FCC Test Report (WLAN)

Report No.: RF160818E07

FCC ID: G95TCA301

Test Model: TCA301TCH1

Series Model: TCA301TCH2, TCA301ROG1, TCA301COX2, TCA301BHN2, TCA301CMP2, TCA301TWC2

Received Date: Aug. 06, 2016

Test Date: Aug. 26 to Nov. 10, 2016

Issued Date: Dec. 15, 2016

Applicant: Technicolor Connected Home USA LLC

Address: 5030 Sugarloaf Parkway, Building 6, Lawrenceville, GA 30044

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

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

Test Location (1): E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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 unless 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. The report must 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 (WLAN) 7
3.2 Description of Test Modes 11
3.2.1 Test Mode Applicability and Tested Channel Detail 12
3.3 Duty Cycle of Test Signal 14
3.4 Description of Support Units 15
3.4.1 Configuration of System under Test 16
3.5 General Description of Applied Standards 17

4 Test Types and Results **18**

4.1 Radiated Emission and Bandedge Measurement 18
4.1.1 Limits of Radiated Emission and Bandedge Measurement 18
4.1.2 Test Instruments 19
4.1.3 Test Procedures 21
4.1.4 Deviation from Test Standard 21
4.1.5 Test Setup 22
4.1.6 EUT Operating Conditions 23
4.1.7 Test Results (Mode 1, Bandedge) 24
4.1.8 Test Results (Mode 1, Spurious emission) 48
4.1.9 Test Results (Mode 2, Bandedge) 60
4.1.10 Test Results (Mode 2, Spurious emission) 84
4.1.11 Test Results (Mode 3, Bandedge) 96
4.1.12 Test Results (Mode 3, Spurious emission) 114
4.2 Conducted Emission Measurement 125
4.2.1 Limits of Conducted Emission Measurement 125
4.2.2 Test Instruments 125
4.2.3 Test Procedures 126
4.2.4 Deviation from Test Standard 126
4.2.5 Test Setup 126
4.2.6 EUT Operating Conditions 126
4.2.7 Test Results 127
4.3 6dB Bandwidth Measurement 129
4.3.1 Limits of 6dB Bandwidth Measurement 129
4.3.2 Test Setup 129
4.3.3 Test Instruments 129
4.3.4 Test Procedure 129
4.3.5 Deviation fromTest Standard 129
4.3.6 EUT Operating Conditions 129
4.3.7 Test Result (Mode 1) 130
4.3.8 Test Result (Mode 2) 132
4.3.9 Test Result (Mode 3) 134
4.4 Conducted Output Power Measurement 136
4.4.1 Limits of Conducted Output Power Measurement 136
4.4.2 Test Setup 136
4.4.3 Test Instruments 136
4.4.4 Test Procedures 136
4.4.5 Deviation from Test Standard 136
4.4.6 EUT Operating Conditions 136
4.4.7 Test Results (Mode 1) 137

4.4.8 Test Results (Mode 2) 138
4.4.9 Test Results (Mode 3) 139
4.5 Power Spectral Density Measurement 140
4.5.1 Limits of Power Spectral Density Measurement 140
4.5.2 Test Setup 140
4.5.3 Test Instruments 140
4.5.4 Test Procedure 140
4.5.5 Deviation from Test Standard 140
4.5.6 EUT Operating Condition 140
4.5.7 Test Results (Mode 1) 141
4.5.8 Test Results (Mode 2) 143
4.5.9 Test Results (Mode 3) 145
4.6 Conducted Out of Band Emission Measurement 147
4.6.1 Limits of Conducted Out of Band Emission Measurement 147
4.6.2 Test Setup 147
4.6.3 Test Instruments 147
4.6.4 Test Procedure 147
4.6.5 Deviation from Test Standard 147
4.6.6 EUT Operating Condition 147
4.6.7 Test Results (Mode 1) 148
4.6.8 Test Results (Mode 2) 153
4.6.9 Test Results (Mode 3) 158

5 Pictures of Test Arrangements 165

Appendix – Information on the Testing Laboratories 166

Release Control Record

Issue No.	Description	Date Issued
RF160818E07	Original release.	Dec. 15, 2016

1 Certificate of Conformity

Product: Integrated Device

Brand: Technicolor

Test Model: TCA301TCH1

Series Model: TCA301TCH2, TCA301ROG1, TCA301COX2, TCA301BHN2, TCA301CMP2, TCA301TWC2

Sample Status: ENGINEERING SAMPLE

Applicant: Technicolor Connected Home USA LLC

Test Date: Aug. 26 to Nov. 10, 2016

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 EMC characteristics under the conditions specified in this report.

Prepared by : _____ , **Date:** Dec. 15, 2016
Midoli Peng / Specialist

Approved by : _____ , **Date:** Dec. 15, 2016
May Chen / Manager

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 -5.72dB at 0.27109MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 2390.00MHz & 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	Antenna connector is i-pex(MHF) not a standard connector.

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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.83 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.31 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.40 dB
	6GHz ~ 18GHz	3.73 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (WLAN)

Product	Integrated Device
Brand	Technicolor
Test Model	TCA301TCH1
Series Model	TCA301TCH2, TCA301ROG1, TCA301COX2, TCA301BHN2, TCA301CMP2, TCA301TWC2
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter or 4Vdc from battery
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS,OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 300Mbps
Operating Frequency	**For 15.407:** 5.18~5.24GHz, 5.26~5.32GHz, 5.50~5.70GHz, 5.745~5.825GHz
	For 15.247: 2.412 ~ 2.462GHz
Number of Channel	**For 15.407:** 802.11a, 802.11n (20MHz): 24 802.11n (40MHz): 11
	For 15.247: 802.11b, 802.11g, 802.11n (20MHz): 11 802.11n (40MHz): 7
Output Power	**For 15.407:** **1TX(With antenna 1) :** 5180-5240MHz : 66.527mW 5260-5320MHz : 81.658mW 5500-5700MHz : 41.783mW 5745-5825MHz : 41.783mW **1TX(With antenna 2) :** 5180-5240MHz : 82.224mW 5260-5320MHz : 81.658mW 5500-5700MHz : 40.738mW 5745-5825MHz : 38.371mW **2TX :** 5180-5240MHz : 170.819mW 5260-5320MHz : 170.674mW 5500-5700MHz : 80.736mW 5745-5825MHz : 83.735mW
	For 15.247: **1TX(With antenna 1) :** 142.561mW **1TX(With antenna 2) :** 116.145mW **2TX :** 154.565mW

Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x1 Battery x1
Data Cable Supplied	NA
HW Version	FGR
SW Version	i-control v.1.4.0

Note

1. All models are listed as below.

Brand	Model	Difference
Technicolor	TCA301TCH1	For marketing requirement
	TCA301TCH2	
	TCA301ROG1	
	TCA301COX2	
	TCA301BHN2	
	TCA301CMP2	
	TCA301TWC2	

From the above models, model: **TCA301TCH1** was selected as representative model for the test and its data was recorded in this report.

2. There are WLAN, Bluetooth, Zigbee, Zigbee Thread and WWAN technology used for the EUT.
3. Simultaneously transmission condition.

Condition	Technology				
1	WLAN (2.4GHz)	Bluetooth	Zigbee	Zigbee Thread	WWAN (2G/3G/4G)
2	WLAN (5GHz)	Bluetooth	Zigbee	Zigbee Thread	WWAN (2G/3G/4G)
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.					

4. The EUT power needs to be supplied from one power adapter or battery, the information is as below table:

Adapter		
Brand	Model	Spec.
AcBel	WAF007	Input: 100-120Vac, 50/60Hz, 0.7A Output: 12V, 1.5A DC output cable (Unshielded, 3m)
Battery		
Brand	Model	Spec.
GETAC	U46P332.00	4V 3540mAh 14.16Wh

5. The antennas provided to the EUT, please refer to the following table:

WLAN & BT Antenna Spec.					
Antenna No.	Transmitter Circuit	Max Gain(dBi) Including cable loss	Frequency range (MHz)	Antenna Type	Antenna Connector
WiFi 1 & BT	Chain (0)	2.29 3.36 3.66 3.77 3.36	2400~2500 5150~5250 5250~5350 5470~5725 5725~5850	FPCB	i-pex(MHF)
WiFi 2	Chain (1)	2.34 3.62 3.55 2.86 2.99	2400~2500 5150~5250 5250~5350 5470~5725 5725~5850	PCB	i-pex(MHF)
Zigbee Antenna Spec.					
Antenna No.		Gain(dBi) Including cable loss	Frequency range (MHz)	Antenna Type	Antenna Connector
Zigbee-A		2.33	2400~2500	PCB	i-pex(MHF)
Zigbee- Thread		2.5	2400~2500	PCB	i-pex(MHF)
WWAN Antenna Spec.					
Antenna No.		Gain(dBi) Including cable loss	Frequency range (MHz)	Antenna Type	Antenna Connector
WWAN 1		1.62 2.36	704~894 1710~2170	PCB	i-pex(MHF)
WWAN 2		0.63 1.66	704~894 1710~2170	FPCB	i-pex(MHF)

6. The detail information of WLAN antenna gain as below table:

2.4GHz					
	Channel	**SISO 1S1T Ant 1**	**SISO 1S1T Ant 2**	**CCD mode for power gain 1S2T (1&2)**	**CCD mode for PSD gain 1S2T (1&2)**
BW20	2412	1.29	1.90	1.90	4.17
	2437	1.65	1.98	1.98	4.28
	2462	2.15	2.15	2.15	4.60
BW40	2422	1.39	1.94	1.94	4.22
	2437	1.65	1.98	1.98	4.28
	2452	2.03	2.09	2.09	4.51
5GHz					
	Channel	**SISO 1S1T Ant 1**	**SISO 1S1T Ant 2**	**CCD mode for power gain 1S2T (1&2)**	**CCD mode for PSD gain 1S2T (1&2)**
BW20	5180	2.66	3.38	3.38	4.57
	5200	2.81	3.38	3.38	4.59
	5240	3.32	3.55	3.55	4.72
	5260	3.43	3.54	3.54	4.81
	5300	3.53	3.25	3.53	4.48
	5320	3.66	3.08	3.66	4.26
	5500	3.76	2.59	3.76	3.38
	5580	3.34	2.37	3.34	3.31
	5700	3.24	2.73	3.24	3.24
	5745	3.26	2.94	3.26	3.50
	5785	3.23	2.84	3.23	3.55
	5825	1.68	2.86	2.86	3.34
BW40	5190	3.73	3.31	3.31	4.51
	5230	3.36	3.62	3.62	4.77
	5270	3.45	3.5	3.50	4.76
	5310	3.46	3.07	3.46	4.28
	5510	3.78	2.45	3.78	3.33
	5550	3.55	2.06	3.55	3.47
	5670	3.21	2.65	3.21	3.06
	5755	3.28	2.99	3.28	3.57
	5795	2.56	2.86	2.86	3.31

7. The EUT incorporates a MIMO function.

2.4GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11b	1 ~ 11Mbps	1TX diversity	2RX
802.11g	6 ~ 54Mbps	1TX diversity / 2TX	2RX
802.11n (20MHz)	MCS 0~7	1TX diversity / 2TX	2RX
	MCS 8~15	2TX	2RX
802.11n (40MHz)	MCS 0~7	1TX diversity / 2TX	2RX
	MCS 8~15	2TX	2RX
5GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11a	6 ~ 54Mbps	1TX diversity / 2TX	2RX
802.11n (20MHz)	MCS 0~7	1TX diversity / 2TX	2RX
	MCS 8~15	2TX	2RX
802.11n (40MHz)	MCS 0~7	1TX diversity / 2TX	2RX
	MCS 8~15	2TX	2RX

8. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

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

7 channels are provided for 802.11n (40MHz):

Channel	Frequency	Channel	Frequency
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
1	√	-	-	√	1TX (With Antenna 1)
2	√	-	-	√	1TX (With Antenna 2)
3	√	√	√	√	2TX

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement
RE<1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
APCM: Antenna Port Conducted Measurement

NOTE: 1. The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **Y-plane.**
2. "-"means no effect.

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)
Mode 1, 2	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
Mode 3	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

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)
Mode 3	802.11g	1 to 11	6	OFDM	BPSK	6

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)
Mode 3	802.11g	1 to 11	6	OFDM	BPSK	6

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)
Mode 1, 2	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5
Mode 3	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
	802.11n (40MHz)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 62%RH 25deg. C, 65%RH	120Vac, 60Hz	Jyunchun Lin Robert Cheng
RE<1G	24deg. C, 61%RH	120Vac, 60Hz	Jyunchun Lin
PLC	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin
APCM	24deg. C, 66%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is ≥ 98 %, duty factor is not required.

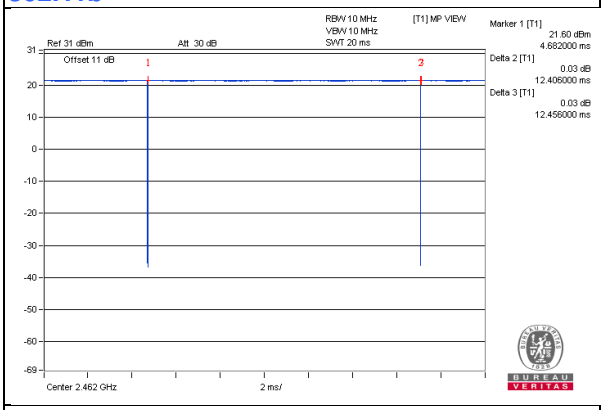
802.11b: Duty cycle = 12.406/12.456 = 0.996

802.11g: Duty cycle = 2.064/2.083 = 0.991

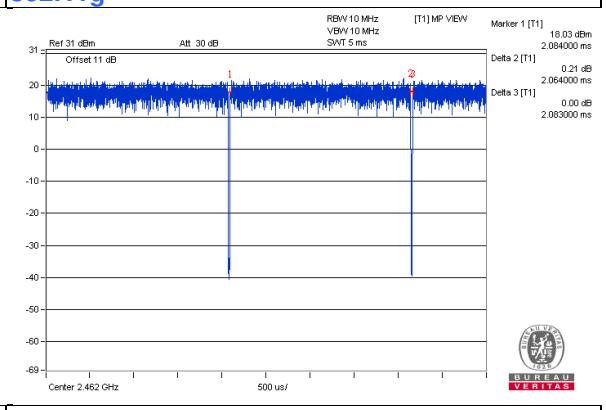
802.11n (20MHz): Duty cycle = 1.919/1.941 = 0.989

802.11n (40MHz): Duty cycle = 0.943/0.962 = 0.98

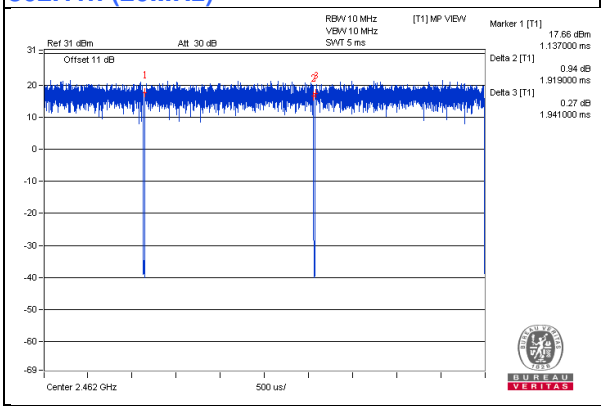
802.11b



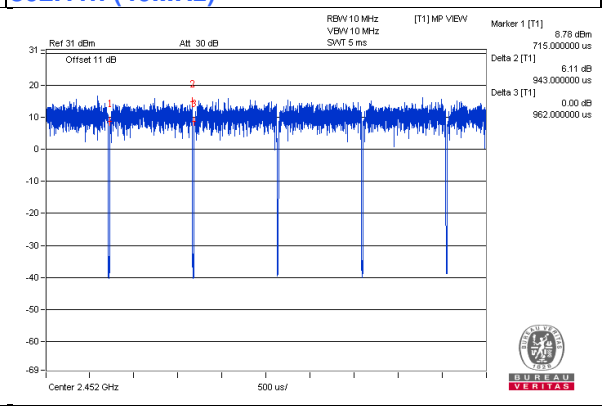
802.11g



802.11n (20MHz)



802.11n (40MHz)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

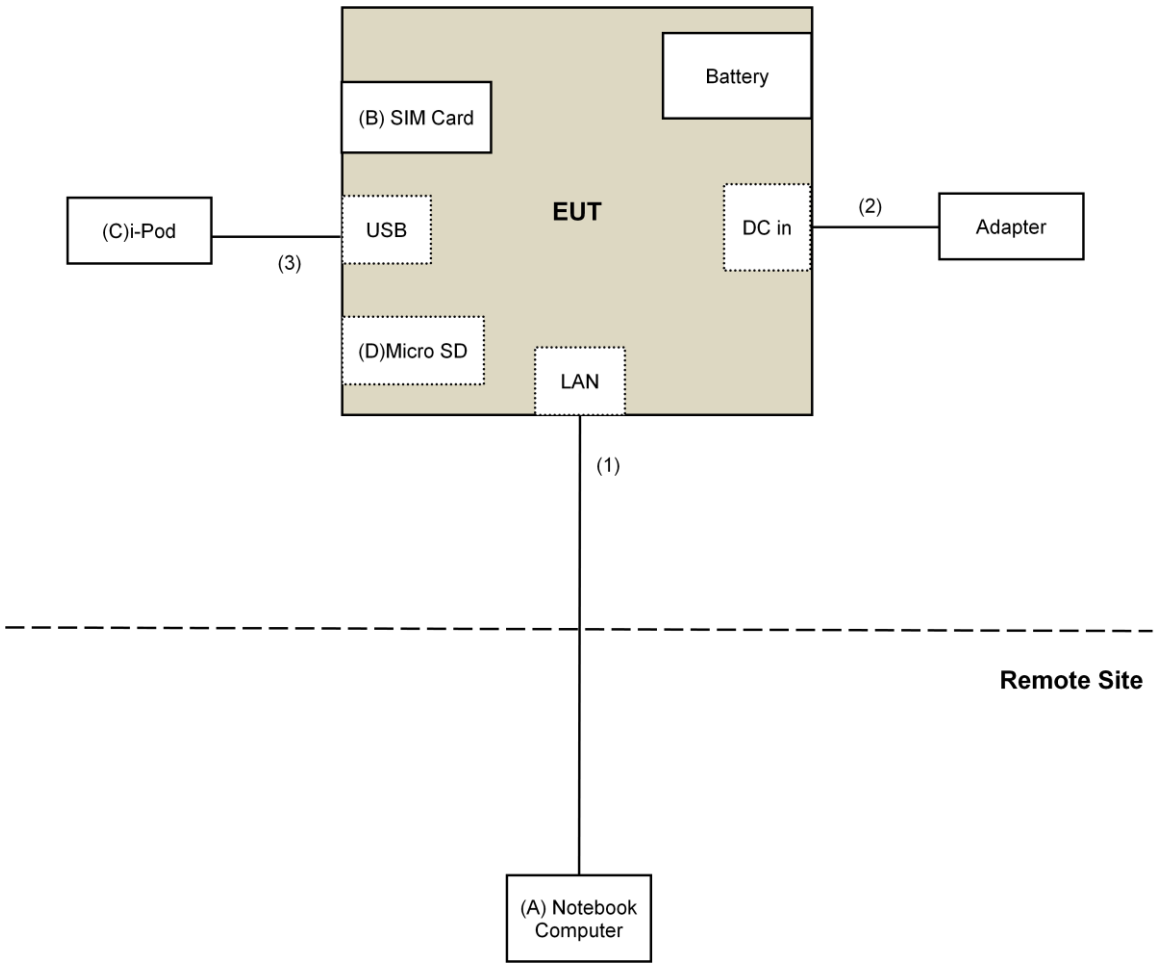
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook Computer	HP	Pavilion 14-ab023TU	5CD5340WXZ	NA	Provided by Lab
B.	SIM Card	NA	NA	NA	NA	Provided by Lab
C.	i-Pod	Apple	MD778TA/A	CC4JMFL0F4T1	NA	Provided by Lab
D.	Micro SD	NA	NA	NA	NA	Provided by Lab

