FCC Test Report

FCC ID	:	**SQG-60SIPT**
Equipment	:	**802.11 ac/a/b/g/n + Bluetooth 4.2 module (please refer to section 1.1.1 for more details.)**
Model No.	:	**ST60-SIPT (please refer to section 1.1.1 for more details.)**
Brand Name	:	**Laird Technologies**
Applicant	:	**Laird Technologies**
Address	:	**W66N220 Commerce Court, Cedarburg, Wisconsin 53012, USA**
Standard	:	**47 CFR FCC Part 15.247**
Received Date	:	**Apr. 07, 2017**
Tested Date	:	**Apr. 12 ~ May 10, 2017**

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

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Local Support Equipment List 8
1.3 Test Setup Chart 8
1.4 The Equipment List 9
1.5 Test Standards 10
1.6 Measurement Uncertainty 10

2 TEST CONFIGURATION 11

2.1 Testing Condition 11
2.2 The Worst Test Modes and Channel Details 11

3 TRANSMITTER TEST RESULTS 12

3.1 Conducted Emissions 12
3.2 6dB and Occupied Bandwidth 15
3.3 RF Output Power 18
3.4 Power Spectral Density 20
3.5 Unwanted Emissions into Restricted Frequency Bands 22
3.6 Emissions in Non-Restricted Frequency Bands 128

4 TEST LABORATORY INFORMATION 141

Release Record

Report No.	Version	Description	Issued Date
FR740701AC	Rev. 01	Initial issue	Jul. 13, 2017
FR740701AC	Rev. 02	Revised model name	Jul. 21, 2017

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 4.476MHz 49.97(Margin -6.03dB) - QP	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 2483.50MHz 53.88 (Margin -0.12dB) - AV	Pass
15.247(b)(3)	Maximum Output Power	Max Power [dBm]: 29.41	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	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

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description	
Laird Technologies	ST60-SIPT	802.11 ac/a/b/g/n + Bluetooth 4.2 module	SIPT only	For marketing purpose
	SU60-SIPT			
	ST60-2230C	802.11 ac/a/b/g/n M.2 2230 + Bluetooth 4.2 module	with carrier board	
	SU60-2230C			
✦ The above models, model ST60-2230C was selected as a representative one for the final test and only its data was recorded in this report.				

1.1.2 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
2400-2483.5	b	2412-2462	1-11 [11]	1	1-11 Mbps
				2	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps
				2	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	MCS 0~7
				2	MCS 0~7
				2	MCS 8~15
2400-2483.5	n (HT40)	2422-2452	3-9 [7]	1	MCS 0~7
				2	MCS 0~7
				2	MCS 8~15

Note 1: RF output power specifies that Maximum Peak Conducted Output Power.
Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
Note 4: The device supports TX antenna diversity function. The conducted power of single chain is same for 1TX and 2TX operating mode. Therefore, Ant1 + Ant 2 configuration is chosen for final testing.

1.1.3 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	LSR/001-0009	Dipole	IPEX U.FL	2	2	2	2	2
2	Laird NanoBlade-IP04	PCB Dipole	IPEX U.FL	2	3.9	3.9	4	4
3	Laird MAF95310 Mini NanoBlade Flex	PCB Dipole	IPEX U.FL	2.79	3.38	3.38	3.38	3.38
4	LSR/FlexPIFA 001-0016	PIFA	IPEX U.FL	2.5	3	3	3	3
5	Ethertronics WLAN_1000146	Isolated Magnetic Dipole	IPEX U.FL	2.5	3.5	3.5	3.5	3.5

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	DC 3.3V from host

1.1.5 Accessories

N/A

1.1.6 Channel List

Frequency band (MHz)		2400~2483.5	
802.11 b / g / n HT20		802.11n HT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	2412	3	2422
2	2417	4	2427
3	2422	5	2432
4	2427	6	2437
5	2432	7	2442
6	2437	8	2447
7	2442	9	2452
8	2447	---	---
9	2452	---	---
10	2457	---	---
11	2462	---	---

1.1.7 Test Tool and Duty Cycle

Test Tool	DutApiMimoBT, Version: 1.0.0.133		
Duty Cycle and Duty Factor	**Mode**	**Duty cycle (%)**	**Duty factor (dB)**
	11b	100.00%	0.00
	11g	100.00%	0.00
	HT20	100.00%	0.00
	HT40	100.00%	0.00

1.1.8 Power Setting

Modulation Mode	Test Frequency (MHz)	Power Set
11b	2412	19
11b	2437	19
11b	2462	18
11g	2412	17
11g	2437	19
11g	2462	15
HT20	2412	16
HT20	2437	19
HT20	2462	13
HT40	2422	14
HT40	2437	17
HT40	2452	12

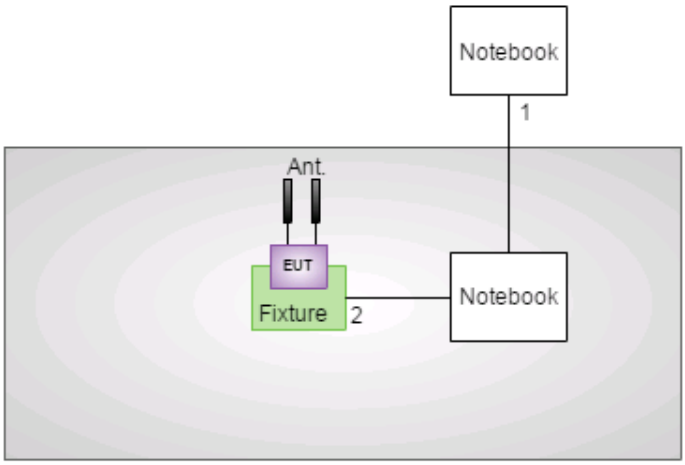
1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E5420	DoC	RJ45, 10m non-shielded
2	Notebook	Lenovo	T430	DoC	---
3	50Ω terminator	---	---	---	---
4	Fixture	---	---	---	Fixture, 0.2m non-shielded

Note: No2. & No. 4 were provided by applicant.

1.3 Test Setup Chart

Test Setup Diagram



1. RJ45, 10m non-shielded
2. Fixture, 0.2m non-shielded

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**
Receiver	R&S	ESR3	101657	Dec. 21, 2016	Dec. 20, 2017
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 08, 2016	Nov. 07, 2017
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 20, 2016	Dec. 19, 2017
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	Agilent	N9010A	MY53400091	Sep. 09, 2016	Sep. 08, 2017
Receiver	Agilent	N9038A	MY53290044	Oct. 06, 2016	Oct. 05, 2017
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 04, 2016	Aug. 03, 2017
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Feb. 09, 2017	Feb. 08, 2018
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 25, 2016	Oct. 24, 2017
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 10, 2016	Nov. 09, 2017
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 09, 2016	Dec. 08, 2017
Preamplifier	EMC	EMC02325	980187	Sep. 08, 2016	Sep. 07, 2017
Preamplifier	Agilent	83017A	MY53270014	Aug. 22, 2016	Aug. 21, 2017
Preamplifier	EMC	EMC184045B	980192	Aug. 24, 2016	Aug. 23, 2017
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Feb. 04, 2017	Feb. 03, 2018
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY22600/4	Feb. 04, 2017	Feb. 03, 2018
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Feb. 04, 2017	Feb. 03, 2018
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Feb. 04, 2017	Feb. 03, 2018
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Feb. 04, 2017	Feb. 03, 2018
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Feb. 04, 2017	Feb. 03, 2018
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	Mar. 15, 2017	Mar. 14, 2018
Power Meter	Anritsu	ML2495A	1241002	Oct. 06, 2016	Oct. 05, 2017
Power Sensor	Anritsu	MA2411B	1207366	Oct. 06, 2016	Oct. 05, 2017
DC POWER SOURCE	GW INSTEK	GPC-6030D	EM892433	Oct. 20, 2016	Oct. 19, 2017
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

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

47 CFR FCC Part 15.247
ANSI C63.10-2013
FCC KDB 558074 D01 DTS Meas Guidance v04
FCC KDB 662911 D01 Multiple Transmitter Output v02r01

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
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.90 dB
Radiated emission ≤ 1GHz	±3.66 dB
Radiated emission > 1GHz	±5.37 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	20°C / 57%	Alex Tsai
Radiated Emissions	03CH03-WS	22-24°C / 66-67%	Aska Huang
RF Conducted	TH01-WS	22°C / 64%	Brad Wu

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- IC site registration No.: 10807C-1

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	11g	2437	6 Mbps	2
Radiated Emissions ≤1GHz	11g	2437	6 Mbps	1, 2, 3, 4
Radiated Emissions >1GHz	11b 11g HT20 HT40	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	1, 2, 3, 4
Maximum Output Power 6dB bandwidth Power spectral density	11b 11g HT20 HT40	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462 2422 / 2437 / 2452	1 Mbps 6 Mbps MCS 0 MCS 0	2

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 test configurations are listed as follows:

   Configuration 1 : Dipole Antenna

   Configuration 2 : PCB Dipole Antenna

   Configuration 3 : PIFA Antenna

   Configuration 4 : Isolated Magnetic Dipole Antenna

3 Transmitter Test Results

3.1 Conducted Emissions

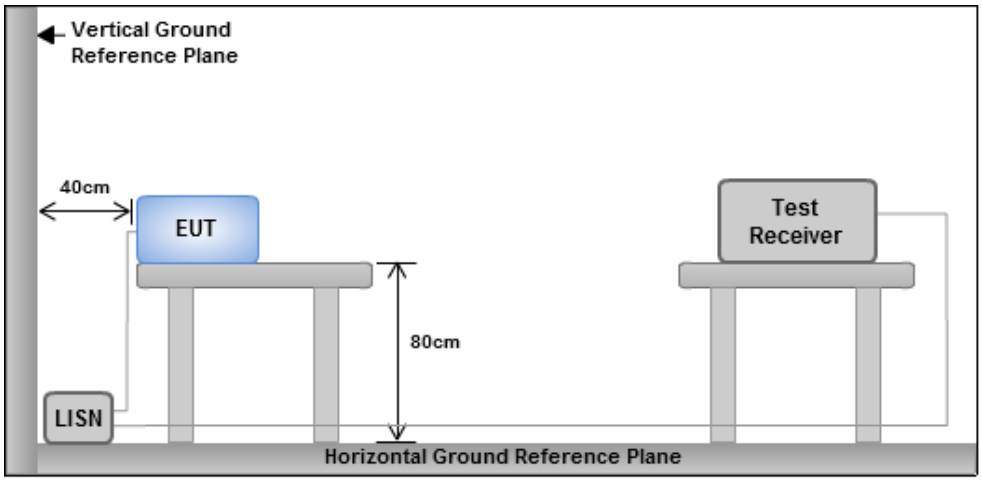
3.1.1 Limit of Conducted Emissions

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.

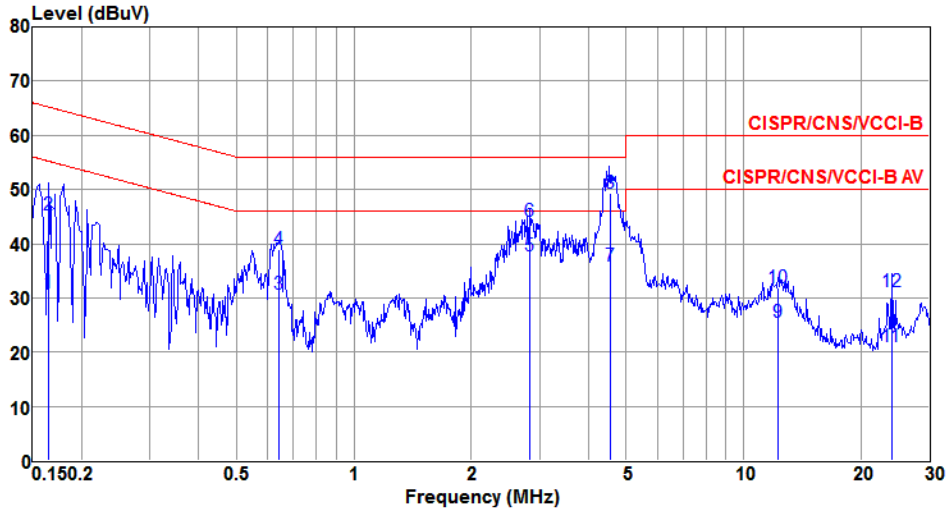
3.1.3 Test Setup



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

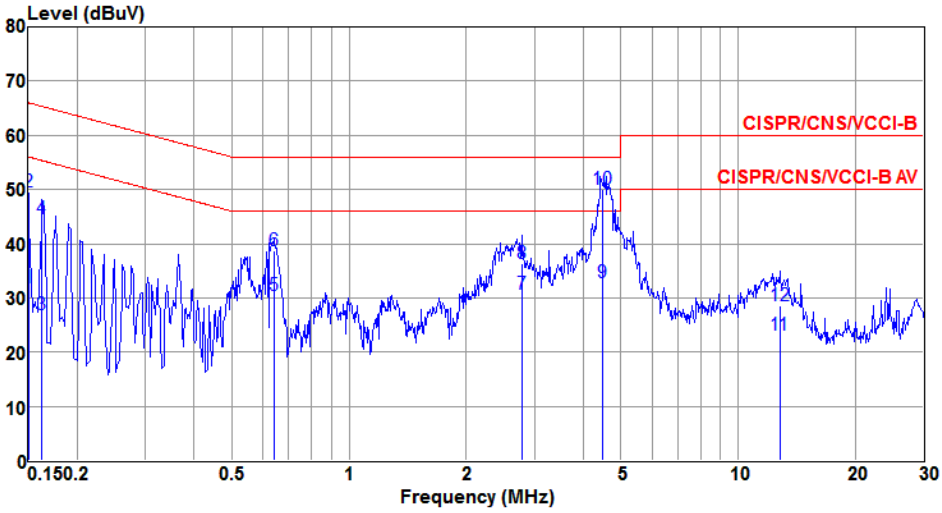
Modulation	11g	Test Freq. (MHz)	2437
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.165	30.83	55.21	-24.38	30.71	0.08	0.04	Average
2	0.165	45.39	65.21	-19.82	45.27	0.08	0.04	QP
3	0.641	30.58	46.00	-15.42	30.47	0.07	0.04	Average
4	0.641	38.95	56.00	-17.05	38.84	0.07	0.04	QP
5	2.824	37.72	46.00	-8.28	37.47	0.15	0.10	Average
6	2.824	44.06	56.00	-11.94	43.81	0.15	0.10	QP
7	4.556	35.98	46.00	-10.02	35.64	0.17	0.17	Average
8@	4.556	49.35	56.00	-6.65	49.01	0.17	0.17	QP
9	12.253	25.43	50.00	-24.57	24.95	0.26	0.22	Average
10	12.253	31.82	60.00	-28.18	31.34	0.26	0.22	QP
11	24.015	20.90	50.00	-29.10	20.20	0.42	0.28	Average
12	24.015	31.07	60.00	-28.93	30.37	0.42	0.28	QP

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

Modulation	11g	Test Freq. (MHz)	2437
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	31.90	56.00	-24.10	31.76	0.10	0.04	Average
2	0.150	49.64	66.00	-16.36	49.50	0.10	0.04	QP
3	0.162	27.02	55.34	-28.32	26.88	0.10	0.04	Average
4	0.162	44.69	65.34	-20.65	44.55	0.10	0.04	QP
5	0.641	30.47	46.00	-15.53	30.32	0.11	0.04	Average
6	0.641	38.81	56.00	-17.19	38.66	0.11	0.04	QP
7	2.779	30.72	46.00	-15.28	30.47	0.15	0.10	Average
8	2.779	36.39	56.00	-19.61	36.14	0.15	0.10	QP
9	4.476	32.92	46.00	-13.08	32.59	0.16	0.17	Average
10@	4.476	49.97	56.00	-6.03	49.64	0.16	0.17	QP
11	12.784	23.11	50.00	-26.89	22.53	0.35	0.23	Average
12	12.784	28.67	60.00	-31.33	28.09	0.35	0.23	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 6dB and Occupied Bandwidth

3.2.1 Limit of 6dB Bandwidth

The minimum 6dB bandwidth shall be at least 500 kHz.

3.2.2 Test Procedures

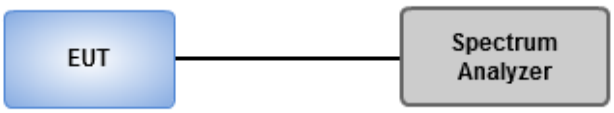
6dB Bandwidth

1. Set resolution bandwidth (RBW) = 100 kHz, Video bandwidth = 300 kHz.
2. Detector = Peak, Trace mode = max hold.
3. Sweep = auto couple, 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) that are attenuated by 6dB relative to the maximum level measured in the fundamental emission.

Occupied Bandwidth

1. Set resolution bandwidth (RBW) = 1 MHz, Video bandwidth = 3 MHz.
2. Detector = Sample, Trace mode = max hold.
3 Sweep = auto couple, Allow the trace to stabilize.
4. Use the OBW measurement function of spectrum analyzer to measure the occupied bandwidth.

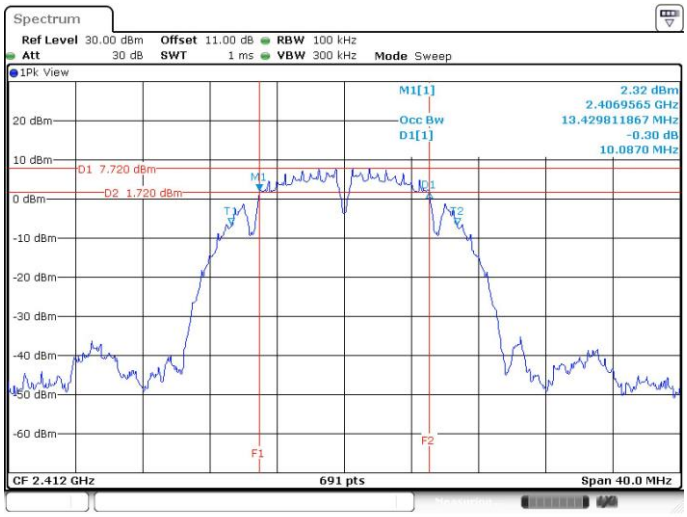
3.2.3 Test Setup



3.2.4 Test Result of 6dB and Occupied Bandwidth

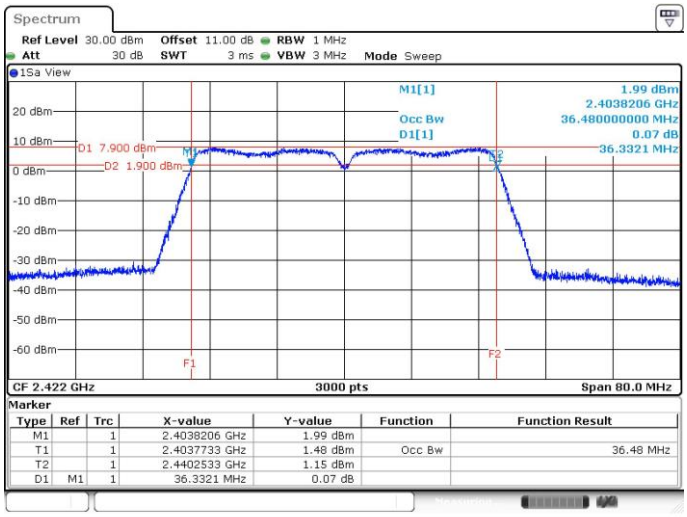
Modulation Mode	N_{TX}	Freq. (MHz)	6dB Bandwidth (MHz)				Limit (kHz)
			Chain 0	Chain 1	Chain 2	Chain 3	
11b	2	2412	10.09	10.09	---	---	500
11b	2	2437	10.09	10.09	---	---	500
11b	2	2462	10.09	10.09	---	---	500
11g	2	2412	16.58	16.58	---	---	500
11g	2	2437	16.58	16.58	---	---	500
11g	2	2462	16.58	16.58	---	---	500
HT20	2	2412	17.68	17.62	---	---	500
HT20	2	2437	17.74	17.62	---	---	500
HT20	2	2462	17.68	17.68	---	---	500
HT40	2	2422	36.41	36.41	---	---	500
HT40	2	2437	36.41	36.41	---	---	500
HT40	2	2452	36.41	36.41	---	---	500

Worst Plot



Modulation Mode	N_{TX}	Freq. (MHz)	99% Occupied Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
11b	2	2412	13.48	13.48	---	---
11b	2	2437	13.45	13.48	---	---
11b	2	2462	13.48	13.49	---	---
11g	2	2412	16.80	16.73	---	---
11g	2	2437	16.92	16.81	---	---
11g	2	2462	16.80	16.73	---	---
HT20	2	2412	17.69	17.67	---	---
HT20	2	2437	17.72	17.68	---	---
HT20	2	2462	17.68	17.65	---	---
HT40	2	2422	36.48	36.37	---	---
HT40	2	2437	36.45	36.37	---	---
HT40	2	2452	36.43	36.37	---	---

Worst Plot



3.3 RF Output Power

3.3.1 Limit of RF Output Power

Conducted power shall not exceed 1Watt.

☒ Antenna gain <= 6dBi, no any corresponding reduction is in output power limit.

☐ Antenna gain > 6dBi

☐ Non Fixed, point to point operations.
The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB

☐ Fixed, point to point operations
Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Systems operating in the 5725–5850 MHz band that are used exclusively for fixed, point-to-point operations ,no any corresponding reduction is in transmitter peak output power

3.3.2 Test Procedures

☒ Maximum Peak Conducted Output Power

☐ **Spectrum analyzer**

1. Set RBW = 1MHz, VBW = 3MHz, Detector = Peak.
2. Sweep time = auto, Trace mode = max hold, Allow trace to fully stabilize.
3. Use the spectrum analyzer channel power measurement function with the band limits set equal to the DTS bandwidth edges.

☒ **Power meter**

1. A broadband Peak RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

☒ Maximum Conducted Output Power (For reference only)

☒ **Power meter**

1. A broadband Average RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

3.3.3 Test Setup

3.3.4 Test Result of Maximum Output Power

Modulation Mode	N_{TX}	Freq. (MHz)	Peak conducted Output Power (dBm)							Ant. Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (mW)	Total Power (dBm)	Limit (dBm)			
11b	2	2412	20.96	20.61	---	---	239.818	23.80	30.00	2.79	26.59	36.00
11b	2	2437	20.81	20.85	---	---	242.122	23.84	30.00	2.79	26.63	36.00
11b	2	2462	19.95	19.84	---	---	195.238	22.91	30.00	2.79	25.70	36.00
11g	2	2412	25.05	25.06	---	---	640.516	28.07	30.00	2.79	30.86	36.00
11g	2	2437	26.47	26.32	---	---	872.157	**29.41**	30.00	2.79	32.20	36.00
11g	2	2462	24.21	24.48	---	---	544.177	27.36	30.00	2.79	30.15	36.00
HT20	2	2412	24.69	24.61	---	---	583.510	27.66	30.00	2.79	30.45	36.00
HT20	2	2437	26.19	26.22	---	---	834.704	29.22	30.00	2.79	32.01	36.00
HT20	2	2462	21.68	21.62	---	---	292.442	24.66	30.00	2.79	27.45	36.00
HT40	2	2422	22.2	21.94	---	---	322.273	25.08	30.00	2.79	27.87	36.00
HT40	2	2437	24.65	24.89	---	---	600.061	27.78	30.00	2.79	30.57	36.00
HT40	2	2452	20.07	19.84	---	---	198.008	22.97	30.00	2.79	25.76	36.00

Modulation Mode	N_{TX}	Freq. (MHz)	Conducted (Average) Output Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11b	2	2412	18.44	18.06	---	---	133.797	21.26	---
11b	2	2437	18.24	18.26	---	---	133.669	21.26	---
11b	2	2462	17.41	17.34	---	---	109.281	20.39	---
11g	2	2412	16.48	16.49	---	---	89.029	19.50	---
11g	2	2437	18.29	18.22	---	---	133.827	21.27	---
11g	2	2462	14.43	14.58	---	---	56.441	17.52	---
HT20	2	2412	15.66	15.64	---	---	73.457	18.66	---
HT20	2	2437	18.38	18.41	---	---	138.208	**21.41**	---
HT20	2	2462	12.76	12.72	---	---	37.587	15.75	---
HT40	2	2422	13.72	13.56	---	---	46.249	16.65	---
HT40	2	2437	16.42	16.44	---	---	87.909	19.44	---
HT40	2	2452	11.71	11.64	---	---	29.413	14.69	---

Note: Conducted average output power is for reference only.

3.4 Power Spectral Density

3.4.1 Limit of Power Spectral Density

Power spectral density shall not be greater than 8 dBm in any 3 kHz band.

3.4.2 Test Procedures

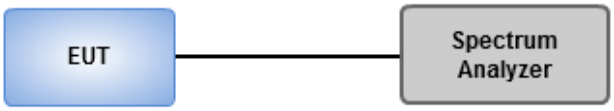
☒ Maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit.

1. Set the RBW = 3kHz, VBW = 10kHz.
2. Detector = Peak, Sweep time = auto couple.
3. Trace mode = max hold, allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

☐ Maximum (average) conducted output power was used to demonstrate compliance to the fundamental output power limit.

1. Set the RBW = 100kHz, VBW = 300 kHz.
2. Detector = RMS, Sweep time = auto couple.
3. Set the sweep time to: ≥ 10 x (number of measurement points in sweep) x (maximum data rate per stream).
4. Perform the measurement over a single sweep.
5. Use the peak marker function to determine the maximum amplitude level.

3.4.3 Test Setup

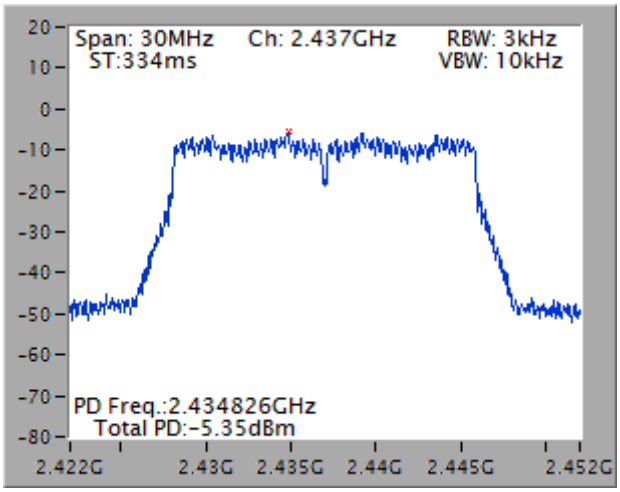


3.4.4 Test Result of Power Spectral Density

Modulation Mode	N_{TX}	Freq. (MHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
11b	2	2412	-7.36	8.00
11b	2	2437	-7.38	8.00
11b	2	2462	-8.27	8.00
11g	2	2412	-7.28	8.00
11g	2	2437	-5.43	8.00
11g	2	2462	-9.40	8.00
HT20	2	2412	-8.30	8.00
HT20	2	2437	-5.35	8.00
HT20	2	2462	-11.32	8.00
HT40	2	2422	-11.85	8.00
HT40	2	2437	-9.86	8.00
HT40	2	2452	-14.48	8.00

Note: Test result is bin-by-bin summing measured value of each TX port.

Worst Plot



3.5 Unwanted Emissions into Restricted Frequency Bands

3.5.1 Limit of Unwanted Emissions into Restricted Frequency Bands

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.

3.5.2 Test Procedures

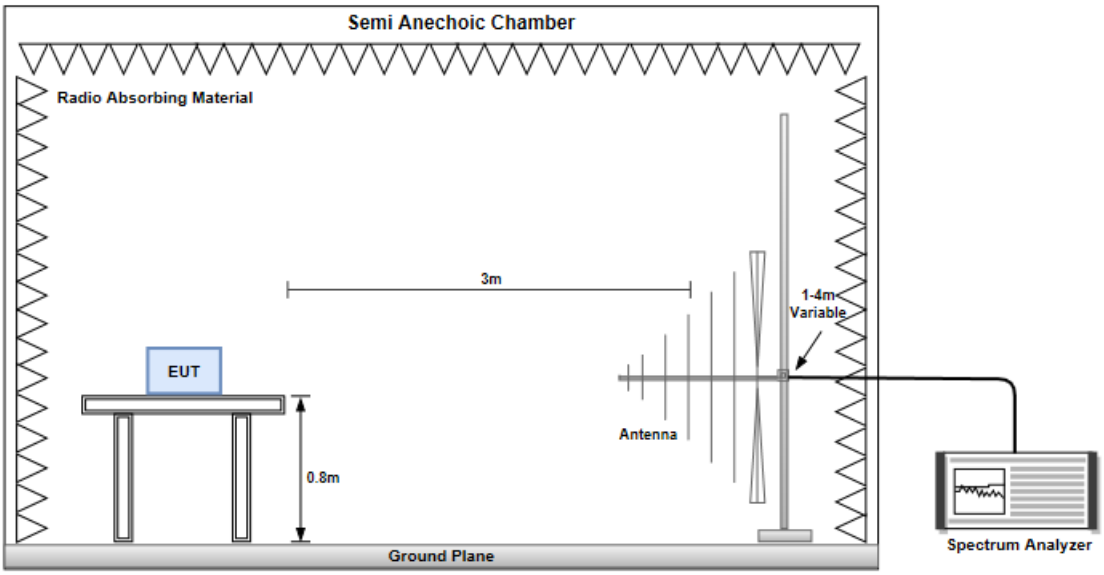
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

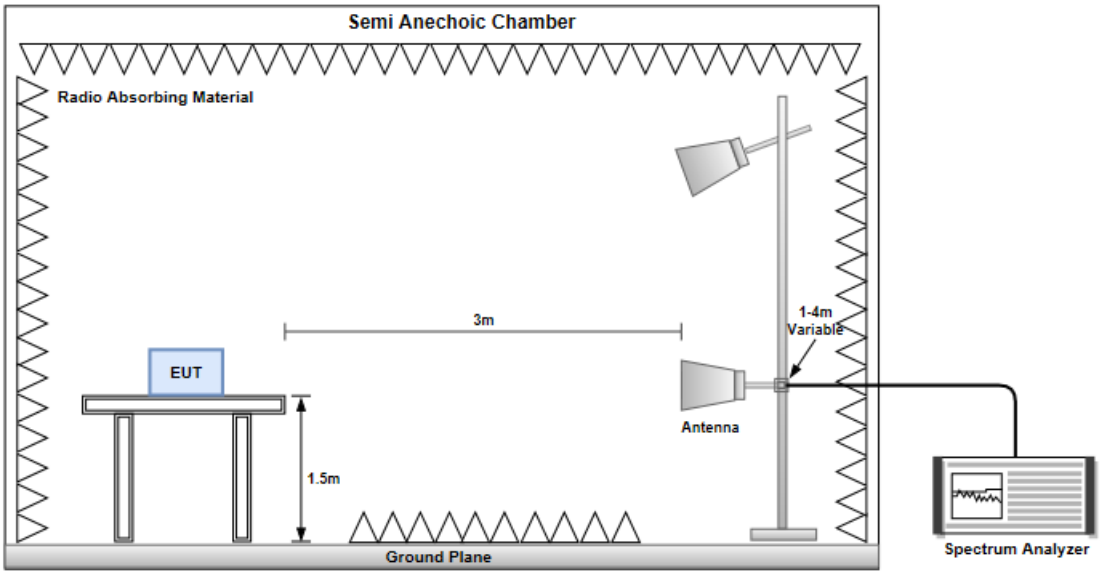
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



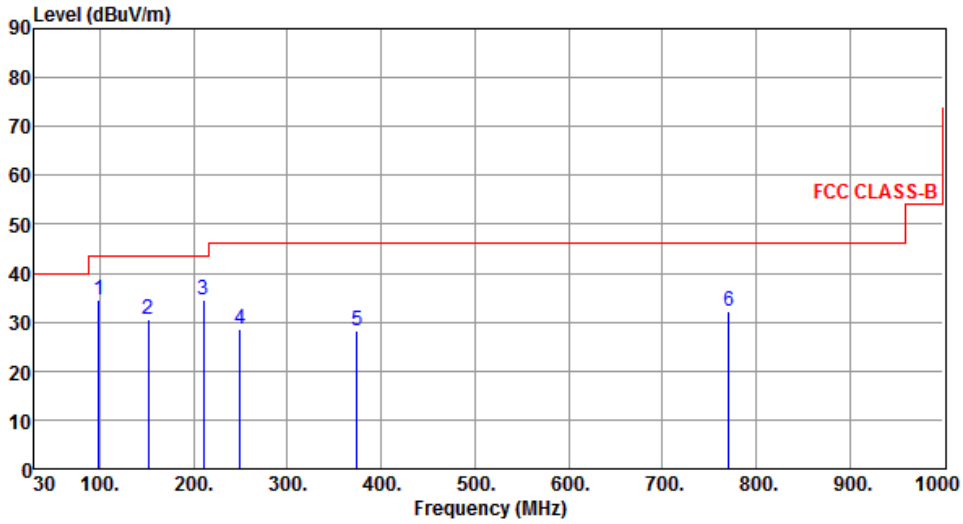
Radiated Emissions above 1 GHz



Configuration 1 : Dipole Antenna

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

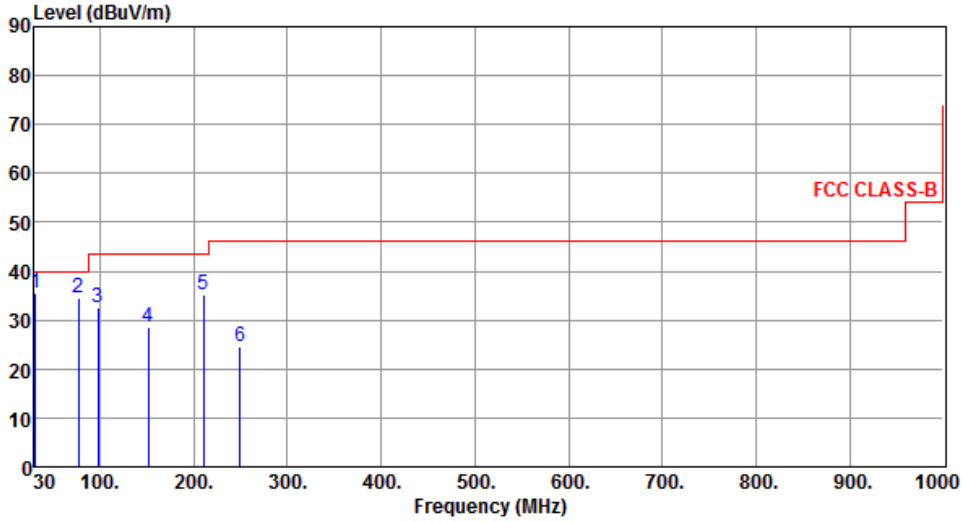
Modulation	11g	**Test Freq. (MHz)**	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.56	34.55	43.50	-8.95	48.25	-13.70	Peak	---	---
2	151.36	30.42	43.50	-13.08	38.92	-8.50	Peak	---	---
3	210.35	34.55	43.50	-8.95	45.83	-11.28	Peak	---	---
4	249.36	28.42	46.00	-17.58	38.04	-9.62	Peak	---	---
5	374.41	28.21	46.00	-17.79	34.13	-5.92	Peak	---	---
6	771.30	32.36	46.00	-13.64	30.13	2.23	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	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

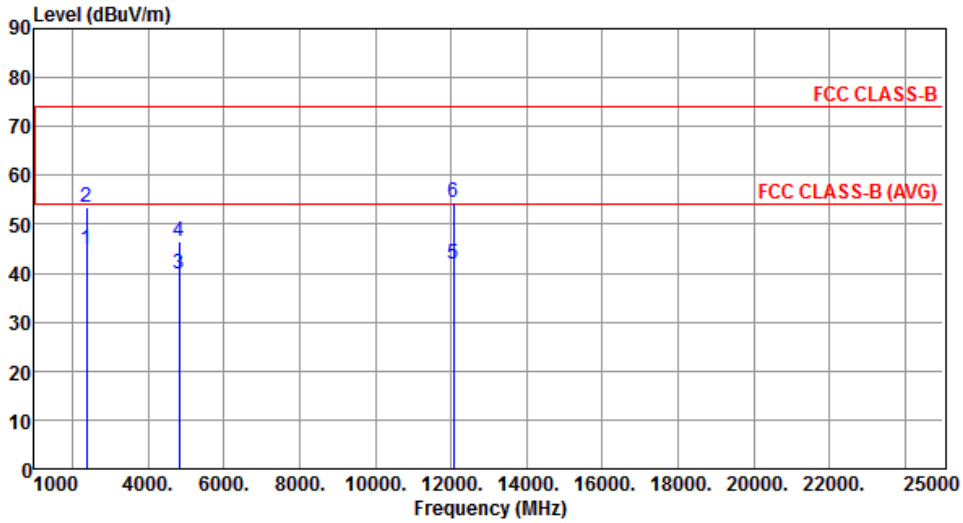


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.96	35.42	40.00	-4.58	44.76	-9.34	Peak	---	---
2	77.42	34.53	40.00	-5.47	47.16	-12.63	Peak	---	---
3	97.56	32.48	43.50	-11.02	46.29	-13.81	Peak	---	---
4	151.37	28.55	43.50	-14.95	37.05	-8.50	Peak	---	---
5	210.37	35.12	43.50	-8.38	46.40	-11.28	Peak	---	---
6	249.36	24.55	46.00	-21.45	34.17	-9.62	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 11b

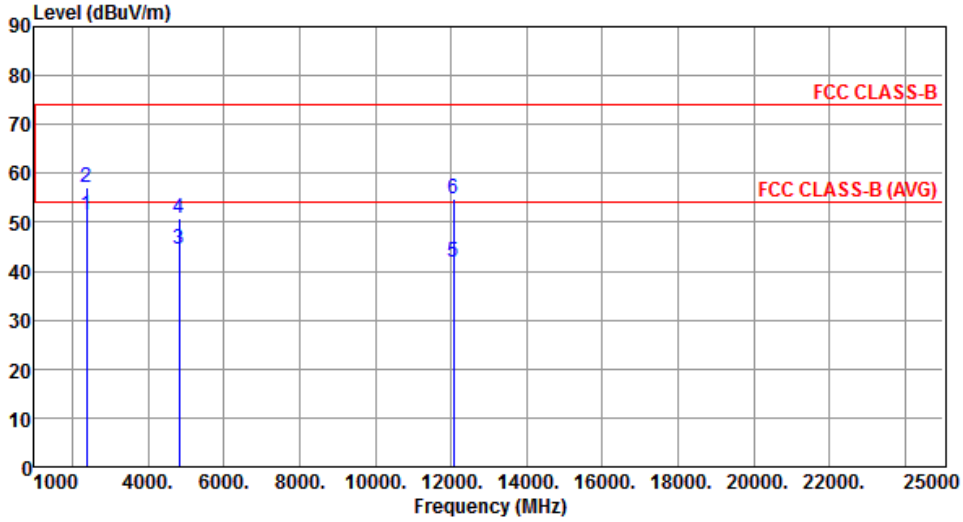
Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.69	54.00	-9.31	46.81	-2.12	Average	100	340
2	2390.00	53.60	74.00	-20.40	55.72	-2.12	Peak	100	340
3	4824.00	39.99	54.00	-14.01	35.51	4.48	Average	136	304
4	4824.00	46.38	74.00	-27.62	41.90	4.48	Peak	136	304
5	12060.00	41.97	54.00	-12.03	28.31	13.66	Average	100	188
6	12060.00	54.35	74.00	-19.65	40.69	13.66	Peak	100	188

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

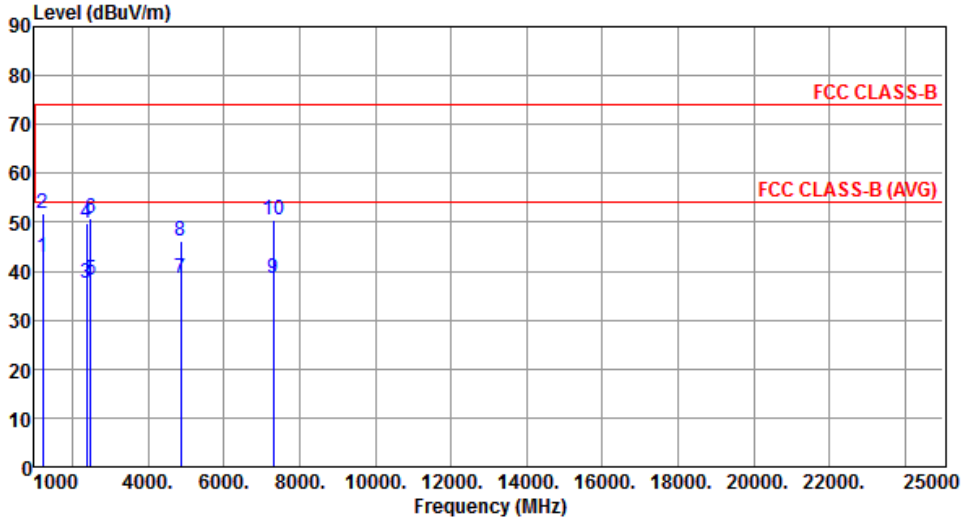
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.33	54.00	-2.67	53.45	-2.12	Average	251	150
2	2390.00	57.19	74.00	-16.81	59.31	-2.12	Peak	251	150
3	4824.00	44.63	54.00	-9.37	40.15	4.48	Average	100	32
4	4824.00	50.90	74.00	-23.10	46.42	4.48	Peak	100	32
5	12060.00	41.80	54.00	-12.20	28.14	13.66	Average	100	270
6	12060.00	54.72	74.00	-19.28	41.06	13.66	Peak	100	270

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).

