

TEST REPORT

Report No.: BCTC2011190167-4E

Applicant: ELITEGROUP COMPUTER SYSTEMS CO., LTD

Product Name: tablet PC

Model/Type Ref.: TG08MK

Tested Date: Nov. 26, 2020 to Dec. 01, 2020

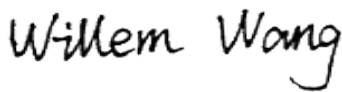
Issued Date: Dec. 01, 2020

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2AEKR-TG08MK

Product Name: tablet PC
Trademark: N/A
Model/Type Ref.: TG08MK
M806BTx, TG08MKx
Prepared For: ELITEGROUP COMPUTER SYSTEMS CO., LTD
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Manufacturer: Shenzhen NST Industry and Trade Co., Ltd
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Sample Received Date: Nov. 26, 2020
Sample tested Date: Nov. 26, 2020 to Dec. 01, 2020
Issue Date: Dec. 01, 2020
Report No.: BCTC2011190167-4E
Test Standards FCC Part15 15.407
ANSI C63.10-2013
KDB 789033 D02 v02r01
Test Results PASS

Tested by:



Willem Wang/Project Handler

Approved by:



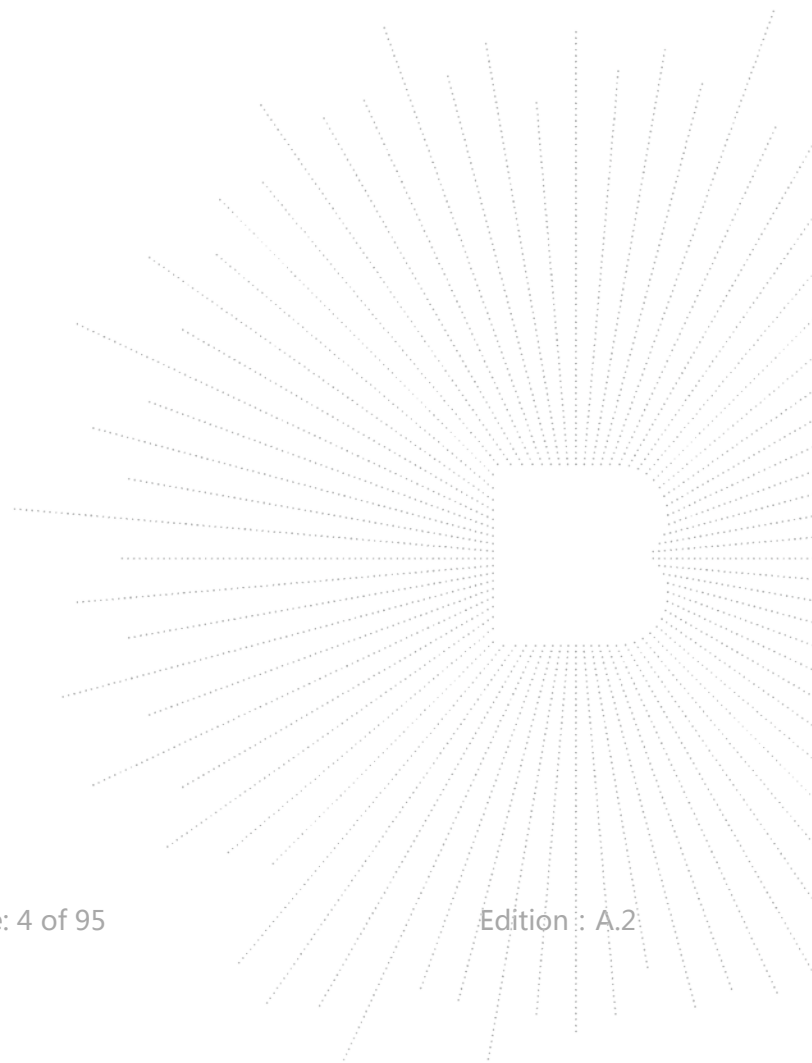
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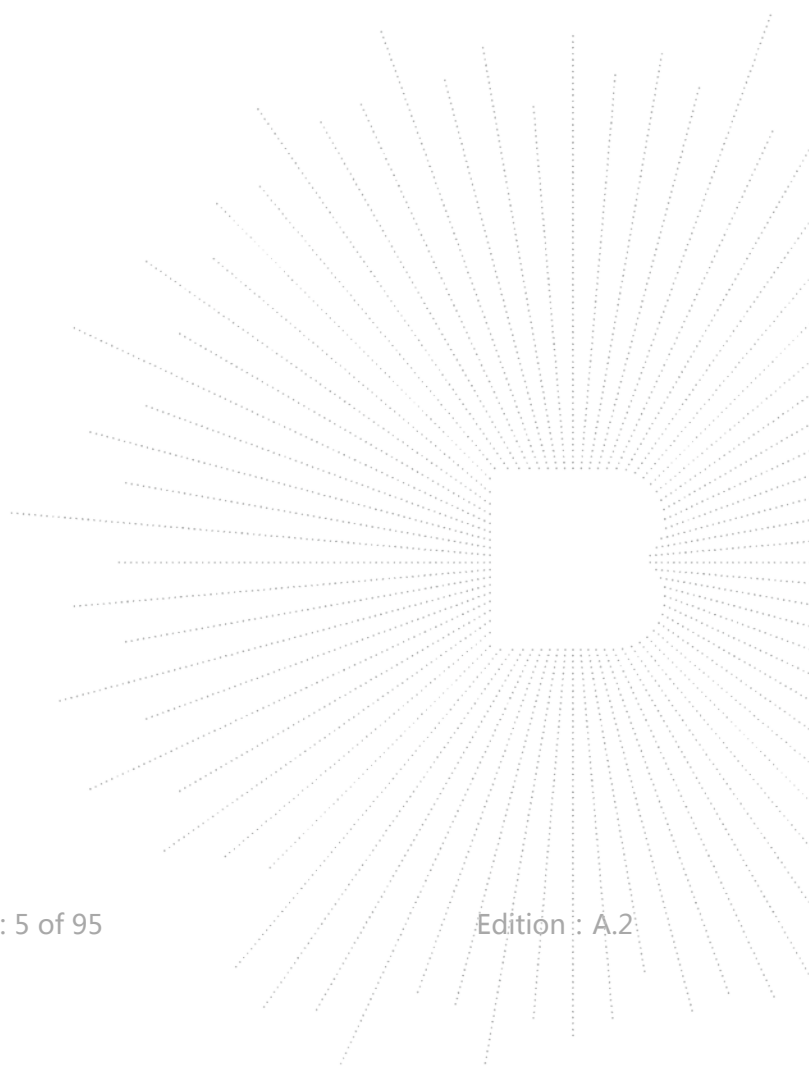
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(Note: N/A means not applicable)



1. VERSION

Report No.	Issue Date	Description	Approved
BCTC2011190167-4E	Dec. 01, 2020	Original	Valid



2. TEST SUMMARY

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No	Results
1	Spurious Radiated Emissions	15.209(a), 15.407 (b)(1) 15.407 (b)(4) 15.407 (b)(8)	PASS
2	Conducted Emission	15.207	PASS
3	26 dB and 99% Emission Bandwidth	15.407 (a)(12) 15.1049	PASS
4	Minimum 6 dB bandwidth	15.407(e)	PASS
5	Maximum Conducted Output Power	15.407 (a)(1) 15.407 (a)(3)	PASS
6	Band Edge	2.1051, 15.407(b)(1) 15.407(b)(4)	PASS
7	Power Spectral Density	15.407 (a)(1) 15.407 (a)(3)	PASS
8	Spurious Emissions at Antenna Terminals	2.1051, 15.407(b)	PASS
9	Antenna Requirement	15.203	PASS

3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

No.	Item	Uncertainty
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°C

4. PRODUCT INFORMATION AND TEST SETUP

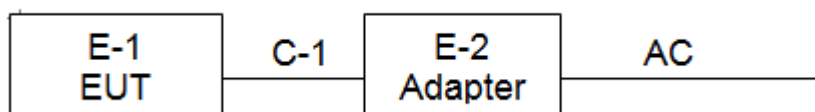
4.1 Product Information

Model/Type Ref.:	TG08MK M806BTx, TG08MKx
Model differences:	All the model are the same circuit and RF module, except model names and color
Hardware Version:	RC-F716-TC U1.0
Software Version:	F716U_TC.Q0.V4.24.RC-V01.8168.64
IEEE 802.11 WLAN Mode Supported	802.11a/n/ac(20MHz channel bandwidth) 802.11n/ac(40MHz channel bandwidth) 802.11ac(80MHz channel bandwidth)
Operation Frequency:	5180-5240MHz for 802.11a/n(HT20)/ac20; 5190-5230MHz for 802.11n(HT40)/ac40; 5210MHz for 802.11 ac80; 5745-5825 MHz for 802.11a/n(HT20)/ac20; 5755-5795 MHz for 802.11a/n(HT40)/ac40; 5775MHz for 802.11 ac80;
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20/HT40):MCS0-MCS15; 802.11ac(VHT20): NSS1, MCS0-MCS8 802.11ac(VHT40/VHT80):NSS1, MCS0-MCS
Type of Modulation:	OFDM with BPSK/QPSK/16QAM/64QAM/256QAM for 802.11a/n/ac;
Number Of Channel	4 channels for 802.11a/n20 in the 5180-5240MHz band ; 2 channels for 802.11 n40 in the 5190-5230MHz band ; 1 channels for 802.11 ac80 in the 5210MHz band ; 5 channels for 802.11a/n20 in the 5745-5825MHz band ; 2 channels for 802.11 n40 in the 5755-5795MHz band ; 1 channels for 802.11 ac80 in the 5775MHz band ;
Antenna installation:	FPCB antenna
Antenna Gain:	2.36dBi
Type of device:	client devices
Ratings:	DC 5V from adapter DC 3.8V from Battery
Adapter Information:	Model No.:K-T100502000U Input: AC 100-240V 50/60Hz 0.35A Max Output: DC 5V 2A

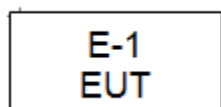
4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Conducted Emission:



Radiated Spurious Emission



4.3 Support Equipment

No.	Device Type	Brand	Model	Series No.	Data Cable	Power Cord
E-1	tablet PC	N/A	TG08MK	N/A	EUT	E-1
E-2	Adapter	N/A	K-T100502 000U	N/A	Auxiliary	E-2

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	0.6M	DC cable unshielded

Notes:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.4 Channel List

802.11a/n(20MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220	40	5200	48	5240
149	5745	153	5765	157	5785	161	5805
165	5825	-	-	-	-	-	-

802.11n (40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	-	-	-	-
151	5755	159	5795	-	-	-	-

802.11ac (80MHz) Carrier Frequency Channel	
Channel	Frequency (MHz)
42	5210
155	5775

4.5 Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	802.11a / n/ ac 20 CH36/ CH40/ CH 48 802.11a /n/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40 CH38/ CH 46 802.11n/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155
Mode 4	Link Mode

Conducted Emission	
Final Test Mode	Description
Mode 4	Link Mode

For Radiated Emission	
Final Test Mode	Description
Mode 1	802.11a / n/ ac 20 CH36/ CH40/ CH 48 802.11a /n/ ac 20 CH149/ CH157/ CH 165
Mode 2	802.11n/ ac40 CH38/ CH 46 802.11n/ ac40 CH 151 / CH 159
Mode 3	802.11 ac80 CH 42/CH 155

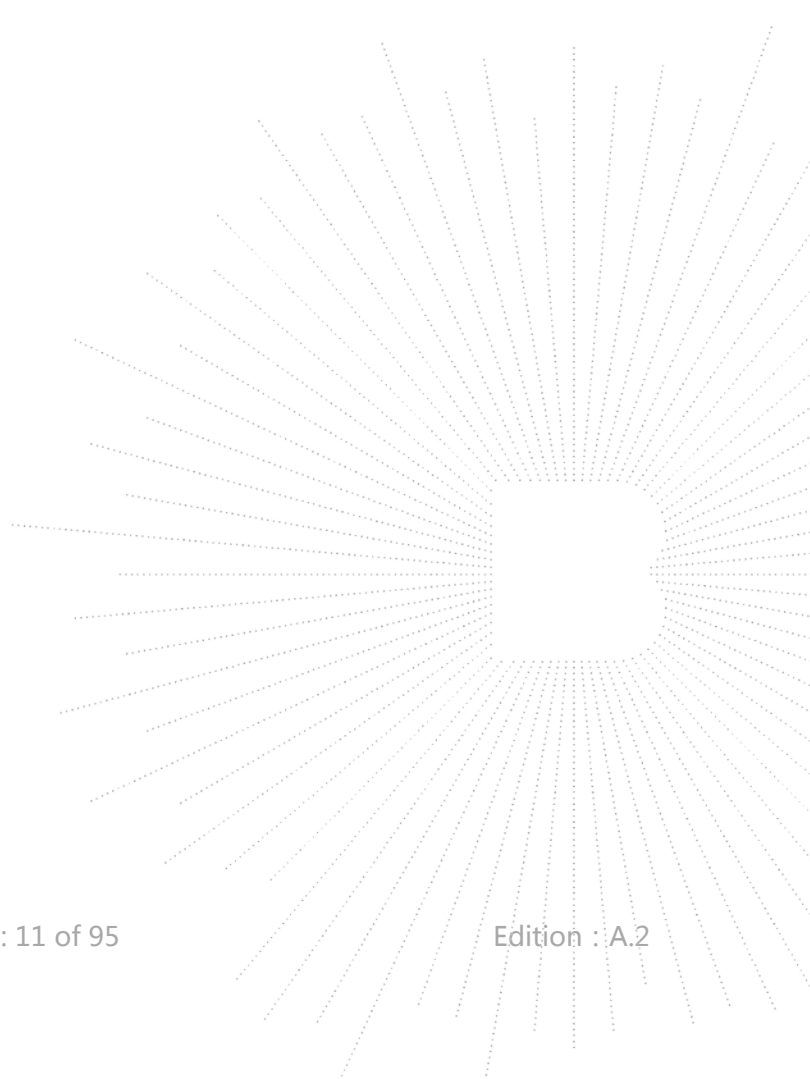
Note:

(1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.

4.6 table of parameters of text software setting

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters

Test software Version	SecureCRT		
Parameters	DEF	DEF	DEF



5. TEST FACILITY AND TEST INSTRUMENT USED

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., East of B Building, Pengzhou Industrial Park, Fuyuan 1st Road, Qiaotou, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: 712850

IC Registered No.: 23583

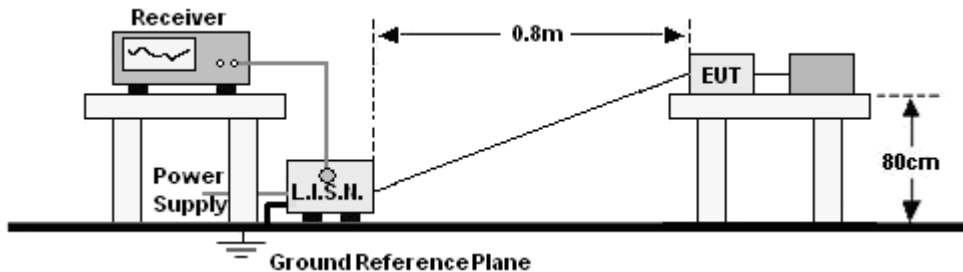
5.2 Test Instrument Used

Conducted emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESR3	102075	Jun. 08, 2020	Jun. 07, 2021
LISN	R&S	ENV216	101375	Jun. 04, 2020	Jun. 03, 2021
ISN	HPX	ISN T800	S1509001	Jun. 04, 2020	Jun. 03, 2021
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\

Radiated emissions Test (966 chamber)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	Jun. 06. 2020	Jun. 05, 2023
Receiver	R&S	ESR3	102075	Jun. 08, 2020	Jun. 07, 2021
Receiver	R&S	ESRP	101154	Jun. 08, 2020	Jun. 07, 2021
Amplifier	Schwarzbeck	BBV9718	9718-309	Jun. 04, 2020	Jun. 03, 2021
Amplifier	Schwarzbeck	BBV9744	9744-0037	Jun. 04, 2020	Jun. 03, 2021
TRILOG Broadband Antenna	schwarzbeck	VULB 9163	VULB9163-942	Jun. 08, 2020	Jun. 07, 2021
Horn Antenna	SCHWARZBEC K	BBHA9120 D	1201	Jun. 10, 2020	Jun. 09, 2021
Horn Antenna (18GHz-40GHz)	SCHWARZBEC K	BBHA9170	822	Jun. 10, 2020	Jun. 09, 2021
Amplifier (18GHz-40GHz)	MITEQ	TTA1840-3 5-HG	2034381	Jun. 08, 2020	Jun. 07, 2021
Loop Antenna (9kHz-30MHz)	SCHWARZBEC K	FMZB1519 B	014	Jun. 08, 2020	Jun. 07, 2021
RF cables1 (9kHz-30MHz)	Huber+Suhnar	9kHz-30MH z	B1702988-0 008	Jun. 08, 2020	Jun. 07, 2021
RF cables2 (30MHz-1GHz)	Huber+Suhnar	30MHz-1G Hz	1486150	Jun. 08, 2020	Jun. 07, 2021
RF cables3 (1GHz-40GHz)	Huber+Suhnar	1GHz-40G Hz	1607106	Jun. 08, 2020	Jun. 07, 2021
Power Metter	Keysight	E4419B	\	Jun. 08, 2020	Jun. 07, 2021
Power Sensor (AV)	Keysight	E9 300A	\	Jun. 08, 2020	Jun. 07, 2021
Signal Analyzer 20kHz-26.5GHz	KEYSIGHT	N9020A	MY4910006 0	Jun. 04, 2020	Jun. 03, 2021
Spectrum Analyzer 9kHz-40GHz	Agilent	FSP40	100363	Jun. 13, 2020	Jun. 12, 2021
Software	Frad	EZ-EMC	FA-03A2 RE	\	\

