

FCC Test Report

FCC ID : WBV-AP230
Equipment : Access Point
Model No. : AP230
Brand Name : Aerohive
Applicant : Aerohive Networks Inc.
Address : 330 Gibraltar Drive, Sunnyvale, CA 94089
Standard : 47 CFR FCC Part 15.247
Received Date : Jan. 21, 2014
Tested Date : Jan. 21 ~ Feb. 26, 2014

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

Approved & Reviewed by:



Gary Chang / Manager



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List.....	8
1.3	Test Setup Chart.....	9
1.4	The Equipment List	11
1.5	Test Standards	12
1.6	Measurement Uncertainty	12
2	TEST CONFIGURATION.....	13
2.1	Testing Condition.....	13
2.2	The Worst Test Modes and Channel Details.....	13
3	TRANSMITTER TEST RESULTS	14
3.1	Conducted Emissions	14
3.2	6dB and Occupied Bandwidth	23
3.3	RF Output Power	28
3.4	Power Spectral Density	30
3.5	Unwanted Emissions into Restricted Frequency Bands	33
3.6	Emissions in Non-Restricted Frequency Bands	79
4	TEST LABORATORY INFORMATION	98

Release Record

Report No.	Version	Description	Issued Date
FR412201AC	Rev. 01	Initial issue	Mar. 12, 2014

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.471MHz 43.14 (Margin -3.35dB) - AV	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 2390.00MHz 53.00 (Margin -1.00dB) – AV [dBuV/m at 3m]: 2483.50MHz & 2390.00MHz 73.00 (Margin -1.00dB) - PK	Pass
15.247(b)(3)	Fundamental Emission Output Power	Power [dBm]: Non-beamforming mode 11b: 22.29 11g: 22.34 HT20: 26.65 VHT20: 26.71 Beamforming mode 11b: 22.29 11g: 22.34 HT20: 26.68 VHT20: 26.80	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 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
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	3	MCS 0-23
2400-2483.5	ac (VHT20)	2412-2462	1-11 [11]	3	MCS 0-8

Note 1: RF output power specifies that Maximum Conducted (Average) 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 EUT includes MIMO CDD function with beamforming.

1.1.2 Antenna Details

Ant. No.	Type	Gain (dBi)	Connector	Remark
1	PIFA	4.33	UFL	---
2	PIFA	3.60	UFL	---
3	PIFA	4.34	UFL	---

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter 48Vdc or 55Vdc from PoE
-------------------	---

1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter 1	Brand Name: DVE Model Name: DSA-24PFD-15 FUS Power Rating: I/P: 100-240Vac, 50-60Hz, 0.8A O/P: 12Vdc, 2.0A DC 1.5m non-shielded cable w/o core
2	AC adapter 2	Brand Name: Powertron Electronics Corp. Model Name: PA1024-120HUB200 Power Rating: I/P: 100-240Vac, 50-60Hz, 0.6A O/P: 12Vdc, 2.0A, 24W DC 1.5m non-shielded cable w/o core

1.1.5 Support Units

Support Units		
No.	Equipment	Description
1	PoE 1	Brand Name: PowerDsine Model Name: PD-3501G/AC Power Rating: I/P: 100-240Vac, 50-60Hz, 0.5A O/P: 48Vdc, 0.35A
2	PoE 2	Brand Name: PowerDsine Model Name: PD-9001GR/AT/AC Power Rating: I/P: 100-240Vac, 50-60Hz, 0.67A O/P: 55Vdc, 0.6A

1.1.6 Channel List

802.11 b / g / n HT20 / VHT20	
Channel	Frequency(MHz)
1	2412
2	2417
3	2422
4	2427
5	2432
6	2437
7	2442
8	2447
9	2452
10	2457
11	2462

1.1.7 Test Tool and Duty Cycle

Test Tool	Hyperterminal, Version: 5.1				
Duty Cycle and Duty Factor	Mode	Beamforming		Non-Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11b	100.00%	0.00	100.00%	0.00
	11g	99.31%	0.03	99.31%	0.03
	VHT20	99.63%	0.02	99.63%	0.02

1.1.8 Power Setting

Modulation Mode	Test Frequency (MHz)	Power Set	
		Beamforming	Non-Beamforming
11b	2412	84	84
11b	2437	88	88
11b	2462	84	84
11g	2412	74	74
11g	2437	89	89
11g	2462	72	72
HT20	2412	63	66
HT20	2437	88	88
HT20	2462	63	64
VHT20	2412	63	66
VHT20	2437	88	88
VHT20	2462	63	64

1.2 Local Support Equipment List

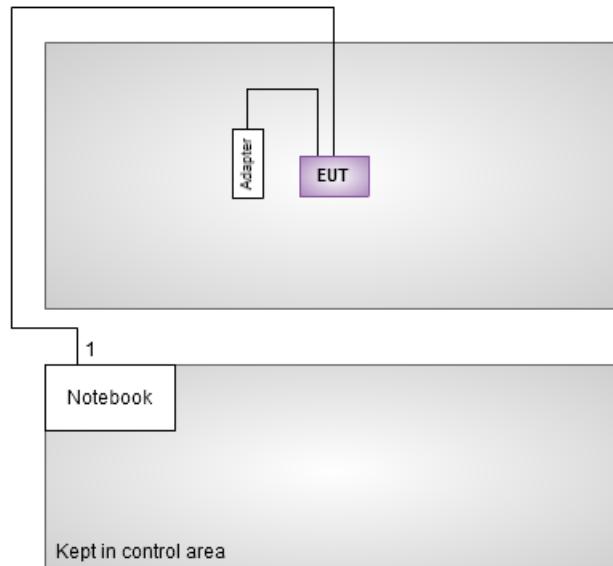
Support Equipment List						
No.	Equipment	Brand	Model	S/N	FCC ID	Signal cable / Length (m)
1	Notebook	DELL	E6430	---	DoC	RJ45, 1m non-shielded cable w/o core. RJ45, 10m non-shielded cable w/o core.
2	Notebook	DELL	E6430	---	DoC	---
3	Module	Broadcom	BCM94346 0MC	---	---	---

Note: Module card is provided by applicant.

1.3 Test Setup Chart

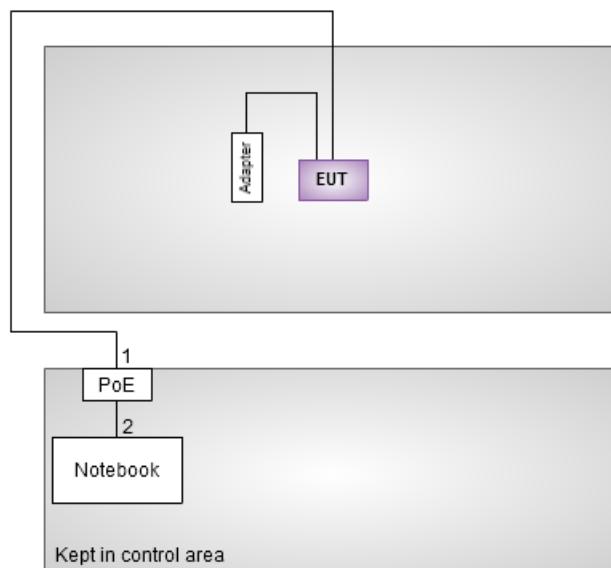
Legacy/MIMO (CDD) Non-beamforming mode

Test Setup Diagram (Adapter mode)



1. RJ45, 10m non-shielded

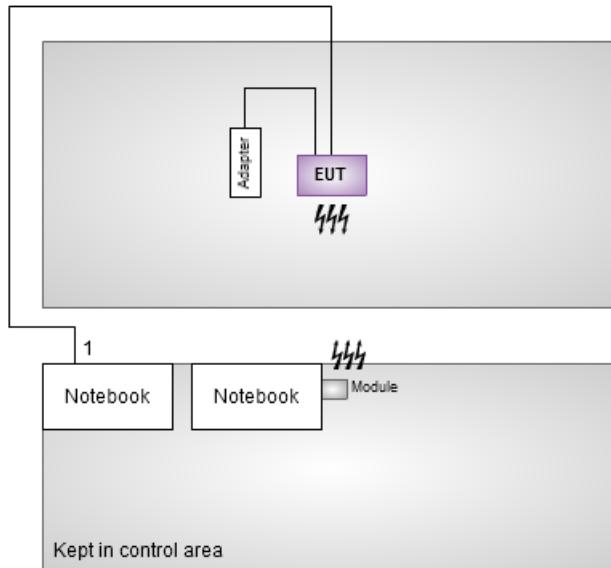
Test Setup Diagram (PoE mode)



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

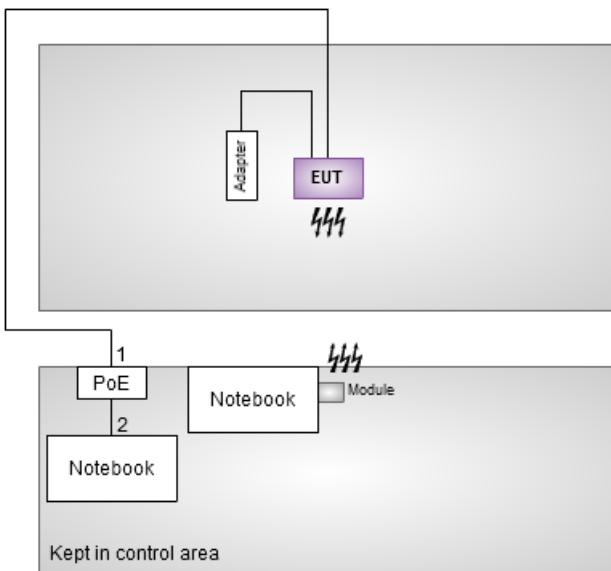
Legacy/MIMO (CDD) beamforming mode

Test Setup Diagram (Adapter mode)



1. RJ45, 10m non-shielded

Test Setup Diagram (PoE mode)



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

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Test date	Feb.20 ~ 26 , 2014				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 15, 2013	Oct. 14, 2014
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 23, 2013	Nov. 22, 2014
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Dec. 04, 2013	Dec. 03, 2014
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Apr. 24, 2013	Apr. 23, 2014
50 ohm terminal (Support Unit)	NA	50	04	Apr. 22, 2013	Apr. 21, 2014

Note: Calibration Interval of instruments listed above is one year.

Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Test date	Jan.21 ~ Feb.21 , 2014				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSP 40	100305	Mar. 20, 2013	Mar. 19, 2014
Receiver	R&S	ESR3	101657	Jan. 18, 2014	Jan. 17, 2015
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Jan. 08, 2014	Jan. 07, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120D	BBHA 9120 D 1095	Jan. 07, 2014	Jan. 06, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Dec. 27, 2013	Dec. 26, 2014
Amplifier	Burgeon	BPA-530	100218	Dec. 09, 2013	Dec. 08, 2014
Amplifier	Agilent	83017A	MY39501309	Dec. 09, 2013	Dec. 08, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 17, 2013	Dec. 16, 2014
RF Cable-R03m	Woken	CFD400NL-LW	CFD400NL-003	Dec. 17, 2013	Dec. 16, 2014
RF Cable-R10m	Woken	CFD400NL-LW	CFD400NL-004	Dec. 17, 2013	Dec. 16, 2014
control	EM Electronics	EM1000	060608	N/A	N/A

Note: Calibration Interval of instruments listed above is one year.

Loop Antenna	R&S	HFH2-Z2	100330	Nov. 15, 2012	Nov. 14, 2014
Amplifier	EM	EM18G40G	060572	Jun. 20, 2013	Jun. 19, 2015
Note: Calibration Interval of instruments listed above is two year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Test date	Feb.17 , 2014				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Jan. 25, 2014	Jan. 24, 2015
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 11, 2013	Dec. 10, 2014
Power Meter	Anritsu	ML2495A	1241002	Oct. 24, 2013	Oct. 23, 2014
Power Sensor	Anritsu	MA2411B	1207366	Oct. 24, 2013	Oct. 23, 2014

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 C63.10-2009

FCC KDB 558074 D01 DTS Meas Guidance v03r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

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

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±35.286 Hz
Conducted power	±0.536 dB
Frequency error	±35.286 Hz
Temperature	±0.3 °C
Conducted emission	±2.946 dB
AC conducted emission	±2.43 dB
Radiated emission	±2.49 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	14°C / 58%	Skys Huang
Radiated Emissions	03CH02-WS	20°C / 66%	Anderson Hong
RF Conducted	TH01-WS	24°C / 63%	Mark Liao

➤ FCC site registration No.: 657002

➤ IC site registration No.: 10807A-2

2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	2437	MCS 0	1, 2, 3, 4
Radiated Emissions ≤1GHz	VHT20	2437	MCS 0	1, 2
Fundamental Emission Output Power	11b	2412 / 2437 / 2462	1 Mbps	1, 3
	11g	2412 / 2437 / 2462	6 Mbps	
	HT20	2412 / 2437 / 2462	MCS 0	
	VHT20	2412 / 2437 / 2462	MCS 0	
Radiated Emissions >1GHz 6dB bandwidth	11b	2412 / 2437 / 2462	1 Mbps	1, 3
Power spectral density	11g	2412 / 2437 / 2462	6 Mbps	
	VHT20	2412 / 2437 / 2462	MCS 0	

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. Adapter 1 and Adapter 2 had been pretested and fund that **Adapter 2** was the worst case and was selected for final testing. (Adapter 1: DSA-24PFD-15 FUS; Adapter 2: PA1024-120HUB200).
3. PoE 1 and PoE 2 had been pretested and fund that **PoE 2** was the worst case and was selected for final testing. (PoE 1: PD-3501G/AC; PoE 2: PD-9001GR/AT/AC).
4. Test configurations are listed as below:
 - 1) Configuration 1: Legacy/MIMO (CDD) Non-beamforming mode, Adapter mode
 - 2) Configuration 2: Legacy/MIMO (CDD) Non-beamforming mode, PoE mode
 - 3) Configuration 3: Legacy/MIMO (CDD) beamforming mode, Adapter mode
 - 4) Configuration 4: Legacy/MIMO (CDD) beamforming mode, PoE mode

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

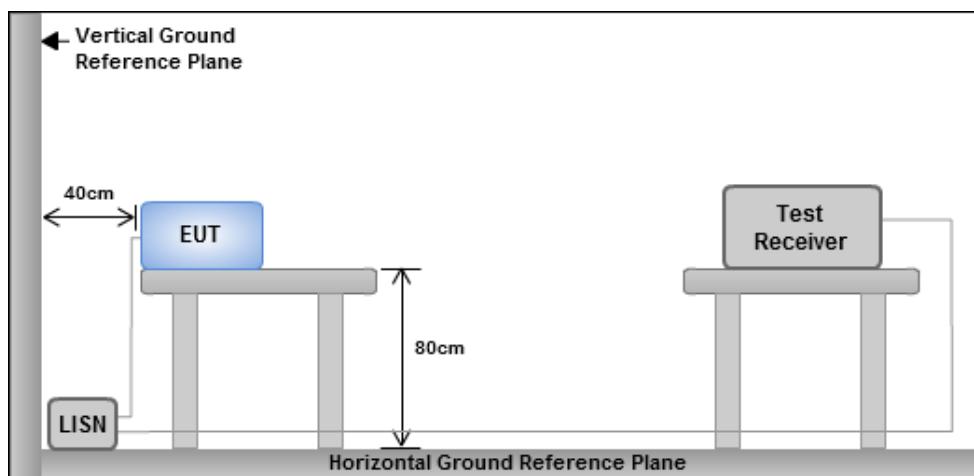
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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.

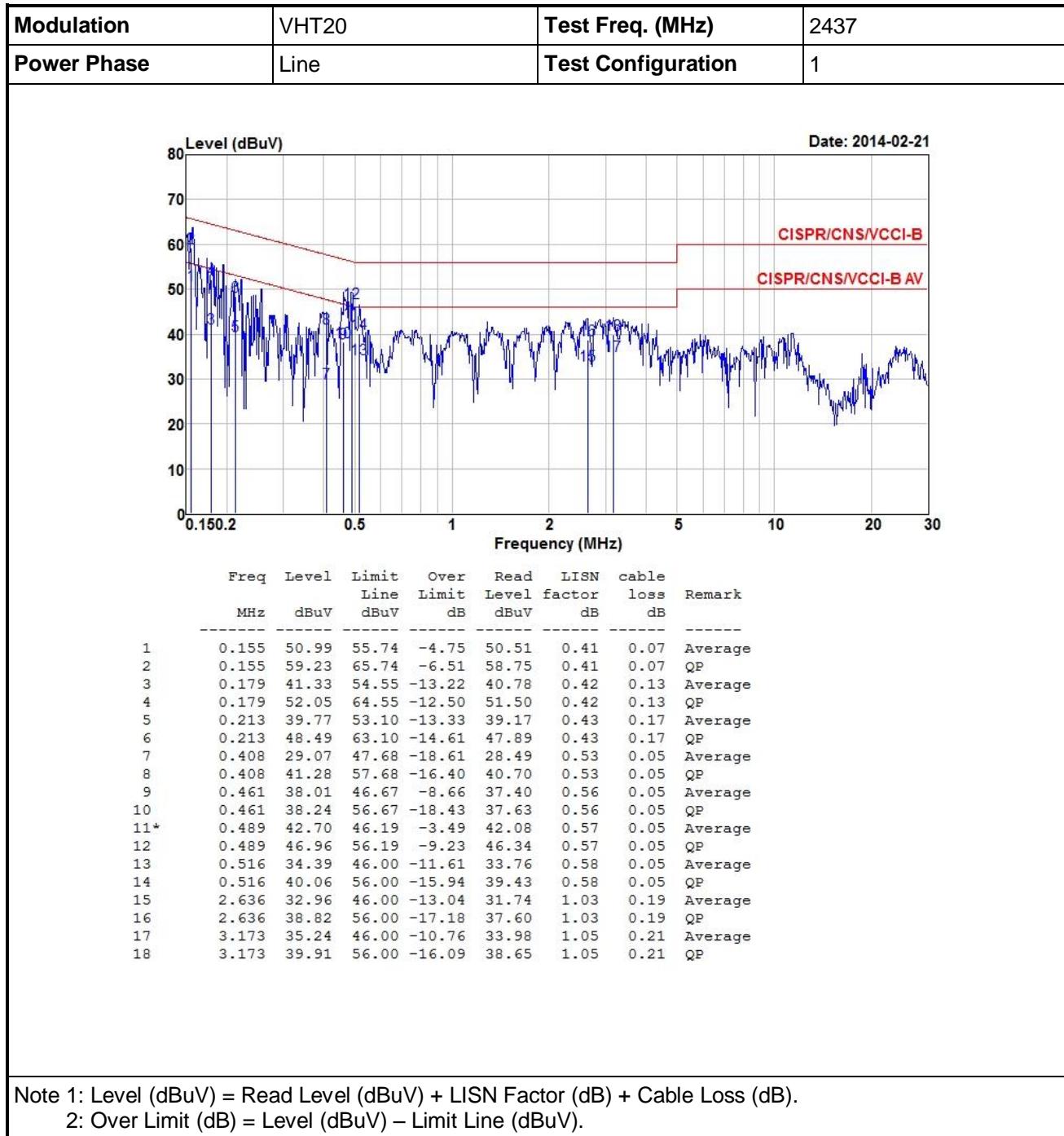
3.1.3 Test Setup



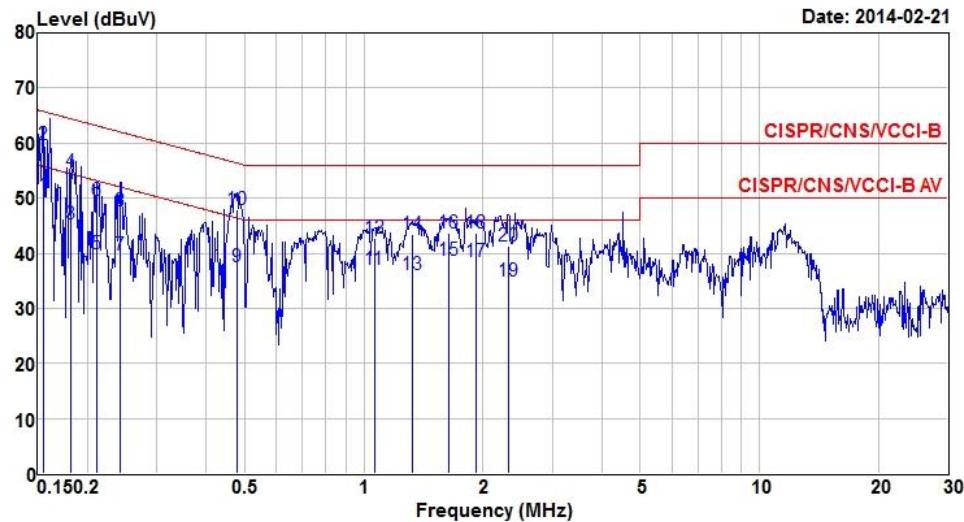
- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Legacy/MIMO (CDD) Non-beamforming mode



Modulation	VHT20	Test Freq. (MHz)	2437
Power Phase	Neutral	Test Configuration	1

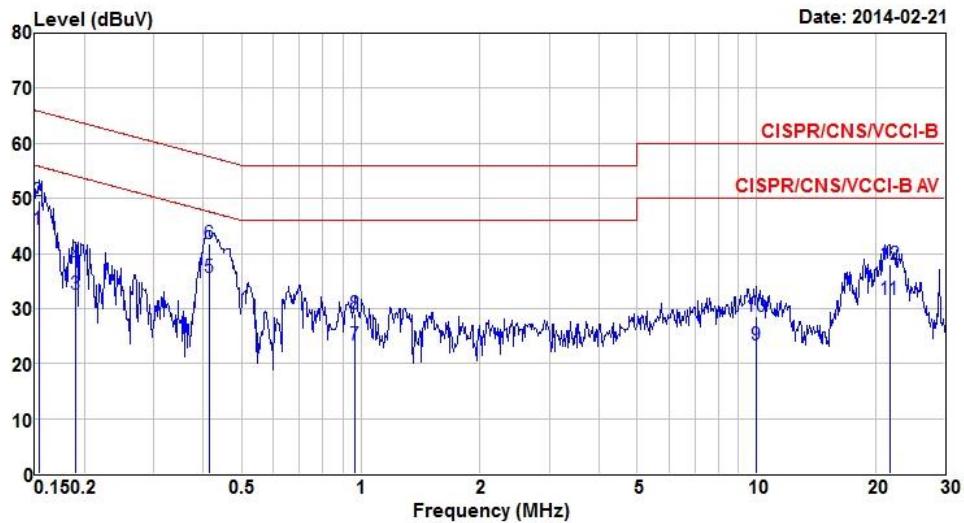


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor	cable loss dB	Remark
1*	0.155	50.57	55.74	-5.17	50.01	0.49	0.07	Average
2	0.155	59.75	65.74	-5.99	59.19	0.49	0.07	QP
3	0.182	45.30	54.42	-9.12	44.66	0.50	0.14	Average
4	0.182	54.86	64.42	-9.56	54.22	0.50	0.14	QP
5	0.212	39.99	53.14	-13.15	39.30	0.52	0.17	Average
6	0.212	49.49	63.14	-13.65	48.80	0.52	0.17	QP
7	0.243	39.59	52.00	-12.41	38.91	0.54	0.14	Average
8	0.243	47.78	62.00	-14.22	47.10	0.54	0.14	QP
9	0.479	37.44	46.36	-8.92	36.74	0.65	0.05	Average
10	0.479	48.03	56.36	-8.33	47.33	0.65	0.05	QP
11	1.065	37.06	46.00	-8.94	36.18	0.83	0.05	Average
12	1.065	42.61	56.00	-13.39	41.73	0.83	0.05	QP
13	1.324	36.03	46.00	-9.97	35.02	0.92	0.09	Average
14	1.324	43.51	56.00	-12.49	42.50	0.92	0.09	QP
15	1.636	38.67	46.00	-7.33	37.55	1.00	0.12	Average
16	1.636	43.74	56.00	-12.26	42.62	1.00	0.12	QP
17	1.918	38.59	46.00	-7.41	37.37	1.07	0.15	Average
18	1.918	43.75	56.00	-12.25	42.53	1.07	0.15	QP
19	2.321	35.02	46.00	-10.98	33.74	1.10	0.18	Average
20	2.321	41.39	56.00	-14.61	40.11	1.10	0.18	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

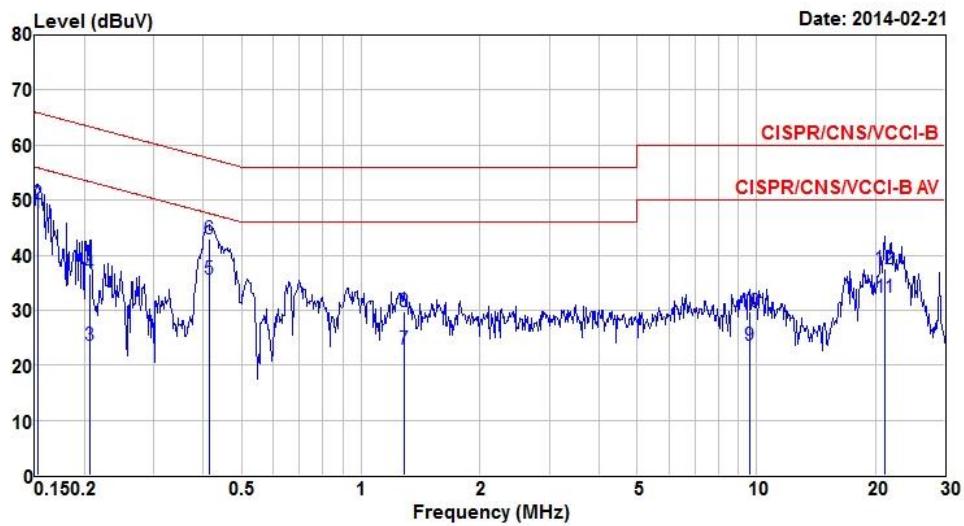
Modulation	VHT20	Test Freq. (MHz)	2437
Power Phase	Line	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
			Line	Limit	Level	factor	loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1*	0.153	44.36	55.82	-11.46	43.89	0.40	0.07	Average
2	0.153	49.67	65.82	-16.15	49.20	0.40	0.07	QP
3	0.189	32.61	54.06	-21.45	32.06	0.39	0.16	Average
4	0.189	37.69	64.06	-26.37	37.14	0.39	0.16	QP
5	0.413	35.56	47.59	-12.03	35.12	0.39	0.05	Average
6	0.413	41.76	57.59	-15.83	41.32	0.39	0.05	QP
7	0.968	23.49	46.00	-22.51	23.04	0.41	0.04	Average
8	0.968	29.15	56.00	-26.85	28.70	0.41	0.04	QP
9	9.966	23.38	50.00	-26.62	22.73	0.54	0.11	Average
10	9.966	28.63	60.00	-31.37	27.98	0.54	0.11	QP
11	21.715	31.64	50.00	-18.36	30.79	0.55	0.30	Average
12	21.715	38.05	60.00	-21.95	37.20	0.55	0.30	QP

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

Modulation	VHT20	Test Freq. (MHz)	2437
Power Phase	Neutral	Test Configuration	2

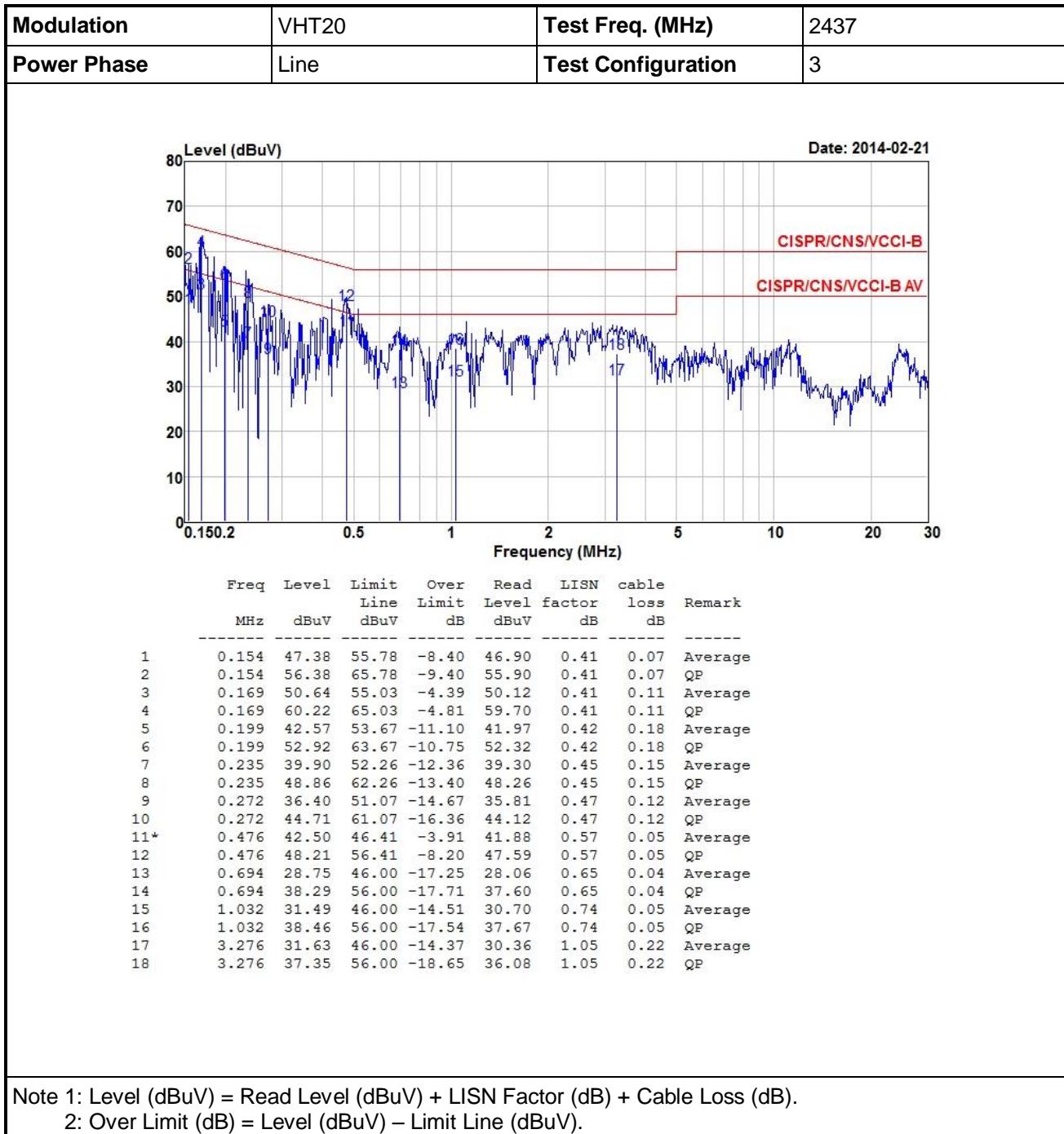


	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor	loss dB	Remark
1*	0.152	47.59	55.87	-8.28	47.04	0.48	0.07	Average
2	0.152	49.42	65.87	-16.45	48.87	0.48	0.07	QP
3	0.207	23.49	53.32	-29.83	22.84	0.48	0.17	Average
4	0.207	36.68	63.32	-26.64	36.03	0.48	0.17	QP
5	0.413	35.54	47.59	-12.05	35.02	0.47	0.05	Average
6	0.413	42.99	57.59	-14.60	42.47	0.47	0.05	QP
7	1.289	23.01	46.00	-22.99	22.44	0.49	0.08	Average
8	1.289	29.73	56.00	-26.27	29.16	0.49	0.08	QP
9	9.603	23.50	50.00	-26.50	22.82	0.56	0.12	Average
10	9.603	29.74	60.00	-30.26	29.06	0.56	0.12	QP
11	21.147	32.39	50.00	-17.61	31.57	0.55	0.27	Average
12	21.147	37.53	60.00	-22.47	36.71	0.55	0.27	QP

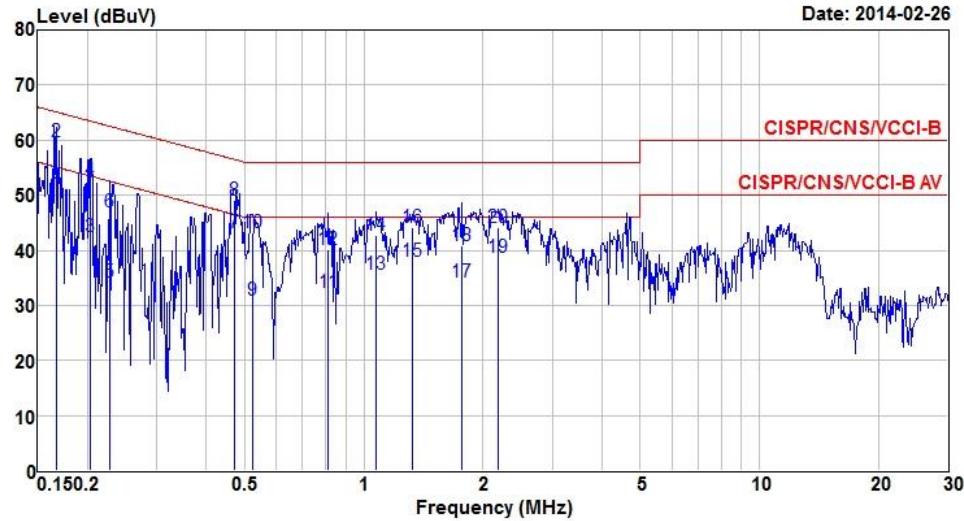
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Legacy/MIMO (CDD) beamforming mode



Modulation	VHT20	Test Freq. (MHz)	2437
Power Phase	Neutral	Test Configuration	3

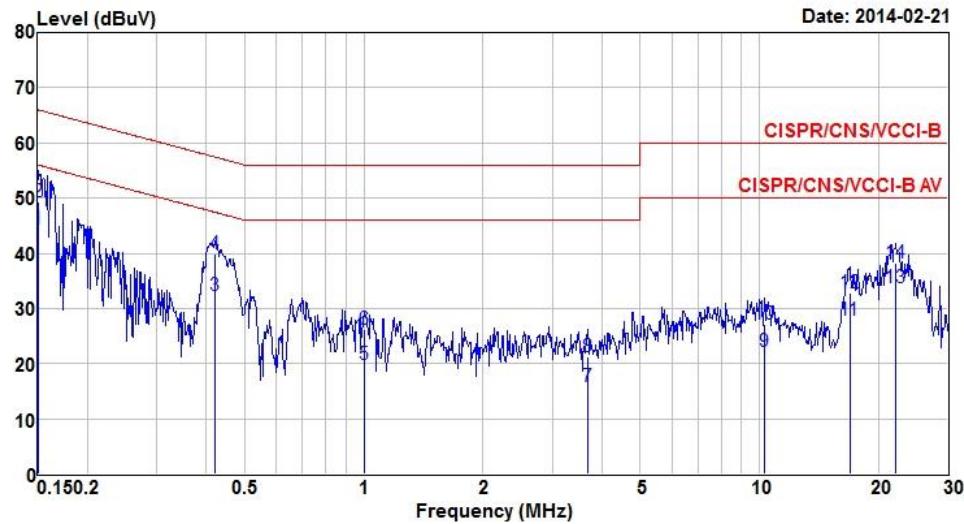


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor	cable loss dB	Remark
1	0.168	50.20	55.08	-4.88	49.59	0.50	0.11	Average
2	0.168	59.78	65.08	-5.30	59.17	0.50	0.11	QP
3	0.204	42.56	53.45	-10.89	41.87	0.51	0.18	Average
4	0.204	52.59	63.45	-10.86	51.90	0.51	0.18	QP
5	0.228	34.13	52.52	-18.39	33.44	0.53	0.16	Average
6	0.228	47.06	62.52	-15.46	46.37	0.53	0.16	QP
7*	0.471	43.14	46.49	-3.35	42.45	0.64	0.05	Average
8	0.471	49.12	56.49	-7.37	48.43	0.64	0.05	QP
9	0.524	30.83	46.00	-15.17	30.11	0.67	0.05	Average
10	0.524	43.30	56.00	-12.70	42.58	0.67	0.05	QP
11	0.813	32.42	46.00	-13.58	31.62	0.76	0.04	Average
12	0.813	40.09	56.00	-15.91	39.29	0.76	0.04	QP
13	1.077	35.71	46.00	-10.29	34.83	0.83	0.05	Average
14	1.077	42.80	56.00	-13.20	41.92	0.83	0.05	QP
15	1.324	38.10	46.00	-7.90	37.09	0.92	0.09	Average
16	1.324	44.14	56.00	-11.86	43.13	0.92	0.09	QP
17	1.772	34.29	46.00	-11.71	33.11	1.04	0.14	Average
18	1.772	40.75	56.00	-15.25	39.57	1.04	0.14	QP
19	2.190	38.72	46.00	-7.28	37.45	1.10	0.17	Average
20	2.190	44.12	56.00	-11.88	42.85	1.10	0.17	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

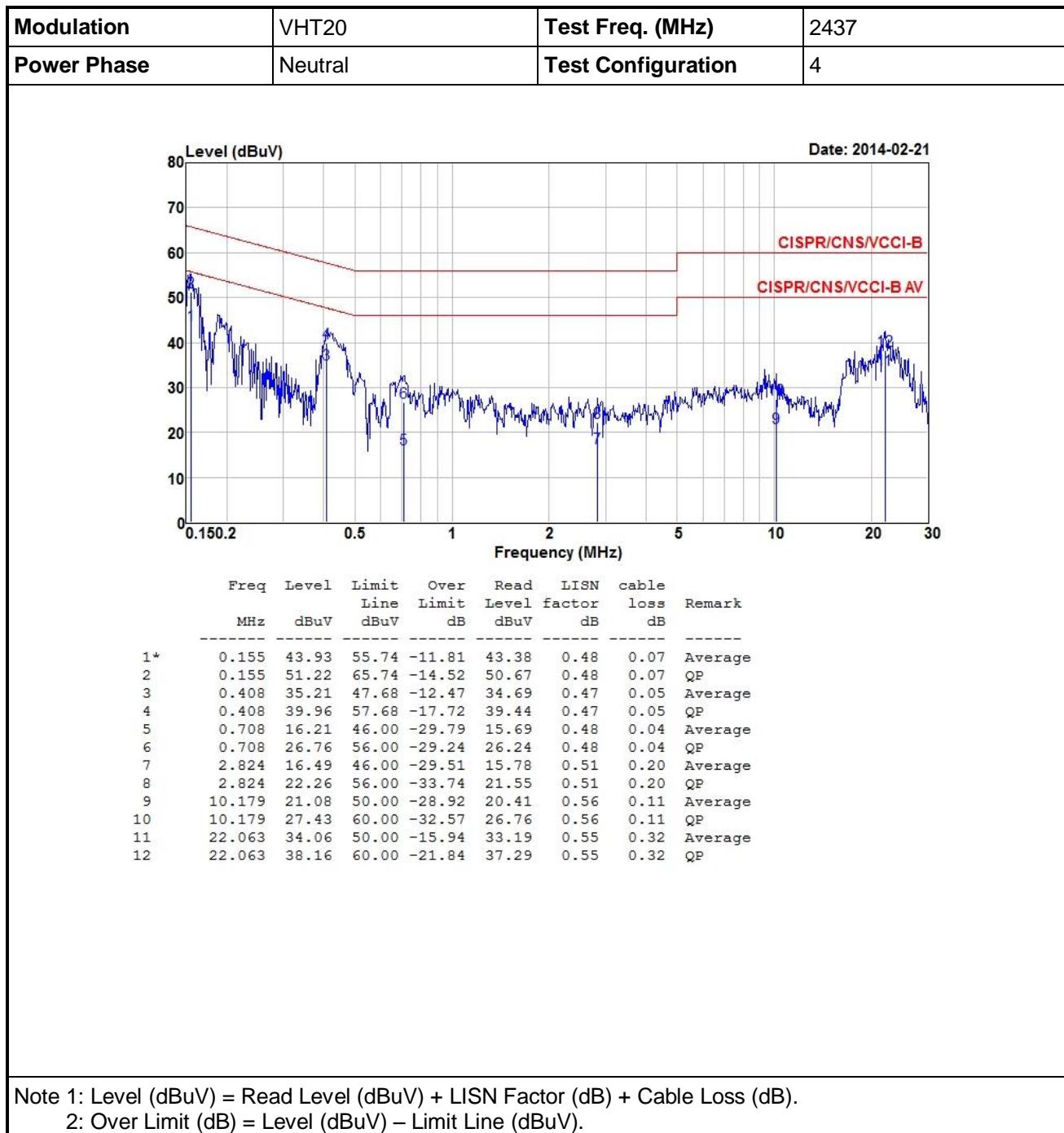
Modulation	VHT20	Test Freq. (MHz)	2437
Power Phase	Line	Test Configuration	4



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor	cable loss dB	Remark
1*	0.150	44.32	56.00	-11.68	43.86	0.40	0.06	Average
2	0.150	49.41	66.00	-16.59	48.95	0.40	0.06	QP
3	0.419	32.43	47.46	-15.03	31.99	0.39	0.05	Average
4	0.419	39.86	57.46	-17.60	39.42	0.39	0.05	QP
5	1.005	19.80	46.00	-26.20	19.35	0.41	0.04	Average
6	1.005	26.22	56.00	-29.78	25.77	0.41	0.04	QP
7	3.681	15.82	46.00	-30.18	15.13	0.46	0.23	Average
8	3.681	21.19	56.00	-34.81	20.50	0.46	0.23	QP
9	10.288	22.19	50.00	-27.81	21.54	0.54	0.11	Average
10	10.288	27.24	60.00	-32.76	26.59	0.54	0.11	QP
11	16.928	27.85	50.00	-22.15	27.15	0.55	0.15	Average
12	16.928	32.76	60.00	-27.24	32.06	0.55	0.15	QP
13	22.180	33.64	50.00	-16.36	32.76	0.55	0.33	Average
14	22.180	38.24	60.00	-21.76	37.36	0.55	0.33	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

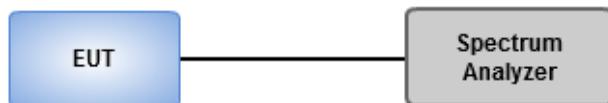
3.2.1 Limit of 6dB Bandwidth

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

3.2.2 Test Procedures

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.