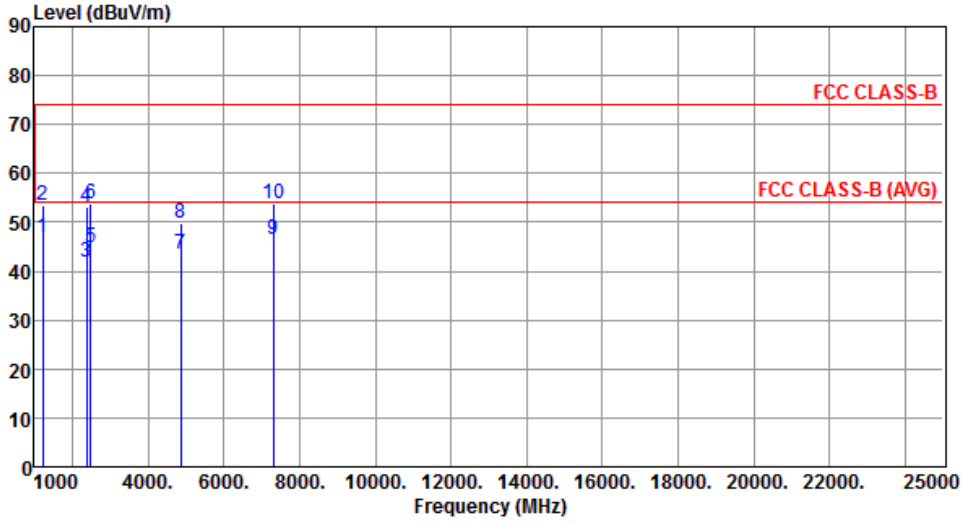
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	42.83	54.00	-11.17	49.88	-7.05	Average	100	205
2	1218.50	51.81	74.00	-22.19	58.86	-7.05	Peak	100	205
3	2390.00	37.39	54.00	-16.61	39.51	-2.12	Average	102	353
4	2390.00	49.73	74.00	-24.27	51.85	-2.12	Peak	102	353
5	2483.50	38.09	54.00	-15.91	39.86	-1.77	Average	102	353
6	2483.50	50.83	74.00	-23.17	52.60	-1.77	Peak	102	353
7	4874.00	38.42	54.00	-15.58	33.84	4.58	Average	125	304
8	4874.00	46.13	74.00	-27.87	41.55	4.58	Peak	125	304
9	7311.00	38.43	54.00	-15.57	29.30	9.13	Average	120	306
10	7311.00	50.42	74.00	-23.58	41.29	9.13	Peak	120	306

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

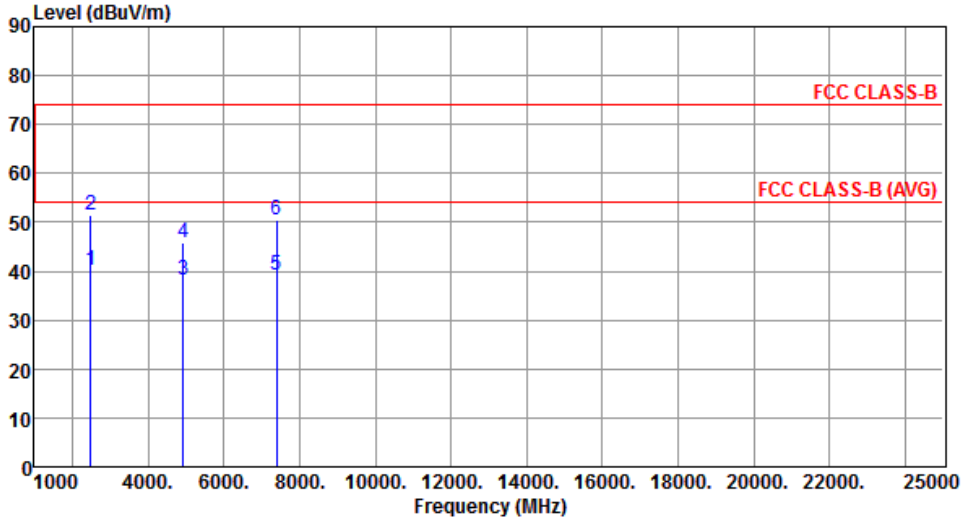
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	46.87	54.00	-7.13	53.92	-7.05	Average	172	277
2	1218.50	53.59	74.00	-20.41	60.64	-7.05	Peak	172	277
3	2390.00	41.80	54.00	-12.20	43.92	-2.12	Average	372	346
4	2390.00	53.16	74.00	-20.84	55.28	-2.12	Peak	372	346
5	2483.50	44.94	54.00	-9.06	46.71	-1.77	Average	372	346
6	2483.50	53.75	74.00	-20.25	55.52	-1.77	Peak	372	346
7	4874.00	43.66	54.00	-10.34	39.08	4.58	Average	100	31
8	4874.00	49.76	74.00	-24.24	45.18	4.58	Peak	100	31
9	7311.00	46.34	54.00	-7.66	37.21	9.13	Average	177	26
10	7311.00	53.84	74.00	-20.16	44.71	9.13	Peak	177	26

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).

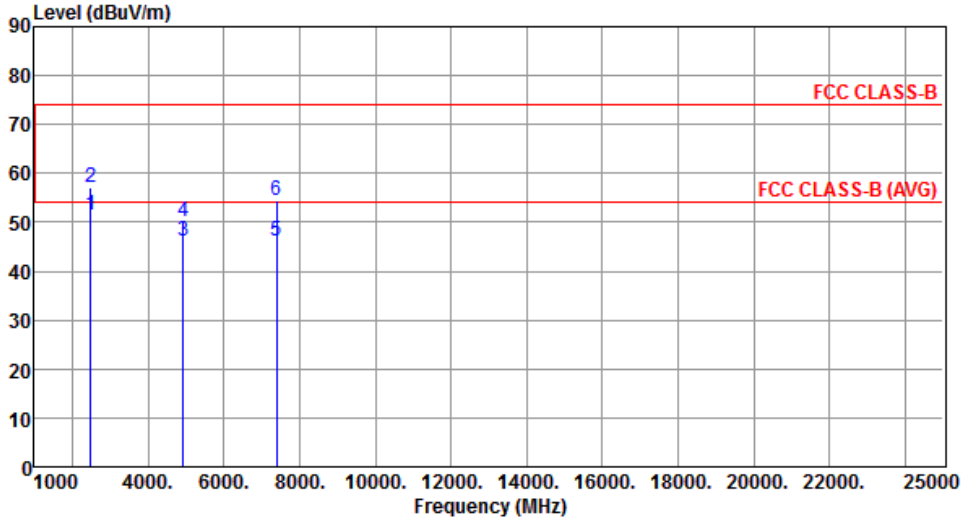
Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	40.02	54.00	-13.98	41.79	-1.77	Average	102	333
2	2483.50	51.57	74.00	-22.43	53.34	-1.77	Peak	102	333
3	4924.00	38.24	54.00	-15.76	33.57	4.67	Average	106	166
4	4924.00	45.73	74.00	-28.27	41.06	4.67	Peak	106	166
5	7386.00	39.08	54.00	-14.92	29.68	9.40	Average	128	304
6	7386.00	50.46	74.00	-23.54	41.06	9.40	Peak	128	304

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	11b	Test Freq. (MHz)	2462
Polarization	Vertical		

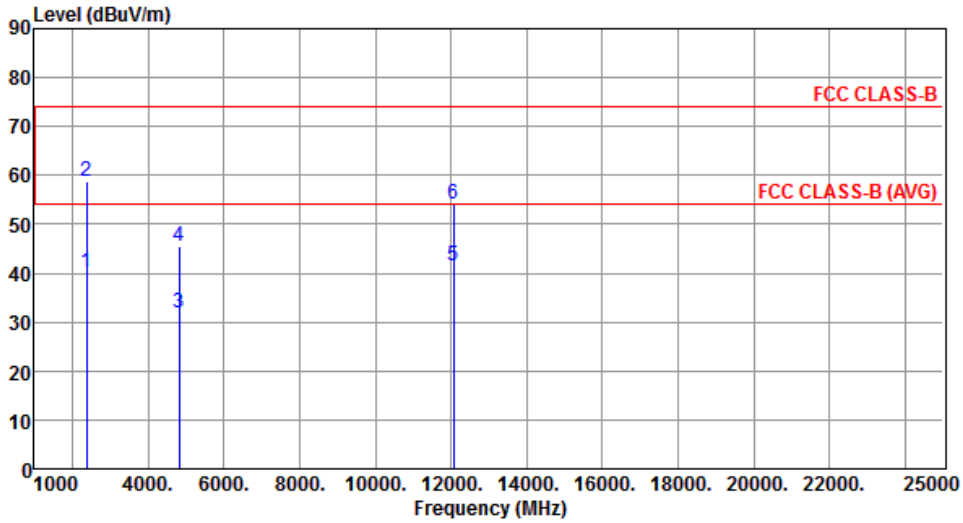


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	51.59	54.00	-2.41	53.36	-1.77	Average	386	18
2	2483.50	57.14	74.00	-16.86	58.91	-1.77	Peak	386	18
3	4924.00	46.07	54.00	-7.93	41.40	4.67	Average	100	50
4	4924.00	50.18	74.00	-23.82	45.51	4.67	Peak	100	50
5	7386.00	46.10	54.00	-7.90	36.70	9.40	Average	181	24
6	7386.00	54.45	74.00	-19.55	45.05	9.40	Peak	181	24

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 11g

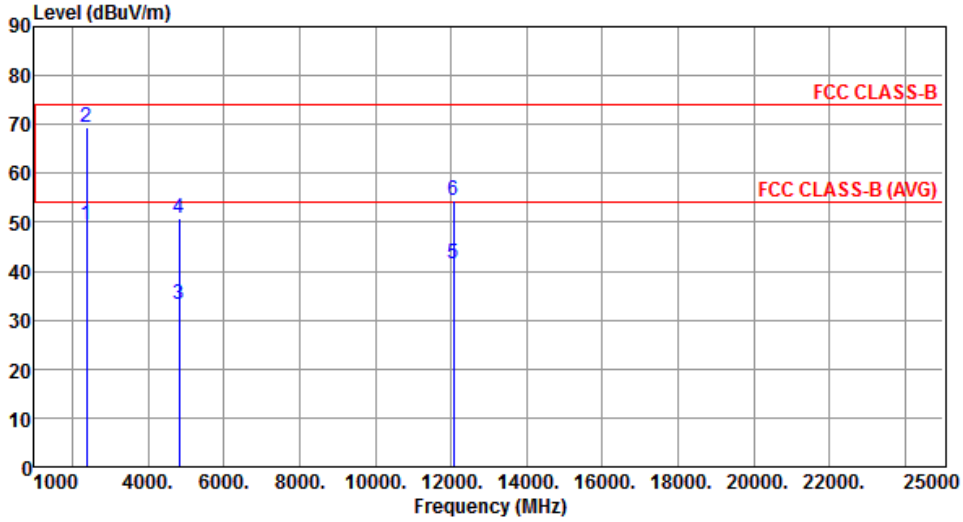
Modulation	11g	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	40.15	54.00	-13.85	42.27	-2.12	Average	100	338
2	2390.00	58.85	74.00	-15.15	60.97	-2.12	Peak	100	338
3	4824.00	31.72	54.00	-22.28	27.24	4.48	Average	103	311
4	4824.00	45.57	74.00	-28.43	41.09	4.48	Peak	103	311
5	12060.00	41.65	54.00	-12.35	27.99	13.66	Average	100	196
6	12060.00	54.08	74.00	-19.92	40.42	13.66	Peak	100	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).

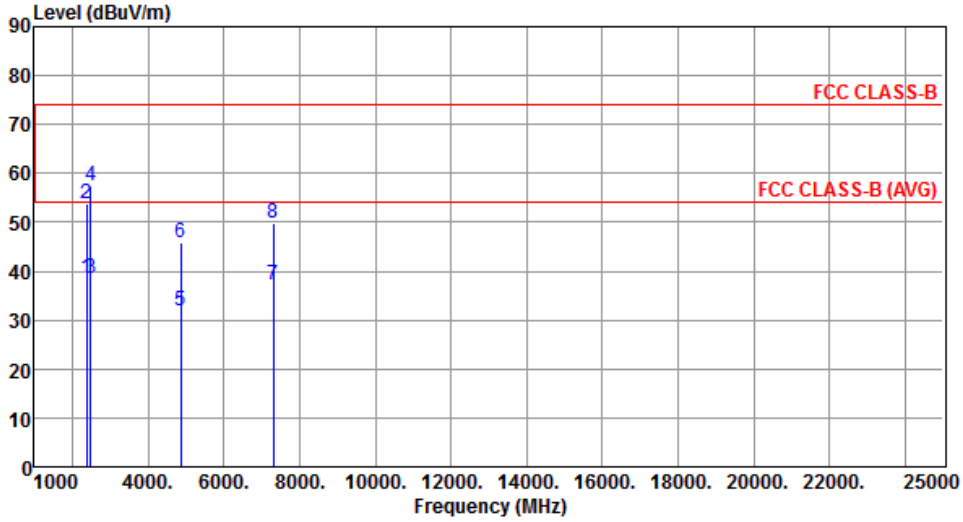
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	49.42	54.00	-4.58	51.54	-2.12	Average	370	5
2	2390.00	69.41	74.00	-4.59	71.53	-2.12	Peak	370	5
3	4824.00	33.11	54.00	-20.89	28.63	4.48	Average	100	46
4	4824.00	50.77	74.00	-23.23	46.29	4.48	Peak	100	46
5	12060.00	41.62	54.00	-12.38	27.96	13.66	Average	100	262
6	12060.00	54.58	74.00	-19.42	40.92	13.66	Peak	100	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).

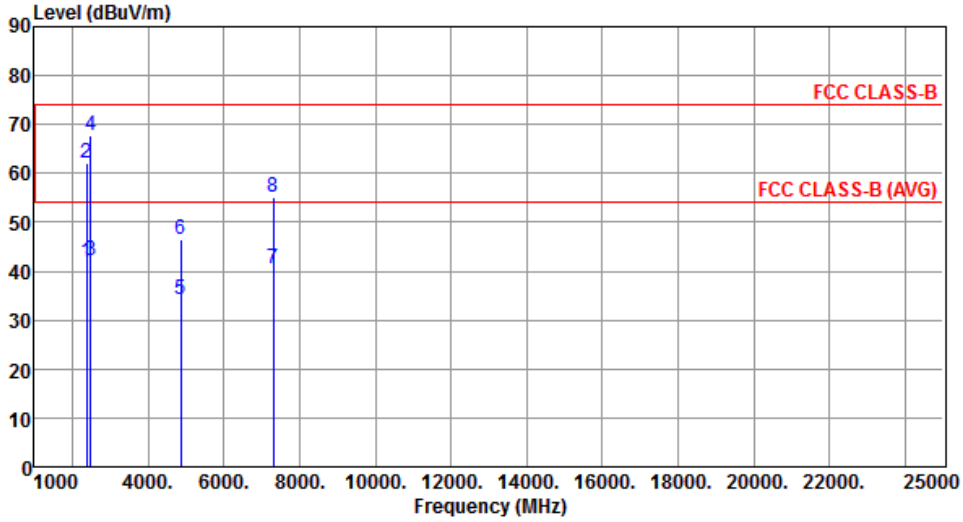
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	38.47	54.00	-15.53	40.59	-2.12	Average	100	339
2	2390.00	53.64	74.00	-20.36	55.76	-2.12	Peak	100	339
3	2483.50	38.65	54.00	-15.35	40.42	-1.77	Average	100	339
4	2483.50	57.35	74.00	-16.65	59.12	-1.77	Peak	100	339
5	4874.00	31.93	54.00	-22.07	27.35	4.58	Average	116	304
6	4874.00	45.87	74.00	-28.13	41.29	4.58	Peak	116	304
7	7311.00	37.19	54.00	-16.81	28.06	9.13	Average	100	325
8	7311.00	49.78	74.00	-24.22	40.65	9.13	Peak	100	325

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).

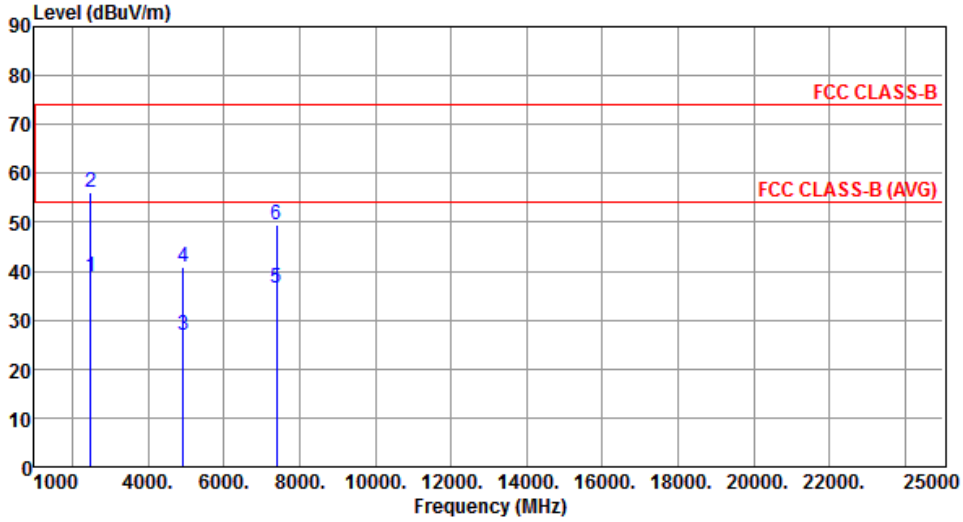
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.87	54.00	-12.13	43.99	-2.12	Average	356	0
2	2390.00	62.04	74.00	-11.96	64.16	-2.12	Peak	356	0
3	2483.50	42.29	54.00	-11.71	44.06	-1.77	Average	356	0
4	2483.50	67.71	74.00	-6.29	69.48	-1.77	Peak	356	0
5	4874.00	34.07	54.00	-19.93	29.49	4.58	Average	100	50
6	4874.00	46.64	74.00	-27.36	42.06	4.58	Peak	100	50
7	7311.00	40.63	54.00	-13.37	31.50	9.13	Average	180	28
8	7311.00	55.11	74.00	-18.89	45.98	9.13	Peak	180	28

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).

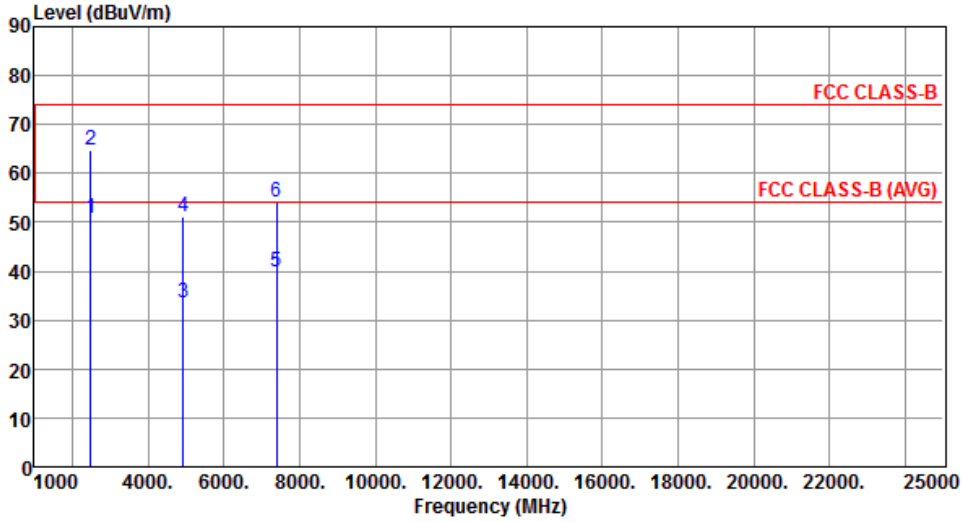
Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	38.84	54.00	-15.16	40.61	-1.77	Average	100	209
2	2483.50	55.97	74.00	-18.03	57.74	-1.77	Peak	100	209
3	4924.00	26.94	54.00	-27.06	22.27	4.67	Average	100	294
4	4924.00	40.73	74.00	-33.27	36.06	4.67	Peak	100	294
5	7386.00	36.67	54.00	-17.33	27.27	9.40	Average	100	311
6	7386.00	49.37	74.00	-24.63	39.97	9.40	Peak	100	311

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	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

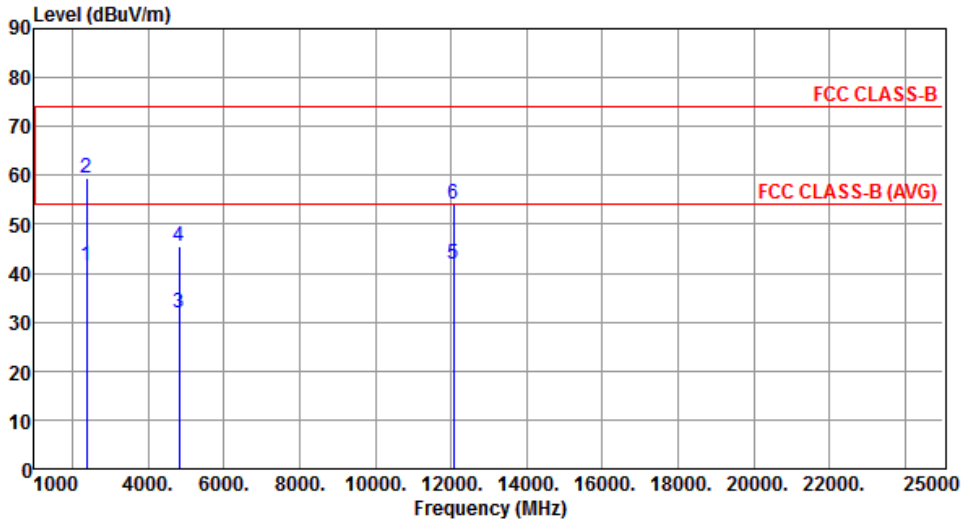


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	50.88	54.00	-3.12	52.65	-1.77	Average	382	6
2	2483.50	64.78	74.00	-9.22	66.55	-1.77	Peak	382	6
3	4924.00	33.61	54.00	-20.39	28.94	4.67	Average	100	54
4	4924.00	51.25	74.00	-22.75	46.58	4.67	Peak	100	54
5	7386.00	39.75	54.00	-14.25	30.35	9.40	Average	172	26
6	7386.00	53.98	74.00	-20.02	44.58	9.40	Peak	172	26

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 HT20

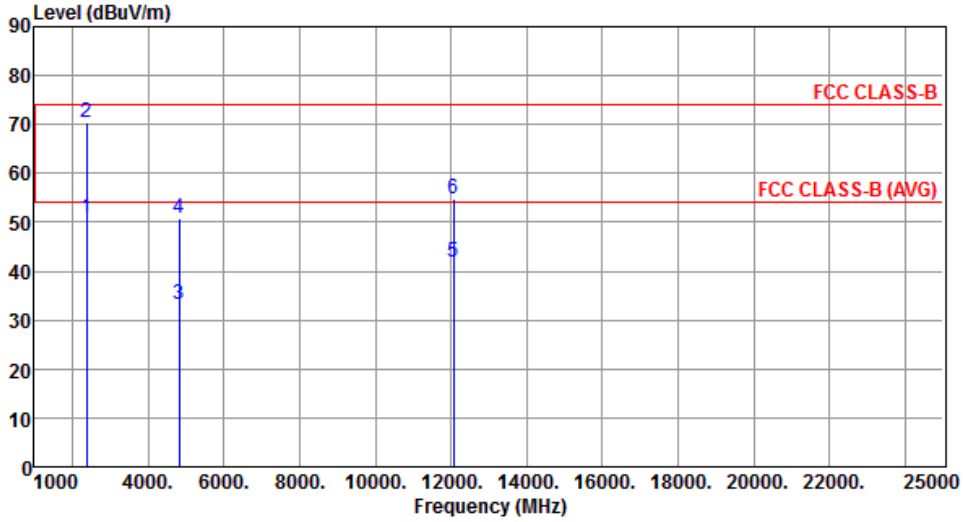
Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.44	54.00	-12.56	43.56	-2.12	Average	100	340
2	2390.00	59.59	74.00	-14.41	61.71	-2.12	Peak	100	340
3	4824.00	31.86	54.00	-22.14	27.38	4.48	Average	100	319
4	4824.00	45.63	74.00	-28.37	41.15	4.48	Peak	100	319
5	12060.00	41.77	54.00	-12.23	28.11	13.66	Average	100	213
6	12060.00	54.20	74.00	-19.80	40.54	13.66	Peak	100	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).

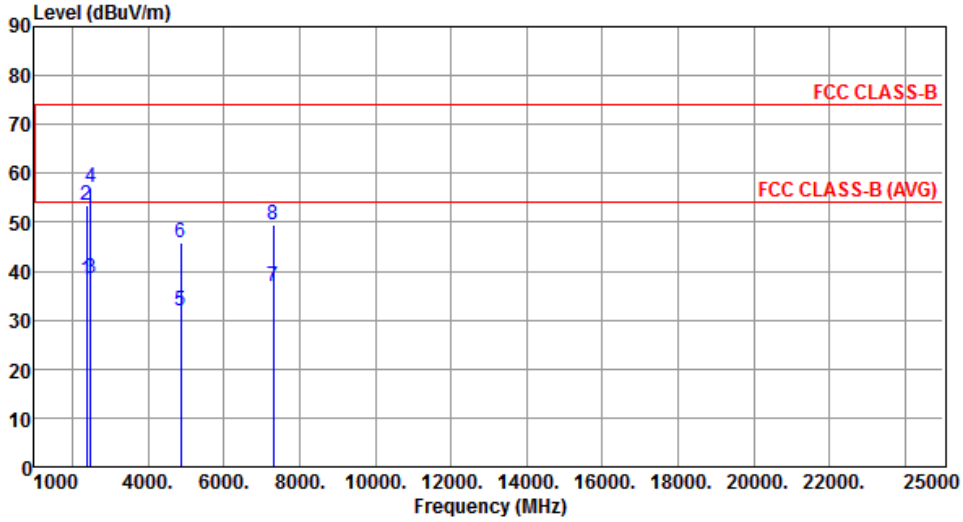
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.98	54.00	-3.02	53.10	-2.12	Average	369	2
2	2390.00	70.45	74.00	-3.55	72.57	-2.12	Peak	369	2
3	4824.00	33.26	54.00	-20.74	28.78	4.48	Average	100	40
4	4824.00	50.83	74.00	-23.17	46.35	4.48	Peak	100	40
5	12060.00	41.74	54.00	-12.26	28.08	13.66	Average	100	256
6	12060.00	54.66	74.00	-19.34	41.00	13.66	Peak	100	256

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).

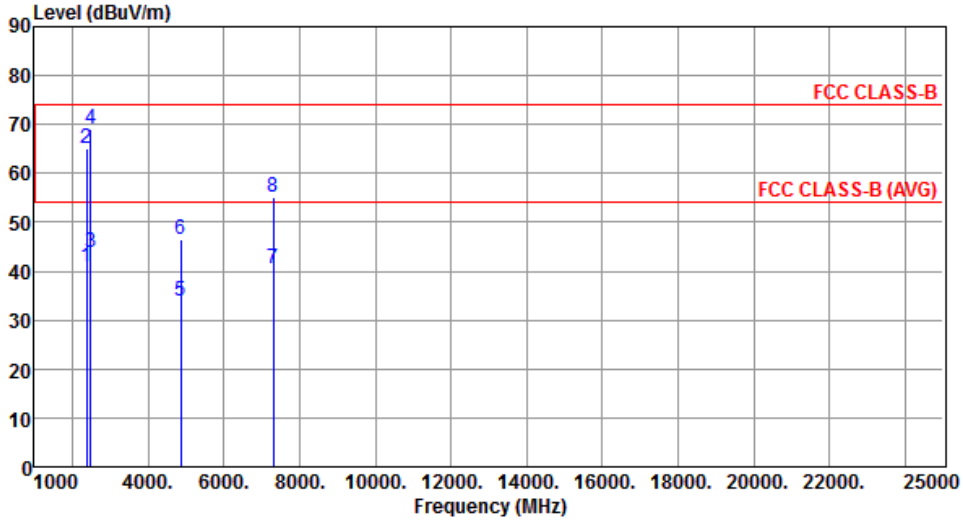
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	38.34	54.00	-15.66	40.46	-2.12	Average	100	335
2	2390.00	53.56	74.00	-20.44	55.68	-2.12	Peak	100	335
3	2483.50	38.52	54.00	-15.48	40.29	-1.77	Average	100	335
4	2483.50	57.21	74.00	-16.79	58.98	-1.77	Peak	100	335
5	4874.00	31.85	54.00	-22.15	27.27	4.58	Average	113	298
6	4874.00	45.74	74.00	-28.26	41.16	4.58	Peak	113	298
7	7311.00	37.02	54.00	-16.98	27.89	9.13	Average	100	318
8	7311.00	49.64	74.00	-24.36	40.51	9.13	Peak	100	318

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

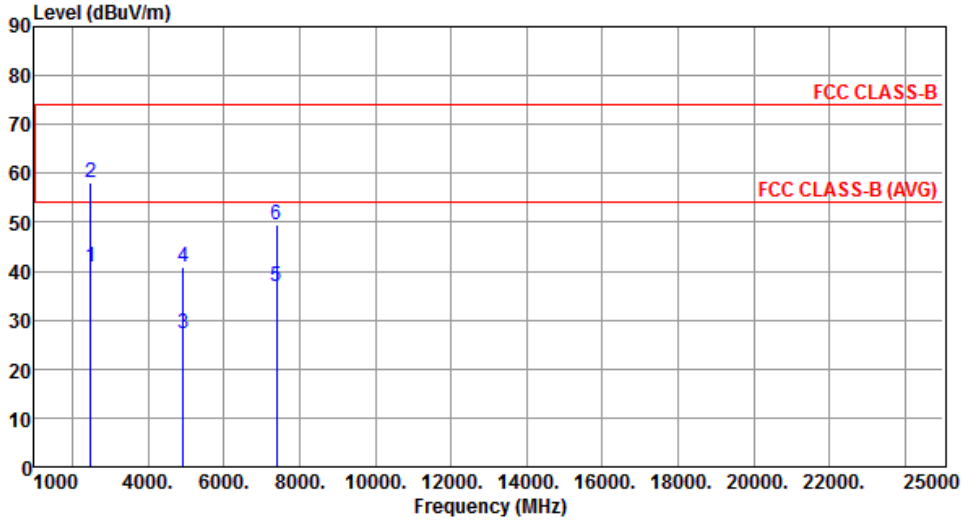
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	40.87	54.00	-13.13	42.99	-2.12	Average	378	5
2	2390.00	65.07	74.00	-8.93	67.19	-2.12	Peak	378	5
3	2483.50	43.88	54.00	-10.12	45.65	-1.77	Average	378	5
4	2483.50	69.04	74.00	-4.96	70.81	-1.77	Peak	378	5
5	4874.00	33.97	54.00	-20.03	29.39	4.58	Average	100	47
6	4874.00	46.58	74.00	-27.42	42.00	4.58	Peak	100	47
7	7311.00	40.56	54.00	-13.44	31.43	9.13	Average	177	31
8	7311.00	55.02	74.00	-18.98	45.89	9.13	Peak	177	31

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).

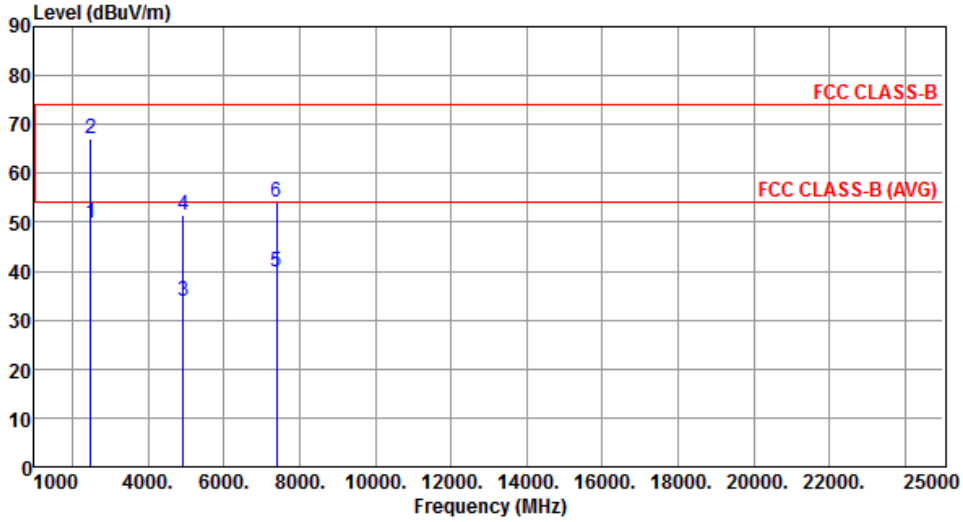
Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	40.92	54.00	-13.08	42.69	-1.77	Average	100	213
2	2483.50	58.21	74.00	-15.79	59.98	-1.77	Peak	100	213
3	4924.00	27.09	54.00	-26.91	22.42	4.67	Average	100	289
4	4924.00	40.85	74.00	-33.15	36.18	4.67	Peak	100	289
5	7386.00	36.73	54.00	-17.27	27.33	9.40	Average	100	307
6	7386.00	49.48	74.00	-24.52	40.08	9.40	Peak	100	307

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)	2462
Polarization	Vertical		

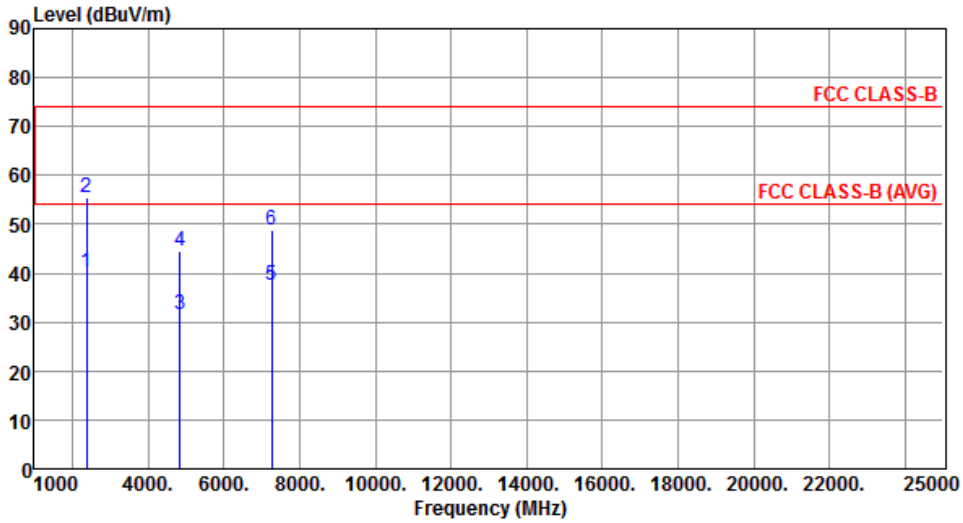


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	49.94	54.00	-4.06	51.71	-1.77	Average	380	5
2	2483.50	67.05	74.00	-6.95	68.82	-1.77	Peak	380	5
3	4924.00	33.76	54.00	-20.24	29.09	4.67	Average	100	58
4	4924.00	51.38	74.00	-22.62	46.71	4.67	Peak	100	58
5	7386.00	39.82	54.00	-14.18	30.42	9.40	Average	175	28
6	7386.00	54.23	74.00	-19.77	44.83	9.40	Peak	175	28

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).

