FCC Test Report

FCC ID	:	**2ACDL-C600**
Equipment	:	**Canary Flex Home Security Device**
Model No.	:	**CAN600**
Brand Name	:	**Canary**
Applicant	:	**Canary Connect, Inc.**
Address	:	**606 West 28th Street, 7th Floor New York NY 10001, USA**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Aug. 18, 2016**
Tested Date	:	**Aug. 22 ~ Sep. 20, 2016**

We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by: Felix Sung

Felix Sung / Serior Engineer

Approved by: Along Chen

Along Chen / Assistant Manager

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
FR681802AN	Rev. 01	Initial issue	Oct. 12, 2016
FR681802AN	Rev. 02	Updated test results of Band Edge Emissions	Nov. 14, 2016

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.792MHz 43.88 (Margin -12.12dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 400.00MHz 44.46 (Margin -1.54dB) - QP	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5150-5250MHz: 12.86 5725-5850MHz: 10.25	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5150-5250	a	5180-5240	36-48 [4]	1	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	1	MCS 0-7
5150-5250	n (HT40)	5190-5230	38-46 [2]	1	MCS 0-7
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.					

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5725-5850	a	5745-5825	149-165 [5]	1	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	1	MCS 0-7
5725-5850	n (HT40)	5755-5795	151-159 [2]	1	MCS 0-7
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.					

1.1.2 Antenna Details

Ant. No.	**Type**	**Connector**	**Operating Frequencies (MHz) / Antenna Gain (dBi)**		
			2400~2483.5	**5150~5250**	**5725~5850**
1	PIFA	UFL	3.4	1.5	3

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	Power by 5Vdc adapter & 2 x 3.63Vdc batteries in parallel connection

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	Adapter	Brand: canary Model: CAN100USAPT I/P: 100-240Vac, 50/60Hz, 0.3A O/P: 5Vdc, 2000mA Manufacturer: Vanze
2	Adapter	Brand: canary Model: CAN100USAPT I/P: 100-240Vac, 50/60Hz, 0.35A O/P: 5Vdc, 2000mA Manufacturer: T&W
3	Li-ion Rechargeable Battery (x2)	Brand: Sunwoda Model: SUN-INTE-16 Rating: 3.63Vdc, 3350mAh
4	USB cable (black) For charging use	2.41m shielded without core.
5	USB cable (white) For charging use	2.41m shielded without core.

1.1.5 Channel List

For Frequency band 5150-5250 MHz			
802.11 a / HT20		**HT40**	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
36	5180	38	5190
40	5200	46	5230
44	5220	---	---
48	5240	---	---

For Frequency band 5725~5850 MHz			
802.11 a / HT20		**HT40**	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
149	5745	151	5755
153	5765	159	5795
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	Console		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	99.65%	0.02
	HT20	99.63%	0.02
	HT40	98.37%	0.07

1.1.7 Power Setting

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5180	55
11a	5200	55
11a	5240	55
HT20	5180	55
HT20	5200	55
HT20	5240	55
HT40	5190	55
HT40	5230	55

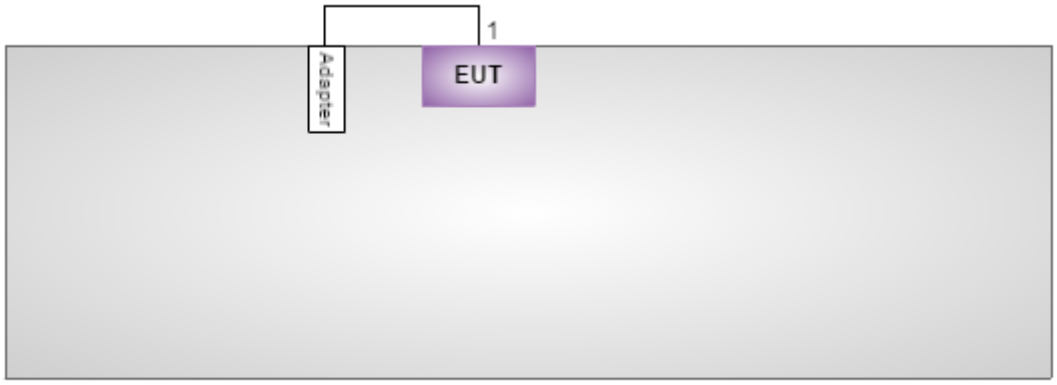
For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5745	46
11a	5785	46
11a	5825	46
HT20	5745	46
HT20	5785	46
HT20	5825	46
HT40	5755	46
HT40	5795	46

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E6430	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



1. USB, 2.41m shielded without core.

Note: The support notebook was disconnected from EUT and removed from test table when EUT is set to transmit continuously.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESCS 30	100169	Oct. 21, 2015	Oct. 20, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2015	Nov. 12, 2016
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 21, 2015	Dec. 20, 2016
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Dec. 13, 2015	Dec. 12, 2016
Receiver	R&S	ESR3	101658	Nov. 04, 2015	Nov. 03, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 04, 2016	Aug. 03, 2017
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 16, 2015	Dec. 15, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2015	Nov. 03, 2016
Preamplifier	EMC	EMC02325	980225	Aug. 05, 2016	Aug. 04, 2017
Preamplifier	Agilent	83017A	MY39501308	Oct. 02, 2015	Oct. 01, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 10, 2015	Dec. 09, 2016
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 10, 2015	Dec. 09, 2016
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 10, 2015	Dec. 09, 2016
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 16, 2015	Nov. 15, 2016
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101063	Feb. 17, 2016	Feb. 16, 2017
Power Meter	Anritsu	ML2495A	1218007	Oct. 14, 2015	Oct. 13, 2016
Power Sensor	Anritsu	MA2411B	1207367	Oct. 14, 2015	Oct. 13, 2016
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 26, 2015	Oct. 25, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407
ANSI C63.10-2013
FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty	
Parameters	**Uncertainty**
Bandwidth	±34.134 Hz
Conducted power	±0.808 dB
Frequency error	±34.134 Hz
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.90 dB
Radiated emission ≤ 1GHz	±3.66 dB
Radiated emission > 1GHz	±5.63 dB
Time	±0.1%
Temperature	±0.6 ^{o}C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	24°C / 59%	Howard Huang
Radiated Emissions	03CH01-WS	22-24°C / 60-62%	Vincent Yeh Kevin Lee
RF Conducted	TH01-WS	24°C / 65%	Alex Huang

- FCC site registration No.: 181692
- IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	HT40	5230	MCS 0	---
Radiated Emissions ≤1GHz	HT40	5230	MCS 0	---
RF Output Power	11a	5180 / 5200 / 5240	6 Mbps	---
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240	6 Mbps	---
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
Frequency Stability	Un-modulation	5200	---	---

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** results were found as the worst case and were shown in this report.
2. Adapter Vanze and T&W had been covered during the pretest. The worst adapter is Vanze, therefore the following test results came out from this.

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	HT40	5795	MCS 0	---
Radiated Emissions ≤1GHz	HT40	5795	MCS 0	---
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	---
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	---
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
Frequency Stability	Un-modulation	5785	---	---

Note:
1) The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** results were found as the worst case and were shown in this report.
2) Adapter Vanze and T&W had been covered during the pretest. The worst adapter is Vanze, therefore the following test results came out from this.

3 Transmitter Test Results

3.1 Conducted Emissions

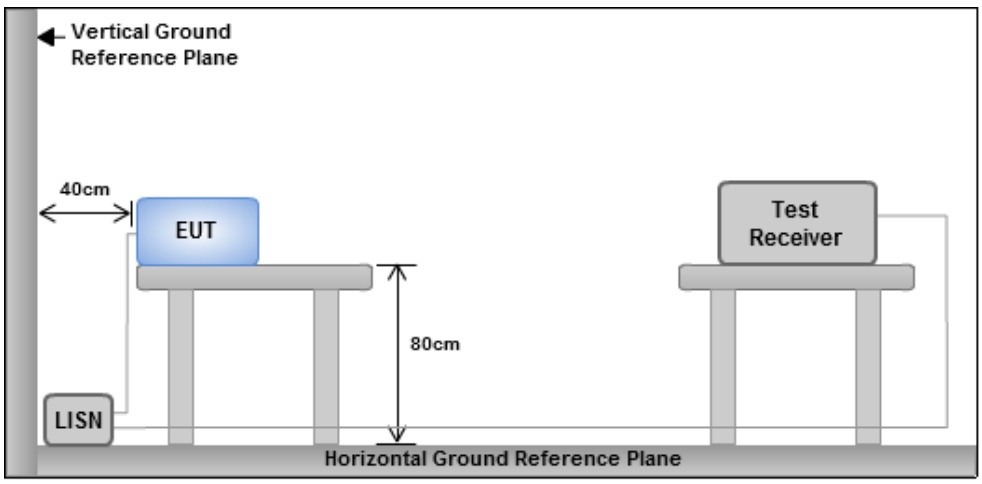
3.1.1 Limit of Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

3.1.3 Test Setup

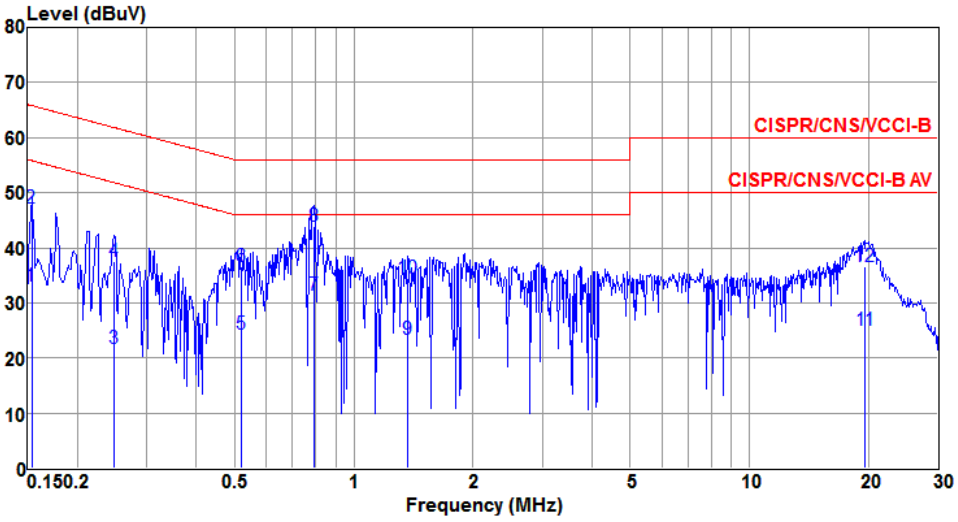


Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

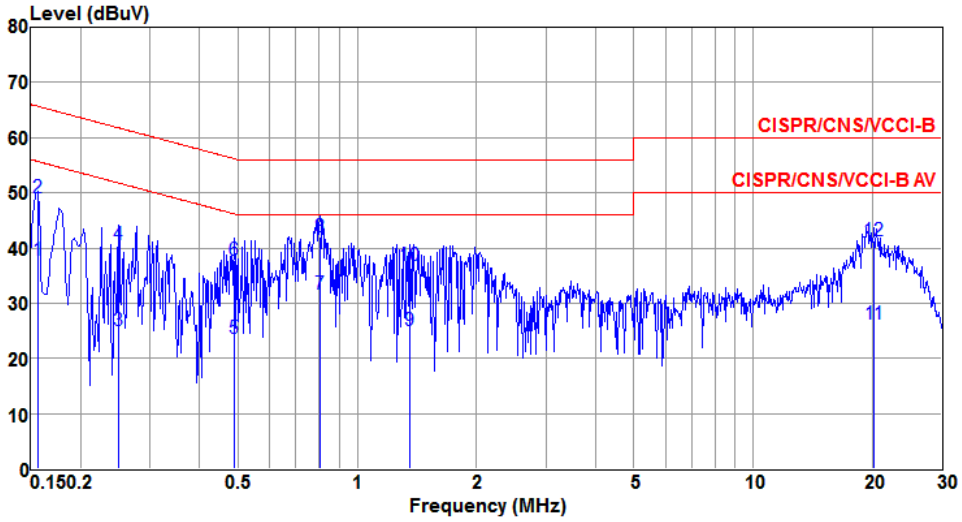
Modulation	HT40	Test Freq. (MHz)	5230
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.153	32.93	55.82	-22.89	32.03	0.88	0.02	Average
2	0.153	47.10	65.82	-18.72	46.20	0.88	0.02	QP
3	0.247	21.62	51.86	-30.24	21.37	0.23	0.02	Average
4	0.247	37.62	61.86	-24.24	37.37	0.23	0.02	QP
5	0.521	24.39	46.00	-21.61	24.20	0.15	0.04	Average
6	0.521	36.63	56.00	-19.37	36.44	0.15	0.04	QP
7	0.792	31.32	46.00	-14.68	31.16	0.11	0.05	Average
8@	0.792	43.88	56.00	-12.12	43.72	0.11	0.05	QP
9	1.367	23.35	46.00	-22.65	22.95	0.33	0.07	Average
10	1.367	34.47	56.00	-21.53	34.07	0.33	0.07	QP
11	19.635	25.01	50.00	-24.99	24.07	0.77	0.17	Average
12	19.635	36.70	60.00	-23.30	35.76	0.77	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

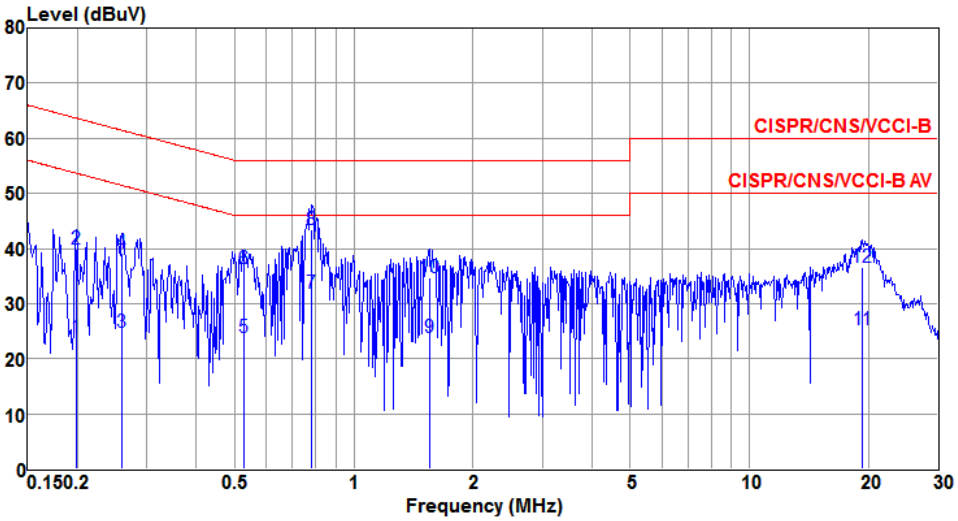
Modulation	HT40	Test Freq. (MHz)	5230
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	37.67	55.65	-17.98	36.89	0.76	0.02	Average
2	0.156	49.00	65.65	-16.65	48.22	0.76	0.02	QP
3	0.249	25.03	51.78	-26.75	24.81	0.20	0.02	Average
4	0.249	40.58	61.78	-21.20	40.36	0.20	0.02	QP
5	0.489	23.66	46.19	-22.53	23.46	0.16	0.04	Average
6	0.489	37.75	56.19	-18.44	37.55	0.16	0.04	QP
7	0.804	31.62	46.00	-14.38	31.33	0.24	0.05	Average
8@	0.804	41.97	56.00	-14.03	41.68	0.24	0.05	QP
9	1.359	24.93	46.00	-21.07	24.61	0.25	0.07	Average
10	1.359	36.84	56.00	-19.16	36.52	0.25	0.07	QP
11	20.270	26.25	50.00	-23.75	25.31	0.76	0.18	Average
12	20.270	41.29	60.00	-18.71	40.35	0.76	0.18	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

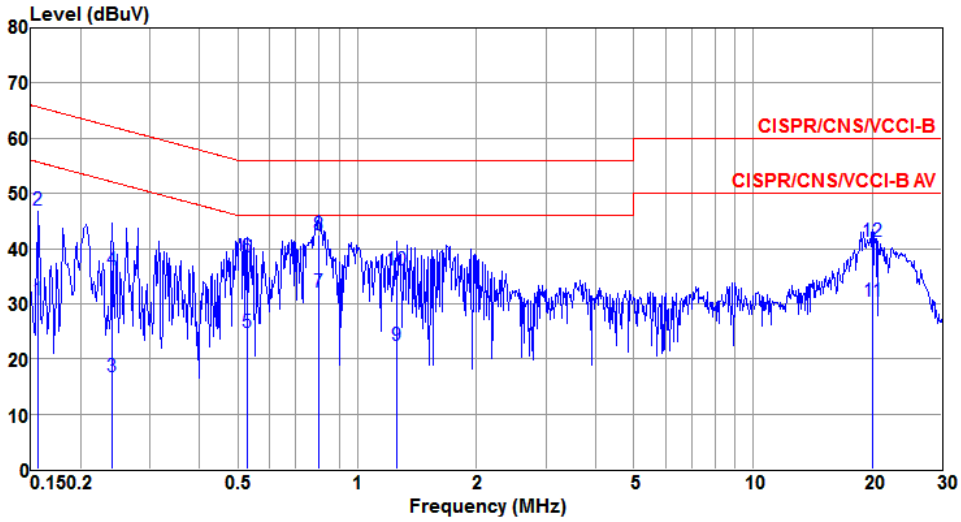
Modulation	HT40	Test Freq. (MHz)	5795
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.199	23.85	53.67	-29.82	23.56	0.27	0.02	Average
2	0.199	39.94	63.67	-23.73	39.65	0.27	0.02	QP
3	0.259	24.73	51.47	-26.74	24.49	0.22	0.02	Average
4	0.259	39.30	61.47	-22.17	39.06	0.22	0.02	QP
5	0.529	23.76	46.00	-22.24	23.57	0.15	0.04	Average
6	0.529	36.27	56.00	-19.73	36.08	0.15	0.04	QP
7	0.783	31.93	46.00	-14.07	31.77	0.11	0.05	Average
8@	0.783	43.51	56.00	-12.49	43.35	0.11	0.05	QP
9	1.552	23.76	46.00	-22.24	23.26	0.43	0.07	Average
10	1.552	34.75	56.00	-21.25	34.25	0.43	0.07	QP
11	19.326	25.34	50.00	-24.66	24.40	0.77	0.17	Average
12	19.326	36.51	60.00	-23.49	35.57	0.77	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	HT40	Test Freq. (MHz)	5795
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	30.74	55.65	-24.91	29.96	0.76	0.02	Average
2	0.156	47.00	65.65	-18.65	46.22	0.76	0.02	QP
3	0.240	16.66	52.08	-35.42	16.43	0.21	0.02	Average
4	0.240	36.14	62.08	-25.94	35.91	0.21	0.02	QP
5	0.527	24.70	46.00	-21.30	24.49	0.17	0.04	Average
6	0.527	38.47	56.00	-17.53	38.26	0.17	0.04	QP
7	0.800	32.20	46.00	-13.80	31.91	0.24	0.05	Average
8@	0.800	42.38	56.00	-13.62	42.09	0.24	0.05	QP
9	1.255	22.50	46.00	-23.50	22.18	0.25	0.07	Average
10	1.255	36.14	56.00	-19.86	35.82	0.25	0.07	QP
11	20.056	30.35	50.00	-19.65	29.44	0.74	0.17	Average
12	20.056	41.35	60.00	-18.65	40.44	0.74	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

