

TEST REPORT

Report No.: BCTC2011875281-4E

Applicant: ELITEGROUP COMPUTER SYSTEMS CO., LTD

Product Name: tablet PC

Model/Type Ref.: TG10MK

Tested Date: 2020-11-30 to 2020-12-04

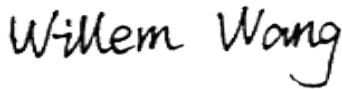
Issued Date: 2020-12-04

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2AEKR-TG10MK

Product Name: tablet PC
Trademark: N/A
Model/Type Ref.: TG10MK
M104ETx, TG10MKx
Prepared For: ELITEGROUP COMPUTER SYSTEMS CO., LTD
Address: No. 239, Sec. 2 Ti Ding Blvd., Taipei, Taiwan 94954
Manufacturer: Shenzhen NST Industry and Trade Co., Ltd
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Prepared By: Shenzhen BCTC Testing Co., Ltd.
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Guangdong, China
Sample Received Date: 2020-11-30
Sample tested Date: 2020-11-30 to 2020-12-03
Issue Date: 2020-12-03
Report No.: BCTC2011875281-4E
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:



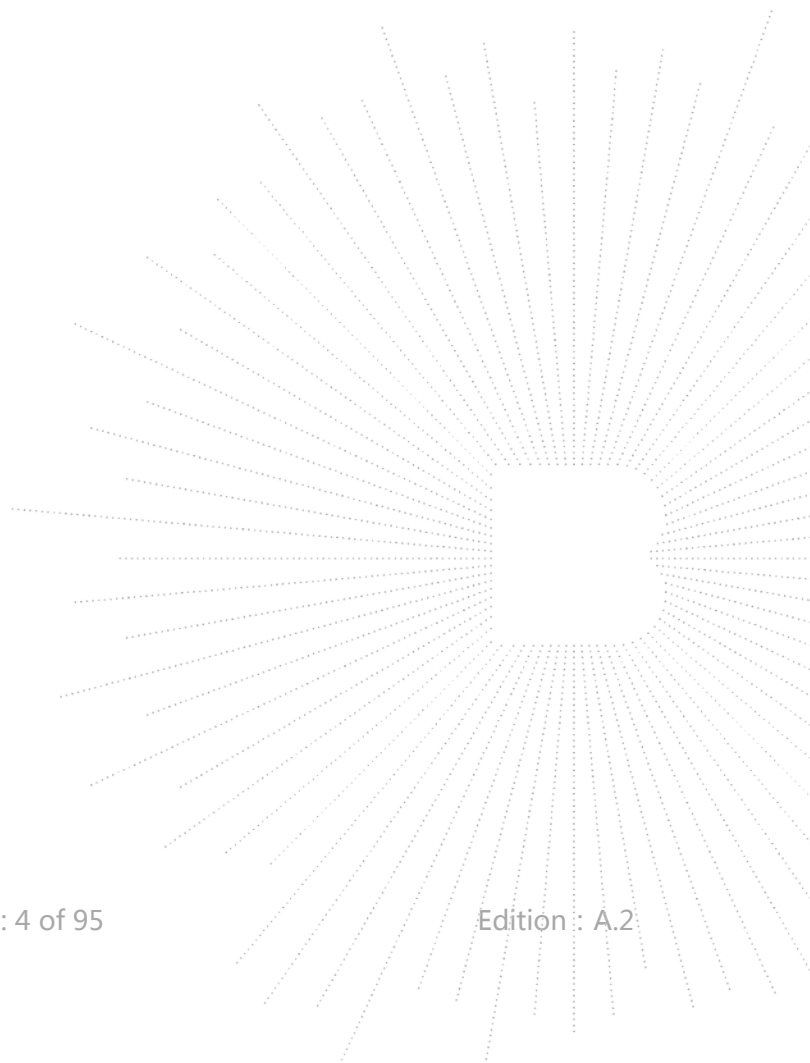
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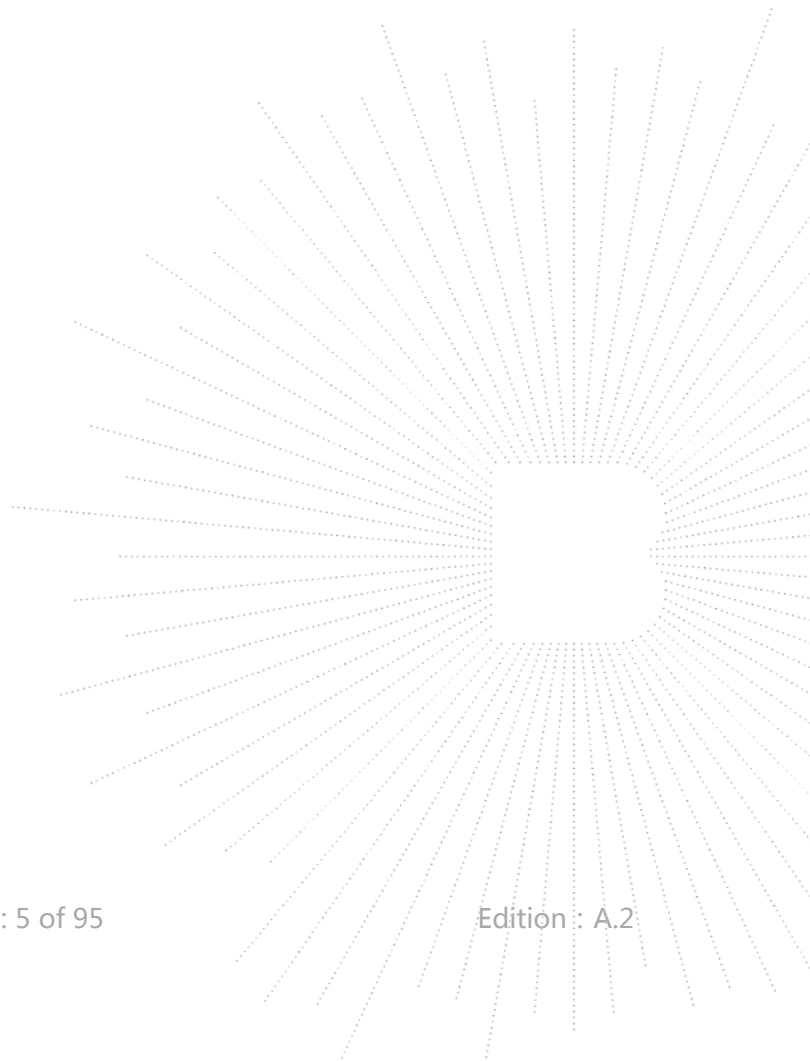
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(Note: N/A means not applicable)



1. VERSION

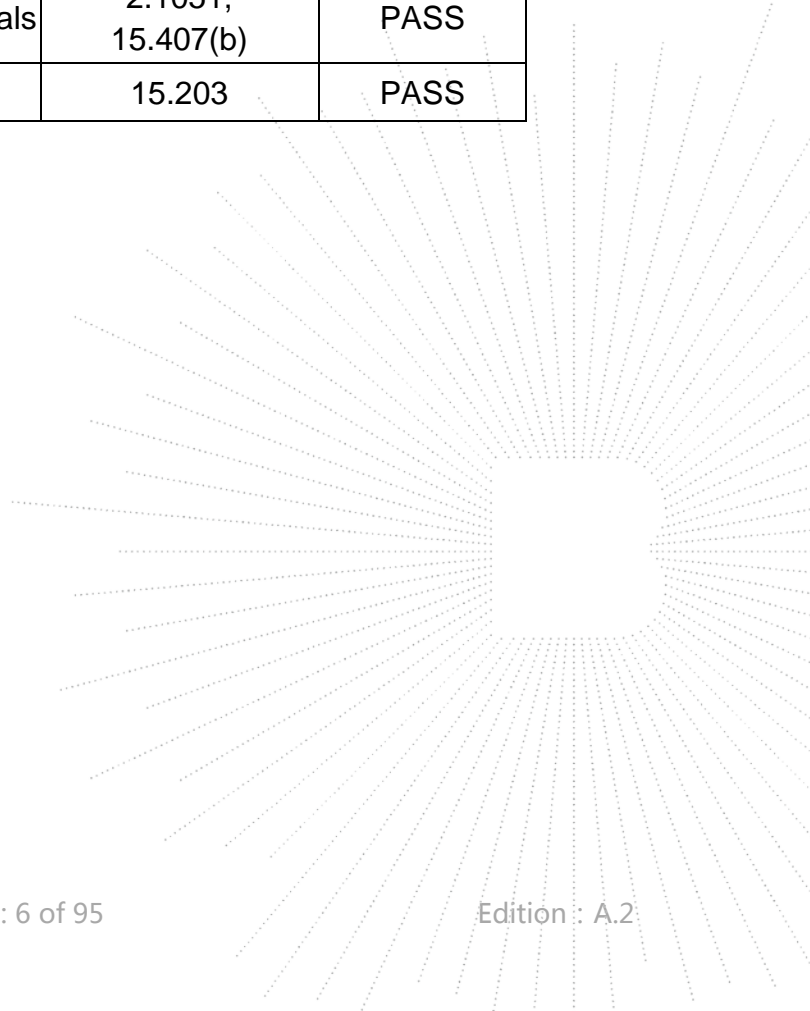
Report No.	Issue Date	Description	Approved
BCTC2011875281-4E	2020-12-03	Original	Valid



2. TEST SUMMARY

The Product has been tested according to the following specifications:

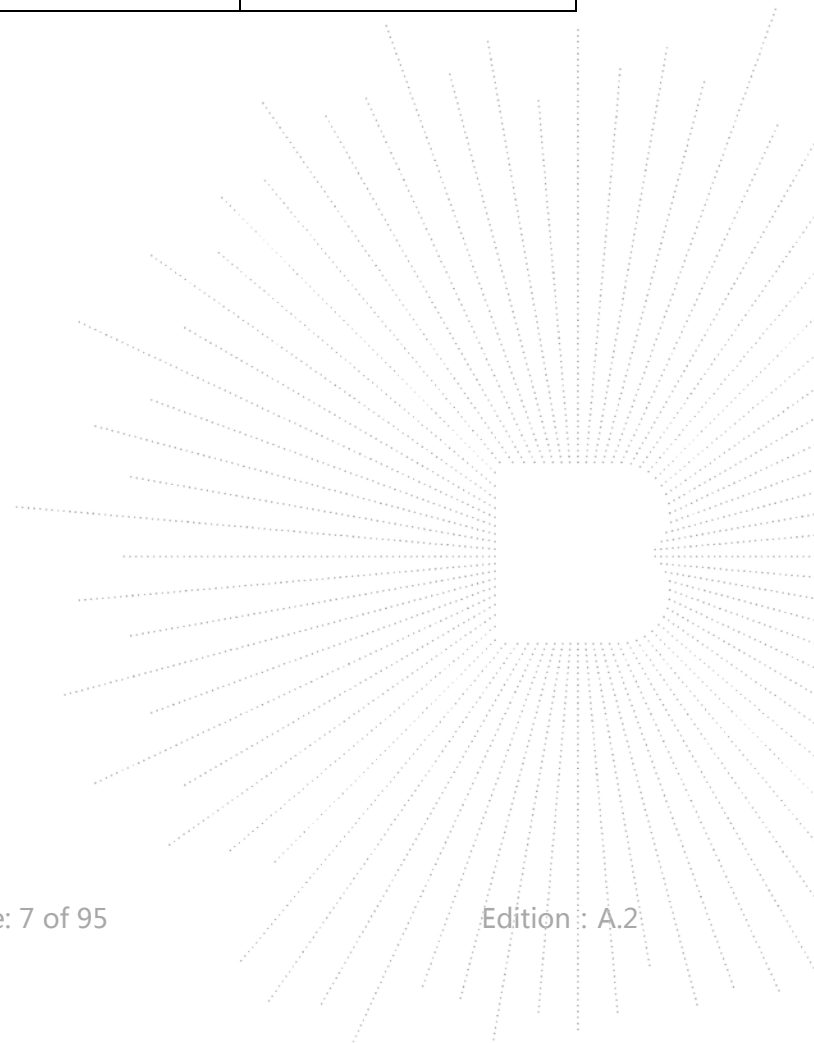
No.	Test Parameter	Clause No	Results
1	Spurious Radiated Emissions	15.209(a), 15.407 (b)(1) 15.407 (b)(4) 15.407 (b)(8)	PASS
2	Conducted Emission	15.207	PASS
3	26 dB and 99% Emission Bandwidth	15.407 (a)(12) 15.1049	PASS
4	Minimum 6 dB bandwidth	15.407(e)	PASS
5	Maximum Conducted Output Power	15.407 (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

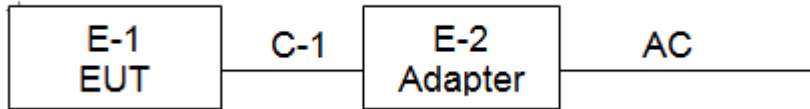
4.1 Product Information

Model/Type Ref.:	TG10MK M104ETx, TG10MKx
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 3.7V from Battery
Adapter Information:	Model No.:K-T100502000U Input: AC 100-240V 50/60Hz 0.35A Max Output: DC 5V 2A

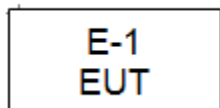
4.2 Test Setup Configuration

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	TG10MK	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:

- All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 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

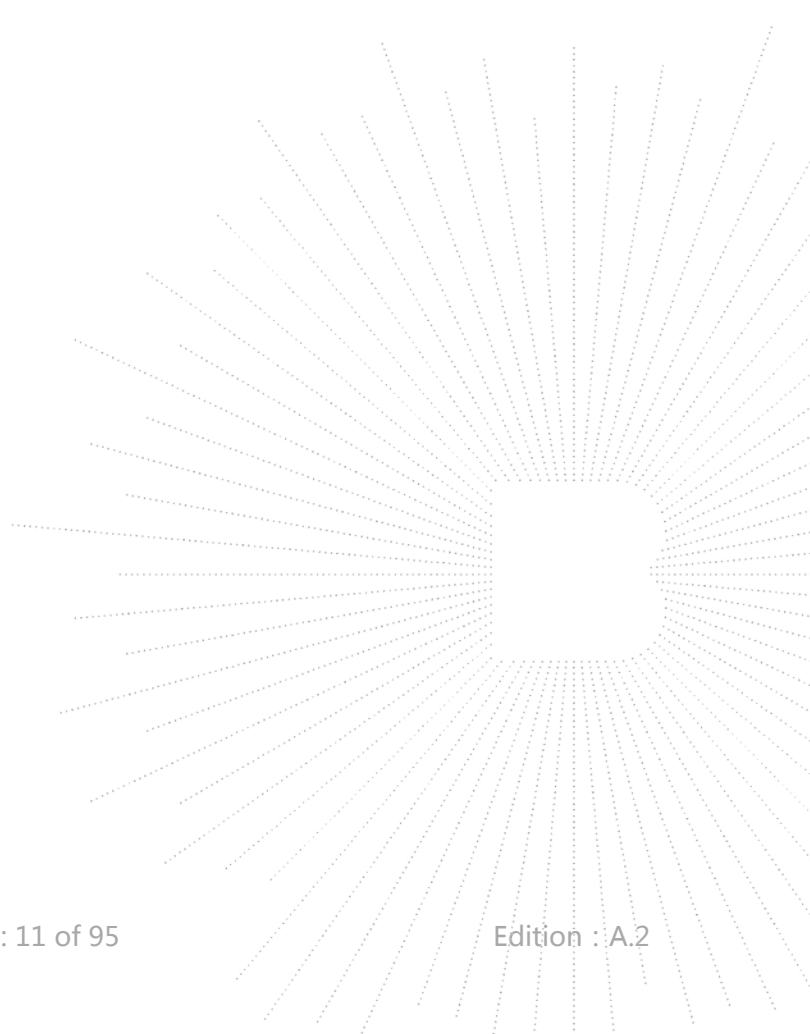
Note:

(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

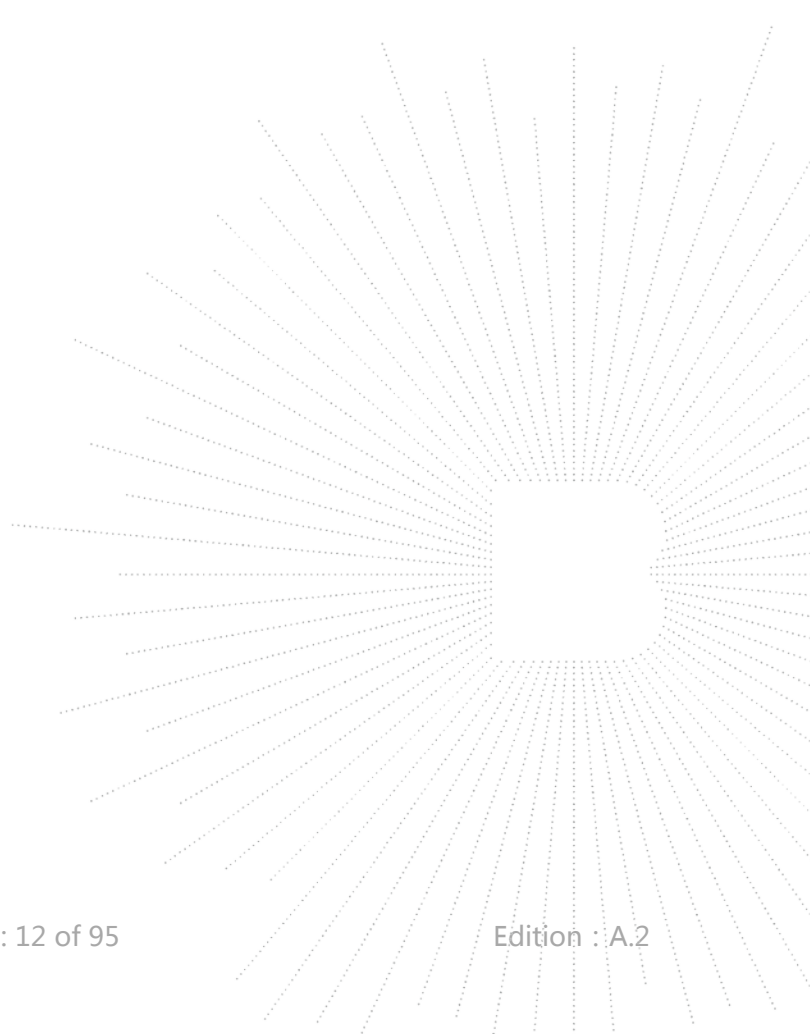
All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., East of B Building, Pengzhou Industrial Park, Fuyuan 1st Road, Qiaotou, Fuyong Street, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in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

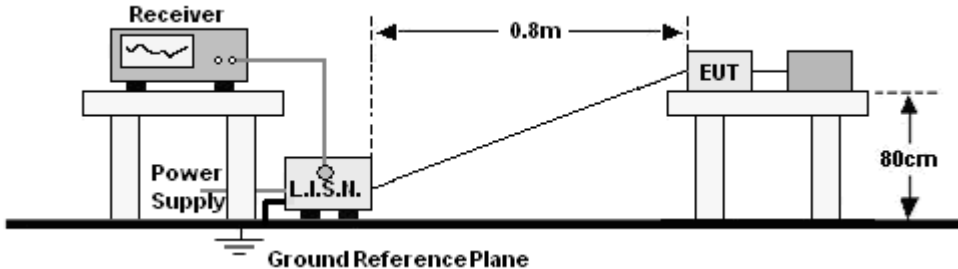
Conducted emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESR3	102075	Jun. 08, 2020	Jun. 07, 2021
LISN	R&S	ENV216	101375	Jun. 04, 2020	Jun. 03, 2021
ISN	HPX	ISN T800	S1509001	Jun. 04, 2020	Jun. 03, 2021
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\



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

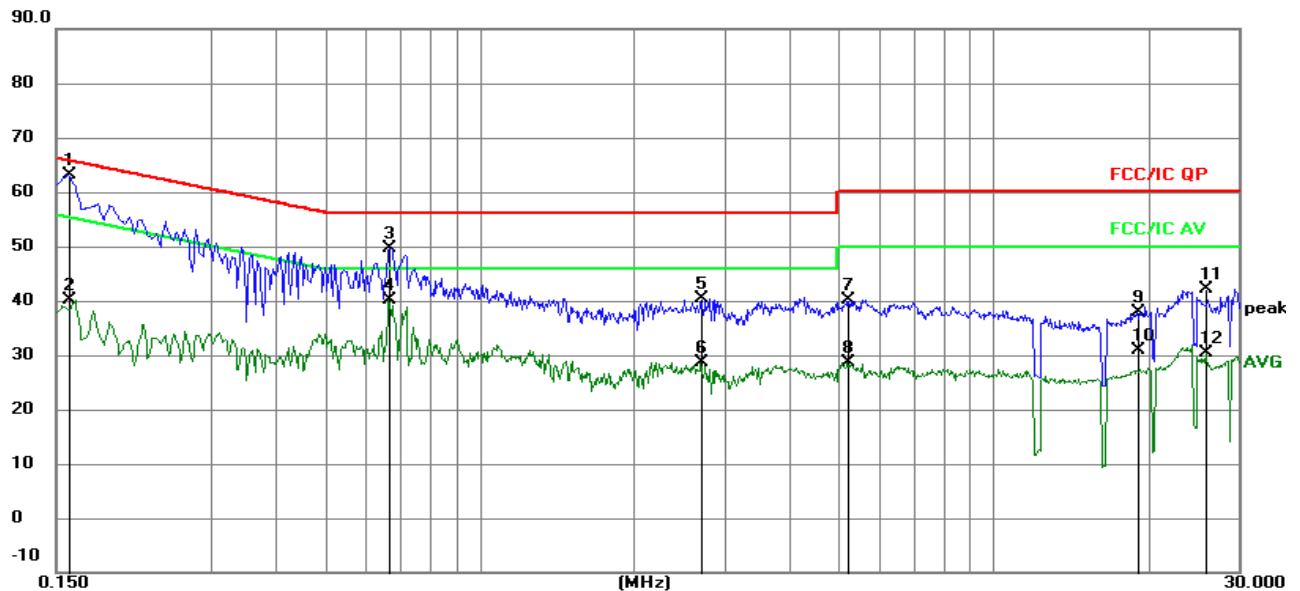
- The Product was placed on a nonconductive table 0.8 m above the horizontal ground reference plane, and 0.4 m from the vertical ground reference plane, and connected to the main through Line Impedance Stability Network (L.I.S.N).
- The RBW of the receiver was set at 9 kHz in 150 kHz ~ 30MHz with Peak 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

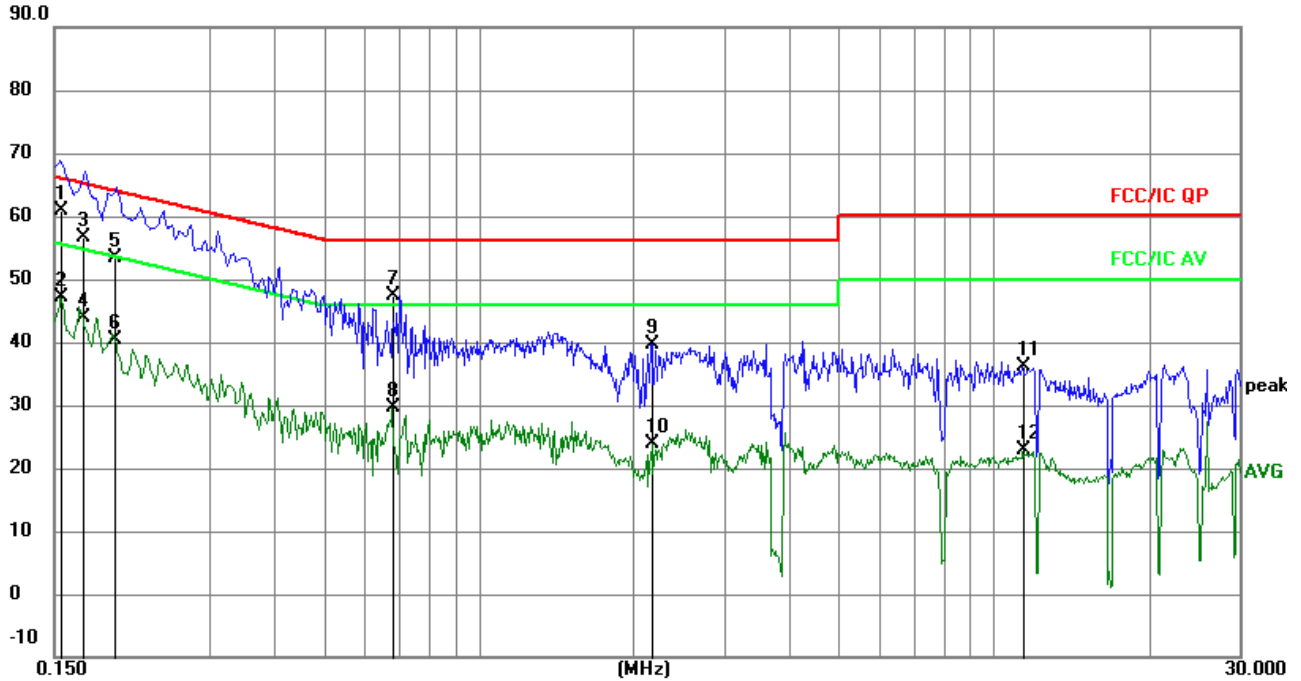


Remark:

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

No.	Mk.	Freq. MHz	Reading Level	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1	*	0.1590	53.67	9.51	63.18	65.52	-2.34	QP
2		0.1590	30.60	9.51	40.11	55.52	-15.41	AVG
3		0.6675	39.86	9.76	49.62	56.00	-6.38	QP
4		0.6675	30.36	9.76	40.12	46.00	-5.88	AVG
5		2.7015	30.73	9.64	40.37	56.00	-15.63	QP
6		2.7015	18.89	9.64	28.53	46.00	-17.47	AVG
7		5.2080	30.30	9.79	40.09	60.00	-19.91	QP
8		5.2080	18.94	9.79	28.73	50.00	-21.27	AVG
9		19.0545	28.01	9.77	37.78	60.00	-22.22	QP
10		19.0545	21.08	9.77	30.85	50.00	-19.15	AVG
11		25.9980	32.35	9.74	42.09	60.00	-17.91	QP
12		25.9980	20.75	9.74	30.49	50.00	-19.51	AVG

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


Remark:

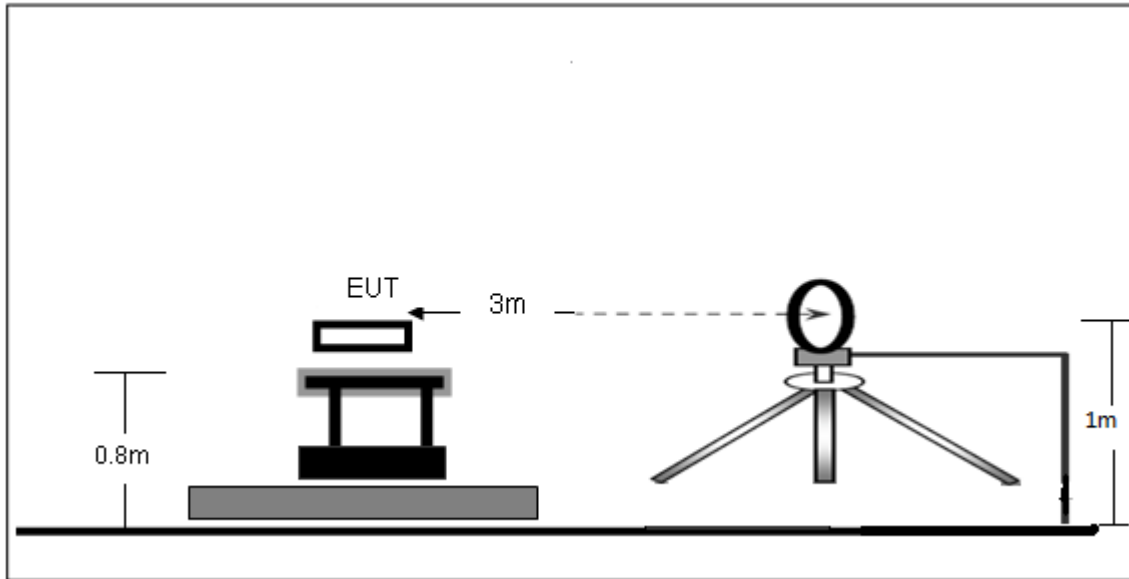
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.

No.	Mk.	Freq. MHz	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detector
					dBuV	dBuV	dB	
1	*	0.1545	51.41	9.51	60.92	65.75	-4.83	QP
2		0.1545	37.70	9.51	47.21	55.75	-8.54	AVG
3		0.1703	47.03	9.50	56.53	64.95	-8.42	QP
4		0.1703	34.28	9.50	43.78	54.95	-11.17	AVG
5		0.1965	43.86	9.46	53.32	63.76	-10.44	QP
6		0.1965	30.90	9.46	40.36	53.76	-13.40	AVG
7		0.6809	37.63	9.72	47.35	56.00	-8.65	QP
8		0.6809	20.03	9.72	29.75	46.00	-16.25	AVG
9		2.1705	30.12	9.60	39.72	56.00	-16.28	QP
10		2.1705	14.40	9.60	24.00	46.00	-22.00	AVG
11		11.4270	26.50	9.69	36.19	60.00	-23.81	QP
12		11.4270	13.11	9.69	22.80	50.00	-27.20	AVG

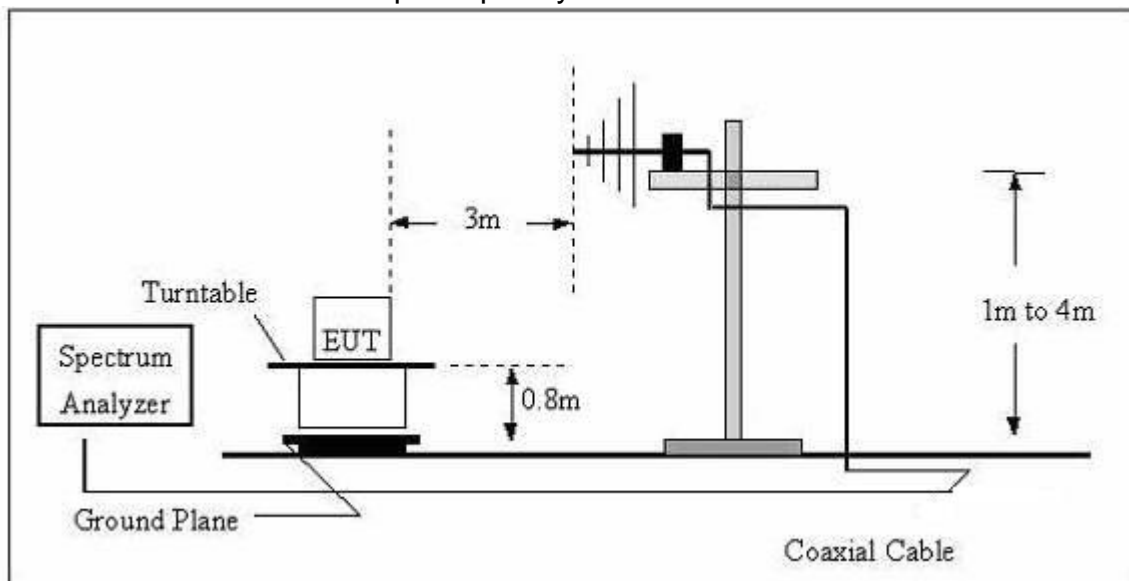
7. RADIATED EMISSIONS

7.1 Block Diagram Of Test Setup

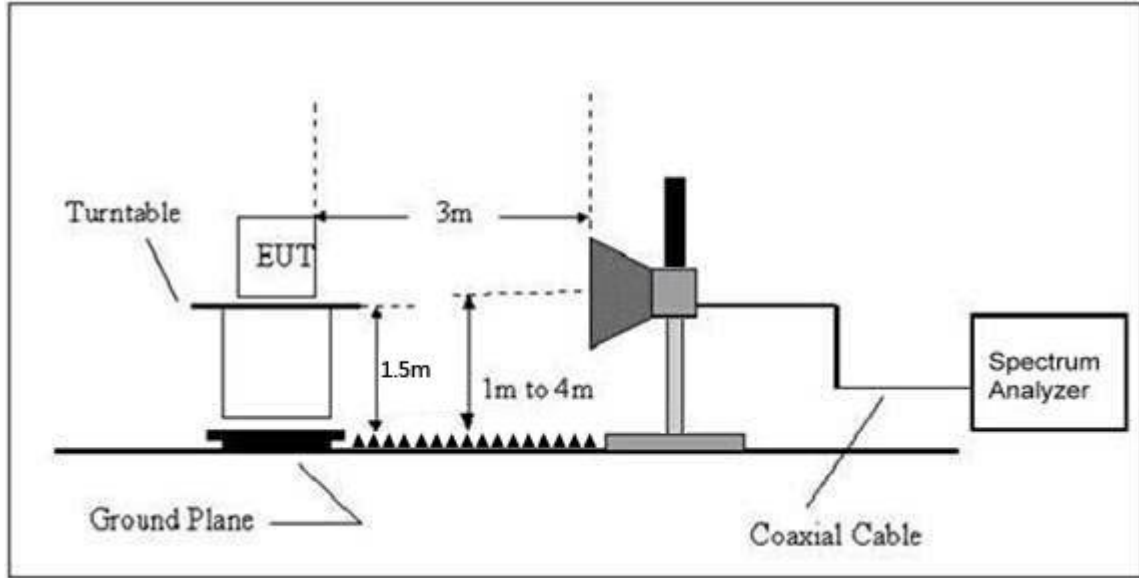
(A) Radiated Emission Test-Up Frequency Below 30MHz



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

- a. 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.
- b. 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.
- c. 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.
- d. 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.
- e. 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.
- f. 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