Note:

1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45 Cable	1	10	No	0	Provided by Lab
2.	DC Cable	1	3	No	0	Supplied by client
3.	USB Calbe	1	0.1	Yes	0	Provided by Lab

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 DTS Meas Guidance v03r05
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 30dB 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.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 20, 2016	July 19, 2017
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2016	Jan. 17, 2017
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-05	May 07, 2016	May 06, 2017
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-156	Jan. 04, 2016	Jan. 03, 2017
RF Cable	8D	966-3-1 966-3-2 966-3-3	Apr. 02, 2016	Apr. 01, 2017
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Jan. 20, 2016	Jan. 19, 2017
Pre-Amplifier Agilent	8449B	3008A02465	Apr. 05, 2016	Apr. 04, 2017
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150317 150321 150322	Mar. 30, 2016	Mar. 29, 2017
Spectrum Analyzer Keysight	N9030A	MY54490520	July 29, 2016	July 28, 2017
Pre-Amplifier EMCI	EMC184045	980143	Jan. 15, 2016	Jan. 14, 2017
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Jan. 08, 2016	Jan. 07, 2017
RF Cable	SUCOFLEX 102	36432/2 36441/2	Jan. 16, 2016	Jan. 15, 2017
Software	ADT_Radiated _V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Spectrum Analyzer R&S	FSP40	100036	Jan. 27, 2016	Jan. 26, 2017
Power meter Anritsu	ML2495A	0824006	May 26, 2016	May 25, 2017
Power sensor Anritsu	MA2411B	0738172	May 26, 2016	May 25, 2017

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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 3.
4. The FCC Site Registration No. is 147459
5. The CANADA Site Registration No. is 20331-1
6. Loop antenna was used for all emissions below 30 MHz
7. Tested Date: Sep. 12 to Nov. 10, 2016

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. Both X and Y axes 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 ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.

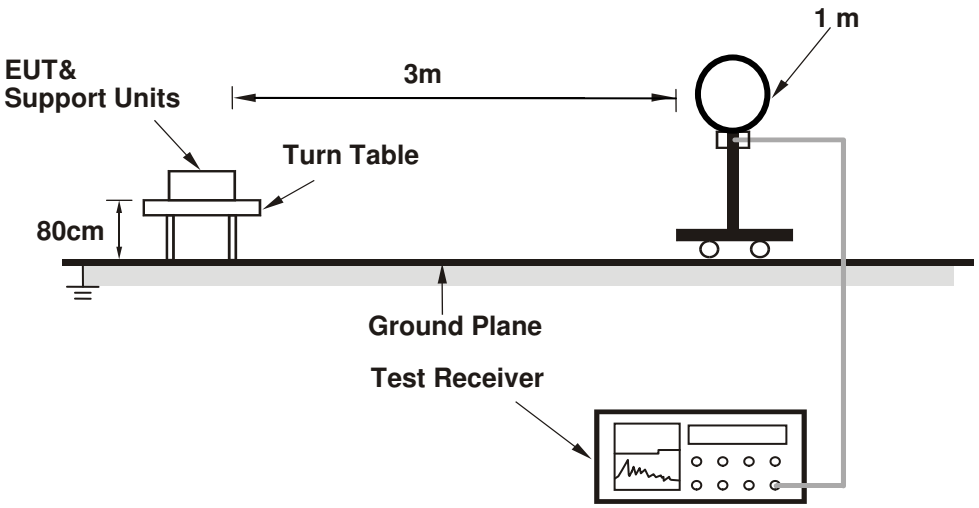
1. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

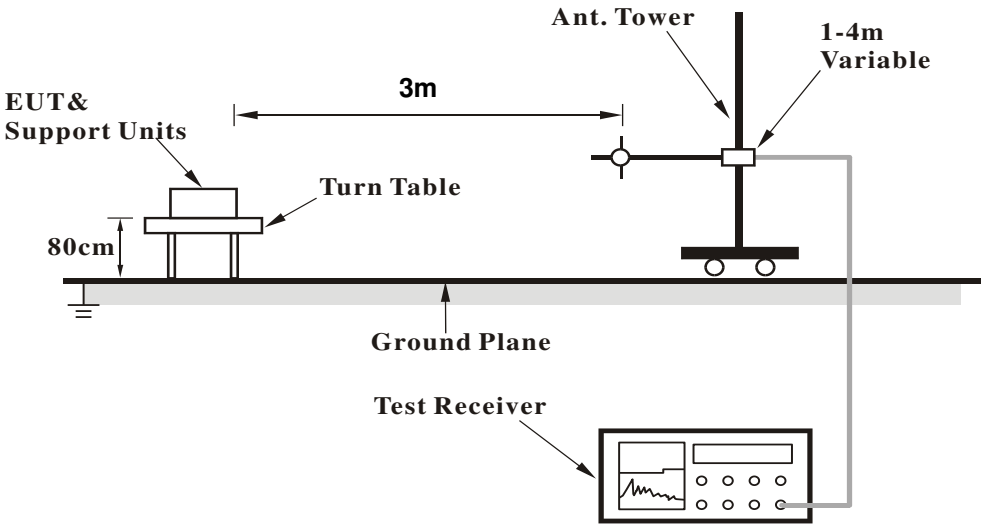
No deviation.

4.1.5 Test Setup

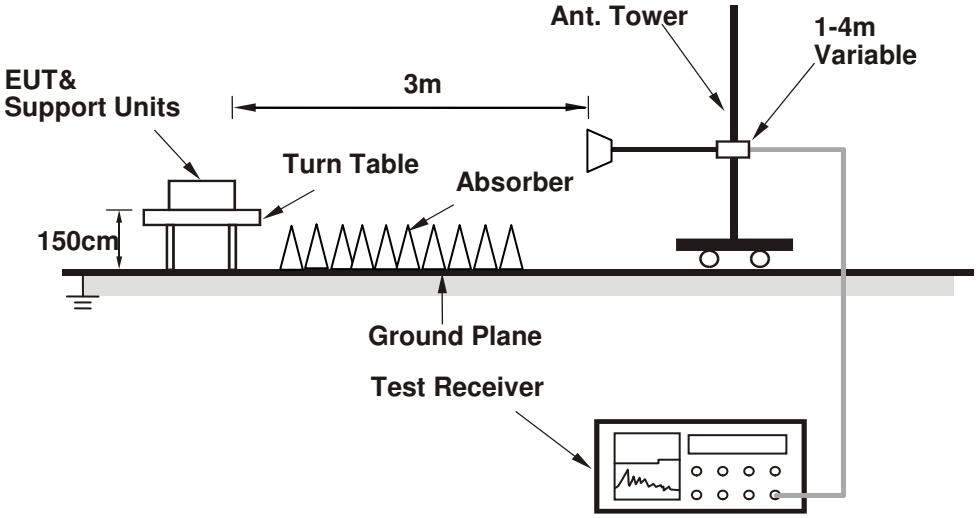
For Radiated emission below 30MHz



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).

4.1.6 EUT Operating Conditions

1. Connect the EUT with the support unit A (Notebook Computer) which is placed on test table.
2. The communication partner run test program “CMD.exe Paste Command” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 Test Results (Mode 1, Bandedge)

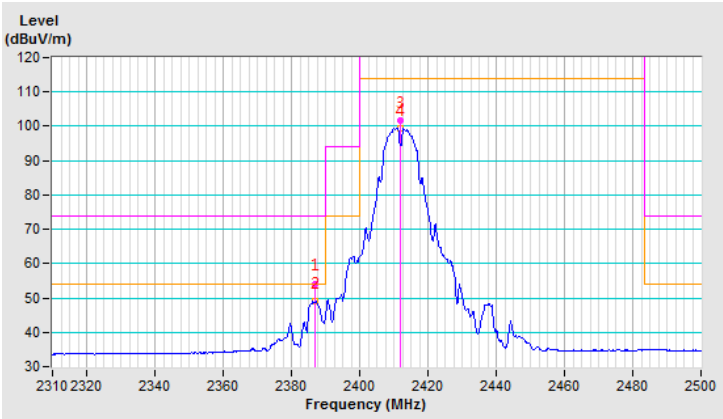
802.11b

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

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	2387.00	54.2 PK	74.0	-19.8	2.70 H	251	58.5	-4.3
2	2387.00	48.9 AV	54.0	-5.1	2.70 H	251	53.2	-4.3
3	*2412.00	101.8 PK			2.70 H	251	105.9	-4.1
4	*2412.00	99.5 AV			2.70 H	251	103.6	-4.1

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.

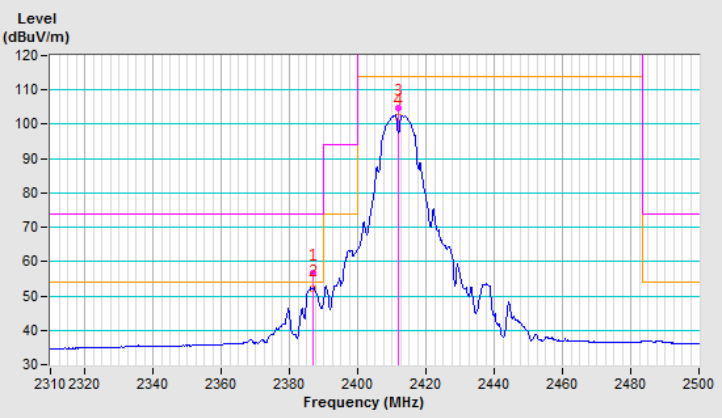


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2387.00	56.8 PK	74.0	-17.2	2.54 V	46	61.1	-4.3
2	2387.00	52.1 AV	54.0	-1.9	2.54 V	46	56.4	-4.3
3	*2412.00	104.7 PK			2.54 V	46	108.8	-4.1
4	*2412.00	102.1 AV			2.54 V	46	106.2	-4.1

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.

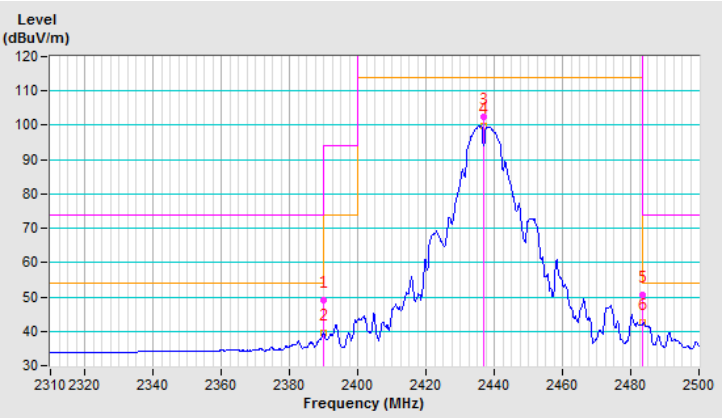


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	48.9 PK	74.0	-25.1	1.43 H	264	53.1	-4.2
2	2390.00	39.4 AV	54.0	-14.6	1.43 H	264	43.6	-4.2
3	*2437.00	102.3 PK			1.43 H	264	106.3	-4.0
4	*2437.00	99.9 AV			1.43 H	264	103.9	-4.0
5	2483.50	50.6 PK	74.0	-23.4	1.43 H	264	54.6	-4.0
6	2483.50	42.6 AV	54.0	-11.4	1.43 H	264	46.6	-4.0

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.

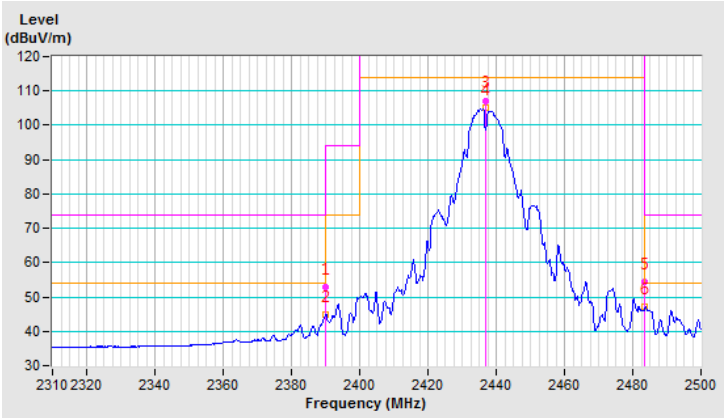


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	52.7 PK	74.0	-21.3	2.06 V	33	56.9	-4.2
2	2390.00	44.7 AV	54.0	-9.3	2.06 V	33	48.9	-4.2
3	*2437.00	107.2 PK			2.06 V	33	111.2	-4.0
4	*2437.00	105.0 AV			2.06 V	33	109.0	-4.0
5	2483.50	54.4 PK	74.0	-19.6	2.06 V	33	58.4	-4.0
6	2483.50	47.2 AV	54.0	-6.8	2.06 V	33	51.2	-4.0

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.

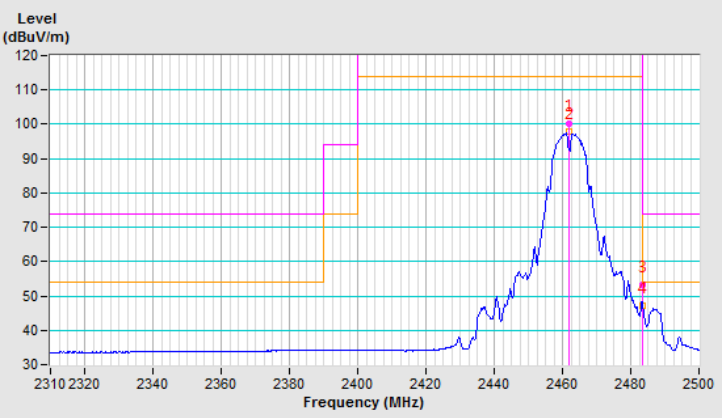


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	100.2 PK			2.84 H	251	104.3	-4.1
2	*2462.00	97.7 AV			2.84 H	251	101.8	-4.1
3	2483.50	53.2 PK	74.0	-20.8	2.84 H	251	57.2	-4.0
4	2483.50	47.3 AV	54.0	-6.7	2.84 H	251	51.3	-4.0

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.

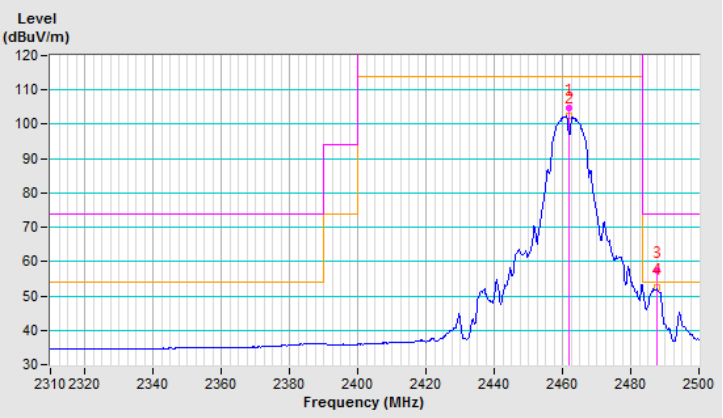


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	104.8 PK			2.62 V	46	108.9	-4.1
2	*2462.00	102.6 AV			2.62 V	46	106.7	-4.1
3	2487.70	57.4 PK	74.0	-16.6	2.62 V	46	61.4	-4.0
4	2487.70	52.4 AV	54.0	-1.6	2.62 V	46	56.4	-4.0

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.



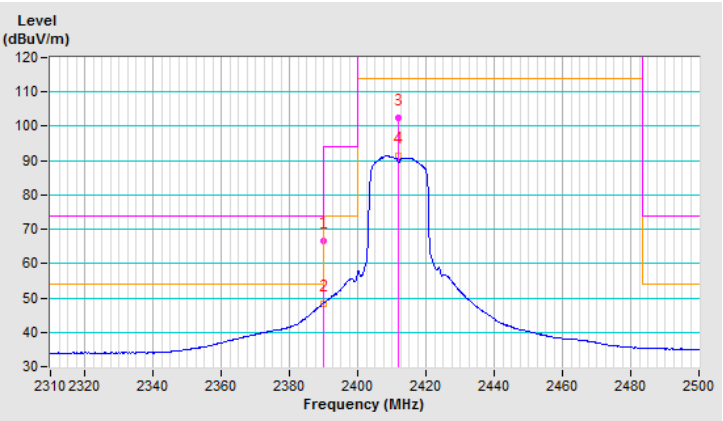
802.11g

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

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	2390.00	66.6 PK	74.0	-7.4	2.68 H	252	70.8	-4.2
2	2390.00	48.4 AV	54.0	-5.6	2.68 H	252	52.6	-4.2
3	*2412.00	102.4 PK			2.68 H	252	106.5	-4.1
4	*2412.00	91.4 AV			2.68 H	252	95.5	-4.1

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.

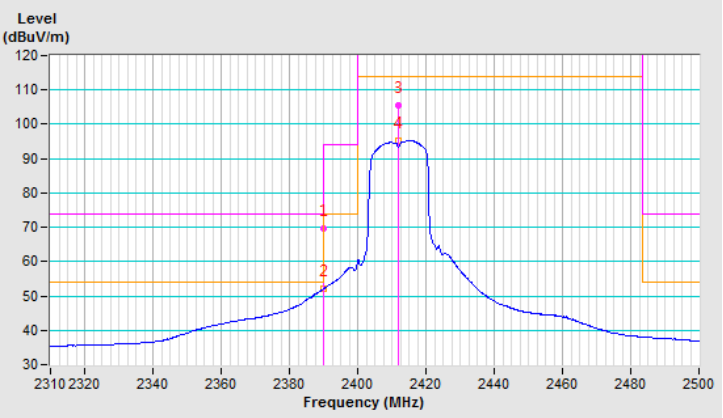


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	69.5 PK	74.0	-4.5	2.53 V	37	73.7	-4.2
2	2390.00	52.1 AV	54.0	-1.9	2.53 V	37	56.3	-4.2
3	*2412.00	105.4 PK			2.53 V	37	109.5	-4.1
4	*2412.00	95.2 AV			2.53 V	37	99.3	-4.1

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.

