

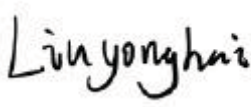
Test Report No.:
FCC2022-0014-RF3

RF Test Report

EUT : 15.6-inch Computer
MODEL : VT-HMI-156-TEL
BRAND NAME : N/A
APPLICANT : Chengdu Vantron Technology Co., Ltd.
Classification Of Test : N/A

CVC Testing Technology Co., Ltd.



Client		Name : Chengdu Vantron Technology Co., Ltd.	
		Address : No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China	
Manufacturer		Name : Chengdu Vantron Technology Co., Ltd.	
		Address : No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China	
Equipment Under Test		Name : 15.6-inch Computer	
		Model/Type: VT-HMI-156-TEL	
		Trade mark : N/A	
		Serial NO.:N/A	
		Sampe NO.:4-1	
Date of Receipt.	2022.03.10	Date of Testing	2022.03.10~2022.03.31
Test Specification		Test Result	
FCC Part 15, Subpart E (15.407)		PASS	
Evaluation of Test Result	The equipment under test was found to comply with the requirements of the standards applied.		
	Issue Date: 2022.03.31		
Tested by:	Reviewed by:	Approved by:	
			
Xu ZhenFei	Liu YongHai	Chen HuaWen	
Name Signature	Name Signature	Name Signature	
Other Aspects: NONE.			
Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested			

This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2022-0014-RF3	Original release	2022.03.31



1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.207	Conducted Emissions	PASS	Meet the requirement of limit.
15.403(i)	6dB&26dB Emission Bandwidth	PASS	Meet the requirement of limit.
15.407(b)	Radiated Emission and Bandedge	PASS	Meet the requirement of limit.
15.407(a)	Transmit Power	PASS	Meet the requirement of limit.
15.407(a)	Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203 15.407(a)	Antenna Requirement	PASS	No antenna connector is used



1.1 LIST OF TEST AND MEASUREMENT INSTRUMENTS

Test Equipment	Type/Mode	SERIAL NO.	Equipment No.	Manufacturer	Cal. Due
WIFI & Bluetooth Test System 1					/
Communication Shielded Room 1	4m*3m*3m	CRTDSWKS44301	VGDS-0699	CRT	2024/04/24
Spectrum Analyzer	FSV30	104337	DZ-000235	R&S	2022/11/03
Comprehensive Test Instrument	CMW500	137779	DZ-000220	R&S	2022/06/30
Comprehensive Test Instrument	CMW500	169888	DZ-000342	R&S	2022/12/01
LTE Comprehensive Test Instrument	E7515A	MY58010639	DZ-000173	KEYSIGHT	2022/04/14
Analog Signal Generator	SMA100B	103663	DZ-000239-2	R&S	2022/06/30
Vector Signal Generator	SMBV100B	101757	DZ-000239-1	R&S	2022/06/30
Programmable DC Power Supply	E3642A	MY59108106	DZ-000242-2	KEYSIGHT	2022/08/05
Radiation Spurious Test System					/
3m Semi-Anechoic Chamber	FACT-4	ST08035	WKNA-0024	ETS	2024/12/12
Spectrum Analyzer	N9010B	MY57470323	DZ-000174	KEYSIGHT	2023/03/02
EMI Test Receiver	N9038A-508	MY532290079	EM-000397	Agilent	2023/03/02
Broadband Antenna	VULB 9163	9163-530	EM-000342	SCHWARZBECK	2022/06/26
Waveguide Horn Antenna	HF906	360306/008	WKNA-0024-8	R&S	2023/03/04
Waveguide Horn Antenna	BBHA9170	00949	DZ-000209-2	SCHWARZBECK	2022/08/27
Preamplifier	BBV 9721	9721-050	DZ-000209-1	SCHWARZBECK	2022/06/30
5G Bandstop Filters	WRCJV12-4 900-5100-5 900-6100-5 0EE	1	DZ-000186	WI	2022/12/20
Comprehensive tester	CMW500	159000	DZ-000240-2	R&S	2022/12/20

1.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT:

No.	Item	Measurement Uncertainty
1	Conducted emission test	2.66 dB
2	Radiated emission 30MHz-1GHz	4.10 dB
3	Radiated emission 1GHz-18GHz	4.84 dB
Remark: 95% Confidence Levels, k=2.		

1.3 TEST LOCATION

The tests and measurements refer to this report were performed by EMC testing Lab. of CVC Testing Technology Co., Ltd.

Address: No.3,TiantaiyiRoad,KaitaiAvenue,ScienceCity,Guangzhou,China

Post Code: 510663 Tel: 020-32293888

FAX: 020-32293889 E-mail: office@cvc.org.cn



2 GENERAL INFORMATION

2.1 GENERAL PRODUCT INFORMATION

PRODUCT	15.6-inch Computer
BRAND	N/A
MODEL	VT-HMI-156-TEL
ADDITIONAL MODEL	N/A
FCC ID	2AAGE156TEL6256
POWER SUPPLY	DC 12V From Adapter or DC 48V from POE
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS10 802.11ac : up to MCS9
OPERATING FREQUENCY	5180 ~ 5240MHz, 5745 ~ 5825MHz:
CONDUCTED OUTPUT POWER	11.63 dBm for 5180 ~ 5240MHz (Maximum AVG Power) 14.47 dBm for 5745 ~ 5825MHz (Maximum AVG Power)
ANTENNA TYPE	5180 ~ 5240MHz: External antenna with 2.5dBi gain 5745 ~ 5825MHz: External antenna with 3.0dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. EUT photo refer to the report (Report NO.: FCC2022-0014-E)
4. The EUT incorporates a SISO function. Physically, the EUT provides 1 completed transmitter and 1 receiver.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11n (HT20)	1TX/1RX
802.11n (HT40)	1TX/1RX
802.11ac (VHT20)	1TX/1RX
802.11ac (VHT40)	1TX/1RX
802.11ac (VHT80)	1TX/1RX



2.2 Carrier Frequency and Channel

Operating frequency of each channel

WLAN 5180 ~ 5240MHz			
802.11a/n (HT20)/ac(VHT20)			
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
36	5180MHz	40	5200MHz
44	5220MHz	48	5240MHz
802.11n (HT40)/ac(VHT40)			
38	5190MHz	46	5230MHz
802.11ac(VHT80)			
42	5210MHz		

WLAN 5745 ~ 5825MHz			
802.11a/n (HT20)/ac(VHT20)			
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		
802.11n (HT40)/ac(VHT40)			
151	5755MHz	159	5795MHz
802.11ac(VHT80)			
155	5775MHz		

Note: The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.



2.3 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	Powered by host unit with wifi(5G) link

Where **RE≥1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM**: Antenna Port Conducted Measurement

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

NOTE: “-” means no effect.

MODULATION	DATA RATE
802.11a	6Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20(Covered by HT20)	MCS0
802.11ac VHT40(Covered by HT20)	MCS0
802.11ac VHT80	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	25deg. C, 54%RH	DC 12V From Adapter	Liu shiwei
RE≥1G	25deg. C, 54%RH	DC 12V From Adapter	Liu shiwei
PLC	20deg. C, 56%RH	DC 12V From Adapter	Liu shiwei
APCM	20deg. C, 55%RH	DC 12V From Adapter	Liu shiwei



2.4 DESCRIPTION OF SUPPORT UNITS

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.

Support Equipment							
NO	Description	Brand	Model No.	Serial Number	Supplied by		
Support Cable							
NO	Description	Quantity (Number)	Length (cm)	Detachable (Yes/ No)	Shielded (Yes/ No)	Cores (Number)	Supplied by

2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product, according to the specifications of the manufacturers. It must comply with the requirements of the following standards:

FCC PART 15, SUBPART E (15.407)

KDB 789033 D02 General UNII Test Procedures New Rules v02r01

ANSI C63.10-2020

All test items have been performed and recorded as per the above standards

3 TEST TYPES AND RESULTS

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

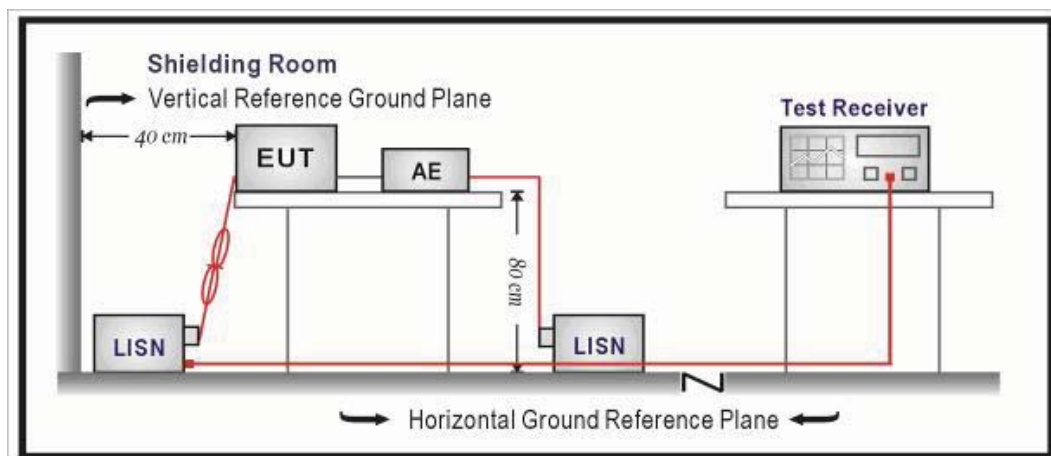
- NOTE:**
1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.1.2 TEST PROCEDURES

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

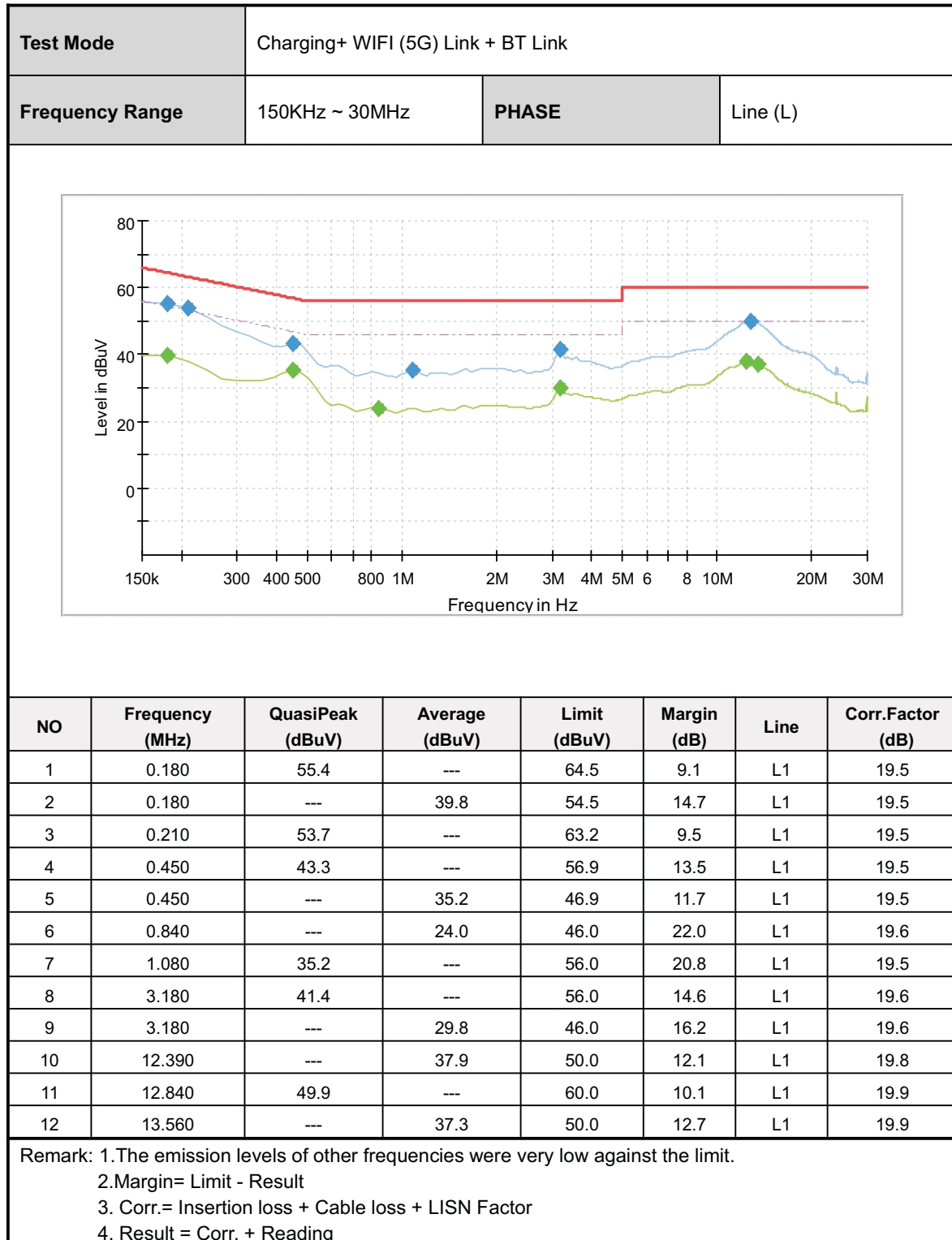
NOTE: All modes of operation were investigated and the worst-case emissions are reported.

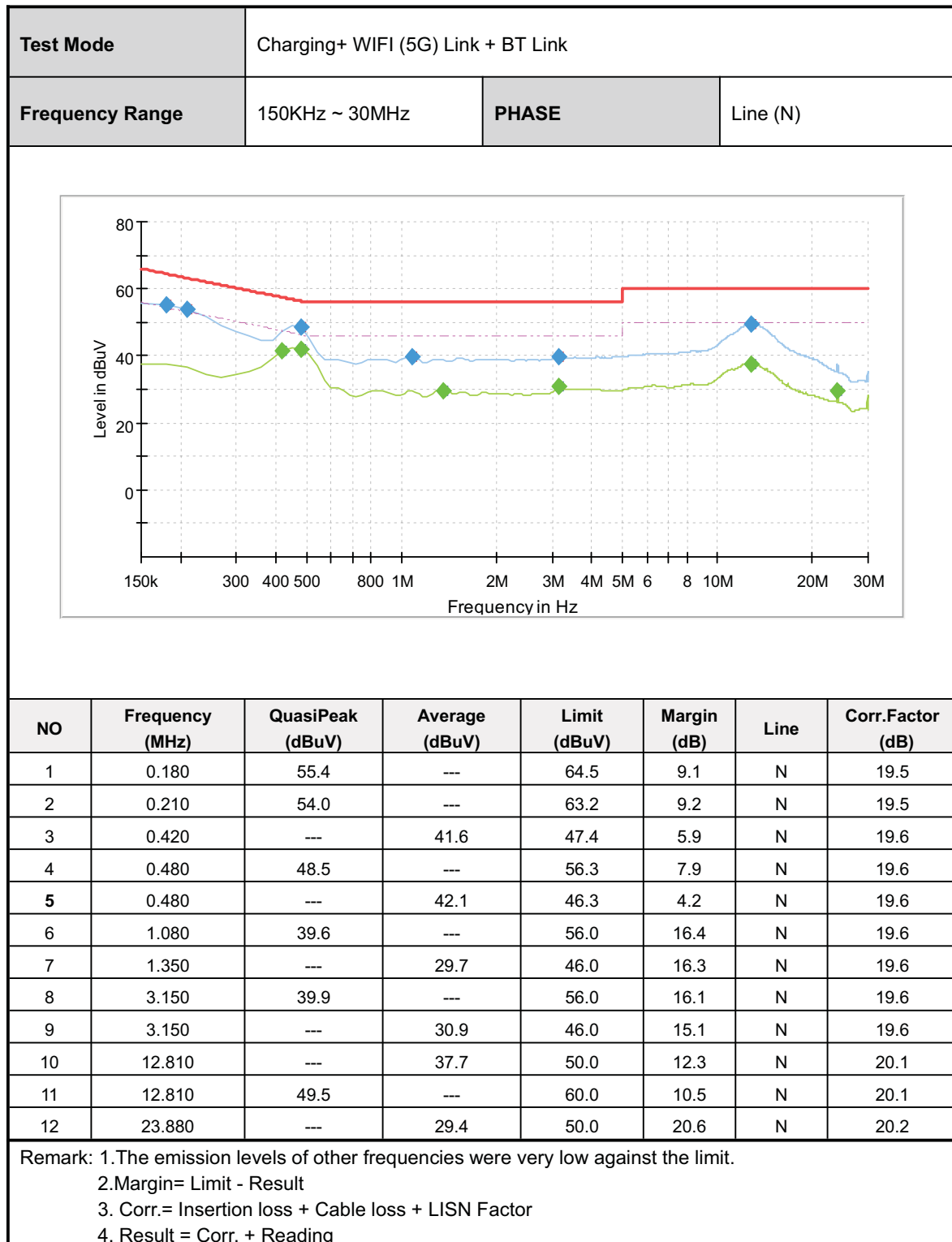
3.1.3 TEST SETUP



NOTE: For the actual test configuration, please refer to the attached file (Test Setup Photo).

3.1.4 TEST RESULTS







3.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.



3.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
KDB 789033 D02 General UNII Test Procedures New Rules v02r01	FIELD STRENGTH AT 3m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	Note	Note

NOTE:

For transmitters operating in the 5.725-5.85 GHz band: Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

15.407(b)(4)(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.

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$



3.1.3 TEST PROCEDURES

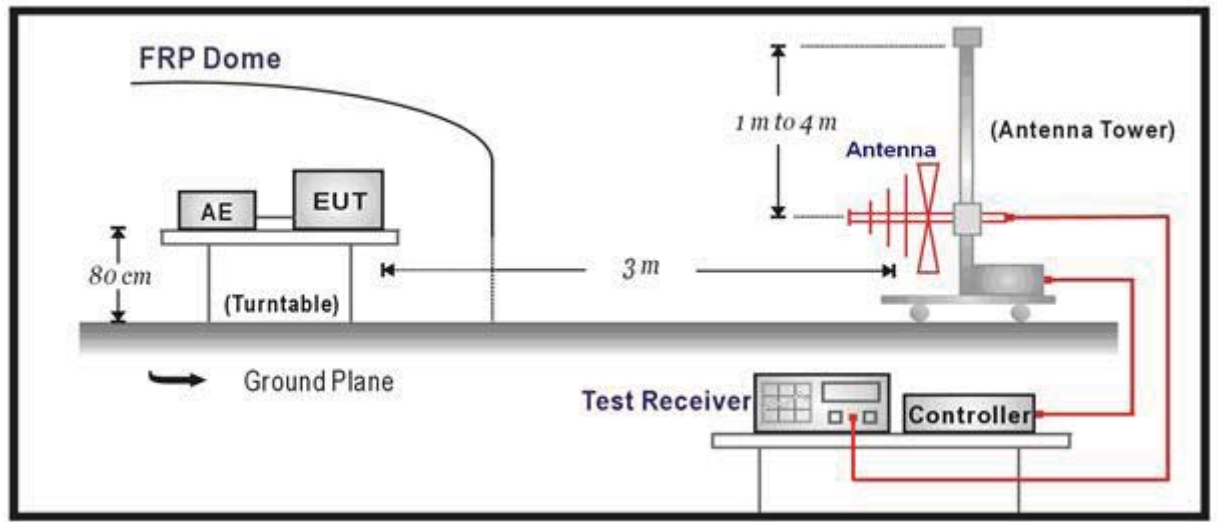
- a. The EUT was placed on the top of a rotating table 1.5 meters(above 1GHz) and 0.8 meters(below 1GHz) above the ground at a 3 meters semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

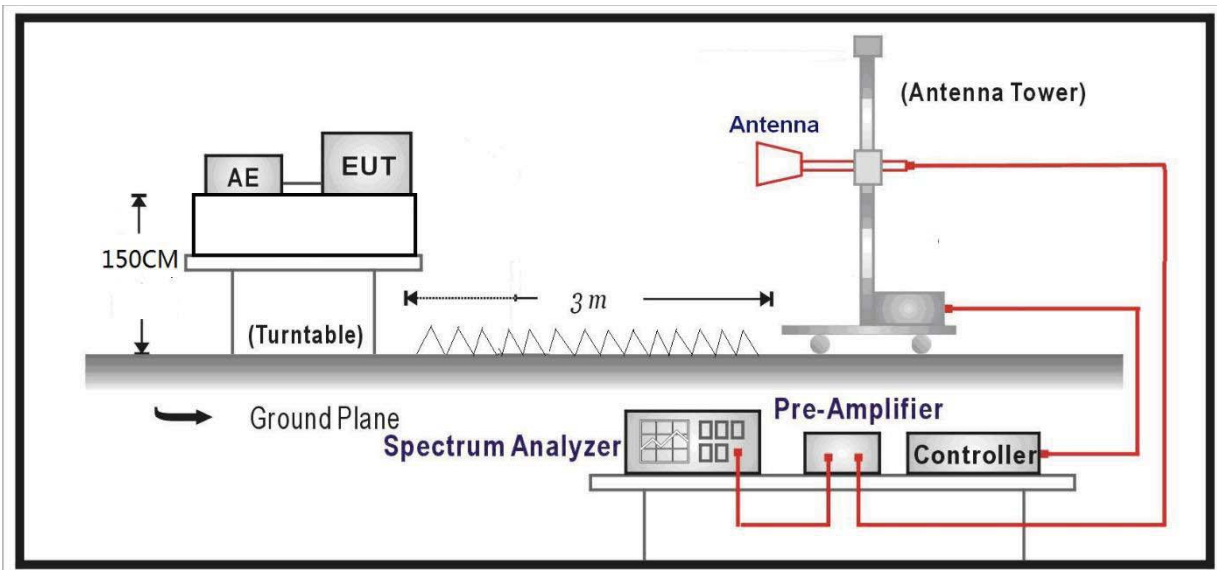
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

