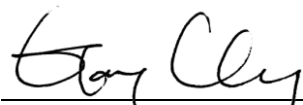


FCC Test Report

FCC ID : YUW-301F
Equipment : Mobile Phone
Model No. : 301F
Brand Name : FUJITSU
Applicant : Fujitsu Mobile Communications Ltd.
Address : 1-1, Kamikodanaka 4-chome, Nakahara-ku,
Kawasaki 211-8588, Japan
Standard : 47 CFR FCC Part 15.407
Received Date : Sep. 13, 2013
Tested Date : Oct. 01 ~ Oct. 22, 2013

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



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Release Record

Report No.	Version	Description	Issued Date
FR391306AN	Rev. 01	Initial issue	Nov. 01, 2013

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 2.409MHz 31.52 (Margin -14.48dB) - AV	Pass
15.407(b)(1)(2)(3) 15.209	Radiated Emissions	[dBuV/m at 3m]: 11060.00MHz 53.00 (Margin -1.00dB) - AV	Pass
15.407(a)(1)(2)(3)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)(1)(2)(3)	RF Output Power	Power [dBm]: 5150~5250 MHz:14.55 5250~5350 MHz:14.56 5470~5725 MHz:14.32	Pass
15.407(a)(1)(2)(3)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(a)(6)	Peak Excursion	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 Product Details

Product Name	Mobile Phone
Brand Name	FUJITSU
Model Name	301F
IMEI Code	357613050018539, 357613050017572
H/W Version	V2.1.0
S/W Version	R25.1e

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information					
IEEE Std. 802.11	Frequency Range (MHz)	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
a	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	6-54 Mbps
n (HT20)	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	MCS 0-7
n (HT40)	5150-5250 5250-5350 5470-5725	5190-5230 5270-5310 5510-5670	38-46 [2] 54-62 [2] 102-134 [3]	1	MCS 0-7
ac (VHT20)	5150-5250 5250-5350 5470-5725	5180-5240 5260-5320 5500-5700	36-48 [4] 52-64 [4] 100-140 [8]	1	MCS 0-8
ac (VHT40)	5150-5250 5250-5350 5470-5725	5190-5230 5270-5310 5510-5670	38-46 [2] 54-62 [2] 102-134 [3]	1	MCS 0-8
ac (VHT80)	5150-5250 5250-5350 5470-5725	5210 5290 5530	42 [1] 58 [1] 106 [1]	1	MCS 0-9
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: IEEE 802.11ac is draft version.					

1.1.3 Antenna Details

Ant. No.	Type	Gain (dBi)	Connector	Remark
1	$\lambda/4$ Monopole	-3	---	---

1.1.4 EUT Operational Condition

Supply Voltage	☒ AC mains	☒ DC	
Type of DC Source	☐ Internal DC supply	☒ External DC adapter	☒ Battery

1.1.5 Accessories

Accessories		
No.	Equipment	Description
1	Battery	Brand Name: Fujitsu limited Model Name: CA54310-0053 Power Rating: O/P: 3.75Vdc, 2600mA
2	Cradle	Brand Name: SOFTBANK MOBILE Corp. Model Name: CA50601-1881 Power Rating: O/P: 12.0Vdc, 1.5A
3	Adapter for cradle	Brand Name: SOFTBANK MOBILE Corp. Model Name: TA08017-B330 I/P: 100-240Vac, 1000mA O/P: 12.0Vdc, 3000mA DC 1.1m non-shielded cable with one core AC 0.9m non-shielded cable without core

1.1.6 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
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	134	5670
64	5320	VHT 80	
100	5500	42	5210
104	5520	58	5290
108	5540	106	5530
112	5560	---	---
116	5580	---	---
132	5660	---	---
136	5680	---	---
140	5700	---	---

1.1.7 Test Tool and Duty Cycle

Test Tool	QRCT, Ver 3.0.6.0		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	88.79%	0.52
	HT20	88.24%	0.54
	HT40	76.90%	1.14
	VHT20	84.44%	0.73
	VHT40	72.92%	1.37
	VHT80	57.07%	2.44

1.1.8 Power Setting

Channel	Frequency(MHz)	11a	HT20	VHT20
CH 36	5180	13	12	12
CH 40	5200	13	12	12
CH 48	5240	13	12	12
CH 52	5260	13	12	12
CH 60	5300	13	12	12
CH 64	5320	13	12	12
CH 100	5500	13	12	12
CH 116	5580	13	12	12
CH 140	5700	13	12	12

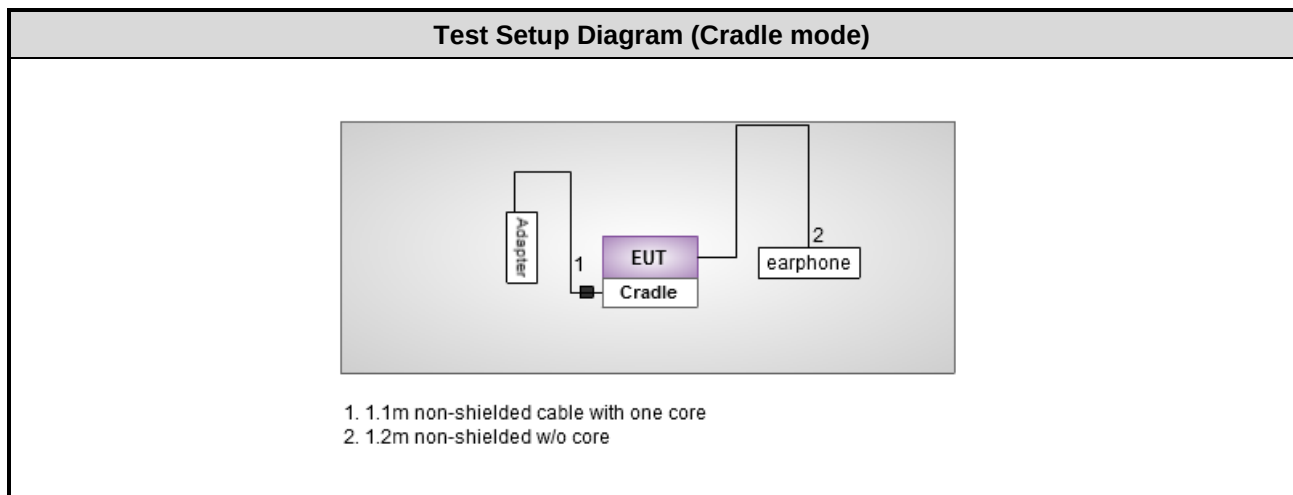
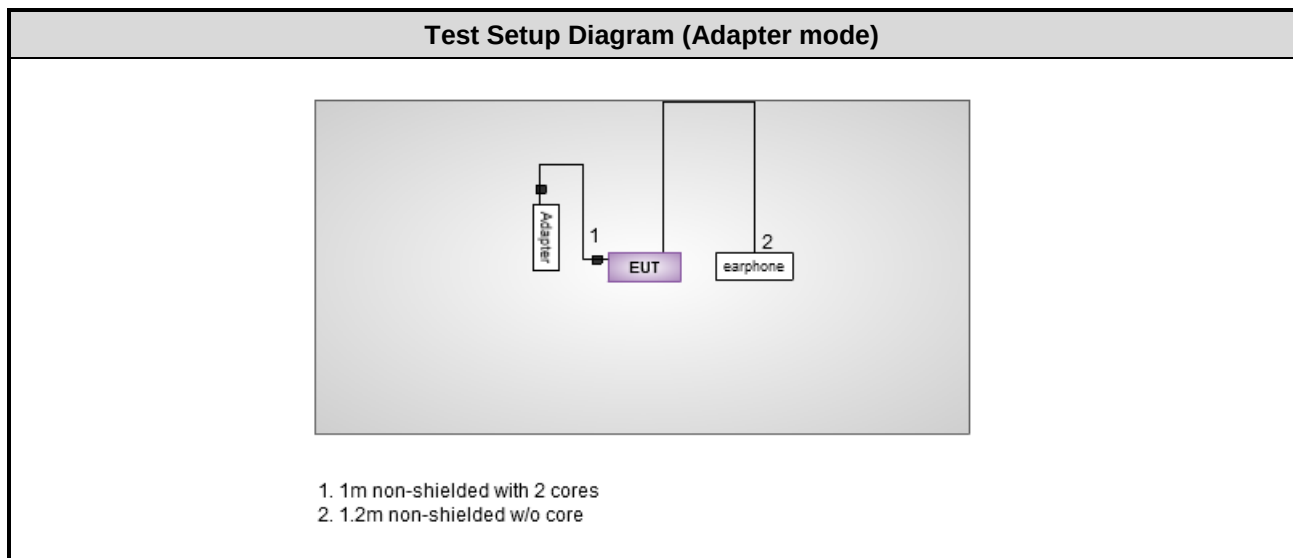
Channel	Frequency(MHz)	HT40	VHT40	VHT80
CH 38	5190	11.5	10	-
CH 46	5230	11.5	10	-
CH 54	5270	11.5	10	-
CH 62	5310	11.5	10	-
CH 102	5510	11	10	-
CH 110	5550	11	10	-
CH 134	5670	11	10	-
CH 42	5210	-	-	10
CH 58	5290	-	-	10
CH 106	5530	-	-	9

1.2 Local Support Equipment List

Support Equipment List						
No.	Equipment	Brand	Model	S/N	FCC ID	Signal cable / Length (m)
1	Adapter	NTT docomo	AC Adaptor 04	---	---	1m non-shielded with 2 cores
2	Earphone	Apple	MD827FE/A	---	---	1.2m non-shielded w/o core

Note: Item 1 was provided by client.

1.3 Test Setup Chart



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. 15, 2013	Oct. 14, 2014
LISN	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-667	Dec. 04, 2012	Dec. 03, 2013
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	Schwarzbeck 8127	8127-666	Dec. 04, 2012	Dec. 03, 2013
ISN	TESEQ	ISN T800	34406	Apr. 08, 2013	Apr. 07, 2014
ISN	TESEQ	ISN T200A	30494	Apr. 09, 2013	Apr. 08, 2014
ISN	TESEQ	ISN ST08	22589	Jan. 24, 2013	Jan. 23, 2014
RF Current Probe	FCC	F-33-4	121630	Dec. 04, 2012	Dec. 03, 2013
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 25, 2012	Dec. 24, 2013
ESH3-Z6 V-Network(+)	R&S	ESH3-Z6	100920	Nov. 21, 2012	Nov. 20, 2013
ESH3-Z6 V-Network(-)	R&S	ESH3-Z6	100951	Jan. 30, 2013	Jan. 29, 2014
Two-Line V-Network	R&S	ENV216	101579	Jan. 07, 2013	Jan. 06, 2014
50 ohm terminal	NA	50	03	Apr. 22, 2013	Apr. 21, 2014
50 ohm terminal (Support Unit)	NA	50	04	Apr. 22, 2013	Apr. 21, 2014
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	FSV 40	101063	Feb. 18, 2013	Feb. 17, 2014
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 29, 2012	Nov. 28, 2013
Power Meter	Anritsu	ML2495A	1241001	Oct. 08, 2013	Oct. 07, 2014
Power Sensor	Anritsu	MA2411B	1207362	Oct. 08, 2013	Oct. 07, 2014
Signal Generator	R&S	SMB100A	175727	Jan. 14, 2013	Jan. 13, 2014
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission above 1GHz				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
3m semi-anechoic chamber	CHAMPRO	SAC-03	03CH01-WS	Jan. 04, 2013	Jan. 03, 2014
Spectrum Analyzer	R&S	FSV40	101498	Jan. 24, 2013	Jan. 23, 2014
Receiver	R&S	ESR3	101658	Jan. 28, 2013	Jan. 27, 2014
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jan. 11, 2013	Jan. 10, 2014
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Feb. 18, 2013	Feb. 17, 2014
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Jan. 14, 2013	Jan. 13, 2014
Amplifier	Burgeon	BPA-530	100219	Nov. 28, 2012	Nov. 27, 2013
Amplifier	Agilent	83017A	MY39501308	Dec. 18, 2012	Dec. 17, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-001	Dec. 25, 2012	Dec. 24, 2013
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-002	Dec. 25, 2012	Dec. 24, 2013
control	EM Electronics	EM1000	60612	N/A	N/A
Note: Calibration Interval of instruments listed above is one year.					

Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014
Amplifier	MITEQ	AMF-6F-260400	9121372	Apr. 19, 2013	Apr. 18, 2015
Note: Calibration Interval of instruments listed above is two 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 C63.10-2009

FCC KDB 412172

FCC KDB 789033 D01 General UNII Test procedures v01r03

Note: The EUT has been tested and complied with FCC part 15B requirement. FCC Part 15B test results are issued to another report.

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	± 74.147 Hz
Conducted power	± 0.717 dB
Power density	± 2.687 dB
Frequency error	± 74.147 Hz
Temperature	± 0.3 °C
AC conducted emission	± 2.43 dB
Radiated emission	± 2.49 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By	Tested Date
AC Conduction	CO01-WS	21°C / 55%	Skys Huang	Oct. 22, 2013
Radiated Emissions	03CH01-WS	23°C / 64%	Aska Huang Haru Yang	Oct. 04~ Oct. 11, 2013
RF Conducted	TH01-WS	24°C / 61%	Brad Wu	Oct. 09, 2013

➤ FCC site registration No.: 657002

➤ IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11a	5320	6 Mbps	1, 2
Radiated Emissions <1GHz	11a	5320	6 Mbps	1, 2
RF Output Power	11a	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700	6 Mbps	1
	HT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700	MCS 0	
	HT40	5190 / 5230 / 5270 / 5310 / 5510 / 5550 / 5670	MCS 0	
	VHT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 / 5550 / 5670	MCS 0	
	VHT80	5210 / 5290 / 5530	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700	6 Mbps	1
	HT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700	MCS 0	
	HT40	5190 / 5230 / 5270 / 5310 / 5510 / 5550 / 5670	MCS 0	
	VHT80	5210 / 5290 / 5530	MCS 0	
Peak Excursion	11a	5180 / 5320 / 5580	6 Mbps	1
	HT40	5230 / 5270 / 5670	MCS 0	
	VHT20	5180 / 5260 / 5700	MCS 0	
	VHT40	5230 / 5310 / 5510	MCS 0	
	VHT80	5210 / 5290 / 5530	MCS 0	
Frequency Stability	Un-modulation	5320	---	1
NOTE: 1. 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. 2. The EUT had been tested by following test configurations for radiated emission below 1GHz. 1) Configuration 1 : Adapter mode 2) Configuration 2 : Cradle mode 3. Adapter and cradle mode had been pretested for radiated emission above 1GHz and found that the adapter mode was the worst case and was selected for final test.				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

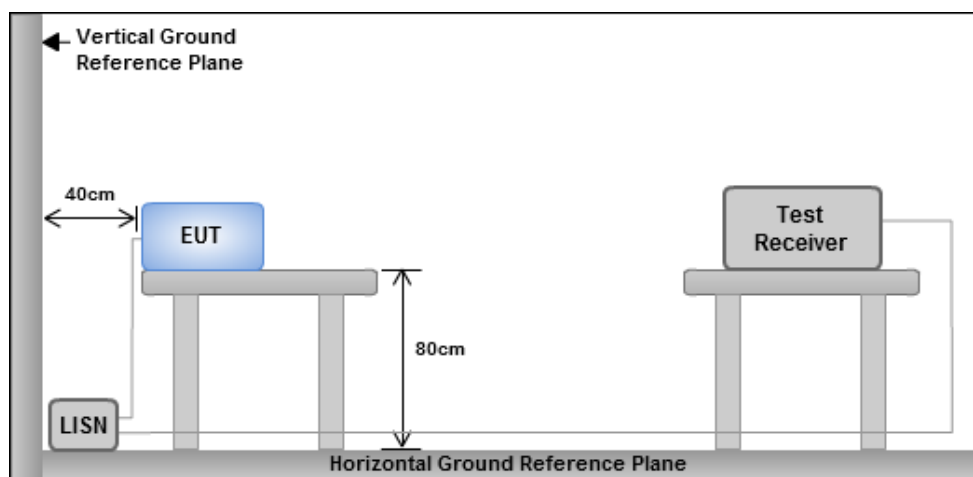
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

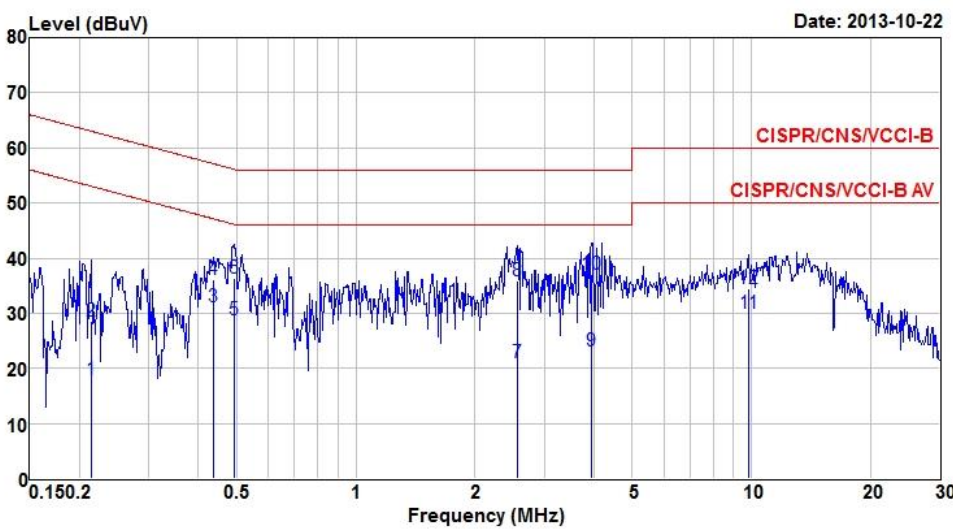
3.1.3 Test Setup



- 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	11a	Test Freq. (MHz)	5320
Power Phase	Line	Test Configuration	1

