FCC Test Report

FCC ID	:	**2AA8Z-XRPAD2**
Equipment	:	**802.11n 3T3R Mini PCIe Module**
Model No.	:	**WPEA-127NI**
Brand Name	:	**PerkinElmer**
Applicant	:	**PerkinElmer Medical Imaging**
Address	:	**In der Rehbach 22, 65396 Walluf, Germany**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Aug. 19, 2015**
Tested Date	:	**Aug. 26 ~ Oct. 06, 2015**

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.

Approved & Reviewed by:

Gary Chang / Manager

Testing Laboratory
2732

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Release Record

Report No.	Version	Description	Issued Date
FR581901	Rev. 01	Initial issue	Oct. 29, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.262MHz 46.77 (Margin -14.61dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5725.00MHz 52.99 (Margin -1.01dB) - AV	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: 16.78 5250~5350MHz: 16.99 5470~5725MHz: 14.67 5725~5850MHz: 14.45	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 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	1 NOTE 3	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5700 5745-5825	36-48 [4] 52-64 [4] 100-140 [11] 149-165 [5]	3	MCS 0-23
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5670 5755-5795	38-46 [2] 54-62 [2] 102-134 [5] 151-159 [2]	3	MCS 0-23
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. Note 3: 802.11a supports 1TX function only. TX diversity function is supportted for 11a function.					

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)			
					5150~5250	**5250~5350**	**5470~5725**	**5725~5850**
1	Perkinelmer	CBSA	PCB	UFL	5.6	5.6	6.1	5.9

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc from host

1.1.4 Accessories

N/A

1.1.5 Channel List

802.11 a / HT20		802.11n HT40	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	151	5755
108	5540	159	5795
112	5560	---	---
116	5580	---	---
120	5600	---	---
124	5620	---	---
128	5640	---	---
132	5660	---	---
136	5680	---	---
140	5700	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	art2, ver_2_14		
Duty Cycle and Duty Factor	**Mode**	**Duty cycle (%)**	**Duty factor (dB)**
	11a	98.64%	0.06
	HT20	98.10%	0.08
	HT40	95.80%	0.19

1.1.7 Power Setting

For Frequency band 5150-5250 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5180	12.5
11a	5200	12.5
11a	5240	12.5
HT20	5180	11.5
HT20	5200	11.5
HT20	5240	11.5
HT40	5190	9
HT40	5230	11.5

For Frequency band 5250~5350 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5260	12
11a	5300	12
11a	5320	12
HT20	5260	11.5
HT20	5300	11.5
HT20	5320	11.5
HT40	5270	11.5
HT40	5310	11.5

For Frequency band 5470~5725 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5500	11
11a	5580	11
11a	5700	11
HT20	5500	10
HT20	5580	10
HT20	5700	10
HT40	5510	10
HT40	5590	10
HT40	5670	10

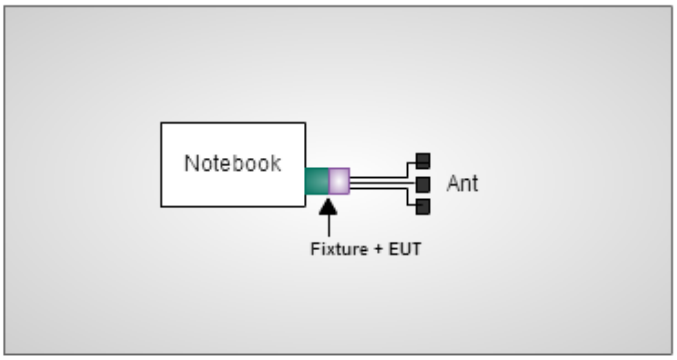
For Frequency band 5725~5850 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5745	11.5
11a	5785	11.5
11a	5825	11.5
HT20	5745	9.5
HT20	5785	9.5
HT20	5825	9.5
HT40	5755	8
HT40	5795	9.5

1.2 Local Support Equipment List

Support Equipment List						
No.	**Equipment**	**Brand**	**Model**	**S/N**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E6430	74GB4X1	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



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. 17, 2014	Oct. 16, 2015
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
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 chamber 3 / (03CH03-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Dec. 09, 2014	Dec. 08, 2015
Receiver	Agilent	N9038A	MY53290044	Oct. 21, 2014	Oct. 20, 2015
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-562	Jan. 19, 2015	Jan. 18, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Feb. 03, 2015	Feb. 02, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 10, 2014	Nov. 09, 2015
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	EMC	EMC02325	980146	Oct. 21, 2014	Oct. 20, 2015
Preamplifier	Agilent	83017A	MY39501310	Dec. 23, 2014	Dec. 22, 2015
Pre-Amplifier	WM	TF-130N-R1	923365	Feb. 10, 2015	Feb. 09, 2016
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Feb. 09, 2015	Feb. 08, 2016
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY22601/4	Feb. 09, 2015	Feb. 08, 2016
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Feb. 09, 2015	Feb. 08, 2016
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Feb. 09, 2015	Feb. 08, 2016
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Feb. 09, 2015	Feb. 08, 2016
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Feb. 09, 2015	Feb. 08, 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. 03, 2015	Feb. 02, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 03, 2014	Dec. 02, 2015
Power Meter	Anritsu	ML2495A	1218007	Oct. 20, 2014	Oct. 19, 2015
Power Sensor	Anritsu	MA2411B	1207367	Oct. 20, 2014	Oct. 19, 2015
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 v01
FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
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	±2.92 dB
Radiated emission ≤ 1GHz	±3.99 dB
Radiated emission > 1GHz	±5.52 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	22°C / 56%	Kevin Ma
Radiated Emissions	03CH03-WS	20-21°C / 60-64%	Aska Huang Warren Lee
RF Conducted	TH01-WS	22°C / 64%	Alex Huang

- FCC site registration No.: 390588
- IC site registration No.: 10807C-1

2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5350 MHz / 5470~5725 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	HT40	5270	MCS 0	---
Radiated Emissions ≤1GHz	HT40	5270	MCS 0	---
RF Output Power	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700	6 Mbps	---
	HT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700	MCS 0	
	HT40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700	6 Mbps	---
	HT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700	MCS 0	
	HT40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670	MCS 0	
Frequency Stability	Un-modulation	5200	---	---

NOTE:

1. The device supports diversity function that listed as below:
   a.) 802.11a, 1Tx, chain 0 or chain 1 or chain 2.
   After pre-testing, **chain 1** has the worst emission value, therefore the following test results came out from this.
2. The antenna of EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.

Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	HT20	5785	MCS 0	---
Radiated Emissions ≤1GHz	HT20	5785	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 device supports diversity function that listed as below:
   a.) 802.11a, 1Tx, chain 0 or chain 1 or chain 2.
   After pre-testing, **chain 1** has the worst emission value, therefore the following test results came out from this.
2. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.

3 Transmitter Test Results

3.1 Conducted Emissions

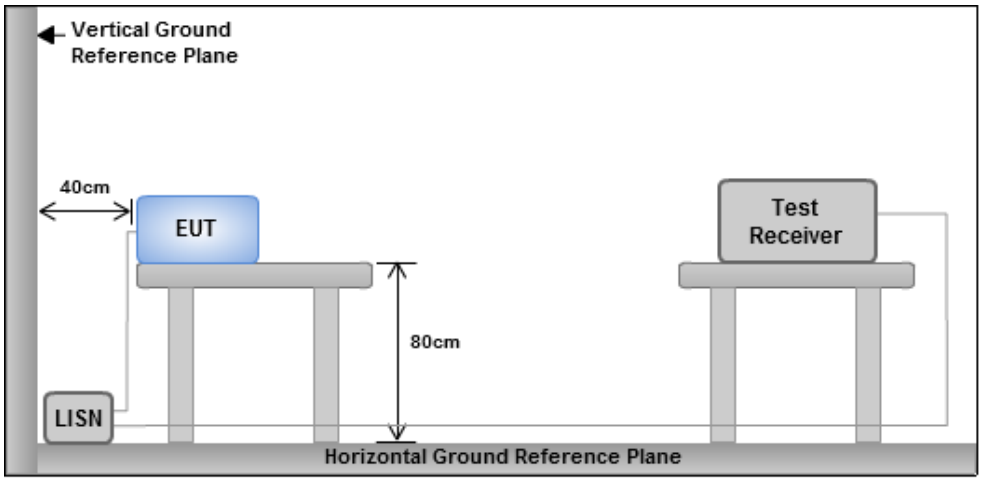
3.1.1 Limit of Conducted Emissions

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

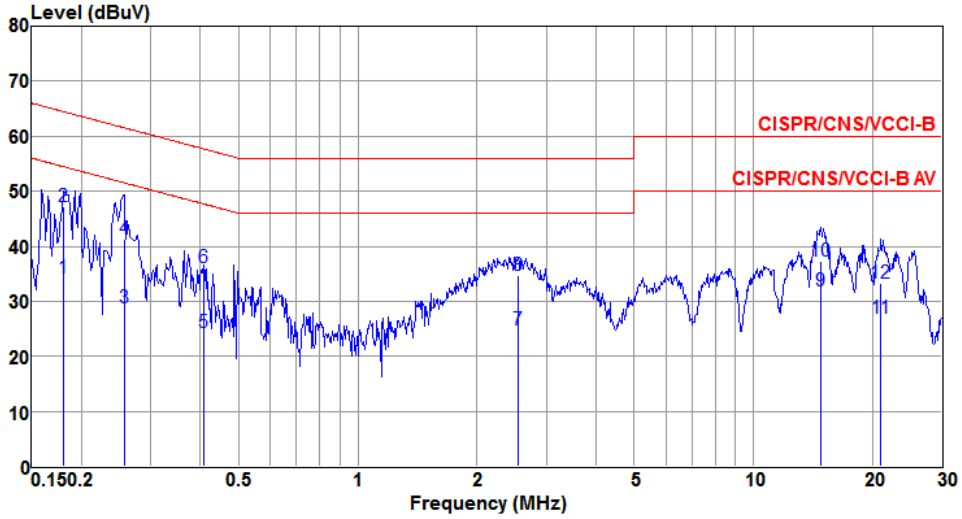
3.1.3 Test Setup



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

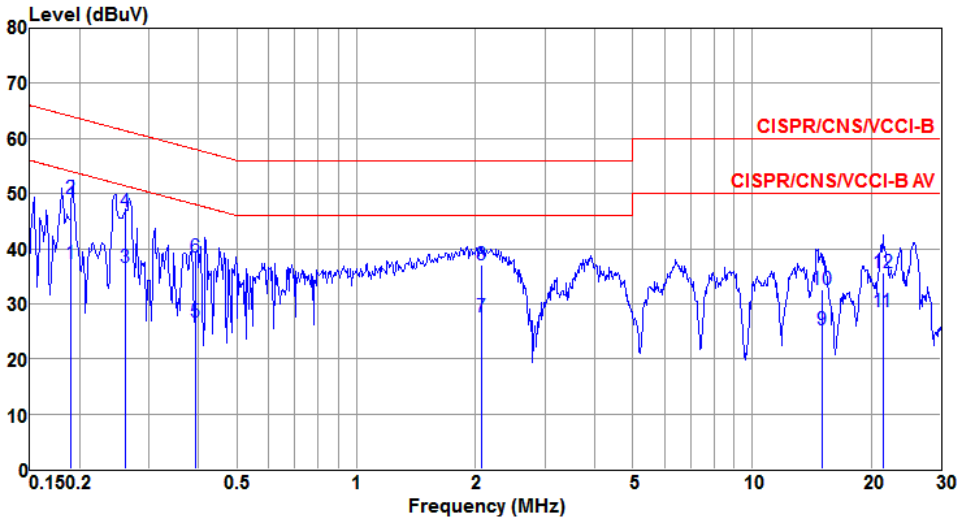
Modulation	HT40	Test Freq. (MHz)	5270
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.181	34.13	54.46	-20.33	33.97	0.07	0.09	Average
2@	0.181	47.18	64.46	-17.28	47.02	0.07	0.09	QP
3	0.256	28.88	51.56	-22.68	28.71	0.07	0.10	Average
4	0.256	41.21	61.56	-20.35	41.04	0.07	0.10	QP
5	0.408	24.22	47.68	-23.46	24.04	0.07	0.11	Average
6	0.408	36.13	57.68	-21.55	35.95	0.07	0.11	QP
7	2.540	24.89	46.00	-21.11	24.52	0.11	0.26	Average
8	2.540	34.71	56.00	-21.29	34.34	0.11	0.26	QP
9	14.828	31.77	50.00	-18.23	31.30	0.27	0.20	Average
10	14.828	37.40	60.00	-22.60	36.93	0.27	0.20	QP
11	21.035	26.88	50.00	-23.12	26.51	0.33	0.04	Average
12	21.035	33.37	60.00	-26.63	33.00	0.33	0.04	QP

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

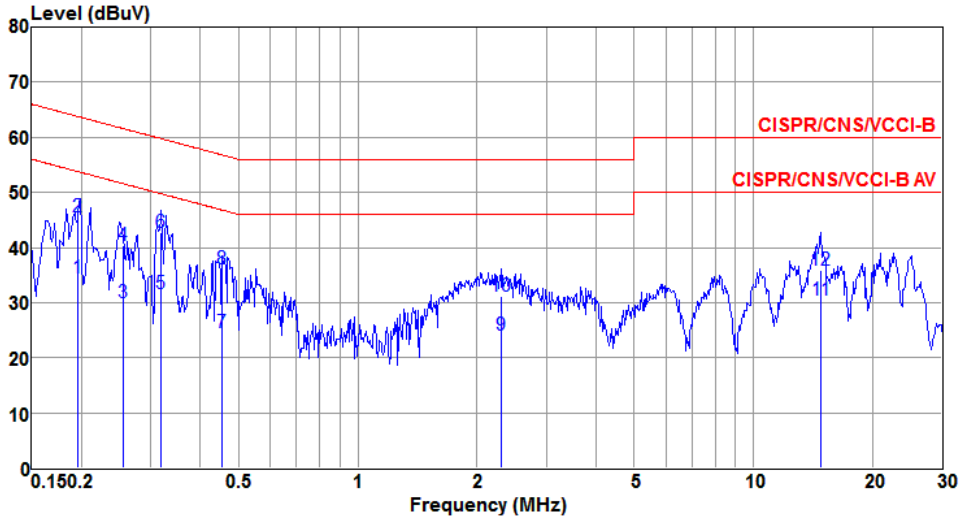
Modulation	HT40	Test Freq. (MHz)	5270
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.189	37.27	54.06	-16.79	37.11	0.07	0.09	Average
2	0.189	49.18	64.06	-14.88	49.02	0.07	0.09	QP
3	0.262	36.69	51.38	-14.69	36.52	0.07	0.10	Average
4@	0.262	46.77	61.38	-14.61	46.60	0.07	0.10	QP
5	0.392	26.69	48.02	-21.33	26.51	0.07	0.11	Average
6	0.392	38.43	58.02	-19.59	38.25	0.07	0.11	QP
7	2.077	27.74	46.00	-18.26	27.40	0.10	0.24	Average
8	2.077	37.03	56.00	-18.97	36.69	0.10	0.24	QP
9	14.986	25.19	50.00	-24.81	24.70	0.29	0.20	Average
10	14.986	32.57	60.00	-27.43	32.08	0.29	0.20	QP
11	21.373	28.52	50.00	-21.48	28.13	0.35	0.04	Average
12	21.373	35.56	60.00	-24.44	35.17	0.35	0.04	QP

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

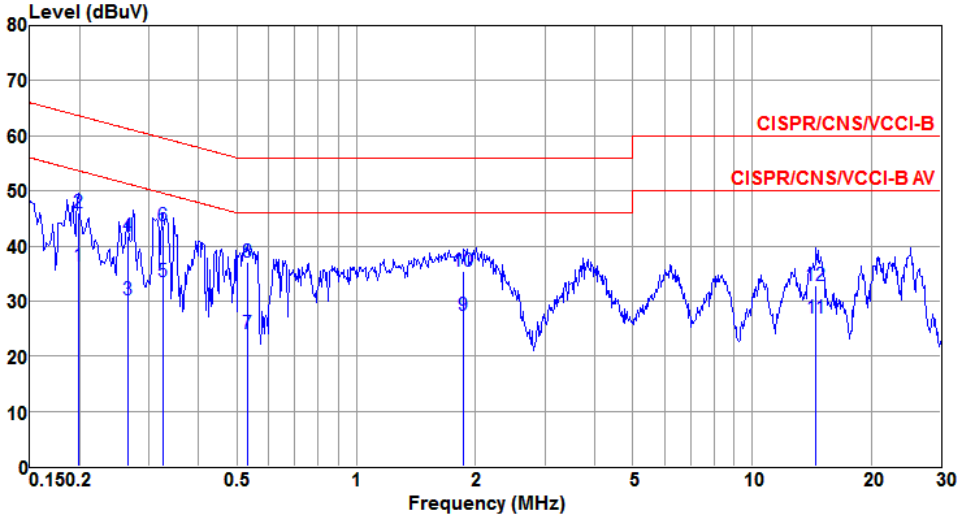
Modulation	HT20	Test Freq. (MHz)	5785
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.196	34.50	53.77	-19.27	34.34	0.07	0.09	Average
2	0.196	45.61	63.77	-18.16	45.45	0.07	0.09	QP
3	0.255	30.01	51.60	-21.59	29.84	0.07	0.10	Average
4	0.255	40.46	61.60	-21.14	40.29	0.07	0.10	QP
5	0.318	31.56	49.75	-18.19	31.39	0.07	0.10	Average
6@	0.318	42.73	59.75	-17.02	42.56	0.07	0.10	QP
7	0.452	24.51	46.84	-22.33	24.32	0.07	0.12	Average
8	0.452	36.15	56.84	-20.69	35.96	0.07	0.12	QP
9	2.309	23.97	46.00	-22.03	23.62	0.10	0.25	Average
10	2.309	31.20	56.00	-24.80	30.85	0.10	0.25	QP
11	14.828	30.56	50.00	-19.44	30.09	0.27	0.20	Average
12	14.828	35.90	60.00	-24.10	35.43	0.27	0.20	QP

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

Modulation	HT20	Test Freq. (MHz)	5785
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.199	36.26	53.67	-17.41	36.10	0.07	0.09	Average
2	0.199	46.14	63.67	-17.53	45.98	0.07	0.09	QP
3	0.266	30.32	51.24	-20.92	30.15	0.07	0.10	Average
4	0.266	41.67	61.24	-19.57	41.50	0.07	0.10	QP
5	0.325	33.44	49.57	-16.13	33.27	0.07	0.10	Average
6@	0.325	43.74	59.57	-15.83	43.57	0.07	0.10	QP
7	0.532	24.17	46.00	-21.83	23.97	0.07	0.13	Average
8	0.532	37.05	56.00	-18.95	36.85	0.07	0.13	QP
9	1.868	27.46	46.00	-18.54	27.13	0.10	0.23	Average
10	1.868	35.29	56.00	-20.71	34.96	0.10	0.23	QP
11	14.517	26.82	50.00	-23.18	26.32	0.29	0.21	Average
12	14.517	32.87	60.00	-27.13	32.37	0.29	0.21	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.

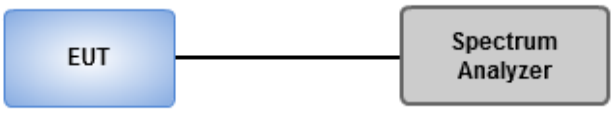
Occupied Bandwidth

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

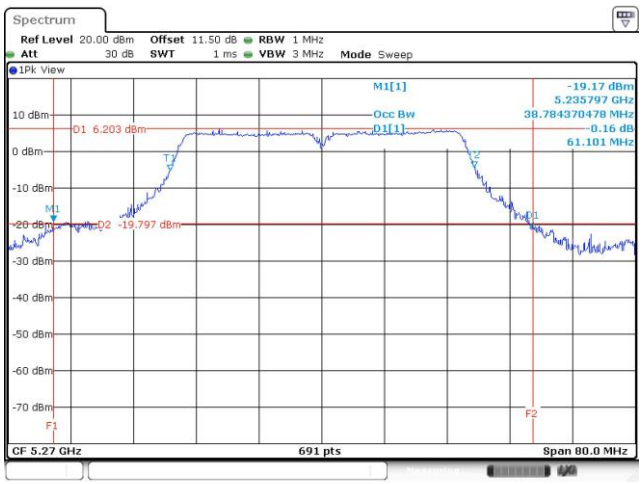
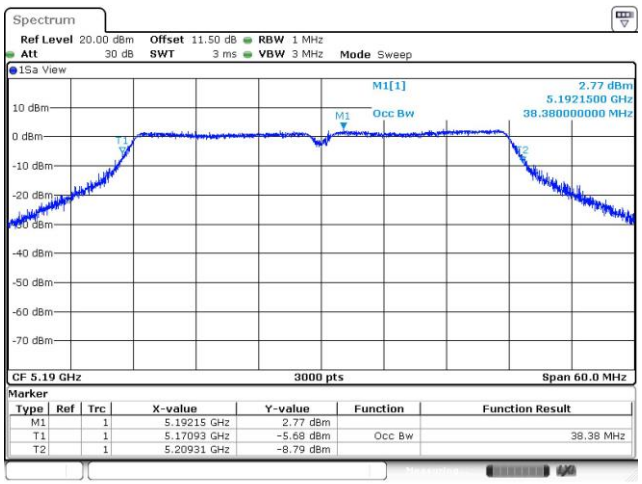


3.2.4 Test Result of Emission Bandwidth

For Frequency band 5150~5250 MHz										
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	---	25.33	---	---	---	17.18	---	---
11a	1	5200	---	24.70	---	---	---	17.28	---	---
11a	1	5240	---	25.22	---	---	---	17.28	---	---
HT20	3	5180	25.33	26.32	25.39	---	18.18	18.11	18.13	---
HT20	3	5200	25.16	25.74	25.16	---	18.23	18.19	18.10	---
HT20	3	5240	25.57	26.26	25.91	---	18.38	18.16	18.15	---
HT40	3	5190	54.49	54.84	51.01	---	38.38	37.90	37.96	---
HT40	3	5230	53.80	60.99	51.48	---	38.08	37.78	37.90	---

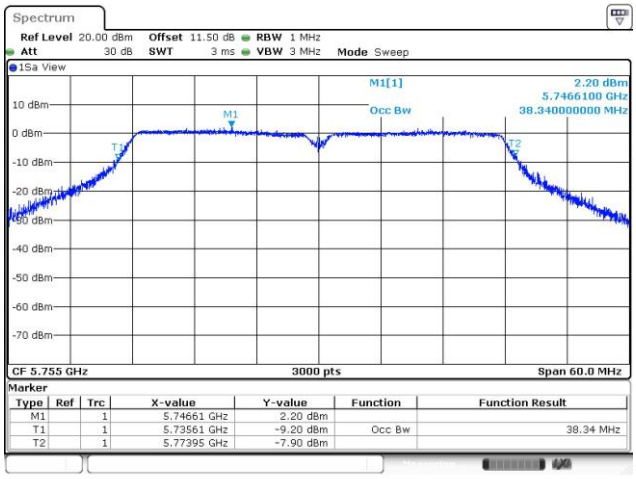
For Frequency band 5250~5350 MHz											
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	1	5260	---	25.16	---	---	---	17.26	---	---	24.00
11a	1	5300	---	24.52	---	---	---	17.25	---	---	24.00
11a	1	5320	---	25.16	---	---	---	17.27	---	---	24.00
HT20	3	5260	25.28	25.62	25.45	---	18.35	18.16	18.16	---	24.00
HT20	3	5300	25.57	25.62	25.28	---	18.42	18.26	18.09	---	24.00
HT20	3	5320	25.62	26.09	25.45	---	18.46	18.24	18.09	---	24.00
HT40	3	5270	53.91	61.10	51.59	---	38.02	37.82	37.84	---	24.00
HT40	3	5310	55.54	60.87	52.52	---	38.26	37.92	37.64	---	24.00

For Frequency band 5470~5725 MHz											
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	1	5500	---	24.93	---	---	---	17.29	---	---	24.00
11a	1	5580	---	25.04	---	---	---	17.31	---	---	24.00
11a	1	5700	---	25.22	---	---	---	17.36	---	---	24.00
HT20	3	5500	25.62	26.03	25.80	---	18.49	18.16	18.16	---	24.00
HT20	3	5580	25.51	25.51	25.51	---	18.30	18.16	18.13	---	24.00
HT20	3	5700	25.91	25.04	26.43	---	18.36	18.13	18.16	---	24.00
HT40	3	5510	54.96	54.03	51.71	---	38.28	38.12	37.82	---	24.00
HT40	3	5590	53.45	55.30	52.41	---	38.38	37.90	37.78	---	24.00
HT40	3	5670	54.03	55.42	54.26	---	38.16	37.70	37.90	---	24.00