6. CONDUCTED EMISSIONS

6.1 Block Diagram Of Test Setup



6.2 Limit

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

Notes:
1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

6.3 Test procedure

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

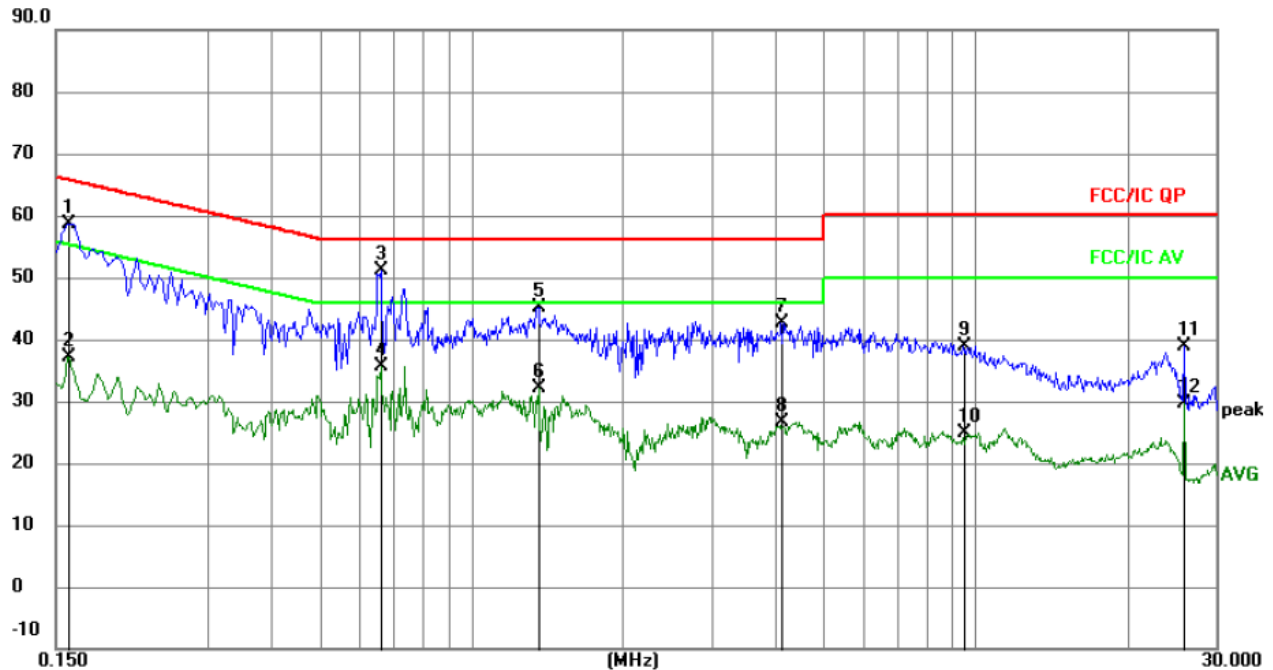
- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak and AVG detector in Max Hold mode. Run the receiver's pre-scan to record the maximum disturbance generated from Product in all power lines in the full band.
- For each frequency whose maximum record was higher or close to limit, measure its QP and AVG values and record.

6.4 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.

6.5 Test Result

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Phase :	L
Test Voltage :	AC120V/60Hz	Test Mode :	Mode 4

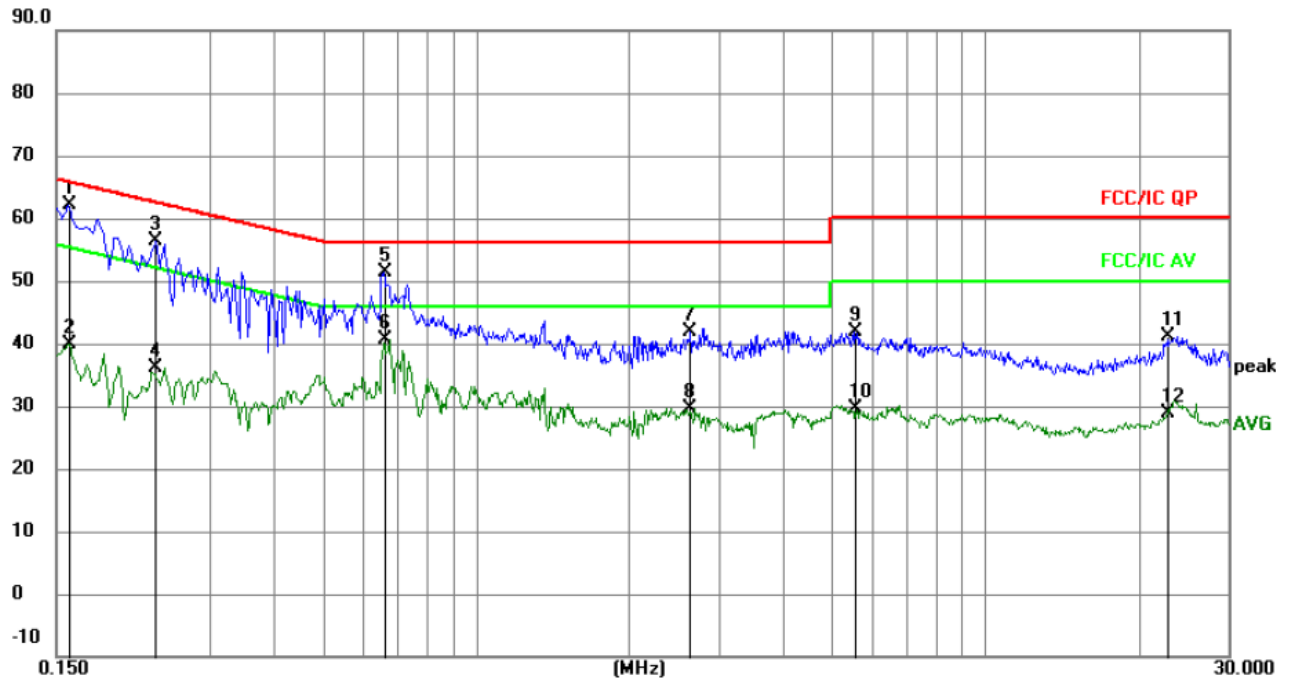


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No. Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
	MHz		dB	dBuV	dBuV	dB		
1	0.1590	49.23	9.51	58.74	65.52	-6.78	QP	
2	0.1590	27.55	9.51	37.06	55.52	-18.46	AVG	
3 *	0.6630	41.44	9.78	51.22	56.00	-4.78	QP	
4	0.6630	25.83	9.78	35.61	46.00	-10.39	AVG	
5	1.3650	35.55	9.58	45.13	56.00	-10.87	QP	
6	1.3650	22.60	9.58	32.18	46.00	-13.82	AVG	
7	4.1325	32.97	9.74	42.71	56.00	-13.29	QP	
8	4.1325	16.94	9.74	26.68	46.00	-19.32	AVG	
9	9.4785	29.23	9.70	38.93	60.00	-21.07	QP	
10	9.4785	15.13	9.70	24.83	50.00	-25.17	AVG	
11	25.9980	29.04	9.74	38.78	60.00	-21.22	QP	
12	25.9980	19.87	9.74	29.61	50.00	-20.39	AVG	

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Phase :	N
Test Voltage :	AC120V/60Hz	Test Mode :	Mode 4



Remark:

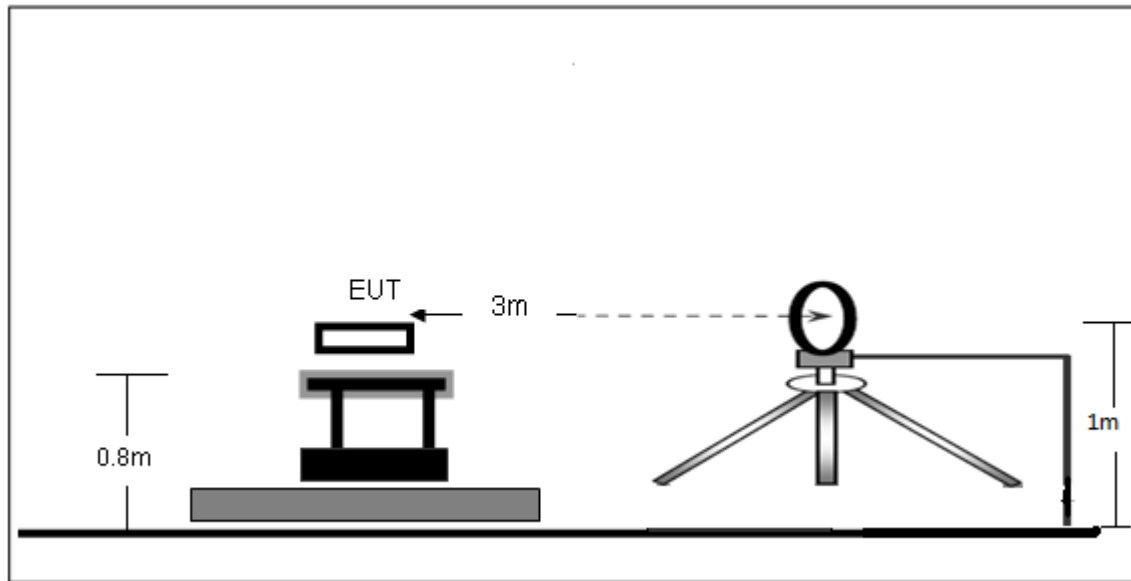
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz		dB	dBuV	dBuV	dB		
1	*	0.1582	52.66	9.51	62.17	65.56	-3.39	QP	
2		0.1582	30.26	9.51	39.77	55.56	-15.79	AVG	
3		0.2353	46.98	9.50	56.48	62.26	-5.78	QP	
4		0.2353	26.56	9.50	36.06	52.26	-16.20	AVG	
5		0.6578	41.52	9.80	51.32	56.00	-4.68	QP	
6		0.6578	30.94	9.80	40.74	46.00	-5.26	AVG	
7		2.6360	32.23	9.63	41.86	56.00	-14.14	QP	
8		2.6360	20.05	9.63	29.68	46.00	-16.32	AVG	
9		5.5347	32.08	9.78	41.86	60.00	-18.14	QP	
10		5.5347	19.97	9.78	29.75	50.00	-20.25	AVG	
11		22.7755	31.32	9.76	41.08	60.00	-18.92	QP	
12		22.7755	19.06	9.76	28.82	50.00	-21.18	AVG	

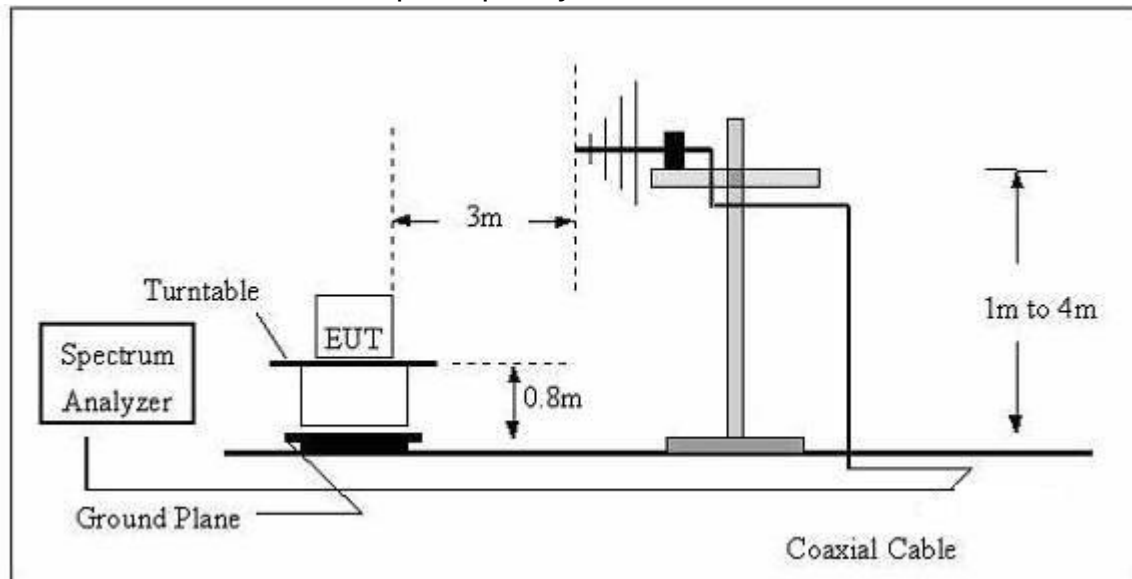
7. RADIATED EMISSIONS

7.1 Block Diagram Of Test Setup

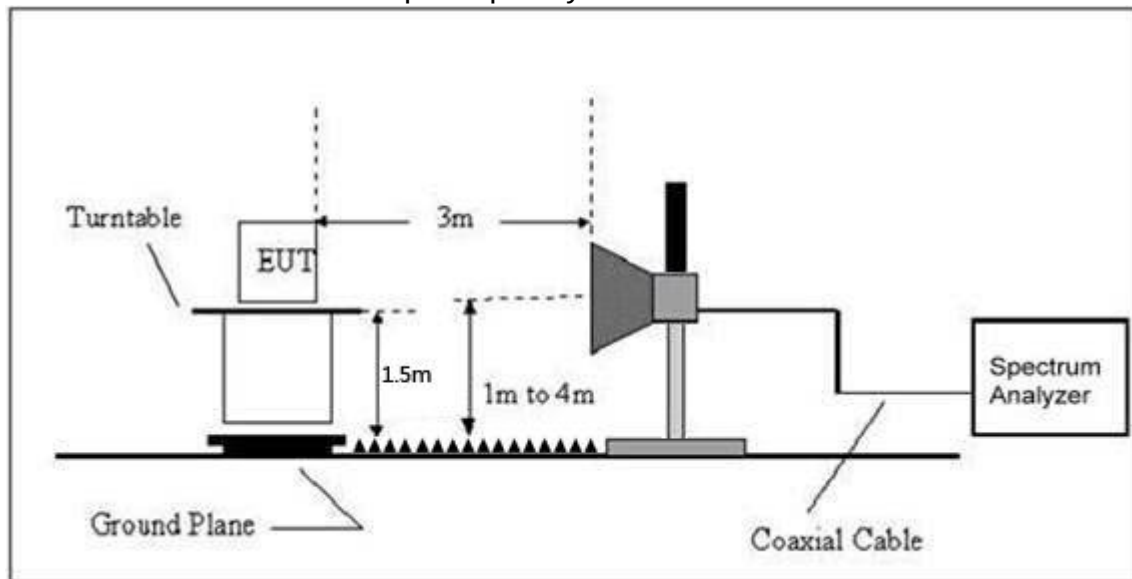
(A) Radiated Emission Test-Up Frequency Below 30MHz



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



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



7.2 Limit

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequency	Field Strength	Distance	Field Strength Limit at 3m Distance	
(MHz)	uV/m	(m)	uV/m	dBuV/m
0.009 ~ 0.490	$2400/F(\text{kHz})$	300	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	$24000/F(\text{kHz})$	30	$100 * 24000/F(\text{kHz})$	$20\log^{(24000/F(\text{kHz}))} + 40$
1.705 ~ 30	30	30	$100 * 30$	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

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).

7.3 Test procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205.

It must be performed with the highest gain of each type of antenna proposed for use with the EUT.

