

FCC RADIO TEST REPORT

FCC ID: 2BTEP-6HVA10

Product: Meter

Trade Mark: N/A

Model No.: 6HVA-10

Family Model: 6ARC-12, 8AJ1-13, 8AJ2-20,
8AJ3-30, 6AQA-A0, 9NT1-16

Report No.: S25051200906003

Issue Date: Apr. 21, 2026

Prepared for

Guangzhou Chuang Rui Automobile Electric Appliance Co.,Ltd.
NO.8 Shenshan East Road Baiyun District, Guangzhou, P.R.C

Prepared by

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Tel. 0755-23200050 Website: <http://www.ntek.org.cn>

TEST RESULT CERTIFICATION

Applicant's name : Guangzhou Chuang Rui Automobile Electric Appliance Co.,Ltd.

Address : NO.8 Shenshan East Road Baiyun District, Guangzhou, P.R.C

Manufacturer's Name : Guangzhou Chuang Rui Automobile Electric Appliance Co.,Ltd.

Address : NO.8 Shenshan East Road Baiyun District, Guangzhou, P.R.C

Product description

Product name : Meter

Trade Mark : N/A

Model and/or type reference : 6HVA-10

Family Model : 6ARC-12, 8AJ1-13, 8AJ2-20, 8AJ3-30, 6AQA-A0, 9NT1-16

Test Sample Number : S250512009004

Standards : FCC Part15.407

Test procedure ANSI C63.10-2020+Cor 1-2023
KDB 789033 D02 General UNII Test Procedures New Rules v02r01
KDB 905462 D03 Client Without DFS New Rules v01r02
KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

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

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Date of Test

Date (s) of performance of tests May. 12, 2025 ~ Apr. 21, 2026

Date of Issue Apr. 21, 2026

Test Result **Pass**

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(Supervisor)

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(Manager)

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Revision History

Report No.	Version	Description	Issued Date
S25051200906003	Rev.01	Initial issue of report	Apr. 21, 2026

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.407) , Subpart E			
Standard Section	Test Item	Judgment	Remark
15.207 15.407 (b)(9)	AC Power Line Conducted Emissions	PASS	
15.209(a), 15.407 (b)(4) 15.407 (b)(8)	Spurious Radiated Emissions	PASS	
-	99% Emission Bandwidth	Report only	
15.407(e)	Minimum 6 dB bandwidth	PASS	
15.407 (a)	Maximum Conducted Output Power	PASS	
15.407 (b)(4)	Band Edge	PASS	
15.407 (a)	Power Spectral Density	PASS	
15.407(b)	Spurious Emissions at Antenna Terminals	PASS	
15.407(g)	Frequency Stability Measurement	PASS	
15.407(h)	Dynamic Frequency Selection(DFS)	N/A	
15.203	Antenna Requirement	PASS	
15.407(c)	Automatically discontinue transmission	PASS	(Note 2)

NOTE:

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

(2) The product is a client device, and the data transmission is limited by the AP.
When the information to be sent is missing or the operation fails,
the device will automatically stop sending and directly connect to the AP correctly again.

1.1 FACILITIES AND ACCREDITATIONS

FACILITIES

All measurement facilities used to collect the measurement data are located at No. 24 Xinfu East Road Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, China.

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

CNAS-Lab. : The Certificate Registration Number is L5516.

IC-Registration : The Certificate Registration Number is 9270A.
CAB identifier: CN0074

FCC- Accredited : Test Firm Registration Number: 463705.
Designation Number: CN1184

A2LA-Lab. : The Certificate Registration Number is 4298.01

Name of Firm : Shenzhen NTEK Testing Technology Co., Ltd.

Site Location : No. 24 Xinfu East Road Xiangshan Community, Xinqiao Street, Baoan District, Shenzhen, Guangdong, China.

1.2 MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.80\text{dB}$
2	RF power, conducted, PSD	$\pm 0.16\text{dB}$
3	Spurious emissions, conducted	$\pm 0.21\text{dB}$
4	Occupied bandwidth	$\pm 4.7\%$
5	All emissions, radiated(9KHz~30MHz)	$\pm 6\text{dB}$
6	All emissions, radiated(30MHz~1GHz)	$\pm 2.64\text{dB}$
7	All emissions, radiated(1GHz~6GHz)	$\pm 2.40\text{dB}$
8	All emissions, radiated(> 6GHz)	$\pm 2.52\text{dB}$
9	Temperature	$\pm 0.5^\circ\text{C}$
10	Humidity	$\pm 2\%$
11	Radio Frequency	$\pm 0.2\text{ppm}$
12	Occupied bandwidth	$\pm 4.7\%$
13	Time	$\pm 2.5\%$

1. GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

Equipment	Meter												
Trade Mark	N/A												
Model Name	6HVA-10												
Family Model	6ARC-12, 8AJ1-13, 8AJ2-20, 8AJ3-30, 6AQA-A0, 9NT1-16												
Model Difference	All model are the same circuit and RF module, except for the some differences in software functions.												
FCC ID	2BTEP-6HVA10												
Product Description	<table border="1"> <tr> <td>Mode Supported</td><td> ☒ 802.11a/n (20MHz channel bandwidth) ☒ 802.11n (40MHz channel bandwidth) </td></tr> <tr> <td>Data Rate</td><td> 802.11a: 6/9/12/18/24/36/48/54Mbps; 802.11n (20MHz): MCS0-15, up to 144Mbps 802.11n (40MHz): MCS0-15, up to 300Mbps </td></tr> <tr> <td>Modulation</td><td> 802.11a: OFDM (BPSK / QPSK / 16QAM/64QAM) 802.11n: OFDM (QPSK/BPSK/16QAM/64QAM) </td></tr> <tr> <td>Operating Frequency Range</td><td>☒ U-NII-3: 5725 MHz ~5850 MHz</td></tr> <tr> <td>Antenna Type</td><td>Ceramic antenna</td></tr> <tr> <td>Antenna Gain</td><td>4.37dBi</td></tr> </table> Based on the application, features, or specification exhibited in User's Manual, More details of EUT technical specification, please refer to the User's Manual.	Mode Supported	☒ 802.11a/n (20MHz channel bandwidth) ☒ 802.11n (40MHz channel bandwidth)	Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps; 802.11n (20MHz): MCS0-15, up to 144Mbps 802.11n (40MHz): MCS0-15, up to 300Mbps	Modulation	802.11a: OFDM (BPSK / QPSK / 16QAM/64QAM) 802.11n: OFDM (QPSK/BPSK/16QAM/64QAM)	Operating Frequency Range	☒ U-NII-3: 5725 MHz ~5850 MHz	Antenna Type	Ceramic antenna	Antenna Gain	4.37dBi
Mode Supported	☒ 802.11a/n (20MHz channel bandwidth) ☒ 802.11n (40MHz channel bandwidth)												
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps; 802.11n (20MHz): MCS0-15, up to 144Mbps 802.11n (40MHz): MCS0-15, up to 300Mbps												
Modulation	802.11a: OFDM (BPSK / QPSK / 16QAM/64QAM) 802.11n: OFDM (QPSK/BPSK/16QAM/64QAM)												
Operating Frequency Range	☒ U-NII-3: 5725 MHz ~5850 MHz												
Antenna Type	Ceramic antenna												
Antenna Gain	4.37dBi												
Adapter	N/A												
Battery	N/A												
Power supply	DC 12V												
HW Version	N/A												
SW Version	N/A												

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Frequency and Channel list:

Band	20MHz		40MHz	
	Channel	Frequency	Channel	Frequency
U-NII-3	149	5745 MHz	151	5755 MHz
	153	5765 MHz	159	5795 MHz
	157	5785 MHz		
	161	5805 MHz		
	165	5825 MHz		

1.2 DESCRIPTION OF TEST MODES

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

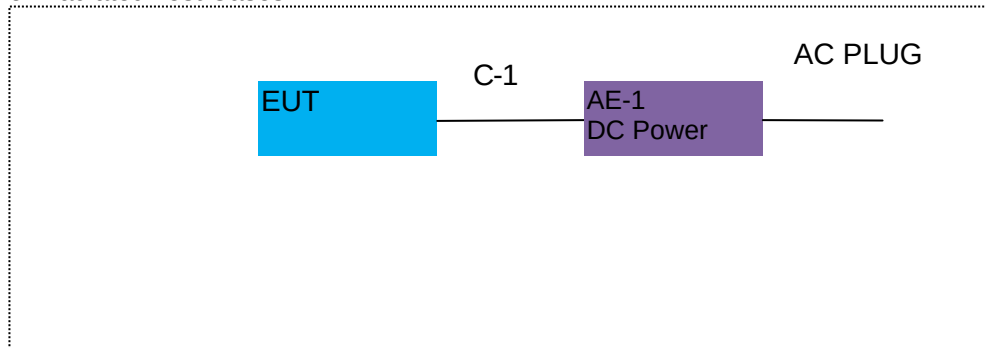
For Radiated Emission	
Final Test Mode	Description
Mode 1	Normal Link Mode
Mode 2	802.11a/n CH149/CH157/CH165
Mode 3	802.11n40 CH151/CH159

Note:

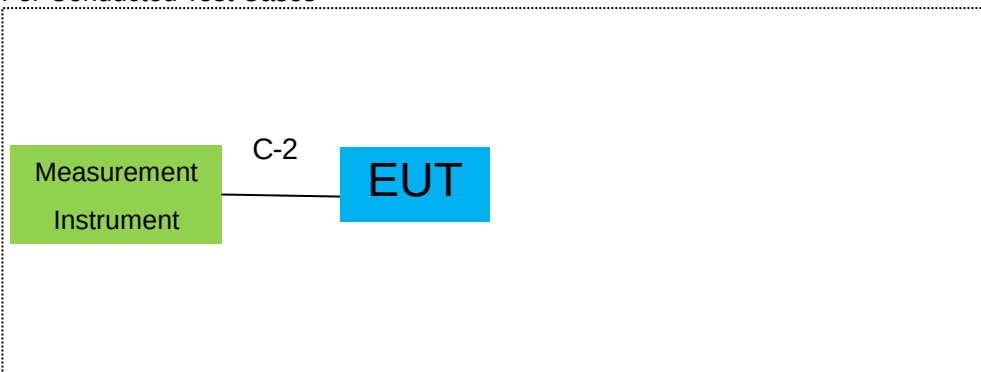
- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported

1.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

For Radiated Test Cases



For Conducted Test Cases



Note: 1. The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

1.4 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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

Item	Equipment	Model/Type No.	Series No.	Note
AE-1	DC Power	N/A	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	Power Cable	NO	NO	0.8m
C-2	RF Cable	YES	NO	0.1m

Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in 『Length』 column.
- (3) During the battery power test, the battery is fully charged.

1.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation& Conducted Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4440A	MY41000130	2025.04.24 2026.04.15	2026.04.23 2027.04.14	1 year
2	Spectrum Analyzer	Agilent	N9020A	MY49100060	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
3	Spectrum Analyzer	R&S	FSV40	101417	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
4	Test Receiver	R&S	ESPI7	101318	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
5	Bilog Antenna	TESEQ	CBL6111D	31216	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
6	50Ω Coaxial Switch	Anritsu	MP59B	6200983705	2024.04.26	2027.04.25	3 year
7	Horn Antenna	EM	EM-AH-10180	2011071402	2024.05.12	2027.05.11	3 year
8	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	803	2024.05.12	2027.05.11	3 year
9	Amplifier	EMC	EMC051835SE	980246	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
10	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	055	2024.05.17	2027.05.16	3 year
11	Power Meter	DARE	RPR3006W	15I00041SN084	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
12	Test Cable (9KHz-30MHz)	N/A	R-01	N/A	2024.05.06	2027.05.05	3 year
13	Test Cable (30MHz-1GHz)	N/A	R-02	N/A	2024.05.06	2027.05.05	3 year
14	High Test Cable(1G-40GHz)	N/A	R-03	N/A	2024.05.06	2027.05.05	3 year
15	Filter	TRILTHIC	2400MHz	29	2024.04.26	2027.04.25	3 year
16	temporary antenna connector (Note)	NTS	R001	N/A	N/A	N/A	N/A

Note:

We will use the temporary antenna connector (soldered on the PCB board) When conducted test
And this temporary antenna connector is listed within the instrument list

AC Conduction Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Test Receiver	R&S	ESCI	101160	2025.04.17 2026.04.08	2026.04.16 2027.04.07	1 year
2	LISN	R&S	ENV216	101313	2025.04.16 2026.04.08	2026.04.15 2027.04.07	1 year
3	LISN	SCHWARZBECK	NNLK 8129	8129245	2025.04.16 2026.04.08	2026.04.15 2027.04.07	1 year
4	50Ω Coaxial Switch	ANRITSU CORP	MP59B	6200983704	2024.04.26	2027.04.25	3 year
5	Test Cable (9KHz-30MHz)	N/A	C01	N/A	2024.05.06	2027.05.05	3 year
6	Test Cable (9KHz-30MHz)	N/A	C02	N/A	2024.05.06	2027.05.05	3 year
7	Test Cable (9KHz-30MHz)	N/A	C03	N/A	2024.05.06	2027.05.05	3 year

Note: Each piece of equipment is scheduled for calibration once a year except the Test Cable& Aux Equipment which is scheduled for calibration every 3 years.

Measurement Software

Item	Manufacturer	Software Name	Software Version	Description
1	MWRFtest	MTS 8310 2.4GHz/5GHz	2.0	RF Conducted Test
2	Farad	EZ-EMC_RE	AIT-03A	RadiatedTest
3	raditeq	RadiMation	2023.1.3	RadiatedTest

2. EMC EMISSION TEST

2.1 CONDUCTED EMISSION MEASUREMENT

2.1.1 APPLICABLE STANDARD

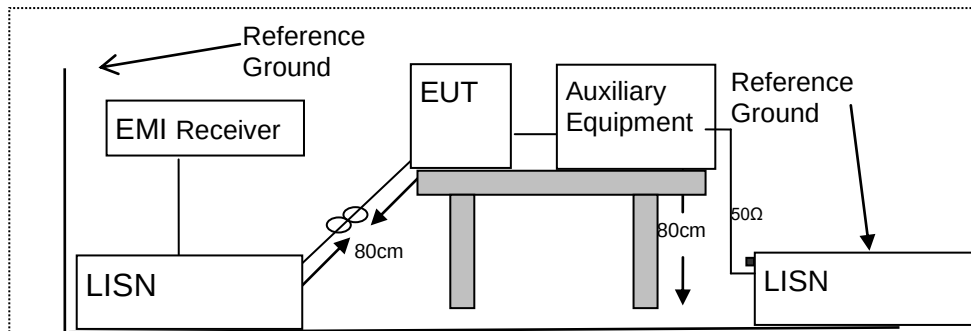
According to FCC Part 15.207(a)

2.1.2 CONFORMANCE LIMIT

Frequency(MHz)	Conducted Emission Limit	
	Quasi-peak	Average
0.15-0.5	66-56*	56-46*
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. *Decreases with the logarithm of the frequency
2. The lower limit shall apply at the transition frequencies
3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

2.1.3 TEST CONFIGURATION



2.1.4 TEST PROCEDURE

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor 1-2023 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
2. The EUT was placed on a table which is 0.8m above ground plane.
3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
6. LISN at least 80 cm from nearest part of EUT chassis.
7. The frequency range from 150KHz to 30MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
9. For the actual test configuration, please refer to the related Item –EUT Test Photos.

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25.1℃	Relative Humidity :	47.9%
Pressure :	1010hPa	Phase :	N/A
Test Voltage :	N/A	Test Mode :	N/A

Note: Not Applicable.

2.2 RADIATED EMISSION MEASUREMENT

2.2.1 APPLICABLE STANDARD

According to FCC Part 15.407(b) and 15.209&15.205

2.2.2 CONFORMANCE LIMIT

According to FCC Part 15.407 (b) (9) (10) : radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

According to FCC Part15.205, Restricted bands

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

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.

Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	24000/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency(MHz)	Class B (dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Remark :1. Emission level in dBuV/m=20 log (uV/m)

2. Measurement was performed at an antenna to the closed point of EUT distance of meters.

3. For Frequency 9kHz~30MHz:

Distance extrapolation factor =40log(Specific distance/ test distance)(dB);

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

For Frequency above 30MHz:

Distance extrapolation factor =20log(Specific distance/ test distance)(dB);

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

Undesirable emission limits. Except as shown in paragraph (b)(1)(2)(3)(4) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band:

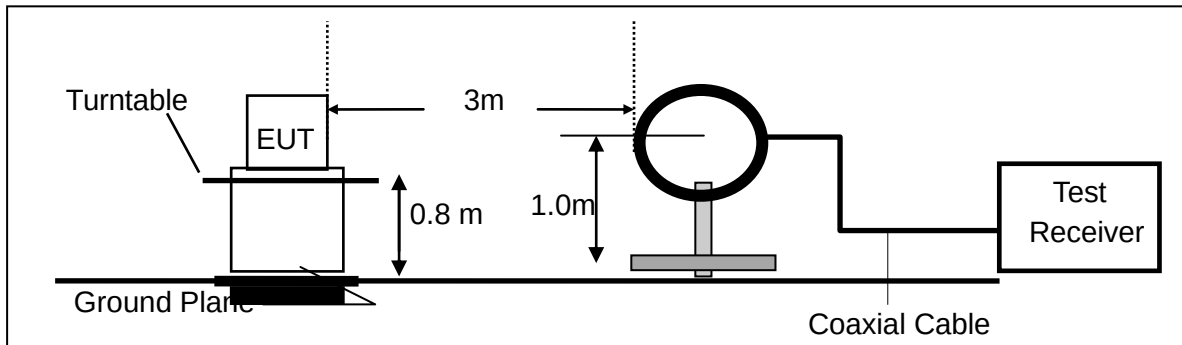
(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

2.2.3 MEASURING INSTRUMENTS

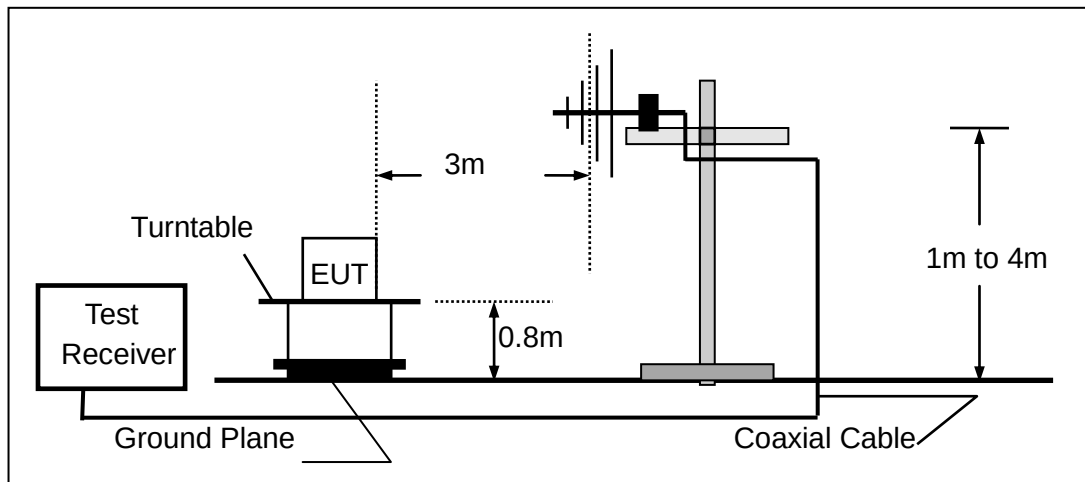
The Measuring equipment is listed in the section 6.3 of this test report.

2.2.4 TEST CONFIGURATION

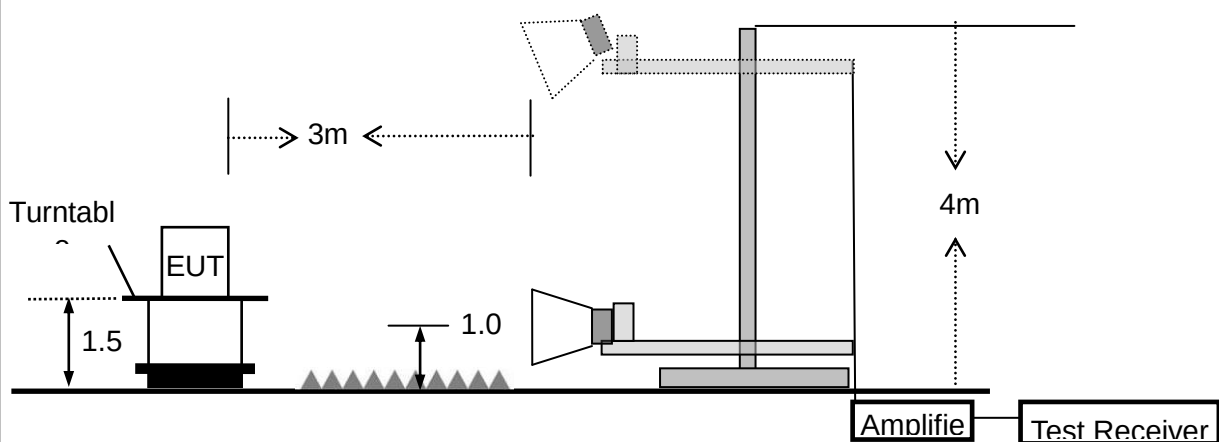
(a) For radiated emissions below 30MHz



(b) For radiated emissions from 30MHz to 1000MHz



(c) For radiated emissions above 1000MHz



2.2.5 TEST PROCEDURE

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2020+Cor 1-2023. The test distance is 3m. The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2020+Cor 1-2023 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.

2.2.6 TEST RESULTS (9KHZ – 30 MHZ)

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure:	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX	Polarization :	--

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

NOTE:

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

2.2.7 TEST RESULTS (30MHZ – 1GHZ)

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25.1 °C	Relative Humidity :	52%
Pressure :	1010hPa	Test Mode :	802.11a- (5G WIFI)
Test Voltage :	DC 12V from Adapter AC 120V/60Hz		

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	40.6790	18.42	18.69	37.11	40.00	-2.89	QP
V	94.7600	11.59	17.04	28.63	43.50	-14.87	QP
V	161.4740	12.20	15.16	27.36	43.50	-16.14	QP
V	280.0240	8.75	19.80	28.55	46.00	-17.45	QP
V	463.9700	6.86	23.89	30.75	46.00	-15.25	QP
V	833.3170	7.36	29.70	37.06	46.00	-8.94	QP

Remark:

Emission Level= ReadingLevel+ Factor, Margin= Emission Level - Limit



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	40.5590	13.75	18.72	32.47	40.00	-7.53	QP
H	81.2120	11.76	14.13	25.89	40.00	-14.11	QP
H	162.6110	14.97	15.16	30.13	43.50	-13.37	QP
H	261.0580	15.63	19.77	35.40	46.00	-10.60	QP
H	480.5280	7.83	24.06	31.89	46.00	-14.11	QP
H	801.7859	6.67	29.09	35.76	46.00	-10.24	QP

Remark:

Emission Level= ReadingLevel+ Factor, Margin= Emission Level - Limit



2.2.8 TEST RESULTS (1GHz-18GHz)

EUT :	Meter	Model Name. :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX (5.8G) -- 802.11a		

802.11a 5745MHz

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	1075.650	52.27	-18.20	34.07	54.00	-19.93	AVG
V	1078.200	60.03	-18.18	41.85	74.00	-32.15	peak
V	2099.475	47.30	-12.48	34.82	68.20	-33.38	AVG
V	2145.375	56.32	-12.73	43.59	68.20	-24.61	peak
V	3498.150	54.18	-9.57	44.61	68.20	-23.59	peak
V	3579.325	46.22	-9.48	36.74	68.20	-31.46	AVG
V	6794.450	43.82	-3.27	40.55	68.20	-27.65	AVG
V	7343.125	50.99	-1.86	49.13	74.00	-24.87	peak
V	10589.700	48.80	2.71	51.51	68.20	-16.69	peak
V	10885.075	40.10	3.72	43.82	54.00	-10.18	AVG
V	17977.900	43.62	13.50	57.12	74.00	-16.88	peak
V	17977.900	35.64	13.50	49.14	54.00	-4.86	AVG

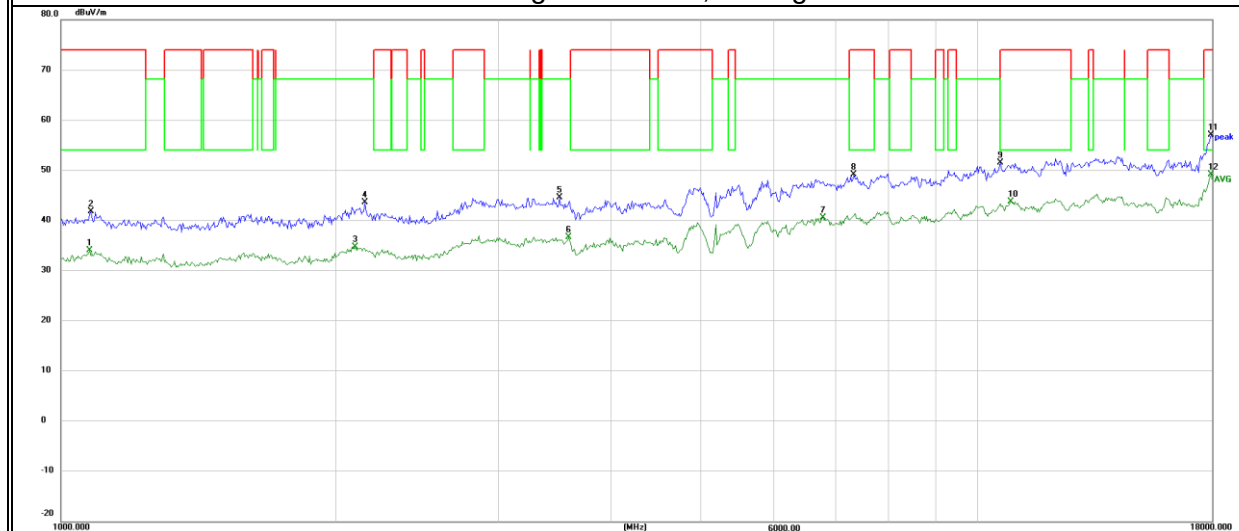
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	1265.200	60.16	-17.86	42.30	68.20	-25.90	peak
H	1275.825	51.60	-17.86	33.74	68.20	-34.46	AVG
H	2111.800	47.49	-12.54	34.95	68.20	-33.25	AVG
H	2176.825	55.66	-13.30	42.36	68.20	-25.84	peak
H	3336.650	46.04	-9.37	36.67	54.00	-17.33	AVG
H	3494.325	54.65	-9.56	45.09	68.20	-23.11	peak
H	7362.250	51.98	-2.07	49.91	74.00	-24.09	peak
H	7362.250	43.95	-2.07	41.88	54.00	-12.12	AVG
H	9962.400	50.58	1.02	51.60	68.20	-16.60	peak
H	10584.175	40.79	2.66	43.45	68.20	-24.75	AVG
H	17957.925	44.76	13.41	58.17	74.00	-15.83	peak
H	17935.400	35.21	13.31	48.52	54.00	-5.48	AVG

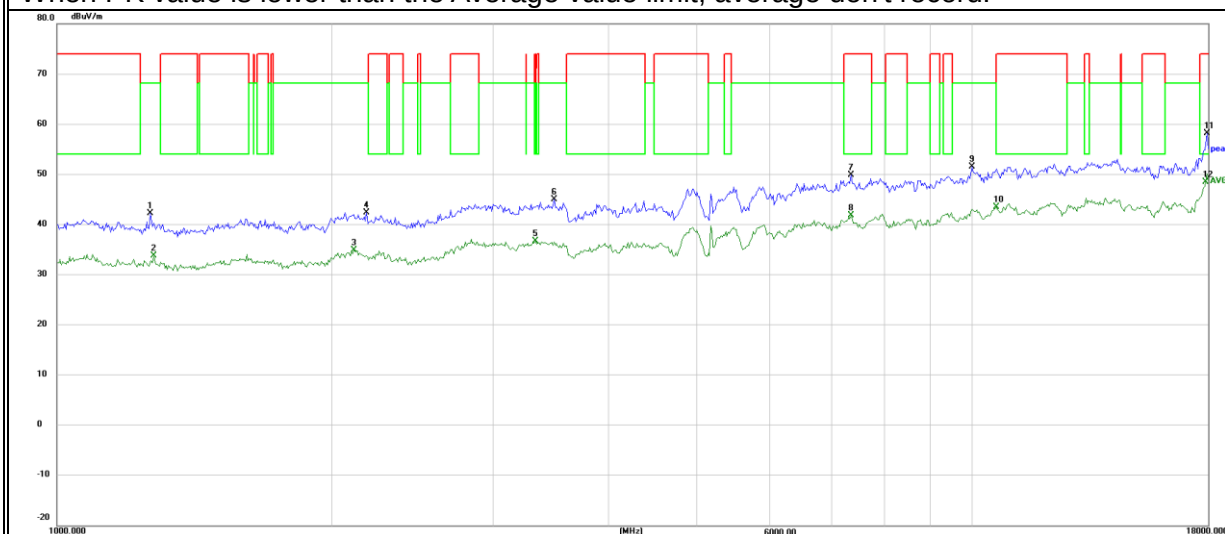
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



802.11a 5785MHz

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	1069.275	60.55	-18.27	42.28	74.00	-31.72	peak
V	1087.550	52.24	-18.09	34.15	54.00	-19.85	AVG
V	1481.100	58.25	-17.25	41.00	74.00	-33.00	peak
V	1598.400	50.39	-16.41	33.98	54.00	-20.02	AVG
V	2097.775	47.31	-12.49	34.82	68.20	-33.38	AVG
V	2145.375	55.80	-12.73	43.07	68.20	-25.13	peak
V	3307.750	46.27	-9.39	36.88	68.20	-31.32	AVG
V	3357.475	54.16	-9.39	44.77	74.00	-29.23	peak
V	7817.000	51.31	-1.69	49.62	68.20	-18.58	peak
V	7956.825	43.92	-1.34	42.58	68.20	-25.62	AVG
V	17945.600	42.76	13.35	56.11	74.00	-17.89	peak
V	17894.600	35.28	13.03	48.31	54.00	-5.69	AVG

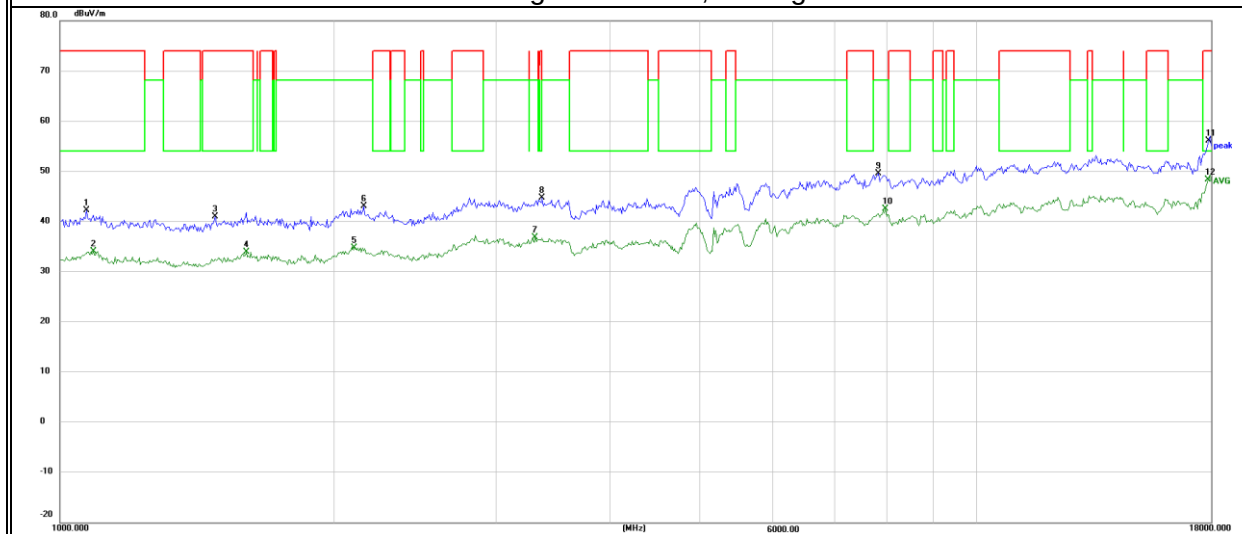
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	1079.050	57.84	-18.17	39.67	74.00	-34.33	peak
H	1087.975	51.68	-18.08	33.60	54.00	-20.40	AVG
H	1618.800	50.18	-16.54	33.64	54.00	-20.36	AVG
H	1687.225	58.01	-16.54	41.47	74.00	-32.53	peak
H	2799.025	54.44	-10.43	44.01	74.00	-29.99	peak
H	2867.025	46.79	-10.13	36.66	54.00	-17.34	AVG
H	4266.975	44.18	-7.78	36.40	54.00	-17.60	AVG
H	4317.125	51.61	-7.67	43.94	74.00	-30.06	peak
H	7897.750	51.25	-1.62	49.63	68.20	-18.57	peak
H	7906.250	43.74	-1.56	42.18	68.20	-26.02	AVG
H	17971.950	44.00	13.48	57.48	74.00	-16.52	peak
H	17971.950	35.77	13.48	49.25	54.00	-4.75	AVG