3.1.4 TEST SETUP

Below 1GHz Test Setup:



Above 1GHz Test Setup:

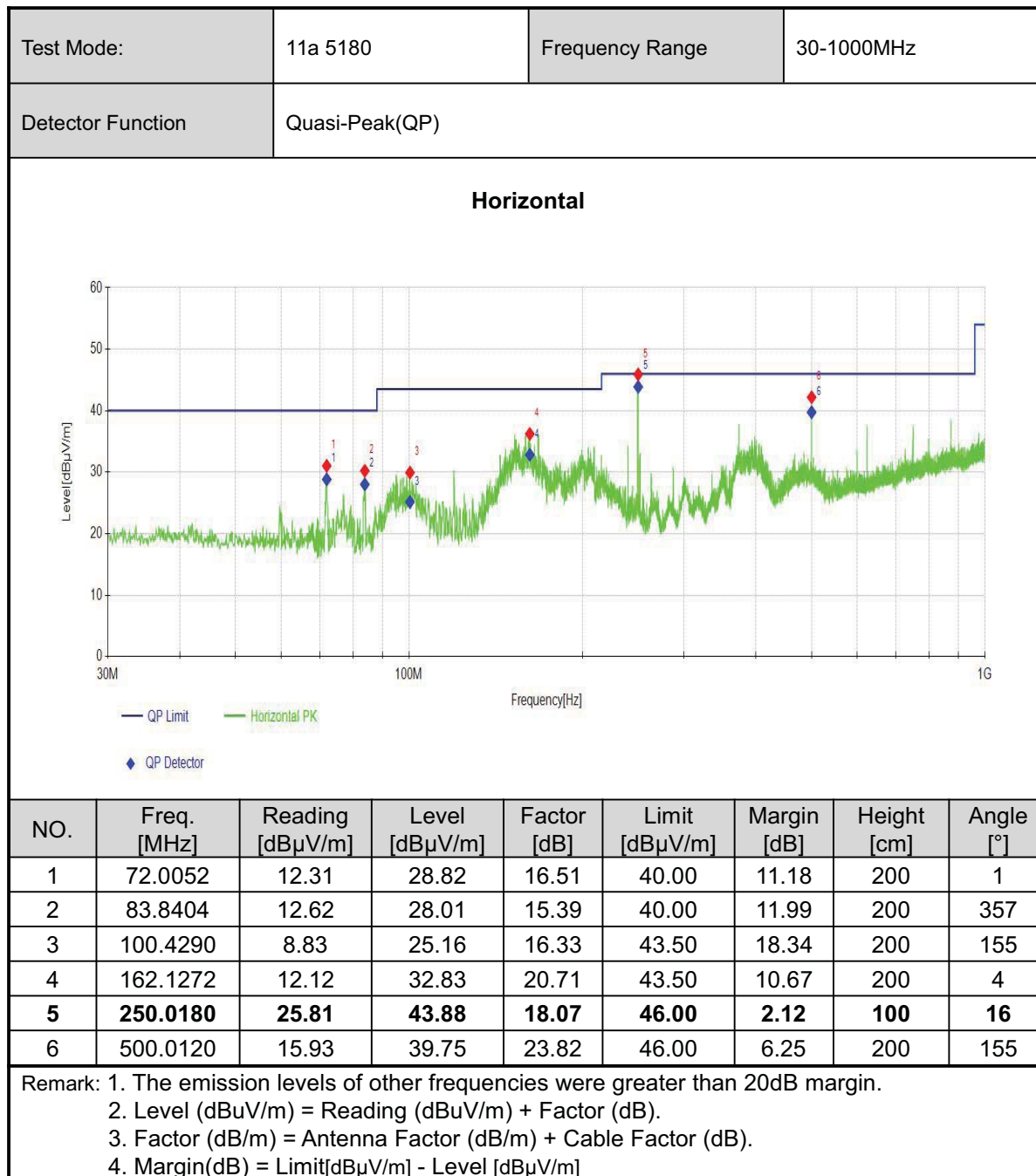


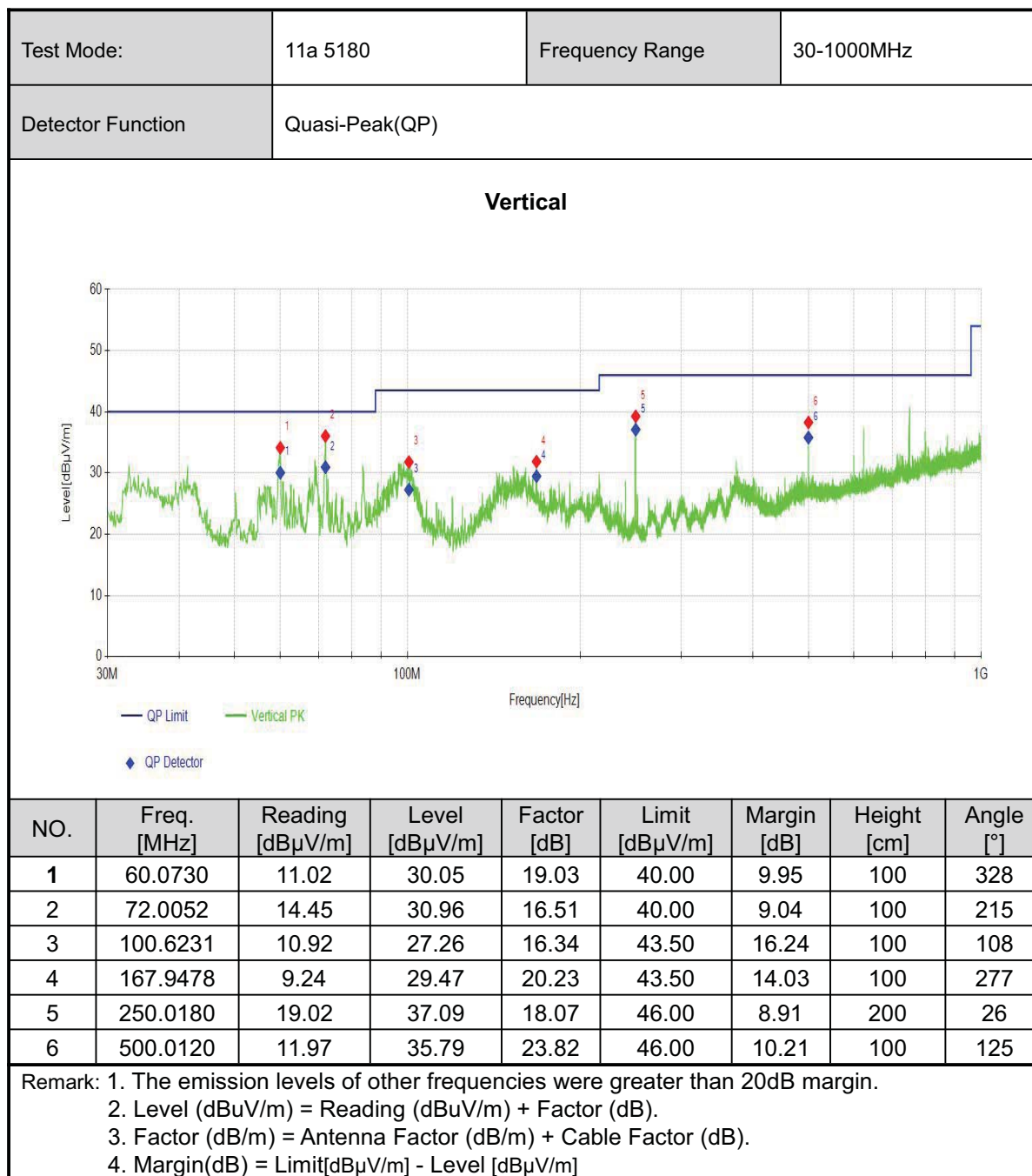
Note: For the actual test configuration, please refer to the related Item in this test report (Photographs of the Test Setup)



3.1.5 TEST RESULTS

BELOW 1GHz WORST-CASE DATA







Band 1 (5180-5240MHz):

ABOVE 1GHz DATA

Channel		802.11a CH36		Frequency		5180 MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4959.5898	34.57	7.40	41.97	54.00	12.03	104	206	AV
2	4983.1216	46.67	7.17	53.84	74.00	20.16	188	349	PK
3	5150.0000	43.46	8.03	51.49	54.00	2.51	201	288	AV
4	5150.0000	55.78	8.03	63.81	74.00	10.19	124	295	PK
5	5178.0991	90.83	7.90	98.73			132	288	PK
6	5179.0595	82.32	7.91	90.23			134	288	AV
7	10360.0000	26.14	14.09	40.23	68.20	27.97	186	223	PK
8	10360.0000	17.95	14.09	32.04	54.00	21.96	229	162	AV
9	15540.0000	23.69	19.38	43.07	74.00	30.93	179	311	PK
10	15540.0000	13.87	19.38	33.25	54.00	20.75	103	112	AV

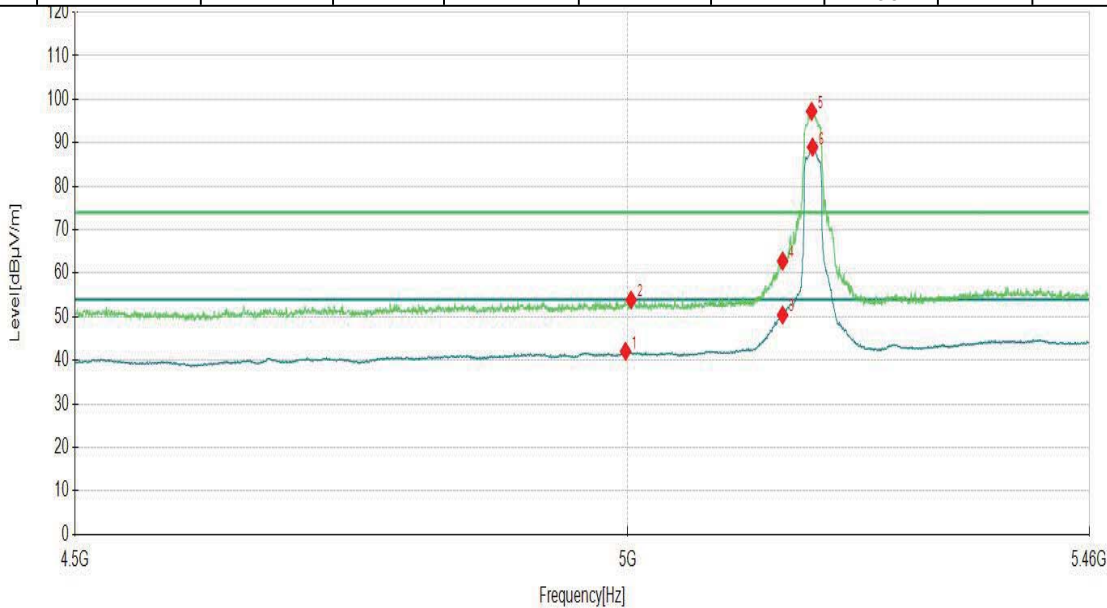
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11a CH36			Frequency	5180 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	4998.0090	34.67	7.41	42.08	54.00	11.92	238	274	AV
2	5003.2916	46.40	7.50	53.90	74.00	20.10	231	205	PK
3	5150.0000	42.39	8.03	50.42	54.00	3.58	225	225	AV
4	5150.0000	54.79	8.03	62.82	74.00	11.18	291	223	PK
5	5178.5793	89.32	7.90	97.22			195	229	PK
6	5179.5398	81.10	7.91	89.01			240	227	AV
7	10360.0000	27.24	14.09	41.33	68.20	26.87	159	245	PK
8	10360.0000	17.69	14.09	31.78	54.00	22.22	123	229	AV
9	15540.0000	22.60	19.38	41.98	74.00	32.02	164	129	PK
10	15540.0000	13.80	19.38	33.18	54.00	20.82	138	53	AV
									
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]									



Channel		802.11a CH 44		Frequency		5220MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10440.0000	26.29	14.45	40.74	68.20	27.46	278	195	PK
2	10440.0000	17.83	14.45	32.28	54.00	21.72	179	327	AV
3	15660.0000	24.28	20.15	44.43	74.00	29.57	297	13	PK
4	15660.0000	14.18	20.15	34.33	54.00	19.67	141	115	AV
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	10440.0000	26.51	14.45	40.96	68.20	27.24	151	23	PK
2	10440.0000	18.14	14.45	32.59	54.00	21.41	167	179	AV
3	15660.0000	23.37	20.15	43.52	74.00	30.48	261	289	PK
4	15660.0000	14.33	20.15	34.48	54.00	19.52	236	152	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]									



Channel	802.11a CH48			Frequency	5240 MHz _z				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5039.3097	45.84	7.64	53.48	74.00	20.52	260	70	PK
2	5040.2701	34.15	7.66	41.81	54.00	12.19	224	284	AV
3	5150.0000	45.33	8.03	53.36	74.00	20.64	118	301	PK
4	5150.0000	33.97	8.03	42.00	54.00	12.00	194	152	AV
5	5239.0895	77.82	8.22	86.04			243	327	AV
6	5240.5303	86.68	8.22	94.90			233	327	PK
7	5350.0000	34.13	9.96	44.09	54.00	9.91	103	169	AV
8	5350.0000	45.08	9.96	55.04	74.00	18.96	299	164	PK
9	5393.2466	46.21	10.04	56.25	74.00	17.75	184	169	PK
10	5410.5353	34.56	10.27	44.83	54.00	9.17	208	297	AV
11	10480.0000	26.57	14.45	41.02	68.20	27.18	296	212	PK
12	10480.0000	17.26	14.45	31.71	54.00	22.29	134	175	AV
13	15720.0000	23.27	20.55	43.82	74.00	30.18	171	318	PK
14	15720.0000	12.64	20.55	33.19	54.00	20.81	113	3	AV

FCC Part15C

Level[dBμV/m]

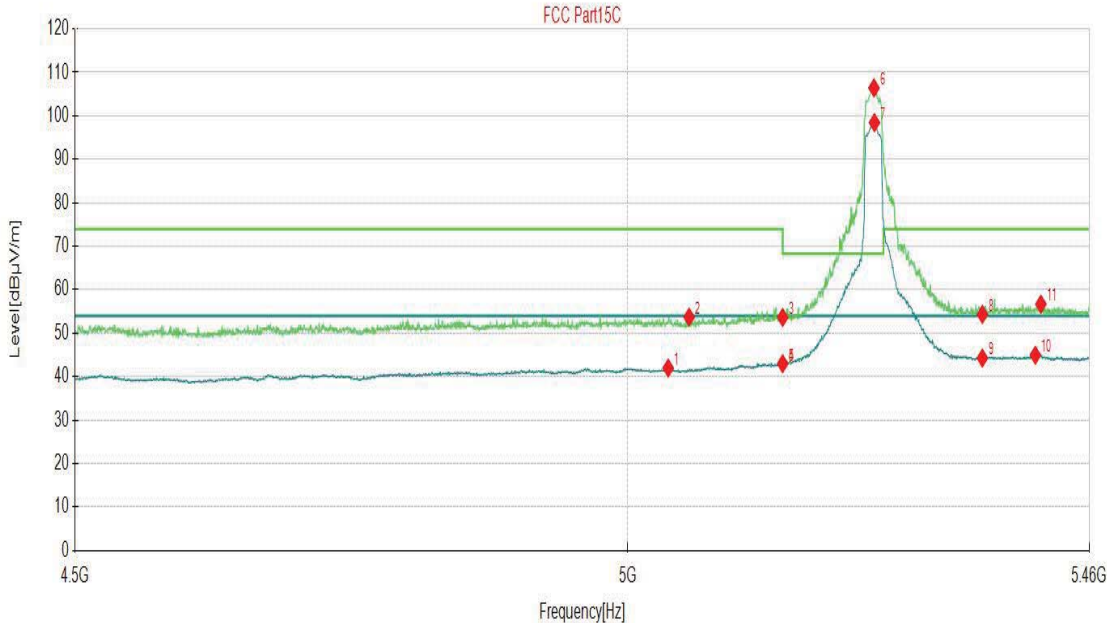
Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11a CH48			Frequency	5240 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5038.8294	34.37	7.62	41.99	54.00	12.01	274	27	AV
2	5058.9995	46.35	7.34	53.69	74.00	20.31	152	322	PK
3	5150.0000	45.60	8.03	53.63	74.00	20.37	267	330	PK
4	5150.0000	34.95	8.03	42.98	54.00	11.02	124	218	AV
5	5240.5303	98.20	8.22	106.42			183	218	PK
6	5241.0105	90.23	8.22	98.45			168	209	AV
7	5350.0000	44.39	9.96	54.35	74.00	19.65	220	222	PK
8	5350.0000	34.33	9.96	44.29	54.00	9.71	142	230	AV
9	5404.2921	34.80	10.14	44.94	54.00	9.06	245	10	AV
10	5410.0550	46.40	10.29	56.69	74.00	17.31	152	304	PK
11	10480.0000	26.47	14.45	40.92	68.20	27.28	211	316	PK
12	10480.0000	17.66	14.45	32.11	54.00	21.89	284	333	AV
13	15720.0000	23.62	20.55	44.17	74.00	29.83	145	83	PK
14	15720.0000	13.69	20.55	34.24	54.00	19.76	155	350	AV

FCC Part15C



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n20 CH36			Frequency	5180 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5083.9720	46.27	7.73	54.00	74.00	20.00	149	190	PK
2	5107.5038	34.46	7.95	42.41	54.00	11.59	265	179	AV
3	5150.0000	37.25	8.03	45.28	54.00	8.72	300	213	AV
4	5150.0000	49.98	8.03	58.01	74.00	15.99	188	203	PK
5	5180.9805	79.34	7.89	87.23			215	232	AV
6	5181.4607	87.79	7.88	95.67			284	213	PK
7	10360.0000	27.58	14.09	41.67	68.20	26.53	139	238	PK
8	10360.0000	18.45	14.09	32.54	54.00	21.46	249	59	AV
9	15540.0000	23.92	19.38	43.30	74.00	30.70	138	304	PK
10	15540.0000	13.62	19.38	33.00	54.00	21.00	248	66	AV

FCC Part15C

Level[dBμV/m]

Frequency[Hz]

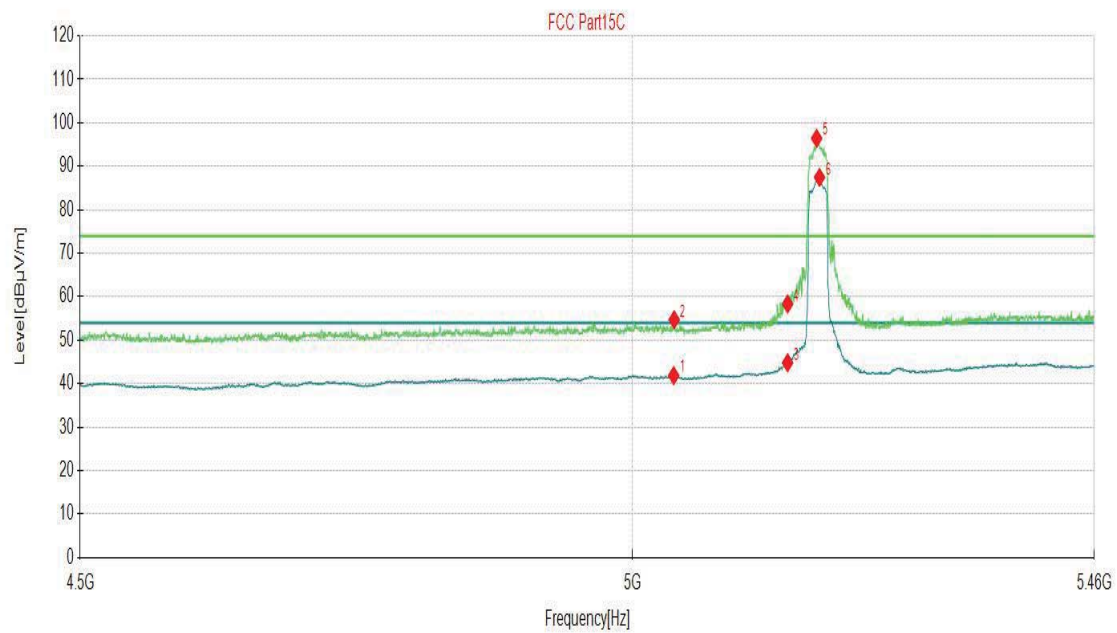
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n20 CH36	Frequency	5180 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5039.3097	34.21	7.64	41.85	54.00	12.15	275	9	AV
2	5039.7899	47.07	7.66	54.73	74.00	19.27	104	344	PK
3	5150.0000	36.78	8.03	44.81	54.00	9.19	180	236	AV
4	5150.0000	50.29	8.03	58.32	74.00	15.68	194	213	PK
5	5178.5793	88.53	7.90	96.43			221	236	PK
6	5181.4607	79.58	7.88	87.46			295	236	AV
7	10360.0000	26.49	14.09	40.58	68.20	27.62	144	197	PK
8	10360.0000	17.94	14.09	32.03	54.00	21.97	172	360	AV
9	15540.0000	22.83	19.38	42.21	74.00	31.79	210	224	PK
10	15540.0000	13.92	19.38	33.30	54.00	20.70	205	135	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

