

TEST REPORT

Report No.: BCTC2312205572-3E

Applicant: Shenzhen Qichang Intelligent Technology Co., Ltd

Product Name: Smart Tablet

Test Model: Tab 10 Wifi

Tested Date: 2023-12-08 to 2023-12-18

Issued Date: 2023-12-18

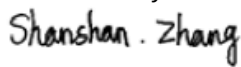
Shenzhen BCTC Testing Co., Ltd.



FCC ID: 2BAK2-TAB10WIFI

Product Name: Smart Tablet
Trademark: Fossibot
Model/Type Reference: Tab 10 Wifi
Tab 10, Tab 10 PRO, Tab 10 P, Tab 10 PLUS, Tab 10 S
Prepared For: Shenzhen Qichang Intelligent Technology Co., Ltd
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Manufacturer: Shenzhen Qichang Intelligent Technology Co., Ltd
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Prepared By: Shenzhen BCTC Testing Co., Ltd.
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Sample Received Date: 2023-12-08
Sample Tested Date: 2023-12-08 to 2023-12-18
Issue Date: 2023-12-18
Report No.: BCTC2312205572-3E
FCC Part15 15.407
Test Standards: ANSI C63.10-2013
KDB 662911 D01 v02r01
KDB 789033 D02 v02r01
Test Results: PASS
Remark: This is WIFI-5GHz band radio test report.

Tested by:



Shanshan. Zhang / Project Handler

Approved by:



Zero Zhou/Reviewer

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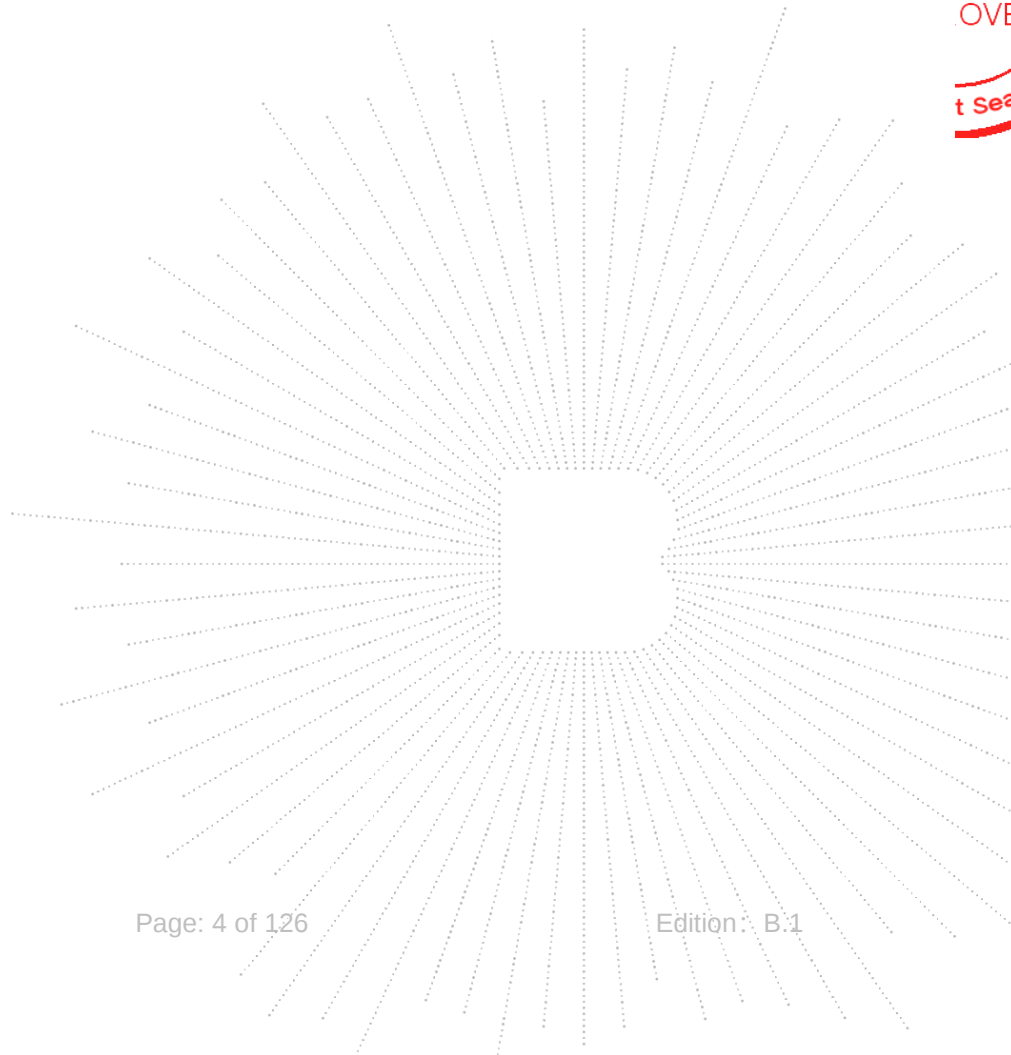
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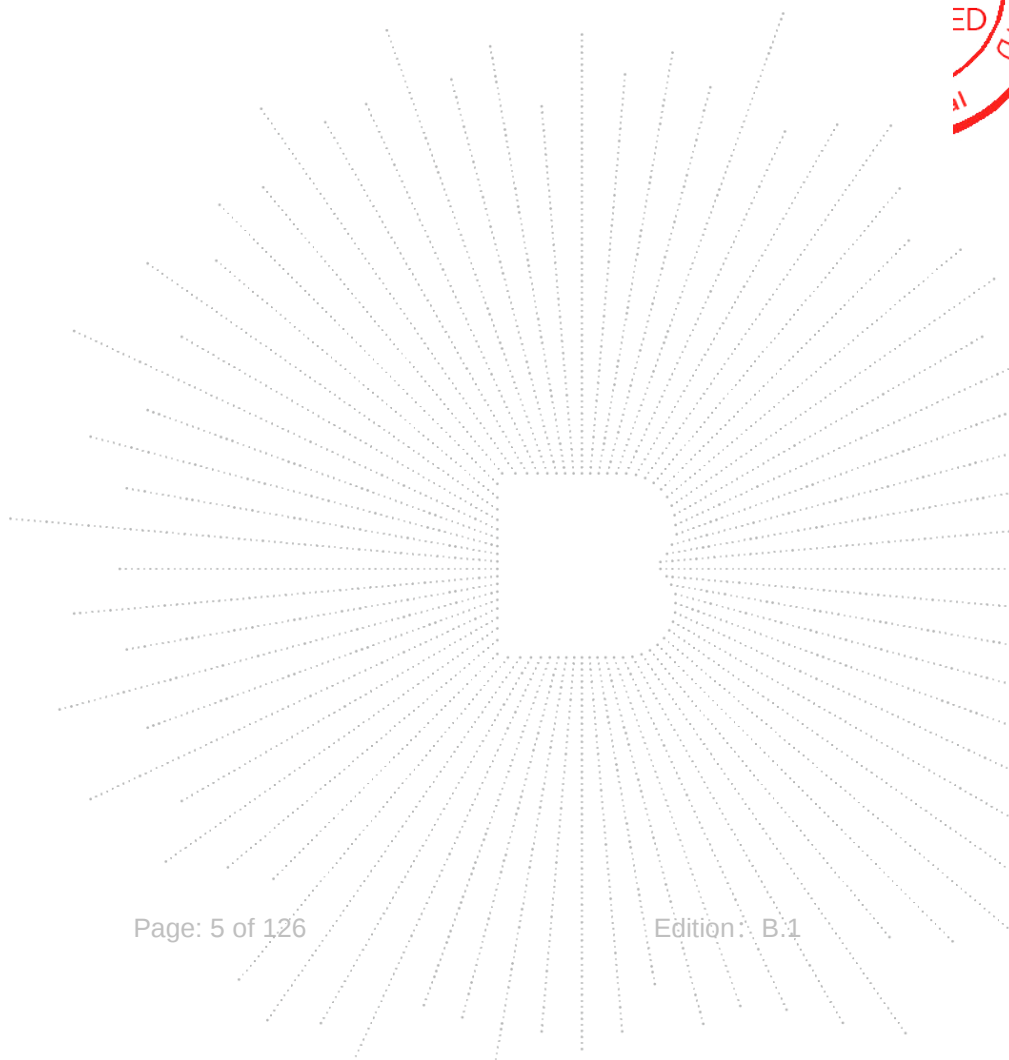
(Note: N/A Means Not Applicable)

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1. Version

Report No.	Issue Date	Description	Approved
BCTC2312205572-3E	2023-12-18	Original	Valid



2. Test Summary

The Product has been tested according to the following specifications:

1	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

Note: The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure.

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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(9KHz-30MHz)	U=3.7dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=3.34dB
5	Conducted Emission (150kHz-30MHz)	U=3.20dB
6	Conducted Adjacent channel power	U=1.38dB
7	Conducted output power uncertainty Above 1G	U=1.576dB
8	Conducted output power uncertainty below 1G	U=1.28dB
9	humidity uncertainty	U=5.3%
10	Temperature uncertainty	U=0.59℃

4. Product Information And Test Setup

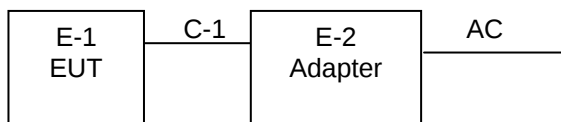
4.1 Product Information

Model/Type Reference:	Tab 10 Wifi Tab 10, Tab 10 PRO, Tab 10 P, Tab 10 PLUS, Tab 10 S
Model Differences:	All the models are the same circuit and RF module, except model names and appearance of the color.
Hardware Version:	WT_P31-Y_6771_BED_UMCP_MB_V2.2_20230713
Software Version:	FOSSIBOT_Tab 10 WIFI_F
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:	Internal antenna
Antenna Gain:	5.1G WIFI: 0.47dBi 5.8G WIFI: 0.36dBi (Note: The antenna gain of the product comes from the antenna report provided by the customer, and the test data is affected by the customer information.)
Ratings:	DC 5V from adapter or DC 3.8V from battery
Adapter:	MODEL: HJ-0502000-US INPUT: 100-240V~50/60Hz 0.3A OUTPUT:5.0V==2.0A 10.0W

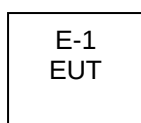
4.2 Test Setup Configuration

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.	Note
E-1	Smart Tablet	Fossibot	Tab 10 Wifi	Ref. the Section 4.1	EUT
E-2	Adapter	N/A	HJ-0502000-US	N/A	Auxiliary

Item	Shielded Type	Ferrite Core	Length	Note
C-1	N/A	N/A	1.0M	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

Frequency and Channel list for 802.11a/n/ac (5180-5240MHz):

802.11a/n/ac(20MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220	40	5200	48	5240

802.11n/ac(40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	-	-	-	-

802.11ac (80MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-	-	-

Frequency and Channel list for 802.11a/n/ac (5745-5825MHz):

802.11a/n/ac(20MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	153	5765	157	5785	161	5805
165	5825	-	-	-	-	-	-

