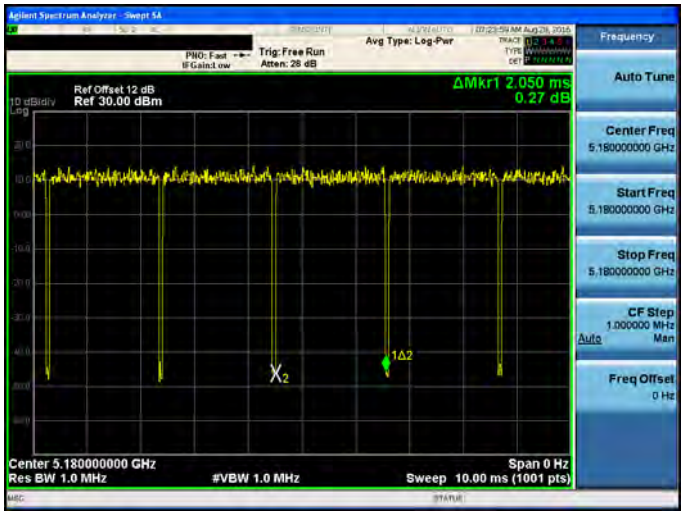
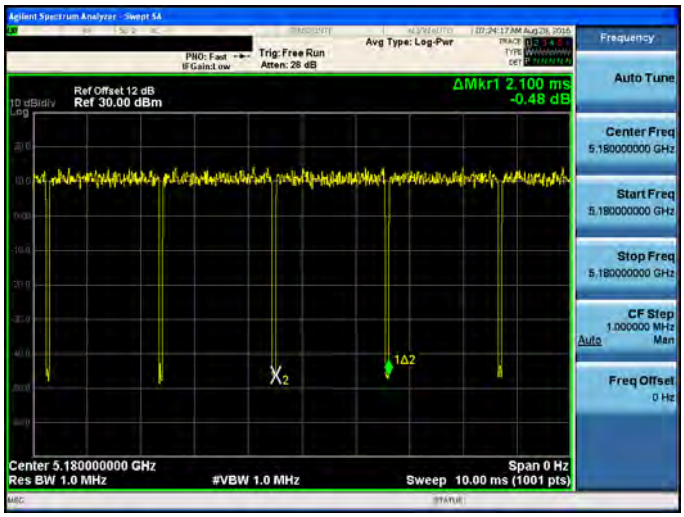
Test Mode	ANT-0
Mode 2	V
Mode 3	V
Mode 4	V
Mode 5	V

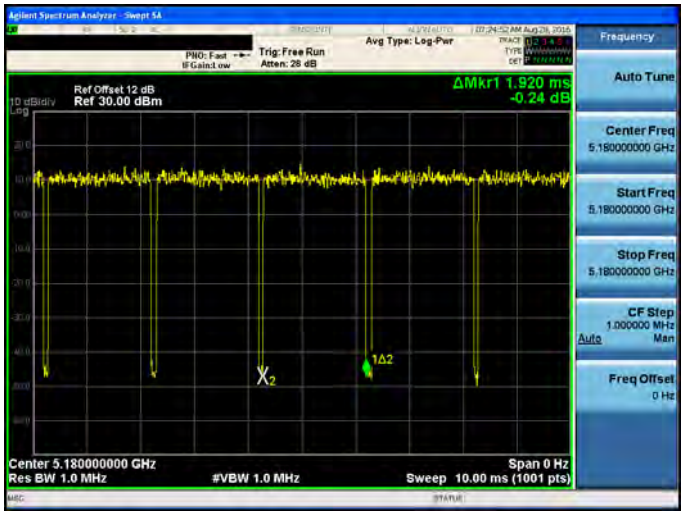
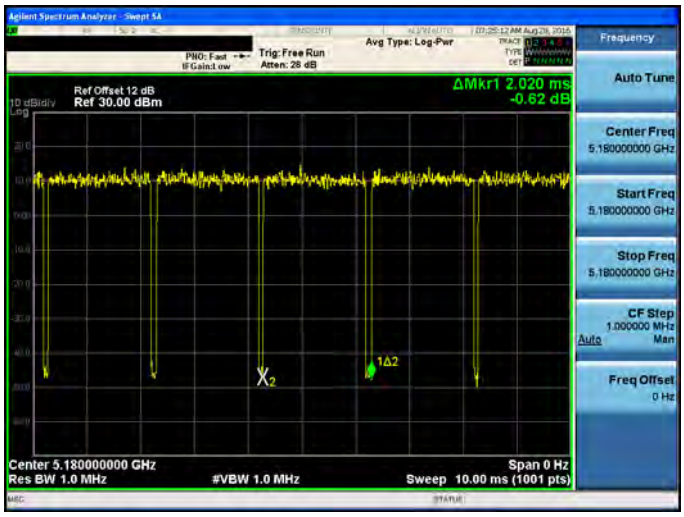
Test Mode	Band	Data Rate	Test Channel
Mode 2	U-NII Band I	6M	36, 40, 44, 48
	U-NII Band III		149,153,157,161,165
Mode 3	U-NII Band I	6.5M	36, 40, 44, 48
	U-NII Band III		149,153,157,161,165
Mode 4	U-NII Band I	13.5M	38, 46
	U-NII Band III		151,159
Mode 5	U-NII Band I	29.3M	42
	U-NII Band III		155

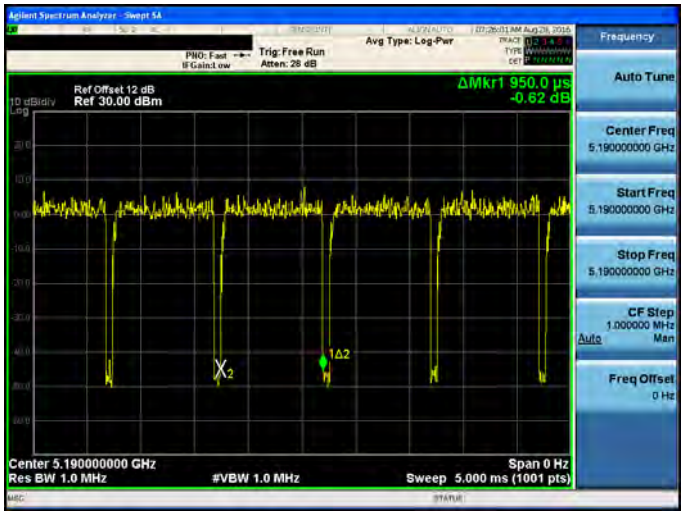
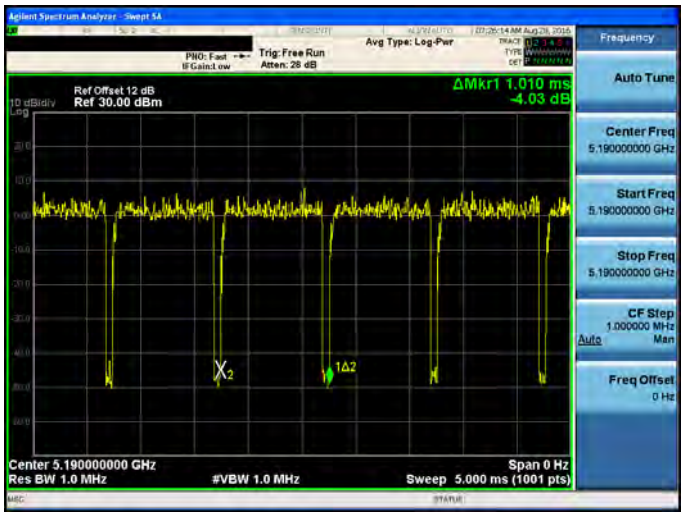
Duty cycle

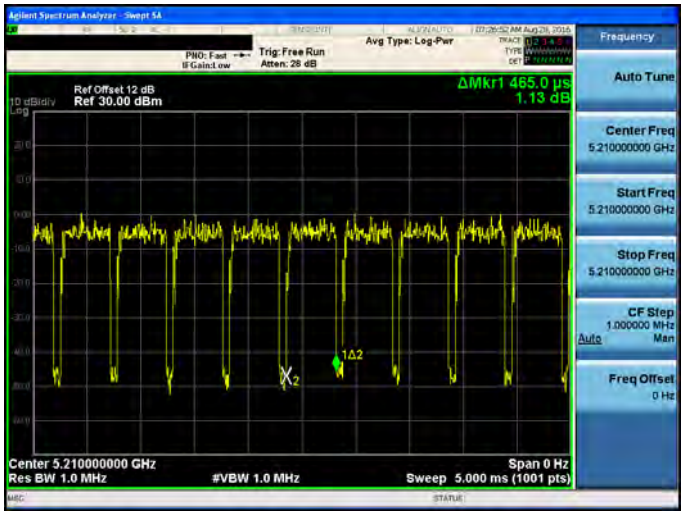
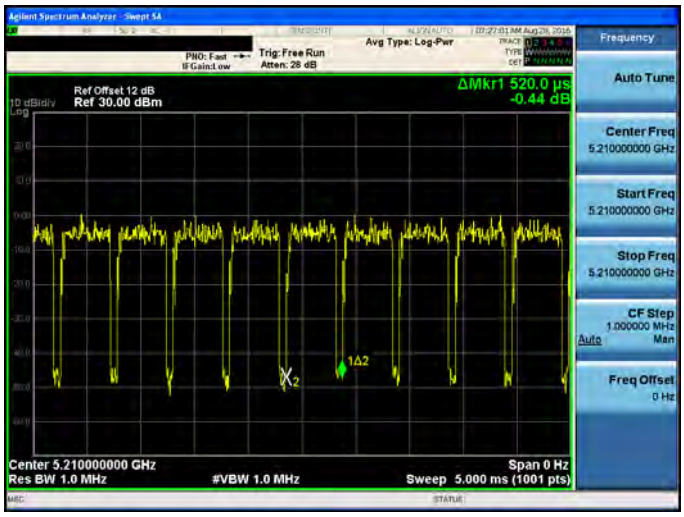
Test Mode	Frequency (MHz)	on time (ms)	on+off time (ms)	Duty cycle	Duty Factor (dB)	1/T Minimum VBW (kHz)
Mode 2: IEEE 802.11a Link Mode	5180.0	2.050	2.100	0.976	0.105	0.488
Mode 3: IEEE 802.11ac 20MHz Link Mode	5180.0	1.920	2.020	0.950	0.221	0.521
Mode 4: IEEE 802.11ac 40MHz Link Mode	5190.0	0.950	1.010	0.941	0.266	1.053
Mode 5: IEEE 802.11ac 80MHz Link Mode	5210.0	0.465	0.520	0.894	0.486	2.151