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

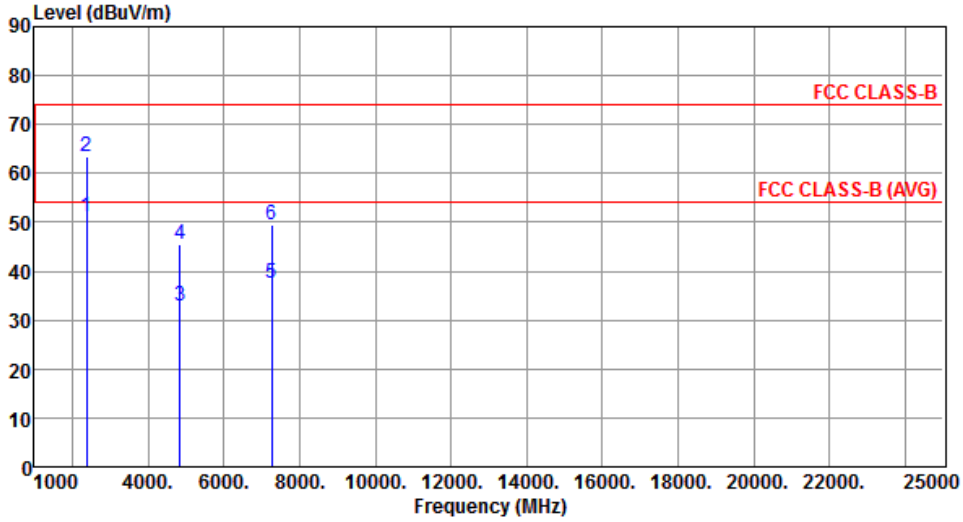
Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	40.25	54.00	-13.75	42.37	-2.12	Average	100	339
2	2390.00	55.60	74.00	-18.40	57.72	-2.12	Peak	100	339
3	4844.00	31.56	54.00	-22.44	27.05	4.51	Average	104	298
4	4844.00	44.59	74.00	-29.41	40.08	4.51	Peak	104	298
5	7266.00	37.53	54.00	-16.47	28.56	8.97	Average	100	201
6	7266.00	48.83	74.00	-25.17	39.86	8.97	Peak	100	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).

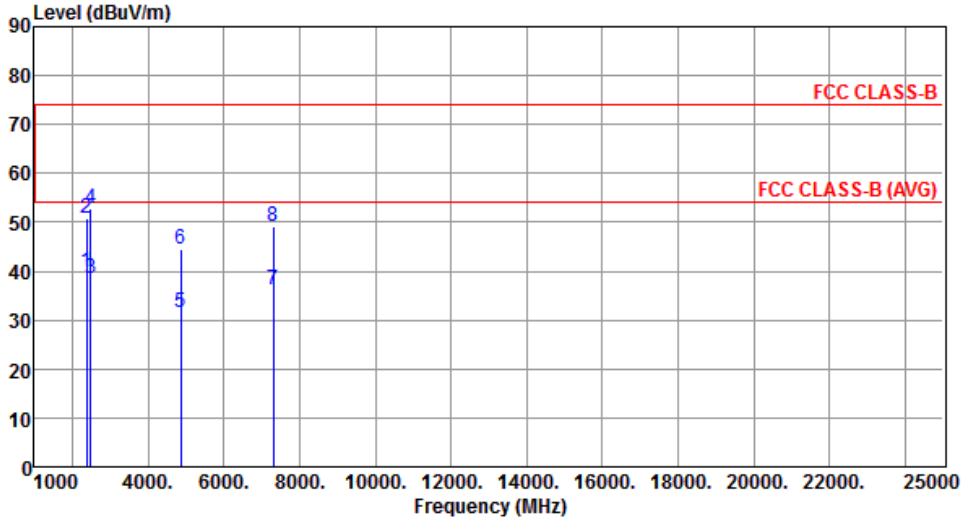
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.99	54.00	-3.01	53.11	-2.12	Average	396	290
2	2390.00	63.56	74.00	-10.44	65.68	-2.12	Peak	396	290
3	4844.00	32.80	54.00	-21.20	28.29	4.51	Average	100	56
4	4844.00	45.59	74.00	-28.41	41.08	4.51	Peak	100	56
5	7266.00	37.62	54.00	-16.38	28.65	8.97	Average	100	247
6	7266.00	49.46	74.00	-24.54	40.49	8.97	Peak	100	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).

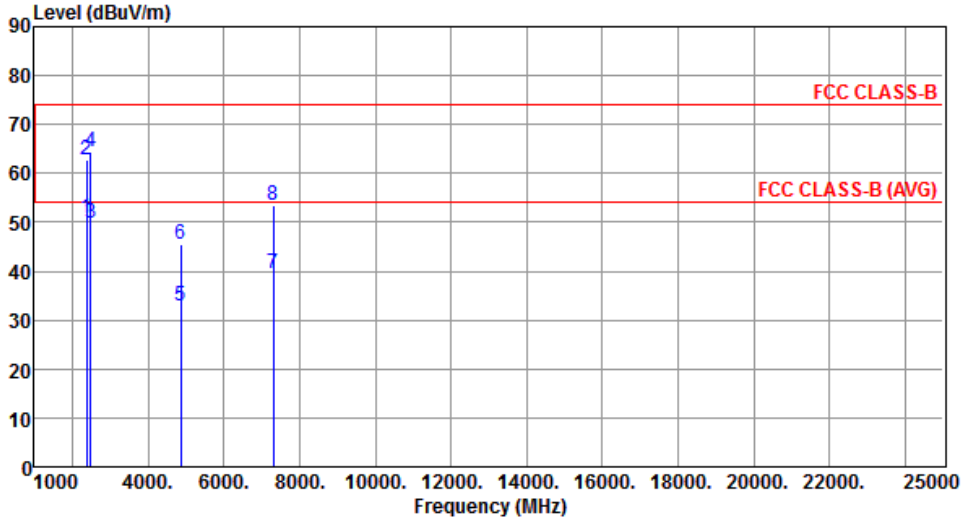
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	39.82	54.00	-14.18	41.94	-2.12	Average	100	340
2	2390.00	50.70	74.00	-23.30	52.82	-2.12	Peak	100	340
3	2483.50	38.40	54.00	-15.60	40.17	-1.77	Average	100	340
4	2483.50	52.66	74.00	-21.34	54.43	-1.77	Peak	100	340
5	4874.00	31.49	54.00	-22.51	26.91	4.58	Average	106	295
6	4874.00	44.52	74.00	-29.48	39.94	4.58	Peak	106	295
7	7311.00	36.26	54.00	-17.74	27.13	9.13	Average	100	308
8	7311.00	49.19	74.00	-24.81	40.06	9.13	Peak	100	308

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).

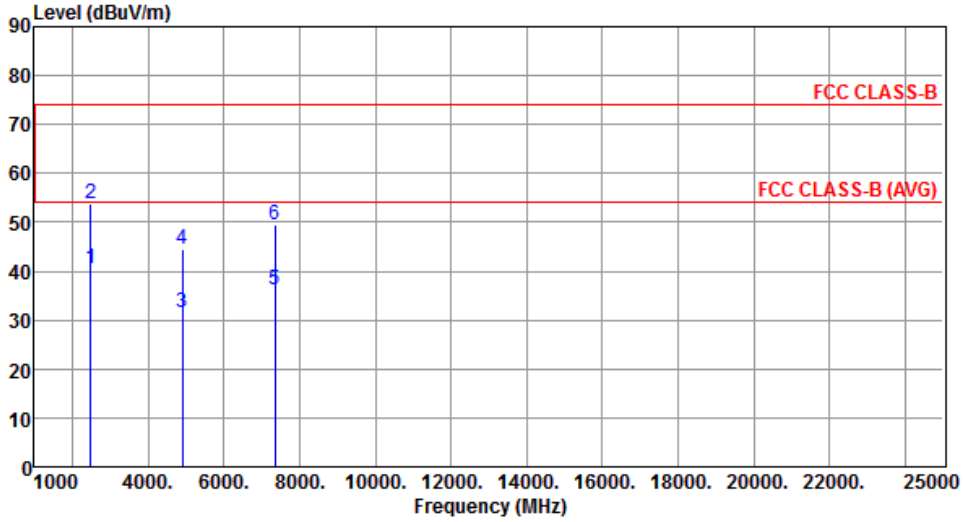
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.74	54.00	-3.26	52.86	-2.12	Average	379	357
2	2390.00	62.69	74.00	-11.31	64.81	-2.12	Peak	379	357
3	2483.50	49.94	54.00	-4.06	51.71	-1.77	Average	379	357
4	2483.50	64.32	74.00	-9.68	66.09	-1.77	Peak	379	357
5	4874.00	32.84	54.00	-21.16	28.26	4.58	Average	100	52
6	4874.00	45.66	74.00	-28.34	41.08	4.58	Peak	100	52
7	7311.00	39.41	54.00	-14.59	30.28	9.13	Average	167	29
8	7311.00	53.35	74.00	-20.65	44.22	9.13	Peak	167	29

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).

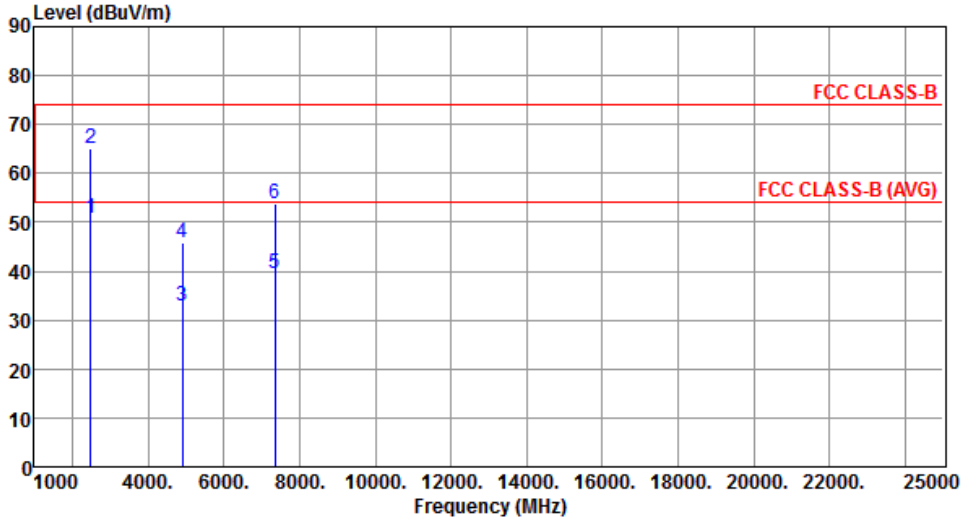
Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	40.66	54.00	-13.34	42.43	-1.77	Average	100	341
2	2483.50	53.80	74.00	-20.20	55.57	-1.77	Peak	100	341
3	4904.00	31.56	54.00	-22.44	26.93	4.63	Average	103	291
4	4904.00	44.65	74.00	-29.35	40.02	4.63	Peak	103	291
5	7356.00	36.33	54.00	-17.67	27.04	9.29	Average	100	297
6	7356.00	49.48	74.00	-24.52	40.19	9.29	Peak	100	297

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)	2452
Polarization	Vertical		



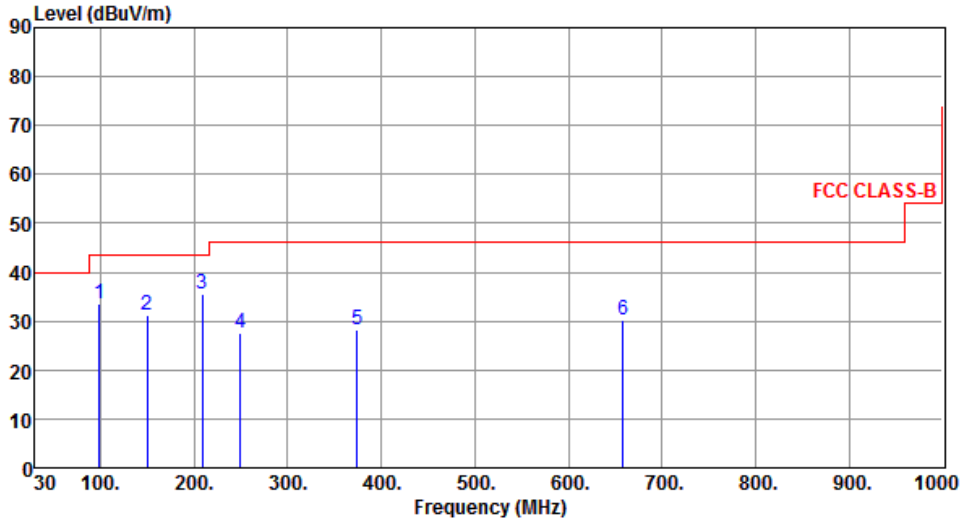
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	50.68	54.00	-3.32	52.45	-1.77	Average	345	356
2	2483.50	65.20	74.00	-8.80	66.97	-1.77	Peak	345	356
3	4904.00	32.91	54.00	-21.09	28.28	4.63	Average	100	55
4	4904.00	45.73	74.00	-28.27	41.10	4.63	Peak	100	55
5	7356.00	39.48	54.00	-14.52	30.19	9.29	Average	161	25
6	7356.00	53.65	74.00	-20.35	44.36	9.29	Peak	161	25

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).

Configuration 2 : PCB Dipole Antenna

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

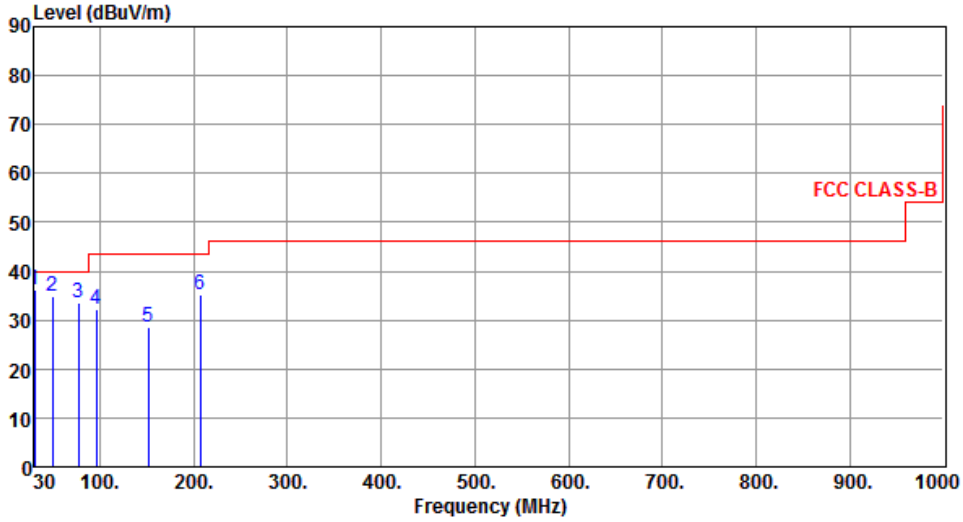
Modulation	11g	**Test Freq. (MHz)**	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.75	33.52	43.50	-9.98	47.20	-13.68	Peak	---	---
2	149.46	31.24	43.50	-12.26	39.78	-8.54	Peak	---	---
3	208.66	35.52	43.50	-7.98	46.81	-11.29	Peak	---	---
4	249.47	27.55	46.00	-18.45	37.17	-9.62	Peak	---	---
5	374.42	28.28	46.00	-17.72	34.20	-5.92	Peak	---	---
6	658.41	30.38	46.00	-15.62	30.47	-0.09	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	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

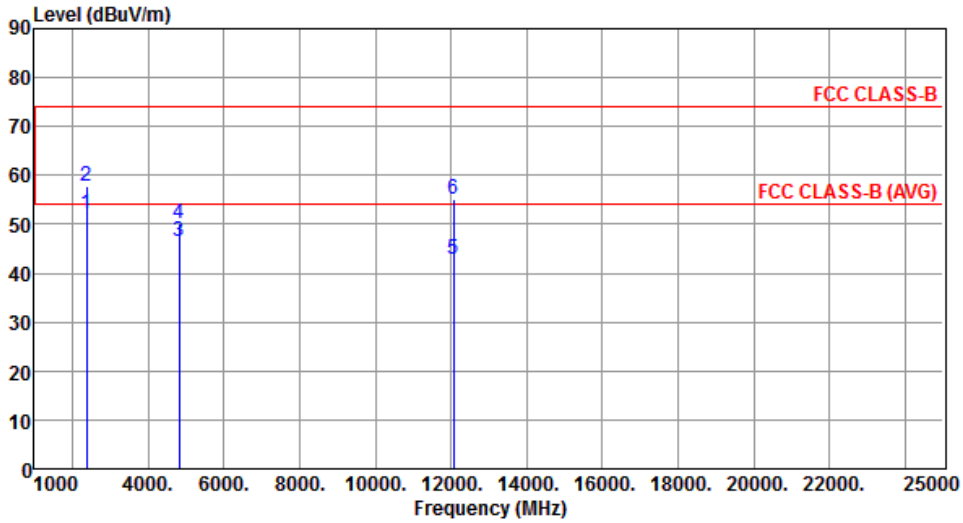


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.55	36.21	40.00	-3.79	45.57	-9.36	Peak	---	---
2	49.34	34.76	40.00	-5.24	42.91	-8.15	Peak	---	---
3	77.48	33.61	40.00	-6.39	46.25	-12.64	Peak	---	---
4	95.83	32.25	43.50	-11.25	46.26	-14.01	Peak	---	---
5	151.42	28.46	43.50	-15.04	36.96	-8.50	Peak	---	---
6	207.44	35.18	43.50	-8.32	46.47	-11.29	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.

3.5.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

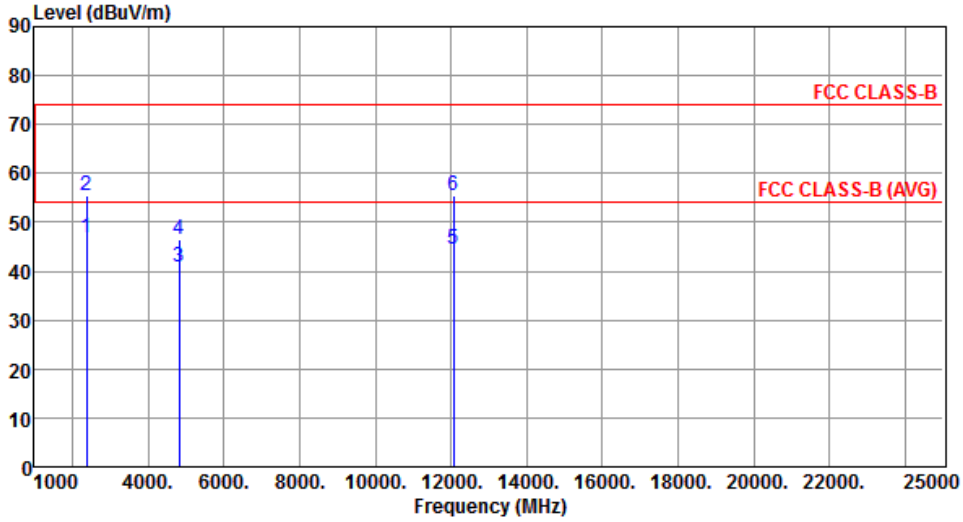
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.99	54.00	-2.01	54.11	-2.12	Average	280	350
2	2390.00	57.84	74.00	-16.16	59.96	-2.12	Peak	280	350
3	4824.00	46.62	54.00	-7.38	42.14	4.48	Average	101	308
4	4824.00	50.25	74.00	-23.75	45.77	4.48	Peak	101	308
5	12060.00	43.00	54.00	-11.00	29.34	13.66	Average	100	165
6	12060.00	55.10	74.00	-18.90	41.44	13.66	Peak	100	165

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).

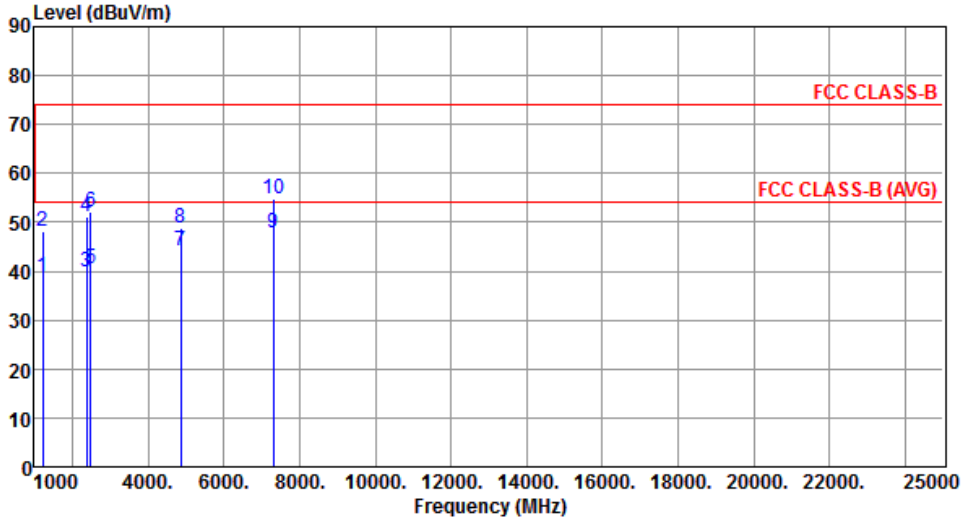
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	46.91	54.00	-7.09	49.03	-2.12	Average	106	184
2	2390.00	55.39	74.00	-18.61	57.51	-2.12	Peak	106	184
3	4824.00	40.79	54.00	-13.21	36.31	4.48	Average	100	160
4	4824.00	46.63	74.00	-27.37	42.15	4.48	Peak	100	160
5	12060.00	44.62	54.00	-9.38	30.96	13.66	Average	174	338
6	12060.00	55.40	74.00	-18.60	41.74	13.66	Peak	174	338

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).

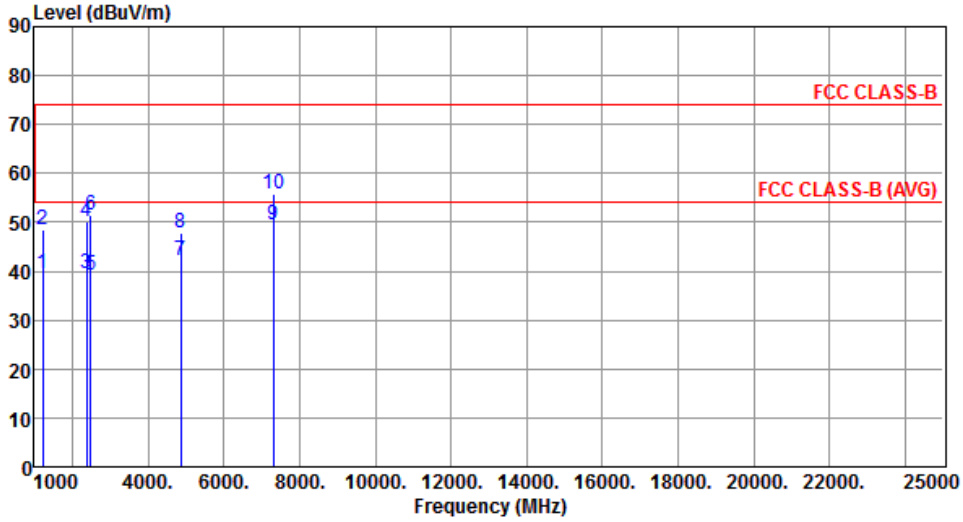
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	38.93	54.00	-15.07	45.98	-7.05	Average	181	176
2	1218.50	48.07	74.00	-25.93	55.12	-7.05	Peak	181	176
3	2390.00	39.84	54.00	-14.16	41.96	-2.12	Average	296	351
4	2390.00	51.22	74.00	-22.78	53.34	-2.12	Peak	296	351
5	2483.50	40.57	54.00	-13.43	42.34	-1.77	Average	296	351
6	2483.50	52.00	74.00	-22.00	53.77	-1.77	Peak	296	351
7	4874.00	44.09	54.00	-9.91	39.51	4.58	Average	211	216
8	4874.00	48.81	74.00	-25.19	44.23	4.58	Peak	211	216
9	7311.00	47.80	54.00	-6.20	38.67	9.13	Average	116	149
10	7311.00	54.65	74.00	-19.35	45.52	9.13	Peak	116	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).

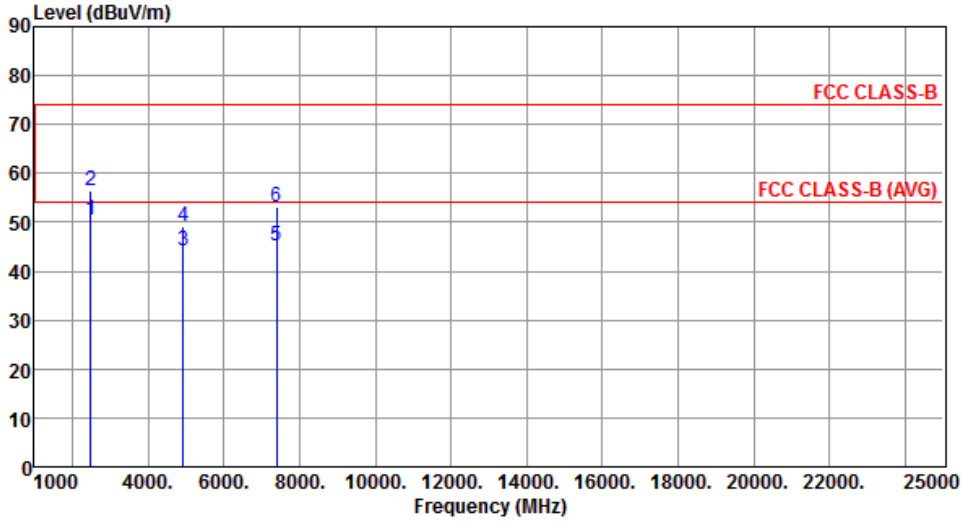
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	39.44	54.00	-14.56	46.49	-7.05	Average	273	209
2	1218.50	48.48	74.00	-25.52	55.53	-7.05	Peak	273	209
3	2390.00	39.52	54.00	-14.48	41.64	-2.12	Average	104	185
4	2390.00	50.19	74.00	-23.81	52.31	-2.12	Peak	104	185
5	2483.50	39.04	54.00	-14.96	40.81	-1.77	Average	104	185
6	2483.50	51.38	74.00	-22.62	53.15	-1.77	Peak	104	185
7	4874.00	42.08	54.00	-11.92	37.50	4.58	Average	101	272
8	4874.00	47.70	74.00	-26.30	43.12	4.58	Peak	101	272
9	7311.00	49.62	54.00	-4.38	40.49	9.13	Average	100	260
10	7311.00	55.73	74.00	-18.27	46.60	9.13	Peak	100	260

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).

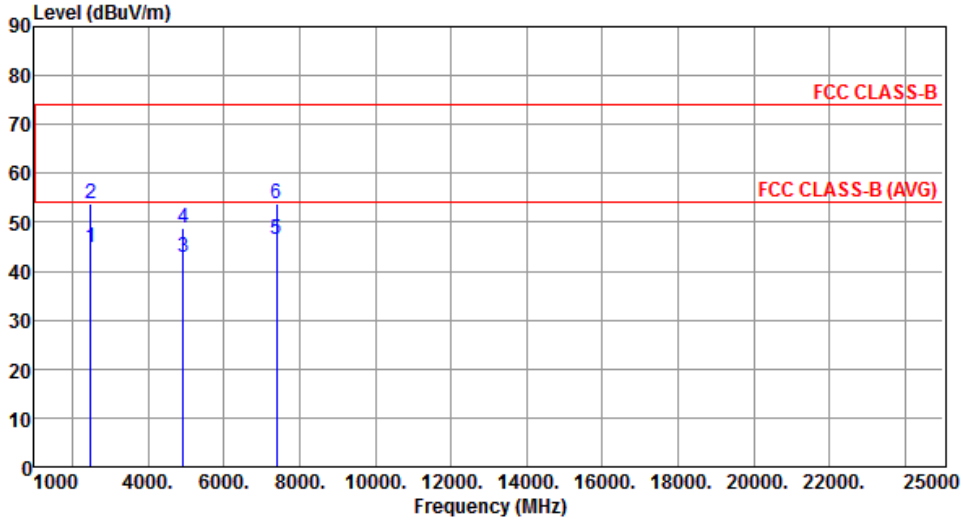
Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	50.31	54.00	-3.69	52.08	-1.77	Average	100	0
2	2483.50	56.48	74.00	-17.52	58.25	-1.77	Peak	100	0
3	4924.00	44.07	54.00	-9.93	39.40	4.67	Average	100	169
4	4924.00	49.19	74.00	-24.81	44.52	4.67	Peak	100	169
5	7386.00	45.29	54.00	-8.71	35.89	9.40	Average	100	150
6	7386.00	53.24	74.00	-20.76	43.84	9.40	Peak	100	150

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

Modulation	11b	Test Freq. (MHz)	2462
Polarization	Vertical		

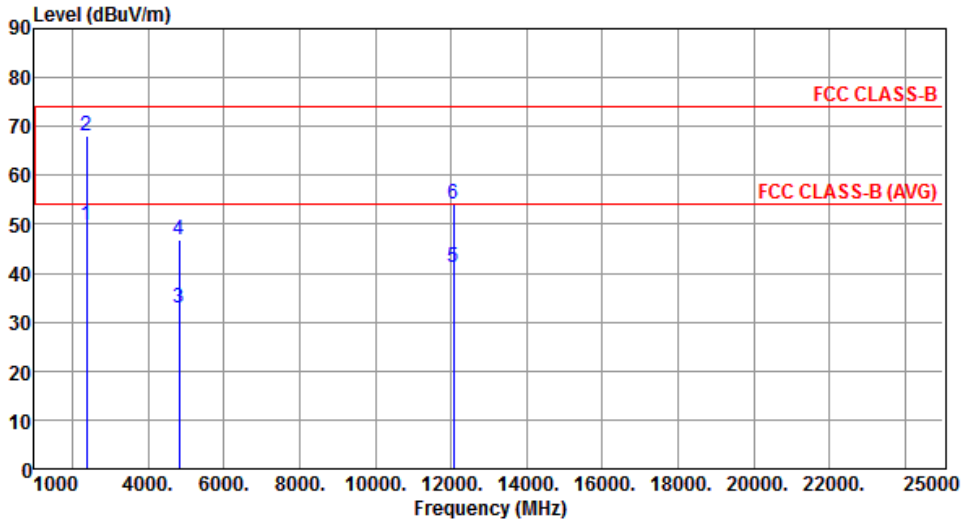


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	44.88	54.00	-9.12	46.65	-1.77	Average	181	184
2	2483.50	53.96	74.00	-20.04	55.73	-1.77	Peak	181	184
3	4924.00	42.94	54.00	-11.06	38.27	4.67	Average	100	243
4	4924.00	48.91	74.00	-25.09	44.24	4.67	Peak	100	243
5	7386.00	46.65	54.00	-7.35	37.25	9.40	Average	111	264
6	7386.00	53.93	74.00	-20.07	44.53	9.40	Peak	111	264

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).

3.5.11 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

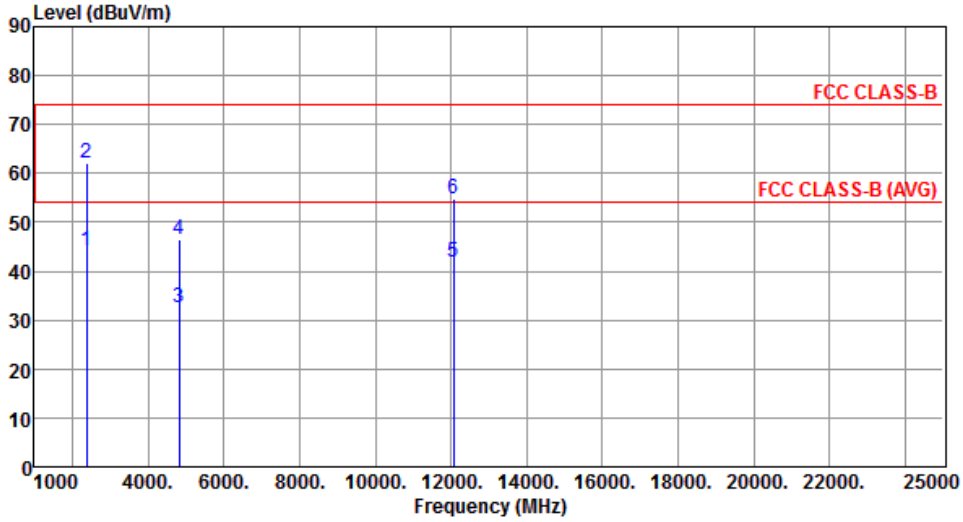
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	49.80	54.00	-4.20	51.92	-2.12	Average	380	0
2	2390.00	68.10	74.00	-5.90	70.22	-2.12	Peak	380	0
3	4824.00	32.81	54.00	-21.19	28.33	4.48	Average	108	175
4	4824.00	46.77	74.00	-27.23	42.29	4.48	Peak	108	175
5	12060.00	41.31	54.00	-12.69	27.65	13.66	Average	100	161
6	12060.00	54.05	74.00	-19.95	40.39	13.66	Peak	100	161

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).

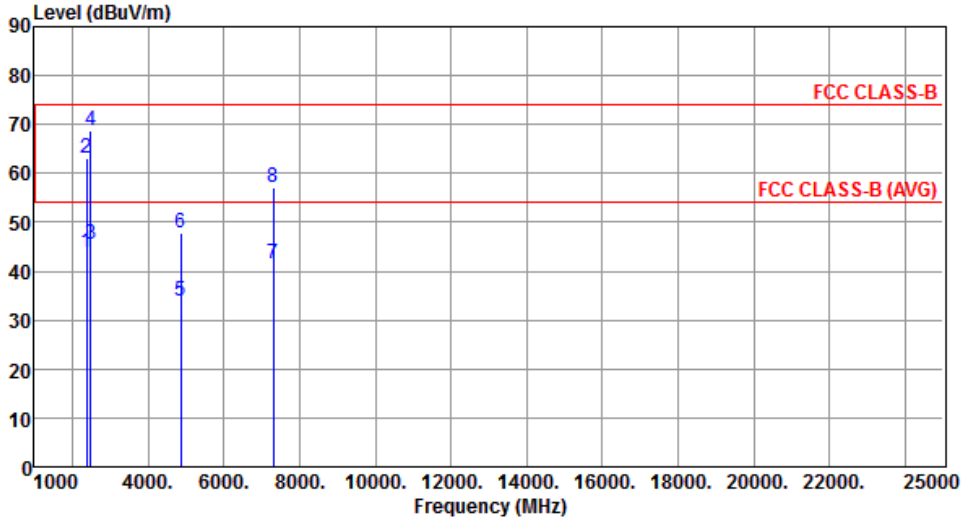
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.09	54.00	-9.91	46.21	-2.12	Average	112	208
2	2390.00	62.11	74.00	-11.89	64.23	-2.12	Peak	112	208
3	4824.00	32.44	54.00	-21.56	27.96	4.48	Average	100	242
4	4824.00	46.54	74.00	-27.46	42.06	4.48	Peak	100	242
5	12060.00	41.86	54.00	-12.14	28.20	13.66	Average	169	320
6	12060.00	54.95	74.00	-19.05	41.29	13.66	Peak	169	320

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).

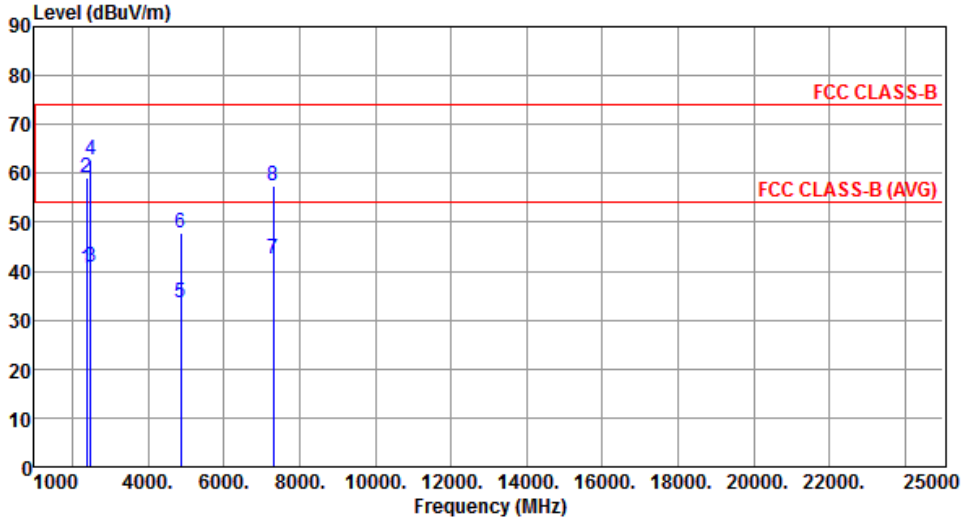
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	43.82	54.00	-10.18	45.94	-2.12	Average	246	8
2	2390.00	62.97	74.00	-11.03	65.09	-2.12	Peak	246	8
3	2483.50	45.34	54.00	-8.66	47.11	-1.77	Average	387	8
4	2483.50	68.88	74.00	-5.12	70.65	-1.77	Peak	387	8
5	4874.00	33.93	54.00	-20.07	29.35	4.58	Average	111	173
6	4874.00	47.84	74.00	-26.16	43.26	4.58	Peak	111	173
7	7311.00	41.39	54.00	-12.61	32.26	9.13	Average	114	149
8	7311.00	57.18	74.00	-16.82	48.05	9.13	Peak	114	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).

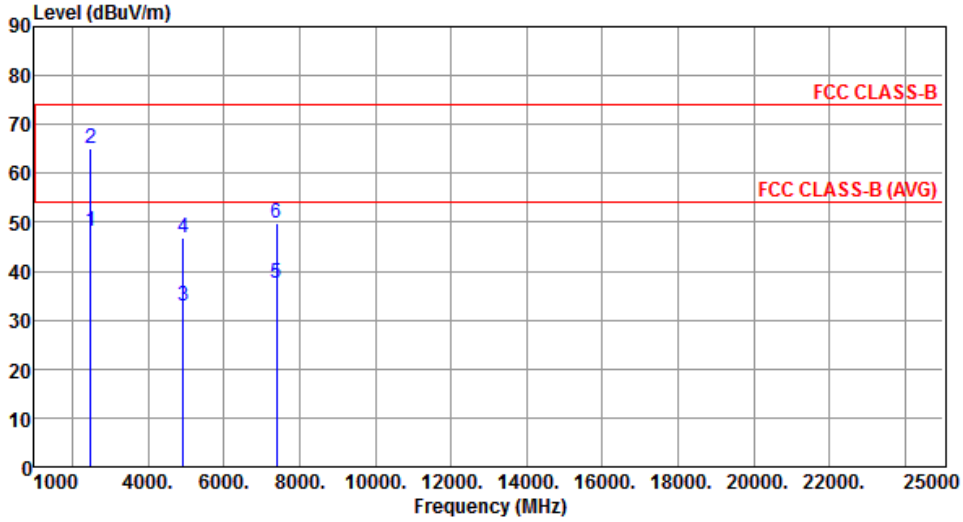
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	40.55	54.00	-13.45	42.67	-2.12	Average	100	208
2	2390.00	59.20	74.00	-14.80	61.32	-2.12	Peak	100	208
3	2483.50	40.91	54.00	-13.09	42.68	-1.77	Average	100	208
4	2483.50	62.79	74.00	-11.21	64.56	-1.77	Peak	100	208
5	4874.00	33.47	54.00	-20.53	28.89	4.58	Average	100	243
6	4874.00	47.75	74.00	-26.25	43.17	4.58	Peak	100	243
7	7311.00	42.66	54.00	-11.34	33.53	9.13	Average	100	265
8	7311.00	57.39	74.00	-16.61	48.26	9.13	Peak	100	265

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).