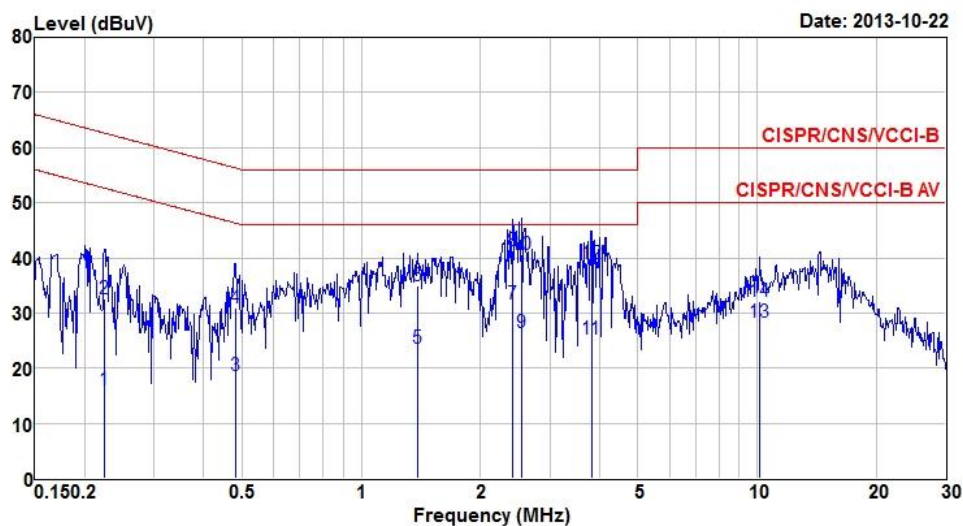


Date: 2013-10-22

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.214	18.02	53.05	-35.03	17.80	0.05	0.17	Average
2	0.214	28.49	63.05	-34.56	28.27	0.05	0.17	QP
3	0.437	31.24	47.11	-15.87	31.12	0.07	0.05	Average
4	0.437	36.20	57.11	-20.91	36.08	0.07	0.05	QP
5	0.491	28.72	46.14	-17.42	28.59	0.08	0.05	Average
6	0.491	36.27	56.14	-19.87	36.14	0.08	0.05	QP
7	2.567	21.02	46.00	-24.98	20.63	0.20	0.19	Average
8	2.567	35.86	56.00	-20.14	35.47	0.20	0.19	QP
9	3.943	23.05	46.00	-22.95	22.65	0.16	0.24	Average
10	3.943	36.99	56.00	-19.01	36.59	0.16	0.24	QP
11	9.861	30.08	50.00	-19.92	29.49	0.48	0.11	Average
12	9.861	34.53	60.00	-25.47	33.94	0.48	0.11	QP

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

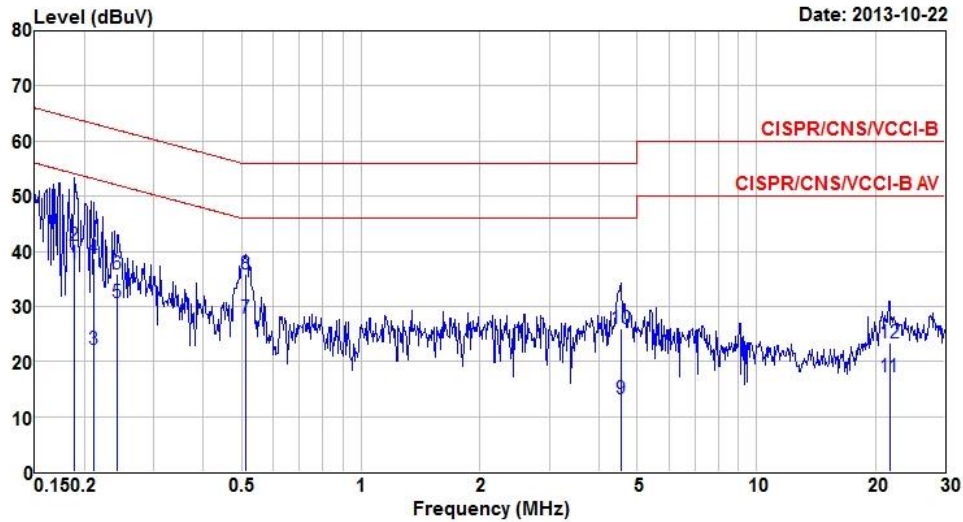
Modulation	11a	Test Freq. (MHz)	5320
Power Phase	Neutral	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.224	16.15	52.66	-36.51	15.95	0.04	0.16	Average
2	0.224	32.64	62.66	-30.02	32.44	0.04	0.16	QP
3	0.481	18.72	46.32	-27.60	18.59	0.08	0.05	Average
4	0.481	30.95	56.32	-25.37	30.82	0.08	0.05	QP
5	1.388	23.52	46.00	-22.48	23.26	0.16	0.10	Average
6	1.388	34.84	56.00	-21.16	34.58	0.16	0.10	QP
7	2.409	31.52	46.00	-14.48	31.16	0.18	0.18	Average
8	2.409	41.37	56.00	-14.63	41.01	0.18	0.18	QP
9	2.540	26.56	46.00	-19.44	26.19	0.18	0.19	Average
10	2.540	40.60	56.00	-15.40	40.23	0.18	0.19	QP
11	3.820	25.15	46.00	-20.85	24.77	0.15	0.23	Average
12	3.820	38.85	56.00	-17.15	38.47	0.15	0.23	QP
13	10.179	28.34	50.00	-21.66	27.74	0.49	0.11	Average
14	10.179	32.04	60.00	-27.96	31.44	0.49	0.11	QP

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

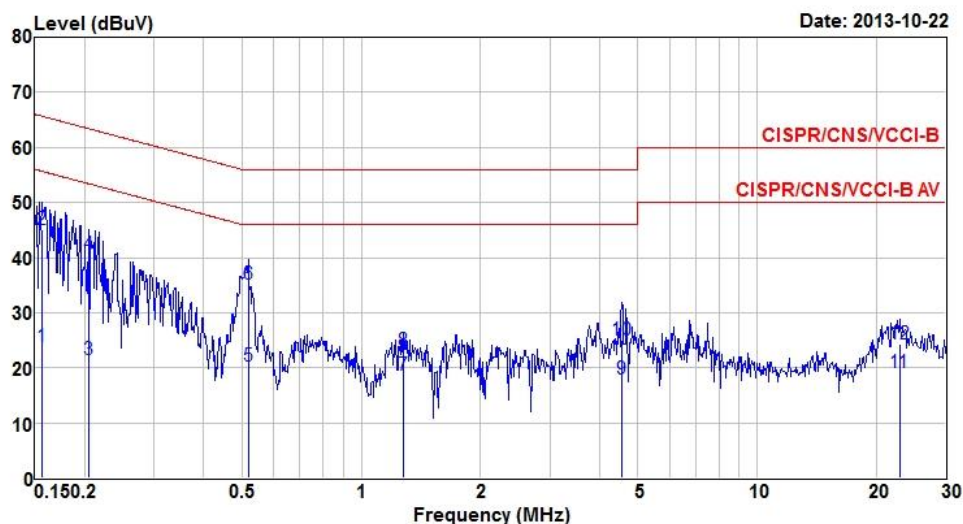
Modulation	11a	Test Freq. (MHz)	5320
Power Phase	Line	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.188	37.66	54.11	-16.45	37.47	0.03	0.16	Average
2	0.188	41.08	64.11	-23.03	40.89	0.03	0.16	QP
3	0.212	22.10	53.14	-31.04	21.90	0.03	0.17	Average
4	0.212	38.69	63.14	-24.45	38.49	0.03	0.17	QP
5	0.243	30.71	52.00	-21.29	30.54	0.03	0.14	Average
6	0.243	35.86	62.00	-26.14	35.69	0.03	0.14	QP
7	0.510	27.92	46.00	-18.08	27.84	0.03	0.05	Average
8	0.510	35.92	56.00	-20.08	35.84	0.03	0.05	QP
9	4.549	13.26	46.00	-32.74	12.98	0.06	0.22	Average
10	4.549	25.94	56.00	-30.06	25.66	0.06	0.22	QP
11	21.715	17.17	50.00	-32.83	16.73	0.14	0.30	Average
12	21.715	23.39	60.00	-36.61	22.95	0.14	0.30	QP

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

Modulation	11a	Test Freq. (MHz)	5320
Power Phase	Neutral	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	23.77	55.69	-31.92	23.68	0.02	0.07	Average
2	0.156	45.14	65.69	-20.55	45.05	0.02	0.07	QP
3	0.205	21.52	53.40	-31.88	21.32	0.02	0.18	Average
4	0.205	40.68	63.40	-22.72	40.48	0.02	0.18	QP
5	0.518	20.30	46.00	-25.70	20.23	0.02	0.05	Average
6	0.518	35.05	56.00	-20.95	34.98	0.02	0.05	QP
7	1.282	18.71	46.00	-27.29	18.60	0.03	0.08	Average
8	1.282	23.13	56.00	-32.87	23.02	0.03	0.08	QP
9	4.549	17.90	46.00	-28.10	17.63	0.05	0.22	Average
10	4.549	25.12	56.00	-30.88	24.85	0.05	0.22	QP
11	22.896	19.22	50.00	-30.78	18.70	0.14	0.38	Average
12	22.896	24.24	60.00	-35.76	23.72	0.14	0.38	QP

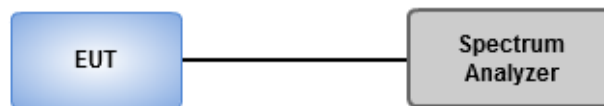
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).
 2: Over Limit (dBuV) = Limit Line (dBuV) – Level (dBuV).

3.2 Emission Bandwidth

3.2.1 Test Procedures

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.

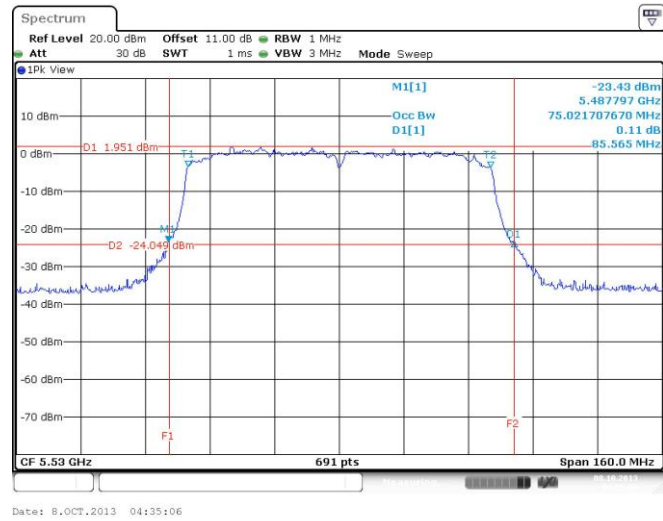
3.2.2 Test Setup



3.2.3 Test Result of Emission Bandwidth

Emission Bandwidth										
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			26dB Limit	99% Limit
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2		
11a	1	5180	22.84	---	---	17.25	---	---	17.00	16.37
11a	1	5200	22.55	---	---	17.19	---	---	17.00	16.35
11a	1	5240	22.32	---	---	17.19	---	---	17.00	16.35
11a	1	5260	22.55	---	---	17.25	---	---	24.00	23.37
11a	1	5300	22.61	---	---	17.19	---	---	24.00	23.35
11a	1	5320	22.61	---	---	17.25	---	---	24.00	23.37
11a	1	5500	22.49	---	---	17.25	---	---	24.00	23.37
11a	1	5580	22.43	---	---	17.19	---	---	24.00	23.35
11a	1	5700	22.78	---	---	17.25	---	---	24.00	23.37
HT40	1	5190	45.68	---	---	36.82	---	---	17.00	17.00
HT40	1	5230	45.33	---	---	36.93	---	---	17.00	17.00
HT40	1	5270	46.15	---	---	36.93	---	---	24.00	17.00
HT40	1	5310	45.57	---	---	36.93	---	---	24.00	24.00
HT40	1	5510	45.68	---	---	37.05	---	---	24.00	24.00
HT40	1	5550	46.15	---	---	37.05	---	---	24.00	24.00
HT40	1	5670	45.91	---	---	37.05	---	---	24.00	24.00
VHT20	1	5180	22.32	---	---	18.12	---	---	17.00	23.58
VHT20	1	5200	22.38	---	---	18.12	---	---	17.00	23.58
VHT20	1	5240	22.38	---	---	18.12	---	---	17.00	16.58
VHT20	1	5260	22.38	---	---	18.12	---	---	24.00	16.58
VHT20	1	5300	22.38	---	---	18.12	---	---	24.00	23.58
VHT20	1	5320	22.43	---	---	18.12	---	---	24.00	23.58
VHT20	1	5500	22.38	---	---	18.12	---	---	24.00	23.58
VHT20	1	5580	22.49	---	---	18.12	---	---	24.00	23.58
VHT20	1	5700	22.43	---	---	18.12	---	---	24.00	23.58
VHT80	1	5210	84.87	---	---	75.02	---	---	17.00	17.00
VHT80	1	5290	85.10	---	---	75.02	---	---	24.00	24.00
VHT80	1	5530	85.57	---	---	75.02	---	---	24.00	24.00

Worst Plots



3.3 RF Output Power

3.3.1 Limit of RF Output Power

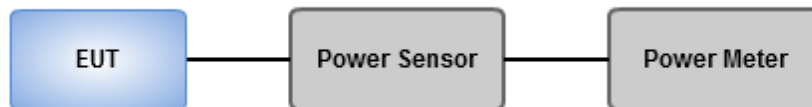
Frequency Band (GHz)		Limit
☒	5.15~5.25	50mW or 4dBm+10 log B
☒	5.25~5.35	250mW or 11dBm+10 log B
☒	5.47~5.725	250mW or 11dBm+10 log B

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

RF Output Power (dBm)								
Mode	N _{TX}	Freq. (MHz)	Chain 0	Chain 1	Chain 2	Total Power (mW)	Total Power (dBm)	Limit
11a	1	5180	14.55	---	---	28.510	14.55	17.00
11a	1	5200	14.39	---	---	27.479	14.39	17.00
11a	1	5240	14.43	---	---	27.733	14.43	17.00
11a	1	5260	14.39	---	---	27.479	14.39	24.00
11a	1	5300	14.42	---	---	27.669	14.42	24.00
11a	1	5320	14.56	---	---	28.576	14.56	24.00
11a	1	5500	14.01	---	---	25.177	14.01	24.00
11a	1	5580	14.32	---	---	27.040	14.32	24.00
11a	1	5700	14.21	---	---	26.363	14.21	24.00
HT20	1	5180	13.83	---	---	24.155	13.83	17.00
HT20	1	5200	13.65	---	---	23.174	13.65	17.00
HT20	1	5240	13.72	---	---	23.550	13.72	17.00
HT20	1	5260	13.66	---	---	23.227	13.66	24.00
HT20	1	5300	13.41	---	---	21.928	13.41	24.00
HT20	1	5320	13.49	---	---	22.336	13.49	24.00
HT20	1	5500	13.31	---	---	21.429	13.31	24.00
HT20	1	5580	13.38	---	---	21.777	13.38	24.00
HT20	1	5700	13.46	---	---	22.182	13.46	24.00
HT40	1	5190	13.21	---	---	20.941	13.21	17.00
HT40	1	5230	13.42	---	---	21.979	13.42	17.00
HT40	1	5270	13.05	---	---	20.184	13.05	24.00
HT40	1	5310	12.96	---	---	19.770	12.96	24.00
HT40	1	5510	12.02	---	---	15.922	12.02	24.00
HT40	1	5550	12.23	---	---	16.711	12.23	24.00
HT40	1	5670	12.43	---	---	17.498	12.43	24.00

RF Output Power (dBm)								
Mode	N _{TX}	Freq. (MHz)	Chain 0	Chain 1	Chain 2	Total Power (mW)	Total Power (dBm)	Limit
VHT20	1	5180	13.89	---	---	24.491	13.89	17.00
VHT20	1	5200	13.67	---	---	23.281	13.67	17.00
VHT20	1	5240	13.86	---	---	24.322	13.86	17.00
VHT20	1	5260	13.69	---	---	23.388	13.69	24.00
VHT20	1	5300	13.43	---	---	22.029	13.43	24.00
VHT20	1	5320	13.52	---	---	22.491	13.52	24.00
VHT20	1	5500	13.36	---	---	21.677	13.36	24.00
VHT20	1	5580	13.43	---	---	22.029	13.43	24.00
VHT20	1	5700	13.53	---	---	22.542	13.53	24.00
VHT40	1	5190	11.60	---	---	14.454	11.60	17.00
VHT40	1	5230	11.72	---	---	14.859	11.72	17.00
VHT40	1	5270	11.55	---	---	14.289	11.55	24.00
VHT40	1	5310	11.73	---	---	14.894	11.73	24.00
VHT40	1	5510	11.03	---	---	12.677	11.03	24.00
VHT40	1	5550	10.93	---	---	12.388	10.93	24.00
VHT40	1	5670	10.86	---	---	12.19	10.86	24.00
VHT80	1	5210	11.86	---	---	15.346	11.86	17.00
VHT80	1	5290	11.73	---	---	14.894	11.73	24.00
VHT80	1	5530	10.43	---	---	11.041	10.43	24.00

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

	Frequency Band (GHz)	Limit (dBm)
☒	5.15~5.25	4
☒	5.25~5.35	11
☒	5.47~5.725	11

3.4.2 Test Procedures

☐ Method SA-1

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

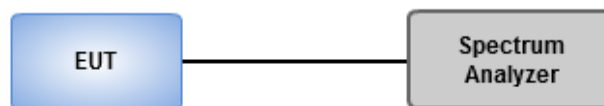
☐ Method SA-2

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{symbol period of the transmitted signal})$.
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.