Duty Cycle Graphs

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

Mode 3: IEEE 802.11ac 20MHz Link Mode	
On time	
On+off time	

Mode 4: IEEE 802.11ac 40MHz Link Mode	
On time	
On+off time	

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

3.2. EUT Exercise Software

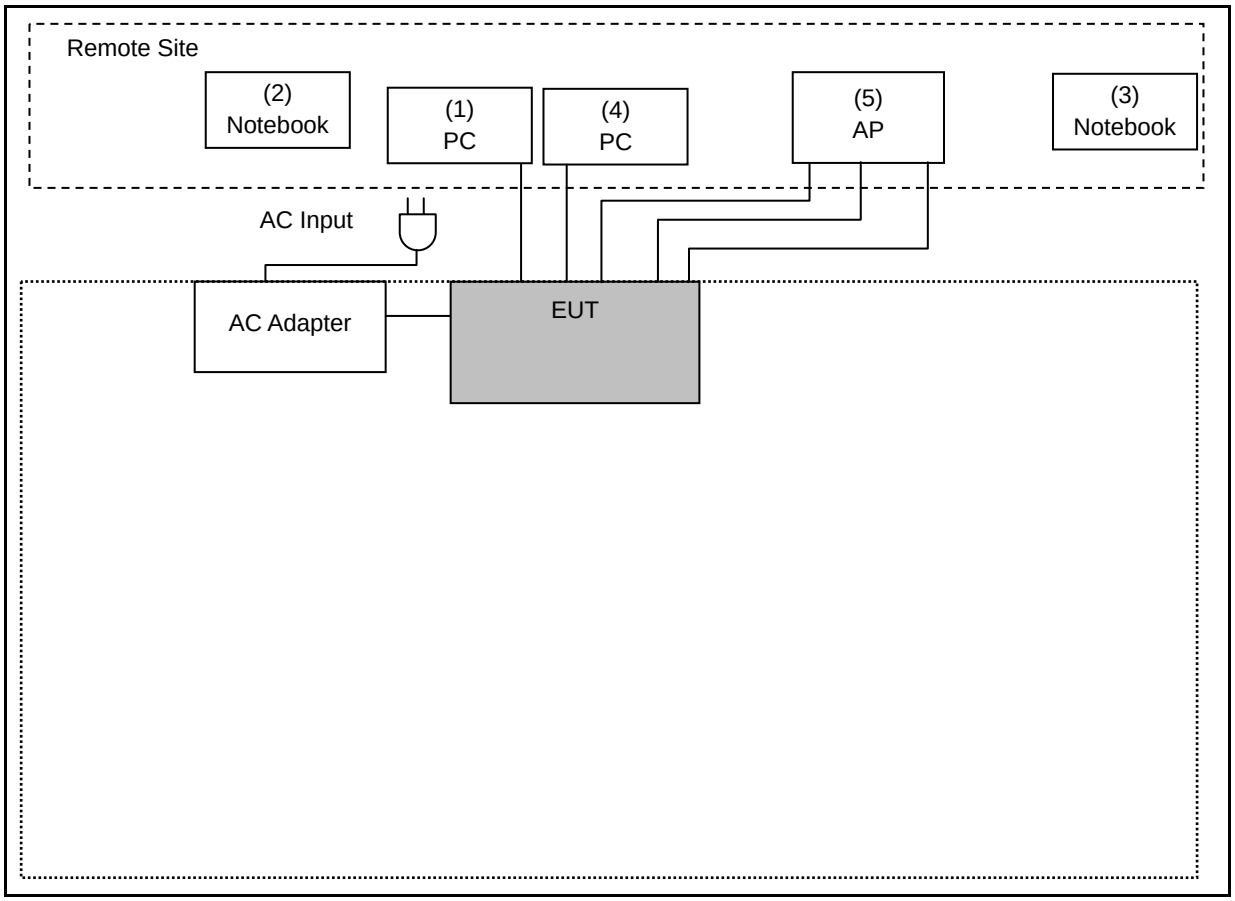
The EUT is operated in the engineering mode to fix the TX frequency for the purposes of measurement. According to its specifications, the EUT must comply with the requirements of Section 15.407 under the FCC Rules Part 15 Subpart E.

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

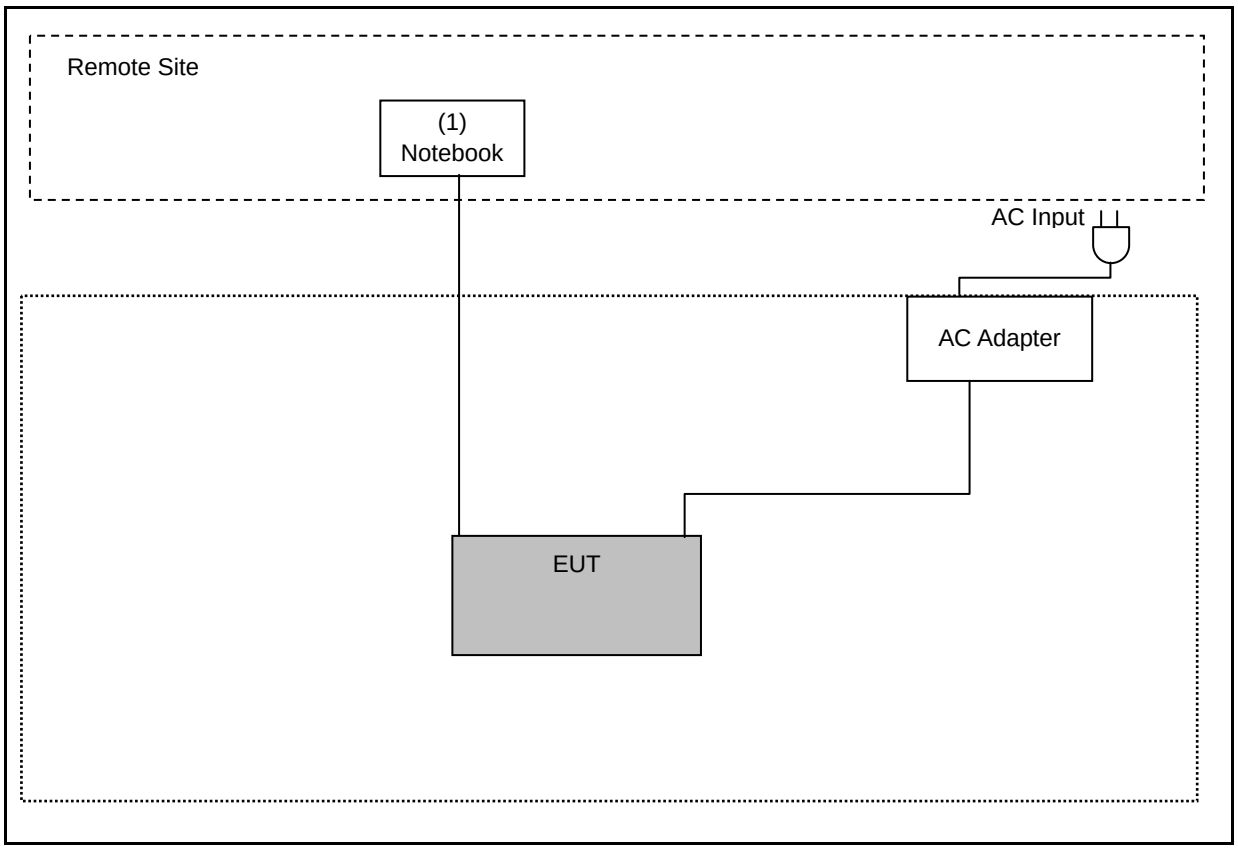
3.3. Configuration of Test System Details

Conducted Emissions



Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
1.	PC	DELL	9020	HJMBW02	Non-Shielded, 1.8m
2.	Notebook	DELL	LAPTITU	25627158361	Non-Shielded, 1.8m
3.	Notebook	DELL	LAPTITU	6699565657	Non-Shielded, 1.8m
4.	PC	DELL	T3610	F5XBW02	Non-Shielded, 1.8m
5.	AP	ASUS	MSQ-RTAC66U	D1IAGG000126	Non-Shielded, 1.8m