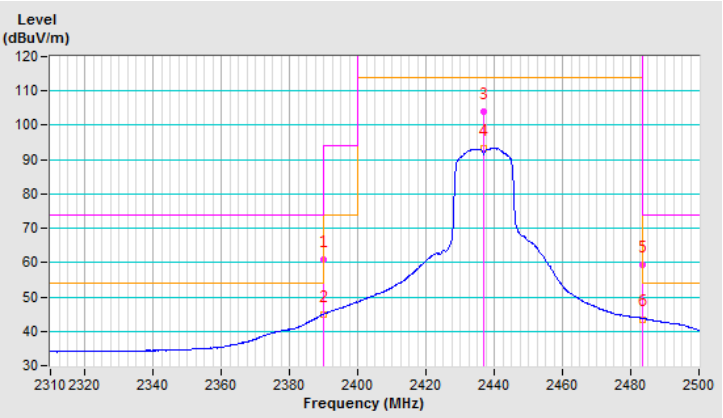


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	60.7 PK	74.0	-13.3	2.67 H	245	64.9	-4.2
2	2390.00	44.9 AV	54.0	-9.1	2.67 H	245	49.1	-4.2
3	*2437.00	103.9 PK			2.67 H	245	107.9	-4.0
4	*2437.00	93.3 AV			2.67 H	245	97.3	-4.0
5	2483.50	59.5 PK	74.0	-14.5	2.67 H	245	63.5	-4.0
6	2483.50	43.5 AV	54.0	-10.5	2.67 H	245	47.5	-4.0

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.

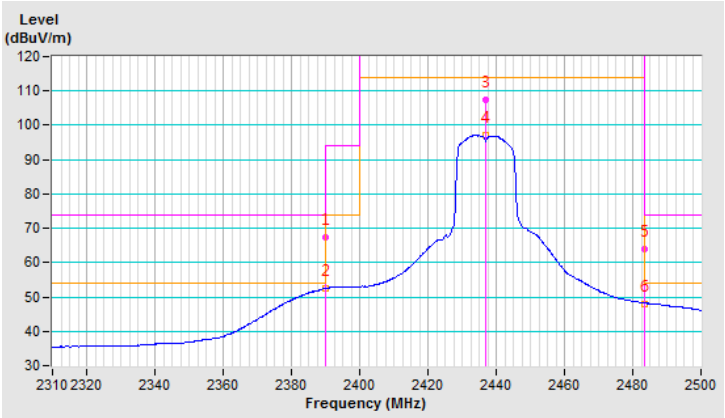


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	67.2 PK	74.0	-6.8	2.09 V	44	71.4	-4.2
2	2390.00	52.5 AV	54.0	-1.5	2.09 V	44	56.7	-4.2
3	*2437.00	107.4 PK			2.09 V	44	111.4	-4.0
4	*2437.00	97.0 AV			2.09 V	44	101.0	-4.0
5	2483.50	63.9 PK	74.0	-10.1	2.09 V	44	67.9	-4.0
6	2483.50	47.9 AV	54.0	-6.1	2.09 V	44	51.9	-4.0

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.

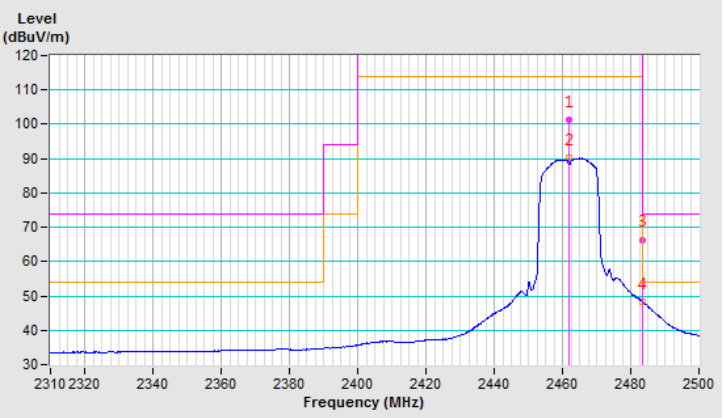


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	101.2 PK			2.82 H	252	105.3	-4.1
2	*2462.00	90.2 AV			2.82 H	252	94.3	-4.1
3	2483.50	66.4 PK	74.0	-7.6	2.82 H	252	70.4	-4.0
4	2483.50	48.3 AV	54.0	-5.7	2.82 H	252	52.3	-4.0

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.

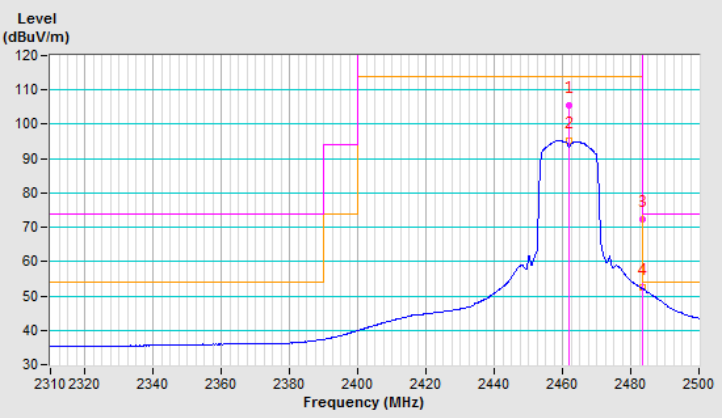


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	105.4 PK			2.44 V	35	109.5	-4.1
2	*2462.00	95.1 AV			2.44 V	35	99.2	-4.1
3	2483.50	72.2 PK	74.0	-1.8	2.44 V	35	76.2	-4.0
4	2483.50	52.6 AV	54.0	-1.4	2.44 V	35	56.6	-4.0

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.



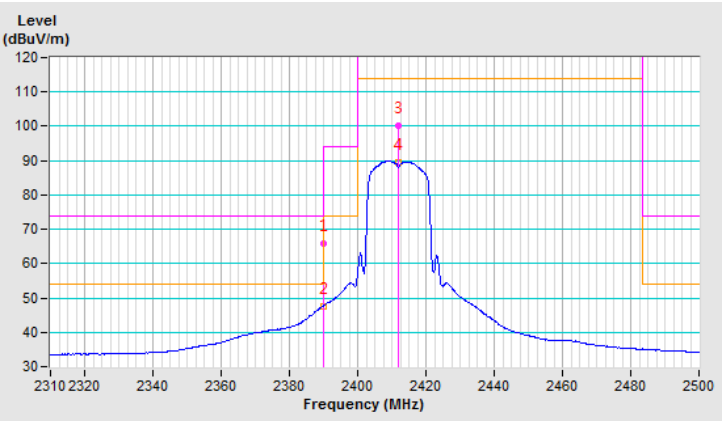
802.11n (20MHz)

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

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	2390.00	65.7 PK	74.0	-8.3	2.44 H	252	69.9	-4.2
2	2390.00	47.5 AV	54.0	-6.5	2.44 H	252	51.7	-4.2
3	*2412.00	100.1 PK			2.44 H	252	104.2	-4.1
4	*2412.00	89.6 AV			2.44 H	252	93.7	-4.1

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.

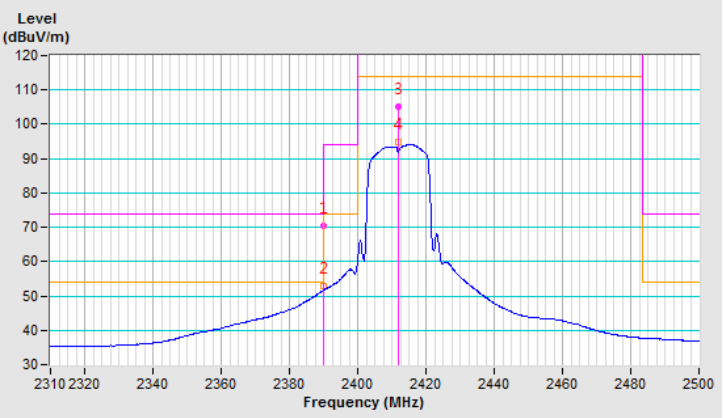


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	70.5 PK	74.0	-3.5	2.58 V	37	74.7	-4.2
2	2390.00	52.8 AV	54.0	-1.2	2.58 V	37	57.0	-4.2
3	*2412.00	105.0 PK			2.58 V	37	109.1	-4.1
4	*2412.00	94.7 AV			2.58 V	37	98.8	-4.1

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.

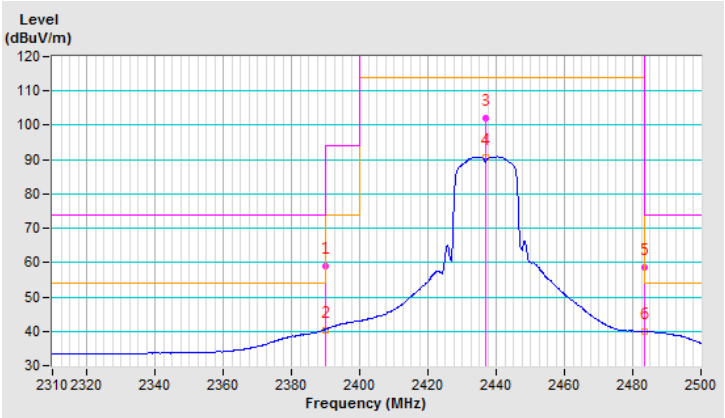


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	58.9 PK	74.0	-15.1	1.03 H	263	63.1	-4.2
2	2390.00	40.4 AV	54.0	-13.6	1.03 H	263	44.6	-4.2
3	*2437.00	102.0 PK			2.40 H	263	106.0	-4.0
4	*2437.00	90.6 AV			2.40 H	263	94.6	-4.0
5	2483.50	58.5 PK	74.0	-15.5	2.40 H	263	62.5	-4.0
6	2483.50	39.9 AV	54.0	-14.1	2.40 H	263	43.9	-4.0

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.

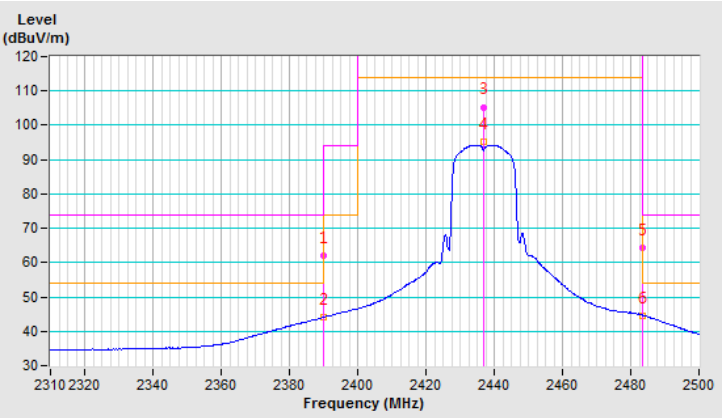


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	62.1 PK	74.0	-11.9	2.44 V	61	66.3	-4.2
2	2390.00	44.0 AV	54.0	-10.0	2.44 V	61	48.2	-4.2
3	*2437.00	105.3 PK			2.44 V	61	109.3	-4.0
4	*2437.00	95.2 AV			2.44 V	61	99.2	-4.0
5	2483.50	64.2 PK	74.0	-9.8	2.44 V	61	68.2	-4.0
6	2483.50	44.4 AV	54.0	-9.6	2.44 V	61	48.4	-4.0

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.

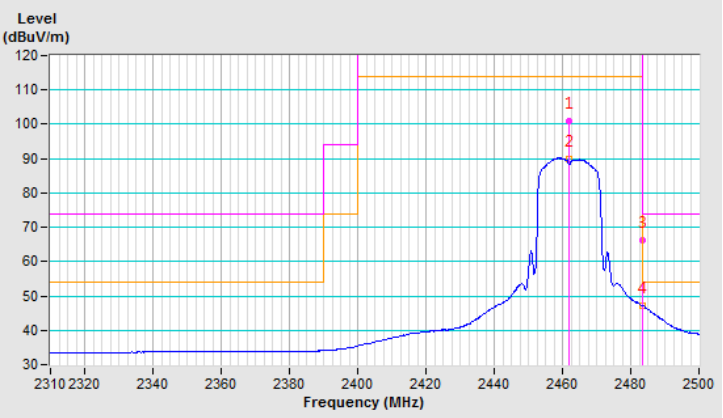


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	100.9 PK			2.61 H	244	105.0	-4.1
2	*2462.00	89.8 AV			2.61 H	244	93.9	-4.1
3	2483.50	66.2 PK	74.0	-7.8	2.61 H	244	70.2	-4.0
4	2483.50	47.0 AV	54.0	-7.0	2.61 H	244	51.0	-4.0

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.

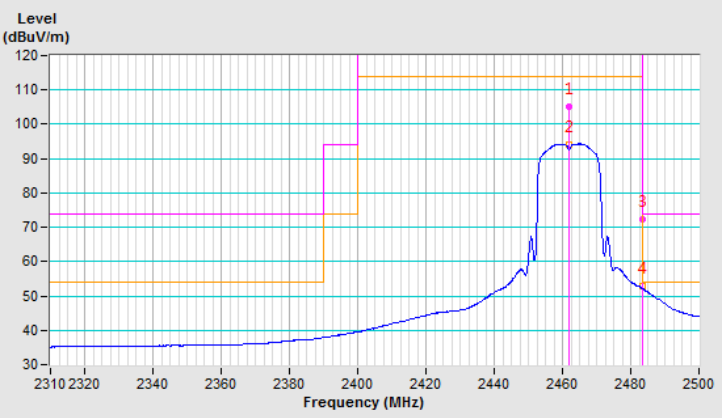


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	105.1 PK			2.70 V	45	109.2	-4.1
2	*2462.00	94.2 AV			2.70 V	45	98.3	-4.1
3	2483.50	72.4 PK	74.0	-1.6	2.70 V	45	76.4	-4.0
4	2483.50	52.7 AV	54.0	-1.3	2.70 V	45	56.7	-4.0

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.



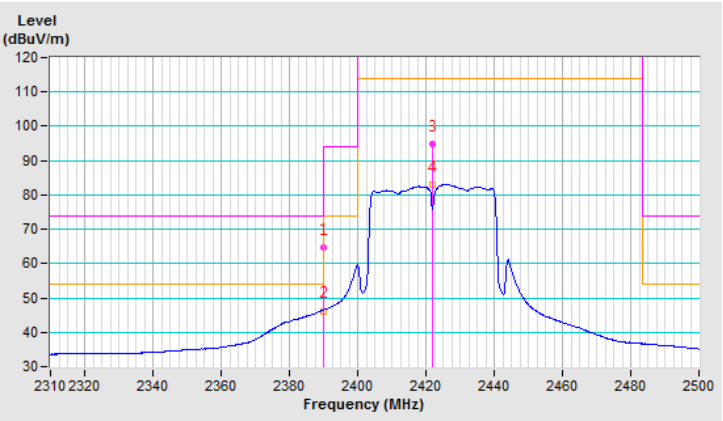
802.11n (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	64.8 PK	74.0	-9.2	2.66 H	263	69.0	-4.2
2	2390.00	46.2 AV	54.0	-7.8	2.66 H	263	50.4	-4.2
3	*2422.00	94.9 PK			2.66 H	263	99.0	-4.1
4	*2422.00	82.9 AV			2.66 H	263	87.0	-4.1

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.

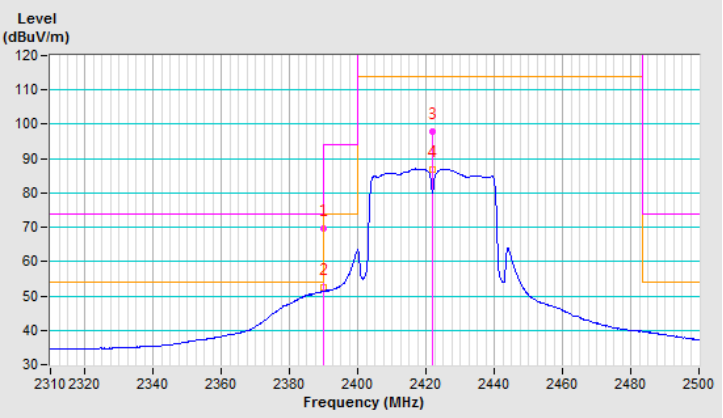


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	69.6 PK	74.0	-4.4	2.54 V	37	73.8	-4.2
2	2390.00	52.6 AV	54.0	-1.4	2.54 V	37	56.8	-4.2
3	*2422.00	98.0 PK			2.54 V	37	102.1	-4.1
4	*2422.00	86.9 AV			2.54 V	37	91.0	-4.1

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.

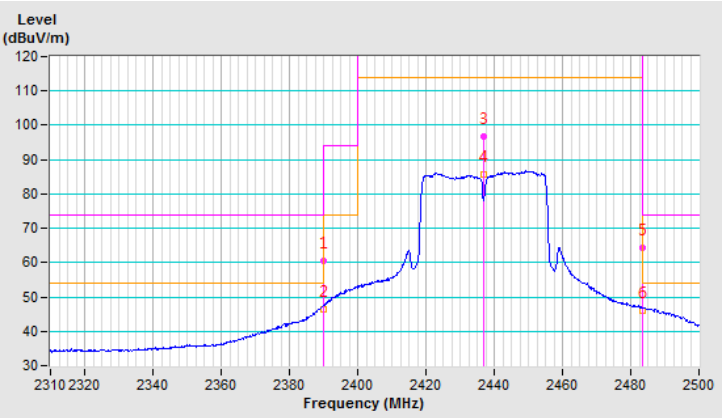


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	60.6 PK	74.0	-13.4	2.64 H	263	64.8	-4.2
2	2390.00	46.5 AV	54.0	-7.5	2.64 H	263	50.7	-4.2
3	*2437.00	96.6 PK			2.64 H	263	100.6	-4.0
4	*2437.00	85.8 AV			2.64 H	263	89.8	-4.0
5	2483.50	64.4 PK	74.0	-9.6	2.64 H	263	68.4	-4.0
6	2483.50	46.1 AV	54.0	-7.9	2.64 H	263	50.1	-4.0

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.

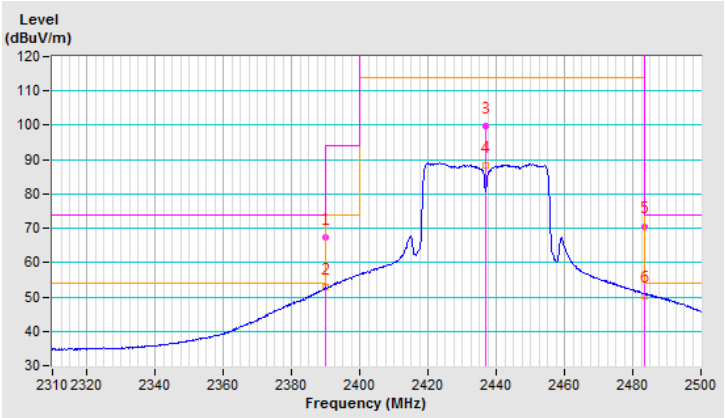


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	67.4 PK	74.0	-6.6	2.61 V	40	71.6	-4.2
2	2390.00	52.7 AV	54.0	-1.3	2.61 V	40	56.9	-4.2
3	*2437.00	99.8 PK			2.61 V	40	103.8	-4.0
4	*2437.00	88.4 AV			2.61 V	40	92.4	-4.0
5	2483.50	70.6 PK	74.0	-3.4	2.61 V	40	74.6	-4.0
6	2483.50	50.4 AV	54.0	-3.6	2.61 V	40	54.4	-4.0

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.