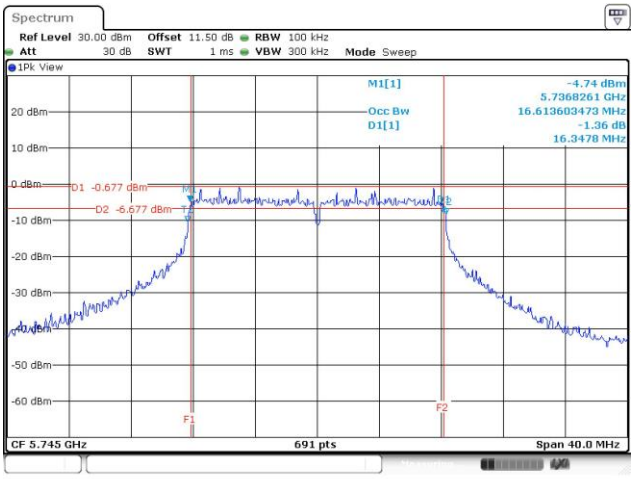
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

For Frequency band 5725-5850 MHz											
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	---	17.29	---	---	---	16.35	---	---	0.5
11a	1	5785	---	17.37	---	---	---	16.35	---	---	0.5
11a	1	5825	---	17.43	---	---	---	16.35	---	---	0.5
HT20	3	5745	18.44	18.17	18.10	---	17.57	17.57	17.57	---	0.5
HT20	3	5785	18.33	18.26	18.08	---	17.57	17.57	17.57	---	0.5
HT20	3	5825	18.25	18.20	18.10	---	17.57	17.57	17.57	---	0.5
HT40	3	5755	38.34	38.08	37.86	---	36.41	36.41	36.41	---	0.5
HT40	3	5795	38.20	37.94	37.96	---	36.41	36.06	36.41	---	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

☒ Power meter

☒ Measurements 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	---	11.60	---	---	14.454	11.60	24.00
11a	1	5200	---	11.85	---	---	15.311	11.85	24.00
11a	1	5240	---	11.72	---	---	14.859	11.72	24.00
HT20	3	5180	11.26	11.66	12.80	---	47.076	16.73	24.00
HT20	3	5200	11.21	11.45	12.86	---	46.496	16.67	24.00
HT20	3	5240	11.65	11.82	12.30	---	46.810	16.70	24.00
HT40	3	5190	8.75	9.32	10.22	---	26.569	14.24	24.00
HT40	3	5230	11.90	11.89	12.24	---	47.690	**16.78**	24.00

For Frequency band 5250~5350 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	5260	---	11.79	---	---	15.101	11.79	24.00
11a	1	5300	---	11.44	---	---	13.932	11.44	24.00
11a	1	5320	---	11.32	---	---	13.552	11.32	24.00
HT20	3	5260	11.85	11.84	12.42	---	48.045	16.82	24.00
HT20	3	5300	11.25	11.83	12.13	---	44.906	16.52	24.00
HT20	3	5320	11.26	11.79	12.01	---	44.352	16.47	24.00
HT40	3	5270	12.03	12.06	12.56	---	50.058	**16.99**	24.00
HT40	3	5310	11.55	12.17	12.28	---	47.675	16.78	24.00

For Frequency band 5470~5725 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	5500	---	10.63	---	---	11.561	10.63	23.90
11a	1	5580	---	10.69	---	---	11.722	10.69	23.90
11a	1	5700	---	10.60	---	---	11.482	10.60	23.90
HT20	3	5500	9.65	9.52	9.47	---	27.031	14.32	23.90
HT20	3	5580	9.02	9.64	9.80	---	26.734	14.27	23.90
HT20	3	5700	9.13	9.13	9.93	---	26.209	14.18	23.90
HT40	3	5510	9.50	9.93	9.46	---	27.583	14.41	23.90
HT40	3	5590	9.35	10.39	9.89	---	29.299	**14.67**	23.90
HT40	3	5670	9.60	9.40	9.60	---	26.950	14.31	23.90

Note: Antenna gain is 6.1 dBi > 6dBi, Conducted power limit shall be reduced to 24 dBm – (6.1dBi – 6 dBi) = 23.9 dBm.

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	---	11.25	---	---	13.335	11.25	30.00
11a	1	5785	---	11.34	---	---	13.614	11.34	30.00
11a	1	5825	---	11.10	---	---	12.882	11.10	30.00
HT20	3	5745	9.37	8.80	9.23	---	24.611	13.91	30.00
HT20	3	5785	9.53	9.46	10.03	---	27.874	**14.45**	30.00
HT20	3	5825	9.12	9.48	9.90	---	26.810	14.28	30.00
HT40	3	5755	7.69	6.52	7.34	---	15.782	11.98	30.00
HT40	3	5795	9.44	9.11	9.76	---	26.400	14.22	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, 5250~5350 MHz, 5470~5725 MHz

☒ Method SA-1 (for 11a / n HT20)

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 (for 11n HT40)

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

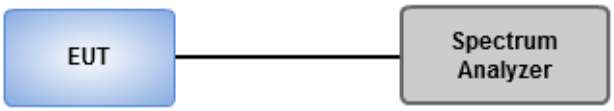
☒ Method SA-1 (for 11a / n HT20)

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 (for 11n HT40)

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

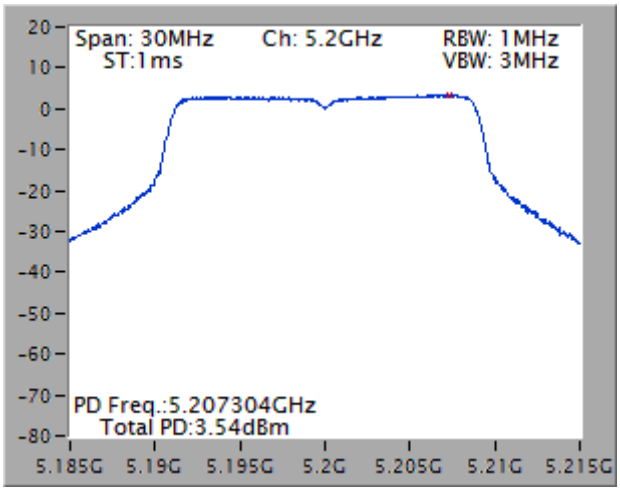
Frequency band			5150~5250 MHz / 5250~5350 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	1	5180	-0.40	0.00	-0.40	11
11a	1	5200	-0.55	0.00	-0.55	11
11a	1	5240	-0.07	0.00	-0.07	11
HT20	3	5180	2.62	0.00	2.62	6.63
HT20	3	5200	3.54	0.00	3.54	6.63
HT20	3	5240	3.31	0.00	3.31	6.63
HT40	3	5190	-1.92	0.19	-1.73	6.63
HT40	3	5230	1.53	0.19	1.72	6.63
11a	1	5260	-0.62	0.00	-0.62	11
11a	1	5300	-0.85	0.00	-0.85	11
11a	1	5320	-0.93	0.00	-0.93	11
HT20	3	5260	3.31	0.00	3.31	6.63
HT20	3	5300	2.89	0.00	2.89	6.63
HT20	3	5320	3.07	0.00	3.07	6.63
HT40	3	5270	0.54	0.19	0.73	6.63
HT40	3	5310	0.30	0.19	0.49	6.63

Note:
1. D.F is duty factor.
2. Test result of HT20/HT40 is bin-by-bin summing measured value of each TX port.
3. For 3Tx mode: Directional gain = 5.6+10* log(3/1) = 10.37 dBi > 6 dBi.
   Limit shall be reduced to 11 dBm – (10.37 dBi – 6 dBi) = 6.63 dBm.

Frequency band			5470~5725 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
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	5500	-0.83	0.00	-0.83	10.9
11a	1	5580	-1.37	0.00	-1.37	10.9
11a	1	5700	-1.36	0.00	-1.36	10.9
HT20	3	5500	2.03	0.00	2.03	6.13
HT20	3	5580	1.60	0.00	1.60	6.13
HT20	3	5700	1.64	0.00	1.64	6.13
HT40	3	5510	-1.22	0.19	-1.03	6.13
HT40	3	5590	-1.69	0.19	-1.50	6.13
HT40	3	5670	-1.58	0.19	-1.39	6.13

Note:
1. D.F is duty factor.
2. Test result of HT20/HT40 is bin-by-bin summing measured value of each TX port.
   For 1Tx mode: Directional gain = 6.1 dBi > 6dBi, Limit shall be reduced to 11 dBm – (6.1 dBi – 6 dBi) = 10.9 dBm.
   For 3Tx mode: Directional gain = 6.1+10* log(3/1) = 10.87 dBi > 6 dBi.
   Limit shall be reduced to 11 dBm – (10.87 dBi – 6 dBi) = 6.13 dBm.

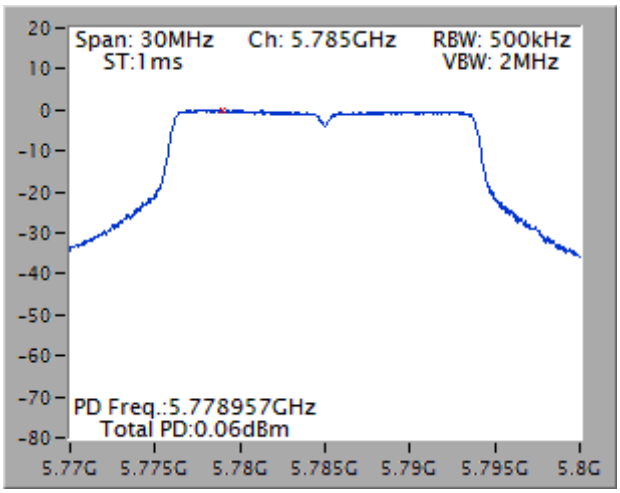
Worst Plot



Frequency band			5725-5850 MHz			
Condition			Peak Power Spectral Density (dBm/500kHz)			
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	-2.64	0.00	-2.64	30.00
11a	1	5785	-2.27	0.00	-2.27	30.00
11a	1	5825	-2.64	0.00	-2.64	30.00
HT20	3	5745	-0.59	0.00	-0.59	25.33
HT20	3	5785	0.06	0.00	0.06	25.33
HT20	3	5825	-0.32	0.00	-0.32	25.33
HT40	3	5755	-5.64	0.19	-5.45	25.33
HT40	3	5795	-3.09	0.19	-2.90	25.33

Note:
1. D.F is duty factor.
2. Test result of HT20/HT40 is bin-by-bin summing measured value of each TX port.
3. For 3TX mode: Directional gain = 5.9+10* log(3/1) = 10.67 dBi > 6 dBi.
   Limit shall be reduced to 30 dBm – (10.67 dBi – 6 dBi) = 25.33 dBm.

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]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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

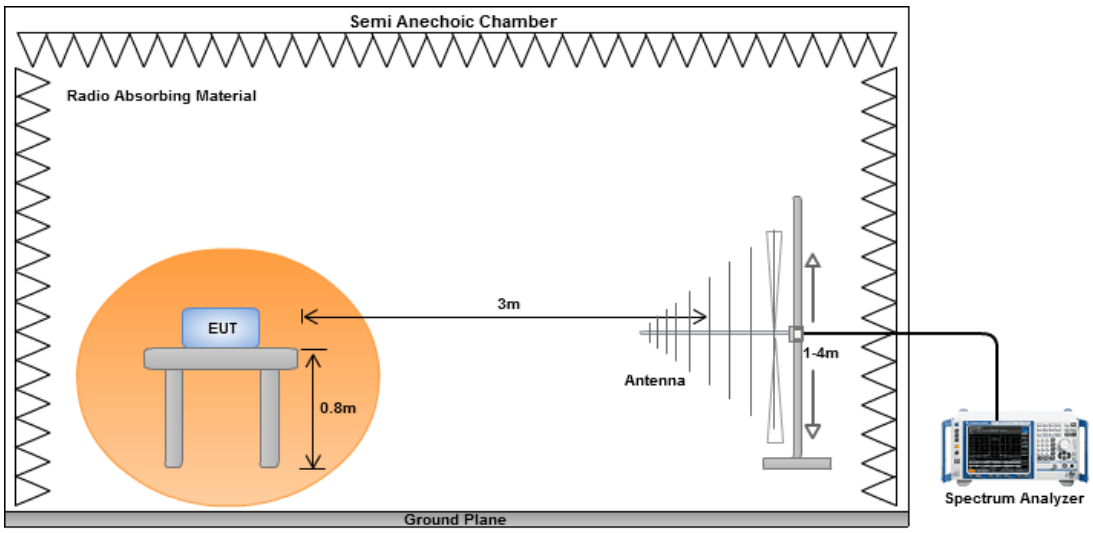
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission 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:

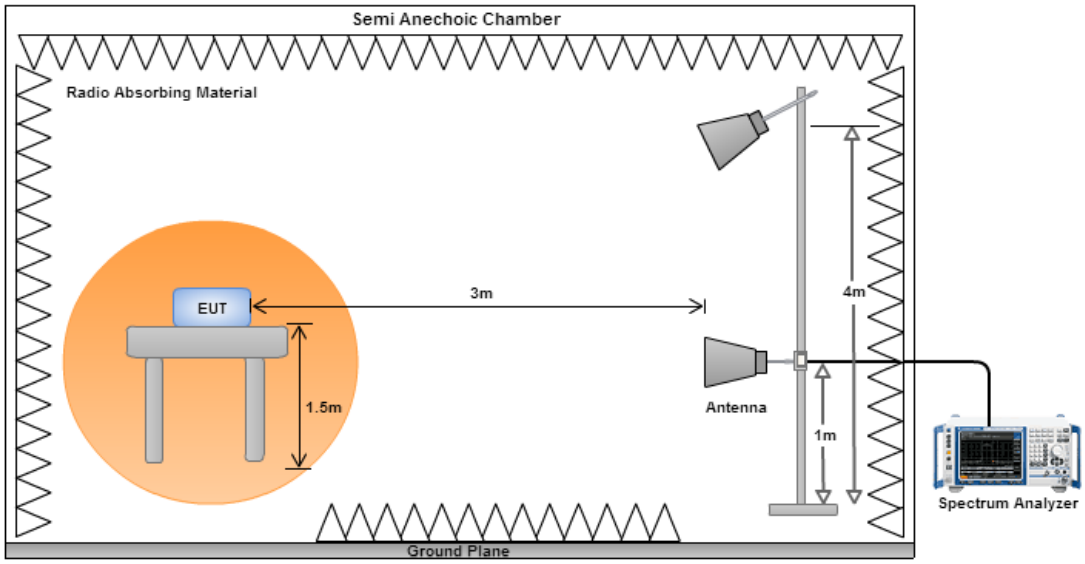
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

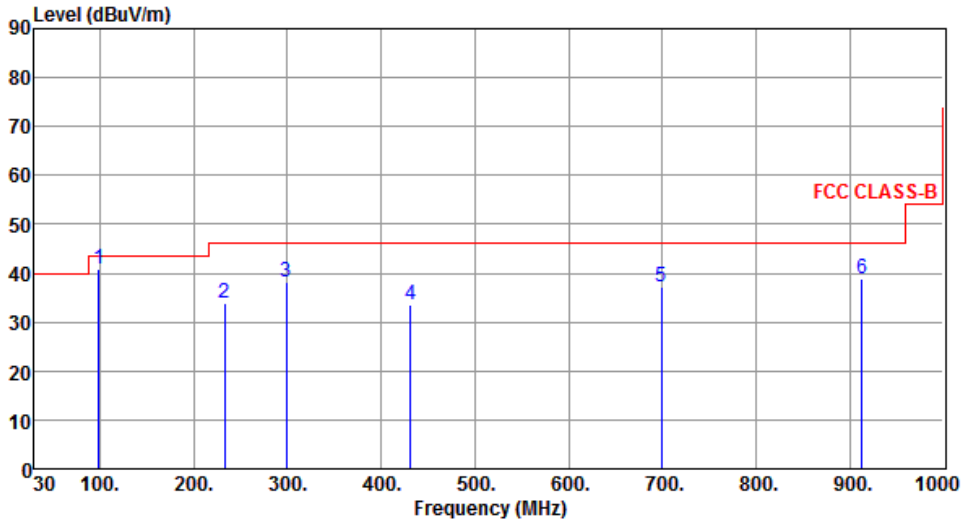


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

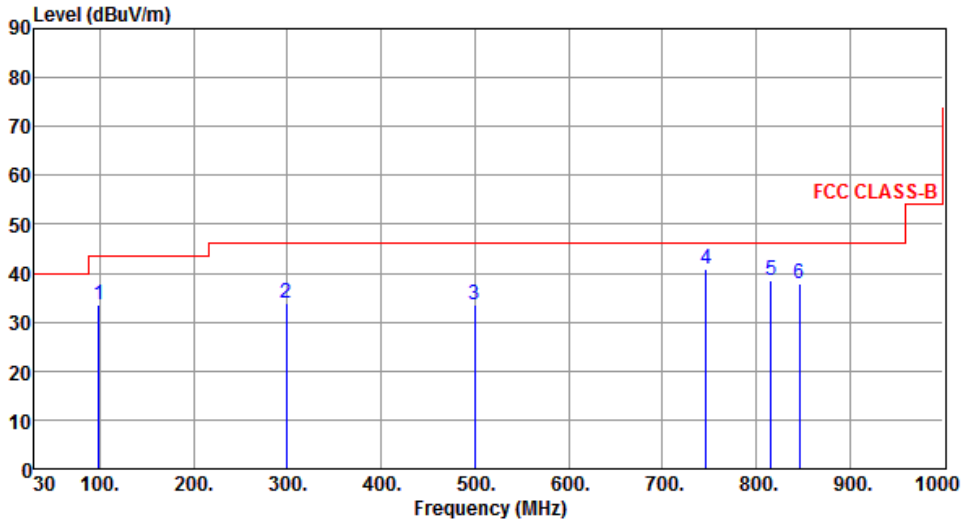
Modulation	HT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	40.73	43.50	-2.77	59.27	-18.54	QP	180	343
2	232.73	33.76	46.00	-12.24	48.95	-15.19	Peak	---	---
3	298.69	38.21	46.00	-7.79	50.90	-12.69	Peak	---	---
4	431.58	33.49	46.00	-12.51	42.73	-9.24	Peak	---	---
5	699.30	37.29	46.00	-8.71	41.61	-4.32	Peak	---	---
6	912.70	38.77	46.00	-7.23	39.20	-0.43	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.

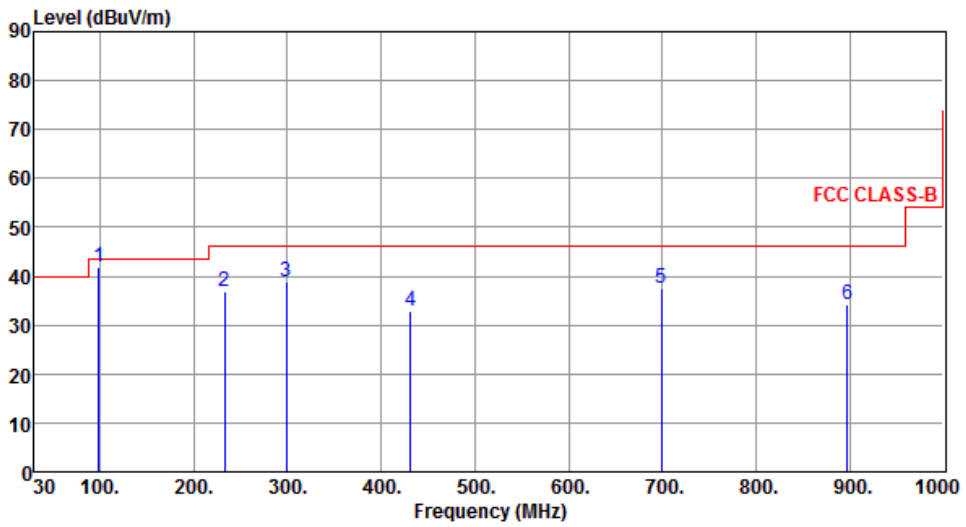
Modulation	HT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	33.56	43.50	-9.94	52.10	-18.54	Peak	---	---
2	298.69	33.89	46.00	-12.11	46.58	-12.69	Peak	---	---
3	499.48	33.62	46.00	-12.38	41.27	-7.65	Peak	---	---
4	746.83	40.82	46.00	-5.18	44.09	-3.27	Peak	---	---
5	815.70	38.65	46.00	-7.35	40.95	-2.30	Peak	---	---
6	846.74	37.86	46.00	-8.14	39.64	-1.78	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.

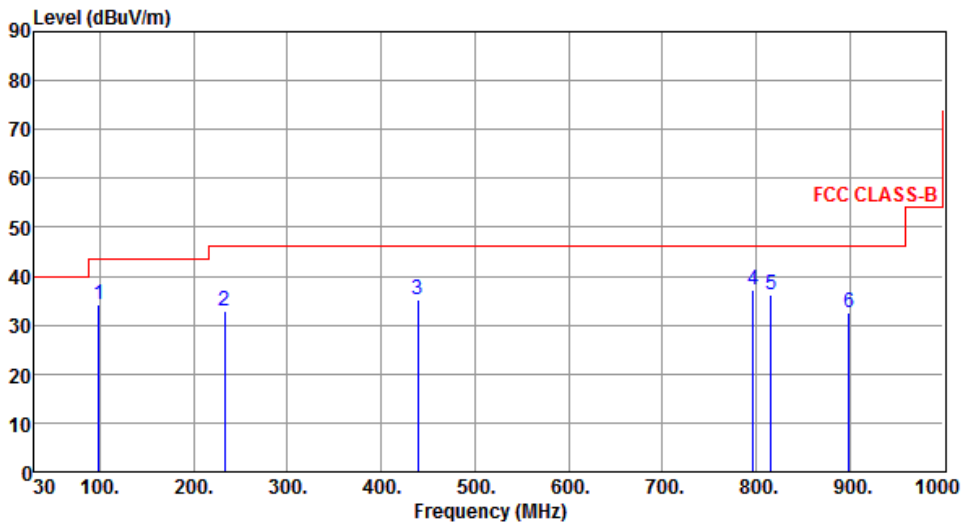
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	99.02	41.70	43.50	-1.80	60.23	-18.53	QP	198	351
2	232.73	36.79	46.00	-9.21	51.98	-15.19	Peak	---	---
3	298.69	38.69	46.00	-7.31	51.38	-12.69	Peak	---	---
4	431.58	32.74	46.00	-13.26	41.98	-9.24	Peak	---	---
5	699.30	37.64	46.00	-8.36	41.96	-4.32	Peak	---	---
6	897.18	34.05	46.00	-11.95	34.79	-0.74	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	HT20	Test Freq. (MHz)	5785
Polarization	Vertical		

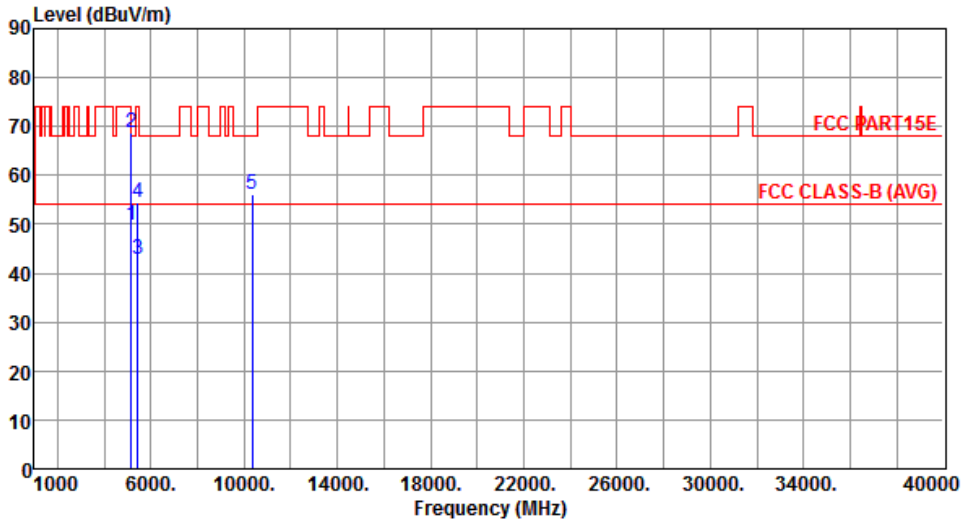


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	34.08	43.50	-9.42	52.62	-18.54	Peak	---	---
2	232.73	32.94	46.00	-13.06	48.13	-15.19	Peak	---	---
3	439.34	35.15	46.00	-10.85	44.19	-9.04	Peak	---	---
4	797.27	37.31	46.00	-8.69	39.91	-2.60	Peak	---	---
5	815.70	36.26	46.00	-9.74	38.56	-2.30	Peak	---	---
6	899.12	32.68	46.00	-13.32	33.36	-0.68	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.