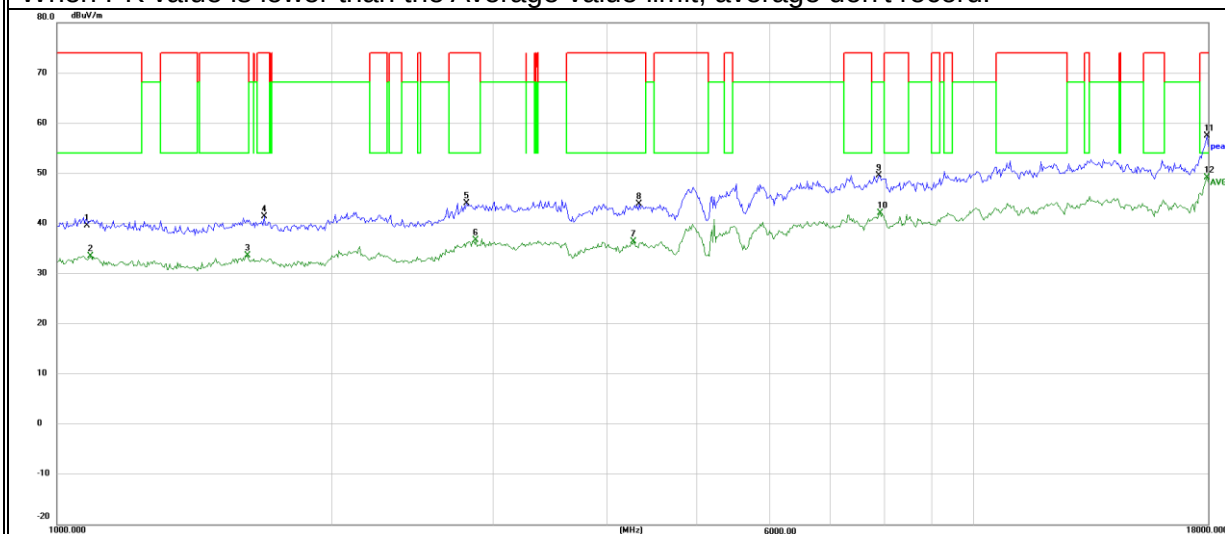
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



802.11a 5825MHz

Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
V	1099.875	60.10	-17.95	42.15	74.00	-31.85	peak
V	1099.875	51.96	-17.95	34.01	54.00	-19.99	AVG
V	2085.450	47.65	-12.60	35.05	68.20	-33.15	AVG
V	2119.875	55.01	-12.59	42.42	68.20	-25.78	peak
V	2799.025	47.21	-10.43	36.78	54.00	-17.22	AVG
V	3026.825	55.03	-9.54	45.49	68.20	-22.71	peak
V	4370.675	51.72	-7.50	44.22	74.00	-29.78	peak
V	4382.150	44.58	-7.61	36.97	54.00	-17.03	AVG
V	7217.325	51.96	-2.27	49.69	68.20	-18.51	peak
V	7363.950	44.02	-2.11	41.91	54.00	-12.09	AVG
V	17981.725	43.22	13.52	56.74	74.00	-17.26	peak
V	17981.725	36.58	13.52	50.10	54.00	-3.90	AVG

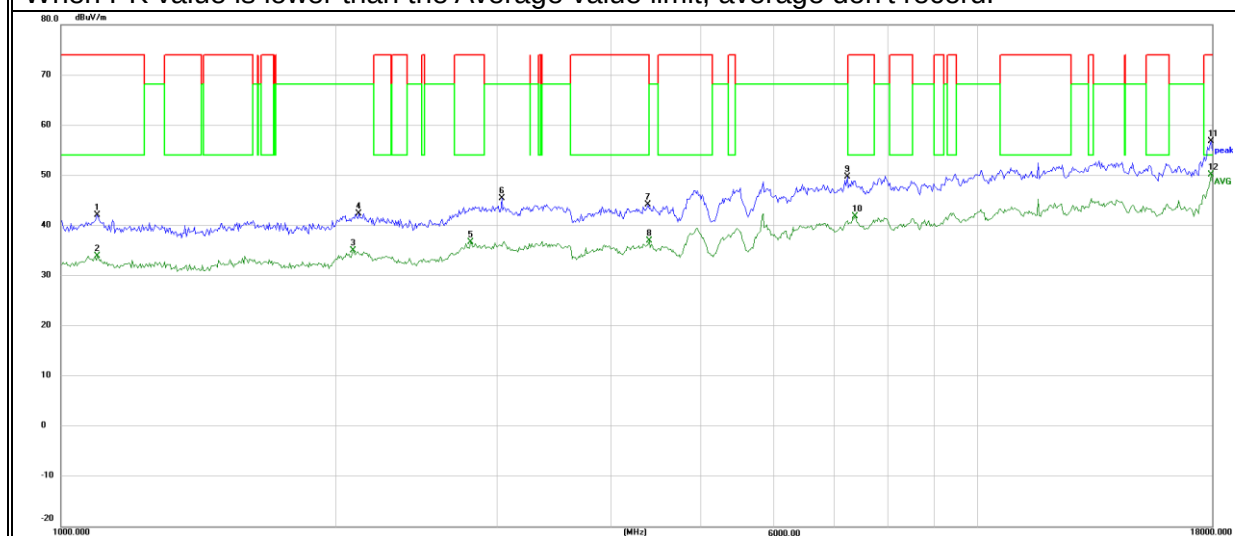
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



Polar (H/V)	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
H	1058.225	52.12	-18.39	33.73	54.00	-20.27	AVG
H	1107.100	60.48	-18.10	42.38	74.00	-31.62	peak
H	1599.250	50.31	-16.41	33.90	54.00	-20.10	AVG
H	1607.750	58.07	-16.46	41.61	74.00	-32.39	peak
H	2797.325	47.02	-10.44	36.58	54.00	-17.42	AVG
H	2836.850	54.43	-10.26	44.17	74.00	-29.83	peak
H	3971.175	44.66	-8.00	36.66	54.00	-17.34	AVG
H	4254.650	52.09	-7.76	44.33	74.00	-29.67	peak
H	7768.975	51.60	-1.66	49.94	68.20	-18.26	peak
H	7813.600	43.62	-1.64	41.98	68.20	-26.22	AVG
H	17983.425	44.10	13.53	57.63	74.00	-16.37	peak
H	17932.850	35.16	13.30	48.46	54.00	-5.54	AVG

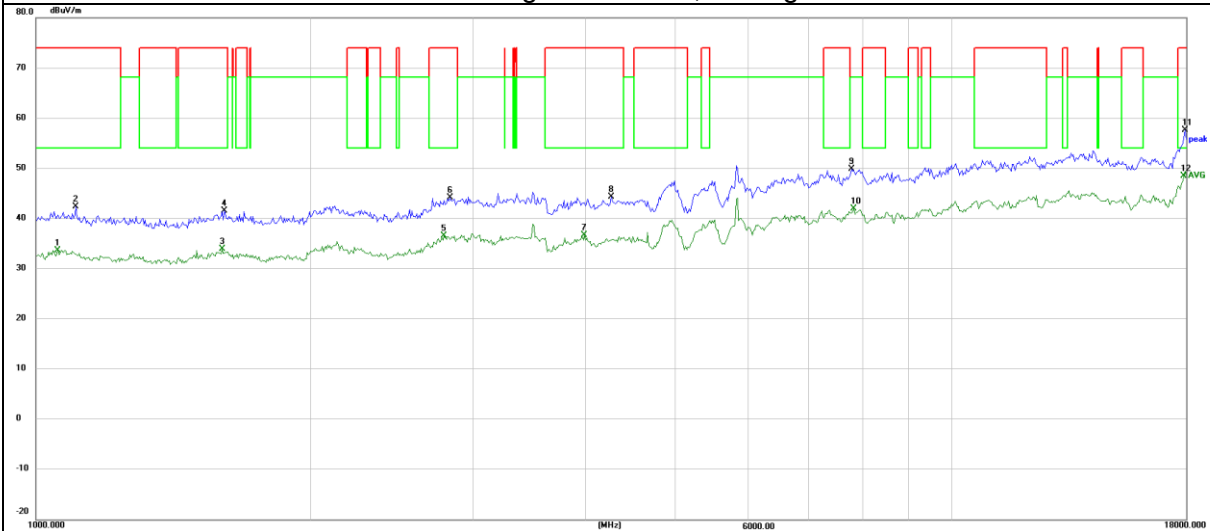
Remark:

Emission Level = Meter Reading+ Factor, Margin= Emission Level- Limit, Factor= Antenna Factor + Cable Loss - Preamp Factor

All the modulation modes have been tested, and the worst-case result was 802.11a. Only the worst-case mode reported.

Other emissions are attenuated more than 20dB below the permissible limits, so it does not recorded in the report.

When PK value is lower than the Average value limit, average don't record.



2.2.9 TEST RESULTS (18GHz-40GHz)

EUT :	Meter	Model Name. :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX (5.8G) -- 802.11a		

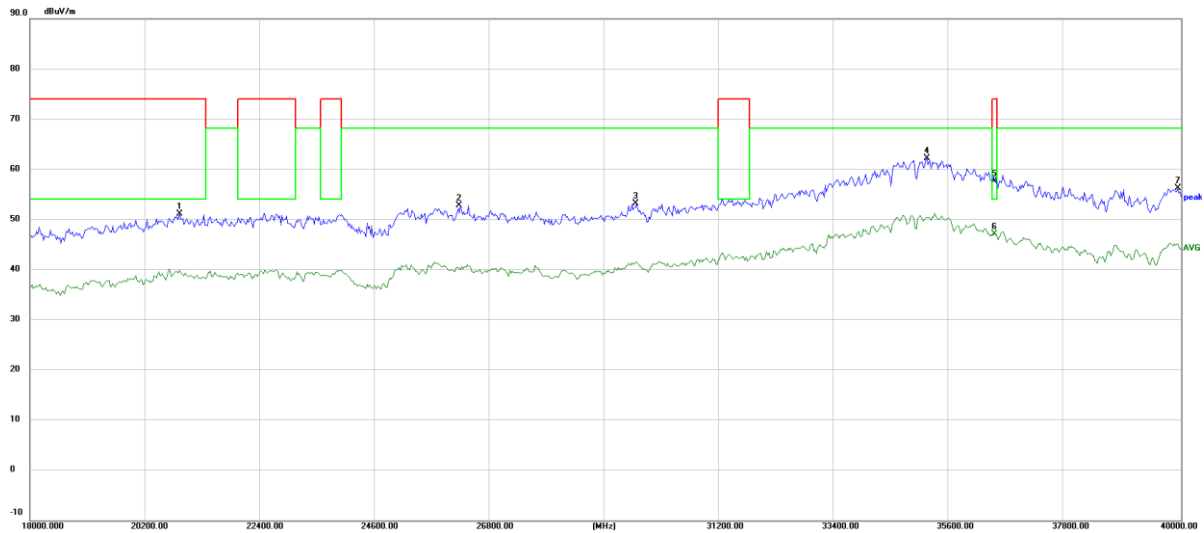
High Channel (5825 MHz)- Vertical

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	25223.333	57.60	-4.17	53.43	68.20	-14.77	peak
2	31403.867	59.74	-5.73	54.01	74.00	-19.99	peak
3	34881.333	58.34	3.43	61.77	68.20	-6.43	peak
4	35314.733	59.24	2.83	62.07	68.20	-6.13	peak
5	35514.200	59.33	2.64	61.97	68.20	-6.23	peak
6	36448.467	57.06	0.85	57.91	74.00	-16.09	peak
7	36448.467	46.65	0.85	47.50	54.00	-6.50	AVG



High Channel (5825 MHz)- Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	20897.400	59.89	-8.73	51.16	74.00	-22.84	peak
2	26248.533	59.41	-6.59	52.82	68.20	-15.38	peak
3	29625.533	60.87	-7.69	53.18	68.20	-15.02	peak
4	35157.067	59.08	3.21	62.29	68.20	-5.91	peak
5	36451.400	56.80	0.85	57.65	74.00	-16.35	peak
6	36451.400	46.23	0.85	47.08	54.00	-6.92	AVG
7	39947.200	53.02	3.32	56.34	68.20	-11.86	peak



Note: 5.8G 802.11a mode is the worst mode

2.2.10 Spurious Emission in Restricted Band 4.5GHz~5.150 GHz& 5.350GHz~5460GHz

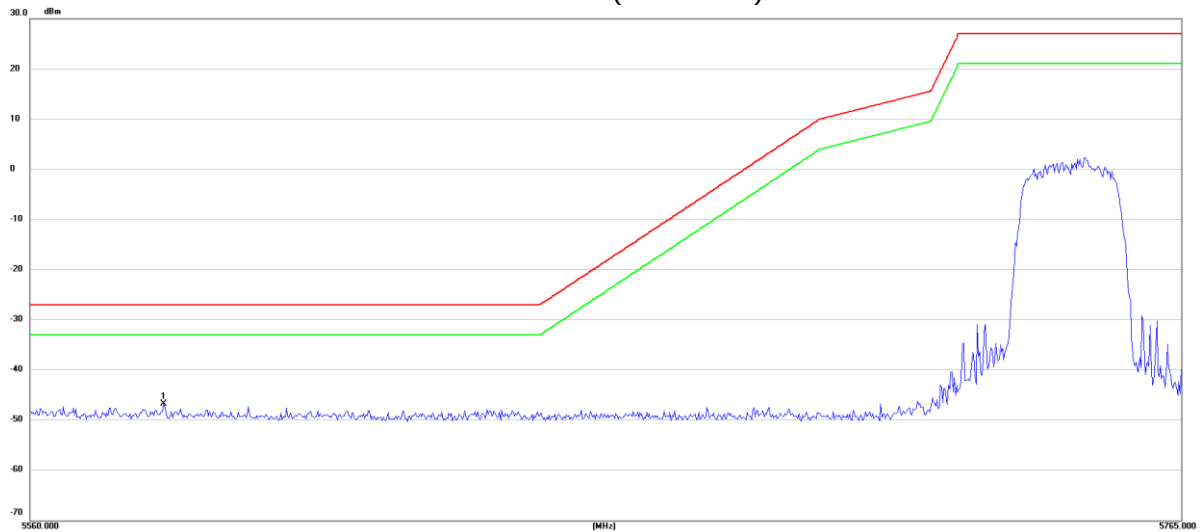
All the modulation modes have been tested, The report just record the worst data mode.

Unwanted emission for operating in the band 5725-5850 MHz

EUT :	Meter	Model Name. :	6HVA-10
Temperature :	20 °C	Relative Humidity :	48%
Pressure :	1010 hPa	Test Voltage :	DC 12V
Test Mode :	TX (5.8G)-802.11a		

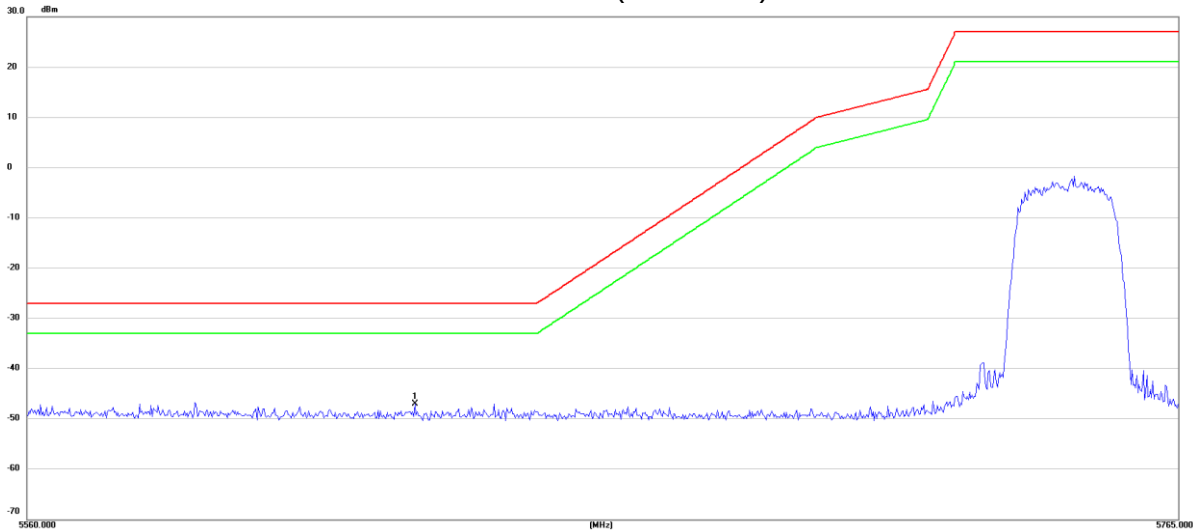
All the modulation modes have been tested, The report just record the worst data mode.

