

FCC Test Report

FCC ID : VQK-F01H
Equipment : Mobile Phone
Model No. : F-01H
Brand Name : FUJITSU
Applicant : FUJITSU LIMITED
Address : 1-1, Kamikodanaka 4-chome, Nakahara-ku,
Kawasaki 211-8588, Japan
Standard : 47 CFR FCC Part 15.247
Received Date : Jun. 03, 2015
Tested Date : Jul. 12 ~ Jul. 15, 2015

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

Approved & Reviewed by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR560301AC	Rev. 01	Initial issue	Aug. 07, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 3.009MHz 43.49 (Margin -12.51dB) - QP	Pass
15.247(d) 15.209	Radiated Emissions	[dBuV/m at 3m]: 2483.50MHz 53.52 (Margin -0.48dB) - AV	Pass
15.247(b)(3)	Fundamental Emission Output Power	Power [dBm]: 19.98	Pass
15.247(a)(2)	6dB Bandwidth	Meet the requirement of limit	Pass
15.247(e)	Power Spectral Density	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Product Details

Product Name	Mobile Phone
Brand Name	FUJITSU
Model Name	F-01H
IMEI Code	354017060100571 / 354017060117070
H/W Version	v2.1.1
S/W Version	R019.1e

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
2400-2483.5	b	2412-2462	1-11 [11]	1	1-11 Mbps
2400-2483.5	g	2412-2462	1-11 [11]	1	6-54 Mbps
2400-2483.5	n (HT20)	2412-2462	1-11 [11]	1	MCS 0-7

Note 1: RF output power specifies that Maximum Peak Conducted Output Power.
 Note 2: 802.11b uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
 Note 3: 802.11g/n uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.

1.1.3 Antenna Details

Ant. No.	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)		
			2400~2483.5	5150~5350	5470~5725
1	$\lambda/4$ Monopole	---	-1.14	-2.83	-2.83

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	5.0Vdc from AC adapter 3.8Vdc from Battery
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1.1.5 Accessories

No.	Equipment	Description
1	Cradle	Brand Name: Fujitsu Limited Model Name: F51 Input rating: 5Vdc, 1.5A Output rating: 5.0Vdc, 1.5A
2	Battery (Unremovable)	Brand Name: NTT Docomo Model Name: CA54310-0064 Power Rating: 3.8Vdc, 2330mAh, 8.9Wh

1.1.6 Channel List

Frequency band (MHz)	
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	QRCT, Version: 3.0.54.0		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11b	98.45%	0.07
	11g	88.37%	0.54
	HT20	87.69%	0.57

1.1.8 Power Setting

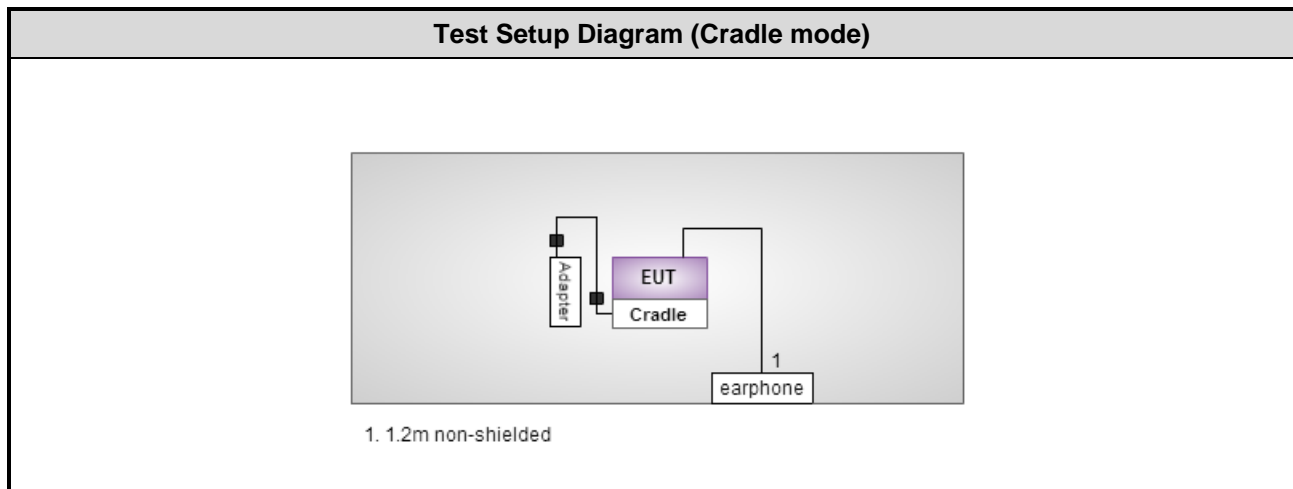
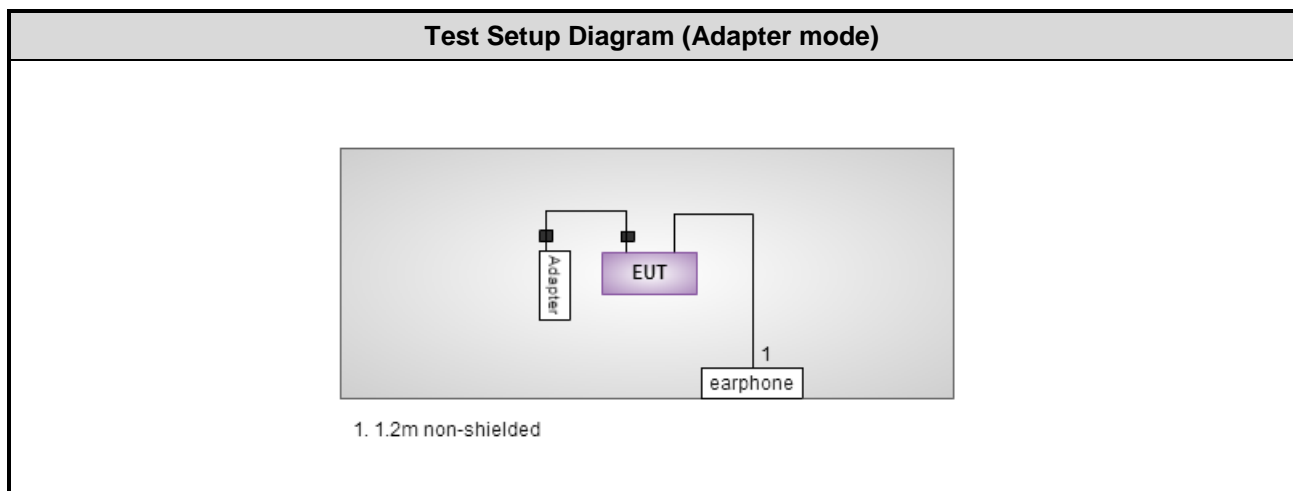
Modulation Mode	Test Frequency (MHz)	Power Set
11b	2412	13
11b	2437	13
11b	2462	13
11g	2412	12.5
11g	2437	12.5
11g	2462	12.5
HT20	2412	11
HT20	2437	11
HT20	2462	11

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	S/N	Signal cable / Length (m)
1	Adapter	NTT docomo	AC Adaptor 04	---	---
2	Earphone	APPLE	MD827FE/A	6	1.2m non-shielded.

Note: Item 1 was provided by applicant.

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 17, 2014	Oct. 16, 2015
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 2 / (03CH02-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101499	Dec. 31, 2014	Dec. 30, 2015
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Oct. 16, 2014	Oct. 15, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Oct. 14, 2014	Oct. 13, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 10, 2014	Nov. 09, 2015
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Burgeon	BPA-530	100218	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Agilent	83017A	MY39501309	Sep. 29, 2014	Sep. 28, 2015
Preamplifier	EMC	EMC184045B	980192	Aug. 26, 2014	Aug. 25, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 16, 2014	Dec. 15, 2015
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-003	Dec. 16, 2014	Dec. 15, 2015
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-004	Dec. 16, 2014	Dec. 15, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 03, 2015	Feb. 02, 2016
Power Meter	Anritsu	ML2495A	1241002	Sep. 29, 2014	Sep. 28, 2015
Power Sensor	Anritsu	MA2411B	1207366	Sep. 29, 2014	Sep. 28, 2015
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

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

47 CFR FCC Part 15.247

ANSI C63.10-2013

FCC KDB 558074 D01 DTS Meas Guidance v03r03

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.92 dB
Radiated emission ≤ 1 GHz	± 3.62 dB
Radiated emission > 1 GHz	± 5.60 dB

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 60%	Kevin Ma
Radiated Emissions	03CH02-WS	21-23°C / 60-61%	Felix Sung
RF Conducted	TH01-WS	23°C / 65%	Brad Wu

➤ 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
Conducted Emissions	11g	2412	6 Mbps
Radiated Emissions ≤ 1GHz	11g	2412	6 Mbps
Radiated Emissions > 1GHz	11b 11g HT20	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462	1 Mbps 6 Mbps MCS 0
Fundamental Emission Output Power	11b 11g HT20	2412 / 2437 / 2462 2412 / 2437 / 2462 2412 / 2437 / 2462	1 Mbps 6 Mbps MCS 0
6dB bandwidth			
Power spectral density			

NOTE:

- The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.
- The EUT had been tested by following test configurations for spurious emission below 1GHz.
 - Configuration 1 : Adapter mode
 - Configuration 2 : Cradle 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

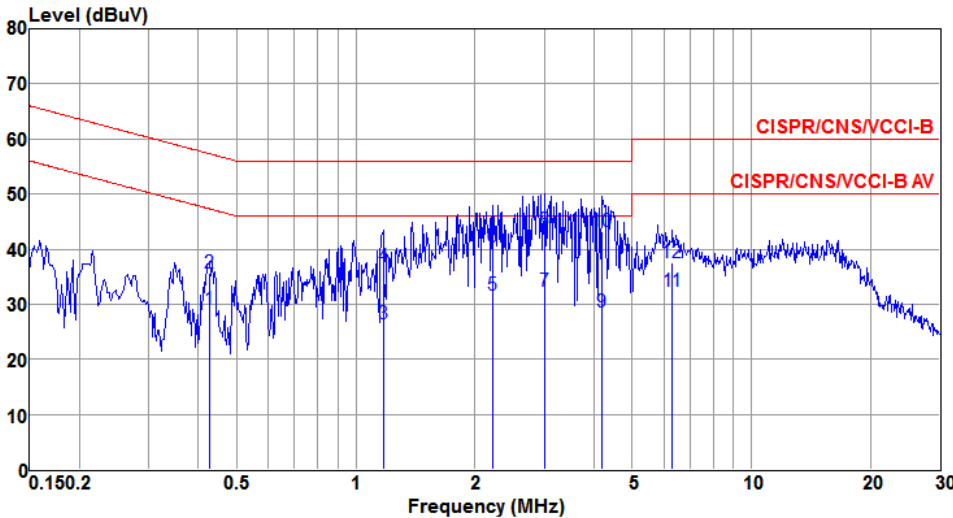
3.1.3 Test Setup



- 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

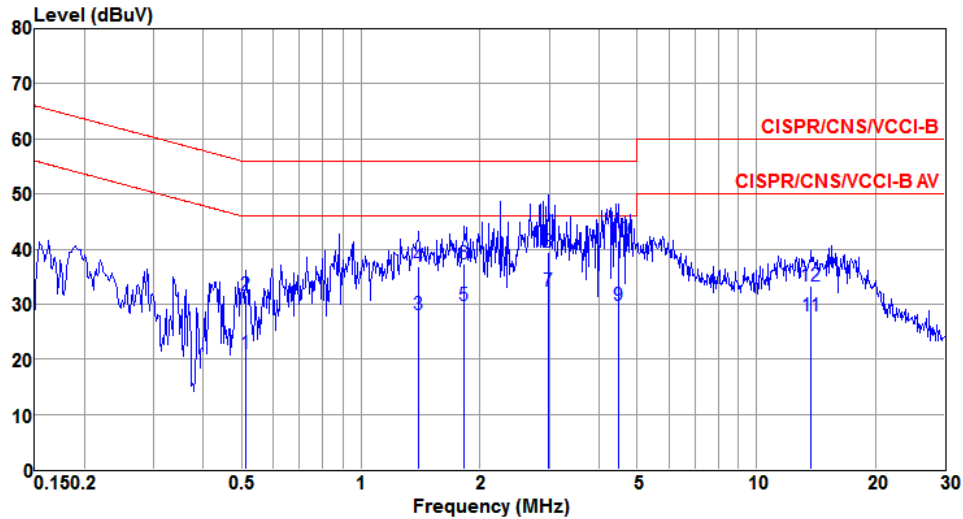
Modulation	11g	Test Freq. (MHz)	2412
Power Phase	Line	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.427	29.14	47.31	-18.17	28.86	0.17	0.11	Average
2	0.427	35.68	57.31	-21.63	35.40	0.17	0.11	QP
3	1.172	26.51	46.00	-19.49	26.12	0.21	0.18	Average
4	1.172	36.89	56.00	-19.11	36.50	0.21	0.18	QP
5	2.213	31.68	46.00	-14.32	30.86	0.57	0.25	Average
6	2.213	40.41	56.00	-15.59	39.59	0.57	0.25	QP
7	3.009	32.33	46.00	-13.67	31.64	0.41	0.28	Average
8*	3.009	43.49	56.00	-12.51	42.80	0.41	0.28	QP
9	4.202	28.59	46.00	-17.41	28.00	0.28	0.31	Average
10	4.202	43.11	56.00	-12.89	42.52	0.28	0.31	QP
11	6.319	32.33	50.00	-17.67	31.56	0.46	0.31	Average
12	6.319	37.43	60.00	-22.57	36.66	0.46	0.31	QP