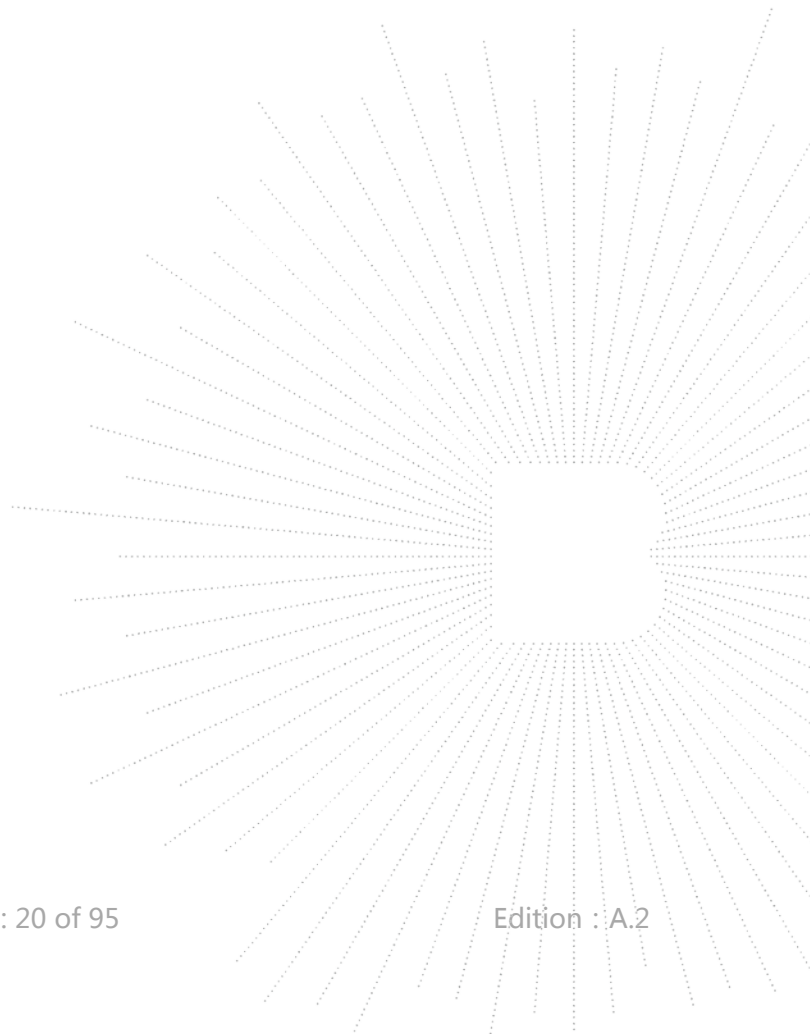
During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

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°C	Relative Humidity:	24%
Pressure:	101 kPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 4	Polarization :	--

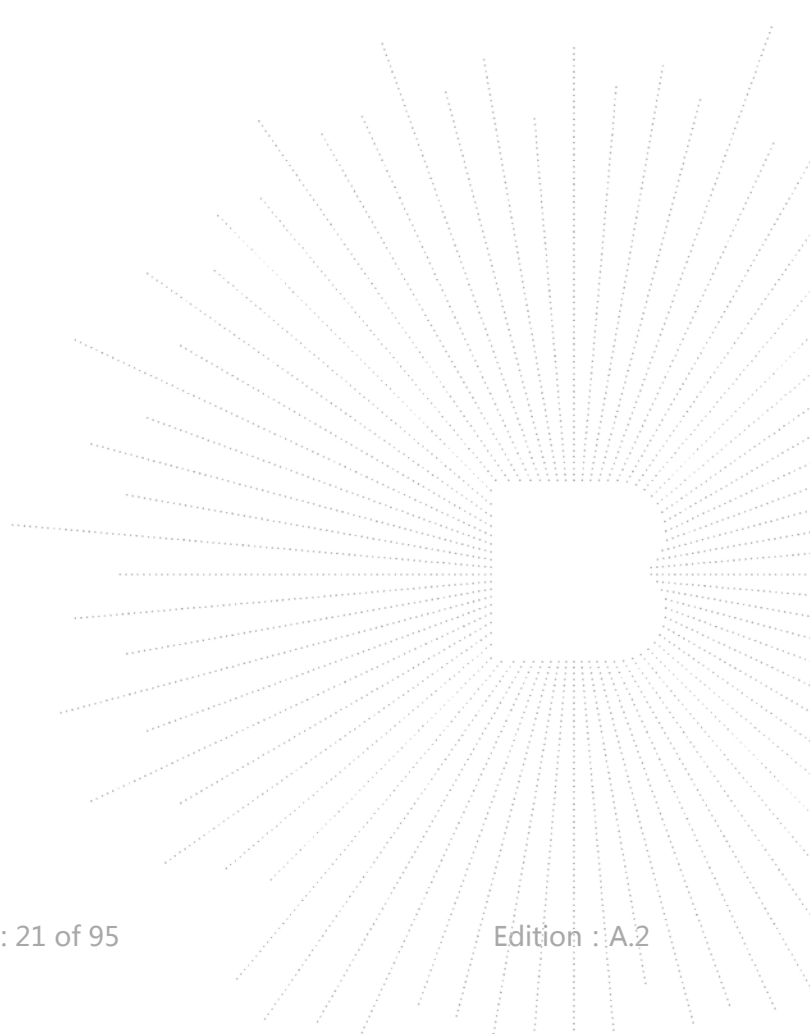
Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	PASS
--	--	--	--	PASS

Note:

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

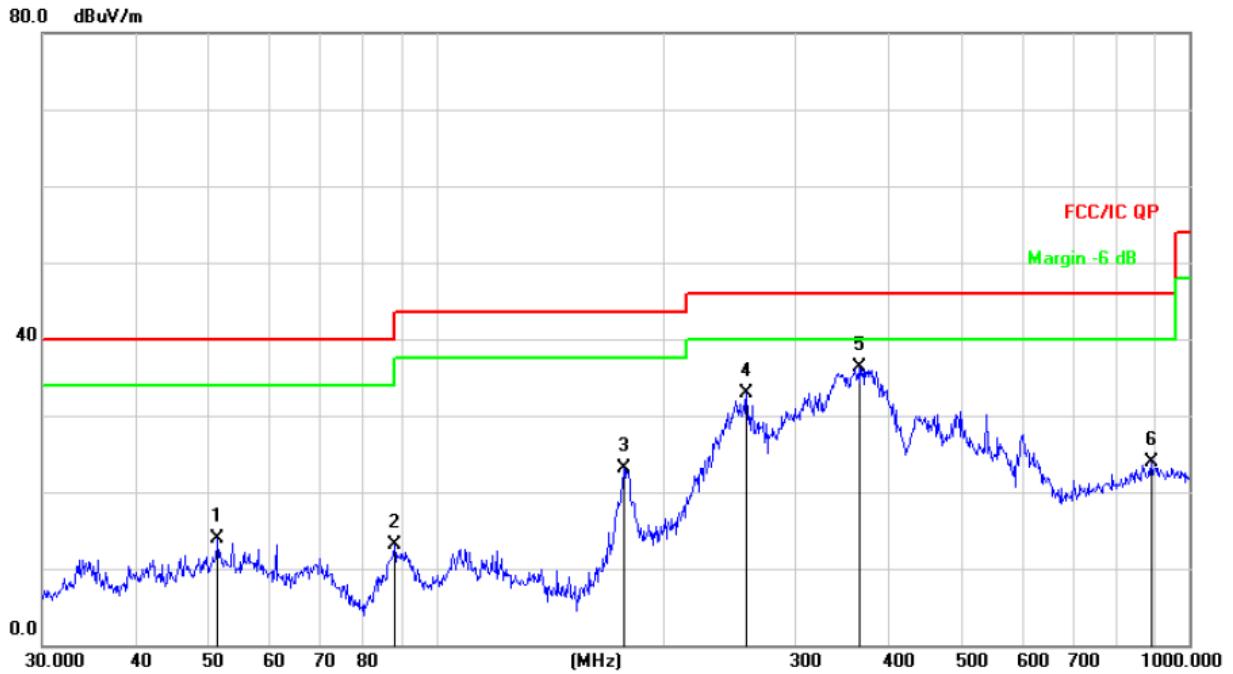
Distance extrapolation factor = $40 \log(\text{specific distance}/\text{test distance})$ (dB);

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



Between 30MHz – 1GHz

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kPa	Test Voltage :	DC 3.7V
Test Mode :	Mode 4	Polarization :	Horizontal

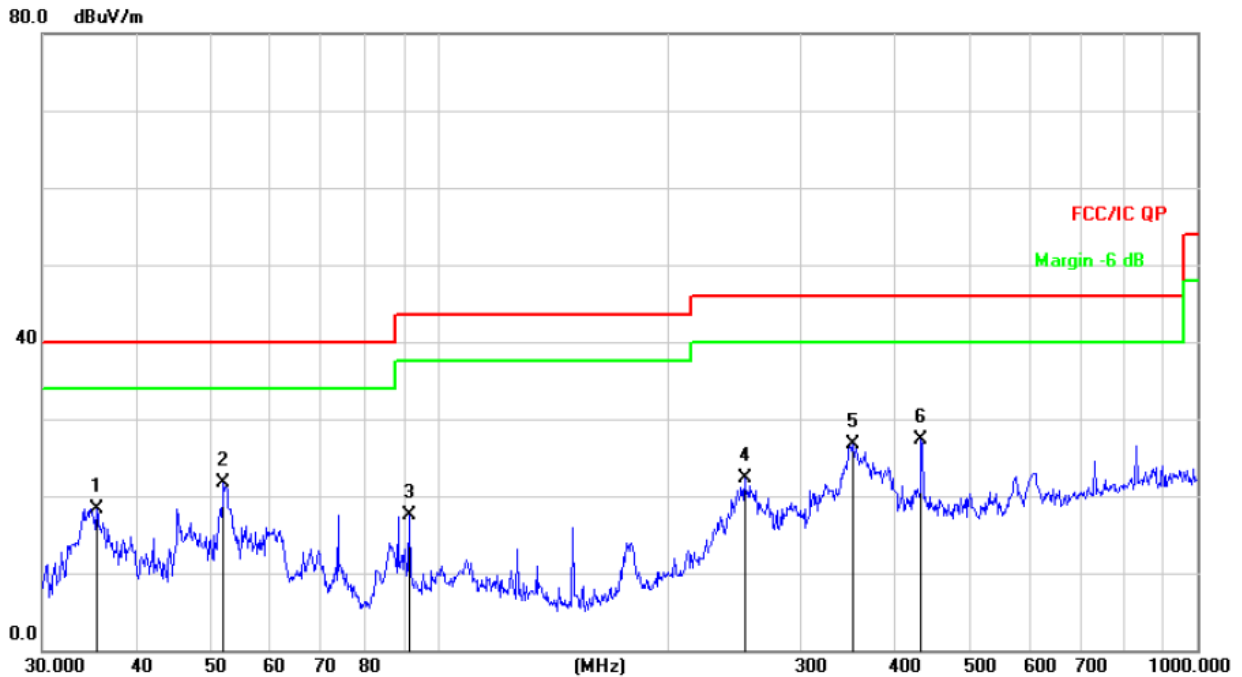


Remark:

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		51.3005	28.10	-14.16	13.94	40.00	-26.06	QP
2		88.0329	30.93	-17.89	13.04	43.50	-30.46	QP
3		177.5092	39.91	-16.81	23.10	43.50	-20.40	QP
4		258.3264	46.92	-13.93	32.99	46.00	-13.01	QP
5	*	364.2595	47.04	-10.67	36.37	46.00	-9.63	QP
6		890.7278	24.15	-0.20	23.95	46.00	-22.05	QP

Temperature:	26°C	Relative Humidity:	54%
Pressure:	101 kpa	Test Voltage :	DC 3.7V
Test Mode :	Mode 4	Polarization :	Vertical



Remark:

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

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB	dBuV/m	dB/m	dB	
1		35.3750	33.84	-15.48	18.36	40.00	-21.64	QP
2	*	52.0251	35.84	-14.20	21.64	40.00	-18.36	QP
3		91.4949	34.74	-17.19	17.55	43.50	-25.95	QP
4		252.9482	36.47	-14.12	22.35	46.00	-23.65	QP
5		351.7079	37.67	-11.02	26.65	46.00	-19.35	QP
6		432.5457	36.28	-8.99	27.29	46.00	-18.71	QP

Between 1GHz – 40GHz

Test Mode :	TX(5.1G) - 802.11a
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Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
V	4434.091	62.26	5.94	35.40	44.00	59.60	68.20	-8.60	PK
V	4434.091	43.30	5.94	35.40	44.00	40.64	54.00	-13.36	AV
V	10360.106	63.11	8.46	39.75	44.50	66.82	74.00	-7.18	PK
V	10360.106	43.95	8.46	39.75	44.50	47.66	54.00	-6.34	AV
V	15540.175	63.61	10.12	38.80	44.10	68.43	74.00	-5.57	PK
V	15540.175	43.82	10.12	38.80	42.70	50.04	54.00	-3.96	AV
H	4434.175	64.37	5.94	35.18	44.00	61.49	68.20	-6.71	PK
H	4434.175	43.18	5.94	35.18	44.00	40.30	54.00	-13.70	AV
H	10360.149	51.38	8.46	38.71	44.50	54.05	74.00	-19.95	PK
H	10360.149	40.90	8.46	38.71	44.50	43.57	54.00	-10.43	AV
H	15540.100	52.00	10.12	38.38	44.10	56.40	74.00	-17.60	PK
H	15540.100	41.09	10.12	38.38	44.10	45.49	54.00	-8.51	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.144	63.12	6.48	36.35	44.05	61.90	74.00	-12.10	PK
V	4592.144	43.19	6.48	36.35	44.05	41.97	54.00	-12.03	AV
V	10400.002	61.04	8.47	37.88	44.51	62.88	68.20	-5.32	PK
V	10400.002	43.31	8.47	37.88	44.51	45.15	54.00	-8.85	AV
V	15600.115	62.46	10.12	38.80	44.10	67.28	74.00	-6.72	PK
V	15600.115	43.89	10.12	38.80	42.70	50.11	54.00	-3.89	AV
H	4592.052	61.13	6.48	36.37	44.05	59.93	74.00	-14.07	PK
H	4592.052	43.13	6.48	36.37	44.05	41.93	54.00	-12.07	AV
H	10400.099	52.05	8.47	38.64	44.50	54.66	68.20	-13.54	PK
H	10400.099	44.63	8.47	38.64	44.50	47.24	54.00	-6.76	AV
H	15600.048	51.72	10.12	38.38	44.10	56.12	74.00	-17.88	PK
H	15600.048	42.71	10.12	38.38	44.10	47.11	54.00	-6.89	AV
High Channel (5240 MHz)-Above 1G									
V	4739.123	60.86	7.10	37.24	43.50	61.70	74.00	-12.30	PK
V	4739.123	43.29	7.10	37.24	43.50	44.13	54.00	-9.87	AV
V	10480.134	64.51	8.46	37.68	44.50	66.15	68.20	-2.05	PK
V	10480.134	43.30	8.46	37.68	44.50	44.94	54.00	-9.06	AV
V	15720.014	60.87	10.12	38.80	44.10	65.69	74.00	-8.31	PK
V	15720.014	43.46	10.12	38.80	42.70	49.68	54.00	-4.32	AV
H	4739.150	62.62	7.10	37.24	43.50	63.46	74.00	-10.54	PK
H	4739.150	43.45	7.10	37.24	43.50	44.29	54.00	-9.71	AV
H	10480.100	50.83	8.46	38.57	44.50	53.36	68.20	-14.84	PK
H	10480.100	40.11	8.46	38.57	44.50	42.64	54.00	-11.36	AV
H	15720.055	52.44	10.12	38.38	44.10	56.84	74.00	-17.16	PK
H	15720.055	44.70	10.12	38.38	44.10	49.10	54.00	-4.90	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.