Radiated Emissions



Devices Description					
Product		Manufacturer	Model Number	Serial Number	Power Cord
(1)	Notebook	DELL	LAPTITU	6699565657	Non-Shielded, 0.8m

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**

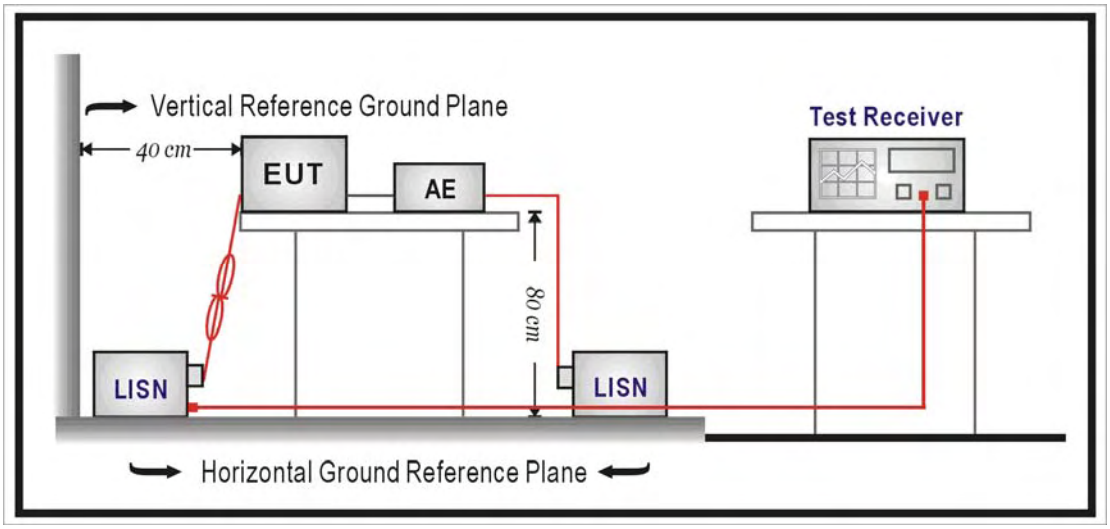
Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

■ **Test Instruments**

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	05/31/2016	1 year
LISN	R&S	ENV216	101040	03/15/2016	1 year
LISN	R&S	ENV216	101041	03/07/2016	1 year
RF Cable	Woken	00100D1380194M	TE-02-02	05/31/2016	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 50Ω// 50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50Ω// 50uH 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.

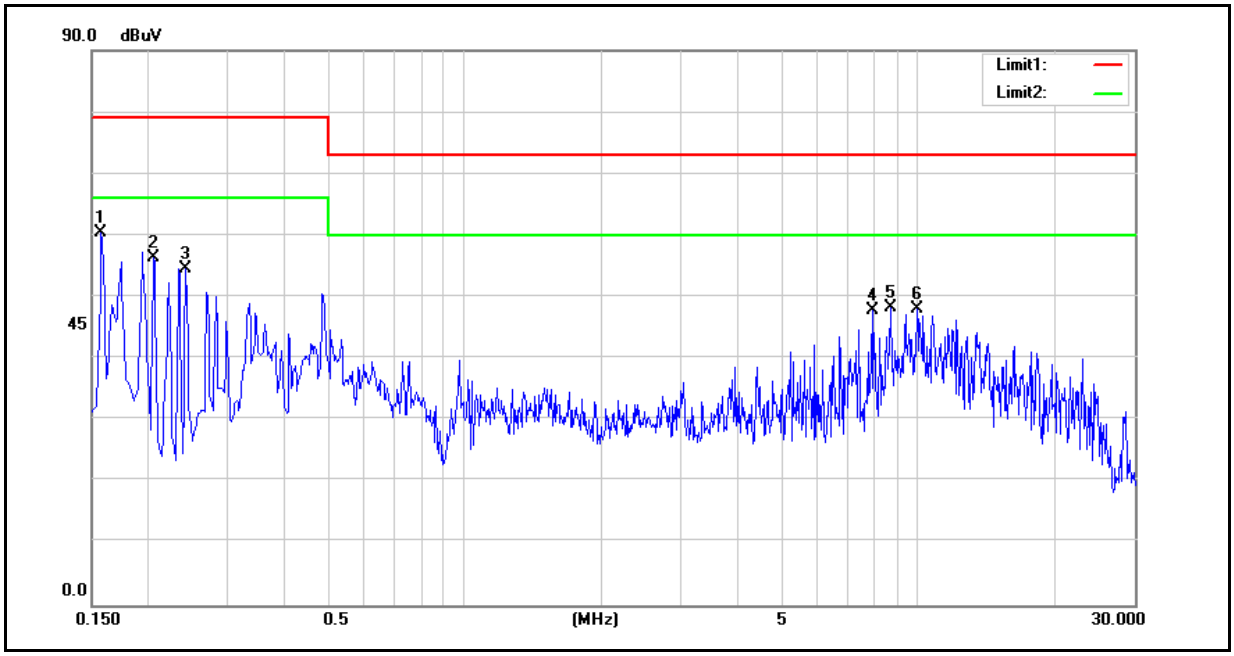
Conducted emissions were investigated over the frequency range from 0.15 MHz to 30 MHz using a resolution bandwidth of 9 kHz. The equipment under test (EUT) shall be meet the limits in section 4.1, as applicable, including the average limit and the quasi-peak limit when using respectively, an average 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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 1	Date:	07/26/2016
		Test By:	Eric Ou Yang
Description:			

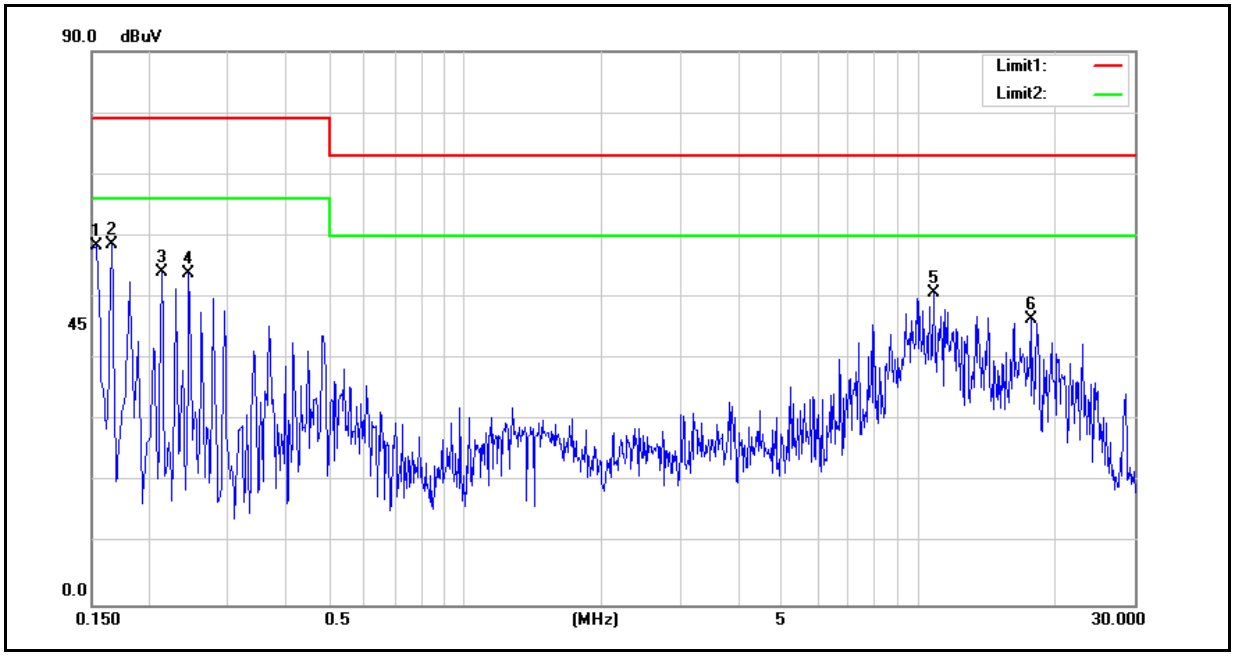


No.	Frequency (MHz)	QP reading (dBuV)	AVG reading (dBuV)	Correction factor (dB)	QP result (dBuV)	AVG result (dBuV)	QP limit (dBuV)	AVG limit (dBuV)	QP margin (dB)	AVG margin (dB)	Remark
1	0.1580	42.99	18.30	9.60	52.59	27.90	79.00	66.00	-26.41	-38.10	Pass
2	0.2060	38.85	12.29	9.59	48.44	21.88	79.00	66.00	-30.56	-44.12	Pass
3	0.2420	36.09	10.98	9.59	45.68	20.57	79.00	66.00	-33.32	-45.43	Pass
4	7.9220	36.67	28.10	9.84	46.51	37.94	73.00	60.00	-26.49	-22.06	Pass
5	8.7180	35.94	27.60	9.86	45.80	37.46	73.00	60.00	-27.20	-22.54	Pass
6	9.9380	35.80	26.95	9.89	45.69	36.84	73.00	60.00	-27.31	-23.16	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 1	Date:	07/26/2016
		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	41.79	15.53	9.59	51.38	25.12	79.00	66.00	-27.62	-40.88	Pass
2	0.1660	42.34	13.93	9.59	51.93	23.52	79.00	66.00	-27.07	-42.48	Pass
3	0.2140	35.98	10.23	9.58	45.56	19.81	79.00	66.00	-33.44	-46.19	Pass
4	0.2460	36.39	8.24	9.58	45.97	17.82	79.00	66.00	-33.03	-48.18	Pass
5	10.7940	38.81	22.89	9.93	48.74	32.82	73.00	60.00	-24.26	-27.18	Pass
6	17.6940	34.66	25.93	10.07	44.73	36.00	73.00	60.00	-28.27	-24.00	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.