3.2 Emission Bandwidth

3.2.1 Limit of Emission bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW, Detector = Peak.
3. Trace mode = max hold.
4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

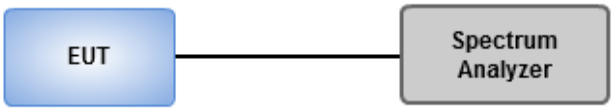
Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW
2. Set VBW ≥ 3 RBW
3. Sample detection and single sweep mode shall be used
4. Use the 99 % power bandwidth function of the instrument

6dB Bandwidth

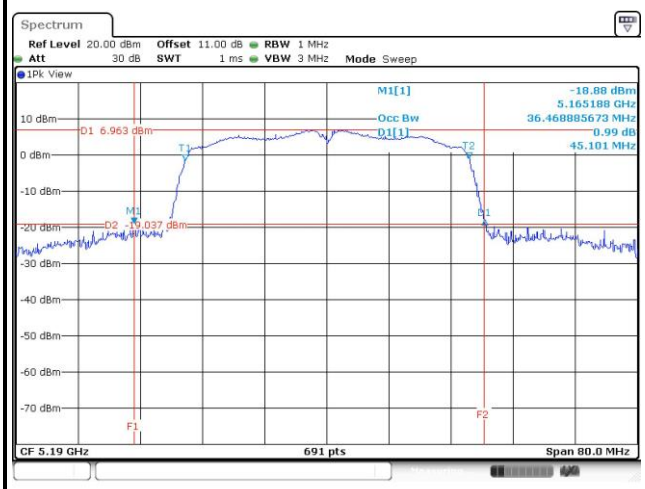
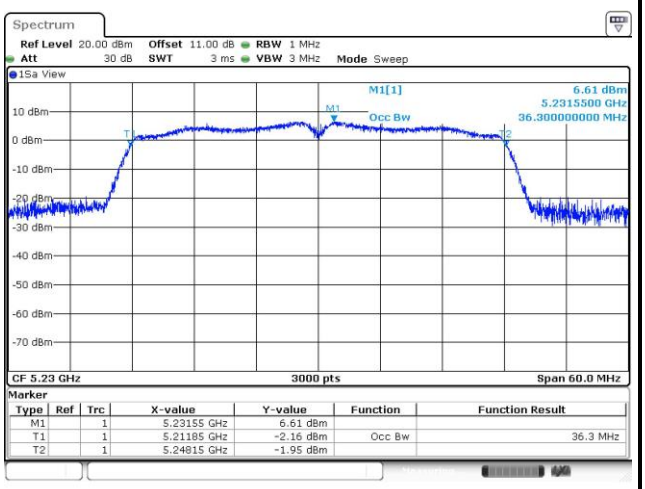
1. Set RBW = 100kHz, VBW = 300kHz
2. Detector = Peak,Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

3.2.3 Test Setup

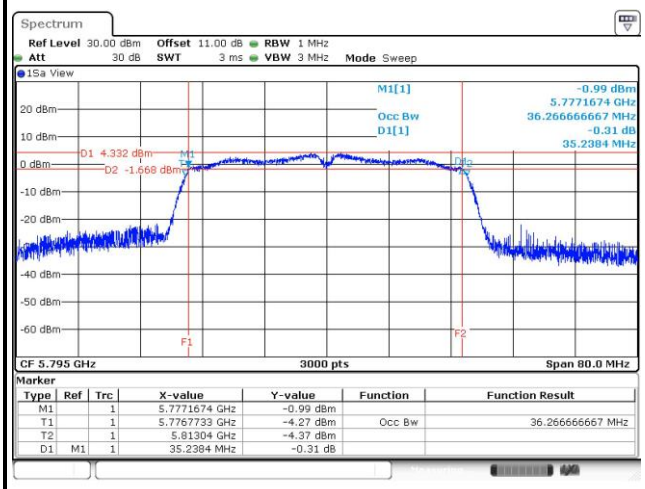
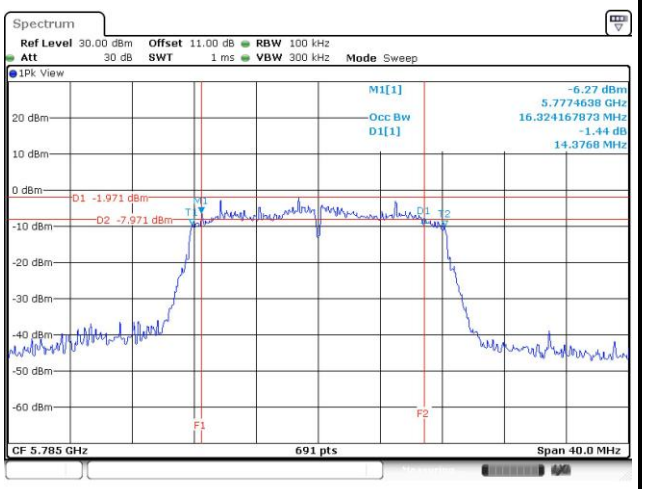


3.2.4 Test Result of Emission Bandwidth

For Frequency band 5150-5250 MHz										
Emission Bandwidth										
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
11a	1	5180	19.71	---	---	---	16.53	---	---	---
11a	1	5200	19.25	---	---	---	16.58	---	---	---
11a	1	5240	19.25	---	---	---	16.56	---	---	---
HT20	1	5180	19.42	---	---	---	17.53	---	---	---
HT20	1	5200	21.39	---	---	---	17.54	---	---	---
HT20	1	5240	19.42	---	---	---	17.54	---	---	---
HT40	1	5190	45.10	---	---	---	36.24	---	---	---
HT40	1	5230	41.51	---	---	---	36.30	---	---	---

Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

For Frequency band 5725-5850 MHz											
Emission Bandwidth											
Mode	N_{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	6dB BW Limit (MHz)
11a	1	5745	16.53	---	---	---	15.13	---	---	---	0.5
11a	1	5785	16.53	---	---	---	14.38	---	---	---	0.5
11a	1	5825	16.53	---	---	---	15.36	---	---	---	0.5
HT20	1	5745	17.53	---	---	---	15.07	---	---	---	0.5
HT20	1	5785	17.53	---	---	---	15.07	---	---	---	0.5
HT20	1	5825	17.52	---	---	---	15.13	---	---	---	0.5
HT40	1	5755	36.27	---	---	---	35.13	---	---	---	0.5
HT40	1	5795	36.27	---	---	---	35.13	---	---	---	0.5

Worst Plot of 99% Bandwidth	Worst Plot of 6dB Bandwidth
	

3.3 RF Output Power

3.3.1 Limit of RF Output Power

Frequency band 5150-5250 MHz		
Operating Mode		**Limit**
☐	Outdoor access point	Conducted Power: 1 W 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)
☐	Indoor access point	Conducted Power: 1 W
☐	Fixed point-to-point access points	Conducted Power: 1 W
☒	Mobile and portable client devices	Conducted Power: 250 mW

Frequency Band (MHz)		**Limit**
☐	5250 ~ 5350	250mW or 11dBm+10 log B
☐	5470 ~ 5725	250mW or 11dBm+10 log B
☒	5725 ~ 5850	1 W
Note: “B” is the 26dB emission bandwidth in MHz.		

3.3.2 Test Procedures

☒ **Method PM-G (Measurement using a gated RF average power meter)**

☒ Measurements may is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.3.3 Test Setup

3.3.4 Test Result of Maximum Conducted Output Power

For Frequency band 5150-5250 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	1	5180	12.68	---	---	---	18.535	12.68	24.00
11a	1	5200	12.69	---	---	---	18.578	12.69	24.00
11a	1	5240	12.62	---	---	---	18.281	12.62	24.00
HT20	1	5180	12.53	---	---	---	17.906	12.53	24.00
HT20	1	5200	12.44	---	---	---	17.539	12.44	24.00
HT20	1	5240	12.58	---	---	---	18.113	12.58	24.00
HT40	1	5190	12.81	---	---	---	19.099	12.81	24.00
HT40	1	5230	12.86	---	---	---	19.320	12.86	24.00

For Frequency band 5725-5850 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	1	5745	10.16	---	---	---	10.375	10.16	30.00
11a	1	5785	10.05	---	---	---	10.116	10.05	30.00
11a	1	5825	10.01	---	---	---	10.023	10.01	30.00
HT20	1	5745	10.12	---	---	---	10.280	10.12	30.00
HT20	1	5785	10.06	---	---	---	10.139	10.06	30.00
HT20	1	5825	10.02	---	---	---	10.046	10.02	30.00
HT40	1	5755	10.12	---	---	---	10.280	10.12	30.00
HT40	1	5795	10.25	---	---	---	10.593	10.25	30.00

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

Frequency band 5150-5250 MHz		
Operating Mode		**Limit**
☐	Outdoor access point	17 dBm / MHz
☐	Indoor access point	17 dBm / MHz
☐	Fixed point-to-point access points	17 dBm / MHz
☒	Mobile and portable client devices	11 dBm / MHz

Frequency Band (MHz)		**Limit**
☐	5250 ~ 5350	11 dBm / MHz
☐	5470 ~ 5725	11 dBm / MHz
☒	5725 ~ 5850	30 dBm / 500 kHz

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

☒ Method SA-1

1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

☐ Method SA-2 Alternative

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time ≥ 10 * (number of points in sweep) * (total on/off period of the transmitted signal).
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add 10 log(1/x), where x is the duty cycle.

For 5725 ~ 5850 MHz

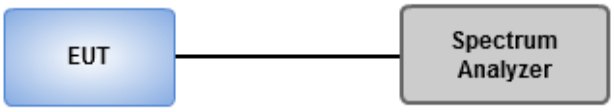
☒ Method SA-1

1. Set RBW = 500 kHz, VBW = 2 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

☐ Method SA-2 Alternative

1. Set RBW = 500 kHz, VBW = 2 MHz, Detector = RMS.
2. Set sweep time ≥ 10 * (number of points in sweep) * (total on/off period of the transmitted signal).
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add 10 log(1/x), where x is the duty cycle.

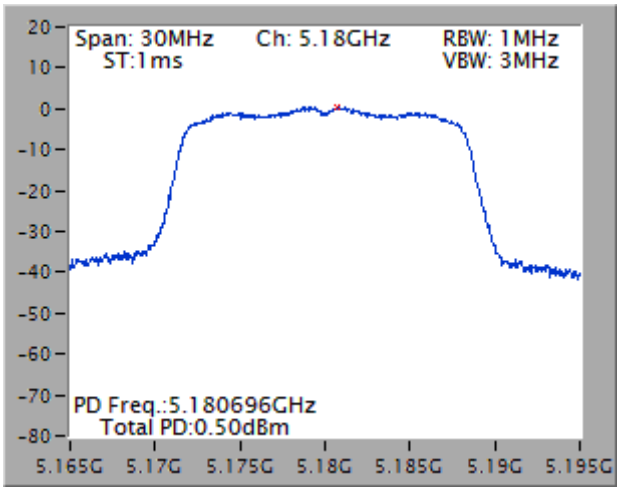
3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

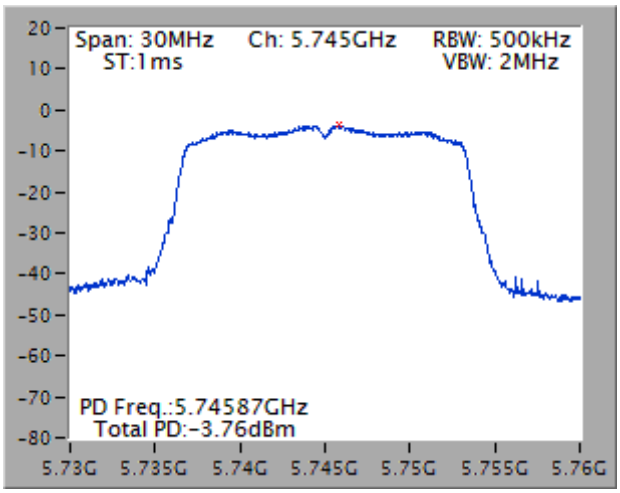
For Frequency band 5150-5250 MHz						
Condition			Peak Power Spectral Density (dBm/MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	1	5180	0.50	0.00	0.50	11
11a	1	5200	0.40	0.00	0.40	11
11a	1	5240	0.11	0.00	0.11	11
HT20	1	5180	0.02	0.00	0.02	11
HT20	1	5200	0.32	0.00	0.32	11
HT20	1	5240	-0.14	0.00	-0.14	11
HT40	1	5190	-2.54	0.00	-2.54	11
HT40	1	5230	-2.67	0.00	-2.67	11

Worst Plot



For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
11a	1	5745	-3.76	0.00	-3.76	30.00
11a	1	5785	-3.94	0.00	-3.94	30.00
11a	1	5825	-4.10	0.00	-4.10	30.00
HT20	1	5745	-3.93	0.00	-3.93	30.00
HT20	1	5785	-4.36	0.00	-4.36	30.00
HT20	1	5825	-4.27	0.00	-4.27	30.00
HT40	1	5755	-6.61	0.00	-6.61	30.00
HT40	1	5795	-6.85	0.00	-6.85	30.00

Worst Plot



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

Restricted Band Emissions Limit			
Frequency Range (MHz)	**Field Strength (uV/m)**	**Field Strength (dBuV/m)**	**Measure Distance (m)**
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit		
Operating Band	**Limit**	
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]	
5.725 - 5.850 GHz	☒	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.
	☐	15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition,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))
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		

3.5.2 Test Procedures

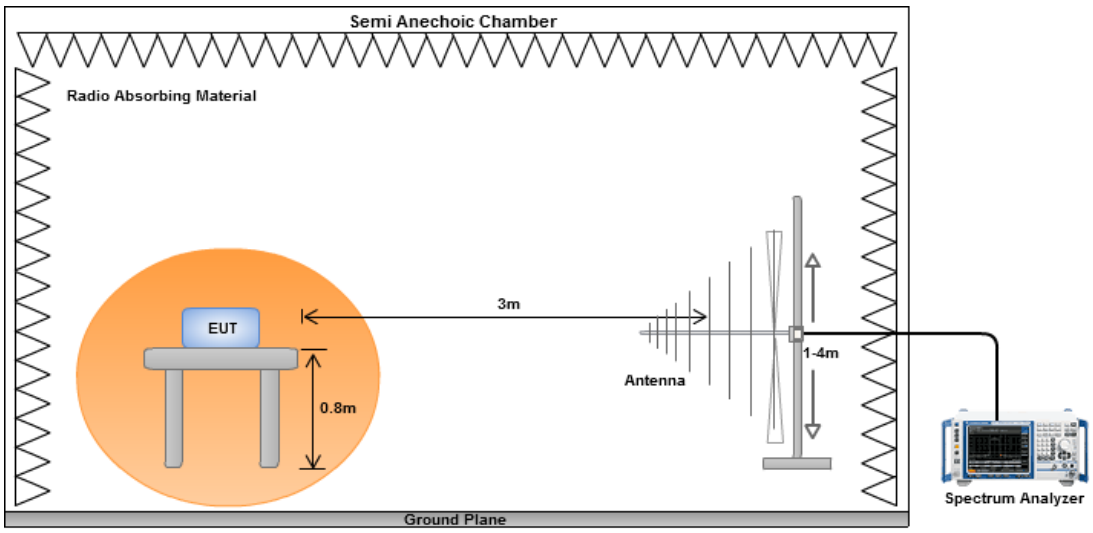
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