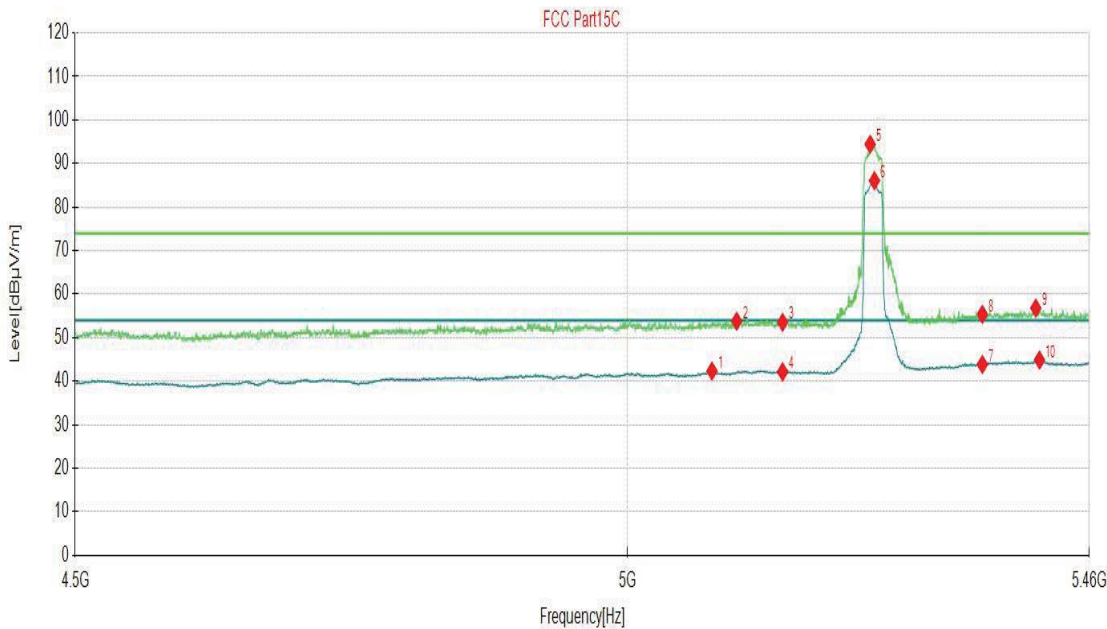


Channel		802.11n20 CH 44			Frequency		5220MHz		
Frequency Range		Above 1G			Detector Function		PK/AV		
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	10440.0000	26.29	14.45	40.74	68.20	27.46	155	195	PK
2	10440.0000	17.83	14.45	32.28	54.00	21.72	295	327	AV
3	15660.0000	24.28	20.15	44.43	74.00	29.57	272	13	PK
4	15660.0000	14.18	20.15	34.33	54.00	19.67	115	115	AV
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	10440.0000	26.51	14.45	40.96	68.20	27.24	185	23	PK
2	10440.0000	18.14	14.45	32.59	54.00	21.41	231	179	AV
3	15660.0000	23.37	20.15	43.52	74.00	30.48	108	289	PK
4	15660.0000	14.33	20.15	34.48	54.00	19.52	147	152	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]									



Channel	802.11n20 CH48			Frequency	5240 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5081.0905	34.55	7.79	42.34	54.00	11.66	167	190	AV
2	5105.1026	45.96	7.82	53.78	74.00	20.22	287	317	PK
3	5150.0000	45.49	8.03	53.52	74.00	20.48	257	308	PK
4	5150.0000	34.13	8.03	42.16	54.00	11.84	154	276	AV
5	5236.6883	86.23	8.21	94.44			286	228	PK
6	5241.0105	77.85	8.22	86.07			289	230	AV
7	5350.0000	33.89	9.96	43.85	54.00	10.15	237	200	AV
8	5350.0000	45.39	9.96	55.35	74.00	18.65	251	247	PK
9	5404.7724	46.64	10.15	56.79	74.00	17.21	205	67	PK
10	5408.6143	34.60	10.26	44.86	54.00	9.14	169	315	AV
11	10480.0000	27.00	14.45	41.45	68.20	26.75	117	16	PK
12	10480.0000	17.54	14.45	31.99	54.00	22.01	121	319	AV
13	15720.0000	21.48	20.55	42.03	74.00	31.97	236	70	PK
14	15720.0000	13.93	20.55	34.48	54.00	19.52	246	166	AV

FCC Part15C

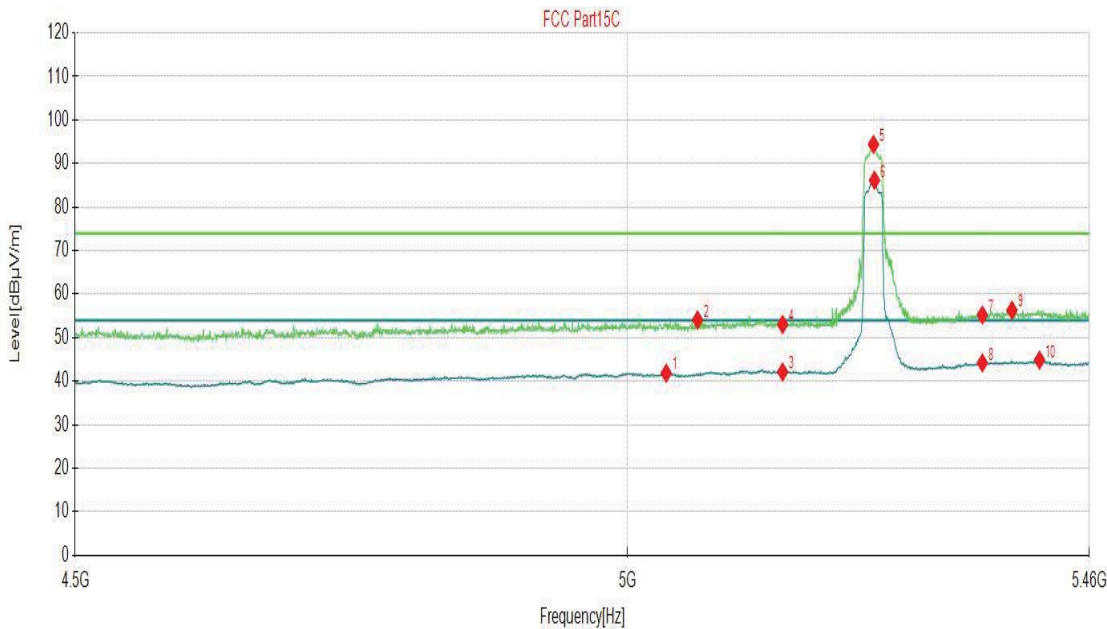


Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n20 CH48			Frequency	5240 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5036.9085	34.28	7.56	41.84	54.00	12.16	170	249	AV
2	5067.1636	46.68	7.39	54.07	74.00	19.93	211	62	PK
3	5150.0000	34.10	8.03	42.13	54.00	11.87	105	213	AV
4	5150.0000	45.00	8.03	53.03	74.00	20.97	110	157	PK
5	5240.0500	86.18	8.22	94.40			137	232	PK
6	5241.0105	77.95	8.22	86.17			120	232	AV
7	5350.0000	45.24	9.96	55.20	74.00	18.80	216	83	PK
8	5350.0000	34.25	9.96	44.21	54.00	9.79	151	123	AV
9	5380.2801	46.19	10.12	56.31	74.00	17.69	300	119	PK
10	5408.6143	34.59	10.26	44.85	54.00	9.15	265	121	AV
11	10480.0000	27.04	14.45	41.49	68.20	26.71	127	56	PK
12	10480.0000	17.59	14.45	32.04	54.00	21.96	280	30	AV
13	15720.0000	22.46	20.55	43.01	74.00	30.99	283	23	PK
14	15720.0000	13.07	20.55	33.62	54.00	20.38	163	43	AV

FCC Part15C



Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

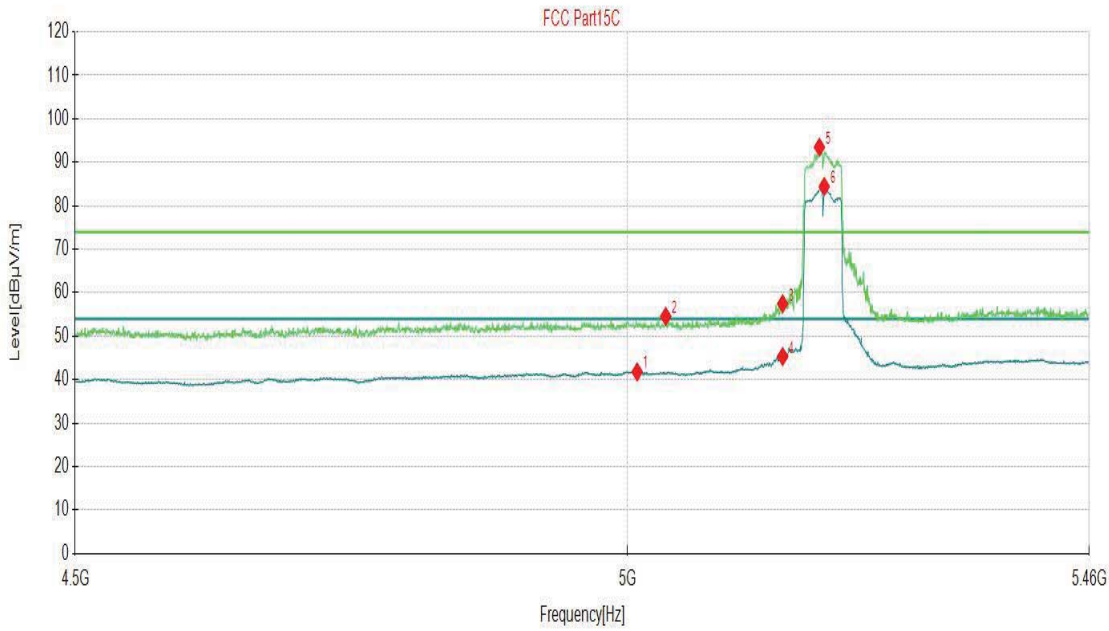
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH38			Frequency	5190 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5009.0545	34.37	7.42	41.79	54.00	12.21	273	203	AV
2	5036.4282	47.02	7.54	54.56	74.00	19.44	260	171	PK
3	5150.0000	49.42	8.03	57.45	74.00	16.55	172	214	PK
4	5150.0000	37.28	8.03	45.31	54.00	8.69	266	234	AV
5	5186.2631	85.73	7.74	93.47			245	236	PK
6	5191.0655	76.80	7.64	84.44			252	236	AV
7	10380.0000	26.58	14.14	40.72	68.20	27.48	115	43	PK
8	10380.0000	17.18	14.14	31.32	54.00	22.68	122	227	AV
9	15570.0000	23.04	19.64	42.68	74.00	31.32	134	243	PK
10	15570.0000	13.65	19.64	33.29	54.00	20.71	296	173	AV

FCC Part15C



Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

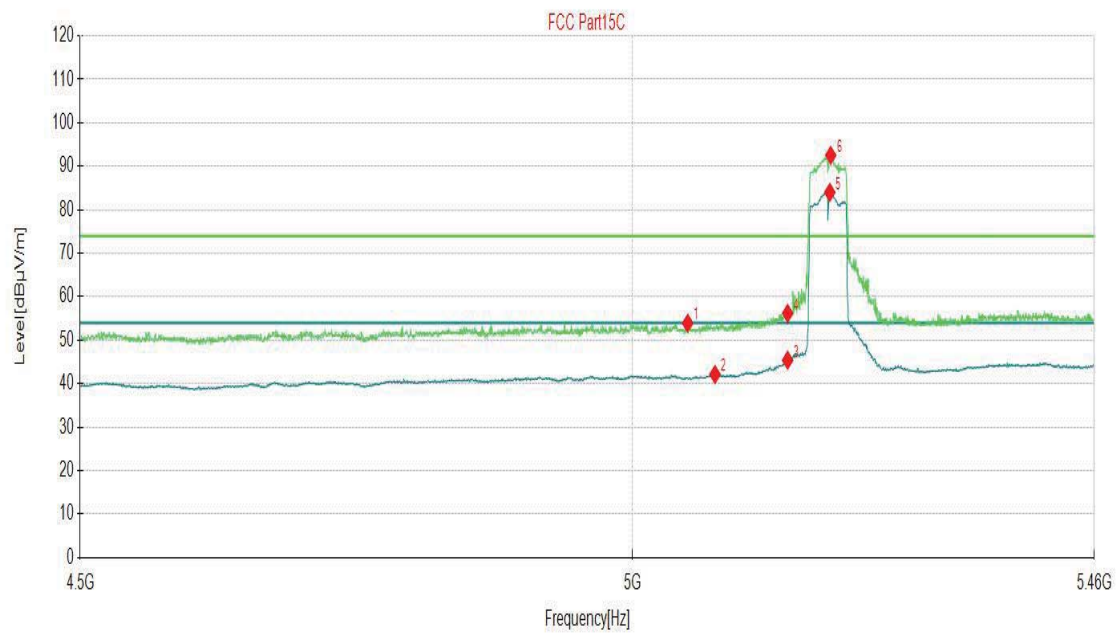
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH36	Frequency	5190 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5052.7564	46.61	7.28	53.89	74.00	20.11	104	318	PK
2	5079.1696	34.35	7.78	42.13	54.00	11.87	184	246	AV
3	5150.0000	37.36	8.03	45.39	54.00	8.61	119	238	AV
4	5150.0000	48.16	8.03	56.19	74.00	17.81	114	234	PK
5	5191.5458	76.37	7.64	84.01			297	238	AV
6	5192.5063	84.90	7.64	92.54			150	238	PK
7	10380.0000	26.68	14.14	40.82	68.20	27.38	292	218	PK
8	10380.0000	17.36	14.14	31.50	54.00	22.50	144	39	AV
9	15570.0000	22.79	19.64	42.43	74.00	31.57	249	242	PK
10	15570.0000	14.00	19.64	33.64	54.00	20.36	297	278	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH46			Frequency	5230 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5081.0905	34.35	7.79	42.14	54.00	11.86	103	83	AV
2	5087.3337	46.29	7.66	53.95	74.00	20.05	172	223	PK
3	5150.0000	44.96	8.03	52.99	74.00	21.01	158	266	PK
4	5150.0000	34.27	8.03	42.30	54.00	11.70	257	193	AV
5	5232.8464	83.83	8.20	92.03			227	230	PK
6	5233.8069	75.84	8.20	84.04			282	230	AV
7	5350.0000	34.13	9.96	44.09	54.00	9.91	236	187	AV
8	5350.0000	44.93	9.96	54.89	74.00	19.11	292	106	PK
9	5405.7329	34.64	10.18	44.82	54.00	9.18	114	202	AV
10	5407.6538	46.09	10.23	56.32	74.00	17.68	220	180	PK
11	10460.0000	26.35	14.59	40.94	68.20	27.26	139	3	PK
12	10460.0000	17.33	14.59	31.92	54.00	22.08	189	1	AV
13	15690.0000	13.80	20.46	34.26	54.00	19.74	218	261	AV
14	15690.0000	22.53	20.46	42.99	74.00	31.01	193	318	PK

FCC Part15E

Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH46			Frequency	5230 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5079.6498	45.49	7.80	53.29	74.00	20.71	160	11	PK
2	5080.6103	34.40	7.80	42.20	54.00	11.80	198	206	AV
3	5150.0000	34.34	8.03	42.37	54.00	11.63	245	219	AV
4	5150.0000	45.12	8.03	53.15	74.00	20.85	299	336	PK
5	5228.0440	83.79	8.20	91.99			138	232	PK
6	5228.5243	75.84	8.20	84.04			294	232	AV
7	5350.0000	44.90	9.96	54.86	74.00	19.14	233	266	PK
8	5350.0000	33.88	9.96	43.84	54.00	10.16	139	353	AV
9	5408.6143	46.52	10.26	56.78	74.00	17.22	175	104	PK
10	5408.6143	34.39	10.26	44.65	54.00	9.35	168	228	AV
11	10460.0000	26.07	14.59	40.66	68.20	27.54	231	215	PK
12	10460.0000	17.57	14.59	32.16	54.00	21.84	104	43	AV
13	15690.0000	13.53	20.46	33.99	54.00	20.01	203	351	AV
14	15690.0000	23.68	20.46	44.14	74.00	29.86	283	312	PK

FCC Part15C

Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11ac80 CH42		Frequency	5210 MHz					
Frequency Range	Above 1G		Detector Function	PK/AV					
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5122.8714	48.83	7.90	56.73	74.00	17.27	207	306	PK
2	5127.6738	37.00	8.14	45.14	54.00	8.86	242	321	AV
3	5150.0000	37.03	8.03	45.06	54.00	8.94	194	323	AV
4	5150.0000	47.15	8.03	55.18	74.00	18.82	237	327	PK
5	5205.9530	81.33	8.20	89.53			204	300	PK
6	5211.2356	72.50	8.54	81.04			107	294	AV
7	5350.0000	44.83	9.96	54.79	74.00	19.21	218	133	PK
8	5350.0000	34.03	9.96	43.99	54.00	10.01	188	323	AV
9	5379.7999	46.53	10.12	56.65	74.00	17.35	229	114	PK
10	5399.9700	34.62	10.02	44.64	54.00	9.36	255	34	AV
11	10420.0000	26.11	14.27	40.38	68.20	27.82	264	155	PK
12	10420.0000	17.61	14.27	31.88	54.00	22.12	241	241	AV
13	15630.0000	22.86	20.00	42.86	74.00	31.14	103	132	PK
14	15630.0000	14.06	20.00	34.06	54.00	19.94	210	333	AV

FCC Part15C

Level[dBuV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]



Channel	802.11ac80 CH42	Frequency	5210 MHz						
Frequency Range	Above 1G	Detector Function	PK/AV						
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5108.4642	47.04	8.00	55.04	74.00	18.96	259	320	PK
2	5128.1541	36.59	8.16	44.75	54.00	9.25	195	325	AV
3	5150.0000	36.98	8.03	45.01	54.00	8.99	156	320	AV
4	5150.0000	47.79	8.03	55.82	74.00	18.18	114	325	PK
5	5212.1961	72.43	8.50	80.93			105	325	AV
6	5213.1566	81.83	8.46	90.29			192	292	PK
7	5350.0000	45.09	9.96	55.05	74.00	18.95	164	248	PK
8	5350.0000	33.89	9.96	43.85	54.00	10.15	142	250	AV
9	5407.1736	47.19	10.22	57.41	74.00	16.59	223	342	PK
10	5410.0550	34.42	10.29	44.71	54.00	9.29	138	102	AV
11	10420.0000	16.95	14.27	31.22	54.00	22.78	236	6	AV
12	10420.0000	27.06	14.27	41.33	68.20	26.87	130	348	PK
13	15630.0000	13.88	20.00	33.88	54.00	20.12	225	129	AV
14	15630.0000	23.25	20.00	43.25	74.00	30.75	151	3	PK

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Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



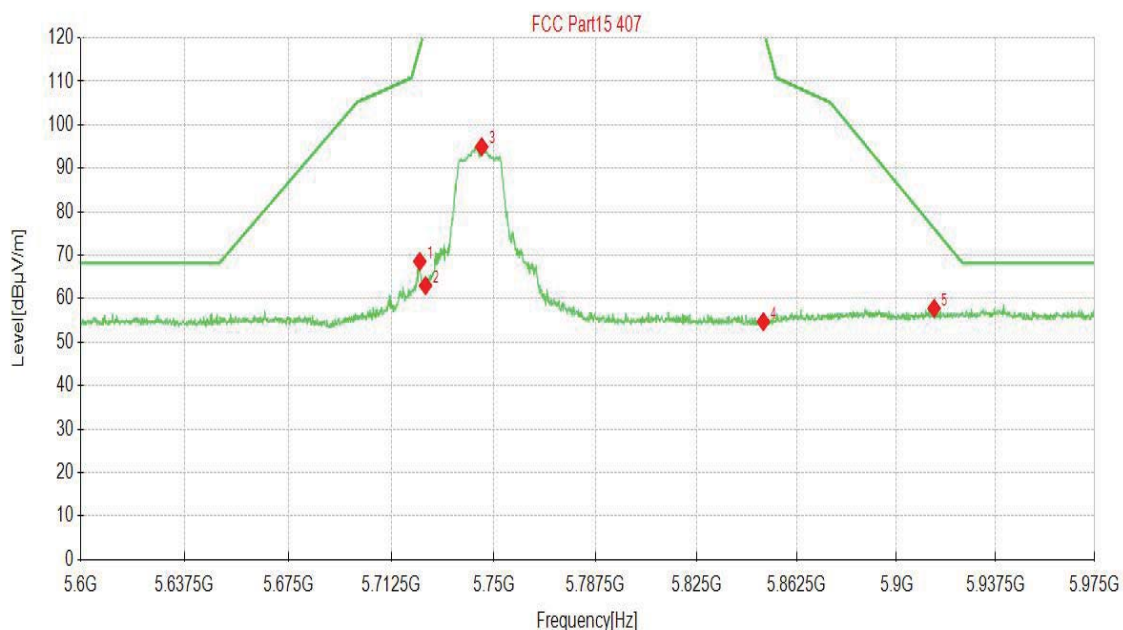
Band 1 (5745-5825MHz):

