

FCC TEST REPORT

FCC ID:2A6EL-GCUBE

Report Number..... : ZKT-220309L1461

Date of issue..... : Dec. 02, 2021 -- Apr. 14, 2022

Date of issue..... : Apr. 14, 2022

Total number of pages..... : 73

Test Result..... : PASS

Testing Laboratory..... : **Shenzhen ZKT Technology Co., Ltd.**

Address : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name : Jabil Circuit Sdn. Bhd.

Address : Plot 88(B), Lintang Bayan Lepas, Phase IV, Bayan Lepas Industrial Park, 11900 Penang, Malaysia.

Manufacturer's name : Radysis Asia Sdn. Bhd.

Address : 15 Jalan Industri Permatang Batu, Taman Industri Permatang Batu, 14000 Bukit Mertajam, Penang Malaysia.

Test specification:

Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.407
ANSI C63.10:2013
KDB 789033 D02 V01r02

Test procedure..... : /

Non-standard test method : N/A

Test Report Form No. : TRF-EL-110_V0

Test Report Form(s) Originator : ZKT Testing

Master TRF : Dated: 2020-01-06

This device described above has been tested by ZKT, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Product name..... : GCube4.0 (GPIB Logging IoT New Controller Design)

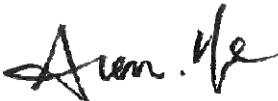
Trademark : Jabil GCube4.0

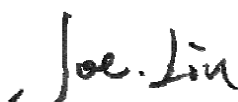
Model/Type reference : GCube4.0

Ratings..... : DC 3.7V from battery / DC 12V form adapter

Testing procedure and testing location:

Testing Laboratory..... : Shenzhen ZKT Technology Co., Ltd.
Address..... : 1/F, No. 101, Building B, No. 6, Tangwei Community
Industrial Avenue, Fuhai Street, Bao'an District,
Shenzhen, China

Tested by (name + signature)..... : Alen He 

Reviewer (name + signature)..... : Joe Liu 

Approved (name + signature)..... : Lake Xie 

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1. VERSION

ReportNo.	Version	Description	Approved
ZKT-220309L1461	Rev.01	Initial issue of report	Apr. 14, 2022

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C			
Standard Section	Test Item	Result	Remark
15.203/15.247 (c)	Antenna requirement	PASS	
15.207	AC Power Line Conducted Emission	PASS	
15.407 (a) (b)	Spurious Radiated Emissions and Band Edge	PASS	
15.407 (e)/15.403(i)	6 dB bandwidth,26dB Emission Bandwidth& 99% Occupied Bandwidth	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.407 (a)(1)(2)(3)	Maximum conducted output power	PASS	
15.407 (g)	Frequency Stability	PASS	

NOTE:

(1)" N/A" denotes test is not applicable in this Test Report

2.1 TEST FACILITY

Shenzhen ZKT Technology Co., Ltd.

Add. : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

FCC Test Firm Registration Number: 692225

Designation Number: CN1299

IC Registered No.: 27033

2.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 % .

No.	tem	ncertainty
1	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.3dB
2	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
3	3m chamber Radiated spurious emission(18GHz-40GHz)	U=3.34dB
4	Conducted Adjacent channel power	U=1.38dB
5	Conducted output power uncertainty Above 1G	U=1.576dB
6	Conducted output power uncertainty below 1G	U=1.28dB
7	humidity uncertainty	U=5.3%
8	Temperature uncertainty	U=0.59℃
9	Radiated disturbance(30MHz-1000MHz)	U=4.8dB
10	Radiated disturbance(1GHz-6GHz)	U=4.9dB
11	Radiated disturbance(1GHz-18GHz)	U=5.0dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

Product Name:	GCube4.0 (GPIB Logging IoT New Controller Design)		
Model No.:	GCube4.0		
Serial No.:	/		
Sample(s) Status:	Engineer sample		
	IEEE802.11 WLAN mode supported		802.11a/n/ac(20MHz bandwidth) 802.11n/ac (40MHz bandwidth) 802.11ac (80MHz bandwidth)
	Dara rate		802.11a: 54Mbps 802.11n: MCS0-MCS7 802.11ac:MCS0-MCS9
	Modulation		OFDM
	U-NII band1	Frequency Range	IEEE802.11 a: 5180-5240MHz IEEE802.11 n (HT20): 5180-5240MHz IEEE802.11 n (HT40): 5190-5230MHz IEEE802.11 ac (VHT20): 5180-5240MHz IEEE802.11 ac (VHT40): 5190-5230MHz IEEE802.11 ac (VHT80): 5210MHz
		Channels	IEEE802.11 a/ac /n: 4 IEEE802.11 ac /n(40MHz):2 IEEE802.11 ac (80MHz):1
	U-NII band3	Frequency Range	IEEE802.11 a: 5745-5825 MHz IEEE802.11 n (HT20):5745-5825 MHz IEEE802.11 n (HT40):5755-5795 MHz IEEE802.11 ac (VHT20):5745-5825 MHz IEEE802.11 ac (VHT40):5755-5795 MHz IEEE802.11 ac (VHT80):5775MHz
		Channels	IEEE802.11 a/ac /n: 5 IEEE802.11 ac /n(40MHz):2 IEEE802.11 ac (80MHz):1
Antenna Type:	PCB antenna		
Antenna gain:	1.5 dBi		
Power supply:	DC 3.7V from battery / DC 12V form adapter		
POWER ADAPTER:	MODEL:BX-1202000 INPUT:AC100-240V 50/60Hz ~0.8A Max OUTPUT:12V  2A		

U-NII band1		U-NII band3	
CH.	Frequency (MHz)	CH.	Frequency (MHz)
36	5180	149	5745
40	5200	...	...
44	5220	157	5785
48	5240	...	...
		165	5825

802.11a/n/ac (20MHz) Frequency / Channel Operations

U-NII band1		U-NII band3	
CH.	Frequency (MHz)	CH.	Frequency (MHz)
38	5190	151	5755
46	5230	159	5795

802.11n / 802.11ac (40MHz BW) Frequency / Channel Operations

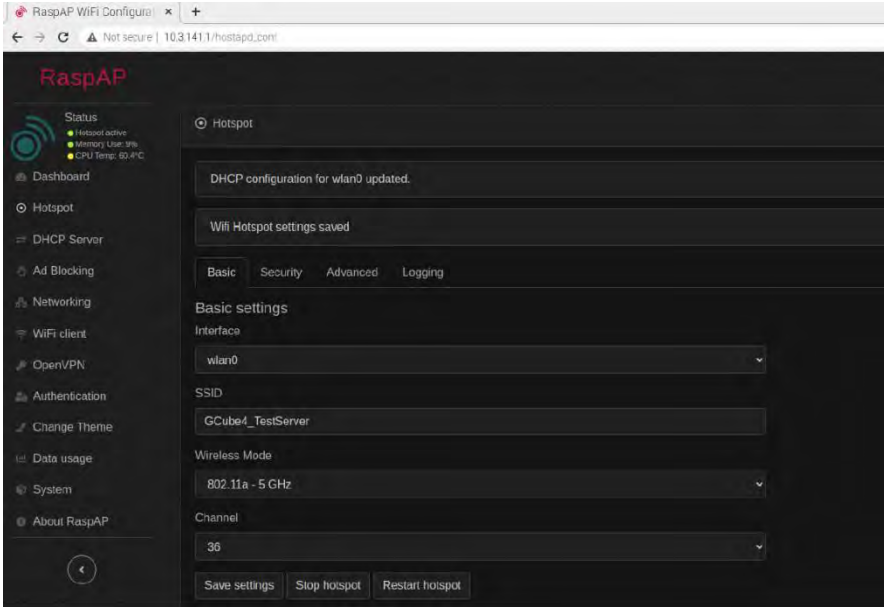
U-NII band1		U-NII band3	
CH.	Frequency (MHz)	CH.	Frequency (MHz)
42	5210	155	2775

802.11n / 802.11ac (40MHz BW) Frequency / Channel Operations

3.2 DESCRIPTION OF TEST MODES

Worst Case Configuration: transmitting both 2.4GHz mode and 5GHz mode

Description	5 GHz Emission
Antenna	Ant1
Channel	38
Operating Frequency (MHz)	802.11a
Data Rate (Mbps)	OFDM/13.5Mbps
Mode	U-NII band1-A20

Test Software	BT Test Tool 
Power level setup	<15dBm

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Conducted Emission



Radiated Emission



Conducted Spurious



3.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
1	adapter	/	MODEL:BX-1202000 INPUT:AC100-240V 50/60Hz ~0.8A Max OUTPUT:12V  2A	N/A	Provide by client
2	GPIB	/	/	/	Provide by client
3	GCube server	/	/	/	Provide by client

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	1.0M	DC cable unshielded
C2	NO	NO	1.0M	USB type B Cable
C3	NO	NO	1.0M	data transmission cable
C4	NO	NO	1.0M	GPIB cable

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

3.5EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	Spectrum Analyzer (9kHz-26.5GHz)	KEYSIGHT	9020A	MY45109572	Sep. 21, 2021	Sep. 22, 2022
2	Spectrum Analyzer (1GHz-40GHz)	Agilent	E4446A	100363	Sep. 21, 2021	Sep. 22, 2022
3	Test Receiver (9kHz-7GHz)	R&S	ESCI7	101169	Sep. 21, 2021	Sep. 22, 2022
4	Bilog Antenna (30MHz-1400MHz)	Schwarzbeck	VULB9168	00877	Sep. 21, 2021	Sep. 22, 2022
5	Horn Antenna (1GHz-18GHz)	SCHWARZBEC K	BBHA9120D	1541	Sep. 21, 2021	Sep. 22, 2022
6	Horn Antenna (18GHz-40GHz)	A.H. System	SAS-574	588	Sep. 21, 2021	Sep. 22, 2022
7	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	N/A	Sep. 21, 2021	Sep. 22, 2022
8	Amplifier (1GHz-40GHz)	QUANJUDA	DLE-161	097	Sep. 21, 2021	Sep. 22, 2022
9	Loop Antenna (9KHz-30MHz)	SCHWARZBEC K	FMZB1519B	014	Sep. 21, 2021	Sep. 22, 2022
10	RF cables1 (9kHz-30MHz)	N/A	9kHz-30MHz	N/A	Sep. 21, 2021	Sep. 22, 2022
11	RF cables2 (30MHz-1GHz)	N/A	30MHz-1GHz	N/A	Sep. 21, 2021	Sep. 22, 2022
12	RF cables3 (1GHz-40GHz)	N/A	1GHz-40GHz	N/A	Sep. 21, 2021	Sep. 22, 2022
13	CMW500 Test	R&S	CMW500	106504	Sep. 21, 2021	Sep. 22, 2022
14	ESG Signal Generator	Agilent	E4421B	GB40051203	Sep. 21, 2021	Sep. 22, 2022
15	Signal Generator	Agilent	N5182A	MY47420215	Sep. 21, 2021	Sep. 22, 2022
16	D.C. Power Supply	LongWei	TPR-6405D	\	\	\
17	Software	Frad	EZ-EMC	FA-03A2 RE	\	\

Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until
1	LISN	R&S	ENV216	101471	Sep. 21, 2021	Sep. 22, 2022
2	LISN	CYBERTEK	EM5040A	E1850400149	Sep. 21, 2021	Sep. 22, 2022
3	Test Cable	N/A	C01	N/A	Sep. 21, 2021	Sep. 22, 2022
4	Test Cable	N/A	C02	N/A	Sep. 21, 2021	Sep. 22, 2022
5	EMI Test Receiver	R&S	ESRP3	101946	Sep. 21, 2021	Sep. 22, 2022
6	Absorbing Clamp	DZ	ZN23201	N/A	Sep. 21, 2021	Sep. 22, 2022

4. EMC EMISSION TEST

4.1 CONDUCTED EMISSION MEASUREMENT

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto

4.1.1 POWER LINE CONDUCTED EMISSION LIMITS

FREQUENCY (MHz)	Limit (dBuV)		Standard
	Quasi-peak	Average	
0.15 -0.5	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	56.00	46.00	FCC
5.0 -30.0	60.00	50.00	FCC

Note:

(1) *Decreases with the logarithm of the frequency.

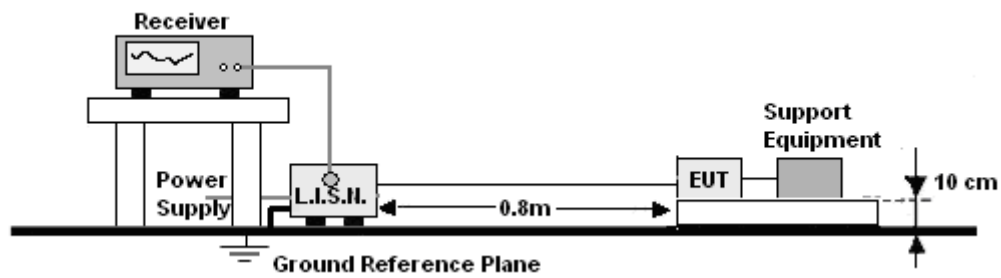
4.1.2 TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as per ANSI C63.10:2013
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
4. The adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.e.
8. For the actual test configuration, please refer to the related Item –EUT Test Photos.

4.1.3 DEVIATION FROM TEST STANDARD

No deviation

4.1.4 TEST SETUP



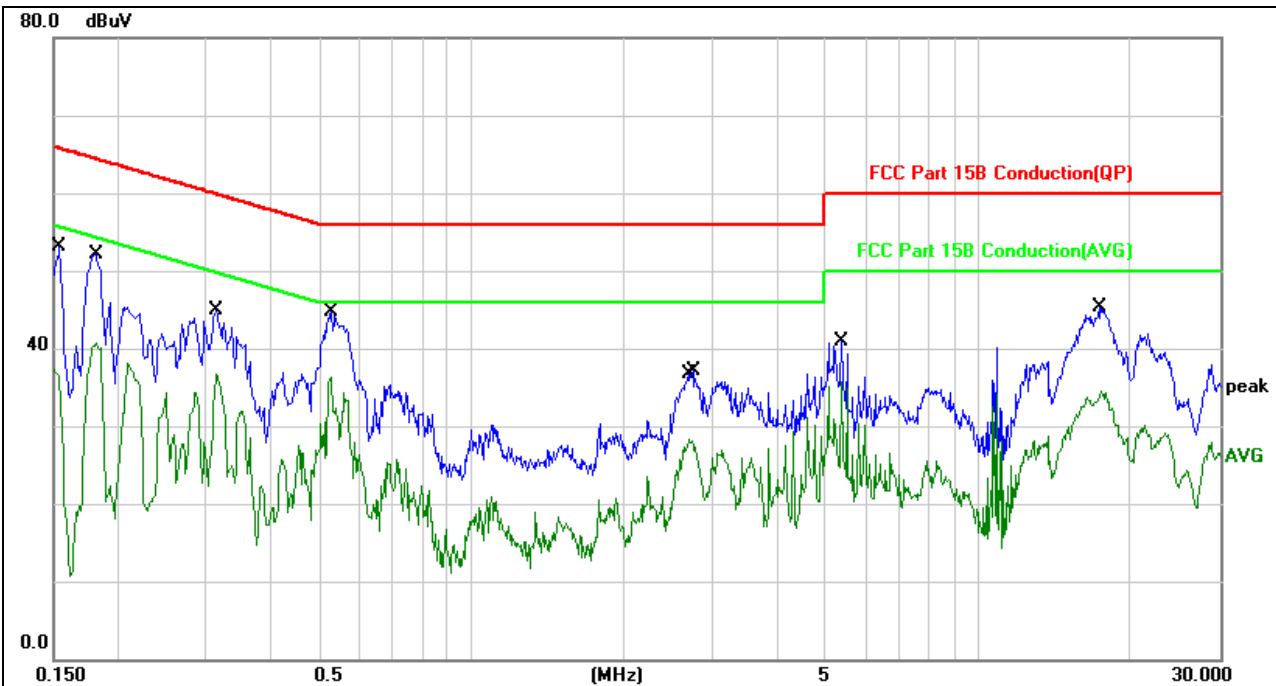
4.1.5 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

We pretest AC 120V, the worst voltage was AC 120V and the data recording in the report.

4.1.6 TEST RESULT

Temperature :	26°C	Relative Humidity:	54%
Pressure :	101kPa	Phase :	L
Test Voltage :	AC 120V/60Hz		

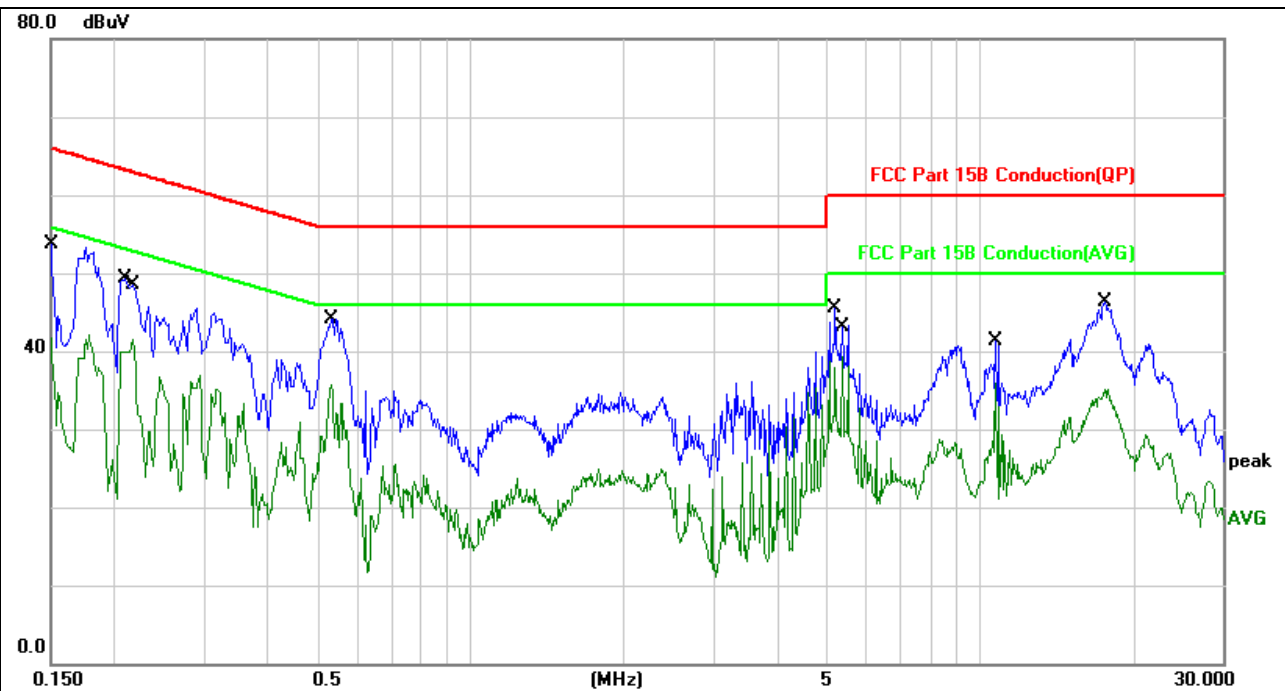


No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1	0.1539	43.30	9.75	53.05	65.78	-12.73	QP	
2	0.1819	30.88	9.75	40.63	54.39	-13.76	AVG	
3	0.3140	34.94	9.87	44.81	59.86	-15.05	QP	
4	0.3140	26.75	9.87	36.62	49.86	-13.24	AVG	
5	0.5299	34.78	9.85	44.63	56.00	-11.37	QP	
6 *	0.5299	26.41	9.85	36.26	46.00	-9.74	AVG	
7	2.6859	18.53	9.71	28.24	46.00	-17.76	AVG	
8	2.7418	27.33	9.71	37.04	56.00	-18.96	QP	
9	5.3658	31.30	9.65	40.95	60.00	-19.05	QP	
10	5.3658	26.12	9.65	35.77	50.00	-14.23	AVG	
11	17.3179	35.72	9.60	45.32	60.00	-14.68	QP	
12	17.4779	24.95	9.60	34.55	50.00	-15.45	AVG	

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor

Temperature :	26°C	Relative Humidity:	54%
Pressure :	101kPa	Phase :	N
Test Voltage :	AC 120V/60Hz		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector	Comment
1		0.1499	43.86	9.75	53.61	66.00	-12.39	QP	
2		0.1499	32.02	9.75	41.77	56.00	-14.23	AVG	
3		0.2099	39.48	9.75	49.23	63.21	-13.98	QP	
4		0.2179	31.77	9.76	41.53	52.89	-11.36	AVG	
5		0.5340	34.29	9.85	44.14	56.00	-11.86	QP	
6	*	0.5340	25.78	9.85	35.63	46.00	-10.37	AVG	
7		5.2179	35.84	9.65	45.49	60.00	-14.51	QP	
8		5.3658	29.55	9.65	39.20	50.00	-10.80	AVG	
9		10.7339	31.45	9.78	41.23	60.00	-18.77	QP	
10		10.7339	26.11	9.78	35.89	50.00	-14.11	AVG	
11		17.5778	36.63	9.59	46.22	60.00	-13.78	QP	
12		17.5778	25.61	9.59	35.20	50.00	-14.80	AVG	

Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Measurement Level = Reading level + Correct Factor

4.2 RADIATED EMISSION MEASUREMENT

4.2.1 RADIATED EMISSION LIMITS

1. Radiated emissions from 9 kHz to 25 GHz were measured according to the methods defines in ANSI C63.10-2013. The EUT was placed above the ground plane, 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz. The interface cables and equipment position were varied within limits of reasonable applications to determine the positions producing maximum radiated emissions.
2. For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz.
3. For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.
4. For transmitters operating in the 5470-5600 MHz and 5650-5725 MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725 MHz band shall not exceed an EIRP of -27 dBm/MHz.
5. KDB789033v02r01G)2)c) As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit.