Vertical Low Channel (5745 MHz)-Above 1G



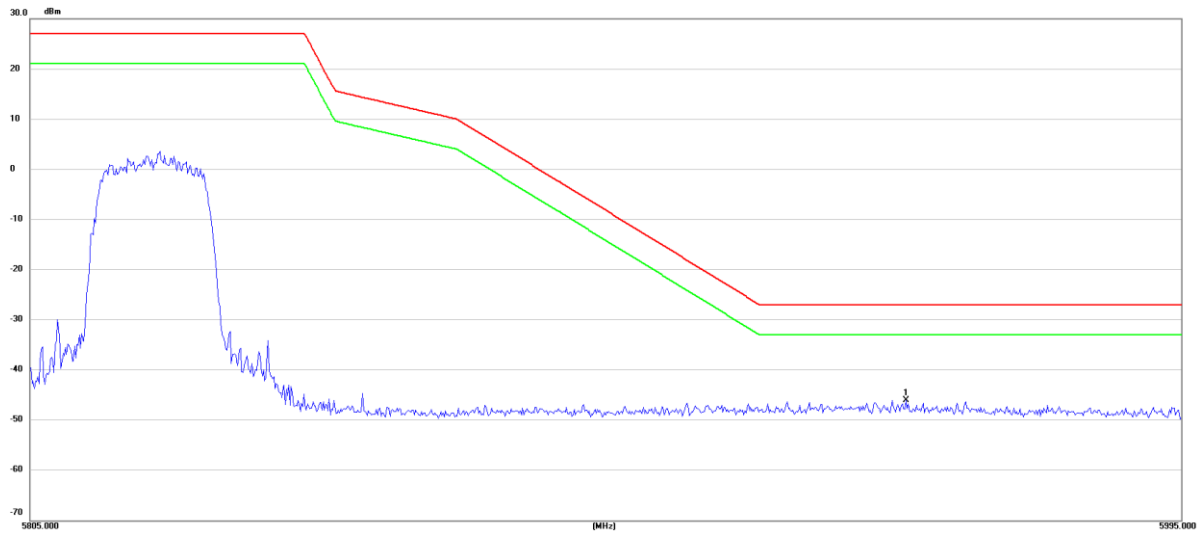
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5583.575	-52.64	5.98	-46.66	-27.00	-19.66	peak

Horizontal Low Channel (5745 MHz)-Above 1G



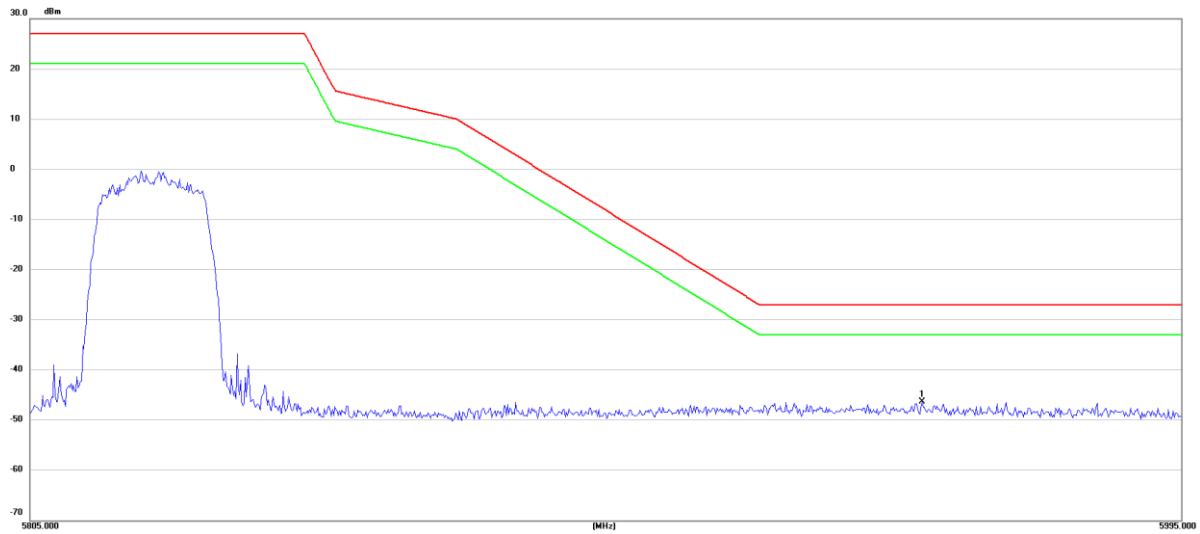
No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5628.265	-53.03	6.03	-47.00	-27.00	-20.00	peak

Vertical High Channel (5825 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5949.210	-53.38	7.42	-45.96	-27.00	-18.96	peak

Horizontal High Channel (5825 MHz)-Above 1G



No.	Frequency (MHz)	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Margin (dB)	Det.
1	5951.870	-53.57	7.38	-46.19	-27.00	-19.19	peak

3. POWER SPECTRAL DENSITY TEST

3.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407(a)

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 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 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.

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3.2 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:

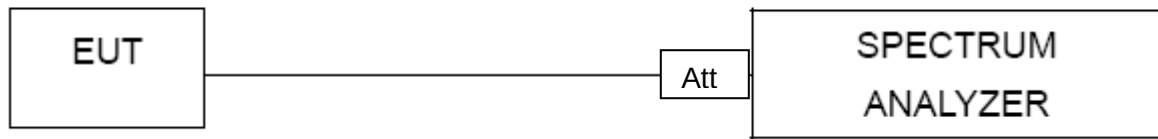
- a) Measure the duty cycle D of the transmitter output signal as described in 12.2.
- b) Set span to encompass the entire 26 dB EBW or 99% OBW of the signal.
- c) Set RBW = 1 MHz.
- d) Set VBW ≥ 3 MHz.
- e) Number of points in sweep $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- f) Sweep time = auto.
- g) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
- h) Do not use sweep triggering. Allow the sweep to “free run.”
- i) Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed such that the average accurately represents the true average over the ON and OFF periods of the transmitter.
- j) Compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument’s band power measurement function with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.
- k) Add $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the ON and OFF times of the transmission). For example, add $[10 \log (1 / 0.25)] = 6$ dB if the duty cycle is 25%.

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.

3.3 DEVIATION FROM STANDARD

No deviation.

3.4 TEST SETUP



3.5 EUT OPERATION CONDITIONS

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

3.6 TEST RESULTS

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1015 hPa	Test Voltage :	DC 12V
Test Mode :	TX Frequency Band 3 (5745-5825MHz)		

Test data reference attachment.

4. 26DB & 99% EMISSION BANDWIDTH

4.1 APPLIED PROCEDURES / LIMIT

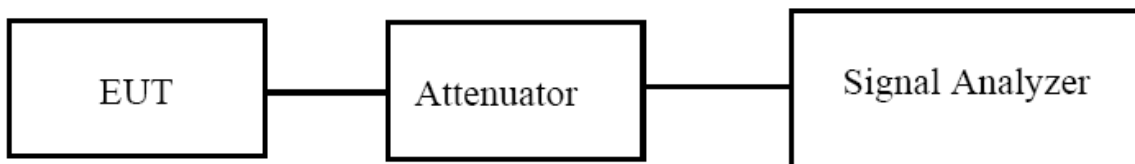
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band 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.

4.2 TEST PROCEDURE

- a) Set RBW = Set RBW = shall be in the range of 1% to 5% 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 in the range of 1% to 5%.

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.



4.3 EUT OPERATION CONDITIONS

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

4.4 TEST RESULTS

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 12V
Test Mode :	TX Frequency Band 3 (5745-5825MHz)		

Test data reference attachment.

5. MINIMUM 6 DB BANDWIDTH

5.1 APPLIED PROCEDURES / LIMIT

According to FCC §15.407(e)

(e) Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.2 TEST PROCEDURE

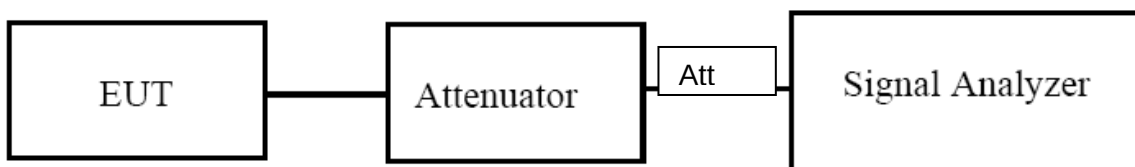
Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

5.3 DEVIATION FROM STANDARD

No deviation.

5.4 TEST SETUP



5.5 EUT OPERATION CONDITIONS

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

5.6 TEST RESULTS

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 12V
Test Mode :	TX (5G) Mode Frequency Band 3 (5725-5850MHz)		

Test data reference attachment.

6. MAXIMUM CONDUCTED OUTPUT POWER

6.1 PPLIED PROCEDURES / LIMIT

According to FCC §15.407

The maximum conducted output power should not exceed:

Frequency Band(MHz)	Limit
5725~5850	1W

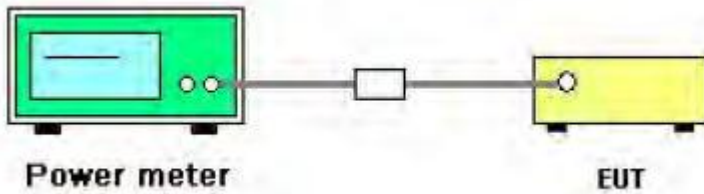
6.2 TEST PROCEDURE

- Method PM is Measurement using an RF average power meter. The procedure for this method is as follows:
 - a) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
 - 1) The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
 - 2) At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
 - 3) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
 - b) If the transmitter does not transmit continuously, measure the duty cycle D of the transmitter output signal as described in 12.2.
 - c) Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
 - d) Correct the measurement in dBm by adding $[10 \log (1 / D)]$, where D is the duty cycle {e.g., $[10 \log (1 / 0.25)]$, if the duty cycle is 25%}.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

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

6.2 TEST RESULTS

EUT :	Meter	Model Name :	6HVA-10
Temperature :	25 °C	Relative Humidity :	56%
Pressure :	1012 hPa	Test Voltage :	DC 12V
Test Mode :	TX (5G) Mode Frequency Band 3 (5725-5850MHz)		

Test data reference attachment.

7. Frequency Stability Measurement

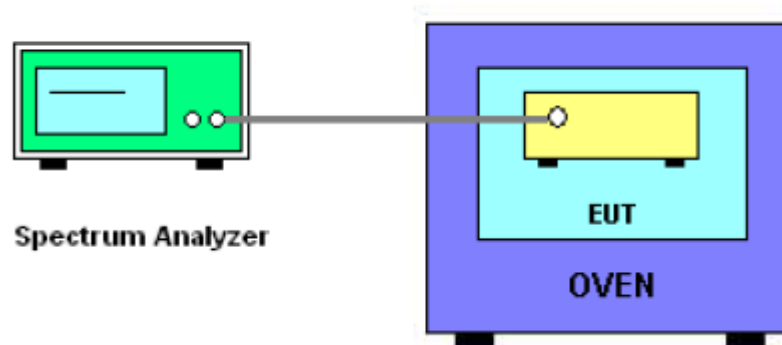
7.1 LIMIT

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

7.2 TEST PROCEDURES

1. The transmitter output (antenna port) was connected to the spectrum analyzer.
2. EUT have transmitted absence of modulation signal and fixed channelize.
3. Set the spectrum analyzer span to view the entire absence of modulation emissions bandwidth.
4. Set RBW = 10 kHz, VBW = 10 kHz with peak detector and maxhold settings.
5. f_c is declaring of channel frequency. Then the frequency error formula is $(f_c - f)/f_c \times 10^6$ ppm.
6. The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value
7. Extreme temperature is -20°C~70°C.

7.3 TEST SETUP LAYOUT



7.4 EUT OPERATION DURING TEST

1. The EUT was programmed to be in continuously un-modulation transmitting mode.

7.5 TEST RESULTS

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01

The applications for equipment certification are not required to include test reports with explicit demonstration of compliance.