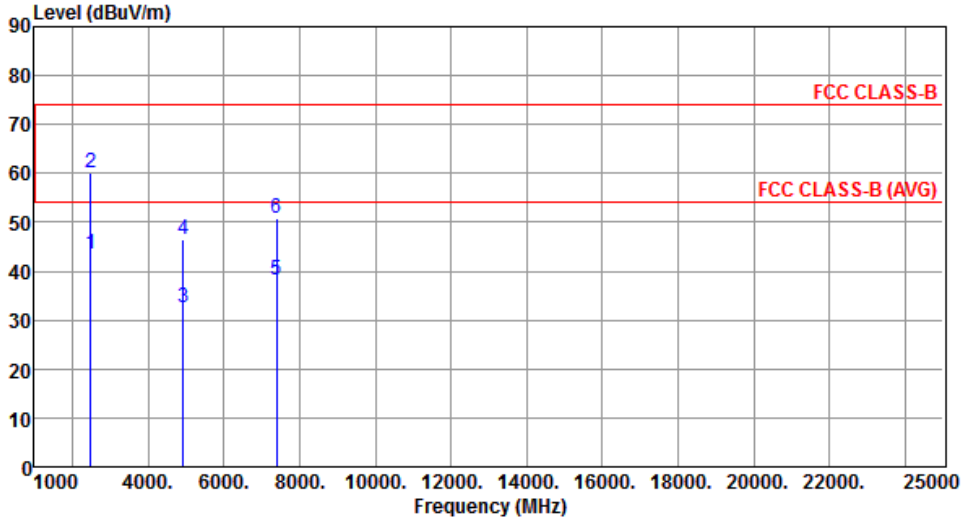
Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	48.26	54.00	-5.74	50.03	-1.77	Average	394	2
2	2483.50	65.11	74.00	-8.89	66.88	-1.77	Peak	394	2
3	4924.00	32.93	54.00	-21.07	28.26	4.67	Average	103	172
4	4924.00	46.84	74.00	-27.16	42.17	4.67	Peak	103	172
5	7386.00	37.66	54.00	-16.34	28.26	9.40	Average	100	141
6	7386.00	49.76	74.00	-24.24	40.36	9.40	Peak	100	141

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	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

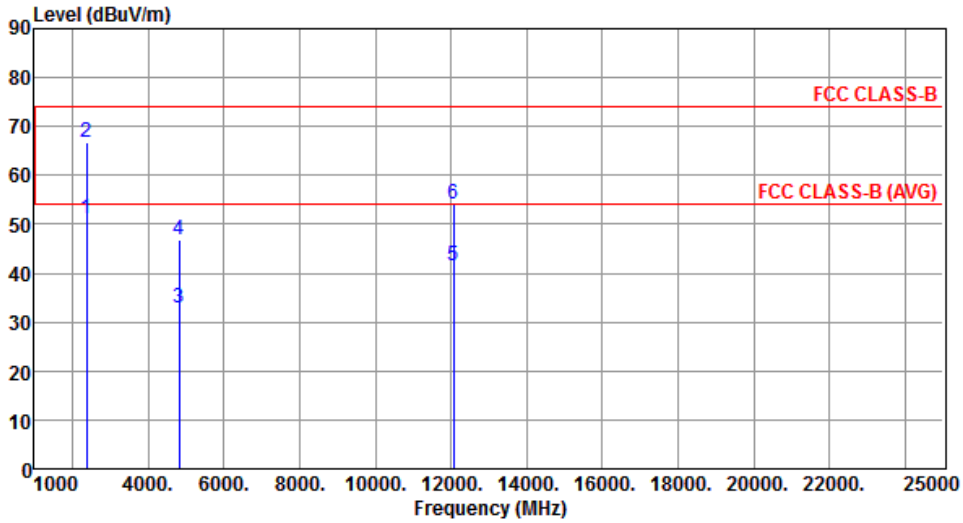


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	43.44	54.00	-10.56	45.21	-1.77	Average	103	210
2	2483.50	59.99	74.00	-14.01	61.76	-1.77	Peak	103	210
3	4924.00	32.59	54.00	-21.41	27.92	4.67	Average	100	245
4	4924.00	46.62	74.00	-27.38	41.95	4.67	Peak	100	245
5	7386.00	38.27	54.00	-15.73	28.87	9.40	Average	100	212
6	7386.00	50.86	74.00	-23.14	41.46	9.40	Peak	100	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).

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

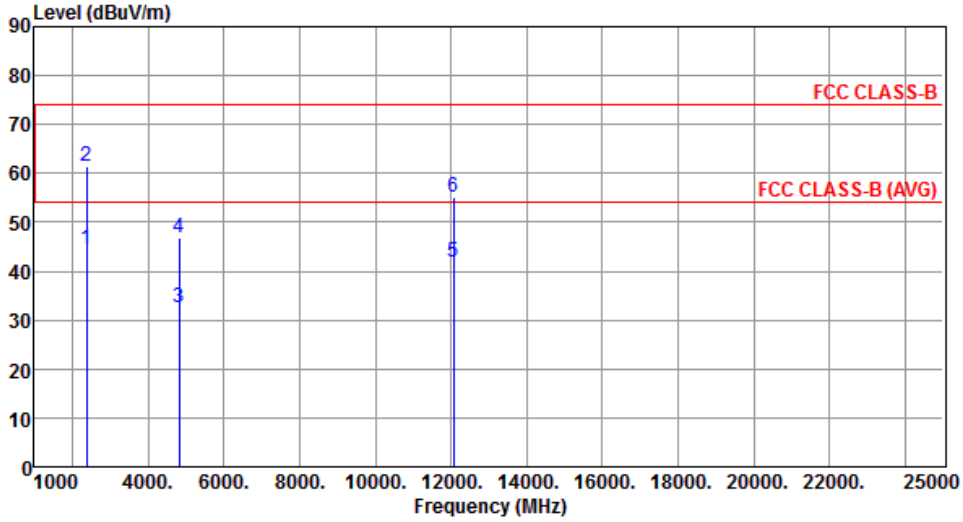
Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.99	54.00	-3.01	53.11	-2.12	Average	384	356
2	2390.00	66.66	74.00	-7.34	68.78	-2.12	Peak	384	356
3	4824.00	32.94	54.00	-21.06	28.46	4.48	Average	106	171
4	4824.00	46.85	74.00	-27.15	42.37	4.48	Peak	106	171
5	12060.00	41.39	54.00	-12.61	27.73	13.66	Average	100	168
6	12060.00	54.23	74.00	-19.77	40.57	13.66	Peak	100	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).

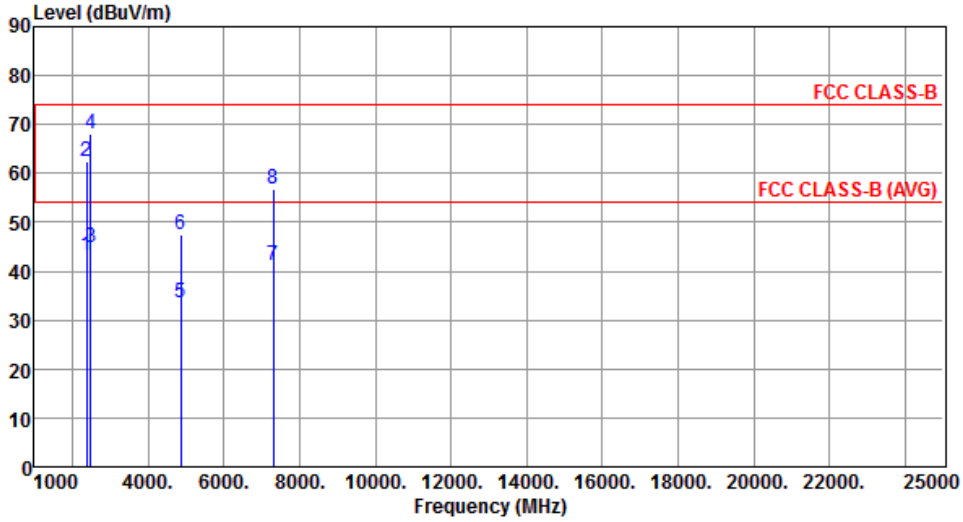
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.64	54.00	-9.36	46.76	-2.12	Average	109	210
2	2390.00	61.43	74.00	-12.57	63.55	-2.12	Peak	109	210
3	4824.00	32.57	54.00	-21.43	28.09	4.48	Average	100	248
4	4824.00	46.67	74.00	-27.33	42.19	4.48	Peak	100	248
5	12060.00	41.93	54.00	-12.07	28.27	13.66	Average	163	312
6	12060.00	55.16	74.00	-18.84	41.50	13.66	Peak	163	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).

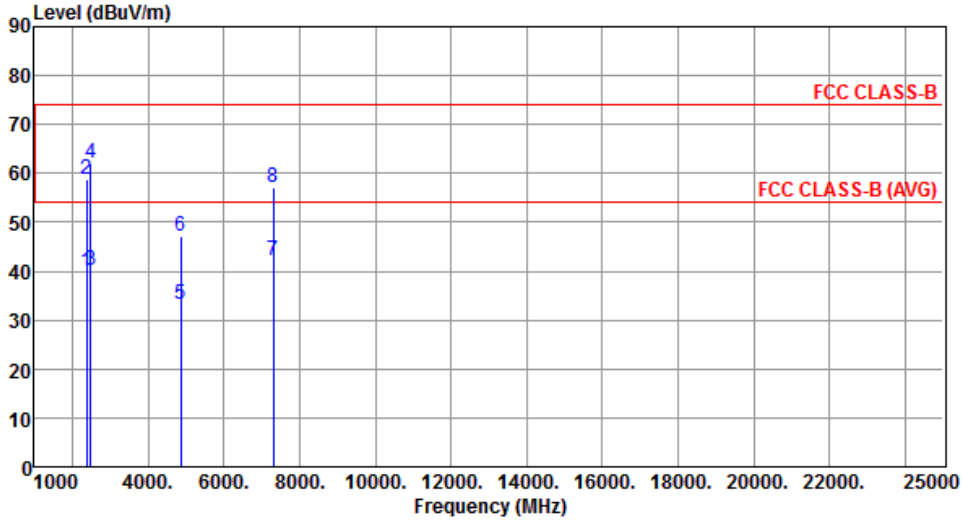
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	43.24	54.00	-10.76	45.36	-2.12	Average	250	6
2	2390.00	62.38	74.00	-11.62	64.50	-2.12	Peak	250	6
3	2483.50	44.73	54.00	-9.27	46.50	-1.77	Average	286	6
4	2483.50	68.24	74.00	-5.76	70.01	-1.77	Peak	286	6
5	4874.00	33.42	54.00	-20.58	28.84	4.58	Average	106	178
6	4874.00	47.36	74.00	-26.64	42.78	4.58	Peak	106	178
7	7311.00	41.06	54.00	-12.94	31.93	9.13	Average	111	145
8	7311.00	56.82	74.00	-17.18	47.69	9.13	Peak	111	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).

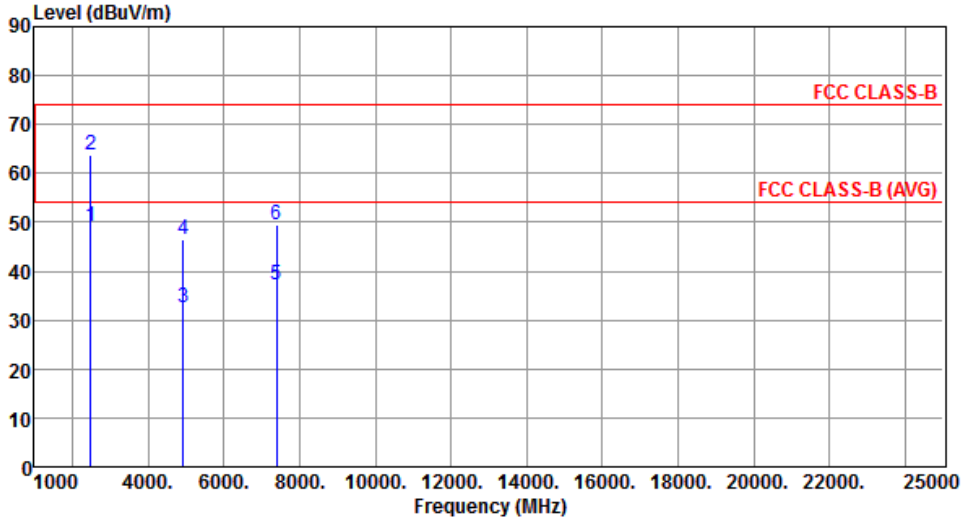
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	39.89	54.00	-14.11	42.01	-2.12	Average	100	212
2	2390.00	58.76	74.00	-15.24	60.88	-2.12	Peak	100	212
3	2483.50	40.26	54.00	-13.74	42.03	-1.77	Average	100	212
4	2483.50	61.94	74.00	-12.06	63.71	-1.77	Peak	100	212
5	4874.00	33.08	54.00	-20.92	28.50	4.58	Average	100	249
6	4874.00	47.32	74.00	-26.68	42.74	4.58	Peak	100	249
7	7311.00	42.21	54.00	-11.79	33.08	9.13	Average	100	271
8	7311.00	57.04	74.00	-16.96	47.91	9.13	Peak	100	271

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).

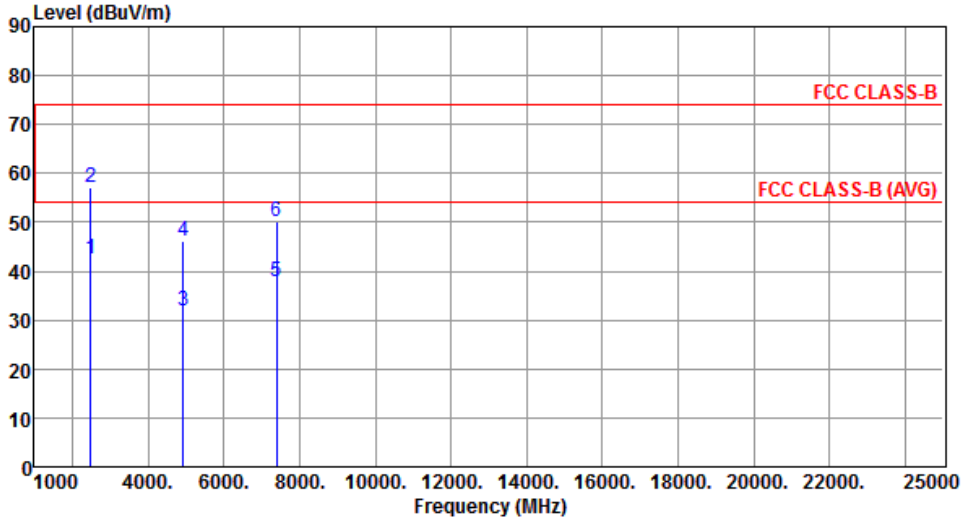
Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	49.26	54.00	-4.74	51.03	-1.77	Average	396	6
2	2483.50	63.86	74.00	-10.14	65.63	-1.77	Peak	396	6
3	4924.00	32.42	54.00	-21.58	27.75	4.67	Average	100	174
4	4924.00	46.33	74.00	-27.67	41.66	4.67	Peak	100	174
5	7386.00	37.21	54.00	-16.79	27.81	9.40	Average	100	146
6	7386.00	49.33	74.00	-24.67	39.93	9.40	Peak	100	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	HT20	Test Freq. (MHz)	2462
Polarization	Vertical		

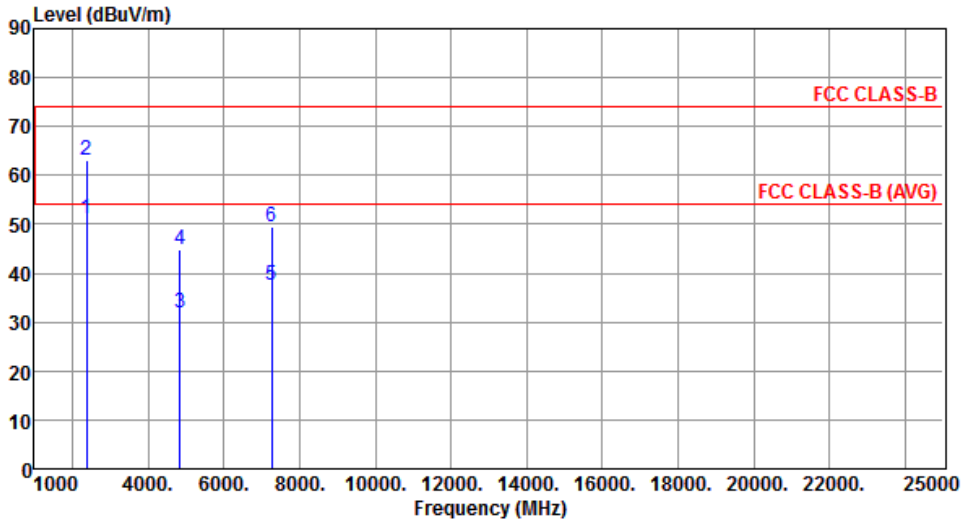


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	42.62	54.00	-11.38	44.39	-1.77	Average	111	208
2	2483.50	57.18	74.00	-16.82	58.95	-1.77	Peak	111	208
3	4924.00	31.89	54.00	-22.11	27.22	4.67	Average	100	241
4	4924.00	46.06	74.00	-27.94	41.39	4.67	Peak	100	241
5	7386.00	37.86	54.00	-16.14	28.46	9.40	Average	100	226
6	7386.00	50.19	74.00	-23.81	40.79	9.40	Peak	100	226

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).

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

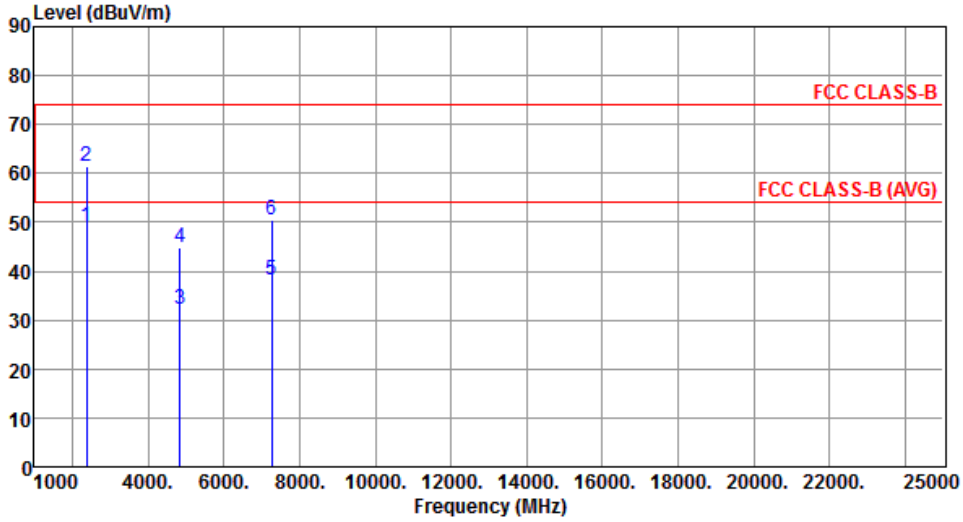
Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.16	54.00	-2.84	53.28	-2.12	Average	272	357
2	2390.00	63.11	74.00	-10.89	65.23	-2.12	Peak	272	357
3	4844.00	31.87	54.00	-22.13	27.36	4.51	Average	100	165
4	4844.00	44.83	74.00	-29.17	40.32	4.51	Peak	100	165
5	7266.00	37.67	54.00	-16.33	28.70	8.97	Average	100	196
6	7266.00	49.35	74.00	-24.65	40.38	8.97	Peak	100	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).

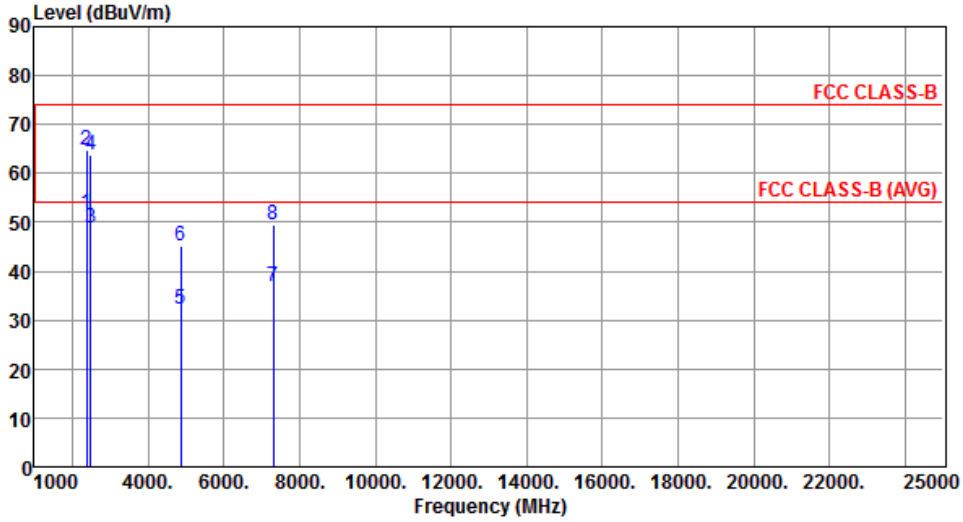
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	49.16	54.00	-4.84	51.28	-2.12	Average	109	221
2	2390.00	61.60	74.00	-12.40	63.72	-2.12	Peak	109	221
3	4844.00	32.37	54.00	-21.63	27.86	4.51	Average	100	196
4	4844.00	44.90	74.00	-29.10	40.39	4.51	Peak	100	196
5	7266.00	38.28	54.00	-15.72	29.31	8.97	Average	100	154
6	7266.00	50.35	74.00	-23.65	41.38	8.97	Peak	100	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).

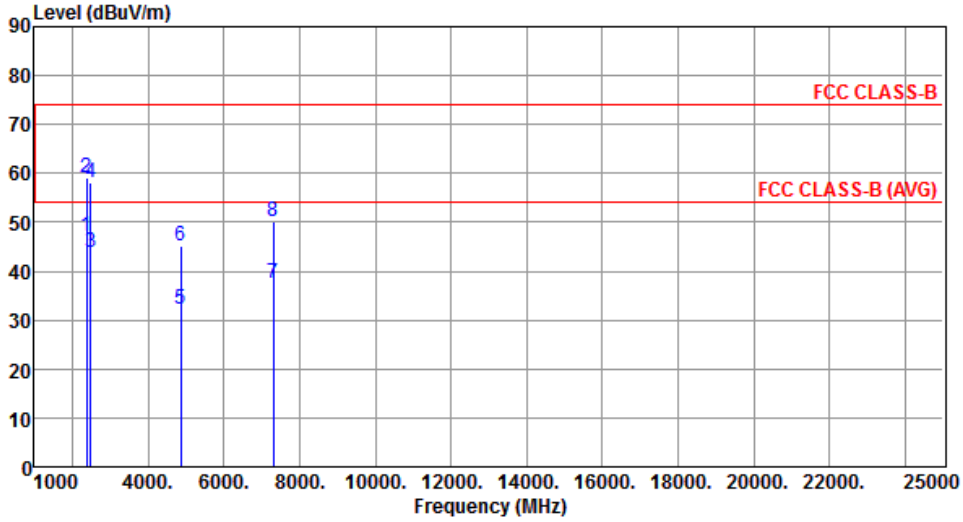
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.81	54.00	-2.19	53.93	-2.12	Average	254	2
2	2390.00	64.86	74.00	-9.14	66.98	-2.12	Peak	254	2
3	2483.50	48.90	54.00	-5.10	50.67	-1.77	Average	260	2
4	2483.50	63.80	74.00	-10.20	65.57	-1.77	Peak	260	2
5	4874.00	32.23	54.00	-21.77	27.65	4.58	Average	100	143
6	4874.00	45.30	74.00	-28.70	40.72	4.58	Peak	100	143
7	7311.00	36.98	54.00	-17.02	27.85	9.13	Average	100	132
8	7311.00	49.58	74.00	-24.42	40.45	9.13	Peak	100	132

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

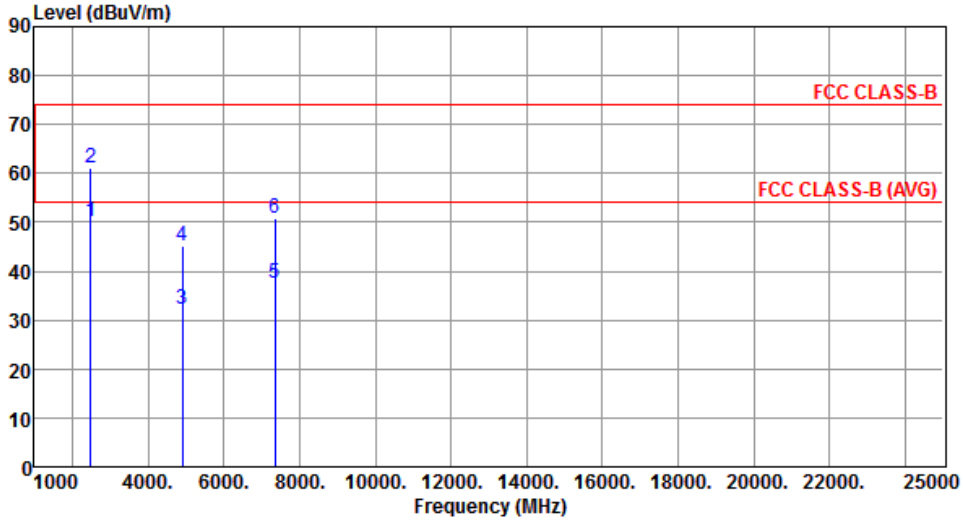
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.14	54.00	-6.86	49.26	-2.12	Average	100	220
2	2390.00	59.12	74.00	-14.88	61.24	-2.12	Peak	100	220
3	2483.50	43.68	54.00	-10.32	45.45	-1.77	Average	100	220
4	2483.50	58.07	74.00	-15.93	59.84	-1.77	Peak	100	220
5	4874.00	32.23	54.00	-21.77	27.65	4.58	Average	100	183
6	4874.00	45.26	74.00	-28.74	40.68	4.58	Peak	100	183
7	7311.00	37.68	54.00	-16.32	28.55	9.13	Average	100	216
8	7311.00	50.18	74.00	-23.82	41.05	9.13	Peak	100	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).

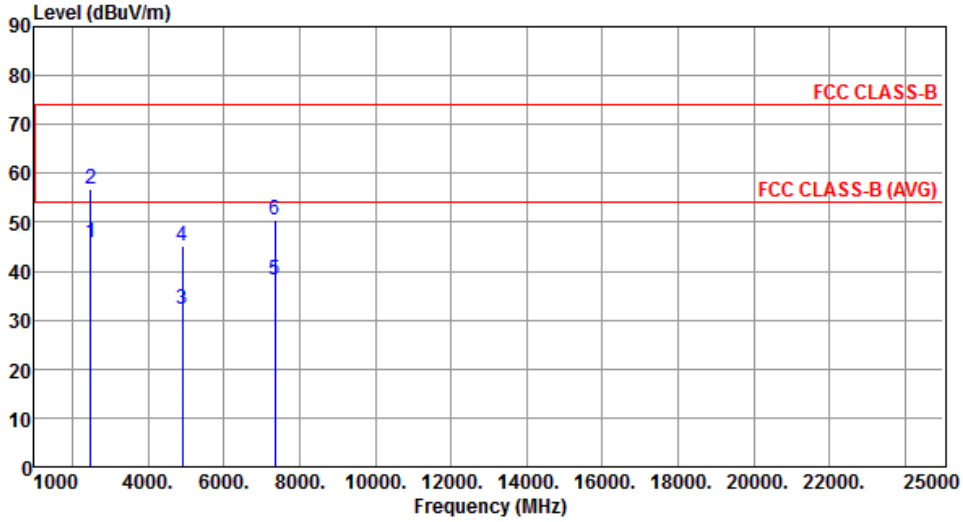
Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	50.28	54.00	-3.72	52.05	-1.77	Average	286	1
2	2483.50	61.17	74.00	-12.83	62.94	-1.77	Peak	286	1
3	4904.00	32.10	54.00	-21.90	27.47	4.63	Average	100	156
4	4904.00	45.21	74.00	-28.79	40.58	4.63	Peak	100	156
5	7356.00	37.54	54.00	-16.46	28.25	9.29	Average	100	163
6	7356.00	50.67	74.00	-23.33	41.38	9.29	Peak	100	163

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)	2452
Polarization	Vertical		



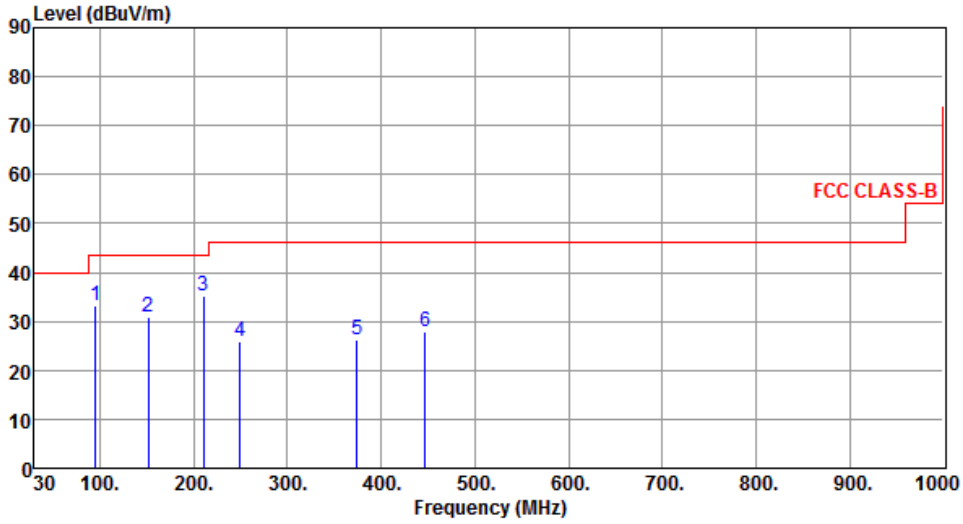
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	45.72	54.00	-8.28	47.49	-1.77	Average	100	206
2	2483.50	56.64	74.00	-17.36	58.41	-1.77	Peak	100	206
3	4904.00	32.18	54.00	-21.82	27.55	4.63	Average	100	165
4	4904.00	45.27	74.00	-28.73	40.64	4.63	Peak	100	165
5	7356.00	38.20	54.00	-15.80	28.91	9.29	Average	100	175
6	7356.00	50.64	74.00	-23.36	41.35	9.29	Peak	100	175

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).

Configuration 3 : PIFA Antenna

3.5.14 Transmitter Radiated Unwanted Emissions (Below 1GHz)

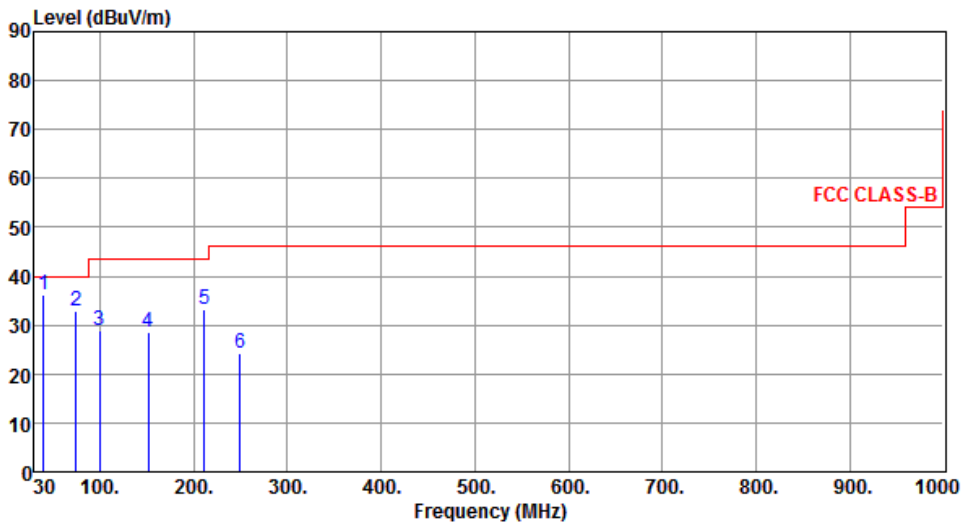
Modulation	11g	**Test Freq. (MHz)**	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	95.65	33.35	43.50	-10.15	47.38	-14.03	Peak	---	---
2	151.46	30.75	43.50	-12.75	39.25	-8.50	Peak	---	---
3	210.37	35.11	43.50	-8.39	46.39	-11.28	Peak	---	---
4	249.62	25.85	46.00	-20.15	35.47	-9.62	Peak	---	---
5	374.55	26.21	46.00	-19.79	32.13	-5.92	Peak	---	---
6	447.28	27.85	46.00	-18.15	31.78	-3.93	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	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

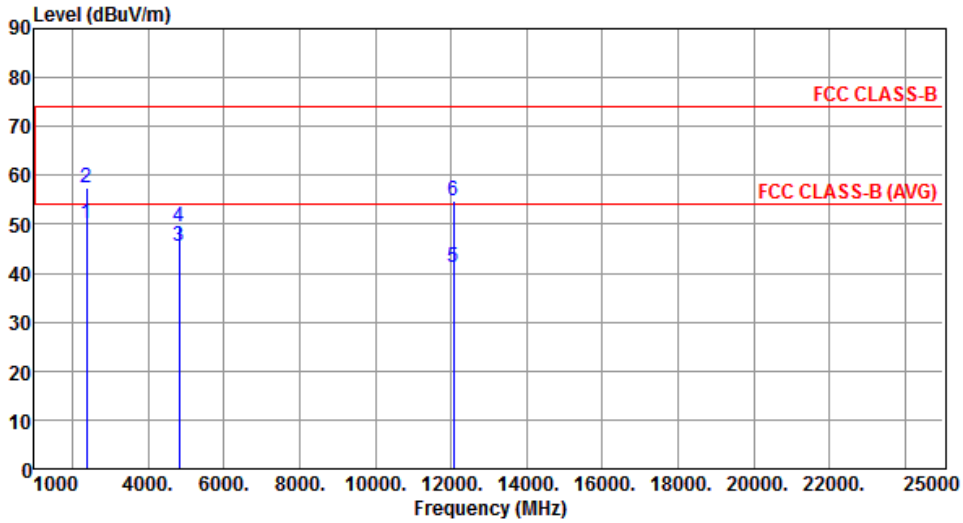


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.68	36.05	40.00	-3.95	44.79	-8.74	Peak	---	---
2	74.53	32.79	40.00	-7.21	44.78	-11.99	Peak	---	---
3	99.76	28.76	43.50	-14.74	42.33	-13.57	Peak	---	---
4	151.36	28.59	43.50	-14.91	37.09	-8.50	Peak	---	---
5	211.48	33.36	43.50	-10.14	44.63	-11.27	Peak	---	---
6	249.37	24.36	46.00	-21.64	33.98	-9.62	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.

3.5.15 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

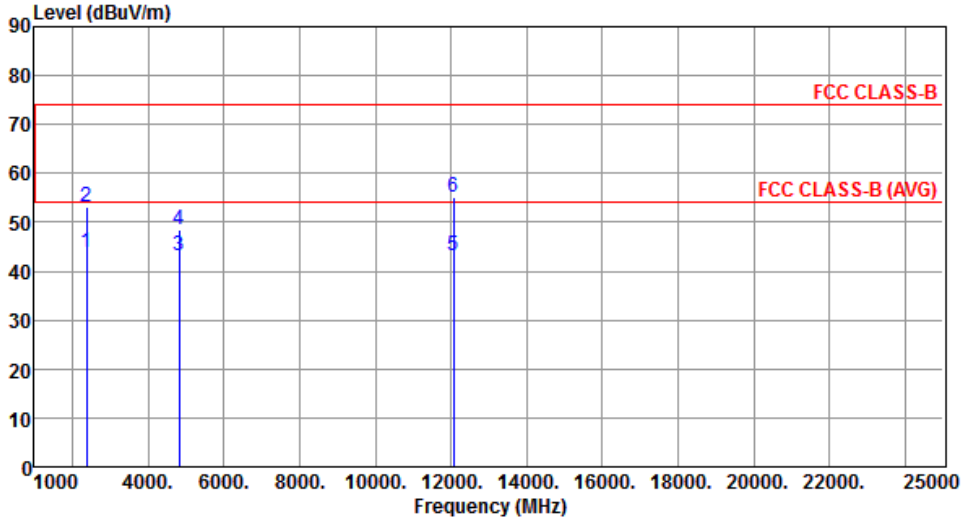
Modulation	11b	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.20	54.00	-3.80	52.32	-2.12	Average	368	351
2	2390.00	57.57	74.00	-16.43	59.69	-2.12	Peak	368	351
3	4824.00	45.61	54.00	-8.39	41.13	4.48	Average	100	308
4	4824.00	49.60	74.00	-24.40	45.12	4.48	Peak	100	308
5	12060.00	41.12	54.00	-12.88	27.46	13.66	Average	100	326
6	12060.00	54.89	74.00	-19.11	41.23	13.66	Peak	100	326

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).

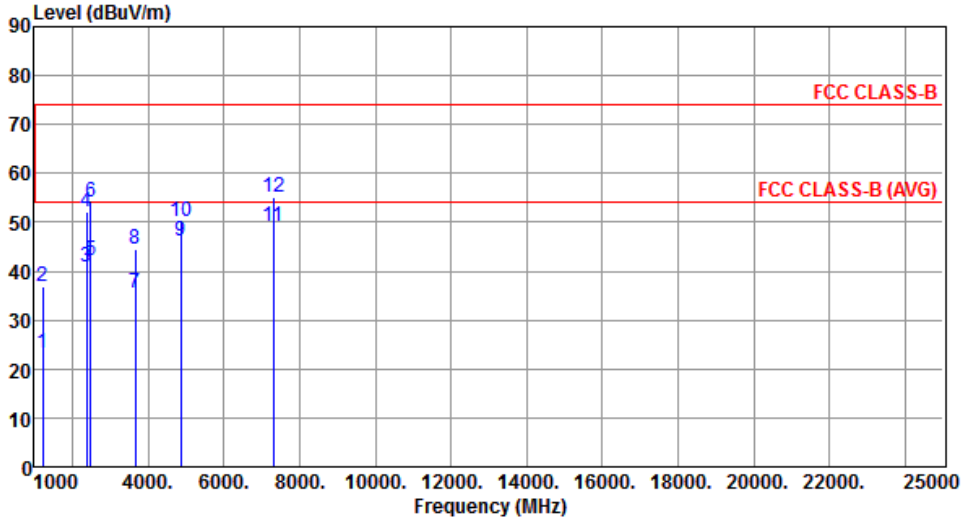
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	43.70	54.00	-10.30	45.82	-2.12	Average	100	253
2	2390.00	53.09	74.00	-20.91	55.21	-2.12	Peak	100	253
3	4824.00	43.22	54.00	-10.78	38.74	4.48	Average	100	41
4	4824.00	48.40	74.00	-25.60	43.92	4.48	Peak	100	41
5	12060.00	43.17	54.00	-10.83	29.51	13.66	Average	247	11
6	12060.00	55.21	74.00	-18.79	41.55	13.66	Peak	247	11

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).