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

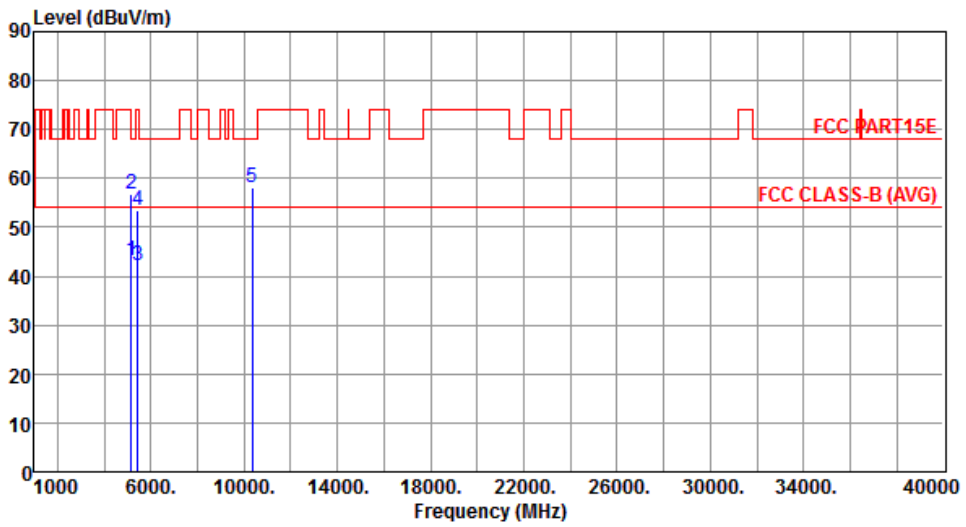
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	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	49.76	54.00	-4.24	46.37	3.39	Average	226	268
2	5150.00	68.75	74.00	-5.25	65.36	3.39	Peak	226	268
3	5440.00	42.86	54.00	-11.14	39.00	3.86	Average	218	245
4	5440.00	54.36	74.00	-19.64	50.50	3.86	Peak	218	245
5	10360.00	56.22	68.20	-11.98	41.50	14.72	Peak	216	140

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).

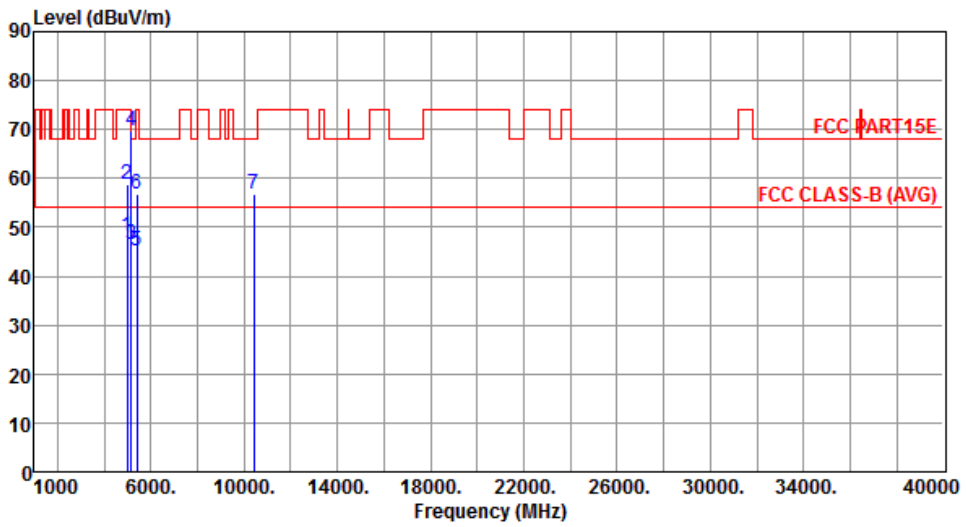
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	43.11	54.00	-10.89	39.72	3.39	Average	368	120
2	5150.00	56.75	74.00	-17.25	53.36	3.39	Peak	368	120
3	5440.00	42.02	54.00	-11.98	38.16	3.86	Average	211	306
4	5440.00	53.37	74.00	-20.63	49.51	3.86	Peak	211	306
5	10360.00	58.24	68.20	-9.96	43.52	14.72	Peak	236	149

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).

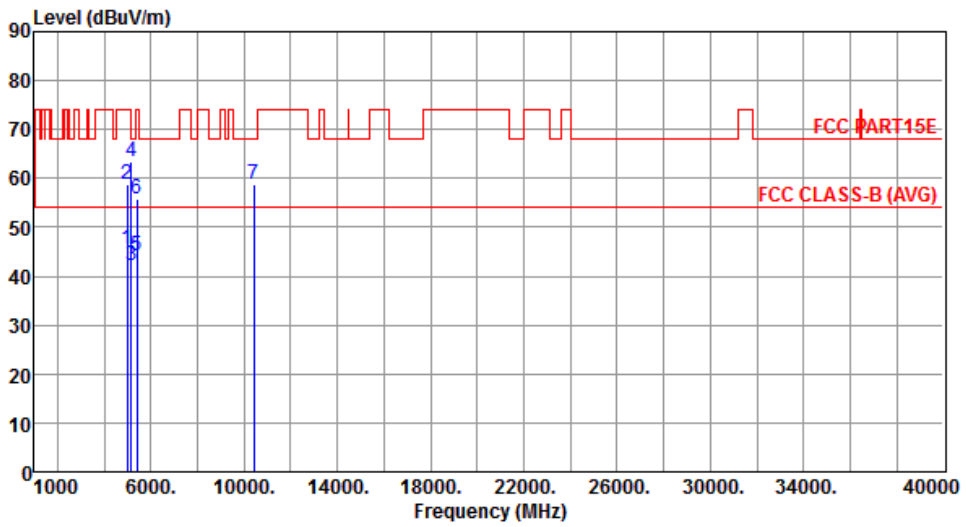
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5000.00	48.06	54.00	-5.94	44.94	3.12	Average	225	264
2	5000.00	58.89	74.00	-15.11	55.77	3.12	Peak	225	264
3	5150.00	46.33	54.00	-7.67	42.94	3.39	Average	225	243
4	5150.00	69.78	74.00	-4.22	66.39	3.39	Peak	225	243
5	5400.00	45.03	54.00	-8.97	41.20	3.83	Average	231	251
6	5400.00	56.78	74.00	-17.22	52.95	3.83	Peak	231	251
7	10400.00	56.72	68.20	-11.48	41.87	14.85	Peak	215	144

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).

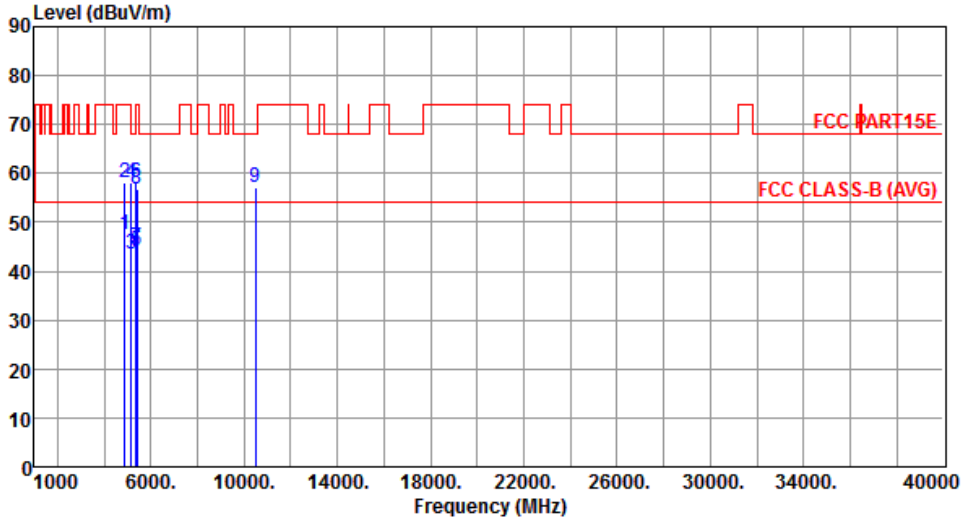
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5000.00	45.62	54.00	-8.38	42.50	3.12	Average	351	122
2	5000.00	58.71	74.00	-15.29	55.59	3.12	Peak	351	122
3	5150.00	42.06	54.00	-11.94	38.67	3.39	Average	351	122
4	5150.00	63.34	74.00	-10.66	59.95	3.39	Peak	351	122
5	5400.00	44.05	54.00	-9.95	40.22	3.83	Average	206	306
6	5400.00	55.83	74.00	-18.17	52.00	3.83	Peak	206	306
7	10400.00	58.72	68.20	-9.48	43.87	14.85	Peak	231	146

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).

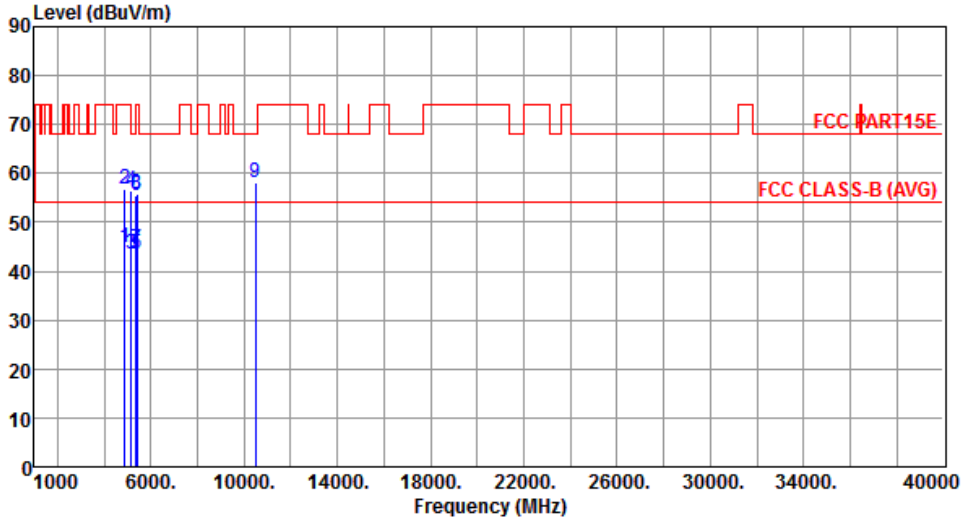
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4880.00	47.46	54.00	-6.54	44.41	3.05	Average	235	264
2	4880.00	58.15	74.00	-15.85	55.10	3.05	Peak	235	264
3	5150.00	43.35	54.00	-10.65	39.96	3.39	Average	228	251
4	5150.00	58.12	74.00	-15.88	54.73	3.39	Peak	228	251
5	5350.00	44.29	54.00	-9.71	40.55	3.74	Average	228	251
6	5350.00	58.15	74.00	-15.85	54.41	3.74	Peak	228	251
7	5400.00	44.93	54.00	-9.07	41.10	3.83	Average	230	256
8	5400.00	56.78	74.00	-17.22	52.95	3.83	Peak	230	256
9	10480.00	57.12	68.20	-11.08	41.99	15.13	Peak	210	149

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).

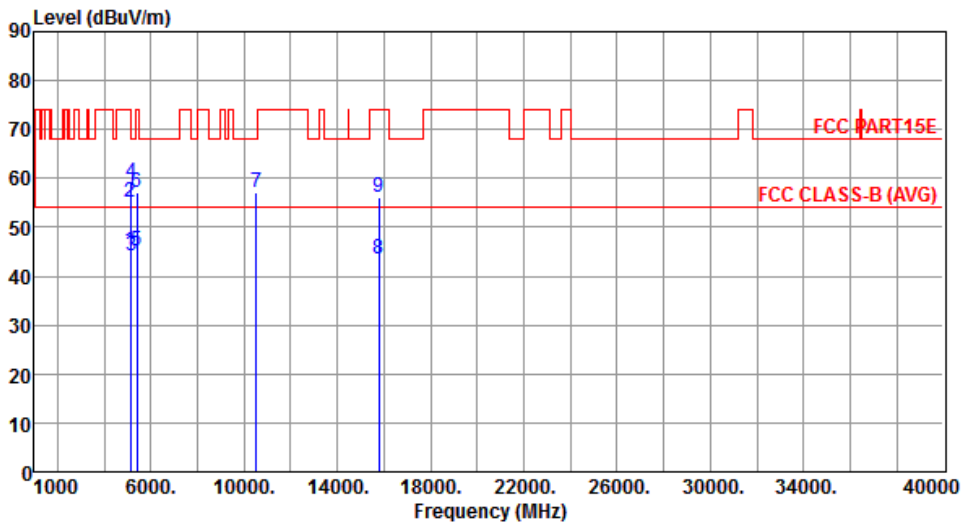
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4880.00	44.74	54.00	-9.26	41.69	3.05	Average	351	122
2	4880.00	56.89	74.00	-17.11	53.84	3.05	Peak	351	122
3	5150.00	43.39	54.00	-10.61	40.00	3.39	Average	351	122
4	5150.00	56.62	74.00	-17.38	53.23	3.39	Peak	351	122
5	5350.00	43.45	54.00	-10.55	39.71	3.74	Average	351	122
6	5350.00	55.37	74.00	-18.63	51.63	3.74	Peak	351	122
7	5400.00	44.62	54.00	-9.38	40.79	3.83	Average	206	306
8	5400.00	55.93	74.00	-18.07	52.10	3.83	Peak	206	306
9	10480.00	58.23	68.20	-9.97	43.10	15.13	Peak	231	146

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).

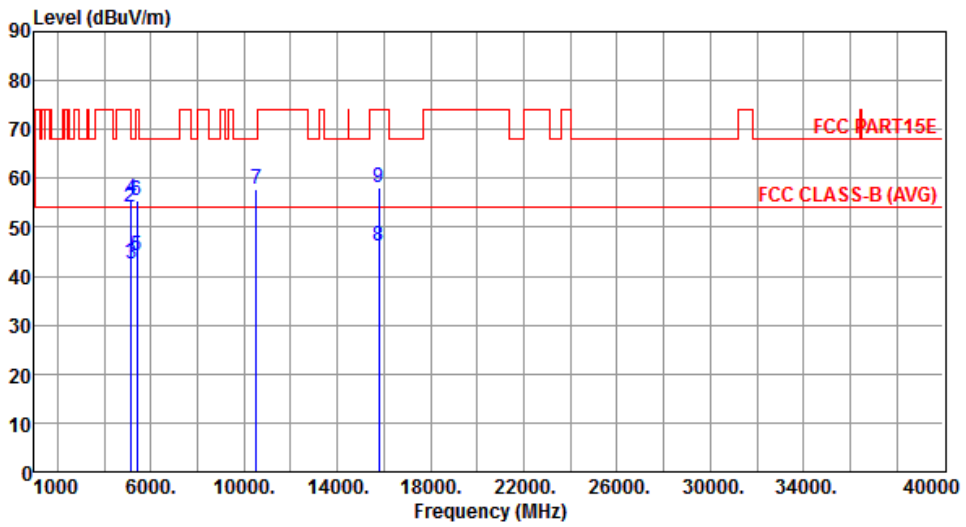
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	45.03	54.00	-8.97	41.69	3.34	Average	241	259
2	5120.00	55.08	74.00	-18.92	51.74	3.34	Peak	241	259
3	5150.00	44.16	54.00	-9.84	40.77	3.39	Average	230	245
4	5150.00	59.18	74.00	-14.82	55.79	3.39	Peak	230	245
5	5400.00	45.22	54.00	-8.78	41.39	3.83	Average	226	251
6	5400.00	57.09	74.00	-16.91	53.26	3.83	Peak	226	251
7	10520.00	57.03	68.20	-11.17	41.81	15.22	Peak	208	151
8	15780.00	43.39	54.00	-10.61	27.62	15.77	Average	210	169
9	15780.00	56.27	74.00	-17.73	40.50	15.77	Peak	210	169

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).

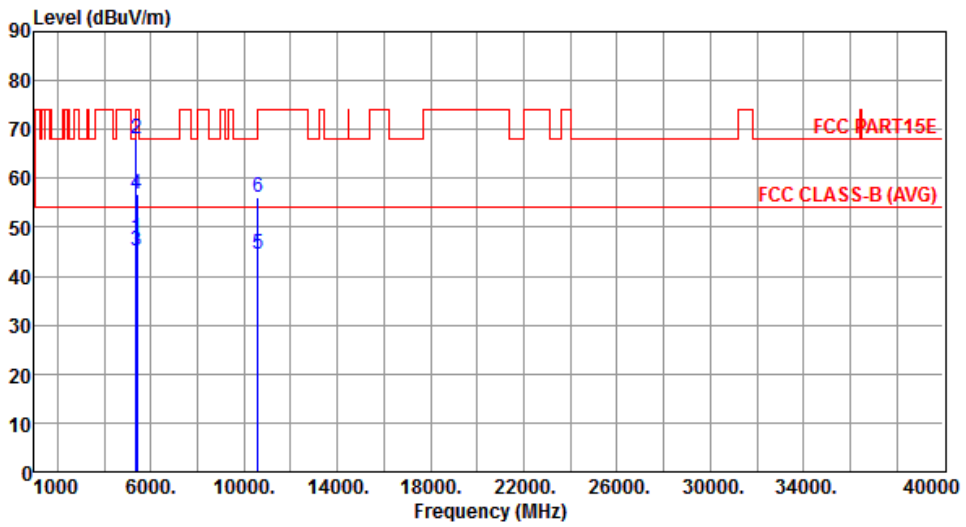
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	42.75	54.00	-11.25	39.41	3.34	Average	325	126
2	5120.00	54.16	74.00	-19.84	50.82	3.34	Peak	325	126
3	5150.00	42.36	54.00	-11.64	38.97	3.39	Average	348	125
4	5150.00	55.78	74.00	-18.22	52.39	3.39	Peak	348	125
5	5400.00	44.03	54.00	-9.97	40.20	3.83	Average	211	305
6	5400.00	55.44	74.00	-18.56	51.61	3.83	Peak	211	305
7	10520.00	57.68	68.20	-10.52	42.46	15.22	Peak	229	142
8	15780.00	46.24	54.00	-7.76	30.47	15.77	Average	221	149
9	15780.00	58.13	74.00	-15.87	42.36	15.77	Peak	221	149

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).

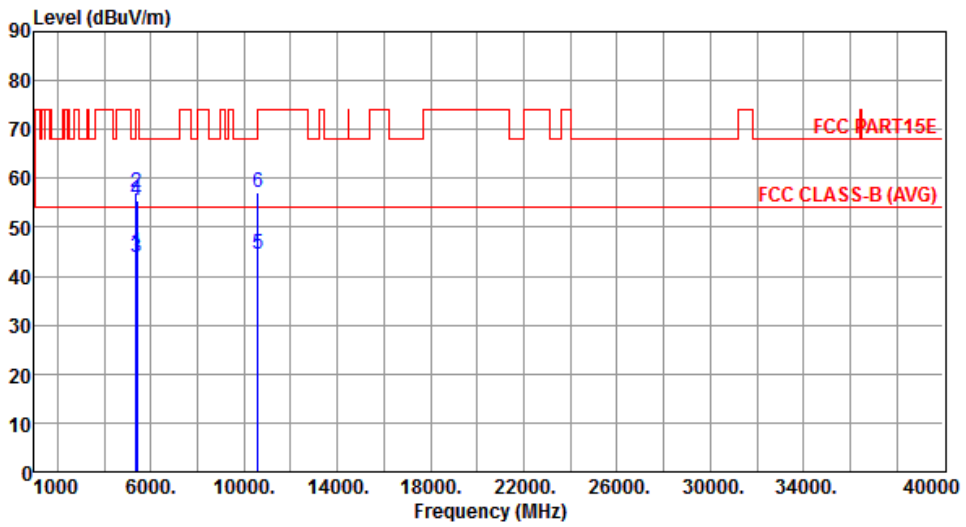
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.79	54.00	-6.21	44.05	3.74	Average	229	246
2	5350.00	68.13	74.00	-5.87	64.39	3.74	Peak	229	246
3	5400.00	45.09	54.00	-8.91	41.26	3.83	Average	221	249
4	5400.00	56.89	74.00	-17.11	53.06	3.83	Peak	221	249
5	10600.00	44.35	54.00	-9.65	29.05	15.30	Average	210	156
6	10600.00	56.12	74.00	-17.88	40.82	15.30	Peak	210	156

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).

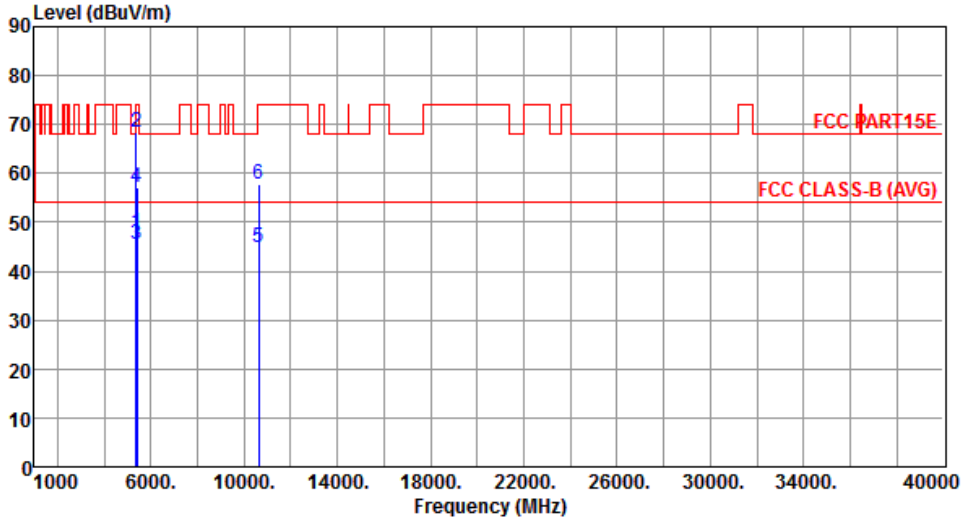
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	44.89	54.00	-9.11	41.15	3.74	Average	349	126
2	5350.00	57.15	74.00	-16.85	53.41	3.74	Peak	349	126
3	5400.00	43.96	54.00	-10.04	40.13	3.83	Average	208	306
4	5400.00	55.58	74.00	-18.42	51.75	3.83	Peak	208	306
5	10600.00	44.37	54.00	-9.63	29.07	15.30	Average	230	156
6	10600.00	57.24	74.00	-16.76	41.94	15.30	Peak	230	156

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).

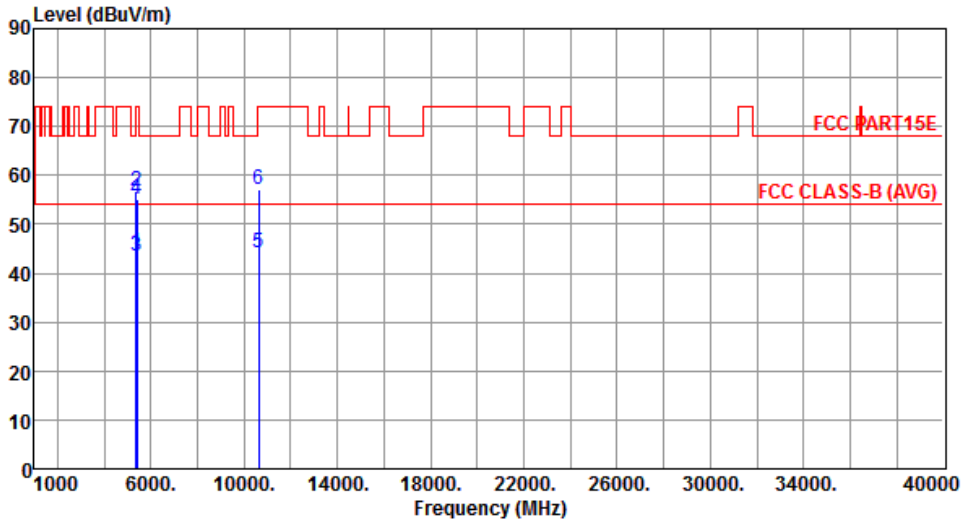
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.95	54.00	-6.05	44.21	3.74	Average	227	268
2	5350.00	68.27	74.00	-5.73	64.53	3.74	Peak	227	268
3	5400.00	45.38	54.00	-8.62	41.55	3.83	Average	218	249
4	5400.00	57.02	74.00	-16.98	53.19	3.83	Peak	218	249
5	10640.00	44.90	54.00	-9.10	29.56	15.34	Average	209	145
6	10640.00	57.63	74.00	-16.37	42.29	15.34	Peak	209	145

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).

