

FCC Test Report

Report No.: RF181001C19

FCC ID: A4RG020G

Model Name: G020G

Received Date: Oct. 01, 2018

Test Date: Nov. 05 ~ Nov. 14, 2018

Issued Date: Dec. 22, 2018

Applicant: Google LLC

Address: 1600 Amphitheatre Parkway Mountain View, CA 94043, USA

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Test Location (1): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

Test Location (2): No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

FCC Registration / Designation Number (1): 788550 / TW0003

FCC Registration / Designation Number (2): 198487 / TW2021



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	4
1 Certificate of Conformity	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes	8
3.2.1 Test Mode Applicability and Tested Channel Detail	9
3.3 Duty Cycle of Test Signal	10
3.4 Description of Support Units	11
3.4.1 Configuration of System under Test	11
3.5 General Description of Applied Standards	11
4 Test Types and Results	12
4.1 Radiated Emission and Bandedge Measurement	12
4.1.1 Limits of Radiated Emission and Bandedge Measurement	12
4.1.2 Test Instruments	13
4.1.3 Test Procedures	14
4.1.4 Deviation from Test Standard	14
4.1.5 Test Setup	15
4.1.6 EUT Operating Conditions	16
4.1.7 Test Results for Fundamental and Harmonic above 1GHz	17
4.1.8 Test Results for Bandedge above 1GHz	47
4.1.9 Test Results for below 1GHz	77
4.2 Conducted Emission Measurement	79
4.2.1 Limits of Conducted Emission Measurement	79
4.2.2 Test Instruments	79
4.2.3 Test Procedures	80
4.2.4 Deviation from Test Standard	80
4.2.5 Test Setup	80
4.2.6 EUT Operating Conditions	80
4.2.7 Test Results	81
4.3 6dB Bandwidth Measurement	83
4.3.1 Limits of 6dB Bandwidth Measurement	83
4.3.2 Test Setup	83
4.3.3 Test Instruments	83
4.3.4 Test Procedure	83
4.3.5 Deviation from Test Standard	83
4.3.6 EUT Operating Conditions	83
4.3.7 Test Result	84
4.4 Conducted Output Power Measurement	86
4.4.1 Limits of Conducted Output Power Measurement	86
4.4.2 Test Setup	86
4.4.3 Test Instruments	86
4.4.4 Test Procedures	86
4.4.5 Deviation from Test Standard	86
4.4.6 EUT Operating Conditions	86
4.4.7 Test Results	87
4.5 Power Spectral Density Measurement	93
4.5.1 Limits of Power Spectral Density Measurement	93
4.5.2 Test Setup	93
4.5.3 Test Instruments	93
4.5.4 Test Procedure	93

4.5.5	Deviation from Test Standard	93
4.5.6	EUT Operating Condition	93
4.5.7	Test Results	94
4.6	Conducted Out of Band Emission Measurement.....	97
4.6.1	Limits of Conducted Out of Band Emission Measurement	97
4.6.2	Test Setup.....	97
4.6.3	Test Instruments	97
4.6.4	Test Procedure	97
4.6.5	Deviation from Test Standard	97
4.6.6	EUT Operating Condition	97
4.6.7	Test Results	98
5	Pictures of Test Arrangements.....	112
	Appendix – Information of the Testing Laboratories	113

Release Control Record

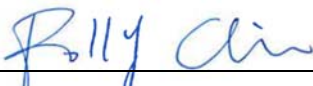
Issue No.	Description	Date Issued
RF181001C19	Original release	Dec. 22, 2018

1 Certificate of Conformity

Product: Smartphone
Model Name: G020G
Sample Status: Identical Prototype
Applicant: Google LLC
Test Date: Nov. 05 ~ Nov. 14, 2018
Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10:2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :


Polly Chien / Specialist

, Date:

Dec. 22, 2018

Approved by :



Bruce Chen / Project Engineer

, Date:

Dec. 22, 2018

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -18.66dB at 0.52960MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.51dB at 2483.50MHz.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	Pass	Meet the requirement of limit.
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions	9kHz ~ 30MHz	2.38 dB
	30MHz ~ 1GHz	5.54 dB
	Above 1GHz	5.48 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smartphone
Model Name	G020G
Sample Status	Identical Prototype
Power Supply Rating	3.85Vdc (Battery) 5Vdc or 9Vdc (Adapter) 5Vdc (Host equipment)
Modulation Type	CCK, DQPSK, DBPSK for DSSS 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n/ac: up to 300Mbps
Operating Frequency	2412 ~ 2472MHz
Number of Channel	13
Output Power	381.468mW
Antenna Type	Refer to Note as below
Antenna Connector	Refer to Note as below
Accessory Device	Refer to Note as below
Cable Supplied	Refer to Note as below

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function
802.11b	1TX(SISO)/2TX(MIMO)
802.11g	1TX(SISO)/2TX(MIMO)
802.11n (HT20)	1TX(SISO)/2TX(MIMO)
802.11ac (VHT20)	1TX(SISO)/2TX(MIMO)

* The modulation and bandwidth are similar for 802.11n mode for 20MHz and 802.11ac mode for 20MHz, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

* SISO mode and MIMO mode are presented in power output test item. For other test items, MIMO mode is the worst case for final tests after pretesting.

2. There're 2 configurations for the EUT listed as below.

- Main Sample: EUT + Battery 1
- 2nd Sample: EUT + Battery 2

After pre-tested with the EUT, only the worst configuration (main sample) was chosen for the final test.

3. The EUT accessories list refers to EUT Photo.pdf.

4. The following antennas were provided to the EUT.

No.	Type	Connector	Gain (dBi)
0	PIFA	NA	-0.1
1	PIFA	NA	-0.4

5. The worst configuration power mode is presented in the report as below. Please refer to SAR test report for more detail test mode.

Maximum Tune-up Power Mode				
Band		TX Antenna	WWAN Function	Body-Worn/Hotspot
WLAN	2.4G	Ant 0+1	WWAN-Off	Body-Worn/Hotspot

3.2 Description of Test Modes

13 channels are provided for 802.11b, 802.11g, 802.11n (HT20) and 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
1	2412MHz	8	2447MHz
2	2417MHz	9	2452MHz
3	2422MHz	10	2457MHz
4	2427MHz	11	2462MHz
5	2432MHz	12	2467MHz
6	2437MHz	13	2472MHz
7	2442MHz		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where RE $\geq$ 1G: Radiated Emission above 1GHz & Bandedge Measurement

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

Radiated Emission Test (Above 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	DBPSK	1.0
-	802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.0
-	802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.5

Radiated Emission Test (Below 1GHz):

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11b	1 to 13	6	DSSS	DBPSK	1.0

Power Line Conducted Emission Test:

- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11b	1 to 13	6	DSSS	DBPSK	1.0

Antenna Port Conducted Measurement:

- ☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- ☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- ☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11b	1 to 13	1, 6, 11, 12, 13	DSSS	DBPSK	1.0
-	802.11g	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.0
-	802.11n (HT20)	1 to 13	1, 6, 11, 12, 13	OFDM	BPSK	6.5

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	27 deg. C, 80% RH	120Vac, 60Hz	Daken Dai Ian Chang
RE<1G	25 deg. C, 76% RH	120Vac, 60Hz	Ian Chang
PLC	25 deg. C, 68% RH	120Vac, 60Hz	Jones Chang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Chris Lin

3.3 Duty Cycle of Test Signal

802.11b: Duty cycle of test signal is $\geq 98\%$.

802.11g, 802.11n (HT20): Duty cycle of test signal is $< 98\%$.

802.11b: Duty cycle = $12.200/12.300 = 0.992$

802.11g: Duty cycle = $2.027/2.075 = 0.977$, Duty factor = $10 * \log(1/0.977) = 0.10$

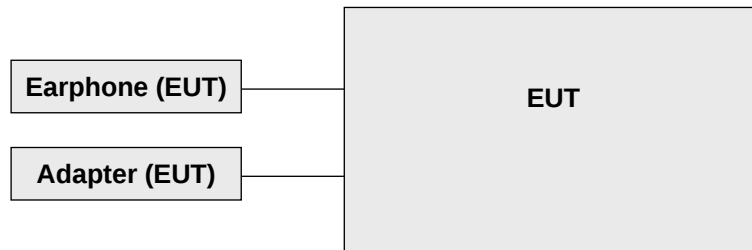
802.11n (HT20): Duty cycle = $1.879/1.939 = 0.969$, Duty factor = $10 * \log(1/0.969) = 0.14$



3.4 Description of Support Units

The EUT has been tested as an independent unit.

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)

KDB 558074 D01 15.247 Meas Guidance v05

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
HP Preamplifier	8447D	2432A03504	Feb. 21, 2018	Feb. 20, 2019
HP Preamplifier	8449B	3008A01201	Feb. 22, 2018	Feb. 21, 2019
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Feb. 21, 2018	Feb. 20, 2019
Agilent TEST RECEIVER	N9038A	MY51210129	Feb. 06, 2018	Feb. 05, 2019
Schwarzbeck Antenna	VULB 9168	139	Dec. 29, 2017	Dec. 28, 2018
Schwarzbeck Antenna	VHBA 9123	480	May 19, 2017	May 18, 2019
Schwarzbeck Horn Antenna	BBHA-9170	212	Dec. 29, 2017	Dec. 28, 2018
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	Mar. 29, 2018	Mar. 28, 2019
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.5	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF102	Cable-CH6-01	Aug. 13, 2018	Aug. 12, 2019
SUHNER RF cable With 3/4dB PAD	SF102	Cable-CH8-3.6m	Aug. 13, 2018	Aug. 12, 2019
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	Jun. 04, 2018	Jun. 03, 2019
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Aug. 03, 2018	Aug. 02, 2019
Loop Antenna EMCI	LPA600	270	Aug. 11, 2017	Aug. 10, 2019
EMCO Horn Antenna	3115	00028257	Mar. 29, 2018	Mar. 28, 2019
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 27, 2018	Sep. 26, 2019
Anritsu Power Sensor	MA2411B	0738404	Apr. 26, 2018	Apr. 25, 2019
Anritsu Power Meter	ML2495A	0842014	Apr. 26, 2018	Apr. 25, 2019

- Note: 1. The calibration interval of the above test instruments is 12 months (24 months for Loop Antenna) and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Lin Kou Chamber No. 6.
4. The Industry Canada Reference No. 7450E-6.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

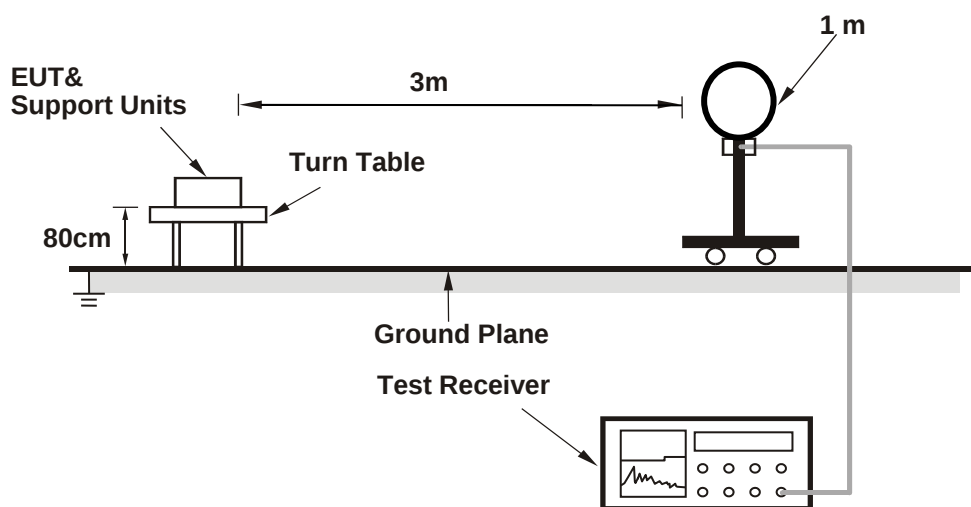
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

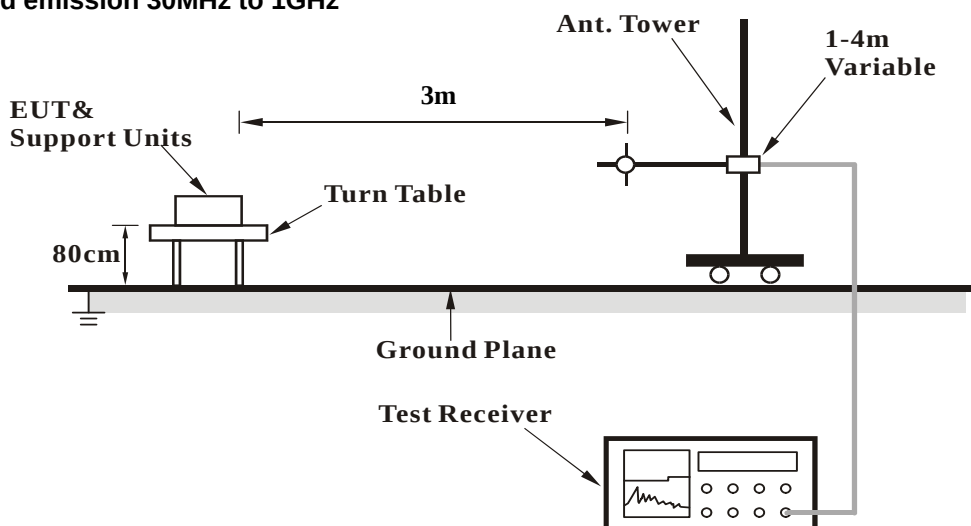
No deviation.

4.1.5 Test Setup

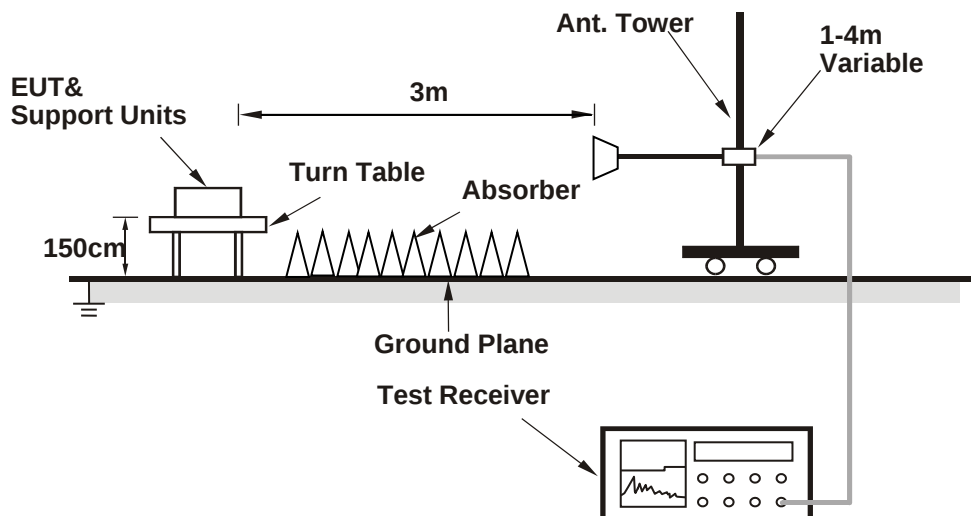
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

Test Mode	DutyCycle (%)	RBW (PK)	VBW (PK)	RBW (AV)	VBW (A)
802.11b	99.2	1MHz	3MHz	1MHz	10Hz
802.11g	97.7	1MHz	3MHz	1MHz	1kHz
802.11n (HT20)	96.9	1MHz	3MHz	1MHz	1kHz

4.1.6 EUT Operating Conditions

- Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results for Fundamental and Harmonic above 1GHz

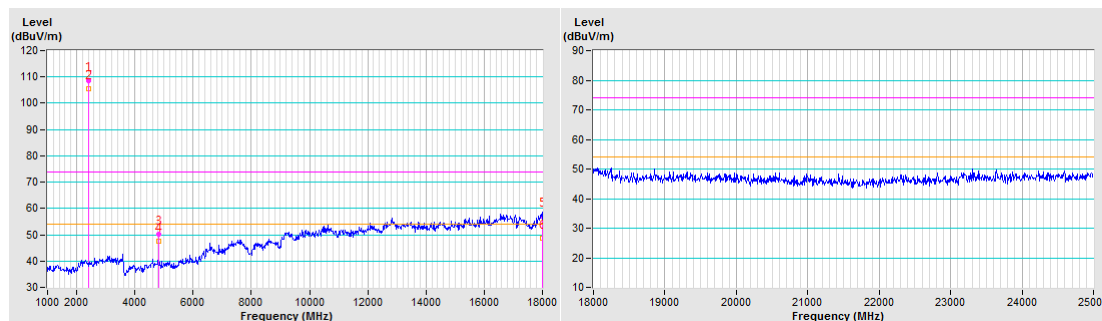
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	108.46 PK			1.45 H	27	110.08	-1.62
2	*2412.00	105.65 AV			1.45 H	27	107.27	-1.62
3	4824.00	50.03 PK	74.00	-23.97	1.26 H	266	45.24	4.79
4	4824.00	47.62 AV	54.00	-6.38	1.26 H	266	42.83	4.79
5	18000.00	57.18 PK	74.00	-16.82	2.26 H	133	34.70	22.48
6	18000.00	48.78 AV	54.00	-5.22	2.26 H	133	26.30	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

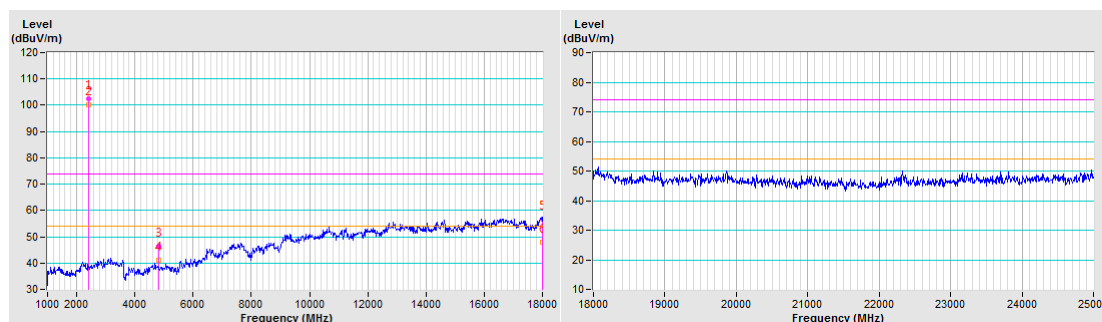


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	102.56 PK			1.25 V	180	104.18	-1.62
2	*2412.00	100.10 AV			1.25 V	180	101.72	-1.62
3	4824.00	46.21 PK	74.00	-27.79	1.24 V	80	41.42	4.79
4	4824.00	41.13 AV	54.00	-12.87	1.24 V	80	36.34	4.79
5	18000.00	56.69 PK	74.00	-17.31	1.41 V	210	34.21	22.48
6	18000.00	48.03 AV	54.00	-5.97	1.41 V	210	25.55	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

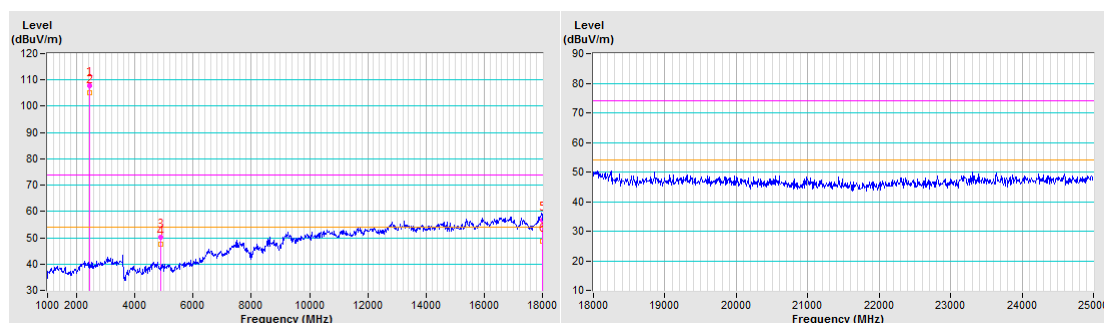


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	107.89 PK			1.51 H	23	109.63	-1.74
2	*2437.00	105.20 AV			1.51 H	23	106.94	-1.74
3	4874.00	50.03 PK	74.00	-23.97	1.28 H	267	45.16	4.87
4	4874.00	47.46 AV	54.00	-6.54	1.28 H	267	42.59	4.87
5	18000.00	56.72 PK	74.00	-17.28	2.51 H	169	34.24	22.48
6	18000.00	48.76 AV	54.00	-5.24	2.51 H	169	26.28	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

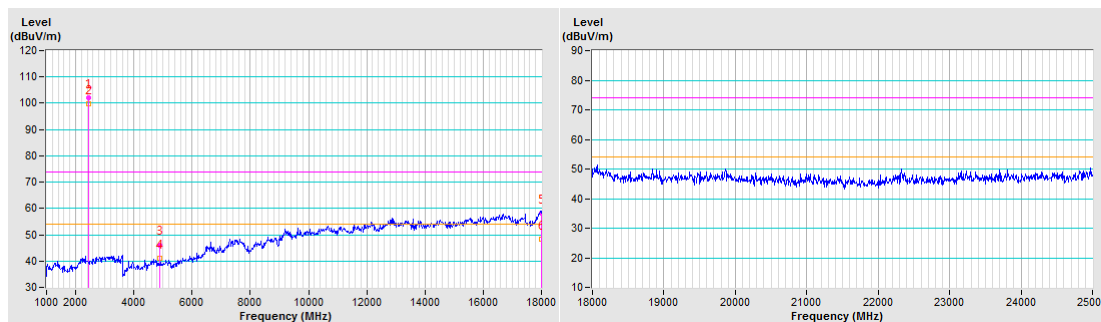


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	102.11 PK			1.27 V	184	103.85	-1.74
2	*2437.00	99.70 AV			1.27 V	184	101.44	-1.74
3	4874.00	46.19 PK	74.00	-27.81	1.22 V	77	41.32	4.87
4	4874.00	41.02 AV	54.00	-12.98	1.22 V	77	36.15	4.87
5	18000.00	58.32 PK	74.00	-15.68	1.55 V	163	35.84	22.48
6	18000.00	48.29 AV	54.00	-5.71	1.55 V	163	25.81	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

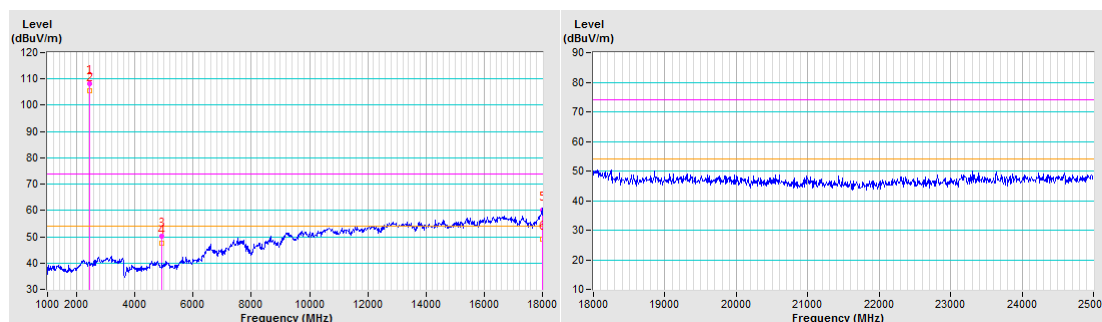


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.99 PK			1.47 H	17	109.61	-1.62
2	*2462.00	105.34 AV			1.47 H	17	106.96	-1.62
3	4924.00	50.13 PK	74.00	-23.87	1.24 H	262	45.33	4.80
4	4924.00	47.50 AV	54.00	-6.50	1.24 H	262	42.70	4.80
5	18000.00	60.13 PK	74.00	-13.87	2.81 H	241	37.65	22.48
6	18000.00	48.96 AV	54.00	-5.04	2.81 H	241	26.48	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

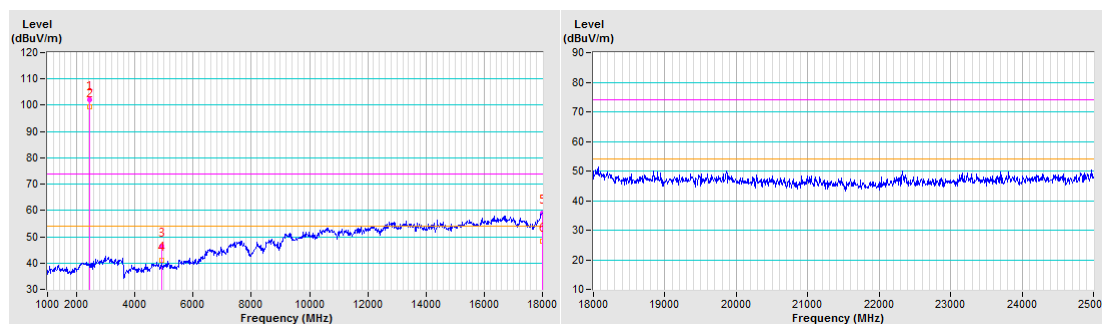


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	101.92 PK			1.26 V	182	103.54	-1.62
2	*2462.00	99.29 AV			1.26 V	182	100.91	-1.62
3	4924.00	46.25 PK	74.00	-27.75	1.23 V	78	41.45	4.80
4	4924.00	41.02 AV	54.00	-12.98	1.23 V	78	36.22	4.80
5	18000.00	59.03 PK	74.00	-14.97	1.38 V	107	36.55	22.48
6	18000.00	48.16 AV	54.00	-5.84	1.38 V	107	25.68	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

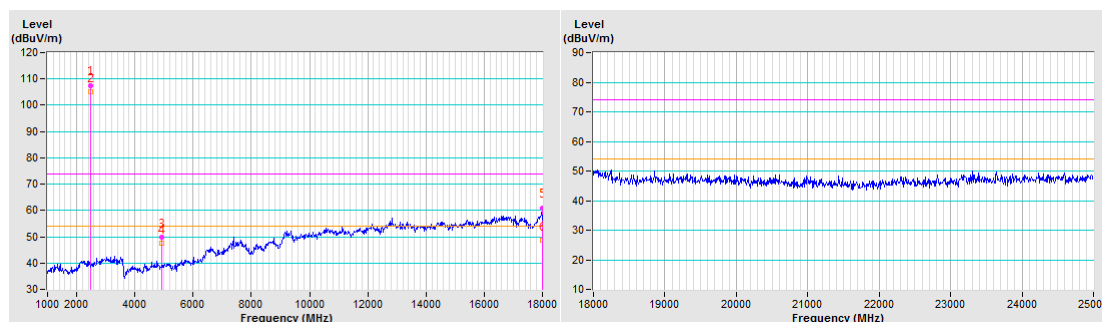


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	107.57 PK			3.22 H	318	109.13	-1.56
2	*2467.00	104.98 AV			3.22 H	318	106.54	-1.56
3	4934.00	49.86 PK	74.00	-24.14	2.07 H	275	45.09	4.77
4	4934.00	47.43 AV	54.00	-6.57	2.07 H	275	42.66	4.77
5	18000.00	61.07 PK	74.00	-12.93	2.69 H	238	38.59	22.48
6	18000.00	48.67 AV	54.00	-5.33	2.69 H	238	26.19	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