(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.

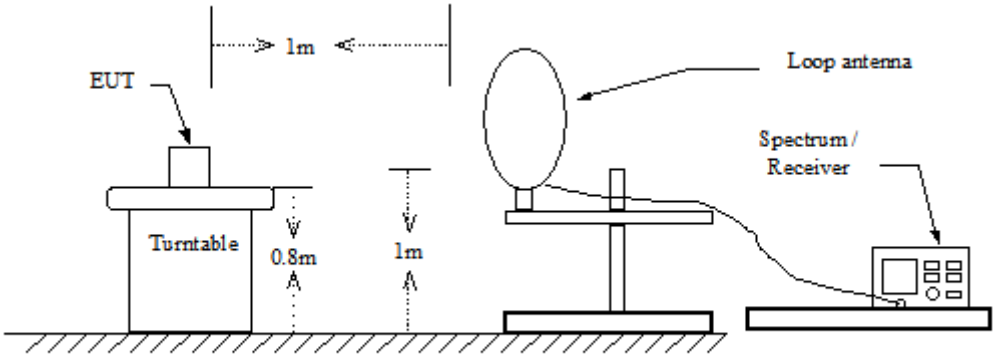
■ **Test Instruments**

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	06/06/2016	1 year
Horn Antenna (18~40GHz)	ETS	3116	86467	09/01/2015	1 year
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	02/01/2016	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

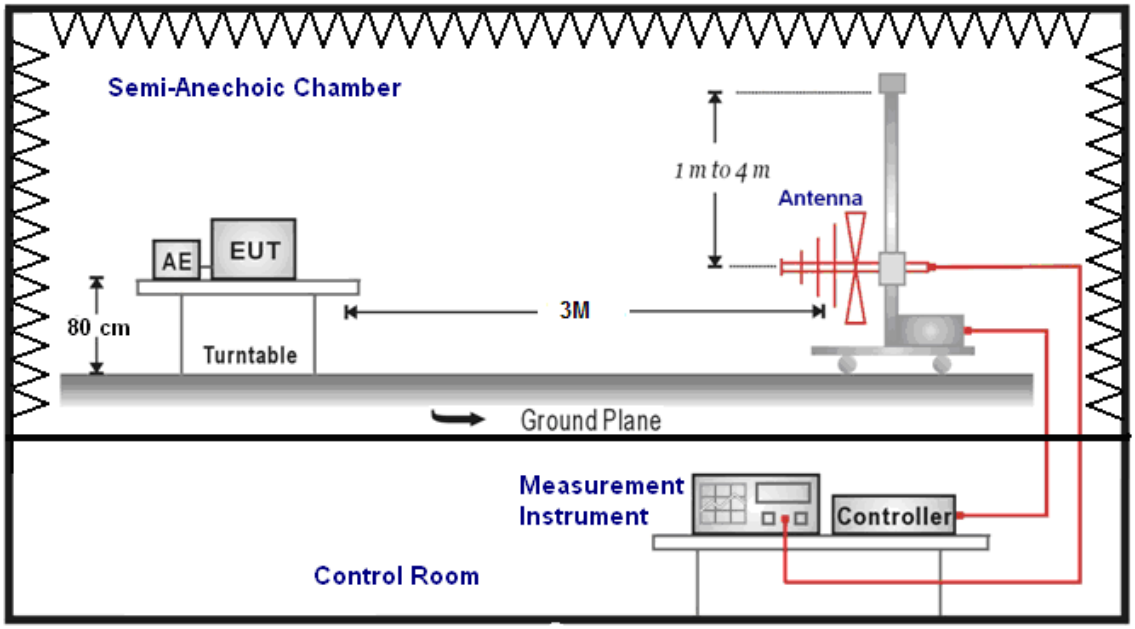
Note: N.C.R. = No Calibration Request.

■ **Setup**

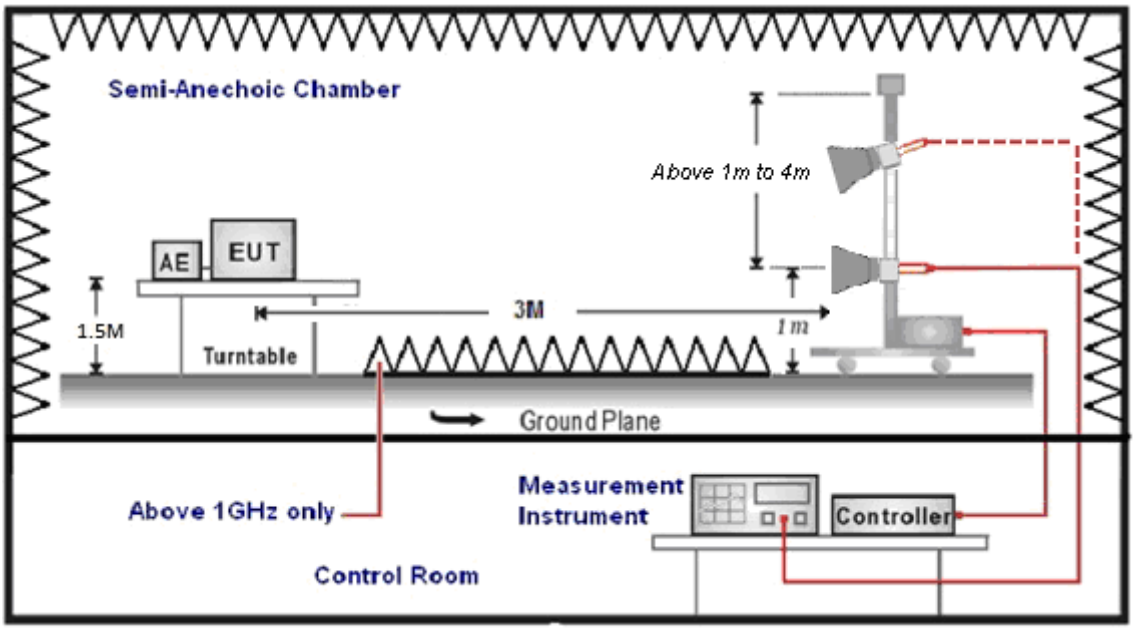
9kHz ~ 30MHz



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 tree 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 antnna 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 pre meter (uV/m).

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

The actual field is 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) 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) 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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 1	Date:	08/26/2016
Description:		Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
269.5000	21.43	-4.48	16.95	46.00	-29.05	QP	H
380.5000	21.89	-2.09	19.80	46.00	-26.20	QP	H
474.0000	23.30	0.27	23.57	46.00	-22.43	QP	H
608.0000	22.65	3.08	25.73	46.00	-20.27	QP	H
750.0000	22.26	6.03	28.29	46.00	-17.71	QP	H
855.0000	22.47	7.66	30.13	46.00	-15.87	QP	H
230.0000	25.06	-7.19	17.87	46.00	-28.13	QP	V
346.0000	25.07	-2.73	22.34	46.00	-23.66	QP	V
498.0000	25.28	0.71	25.99	46.00	-20.01	QP	V
612.5000	27.10	3.16	30.26	46.00	-15.74	QP	V
762.0000	25.39	6.19	31.58	46.00	-14.42	QP	V
858.5000	23.65	7.74	31.39	46.00	-14.61	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5180MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	44.74	4.97	49.71	68.20	-18.49	peak	H
10360.000	44.97	4.97	49.94	68.20	-18.26	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5200MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	43.25	5.07	48.32	68.20	-19.88	peak	H
10400.000	43.72	5.07	48.79	68.20	-19.41	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5240MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	43.03	5.25	48.28	68.20	-19.92	peak	H
10480.000	43.87	5.25	49.12	68.20	-19.08	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5745MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	43.79	6.14	49.93	74.00	-24.07	peak	H
11490.000	44.34	6.14	50.48	74.00	-23.52	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5785MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	43.89	6.35	50.24	74.00	-23.76	peak	H
11570.000	42.56	6.35	48.91	74.00	-25.09	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5825MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	42.37	6.58	48.95	74.00	-25.05	peak	H
11650.000	43.82	6.58	50.40	74.00	-23.60	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5180MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10360.000	44.11	4.97	49.08	68.20	-19.12	peak	H
10360.000	45.54	4.97	50.51	68.20	-17.69	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5200MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10400.000	44.61	5.07	49.68	68.20	-18.52	peak	H
10400.000	43.98	5.07	49.05	68.20	-19.15	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5240MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10480.000	44.92	5.25	50.17	68.20	-18.03	peak	H
10480.000	42.53	5.25	47.78	68.20	-20.42	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5745MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11490.000	44.31	6.14	50.45	74.00	-23.55	peak	H
11490.000	43.60	6.14	49.74	74.00	-24.26	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5785MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11570.000	42.81	6.35	49.16	74.00	-24.84	peak	H
11570.000	43.12	6.35	49.47	74.00	-24.53	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5825MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11650.000	42.78	6.58	49.36	74.00	-24.64	peak	H
11650.000	43.63	6.58	50.21	74.00	-23.79	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5190MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10380.000	45.12	5.01	50.13	68.20	-18.07	peak	H
10380.000	42.95	5.01	47.96	68.20	-20.24	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5230MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10460.000	44.38	5.22	49.60	68.20	-18.60	peak	H
10460.000	43.23	5.22	48.45	68.20	-19.75	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5755MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11510.000	45.38	6.17	51.55	74.00	-22.45	peak	H
11510.000	44.73	6.17	50.90	74.00	-23.10	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5795MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11590.000	43.41	6.41	49.82	74.00	-24.18	peak	H
11590.000	43.69	6.41	50.10	74.00	-23.90	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 5	Date:	08/28/2016
Frequency:	5210MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
10420.000	44.11	5.11	49.22	68.20	-18.98	peak	H
10420.000	45.06	5.11	50.17	68.20	-18.03	peak	V