☒ Method SA-2 Alternative

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
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

Condition			Peak Power Spectral Density (dBm)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)
11a	1	5180	0.89	0.52	1.41	4
11a	1	5200	0.66	0.52	1.18	4
11a	1	5240	0.69	0.52	1.21	4
11a	1	5260	0.80	0.52	1.32	11
11a	1	5300	0.84	0.52	1.36	11
11a	1	5320	0.73	0.52	1.25	11
11a	1	5500	0.23	0.52	0.75	11
11a	1	5580	0.20	0.52	0.72	11
11a	1	5700	0.00	0.52	0.52	11

Note: D.F is duty factor

Condition			Peak Power Spectral Density (dBm)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)
HT40	1	5190	-3.82	1.14	-2.68	4
HT40	1	5230	-3.88	1.14	-2.74	4
HT40	1	5270	-4.17	1.14	-3.03	11
HT40	1	5310	-4.40	1.14	-3.26	11
HT40	1	5510	-5.45	1.14	-4.31	11
HT40	1	5550	-5.31	1.14	-4.17	11
HT40	1	5670	-5.28	1.14	-4.14	11

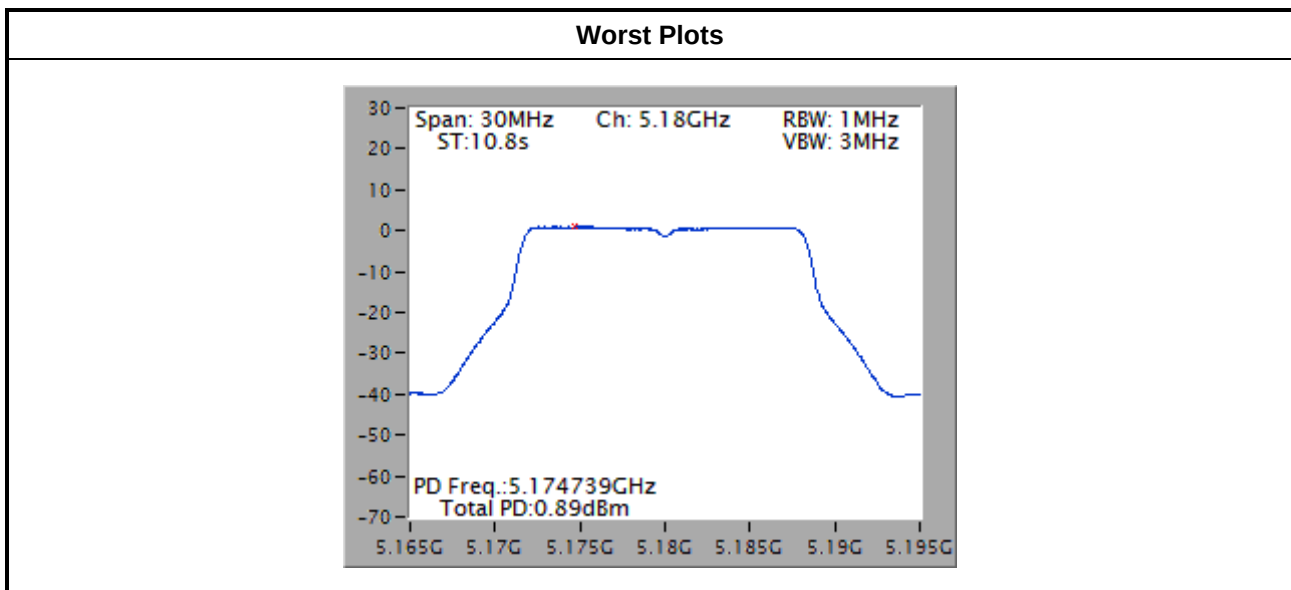
Note: D.F is duty factor

Condition			Peak Power Spectral Density (dBm)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)
VHT20	1	5180	-0.29	0.73	0.44	4
VHT20	1	5200	-0.48	0.73	0.25	4
VHT20	1	5240	-0.39	0.73	0.34	4
VHT20	1	5260	-0.71	0.73	0.02	11
VHT20	1	5300	-0.86	0.73	-0.13	11
VHT20	1	5320	-0.93	0.73	-0.20	11
VHT20	1	5500	-1.12	0.73	-0.39	11
VHT20	1	5580	-1.15	0.73	-0.42	11
VHT20	1	5700	-1.20	0.73	-0.47	11

Note: D.F is duty factor

Condition			Peak Power Spectral Density (dBm)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm)	Duty factor (dB)	PPSD with D.F (dBm)	PPSD Limit (dBm)
VHT80	1	5210	-9.37	2.44	-6.93	4
VHT80	1	5290	-9.61	2.44	-7.17	11
VHT80	1	5530	-11.17	2.44	-8.73	11

Note: D.F is duty factor



Note: Power density plot without duty factor

3.5 Peak Excursion

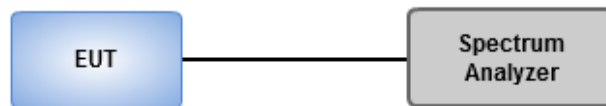
3.5.1 Peak Excursion Limit

Peak excursion of the modulation envelope shall not exceed 13 dB across any 1 MHz bandwidth.

3.5.2 Test Procedures

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = peak.
2. Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
3. Use the peak search function to find the peak of the spectrum.
4. Use the procedure of section 3.4.2 to measure the PPSD.
5. Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD

3.5.3 Test Setup



3.5.4 Test Result of Peak Excursion

Frequency band(MHz)		5150~5250					
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit
11a	BPSK	1	5180	8.87	0.52	8.35	13
11a	QPSK	1	5180	10.14	1.00	9.14	13
11a	16QAM	1	5180	11.09	1.79	9.30	13
11a	64QAM	1	5180	12.62	2.98	9.64	13
HT40	BPSK	1	5230	9.99	1.14	8.85	13
HT40	QPSK	1	5230	11.08	1.95	9.13	13
HT40	16QAM	1	5230	12.39	3.01	9.38	13
HT40	64QAM	1	5230	12.65	4.23	8.42	13
VHT20	BPSK	1	5180	8.82	0.73	8.09	13
VHT20	QPSK	1	5180	10.79	1.37	9.42	13
VHT20	16QAM	1	5180	10.98	2.25	8.73	13
VHT20	64QAM	1	5180	12.18	3.38	8.80	13
VHT20	256QAM	1	5180	11.84	4.03	7.81	13
VHT40	BPSK	1	5230	9.85	1.37	8.48	13
VHT40	QPSK	1	5230	12.71	2.28	10.43	13
VHT40	16QAM	1	5230	12.02	3.34	8.68	13
VHT40	64QAM	1	5230	12.34	4.46	7.88	13
VHT40	256QAM	1	5230	13.76	5.07	8.69	13
VHT80	BPSK	1	5210	11.72	2.44	9.28	13
VHT80	QPSK	1	5210	11.72	3.53	8.19	13
VHT80	16QAM	1	5210	12.07	4.76	7.31	13
VHT80	64QAM	1	5210	13.05	5.58	7.47	13
VHT80	256QAM	1	5210	14.16	6.02	8.14	13

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum
Peak exclusion = Measured value – duty factor

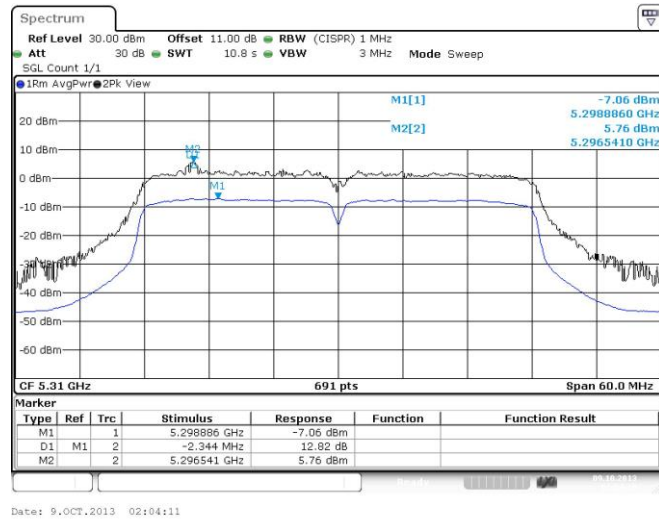
Frequency band(MHz)		5250~5350					
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit
11a	BPSK	1	5320	9.74	0.52	9.22	13
11a	QPSK	1	5320	10.31	1.00	9.31	13
11a	16QAM	1	5320	11.14	1.79	9.35	13
11a	64QAM	1	5320	12.24	2.98	9.26	13
HT40	BPSK	1	5270	9.66	1.14	8.52	13
HT40	QPSK	1	5270	10.38	1.95	8.43	13
HT40	16QAM	1	5270	11.3	3.01	8.29	13
HT40	64QAM	1	5270	13.2	4.23	8.97	13
VHT20	BPSK	1	5260	8.81	0.73	8.08	13
VHT20	QPSK	1	5260	9.69	1.37	8.32	13
VHT20	16QAM	1	5260	10.06	2.25	7.81	13
VHT20	64QAM	1	5260	11.83	3.38	8.45	13
VHT20	256QAM	1	5260	11.33	4.03	7.30	13
VHT40	BPSK	1	5310	9.89	1.37	8.52	13
VHT40	QPSK	1	5310	12.82	2.28	10.54	13
VHT40	16QAM	1	5310	12.11	3.34	8.77	13
VHT40	64QAM	1	5310	12.48	4.46	8.02	13
VHT40	256QAM	1	5310	13.87	5.07	8.80	13
VHT80	BPSK	1	5290	11.82	2.44	9.38	13
VHT80	QPSK	1	5290	11.56	3.53	8.03	13
VHT80	16QAM	1	5290	12.11	4.76	7.35	13
VHT80	64QAM	1	5290	12.72	5.58	7.14	13
VHT80	256QAM	1	5290	14.28	6.02	8.26	13

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum
Peak exclusion = Measured value – duty factor

Frequency band(MHz)		5470~5725					
Mode	Modulation Mode	N _{TX}	Freq. (MHz)	Measured value(dB)	Duty factor (dB)	Peak Excursion (dB)	Limit
11a	BPSK	1	5580	9.31	0.52	8.79	13
11a	QPSK	1	5580	10.46	1.00	9.46	13
11a	16QAM	1	5580	10.85	1.79	9.06	13
11a	64QAM	1	5580	12.1	2.98	9.12	13
HT40	BPSK	1	5670	10.24	1.14	9.10	13
HT40	QPSK	1	5670	11.02	1.95	9.07	13
HT40	16QAM	1	5670	11.95	3.01	8.94	13
HT40	64QAM	1	5670	12.62	4.23	8.39	13
VHT20	BPSK	1	5700	8.72	0.73	7.99	13
VHT20	QPSK	1	5700	9.68	1.37	8.31	13
VHT20	16QAM	1	5700	10.16	2.25	7.91	13
VHT20	64QAM	1	5700	11.92	3.38	8.54	13
VHT20	256QAM	1	5700	11.54	4.03	7.51	13
VHT40	BPSK	1	5510	10.08	1.37	8.71	13
VHT40	QPSK	1	5510	12.76	2.28	10.48	13
VHT40	16QAM	1	5510	12.21	3.34	8.87	13
VHT40	64QAM	1	5510	12.11	4.46	7.65	13
VHT40	256QAM	1	5510	13.65	5.07	8.58	13
VHT80	BPSK	1	5530	11.84	2.44	9.40	13
VHT80	QPSK	1	5530	11.56	3.53	8.03	13
VHT80	16QAM	1	5530	12.3	4.76	7.54	13
VHT80	64QAM	1	5530	13.19	5.58	7.61	13
VHT80	256QAM	1	5530	14.27	6.02	8.25	13

Note: Measured value = Peak-max-hold spectrum to the maximum of the average spectrum for continuous transmission. Since the duty cycle is < 98 %, duty factor is required to average spectrum
Peak exclusion = Measured value – duty factor

Worst Plots



3.6 Transmitter Radiated and Band Edge Emissions

3.6.1 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 - 5.825 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).

3.6.2 Test Procedures

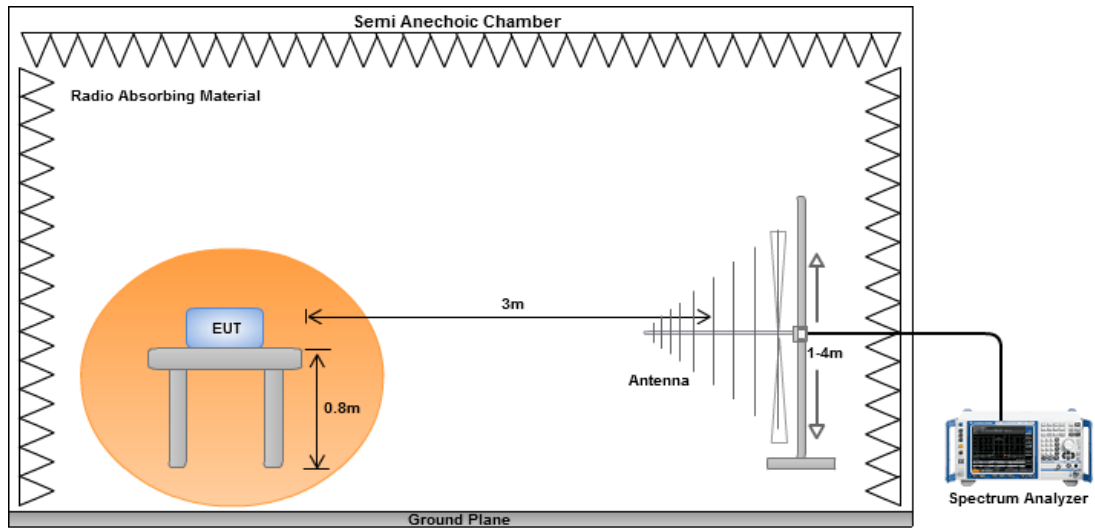
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
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:

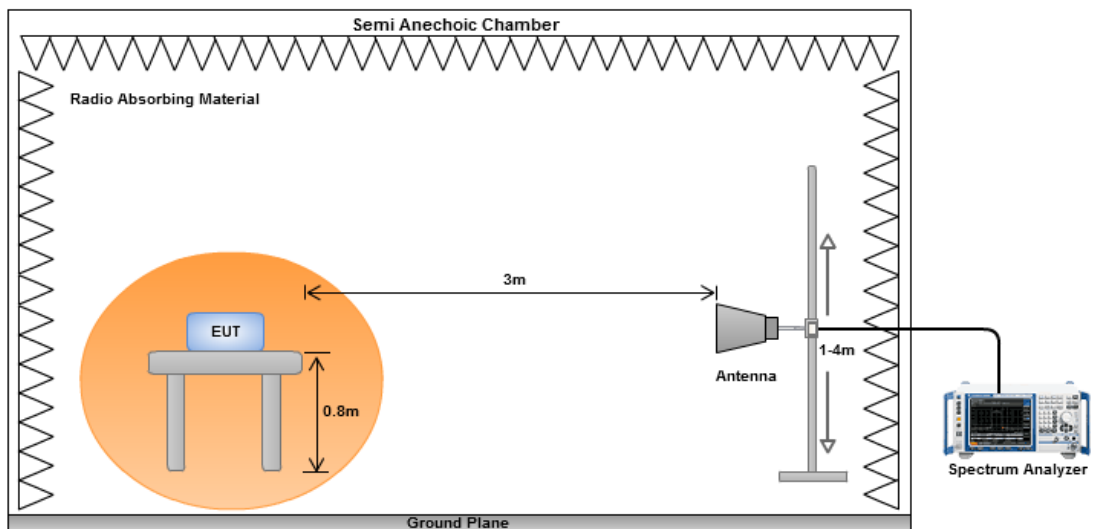
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.6.3 Test Setup