Use the following spectrum analyzer settings:

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10 th harmonic of the highest frequency or 40 GHz, whichever is lower
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

- The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation.
- The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

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

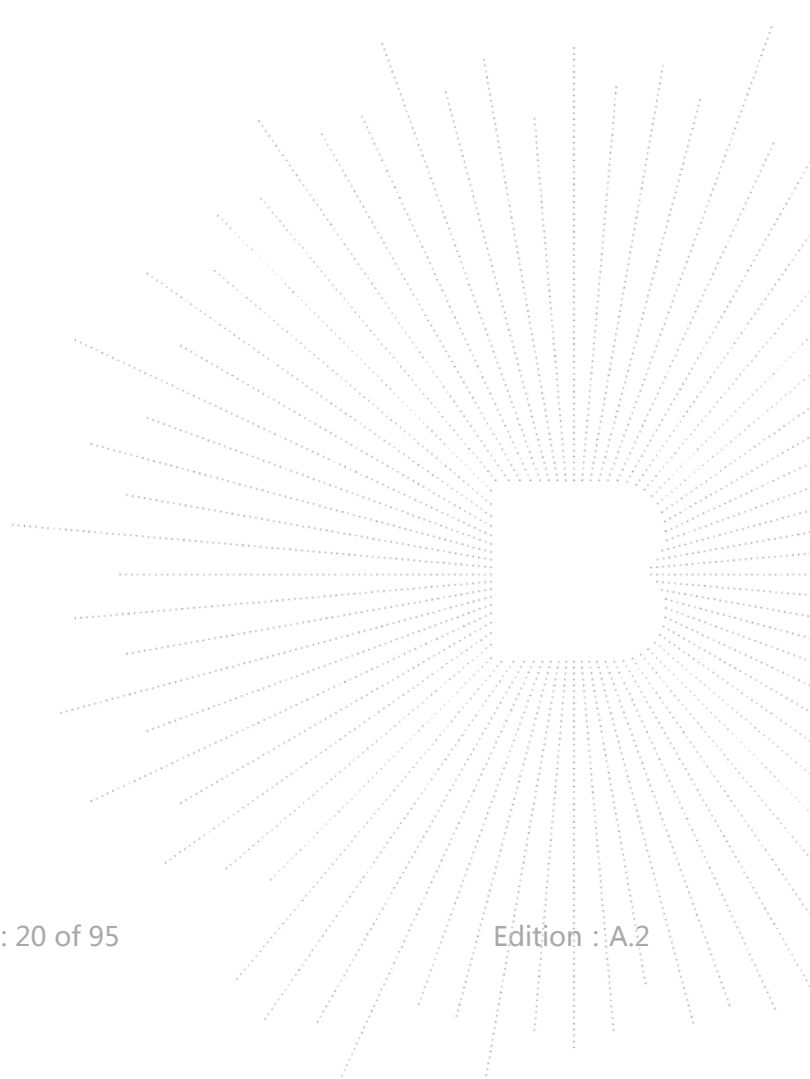
During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
	Average	1 MHz	10 Hz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where $RBWCF [dB] = 10 \cdot \lg(100 [kHz] / \text{narrower RBW [kHz]})$. , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.

7.4 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.



7.5 Test Result

Below 30MHz

Temperature:	26℃	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage :	DC 3.8V
Test Mode :	Mode 4	Polarization :	--

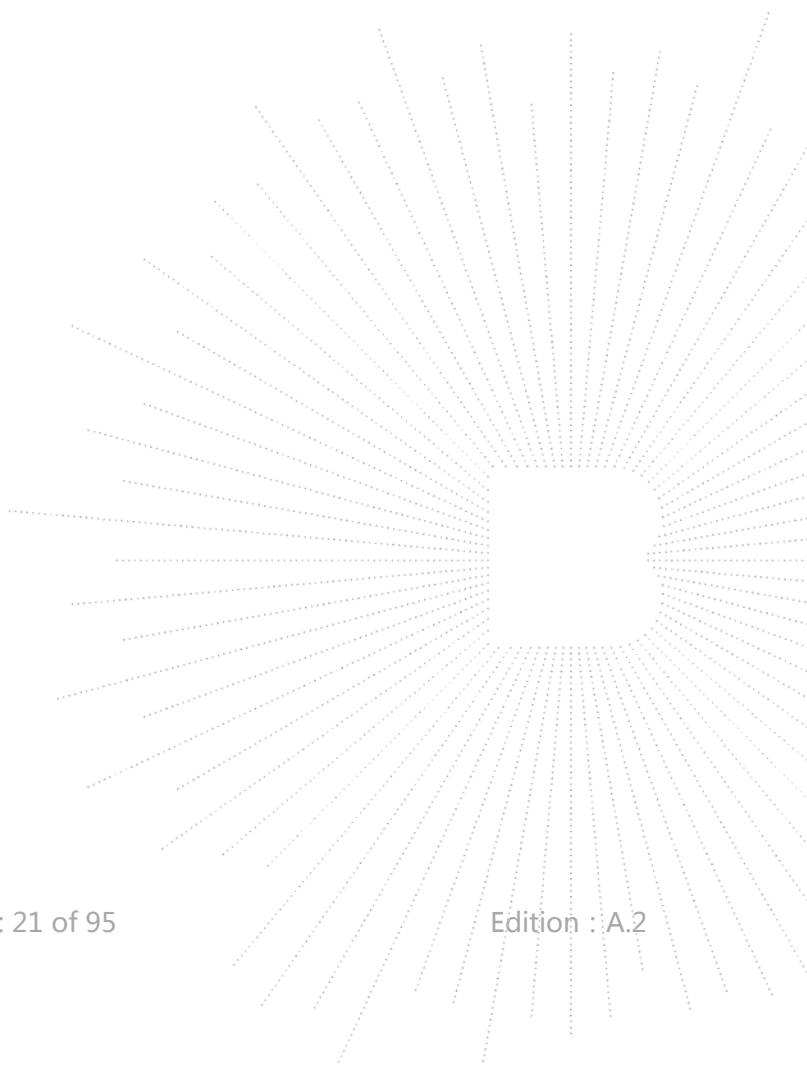
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

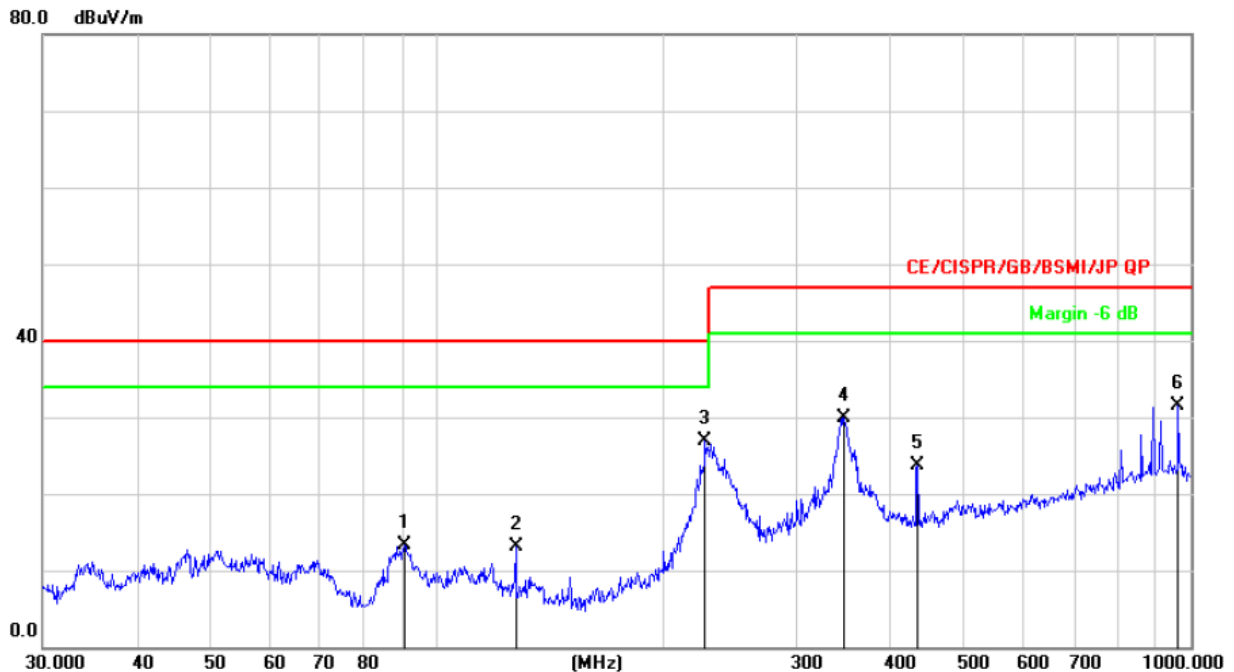
Distance extrapolation factor = $40 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuV) + distance extrapolation factor.



Between 30MHz – 1GHz

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Test Voltage :	DC 3.8V
Test Mode :	Mode 4	Polarization :	Horizontal

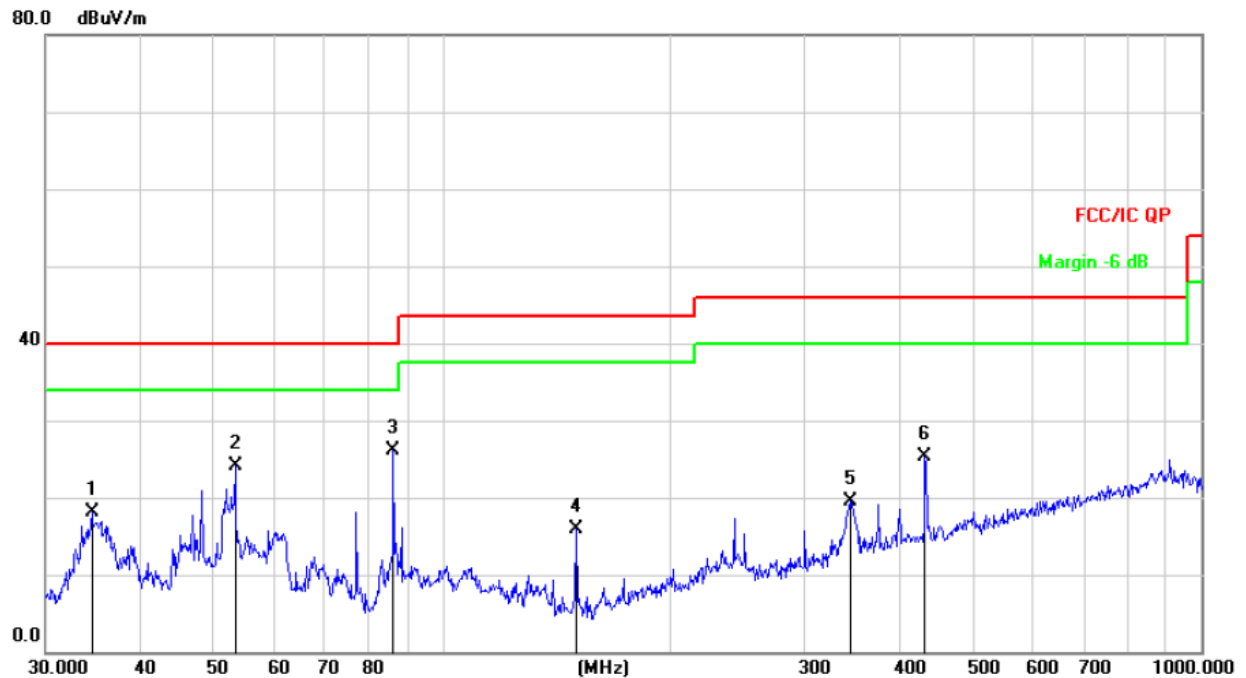


Remark:

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		90.5374	30.60	-17.38	13.22	40.00	-26.78	QP
2		127.2176	30.41	-17.23	13.18	40.00	-26.82	QP
3	*	226.8936	41.57	-14.71	26.86	40.00	-13.14	QP
4		346.8092	41.11	-11.15	29.96	47.00	-17.04	QP
5		434.0651	32.65	-8.96	23.69	47.00	-23.31	QP
6		962.1623	32.15	-0.66	31.49	47.00	-15.51	QP

Temperature:	26℃	Relative Humidity:	54%
Pressure:	101 kpa	Test Voltage :	DC 3.8V
Test Mode :	Mode 4	Polarization :	Vertical



Remark:

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		34.5173	33.62	-15.58	18.04	40.00	-21.96	QP
2		53.3179	38.44	-14.27	24.17	40.00	-15.83	QP
3	*	86.2001	44.29	-18.26	26.03	40.00	-13.97	QP
4		150.0108	34.60	-18.71	15.89	43.50	-27.61	QP
5		344.3855	30.73	-11.22	19.51	46.00	-26.49	QP
6		432.5457	34.30	-8.99	25.31	46.00	-20.69	QP