ABOVE 1GHz DATA

Channel	802.11a CH149	Frequency	5745 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5722.8739	59.59	8.99	68.58	117.35	48.77	204	319	PK
2	5725.0000	54.14	8.89	63.03	122.20	59.17	153	316	PK
3	5745.5728	86.01	8.94	94.95			185	321	PK
4	5850.0000	46.29	8.43	54.72	122.06	67.34	213	113	PK
5	5914.2196	47.63	10.16	57.79	76.15	18.36	201	209	PK
6	11490.0000	24.28	15.04	39.32	74.00	34.68	243	101	PK
7	11490.0000	16.68	15.04	31.72	54.00	22.28	164	326	AV
8	17235.0000	19.84	25.53	45.37	68.20	22.83	152	290	PK
9	17235.0000	12.02	25.53	37.55	54.00	16.45	111	158	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

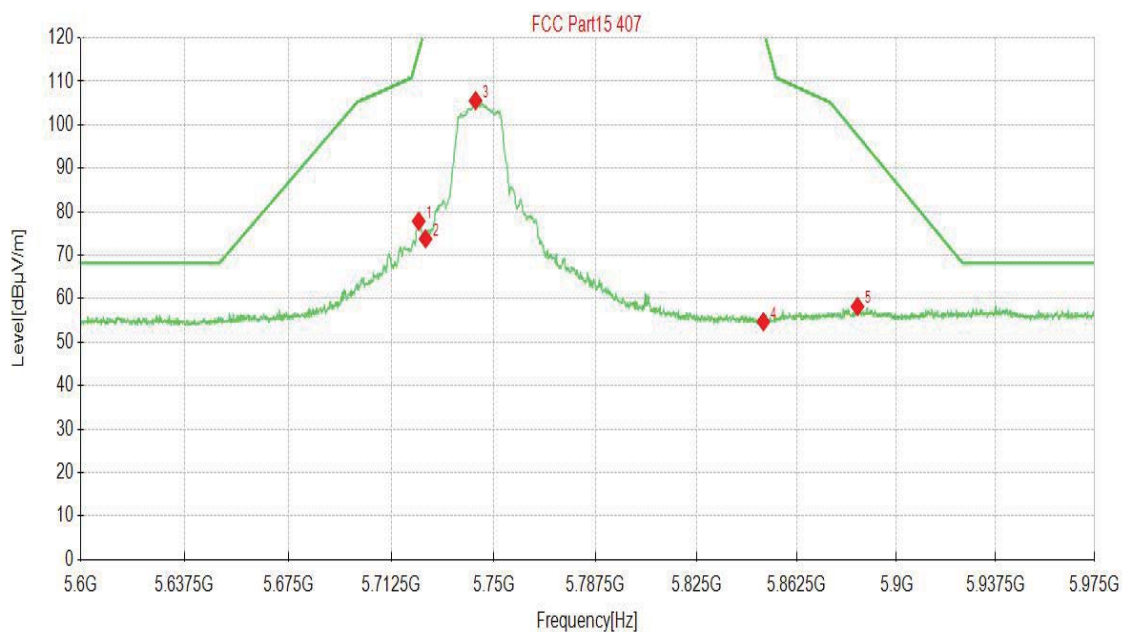
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11a CH149	Frequency	5745 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5722.4987	68.82	9.00	77.82	116.50	38.68	265	61	PK
2	5725.0000	64.88	8.89	73.77	122.20	48.43	235	66	PK
3	5743.3217	96.64	8.94	105.58			148	66	PK
4	5850.0000	46.27	8.43	54.70	122.06	67.36	214	165	PK
5	5885.3302	47.83	10.38	58.21	97.53	39.32	180	355	PK
6	11490.0000	23.57	15.04	38.61	74.00	35.39	141	91	PK
7	11490.0000	17.69	15.04	32.73	54.00	21.27	262	144	AV
8	17235.0000	19.07	25.53	44.60	68.20	23.60	294	141	PK
9	17235.0000	12.19	25.53	37.72	54.00	16.28	290	32	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

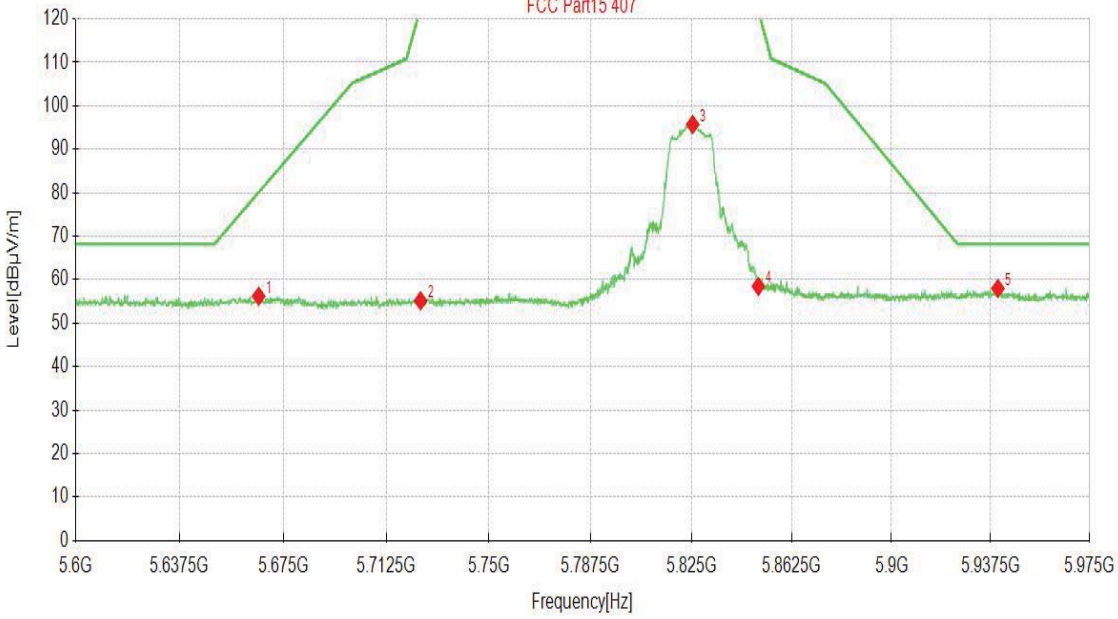


Channel		802.11a CH 157		Frequency		5785MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11570.0000	24.77	15.34	40.11	74.00	33.89	131	193	PK
2	11570.0000	18.28	15.34	33.62	54.00	20.38	189	193	AV
3	17355.0000	20.06	26.30	46.36	68.20	21.84	165	47	PK
4	17355.0000	12.68	26.30	38.98	54.00	15.02	290	1	AV
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	11570.0000	24.85	15.34	40.19	74.00	33.81	200	112	PK
2	11570.0000	17.67	15.34	33.01	54.00	20.99	211	59	AV
3	17355.0000	19.67	26.30	45.97	68.20	22.23	192	162	PK
4	17355.0000	12.51	26.30	38.81	54.00	15.19	115	6	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]									



Channel	802.11a CH165	Frequency	5825 MHz						
Frequency Range	Above 1G	Detector Function	PK/AV						
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5666.0330	46.98	9.23	56.21	80.10	23.89	168	68	PK
2	5725.0000	46.27	8.89	55.16	122.20	67.04	296	111	PK
3	5825.4877	86.92	8.79	95.71			106	313	PK
4	5850.0000	50.06	8.43	58.49	122.06	63.57	117	316	PK
5	5940.2951	47.21	10.78	57.99	68.20	10.21	260	177	PK
6	11650.0000	25.26	15.21	40.47	74.00	33.53	110	185	PK
7	11650.0000	17.82	15.21	33.03	54.00	20.97	122	86	AV
8	17475.0000	19.71	26.05	45.76	68.20	22.44	215	351	PK
9	17475.0000	12.07	26.05	38.12	54.00	15.88	130	351	AV

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Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel		802.11a CH165		Frequency		5825 MHz			
Frequency Range		Above 1G		Detector Function		PK/AV			
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5633.9545	47.02	8.81	55.83	68.20	12.37	209	80	PK
2	5725.0000	45.76	8.89	54.65	122.20	67.55	176	358	PK
3	5823.2366	98.28	8.82	107.10			102	1	PK
4	5850.0000	61.21	8.43	69.64	122.06	52.42	150	1	PK
5	5934.6673	47.63	10.64	58.27	68.20	9.93	267	279	PK
6	11650.0000	25.73	15.21	40.94	74.00	33.06	256	317	PK
7	11650.0000	17.84	15.21	33.05	54.00	20.95	269	112	AV
8	17475.0000	18.82	26.05	44.87	68.20	23.33	130	165	PK
9	17475.0000	11.64	26.05	37.69	54.00	16.31	244	3	AV

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Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

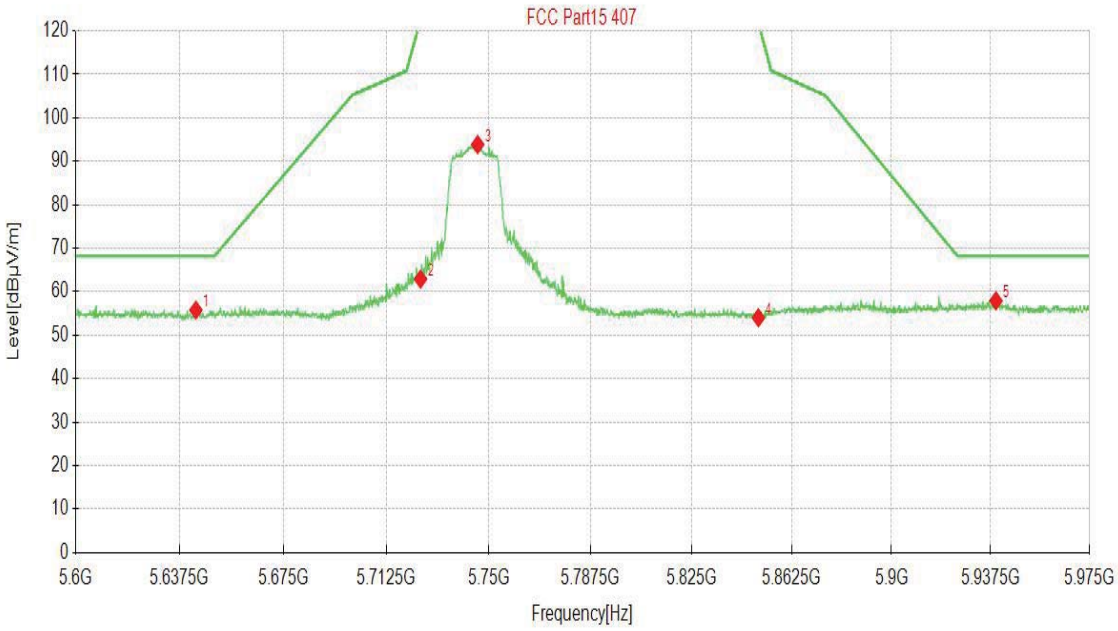
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel		802.11n20 CH149		Frequency		5745 MHz _z			
Frequency Range		Above 1G		Detector Function		PK/AV			
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5643.3342	47.20	8.57	55.77	68.20	12.43	236	58	PK
2	5725.0000	54.03	8.89	62.92	122.20	59.28	190	319	PK
3	5745.9480	84.92	8.94	93.86			106	322	PK
4	5850.0000	45.58	8.43	54.01	122.06	68.05	105	44	PK
5	5939.5448	47.11	10.80	57.91	68.20	10.29	179	108	PK
6	11490.0000	24.15	15.04	39.19	74.00	34.81	212	238	PK
7	11490.0000	16.56	15.04	31.60	54.00	22.40	216	288	AV
8	17235.0000	20.16	25.53	45.69	68.20	22.51	162	265	PK
9	17235.0000	12.68	25.53	38.21	54.00	15.79	154	158	AV

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Level[dBμV/m]

Frequency[Hz]

Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

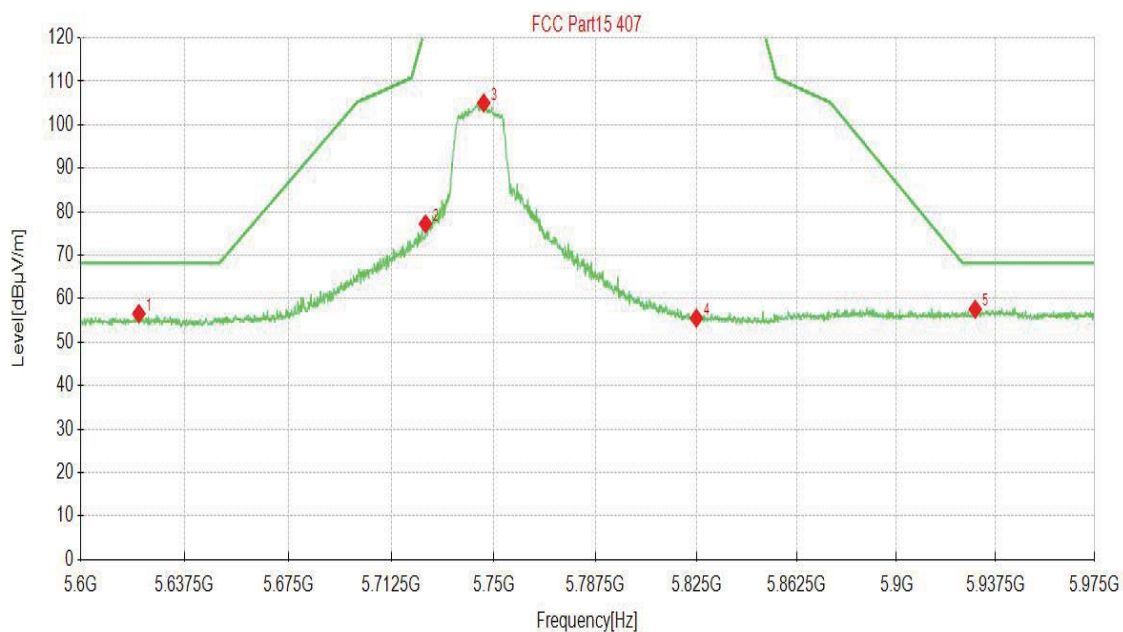
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n20 CH149	Frequency	5745 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5621.0105	47.58	8.99	56.57	68.20	11.63	283	330	PK
2	5725.0000	68.34	8.89	77.23	122.20	44.97	155	359	PK
3	5746.3232	96.08	8.93	105.01			238	3	PK
4	5825.0000	46.74	8.79	55.53	122.20	66.67	110	1	PK
5	5929.7899	47.07	10.50	57.57	68.20	10.63	129	1	PK
6	11490.0000	24.38	15.04	39.42	74.00	34.58	188	150	PK
7	11490.0000	16.85	15.04	31.89	54.00	22.11	123	221	AV
8	17235.0000	19.98	25.53	45.51	68.20	22.69	107	211	PK
9	17235.0000	11.93	25.53	37.46	54.00	16.54	268	87	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]

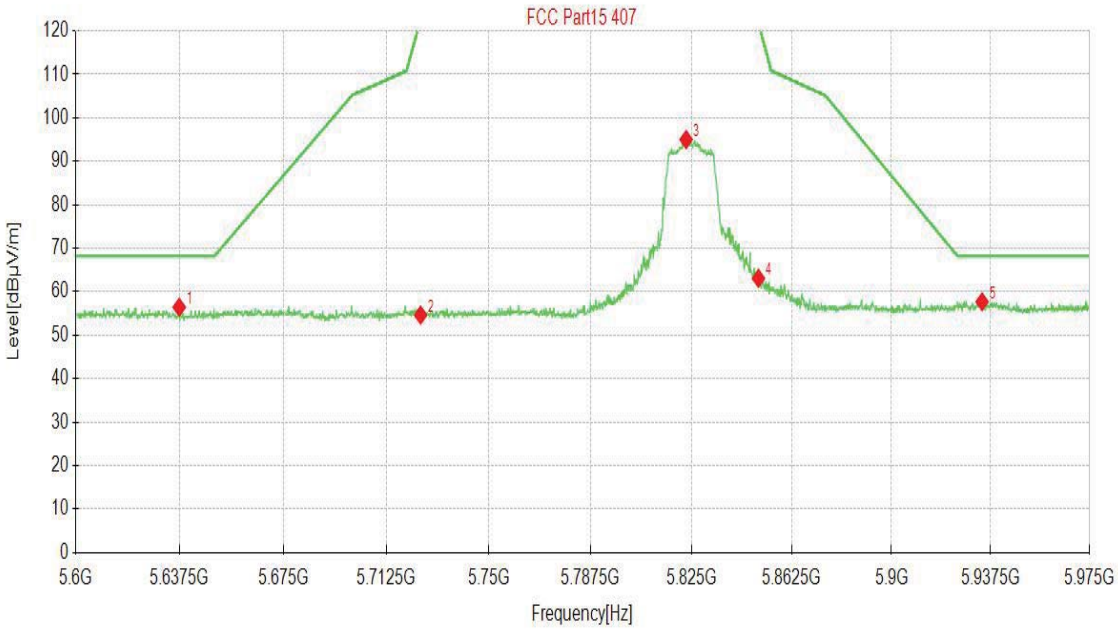


Channel		802.11n20 CH 157			Frequency		5785MHz		
Frequency Range		Above 1G			Detector Function		PK/AV		
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	11570.0000	25.97	15.34	41.31	74.00	32.69	211	43	PK
2	11570.0000	18.08	15.34	33.42	54.00	20.58	137	50	AV
3	17355.0000	20.76	26.30	47.06	68.20	21.14	195	182	PK
4	17355.0000	12.62	26.30	38.92	54.00	15.08	133	36	AV
Vertical									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Remark
1	11570.0000	25.78	15.34	41.12	74.00	32.88	209	36	PK
2	11570.0000	17.85	15.34	33.19	54.00	20.81	234	26	AV
3	17355.0000	19.23	26.30	45.53	68.20	22.67	287	297	PK
4	17355.0000	11.65	26.30	37.95	54.00	16.05	290	131	AV
Remark: 1. The emission levels of other frequencies were greater than 20dB margin. 2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB). 3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB). 4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]									



Channel	802.11n20 CH165			Frequency	5825 MHz				
Frequency Range	Above 1G			Detector Function	PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5637.3312	47.83	8.60	56.43	68.20	11.77	115	162	PK
2	5725.0000	45.74	8.89	54.63	122.20	67.57	205	62	PK
3	5823.0490	86.19	8.82	95.01			110	321	PK
4	5850.0000	54.66	8.43	63.09	122.06	58.97	171	321	PK
5	5934.2921	47.05	10.63	57.68	68.20	10.52	124	17	PK
6	11650.0000	25.92	15.21	41.13	74.00	32.87	147	175	PK
7	11650.0000	18.52	15.21	33.73	54.00	20.27	152	72	AV
8	17475.0000	18.77	26.05	44.82	68.20	23.38	286	238	PK
9	17475.0000	11.13	26.05	37.18	54.00	16.82	111	46	AV

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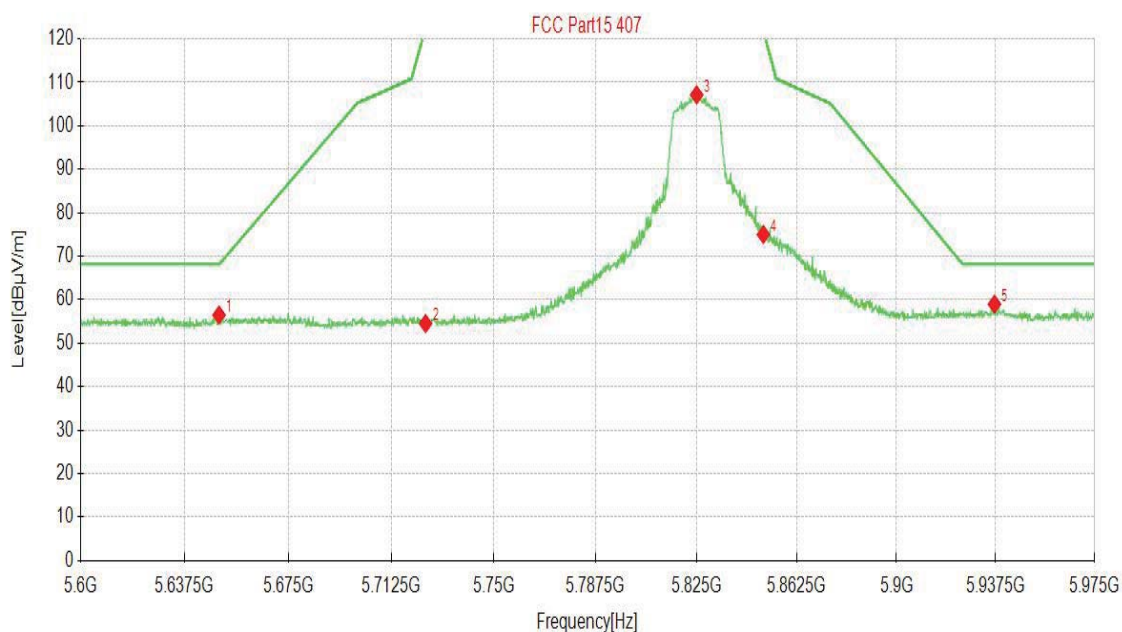
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n20 CH165	Frequency	5825 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5649.9000	47.63	8.84	56.47	68.20	11.73	256	45	PK
2	5725.0000	45.63	8.89	54.52	122.20	67.68	138	67	PK
3	5825.1126	98.34	8.79	107.13			242	8	PK
4	5850.0000	66.60	8.43	75.03	122.06	47.03	139	3	PK
5	5937.1061	48.26	10.72	58.98	68.20	9.22	104	67	PK
6	11650.0000	25.16	15.21	40.37	74.00	33.63	116	360	PK
7	11650.0000	18.35	15.21	33.56	54.00	20.44	210	152	AV
8	17475.0000	18.54	26.05	44.59	68.20	23.61	165	33	PK
9	17475.0000	10.96	26.05	37.01	54.00	16.99	239	275	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