3.2.3 Test Setup

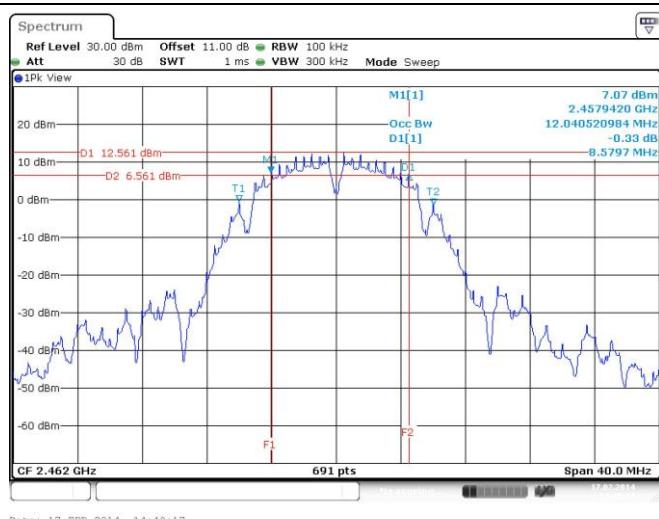


3.2.4 Test Result of 6dB and Occupied Bandwidth

Legacy/MIMO (CDD) Non-beamforming mode - Test Configuration 1

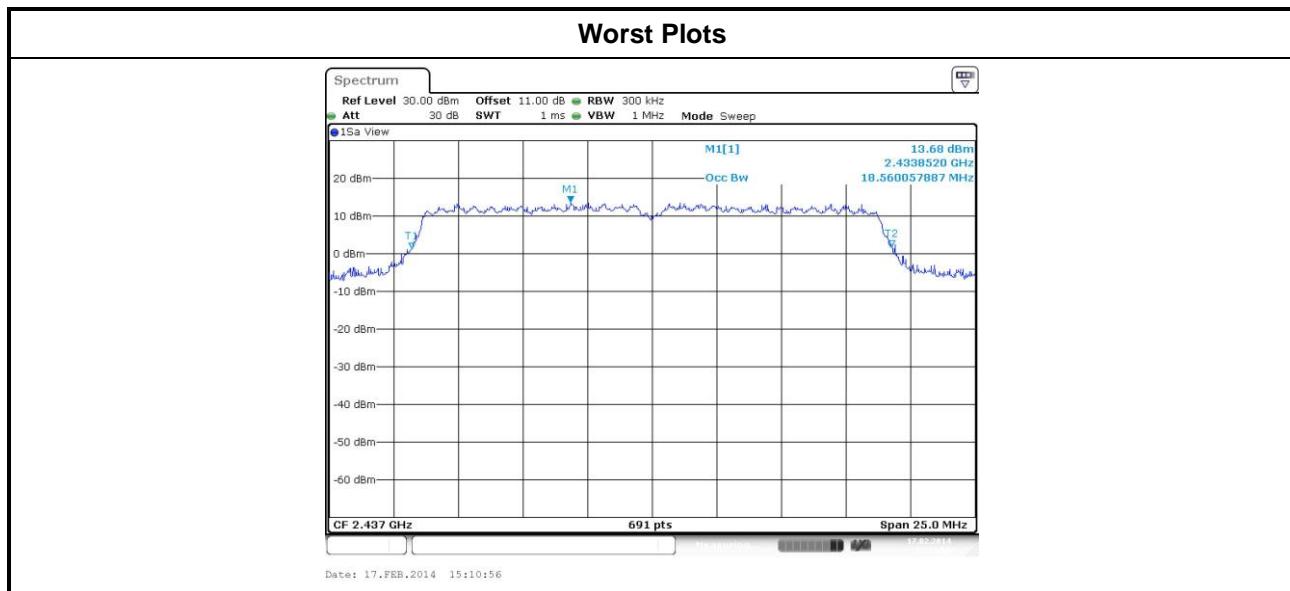
Modulation Mode	N _{TX}	Freq. (MHz)	6dB Bandwidth (MHz)				Limit (kHz)
			Chain 0	Chain 1	Chain 2	Chain 3	
11b	1	2412	9.04	---	---	---	500
11b	1	2437	9.04	---	---	---	500
11b	1	2462	8.58	---	---	---	500
11g	1	2412	16.35	---	---	---	500
11g	1	2437	16.35	---	---	---	500
11g	1	2462	13.35	---	---	---	500
VHT20	3	2412	17.62	17.62	17.62	---	500
VHT20	3	2437	17.57	17.57	17.57	---	500
VHT20	3	2462	17.57	17.62	17.62	---	500

Worst Plots



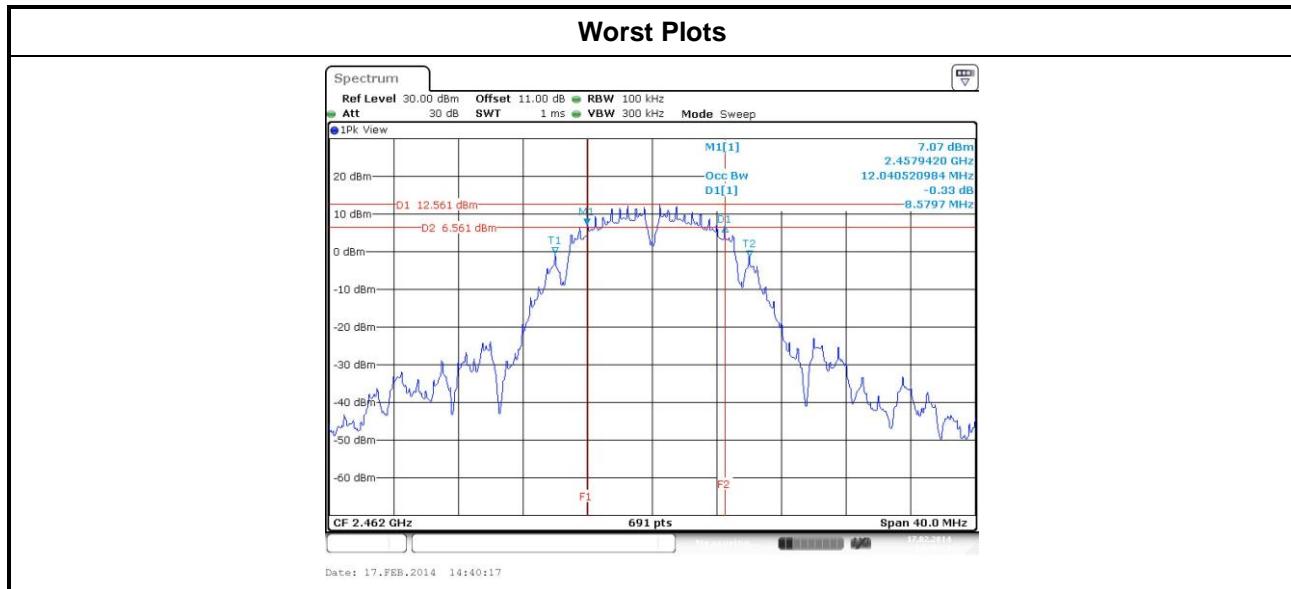
Legacy/MIMO (CDD) Non-beamforming mode - Test Configuration 1

Modulation Mode	N_{TX}	Freq. (MHz)	99% Occupied Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
11b	1	2412	12.01	---	---	---
11b	1	2437	12.34	---	---	---
11b	1	2462	12.05	---	---	---
11g	1	2412	17.00	---	---	---
11g	1	2437	17.95	---	---	---
11g	1	2462	16.93	---	---	---
VHT20	3	2412	17.98	17.76	17.84	---
VHT20	3	2437	18.49	18.20	18.56	---
VHT20	3	2462	17.95	17.76	17.84	---



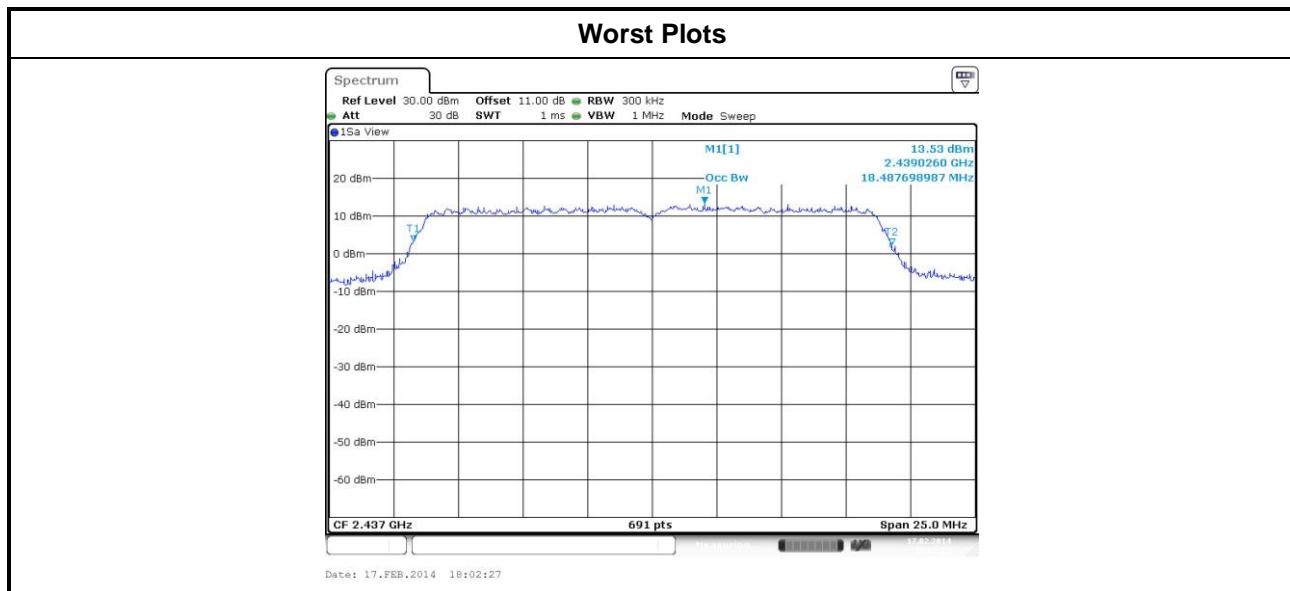
Legacy/MIMO (CDD) beamforming mode - Test Configuration 3

Modulation Mode	N _{TX}	Freq. (MHz)	6dB Bandwidth (MHz)				Limit (kHz)
			Chain 0	Chain 1	Chain 2	Chain 3	
11b	1	2412	9.04	---	---	---	500
11b	1	2437	9.04	---	---	---	500
11b	1	2462	8.58	---	---	---	500
11g	1	2412	16.35	---	---	---	500
11g	1	2437	16.35	---	---	---	500
11g	1	2462	13.35	---	---	---	500
VHT20	3	2412	17.57	17.62	17.62	---	500
VHT20	3	2437	17.57	17.57	17.57	---	500
VHT20	3	2462	17.57	17.62	17.62	---	500



Legacy/MIMO (CDD) beamforming mode - Test Configuration 3

Modulation Mode	N_{TX}	Freq. (MHz)	99% Occupied Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3
11b	1	2412	12.01	---	---	---
11b	1	2437	12.34	---	---	---
11b	1	2462	12.05	---	---	---
11g	1	2412	17.00	---	---	---
11g	1	2437	17.95	---	---	---
11g	1	2462	16.93	---	---	---
VHT20	3	2412	17.95	17.73	17.80	---
VHT20	3	2437	18.49	18.16	18.45	---
VHT20	3	2462	17.91	17.73	17.76	---



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
 - 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

Legacy/MIMO (CDD) Non-beamforming mode - Test Configuration 1

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	1	2412	21.46	---	---	---	139.959	21.46	30
11b	1	2437	22.29	---	---	---	169.434	22.29	30
11b	1	2462	21.33	---	---	---	135.831	21.33	30
11g	1	2412	18.63	---	---	---	72.946	18.63	30
11g	1	2437	22.34	---	---	---	171.396	22.34	30
11g	1	2462	18.03	---	---	---	63.533	18.03	30
HT20	3	2412	16.16	16.11	16.09	---	122.781	20.89	30
HT20	3	2437	21.81	21.77	22.05	---	462.344	26.65	30
HT20	3	2462	16.12	16.08	15.93	---	120.651	20.82	30
VHT20	3	2412	16.21	16.25	16.12	---	124.879	20.96	30
VHT20	3	2437	21.86	21.81	22.14	---	468.848	26.71	30
VHT20	3	2462	16.15	16.17	16.01	---	122.512	20.88	30

Legacy/MIMO (CDD) beamforming mode - Test Configuration 3

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	1	2412	21.46	---	---	---	139.959	21.46	30
11b	1	2437	22.29	---	---	---	169.434	22.29	30
11b	1	2462	21.33	---	---	---	135.831	21.33	30
11g	1	2412	18.63	---	---	---	72.946	18.63	30
11g	1	2437	22.34	---	---	---	171.396	22.34	30
11g	1	2462	18.03	---	---	---	63.533	18.03	30
HT20	3	2412	15.88	15.98	15.73	---	115.765	20.64	27.13
HT20	3	2437	21.83	21.77	22.13	---	466.025	26.68	27.13
HT20	3	2462	15.93	15.98	15.78	---	116.646	20.67	27.13
VHT20	3	2412	15.95	16.04	15.92	---	118.618	20.74	27.13
VHT20	3	2437	21.93	21.88	22.26	---	478.393	26.80	27.13
VHT20	3	2462	16.08	16.11	15.93	---	120.557	20.81	27.13

Note: Directional gain = $10 * \log((10^{4.33/20} + 10^{3.6/20} + 10^{4.34/20})^2 / 3) = 8.87 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 30 dBm – (8.87 dBi – 6 dBi) = 27.13 dBm

3.4 Power Spectral Density

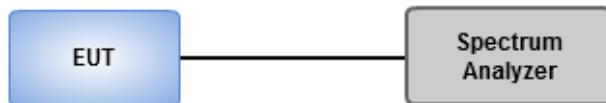
3.4.1 Limit of Power Spectral Density

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 = 30kHz, VBW = 100kHz.
 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 = 30kHz, VBW = 100 kHz.
 2. Detector = RMS, Sweep time = auto couple.
 3. Set the sweep time to: $\geq 10 \times (\text{number of measurement points in sweep}) \times (\text{maximum data rate per stream})$.
 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

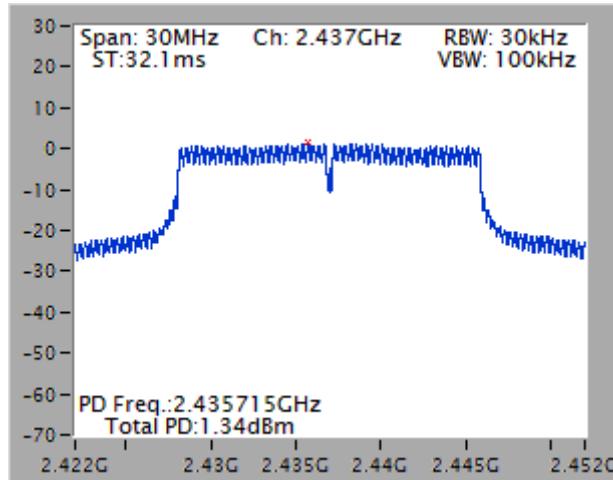
Legacy/MIMO (CDD) Non-beamforming mode - Test Configuration 1

Modulation Mode	N _{TX}	Freq. (MHz)	Total Power Spectral Density (dBm/30kHz)	Limit (dBm/3kHz)
11b	1	2412	-0.58	8
11b	1	2437	0.05	8
11b	1	2462	-0.78	8
11g	1	2412	-5.38	8
11g	1	2437	-1.28	8
11g	1	2462	-6.00	8
VHT20	3	2412	-3.74	5.13
VHT20	3	2437	1.34	5.13
VHT20	3	2462	-4.63	5.13

Note:

1. Test result for VHT20 is bin-by-bin summing measured value of each TX port.
2. Directional gain = $10 * \log((10^{4.33/20} + 10^{3.6/20} + 10^{4.34/20})^2 / 3) = 8.87 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 8 dBm – (8.87 dBi – 6 dB) = 5.13 dBm

Worst Plots

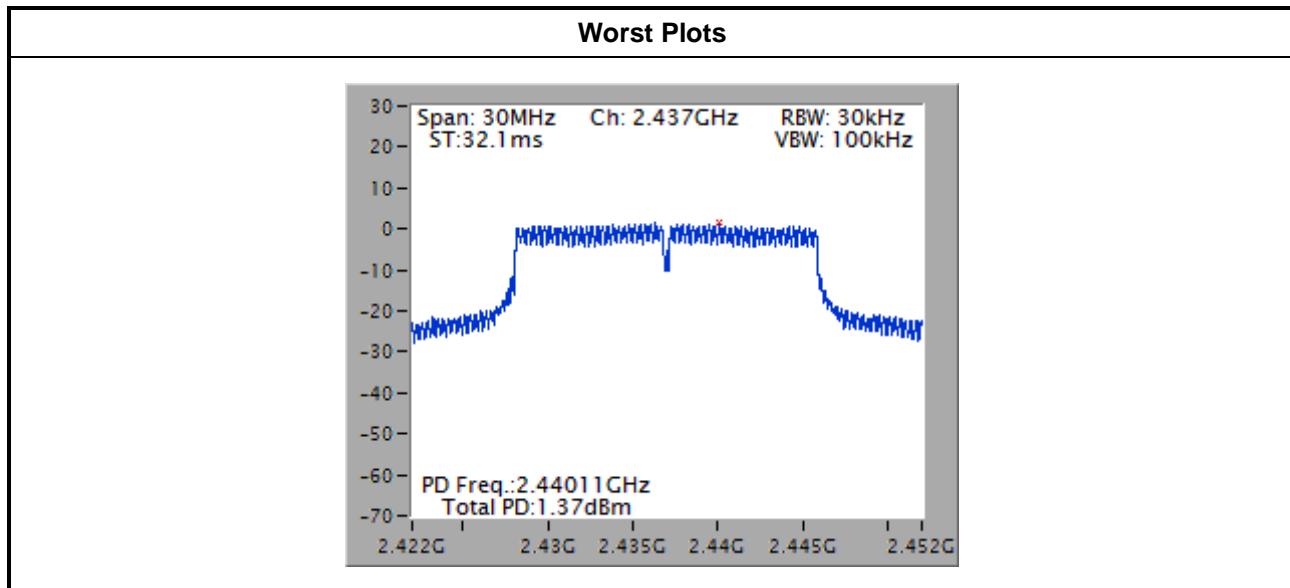


Legacy/MIMO (CDD) beamforming mode - Test Configuration 3

Modulation Mode	N _{TX}	Freq. (MHz)	Total Power Spectral Density (dBm/30kHz)	Limit (dBm/3kHz)
11b	1	2412	-0.58	8
11b	1	2437	0.05	8
11b	1	2462	-0.78	8
11g	1	2412	-5.38	8
11g	1	2437	-1.28	8
11g	1	2462	-6.00	8
VHT20	3	2412	-4.74	5.13
VHT20	3	2437	1.37	5.13
VHT20	3	2462	-4.39	5.13

Note:

1. Test result for VHT20 is bin-by-bin summing measured value of each TX port.
2. Directional gain = $10 * \log((10^{4.33/20} + 10^{3.6/20} + 10^{4.34/20})^2 / 2) = 8.87 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to $8 \text{ dBm} - (8.87 \text{ dBi} - 6 \text{ dBi}) = 5.13 \text{ dBm}$



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

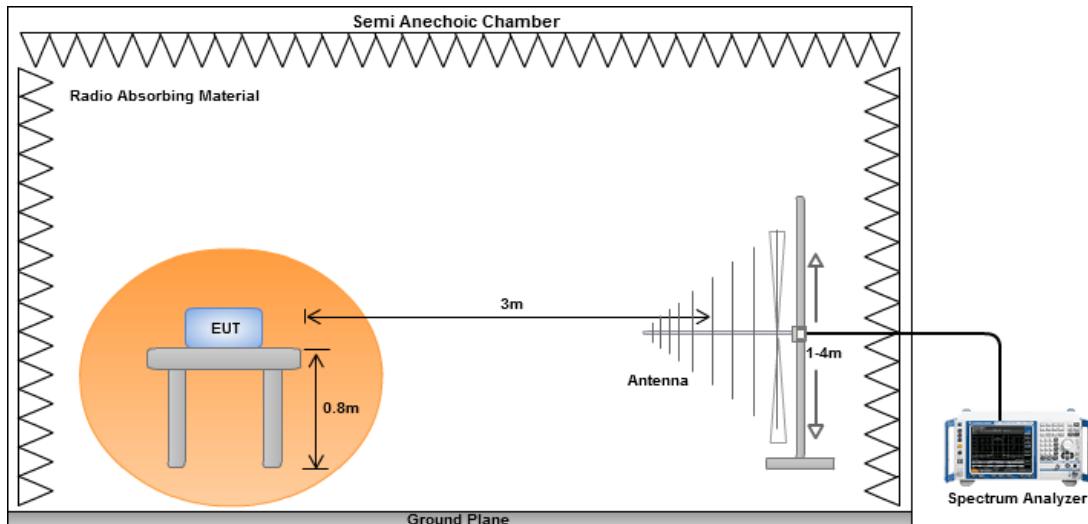
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at a height of 0.8 m test table above the ground plane.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

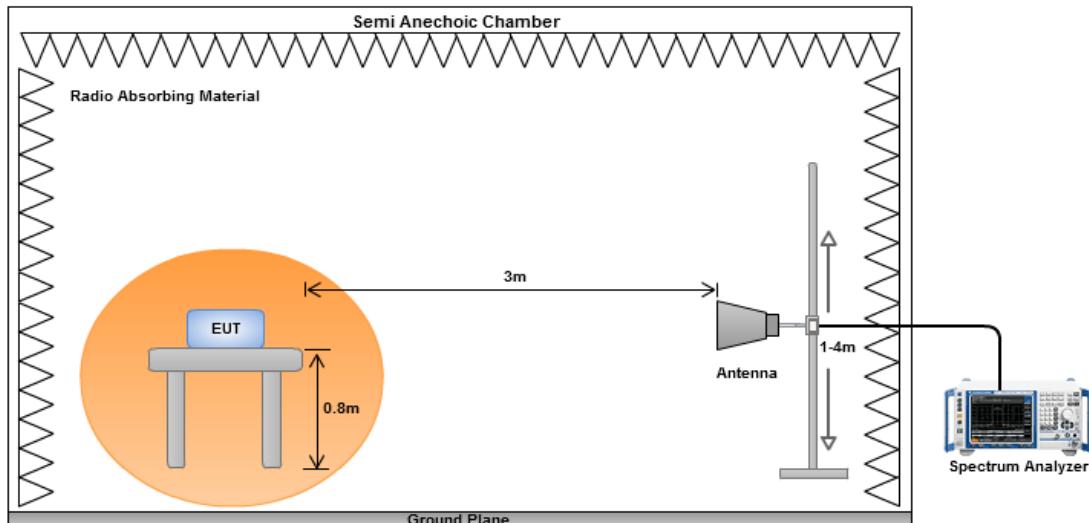
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

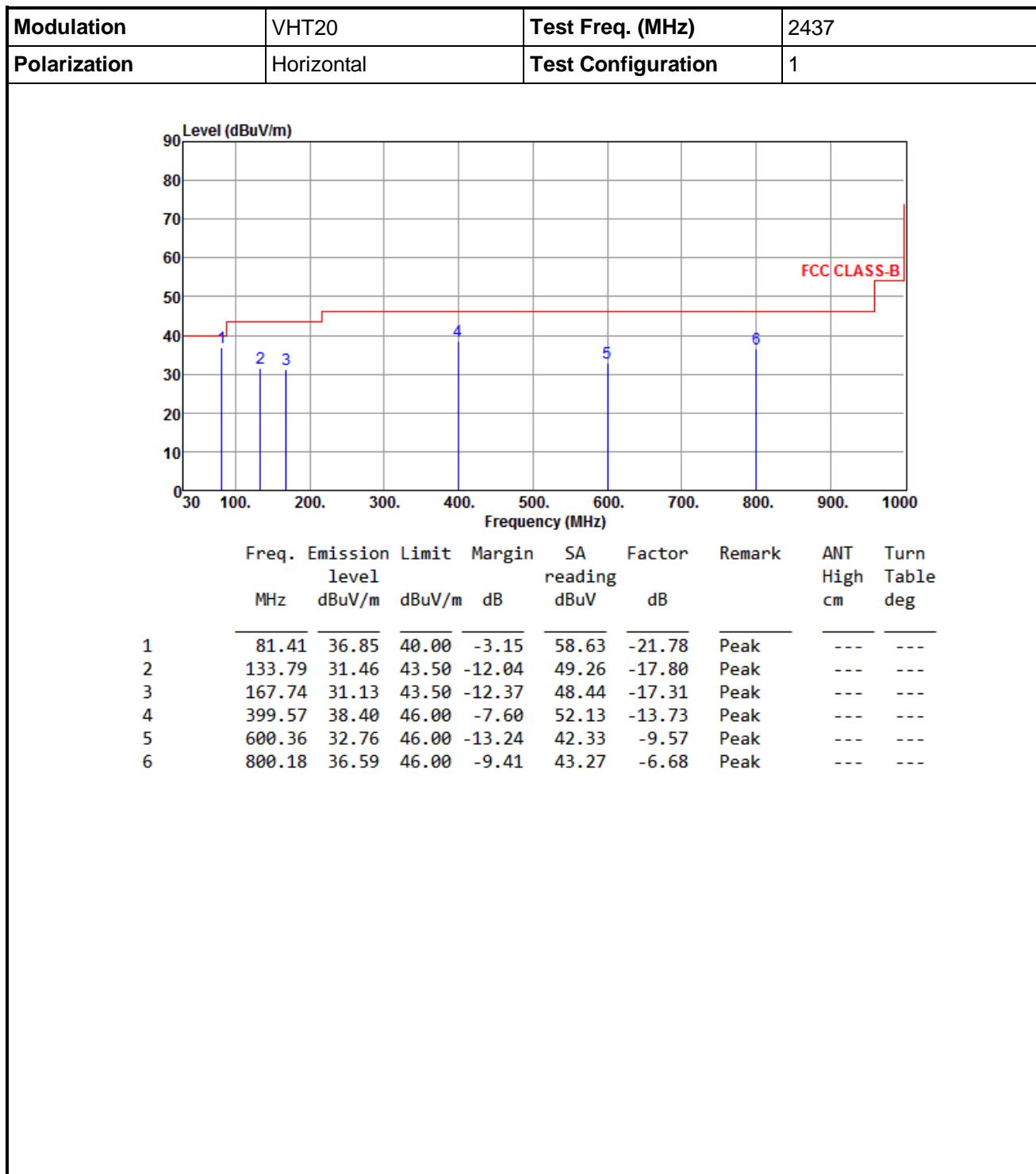


Radiated Emissions above 1 GHz



Legacy/MIMO (CDD) Non-beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

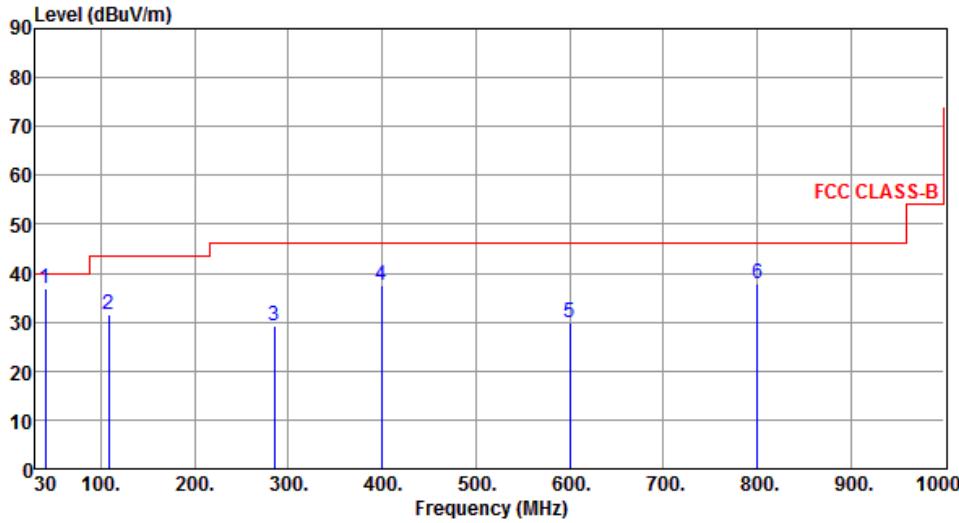


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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.

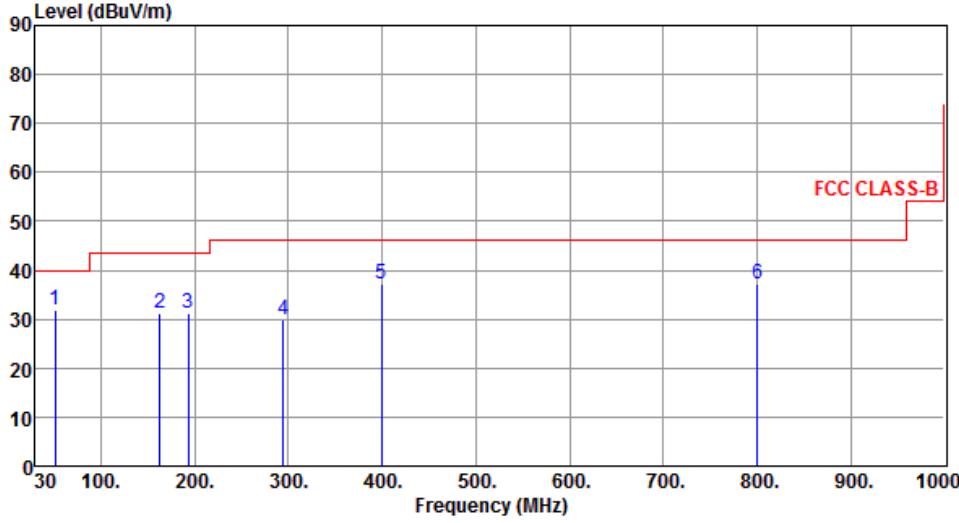
Modulation	VHT20	Test Freq. (MHz)	2437																																																																												
Polarization	Vertical	Test Configuration	1																																																																												
<hr/>																																																																															
<hr/>																																																																															
																																																																															
<table> <thead> <tr> <th>Freq.</th> <th>Emission level</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>40.61</td> <td>36.84</td> <td>40.00</td> <td>-3.16</td> <td>53.83</td> <td>-16.99</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>108.57</td> <td>31.71</td> <td>43.50</td> <td>-11.79</td> <td>52.02</td> <td>-20.31</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>285.11</td> <td>29.10</td> <td>46.00</td> <td>-16.90</td> <td>45.72</td> <td>-16.62</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>399.57</td> <td>37.66</td> <td>46.00</td> <td>-8.34</td> <td>51.39</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>600.36</td> <td>29.81</td> <td>46.00</td> <td>-16.19</td> <td>39.38</td> <td>-9.57</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>37.81</td> <td>46.00</td> <td>-8.19</td> <td>44.49</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	cm	deg	1	40.61	36.84	40.00	-3.16	53.83	-16.99	QP	---	---	2	108.57	31.71	43.50	-11.79	52.02	-20.31	Peak	---	---	3	285.11	29.10	46.00	-16.90	45.72	-16.62	Peak	---	---	4	399.57	37.66	46.00	-8.34	51.39	-13.73	Peak	---	---	5	600.36	29.81	46.00	-16.19	39.38	-9.57	Peak	---	---	6	800.18	37.81	46.00	-8.19	44.49	-6.68	Peak	---	---
Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																								
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	cm	deg																																																																								
1	40.61	36.84	40.00	-3.16	53.83	-16.99	QP	---	---																																																																						
2	108.57	31.71	43.50	-11.79	52.02	-20.31	Peak	---	---																																																																						
3	285.11	29.10	46.00	-16.90	45.72	-16.62	Peak	---	---																																																																						
4	399.57	37.66	46.00	-8.34	51.39	-13.73	Peak	---	---																																																																						
5	600.36	29.81	46.00	-16.19	39.38	-9.57	Peak	---	---																																																																						
6	800.18	37.81	46.00	-8.19	44.49	-6.68	Peak	---	---																																																																						

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

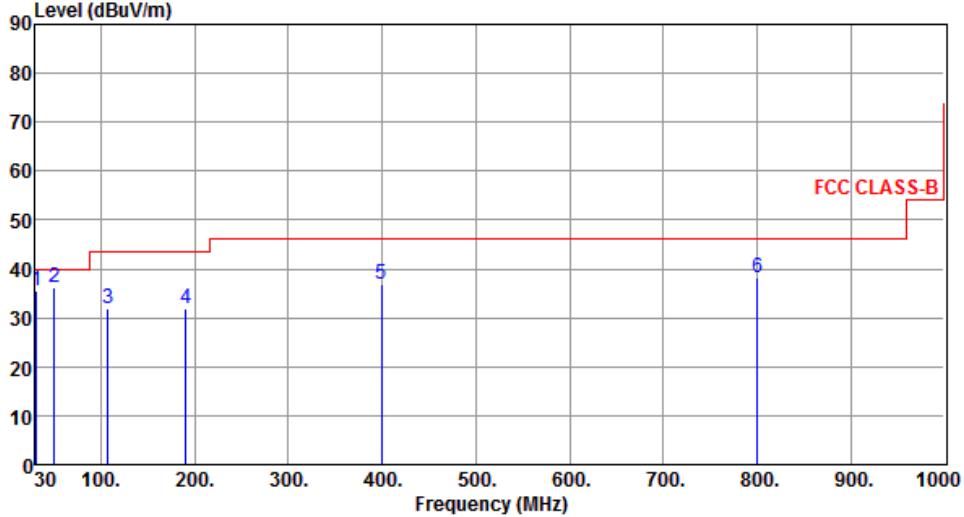
Modulation	VHT20	Test Freq. (MHz)	2437																																																																												
Polarization	Horizontal	Test Configuration	2																																																																												
<hr/>																																																																															
<hr/>																																																																															
																																																																															
<table> <thead> <tr> <th>Freq.</th> <th>Emission Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>MHz</th> <th>level</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>deg</th> <th>cm</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>51.34</td> <td>31.74</td> <td>40.00</td> <td>-8.26</td> <td>48.17</td> <td>-16.43</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>162.89</td> <td>31.31</td> <td>43.50</td> <td>-12.19</td> <td>48.24</td> <td>-16.93</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>192.96</td> <td>31.09</td> <td>43.50</td> <td>-12.41</td> <td>50.71</td> <td>-19.62</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>294.81</td> <td>29.90</td> <td>46.00</td> <td>-16.10</td> <td>46.24</td> <td>-16.34</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>399.57</td> <td>37.34</td> <td>46.00</td> <td>-8.66</td> <td>51.07</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>37.34</td> <td>46.00</td> <td>-8.66</td> <td>44.02</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table	MHz	level	dBuV/m	dBuV/m	dB	dBuV	deg	cm	1	51.34	31.74	40.00	-8.26	48.17	-16.43	Peak	---	---	2	162.89	31.31	43.50	-12.19	48.24	-16.93	Peak	---	---	3	192.96	31.09	43.50	-12.41	50.71	-19.62	Peak	---	---	4	294.81	29.90	46.00	-16.10	46.24	-16.34	Peak	---	---	5	399.57	37.34	46.00	-8.66	51.07	-13.73	Peak	---	---	6	800.18	37.34	46.00	-8.66	44.02	-6.68	Peak	---	---
Freq.	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																								
MHz	level	dBuV/m	dBuV/m	dB	dBuV	deg	cm																																																																								
1	51.34	31.74	40.00	-8.26	48.17	-16.43	Peak	---	---																																																																						
2	162.89	31.31	43.50	-12.19	48.24	-16.93	Peak	---	---																																																																						
3	192.96	31.09	43.50	-12.41	50.71	-19.62	Peak	---	---																																																																						
4	294.81	29.90	46.00	-16.10	46.24	-16.34	Peak	---	---																																																																						
5	399.57	37.34	46.00	-8.66	51.07	-13.73	Peak	---	---																																																																						
6	800.18	37.34	46.00	-8.66	44.02	-6.68	Peak	---	---																																																																						