According to §15.209(a), except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequencies (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	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	Limit (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

4.2.2 TEST PROCEDURE

Below 1GHz test procedure as below:

- a. The EUT was placed on the top of a rotating table 0.1 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Above 1GHz test procedure as below:

- g. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change from table 0.8 metre to 1.5 metre (Above 18GHz the distance is 1 meter and table is 1.5 metre).
- h. Test the EUT in the lowest channel, the middle channel, the Highest channel

Note:

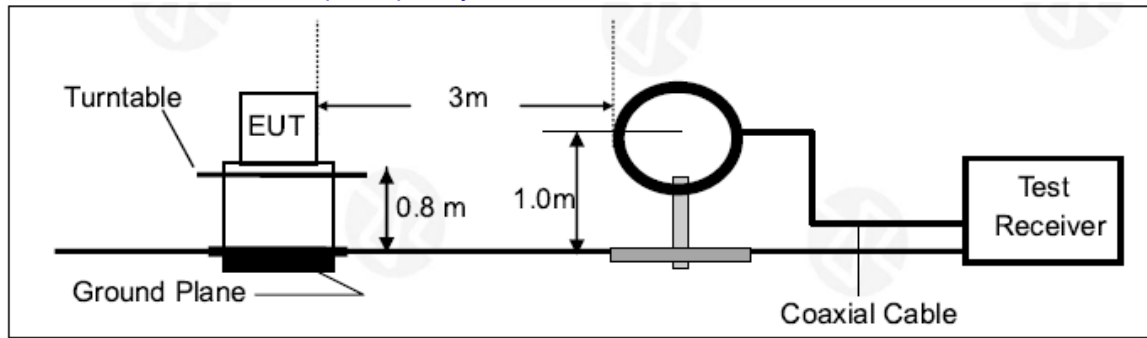
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

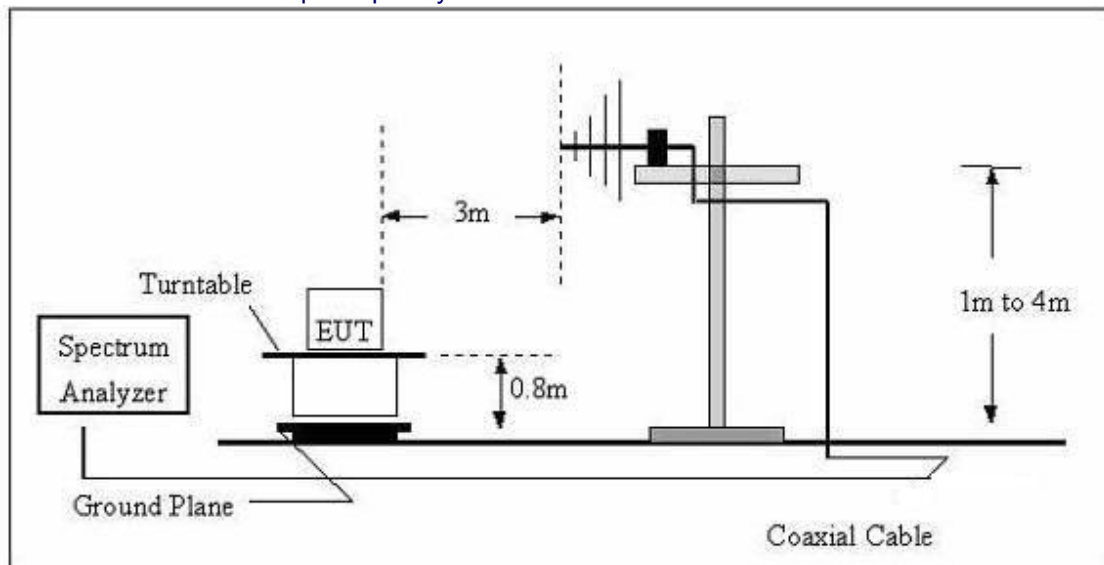
No deviation

4.2.4 TEST SETUP

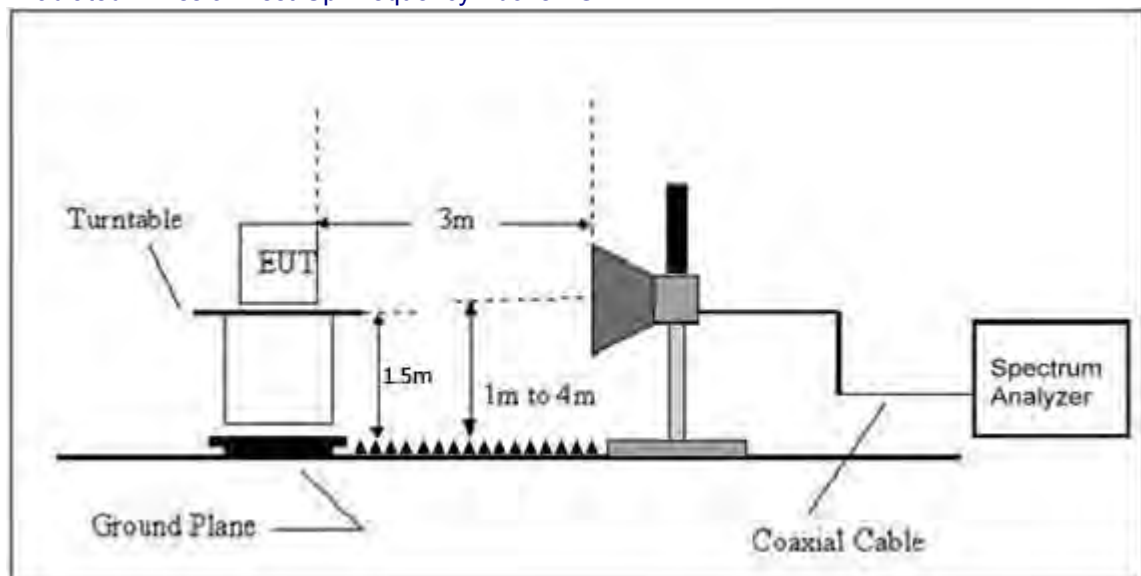
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



4.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

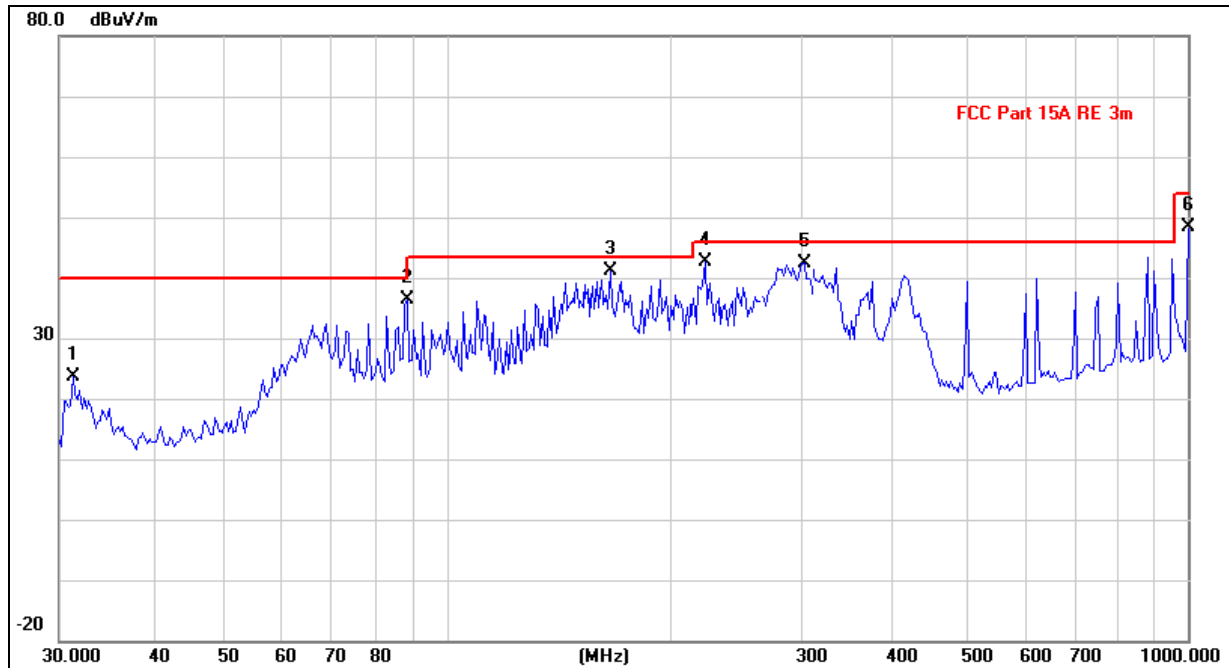
4.2.6 TEST RESULTS

Between 9KHz – 30MHz

The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

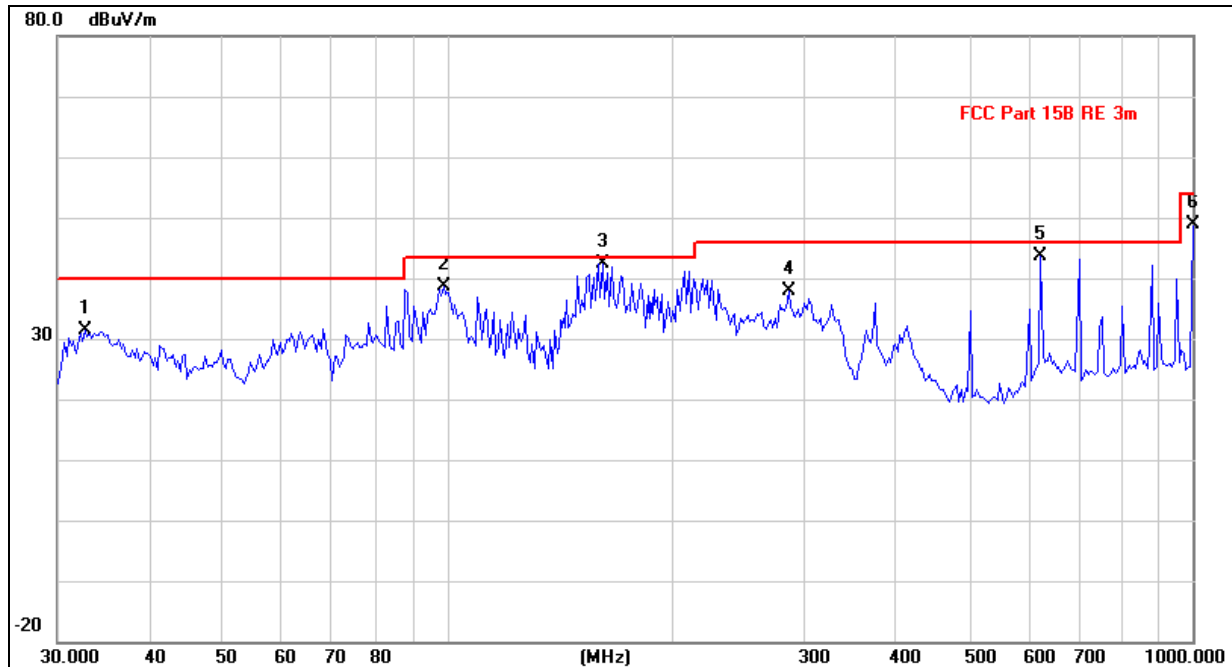
Between 30MHz – 1GHz

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Polarization:	Horizontal
Test Voltage:	AC 120V/60Hz		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		31.2892	40.78	-17.11	23.67	40.00	-16.33	QP	100	360
2		88.3421	56.91	-20.65	36.26	43.50	-7.24	QP	100	360
3	*	166.0680	57.70	-16.10	41.60	43.50	-1.90	QP	100	360
4		222.9502	60.82	-19.11	41.71	46.00	-4.29	QP	100	360
5		303.5437	57.13	-15.49	41.64	46.00	-4.36	QP	100	360
6		1000.0000	51.71	-3.25	48.46	54.00	-5.54	QP	100	360

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101kPa	Polarization:	Vertical
Test Voltage:	AC 120V/60Hz		



No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Antenna Height	Table Degree	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	32.6340	48.44	-17.11	31.33	40.00	-8.67	QP	100	360
2	98.8324	58.69	-19.98	38.71	43.50	-4.79	QP	100	360
3 *	161.4740	58.67	-15.98	42.69	43.50	-0.81	QP	100	360
4	286.9823	53.74	-15.98	37.76	46.00	-8.24	QP	100	360
5	625.0780	51.02	-7.45	43.57	46.00	-2.43	QP	100	360
6	1000.0000	52.15	-3.25	48.90	54.00	-5.10	QP	100	360

Remarks:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
2. The emission levels of other frequencies are very lower than the limit and not show in test report.
3. The test data shows only the worst case 802.11n-CH36

1GHz~40GHz

802.11a

Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:5180MHz									
V	10360	56.85	30.55	5.77	24.66	56.73	74.00	-17.27	PK
V	10360	43.42	30.55	5.77	24.66	43.30	54.00	-10.70	AV
V	15540	57.47	30.33	6.32	24.55	58.01	74.00	-15.99	PK
V	15540	47.44	30.33	6.32	24.55	47.98	54.00	-6.02	AV
V	20720	46.38	30.85	7.45	24.69	47.67	74.00	-26.33	PK
V	20720	43.78	30.85	7.45	24.69	45.07	54.00	-8.93	AV
H	10360	44.05	31.02	8.99	25.57	47.59	74.00	-26.41	PK
H	10360	43.78	31.02	8.99	25.57	47.32	54.00	-6.68	AV
H	15540	43.72	30.55	5.77	24.66	43.60	74.00	-30.40	PK
H	15540	46.46	30.55	5.77	24.66	46.34	54.00	-7.66	AV
H	20720	44.79	30.33	6.32	24.55	45.33	74.00	-28.67	PK
H	20720	43.75	30.33	6.32	24.55	44.29	54.00	-9.71	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:5200MHz									
V	10400	53.87	30.55	5.77	24.66	53.75	74.00	-20.25	PK
V	10400	44.74	30.55	5.77	24.66	44.62	54.00	-9.38	AV
V	15600	56.79	30.33	6.32	24.55	57.33	74.00	-16.67	PK
V	15600	44.84	30.33	6.32	24.55	45.38	54.00	-8.62	AV
V	20800	46.42	30.85	7.45	24.69	47.71	74.00	-26.29	PK
V	20800	46.00	30.85	7.45	24.69	47.29	54.00	-6.71	AV
H	10400	46.43	31.02	8.99	25.57	49.97	74.00	-24.03	PK
H	10400	46.55	31.02	8.99	25.57	50.09	54.00	-3.91	AV
H	15600	45.78	30.55	5.77	24.66	45.66	74.00	-28.34	PK
H	15600	45.47	30.55	5.77	24.66	45.35	54.00	-8.65	AV
H	20800	44.46	30.33	6.32	24.55	45.00	74.00	-29.00	PK
H	20800	46.32	30.33	6.32	24.55	46.86	54.00	-7.14	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5240MHz									
V	10480	55.91	30.55	5.77	24.66	55.79	74.00	-18.21	PK
V	10480	45.04	30.55	5.77	24.66	44.92	54.00	-9.08	AV
V	15720	55.55	30.33	6.32	24.55	56.09	74.00	-17.91	PK
V	15720	46.00	30.33	6.32	24.55	46.54	54.00	-7.46	AV
V	20960	45.45	30.85	7.45	24.69	46.74	74.00	-27.26	PK
V	20960	45.83	30.85	7.45	24.69	47.12	54.00	-6.88	AV
H	10480	45.54	31.02	8.99	25.57	49.08	74.00	-24.92	PK
H	10480	45.03	31.02	8.99	25.57	48.57	54.00	-5.43	AV
H	15720	43.96	30.55	5.77	24.66	43.84	74.00	-30.16	PK
H	15720	45.74	30.55	5.77	24.66	45.62	54.00	-8.38	AV
H	20960	46.59	30.33	6.32	24.55	47.13	74.00	-26.87	PK
H	20960	44.24	30.33	6.32	24.55	44.78	54.00	-9.22	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5745MHz									
V	11490	55.50	30.55	5.77	24.66	55.38	74.00	-18.62	PK
V	11490	42.67	30.55	5.77	24.66	42.55	54.00	-11.45	AV
V	17235	55.75	30.33	6.32	24.55	56.29	74.00	-17.71	PK
V	17235	45.57	30.33	6.32	24.55	46.11	54.00	-7.89	AV
V	22980	45.18	30.85	7.45	24.69	46.47	74.00	-27.53	PK
V	22980	45.68	30.85	7.45	24.69	46.97	54.00	-7.03	AV
H	11490	44.13	31.02	8.99	25.57	47.67	74.00	-26.33	PK
H	11490	44.95	31.02	8.99	25.57	48.49	54.00	-5.51	AV
H	17235	44.14	30.55	5.77	24.66	44.02	74.00	-29.98	PK
H	17235	45.14	30.55	5.77	24.66	45.02	54.00	-8.98	AV
H	22980	46.50	30.33	6.32	24.55	47.04	74.00	-26.96	PK
H	22980	46.01	30.33	6.32	24.55	46.55	54.00	-7.45	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5785MHz									
V	11570	54.67	30.55	5.77	24.66	54.55	74.00	-19.45	PK
V	11570	45.22	30.55	5.77	24.66	45.10	54.00	-8.90	AV
V	17355	57.48	30.33	6.32	24.55	58.02	74.00	-15.98	PK
V	17355	46.88	30.33	6.32	24.55	47.42	54.00	-6.58	AV
V	23140	46.29	30.85	7.45	24.69	47.58	74.00	-26.42	PK
V	23140	43.76	30.85	7.45	24.69	45.05	54.00	-8.95	AV
H	11570	46.39	31.02	8.99	25.57	49.93	74.00	-24.07	PK
H	11570	44.72	31.02	8.99	25.57	48.26	54.00	-5.74	AV
H	17355	44.02	30.55	5.77	24.66	43.90	74.00	-30.10	PK
H	17355	44.76	30.55	5.77	24.66	44.64	54.00	-9.36	AV
H	23140	46.34	30.33	6.32	24.55	46.88	74.00	-27.12	PK
H	23140	45.37	30.33	6.32	24.55	45.91	54.00	-8.09	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5825MHz									
V	11650	56.74	30.55	5.77	24.66	56.62	74.00	-17.38	PK
V	11650	44.13	30.55	5.77	24.66	44.01	54.00	-9.99	AV
V	17475	56.47	30.33	6.32	24.55	57.01	74.00	-16.99	PK
V	17475	45.45	30.33	6.32	24.55	45.99	54.00	-8.01	AV
V	23300	44.86	30.85	7.45	24.69	46.15	74.00	-27.85	PK
V	23300	45.22	30.85	7.45	24.69	46.51	54.00	-7.49	AV
H	11650	44.40	31.02	8.99	25.57	47.94	74.00	-26.06	PK
H	11650	45.32	31.02	8.99	25.57	48.86	54.00	-5.14	AV
H	17475	44.73	30.55	5.77	24.66	44.61	74.00	-29.39	PK
H	17475	44.39	30.55	5.77	24.66	44.27	54.00	-9.73	AV
H	23300	44.85	30.33	6.32	24.55	45.39	74.00	-28.61	PK
H	23300	44.13	30.33	6.32	24.55	44.67	54.00	-9.33	AV

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Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:5180MHz									
V	10360	57.33	30.55	5.77	24.66	57.21	74.00	-16.79	PK
V	10360	44.88	30.55	5.77	24.66	44.76	54.00	-9.24	AV
V	15540	57.35	30.33	6.32	24.55	57.89	74.00	-16.11	PK
V	15540	47.59	30.33	6.32	24.55	48.13	54.00	-5.87	AV
V	20720	44.53	30.85	7.45	24.69	45.82	74.00	-28.18	PK
V	20720	45.08	30.85	7.45	24.69	46.37	54.00	-7.63	AV
H	10360	46.52	31.02	8.99	25.57	50.06	74.00	-23.94	PK
H	10360	43.68	31.02	8.99	25.57	47.22	54.00	-6.78	AV
H	15540	46.57	30.55	5.77	24.66	46.45	74.00	-27.55	PK
H	15540	44.76	30.55	5.77	24.66	44.64	54.00	-9.36	AV
H	20720	46.32	30.33	6.32	24.55	46.86	74.00	-27.14	PK
H	20720	44.79	30.33	6.32	24.55	45.33	54.00	-8.67	AV