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

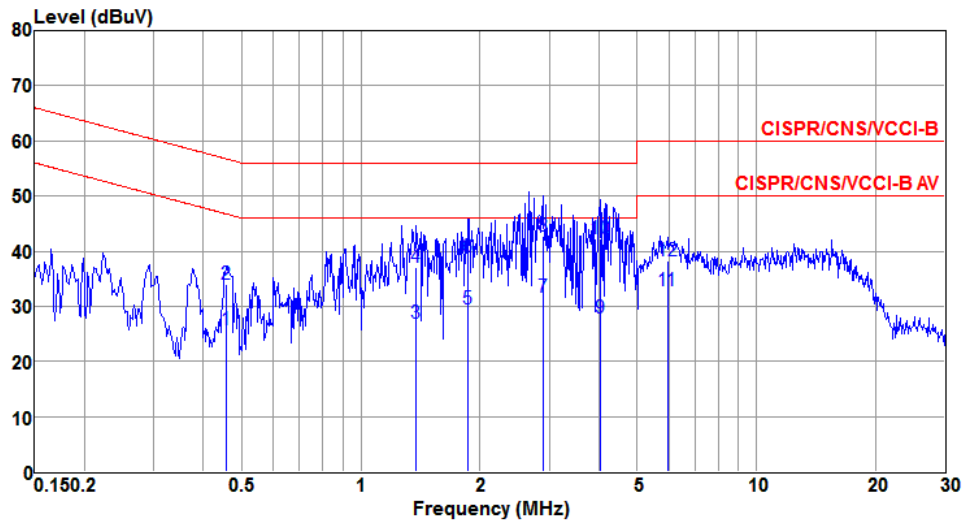
Modulation	11g	Test Freq. (MHz)	2412
Power Phase	Neutral	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.513	20.98	46.00	-25.02	20.69	0.17	0.12	Average
2	0.513	31.69	56.00	-24.31	31.40	0.17	0.12	QP
3	1.403	28.04	46.00	-17.96	27.59	0.25	0.20	Average
4	1.403	36.78	56.00	-19.22	36.33	0.25	0.20	QP
5	1.829	29.82	46.00	-16.18	29.36	0.23	0.23	Average
6	1.829	37.28	56.00	-18.72	36.82	0.23	0.23	QP
7*	2.978	32.36	46.00	-13.64	31.56	0.52	0.28	Average
8	2.978	39.49	56.00	-16.51	38.69	0.52	0.28	QP
9	4.478	29.70	46.00	-16.30	28.68	0.71	0.31	Average
10	4.478	41.56	56.00	-14.44	40.54	0.71	0.31	QP
11	13.768	27.79	50.00	-22.21	26.95	0.62	0.22	Average
12	13.768	33.19	60.00	-26.81	32.35	0.62	0.22	QP

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

Modulation	11g	Test Freq. (MHz)	2412
Power Phase	Line	Test Configuration	2

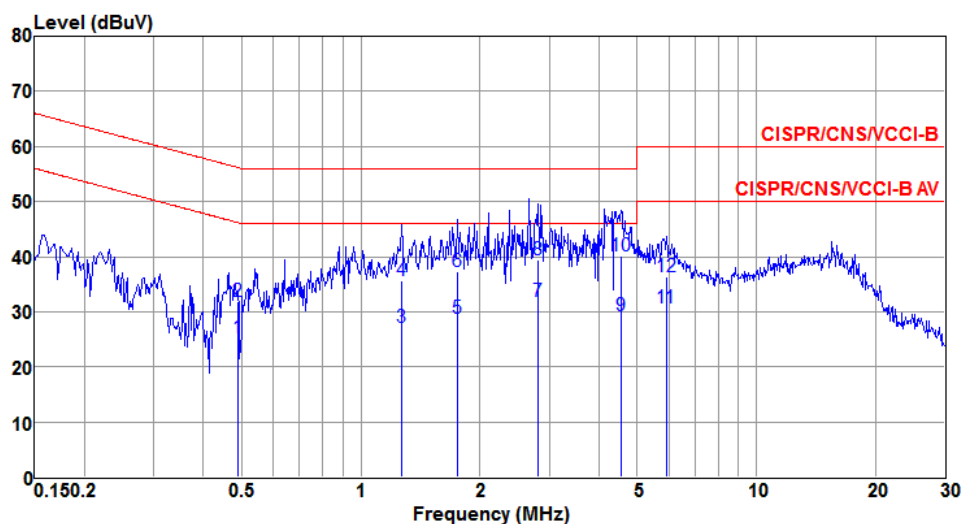


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.456	25.82	46.76	-20.94	25.53	0.17	0.12	Average
2	0.456	33.91	56.76	-22.85	33.62	0.17	0.12	QP
3	1.381	26.92	46.00	-19.08	26.38	0.34	0.20	Average
4	1.381	37.05	56.00	-18.95	36.51	0.34	0.20	QP
5	1.868	29.41	46.00	-16.59	28.60	0.58	0.23	Average
6	1.868	38.94	56.00	-17.06	38.13	0.58	0.23	QP
7	2.884	31.69	46.00	-14.31	30.97	0.44	0.28	Average
8*	2.884	42.82	56.00	-13.18	42.10	0.44	0.28	QP
9	4.027	27.86	46.00	-18.14	27.29	0.26	0.31	Average
10	4.027	42.33	56.00	-13.67	41.76	0.26	0.31	QP
11	5.961	32.88	50.00	-17.12	32.13	0.44	0.31	Average
12	5.961	38.12	60.00	-21.88	37.37	0.44	0.31	QP

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

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

Modulation	11g	Test Freq. (MHz)	2412
Power Phase	Neutral	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	Remark
1	0.489	25.32	46.18	-20.86	25.04	0.16	0.12	Average
2	0.489	31.79	56.18	-24.39	31.51	0.16	0.12	QP
3	1.269	27.12	46.00	-18.88	26.68	0.25	0.19	Average
4	1.269	35.58	56.00	-20.42	35.14	0.25	0.19	QP
5	1.753	28.77	46.00	-17.23	28.32	0.23	0.22	Average
6	1.753	37.24	56.00	-18.76	36.79	0.23	0.22	QP
7*	2.809	31.93	46.00	-14.07	31.19	0.47	0.27	Average
8	2.809	39.41	56.00	-16.59	38.67	0.47	0.27	QP
9	4.549	29.20	46.00	-16.80	28.18	0.71	0.31	Average
10	4.549	40.02	56.00	-15.98	39.00	0.71	0.31	QP
11	5.929	30.65	50.00	-19.35	29.69	0.65	0.31	Average
12	5.929	36.42	60.00	-23.58	35.46	0.65	0.31	QP

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

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

3.2 6dB and Occupied Bandwidth

3.2.1 Limit of 6dB Bandwidth

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

3.2.2 Test Procedures

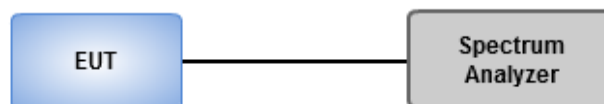
6dB bandwidth

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

Occupied bandwidth

1. Set RBW=300kHz, VBW=1MHz, Sweep time = Auto, Detector=Sample, Trace max hold
2. Allow trace to stabilize
3. Use Occupied bandwidth function of spectrum analyzer to measuring 99% occupied bandwidth

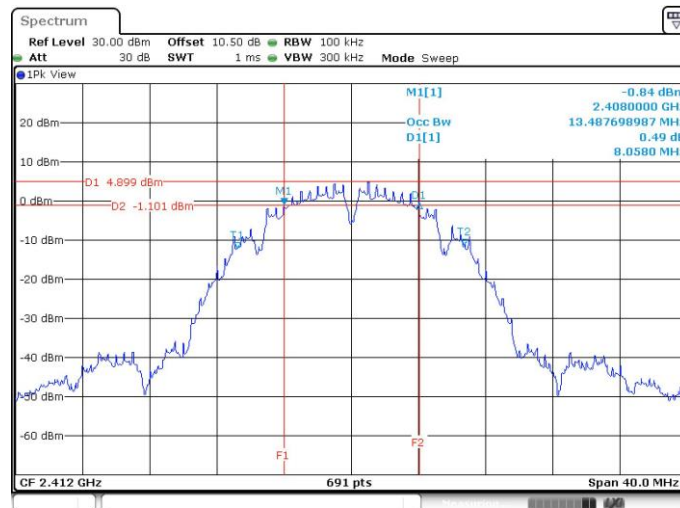
3.2.3 Test Setup



3.2.4 Test Result of 6dB and Occupied Bandwidth

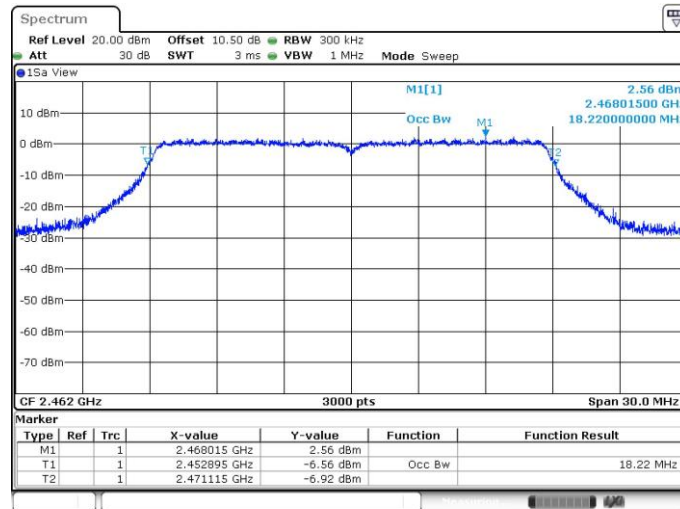
Modulation Mode	Freq. (MHz)	6dB Bandwidth (MHz)	Limit (kHz)
11b	2412	8.06	500
11b	2437	8.06	500
11b	2462	9.04	500
11g	2412	16.35	500
11g	2437	16.35	500
11g	2462	16.35	500
HT20	2412	17.62	500
HT20	2437	17.62	500
HT20	2462	17.62	500

Worst Plots



Modulation Mode	Freq. (MHz)	99% Occupied Bandwidth (MHz)
11b	2412	13.40
11b	2437	13.33
11b	2462	13.66
11g	2412	17.26
11g	2437	17.20
11g	2462	17.35
HT20	2412	18.20
HT20	2437	18.15
HT20	2462	18.22

Worst Plots



3.3 RF Output Power

3.3.1 Limit of RF Output Power

Conducted power shall not exceed 1Watt.

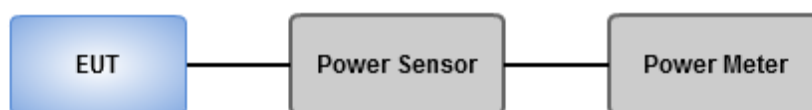
- ☒ Antenna gain $\leq 6\text{dBi}$, no any corresponding reduction is in output power limit.
- ☐ Antenna gain $> 6\text{dBi}$
 - ☐ Non Fixed, point to point operations.
The conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB
 - ☐ Fixed, point to point operations
Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point Operations, maximum peak output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

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

3.3.2 Test Procedures

- ☒ Maximum Peak Conducted Output Power
 - ☐ **Spectrum analyzer**
 1. Set RBW = 1MHz, VBW = 3MHz, Detector = Peak.
 2. Sweep time = auto, Trace mode = max hold, Allow trace to fully stabilize.
 3. Use the spectrum analyzer channel power measurement function with the band limits set equal to the DTS bandwidth edges.
 - ☒ **Power meter**
 1. A broadband Peak RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.
- ☒ Maximum Conducted Output Power (For reference only)
 - ☒ **Power meter**
 1. A broadband Average RF power meter is used for output power measurement. The video bandwidth of power meter is greater than DTS bandwidth of EUT. If duty cycle of test signal is not 100 %, trigger and gating function of power meter will be enabled to capture transmission burst for measuring output power.

3.3.3 Test Setup



3.3.4 Test Result of Maximum Output Power

Modulation Mode	Freq. (MHz)	Peak Power (dBm)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
11b	2412	16.42	43.853	16.42	30
11b	2437	16.05	40.272	16.05	30
11b	2462	16.49	44.566	16.49	30
11g	2412	19.98	99.541	19.98	30
11g	2437	19.62	91.622	19.62	30
11g	2462	19.68	92.897	19.68	30
HT20	2412	19.06	80.538	19.06	30
HT20	2437	18.29	67.453	18.29	30
HT20	2462	18.92	77.983	18.92	30

Modulation Mode	Freq. (MHz)	Average Power (dBm)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
11b	2412	13.84	24.210	13.84	30
11b	2437	13.41	21.928	13.41	30
11b	2462	13.89	24.491	13.89	30
11g	2412	12.86	19.320	12.86	30
11g	2437	12.51	17.824	12.51	30
11g	2462	12.57	18.072	12.57	30
HT20	2412	11.26	13.366	11.26	30
HT20	2437	10.53	11.298	10.53	30
HT20	2462	11.10	12.882	11.10	30

Note: Average power is for reference only

3.4 Power Spectral Density

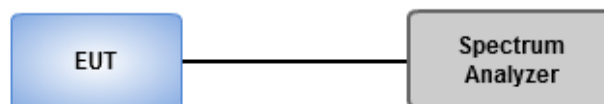
3.4.1 Limit of Power Spectral Density

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

3.4.2 Test Procedures

- ☒ Maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit.
 1. Set the RBW = 3kHz, VBW = 10kHz.
 2. Detector = Peak, Sweep time = auto couple.
 3. Trace mode = max hold, allow trace to fully stabilize.
 4. Use the peak marker function to determine the maximum amplitude level.
- ☐ Maximum (average) conducted output power was used to demonstrate compliance to the fundamental output power limit.
 1. Set the RBW = 100kHz, VBW = 300 kHz.
 2. Detector = RMS, Sweep time = auto couple.
 3. Set the sweep time to: $\geq 10 \times (\text{number of measurement points in sweep}) \times (\text{maximum data rate per stream})$.
 4. Perform the measurement over a single sweep.
 5. Use the peak marker function to determine the maximum amplitude level.\

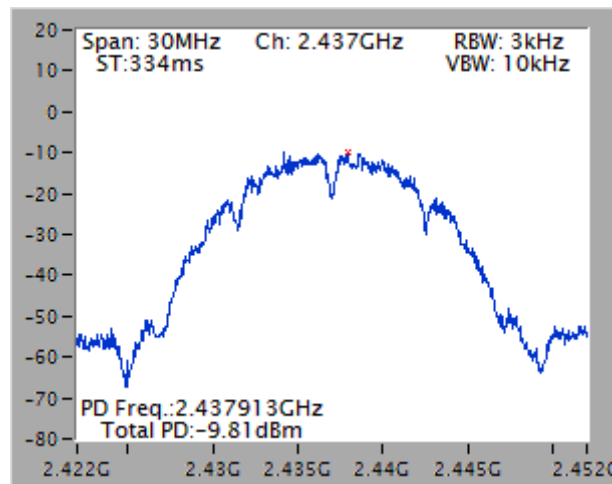
3.4.3 Test Setup



3.4.4 Test Result of Power Spectral Density

Modulation Mode	Freq. (MHz)	Total Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
11b	2412	-10.00	8
11b	2437	-9.81	8
11b	2462	-9.92	8
11g	2412	-12.69	8
11g	2437	-13.17	8
11g	2462	-13.21	8
HT20	2412	-14.43	8
HT20	2437	-15.33	8
HT20	2462	-14.82	8

Worst Plots



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:
Quasi-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