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT20	Test Freq. (MHz)	2437																																																																				
Polarization	Vertical	Test Configuration	2																																																																				
<hr/>																																																																							
<hr/>																																																																							
																																																																							
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>31.52</td> <td>35.45</td> <td>40.00</td> <td>-4.55</td> <td>53.14</td> <td>-17.69</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>50.11</td> <td>36.04</td> <td>40.00</td> <td>-3.96</td> <td>52.33</td> <td>-16.29</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>107.60</td> <td>31.73</td> <td>43.50</td> <td>-11.77</td> <td>52.19</td> <td>-20.46</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>191.02</td> <td>31.73</td> <td>43.50</td> <td>-11.77</td> <td>51.28</td> <td>-19.55</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>399.57</td> <td>37.02</td> <td>46.00</td> <td>-8.98</td> <td>50.75</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>38.24</td> <td>46.00</td> <td>-7.76</td> <td>44.92</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	31.52	35.45	40.00	-4.55	53.14	-17.69	QP	---	---	2	50.11	36.04	40.00	-3.96	52.33	-16.29	QP	---	---	3	107.60	31.73	43.50	-11.77	52.19	-20.46	Peak	---	---	4	191.02	31.73	43.50	-11.77	51.28	-19.55	Peak	---	---	5	399.57	37.02	46.00	-8.98	50.75	-13.73	Peak	---	---	6	800.18	38.24	46.00	-7.76	44.92	-6.68	Peak	---	---
Freq. MHz	Emission level dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																
1	31.52	35.45	40.00	-4.55	53.14	-17.69	QP	---	---																																																														
2	50.11	36.04	40.00	-3.96	52.33	-16.29	QP	---	---																																																														
3	107.60	31.73	43.50	-11.77	52.19	-20.46	Peak	---	---																																																														
4	191.02	31.73	43.50	-11.77	51.28	-19.55	Peak	---	---																																																														
5	399.57	37.02	46.00	-8.98	50.75	-13.73	Peak	---	---																																																														
6	800.18	38.24	46.00	-7.76	44.92	-6.68	Peak	---	---																																																														

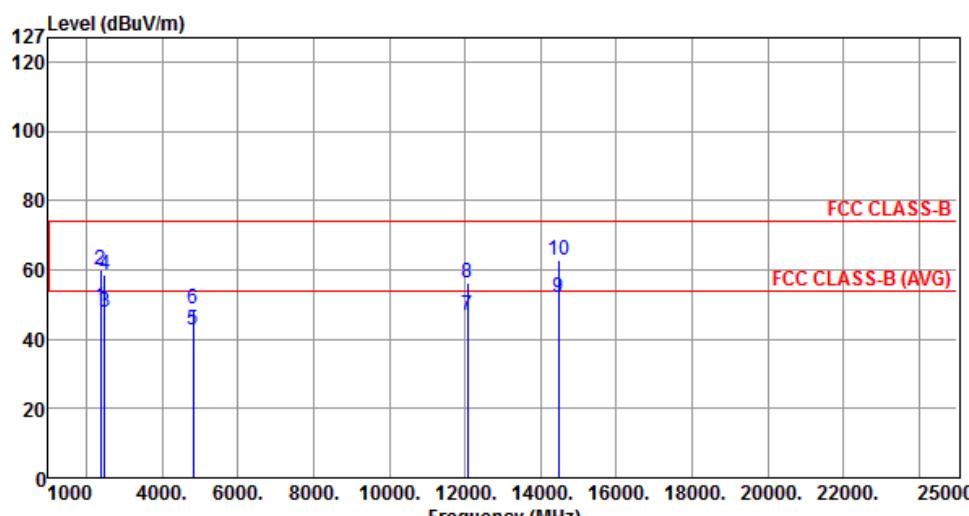
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

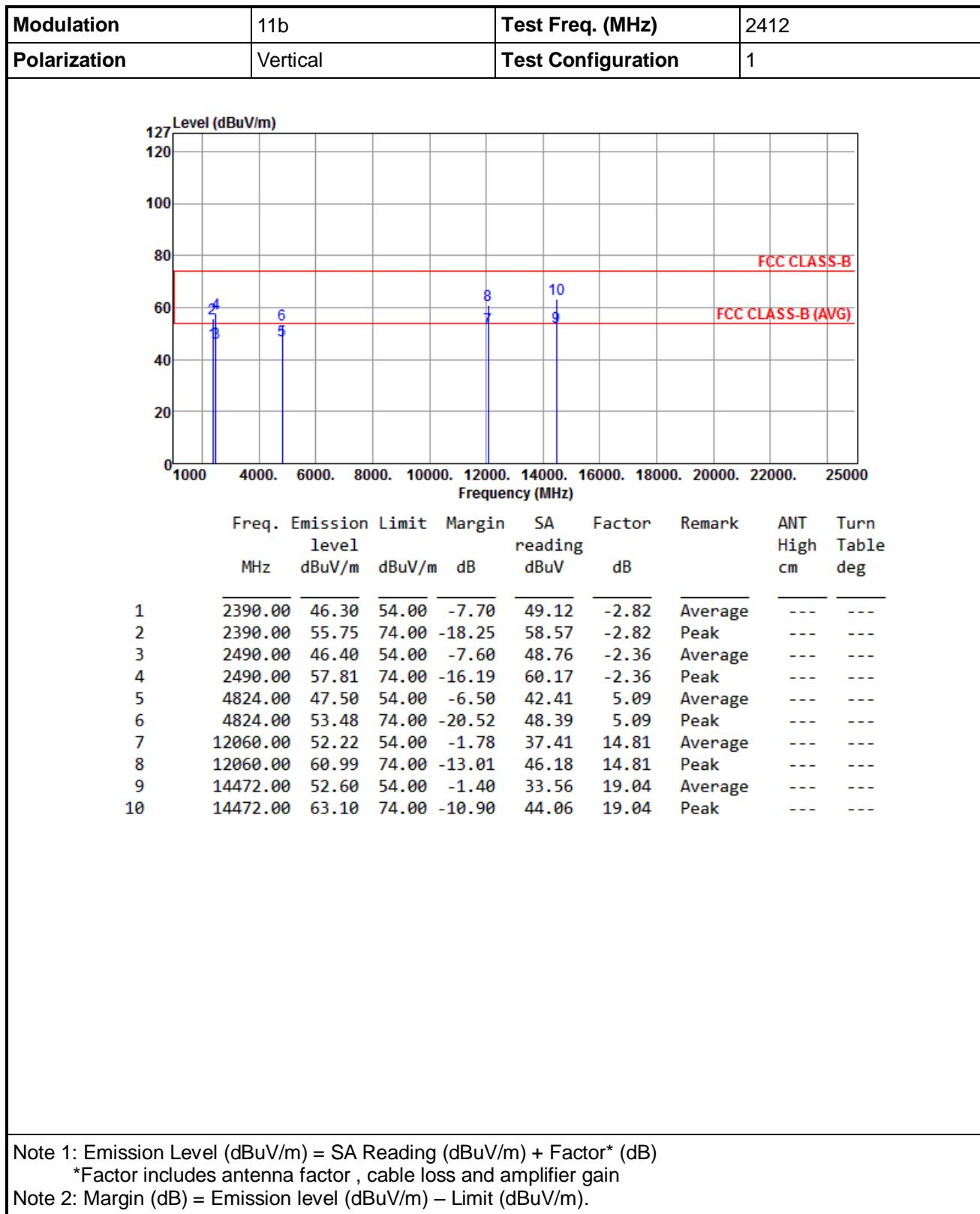
*Factor includes antenna factor , cable loss and amplifier gain

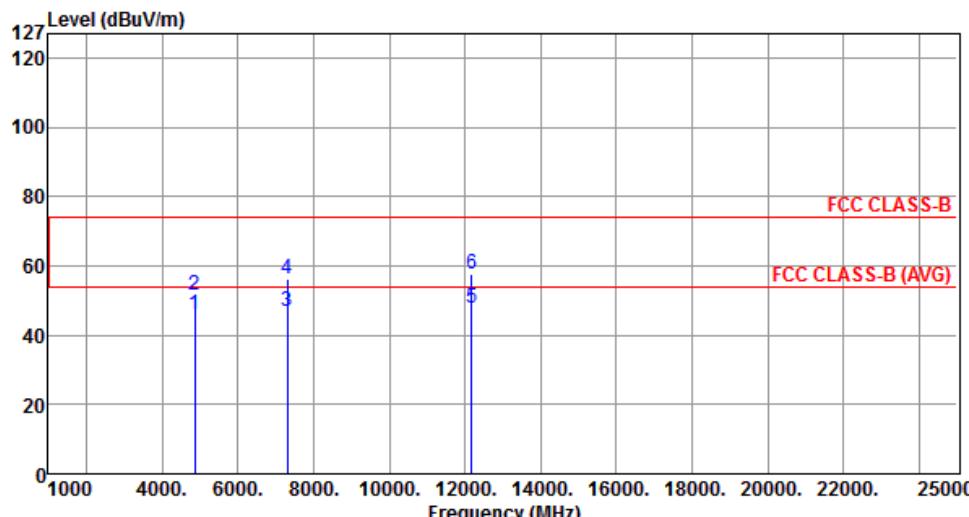
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

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

Modulation	11b	Test Freq. (MHz)	2412																																																																																																			
Polarization	Horizontal	Test Configuration	1																																																																																																			
																																																																																																						
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>49.43</td><td>54.00</td><td>-4.57</td><td>52.25</td><td>-2.82</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>60.18</td><td>74.00</td><td>-13.82</td><td>63.00</td><td>-2.82</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2490.00</td><td>47.89</td><td>54.00</td><td>-6.11</td><td>50.25</td><td>-2.36</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2490.00</td><td>58.36</td><td>74.00</td><td>-15.64</td><td>60.72</td><td>-2.36</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4824.00</td><td>42.57</td><td>54.00</td><td>-11.43</td><td>37.48</td><td>5.09</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4824.00</td><td>48.66</td><td>74.00</td><td>-25.34</td><td>43.57</td><td>5.09</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>12060.00</td><td>46.95</td><td>54.00</td><td>-7.05</td><td>32.14</td><td>14.81</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>12060.00</td><td>56.33</td><td>74.00</td><td>-17.67</td><td>41.52</td><td>14.81</td><td>Peak</td><td>---</td></tr> <tr><td>9</td><td>14472.00</td><td>52.14</td><td>54.00</td><td>-1.86</td><td>33.10</td><td>19.04</td><td>Average</td><td>---</td></tr> <tr><td>10</td><td>14472.00</td><td>62.96</td><td>74.00</td><td>-11.04</td><td>43.92</td><td>19.04</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	49.43	54.00	-4.57	52.25	-2.82	Average	---	2	2390.00	60.18	74.00	-13.82	63.00	-2.82	Peak	---	3	2490.00	47.89	54.00	-6.11	50.25	-2.36	Average	---	4	2490.00	58.36	74.00	-15.64	60.72	-2.36	Peak	---	5	4824.00	42.57	54.00	-11.43	37.48	5.09	Average	---	6	4824.00	48.66	74.00	-25.34	43.57	5.09	Peak	---	7	12060.00	46.95	54.00	-7.05	32.14	14.81	Average	---	8	12060.00	56.33	74.00	-17.67	41.52	14.81	Peak	---	9	14472.00	52.14	54.00	-1.86	33.10	19.04	Average	---	10	14472.00	62.96	74.00	-11.04	43.92	19.04	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	2390.00	49.43	54.00	-4.57	52.25	-2.82	Average	---																																																																																														
2	2390.00	60.18	74.00	-13.82	63.00	-2.82	Peak	---																																																																																														
3	2490.00	47.89	54.00	-6.11	50.25	-2.36	Average	---																																																																																														
4	2490.00	58.36	74.00	-15.64	60.72	-2.36	Peak	---																																																																																														
5	4824.00	42.57	54.00	-11.43	37.48	5.09	Average	---																																																																																														
6	4824.00	48.66	74.00	-25.34	43.57	5.09	Peak	---																																																																																														
7	12060.00	46.95	54.00	-7.05	32.14	14.81	Average	---																																																																																														
8	12060.00	56.33	74.00	-17.67	41.52	14.81	Peak	---																																																																																														
9	14472.00	52.14	54.00	-1.86	33.10	19.04	Average	---																																																																																														
10	14472.00	62.96	74.00	-11.04	43.92	19.04	Peak	---																																																																																														
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).																																																																																																						

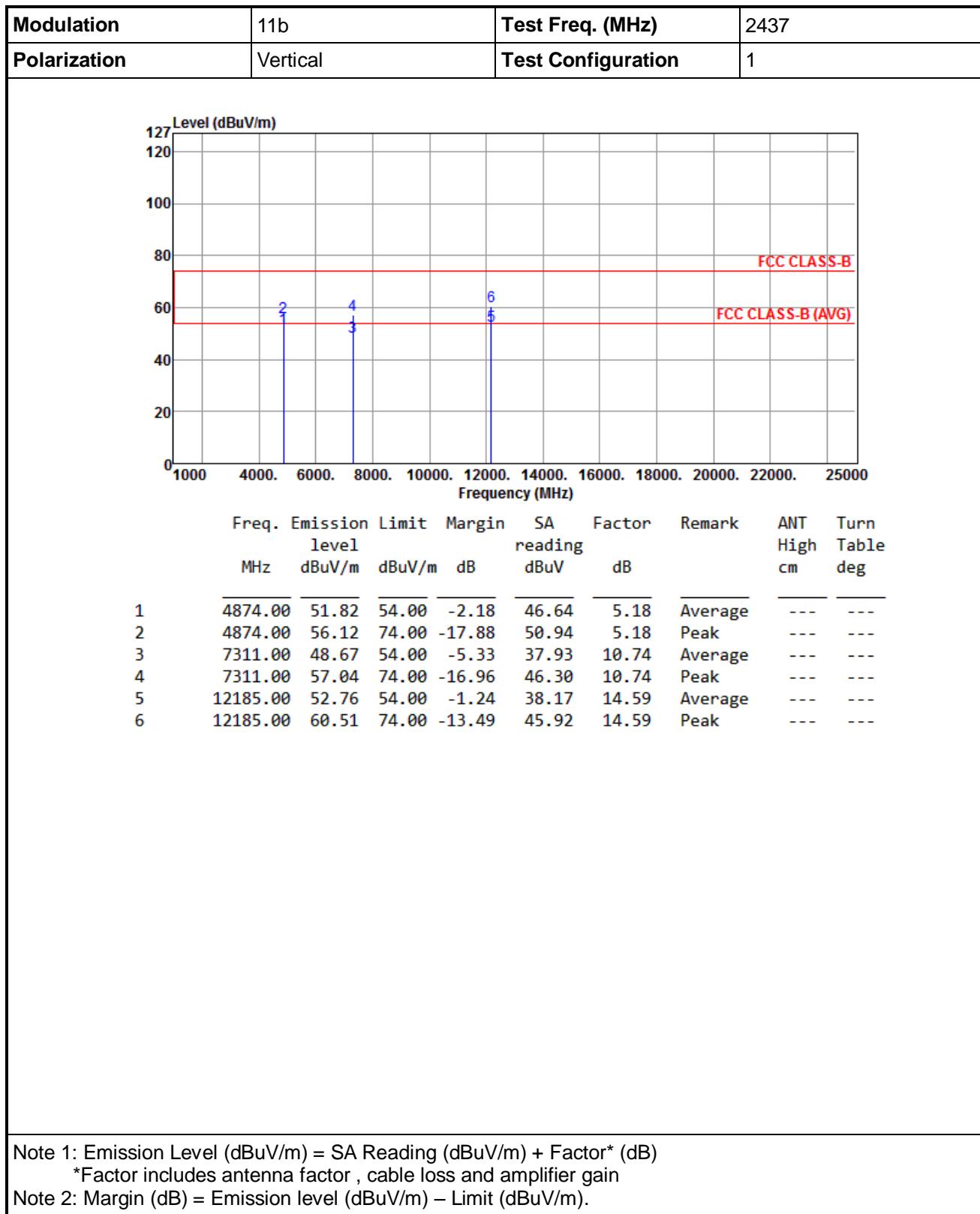


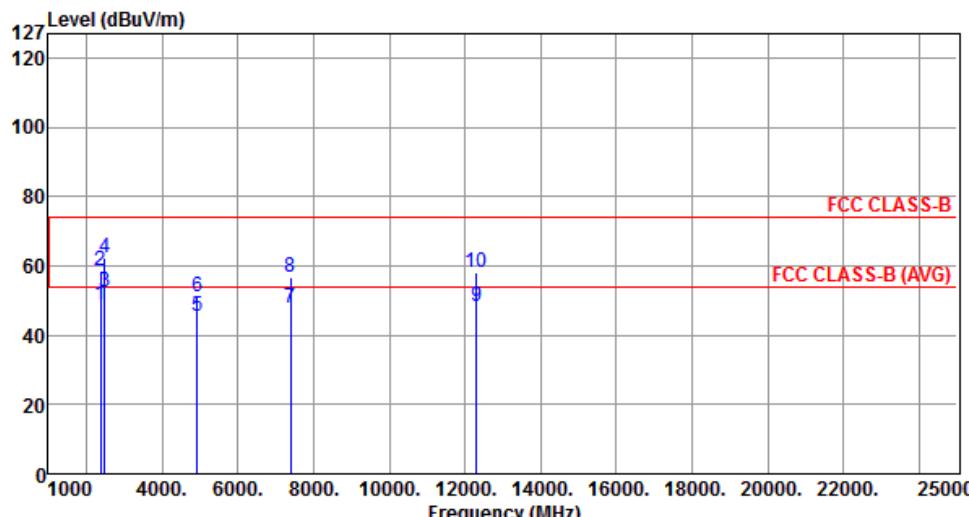
Modulation	11b	Test Freq. (MHz)	2437																																																															
Polarization	Horizontal	Test Configuration	1																																																															
<hr/>																																																																		
<hr/>																																																																		
 <p>The graph plots Emission Level (dBuV/m) against Frequency (MHz). The Y-axis ranges from 0 to 127 dBuV/m, and the X-axis ranges from 1000 to 25000 MHz. A red horizontal line at approximately 72 dBuV/m represents the FCC CLASS-B limit. A lower red horizontal line at approximately 54 dBuV/m represents the FCC CLASS-B (AVG) limit. Six blue vertical lines represent measured emission levels at specific frequencies: point 1 at ~4874 MHz (51.37 dBuV/m), point 2 at ~7311 MHz (47.00 dBuV/m), point 3 at ~7311 MHz (56.28 dBuV/m), point 4 at ~12185 MHz (48.03 dBuV/m), point 5 at ~12185 MHz (57.57 dBuV/m), and point 6 at ~12185 MHz (74.00 dBuV/m).</p>																																																																		
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4874.00</td> <td>45.85</td> <td>54.00 -8.15</td> <td>40.67</td> <td>5.18</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>4874.00</td> <td>51.37</td> <td>74.00 -22.63</td> <td>46.19</td> <td>5.18</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>7311.00</td> <td>47.00</td> <td>54.00 -7.00</td> <td>36.26</td> <td>10.74</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>7311.00</td> <td>56.28</td> <td>74.00 -17.72</td> <td>45.54</td> <td>10.74</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12185.00</td> <td>48.03</td> <td>54.00 -5.97</td> <td>33.44</td> <td>14.59</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12185.00</td> <td>57.57</td> <td>74.00 -16.43</td> <td>42.98</td> <td>14.59</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	4874.00	45.85	54.00 -8.15	40.67	5.18	Average	---	---	2	4874.00	51.37	74.00 -22.63	46.19	5.18	Peak	---	---	3	7311.00	47.00	54.00 -7.00	36.26	10.74	Average	---	---	4	7311.00	56.28	74.00 -17.72	45.54	10.74	Peak	---	---	5	12185.00	48.03	54.00 -5.97	33.44	14.59	Average	---	---	6	12185.00	57.57	74.00 -16.43	42.98	14.59	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	4874.00	45.85	54.00 -8.15	40.67	5.18	Average	---	---																																																										
2	4874.00	51.37	74.00 -22.63	46.19	5.18	Peak	---	---																																																										
3	7311.00	47.00	54.00 -7.00	36.26	10.74	Average	---	---																																																										
4	7311.00	56.28	74.00 -17.72	45.54	10.74	Peak	---	---																																																										
5	12185.00	48.03	54.00 -5.97	33.44	14.59	Average	---	---																																																										
6	12185.00	57.57	74.00 -16.43	42.98	14.59	Peak	---	---																																																										

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

*Factor includes antenna factor , cable loss and amplifier gain

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

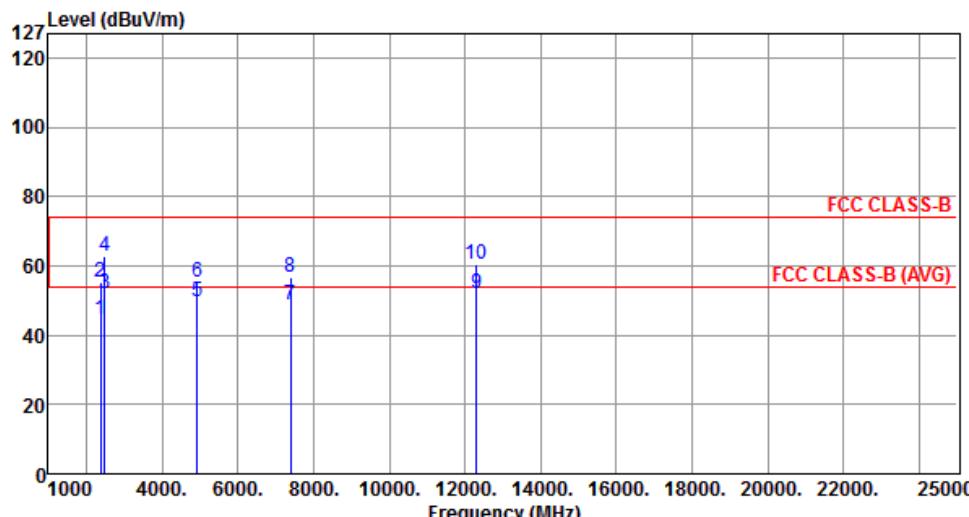


Modulation	11b	Test Freq. (MHz)	2462																																																																																																			
Polarization	Horizontal	Test Configuration	1																																																																																																			
<hr/>																																																																																																						
<hr/>																																																																																																						
																																																																																																						
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2382.00</td><td>48.65</td><td>54.00</td><td>-5.35</td><td>51.50</td><td>-2.85</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2382.00</td><td>58.51</td><td>74.00</td><td>-15.49</td><td>61.36</td><td>-2.85</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>52.54</td><td>54.00</td><td>-1.46</td><td>54.93</td><td>-2.39</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>62.28</td><td>74.00</td><td>-11.72</td><td>64.67</td><td>-2.39</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4924.00</td><td>45.55</td><td>54.00</td><td>-8.45</td><td>40.27</td><td>5.28</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4924.00</td><td>50.88</td><td>74.00</td><td>-23.12</td><td>45.60</td><td>5.28</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>7386.00</td><td>47.84</td><td>54.00</td><td>-6.16</td><td>37.00</td><td>10.84</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>7386.00</td><td>56.85</td><td>74.00</td><td>-17.15</td><td>46.01</td><td>10.84</td><td>Peak</td><td>---</td></tr> <tr><td>9</td><td>12310.00</td><td>48.43</td><td>54.00</td><td>-5.57</td><td>34.05</td><td>14.38</td><td>Average</td><td>---</td></tr> <tr><td>10</td><td>12310.00</td><td>57.89</td><td>74.00</td><td>-16.11</td><td>43.51</td><td>14.38</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2382.00	48.65	54.00	-5.35	51.50	-2.85	Average	---	2	2382.00	58.51	74.00	-15.49	61.36	-2.85	Peak	---	3	2483.50	52.54	54.00	-1.46	54.93	-2.39	Average	---	4	2483.50	62.28	74.00	-11.72	64.67	-2.39	Peak	---	5	4924.00	45.55	54.00	-8.45	40.27	5.28	Average	---	6	4924.00	50.88	74.00	-23.12	45.60	5.28	Peak	---	7	7386.00	47.84	54.00	-6.16	37.00	10.84	Average	---	8	7386.00	56.85	74.00	-17.15	46.01	10.84	Peak	---	9	12310.00	48.43	54.00	-5.57	34.05	14.38	Average	---	10	12310.00	57.89	74.00	-16.11	43.51	14.38	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	2382.00	48.65	54.00	-5.35	51.50	-2.85	Average	---																																																																																														
2	2382.00	58.51	74.00	-15.49	61.36	-2.85	Peak	---																																																																																														
3	2483.50	52.54	54.00	-1.46	54.93	-2.39	Average	---																																																																																														
4	2483.50	62.28	74.00	-11.72	64.67	-2.39	Peak	---																																																																																														
5	4924.00	45.55	54.00	-8.45	40.27	5.28	Average	---																																																																																														
6	4924.00	50.88	74.00	-23.12	45.60	5.28	Peak	---																																																																																														
7	7386.00	47.84	54.00	-6.16	37.00	10.84	Average	---																																																																																														
8	7386.00	56.85	74.00	-17.15	46.01	10.84	Peak	---																																																																																														
9	12310.00	48.43	54.00	-5.57	34.05	14.38	Average	---																																																																																														
10	12310.00	57.89	74.00	-16.11	43.51	14.38	Peak	---																																																																																														

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

*Factor includes antenna factor , cable loss and amplifier gain

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

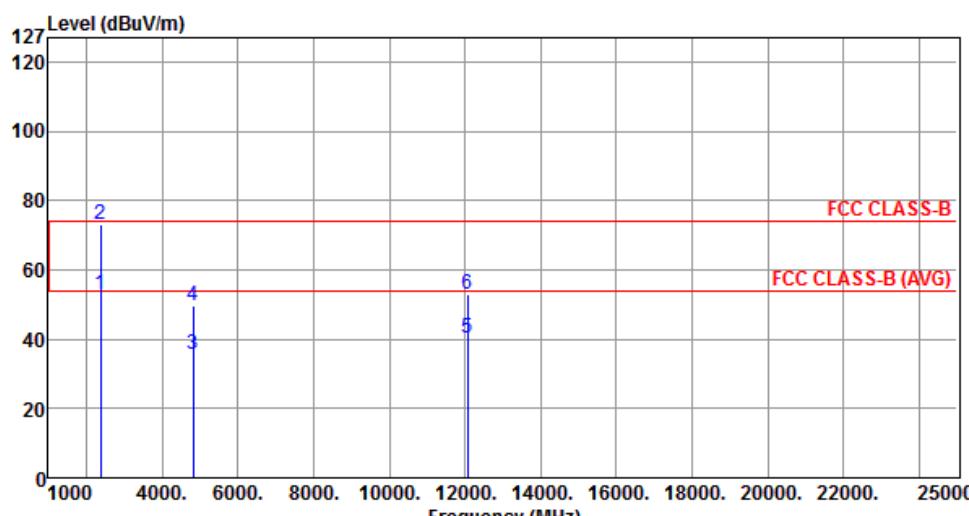
Modulation	11b	Test Freq. (MHz)	2462																																																																																																			
Polarization	Vertical	Test Configuration	1																																																																																																			
<hr/>																																																																																																						
<hr/>																																																																																																						
																																																																																																						
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2382.00</td><td>44.66</td><td>54.00</td><td>-9.34</td><td>47.51</td><td>-2.85</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2382.00</td><td>55.49</td><td>74.00</td><td>-18.51</td><td>58.34</td><td>-2.85</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>52.21</td><td>54.00</td><td>-1.79</td><td>54.60</td><td>-2.39</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>62.74</td><td>74.00</td><td>-11.26</td><td>65.13</td><td>-2.39</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4924.00</td><td>49.49</td><td>54.00</td><td>-4.51</td><td>44.21</td><td>5.28</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4924.00</td><td>55.08</td><td>74.00</td><td>-18.92</td><td>49.80</td><td>5.28</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>7386.00</td><td>48.69</td><td>54.00</td><td>-5.31</td><td>37.85</td><td>10.84</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>7386.00</td><td>56.86</td><td>74.00</td><td>-17.14</td><td>46.02</td><td>10.84</td><td>Peak</td><td>---</td></tr> <tr><td>9</td><td>12310.00</td><td>52.21</td><td>54.00</td><td>-1.79</td><td>37.83</td><td>14.38</td><td>Average</td><td>---</td></tr> <tr><td>10</td><td>12310.00</td><td>60.40</td><td>74.00</td><td>-13.60</td><td>46.02</td><td>14.38</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2382.00	44.66	54.00	-9.34	47.51	-2.85	Average	---	2	2382.00	55.49	74.00	-18.51	58.34	-2.85	Peak	---	3	2483.50	52.21	54.00	-1.79	54.60	-2.39	Average	---	4	2483.50	62.74	74.00	-11.26	65.13	-2.39	Peak	---	5	4924.00	49.49	54.00	-4.51	44.21	5.28	Average	---	6	4924.00	55.08	74.00	-18.92	49.80	5.28	Peak	---	7	7386.00	48.69	54.00	-5.31	37.85	10.84	Average	---	8	7386.00	56.86	74.00	-17.14	46.02	10.84	Peak	---	9	12310.00	52.21	54.00	-1.79	37.83	14.38	Average	---	10	12310.00	60.40	74.00	-13.60	46.02	14.38	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	2382.00	44.66	54.00	-9.34	47.51	-2.85	Average	---																																																																																														
2	2382.00	55.49	74.00	-18.51	58.34	-2.85	Peak	---																																																																																														
3	2483.50	52.21	54.00	-1.79	54.60	-2.39	Average	---																																																																																														
4	2483.50	62.74	74.00	-11.26	65.13	-2.39	Peak	---																																																																																														
5	4924.00	49.49	54.00	-4.51	44.21	5.28	Average	---																																																																																														
6	4924.00	55.08	74.00	-18.92	49.80	5.28	Peak	---																																																																																														
7	7386.00	48.69	54.00	-5.31	37.85	10.84	Average	---																																																																																														
8	7386.00	56.86	74.00	-17.14	46.02	10.84	Peak	---																																																																																														
9	12310.00	52.21	54.00	-1.79	37.83	14.38	Average	---																																																																																														
10	12310.00	60.40	74.00	-13.60	46.02	14.38	Peak	---																																																																																														

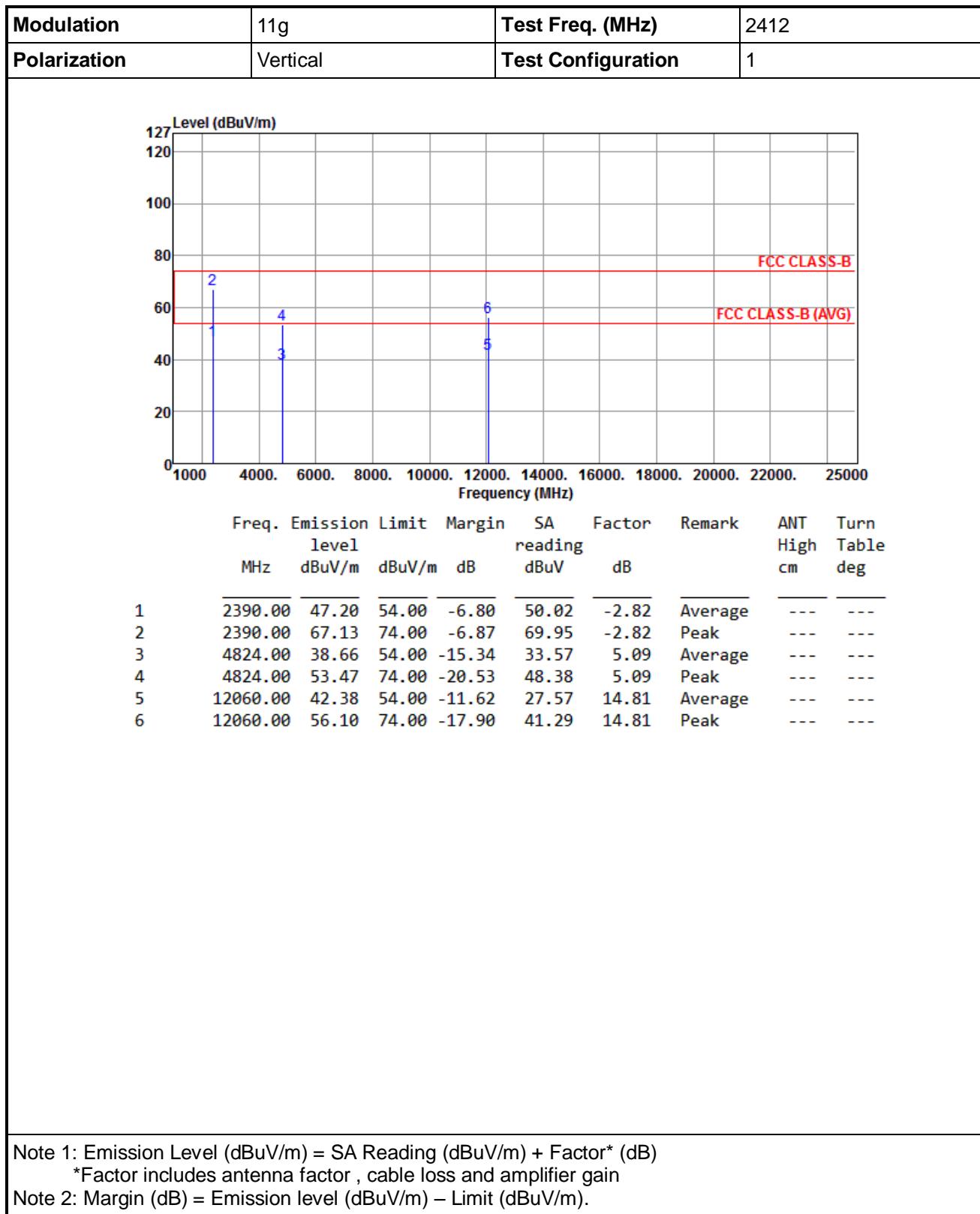
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

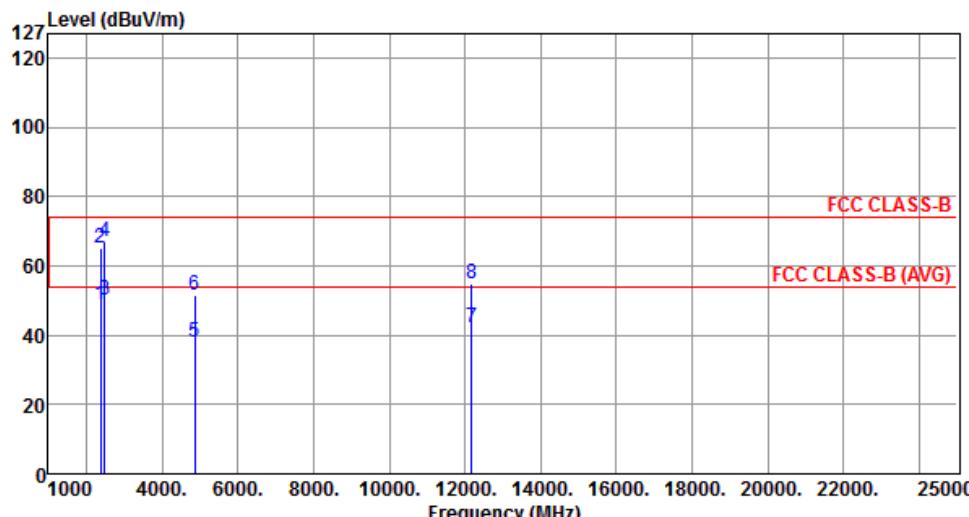
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11g	Test Freq. (MHz)	2412																																																															
Polarization	Horizontal	Test Configuration	1																																																															
																																																																		
<table> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>52.81</td> <td>54.00</td> <td>-1.19</td> <td>55.63</td> <td>-2.82</td> <td>Average</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>72.93</td> <td>74.00</td> <td>-1.07</td> <td>75.75</td> <td>-2.82</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>35.55</td> <td>54.00</td> <td>-18.45</td> <td>30.46</td> <td>5.09</td> <td>Average</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>49.82</td> <td>74.00</td> <td>-24.18</td> <td>44.73</td> <td>5.09</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>40.18</td> <td>54.00</td> <td>-13.82</td> <td>25.37</td> <td>14.81</td> <td>Average</td> <td>---</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>53.00</td> <td>74.00</td> <td>-21.00</td> <td>38.19</td> <td>14.81</td> <td>Peak</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	52.81	54.00	-1.19	55.63	-2.82	Average	---	2	2390.00	72.93	74.00	-1.07	75.75	-2.82	Peak	---	3	4824.00	35.55	54.00	-18.45	30.46	5.09	Average	---	4	4824.00	49.82	74.00	-24.18	44.73	5.09	Peak	---	5	12060.00	40.18	54.00	-13.82	25.37	14.81	Average	---	6	12060.00	53.00	74.00	-21.00	38.19	14.81	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	2390.00	52.81	54.00	-1.19	55.63	-2.82	Average	---																																																										
2	2390.00	72.93	74.00	-1.07	75.75	-2.82	Peak	---																																																										
3	4824.00	35.55	54.00	-18.45	30.46	5.09	Average	---																																																										
4	4824.00	49.82	74.00	-24.18	44.73	5.09	Peak	---																																																										
5	12060.00	40.18	54.00	-13.82	25.37	14.81	Average	---																																																										
6	12060.00	53.00	74.00	-21.00	38.19	14.81	Peak	---																																																										
<p>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).</p>																																																																		

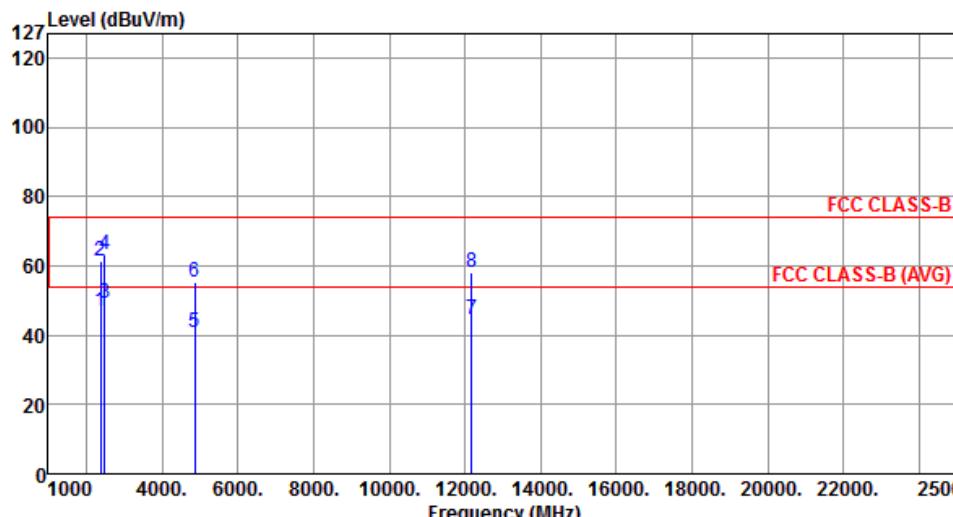


Modulation	11g	Test Freq. (MHz)	2437																																																																																	
Polarization	Horizontal	Test Configuration	1																																																																																	
<hr/>																																																																																				
<hr/>																																																																																				
																																																																																				