Test Mode :	TX(5.1G) - 802.11n-HT20
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Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
V	4434.022	63.93	5.94	35.40	44.00	61.27	68.20	-6.93	PK
V	4434.022	43.68	5.94	35.40	44.00	41.02	54.00	-12.98	AV
V	10360.181	62.45	8.46	39.75	44.50	66.16	68.20	-2.04	PK
V	10360.181	43.61	8.46	39.75	44.50	47.32	54.00	-6.68	AV
V	15540.157	64.13	10.12	38.80	44.10	68.95	74.00	-5.05	PK
V	15540.157	43.80	10.12	38.80	42.70	50.02	54.00	-3.98	AV
H	4434.061	60.50	5.94	35.18	44.00	57.62	68.20	-10.58	PK
H	4434.061	43.72	5.94	35.18	44.00	40.84	54.00	-13.16	AV
H	10360.170	51.30	8.46	38.71	44.50	53.97	68.20	-14.23	PK
H	10360.170	44.04	8.46	38.71	44.50	46.71	54.00	-7.29	AV
H	15540.148	53.85	10.12	38.38	44.10	58.25	74.00	-15.75	PK
H	15540.148	41.53	10.12	38.38	44.10	45.93	54.00	-8.07	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.043	64.09	6.48	36.35	44.05	62.87	74.00	-11.13	PK
V	4592.043	43.20	6.48	36.35	44.05	41.98	54.00	-12.02	AV
V	10400.008	62.32	8.47	37.88	44.51	64.16	68.20	-4.04	PK
V	10400.008	43.15	8.47	37.88	44.51	44.99	54.00	-9.01	AV
V	15600.193	60.38	10.12	38.80	44.10	65.20	74.00	-8.80	PK
V	15600.193	43.09	10.12	38.80	42.70	49.31	54.00	-4.69	AV
H	4592.107	63.98	6.48	36.37	44.05	62.78	74.00	-11.22	PK
H	4592.107	43.72	6.48	36.37	44.05	42.52	54.00	-11.48	AV
H	10400.113	54.45	8.47	38.64	44.50	57.06	68.20	-11.14	PK
H	10400.113	42.56	8.47	38.64	44.50	45.17	54.00	-8.83	AV
H	15600.006	51.43	10.12	38.38	44.10	55.83	74.00	-18.17	PK
H	15600.006	41.13	10.12	38.38	44.10	45.53	54.00	-8.47	AV
High Channel (5240 MHz)-Above 1G									
V	4739.168	62.06	7.10	37.24	43.50	62.90	74.00	-11.10	PK
V	4739.168	43.32	7.10	37.24	43.50	44.16	54.00	-9.84	AV
V	10480.131	64.86	8.46	37.68	44.50	66.50	68.20	-1.70	PK
V	10480.131	43.85	8.46	37.68	44.50	45.49	54.00	-8.51	AV
V	15720.093	64.43	10.12	38.80	44.10	69.25	74.00	-4.75	PK
V	15720.093	43.48	10.12	38.80	42.70	49.70	54.00	-4.30	AV
H	4739.140	64.42	7.10	37.24	43.50	65.26	74.00	-8.74	PK
H	4739.140	43.59	7.10	37.24	43.50	44.43	54.00	-9.57	AV
H	10480.160	50.50	8.46	38.57	44.50	53.03	68.20	-15.17	PK
H	10480.160	43.66	8.46	38.57	44.50	46.19	54.00	-7.81	AV
H	15720.143	50.86	10.12	38.38	44.10	55.26	74.00	-18.74	PK
H	15720.143	40.51	10.12	38.38	44.10	44.91	54.00	-9.09	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G									
V	4434.149	62.16	5.94	35.40	44.00	59.50	74.00	-14.50	PK
V	4434.149	43.86	5.94	35.40	44.00	41.20	54.00	-12.80	AV
V	10380.023	63.16	8.46	39.75	44.50	66.87	68.20	-1.33	PK
V	10380.023	43.38	8.46	39.75	44.50	47.09	54.00	-6.91	AV
V	15570.084	64.30	10.12	38.80	44.10	69.12	74.00	-4.88	PK
V	15570.084	43.13	10.12	38.80	42.70	49.35	54.00	-4.65	AV
H	4434.134	61.19	5.94	35.18	44.00	58.31	74.00	-15.69	PK
H	4434.134	43.15	5.94	35.18	44.00	40.27	54.00	-13.73	AV
H	10380.030	54.08	8.46	38.71	44.50	56.75	68.20	-11.45	PK
H	10380.030	42.38	8.46	38.71	44.50	45.05	54.00	-8.95	AV
H	15570.101	54.93	10.12	38.38	44.10	59.33	74.00	-14.67	PK
H	15570.101	44.63	10.12	38.38	44.10	49.03	54.00	-4.97	AV
middle Channel (5230 MHz)-Above 1G									
V	4739.009	62.03	6.48	36.35	44.05	60.81	74.00	-13.19	PK
V	4739.009	43.25	6.48	36.35	44.05	42.03	54.00	-11.97	AV
V	10460.153	62.74	8.47	37.88	44.51	64.58	68.20	-3.62	PK
V	10460.153	43.33	8.47	37.88	44.51	45.17	54.00	-8.83	AV
V	15690.004	61.15	10.12	38.80	44.10	65.97	74.00	-8.03	PK
V	15690.004	43.72	10.12	38.80	42.70	49.94	54.00	-4.06	AV
H	4739.017	64.02	6.48	36.37	44.05	62.82	74.00	-11.18	PK
H	4739.017	43.35	6.48	36.37	44.05	42.15	54.00	-11.85	AV
H	10460.120	50.74	8.47	38.64	44.50	53.35	68.20	-14.85	PK
H	10460.120	40.90	8.47	38.64	44.50	43.51	54.00	-10.49	AV
H	15690.016	53.04	10.12	38.38	44.10	57.44	74.00	-16.56	PK
H	15690.016	43.72	10.12	38.38	44.10	48.12	54.00	-5.88	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G									
V	4434.168	62.12	5.94	35.40	44.00	59.46	68.20	-8.74	PK
V	4434.168	43.09	5.94	35.40	44.00	40.43	54.00	-13.57	AV
V	10360.106	63.10	8.46	39.75	44.50	66.81	74.00	-7.19	PK
V	10360.106	43.10	8.46	39.75	44.50	46.81	54.00	-7.19	AV
V	15540.195	62.62	10.12	38.80	44.10	67.44	74.00	-6.56	PK
V	15540.195	43.07	10.12	38.80	42.70	49.29	54.00	-4.71	AV
H	4434.026	63.70	5.94	35.18	44.00	60.82	68.20	-7.38	PK
H	4434.026	43.37	5.94	35.18	44.00	40.49	54.00	-13.51	AV
H	10360.149	54.00	8.46	38.71	44.50	56.67	74.00	-17.33	PK
H	10360.149	40.39	8.46	38.71	44.50	43.06	54.00	-10.94	AV
H	15540.152	54.19	10.12	38.38	44.10	58.59	74.00	-15.41	PK
H	15540.152	42.78	10.12	38.38	44.10	47.18	54.00	-6.82	AV
middle Channel (5200 MHz)-Above 1G									
V	4592.122	60.07	6.48	36.35	44.05	58.85	74.00	-15.15	PK
V	4592.122	43.01	6.48	36.35	44.05	41.79	54.00	-12.21	AV
V	10400.071	63.71	8.47	37.88	44.51	65.55	68.20	-2.65	PK
V	10400.071	43.51	8.47	37.88	44.51	45.35	54.00	-8.65	AV
V	15600.108	60.48	10.12	38.80	44.10	65.30	74.00	-8.70	PK
V	15600.108	43.97	10.12	38.80	42.70	50.19	54.00	-3.81	AV
H	4592.168	62.69	6.48	36.37	44.05	61.49	74.00	-12.51	PK
H	4592.168	43.37	6.48	36.37	44.05	42.17	54.00	-11.83	AV
H	10400.181	52.15	8.47	38.64	44.50	54.76	68.20	-13.44	PK
H	10400.181	43.82	8.47	38.64	44.50	46.43	54.00	-7.57	AV
H	15600.150	50.53	10.12	38.38	44.10	54.93	74.00	-19.07	PK
H	15600.150	43.17	10.12	38.38	44.10	47.57	54.00	-6.43	AV
High Channel (5240 MHz)-Above 1G									
V	4739.092	61.79	7.10	37.24	43.50	62.63	74.00	-11.37	PK
V	4739.092	43.28	7.10	37.24	43.50	44.12	54.00	-9.88	AV
V	10480.168	64.08	8.46	37.68	44.50	65.72	68.20	-2.48	PK
V	10480.168	43.29	8.46	37.68	44.50	44.93	54.00	-9.07	AV
V	15720.116	64.61	10.12	38.80	44.10	69.43	74.00	-4.57	PK
V	15720.116	43.67	10.12	38.80	42.70	49.89	54.00	-4.11	AV
H	4739.025	61.09	7.10	37.24	43.50	61.93	74.00	-12.07	PK
H	4739.025	43.44	7.10	37.24	43.50	44.28	54.00	-9.72	AV
H	10480.085	52.28	8.46	38.57	44.50	54.81	68.20	-13.39	PK
H	10480.085	40.82	8.46	38.57	44.50	43.35	54.00	-10.65	AV
H	15720.175	52.45	10.12	38.38	44.10	56.85	74.00	-17.15	PK
H	15720.175	40.13	10.12	38.38	44.10	44.53	54.00	-9.47	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(5.1G) - 802.11 AC40
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Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G									
V	4434.078	64.36	5.94	35.40	44.00	61.70	74.00	-12.30	PK
V	4434.078	43.13	5.94	35.40	44.00	40.47	54.00	-13.53	AV
V	10380.115	62.87	8.46	39.75	44.50	66.58	68.20	-1.62	PK
V	10380.115	43.55	8.46	39.75	44.50	47.26	54.00	-6.74	AV
V	15570.153	62.37	10.12	38.80	44.10	67.19	74.00	-6.81	PK
V	15570.153	43.12	10.12	38.80	42.70	49.34	54.00	-4.66	AV
H	4434.099	60.51	5.94	35.18	44.00	57.63	74.00	-16.37	PK
H	4434.099	43.01	5.94	35.18	44.00	40.13	54.00	-13.87	AV
H	10380.010	54.80	8.46	38.71	44.50	57.47	68.20	-10.73	PK
H	10380.010	43.74	8.46	38.71	44.50	46.41	54.00	-7.59	AV
H	15570.191	54.40	10.12	38.38	44.10	58.80	74.00	-15.20	PK
H	15570.191	43.13	10.12	38.38	44.10	47.53	54.00	-6.47	AV
middle Channel (5230 MHz)-Above 1G									
V	4739.159	60.51	6.48	36.35	44.05	59.29	74.00	-14.71	PK
V	4739.159	43.42	6.48	36.35	44.05	42.20	54.00	-11.80	AV
V	10460.076	61.59	8.47	37.88	44.51	63.43	68.20	-4.77	PK
V	10460.076	43.88	8.47	37.88	44.51	45.72	54.00	-8.28	AV
V	15690.183	61.50	10.12	38.80	44.10	66.32	74.00	-7.68	PK
V	15690.183	43.78	10.12	38.80	42.70	50.00	54.00	-4.00	AV
H	4739.171	64.27	6.48	36.37	44.05	63.07	74.00	-10.93	PK
H	4739.171	43.46	6.48	36.37	44.05	42.26	54.00	-11.74	AV
H	10460.134	53.12	8.47	38.64	44.50	55.73	68.20	-12.47	PK
H	10460.134	44.35	8.47	38.64	44.50	46.96	54.00	-7.04	AV
H	15690.008	51.74	10.12	38.38	44.10	56.14	74.00	-17.86	PK
H	15690.008	40.28	10.12	38.38	44.10	44.68	54.00	-9.32	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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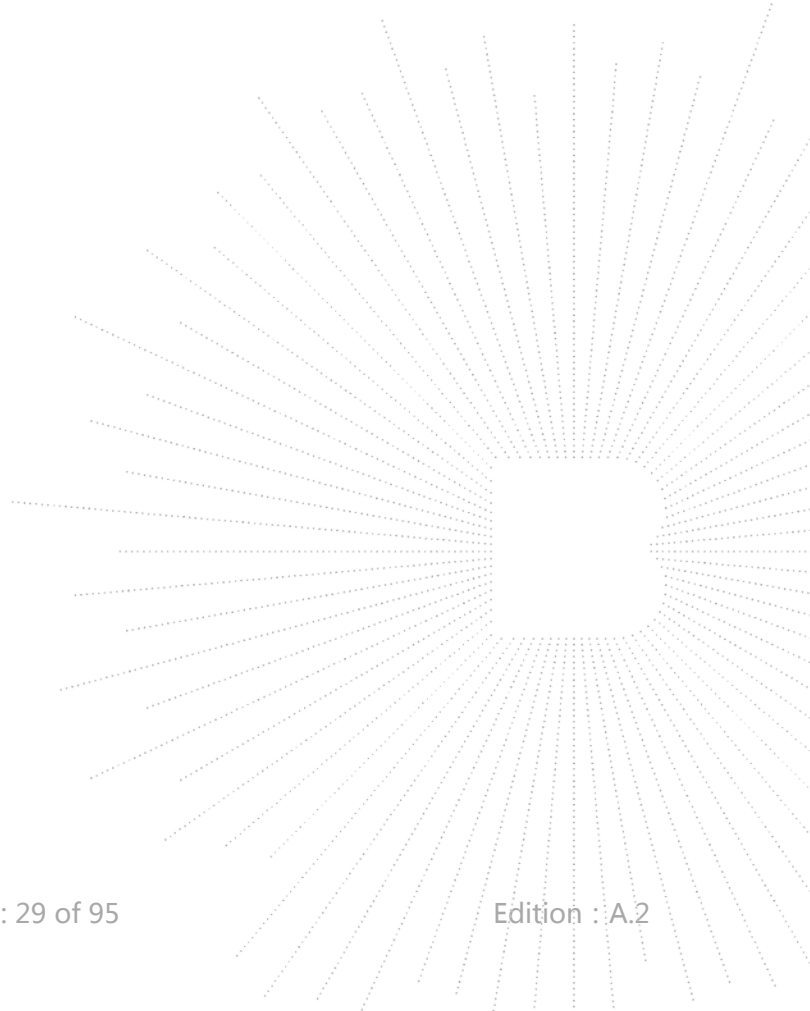
Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenn a Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5210 MHz)-Above 1G									
V	4434.084	63.87	5.94	35.40	44.00	61.21	74.00	-12.79	PK
V	4434.084	43.57	5.94	35.40	44.00	40.91	54.00	-13.09	AV
V	10420.035	62.97	8.46	39.75	44.50	66.68	68.20	-1.52	PK
V	10420.035	43.80	8.46	39.75	44.50	47.51	54.00	-6.49	AV
V	15630.196	61.92	10.12	38.80	44.10	66.74	74.00	-7.26	PK
V	15630.196	43.52	10.12	38.80	42.70	49.74	54.00	-4.26	AV
H	4434.064	62.84	5.94	35.18	44.00	59.96	74.00	-14.04	PK
H	4434.064	43.90	5.94	35.18	44.00	41.02	54.00	-12.98	AV
H	10420.118	54.25	8.46	38.71	44.50	56.92	68.20	-11.28	PK
H	10420.118	44.27	8.46	38.71	44.50	46.94	54.00	-7.06	AV
H	15630.048	52.82	10.12	38.38	44.10	57.22	74.00	-16.78	PK
H	15630.048	43.98	10.12	38.38	44.10	48.38	54.00	-5.62	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
V	4679.122	64.75	5.94	35.40	44.00	62.09	74.00	-11.91	PK
V	4679.122	43.57	5.94	35.40	44.00	40.91	54.00	-13.09	AV
V	11490.040	60.76	8.46	39.75	44.50	64.47	68.20	-3.73	PK
V	11490.040	43.04	8.46	39.75	44.50	46.75	54.00	-7.25	AV
V	17235.005	64.28	10.12	38.80	44.10	69.10	74.00	-4.90	PK
V	17235.005	43.45	10.12	38.80	42.70	49.67	54.00	-4.33	AV
H	4679.028	64.30	5.94	35.18	44.00	61.42	74.00	-12.58	PK
H	4679.028	43.47	5.94	35.18	44.00	40.59	54.00	-13.41	AV
H	11490.034	51.75	8.46	38.71	44.50	54.42	68.20	-13.78	PK
H	11490.034	40.43	8.46	38.71	44.50	43.10	54.00	-10.90	AV
H	17235.113	54.32	10.12	38.38	44.10	58.72	74.00	-15.28	PK
H	17235.113	40.97	10.12	38.38	44.10	45.37	54.00	-8.63	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.118	63.59	6.48	36.35	44.05	62.37	74.00	-11.63	PK
V	4592.118	43.81	6.48	36.35	44.05	42.59	54.00	-11.41	AV
V	11570.111	63.84	8.47	37.88	44.51	65.68	68.20	-2.52	PK
V	11570.111	43.08	8.47	37.88	44.51	44.92	54.00	-9.08	AV
V	17355.011	61.40	10.12	38.80	44.10	66.22	74.00	-7.78	PK
V	17355.011	43.44	10.12	38.80	42.70	49.66	54.00	-4.34	AV
H	4592.076	61.28	6.48	36.37	44.05	60.08	74.00	-13.92	PK
H	4592.076	43.47	6.48	36.37	44.05	42.27	54.00	-11.73	AV
H	11570.108	52.95	8.47	38.64	44.50	55.56	68.20	-12.64	PK
H	11570.108	43.52	8.47	38.64	44.50	46.13	54.00	-7.87	AV
H	17355.109	54.26	10.12	38.38	44.10	58.66	74.00	-15.34	PK
H	17355.109	40.61	10.12	38.38	44.10	45.01	54.00	-8.99	AV
High Channel (5825 MHz)-Above 1G									
V	6039.090	61.80	7.10	37.24	43.50	62.64	68.20	-5.56	PK
V	6039.090	43.89	7.10	37.24	43.50	44.73	54.00	-9.27	AV
V	11650.108	63.81	8.46	37.68	44.50	65.45	74.00	-8.55	PK
V	11650.108	43.57	8.46	37.68	44.50	45.21	54.00	-8.79	AV
V	17475.178	60.17	10.12	38.80	44.10	64.99	68.20	-3.21	PK
V	17475.178	43.81	10.12	38.80	42.70	50.03	54.00	-3.97	AV
H	6039.030	62.20	7.10	37.24	43.50	63.04	68.20	-5.16	PK
H	6039.030	43.67	7.10	37.24	43.50	44.51	54.00	-9.49	AV
H	11650.028	50.64	8.46	38.57	44.50	53.17	74.00	-20.83	PK
H	11650.028	41.97	8.46	38.57	44.50	44.50	54.00	-9.50	AV
H	17475.112	50.10	10.12	38.38	44.10	54.50	68.20	-13.70	PK
H	17475.112	41.44	10.12	38.38	44.10	45.84	54.00	-8.16	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 (5.8G) --802.11n-HT20
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Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
V	4679.132	63.27	5.94	35.40	44.00	60.61	74.00	-13.39	PK
V	4679.132	43.10	5.94	35.40	44.00	40.44	54.00	-13.56	AV
V	11490.058	60.32	8.46	39.75	44.50	64.03	68.20	-4.17	PK
V	11490.058	43.07	8.46	39.75	44.50	46.78	54.00	-7.22	AV
V	17235.076	60.36	10.12	38.80	44.10	65.18	74.00	-8.82	PK
V	17235.076	43.39	10.12	38.80	42.70	49.61	54.00	-4.39	AV
H	4679.129	60.24	5.94	35.18	44.00	57.36	74.00	-16.64	PK
H	4679.129	43.19	5.94	35.18	44.00	40.31	54.00	-13.69	AV
H	11490.193	51.10	8.46	38.71	44.50	53.77	68.20	-14.43	PK
H	11490.193	44.89	8.46	38.71	44.50	47.56	54.00	-6.44	AV
H	17235.076	51.80	10.12	38.38	44.10	56.20	74.00	-17.80	PK
H	17235.076	44.60	10.12	38.38	44.10	49.00	54.00	-5.00	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.128	64.64	6.48	36.35	44.05	63.42	74.00	-10.58	PK
V	4592.128	43.39	6.48	36.35	44.05	42.17	54.00	-11.83	AV
V	11570.180	60.56	8.47	37.88	44.51	62.40	68.20	-5.80	PK
V	11570.180	43.83	8.47	37.88	44.51	45.67	54.00	-8.33	AV
V	17355.138	63.67	10.12	38.80	44.10	68.49	74.00	-5.51	PK
V	17355.138	43.20	10.12	38.80	42.70	49.42	54.00	-4.58	AV
H	4592.141	62.02	6.48	36.37	44.05	60.82	74.00	-13.18	PK
H	4592.141	43.78	6.48	36.37	44.05	42.58	54.00	-11.42	AV
H	11570.195	53.23	8.47	38.64	44.50	55.84	68.20	-12.36	PK
H	11570.195	43.67	8.47	38.64	44.50	46.28	54.00	-7.72	AV
H	17355.073	51.58	10.12	38.38	44.10	55.98	74.00	-18.02	PK
H	17355.073	42.96	10.12	38.38	44.10	47.36	54.00	-6.64	AV
High Channel (5825 MHz)-Above 1G									
V	6039.175	62.34	7.10	37.24	43.50	63.18	68.20	-5.02	PK
V	6039.175	43.07	7.10	37.24	43.50	43.91	54.00	-10.09	AV
V	11650.015	61.25	8.46	37.68	44.50	62.89	74.00	-11.11	PK
V	11650.015	43.49	8.46	37.68	44.50	45.13	54.00	-8.87	AV
V	17475.172	60.06	10.12	38.80	44.10	64.88	68.20	-3.32	PK
V	17475.172	43.89	10.12	38.80	42.70	50.11	54.00	-3.89	AV
H	6039.158	60.47	7.10	37.24	43.50	61.31	68.20	-6.89	PK
H	6039.158	43.43	7.10	37.24	43.50	44.27	54.00	-9.73	AV
H	11650.035	51.12	8.46	38.57	44.50	53.65	74.00	-20.35	PK
H	11650.035	44.40	8.46	38.57	44.50	46.93	54.00	-7.07	AV
H	17475.190	51.44	10.12	38.38	44.10	55.84	68.20	-12.36	PK
H	17475.190	41.76	10.12	38.38	44.10	46.16	54.00	-7.84	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G									
V	4679.103	62.71	5.94	35.40	44.00	60.05	74.00	-13.95	PK
V	4679.103	43.59	5.94	35.40	44.00	40.93	54.00	-13.07	AV
V	11510.130	61.45	8.46	39.75	44.50	65.16	68.20	-3.04	PK
V	11510.130	43.73	8.46	39.75	44.50	47.44	54.00	-6.56	AV
V	17265.048	62.62	10.12	38.80	44.10	67.44	74.00	-6.56	PK
V	17265.048	43.68	10.12	38.80	42.70	49.90	54.00	-4.10	AV
H	4679.141	60.76	5.94	35.18	44.00	57.88	74.00	-16.12	PK
H	4679.141	43.58	5.94	35.18	44.00	40.70	54.00	-13.30	AV
H	11510.159	52.82	8.46	38.71	44.50	55.49	68.20	-12.71	PK
H	11510.159	44.38	8.46	38.71	44.50	47.05	54.00	-6.95	AV
H	17265.100	53.64	10.12	38.38	44.10	58.04	74.00	-15.96	PK
H	17265.100	42.09	10.12	38.38	44.10	46.49	54.00	-7.51	AV
middle Channel (5795 MHz)-Above 1G									
V	6039.080	60.53	6.48	36.35	44.05	59.31	68.20	-8.89	PK
V	6039.080	43.40	6.48	36.35	44.05	42.18	54.00	-11.82	AV
V	11590.106	60.52	8.47	37.88	44.51	62.36	74.00	-11.64	PK
V	11590.106	43.21	8.47	37.88	44.51	45.05	54.00	-8.95	AV
V	17385.179	60.71	10.12	38.80	44.10	65.53	68.20	-2.67	PK
V	17385.179	43.36	10.12	38.80	42.70	49.58	54.00	-4.42	AV
H	6039.107	60.70	6.48	36.37	44.05	59.50	68.20	-8.70	PK
H	6039.107	43.90	6.48	36.37	44.05	42.70	54.00	-11.30	AV
H	11590.068	53.16	8.47	38.64	44.50	55.77	74.00	-18.23	PK
H	11590.068	44.99	8.47	38.64	44.50	47.60	54.00	-6.40	AV
H	17385.146	52.81	10.12	38.38	44.10	57.21	68.20	-10.99	PK
H	17385.146	41.72	10.12	38.38	44.10	46.12	54.00	-7.88	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G									
V	4679.199	63.02	5.94	35.40	44.00	60.36	74.00	-13.64	PK
V	4679.199	43.19	5.94	35.40	44.00	40.53	54.00	-13.47	AV
V	11490.180	62.58	8.46	39.75	44.50	66.29	68.20	-1.91	PK
V	11490.180	44.00	8.46	39.75	44.50	47.71	54.00	-6.29	AV
V	17235.029	60.96	10.12	38.80	44.10	65.78	74.00	-8.22	PK
V	17235.029	43.23	10.12	38.80	42.70	49.45	54.00	-4.55	AV
H	4679.050	62.76	5.94	35.18	44.00	59.88	74.00	-14.12	PK
H	4679.050	43.08	5.94	35.18	44.00	40.20	54.00	-13.80	AV
H	11490.110	52.50	8.46	38.71	44.50	55.17	68.20	-13.03	PK
H	11490.110	43.86	8.46	38.71	44.50	46.53	54.00	-7.47	AV
H	17235.198	52.59	10.12	38.38	44.10	56.99	74.00	-17.01	PK
H	17235.198	41.35	10.12	38.38	44.10	45.75	54.00	-8.25	AV
middle Channel (5785 MHz)-Above 1G									
V	4592.121	61.61	6.48	36.35	44.05	60.39	74.00	-13.61	PK
V	4592.121	43.62	6.48	36.35	44.05	42.40	54.00	-11.60	AV
V	11570.033	63.64	8.47	37.88	44.51	65.48	68.20	-2.72	PK
V	11570.033	43.03	8.47	37.88	44.51	44.87	54.00	-9.13	AV
V	17355.145	61.95	10.12	38.80	44.10	66.77	74.00	-7.23	PK
V	17355.145	43.14	10.12	38.80	42.70	49.36	54.00	-4.64	AV
H	4592.132	60.79	6.48	36.37	44.05	59.59	74.00	-14.41	PK
H	4592.132	43.63	6.48	36.37	44.05	42.43	54.00	-11.57	AV
H	11570.066	50.82	8.47	38.64	44.50	53.43	68.20	-14.77	PK
H	11570.066	41.25	8.47	38.64	44.50	43.86	54.00	-10.14	AV
H	17355.158	51.24	10.12	38.38	44.10	55.64	74.00	-18.36	PK
H	17355.158	44.56	10.12	38.38	44.10	48.96	54.00	-5.04	AV
High Channel (5825 MHz)-Above 1G									
V	6039.128	63.29	7.10	37.24	43.50	64.13	68.20	-4.07	PK
V	6039.128	44.00	7.10	37.24	43.50	44.84	54.00	-9.16	AV
V	11650.071	63.95	8.46	37.68	44.50	65.59	74.00	-8.41	PK
V	11650.071	43.61	8.46	37.68	44.50	45.25	54.00	-8.75	AV
V	17475.165	61.35	10.12	38.80	44.10	66.17	68.20	-2.03	PK
V	17475.165	43.43	10.12	38.80	42.70	49.65	54.00	-4.35	AV
H	6039.151	64.50	7.10	37.24	43.50	65.34	68.20	-2.86	PK
H	6039.151	43.04	7.10	37.24	43.50	43.88	54.00	-10.12	AV
H	11650.195	51.10	8.46	38.57	44.50	53.63	74.00	-20.37	PK
H	11650.195	44.09	8.46	38.57	44.50	46.62	54.00	-7.38	AV
H	17475.048	52.13	10.12	38.38	44.10	56.53	68.20	-11.67	PK
H	17475.048	42.09	10.12	38.38	44.10	46.49	54.00	-7.51	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	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G									
V	4679.037	64.59	5.94	35.40	44.00	61.93	74.00	-12.07	PK
V	4679.037	43.74	5.94	35.40	44.00	41.08	54.00	-12.92	AV
V	11510.112	61.51	8.46	39.75	44.50	65.22	68.20	-2.98	PK
V	11510.112	43.97	8.46	39.75	44.50	47.68	54.00	-6.32	AV
V	17265.086	61.15	10.12	38.80	44.10	65.97	74.00	-8.03	PK
V	17265.086	43.53	10.12	38.80	42.70	49.75	54.00	-4.25	AV
H	4679.187	62.40	5.94	35.18	44.00	59.52	74.00	-14.48	PK
H	4679.187	43.48	5.94	35.18	44.00	40.60	54.00	-13.40	AV
H	11510.050	51.79	8.46	38.71	44.50	54.46	68.20	-13.74	PK
H	11510.050	44.06	8.46	38.71	44.50	46.73	54.00	-7.27	AV
H	17265.152	52.89	10.12	38.38	44.10	57.29	74.00	-16.71	PK
H	17265.152	44.08	10.12	38.38	44.10	48.48	54.00	-5.52	AV
middle Channel (5795 MHz)-Above 1G									
V	6039.065	63.05	6.48	36.35	44.05	61.83	68.20	-6.37	PK
V	6039.065	43.56	6.48	36.35	44.05	42.34	54.00	-11.66	AV
V	11590.019	60.75	8.47	37.88	44.51	62.59	74.00	-11.41	PK
V	11590.019	43.96	8.47	37.88	44.51	45.80	54.00	-8.20	AV
V	17385.101	60.24	10.12	38.80	44.10	65.06	68.20	-3.14	PK
V	17385.101	43.21	10.12	38.80	42.70	49.43	54.00	-4.57	AV
H	6039.132	60.68	6.48	36.37	44.05	59.48	68.20	-8.72	PK
H	6039.132	43.85	6.48	36.37	44.05	42.65	54.00	-11.35	AV
H	11590.186	50.86	8.47	38.64	44.50	53.47	74.00	-20.53	PK
H	11590.186	41.36	8.47	38.64	44.50	43.97	54.00	-10.03	AV
H	17385.172	51.15	10.12	38.38	44.10	55.55	68.20	-12.65	PK
H	17385.172	40.55	10.12	38.38	44.10	44.95	54.00	-9.05	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
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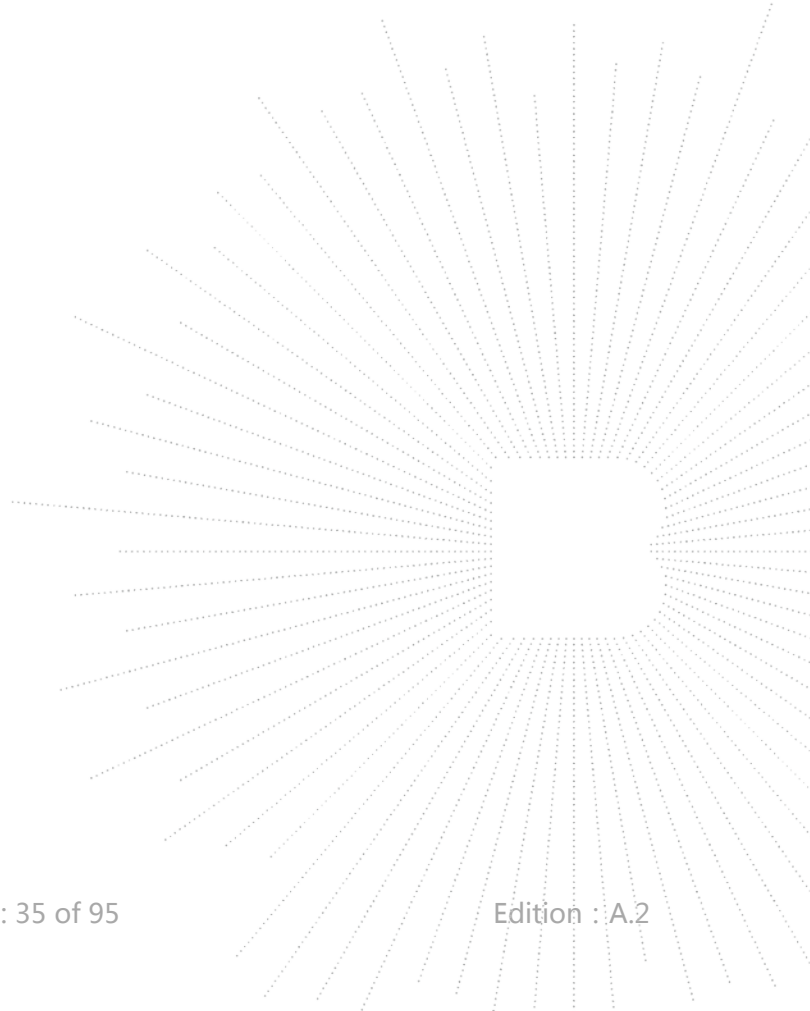
Polar (H/V)	Frequency	Meter Reading	Cable loss	Antenna Factor	Preamp Factor	Emission Level	Limits	Margin	Detector Type
	(MHz)	(dBuV)	(dB)	dB/m	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G									
V	4679.058	64.20	5.94	35.40	44.00	61.54	74.00	-12.46	PK
V	4679.058	43.07	5.94	35.40	44.00	40.41	54.00	-13.59	AV
V	11550.158	60.36	8.46	39.75	44.50	64.07	68.20	-4.13	PK
V	11550.158	43.48	8.46	39.75	44.50	47.19	54.00	-6.81	AV
V	17325.182	64.78	10.12	38.80	44.10	69.60	74.00	-4.40	PK
V	17325.182	43.70	10.12	38.80	42.70	49.92	54.00	-4.08	AV
H	4679.081	64.37	5.94	35.18	44.00	61.49	74.00	-12.51	PK
H	4679.081	43.58	5.94	35.18	44.00	40.70	54.00	-13.30	AV
H	11550.046	53.29	8.46	38.71	44.50	55.96	68.20	-12.24	PK
H	11550.046	41.11	8.46	38.71	44.50	43.78	54.00	-10.22	AV
H	17325.112	51.04	10.12	38.38	44.10	55.44	74.00	-18.56	PK
H	17325.112	43.35	10.12	38.38	44.10	47.75	54.00	-6.25	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 collocated 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