3.5.2 Test Procedures

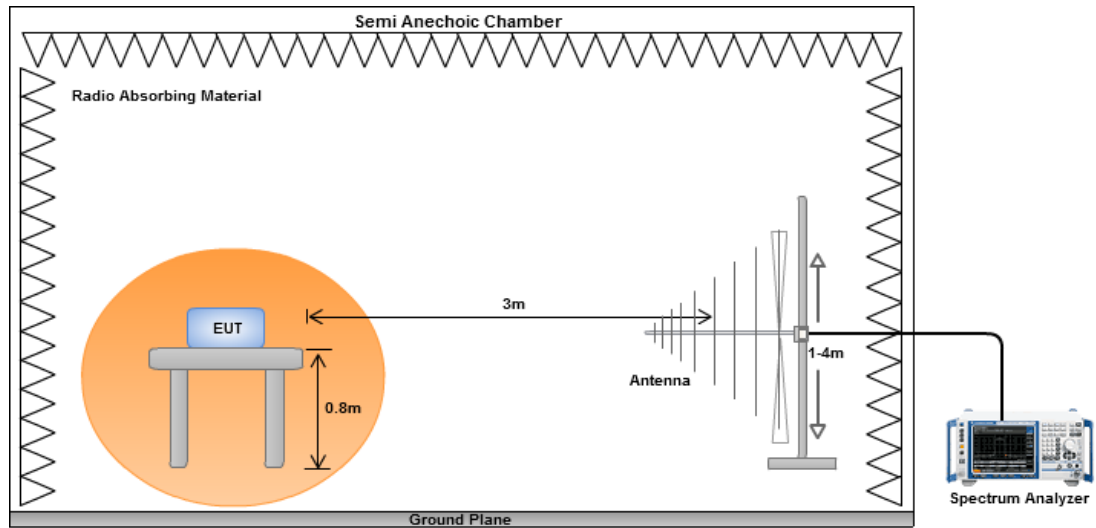
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

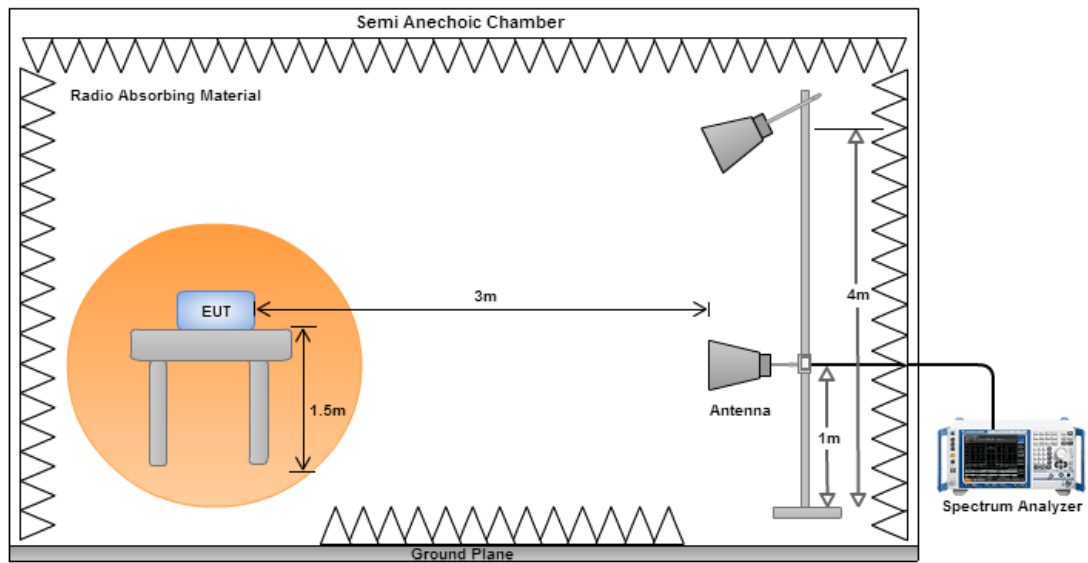
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

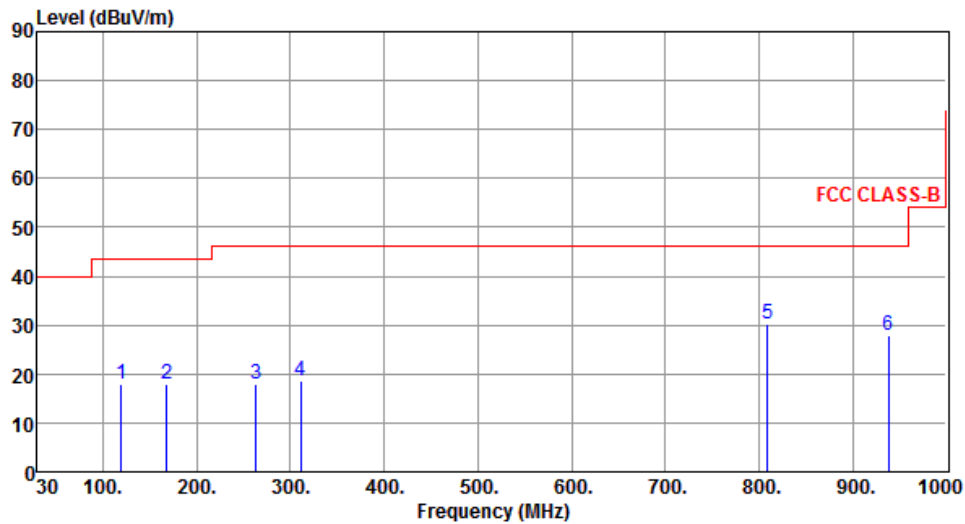


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)_Adapter mode

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	119.24	18.04	43.50	-25.46	37.81	-19.77	Peak	---	---
2	167.74	17.96	43.50	-25.54	35.34	-17.38	Peak	---	---
3	263.77	17.88	46.00	-28.12	35.28	-17.40	Peak	---	---
4	311.30	18.69	46.00	-27.31	34.52	-15.83	Peak	---	---
5	808.91	30.31	46.00	-15.69	37.08	-6.77	Peak	---	---
6	937.92	27.78	46.00	-18.22	32.65	-4.87	Peak	---	---

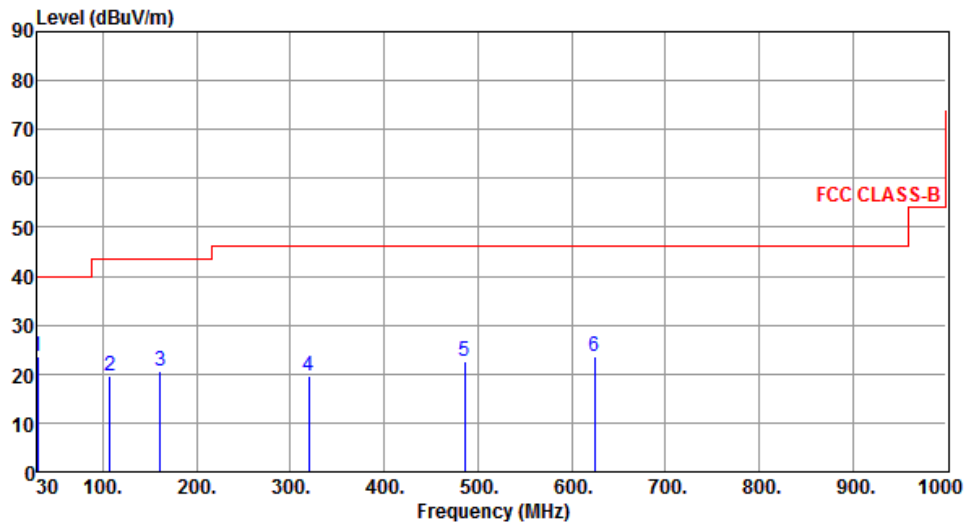
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	23.48	40.00	-16.52	41.29	-17.81	Peak	---	---
2	107.60	19.67	43.50	-23.83	40.49	-20.82	Peak	---	---
3	160.95	20.65	43.50	-22.85	37.66	-17.01	Peak	---	---
4	320.03	19.46	46.00	-26.54	35.10	-15.64	Peak	---	---
5	485.90	22.42	46.00	-23.58	34.36	-11.94	Peak	---	---
6	624.61	23.61	46.00	-22.39	32.88	-9.27	Peak	---	---

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

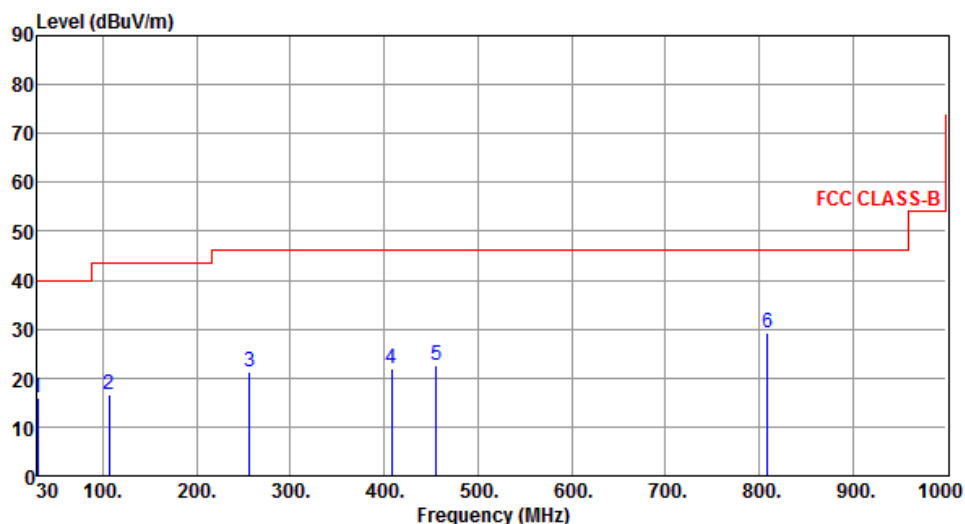
*Factor includes antenna factor , cable loss and amplifier gain

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 (Below 1GHz)_Cradle mode

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	16.01	40.00	-23.99	33.82	-17.81	Peak	---	---
2	106.63	16.53	43.50	-26.97	37.49	-20.96	Peak	---	---
3	256.01	21.28	46.00	-24.72	38.94	-17.66	Peak	---	---
4	408.30	21.96	46.00	-24.04	35.42	-13.46	Peak	---	---
5	455.83	22.74	46.00	-23.26	35.15	-12.41	Peak	---	---
6	808.91	29.32	46.00	-16.68	36.09	-6.77	Peak	---	---

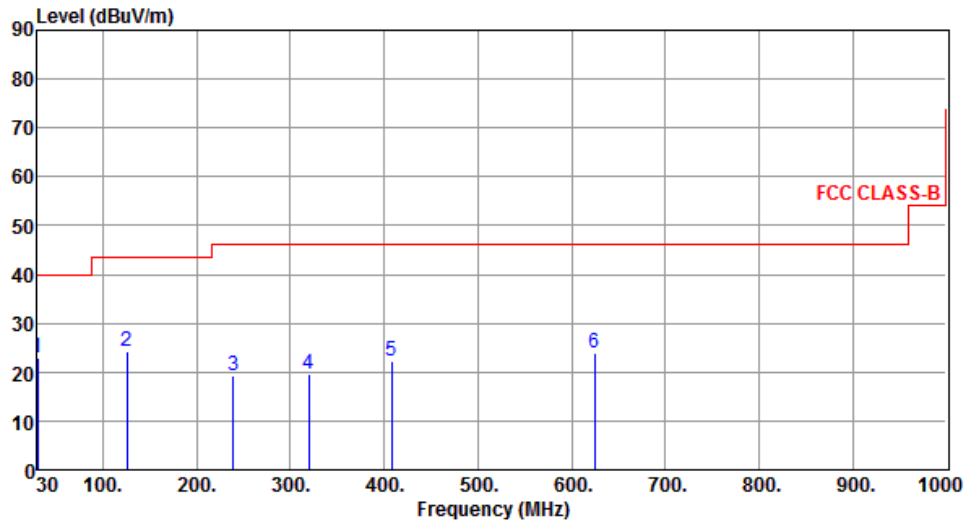
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11g	Test Freq. (MHz)	2412
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.00	23.03	40.00	-16.97	40.84	-17.81	Peak	---	---
2	126.03	24.28	43.50	-19.22	43.31	-19.03	Peak	---	---
3	239.52	19.41	46.00	-26.59	37.53	-18.12	Peak	---	---
4	320.03	19.71	46.00	-26.29	35.35	-15.64	Peak	---	---
5	408.30	22.31	46.00	-23.69	35.77	-13.46	Peak	---	---
6	624.61	23.79	46.00	-22.21	33.06	-9.27	Peak	---	---

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

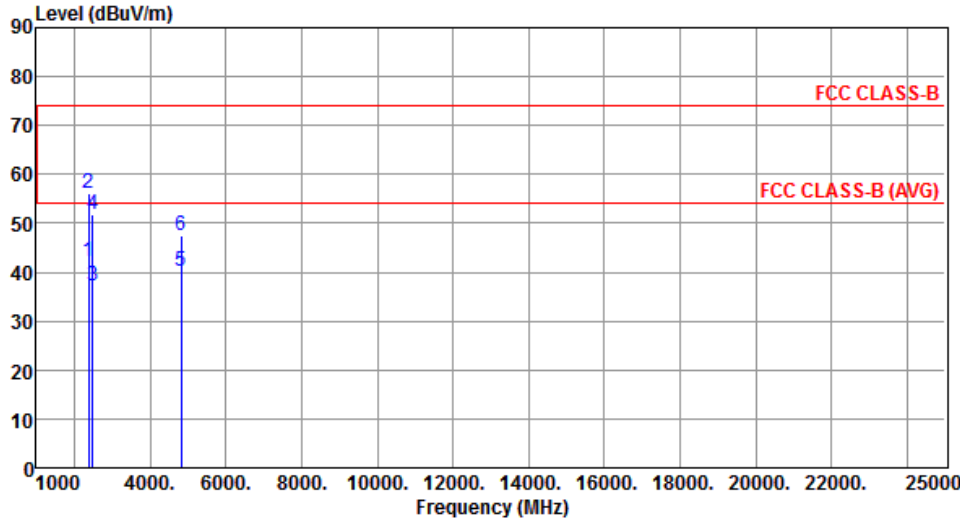
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