Radiated Emissions below 1 GHz

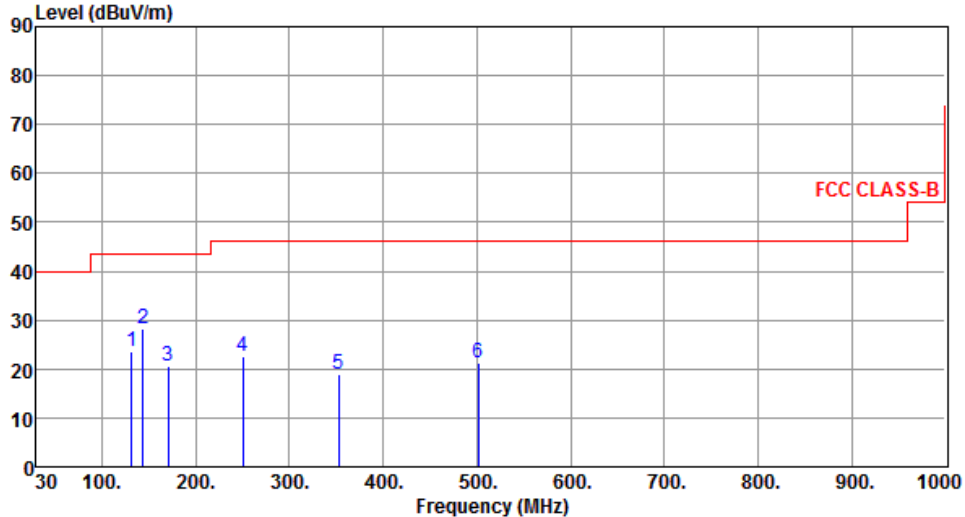


Radiated Emissions above 1 GHz



3.6.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1

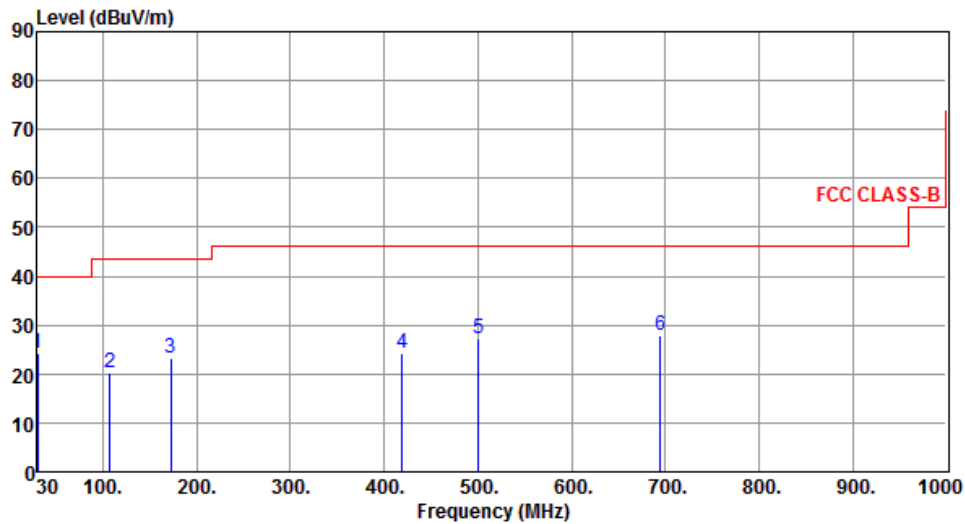


The graph displays the radiated unwanted emissions for a transmitter. The y-axis represents the Level in dBuV/m, ranging from 0 to 90. The x-axis represents the Frequency in MHz, ranging from 30 to 1000. A red line indicates the FCC CLASS-B limit, which is 40 dBuV/m from 30 to 100 MHz, 45 dBuV/m from 100 to 1000 MHz, and 55 dBuV/m from 1000 to 10000 MHz. Six measured peaks are labeled with numbers 1 through 6, corresponding to the data in the table below.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	131.85	23.68	43.50	-19.82	41.63	-17.95	Peak	---	---
2	143.49	28.22	43.50	-15.28	45.33	-17.11	Peak	---	---
3	170.65	20.57	43.50	-22.93	37.83	-17.26	Peak	---	---
4	250.19	22.52	46.00	-23.48	40.39	-17.87	Peak	---	---
5	353.01	18.95	46.00	-27.05	33.78	-14.83	Peak	---	---
6	501.42	21.38	46.00	-24.62	32.93	-11.55	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).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1



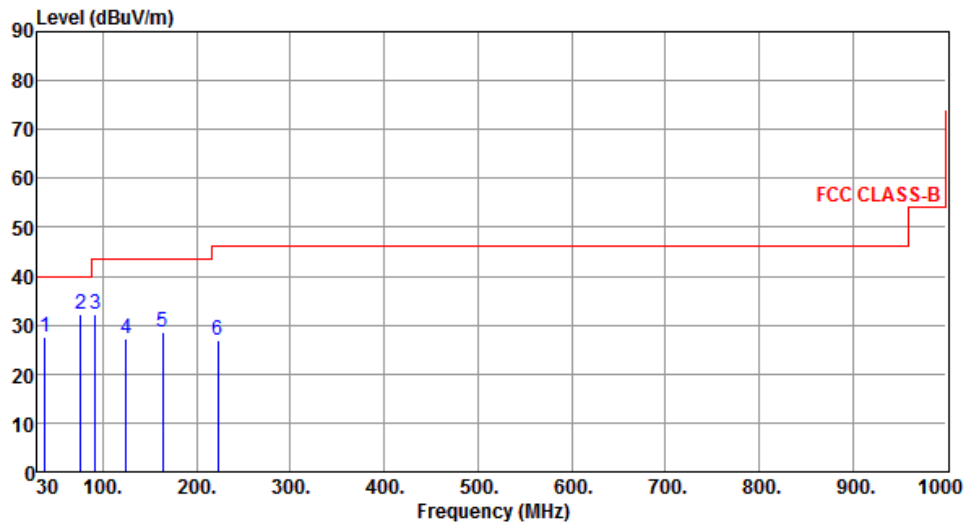
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	24.25	40.00	-15.75	41.98	-17.73	Peak	---	---
2	107.60	20.15	43.50	-23.35	40.52	-20.37	Peak	---	---
3	172.59	23.15	43.50	-20.35	40.62	-17.47	Peak	---	---
4	418.97	24.15	46.00	-21.85	37.34	-13.19	Peak	---	---
5	500.45	27.21	46.00	-18.79	38.77	-11.56	Peak	---	---
6	694.45	27.85	46.00	-18.15	36.19	-8.34	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).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	2



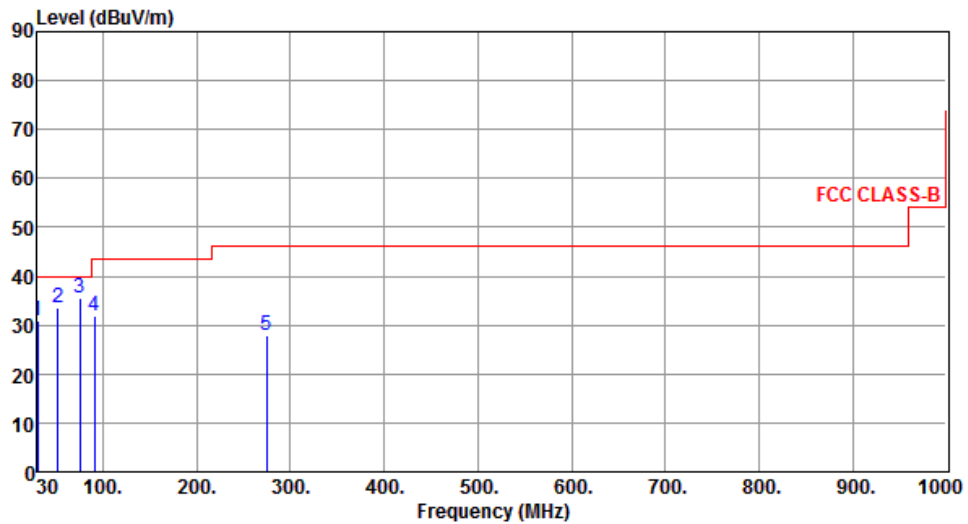
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	37.76	27.55	40.00	-12.45	44.72	-17.17	Peak	---	---
2	76.56	32.12	40.00	-7.88	53.05	-20.93	Peak	---	---
3	92.08	32.36	43.50	-11.14	55.02	-22.66	Peak	---	---
4	125.06	27.21	43.50	-16.29	45.83	-18.62	Peak	---	---
5	163.86	28.56	43.50	-14.94	45.51	-16.95	Peak	---	---
6	223.03	26.80	46.00	-19.20	46.02	-19.22	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).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	30.72	40.00	-9.28	48.45	-17.73	Peak	---	---
2	52.31	33.42	40.00	-6.58	50.14	-16.72	Peak	---	---
3	75.59	35.56	40.00	-4.44	56.23	-20.67	Peak	---	---
4	91.11	31.72	43.50	-11.78	54.50	-22.78	Peak	---	---
5	274.44	28.02	46.00	-17.98	44.91	-16.89	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

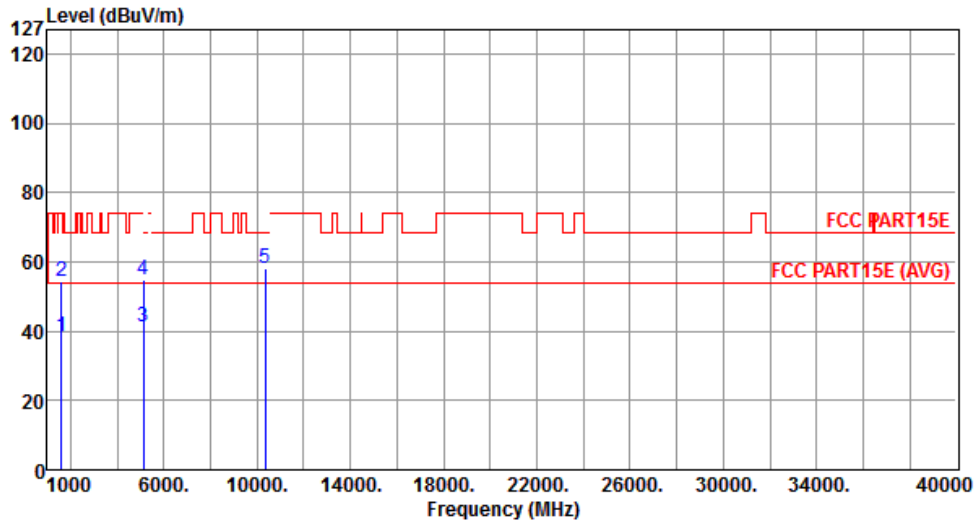
*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m) </			

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



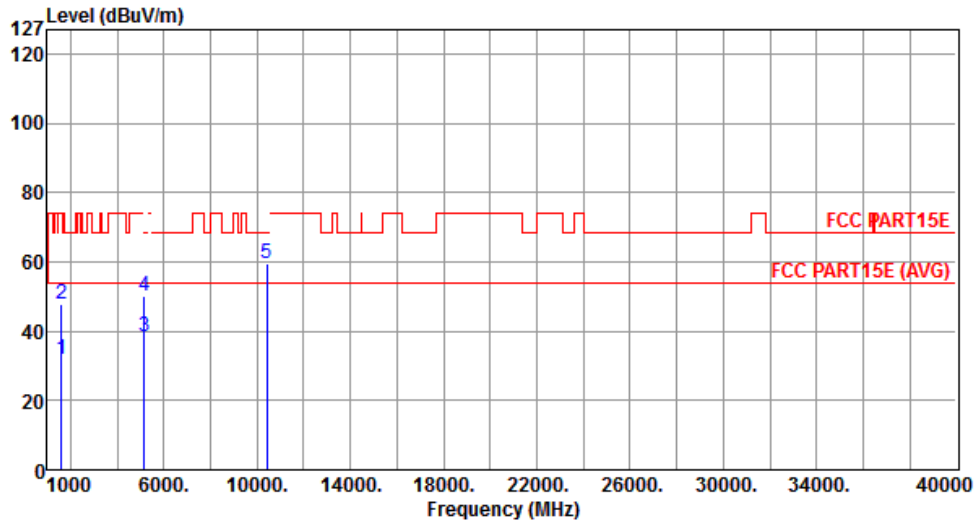
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.21	54.00	-15.79	44.51	-6.30	Average	---	---
2	1594.00	54.53	74.00	-19.47	60.83	-6.30	Peak	---	---
3	5127.00	41.30	54.00	-12.70	36.41	4.89	Average	---	---
4	5127.00	55.00	74.00	-19.00	50.11	4.89	Peak	---	---
5	10360.00	58.12	68.30	-10.18	43.41	14.71	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).

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



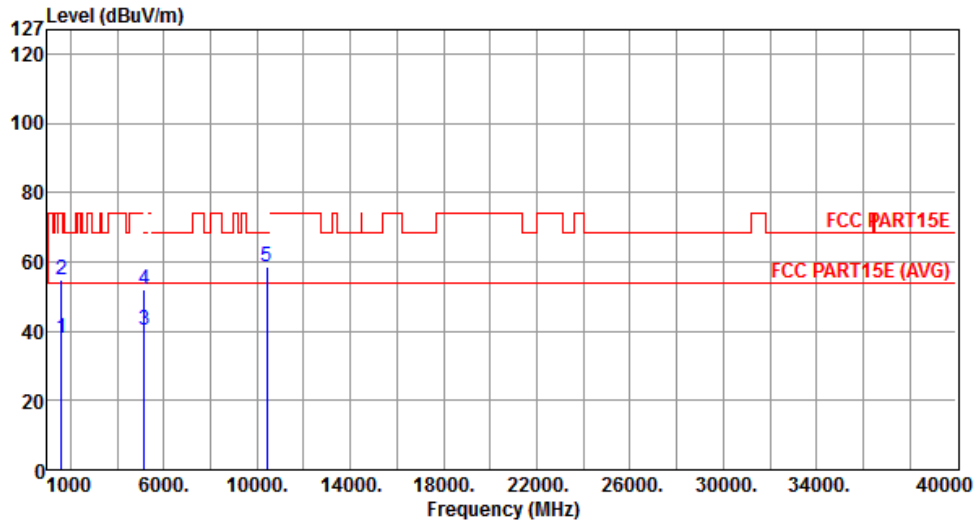
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.82	54.00	-22.18	38.12	-6.30	Average	---	---
2	1594.00	47.71	74.00	-26.29	54.01	-6.30	Peak	---	---
3	5147.00	38.56	54.00	-15.44	33.62	4.94	Average	---	---
4	5147.00	50.01	74.00	-23.99	45.07	4.94	Peak	---	---
5	10400.00	59.44	68.30	-8.86	44.69	14.75	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).

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



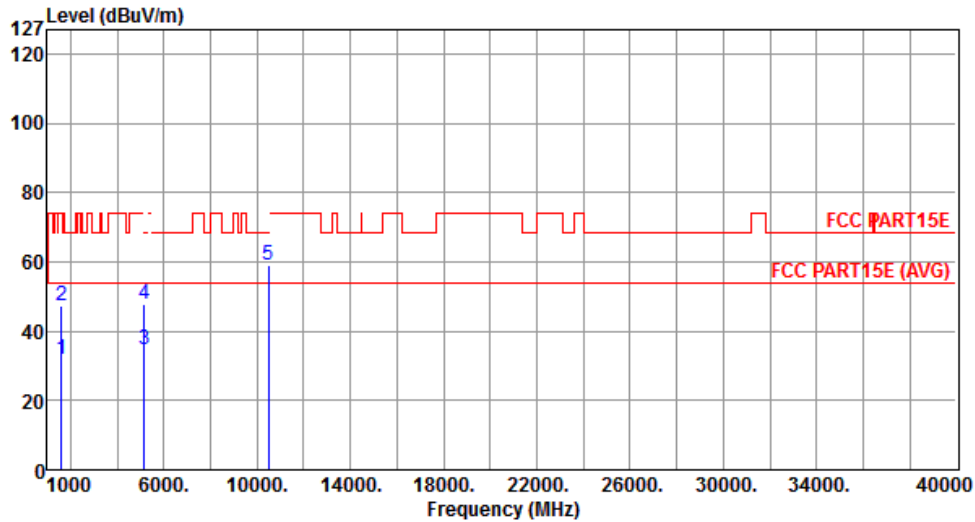
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.04	54.00	-15.96	44.34	-6.30	Average	---	---
2	1594.00	54.66	74.00	-19.34	60.96	-6.30	Peak	---	---
3	5147.00	40.46	54.00	-13.54	35.52	4.94	Average	---	---
4	5147.00	51.95	74.00	-22.05	47.01	4.94	Peak	---	---
5	10400.00	58.74	68.30	-9.56	43.99	14.75	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).

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



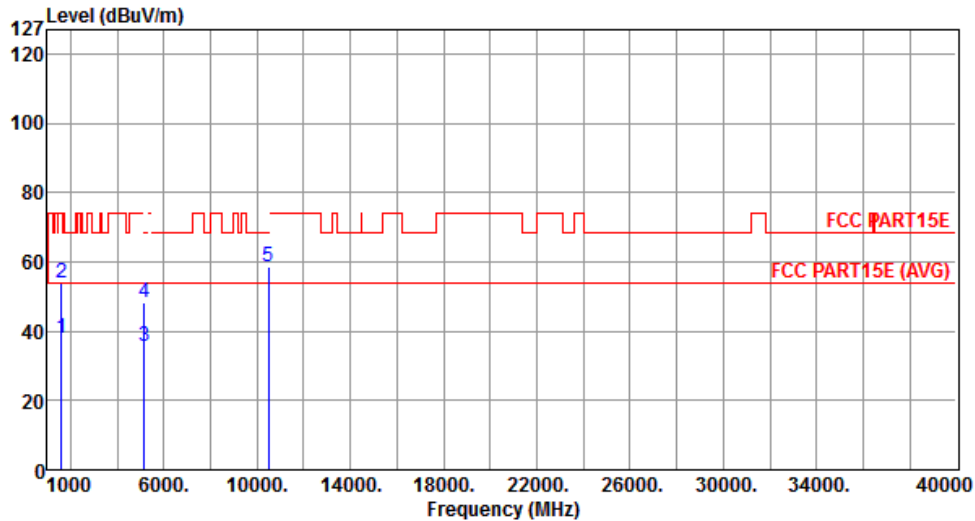
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.07	54.00	-21.93	38.37	-6.30	Average	---	---
2	1594.00	47.37	74.00	-26.63	53.67	-6.30	Peak	---	---
3	5150.00	34.65	54.00	-19.35	29.71	4.94	Average	---	---
4	5150.00	48.00	74.00	-26.00	43.06	4.94	Peak	---	---
5	10480.00	59.21	68.30	-9.09	44.37	14.84	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).