Polar (H/V)	Frequency	Meter Reading	Pre-amp lifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:5200MHz									
V	10400	55.48	30.55	5.77	24.66	55.36	74.00	-18.64	PK
V	10400	42.66	30.55	5.77	24.66	42.54	54.00	-11.46	AV
V	15600	55.27	30.33	6.32	24.55	55.81	74.00	-18.19	PK
V	15600	46.82	30.33	6.32	24.55	47.36	54.00	-6.64	AV
V	20800	44.00	30.85	7.45	24.69	45.29	74.00	-28.71	PK
V	20800	44.63	30.85	7.45	24.69	45.92	54.00	-8.08	AV
H	10400	43.97	31.02	8.99	25.57	47.51	74.00	-26.49	PK
H	10400	44.87	31.02	8.99	25.57	48.41	54.00	-5.59	AV
H	15600	44.66	30.55	5.77	24.66	44.54	74.00	-29.46	PK
H	15600	45.44	30.55	5.77	24.66	45.32	54.00	-8.68	AV
H	20800	44.64	30.33	6.32	24.55	45.18	74.00	-28.82	PK
H	20800	46.39	30.33	6.32	24.55	46.93	54.00	-7.07	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5240MHz									
V	10480	52.30	30.55	5.77	24.66	52.18	74.00	-21.82	PK
V	10480	43.00	30.55	5.77	24.66	42.88	54.00	-11.12	AV
V	15720	55.96	30.33	6.32	24.55	56.50	74.00	-17.50	PK
V	15720	44.70	30.33	6.32	24.55	45.24	54.00	-8.76	AV
V	20960	44.17	30.85	7.45	24.69	45.46	74.00	-28.54	PK
V	20960	44.54	30.85	7.45	24.69	45.83	54.00	-8.17	AV
H	10480	45.70	31.02	8.99	25.57	49.24	74.00	-24.76	PK
H	10480	46.06	31.02	8.99	25.57	49.60	54.00	-4.40	AV
H	15720	45.91	30.55	5.77	24.66	45.79	74.00	-28.21	PK
H	15720	44.73	30.55	5.77	24.66	44.61	54.00	-9.39	AV
H	20960	44.09	30.33	6.32	24.55	44.63	74.00	-29.37	PK
H	20960	43.64	30.33	6.32	24.55	44.18	54.00	-9.82	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5745MHz									
V	11490	58.11	30.55	5.77	24.66	57.99	74.00	-16.01	PK
V	11490	44.60	30.55	5.77	24.66	44.48	54.00	-9.52	AV
V	17235	56.36	30.33	6.32	24.55	56.90	74.00	-17.10	PK
V	17235	46.24	30.33	6.32	24.55	46.78	54.00	-7.22	AV
V	22980	44.91	30.85	7.45	24.69	46.20	74.00	-27.80	PK
V	22980	44.41	30.85	7.45	24.69	45.70	54.00	-8.30	AV
H	11490	46.07	31.02	8.99	25.57	49.61	74.00	-24.39	PK
H	11490	45.40	31.02	8.99	25.57	48.94	54.00	-5.06	AV
H	17235	44.75	30.55	5.77	24.66	44.63	74.00	-29.37	PK
H	17235	45.12	30.55	5.77	24.66	45.00	54.00	-9.00	AV
H	22980	44.74	30.33	6.32	24.55	45.28	74.00	-28.72	PK
H	22980	44.21	30.33	6.32	24.55	44.75	54.00	-9.25	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5785MHz									
V	11570	51.81	30.55	5.77	24.66	51.69	74.00	-22.31	PK
V	11570	43.58	30.55	5.77	24.66	43.46	54.00	-10.54	AV
V	17355	55.12	30.33	6.32	24.55	55.66	74.00	-18.34	PK
V	17355	46.16	30.33	6.32	24.55	46.70	54.00	-7.30	AV
V	23140	45.09	30.85	7.45	24.69	46.38	74.00	-27.62	PK
V	23140	43.66	30.85	7.45	24.69	44.95	54.00	-9.05	AV
H	11570	44.25	31.02	8.99	25.57	47.79	74.00	-26.21	PK
H	11570	44.28	31.02	8.99	25.57	47.82	54.00	-6.18	AV
H	17355	46.29	30.55	5.77	24.66	46.17	74.00	-27.83	PK
H	17355	46.10	30.55	5.77	24.66	45.98	54.00	-8.02	AV
H	23140	45.85	30.33	6.32	24.55	46.39	74.00	-27.61	PK
H	23140	43.99	30.33	6.32	24.55	44.53	54.00	-9.47	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5825MHz									
V	11650	56.86	30.55	5.77	24.66	56.74	74.00	-17.26	PK
V	11650	45.41	30.55	5.77	24.66	45.29	54.00	-8.71	AV
V	17475	57.01	30.33	6.32	24.55	57.55	74.00	-16.45	PK
V	17475	45.76	30.33	6.32	24.55	46.30	54.00	-7.70	AV
V	23300	43.98	30.85	7.45	24.69	45.27	74.00	-28.73	PK
V	23300	43.69	30.85	7.45	24.69	44.98	54.00	-9.02	AV
H	11650	46.29	31.02	8.99	25.57	49.83	74.00	-24.17	PK
H	11650	44.45	31.02	8.99	25.57	47.99	54.00	-6.01	AV
H	17475	45.62	30.55	5.77	24.66	45.50	74.00	-28.50	PK
H	17475	45.42	30.55	5.77	24.66	45.30	54.00	-8.70	AV
H	23300	45.02	30.33	6.32	24.55	45.56	74.00	-28.44	PK
H	23300	46.13	30.33	6.32	24.55	46.67	54.00	-7.33	AV

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Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:5190MHz									
V	10380	52.62	30.55	5.77	24.66	52.50	74.00	-21.50	PK
V	10380	44.16	30.55	5.77	24.66	44.04	54.00	-9.96	AV
V	15570	55.76	30.33	6.32	24.55	56.30	74.00	-17.70	PK
V	15570	47.50	30.33	6.32	24.55	48.04	54.00	-5.96	AV
V	20760	45.05	30.85	7.45	24.69	46.34	74.00	-27.66	PK
V	20760	44.43	30.85	7.45	24.69	45.72	54.00	-8.28	AV
H	10380	45.85	31.02	8.99	25.57	49.39	74.00	-24.61	PK
H	10380	44.31	31.02	8.99	25.57	47.85	54.00	-6.15	AV
H	15570	45.18	30.55	5.77	24.66	45.06	74.00	-28.94	PK
H	15570	43.94	30.55	5.77	24.66	43.82	54.00	-10.18	AV
H	20760	46.57	30.33	6.32	24.55	47.11	74.00	-26.89	PK
H	20760	44.59	30.33	6.32	24.55	45.13	54.00	-8.87	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:5230MHz									
V	10460	55.74	30.55	5.77	24.66	55.62	74.00	-18.38	PK
V	10460	43.21	30.55	5.77	24.66	43.09	54.00	-10.91	AV
V	15690	55.89	30.33	6.32	24.55	56.43	74.00	-17.57	PK
V	15690	46.37	30.33	6.32	24.55	46.91	54.00	-7.09	AV
V	20920	44.80	30.85	7.45	24.69	46.09	74.00	-27.91	PK
V	20920	44.40	30.85	7.45	24.69	45.69	54.00	-8.31	AV
H	10460	44.30	31.02	8.99	25.57	47.84	74.00	-26.16	PK
H	10460	43.81	31.02	8.99	25.57	47.35	54.00	-6.65	AV
H	15690	43.78	30.55	5.77	24.66	43.66	74.00	-30.34	PK
H	15690	44.55	30.55	5.77	24.66	44.43	54.00	-9.57	AV
H	20920	46.08	30.33	6.32	24.55	46.62	74.00	-27.38	PK
H	20920	46.12	30.33	6.32	24.55	46.66	54.00	-7.34	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5755MHz									
V	11510	56.65	30.55	5.77	24.66	56.53	74.00	-17.47	PK
V	11510	45.49	30.55	5.77	24.66	45.37	54.00	-8.63	AV
V	17265	55.75	30.33	6.32	24.55	56.29	74.00	-17.71	PK
V	17265	45.74	30.33	6.32	24.55	46.28	54.00	-7.72	AV
V	23020	46.10	30.85	7.45	24.69	47.39	74.00	-26.61	PK
V	23020	45.90	30.85	7.45	24.69	47.19	54.00	-6.81	AV
H	11510	43.78	31.02	8.99	25.57	47.32	74.00	-26.68	PK
H	11510	44.10	31.02	8.99	25.57	47.64	54.00	-6.36	AV
H	17265	44.54	30.55	5.77	24.66	44.42	74.00	-29.58	PK
H	17265	45.15	30.55	5.77	24.66	45.03	54.00	-8.97	AV
H	23020	45.37	30.33	6.32	24.55	45.91	74.00	-28.09	PK
H	23020	43.83	30.33	6.32	24.55	44.37	54.00	-9.63	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5795MHz									
V	11590	53.43	30.55	5.77	24.66	53.31	74.00	-20.69	PK
V	11590	44.64	30.55	5.77	24.66	44.52	54.00	-9.48	AV
V	17385	54.66	30.33	6.32	24.55	55.20	74.00	-18.80	PK
V	17385	46.02	30.33	6.32	24.55	46.56	54.00	-7.44	AV
V	23180	45.48	30.85	7.45	24.69	46.77	74.00	-27.23	PK
V	23180	45.17	30.85	7.45	24.69	46.46	54.00	-7.54	AV
H	11590	45.19	31.02	8.99	25.57	48.73	74.00	-25.27	PK
H	11590	45.35	31.02	8.99	25.57	48.89	54.00	-5.11	AV
H	17385	44.18	30.55	5.77	24.66	44.06	74.00	-29.94	PK
H	17385	46.19	30.55	5.77	24.66	46.07	54.00	-7.93	AV
H	23180	46.27	30.33	6.32	24.55	46.81	74.00	-27.19	PK
H	23180	44.84	30.33	6.32	24.55	45.38	54.00	-8.62	AV

Remark:

1. Emission Level = Meter Reading + Antenna Factor + Cable Loss – Pre-amplifier,
Margin= Emission Level - Limit
2. If peak below the average limit, the average emission was no test.
3. The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

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Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:5180MHz									
V	10360	52.80	30.55	5.77	24.66	52.68	74.00	-21.32	PK
V	10360	44.87	30.55	5.77	24.66	44.75	54.00	-9.25	AV
V	15540	56.78	30.33	6.32	24.55	57.32	74.00	-16.68	PK
V	15540	47.11	30.33	6.32	24.55	47.65	54.00	-6.35	AV
V	20720	46.48	30.85	7.45	24.69	47.77	74.00	-26.23	PK
V	20720	43.89	30.85	7.45	24.69	45.18	54.00	-8.82	AV
H	10360	44.05	31.02	8.99	25.57	47.59	74.00	-26.41	PK
H	10360	44.31	31.02	8.99	25.57	47.85	54.00	-6.15	AV
H	15540	44.84	30.55	5.77	24.66	44.72	74.00	-29.28	PK
H	15540	45.10	30.55	5.77	24.66	44.98	54.00	-9.02	AV
H	20720	45.18	30.33	6.32	24.55	45.72	74.00	-28.28	PK
H	20720	44.62	30.33	6.32	24.55	45.16	54.00	-8.84	AV

Polar (H/V)	Frequency	Meter Reading	Pre-amp lifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:5200MHz									
V	10400	53.33	30.55	5.77	24.66	53.21	74.00	-20.79	PK
V	10400	45.14	30.55	5.77	24.66	45.02	54.00	-8.98	AV
V	15600	57.07	30.33	6.32	24.55	57.61	74.00	-16.39	PK
V	15600	45.97	30.33	6.32	24.55	46.51	54.00	-7.49	AV
V	20800	44.29	30.85	7.45	24.69	45.58	74.00	-28.42	PK
V	20800	46.18	30.85	7.45	24.69	47.47	54.00	-6.53	AV
H	10400	45.79	31.02	8.99	25.57	49.33	74.00	-24.67	PK
H	10400	46.41	31.02	8.99	25.57	49.95	54.00	-4.05	AV
H	15600	45.84	30.55	5.77	24.66	45.72	74.00	-28.28	PK
H	15600	43.64	30.55	5.77	24.66	43.52	54.00	-10.48	AV
H	20800	44.97	30.33	6.32	24.55	45.51	74.00	-28.49	PK
H	20800	44.74	30.33	6.32	24.55	45.28	54.00	-8.72	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampl ifier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5240MHz									
V	10480	53.62	30.55	5.77	24.66	53.50	74.00	-20.50	PK
V	10480	43.10	30.55	5.77	24.66	42.98	54.00	-11.02	AV
V	15720	55.23	30.33	6.32	24.55	55.77	74.00	-18.23	PK
V	15720	44.66	30.33	6.32	24.55	45.20	54.00	-8.80	AV
V	20960	43.91	30.85	7.45	24.69	45.20	74.00	-28.80	PK
V	20960	45.91	30.85	7.45	24.69	47.20	54.00	-6.80	AV
H	10480	45.86	31.02	8.99	25.57	49.40	74.00	-24.60	PK
H	10480	44.76	31.02	8.99	25.57	48.30	54.00	-5.70	AV
H	15720	46.38	30.55	5.77	24.66	46.26	74.00	-27.74	PK
H	15720	46.00	30.55	5.77	24.66	45.88	54.00	-8.12	AV
H	20960	46.06	30.33	6.32	24.55	46.60	74.00	-27.40	PK
H	20960	43.94	30.33	6.32	24.55	44.48	54.00	-9.52	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5745MHz									
V	11490	58.19	30.55	5.77	24.66	58.07	74.00	-15.93	PK
V	11490	44.10	30.55	5.77	24.66	43.98	54.00	-10.02	AV
V	17235	56.44	30.33	6.32	24.55	56.98	74.00	-17.02	PK
V	17235	46.15	30.33	6.32	24.55	46.69	54.00	-7.31	AV
V	22980	45.45	30.85	7.45	24.69	46.74	74.00	-27.26	PK
V	22980	46.39	30.85	7.45	24.69	47.68	54.00	-6.32	AV
H	11490	46.47	31.02	8.99	25.57	50.01	74.00	-23.99	PK
H	11490	44.77	31.02	8.99	25.57	48.31	54.00	-5.69	AV
H	17235	44.95	30.55	5.77	24.66	44.83	74.00	-29.17	PK
H	17235	45.23	30.55	5.77	24.66	45.11	54.00	-8.89	AV
H	22980	43.68	30.33	6.32	24.55	44.22	74.00	-29.78	PK
H	22980	46.26	30.33	6.32	24.55	46.80	54.00	-7.20	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5785MHz									
V	11570	51.76	30.55	5.77	24.66	51.64	74.00	-22.36	PK
V	11570	44.32	30.55	5.77	24.66	44.20	54.00	-9.80	AV
V	17355	56.07	30.33	6.32	24.55	56.61	74.00	-17.39	PK
V	17355	45.23	30.33	6.32	24.55	45.77	54.00	-8.23	AV
V	23140	45.45	30.85	7.45	24.69	46.74	74.00	-27.26	PK
V	23140	45.54	30.85	7.45	24.69	46.83	54.00	-7.17	AV
H	11570	43.76	31.02	8.99	25.57	47.30	74.00	-26.70	PK
H	11570	44.02	31.02	8.99	25.57	47.56	54.00	-6.44	AV
H	17355	44.16	30.55	5.77	24.66	44.04	74.00	-29.96	PK
H	17355	46.55	30.55	5.77	24.66	46.43	54.00	-7.57	AV
H	23140	44.30	30.33	6.32	24.55	44.84	74.00	-29.16	PK
H	23140	45.75	30.33	6.32	24.55	46.29	54.00	-7.71	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5795MHz									
V	11590	52.38	30.55	5.77	24.66	52.26	74.00	-21.74	PK
V	11590	44.74	30.55	5.77	24.66	44.62	54.00	-9.38	AV
V	17385	56.74	30.33	6.32	24.55	57.28	74.00	-16.72	PK
V	17385	45.57	30.33	6.32	24.55	46.11	54.00	-7.89	AV
V	23180	43.89	30.85	7.45	24.69	45.18	74.00	-28.82	PK
V	23180	45.47	30.85	7.45	24.69	46.76	54.00	-7.24	AV
H	11590	45.03	31.02	8.99	25.57	48.57	74.00	-25.43	PK
H	11590	45.85	31.02	8.99	25.57	49.39	54.00	-4.61	AV
H	17385	46.25	30.55	5.77	24.66	46.13	74.00	-27.87	PK
H	17385	44.96	30.55	5.77	24.66	44.84	54.00	-9.16	AV
H	23180	44.46	30.33	6.32	24.55	45.00	74.00	-29.00	PK
H	23180	45.35	30.33	6.32	24.55	45.89	54.00	-8.11	AV

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Polar (H/V)	Frequenc y	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Low Channel:5190MHz									
V	10380	54.53	30.55	5.77	24.66	54.41	74.00	-19.59	PK
V	10380	44.71	30.55	5.77	24.66	44.59	54.00	-9.41	AV
V	15570	56.24	30.33	6.32	24.55	56.78	74.00	-17.22	PK
V	15570	45.52	30.33	6.32	24.55	46.06	54.00	-7.94	AV
V	20760	46.16	30.85	7.45	24.69	47.45	74.00	-26.55	PK
V	20760	45.20	30.85	7.45	24.69	46.49	54.00	-7.51	AV
H	10380	44.03	31.02	8.99	25.57	47.57	74.00	-26.43	PK
H	10380	45.14	31.02	8.99	25.57	48.68	54.00	-5.32	AV
H	15570	45.01	30.55	5.77	24.66	44.89	74.00	-29.11	PK
H	15570	45.93	30.55	5.77	24.66	45.81	54.00	-8.19	AV
H	20760	44.09	30.33	6.32	24.55	44.63	74.00	-29.37	PK
H	20760	45.73	30.33	6.32	24.55	46.27	54.00	-7.73	AV

Polar (H/V)	Frequenc y	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
Middle Channel:5230MHz									
V	10460	57.56	30.55	5.77	24.66	57.44	74.00	-16.56	PK
V	10460	44.76	30.55	5.77	24.66	44.64	54.00	-9.36	AV
V	15690	54.89	30.33	6.32	24.55	55.43	74.00	-18.57	PK
V	15690	45.77	30.33	6.32	24.55	46.31	54.00	-7.69	AV
V	20920	44.78	30.85	7.45	24.69	46.07	74.00	-27.93	PK
V	20920	45.07	30.85	7.45	24.69	46.36	54.00	-7.64	AV
H	10460	45.75	31.02	8.99	25.57	49.29	74.00	-24.71	PK
H	10460	43.67	31.02	8.99	25.57	47.21	54.00	-6.79	AV
H	15690	44.79	30.55	5.77	24.66	44.67	74.00	-29.33	PK
H	15690	44.53	30.55	5.77	24.66	44.41	54.00	-9.59	AV
H	20920	46.28	30.33	6.32	24.55	46.82	74.00	-27.18	PK
H	20920	43.63	30.33	6.32	24.55	44.17	54.00	-9.83	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5755MHz									
V	11510	53.81	30.55	5.77	24.66	53.69	74.00	-20.31	PK
V	11510	43.42	30.55	5.77	24.66	43.30	54.00	-10.70	AV
V	17265	56.52	30.33	6.32	24.55	57.06	74.00	-16.94	PK
V	17265	45.39	30.33	6.32	24.55	45.93	54.00	-8.07	AV
V	23020	45.35	30.85	7.45	24.69	46.64	74.00	-27.36	PK
V	23020	45.25	30.85	7.45	24.69	46.54	54.00	-7.46	AV
H	11510	45.05	31.02	8.99	25.57	48.59	74.00	-25.41	PK
H	11510	43.73	31.02	8.99	25.57	47.27	54.00	-6.73	AV
H	17265	46.33	30.55	5.77	24.66	46.21	74.00	-27.79	PK
H	17265	43.84	30.55	5.77	24.66	43.72	54.00	-10.28	AV
H	23020	45.96	30.33	6.32	24.55	46.50	74.00	-27.50	PK
H	23020	46.31	30.33	6.32	24.55	46.85	54.00	-7.15	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5795MHz									
V	11590	55.73	30.55	5.77	24.66	55.61	74.00	-18.39	PK
V	11590	44.45	30.55	5.77	24.66	44.33	54.00	-9.67	AV
V	17385	56.48	30.33	6.32	24.55	57.02	74.00	-16.98	PK
V	17385	46.70	30.33	6.32	24.55	47.24	54.00	-6.76	AV
V	23180	43.63	30.85	7.45	24.69	44.92	74.00	-29.08	PK
V	23180	44.76	30.85	7.45	24.69	46.05	54.00	-7.95	AV
H	11590	45.00	31.02	8.99	25.57	48.54	74.00	-25.46	PK
H	11590	44.06	31.02	8.99	25.57	47.60	54.00	-6.40	AV
H	17385	44.77	30.55	5.77	24.66	44.65	74.00	-29.35	PK
H	17385	45.96	30.55	5.77	24.66	45.84	54.00	-8.16	AV
H	23180	44.73	30.33	6.32	24.55	45.27	74.00	-28.73	PK
H	23180	43.71	30.33	6.32	24.55	44.25	54.00	-9.75	AV