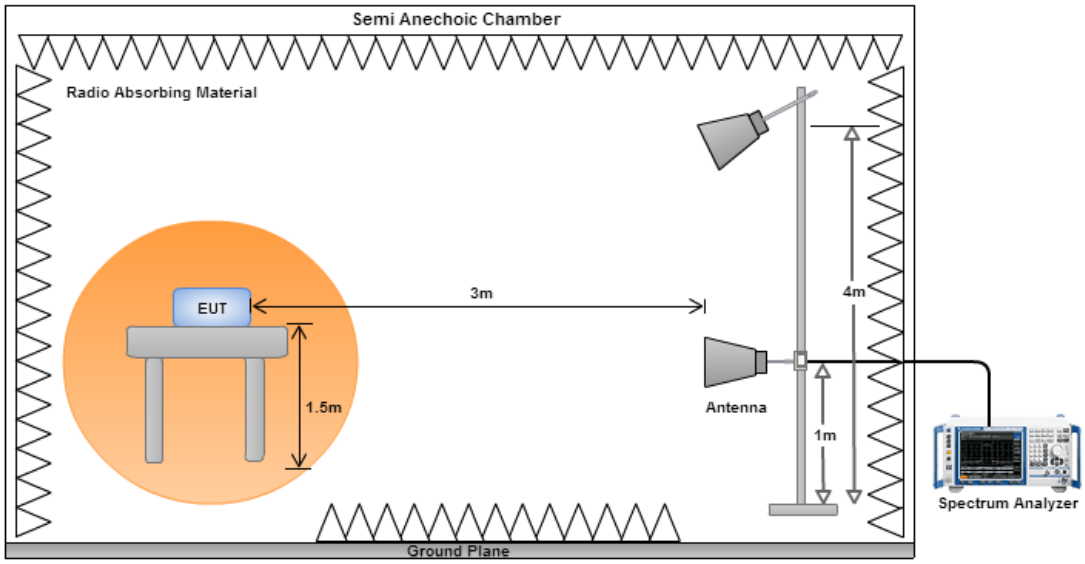
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.5.3 Test Setup

Radiated Emissions below 1 GHz

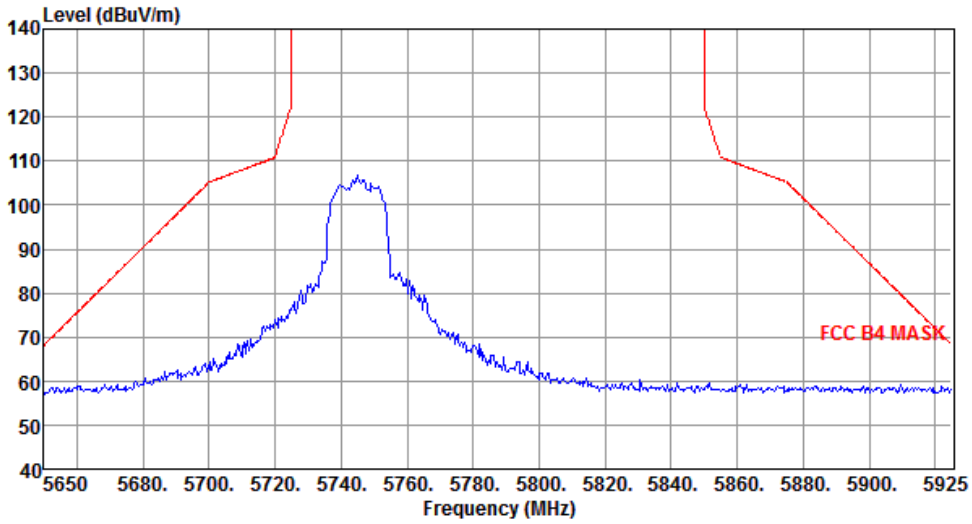


Radiated Emissions above 1 GHz

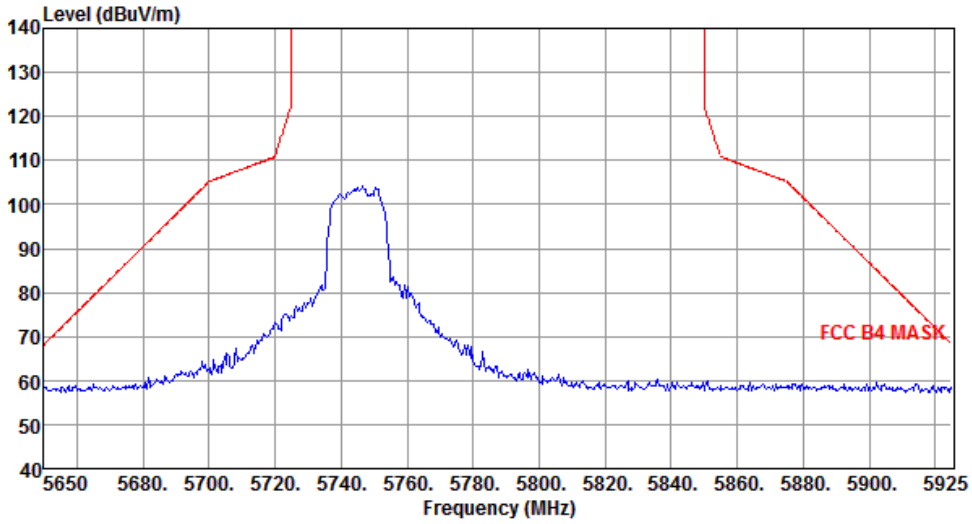


3.5.4 Transmitter Radiated Band Edge for 11a

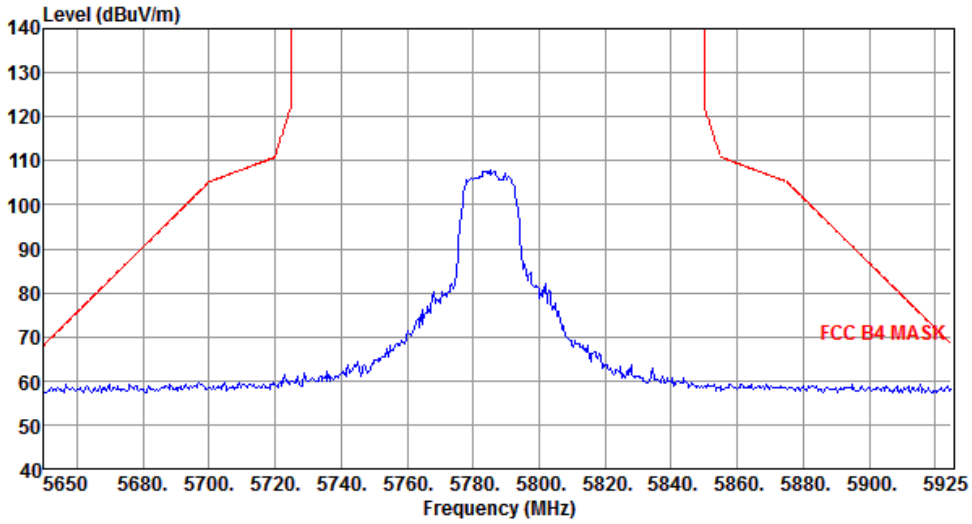
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



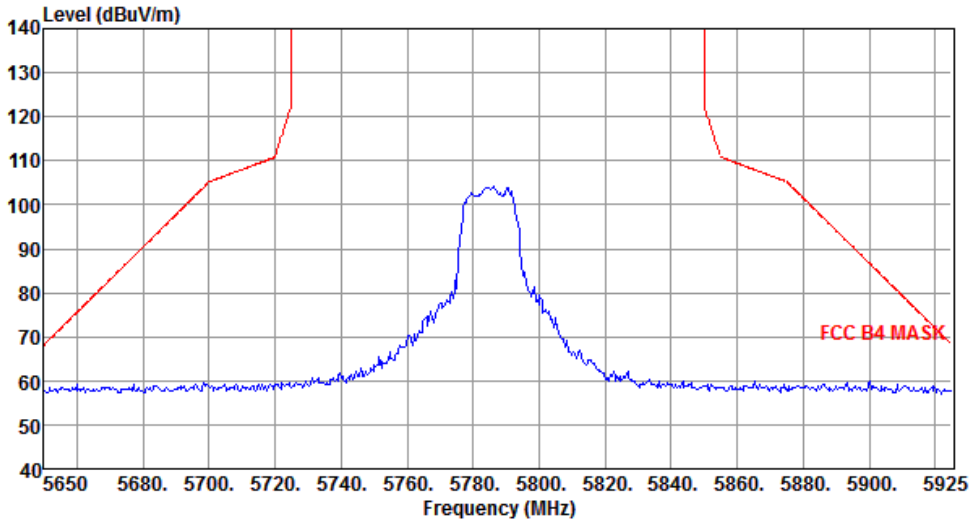
Modulation	11a	**Test Freq. (MHz)**	5745
Polarization	Vertical		



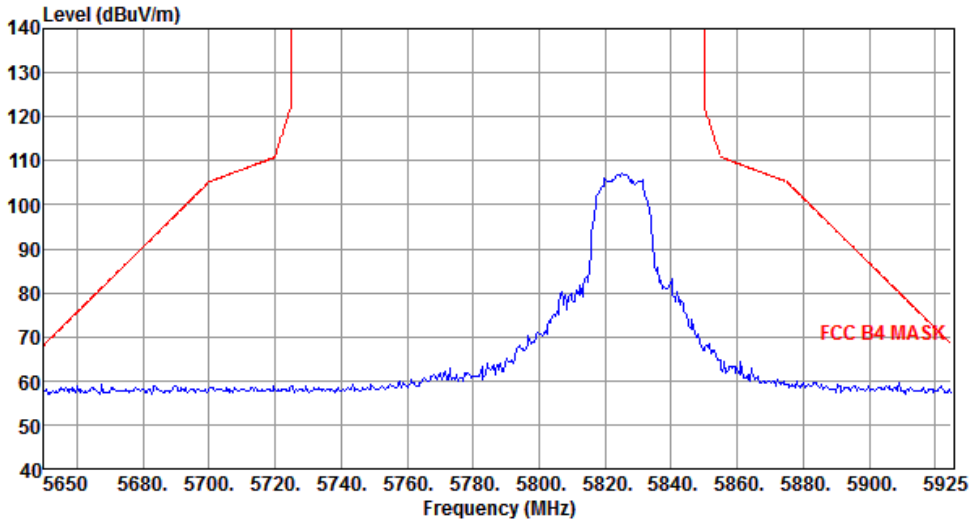
Modulation	11a	**Test Freq. (MHz)**	5785
Polarization	Horizontal		



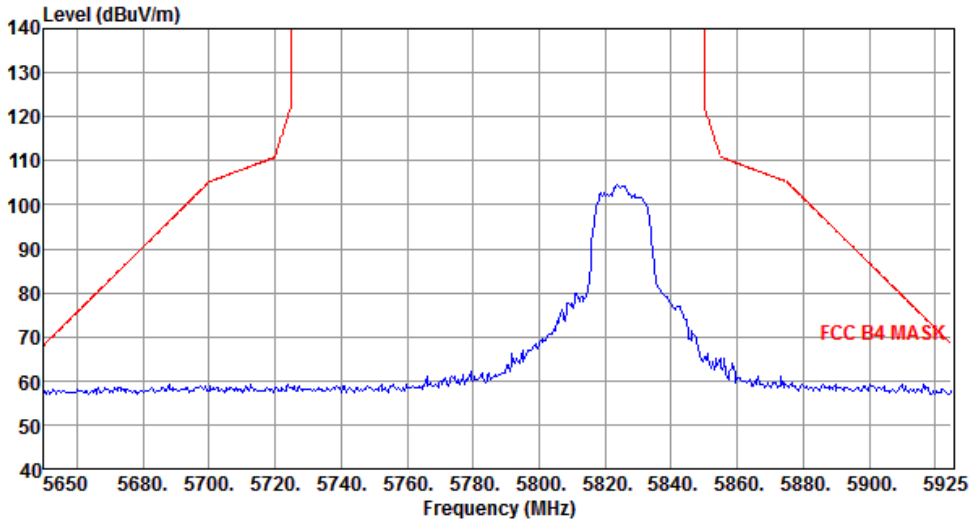
Modulation	11a	**Test Freq. (MHz)**	5785
Polarization	Vertical		



Modulation	11a	**Test Freq. (MHz)**	5825
Polarization	Horizontal		

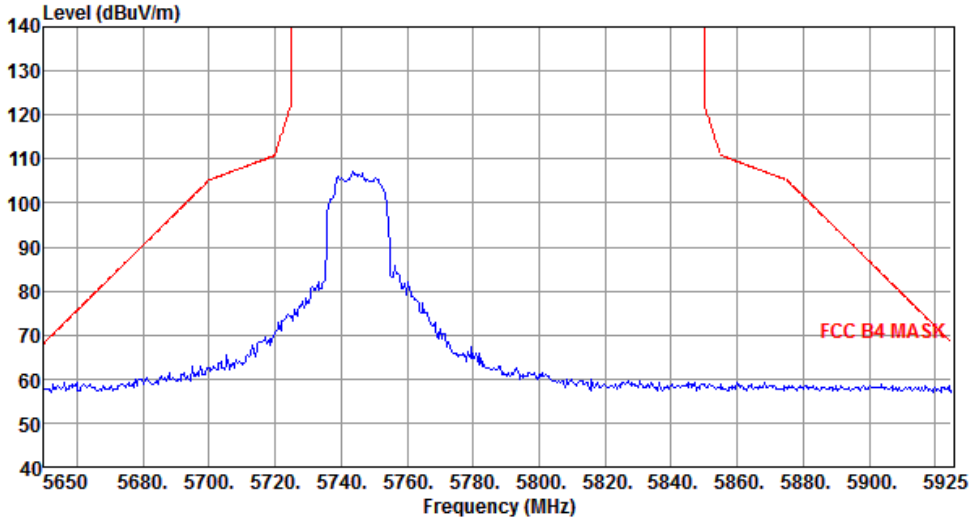


Modulation	11a	**Test Freq. (MHz)**	5825
Polarization	Vertical		

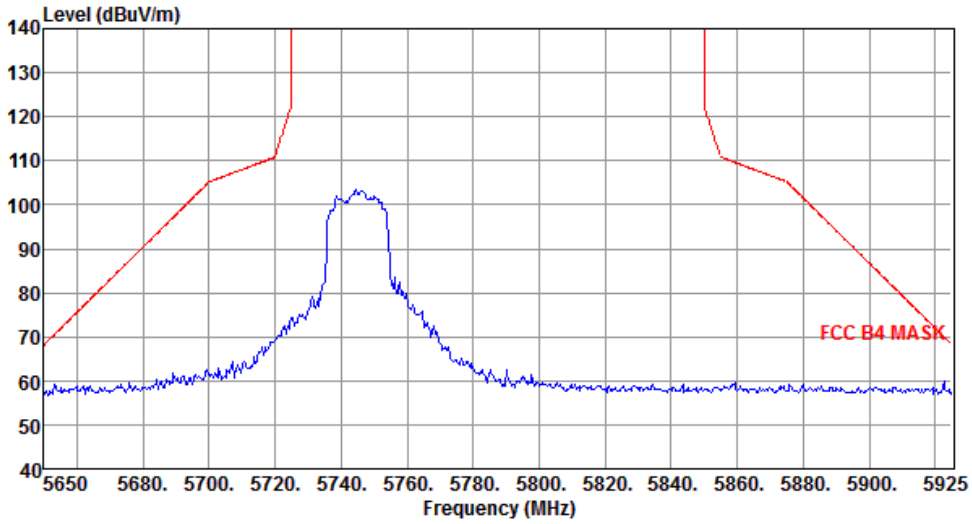


3.5.5 Transmitter Radiated Band Edge for HT20

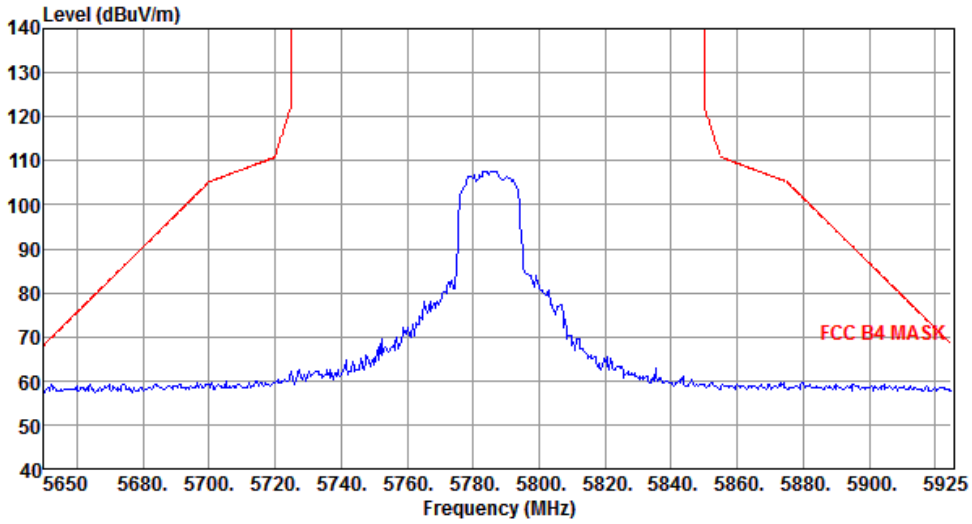
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



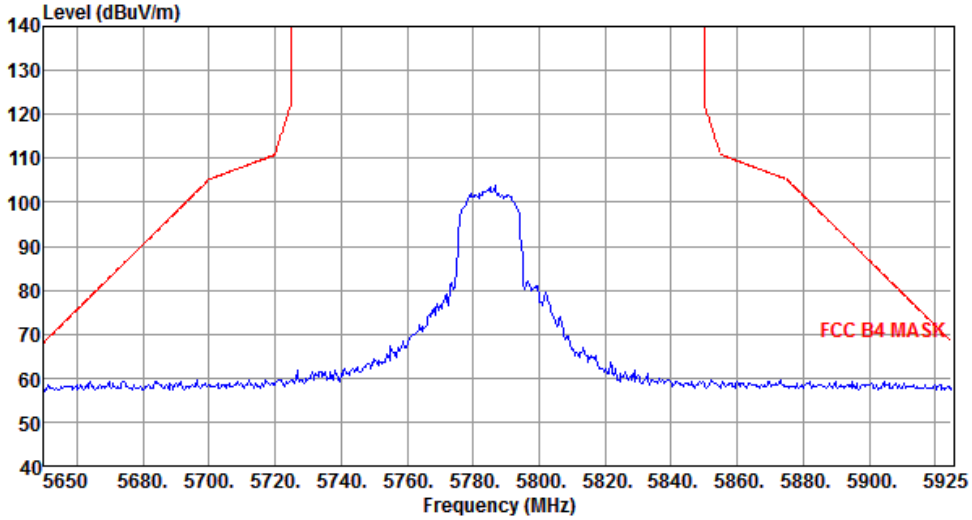
Modulation	HT20	**Test Freq. (MHz)**	5745
Polarization	Vertical		