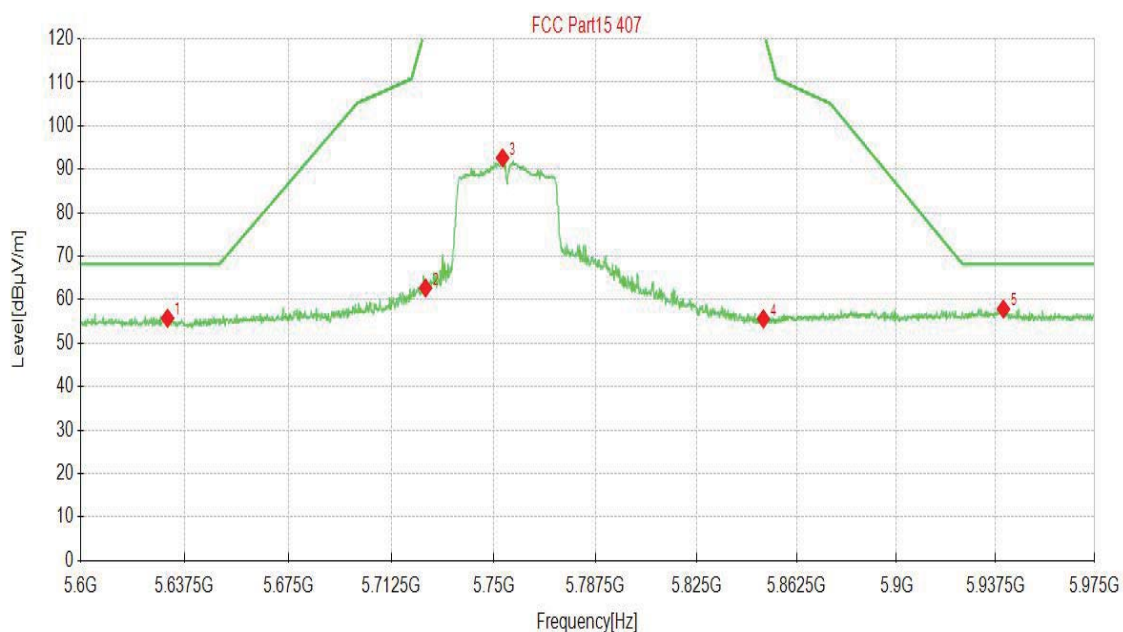
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH151	Frequency	5755 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5631.3282	46.77	8.97	55.74	68.20	12.46	264	327	PK
2	5725.0000	53.83	8.89	62.72	122.20	59.48	294	314	PK
3	5753.2641	83.55	9.07	92.62			296	319	PK
4	5850.0000	47.16	8.43	55.59	122.06	66.47	102	316	PK
5	5940.4827	47.09	10.76	57.85	68.20	10.35	256	158	PK
6	11510.0000	24.95	15.12	40.07	74.00	33.93	218	78	PK
7	11510.0000	17.35	15.12	32.47	54.00	21.53	100	348	AV
8	17265.0000	19.58	25.62	45.20	68.20	23.00	207	94	PK
9	17265.0000	12.39	25.62	38.01	54.00	15.99	201	74	AV



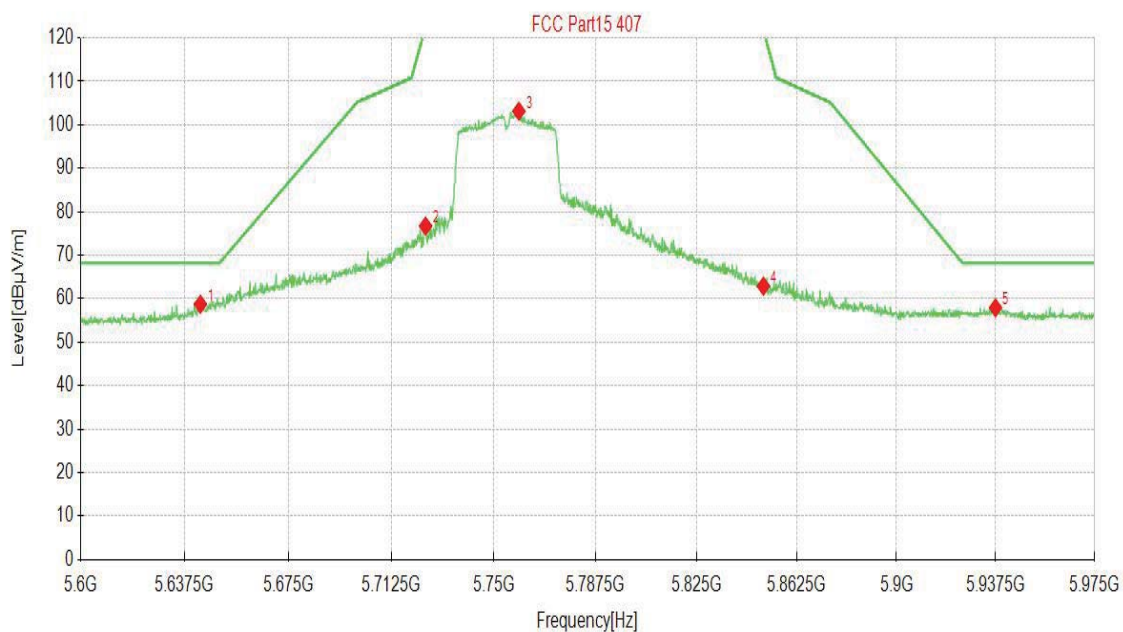
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH151	Frequency	5755 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5643.1466	50.18	8.56	58.74	68.20	9.46	283	294	PK
2	5725.0000	67.83	8.89	76.72	122.20	45.48	214	1	PK
3	5759.2671	93.81	9.33	103.14			273	1	PK
4	5850.0000	54.47	8.43	62.90	122.06	59.16	225	1	PK
5	5937.4812	47.19	10.73	57.92	68.20	10.28	295	66	PK
6	11510.0000	24.62	15.12	39.74	74.00	34.26	210	128	PK
7	11510.0000	18.08	15.12	33.20	54.00	20.80	138	206	AV
8	17265.0000	19.70	25.62	45.32	68.20	22.88	246	158	PK
9	17265.0000	13.34	25.62	38.96	54.00	15.04	157	111	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11n40 CH159		Frequency		5795 MHz				
Frequency Range	Above 1G		Detector Function		PK/AV				
Horizontal									
NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5633.5793	47.42	8.83	56.25	68.20	11.95	291	22	PK
2	5725.0000	48.03	8.89	56.92	122.20	65.28	180	199	PK
3	5792.8464	84.90	8.61	93.51			249	199	PK
4	5850.0000	48.51	8.43	56.94	122.06	65.12	278	228	PK
5	5934.2921	47.30	10.63	57.93	68.20	10.27	279	62	PK
6	11590.0000	26.33	15.17	41.50	74.00	32.50	234	16	PK
7	11590.0000	18.04	15.17	33.21	54.00	20.79	237	258	AV
8	17385.0000	18.83	26.14	44.97	68.20	23.23	282	198	PK
9	17385.0000	12.36	26.14	38.50	54.00	15.50	123	162	AV

FCC Part15 407

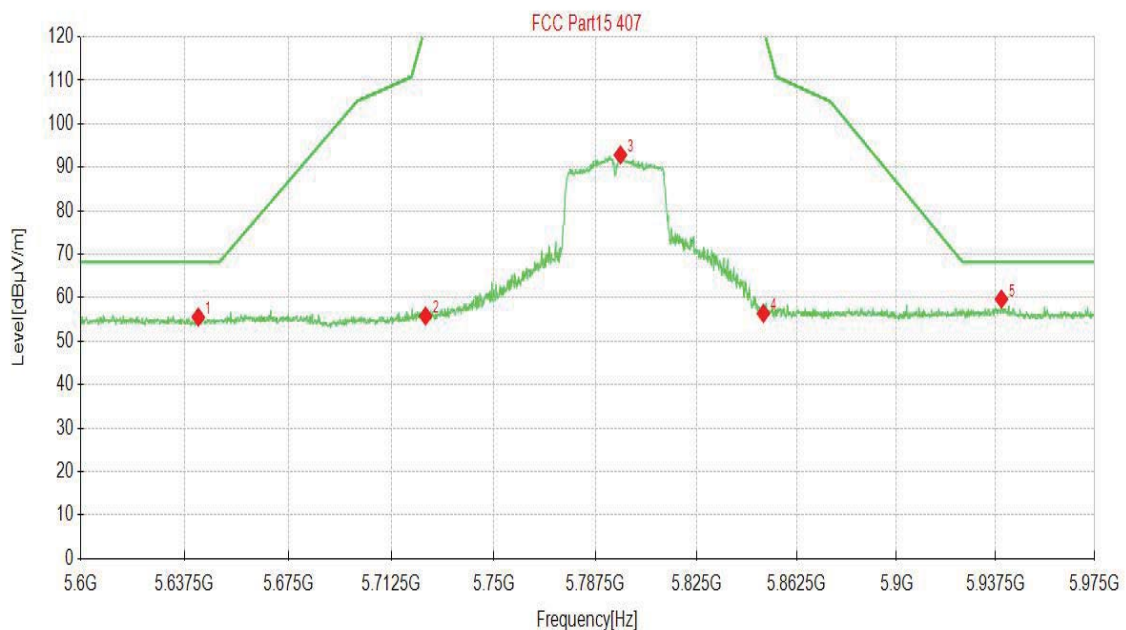
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBuV/m) = Reading (dBuV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBuV/m] - Level [dBuV/m]



Channel	802.11n40 CH59	Frequency	5795 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5642.3962	47.00	8.53	55.53	68.20	12.67	158	277	PK
2	5725.0000	46.92	8.89	55.81	122.20	66.39	195	259	PK
3	5796.7859	84.26	8.60	92.86			157	195	PK
4	5850.0000	47.95	8.43	56.38	122.06	65.68	227	224	PK
5	5939.7324	48.88	10.80	59.68	68.20	8.52	215	29	PK
6	11590.0000	24.96	15.17	40.13	74.00	33.87	213	289	PK
7	11590.0000	18.19	15.17	33.36	54.00	20.64	188	56	AV
8	17385.0000	20.12	26.14	46.26	68.20	21.94	273	335	PK
9	17385.0000	12.96	26.14	39.10	54.00	14.90	152	164	AV



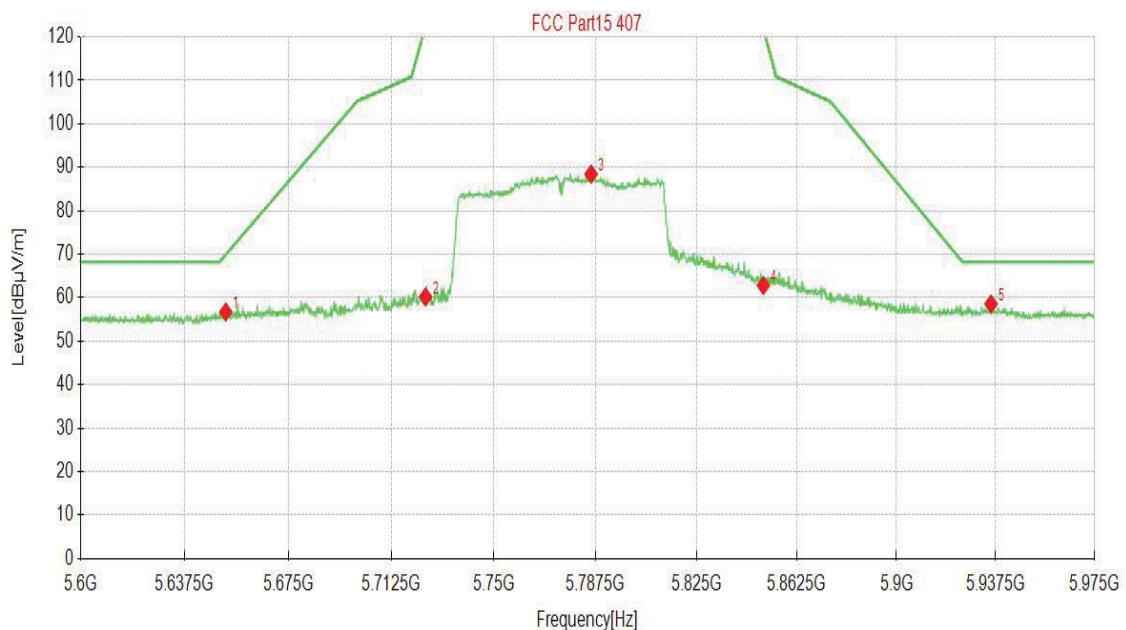
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11ac80 CH155	Frequency	5775 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Horizontal

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5652.3387	47.77	8.95	56.72	69.94	13.22	108	316	PK
2	5725.0000	51.31	8.89	60.20	122.20	62.00	223	314	PK
3	5785.9055	80.01	8.42	88.43			207	314	PK
4	5850.0000	54.41	8.43	62.84	122.06	59.22	157	68	PK
5	5935.7929	47.89	10.68	58.57	68.20	9.63	299	340	PK
6	11550.0000	26.53	15.40	41.93	74.00	32.07	146	308	PK
7	11550.0000	17.81	15.40	33.21	54.00	20.79	120	308	AV
8	17325.0000	20.49	26.20	46.69	68.20	21.51	192	154	PK
9	17325.0000	12.28	26.20	38.48	54.00	15.52	299	191	AV



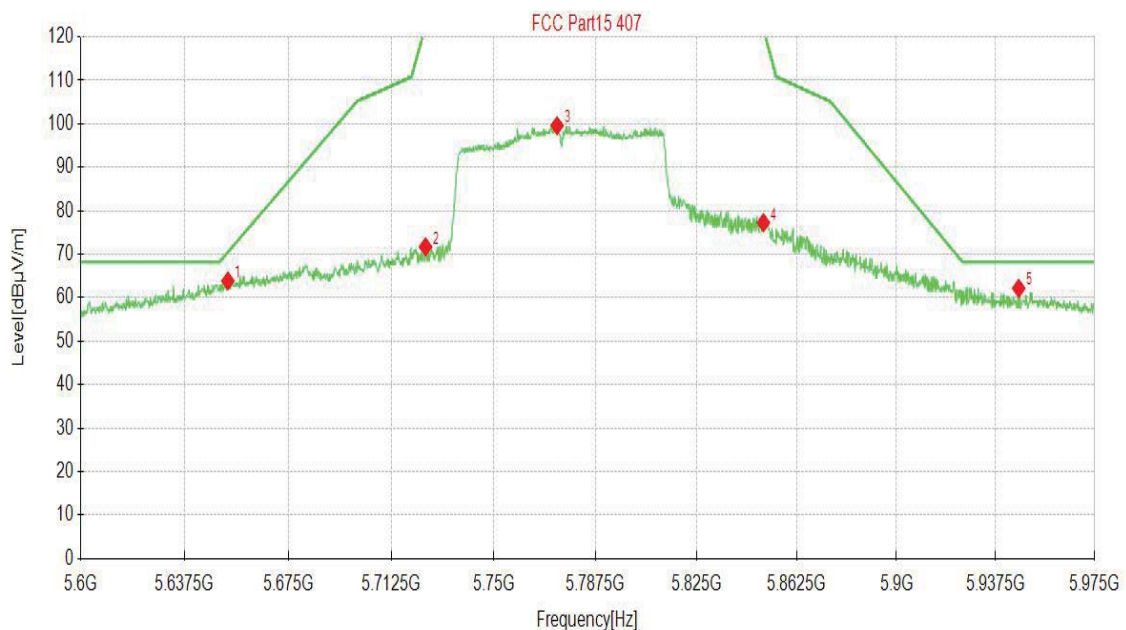
Remark: 1. The emission levels of other frequencies were greater than 20dB margin.
2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).
3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



Channel	802.11ac80 CH155	Frequency	5775 MHz
Frequency Range	Above 1G	Detector Function	PK/AV

Vertical

NO.	Freq. [MHz]	Reading [dBμV/m]	Factor [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector
1	5653.0890	54.88	8.98	63.86	70.50	6.64	153	357	PK
2	5725.0000	62.80	8.89	71.69	122.20	50.51	104	358	PK
3	5773.3367	90.95	8.64	99.59			185	5	PK
4	5850.0000	68.84	8.43	77.27	122.06	44.79	221	1	PK
5	5946.2981	52.04	10.12	62.16	68.20	6.04	222	358	PK
6	11550.0000	25.03	15.40	40.43	74.00	33.57	286	152	PK
7	11550.0000	17.71	15.40	33.11	54.00	20.89	203	152	AV
8	17325.0000	20.02	26.20	46.22	68.20	21.98	205	175	PK
9	17325.0000	12.02	26.20	38.22	54.00	15.78	275	98	AV



Remark: 1. The emission levels of other frequencies were greater than 20dB margin.

2. Level (dBμV/m) = Reading (dBμV/m) + Factor (dB).

3. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).

4. Margin(dB) = Limit[dBμV/m] - Level [dBμV/m]



3.3 26DB EMISSION BANDWIDTH

3.3.1 LIMITS OF 26DB EMISSION BANDWIDTH

This section is for reporting purpose only, there is on restriction limit of bandwidth

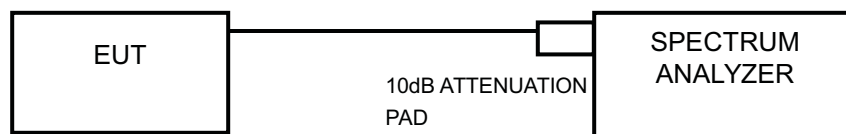
3.3.2 TEST PROCEDURES

FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

3.3.3 TEST SETUP

FOR 26dB BANDWIDTH



3.3.4 TEST RESULTS

Refer to Appendix A

3.4 6DB EMISSION BANDWIDTH

3.4.1 LIMITS OF 6DB EMISSION BANDWIDTH

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

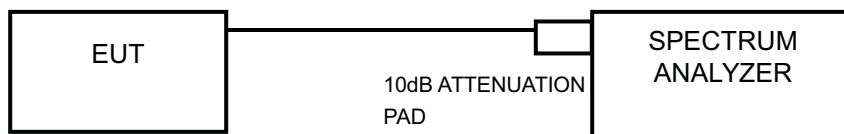
3.4.2 TEST PROCEDURES

FOR 6dB BANDWIDTH

- 1) Set RBW = 100 kHz.
- 2) Set the video bandwidth (VBW) ≥ 3 RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Sweep = auto couple.
- 6) Allow the trace to stabilize.
- 7) 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.

3.4.3 TEST SETUP

FOR 6dB BANDWIDTH



3.4.4 TEST RESULTS

Refer to Appendix A

3.5 TRANSMIT POWER MEASUREMENT

3.5.1 LIMITS OF TRANSMIT POWER MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-2C	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-3	√		1 Watt (30 dBm)

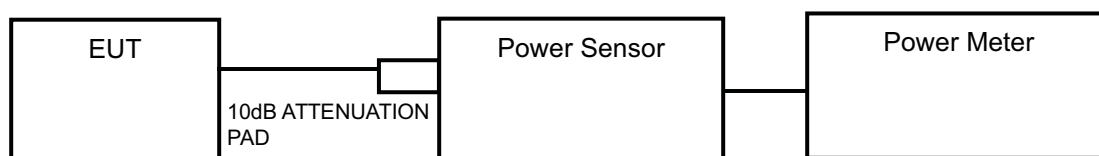
NOTE: 1. Where B is the 26dB emission bandwidth in MHz.