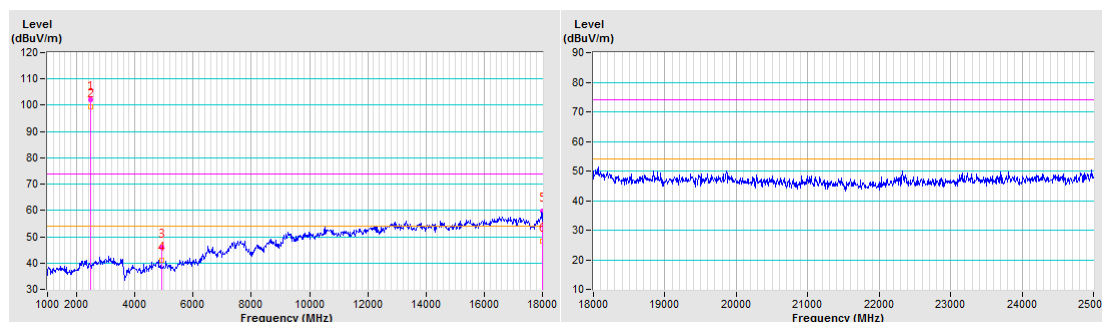


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	101.95 PK			1.29 V	178	103.51	-1.56
2	*2467.00	99.32 AV			1.29 V	178	100.88	-1.56
3	4934.00	45.83 PK	74.00	-28.17	1.18 V	85	41.06	4.77
4	4934.00	40.95 AV	54.00	-13.05	1.18 V	85	36.18	4.77
5	18000.00	59.84 PK	74.00	-14.16	1.49 V	112	37.36	22.48
6	18000.00	48.26 AV	54.00	-5.74	1.49 V	112	25.78	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

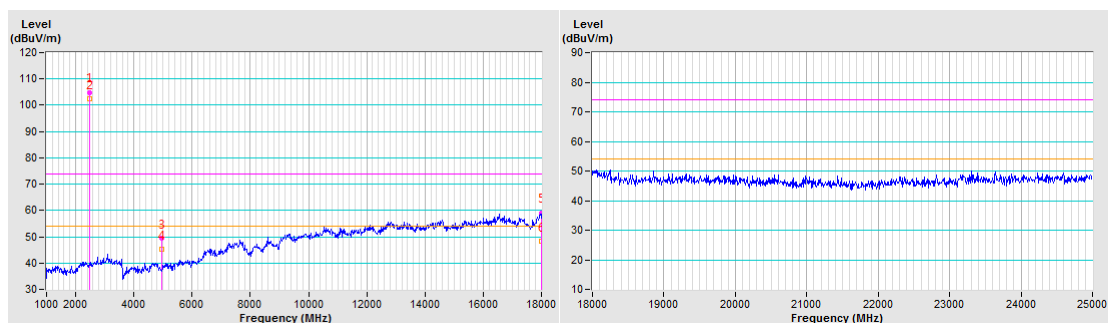


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	104.93 PK			3.27 H	322	106.42	-1.49
2	*2472.00	102.31 AV			3.27 H	322	103.80	-1.49
3	4944.00	49.58 PK	74.00	-24.42	2.13 H	271	44.84	4.74
4	4944.00	45.31 AV	54.00	-8.69	2.13 H	271	40.57	4.74
5	18000.00	59.15 PK	74.00	-14.85	2.43 H	218	36.67	22.48
6	18000.00	48.19 AV	54.00	-5.81	2.43 H	218	25.71	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

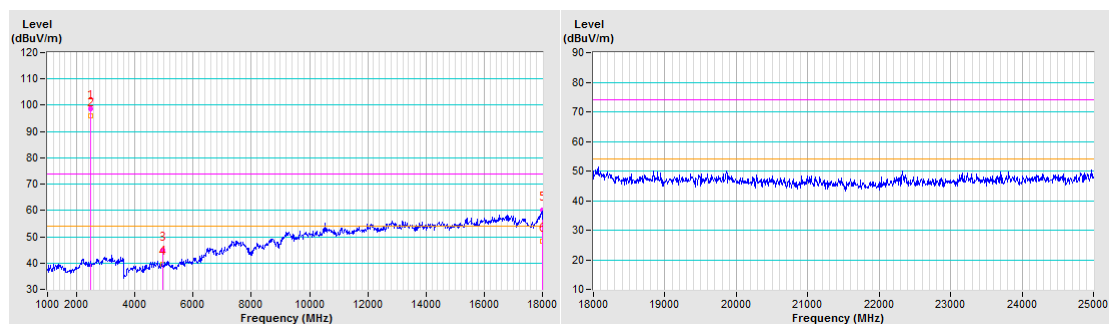


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	98.70 PK			1.34 V	181	100.19	-1.49
2	*2472.00	95.97 AV			1.34 V	181	97.46	-1.49
3	4944.00	45.02 PK	74.00	-28.98	1.21 V	80	40.28	4.74
4	4944.00	39.57 AV	54.00	-14.43	1.21 V	80	34.83	4.74
5	18000.00	60.10 PK	74.00	-13.90	1.44 V	167	37.62	22.48
6	18000.00	48.41 AV	54.00	-5.59	1.44 V	167	25.93	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency



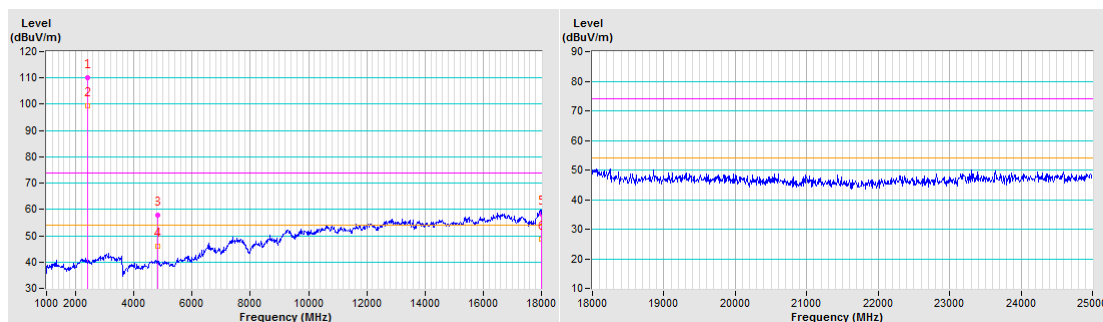
802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	110.13 PK			1.00 H	202	111.75	-1.62
2	*2412.00	99.50 AV			1.00 H	202	101.12	-1.62
3	4824.00	57.73 PK	74.00	-16.27	1.18 H	352	52.94	4.79
4	4824.00	45.91 AV	54.00	-8.09	1.18 H	352	41.12	4.79
5	18000.00	58.33 PK	74.00	-15.67	2.66 H	253	35.85	22.48
6	18000.00	48.69 AV	54.00	-5.31	2.66 H	253	26.21	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

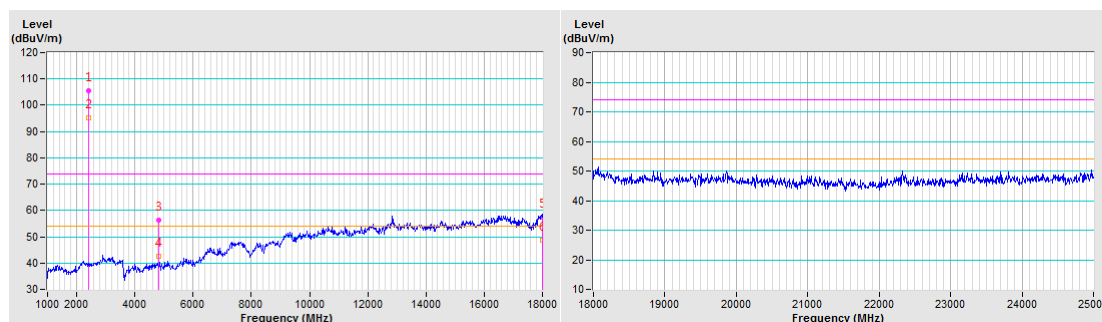


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	105.33 PK			1.47 V	166	106.95	-1.62
2	*2412.00	95.16 AV			1.47 V	166	96.78	-1.62
3	4824.00	56.23 PK	74.00	-17.77	1.14 V	344	51.44	4.79
4	4824.00	42.48 AV	54.00	-11.52	1.14 V	344	37.69	4.79
5	18000.00	57.56 PK	74.00	-16.44	1.28 V	110	35.08	22.48
6	18000.00	48.59 AV	54.00	-5.41	1.28 V	110	26.11	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

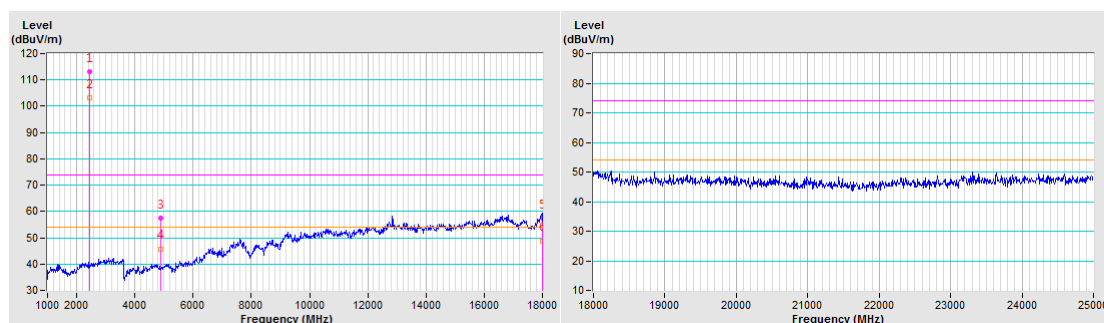


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	113.03 PK			1.00 H	203	114.77	-1.74
2	*2437.00	103.15 AV			1.00 H	203	104.89	-1.74
3	4874.00	57.44 PK	74.00	-16.56	1.56 H	345	52.57	4.87
4	4874.00	45.82 AV	54.00	-8.18	1.56 H	345	40.95	4.87
5	18000.00	57.28 PK	74.00	-16.72	2.27 H	185	34.80	22.48
6	18000.00	48.86 AV	54.00	-5.14	2.27 H	185	26.38	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

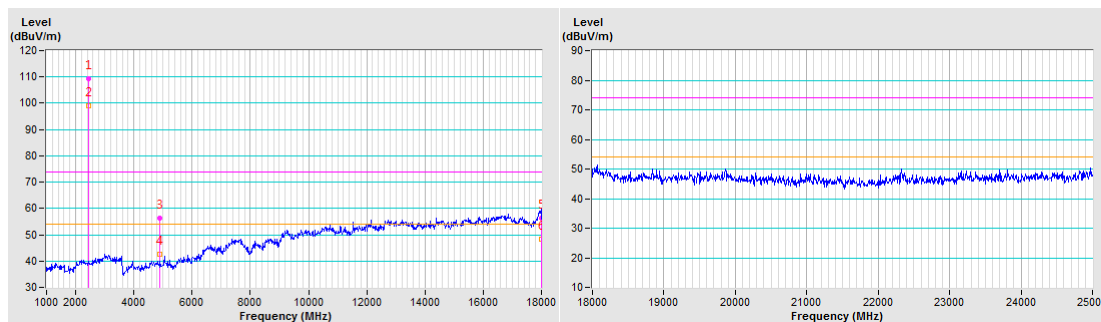


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	109.23 PK			1.52 V	172	110.97	-1.74
2	*2437.00	99.17 AV			1.52 V	172	100.91	-1.74
3	4874.00	56.23 PK	74.00	-17.77	1.13 V	324	51.36	4.87
4	4874.00	42.44 AV	54.00	-11.56	1.13 V	324	37.57	4.87
5	18000.00	56.36 PK	74.00	-17.64	1.53 V	113	33.88	22.48
6	18000.00	48.35 AV	54.00	-5.65	1.53 V	113	25.87	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

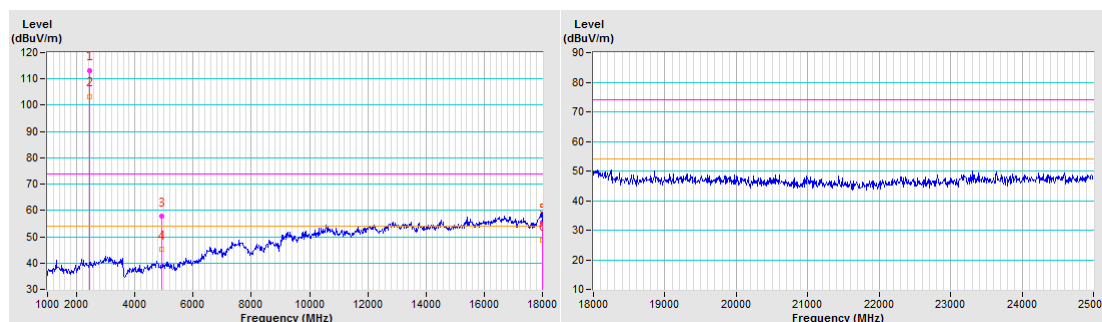


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	113.33 PK			1.00 H	200	114.95	-1.62
2	*2462.00	103.40 AV			1.00 H	200	105.02	-1.62
3	4924.00	57.88 PK	74.00	-16.12	1.21 H	347	53.08	4.80
4	4924.00	45.29 AV	54.00	-8.71	1.21 H	347	40.49	4.80
5	18000.00	55.57 PK	74.00	-18.43	2.68 H	254	33.09	22.48
6	18000.00	48.71 AV	54.00	-5.29	2.68 H	254	26.23	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

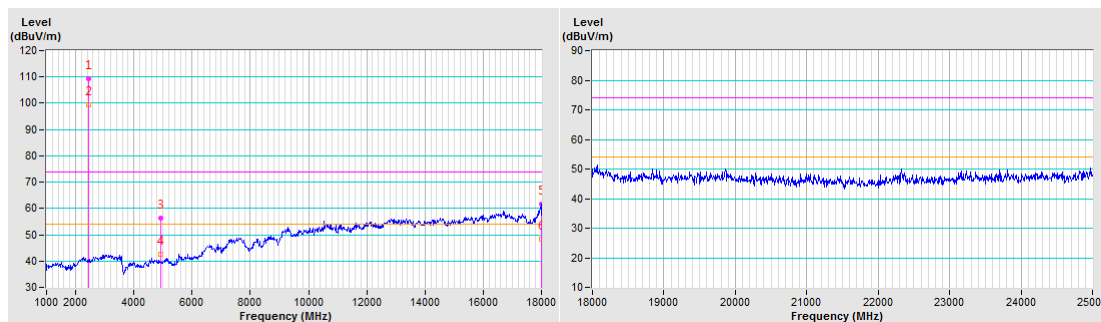


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.42 PK			1.45 V	162	111.04	-1.62
2	*2462.00	99.53 AV			1.45 V	162	101.15	-1.62
3	4924.00	56.22 PK	74.00	-17.78	1.16 V	358	51.42	4.80
4	4924.00	42.63 AV	54.00	-11.37	1.16 V	358	37.83	4.80
5	18000.00	61.57 PK	74.00	-12.43	1.47 V	158	39.09	22.48
6	18000.00	48.33 AV	54.00	-5.67	1.47 V	158	25.85	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

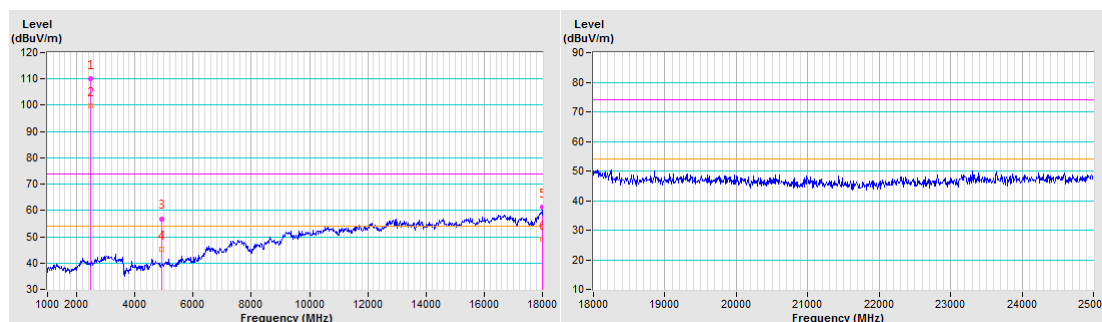


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	109.95 PK			1.00 H	207	111.51	-1.56
2	*2467.00	99.76 AV			1.00 H	207	101.32	-1.56
3	4934.00	56.87 PK	74.00	-17.13	1.23 H	348	52.10	4.77
4	4934.00	45.23 AV	54.00	-8.77	1.23 H	348	40.46	4.77
5	18000.00	61.26 PK	74.00	-12.74	2.56 H	244	38.78	22.48
6	18000.00	48.88 AV	54.00	-5.12	2.56 H	244	26.40	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

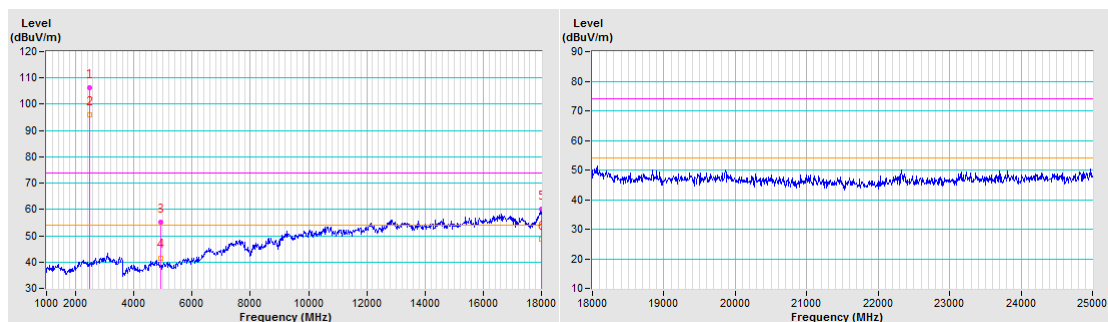


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	106.10 PK			1.51 V	173	107.66	-1.56
2	*2467.00	95.88 AV			1.51 V	173	97.44	-1.56
3	4934.00	55.28 PK	74.00	-18.72	1.29 V	336	50.51	4.77
4	4934.00	41.63 AV	54.00	-12.37	1.29 V	336	36.86	4.77
5	18000.00	60.21 PK	74.00	-13.79	1.33 V	148	37.73	22.48
6	18000.00	48.52 AV	54.00	-5.48	1.33 V	148	26.04	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

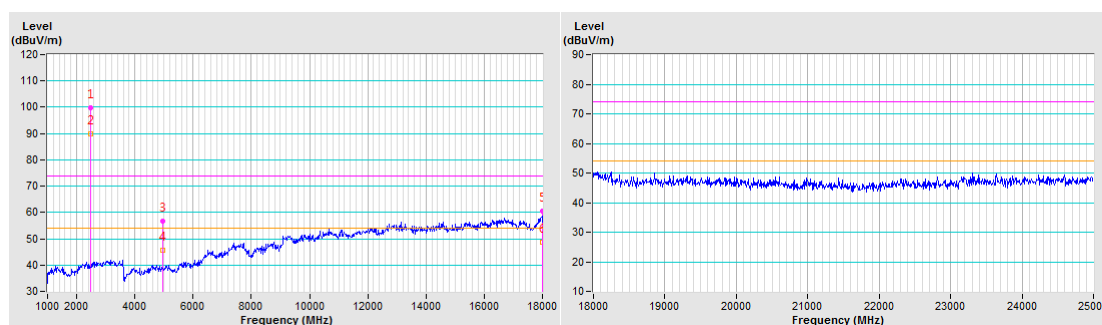


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	99.84 PK			1.06 H	205	101.33	-1.49
2	*2472.00	89.70 AV			1.06 H	205	91.19	-1.49
3	4944.00	56.78 PK	74.00	-17.22	1.24 H	337	52.04	4.74
4	4944.00	45.49 AV	54.00	-8.51	1.24 H	337	40.75	4.74
5	18000.00	60.40 PK	74.00	-13.60	2.28 H	240	37.92	22.48
6	18000.00	48.79 AV	54.00	-5.21	2.28 H	240	26.31	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

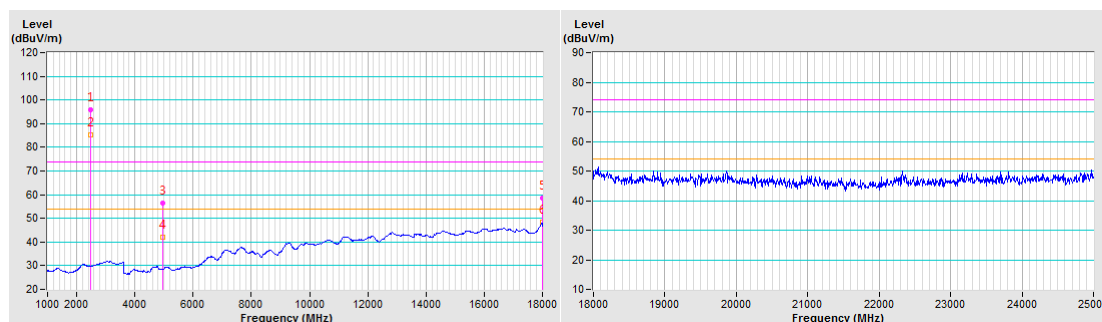


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	95.78 PK			1.55 V	175	97.27	-1.49
2	*2472.00	85.23 AV			1.55 V	175	86.72	-1.49
3	4944.00	56.38 PK	74.00	-17.62	1.24 V	359	51.64	4.74
4	4944.00	42.10 AV	54.00	-11.90	1.24 V	359	37.36	4.74
5	18000.00	58.61 PK	74.00	-15.39	1.27 V	142	36.13	22.48
6	18000.00	48.54 AV	54.00	-5.46	1.27 V	142	26.06	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency



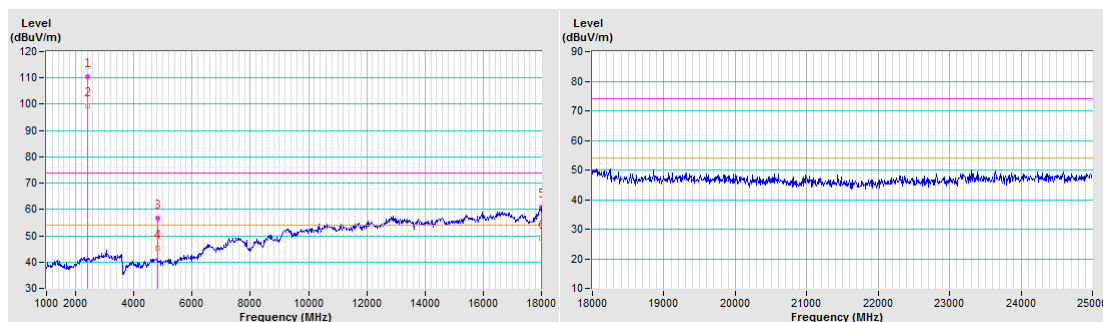
802.11n (HT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	110.49 PK			1.01 H	206	112.11	-1.62
2	*2412.00	99.26 AV			1.01 H	206	100.88	-1.62
3	4824.00	56.84 PK	74.00	-17.16	1.23 H	114	52.05	4.79
4	4824.00	45.36 AV	54.00	-8.64	1.23 H	114	40.57	4.79
5	18000.00	60.97 PK	74.00	-13.03	2.48 H	256	38.49	22.48
6	18000.00	48.96 AV	54.00	-5.04	2.48 H	256	26.48	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

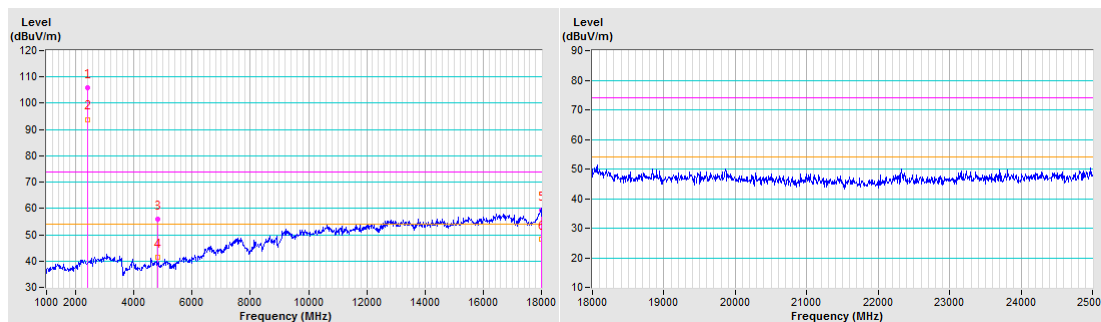


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2412.00	105.99 PK			1.61 V	178	107.61	-1.62
2	*2412.00	93.85 AV			1.61 V	178	95.47	-1.62
3	4824.00	55.87 PK	74.00	-18.13	1.16 V	347	51.08	4.79
4	4824.00	41.36 AV	54.00	-12.64	1.16 V	347	36.57	4.79
5	18000.00	59.23 PK	74.00	-14.77	1.44 V	162	36.75	22.48
6	18000.00	48.38 AV	54.00	-5.62	1.44 V	162	25.90	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

