

FCC TEST REPORT

FCC ID: 2ARL5-L500S

Report Number..... : ZKT-220808L4384-04

Date of Test..... : Jul. 21, 2022 -- Aug. 08, 2022

Date of issue : Aug. 08, 2022

Total number of pages : 69

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 : SHENZHEN AOME CO., LTD

Address : Room301 workshop, Xinfeng Building, Yangguang Community, Xili subdustreet, Nanshan District, Shenzhen, China

Manufacturer's name : SHENZHEN AOME CO., LTD

Address : Room301 workshop, Xinfeng Building, Yangguang Community, Xili subdustreet, Nanshan District, Shenzhen, China

Test specification:

Standard : FCC CFR Title 47 Part 15 Subpart E 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..... : Projector

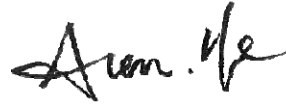
Trademark : /

Model/Type reference : L500S, H1S

Ratings..... : DC 19V/3.78A from 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

Report No.	Version	Description	Approved
ZKT-220808L4384-04	Rev.01	Initial issue of report	Aug. 08, 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:	Projector		
Model No.:	L500S		
Serial No.:	H1S		
Model difference:	All models have the same functionality, software and electronics, only the model names may differ. Test sample model: L500S		
Hardware Version:	H1S_MAIN_V10		
Software Version:	SecureCRT		
Sample(s) Status:	Engineer sample		
	IEEE802.11 WLAN mode supported	802.11a/n/ac(20MHz channel bandwidth) 802.11n/ac(40MHz channel bandwidth) 802.11 ac (80MHz channel bandwidth)	
	Date rate	802.11ac:MCS0-MCS9 802.11n: MCS0-MCS7 802.11a: 6.5-54Mbps	
	Modulation	OFDM/OFDMA	
	U-NII-3	Frequency Range	802.11 a/n/ac(20MHz) : 5745-5825 MHz 802.11 n/ac (40MHz): 5755-5795 MHz 802.11 ac (80MHz): 5775 MHz
		Channels	802.11 a/n/ac(20MHz) : 5 802.11 n/ac (40MHz): 2 802.11 ac (80MHz): 1
Antenna Type:	FPC antenna		
Antenna gain:	WIFI ANT1: 5.59dBi; WIFI ANT2: 4.22dBi ; MIMO: 8.6dBi		
Power supply:	AC 120V 50/60Hz		
POWER ADAPTER:	DC 19V/3.78A from adapter		

U-NII-3	
CH.	Frequency (MHz)
149	5745
...	...
157	5785
...	...
165	5825

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

U-NII-3	
CH.	Frequency (MHz)
151	5755
159	5795

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

U-NII-1		U-NII-3	
CH.	Frequency (MHz)	CH.	Frequency (MHz)
42	5210	155	5775

802.11ac (80MHz BW) Frequency / Channel Operations

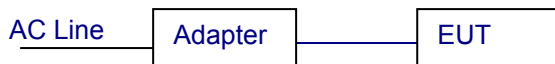
3.2 DESCRIPTION OF TEST MODES

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

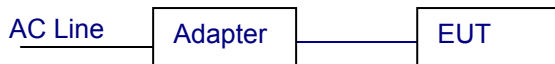
Description	5 GHz Emission
Antenna	MIMO
Channel	149
Operating Frequency (MHz)	802.11ac
Data Rate (Mbps)	OFDM/MCS11
Mode	U-NII-3 -5745MHz

3.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

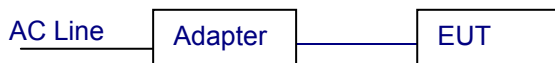
Conducted Emission



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	PC	HP	HP40		Provide by lab
2	adapter	Shenzhen Maidian Innovation Technology Co.,Ltd.	MD72A-19000378-Z	/	SDOC

Item	Shielded Type	Ferrite Core	Length	Note

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. 20, 2022
2	Spectrum Analyzer (1GHz-40GHz)	Agilent	E4446A	100363	Sep. 21, 2021	Sep. 20, 2022
3	Test Receiver (9kHz-7GHz)	R&S	ESCI7	101169	Sep. 21, 2021	Sep. 20, 2022
4	Bilog Antenna (30MHz-1400MHz)	Schwarzbeck	VULB9168	00877	Sep. 21, 2021	Sep. 20, 2022
5	Horn Antenna (1GHz-18GHz)	SCHWARZBEC K	BBHA9120D	1541	Sep. 21, 2021	Sep. 20, 2022
6	Horn Antenna (18GHz-40GHz)	A.H. System	SAS-574	588	Sep. 21, 2021	Sep. 20, 2022
7	Amplifier (30-1000MHz)	EM Electronics	EM330 Amplifier	N/A	Sep. 21, 2021	Sep. 20, 2022
8	Amplifier (1GHz-40GHz)	QUANJUDA	DLE-161	097	Sep. 21, 2021	Sep. 20, 2022
9	Loop Antenna (9KHz-30MHz)	SCHWARZBEC K	FMZB1519B	014	Sep. 21, 2021	Sep. 20, 2022
10	RF cables1 (9kHz-30MHz)	N/A	9kHz-30MHz	N/A	Sep. 21, 2021	Sep. 20, 2022
11	RF cables2 (30MHz-1GHz)	N/A	30MHz-1GHz	N/A	Sep. 21, 2021	Sep. 20, 2022
12	RF cables3 (1GHz-40GHz)	N/A	1GHz-40GHz	N/A	Sep. 21, 2021	Sep. 20, 2022
13	CMW500 Test	R&S	CMW500	106504	Sep. 21, 2021	Sep. 20, 2022
14	ESG Signal Generator	Agilent	E4421B	GB40051203	Sep. 21, 2021	Sep. 20, 2022
15	Signal Generator	Agilent	N5182A	MY47420215	Sep. 21, 2021	Sep. 20, 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. 20, 2022
2	LISN	CYBERTEK	EM5040A	E185040014 9	Sep. 21, 2021	Sep. 20, 2022
3	Test Cable	N/A	C01	N/A	Sep. 21, 2021	Sep. 20, 2022
4	Test Cable	N/A	C02	N/A	Sep. 21, 2021	Sep. 20, 2022
5	EMI Test Receiver	R&S	ESRP3	101946	Sep. 21, 2021	Sep. 20, 2022
6	Absorbing Clamp	DZ	ZN23201	N/A	Sep. 21, 2021	Sep. 20, 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.

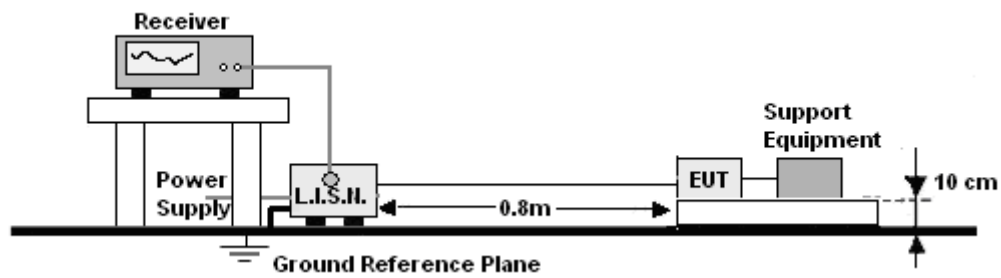
4.1.2 TEST PROCEDURE

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



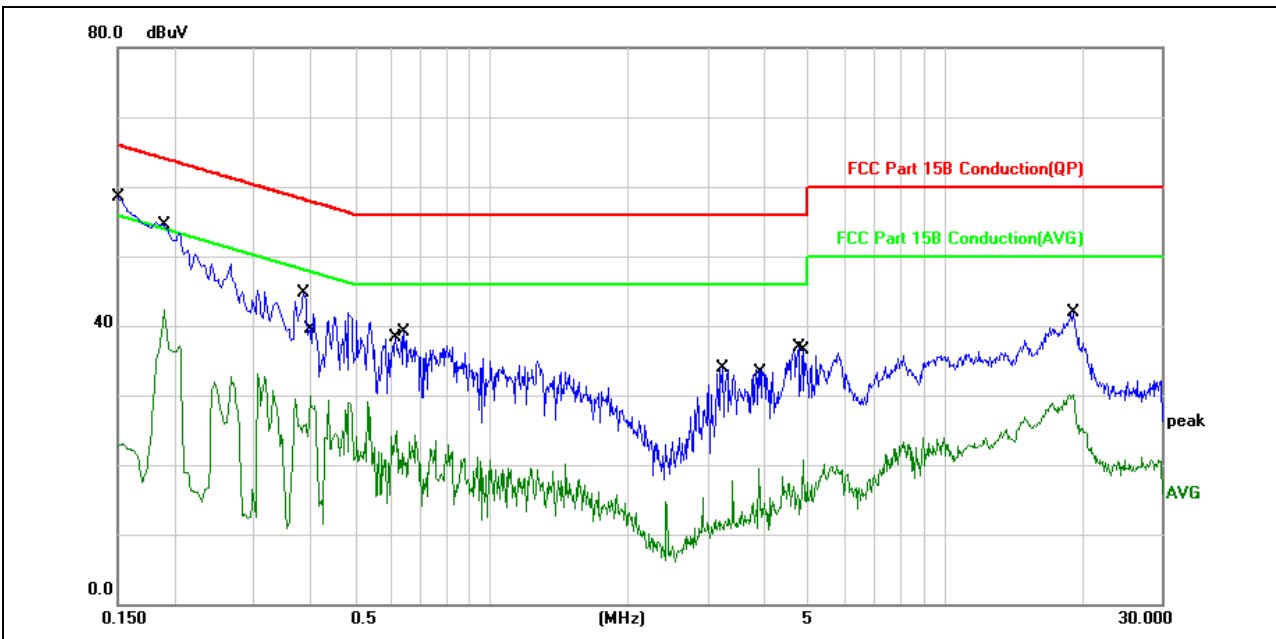
4.1.5 EUT OPERATING CONDITIONS

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		

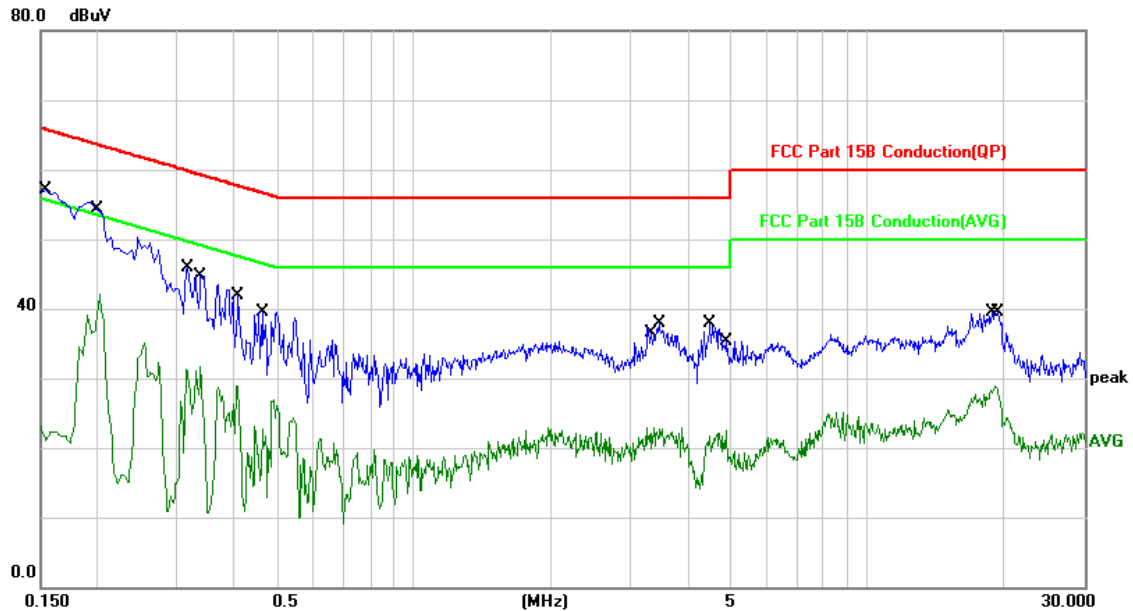


No.	Mk.	Freq. MHz	Reading Level dBμV	Correct Factor dB	Measure- ment dBμV	Limit dBμV	Over dB	Detector	Comment
1	*	0.1500	48.72	9.75	58.47	65.99	-7.52	QP	
2		0.1900	32.50	9.75	42.25	54.03	-11.78	AVG	
3		0.3860	34.79	9.87	44.66	58.15	-13.49	QP	
4		0.3980	19.96	9.87	29.83	47.89	-18.06	AVG	
5		0.6180	15.07	9.84	24.91	46.00	-21.09	AVG	
6		0.6419	29.32	9.83	39.15	56.00	-16.85	QP	
7		3.2300	24.13	9.70	33.83	56.00	-22.17	QP	
8		3.8980	9.84	9.68	19.52	46.00	-26.48	AVG	
9		4.7660	27.21	9.66	36.87	56.00	-19.13	QP	
10		4.8700	11.10	9.66	20.76	46.00	-25.24	AVG	
11		19.1460	32.29	9.55	41.84	60.00	-18.16	QP	
12		19.1460	20.64	9.55	30.19	50.00	-19.81	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	*	0.1539	47.35	9.75	57.10	65.78	-8.68	QP	
2		0.2020	32.28	9.75	42.03	53.52	-11.49	AVG	
3		0.3180	35.97	9.87	45.84	59.76	-13.92	QP	
4		0.3379	21.78	9.86	31.64	49.25	-17.61	AVG	
5		0.4080	19.08	9.87	28.95	47.73	-18.78	AVG	
6		0.4620	29.70	9.86	39.56	56.66	-17.10	QP	
7		3.3660	13.26	9.69	22.95	46.00	-23.05	AVG	
8		3.4540	28.24	9.69	37.93	56.00	-18.07	QP	
9		4.4980	28.13	9.67	37.80	56.00	-18.20	QP	
10		4.8700	12.89	9.66	22.55	46.00	-23.45	AVG	
11		18.7300	29.93	9.56	39.49	60.00	-20.51	QP	
12		19.1020	19.40	9.55	28.95	50.00	-21.05	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 1GHz and 1.5 meter for frequency above 1GHz. The interface cable and equipment positions 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 out side 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 (micovolts/meter)	Measurement Distance (meters)
0.009~0.490	$2400/F(\text{KHz})$	300
0.490~1.705	$24000/F(\text{KHz})$	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:

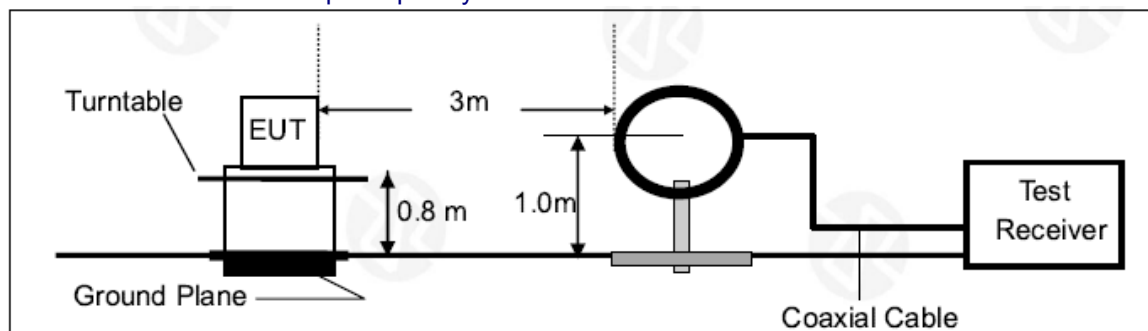
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

4.2.3 DEVIATION FROM TEST STANDARD

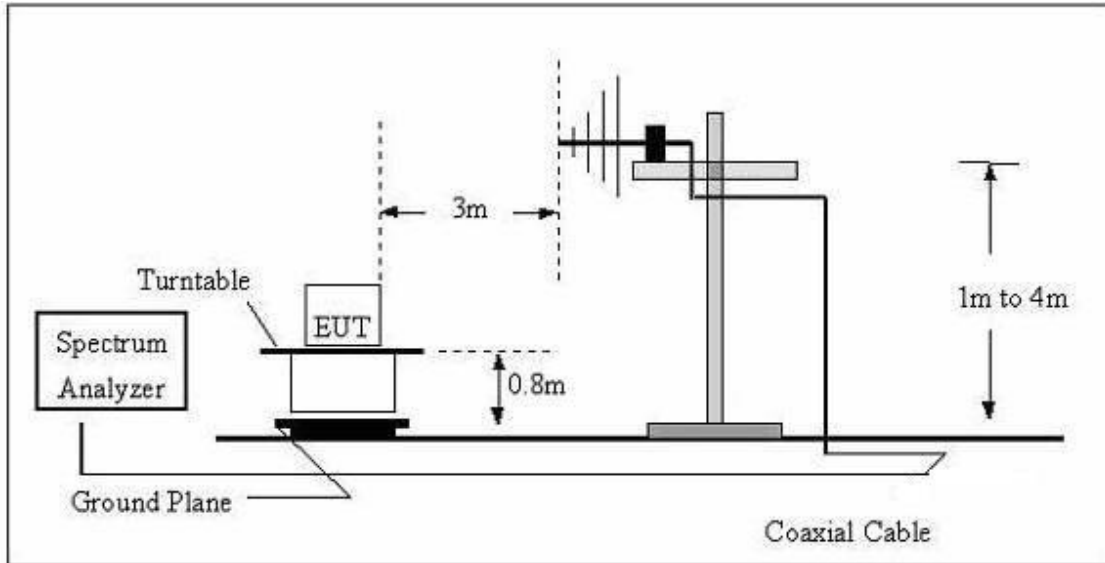
No deviation

4.2.4 TEST SETUP

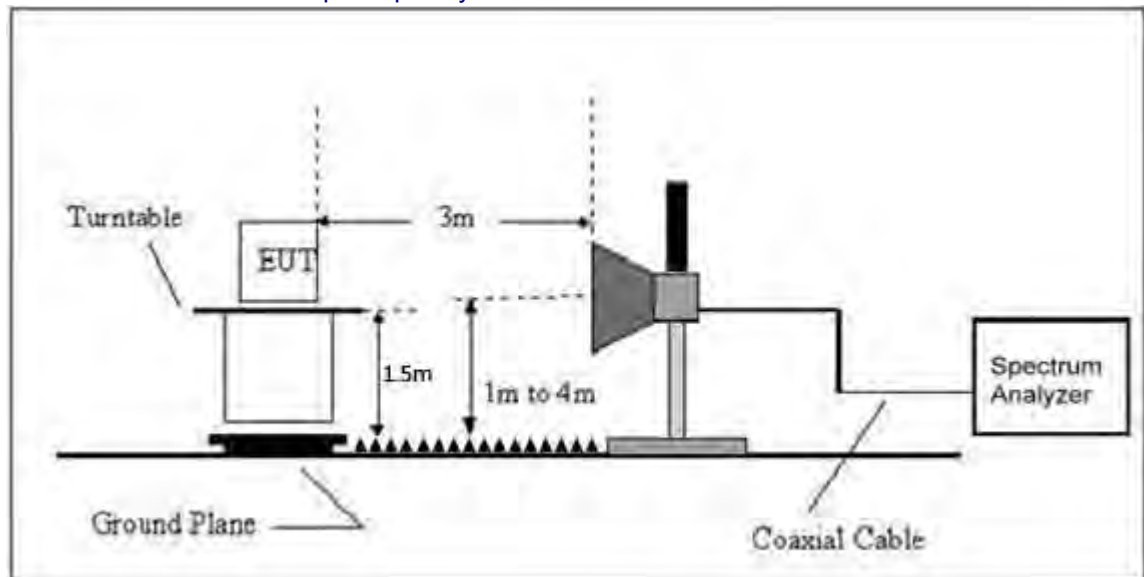
(A) Radiated Emission Test-Up Frequency Below 30MHz