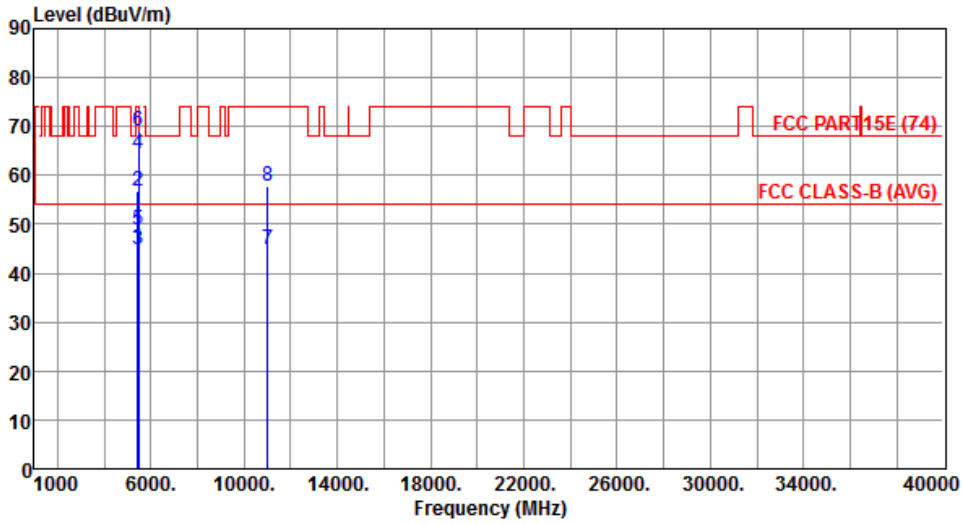
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	44.27	54.00	-9.73	40.53	3.74	Average	325	128
2	5350.00	56.89	74.00	-17.11	53.15	3.74	Peak	325	128
3	5400.00	43.63	54.00	-10.37	39.80	3.83	Average	211	309
4	5400.00	55.12	74.00	-18.88	51.29	3.83	Peak	211	309
5	10640.00	44.29	54.00	-9.71	28.95	15.34	Average	225	144
6	10640.00	57.16	74.00	-16.84	41.82	15.34	Peak	225	144

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).

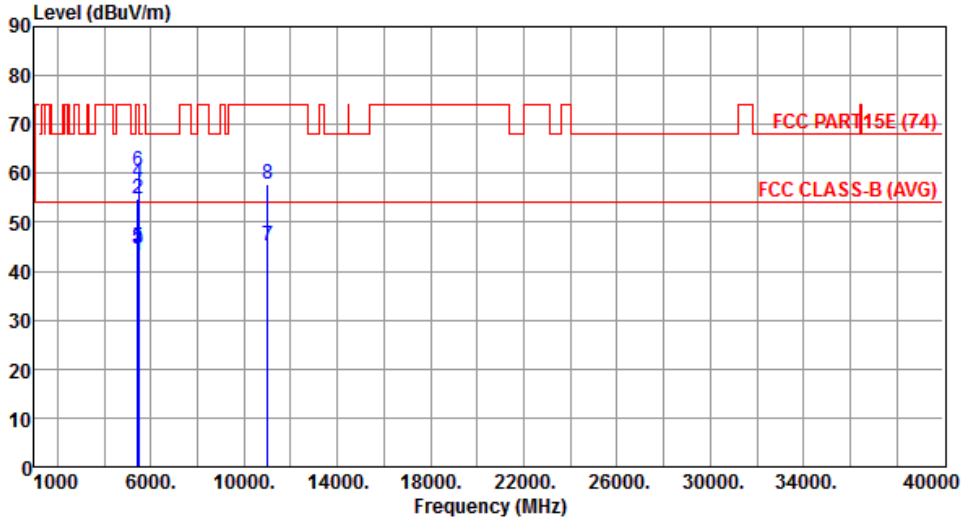
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.12	54.00	-8.88	41.26	3.86	Average	221	235
2	5440.00	56.73	74.00	-17.27	52.87	3.86	Peak	221	235
3	5460.00	44.87	54.00	-9.13	40.98	3.89	Average	226	247
4	5460.00	64.43	74.00	-9.57	60.54	3.89	Peak	226	247
5	5470.00	48.79	54.00	-5.21	44.88	3.91	Average	226	247
6	5470.00	69.15	74.00	-4.85	65.24	3.91	Peak	226	247
7	11000.00	44.72	54.00	-9.28	29.00	15.72	Average	213	152
8	11000.00	57.63	74.00	-16.37	41.91	15.72	Peak	213	152

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).

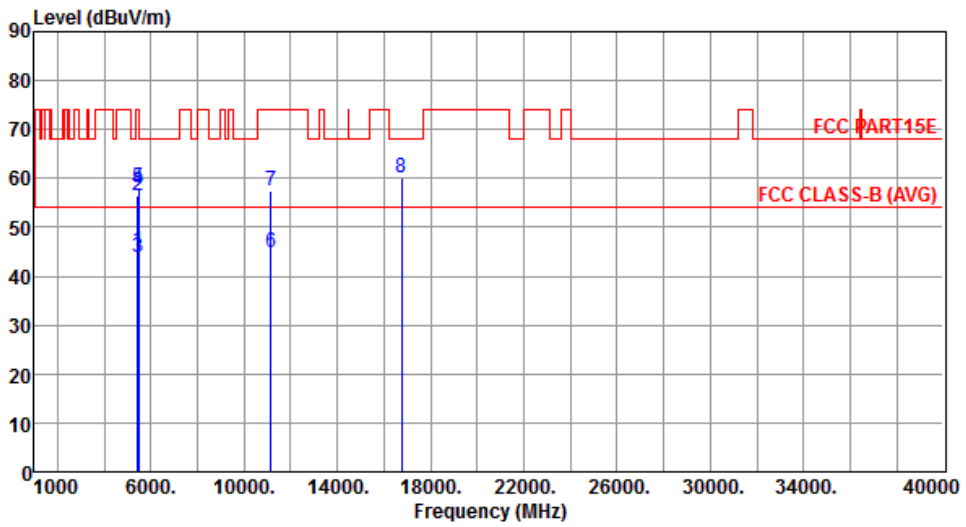
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	43.15	54.00	-10.85	39.29	3.86	Average	201	314
2	5440.00	54.76	74.00	-19.24	50.90	3.86	Peak	201	314
3	5460.00	44.43	54.00	-9.57	40.54	3.89	Average	336	131
4	5460.00	58.28	74.00	-15.72	54.39	3.89	Peak	336	131
5	5470.00	44.76	54.00	-9.24	40.85	3.91	Average	336	131
6	5470.00	60.43	74.00	-13.57	56.52	3.91	Peak	336	131
7	11000.00	45.15	54.00	-8.85	29.43	15.72	Average	221	154
8	11000.00	57.68	74.00	-16.32	41.96	15.72	Peak	221	154

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).

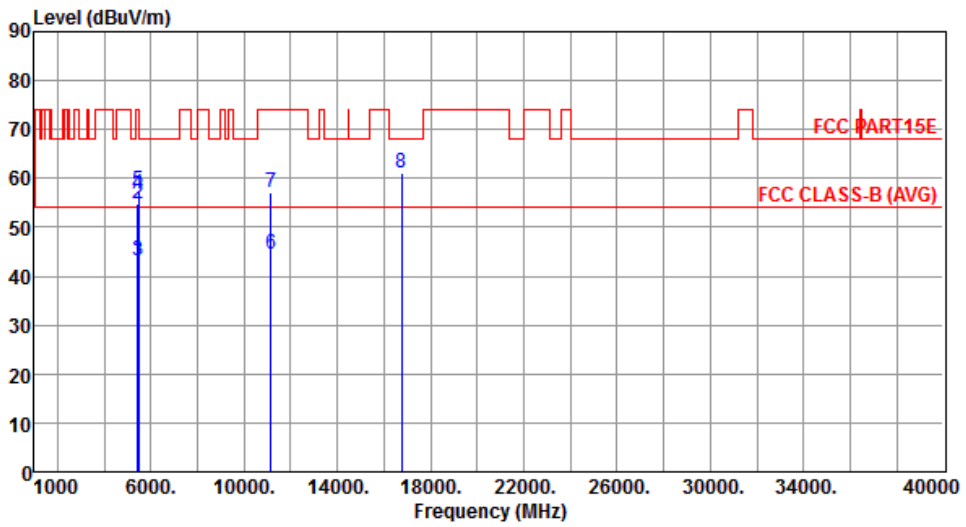
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.18	54.00	-8.82	41.32	3.86	Average	224	239
2	5440.00	56.34	74.00	-17.66	52.48	3.86	Peak	224	239
3	5460.00	43.89	54.00	-10.11	40.00	3.89	Average	228	249
4	5460.00	57.71	74.00	-16.29	53.82	3.89	Peak	228	249
5	5470.00	58.15	68.20	-10.05	54.24	3.91	Peak	228	249
6	11160.00	44.82	54.00	-9.18	29.00	15.82	Average	206	152
7	11160.00	57.51	74.00	-16.49	41.69	15.82	Peak	206	152
8	16740.00	60.08	68.20	-8.12	42.35	17.73	Peak	225	169

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).

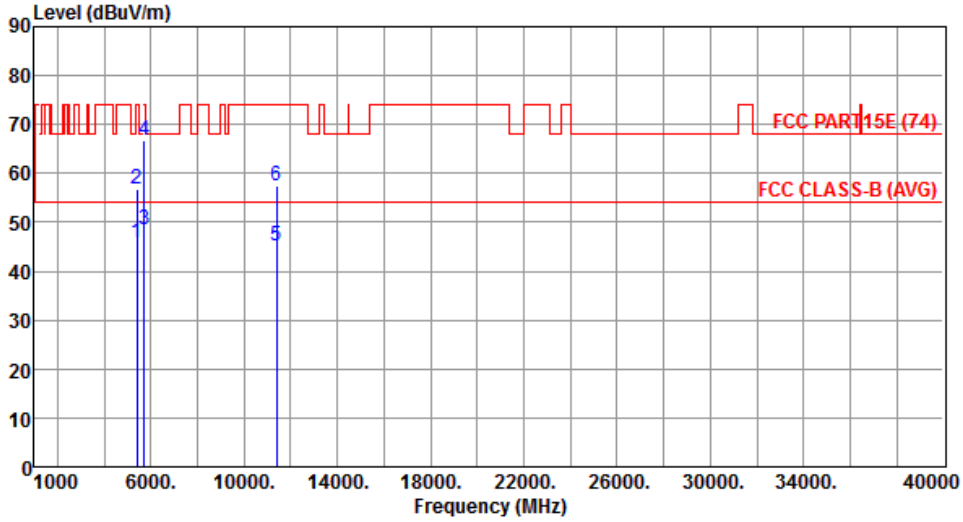
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	43.25	54.00	-10.75	39.39	3.86	Average	206	317
2	5440.00	54.93	74.00	-19.07	51.07	3.86	Peak	206	317
3	5460.00	43.28	54.00	-10.72	39.39	3.89	Average	329	136
4	5460.00	56.94	74.00	-17.06	53.05	3.89	Peak	329	136
5	5470.00	57.33	68.20	-10.87	53.42	3.91	Peak	329	136
6	11160.00	44.66	54.00	-9.34	28.84	15.82	Average	225	169
7	11160.00	57.05	74.00	-16.95	41.23	15.82	Peak	225	169
8	16740.00	60.96	68.20	-7.24	43.23	17.73	Peak	228	206

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).

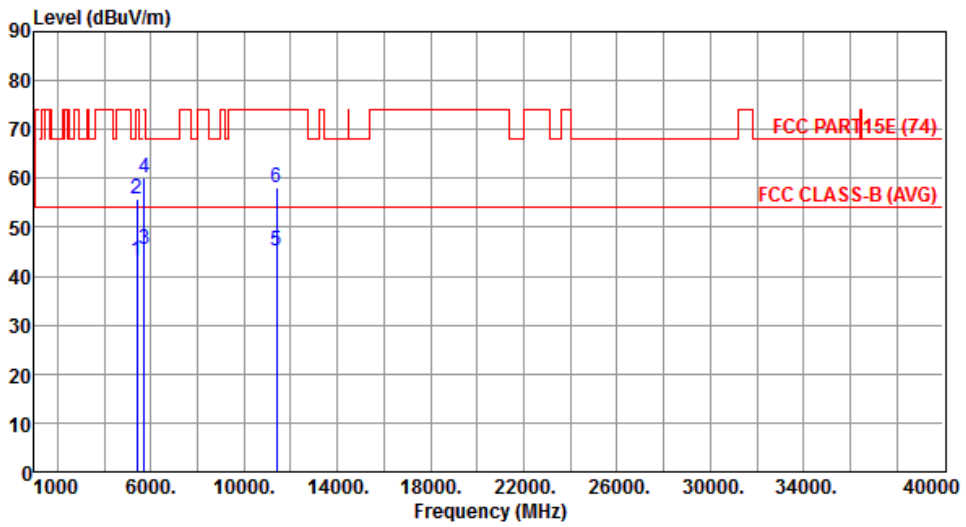
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	45.96	54.00	-8.04	42.13	3.83	Average	226	231
2	5400.00	56.73	74.00	-17.27	52.90	3.83	Peak	226	231
3	5725.00	48.43	54.00	-5.57	43.97	4.46	Average	227	245
4	5725.00	66.72	74.00	-7.28	62.26	4.46	Peak	227	245
5	11400.00	45.06	54.00	-8.94	29.11	15.95	Average	201	148
6	11400.00	57.38	74.00	-16.62	41.43	15.95	Peak	201	148

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).

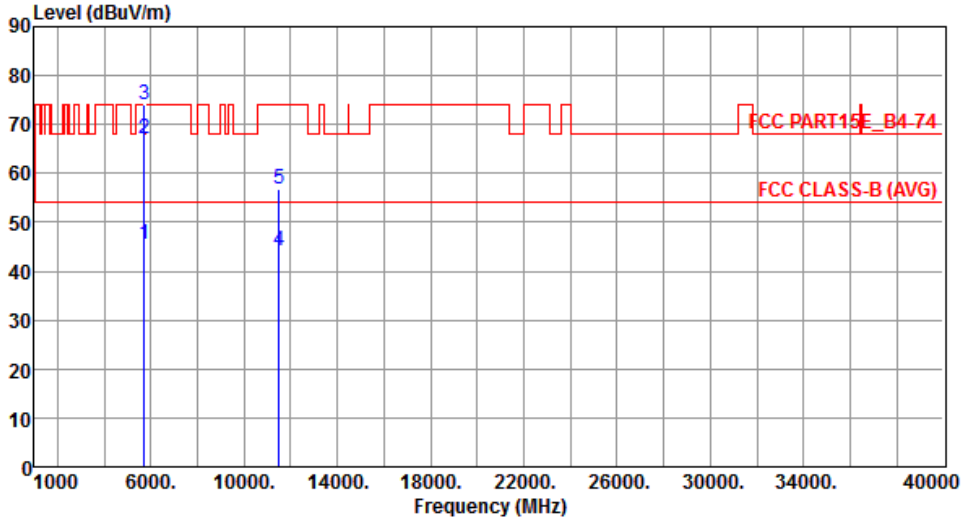
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	43.19	54.00	-10.81	39.36	3.83	Average	201	324
2	5400.00	55.86	74.00	-18.14	52.03	3.83	Peak	201	324
3	5725.00	45.58	54.00	-8.42	41.12	4.46	Average	324	139
4	5725.00	60.24	74.00	-13.76	55.78	4.46	Peak	324	139
5	11400.00	45.28	54.00	-8.72	29.33	15.95	Average	230	169
6	11400.00	58.11	74.00	-15.89	42.16	15.95	Peak	230	169

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).

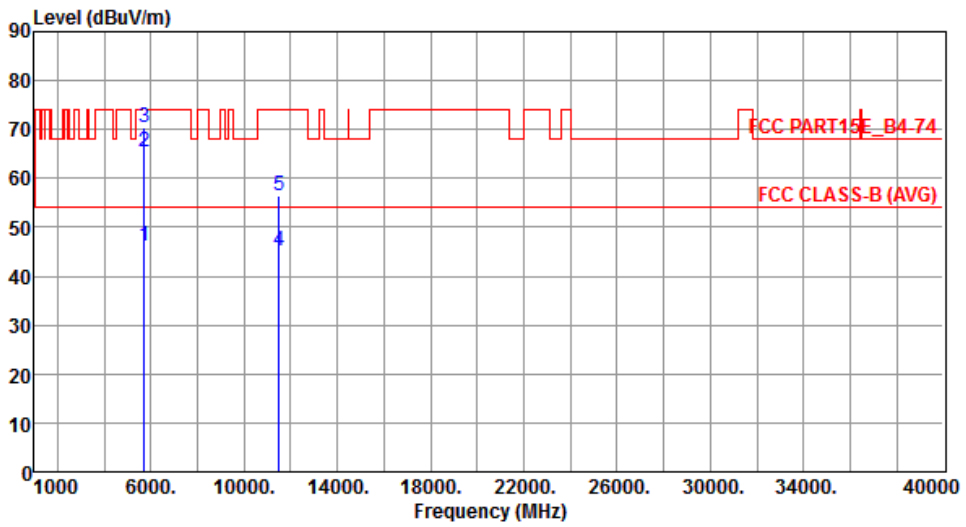
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	45.43	54.00	-8.57	41.01	4.42	Average	228	245
2	5715.00	67.15	74.00	-6.85	62.73	4.42	Peak	228	245
3	5725.00	74.09	78.20	-4.11	69.63	4.46	Peak	228	245
4	11490.00	44.08	54.00	-9.92	28.09	15.99	Average	210	148
5	11490.00	56.72	74.00	-17.28	40.73	15.99	Peak	210	148

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).

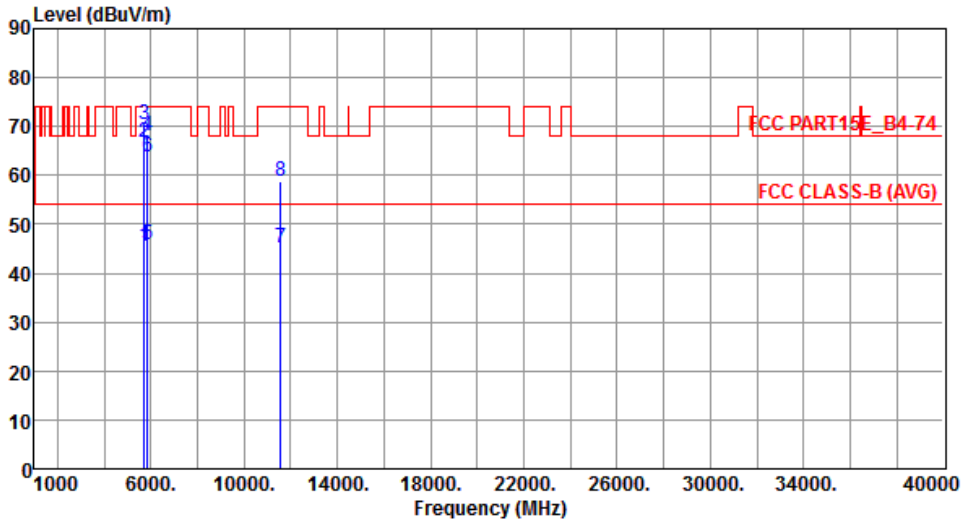
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	46.08	54.00	-7.92	41.66	4.42	Average	321	142
2	5715.00	65.33	74.00	-8.67	60.91	4.42	Peak	321	142
3	5725.00	70.29	78.20	-7.91	65.83	4.46	Peak	321	142
4	11490.00	45.12	54.00	-8.88	29.13	15.99	Average	241	162
5	11490.00	56.58	74.00	-17.42	40.59	15.99	Peak	241	162

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).

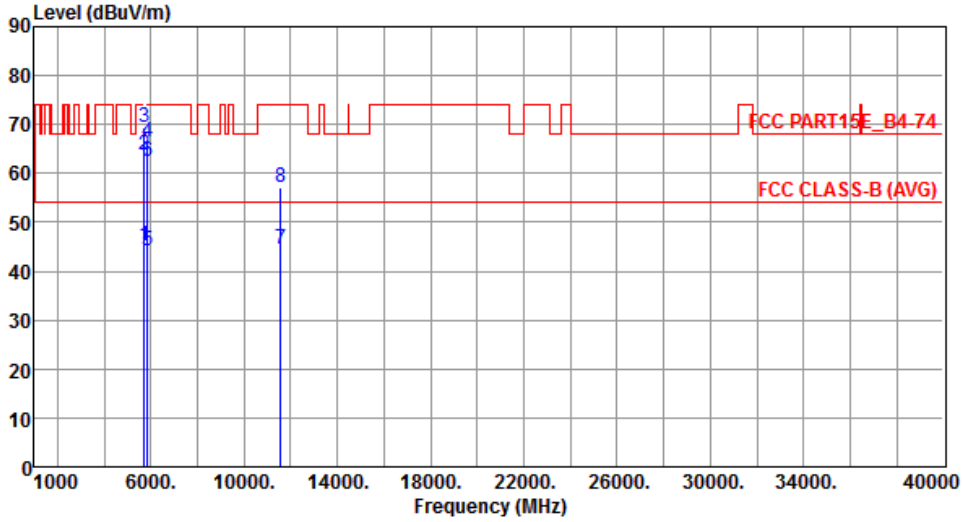
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	45.53	54.00	-8.47	41.11	4.42	Average	218	243
2	5715.00	66.71	74.00	-7.29	62.29	4.42	Peak	218	243
3	5725.00	70.25	78.20	-7.95	65.79	4.46	Peak	218	243
4	5850.00	68.13	78.20	-10.07	63.37	4.76	Peak	217	244
5	5860.00	45.75	54.00	-8.25	40.97	4.78	Average	217	244
6	5860.00	63.78	74.00	-10.22	59.00	4.78	Peak	217	244
7	11570.00	45.25	54.00	-8.75	29.40	15.85	Average	236	151
8	11570.00	58.76	74.00	-15.24	42.91	15.85	Peak	236	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).

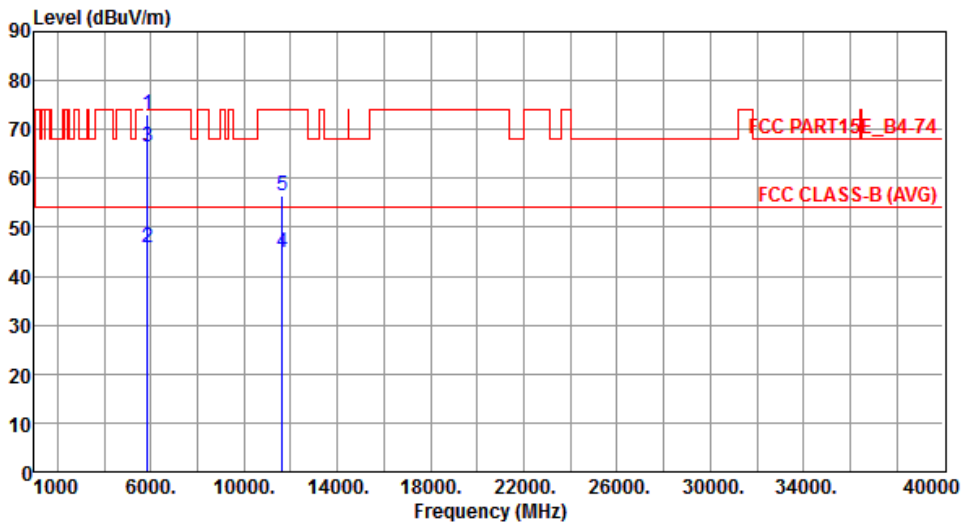
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	45.06	54.00	-8.94	40.64	4.42	Average	321	142
2	5715.00	63.68	74.00	-10.32	59.26	4.42	Peak	321	142
3	5725.00	69.33	78.20	-8.87	64.87	4.46	Peak	321	142
4	5850.00	66.57	78.20	-11.63	61.81	4.76	Peak	324	145
5	5860.00	44.26	54.00	-9.74	39.48	4.78	Average	324	145
6	5860.00	62.58	74.00	-11.42	57.80	4.78	Peak	324	145
7	11570.00	44.39	54.00	-9.61	28.54	15.85	Average	268	196
8	11570.00	57.14	74.00	-16.86	41.29	15.85	Peak	268	196

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).