Between 1GHz – 40GHz

Test Mode :	TX(5.1G) - 802.11a
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor dB/m	Preamplifier Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.108	62.12	5.94	35.40	44.00	59.46	68.20	-8.74	PK
V	4434.108	43.73	5.94	35.40	44.00	41.07	54.00	-12.93	AV
V	10360.060	60.04	8.46	39.75	44.50	63.75	74.00	-10.25	PK
V	10360.060	44.00	8.46	39.75	44.50	47.71	54.00	-6.29	AV
V	15540.190	61.32	10.12	38.80	44.10	66.14	74.00	-7.86	PK
V	15540.190	43.71	10.12	38.80	42.70	49.93	54.00	-4.07	AV
H	4434.105	63.54	5.94	35.18	44.00	60.66	68.20	-7.54	PK
H	4434.105	43.83	5.94	35.18	44.00	40.95	54.00	-13.05	AV
H	10360.145	53.77	8.46	38.71	44.50	56.44	74.00	-17.56	PK
H	10360.145	44.67	8.46	38.71	44.50	47.34	54.00	-6.66	AV
H	15540.192	52.00	10.12	38.38	44.10	56.40	74.00	-17.60	PK
H	15540.192	44.97	10.12	38.38	44.10	49.37	54.00	-4.63	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.025	61.19	6.48	36.35	44.05	59.97	74.00	-14.03	PK
V	4592.025	43.37	6.48	36.35	44.05	42.15	54.00	-11.85	AV
V	10400.059	60.64	8.47	37.88	44.51	62.48	68.20	-5.72	PK
V	10400.059	43.55	8.47	37.88	44.51	45.39	54.00	-8.61	AV
V	15600.083	64.99	10.12	38.80	44.10	69.81	74.00	-4.19	PK
V	15600.083	43.96	10.12	38.80	42.70	50.18	54.00	-3.82	AV
H	4592.100	60.10	6.48	36.37	44.05	58.90	74.00	-15.10	PK
H	4592.100	43.27	6.48	36.37	44.05	42.07	54.00	-11.93	AV
H	10400.070	52.33	8.47	38.64	44.50	54.94	68.20	-13.26	PK
H	10400.070	43.15	8.47	38.64	44.50	45.76	54.00	-8.24	AV
H	15600.124	52.98	10.12	38.38	44.10	57.38	74.00	-16.62	PK
H	15600.124	44.76	10.12	38.38	44.10	49.16	54.00	-4.84	AV
High Channel (5240 MHz)-Above 1G									
V	4739.086	61.45	7.10	37.24	43.50	62.29	74.00	-11.71	PK
V	4739.086	43.47	7.10	37.24	43.50	44.31	54.00	-9.69	AV
V	10480.151	62.84	8.46	37.68	44.50	64.48	68.20	-3.72	PK
V	10480.151	44.00	8.46	37.68	44.50	45.64	54.00	-8.36	AV
V	15720.179	60.44	10.12	38.80	44.10	65.26	74.00	-8.74	PK
V	15720.179	43.86	10.12	38.80	42.70	50.08	54.00	-3.92	AV
H	4739.031	64.74	7.10	37.24	43.50	65.58	74.00	-8.42	PK
H	4739.031	43.44	7.10	37.24	43.50	44.28	54.00	-9.72	AV
H	10480.009	50.62	8.46	38.57	44.50	53.15	68.20	-15.05	PK
H	10480.009	43.84	8.46	38.57	44.50	46.37	54.00	-7.63	AV
H	15720.057	54.53	10.12	38.38	44.10	58.93	74.00	-15.07	PK
H	15720.057	40.40	10.12	38.38	44.10	44.80	54.00	-9.20	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11n-HT20
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.161	60.68	5.94	35.40	44.00	58.02	68.20	-10.18	PK
V	4434.161	43.62	5.94	35.40	44.00	40.96	54.00	-13.04	AV
V	10360.024	61.22	8.46	39.75	44.50	64.93	68.20	-3.27	PK
V	10360.024	43.55	8.46	39.75	44.50	47.26	54.00	-6.74	AV
V	15540.101	61.65	10.12	38.80	44.10	66.47	74.00	-7.53	PK
V	15540.101	43.54	10.12	38.80	42.70	49.76	54.00	-4.24	AV
H	4434.110	64.14	5.94	35.18	44.00	61.26	68.20	-6.94	PK
H	4434.110	43.67	5.94	35.18	44.00	40.79	54.00	-13.21	AV
H	10360.050	51.80	8.46	38.71	44.50	54.47	68.20	-13.73	PK
H	10360.050	43.67	8.46	38.71	44.50	46.34	54.00	-7.66	AV
H	15540.073	50.60	10.12	38.38	44.10	55.00	74.00	-19.00	PK
H	15540.073	42.49	10.12	38.38	44.10	46.89	54.00	-7.11	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.140	63.29	6.48	36.35	44.05	62.07	74.00	-11.93	PK
V	4592.140	43.94	6.48	36.35	44.05	42.72	54.00	-11.28	AV
V	10400.137	61.76	8.47	37.88	44.51	63.60	68.20	-4.60	PK
V	10400.137	43.56	8.47	37.88	44.51	45.40	54.00	-8.60	AV
V	15600.097	60.34	10.12	38.80	44.10	65.16	74.00	-8.84	PK
V	15600.097	43.26	10.12	38.80	42.70	49.48	54.00	-4.52	AV
H	4592.082	62.58	6.48	36.37	44.05	61.38	74.00	-12.62	PK
H	4592.082	43.23	6.48	36.37	44.05	42.03	54.00	-11.97	AV
H	10400.136	54.10	8.47	38.64	44.50	56.71	68.20	-11.49	PK
H	10400.136	42.02	8.47	38.64	44.50	44.63	54.00	-9.37	AV
H	15600.140	50.64	10.12	38.38	44.10	55.04	74.00	-18.96	PK
H	15600.140	40.20	10.12	38.38	44.10	44.60	54.00	-9.40	AV
High Channel (5240 MHz)-Above 1G									
V	4739.174	64.51	7.10	37.24	43.50	65.35	74.00	-8.65	PK
V	4739.174	43.64	7.10	37.24	43.50	44.48	54.00	-9.52	AV
V	10480.008	60.59	8.46	37.68	44.50	62.23	68.20	-5.97	PK
V	10480.008	43.09	8.46	37.68	44.50	44.73	54.00	-9.27	AV
V	15720.030	62.39	10.12	38.80	44.10	67.21	74.00	-6.79	PK
V	15720.030	43.03	10.12	38.80	42.70	49.25	54.00	-4.75	AV
H	4739.077	63.28	7.10	37.24	43.50	64.12	74.00	-9.88	PK
H	4739.077	43.43	7.10	37.24	43.50	44.27	54.00	-9.73	AV
H	10480.159	51.34	8.46	38.57	44.50	53.87	68.20	-14.33	PK
H	10480.159	42.83	8.46	38.57	44.50	45.36	54.00	-8.64	AV
H	15720.193	52.64	10.12	38.38	44.10	57.04	74.00	-16.96	PK
H	15720.193	40.78	10.12	38.38	44.10	45.18	54.00	-8.82	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11n-HT40
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5190 MHz)-Above 1G									
V	4434.005	62.53	5.94	35.40	44.00	59.87	74.00	-14.13	PK
V	4434.005	43.35	5.94	35.40	44.00	40.69	54.00	-13.31	AV
V	10380.121	63.37	8.46	39.75	44.50	67.08	68.20	-1.12	PK
V	10380.121	43.20	8.46	39.75	44.50	46.91	54.00	-7.09	AV
V	15570.169	63.43	10.12	38.80	44.10	68.25	74.00	-5.75	PK
V	15570.169	43.08	10.12	38.80	42.70	49.30	54.00	-4.70	AV
H	4434.180	63.95	5.94	35.18	44.00	61.07	74.00	-12.93	PK
H	4434.180	43.62	5.94	35.18	44.00	40.74	54.00	-13.26	AV
H	10380.139	52.25	8.46	38.71	44.50	54.92	68.20	-13.28	PK
H	10380.139	42.23	8.46	38.71	44.50	44.90	54.00	-9.10	AV
H	15570.122	54.09	10.12	38.38	44.10	58.49	74.00	-15.51	PK
H	15570.122	40.76	10.12	38.38	44.10	45.16	54.00	-8.84	AV
middle Channel (5230 MHz)-Above 1G									
V	4739.179	64.05	6.48	36.35	44.05	62.83	74.00	-11.17	PK
V	4739.179	43.67	6.48	36.35	44.05	42.45	54.00	-11.55	AV
V	10460.153	60.42	8.47	37.88	44.51	62.26	68.20	-5.94	PK
V	10460.153	43.84	8.47	37.88	44.51	45.68	54.00	-8.32	AV
V	15690.178	61.01	10.12	38.80	44.10	65.83	74.00	-8.17	PK
V	15690.178	43.86	10.12	38.80	42.70	50.08	54.00	-3.92	AV
H	4739.154	62.99	6.48	36.37	44.05	61.79	74.00	-12.21	PK
H	4739.154	43.09	6.48	36.37	44.05	41.89	54.00	-12.11	AV
H	10460.038	52.91	8.47	38.64	44.50	55.52	68.20	-12.68	PK
H	10460.038	41.91	8.47	38.64	44.50	44.52	54.00	-9.48	AV
H	15690.003	51.45	10.12	38.38	44.10	55.85	74.00	-18.15	PK
H	15690.003	43.10	10.12	38.38	44.10	47.50	54.00	-6.50	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11 AC20
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G									
V	4434.018	62.63	5.94	35.40	44.00	59.97	68.20	-8.23	PK
V	4434.018	43.62	5.94	35.40	44.00	40.96	54.00	-13.04	AV
V	10360.010	61.43	8.46	39.75	44.50	65.14	74.00	-8.86	PK
V	10360.010	43.10	8.46	39.75	44.50	46.81	54.00	-7.19	AV
V	15540.001	64.41	10.12	38.80	44.10	69.23	74.00	-4.77	PK
V	15540.001	43.13	10.12	38.80	42.70	49.35	54.00	-4.65	AV
H	4434.034	63.22	5.94	35.18	44.00	60.34	68.20	-7.86	PK
H	4434.034	43.04	5.94	35.18	44.00	40.16	54.00	-13.84	AV
H	10360.192	53.70	8.46	38.71	44.50	56.37	74.00	-17.63	PK
H	10360.192	42.12	8.46	38.71	44.50	44.79	54.00	-9.21	AV
H	15540.016	53.35	10.12	38.38	44.10	57.75	74.00	-16.25	PK
H	15540.016	44.10	10.12	38.38	44.10	48.50	54.00	-5.50	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.014	63.86	6.48	36.35	44.05	62.64	74.00	-11.36	PK
V	4592.014	43.45	6.48	36.35	44.05	42.23	54.00	-11.77	AV
V	10400.109	63.26	8.47	37.88	44.51	65.10	68.20	-3.10	PK
V	10400.109	43.48	8.47	37.88	44.51	45.32	54.00	-8.68	AV
V	15600.191	63.89	10.12	38.80	44.10	68.71	74.00	-5.29	PK
V	15600.191	43.19	10.12	38.80	42.70	49.41	54.00	-4.59	AV
H	4592.044	61.40	6.48	36.37	44.05	60.20	74.00	-13.80	PK
H	4592.044	43.80	6.48	36.37	44.05	42.60	54.00	-11.40	AV
H	10400.016	50.98	8.47	38.64	44.50	53.59	68.20	-14.61	PK
H	10400.016	43.49	8.47	38.64	44.50	46.10	54.00	-7.90	AV
H	15600.114	54.91	10.12	38.38	44.10	59.31	74.00	-14.69	PK
H	15600.114	41.27	10.12	38.38	44.10	45.67	54.00	-8.33	AV
High Channel (5240 MHz)-Above 1G									
V	4739.155	62.50	7.10	37.24	43.50	63.34	74.00	-10.66	PK
V	4739.155	43.57	7.10	37.24	43.50	44.41	54.00	-9.59	AV
V	10480.082	62.92	8.46	37.68	44.50	64.56	68.20	-3.64	PK
V	10480.082	43.33	8.46	37.68	44.50	44.97	54.00	-9.03	AV
V	15720.064	61.03	10.12	38.80	44.10	65.85	74.00	-8.15	PK
V	15720.064	43.34	10.12	38.80	42.70	49.56	54.00	-4.44	AV
H	4739.028	61.55	7.10	37.24	43.50	62.39	74.00	-11.61	PK
H	4739.028	43.24	7.10	37.24	43.50	44.08	54.00	-9.92	AV
H	10480.195	51.83	8.46	38.57	44.50	54.36	68.20	-13.84	PK
H	10480.195	43.36	8.46	38.57	44.50	45.89	54.00	-8.11	AV
H	15720.155	54.41	10.12	38.38	44.10	58.81	74.00	-15.19	PK
H	15720.155	40.44	10.12	38.38	44.10	44.84	54.00	-9.16	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11 AC40
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenn a Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5190 MHz)-Above 1G									
V	4434.045	61.63	5.94	35.40	44.00	58.97	74.00	-15.03	PK
V	4434.045	43.25	5.94	35.40	44.00	40.59	54.00	-13.41	AV
V	10380.137	61.58	8.46	39.75	44.50	65.29	68.20	-2.91	PK
V	10380.137	43.22	8.46	39.75	44.50	46.93	54.00	-7.07	AV
V	15570.139	60.70	10.12	38.80	44.10	65.52	74.00	-8.48	PK
V	15570.139	43.54	10.12	38.80	42.70	49.76	54.00	-4.24	AV
H	4434.085	63.68	5.94	35.18	44.00	60.80	74.00	-13.20	PK
H	4434.085	43.90	5.94	35.18	44.00	41.02	54.00	-12.98	AV
H	10380.125	54.07	8.46	38.71	44.50	56.74	68.20	-11.46	PK
H	10380.125	43.33	8.46	38.71	44.50	46.00	54.00	-8.00	AV
H	15570.064	53.14	10.12	38.38	44.10	57.54	74.00	-16.46	PK
H	15570.064	42.21	10.12	38.38	44.10	46.61	54.00	-7.39	AV
middle Channel (5230 MHz)-Above 1G									
V	4739.051	64.48	6.48	36.35	44.05	63.26	74.00	-10.74	PK
V	4739.051	43.20	6.48	36.35	44.05	41.98	54.00	-12.02	AV
V	10460.186	64.09	8.47	37.88	44.51	65.93	68.20	-2.27	PK
V	10460.186	43.86	8.47	37.88	44.51	45.70	54.00	-8.30	AV
V	15690.018	62.12	10.12	38.80	44.10	66.94	74.00	-7.06	PK
V	15690.018	43.48	10.12	38.80	42.70	49.70	54.00	-4.30	AV
H	4739.036	63.98	6.48	36.37	44.05	62.78	74.00	-11.22	PK
H	4739.036	43.46	6.48	36.37	44.05	42.26	54.00	-11.74	AV
H	10460.168	53.84	8.47	38.64	44.50	56.45	68.20	-11.75	PK
H	10460.168	44.31	8.47	38.64	44.50	46.92	54.00	-7.08	AV
H	15690.024	51.70	10.12	38.38	44.10	56.10	74.00	-17.90	PK
H	15690.024	43.33	10.12	38.38	44.10	47.73	54.00	-6.27	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.1G) - 802.11 AC80
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
(5210 MHz)-Above 1G									
V	4434.113	60.56	5.94	35.40	44.00	57.90	74.00	-16.10	PK
V	4434.113	43.33	5.94	35.40	44.00	40.67	54.00	-13.33	AV
V	10420.189	61.34	8.46	39.75	44.50	65.05	68.20	-3.15	PK
V	10420.189	43.61	8.46	39.75	44.50	47.32	54.00	-6.68	AV
V	15630.077	64.55	10.12	38.80	44.10	69.37	74.00	-4.63	PK
V	15630.077	43.16	10.12	38.80	42.70	49.38	54.00	-4.62	AV
H	4434.054	63.28	5.94	35.18	44.00	60.40	74.00	-13.60	PK
H	4434.054	43.60	5.94	35.18	44.00	40.72	54.00	-13.28	AV
H	10420.154	54.65	8.46	38.71	44.50	57.32	68.20	-10.88	PK
H	10420.154	41.06	8.46	38.71	44.50	43.73	54.00	-10.27	AV
H	15630.088	54.36	10.12	38.38	44.10	58.76	74.00	-15.24	PK
H	15630.088	42.12	10.12	38.38	44.10	46.52	54.00	-7.48	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX (5.8G) -- 802.11a
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.084	64.58	5.94	35.40	44.00	61.92	74.00	-12.08	PK
V	4679.084	43.12	5.94	35.40	44.00	40.46	54.00	-13.54	AV
V	11490.168	62.54	8.46	39.75	44.50	66.25	68.20	-1.95	PK
V	11490.168	43.77	8.46	39.75	44.50	47.48	54.00	-6.52	AV
V	17235.085	63.68	10.12	38.80	44.10	68.50	74.00	-5.50	PK
V	17235.085	43.92	10.12	38.80	42.70	50.14	54.00	-3.86	AV
H	4679.124	64.94	5.94	35.18	44.00	62.06	74.00	-11.94	PK
H	4679.124	43.77	5.94	35.18	44.00	40.89	54.00	-13.11	AV
H	11490.137	53.52	8.46	38.71	44.50	56.19	68.20	-12.01	PK
H	11490.137	40.64	8.46	38.71	44.50	43.31	54.00	-10.69	AV
H	17235.077	52.54	10.12	38.38	44.10	56.94	74.00	-17.06	PK
H	17235.077	41.22	10.12	38.38	44.10	45.62	54.00	-8.38	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.030	61.71	6.48	36.35	44.05	60.49	74.00	-13.51	PK
V	4592.030	43.95	6.48	36.35	44.05	42.73	54.00	-11.27	AV
V	11570.106	63.87	8.47	37.88	44.51	65.71	68.20	-2.49	PK
V	11570.106	43.38	8.47	37.88	44.51	45.22	54.00	-8.78	AV
V	17355.028	63.88	10.12	38.80	44.10	68.70	74.00	-5.30	PK
V	17355.028	43.95	10.12	38.80	42.70	50.17	54.00	-3.83	AV
H	4592.186	60.45	6.48	36.37	44.05	59.25	74.00	-14.75	PK
H	4592.186	43.78	6.48	36.37	44.05	42.58	54.00	-11.42	AV
H	11570.169	53.70	8.47	38.64	44.50	56.31	68.20	-11.89	PK
H	11570.169	44.48	8.47	38.64	44.50	47.09	54.00	-6.91	AV
H	17355.152	51.48	10.12	38.38	44.10	55.88	74.00	-18.12	PK
H	17355.152	40.29	10.12	38.38	44.10	44.69	54.00	-9.31	AV
High Channel (5825 MHz)-Above 1G									
V	6039.165	63.68	7.10	37.24	43.50	64.52	68.20	-3.68	PK
V	6039.165	43.83	7.10	37.24	43.50	44.67	54.00	-9.33	AV
V	11650.124	62.11	8.46	37.68	44.50	63.75	74.00	-10.25	PK
V	11650.124	43.26	8.46	37.68	44.50	44.90	54.00	-9.10	AV
V	17475.020	61.92	10.12	38.80	44.10	66.74	68.20	-1.46	PK
V	17475.020	43.64	10.12	38.80	42.70	49.86	54.00	-4.14	AV
H	6039.111	62.11	7.10	37.24	43.50	62.95	68.20	-5.25	PK
H	6039.111	43.28	7.10	37.24	43.50	44.12	54.00	-9.88	AV
H	11650.124	54.89	8.46	38.57	44.50	57.42	74.00	-16.58	PK
H	11650.124	41.45	8.46	38.57	44.50	43.98	54.00	-10.02	AV
H	17475.154	54.24	10.12	38.38	44.10	58.64	68.20	-9.56	PK
H	17475.154	44.05	10.12	38.38	44.10	48.45	54.00	-5.55	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX (5.8G) --802.11n-HT20
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.107	60.47	5.94	35.40	44.00	57.81	74.00	-16.19	PK
V	4679.107	43.06	5.94	35.40	44.00	40.40	54.00	-13.60	AV
V	11490.147	62.44	8.46	39.75	44.50	66.15	68.20	-2.05	PK
V	11490.147	43.74	8.46	39.75	44.50	47.45	54.00	-6.55	AV
V	17235.160	64.88	10.12	38.80	44.10	69.70	74.00	-4.30	PK
V	17235.160	43.64	10.12	38.80	42.70	49.86	54.00	-4.14	AV
H	4679.116	60.45	5.94	35.18	44.00	57.57	74.00	-16.43	PK
H	4679.116	43.62	5.94	35.18	44.00	40.74	54.00	-13.26	AV
H	11490.119	50.15	8.46	38.71	44.50	52.82	68.20	-15.38	PK
H	11490.119	40.86	8.46	38.71	44.50	43.53	54.00	-10.47	AV
H	17235.039	54.94	10.12	38.38	44.10	59.34	74.00	-14.66	PK
H	17235.039	41.42	10.12	38.38	44.10	45.82	54.00	-8.18	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.123	61.83	6.48	36.35	44.05	60.61	74.00	-13.39	PK
V	4592.123	43.56	6.48	36.35	44.05	42.34	54.00	-11.66	AV
V	11570.088	60.62	8.47	37.88	44.51	62.46	68.20	-5.74	PK
V	11570.088	43.91	8.47	37.88	44.51	45.75	54.00	-8.25	AV
V	17355.040	63.42	10.12	38.80	44.10	68.24	74.00	-5.76	PK
V	17355.040	43.35	10.12	38.80	42.70	49.57	54.00	-4.43	AV
H	4592.111	61.85	6.48	36.37	44.05	60.65	74.00	-13.35	PK
H	4592.111	43.96	6.48	36.37	44.05	42.76	54.00	-11.24	AV
H	11570.089	51.07	8.47	38.64	44.50	53.68	68.20	-14.52	PK
H	11570.089	40.05	8.47	38.64	44.50	42.66	54.00	-11.34	AV
H	17355.166	52.93	10.12	38.38	44.10	57.33	74.00	-16.67	PK
H	17355.166	41.97	10.12	38.38	44.10	46.37	54.00	-7.63	AV
High Channel (5825 MHz)-Above 1G									
V	6039.035	61.16	7.10	37.24	43.50	62.00	68.20	-6.20	PK
V	6039.035	43.16	7.10	37.24	43.50	44.00	54.00	-10.00	AV
V	11650.029	62.56	8.46	37.68	44.50	64.20	74.00	-9.80	PK
V	11650.029	43.81	8.46	37.68	44.50	45.45	54.00	-8.55	AV
V	17475.011	61.21	10.12	38.80	44.10	66.03	68.20	-2.17	PK
V	17475.011	43.81	10.12	38.80	42.70	50.03	54.00	-3.97	AV
H	6039.192	60.51	7.10	37.24	43.50	61.35	68.20	-6.85	PK
H	6039.192	43.64	7.10	37.24	43.50	44.48	54.00	-9.52	AV
H	11650.171	53.43	8.46	38.57	44.50	55.96	74.00	-18.04	PK
H	11650.171	44.00	8.46	38.57	44.50	46.53	54.00	-7.47	AV
H	17475.087	51.23	10.12	38.38	44.10	55.63	68.20	-12.57	PK
H	17475.087	43.13	10.12	38.38	44.10	47.53	54.00	-6.47	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX (5.8G) -- 802.11n-HT40
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5755 MHz)-Above 1G									
V	4679.166	63.49	5.94	35.40	44.00	60.83	74.00	-13.17	PK
V	4679.166	43.14	5.94	35.40	44.00	40.48	54.00	-13.52	AV
V	11510.174	61.42	8.46	39.75	44.50	65.13	68.20	-3.07	PK
V	11510.174	43.08	8.46	39.75	44.50	46.79	54.00	-7.21	AV
V	17265.106	63.41	10.12	38.80	44.10	68.23	74.00	-5.77	PK
V	17265.106	43.44	10.12	38.80	42.70	49.66	54.00	-4.34	AV
H	4679.077	63.91	5.94	35.18	44.00	61.03	74.00	-12.97	PK
H	4679.077	43.56	5.94	35.18	44.00	40.68	54.00	-13.32	AV
H	11510.139	52.52	8.46	38.71	44.50	55.19	68.20	-13.01	PK
H	11510.139	42.83	8.46	38.71	44.50	45.50	54.00	-8.50	AV
H	17265.142	50.81	10.12	38.38	44.10	55.21	74.00	-18.79	PK
H	17265.142	40.07	10.12	38.38	44.10	44.47	54.00	-9.53	AV
middle Channel (5795 MHz)-Above 1G									
V	6039.003	64.83	6.48	36.35	44.05	63.61	68.20	-4.59	PK
V	6039.003	43.29	6.48	36.35	44.05	42.07	54.00	-11.93	AV
V	11590.100	60.70	8.47	37.88	44.51	62.54	74.00	-11.46	PK
V	11590.100	43.47	8.47	37.88	44.51	45.31	54.00	-8.69	AV
V	17385.186	60.25	10.12	38.80	44.10	65.07	68.20	-3.13	PK
V	17385.186	43.10	10.12	38.80	42.70	49.32	54.00	-4.68	AV
H	6039.160	62.45	6.48	36.37	44.05	61.25	68.20	-6.95	PK
H	6039.160	43.99	6.48	36.37	44.05	42.79	54.00	-11.21	AV
H	11590.114	53.86	8.47	38.64	44.50	56.47	74.00	-17.53	PK
H	11590.114	40.44	8.47	38.64	44.50	43.05	54.00	-10.95	AV
H	17385.189	52.18	10.12	38.38	44.10	56.58	68.20	-11.62	PK
H	17385.189	42.32	10.12	38.38	44.10	46.72	54.00	-7.28	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX (5.8G) --802.11AC20
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G									
V	4679.190	61.73	5.94	35.40	44.00	59.07	74.00	-14.93	PK
V	4679.190	43.69	5.94	35.40	44.00	41.03	54.00	-12.97	AV
V	11490.134	61.23	8.46	39.75	44.50	64.94	68.20	-3.26	PK
V	11490.134	43.52	8.46	39.75	44.50	47.23	54.00	-6.77	AV
V	17235.105	64.23	10.12	38.80	44.10	69.05	74.00	-4.95	PK
V	17235.105	43.57	10.12	38.80	42.70	49.79	54.00	-4.21	AV
H	4679.110	64.26	5.94	35.18	44.00	61.38	74.00	-12.62	PK
H	4679.110	43.09	5.94	35.18	44.00	40.21	54.00	-13.79	AV
H	11490.044	53.05	8.46	38.71	44.50	55.72	68.20	-12.48	PK
H	11490.044	40.26	8.46	38.71	44.50	42.93	54.00	-11.07	AV
H	17235.182	52.30	10.12	38.38	44.10	56.70	74.00	-17.30	PK
H	17235.182	41.74	10.12	38.38	44.10	46.14	54.00	-7.86	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.193	60.75	6.48	36.35	44.05	59.53	74.00	-14.47	PK
V	4592.193	43.11	6.48	36.35	44.05	41.89	54.00	-12.11	AV
V	11570.016	60.50	8.47	37.88	44.51	62.34	68.20	-5.86	PK
V	11570.016	43.28	8.47	37.88	44.51	45.12	54.00	-8.88	AV
V	17355.163	64.62	10.12	38.80	44.10	69.44	74.00	-4.56	PK
V	17355.163	43.44	10.12	38.80	42.70	49.66	54.00	-4.34	AV
H	4592.042	63.15	6.48	36.37	44.05	61.95	74.00	-12.05	PK
H	4592.042	43.42	6.48	36.37	44.05	42.22	54.00	-11.78	AV
H	11570.101	50.65	8.47	38.64	44.50	53.26	68.20	-14.94	PK
H	11570.101	42.98	8.47	38.64	44.50	45.59	54.00	-8.41	AV
H	17355.025	52.37	10.12	38.38	44.10	56.77	74.00	-17.23	PK
H	17355.025	43.25	10.12	38.38	44.10	47.65	54.00	-6.35	AV
High Channel (5825 MHz)-Above 1G									
V	6039.147	60.24	7.10	37.24	43.50	61.08	68.20	-7.12	PK
V	6039.147	43.84	7.10	37.24	43.50	44.68	54.00	-9.32	AV
V	11650.196	60.82	8.46	37.68	44.50	62.46	74.00	-11.54	PK
V	11650.196	43.18	8.46	37.68	44.50	44.82	54.00	-9.18	AV
V	17475.010	62.21	10.12	38.80	44.10	67.03	68.20	-1.17	PK
V	17475.010	43.45	10.12	38.80	42.70	49.67	54.00	-4.33	AV
H	6039.193	60.81	7.10	37.24	43.50	61.65	68.20	-6.55	PK
H	6039.193	43.08	7.10	37.24	43.50	43.92	54.00	-10.08	AV
H	11650.154	52.45	8.46	38.57	44.50	54.98	74.00	-19.02	PK
H	11650.154	42.93	8.46	38.57	44.50	45.46	54.00	-8.54	AV
H	17475.040	52.35	10.12	38.38	44.10	56.75	68.20	-11.45	PK
H	17475.040	44.23	10.12	38.38	44.10	48.63	54.00	-5.37	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX (5.8G) -- 802.11AC40
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Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
Low Channel (5755 MHz)-Above 1G									
V	4679.085	62.94	5.94	35.40	44.00	60.28	74.00	-13.72	PK
V	4679.085	43.14	5.94	35.40	44.00	40.48	54.00	-13.52	AV
V	11510.158	60.46	8.46	39.75	44.50	64.17	68.20	-4.03	PK
V	11510.158	43.65	8.46	39.75	44.50	47.36	54.00	-6.64	AV
V	17265.066	61.42	10.12	38.80	44.10	66.24	74.00	-7.76	PK
V	17265.066	43.15	10.12	38.80	42.70	49.37	54.00	-4.63	AV
H	4679.127	63.52	5.94	35.18	44.00	60.64	74.00	-13.36	PK
H	4679.127	43.61	5.94	35.18	44.00	40.73	54.00	-13.27	AV
H	11510.141	51.64	8.46	38.71	44.50	54.31	68.20	-13.89	PK
H	11510.141	42.13	8.46	38.71	44.50	44.80	54.00	-9.20	AV
H	17265.119	53.15	10.12	38.38	44.10	57.55	74.00	-16.45	PK
H	17265.119	44.51	10.12	38.38	44.10	48.91	54.00	-5.09	AV
middle Channel (5795 MHz)-Above 1G									
V	6039.143	60.70	6.48	36.35	44.05	59.48	68.20	-8.72	PK
V	6039.143	43.13	6.48	36.35	44.05	41.91	54.00	-12.09	AV
V	11590.001	64.62	8.47	37.88	44.51	66.46	74.00	-7.54	PK
V	11590.001	43.96	8.47	37.88	44.51	45.80	54.00	-8.20	AV
V	17385.091	60.15	10.12	38.80	44.10	64.97	68.20	-3.23	PK
V	17385.091	43.64	10.12	38.80	42.70	49.86	54.00	-4.14	AV
H	6039.170	63.93	6.48	36.37	44.05	62.73	68.20	-5.47	PK
H	6039.170	43.76	6.48	36.37	44.05	42.56	54.00	-11.44	AV
H	11590.055	51.04	8.47	38.64	44.50	53.65	74.00	-20.35	PK
H	11590.055	43.23	8.47	38.64	44.50	45.84	54.00	-8.16	AV
H	17385.113	51.22	10.12	38.38	44.10	55.62	68.20	-12.58	PK
H	17385.113	43.18	10.12	38.38	44.10	47.58	54.00	-6.42	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