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Polar (H/V)	Frequenc y	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
5210MHz									
V	10420	56.97	30.55	5.77	24.66	56.85	74.00	-17.15	PK
V	10420	44.04	30.55	5.77	24.66	43.92	54.00	-10.08	AV
V	15630	55.99	30.33	6.32	24.55	56.53	74.00	-17.47	PK
V	15630	46.91	30.33	6.32	24.55	47.45	54.00	-6.55	AV
V	20840	43.90	30.85	7.45	24.69	45.19	74.00	-28.81	PK
V	20840	45.33	30.85	7.45	24.69	46.62	54.00	-7.38	AV
H	10420	44.27	31.02	8.99	25.57	47.81	74.00	-26.19	PK
H	10420	44.41	31.02	8.99	25.57	47.95	54.00	-6.05	AV
H	15630	45.96	30.55	5.77	24.66	45.84	74.00	-28.16	PK
H	15630	44.68	30.55	5.77	24.66	44.56	54.00	-9.44	AV
H	20840	43.77	30.33	6.32	24.55	44.31	74.00	-29.69	PK
H	20840	44.85	30.33	6.32	24.55	45.39	54.00	-8.61	AV

Polar (H/V)	Frequency	Meter Reading	Pre-ampli fier	Cable Loss	Antenna Factor	Emission Level	Limits	Margin	Detect or Type
	(MHz)	(dBuV)	(dB)	(dB)	(dB)	(dBuV/m)	(dBuV/ m)	(dB)	
High Channel:5775MHz									
V	11550	52.31	30.55	5.77	24.66	52.19	74.00	-21.81	PK
V	11550	43.58	30.55	5.77	24.66	43.46	54.00	-10.54	AV
V	17325	56.27	30.33	6.32	24.55	56.81	74.00	-17.19	PK
V	17325	47.07	30.33	6.32	24.55	47.61	54.00	-6.39	AV
V	23100	45.01	30.85	7.45	24.69	46.30	74.00	-27.70	PK
V	23100	45.52	30.85	7.45	24.69	46.81	54.00	-7.19	AV
H	11550	43.66	31.02	8.99	25.57	47.20	74.00	-26.80	PK
H	11550	45.74	31.02	8.99	25.57	49.28	54.00	-4.72	AV
H	17325	44.28	30.55	5.77	24.66	44.16	74.00	-29.84	PK
H	17325	44.48	30.55	5.77	24.66	44.36	54.00	-9.64	AV
H	23100	46.51	30.33	6.32	24.55	47.05	74.00	-26.95	PK
H	23100	44.01	30.33	6.32	24.55	44.55	54.00	-9.45	AV

Radiated Band Edge Test:

Worse case mode:		802.11a		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	57.33	-0.12	57.45	74	-16.55	peak	H
	41.10	-0.12	41.22	54	-12.78	AV	H
5150	56.12	-0.12	56.24	74	-17.76	peak	V
	39.02	-0.12	39.14	54	-14.86	AV	V

Worse case mode:		802.11a		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5250	55.65	-0.12	55.77	74	-18.23	peak	H
	39.87	-0.12	39.99	54	-14.01	AV	H
5250	56.60	-0.12	56.72	74	-17.28	peak	V
	41.04	-0.12	41.16	54	-12.84	AV	V

Worse case mode:		802.11a		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	57.11	-0.12	57.23	68.2	-10.97	peak	H
5700	84.81	-0.12	84.93	105.2	-20.27	peak	H
5720	86.41	-0.12	86.53	110.8	-24.27	peak	H
5725	94.48	-0.12	94.60	122.2	-27.60	peak	H
5650	55.88	-0.12	56.00	68.2	-12.20	peak	V
5700	82.64	-0.12	82.76	105.2	-22.44	peak	V
5720	85.51	-0.12	85.63	110.8	-25.17	peak	V
5725	96.37	-0.12	96.49	122.2	-25.71	peak	V

Worse case mode:		802.11a		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5850	99.18	-0.12	99.30	122.2	-22.90	peak	H
5855	85.05	-0.12	85.17	110.8	-25.63	peak	H
5875	87.38	-0.12	87.50	105.2	-17.70	peak	H
5925	52.69	-0.12	52.81	68.2	-15.39	peak	H
5850	101.44	-0.12	101.56	122.2	-20.64	peak	V
5855	83.75	-0.12	83.87	110.8	-26.93	peak	V
5875	87.12	-0.12	87.24	105.2	-17.96	peak	V
5925	50.76	-0.12	50.88	68.2	-17.32	peak	V

Worse case mode:		802.11n20		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	56.35	-0.12	56.47	74	-17.53	peak	H
	39.48	-0.12	39.60	54	-14.40	AV	H
5150	54.86	-0.12	54.98	74	-19.02	peak	V
	38.43	-0.12	38.55	54	-15.45	AV	V

Worse case mode:		802.11n20		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5250	57.84	-0.12	57.96	74	-16.04	peak	H
	40.75	-0.12	40.87	54	-13.13	AV	H
5250	55.07	-0.12	55.19	74	-18.81	peak	V
	38.70	-0.12	38.82	54	-15.18	AV	V

Worse case mode:		802.11n20		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	57.85	-0.12	57.97	68.2	-10.23	peak	H
5700	85.07	-0.12	85.19	105.2	-20.01	peak	H
5720	88.48	-0.12	88.60	110.8	-22.20	peak	H
5725	95.88	-0.12	96.00	122.2	-26.20	peak	H
5650	55.84	-0.12	55.96	68.2	-12.24	peak	V
5700	85.06	-0.12	85.18	105.2	-20.02	peak	V
5720	86.18	-0.12	86.30	110.8	-24.50	peak	V
5725	94.78	-0.12	94.90	122.2	-27.30	peak	V

Worse case mode:		802.11n20		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5850	98.51	-0.12	98.63	122.2	-23.57	peak	H
5855	84.18	-0.12	84.30	110.8	-26.50	peak	H
5875	86.31	-0.12	86.43	105.2	-18.77	peak	H
5925	50.10	-0.12	50.22	68.2	-17.98	peak	H
5850	99.42	-0.12	99.54	122.2	-22.66	peak	V
5855	85.24	-0.12	85.36	110.8	-25.44	peak	V
5875	86.93	-0.12	87.05	105.2	-18.15	peak	V
5925	51.76	-0.12	51.88	68.2	-16.32	peak	V

Worse case mode:		802.11n40		Test channel:		38	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	56.36	-0.12	56.48	74	-17.52	peak	H
	42.27	-0.12	42.39	54	-11.61	AV	H
5150	55.04	-0.12	55.16	74	-18.84	peak	V
	39.22	-0.12	39.34	54	-14.66	AV	V

Worse case mode:		802.11n40		Test channel:		46	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5250	57.77	-0.12	57.89	74	-16.11	peak	H
	41.03	-0.12	41.15	54	-12.85	AV	H
5250	54.94	-0.12	55.06	74	-18.94	peak	V
	40.58	-0.12	40.70	54	-13.30	AV	V

Worse case mode:		802.11n40		Test channel:		151	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	55.40	-0.12	55.52	68.2	-12.68	peak	H
5700	84.33	-0.12	84.45	105.2	-20.75	peak	H
5720	87.46	-0.12	87.58	110.8	-23.22	peak	H
5725	95.96	-0.12	96.08	122.2	-26.12	peak	H
5650	57.66	-0.12	57.78	68.2	-10.42	peak	V
5700	83.42	-0.12	83.54	105.2	-21.66	peak	V
5720	85.92	-0.12	86.04	110.8	-24.76	peak	V
5725	96.11	-0.12	96.23	122.2	-25.97	peak	V

Worse case mode:		802.11n40		Test channel:		159	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5850	100.60	-0.12	100.72	122.2	-21.48	peak	H
5855	85.26	-0.12	85.38	110.8	-25.42	peak	H
5875	88.71	-0.12	88.83	105.2	-16.37	peak	H
5925	49.88	-0.12	50.00	68.2	-18.20	peak	H
5850	101.39	-0.12	101.51	122.2	-20.69	peak	V
5855	84.67	-0.12	84.79	110.8	-26.01	peak	V
5875	86.64	-0.12	86.76	105.2	-18.44	peak	V
5925	52.01	-0.12	52.13	68.2	-16.07	peak	V

Worse case mode:		802.11ac20		Test channel:		36	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	55.36	-0.12	55.48	74	-18.52	peak	H
	39.42	-0.12	39.54	54	-14.46	AV	H
5150	54.62	-0.12	54.74	74	-19.26	peak	V
	38.98	-0.12	39.10	54	-14.90	AV	V

Worse case mode:		802.11ac20		Test channel:		48	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5250	57.65	-0.12	57.77	74	-16.23	peak	H
	41.97	-0.12	42.09	54	-11.91	AV	H
5250	56.77	-0.12	56.89	74	-17.11	peak	V
	39.66	-0.12	39.78	54	-14.22	AV	V

Worse case mode:		802.11ac20		Test channel:		149	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	55.19	-0.12	55.31	68.2	-12.89	peak	H
5700	84.10	-0.12	84.22	105.2	-20.98	peak	H
5720	88.27	-0.12	88.39	110.8	-22.41	peak	H
5725	94.58	-0.12	94.70	122.2	-27.50	peak	H
5650	56.66	-0.12	56.78	68.2	-11.42	peak	V
5700	84.03	-0.12	84.15	105.2	-21.05	peak	V
5720	87.47	-0.12	87.59	110.8	-23.21	peak	V
5725	95.07	-0.12	95.19	122.2	-27.01	peak	V

Worse case mode:		802.11ac20		Test channel:		165	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5850	99.91	-0.12	100.03	122.2	-22.17	peak	H
5855	85.21	-0.12	85.33	110.8	-25.47	peak	H
5875	88.45	-0.12	88.57	105.2	-16.63	peak	H
5925	51.06	-0.12	51.18	68.2	-17.02	peak	H
5850	101.48	-0.12	101.60	122.2	-20.60	peak	V
5855	84.84	-0.12	84.96	110.8	-25.84	peak	V
5875	85.92	-0.12	86.04	105.2	-19.16	peak	V
5925	52.75	-0.12	52.87	68.2	-15.33	peak	V

Worse case mode:		802.11ac40		Test channel:		38	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	56.49	-0.12	56.61	74	-17.39	peak	H
	41.16	-0.12	41.28	54	-12.72	AV	H
5150	57.22	-0.12	57.34	74	-16.66	peak	V
	38.27	-0.12	38.39	54	-15.61	AV	V

Worse case mode:		802.11ac40		Test channel:		46	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5250	55.30	-0.12	55.42	74	-18.58	peak	H
	40.99	-0.12	41.11	54	-12.89	AV	H
5250	55.83	-0.12	55.95	74	-18.05	peak	V
	40.44	-0.12	40.56	54	-13.44	AV	V

Worse case mode:		802.11ac40		Test channel:		151	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	56.69	-0.12	56.81	68.2	-11.39	peak	H
5700	83.15	-0.12	83.27	105.2	-21.93	peak	H
5720	88.68	-0.12	88.80	110.8	-22.00	peak	H
5725	95.98	-0.12	96.10	122.2	-26.10	peak	H
5650	57.41	-0.12	57.53	68.2	-10.67	peak	V
5700	83.95	-0.12	84.07	105.2	-21.13	peak	V
5720	85.05	-0.12	85.17	110.8	-25.63	peak	V
5725	95.24	-0.12	95.36	122.2	-26.84	peak	V

Worse case mode:		802.11ac40		Test channel:		159	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5850	98.65	-0.12	98.77	122.2	-23.43	peak	H
5855	83.19	-0.12	83.31	110.8	-27.49	peak	H
5875	88.30	-0.12	88.42	105.2	-16.78	peak	H
5925	52.60	-0.12	52.72	68.2	-15.48	peak	H
5850	101.55	-0.12	101.67	122.2	-20.53	peak	V
5855	83.52	-0.12	83.64	110.8	-27.16	peak	V
5875	86.88	-0.12	87.00	105.2	-18.20	peak	V
5925	49.96	-0.12	50.08	68.2	-18.12	peak	V

Worse case mode:		802.11ac80		Test channel:		42	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5150	55.51	-0.12	55.63	68.2	-12.57	peak	H
	82.59	-0.12	82.71	105.2	-22.49	AV	H
5150	87.85	-0.12	87.97	110.8	-22.83	peak	V
	93.99	-0.12	94.11	122.2	-28.09	AV	V
5250	55.77	-0.12	55.89	68.2	-12.31	peak	H
	85.06	-0.12	85.18	105.2	-20.02	AV	H
5250	87.52	-0.12	87.64	110.8	-23.16	peak	V
	94.89	-0.12	95.01	122.2	-27.19	AV	V

Worse case mode:		802.11ac80		Test channel:		155	
Frequency	Meter Reading	Factor	Emission Level	Limits	Over	Detector Type	Ant. Pol.
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)		H/V
5650	55.62	-0.12	55.74	68.2	-12.46	peak	H
5700	83.19	-0.12	83.31	105.2	-21.89	peak	H
5720	86.25	-0.12	86.37	110.8	-24.43	peak	H
5725	95.92	-0.12	96.04	122.2	-26.16	peak	H
5650	57.15	-0.12	57.27	68.2	-10.93	peak	V
5700	85.56	-0.12	85.68	105.2	-19.52	peak	V
5720	86.78	-0.12	86.90	110.8	-23.90	peak	V
5725	95.28	-0.12	95.40	122.2	-26.80	peak	V
5850	100.62	-0.12	100.74	122.2	-21.46	peak	H
5855	83.73	-0.12	83.85	110.8	-26.95	peak	H
5875	89.02	-0.12	89.14	105.2	-16.06	peak	H
5925	51.44	-0.12	51.56	68.2	-16.64	peak	H
5850	99.58	-0.12	99.70	122.2	-22.50	peak	V
5855	85.31	-0.12	85.43	110.8	-25.37	peak	V
5875	87.43	-0.12	87.55	105.2	-17.65	peak	V
5925	50.16	-0.12	50.28	68.2	-17.92	peak	V

5. POWER SPECTRAL DENSITY TEST

Test Requirement:	FCC 47 CFR Part 15 Subpart E Section 15.407 (a)
Test Method:	KDB 789033 D02 v02r01

5.1 APPLIED PROCEDURES / LIMIT

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

LIMIT:	U-NII-1	11DBM/MHZ
	U-NII-3	30DBM/500KHZ

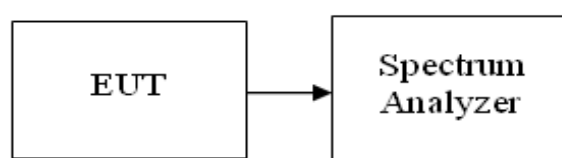
5.2 TEST PROCEDURE

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.1 Unless otherwise a special operating condition is specified in the follows during the testing.

5.6 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V
Test Mode :	TX frequency U-NII band1 & U-NII band3		

U-NII band1

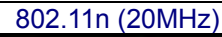
802.11 Mode	Channel No.	Frequency [MHz]	Measured Power Spectral Density [dBm/MHz]	Power Spectral Density Limit [dBm/MHz]
a	36	5180	9.554	11
	40	5200	10.276	11
	48	5240	9.409	11
n (20MHz)	36	5180	9.593	11
	40	5200	9.62	11
	48	5240	9.013	11
n (40MHz)	38	5190	5.103	11
	46	5230	5.247	11
ac (20MHz)	36	5180	9.848	11
	40	5200	9.582	11
	48	5240	9.024	11
ac(40MHz)	38	5190	1.239	11
	46	5230	1.808	11
ac(80MHz)	42	5210	-0.938	11

U-NII band3

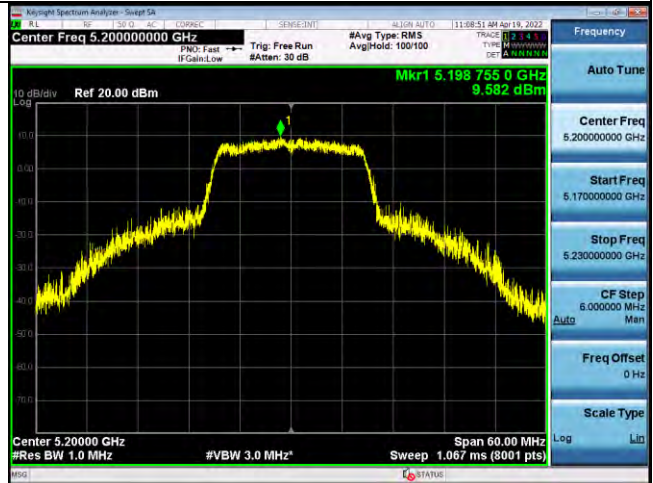
802.11 Mode	Channel No.	Frequency [MHz]	Meas PSD [dBm/510kHz]	Meas PSD [dBm/500kHz]	Limit [dBm/500kHz]
a	149	5745	4.159	4.073	30
	157	5785	5.251	5.165	30
	165	5825	3.996	3.910	30
n (20MHz)	149	5745	4.279	4.193	30
	157	5785	1.407	1.321	30
	165	5825	1.391	1.305	30
n (40MHz)	151	5755	0.846	0.760	30
	159	5795	1.109	1.023	30
ac (20MHz)	149	5745	1.182	1.096	30
	157	5785	3.142	3.056	30
	165	5825	1.615	1.529	30
ac(40MHz)	151	5755	-2.801	-2.887	30
	159	5795	-3.414	-3.500	30
ac(80MHz)	155	5775	-6.7	-6.786	30

Note: Covert PSD [dBm/500KHz]= PSD[dBm/510KHz]+10*log(500/510)