(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

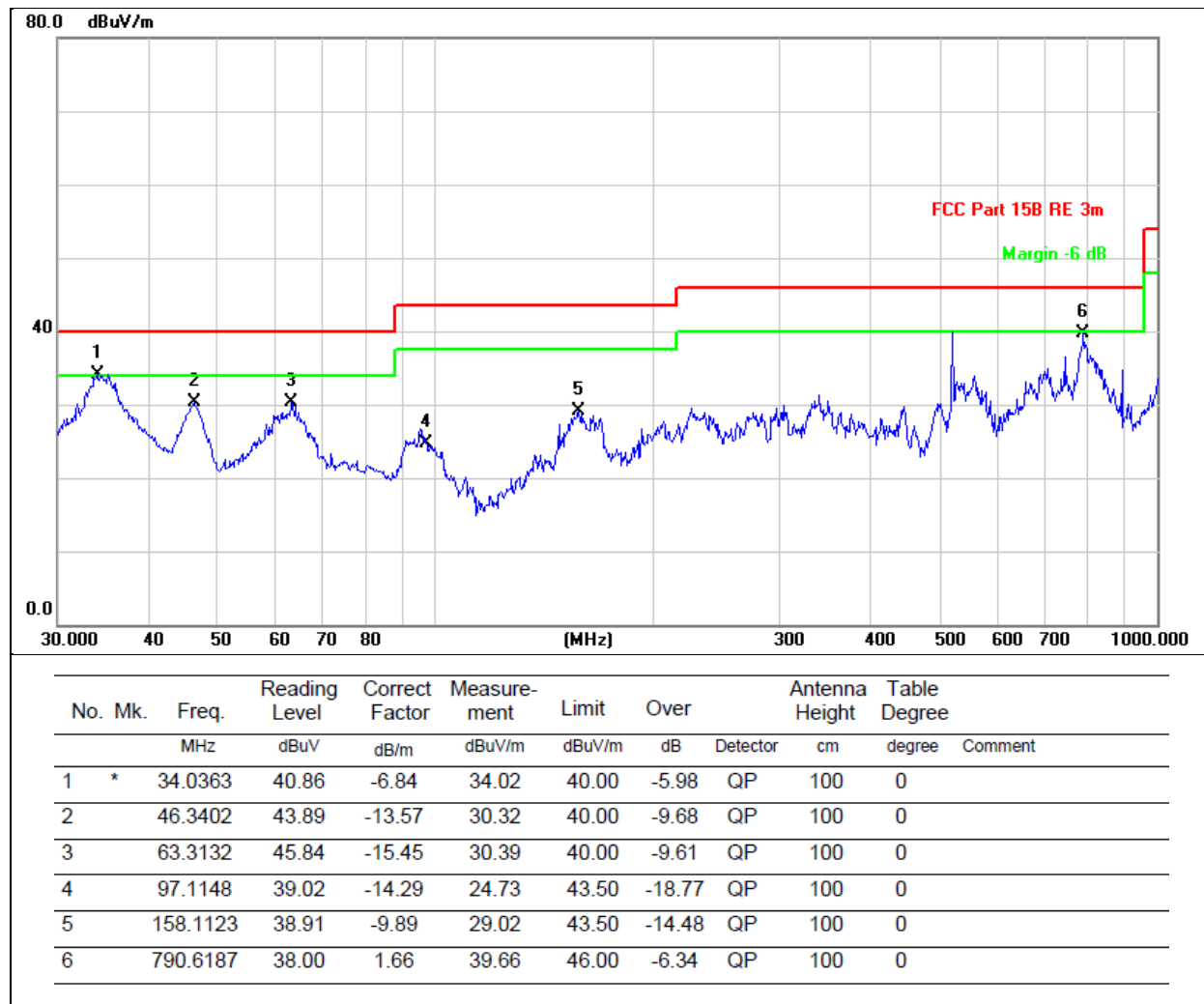
The emission from 9 kHz to 30MHz was pre-tested and found the result was 20dB lower than the limit, and according to 15.31(o) & RSS-Gen 6.13, the test result no need to reported.

Between 30MHz – 1GHz

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



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



ANT1-802.11a

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	47.06	30.55	5.77	24.66	46.94	74.00	-27.06	PK
V	11490	36.74	30.55	5.77	24.66	36.62	54.00	-17.38	AV
V	17235	48.61	30.33	6.32	24.55	49.15	74.00	-24.85	PK
V	17235	40.37	30.33	6.32	24.55	40.91	54.00	-13.09	AV
V	22980	50.86	30.85	7.45	24.69	52.15	74.00	-21.85	PK
V	22980	41.75	30.85	7.45	24.69	43.04	54.00	-10.96	AV
H	11490	48.18	30.55	5.77	24.66	48.06	74.00	-25.94	PK
H	11490	38.38	30.55	5.77	24.66	38.26	54.00	-15.74	AV
H	17235	48.02	30.33	6.32	24.55	48.56	74.00	-25.44	PK
H	17235	41.10	30.33	6.32	24.55	41.64	54.00	-12.36	AV
H	22980	49.02	30.85	7.45	24.69	50.31	74.00	-23.69	PK
H	22980	40.27	30.85	7.45	24.69	41.56	54.00	-12.44	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	49.42	30.55	5.77	24.66	49.30	74.00	-24.70	PK
V	11570	34.61	30.55	5.77	24.66	34.49	54.00	-19.51	AV
V	17355	48.39	30.33	6.32	24.55	48.93	74.00	-25.07	PK
V	17355	39.91	30.33	6.32	24.55	40.45	54.00	-13.55	AV
V	23140	49.01	30.85	7.45	24.69	50.30	74.00	-23.70	PK
V	23140	39.65	30.85	7.45	24.69	40.94	54.00	-13.06	AV
H	11570	45.89	30.55	5.77	24.66	45.77	74.00	-28.23	PK
H	11570	38.10	30.55	5.77	24.66	37.98	54.00	-16.02	AV
H	17355	47.72	30.33	6.32	24.55	48.26	74.00	-25.74	PK
H	17355	41.54	30.33	6.32	24.55	42.08	54.00	-11.92	AV
H	23140	49.32	30.85	7.45	24.69	50.61	74.00	-23.39	PK
H	23140	41.53	30.85	7.45	24.69	42.82	54.00	-11.18	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	48.84	30.55	5.77	24.66	48.72	74.00	-25.28	PK
V	11650	35.28	30.55	5.77	24.66	35.16	54.00	-18.84	AV
V	17475	49.53	30.33	6.32	24.55	50.07	74.00	-23.93	PK
V	17475	41.67	30.33	6.32	24.55	42.21	54.00	-11.79	AV
V	23300	51.40	30.85	7.45	24.69	52.69	74.00	-21.31	PK
V	23300	41.65	30.85	7.45	24.69	42.94	54.00	-11.06	AV
H	11650	46.33	30.55	5.77	24.66	46.21	74.00	-27.79	PK
H	11650	38.03	30.55	5.77	24.66	37.91	54.00	-16.09	AV
H	17475	47.63	30.33	6.32	24.55	48.17	74.00	-25.83	PK
H	17475	40.72	30.33	6.32	24.55	41.26	54.00	-12.74	AV
H	23300	51.67	30.85	7.45	24.69	52.96	74.00	-21.04	PK
H	23300	40.92	30.85	7.45	24.69	42.21	54.00	-11.79	AV

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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	48.99	30.55	5.77	24.66	48.87	74.00	-25.13	PK
V	11490	35.79	30.55	5.77	24.66	35.67	54.00	-18.33	AV
V	17235	48.39	30.33	6.32	24.55	48.93	74.00	-25.07	PK
V	17235	40.18	30.33	6.32	24.55	40.72	54.00	-13.28	AV
V	22980	50.39	30.85	7.45	24.69	51.68	74.00	-22.32	PK
V	22980	40.37	30.85	7.45	24.69	41.66	54.00	-12.34	AV
H	11490	46.26	30.55	5.77	24.66	46.14	74.00	-27.86	PK
H	11490	39.25	30.55	5.77	24.66	39.13	54.00	-14.87	AV
H	17235	47.95	30.33	6.32	24.55	48.49	74.00	-25.51	PK
H	17235	41.01	30.33	6.32	24.55	41.55	54.00	-12.45	AV
H	22980	49.74	30.85	7.45	24.69	51.03	74.00	-22.97	PK
H	22980	41.37	30.85	7.45	24.69	42.66	54.00	-11.34	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:5785MHz									
V	11570	49.21	30.55	5.77	24.66	49.09	74.00	-24.91	PK
V	11570	34.08	30.55	5.77	24.66	33.96	54.00	-20.04	AV
V	17355	47.99	30.33	6.32	24.55	48.53	74.00	-25.47	PK
V	17355	40.75	30.33	6.32	24.55	41.29	54.00	-12.71	AV
V	23140	49.99	30.85	7.45	24.69	51.28	74.00	-22.72	PK
V	23140	41.41	30.85	7.45	24.69	42.70	54.00	-11.30	AV
H	11570	47.61	30.55	5.77	24.66	47.49	74.00	-26.51	PK
H	11570	38.26	30.55	5.77	24.66	38.14	54.00	-15.86	AV
H	17355	47.11	30.33	6.32	24.55	47.65	74.00	-26.35	PK
H	17355	40.08	30.33	6.32	24.55	40.62	54.00	-13.38	AV
H	23140	49.62	30.85	7.45	24.69	50.91	74.00	-23.09	PK
H	23140	40.54	30.85	7.45	24.69	41.83	54.00	-12.17	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	48.31	30.55	5.77	24.66	48.19	74.00	-25.81	PK
V	11650	36.36	30.55	5.77	24.66	36.24	54.00	-17.76	AV
V	17475	49.04	30.33	6.32	24.55	49.58	74.00	-24.42	PK
V	17475	38.84	30.33	6.32	24.55	39.38	54.00	-14.62	AV
V	23300	50.51	30.85	7.45	24.69	51.80	74.00	-22.20	PK
V	23300	40.16	30.85	7.45	24.69	41.45	54.00	-12.55	AV
H	11650	46.39	30.55	5.77	24.66	46.27	74.00	-27.73	PK
H	11650	38.23	30.55	5.77	24.66	38.11	54.00	-15.89	AV
H	17475	48.21	30.33	6.32	24.55	48.75	74.00	-25.25	PK
H	17475	41.04	30.33	6.32	24.55	41.58	54.00	-12.42	AV
H	23300	51.23	30.85	7.45	24.69	52.52	74.00	-21.48	PK
H	23300	41.53	30.85	7.45	24.69	42.82	54.00	-11.18	AV

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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	48.41	30.55	5.77	24.66	48.29	74.00	-25.71	PK
V	11510	35.99	30.55	5.77	24.66	35.87	54.00	-18.13	AV
V	17265	47.85	30.33	6.32	24.55	48.39	74.00	-25.61	PK
V	17265	40.67	30.33	6.32	24.55	41.21	54.00	-12.79	AV
V	23020	51.43	30.85	7.45	24.69	52.72	74.00	-21.28	PK
V	23020	39.35	30.85	7.45	24.69	40.64	54.00	-13.36	AV
H	11510	46.85	30.55	5.77	24.66	46.73	74.00	-27.27	PK
H	11510	38.32	30.55	5.77	24.66	38.20	54.00	-15.80	AV
H	17265	47.04	30.33	6.32	24.55	47.58	74.00	-26.42	PK
H	17265	41.43	30.33	6.32	24.55	41.97	54.00	-12.03	AV
H	23020	50.74	30.85	7.45	24.69	52.03	74.00	-21.97	PK
H	23020	41.41	30.85	7.45	24.69	42.70	54.00	-11.30	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	47.49	30.55	5.77	24.66	47.37	74.00	-26.63	PK
V	11590	34.03	30.55	5.77	24.66	33.91	54.00	-20.09	AV
V	17385	48.99	30.33	6.32	24.55	49.53	74.00	-24.47	PK
V	17385	40.96	30.33	6.32	24.55	41.50	54.00	-12.50	AV
V	23180	49.98	30.85	7.45	24.69	51.27	74.00	-22.73	PK
V	23180	38.79	30.85	7.45	24.69	40.08	54.00	-13.92	AV
H	11590	46.11	30.55	5.77	24.66	45.99	74.00	-28.01	PK
H	11590	37.95	30.55	5.77	24.66	37.83	54.00	-16.17	AV
H	17385	48.35	30.33	6.32	24.55	48.89	74.00	-25.11	PK
H	17385	41.38	30.33	6.32	24.55	41.92	54.00	-12.08	AV
H	23180	51.11	30.85	7.45	24.69	52.40	74.00	-21.60	PK
H	23180	39.37	30.85	7.45	24.69	40.66	54.00	-13.34	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-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	47.77	30.55	5.77	24.66	47.65	74.00	-26.35	PK
V	11570	35.88	30.55	5.77	24.66	35.76	54.00	-18.24	AV
V	17355	49.04	30.33	6.32	24.55	49.58	74.00	-24.42	PK
V	17355	40.76	30.33	6.32	24.55	41.30	54.00	-12.70	AV
V	23140	49.29	30.85	7.45	24.69	50.58	74.00	-23.42	PK
V	23140	39.70	30.85	7.45	24.69	40.99	54.00	-13.01	AV
H	11570	46.65	30.55	5.77	24.66	46.53	74.00	-27.47	PK
H	11570	39.92	30.55	5.77	24.66	39.80	54.00	-14.20	AV
H	17355	47.39	30.33	6.32	24.55	47.93	74.00	-26.07	PK
H	17355	39.20	30.33	6.32	24.55	39.74	54.00	-14.26	AV
H	23140	49.16	30.85	7.45	24.69	50.45	74.00	-23.55	PK
H	23140	39.09	30.85	7.45	24.69	40.38	54.00	-13.62	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	47.31	30.55	5.77	24.66	47.19	74.00	-26.81	PK
V	11650	35.36	30.55	5.77	24.66	35.24	54.00	-18.76	AV
V	17475	47.86	30.33	6.32	24.55	48.40	74.00	-25.60	PK
V	17475	39.10	30.33	6.32	24.55	39.64	54.00	-14.36	AV
V	23300	50.83	30.85	7.45	24.69	52.12	74.00	-21.88	PK
V	23300	40.99	30.85	7.45	24.69	42.28	54.00	-11.72	AV
H	11650	45.89	30.55	5.77	24.66	45.77	74.00	-28.23	PK
H	11650	38.74	30.55	5.77	24.66	38.62	54.00	-15.38	AV
H	17475	47.22	30.33	6.32	24.55	47.76	74.00	-26.24	PK
H	17475	39.13	30.33	6.32	24.55	39.67	54.00	-14.33	AV
H	23300	50.08	30.85	7.45	24.69	51.37	74.00	-22.63	PK
H	23300	39.85	30.85	7.45	24.69	41.14	54.00	-12.86	AV

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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	47.69	30.55	5.77	24.66	47.57	74.00	-26.43	PK
V	11510	36.06	30.55	5.77	24.66	35.94	54.00	-18.06	AV
V	17265	48.48	30.33	6.32	24.55	49.02	74.00	-24.98	PK
V	17265	39.11	30.33	6.32	24.55	39.65	54.00	-14.35	AV
V	23020	50.66	30.85	7.45	24.69	51.95	74.00	-22.05	PK
V	23020	40.38	30.85	7.45	24.69	41.67	54.00	-12.33	AV
H	11510	47.25	30.55	5.77	24.66	47.13	74.00	-26.87	PK
H	11510	40.29	30.55	5.77	24.66	40.17	54.00	-13.83	AV
H	17265	47.29	30.33	6.32	24.55	47.83	74.00	-26.17	PK
H	17265	40.07	30.33	6.32	24.55	40.61	54.00	-13.39	AV
H	23020	51.06	30.85	7.45	24.69	52.35	74.00	-21.65	PK
H	23020	40.61	30.85	7.45	24.69	41.90	54.00	-12.10	AV

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampli fier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:5795MHz									
V	11510	47.71	30.55	5.77	24.66	47.59	74.00	-26.41	PK
V	11510	34.50	30.55	5.77	24.66	34.38	54.00	-19.62	AV
V	17265	48.70	30.33	6.32	24.55	49.24	74.00	-24.76	PK
V	17265	41.58	30.33	6.32	24.55	42.12	54.00	-11.88	AV
V	23020	50.59	30.85	7.45	24.69	51.88	74.00	-22.12	PK
V	23020	38.91	30.85	7.45	24.69	40.20	54.00	-13.80	AV
H	11510	46.91	30.55	5.77	24.66	46.79	74.00	-27.21	PK
H	11510	38.98	30.55	5.77	24.66	38.86	54.00	-15.14	AV
H	17265	47.46	30.33	6.32	24.55	48.00	74.00	-26.00	PK
H	17265	41.47	30.33	6.32	24.55	42.01	54.00	-11.99	AV
H	23020	51.54	30.85	7.45	24.69	52.83	74.00	-21.17	PK
H	23020	39.13	30.85	7.45	24.69	40.42	54.00	-13.58	AV

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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampli fier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:5775MHz									
V	11550	46.92	30.55	5.77	24.66	46.80	74.00	-27.20	PK
V	11550	35.66	30.55	5.77	24.66	35.54	54.00	-18.46	AV
V	17325	49.38	30.33	6.32	24.55	49.92	74.00	-24.08	PK
V	17325	40.37	30.33	6.32	24.55	40.91	54.00	-13.09	AV
V	23100	49.12	30.85	7.45	24.69	50.41	74.00	-23.59	PK
V	23100	40.38	30.85	7.45	24.69	41.67	54.00	-12.33	AV
H	11550	47.88	30.55	5.77	24.66	47.76	74.00	-26.24	PK
H	11550	37.80	30.55	5.77	24.66	37.68	54.00	-16.32	AV
H	17325	46.78	30.33	6.32	24.55	47.32	74.00	-26.68	PK
H	17325	41.49	30.33	6.32	24.55	42.03	54.00	-11.97	AV
H	23100	50.57	30.85	7.45	24.69	51.86	74.00	-22.14	PK
H	23100	40.56	30.85	7.45	24.69	41.85	54.00	-12.15	AV