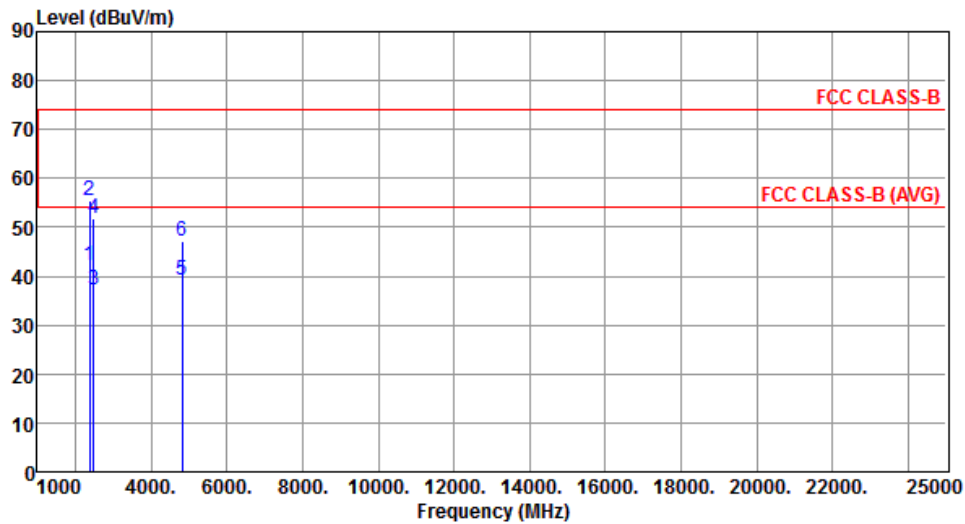
Modulation	11b	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	42.24	54.00	-11.76	44.89	-2.65	Average	---	---
2	2390.00	56.19	74.00	-17.81	58.84	-2.65	Peak	---	---
3	2483.50	37.27	54.00	-16.73	39.61	-2.34	Average	---	---
4	2483.50	51.81	74.00	-22.19	54.15	-2.34	Peak	---	---
5	4824.00	40.14	54.00	-13.86	35.17	4.97	Average	---	---
6	4824.00	47.49	74.00	-26.51	42.52	4.97	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)	2412
Polarization	Vertical	Test Configuration	1



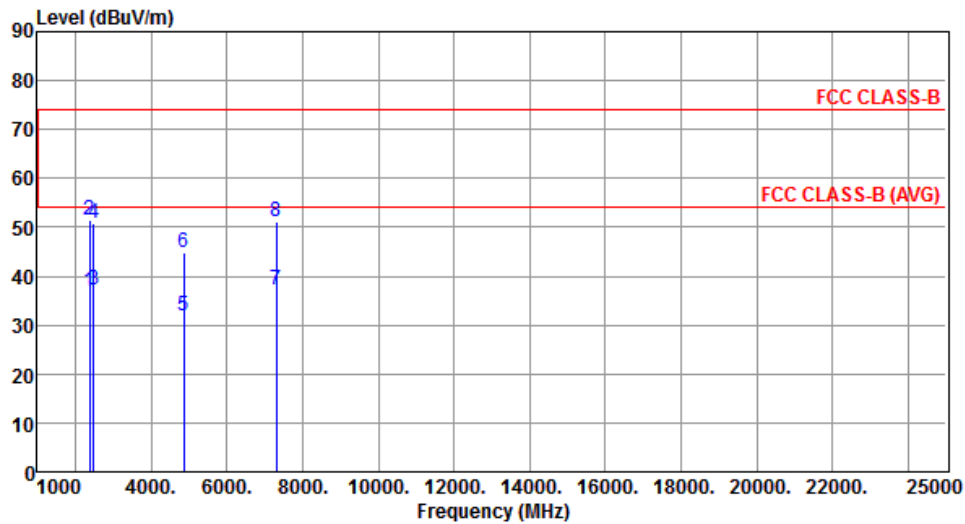
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	42.28	54.00	-11.72	44.93	-2.65	Average	---	---
2	2390.00	55.60	74.00	-18.40	58.25	-2.65	Peak	---	---
3	2483.50	37.29	54.00	-16.71	39.63	-2.34	Average	---	---
4	2483.50	51.89	74.00	-22.11	54.23	-2.34	Peak	---	---
5	4824.00	39.09	54.00	-14.91	34.12	4.97	Average	---	---
6	4824.00	47.27	74.00	-26.73	42.30	4.97	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



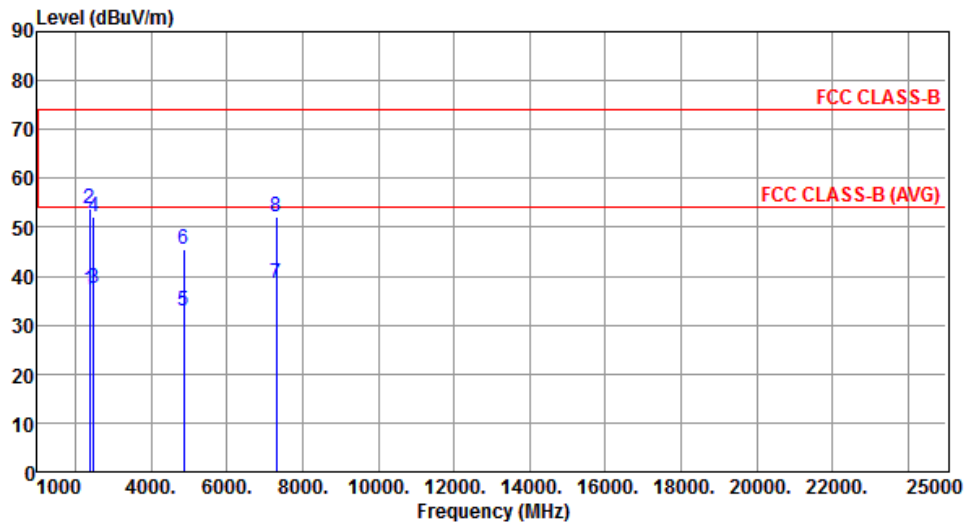
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	37.02	54.00	-16.98	39.67	-2.65	Average	---	---
2	2390.00	51.48	74.00	-22.52	54.13	-2.65	Peak	---	---
3	2483.50	37.29	54.00	-16.71	39.63	-2.34	Average	---	---
4	2483.50	50.79	74.00	-23.21	53.13	-2.34	Peak	---	---
5	4874.00	31.94	54.00	-22.06	26.86	5.08	Average	---	---
6	4874.00	44.71	74.00	-29.29	39.63	5.08	Peak	---	---
7	7311.00	37.31	54.00	-16.69	27.20	10.11	Average	---	---
8	7311.00	51.01	74.00	-22.99	40.90	10.11	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	1



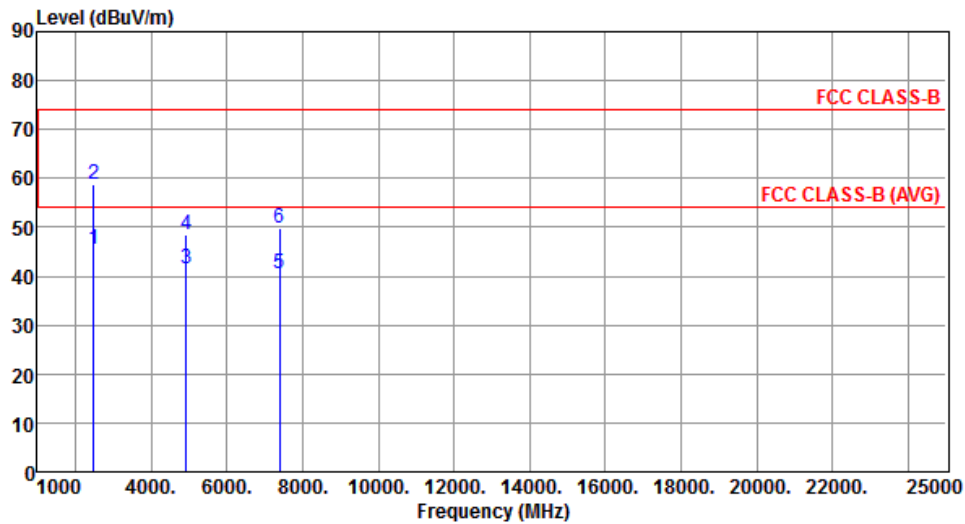
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	37.19	54.00	-16.81	39.84	-2.65	Average	---	---
2	2390.00	53.84	74.00	-20.16	56.49	-2.65	Peak	---	---
3	2483.50	37.37	54.00	-16.63	39.71	-2.34	Average	---	---
4	2483.50	52.08	74.00	-21.92	54.42	-2.34	Peak	---	---
5	4874.00	32.92	54.00	-21.08	27.84	5.08	Average	---	---
6	4874.00	45.44	74.00	-28.56	40.36	5.08	Peak	---	---
7	7311.00	38.40	54.00	-15.60	28.29	10.11	Average	---	---
8	7311.00	52.24	74.00	-21.76	42.13	10.11	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



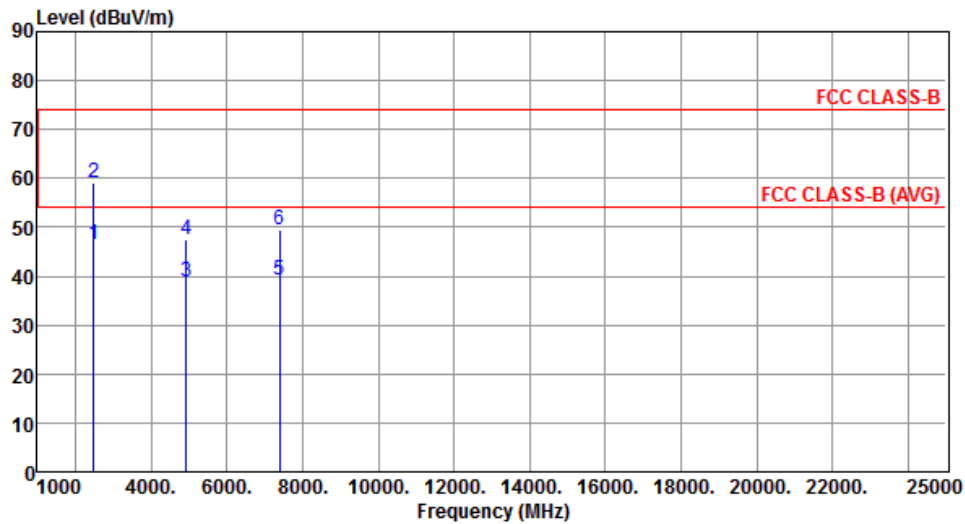
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2487.50	45.54	54.00	-8.46	47.87	-2.33	Average	---	---
2	2487.50	58.67	74.00	-15.33	61.00	-2.33	Peak	---	---
3	4924.00	41.49	54.00	-12.51	36.28	5.21	Average	---	---
4	4924.00	48.42	74.00	-25.58	43.21	5.21	Peak	---	---
5	7386.00	40.57	54.00	-13.43	30.26	10.31	Average	---	---
6	7386.00	49.90	74.00	-24.10	39.59	10.31	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



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2487.50	46.54	54.00	-7.46	48.87	-2.33	Average	---	---
2	2487.50	59.26	74.00	-14.74	61.59	-2.33	Peak	---	---
3	4924.00	38.98	54.00	-15.02	33.77	5.21	Average	---	---
4	4924.00	47.37	74.00	-26.63	42.16	5.21	Peak	---	---
5	7386.00	39.24	54.00	-14.76	28.93	10.31	Average	---	---
6	7386.00	49.42	74.00	-24.58	39.11	10.31	Peak	---	---

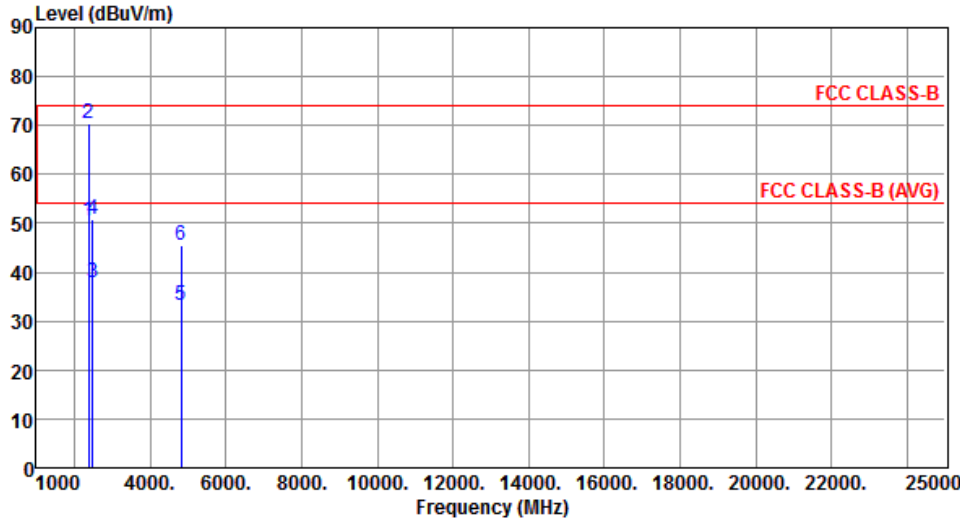
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

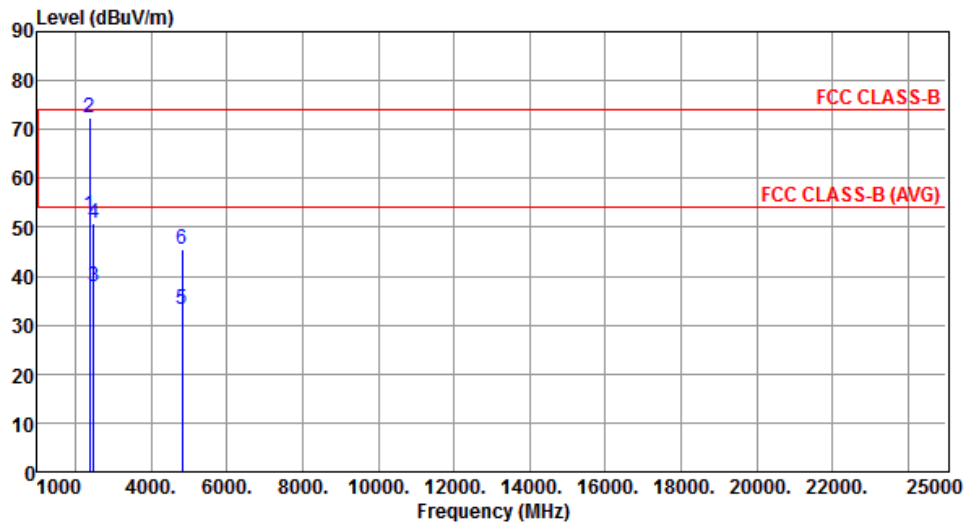
Modulation	11g	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.49	54.00	-3.51	53.14	-2.65	Average	---	---
2	2390.00	70.39	74.00	-3.61	73.04	-2.65	Peak	---	---
3	2483.50	37.77	54.00	-16.23	40.11	-2.34	Average	---	---
4	2483.50	50.67	74.00	-23.33	53.01	-2.34	Peak	---	---
5	4824.00	33.19	54.00	-20.81	28.22	4.97	Average	---	---
6	4824.00	45.55	74.00	-28.45	40.58	4.97	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)	2412
Polarization	Vertical	Test Configuration	1