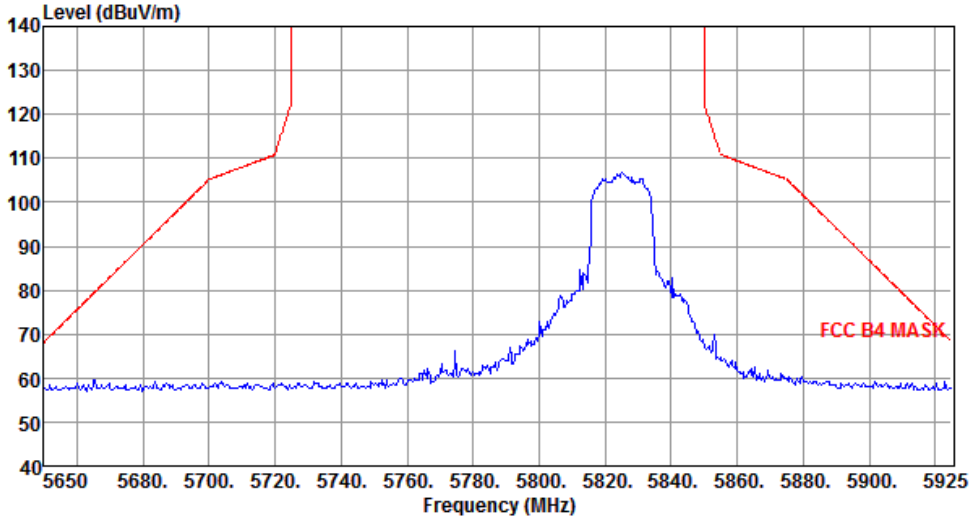
Modulation	HT20	**Test Freq. (MHz)**	5785
Polarization	Horizontal		



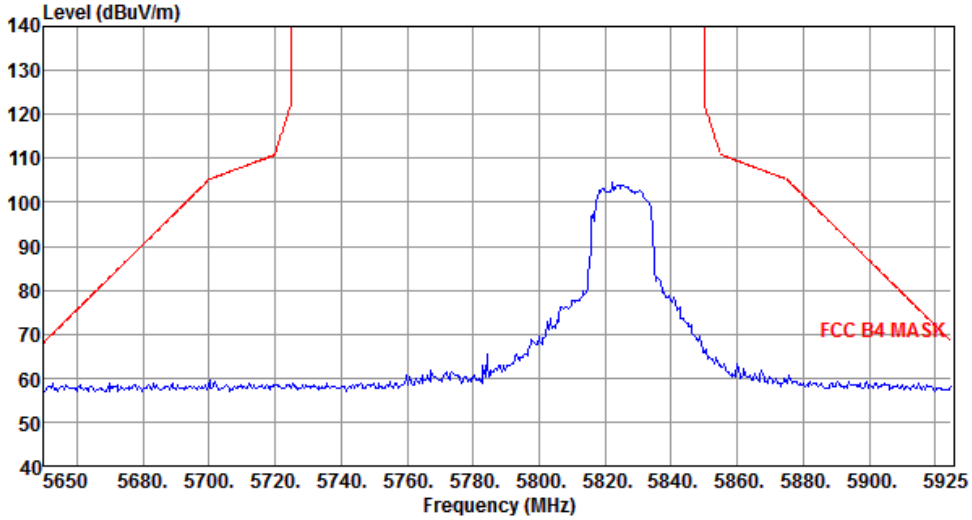
Modulation	HT20	**Test Freq. (MHz)**	5785
Polarization	Vertical		



Modulation	HT20	**Test Freq. (MHz)**	5825
Polarization	Horizontal		

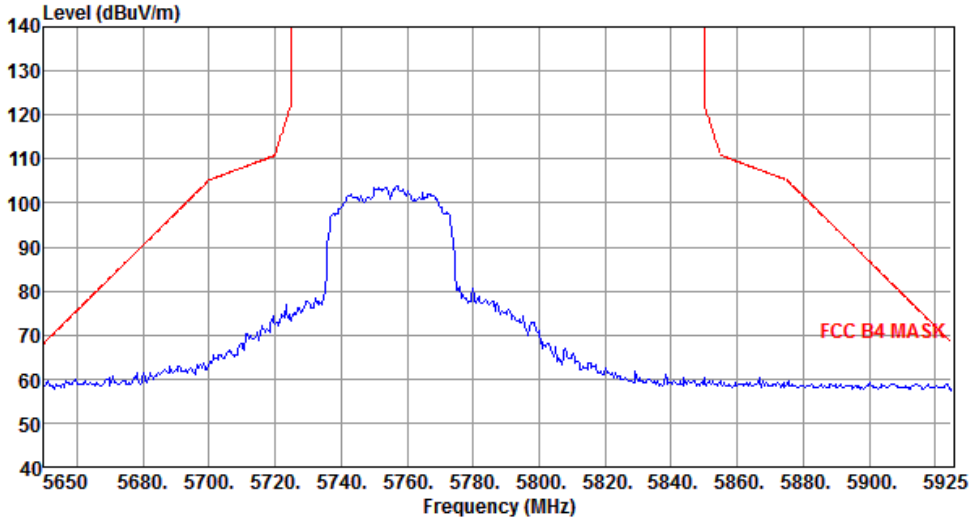


Modulation	HT20	**Test Freq. (MHz)**	5825
Polarization	Vertical		

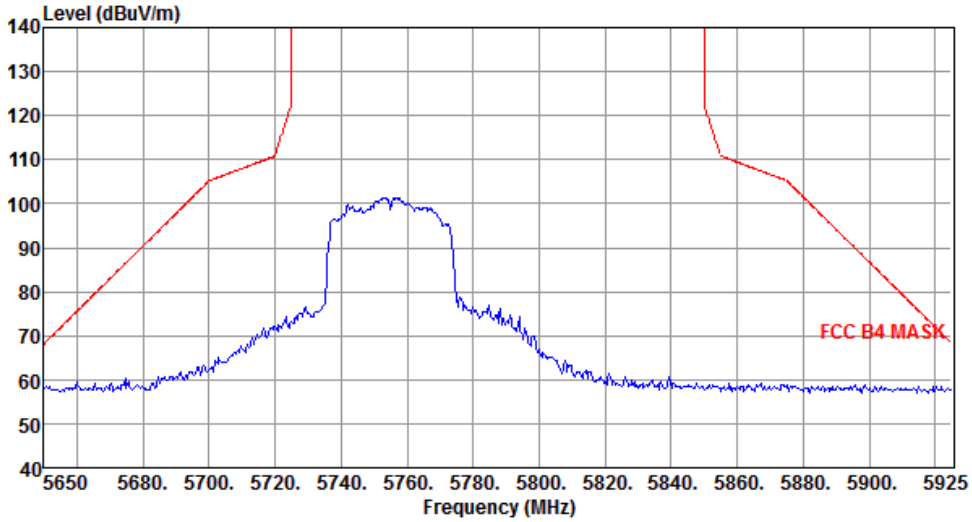


3.5.6 Transmitter Radiated Band Edge for HT40

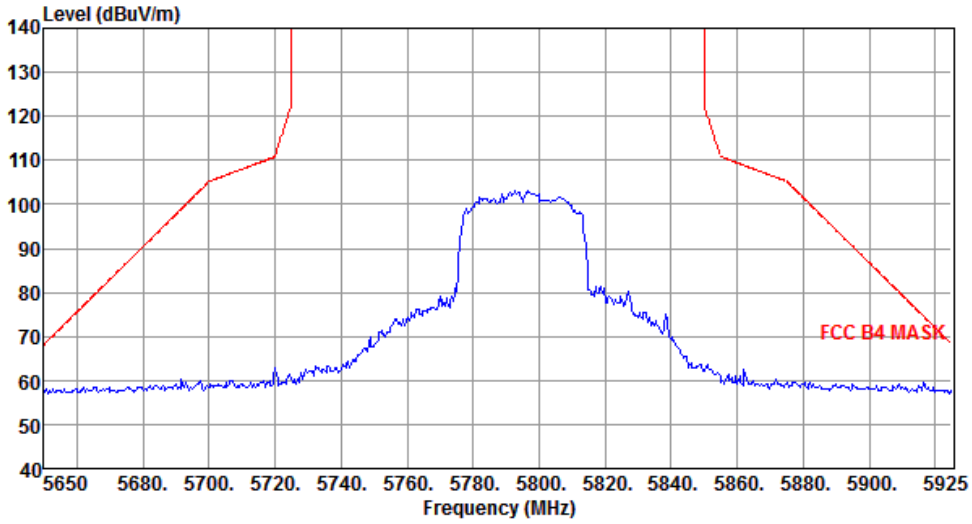
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



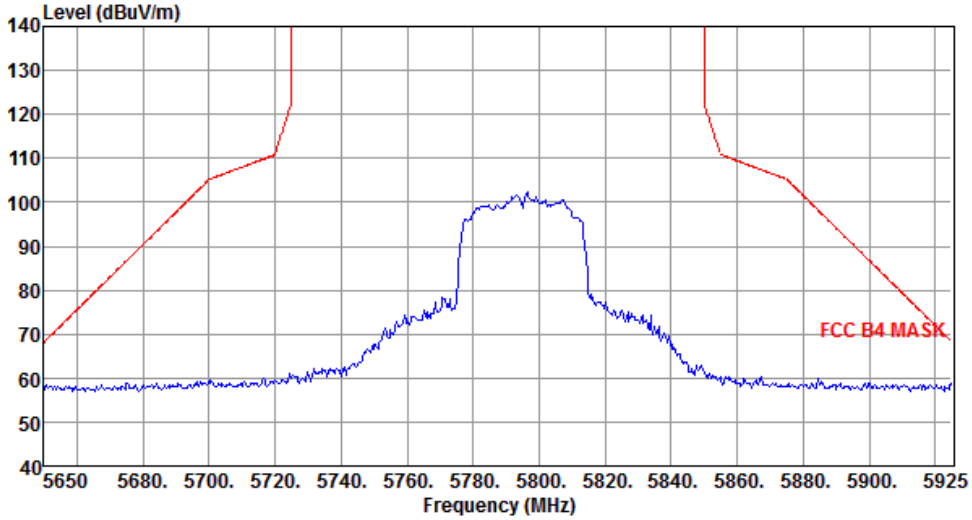
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Vertical		



Modulation	HT40	**Test Freq. (MHz)**	5795
Polarization	Horizontal		

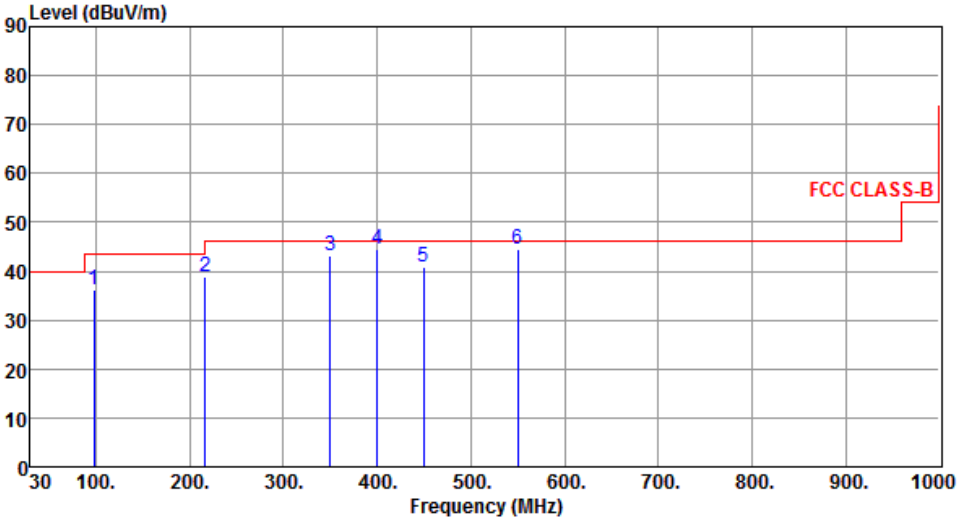


Modulation	HT40	**Test Freq. (MHz)**	5795
Polarization	Vertical		



3.5.7 Transmitter Radiated Unwanted Emissions (Below 1GHz)

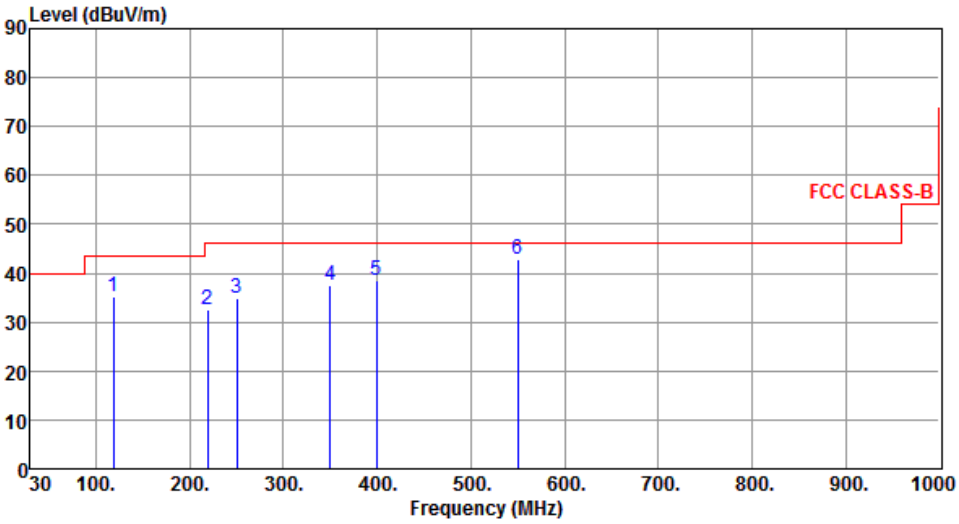
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	97.90	36.22	43.50	-7.28	49.56	-13.34	Peak	---	---
2	216.24	38.88	46.00	-7.12	49.72	-10.84	Peak	---	---
3	350.10	43.10	46.00	-2.90	49.55	-6.45	Peak	---	---
4	400.00	44.46	46.00	-1.54	49.66	-5.20	QP	100	155
5	450.01	40.69	46.00	-5.31	44.69	-4.00	Peak	---	---
6	550.00	44.38	46.00	-1.62	46.50	-2.12	QP	150	150

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

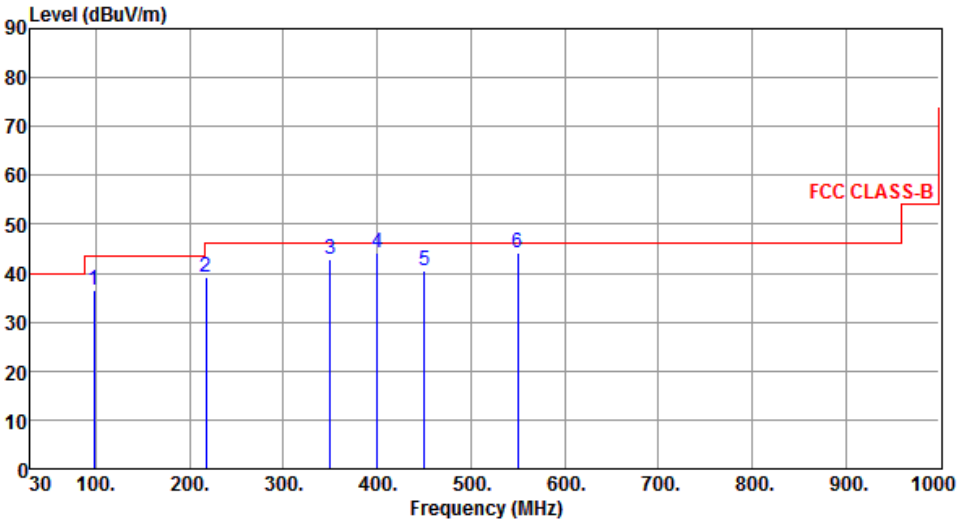
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	118.27	35.21	43.50	-8.29	45.68	-10.47	Peak	---	---
2	219.15	32.66	46.00	-13.34	43.51	-10.85	Peak	---	---
3	250.19	34.79	46.00	-11.21	44.18	-9.39	Peak	---	---
4	350.10	37.38	46.00	-8.62	43.83	-6.45	Peak	---	---
5	399.57	38.46	46.00	-7.54	43.67	-5.21	Peak	---	---
6	549.92	42.98	46.00	-3.02	45.10	-2.12	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

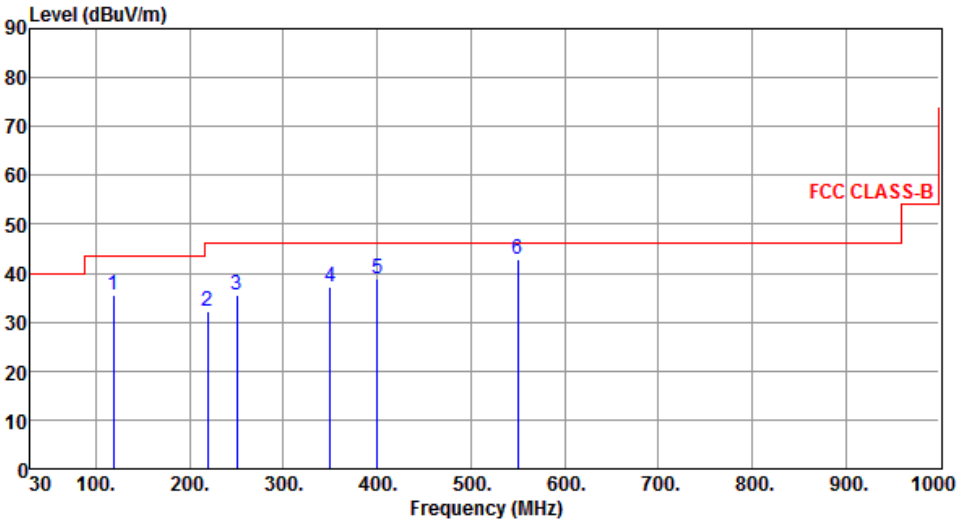
Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.27	36.46	43.50	-7.04	49.75	-13.29	Peak	---	---
2	217.12	39.25	46.00	-6.75	50.10	-10.85	Peak	---	---
3	350.17	42.74	46.00	-3.26	49.19	-6.45	Peak	---	---
4	400.05	44.05	46.00	-1.95	49.25	-5.20	QP	100	155
5	450.34	40.58	46.00	-5.42	44.57	-3.99	Peak	---	---
6	550.06	44.01	46.00	-1.99	46.13	-2.12	QP	152	151