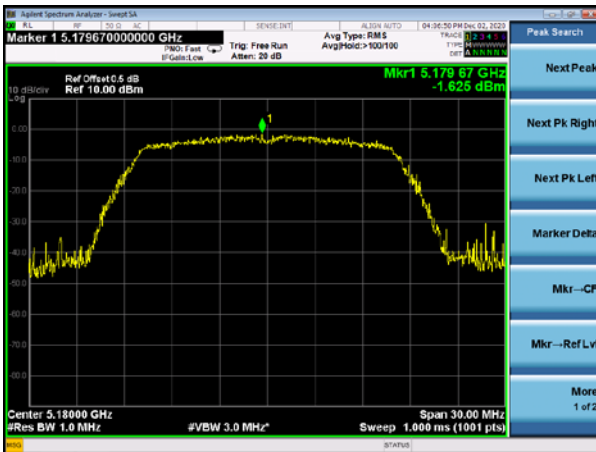
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

8.5 Test Result

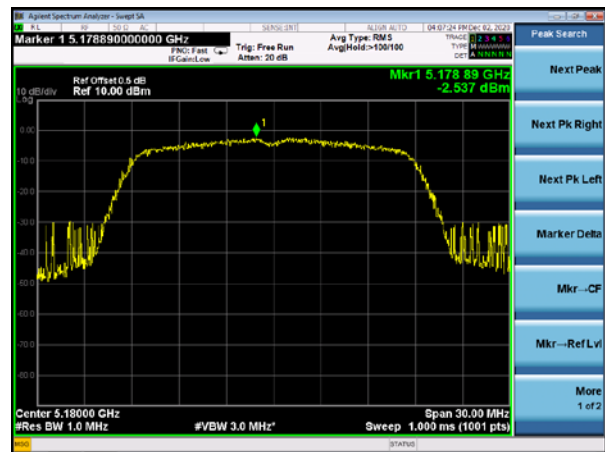
Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.7V
Test Mode :	TX Frequency U-NII-1 (5180-5240MHz)		