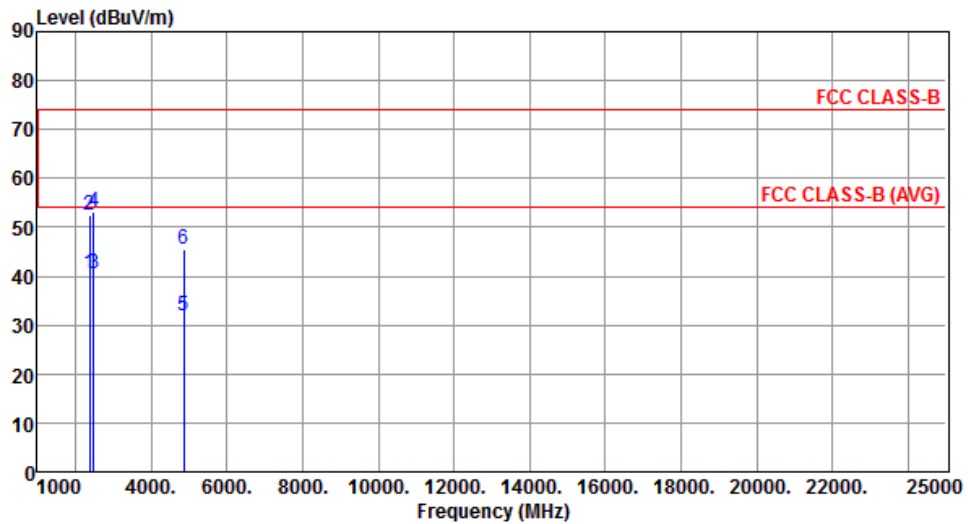
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	52.41	54.00	-1.59	55.06	-2.65	Average	---	---
2	2390.00	72.26	74.00	-1.74	74.91	-2.65	Peak	---	---
3	2483.50	37.81	54.00	-16.19	40.15	-2.34	Average	---	---
4	2483.50	50.74	74.00	-23.26	53.08	-2.34	Peak	---	---
5	4824.00	33.13	54.00	-20.87	28.16	4.97	Average	---	---
6	4824.00	45.63	74.00	-28.37	40.66	4.97	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	Horizontal	Test Configuration	1



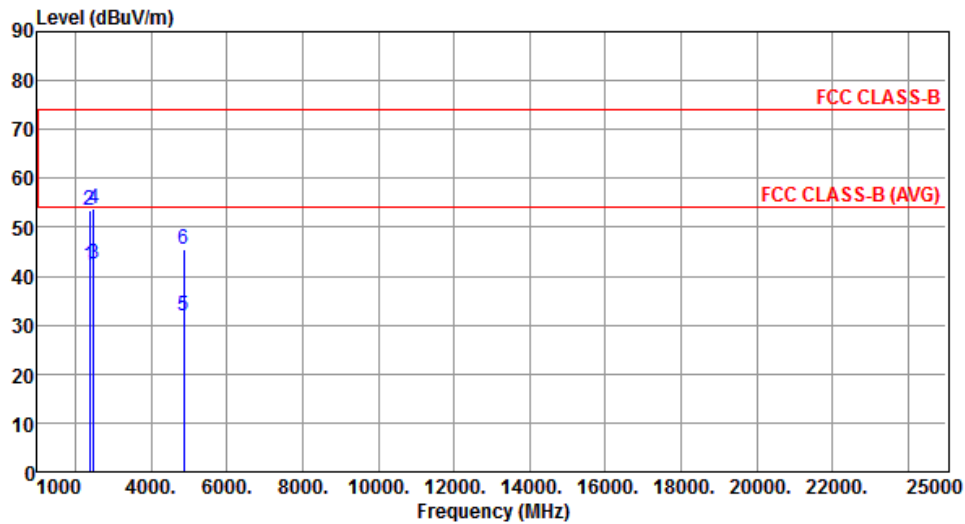
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	40.39	54.00	-13.61	43.06	-2.67	Average	---	---
2	2385.00	52.60	74.00	-21.40	55.27	-2.67	Peak	---	---
3	2488.50	40.40	54.00	-13.60	42.73	-2.33	Average	---	---
4	2488.50	53.03	74.00	-20.97	55.36	-2.33	Peak	---	---
5	4874.00	31.94	54.00	-22.06	26.86	5.08	Average	---	---
6	4874.00	45.44	74.00	-28.56	40.36	5.08	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



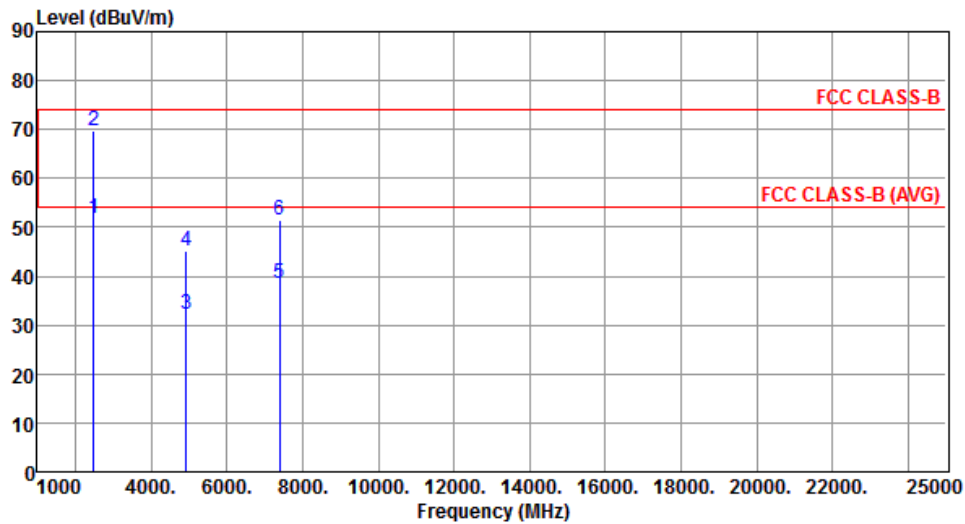
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	42.23	54.00	-11.77	44.90	-2.67	Average	---	---
2	2385.00	53.49	74.00	-20.51	56.16	-2.67	Peak	---	---
3	2488.50	42.45	54.00	-11.55	44.78	-2.33	Average	---	---
4	2488.50	53.77	74.00	-20.23	56.10	-2.33	Peak	---	---
5	4874.00	31.88	54.00	-22.12	26.80	5.08	Average	---	---
6	4874.00	45.41	74.00	-28.59	40.33	5.08	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



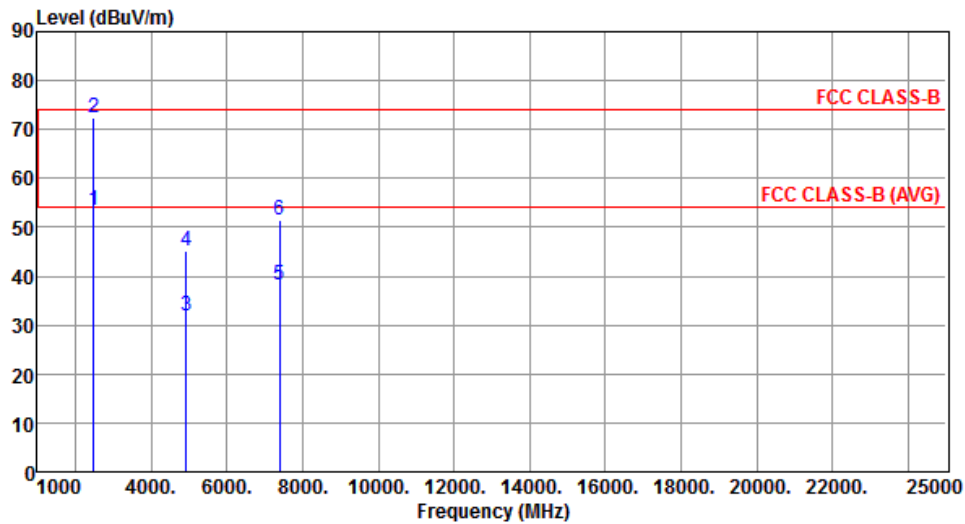
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	51.64	54.00	-2.36	53.98	-2.34	Average	---	---
2	2483.50	69.68	74.00	-4.32	72.02	-2.34	Peak	---	---
3	4924.00	32.06	54.00	-21.94	26.85	5.21	Average	---	---
4	4924.00	45.23	74.00	-28.77	40.02	5.21	Peak	---	---
5	7386.00	38.44	54.00	-15.56	28.13	10.31	Average	---	---
6	7386.00	51.56	74.00	-22.44	41.25	10.31	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	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	53.52	54.00	-0.48	55.86	-2.34	Average	---	---
2	2483.50	72.36	74.00	-1.64	74.70	-2.34	Peak	---	---
3	4924.00	31.80	54.00	-22.20	26.59	5.21	Average	---	---
4	4924.00	45.15	74.00	-28.85	39.94	5.21	Peak	---	---
5	7386.00	38.33	54.00	-15.67	28.02	10.31	Average	---	---
6	7386.00	51.37	74.00	-22.63	41.06	10.31	Peak	---	---

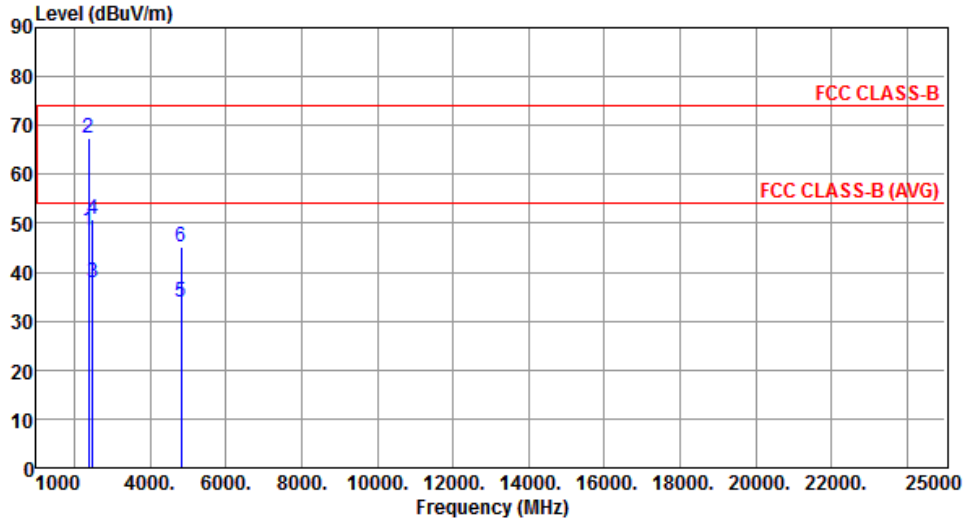
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

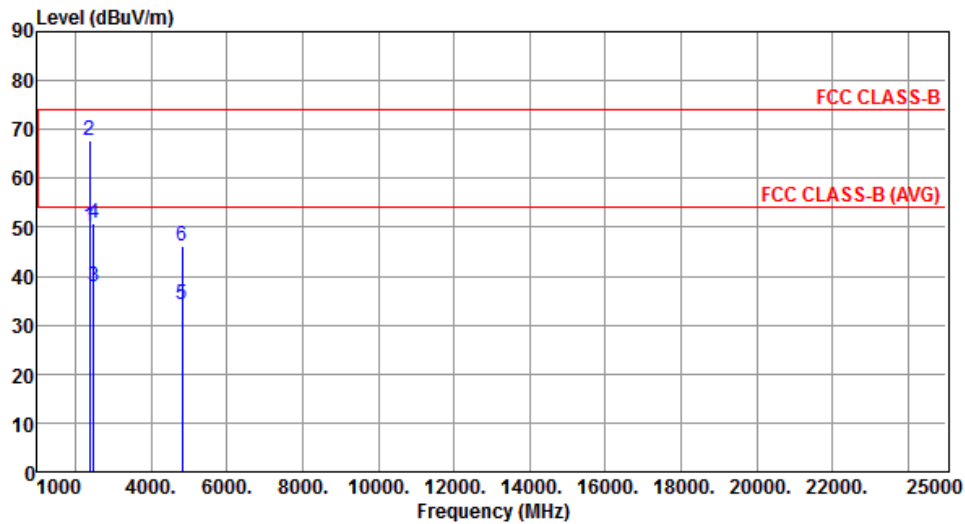
Modulation	HT20	Test Freq. (MHz)	2412
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	48.53	54.00	-5.47	51.18	-2.65	Average	---	---
2	2390.00	67.51	74.00	-6.49	70.16	-2.65	Peak	---	---
3	2483.50	37.89	54.00	-16.11	40.23	-2.34	Average	---	---
4	2483.50	50.85	74.00	-23.15	53.19	-2.34	Peak	---	---
5	4824.00	33.92	54.00	-20.08	28.95	4.97	Average	---	---
6	4824.00	45.15	74.00	-28.85	40.18	4.97	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	HT20	Test Freq. (MHz)	2412
Polarization	Vertical	Test Configuration	1