Test Mode :	TX(5.8G) - 802.11 AC80
-------------	------------------------

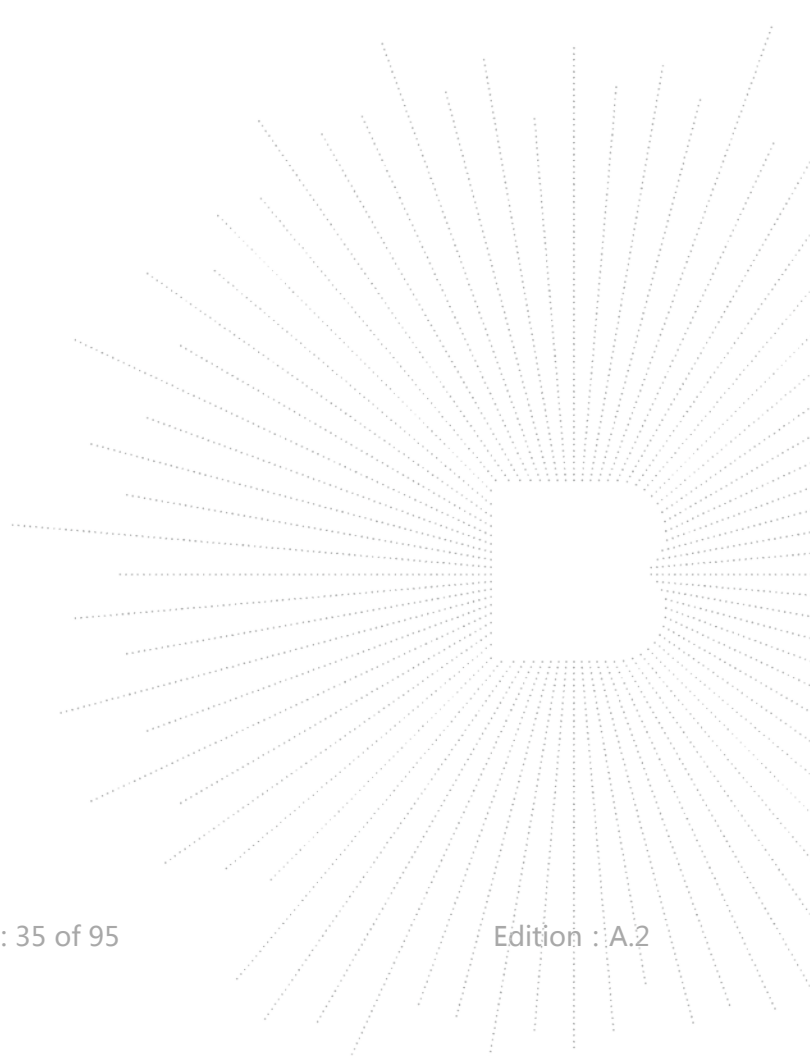
Polar (H/V)	Frequency (MHz)	Meter Reading (dBuV)	Cable loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Detector Type
(5775 MHz)-Above 1G									
V	4679.014	60.48	5.94	35.40	44.00	57.82	74.00	-16.18	PK
V	4679.014	43.84	5.94	35.40	44.00	41.18	54.00	-12.82	AV
V	11550.046	60.49	8.46	39.75	44.50	64.20	68.20	-4.00	PK
V	11550.046	43.01	8.46	39.75	44.50	46.72	54.00	-7.28	AV
V	17325.109	60.19	10.12	38.80	44.10	65.01	74.00	-8.99	PK
V	17325.109	43.82	10.12	38.80	42.70	50.04	54.00	-3.96	AV
H	4679.042	63.77	5.94	35.18	44.00	60.89	74.00	-13.11	PK
H	4679.042	43.04	5.94	35.18	44.00	40.16	54.00	-13.84	AV
H	11550.010	55.00	8.46	38.71	44.50	57.67	68.20	-10.53	PK
H	11550.010	42.33	8.46	38.71	44.50	45.00	54.00	-9.00	AV
H	17325.114	50.04	10.12	38.38	44.10	54.44	74.00	-19.56	PK
H	17325.114	40.70	10.12	38.38	44.10	45.10	54.00	-8.90	AV

Note: PK value is lower than the Average value limit, So average didn't record.

The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.



8. POWER SPECTRAL DENSITY TEST

8.1 Block Diagram Of Test Setup



8.2 Limit

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, 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. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, 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.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in

maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For client devices in the 5.15-5.25 GHz band, 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 5.725-5.85 GHz

(3) For the band 5.725-5.85 GHz, 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.

8.3 Test procedure

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

- a) Set $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3 RBW$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ to the measured result, whereas $RBW (< 500 \text{ KHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10\log(1\text{MHz}/RBW)$ to the measured result, whereas $RBW (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since $RBW=100 \text{ KHz}$ is available on nearly all spectrum analyzers.