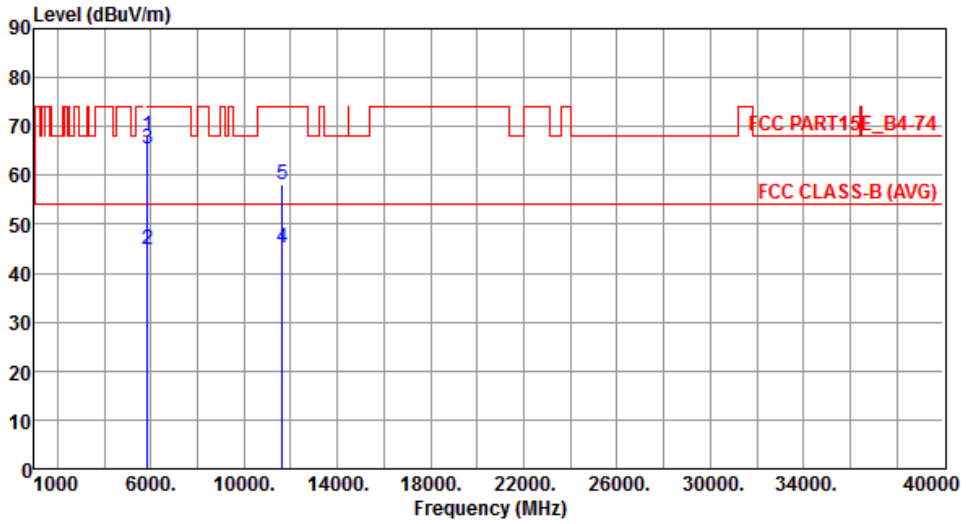
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	72.96	78.20	-5.24	68.20	4.76	Peak	266	243
2	5860.00	45.88	54.00	-8.12	41.10	4.78	Average	266	243
3	5860.00	66.28	74.00	-7.72	61.50	4.78	Peak	266	243
4	11650.00	44.75	54.00	-9.25	29.08	15.67	Average	233	138
5	11650.00	56.43	74.00	-17.57	40.76	15.67	Peak	233	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	11a	Test Freq. (MHz)	5825
Polarization	Vertical		

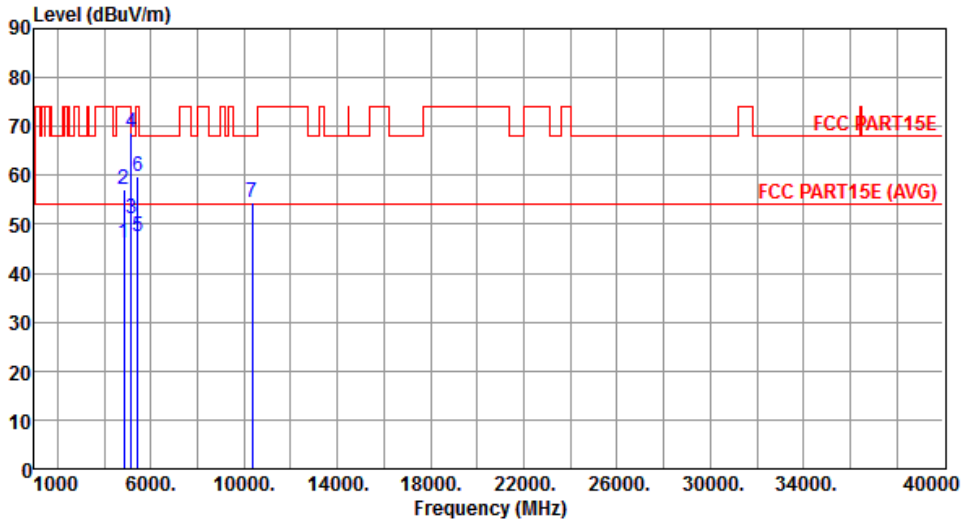


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.22	78.20	-9.98	63.46	4.76	Peak	326	149
2	5860.00	44.78	54.00	-9.22	40.00	4.78	Average	326	149
3	5860.00	65.27	74.00	-8.73	60.49	4.78	Peak	326	149
4	11650.00	45.08	54.00	-8.92	29.41	15.67	Average	266	201
5	11650.00	58.05	74.00	-15.95	42.38	15.67	Peak	266	201

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).

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

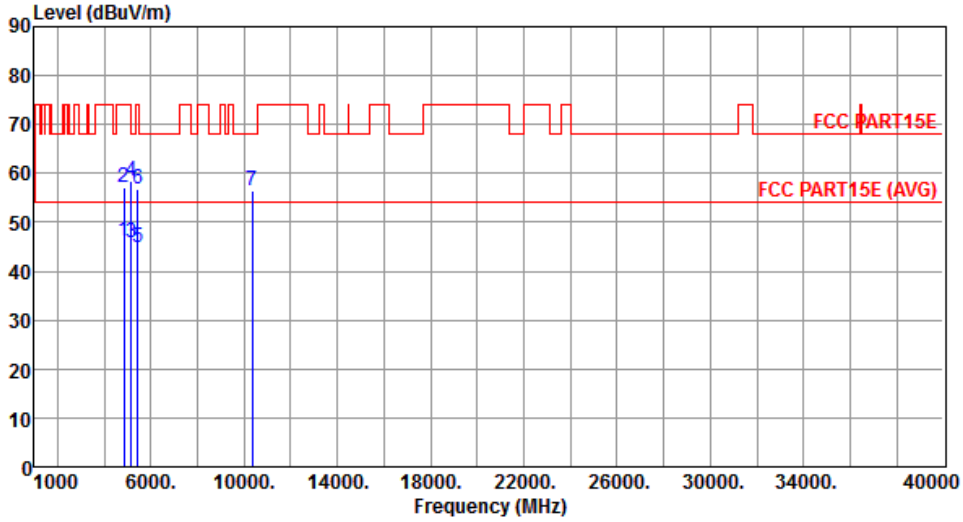
Modulation	HT20	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4840.00	46.08	54.00	-7.92	40.25	5.83	Average	281	254
2	4840.00	57.27	74.00	-16.73	51.44	5.83	Peak	281	254
3	5150.00	51.01	54.00	-2.99	44.82	6.19	Average	281	254
4	5150.00	68.64	74.00	-5.36	62.45	6.19	Peak	281	254
5	5440.00	47.35	54.00	-6.65	40.74	6.61	Average	281	254
6	5440.00	59.89	74.00	-14.11	53.28	6.61	Peak	281	254
7	10360.00	54.50	68.20	-13.70	38.26	16.24	Peak	281	254

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).

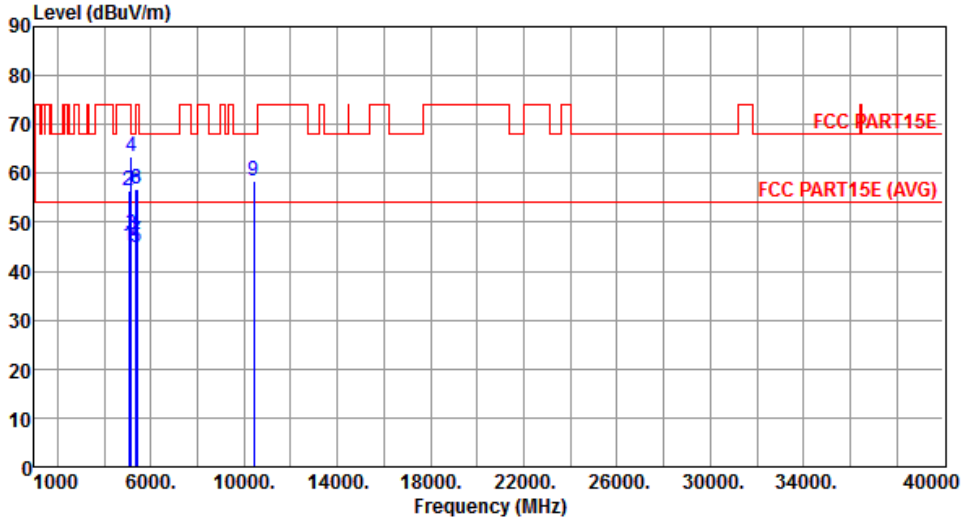
Modulation	HT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4840.00	46.07	54.00	-7.93	40.24	5.83	Average	265	266
2	4840.00	57.10	74.00	-16.90	51.27	5.83	Peak	265	266
3	5150.00	45.68	54.00	-8.32	39.49	6.19	Average	265	266
4	5150.00	58.46	74.00	-15.54	52.27	6.19	Peak	265	266
5	5440.00	44.81	54.00	-9.19	38.20	6.61	Average	265	266
6	5440.00	56.78	74.00	-17.22	50.17	6.61	Peak	265	266
7	10360.00	56.50	68.20	-11.70	40.26	16.24	Peak	265	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).

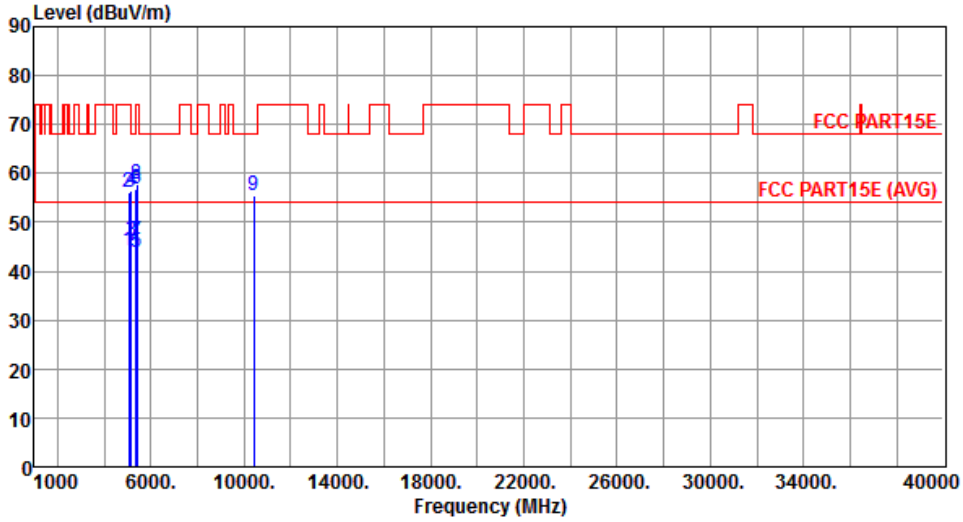
Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	45.27	54.00	-8.73	39.26	6.01	Average	215	253
2	5040.00	56.48	74.00	-17.52	50.47	6.01	Peak	215	253
3	5150.00	47.45	54.00	-6.55	41.26	6.19	Average	270	262
4	5150.00	63.48	74.00	-10.52	57.29	6.19	Peak	270	262
5	5350.00	44.76	54.00	-9.24	38.25	6.51	Average	270	262
6	5350.00	56.77	74.00	-17.23	50.26	6.51	Peak	270	262
7	5400.00	46.24	54.00	-7.76	39.66	6.58	Average	270	262
8	5400.00	56.79	74.00	-17.21	50.21	6.58	Peak	270	262
9	10400.00	58.50	68.20	-9.70	42.19	16.31	Peak	291	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).

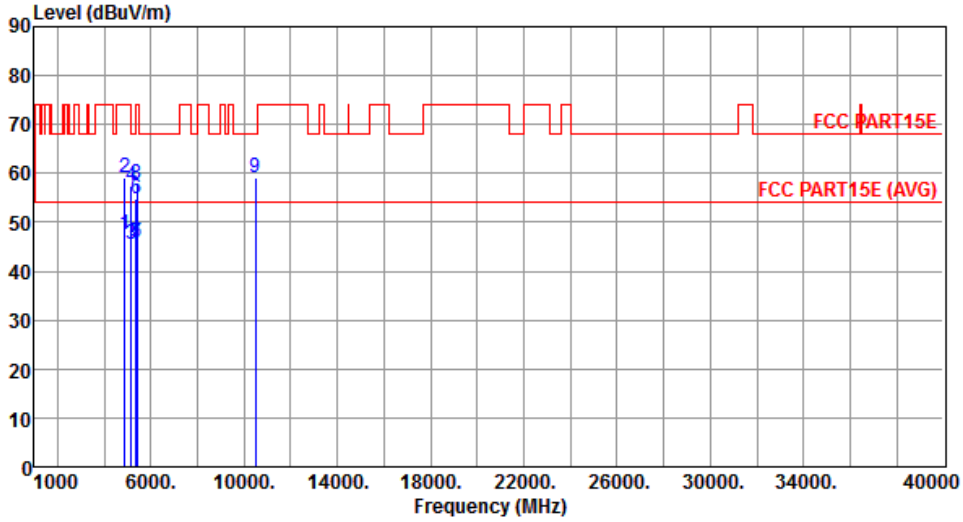
Modulation	HT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	44.23	54.00	-9.77	38.22	6.01	Average	288	268
2	5040.00	56.14	74.00	-17.86	50.13	6.01	Peak	288	268
3	5150.00	46.31	54.00	-7.69	40.12	6.19	Average	288	268
4	5150.00	56.43	74.00	-17.57	50.24	6.19	Peak	288	268
5	5350.00	43.92	54.00	-10.08	37.41	6.51	Average	288	268
6	5350.00	56.82	74.00	-17.18	50.31	6.51	Peak	288	268
7	5400.00	46.26	54.00	-7.74	39.68	6.58	Average	288	268
8	5400.00	57.93	74.00	-16.07	51.35	6.58	Peak	288	268
9	10400.00	55.56	68.20	-12.64	39.25	16.31	Peak	265	182

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).

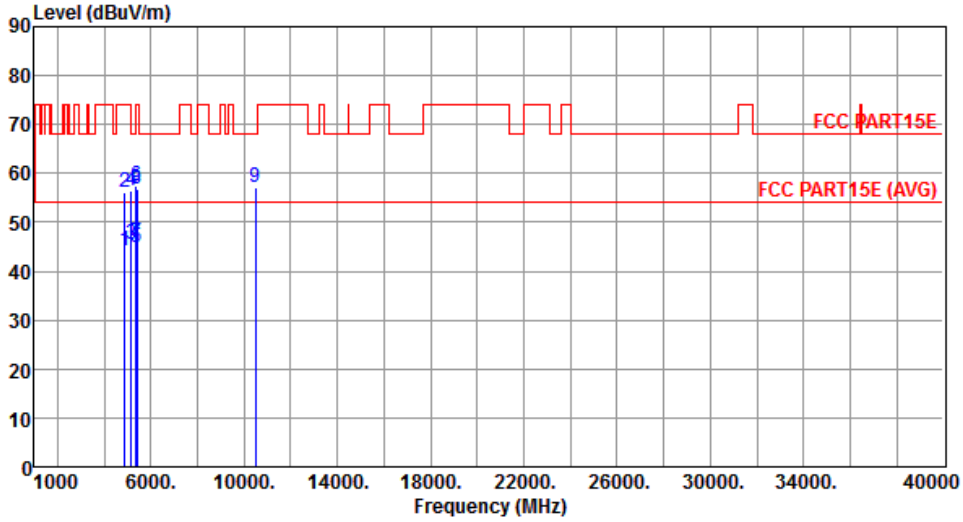
Modulation	HT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4880.00	47.65	54.00	-6.35	41.79	5.86	Average	185	235
2	4880.00	59.10	74.00	-14.90	53.24	5.86	Peak	185	235
3	5150.00	45.46	54.00	-8.54	39.27	6.19	Average	265	241
4	5150.00	57.29	74.00	-16.71	51.10	6.19	Peak	265	241
5	5350.00	45.77	54.00	-8.23	39.26	6.51	Average	211	210
6	5350.00	54.77	74.00	-19.23	48.26	6.51	Peak	211	210
7	5400.00	45.84	54.00	-8.16	39.26	6.58	Average	185	25
8	5400.00	57.64	74.00	-16.36	51.06	6.58	Peak	185	235
9	10480.00	59.25	68.20	-8.95	42.80	16.45	Peak	288	275

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).

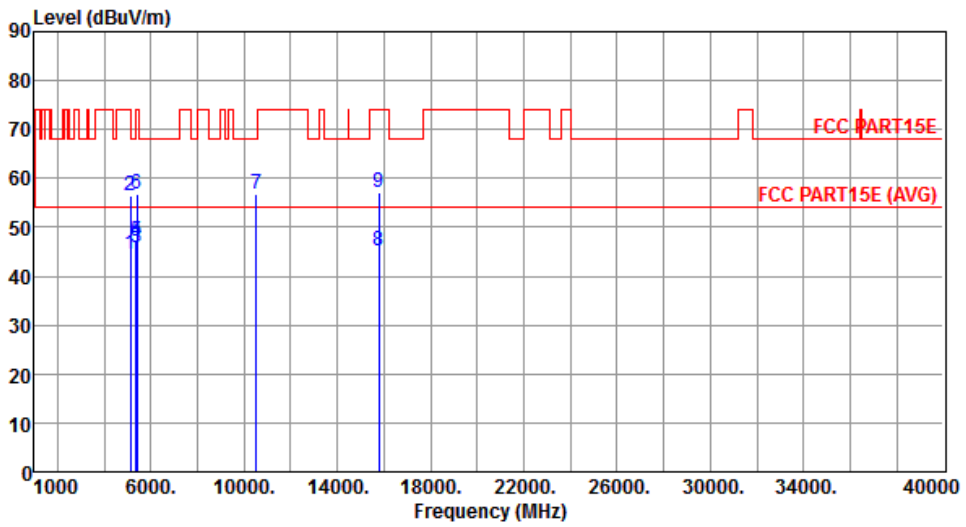
Modulation	HT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4880.00	44.12	54.00	-9.88	38.26	5.86	Average	244	241
2	4880.00	56.23	74.00	-17.77	50.37	5.86	Peak	244	241
3	5150.00	45.37	54.00	-8.63	39.18	6.19	Average	288	268
4	5150.00	56.45	74.00	-17.55	50.26	6.19	Peak	288	268
5	5350.00	44.96	54.00	-9.04	38.45	6.51	Average	256	158
6	5350.00	57.30	74.00	-16.70	50.79	6.51	Peak	256	158
7	5400.00	45.85	54.00	-8.15	39.27	6.58	Average	244	241
8	5400.00	56.87	74.00	-17.13	50.29	6.58	Peak	244	241
9	10480.00	56.98	68.20	-11.22	40.53	16.45	Peak	341	328

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).

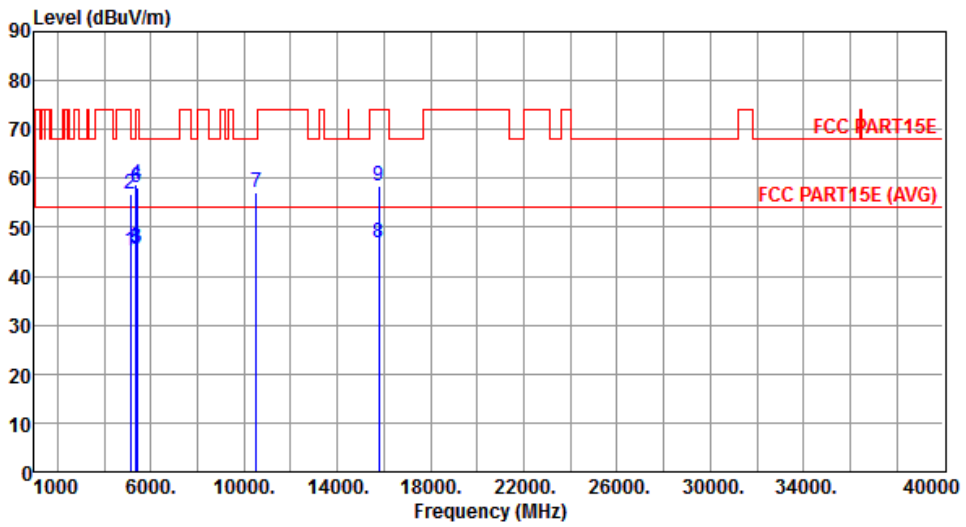
Modulation	HT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	44.40	54.00	-9.60	38.25	6.15	Average	225	241
2	5120.00	56.41	74.00	-17.59	50.26	6.15	Peak	225	241
3	5350.00	45.77	54.00	-8.23	39.26	6.51	Average	225	241
4	5350.00	47.22	74.00	-26.78	40.71	6.51	Peak	225	241
5	5400.00	47.05	54.00	-6.95	40.47	6.58	Average	225	241
6	5400.00	56.87	74.00	-17.13	50.29	6.58	Peak	225	241
7	10520.00	56.67	68.20	-11.53	40.18	16.49	Peak	185	226
8	15780.00	45.19	54.00	-8.81	28.25	16.94	Average	175	235
9	15780.00	57.21	74.00	-16.79	40.27	16.94	Peak	175	235

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).

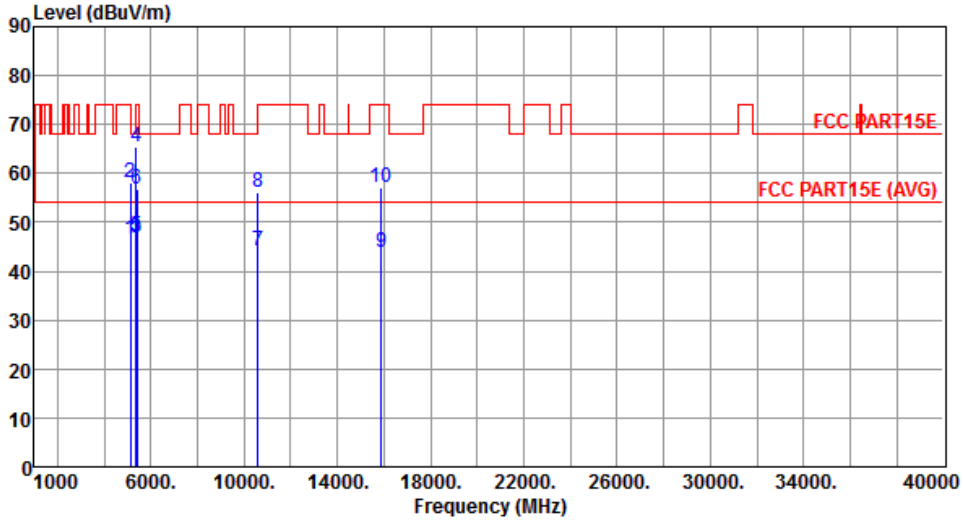
Modulation	HT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	45.10	54.00	-8.90	38.95	6.15	Average	166	91
2	5120.00	56.68	74.00	-17.32	50.53	6.15	Peak	166	91
3	5350.00	45.72	54.00	-8.28	39.21	6.51	Average	166	91
4	5350.00	58.69	74.00	-15.31	52.18	6.51	Peak	166	91
5	5400.00	45.54	54.00	-8.46	38.96	6.58	Average	166	91
6	5400.00	58.06	74.00	-15.94	51.48	6.58	Peak	166	91
7	10520.00	57.04	68.20	-11.16	40.55	16.49	Peak	221	353
8	15780.00	46.78	54.00	-7.22	29.84	16.94	Average	220	96
9	15780.00	58.45	74.00	-15.55	41.51	16.94	Peak	220	96

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).

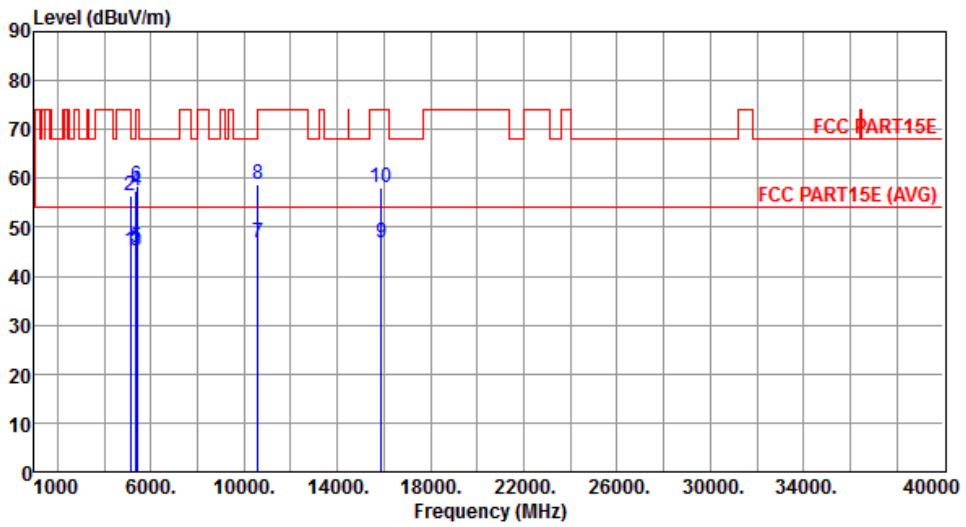
Modulation	HT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	46.57	54.00	-7.43	40.42	6.15	Average	241	245
2	5120.00	58.10	74.00	-15.90	51.95	6.15	Peak	241	245
3	5350.00	46.95	54.00	-7.05	40.44	6.51	Average	241	245
4	5350.00	65.30	74.00	-8.70	58.79	6.51	Peak	241	245
5	5400.00	47.15	54.00	-6.85	40.57	6.58	Average	241	245
6	5400.00	56.87	74.00	-17.13	50.29	6.58	Peak	241	245
7	10600.00	44.23	54.00	-9.77	27.72	16.51	Average	196	225
8	10600.00	56.10	74.00	-17.90	39.59	16.51	Peak	196	225
9	15900.00	43.97	54.00	-10.03	27.26	16.71	Average	182	213
10	15900.00	56.97	74.00	-17.03	40.26	16.71	Peak	182	213

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).