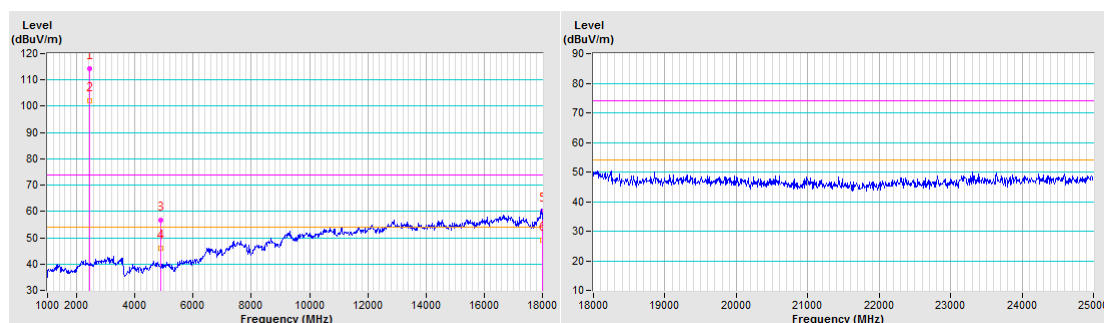


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	114.24 PK			1.00 H	204	115.98	-1.74
2	*2437.00	102.16 AV			1.00 H	204	103.90	-1.74
3	4874.00	56.54 PK	74.00	-17.46	1.16 H	354	51.67	4.87
4	4874.00	45.85 AV	54.00	-8.15	1.16 H	354	40.98	4.87
5	18000.00	60.15 PK	74.00	-13.85	2.63 H	261	37.67	22.48
6	18000.00	48.88 AV	54.00	-5.12	2.63 H	261	26.40	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

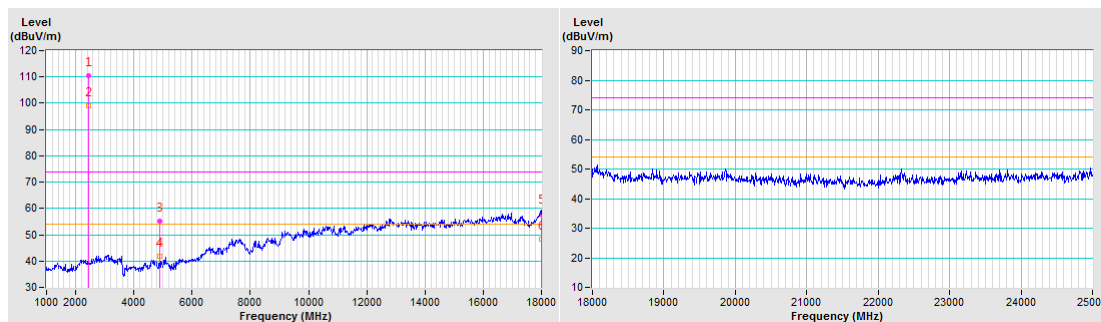


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	110.31 PK			1.58 V	182	112.05	-1.74
2	*2437.00	98.89 AV			1.58 V	182	100.63	-1.74
3	4874.00	55.17 PK	74.00	-18.83	1.47 V	335	50.30	4.87
4	4874.00	41.89 AV	54.00	-12.11	1.47 V	335	37.02	4.87
5	18000.00	58.02 PK	74.00	-15.98	1.55 V	158	35.54	22.48
6	18000.00	48.40 AV	54.00	-5.60	1.55 V	158	25.92	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

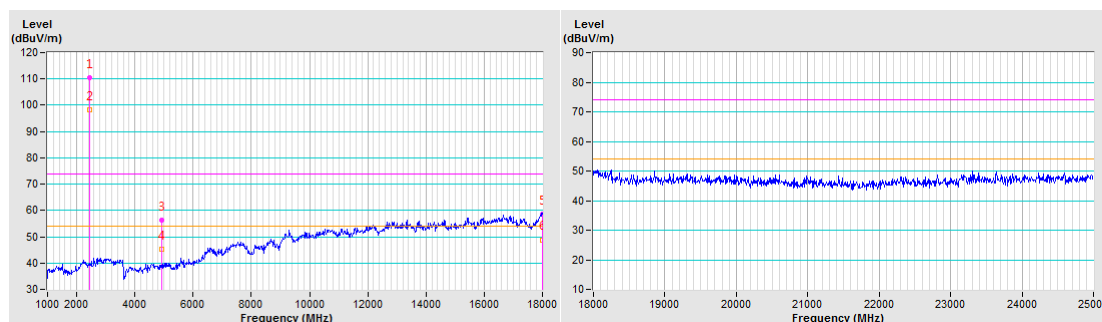


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.50 PK			1.00 H	204	112.12	-1.62
2	*2462.00	98.34 AV			1.00 H	204	99.96	-1.62
3	4924.00	56.37 PK	74.00	-17.63	1.19 H	351	51.57	4.80
4	4924.00	45.18 AV	54.00	-8.82	1.19 H	351	40.38	4.80
5	18000.00	58.63 PK	74.00	-15.37	2.52 H	278	36.15	22.48
6	18000.00	48.85 AV	54.00	-5.15	2.52 H	278	26.37	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

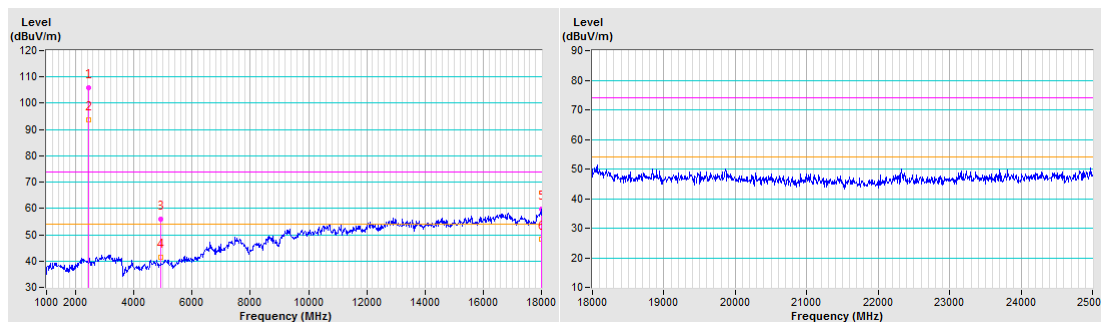


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	105.84 PK			1.43 V	169	107.46	-1.62
2	*2462.00	93.67 AV			1.43 V	169	95.29	-1.62
3	4924.00	55.84 PK	74.00	-18.16	1.23 V	332	51.04	4.80
4	4924.00	41.36 AV	54.00	-12.64	1.23 V	332	36.56	4.80
5	18000.00	59.58 PK	74.00	-14.42	1.64 V	139	37.10	22.48
6	18000.00	48.29 AV	54.00	-5.71	1.64 V	139	25.81	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

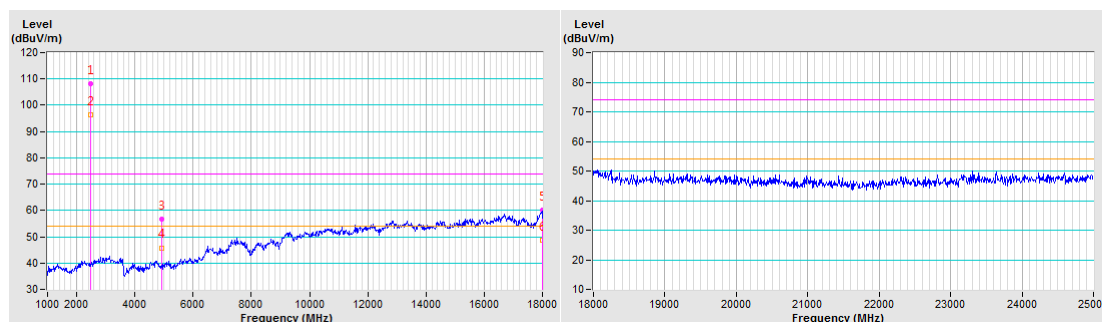


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	108.19 PK			1.00 H	208	109.75	-1.56
2	*2467.00	96.24 AV			1.00 H	208	97.80	-1.56
3	4934.00	56.63 PK	74.00	-17.37	1.23 H	352	51.86	4.77
4	4934.00	45.81 AV	54.00	-8.19	1.23 H	352	41.04	4.77
5	18000.00	60.06 PK	74.00	-13.94	2.66 H	216	37.58	22.48
6	18000.00	48.83 AV	54.00	-5.17	2.66 H	216	26.35	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

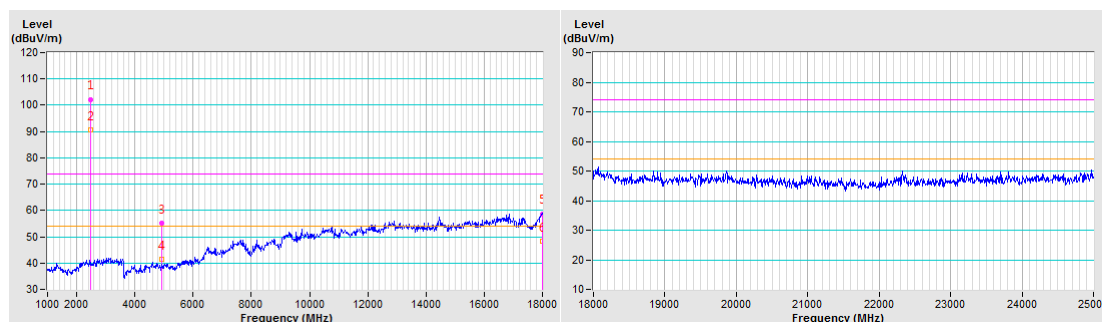


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2467.00	102.23 PK			1.58 V	162	103.79	-1.56
2	*2467.00	90.69 AV			1.58 V	162	92.25	-1.56
3	4934.00	55.13 PK	74.00	-18.87	1.44 V	359	50.36	4.77
4	4934.00	41.32 AV	54.00	-12.68	1.44 V	359	36.55	4.77
5	18000.00	58.78 PK	74.00	-15.22	1.88 V	157	36.30	22.48
6	18000.00	48.43 AV	54.00	-5.57	1.88 V	157	25.95	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

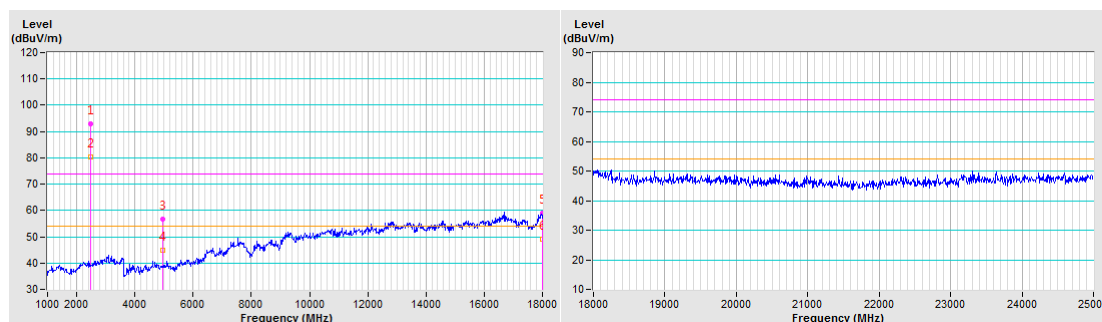


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	92.76 PK			1.00 H	199	94.25	-1.49
2	*2472.00	80.26 AV			1.00 H	199	81.75	-1.49
3	4944.00	56.54 PK	74.00	-17.46	1.17 H	344	51.80	4.74
4	4944.00	44.71 AV	54.00	-9.29	1.17 H	344	39.97	4.74
5	18000.00	59.08 PK	74.00	-14.92	2.78 H	249	36.60	22.48
6	18000.00	48.91 AV	54.00	-5.09	2.78 H	249	26.43	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency

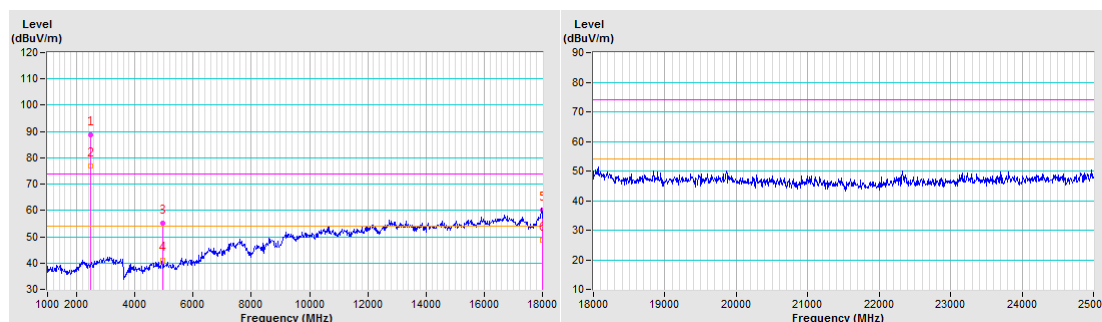


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2472.00	88.79 PK			1.43 V	165	90.28	-1.49
2	*2472.00	76.96 AV			1.43 V	165	78.45	-1.49
3	4944.00	55.24 PK	74.00	-18.76	1.82 V	353	50.50	4.74
4	4944.00	41.08 AV	54.00	-12.92	1.82 V	353	36.34	4.74
5	18000.00	60.09 PK	74.00	-13.91	1.44 V	159	37.61	22.48
6	18000.00	48.56 AV	54.00	-5.44	1.44 V	159	26.08	22.48

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency



4.1.8 Test Results for Bandedge above 1GHz

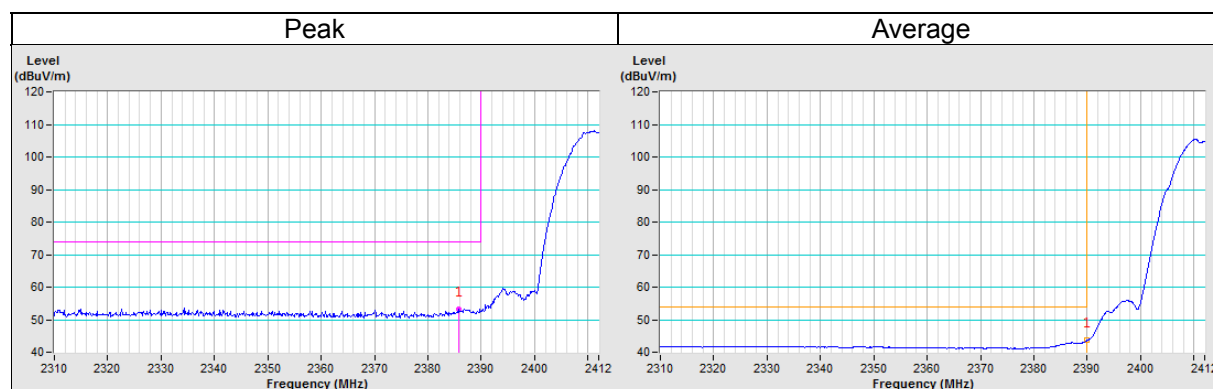
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2385.68	53.33 PK	74.00	-20.67	1.45 H	27	54.79	-1.46
AV.1	2389.99	43.73 AV	54.00	-10.27	1.45 H	27	45.23	-1.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

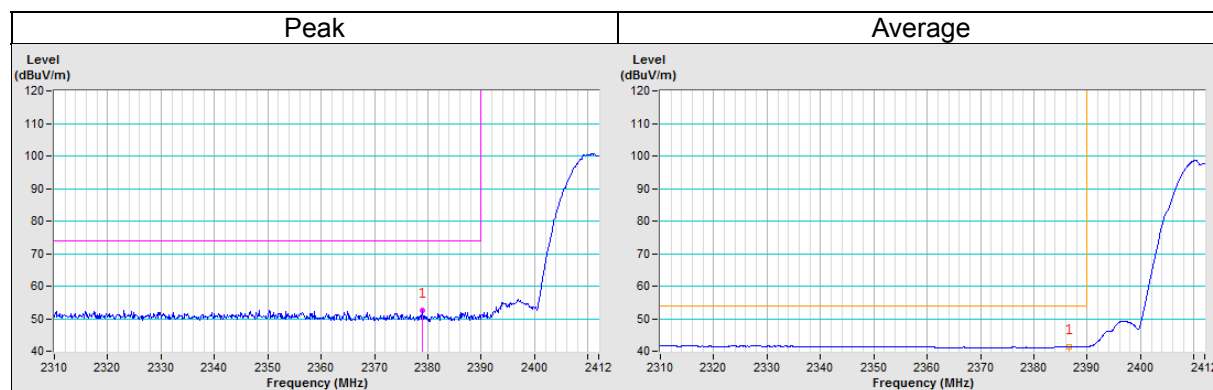


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2378.95	52.60 PK	74.00	-21.40	1.25 V	180	54.00	-1.40
AV.1	2386.60	41.44 AV	54.00	-12.56	1.25 V	180	42.91	-1.47

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

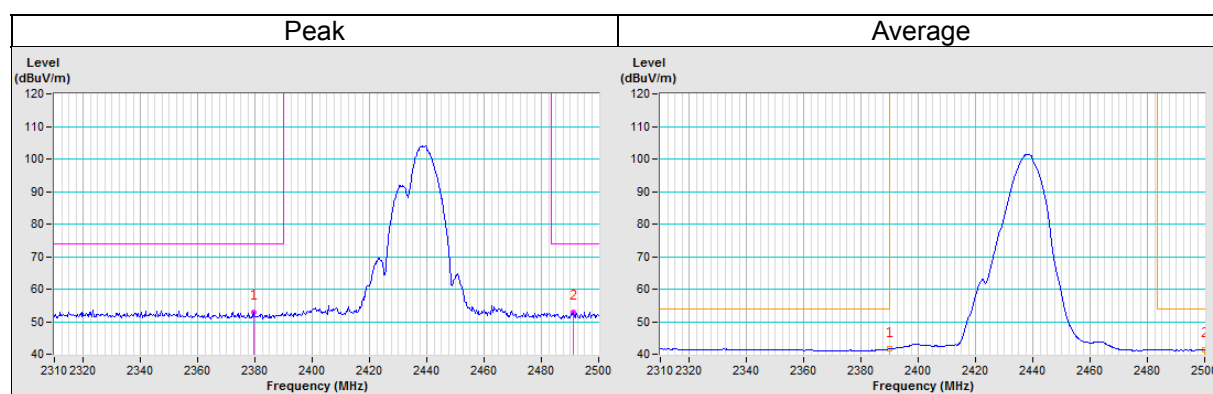


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2379.54	52.90 PK	74.00	-21.10	1.51 H	23	54.31	-1.41
PK.2	2491.26	52.86 PK	74.00	-21.14	1.51 H	23	54.06	-1.20
AV.1	2389.99	41.54 AV	54.00	-12.46	1.51 H	23	43.04	-1.50
AV.2	2500.00	41.32 AV	54.00	-12.68	1.51 H	23	42.40	-1.08

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

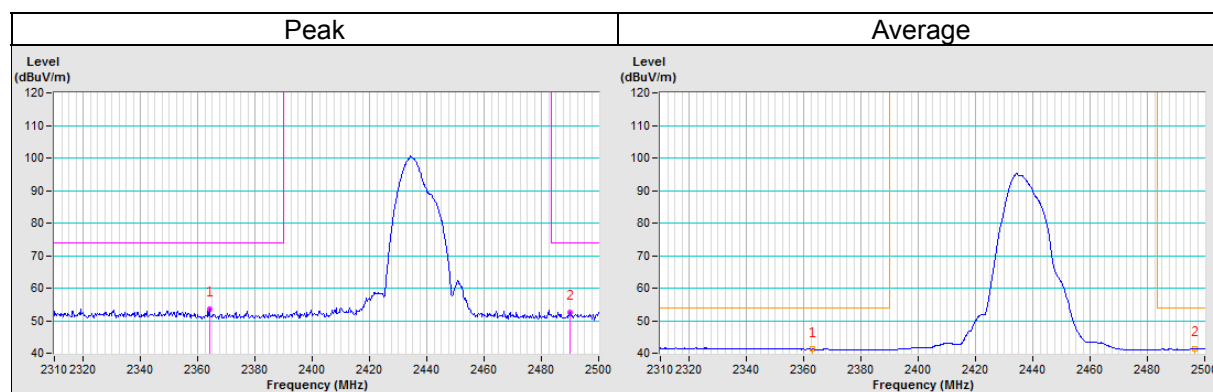


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2364.15	53.57 PK	74.00	-20.43	1.27 V	184	54.87	-1.30
PK.2	2489.93	52.58 PK	74.00	-21.42	1.27 V	184	53.80	-1.22
AV.1	2363.20	41.24 AV	54.00	-12.76	1.27 V	184	42.53	-1.29
AV.2	2496.39	41.34 AV	54.00	-12.66	1.27 V	184	42.47	-1.13

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

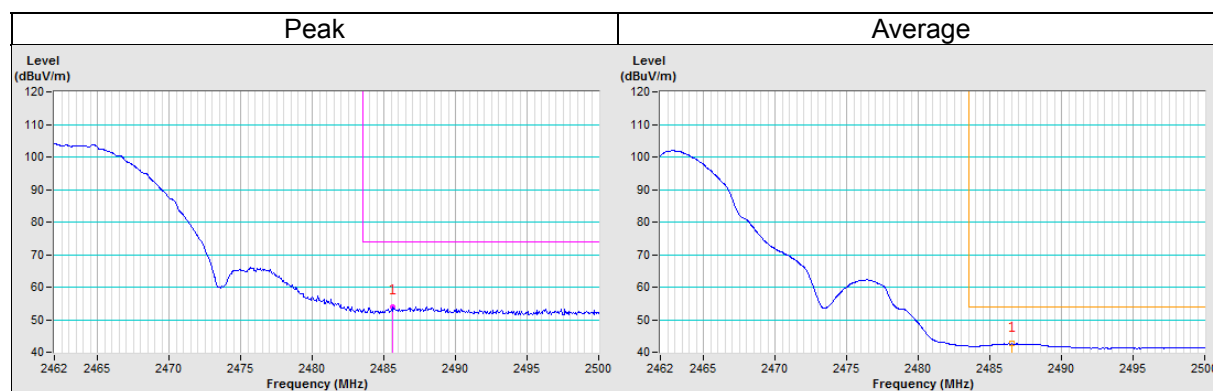


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2485.60	53.95 PK	74.00	-20.05	1.47 H	17	55.23	-1.28
AV.1	2486.55	42.56 AV	54.00	-11.44	1.47 H	17	43.83	-1.27

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

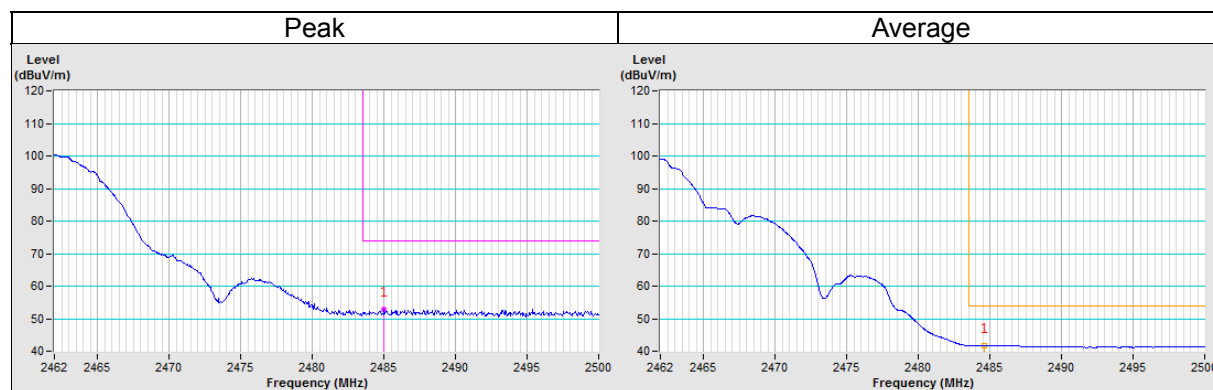


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2485.03	52.82 PK	74.00	-21.18	1.29 V	181	54.12	-1.30
AV.1	2484.65	41.78 AV	54.00	-12.22	1.29 V	181	43.08	-1.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

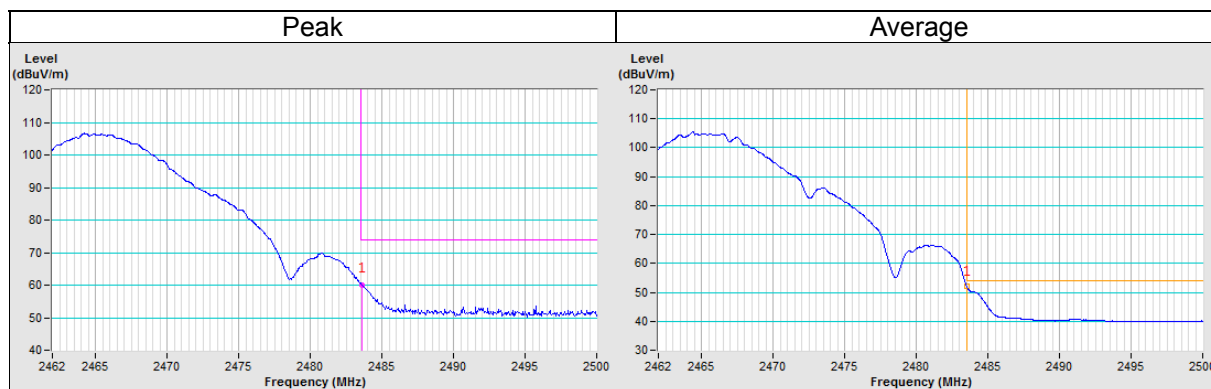


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.58	60.12 PK	74.00	-13.88	3.22 H	318	61.44	-1.32
AV.1	2483.50	52.17 AV	54.00	-1.83	3.22 H	318	53.49	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

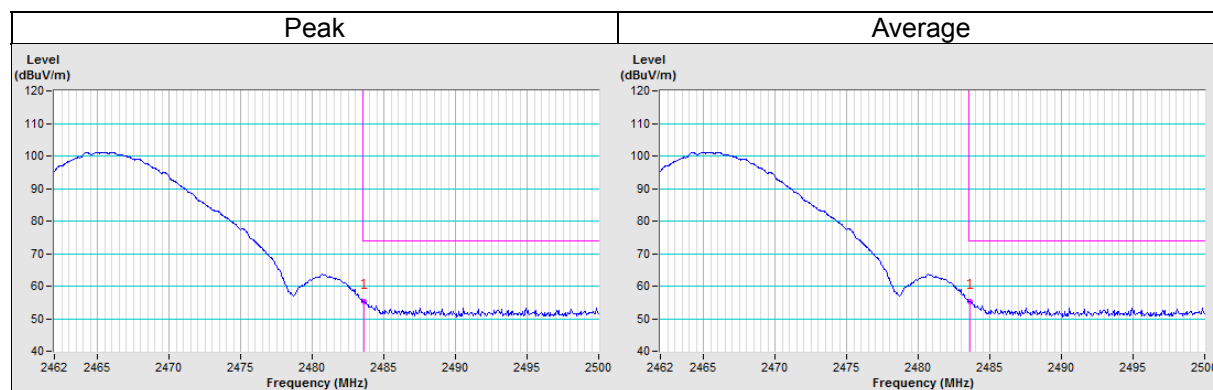


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.58	55.26 PK	74.00	-18.74	1.29 V	178	56.58	-1.32
AV.1	2483.58	48.33 AV	54.00	-5.67	1.29 V	178	49.65	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