8.4 EUT operating Conditions

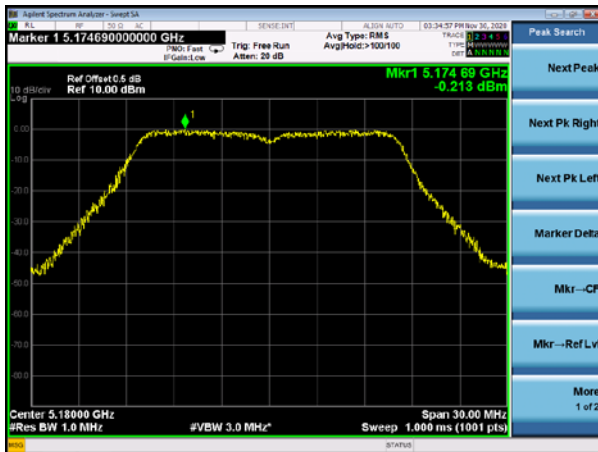
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

8.5 Test Result

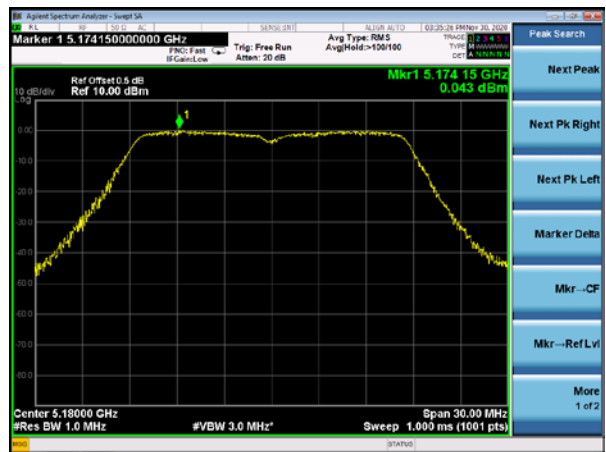
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.8V
Test Mode :	TX Frequency U-NII-1 (5180-5240MHz)		

Mode	Frequency	Measured Power Density (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a	5180 MHz	-0.213	11	PASS
	5200 MHz	-0.386	11	PASS
	5240 MHz	-1.616	11	PASS
802.11 n20	5180 MHz	0.043	11	PASS
	5200 MHz	-0.310	11	PASS
	5240 MHz	-1.539	11	PASS
802.11 n40	5190 MHz	-2.418	11	PASS
	5230 MHz	-2.660	11	PASS
802.11 AC20	5180 MHz	0.009	11	PASS
	5200 MHz	-0.516	11	PASS
	5240 MHz	-1.434	11	PASS
802.11 AC40	5190 MHz	-2.304	11	PASS
	5230 MHz	-2.882	11	PASS
802.11 AC80	5210 MHz	-3.353	11	PASS

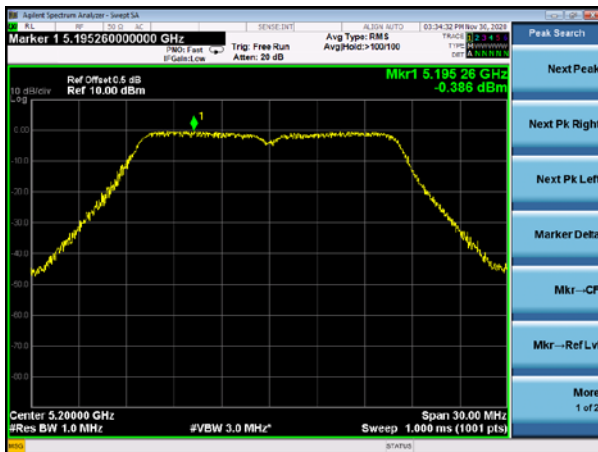
(802.11a) PSD plot on channel 36



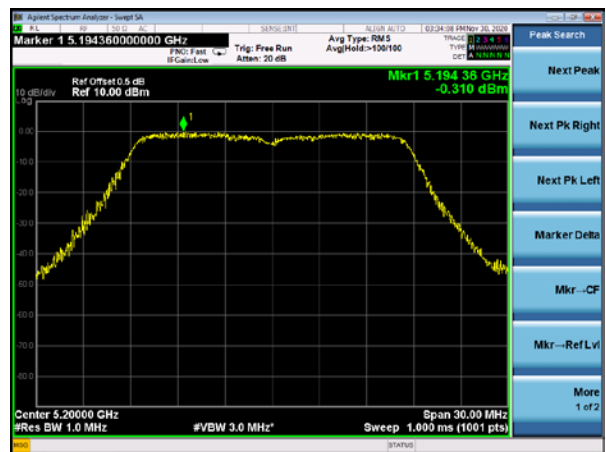
(802.11n20) PSD plot on channel 36



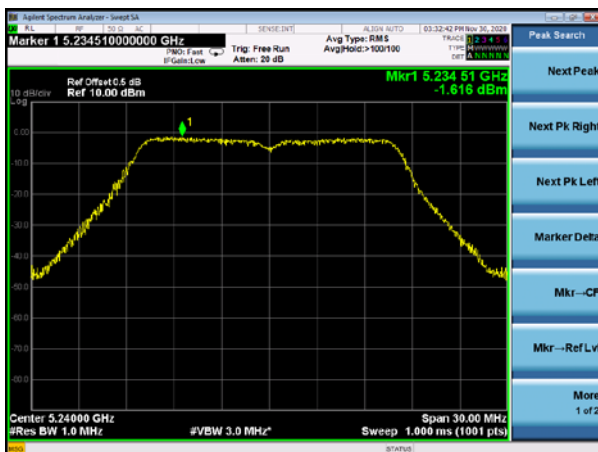
(802.11a) PSD plot on channel 40



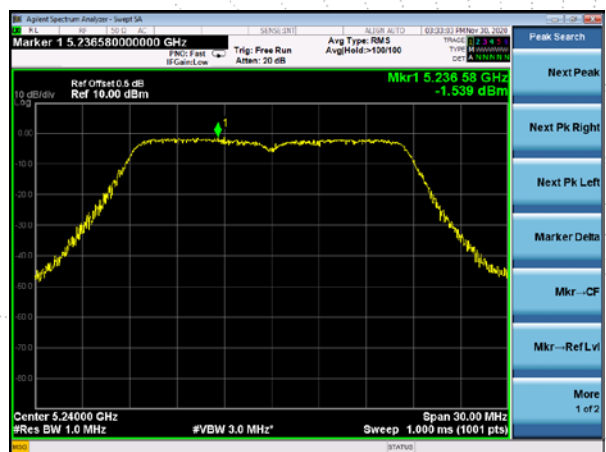
(802.11n20) PSD plot on channel 40



(802.11a) PSD plot on channel 48



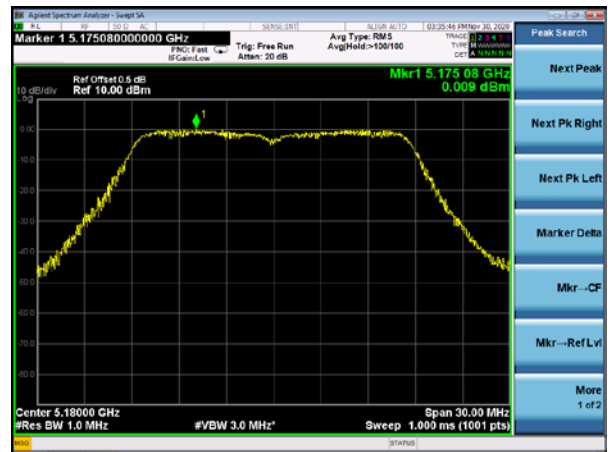
(802.11n20) PSD plot on channel 48



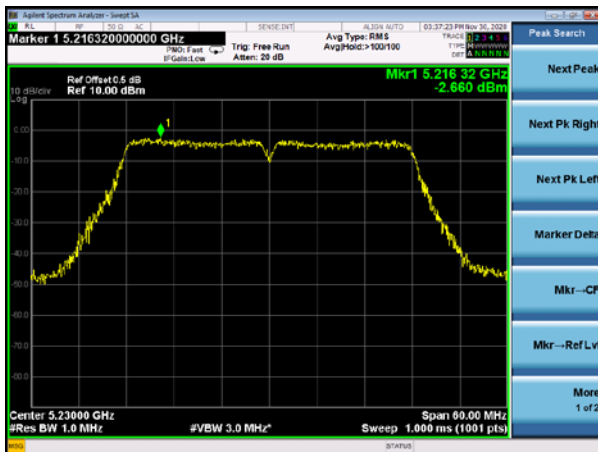
(802.11n40) PSD plot on channel 38



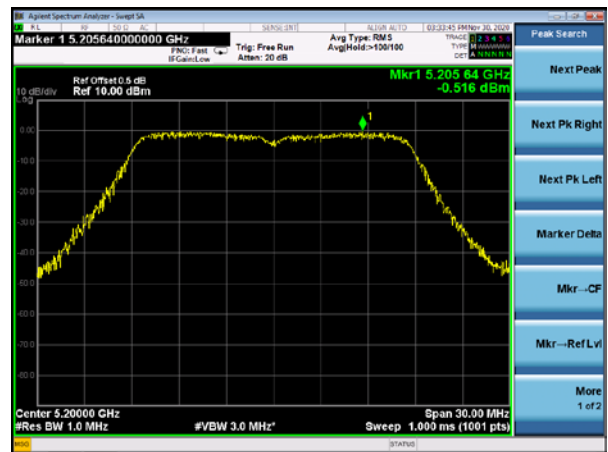
(802.11ac20) PSD plot on channel 36



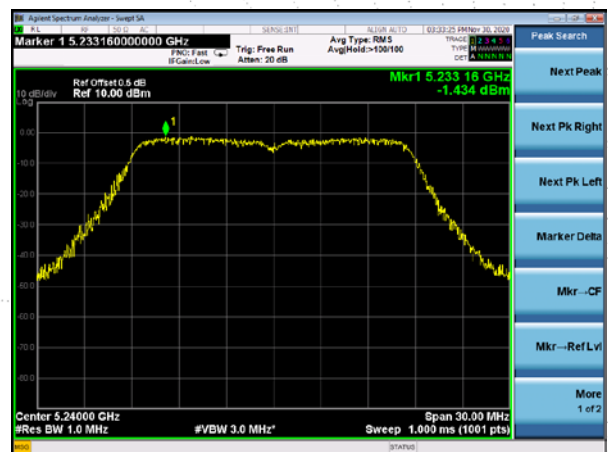
(802.11n40) PSD plot on channel 46



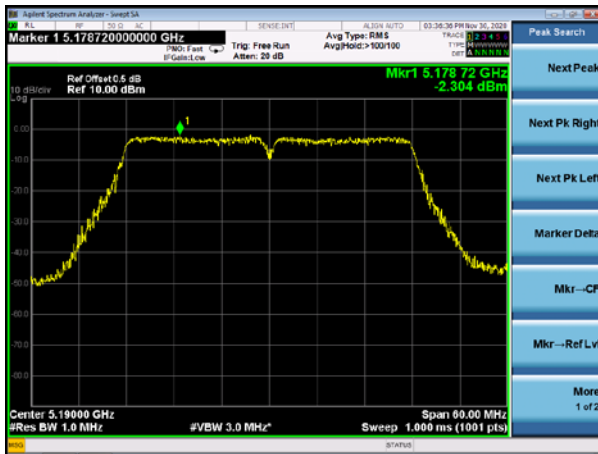
(802.11ac20) PSD plot on channel 40



(802.11ac20) PSD plot on channel 48



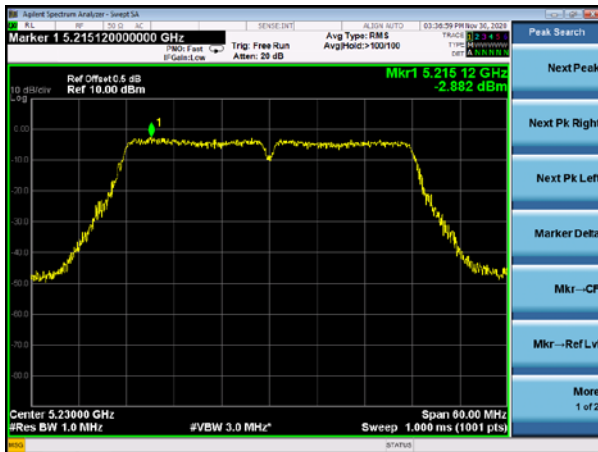
(802.11ac40) PSD plot on channel 38



(802.11ac80) PSD plot on channel 42

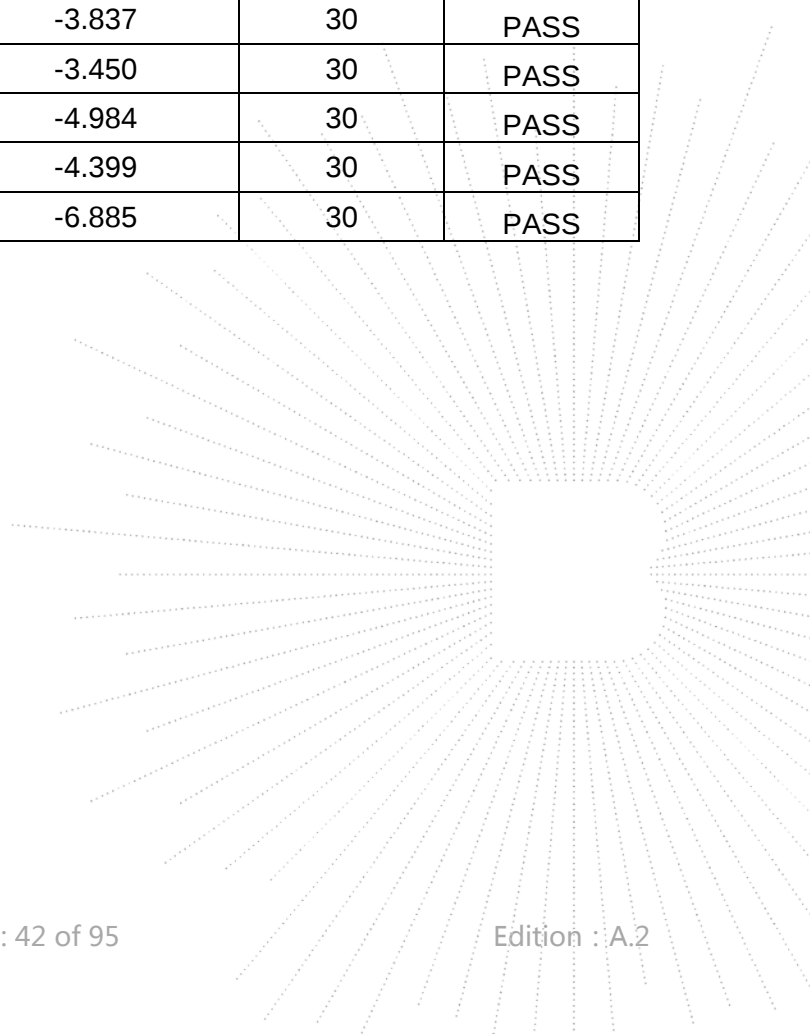


(802.11ac40) PSD plot on channel 46

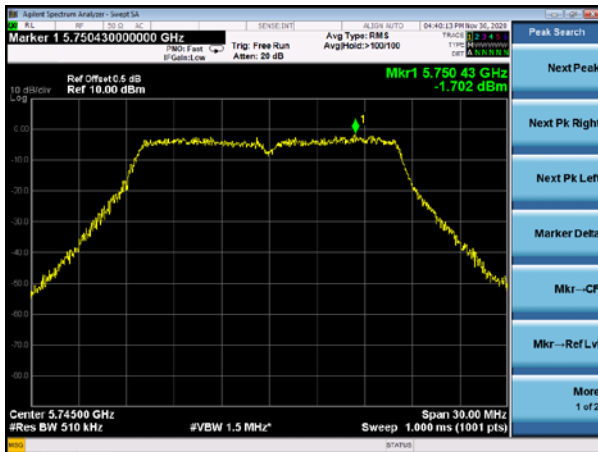


Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.8V
Test Mode :	TX Frequency U-NII-3 (5745-5825MHz)		

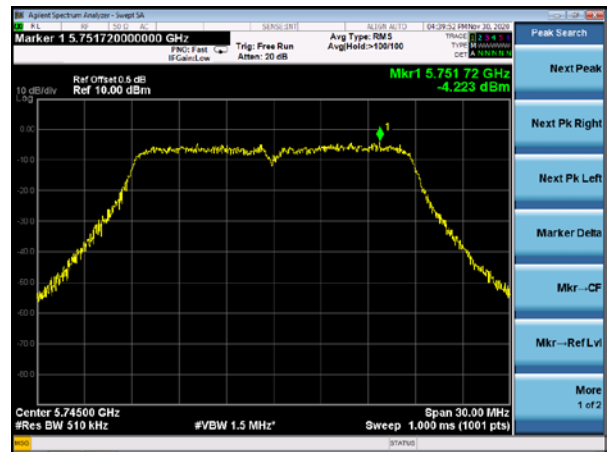
Mode	Frequency	Measured Power Density (dBm/500kHz)	Limit (dBm/500kHz)	Result
802.11 a	5745 MHz	-1.702	30	PASS
	5785 MHz	-1.989	30	PASS
	5825 MHz	-1.698	30	PASS
802.11 n20	5745 MHz	-4.223	30	PASS
	5785 MHz	-3.937	30	PASS
	5825 MHz	-3.301	30	PASS
802.11 n40	5755 MHz	-4.328	30	PASS
	5795 MHz	-4.582	30	PASS
802.11 AC20	5745 MHz	-4.785	30	PASS
	5785 MHz	-3.837	30	PASS
	5825 MHz	-3.450	30	PASS
802.11 AC40	5755 MHz	-4.984	30	PASS
	5795 MHz	-4.399	30	PASS
802.11 AC80	5775 MHz	-6.885	30	PASS