3.5.2 TEST PROCEDURES

FOR AVERAGE POWER MEASUREMENT

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

3.5.3 TEST SETUP



3.5.4 TEST RESULTS

Refer to Appendix A



3.6 POWER SPECTRAL DENSITY MEASUREMENT

3.6.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
		Indoor Access Point	
	√	Mobile and Portable client device	11dBm/ MHz
U-NII-2A			11dBm/ MHz
U-NII-2C			11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

3.6.2 TEST PROCEDURE

For U-NII-1, U-NII-2A, U-NII-2C band:

Using method SA-2

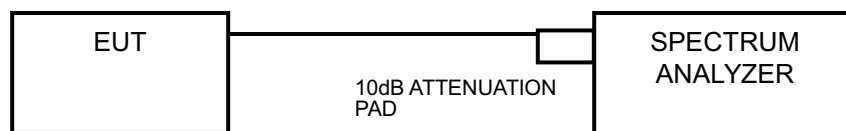
- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW =3 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to “free run”.
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

For U-NII-3 band:

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 500 kHz, Set VBW =2 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to “free run”.
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

3.6.3 TEST SETUP



3.6.4 TEST RESULT

Refer to Appendix A

3.7 FREQUENCY STABILITY

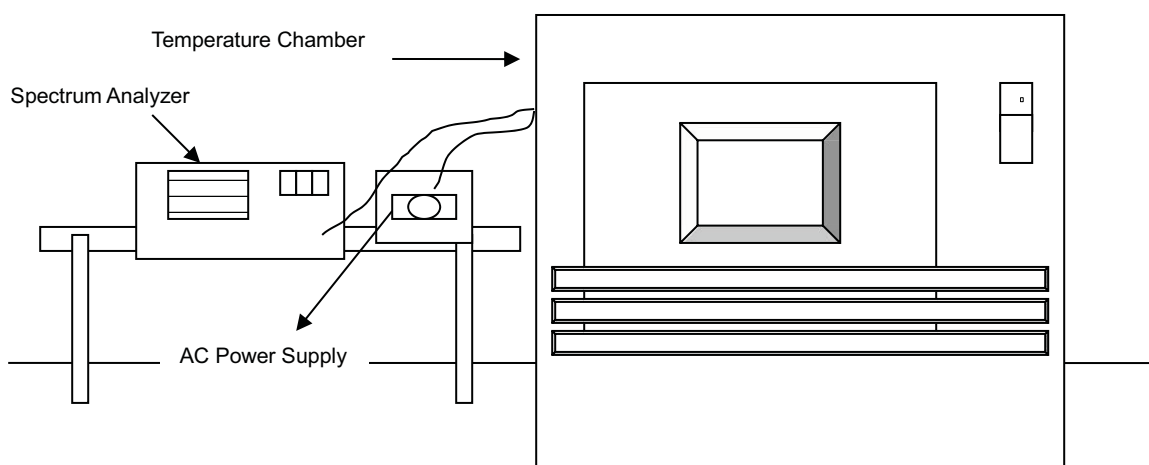
3.7.1 LIMITS OF FREQUENCY STABILITY

The frequency of the carrier signal shall be maintained within band of operation.

3.7.2 TEST PROCEDURES

- a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

3.7.3 TEST SETUP





3.7.4 TEST RESULTS

Refer to Appendix A



4 PHOTOGRAPHS OF TEST SETUP

Please refer to the attached file (Test Setup Photo).



5 Appendix A

5.1 26DB EMISSION BANDWIDTH

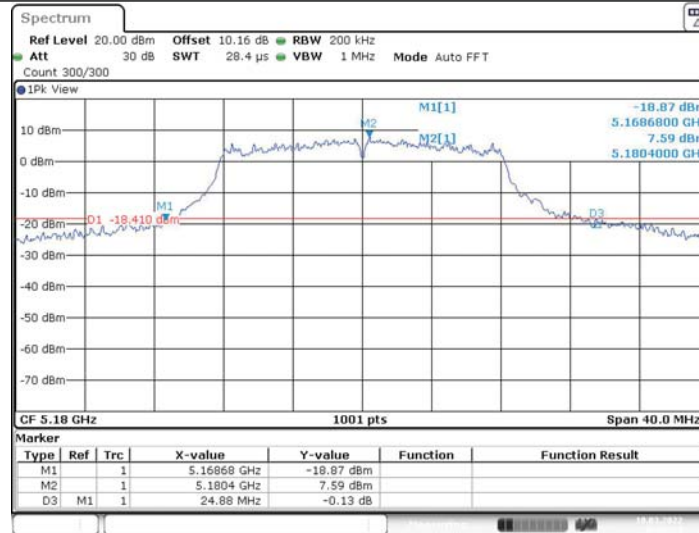
5.1.1 Test Result

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	24.88	5168.68	5193.56	---	---
		5220	27.36	5208.72	5236.08	---	---
		5240	24.00	5228.64	5252.64	---	---
		5745	32.52	5729.80	5762.32	---	---
		5785	32.68	5768.92	5801.60	---	---
		5825	32.24	5808.88	5841.12	---	---
11N20SISO	Ant1	5180	27.40	5168.00	5195.40	---	---
		5220	26.68	5208.36	5235.04	---	---
		5240	26.24	5228.60	5254.84	---	---
		5745	33.76	5730.48	5764.24	---	---
		5785	31.64	5770.92	5802.56	---	---
		5825	33.52	5809.64	5843.16	---	---
11N40SISO	Ant1	5190	56.64	5169.92	5226.56	---	---
		5230	55.60	5209.84	5265.44	---	---
		5755	62.24	5732.20	5794.44	---	---
		5795	59.68	5773.32	5833.00	---	---
11AC80SISO	Ant1	5210	104.00	5170.00	5274.00	---	---
		5775	122.40	5728.44	5850.84	---	---

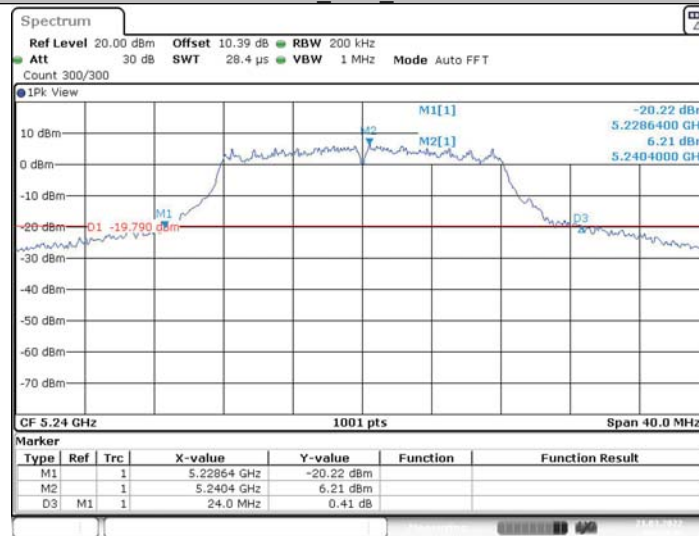


5.1.2 Test Graphs

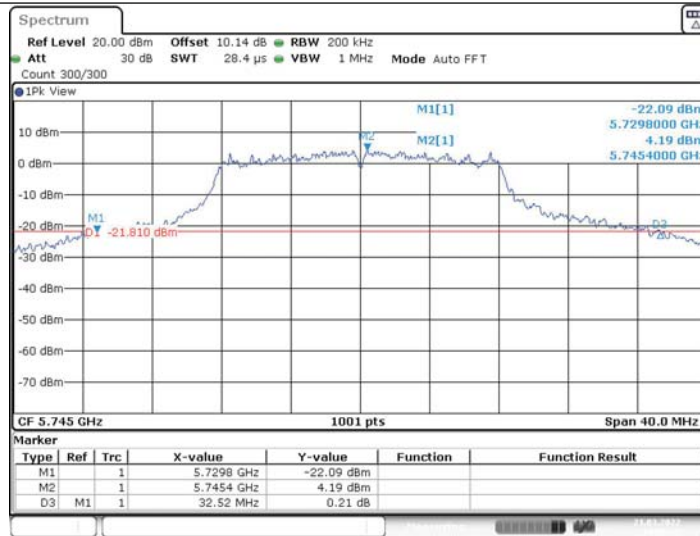
11A_Ant1_5180



11A_Ant1_5240



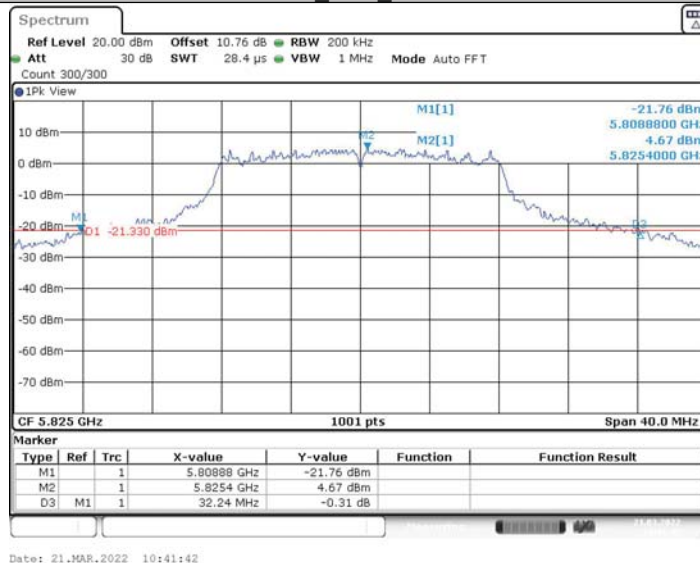
11A_Ant1_5745



11A Ant1_5785

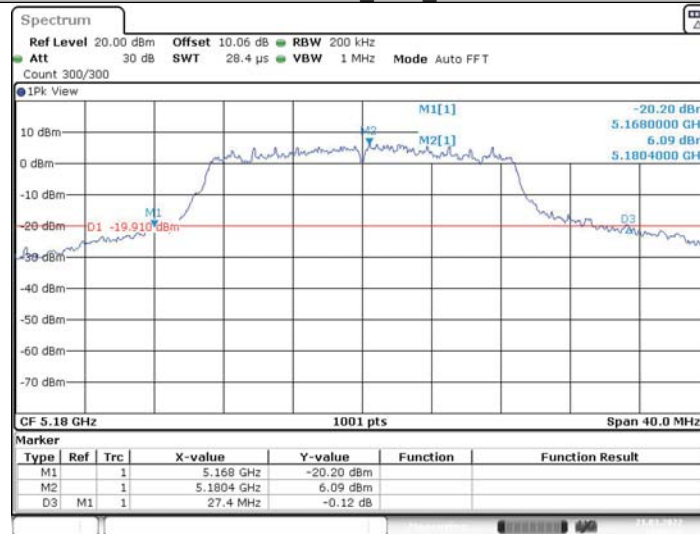


11A Ant1_5825



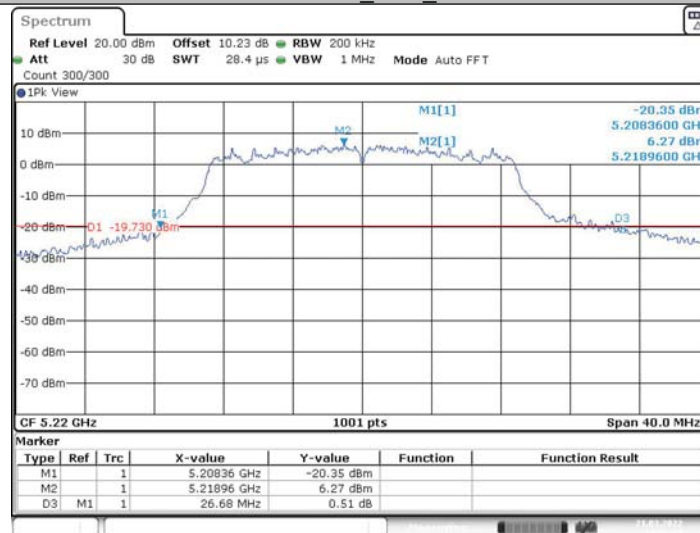


11N20SISO_Ant1_5180



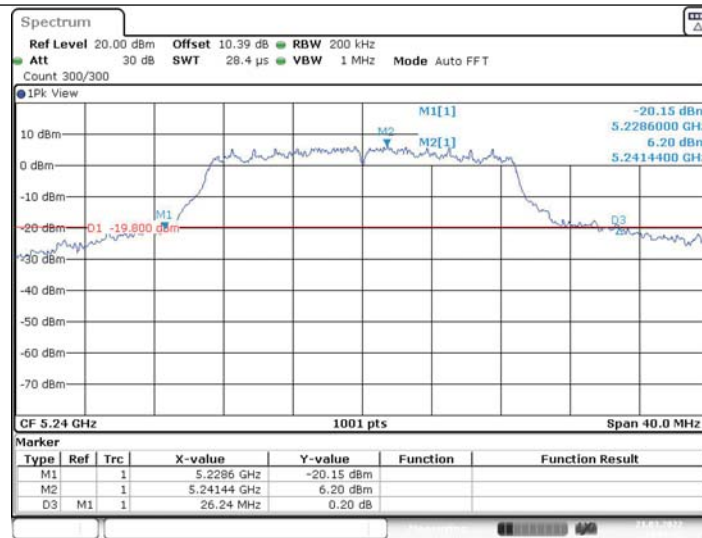
Date: 21.MAR.2022 13:06:10

11N20SISO_Ant1_5220

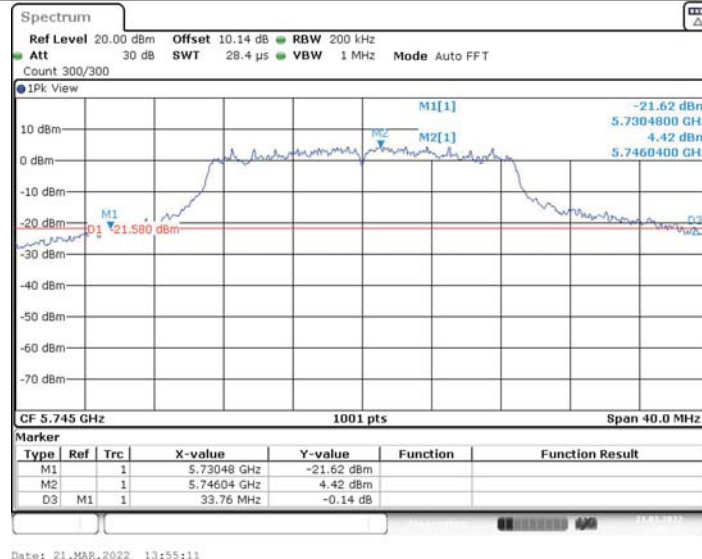


Date: 21.MAR.2022 13:26:31

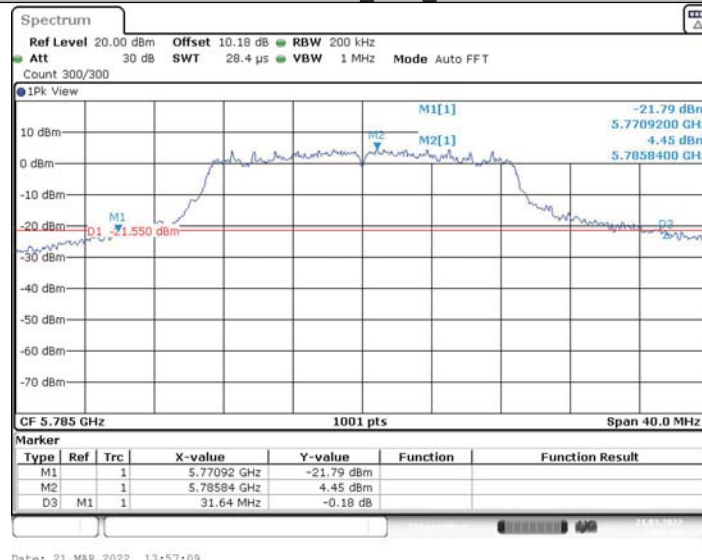
11N20SISO_Ant1_5240



11N20SISO_Ant1_5745

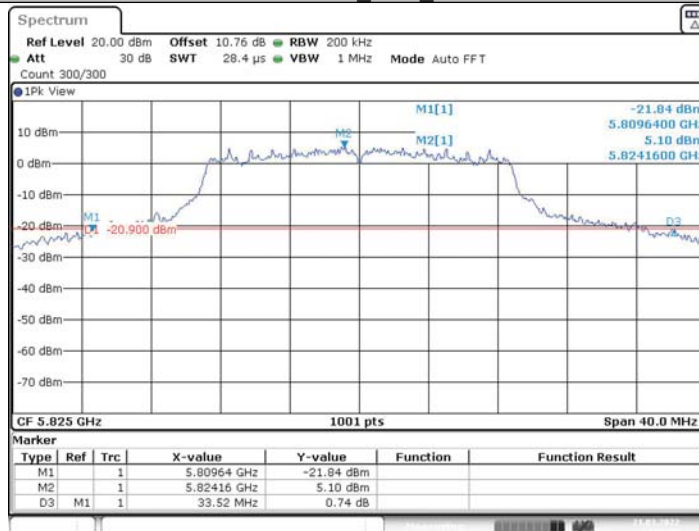


11N20SISO_Ant1_5785



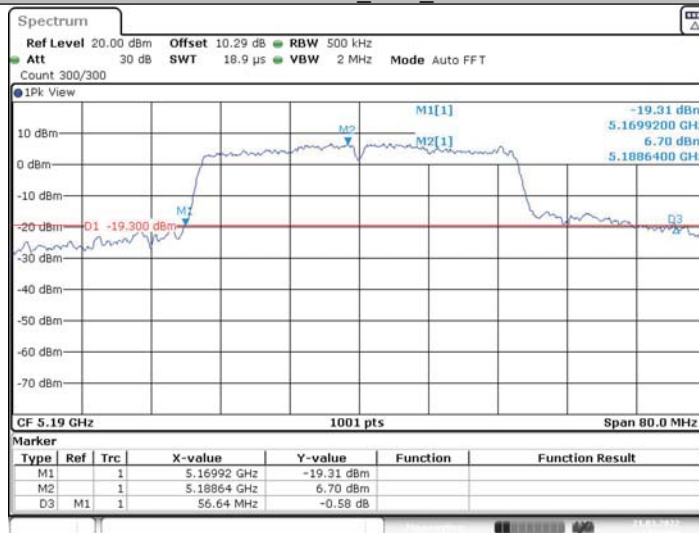


11N20SISO_Ant1_5825



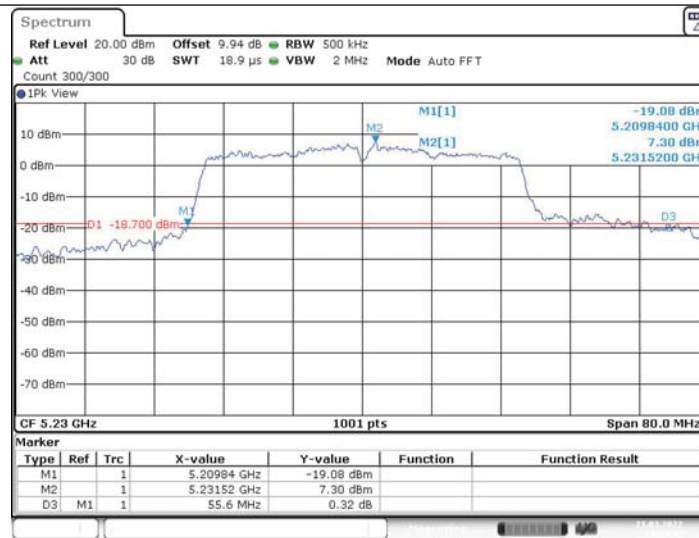
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11N40SISO_Ant1_5190