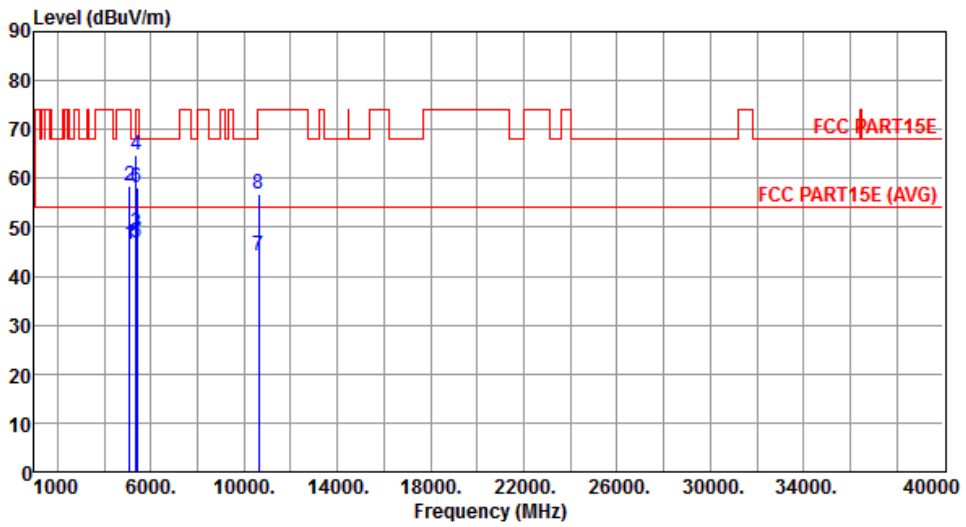
Modulation	HT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5120.00	45.12	54.00	-8.88	38.97	6.15	Average	183	86
2	5120.00	56.41	74.00	-17.59	50.26	6.15	Peak	183	86
3	5350.00	45.29	54.00	-8.71	38.78	6.51	Average	183	86
4	5350.00	57.59	74.00	-16.41	51.08	6.51	Peak	183	86
5	5400.00	45.85	54.00	-8.15	39.27	6.58	Average	183	86
6	5400.00	58.37	74.00	-15.63	51.79	6.58	Peak	183	86
7	10600.00	46.76	54.00	-7.24	30.25	16.51	Average	212	338
8	10600.00	58.67	74.00	-15.33	42.16	16.51	Peak	212	338
9	15900.00	46.91	54.00	-7.09	30.20	16.71	Average	220	96
10	15900.00	57.98	74.00	-16.02	41.27	16.71	Peak	220	96

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).

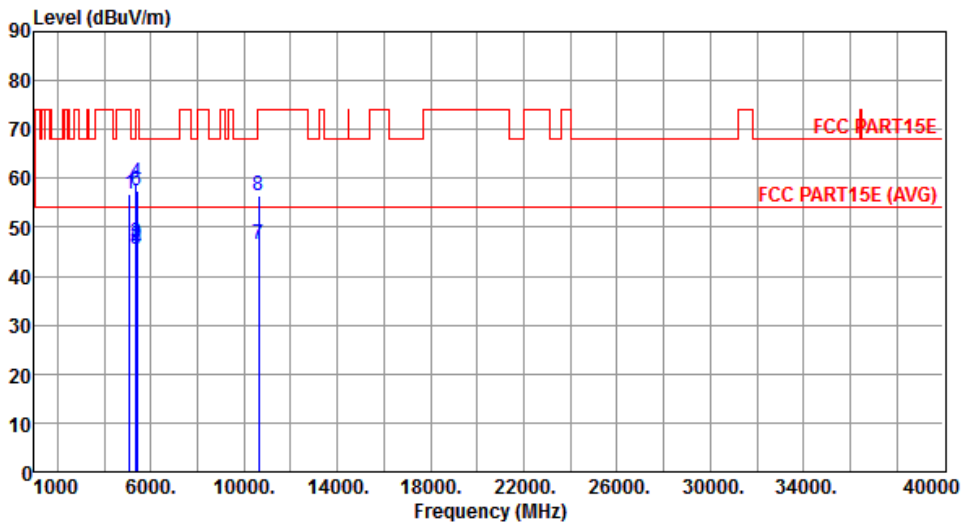
Modulation	HT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5080.00	46.43	54.00	-7.57	40.35	6.08	Average	166	141
2	5080.00	58.34	74.00	-15.66	52.26	6.08	Peak	166	141
3	5350.00	48.90	54.00	-5.10	42.39	6.51	Average	166	141
4	5350.00	64.75	74.00	-9.25	58.24	6.51	Peak	166	141
5	5400.00	46.83	54.00	-7.17	40.25	6.58	Average	166	141
6	5400.00	57.96	74.00	-16.04	51.38	6.58	Peak	166	141
7	10640.00	44.30	54.00	-9.70	27.77	16.53	Average	162	218
8	10640.00	56.63	74.00	-17.37	40.10	16.53	Peak	162	218

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).

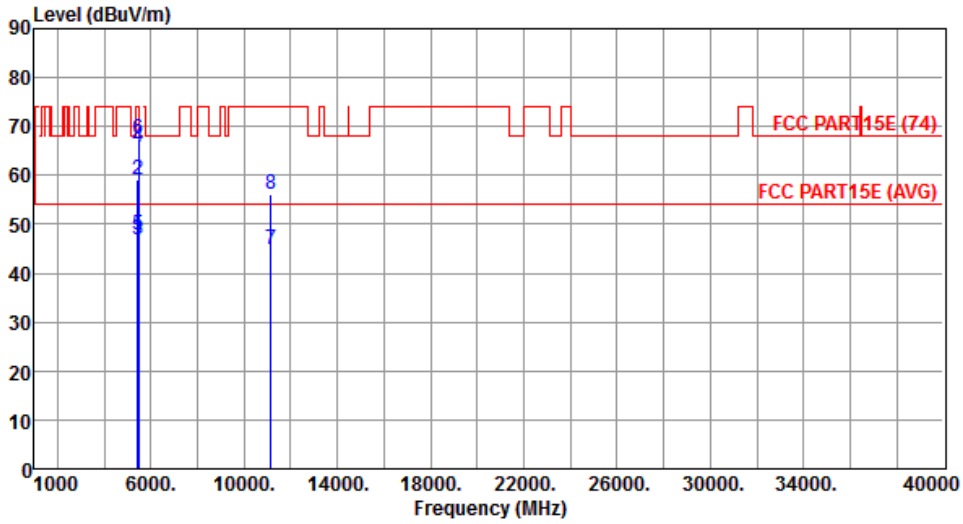
Modulation	HT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5080.00	56.70	74.00	-17.30	50.62	6.08	Peak	155	95
2	5350.00	46.30	54.00	-7.70	40.22	6.08	Average	155	95
3	5350.00	46.73	54.00	-7.27	40.22	6.51	Average	155	95
4	5350.00	59.25	74.00	-14.75	52.74	6.51	Peak	155	95
5	5400.00	45.41	54.00	-8.59	38.83	6.58	Average	155	95
6	5400.00	57.37	74.00	-16.63	50.79	6.58	Peak	155	95
7	10640.00	46.42	54.00	-7.58	29.89	16.53	Average	196	286
8	10640.00	56.30	74.00	-17.70	39.77	16.53	Peak	196	286

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).

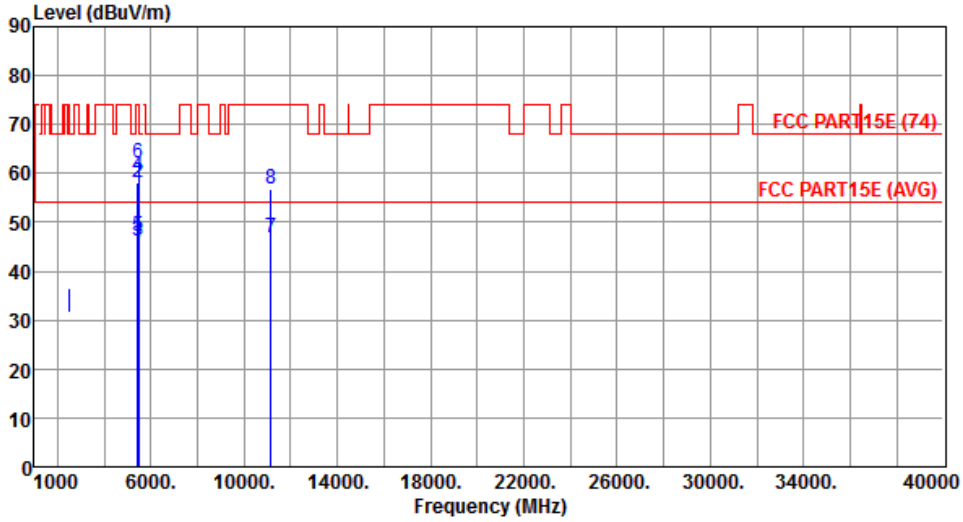
Modulation	HT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	46.84	54.00	-7.16	40.23	6.61	Average	271	251
2	5440.00	59.14	74.00	-14.86	52.53	6.61	Peak	271	251
3	5460.00	46.67	54.00	-7.33	40.03	6.64	Average	271	251
4	5460.00	65.84	74.00	-8.16	59.20	6.64	Peak	271	251
5	5470.00	47.66	54.00	-6.34	41.01	6.65	Average	271	251
6	5470.00	67.41	74.00	-6.59	60.76	6.65	Peak	271	251
7	11160.00	44.98	54.00	-9.02	28.29	16.69	Average	165	212
8	11160.00	56.07	74.00	-17.93	39.38	16.69	Peak	165	212

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).

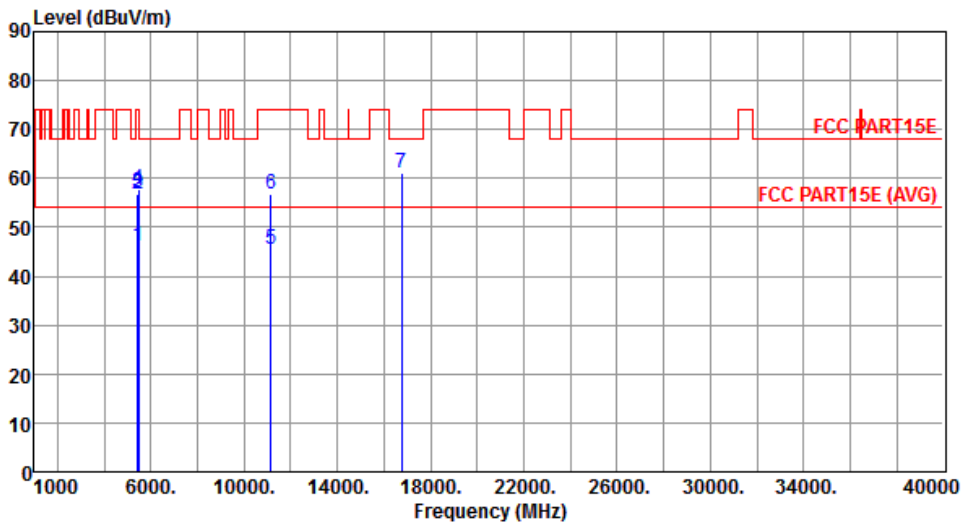
Modulation	HT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.88	54.00	-8.12	39.27	6.61	Average	249	270
2	5440.00	58.01	74.00	-15.99	51.40	6.61	Peak	249	270
3	5460.00	46.12	54.00	-7.88	39.48	6.64	Average	249	270
4	5460.00	59.35	74.00	-14.65	52.71	6.64	Peak	249	270
5	5470.00	47.05	54.00	-6.95	40.40	6.65	Average	249	270
6	5470.00	62.19	74.00	-11.81	55.54	6.65	Peak	249	270
7	11160.00	46.89	54.00	-7.11	30.20	16.69	Average	188	262
8	11160.00	56.94	74.00	-17.06	40.25	16.69	Peak	188	262

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).

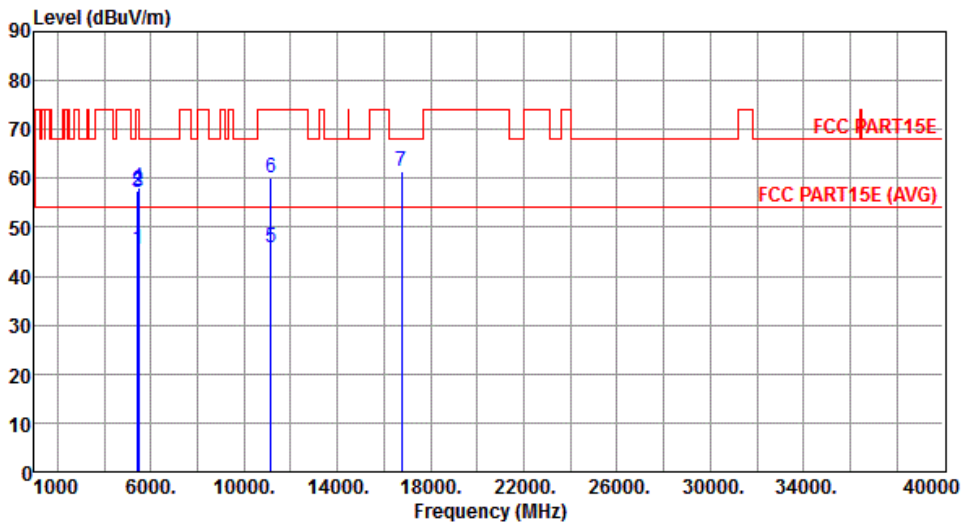
Modulation	HT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	46.02	54.00	-7.98	39.41	6.61	Average	221	260
2	5440.00	56.79	74.00	-17.21	50.18	6.61	Peak	221	260
3	5460.00	57.13	74.00	-16.87	50.49	6.64	Peak	221	260
4	5470.00	57.93	68.20	-10.27	51.28	6.65	Peak	221	260
5	11160.00	45.56	54.00	-8.44	28.87	16.69	Average	212	205
6	11160.00	56.94	74.00	-17.06	40.25	16.69	Peak	212	205
7	16740.00	61.03	68.20	-7.17	42.77	18.26	Peak	158	275

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).

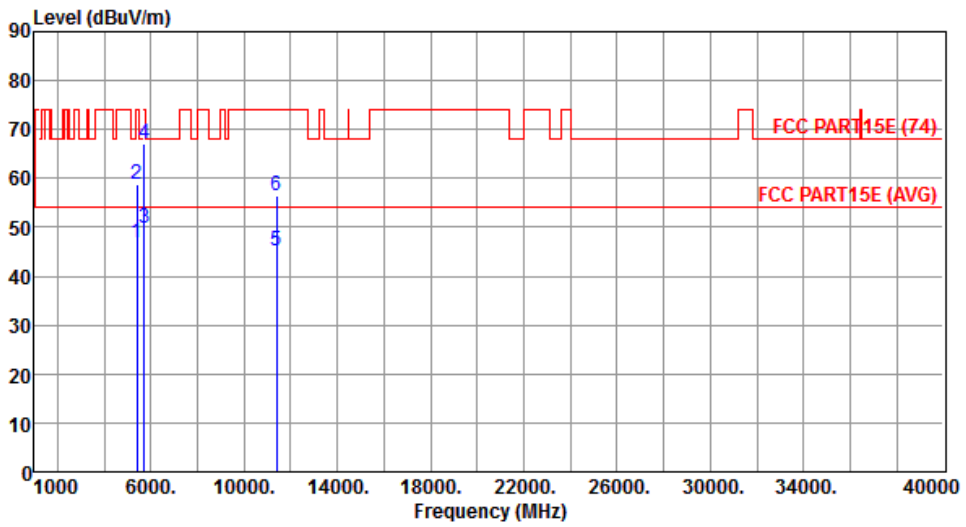
Modulation	HT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.44	54.00	-8.56	38.83	6.61	Average	255	265
2	5440.00	57.53	74.00	-16.47	50.92	6.61	Peak	255	265
3	5460.00	57.15	74.00	-16.85	50.51	6.64	Peak	255	265
4	5470.00	58.00	68.20	-10.20	51.35	6.65	Peak	255	265
5	11160.00	45.67	54.00	-8.33	28.98	16.69	Average	348	1
6	11160.00	59.98	74.00	-14.02	43.29	16.69	Peak	348	1
7	16740.00	61.52	68.20	-6.68	43.26	18.26	Peak	188	78

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).

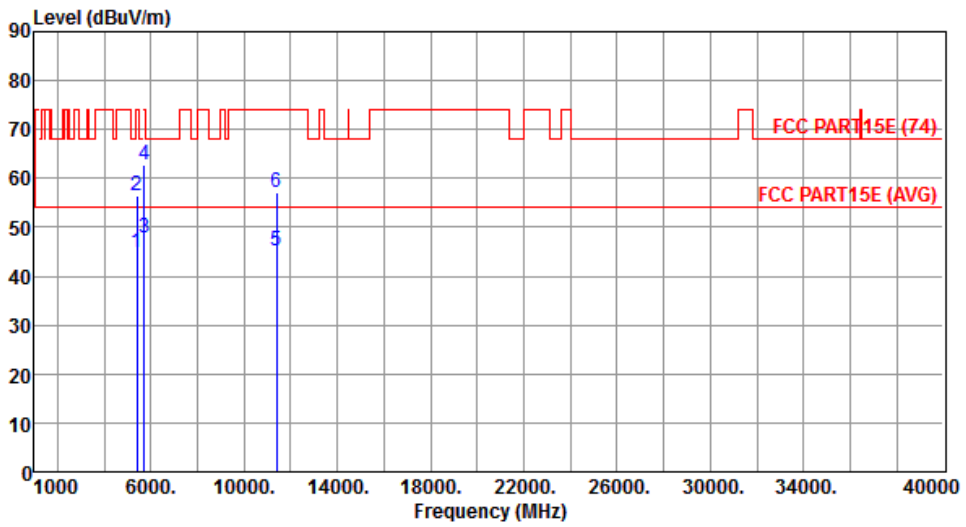
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	46.98	54.00	-7.02	40.40	6.58	Average	263	261
2	5400.00	58.75	74.00	-15.25	52.17	6.58	Peak	263	261
3	5725.00	49.83	54.00	-4.17	42.70	7.13	Average	263	261
4	5725.00	67.14	74.00	-6.86	60.01	7.13	Peak	263	261
5	11400.00	45.28	54.00	-8.72	28.51	16.77	Average	168	245
6	11400.00	56.54	74.00	-17.46	39.77	16.77	Peak	168	245

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).

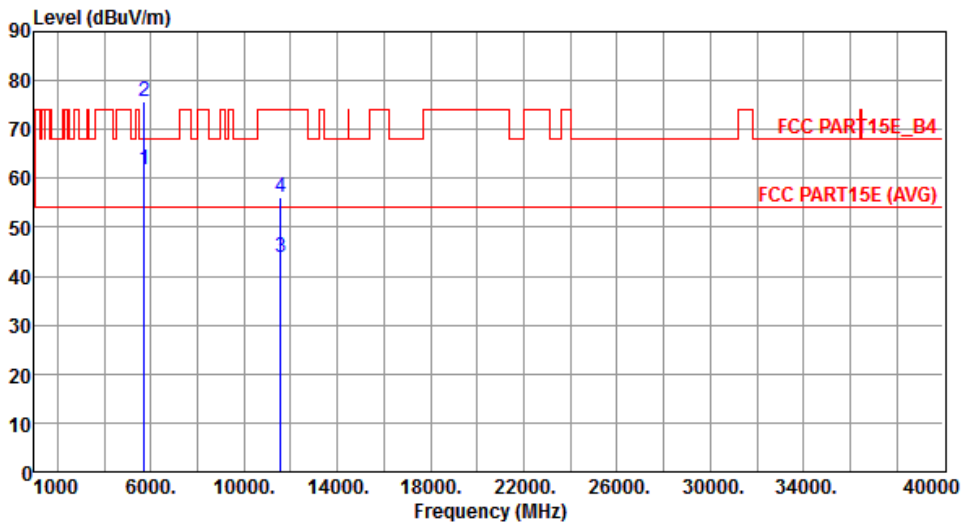
Modulation	HT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	44.87	54.00	-9.13	38.29	6.58	Average	252	261
2	5400.00	56.46	74.00	-17.54	49.88	6.58	Peak	252	261
3	5725.00	47.86	54.00	-6.14	40.73	7.13	Average	252	261
4	5725.00	62.64	74.00	-11.36	55.51	7.13	Peak	252	261
5	11400.00	45.14	54.00	-8.86	28.37	16.77	Average	155	196
6	11400.00	57.20	74.00	-16.80	40.43	16.77	Peak	155	196

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).

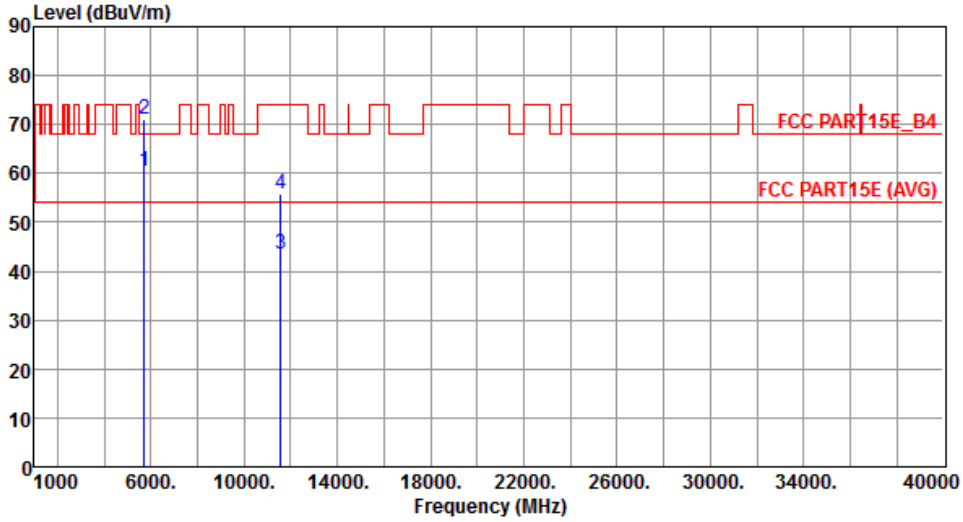
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	61.80	68.20	-6.40	54.71	7.09	Peak	264	258
2	5725.00	75.62	78.20	-2.58	68.49	7.13	Peak	264	258
3	11570.00	43.85	54.00	-10.15	27.16	16.69	Average	207	335
4	11570.00	56.13	74.00	-17.87	39.44	16.69	Peak	207	335

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).

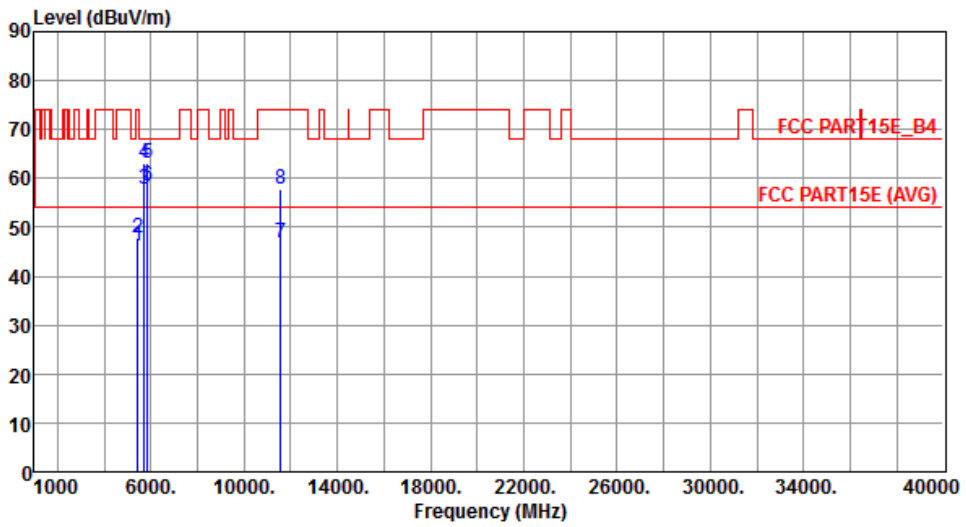
Modulation	HT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	60.30	68.20	-7.90	53.21	7.09	Peak	266	253
2	5725.00	71.09	78.20	-7.11	63.96	7.13	Peak	266	253
3	11570.00	43.35	54.00	-10.65	26.66	16.69	Average	261	255
4	11570.00	55.83	74.00	-18.17	39.14	16.69	Peak	261	255

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).