802.11n/ac(40MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795	-	-	-	-

802.11ac (80MHz) Carrier Frequency Channel							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
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/ CH48 802.11a/ n/ ac 20 CH149/ CH157/ CH165
Mode 2	802.11n/ ac40 CH38/ CH46 802.11n/ ac40 CH151 / CH159
Mode 3	802.11 ac80 CH42/CH155
Mode 4	Link Mode

Note: 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	EngineerMode		
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., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, 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

FCC Designation Number: CN1212

ISED Registered No.: 23583

ISED CAB identifier: CN0017

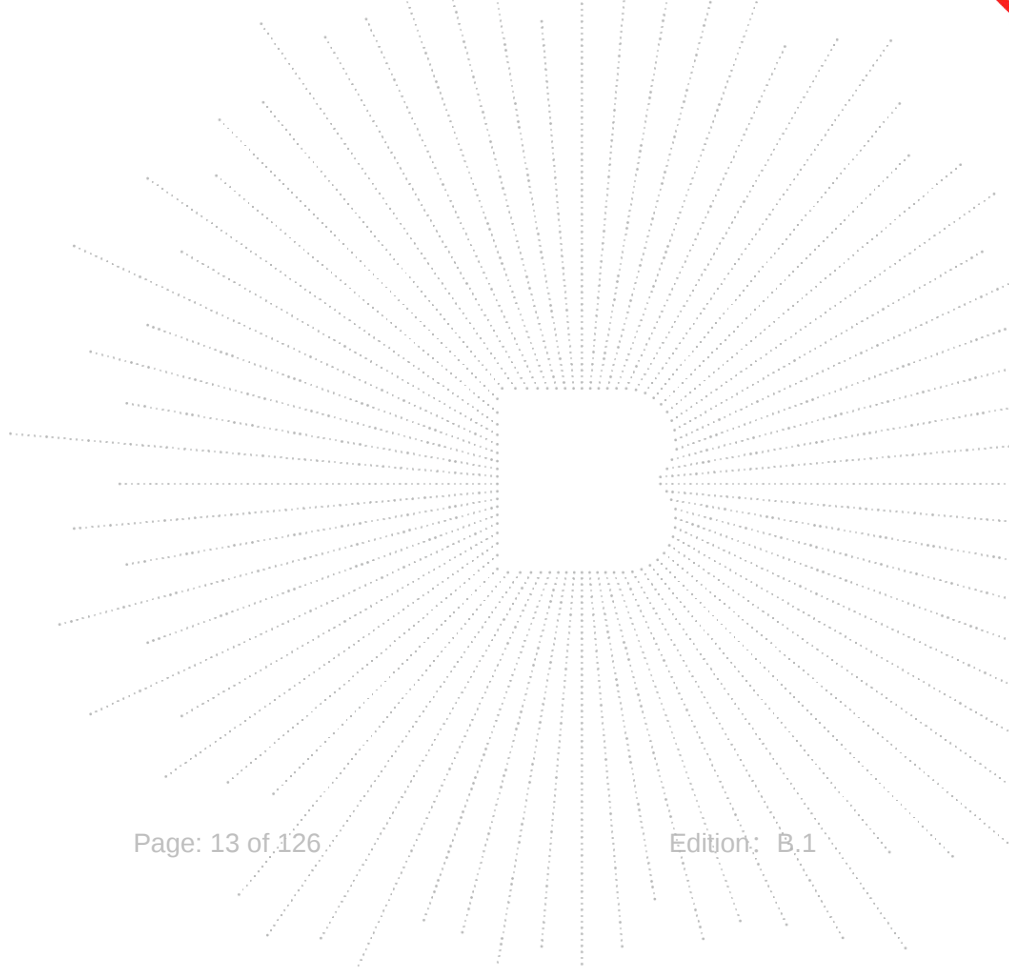
5.2 Test Instrument Used

Conducted Emissions Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024
LISN	R&S	ENV216	101375	May 15, 2023	May 14, 2024
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\
Pulse limiter	Schwarzbeck	VTSD9561-F	01323	Sept. 22, 2023	Sept. 21, 2024

RF Conducted Test					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
Power Metter	Keysight	E4419	\	May 15, 2023	May 14, 2024
Power Sensor (AV)	Keysight	E9300A	\	May 15, 2023	May 14, 2024
Signal Analyzer20kHz-26.5GHz	Keysight	N9020A	MY49100060	May 15, 2023	May 14, 2024
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024
Radio frequency control box	MAIWEI	MW100-RFC B	\	\	\
Software	MAIWEI	MTS 8310	\	\	\

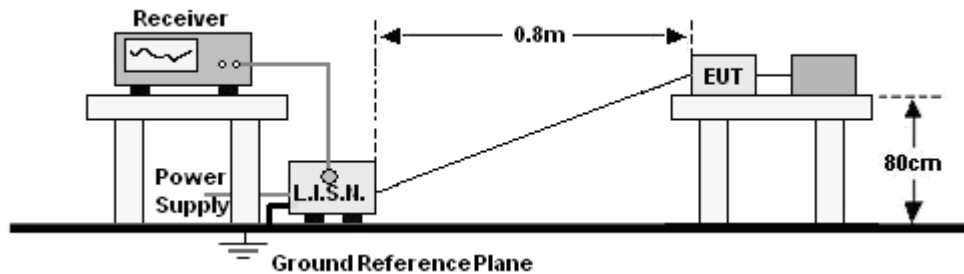
Radiated Emissions Test (966 Chamber01)					
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.
966 chamber	ChengYu	966 Room	966	May 15, 2023	May 14, 2026
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024
Receiver	R&S	ESRP	101154	May 15, 2023	May 14, 2024
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 15, 2023	May 14, 2024
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 29, 2023	May 28, 2024
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 31, 2023	May 30, 2024
Amplifier	SKET	LAPA_01G18 G-45dB	SK2021040901	May 15, 2023	May 14, 2024
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 31, 2023	May 30, 2024
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35-HG	2034381	May 15, 2023	May 14, 2024
Horn Antenn(18GHz-40GHz)	Schwarzbeck	BBHA9170	00822	May 31, 2023	May 30, 2024
Spectrum Analyzer9kHz-40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024
Software	Frad	EZ-EMC	FA-03A2 RE	\	\

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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.

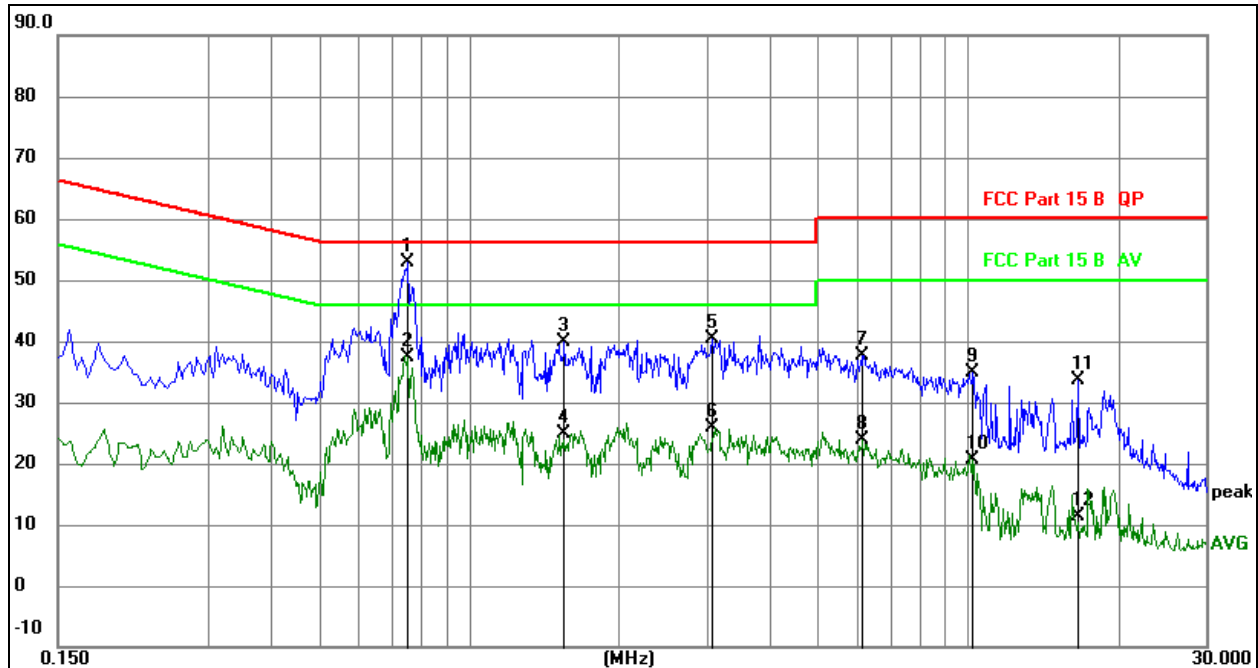
6.4 EUT operating Conditions

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.

We pretest AC 120V and AC 240V, the worst voltage was AC 120V and the data recording in the report.

6.5 Test Result

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	Mode 4	Polarization :	L

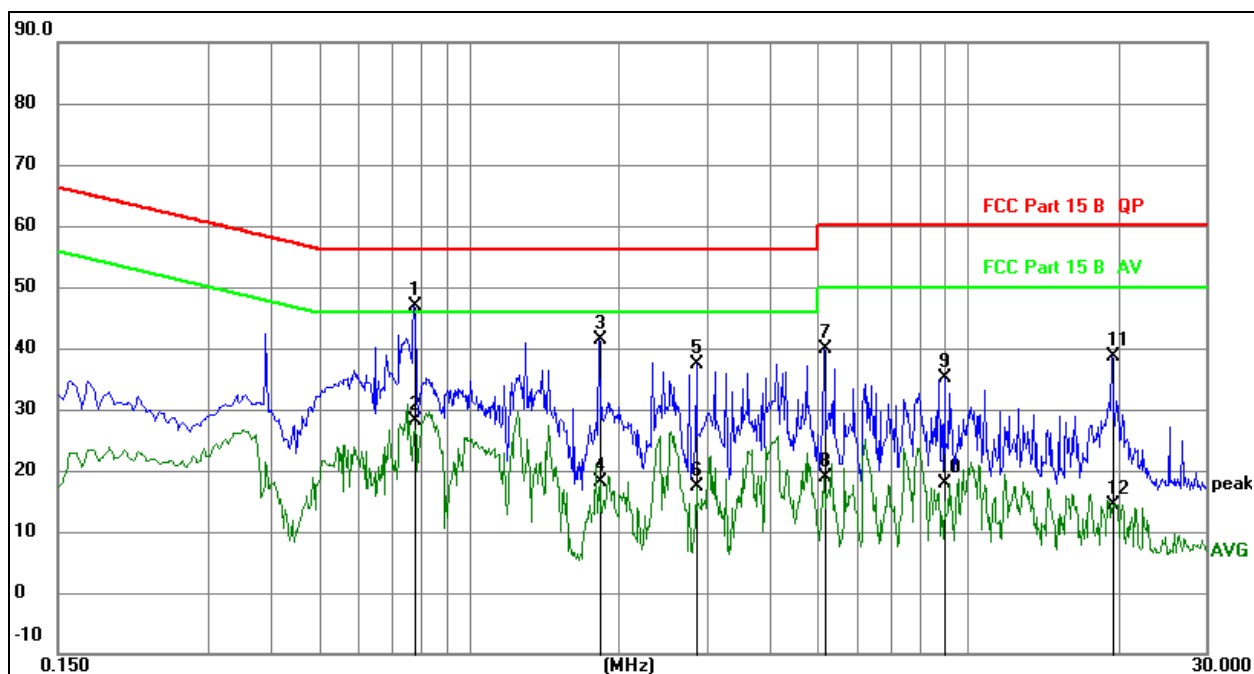


Remark:

1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1	*	0.7549	33.10	19.86	52.96	56.00	-3.04	QP
2		0.7549	17.41	19.86	37.27	46.00	-8.73	AVG
3		1.5518	19.96	19.95	39.91	56.00	-16.09	QP
4		1.5518	4.93	19.95	24.88	46.00	-21.12	AVG
5		3.0738	20.15	20.33	40.48	56.00	-15.52	QP
6		3.0738	5.63	20.33	25.96	46.00	-20.04	AVG
7		6.1533	17.54	20.16	37.70	60.00	-22.30	QP
8		6.1533	3.70	20.16	23.86	50.00	-26.14	AVG
9		10.2332	14.91	19.88	34.79	60.00	-25.21	QP
10		10.2332	0.65	19.88	20.53	50.00	-29.47	AVG
11		16.5731	13.79	19.91	33.70	60.00	-26.30	QP
12		16.5731	-8.47	19.91	11.44	50.00	-38.56	AVG

Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	AC 120V/60Hz
Test Mode:	Mode 4	Polarization :	N



Remark:

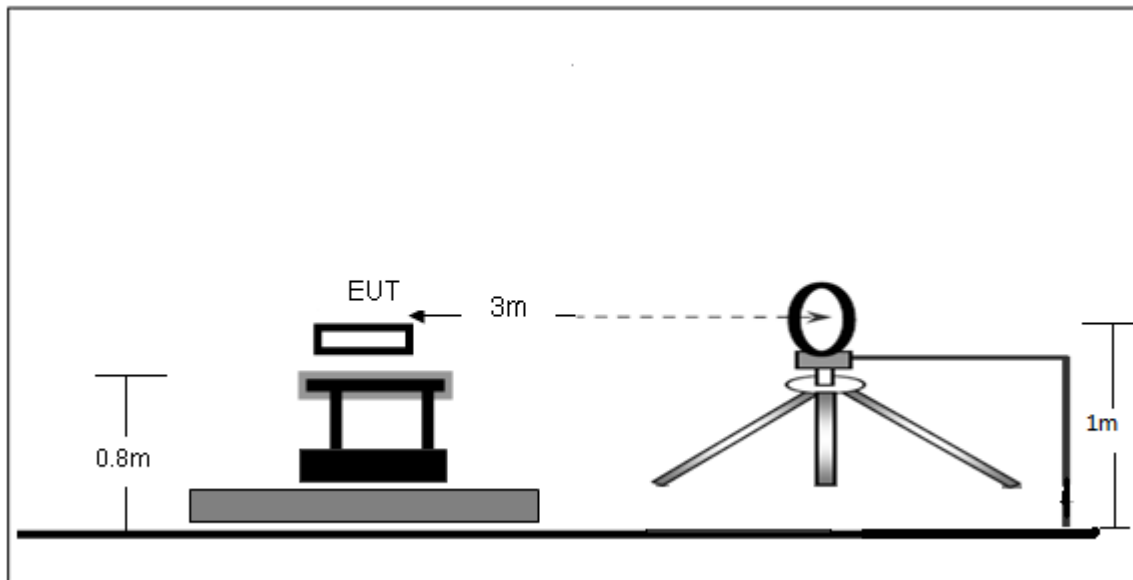
1. All readings are Quasi-Peak and Average values.
2. Factor = Insertion Loss + Cable Loss.
3. Measurement = Reading Level + Correct Factor
4. Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz		dB	dBuV	dBuV	dB	Detector
1	*	0.7754	27.12	19.87	46.99	56.00	-9.01	QP
2		0.7754	8.37	19.87	28.24	46.00	-17.76	AVG
3		1.8284	21.33	19.95	41.28	56.00	-14.72	QP
4		1.8284	-1.93	19.95	18.02	46.00	-27.98	AVG
5		2.8590	17.20	20.25	37.45	56.00	-18.55	QP
6		2.8590	-2.92	20.25	17.33	46.00	-28.67	AVG
7		5.1585	19.46	20.39	39.85	60.00	-20.15	QP
8		5.1585	-1.43	20.39	18.96	50.00	-31.04	AVG
9		9.0060	15.25	19.91	35.16	60.00	-24.84	QP
10		9.0060	-2.07	19.91	17.84	50.00	-32.16	AVG
11		19.4775	18.59	19.98	38.57	60.00	-21.43	QP
12		19.4775	-5.66	19.98	14.32	50.00	-35.68	AVG

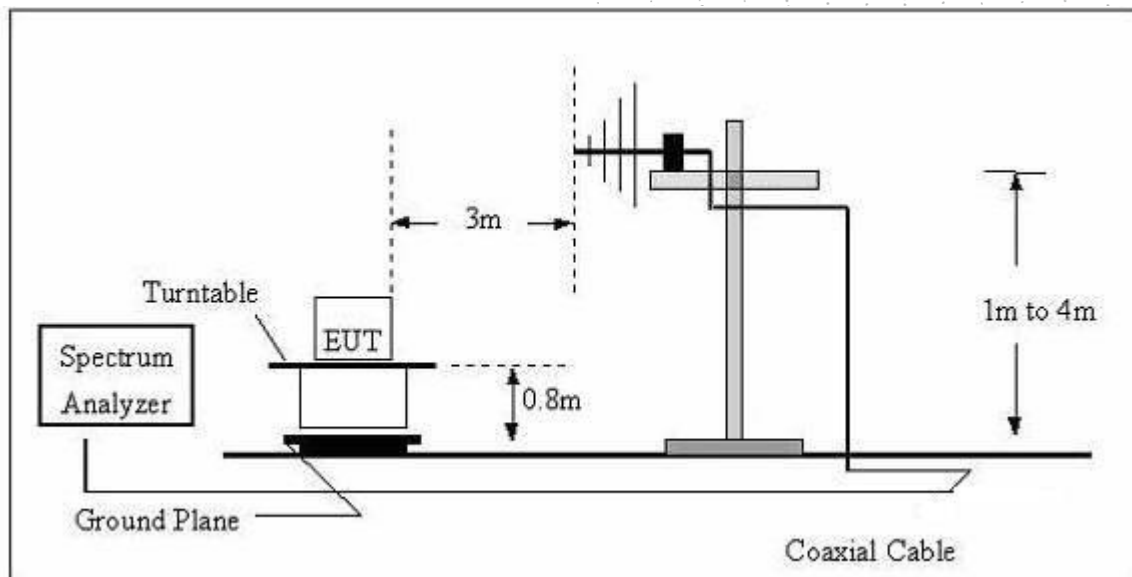
7. Radiated Emissions

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	$10000 * 2400/F(\text{kHz})$	$20\log^{(2400/F(\text{kHz}))} + 80$
0.490 ~ 1.705	24000/F(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	10th carrier harmonic
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 °C	Relative Humidity:	54%
Pressure:	101KPa	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

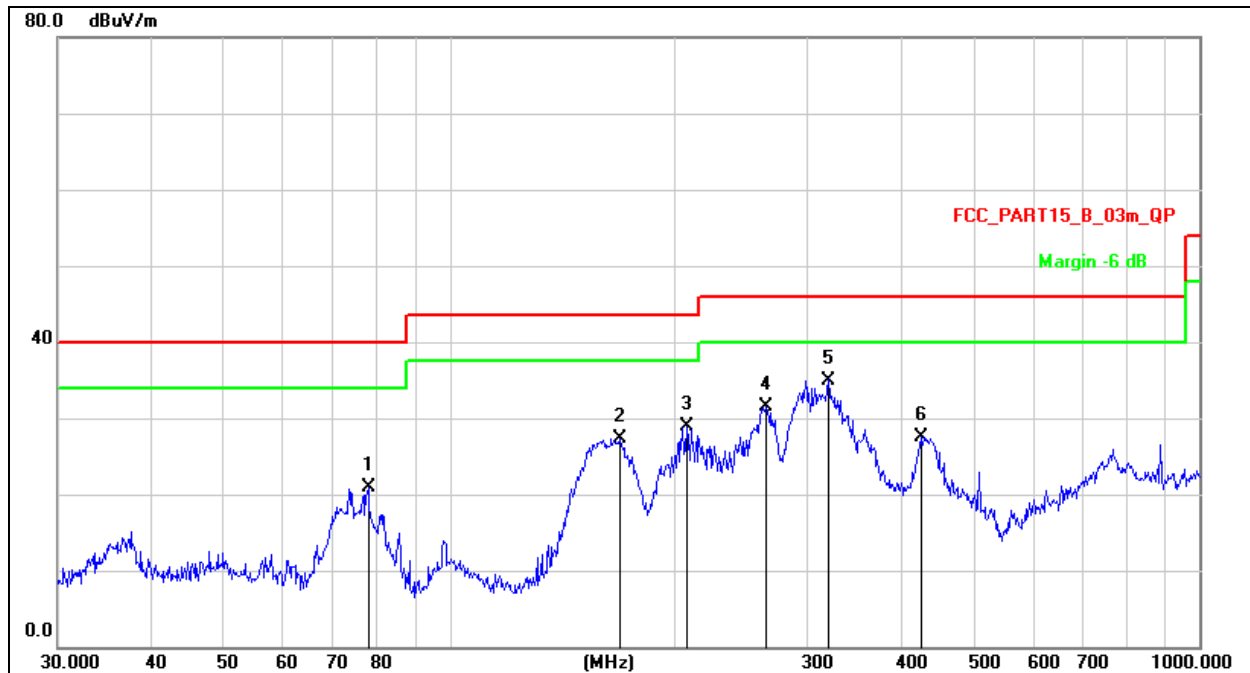
Note:

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

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

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

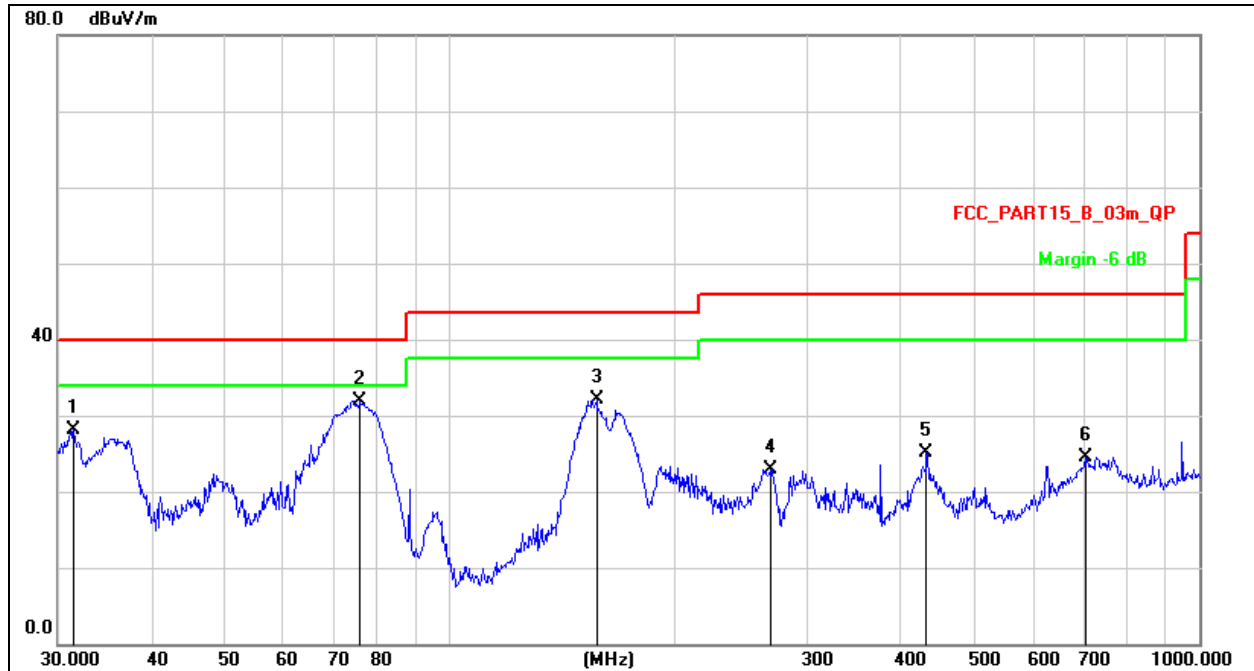


Remark:

- Factor = Antenna Factor + Cable Loss – Pre-amplifier.
- Measurement = Reading Level + Correct Factor
- Over = Measurement - Limit

No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dB/m	dB	Detector
1		77.8654	40.28	-19.38	20.90	40.00	-19.10	QP
2		169.0054	45.40	-18.02	27.38	43.50	-16.12	QP
3		207.1226	44.49	-15.52	28.97	43.50	-14.53	QP
4		264.7457	45.57	-13.98	31.59	46.00	-14.41	QP
5	*	319.9370	47.54	-12.54	35.00	46.00	-11.00	QP
6		426.5210	37.80	-10.32	27.48	46.00	-18.52	QP

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



Remark:

1. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
2. Measurement = Reading Level + Correct Factor
3. Over = Measurement - Limit

No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dB/m	Over dB	Detector
1		31.5095	44.49	-16.36	28.13	40.00	-11.87	QP
2	*	75.9773	50.95	-19.05	31.90	40.00	-8.10	QP
3		157.0074	51.09	-18.91	32.18	43.50	-11.32	QP
4		267.5455	36.87	-13.92	22.95	46.00	-23.05	QP
5		432.5457	35.40	-10.20	25.20	46.00	-20.80	QP
6		704.2261	30.20	-5.65	24.55	46.00	-21.45	QP