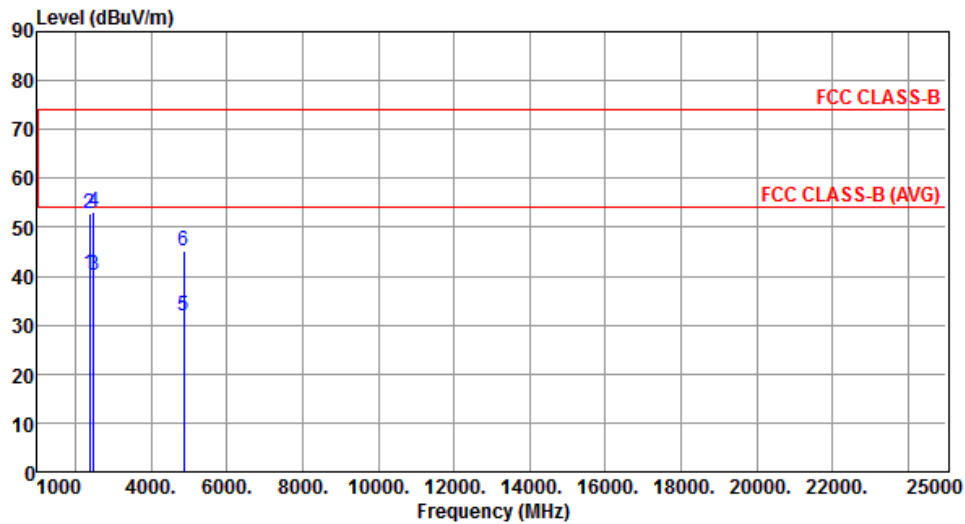
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2390.00	50.00	54.00	-4.00	52.65	-2.65	Average	---	---
2	2390.00	67.70	74.00	-6.30	70.35	-2.65	Peak	---	---
3	2483.50	37.98	54.00	-16.02	40.32	-2.34	Average	---	---
4	2483.50	50.92	74.00	-23.08	53.26	-2.34	Peak	---	---
5	4824.00	34.35	54.00	-19.65	29.38	4.97	Average	---	---
6	4824.00	46.00	74.00	-28.00	41.03	4.97	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	HT20	Test Freq. (MHz)	2437
Polarization	Horizontal	Test Configuration	1



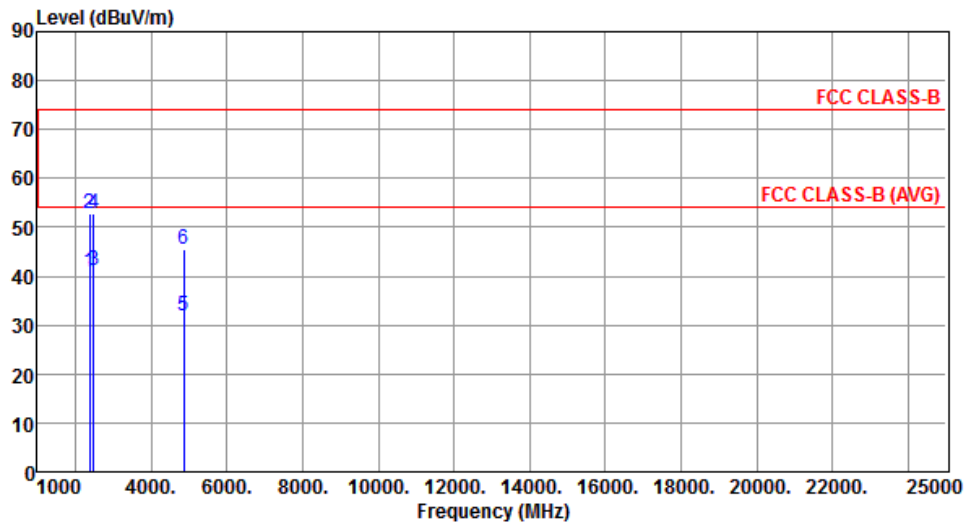
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	40.53	54.00	-13.47	43.20	-2.67	Average	---	---
2	2385.00	52.91	74.00	-21.09	55.58	-2.67	Peak	---	---
3	2488.50	40.07	54.00	-13.93	42.40	-2.33	Average	---	---
4	2488.50	53.03	74.00	-20.97	55.36	-2.33	Peak	---	---
5	4874.00	31.94	54.00	-22.06	26.86	5.08	Average	---	---
6	4874.00	45.12	74.00	-28.88	40.04	5.08	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	HT20	Test Freq. (MHz)	2437
Polarization	Vertical	Test Configuration	1



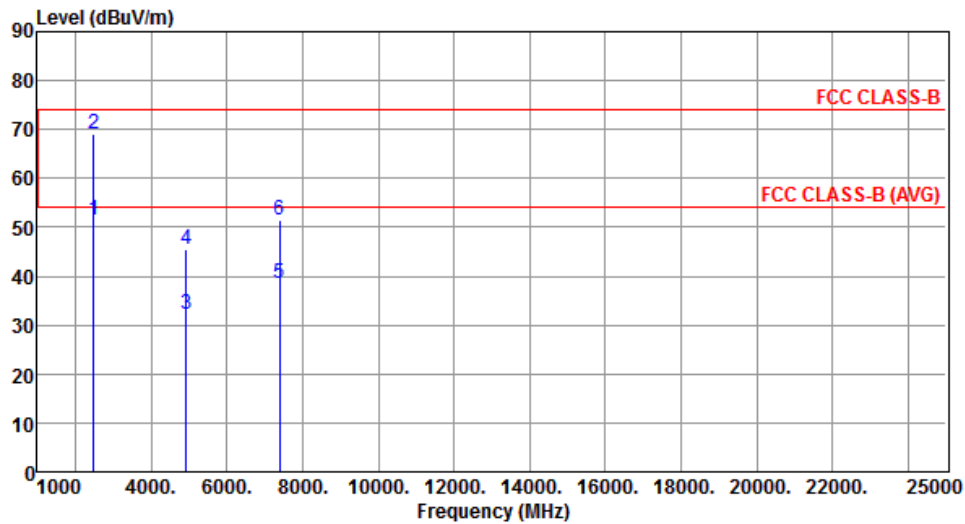
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2385.00	40.86	54.00	-13.14	43.53	-2.67	Average	---	---
2	2385.00	52.65	74.00	-21.35	55.32	-2.67	Peak	---	---
3	2488.50	41.31	54.00	-12.69	43.64	-2.33	Average	---	---
4	2488.50	52.81	74.00	-21.19	55.14	-2.33	Peak	---	---
5	4874.00	32.02	54.00	-21.98	26.94	5.08	Average	---	---
6	4874.00	45.35	74.00	-28.65	40.27	5.08	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	HT20	Test Freq. (MHz)	2462
Polarization	Horizontal	Test Configuration	1



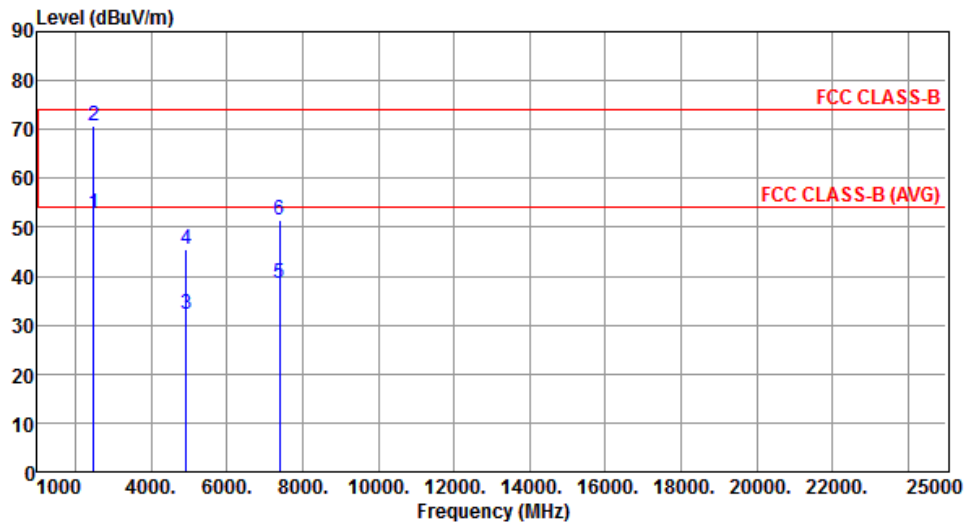
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	51.43	54.00	-2.57	53.77	-2.34	Average	---	---
2	2483.50	68.92	74.00	-5.08	71.26	-2.34	Peak	---	---
3	4924.00	32.15	54.00	-21.85	26.94	5.21	Average	---	---
4	4924.00	45.45	74.00	-28.55	40.24	5.21	Peak	---	---
5	7386.00	38.37	54.00	-15.63	28.06	10.31	Average	---	---
6	7386.00	51.47	74.00	-22.53	41.16	10.31	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	HT20	Test Freq. (MHz)	2462
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	2483.50	52.77	54.00	-1.23	55.11	-2.34	Average	---	---
2	2483.50	70.65	74.00	-3.35	72.99	-2.34	Peak	---	---
3	4924.00	32.15	54.00	-21.85	26.94	5.21	Average	---	---
4	4924.00	45.46	74.00	-28.54	40.25	5.21	Peak	---	---
5	7386.00	38.52	54.00	-15.48	28.21	10.31	Average	---	---
6	7386.00	51.57	74.00	-22.43	41.26	10.31	Peak	---	---

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

*Factor includes antenna factor , cable loss and amplifier gain

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

3.6 Unwanted Emissions into Non-Restricted Frequency Bands

3.6.1 Limit of Unwanted Emissions into Non-Restricted Frequency Bands

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

3.6.2 Test Procedures

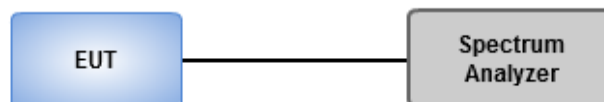
Reference Level Measurement

1. Set the RBW = 100 kHz, VBW = 300 kHz, Detector = peak.
2. Set Sweep time = auto couple, Trace mode = max hold.
3. Allow trace to fully stabilize.
4. Use the peak marker function to determine the maximum amplitude level.

Unwanted Emissions Level Measurement

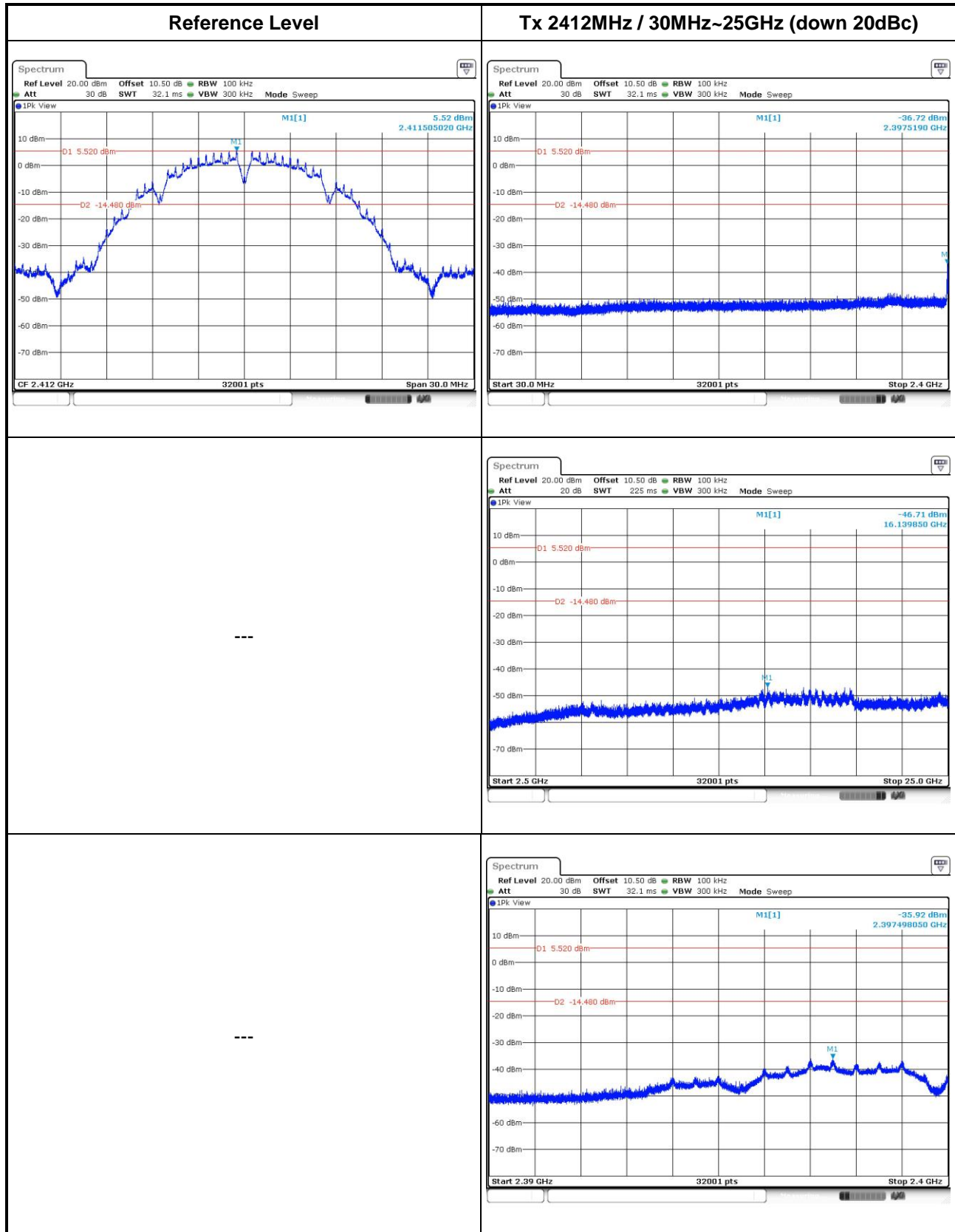
1. Set RBW = 100 kHz, VBW = 300 kHz, Detector = peak.
2. Trace Mode = max hold, Sweep = auto couple.
3. Allow the trace to stabilize.
4. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