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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	48.22	30.55	5.77	24.66	48.10	74.00	-25.90	PK
V	11490	35.44	30.55	5.77	24.66	35.32	54.00	-18.68	AV
V	17235	49.14	30.33	6.32	24.55	49.68	74.00	-24.32	PK
V	17235	39.08	30.33	6.32	24.55	39.62	54.00	-14.38	AV
V	22980	51.68	30.85	7.45	24.69	52.97	74.00	-21.03	PK
V	22980	38.80	30.85	7.45	24.69	40.09	54.00	-13.91	AV
H	11490	48.24	30.55	5.77	24.66	48.12	74.00	-25.88	PK
H	11490	39.83	30.55	5.77	24.66	39.71	54.00	-14.29	AV
H	17235	47.80	30.33	6.32	24.55	48.34	74.00	-25.66	PK
H	17235	41.46	30.33	6.32	24.55	42.00	54.00	-12.00	AV
H	22980	50.01	30.85	7.45	24.69	51.30	74.00	-22.70	PK
H	22980	40.20	30.85	7.45	24.69	41.49	54.00	-12.51	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	47.56	30.55	5.77	24.66	47.44	74.00	-26.56	PK
V	11570	35.16	30.55	5.77	24.66	35.04	54.00	-18.96	AV
V	17355	48.85	30.33	6.32	24.55	49.39	74.00	-24.61	PK
V	17355	41.12	30.33	6.32	24.55	41.66	54.00	-12.34	AV
V	23140	50.35	30.85	7.45	24.69	51.64	74.00	-22.36	PK
V	23140	40.56	30.85	7.45	24.69	41.85	54.00	-12.15	AV
H	11570	47.61	30.55	5.77	24.66	47.49	74.00	-26.51	PK
H	11570	39.67	30.55	5.77	24.66	39.55	54.00	-14.45	AV
H	17355	47.15	30.33	6.32	24.55	47.69	74.00	-26.31	PK
H	17355	38.91	30.33	6.32	24.55	39.45	54.00	-14.55	AV
H	23140	48.96	30.85	7.45	24.69	50.25	74.00	-23.75	PK
H	23140	41.34	30.85	7.45	24.69	42.63	54.00	-11.37	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	49.67	30.55	5.77	24.66	49.55	74.00	-24.45	PK
V	11650	36.45	30.55	5.77	24.66	36.33	54.00	-17.67	AV
V	17475	48.45	30.33	6.32	24.55	48.99	74.00	-25.01	PK
V	17475	40.10	30.33	6.32	24.55	40.64	54.00	-13.36	AV
V	23300	50.08	30.85	7.45	24.69	51.37	74.00	-22.63	PK
V	23300	38.86	30.85	7.45	24.69	40.15	54.00	-13.85	AV
H	11650	47.17	30.55	5.77	24.66	47.05	74.00	-26.95	PK
H	11650	40.31	30.55	5.77	24.66	40.19	54.00	-13.81	AV
H	17475	48.00	30.33	6.32	24.55	48.54	74.00	-25.46	PK
H	17475	40.83	30.33	6.32	24.55	41.37	54.00	-12.63	AV
H	23300	50.22	30.85	7.45	24.69	51.51	74.00	-22.49	PK
H	23300	40.23	30.85	7.45	24.69	41.52	54.00	-12.48	AV

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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	48.90	30.55	5.77	24.66	48.78	74.00	-25.22	PK
V	11490	36.67	30.55	5.77	24.66	36.55	54.00	-17.45	AV
V	17235	48.40	30.33	6.32	24.55	48.94	74.00	-25.06	PK
V	17235	39.96	30.33	6.32	24.55	40.50	54.00	-13.50	AV
V	22980	49.25	30.85	7.45	24.69	50.54	74.00	-23.46	PK
V	22980	39.50	30.85	7.45	24.69	40.79	54.00	-13.21	AV
H	11490	48.21	30.55	5.77	24.66	48.09	74.00	-25.91	PK
H	11490	39.11	30.55	5.77	24.66	38.99	54.00	-15.01	AV
H	17235	46.79	30.33	6.32	24.55	47.33	74.00	-26.67	PK
H	17235	39.92	30.33	6.32	24.55	40.46	54.00	-13.54	AV
H	22980	50.37	30.85	7.45	24.69	51.66	74.00	-22.34	PK
H	22980	40.09	30.85	7.45	24.69	41.38	54.00	-12.62	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	48.71	30.55	5.77	24.66	48.59	74.00	-25.41	PK
V	11570	35.72	30.55	5.77	24.66	35.60	54.00	-18.40	AV
V	17355	47.93	30.33	6.32	24.55	48.47	74.00	-25.53	PK
V	17355	40.51	30.33	6.32	24.55	41.05	54.00	-12.95	AV
V	23140	50.16	30.85	7.45	24.69	51.45	74.00	-22.55	PK
V	23140	41.33	30.85	7.45	24.69	42.62	54.00	-11.38	AV
H	11570	47.32	30.55	5.77	24.66	47.20	74.00	-26.80	PK
H	11570	40.56	30.55	5.77	24.66	40.44	54.00	-13.56	AV
H	17355	48.65	30.33	6.32	24.55	49.19	74.00	-24.81	PK
H	17355	39.46	30.33	6.32	24.55	40.00	54.00	-14.00	AV
H	23140	49.66	30.85	7.45	24.69	50.95	74.00	-23.05	PK
H	23140	40.36	30.85	7.45	24.69	41.65	54.00	-12.35	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	48.46	30.55	5.77	24.66	48.34	74.00	-25.66	PK
V	11650	33.87	30.55	5.77	24.66	33.75	54.00	-20.25	AV
V	17475	49.45	30.33	6.32	24.55	49.99	74.00	-24.01	PK
V	17475	40.86	30.33	6.32	24.55	41.40	54.00	-12.60	AV
V	23300	50.59	30.85	7.45	24.69	51.88	74.00	-22.12	PK
V	23300	39.35	30.85	7.45	24.69	40.64	54.00	-13.36	AV
H	11650	47.66	30.55	5.77	24.66	47.54	74.00	-26.46	PK
H	11650	37.98	30.55	5.77	24.66	37.86	54.00	-16.14	AV
H	17475	47.54	30.33	6.32	24.55	48.08	74.00	-25.92	PK
H	17475	40.40	30.33	6.32	24.55	40.94	54.00	-13.06	AV
H	23300	50.21	30.85	7.45	24.69	51.50	74.00	-22.50	PK
H	23300	41.60	30.85	7.45	24.69	42.89	54.00	-11.11	AV

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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	48.94	30.55	5.77	24.66	48.82	74.00	-25.18	PK
V	11510	34.44	30.55	5.77	24.66	34.32	54.00	-19.68	AV
V	17265	49.37	30.33	6.32	24.55	49.91	74.00	-24.09	PK
V	17265	41.22	30.33	6.32	24.55	41.76	54.00	-12.24	AV
V	23020	49.47	30.85	7.45	24.69	50.76	74.00	-23.24	PK
V	23020	39.75	30.85	7.45	24.69	41.04	54.00	-12.96	AV
H	11510	47.14	30.55	5.77	24.66	47.02	74.00	-26.98	PK
H	11510	39.00	30.55	5.77	24.66	38.88	54.00	-15.12	AV
H	17265	48.33	30.33	6.32	24.55	48.87	74.00	-25.13	PK
H	17265	40.77	30.33	6.32	24.55	41.31	54.00	-12.69	AV
H	23020	50.63	30.85	7.45	24.69	51.92	74.00	-22.08	PK
H	23020	39.84	30.85	7.45	24.69	41.13	54.00	-12.87	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	48.10	30.55	5.77	24.66	47.98	74.00	-26.02	PK
V	11590	36.53	30.55	5.77	24.66	36.41	54.00	-17.59	AV
V	17385	48.22	30.33	6.32	24.55	48.76	74.00	-25.24	PK
V	17385	38.96	30.33	6.32	24.55	39.50	54.00	-14.50	AV
V	23180	51.49	30.85	7.45	24.69	52.78	74.00	-21.22	PK
V	23180	41.23	30.85	7.45	24.69	42.52	54.00	-11.48	AV
H	11590	46.99	30.55	5.77	24.66	46.87	74.00	-27.13	PK
H	11590	39.87	30.55	5.77	24.66	39.75	54.00	-14.25	AV
H	17385	48.51	30.33	6.32	24.55	49.05	74.00	-24.95	PK
H	17385	39.57	30.33	6.32	24.55	40.11	54.00	-13.89	AV
H	23180	51.22	30.85	7.45	24.69	52.51	74.00	-21.49	PK
H	23180	41.17	30.85	7.45	24.69	42.46	54.00	-11.54	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-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	49.26	30.55	5.77	24.66	49.14	74.00	-24.86	PK
V	11570	34.64	30.55	5.77	24.66	34.52	54.00	-19.48	AV
V	17355	48.92	30.33	6.32	24.55	49.46	74.00	-24.54	PK
V	17355	39.90	30.33	6.32	24.55	40.44	54.00	-13.56	AV
V	23140	49.98	30.85	7.45	24.69	51.27	74.00	-22.73	PK
V	23140	38.79	30.85	7.45	24.69	40.08	54.00	-13.92	AV
H	11570	46.37	30.55	5.77	24.66	46.25	74.00	-27.75	PK
H	11570	38.75	30.55	5.77	24.66	38.63	54.00	-15.37	AV
H	17355	48.31	30.33	6.32	24.55	48.85	74.00	-25.15	PK
H	17355	41.13	30.33	6.32	24.55	41.67	54.00	-12.33	AV
H	23140	49.83	30.85	7.45	24.69	51.12	74.00	-22.88	PK
H	23140	40.80	30.85	7.45	24.69	42.09	54.00	-11.91	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	49.11	30.55	5.77	24.66	48.99	74.00	-25.01	PK
V	11650	34.72	30.55	5.77	24.66	34.60	54.00	-19.40	AV
V	17475	49.32	30.33	6.32	24.55	49.86	74.00	-24.14	PK
V	17475	38.87	30.33	6.32	24.55	39.41	54.00	-14.59	AV
V	23300	48.86	30.85	7.45	24.69	50.15	74.00	-23.85	PK
V	23300	39.73	30.85	7.45	24.69	41.02	54.00	-12.98	AV
H	11650	46.07	30.55	5.77	24.66	45.95	74.00	-28.05	PK
H	11650	39.72	30.55	5.77	24.66	39.60	54.00	-14.40	AV
H	17475	46.77	30.33	6.32	24.55	47.31	74.00	-26.69	PK
H	17475	39.57	30.33	6.32	24.55	40.11	54.00	-13.89	AV
H	23300	48.90	30.85	7.45	24.69	50.19	74.00	-23.81	PK
H	23300	41.75	30.85	7.45	24.69	43.04	54.00	-10.96	AV

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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	49.24	30.55	5.77	24.66	49.12	74.00	-24.88	PK
V	11510	36.21	30.55	5.77	24.66	36.09	54.00	-17.91	AV
V	17265	48.09	30.33	6.32	24.55	48.63	74.00	-25.37	PK
V	17265	40.48	30.33	6.32	24.55	41.02	54.00	-12.98	AV
V	23020	49.69	30.85	7.45	24.69	50.98	74.00	-23.02	PK
V	23020	38.81	30.85	7.45	24.69	40.10	54.00	-13.90	AV
H	11510	46.53	30.55	5.77	24.66	46.41	74.00	-27.59	PK
H	11510	37.88	30.55	5.77	24.66	37.76	54.00	-16.24	AV
H	17265	47.89	30.33	6.32	24.55	48.43	74.00	-25.57	PK
H	17265	39.12	30.33	6.32	24.55	39.66	54.00	-14.34	AV
H	23020	51.44	30.85	7.45	24.69	52.73	74.00	-21.27	PK
H	23020	41.51	30.85	7.45	24.69	42.80	54.00	-11.20	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:5795MHz									
V	11510	47.82	30.55	5.77	24.66	47.70	74.00	-26.30	PK
V	11510	36.33	30.55	5.77	24.66	36.21	54.00	-17.79	AV
V	17265	48.72	30.33	6.32	24.55	49.26	74.00	-24.74	PK
V	17265	40.41	30.33	6.32	24.55	40.95	54.00	-13.05	AV
V	23020	51.20	30.85	7.45	24.69	52.49	74.00	-21.51	PK
V	23020	40.95	30.85	7.45	24.69	42.24	54.00	-11.76	AV
H	11510	47.60	30.55	5.77	24.66	47.48	74.00	-26.52	PK
H	11510	37.79	30.55	5.77	24.66	37.67	54.00	-16.33	AV
H	17265	47.52	30.33	6.32	24.55	48.06	74.00	-25.94	PK
H	17265	40.04	30.33	6.32	24.55	40.58	54.00	-13.42	AV
H	23020	49.44	30.85	7.45	24.69	50.73	74.00	-23.27	PK
H	23020	39.51	30.85	7.45	24.69	40.80	54.00	-13.20	AV

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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	48.29	30.55	5.77	24.66	48.17	74.00	-25.83	PK
V	11550	35.53	30.55	5.77	24.66	35.41	54.00	-18.59	AV
V	17325	47.96	30.33	6.32	24.55	48.50	74.00	-25.50	PK
V	17325	41.14	30.33	6.32	24.55	41.68	54.00	-12.32	AV
V	23100	51.58	30.85	7.45	24.69	52.87	74.00	-21.13	PK
V	23100	41.15	30.85	7.45	24.69	42.44	54.00	-11.56	AV
H	11550	48.74	30.55	5.77	24.66	48.62	74.00	-25.38	PK
H	11550	39.76	30.55	5.77	24.66	39.64	54.00	-14.36	AV
H	17325	47.84	30.33	6.32	24.55	48.38	74.00	-25.62	PK
H	17325	39.56	30.33	6.32	24.55	40.10	54.00	-13.90	AV
H	23100	48.93	30.85	7.45	24.69	50.22	74.00	-23.78	PK
H	23100	39.37	30.85	7.45	24.69	40.66	54.00	-13.34	AV

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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	48.04	30.55	5.77	24.66	47.92	74.00	-26.08	PK
V	11490	35.44	30.55	5.77	24.66	35.32	54.00	-18.68	AV
V	17235	48.09	30.33	6.32	24.55	48.63	74.00	-25.37	PK
V	17235	39.36	30.33	6.32	24.55	39.90	54.00	-14.10	AV
V	22980	51.56	30.85	7.45	24.69	52.85	74.00	-21.15	PK
V	22980	39.24	30.85	7.45	24.69	40.53	54.00	-13.47	AV
H	11490	48.44	30.55	5.77	24.66	48.32	74.00	-25.68	PK
H	11490	40.38	30.55	5.77	24.66	40.26	54.00	-13.74	AV
H	17235	48.45	30.33	6.32	24.55	48.99	74.00	-25.01	PK
H	17235	40.85	30.33	6.32	24.55	41.39	54.00	-12.61	AV
H	22980	48.97	30.85	7.45	24.69	50.26	74.00	-23.74	PK
H	22980	38.77	30.85	7.45	24.69	40.06	54.00	-13.94	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	47.07	30.55	5.77	24.66	46.95	74.00	-27.05	PK
V	11570	36.06	30.55	5.77	24.66	35.94	54.00	-18.06	AV
V	17355	49.29	30.33	6.32	24.55	49.83	74.00	-24.17	PK
V	17355	39.30	30.33	6.32	24.55	39.84	54.00	-14.16	AV
V	23140	48.83	30.85	7.45	24.69	50.12	74.00	-23.88	PK
V	23140	40.87	30.85	7.45	24.69	42.16	54.00	-11.84	AV
H	11570	48.07	30.55	5.77	24.66	47.95	74.00	-26.05	PK
H	11570	38.25	30.55	5.77	24.66	38.13	54.00	-15.87	AV
H	17355	48.38	30.33	6.32	24.55	48.92	74.00	-25.08	PK
H	17355	39.67	30.33	6.32	24.55	40.21	54.00	-13.79	AV
H	23140	50.60	30.85	7.45	24.69	51.89	74.00	-22.11	PK
H	23140	40.72	30.85	7.45	24.69	42.01	54.00	-11.99	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	49.42	30.55	5.77	24.66	49.30	74.00	-24.70	PK
V	11650	36.18	30.55	5.77	24.66	36.06	54.00	-17.94	AV
V	17475	48.70	30.33	6.32	24.55	49.24	74.00	-24.76	PK
V	17475	41.43	30.33	6.32	24.55	41.97	54.00	-12.03	AV
V	23300	50.49	30.85	7.45	24.69	51.78	74.00	-22.22	PK
V	23300	40.96	30.85	7.45	24.69	42.25	54.00	-11.75	AV
H	11650	48.17	30.55	5.77	24.66	48.05	74.00	-25.95	PK
H	11650	40.23	30.55	5.77	24.66	40.11	54.00	-13.89	AV
H	17475	47.51	30.33	6.32	24.55	48.05	74.00	-25.95	PK
H	17475	41.29	30.33	6.32	24.55	41.83	54.00	-12.17	AV
H	23300	49.68	30.85	7.45	24.69	50.97	74.00	-23.03	PK
H	23300	40.61	30.85	7.45	24.69	41.90	54.00	-12.10	AV

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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	47.94	30.55	5.77	24.66	47.82	74.00	-26.18	PK
V	11510	36.66	30.55	5.77	24.66	36.54	54.00	-17.46	AV
V	17265	48.82	30.33	6.32	24.55	49.36	74.00	-24.64	PK
V	17265	40.83	30.33	6.32	24.55	41.37	54.00	-12.63	AV
V	23020	49.90	30.85	7.45	24.69	51.19	74.00	-22.81	PK
V	23020	39.41	30.85	7.45	24.69	40.70	54.00	-13.30	AV
H	11510	48.36	30.55	5.77	24.66	48.24	74.00	-25.76	PK
H	11510	39.83	30.55	5.77	24.66	39.71	54.00	-14.29	AV
H	17265	47.89	30.33	6.32	24.55	48.43	74.00	-25.57	PK
H	17265	41.17	30.33	6.32	24.55	41.71	54.00	-12.29	AV
H	23020	50.13	30.85	7.45	24.69	51.42	74.00	-22.58	PK
H	23020	38.83	30.85	7.45	24.69	40.12	54.00	-13.88	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	47.68	30.55	5.77	24.66	47.56	74.00	-26.44	PK
V	11590	35.73	30.55	5.77	24.66	35.61	54.00	-18.39	AV
V	17385	48.59	30.33	6.32	24.55	49.13	74.00	-24.87	PK
V	17385	40.56	30.33	6.32	24.55	41.10	54.00	-12.90	AV
V	23180	50.81	30.85	7.45	24.69	52.10	74.00	-21.90	PK
V	23180	40.72	30.85	7.45	24.69	42.01	54.00	-11.99	AV
H	11590	48.29	30.55	5.77	24.66	48.17	74.00	-25.83	PK
H	11590	40.57	30.55	5.77	24.66	40.45	54.00	-13.55	AV
H	17385	47.63	30.33	6.32	24.55	48.17	74.00	-25.83	PK
H	17385	41.45	30.33	6.32	24.55	41.99	54.00	-12.01	AV
H	23180	51.43	30.85	7.45	24.69	52.72	74.00	-21.28	PK
H	23180	41.61	30.85	7.45	24.69	42.90	54.00	-11.10	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.