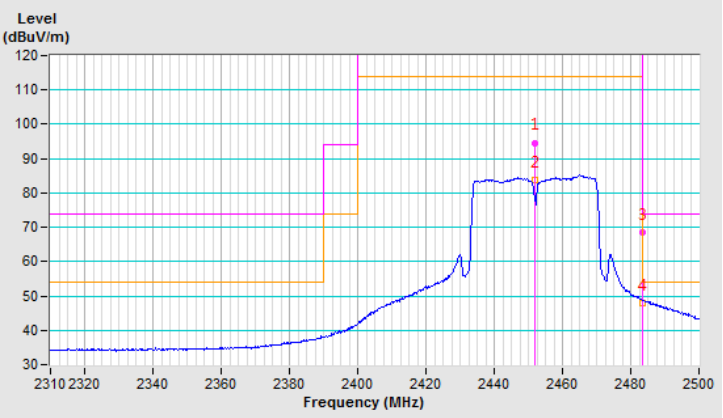


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	94.6 PK			2.55 H	254	98.7	-4.1
2	*2452.00	83.8 AV			2.55 H	254	87.9	-4.1
3	2483.50	68.4 PK	74.0	-5.6	2.55 H	254	72.4	-4.0
4	2483.50	47.9 AV	54.0	-6.1	2.55 H	254	51.9	-4.0

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.

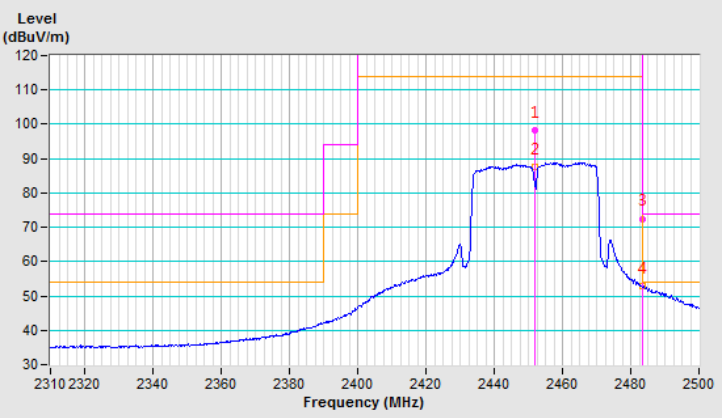


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	98.1 PK			3.32 V	41	102.2	-4.1
2	*2452.00	87.4 AV			3.32 V	41	91.5	-4.1
3	2483.50	72.5 PK	74.0	-1.5	3.32 V	41	76.5	-4.0
4	2483.50	52.7 AV	54.0	-1.3	3.32 V	41	56.7	-4.0

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 (Mode 1, Spurious emission)

Above 1GHz Data：

802.11b

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

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	4824.00	44.9 PK	74.0	-29.1	2.29 H	31	42.6	2.3
2	4824.00	39.4 AV	54.0	-14.6	2.29 H	31	37.1	2.3
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	4824.00	43.3 PK	74.0	-30.7	1.00 V	275	41.0	2.3
2	4824.00	36.6 AV	54.0	-17.4	1.00 V	275	34.3	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	45.0 PK	74.0	-29.0	2.29 H	41	42.5	2.5
2	4874.00	39.5 AV	54.0	-14.5	2.29 H	41	37.0	2.5
3	7311.00	36.5 PK	74.0	-37.5	1.00 H	88	27.6	8.9
4	7311.00	29.1 AV	54.0	-24.9	1.00 H	88	20.2	8.9
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	4874.00	43.0 PK	74.0	-31.0	1.02 V	280	40.5	2.5
2	4874.00	36.1 AV	54.0	-17.9	1.02 V	280	33.6	2.5
3	7311.00	37.6 PK	74.0	-36.4	1.03 V	271	28.7	8.9
4	7311.00	31.0 AV	54.0	-23.0	1.03 V	271	22.1	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	45.1 PK	74.0	-28.9	2.33 H	44	42.6	2.5
2	4924.00	39.4 AV	54.0	-14.6	2.33 H	44	36.9	2.5
3	7386.00	37.1 PK	74.0	-36.9	1.06 H	72	27.8	9.3
4	7386.00	29.4 AV	54.0	-24.6	1.06 H	72	20.1	9.3
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	4924.00	42.6 PK	74.0	-31.4	1.09 V	283	40.1	2.5
2	4924.00	35.8 AV	54.0	-18.2	1.09 V	283	33.3	2.5
3	7386.00	37.3 PK	74.0	-36.7	1.04 V	279	28.0	9.3
4	7386.00	30.5 AV	54.0	-23.5	1.04 V	279	21.2	9.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4824.00	44.3 PK	74.0	-29.7	2.30 H	44	42.0	2.3
2	4824.00	39.1 AV	54.0	-14.9	2.30 H	44	36.8	2.3
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	4824.00	41.9 PK	74.0	-32.1	1.05 V	268	39.6	2.3
2	4824.00	35.4 AV	54.0	-18.6	1.05 V	268	33.1	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.6 PK	74.0	-29.4	2.28 H	46	42.1	2.5
2	4874.00	39.2 AV	54.0	-14.8	2.28 H	46	36.7	2.5
3	7311.00	37.3 PK	74.0	-36.7	1.01 H	59	28.4	8.9
4	7311.00	29.8 AV	54.0	-24.2	1.01 H	59	20.9	8.9
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	4874.00	42.7 PK	74.0	-31.3	1.06 V	296	40.2	2.5
2	4874.00	35.9 AV	54.0	-18.1	1.06 V	296	33.4	2.5
3	7311.00	37.3 PK	74.0	-36.7	1.09 V	264	28.4	8.9
4	7311.00	30.8 AV	54.0	-23.2	1.09 V	264	21.9	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	45.3 PK	74.0	-28.7	2.26 H	45	42.8	2.5
2	4924.00	39.7 AV	54.0	-14.3	2.26 H	45	37.2	2.5
3	7386.00	37.7 PK	74.0	-36.3	1.05 H	60	28.4	9.3
4	7386.00	29.9 AV	54.0	-24.1	1.05 H	60	20.6	9.3
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	4924.00	42.5 PK	74.0	-31.5	1.06 V	291	40.0	2.5
2	4924.00	35.4 AV	54.0	-18.6	1.06 V	291	32.9	2.5
3	7386.00	37.5 PK	74.0	-36.5	1.03 V	284	28.2	9.3
4	7386.00	30.7 AV	54.0	-23.3	1.03 V	284	21.4	9.3

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 (20MHz)

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

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	4824.00	44.0 PK	74.0	-30.0	2.28 H	61	41.7	2.3
2	4824.00	38.8 AV	54.0	-15.2	2.28 H	61	36.5	2.3
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	4824.00	42.0 PK	74.0	-32.0	1.09 V	282	39.7	2.3
2	4824.00	34.9 AV	54.0	-19.1	1.09 V	282	32.6	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.8 PK	74.0	-29.2	2.24 H	57	42.3	2.5
2	4874.00	39.6 AV	54.0	-14.4	2.24 H	57	37.1	2.5
3	7311.00	38.4 PK	74.0	-35.6	1.14 H	72	29.5	8.9
4	7311.00	30.3 AV	54.0	-23.7	1.14 H	72	21.4	8.9
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	4874.00	42.4 PK	74.0	-31.6	1.03 V	297	39.9	2.5
2	4874.00	35.4 AV	54.0	-18.6	1.03 V	297	32.9	2.5
3	7311.00	36.9 PK	74.0	-37.1	1.04 V	299	28.0	8.9
4	7311.00	30.3 AV	54.0	-23.7	1.04 V	299	21.4	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	44.9 PK	74.0	-29.1	2.33 H	54	42.4	2.5
2	4924.00	39.6 AV	54.0	-14.4	2.33 H	54	37.1	2.5
3	7386.00	37.9 PK	74.0	-36.1	1.09 H	69	28.6	9.3
4	7386.00	30.0 AV	54.0	-24.0	1.09 H	69	20.7	9.3
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	4924.00	42.6 PK	74.0	-31.4	1.06 V	281	40.1	2.5
2	4924.00	35.5 AV	54.0	-18.5	1.06 V	281	33.0	2.5
3	7386.00	37.0 PK	74.0	-37.0	1.04 V	283	27.7	9.3
4	7386.00	30.2 AV	54.0	-23.8	1.04 V	283	20.9	9.3

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 (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4844.00	45.0 PK	74.0	-29.0	2.28 H	60	42.7	2.3
2	4844.00	39.7 AV	54.0	-14.3	2.28 H	60	37.4	2.3
3	7266.00	37.9 PK	74.0	-36.1	1.12 H	64	29.1	8.8
4	7266.00	29.8 AV	54.0	-24.2	1.12 H	64	21.0	8.8
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	4844.00	42.3 PK	74.0	-31.7	1.10 V	278	40.0	2.3
2	4844.00	35.5 AV	54.0	-18.5	1.10 V	278	33.2	2.3
3	7266.00	37.5 PK	74.0	-36.5	1.06 V	294	28.7	8.8
4	7266.00	30.5 AV	54.0	-23.5	1.06 V	294	21.7	8.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.5 PK	74.0	-29.5	2.26 H	58	42.0	2.5
2	4874.00	38.9 AV	54.0	-15.1	2.26 H	58	36.4	2.5
3	7311.00	37.3 PK	74.0	-36.7	1.09 H	65	28.4	8.9
4	7311.00	29.7 AV	54.0	-24.3	1.09 H	65	20.8	8.9
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	4874.00	43.3 PK	74.0	-30.7	1.01 V	279	40.8	2.5
2	4874.00	35.9 AV	54.0	-18.1	1.01 V	279	33.4	2.5
3	7311.00	37.4 PK	74.0	-36.6	1.02 V	279	28.5	8.9
4	7311.00	30.7 AV	54.0	-23.3	1.02 V	279	21.8	8.9

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 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4904.00	45.1 PK	74.0	-28.9	2.33 H	42	42.6	2.5
2	4904.00	39.5 AV	54.0	-14.5	2.33 H	42	37.0	2.5
3	7356.00	38.6 PK	74.0	-35.4	1.10 H	67	29.4	9.2
4	7356.00	30.4 AV	54.0	-23.6	1.10 H	67	21.2	9.2
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	4904.00	42.4 PK	74.0	-31.6	1.01 V	283	39.9	2.5
2	4904.00	35.1 AV	54.0	-18.9	1.01 V	283	32.6	2.5
3	7356.00	36.6 PK	74.0	-37.4	1.03 V	297	27.4	9.2
4	7356.00	30.0 AV	54.0	-24.0	1.03 V	297	20.8	9.2

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 (Mode 2, Bandedge)

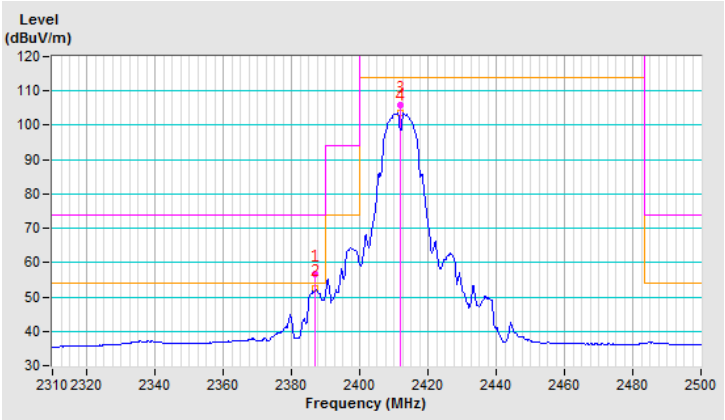
802.11b

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

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	2387.00	56.8 PK	74.0	-17.2	1.44 H	169	61.1	-4.3
2	2387.00	52.6 AV	54.0	-1.4	1.44 H	169	56.9	-4.3
3	*2412.00	105.9 PK			1.44 H	169	110.0	-4.1
4	*2412.00	103.6 AV			1.44 H	169	107.7	-4.1

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.

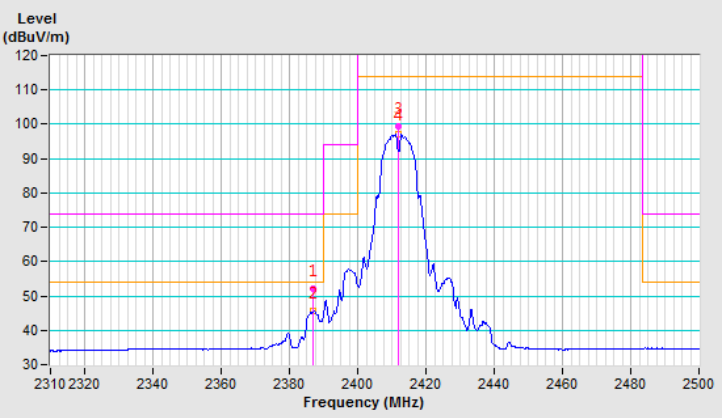


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2387.00	52.1 PK	74.0	-21.9	1.29 V	13	56.4	-4.3
2	2387.00	45.6 AV	54.0	-8.4	1.29 V	13	49.9	-4.3
3	*2412.00	99.5 PK			1.29 V	13	103.6	-4.1
4	*2412.00	97.3 AV			1.29 V	13	101.4	-4.1

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.

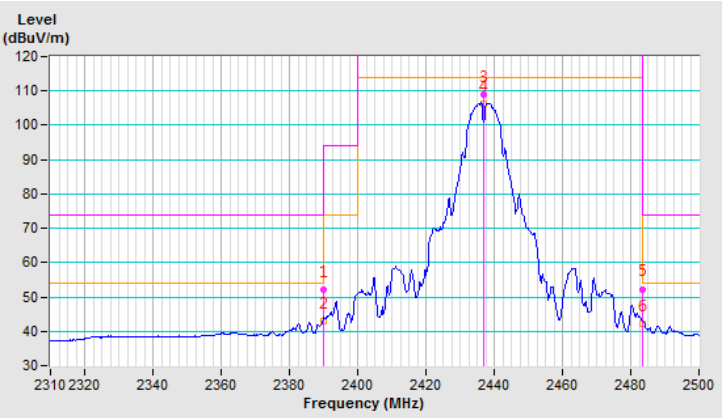


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	52.2 PK	74.0	-21.8	1.23 H	154	56.4	-4.2
2	2390.00	43.1 AV	54.0	-10.9	1.23 H	154	47.3	-4.2
3	*2437.00	108.8 PK			1.23 H	154	112.8	-4.0
4	*2437.00	106.4 AV			1.23 H	154	110.4	-4.0
5	2483.50	52.3 PK	74.0	-21.7	1.23 H	154	56.3	-4.0
6	2483.50	42.3 AV	54.0	-11.7	1.23 H	154	46.3	-4.0

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.

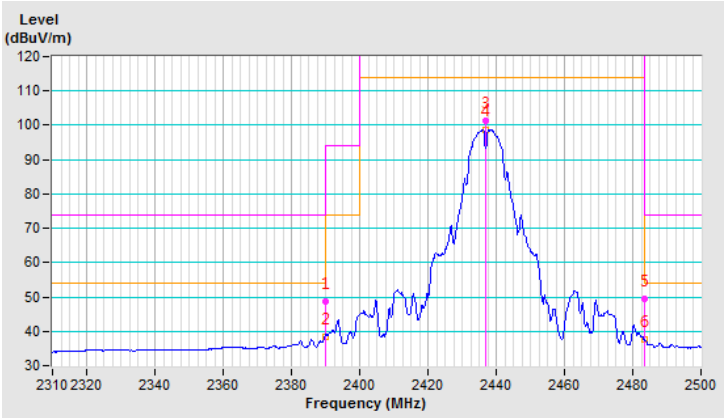


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	48.7 PK	74.0	-25.3	1.13 V	26	52.9	-4.2
2	2390.00	38.5 AV	54.0	-15.5	1.13 V	26	42.7	-4.2
3	*2437.00	101.2 PK			1.13 V	26	105.2	-4.0
4	*2437.00	98.8 AV			1.13 V	26	102.8	-4.0
5	2483.50	49.4 PK	74.0	-24.6	1.13 V	26	53.4	-4.0
6	2483.50	37.5 AV	54.0	-16.5	1.13 V	26	41.5	-4.0

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.

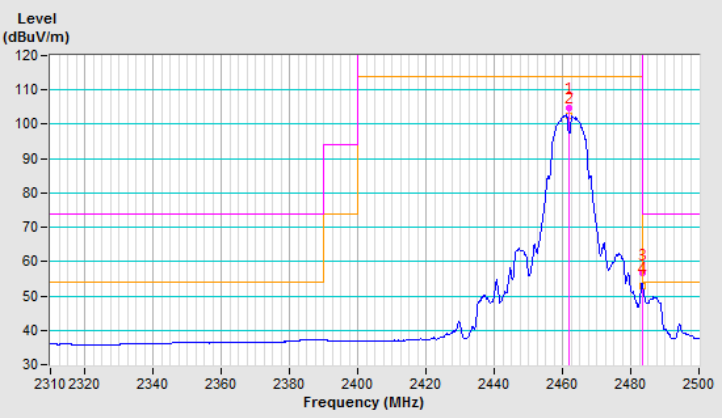


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	104.9 PK			1.19 H	158	109.0	-4.1
2	*2462.00	102.6 AV			1.19 H	158	106.7	-4.1
3	2483.50	56.7 PK	74.0	-17.3	1.19 H	158	60.7	-4.0
4	**2483.50**	**52.9 AV**	**54.0**	**-1.1**	**1.19 H**	**158**	**56.9**	**-4.0**

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.

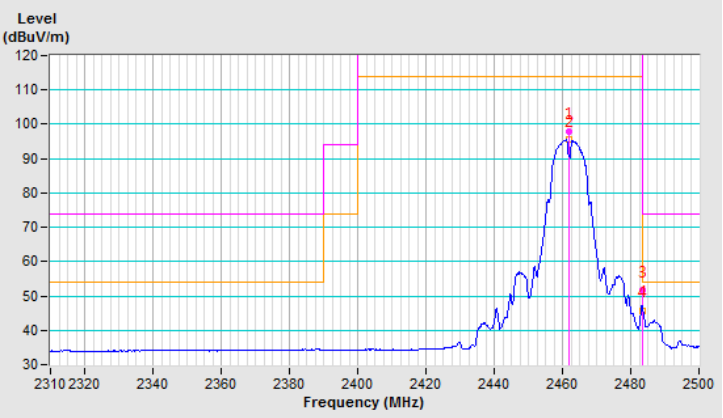


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	98.0 PK			1.15 V	17	102.1	-4.1
2	*2462.00	95.6 AV			1.15 V	17	99.7	-4.1
3	2483.50	51.8 PK	74.0	-22.2	1.15 V	17	55.8	-4.0
4	2483.50	45.8 AV	54.0	-8.2	1.15 V	17	49.8	-4.0

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.