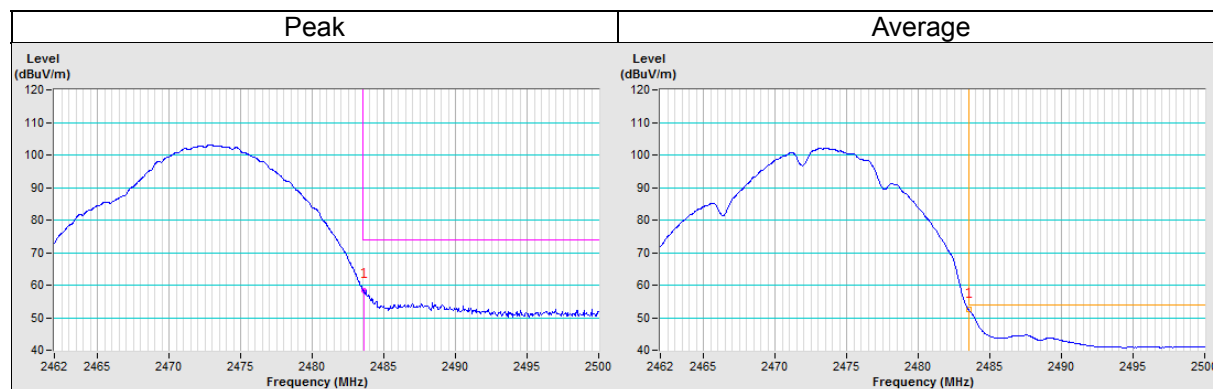


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.58	58.45 PK	74.00	-15.55	3.27 H	322	59.77	-1.32
AV.1	2483.51	52.39 AV	54.00	-1.61	3.27 H	322	53.71	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

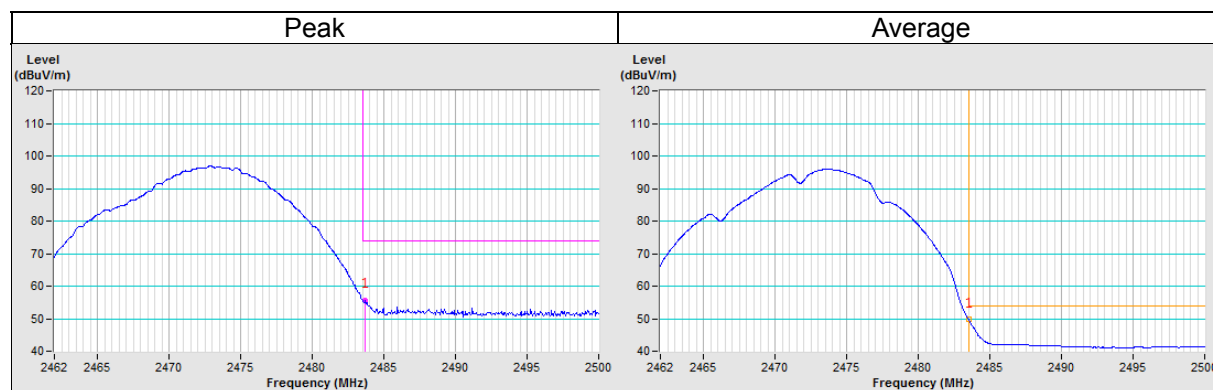


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.70	55.62 PK	74.00	-18.38	1.34 V	181	56.94	-1.32
AV.1	2483.51	49.71 AV	54.00	-4.29	1.34 V	181	51.03	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value



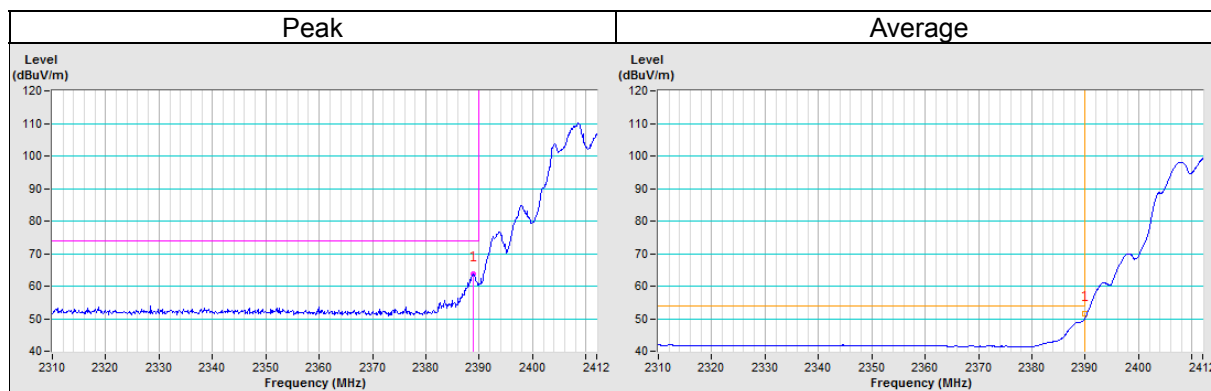
802.11g

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2388.95	63.81 PK	74.00	-10.19	1.00 H	202	65.30	-1.49
AV.1	2389.99	51.59 AV	54.00	-2.41	1.00 H	202	53.09	-1.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

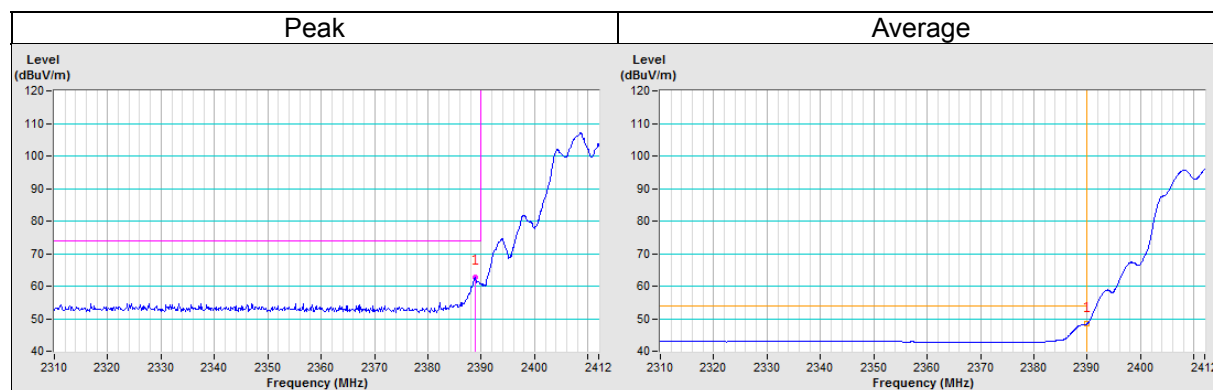


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2388.95	62.70 PK	74.00	-11.30	1.47 V	166	64.19	-1.49
AV.1	2389.97	48.31 AV	54.00	-5.69	1.47 V	166	49.81	-1.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

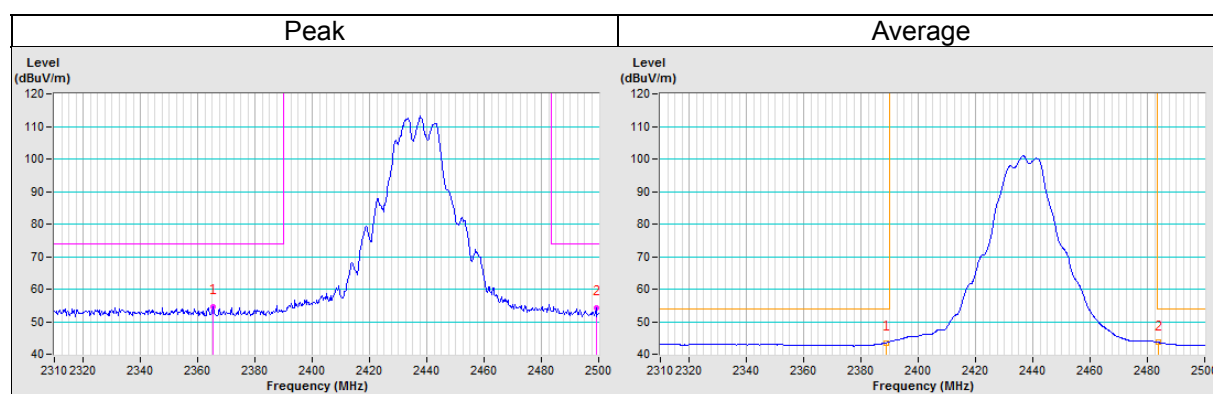


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2365.29	54.54 PK	74.00	-19.46	1.00 H	203	55.84	-1.30
PK.2	2499.05	54.23 PK	74.00	-19.77	1.00 H	203	55.32	-1.09
AV.1	2388.66	43.46 AV	54.00	-10.54	1.00 H	203	44.94	-1.48
AV.2	2483.85	43.64 AV	54.00	-10.36	1.00 H	203	44.95	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

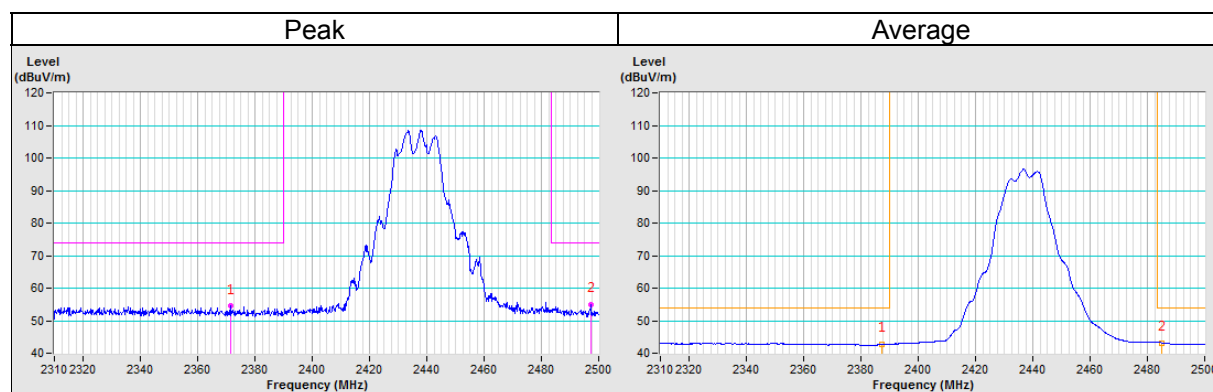


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2371.35	54.42 PK	74.00	-19.58	1.52 V	172	55.77	-1.35
PK.2	2497.30	54.87 PK	74.00	-19.13	1.52 V	172	55.98	-1.11
AV.1	2387.18	42.65 AV	54.00	-11.35	1.52 V	172	44.12	-1.47
AV.2	2485.12	43.15 AV	54.00	-10.85	1.52 V	172	44.45	-1.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

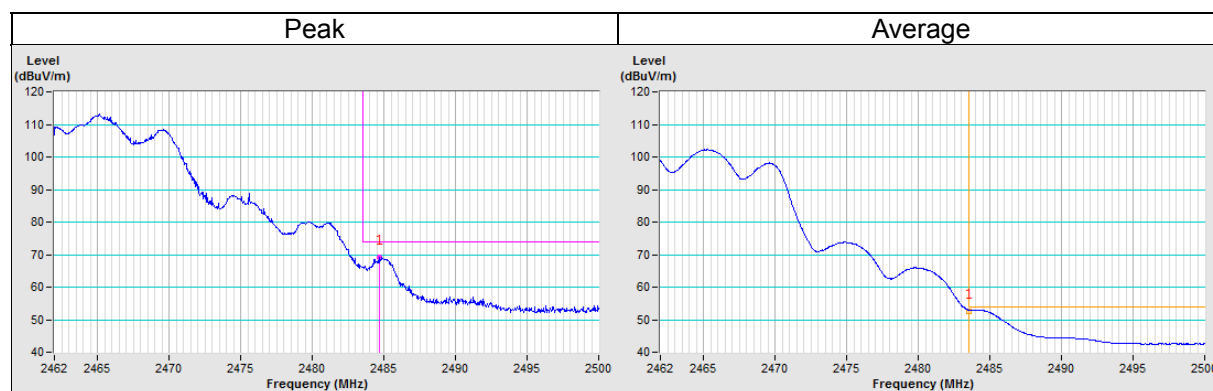


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2484.68	69.23 PK	74.00	-4.77	1.00 H	200	70.53	-1.30
AV.2	2483.50	52.49 AV	54.00	-1.51	1.00 H	200	53.47	-0.98

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

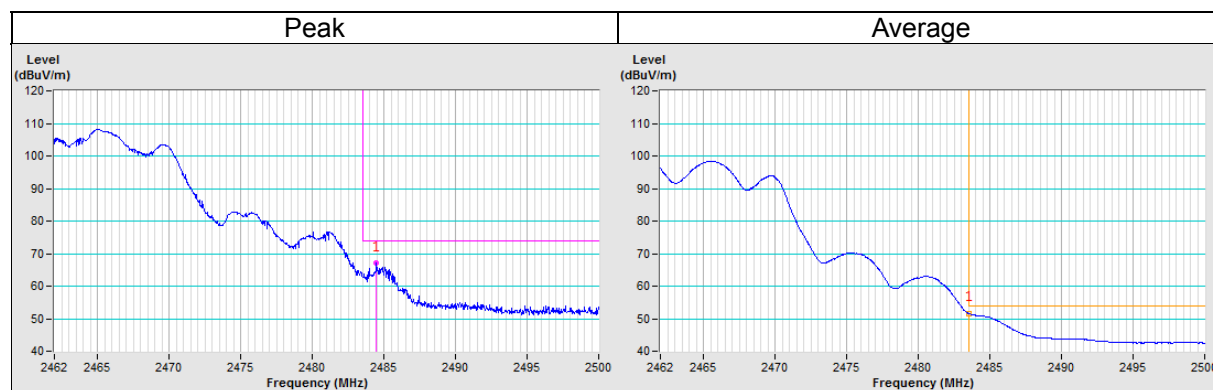


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2484.47	66.95 PK	74.00	-7.05	1.45 V	358	68.26	-1.31
AV.1	2483.50	51.60 AV	54.00	-2.40	1.45 V	162	52.92	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

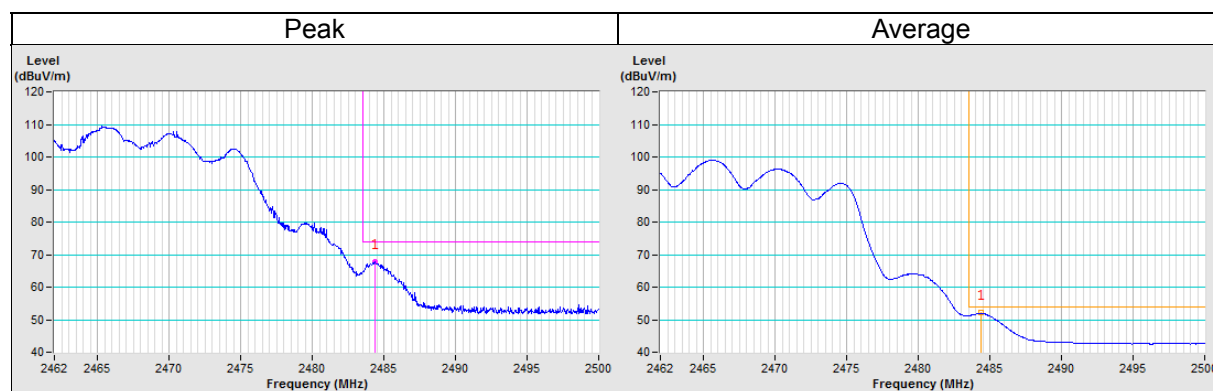


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2484.35	67.78 PK	74.00	-6.22	1.00 H	207	69.09	-1.31
AV.1	2484.38	52.12 AV	54.00	-1.88	1.00 H	207	53.43	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

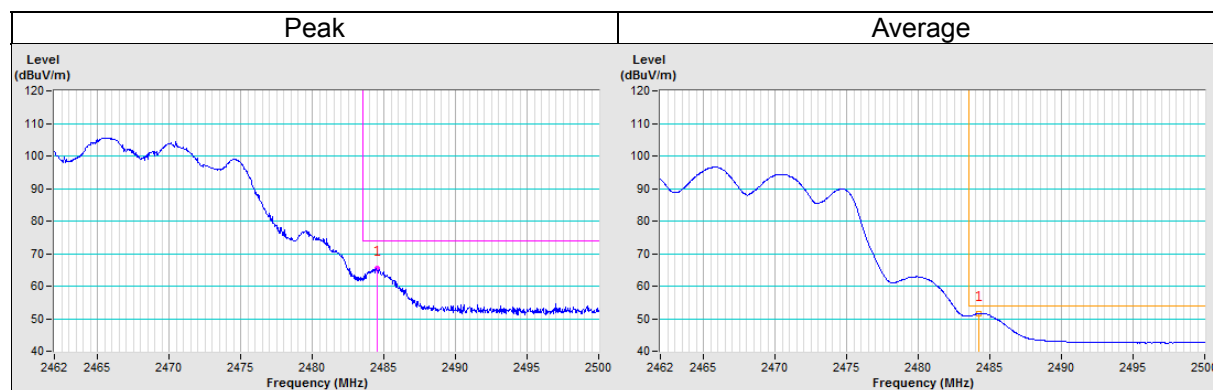


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2484.50	65.49 PK	74.00	-8.51	1.51 V	173	66.80	-1.31
AV.1	2484.25	51.67 AV	54.00	-2.33	1.51 V	173	52.98	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

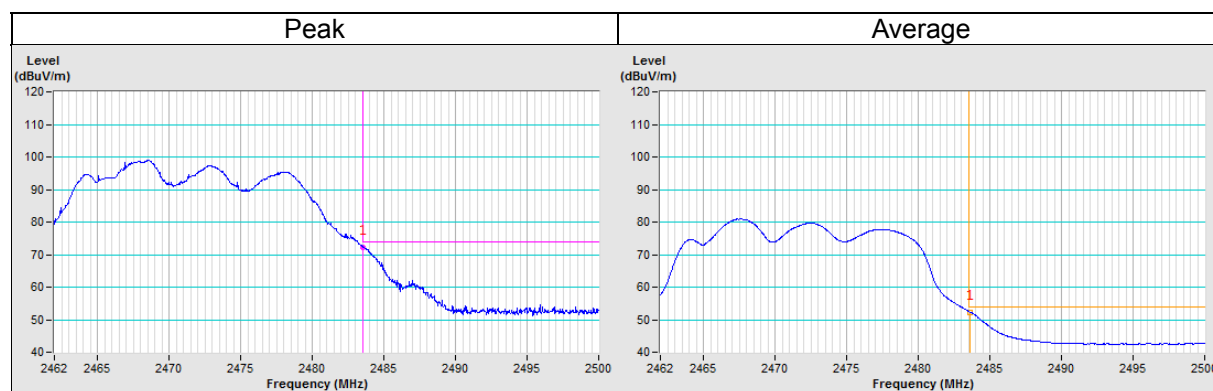


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.50	72.37 PK	74.00	-1.63	1.06 H	205	73.69	-1.32
AV.1	2483.58	52.32 AV	54.00	-1.68	1.06 H	205	53.64	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

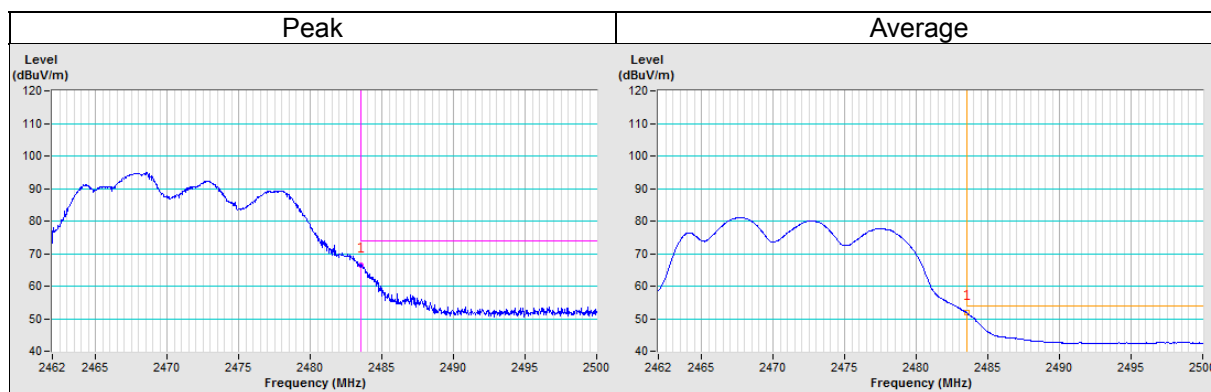


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.50	66.37 PK	74.00	-7.63	1.55 V	175	67.69	-1.32
AV.1	2483.50	51.83 AV	54.00	-2.17	1.55 V	175	53.15	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value



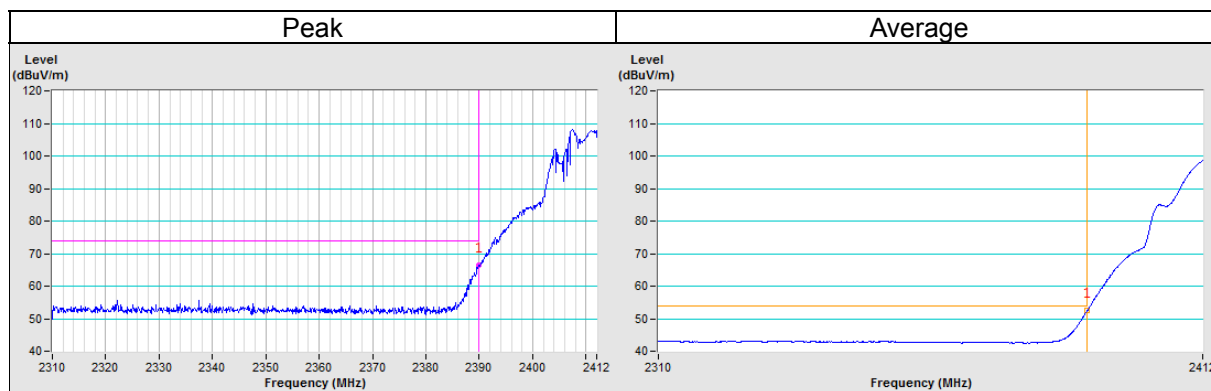
802.11n (HT20)

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2390.00	66.58 PK	74.00	-7.42	1.01 H	206	68.08	-1.50
AV.1	2390.00	52.49 AV	54.00	-1.51	1.01 H	206	53.99	-1.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

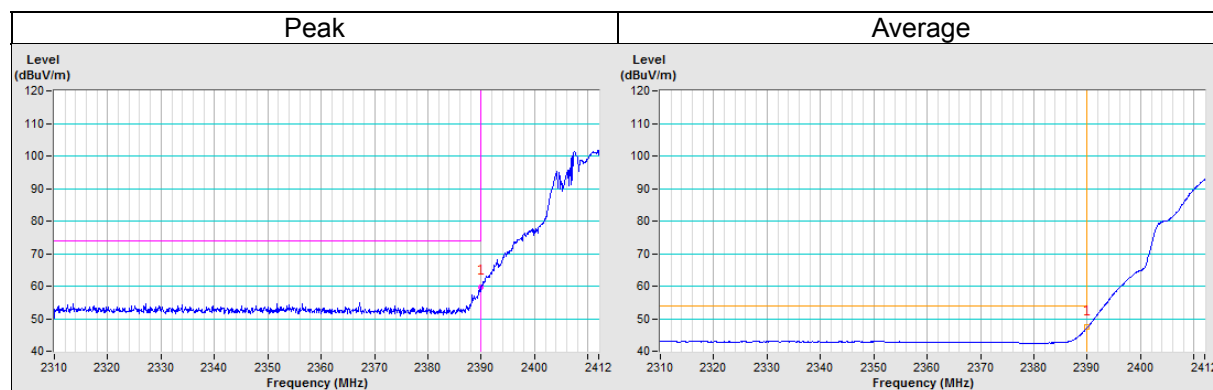


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2412MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2389.96	59.83 PK	74.00	-14.17	1.61 V	178	61.33	-1.50
AV.1	2390.00	47.34 AV	54.00	-6.66	1.61 V	178	48.84	-1.50

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

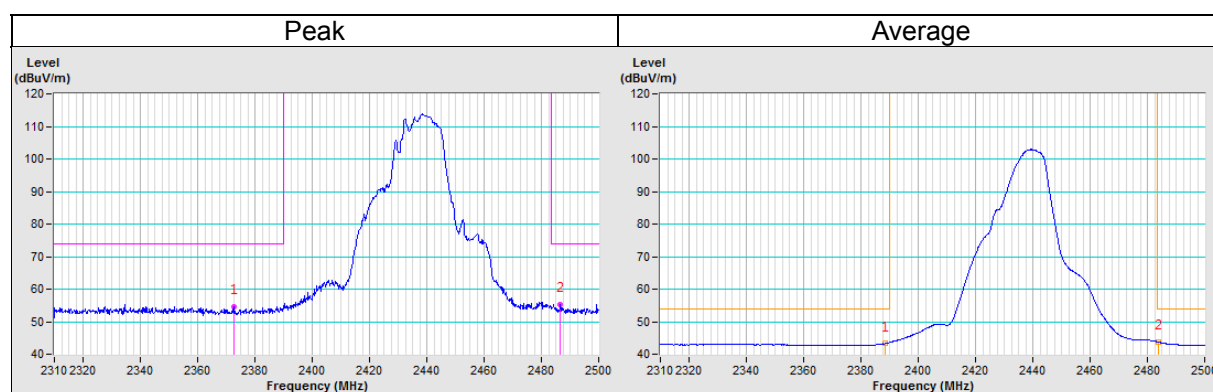


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2372.66	54.52 PK	74.00	-19.48	1.00 H	204	55.88	-1.36
PK.2	2486.63	55.23 PK	74.00	-18.77	1.00 H	204	56.50	-1.27
AV.1	2388.37	43.30 AV	54.00	-10.70	1.00 H	204	44.78	-1.48
AV.2	2483.86	43.73 AV	54.00	-10.27	1.00 H	204	45.04	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