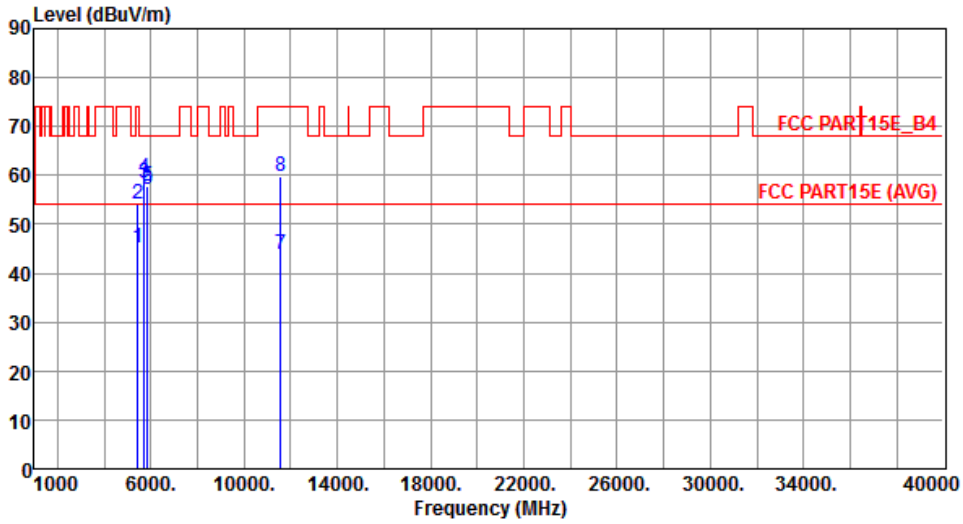
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	46.07	54.00	-7.93	39.46	6.61	Average	150	117
2	5440.00	47.79	74.00	-26.21	41.18	6.61	Peak	150	117
3	5715.00	57.92	68.20	-10.28	50.83	7.09	Peak	226	138
4	5725.00	63.22	78.20	-14.98	56.09	7.13	Peak	226	138
5	5850.00	63.07	78.20	-15.13	55.68	7.39	Peak	155	231
6	5860.00	58.41	68.20	-9.79	51.01	7.40	Peak	155	231
7	11570.00	46.89	54.00	-7.11	30.20	16.69	Average	312	285
8	11570.00	57.71	74.00	-16.29	41.02	16.69	Peak	312	285

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).

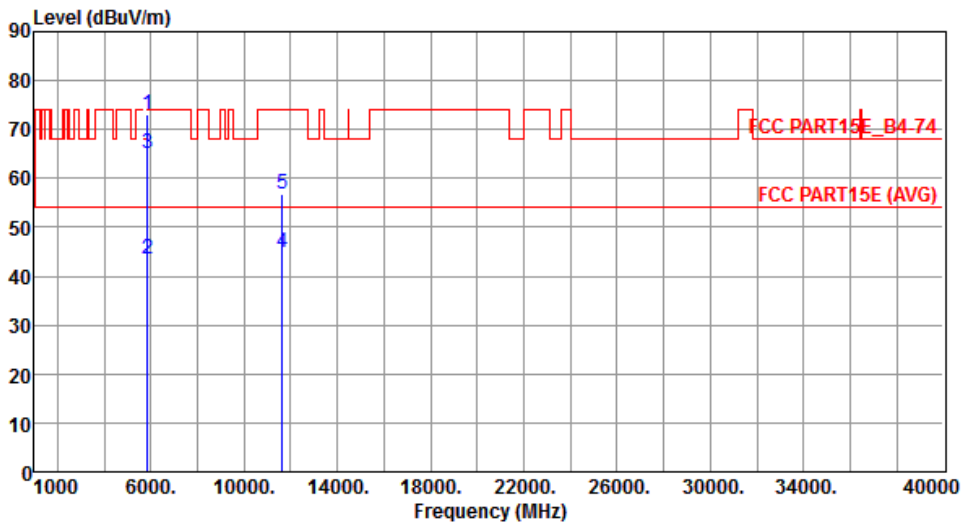
Modulation	HT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.12	54.00	-8.88	38.51	6.61	Average	165	26
2	5440.00	54.26	74.00	-19.74	47.65	6.61	Peak	165	26
3	5715.00	58.40	68.20	-9.80	51.31	7.09	Peak	315	284
4	5725.00	59.32	78.20	-18.88	52.19	7.13	Peak	315	284
5	5850.00	57.64	78.20	-20.56	50.25	7.39	Peak	315	284
6	5860.00	57.26	68.20	-10.94	49.86	7.40	Peak	315	284
7	11570.00	43.94	54.00	-10.06	27.25	16.69	Average	317	206
8	11570.00	59.94	74.00	-14.06	43.25	16.69	Peak	317	206

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).

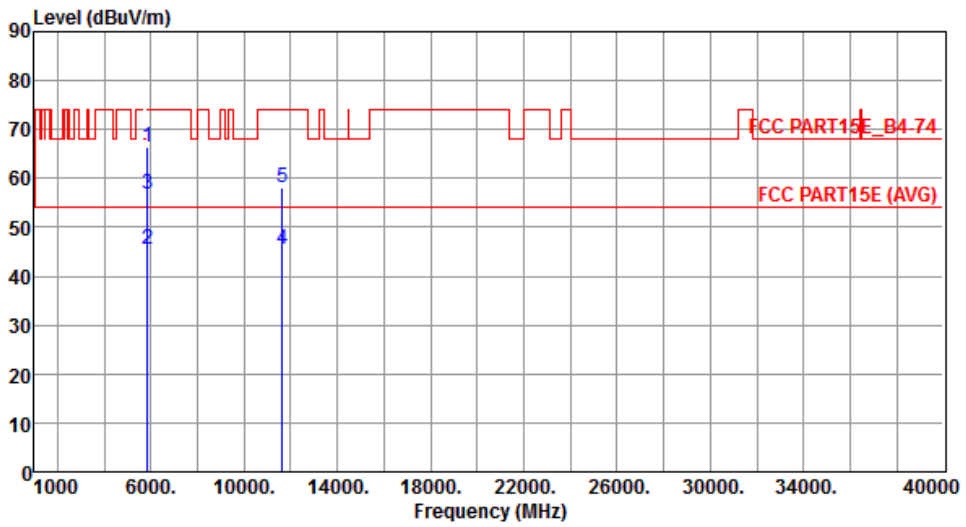
Modulation	HT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	73.02	78.20	-5.18	65.63	7.39	Peak	216	240
2	5860.00	43.55	54.00	-10.45	36.15	7.40	Average	216	240
3	5860.00	65.02	74.00	-8.98	57.62	7.40	Peak	216	240
4	11650.00	44.68	54.00	-9.32	28.14	16.54	Average	275	224
5	11650.00	56.72	74.00	-17.28	40.18	16.54	Peak	275	224

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		

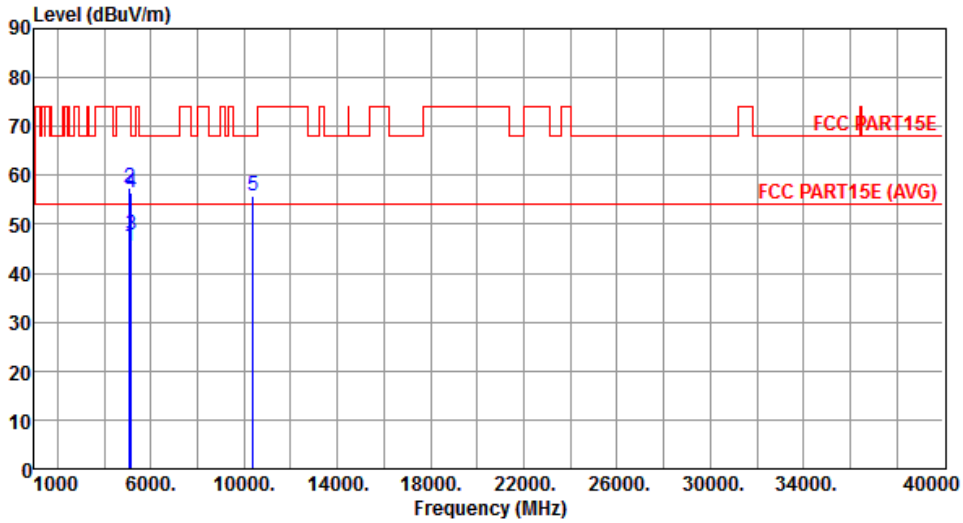


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	66.34	78.20	-11.86	58.95	7.39	Peak	256	246
2	5860.00	45.51	54.00	-8.49	38.11	7.40	Average	256	246
3	5860.00	56.80	74.00	-17.20	49.40	7.40	Peak	256	246
4	11650.00	45.42	54.00	-8.58	28.88	16.54	Average	368	197
5	11650.00	58.24	74.00	-15.76	41.70	16.54	Peak	368	197

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).

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

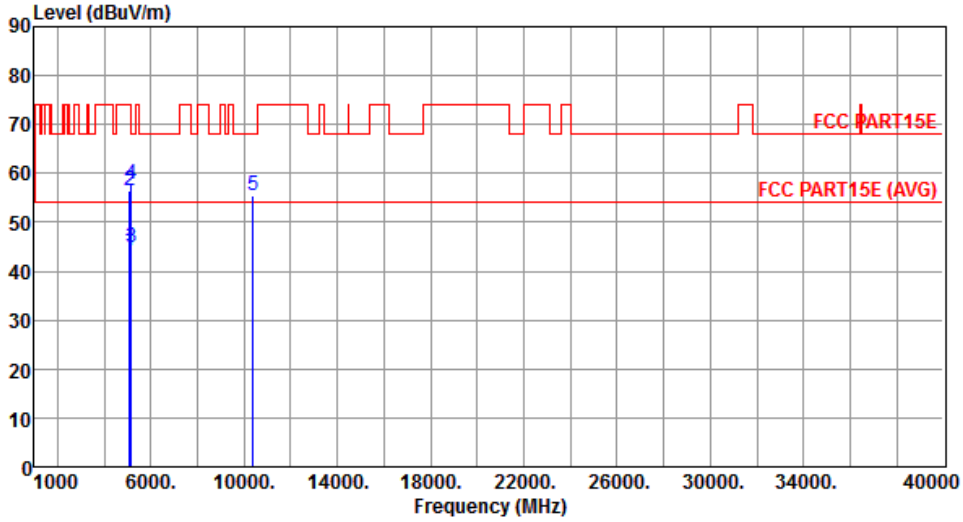
Modulation	HT40	**Test Freq. (MHz)**	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5080.00	45.34	54.00	-8.66	39.26	6.08	Average	278	254
2	5080.00	57.55	74.00	-16.45	51.47	6.08	Peak	278	254
3	5150.00	47.94	54.00	-6.06	41.75	6.19	Average	237	220
4	5150.00	56.62	74.00	-17.38	50.43	6.19	Peak	237	220
5	10380.00	55.64	68.20	-12.56	39.38	16.26	Peak	156	247

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).

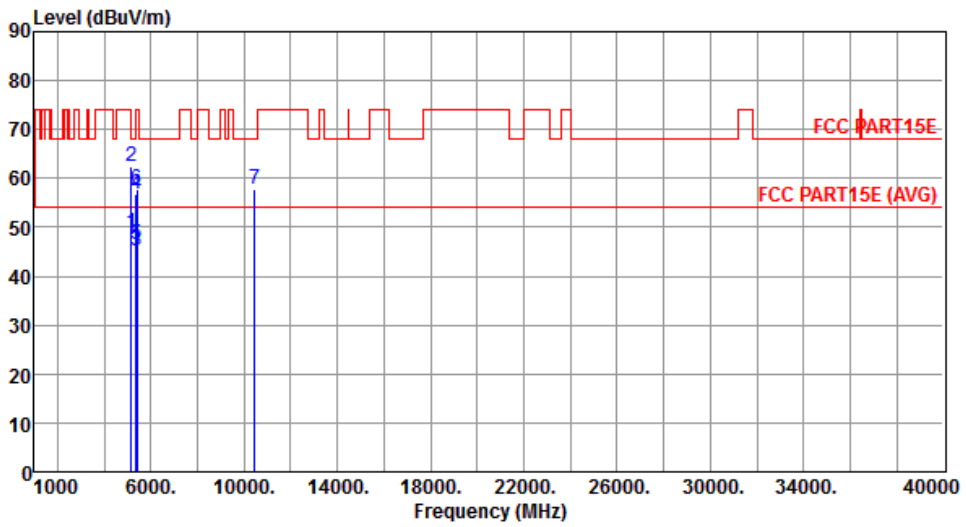
Modulation	HT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5080.00	44.03	54.00	-9.97	37.95	6.08	Average	267	264
2	5080.00	56.32	74.00	-17.68	50.24	6.08	Peak	267	264
3	5150.00	44.98	54.00	-9.02	38.79	6.19	Average	267	264
4	5150.00	57.95	74.00	-16.05	51.76	6.19	Peak	267	264
5	10380.00	55.51	68.20	-12.69	39.25	16.26	Peak	222	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).

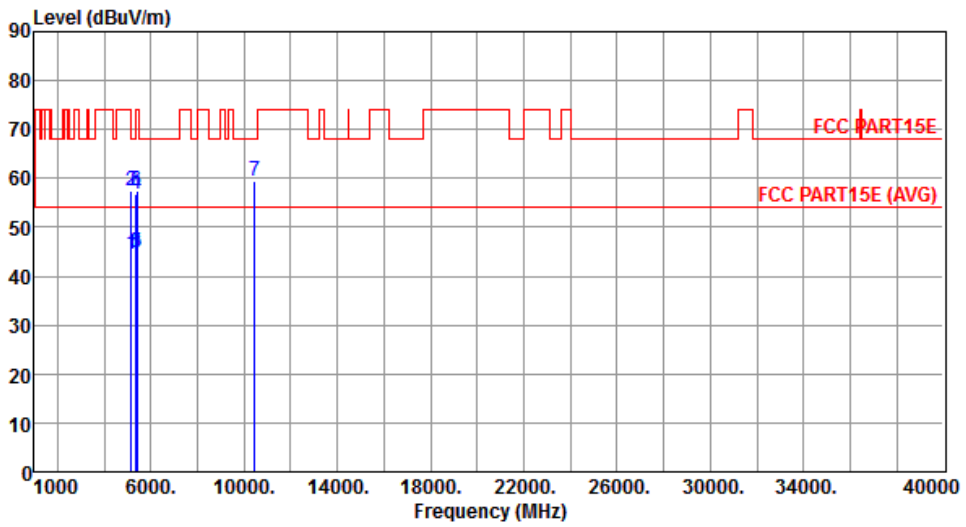
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	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	48.86	54.00	-5.14	42.67	6.19	Average	277	256
2	5150.00	62.27	74.00	-11.73	56.08	6.19	Peak	277	256
3	5350.00	45.05	54.00	-8.95	38.54	6.51	Average	277	256
4	5350.00	56.77	74.00	-17.23	50.26	6.51	Peak	277	256
5	5400.00	46.40	54.00	-7.60	39.82	6.58	Average	277	256
6	5400.00	57.74	74.00	-16.26	51.16	6.58	Peak	277	256
7	10460.00	57.69	68.20	-10.51	41.27	16.42	Peak	168	213

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).

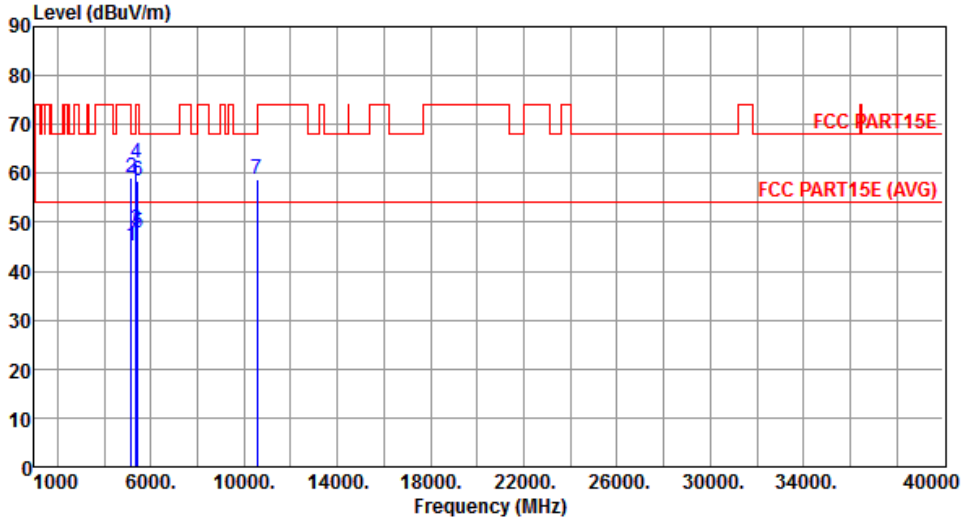
Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	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	44.46	54.00	-9.54	38.27	6.19	Average	264	253
2	5150.00	57.44	74.00	-16.56	51.25	6.19	Peak	264	253
3	5350.00	44.78	54.00	-9.22	38.27	6.51	Average	264	253
4	5350.00	56.87	74.00	-17.13	50.36	6.51	Peak	264	253
5	5400.00	44.85	54.00	-9.15	38.27	6.58	Average	264	253
6	5400.00	57.43	74.00	-16.57	50.85	6.58	Peak	264	253
7	10460.00	59.59	68.20	-8.61	43.17	16.42	Peak	245	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).

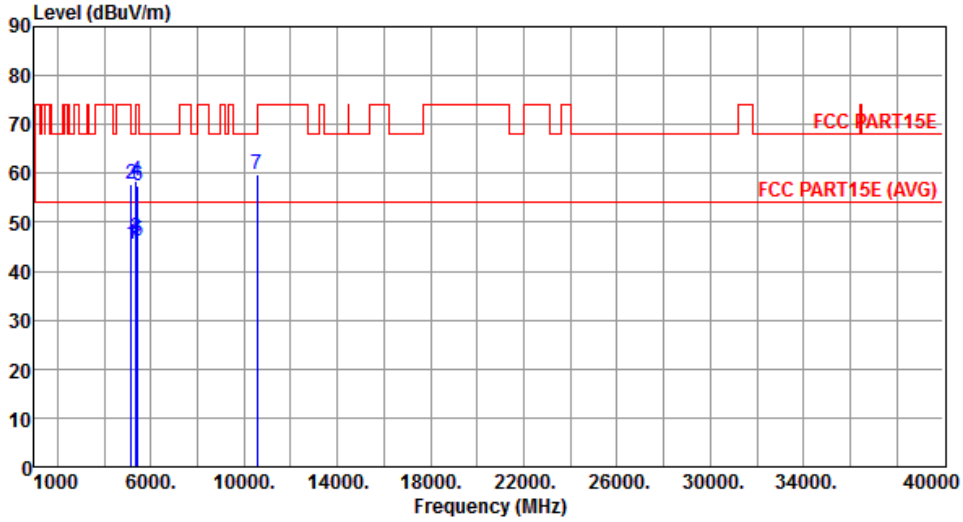
Modulation	HT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	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	39.01	6.19	Average	271	258
2	5150.00	59.26	74.00	-14.74	53.07	6.19	Peak	271	258
3	5350.00	48.45	54.00	-5.55	41.94	6.51	Average	271	258
4	5350.00	62.22	74.00	-11.78	55.71	6.51	Peak	271	258
5	5440.00	47.82	54.00	-6.18	41.21	6.61	Average	271	258
6	5440.00	58.54	74.00	-15.46	51.93	6.61	Peak	271	258
7	10540.00	58.76	68.20	-9.44	42.27	16.49	Peak	210	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).

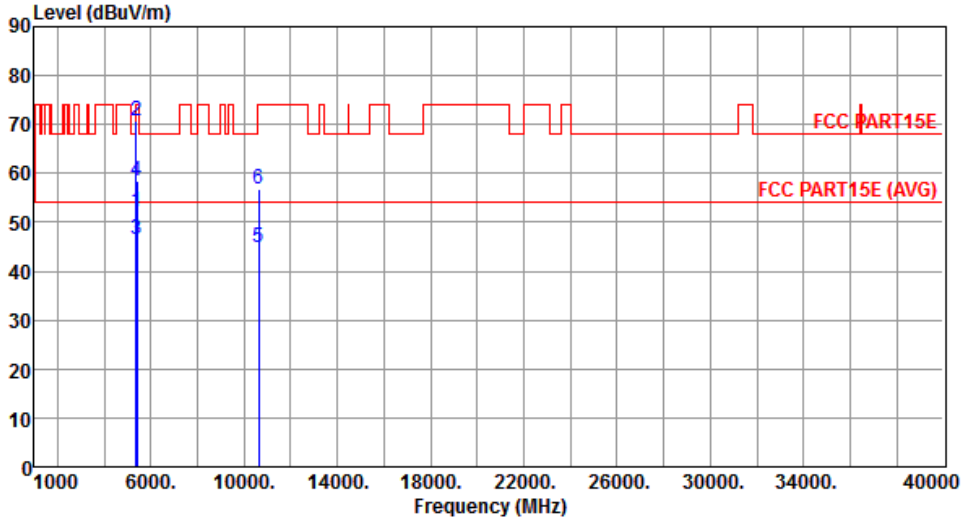
Modulation	HT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	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	45.45	54.00	-8.55	39.26	6.19	Average	270	251
2	5150.00	57.67	74.00	-16.33	51.48	6.19	Peak	270	251
3	5350.00	46.78	54.00	-7.22	40.27	6.51	Average	270	251
4	5350.00	58.48	74.00	-15.52	51.97	6.51	Peak	270	251
5	5440.00	46.33	54.00	-7.67	39.72	6.61	Average	270	251
6	5440.00	57.46	74.00	-16.54	50.85	6.61	Peak	270	251
7	10540.00	59.62	68.20	-8.58	43.13	16.49	Peak	168	241

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).

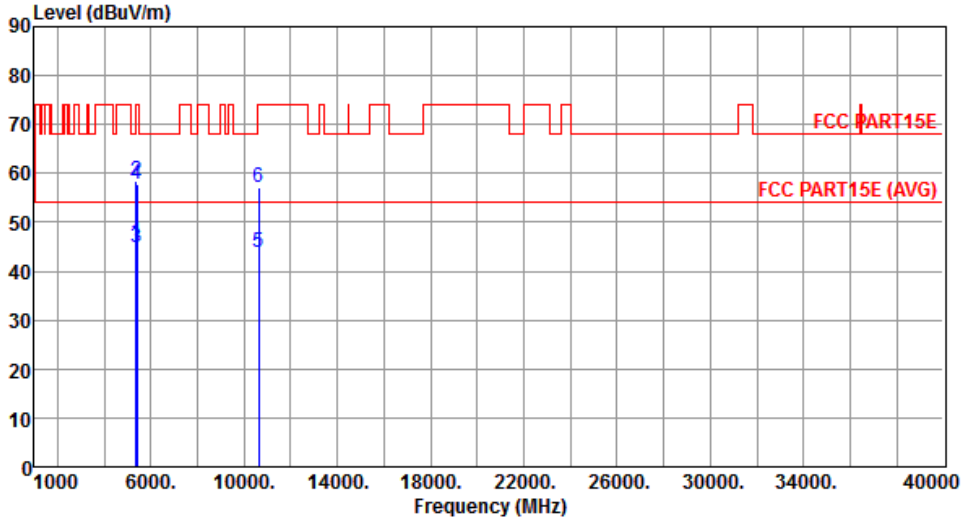
Modulation	HT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.29	54.00	-1.71	45.78	6.51	Average	275	233
2	5350.00	70.77	74.00	-3.23	64.26	6.51	Peak	275	233
3	5400.00	46.65	54.00	-7.35	40.07	6.58	Average	271	260
4	5400.00	58.30	74.00	-15.70	51.72	6.58	Peak	271	260
5	10620.00	44.97	54.00	-9.03	28.46	16.51	Average	222	168
6	10620.00	56.78	74.00	-17.22	40.27	16.51	Peak	222	168

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).

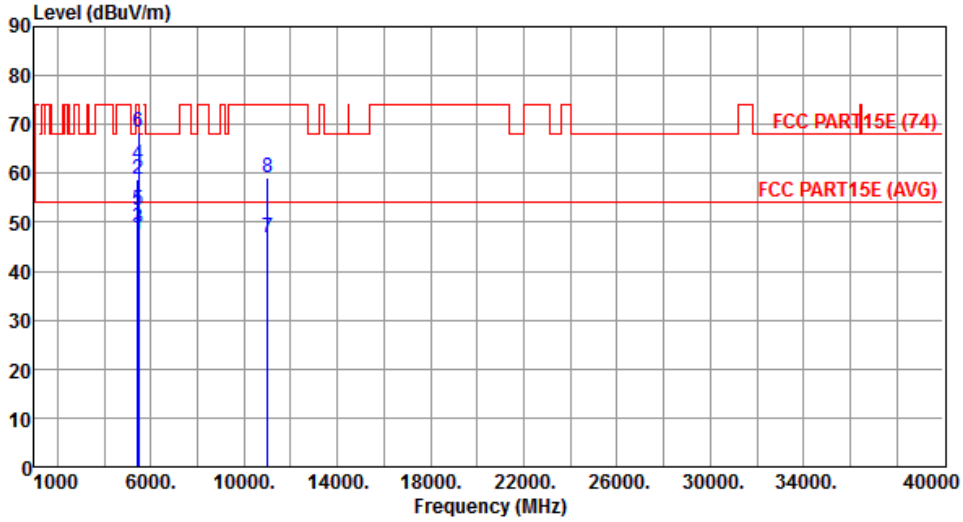
Modulation	HT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.77	54.00	-8.23	39.26	6.51	Average	257	262
2	5350.00	58.57	74.00	-15.43	52.06	6.51	Peak	257	262
3	5400.00	44.74	54.00	-9.26	38.16	6.58	Average	257	262
4	5400.00	57.91	74.00	-16.09	51.33	6.58	Peak	257	262
5	10620.00	43.78	54.00	-10.22	27.27	16.51	Average	188	213
6	10620.00	57.09	74.00	-16.91	40.58	16.51	Peak	188	213

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).