802.11a



802.11ac 20MHz



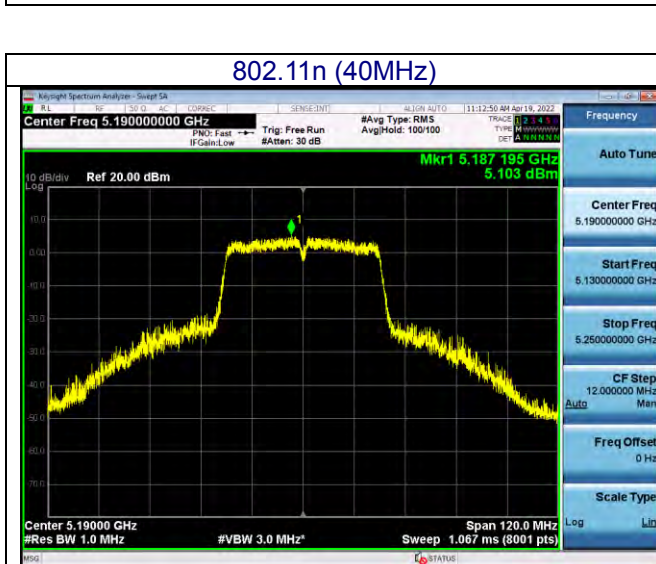
CH36-5180MHz



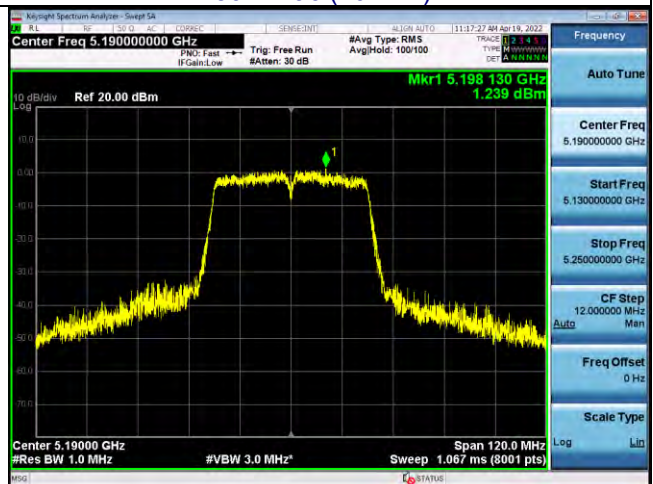
CH40-5200MHz



CH48-5240MHz

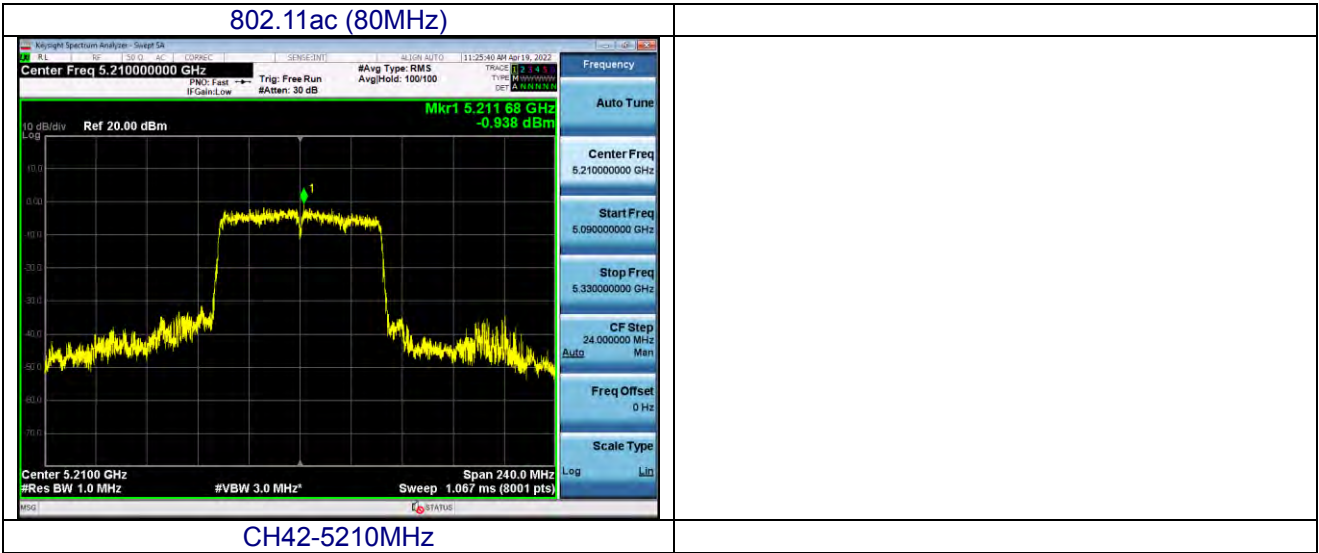
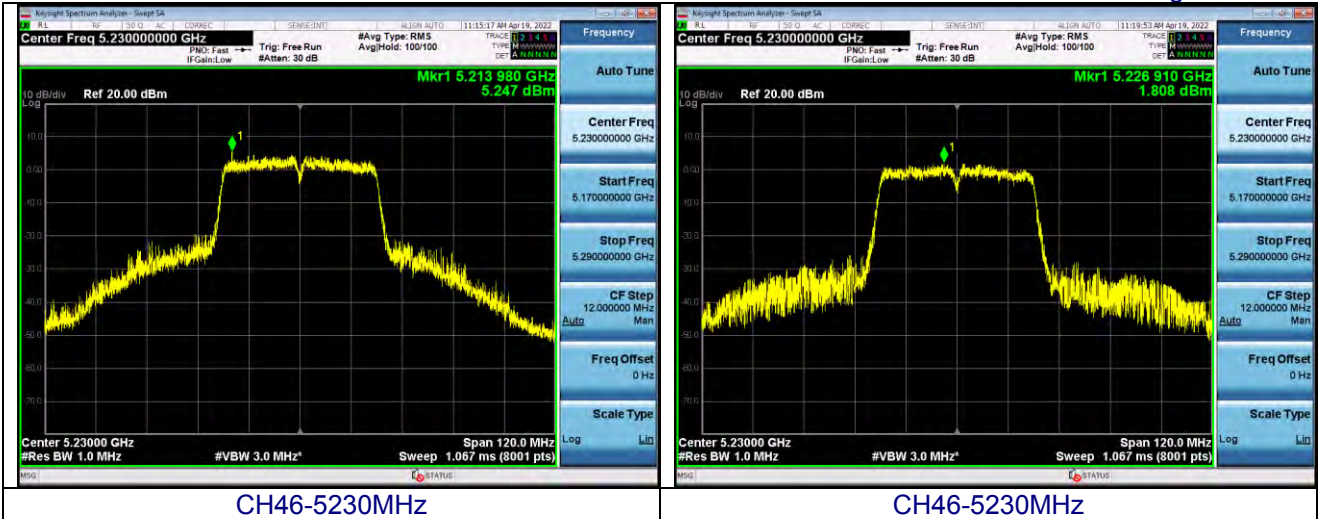


802.11ac (40MHz)



CH38-5190MHz

CH38-5190MHz

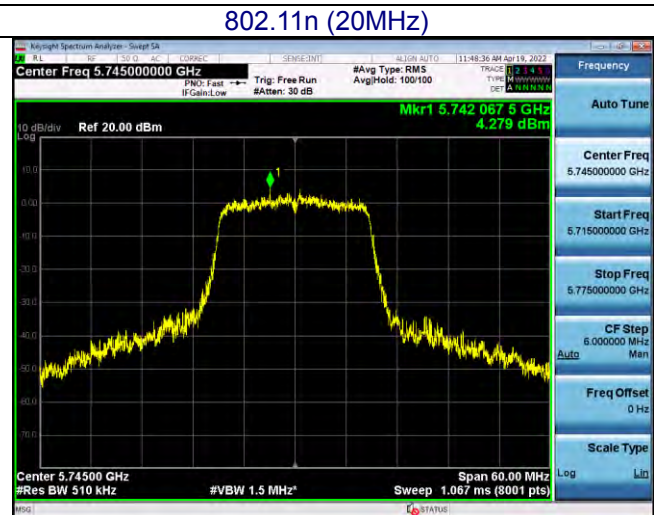


U-NII band3

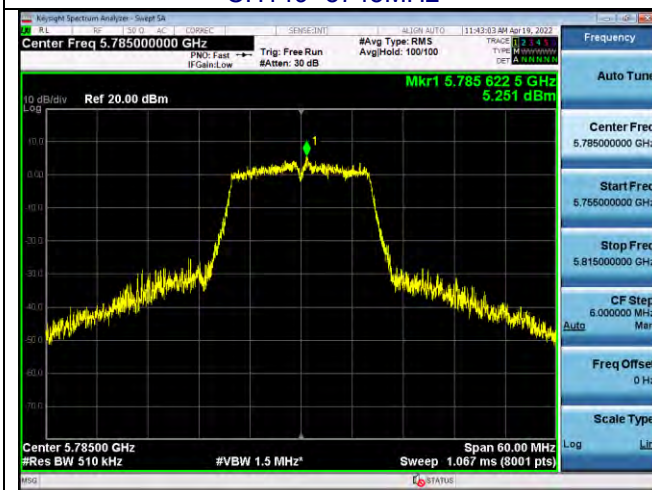
802.11a



802.11n (20MHz)



CH149 -5745MHz



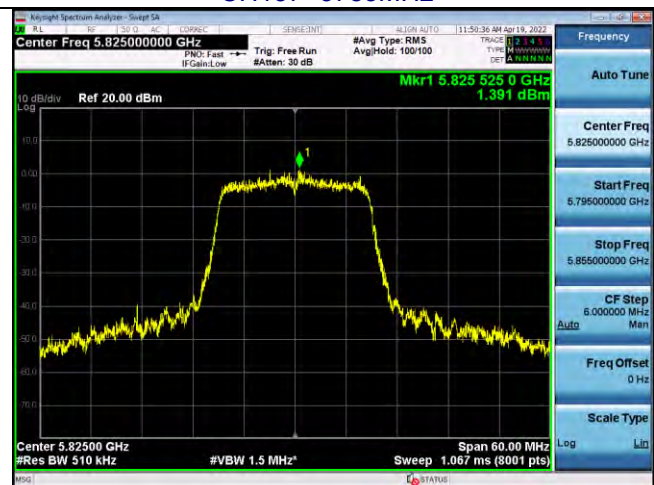
CH149 -5745MHz



CH157 -5785MHz



CH157 -5785MHz



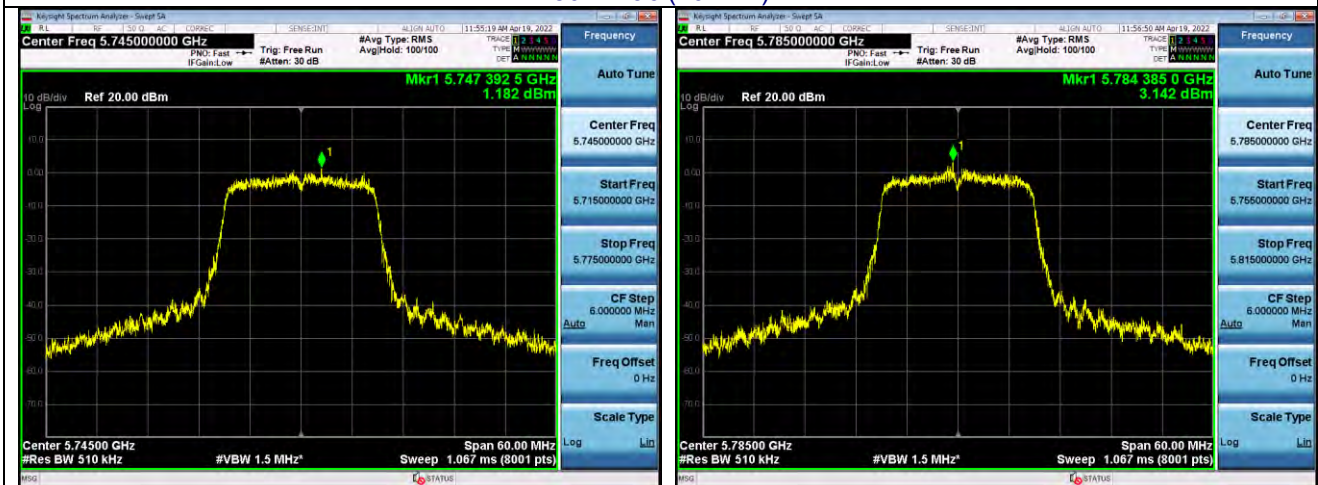
CH165 -5825MHz



CH165 -5825MHz



802.11ac (20MHz)



CH149 -5745MHz

CH157 -5785MHz

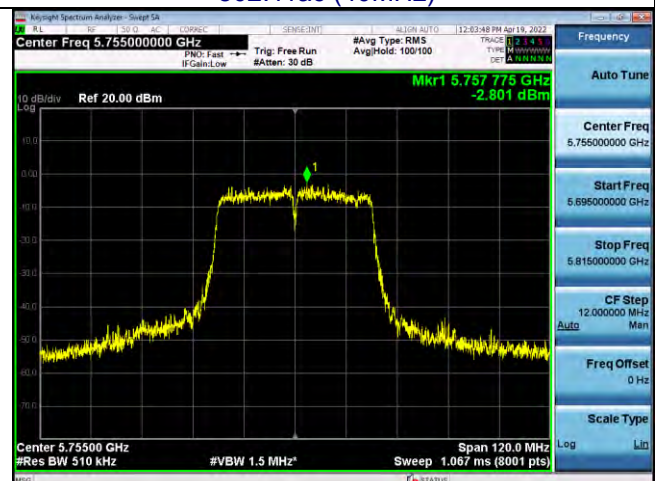


CH165 -5825MHz

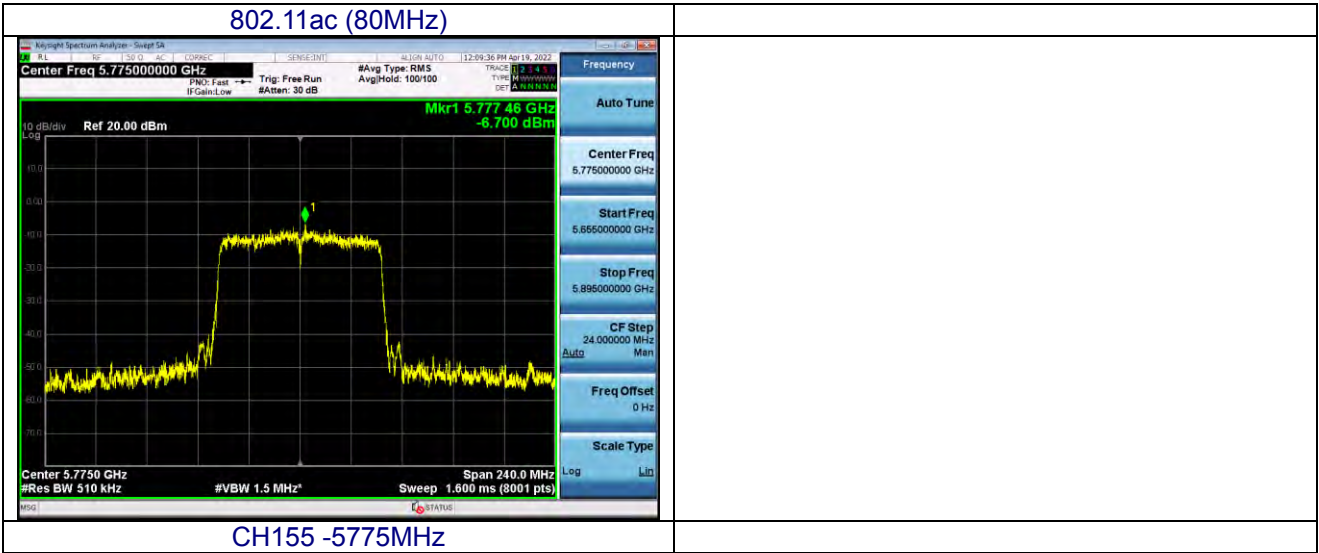
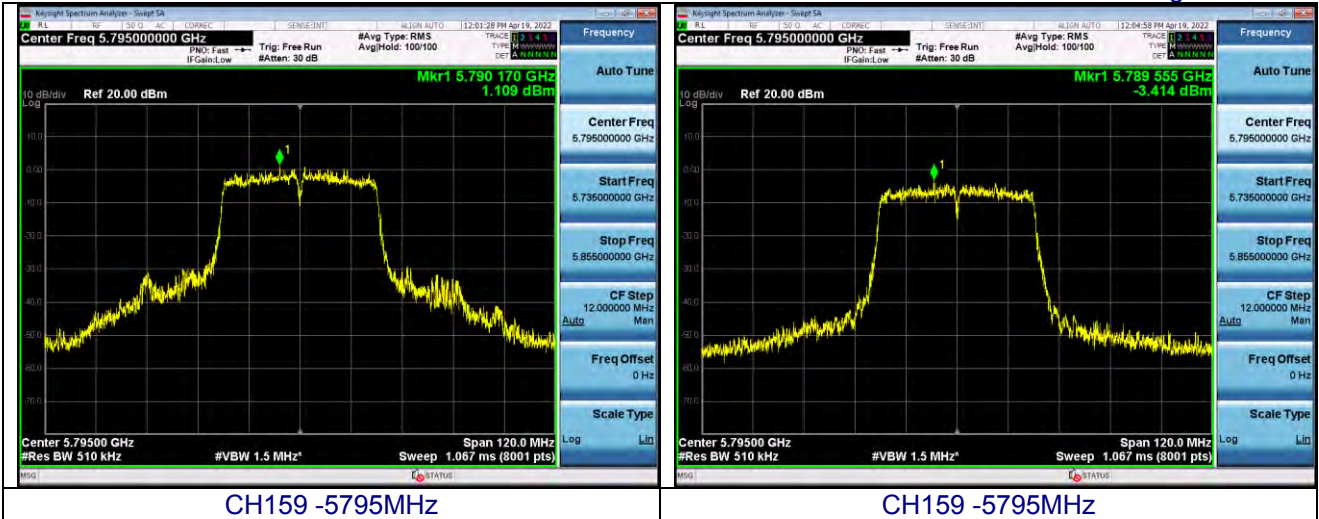


CH151 -5755MHz

802.11ac (40MHz)



CH151 -5755MHz



6. -26 DB&6DBM EMISSION BANDWIDTH

Test Requirement:	Part 15 Subpart C Section 15.407 (e)
Test Method:	KDB 789033 D02 v02r01

6.1 APPLIED PROCEDURES / LIMIT

FCC Part15.407 (e)		
Bandwidth		
Limit	U-NII band1	N/A
	U-NII band3	$\geq$ 500 kHz

6.2 TEST PROCEDURE

Place the EUT on the table and set it in the transmitting mode.

Remove the antenna from the EUT and then connect a low-loss RF cable from the antenna port to the spectrum analyzer.

Set the spectrum analyzers RBW = approximately 1% of the emission bandwidth, VBW > RBW, Detector = Peak, Span > 26 dB bandwidth, and Sweep = auto, Trace mode = max hold.

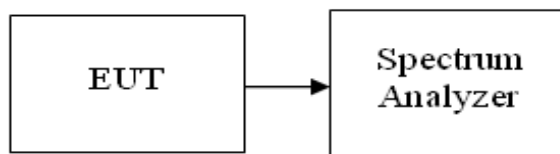
Measure the maximum width of the emission that is 26 dB down from the maximum of the emission.

Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

Repeat until all the rest channels were investigated.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP**6.5 EUT OPERATION CONDITIONS**

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

6.6 TEST RESULT

Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V
Test Mode :	TX		

U-NII band1

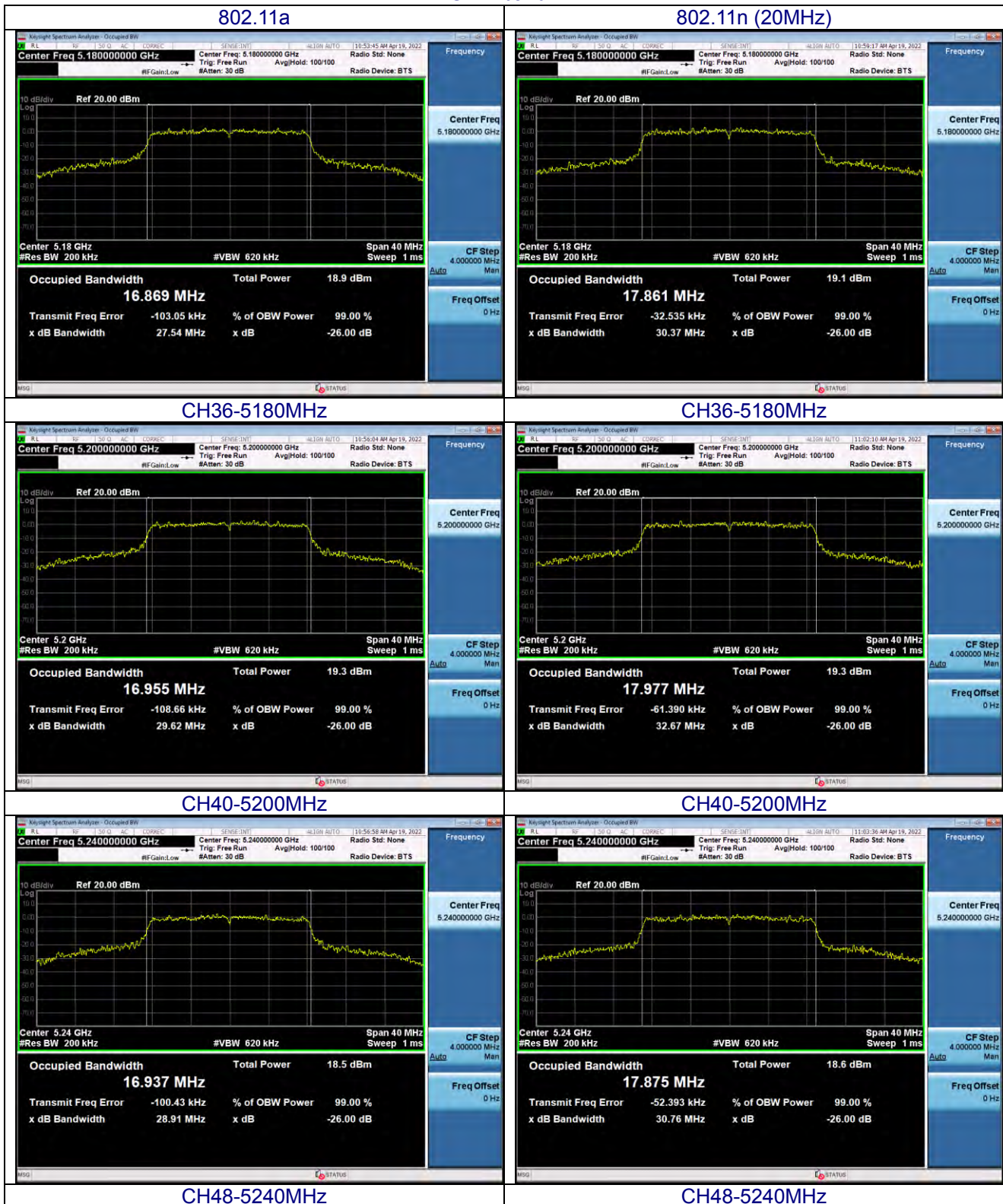
802.11 Mode	Channel No.	Frequency [MHz]	26dB Bandwidth [MHz]	99% Bandwidth [MHz]
a	36	5180	27.54	16.869
	40	5200	29.62	16.955
	48	5240	28.91	16.937
n (20MHz)	36	5180	30.37	17.861
	40	5200	32.67	17.977
	48	5240	30.76	17.875
n (40MHz)	38	5190	39.33	36.192
	46	5230	40.09	36.153
ac (20MHz)	36	5180	31.64	17.942
	40	5200	31.88	17.937
	48	5240	28.16	17.851
ac(40MHz)	38	5190	40.05	36.003
	46	5230	43.88	36.168
ac(80MHz)	42	5210	80.94	75.234