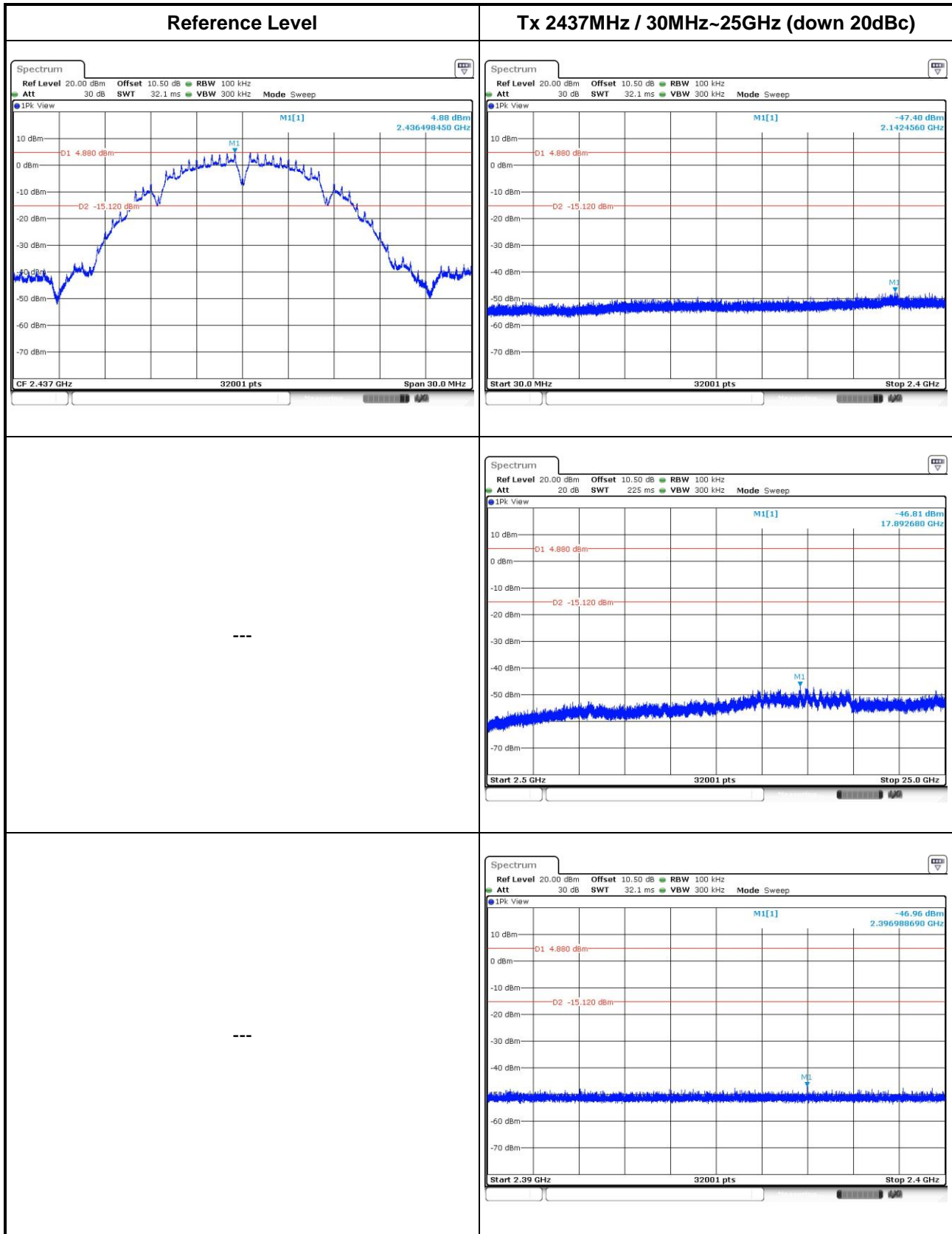
3.6.3 Test Setup



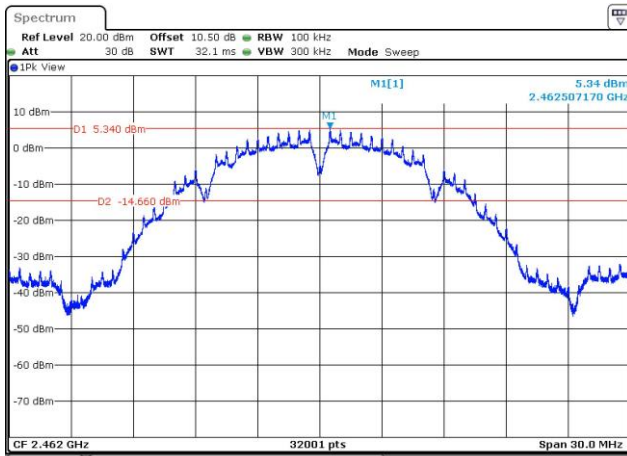
3.6.4 Unwanted Emissions into Non-Restricted Frequency Bands

802.11b

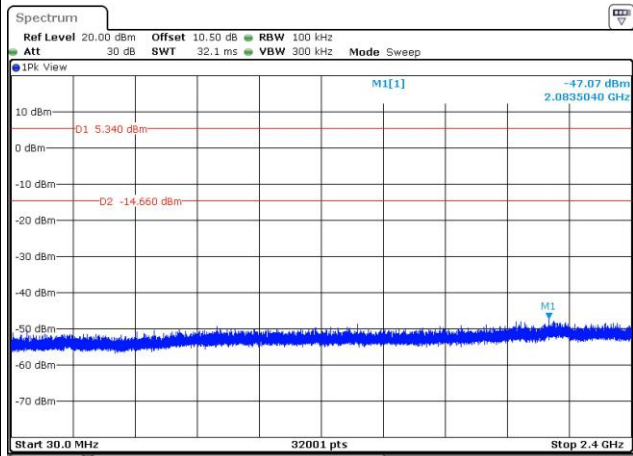


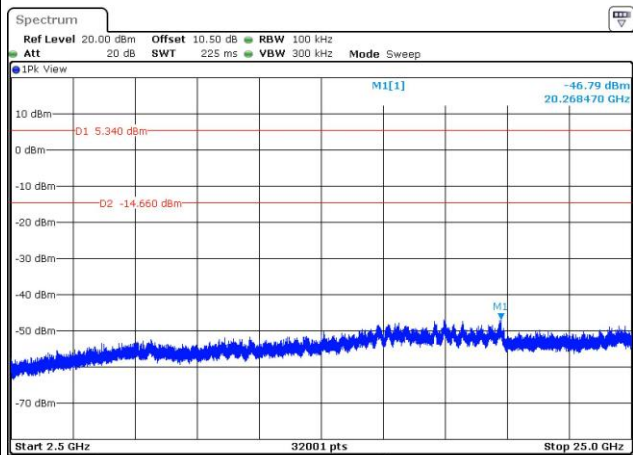


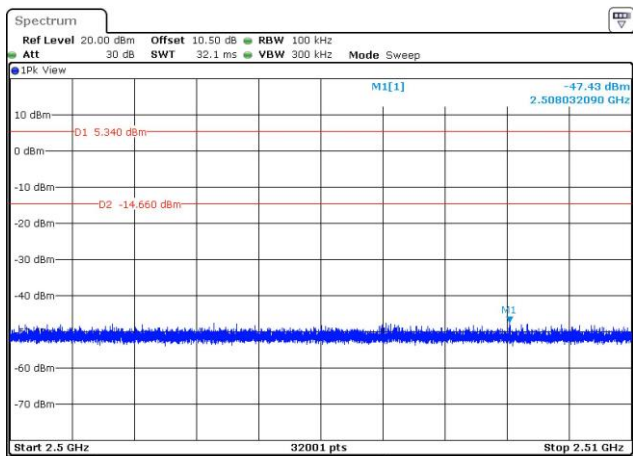
Reference Level



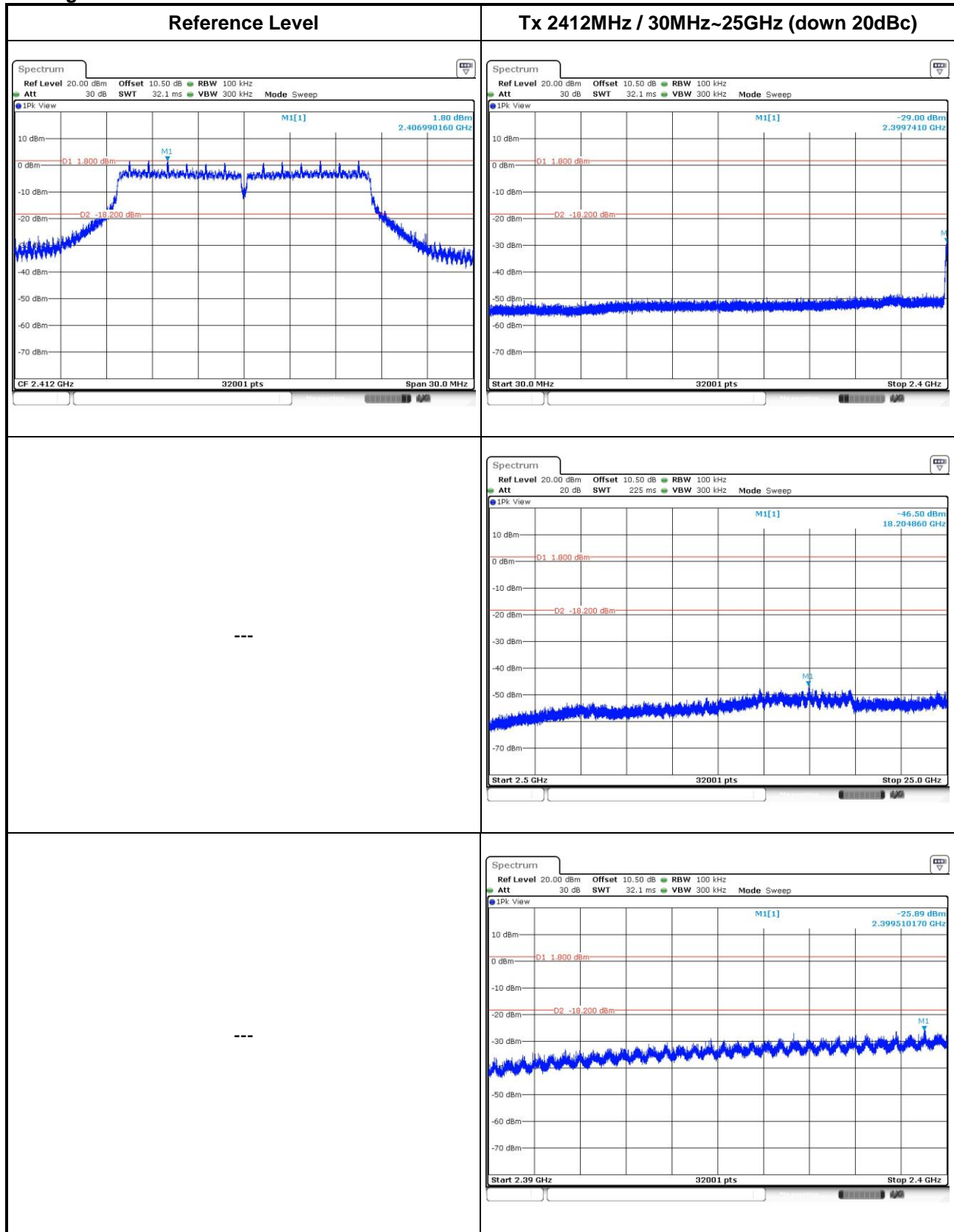
Tx 2462MHz / 30MHz~25GHz (down 20dBc)



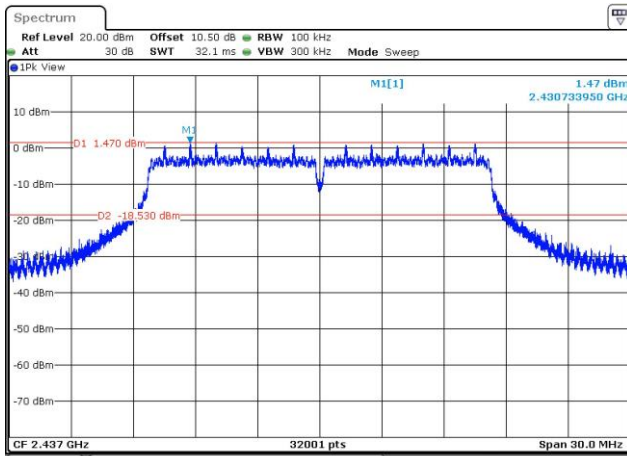




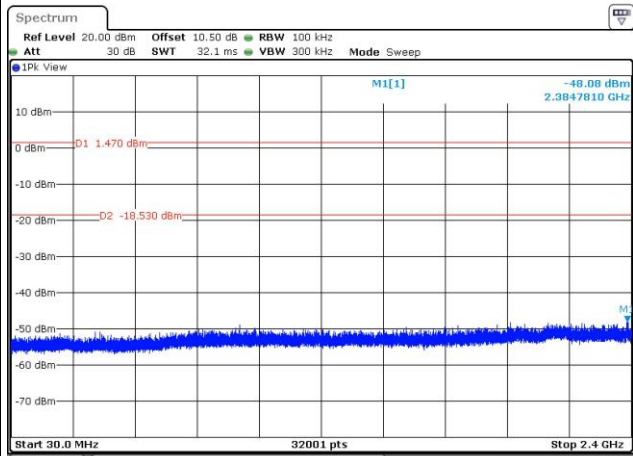
802.11g

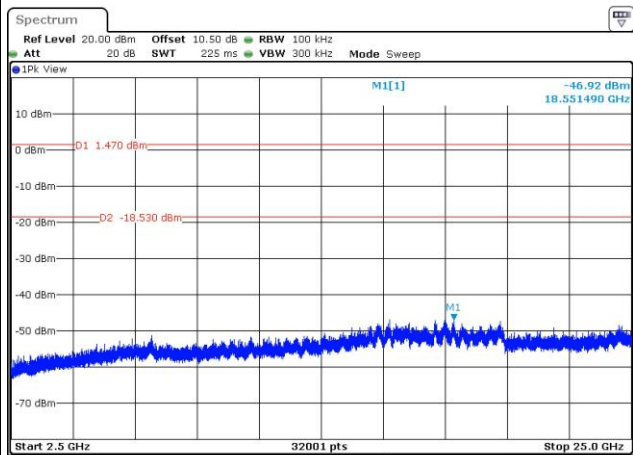


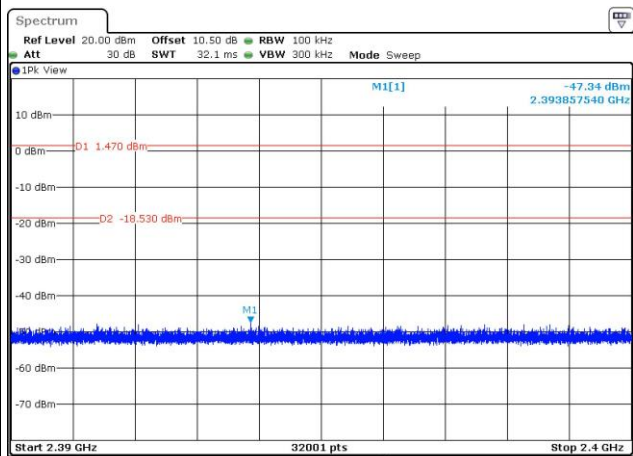
Reference Level



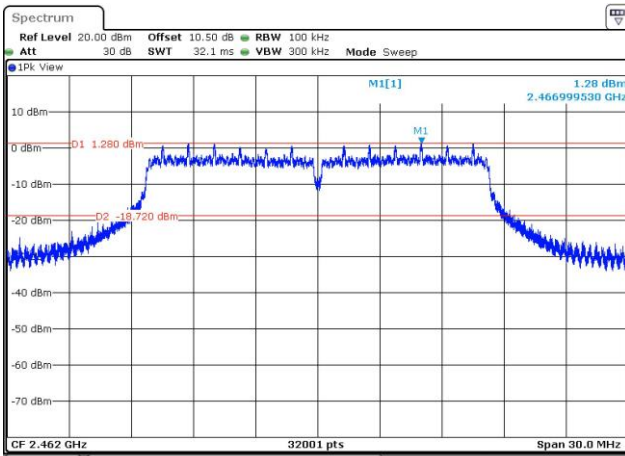
Tx 2437MHz / 30MHz~25GHz (down 20dBc)