8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

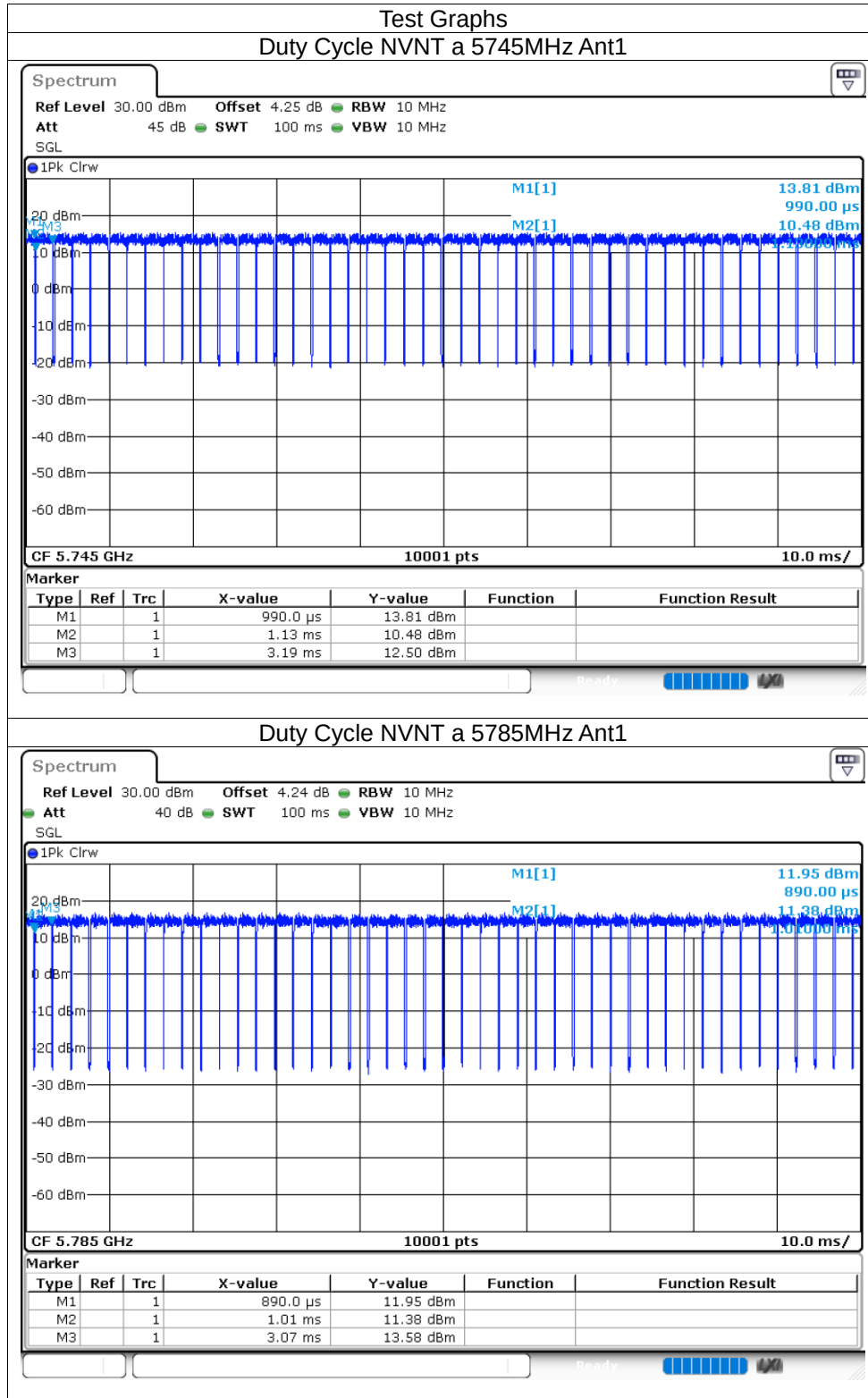
8.2 EUT ANTENNA

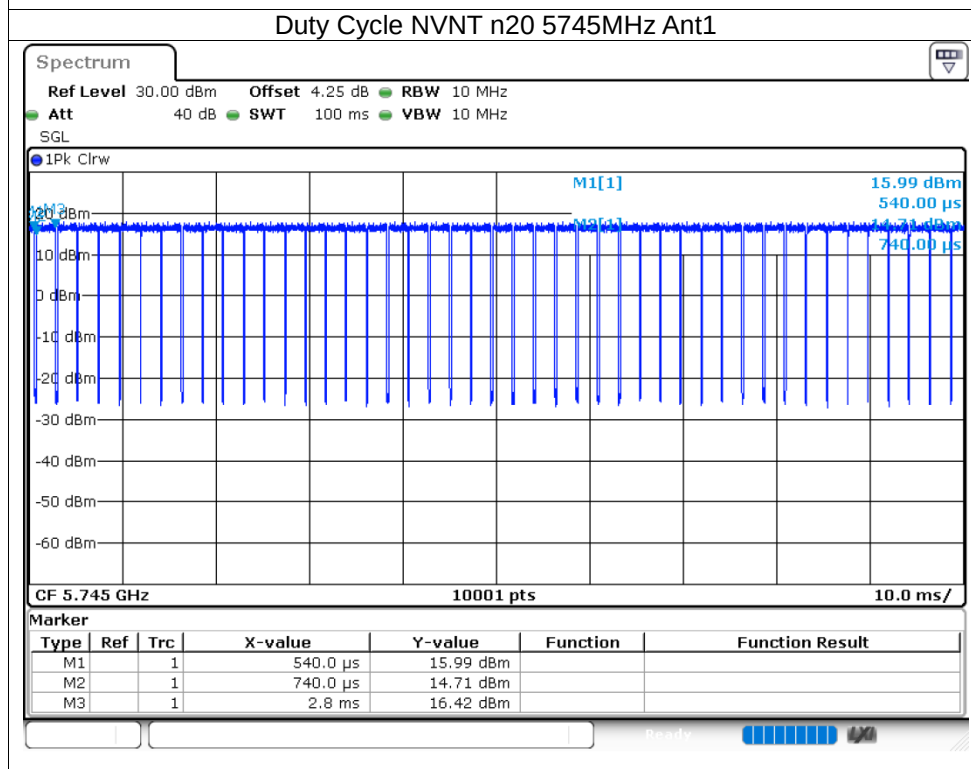
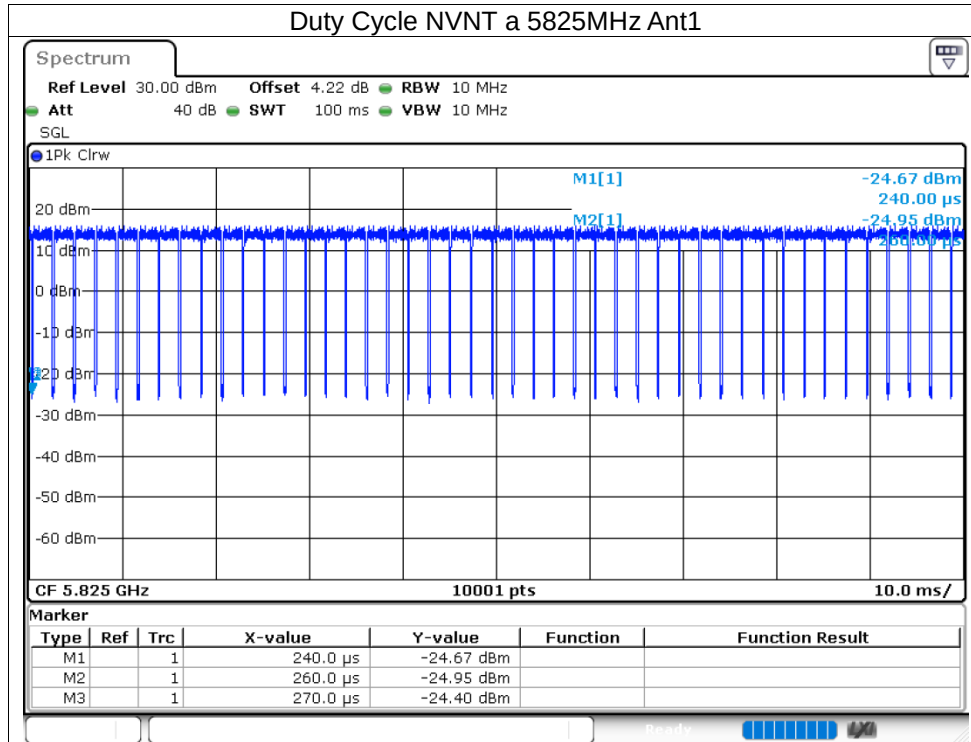
The EUT antenna is permanent attached Ceramic Antenna (Gain: 4.37dBi). It comply with the standard requirement.

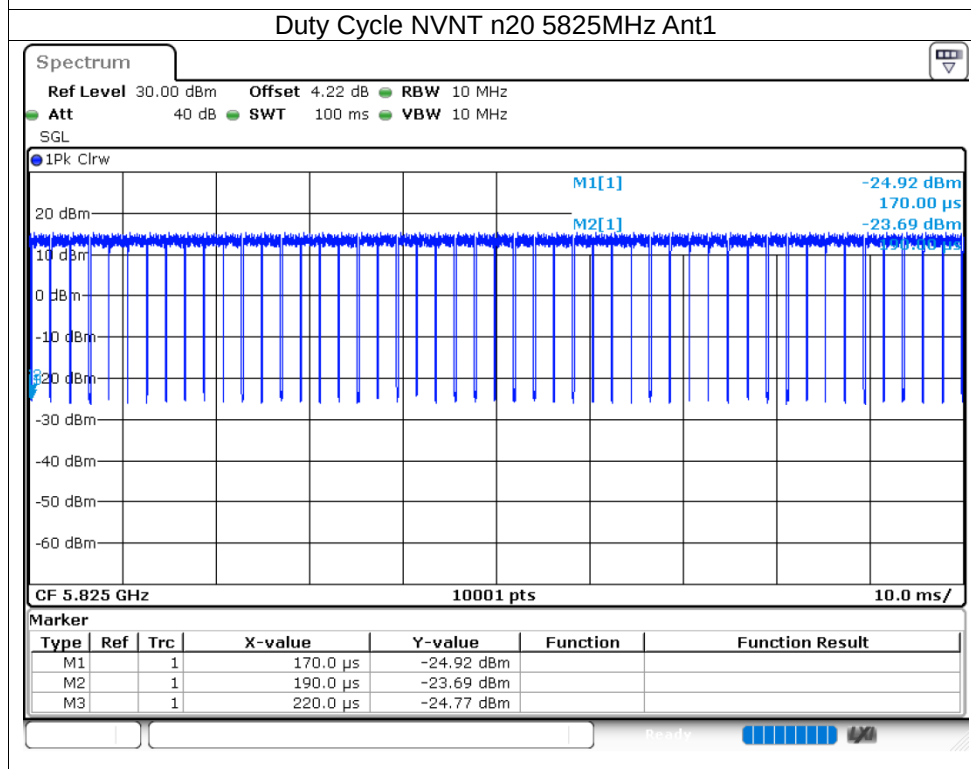
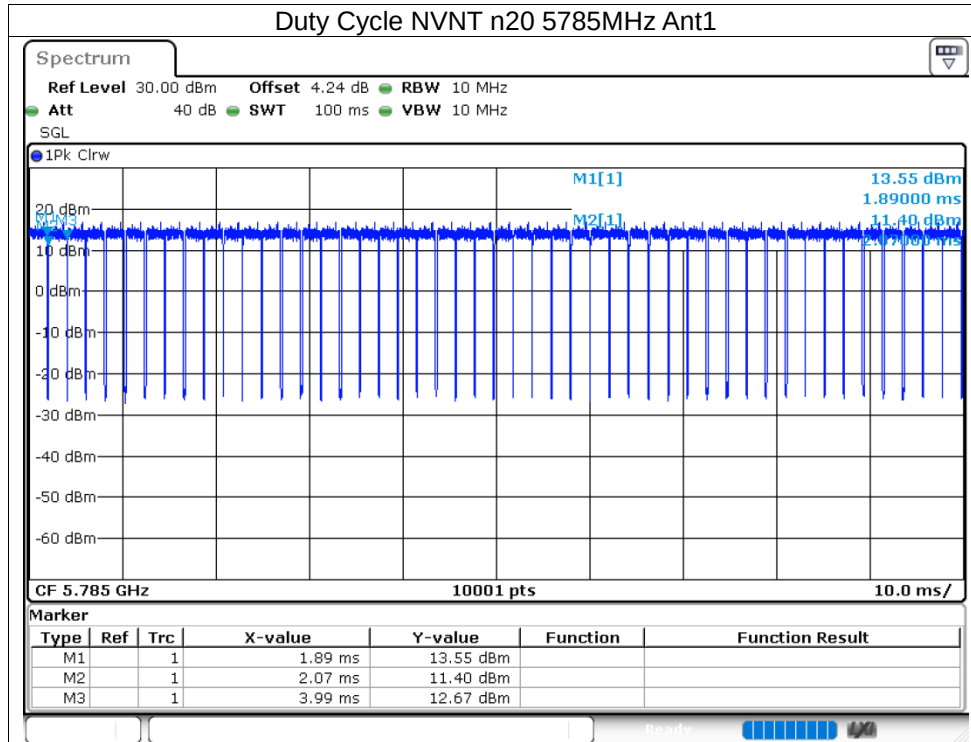
9. TEST RESULTS

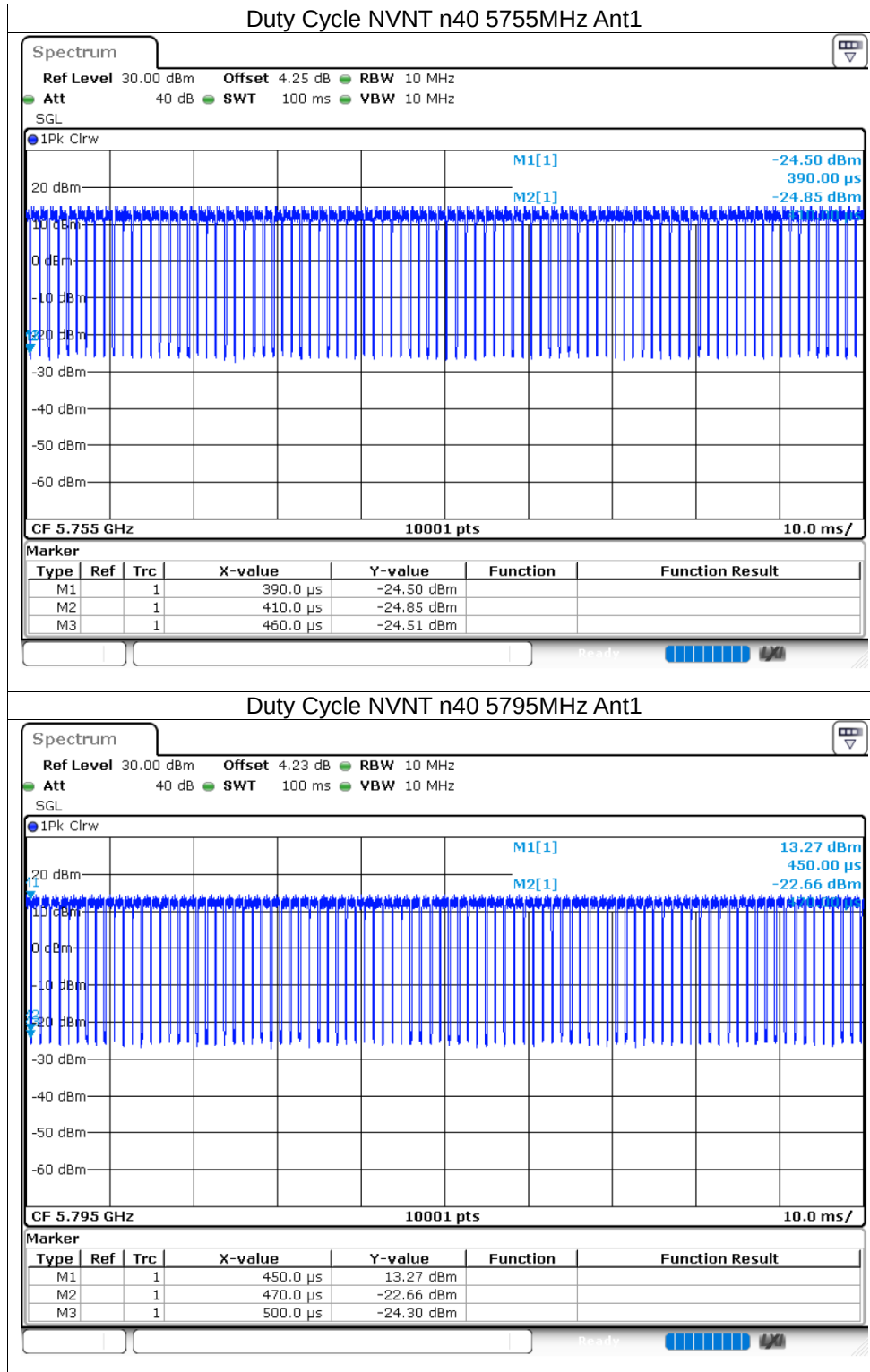
9.1 DUTY CYCLE

Condition	Mode	Frequency (MHz)	Antenna	Duty Cycle (%)	Correction Factor (dB)	1/T (kHz)
NVNT	a	5745	Ant1	93.05	0.31	0.49
NVNT	a	5785	Ant1	93.07	0.31	0.49
NVNT	a	5825	Ant1	97.81	0.1	100
NVNT	n20	5745	Ant1	93.13	0.31	0.49
NVNT	n20	5785	Ant1	92.74	0.33	0.52
NVNT	n20	5825	Ant1	97.76	0.1	33.33
NVNT	n40	5755	Ant1	94.07	0.27	20
NVNT	n40	5795	Ant1	94.88	0.23	33.33