U-NII band3

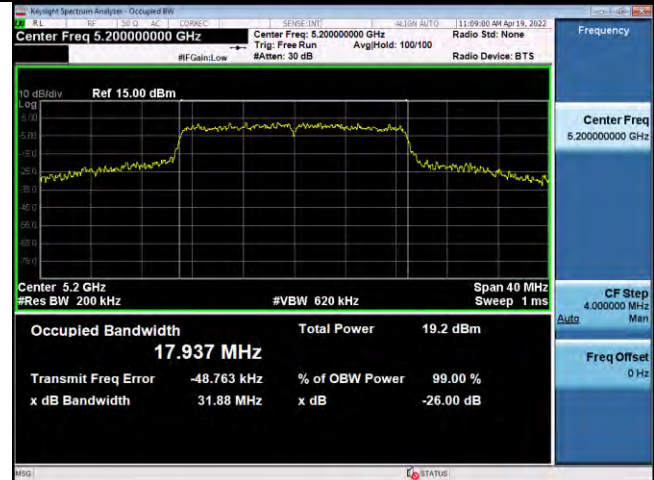
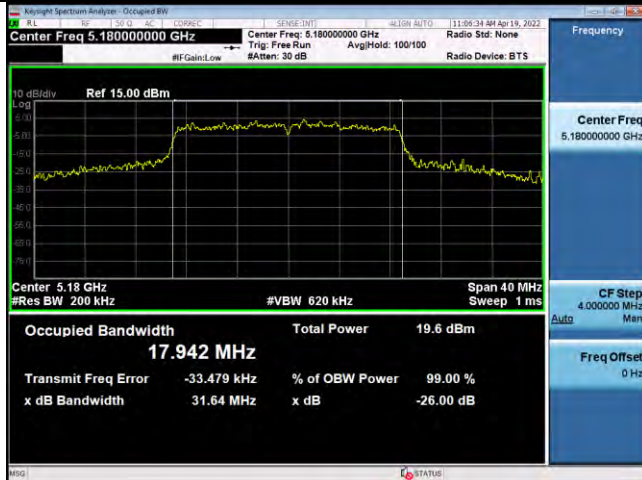
802.11 Mode	Channel No.	Frequency [MHz]	-6dbBandwidth [MHz]	Limit
a	149	5745	16.31	$\geq 500 \text{ kHz}$
	157	5785	16.34	
	165	5825	15.45	
n (20MHz)	149	5745	16.59	
	157	5785	16.41	
	165	5825	16.59	
n (40MHz)	151	5755	35.24	
	159	5795	35.24	
ac (20MHz)	149	5745	16.26	
	157	5785	15.98	
	165	5825	15.70	
ac(40MHz)	151	5755	35.42	
	159	5795	35.45	
ac(80MHz)	155	5775	75.20	

Test plot as follows:

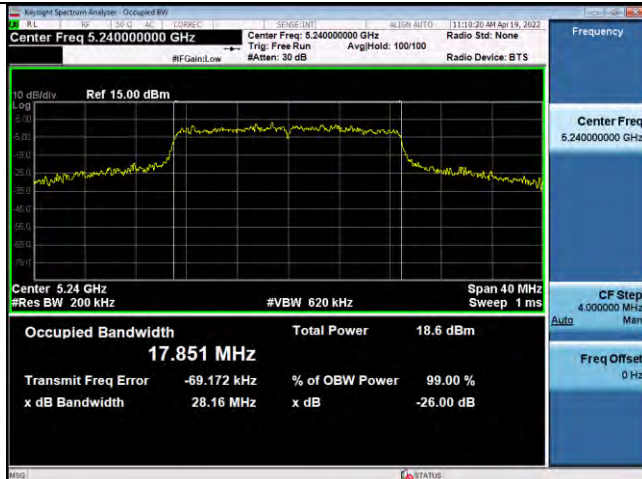
U-NII band1



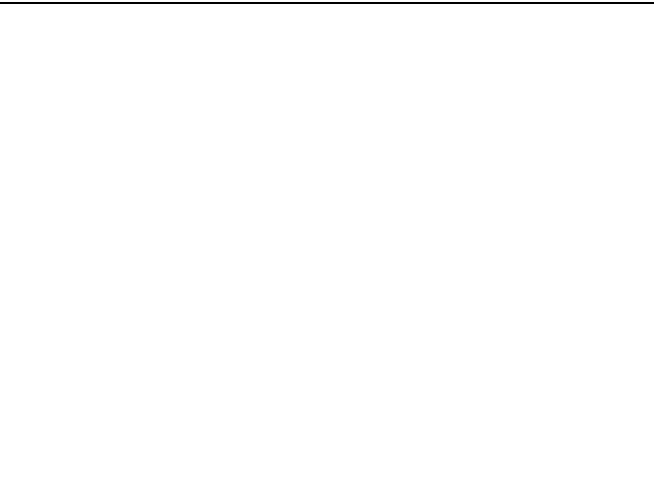
802.11ac 20MHz)



CH36-5180MHz



CH40-5200MHz

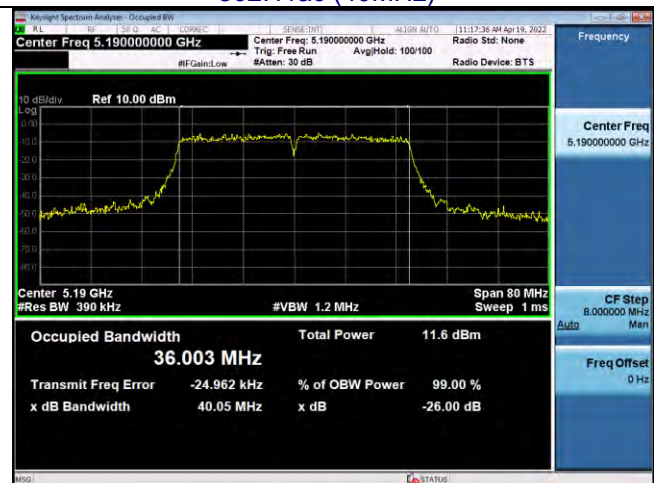


CH48-5240MHz

802.11n (40MHz)

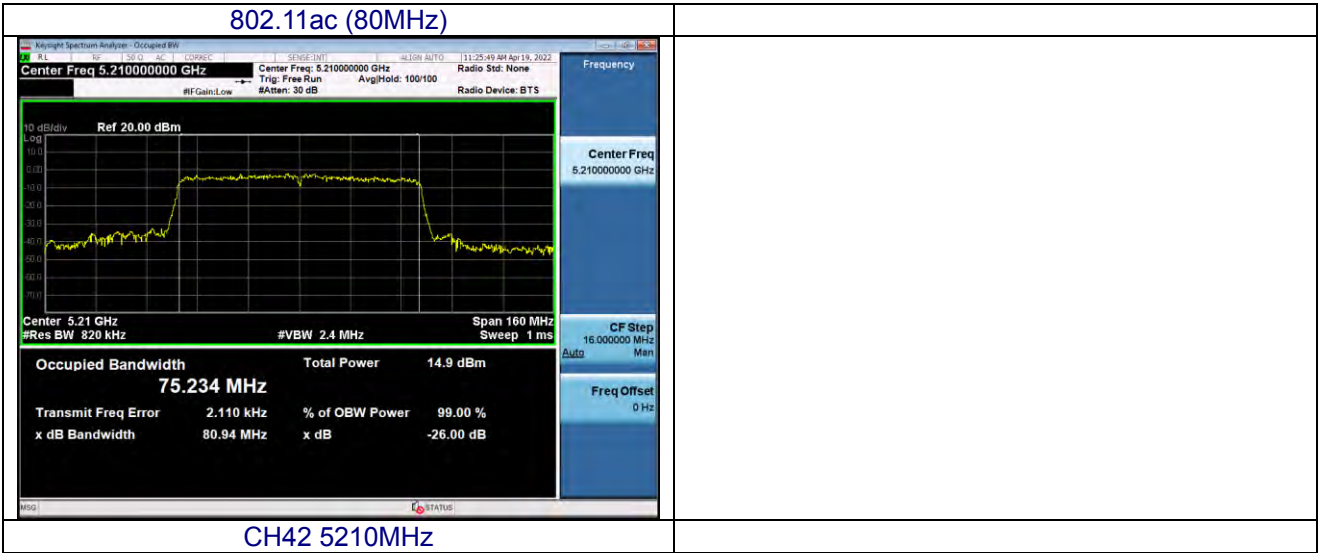
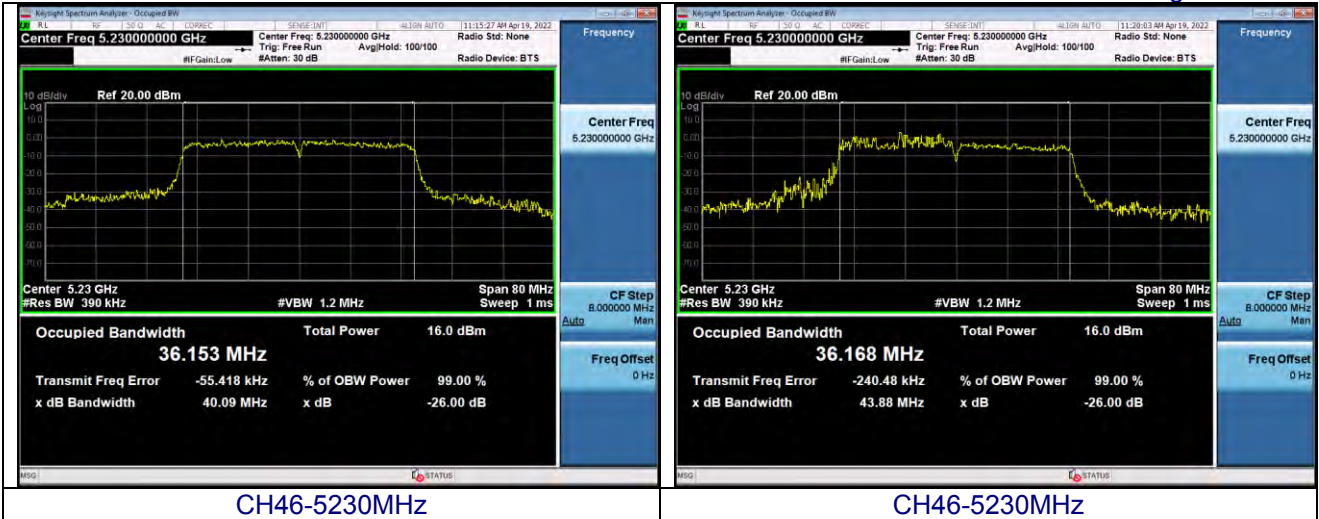


802.11ac (40MHz)



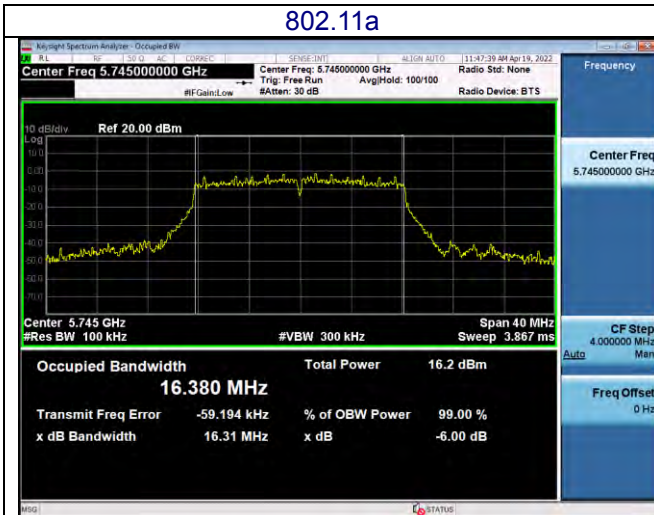
CH38-5190MHz

CH38-5190MHz

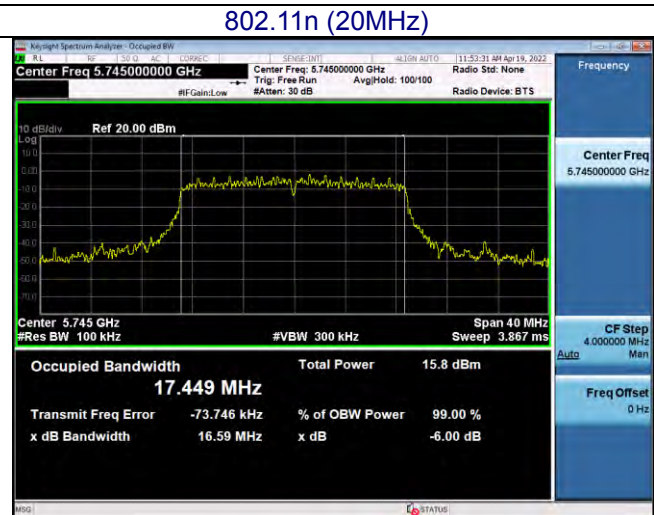


U-NII band3

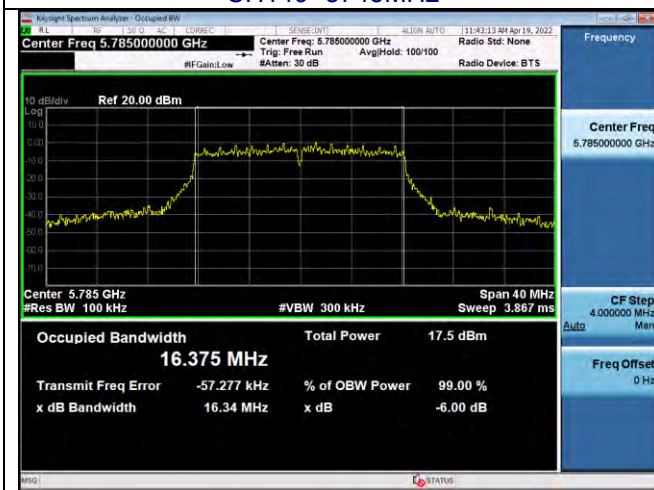
802.11a



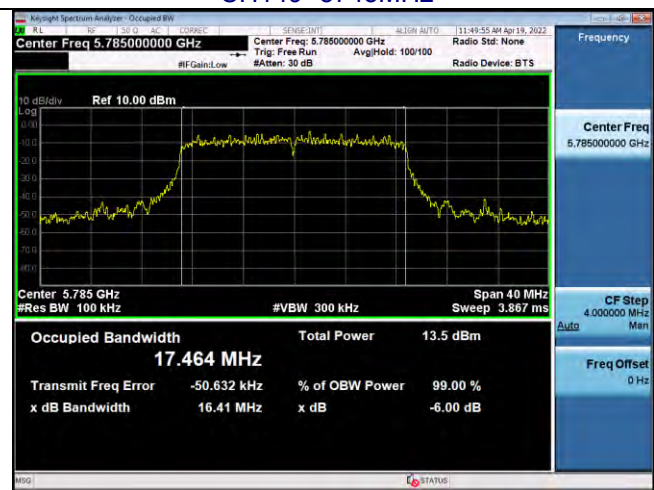
802.11n (20MHz)



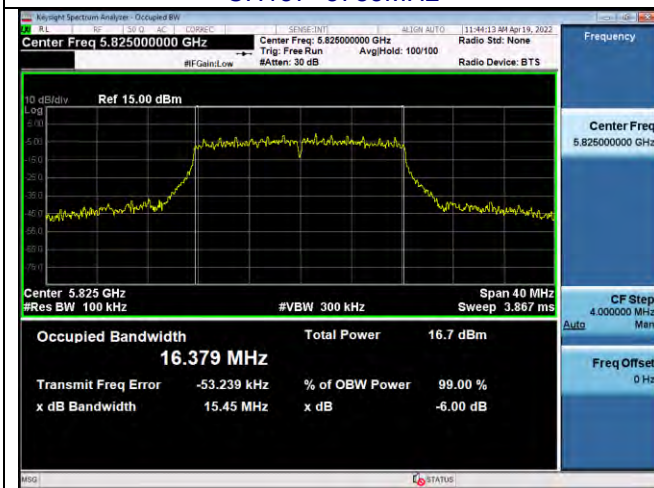
CH149 -5745MHz



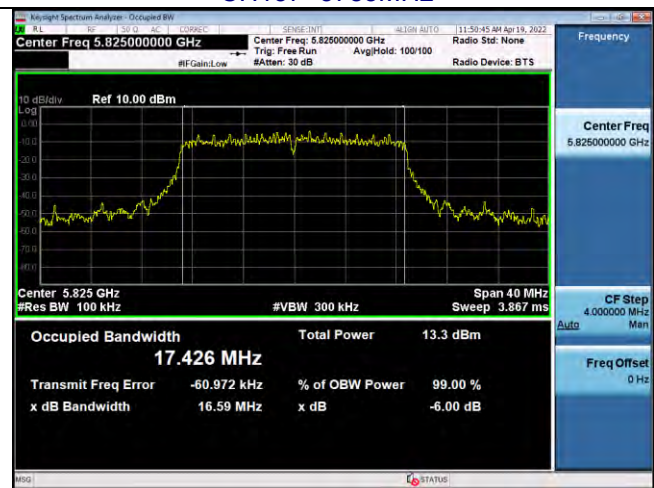
CH149 -5745MHz



CH157 -5785MHz



CH157 -5785MHz



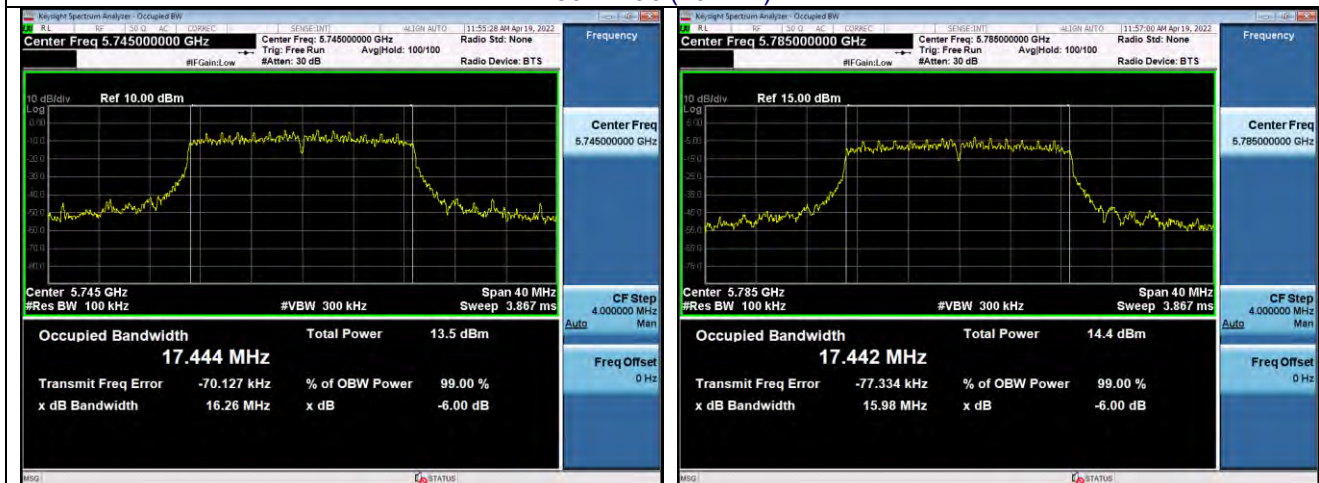
CH165 -5825MHz



CH165 -5825MHz

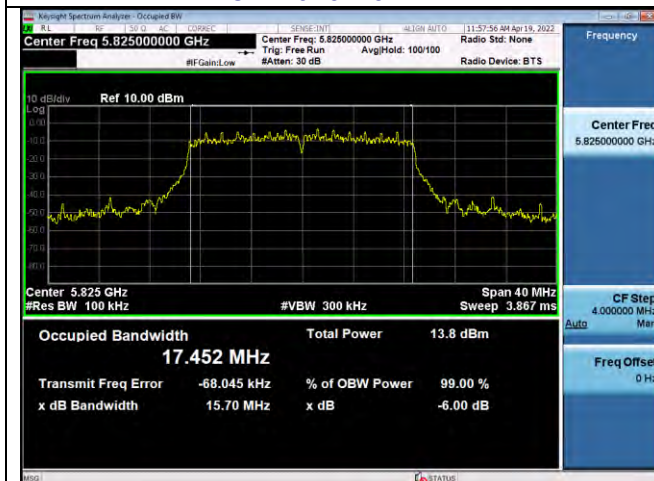


802.11ac (20MHz)