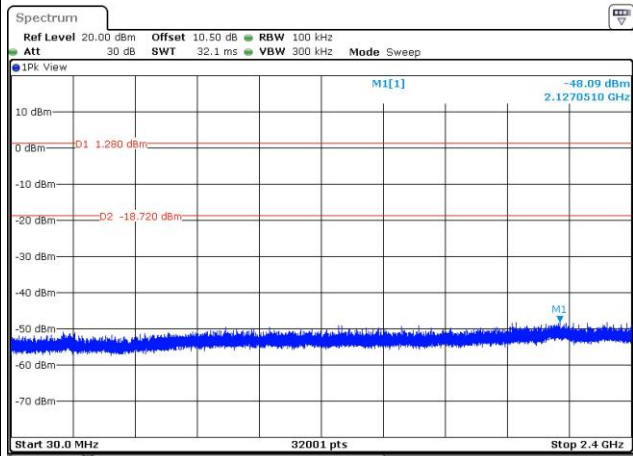


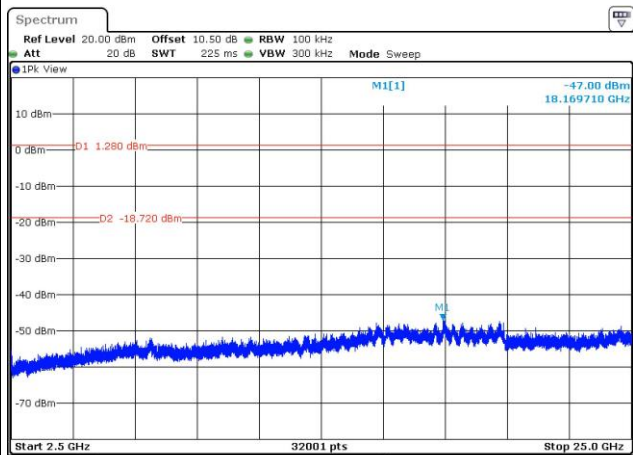


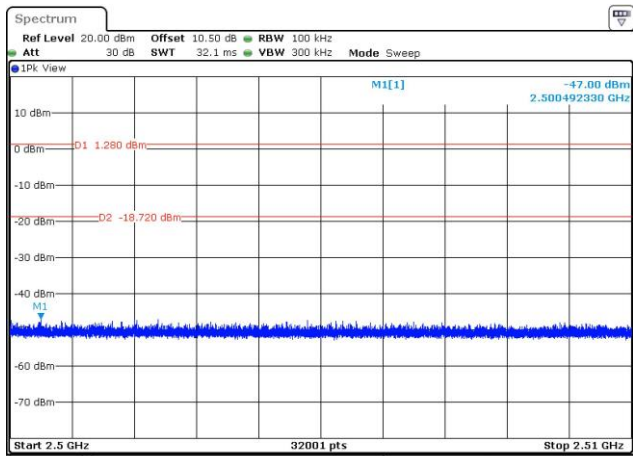
Reference Level



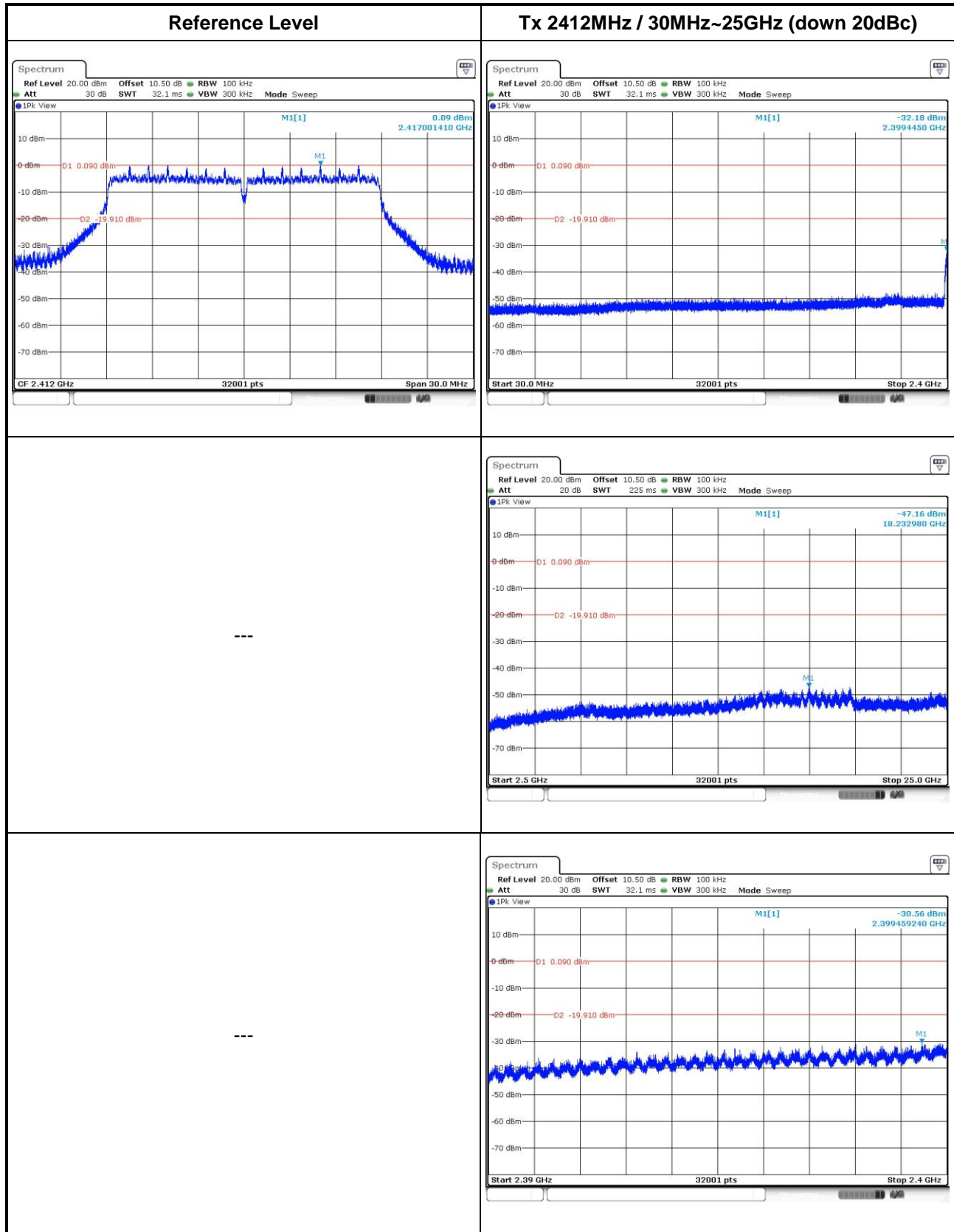
Tx 2462MHz / 30MHz~25GHz (down 20dBc)

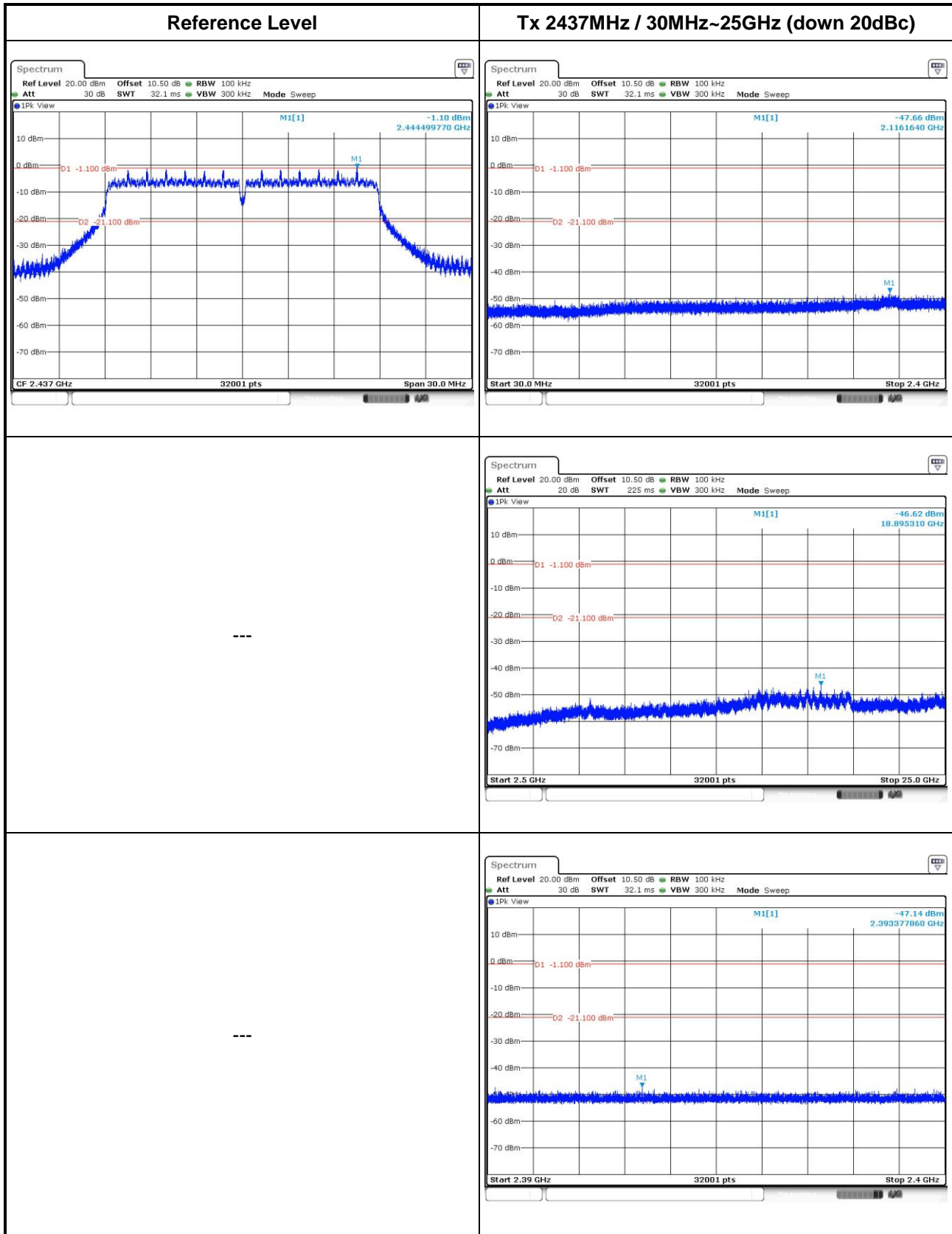


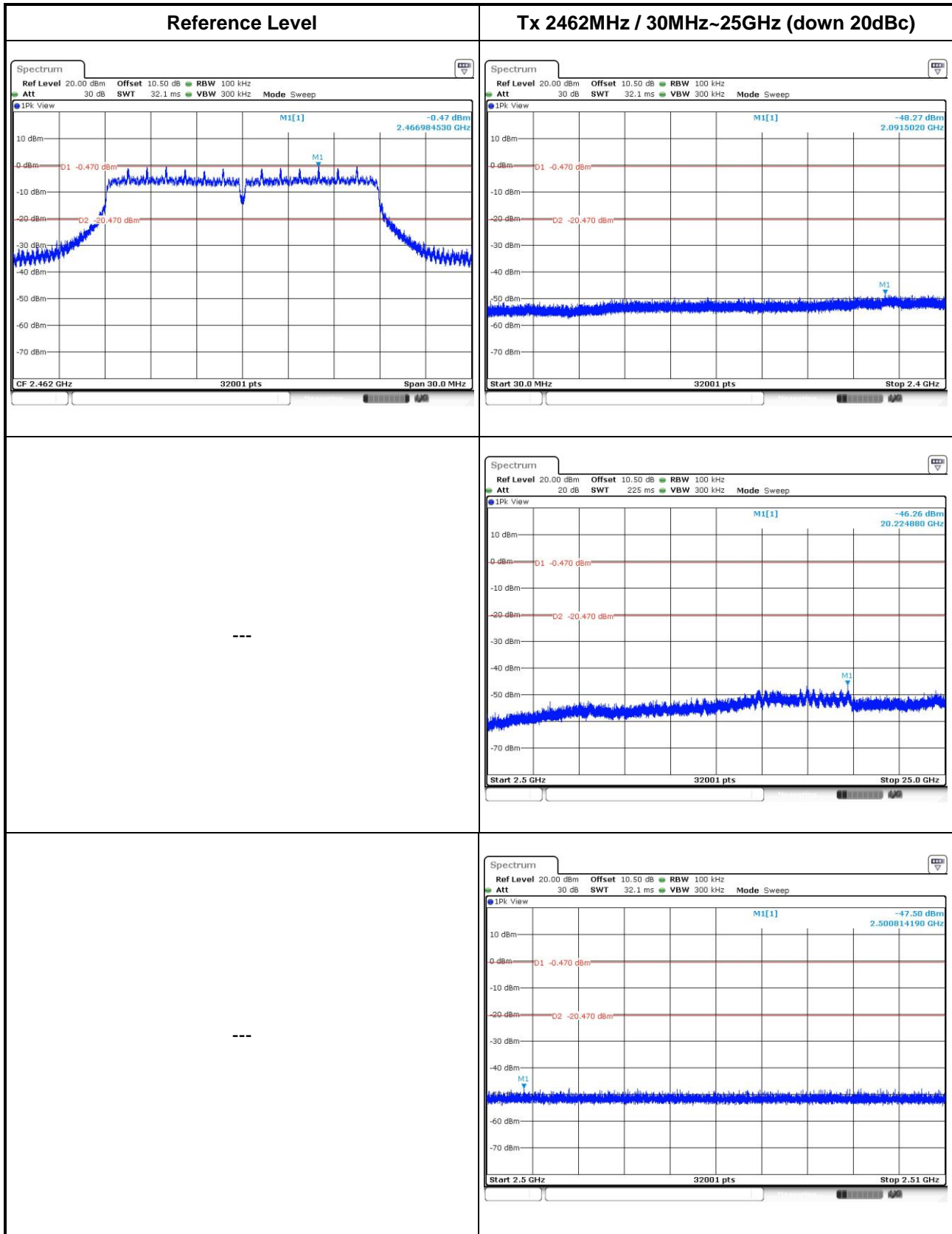




802.11n HT20







4 Test laboratory information

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

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

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

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Kwei Shan Site II

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

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