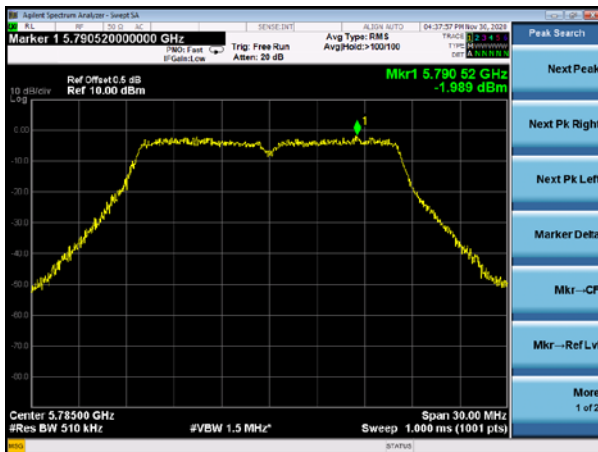
(802.11a) PSD plot on channel 149



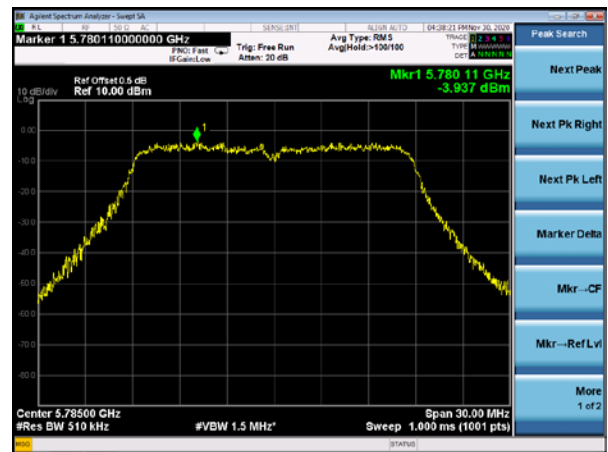
(802.11n20) PSD plot on channel 149



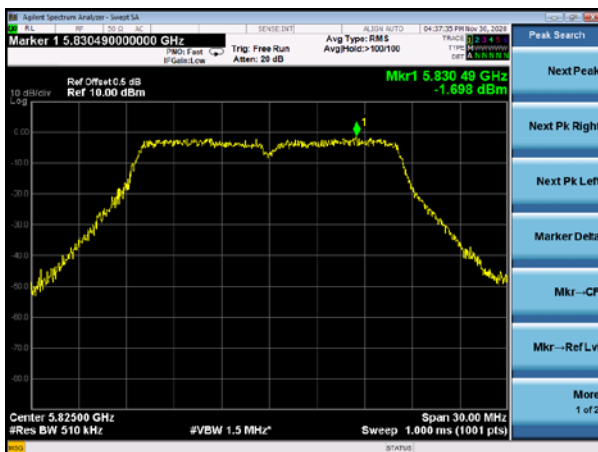
(802.11a) PSD plot on channel 157



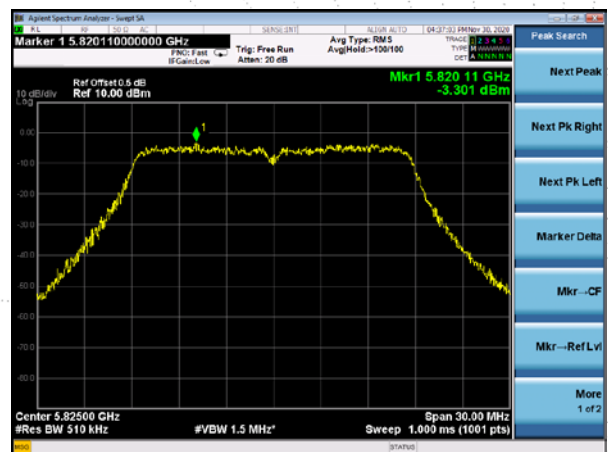
(802.11n20) PSD plot on channel 157



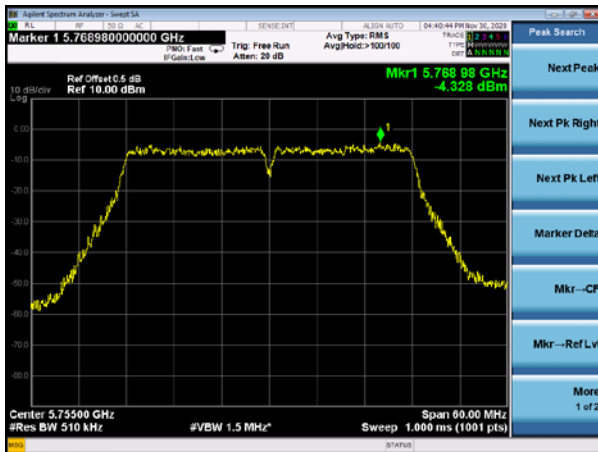
(802.11a) PSD plot on channel 165



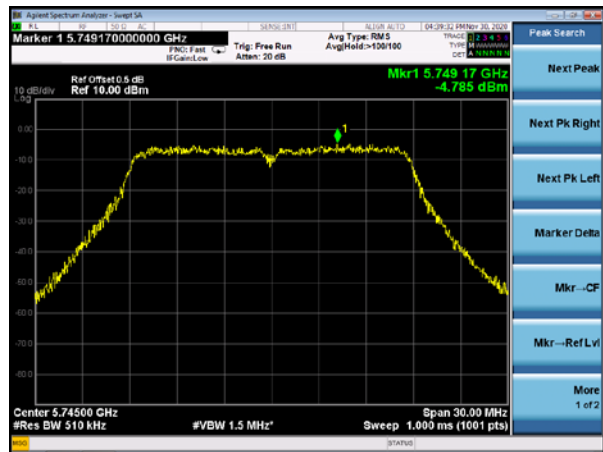
(802.11n20) PSD plot on channel 165



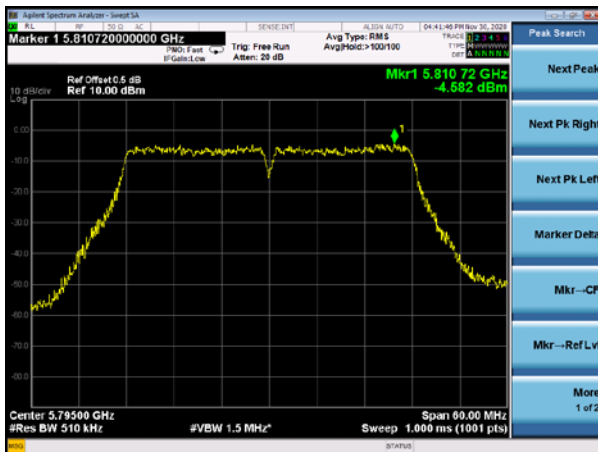
(802.11n40) PSD plot on channel 151



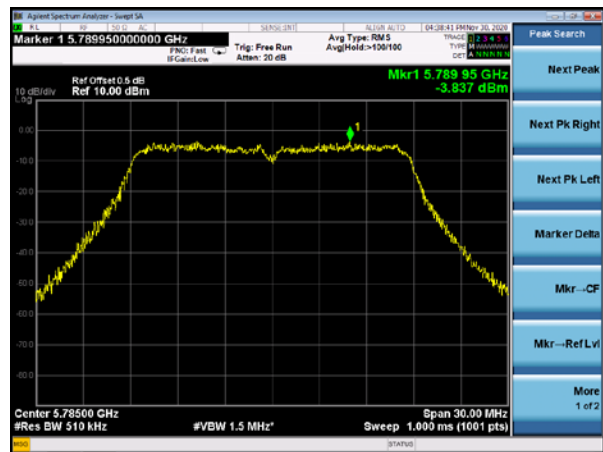
(802.11ac20) PSD plot on channel 149



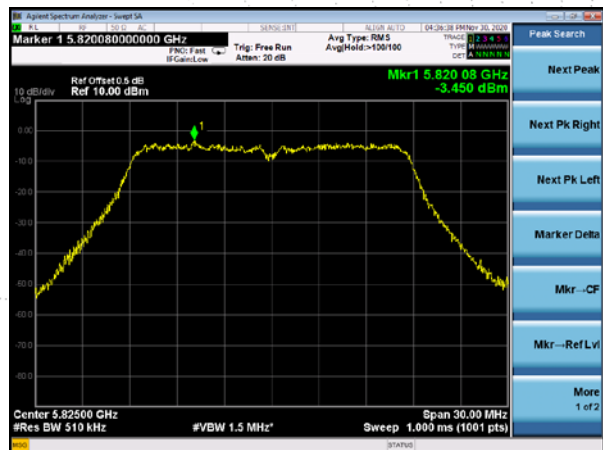
(802.11n40) PSD plot on channel 159



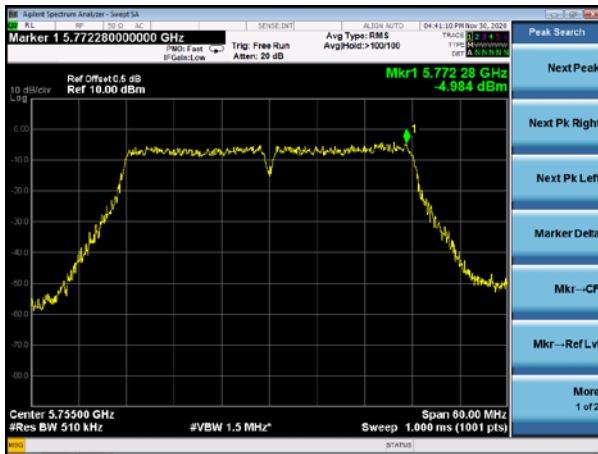
(802.11ac20) PSD plot on channel 157



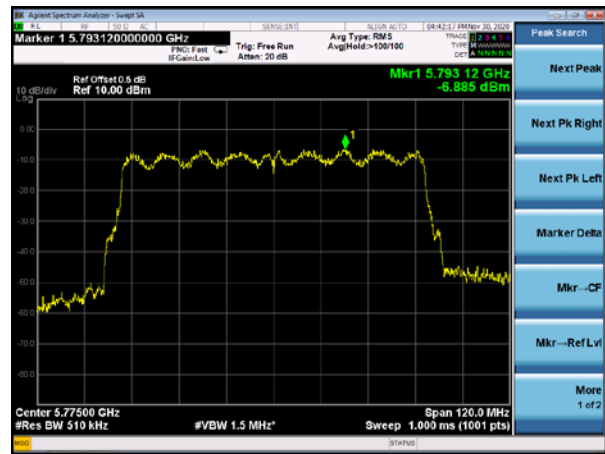
(802.11ac20) PSD plot on channel 165



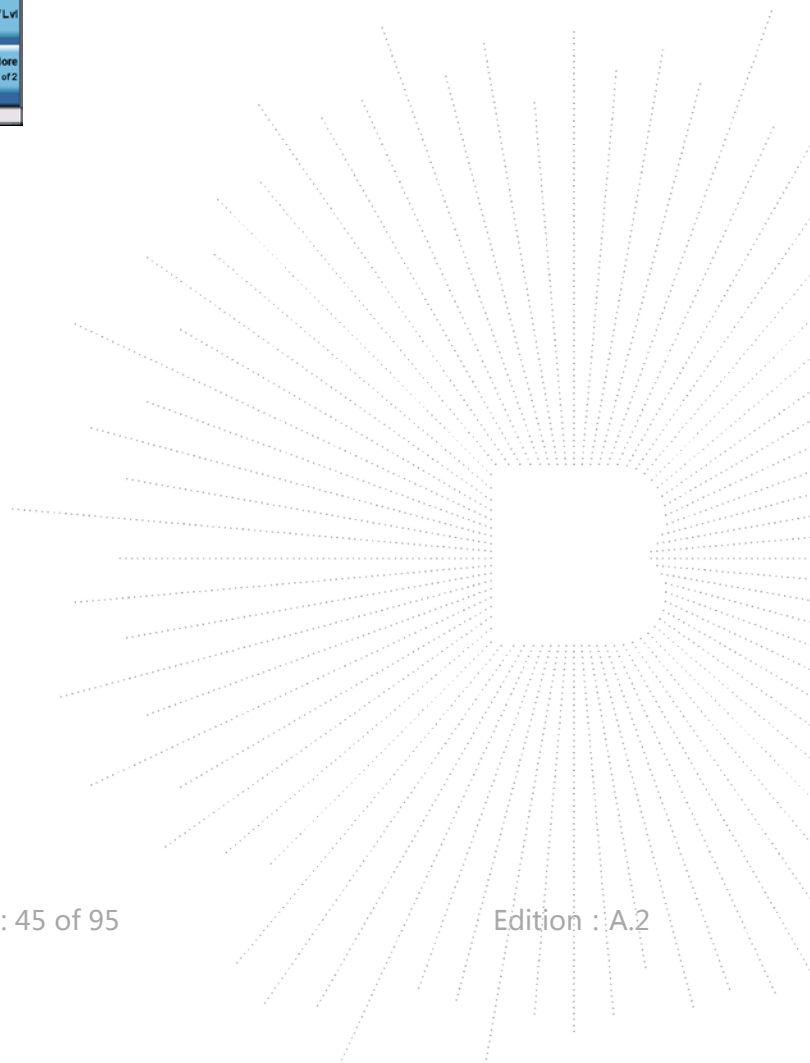
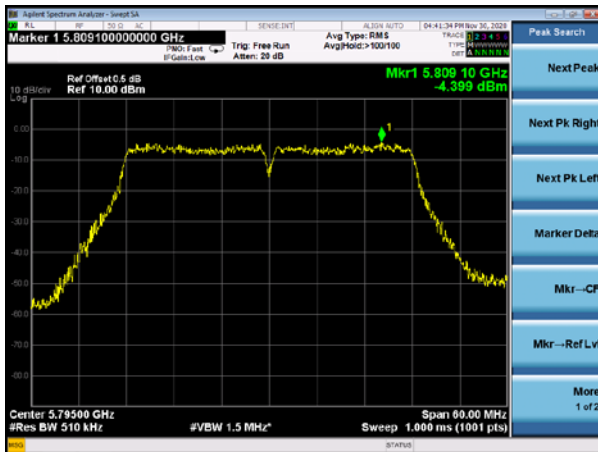
(802.11ac40) PSD plot on channel 151



(802.11ac80) PSD plot on channel 155

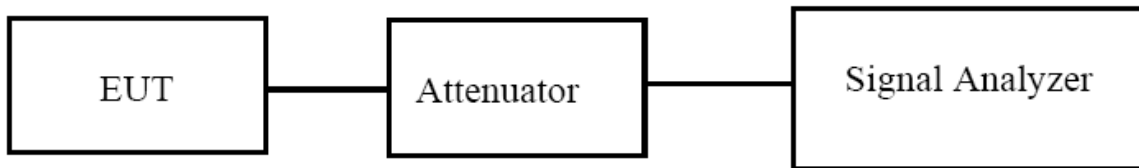


(802.11ac40) PSD plot on channel 159



9. 26DB & 6DB & 99% EMISSION BANDWIDTH

9.1 Block Diagram Of Test Setup



9.2 Limit

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

9.3 Test procedure

- a) Set RBW = approximately 1% of the emission bandwidth.
- b) Set the VBW > RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) 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%.

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geq 3 \cdot$ RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

9.4 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.