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Vertical		

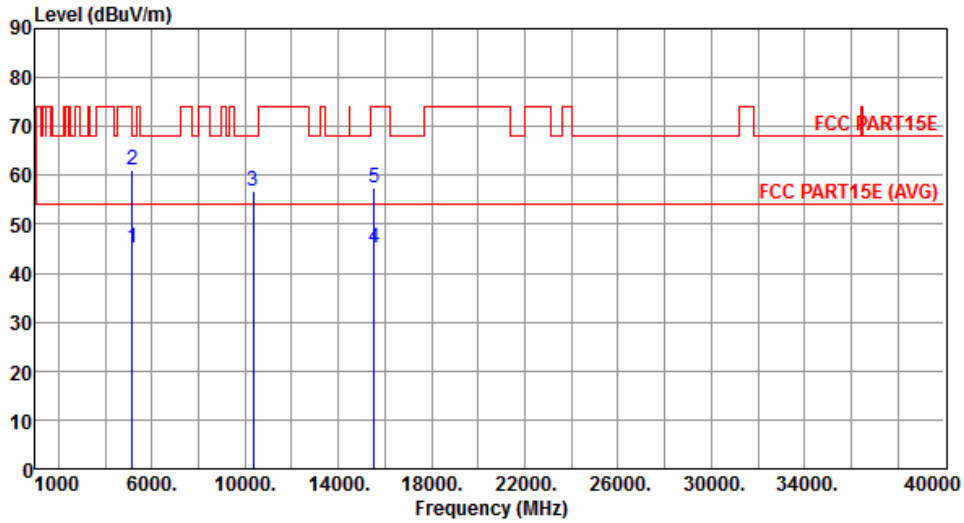


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	118.37	35.45	43.50	-8.05	45.91	-10.46	Peak	---	---
2	219.14	32.26	46.00	-13.74	43.11	-10.85	Peak	---	---
3	250.68	35.58	46.00	-10.42	44.96	-9.38	Peak	---	---
4	350.03	37.22	46.00	-8.78	43.67	-6.45	Peak	---	---
5	399.97	38.93	46.00	-7.07	44.13	-5.20	Peak	---	---
6	550.02	42.69	46.00	-3.31	44.81	-2.12	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

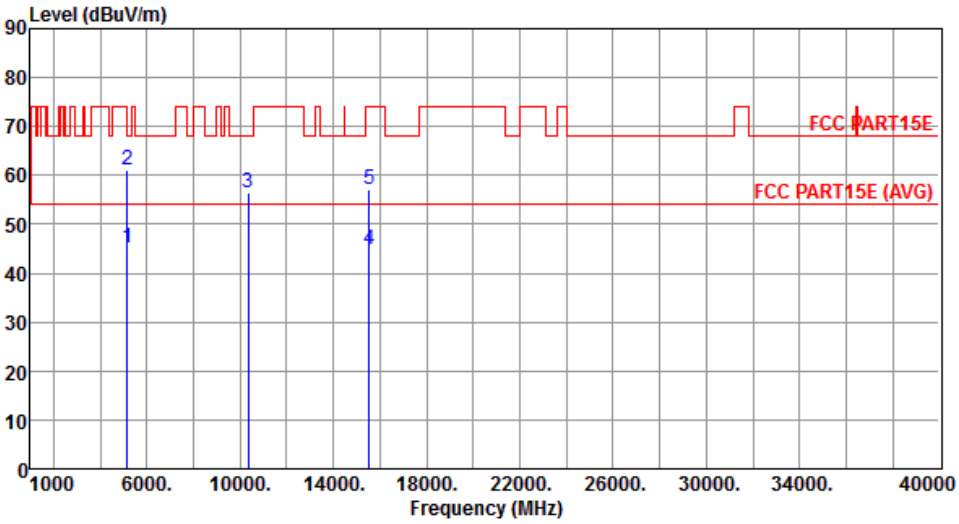
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.07	54.00	-8.93	40.67	4.40	Average	400	285
2	5150.00	61.10	74.00	-12.90	56.70	4.40	Peak	400	285
3	10360.00	56.79	68.20	-11.41	42.59	14.20	Peak	100	146
4	15540.00	45.09	54.00	-8.91	29.98	15.11	Average	100	188
5	15540.00	57.48	74.00	-16.52	42.37	15.11	Peak	100	188

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

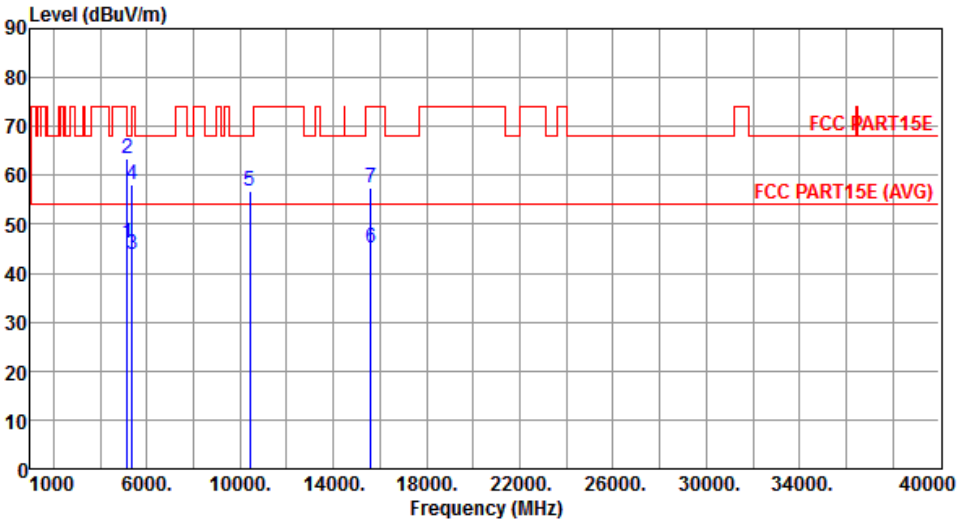
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.16	54.00	-8.84	40.76	4.40	Average	382	232
2	5150.00	61.13	74.00	-12.87	56.73	4.40	Peak	382	232
3	10360.00	56.62	68.20	-11.58	42.42	14.20	Peak	100	132
4	15540.00	44.88	54.00	-9.12	29.77	15.11	Average	100	112
5	15540.00	57.26	74.00	-16.74	42.15	15.11	Peak	100	112

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

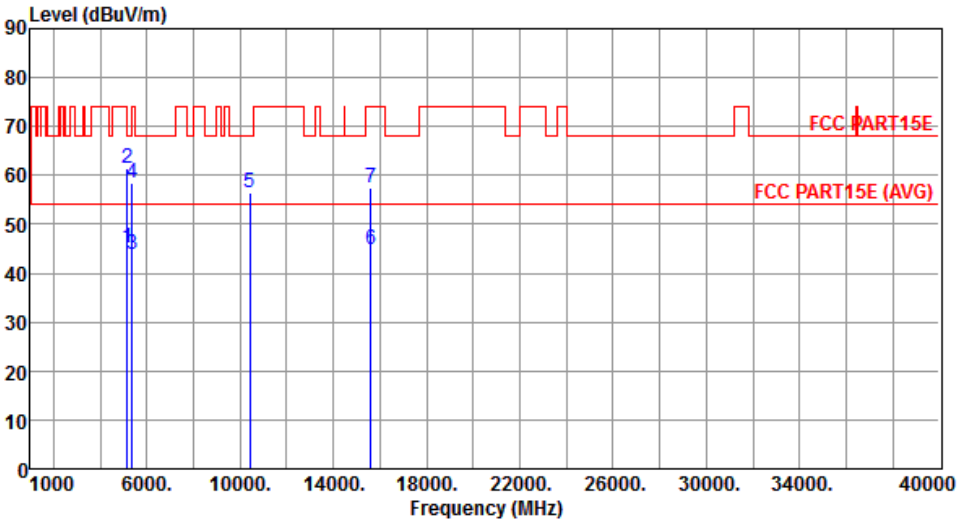
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.23	54.00	-7.77	41.83	4.40	Average	397	285
2	5150.00	63.53	74.00	-10.47	59.13	4.40	Peak	397	285
3	5350.00	43.86	54.00	-10.14	39.22	4.64	Average	397	285
4	5350.00	57.98	74.00	-16.02	53.34	4.64	Peak	397	285
5	10400.00	56.83	68.20	-11.37	42.55	14.28	Peak	100	155
6	15600.00	45.14	54.00	-8.86	30.12	15.02	Average	100	185
7	15600.00	57.56	74.00	-16.44	42.54	15.02	Peak	100	185

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

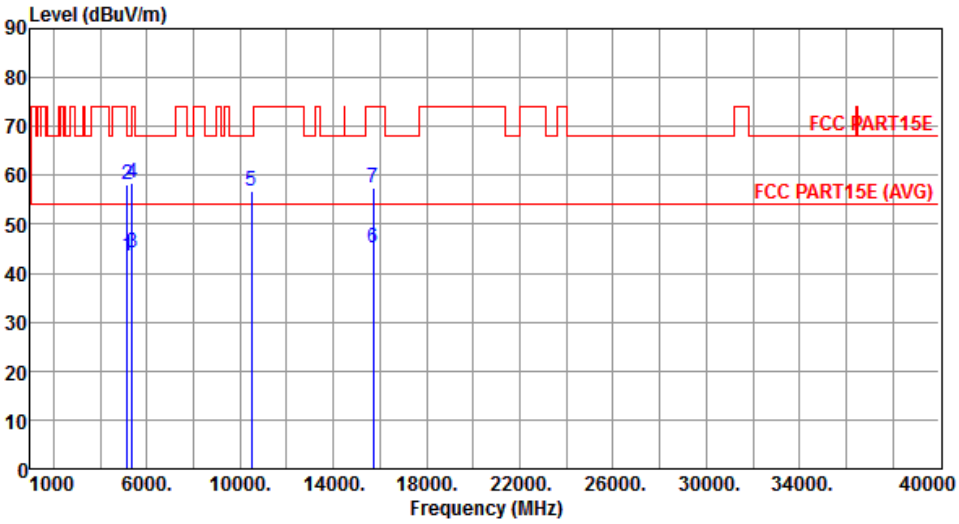
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.11	54.00	-8.89	40.71	4.40	Average	397	227
2	5150.00	61.30	74.00	-12.70	56.90	4.40	Peak	397	227
3	5350.00	43.91	54.00	-10.09	39.27	4.64	Average	397	227
4	5350.00	58.36	74.00	-15.64	53.72	4.64	Peak	397	227
5	10400.00	56.54	68.20	-11.66	42.26	14.28	Peak	100	139
6	15600.00	44.72	54.00	-9.28	29.70	15.02	Average	100	128
7	15600.00	57.31	74.00	-16.69	42.29	15.02	Peak	100	128

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

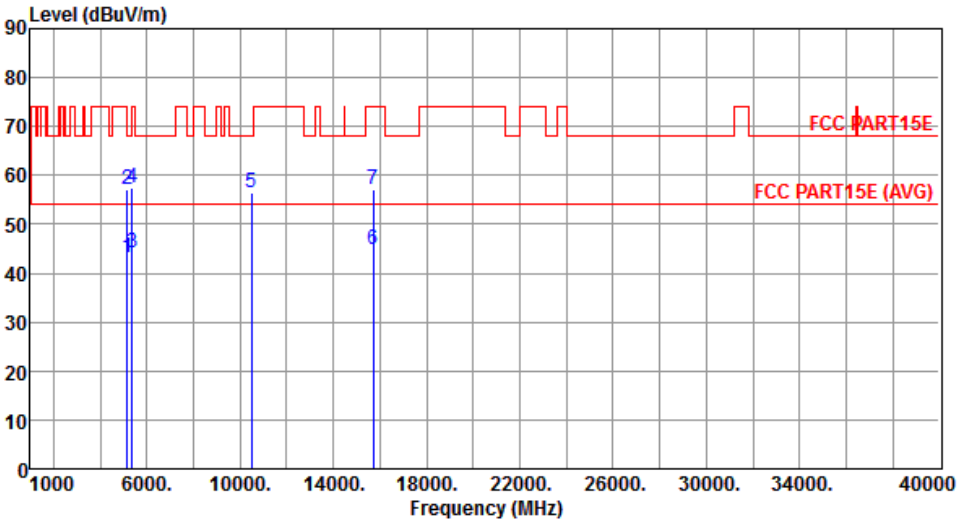
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.35	54.00	-10.65	38.95	4.40	Average	367	283
2	5150.00	58.20	74.00	-15.80	53.80	4.40	Peak	367	283
3	5350.00	44.18	54.00	-9.82	39.54	4.64	Average	367	283
4	5350.00	58.39	74.00	-15.61	53.75	4.64	Peak	367	283
5	10480.00	56.71	68.20	-11.49	42.28	14.43	Peak	100	152
6	15720.00	45.02	54.00	-8.98	30.15	14.87	Average	100	190
7	15720.00	57.39	74.00	-16.61	42.52	14.87	Peak	100	190

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

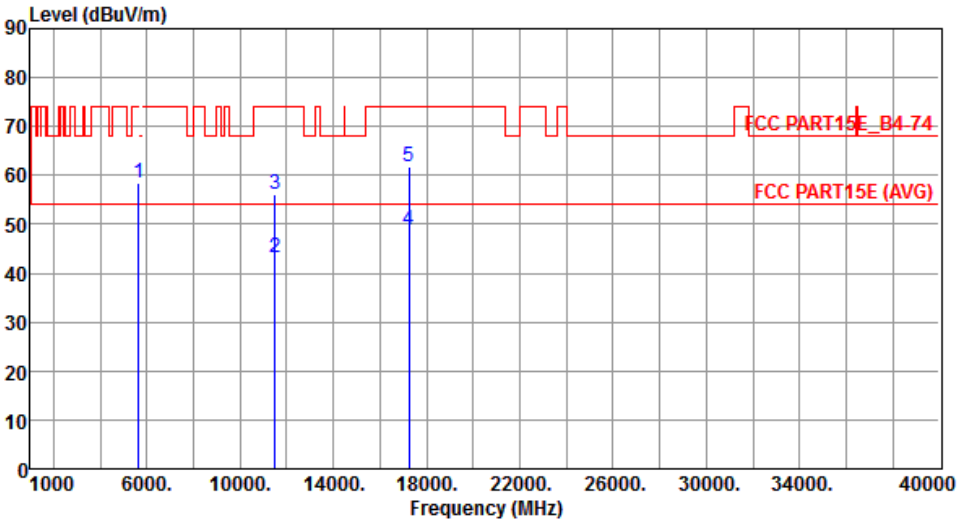
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.30	54.00	-10.70	38.90	4.40	Average	389	228
2	5150.00	57.22	74.00	-16.78	52.82	4.40	Peak	389	228
3	5350.00	44.10	54.00	-9.90	39.46	4.64	Average	389	228
4	5350.00	57.56	74.00	-16.44	52.92	4.64	Peak	389	228
5	10480.00	56.52	68.20	-11.68	42.09	14.43	Peak	100	135
6	15720.00	44.83	54.00	-9.17	29.96	14.87	Average	100	116
7	15720.00	57.13	74.00	-16.87	42.26	14.87	Peak	100	116

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

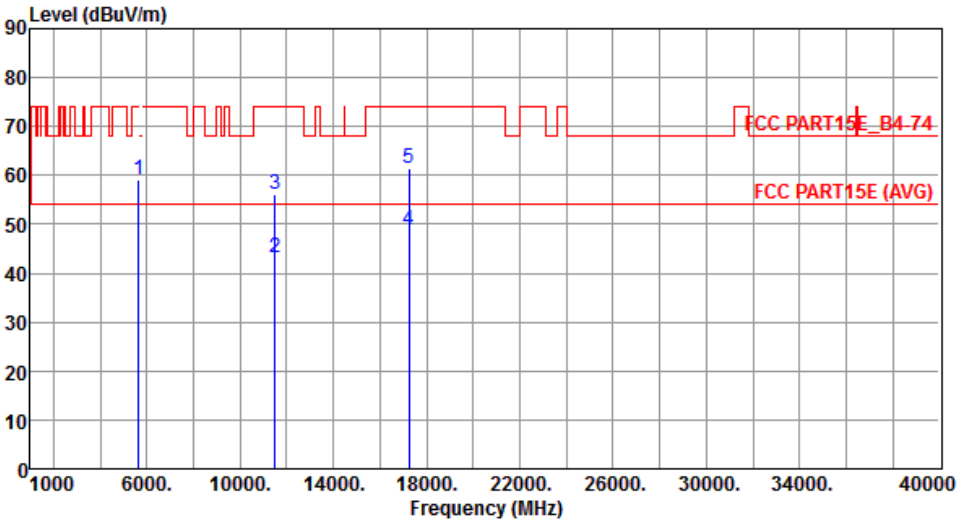
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.53	74.00	-15.47	53.53	5.00	Peak	398	131
2	11490.00	43.31	54.00	-10.69	27.78	15.53	Average	100	318
3	11490.00	56.08	74.00	-17.92	40.55	15.53	Peak	100	318
4	17235.00	48.86	54.00	-5.14	29.99	18.87	Average	100	292
5	17235.00	61.68	74.00	-12.32	42.81	18.87	Peak	100	292