MIMO--802.11ac20

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	48.17	30.55	5.77	24.66	48.05	74.00	-25.95	PK
V	11490	35.14	30.55	5.77	24.66	35.02	54.00	-18.98	AV
V	17235	47.99	30.33	6.32	24.55	48.53	74.00	-25.47	PK

V	17235	39.45	30.33	6.32	24.55	39.99	54.00	-14.01	AV
V	22980	48.97	30.85	7.45	24.69	50.26	74.00	-23.74	PK
V	22980	39.18	30.85	7.45	24.69	40.47	54.00	-13.53	AV
H	11490	46.15	30.55	5.77	24.66	46.03	74.00	-27.97	PK
H	11490	38.20	30.55	5.77	24.66	38.08	54.00	-15.92	AV
H	17235	48.71	30.33	6.32	24.55	49.25	74.00	-24.75	PK
H	17235	39.19	30.33	6.32	24.55	39.73	54.00	-14.27	AV
H	22980	51.66	30.85	7.45	24.69	52.95	74.00	-21.05	PK
H	22980	41.59	30.85	7.45	24.69	42.88	54.00	-11.12	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	47.73	30.55	5.77	24.66	47.61	74.00	-26.39	PK
V	11570	35.84	30.55	5.77	24.66	35.72	54.00	-18.28	AV
V	17355	49.57	30.33	6.32	24.55	50.11	74.00	-23.89	PK
V	17355	39.33	30.33	6.32	24.55	39.87	54.00	-14.13	AV
V	23140	49.11	30.85	7.45	24.69	50.40	74.00	-23.60	PK
V	23140	38.79	30.85	7.45	24.69	40.08	54.00	-13.92	AV
H	11570	48.25	30.55	5.77	24.66	48.13	74.00	-25.87	PK
H	11570	39.29	30.55	5.77	24.66	39.17	54.00	-14.83	AV
H	17355	48.14	30.33	6.32	24.55	48.68	74.00	-25.32	PK
H	17355	40.43	30.33	6.32	24.55	40.97	54.00	-13.03	AV
H	23140	51.23	30.85	7.45	24.69	52.52	74.00	-21.48	PK
H	23140	41.00	30.85	7.45	24.69	42.29	54.00	-11.71	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	48.25	30.55	5.77	24.66	48.13	74.00	-25.87	PK
V	11590	35.45	30.55	5.77	24.66	35.33	54.00	-18.67	AV
V	17385	48.48	30.33	6.32	24.55	49.02	74.00	-24.98	PK
V	17385	41.55	30.33	6.32	24.55	42.09	54.00	-11.91	AV
V	23180	50.11	30.85	7.45	24.69	51.40	74.00	-22.60	PK
V	23180	40.86	30.85	7.45	24.69	42.15	54.00	-11.85	AV
H	11590	46.39	30.55	5.77	24.66	46.27	74.00	-27.73	PK
H	11590	39.00	30.55	5.77	24.66	38.88	54.00	-15.12	AV
H	17385	48.53	30.33	6.32	24.55	49.07	74.00	-24.93	PK
H	17385	39.52	30.33	6.32	24.55	40.06	54.00	-13.94	AV
H	23180	51.17	30.85	7.45	24.69	52.46	74.00	-21.54	PK
H	23180	40.60	30.85	7.45	24.69	41.89	54.00	-12.11	AV

MIMO-802.11ac40

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	48.56	30.55	5.77	24.66	48.44	74.00	-25.56	PK
V	11510	34.57	30.55	5.77	24.66	34.45	54.00	-19.55	AV

V	17265	47.93	30.33	6.32	24.55	48.47	74.00	-25.53	PK
V	17265	39.90	30.33	6.32	24.55	40.44	54.00	-13.56	AV
V	23020	50.27	30.85	7.45	24.69	51.56	74.00	-22.44	PK
V	23020	40.21	30.85	7.45	24.69	41.50	54.00	-12.50	AV
H	11510	46.87	30.55	5.77	24.66	46.75	74.00	-27.25	PK
H	11510	39.85	30.55	5.77	24.66	39.73	54.00	-14.27	AV
H	17265	47.36	30.33	6.32	24.55	47.90	74.00	-26.10	PK
H	17265	39.61	30.33	6.32	24.55	40.15	54.00	-13.85	AV
H	23020	50.08	30.85	7.45	24.69	51.37	74.00	-22.63	PK
H	23020	40.33	30.85	7.45	24.69	41.62	54.00	-12.38	AV

MIMO-802.11ac80

Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Pre-ampli fier (dB)	Cable Loss (dB)	Antenna Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/ m)	Margin (dB)	Detect or Type
High Channel:5775MHz									
V	11550	49.22	30.55	5.77	24.66	49.10	74.00	-24.90	PK
V	11550	33.80	30.55	5.77	24.66	33.68	54.00	-20.32	AV
V	17325	47.94	30.33	6.32	24.55	48.48	74.00	-25.52	PK
V	17325	39.26	30.33	6.32	24.55	39.80	54.00	-14.20	AV
V	23100	49.45	30.85	7.45	24.69	50.74	74.00	-23.26	PK
V	23100	39.28	30.85	7.45	24.69	40.57	54.00	-13.43	AV
H	11550	47.73	30.55	5.77	24.66	47.61	74.00	-26.39	PK
H	11550	39.04	30.55	5.77	24.66	38.92	54.00	-15.08	AV
H	17325	47.61	30.33	6.32	24.55	48.15	74.00	-25.85	PK
H	17325	40.26	30.33	6.32	24.55	40.80	54.00	-13.20	AV
H	23100	49.52	30.85	7.45	24.69	50.81	74.00	-23.19	PK
H	23100	41.70	30.85	7.45	24.69	42.99	54.00	-11.01	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.

Radiated Band Edge Test:

ANT1

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	47.41	-0.12	47.29	68.20	-20.91	peak	H
5700	82.32	-0.12	82.20	105.20	-23.00	peak	H
5720	90.67	-0.12	90.55	110.80	-20.25	peak	H
5725	97.19	-0.12	97.07	122.20	-25.13	peak	H
5650	49.33	-0.12	49.21	68.20	-18.99	peak	V
5700	82.88	-0.12	82.76	105.20	-22.44	peak	V
5720	90.77	-0.12	90.65	110.80	-20.15	peak	V
5725	96.77	-0.12	96.65	122.20	-25.55	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	99.07	-0.12	98.95	122.20	-23.25	peak	H
5855	86.40	-0.12	86.28	110.80	-24.52	peak	H
5875	87.30	-0.12	87.18	105.20	-18.02	peak	H
5925	46.32	-0.12	46.20	68.20	-22.00	peak	H
5850	95.40	-0.12	95.28	122.20	-26.92	peak	V
5855	88.69	-0.12	88.57	110.80	-22.23	peak	V
5875	81.00	-0.12	80.88	105.20	-24.32	peak	V
5925	47.02	-0.12	46.90	68.20	-21.30	peak	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	47.35	-0.12	47.23	68.20	-20.97	peak	H
5700	82.29	-0.12	82.17	105.20	-23.03	peak	H
5720	88.54	-0.12	88.42	110.80	-22.38	peak	H
5725	98.76	-0.12	98.64	122.20	-23.56	peak	H
5650	50.49	-0.12	50.37	68.20	-17.83	peak	V
5700	84.85	-0.12	84.73	105.20	-20.47	peak	V
5720	87.27	-0.12	87.15	110.80	-23.65	peak	V
5725	95.97	-0.12	95.85	122.20	-26.35	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	99.78	-0.12	99.66	122.20	-22.54	peak	H
5855	88.17	-0.12	88.05	110.80	-22.75	peak	H
5875	86.36	-0.12	86.24	105.20	-18.96	peak	H

5925	44.07	-0.12	43.95	68.20	-24.25	peak	H
5850	96.50	-0.12	96.38	122.20	-25.82	peak	V
5855	88.22	-0.12	88.10	110.80	-22.70	peak	V
5875	79.62	-0.12	79.50	105.20	-25.70	peak	V
5925	49.50	-0.12	49.38	68.20	-18.82	peak	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	47.79	-0.12	47.67	68.20	-20.53	peak	H
5700	82.91	-0.12	82.79	105.20	-22.41	peak	H
5720	89.76	-0.12	89.64	110.80	-21.16	peak	H
5725	98.85	-0.12	98.73	122.20	-23.47	peak	H
5650	49.82	-0.12	49.70	68.20	-18.50	peak	V
5700	83.80	-0.12	83.68	105.20	-21.52	peak	V
5720	87.30	-0.12	87.18	110.80	-23.62	peak	V
5725	95.79	-0.12	95.67	122.20	-26.53	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	94.30	-0.12	94.18	122.20	-28.02	peak	H
5855	84.70	-0.12	84.58	110.80	-26.22	peak	H
5875	86.38	-0.12	86.26	105.20	-18.94	peak	H
5925	47.18	-0.12	47.06	68.20	-21.14	peak	H
5850	94.38	-0.12	94.26	122.20	-27.94	peak	V
5855	86.07	-0.12	85.95	110.80	-24.85	peak	V
5875	83.56	-0.12	83.44	105.20	-21.76	peak	V
5925	49.24	-0.12	49.12	68.20	-19.08	peak	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	50.17	-0.12	50.05	68.20	-18.15	peak	H
5700	83.29	-0.12	83.17	105.20	-22.03	peak	H
5720	88.61	-0.12	88.49	110.80	-22.31	peak	H
5725	98.41	-0.12	98.29	122.20	-23.91	peak	H
5650	49.71	-0.12	49.59	68.20	-18.61	peak	V
5700	83.34	-0.12	83.22	105.20	-21.98	peak	V
5720	88.14	-0.12	88.02	110.80	-22.78	peak	V
5725	95.39	-0.12	95.27	122.20	-26.93	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	99.83	-0.12	99.71	122.20	-22.49	peak	H
5855	87.75	-0.12	87.63	110.80	-23.17	peak	H
5875	84.63	-0.12	84.51	105.20	-20.69	peak	H
5925	44.54	-0.12	44.42	68.20	-23.78	peak	H
5850	96.55	-0.12	96.43	122.20	-25.77	peak	V
5855	89.53	-0.12	89.41	110.80	-21.39	peak	V
5875	81.66	-0.12	81.54	105.20	-23.66	peak	V
5925	48.85	-0.12	48.73	68.20	-19.47	peak	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	49.63	-0.12	49.51	68.20	-18.69	peak	H
5700	82.23	-0.12	82.11	105.20	-23.09	peak	H
5720	90.80	-0.12	90.68	110.80	-20.12	peak	H
5725	96.21	-0.12	96.09	122.20	-26.11	peak	H
5650	49.18	-0.12	49.06	68.20	-19.14	peak	V
5700	82.74	-0.12	82.62	105.20	-22.58	peak	V
5720	90.38	-0.12	90.26	110.80	-20.54	peak	V
5725	96.51	-0.12	96.39	122.20	-25.81	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	99.93	-0.12	99.81	122.20	-22.39	peak	H
5855	83.71	-0.12	83.59	110.80	-27.21	peak	H
5875	84.19	-0.12	84.07	105.20	-21.13	peak	H
5925	44.00	-0.12	43.88	68.20	-24.32	peak	H

5850	98.67	-0.12	98.55	122.20	-23.65	peak	V
5855	88.33	-0.12	88.21	110.80	-22.59	peak	V
5875	83.40	-0.12	83.28	105.20	-21.92	peak	V
5925	47.27	-0.12	47.15	68.20	-21.05	peak	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	48.12	-0.12	48.00	68.20	-20.20	peak	H
5700	82.50	-0.12	82.38	105.20	-22.82	peak	H
5720	88.83	-0.12	88.71	110.80	-22.09	peak	H
5725	98.31	-0.12	98.19	122.20	-24.01	peak	H
5650	50.13	-0.12	50.01	68.20	-18.19	peak	V
5700	82.97	-0.12	82.85	105.20	-22.35	peak	V
5720	88.25	-0.12	88.13	110.80	-22.67	peak	V
5725	94.89	-0.12	94.77	122.20	-27.43	peak	V
5850	95.79	-0.12	95.67	122.20	-26.53	peak	H
5855	88.87	-0.12	88.75	110.80	-22.05	peak	H
5875	87.98	-0.12	87.86	105.20	-17.34	peak	H
5925	47.15	-0.12	47.03	68.20	-21.17	peak	H
5850	99.40	-0.12	99.28	122.20	-22.92	peak	V
5855	87.88	-0.12	87.76	110.80	-23.04	peak	V
5875	84.13	-0.12	84.01	105.20	-21.19	peak	V
5925	48.39	-0.12	48.27	68.20	-19.93	peak	V

Factor =Antenna Factor + Cable Loss – Pre-amplifier,

ANT2

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	47.05	-0.12	46.93	68.20	-21.27	peak	H
5700	84.01	-0.12	83.89	105.20	-21.31	peak	H
5720	87.15	-0.12	87.03	110.80	-23.77	peak	H
5725	97.53	-0.12	97.41	122.20	-24.79	peak	H
5650	47.45	-0.12	47.33	68.20	-20.87	peak	V
5700	83.28	-0.12	83.16	105.20	-22.04	peak	V
5720	89.51	-0.12	89.39	110.80	-21.41	peak	V
5725	97.55	-0.12	97.43	122.20	-24.77	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	95.81	-0.12	95.69	122.20	-26.51	peak	H

5855	87.20	-0.12	87.08	110.80	-23.72	peak	H
5875	84.17	-0.12	84.05	105.20	-21.15	peak	H
5925	46.10	-0.12	45.98	68.20	-22.22	peak	H
5850	99.32	-0.12	99.20	122.20	-23.00	peak	V
5855	86.74	-0.12	86.62	110.80	-24.18	peak	V
5875	81.16	-0.12	81.04	105.20	-24.16	peak	V
5925	46.87	-0.12	46.75	68.20	-21.45	peak	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	49.82	-0.12	49.70	68.20	-18.50	peak	H
5700	82.79	-0.12	82.67	105.20	-22.53	peak	H
5720	89.20	-0.12	89.08	110.80	-21.72	peak	H
5725	97.11	-0.12	96.99	122.20	-25.21	peak	H
5650	47.22	-0.12	47.10	68.20	-21.10	peak	V
5700	84.60	-0.12	84.48	105.20	-20.72	peak	V
5720	88.32	-0.12	88.20	110.80	-22.60	peak	V
5725	97.55	-0.12	97.43	122.20	-24.77	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	96.83	-0.12	96.71	122.20	-25.49	peak	H
5855	88.47	-0.12	88.35	110.80	-22.45	peak	H
5875	84.59	-0.12	84.47	105.20	-20.73	peak	H
5925	44.91	-0.12	44.79	68.20	-23.41	peak	H
5850	97.05	-0.12	96.93	122.20	-25.27	peak	V
5855	88.41	-0.12	88.29	110.80	-22.51	peak	V
5875	81.29	-0.12	81.17	105.20	-24.03	peak	V
5925	46.29	-0.12	46.17	68.20	-22.03	peak	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	48.74	-0.12	48.62	68.20	-19.58	peak	H
5700	84.10	-0.12	83.98	105.20	-21.22	peak	H
5720	88.71	-0.12	88.59	110.80	-22.21	peak	H
5725	98.34	-0.12	98.22	122.20	-23.98	peak	H
5650	47.36	-0.12	47.24	68.20	-20.96	peak	V
5700	84.48	-0.12	84.36	105.20	-20.84	peak	V
5720	89.39	-0.12	89.27	110.80	-21.53	peak	V
5725	94.42	-0.12	94.30	122.20	-27.90	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	97.30	-0.12	97.18	122.20	-25.02	peak	H
5855	85.37	-0.12	85.25	110.80	-25.55	peak	H
5875	87.00	-0.12	86.88	105.20	-18.32	peak	H
5925	44.03	-0.12	43.91	68.20	-24.29	peak	H
5850	97.75	-0.12	97.63	122.20	-24.57	peak	V
5855	85.45	-0.12	85.33	110.80	-25.47	peak	V
5875	84.54	-0.12	84.42	105.20	-20.78	peak	V
5925	48.72	-0.12	48.60	68.20	-19.60	peak	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	48.23	-0.12	48.11	68.20	-20.09	peak	H
5700	84.61	-0.12	84.49	105.20	-20.71	peak	H
5720	87.76	-0.12	87.64	110.80	-23.16	peak	H
5725	97.45	-0.12	97.33	122.20	-24.87	peak	H
5650	47.61	-0.12	47.49	68.20	-20.71	peak	V
5700	84.97	-0.12	84.85	105.20	-20.35	peak	V
5720	90.20	-0.12	90.08	110.80	-20.72	peak	V
5725	94.94	-0.12	94.82	122.20	-27.38	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	99.95	-0.12	99.83	122.20	-22.37	peak	H
5855	84.11	-0.12	83.99	110.80	-26.81	peak	H
5875	87.38	-0.12	87.26	105.20	-17.94	peak	H
5925	47.34	-0.12	47.22	68.20	-20.98	peak	H
5850	94.98	-0.12	94.86	122.20	-27.34	peak	V
5855	85.19	-0.12	85.07	110.80	-25.73	peak	V
5875	79.77	-0.12	79.65	105.20	-25.55	peak	V
5925	46.05	-0.12	45.93	68.20	-22.27	peak	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	48.78	-0.12	48.66	68.20	-19.54	peak	H
5700	82.27	-0.12	82.15	105.20	-23.05	peak	H
5720	90.81	-0.12	90.69	110.80	-20.11	peak	H
5725	95.99	-0.12	95.87	122.20	-26.33	peak	H
5650	50.91	-0.12	50.79	68.20	-17.41	peak	V
5700	84.85	-0.12	84.73	105.20	-20.47	peak	V
5720	87.39	-0.12	87.27	110.80	-23.53	peak	V
5725	95.93	-0.12	95.81	122.20	-26.39	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	95.26	-0.12	95.14	122.20	-27.06	peak	H
5855	83.84	-0.12	83.72	110.80	-27.08	peak	H
5875	87.02	-0.12	86.90	105.20	-18.30	peak	H
5925	47.55	-0.12	47.43	68.20	-20.77	peak	H
5850	96.14	-0.12	96.02	122.20	-26.18	peak	V
5855	86.49	-0.12	86.37	110.80	-24.43	peak	V
5875	80.72	-0.12	80.60	105.20	-24.60	peak	V
5925	47.95	-0.12	47.83	68.20	-20.37	peak	V

Factor =Antenna Factor + Cable Loss – Pre-amplifier,

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 an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 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	17DBM/MHZ
	U-NII-3	30DBM/500KHZ

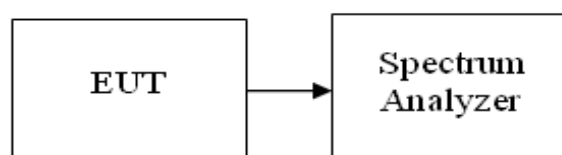
5.2 TEST PROCEDURE

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-3		

U-NII-3

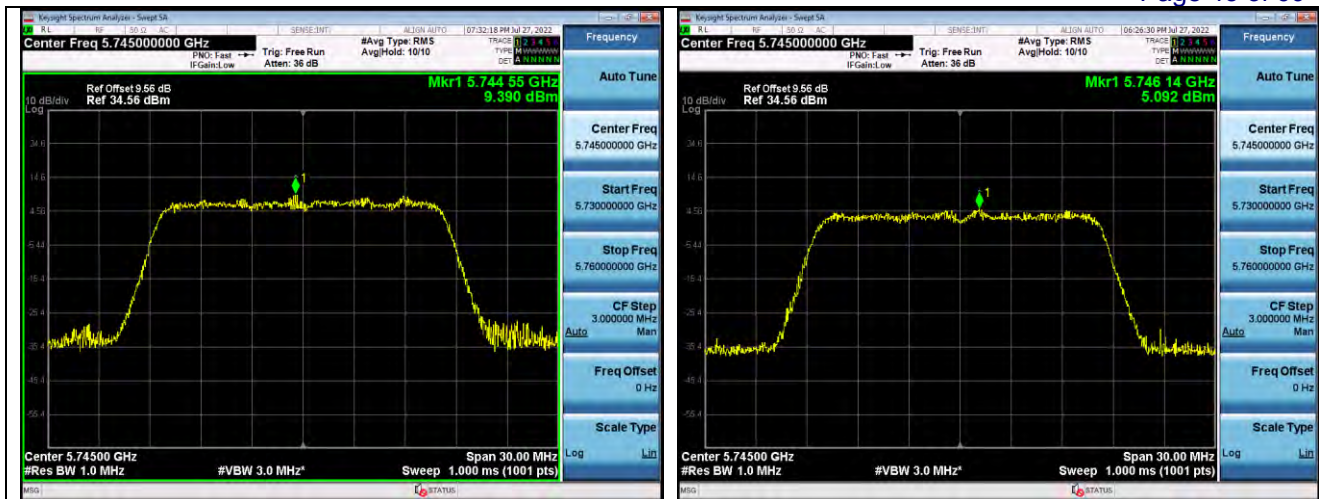
802.11 Mode	Channel No.	Frequency [MHz]	PSD [dBm/1000kHz]		PSD [dBm/500kHz]		Limit [dBm/500kHz]
			ANT1	ANT2	ANT1	ANT2	
a	149	5745	9.390	5.092	6.380	2.082	30
	157	5785	7.470	5.070	7.384	4.984	30
	165	5825	6.928	3.606	6.842	3.520	30
n (20MHz)	149	5745	7.741	3.238	7.655	3.152	30
	157	5785	6.063	3.153	5.977	3.067	30
	165	5825	5.513	2.401	5.427	2.315	30
n (40MHz)	151	5755	4.354	1.585	4.268	1.499	30
	159	5795	2.697	-0.954	2.611	-1.040	30
ac (20MHz)	149	5745	9.053	6.190	8.967	6.104	30
	157	5785	8.645	7.015	8.559	6.929	30
	165	5825	7.698	4.182	7.612	4.096	30
ac(40MHz)	151	5755	3.775	-0.650	3.689	-0.736	30
	159	5795	1.945	-1.264	1.859	-1.350	30
ac(80MHz)	155	5755	-0.228	-1.473	-0.314	-1.559	30