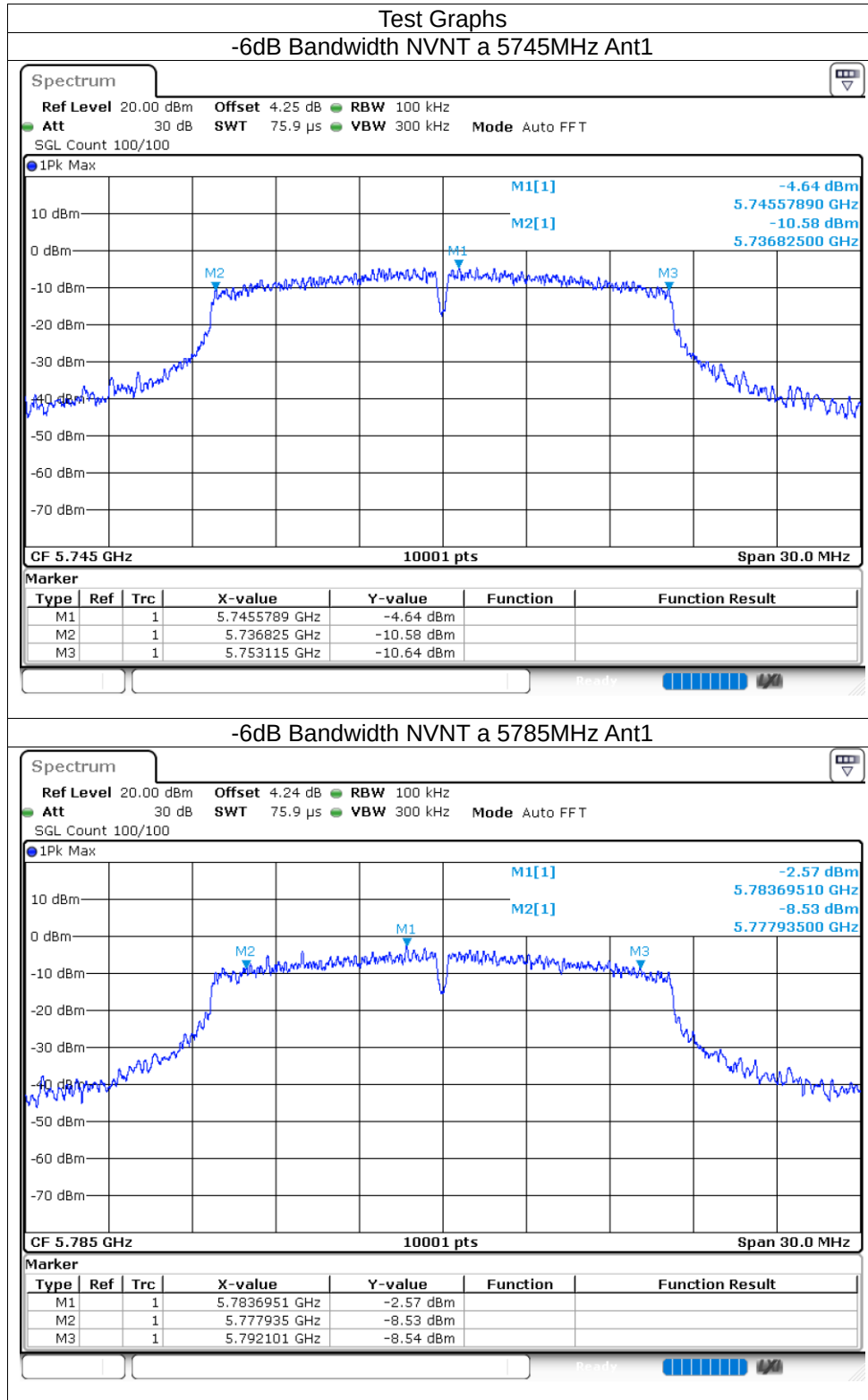
9.2 MAXIMUM CONDUCTED OUTPUT POWER

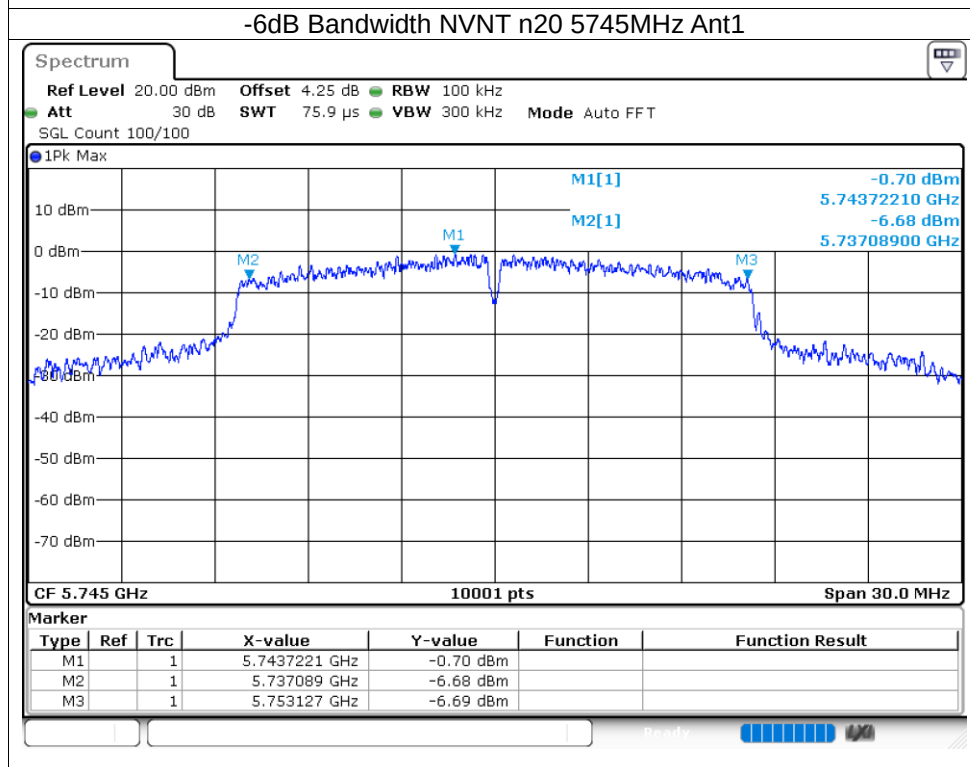
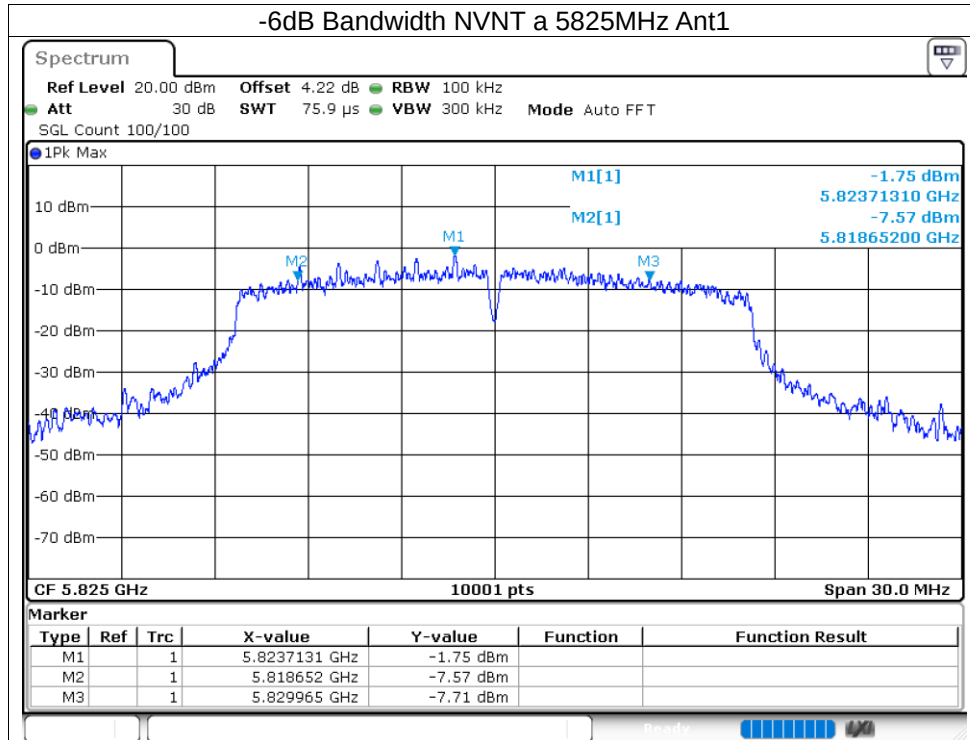
Condition	Mode	Frequency (MHz)	Antenna	Total Power (dBm)	Limit (dBm)	Verdict
NVNT	a	5745	Ant1	9.99	30	Pass
NVNT	a	5785	Ant1	9.75	30	Pass
NVNT	a	5825	Ant1	9.37	30	Pass
NVNT	n20	5745	Ant1	9.5	30	Pass
NVNT	n20	5785	Ant1	9.6	30	Pass
NVNT	n20	5825	Ant1	9.12	30	Pass
NVNT	n40	5755	Ant1	10.16	30	Pass
NVNT	n40	5795	Ant1	9.75	30	Pass

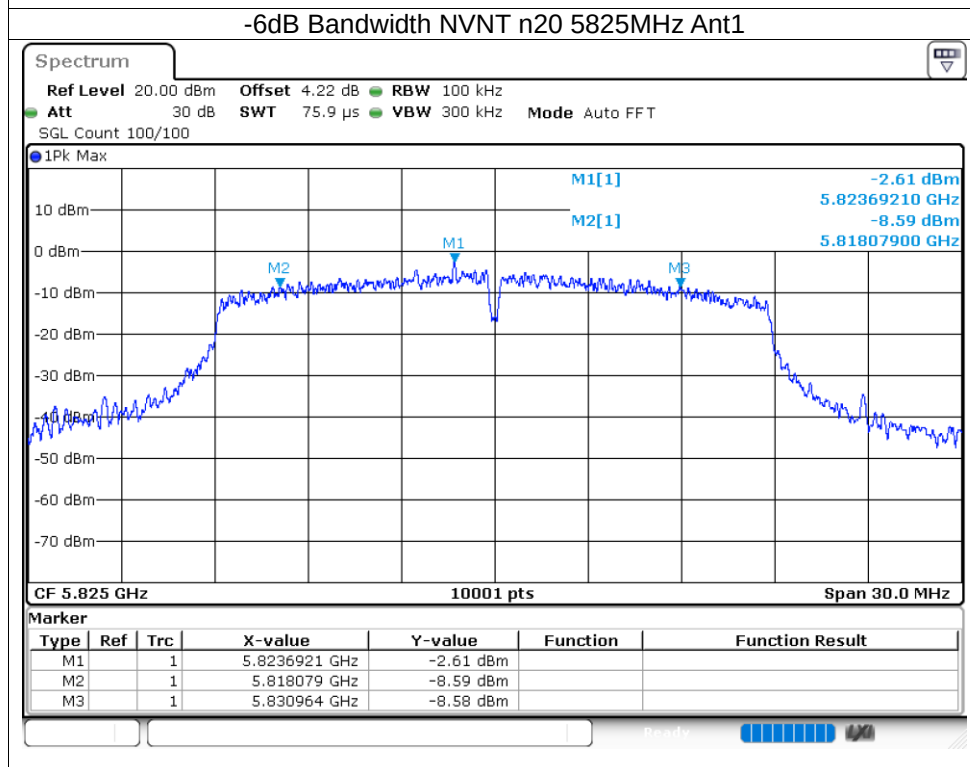
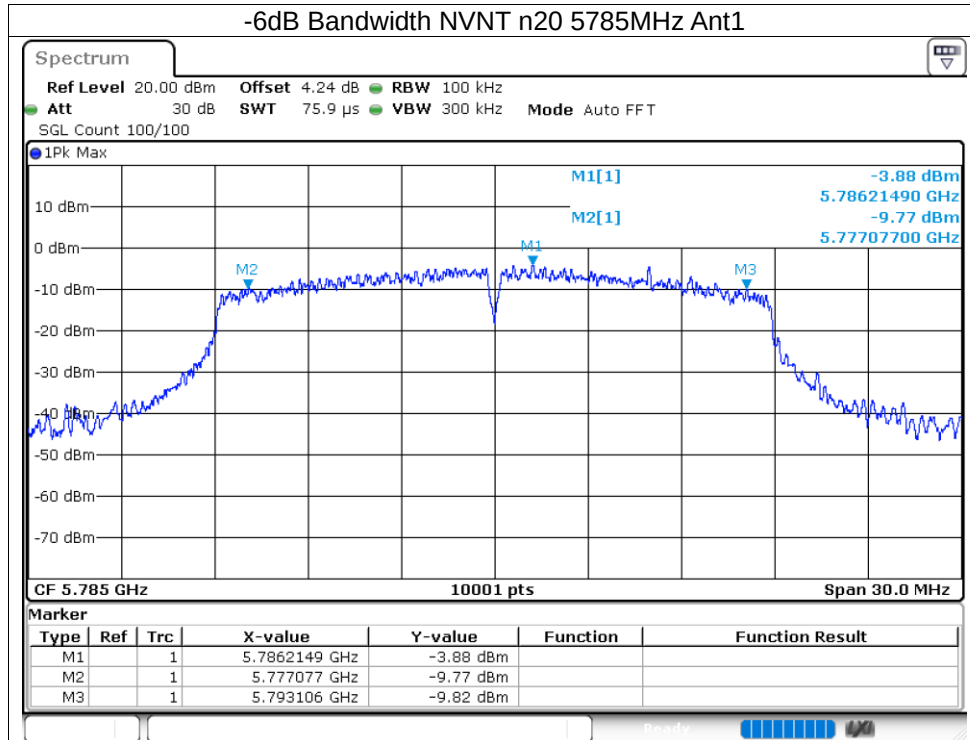
Note: The Duty Cycle factor has already been included.

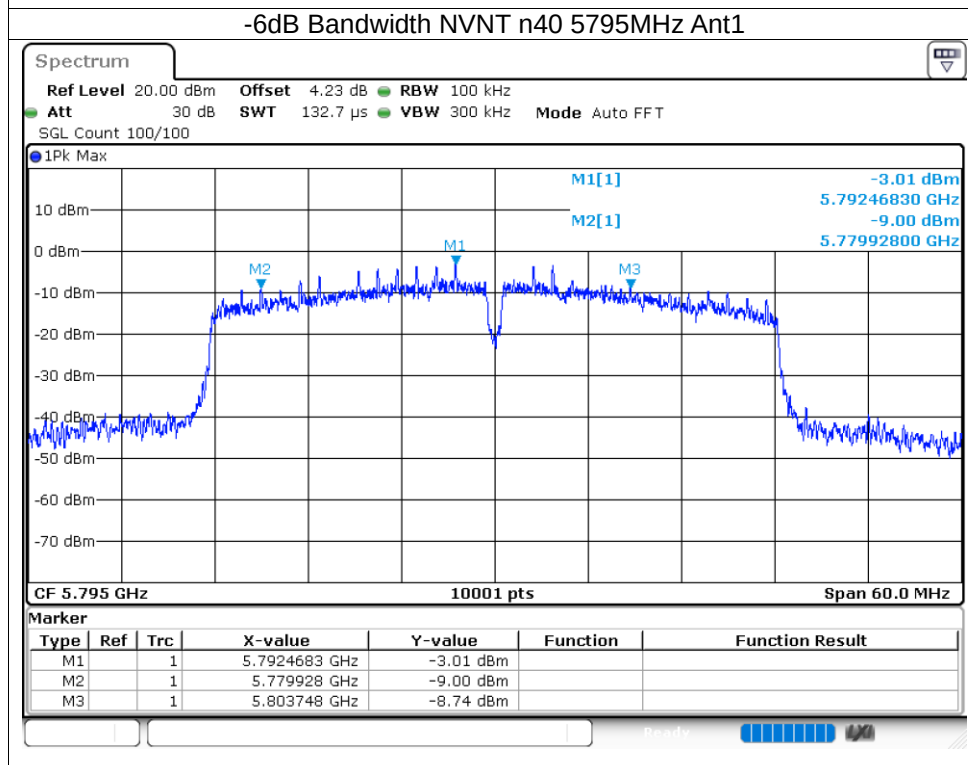
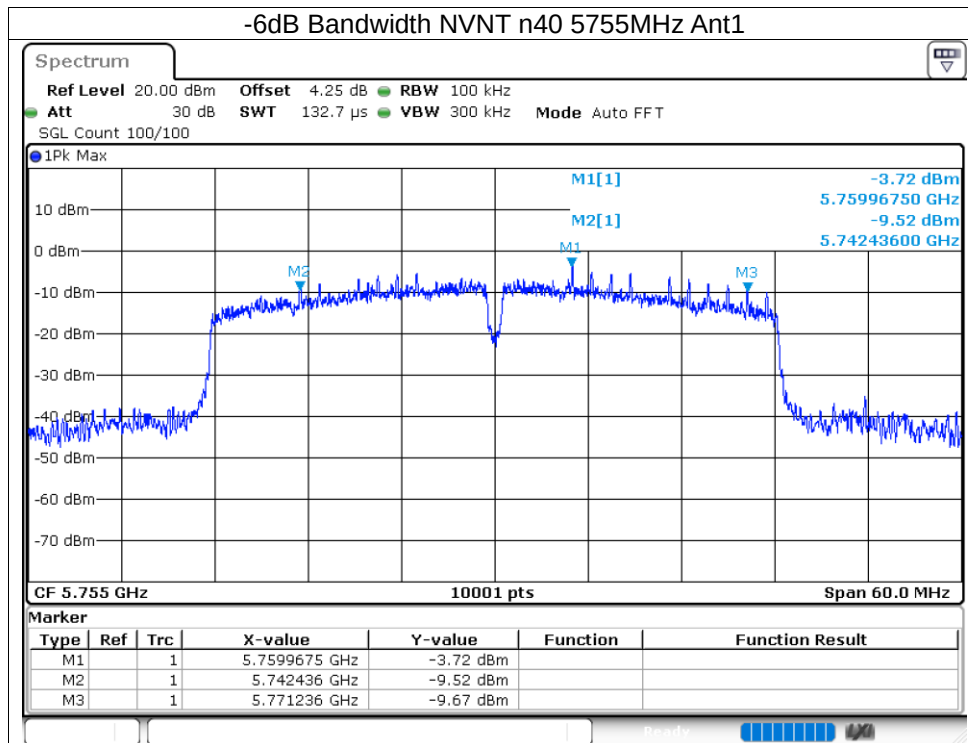
9.3 -6DB BANDWIDTH

Condition	Mode	Frequency (MHz)	Antenna	-6 dB Bandwidth (MHz)	Limit -6 dB Bandwidth (MHz)	Verdict
NVNT	a	5745	Ant1	16.29	0.5	Pass
NVNT	a	5785	Ant1	14.166	0.5	Pass
NVNT	a	5825	Ant1	11.313	0.5	Pass
NVNT	n20	5745	Ant1	16.038	0.5	Pass
NVNT	n20	5785	Ant1	16.029	0.5	Pass
NVNT	n20	5825	Ant1	12.885	0.5	Pass
NVNT	n40	5755	Ant1	28.8	0.5	Pass
NVNT	n40	5795	Ant1	23.82	0.5	Pass