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

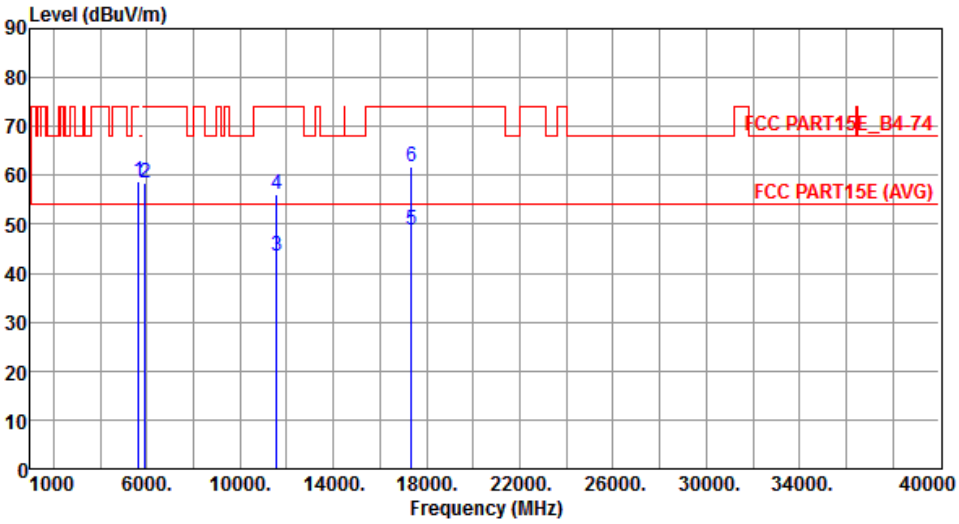
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.22	74.00	-14.78	54.22	5.00	Peak	383	57
2	11490.00	43.20	54.00	-10.80	27.67	15.53	Average	100	244
3	11490.00	56.00	74.00	-18.00	40.47	15.53	Peak	100	244
4	17235.00	48.73	54.00	-5.27	29.86	18.87	Average	100	303
5	17235.00	61.57	74.00	-12.43	42.70	18.87	Peak	100	303

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

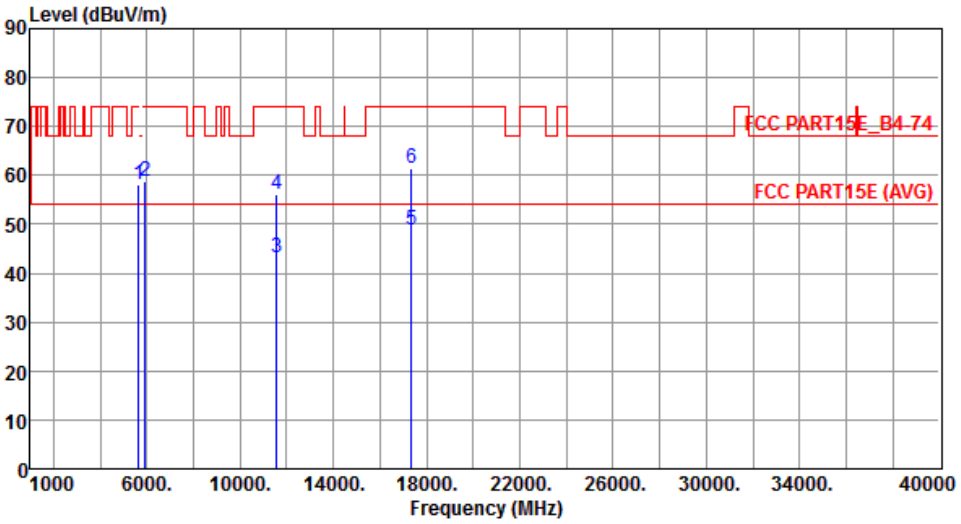
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.69	74.00	-15.31	53.69	5.00	Peak	395	135
2	5925.00	58.54	74.00	-15.46	53.20	5.34	Peak	395	135
3	11570.00	43.38	54.00	-10.62	28.05	15.33	Average	100	330
4	11570.00	56.16	74.00	-17.84	40.83	15.33	Peak	100	330
5	17355.00	48.97	54.00	-5.03	29.76	19.21	Average	100	283
6	17355.00	61.73	74.00	-12.27	42.52	19.21	Peak	100	283

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

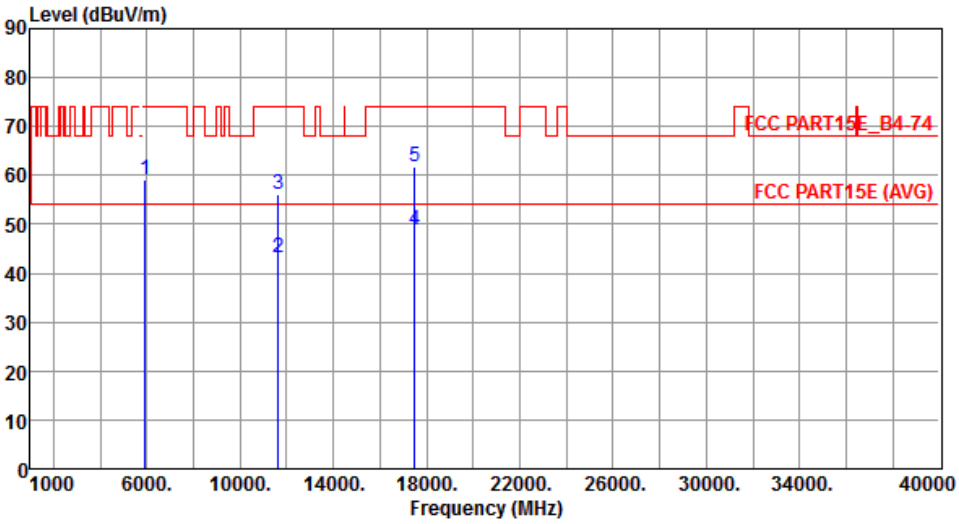
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.26	74.00	-15.74	53.26	5.00	Peak	360	58
2	5925.00	58.78	74.00	-15.22	53.44	5.34	Peak	360	58
3	11570.00	43.21	54.00	-10.79	27.88	15.33	Average	100	250
4	11570.00	56.06	74.00	-17.94	40.73	15.33	Peak	100	250
5	17355.00	48.82	54.00	-5.18	29.61	19.21	Average	100	315
6	17355.00	61.58	74.00	-12.42	42.37	19.21	Peak	100	315

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

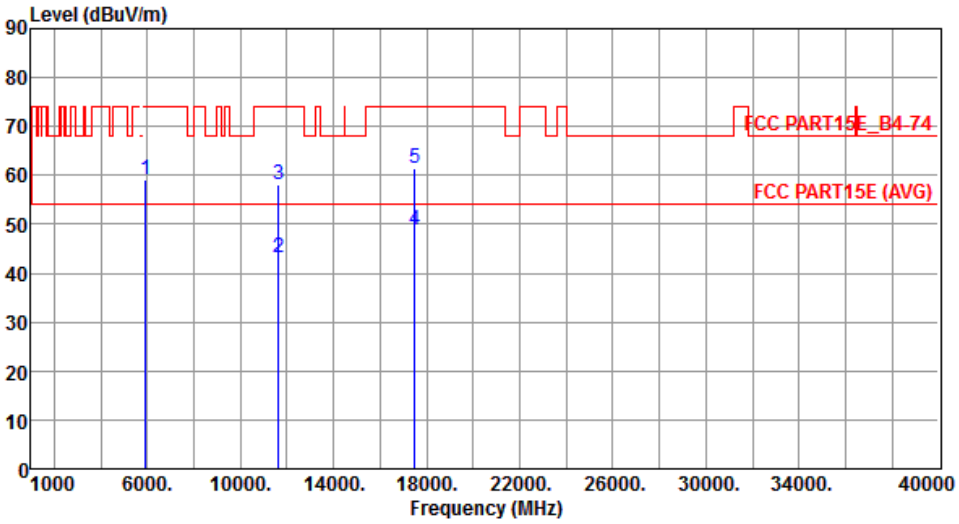
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	59.01	74.00	-14.99	53.67	5.34	Peak	380	121
2	11650.00	43.29	54.00	-10.71	28.20	15.09	Average	100	313
3	11650.00	56.06	74.00	-17.94	40.97	15.09	Peak	100	313
4	17475.00	48.86	54.00	-5.14	29.31	19.55	Average	100	289
5	17475.00	61.65	74.00	-12.35	42.10	19.55	Peak	100	289

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		

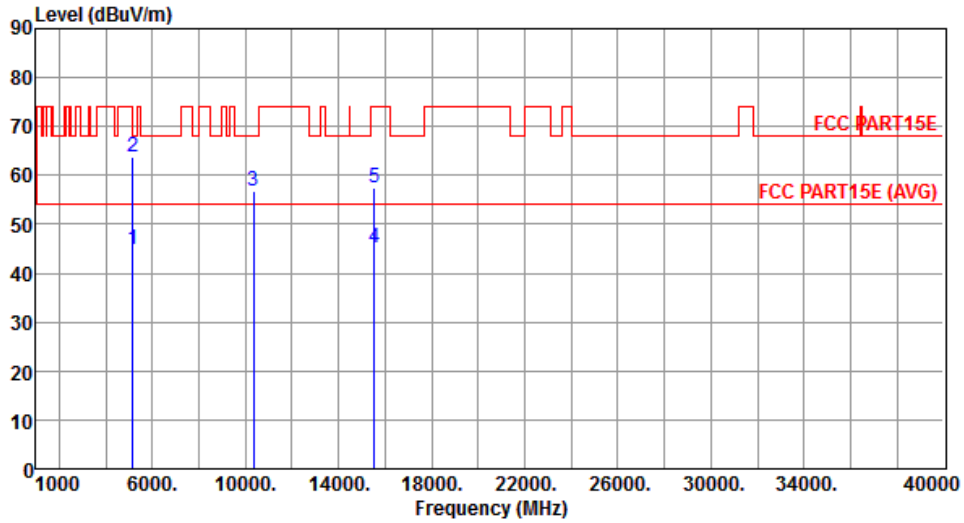


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	59.09	74.00	-14.91	53.75	5.34	Peak	387	56
2	11650.00	43.12	54.00	-10.88	28.03	15.09	Average	100	241
3	11650.00	57.98	74.00	-16.02	42.89	15.09	Peak	100	241
4	17475.00	48.79	54.00	-5.21	29.24	19.55	Average	100	299
5	17475.00	61.54	74.00	-12.46	41.99	19.55	Peak	100	299

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.9 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT20

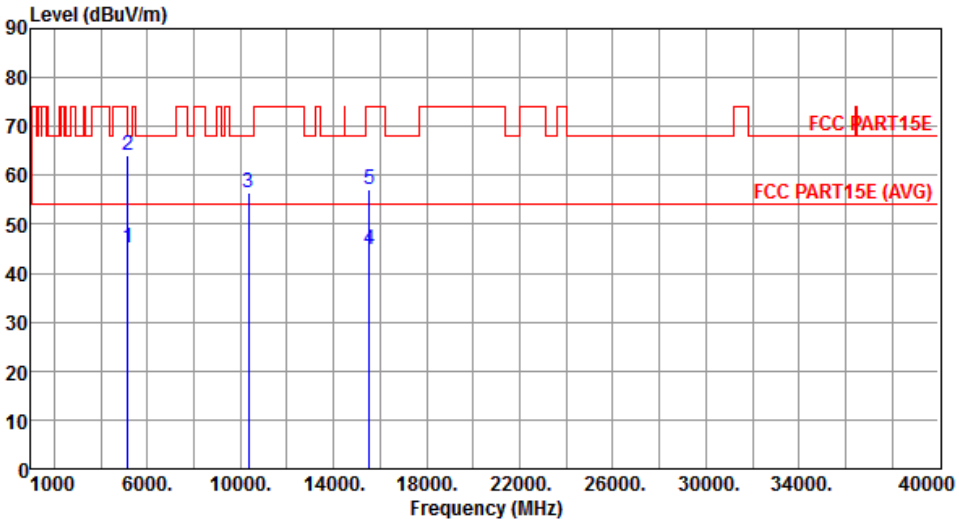
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.86	54.00	-9.14	40.46	4.40	Average	398	282
2	5150.00	63.92	74.00	-10.08	59.52	4.40	Peak	398	282
3	10360.00	56.64	68.20	-11.56	42.44	14.20	Peak	100	152
4	15540.00	45.01	54.00	-8.99	29.90	15.11	Average	100	186
5	15540.00	57.39	74.00	-16.61	42.28	15.11	Peak	100	186

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

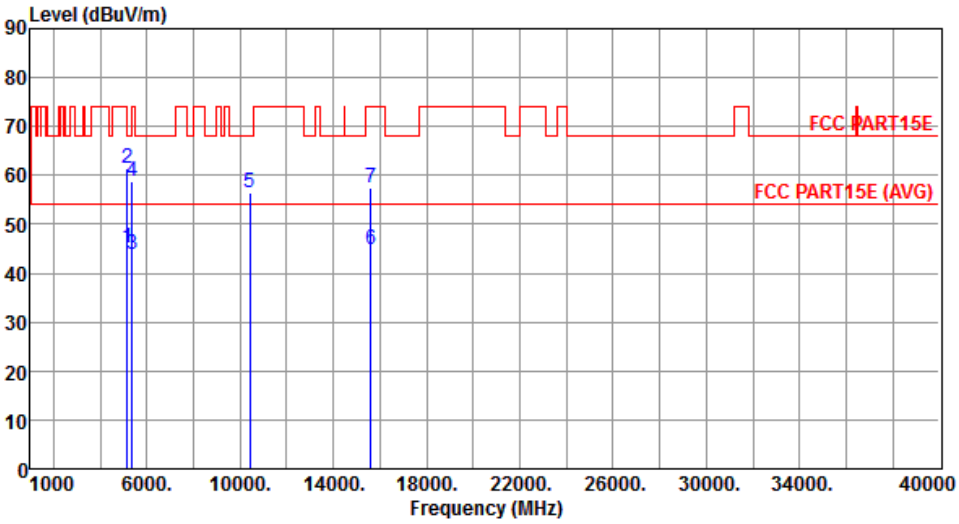
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.05	54.00	-8.95	40.65	4.40	Average	385	233
2	5150.00	64.09	74.00	-9.91	59.69	4.40	Peak	385	233
3	10360.00	56.48	68.20	-11.72	42.28	14.20	Peak	100	136
4	15540.00	44.73	54.00	-9.27	29.62	15.11	Average	100	115
5	15540.00	57.11	74.00	-16.89	42.00	15.11	Peak	100	115

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

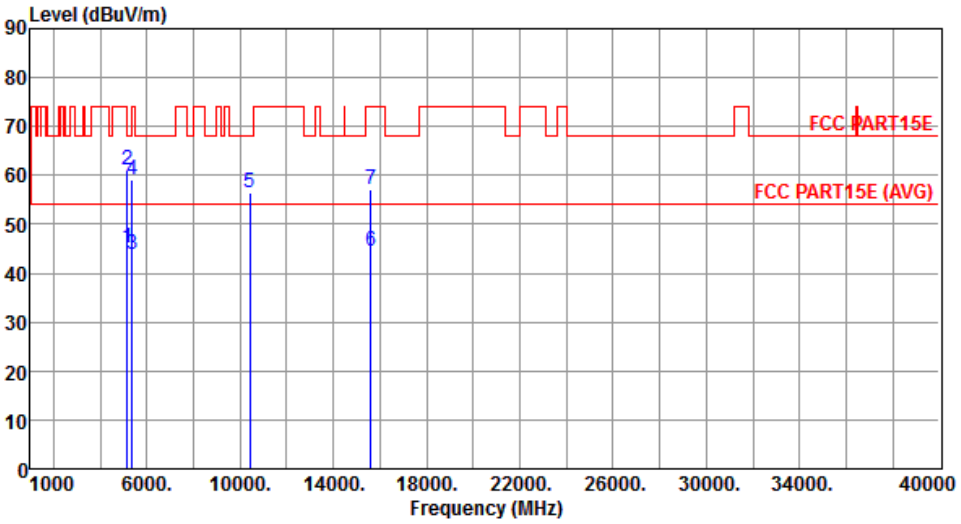
Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.20	54.00	-8.80	40.80	4.40	Average	398	285
2	5150.00	61.31	74.00	-12.69	56.91	4.40	Peak	398	285
3	5350.00	43.68	54.00	-10.32	39.04	4.64	Average	398	285
4	5350.00	58.77	74.00	-15.23	54.13	4.64	Peak	398	285
5	10400.00	56.50	68.20	-11.70	42.22	14.28	Peak	100	151
6	15600.00	44.96	54.00	-9.04	29.94	15.02	Average	100	187
7	15600.00	57.33	74.00	-16.67	42.31	15.02	Peak	100	188