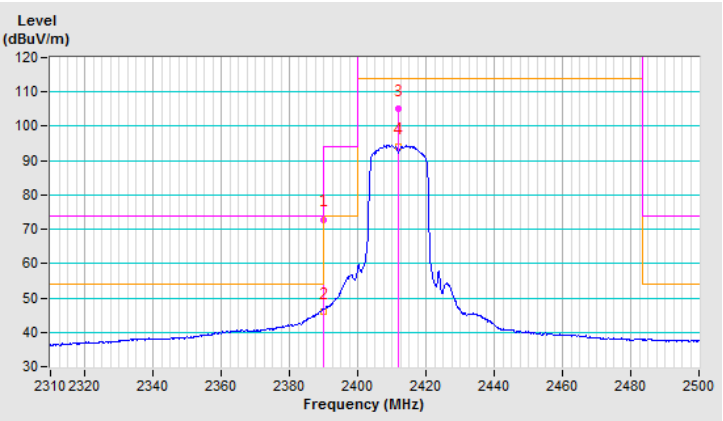
802.11g

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

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	**2390.00**	**72.9 PK**	**74.0**	**-1.1**	**1.00 H**	**143**	**77.6**	**-4.7**
2	2390.00	46.1 AV	54.0	-7.9	1.00 H	143	50.8	-4.7
3	*2412.00	105.2 PK			1.00 H	143	109.9	-4.7
4	*2412.00	94.2 AV			1.00 H	143	98.9	-4.7

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.

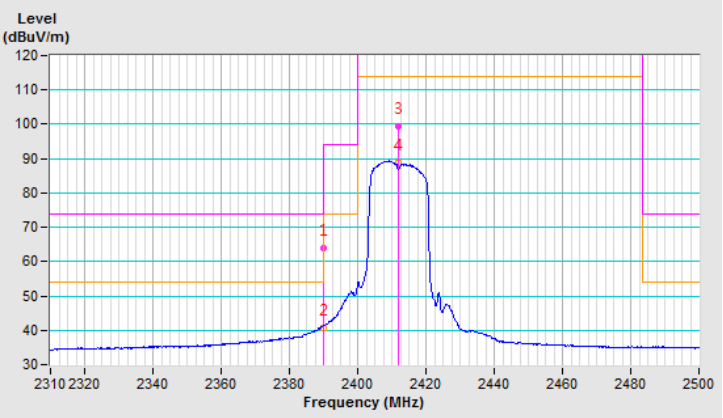


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	63.9 PK	74.0	-10.1	1.01 V	26	68.6	-4.7
2	2390.00	40.6 AV	54.0	-13.4	1.01 V	26	45.3	-4.7
3	*2412.00	99.4 PK			1.01 V	26	104.1	-4.7
4	*2412.00	88.6 AV			1.01 V	26	93.3	-4.7

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.

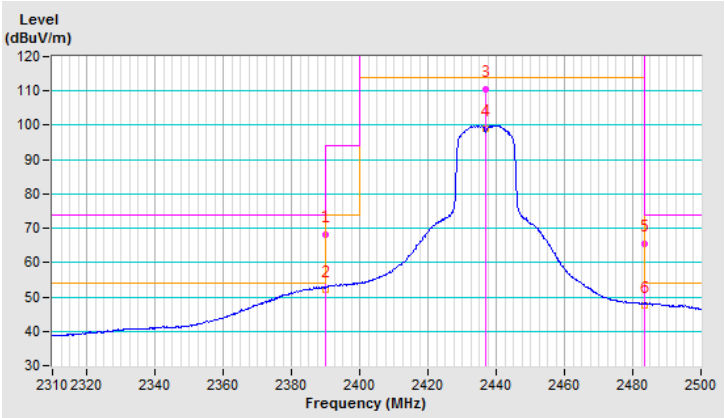


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	68.2 PK	74.0	-5.8	1.25 H	156	72.9	-4.7
2	2390.00	52.2 AV	54.0	-1.8	1.25 H	156	56.9	-4.7
3	*2437.00	110.5 PK			1.25 H	156	115.1	-4.6
4	*2437.00	99.1 AV			1.25 H	156	103.7	-4.6
5	2483.50	65.6 PK	74.0	-8.4	1.25 H	156	70.1	-4.5
6	2483.50	47.4 AV	54.0	-6.6	1.25 H	156	51.9	-4.5

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.

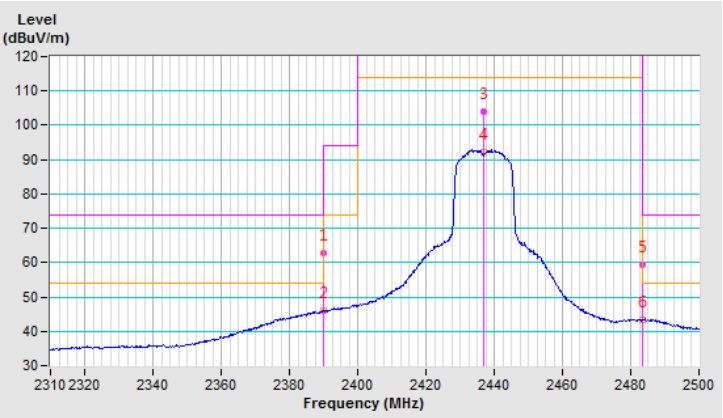


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	62.9 PK	74.0	-11.1	1.48 V	22	67.6	-4.7
2	2390.00	45.9 AV	54.0	-8.1	1.48 V	22	50.6	-4.7
3	*2437.00	103.9 PK			1.48 V	22	108.5	-4.6
4	*2437.00	92.2 AV			1.48 V	22	96.8	-4.6
5	2483.50	59.3 PK	74.0	-14.7	1.48 V	22	63.8	-4.5
6	2483.50	43.3 AV	54.0	-10.7	1.48 V	22	47.8	-4.5

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.

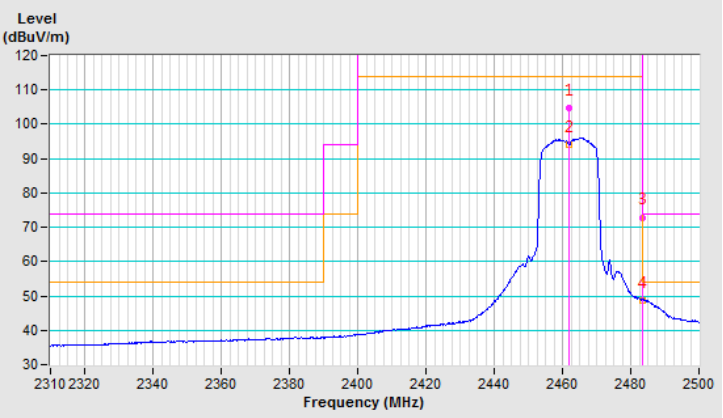


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	104.7 PK			1.07 H	138	109.2	-4.5
2	*2462.00	94.1 AV			1.07 H	138	98.6	-4.5
3	**2483.50**	**72.9 PK**	**74.0**	**-1.1**	**1.07 H**	**138**	**77.4**	**-4.5**
4	2483.50	48.7 AV	54.0	-5.3	1.07 H	138	53.2	-4.5

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.

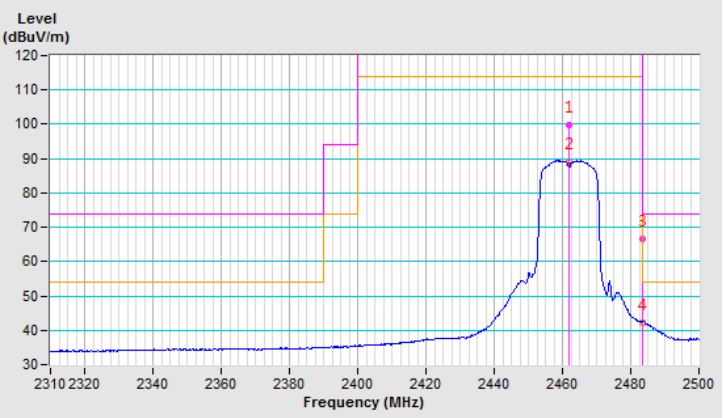


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	99.6 PK			1.15 V	27	104.1	-4.5
2	*2462.00	88.9 AV			1.15 V	27	93.4	-4.5
3	2483.50	66.7 PK	74.0	-7.3	1.15 V	27	71.2	-4.5
4	2483.50	42.1 AV	54.0	-11.9	1.15 V	27	46.6	-4.5

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.



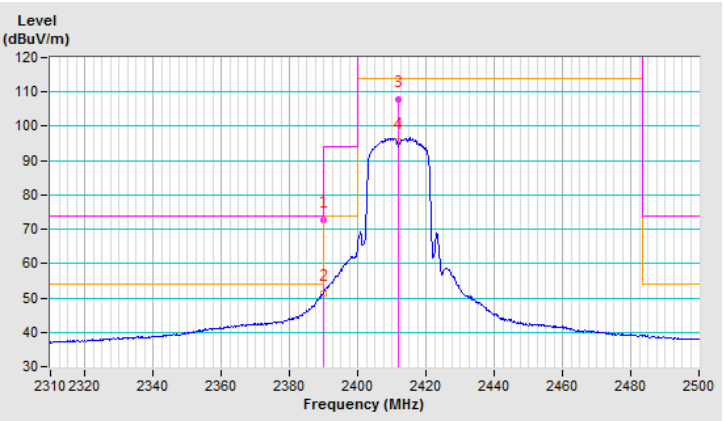
802.11n (20MHz)

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

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	2390.00	72.8 PK	74.0	-1.2	1.15 H	171	77.5	-4.7
2	2390.00	51.3 AV	54.0	-2.7	1.15 H	171	56.0	-4.7
3	*2412.00	107.7 PK			1.15 H	171	112.4	-4.7
4	*2412.00	95.7 AV			1.15 H	171	100.4	-4.7

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.

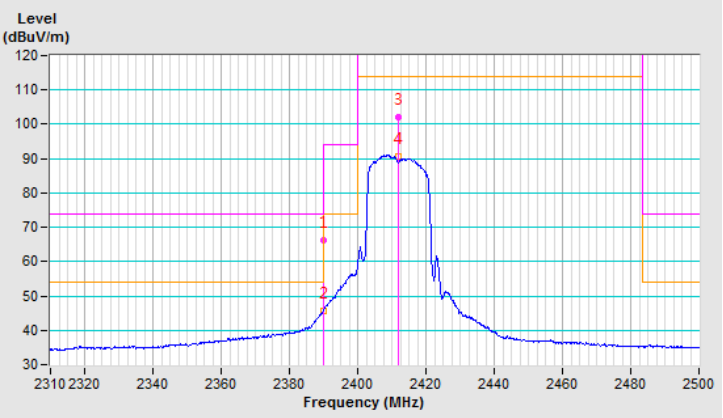


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	66.2 PK	74.0	-7.8	1.02 V	26	70.9	-4.7
2	2390.00	45.5 AV	54.0	-8.5	1.02 V	26	50.2	-4.7
3	*2412.00	101.9 PK			1.02 V	26	106.6	-4.7
4	*2412.00	90.6 AV			1.02 V	26	95.3	-4.7

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.

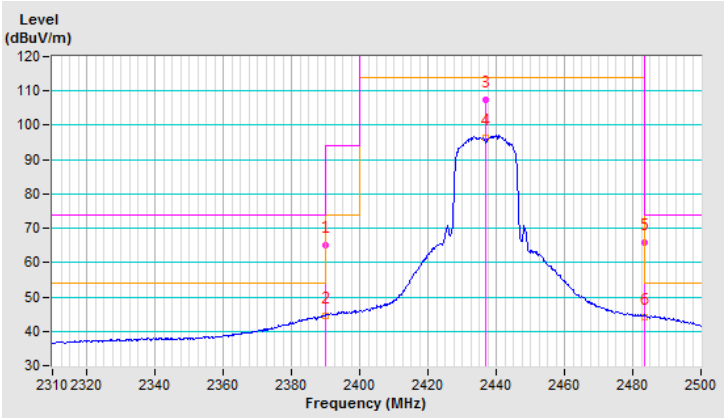


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	65.0 PK	74.0	-9.0	1.52 H	149	69.7	-4.7
2	2390.00	44.6 AV	54.0	-9.4	1.52 H	149	49.3	-4.7
3	*2437.00	107.4 PK			1.52 H	149	112.0	-4.6
4	*2437.00	96.5 AV			1.52 H	149	101.1	-4.6
5	2483.50	65.7 PK	74.0	-8.3	1.52 H	149	70.2	-4.5
6	2483.50	44.2 AV	54.0	-9.8	1.52 H	149	48.7	-4.5

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.

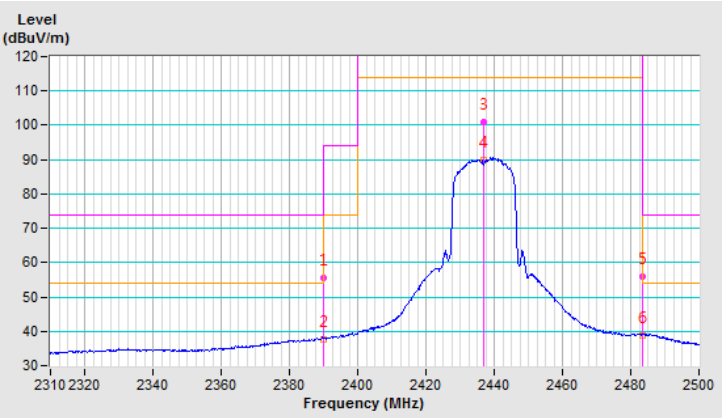


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	55.6 PK	74.0	-18.4	1.48 V	19	60.3	-4.7
2	2390.00	37.6 AV	54.0	-16.4	1.48 V	19	42.3	-4.7
3	*2437.00	100.9 PK			1.48 V	19	105.5	-4.6
4	*2437.00	89.7 AV			1.48 V	19	94.3	-4.6
5	2483.50	56.0 PK	74.0	-18.0	1.48 V	19	60.5	-4.5
6	2483.50	38.9 AV	54.0	-15.1	1.48 V	19	43.4	-4.5

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.

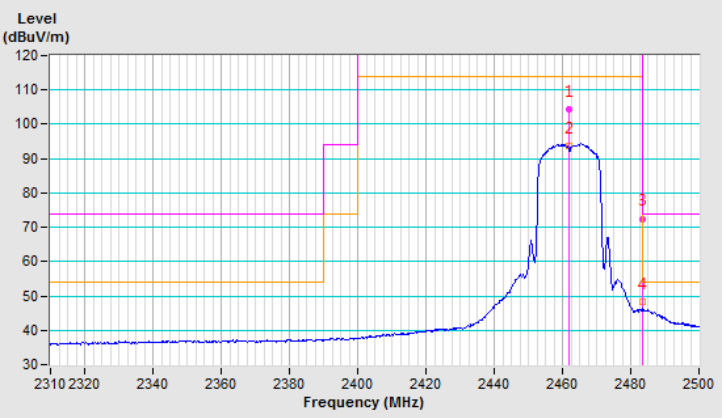


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	104.5 PK			1.51 H	145	109.0	-4.5
2	*2462.00	93.5 AV			1.51 H	145	98.0	-4.5
3	2483.50	72.5 PK	74.0	-1.5	1.51 H	145	77.0	-4.5
4	2483.50	48.2 AV	54.0	-5.8	1.51 H	145	52.7	-4.5

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.

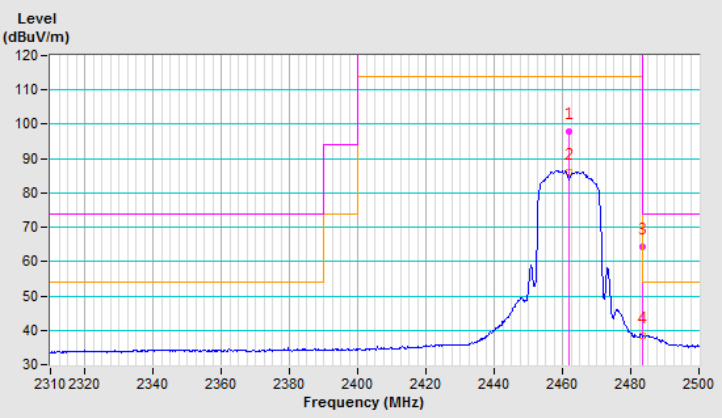


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	97.7 PK			1.47 V	1	102.2	-4.5
2	*2462.00	86.1 AV			1.47 V	1	90.6	-4.5
3	2483.50	64.4 PK	74.0	-9.6	1.47 V	1	68.9	-4.5
4	2483.50	38.5 AV	54.0	-15.5	1.47 V	1	43.0	-4.5

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.



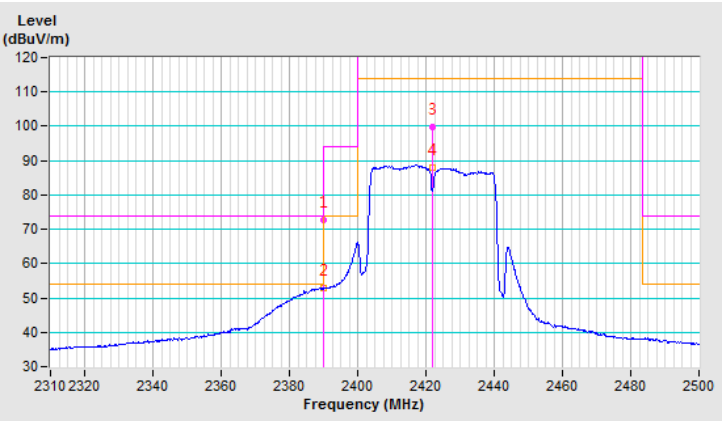
802.11n (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	72.8 PK	74.0	-1.2	1.44 H	175	77.5	-4.7
2	2390.00	52.7 AV	54.0	-1.3	1.44 H	175	57.4	-4.7
3	*2422.00	99.8 PK			1.44 H	175	104.4	-4.6
4	*2422.00	87.8 AV			1.44 H	175	92.4	-4.6

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.