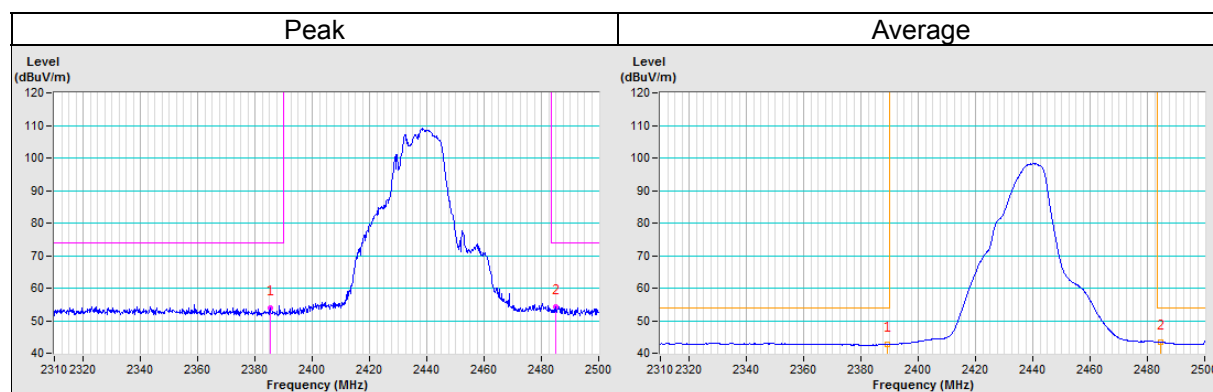


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2310MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2385.41	53.85 PK	74.00	-20.15	1.58 V	182	55.31	-1.46
PK.2	2484.94	54.22 PK	74.00	-19.78	1.58 V	182	55.52	-1.30
AV.1	2389.40	42.73 AV	54.00	-11.27	1.58 V	182	44.22	-1.49
AV.2	2484.52	43.37 AV	54.00	-10.63	1.58 V	182	44.68	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

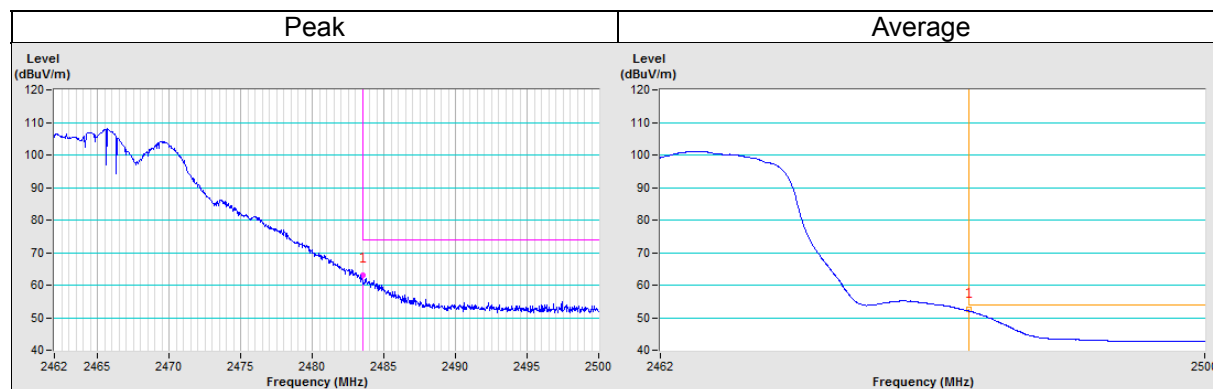


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.50	63.10 PK	74.00	-10.90	1.00 H	204	64.42	-1.32
AV.1	2483.50	52.41 AV	54.00	-1.59	1.00 H	204	53.73	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

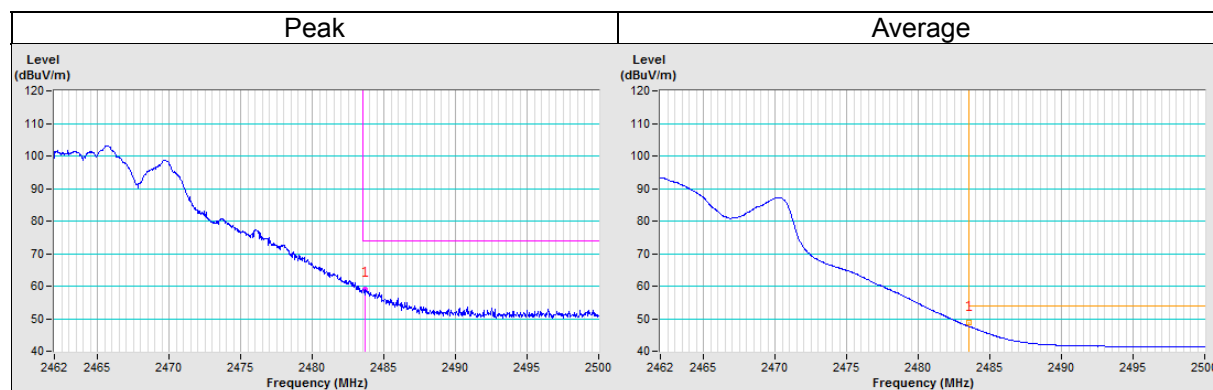


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.69	59.04 PK	74.00	-14.96	1.43 V	169	60.36	-1.32
AV.1	2483.50	48.66 AV	54.00	-5.34	1.43 V	169	49.98	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

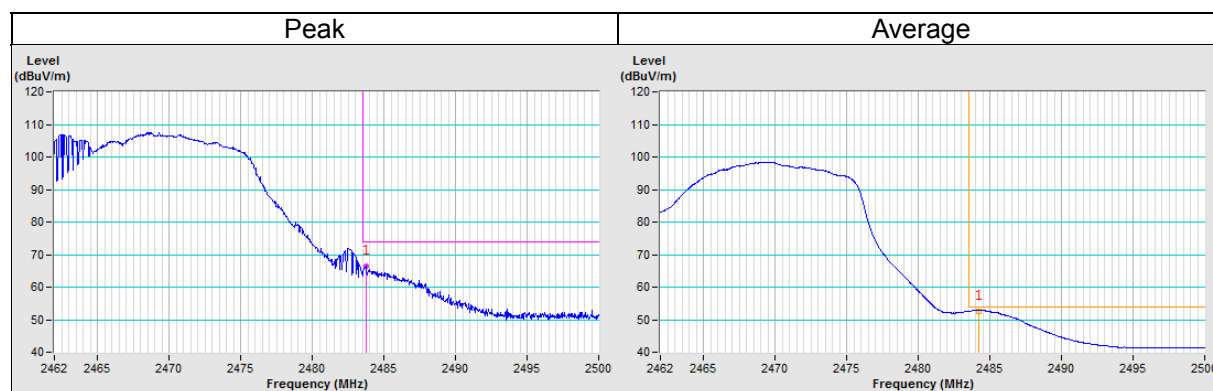


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.74	66.34 PK	74.00	-7.66	1.00 H	208	67.66	-1.32
AV.1	2484.23	52.42 AV	54.00	-1.58	1.00 H	208	53.73	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

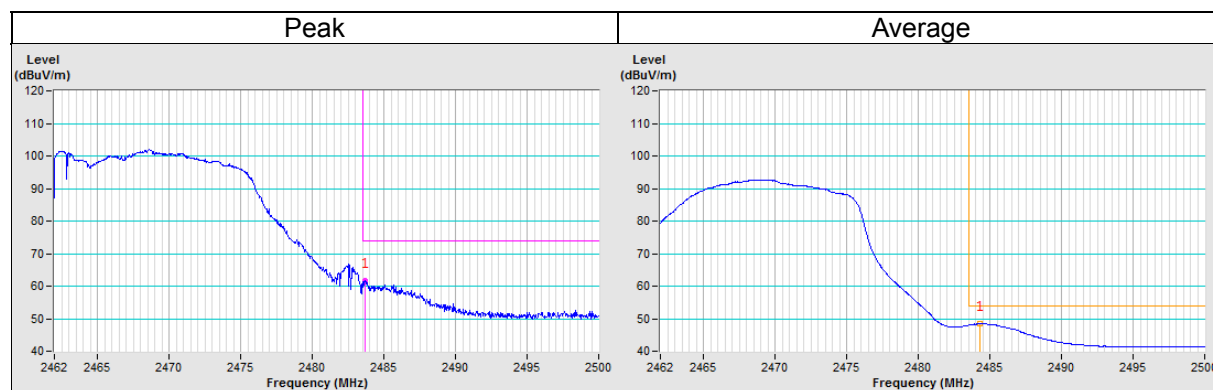


CHANNEL	TX Channel 12	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.67	61.74 PK	74.00	-12.26	1.58 V	162	63.06	-1.32
AV.1	2484.31	48.40 AV	54.00	-5.60	1.58 V	162	49.71	-1.31

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

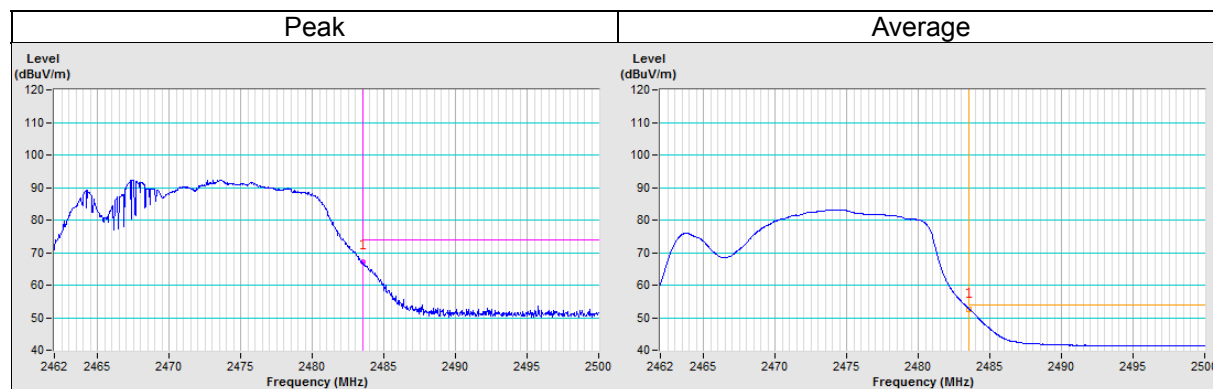


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.50	67.23 PK	74.00	-6.77	1.00 H	199	68.55	-1.32
AV.1	2483.53	52.43 AV	54.00	-1.57	1.00 H	199	53.75	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value

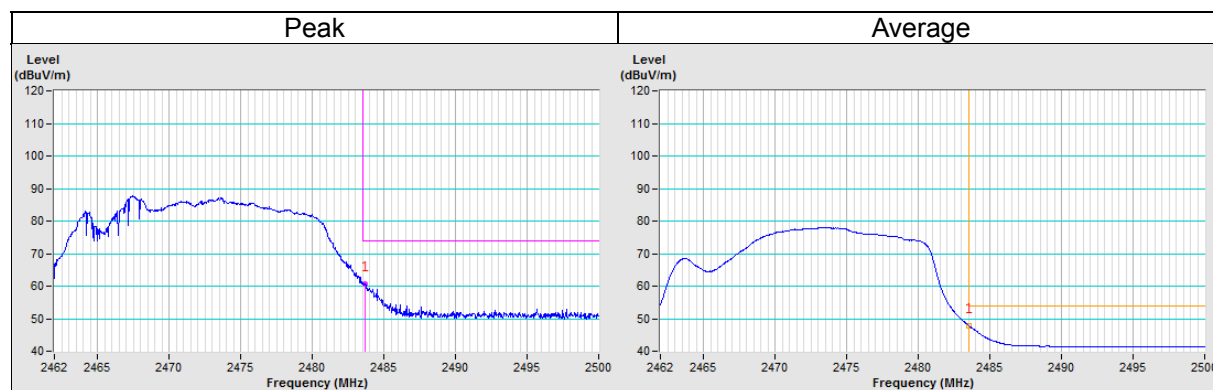


CHANNEL	TX Channel 13	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	2462MHz ~ 2500MHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
PK.1	2483.68	60.84 PK	74.00	-13.16	1.43 V	165	62.16	-1.32
AV.1	2483.53	47.78 AV	54.00	-6.22	1.43 V	165	49.10	-1.32

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit
4. Margin value = Emission Level – Limit value



4.1.9 Test Results for below 1GHz

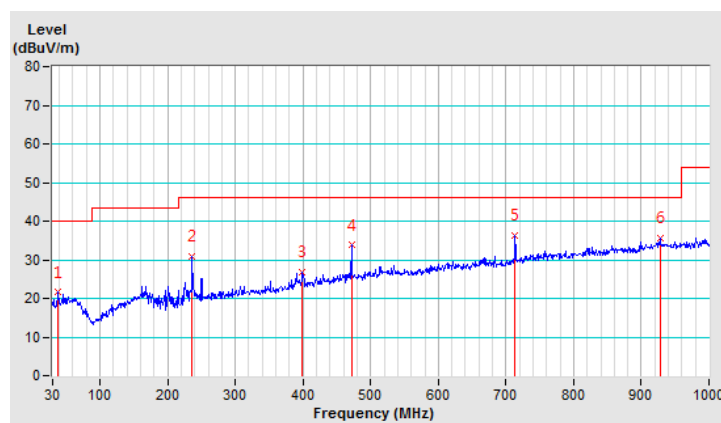
802.11b

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.71	21.56 PK	40.00	-18.44	2.05 H	360	29.72	-8.16
2	236.08	30.86 PK	46.00	-15.14	1.67 H	240	39.22	-8.36
3	399.52	26.87 PK	46.00	-19.13	2.28 H	360	30.26	-3.39
4	472.13	33.74 PK	46.00	-12.26	1.29 H	235	35.45	-1.71
5	713.80	36.43 PK	46.00	-9.57	2.39 H	174	33.78	2.65
6	927.54	35.60 PK	46.00	-10.40	1.87 H	337	29.23	6.37

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report
6. The PK detector measurement value is much smaller than the limit QP value, so the pass is determined

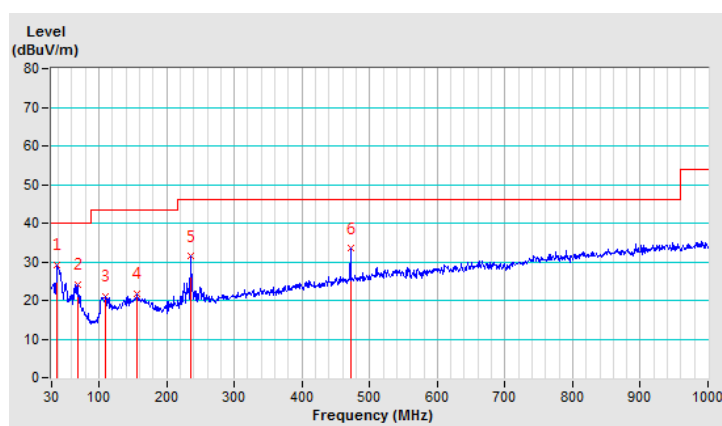


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.91	29.11 PK	40.00	-10.89	1.64 V	73	37.23	-8.12
2	67.93	24.21 PK	40.00	-15.79	1.00 V	161	32.45	-8.24
3	109.73	21.18 PK	43.50	-22.32	1.28 V	142	31.53	-10.35
4	156.63	21.81 PK	43.50	-21.69	1.84 V	171	28.61	-6.80
5	236.08	31.37 PK	46.00	-14.63	1.19 V	16	39.73	-8.36
6	472.13	33.43 PK	46.00	-12.57	1.27 V	31	35.14	-1.71

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report
6. The PK detector measurement value is much smaller than the limit QP value, so the pass is determined



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Sep. 03, 2018	Sep. 02, 2019
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2018	Sep. 04, 2019
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 26, 2018	Feb. 25, 2019
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 19, 2018	Aug. 18, 2019
Software ADT	BV ADT_Conf_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

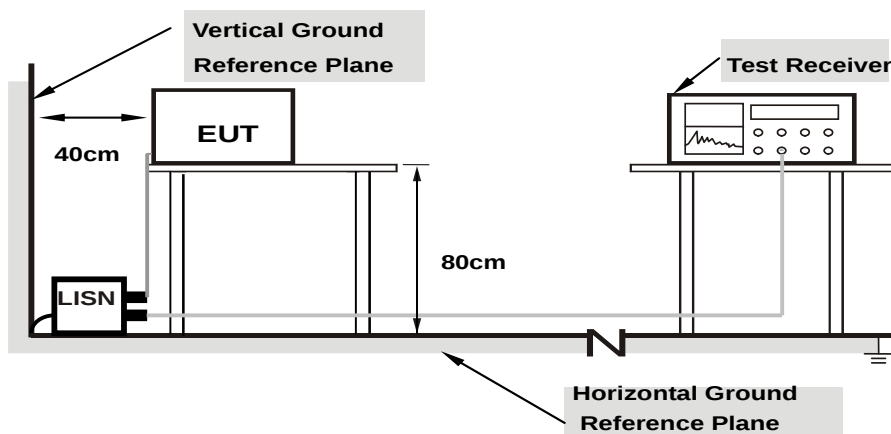
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data:

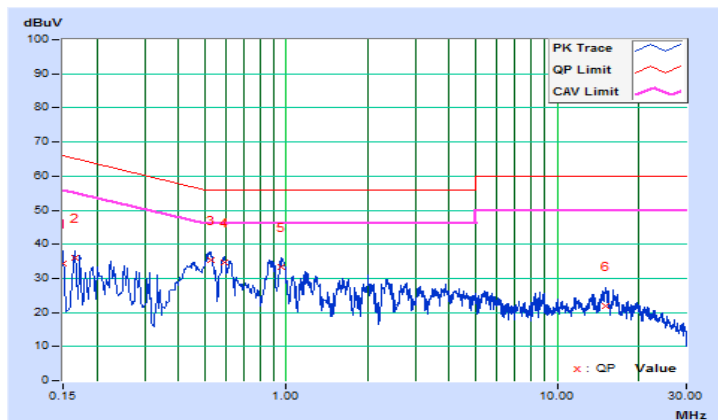
802.11b

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	----------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.73	24.69	7.88	34.42	17.61	66.00	56.00	-31.58	-38.39
2	0.16569	9.73	26.44	11.37	36.17	21.10	65.17	55.17	-29.00	-34.07
3	0.52960	9.73	25.59	17.61	35.32	27.34	56.00	46.00	-20.68	-18.66
4	0.58847	9.73	25.01	17.46	34.74	27.19	56.00	46.00	-21.26	-18.81
5	0.96319	9.68	23.78	16.05	33.46	25.73	56.00	46.00	-22.54	-20.27
6	15.13312	9.92	12.05	4.79	21.97	14.71	60.00	50.00	-38.03	-35.29

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

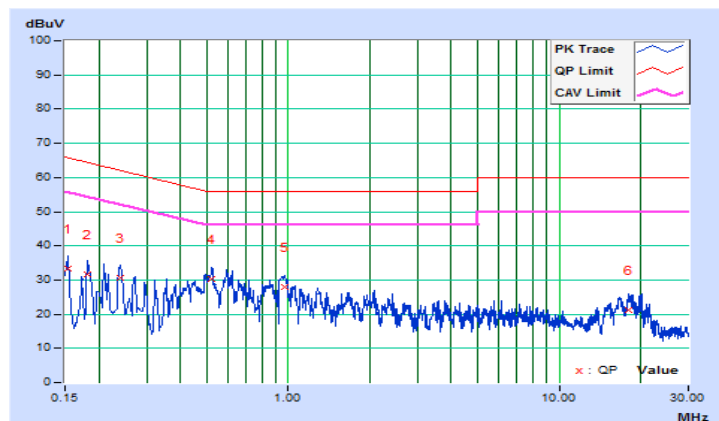


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.72	23.59	6.62	33.31	16.34	65.79	55.79	-32.48	-39.45
2	0.18122	9.73	21.88	4.35	31.61	14.08	64.43	54.43	-32.82	-40.35
3	0.23961	9.73	20.88	7.11	30.61	16.84	62.11	52.11	-31.50	-35.27
4	0.52145	9.74	20.66	13.53	30.40	23.27	56.00	46.00	-25.60	-22.73
5	0.97501	9.72	18.13	11.80	27.85	21.52	56.00	46.00	-28.15	-24.48
6	18.03831	10.06	11.12	2.20	21.18	12.26	60.00	50.00	-38.82	-37.74

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

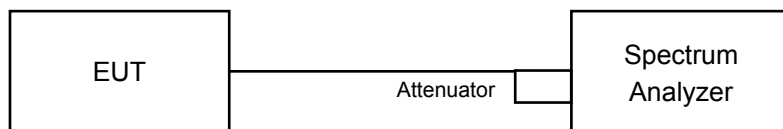


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
SPECTRUM ANALYZER R&S	FSP40	100041	Dec 12, 2017	Dec 11, 2018

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.3.4 Test Procedure

- Set resolution bandwidth (RBW) = 100kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	8.58	9.06	0.5	Pass
6	2437	9.04	9.04	0.5	Pass
11	2462	8.59	8.58	0.5	Pass
12	2467	8.61	9.07	0.5	Pass
13	2472	8.59	8.11	0.5	Pass

802.11g

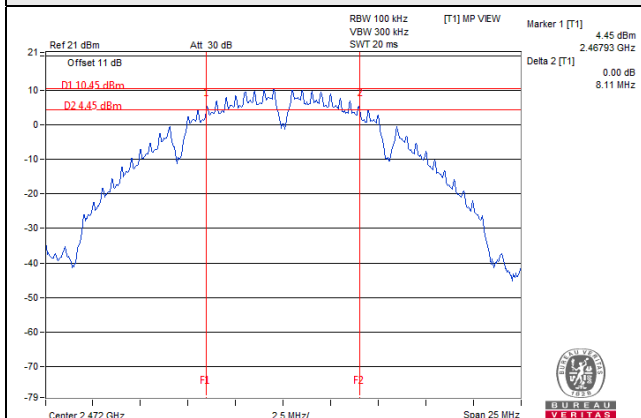
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.52	15.51	0.5	Pass
6	2437	15.70	16.33	0.5	Pass
11	2462	15.54	15.77	0.5	Pass
12	2467	15.35	15.45	0.5	Pass
13	2472	15.76	15.77	0.5	Pass

802.11n (HT20)

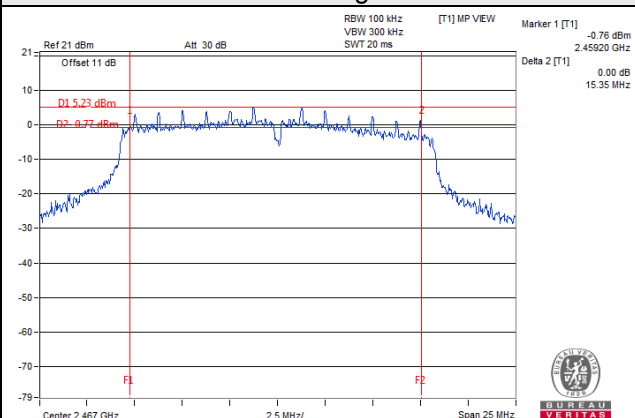
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.77	15.19	0.5	Pass
6	2437	16.01	17.00	0.5	Pass
11	2462	16.05	16.57	0.5	Pass
12	2467	16.00	15.50	0.5	Pass
13	2472	16.38	15.78	0.5	Pass

Spectrum Plot of Worst Value

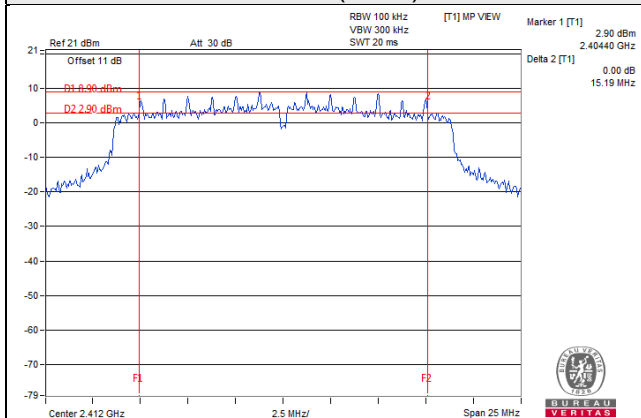
802.11b



802.11g



802.11n (HT20)



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output Method of conducted output power measurement on IEEE 802.11 devices,

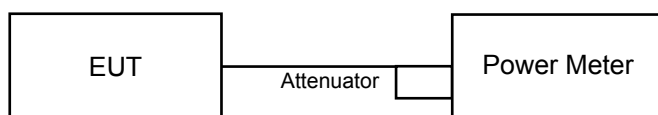
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.4.2 Test Setup



4.4.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
USB Wideband Power Meter KEYSIGHT	U2021XA	MY55050005/MY5519000 4/MY55190007/MY55210 005	Jul. 17, 2018	Jul. 16, 2019

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.4.4 Test Procedures

For Peak Power

A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

For Average Power

Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as item 4.3.6.