Standard:	FCC Part 15E	Test Distance:	3m
Test item:	Radiated Emission	Power:	AC 120V/60Hz
Model Number:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 5	Date:	08/28/2016
Frequency:	5775MHz	Test By:	Eric Ou Yang
Description:			

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
11550.000	44.55	6.29	50.84	74.00	-23.16	peak	H
11550.000	43.73	6.29	50.02	74.00	-23.98	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Simultaneous Transmitting	Date:	08/28/2016
Description:	(DTS+NII)	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
2799.000	34.06	0.82	34.88	74.00	-39.12	peak	H
4290.000	31.72	5.84	37.56	74.00	-36.44	peak	H
7615.000	29.01	14.26	43.27	74.00	-30.73	peak	H
2813.000	32.98	0.85	33.83	74.00	-40.17	peak	V
4591.000	31.63	6.64	38.27	74.00	-35.73	peak	V
7650.000	28.73	14.30	43.03	74.00	-30.97	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5180 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4706.500	49.94	6.98	56.92	74.00	-17.08	peak	H
4706.500	38.16	6.98	45.14	54.00	-8.86	AVG	H
5150.000	46.23	8.16	54.39	74.00	-19.61	peak	H
5150.000	37.05	8.16	45.21	54.00	-8.79	AVG	H
5145.400	48.52	8.15	56.67	74.00	-17.33	peak	V
5145.400	39.95	8.15	48.10	54.00	-5.90	AVG	V
5150.000	48.67	8.16	56.83	74.00	-17.17	peak	V
5150.000	41.08	8.16	49.24	54.00	-4.76	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5200 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4919.520	48.83	7.73	56.56	74.00	-17.44	peak	H
4919.520	37.56	7.73	45.29	54.00	-8.71	AVG	H
5150.000	45.79	8.16	53.95	74.00	-20.05	peak	H
5150.000	37.26	8.16	45.42	54.00	-8.58	AVG	H
5350.000	46.82	8.33	55.15	74.00	-18.85	peak	H
5350.000	37.17	8.33	45.50	54.00	-8.50	AVG	H
5416.800	49.27	8.39	57.66	74.00	-16.34	peak	H
5416.800	37.24	8.39	45.63	54.00	-8.37	AVG	H
4734.240	50.20	7.09	57.29	74.00	-16.71	peak	V
4734.240	38.27	7.09	45.36	54.00	-8.64	AVG	V
5150.000	46.82	8.16	54.98	74.00	-19.02	peak	V
5150.000	37.14	8.16	45.30	54.00	-8.70	AVG	V
5350.000	47.30	8.33	55.63	74.00	-18.37	peak	V
5350.000	36.89	8.33	45.22	54.00	-8.78	AVG	V
5366.880	49.82	8.35	58.17	74.00	-15.83	peak	V
5366.880	37.10	8.35	45.45	54.00	-8.55	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5240 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	46.47	8.33	54.80	74.00	-19.20	peak	H
5350.000	37.38	8.33	45.71	54.00	-8.29	AVG	H
5362.100	48.87	8.34	57.21	74.00	-16.79	peak	H
5362.100	37.29	8.34	45.63	54.00	-8.37	AVG	H
5350.000	47.85	8.33	56.18	74.00	-17.82	peak	V
5350.000	38.21	8.33	46.54	54.00	-7.46	AVG	V
5405.000	50.83	8.38	59.21	74.00	-14.79	peak	V
5405.000	38.12	8.38	46.50	54.00	-7.50	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5745 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	46.38	8.84	55.22	68.20	-12.98	peak	H
5700.000	45.63	8.97	54.60	105.20	-50.60	peak	H
5720.000	46.57	9.01	55.58	110.80	-55.22	peak	H
5725.000	60.81	9.03	69.84	122.20	-52.36	peak	H
5650.000	47.62	8.84	56.46	68.20	-11.74	peak	V
5700.000	47.63	8.97	56.60	105.20	-48.60	peak	V
5720.000	58.35	9.01	67.36	110.80	-43.44	peak	V
5725.000	68.20	9.03	77.23	122.20	-44.97	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5785 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	47.87	8.84	56.71	68.20	-11.49	peak	H
5700.000	46.48	8.97	55.45	105.20	-49.75	peak	H
5720.000	47.47	9.01	56.48	110.80	-54.32	peak	H
5725.000	46.86	9.03	55.89	122.20	-66.31	peak	H
5850.000	45.71	9.33	55.04	122.20	-67.16	peak	H
5855.000	45.83	9.35	55.18	110.80	-55.62	peak	H
5875.000	45.85	9.40	55.25	105.20	-49.95	peak	H
5925.000	45.64	9.53	55.17	68.20	-13.03	peak	H
5650.000	49.28	8.84	58.12	68.20	-10.08	peak	V
5700.000	48.59	8.97	57.56	105.20	-47.64	peak	V
5720.000	47.92	9.01	56.93	110.80	-53.87	peak	V
5725.000	48.50	9.03	57.53	122.20	-64.67	peak	V
5850.000	47.27	9.33	56.60	122.20	-65.60	peak	V
5855.000	46.18	9.35	55.53	110.80	-55.27	peak	V
5875.000	46.63	9.40	56.03	105.20	-49.17	peak	V
5925.000	45.26	9.53	54.79	68.20	-13.41	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 2	Date:	08/28/2016
Frequency:	5825 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	47.63	9.33	56.96	122.20	-65.24	peak	H
5855.000	46.06	9.35	55.41	110.80	-55.39	peak	H
5875.000	46.33	9.40	55.73	105.20	-49.47	peak	H
5925.000	45.93	9.53	55.46	68.20	-12.74	peak	H
5850.000	54.72	9.33	64.05	122.20	-58.15	peak	V
5855.000	51.49	9.35	60.84	110.80	-49.96	peak	V
5875.000	46.37	9.40	55.77	105.20	-49.43	peak	V
5925.000	46.12	9.53	55.65	68.20	-12.55	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5180 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4749.900	50.93	7.14	58.07	74.00	-15.93	peak	H
4749.900	37.52	7.14	44.66	54.00	-9.34	AVG	H
5150.000	47.20	8.16	55.36	74.00	-18.64	peak	H
5150.000	36.25	8.16	44.41	54.00	-9.59	AVG	H
4837.400	49.30	7.45	56.75	74.00	-17.25	peak	V
4837.400	36.85	7.45	44.30	54.00	-9.70	AVG	V
5150.000	48.50	8.16	56.66	74.00	-17.34	peak	V
5150.000	38.81	8.16	46.97	54.00	-7.03	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5200 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4712.160	52.16	7.02	59.18	74.00	-14.82	peak	H
4712.160	37.96	7.02	44.98	54.00	-9.02	AVG	H
5150.000	46.55	8.16	54.71	74.00	-19.29	peak	H
5150.000	36.36	8.16	44.52	54.00	-9.48	AVG	H
5350.000	47.33	8.33	55.66	74.00	-18.34	peak	H
5350.000	37.23	8.33	45.56	54.00	-8.44	AVG	H
5375.520	48.81	8.36	57.17	74.00	-16.83	peak	H
5375.520	37.11	8.36	45.47	54.00	-8.53	AVG	H
4986.720	50.37	7.98	58.35	74.00	-15.65	peak	V
4986.720	36.67	7.98	44.65	54.00	-9.35	AVG	V
5150.000	47.14	8.16	55.30	74.00	-18.70	peak	V
5150.000	36.96	8.16	45.12	54.00	-8.88	AVG	V
5350.000	47.99	8.33	56.32	74.00	-17.68	peak	V
5350.000	38.26	8.33	46.59	54.00	-7.41	AVG	V
5393.760	49.90	8.37	58.27	74.00	-15.73	peak	V
5393.760	38.25	8.37	46.62	54.00	-7.38	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5240 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5350.000	47.33	8.33	55.66	74.00	-18.34	peak	H
5350.000	36.77	8.33	45.10	54.00	-8.90	AVG	H
5380.140	49.47	8.36	57.83	74.00	-16.17	peak	H
5380.140	36.93	8.36	45.29	54.00	-8.71	AVG	H
5350.000	47.89	8.33	56.22	74.00	-17.78	peak	V
5350.000	38.21	8.33	46.54	54.00	-7.46	AVG	V
5403.020	50.20	8.38	58.58	74.00	-15.42	peak	V
5403.020	38.31	8.38	46.69	54.00	-7.31	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5745 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	47.00	8.84	55.84	68.20	-12.36	peak	H
5700.000	45.08	8.97	54.05	105.20	-51.15	peak	H
5720.000	50.13	9.01	59.14	110.80	-51.66	peak	H
5725.000	60.21	9.03	69.24	122.20	-52.96	peak	H
5650.000	48.11	8.84	56.95	68.20	-11.25	peak	V
5700.000	49.03	8.97	58.00	105.20	-47.20	peak	V
5720.000	59.91	9.01	68.92	110.80	-41.88	peak	V
5725.000	69.29	9.03	78.32	122.20	-43.88	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5785 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	46.72	8.84	55.56	68.20	-12.64	peak	H
5700.000	45.91	8.97	54.88	105.20	-50.32	peak	H
5720.000	46.56	9.01	55.57	110.80	-55.23	peak	H
5725.000	45.63	9.03	54.66	122.20	-67.54	peak	H
5850.000	45.57	9.33	54.90	122.20	-67.30	peak	H
5855.000	46.16	9.35	55.51	110.80	-55.29	peak	H
5875.000	46.35	9.40	55.75	105.20	-49.45	peak	H
5925.000	45.81	9.53	55.34	68.20	-12.86	peak	H
5650.000	50.45	8.84	59.29	68.20	-8.91	peak	V
5700.000	47.76	8.97	56.73	105.20	-48.47	peak	V
5720.000	47.77	9.01	56.78	110.80	-54.02	peak	V
5725.000	48.93	9.03	57.96	122.20	-64.24	peak	V
5850.000	46.63	9.33	55.96	122.20	-66.24	peak	V
5855.000	46.24	9.35	55.59	110.80	-55.21	peak	V
5875.000	45.57	9.40	54.97	105.20	-50.23	peak	V
5925.000	46.77	9.53	56.30	68.20	-11.90	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 3	Date:	08/28/2016
Frequency:	5825 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	47.86	9.33	57.19	122.20	-65.01	peak	H
5855.000	45.38	9.35	54.73	110.80	-56.07	peak	H
5875.000	45.99	9.40	55.39	105.20	-49.81	peak	H
5925.000	46.04	9.53	55.57	68.20	-12.63	peak	H
5850.000	56.26	9.33	65.59	122.20	-56.61	peak	V
5855.000	51.67	9.35	61.02	110.80	-49.78	peak	V
5875.000	45.77	9.40	55.17	105.20	-50.03	peak	V
5925.000	46.67	9.53	56.20	68.20	-12.00	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5190 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5144.700	47.91	8.15	56.06	74.00	-17.94	peak	H
5144.700	39.49	8.15	47.64	54.00	-6.36	AVG	H
5150.000	47.35	8.16	55.51	74.00	-18.49	peak	H
5150.000	40.91	8.16	49.07	54.00	-4.93	AVG	H
5147.500	57.71	8.15	65.86	74.00	-8.14	peak	V
5147.500	45.05	8.15	53.20	54.00	-0.80	AVG	V
5150.000	57.61	8.16	65.77	74.00	-8.23	peak	V
5150.000	45.49	8.16	53.65	54.00	-0.35	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5230 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4759.200	50.26	7.17	57.43	74.00	-16.57	peak	H
4759.200	37.48	7.17	44.65	54.00	-9.35	AVG	H
5150.000	45.74	8.16	53.90	74.00	-20.10	peak	H
5150.000	36.44	8.16	44.60	54.00	-9.40	AVG	H
5350.000	47.18	8.33	55.51	74.00	-18.49	peak	H
5350.000	37.20	8.33	45.53	54.00	-8.47	AVG	H
5370.720	48.31	8.35	56.66	74.00	-17.34	peak	H
5370.720	36.99	8.35	45.34	54.00	-8.66	AVG	H
4888.800	48.45	7.64	56.09	74.00	-17.91	peak	V
4888.800	36.76	7.64	44.40	54.00	-9.60	AVG	V
5150.000	46.86	8.16	55.02	74.00	-18.98	peak	V
5150.000	37.35	8.16	45.51	54.00	-8.49	AVG	V
5350.000	47.80	8.33	56.13	74.00	-17.87	peak	V
5350.000	37.97	8.33	46.30	54.00	-7.70	AVG	V
5442.720	49.38	8.41	57.79	74.00	-16.21	peak	V
5442.720	37.49	8.41	45.90	54.00	-8.10	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5755 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	46.33	8.84	55.17	68.20	-13.03	peak	H
5700.000	46.30	8.97	55.27	105.20	-49.93	peak	H
5720.000	55.89	9.01	64.90	110.80	-45.90	peak	H
5725.000	56.88	9.03	65.91	122.20	-56.29	peak	H
5650.000	47.76	8.84	56.60	68.20	-11.60	peak	V
5700.000	51.36	8.97	60.33	105.20	-44.87	peak	V
5720.000	68.80	9.01	77.81	110.80	-32.99	peak	V
5725.000	69.39	9.03	78.42	122.20	-43.78	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 4	Date:	08/28/2016
Frequency:	5795 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5850.000	48.33	9.33	57.66	122.20	-64.54	peak	H
5855.000	46.56	9.35	55.91	110.80	-54.89	peak	H
5875.000	47.94	9.40	57.34	105.20	-47.86	peak	H
5925.000	46.10	9.53	55.63	68.20	-12.57	peak	H
5850.000	52.58	9.33	61.91	122.20	-60.29	peak	V
5855.000	50.06	9.35	59.41	110.80	-51.39	peak	V
5875.000	47.15	9.40	56.55	105.20	-48.65	peak	V
5925.000	46.18	9.53	55.71	68.20	-12.49	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 5	Date:	08/28/2016
Frequency:	5210 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
4985.760	47.96	7.97	55.93	74.00	-18.07	peak	H
4985.760	36.92	7.97	44.89	54.00	-9.11	AVG	H
5150.000	48.44	8.16	56.60	74.00	-17.40	peak	H
5150.000	41.29	8.16	49.45	54.00	-4.55	AVG	H
5350.000	47.57	8.33	55.90	74.00	-18.10	peak	H
5350.000	37.49	8.33	45.82	54.00	-8.18	AVG	H
5406.240	48.27	8.38	56.65	74.00	-17.35	peak	H
5406.240	37.39	8.38	45.77	54.00	-8.23	AVG	H
5142.240	62.93	8.15	71.08	74.00	-2.92	peak	V
5142.240	43.32	8.15	51.47	54.00	-2.53	AVG	V
5150.000	63.94	8.16	72.10	74.00	-1.90	peak	V
5150.000	45.15	8.16	53.31	54.00	-0.69	AVG	V
5350.000	48.49	8.33	56.82	74.00	-17.18	peak	V
5350.000	37.72	8.33	46.05	54.00	-7.95	AVG	V
5365.920	49.77	8.35	58.12	74.00	-15.88	peak	V
5365.920	37.44	8.35	45.79	54.00	-8.21	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:	Archer C2	Temp.(℃)/Hum.(%RH):	26(℃)/60%RH
Test Mode:	Mode 5	Date:	08/28/2016
Frequency:	5775 MHz	Test By:	Eric Ou Yang

Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Polar. H / V
5650.000	46.90	8.84	55.74	68.20	-12.46	peak	H
5700.000	53.43	8.97	62.40	105.20	-42.80	peak	H
5720.000	60.05	9.01	69.06	110.80	-41.74	peak	H
5725.000	61.09	9.03	70.12	122.20	-52.08	peak	H
5850.000	51.90	9.33	61.23	122.20	-60.97	peak	H
5855.000	48.30	9.35	57.65	110.80	-53.15	peak	H
5875.000	46.98	9.40	56.38	105.20	-48.82	peak	H
5650.000	55.03	8.84	63.87	68.20	-4.33	peak	V
5700.000	68.08	8.97	77.05	105.20	-28.15	peak	V
5720.000	71.87	9.01	80.88	110.80	-29.92	peak	V
5725.000	73.57	9.03	82.60	122.20	-39.60	peak	V
5850.000	63.67	9.33	73.00	122.20	-49.20	peak	V
5855.000	65.77	9.35	75.12	110.80	-35.68	peak	V
5875.000	60.91	9.40	70.31	105.20	-34.89	peak	V
5925.000	47.29	9.53	56.82	68.20	-11.38	peak	V

Note: 1. Result = Correction factor + Reading

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

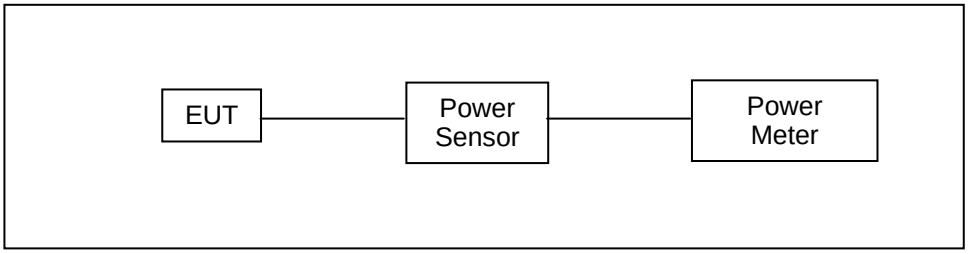
4.4. Maximum Conducted Output Power and Transmit power control Measurement

■ **Limit**

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

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.