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

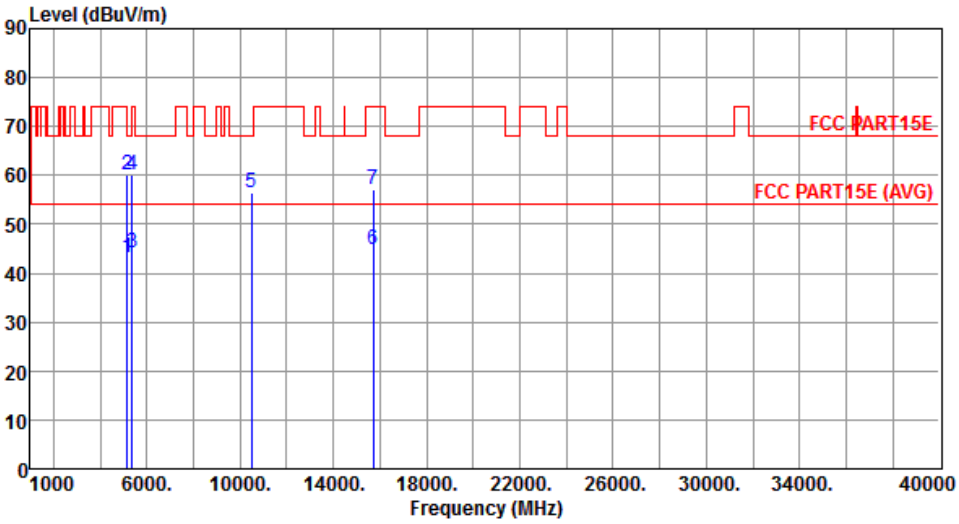
Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.02	54.00	-8.98	40.62	4.40	Average	394	224
2	5150.00	61.18	74.00	-12.82	56.78	4.40	Peak	394	224
3	5350.00	43.75	54.00	-10.25	39.11	4.64	Average	394	224
4	5350.00	59.18	74.00	-14.82	54.54	4.64	Peak	394	224
5	10400.00	56.38	68.20	-11.82	42.10	14.28	Peak	100	142
6	15600.00	44.55	54.00	-9.45	29.53	15.02	Average	100	131
7	15600.00	57.16	74.00	-16.84	42.14	15.02	Peak	100	131

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

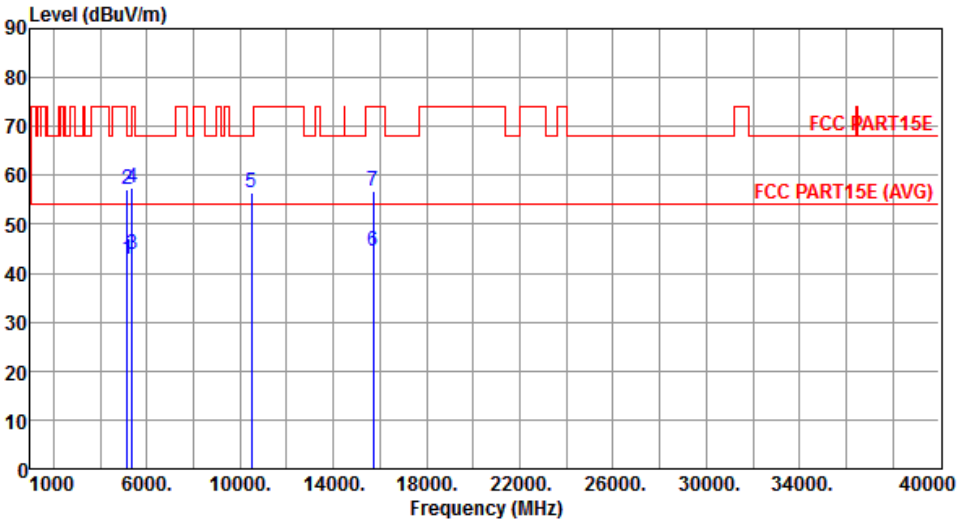
Modulation	HT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.08	54.00	-10.92	38.68	4.40	Average	370	282
2	5150.00	59.96	74.00	-14.04	55.56	4.40	Peak	370	282
3	5350.00	44.13	54.00	-9.87	39.49	4.64	Average	370	282
4	5350.00	60.12	74.00	-13.88	55.48	4.64	Peak	370	282
5	10480.00	56.47	68.20	-11.73	42.04	14.43	Peak	100	153
6	15720.00	44.88	54.00	-9.12	30.01	14.87	Average	100	188
7	15720.00	57.17	74.00	-16.83	42.30	14.87	Peak	100	188

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

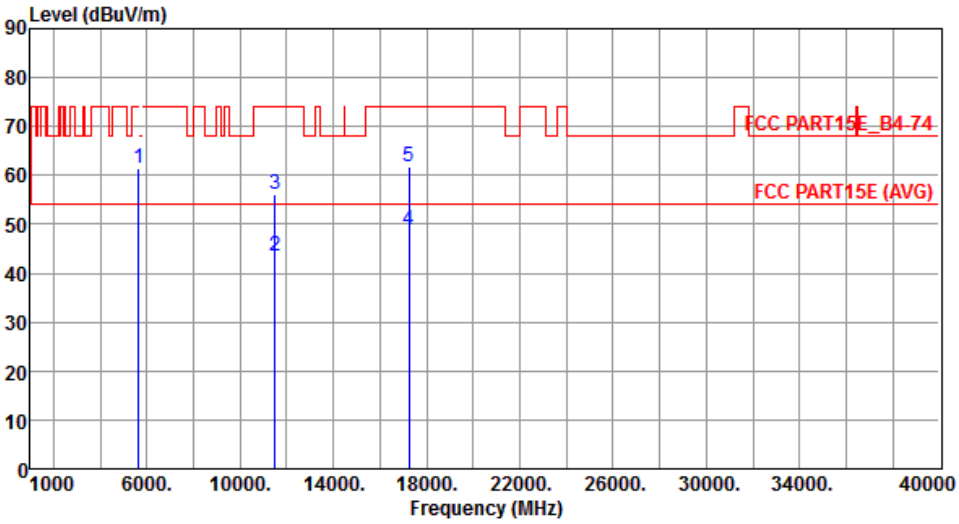
Modulation	HT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.00	54.00	-11.00	38.60	4.40	Average	396	230
2	5150.00	56.96	74.00	-17.04	52.56	4.40	Peak	396	230
3	5350.00	43.82	54.00	-10.18	39.18	4.64	Average	396	230
4	5350.00	57.29	74.00	-16.71	52.65	4.64	Peak	396	230
5	10480.00	56.36	68.20	-11.84	41.93	14.43	Peak	100	230
6	15720.00	44.58	54.00	-9.42	29.71	14.87	Average	100	119
7	15720.00	56.88	74.00	-17.12	42.01	14.87	Peak	100	119

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

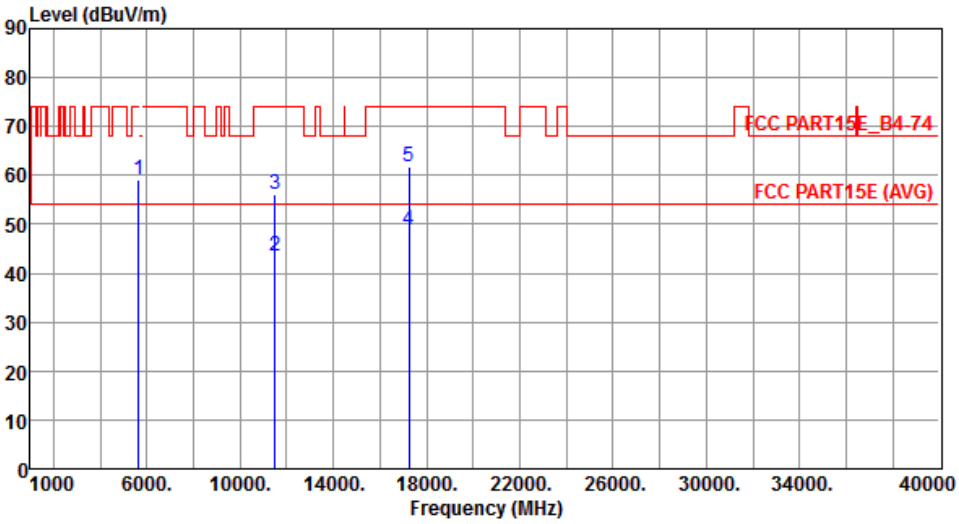
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	61.35	74.00	-12.65	56.35	5.00	Peak	400	132
2	11490.00	43.42	54.00	-10.58	27.89	15.53	Average	100	315
3	11490.00	56.16	74.00	-17.84	40.63	15.53	Peak	100	315
4	17235.00	48.92	54.00	-5.08	30.05	18.87	Average	100	295
5	17235.00	61.73	74.00	-12.27	42.86	18.87	Peak	100	295

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

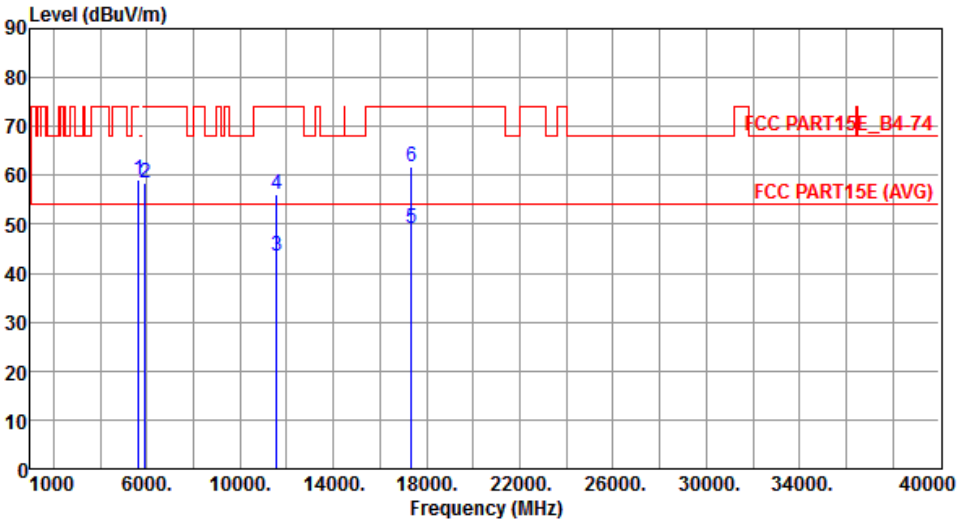
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.97	74.00	-15.03	53.97	5.00	Peak	386	60
2	11490.00	43.42	54.00	-10.58	27.89	15.53	Average	100	240
3	11490.00	56.18	74.00	-17.82	40.65	15.53	Peak	100	240
4	17235.00	48.81	54.00	-5.19	29.94	18.87	Average	100	306
5	17235.00	61.65	74.00	-12.35	42.78	18.87	Peak	100	306

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

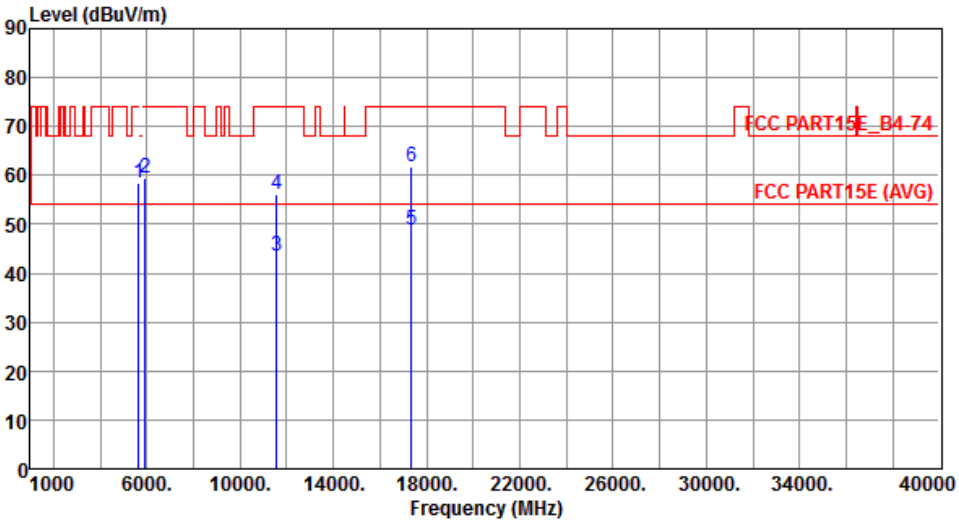
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.11	74.00	-14.89	54.11	5.00	Peak	393	137
2	5925.00	58.54	74.00	-15.46	53.20	5.34	Peak	393	137
3	11570.00	43.52	54.00	-10.48	28.19	15.33	Average	100	321
4	11570.00	56.29	74.00	-17.71	40.96	15.33	Peak	100	321
5	17355.00	49.13	54.00	-4.87	29.92	19.21	Average	100	281
6	17355.00	61.86	74.00	-12.14	42.65	19.21	Peak	100	281

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

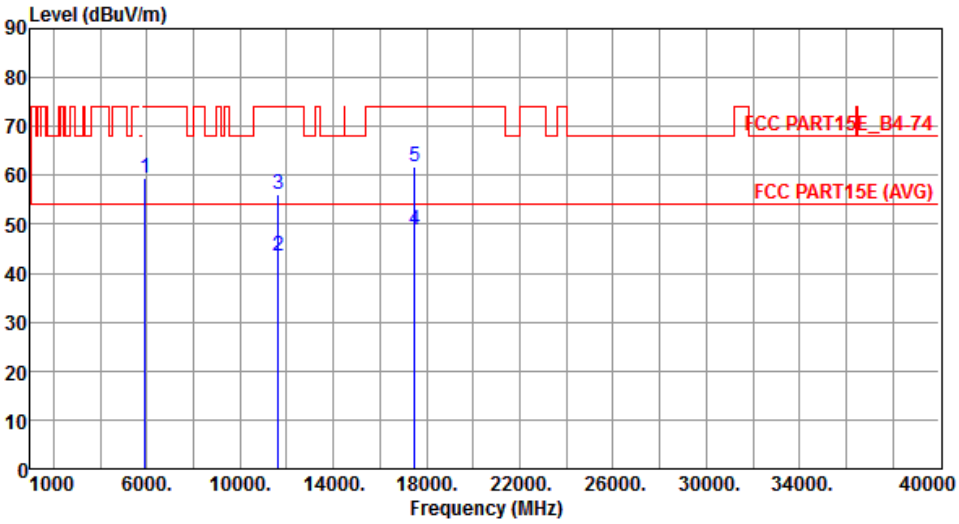
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.49	74.00	-15.51	53.49	5.00	Peak	364	59
2	5925.00	59.50	74.00	-14.50	54.16	5.34	Peak	364	59
3	11570.00	43.40	54.00	-10.60	28.07	15.33	Average	100	247
4	11570.00	56.18	74.00	-17.82	40.85	15.33	Peak	100	247
5	17355.00	48.92	54.00	-5.08	29.71	19.21	Average	100	318
6	17355.00	61.66	74.00	-12.34	42.45	19.21	Peak	100	318

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

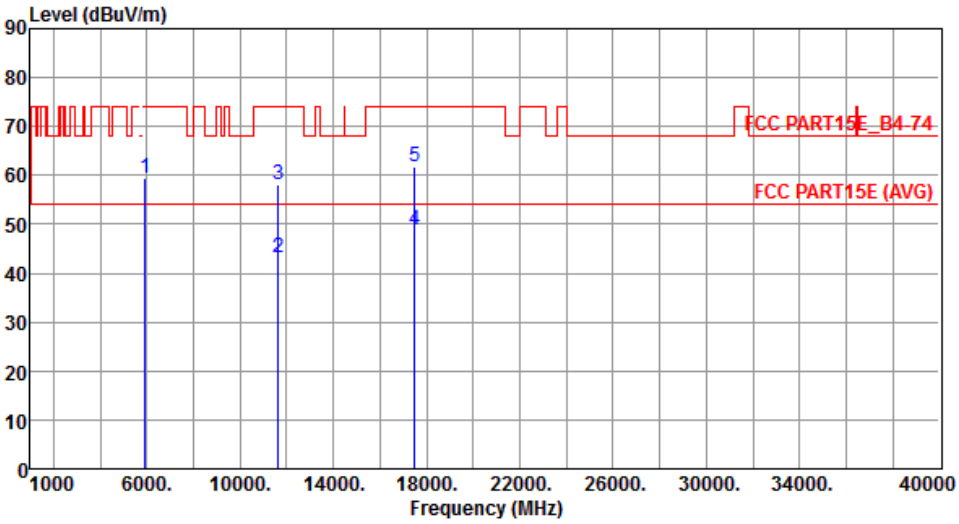
Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	59.41	74.00	-14.59	54.07	5.34	Peak	383	124
2	11650.00	43.36	54.00	-10.64	28.27	15.09	Average	100	308
3	11650.00	56.23	74.00	-17.77	41.14	15.09	Peak	100	308
4	17475.00	48.92	54.00	-5.08	29.37	19.55	Average	100	292
5	17475.00	61.75	74.00	-12.25	42.20	19.55	Peak	100	292

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Vertical		

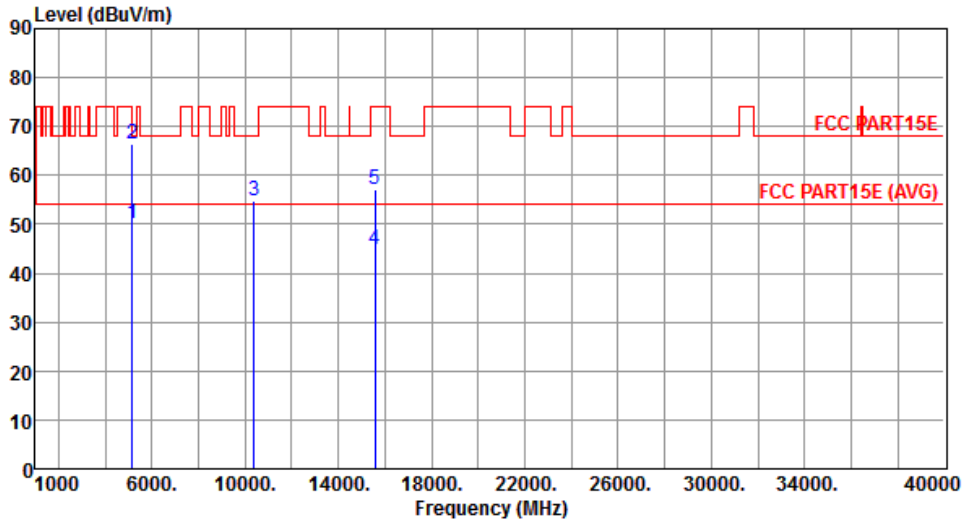


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	59.47	74.00	-14.53	54.13	5.34	Peak	388	54
2	11650.00	43.26	54.00	-10.74	28.17	15.09	Average	100	245
3	11650.00	58.21	74.00	-15.79	43.12	15.09	Peak	100	245
4	17475.00	48.84	54.00	-5.16	29.29	19.55	Average	100	303
5	17475.00	61.69	74.00	-12.31	42.14	19.55	Peak	100	303