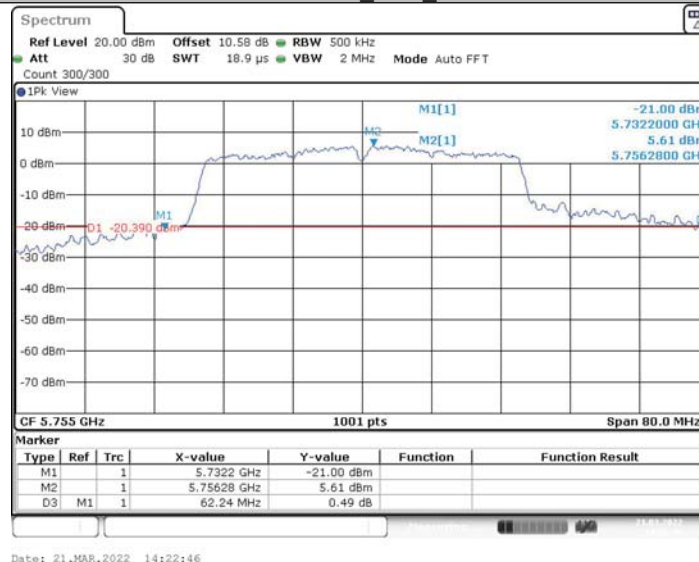


Date: 21.MAR.2022 14:19:04

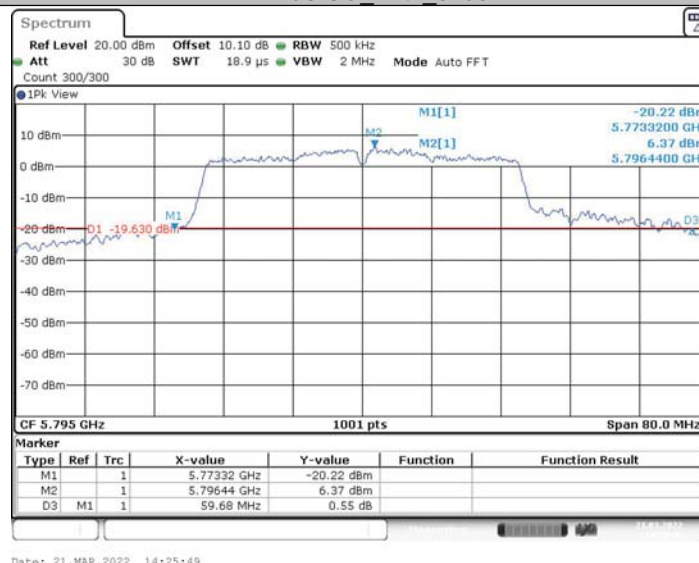
11N40SISO_Ant1_5230



11N40SISO_Ant1_5755

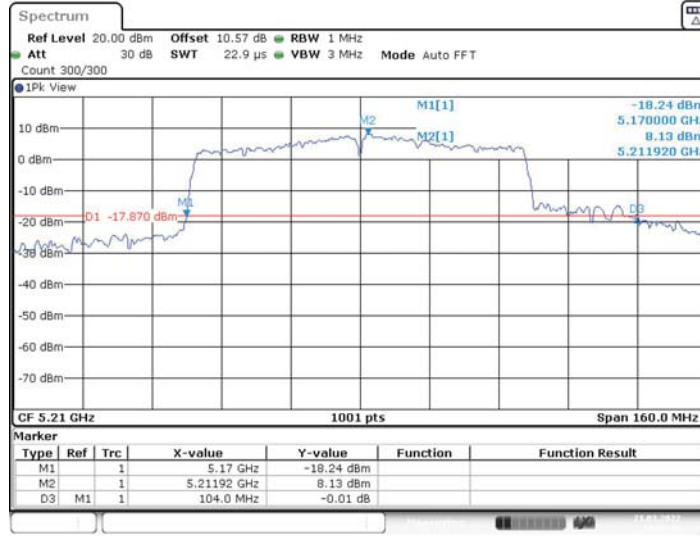


11N40SISO_Ant1_5795



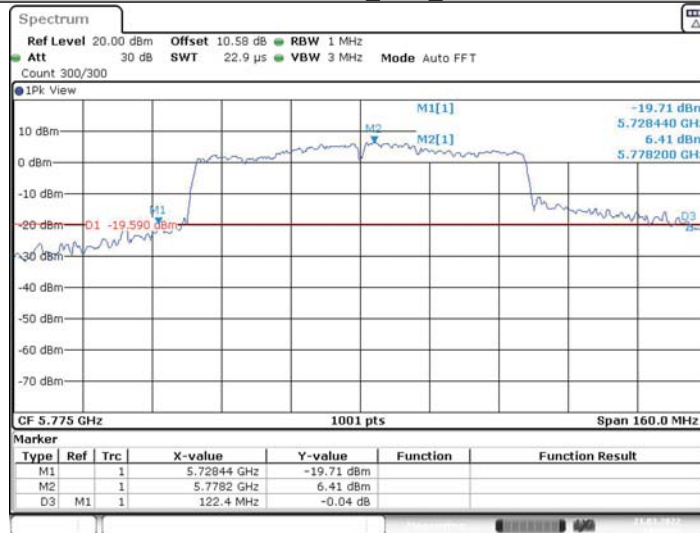


11AC80SISO_Ant1_5210



Date: 21.MAR.2022 14:27:46

11AC80SISO_Ant1_5775



Date: 21.MAR.2022 14:39:50



5.2 OCCUPIED CHANNEL BANDWIDTH

5.2.1 Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	18.462	5170.849	5189.311	---	---
		5220	18.781	5211.009	5229.790	---	---
		5240	18.382	5230.769	5249.151	---	---
		5745	20.18	5735.410	5755.589	---	---
		5785	19.66	5775.450	5795.110	---	---
		5825	19.261	5815.450	5834.710	---	---
11N20SISO	Ant1	5180	19.341	5170.450	5189.790	---	---
		5220	19.061	5210.689	5229.750	---	---
		5240	18.901	5230.689	5249.590	---	---
		5745	21.618	5735.529	5757.148	---	---
		5785	19.94	5775.330	5795.270	---	---
		5825	19.78	5815.330	5835.110	---	---
11N40SISO	Ant1	5190	36.923	5171.778	5208.701	---	---
		5230	37.003	5211.618	5248.621	---	---
		5755	39.401	5736.778	5776.179	---	---
		5795	38.921	5776.618	5815.539	---	---
11AC80SISO	Ant1	5210	76.563	5171.958	5248.521	---	---
		5775	78.162	5737.438	5815.599	---	---

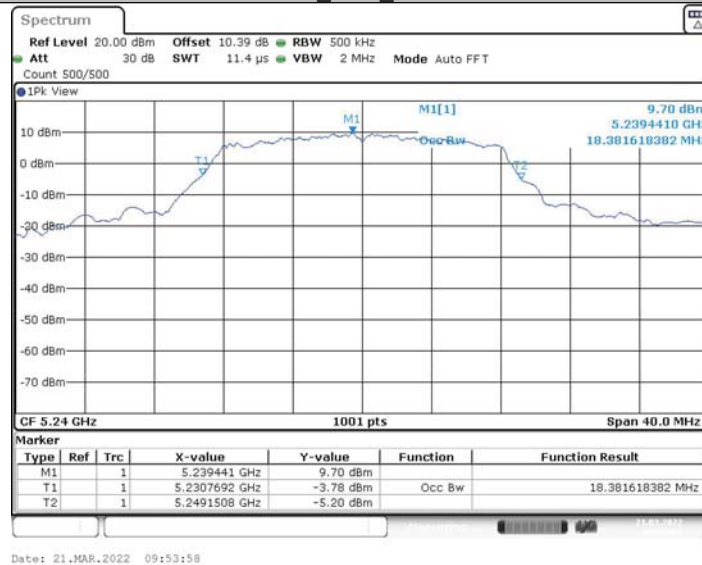


5.2.2 Test Graphs

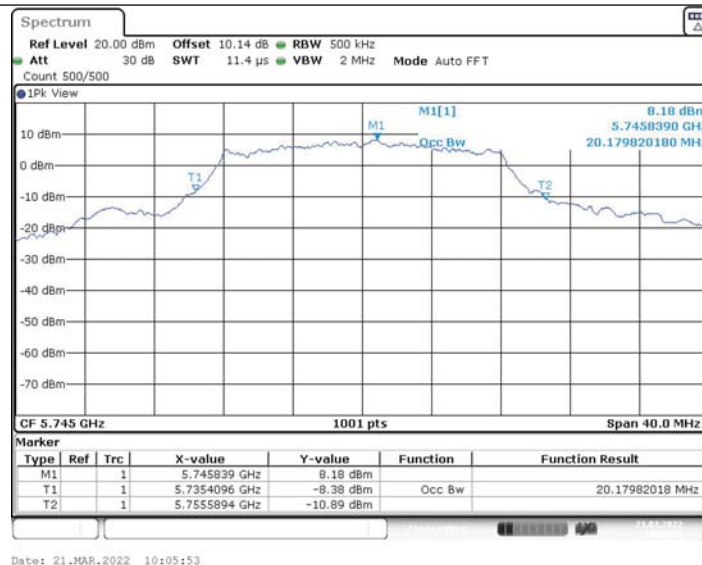
11A_Ant1_5180



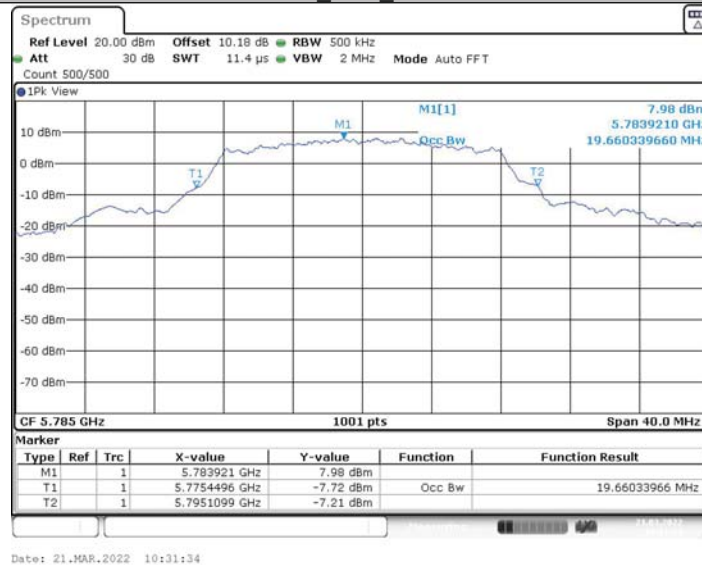
11A_Ant1_5240



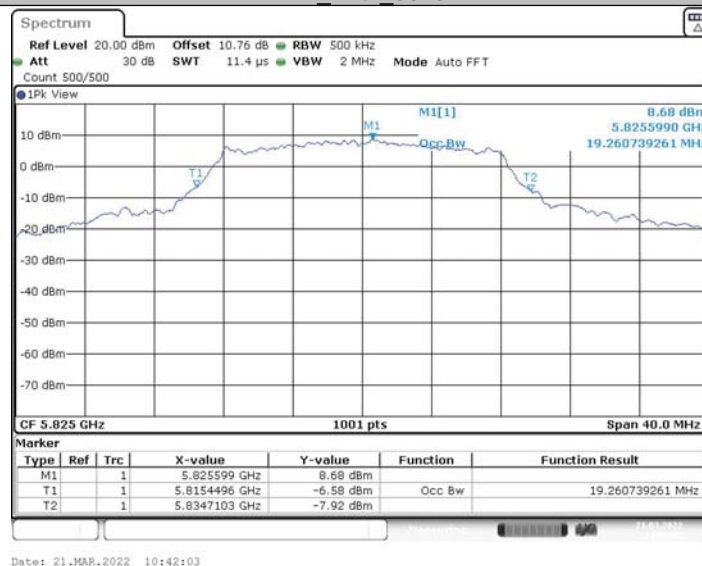
11A_Ant1_5745



11A Ant1 5785

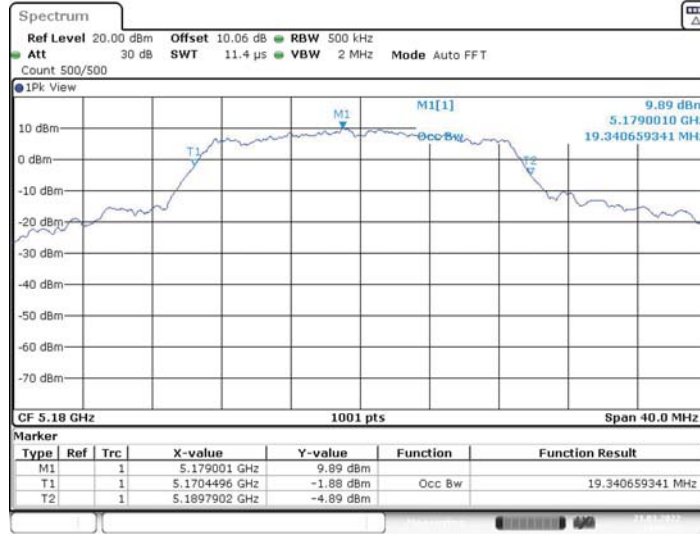


11A Ant1 5825





11N20SISO_Ant1_5180



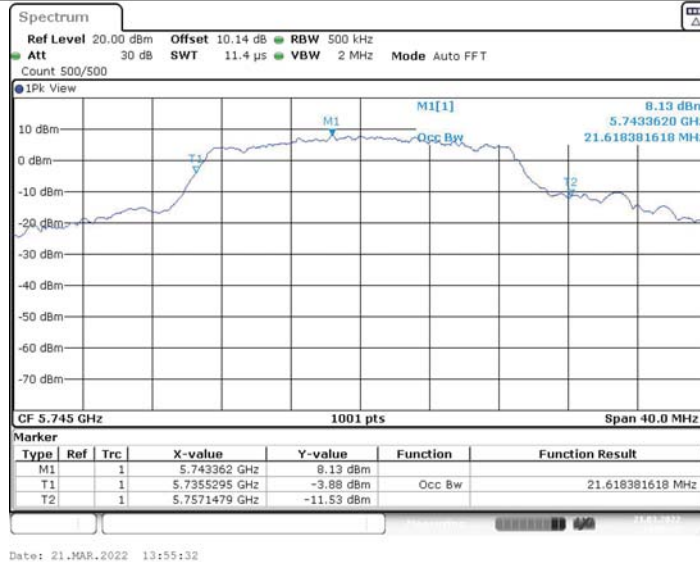
11N20SISO_Ant1_5220



11N20SISO_Ant1_5240



11N20SISO_Ant1_5745

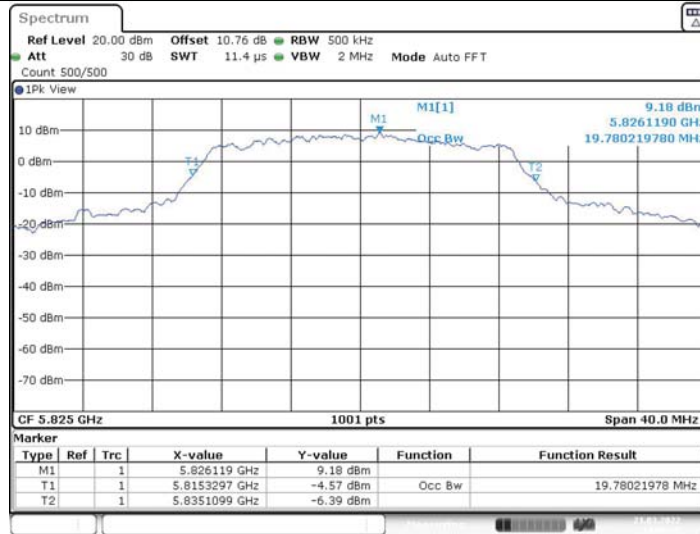


11N20SISO_Ant1_5785





11N20SISO_Ant1_5825



Date: 21.MAR.2022 14:06:25

11N40SISO_Ant1_5190



Date: 21.MAR.2022 14:19:16

11N40SISO_Ant1_5230



11N40SISO_Ant1_5755

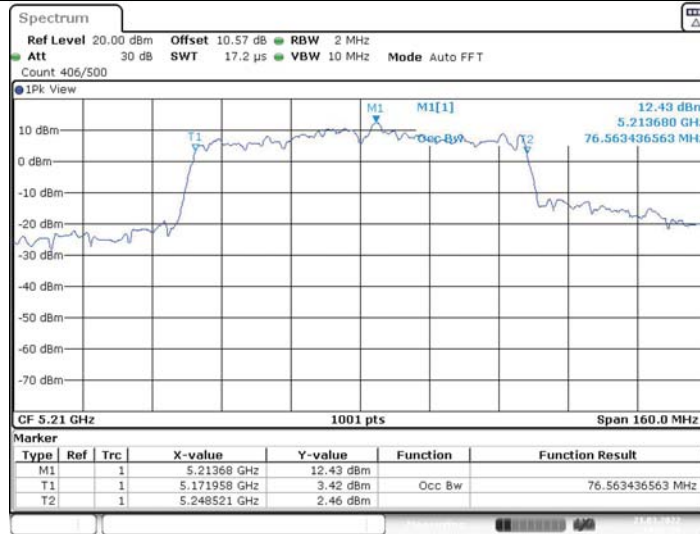


11N40SISO_Ant1_5795





11AC80SISO_Ant1_5210



Date: 21.MAR.2022 14:27:58

11AC80SISO_Ant1_5775



Date: 21.MAR.2022 14:40:10



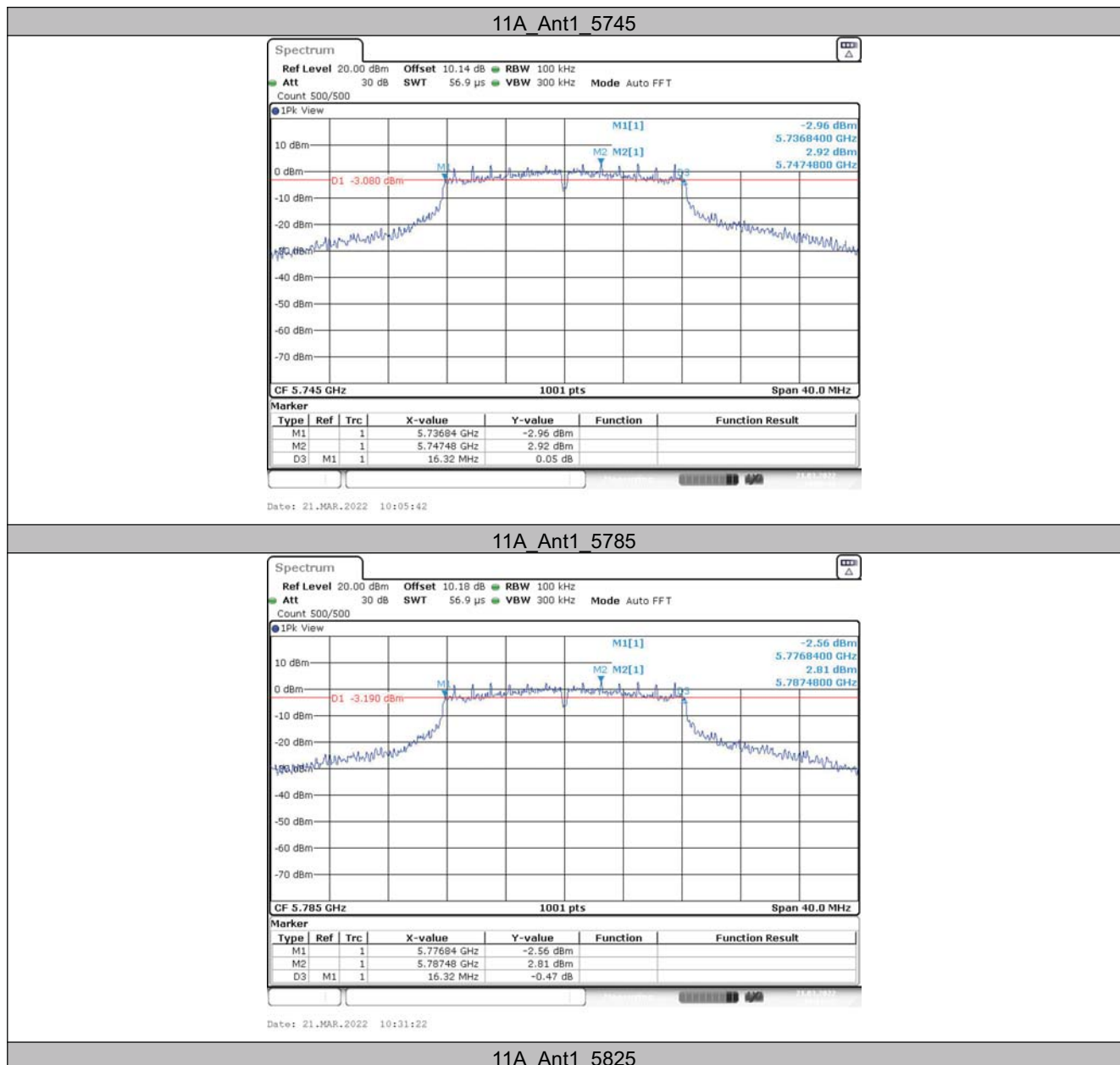
5.3 6DB EMISSION BANDWIDTH

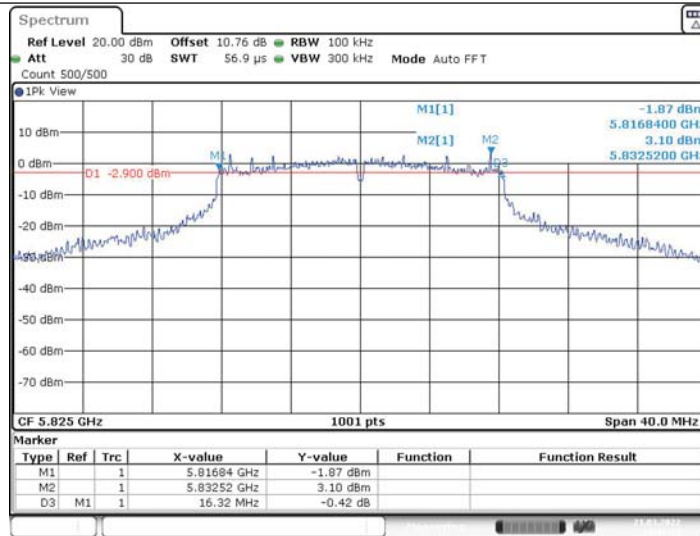
5.3.1 Test Result

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.32	5736.84	5753.16	0.5	PASS
		5785	16.32	5776.84	5793.16	0.5	PASS
		5825	16.32	5816.84	5833.16	0.5	PASS
11N20SISO	Ant1	5745	17.32	5736.48	5753.80	0.5	PASS
		5785	16.88	5776.64	5793.52	0.5	PASS
		5825	17.52	5816.24	5833.76	0.5	PASS
11N40SISO	Ant1	5755	35.76	5737.40	5773.16	0.5	PASS
		5795	35.84	5777.08	5812.92	0.5	PASS
11AC80SISO	Ant1	5775	75.20	5737.40	5812.60	0.5	PASS