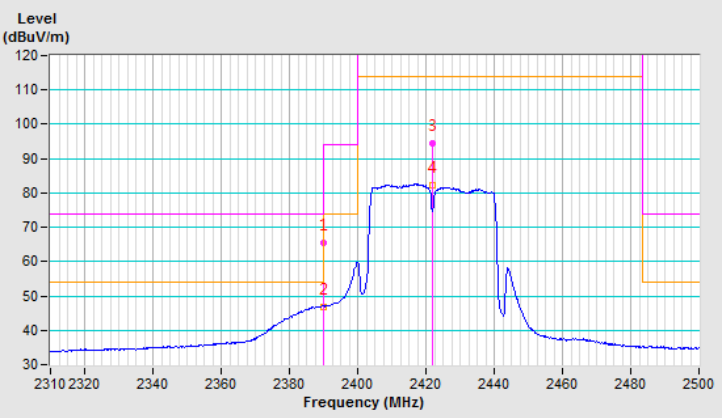


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	65.5 PK	74.0	-8.5	1.02 V	12	70.2	-4.7
2	2390.00	46.9 AV	54.0	-7.1	1.02 V	12	51.6	-4.7
3	*2422.00	94.5 PK			1.02 V	12	99.1	-4.6
4	*2422.00	82.1 AV			1.02 V	12	86.7	-4.6

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.

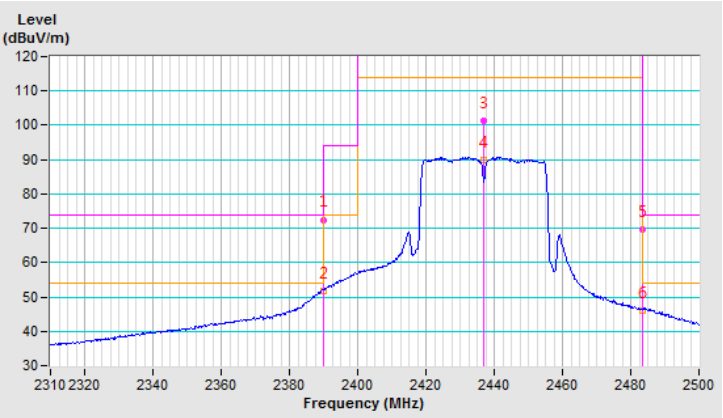


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	72.5 PK	74.0	-1.5	1.20 H	165	77.2	-4.7
2	2390.00	51.7 AV	54.0	-2.3	1.20 H	165	56.4	-4.7
3	*2437.00	101.2 PK			1.20 H	165	105.8	-4.6
4	*2437.00	89.9 AV			1.20 H	165	94.5	-4.6
5	2483.50	69.7 PK	74.0	-4.3	1.20 H	165	74.2	-4.5
6	2483.50	46.0 AV	54.0	-8.0	1.20 H	165	50.5	-4.5

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.

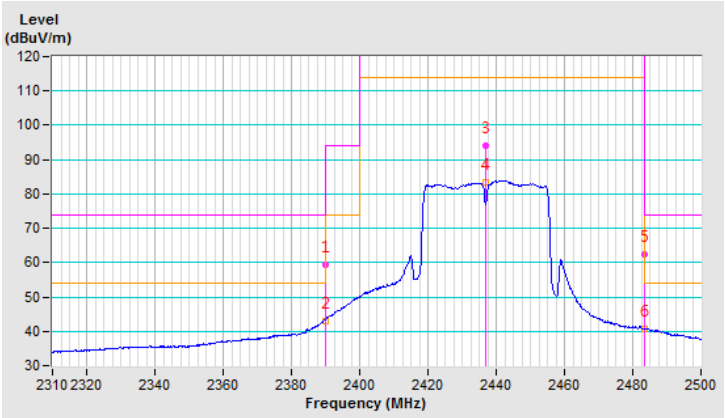


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	59.2 PK	74.0	-14.8	1.52 V	18	63.9	-4.7
2	2390.00	42.8 AV	54.0	-11.2	1.52 V	18	47.5	-4.7
3	*2437.00	94.2 PK			1.52 V	18	98.8	-4.6
4	*2437.00	83.3 AV			1.52 V	18	87.9	-4.6
5	2483.50	62.3 PK	74.0	-11.7	1.52 V	18	66.8	-4.5
6	2483.50	40.5 AV	54.0	-13.5	1.52 V	18	45.0	-4.5

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.

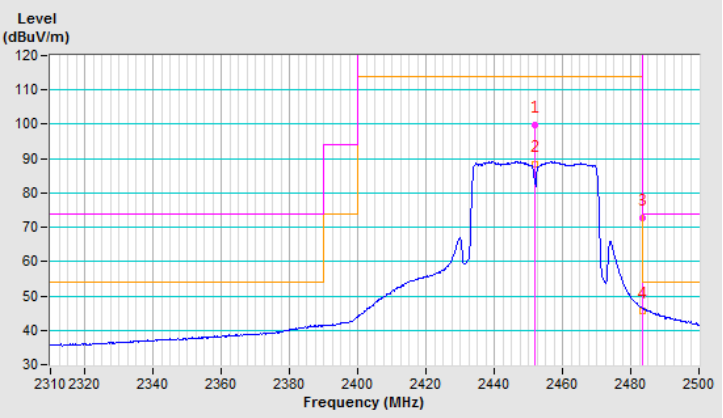


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	99.8 PK			1.19 H	163	104.4	-4.6
2	*2452.00	88.3 AV			1.19 H	163	92.9	-4.6
3	2483.50	72.6 PK	74.0	-1.4	1.19 H	163	77.1	-4.5
4	2483.50	45.7 AV	54.0	-8.3	1.19 H	163	50.2	-4.5

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.

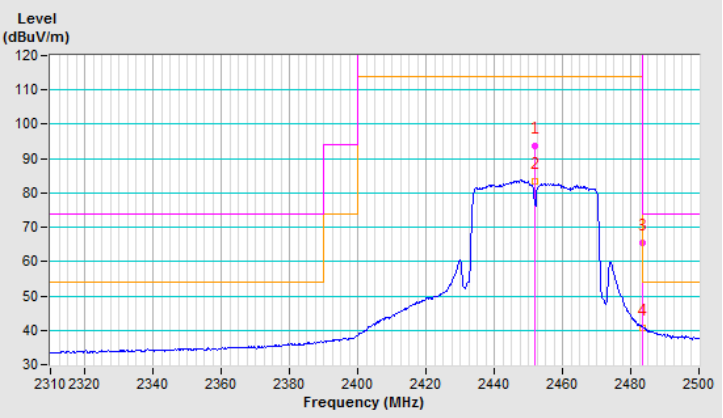


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	93.6 PK			1.16 V	28	98.2	-4.6
2	*2452.00	83.4 AV			1.16 V	28	88.0	-4.6
3	2483.50	65.4 PK	74.0	-8.6	1.16 V	28	69.9	-4.5
4	2483.50	40.8 AV	54.0	-13.2	1.16 V	28	45.3	-4.5

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.



4.1.10 Test Results (Mode 2, Spurious emission)

Above 1GHz Data：

802.11b

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

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	4824.00	45.6 PK	74.0	-28.4	1.24 H	192	43.3	2.3
2	4824.00	42.9 AV	54.0	-11.1	1.24 H	192	40.6	2.3
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	4824.00	41.5 PK	74.0	-32.5	1.10 V	314	39.2	2.3
2	4824.00	37.5 AV	54.0	-16.5	1.10 V	314	35.2	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	46.4 PK	74.0	-27.6	1.00 H	194	43.9	2.5
2	4874.00	43.6 AV	54.0	-10.4	1.00 H	194	41.1	2.5
3	7311.00	46.8 PK	74.0	-27.2	1.00 H	137	37.9	8.9
4	7311.00	43.9 AV	54.0	-10.1	1.00 H	137	35.0	8.9
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	4874.00	42.4 PK	74.0	-31.6	2.54 V	273	39.9	2.5
2	4874.00	38.1 AV	54.0	-15.9	2.54 V	273	35.6	2.5
3	7311.00	42.3 PK	74.0	-31.7	2.54 V	204	33.4	8.9
4	7311.00	38.0 AV	54.0	-16.0	2.54 V	204	29.1	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	44.4 PK	74.0	-29.6	2.28 H	64	41.9	2.5
2	4924.00	38.7 AV	54.0	-15.3	2.28 H	64	36.2	2.5
3	7386.00	45.0 PK	74.0	-29.0	1.08 H	142	35.7	9.3
4	7386.00	40.0 AV	54.0	-14.0	1.08 H	142	30.7	9.3
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	4924.00	40.4 PK	74.0	-33.6	2.57 V	279	37.9	2.5
2	4924.00	33.2 AV	54.0	-20.8	2.57 V	279	30.7	2.5
3	7386.00	41.2 PK	74.0	-32.8	2.60 V	206	31.9	9.3
4	7386.00	34.0 AV	54.0	-20.0	2.60 V	206	24.7	9.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4824.00	44.1 PK	74.0	-29.9	2.21 H	48	41.8	2.3
2	4824.00	38.7 AV	54.0	-15.3	2.21 H	48	36.4	2.3
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	4824.00	40.1 PK	74.0	-33.9	2.54 V	283	37.8	2.3
2	4824.00	32.9 AV	54.0	-21.1	2.54 V	283	30.6	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.9 PK	74.0	-29.1	2.25 H	68	42.4	2.5
2	4874.00	39.1 AV	54.0	-14.9	2.25 H	68	36.6	2.5
3	7311.00	43.8 PK	74.0	-30.2	1.07 H	156	34.9	8.9
4	7311.00	38.4 AV	54.0	-15.6	1.07 H	156	29.5	8.9
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	4874.00	41.6 PK	74.0	-32.4	2.60 V	279	39.1	2.5
2	4874.00	33.8 AV	54.0	-20.2	2.60 V	279	31.3	2.5
3	7311.00	41.4 PK	74.0	-32.6	2.57 V	208	32.5	8.9
4	7311.00	33.5 AV	54.0	-20.5	2.57 V	208	24.6	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	44.0 PK	74.0	-30.0	2.31 H	52	41.5	2.5
2	4924.00	38.5 AV	54.0	-15.5	2.31 H	52	36.0	2.5
3	7386.00	43.8 PK	74.0	-30.2	1.03 H	135	34.5	9.3
4	7386.00	37.9 AV	54.0	-16.1	1.03 H	135	28.6	9.3
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	4924.00	39.9 PK	74.0	-34.1	2.54 V	281	37.4	2.5
2	4924.00	32.5 AV	54.0	-21.5	2.54 V	281	30.0	2.5
3	7386.00	41.2 PK	74.0	-32.8	2.58 V	212	31.9	9.3
4	7386.00	33.1 AV	54.0	-20.9	2.58 V	212	23.8	9.3

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 (20MHz)

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

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	4824.00	44.4 PK	74.0	-29.6	2.32 H	47	42.1	2.3
2	4824.00	38.9 AV	54.0	-15.1	2.32 H	47	36.6	2.3
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	4824.00	40.5 PK	74.0	-33.5	2.50 V	298	38.2	2.3
2	4824.00	33.1 AV	54.0	-20.9	2.50 V	298	30.8	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.3 PK	74.0	-29.7	2.22 H	48	41.8	2.5
2	4874.00	38.4 AV	54.0	-15.6	2.22 H	48	35.9	2.5
3	7311.00	43.4 PK	74.0	-30.6	1.07 H	166	34.5	8.9
4	7311.00	38.2 AV	54.0	-15.8	1.07 H	166	29.3	8.9
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	4874.00	41.3 PK	74.0	-32.7	2.54 V	283	38.8	2.5
2	4874.00	33.6 AV	54.0	-20.4	2.54 V	283	31.1	2.5
3	7311.00	42.1 PK	74.0	-31.9	2.60 V	214	33.2	8.9
4	7311.00	34.0 AV	54.0	-20.0	2.60 V	214	25.1	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	45.0 PK	74.0	-29.0	2.31 H	61	42.5	2.5
2	4924.00	39.3 AV	54.0	-14.7	2.31 H	61	36.8	2.5
3	7386.00	43.9 PK	74.0	-30.1	1.08 H	171	34.6	9.3
4	7386.00	38.7 AV	54.0	-15.3	1.08 H	171	29.4	9.3
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	4924.00	40.3 PK	74.0	-33.7	2.60 V	265	37.8	2.5
2	4924.00	32.8 AV	54.0	-21.2	2.60 V	265	30.3	2.5
3	7386.00	41.3 PK	74.0	-32.7	2.55 V	222	32.0	9.3
4	7386.00	33.0 AV	54.0	-21.0	2.55 V	222	23.7	9.3

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 (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4844.00	44.6 PK	74.0	-29.4	2.30 H	64	42.3	2.3
2	4844.00	39.2 AV	54.0	-14.8	2.30 H	64	36.9	2.3
3	7266.00	43.0 PK	74.0	-31.0	1.05 H	181	34.2	8.8
4	7266.00	37.8 AV	54.0	-16.2	1.05 H	181	29.0	8.8
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	4844.00	40.9 PK	74.0	-33.1	2.54 V	272	38.6	2.3
2	4844.00	33.3 AV	54.0	-20.7	2.54 V	272	31.0	2.3
3	7266.00	41.0 PK	74.0	-33.0	2.49 V	220	32.2	8.8
4	7266.00	32.6 AV	54.0	-21.4	2.49 V	220	23.8	8.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	45.2 PK	74.0	-28.8	2.28 H	52	42.7	2.5
2	4874.00	39.4 AV	54.0	-14.6	2.28 H	52	36.9	2.5
3	7311.00	42.5 PK	74.0	-31.5	1.07 H	169	33.6	8.9
4	7311.00	37.5 AV	54.0	-16.5	1.07 H	169	28.6	8.9
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	4874.00	40.3 PK	74.0	-33.7	2.56 V	271	37.8	2.5
2	4874.00	33.0 AV	54.0	-21.0	2.56 V	271	30.5	2.5
3	7311.00	40.9 PK	74.0	-33.1	2.44 V	235	32.0	8.9
4	7311.00	32.3 AV	54.0	-21.7	2.44 V	235	23.4	8.9

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 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4904.00	45.1 PK	74.0	-28.9	2.30 H	43	42.6	2.5
2	4904.00	39.4 AV	54.0	-14.6	2.30 H	43	36.9	2.5
3	7356.00	42.7 PK	74.0	-31.3	1.02 H	186	33.5	9.2
4	7356.00	37.5 AV	54.0	-16.5	1.02 H	186	28.3	9.2
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	4904.00	40.7 PK	74.0	-33.3	2.51 V	279	38.2	2.5
2	4904.00	33.0 AV	54.0	-21.0	2.51 V	279	30.5	2.5
3	7356.00	40.8 PK	74.0	-33.2	2.44 V	209	31.6	9.2
4	7356.00	32.4 AV	54.0	-21.6	2.44 V	209	23.2	9.2

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

4.1.11 Test Results (Mode 3, Bandedge)

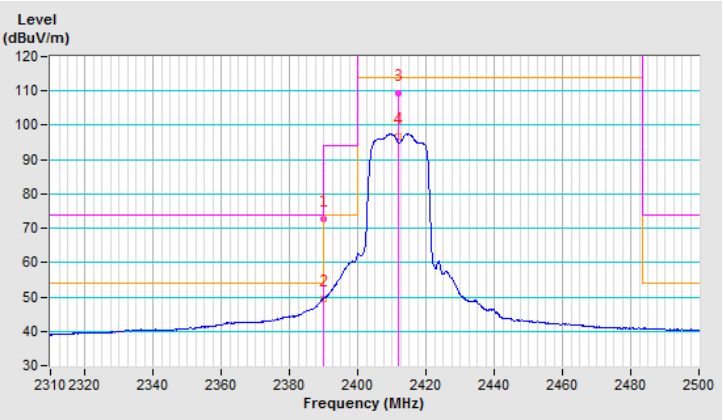
802.11g

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

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	2390.00	72.7 PK	74.0	-1.3	1.00 H	141	76.9	-4.2
2	2390.00	49.3 AV	54.0	-4.7	1.00 H	141	53.5	-4.2
3	*2412.00	109.3 PK			1.00 H	141	113.4	-4.1
4	*2412.00	96.8 AV			1.00 H	141	100.9	-4.1

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.

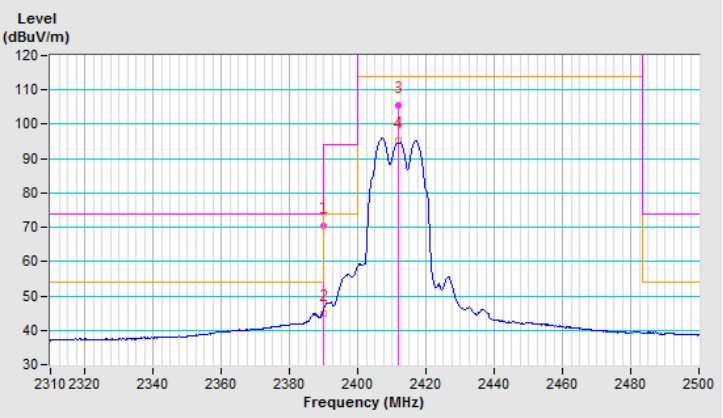


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	70.3 PK	74.0	-3.7	1.01 V	28	74.5	-4.2
2	2390.00	44.9 AV	54.0	-9.1	1.01 V	28	49.1	-4.2
3	*2412.00	105.6 PK			1.01 V	28	109.7	-4.1
4	*2412.00	95.3 AV			1.01 V	28	99.4	-4.1

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.

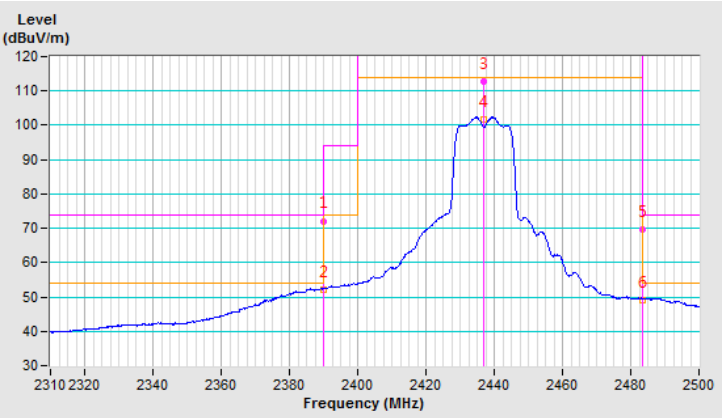


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	72.1 PK	74.0	-1.9	1.25 H	154	76.3	-4.2
2	2390.00	52.0 AV	54.0	-2.0	1.25 H	154	56.2	-4.2
3	*2437.00	112.9 PK			1.25 H	154	116.9	-4.0
4	*2437.00	101.6 AV			1.25 H	154	105.6	-4.0
5	2483.50	69.7 PK	74.0	-4.3	1.25 H	154	73.7	-4.0
6	2483.50	49.2 AV	54.0	-4.8	1.25 H	154	53.2	-4.0

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.