Note: Covert PSD [dBm/510KHz]= PSD[dBm/1000KHz]+10*log(500/1000)

Note: For frequency U-NII-3, if MIMO Gain >6dBi , PSD Limit(MIMO)=30- (MIMO Gain-6dBi),
 If MIMO Gain <6dBi , PSD Limit(MIMO)=Limit =30dBm/500kHz, in this report, MIMO Gain =9.77>6dBi,
 So U-NII-3 PSD Limit(MIMO)=Limit =30-(9.77-6)=26.23dBm/500kHz

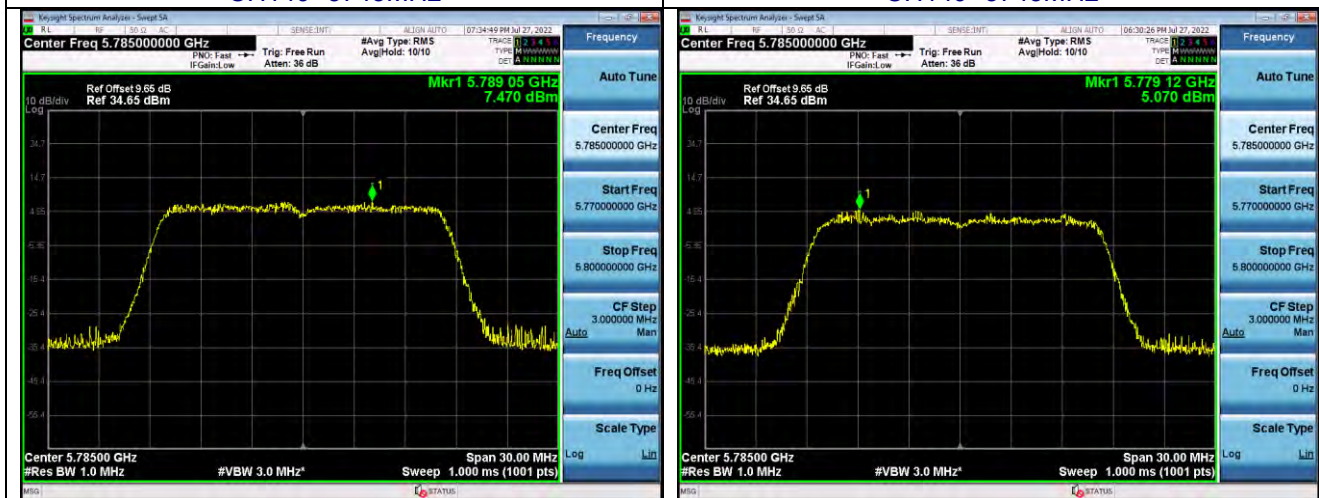
U-NII-3 –802.11a

ANT1	ANT2
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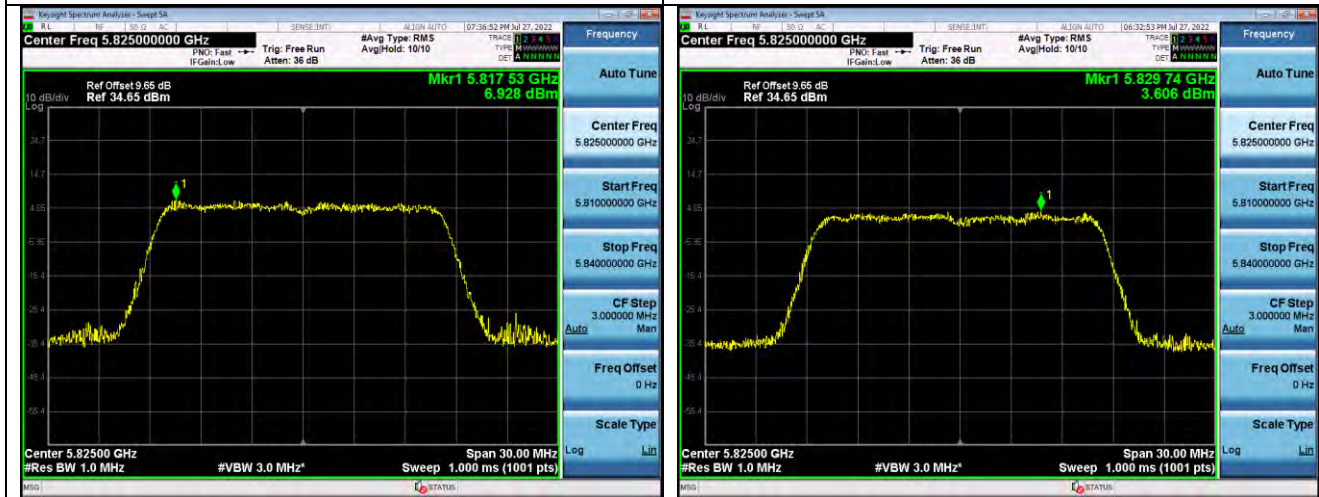
CH149 -5745MHz

CH149 -5745MHz



CH157 -5785MHz

CH157 -5785MHz



CH165 -5825MHz

CH165 -5825MHz

U-NII-3 -802.11n (20MHz)

ANT1



ANT2



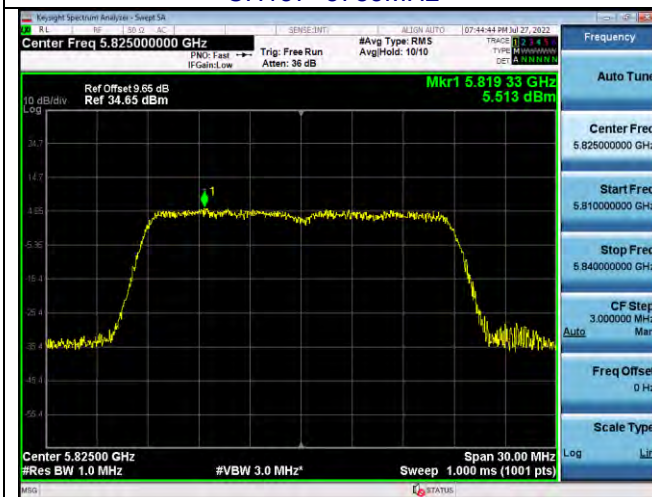
CH149 -5745MHz



CH149 -5745MHz



CH157 -5785MHz



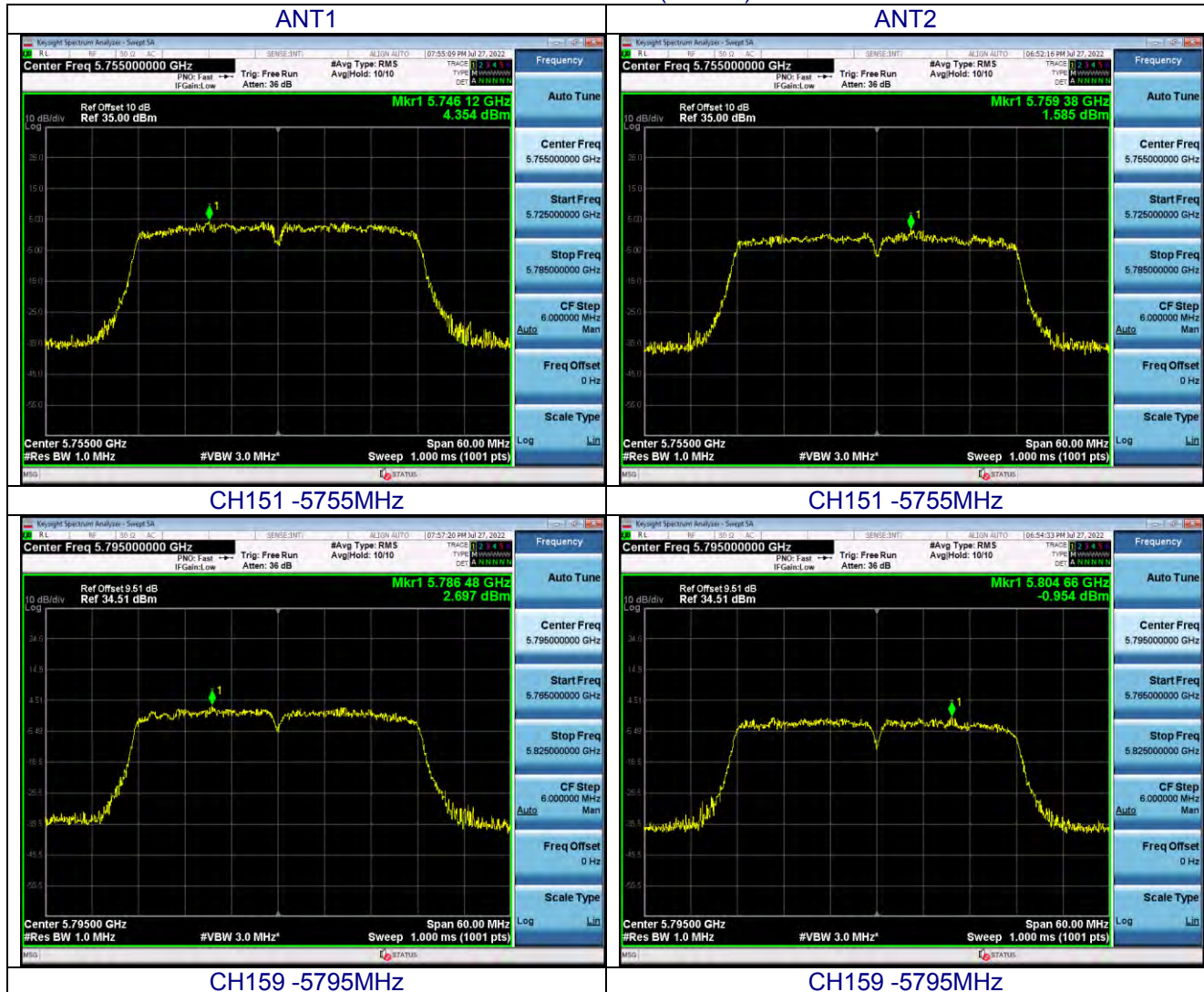
CH157 -5785MHz



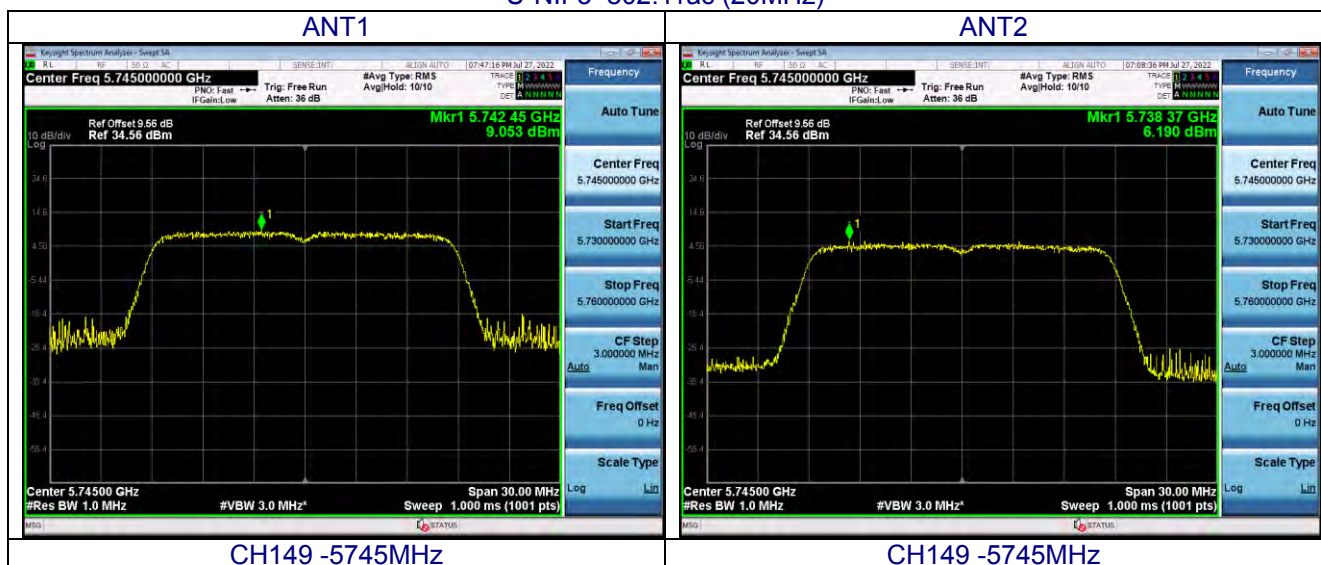
CH165 -5825MHz

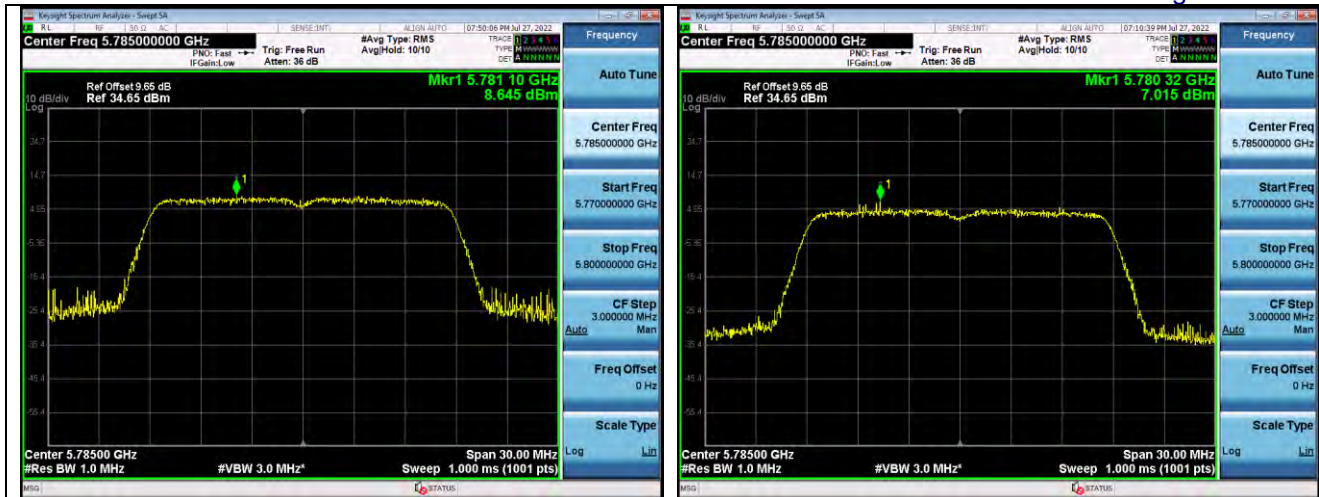
CH165 -5825MHz

U-NII-3 – 802.11n (40MHz)



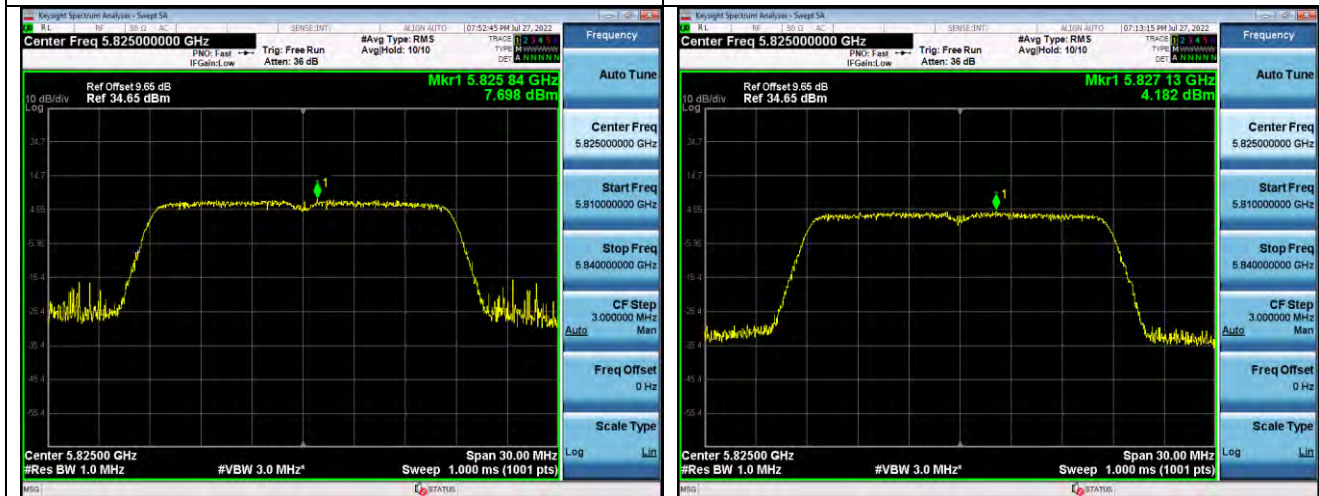
U-NII-3-802.11ac (20MHz)