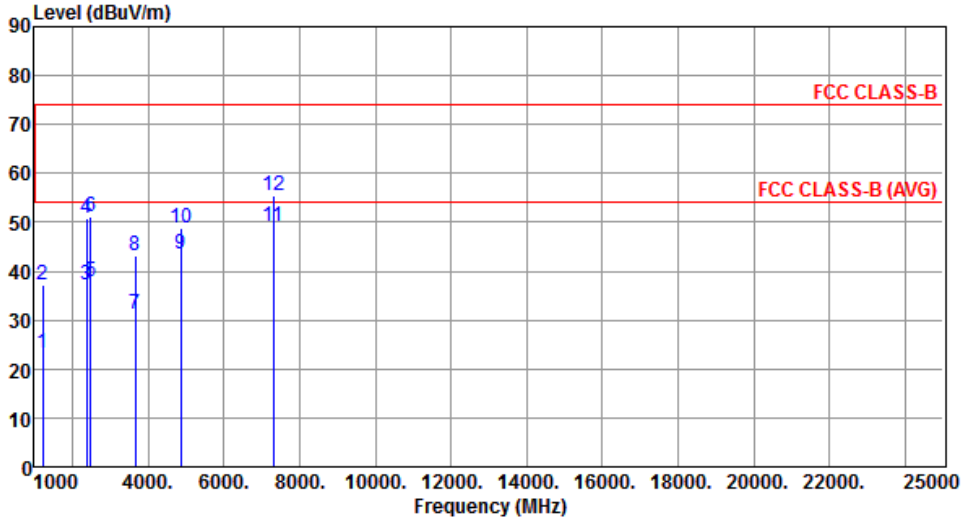
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	23.11	54.00	-30.89	30.16	-7.05	Average	100	335
2	1218.50	36.87	74.00	-37.13	43.92	-7.05	Peak	100	335
3	2390.00	40.79	54.00	-13.21	42.91	-2.12	Average	332	351
4	2390.00	52.30	74.00	-21.70	54.42	-2.12	Peak	332	351
5	2483.50	42.11	54.00	-11.89	43.88	-1.77	Average	305	351
6	2483.50	54.10	74.00	-19.90	55.87	-1.77	Peak	305	351
7	3655.50	35.55	54.00	-18.45	34.14	1.41	Average	100	316
8	3655.50	44.50	74.00	-29.50	43.09	1.41	Peak	100	316
9	4874.00	46.01	54.00	-7.99	41.43	4.58	Average	100	311
10	4874.00	50.12	74.00	-23.88	45.54	4.58	Peak	100	311
11	7311.00	49.06	54.00	-4.94	39.93	9.13	Average	100	346
12	7311.00	55.22	74.00	-18.78	46.09	9.13	Peak	100	346

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).

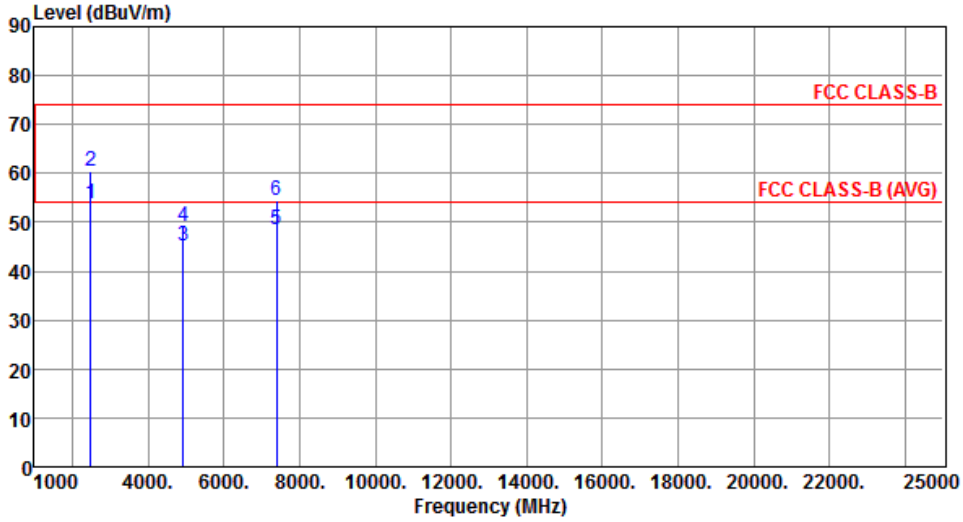
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	23.15	54.00	-30.85	30.20	-7.05	Average	100	9
2	1218.50	37.21	74.00	-36.79	44.26	-7.05	Peak	100	9
3	2390.00	37.36	54.00	-16.64	39.48	-2.12	Average	100	295
4	2390.00	50.89	74.00	-23.11	53.01	-2.12	Peak	100	295
5	2483.50	37.94	54.00	-16.06	39.71	-1.77	Average	100	295
6	2483.50	51.22	74.00	-22.78	52.99	-1.77	Peak	100	295
7	3655.50	31.22	54.00	-22.78	29.81	1.41	Average	100	5
8	3655.50	43.04	74.00	-30.96	41.63	1.41	Peak	100	5
9	4874.00	43.53	54.00	-10.47	38.95	4.58	Average	100	38
10	4874.00	48.80	74.00	-25.20	44.22	4.58	Peak	100	38
11	7311.00	49.20	54.00	-4.80	40.07	9.13	Average	157	113
12	7311.00	55.42	74.00	-18.58	46.29	9.13	Peak	157	113

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).

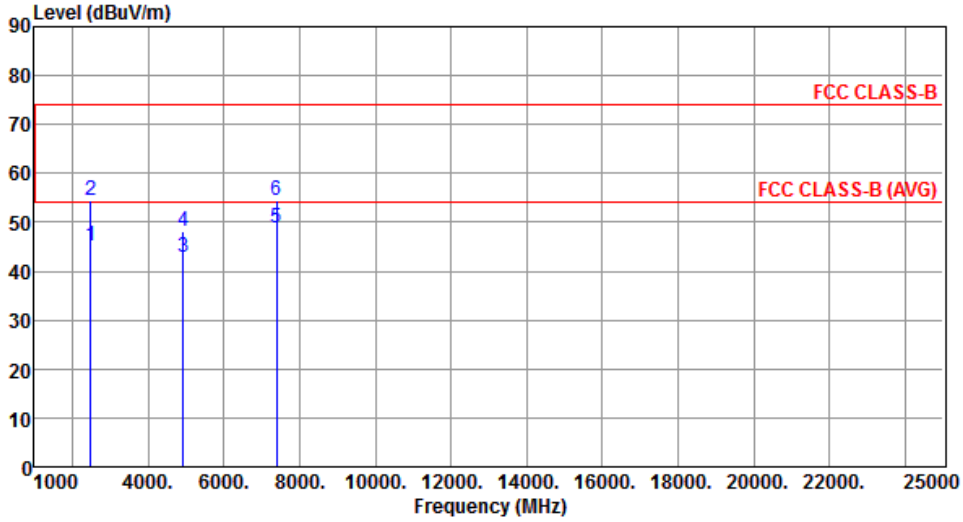
Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	53.88	54.00	-0.12	55.65	-1.77	Average	379	352
2	2483.50	60.28	74.00	-13.72	62.05	-1.77	Peak	379	352
3	4924.00	45.29	54.00	-8.71	40.62	4.67	Average	100	315
4	4924.00	49.15	74.00	-24.85	44.48	4.67	Peak	100	315
5	7386.00	48.53	54.00	-5.47	39.13	9.40	Average	100	342
6	7386.00	54.56	74.00	-19.44	45.16	9.40	Peak	100	342

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	11b	Test Freq. (MHz)	2462
Polarization	Vertical		

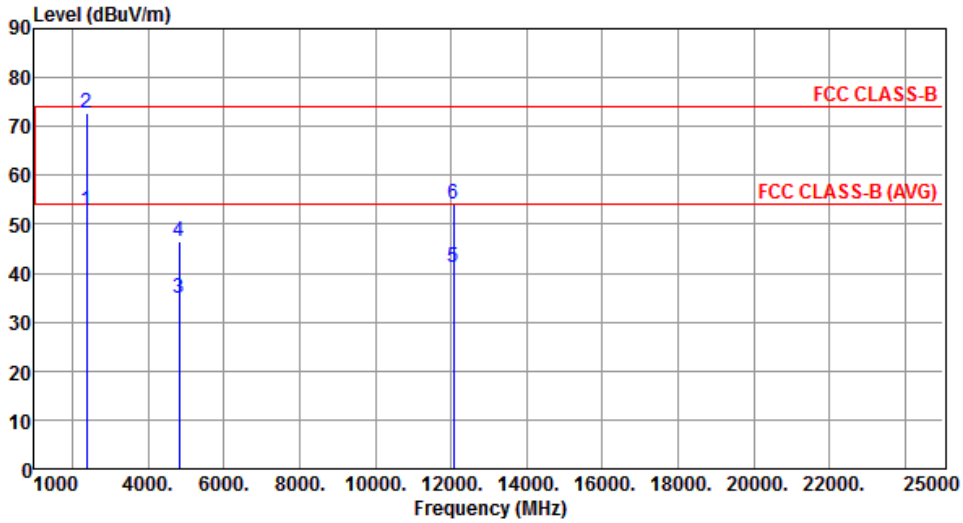


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	45.06	54.00	-8.94	46.83	-1.77	Average	109	254
2	2483.50	54.47	74.00	-19.53	56.24	-1.77	Peak	109	254
3	4924.00	42.76	54.00	-11.24	38.09	4.67	Average	100	42
4	4924.00	48.15	74.00	-25.85	43.48	4.67	Peak	100	42
5	7386.00	48.70	54.00	-5.30	39.30	9.40	Average	154	110
6	7386.00	54.51	74.00	-19.49	45.11	9.40	Peak	154	110

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).

3.5.16 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

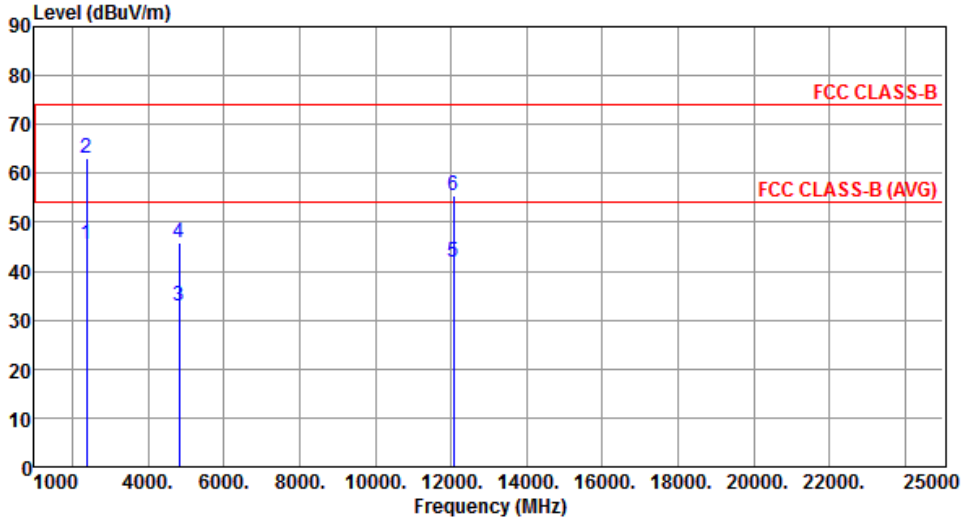
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	52.69	54.00	-1.31	54.81	-2.12	Average	211	19
2	2390.00	72.63	74.00	-1.37	74.75	-2.12	Peak	211	19
3	4824.00	34.79	54.00	-19.21	30.31	4.48	Average	100	315
4	4824.00	46.50	74.00	-27.50	42.02	4.48	Peak	100	315
5	12060.00	41.30	54.00	-12.70	27.64	13.66	Average	100	177
6	12060.00	54.21	74.00	-19.79	40.55	13.66	Peak	100	177

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).

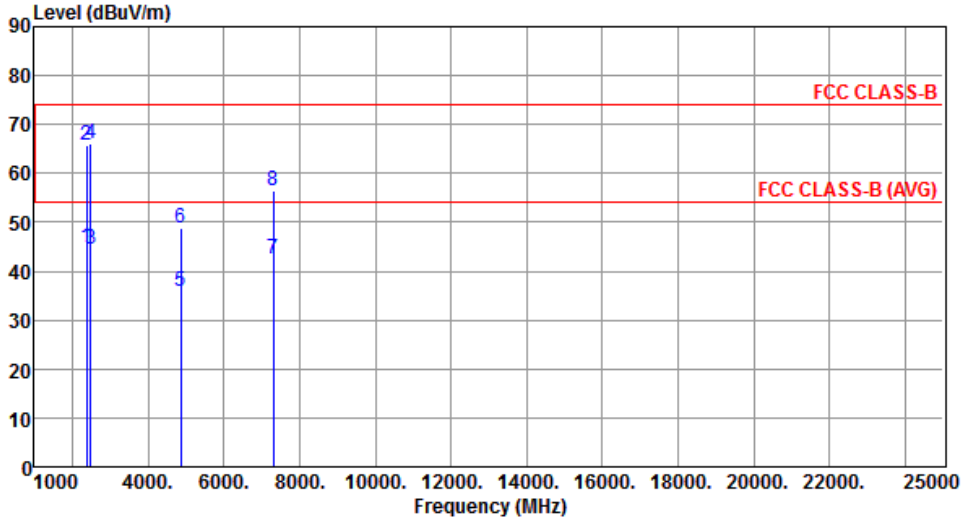
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.56	54.00	-8.44	47.68	-2.12	Average	103	131
2	2390.00	63.17	74.00	-10.83	65.29	-2.12	Peak	103	131
3	4824.00	32.81	54.00	-21.19	28.33	4.48	Average	100	80
4	4824.00	45.70	74.00	-28.30	41.22	4.48	Peak	100	80
5	12060.00	41.92	54.00	-12.08	28.26	13.66	Average	100	168
6	12060.00	55.31	74.00	-18.69	41.65	13.66	Peak	100	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).

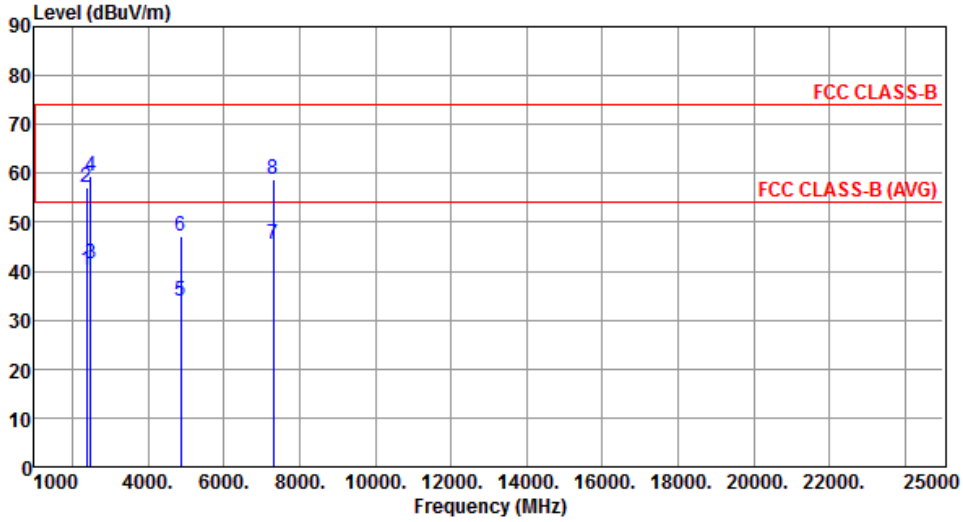
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.71	54.00	-9.29	46.83	-2.12	Average	121	350
2	2390.00	65.60	74.00	-8.40	67.72	-2.12	Peak	121	350
3	2483.50	44.59	54.00	-9.41	46.36	-1.77	Average	121	350
4	2483.50	66.15	74.00	-7.85	67.92	-1.77	Peak	121	350
5	4874.00	35.96	54.00	-18.04	31.38	4.58	Average	100	317
6	4874.00	48.68	74.00	-25.32	44.10	4.58	Peak	100	317
7	7311.00	42.61	54.00	-11.39	33.48	9.13	Average	100	5
8	7311.00	56.45	74.00	-17.55	47.32	9.13	Peak	100	5

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).

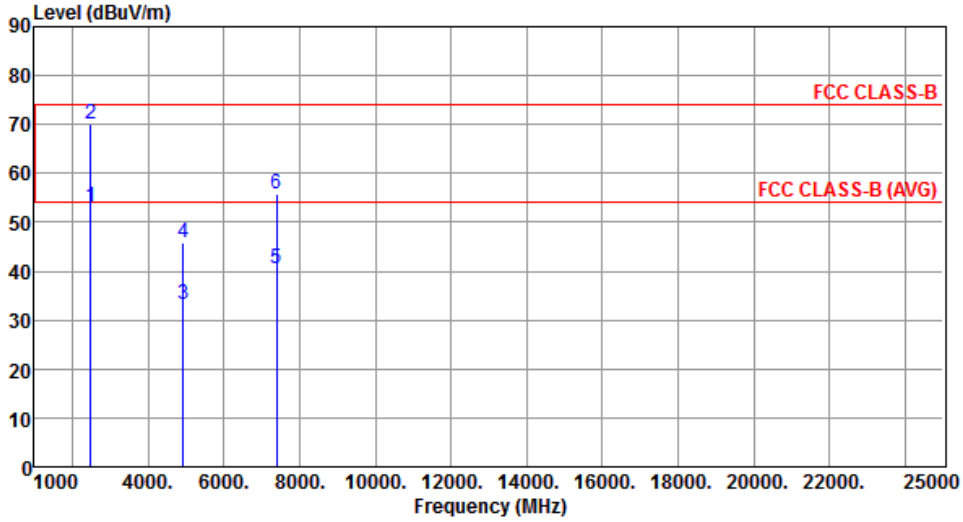
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	40.13	54.00	-13.87	42.25	-2.12	Average	100	133
2	2390.00	57.04	74.00	-16.96	59.16	-2.12	Peak	100	133
3	2483.50	41.53	54.00	-12.47	43.30	-1.77	Average	100	133
4	2483.50	59.36	74.00	-14.64	61.13	-1.77	Peak	100	133
5	4874.00	33.74	54.00	-20.26	29.16	4.58	Average	100	83
6	4874.00	47.26	74.00	-26.74	42.68	4.58	Peak	100	83
7	7311.00	45.53	54.00	-8.47	36.40	9.13	Average	158	116
8	7311.00	58.62	74.00	-15.38	49.49	9.13	Peak	158	116

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

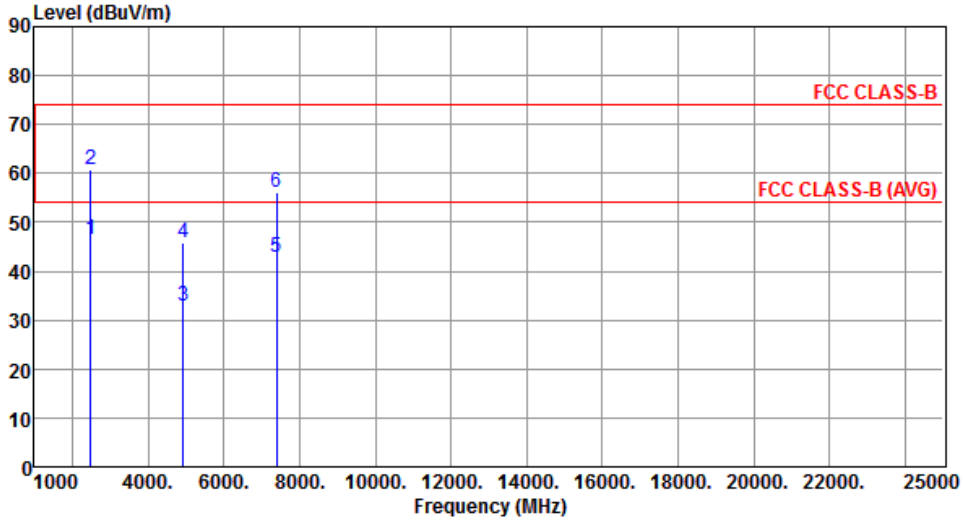
Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	53.19	54.00	-0.81	54.96	-1.77	Average	187	12
2	2483.50	69.98	74.00	-4.02	71.75	-1.77	Peak	187	12
3	4924.00	33.14	54.00	-20.86	28.47	4.67	Average	100	316
4	4924.00	45.91	74.00	-28.09	41.24	4.67	Peak	100	316
5	7386.00	40.65	54.00	-13.35	31.25	9.40	Average	100	7
6	7386.00	55.66	74.00	-18.34	46.26	9.40	Peak	100	7

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	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

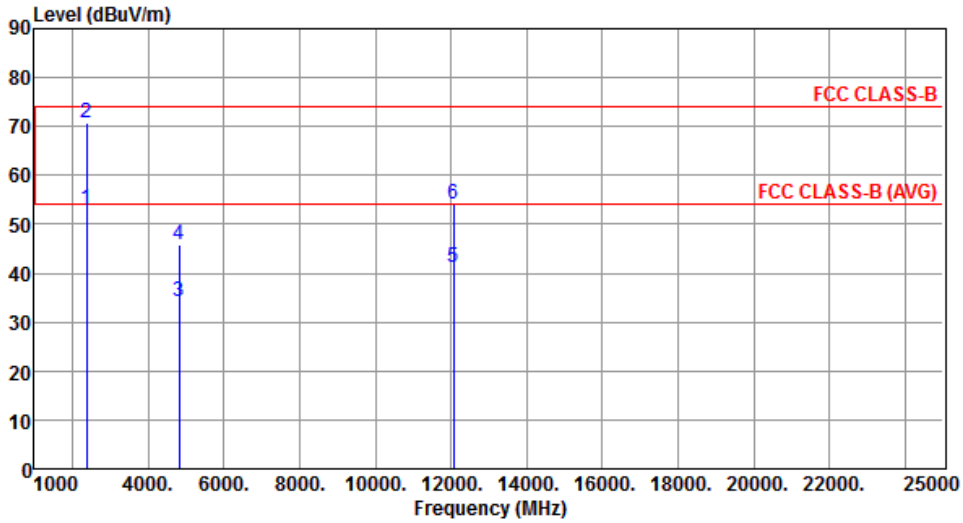


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	46.54	54.00	-7.46	48.31	-1.77	Average	115	133
2	2483.50	60.75	74.00	-13.25	62.52	-1.77	Peak	115	133
3	4924.00	32.72	54.00	-21.28	28.05	4.67	Average	100	66
4	4924.00	45.72	74.00	-28.28	41.05	4.67	Peak	100	66
5	7386.00	42.73	54.00	-11.27	33.33	9.40	Average	155	115
6	7386.00	56.15	74.00	-17.85	46.75	9.40	Peak	155	115

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

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

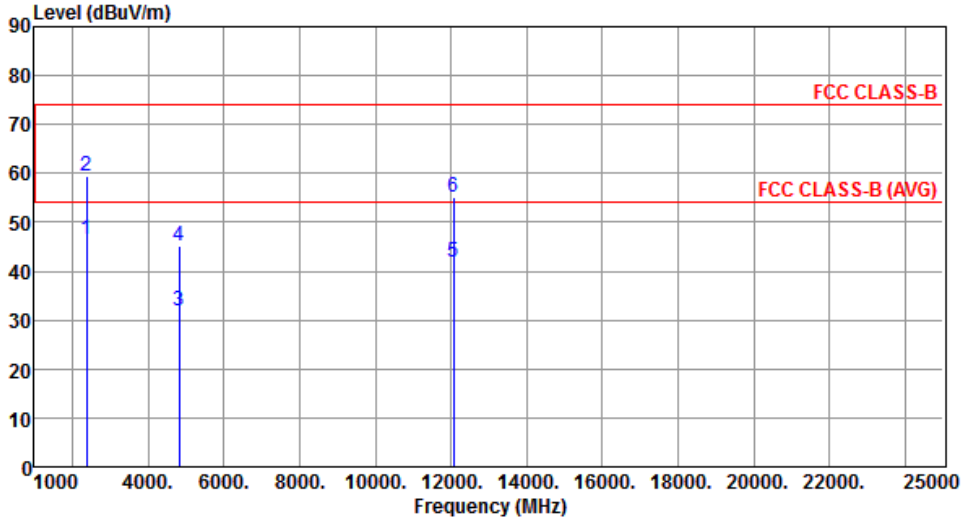
Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	53.00	54.00	-1.00	55.12	-2.12	Average	211	19
2	2390.00	70.60	74.00	-3.40	72.72	-2.12	Peak	211	19
3	4824.00	34.16	54.00	-19.84	29.68	4.48	Average	100	312
4	4824.00	45.92	74.00	-28.08	41.44	4.48	Peak	100	312
5	12060.00	41.19	54.00	-12.81	27.53	13.66	Average	100	165
6	12060.00	54.08	74.00	-19.92	40.42	13.66	Peak	100	165

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).

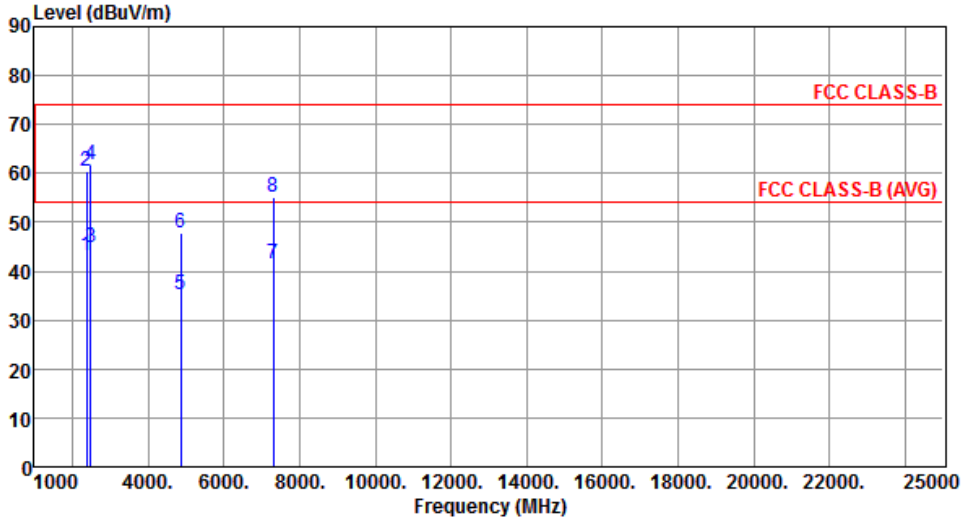
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	46.50	54.00	-7.50	48.62	-2.12	Average	104	131
2	2390.00	59.43	74.00	-14.57	61.55	-2.12	Peak	104	131
3	4824.00	32.04	54.00	-21.96	27.56	4.48	Average	100	77
4	4824.00	45.33	74.00	-28.67	40.85	4.48	Peak	100	77
5	12060.00	41.82	54.00	-12.18	28.16	13.66	Average	100	167
6	12060.00	55.11	74.00	-18.89	41.45	13.66	Peak	100	167

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).

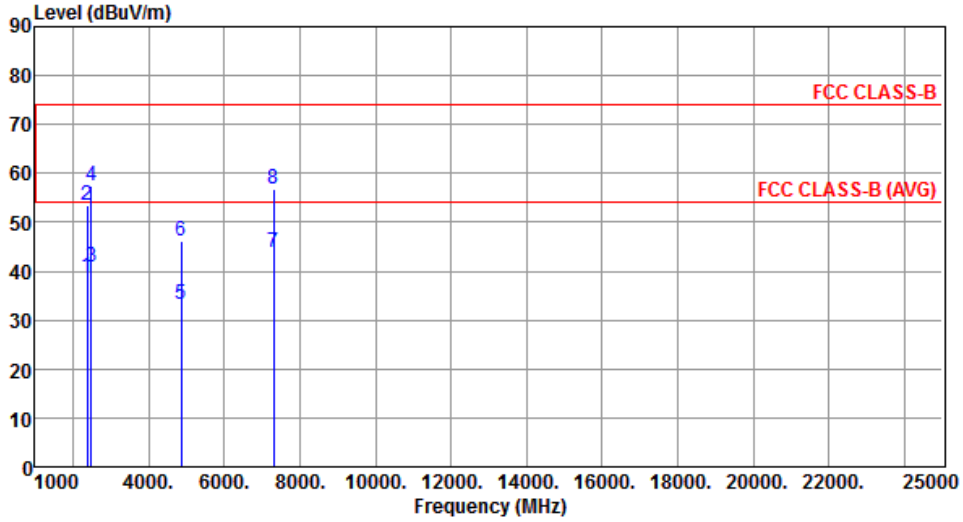
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	43.14	54.00	-10.86	45.26	-2.12	Average	116	350
2	2390.00	60.28	74.00	-13.72	62.40	-2.12	Peak	116	350
3	2483.50	44.73	54.00	-9.27	46.50	-1.77	Average	116	350
4	2483.50	61.93	74.00	-12.07	63.70	-1.77	Peak	116	350
5	4874.00	35.09	54.00	-18.91	30.51	4.58	Average	100	314
6	4874.00	47.86	74.00	-26.14	43.28	4.58	Peak	100	314
7	7311.00	41.39	54.00	-12.61	32.26	9.13	Average	100	9
8	7311.00	55.21	74.00	-18.79	46.08	9.13	Peak	100	9

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).

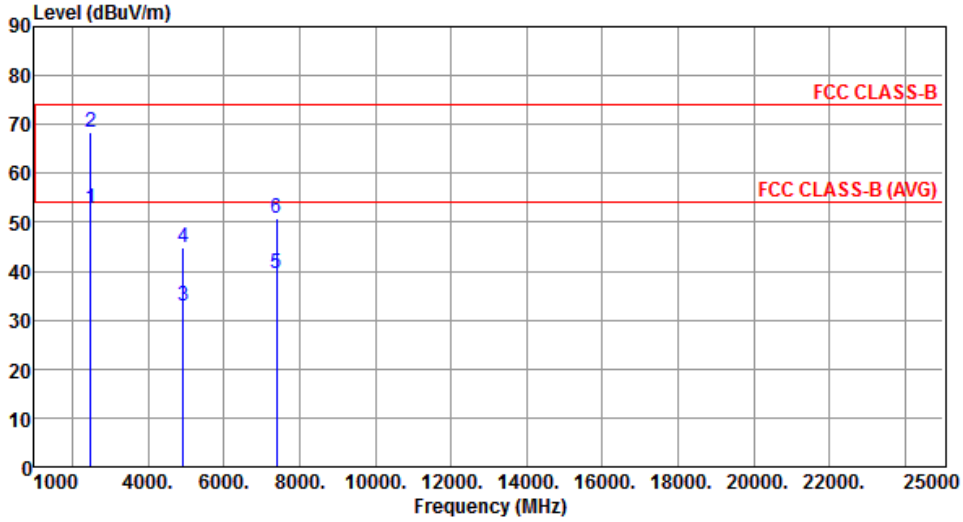
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	38.79	54.00	-15.21	40.91	-2.12	Average	115	133
2	2390.00	53.49	74.00	-20.51	55.61	-2.12	Peak	115	133
3	2483.50	40.80	54.00	-13.20	42.57	-1.77	Average	115	133
4	2483.50	57.49	74.00	-16.51	59.26	-1.77	Peak	115	133
5	4874.00	33.11	54.00	-20.89	28.53	4.58	Average	100	79
6	4874.00	46.04	74.00	-27.96	41.46	4.58	Peak	100	79
7	7311.00	43.94	54.00	-10.06	34.81	9.13	Average	153	118
8	7311.00	56.79	74.00	-17.21	47.66	9.13	Peak	153	118

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).

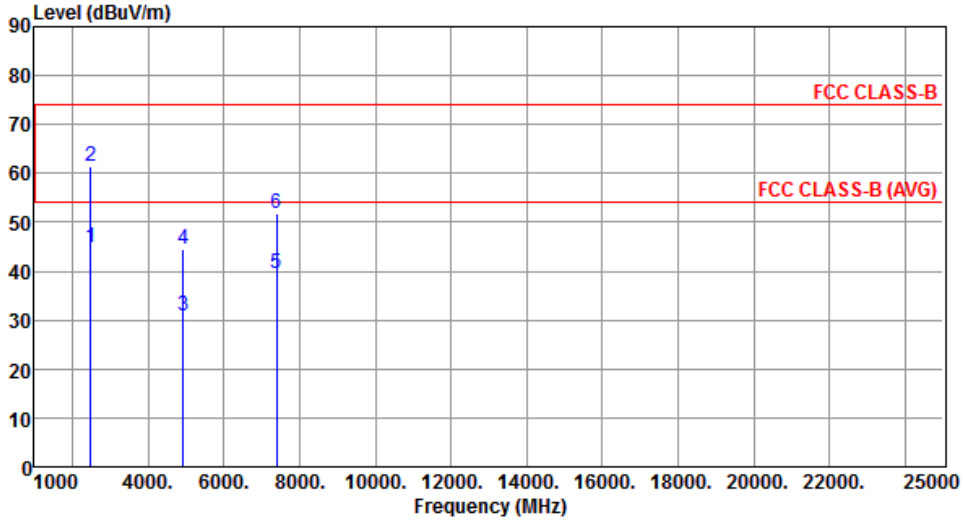
Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.83	54.00	-1.17	54.60	-1.77	Average	201	23
2	2483.50	68.28	74.00	-5.72	70.05	-1.77	Peak	201	23
3	4924.00	32.91	54.00	-21.09	28.24	4.67	Average	100	318
4	4924.00	44.86	74.00	-29.14	40.19	4.67	Peak	100	318
5	7386.00	39.49	54.00	-14.51	30.09	9.40	Average	100	5
6	7386.00	50.69	74.00	-23.31	41.29	9.40	Peak	100	5

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)	2462
Polarization	Vertical		

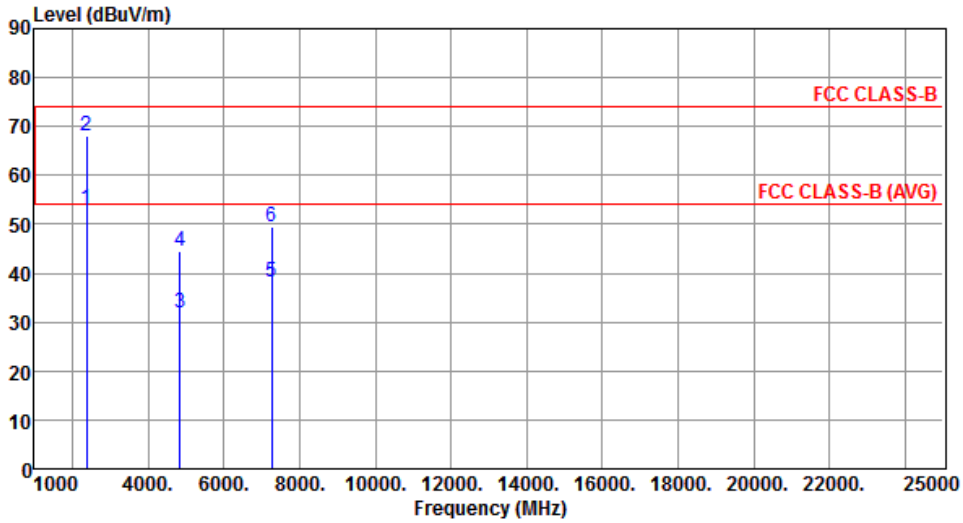


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	44.97	54.00	-9.03	46.74	-1.77	Average	110	131
2	2483.50	61.41	74.00	-12.59	63.18	-1.77	Peak	110	131
3	4924.00	30.84	54.00	-23.16	26.17	4.67	Average	100	77
4	4924.00	44.61	74.00	-29.39	39.94	4.67	Peak	100	77
5	7386.00	39.52	54.00	-14.48	30.12	9.40	Average	100	12
6	7386.00	51.93	74.00	-22.07	42.53	9.40	Peak	100	12

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).

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

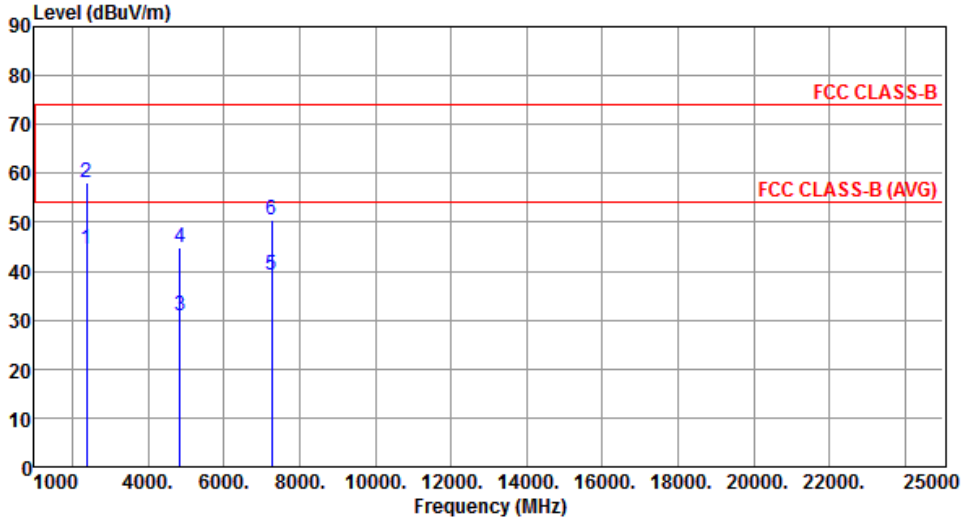
Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	53.19	54.00	-0.81	55.31	-2.12	Average	215	23
2	2390.00	67.96	74.00	-6.04	70.08	-2.12	Peak	215	23
3	4844.00	31.78	54.00	-22.22	27.27	4.51	Average	100	312
4	4844.00	44.55	74.00	-29.45	40.04	4.51	Peak	100	312
5	7266.00	38.34	54.00	-15.66	29.37	8.97	Average	100	9
6	7266.00	49.46	74.00	-24.54	40.49	8.97	Peak	100	9

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).