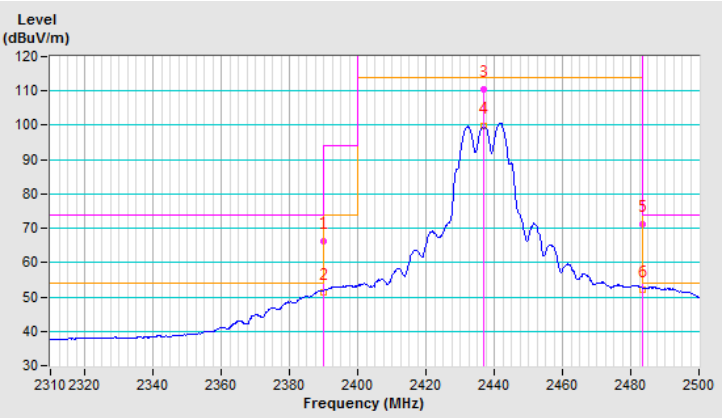


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	66.3 PK	74.0	-7.7	1.17 V	32	70.5	-4.2
2	2390.00	51.3 AV	54.0	-2.7	1.17 V	32	55.5	-4.2
3	*2437.00	110.6 PK			1.17 V	32	114.6	-4.0
4	*2437.00	99.9 AV			1.17 V	32	103.9	-4.0
5	2483.50	71.2 PK	74.0	-2.8	1.17 V	32	75.2	-4.0
6	2483.50	52.2 AV	54.0	-1.8	1.17 V	32	56.2	-4.0

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.

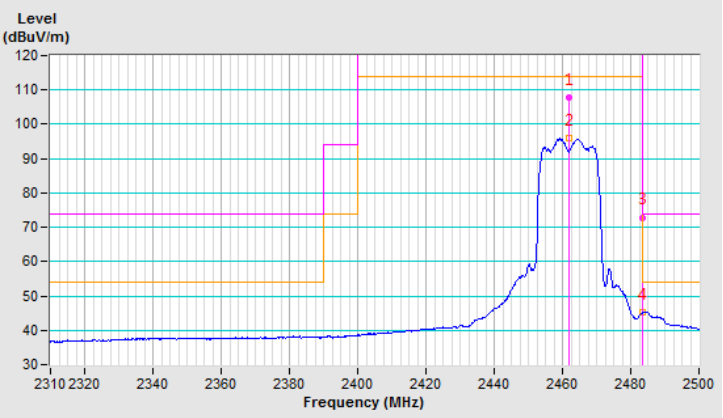


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	107.8 PK			1.23 H	152	111.9	-4.1
2	*2462.00	95.9 AV			1.23 H	152	100.0	-4.1
3	**2483.50**	**72.9 PK**	**74.0**	**-1.1**	**1.23 H**	**152**	**76.9**	**-4.0**
4	2483.50	45.4 AV	54.0	-8.6	1.23 H	152	49.4	-4.0

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.

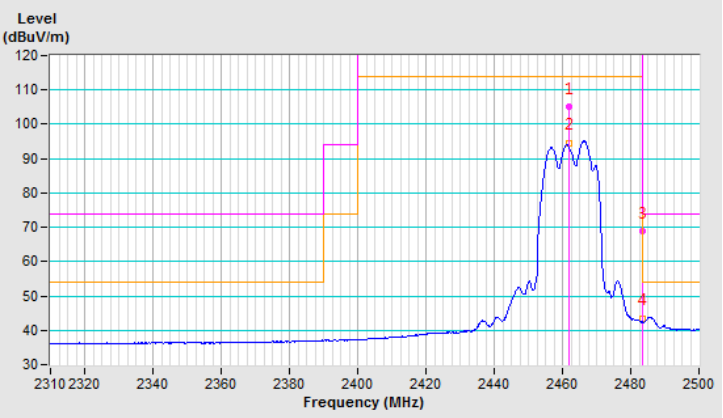


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	105.2 PK			1.17 V	49	109.3	-4.1
2	*2462.00	94.6 AV			1.17 V	49	98.7	-4.1
3	2483.50	68.9 PK	74.0	-5.1	1.17 V	49	72.9	-4.0
4	2483.50	43.5 AV	54.0	-10.5	1.17 V	49	47.5	-4.0

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.



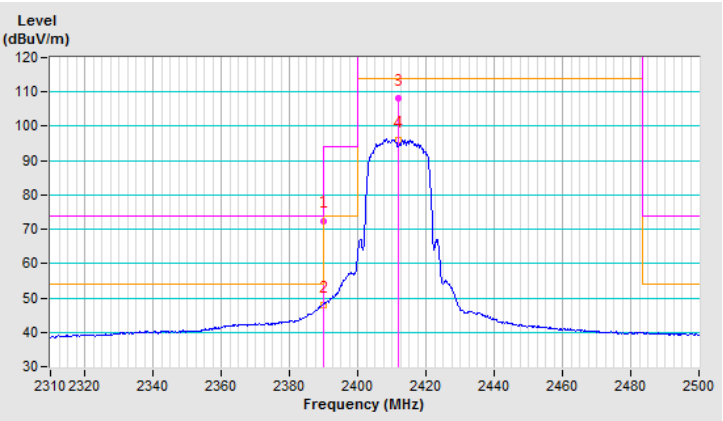
802.11n (20MHz)

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

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	2390.00	72.5 PK	74.0	-1.5	1.45 H	168	76.7	-4.2
2	2390.00	47.9 AV	54.0	-6.1	1.45 H	168	52.1	-4.2
3	*2412.00	108.2 PK			1.45 H	168	112.3	-4.1
4	*2412.00	95.8 AV			1.45 H	168	99.9	-4.1

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.

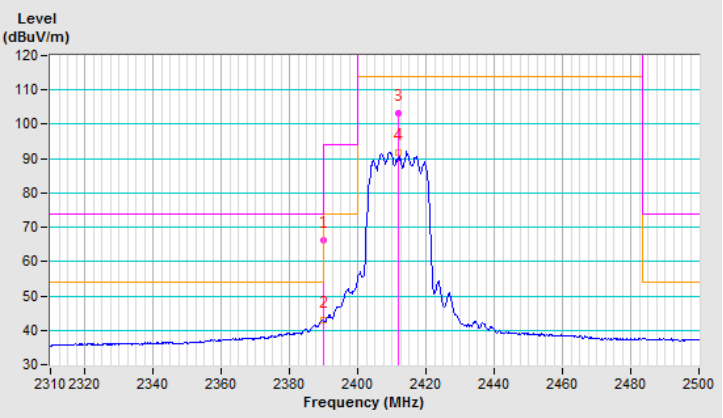


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	66.1 PK	74.0	-7.9	1.03 V	23	70.3	-4.2
2	2390.00	43.1 AV	54.0	-10.9	1.03 V	23	47.3	-4.2
3	*2412.00	103.1 PK			1.03 V	23	107.2	-4.1
4	*2412.00	91.6 AV			1.03 V	23	95.7	-4.1

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.

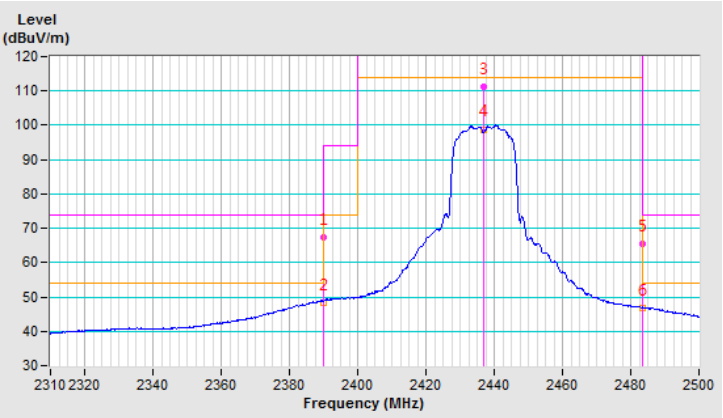


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	67.2 PK	74.0	-6.8	1.48 H	158	71.4	-4.2
2	2390.00	48.3 AV	54.0	-5.7	1.48 H	158	52.5	-4.2
3	*2437.00	111.1 PK			1.48 H	158	115.1	-4.0
4	*2437.00	98.8 AV			1.48 H	158	102.8	-4.0
5	2483.50	65.5 PK	74.0	-8.5	1.48 H	158	69.5	-4.0
6	2483.50	46.6 AV	54.0	-7.4	1.48 H	158	50.6	-4.0

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.

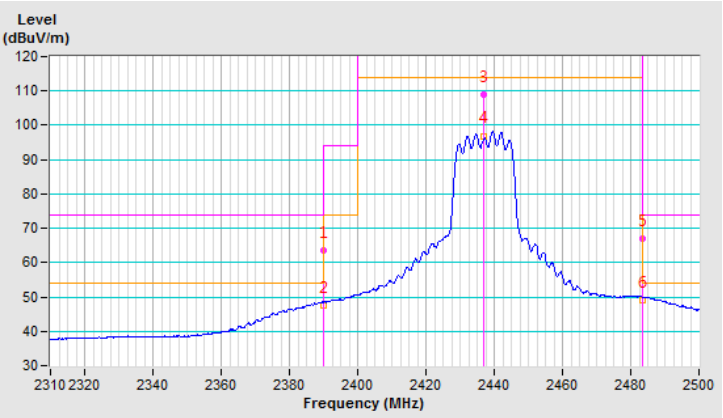


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	63.5 PK	74.0	-10.5	1.46 V	25	67.7	-4.2
2	2390.00	47.6 AV	54.0	-6.4	1.46 V	25	51.8	-4.2
3	*2437.00	108.9 PK			1.46 V	25	112.9	-4.0
4	*2437.00	96.9 AV			1.46 V	25	100.9	-4.0
5	2483.50	66.9 PK	74.0	-7.1	1.46 V	25	70.9	-4.0
6	2483.50	49.1 AV	54.0	-4.9	1.46 V	25	53.1	-4.0

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.

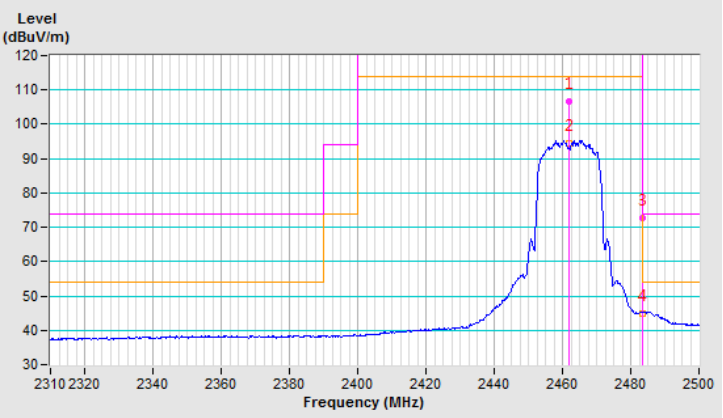


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	106.6 PK			1.46 H	152	110.7	-4.1
2	*2462.00	94.5 AV			1.46 H	152	98.6	-4.1
3	2483.50	72.7 PK	74.0	-1.3	1.46 H	152	76.7	-4.0
4	2483.50	45.0 AV	54.0	-9.0	1.46 H	152	49.0	-4.0

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.

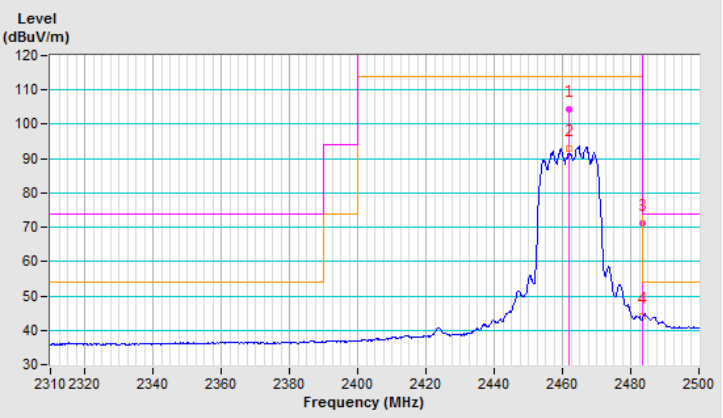


CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	104.5 PK			1.57 V	31	108.6	-4.1
2	*2462.00	92.9 AV			1.57 V	31	97.0	-4.1
3	2483.50	71.1 PK	74.0	-2.9	1.57 V	31	75.1	-4.0
4	2483.50	44.2 AV	54.0	-9.8	1.57 V	31	48.2	-4.0

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.



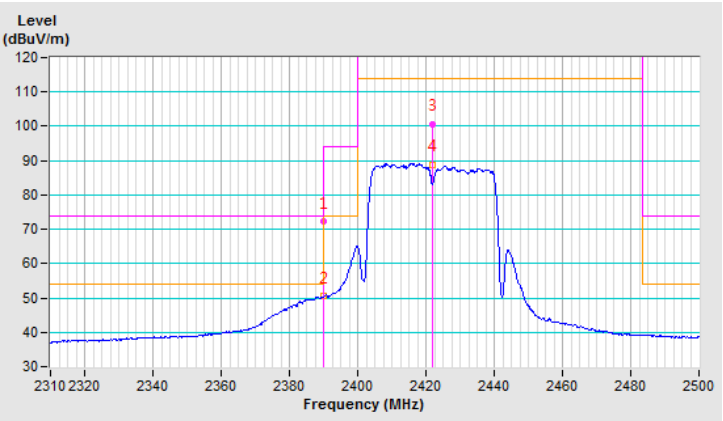
802.11n (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	72.2 PK	74.0	-1.8	1.44 H	172	76.4	-4.2
2	2390.00	50.5 AV	54.0	-3.5	1.44 H	172	54.7	-4.2
3	*2422.00	100.7 PK			1.44 H	172	104.8	-4.1
4	*2422.00	88.9 AV			1.44 H	172	93.0	-4.1

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.

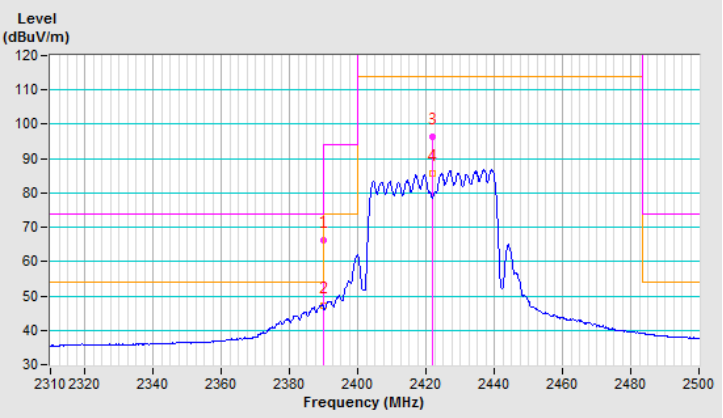


CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	66.1 PK	74.0	-7.9	1.17 V	32	70.3	-4.2
2	2390.00	47.1 AV	54.0	-6.9	1.17 V	32	51.3	-4.2
3	*2422.00	96.3 PK			1.17 V	32	100.4	-4.1
4	*2422.00	85.6 AV			1.17 V	32	89.7	-4.1

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.

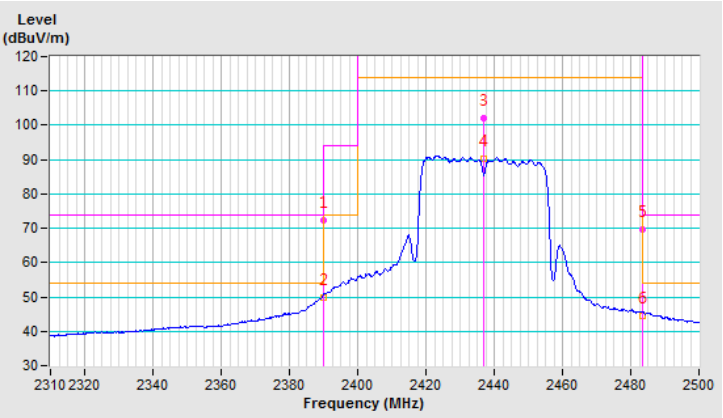


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	72.4 PK	74.0	-1.6	1.03 H	164	76.6	-4.2
2	2390.00	49.9 AV	54.0	-4.1	1.03 H	164	54.1	-4.2
3	*2437.00	102.2 PK			1.03 H	164	106.2	-4.0
4	*2437.00	90.3 AV			1.03 H	164	94.3	-4.0
5	2483.50	69.5 PK	74.0	-4.5	1.03 H	164	73.5	-4.0
6	2483.50	44.4 AV	54.0	-9.6	1.03 H	164	48.4	-4.0

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.

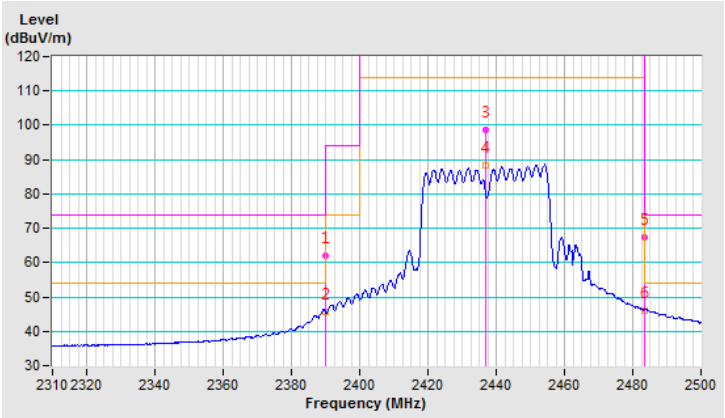


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	2390.00	62.1 PK	74.0	-11.9	1.63 V	44	66.3	-4.2
2	2390.00	45.7 AV	54.0	-8.3	1.63 V	44	49.9	-4.2
3	*2437.00	98.6 PK			1.63 V	44	102.6	-4.0
4	*2437.00	88.2 AV			1.63 V	44	92.2	-4.0
5	2483.50	67.3 PK	74.0	-6.7	1.63 V	44	71.3	-4.0
6	2483.50	45.9 AV	54.0	-8.1	1.63 V	44	49.9	-4.0

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.

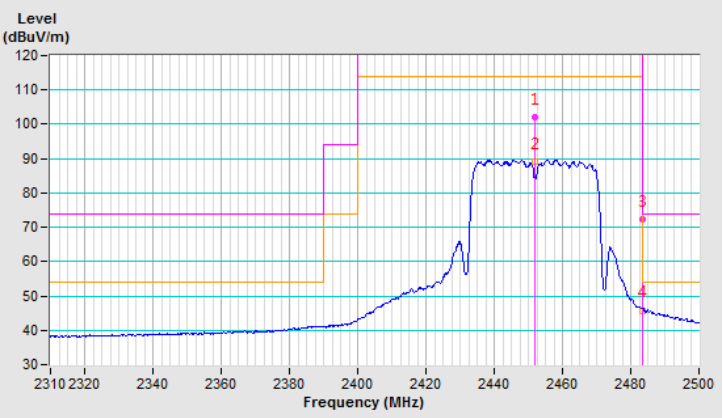


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	101.9 PK			1.21 H	157	106.0	-4.1
2	*2452.00	89.2 AV			1.21 H	157	93.3	-4.1
3	2483.50	72.2 PK	74.0	-1.8	1.21 H	157	76.2	-4.0
4	2483.50	45.8 AV	54.0	-8.2	1.21 H	157	49.8	-4.0

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.