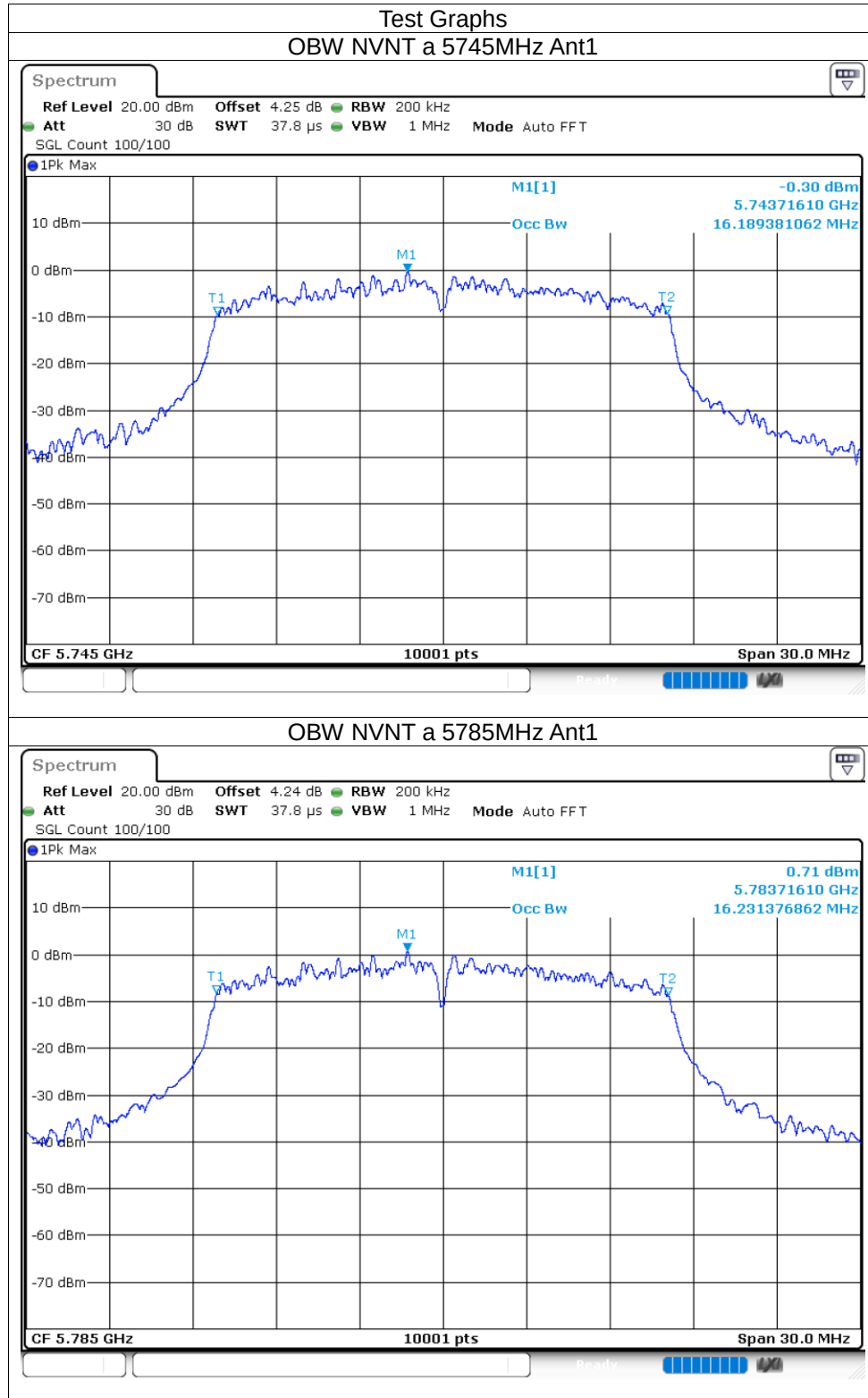




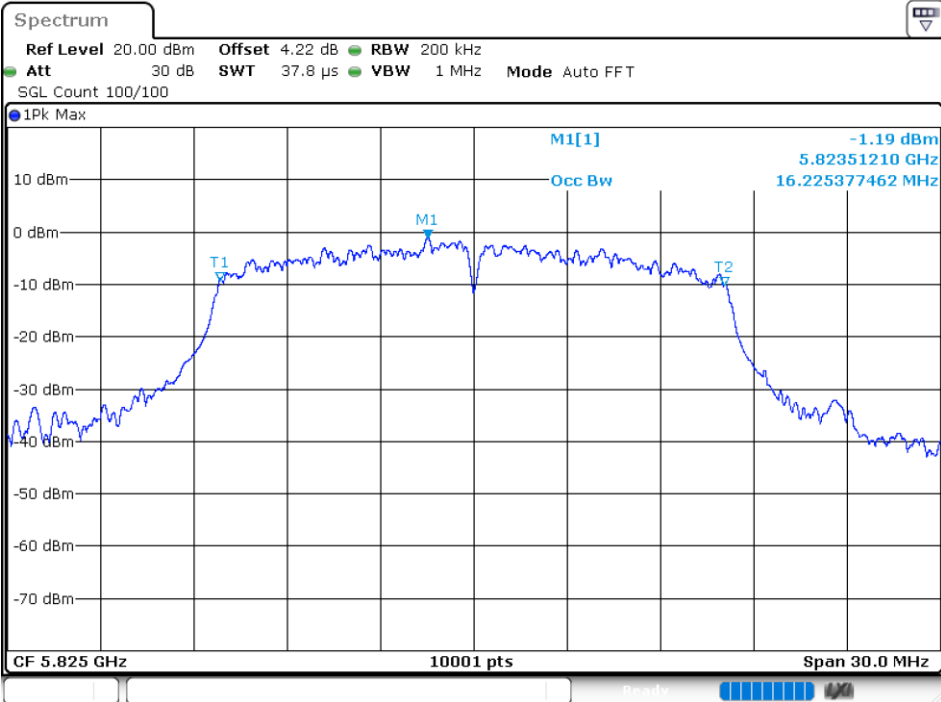


9.4 OCCUPIED CHANNEL BANDWIDTH

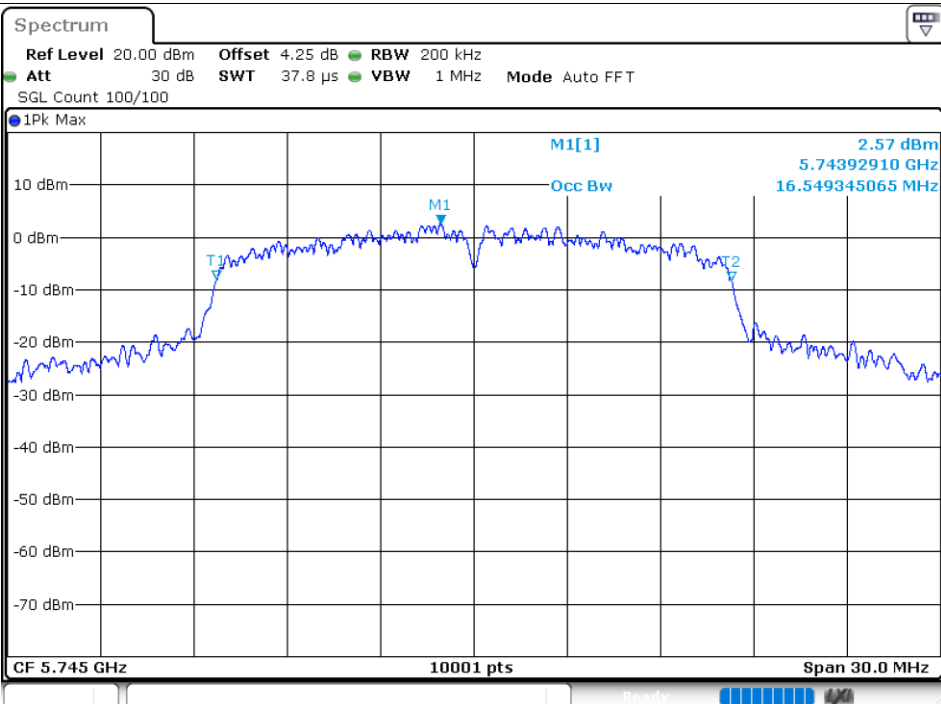
Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	a	5745	Ant1	16.189
NVNT	a	5785	Ant1	16.231
NVNT	a	5825	Ant1	16.225
NVNT	n20	5745	Ant1	16.549
NVNT	n20	5785	Ant1	17.323
NVNT	n20	5825	Ant1	17.338
NVNT	n40	5755	Ant1	35.348
NVNT	n40	5795	Ant1	35.288

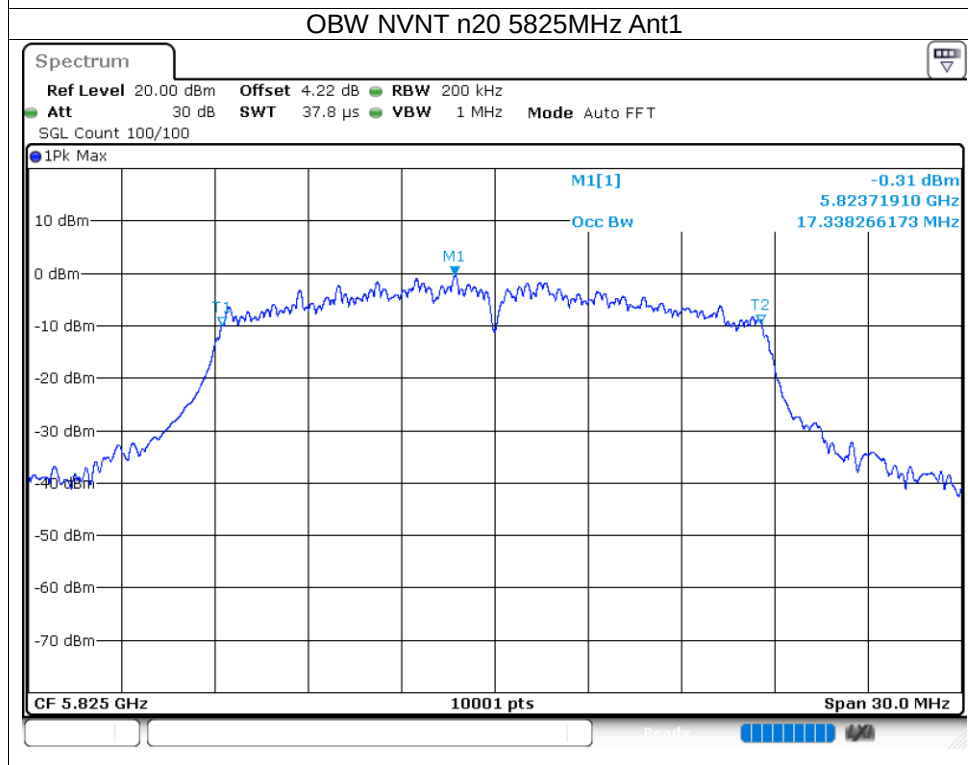
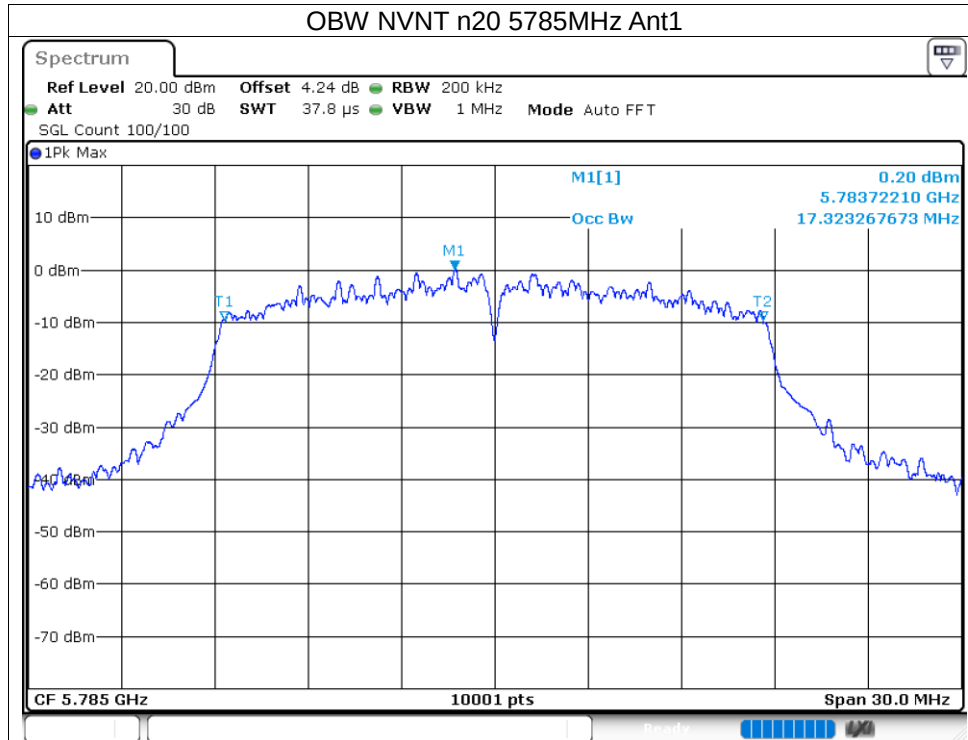


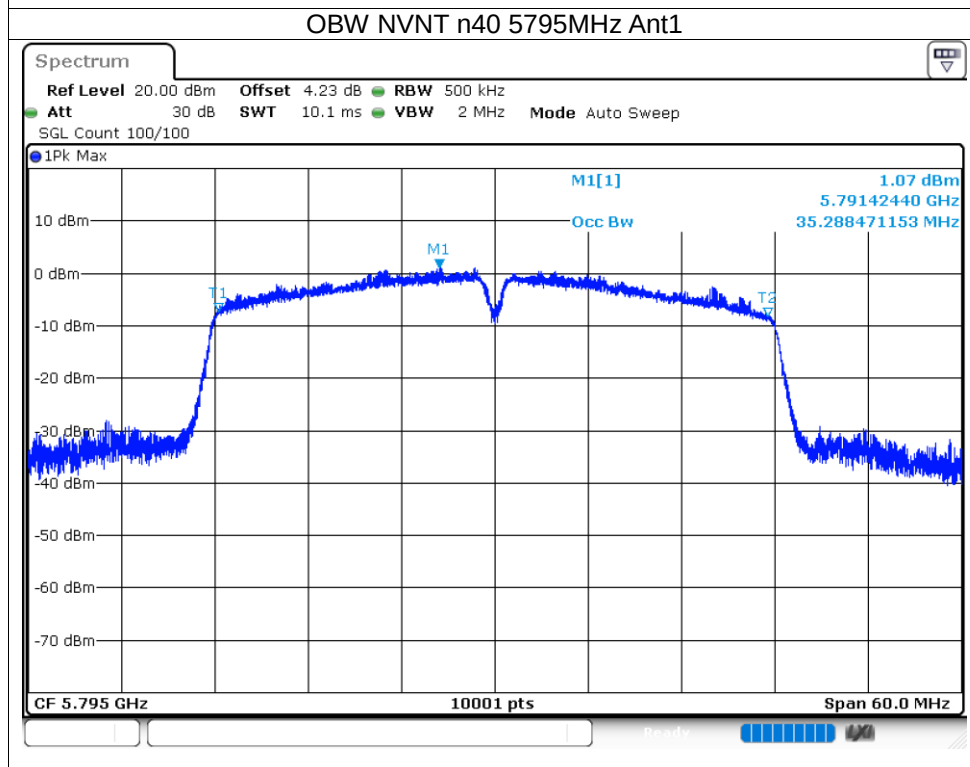
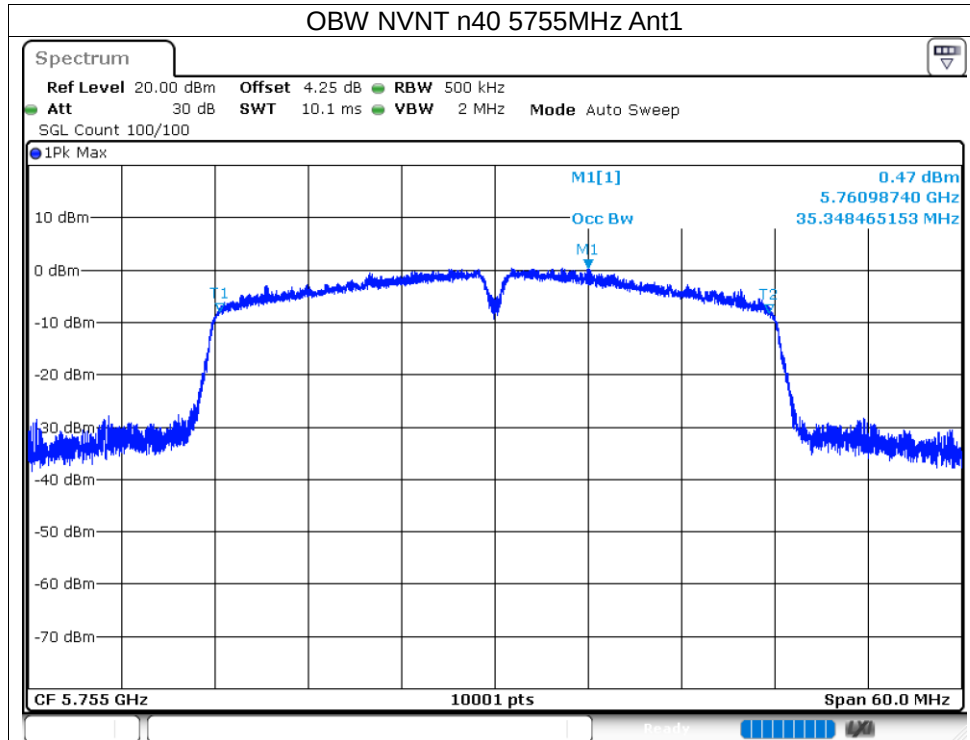
OBW NVNT a 5825MHz Ant1