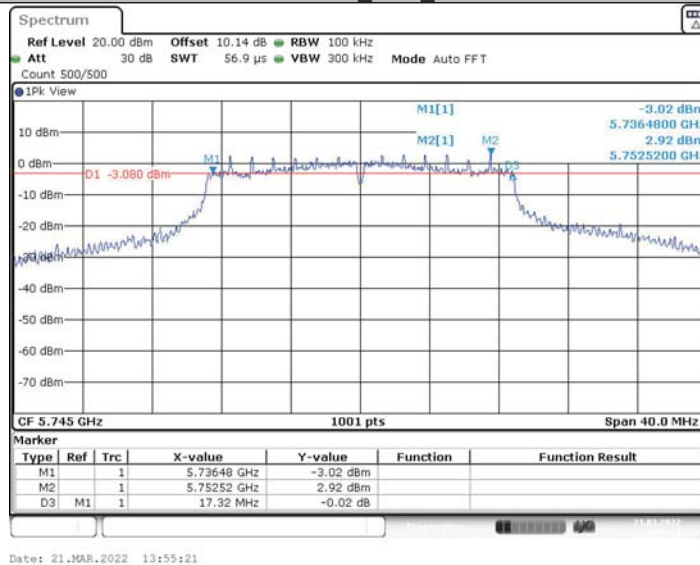


5.3.2 Test Graphs

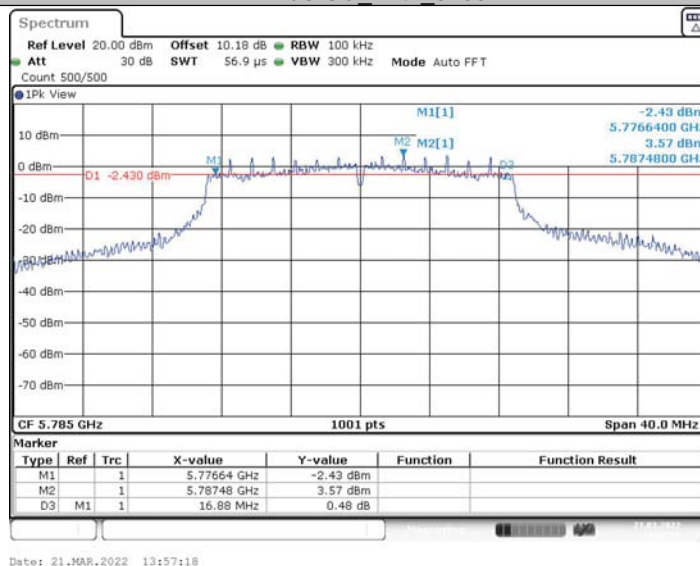




11N20SISO_Ant1_5745

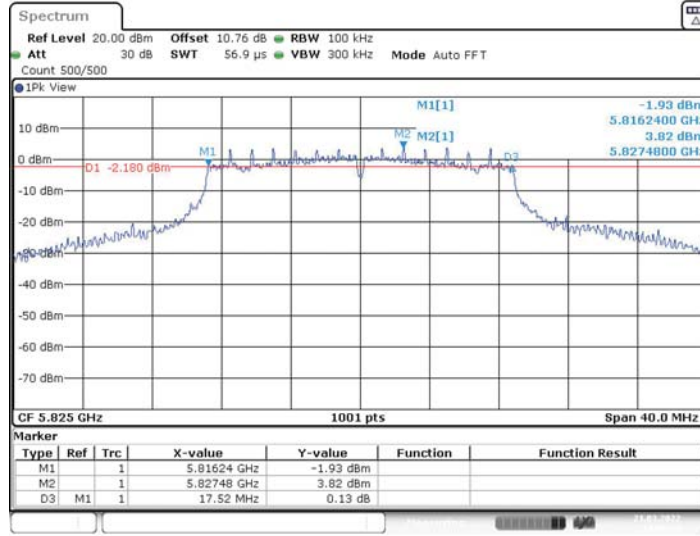


11N20SISO_Ant1_5785

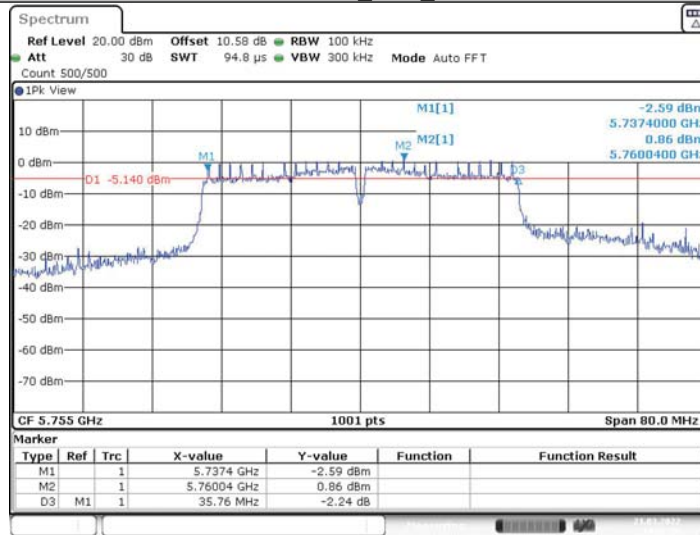




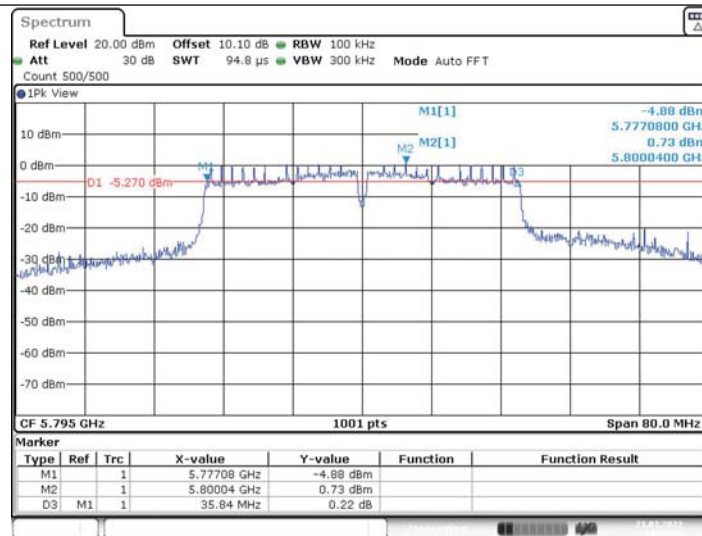
11N20SISO_Ant1_5825



11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



Date: 21.MAR.2022 14:25:59

11AC80SISO_Ant1_5775



Date: 21.MAR.2022 14:39:59



5.4 TRANSMIT POWER MEASUREMENT

5.4.1 Test Result

TestMode	Antenna	Frequency[MHz]	Conducted output power [dBm]	Limit[MHz]	Verdict
11A	Ant1	5180	11.49	24	PASS
		5220	11.63	24	PASS
		5240	11.07	24	PASS
		5745	14.11	30	PASS
		5785	14.42	30	PASS
		5825	14.47	30	PASS
11N20SISO	Ant1	5180	11.06	24	PASS
		5220	10.76	24	PASS
		5240	10.81	24	PASS
		5745	13.69	30	PASS
		5785	14.13	30	PASS
		5825	14.15	30	PASS
11N40SISO	Ant1	5190	11.10	24	PASS
		5230	10.95	24	PASS
		5755	14.16	30	PASS
		5795	14.44	30	PASS
11AC80SISO	Ant1	5210	10.98	24	PASS
		5775	14.08	30	PASS



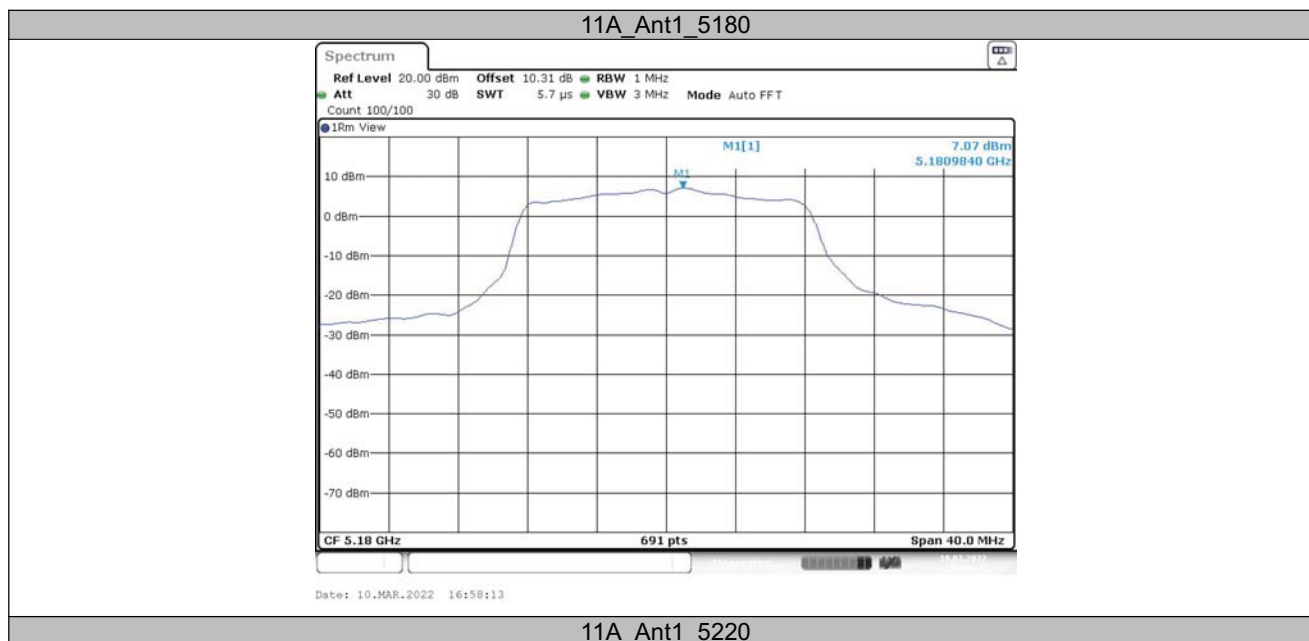
5.5 POWER SPECTRAL DENSITY MEASUREMENT

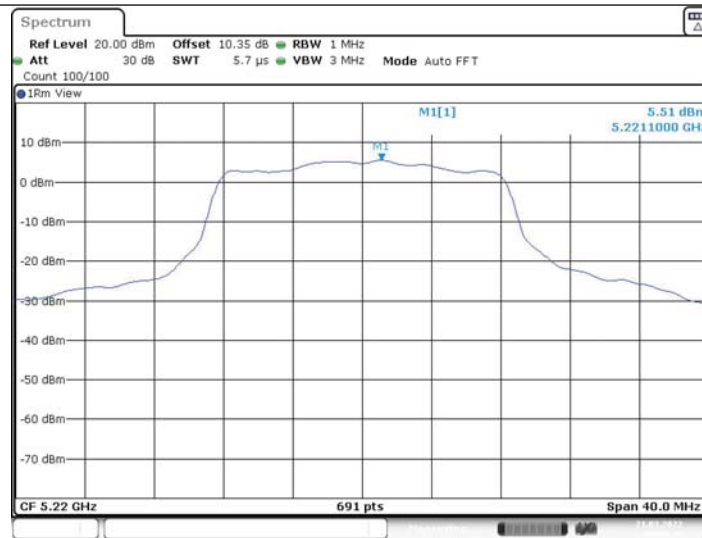
5.5.1 Test Result

TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	7.07	≤11.00	PASS
		5220	5.51	≤11.00	PASS
		5240	5.61	≤11.00	PASS
		5745	1.00	≤30.00	PASS
		5785	0.84	≤30.00	PASS
		5825	1.59	≤30.00	PASS
11N20SISO	Ant1	5180	5.3	≤11.00	PASS
		5220	5.14	≤11.00	PASS
		5240	5.65	≤11.00	PASS
		5745	0.98	≤30.00	PASS
		5785	1.02	≤30.00	PASS
		5825	1.57	≤30.00	PASS
11N40SISO	Ant1	5190	2.63	≤11.00	PASS
		5230	2.03	≤11.00	PASS
		5755	-1.63	≤30.00	PASS
		5795	-1.76	≤30.00	PASS
11AC80SISO	Ant1	5210	-0.17	≤11.00	PASS
		5775	-4.43	≤30.00	PASS

Note: 1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

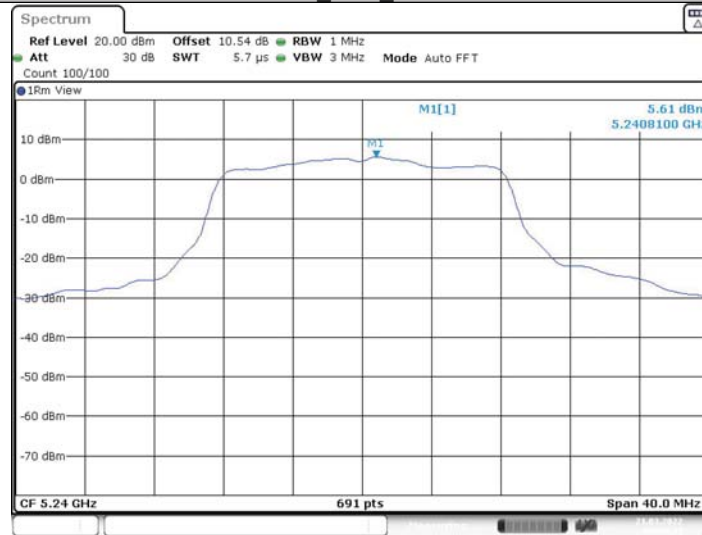
5.5.2 Test Graphs





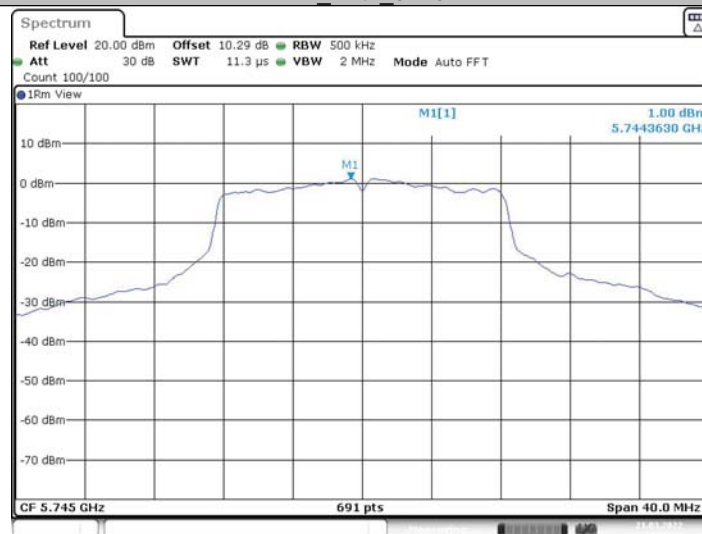
Date: 21.MAR.2022 09:49:30

11A_Ant1_5240



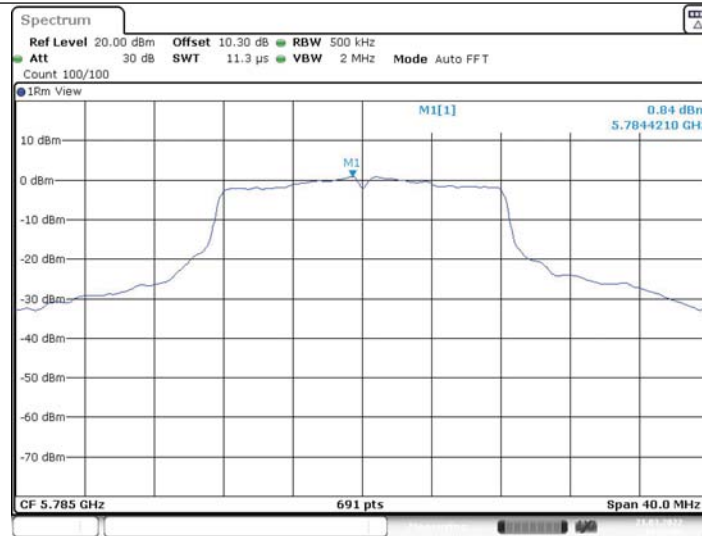
Date: 21.MAR.2022 09:54:31

11A_Ant1_5745



Date: 21.MAR.2022 10:06:29

11A_Ant1_5785



Date: 21.MAR.2022 10:32:09

11A Ant1_5825



Date: 21.MAR.2022 10:42:36

11N20SISO_Ant1_5180



Date: 21.MAR.2022 13:06:55

11N20SISO_Ant1_5220



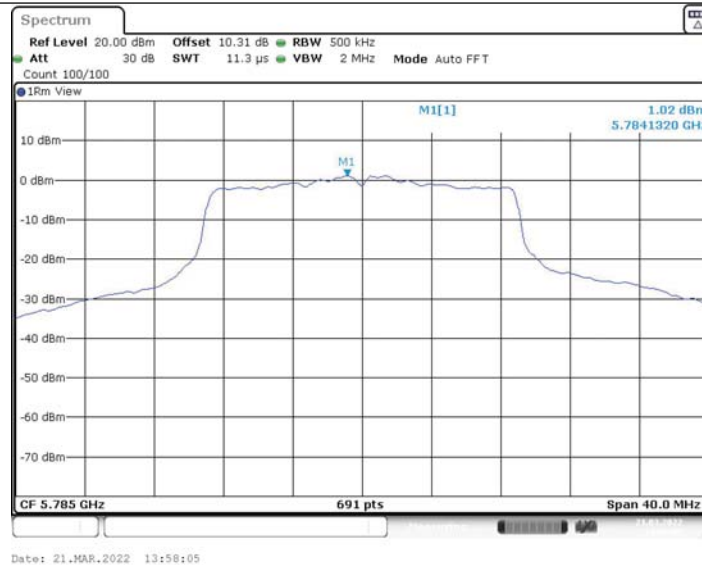
11N20SISO_Ant1_5240



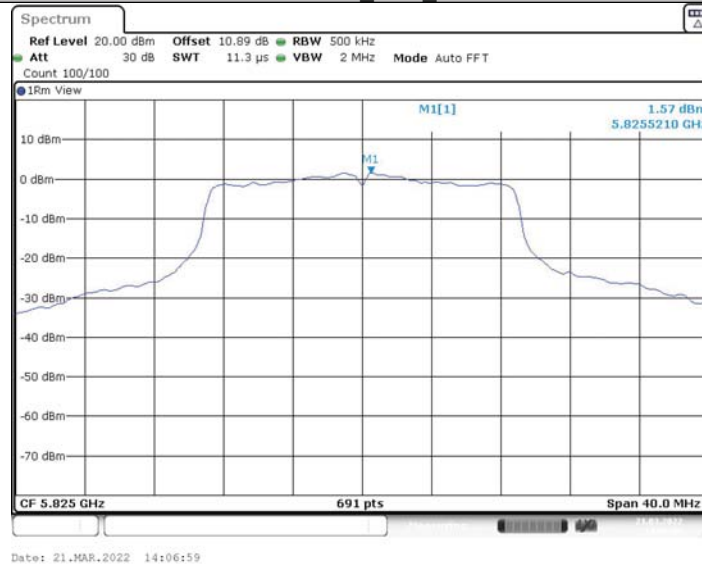
11N20SISO_Ant1_5745



11N20SISO_Ant1_5785



11N20SISO_Ant1_5825



11N40SISO_Ant1_5190



11N40SISO_Ant1_5230



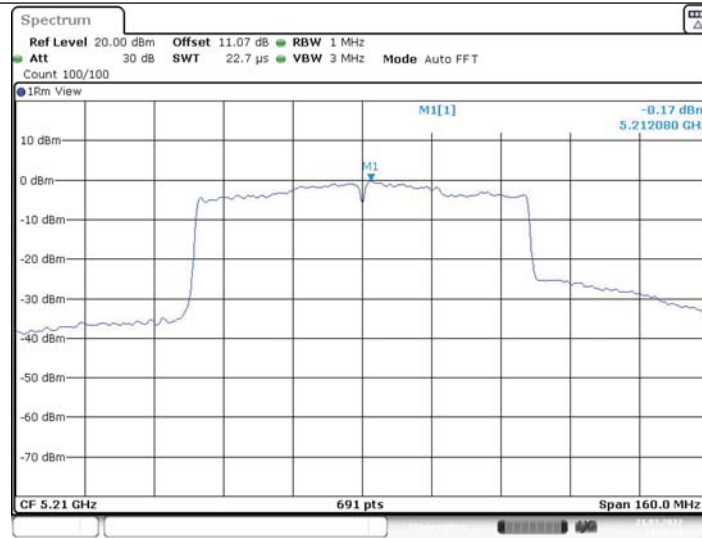
11N40SISO_Ant1_5755



11N40SISO_Ant1_5795



11AC80SISO_Ant1_5210



Date: 21.MAR.2022 14:28:31

11AC80SISO_Ant1_5775



Date: 21.MAR.2022 14:40:44



5.6 FREQUENCY STABILITY

5.6.1 Test Result

Voltage								
TestMode	Antenna	Frequenc y[MHz]	Voltage [Vdc]	Temperat ure (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	6350.00	1.225869	20	PASS
			LV	NT	6250.00	1.206564	20	PASS
			HV	NT	6050.00	1.167954	20	PASS

Temperature								
TestMode	Antenna	Frequenc y[MHz]	Voltage [Vdc]	Temperat ure (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	5950.00	1.148649	20	PASS
			NV	-20	5850.00	1.129344	20	PASS
			NV	-10	5750.00	1.110039	20	PASS
			NV	0	5550.00	1.071429	20	PASS
			NV	10	5550.00	1.071429	20	PASS
			NV	20	5350.00	1.032819	20	PASS
			NV	30	5250.00	1.013514	20	PASS
			NV	40	5250.00	1.013514	20	PASS
			NV	50	5150.00	0.994208	20	PASS



Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

Address of the laboratory:

CVC Testing Technology Co., Ltd.

Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China

Post Code: 510663

Tel: 020-32293888

FAX: 020-32293889

E-mail: office@cvc.org.cn