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>48.94</td><td>54.00</td><td>-5.06</td><td>51.76</td><td>-2.82</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>64.91</td><td>74.00</td><td>-9.09</td><td>67.73</td><td>-2.82</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>49.95</td><td>54.00</td><td>-4.05</td><td>52.34</td><td>-2.39</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>67.12</td><td>74.00</td><td>-6.88</td><td>69.51</td><td>-2.39</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4874.00</td><td>37.74</td><td>54.00</td><td>-16.26</td><td>32.56</td><td>5.18</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4874.00</td><td>51.53</td><td>74.00</td><td>-22.47</td><td>46.35</td><td>5.18</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>12185.00</td><td>42.26</td><td>54.00</td><td>-11.74</td><td>27.67</td><td>14.59</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>12185.00</td><td>55.02</td><td>74.00</td><td>-18.98</td><td>40.43</td><td>14.59</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	48.94	54.00	-5.06	51.76	-2.82	Average	---	2	2390.00	64.91	74.00	-9.09	67.73	-2.82	Peak	---	3	2483.50	49.95	54.00	-4.05	52.34	-2.39	Average	---	4	2483.50	67.12	74.00	-6.88	69.51	-2.39	Peak	---	5	4874.00	37.74	54.00	-16.26	32.56	5.18	Average	---	6	4874.00	51.53	74.00	-22.47	46.35	5.18	Peak	---	7	12185.00	42.26	54.00	-11.74	27.67	14.59	Average	---	8	12185.00	55.02	74.00	-18.98	40.43	14.59	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																												
1	2390.00	48.94	54.00	-5.06	51.76	-2.82	Average	---																																																																												
2	2390.00	64.91	74.00	-9.09	67.73	-2.82	Peak	---																																																																												
3	2483.50	49.95	54.00	-4.05	52.34	-2.39	Average	---																																																																												
4	2483.50	67.12	74.00	-6.88	69.51	-2.39	Peak	---																																																																												
5	4874.00	37.74	54.00	-16.26	32.56	5.18	Average	---																																																																												
6	4874.00	51.53	74.00	-22.47	46.35	5.18	Peak	---																																																																												
7	12185.00	42.26	54.00	-11.74	27.67	14.59	Average	---																																																																												
8	12185.00	55.02	74.00	-18.98	40.43	14.59	Peak	---																																																																												

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

*Factor includes antenna factor , cable loss and amplifier gain

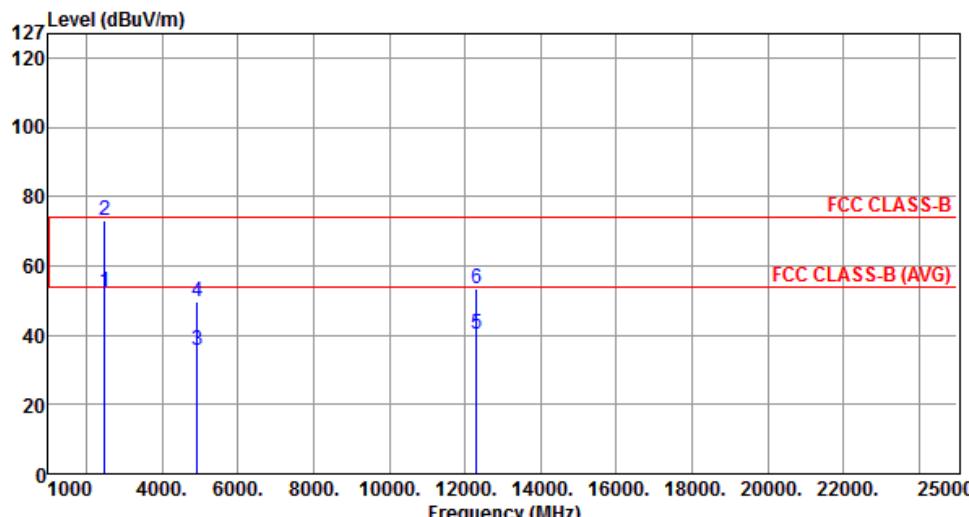
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2437																																																																																	
Polarization	Vertical	Test Configuration	1																																																																																	
<hr/>																																																																																				
<hr/>																																																																																				
																																																																																				
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>46.89</td><td>54.00 -7.11</td><td>49.71</td><td>-2.82</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>61.42</td><td>74.00 -12.58</td><td>64.24</td><td>-2.82</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>49.08</td><td>54.00 -4.92</td><td>51.47</td><td>-2.39</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>63.32</td><td>74.00 -10.68</td><td>65.71</td><td>-2.39</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>5</td><td>4874.00</td><td>40.78</td><td>54.00 -13.22</td><td>35.60</td><td>5.18</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>6</td><td>4874.00</td><td>55.35</td><td>74.00 -18.65</td><td>50.17</td><td>5.18</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>7</td><td>12185.00</td><td>44.50</td><td>54.00 -9.50</td><td>29.91</td><td>14.59</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>8</td><td>12185.00</td><td>58.20</td><td>74.00 -15.80</td><td>43.61</td><td>14.59</td><td>Peak</td><td>---</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	46.89	54.00 -7.11	49.71	-2.82	Average	---	---	2	2390.00	61.42	74.00 -12.58	64.24	-2.82	Peak	---	---	3	2483.50	49.08	54.00 -4.92	51.47	-2.39	Average	---	---	4	2483.50	63.32	74.00 -10.68	65.71	-2.39	Peak	---	---	5	4874.00	40.78	54.00 -13.22	35.60	5.18	Average	---	---	6	4874.00	55.35	74.00 -18.65	50.17	5.18	Peak	---	---	7	12185.00	44.50	54.00 -9.50	29.91	14.59	Average	---	---	8	12185.00	58.20	74.00 -15.80	43.61	14.59	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																												
1	2390.00	46.89	54.00 -7.11	49.71	-2.82	Average	---	---																																																																												
2	2390.00	61.42	74.00 -12.58	64.24	-2.82	Peak	---	---																																																																												
3	2483.50	49.08	54.00 -4.92	51.47	-2.39	Average	---	---																																																																												
4	2483.50	63.32	74.00 -10.68	65.71	-2.39	Peak	---	---																																																																												
5	4874.00	40.78	54.00 -13.22	35.60	5.18	Average	---	---																																																																												
6	4874.00	55.35	74.00 -18.65	50.17	5.18	Peak	---	---																																																																												
7	12185.00	44.50	54.00 -9.50	29.91	14.59	Average	---	---																																																																												
8	12185.00	58.20	74.00 -15.80	43.61	14.59	Peak	---	---																																																																												

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

*Factor includes antenna factor , cable loss and amplifier gain

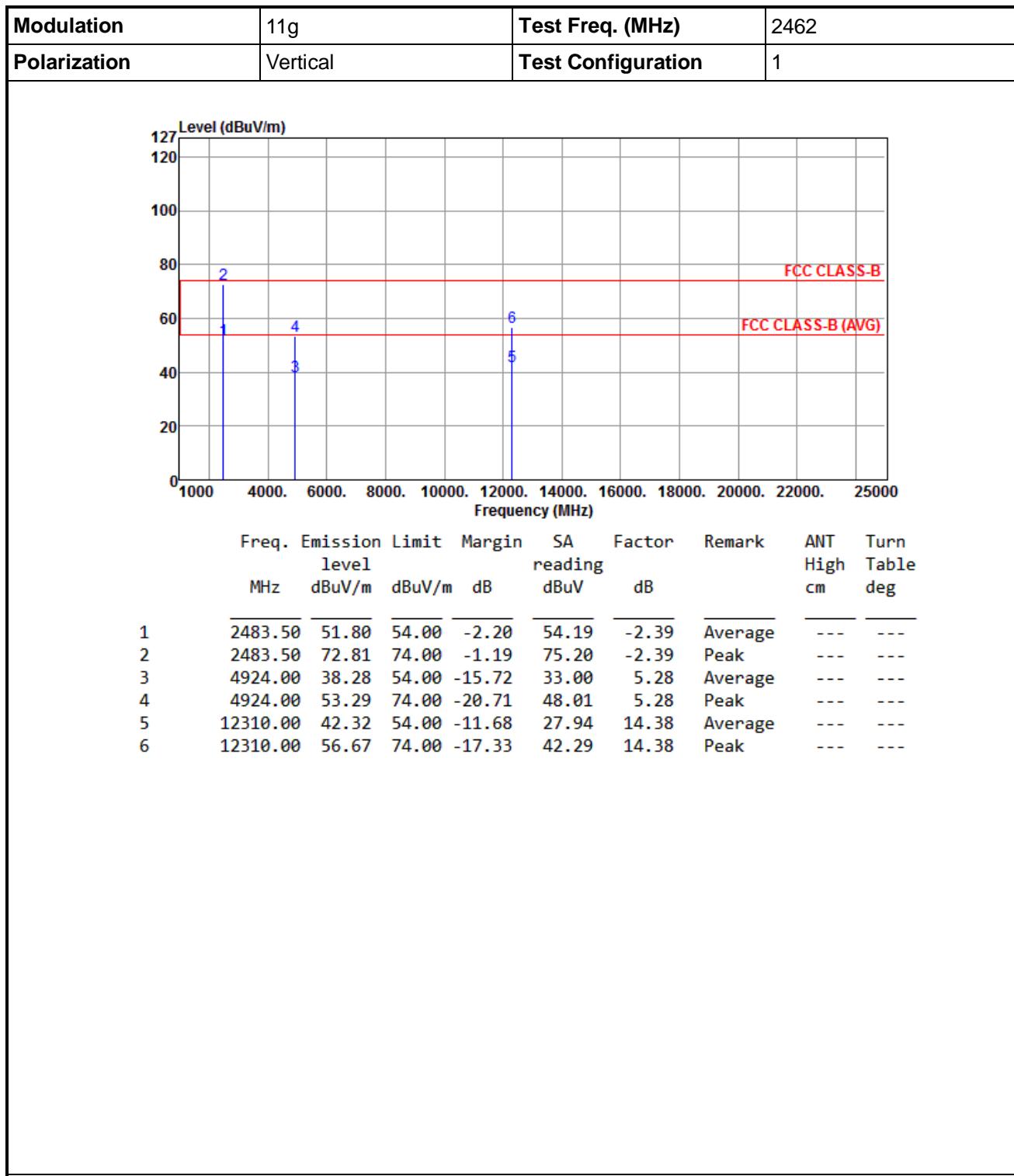
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2462																																																																						
Polarization	Horizontal	Test Configuration	1																																																																						
<hr/>																																																																									
<hr/>																																																																									
 <p>The graph plots Emission Level (dBuV/m) against Frequency (MHz). The Y-axis ranges from 0 to 127 dBuV/m, and the X-axis ranges from 1000 to 25000 MHz. Six vertical blue lines represent measured data points labeled 2, 3, 4, 5, and 6. Two horizontal red lines represent the FCC CLASS-B and FCC CLASS-B (AVG) limits at approximately 75 dBuV/m and 55 dBuV/m respectively.</p>																																																																									
<table border="1"> <thead> <tr> <th></th> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2483.50</td> <td>52.63</td> <td>54.00</td> <td>-1.37</td> <td>55.02</td> <td>-2.39</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2483.50</td> <td>72.91</td> <td>74.00</td> <td>-1.09</td> <td>75.30</td> <td>-2.39</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>4924.00</td> <td>35.46</td> <td>54.00</td> <td>-18.54</td> <td>30.18</td> <td>5.28</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>4924.00</td> <td>49.72</td> <td>74.00</td> <td>-24.28</td> <td>44.44</td> <td>5.28</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12310.00</td> <td>40.09</td> <td>54.00</td> <td>-13.91</td> <td>25.71</td> <td>14.38</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12310.00</td> <td>53.60</td> <td>74.00</td> <td>-20.40</td> <td>39.22</td> <td>14.38</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2483.50	52.63	54.00	-1.37	55.02	-2.39	Average	---	---	2	2483.50	72.91	74.00	-1.09	75.30	-2.39	Peak	---	---	3	4924.00	35.46	54.00	-18.54	30.18	5.28	Average	---	---	4	4924.00	49.72	74.00	-24.28	44.44	5.28	Peak	---	---	5	12310.00	40.09	54.00	-13.91	25.71	14.38	Average	---	---	6	12310.00	53.60	74.00	-20.40	39.22	14.38	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																
1	2483.50	52.63	54.00	-1.37	55.02	-2.39	Average	---	---																																																																
2	2483.50	72.91	74.00	-1.09	75.30	-2.39	Peak	---	---																																																																
3	4924.00	35.46	54.00	-18.54	30.18	5.28	Average	---	---																																																																
4	4924.00	49.72	74.00	-24.28	44.44	5.28	Peak	---	---																																																																
5	12310.00	40.09	54.00	-13.91	25.71	14.38	Average	---	---																																																																
6	12310.00	53.60	74.00	-20.40	39.22	14.38	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).

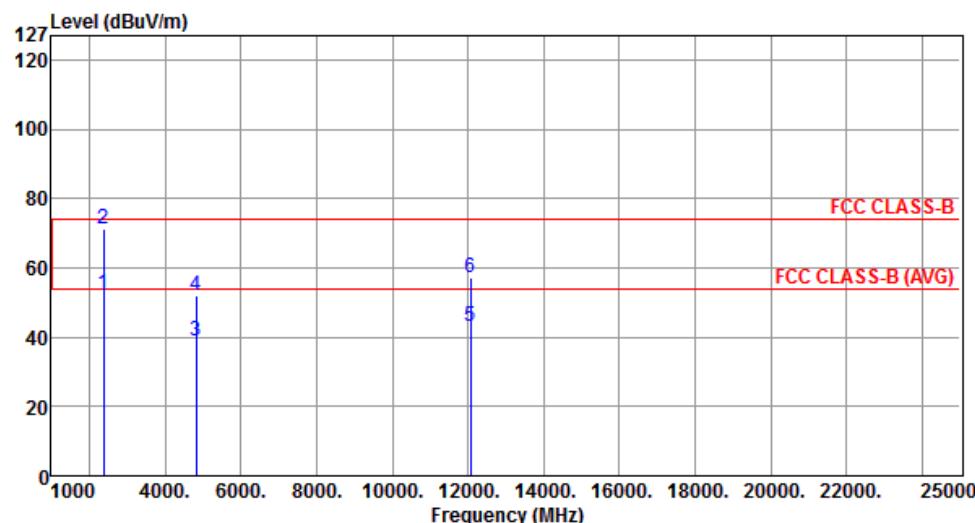


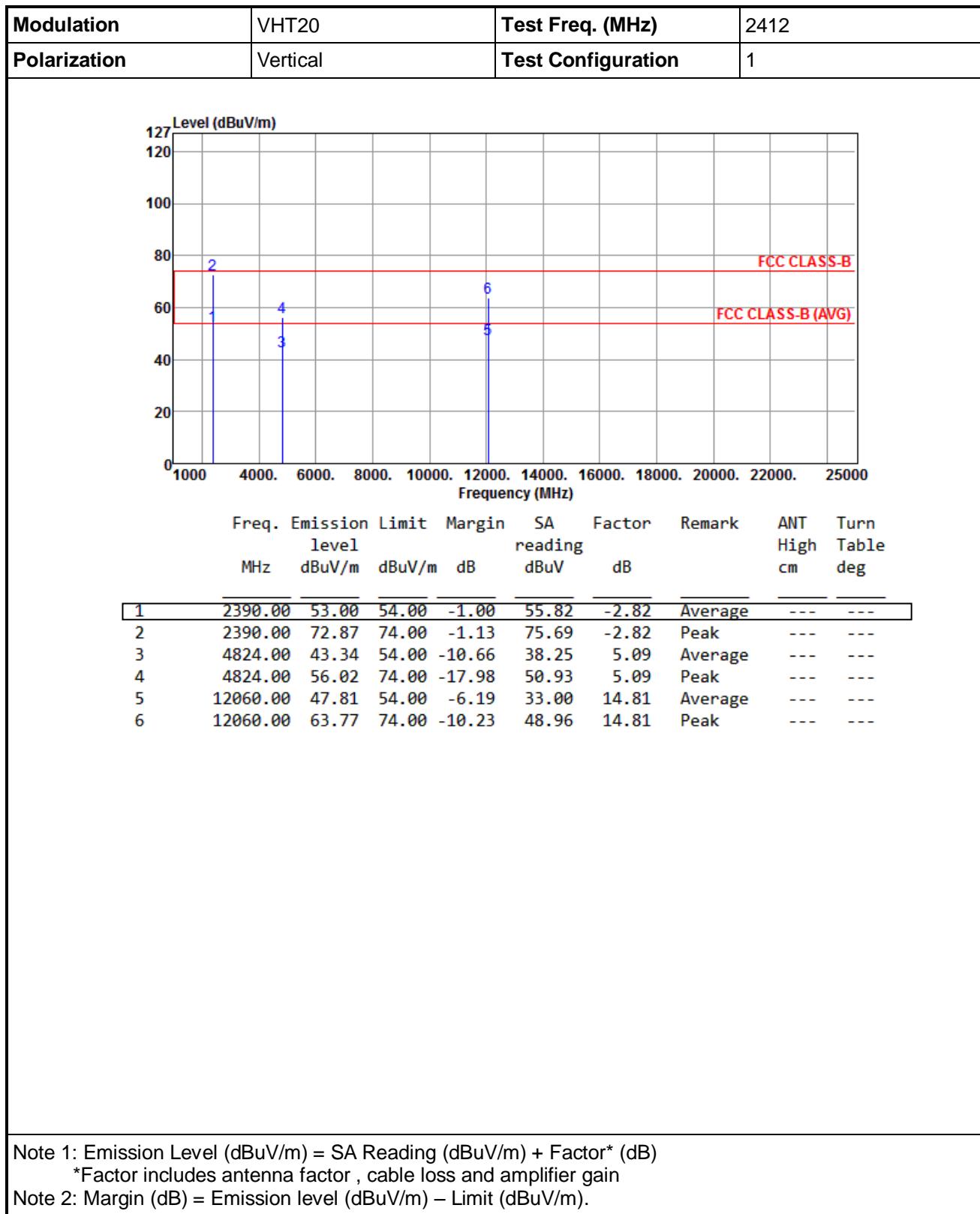
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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 VHT20

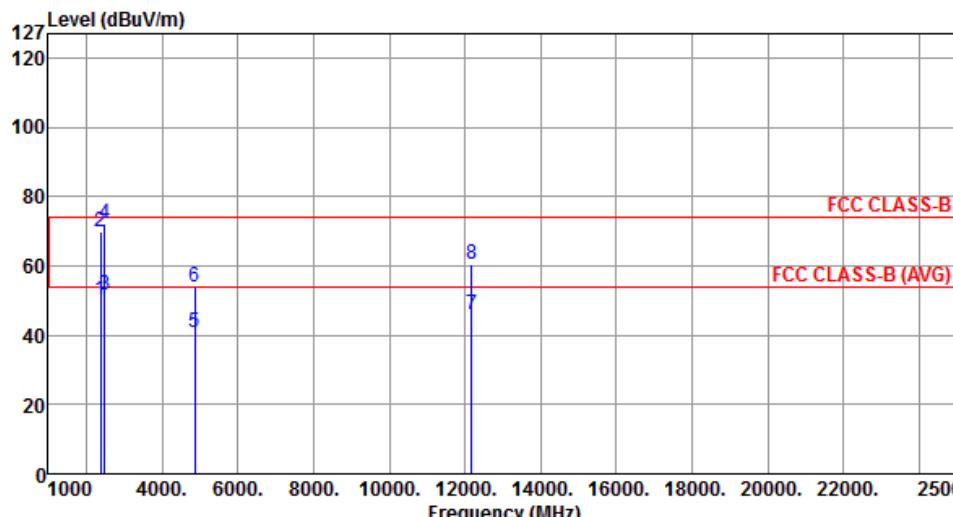
Modulation	VHT20	Test Freq. (MHz)	2412																																																																		
Polarization	Horizontal	Test Configuration	1																																																																		
																																																																					
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit level dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>52.58</td> <td>54.00</td> <td>-1.42</td> <td>55.40</td> <td>-2.82</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>71.15</td> <td>74.00</td> <td>-2.85</td> <td>73.97</td> <td>-2.82</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>38.94</td> <td>54.00</td> <td>-15.06</td> <td>33.85</td> <td>5.09</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>51.92</td> <td>74.00</td> <td>-22.08</td> <td>46.83</td> <td>5.09</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>42.93</td> <td>54.00</td> <td>-11.07</td> <td>28.12</td> <td>14.81</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>57.40</td> <td>74.00</td> <td>-16.60</td> <td>42.59</td> <td>14.81</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	Freq. MHz	Emission level dBuV/m	Limit level dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	52.58	54.00	-1.42	55.40	-2.82	Average	---	---	2	2390.00	71.15	74.00	-2.85	73.97	-2.82	Peak	---	---	3	4824.00	38.94	54.00	-15.06	33.85	5.09	Average	---	---	4	4824.00	51.92	74.00	-22.08	46.83	5.09	Peak	---	---	5	12060.00	42.93	54.00	-11.07	28.12	14.81	Average	---	---	6	12060.00	57.40	74.00	-16.60	42.59	14.81	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit level dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																													
1	2390.00	52.58	54.00	-1.42	55.40	-2.82	Average	---	---																																																												
2	2390.00	71.15	74.00	-2.85	73.97	-2.82	Peak	---	---																																																												
3	4824.00	38.94	54.00	-15.06	33.85	5.09	Average	---	---																																																												
4	4824.00	51.92	74.00	-22.08	46.83	5.09	Peak	---	---																																																												
5	12060.00	42.93	54.00	-11.07	28.12	14.81	Average	---	---																																																												
6	12060.00	57.40	74.00	-16.60	42.59	14.81	Peak	---	---																																																												
<p>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).</p>																																																																					

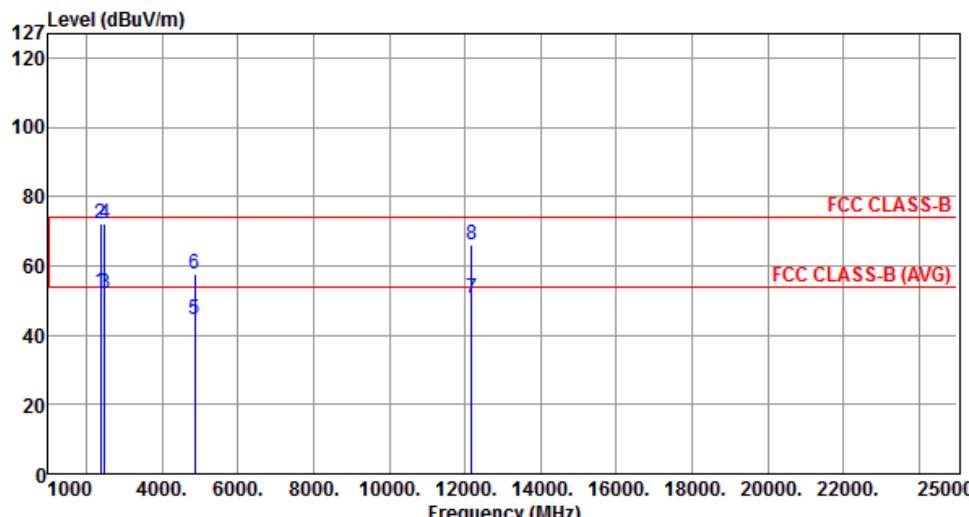


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

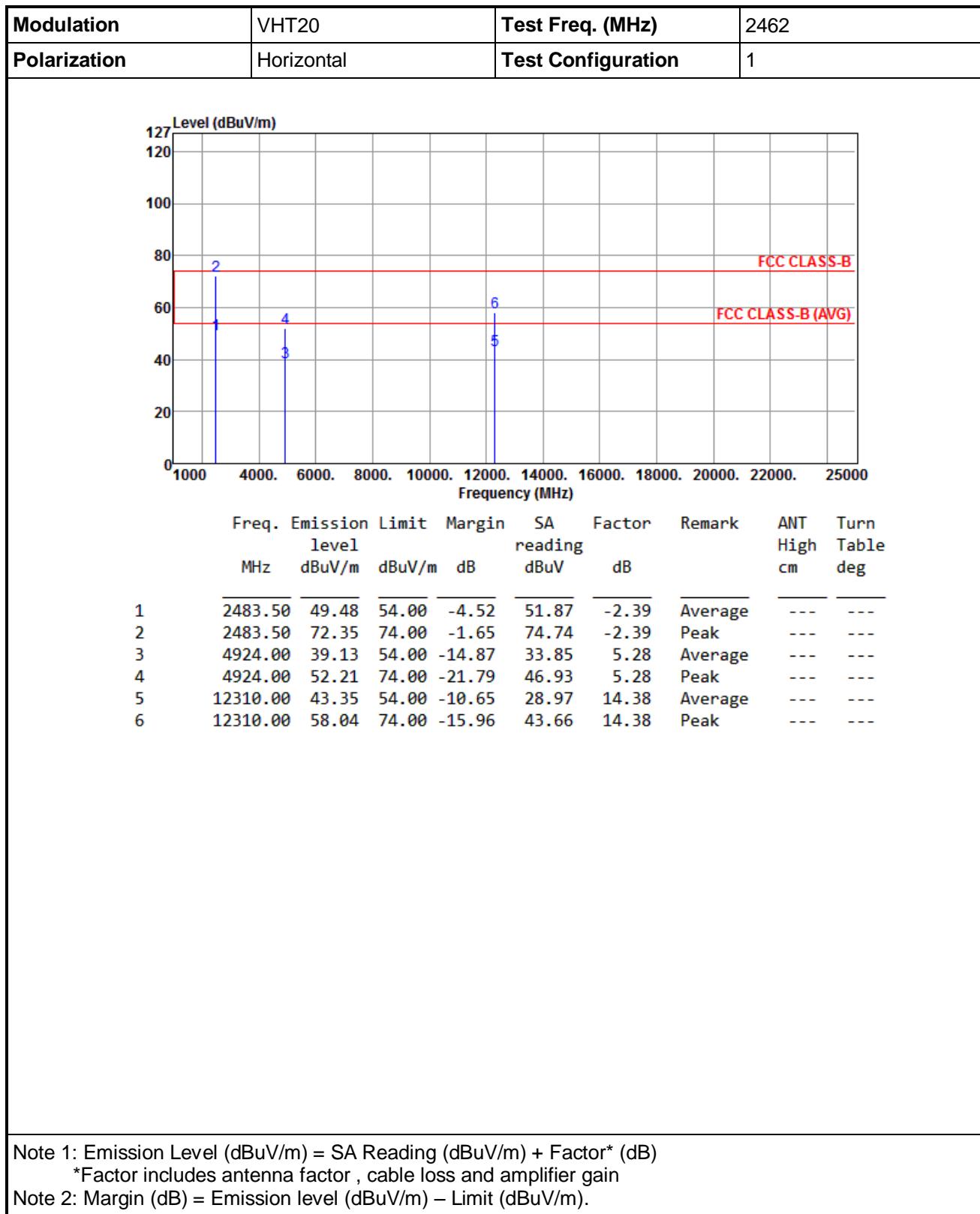
Modulation	VHT20	Test Freq. (MHz)	2437																																																																																									
Polarization	Horizontal	Test Configuration	1																																																																																									
<hr/>																																																																																												
<hr/>																																																																																												
																																																																																												
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>50.04</td> <td>54.00</td> <td>-3.96</td> <td>52.86</td> <td>-2.82</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>69.62</td> <td>74.00</td> <td>-4.38</td> <td>72.44</td> <td>-2.82</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>2483.50</td> <td>51.67</td> <td>54.00</td> <td>-2.33</td> <td>54.06</td> <td>-2.39</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>2483.50</td> <td>71.99</td> <td>74.00</td> <td>-2.01</td> <td>74.38</td> <td>-2.39</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>4874.00</td> <td>40.80</td> <td>54.00</td> <td>-13.20</td> <td>35.62</td> <td>5.18</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>4874.00</td> <td>53.66</td> <td>74.00</td> <td>-20.34</td> <td>48.48</td> <td>5.18</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>7</td> <td>12185.00</td> <td>45.71</td> <td>54.00</td> <td>-8.29</td> <td>31.12</td> <td>14.59</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>8</td> <td>12185.00</td> <td>60.36</td> <td>74.00</td> <td>-13.64</td> <td>45.77</td> <td>14.59</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	50.04	54.00	-3.96	52.86	-2.82	Average	---	---	2	2390.00	69.62	74.00	-4.38	72.44	-2.82	Peak	---	---	3	2483.50	51.67	54.00	-2.33	54.06	-2.39	Average	---	---	4	2483.50	71.99	74.00	-2.01	74.38	-2.39	Peak	---	---	5	4874.00	40.80	54.00	-13.20	35.62	5.18	Average	---	---	6	4874.00	53.66	74.00	-20.34	48.48	5.18	Peak	---	---	7	12185.00	45.71	54.00	-8.29	31.12	14.59	Average	---	---	8	12185.00	60.36	74.00	-13.64	45.77	14.59	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																				
1	2390.00	50.04	54.00	-3.96	52.86	-2.82	Average	---	---																																																																																			
2	2390.00	69.62	74.00	-4.38	72.44	-2.82	Peak	---	---																																																																																			
3	2483.50	51.67	54.00	-2.33	54.06	-2.39	Average	---	---																																																																																			
4	2483.50	71.99	74.00	-2.01	74.38	-2.39	Peak	---	---																																																																																			
5	4874.00	40.80	54.00	-13.20	35.62	5.18	Average	---	---																																																																																			
6	4874.00	53.66	74.00	-20.34	48.48	5.18	Peak	---	---																																																																																			
7	12185.00	45.71	54.00	-8.29	31.12	14.59	Average	---	---																																																																																			
8	12185.00	60.36	74.00	-13.64	45.77	14.59	Peak	---	---																																																																																			
<hr/> <p>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).</p>																																																																																												

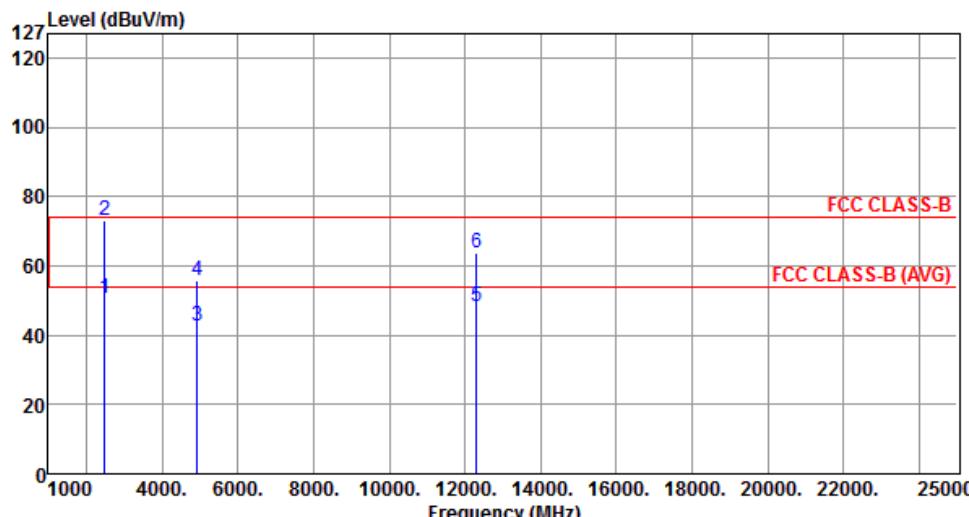
Modulation	VHT20	Test Freq. (MHz)	2437																																																																																																
Polarization	Vertical	Test Configuration	1																																																																																																
<hr/>																																																																																																			
<hr/>																																																																																																			
 <p>The plot displays the measured emission levels (blue vertical lines) at specific frequencies (1-8) against the FCC Class-B (red horizontal line) and FCC Class-B (Avg) (red horizontal line below it) limits. The Y-axis represents Level in dBuV/m from 0 to 127, and the X-axis represents Frequency in MHz from 1000 to 25000.</p> <table border="1"> <thead> <tr> <th>Point</th> <th>Frequency (MHz)</th> <th>Emission Level (dBuV/m)</th> <th>Margin (dB)</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>52.29</td><td>54.00 - (-1.71) = 55.71</td></tr> <tr><td>2</td><td>2390.00</td><td>72.21</td><td>74.00 - (-1.79) = 75.79</td></tr> <tr><td>3</td><td>2483.50</td><td>51.99</td><td>54.00 - (-2.01) = 56.01</td></tr> <tr><td>4</td><td>2483.50</td><td>72.17</td><td>74.00 - (-1.83) = 75.83</td></tr> <tr><td>5</td><td>4874.00</td><td>44.45</td><td>54.00 - (-9.55) = 63.55</td></tr> <tr><td>6</td><td>4874.00</td><td>57.66</td><td>74.00 - (-16.34) = 90.34</td></tr> <tr><td>7</td><td>12185.00</td><td>50.58</td><td>54.00 - (-3.42) = 57.42</td></tr> <tr><td>8</td><td>12185.00</td><td>66.07</td><td>74.00 - (-7.93) = 81.93</td></tr> </tbody> </table>				Point	Frequency (MHz)	Emission Level (dBuV/m)	Margin (dB)	1	2390.00	52.29	54.00 - (-1.71) = 55.71	2	2390.00	72.21	74.00 - (-1.79) = 75.79	3	2483.50	51.99	54.00 - (-2.01) = 56.01	4	2483.50	72.17	74.00 - (-1.83) = 75.83	5	4874.00	44.45	54.00 - (-9.55) = 63.55	6	4874.00	57.66	74.00 - (-16.34) = 90.34	7	12185.00	50.58	54.00 - (-3.42) = 57.42	8	12185.00	66.07	74.00 - (-7.93) = 81.93																																																												
Point	Frequency (MHz)	Emission Level (dBuV/m)	Margin (dB)																																																																																																
1	2390.00	52.29	54.00 - (-1.71) = 55.71																																																																																																
2	2390.00	72.21	74.00 - (-1.79) = 75.79																																																																																																
3	2483.50	51.99	54.00 - (-2.01) = 56.01																																																																																																
4	2483.50	72.17	74.00 - (-1.83) = 75.83																																																																																																
5	4874.00	44.45	54.00 - (-9.55) = 63.55																																																																																																
6	4874.00	57.66	74.00 - (-16.34) = 90.34																																																																																																
7	12185.00	50.58	54.00 - (-3.42) = 57.42																																																																																																
8	12185.00	66.07	74.00 - (-7.93) = 81.93																																																																																																
<table border="1"> <thead> <tr> <th>Freq. level</th> <th>Emission Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th></th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>52.29</td><td>54.00</td><td>-1.71</td><td>55.11</td><td>-2.82</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>72.21</td><td>74.00</td><td>-1.79</td><td>75.03</td><td>-2.82</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>51.99</td><td>54.00</td><td>-2.01</td><td>54.38</td><td>-2.39</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>72.17</td><td>74.00</td><td>-1.83</td><td>74.56</td><td>-2.39</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>5</td><td>4874.00</td><td>44.45</td><td>54.00</td><td>-9.55</td><td>39.27</td><td>5.18</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>6</td><td>4874.00</td><td>57.66</td><td>74.00</td><td>-16.34</td><td>52.48</td><td>5.18</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>7</td><td>12185.00</td><td>50.58</td><td>54.00</td><td>-3.42</td><td>35.99</td><td>14.59</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>8</td><td>12185.00</td><td>66.07</td><td>74.00</td><td>-7.93</td><td>51.48</td><td>14.59</td><td>Peak</td><td>---</td><td>---</td></tr> </tbody> </table>				Freq. level	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table	MHz	dBuV/m	dB	dBuV	dB		cm	deg	1	2390.00	52.29	54.00	-1.71	55.11	-2.82	Average	---	---	2	2390.00	72.21	74.00	-1.79	75.03	-2.82	Peak	---	---	3	2483.50	51.99	54.00	-2.01	54.38	-2.39	Average	---	---	4	2483.50	72.17	74.00	-1.83	74.56	-2.39	Peak	---	---	5	4874.00	44.45	54.00	-9.55	39.27	5.18	Average	---	---	6	4874.00	57.66	74.00	-16.34	52.48	5.18	Peak	---	---	7	12185.00	50.58	54.00	-3.42	35.99	14.59	Average	---	---	8	12185.00	66.07	74.00	-7.93	51.48	14.59	Peak	---	---
Freq. level	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																																												
MHz	dBuV/m	dB	dBuV	dB		cm	deg																																																																																												
1	2390.00	52.29	54.00	-1.71	55.11	-2.82	Average	---	---																																																																																										
2	2390.00	72.21	74.00	-1.79	75.03	-2.82	Peak	---	---																																																																																										
3	2483.50	51.99	54.00	-2.01	54.38	-2.39	Average	---	---																																																																																										
4	2483.50	72.17	74.00	-1.83	74.56	-2.39	Peak	---	---																																																																																										
5	4874.00	44.45	54.00	-9.55	39.27	5.18	Average	---	---																																																																																										
6	4874.00	57.66	74.00	-16.34	52.48	5.18	Peak	---	---																																																																																										
7	12185.00	50.58	54.00	-3.42	35.99	14.59	Average	---	---																																																																																										
8	12185.00	66.07	74.00	-7.93	51.48	14.59	Peak	---	---																																																																																										