Mode	Frequency	Measured Power Density (dBm/MHz)	Limit (dBm/MHz)	Result
802.11 a	5180 MHz	-1.625	11	PASS
	5200 MHz	-0.869	11	PASS
	5240 MHz	-2.825	11	PASS
802.11 n20	5180 MHz	-2.537	11	PASS
	5200 MHz	-3.196	11	PASS
	5240 MHz	-3.814	11	PASS
802.11 n40	5190 MHz	-3.599	11	PASS
	5230 MHz	-4.629	11	PASS
802.11 AC20	5180 MHz	-2.651	11	PASS
	5200 MHz	-2.444	11	PASS
	5240 MHz	-3.196	11	PASS
802.11 AC40	5190 MHz	-3.609	11	PASS
	5230 MHz	-4.931	11	PASS
802.11 AC80	5210 MHz	-5.799	11	PASS

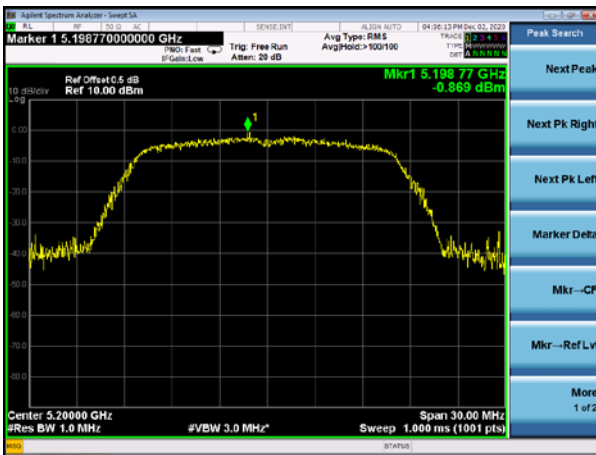
(802.11a) PSD plot on channel 36



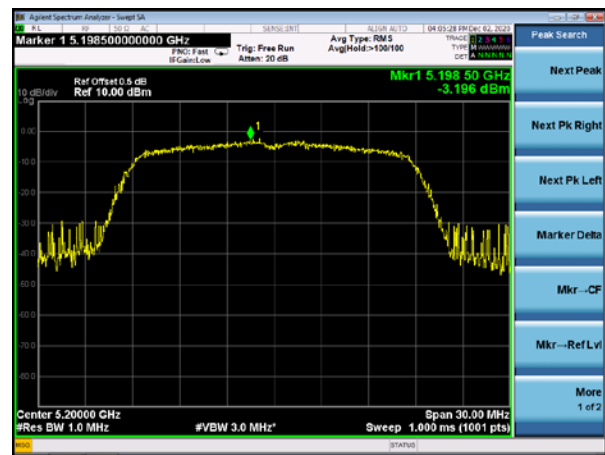
(802.11n20) PSD plot on channel 36



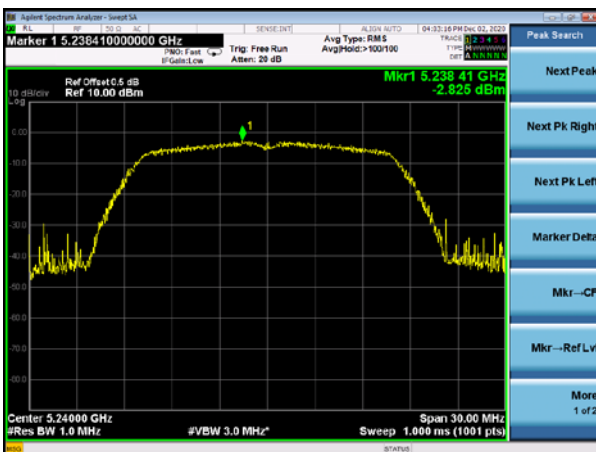
(802.11a) PSD plot on channel 40



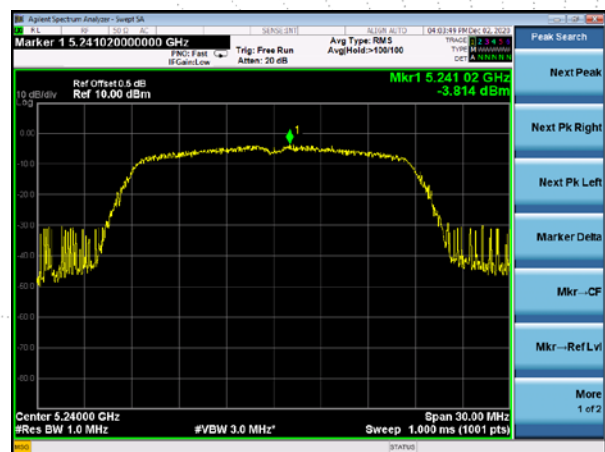
(802.11n20) PSD plot on channel 40



(802.11a) PSD plot on channel 48



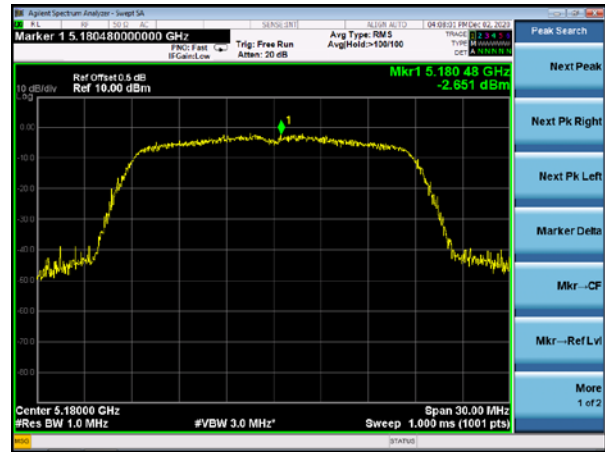
(802.11n20) PSD plot on channel 48



(802.11n40) PSD plot on channel 38



(802.11ac20) PSD plot on channel 36



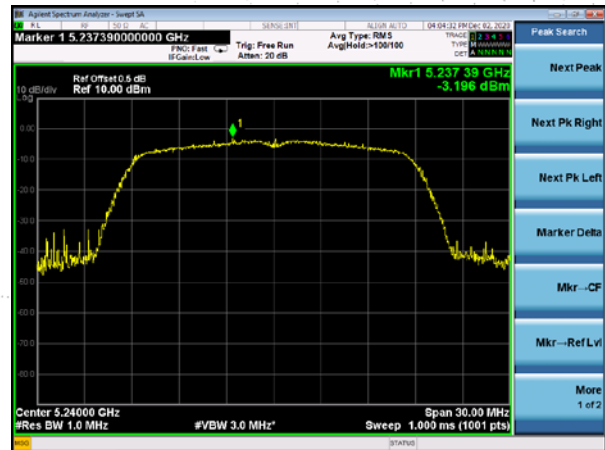
(802.11n40) PSD plot on channel 46



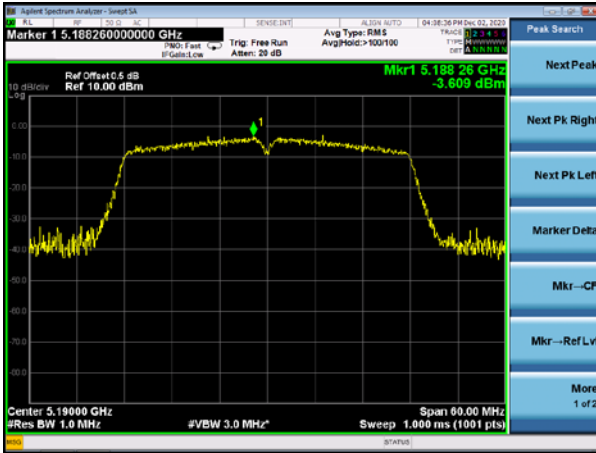
(802.11ac20) PSD plot on channel 40



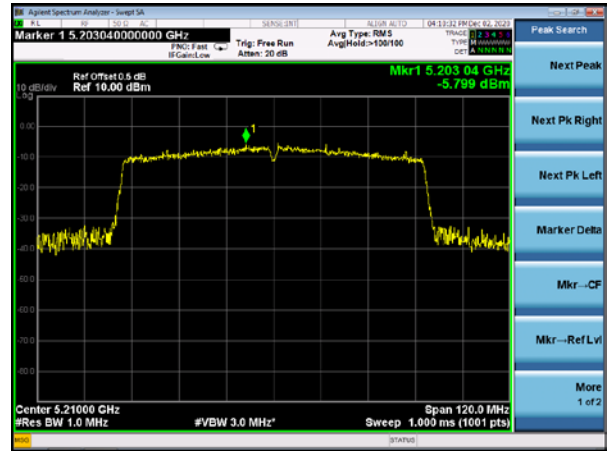
(802.11ac20) PSD plot on channel 48



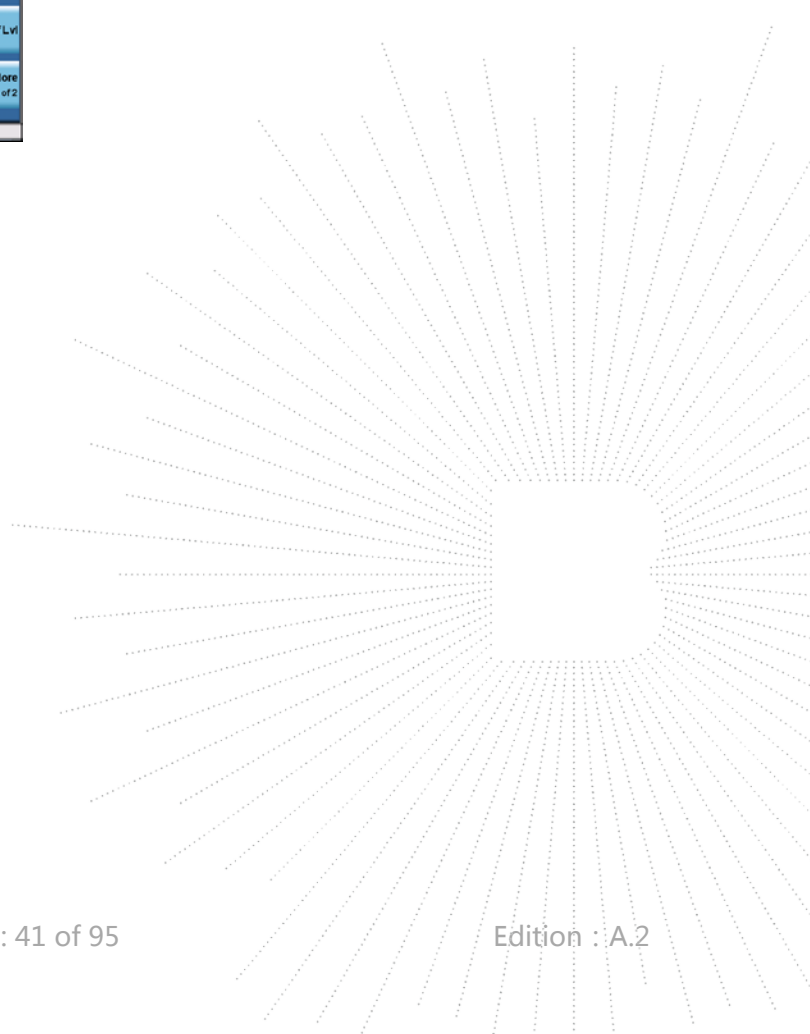
(802.11ac40) PSD plot on channel 38



(802.11ac80) PSD plot on channel 42



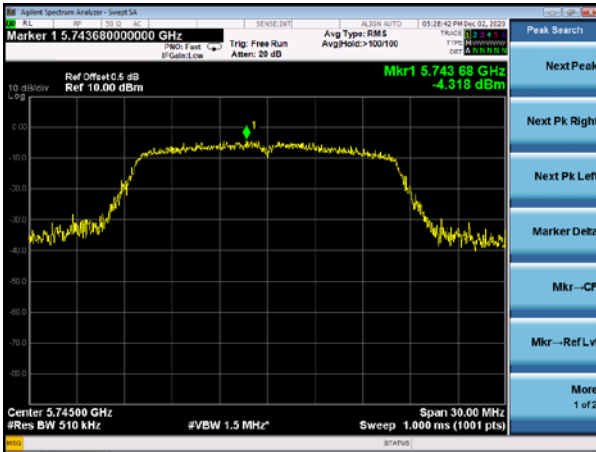
(802.11ac40) PSD plot on channel 46



Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.7V
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	-4.318	30	PASS
	5785 MHz	-4.766	30	PASS
	5825 MHz	-4.205	30	PASS
802.11 n20	5745 MHz	-4.263	30	PASS
	5785 MHz	-5.766	30	PASS
	5825 MHz	-4.389	30	PASS
802.11 n40	5755 MHz	-6.993	30	PASS
	5795 MHz	-7.192	30	PASS
802.11 AC20	5745 MHz	-4.428	30	PASS
	5785 MHz	-5.158	30	PASS
	5825 MHz	-4.560	30	PASS
802.11 AC40	5755 MHz	-7.733	30	PASS
	5795 MHz	-7.520	30	PASS
802.11 AC80	5775 MHz	-9.810	30	PASS