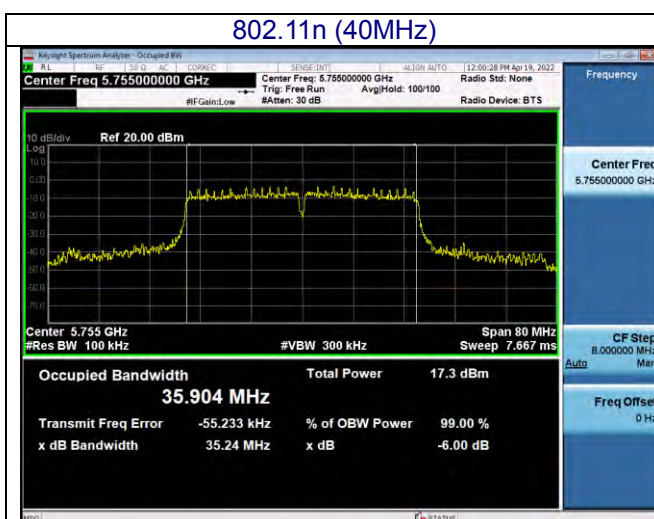


CH149 -5745MHz

CH157 -5785MHz

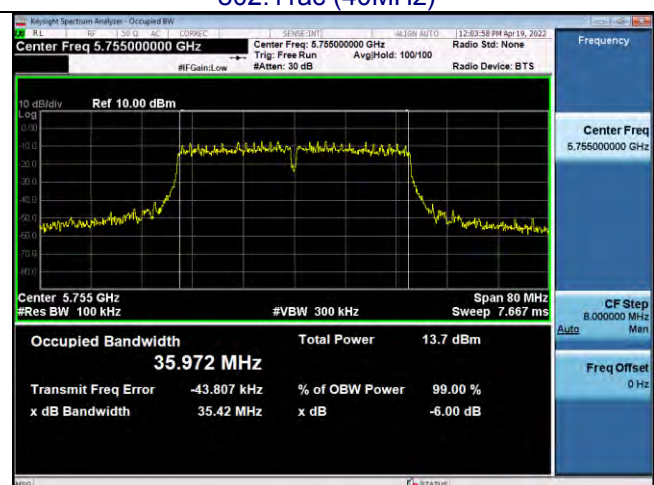


CH165 -5825MHz

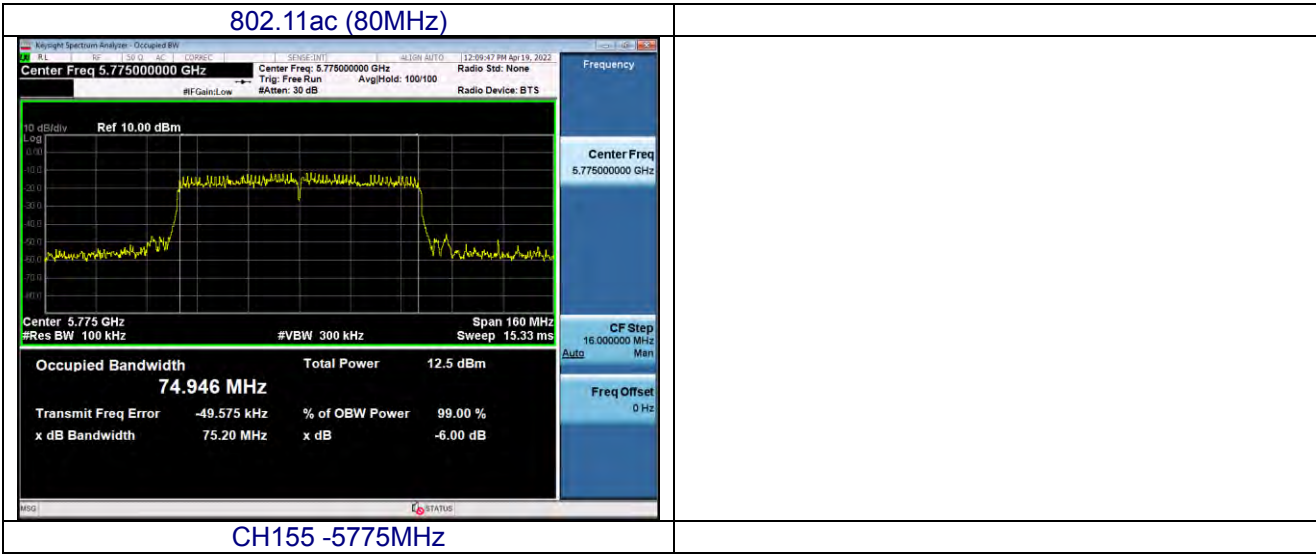
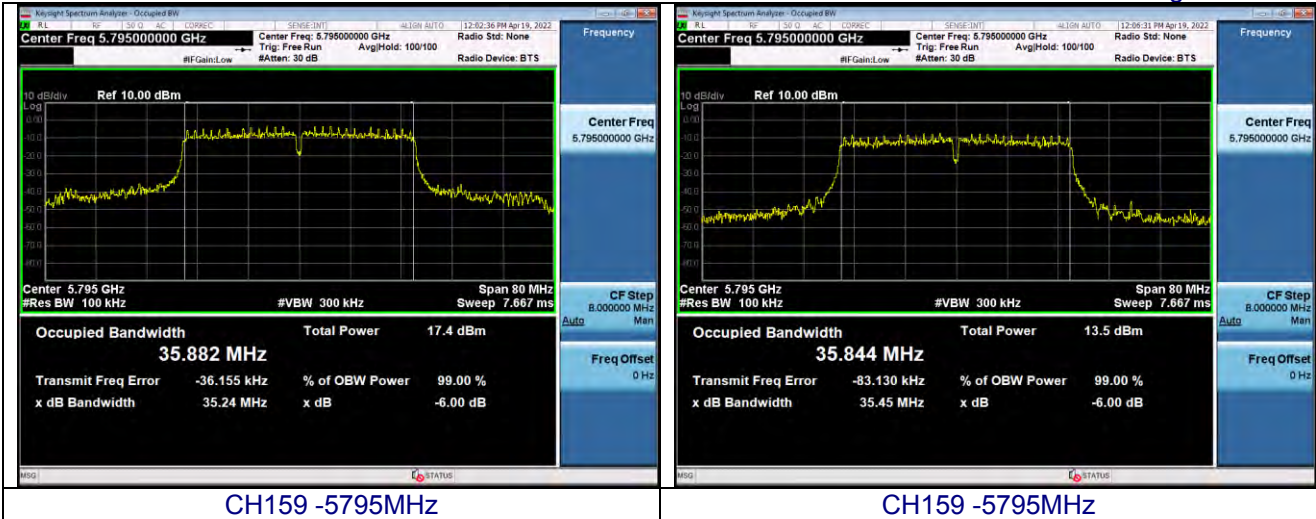


CH151 -5755MHz

802.11ac (40MHz)



CH151 -5755MHz



7.OUTPUT POWER TEST

Test Requirement:	15.407 (a)(1)(2)(3)
Test Method:	KDB 789033 D02 v02r01

7.1 APPLIED PROCEDURES/LIMIT

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

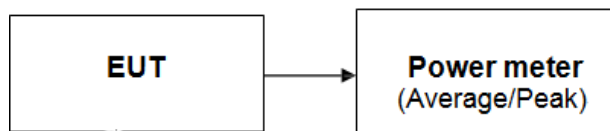
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Item	Test band	Limit	Result
Max conducted output power	U-NII-1	0.25W / 23.98dbm	Pass
Max conducted output power	U-NII-3	1 W / 30dbm	Pass

7.2 DEVIATION FROM STANDARD

No deviation.

7.3 TEST SETUP



7.4 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

7.5 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V

U-NII band1

802.11 Mode	Channel No.	Frequency [MHz]	Conducted Power [dBm]	Limit [dBm]
a	36	5180	12.427	23.98
	40	5200	12.556	23.98
	48	5240	12.12	23.98
n(20MHz)	36	5180	12.896	23.98
	40	5200	12.514	23.98
	48	5240	12.183	23.98
n(40MHz)	38	5190	9.447	23.98
	46	5230	8.441	23.98
ac(20MHz)	36	5180	12.445	23.98
	40	5200	12.451	23.98
	48	5240	12.196	23.98
ac(40MHz)	38	5190	7.085	23.98
	46	5230	6.255	23.98
ac(80MHz)	42	5210	6.60	23.98

U-NII band3

802.11 Mode	Channel No.	Frequency [MHz]	Conducted Power [dBm]	Limit [dBm]
a	149	5745	6.013	30.00
	157	5785	7.91	30.00
	165	5825	7.85	30.00
n(20MHz)	149	5745	5.395	30.00
	157	5785	4.525	30.00
	165	5825	4.355	30.00
n (40MHz)	151	5755	4.216	30.00
	159	5795	5.809	30.00
ac (20MHz)	149	5745	6.407	30.00
	157	5785	6.03	30.00
	165	5825	5.009	30.00
ac(40MHz)	151	5755	3.262	30.00
	159	5795	2.733	30.00
ac(80MHz)	155	5775	1.597	30.00

8.OUT OF BAND EDGEEMISSION

Test Requirement:	15.407 (b)
Test Method:	KDB 789033 D02 v02r01

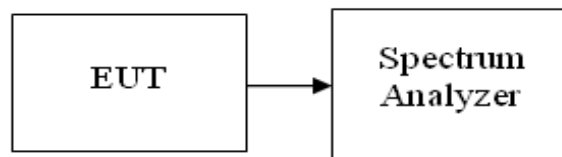
8.1TEST PROCEDURE

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set RBW of spectrum analyzer to 1 MHz with a convenient frequency span.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

8.2DEVIATION FROM STANDARD

No deviation.

8.3TEST SETUP



8.4EUT OPERATION CONDITIONS

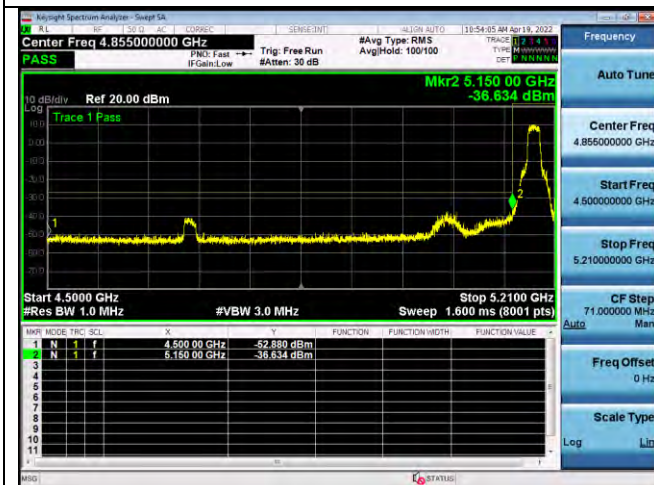
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

8.5 TEST RESULTS

Test plot as follows:

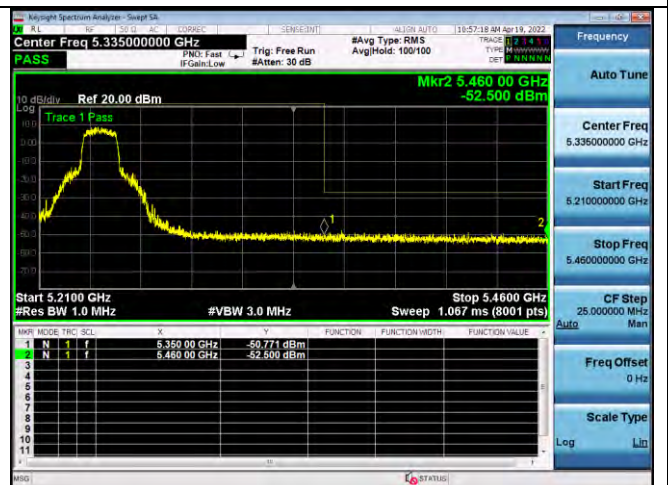
U-NII band1

Test mode:



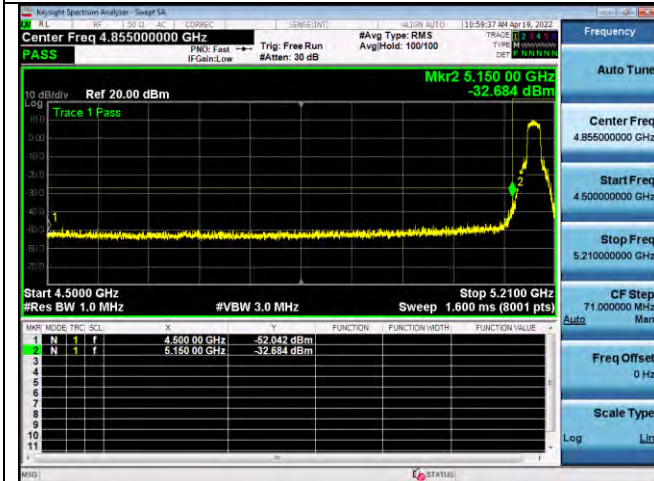
Lowest channel

802.11a



Highest channel

Test mode:



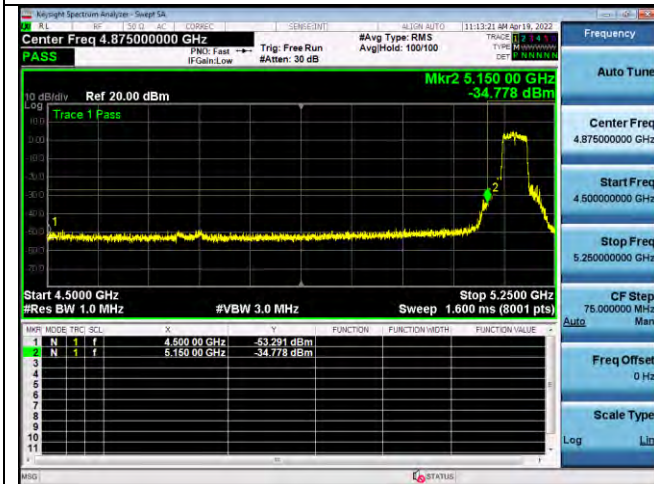
Lowest channel

802.11n20



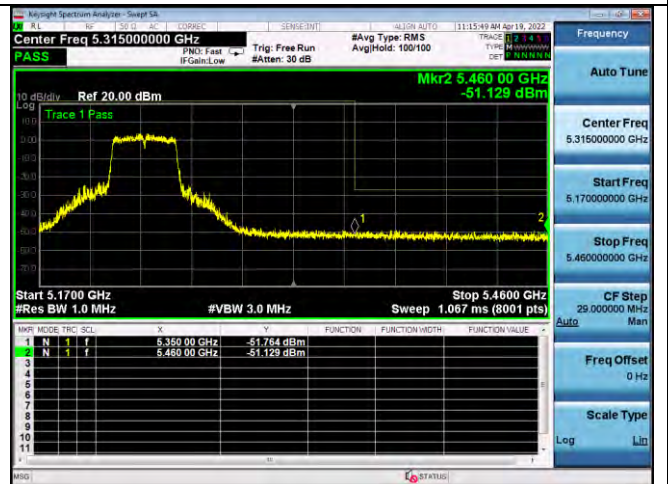
Highest channel

Test mode:



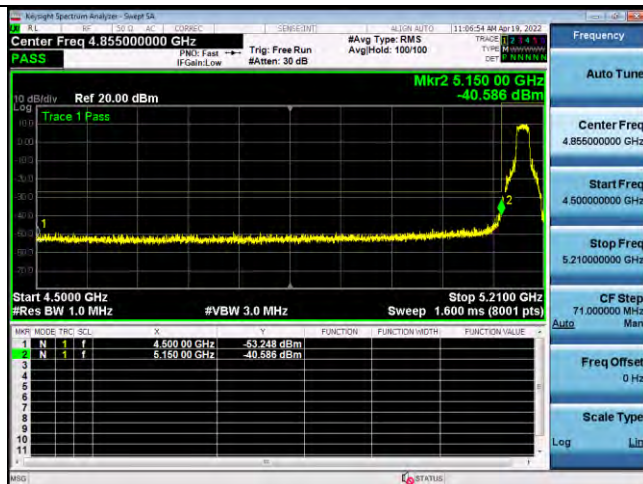
Lowest channel

802.11n40



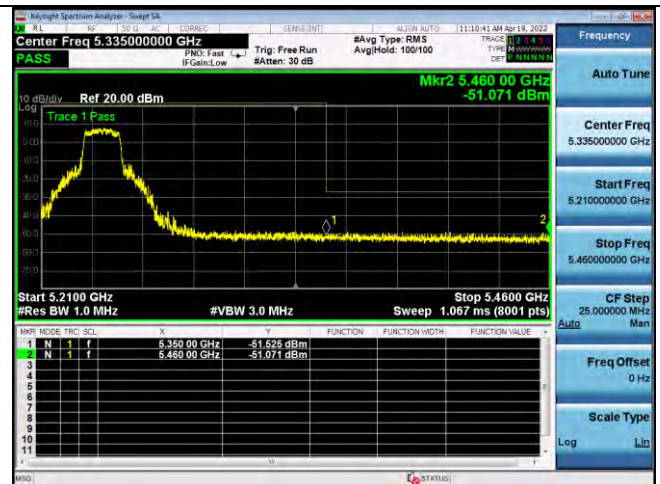
Highest channel

Test mode:



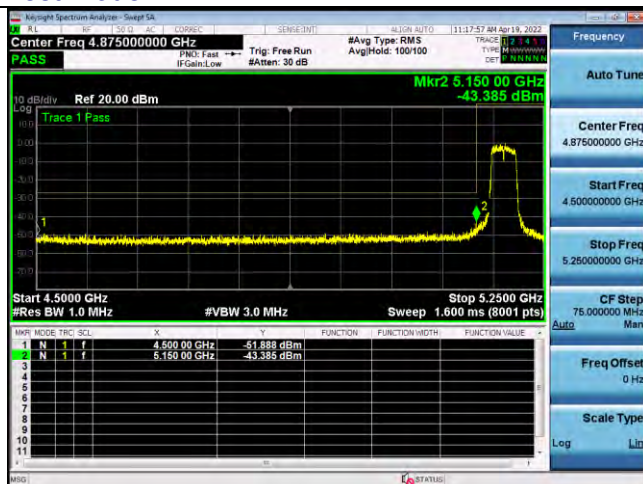
Lowest channel

802.11ac20



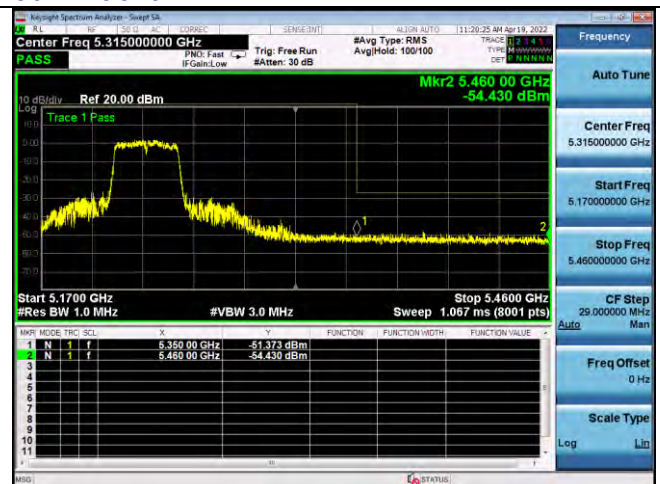
Highest channel

Test mode:



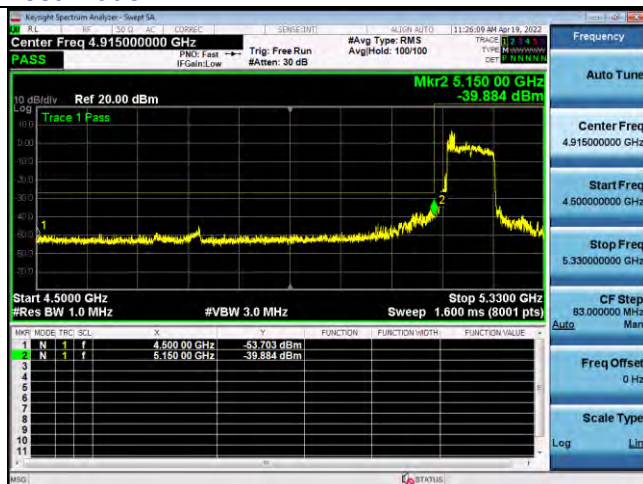
Lowest channel

802.11ac40



Highest channel

Test mode:



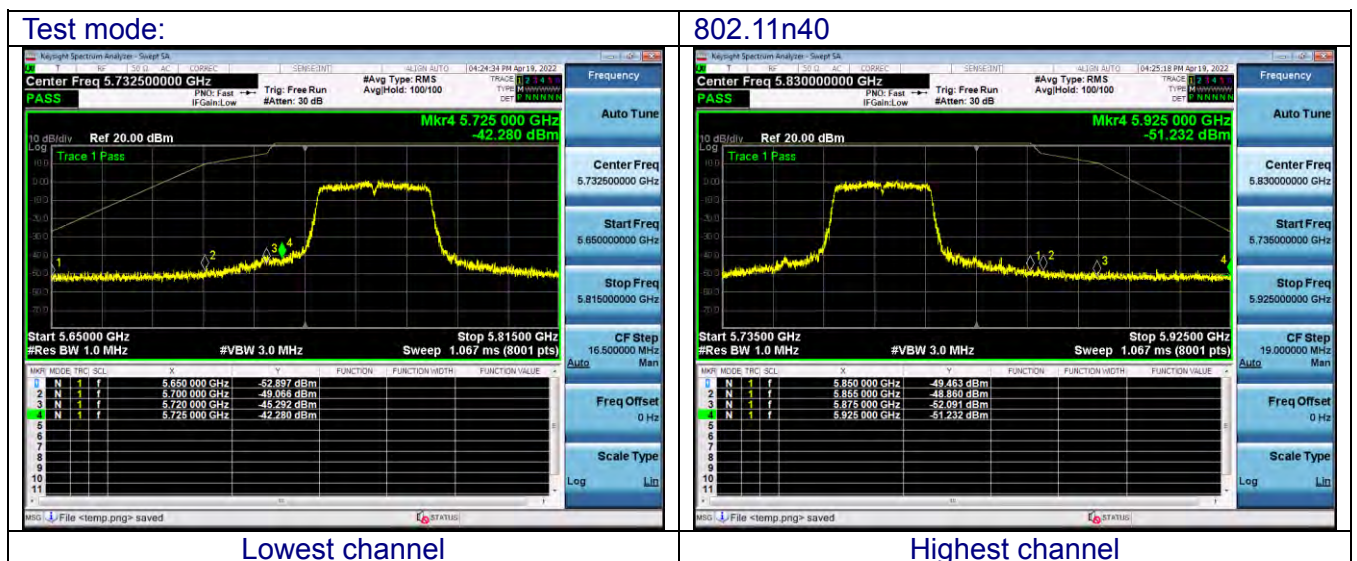
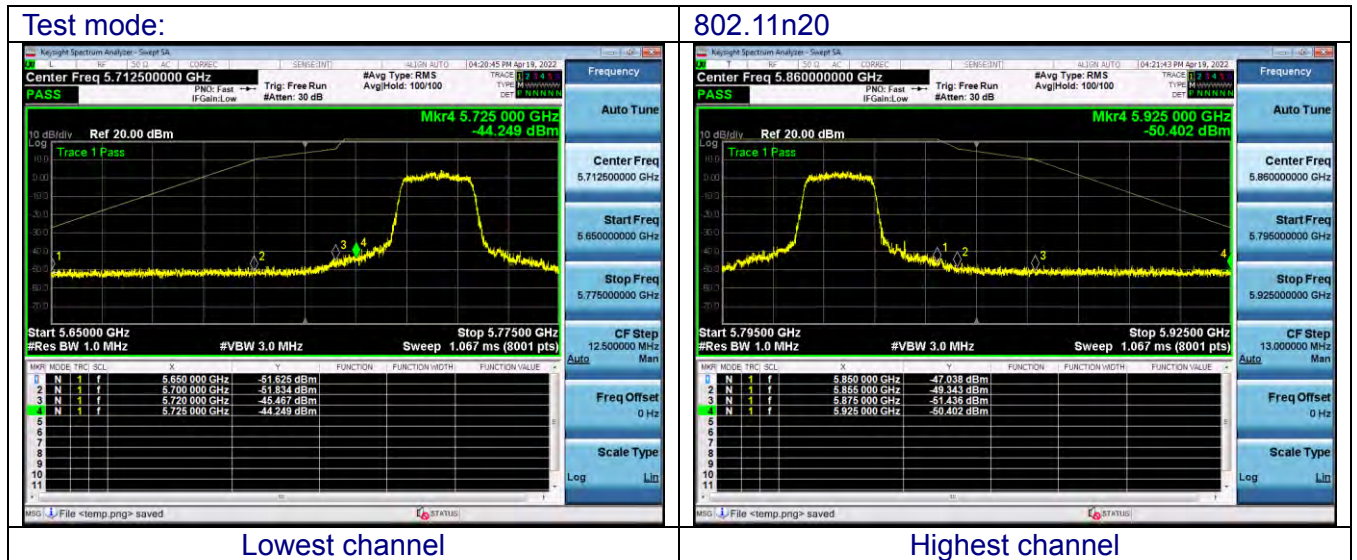
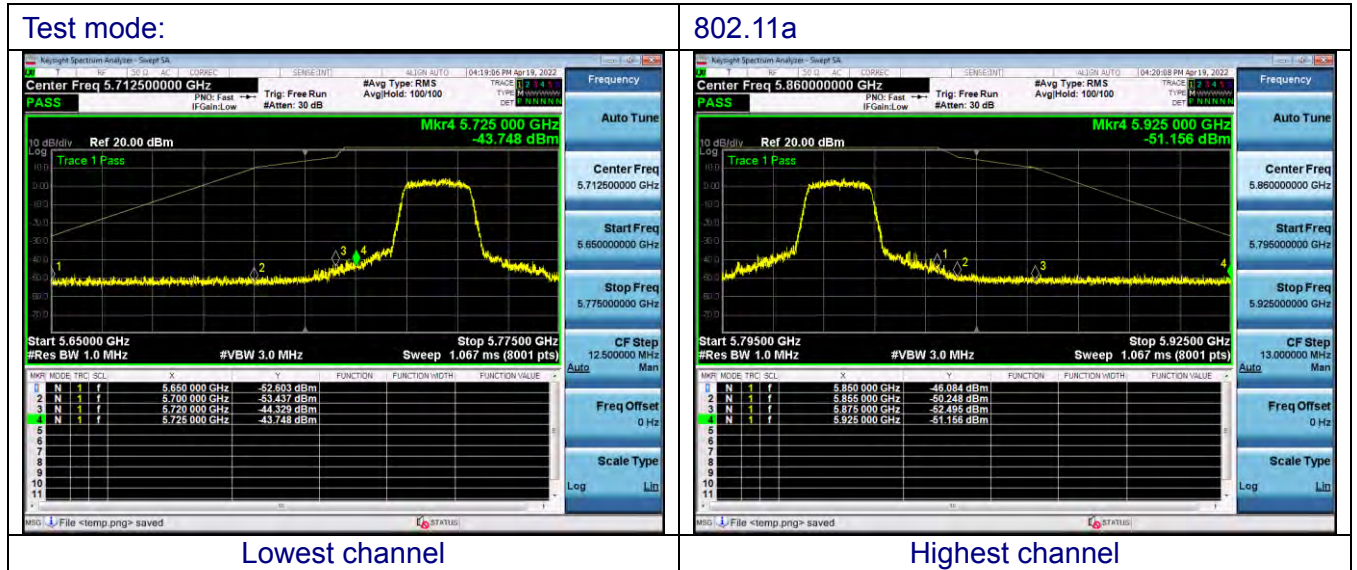
Lowest channel

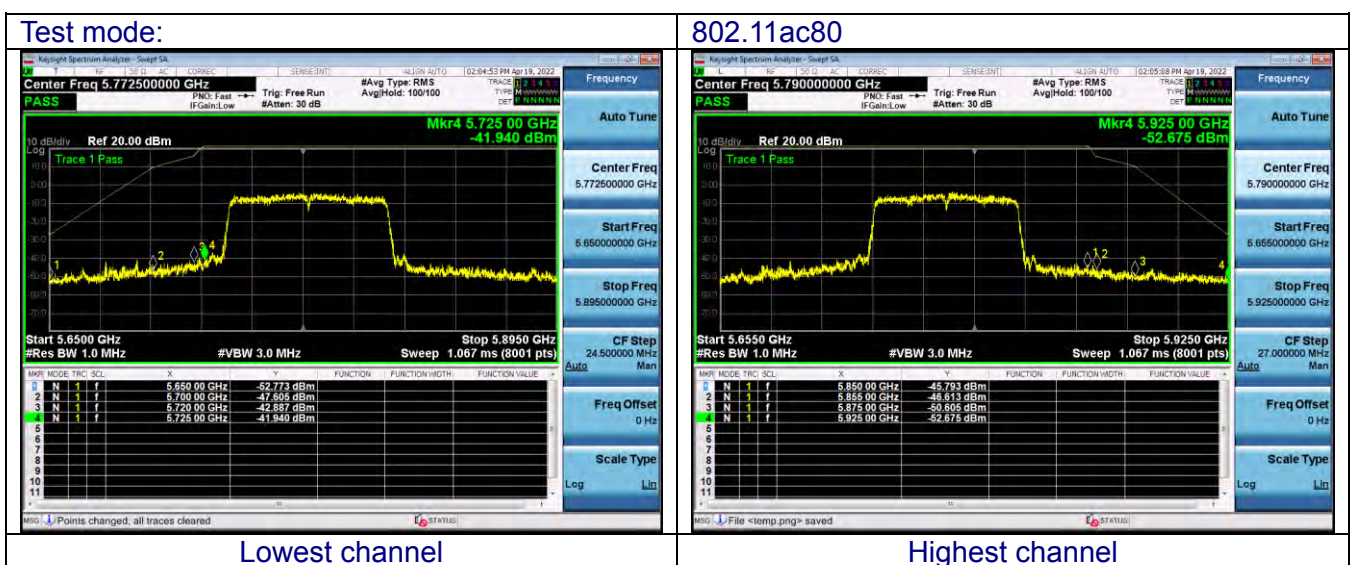
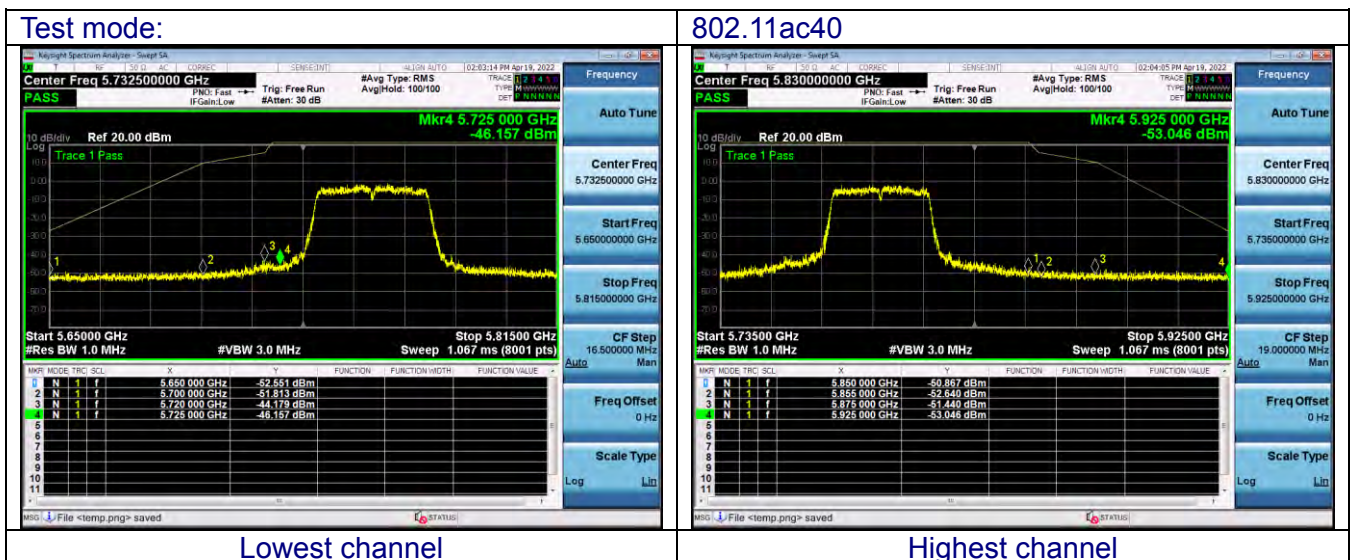
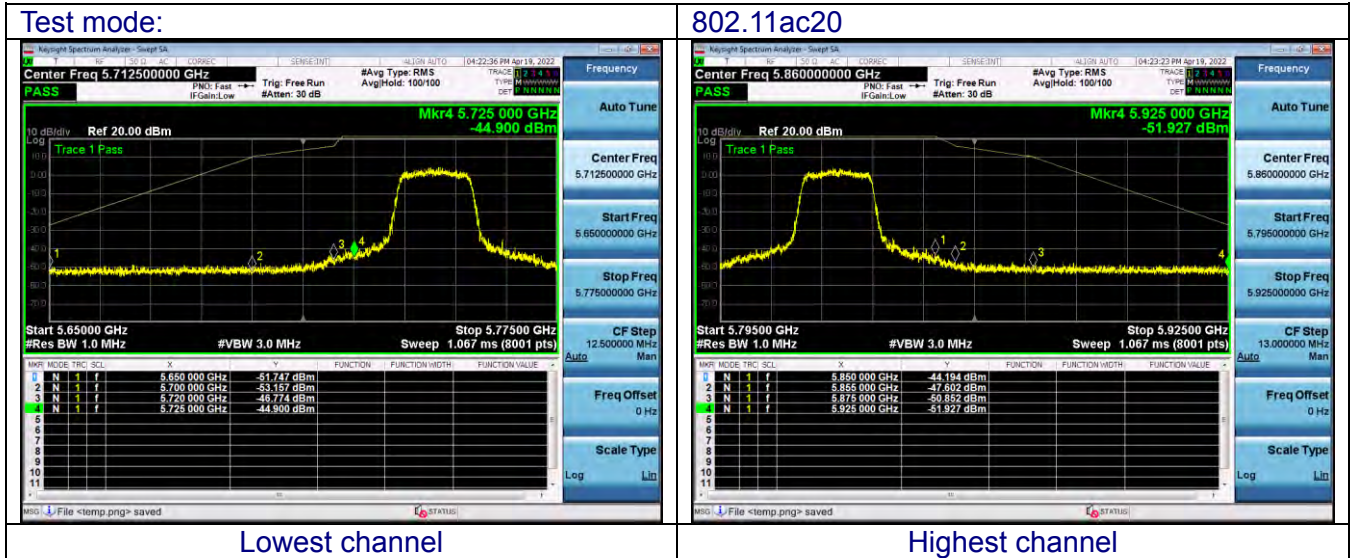
802.11ac80



Highest channel

U-NII band3





9. FREQUENCY STABILITY MEASUREMENT

9.1 LIMIT

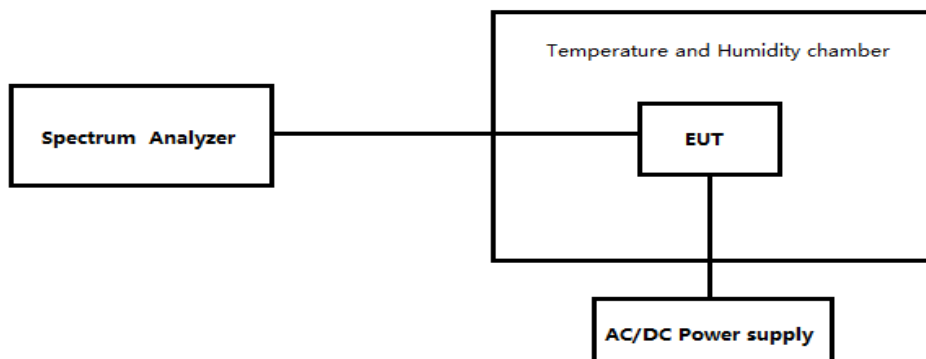
According to §15.407(g), Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of

normal operation as specified in the user's manual.

9.2 TESTPROCEDURE

1. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
2. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10dB lower than the measured peak value.
3. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

9.3 TESTCONFIGURATION



9.4 TEST RESULT

Temperature :	26℃	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V

Note: Only the test results of the worst channel are displayed

ANT1-802.11a-CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	71	0.0137
40	120	83	0.0160
30	120	82	0.0158
20	120	75	0.0145
10	120	74	0.0143
0	120	90	0.0173
-10	120	68	0.0131
-20	120	87	0.0167
-30	120	78	0.0150

ANT1-802.11a-CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	70	0.0134
40	120	87	0.0167
30	120	78	0.0149
20	120	75	0.0144
10	120	78	0.0148
0	120	90	0.0171
-10	120	72	0.0137
-20	120	86	0.0163
-30	120	76	0.0145

ANT1-802.11a-CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	78	0.0135
40	120	87	0.0152
30	120	79	0.0138
20	120	72	0.0125
10	120	76	0.0133
0	120	89	0.0154
-10	120	71	0.0123
-20	120	89	0.0155
-30	120	79	0.0138

ANT1-802.11a-CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0123
40	120	86	0.0148
30	120	82	0.0141
20	120	74	0.0127
10	120	68	0.0116
0	120	88	0.0151
-10	120	79	0.0135
-20	120	83	0.0142
-30	120	65	0.0111

ANT1-802.11n20-CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0139
40	120	87	0.0168
30	120	77	0.0149
20	120	77	0.0149
10	120	75	0.0145
0	120	89	0.0171
-10	120	65	0.0126
-20	120	84	0.0161
-30	120	74	0.0144

ANT1-802.11n20-CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0137
40	120	83	0.0159
30	120	73	0.0139
20	120	78	0.0148
10	120	66	0.0126
0	120	88	0.0168
-10	120	75	0.0142
-20	120	83	0.0158
-30	120	65	0.0125

ANT1-802.11n20-CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0125
40	120	84	0.0145
30	120	75	0.0130
20	120	72	0.0125
10	120	73	0.0128
0	120	88	0.0153
-10	120	68	0.0118
-20	120	83	0.0144
-30	120	78	0.0136

ANT1-802.11n20-CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	77	0.0131
40	120	87	0.0149
30	120	73	0.0126
20	120	68	0.0117
10	120	71	0.0122
0	120	90	0.0154
-10	120	67	0.0115
-20	120	90	0.0154
-30	120	79	0.0135

ANT1-802.11n40-CH38

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	73	0.0140
40	120	87	0.0168
30	120	79	0.0152
20	120	70	0.0136
10	120	80	0.0154
0	120	88	0.0169
-10	120	77	0.0148
-20	120	84	0.0163
-30	120	75	0.0145

ANT1-802.11n40-CH46

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	75	0.0144
40	120	85	0.0162
30	120	75	0.0143
20	120	77	0.0147
10	120	79	0.0152
0	120	88	0.0168
-10	120	74	0.0141
-20	120	87	0.0166
-30	120	62	0.0118

ANT1-802.11n40-CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	79	0.0138
40	120	85	0.0149
30	120	73	0.0127
20	120	71	0.0123
10	120	67	0.0116
0	120	88	0.0153
-10	120	78	0.0135
-20	120	88	0.0152
-30	120	75	0.0131

ANT1-802.11n40-CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	70	0.0121
40	120	88	0.0151
30	120	75	0.0130
20	120	69	0.0119
10	120	75	0.0130
0	120	89	0.0154
-10	120	72	0.0124
-20	120	82	0.0142
-30	120	73	0.0127

ANT1-802.11ac20-CH36

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	77	0.0148
40	120	85	0.0165
30	120	85	0.0163
20	120	75	0.0146
10	120	76	0.0146
0	120	90	0.0173
-10	120	70	0.0134
-20	120	83	0.0160
-30	120	70	0.0135

ANT1-802.11ac20-CH48

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	73	0.0139
40	120	86	0.0163
30	120	84	0.0161
20	120	70	0.0134
10	120	75	0.0144
0	120	89	0.0170
-10	120	70	0.0133
-20	120	86	0.0164
-30	120	62	0.0119

ANT1-802.11ac20-CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	79	0.0138
40	120	89	0.0154
30	120	81	0.0141
20	120	78	0.0136
10	120	73	0.0126
0	120	90	0.0156
-10	120	79	0.0137
-20	120	82	0.0143
-30	120	68	0.0119

ANT1-802.11ac20-CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	78	0.0135
40	120	86	0.0148
30	120	73	0.0126
20	120	69	0.0119
10	120	82	0.0141
0	120	87	0.0150
-10	120	68	0.0116
-20	120	89	0.0152
-30	120	71	0.0122

ANT1-802.11ac40-CH38

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	70	0.0135
40	120	86	0.0166
30	120	70	0.0135
20	120	70	0.0136
10	120	72	0.0139
0	120	90	0.0173
-10	120	66	0.0126
-20	120	83	0.0160
-30	120	65	0.0125

ANT1-802.11ac40-CH46

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0137
40	120	84	0.0160
30	120	74	0.0141
20	120	71	0.0136
10	120	81	0.0154
0	120	88	0.0169
-10	120	79	0.0150
-20	120	86	0.0165
-30	120	64	0.0123

ANT1-802.11ac40-CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	72	0.0125
40	120	86	0.0149
30	120	78	0.0135
20	120	77	0.0134
10	120	80	0.0140
0	120	87	0.0152
-10	120	69	0.0120
-20	120	87	0.0151
-30	120	78	0.0135

ANT1-802.11ac40-CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	78	0.0134
40	120	83	0.0144
30	120	82	0.0141
20	120	71	0.0123
10	120	66	0.0114
0	120	87	0.0150
-10	120	75	0.0130
-20	120	83	0.0143
-30	120	71	0.0122

10.ANTENNA REQUIREMENT

Standard requirement:	FCC Part15 C Section 15.203 /247(c)
For intentional device, according to FCC 47 CFR Section 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 FCC 47 CFR Section 15.247, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. Refer to statement below for compliance. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed. Antenna Connected Construction The antenna used in this product is PCB antenna, and the best case gain of the antenna is antenna 1.5dBi PCB Antenna: 5Gwifi ant	

10. TEST SETUP PHOTO





11. EUT CONSTRUCTIONAL DETAILS

Reference to the external photos file and internal photos file for details.

***** END OF REPORT *****