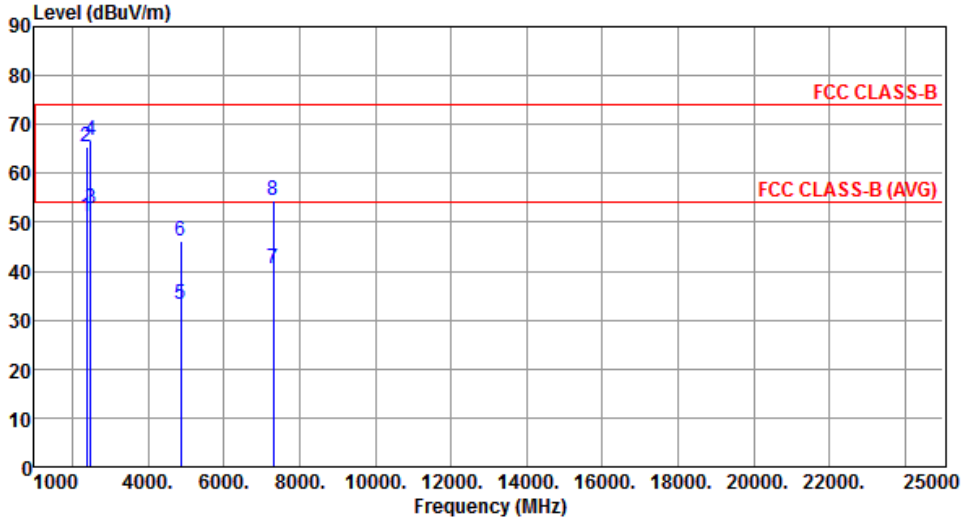
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	44.65	54.00	-9.35	46.77	-2.12	Average	104	113
2	2390.00	58.27	74.00	-15.73	60.39	-2.12	Peak	104	113
3	4844.00	30.87	54.00	-23.13	26.36	4.51	Average	100	82
4	4844.00	44.80	74.00	-29.20	40.29	4.51	Peak	100	82
5	7266.00	39.23	54.00	-14.77	30.26	8.97	Average	100	8
6	7266.00	50.36	74.00	-23.64	41.39	8.97	Peak	100	8

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).

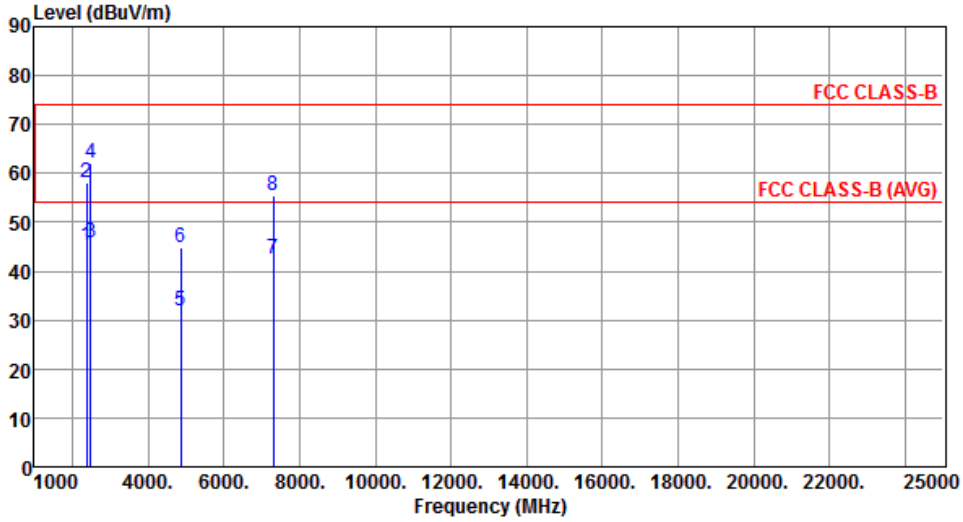
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	51.07	54.00	-2.93	53.19	-2.12	Average	118	355
2	2390.00	65.30	74.00	-8.70	67.42	-2.12	Peak	118	355
3	2483.50	52.92	54.00	-1.08	54.69	-1.77	Average	133	355
4	2483.50	66.77	74.00	-7.23	68.54	-1.77	Peak	133	355
5	4874.00	33.06	54.00	-20.94	28.48	4.58	Average	100	311
6	4874.00	46.08	74.00	-27.92	41.50	4.58	Peak	100	311
7	7311.00	40.39	54.00	-13.61	31.26	9.13	Average	100	13
8	7311.00	54.37	74.00	-19.63	45.24	9.13	Peak	100	13

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).

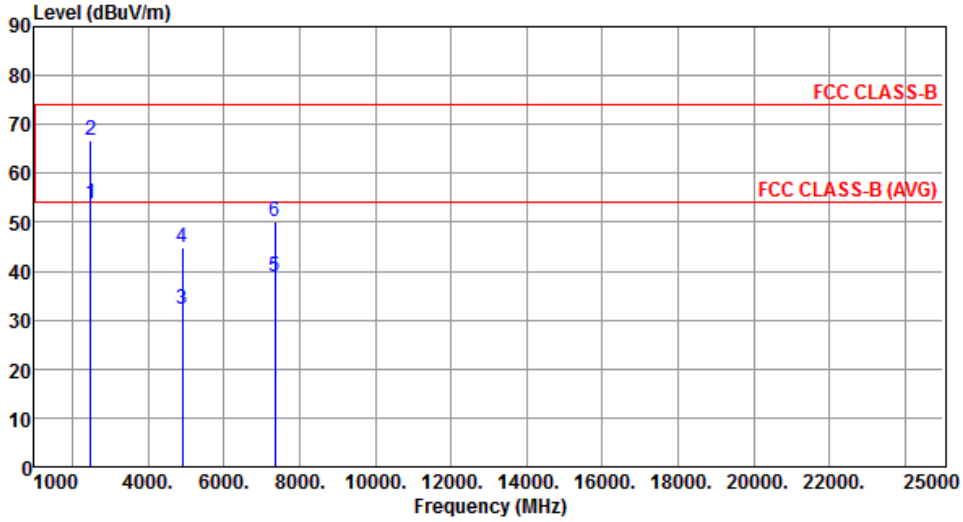
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.20	54.00	-8.80	47.32	-2.12	Average	130	134
2	2390.00	58.06	74.00	-15.94	60.18	-2.12	Peak	130	134
3	2483.50	45.85	54.00	-8.15	47.62	-1.77	Average	130	134
4	2483.50	62.07	74.00	-11.93	63.84	-1.77	Peak	130	134
5	4874.00	31.94	54.00	-22.06	27.36	4.58	Average	100	75
6	4874.00	44.80	74.00	-29.20	40.22	4.58	Peak	100	75
7	7311.00	42.51	54.00	-11.49	33.38	9.13	Average	150	126
8	7311.00	55.41	74.00	-18.59	46.28	9.13	Peak	150	126

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).

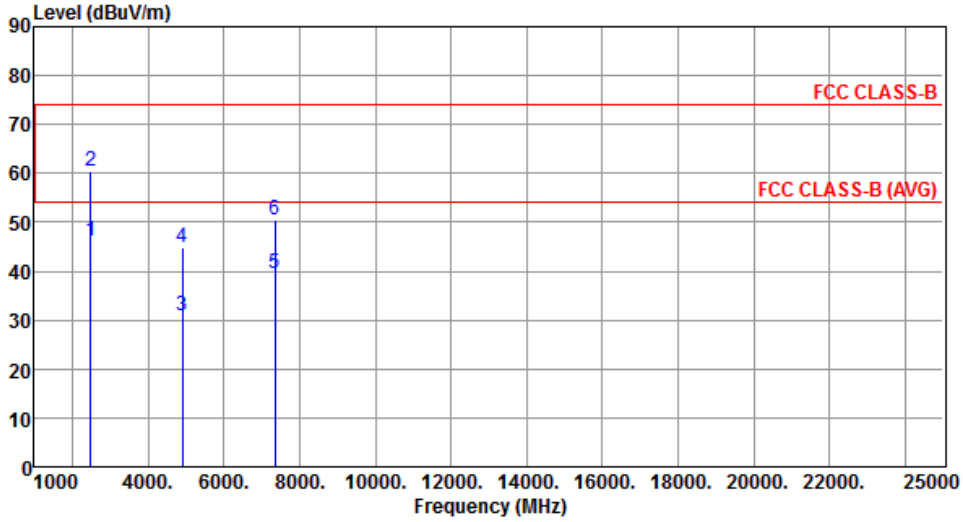
Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	53.78	54.00	-0.22	55.55	-1.77	Average	202	25
2	2483.50	66.75	74.00	-7.25	68.52	-1.77	Peak	202	25
3	4904.00	32.12	54.00	-21.88	27.49	4.63	Average	100	316
4	4904.00	44.86	74.00	-29.14	40.23	4.63	Peak	100	316
5	7356.00	38.90	54.00	-15.10	29.61	9.29	Average	100	4
6	7356.00	50.01	74.00	-23.99	40.72	9.29	Peak	100	4

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)	2452
Polarization	Vertical		



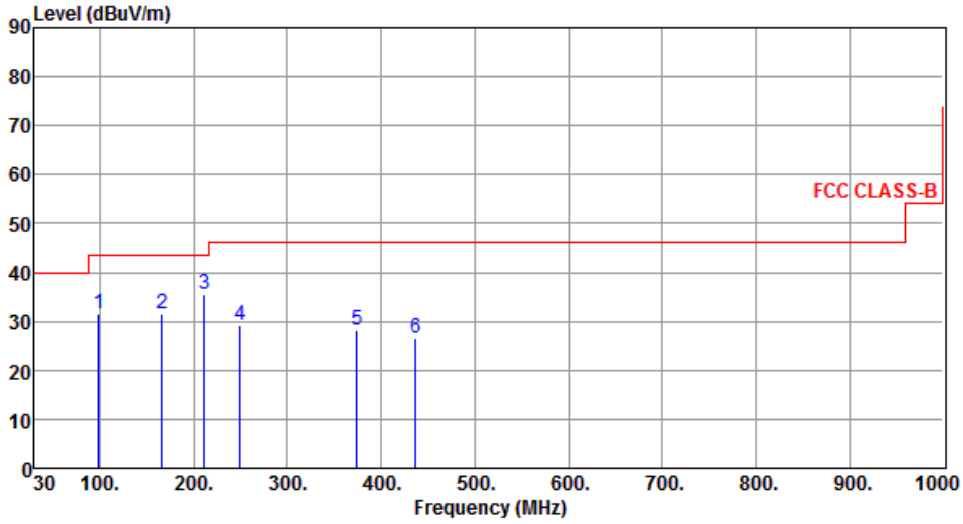
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	46.03	54.00	-7.97	47.80	-1.77	Average	105	129
2	2483.50	60.53	74.00	-13.47	62.30	-1.77	Peak	105	129
3	4904.00	30.97	54.00	-23.03	26.34	4.63	Average	100	82
4	4904.00	44.68	74.00	-29.32	40.05	4.63	Peak	100	82
5	7356.00	39.48	54.00	-14.52	30.19	9.29	Average	100	17
6	7356.00	50.42	74.00	-23.58	41.13	9.29	Peak	100	17

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).

Configuration 4 : Isolated Magnetic Dipole Antenna

3.5.19 Transmitter Radiated Unwanted Emissions (Below 1GHz)

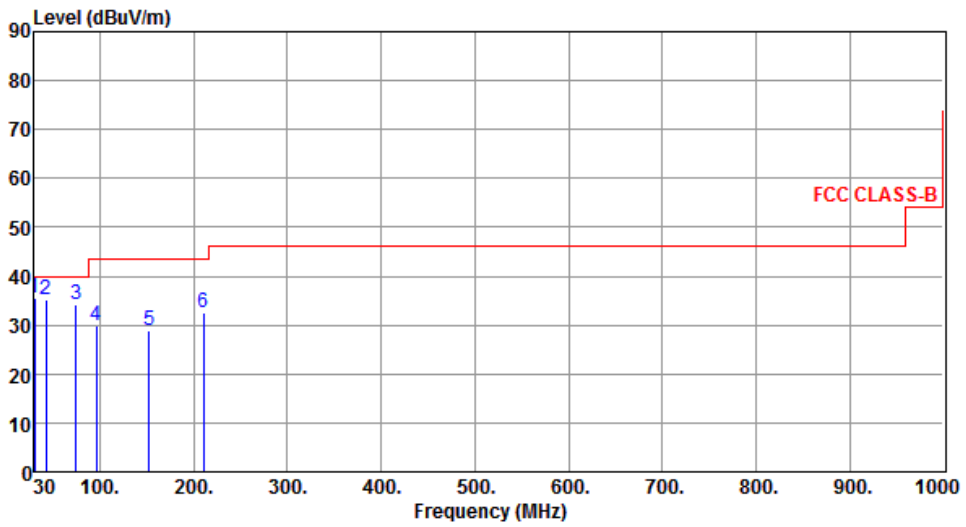
Modulation	11g	**Test Freq. (MHz)**	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.96	31.62	43.50	-11.88	45.27	-13.65	Peak	---	---
2	166.56	31.48	43.50	-12.02	40.11	-8.63	Peak	---	---
3	211.46	35.42	43.50	-8.08	46.69	-11.27	Peak	---	---
4	249.64	29.36	46.00	-16.64	38.98	-9.62	Peak	---	---
5	374.48	28.28	46.00	-17.72	34.20	-5.92	Peak	---	---
6	436.52	26.51	46.00	-19.49	30.73	-4.22	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).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		

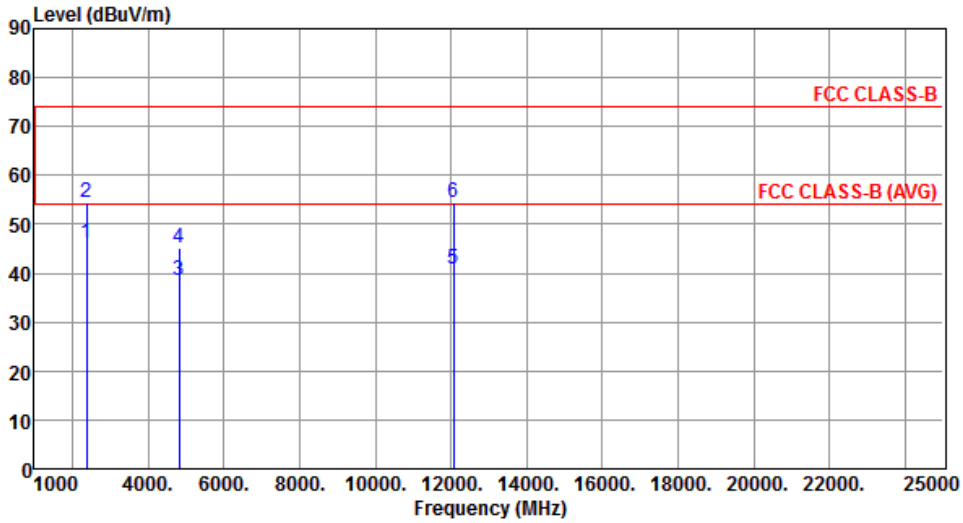


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.56	35.68	40.00	-4.32	45.04	-9.36	Peak	---	---
2	42.48	35.16	40.00	-4.84	43.64	-8.48	Peak	---	---
3	74.57	34.15	40.00	-5.85	46.15	-12.00	Peak	---	---
4	95.97	29.75	43.50	-13.75	43.74	-13.99	Peak	---	---
5	152.42	28.76	43.50	-14.74	37.24	-8.48	Peak	---	---
6	210.44	32.64	43.50	-10.86	43.92	-11.28	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).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

3.5.20 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11b

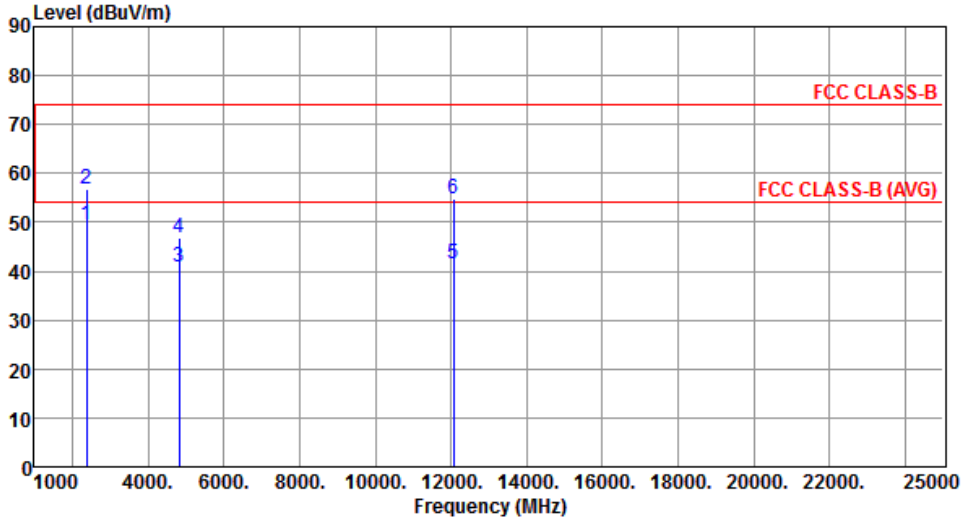
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	46.23	54.00	-7.77	48.35	-2.12	Average	153	186
2	2390.00	54.54	74.00	-19.46	56.66	-2.12	Peak	153	186
3	4824.00	38.64	54.00	-15.36	34.16	4.48	Average	118	211
4	4824.00	45.01	74.00	-28.99	40.53	4.48	Peak	118	211
5	12060.00	40.73	54.00	-13.27	27.07	13.66	Average	100	112
6	12060.00	54.35	74.00	-19.65	40.69	13.66	Peak	100	112

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

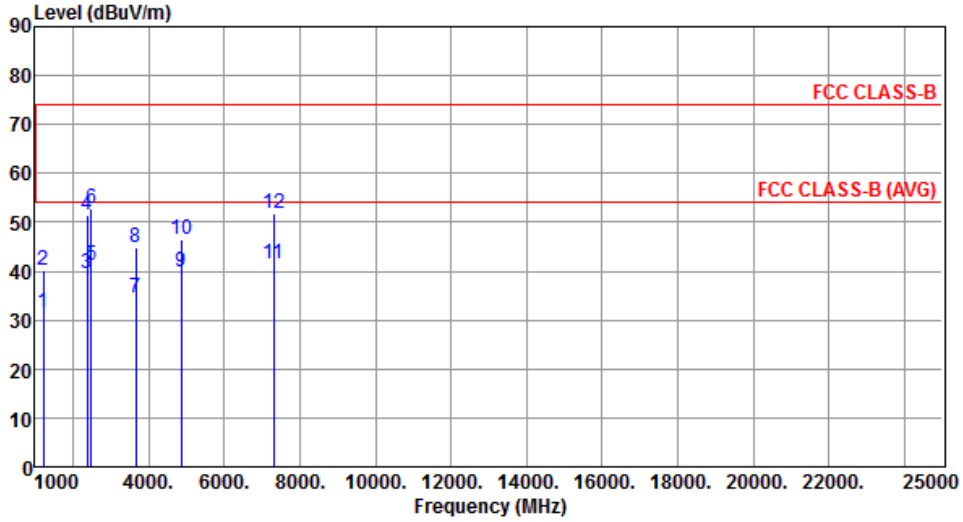
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	49.42	54.00	-4.58	51.54	-2.12	Average	267	274
2	2390.00	56.63	74.00	-17.37	58.75	-2.12	Peak	267	274
3	4824.00	40.89	54.00	-13.11	36.41	4.48	Average	109	168
4	4824.00	46.93	74.00	-27.07	42.45	4.48	Peak	109	168
5	12060.00	41.42	54.00	-12.58	27.76	13.66	Average	100	265
6	12060.00	54.83	74.00	-19.17	41.17	13.66	Peak	100	265

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).

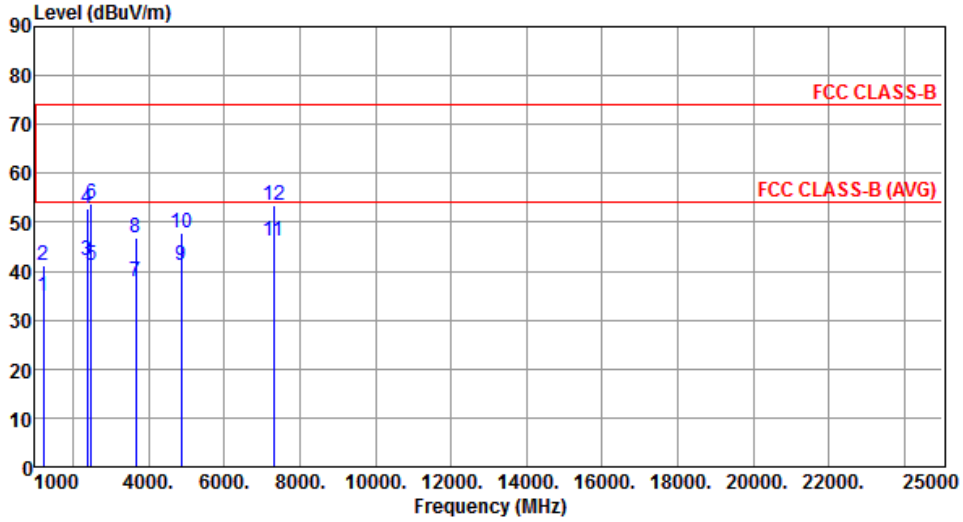
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	31.54	54.00	-22.46	38.59	-7.05	Average	196	340
2	1218.50	40.29	74.00	-33.71	47.34	-7.05	Peak	196	340
3	2390.00	39.39	54.00	-14.61	41.51	-2.12	Average	147	182
4	2390.00	51.34	74.00	-22.66	53.46	-2.12	Peak	147	182
5	2483.50	41.13	54.00	-12.87	42.90	-1.77	Average	147	182
6	2483.50	52.73	74.00	-21.27	54.50	-1.77	Peak	147	182
7	3655.50	34.59	54.00	-19.41	33.18	1.41	Average	142	12
8	3655.50	44.75	74.00	-29.25	43.34	1.41	Peak	142	12
9	4874.00	39.80	54.00	-14.20	35.22	4.58	Average	122	216
10	4874.00	46.54	74.00	-27.46	41.96	4.58	Peak	122	216
11	7311.00	41.55	54.00	-12.45	32.42	9.13	Average	233	325
12	7311.00	51.87	74.00	-22.13	42.74	9.13	Peak	233	325

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).

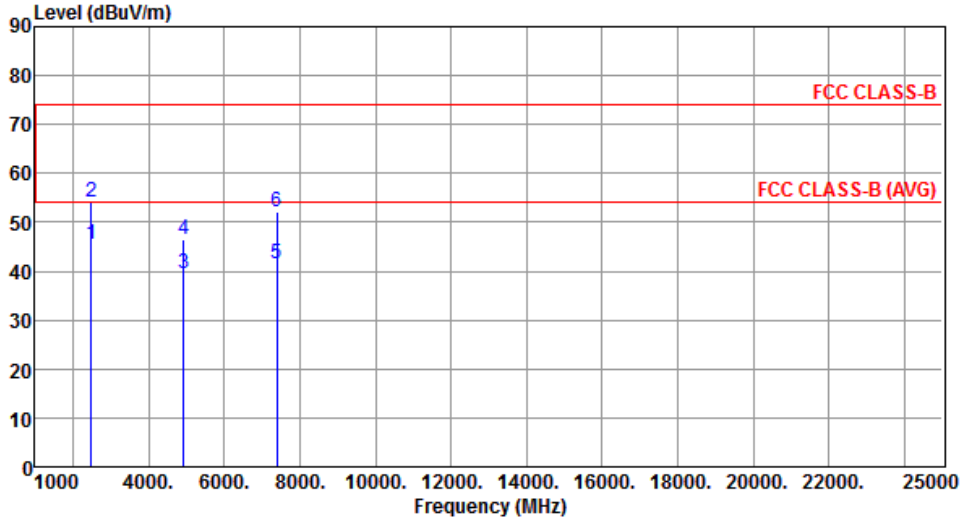
Modulation	11b	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1218.50	34.76	54.00	-19.24	41.81	-7.05	Average	342	268
2	1218.50	41.03	74.00	-32.97	48.08	-7.05	Peak	342	268
3	2390.00	42.04	54.00	-11.96	44.16	-2.12	Average	266	284
4	2390.00	52.85	74.00	-21.15	54.97	-2.12	Peak	266	284
5	2483.50	41.08	54.00	-12.92	42.85	-1.77	Average	266	284
6	2483.50	53.75	74.00	-20.25	55.52	-1.77	Peak	266	284
7	3655.50	37.87	54.00	-16.13	36.46	1.41	Average	237	250
8	3655.50	46.78	74.00	-27.22	45.37	1.41	Peak	237	250
9	4874.00	41.03	54.00	-12.97	36.45	4.58	Average	117	181
10	4874.00	47.88	74.00	-26.12	43.30	4.58	Peak	117	181
11	7311.00	46.00	54.00	-8.00	36.87	9.13	Average	116	246
12	7311.00	53.53	74.00	-20.47	44.40	9.13	Peak	116	246

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).

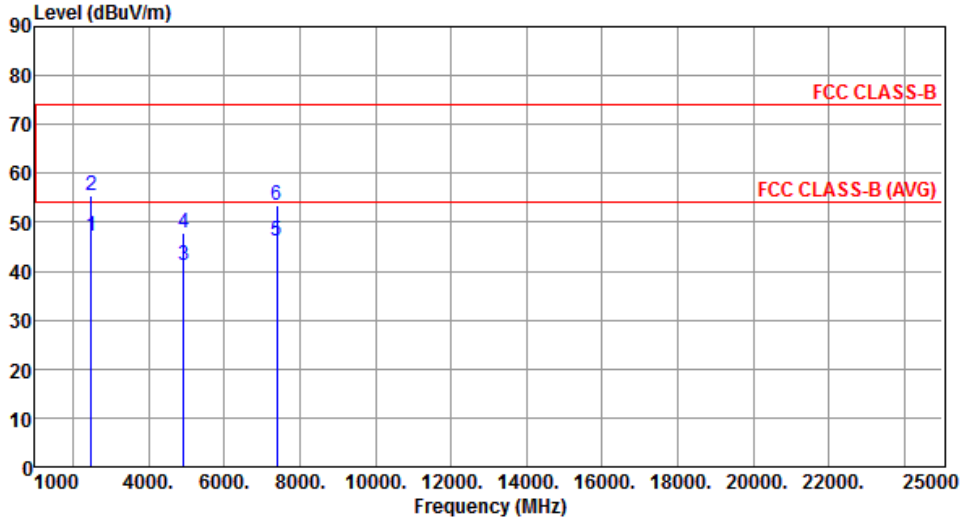
Modulation	11b	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	45.39	54.00	-8.61	47.16	-1.77	Average	161	177
2	2483.50	54.19	74.00	-19.81	55.96	-1.77	Peak	161	177
3	4924.00	39.57	54.00	-14.43	34.90	4.67	Average	120	214
4	4924.00	46.38	74.00	-27.62	41.71	4.67	Peak	120	214
5	7386.00	41.43	54.00	-12.57	32.03	9.40	Average	235	316
6	7386.00	52.01	74.00	-21.99	42.61	9.40	Peak	235	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	11b	Test Freq. (MHz)	2462
Polarization	Vertical		

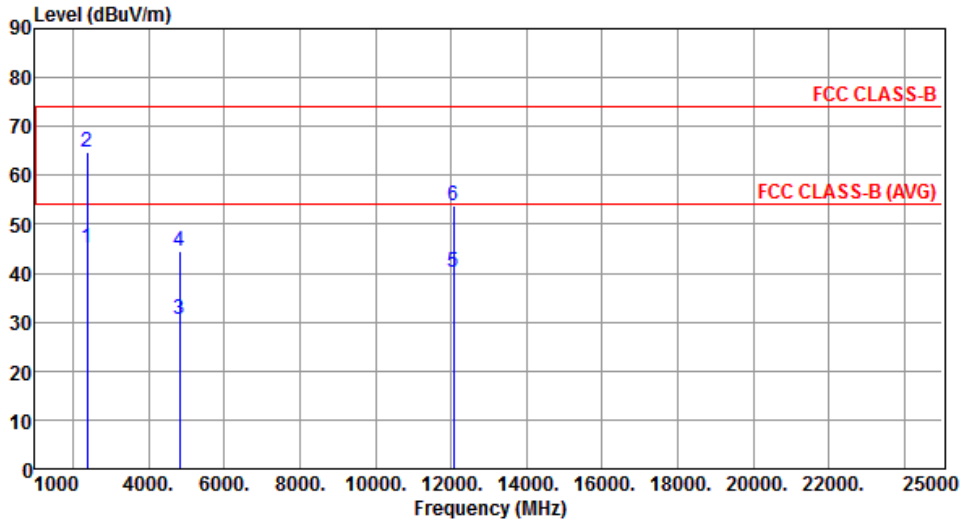


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	47.07	54.00	-6.93	48.84	-1.77	Average	261	285
2	2483.50	55.49	74.00	-18.51	57.26	-1.77	Peak	261	285
3	4924.00	41.19	54.00	-12.81	36.52	4.67	Average	115	187
4	4924.00	47.93	74.00	-26.07	43.26	4.67	Peak	115	187
5	7386.00	46.16	54.00	-7.84	36.76	9.40	Average	109	239
6	7386.00	53.60	74.00	-20.40	44.20	9.40	Peak	109	239

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).

3.5.21 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11g

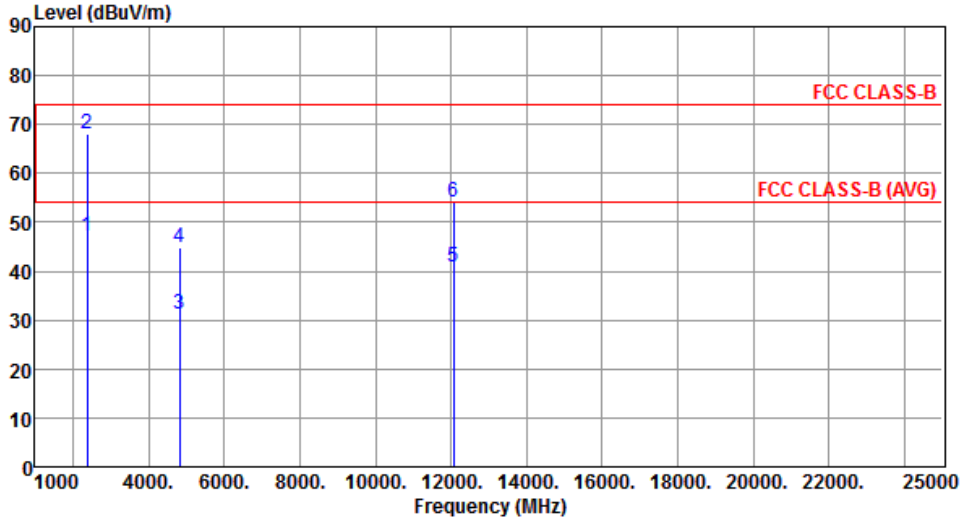
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.32	54.00	-8.68	47.44	-2.12	Average	216	171
2	2390.00	64.87	74.00	-9.13	66.99	-2.12	Peak	216	171
3	4824.00	30.55	54.00	-23.45	26.07	4.48	Average	118	210
4	4824.00	44.57	74.00	-29.43	40.09	4.48	Peak	118	210
5	12060.00	40.06	54.00	-13.94	26.40	13.66	Average	100	121
6	12060.00	53.78	74.00	-20.22	40.12	13.66	Peak	100	121

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).

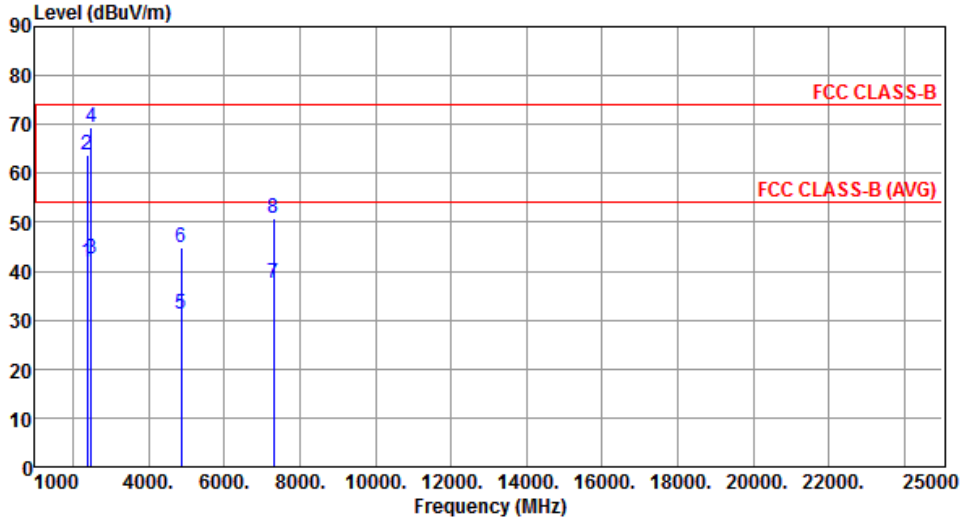
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.16	54.00	-6.84	49.28	-2.12	Average	218	255
2	2390.00	68.09	74.00	-5.91	70.21	-2.12	Peak	218	255
3	4824.00	31.27	54.00	-22.73	26.79	4.48	Average	100	181
4	4824.00	44.85	74.00	-29.15	40.37	4.48	Peak	100	181
5	12060.00	40.73	54.00	-13.27	27.07	13.66	Average	100	288
6	12060.00	54.30	74.00	-19.70	40.64	13.66	Peak	100	288

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).

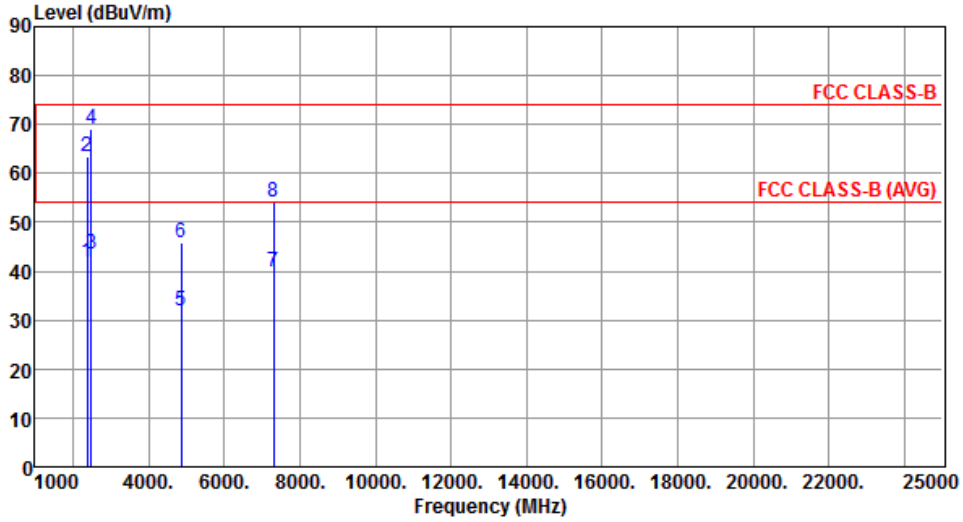
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.82	54.00	-12.18	43.94	-2.12	Average	205	186
2	2390.00	63.78	74.00	-10.22	65.90	-2.12	Peak	205	186
3	2483.50	42.51	54.00	-11.49	44.28	-1.77	Average	205	186
4	2483.50	69.48	74.00	-4.52	71.25	-1.77	Peak	205	186
5	4874.00	31.13	54.00	-22.87	26.55	4.58	Average	123	214
6	4874.00	44.97	74.00	-29.03	40.39	4.58	Peak	123	214
7	7311.00	37.41	54.00	-16.59	28.28	9.13	Average	234	323
8	7311.00	50.73	74.00	-23.27	41.60	9.13	Peak	234	323

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).

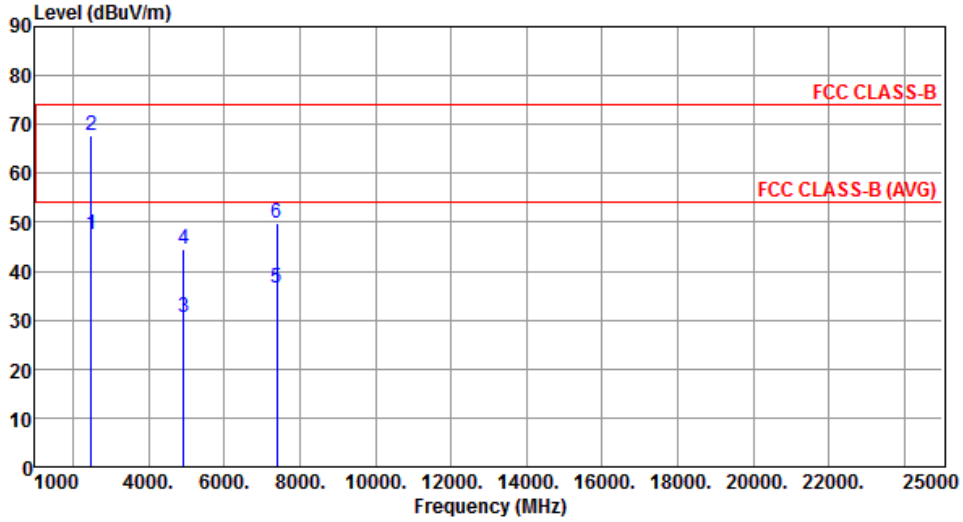
Modulation	11g	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.95	54.00	-12.05	44.07	-2.12	Average	224	282
2	2390.00	63.34	74.00	-10.66	65.46	-2.12	Peak	224	282
3	2483.50	43.59	54.00	-10.41	45.36	-1.77	Average	224	282
4	2483.50	69.23	74.00	-4.77	71.00	-1.77	Peak	224	282
5	4874.00	31.88	54.00	-22.12	27.30	4.58	Average	100	185
6	4874.00	45.78	74.00	-28.22	41.20	4.58	Peak	100	185
7	7311.00	39.95	54.00	-14.05	30.82	9.13	Average	115	248
8	7311.00	54.27	74.00	-19.73	45.14	9.13	Peak	115	248

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).