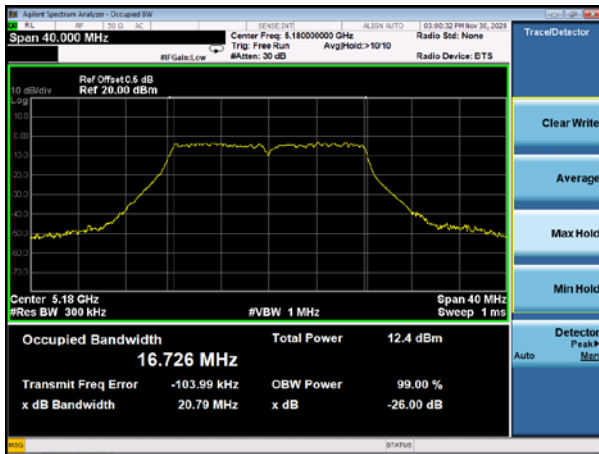
9.5 Test Result

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.8V
Test Mode :	TX Frequency U-NII-1 (5180-5240MHz)		

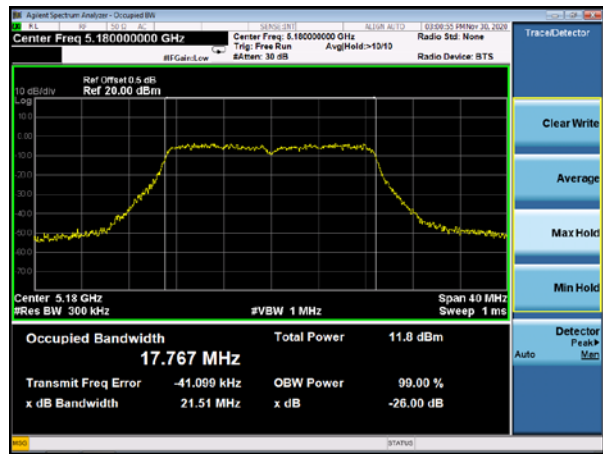
Mode	Channel	Frequency (MHz)	99% bandwidth (MHz)	26dB bandwidth (MHz)	Limit MHz	Result
802.11a	CH36	5180	16.726	20.79	N/A	Pass
	CH40	5200	16.725	20.90	N/A	Pass
	CH48	5240	16.750	20.85	N/A	Pass
802.11 n20	CH36	5180	17.767	21.51	N/A	Pass
	CH40	5200	17.758	21.04	N/A	Pass
	CH48	5240	17.768	21.17	N/A	Pass
802.11 n40	CH 38	5190	37.039	44.59	N/A	Pass
	CH 46	5230	37.005	44.90	N/A	Pass
802.11 AC20	CH36	5180	17.788	21.15	N/A	Pass
	CH40	5200	17.778	21.34	N/A	Pass
	CH48	5240	17.764	21.25	N/A	Pass
802.11 AC40	CH 38	5190	36.885	44.54	N/A	Pass
	CH 46	5230	36.960	44.26	N/A	Pass
802.11 AC80	CH 42	5210	75.863	83.40	N/A	Pass

Test plot

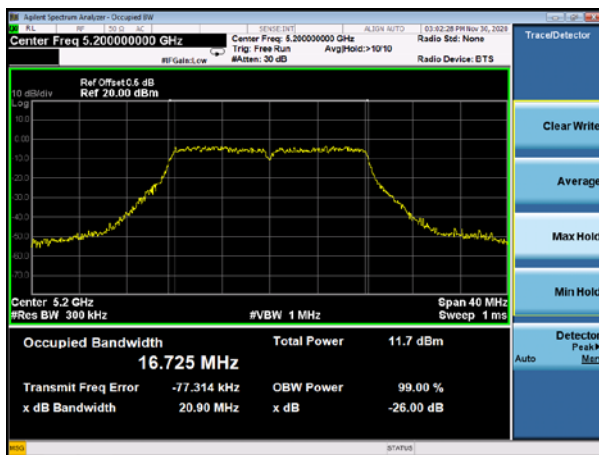
(802.11a) 26dB&99%Bandwidth plot on channel 36



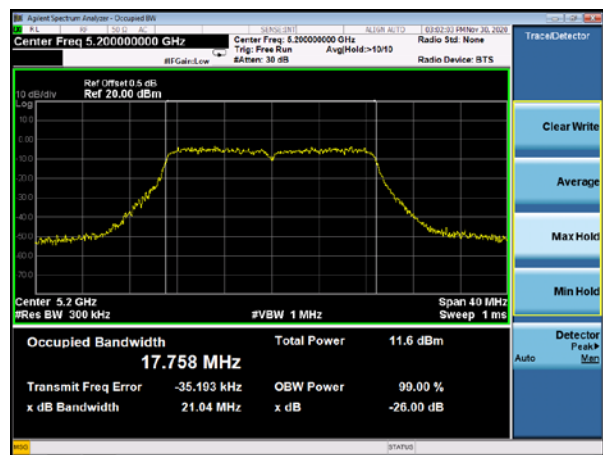
(802.11 n20) 26dB&99%Bandwidth plot on channel 36



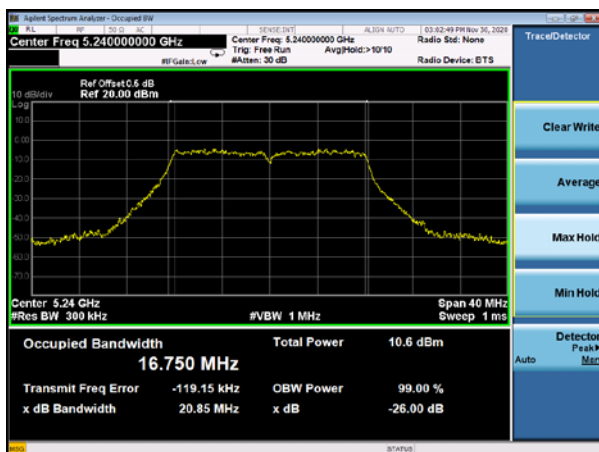
(802.11a) 26dB&99%Bandwidth plot on channel 40



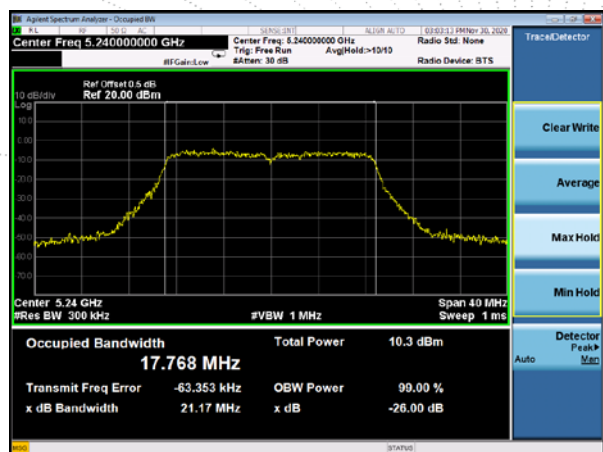
(802.11 n20) 26dB&99%Bandwidth plot on channel 40



(802.11a) 26dB&99%Bandwidth plot on channel 48

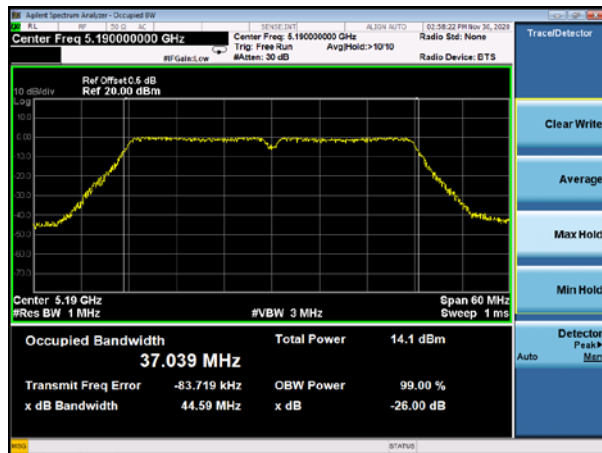


(802.11 n20) 26dB&99%Bandwidth plot on channel 48

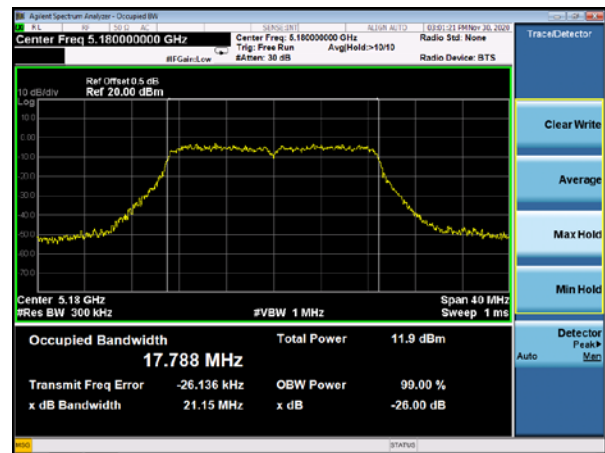


Test plot

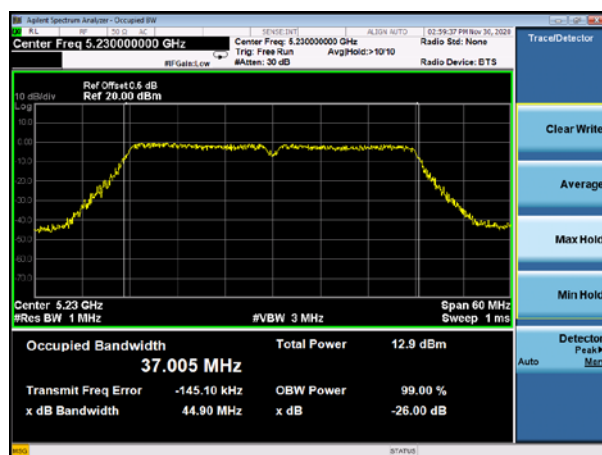
(802.11 n40) 26dB&99%Bandwidth plot on channel 38



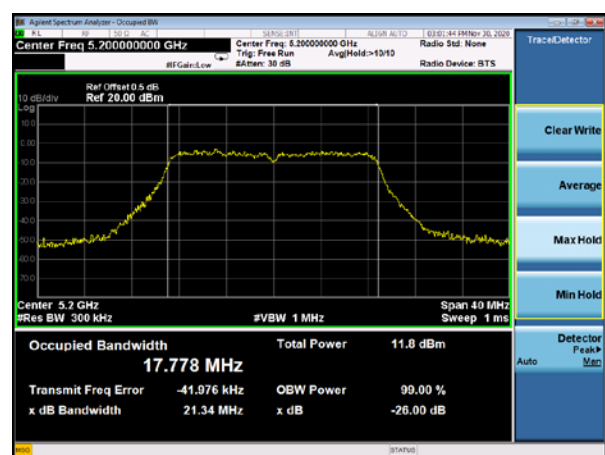
(802.11 AC20) -26dB&99%Bandwidth plot on channel 36



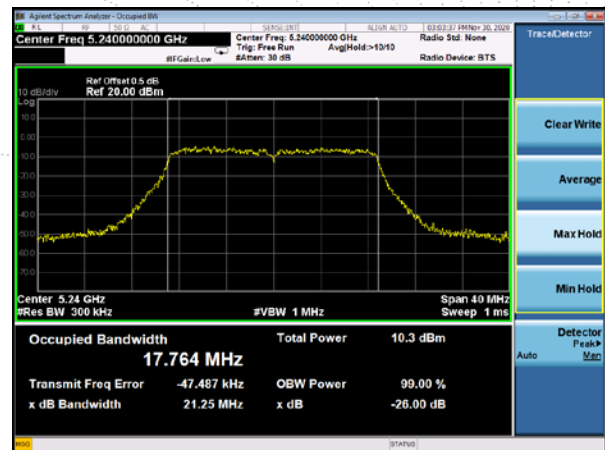
(802.11 n40) 26dB&99%Bandwidth plot on channel 46



(802.11 AC20) -26dB&99%Bandwidth plot on channel 40

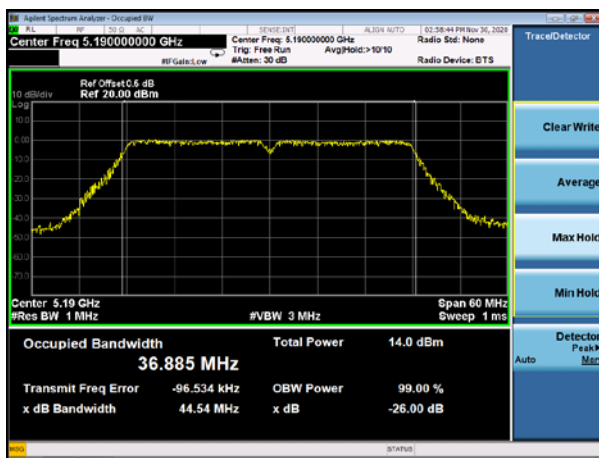


(802.11 AC20) -26dB&99%Bandwidth plot on channel 48

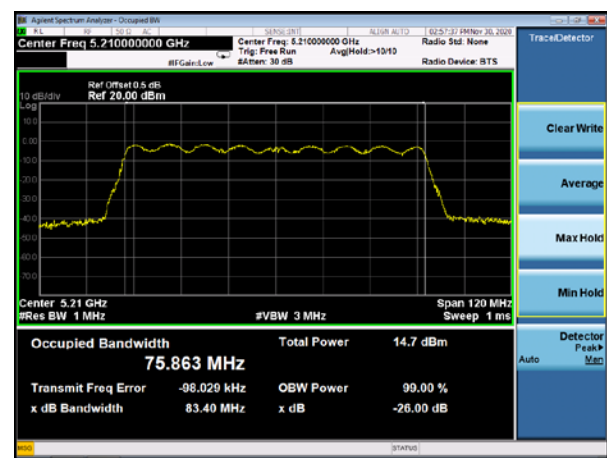


Test plot

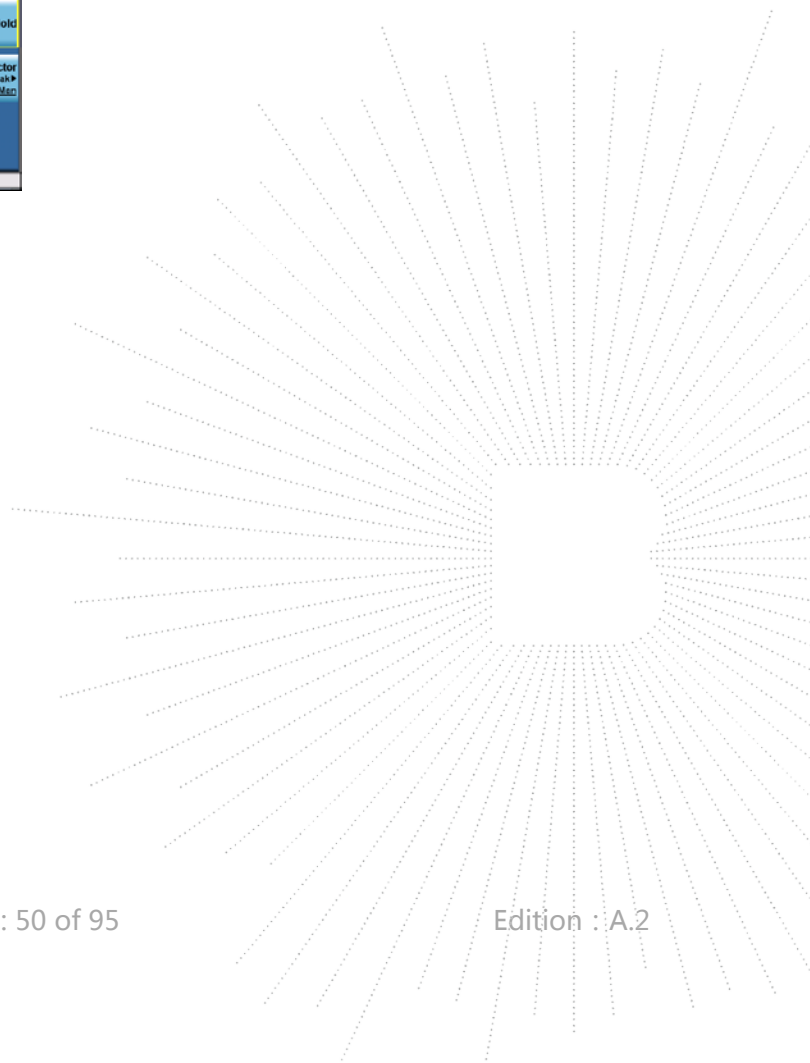
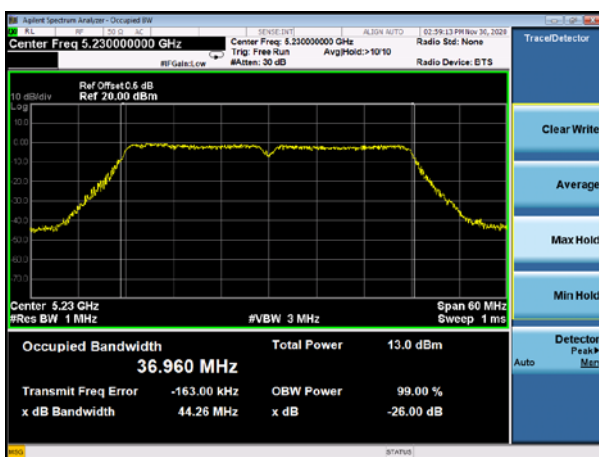
(802.11 AC40) -26dB&99%Bandwidth plot
on channel 38



(802.11 AC80) -26dB&99%Bandwidth plot
on channel 42



(802.11 AC40) -26dB&99%Bandwidth
plot on channel 46



Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.8V
Test Mode :	TX Frequency U-NII-3(5745-5825MHz)		

Mode	Channel	Frequency (MHz)	99% bandwidth (MHz)	6dB bandwidth (MHz)	Limit kHz	Result
802.11a	CH149	5745	16.714	16.55	≥500	Pass
	CH157	5785	16.724	16.56	≥500	Pass
	CH165	5825	16.728	16.56	≥500	Pass
802.11 n20	CH149	5745	17.746	17.72	≥500	Pass
	CH157	5785	17.774	17.69	≥500	Pass
	CH165	5825	17.766	17.78	≥500	Pass
802.11 n40	CH151	5755	36.964	36.55	≥500	Pass
	CH159	5795	37.148	36.58	≥500	Pass
802.11 AC20	CH149	5745	17.775	17.73	≥500	Pass
	CH157	5785	17.795	17.71	≥500	Pass
	CH165	5825	17.788	17.70	≥500	Pass
802.11 AC40	CH151	5755	36.949	36.57	≥500	Pass
	CH159	5795	37.187	36.57	≥500	Pass
802.11 AC80	CH155	5775	75.654	76.42	≥500	Pass