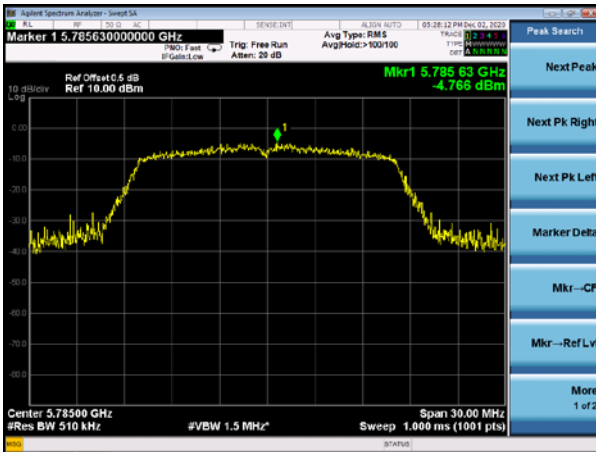
(802.11a) PSD plot on channel 149



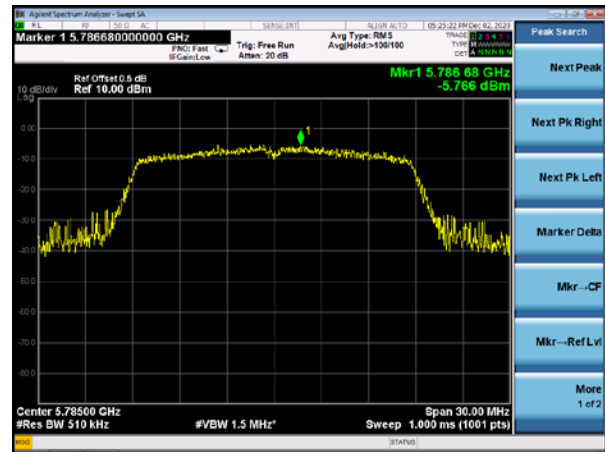
(802.11n20) PSD plot on channel 149



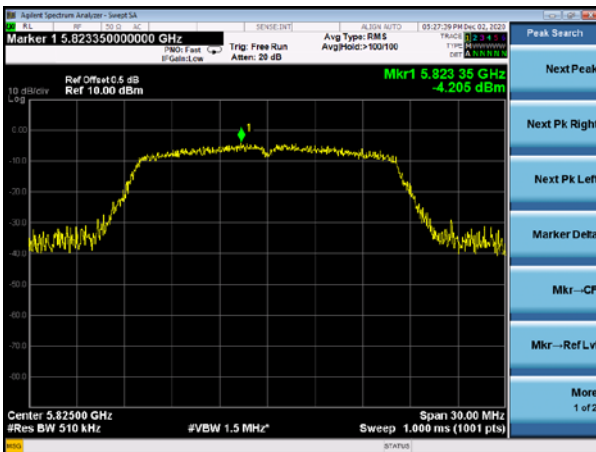
(802.11a) PSD plot on channel 157



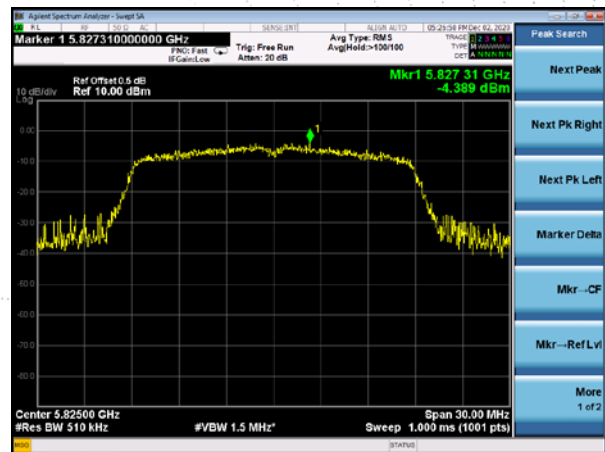
(802.11n20) PSD plot on channel 157



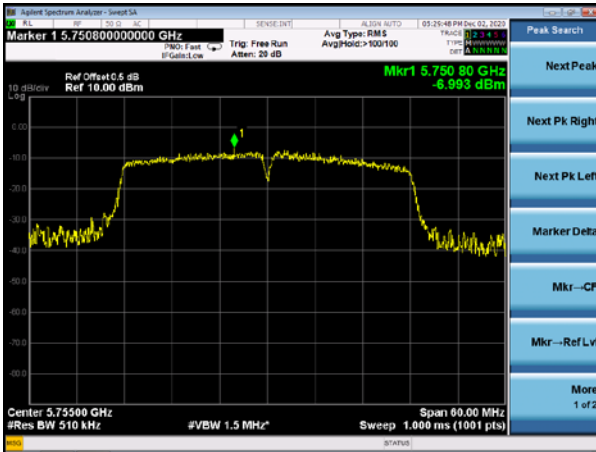
(802.11a) PSD plot on channel 165



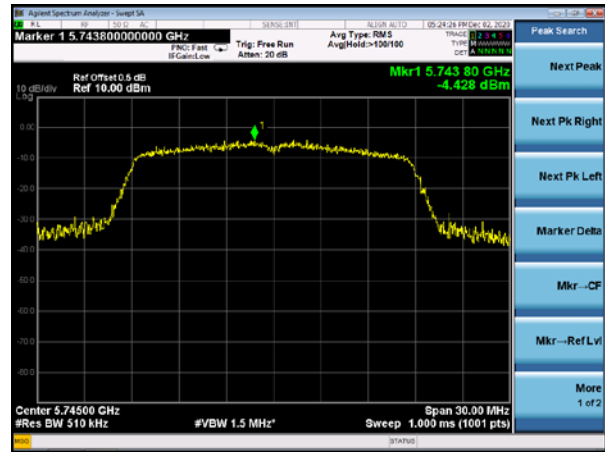
(802.11n20) PSD plot on channel 165



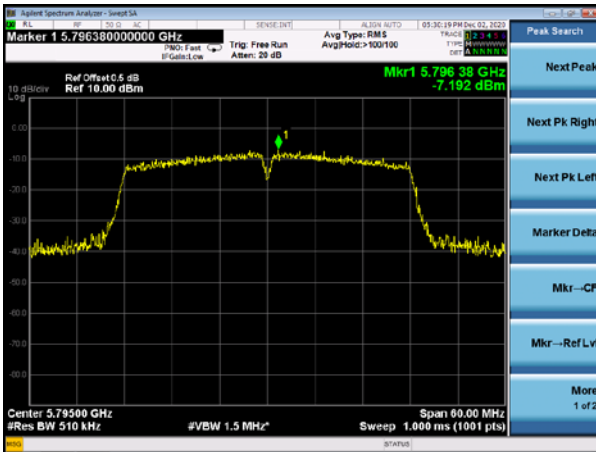
(802.11n40) PSD plot on channel 151



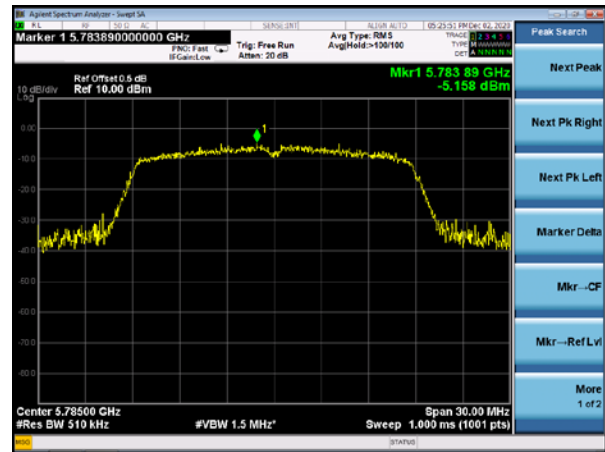
(802.11ac20) PSD plot on channel 149



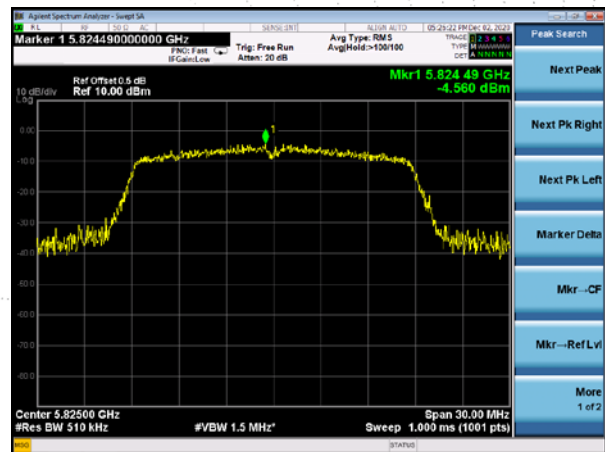
(802.11n40) PSD plot on channel 159



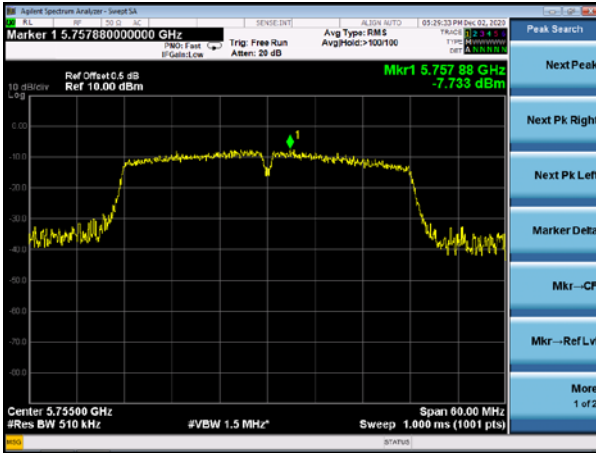
(802.11ac20) PSD plot on channel 157



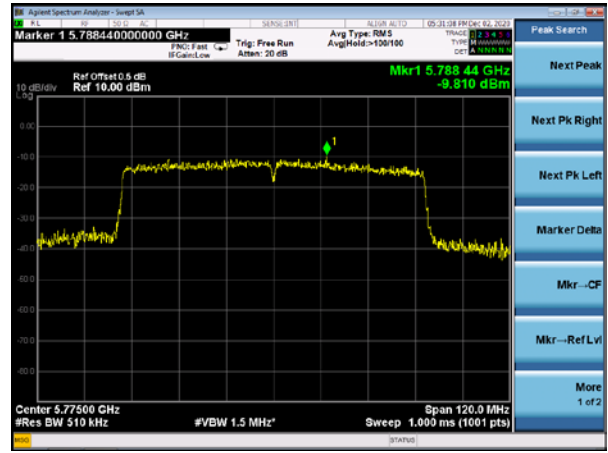
(802.11ac20) PSD plot on channel 165



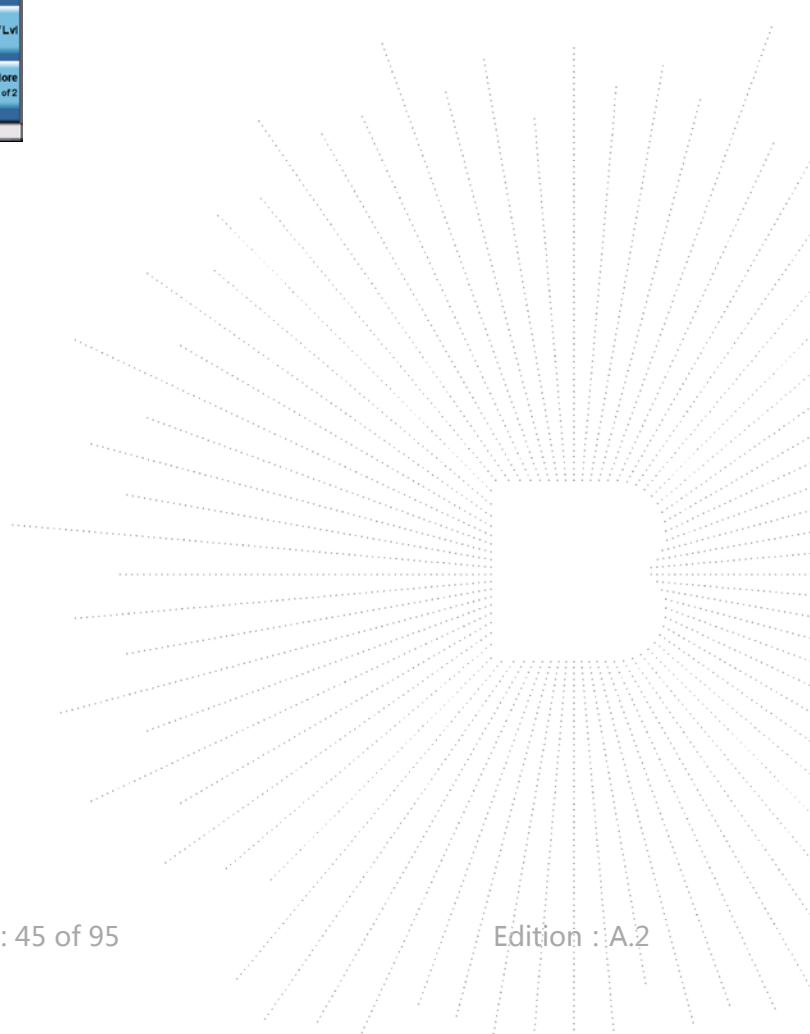
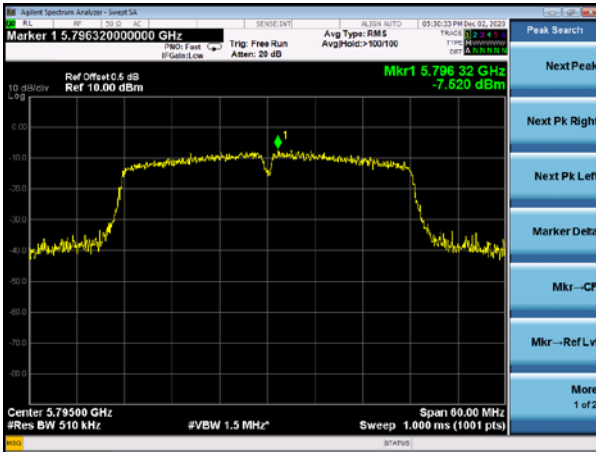
(802.11ac40) PSD plot on channel 151



(802.11ac80) PSD plot on channel 155

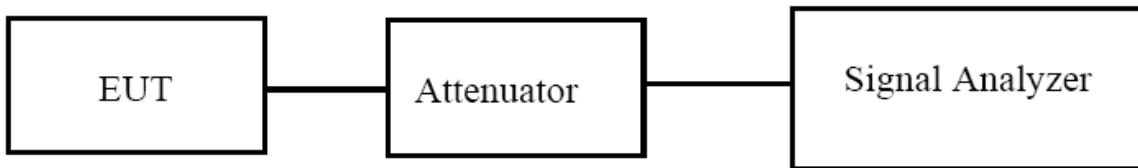


(802.11ac40) PSD plot on channel 159



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.

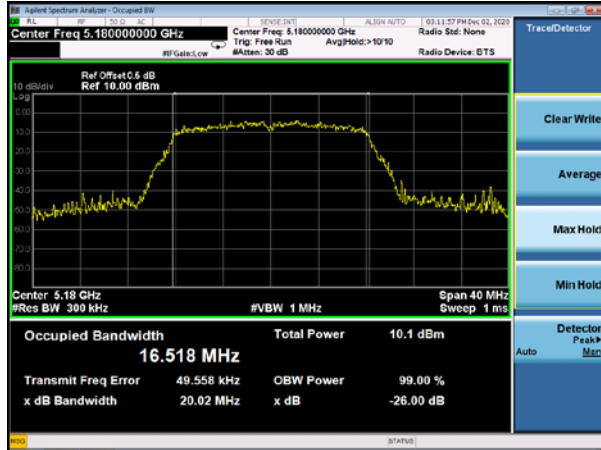
9.5 Test Result

Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.7V
Test Mode :	TX Frequency U-NII-1 (5180-5240MHz)		

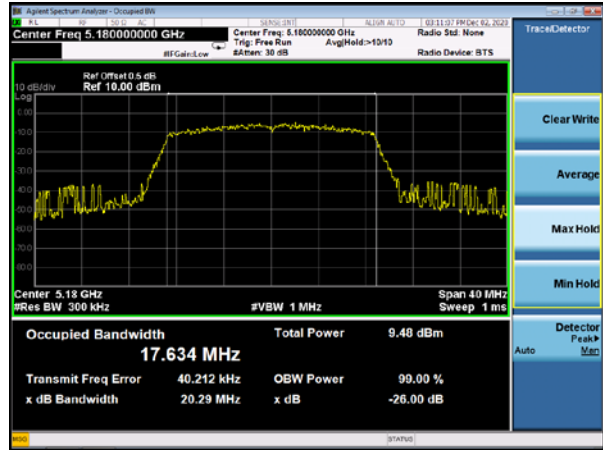
Mode	Channel	Frequency (MHz)	99% bandwidth (MHz)	26dB bandwidth (MHz)	Limit MHz	Result
802.11a	CH36	5180	16.518	20.02	N/A	Pass
	CH40	5200	16.558	19.88	N/A	Pass
	CH48	5240	16.656	20.18	N/A	Pass
802.11 n20	CH36	5180	17.634	20.29	N/A	Pass
	CH40	5200	17.640	20.17	N/A	Pass
	CH48	5240	17.669	20.29	N/A	Pass
802.11 n40	CH 38	5190	36.038	40.92	N/A	Pass
	CH 46	5230	36.222	49.86	N/A	Pass
802.11 AC20	CH36	5180	17.680	20.23	N/A	Pass
	CH40	5200	17.639	20.24	N/A	Pass
	CH48	5240	17.640	20.18	N/A	Pass
802.11 AC40	CH 38	5190	36.097	40.84	N/A	Pass
	CH 46	5230	36.085	41.06	N/A	Pass
802.11 AC80	CH 42	5210	75.200	92.61	N/A	Pass

Test plot

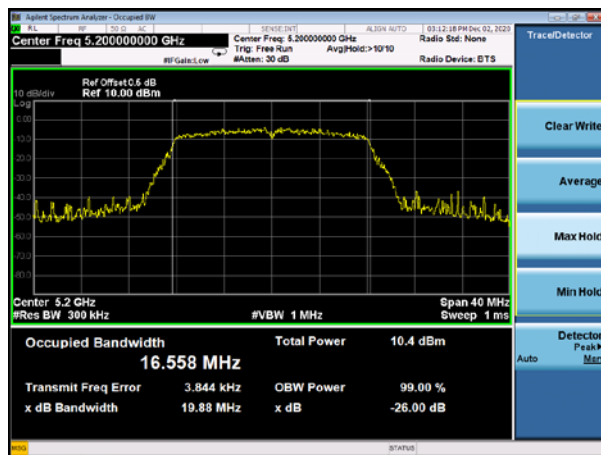
(802.11a) 26dB&99%Bandwidth plot on channel 36



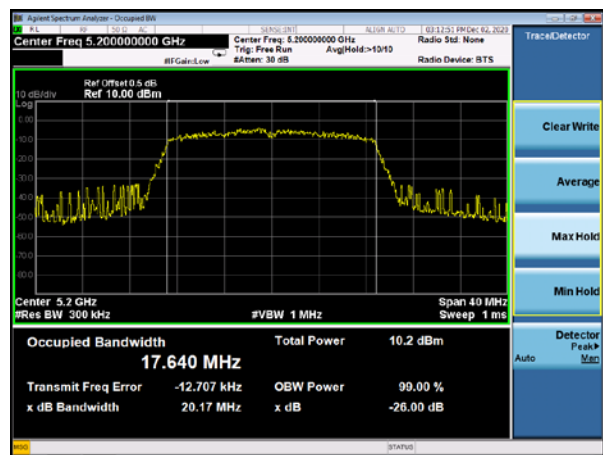
(802.11 n20) 26dB&99%Bandwidth plot on channel 36



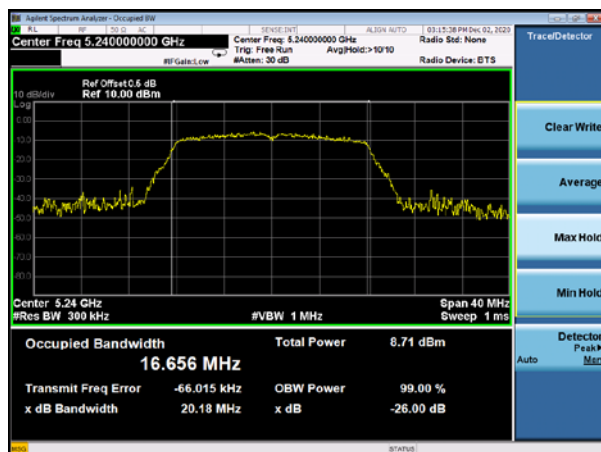
(802.11a) 26dB&99%Bandwidth plot on channel 40