4.4.7 Test Results

For Peak Power

Ant. 0 (SISO)

802.11b

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	140.281	21.47	30.00	Pass
6	2437	130.017	21.14	30.00	Pass
11	2462	133.352	21.25	30.00	Pass
12	2467	129.420	21.12	30.00	Pass
13	2472	133.968	21.27	30.00	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	140.605	21.48	30.00	Pass
6	2437	135.831	21.33	30.00	Pass
11	2462	144.212	21.59	30.00	Pass
12	2467	74.645	18.73	30.00	Pass
13	2472	10.093	10.04	30.00	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	168.655	22.27	30.00	Pass
6	2437	164.816	22.17	30.00	Pass
11	2462	162.181	22.10	30.00	Pass
12	2467	124.165	20.94	30.00	Pass
13	2472	10.233	10.10	30.00	Pass

Ant. 1 (SISO)

802.11b

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	144.212	21.59	30.00	Pass
6	2437	161.065	22.07	30.00	Pass
11	2462	144.544	21.60	30.00	Pass
12	2467	161.808	22.09	30.00	Pass
13	2472	157.398	21.97	30.00	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	154.170	21.88	30.00	Pass
6	2437	179.887	22.55	30.00	Pass
11	2462	154.525	21.89	30.00	Pass
12	2467	70.632	18.49	30.00	Pass
13	2472	11.940	10.77	30.00	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	186.209	22.70	30.00	Pass
6	2437	212.324	23.27	30.00	Pass
11	2462	175.792	22.45	30.00	Pass
12	2467	124.165	20.94	30.00	Pass
13	2472	10.691	10.29	30.00	Pass

Ant. 0 + 1 (MIMO)

802.11b

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.62	21.70	293.122	24.67	30.00	Pass
6	2437	21.27	22.16	298.405	24.75	30.00	Pass
11	2462	21.44	21.67	286.209	24.57	30.00	Pass
12	2467	21.24	22.19	298.622	24.75	30.00	Pass
13	2472	21.44	22.04	299.272	24.76	30.00	Pass

802.11g

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.61	21.93	300.832	24.78	30.00	Pass
6	2437	21.43	22.59	320.547	25.06	30.00	Pass
11	2462	21.71	22.02	307.473	24.88	30.00	Pass
12	2467	18.82	18.62	148.986	21.73	30.00	Pass
13	2472	10.17	10.79	22.394	13.50	30.00	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	22.31	22.72	357.284	25.53	30.00	Pass
6	2437	22.18	23.35	381.468	25.81	30.00	Pass
11	2462	22.14	22.51	341.920	25.34	30.00	Pass
12	2467	21.05	21.14	257.367	24.11	30.00	Pass
13	2472	10.15	10.30	21.066	13.24	30.00	Pass

For Average Power

Ant. 0 (SISO)

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	57.943	17.63
6	2437	60.256	17.80
11	2462	59.293	17.73
12	2467	58.884	17.70
13	2472	57.943	17.63

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	58.076	17.64
6	2437	59.156	17.72
11	2462	57.943	17.63
12	2467	26.730	14.27
13	2472	3.614	5.58

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	59.704	17.76
6	2437	59.020	17.71
11	2462	58.884	17.70
12	2467	52.240	17.18
13	2472	3.027	4.81

Ant. 1 (SISO)

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	59.429	17.74
6	2437	60.395	17.81
11	2462	59.566	17.75
12	2467	59.979	17.78
13	2472	60.117	17.79

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	56.234	17.50
6	2437	58.076	17.64
11	2462	57.412	17.59
12	2467	26.485	14.23
13	2472	3.581	5.54

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	57.677	17.61
6	2437	58.884	17.70
11	2462	58.614	17.68
12	2467	51.880	17.15
13	2472	3.006	4.78

Ant. 0 + 1 (MIMO)

802.11b

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	17.72	17.83	119.83	20.79
6	2437	17.87	17.82	121.769	20.86
11	2462	17.80	17.81	120.651	20.82
12	2467	17.77	17.81	120.236	20.80
13	2472	17.67	17.84	119.293	20.77

802.11g

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	17.71	17.60	116.564	20.67
6	2437	17.75	17.72	118.722	20.75
11	2462	17.70	17.68	117.498	20.70
12	2467	14.32	14.21	53.403	17.28
13	2472	5.63	5.78	7.440	8.72

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	17.81	17.65	118.605	20.74
6	2437	17.80	17.75	119.822	20.79
11	2462	17.75	17.75	119.132	20.76
12	2467	17.23	17.31	106.672	20.28
13	2472	4.84	4.92	6.153	7.89

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 Test Setup



4.5.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
SPECTRUM ANALYZER R&S	FSP40	100041	Dec 12, 2017	Dec 11, 2018

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.5.4 Test Procedure

- Set analyzer center frequency to DTS channel center frequency.
- Set the span to 1.5 times the DTS bandwidth.
- Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set the VBW $\geq 3 \times \text{RBW}$.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level within the RBW.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as item 4.3.6

4.5.7 Test Results

802.11b

TX chain	Channel	Frequency (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-4.74	3.01	-1.73	8.00	Pass
	6	2437	-4.20	3.01	-1.19	8.00	Pass
	11	2462	-4.10	3.01	-1.09	8.00	Pass
	12	2467	-3.54	3.01	-0.53	8.00	Pass
	13	2472	-4.34	3.01	-1.33	8.00	Pass
1	1	2412	-4.09	3.01	-1.08	8.00	Pass
	6	2437	-2.65	3.01	0.36	8.00	Pass
	11	2462	-4.16	3.01	-1.15	8.00	Pass
	12	2467	-4.26	3.01	-1.25	8.00	Pass
	13	2472	-3.61	3.01	-0.60	8.00	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.76\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.

802.11g

TX chain	Channel	Frequency (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-7.48	3.01	-4.47	8.00	Pass
	6	2437	-7.39	3.01	-4.38	8.00	Pass
	11	2462	-5.90	3.01	-2.89	8.00	Pass
	12	2467	-10.49	3.01	-7.48	8.00	Pass
	13	2472	-20.00	3.01	-16.99	8.00	Pass
1	1	2412	-7.47	3.01	-4.46	8.00	Pass
	6	2437	-7.29	3.01	-4.28	8.00	Pass
	11	2462	-6.61	3.01	-3.60	8.00	Pass
	12	2467	-10.80	3.01	-7.79	8.00	Pass
	13	2472	-19.91	3.01	-16.90	8.00	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.76\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.

802.11n (HT20)

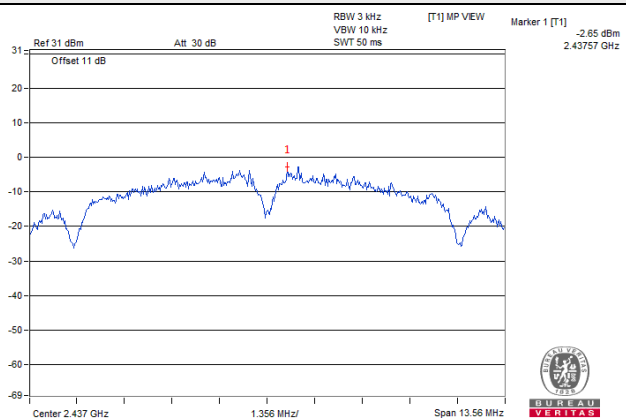
TX chain	Channel	Frequency (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-7.86	3.01	-4.85	8.00	Pass
	6	2437	-8.05	3.01	-5.04	8.00	Pass
	11	2462	-7.47	3.01	-4.46	8.00	Pass
	12	2467	-8.22	3.01	-5.21	8.00	Pass
	13	2472	-21.56	3.01	-18.55	8.00	Pass
1	1	2412	-6.96	3.01	-3.95	8.00	Pass
	6	2437	-7.06	3.01	-4.05	8.00	Pass
	11	2462	-6.41	3.01	-3.40	8.00	Pass
	12	2467	-7.77	3.01	-4.76	8.00	Pass
	13	2472	-20.99	3.01	-17.98	8.00	Pass

Note:

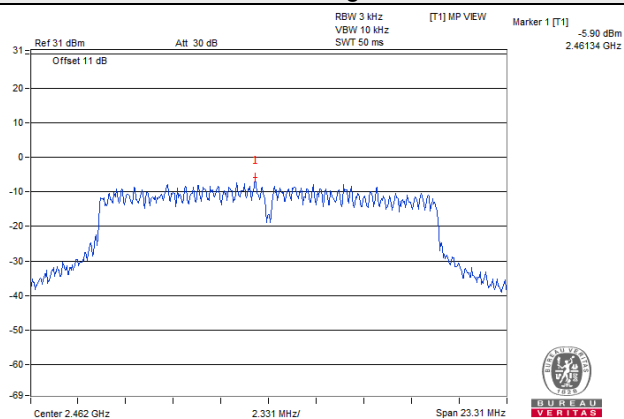
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.76\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.

Spectrum Plot of Worst Value

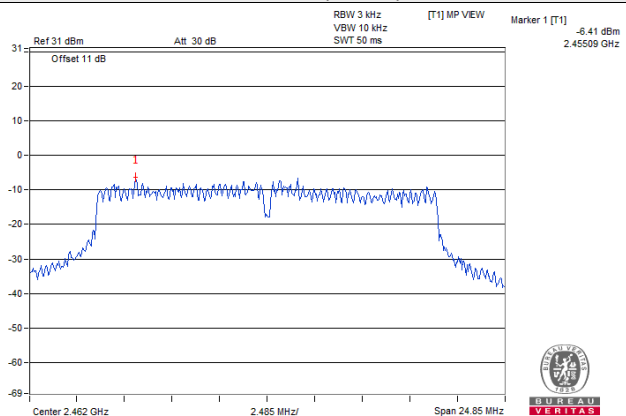
802.11b



802.11g



802.11n (HT20)

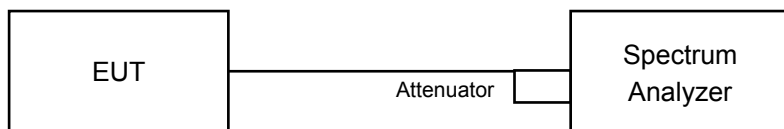


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
SPECTRUM ANALYZER R&S	FSP40	100041	Dec 12, 2017	Dec 11, 2018

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

- Set the RBW = 100 kHz.
- Set the VBW $\geq$ 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW $\geq$ 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Same as item 4.3.6

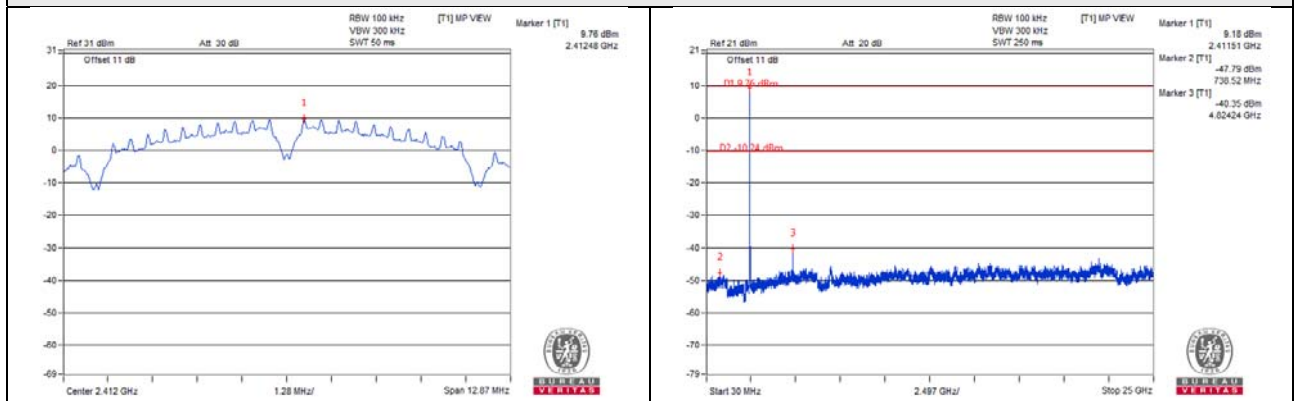
4.6.7 Test Results

The conducted emission test is performed on each TX port of operating mode without summing or adding $10\log(N)$ since the limit is relative emission limit.

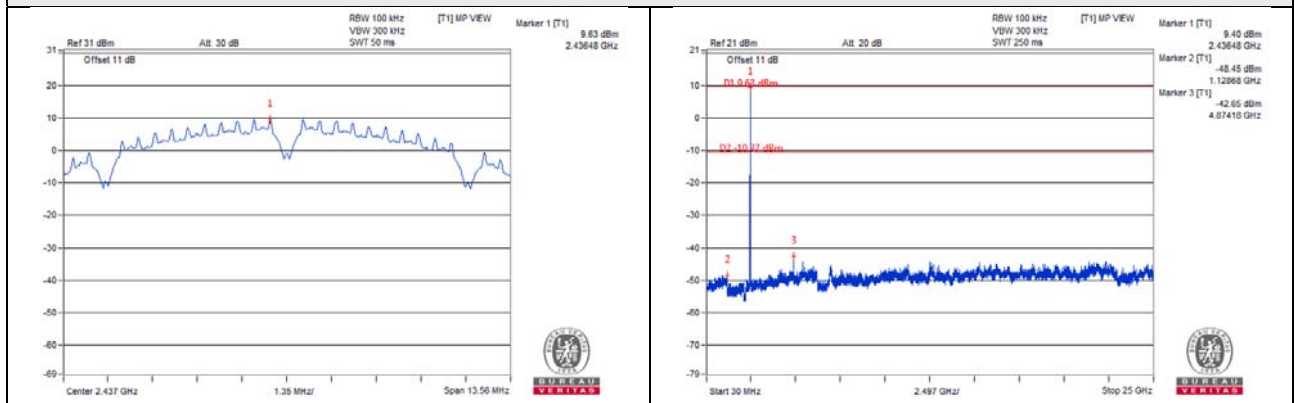
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b_Chain 0

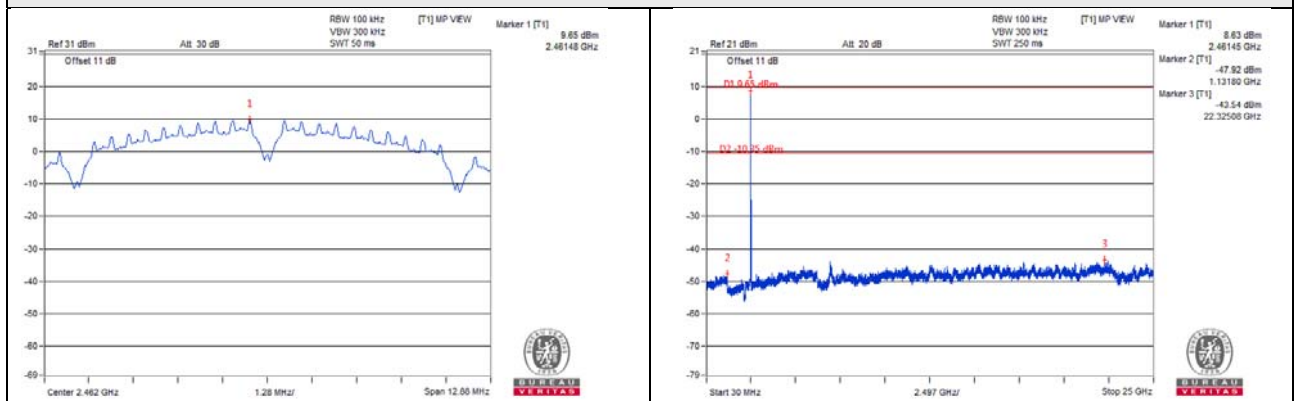
CH 1



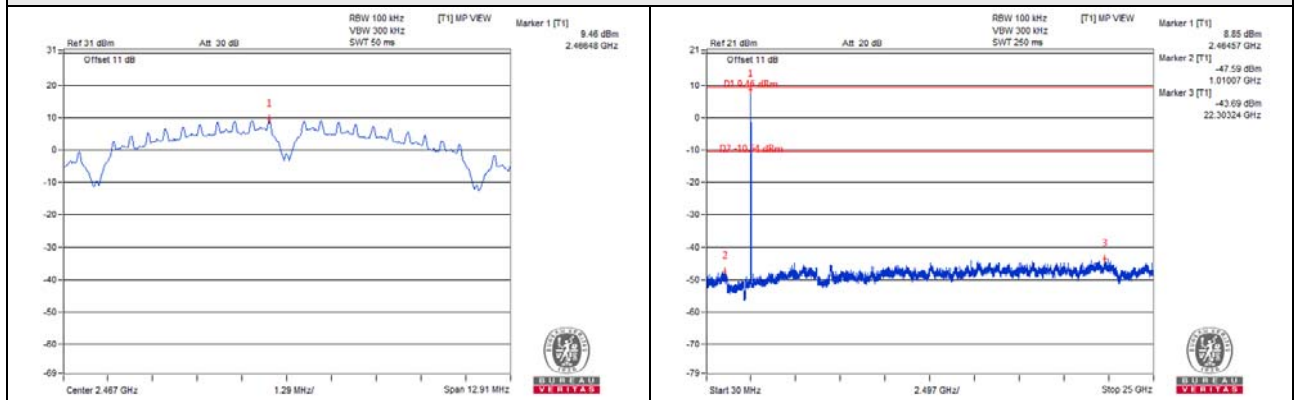
CH 6



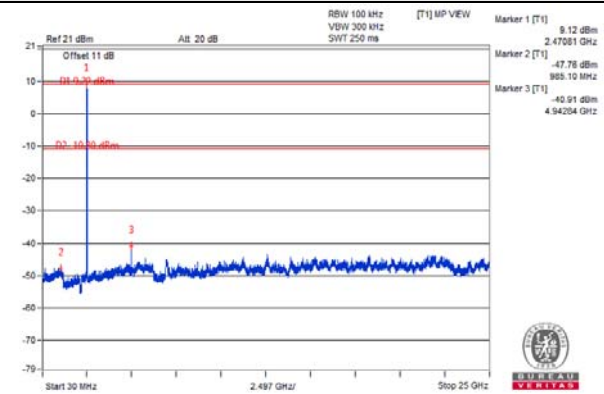
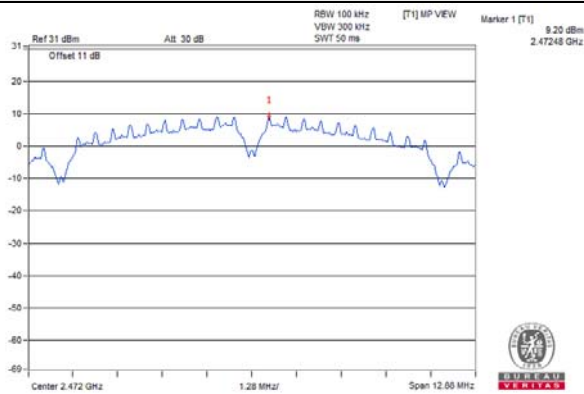
CH 11



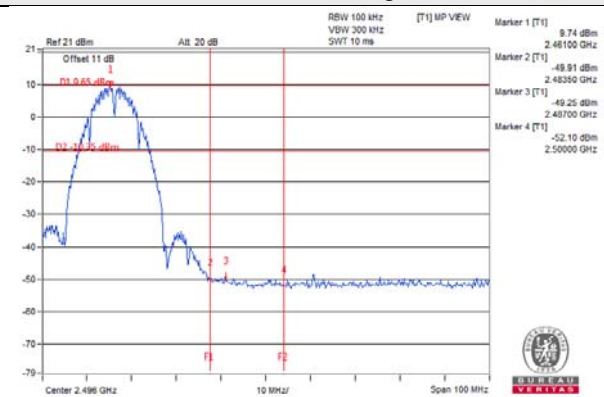
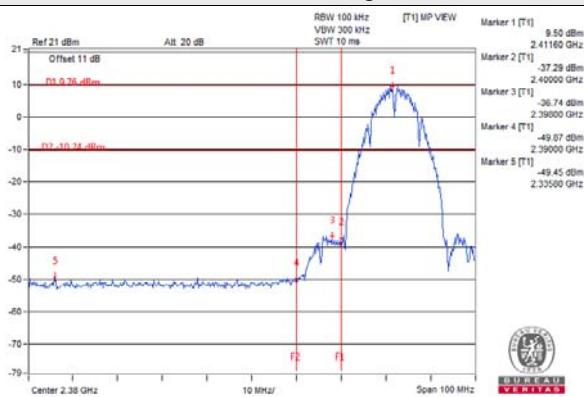
CH 12



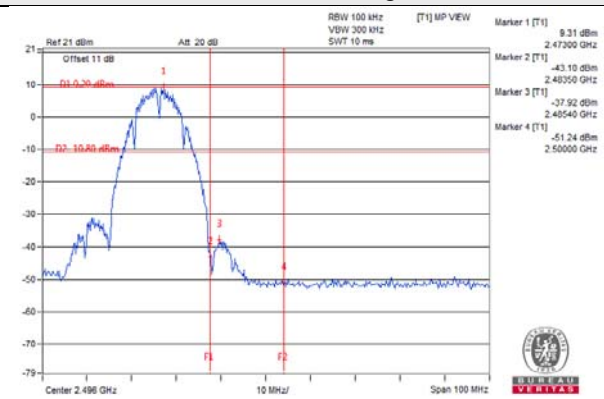
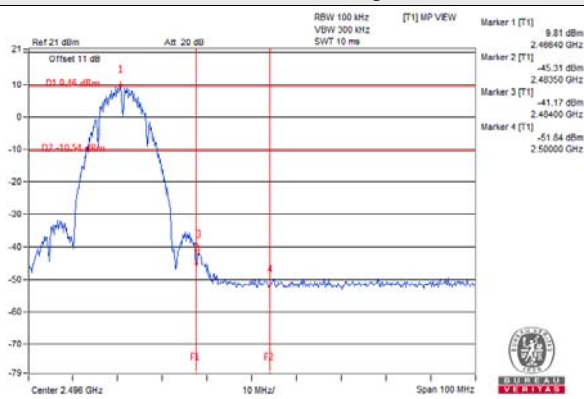
CH 13



CH 1 Band edge

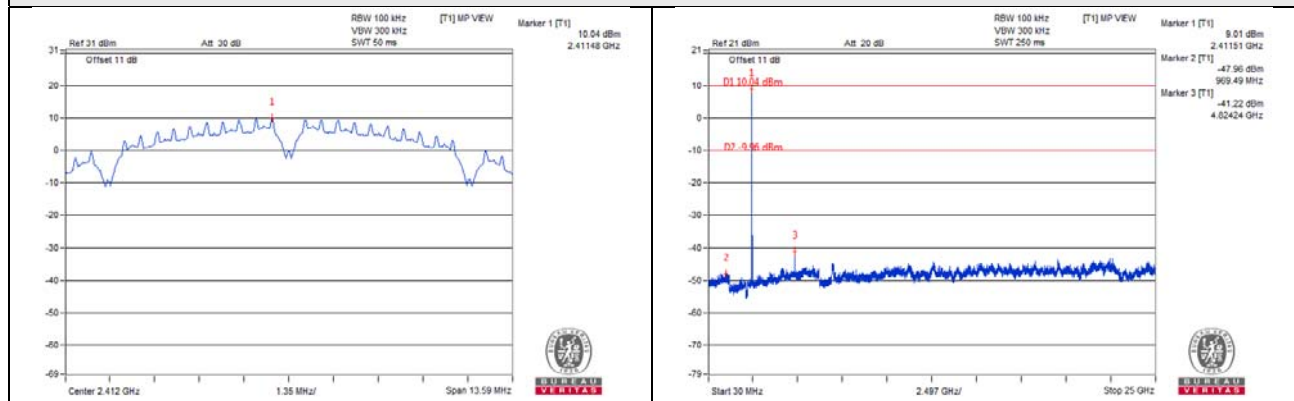


CH 12 Band edge

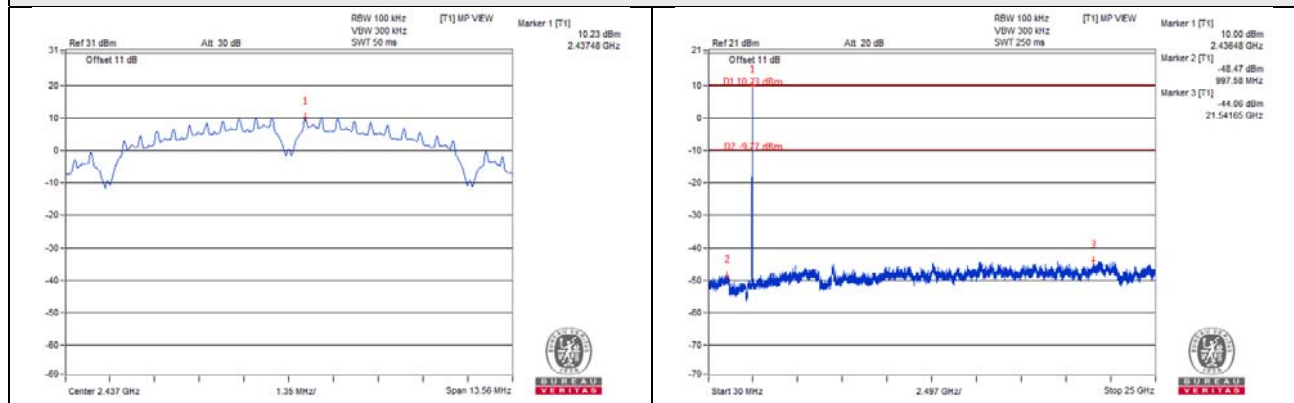


802.11b_Chain 1

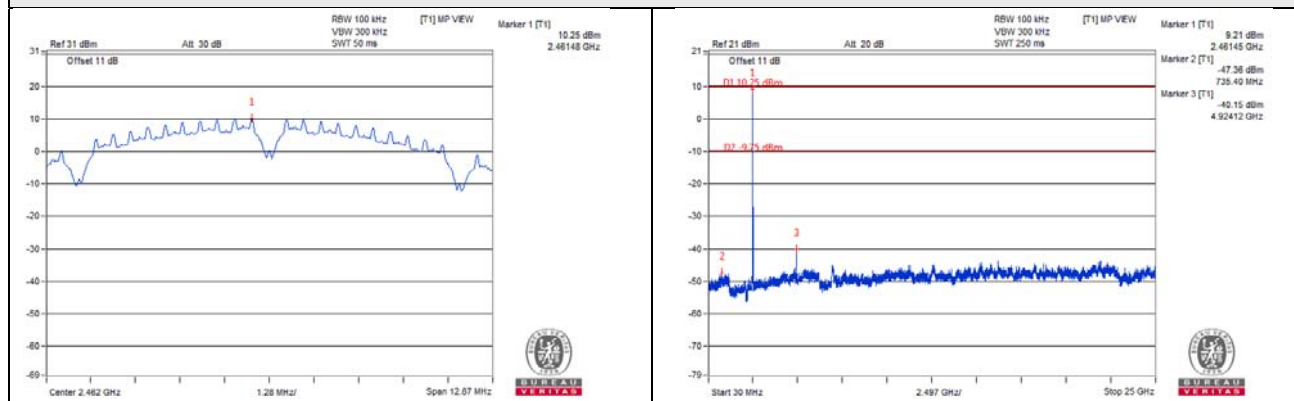
CH 1



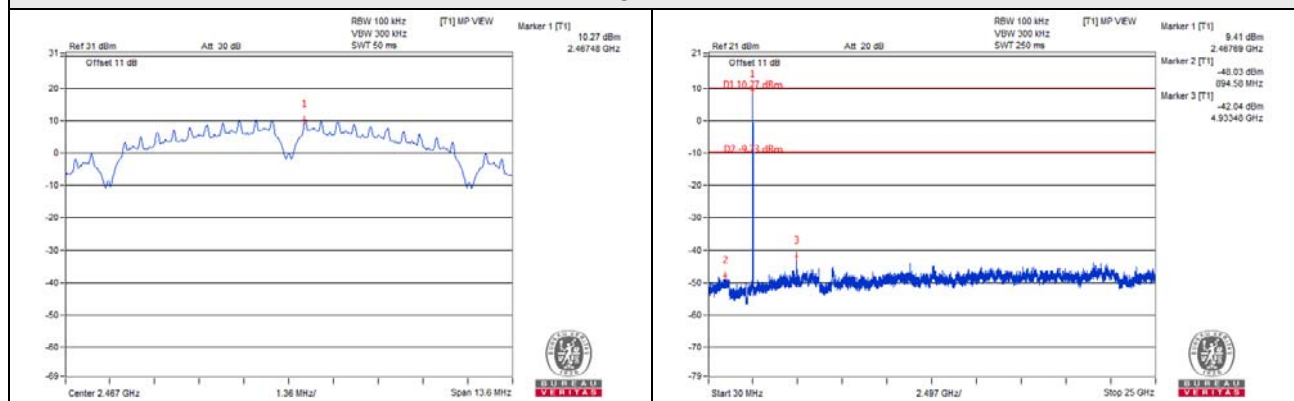
CH 6



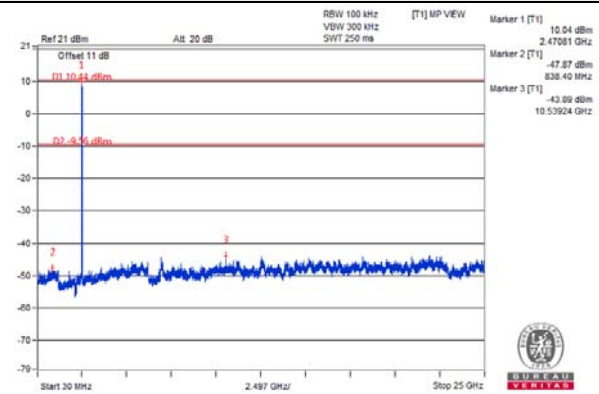
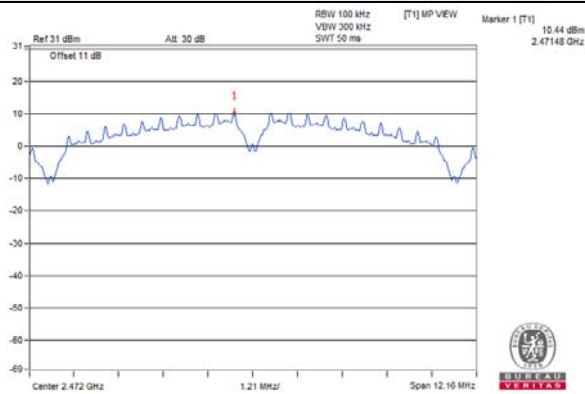
CH 11