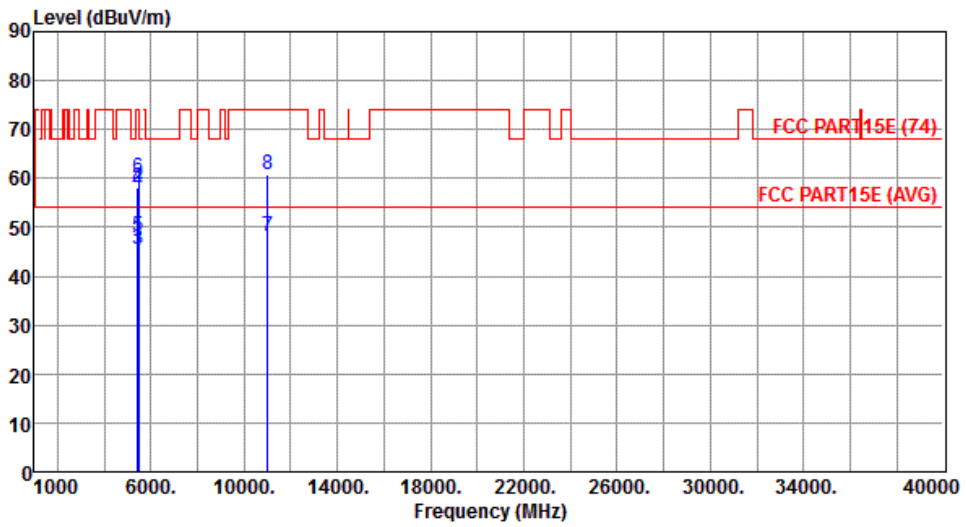
Modulation	HT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	47.49	54.00	-6.51	40.88	6.61	Average	275	253
2	5440.00	58.88	74.00	-15.12	52.27	6.61	Peak	275	253
3	5460.00	48.79	54.00	-5.21	42.15	6.64	Average	275	253
4	5460.00	61.61	74.00	-12.39	54.97	6.64	Peak	275	253
5	5470.00	52.52	54.00	-1.48	45.87	6.65	Average	275	253
6	5470.00	68.43	74.00	-5.57	61.78	6.65	Peak	275	253
7	11000.00	46.87	54.00	-7.13	30.25	16.62	Average	261	225
8	11000.00	59.07	74.00	-14.93	42.45	16.62	Peak	261	225

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).

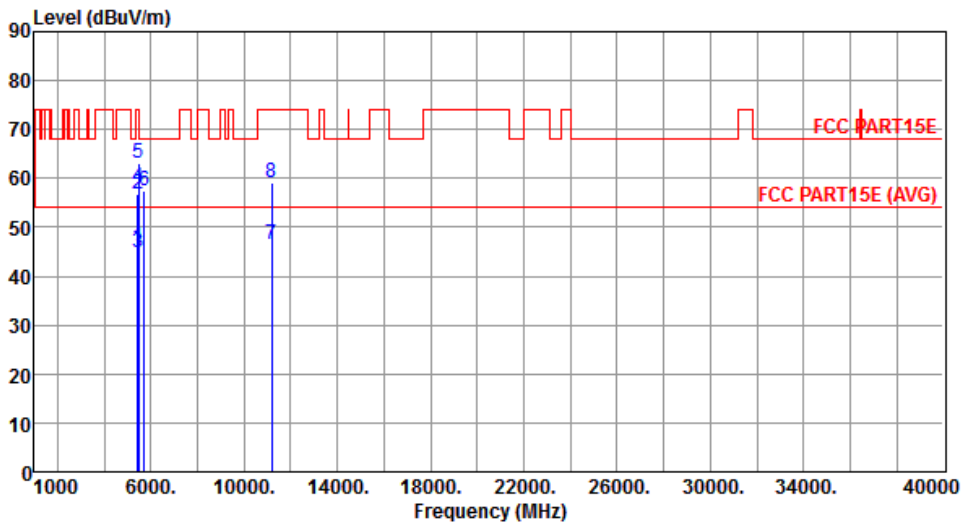
Modulation	HT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.13	54.00	-8.87	38.52	6.61	Average	268	245
2	5440.00	58.01	74.00	-15.99	51.40	6.61	Peak	268	245
3	5460.00	45.43	54.00	-8.57	38.79	6.64	Average	268	245
4	5460.00	58.11	74.00	-15.89	51.47	6.64	Peak	268	245
5	5470.00	48.03	54.00	-5.97	41.38	6.65	Average	268	245
6	5470.00	60.11	74.00	-13.89	53.46	6.65	Peak	268	245
7	11000.00	48.29	54.00	-5.71	31.67	16.62	Average	205	316
8	11000.00	60.91	74.00	-13.09	44.29	16.62	Peak	205	316

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).

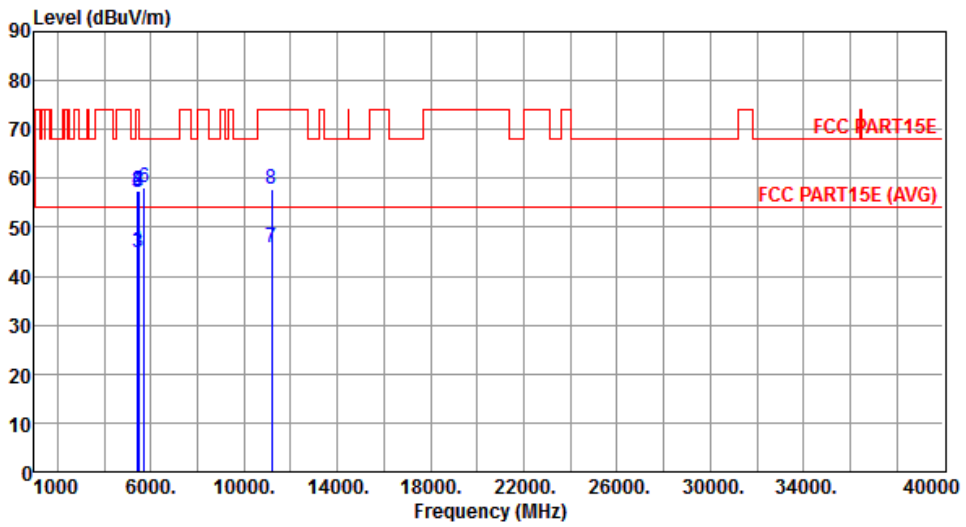
Modulation	HT40	Test Freq. (MHz)	5550
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.78	54.00	-8.22	39.17	6.61	Average	227	251
2	5440.00	56.82	74.00	-17.18	50.21	6.61	Peak	227	251
3	5460.00	44.91	54.00	-9.09	38.27	6.64	Average	227	251
4	5460.00	58.10	74.00	-15.90	51.46	6.64	Peak	227	251
5	5470.00	63.10	68.20	-5.10	56.45	6.65	Peak	227	251
6	5725.00	57.35	68.20	-10.85	50.22	7.13	Peak	227	251
7	11180.00	46.45	54.00	-7.55	29.77	16.68	Average	188	247
8	11180.00	59.08	74.00	-14.92	42.40	16.68	Peak	188	247

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).

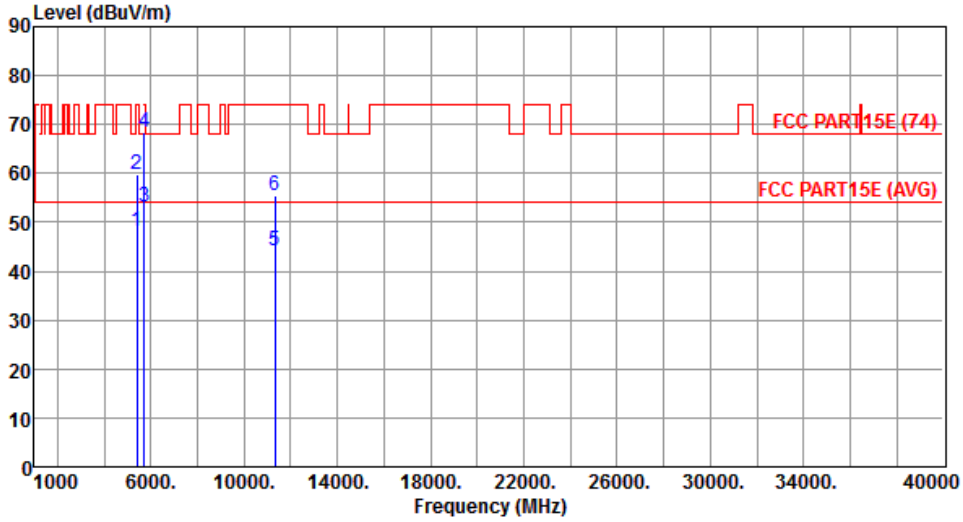
Modulation	HT40	Test Freq. (MHz)	5550
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.11	54.00	-8.89	38.50	6.61	Average	256	254
2	5440.00	57.49	74.00	-16.51	50.88	6.61	Peak	256	254
3	5460.00	45.00	54.00	-9.00	38.36	6.64	Average	256	254
4	5460.00	57.43	74.00	-16.57	50.79	6.64	Peak	256	254
5	5470.00	57.01	68.20	-11.19	50.36	6.65	Peak	256	254
6	5725.00	58.25	68.20	-9.95	51.12	7.13	Peak	256	254
7	11180.00	45.80	54.00	-8.20	29.12	16.68	Average	155	213
8	11180.00	57.95	74.00	-16.05	41.27	16.68	Peak	155	213

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).

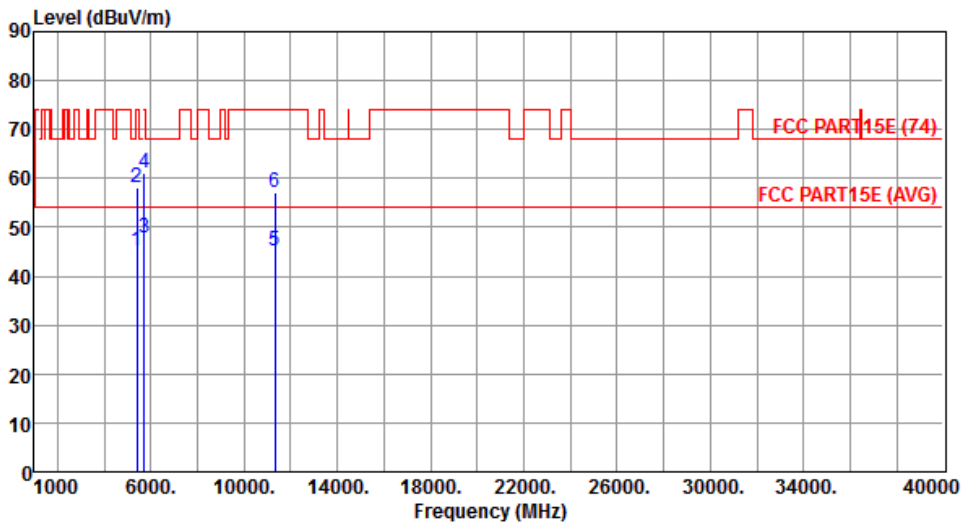
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	48.10	54.00	-5.90	41.52	6.58	Average	267	261
2	5400.00	59.89	74.00	-14.11	53.31	6.58	Peak	267	261
3	5725.00	52.99	54.00	-1.01	45.86	7.13	Average	267	261
4	5725.00	68.45	74.00	-5.55	61.32	7.13	Peak	267	261
5	11340.00	44.28	54.00	-9.72	27.54	16.74	Average	222	182
6	11340.00	55.41	74.00	-18.59	38.67	16.74	Peak	222	182

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).

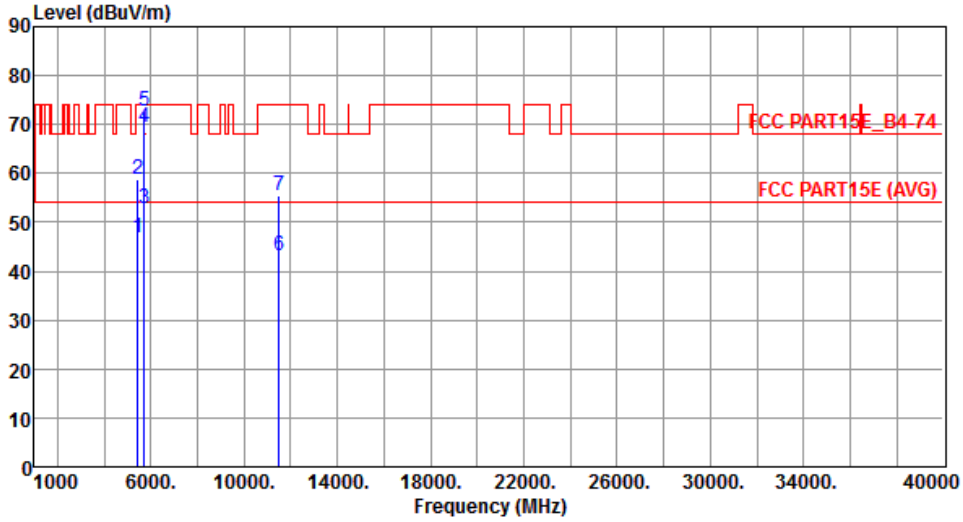
Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	45.03	54.00	-8.97	38.45	6.58	Average	249	266
2	5400.00	58.24	74.00	-15.76	51.66	6.58	Peak	249	266
3	5725.00	47.91	54.00	-6.09	40.78	7.13	Average	249	266
4	5725.00	61.09	74.00	-12.91	53.96	7.13	Peak	249	266
5	11340.00	45.24	54.00	-8.76	28.50	16.74	Average	188	213
6	11340.00	57.01	74.00	-16.99	40.27	16.74	Peak	188	213

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).

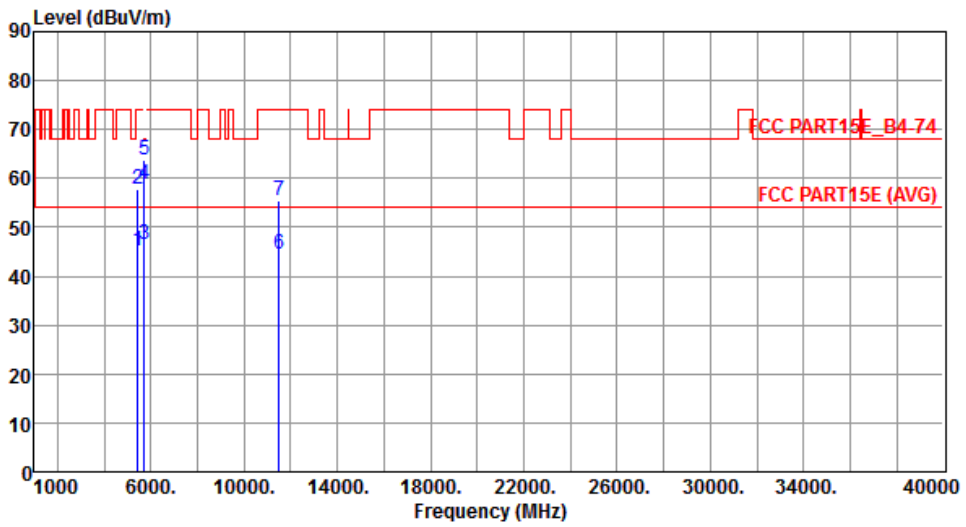
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	46.83	54.00	-7.17	40.22	6.61	Average	261	258
2	5440.00	58.87	74.00	-15.13	52.26	6.61	Peak	261	258
3	5715.00	52.93	54.00	-1.07	45.84	7.09	Average	261	258
4	5715.00	69.43	74.00	-4.57	62.34	7.09	Peak	261	258
5	5725.00	72.78	78.20	-5.42	65.65	7.13	Peak	261	258
6	11510.00	43.33	54.00	-10.67	26.54	16.79	Average	160	241
7	11510.00	55.55	74.00	-18.45	38.76	16.79	Peak	160	241

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).

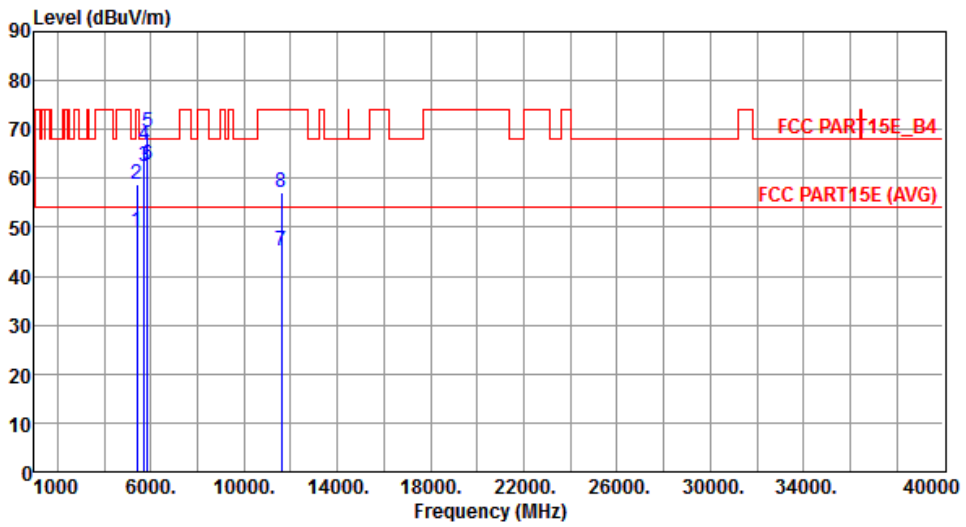
Modulation	HT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5440.00	45.24	54.00	-8.76	38.63	6.61	Average	256	259
2	5440.00	57.75	74.00	-16.25	51.14	6.61	Peak	256	259
3	5715.00	46.38	54.00	-7.62	39.29	7.09	Average	256	259
4	5715.00	58.65	74.00	-15.35	51.56	7.09	Peak	256	259
5	5725.00	63.73	78.20	-14.47	56.60	7.13	Peak	256	259
6	11510.00	44.45	54.00	-9.55	27.66	16.79	Average	213	212
7	11510.00	55.47	74.00	-18.53	38.68	16.79	Peak	213	212

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).

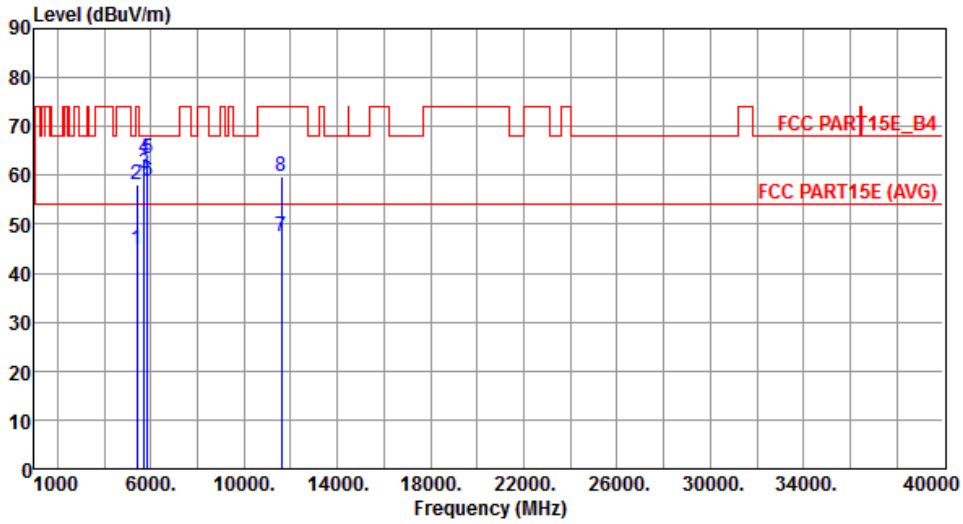
Modulation	HT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	49.01	54.00	-4.99	42.43	6.58	Average	263	254
2	5400.00	58.80	74.00	-15.20	52.22	6.58	Peak	263	254
3	5715.00	62.44	68.20	-5.76	55.35	7.09	Peak	263	254
4	5725.00	66.91	78.20	-11.29	59.78	7.13	Peak	263	254
5	5850.00	69.28	78.20	-8.92	61.89	7.39	Peak	263	254
6	5860.00	62.67	68.20	-5.53	55.27	7.40	Peak	263	254
7	11590.00	45.02	54.00	-8.98	28.37	16.65	Average	188	241
8	11590.00	57.14	74.00	-16.86	40.49	16.65	Peak	188	241

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	5400.00	44.89	54.00	-9.11	38.31	6.58	Average	254	256
2	5400.00	58.02	74.00	-15.98	51.44	6.58	Peak	254	256
3	5715.00	60.43	68.20	-7.77	53.34	7.09	Peak	254	256
4	5725.00	63.39	78.20	-14.81	56.26	7.13	Peak	254	256
5	5850.00	63.51	78.20	-14.69	56.12	7.39	Peak	254	256
6	5860.00	58.89	68.20	-9.31	51.49	7.40	Peak	254	256
7	11590.00	47.51	54.00	-6.49	30.86	16.65	Average	196	216
8	11590.00	59.76	74.00	-14.24	43.11	16.65	Peak	196	216

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

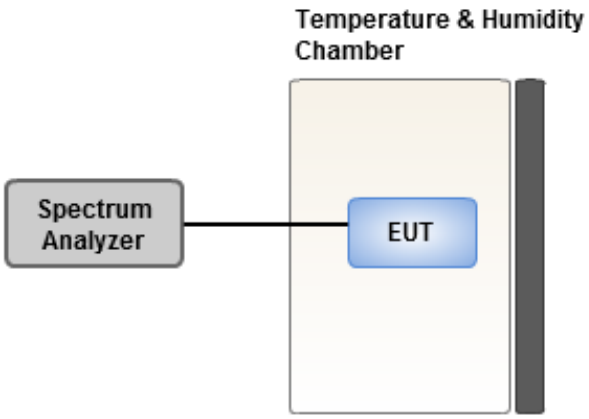
3.6.1 Limit of Frequency Stability

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 -40 to 80 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	4.04	4.17	4.30	4.17
T20°CVmin	3.90	4.26	4.01	4.11
T80CVnom	3.44	3.56	4.05	3.69
T70CVnom	3.34	2.83	3.73	3.78
T60CVnom	3.49	3.97	3.90	3.34
T50CVnom	3.15	3.91	3.46	3.00
T40°CVnom	3.00	3.47	3.41	3.02
T30°CVnom	3.66	3.55	3.94	4.05
T20°CVnom	2.51	3.08	2.07	2.73
T10°CVnom	2.66	2.50	2.28	3.15
T0°CVnom	0.68	1.03	1.12	1.34
T-10°CVnom	1.26	1.51	0.96	1.60
T-20°CVnom	0.30	0.59	0.22	0.43
T-30°CVnom	0.38	0.50	0.75	0.13
T-40°CVnom	0.61	1.06	1.02	1.28
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 80		Tmin [°C]: -40

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	0.56	1.07	0.38	0.89
T20°CVmin	0.66	0.89	0.81	0.46
T80CVnom	0.58	0.33	0.47	1.05
T70CVnom	0.08	0.52	-0.13	0.31
T60CVnom	0.07	0.74	0.53	0.38
T50CVnom	0.58	0.50	0.68	0.89
T40°CVnom	-0.04	-0.07	0.42	0.17
T30°CVnom	-0.30	-0.41	-0.01	-0.67
T20°CVnom	0.23	0.21	0.54	0.44
T10°CVnom	0.01	0.59	0.07	-0.09
T0°CVnom	-0.34	-0.32	-0.21	0.44
T-10°CVnom	0.49	0.61	0.38	0.52
T-20°CVnom	0.69	0.85	1.09	0.38
T-30°CVnom	0.01	-0.31	-0.30	0.23
T-40°CVnom	-0.29	0.14	0.09	-0.51
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 80		Tmin [°C]: -40

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, 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 Hsiang. 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 Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

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

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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