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



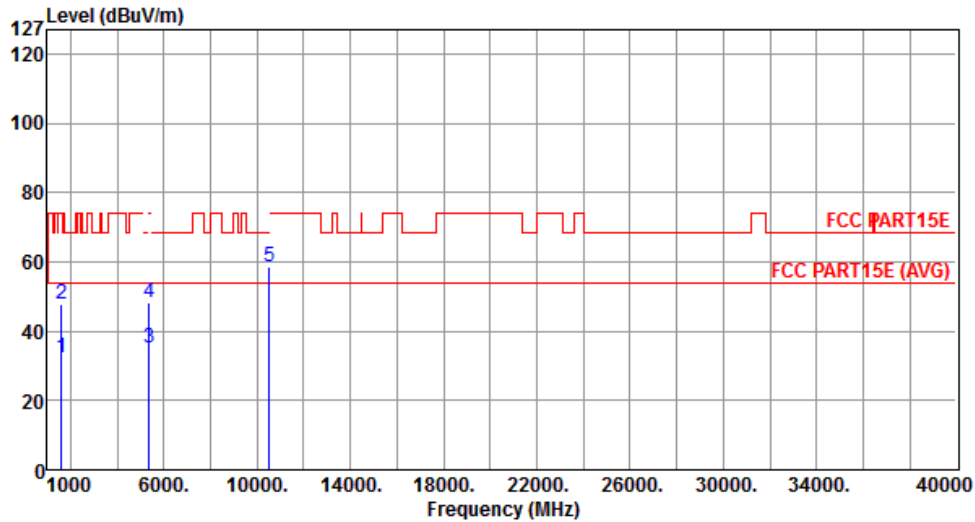
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.92	54.00	-16.08	44.22	-6.30	Average	---	---
2	1594.00	53.87	74.00	-20.13	60.17	-6.30	Peak	---	---
3	5150.00	35.79	54.00	-18.21	30.85	4.94	Average	---	---
4	5150.00	48.46	74.00	-25.54	43.52	4.94	Peak	---	---
5	10480.00	58.42	68.30	-9.88	43.58	14.84	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).

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



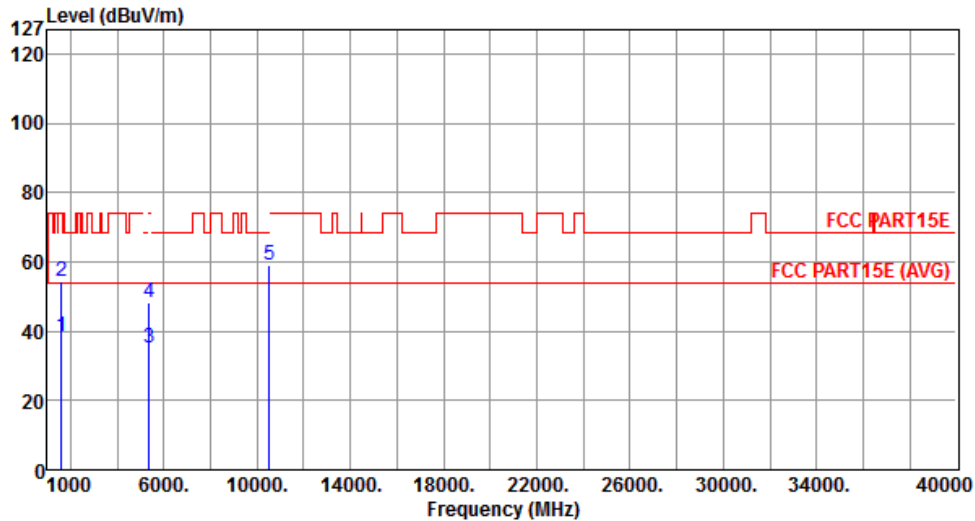
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.36	54.00	-21.64	38.66	-6.30	Average	---	---
2	1594.00	47.87	74.00	-26.13	54.17	-6.30	Peak	---	---
3	5350.00	35.07	54.00	-18.93	29.98	5.09	Average	---	---
4	5350.00	48.17	74.00	-25.83	43.08	5.09	Peak	---	---
5	10520.00	58.67	68.30	-9.63	43.80	14.87	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).

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



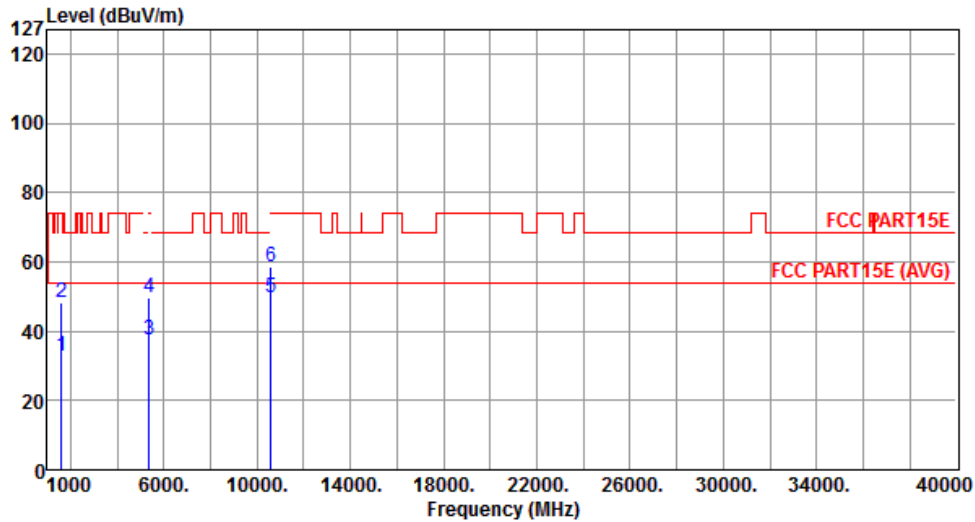
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.30	54.00	-15.70	44.60	-6.30	Average	---	---
2	1594.00	54.47	74.00	-19.53	60.77	-6.30	Peak	---	---
3	5350.00	35.22	54.00	-18.78	30.13	5.09	Average	---	---
4	5350.00	48.50	74.00	-25.50	43.41	5.09	Peak	---	---
5	10520.00	58.84	68.30	-9.46	43.97	14.87	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).

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



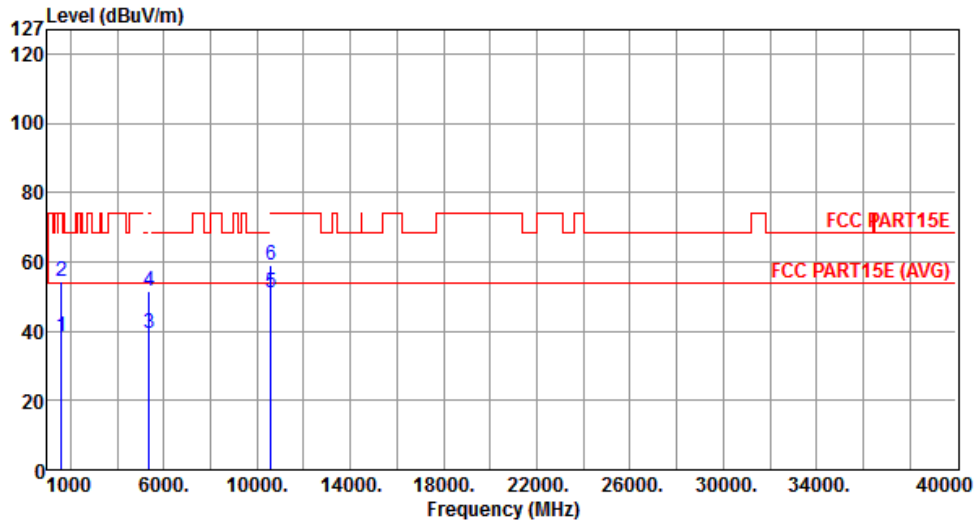
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.66	54.00	-21.34	38.96	-6.30	Average	---	---
2	1594.00	48.10	74.00	-25.90	54.40	-6.30	Peak	---	---
3	5351.00	37.46	54.00	-16.54	32.37	5.09	Average	---	---
4	5351.00	49.47	74.00	-24.53	44.38	5.09	Peak	---	---
5	10600.00	49.78	54.00	-4.22	34.84	14.94	Average	---	---
6	10600.00	58.75	74.00	-15.25	43.81	14.94	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).

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



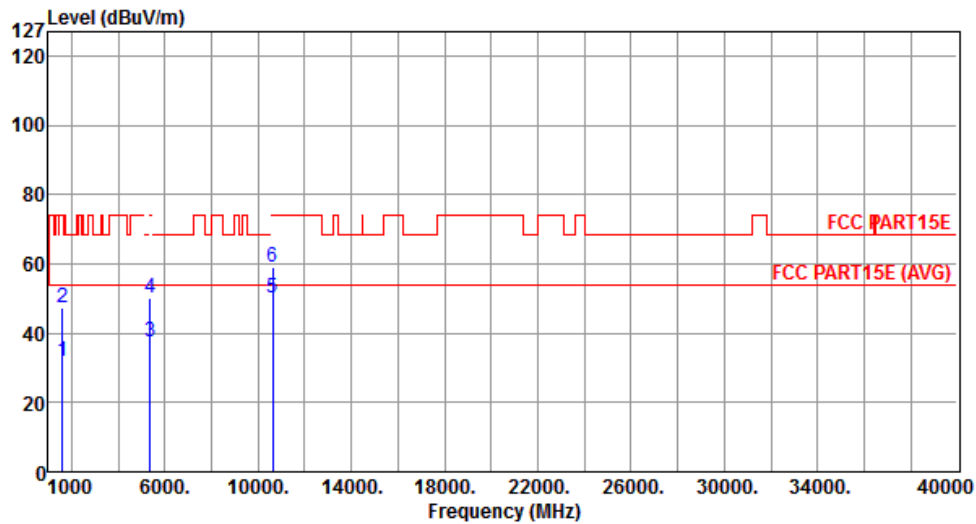
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.28	54.00	-15.72	44.58	-6.30	Average	---	---
2	1594.00	54.17	74.00	-19.83	60.47	-6.30	Peak	---	---
3	5351.00	39.23	54.00	-14.77	34.14	5.09	Average	---	---
4	5351.00	51.60	74.00	-22.40	46.51	5.09	Peak	---	---
5	10600.00	51.14	54.00	-2.86	36.20	14.94	Average	---	---
6	10600.00	58.89	74.00	-15.11	43.95	14.94	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).

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



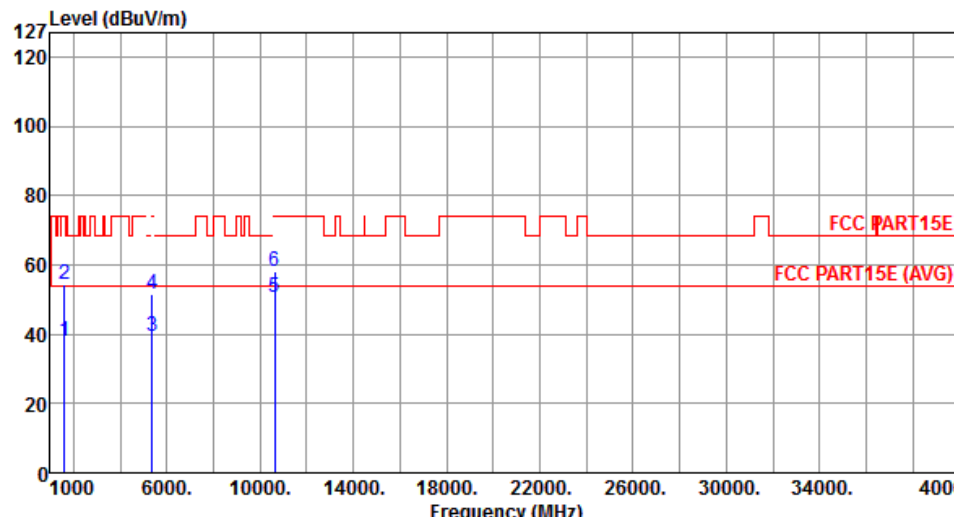
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.95	54.00	-22.05	38.25	-6.30	Average	---	---
2	1594.00	47.15	74.00	-26.85	53.45	-6.30	Peak	---	---
3	5372.00	37.71	54.00	-16.29	32.62	5.09	Average	---	---
4	5372.00	50.11	74.00	-23.89	45.02	5.09	Peak	---	---
5	10640.00	50.37	54.00	-3.63	35.39	14.98	Average	---	---
6	10640.00	58.82	74.00	-15.18	43.84	14.98	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).

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



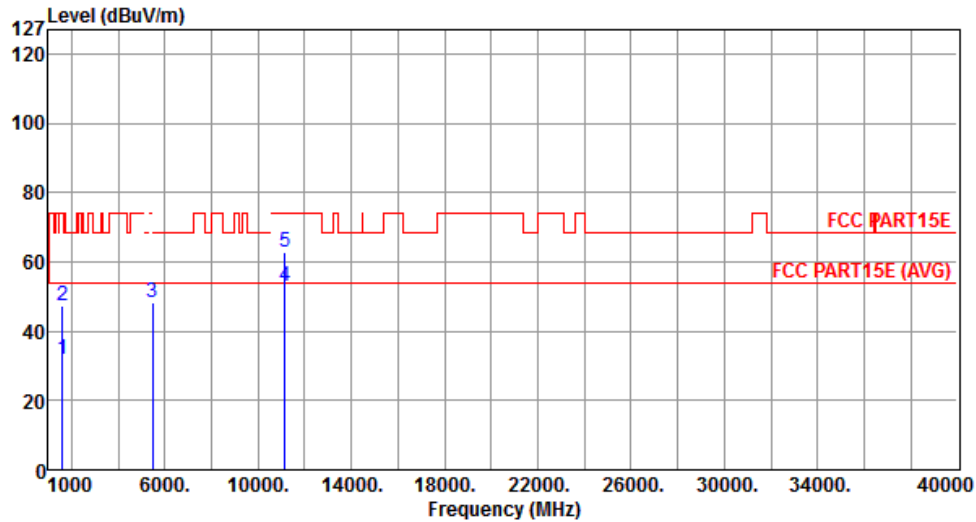
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.08	54.00	-15.92	44.38	-6.30	Average	---	---
2	1594.00	54.27	74.00	-19.73	60.57	-6.30	Peak	---	---
3	5372.00	39.36	54.00	-14.64	34.27	5.09	Average	---	---
4	5372.00	51.53	74.00	-22.47	46.44	5.09	Peak	---	---
5	10640.00	50.78	54.00	-3.22	35.80	14.98	Average	---	---
6	10640.00	58.19	74.00	-15.81	43.21	14.98	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).

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		
Level (dBuV/m) </			

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



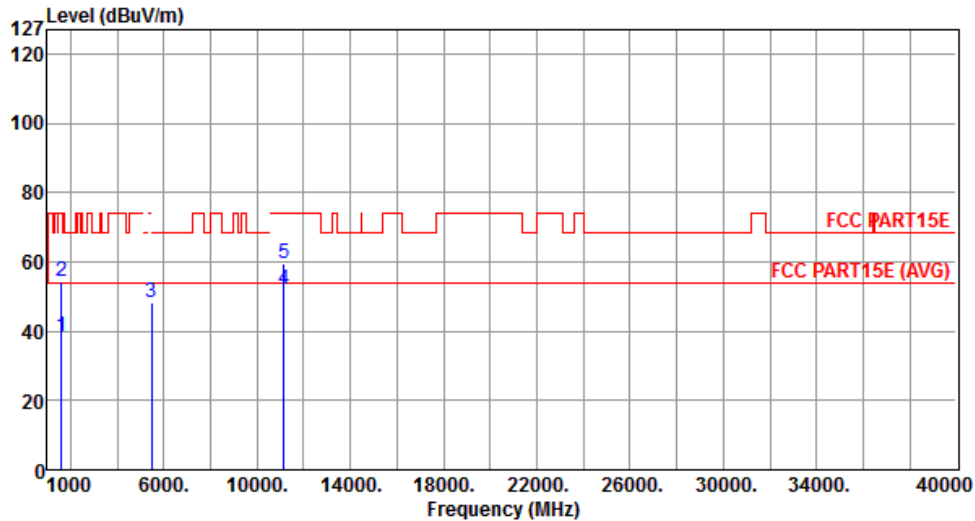
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.94	54.00	-22.06	38.24	-6.30	Average	---	---
2	1594.00	47.37	74.00	-26.63	53.67	-6.30	Peak	---	---
3	5470.00	48.12	68.30	-20.18	42.93	5.19	Peak	---	---
4	11160.00	52.87	54.00	-1.13	37.69	15.18	Average	---	---
5	11160.00	62.68	74.00	-11.32	47.50	15.18	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).

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



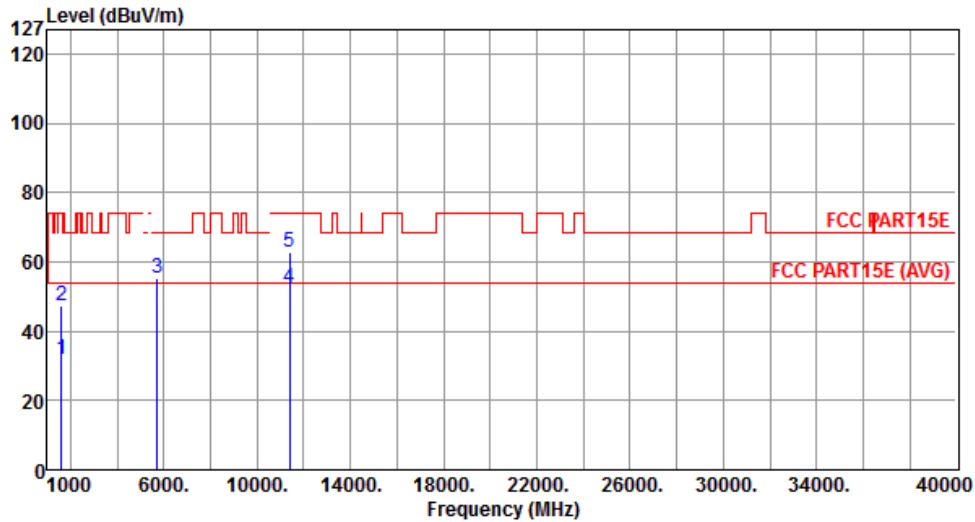
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.32	54.00	-15.68	44.62	-6.30	Average	---	---
2	1594.00	54.53	74.00	-19.47	60.83	-6.30	Peak	---	---
3	5470.00	48.13	68.30	-20.17	42.94	5.19	Peak	---	---
4	11160.00	52.17	54.00	-1.83	36.99	15.18	Average	---	---
5	11160.00	59.47	74.00	-14.53	44.29	15.18	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).