■ **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		Archer C2		
Test Item		Maximum Conducted Output Power		
Test Mode		Mode 2: IEEE 802.11a Link Mode		
Date of Test		07/26/2016		
Frequency (MHz)	Data Rate	ANT-0		FCC Limit (dBm)
		Max. Outup Power		
		(dBm)	(W)	
5180	6M	**19.33**	**0.086**	≤ 30
5200		19.27	0.085	
5220		19.28	0.085	
5240		19.31	0.085	
5745		19.33	0.086	≤ 30
5765		19.43	0.088	
5785		19.40	0.087	
5805		19.32	0.086	
5825		**19.44**	**0.088**	

Note: Evaluated high and low data rate, the report record worst case low data rate measurement results.

Model Number		Archer C2		
Test Item		Maximum Conducted Output Power		
Test Mode		Mode 3: IEEE 802.11ac 20MHz Link Mode		
Date of Test		07/26/2016		
Frequency (MHz)	Data Rate	ANT-0		FCC Limit (dBm)
		Max. Outup Power		
		(dBm)	(W)	
5180	6.5M	**19.48**	**0.089**	≤ 30
5200		19.19	0.083	
5220		19.27	0.085	
5240		19.24	0.084	
5745		19.25	0.084	≤ 30
5765		**19.42**	**0.087**	
5785		19.32	0.086	
5805		19.40	0.087	
5825		19.42	0.087	

Note: Evaluated high and low data rate, the report record worst case low data rate measurement results.

Model Number		Archer C2		
Test Item		Maximum Conducted Output Power		
Test Mode		Mode 4: IEEE 802.11ac 40MHz Link Mode		
Date of Test		07/26/2016		
Frequency (MHz)	Data Rate	ANT-0		FCC Limit (dBm)
		Max. Outup Power		
		(dBm)	(W)	
5190	13.5M	18.07	0.064	≤ 30
5230		**19.51**	**0.089**	
5755		19.44	0.088	≤ 30
5795		**19.48**	**0.089**	

Note: Evaluated high and low data rate, the report record worst case low data rate measurement results.

Model Number		Archer C2		
Test Item		Maximum Conducted Output Power		
Test Mode		Mode 5: IEEE 802.11ac 80MHz Link Mode		
Date of Test		07/26/2016		
Frequency (MHz)	Data Rate	ANT-0		FCC Limit (dBm)
		Max. Outup Power		
		(dBm)	(W)	
5210	29.3M	**14.54**	**0.028**	≤ 30
5775		**19.21**	**0.083**	≤ 30

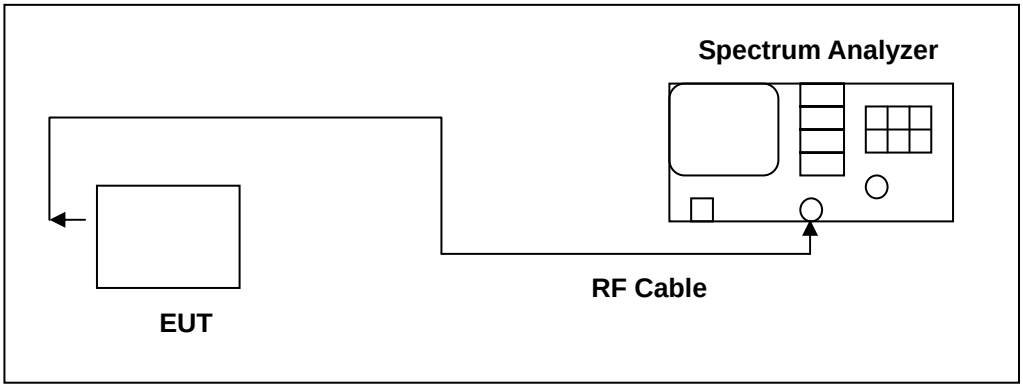
Note: Evaluated high and low data rate, the report record worst case low data rate measurement results.

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	Archer C2	
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement	
Test Mode	Mode 2: IEEE 802.11a Link Mode	
Date of Test	08/28/2016	
Frequency (MHz)	ANT-0	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5180	26.630	17.083
5200	26.810	17.110
5240	26.950	17.141

Model Number	Archer C2	
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement	
Test Mode	Mode 3: IEEE 802.11ac 20MHz Link Mode	
Date of Test	08/28/2016	
Frequency (MHz)	ANT-0	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5180	27.010	18.272
5200	26.600	18.162
5240	26.690	18.203

Model Number	Archer C2	
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement	
Test Mode	Mode 4: IEEE 802.11ac 40MHz Link Mode	
Date of Test	08/28/2016	
Frequency (MHz)	ANT-0	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5190	49.930	37.171
5230	49.890	37.210

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

Model Number	Archer C2	
Test Item	26dB RF Bandwidth & 99 % Occupied Bandwidth Measurement	
Test Mode	Mode 5: IEEE 802.11ac 80MHz Link Mode	
Date of Test	08/28/2016	
Frequency (MHz)	ANT-0	
	26dB Bandwidth (MHz)	99 % Occupied Bandwidth
5210	99.620	76.314

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	
5200 MHz	
5240 MHz	

Mode 4: IEEE 802.11ac 40MHz Link Mode_ ANT-0	
5190 MHz	
5230 MHz	

Mode 5: IEEE 802.11ac 80MHz Link Mode_ ANT-0	
5210 MHz	

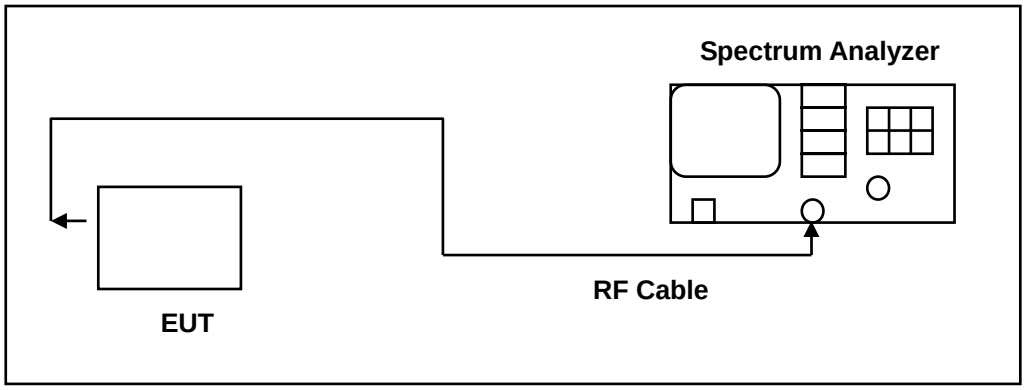
4.6. 6dB RF Bandwidth Measurement

■ **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	Archer C2	
Test Item	6dB RF Bandwidth	
Test Mode	Mode 2: IEEE 802.11a Link Mode	
Date of Test	08/28/2016	
Frequency (MHz)	6dB Bandwidth (kHz)	Limit (kHz)
	ANT-0	
5745	16360	> 500
5785	16360	> 500
5825	16360	> 500

Model Number	Archer C2	
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	
5745	17580	> 500
5785	17610	> 500
5825	17610	> 500

Model Number	Archer C2	
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	
5755	17580	> 500
5795	17610	> 500

Model Number	Archer C2	
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	
5775	75790	> 500

■ **Test Graphs**

Mode 2: IEEE 802.11a Link Mode_ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

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	

4.7. Peak Power Spectral Density Measurement

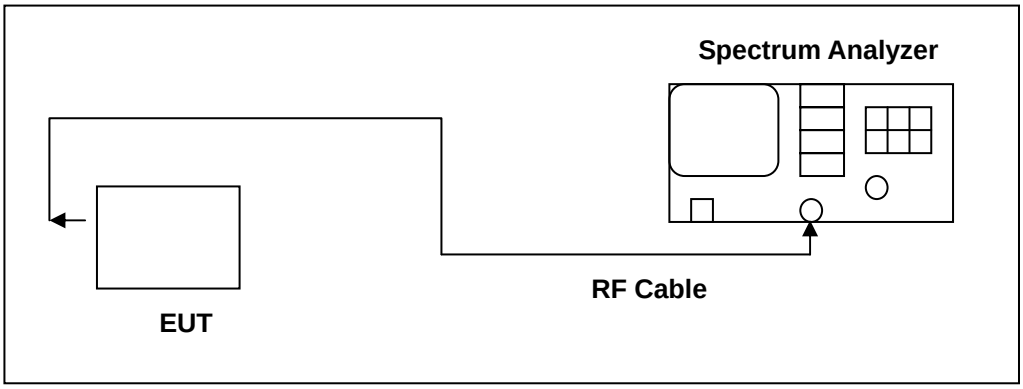
■ **Limit**

Conducted power spectral density

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

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.

■ **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 10log(500kHz/100kHz) to the measured result.	