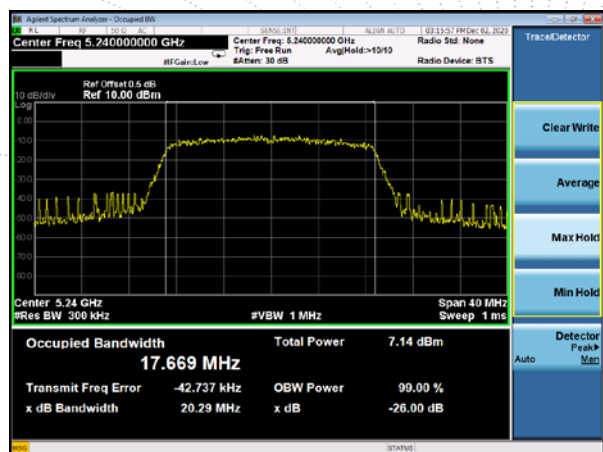
(802.11 n20) 26dB&99%Bandwidth plot on channel 40



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

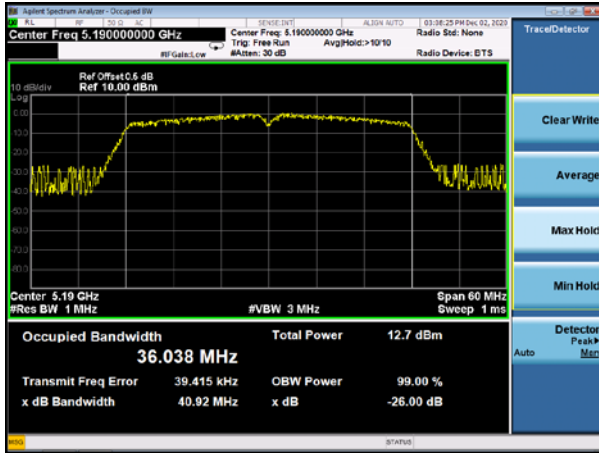


(802.11 n20) 26dB&99%Bandwidth plot on channel 48

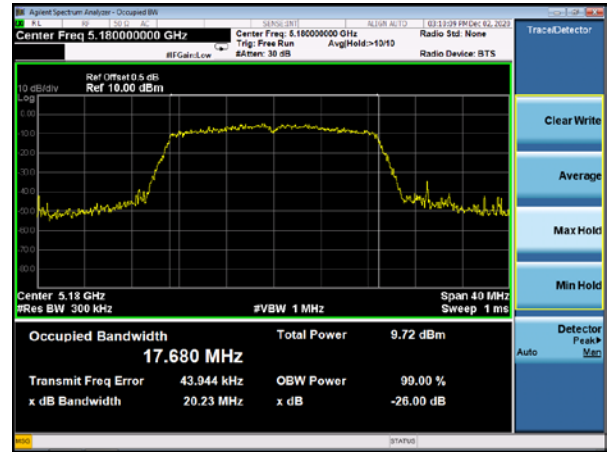


Test plot

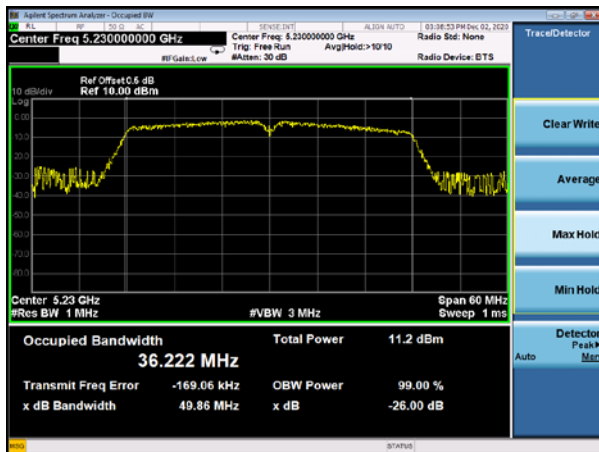
(802.11 n40) 26dB&99%Bandwidth plot on channel 38



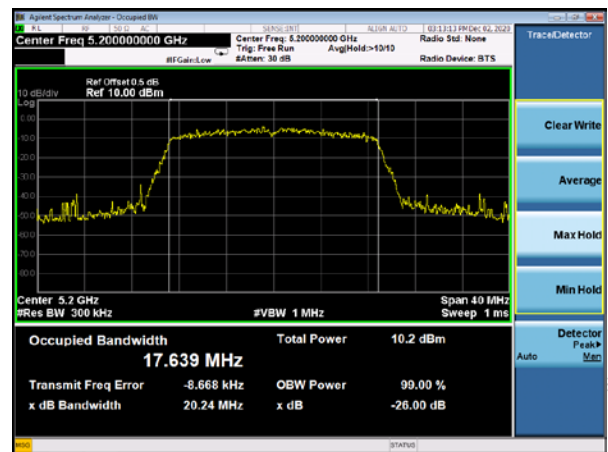
(802.11 AC20) -26dB&99%Bandwidth plot on channel 36



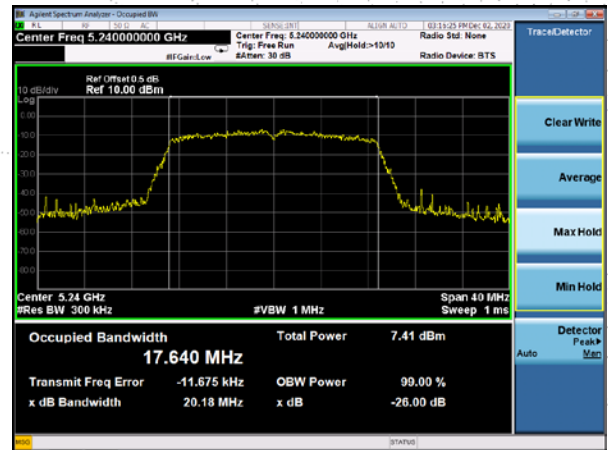
(802.11 n40) 26dB&99%Bandwidth plot on channel 46



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

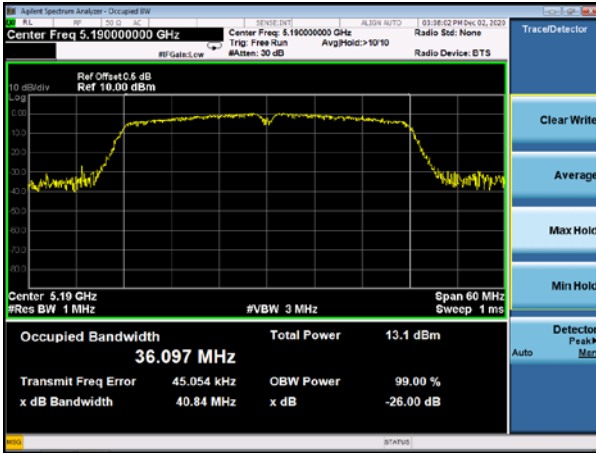


(802.11 AC20) -26dB&99%Bandwidth plot on channel 48

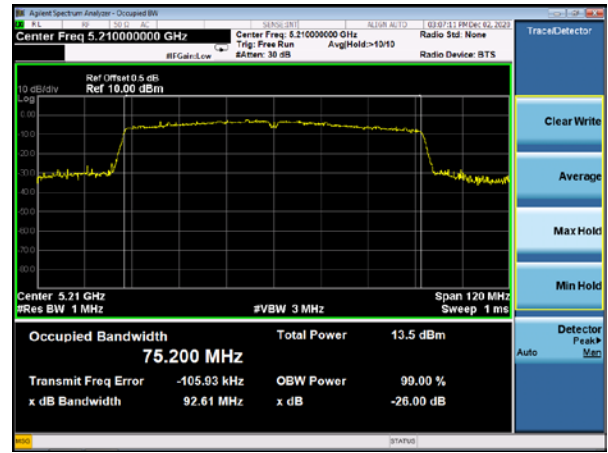


Test plot

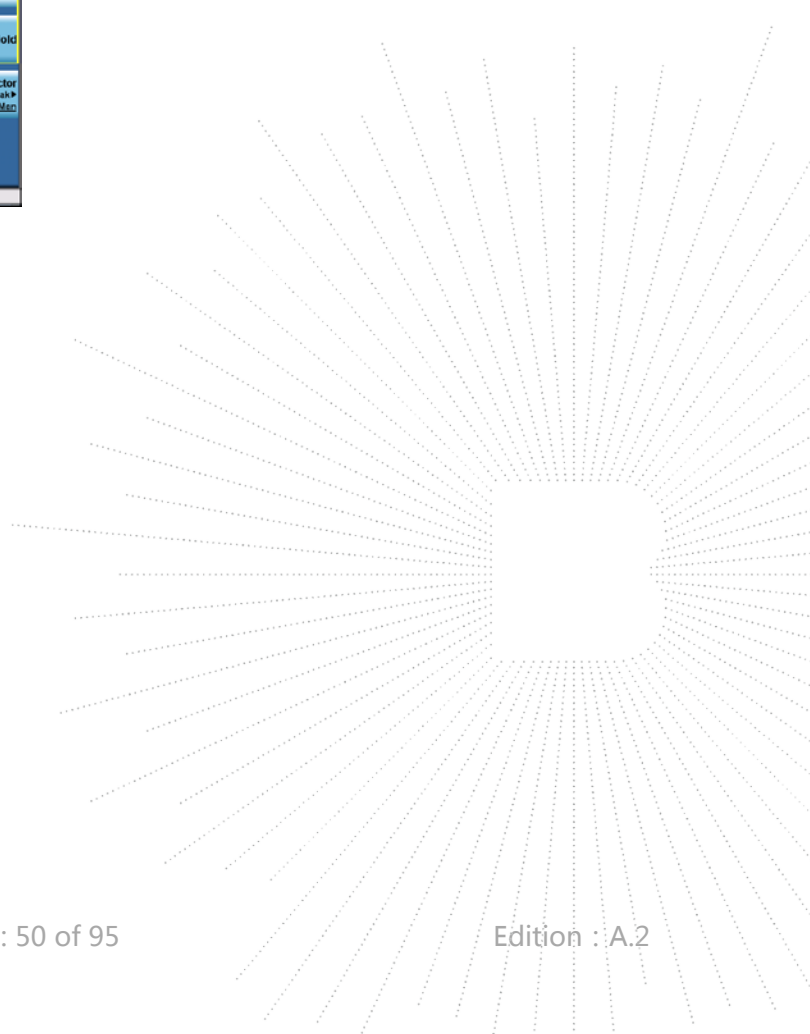
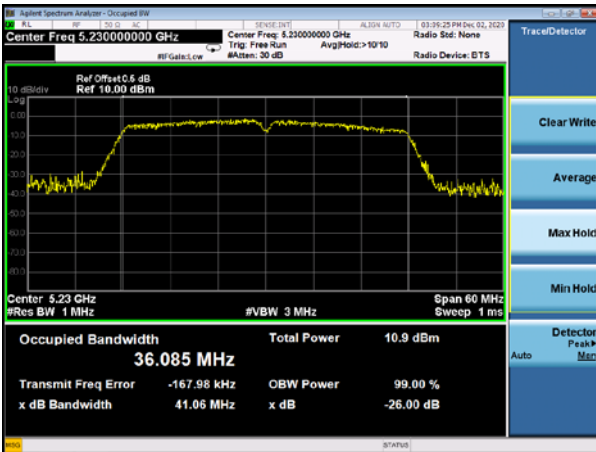
(802.11 AC40) -26dB&99%Bandwidth plot on channel 38



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



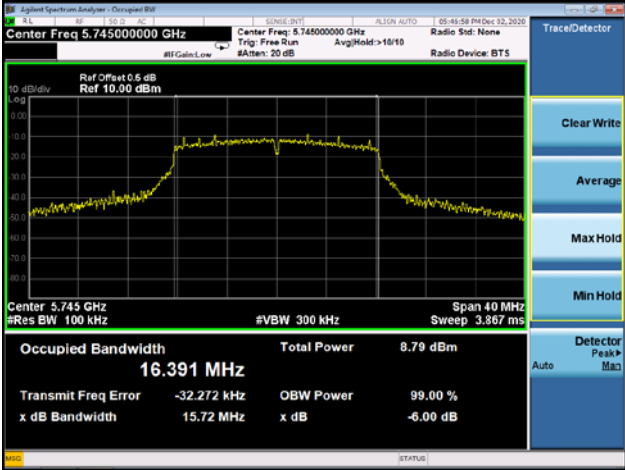
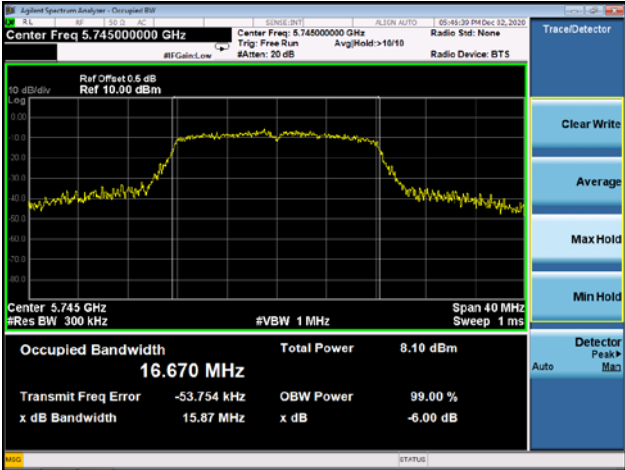
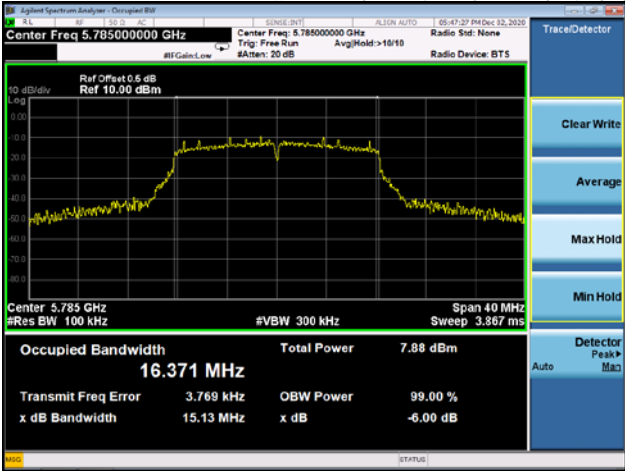
(802.11 AC40) -26dB&99%Bandwidth plot on channel 46



Temperature :	26 °C	Relative Humidity :	54%
Pressure :	101kPa	Test Voltage :	DC 3.7V
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	16.670	15.72	≥500	Pass
	CH157	5785	16.707	15.13	≥500	Pass
	CH165	5825	16.686	14.72	≥500	Pass
802.11 n20	CH149	5745	17.741	15.34	≥500	Pass
	CH157	5785	17.701	12.68	≥500	Pass
	CH165	5825	17.719	14.85	≥500	Pass
802.11 n40	CH151	5755	36.450	35.16	≥500	Pass
	CH159	5795	36.192	33.95	≥500	Pass
802.11 AC20	CH149	5745	17.739	15.14	≥500	Pass
	CH157	5785	17.718	15.28	≥500	Pass
	CH165	5825	17.686	15.17	≥500	Pass
802.11 AC40	CH151	5755	36.286	35.14	≥500	Pass
	CH159	5795	36.346	35.17	≥500	Pass
802.11 AC80	CH155	5775	75.794	75.31	≥500	Pass

5725-5850MHz

Mode:	802.11a
<p>5745MHz 6dB bandwidth</p>	 <p>Center Freq 5.74500000 GHz</p> <p>Center Freq: 5.74500000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: >10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 0.5 dB</p> <p>Ref: 10.00 dBm</p> <p>Center: 5.745 GHz</p> <p>#Res BW: 100 kHz</p> <p>#VBW: 300 kHz</p> <p>Span: 40 MHz</p> <p>Sweep: 3.867 ms</p> <p>Occupied Bandwidth: 16.391 MHz</p> <p>Total Power: 8.79 dBm</p> <p>Transmit Freq Error: -32.272 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 15.72 MHz</p> <p>x dB: -6.00 dB</p>
<p>5745MHz 99% bandwidth</p>	 <p>Center Freq 5.74500000 GHz</p> <p>Center Freq: 5.74500000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: >10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 0.5 dB</p> <p>Ref: 10.00 dBm</p> <p>Center: 5.745 GHz</p> <p>#Res BW: 300 kHz</p> <p>#VBW: 1 MHz</p> <p>Span: 40 MHz</p> <p>Sweep: 1 ms</p> <p>Occupied Bandwidth: 16.670 MHz</p> <p>Total Power: 8.10 dBm</p> <p>Transmit Freq Error: -53.754 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 15.87 MHz</p> <p>x dB: -6.00 dB</p>
<p>5785MHz 6dB bandwidth</p>	 <p>Center Freq 5.78500000 GHz</p> <p>Center Freq: 5.78500000 GHz</p> <p>Trig: Free Run</p> <p>Avg/Hold: >10/10</p> <p>Radio Std: None</p> <p>Radio Device: BTS</p> <p>Ref Offset: 0.5 dB</p> <p>Ref: 10.00 dBm</p> <p>Center: 5.785 GHz</p> <p>#Res BW: 100 kHz</p> <p>#VBW: 300 kHz</p> <p>Span: 40 MHz</p> <p>Sweep: 3.867 ms</p> <p>Occupied Bandwidth: 16.371 MHz</p> <p>Total Power: 7.88 dBm</p> <p>Transmit Freq Error: 3.769 kHz</p> <p>OBW Power: 99.00 %</p> <p>x dB Bandwidth: 15.13 MHz</p> <p>x dB: -6.00 dB</p>