Test Mode:	TX(5.1G) - 802.11a
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Polar (H/V)	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Measurement (dBuV/m)	Limits (dBuV/m)	Over (dB)	Detector Type
Low Channel (5180 MHz)-Above 1G							
V	4434.142	74.84	-20.73	54.11	68.2	-14.09	PK
V	4434.142	59.42	-20.73	38.69	54	-15.31	AV
V	10360.003	60.11	-9.36	50.75	68.2	-17.45	PK
V	10360.003	49.76	-9.36	40.40	54	-13.60	AV
V	15540.017	62.78	-7.84	54.94	74	-19.06	PK
V	15540.017	49.26	-7.84	41.42	54	-12.58	AV
H	4434.050	73.63	-20.73	52.90	68.2	-15.30	PK
H	4434.050	59.46	-20.73	38.73	54	-15.27	AV
H	10360.009	63.70	-9.36	54.34	68.2	-13.86	PK
H	10360.009	49.07	-9.36	39.71	54	-14.29	AV
H	15540.057	60.01	-7.84	52.17	74	-21.83	PK
H	15540.057	49.24	-7.84	41.40	54	-12.60	AV
Middle Channel (5200 MHz)-Above 1G							
V	4592.002	70.60	-20.42	50.18	74	-23.82	PK
V	4592.002	59.04	-20.42	38.62	54	-15.38	AV
V	10400.074	63.04	-9.30	53.74	68.2	-14.46	PK
V	10400.074	49.86	-9.30	40.56	54	-13.44	AV
V	15600.047	63.51	-7.82	55.69	74	-18.31	PK
V	15600.047	49.86	-7.82	42.04	54	-11.96	AV
H	4592.192	70.36	-20.42	49.95	74	-24.05	PK
H	4592.192	59.09	-20.42	38.68	54	-15.32	AV
H	10400.181	64.88	-9.30	55.58	68.2	-12.62	PK
H	10400.181	49.55	-9.30	40.25	54	-13.75	AV
H	15600.077	61.16	-7.82	53.34	74	-20.66	PK
H	15600.077	49.50	-7.82	41.68	54	-12.32	AV
High Channel (5240 MHz)-Above 1G							
V	4739.038	71.89	-20.12	51.77	74	-22.23	PK
V	4739.038	59.09	-20.12	38.97	54	-15.03	AV
V	10480.162	61.83	-9.18	52.65	68.2	-15.55	PK
V	10480.162	49.34	-9.18	40.16	54	-13.84	AV
V	15720.154	60.05	-7.78	52.27	74	-21.73	PK
V	15720.154	49.66	-7.78	41.88	54	-12.12	AV
H	4739.142	74.14	-20.12	54.02	74	-19.98	PK
H	4739.142	59.32	-20.12	39.19	54	-14.81	AV
H	10480.067	63.81	-9.18	54.63	68.2	-13.57	PK
H	10480.067	49.60	-9.18	40.42	54	-13.58	AV
H	15720.134	60.37	-7.78	52.59	74	-21.41	PK
H	15720.134	49.18	-7.78	41.40	54	-12.60	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	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
V	4434.132	70.84	-20.73	50.11	68.2	-18.09	PK
V	4434.132	59.98	-20.73	39.25	54	-14.75	AV
V	10360.199	61.23	-9.36	51.87	68.2	-16.33	PK
V	10360.199	49.72	-9.36	40.36	54	-13.64	AV
V	15540.104	61.74	-7.84	53.90	74	-20.10	PK
V	15540.104	49.30	-7.84	41.46	54	-12.54	AV
H	4434.164	70.08	-20.73	49.35	68.2	-18.85	PK
H	4434.164	59.67	-20.73	38.94	54	-15.06	AV
H	10360.139	61.67	-9.36	52.31	68.2	-15.89	PK
H	10360.139	49.37	-9.36	40.01	54	-13.99	AV
H	15540.187	60.33	-7.84	52.49	74	-21.51	PK
H	15540.187	49.26	-7.84	41.42	54	-12.58	AV
Middle Channel (5200 MHz)-Above 1G							
V	4592.040	71.22	-20.42	50.81	74	-23.19	PK
V	4592.040	59.67	-20.42	39.25	54	-14.75	AV
V	10400.070	62.21	-9.30	52.91	68.2	-15.29	PK
V	10400.070	49.04	-9.30	39.74	54	-14.26	AV
V	15600.029	60.79	-7.82	52.97	74	-21.03	PK
V	15600.029	49.48	-7.82	41.66	54	-12.34	AV
H	4592.114	74.87	-20.42	54.45	74	-19.55	PK
H	4592.114	59.06	-20.42	38.65	54	-15.35	AV
H	10400.078	60.67	-9.30	51.37	68.2	-16.83	PK
H	10400.078	49.32	-9.30	40.02	54	-13.98	AV
H	15600.012	64.45	-7.82	56.63	74	-17.37	PK
H	15600.012	49.06	-7.82	41.24	54	-12.76	AV
High Channel (5240 MHz)-Above 1G							
V	4739.047	73.27	-20.12	53.15	74	-20.85	PK
V	4739.047	59.93	-20.12	39.80	54	-14.20	AV
V	10480.099	63.69	-9.18	54.51	68.2	-13.69	PK
V	10480.099	49.30	-9.18	40.12	54	-13.88	AV
V	15720.117	61.95	-7.78	54.17	74	-19.83	PK
V	15720.117	49.07	-7.78	41.29	54	-12.71	AV
H	4739.022	74.02	-20.12	53.90	74	-20.10	PK
H	4739.022	59.63	-20.12	39.51	54	-14.49	AV
H	10480.009	62.87	-9.18	53.69	68.2	-14.51	PK
H	10480.009	49.93	-9.18	40.75	54	-13.25	AV
H	15720.097	64.44	-7.78	56.66	74	-17.34	PK
H	15720.097	49.36	-7.78	41.58	54	-12.42	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(5.1G) - 802.11n-HT40
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
V	4434.100	70.46	-20.73	49.72	68.2	-18.48	PK
V	4434.100	59.89	-20.73	39.16	54	-14.84	AV
V	10380.039	62.45	-9.33	53.12	68.2	-15.08	PK
V	10380.039	49.66	-9.33	40.33	54	-13.67	AV
V	15570.182	60.77	-7.83	52.94	74	-21.06	PK
V	15570.182	49.67	-7.83	41.84	54	-12.16	AV
H	4434.010	70.39	-20.73	49.65	74	-24.35	PK
H	4434.010	59.86	-20.73	39.13	54	-14.87	AV
H	10380.098	60.63	-9.33	51.30	68.2	-16.90	PK
H	10380.098	49.24	-9.33	39.91	54	-14.09	AV
H	15570.014	63.23	-7.83	55.40	74	-18.60	PK
H	15570.014	49.73	-7.83	41.90	54	-12.10	AV
High Channel (5230 MHz)-Above 1G							
V	4739.152	71.12	-20.12	51.00	68.2	-17.20	PK
V	4739.152	59.56	-20.12	39.44	54	-14.56	AV
V	10460.144	61.68	-9.21	52.47	68.2	-15.73	PK
V	10460.144	49.62	-9.21	40.41	54	-13.59	AV
V	15690.131	61.94	-7.79	54.15	74	-19.85	PK
V	15690.131	49.71	-7.79	41.92	54	-12.08	AV
H	4739.023	70.43	-20.12	50.31	68.2	-17.89	PK
H	4739.023	59.89	-20.12	39.77	54	-14.23	AV
H	10460.136	63.89	-9.21	54.68	68.2	-13.52	PK
H	10460.136	49.00	-9.21	39.79	54	-14.21	AV
H	15690.181	61.37	-7.79	53.58	74	-20.42	PK
H	15690.181	49.24	-7.79	41.45	54	-12.55	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(5.1G) - 802.11ac-HT20
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5180 MHz)-Above 1G							
V	4434.006	70.72	-20.73	49.99	68.2	-18.21	PK
V	4434.006	59.83	-20.73	39.09	54	-14.91	AV
V	10360.092	60.04	-9.36	50.68	68.2	-17.52	PK
V	10360.092	49.63	-9.36	40.27	54	-13.73	AV
V	15540.121	60.03	-7.84	52.19	74	-21.81	PK
V	15540.121	49.14	-7.84	41.30	54	-12.70	AV
H	4434.006	72.24	-20.73	51.51	68.2	-16.69	PK
H	4434.006	59.05	-20.73	38.32	54	-15.68	AV
H	10360.121	62.68	-9.36	53.32	68.2	-14.88	PK
H	10360.121	49.27	-9.36	39.91	54	-14.09	AV
H	15540.120	60.63	-7.84	52.79	74	-21.21	PK
H	15540.120	49.10	-7.84	41.26	54	-12.74	AV
Middle Channel (5200 MHz)-Above 1G							
V	4592.012	74.23	-20.42	53.81	74	-20.19	PK
V	4592.012	59.57	-20.42	39.15	54	-14.85	AV
V	10400.072	60.81	-9.30	51.51	68.2	-16.69	PK
V	10400.072	49.53	-9.30	40.23	54	-13.77	AV
V	15600.166	62.70	-7.82	54.88	74	-19.12	PK
V	15600.166	49.43	-7.82	41.61	54	-12.39	AV
H	4592.183	71.62	-20.42	51.20	74	-22.80	PK
H	4592.183	59.80	-20.42	39.39	54	-14.61	AV
H	10400.093	62.29	-9.30	52.99	68.2	-15.21	PK
H	10400.093	49.34	-9.30	40.04	54	-13.96	AV
H	15600.039	63.09	-7.82	55.27	74	-18.73	PK
H	15600.039	49.88	-7.82	42.06	54	-11.94	AV
High Channel (5240 MHz)-Above 1G							
V	4739.042	74.88	-20.12	54.76	74	-19.24	PK
V	4739.042	59.25	-20.12	39.13	54	-14.87	AV
V	10480.037	64.91	-9.18	55.73	68.2	-12.47	PK
V	10480.037	49.20	-9.18	40.02	54	-13.98	AV
V	15720.175	64.41	-7.78	56.63	74	-17.37	PK
V	15720.175	49.92	-7.78	42.14	54	-11.86	AV
H	4739.109	71.09	-20.12	50.97	74	-23.03	PK
H	4739.109	59.51	-20.12	39.39	54	-14.61	AV
H	10480.029	64.37	-9.18	55.19	68.2	-13.01	PK
H	10480.029	49.96	-9.18	40.78	54	-13.22	AV
H	15720.100	63.76	-7.78	55.98	74	-18.02	PK
H	15720.100	49.86	-7.78	42.08	54	-11.92	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) - 802.11ac-HT40
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5190 MHz)-Above 1G							
V	4434.073	74.32	-20.73	53.58	68.2	-14.62	PK
V	4434.073	59.37	-20.73	38.64	54	-15.36	AV
V	10380.148	63.62	-9.33	54.29	68.2	-13.91	PK
V	10380.148	49.38	-9.33	40.05	54	-13.95	AV
V	15570.106	61.29	-7.83	53.46	74	-20.54	PK
V	15570.106	49.80	-7.83	41.97	54	-12.03	AV
H	4434.097	74.28	-20.73	53.55	74	-20.45	PK
H	4434.097	59.29	-20.73	38.56	54	-15.44	AV
H	10380.119	64.10	-9.33	54.77	68.2	-13.43	PK
H	10380.119	49.32	-9.33	39.99	54	-14.01	AV
H	15570.081	63.20	-7.83	55.37	74	-18.63	PK
H	15570.081	49.30	-7.83	41.47	54	-12.53	AV
High Channel (5230 MHz)-Above 1G							
V	4739.183	70.01	-20.12	49.88	68.2	-18.32	PK
V	4739.183	59.17	-20.12	39.05	54	-14.95	AV
V	10460.162	63.98	-9.21	54.77	68.2	-13.43	PK
V	10460.162	49.61	-9.21	40.40	54	-13.60	AV
V	15690.010	61.88	-7.79	54.09	74	-19.91	PK
V	15690.010	49.14	-7.79	41.35	54	-12.65	AV
H	4739.193	74.03	-20.12	53.91	68.2	-14.29	PK
H	4739.193	59.57	-20.12	39.45	54	-14.55	AV
H	10460.197	62.71	-9.21	53.50	68.2	-14.70	PK
H	10460.197	49.35	-9.21	40.14	54	-13.86	AV
H	15690.142	63.64	-7.79	55.85	74	-18.15	PK
H	15690.142	49.57	-7.79	41.78	54	-12.22	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) - 802.11ac-HT80
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5210 MHz)-Above 1G							
V	4434.033	74.88	-20.73	54.15	68.2	-14.05	PK
V	4434.033	59.89	-20.73	39.16	54	-14.84	AV
V	10420.029	64.32	-9.27	55.05	68.2	-13.15	PK
V	10420.029	49.64	-9.27	40.37	54	-13.63	AV
V	15630.115	64.20	-7.81	56.39	74	-17.61	PK
V	15630.115	49.45	-7.81	41.64	54	-12.36	AV
H	4434.018	74.61	-20.73	53.88	68.2	-14.32	PK
H	4434.018	59.65	-20.73	38.91	54	-15.09	AV
H	10420.009	43.12	9.27	52.39	68.2	-15.81	PK
H	10420.009	29.36	9.27	38.63	54	-15.37	AV
H	15630.150	62.00	-7.81	54.19	74	-19.81	PK
H	15630.150	49.20	-7.81	41.39	54	-12.61	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)	Reading Level (dBuV/m)	Correct Factor (dB)	Measurement (dBuV/m)	Limits (dBuV/m)	Over (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G							
V	4679.171	74.68	-20.24	54.44	74	-19.56	PK
V	4679.171	59.91	-20.24	39.67	54	-14.33	AV
V	11490.191	61.92	-8.79	53.13	68.2	-15.07	PK
V	11490.191	49.83	-8.79	41.04	54	-12.96	AV
V	17235.119	56.77	-3.18	53.59	68.2	-14.61	PK
V	17235.119	44.28	-3.18	41.10	54	-12.90	AV
H	4679.139	74.18	-20.73	53.45	74	-20.55	PK
H	4679.139	59.83	-20.73	39.10	54	-14.90	AV
H	11490.061	60.51	-8.79	51.72	68.2	-16.48	PK
H	11490.061	49.73	-8.79	40.94	54	-13.06	AV
H	17235.169	59.70	-3.18	56.52	68.2	-11.68	PK
H	17235.169	44.02	-3.18	40.84	54	-13.16	AV
Middle Channel (5785 MHz)-Above 1G							
V	4592.160	73.60	-20.42	53.18	74	-20.82	PK
V	4592.160	59.98	-20.42	39.57	54	-14.43	AV
V	11570.050	63.58	-8.86	54.72	68.2	-13.48	PK
V	11570.050	49.33	-8.86	40.47	54	-13.53	AV
V	17355.131	57.43	-2.52	54.91	68.2	-13.29	PK
V	17355.131	44.83	-2.52	42.31	54	-11.69	AV
H	4592.009	74.86	-20.42	54.44	74	-19.56	PK
H	4592.009	59.76	-20.42	39.34	54	-14.66	AV
H	11570.189	62.33	-8.86	53.47	68.2	-14.73	PK
H	11570.189	49.54	-8.86	40.68	54	-13.32	AV
H	17355.199	57.72	-2.52	55.20	68.2	-13.00	PK
H	17355.199	44.93	-2.52	42.41	54	-11.59	AV
High Channel (5825 MHz)-Above 1G							
V	6039.023	72.38	-18.93	53.45	68.2	-14.75	PK
V	6039.023	59.52	-18.93	40.58	54	-13.42	AV
V	11650.129	62.33	-8.92	53.41	74	-20.59	PK
V	11650.129	49.31	-8.92	40.39	54	-13.61	AV
V	17475.142	58.70	-1.86	56.84	68.2	-11.36	PK
V	17475.142	44.84	-1.86	42.98	54	-11.02	AV
H	6039.152	74.80	-18.93	55.87	68.2	-12.33	PK
H	6039.152	59.24	-18.93	40.31	54	-13.69	AV
H	11650.160	61.34	-8.92	52.42	74	-21.58	PK
H	11650.160	49.64	-8.92	40.72	54	-13.28	AV
H	17475.024	56.01	-1.86	54.15	68.2	-14.05	PK
H	17475.024	44.03	-1.86	42.17	54	-11.83	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