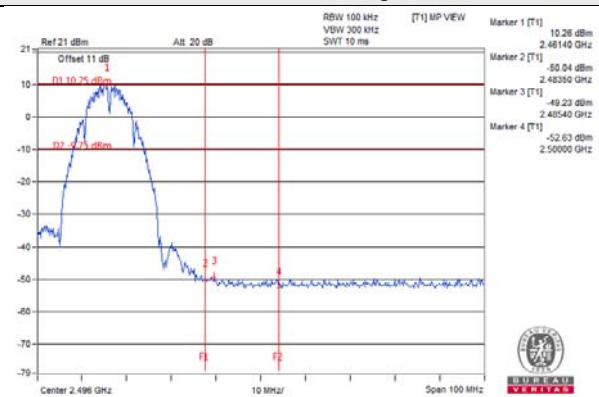
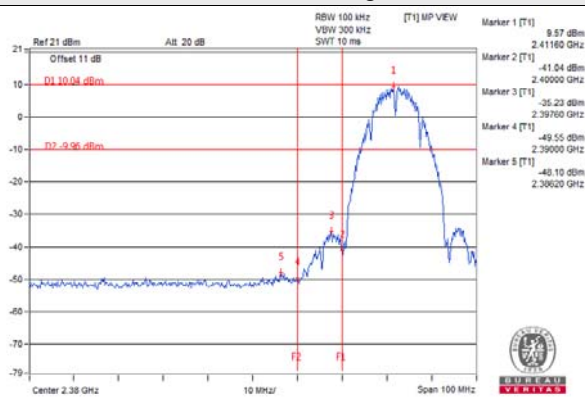
CH 12



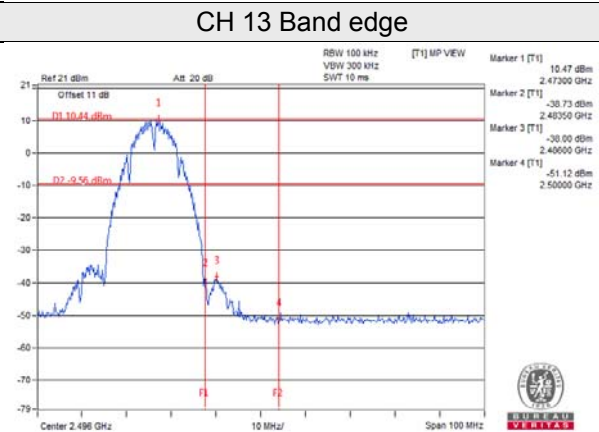
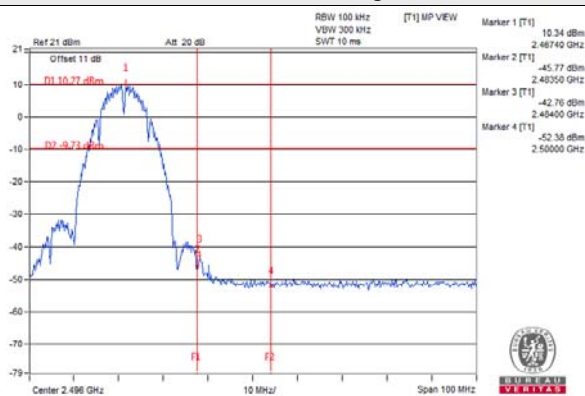
CH 13



CH 1 Band edge

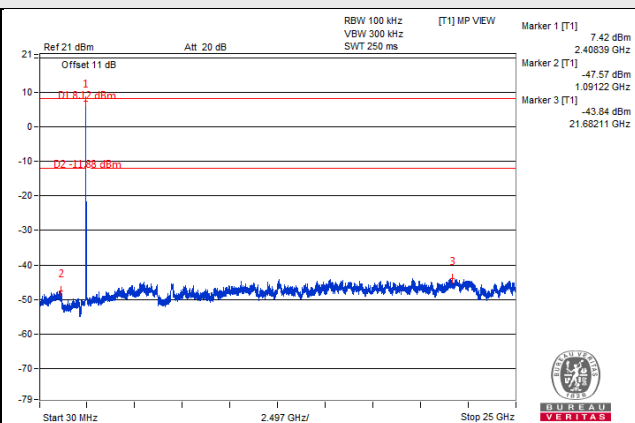
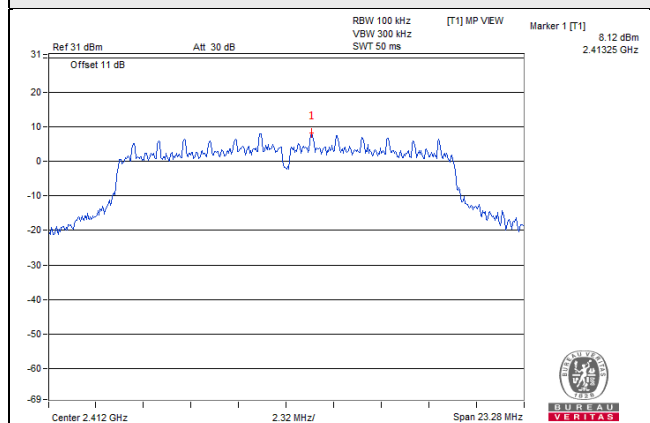


CH 12 Band edge

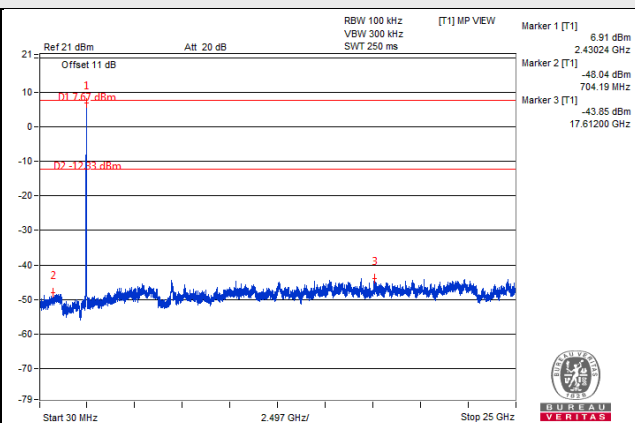
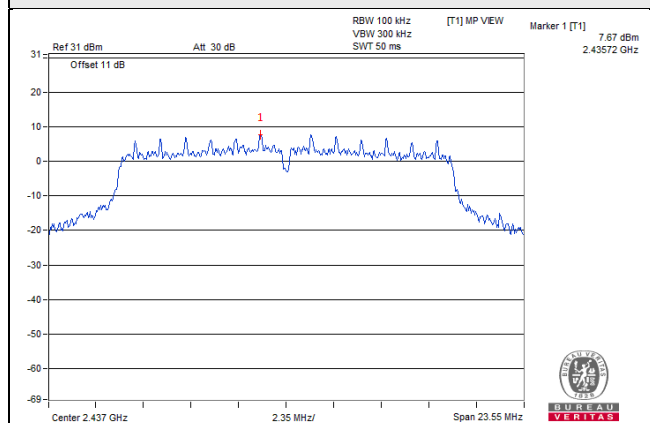


802.11g_Chain 0

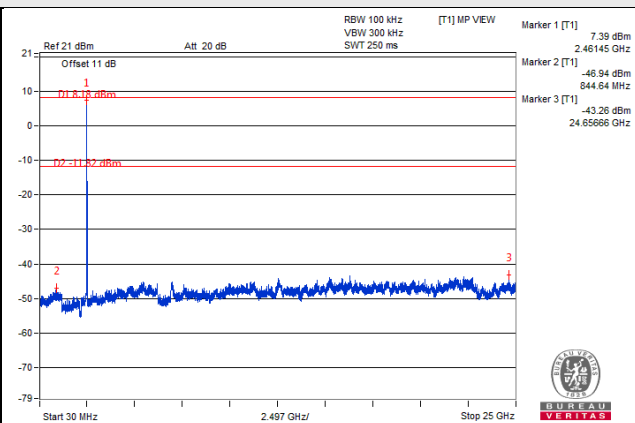
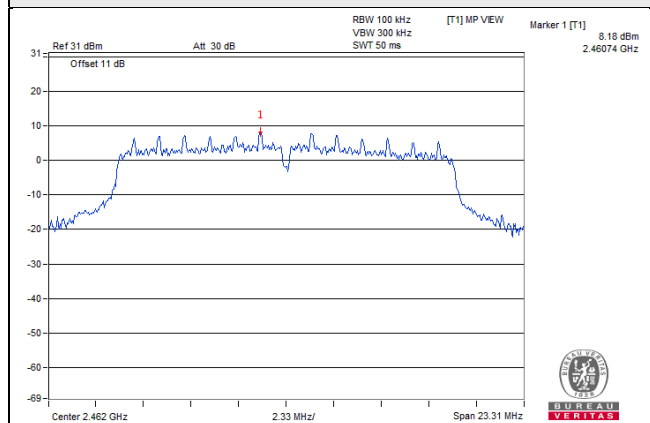
CH 1



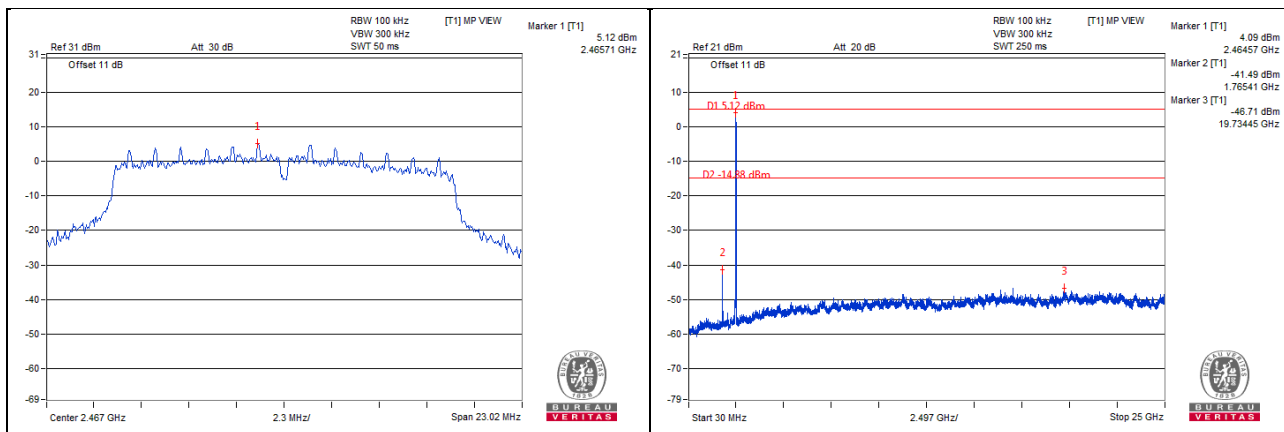
CH 6



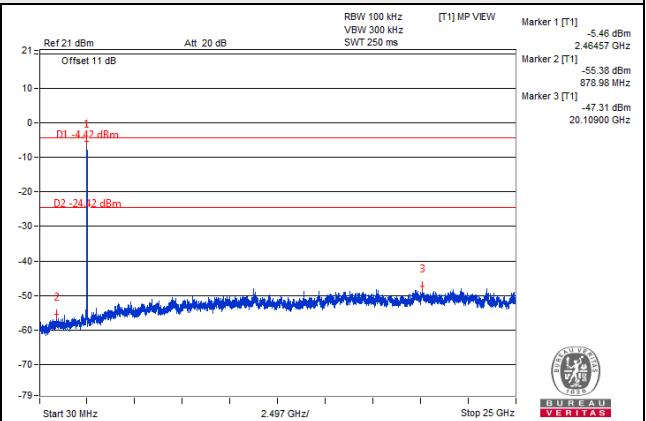
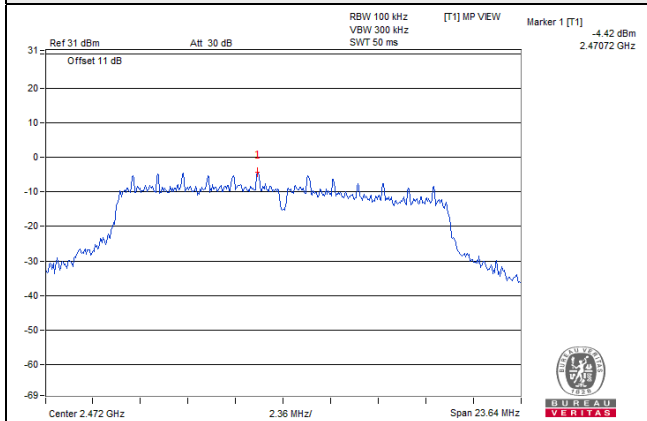
CH 11



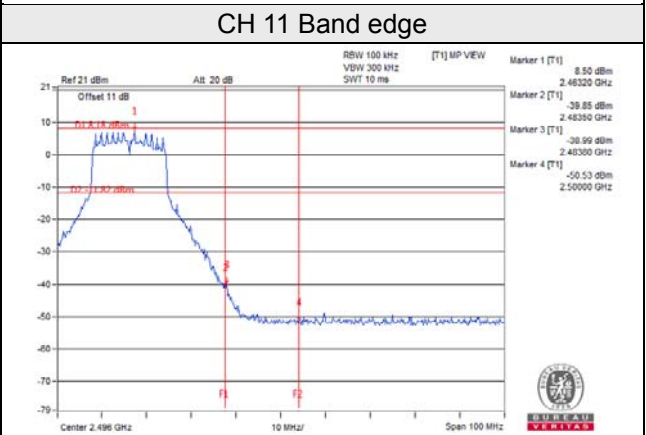
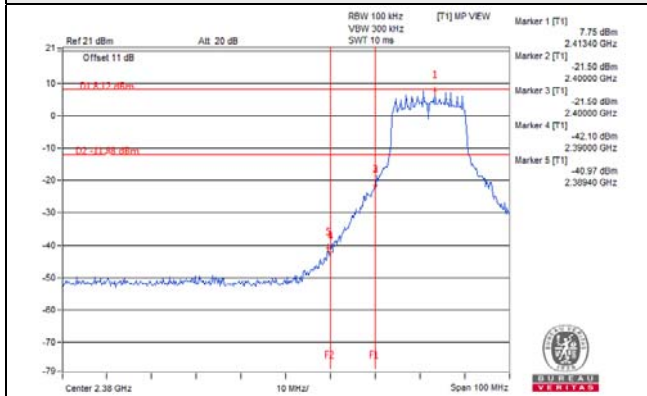
CH 12



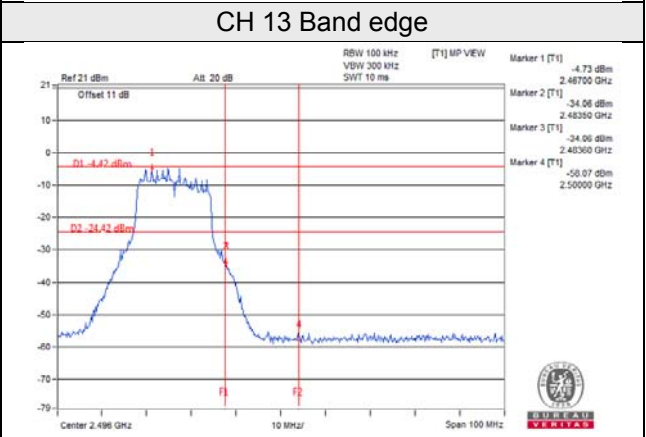
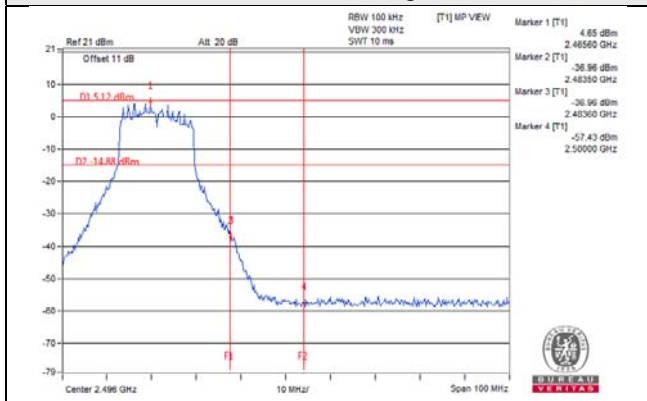
CH 13



CH 1 Band edge

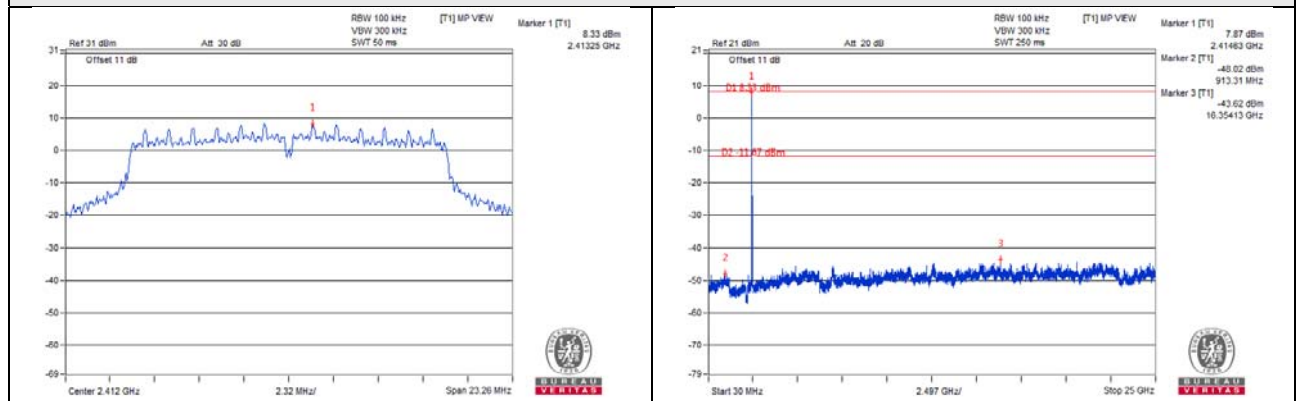


CH 12 Band edge

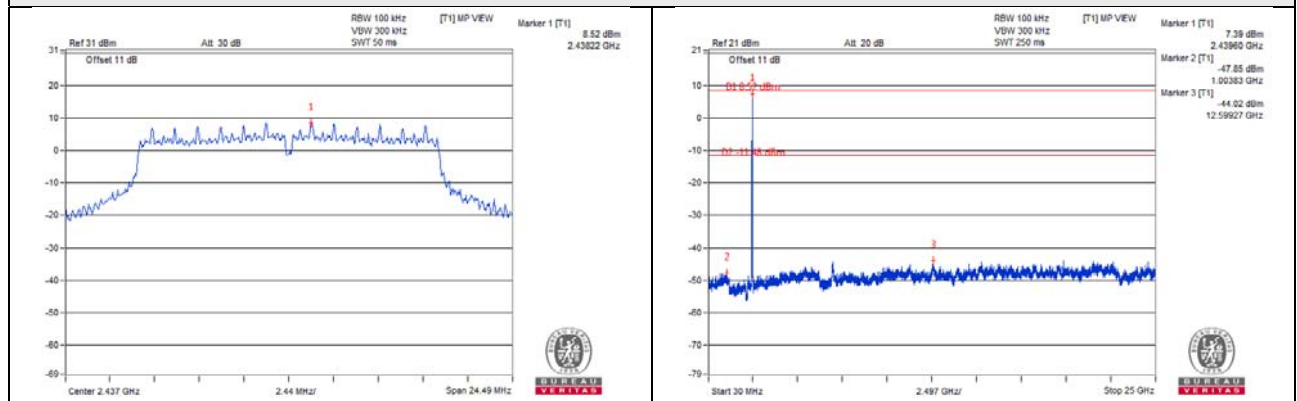


802.11g_Chain 1

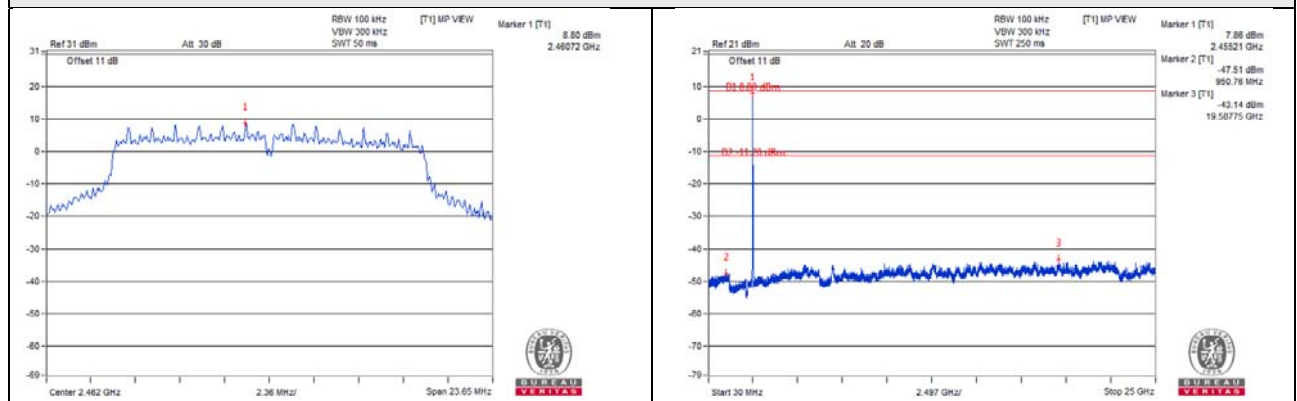
CH 1



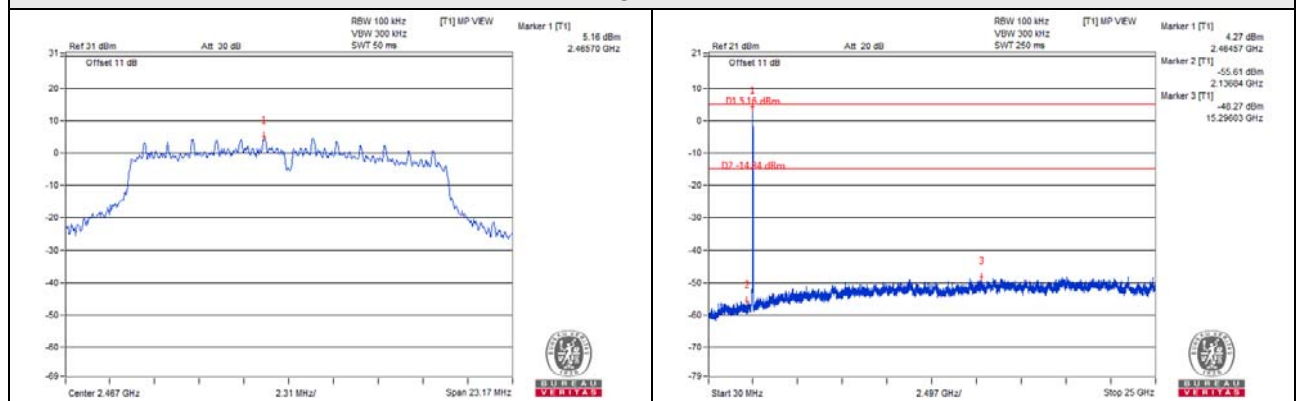
CH 6



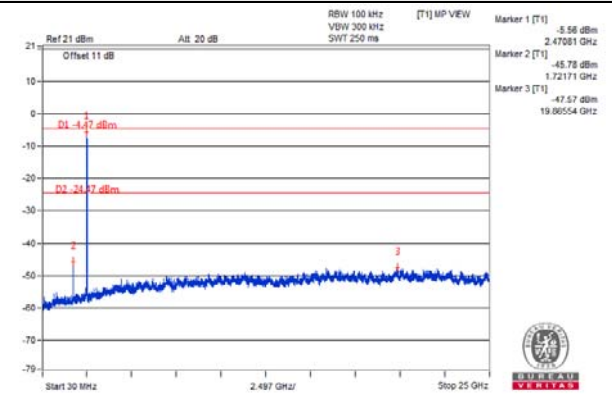
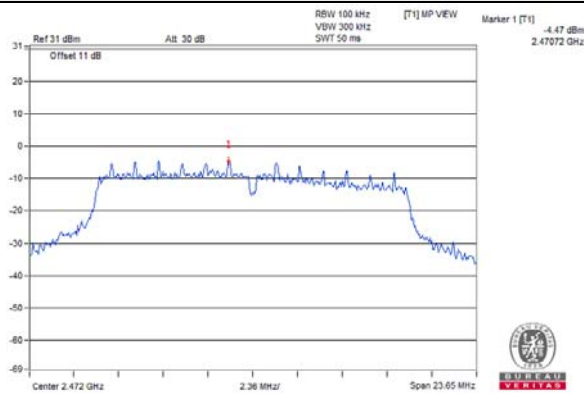
CH 11