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



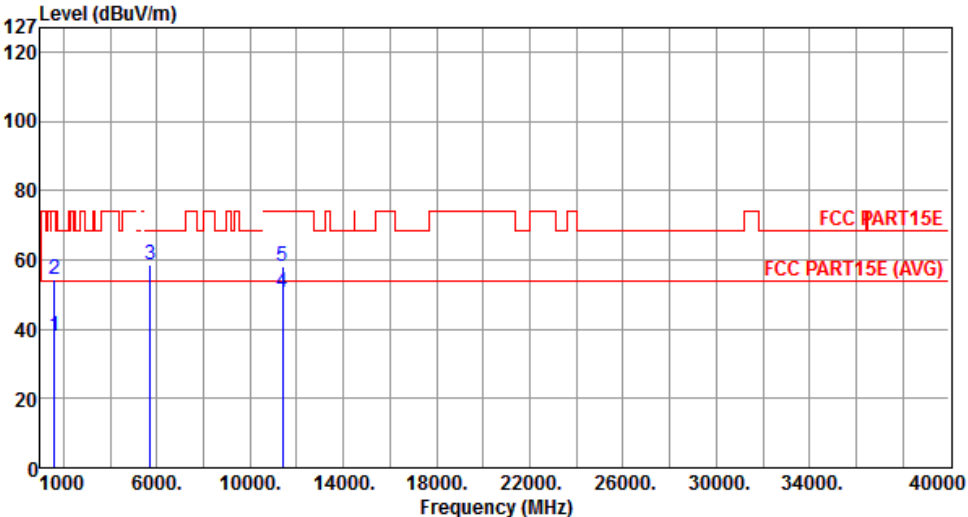
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.82	54.00	-22.18	38.12	-6.30	Average	---	---
2	1594.00	47.56	74.00	-26.44	53.86	-6.30	Peak	---	---
3	5725.00	55.14	68.30	-13.16	49.58	5.56	Peak	---	---
4	11400.00	52.48	54.00	-1.52	37.45	15.03	Average	---	---
5	11400.00	62.64	74.00	-11.36	47.61	15.03	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).

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	1594.00	38.05	54.00	-15.95	44.35	-6.30	Average	---	---
2	1594.00	54.15	74.00	-19.85	60.45	-6.30	Peak	---	---
3	5725.00	58.44	68.30	-9.86	52.88	5.56	Peak	---	---
4	11400.00	50.42	54.00	-3.58	35.39	15.03	Average	---	---
5	11400.00	58.12	74.00	-15.88	43.09	15.03	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).

3.6.6 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	1594.00	31.21	54.00	-22.79	37.51	-6.30	Average	---	---
2	1594.00	46.67	74.00	-27.33	52.97	-6.30	Peak	---	---
3	5150.00	38.16	54.00	-15.84	33.22	4.94	Average	---	---
4	5150.00	54.76	74.00	-19.24	49.82	4.94	Peak	---	---
5	10380.00	57.85	68.30	-10.45	43.12	14.73	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).

Modulation	HT40		Test Freq. (MHz)		5190	
Polarization	Vertical					
Level (dBuV/m)						

Modulation	HT40	Test Freq. (MHz)	5230
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	HT40		Test Freq. (MHz)		5230	
Polarization	Vertical					
Level (dBuV/m)						

Modulation	HT40		Test Freq. (MHz)		5270	
Polarization	Horizontal					
Level (dBuV/m)						

Modulation	HT40	Test Freq. (MHz)	5270
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	HT40	Test Freq. (MHz)	5310
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	HT40		Test Freq. (MHz)		5310	
Polarization	Vertical					
Level (dBuV/m)						

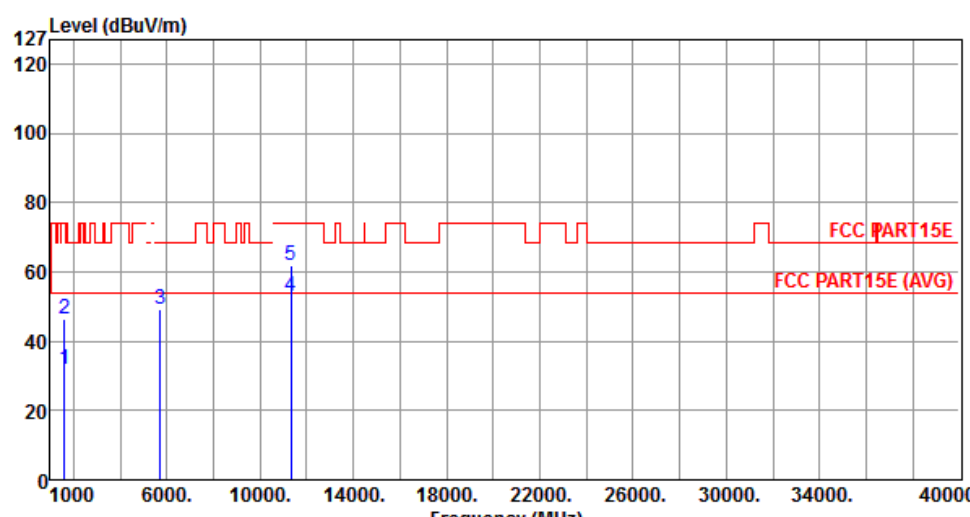
Modulation	HT40	Test Freq. (MHz)	5510
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	HT40	Test Freq. (MHz)	5510
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	HT40		Test Freq. (MHz)		5550	
Polarization	Horizontal					
Level (dBuV/m) <						

Modulation	HT40	Test Freq. (MHz)	5550
Polarization	Vertical		
Level (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	1594.00	31.91	54.00	-22.09	38.21	-6.30	Average	---	---
2	1594.00	46.61	74.00	-27.39	52.91	-6.30	Peak	---	---
3	5725.00	49.31	68.30	-18.99	43.75	5.56	Peak	---	---
4	11340.00	52.92	54.00	-1.08	37.85	15.07	Average	---	---
5	11340.00	61.89	74.00	-12.11	46.82	15.07	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

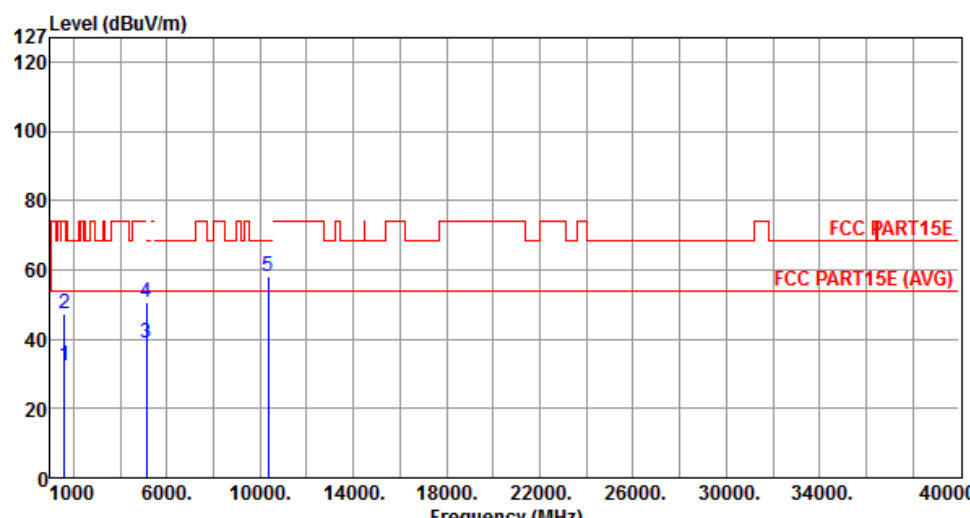
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	HT40	Test Freq. (MHz)	5670
Polarization	Vertical		
Level (dBuV/m) </			

3.6.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT20

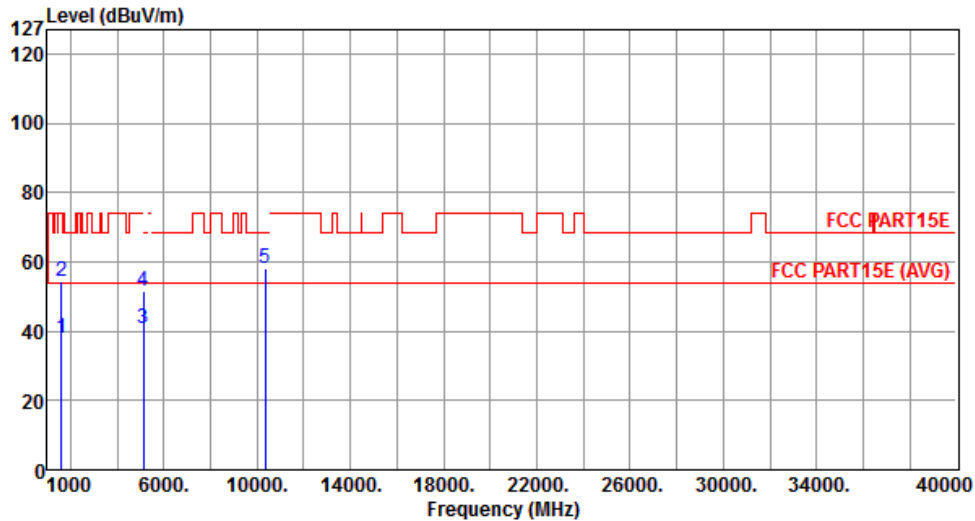
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.24	54.00	-21.76	38.54	-6.30	Average	---	---
2	1594.00	47.37	74.00	-26.63	53.67	-6.30	Peak	---	---
3	5127.00	38.76	54.00	-15.24	33.87	4.89	Average	---	---
4	5127.00	50.48	74.00	-23.52	45.59	4.89	Peak	---	---
5	10360.00	57.93	68.30	-10.37	43.22	14.71	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).

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



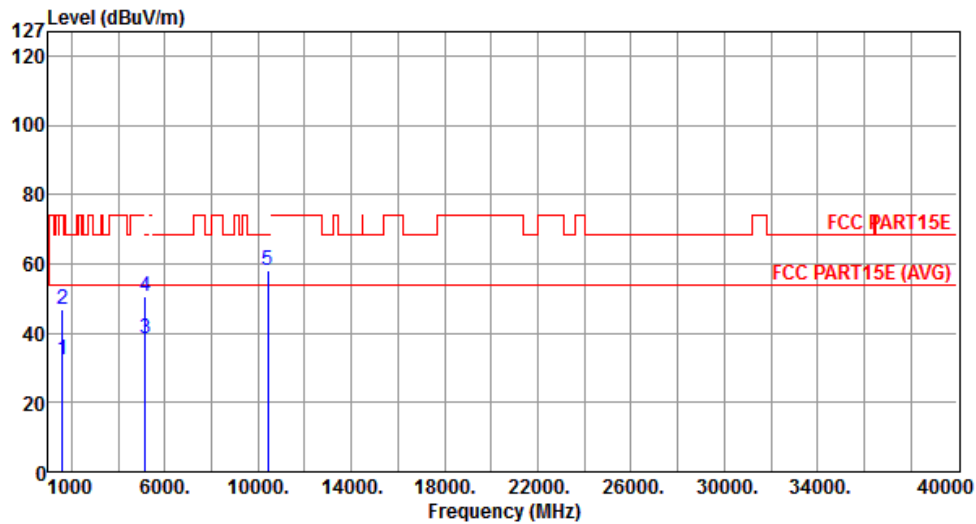
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.95	54.00	-16.05	44.25	-6.30	Average	---	---
2	1594.00	54.16	74.00	-19.84	60.46	-6.30	Peak	---	---
3	5127.00	40.88	54.00	-13.12	35.99	4.89	Average	---	---
4	5127.00	51.72	74.00	-22.28	46.83	4.89	Peak	---	---
5	10360.00	58.18	68.30	-10.12	43.47	14.71	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).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



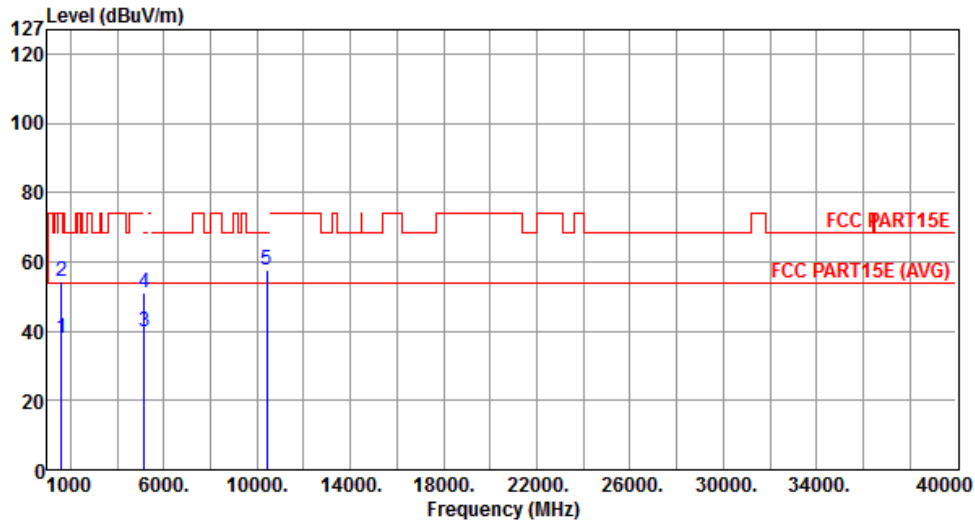
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.17	54.00	-21.83	38.47	-6.30	Average	---	---
2	1594.00	46.82	74.00	-27.18	53.12	-6.30	Peak	---	---
3	5147.00	38.51	54.00	-15.49	33.57	4.94	Average	---	---
4	5147.00	50.70	74.00	-23.30	45.76	4.94	Peak	---	---
5	10400.00	58.30	68.30	-10.00	43.55	14.75	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).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



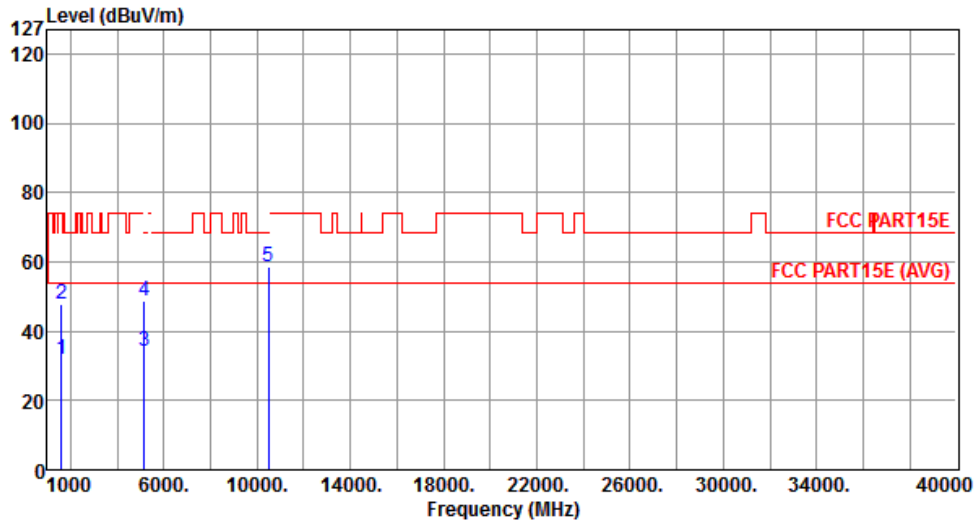
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.97	54.00	-16.03	44.27	-6.30	Average	---	---
2	1594.00	54.22	74.00	-19.78	60.52	-6.30	Peak	---	---
3	5147.00	39.91	54.00	-14.09	34.97	4.94	Average	---	---
4	5147.00	51.25	74.00	-22.75	46.31	4.94	Peak	---	---
5	10400.00	57.66	68.30	-10.64	42.91	14.75	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).

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



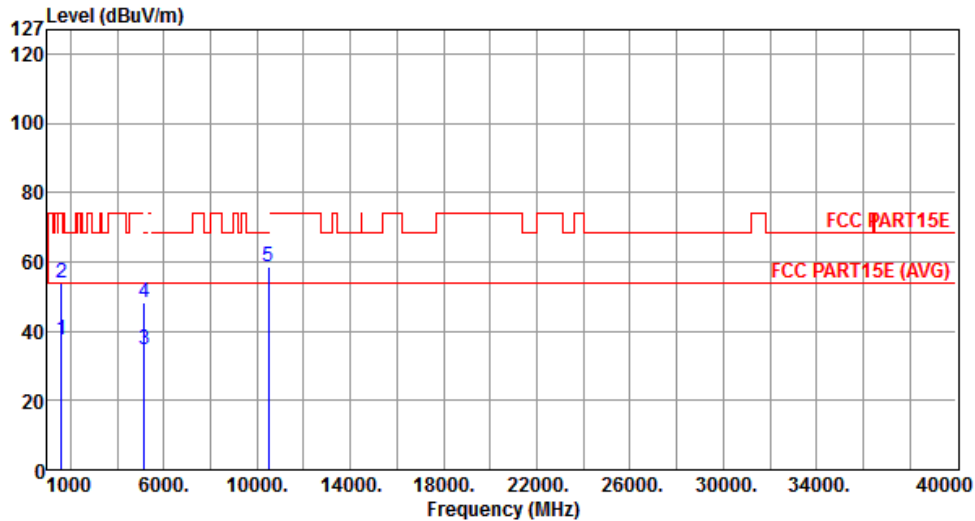
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.80	54.00	-22.20	38.10	-6.30	Average	---	---
2	1594.00	47.58	74.00	-26.42	53.88	-6.30	Peak	---	---
3	5150.00	34.38	54.00	-19.62	29.44	4.94	Average	---	---
4	5150.00	48.54	74.00	-25.46	43.60	4.94	Peak	---	---
5	10480.00	58.76	68.30	-9.54	43.92	14.84	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).