CH157 -5785MHz

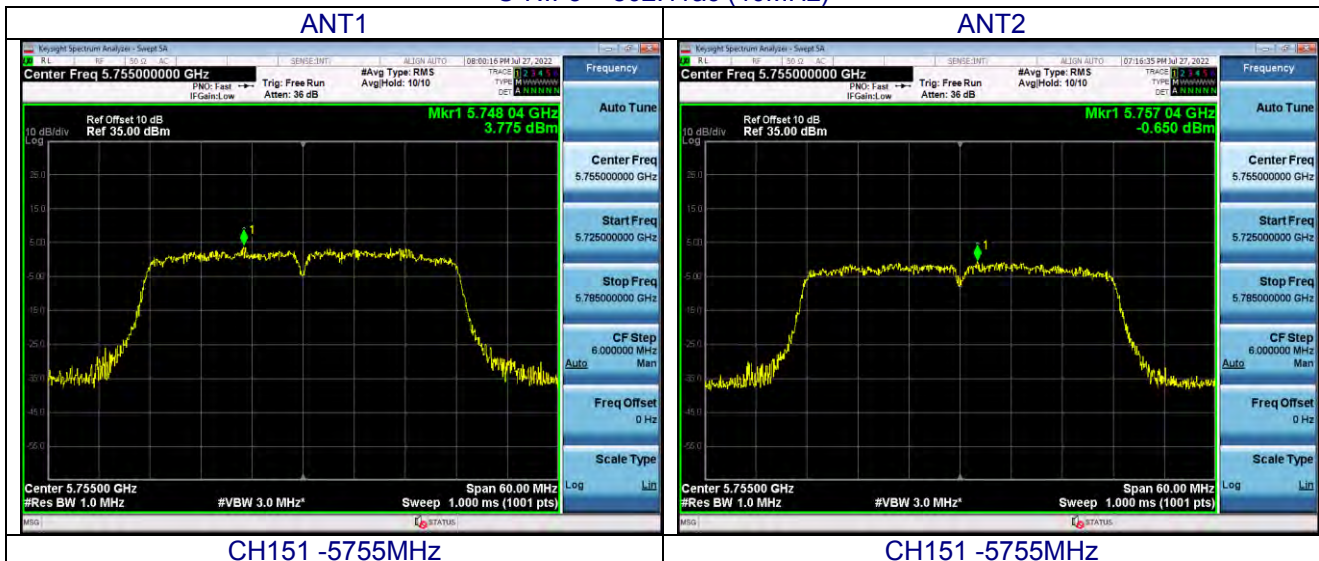
CH157 -5785MHz



CH165 -5825MHz

CH165 -5825MHz

U-NII-3 – 802.11ac (40MHz)

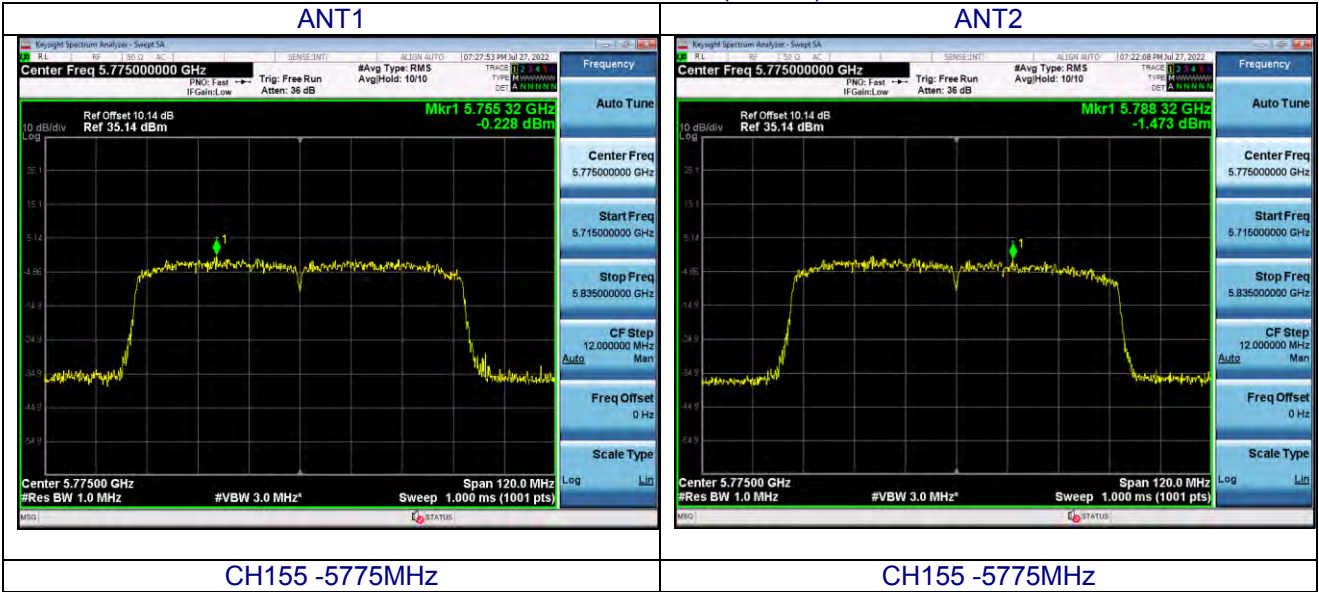


CH151 -5755MHz

CH151 -5755MHz



U-NII-3- 802.11ac (80MHz)



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-1	N/A
	U-NII-3	≥ 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>26dB bandwidth, and Sweep = auto ,Trace mode = max hold.

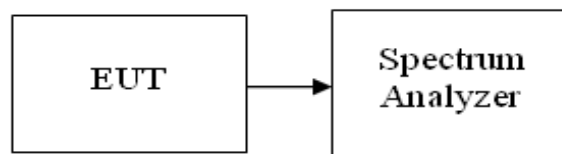
Measure the maximum width of the emission that is 26dB down from the maximum of the emission.

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

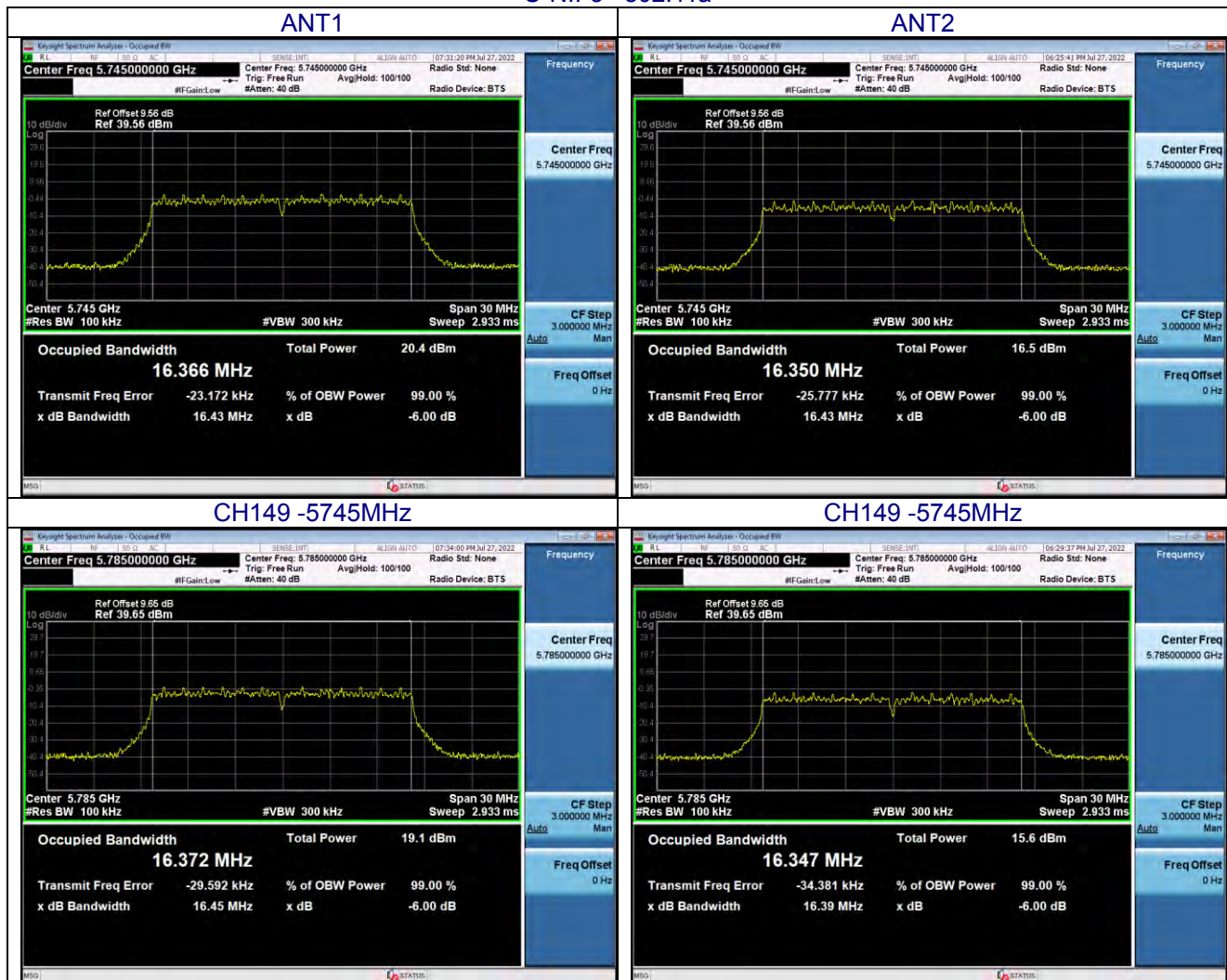
Temperature :	26°C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	AC120V
Test Mode :	TX		

U-NII-3

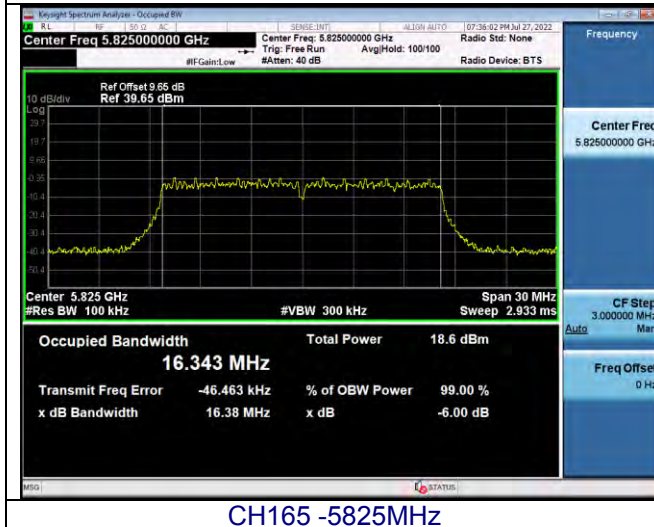
802.11 Mode	Channel No.	Frequency [MHz]	-6db Bandwidth [MHz]		Limit
			ANT1	ANT2	
a	149	5745	16.43	16.43	≥ 500 kHz
	157	5785	16.45	16.39	
	165	5825	16.38	16.44	
n (20MHz)	149	5745	17.65	17.64	
	157	5785	17.73	17.67	
	165	5825	17.65	17.63	
n (40MHz)	151	5755	35.45	35.49	
	159	5795	35.44	35.70	
ac (20MHz)	149	5745	17.56	17.35	
	157	5785	17.31	17.58	
	165	5825	17.56	17.58	
ac(40MHz)	151	5755	35.55	35.78	
	159	5795	35.48	35.81	
ac(80MHz)	155	5775	75.23	75.81	

Test plot as follows:

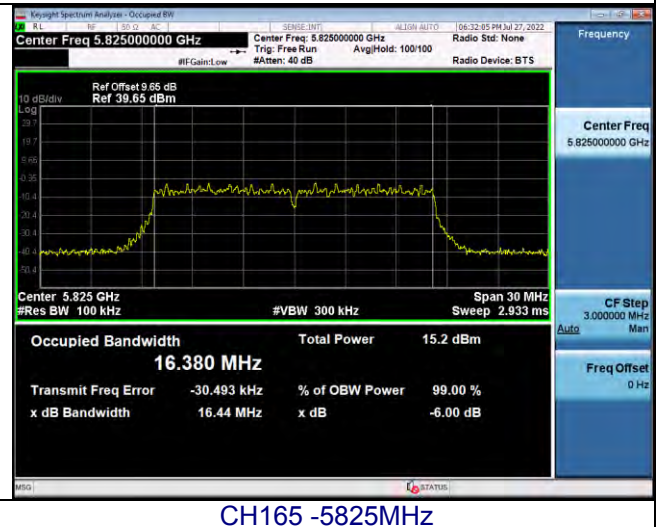
U-NII-3 -802.11a



CH157 -5785MHz



CH157 -5785MHz

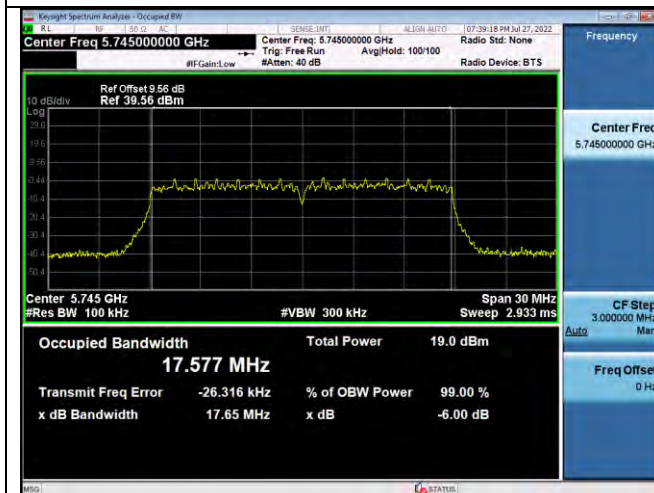


CH165 -5825MHz

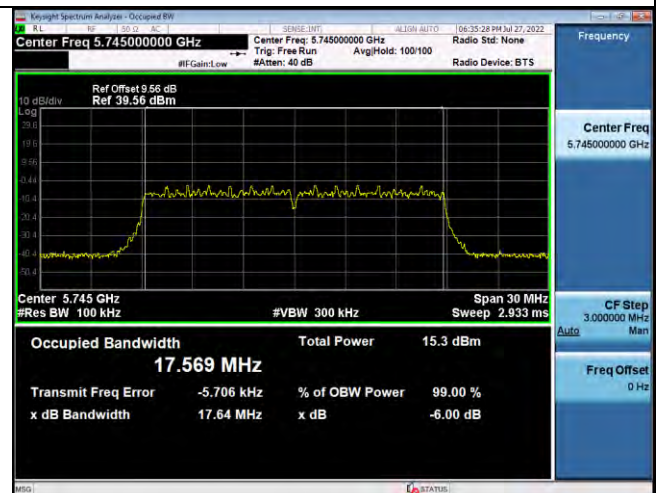
CH165 -5825MHz

U-NII-3 -802.11n (20MHz)

ANT1

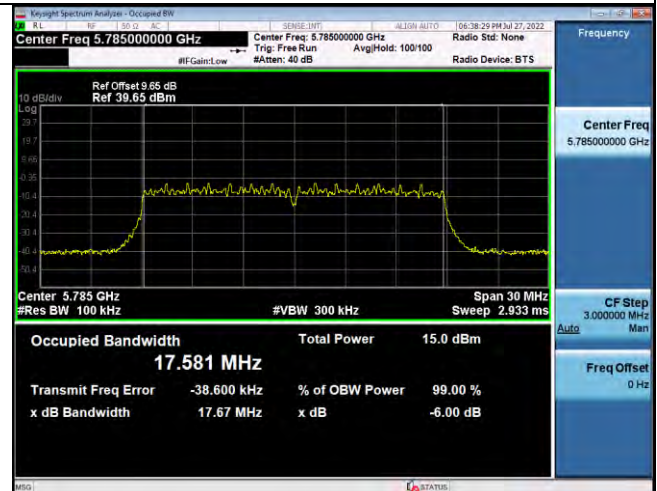
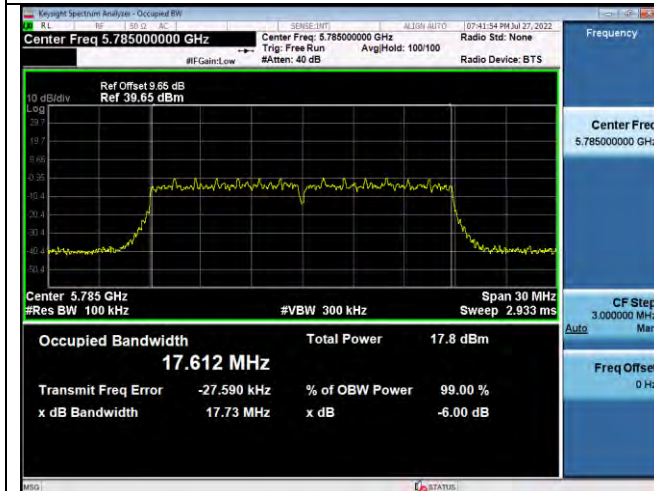