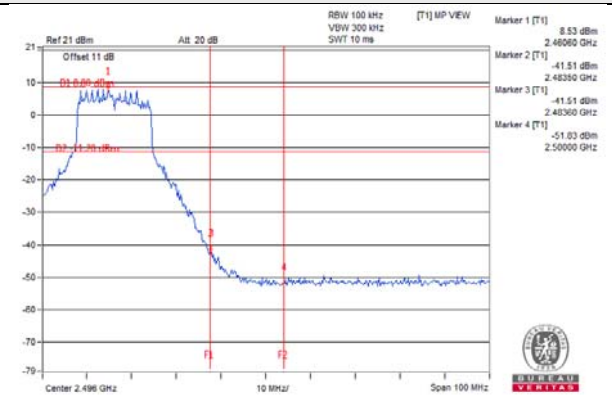
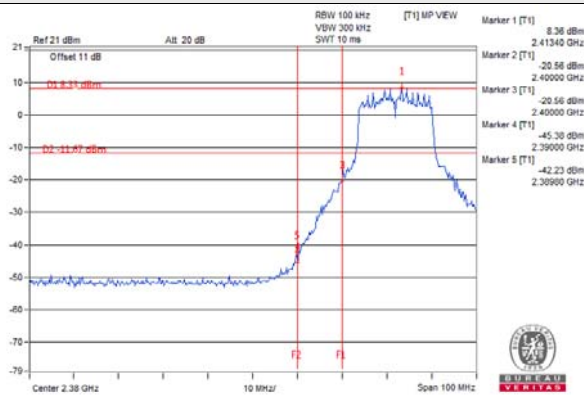
CH 12



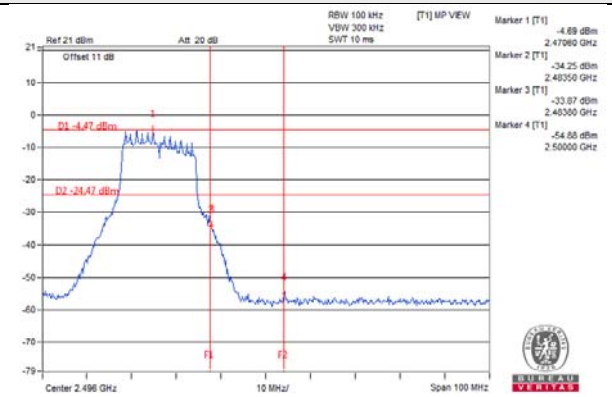
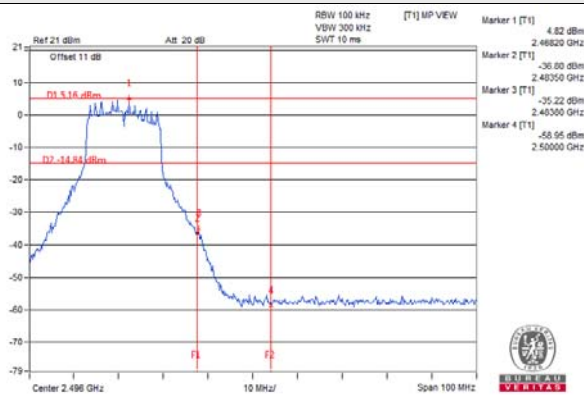
CH 13



CH 1 Band edge

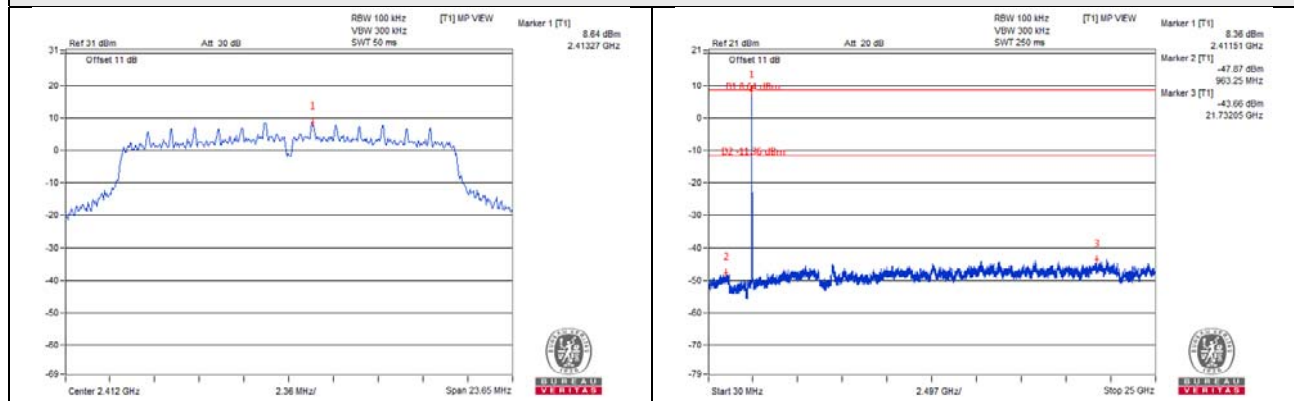


CH 12 Band edge

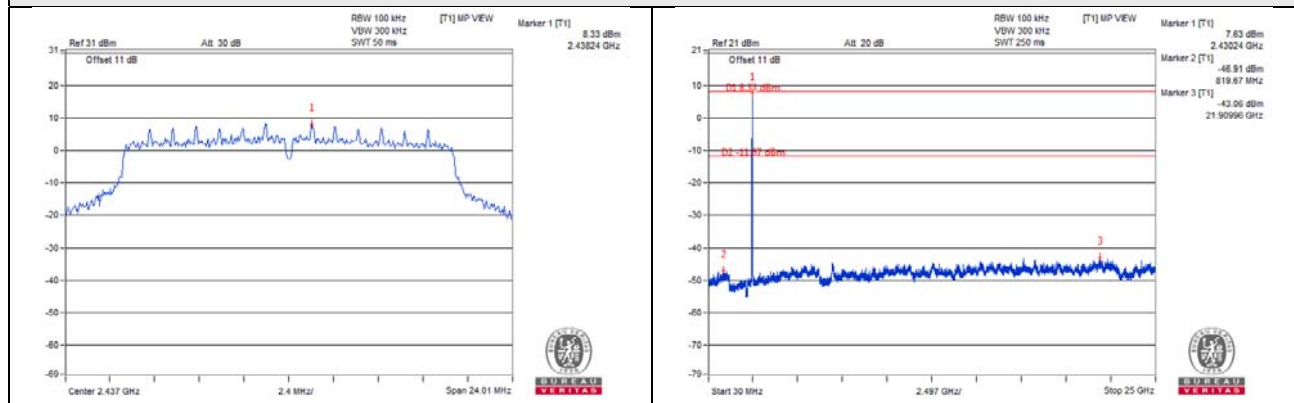


802.11n (HT20)_Chain 0

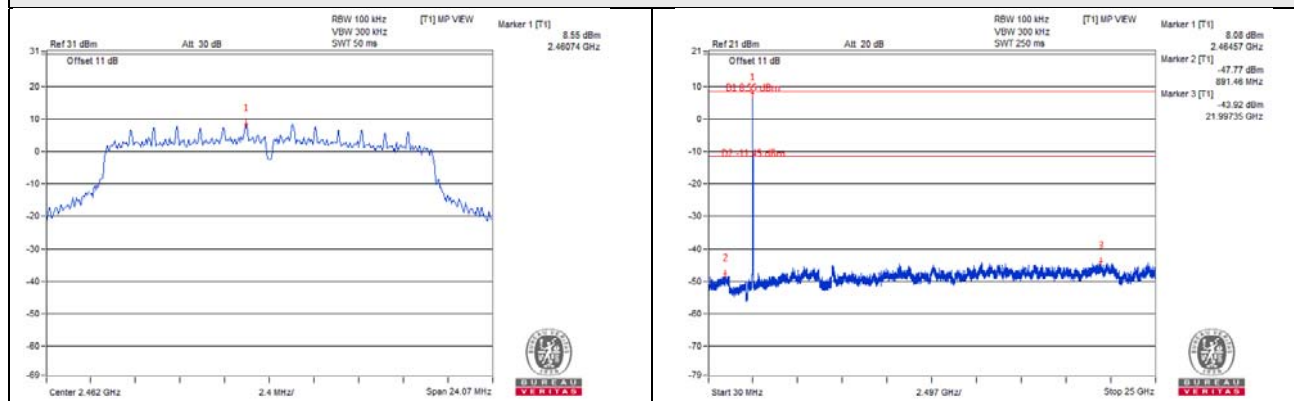
CH 1



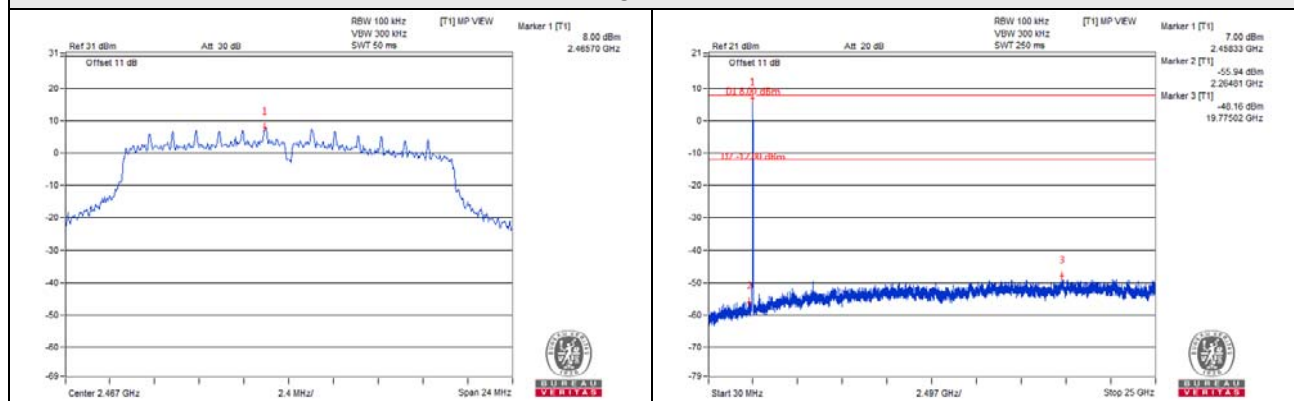
CH 6



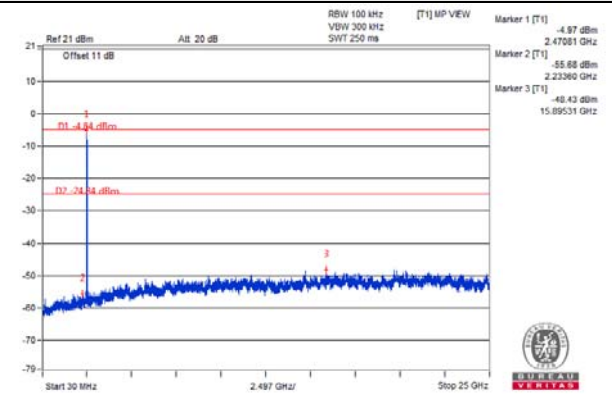
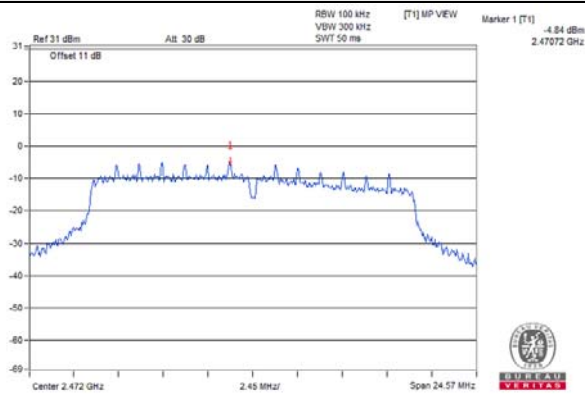
CH 11



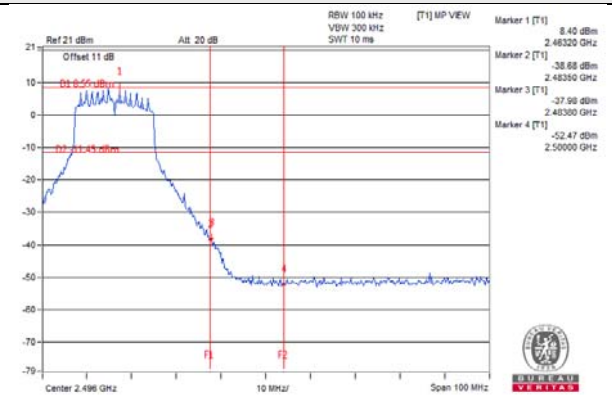
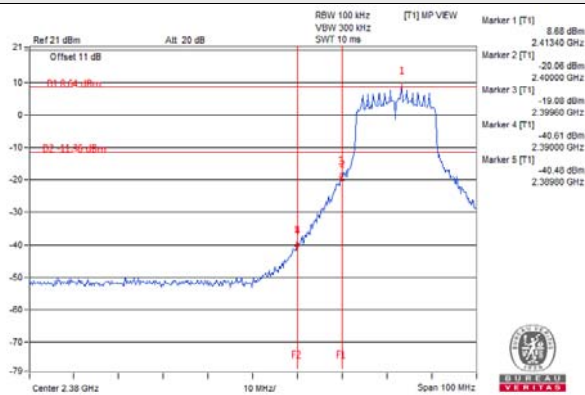
CH 12



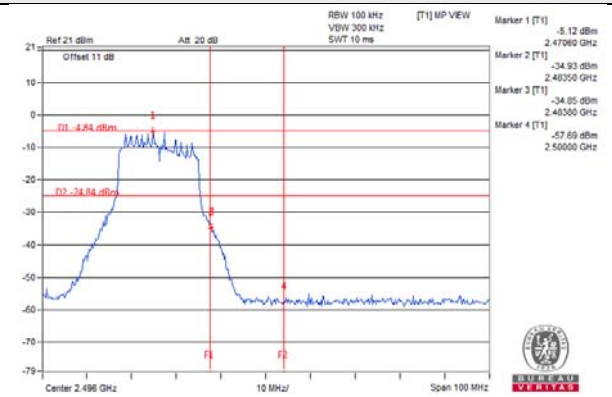
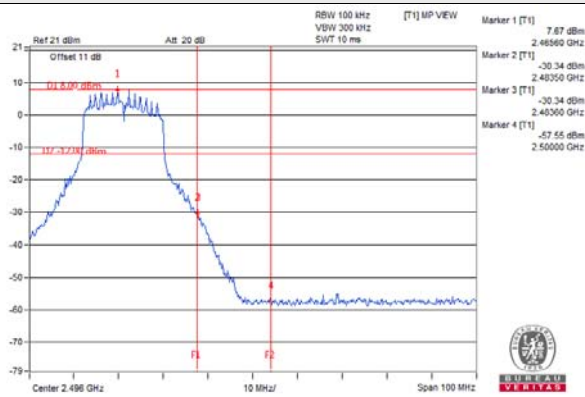
CH 13



CH 1 Band edge

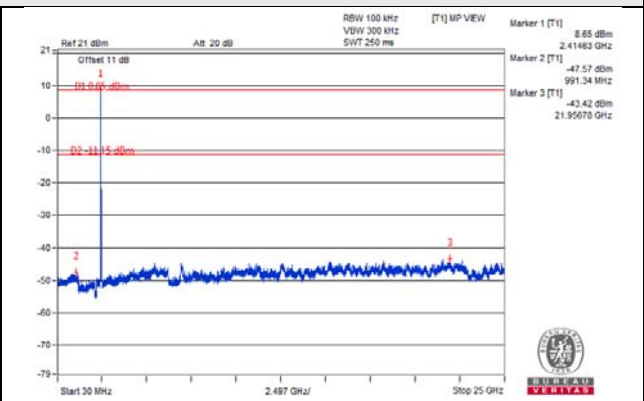
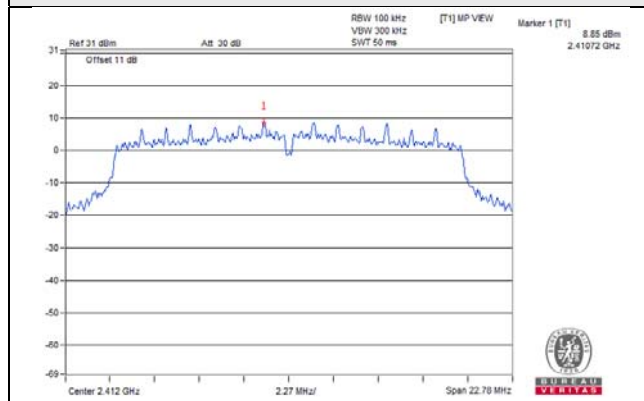


CH 12 Band edge

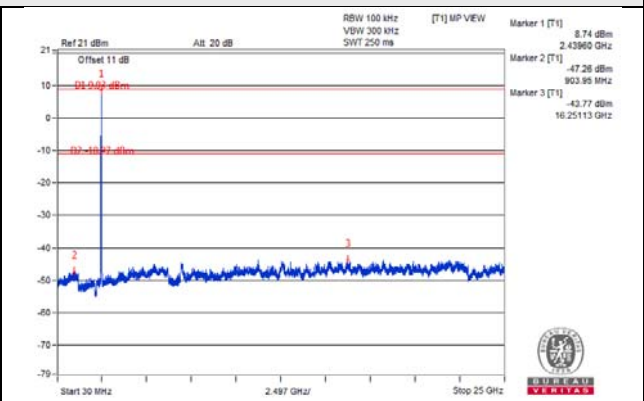
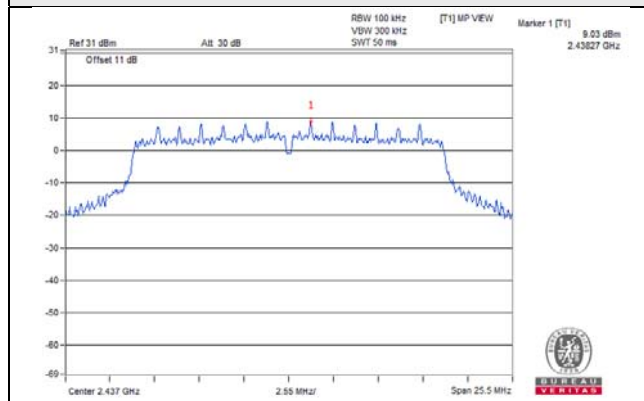


802.11n (HT20)_Chain 1

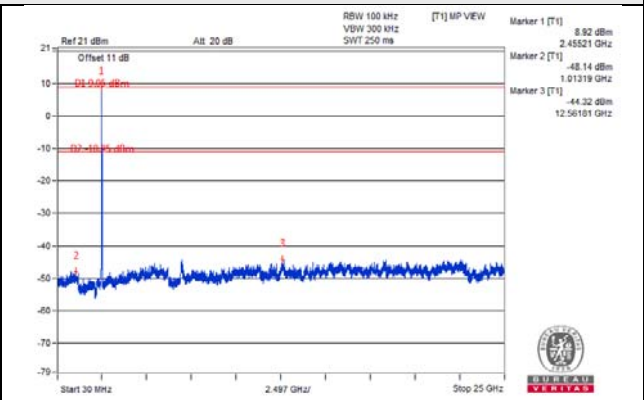
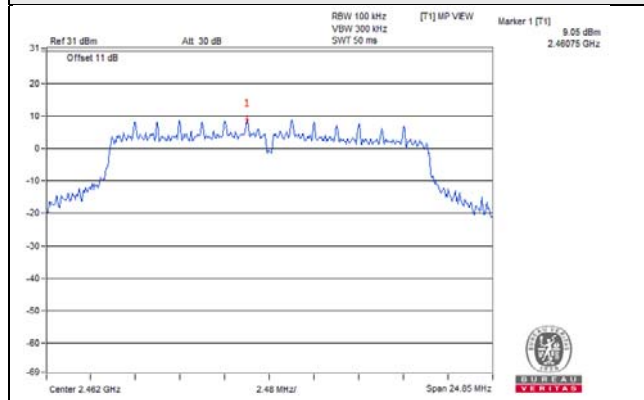
CH 1



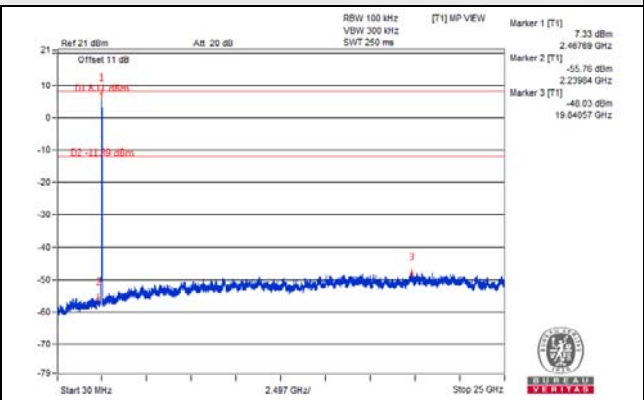
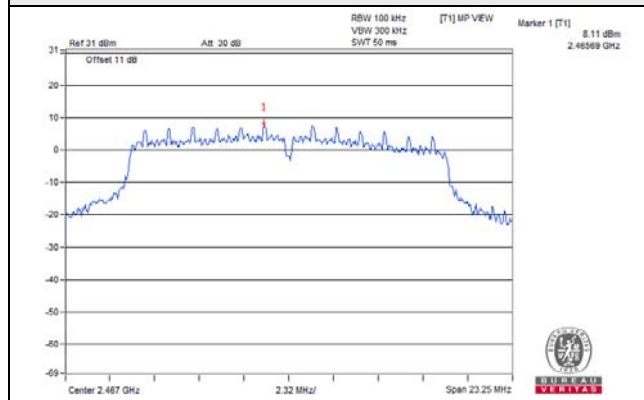
CH 6



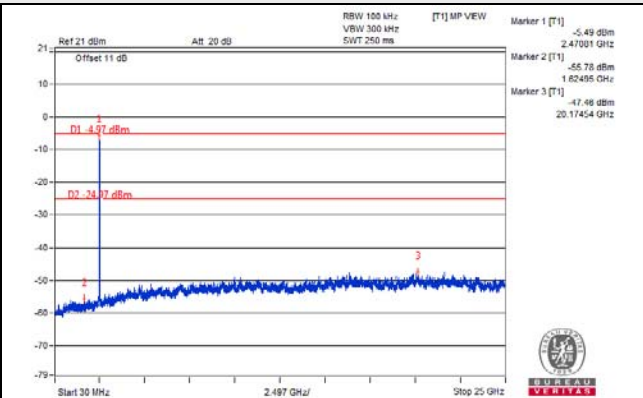
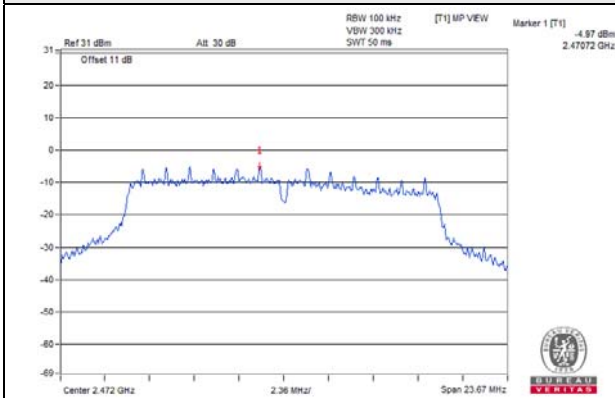
CH 11



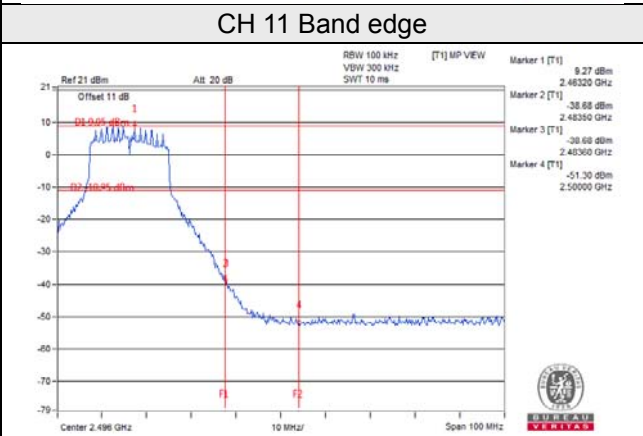
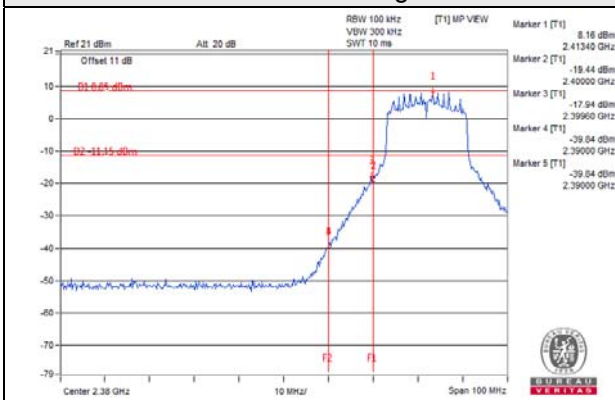
CH 12



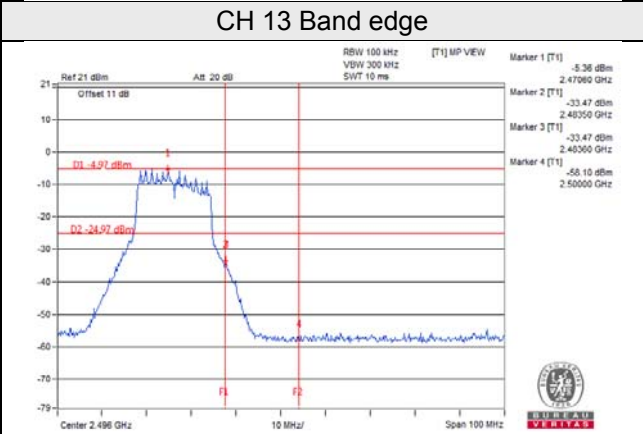
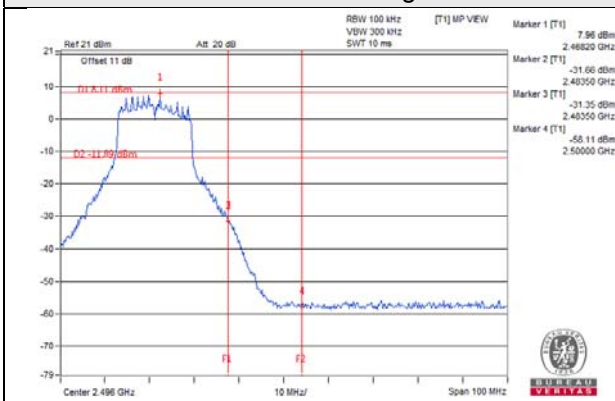
CH 13



CH 1 Band edge



CH 12 Band edge



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---