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



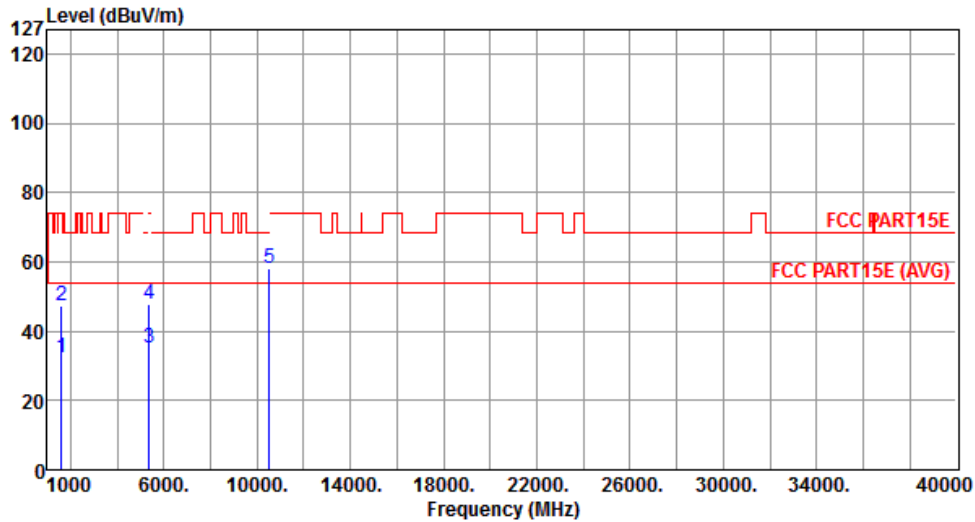
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.71	54.00	-16.29	44.01	-6.30	Average	---	---
2	1594.00	54.05	74.00	-19.95	60.35	-6.30	Peak	---	---
3	5150.00	34.65	54.00	-19.35	29.71	4.94	Average	---	---
4	5150.00	48.32	74.00	-25.68	43.38	4.94	Peak	---	---
5	10480.00	58.51	68.30	-9.79	43.67	14.84	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).

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



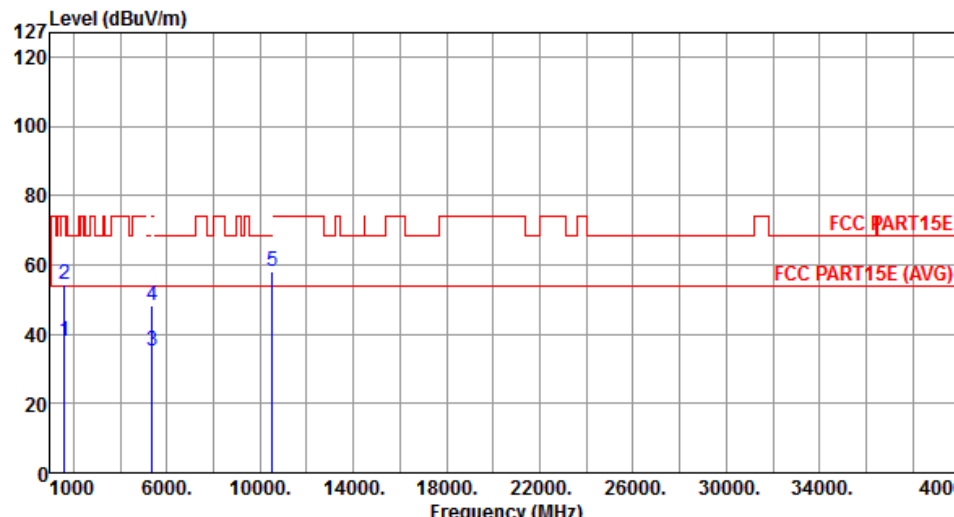
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.16	54.00	-21.84	38.46	-6.30	Average	---	---
2	1594.00	47.28	74.00	-26.72	53.58	-6.30	Peak	---	---
3	5350.00	35.15	54.00	-18.85	30.06	5.09	Average	---	---
4	5350.00	47.73	74.00	-26.27	42.64	5.09	Peak	---	---
5	10520.00	57.90	68.30	-10.40	43.03	14.87	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).

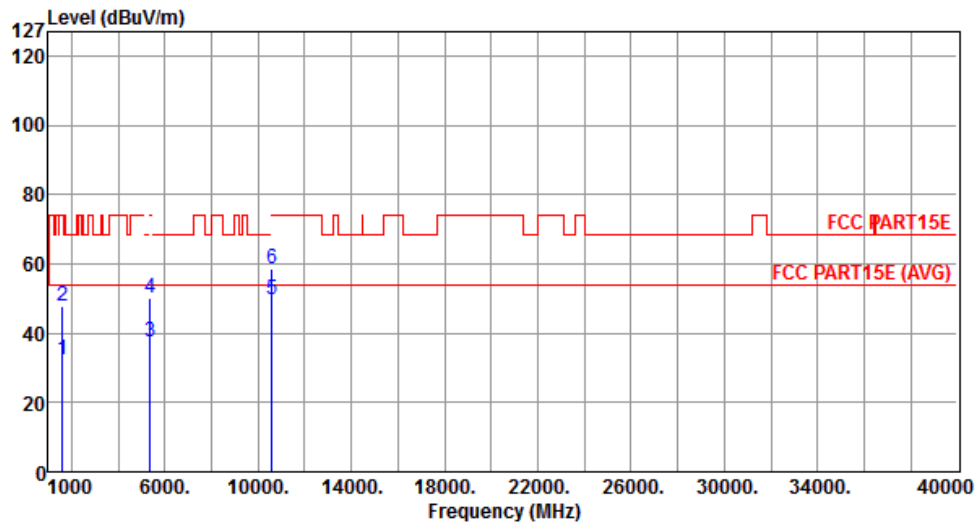
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.98	54.00	-16.02	44.28	-6.30	Average	---	---
2	1594.00	54.17	74.00	-19.83	60.47	-6.30	Peak	---	---
3	5350.00	35.07	54.00	-18.93	29.98	5.09	Average	---	---
4	5350.00	48.24	74.00	-25.76	43.15	5.09	Peak	---	---
5	10520.00	58.24	68.30	-10.06	43.37	14.87	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).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



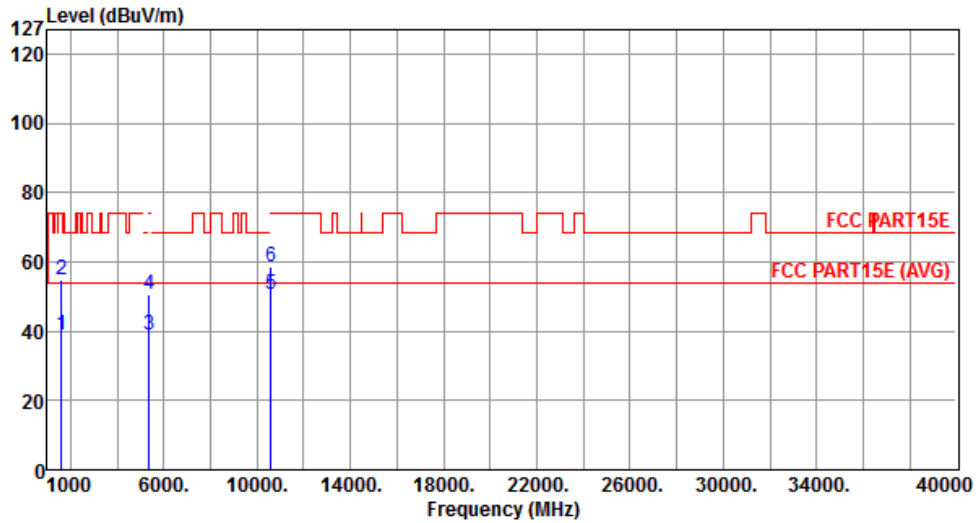
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.11	54.00	-21.89	38.41	-6.30	Average	---	---
2	1594.00	47.88	74.00	-26.12	54.18	-6.30	Peak	---	---
3	5351.00	37.26	54.00	-16.74	32.17	5.09	Average	---	---
4	5351.00	50.02	74.00	-23.98	44.93	5.09	Peak	---	---
5	10600.00	49.71	54.00	-4.29	34.77	14.94	Average	---	---
6	10600.00	58.66	74.00	-15.34	43.72	14.94	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).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



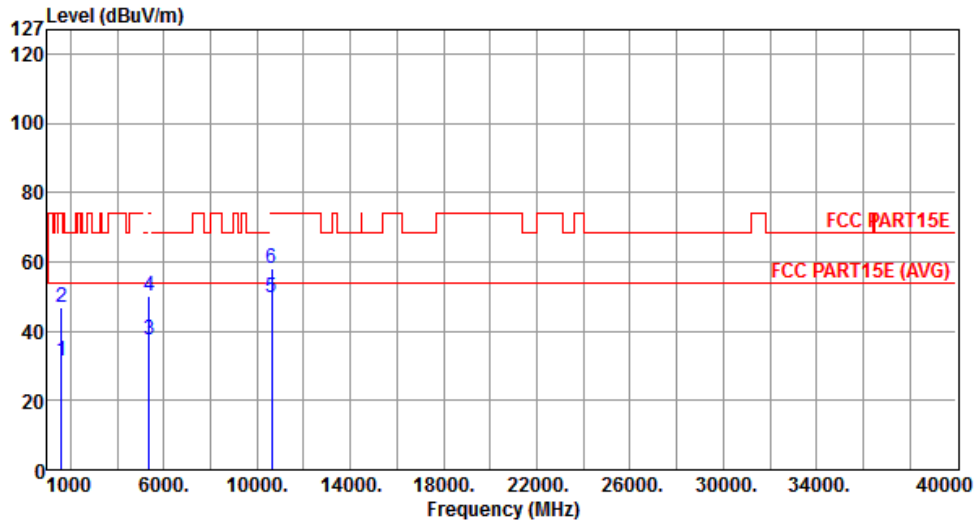
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.66	54.00	-15.34	44.96	-6.30	Average	---	---
2	1594.00	54.92	74.00	-19.08	61.22	-6.30	Peak	---	---
3	5351.00	39.10	54.00	-14.90	34.01	5.09	Average	---	---
4	5351.00	50.78	74.00	-23.22	45.69	5.09	Peak	---	---
5	10600.00	50.72	54.00	-3.28	35.78	14.94	Average	---	---
6	10600.00	58.35	74.00	-15.65	43.41	14.94	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).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



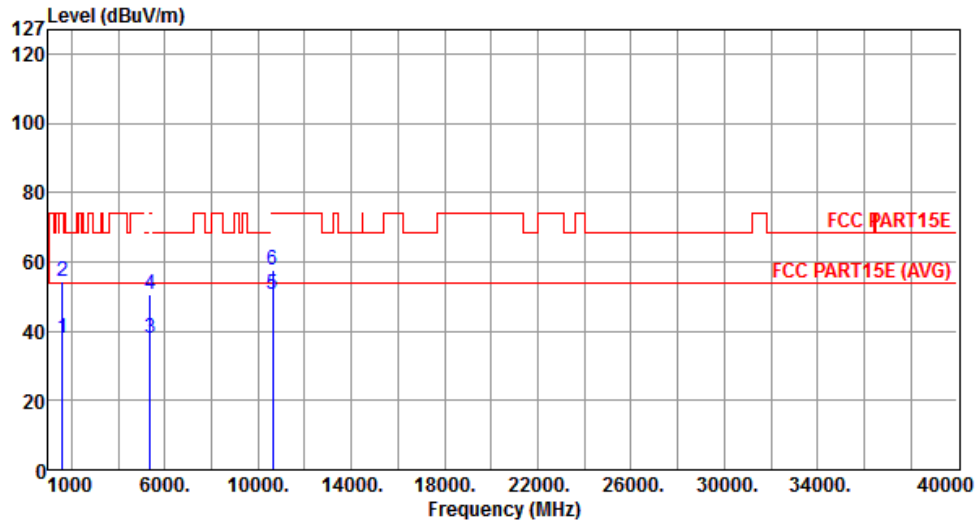
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.37	54.00	-22.63	37.67	-6.30	Average	---	---
2	1594.00	46.95	74.00	-27.05	53.25	-6.30	Peak	---	---
3	5372.00	37.44	54.00	-16.56	32.35	5.09	Average	---	---
4	5372.00	50.01	74.00	-23.99	44.92	5.09	Peak	---	---
5	10640.00	49.83	54.00	-4.17	34.85	14.98	Average	---	---
6	10640.00	58.10	74.00	-15.90	43.12	14.98	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).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		

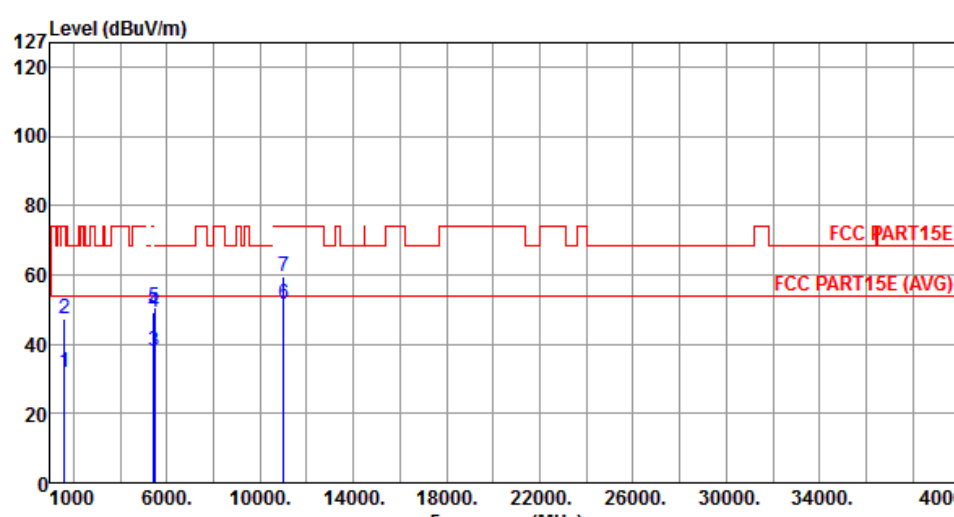


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.82	54.00	-16.18	44.12	-6.30	Average	---	---
2	1594.00	54.18	74.00	-19.82	60.48	-6.30	Peak	---	---
3	5372.00	38.16	54.00	-15.84	33.07	5.09	Average	---	---
4	5372.00	50.45	74.00	-23.55	45.36	5.09	Peak	---	---
5	10640.00	50.64	54.00	-3.36	35.66	14.98	Average	---	---
6	10640.00	57.66	74.00	-16.34	42.68	14.98	Peak	---	---

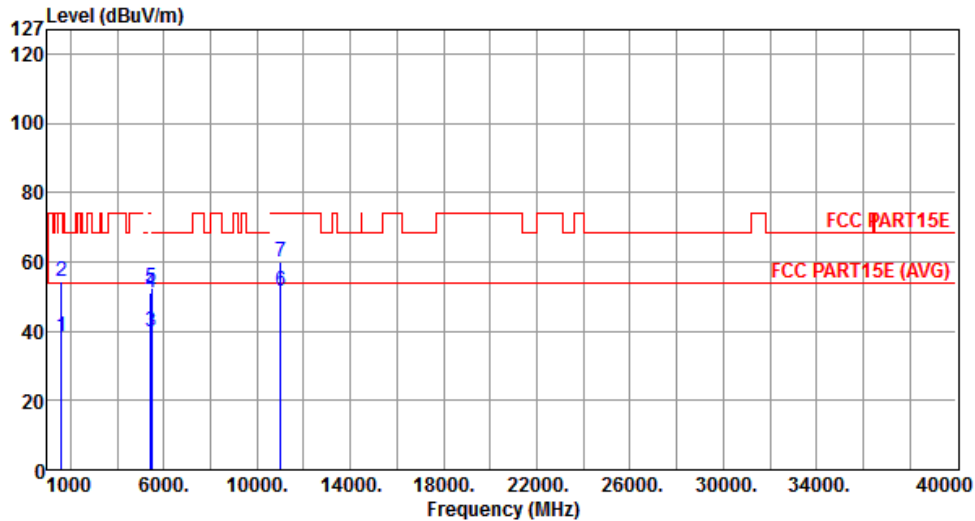
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5500																																																																																
Polarization	Horizontal																																																																																		
Level (dBuV/m)  <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>1594.00</td><td>32.05</td><td>54.00</td><td>-21.95</td><td>38.35</td><td>-6.30</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>2</td><td>1594.00</td><td>47.36</td><td>74.00</td><td>-26.64</td><td>53.66</td><td>-6.30</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>3</td><td>5447.00</td><td>37.73</td><td>54.00</td><td>-16.27</td><td>32.56</td><td>5.17</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>4</td><td>5447.00</td><td>49.31</td><td>74.00</td><td>-24.69</td><td>44.14</td><td>5.17</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>5</td><td>5470.00</td><td>50.59</td><td>68.30</td><td>-17.71</td><td>45.40</td><td>5.19</td><td>Peak</td><td>---</td><td>---</td></tr><tr><td>6</td><td>11000.00</td><td>51.59</td><td>54.00</td><td>-2.41</td><td>36.31</td><td>15.28</td><td>Average</td><td>---</td><td>---</td></tr><tr><td>7</td><td>11000.00</td><td>59.32</td><td>74.00</td><td>-14.68</td><td>44.04</td><td>15.28</td><td>Peak</td><td>---</td><td>---</td></tr></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	1594.00	32.05	54.00	-21.95	38.35	-6.30	Average	---	---	2	1594.00	47.36	74.00	-26.64	53.66	-6.30	Peak	---	---	3	5447.00	37.73	54.00	-16.27	32.56	5.17	Average	---	---	4	5447.00	49.31	74.00	-24.69	44.14	5.17	Peak	---	---	5	5470.00	50.59	68.30	-17.71	45.40	5.19	Peak	---	---	6	11000.00	51.59	54.00	-2.41	36.31	15.28	Average	---	---	7	11000.00	59.32	74.00	-14.68	44.04	15.28	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																										
1	1594.00	32.05	54.00	-21.95	38.35	-6.30	Average	---	---																																																																										
2	1594.00	47.36	74.00	-26.64	53.66	-6.30	Peak	---	---																																																																										
3	5447.00	37.73	54.00	-16.27	32.56	5.17	Average	---	---																																																																										
4	5447.00	49.31	74.00	-24.69	44.14	5.17	Peak	---	---																																																																										
5	5470.00	50.59	68.30	-17.71	45.40	5.19	Peak	---	---																																																																										
6	11000.00	51.59	54.00	-2.41	36.31	15.28	Average	---	---																																																																										
7	11000.00	59.32	74.00	-14.68	44.04	15.28	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).																																																																																			