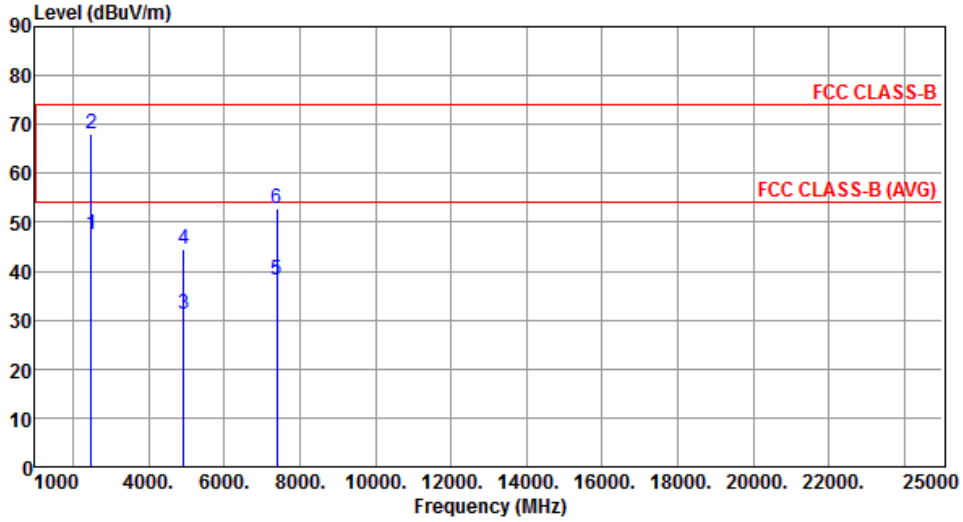
Modulation	11g	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	47.60	54.00	-6.40	49.37	-1.77	Average	207	170
2	2483.50	67.75	74.00	-6.25	69.52	-1.77	Peak	207	170
3	4924.00	30.62	54.00	-23.38	25.95	4.67	Average	110	206
4	4924.00	44.63	74.00	-29.37	39.96	4.67	Peak	110	206
5	7386.00	36.67	54.00	-17.33	27.27	9.40	Average	228	241
6	7386.00	49.83	74.00	-24.17	40.43	9.40	Peak	228	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	11g	Test Freq. (MHz)	2462
Polarization	Vertical		

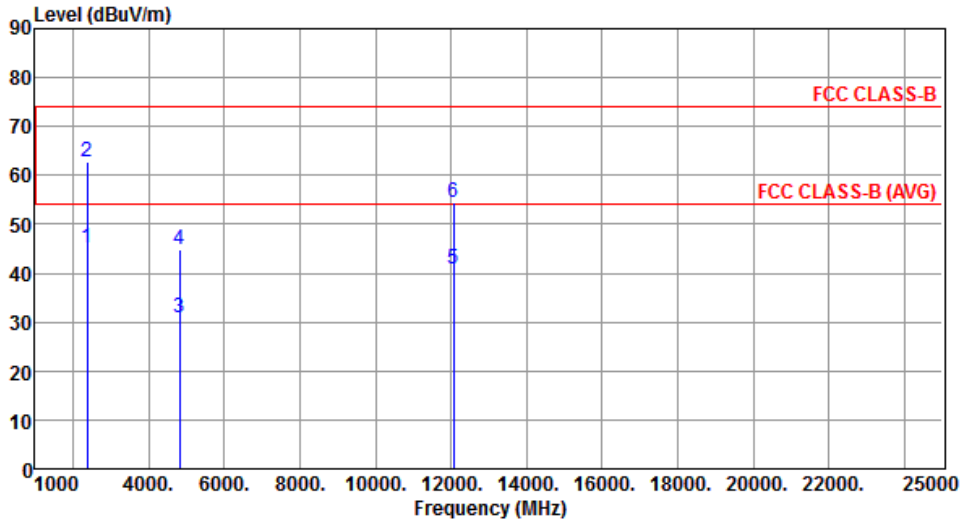


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	47.65	54.00	-6.35	49.42	-1.77	Average	260	281
2	2483.50	68.03	74.00	-5.97	69.80	-1.77	Peak	260	281
3	4924.00	31.32	54.00	-22.68	26.65	4.67	Average	106	183
4	4924.00	44.63	74.00	-29.37	39.96	4.67	Peak	106	183
5	7386.00	38.32	54.00	-15.68	28.92	9.40	Average	112	253
6	7386.00	52.69	74.00	-21.31	43.29	9.40	Peak	112	253

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).

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

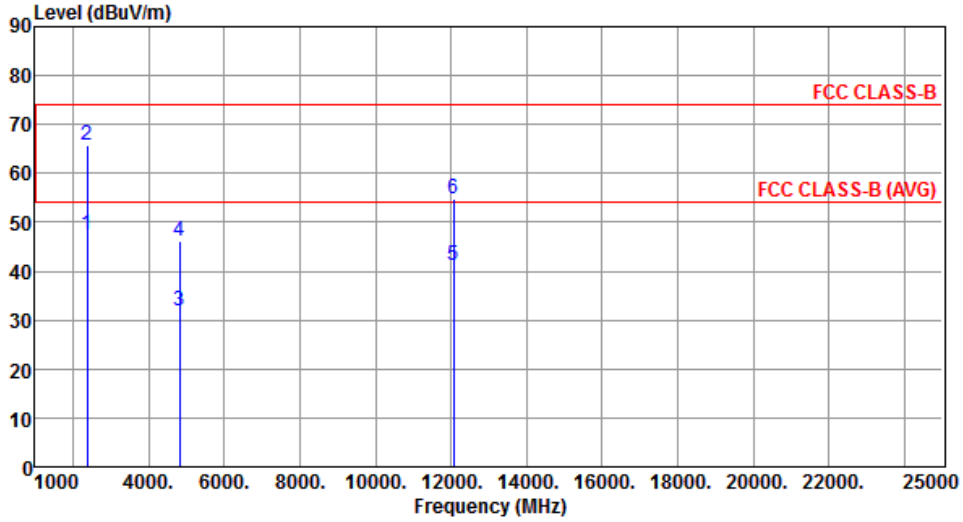
Modulation	HT20	**Test Freq. (MHz)**	2412
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.28	54.00	-8.72	47.40	-2.12	Average	223	176
2	2390.00	62.75	74.00	-11.25	64.87	-2.12	Peak	223	176
3	4824.00	30.93	54.00	-23.07	26.45	4.48	Average	111	213
4	4824.00	44.95	74.00	-29.05	40.47	4.48	Peak	111	213
5	12060.00	40.93	54.00	-13.07	27.27	13.66	Average	100	128
6	12060.00	54.49	74.00	-19.51	40.83	13.66	Peak	100	128

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

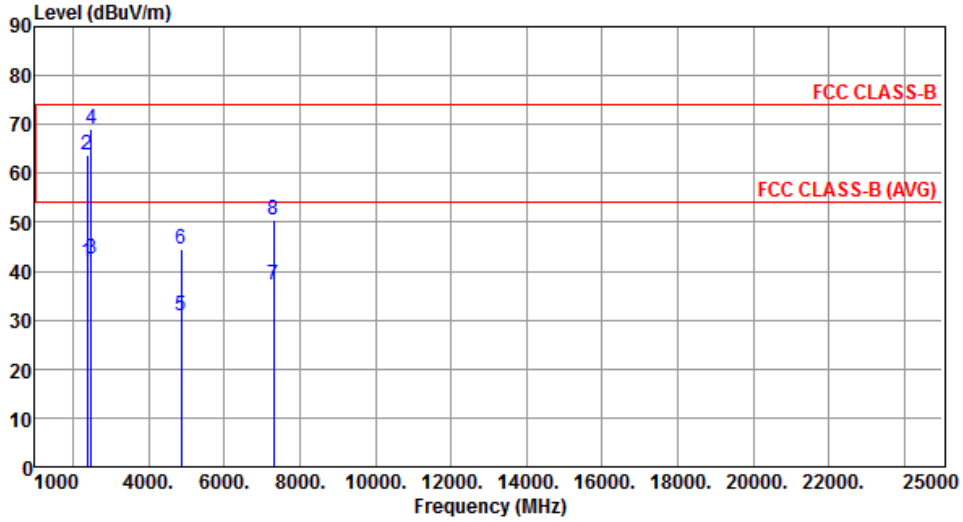
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	47.43	54.00	-6.57	49.55	-2.12	Average	211	260
2	2390.00	65.78	74.00	-8.22	67.90	-2.12	Peak	211	260
3	4824.00	31.87	54.00	-22.13	27.39	4.48	Average	104	185
4	4824.00	46.04	74.00	-27.96	41.56	4.48	Peak	104	185
5	12060.00	41.31	54.00	-12.69	27.65	13.66	Average	100	278
6	12060.00	54.80	74.00	-19.20	41.14	13.66	Peak	100	278

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).

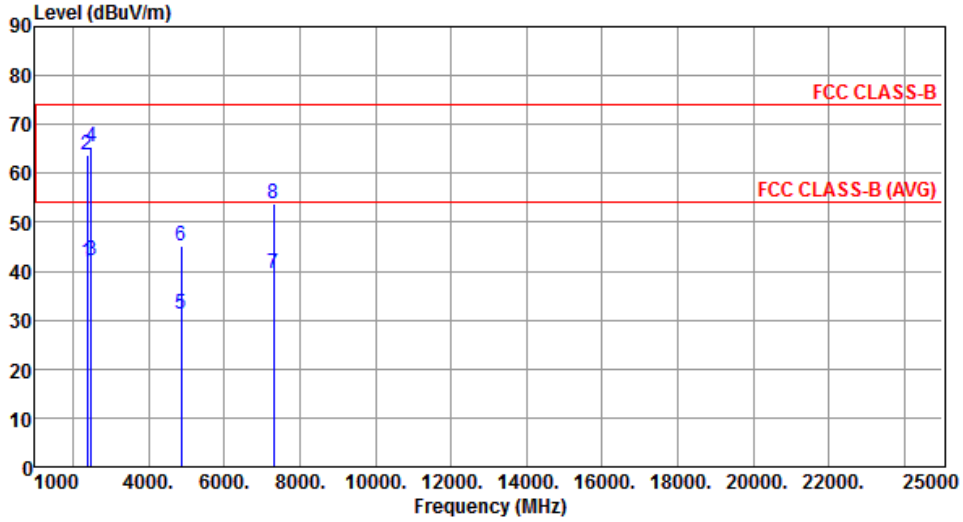
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.75	54.00	-12.25	43.87	-2.12	Average	208	190
2	2390.00	63.66	74.00	-10.34	65.78	-2.12	Peak	208	190
3	2483.50	42.41	54.00	-11.59	44.18	-1.77	Average	208	190
4	2483.50	68.94	74.00	-5.06	70.71	-1.77	Peak	208	190
5	4874.00	30.75	54.00	-23.25	26.17	4.58	Average	119	207
6	4874.00	44.58	74.00	-29.42	40.00	4.58	Peak	119	207
7	7311.00	37.03	54.00	-16.97	27.90	9.13	Average	230	318
8	7311.00	50.57	74.00	-23.43	41.44	9.13	Peak	230	318

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

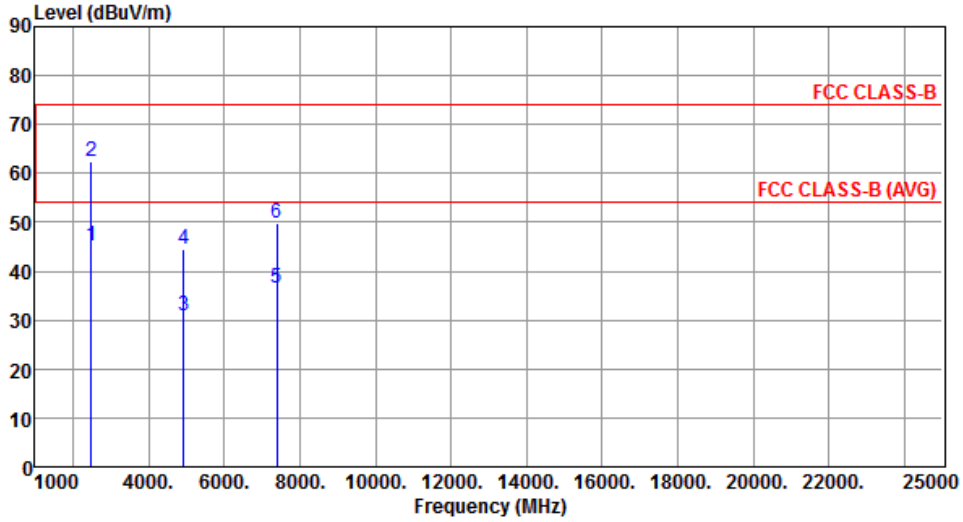
Modulation	HT20	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	41.99	54.00	-12.01	44.11	-2.12	Average	217	274
2	2390.00	63.80	74.00	-10.20	65.92	-2.12	Peak	217	274
3	2483.50	42.14	54.00	-11.86	43.91	-1.77	Average	217	274
4	2483.50	65.43	74.00	-8.57	67.20	-1.77	Peak	217	274
5	4874.00	31.33	54.00	-22.67	26.75	4.58	Average	100	178
6	4874.00	45.26	74.00	-28.74	40.68	4.58	Peak	100	178
7	7311.00	39.38	54.00	-14.62	30.25	9.13	Average	112	253
8	7311.00	53.69	74.00	-20.31	44.56	9.13	Peak	112	253

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).

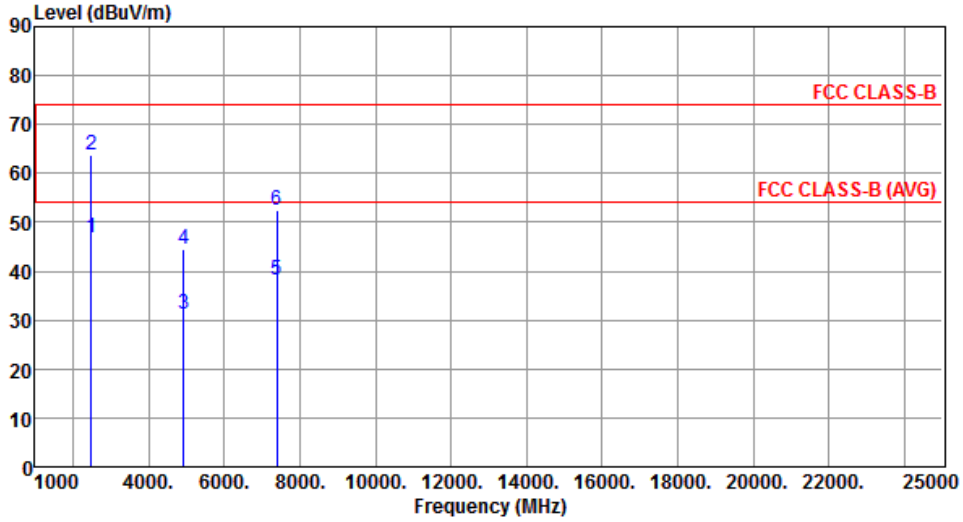
Modulation	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	45.14	54.00	-8.86	46.91	-1.77	Average	208	179
2	2483.50	62.56	74.00	-11.44	64.33	-1.77	Peak	208	179
3	4924.00	30.96	54.00	-23.04	26.29	4.67	Average	112	204
4	4924.00	44.55	74.00	-29.45	39.88	4.67	Peak	112	204
5	7386.00	36.52	54.00	-17.48	27.12	9.40	Average	221	236
6	7386.00	49.73	74.00	-24.27	40.33	9.40	Peak	221	236

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)	2462
Polarization	Vertical		

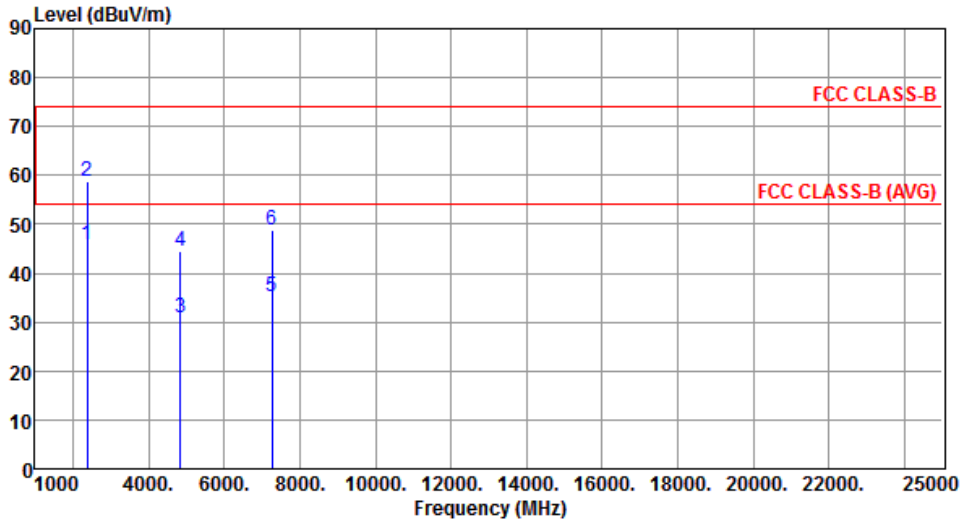


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	46.72	54.00	-7.28	48.49	-1.77	Average	259	282
2	2483.50	63.85	74.00	-10.15	65.62	-1.77	Peak	259	282
3	4924.00	31.13	54.00	-22.87	26.46	4.67	Average	108	185
4	4924.00	44.48	74.00	-29.52	39.81	4.67	Peak	108	185
5	7386.00	38.16	54.00	-15.84	28.76	9.40	Average	115	250
6	7386.00	52.57	74.00	-21.43	43.17	9.40	Peak	115	250

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).

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

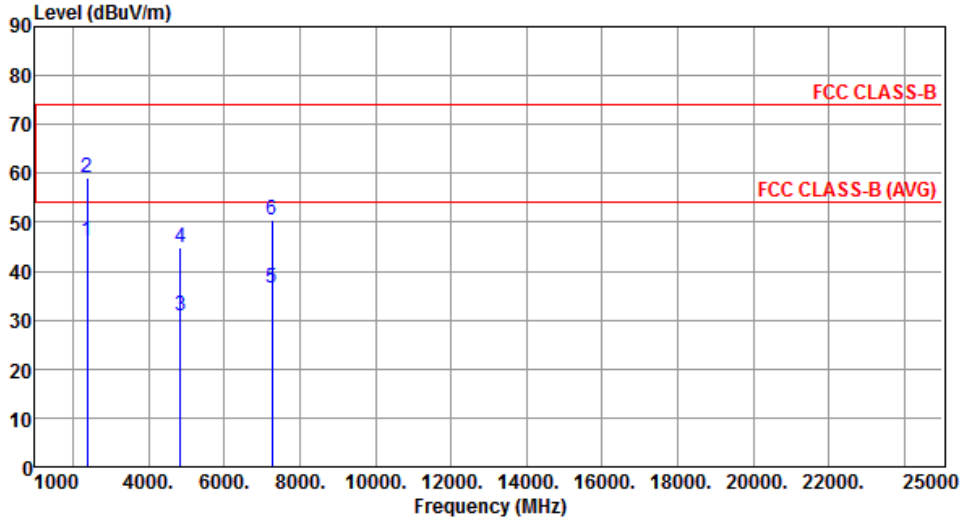
Modulation	HT40	**Test Freq. (MHz)**	2422
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.79	54.00	-8.21	47.91	-2.12	Average	211	166
2	2390.00	58.79	74.00	-15.21	60.91	-2.12	Peak	211	166
3	4844.00	30.73	54.00	-23.27	26.22	4.51	Average	103	210
4	4844.00	44.57	74.00	-29.43	40.06	4.51	Peak	103	210
5	7266.00	35.15	54.00	-18.85	26.18	8.97	Average	219	240
6	7266.00	48.85	74.00	-25.15	39.88	8.97	Peak	219	240

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).

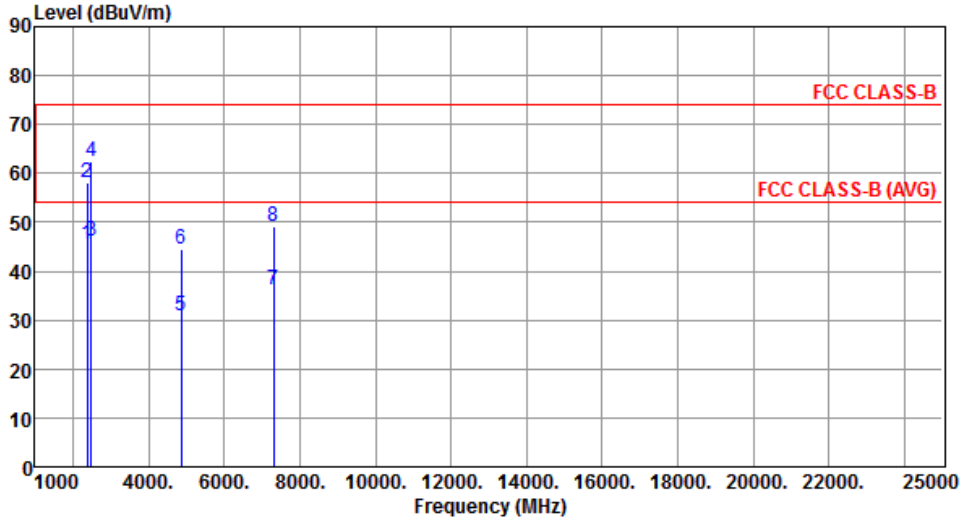
Modulation	HT40	Test Freq. (MHz)	2422
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	46.19	54.00	-7.81	48.31	-2.12	Average	214	269
2	2390.00	59.07	74.00	-14.93	61.19	-2.12	Peak	214	269
3	4844.00	30.78	54.00	-23.22	26.27	4.51	Average	106	181
4	4844.00	44.84	74.00	-29.16	40.33	4.51	Peak	106	181
5	7266.00	36.49	54.00	-17.51	27.52	8.97	Average	112	246
6	7266.00	50.39	74.00	-23.61	41.42	8.97	Peak	112	246

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).

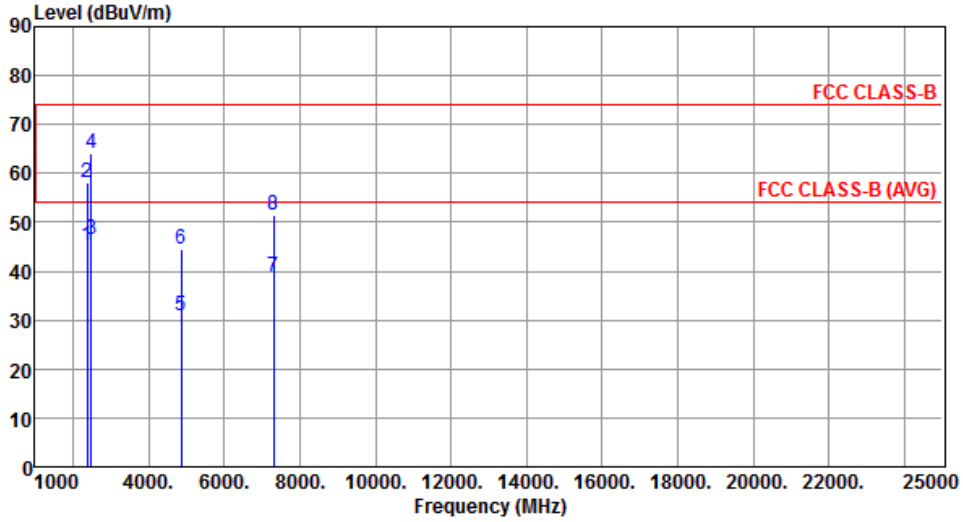
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.40	54.00	-8.60	47.52	-2.12	Average	212	169
2	2390.00	58.06	74.00	-15.94	60.18	-2.12	Peak	212	169
3	2483.50	46.15	54.00	-7.85	47.92	-1.77	Average	212	169
4	2483.50	62.28	74.00	-11.72	64.05	-1.77	Peak	212	169
5	4874.00	30.90	54.00	-23.10	26.32	4.58	Average	115	210
6	4874.00	44.43	74.00	-29.57	39.85	4.58	Peak	115	210
7	7311.00	36.29	54.00	-17.71	27.16	9.13	Average	226	314
8	7311.00	49.22	74.00	-24.78	40.09	9.13	Peak	226	314

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

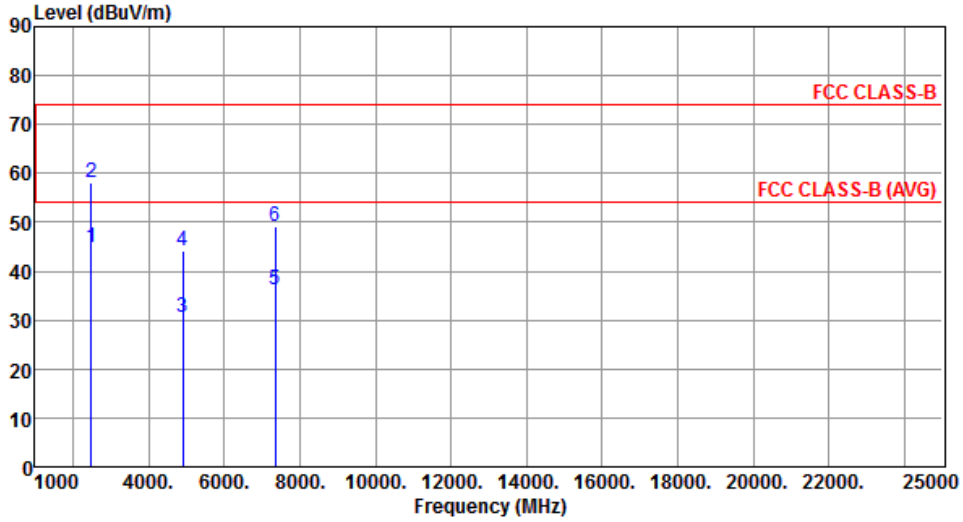
Modulation	HT40	Test Freq. (MHz)	2437
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	45.28	54.00	-8.72	47.40	-2.12	Average	209	269
2	2390.00	58.02	74.00	-15.98	60.14	-2.12	Peak	209	269
3	2483.50	46.37	54.00	-7.63	48.14	-1.77	Average	209	269
4	2483.50	63.96	74.00	-10.04	65.73	-1.77	Peak	209	269
5	4874.00	31.00	54.00	-23.00	26.42	4.58	Average	100	182
6	4874.00	44.67	74.00	-29.33	40.09	4.58	Peak	100	182
7	7311.00	38.89	54.00	-15.11	29.76	9.13	Average	106	249
8	7311.00	51.42	74.00	-22.58	42.29	9.13	Peak	106	249

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).

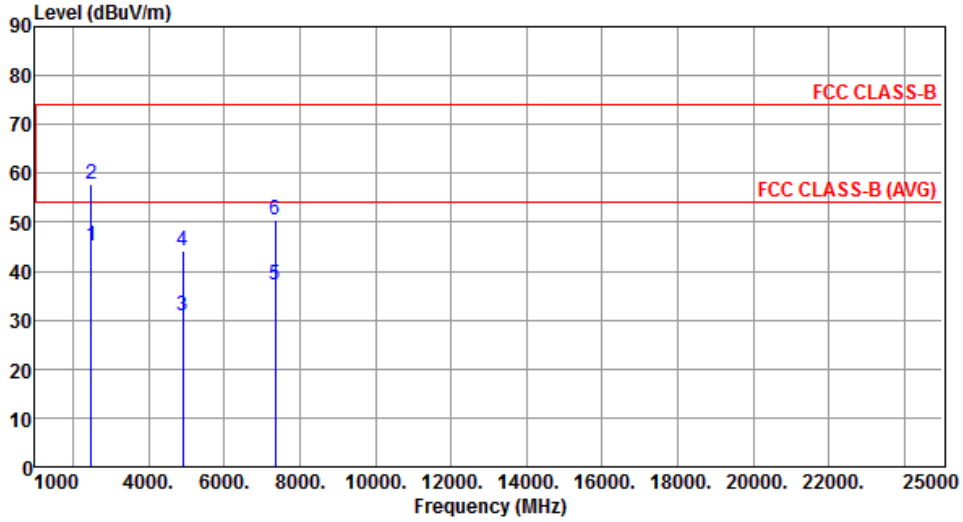
Modulation	HT40	Test Freq. (MHz)	2452
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	44.89	54.00	-9.11	46.66	-1.77	Average	208	172
2	2483.50	58.03	74.00	-15.97	59.80	-1.77	Peak	208	172
3	4904.00	30.70	54.00	-23.30	26.07	4.63	Average	100	206
4	4904.00	44.27	74.00	-29.73	39.64	4.63	Peak	100	206
5	7356.00	36.18	54.00	-17.82	26.89	9.29	Average	216	240
6	7356.00	49.01	74.00	-24.99	39.72	9.29	Peak	216	240

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)	2452
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	2483.50	45.01	54.00	-8.99	46.78	-1.77	Average	222	283
2	2483.50	57.79	74.00	-16.21	59.56	-1.77	Peak	222	283
3	4904.00	30.84	54.00	-23.16	26.21	4.63	Average	100	182
4	4904.00	44.12	74.00	-29.88	39.49	4.63	Peak	100	182
5	7356.00	37.35	54.00	-16.65	28.06	9.29	Average	108	246
6	7356.00	50.50	74.00	-23.50	41.21	9.29	Peak	108	246

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 Emissions in Non-Restricted Frequency Bands

3.6.1 Emissions in Non-Restricted Frequency Bands Limit

Peak power in any 100 kHz bandwidth outside of the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz

3.6.2 Test Procedures

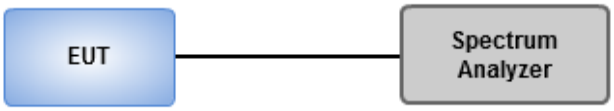
Reference level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Use the peak marker function to determine the maximum PSD level

Emission level measurement

1. Set RBW=100kHz, VBW = 300kHz , Detector = Peak, Sweep time = Auto
2. Trace = max hold , Allow Trace to fully stabilize
3. Scan Frequency range is up to 25GHz
4. Use the peak marker function to determine the maximum amplitude level

3.6.3 Test Setup

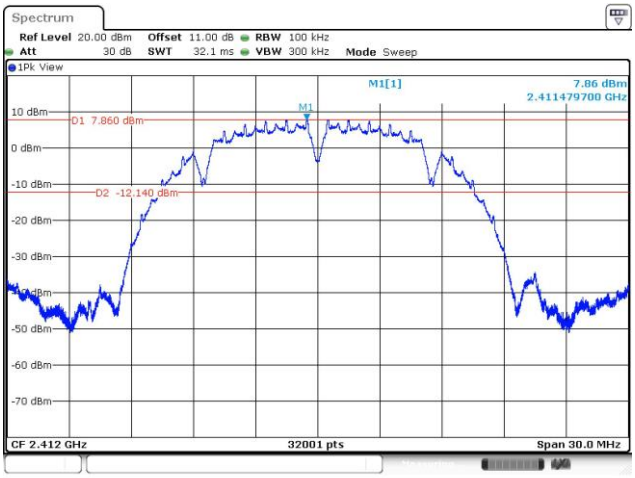
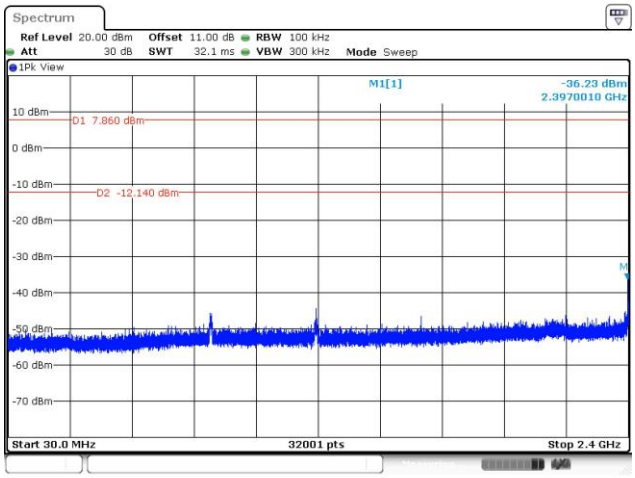
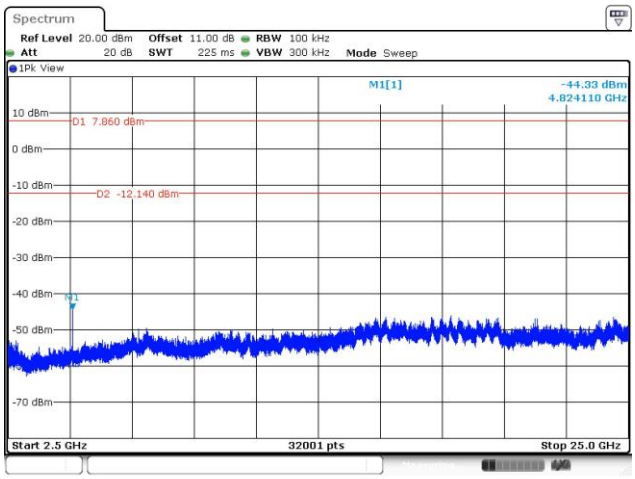
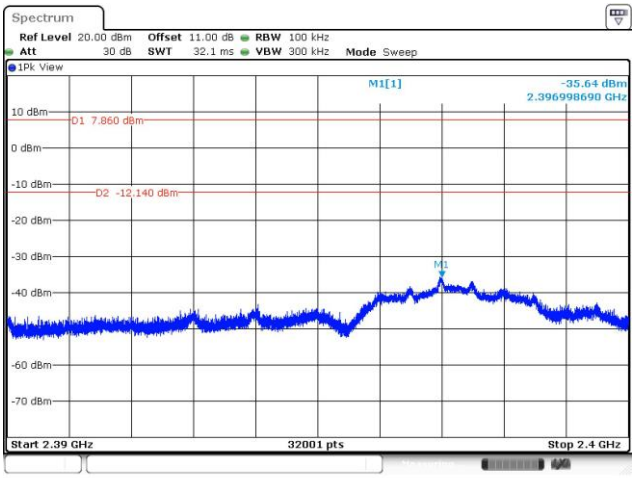


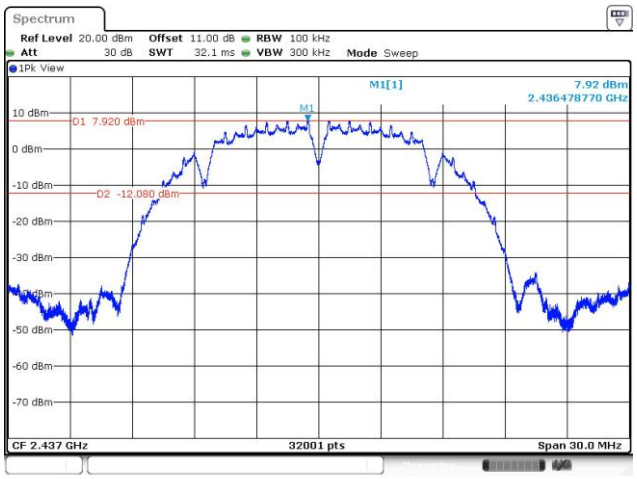
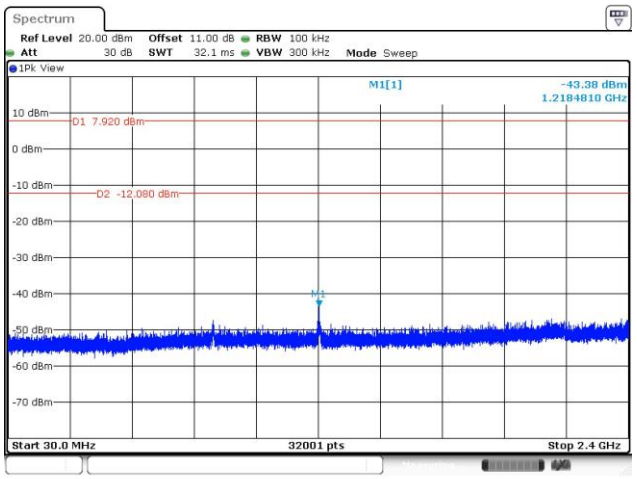
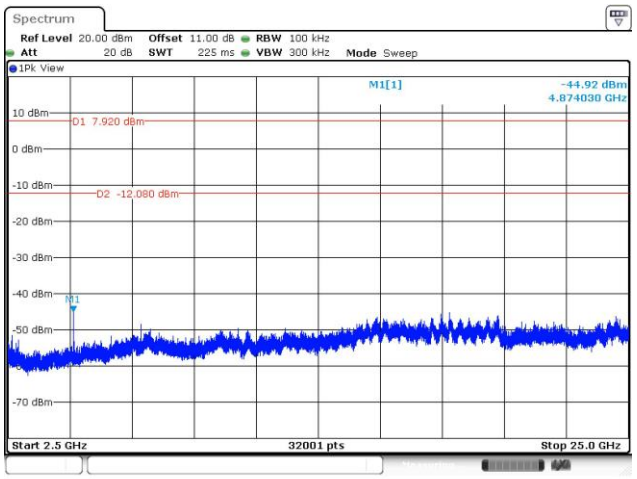
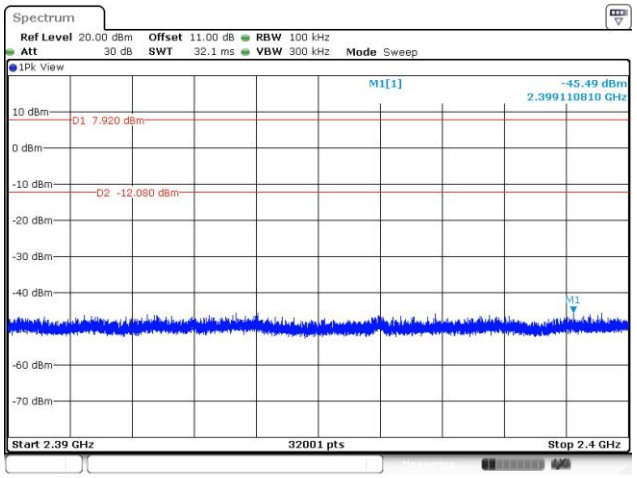
3.6.4 Test Result of Emissions in non-restricted frequency bands

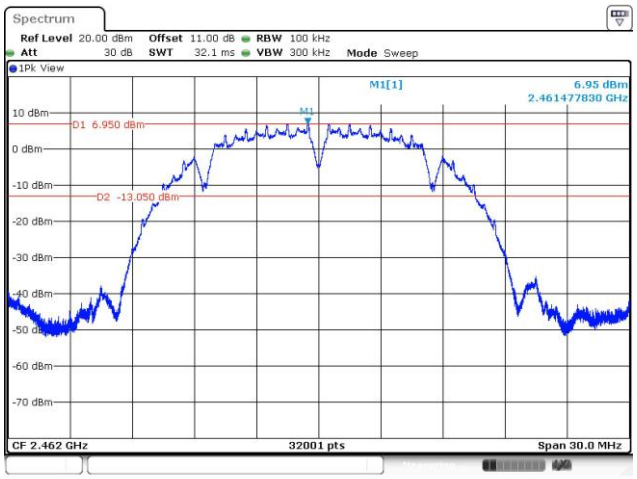
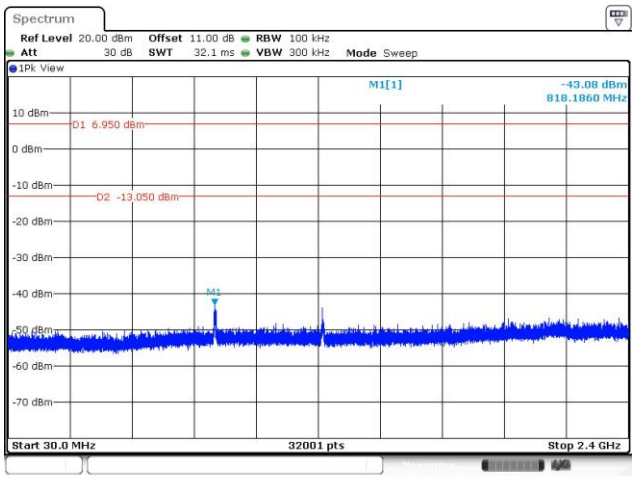
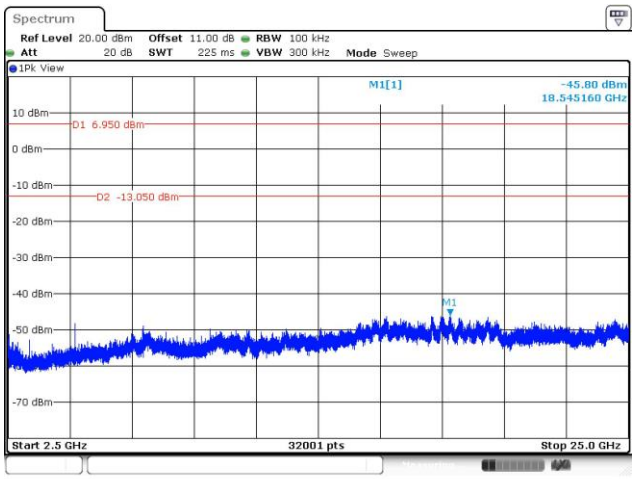
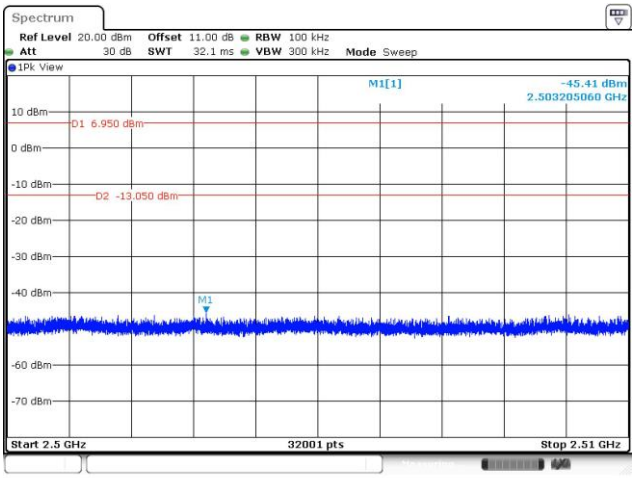
This test item is performed on each TX output individually without summing or adding 10 log(N_{ANT}) since measurements are made relative to the in-band emissions on the individual outputs. Only worst test result of each operating mode is presented.