OBW NVNT n20 5745MHz Ant1

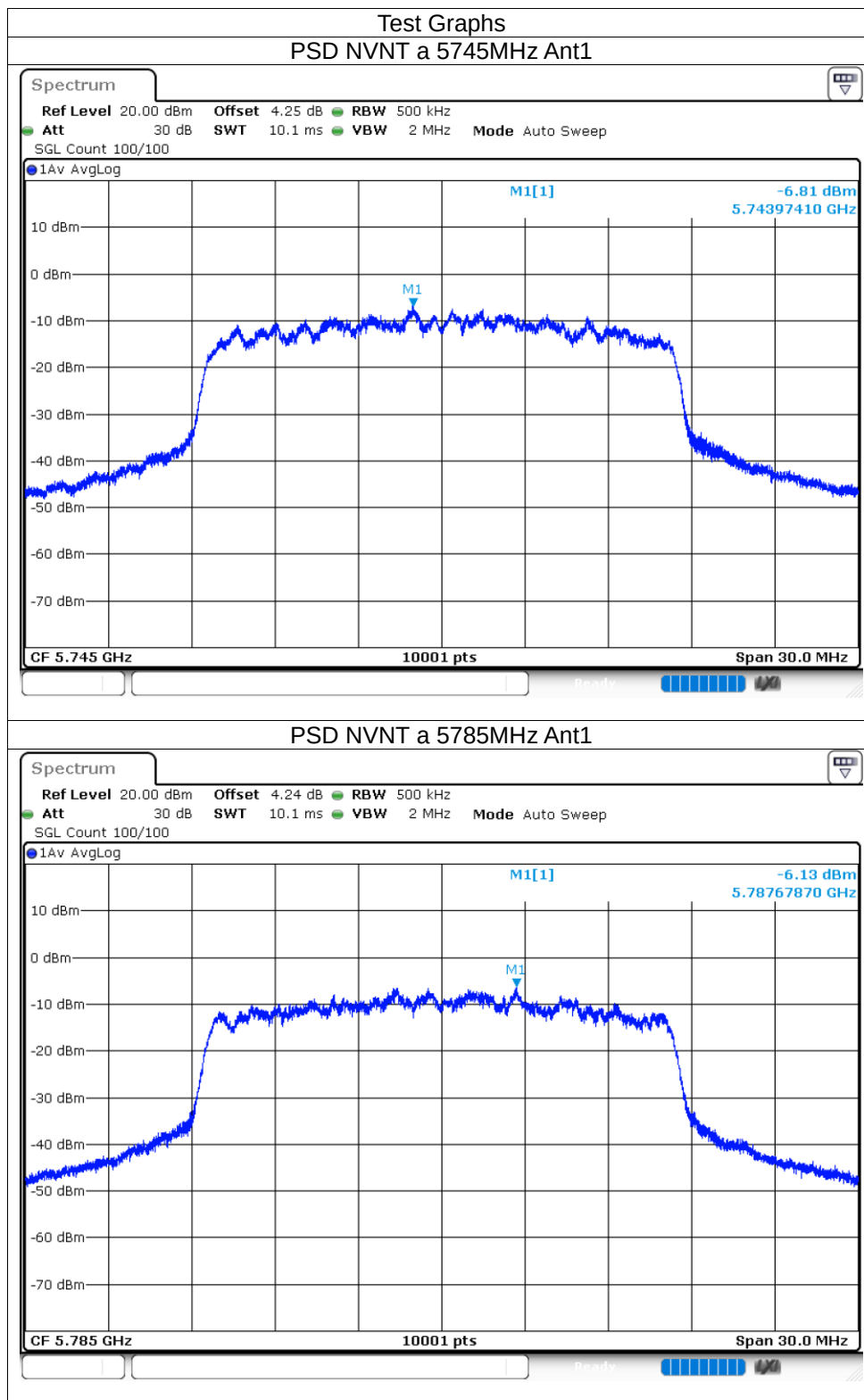


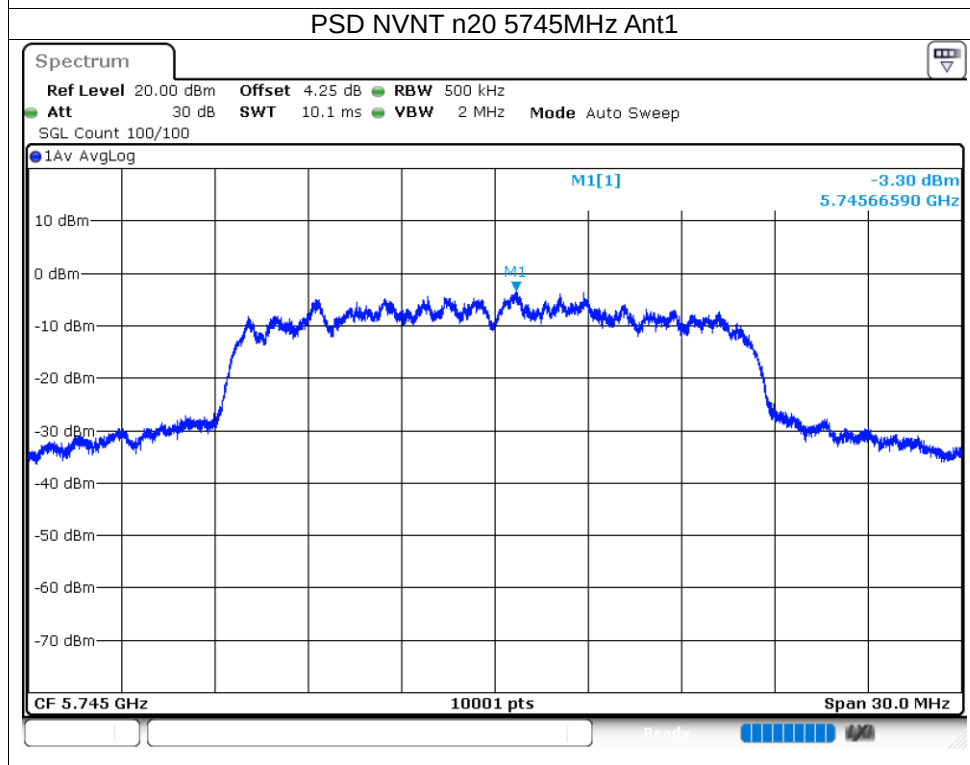
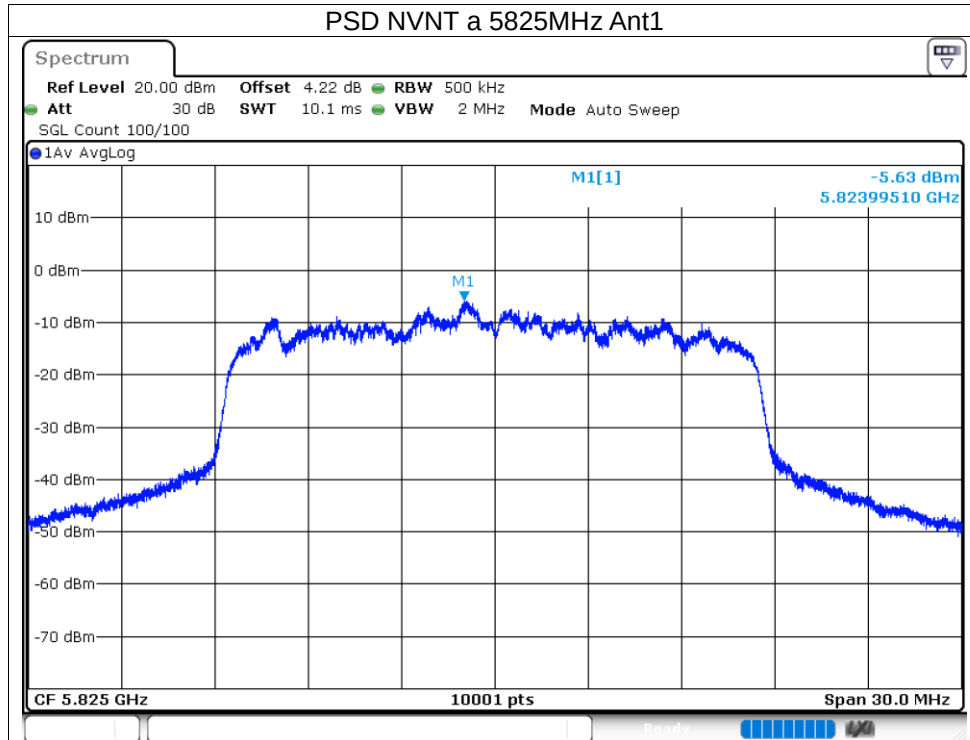


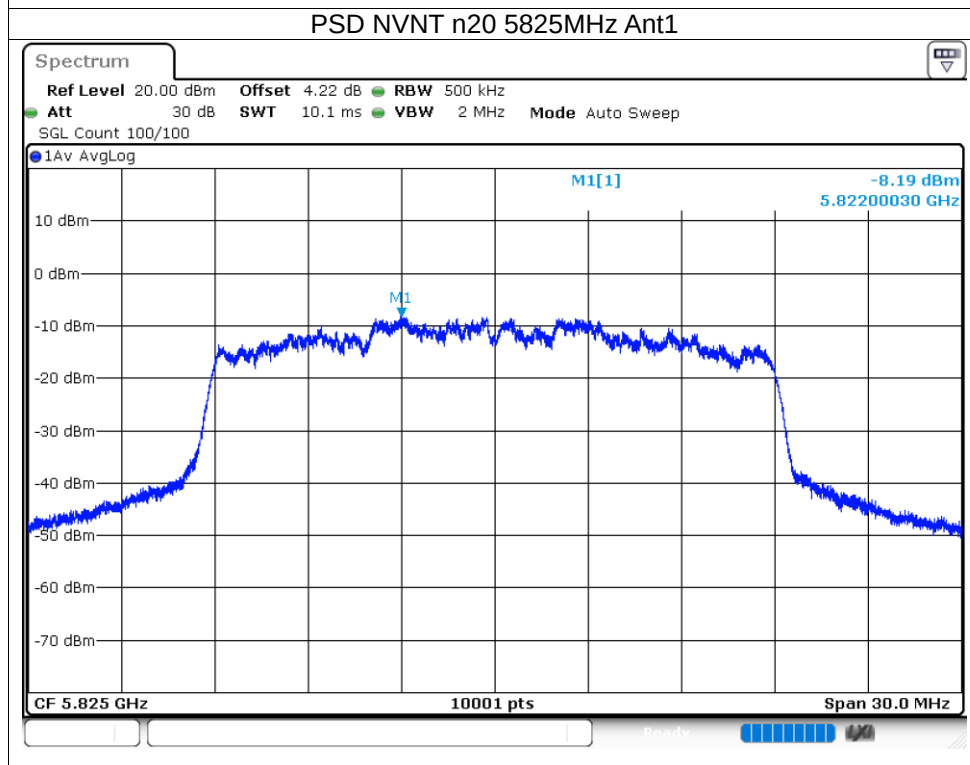
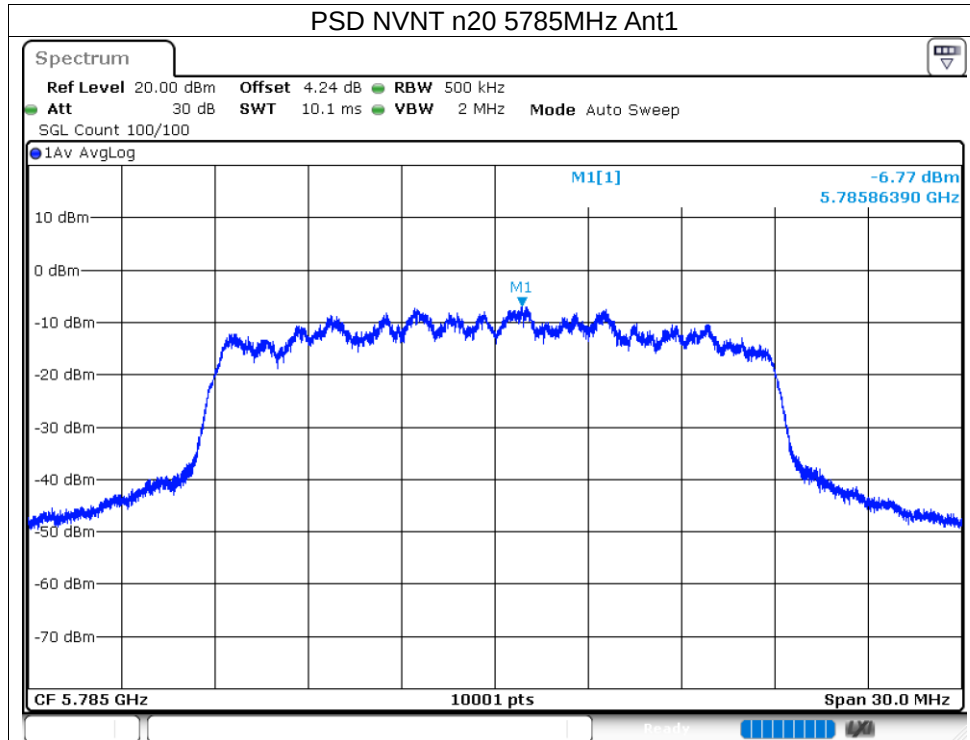


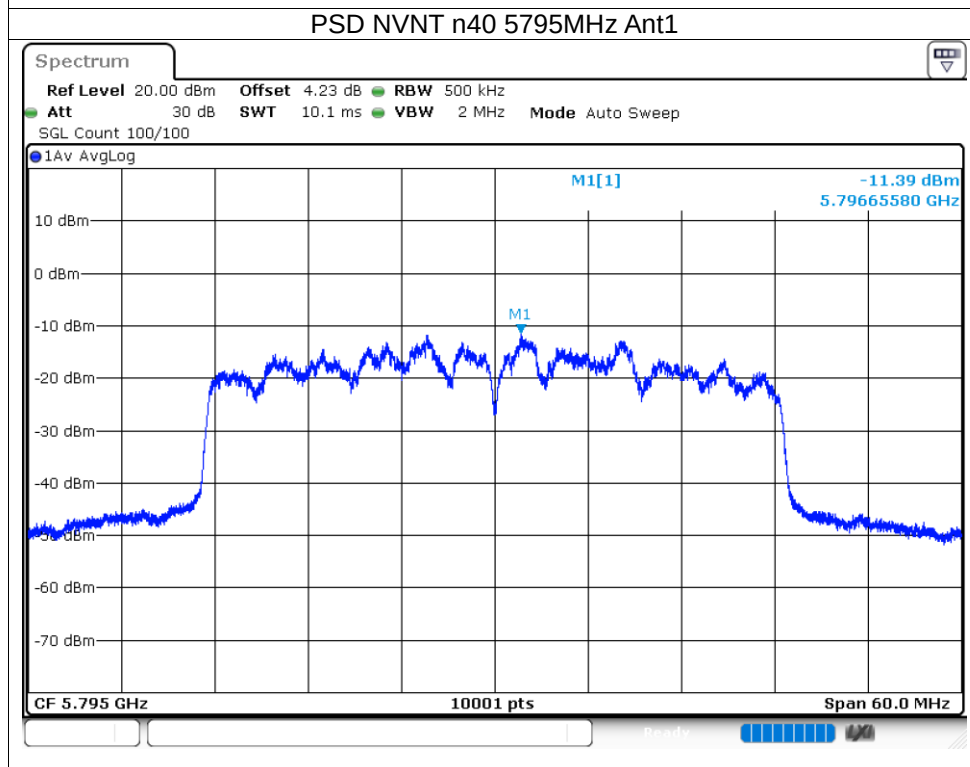
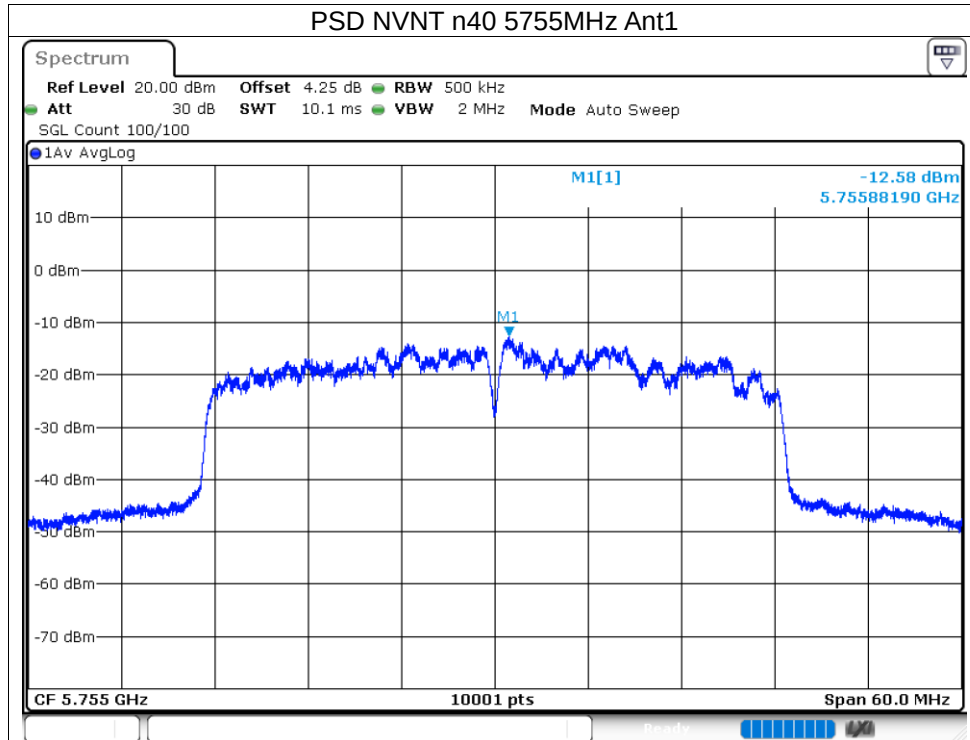
9.5 MAXIMUM POWER SPECTRAL DENSITY LEVEL

Condition	Mode	Frequency (MHz)	Antenna	Conducted PSD (dBm/500kHz)	Duty Factor (dB)	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Verdict
NVNT	a	5745	Ant1	-6.81	0.31	-6.5	30	Pass
NVNT	a	5785	Ant1	-6.13	0.31	-5.82	30	Pass
NVNT	a	5825	Ant1	-5.63	0.1	-5.53	30	Pass
NVNT	n20	5745	Ant1	-3.3	0.31	-2.99	30	Pass
NVNT	n20	5785	Ant1	-6.77	0.33	-6.44	30	Pass
NVNT	n20	5825	Ant1	-8.19	0.1	-8.09	30	Pass
NVNT	n40	5755	Ant1	-12.58	0.27	-12.31	30	Pass
NVNT	n40	5795	Ant1	-11.39	0.23	-11.16	30	Pass









END OF REPORT