Polar (H/V)	Frequency (MHz)	Reading Level (dBuV/m)	Correct Factor (dB)	Measurement (dBuV/m)	Limits (dBuV/m)	Over (dB)	Detector Type
Low Channel (5745 MHz)-Above 1G							
V	4679.139	71.39	-20.24	51.15	74	-22.85	PK
V	4679.139	59.22	-20.24	38.98	54	-15.02	AV
V	11490.195	63.89	-8.79	55.10	68.2	-13.10	PK
V	11490.195	49.39	-8.79	40.60	54	-13.40	AV
V	17235.007	57.75	-3.18	54.57	68.2	-13.63	PK
V	17235.007	44.55	-3.18	41.37	54	-12.63	AV
H	4679.092	74.10	-20.24	53.86	74	-20.14	PK
H	4679.092	59.12	-20.24	38.88	54	-15.12	AV
H	11490.057	63.89	-8.79	55.10	68.2	-13.10	PK
H	11490.057	49.01	-8.79	40.22	54	-13.78	AV
H	17235.099	59.43	-3.18	56.25	68.2	-11.95	PK
H	17235.099	44.01	-3.18	40.83	54	-13.17	AV
Middle Channel (5785 MHz)-Above 1G							
V	4592.091	74.10	-20.42	53.68	74	-20.32	PK
V	4592.091	59.65	-20.42	39.23	54	-14.77	AV
V	11570.082	62.77	-8.86	53.91	68.2	-14.29	PK
V	11570.082	49.12	-8.86	40.26	54	-13.74	AV
V	17355.135	56.73	-2.52	54.21	68.2	-13.99	PK
V	17355.135	44.23	-2.52	41.71	54	-12.29	AV
H	4592.066	71.95	-20.42	51.53	74	-22.47	PK
H	4592.066	59.06	-20.42	38.65	54	-15.35	AV
H	11570.093	61.55	-8.86	52.69	68.2	-15.51	PK
H	11570.093	49.37	-8.86	40.51	54	-13.49	AV
H	17355.092	56.31	-2.52	53.79	68.2	-14.41	PK
H	17355.092	44.58	-2.52	42.06	54	-11.94	AV
High Channel (5825 MHz)-Above 1G							
V	6039.145	70.18	-18.93	51.25	68.2	-16.95	PK
V	6039.145	59.46	-18.93	40.53	54	-13.47	AV
V	11650.107	61.52	-8.92	52.60	74	-21.40	PK
V	11650.107	49.00	-8.92	40.08	54	-13.92	AV
V	17475.027	58.52	-1.86	56.66	68.2	-11.54	PK
V	17475.027	44.69	-1.86	42.83	54	-11.17	AV
H	6039.165	72.84	-18.93	53.91	68.2	-14.29	PK
H	6039.165	59.76	-18.93	40.83	54	-13.17	AV
H	11650.125	60.13	-8.92	51.21	74	-22.79	PK
H	11650.125	49.23	-8.92	40.31	54	-13.69	AV
H	17475.110	59.19	-1.86	57.33	68.2	-10.87	PK
H	17475.110	44.78	-1.86	42.92	54	-11.08	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	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
V	4679.160	74.14	-20.24	53.90	74	-20.10	PK
V	4679.160	59.06	-20.24	38.82	54	-15.18	AV
V	11510.034	63.91	-8.81	55.10	74	-18.90	PK
V	11510.034	49.53	-8.81	40.72	54	-13.28	AV
V	17265.074	56.35	-3.01	53.34	68.2	-14.86	PK
V	17265.074	44.15	-3.01	41.14	54	-12.86	AV
H	4679.151	74.84	-20.24	54.59	74	-19.41	PK
H	4679.151	59.53	-20.24	39.29	54	-14.71	AV
H	11510.131	63.77	-8.81	54.96	74	-19.04	PK
H	11510.131	49.34	-8.81	40.53	54	-13.47	AV
H	17265.036	57.29	-3.01	54.28	68.2	-13.92	PK
H	17265.036	44.65	-3.01	41.64	54	-12.36	AV
High Channel (5795 MHz)-Above 1G							
V	6039.068	73.28	-18.93	54.34	68.2	-13.86	PK
V	6039.068	59.30	-18.93	40.37	54	-13.63	AV
V	11590.084	64.15	-8.87	55.28	74	-18.72	PK
V	11590.084	49.59	-8.87	40.72	54	-13.28	AV
V	17385.130	56.04	-2.35	53.69	68.2	-14.51	PK
V	17385.130	44.17	-2.35	41.82	54	-12.18	AV
H	6039.106	72.00	-18.93	53.07	68.2	-15.13	PK
H	6039.106	59.48	-18.93	40.55	54	-13.45	AV
H	11590.165	61.57	-8.87	52.70	74	-21.30	PK
H	11590.165	49.80	-8.87	40.93	54	-13.07	AV
H	17385.056	58.23	-2.35	55.88	68.2	-12.32	PK
H	17385.056	44.79	-2.35	42.44	54	-11.56	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) - 802.11ac-HT20
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5745 MHz)-Above 1G							
V	4679.026	74.84	-20.24	54.60	74	-19.40	PK
V	4679.026	59.98	-20.24	39.74	54	-14.26	AV
V	11490.059	61.66	-8.79	52.87	68.2	-15.33	PK
V	11490.059	49.86	-8.79	41.07	54	-12.93	AV
V	17235.025	59.39	-3.18	56.21	68.2	-11.99	PK
V	17235.025	44.94	-3.18	41.76	54	-12.24	AV
H	4679.106	72.11	-20.24	51.87	74	-22.13	PK
H	4679.106	59.90	-20.24	39.66	54	-14.34	AV
H	11490.077	64.34	-8.79	55.55	68.2	-12.65	PK
H	11490.077	49.46	-8.79	40.67	54	-13.33	AV
H	17235.184	56.09	-3.18	52.91	68.2	-15.29	PK
H	17235.184	44.72	-3.18	41.54	54	-12.46	AV
Middle Channel (5785 MHz)-Above 1G							
V	4592.001	73.88	-20.42	53.47	74	-20.53	PK
V	4592.001	59.02	-20.42	38.60	54	-15.40	AV
V	11570.007	64.13	-8.86	55.27	68.2	-12.93	PK
V	11570.007	49.95	-8.86	41.09	54	-12.91	AV
V	17355.026	57.67	-2.52	55.15	68.2	-13.05	PK
V	17355.026	44.64	-2.52	42.12	54	-11.88	AV
H	4592.055	72.75	-20.42	52.33	74	-21.67	PK
H	4592.055	59.28	-20.42	38.87	54	-15.13	AV
H	11570.013	63.68	-8.86	54.82	68.2	-13.38	PK
H	11570.013	49.05	-8.86	40.19	54	-13.81	AV
H	17355.123	55.81	-2.52	53.29	68.2	-14.91	PK
H	17355.123	44.45	-2.52	41.93	54	-12.07	AV
High Channel (5825 MHz)-Above 1G							
V	6039.190	70.32	-18.93	51.38	68.2	-16.82	PK
V	6039.190	59.41	-18.93	40.48	54	-13.52	AV
V	11650.158	62.00	-8.92	53.08	74	-20.92	PK
V	11650.158	49.97	-8.92	41.05	54	-12.95	AV
V	17475.064	57.89	-1.86	56.03	68.2	-12.17	PK
V	17475.064	44.61	-1.86	42.75	54	-11.25	AV
H	6039.110	72.13	-18.93	53.19	68.2	-15.01	PK
H	6039.110	59.96	-18.93	41.03	54	-12.97	AV
H	11650.170	64.46	-8.92	55.54	74	-18.46	PK
H	11650.170	49.44	-8.92	40.52	54	-13.48	AV
H	17475.044	58.34	-1.86	56.48	68.2	-11.72	PK
H	17475.044	44.90	-1.86	43.04	54	-10.96	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) - 802.11ac-HT40
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Low Channel (5755 MHz)-Above 1G							
V	4679.007	70.83	-20.24	50.59	74	-23.41	PK
V	4679.007	59.51	-20.24	39.27	54	-14.73	AV
V	11510.079	61.36	-8.81	52.55	74	-21.45	PK
V	11510.079	49.61	-8.81	40.80	54	-13.20	AV
V	17265.079	55.02	-3.01	52.01	68.2	-16.19	PK
V	17265.079	44.87	-3.01	41.86	54	-12.14	AV
H	4679.089	72.87	-20.24	52.63	74	-21.37	PK
H	4679.089	59.12	-20.24	38.88	54	-15.12	AV
H	11510.112	63.62	-8.81	54.81	74	-19.19	PK
H	11510.112	49.05	-8.81	40.24	54	-13.76	AV
H	17265.064	57.47	-3.01	54.46	68.2	-13.74	PK
H	17265.064	44.95	-3.01	41.94	54	-12.06	AV
High Channel (5795 MHz)-Above 1G							
V	6039.017	71.55	-18.93	52.61	68.2	-15.59	PK
V	6039.017	59.95	-18.93	41.02	54	-12.98	AV
V	11590.133	63.12	-8.87	54.25	74	-19.75	PK
V	11590.133	49.65	-8.87	40.78	54	-13.22	AV
V	17385.084	56.92	-2.35	54.57	68.2	-13.63	PK
V	17385.084	44.26	-2.35	41.91	54	-12.09	AV
H	6039.054	74.11	-18.93	55.17	68.2	-13.03	PK
H	6039.054	59.56	-18.93	40.63	54	-13.37	AV
H	11590.099	62.35	-8.87	53.48	74	-20.52	PK
H	11590.099	49.80	-8.87	40.93	54	-13.07	AV
H	17385.034	57.89	-2.35	55.54	68.2	-12.66	PK
H	17385.034	44.37	-2.35	42.02	54	-11.98	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) - 802.11ac-HT80
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Polar (H/V)	Frequency	Reading Level	Correct Factor	Measurement	Limits	Over	Detector Type
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
(5775 MHz)-Above 1G							
V	4679.024	71.12	-20.24	50.88	74	-23.12	PK
V	4679.024	59.69	-20.24	39.45	54	-14.55	AV
V	11550.069	61.17	-8.84	52.33	74	-21.67	PK
V	11550.069	49.49	-8.84	40.65	54	-13.35	AV
V	17325.155	55.95	-2.68	53.27	68.2	-14.93	PK
V	17325.155	44.46	-2.68	41.78	54	-12.22	AV
H	4679.048	71.02	-20.24	50.77	74	-23.23	PK
H	4679.048	59.16	-20.24	38.91	54	-15.09	AV
H	11550.095	61.93	-8.84	53.09	74	-20.91	PK
H	11550.095	49.68	-8.84	40.84	54	-13.16	AV
H	17325.185	57.53	-2.68	54.85	68.2	-13.35	PK
H	17325.185	44.20	-2.68	41.52	54	-12.48	AV

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

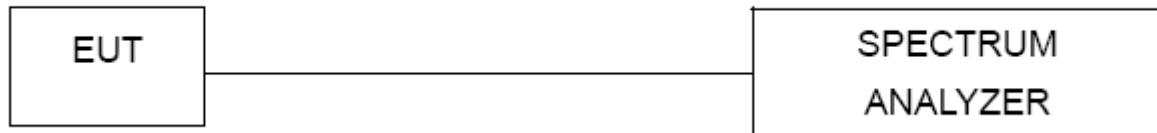
The 26.5-40G amplitude of spurious emissions that are attenuated by more than 20dB below the permissible value has no need to be reported.

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

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

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 Wifi Repeater 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 Wifi Repeater 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 Wifi Repeaters 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 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 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 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.

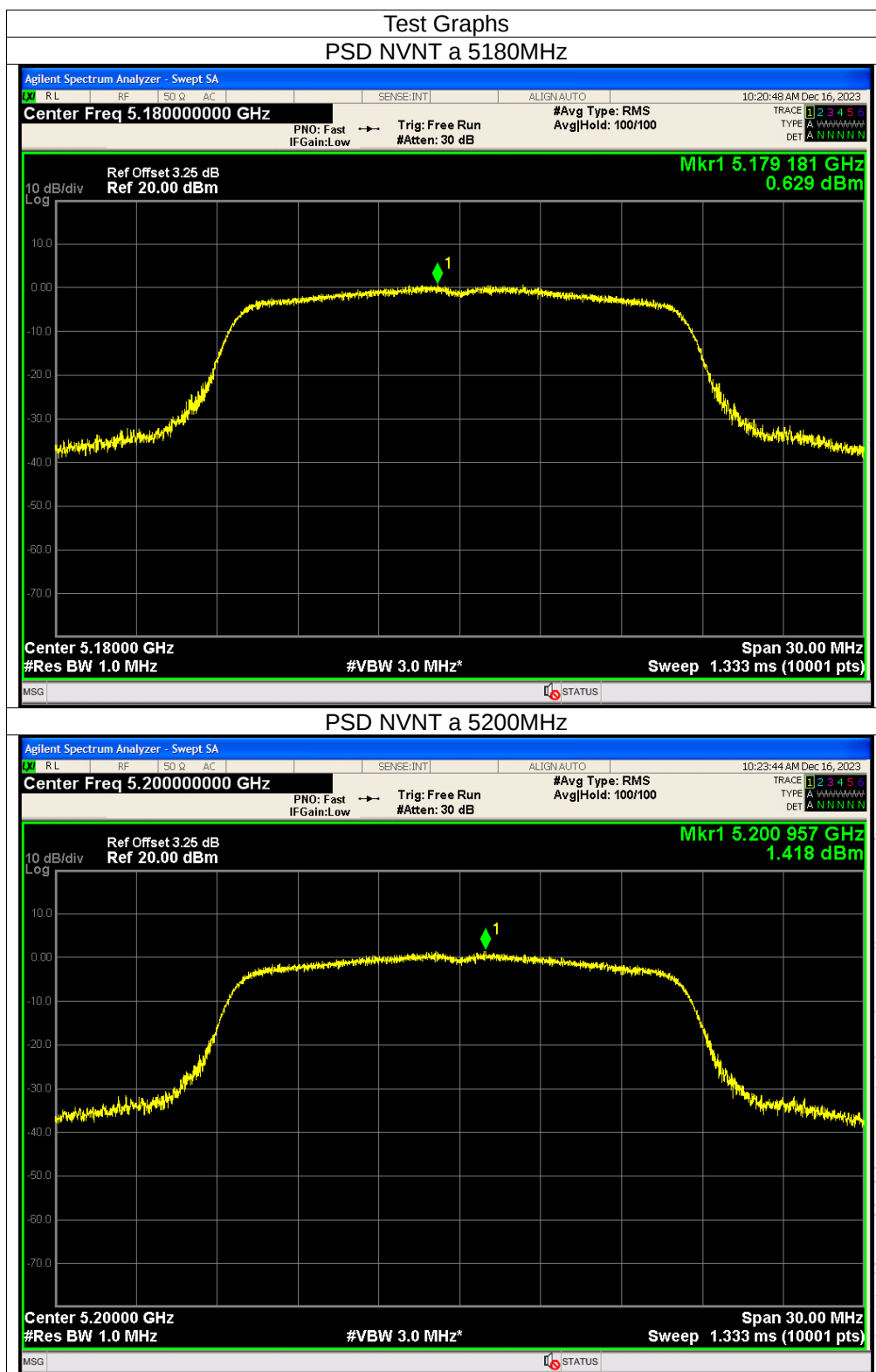
CO., LTD.