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

*Factor includes antenna factor , cable loss and amplifier gain

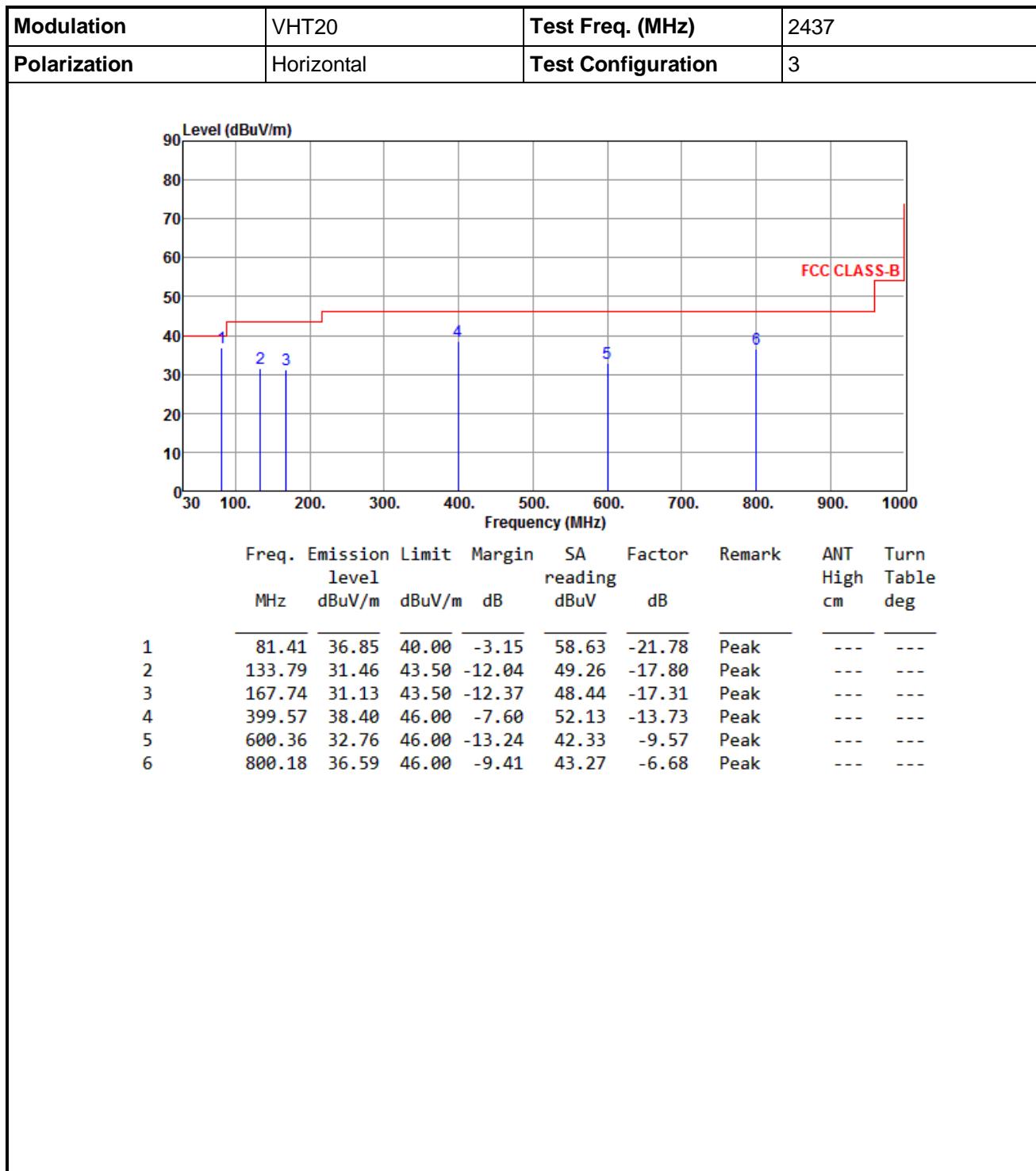
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



Modulation	VHT20	Test Freq. (MHz)	2462																																																																																				
Polarization	Vertical	Test Configuration	1																																																																																				
<hr/>																																																																																							
<hr/>																																																																																							
																																																																																							
<table border="1"> <thead> <tr> <th>Freq.</th> <th>Emission Limit</th> <th>Margin</th> <th>SA</th> <th>Factor</th> <th>Remark</th> <th>ANT</th> <th>Turn</th> </tr> <tr> <th>level</th> <th>level</th> <th>reading</th> <th>reading</th> <th>dB</th> <th></th> <th>High</th> <th>Table</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dBuV</th> <th>dB</th> <th></th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2483.50</td> <td>50.73</td> <td>54.00</td> <td>-3.27</td> <td>53.12</td> <td>-2.39</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2483.50</td> <td>73.00</td> <td>74.00</td> <td>-1.00</td> <td>75.39</td> <td>-2.39</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>4924.00</td> <td>42.72</td> <td>54.00</td> <td>-11.28</td> <td>37.44</td> <td>5.28</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>4924.00</td> <td>55.87</td> <td>74.00</td> <td>-18.13</td> <td>50.59</td> <td>5.28</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12310.00</td> <td>48.06</td> <td>54.00</td> <td>-5.94</td> <td>33.68</td> <td>14.38</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12310.00</td> <td>63.87</td> <td>74.00</td> <td>-10.13</td> <td>49.49</td> <td>14.38</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission Limit	Margin	SA	Factor	Remark	ANT	Turn	level	level	reading	reading	dB		High	Table	MHz	dBuV/m	dBuV/m	dBuV	dB		cm	deg	1	2483.50	50.73	54.00	-3.27	53.12	-2.39	Average	---	---	2	2483.50	73.00	74.00	-1.00	75.39	-2.39	Peak	---	---	3	4924.00	42.72	54.00	-11.28	37.44	5.28	Average	---	---	4	4924.00	55.87	74.00	-18.13	50.59	5.28	Peak	---	---	5	12310.00	48.06	54.00	-5.94	33.68	14.38	Average	---	---	6	12310.00	63.87	74.00	-10.13	49.49	14.38	Peak	---	---
Freq.	Emission Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																
level	level	reading	reading	dB		High	Table																																																																																
MHz	dBuV/m	dBuV/m	dBuV	dB		cm	deg																																																																																
1	2483.50	50.73	54.00	-3.27	53.12	-2.39	Average	---	---																																																																														
2	2483.50	73.00	74.00	-1.00	75.39	-2.39	Peak	---	---																																																																														
3	4924.00	42.72	54.00	-11.28	37.44	5.28	Average	---	---																																																																														
4	4924.00	55.87	74.00	-18.13	50.59	5.28	Peak	---	---																																																																														
5	12310.00	48.06	54.00	-5.94	33.68	14.38	Average	---	---																																																																														
6	12310.00	63.87	74.00	-10.13	49.49	14.38	Peak	---	---																																																																														
<hr/>																																																																																							
<p>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).</p>																																																																																							

Legacy/MIMO (CDD) beamforming mode

3.5.8 Transmitter Radiated Unwanted Emissions (Below 1GHz)

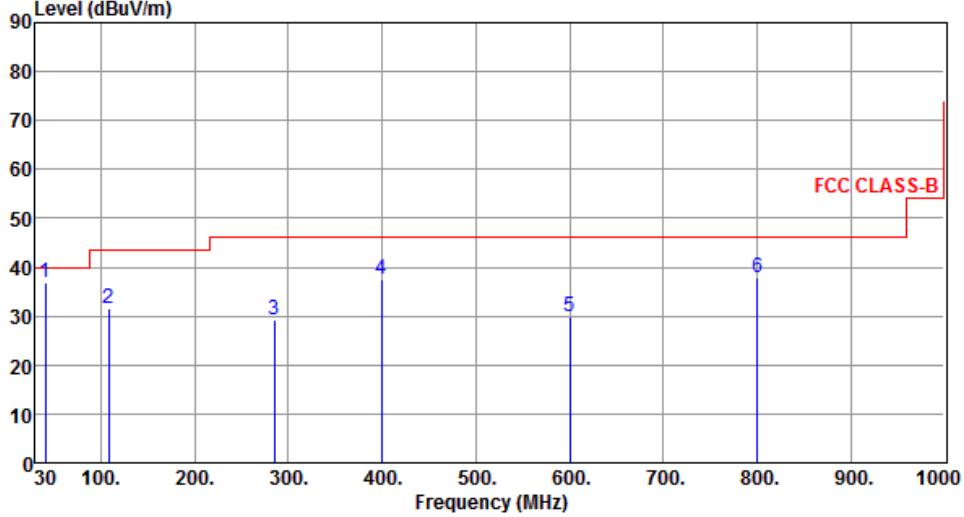


Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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.

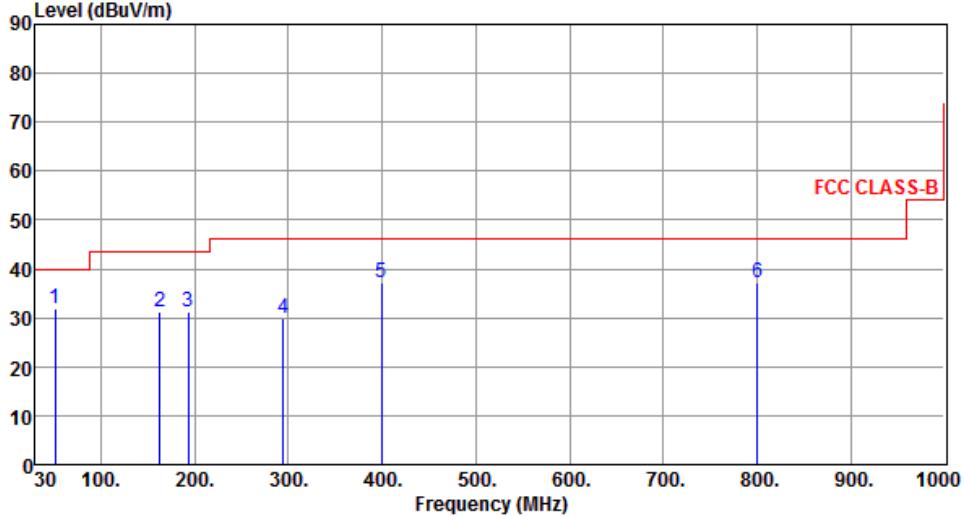
Modulation	VHT20	Test Freq. (MHz)	2437																																																																												
Polarization	Vertical	Test Configuration	3																																																																												
<hr/>																																																																															
<hr/>																																																																															
																																																																															
<table> <thead> <tr> <th>Freq.</th> <th>Emission level</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dB</th> <th></th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>40.61</td> <td>36.84</td> <td>40.00</td> <td>-3.16</td> <td>53.83</td> <td>-16.99</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>108.57</td> <td>31.71</td> <td>43.50</td> <td>-11.79</td> <td>52.02</td> <td>-20.31</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>285.11</td> <td>29.10</td> <td>46.00</td> <td>-16.90</td> <td>45.72</td> <td>-16.62</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>399.57</td> <td>37.66</td> <td>46.00</td> <td>-8.34</td> <td>51.39</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>600.36</td> <td>29.81</td> <td>46.00</td> <td>-16.19</td> <td>39.38</td> <td>-9.57</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>37.81</td> <td>46.00</td> <td>-8.19</td> <td>44.49</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table	MHz	dBuV/m	dBuV/m	dB	dB		cm	deg	1	40.61	36.84	40.00	-3.16	53.83	-16.99	QP	---	---	2	108.57	31.71	43.50	-11.79	52.02	-20.31	Peak	---	---	3	285.11	29.10	46.00	-16.90	45.72	-16.62	Peak	---	---	4	399.57	37.66	46.00	-8.34	51.39	-13.73	Peak	---	---	5	600.36	29.81	46.00	-16.19	39.38	-9.57	Peak	---	---	6	800.18	37.81	46.00	-8.19	44.49	-6.68	Peak	---	---
Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																								
MHz	dBuV/m	dBuV/m	dB	dB		cm	deg																																																																								
1	40.61	36.84	40.00	-3.16	53.83	-16.99	QP	---	---																																																																						
2	108.57	31.71	43.50	-11.79	52.02	-20.31	Peak	---	---																																																																						
3	285.11	29.10	46.00	-16.90	45.72	-16.62	Peak	---	---																																																																						
4	399.57	37.66	46.00	-8.34	51.39	-13.73	Peak	---	---																																																																						
5	600.36	29.81	46.00	-16.19	39.38	-9.57	Peak	---	---																																																																						
6	800.18	37.81	46.00	-8.19	44.49	-6.68	Peak	---	---																																																																						

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

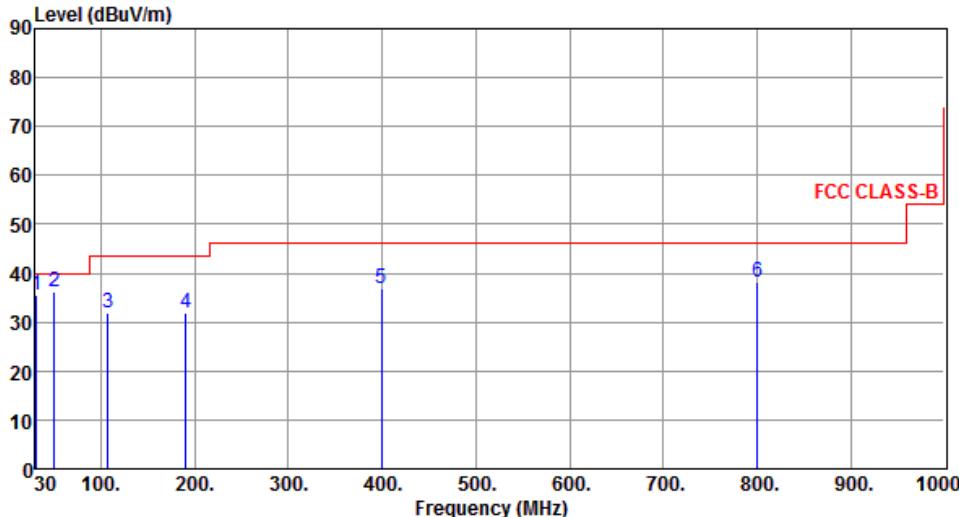
Modulation	VHT20	Test Freq. (MHz)	2437																																																																																				
Polarization	Horizontal	Test Configuration	4																																																																																				
<hr/>																																																																																							
<hr/>																																																																																							
																																																																																							
<table> <thead> <tr> <th>Freq.</th> <th>Emission Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>level</th> <th>level</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> <tr> <th>MHz</th> <th>MHz</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>51.34</td> <td>31.74</td> <td>40.00</td> <td>-8.26</td> <td>48.17</td> <td>-16.43</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>162.89</td> <td>31.31</td> <td>43.50</td> <td>-12.19</td> <td>48.24</td> <td>-16.93</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>192.96</td> <td>31.09</td> <td>43.50</td> <td>-12.41</td> <td>50.71</td> <td>-19.62</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>294.81</td> <td>29.90</td> <td>46.00</td> <td>-16.10</td> <td>46.24</td> <td>-16.34</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>399.57</td> <td>37.34</td> <td>46.00</td> <td>-8.66</td> <td>51.07</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>37.34</td> <td>46.00</td> <td>-8.66</td> <td>44.02</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table	level	level	dBuV/m	dBuV/m	dB	dB	cm	deg	MHz	MHz							1	51.34	31.74	40.00	-8.26	48.17	-16.43	Peak	---	---	2	162.89	31.31	43.50	-12.19	48.24	-16.93	Peak	---	---	3	192.96	31.09	43.50	-12.41	50.71	-19.62	Peak	---	---	4	294.81	29.90	46.00	-16.10	46.24	-16.34	Peak	---	---	5	399.57	37.34	46.00	-8.66	51.07	-13.73	Peak	---	---	6	800.18	37.34	46.00	-8.66	44.02	-6.68	Peak	---	---
Freq.	Emission Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																																
level	level	dBuV/m	dBuV/m	dB	dB	cm	deg																																																																																
MHz	MHz																																																																																						
1	51.34	31.74	40.00	-8.26	48.17	-16.43	Peak	---	---																																																																														
2	162.89	31.31	43.50	-12.19	48.24	-16.93	Peak	---	---																																																																														
3	192.96	31.09	43.50	-12.41	50.71	-19.62	Peak	---	---																																																																														
4	294.81	29.90	46.00	-16.10	46.24	-16.34	Peak	---	---																																																																														
5	399.57	37.34	46.00	-8.66	51.07	-13.73	Peak	---	---																																																																														
6	800.18	37.34	46.00	-8.66	44.02	-6.68	Peak	---	---																																																																														

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT20	Test Freq. (MHz)	2437																																																																						
Polarization	Vertical	Test Configuration	4																																																																						
<hr/>																																																																									
<hr/>																																																																									
																																																																									
<table> <thead> <tr> <th></th> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>31.52</td> <td>35.45</td> <td>40.00</td> <td>-4.55</td> <td>53.14</td> <td>-17.69</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>50.11</td> <td>36.04</td> <td>40.00</td> <td>-3.96</td> <td>52.33</td> <td>-16.29</td> <td>QP</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>107.60</td> <td>31.73</td> <td>43.50</td> <td>-11.77</td> <td>52.19</td> <td>-20.46</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>191.02</td> <td>31.73</td> <td>43.50</td> <td>-11.77</td> <td>51.28</td> <td>-19.55</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>399.57</td> <td>37.02</td> <td>46.00</td> <td>-8.98</td> <td>50.75</td> <td>-13.73</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>800.18</td> <td>38.24</td> <td>46.00</td> <td>-7.76</td> <td>44.92</td> <td>-6.68</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	31.52	35.45	40.00	-4.55	53.14	-17.69	QP	---	---	2	50.11	36.04	40.00	-3.96	52.33	-16.29	QP	---	---	3	107.60	31.73	43.50	-11.77	52.19	-20.46	Peak	---	---	4	191.02	31.73	43.50	-11.77	51.28	-19.55	Peak	---	---	5	399.57	37.02	46.00	-8.98	50.75	-13.73	Peak	---	---	6	800.18	38.24	46.00	-7.76	44.92	-6.68	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																
1	31.52	35.45	40.00	-4.55	53.14	-17.69	QP	---	---																																																																
2	50.11	36.04	40.00	-3.96	52.33	-16.29	QP	---	---																																																																
3	107.60	31.73	43.50	-11.77	52.19	-20.46	Peak	---	---																																																																
4	191.02	31.73	43.50	-11.77	51.28	-19.55	Peak	---	---																																																																
5	399.57	37.02	46.00	-8.98	50.75	-13.73	Peak	---	---																																																																
6	800.18	38.24	46.00	-7.76	44.92	-6.68	Peak	---	---																																																																

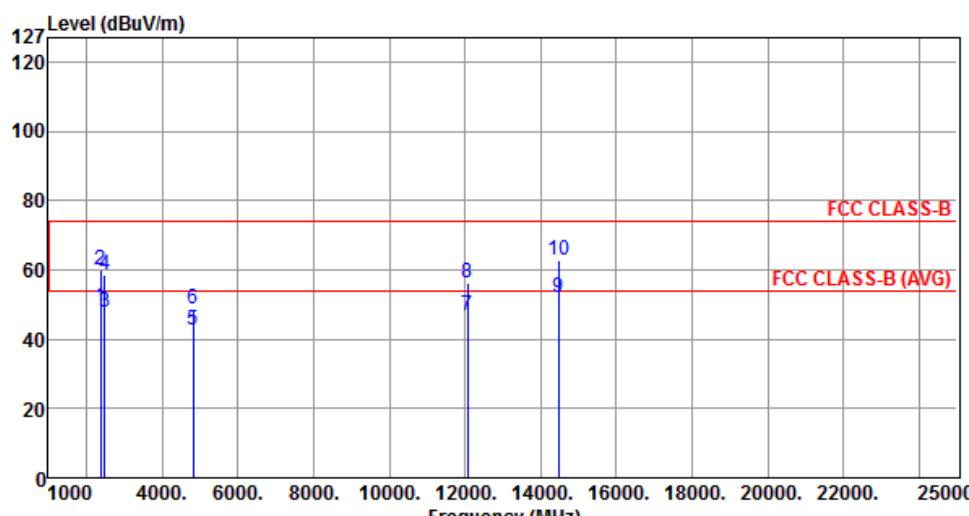
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

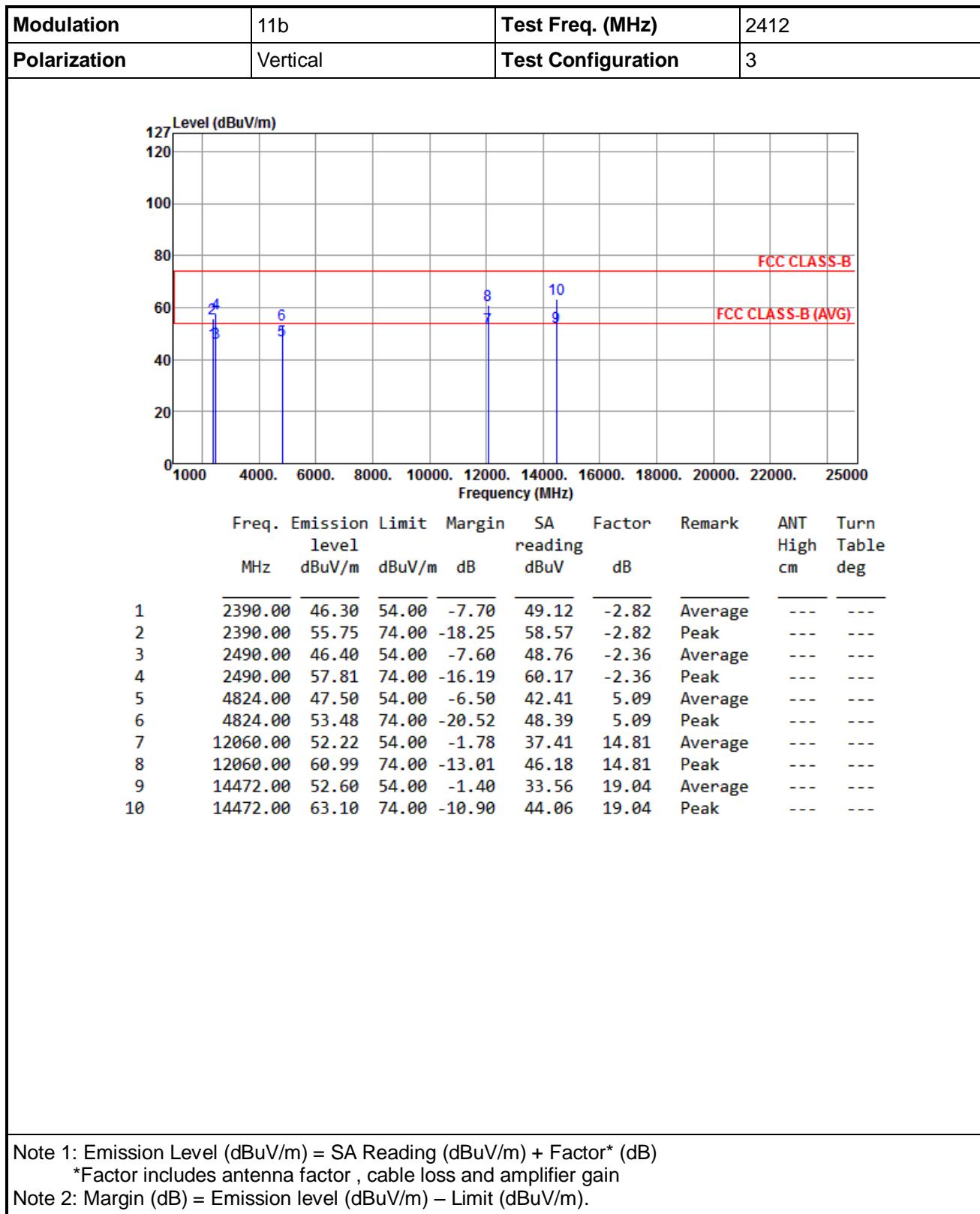
*Factor includes antenna factor , cable loss and amplifier gain

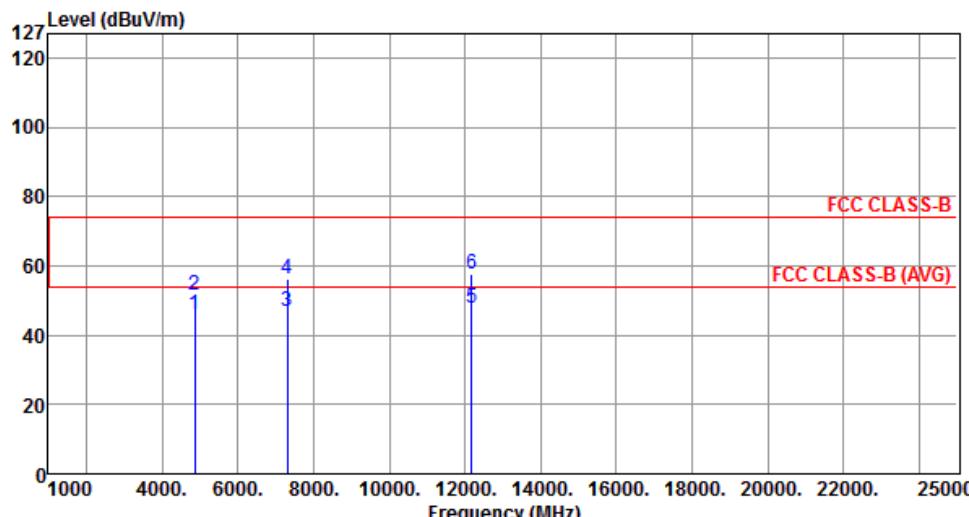
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

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

Modulation	11b	Test Freq. (MHz)	2412																																																																																																			
Polarization	Horizontal	Test Configuration	3																																																																																																			
																																																																																																						
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>49.43</td><td>54.00</td><td>-4.57</td><td>52.25</td><td>-2.82</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>60.18</td><td>74.00</td><td>-13.82</td><td>63.00</td><td>-2.82</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2490.00</td><td>47.89</td><td>54.00</td><td>-6.11</td><td>50.25</td><td>-2.36</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2490.00</td><td>58.36</td><td>74.00</td><td>-15.64</td><td>60.72</td><td>-2.36</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4824.00</td><td>42.57</td><td>54.00</td><td>-11.43</td><td>37.48</td><td>5.09</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4824.00</td><td>48.66</td><td>74.00</td><td>-25.34</td><td>43.57</td><td>5.09</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>12060.00</td><td>46.95</td><td>54.00</td><td>-7.05</td><td>32.14</td><td>14.81</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>12060.00</td><td>56.33</td><td>74.00</td><td>-17.67</td><td>41.52</td><td>14.81</td><td>Peak</td><td>---</td></tr> <tr><td>9</td><td>14472.00</td><td>52.14</td><td>54.00</td><td>-1.86</td><td>33.10</td><td>19.04</td><td>Average</td><td>---</td></tr> <tr><td>10</td><td>14472.00</td><td>62.96</td><td>74.00</td><td>-11.04</td><td>43.92</td><td>19.04</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	49.43	54.00	-4.57	52.25	-2.82	Average	---	2	2390.00	60.18	74.00	-13.82	63.00	-2.82	Peak	---	3	2490.00	47.89	54.00	-6.11	50.25	-2.36	Average	---	4	2490.00	58.36	74.00	-15.64	60.72	-2.36	Peak	---	5	4824.00	42.57	54.00	-11.43	37.48	5.09	Average	---	6	4824.00	48.66	74.00	-25.34	43.57	5.09	Peak	---	7	12060.00	46.95	54.00	-7.05	32.14	14.81	Average	---	8	12060.00	56.33	74.00	-17.67	41.52	14.81	Peak	---	9	14472.00	52.14	54.00	-1.86	33.10	19.04	Average	---	10	14472.00	62.96	74.00	-11.04	43.92	19.04	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	2390.00	49.43	54.00	-4.57	52.25	-2.82	Average	---																																																																																														
2	2390.00	60.18	74.00	-13.82	63.00	-2.82	Peak	---																																																																																														
3	2490.00	47.89	54.00	-6.11	50.25	-2.36	Average	---																																																																																														
4	2490.00	58.36	74.00	-15.64	60.72	-2.36	Peak	---																																																																																														
5	4824.00	42.57	54.00	-11.43	37.48	5.09	Average	---																																																																																														
6	4824.00	48.66	74.00	-25.34	43.57	5.09	Peak	---																																																																																														
7	12060.00	46.95	54.00	-7.05	32.14	14.81	Average	---																																																																																														
8	12060.00	56.33	74.00	-17.67	41.52	14.81	Peak	---																																																																																														
9	14472.00	52.14	54.00	-1.86	33.10	19.04	Average	---																																																																																														
10	14472.00	62.96	74.00	-11.04	43.92	19.04	Peak	---																																																																																														
<p>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).</p>																																																																																																						

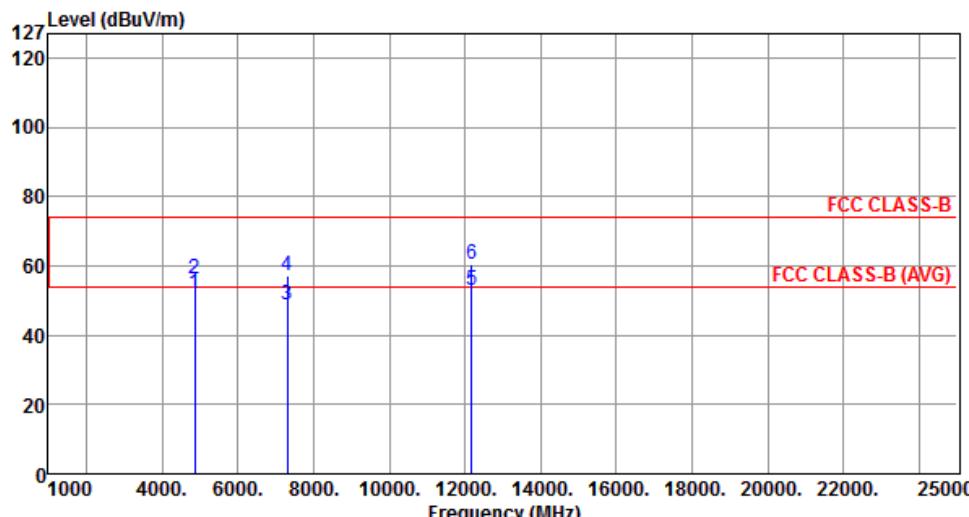


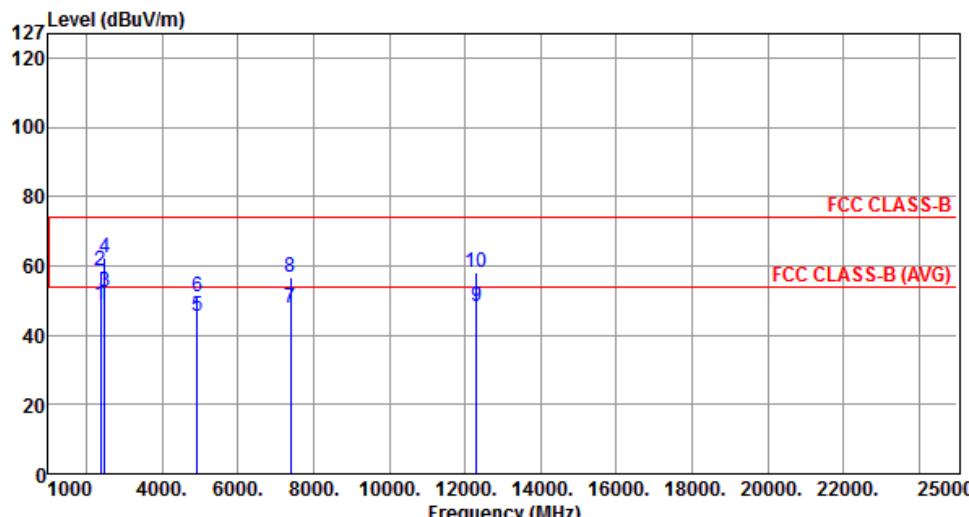
Modulation	11b	Test Freq. (MHz)	2437																																																															
Polarization	Horizontal	Test Configuration	3																																																															
<hr/>																																																																		
<hr/>																																																																		
 <p>The graph plots Emission Level (dBuV/m) against Frequency (MHz). The Y-axis ranges from 0 to 127 dBuV/m, and the X-axis ranges from 1000 to 25000 MHz. Two horizontal red lines represent the FCC CLASS-B limit at approximately 72 dBuV/m and the FCC CLASS-B (AVG) limit at approximately 54 dBuV/m. Six vertical blue lines represent measured emission levels at specific frequencies: 4874.00 MHz (level ~45.85 dBuV/m), 7311.00 MHz (level ~47.00 dBuV/m), 12185.00 MHz (level ~48.03 dBuV/m), 4874.00 MHz (level ~51.37 dBuV/m), 7311.00 MHz (level ~56.28 dBuV/m), and 12185.00 MHz (level ~57.57 dBuV/m).</p>																																																																		
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4874.00</td> <td>45.85</td> <td>54.00</td> <td>-8.15</td> <td>40.67</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>4874.00</td> <td>51.37</td> <td>74.00</td> <td>-22.63</td> <td>46.19</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>7311.00</td> <td>47.00</td> <td>54.00</td> <td>-7.00</td> <td>36.26</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>7311.00</td> <td>56.28</td> <td>74.00</td> <td>-17.72</td> <td>45.54</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12185.00</td> <td>48.03</td> <td>54.00</td> <td>-5.97</td> <td>33.44</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12185.00</td> <td>57.57</td> <td>74.00</td> <td>-16.43</td> <td>42.98</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	4874.00	45.85	54.00	-8.15	40.67	Average	---	---	2	4874.00	51.37	74.00	-22.63	46.19	Peak	---	---	3	7311.00	47.00	54.00	-7.00	36.26	Average	---	---	4	7311.00	56.28	74.00	-17.72	45.54	Peak	---	---	5	12185.00	48.03	54.00	-5.97	33.44	Average	---	---	6	12185.00	57.57	74.00	-16.43	42.98	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	4874.00	45.85	54.00	-8.15	40.67	Average	---	---																																																										
2	4874.00	51.37	74.00	-22.63	46.19	Peak	---	---																																																										
3	7311.00	47.00	54.00	-7.00	36.26	Average	---	---																																																										
4	7311.00	56.28	74.00	-17.72	45.54	Peak	---	---																																																										
5	12185.00	48.03	54.00	-5.97	33.44	Average	---	---																																																										
6	12185.00	57.57	74.00	-16.43	42.98	Peak	---	---																																																										

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

*Factor includes antenna factor , cable loss and amplifier gain

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

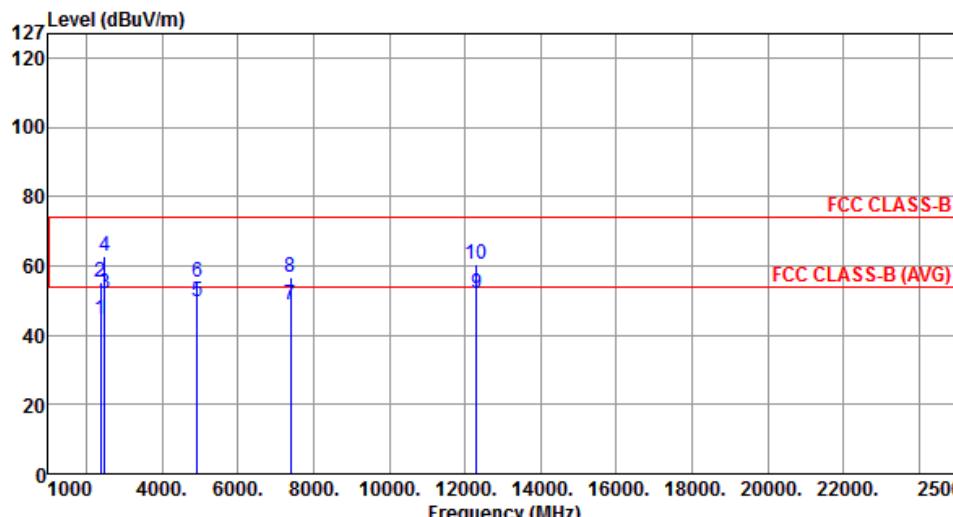
Modulation	11b	Test Freq. (MHz)	2437																																																																												
Polarization	Vertical	Test Configuration	3																																																																												
<hr/>																																																																															
<hr/>																																																																															
																																																																															
<table border="1"> <thead> <tr> <th>Freq.</th> <th>Emission level</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High</th> <th>Turn Table</th> </tr> <tr> <th>MHz</th> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th>cm</th> <th>deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4874.00</td> <td>51.82</td> <td>54.00</td> <td>-2.18</td> <td>46.64</td> <td>5.18</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>4874.00</td> <td>56.12</td> <td>74.00</td> <td>-17.88</td> <td>50.94</td> <td>5.18</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>7311.00</td> <td>48.67</td> <td>54.00</td> <td>-5.33</td> <td>37.93</td> <td>10.74</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>7311.00</td> <td>57.04</td> <td>74.00</td> <td>-16.96</td> <td>46.30</td> <td>10.74</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12185.00</td> <td>52.76</td> <td>54.00</td> <td>-1.24</td> <td>38.17</td> <td>14.59</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12185.00</td> <td>60.51</td> <td>74.00</td> <td>-13.49</td> <td>45.92</td> <td>14.59</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	cm	deg	1	4874.00	51.82	54.00	-2.18	46.64	5.18	Average	---	---	2	4874.00	56.12	74.00	-17.88	50.94	5.18	Peak	---	---	3	7311.00	48.67	54.00	-5.33	37.93	10.74	Average	---	---	4	7311.00	57.04	74.00	-16.96	46.30	10.74	Peak	---	---	5	12185.00	52.76	54.00	-1.24	38.17	14.59	Average	---	---	6	12185.00	60.51	74.00	-13.49	45.92	14.59	Peak	---	---
Freq.	Emission level	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																								
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	cm	deg																																																																								
1	4874.00	51.82	54.00	-2.18	46.64	5.18	Average	---	---																																																																						
2	4874.00	56.12	74.00	-17.88	50.94	5.18	Peak	---	---																																																																						
3	7311.00	48.67	54.00	-5.33	37.93	10.74	Average	---	---																																																																						
4	7311.00	57.04	74.00	-16.96	46.30	10.74	Peak	---	---																																																																						
5	12185.00	52.76	54.00	-1.24	38.17	14.59	Average	---	---																																																																						
6	12185.00	60.51	74.00	-13.49	45.92	14.59	Peak	---	---																																																																						
<hr/> <p>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).</p>																																																																															

Modulation	11b	Test Freq. (MHz)	2462																																																																																																			
Polarization	Horizontal	Test Configuration	3																																																																																																			
<hr/>																																																																																																						
<hr/>																																																																																																						
																																																																																																						
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2382.00</td><td>48.65</td><td>54.00</td><td>-5.35</td><td>51.50</td><td>-2.85</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2382.00</td><td>58.51</td><td>74.00</td><td>-15.49</td><td>61.36</td><td>-2.85</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>52.54</td><td>54.00</td><td>-1.46</td><td>54.93</td><td>-2.39</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>62.28</td><td>74.00</td><td>-11.72</td><td>64.67</td><td>-2.39</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4924.00</td><td>45.55</td><td>54.00</td><td>-8.45</td><td>40.27</td><td>5.28</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4924.00</td><td>50.88</td><td>74.00</td><td>-23.12</td><td>45.60</td><td>5.28</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>7386.00</td><td>47.84</td><td>54.00</td><td>-6.16</td><td>37.00</td><td>10.84</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>7386.00</td><td>56.85</td><td>74.00</td><td>-17.15</td><td>46.01</td><td>10.84</td><td>Peak</td><td>---</td></tr> <tr><td>9</td><td>12310.00</td><td>48.43</td><td>54.00</td><td>-5.57</td><td>34.05</td><td>14.38</td><td>Average</td><td>---</td></tr> <tr><td>10</td><td>12310.00</td><td>57.89</td><td>74.00</td><td>-16.11</td><td>43.51</td><td>14.38</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2382.00	48.65	54.00	-5.35	51.50	-2.85	Average	---	2	2382.00	58.51	74.00	-15.49	61.36	-2.85	Peak	---	3	2483.50	52.54	54.00	-1.46	54.93	-2.39	Average	---	4	2483.50	62.28	74.00	-11.72	64.67	-2.39	Peak	---	5	4924.00	45.55	54.00	-8.45	40.27	5.28	Average	---	6	4924.00	50.88	74.00	-23.12	45.60	5.28	Peak	---	7	7386.00	47.84	54.00	-6.16	37.00	10.84	Average	---	8	7386.00	56.85	74.00	-17.15	46.01	10.84	Peak	---	9	12310.00	48.43	54.00	-5.57	34.05	14.38	Average	---	10	12310.00	57.89	74.00	-16.11	43.51	14.38	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	2382.00	48.65	54.00	-5.35	51.50	-2.85	Average	---																																																																																														
2	2382.00	58.51	74.00	-15.49	61.36	-2.85	Peak	---																																																																																														
3	2483.50	52.54	54.00	-1.46	54.93	-2.39	Average	---																																																																																														
4	2483.50	62.28	74.00	-11.72	64.67	-2.39	Peak	---																																																																																														
5	4924.00	45.55	54.00	-8.45	40.27	5.28	Average	---																																																																																														
6	4924.00	50.88	74.00	-23.12	45.60	5.28	Peak	---																																																																																														
7	7386.00	47.84	54.00	-6.16	37.00	10.84	Average	---																																																																																														
8	7386.00	56.85	74.00	-17.15	46.01	10.84	Peak	---																																																																																														
9	12310.00	48.43	54.00	-5.57	34.05	14.38	Average	---																																																																																														
10	12310.00	57.89	74.00	-16.11	43.51	14.38	Peak	---																																																																																														