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.5.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for HT40

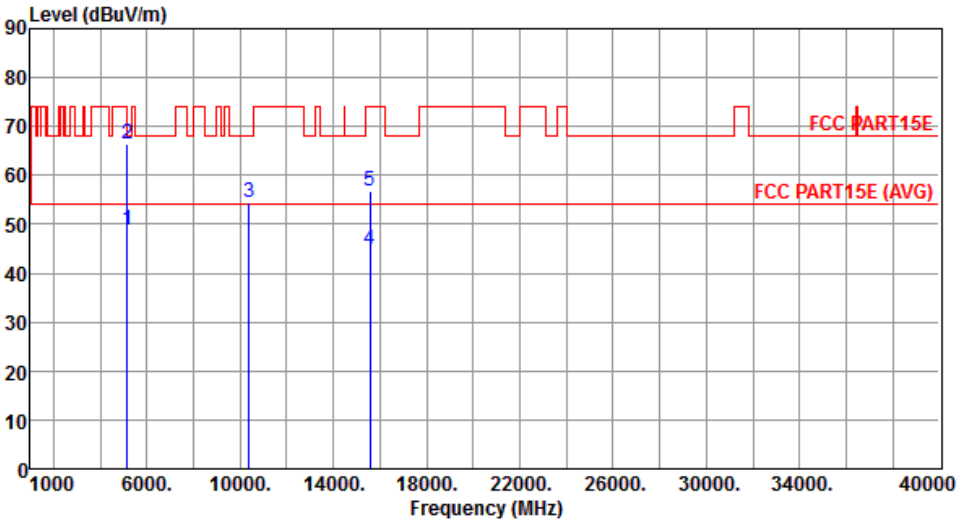
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.99	54.00	-4.01	45.59	4.40	Average	400	284
2	5150.00	66.58	74.00	-7.42	62.18	4.40	Peak	400	284
3	10380.00	54.75	68.20	-13.45	40.50	14.25	Peak	100	150
4	15570.00	45.00	54.00	-9.00	29.94	15.06	Average	100	266
5	15570.00	57.04	74.00	-16.96	41.98	15.06	Peak	100	266

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

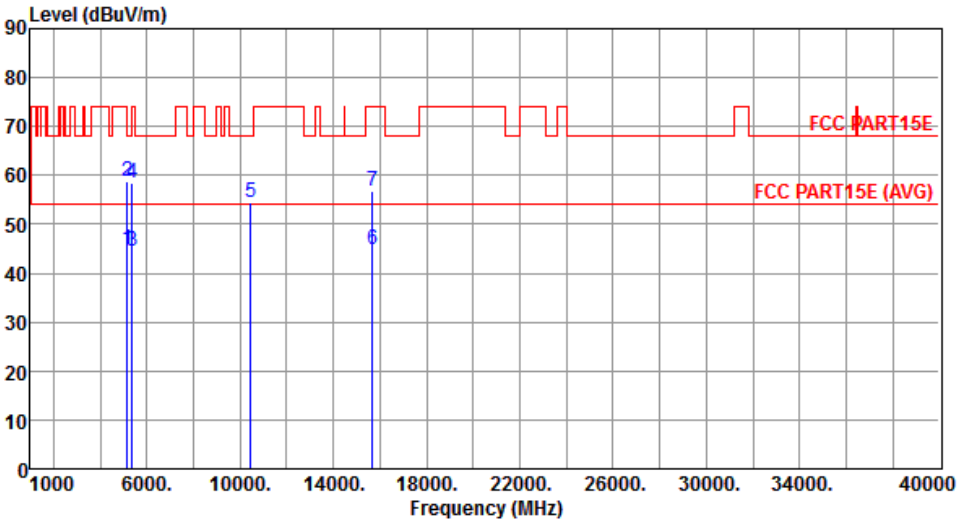
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.96	54.00	-5.04	44.56	4.40	Average	400	225
2	5150.00	66.53	74.00	-7.47	62.13	4.40	Peak	400	225
3	10380.00	54.53	68.20	-13.67	40.28	14.25	Peak	100	241
4	15570.00	44.83	54.00	-9.17	29.77	15.06	Average	100	135
5	15570.00	56.87	74.00	-17.13	41.81	15.06	Peak	100	135

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

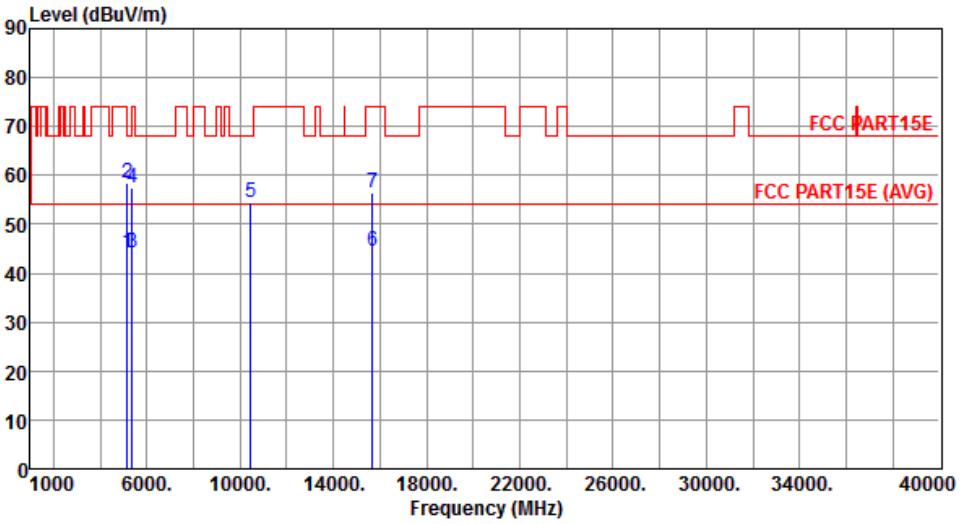
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.87	54.00	-9.13	40.47	4.40	Average	294	280
2	5150.00	58.81	74.00	-15.19	54.41	4.40	Peak	294	280
3	5350.00	44.50	54.00	-9.50	39.86	4.64	Average	294	280
4	5350.00	58.42	74.00	-15.58	53.78	4.64	Peak	294	280
5	10460.00	54.56	68.20	-13.64	40.16	14.40	Peak	100	148
6	15690.00	44.82	54.00	-9.18	29.91	14.91	Average	100	268
7	15690.00	56.86	74.00	-17.14	41.95	14.91	Peak	100	268

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

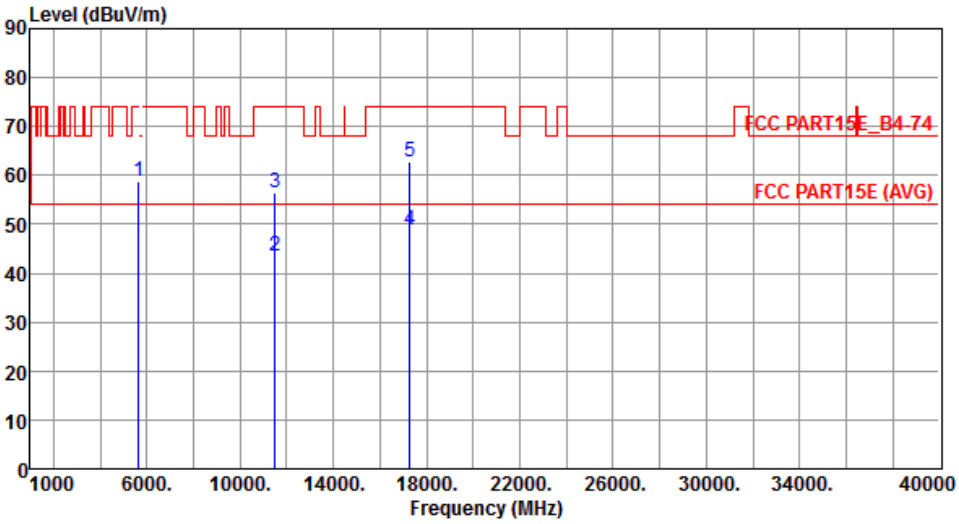
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.20	54.00	-9.80	39.80	4.40	Average	395	223
2	5150.00	58.57	74.00	-15.43	54.17	4.40	Peak	395	223
3	5350.00	44.24	54.00	-9.76	39.60	4.64	Average	395	223
4	5350.00	57.31	74.00	-16.69	52.67	4.64	Peak	395	223
5	10460.00	54.62	68.20	-13.58	40.22	14.40	Peak	100	240
6	15690.00	44.65	54.00	-9.35	29.74	14.91	Average	100	138
7	15690.00	56.58	74.00	-17.42	41.67	14.91	Peak	100	138

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

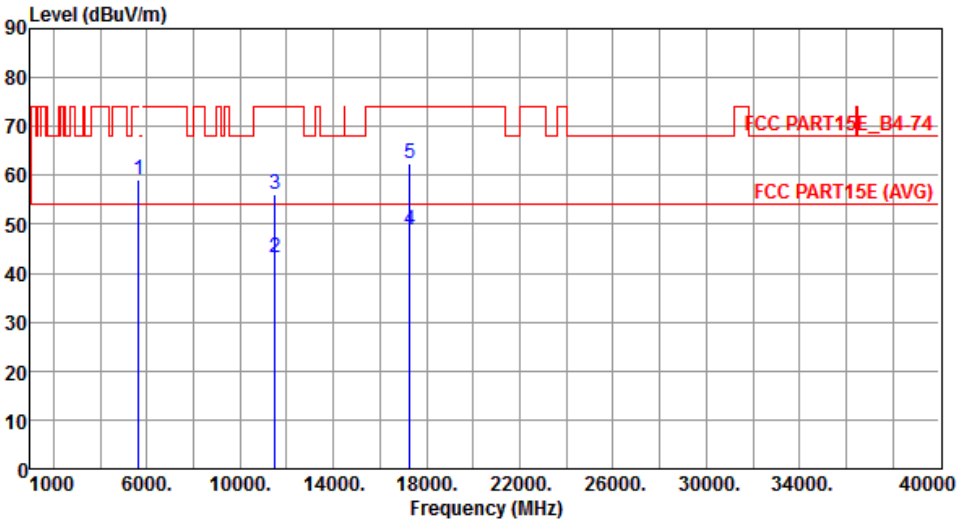
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.89	74.00	-15.11	53.89	5.00	Peak	400	130
2	11510.00	43.45	54.00	-10.55	27.94	15.51	Average	100	206
3	11510.00	56.47	74.00	-17.53	40.96	15.51	Peak	100	206
4	17265.00	48.94	54.00	-5.06	29.97	18.97	Average	100	132
5	17265.00	62.68	74.00	-11.32	43.71	18.97	Peak	100	132

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

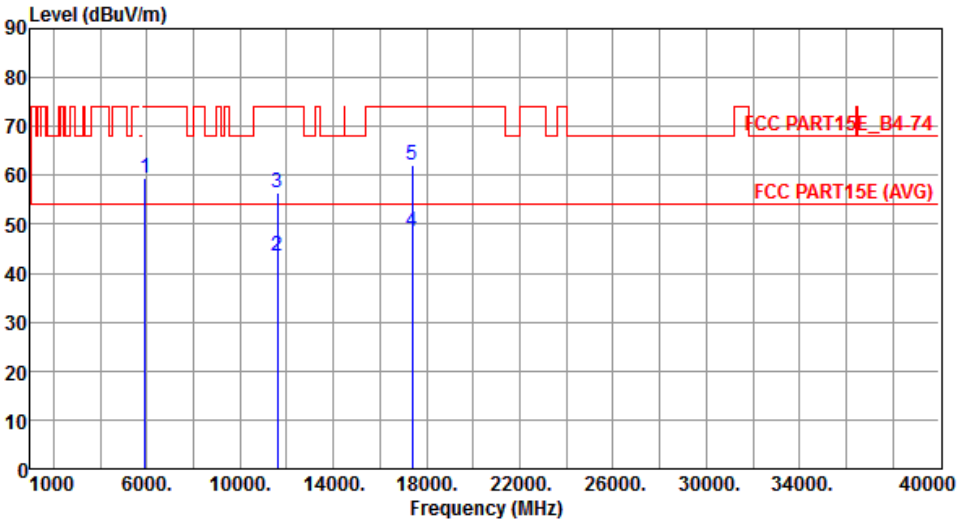
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.01	74.00	-14.99	54.01	5.00	Peak	398	200
2	11510.00	43.32	54.00	-10.68	27.81	15.51	Average	100	183
3	11510.00	56.01	74.00	-17.99	40.50	15.51	Peak	100	183
4	17265.00	48.74	54.00	-5.26	29.77	18.97	Average	100	314
5	17265.00	62.36	74.00	-11.64	43.39	18.97	Peak	100	314

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

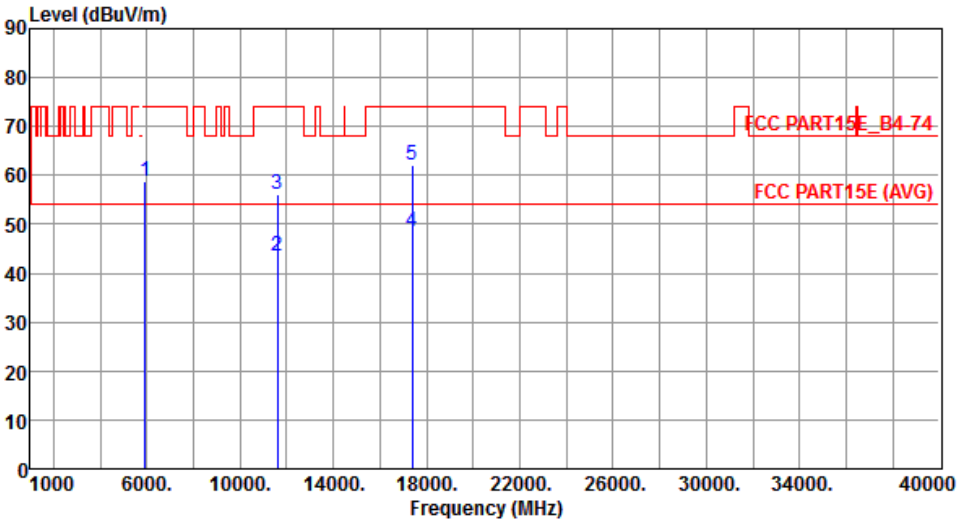
Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	59.52	74.00	-14.48	54.18	5.34	Peak	400	112
2	11590.00	43.62	54.00	-10.38	28.35	15.27	Average	100	212
3	11590.00	56.53	74.00	-17.47	41.26	15.27	Peak	100	212
4	17385.00	48.43	54.00	-5.57	29.14	19.29	Average	100	138
5	17385.00	62.18	74.00	-11.82	42.89	19.29	Peak	100	138

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	58.80	74.00	-15.20	53.46	5.34	Peak	400	62
2	11590.00	43.42	54.00	-10.58	28.15	15.27	Average	100	185
3	11590.00	56.21	74.00	-17.79	40.94	15.27	Peak	100	185
4	17385.00	48.36	54.00	-5.64	29.07	19.29	Average	100	312
5	17385.00	62.06	74.00	-11.94	42.77	19.29	Peak	100	312

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

3.6 Frequency Stability

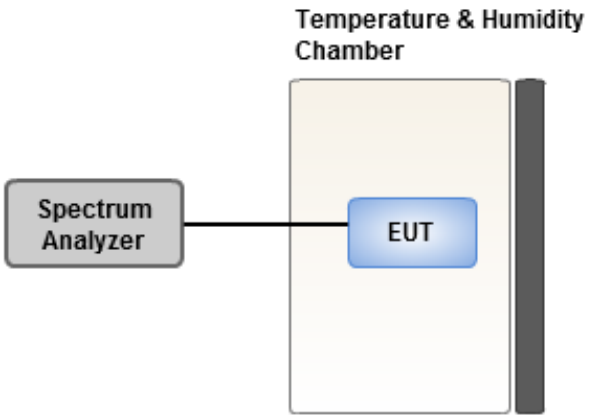
3.6.1 Limit of Frequency Stability

Manufacturers 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.

3.6.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.74	0.72	0.94	1.22
T20°CVmin	1.24	1.37	1.91	1.59
T50°CVnom	2.05	2.36	2.03	2.17
T40°CVnom	1.53	1.57	1.63	1.43
T30°CVnom	3.48	3.17	4.01	3.83
T20°CVnom	3.03	3.12	2.96	2.89
T10°CVnom	3.68	4.08	3.66	3.51
T0°CVnom	2.77	2.79	2.39	2.79
T-10°CVnom	2.36	2.73	2.24	2.81
T-20°CVnom	1.56	2.24	1.77	1.77
T-30°CVnom	1.17	0.88	1.67	1.09
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.59	0.95	0.67	0.82
T20°CVmin	0.58	0.86	0.22	1.01
T50°CVnom	0.02	-0.30	0.10	0.44
T40°CVnom	0.56	0.96	0.49	0.87
T30°CVnom	-0.15	-0.44	0.53	0.04
T20°CVnom	0.20	-0.01	0.57	0.69
T10°CVnom	0.32	0.22	0.33	0.00
T0°CVnom	0.64	0.46	0.84	0.49
T-10°CVnom	0.10	0.74	0.03	-0.24
T-20°CVnom	0.19	0.05	0.18	0.26
T-30°CVnom	-0.05	0.26	-0.24	0.14
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

If you have any suggestion, please feel free to contact us as below information.

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