ANT2



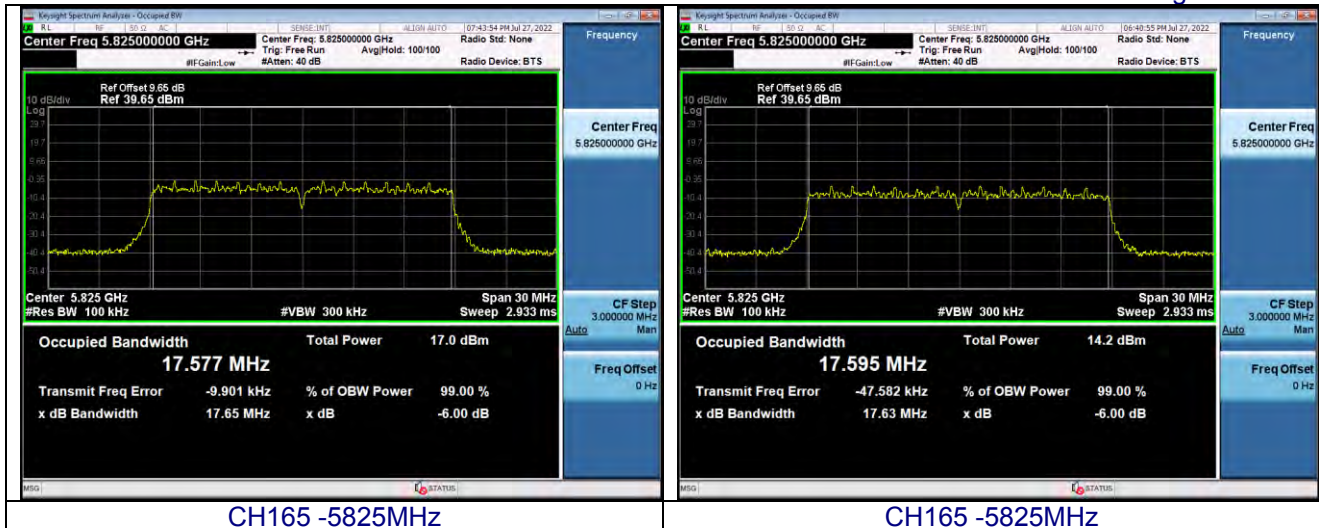
CH149 -5745MHz

CH149 -5745MHz

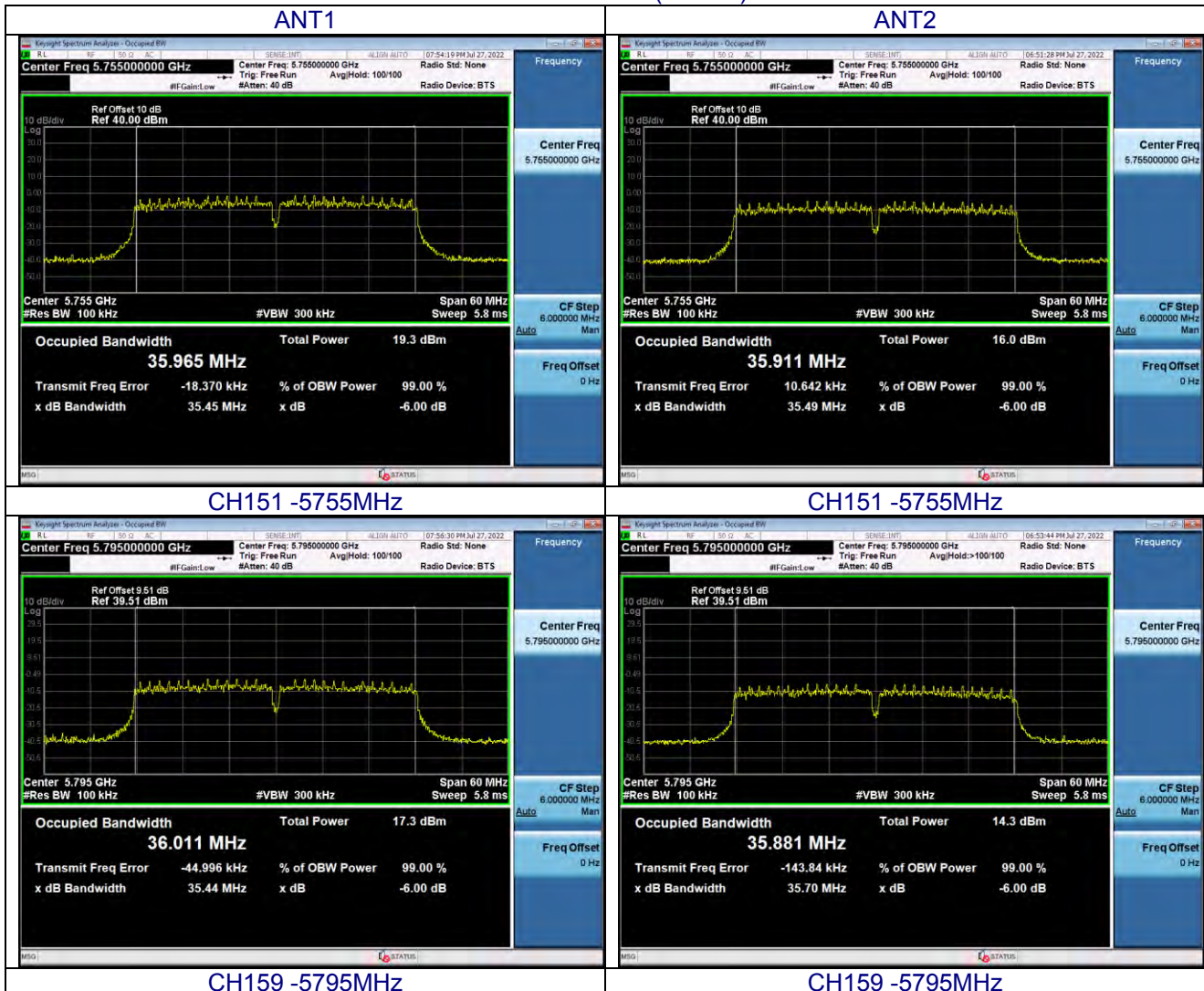


CH157 -5785MHz

CH157 -5785MHz

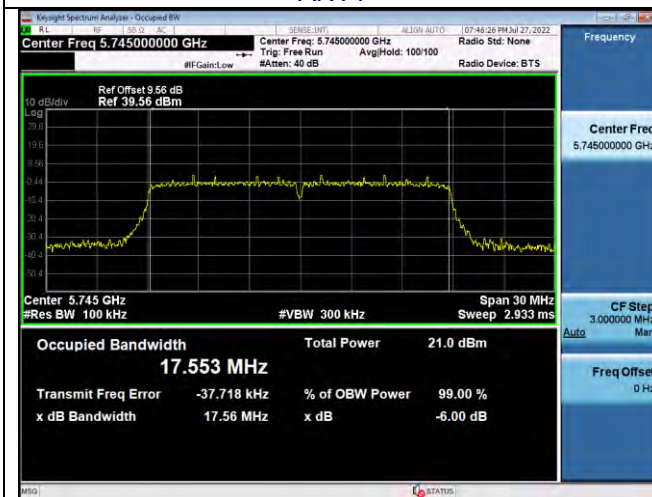


U-NII-3- 802.11n (40MHz)



U-NII-3 -802.11ac (20MHz)

ANT1



ANT2



CH149 -5745MHz



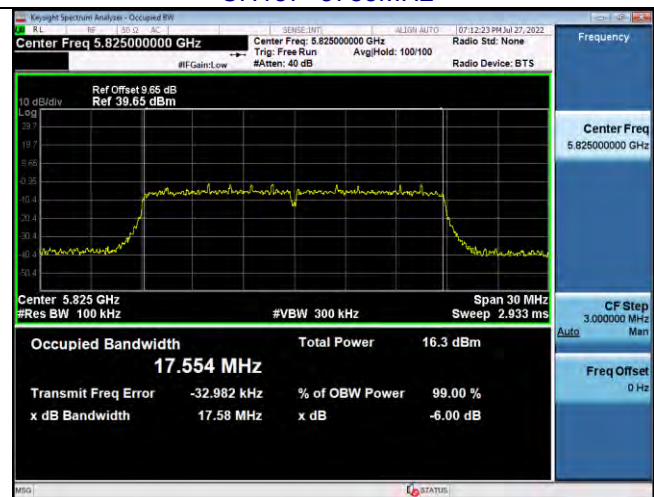
CH149 -5745MHz



CH157 -5785MHz



CH157 -5785MHz



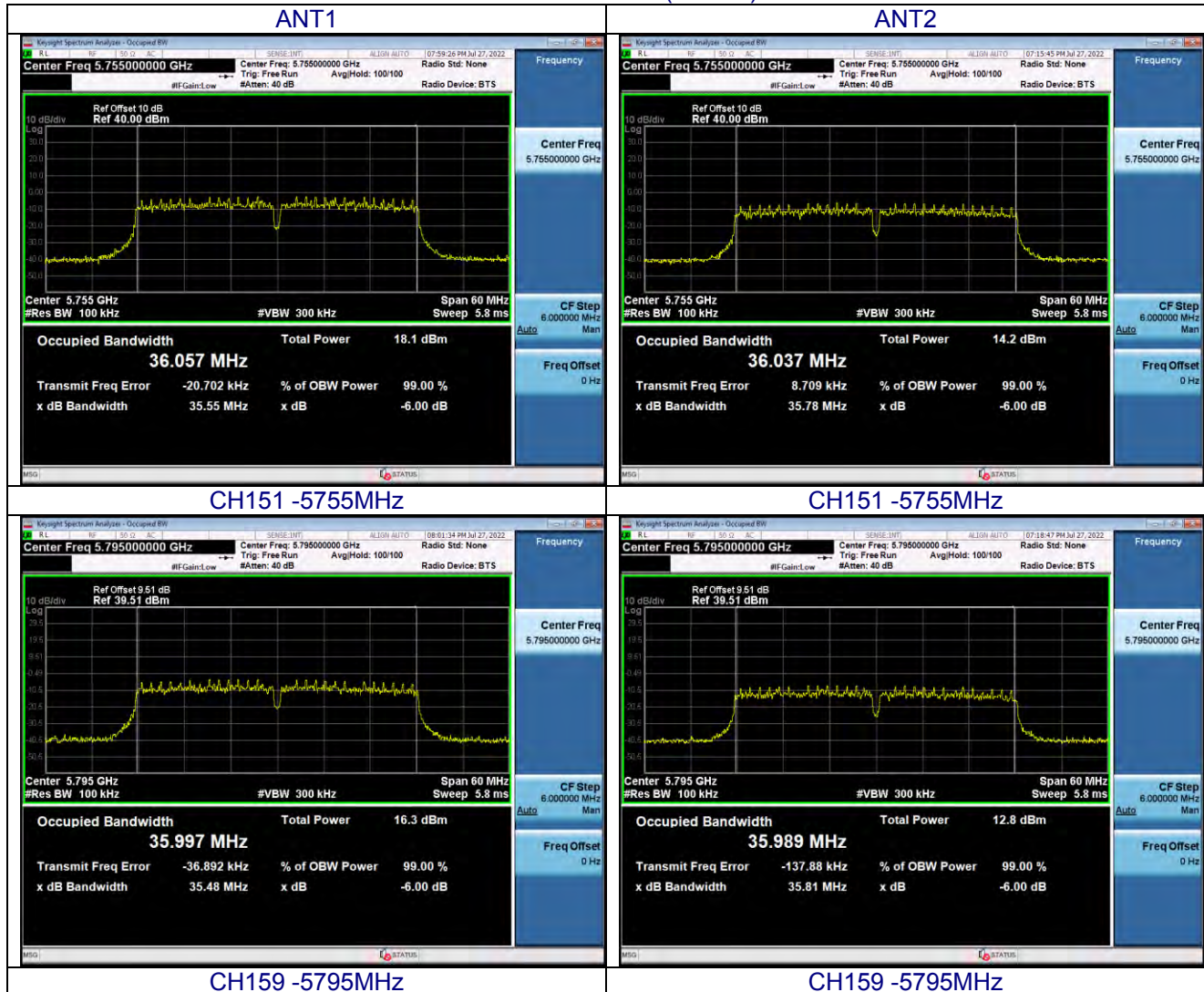
CH165 -5825MHz



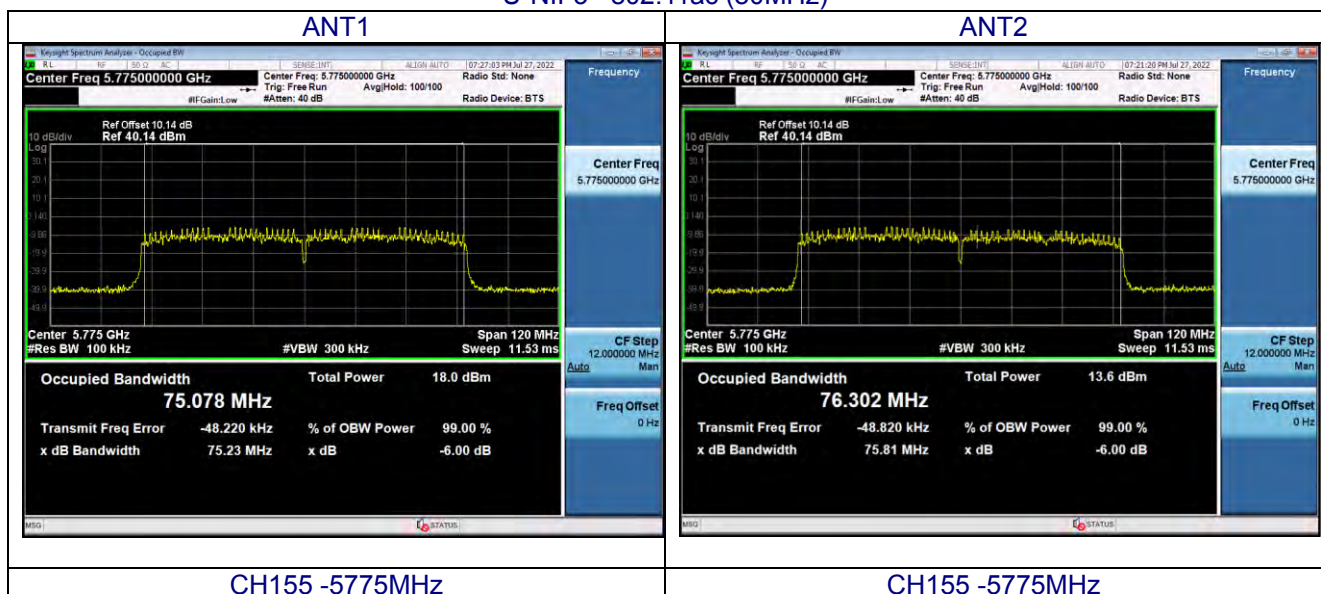
CH165 -5825MHz



U-NII-3 – 802.11ac (40MHz)



U-NII-3– 802.11ac (80MHz)



7. OUTPUT POWER TEST

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

7.1 APPLIED PROCEDURES/LIMIT

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi.

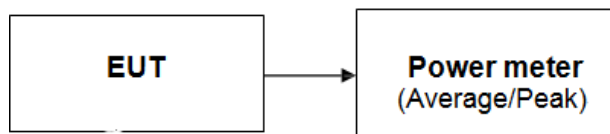
For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

Test Item	Band	Limit	Result
Max conducted output power	U-NII-1	1W / 30dbm	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-3

802.11 Mode	Channel No.	Frequency [MHz]	Conducted Power [dBm]		MIMO [dBm]	Limit [dBm]	MIMO Limit
			ANT1	ANT2			
a	149	5745	18.40	16.71	/	30.00	/
	157	5785	17.36	16.12	/	30.00	/
	165	5825	16.64	15.52	/	30.00	/
n (20MHz)	149	5745	16.93	15.33	19.21	30.00	26.23
	157	5785	16.18	15.79	19.00	30.00	26.23
	165	5825	15.63	15.23	18.44	30.00	26.23
n (40MHz)	151	5755	16.67	16.27	19.48	30.00	26.23
	159	5795	15.02	13.54	17.35	30.00	26.23
ac (20MHz)	149	5745	19.06	16.66	21.03	30.00	26.23
	157	5785	18.57	15.97	20.47	30.00	26.23
	165	5825	17.70	15.24	19.65	30.00	26.23
ac(40MHz)	151	5755	14.44	11.37	16.18	30.00	26.23
	159	5795	13.51	10.06	15.13	30.00	26.23
ac(80MHz)	155	5775	12.14	9.81	14.14	30.00	26.23

1. according to KDB662911D01 the MIMO-Power (Total power) is the sum of the conducted power levels measured at the various output ports.
2. For frequency U-NII-3, If MIMO Gain >6dBi , Power Limit(MIMO)=30- (MIMO Gain - 6dBi)
If MIMO Gain <6dBi , PSD Limit(MIMO)=Limit =30 dBm, in this report, MIMO Gain>6dBi ,
So Power Limit(MIMO)=Limit =30-(9.77-6)=26.23dBm

8. OUT OF BAND EDGE EMISSION

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

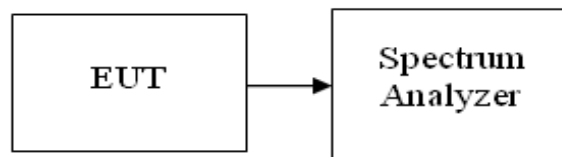
8.1 TEST PROCEDURE

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.

8.2 DEVIATION FROM STANDARD

No deviation.

8.3 TEST SETUP



8.4 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.

8.5 TEST RESULTS

Test plot as follows:

ANT1- U-NII-3

Test mode:



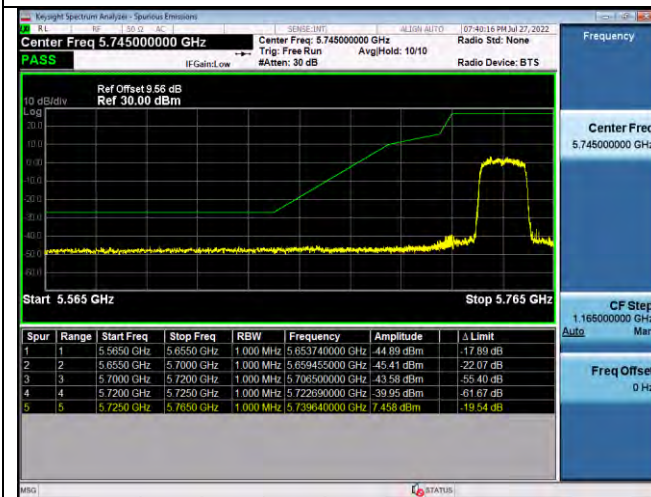
Lowest channel

802.11a



Highest channel

Test mode:



Lowest channel

802.11n20



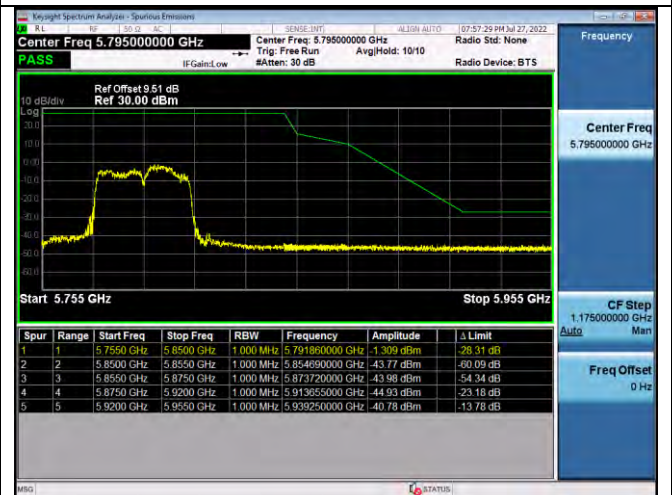
Highest channel

Test mode:

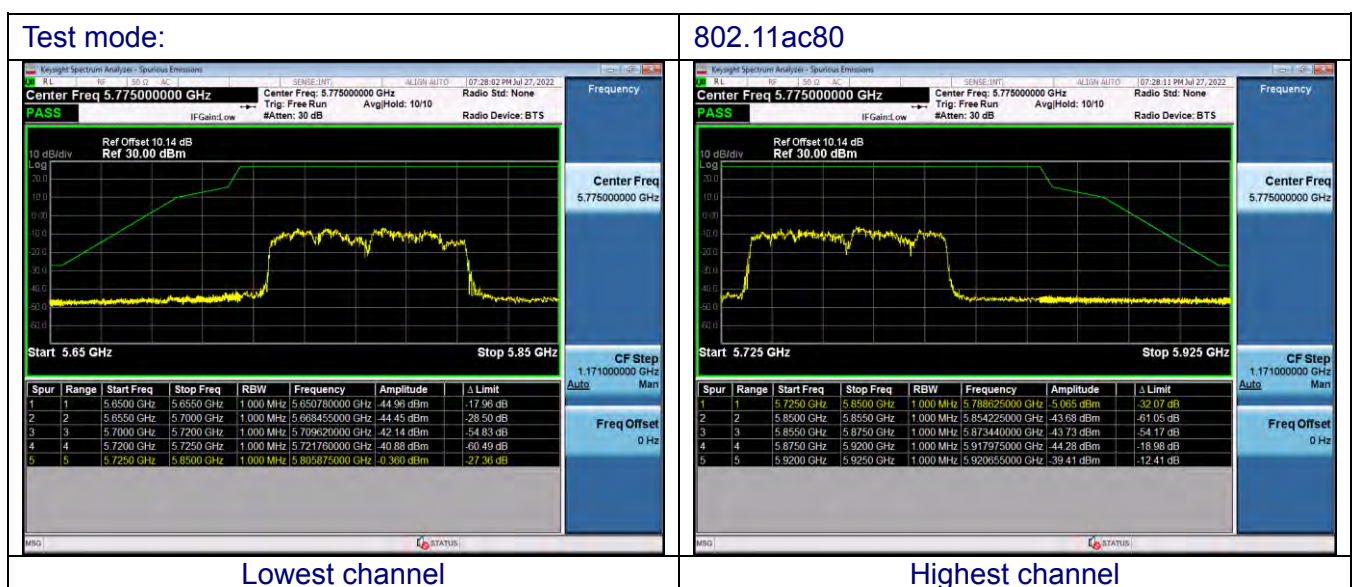
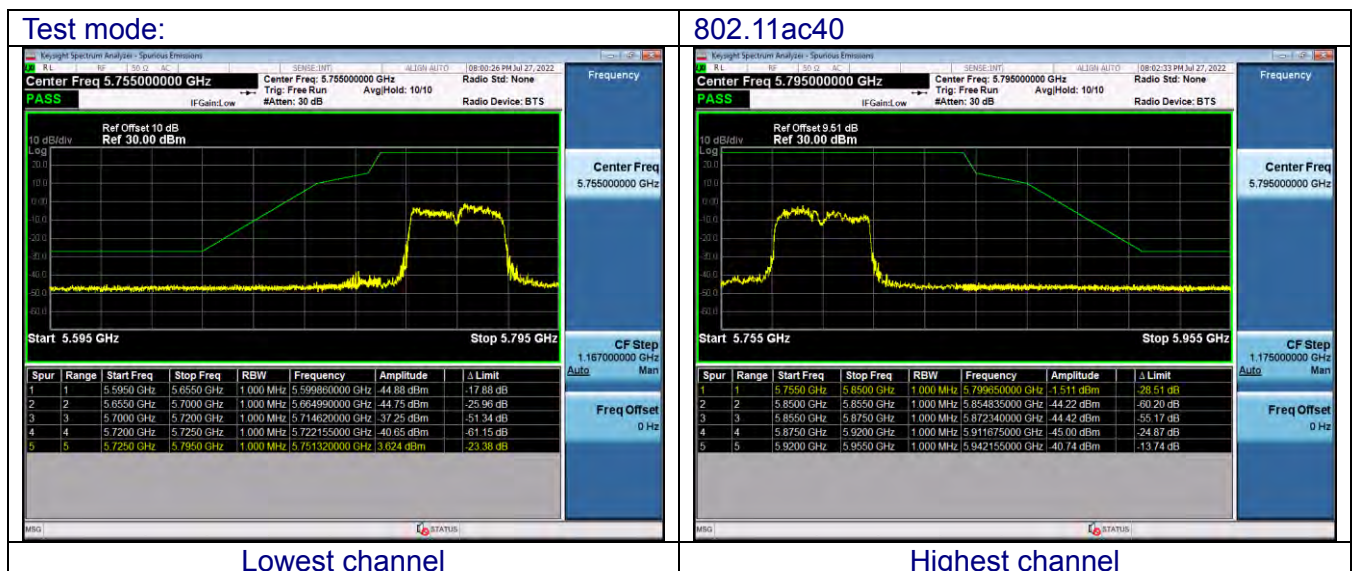
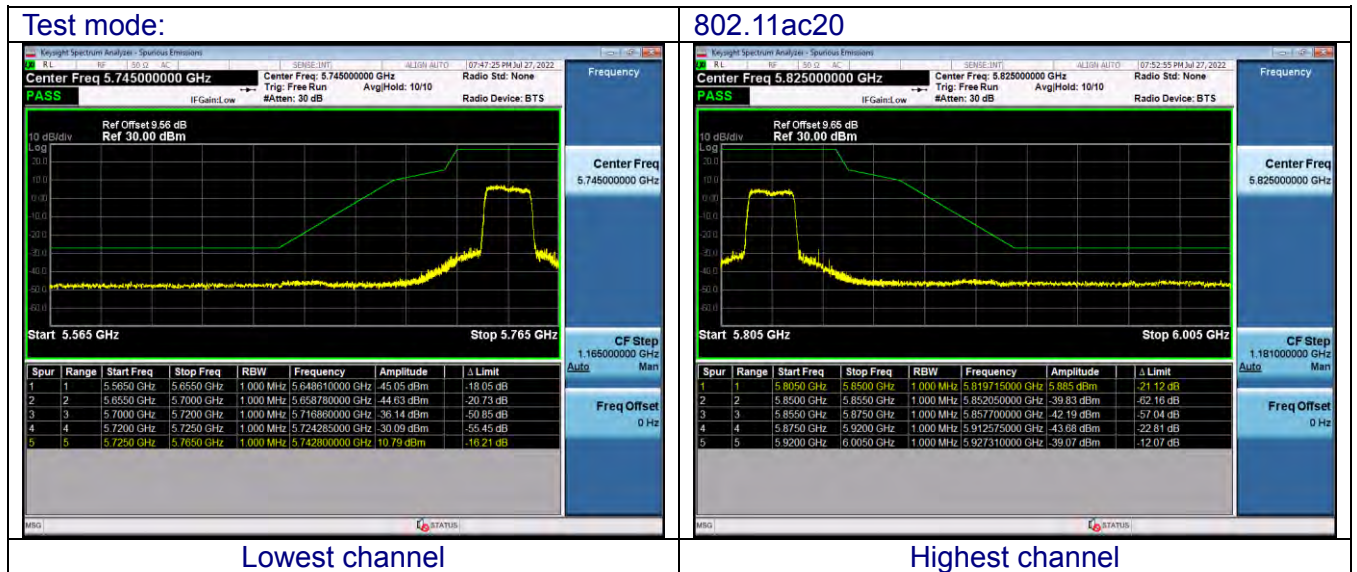


Lowest channel

802.11n40



Highest channel



ANT2- U-NII-3

Test mode:



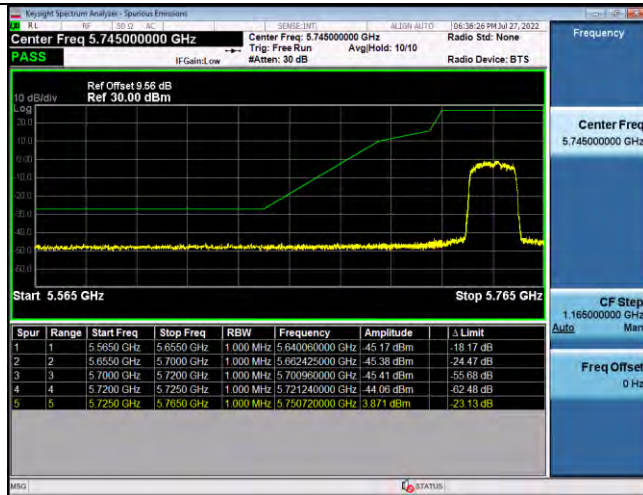
Lowest channel

802.11a



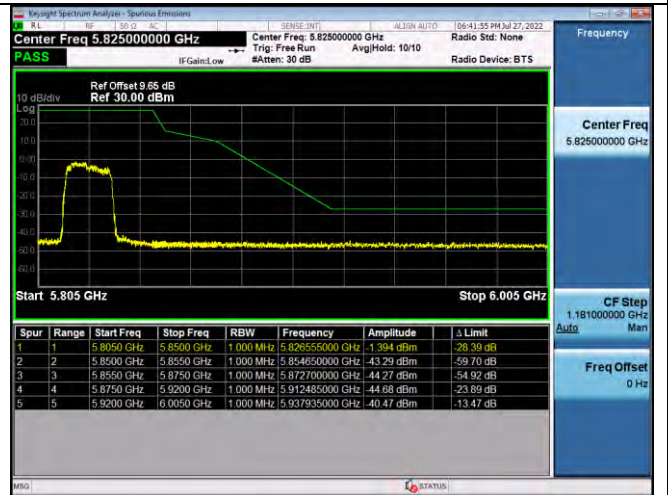
Highest channel

Test mode:



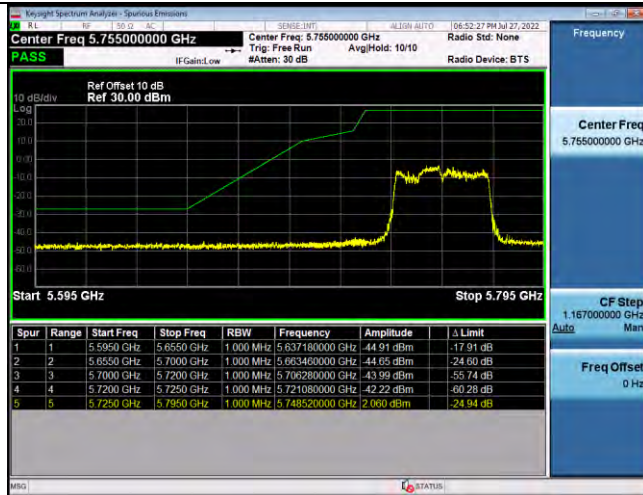
Lowest channel

802.11n20



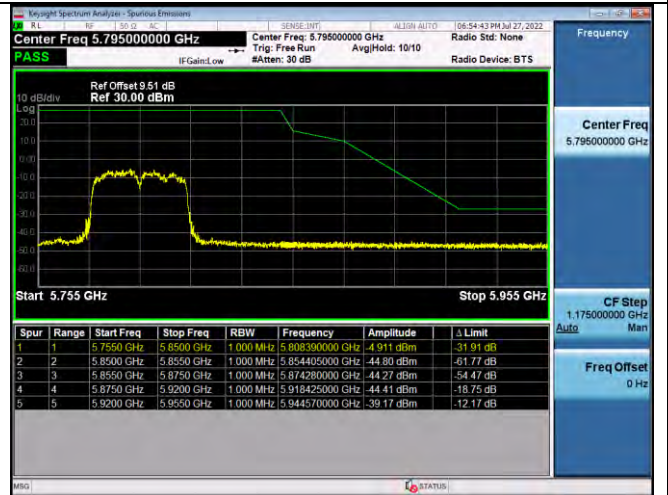
Highest channel

Test mode:

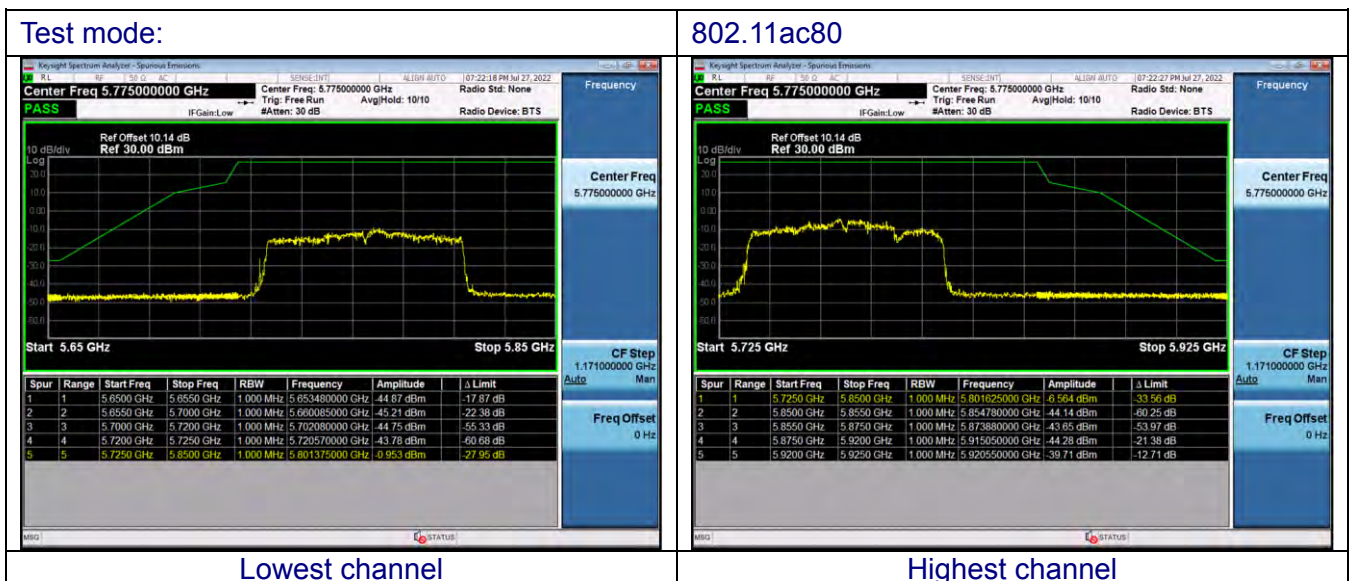
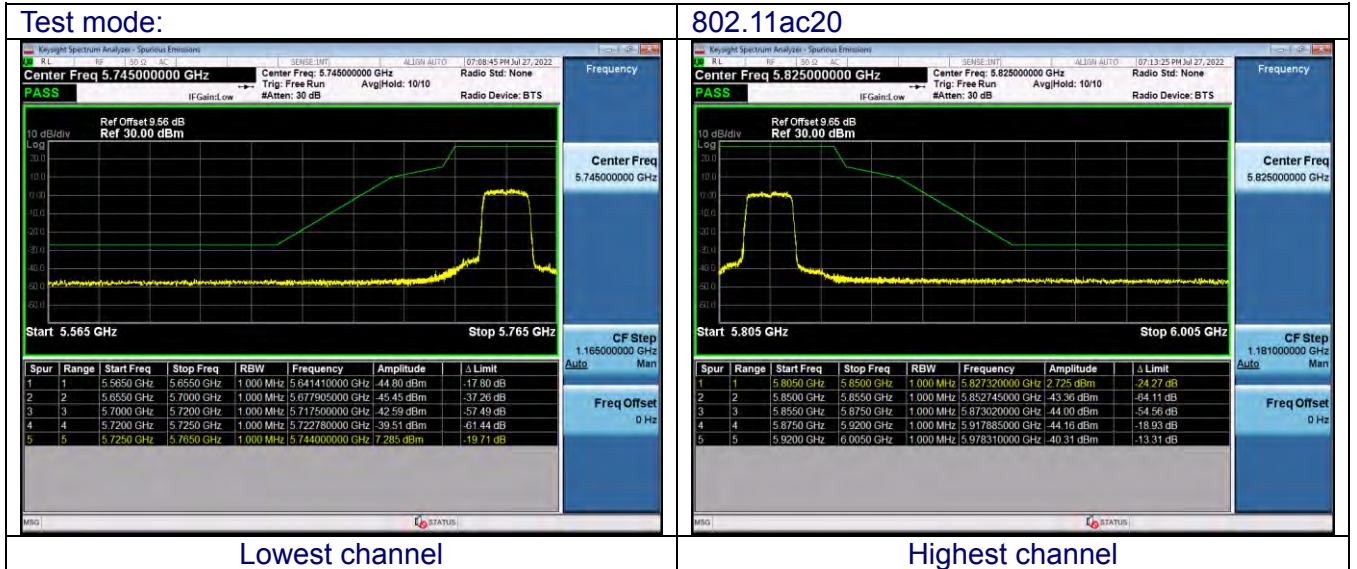


Lowest channel

802.11n40



Highest channel



9. FREQUENCY STABILITY MEASUREMENT

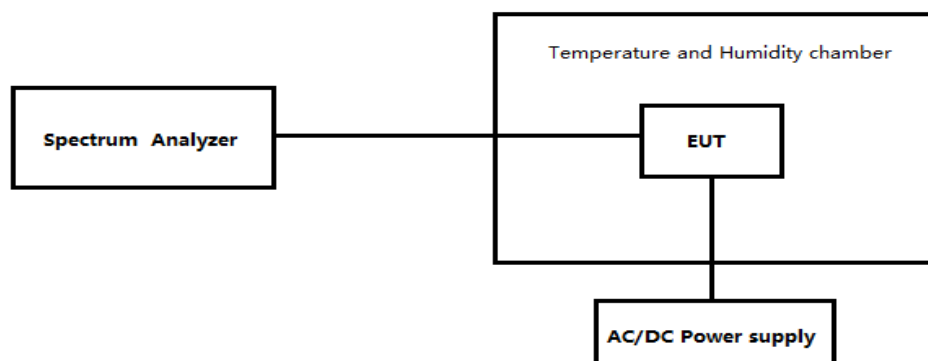
9.1 LIMIT

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 TEST PROCEDURE

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 TEST CONFIGURATION



9.4 TEST RESULT

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

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

ANT1-802.11a- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.007	1.144
40	120	0.003	0.436
30	120	0.018	3.102
20	120	0.002	0.423
10	120	0.012	2.038
0	120	0.014	2.454
-10	120	0.016	2.849
-20	120	0.003	0.605
-30	120	0.004	0.767

ANT1-802.11a- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.017	2.977
40	120	0.012	2.145
30	120	0.006	1.032
20	120	0.005	0.888
10	120	0.001	0.221
0	120	0.007	1.150
-10	120	0.001	0.135
-20	120	0.012	2.029
-30	120	0.003	0.476

ANT1-802.11n20- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.004	0.657
40	120	0.009	1.589
30	120	0.009	1.597
20	120	0.008	1.402
10	120	0.002	0.349
0	120	0.001	0.236
-10	120	0.003	0.455
-20	120	0.001	0.227
-30	120	0.012	2.101

ANT1-802.11n20- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.001	0.124
40	120	0.017	2.904
30	120	0.005	0.831
20	120	0.001	0.220
10	120	0.000	0.068
0	120	0.007	1.224
-10	120	0.013	2.245
-20	120	0.014	2.371
-30	120	0.016	2.785

ANT1-802.11n40- CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.017	2.907
40	120	0.010	1.748
30	120	0.003	0.522
20	120	0.004	0.755
10	120	0.010	1.756
0	120	0.003	0.553
-10	120	0.001	0.118
-20	120	0.007	1.181
-30	120	0.004	0.731

ANT1-802.11n40- CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.002	0.306
40	120	0.002	0.302
30	120	0.003	0.491
20	120	0.003	0.451
10	120	0.010	1.695
0	120	0.015	2.554
-10	120	0.007	1.273
-20	120	0.008	1.400

-30	120	0.001	0.218
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ANT1-802.11ac20- CH149

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.013	2.222
40	120	0.018	3.062
30	120	0.011	1.971
20	120	0.009	1.564
10	120	0.006	1.025
0	120	0.010	1.756
-10	120	0.002	0.337
-20	120	0.012	2.065
-30	120	0.003	0.559

ANT1-802.11ac20- CH165

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.011	1.804
40	120	0.010	1.663
30	120	0.006	0.975
20	120	0.004	0.658
10	120	0.005	0.865
0	120	0.016	2.685
-10	120	0.002	0.365
-20	120	0.005	0.931
-30	120	0.017	2.998

ANT1-802.11ac40- CH151

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.002	0.432
40	120	0.017	2.943
30	120	0.005	0.801
20	120	0.011	1.838
10	120	0.005	0.797
0	120	0.007	1.141
-10	120	0.005	0.827

-20	120	0.003	0.496
-30	120	0.004	0.772

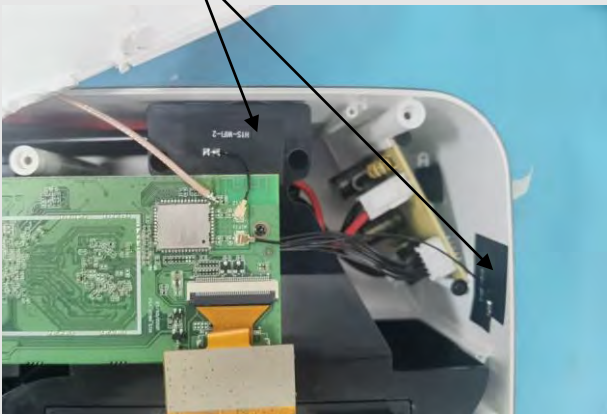
ANT1-802.11ac40- CH159

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.010	1.756
40	120	0.018	3.046
30	120	0.006	1.037
20	120	0.017	2.966
10	120	0.005	0.924
0	120	0.017	2.991
-10	120	0.006	1.121
-20	120	0.016	2.760
-30	120	0.000	0.016

ANT1-802.11ac80- CH155

Temperature (°C)	Voltage (AC:V)	Frequency Measure with time Elapsed	
		MCF	(ppm)
50	120	0.017	2.955
40	120	0.002	0.271
30	120	0.017	2.958
20	120	0.011	1.909
10	120	0.010	1.699
0	120	0.016	2.767
-10	120	0.002	0.277
-20	120	0.014	2.460
-30	120	0.013	2.248

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 a FPC antenna, and the best case gain of the antenna is antenna port 1:5.59dBi and Antenna port 2:4.22 dBi, EUT Antenna: 2.4G&5GWIFI ANT 	

10. TEST SETUP PHOTO

Reference to the test setup file for details.

11. EUT CONSTRUCTIONAL DETAILS

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

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