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11b	Test Freq. (MHz)	2462				
Polarization	Vertical	Test Configuration	3				
<hr/>							
							
Freq. Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
MHz	dBuV/m	dBuV/m	dB	dBuV	dB	cm	deg
1	2382.00	44.66	54.00	-9.34	47.51	-2.85	Average
2	2382.00	55.49	74.00	-18.51	58.34	-2.85	Peak
3	2483.50	52.21	54.00	-1.79	54.60	-2.39	Average
4	2483.50	62.74	74.00	-11.26	65.13	-2.39	Peak
5	4924.00	49.49	54.00	-4.51	44.21	5.28	Average
6	4924.00	55.08	74.00	-18.92	49.80	5.28	Peak
7	7386.00	48.69	54.00	-5.31	37.85	10.84	Average
8	7386.00	56.86	74.00	-17.14	46.02	10.84	Peak
9	12310.00	52.21	54.00	-1.79	37.83	14.38	Average
10	12310.00	60.40	74.00	-13.60	46.02	14.38	Peak

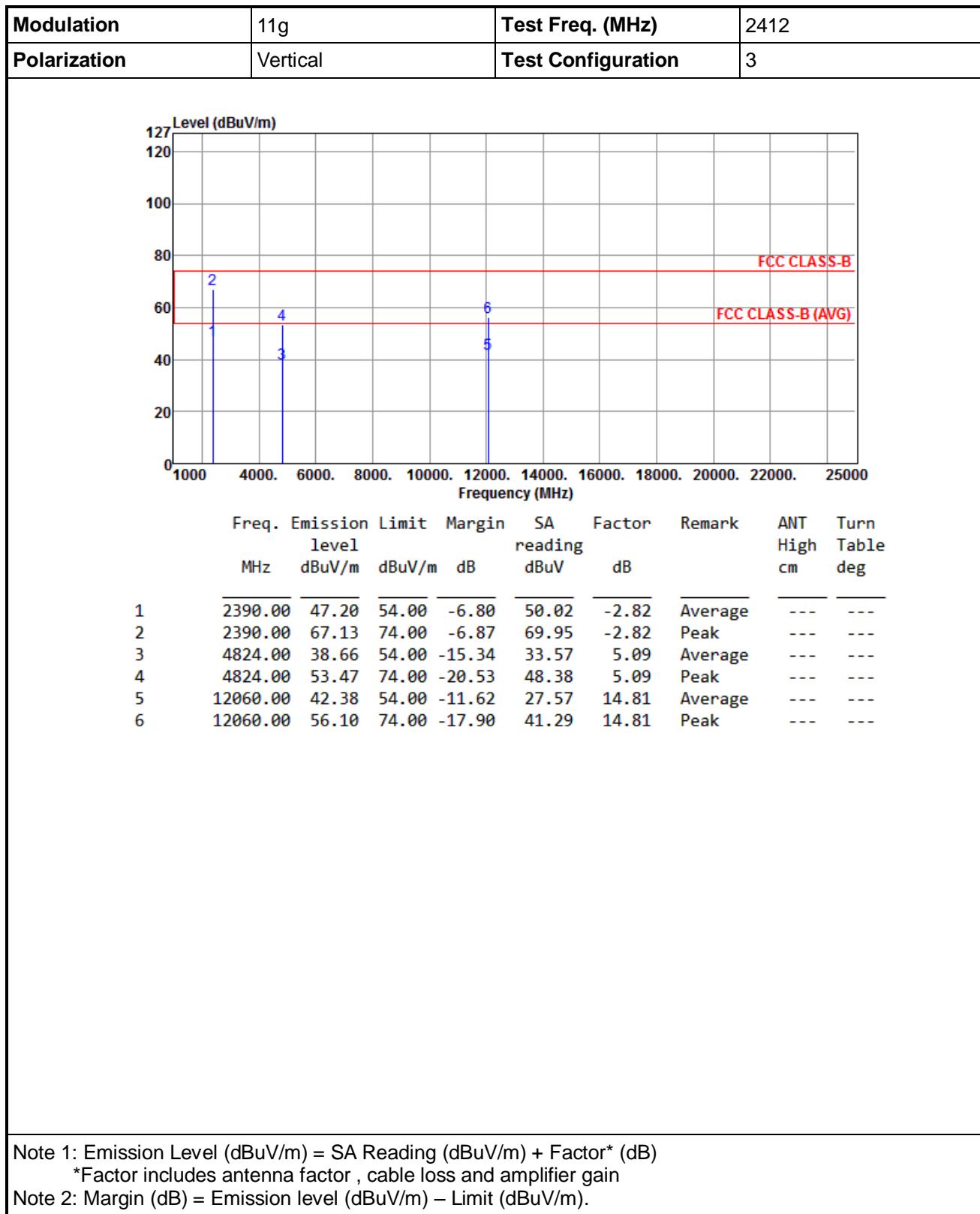
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

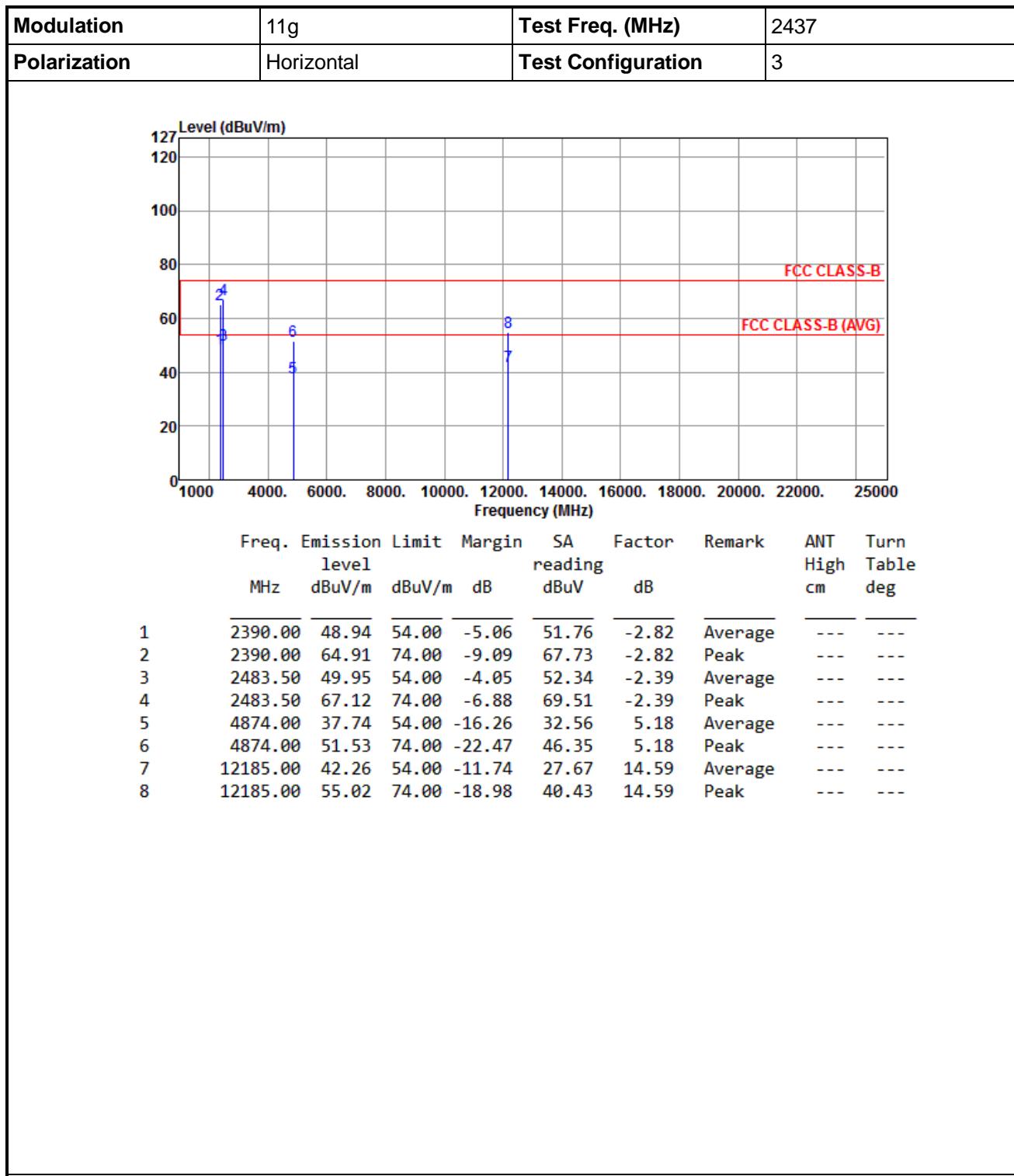
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11g	Test Freq. (MHz)	2412																																																															
Polarization	Horizontal	Test Configuration	3																																																															
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>52.81</td> <td>54.00</td> <td>-1.19</td> <td>55.63</td> <td>-2.82</td> <td>Average</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>72.93</td> <td>74.00</td> <td>-1.07</td> <td>75.75</td> <td>-2.82</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>35.55</td> <td>54.00</td> <td>-18.45</td> <td>30.46</td> <td>5.09</td> <td>Average</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>49.82</td> <td>74.00</td> <td>-24.18</td> <td>44.73</td> <td>5.09</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>40.18</td> <td>54.00</td> <td>-13.82</td> <td>25.37</td> <td>14.81</td> <td>Average</td> <td>---</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>53.00</td> <td>74.00</td> <td>-21.00</td> <td>38.19</td> <td>14.81</td> <td>Peak</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	52.81	54.00	-1.19	55.63	-2.82	Average	---	2	2390.00	72.93	74.00	-1.07	75.75	-2.82	Peak	---	3	4824.00	35.55	54.00	-18.45	30.46	5.09	Average	---	4	4824.00	49.82	74.00	-24.18	44.73	5.09	Peak	---	5	12060.00	40.18	54.00	-13.82	25.37	14.81	Average	---	6	12060.00	53.00	74.00	-21.00	38.19	14.81	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	2390.00	52.81	54.00	-1.19	55.63	-2.82	Average	---																																																										
2	2390.00	72.93	74.00	-1.07	75.75	-2.82	Peak	---																																																										
3	4824.00	35.55	54.00	-18.45	30.46	5.09	Average	---																																																										
4	4824.00	49.82	74.00	-24.18	44.73	5.09	Peak	---																																																										
5	12060.00	40.18	54.00	-13.82	25.37	14.81	Average	---																																																										
6	12060.00	53.00	74.00	-21.00	38.19	14.81	Peak	---																																																										
<p>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).</p>																																																																		

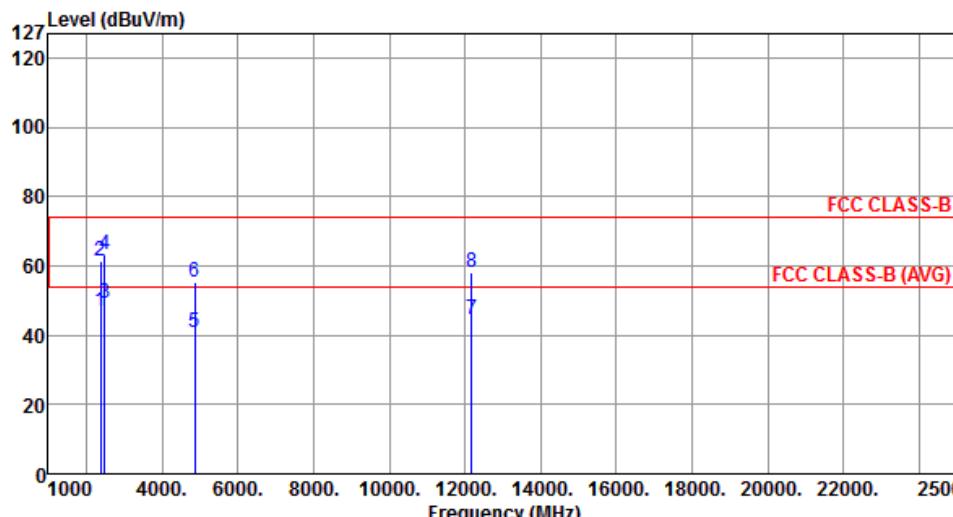




Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

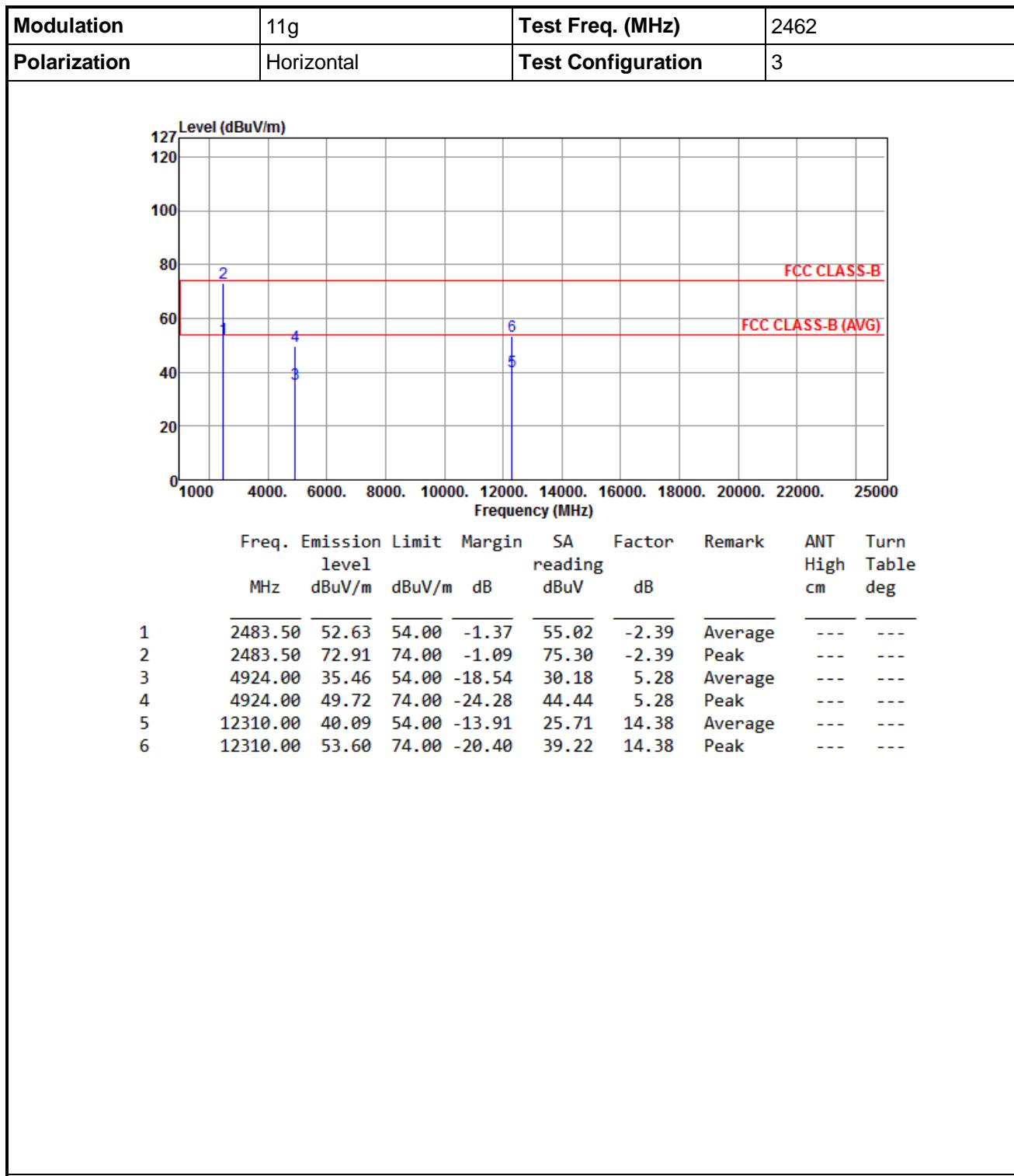
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11g	Test Freq. (MHz)	2437																																																																																	
Polarization	Vertical	Test Configuration	3																																																																																	
<hr/>																																																																																				
<hr/>																																																																																				
																																																																																				
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>46.89</td><td>54.00 -7.11</td><td>49.71</td><td>-2.82</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>61.42</td><td>74.00 -12.58</td><td>64.24</td><td>-2.82</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>49.08</td><td>54.00 -4.92</td><td>51.47</td><td>-2.39</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>63.32</td><td>74.00 -10.68</td><td>65.71</td><td>-2.39</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>5</td><td>4874.00</td><td>40.78</td><td>54.00 -13.22</td><td>35.60</td><td>5.18</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>6</td><td>4874.00</td><td>55.35</td><td>74.00 -18.65</td><td>50.17</td><td>5.18</td><td>Peak</td><td>---</td><td>---</td></tr> <tr><td>7</td><td>12185.00</td><td>44.50</td><td>54.00 -9.50</td><td>29.91</td><td>14.59</td><td>Average</td><td>---</td><td>---</td></tr> <tr><td>8</td><td>12185.00</td><td>58.20</td><td>74.00 -15.80</td><td>43.61</td><td>14.59</td><td>Peak</td><td>---</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	46.89	54.00 -7.11	49.71	-2.82	Average	---	---	2	2390.00	61.42	74.00 -12.58	64.24	-2.82	Peak	---	---	3	2483.50	49.08	54.00 -4.92	51.47	-2.39	Average	---	---	4	2483.50	63.32	74.00 -10.68	65.71	-2.39	Peak	---	---	5	4874.00	40.78	54.00 -13.22	35.60	5.18	Average	---	---	6	4874.00	55.35	74.00 -18.65	50.17	5.18	Peak	---	---	7	12185.00	44.50	54.00 -9.50	29.91	14.59	Average	---	---	8	12185.00	58.20	74.00 -15.80	43.61	14.59	Peak	---	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																												
1	2390.00	46.89	54.00 -7.11	49.71	-2.82	Average	---	---																																																																												
2	2390.00	61.42	74.00 -12.58	64.24	-2.82	Peak	---	---																																																																												
3	2483.50	49.08	54.00 -4.92	51.47	-2.39	Average	---	---																																																																												
4	2483.50	63.32	74.00 -10.68	65.71	-2.39	Peak	---	---																																																																												
5	4874.00	40.78	54.00 -13.22	35.60	5.18	Average	---	---																																																																												
6	4874.00	55.35	74.00 -18.65	50.17	5.18	Peak	---	---																																																																												
7	12185.00	44.50	54.00 -9.50	29.91	14.59	Average	---	---																																																																												
8	12185.00	58.20	74.00 -15.80	43.61	14.59	Peak	---	---																																																																												

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

*Factor includes antenna factor , cable loss and amplifier gain

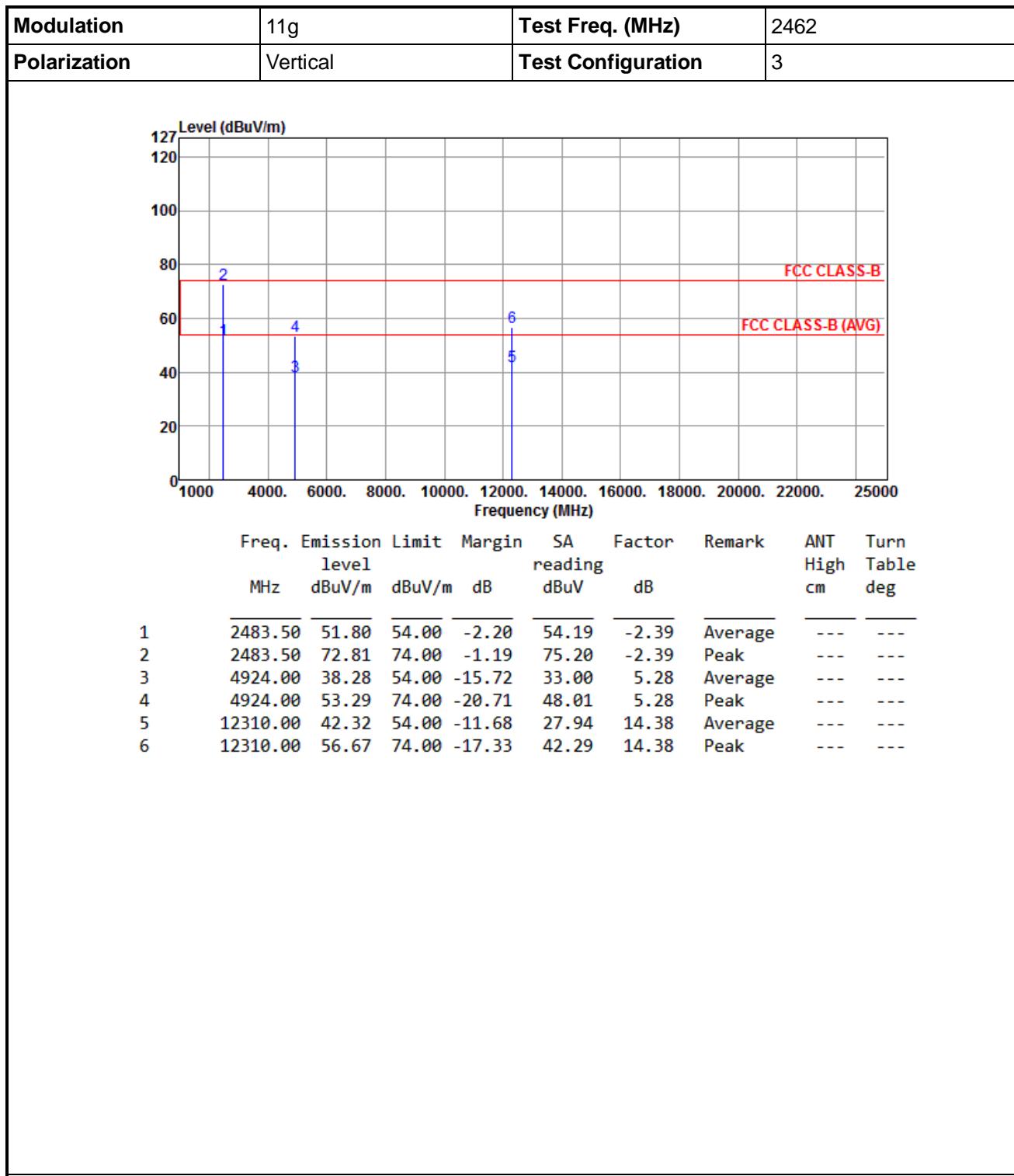
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



Note 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).

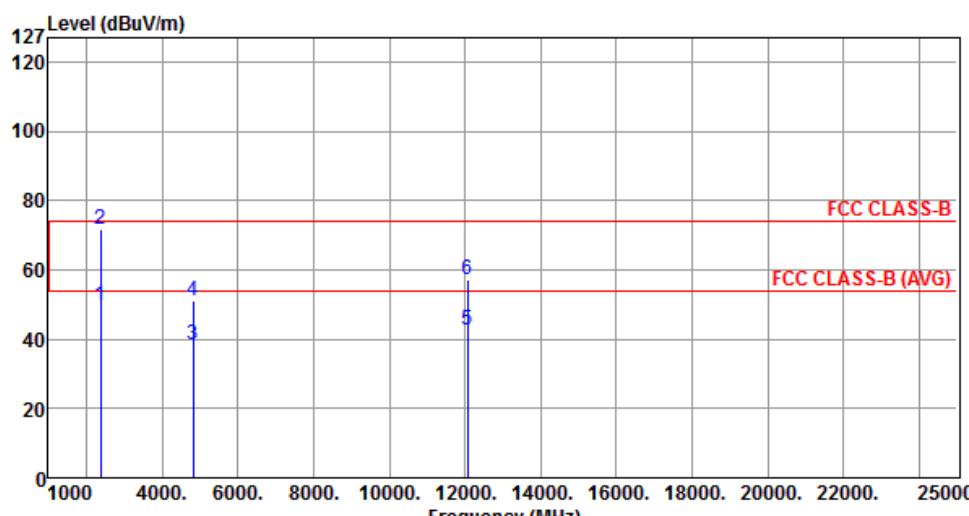


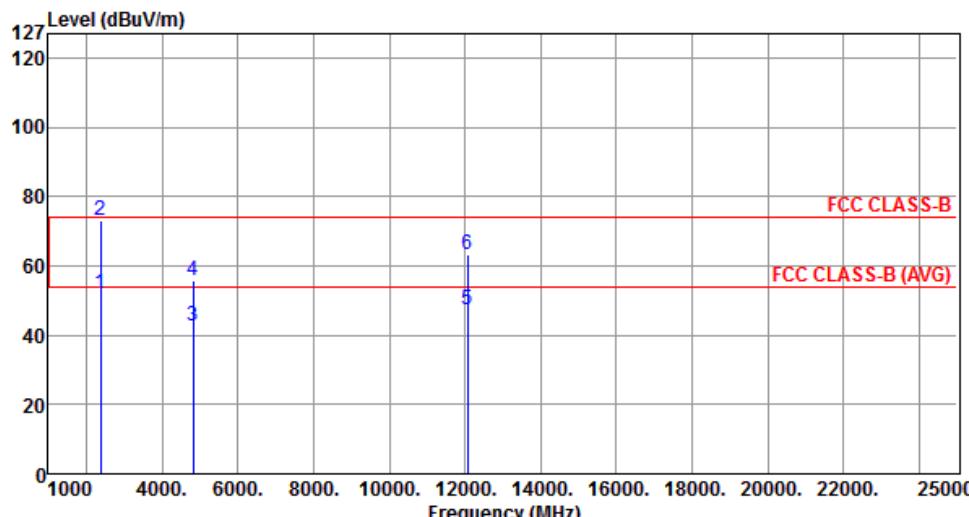
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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 VHT20

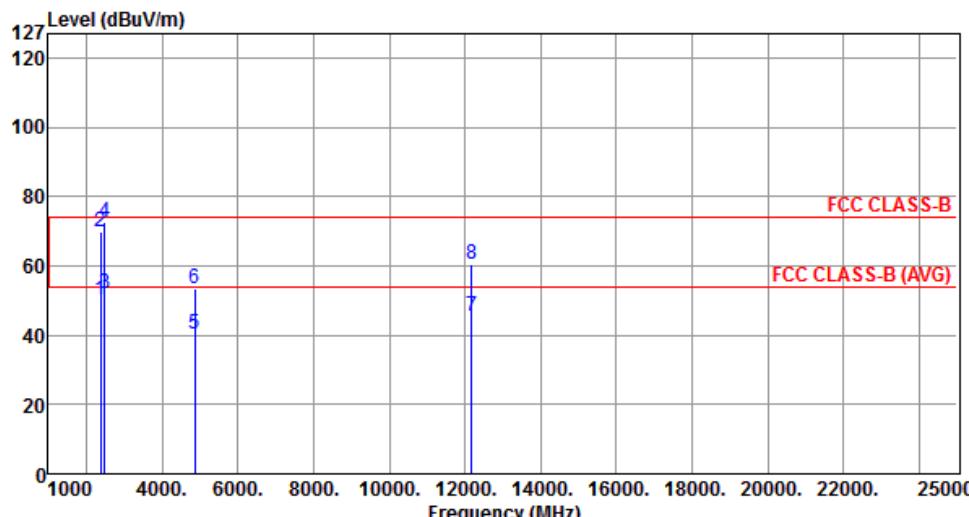
Modulation	VHT20	Test Freq. (MHz)	2412																																																															
Polarization	Horizontal	Test Configuration	3																																																															
																																																																		
<table> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>49.82</td> <td>54.00</td> <td>-4.18</td> <td>52.64</td> <td>-2.82</td> <td>Average</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>71.69</td> <td>74.00</td> <td>-2.31</td> <td>74.51</td> <td>-2.82</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>38.44</td> <td>54.00</td> <td>-15.56</td> <td>33.35</td> <td>5.09</td> <td>Average</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>51.28</td> <td>74.00</td> <td>-22.72</td> <td>46.19</td> <td>5.09</td> <td>Peak</td> <td>---</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>42.70</td> <td>54.00</td> <td>-11.30</td> <td>27.89</td> <td>14.81</td> <td>Average</td> <td>---</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>57.25</td> <td>74.00</td> <td>-16.75</td> <td>42.44</td> <td>14.81</td> <td>Peak</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	49.82	54.00	-4.18	52.64	-2.82	Average	---	2	2390.00	71.69	74.00	-2.31	74.51	-2.82	Peak	---	3	4824.00	38.44	54.00	-15.56	33.35	5.09	Average	---	4	4824.00	51.28	74.00	-22.72	46.19	5.09	Peak	---	5	12060.00	42.70	54.00	-11.30	27.89	14.81	Average	---	6	12060.00	57.25	74.00	-16.75	42.44	14.81	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																										
1	2390.00	49.82	54.00	-4.18	52.64	-2.82	Average	---																																																										
2	2390.00	71.69	74.00	-2.31	74.51	-2.82	Peak	---																																																										
3	4824.00	38.44	54.00	-15.56	33.35	5.09	Average	---																																																										
4	4824.00	51.28	74.00	-22.72	46.19	5.09	Peak	---																																																										
5	12060.00	42.70	54.00	-11.30	27.89	14.81	Average	---																																																										
6	12060.00	57.25	74.00	-16.75	42.44	14.81	Peak	---																																																										
<p>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).</p>																																																																		

Modulation	VHT20	Test Freq. (MHz)	2412																																																																				
Polarization	Vertical	Test Configuration	3																																																																				
<hr/>																																																																							
<hr/>																																																																							
 <p>The graph plots Emission Level (dBuV/m) against Frequency (MHz). The Y-axis ranges from 0 to 127 dBuV/m, and the X-axis ranges from 1000 to 25000 MHz. Two horizontal red lines represent the FCC CLASS-B and FCC CLASS-B (AVG) limits. Six vertical blue lines connect specific frequency points (labeled 1 through 6) to the emission level curve.</p> <table border="1"> <thead> <tr> <th>Point</th> <th>Frequency (MHz)</th> <th>Emission Level (dBuV/m)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>51.99</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>73.00</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>42.61</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>55.56</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>47.49</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>63.29</td> </tr> </tbody> </table>				Point	Frequency (MHz)	Emission Level (dBuV/m)	1	2390.00	51.99	2	2390.00	73.00	3	4824.00	42.61	4	4824.00	55.56	5	12060.00	47.49	6	12060.00	63.29																																															
Point	Frequency (MHz)	Emission Level (dBuV/m)																																																																					
1	2390.00	51.99																																																																					
2	2390.00	73.00																																																																					
3	4824.00	42.61																																																																					
4	4824.00	55.56																																																																					
5	12060.00	47.49																																																																					
6	12060.00	63.29																																																																					
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>51.99</td> <td>54.00</td> <td>-2.01</td> <td>54.81</td> <td>-2.82</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>73.00</td> <td>74.00</td> <td>-1.00</td> <td>75.82</td> <td>-2.82</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>4824.00</td> <td>42.61</td> <td>54.00</td> <td>-11.39</td> <td>37.52</td> <td>5.09</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>4824.00</td> <td>55.56</td> <td>74.00</td> <td>-18.44</td> <td>50.47</td> <td>5.09</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>12060.00</td> <td>47.49</td> <td>54.00</td> <td>-6.51</td> <td>32.68</td> <td>14.81</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>12060.00</td> <td>63.29</td> <td>74.00</td> <td>-10.71</td> <td>48.48</td> <td>14.81</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>				Freq. MHz	Emission level 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	54.81	-2.82	Average	---	---	2	2390.00	73.00	74.00	-1.00	75.82	-2.82	Peak	---	---	3	4824.00	42.61	54.00	-11.39	37.52	5.09	Average	---	---	4	4824.00	55.56	74.00	-18.44	50.47	5.09	Peak	---	---	5	12060.00	47.49	54.00	-6.51	32.68	14.81	Average	---	---	6	12060.00	63.29	74.00	-10.71	48.48	14.81	Peak	---	---
Freq. MHz	Emission level 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	54.81	-2.82	Average	---	---																																																														
2	2390.00	73.00	74.00	-1.00	75.82	-2.82	Peak	---	---																																																														
3	4824.00	42.61	54.00	-11.39	37.52	5.09	Average	---	---																																																														
4	4824.00	55.56	74.00	-18.44	50.47	5.09	Peak	---	---																																																														
5	12060.00	47.49	54.00	-6.51	32.68	14.81	Average	---	---																																																														
6	12060.00	63.29	74.00	-10.71	48.48	14.81	Peak	---	---																																																														

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

*Factor includes antenna factor , cable loss and amplifier gain

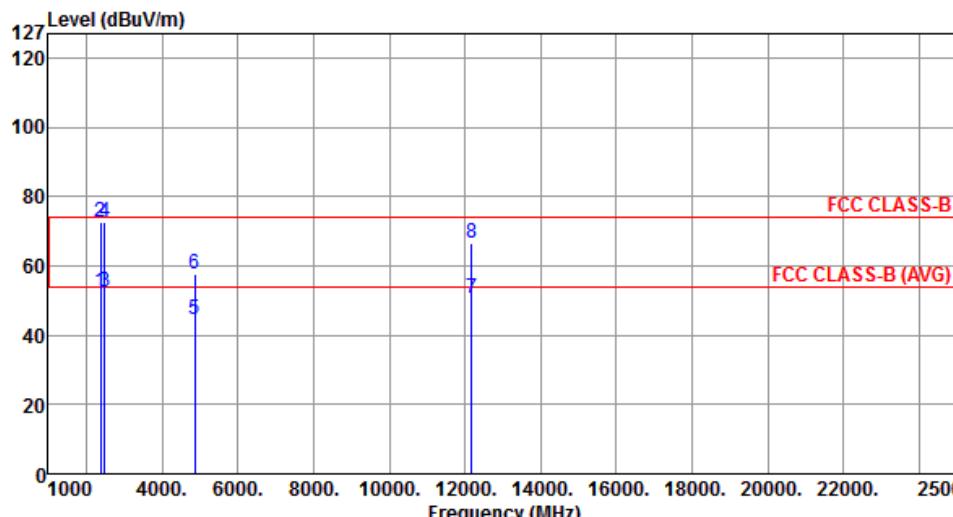
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	2437																																																																																										
Polarization	Horizontal	Test Configuration	3																																																																																										
<hr/>																																																																																													
<hr/>																																																																																													
 <p>The graph plots Emission Level (dBuV/m) on the Y-axis (0 to 127) against Frequency (MHz) on the X-axis (1000 to 25000). Two horizontal red lines represent the FCC CLASS-B limit at approximately 75 dBuV/m and the FCC CLASS-B (AVG) limit at approximately 55 dBuV/m. Blue vertical lines connect the measured emission levels for each test point (4, 5, 6, 7, 8) to their respective values in the table below.</p>																																																																																													
<table border="1"> <thead> <tr> <th></th> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2390.00</td> <td>50.23</td> <td>54.00</td> <td>-3.77</td> <td>53.05</td> <td>-2.82</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>2390.00</td> <td>69.94</td> <td>74.00</td> <td>-4.06</td> <td>72.76</td> <td>-2.82</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>2483.50</td> <td>51.87</td> <td>54.00</td> <td>-2.13</td> <td>54.26</td> <td>-2.39</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>2483.50</td> <td>72.53</td> <td>74.00</td> <td>-1.47</td> <td>74.92</td> <td>-2.39</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>4874.00</td> <td>40.51</td> <td>54.00</td> <td>-13.49</td> <td>35.33</td> <td>5.18</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>4874.00</td> <td>53.49</td> <td>74.00</td> <td>-20.51</td> <td>48.31</td> <td>5.18</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>7</td> <td>12185.00</td> <td>45.65</td> <td>54.00</td> <td>-8.35</td> <td>31.06</td> <td>14.59</td> <td>Average</td> <td>---</td> <td>---</td> </tr> <tr> <td>8</td> <td>12185.00</td> <td>60.46</td> <td>74.00</td> <td>-13.54</td> <td>45.87</td> <td>14.59</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	50.23	54.00	-3.77	53.05	-2.82	Average	---	---	2	2390.00	69.94	74.00	-4.06	72.76	-2.82	Peak	---	---	3	2483.50	51.87	54.00	-2.13	54.26	-2.39	Average	---	---	4	2483.50	72.53	74.00	-1.47	74.92	-2.39	Peak	---	---	5	4874.00	40.51	54.00	-13.49	35.33	5.18	Average	---	---	6	4874.00	53.49	74.00	-20.51	48.31	5.18	Peak	---	---	7	12185.00	45.65	54.00	-8.35	31.06	14.59	Average	---	---	8	12185.00	60.46	74.00	-13.54	45.87	14.59	Peak	---	---
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																				
1	2390.00	50.23	54.00	-3.77	53.05	-2.82	Average	---	---																																																																																				
2	2390.00	69.94	74.00	-4.06	72.76	-2.82	Peak	---	---																																																																																				
3	2483.50	51.87	54.00	-2.13	54.26	-2.39	Average	---	---																																																																																				
4	2483.50	72.53	74.00	-1.47	74.92	-2.39	Peak	---	---																																																																																				
5	4874.00	40.51	54.00	-13.49	35.33	5.18	Average	---	---																																																																																				
6	4874.00	53.49	74.00	-20.51	48.31	5.18	Peak	---	---																																																																																				
7	12185.00	45.65	54.00	-8.35	31.06	14.59	Average	---	---																																																																																				
8	12185.00	60.46	74.00	-13.54	45.87	14.59	Peak	---	---																																																																																				