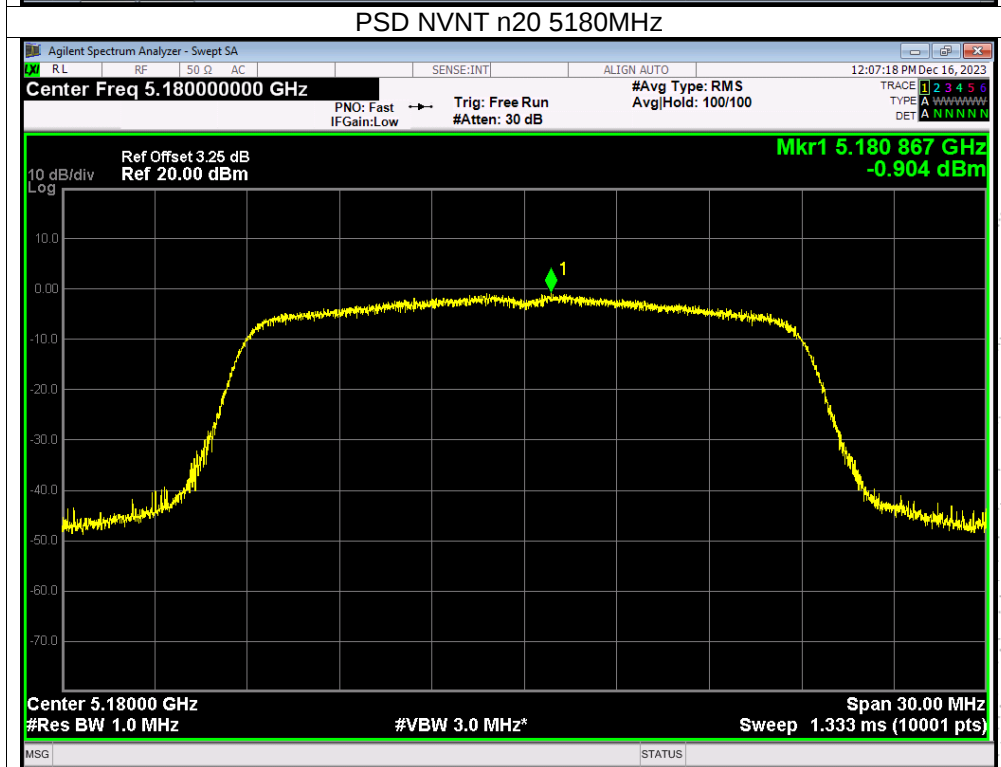
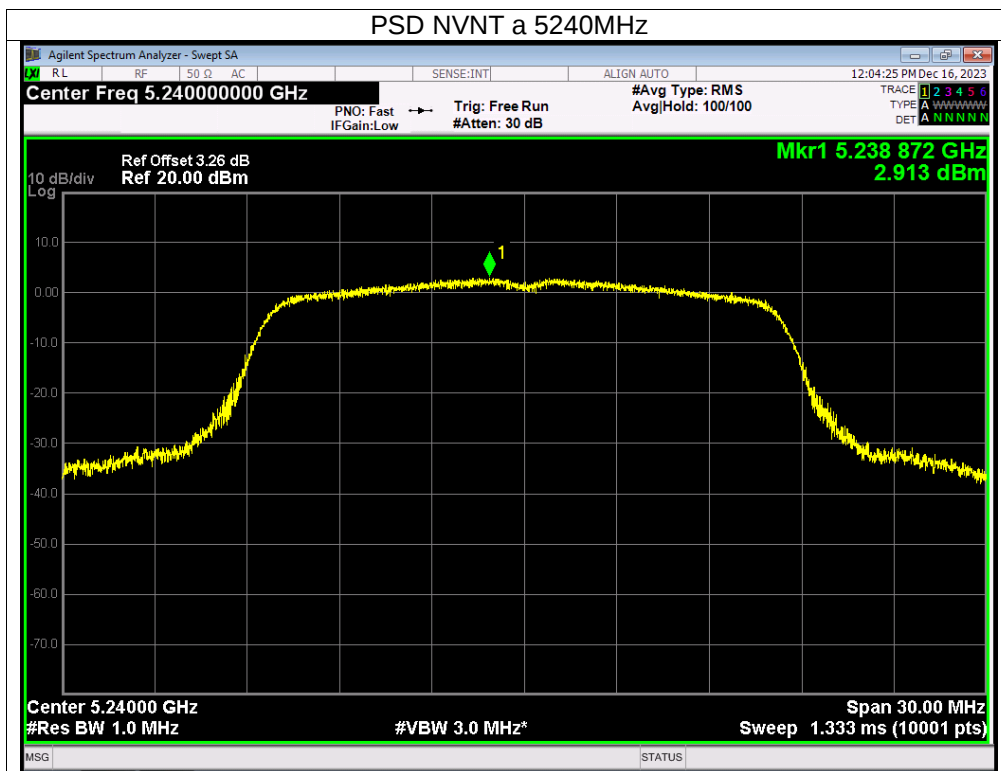
8.5 Test Result

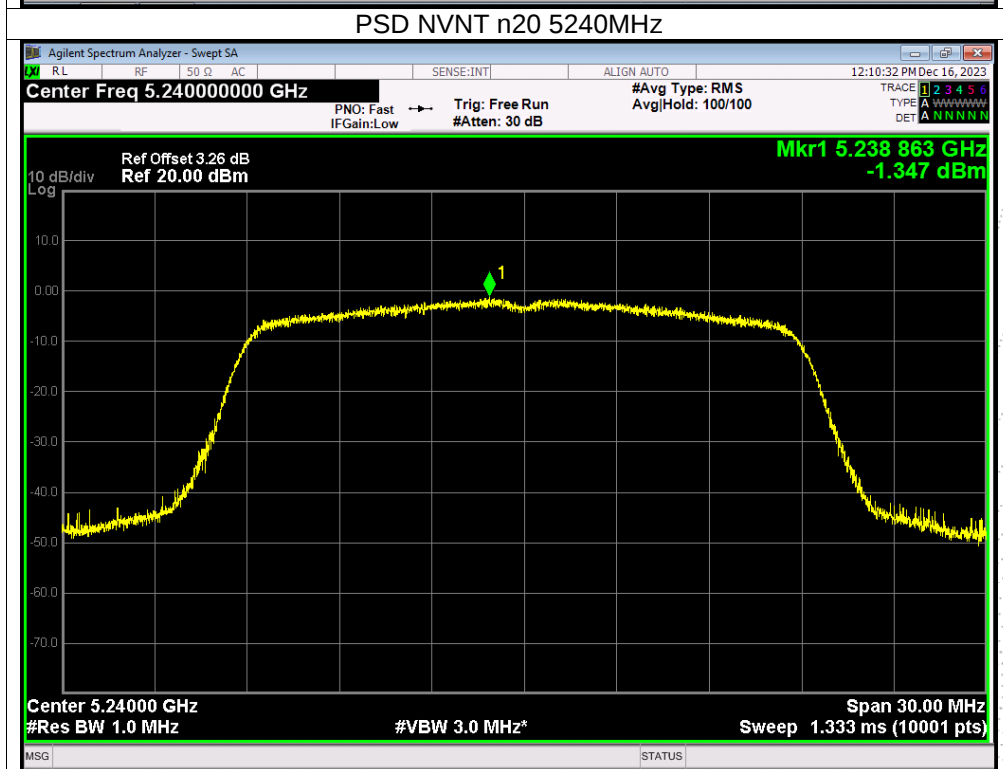
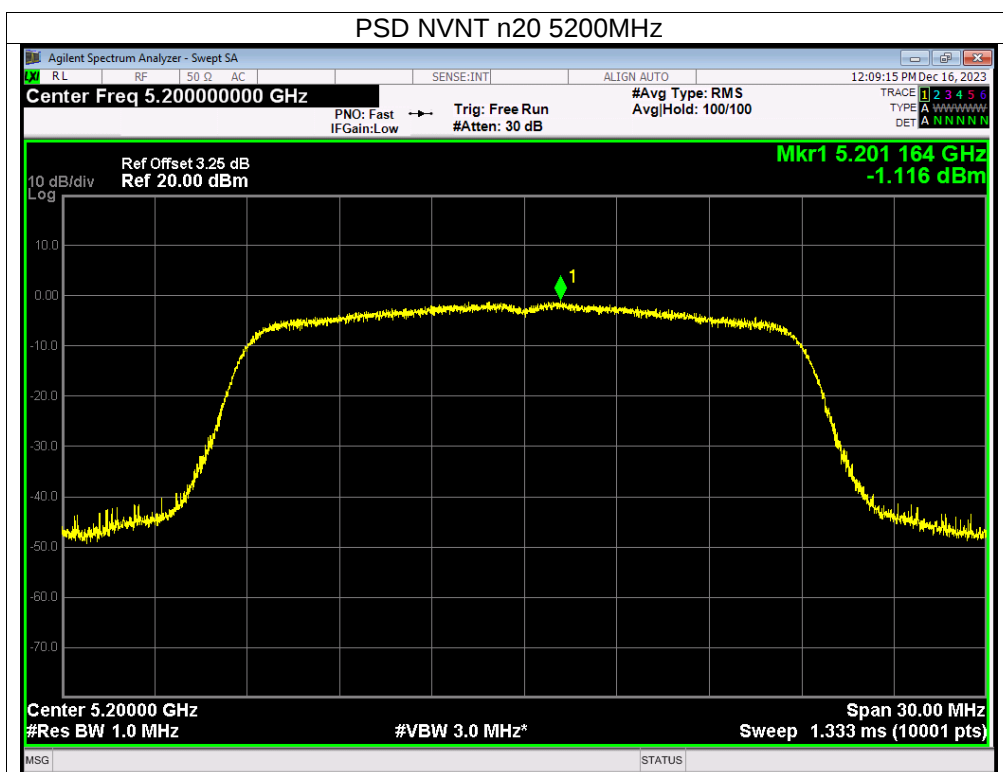
Temperature:	26 °C	Relative Humidity:	54%
Pressure:	101KPa	Test Voltage:	DC 3.8V
Test Mode:	(5180-5240MHz); (5745-5825MHz)		