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



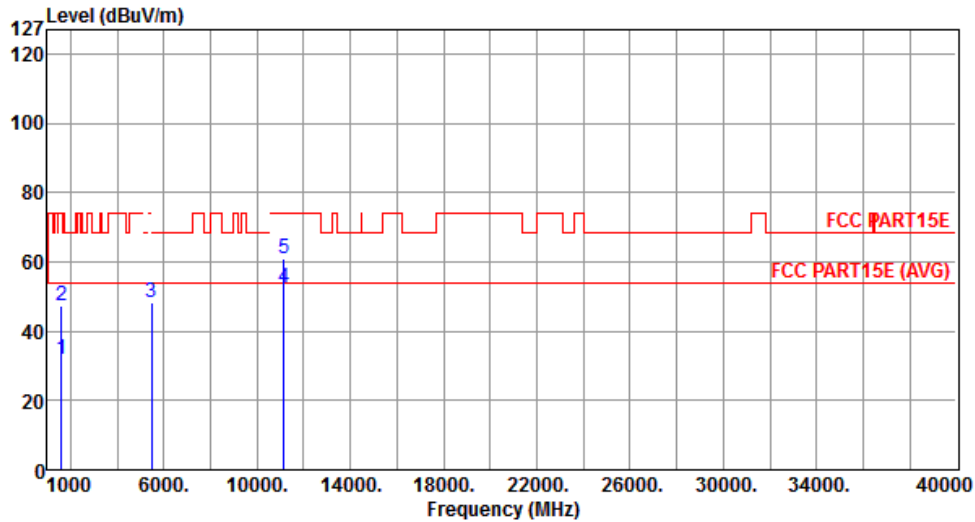
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	38.21	54.00	-15.79	44.51	-6.30	Average	---	---
2	1594.00	54.26	74.00	-19.74	60.56	-6.30	Peak	---	---
3	5447.00	39.64	54.00	-14.36	34.47	5.17	Average	---	---
4	5447.00	51.07	74.00	-22.93	45.90	5.17	Peak	---	---
5	5470.00	52.56	68.30	-15.74	47.37	5.19	Peak	---	---
6	11000.00	51.51	54.00	-2.49	36.23	15.28	Average	---	---
7	11000.00	60.10	74.00	-13.90	44.82	15.28	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).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



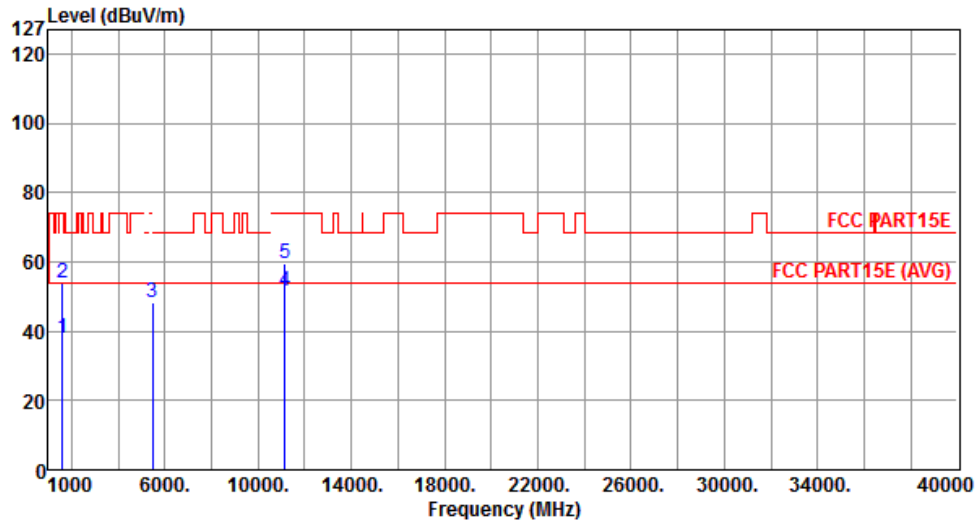
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	31.72	54.00	-22.28	38.02	-6.30	Average	---	---
2	1594.00	47.51	74.00	-26.49	53.81	-6.30	Peak	---	---
3	5470.00	48.31	68.30	-19.99	43.12	5.19	Peak	---	---
4	11160.00	52.35	54.00	-1.65	37.17	15.18	Average	---	---
5	11160.00	61.11	74.00	-12.89	45.93	15.18	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).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



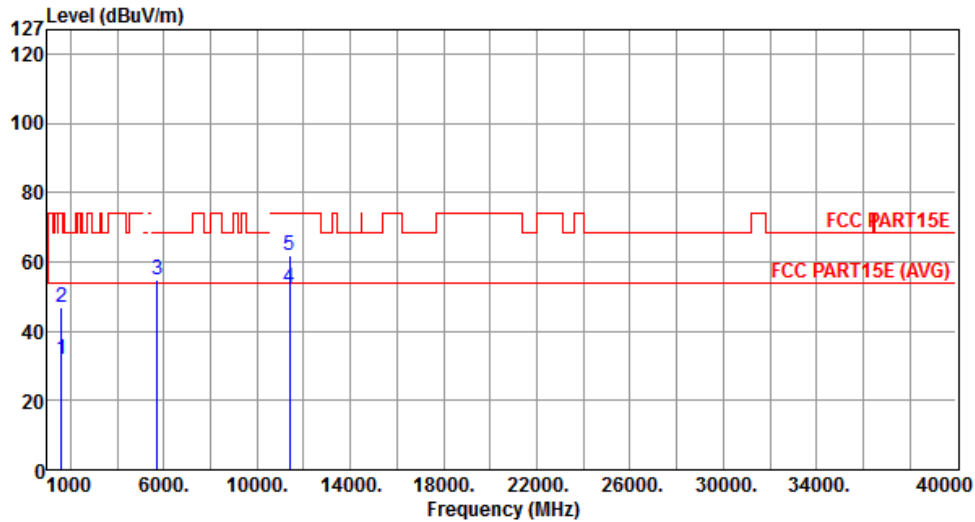
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	37.97	54.00	-16.03	44.27	-6.30	Average	---	---
2	1594.00	53.83	74.00	-20.17	60.13	-6.30	Peak	---	---
3	5470.00	48.19	68.30	-20.11	43.00	5.19	Peak	---	---
4	11160.00	51.76	54.00	-2.24	36.58	15.18	Average	---	---
5	11160.00	59.61	74.00	-14.39	44.43	15.18	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).

Modulation	VHT20	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	1594.00	31.97	54.00	-22.03	38.27	-6.30	Average	---	---
2	1594.00	46.96	74.00	-27.04	53.26	-6.30	Peak	---	---
3	5725.00	55.03	68.30	-13.27	49.47	5.56	Peak	---	---
4	11400.00	52.32	54.00	-1.68	37.29	15.03	Average	---	---
5	11400.00	61.70	74.00	-12.30	46.67	15.03	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

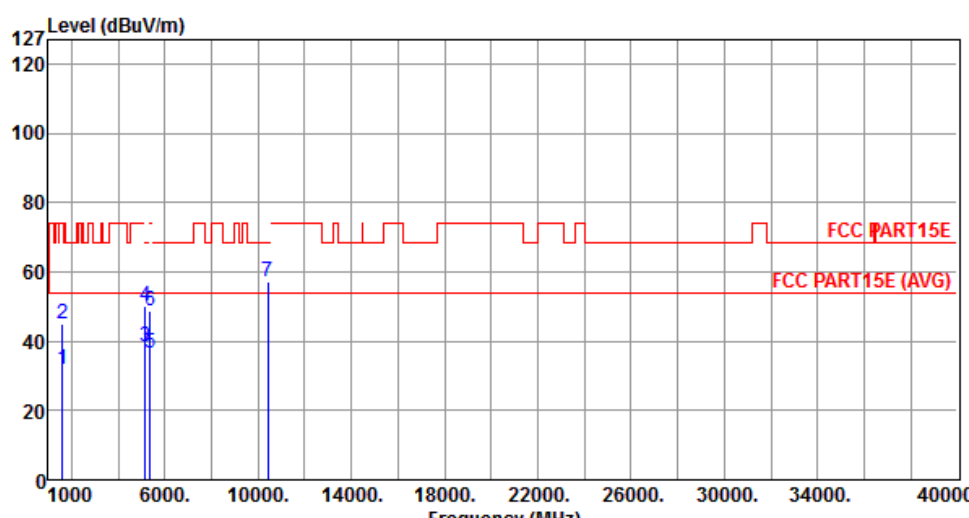
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBuV/m)			

3.6.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT80

Modulation	VHT80	Test Freq. (MHz)	5210
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	1594.00	31.64	54.00	-22.36	37.94	-6.30	Average	---	---
2	1594.00	44.97	74.00	-29.03	51.27	-6.30	Peak	---	---
3	5150.00	38.58	54.00	-15.42	33.64	4.94	Average	---	---
4	5150.00	50.01	74.00	-23.99	45.07	4.94	Peak	---	---
5	5350.00	36.52	54.00	-17.48	31.43	5.09	Average	---	---
6	5350.00	48.62	74.00	-25.38	43.53	5.09	Peak	---	---
7	10420.00	57.00	68.30	-11.30	42.23	14.77	Peak	---	---

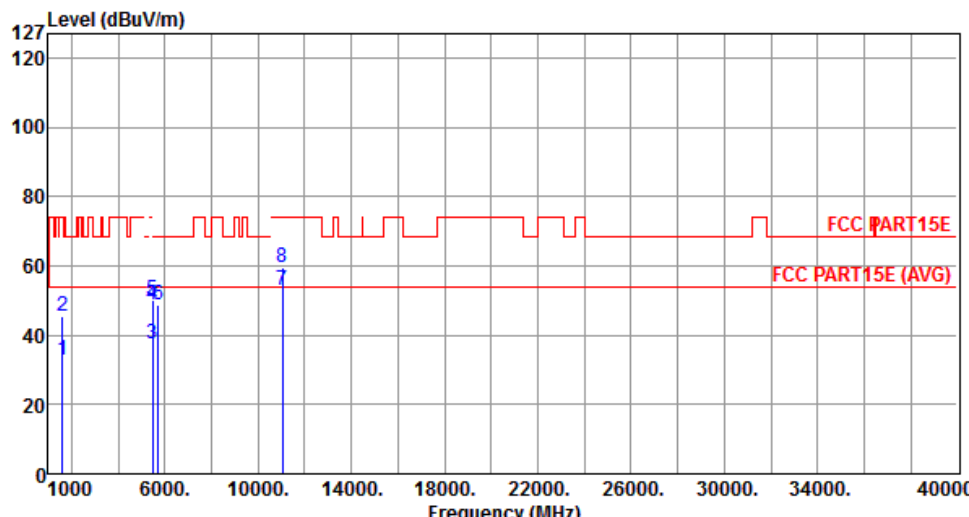
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		
Level (dBuV/m) </			

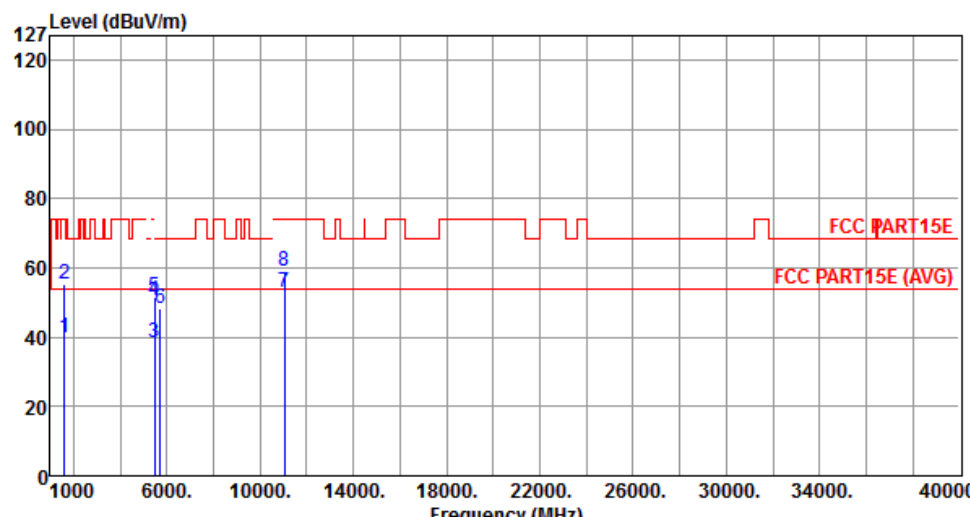
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1594.00	32.64	54.00	-21.36	38.94	-6.30	Average	---	---
2	1594.00	45.49	74.00	-28.51	51.79	-6.30	Peak	---	---
3	5460.00	37.27	54.00	-16.73	32.09	5.18	Average	---	---
4	5460.00	48.97	74.00	-25.03	43.79	5.18	Peak	---	---
5	5470.00	50.29	68.30	-18.01	45.10	5.19	Peak	---	---
6	5725.00	48.56	68.30	-19.74	43.00	5.56	Peak	---	---
7	11060.00	53.00	54.00	-1.00	37.76	15.24	Average	---	---
8	11060.00	59.58	74.00	-14.42	44.34	15.24	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).

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



The graph displays the emission level in dBuV/m across a frequency range from 1000 to 40000 MHz. A red stepped line represents the FCC PART15E limit, and a lower red line represents the average limit (FCC PART15E (AVG)). Blue vertical lines with markers indicate specific test points labeled 1 through 8.

Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1594.00	40.06	54.00	-13.94	46.36	-6.30	Average	---	---
1594.00	55.07	74.00	-18.93	61.37	-6.30	Peak	---	---
5460.00	38.21	54.00	-15.79	33.03	5.18	Average	---	---
5460.00	50.69	74.00	-23.31	45.51	5.18	Peak	---	---
5470.00	51.35	68.30	-16.95	46.16	5.19	Peak	---	---
5725.00	48.49	68.30	-19.81	42.93	5.56	Peak	---	---
11060.00	52.74	54.00	-1.26	37.50	15.24	Average	---	---
11060.00	59.19	74.00	-14.81	43.95	15.24	Peak	---	---

1	1594.00	40.06	54.00	-13.94	46.36	-6.30	Average	---	---
2	1594.00	55.07	74.00	-18.93	61.37	-6.30	Peak	---	---
3	5460.00	38.21	54.00	-15.79	33.03	5.18	Average	---	---
4	5460.00	50.69	74.00	-23.31	45.51	5.18	Peak	---	---
5	5470.00	51.35	68.30	-16.95	46.16	5.19	Peak	---	---
6	5725.00	48.49	68.30	-19.81	42.93	5.56	Peak	---	---
7	11060.00	52.74	54.00	-1.26	37.50	15.24	Average	---	---
8	11060.00	59.19	74.00	-14.81	43.95	15.24	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).

3.7 Frequency Stability

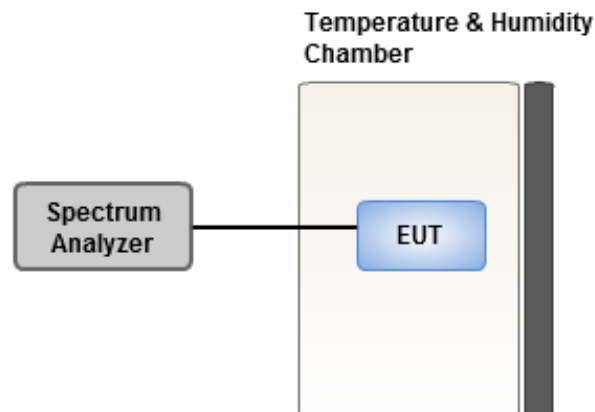
3.7.1 Limit of Frequency Stability

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.

3.7.2 Test Procedures

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

3.7.3 Test Setup



3.7.4 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.79	0.35	0.61	0.25
T20°CVmin	3.87	4.11	4.03	3.76
T55°CVnom	3.87	4.34	4.73	5.02
T50°CVnom	4.47	4.73	5.36	4.90
T40°CVnom	-1.55	-1.90	-1.60	-1.99
T30°CVnom	0.11	0.24	0.23	0.07
T20°CVnom	1.06	1.38	1.05	1.19
T10°CVnom	0.84	0.67	1.03	0.11
T0°CVnom	0.54	0.30	-0.41	0.28
T-10°CVnom	-0.55	-0.75	0.06	-0.31
T-20°CVnom	-0.40	0.13	-0.43	0.15
T-30°CVnom	0.72	-0.07	0.44	0.11
Vnom [Vdc]: 3.9		Vmax [Vdc]: 4.29		Vmin [Vdc]: 3.51
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30

4 Test laboratory information

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

International Certification Corp, 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>.

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

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Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==