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

*Factor includes antenna factor , cable loss and amplifier gain

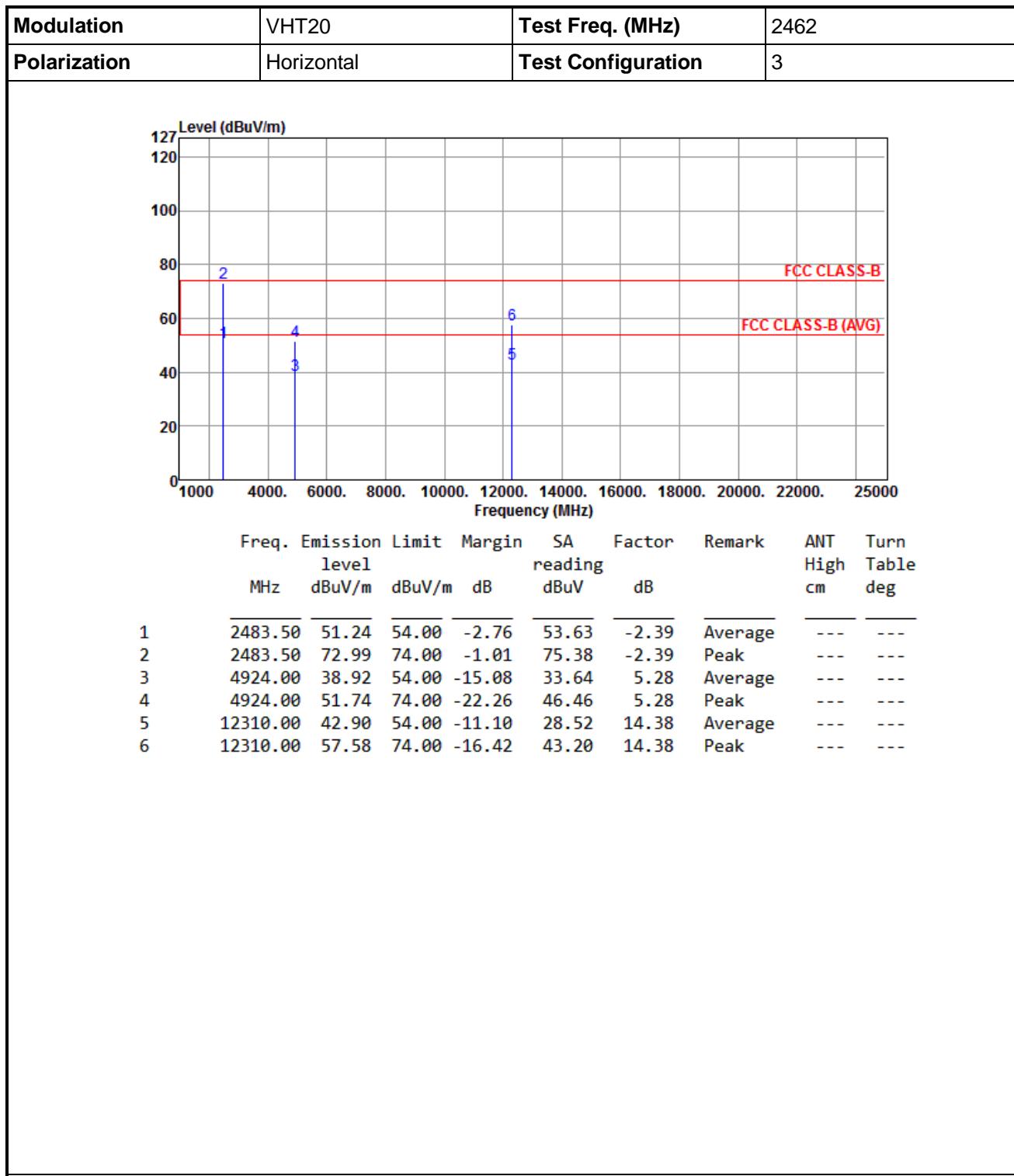
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	2437																																																																																	
Polarization	Vertical	Test Configuration	3																																																																																	
<hr/>																																																																																				
<hr/>																																																																																				
																																																																																				
<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr><td>1</td><td>2390.00</td><td>52.43</td><td>54.00</td><td>-1.57</td><td>55.25</td><td>-2.82</td><td>Average</td><td>---</td></tr> <tr><td>2</td><td>2390.00</td><td>72.86</td><td>74.00</td><td>-1.14</td><td>75.68</td><td>-2.82</td><td>Peak</td><td>---</td></tr> <tr><td>3</td><td>2483.50</td><td>52.49</td><td>54.00</td><td>-1.51</td><td>54.88</td><td>-2.39</td><td>Average</td><td>---</td></tr> <tr><td>4</td><td>2483.50</td><td>72.61</td><td>74.00</td><td>-1.39</td><td>75.00</td><td>-2.39</td><td>Peak</td><td>---</td></tr> <tr><td>5</td><td>4874.00</td><td>44.74</td><td>54.00</td><td>-9.26</td><td>39.56</td><td>5.18</td><td>Average</td><td>---</td></tr> <tr><td>6</td><td>4874.00</td><td>57.80</td><td>74.00</td><td>-16.20</td><td>52.62</td><td>5.18</td><td>Peak</td><td>---</td></tr> <tr><td>7</td><td>12185.00</td><td>50.70</td><td>54.00</td><td>-3.30</td><td>36.11</td><td>14.59</td><td>Average</td><td>---</td></tr> <tr><td>8</td><td>12185.00</td><td>66.46</td><td>74.00</td><td>-7.54</td><td>51.87</td><td>14.59</td><td>Peak</td><td>---</td></tr> </tbody> </table>				Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	2390.00	52.43	54.00	-1.57	55.25	-2.82	Average	---	2	2390.00	72.86	74.00	-1.14	75.68	-2.82	Peak	---	3	2483.50	52.49	54.00	-1.51	54.88	-2.39	Average	---	4	2483.50	72.61	74.00	-1.39	75.00	-2.39	Peak	---	5	4874.00	44.74	54.00	-9.26	39.56	5.18	Average	---	6	4874.00	57.80	74.00	-16.20	52.62	5.18	Peak	---	7	12185.00	50.70	54.00	-3.30	36.11	14.59	Average	---	8	12185.00	66.46	74.00	-7.54	51.87	14.59	Peak	---
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																												
1	2390.00	52.43	54.00	-1.57	55.25	-2.82	Average	---																																																																												
2	2390.00	72.86	74.00	-1.14	75.68	-2.82	Peak	---																																																																												
3	2483.50	52.49	54.00	-1.51	54.88	-2.39	Average	---																																																																												
4	2483.50	72.61	74.00	-1.39	75.00	-2.39	Peak	---																																																																												
5	4874.00	44.74	54.00	-9.26	39.56	5.18	Average	---																																																																												
6	4874.00	57.80	74.00	-16.20	52.62	5.18	Peak	---																																																																												
7	12185.00	50.70	54.00	-3.30	36.11	14.59	Average	---																																																																												
8	12185.00	66.46	74.00	-7.54	51.87	14.59	Peak	---																																																																												

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

*Factor includes antenna factor , cable loss and amplifier gain

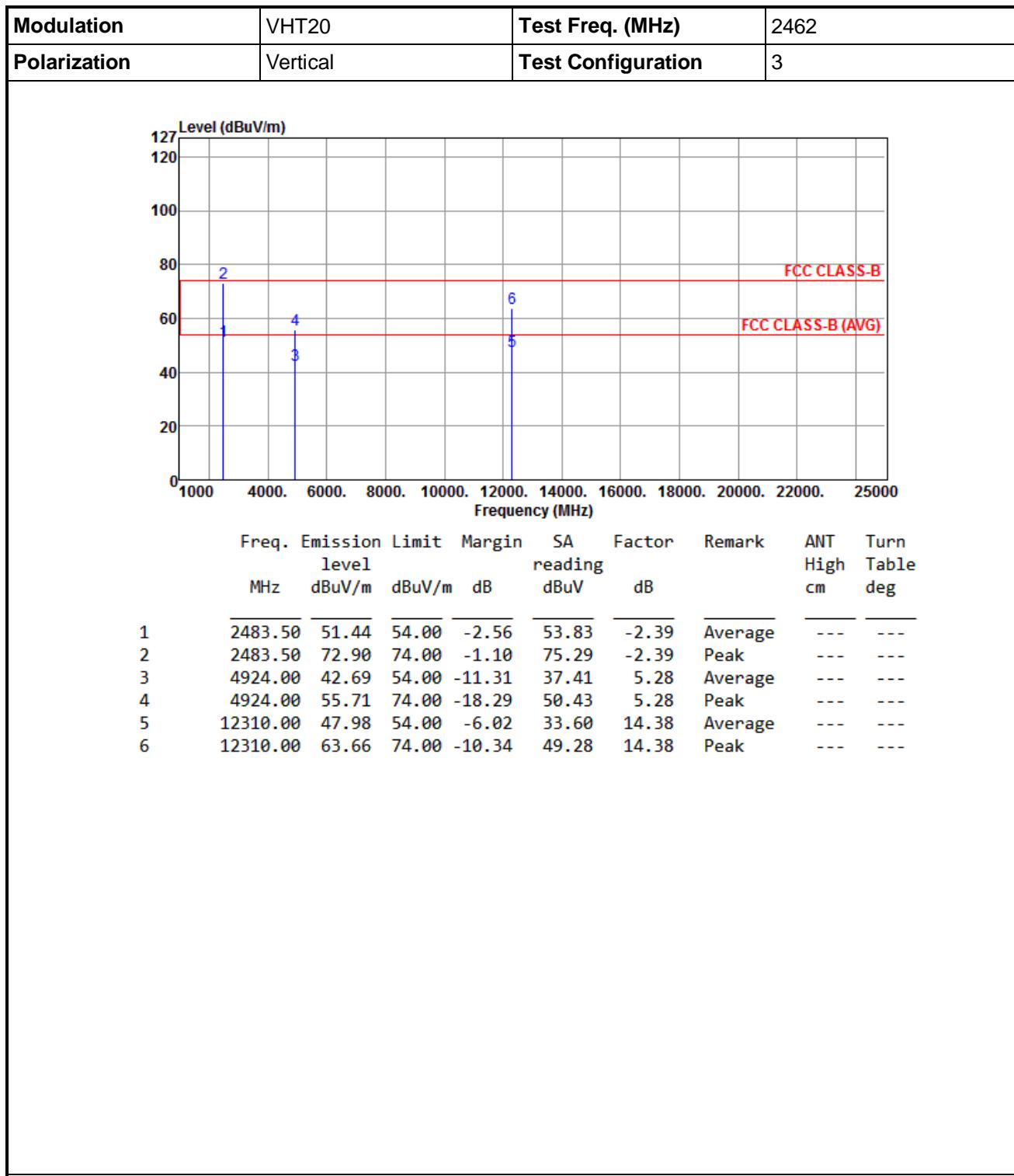
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).



Note 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 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 30 dB relative to the maximum in-band peak PSD level in 100 kHz

3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

3.6.3 Test Procedures

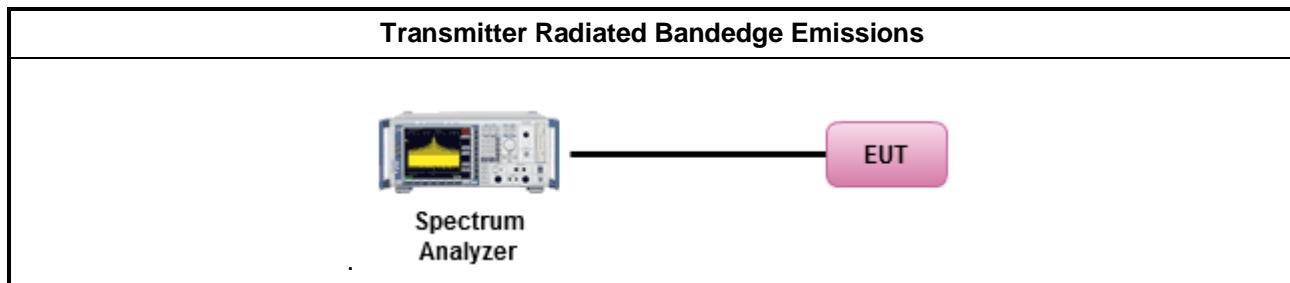
Reference level measurement

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

3.6.4 Test Setup

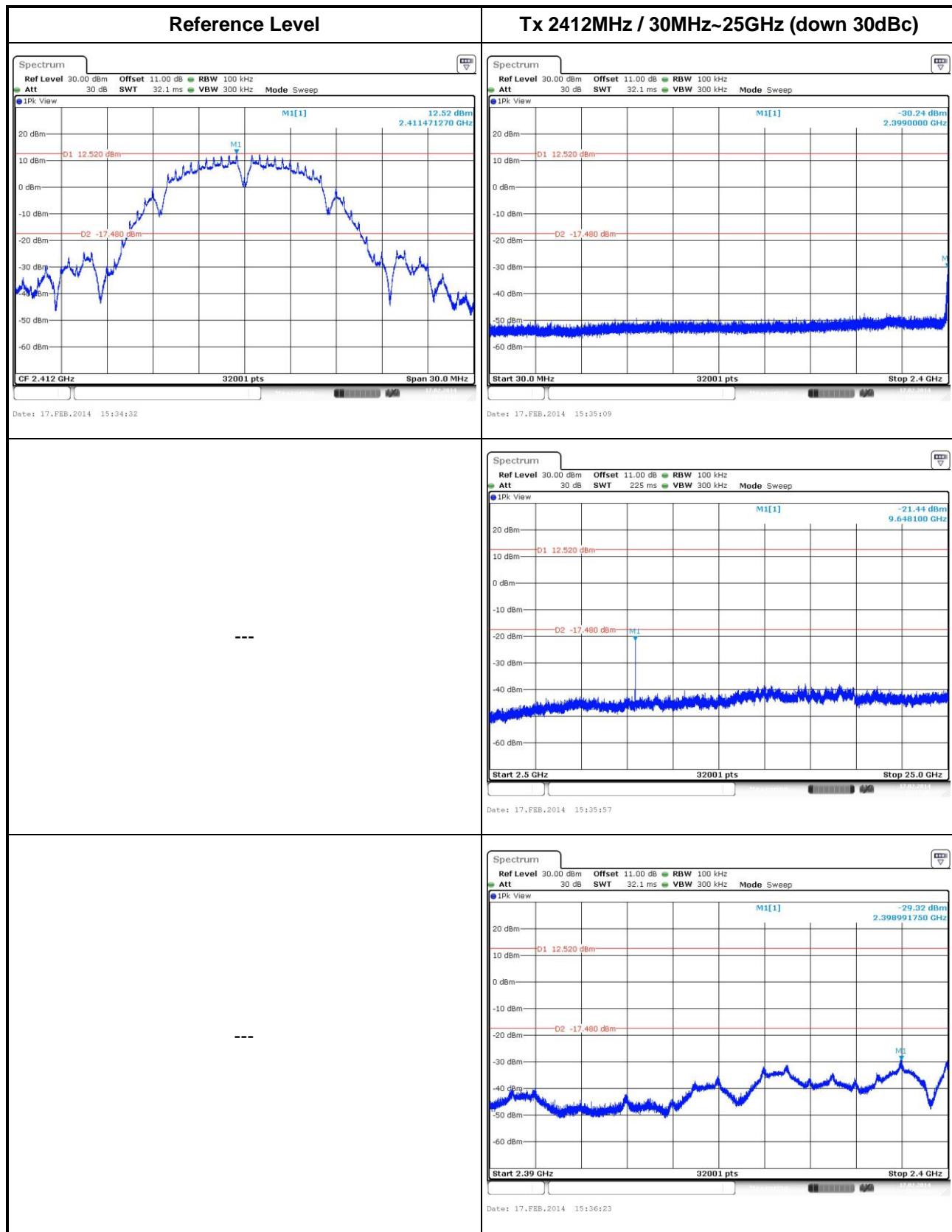


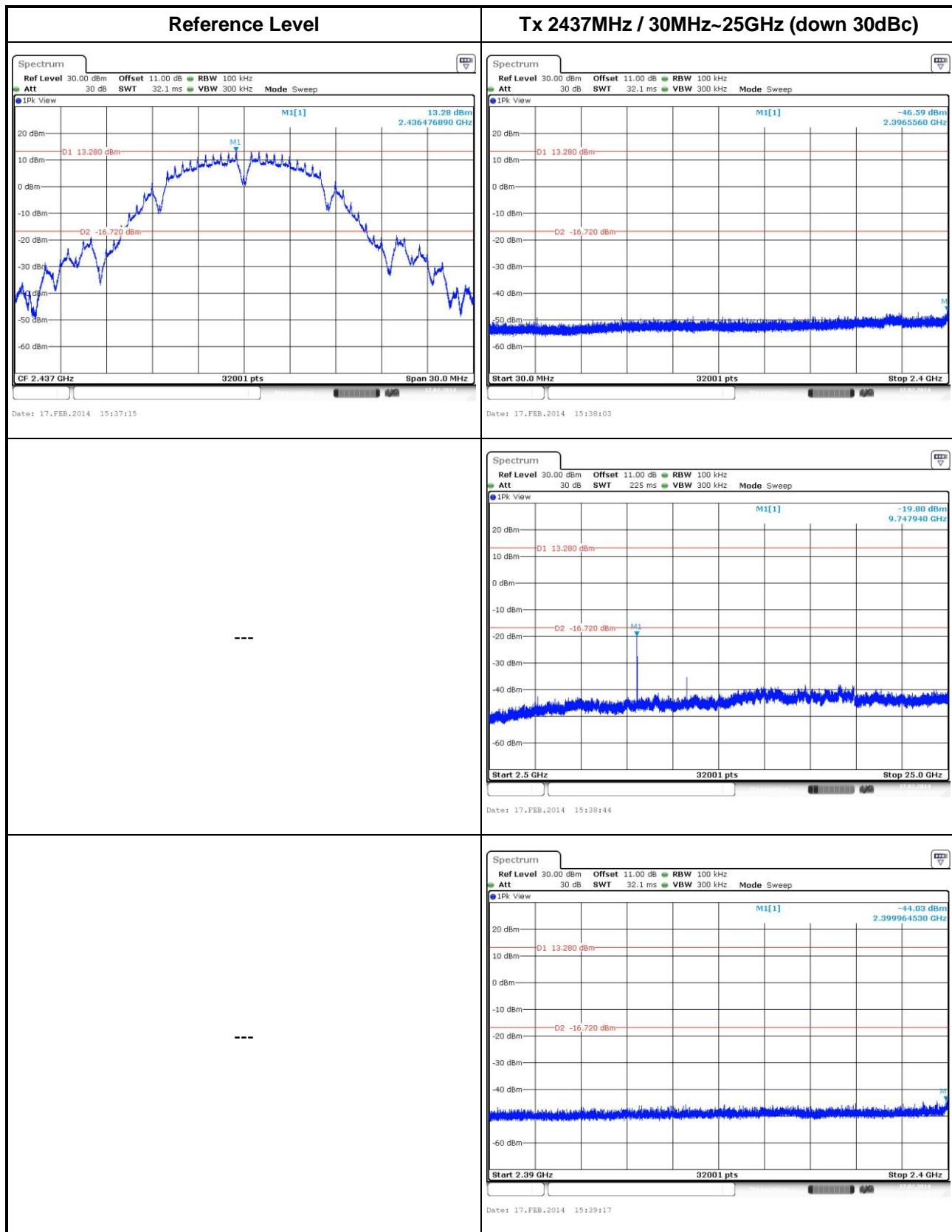
3.6.5 Test Result of Emissions in non-restricted frequency bands

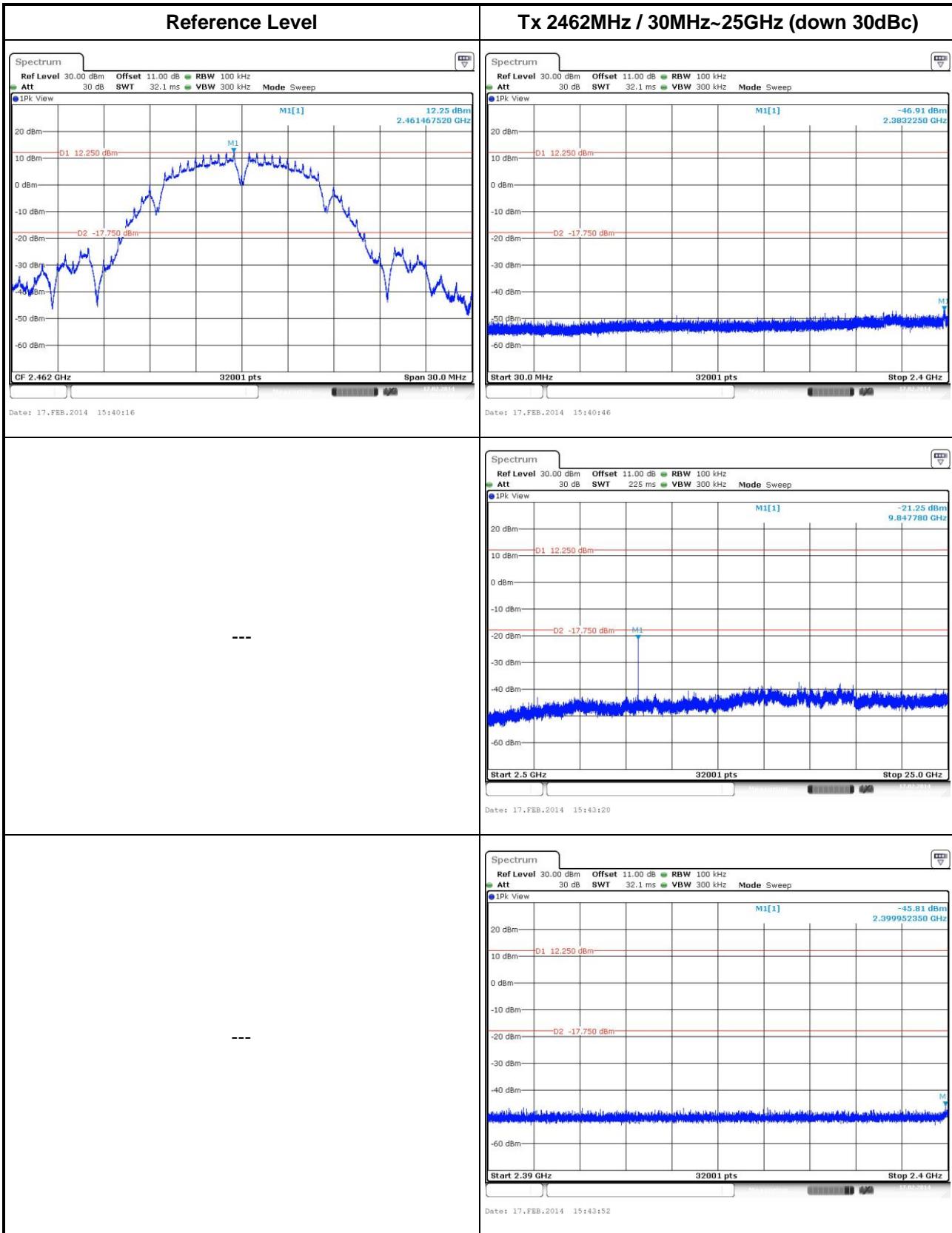
This test item is performed on each TX output individually without summing or adding $10 \log(N_{ANT})$ since measurements are made relative to the in-band emissions on the individual outputs. Only worst test result of each operating mode is presented.

3.6.6 Unwanted Emissions into Non-Restricted Frequency Bands

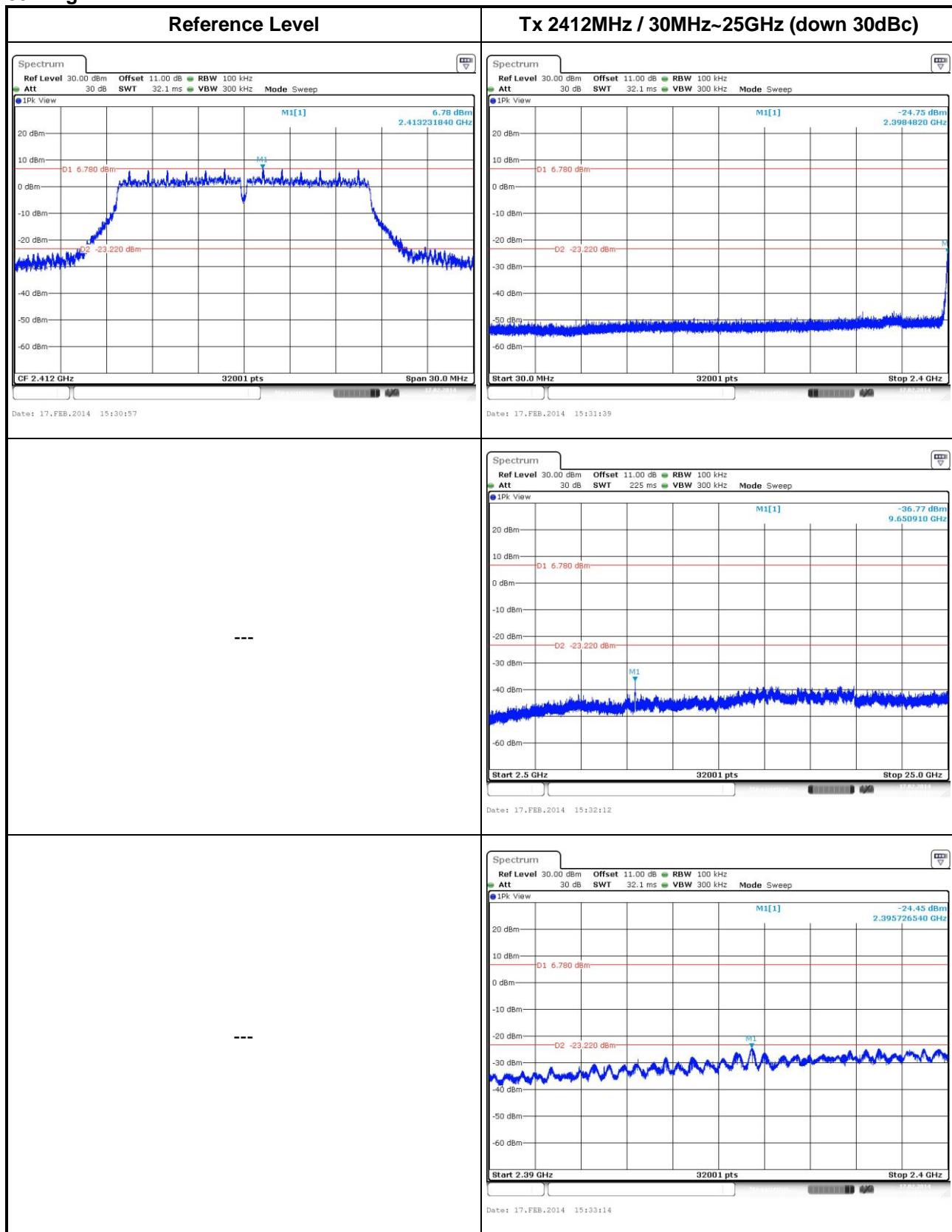
Legacy/MIMO (CDD) Non-beamforming mode - Test Configuration 1 / 802.11b