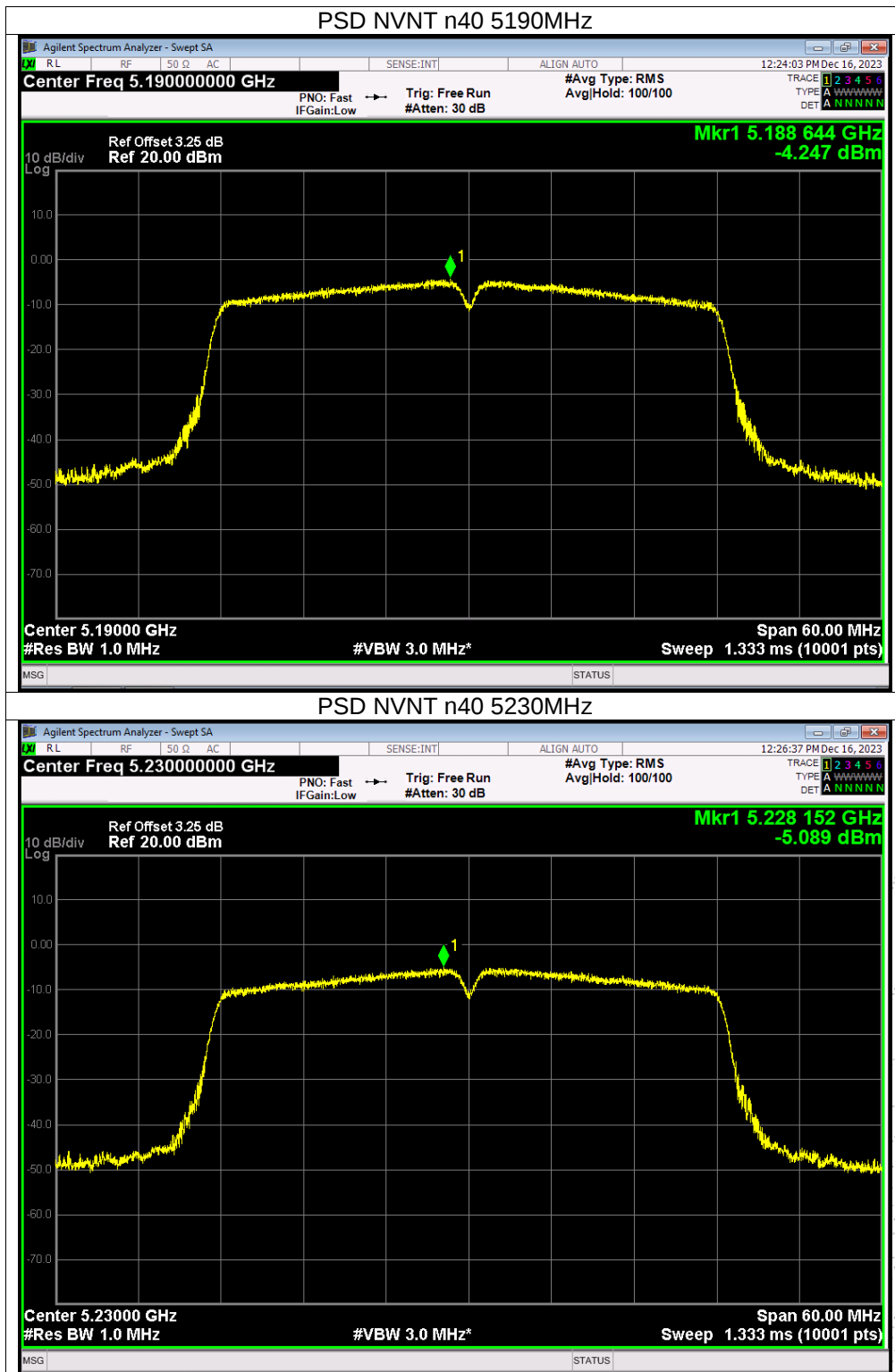
Condition	Mode	Frequency (MHz)	Conducted PSD (dBm)	Limit (dBm)	Verdict
NVNT	a	5180	0.63	11	Pass
NVNT	a	5200	1.42	11	Pass
NVNT	a	5240	2.91	11	Pass
NVNT	n20	5180	-0.90	11	Pass
NVNT	n20	5200	-1.12	11	Pass
NVNT	n20	5240	-1.35	11	Pass
NVNT	n40	5190	-4.25	11	Pass
NVNT	n40	5230	-5.09	11	Pass
NVNT	ac20	5180	-1.50	11	Pass
NVNT	ac20	5200	-2.13	11	Pass
NVNT	ac20	5240	-1.81	11	Pass
NVNT	ac40	5190	-4.30	11	Pass
NVNT	ac40	5230	-5.01	11	Pass
NVNT	ac80	5210	-10.61	11	Pass

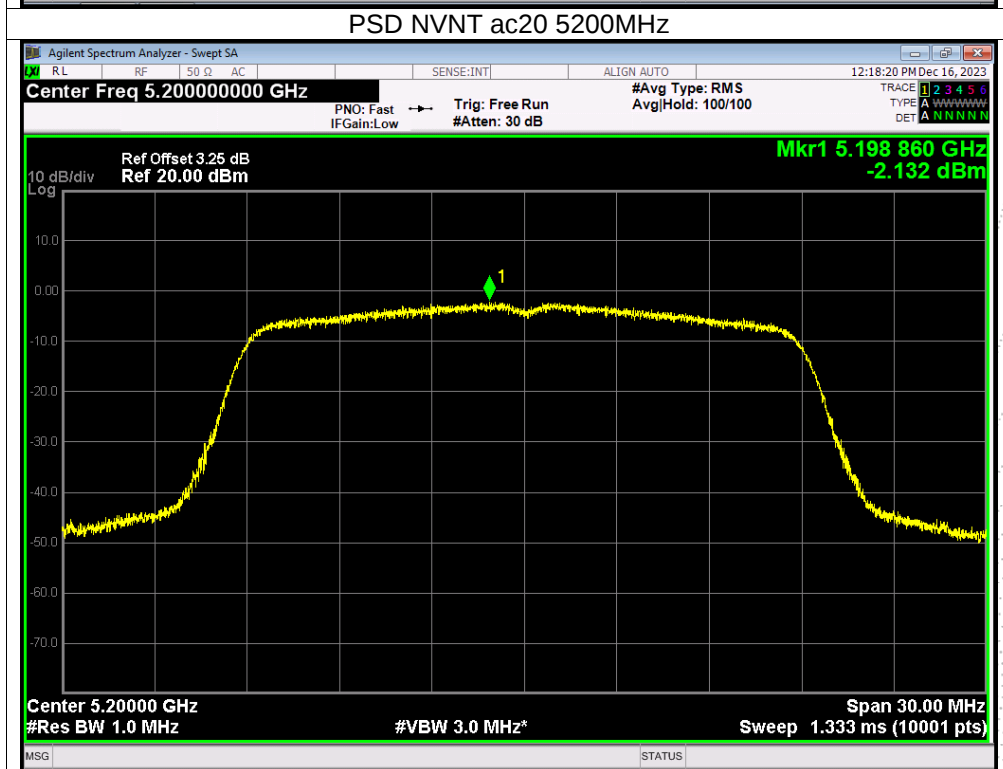
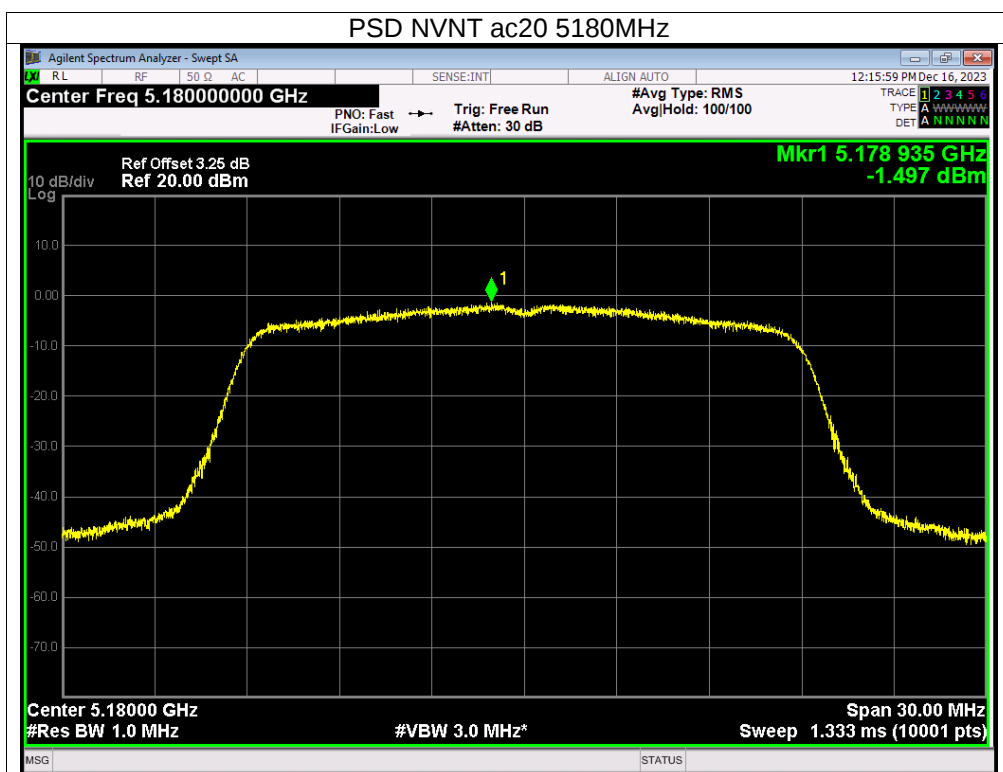
Condition	Mode	Frequency (MHz)	Conducted PSD dBm/500KHz)	Limit (dBm/500KHz)	Verdict
NVNT	a	5745	-6.31	30	Pass
NVNT	a	5785	-7.12	30	Pass
NVNT	a	5825	-8.00	30	Pass
NVNT	n20	5745	-7.65	30	Pass
NVNT	n20	5785	-8.44	30	Pass
NVNT	n20	5825	-9.68	30	Pass
NVNT	n40	5755	-11.21	30	Pass
NVNT	n40	5795	-12.21	30	Pass
NVNT	ac20	5745	-7.93	30	Pass
NVNT	ac20	5785	-8.73	30	Pass
NVNT	ac20	5825	-9.40	30	Pass
NVNT	ac40	5755	-11.57	30	Pass
NVNT	ac40	5795	-12.17	30	Pass
NVNT	ac80	5775	-15.86	30	Pass











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