■ **Test Result**

Model Number	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 2: IEEE 802.11a link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	8.814	0.105	8.919	< 17
5200	8.503	0.105	8.608	
5240	8.358	0.105	8.463	

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

Model Number	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 2: IEEE 802.11a link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-0.56	0.105	6.54	< 30
5785	-0.17	0.105	6.92	
5825	-0.59	0.105	6.51	

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	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 3: IEEE 802.11ac 20MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5180	8.227	0.221	8.448	< 17
5200	7.986	0.221	8.207	
5240	8.189	0.221	8.410	

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

Model Number	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 3: IEEE 802.11ac 20MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5745	-0.19	0.221	7.02	< 30
5785	-1.03	0.221	6.18	
5825	-0.58	0.221	6.63	

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	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 4: IEEE 802.11ac 40MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5190	4.045	0.266	4.311	< 17
5230	5.569	0.266	5.835	

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

Model Number	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 4: IEEE 802.11ac 40MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/500KHz)
5755	-3.09	0.266	4.17	< 30
5795	-3.39	0.266	3.87	

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	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 5: IEEE 802.11ac 80MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/MHz)	Duty Factor (dB)	Calculated (dBm/MHz)	Limit (dBm/MHz)
5210	-2.496	0.486	-2.010	< 17

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

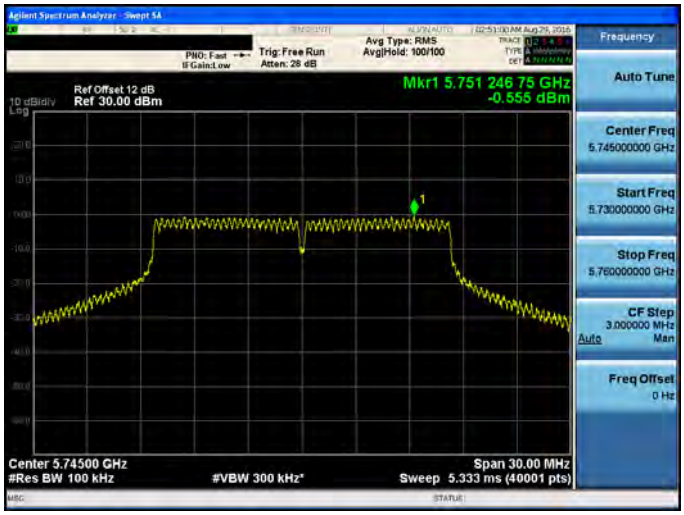
Model Number	Archer C2			
Test Item	Conducted power spectral density			
Test Mode	Mode 5: IEEE 802.11ac 80MHz link mode			
Date of Test	08/28/2016			
Frequency (MHz)	ANT-0			
	Measurement (dBm/100KHz)	Duty Factor (dB)	Calculated (dBm/500KHz)	Limit (dBm/MHz)
5775	-5.61	0.486	1.87	< 30

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

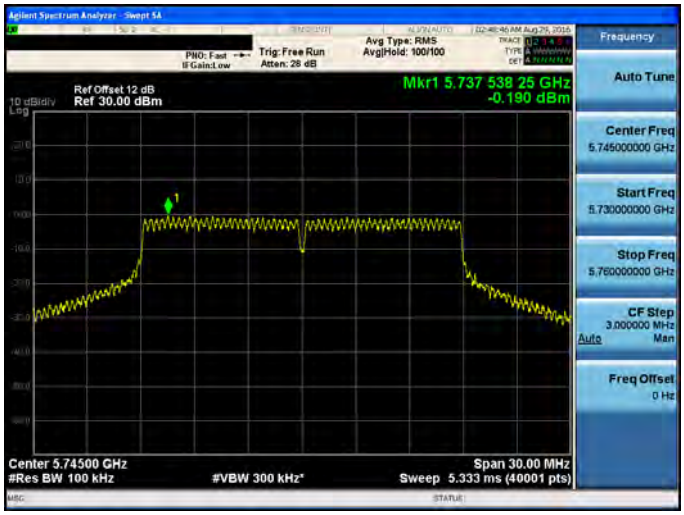
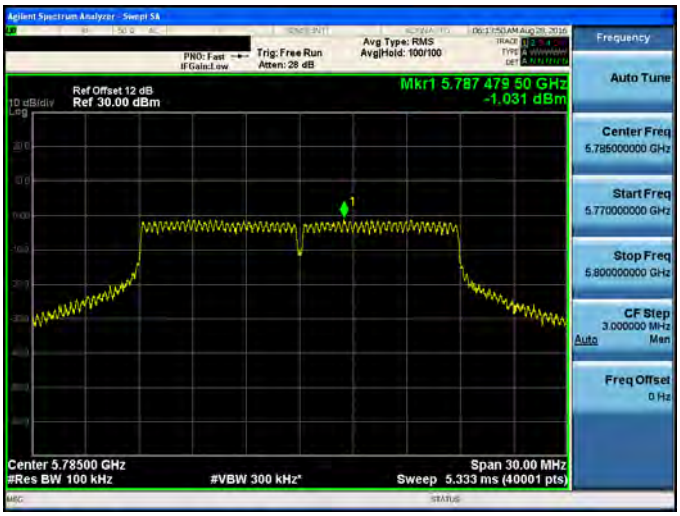
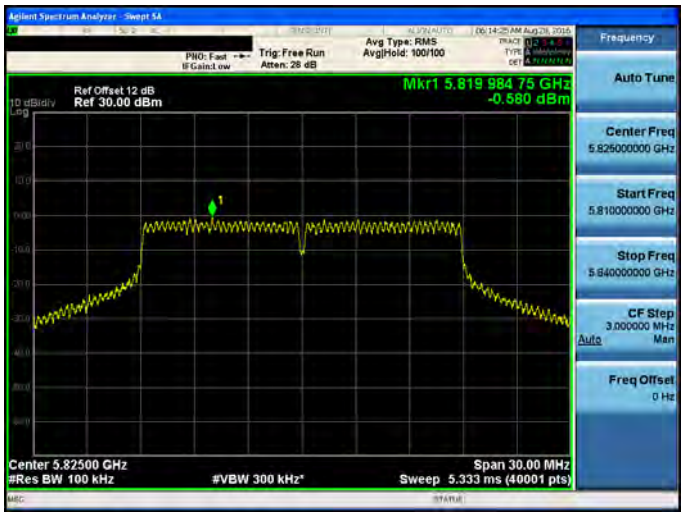
Conversion ratio = 10*Log(500k/100k)

■ **Test Graphs**

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

Mode 2: IEEE 802.11a Link Mode_ ANT-0	
5745 MHz	
5785 MHz	
5825 MHz	

Mode 3: IEEE 802.11ac 20MHz Link Mode _ ANT-0	
5180 MHz	
5200 MHz	
5240 MHz	

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	
5190 MHz	
5230 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	
5210 MHz	

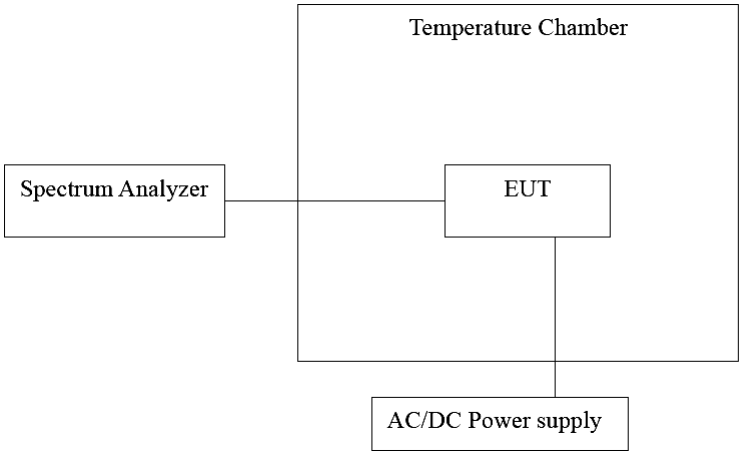
Mode 5: IEEE 802.11ac 80MHz Link Mode _ ANT-0	
5775 MHz	

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	Archer C2					
Test Item	Frequency Stability					
Date of Test	07/26/2016					
Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	0	120	5199.9548	-45200	-8.692	Pass
	10		5199.9566	-43400	-8.346	Pass
	20		5199.965	-35000	-6.731	Pass
	30		5199.9753	-24700	-4.750	Pass
	40		5199.9837	-16300	-3.135	Pass
5785 MHz	0	120	5784.9549	-45100	-7.796	Pass
	10		5784.9648	-35200	-6.085	Pass
	20		5784.962	-38000	-6.569	Pass
	30		5784.9699	-30100	-5.203	Pass
	40		5784.9814	-18600	-3.215	Pass

Voltage Variations

Model Number	Archer C2					
Test Item	Frequency Stability					
Date of Test	07/26/2016					
Frequency	Temp. (°C)	Voltage (Vac)	Measured Freq. (MHz)	Delta Freq. (Hz)	Tolerance (ppm)	Result (Pass/Fail)
5200 MHz	20	138.00	5199.9638	-36200	-6.962	Pass
		120.00	5199.965	-35000	-6.731	Pass
		102.00	5199.9707	-29300	-5.635	Pass
5785 MHz	20	138.00	5784.9594	-40600	-7.018	Pass
		120.00	5784.962	-38000	-6.569	Pass
		102.00	5784.9761	-23900	-4.131	Pass

Note: The manufacturer's frequency stability specification is better then 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.