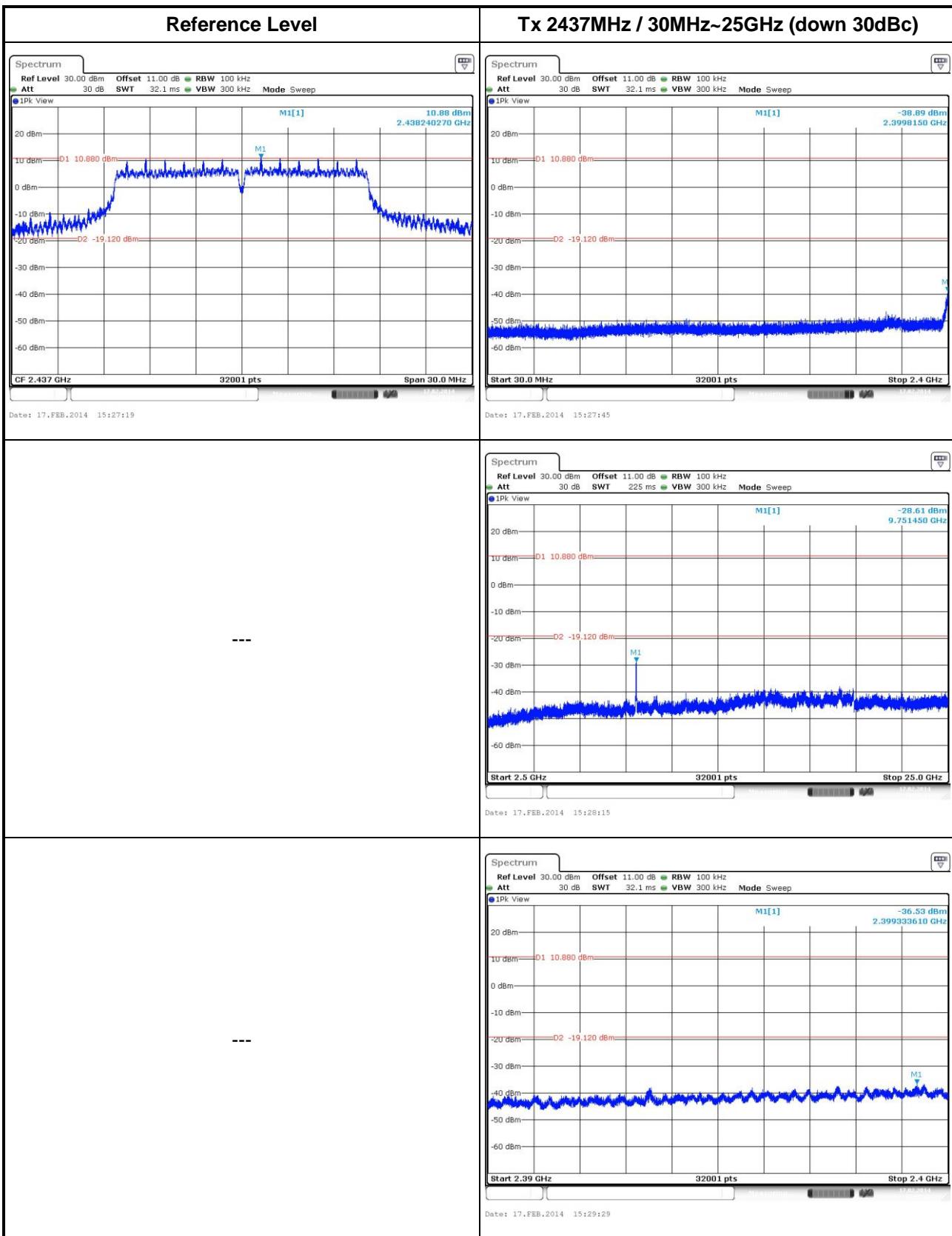


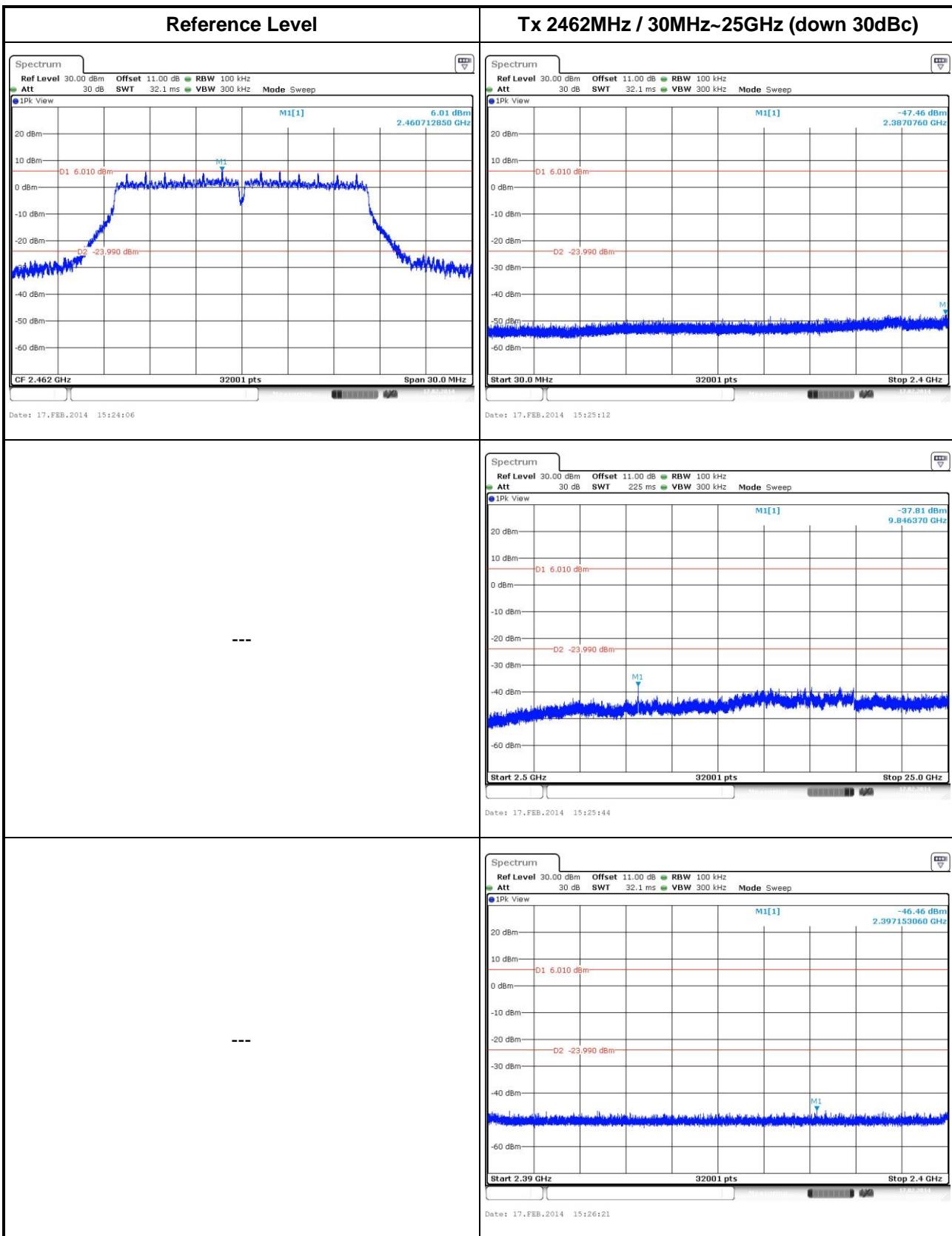




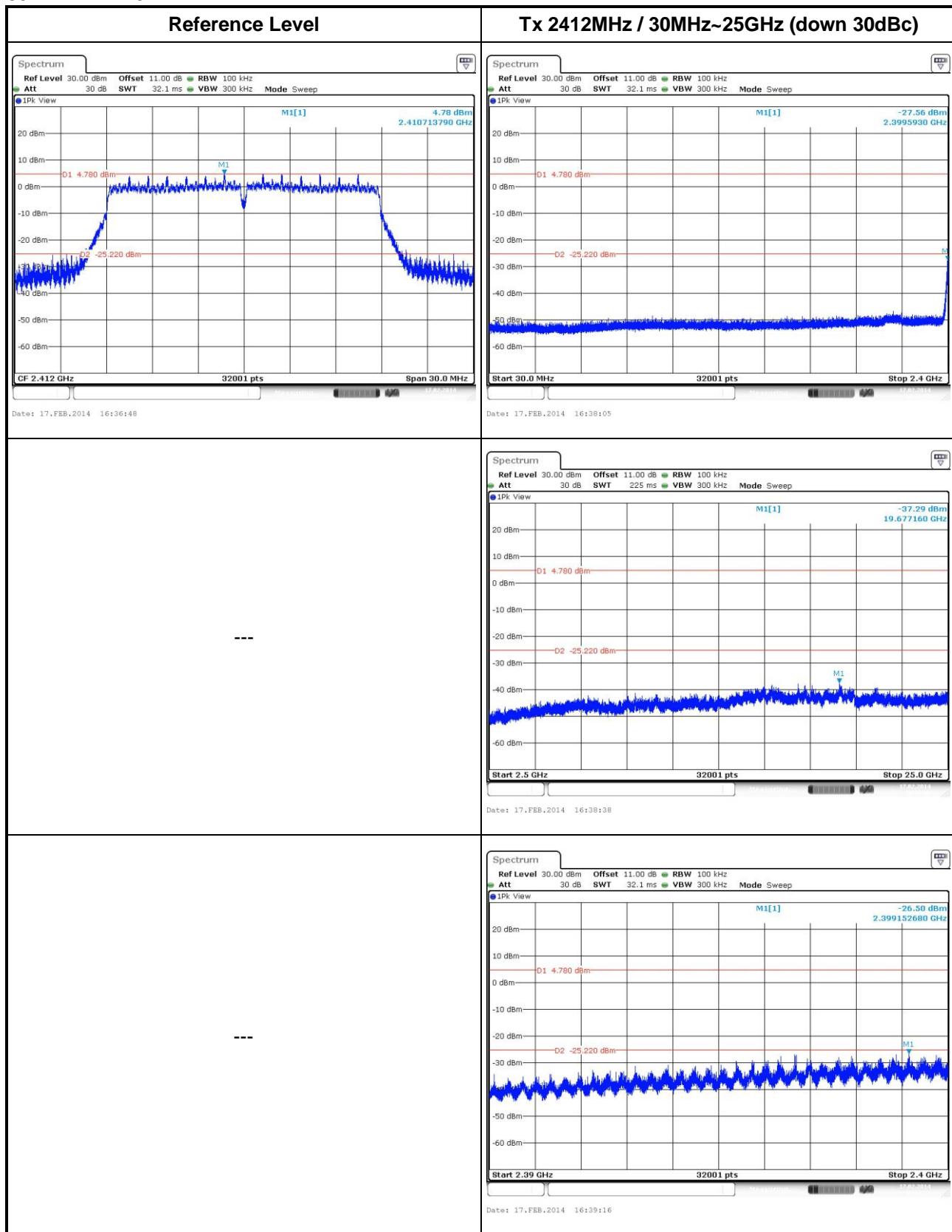
802.11g

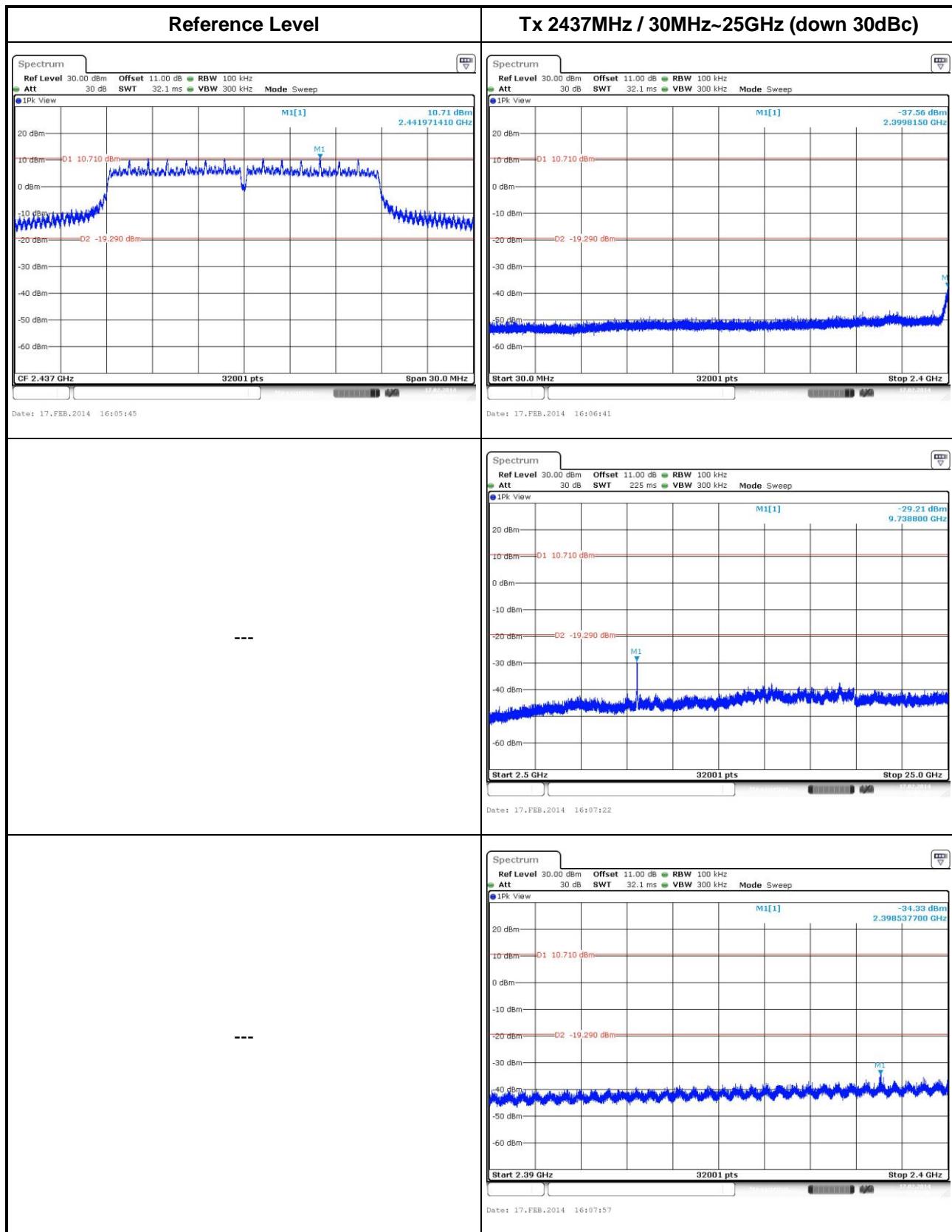


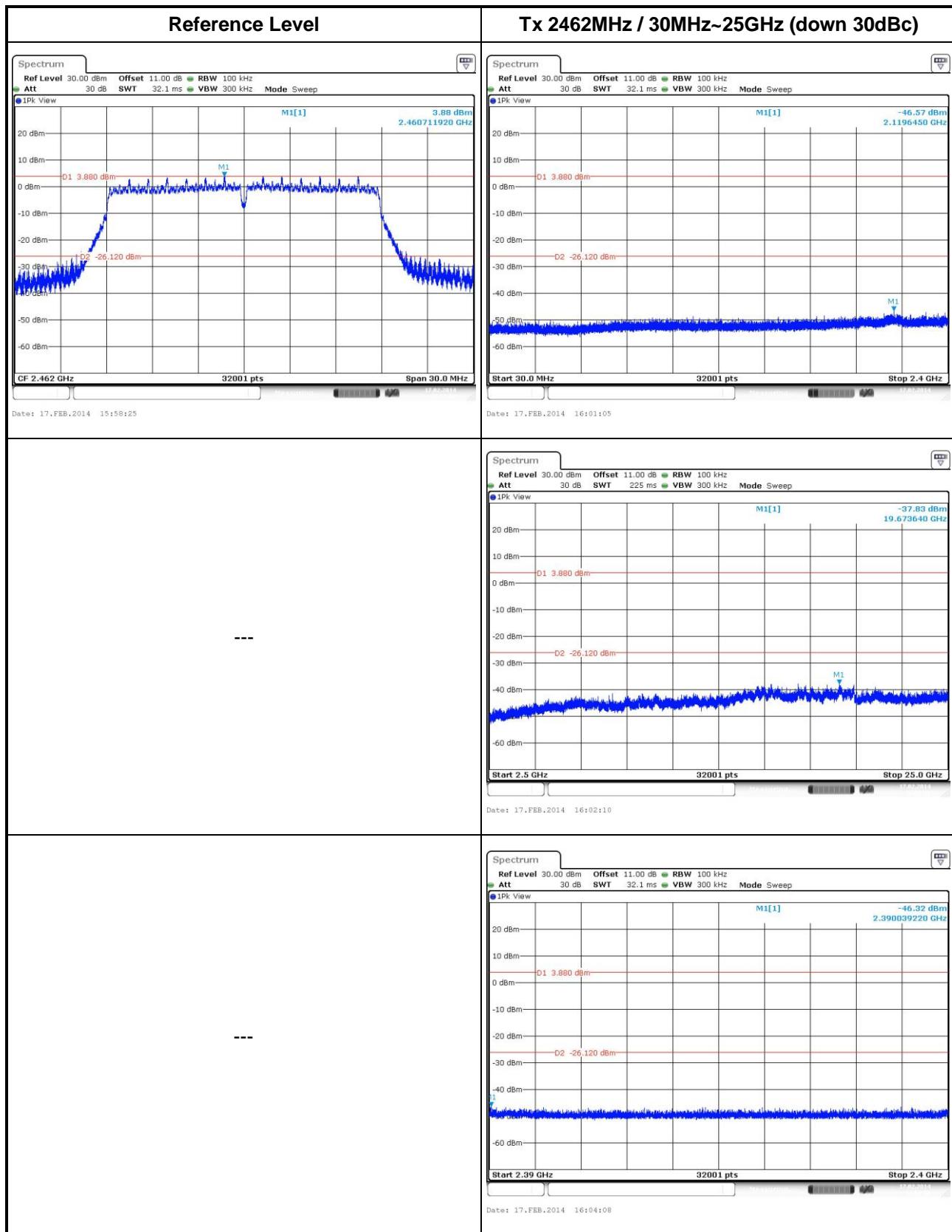




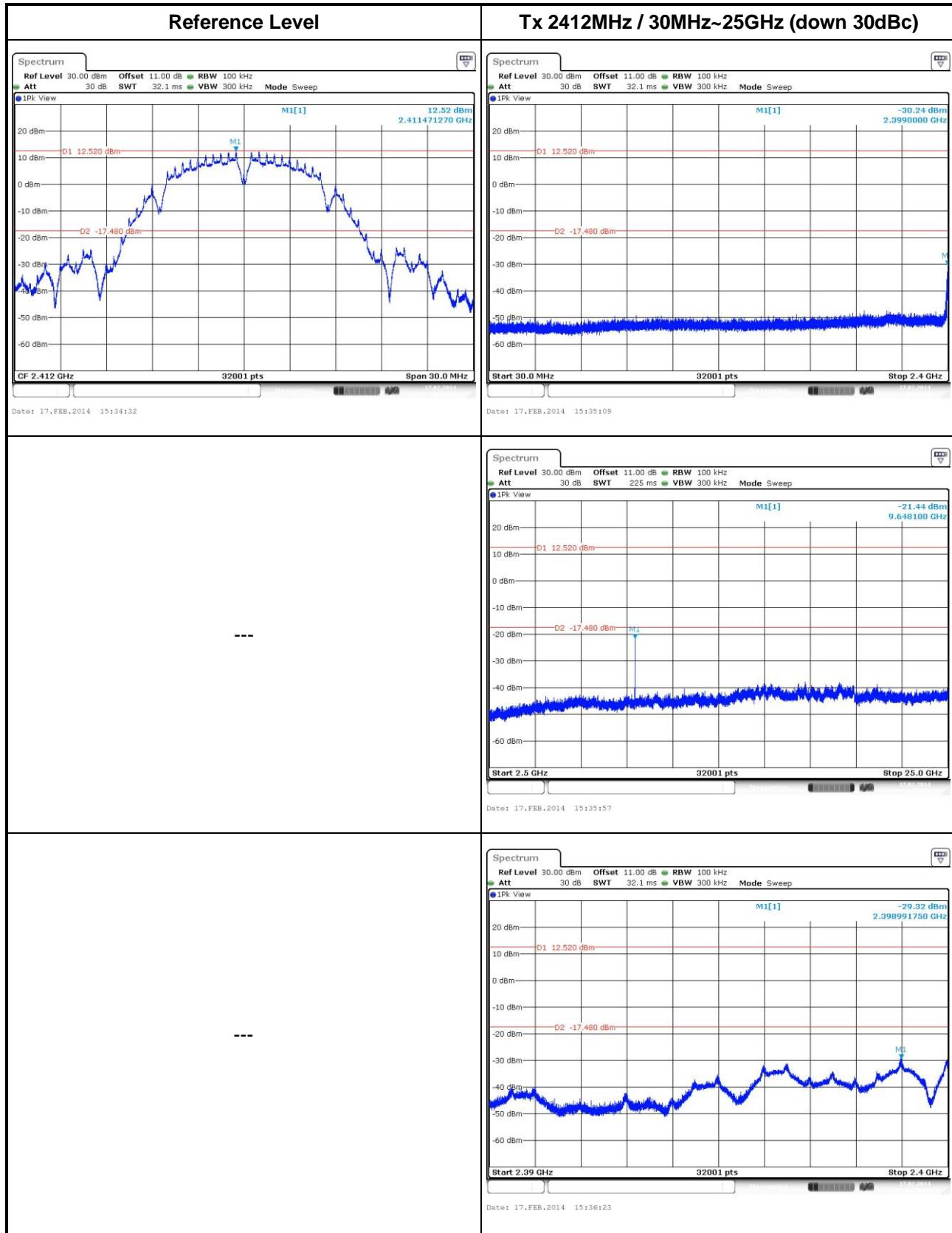
802.11n VHT20

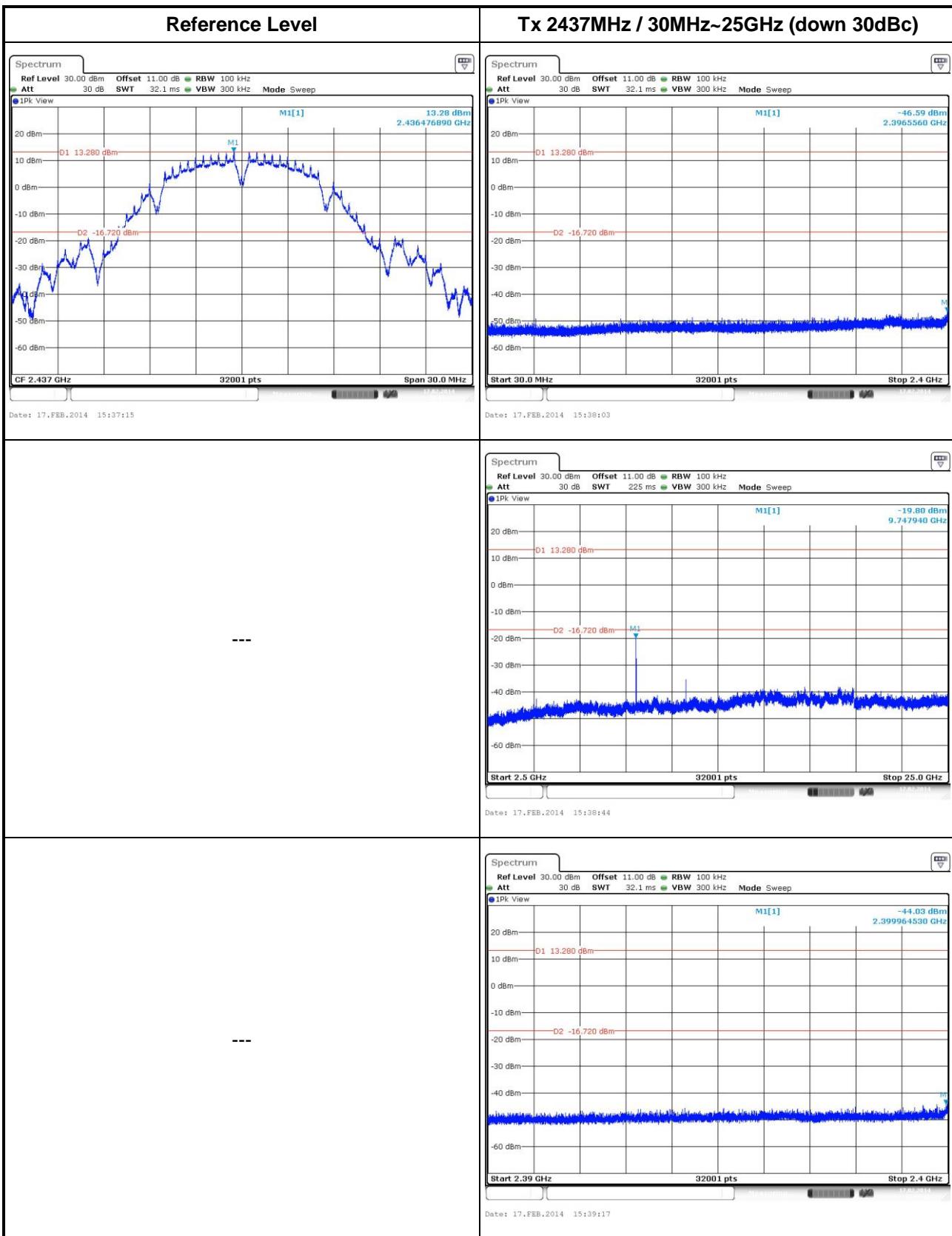


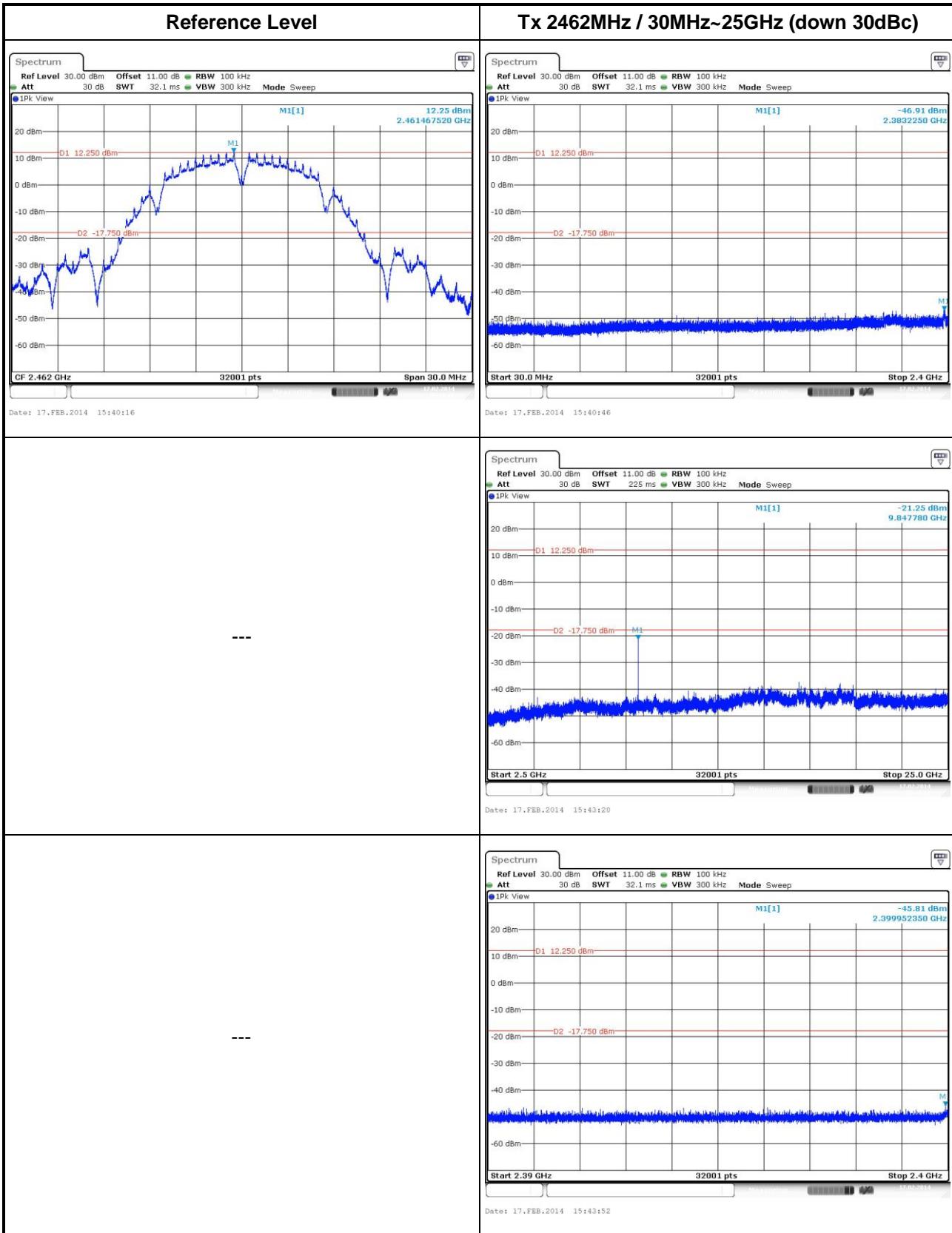




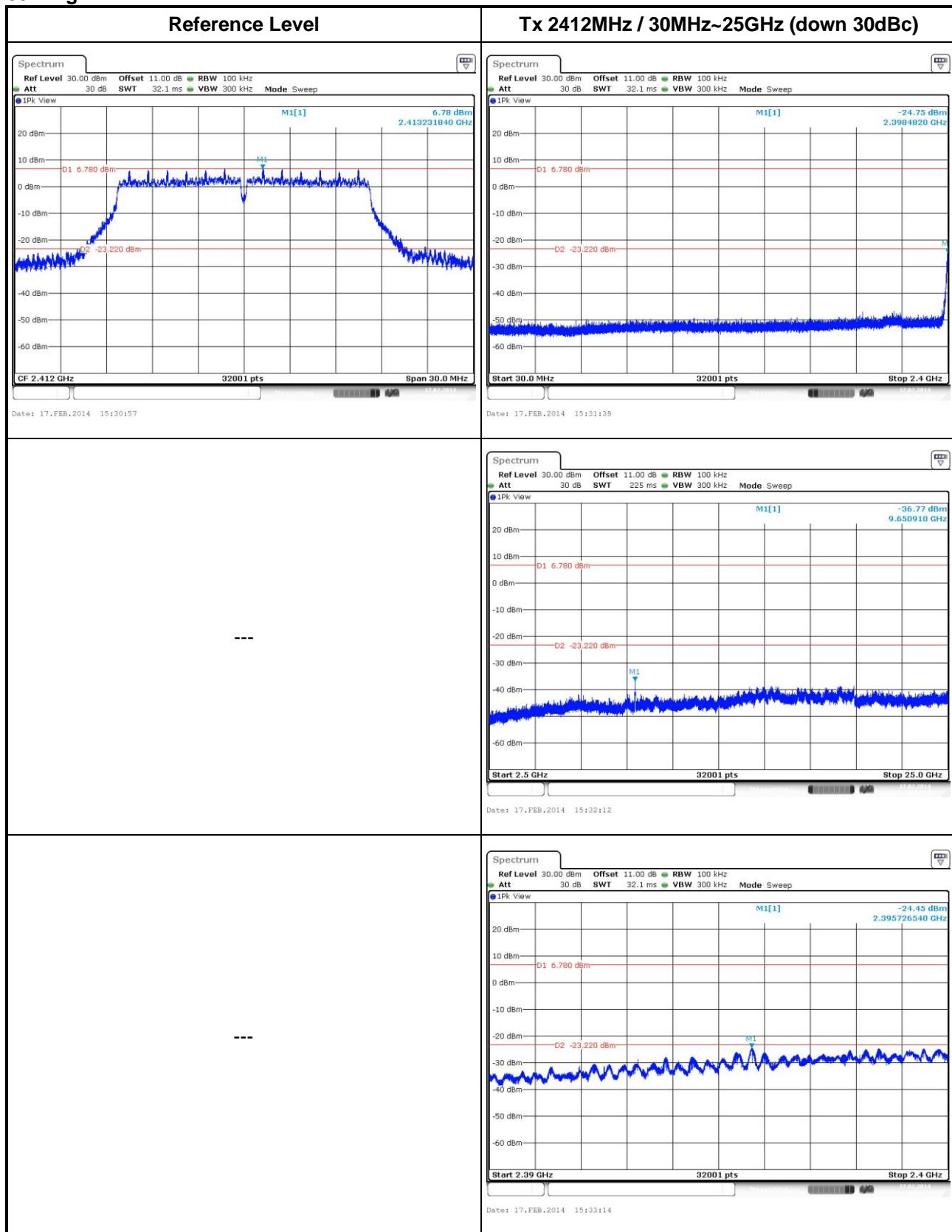
Legacy/MIMO (CDD) beamforming mode - Test Configuration 3 / 802.11b

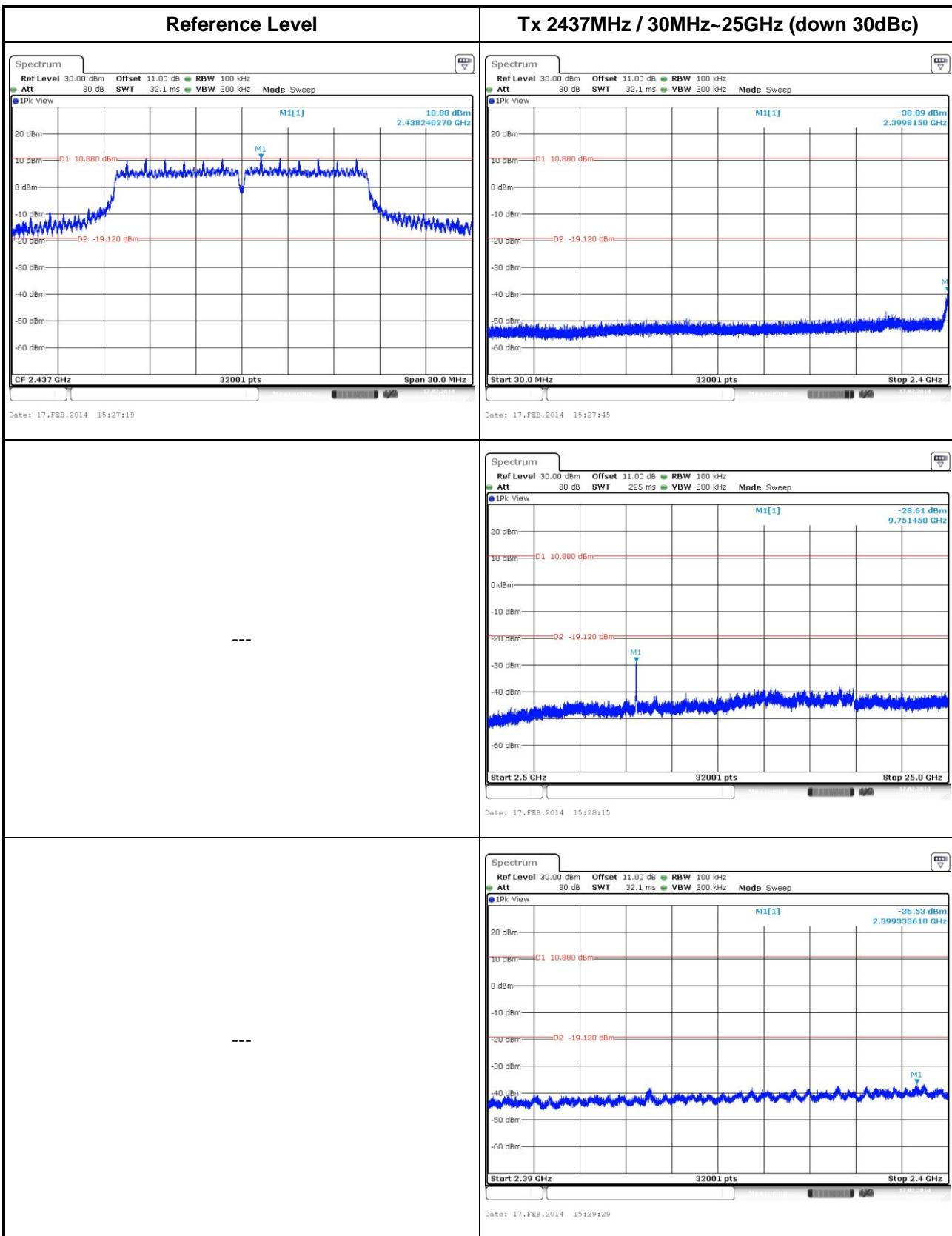


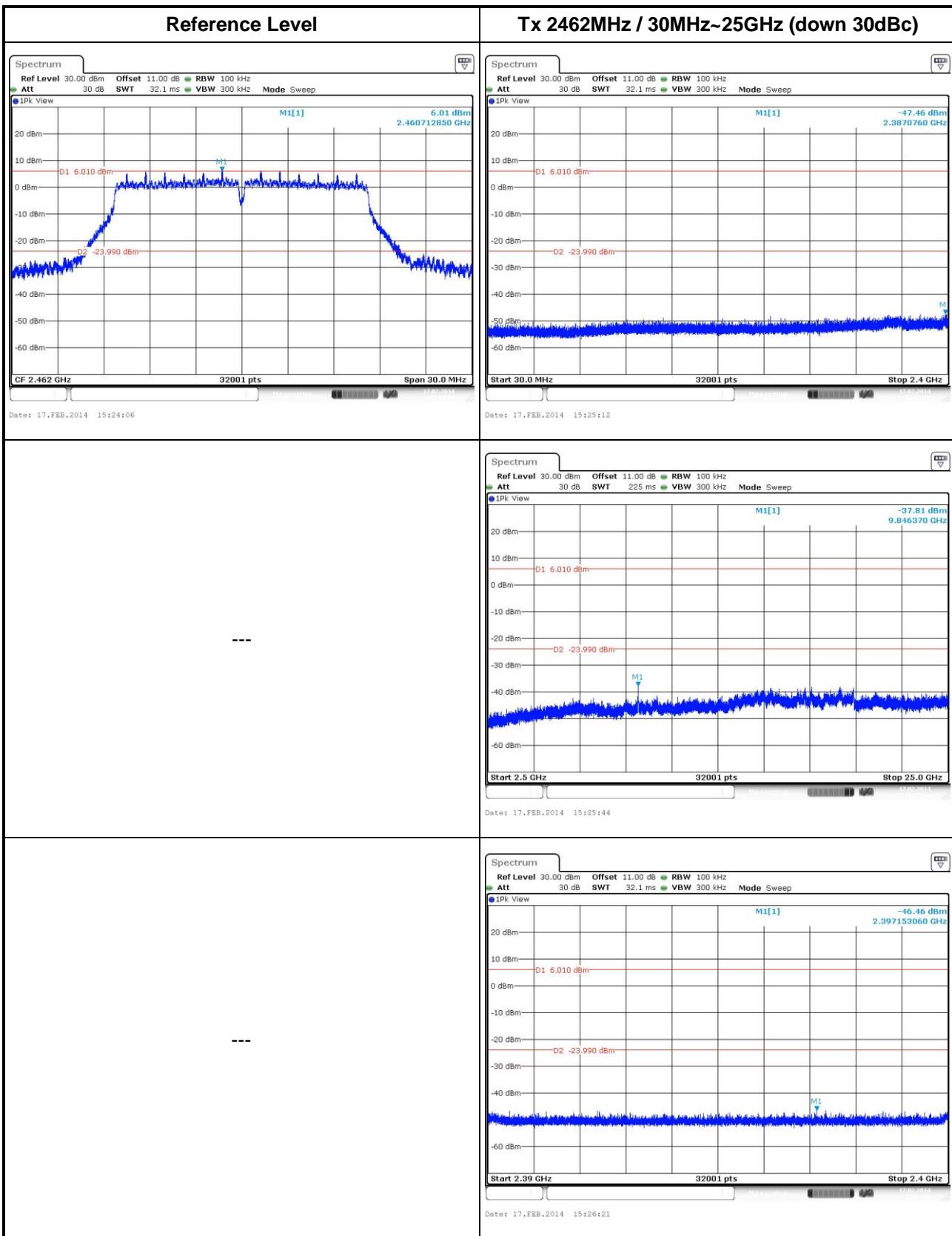




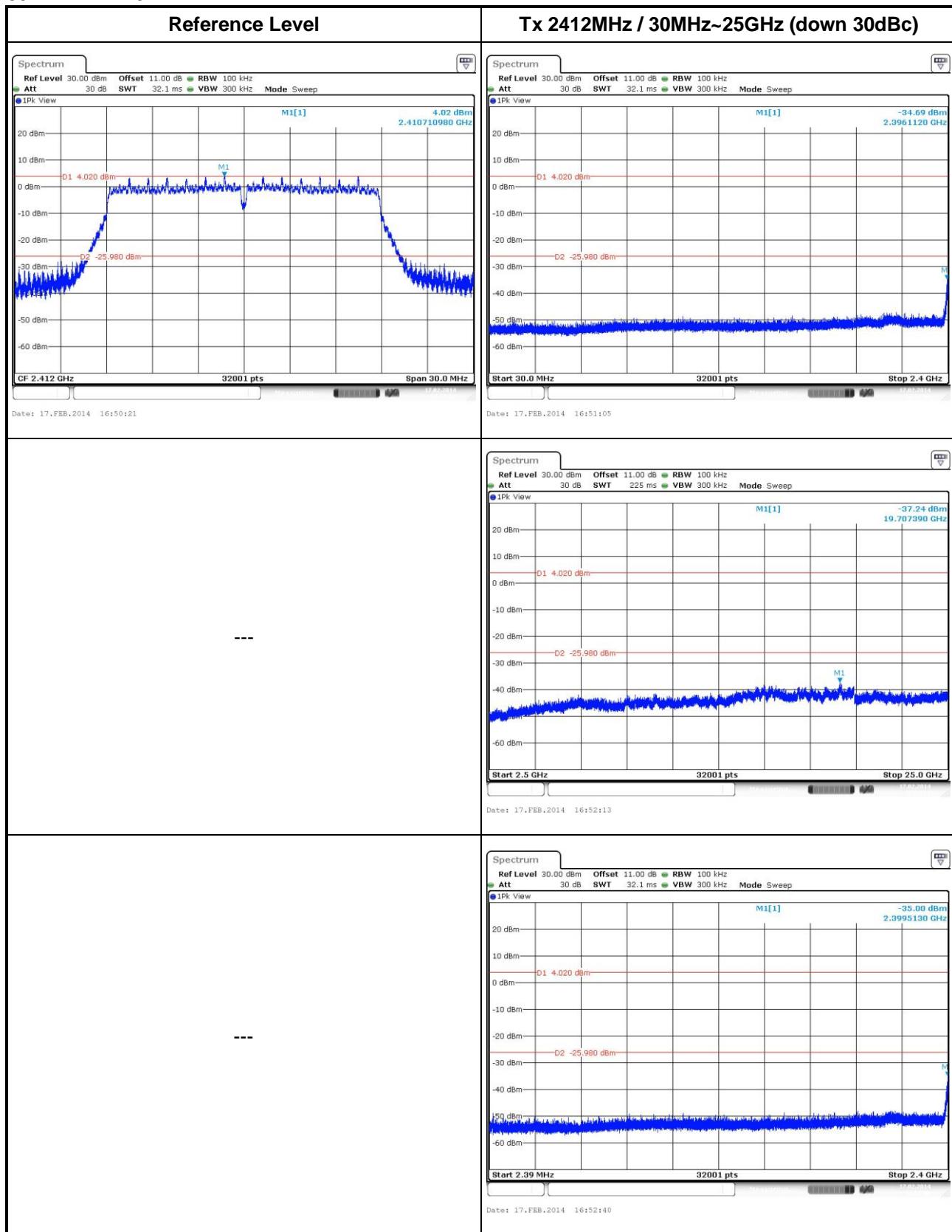
802.11g

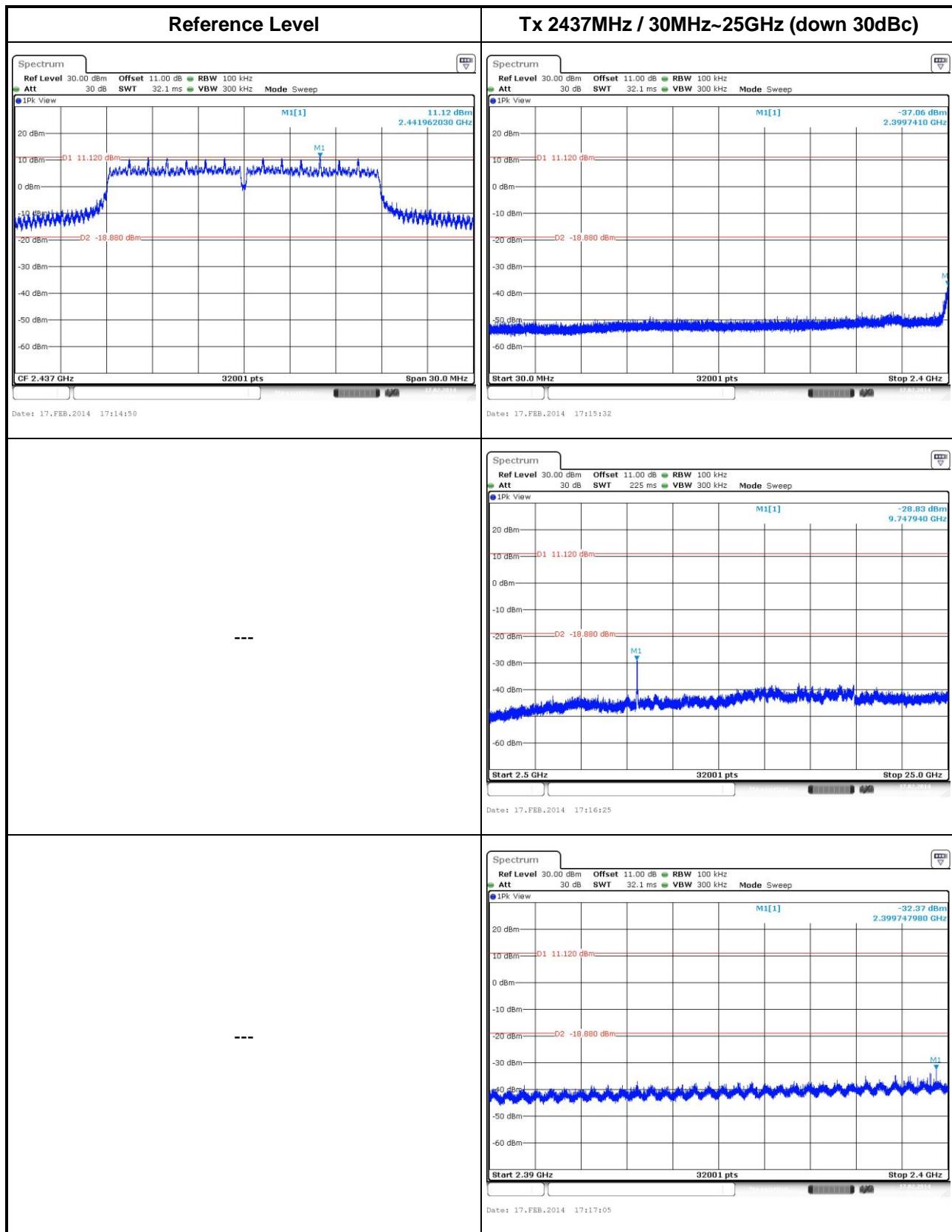


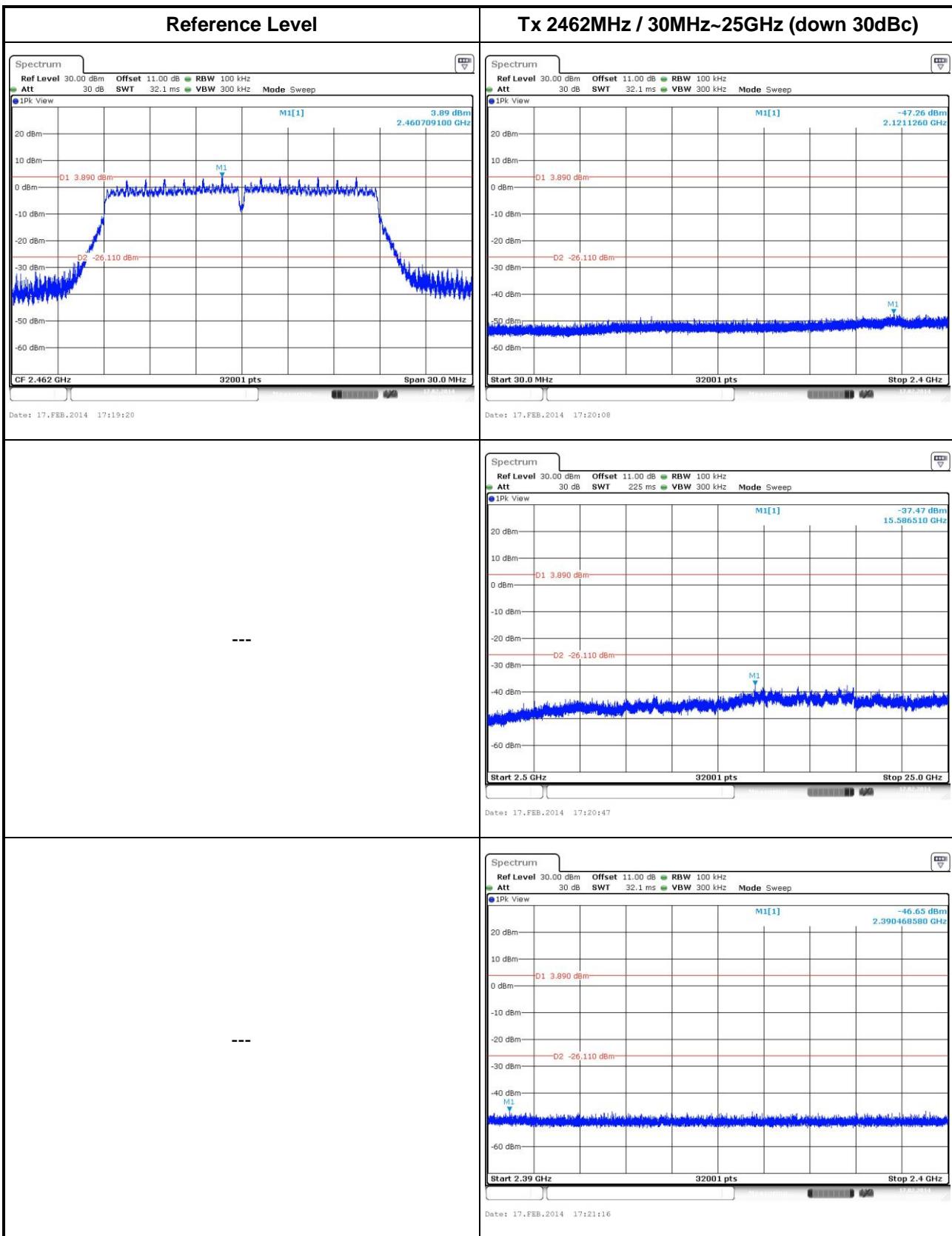




802.11n VHT20







4 Test laboratory information

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

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

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

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.

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

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

==END==