3.6.5 Unwanted Emissions into Non-Restricted Frequency Bands

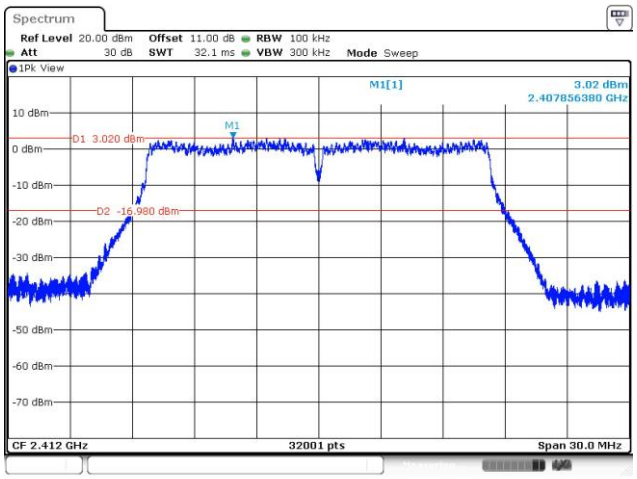
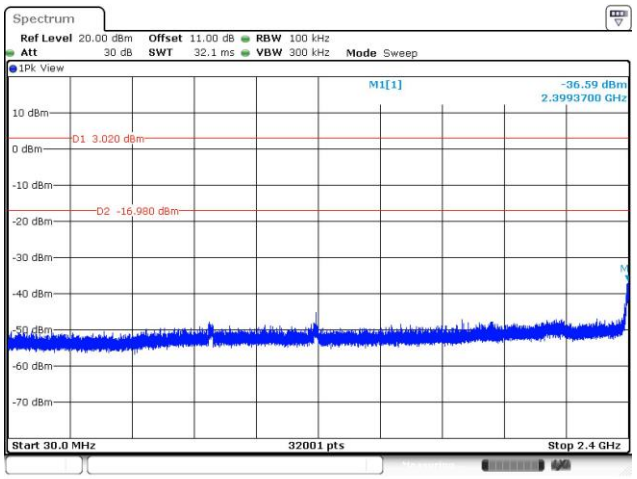
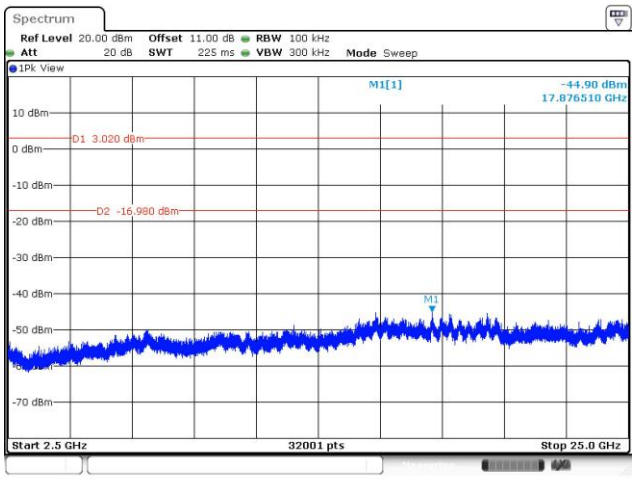
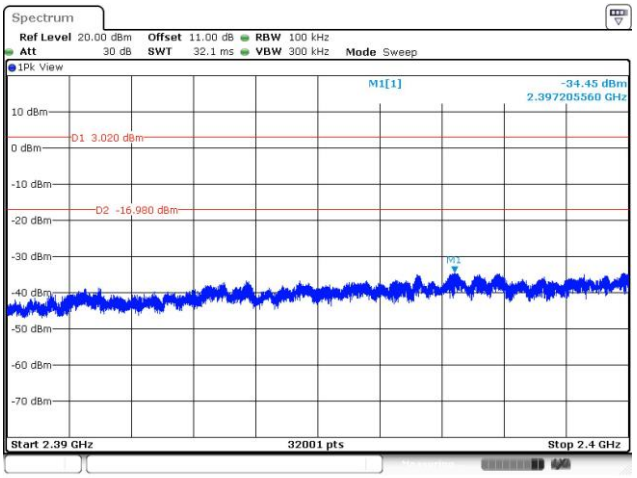
802.11b

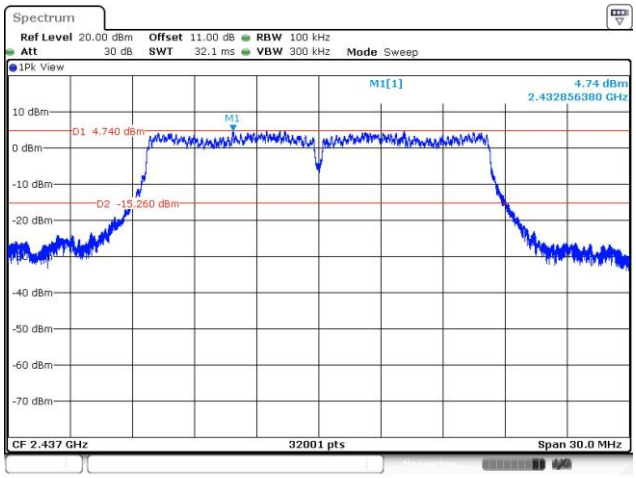
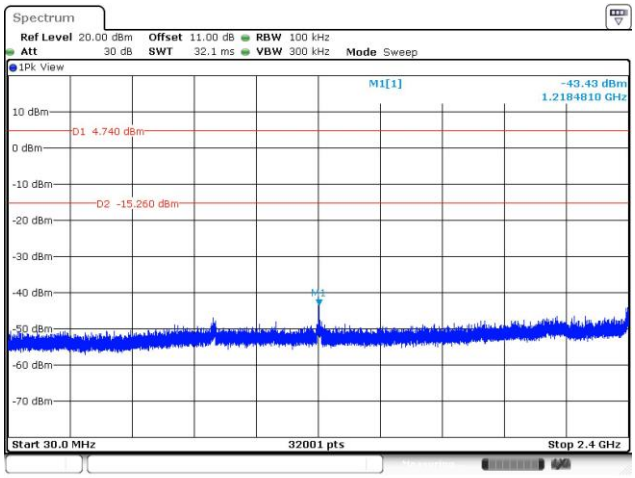
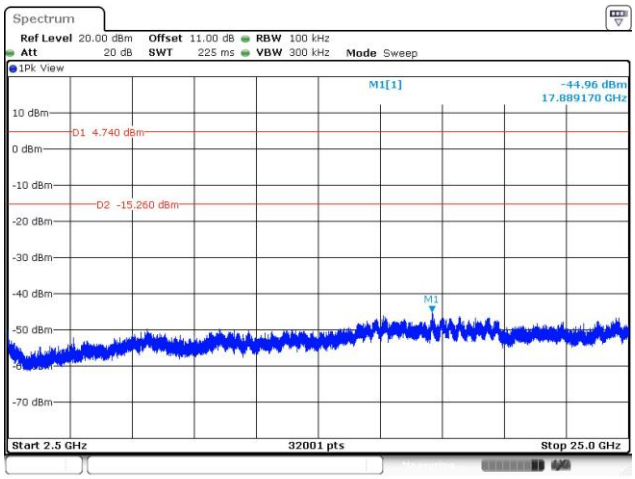
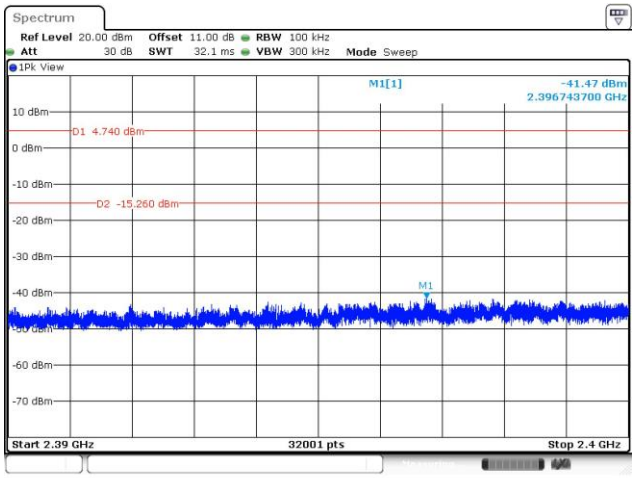
Reference Level	Tx 2412MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

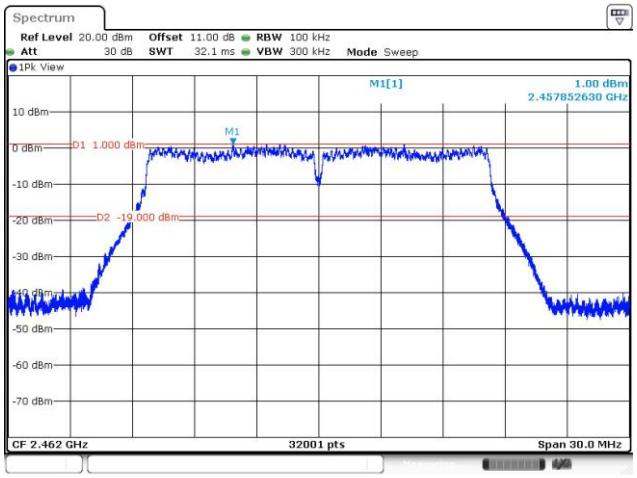
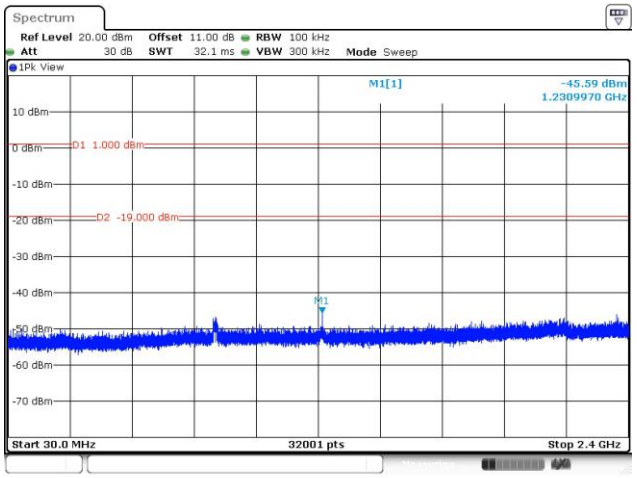
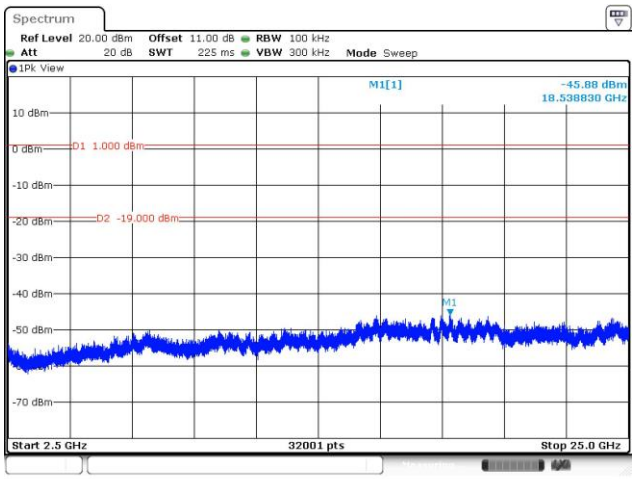
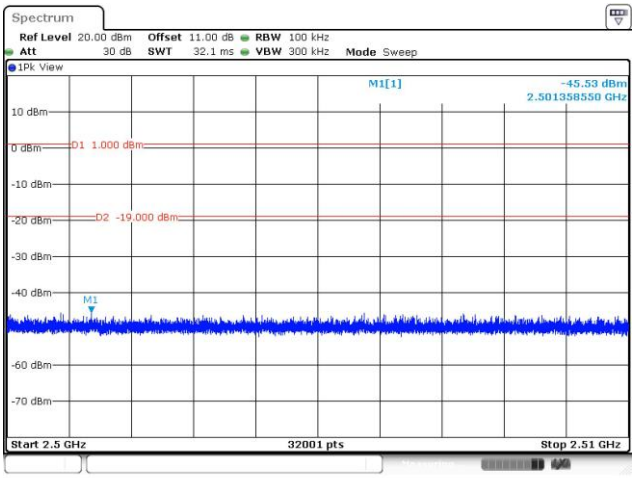
Reference Level	Tx 2437MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Reference Level	Tx 2462MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

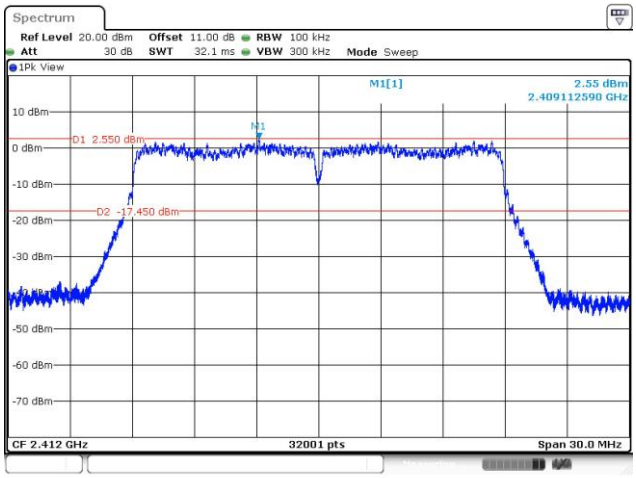
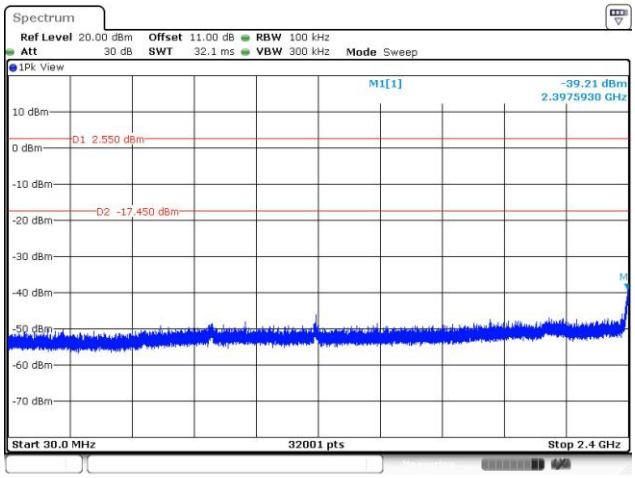
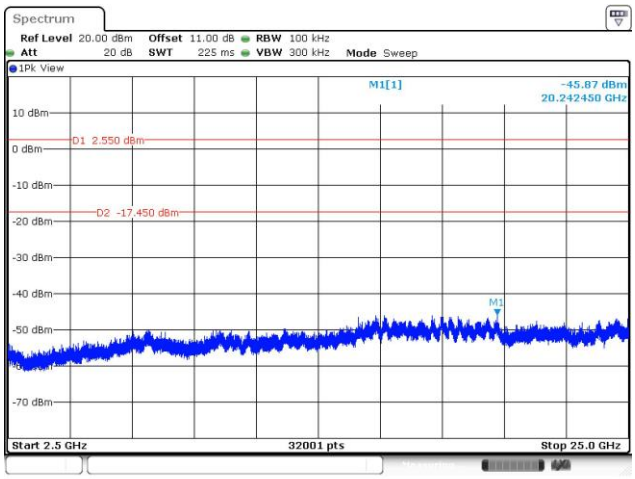
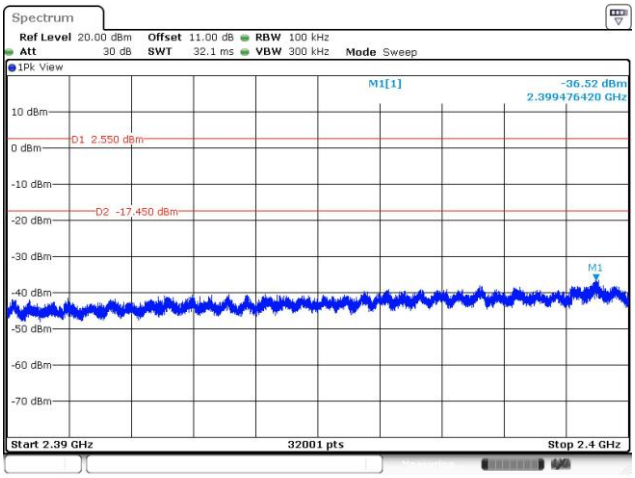
802.11g

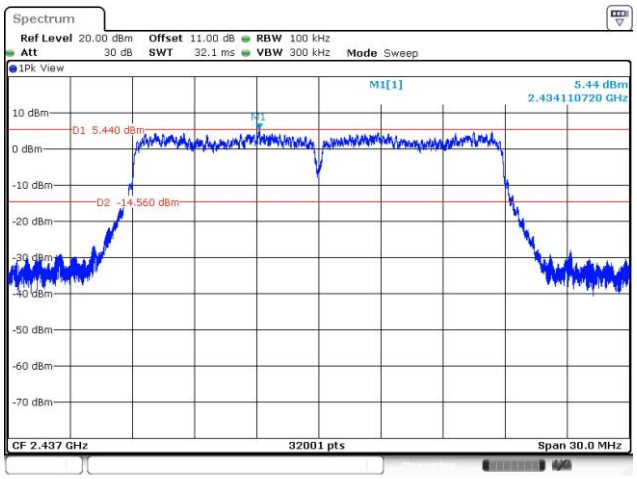
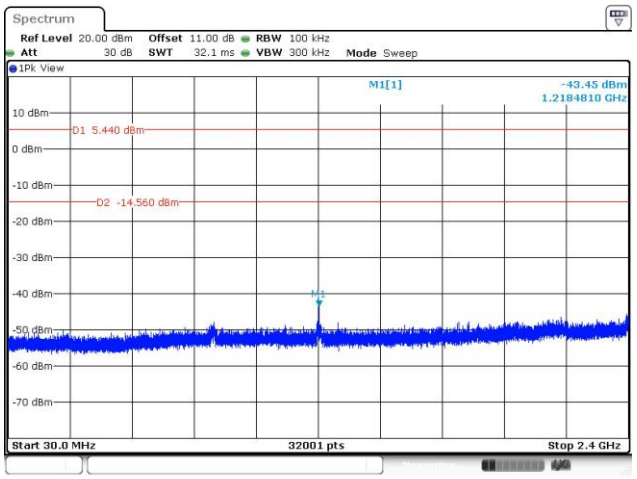
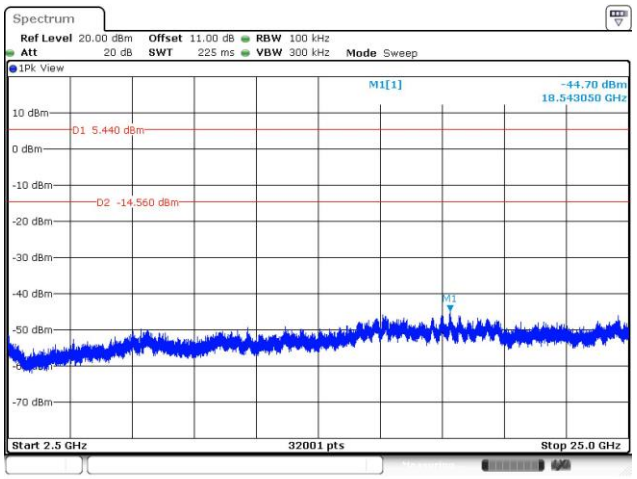
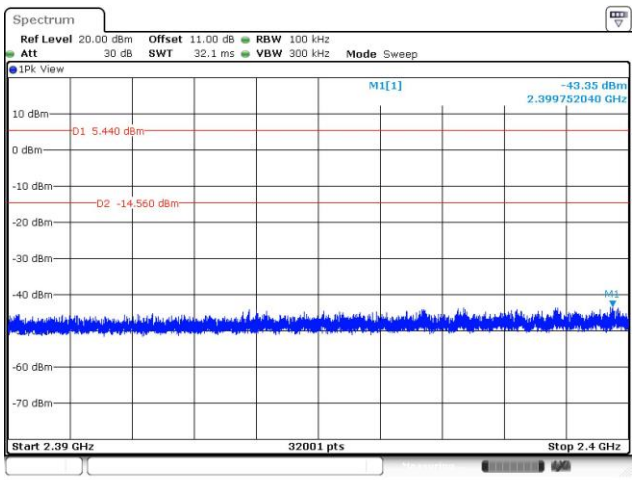
Reference Level	Tx 2412MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

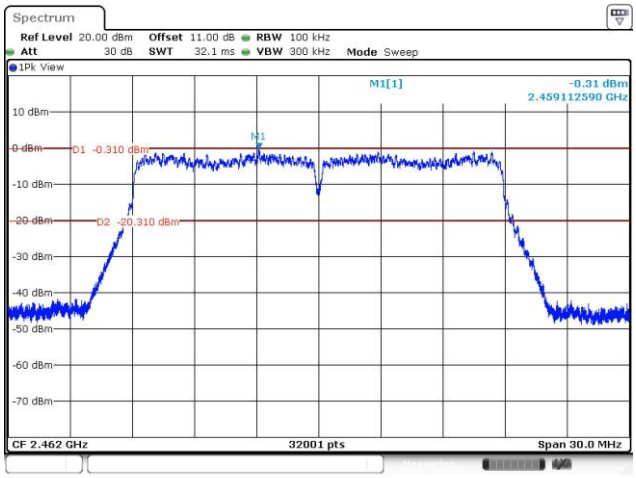
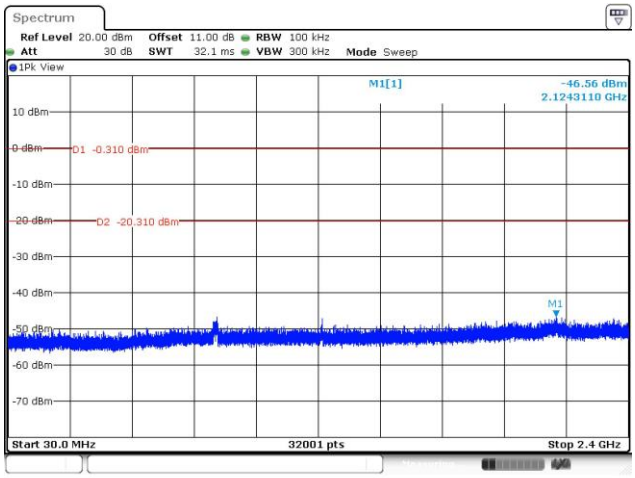
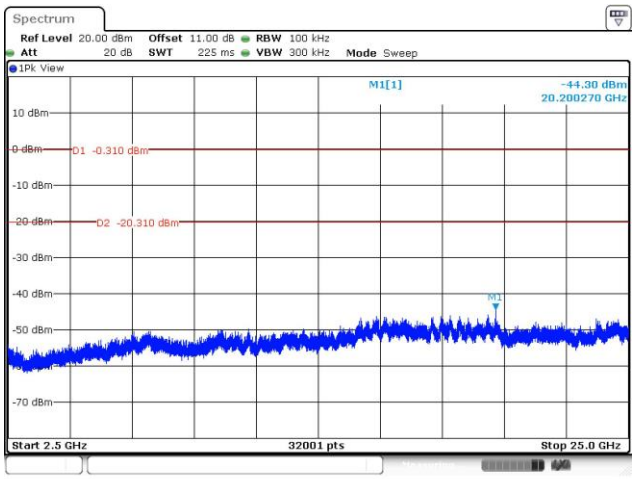
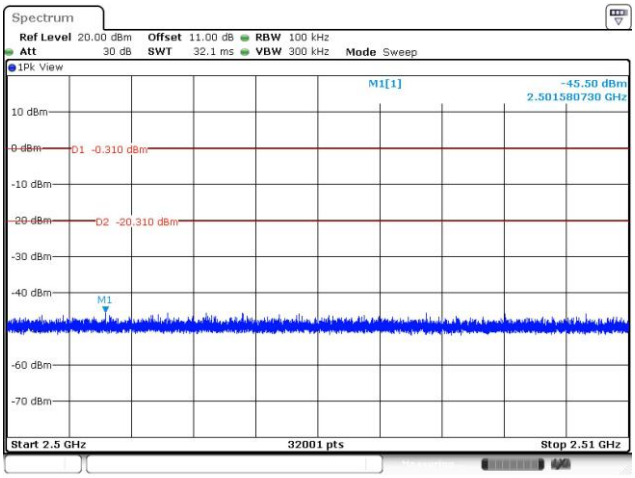
Reference Level	Tx 2437MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Reference Level	Tx 2462MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

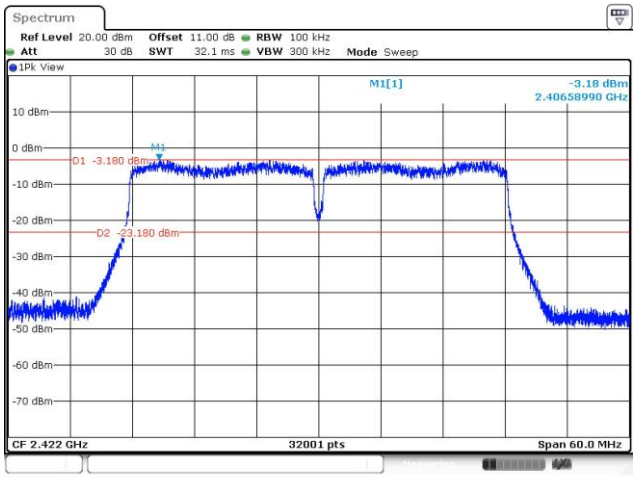
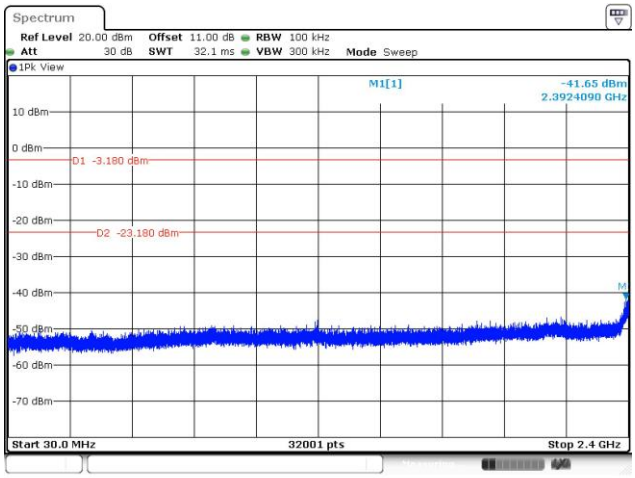
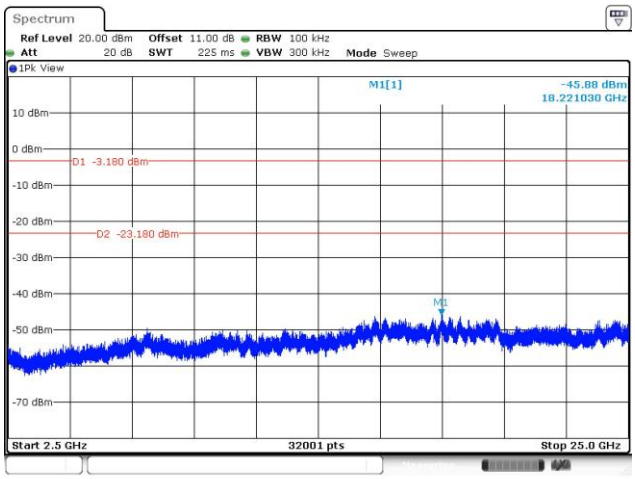
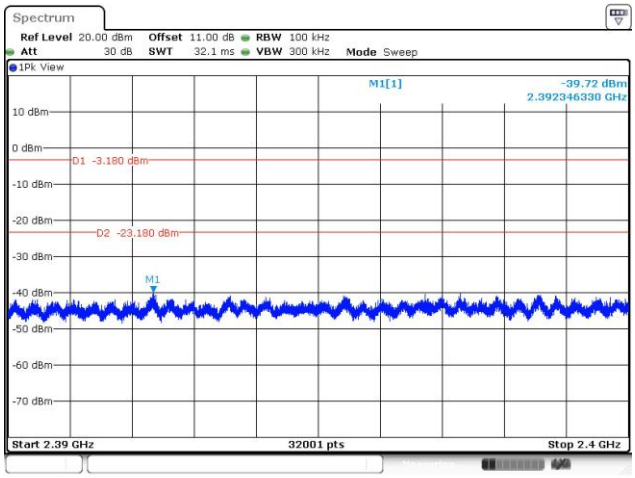
802.11n HT20

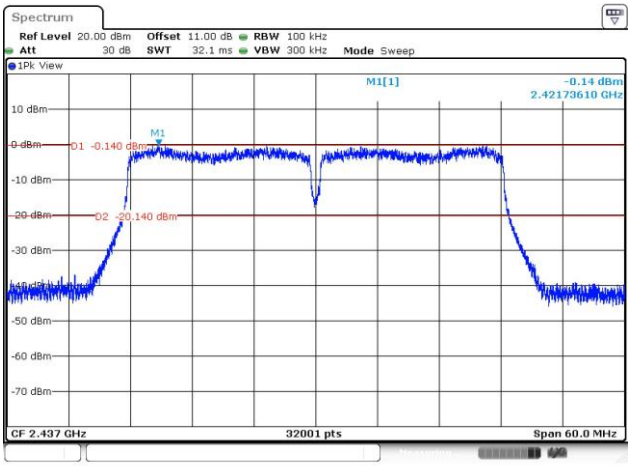
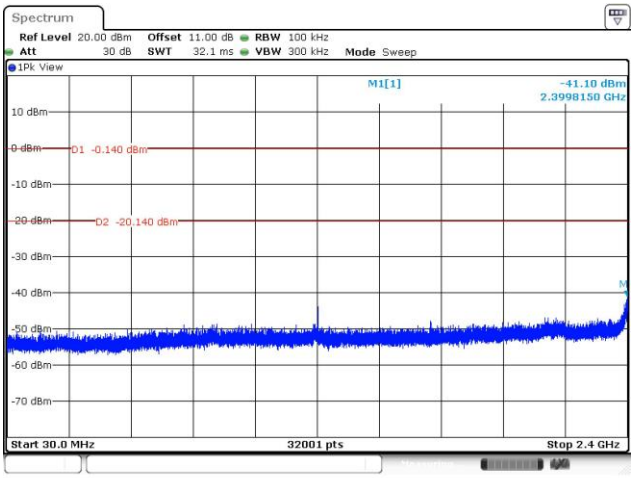
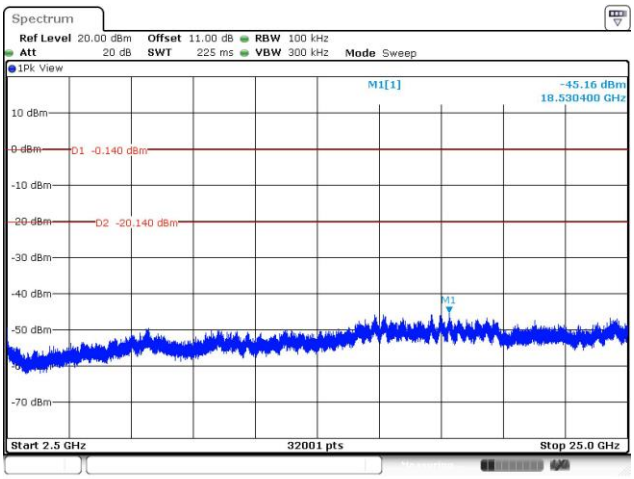
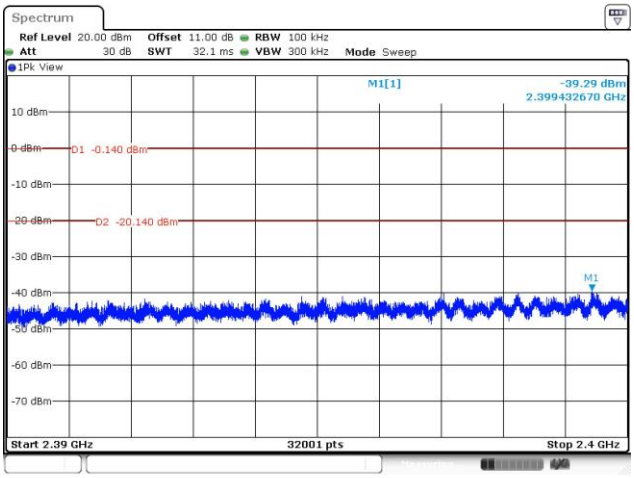
Reference Level	Tx 2412MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

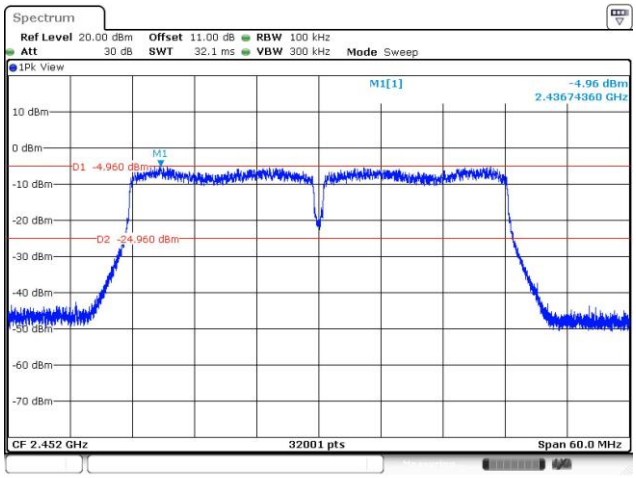
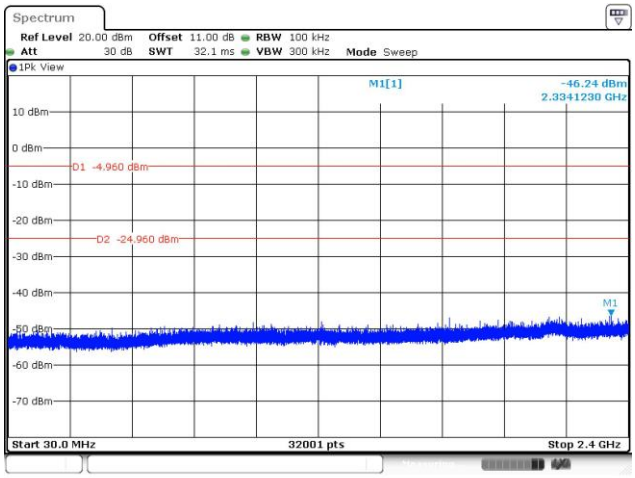
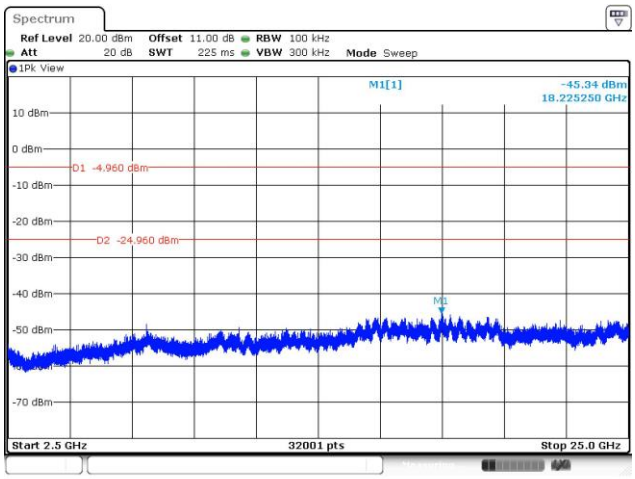
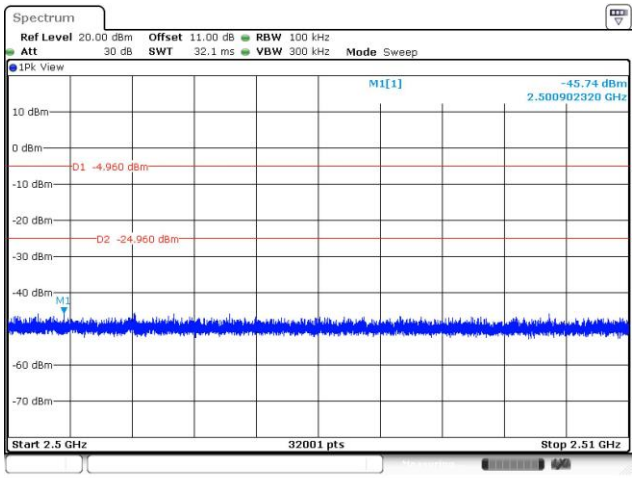
Reference Level	Tx 2437MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Reference Level	Tx 2462MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

802.11n HT40

Reference Level	Tx 2422MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Reference Level	Tx 2437MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

Reference Level	Tx 2452MHz / 30MHz~25GHz (down 20dBc)
	
---	
---	

4 Test laboratory information

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

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

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

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

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

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

═END═