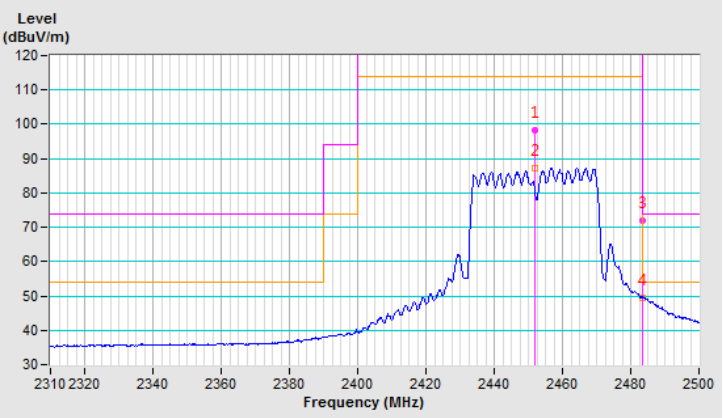


CHANNEL	TX Channel 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	*2452.00	98.3 PK			1.12 V	48	102.4	-4.1
2	*2452.00	87.1 AV			1.12 V	48	91.2	-4.1
3	2483.50	72.0 PK	74.0	-2.0	1.12 V	48	76.0	-4.0
4	2483.50	49.3 AV	54.0	-4.7	1.12 V	48	53.3	-4.0

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.



4.1.12 Test Results (Mode 3, Spurious emission)

Above 1GHz Data：

802.11g

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

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	4824.00	44.7 PK	74.0	-29.3	2.38 H	43	42.4	2.3
2	4824.00	39.3 AV	54.0	-14.7	2.38 H	43	37.0	2.3
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	4824.00	41.7 PK	74.0	-32.3	2.54 V	293	39.4	2.3
2	4824.00	33.7 AV	54.0	-20.3	2.54 V	293	31.4	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.6 PK	74.0	-29.4	2.33 H	56	42.1	2.5
2	4874.00	39.1 AV	54.0	-14.9	2.33 H	56	36.6	2.5
3	7311.00	44.0 PK	74.0	-30.0	1.03 H	155	35.1	8.9
4	7311.00	38.3 AV	54.0	-15.7	1.03 H	155	29.4	8.9
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	4874.00	41.4 PK	74.0	-32.6	2.62 V	285	38.9	2.5
2	4874.00	33.6 AV	54.0	-20.4	2.62 V	285	31.1	2.5
3	7311.00	41.5 PK	74.0	-32.5	2.54 V	196	32.6	8.9
4	7311.00	33.7 AV	54.0	-20.3	2.54 V	196	24.8	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	45.2 PK	74.0	-28.8	2.33 H	43	42.7	2.5
2	4924.00	39.2 AV	54.0	-14.8	2.33 H	43	36.7	2.5
3	7386.00	43.9 PK	74.0	-30.1	1.08 H	167	34.6	9.3
4	7386.00	38.1 AV	54.0	-15.9	1.08 H	167	28.8	9.3
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	4924.00	41.7 PK	74.0	-32.3	2.59 V	276	39.2	2.5
2	4924.00	33.7 AV	54.0	-20.3	2.59 V	276	31.2	2.5
3	7386.00	41.8 PK	74.0	-32.2	2.57 V	209	32.5	9.3
4	7386.00	33.9 AV	54.0	-20.1	2.57 V	209	24.6	9.3

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 (20MHz)

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

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	4824.00	45.2 PK	74.0	-28.8	2.36 H	58	42.9	2.3
2	4824.00	39.4 AV	54.0	-14.6	2.36 H	58	37.1	2.3
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	4824.00	42.0 PK	74.0	-32.0	2.59 V	301	39.7	2.3
2	4824.00	34.1 AV	54.0	-19.9	2.59 V	301	31.8	2.3

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	45.1 PK	74.0	-28.9	2.31 H	56	42.6	2.5
2	4874.00	39.2 AV	54.0	-14.8	2.31 H	56	36.7	2.5
3	7311.00	43.7 PK	74.0	-30.3	1.09 H	169	34.8	8.9
4	7311.00	37.9 AV	54.0	-16.1	1.09 H	169	29.0	8.9
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	4874.00	41.6 PK	74.0	-32.4	2.65 V	277	39.1	2.5
2	4874.00	33.8 AV	54.0	-20.2	2.65 V	277	31.3	2.5
3	7311.00	41.4 PK	74.0	-32.6	2.57 V	184	32.5	8.9
4	7311.00	33.5 AV	54.0	-20.5	2.57 V	184	24.6	8.9

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4924.00	45.4 PK	74.0	-28.6	2.38 H	45	42.9	2.5
2	4924.00	39.8 AV	54.0	-14.2	2.38 H	45	37.3	2.5
3	7386.00	44.1 PK	74.0	-29.9	1.10 H	164	34.8	9.3
4	7386.00	38.6 AV	54.0	-15.4	1.10 H	164	29.3	9.3
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	4924.00	41.2 PK	74.0	-32.8	2.65 V	289	38.7	2.5
2	4924.00	33.2 AV	54.0	-20.8	2.65 V	289	30.7	2.5
3	7386.00	41.3 PK	74.0	-32.7	2.54 V	185	32.0	9.3
4	7386.00	33.3 AV	54.0	-20.7	2.54 V	185	24.0	9.3

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 (40MHz)

CHANNEL	TX Channel 3	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4844.00	45.4 PK	74.0	-28.6	2.37 H	39	43.1	2.3
2	4844.00	39.8 AV	54.0	-14.2	2.37 H	39	37.5	2.3
3	7266.00	44.8 PK	74.0	-29.2	1.05 H	154	36.0	8.8
4	7266.00	39.1 AV	54.0	-14.9	1.05 H	154	30.3	8.8
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	4844.00	41.1 PK	74.0	-32.9	2.71 V	300	38.8	2.3
2	4844.00	32.9 AV	54.0	-21.1	2.71 V	300	30.6	2.3
3	7266.00	41.1 PK	74.0	-32.9	2.59 V	178	32.3	8.8
4	7266.00	32.9 AV	54.0	-21.1	2.59 V	178	24.1	8.8

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4874.00	44.3 PK	74.0	-29.7	2.34 H	48	41.8	2.5
2	4874.00	38.9 AV	54.0	-15.1	2.34 H	48	36.4	2.5
3	7311.00	43.7 PK	74.0	-30.3	1.09 H	164	34.8	8.9
4	7311.00	38.2 AV	54.0	-15.8	1.09 H	164	29.3	8.9
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	4874.00	40.8 PK	74.0	-33.2	2.66 V	285	38.3	2.5
2	4874.00	32.8 AV	54.0	-21.2	2.66 V	285	30.3	2.5
3	7311.00	41.5 PK	74.0	-32.5	2.53 V	179	32.6	8.9
4	7311.00	33.3 AV	54.0	-20.7	2.53 V	179	24.4	8.9

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 9	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

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	4904.00	45.7 PK	74.0	-28.3	2.36 H	30	43.2	2.5
2	4904.00	39.7 AV	54.0	-14.3	2.36 H	30	37.2	2.5
3	7356.00	43.6 PK	74.0	-30.4	1.12 H	157	34.4	9.2
4	7356.00	38.1 AV	54.0	-15.9	1.12 H	157	28.9	9.2
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	4904.00	41.4 PK	74.0	-32.6	2.62 V	286	38.9	2.5
2	4904.00	33.5 AV	54.0	-20.5	2.62 V	286	31.0	2.5
3	7356.00	41.9 PK	74.0	-32.1	2.59 V	180	32.7	9.2
4	7356.00	33.7 AV	54.0	-20.3	2.59 V	180	24.5	9.2

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

Below 1GHz Data:

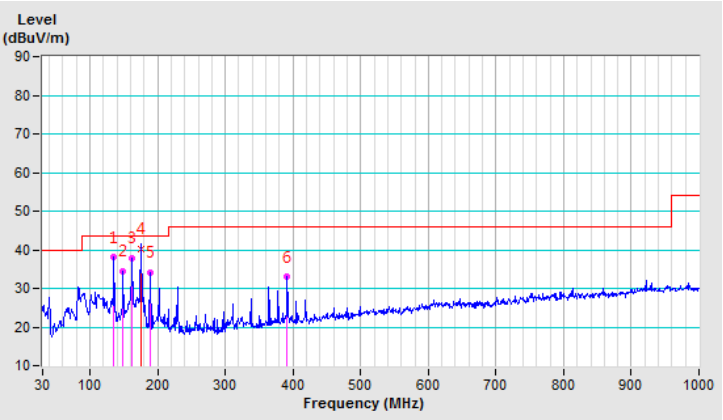
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	135.00	38.0 QP	43.5	-5.5	2.50 H	106	47.6	-9.6
2	148.49	34.4 QP	43.5	-9.1	2.00 H	281	42.8	-8.4
3	161.99	37.8 QP	43.5	-5.7	2.00 H	294	46.2	-8.4
4	175.50	40.3 QP	43.5	-3.2	1.50 H	329	49.5	-9.2
5	189.01	34.2 QP	43.5	-9.3	1.50 H	101	44.8	-10.6
6	391.52	32.9 QP	46.0	-13.1	1.00 H	189	38.1	-5.2

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

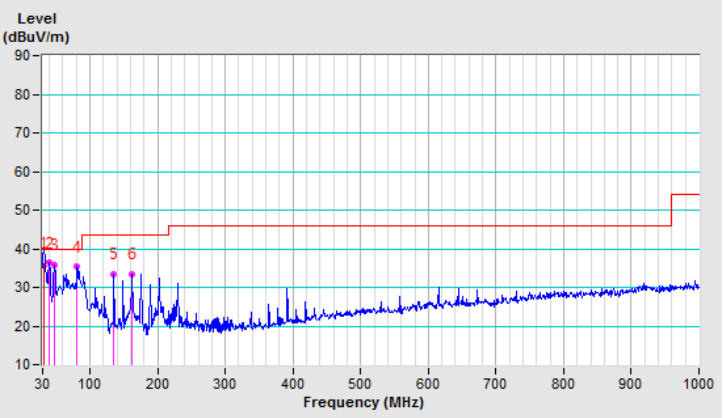


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 1GHz		

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	32.18	36.2 QP	40.0	-3.8	1.00 V	0	46.1	-9.9
2	39.51	36.3 QP	40.0	-3.7	1.50 V	28	45.4	-9.1
3	47.97	35.8 QP	40.0	-4.2	1.00 V	241	44.1	-8.3
4	80.97	35.3 QP	40.0	-4.7	1.50 V	41	48.3	-13.0
5	135.00	33.5 QP	43.5	-10.0	1.00 V	27	43.1	-9.6
6	161.99	33.4 QP	43.5	-10.1	1.00 V	340	41.8	-8.4

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



4.2 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.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	100375	May 09, 2016	May 08, 2017
Line-Impedance Stabilization Network (for EUT) R&S	ENV216	100072	June 13, 2016	June 12, 2017
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	848773/004	Oct. 28, 2015	Oct. 27, 2016
RF Cable	5D-FB	COCCAB-001	Mar. 08, 2016	Mar. 07, 2017
10 dB PAD Mini-Circuits	HAT-10+	CONATT-003	Sep. 14, 2015	Sep. 13, 2016
50 ohms Terminator	N/A	EMC-03	Sep. 23, 2015	Sep. 22, 2016
50 ohms Terminator	N/A	EMC-02	Oct. 01, 2015	Sep. 30, 2016
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3 The VCCI Con C Registration No. is C-3611.
4 Tested Date: Aug. 26 to 30, 2016

4.2.3 Test Procedures

a. 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.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

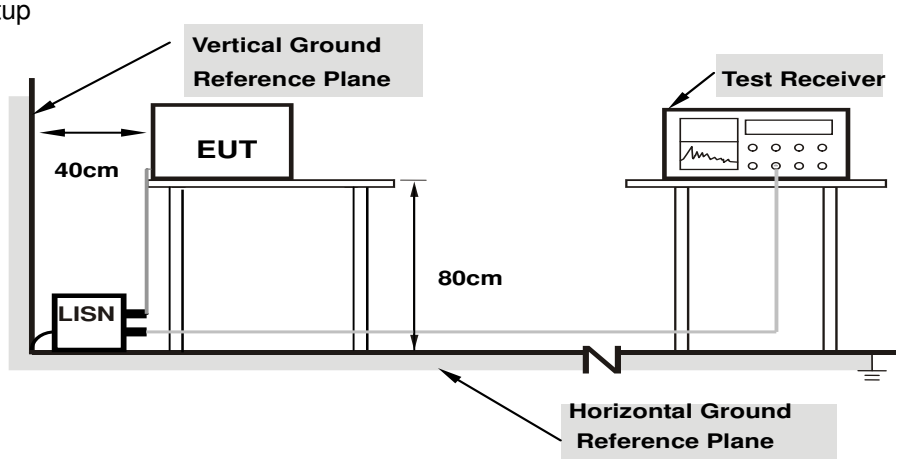
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

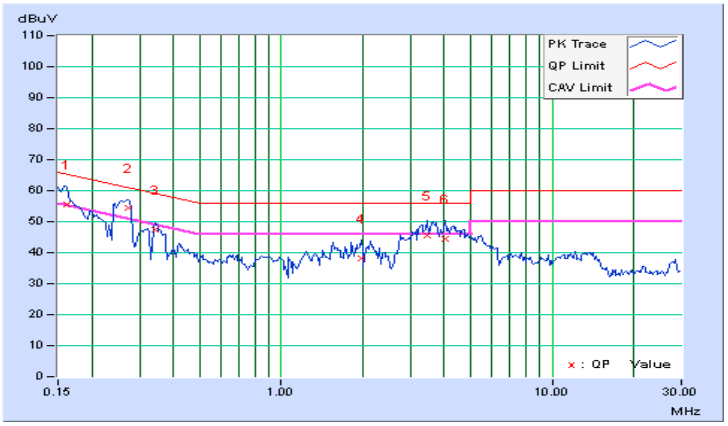
4.2.7 Test Results

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

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	19.93	35.77	25.02	55.70	44.95	65.38	55.38	-9.68	-10.43
2	**0.27109**	**19.90**	**34.42**	**25.46**	**54.32**	**45.36**	**61.08**	**51.08**	**-6.76**	**-5.72**
3	0.34141	19.90	27.34	17.32	47.24	37.22	59.17	49.17	-11.93	-11.95
4	1.97266	19.85	18.43	10.36	38.28	30.21	56.00	46.00	-17.72	-15.79
5	3.44531	19.93	25.48	16.87	45.41	36.80	56.00	46.00	-10.59	-9.20
6	4.01172	19.96	24.63	15.27	44.59	35.23	56.00	46.00	-11.41	-10.77

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

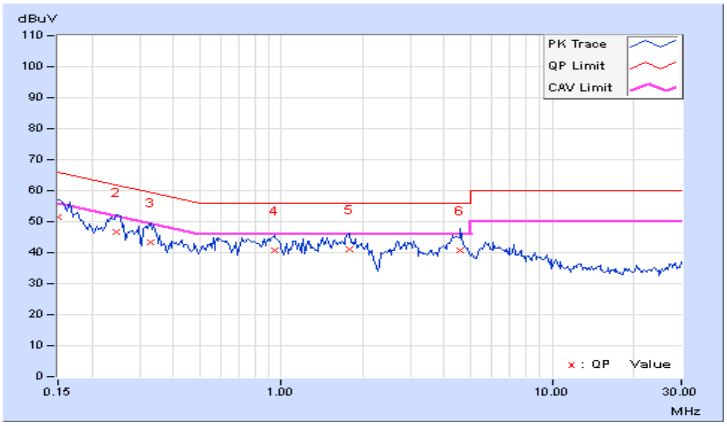


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	19.97	31.41	19.99	51.38	39.96	66.00	56.00	-14.62	-16.04
2	0.24766	19.89	26.95	19.66	46.84	39.55	61.84	51.84	-15.00	-12.29
3	0.32969	19.90	23.38	16.29	43.28	36.19	59.46	49.46	-16.18	-13.27
4	0.94297	19.84	20.96	15.19	40.80	35.03	56.00	46.00	-15.20	-10.97
5	1.79297	19.85	21.21	15.06	41.06	34.91	56.00	46.00	-14.94	-11.09
6	4.59375	20.04	20.84	16.05	40.88	36.09	56.00	46.00	-15.12	-9.91

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

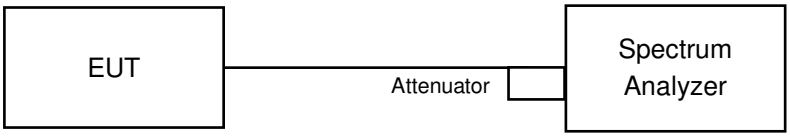


4.3 6dB Bandwidth Measurement

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

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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 fromTest 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 (Mode 1)

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	9.08	0.5	PASS
6	2437	9.11	0.5	PASS
11	2462	9.07	0.5	PASS

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.42	0.5	PASS
6	2437	15.51	0.5	PASS
11	2462	15.69	0.5	PASS

802.11n (20MHz)

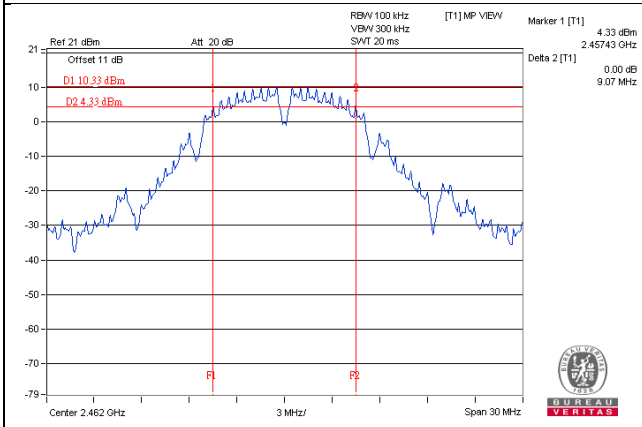
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.17	0.5	PASS
6	2437	15.24	0.5	PASS
11	2462	15.48	0.5	PASS

802.11n (40MHz)

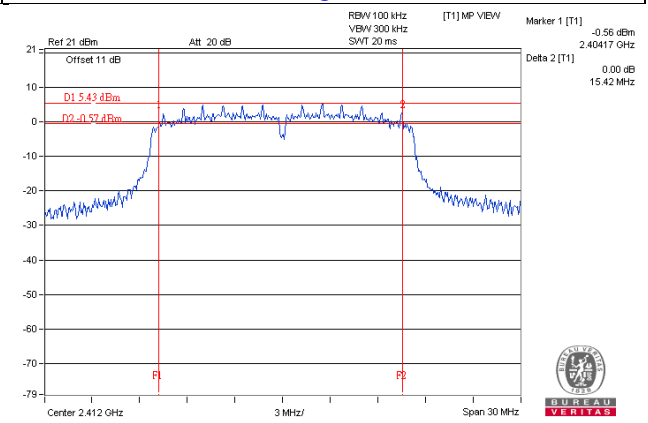
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	36.48	0.5	Pass
6	2437	36.49	0.5	Pass
9	2452	36.41	0.5	Pass

Spectrum Plot of Worst Value

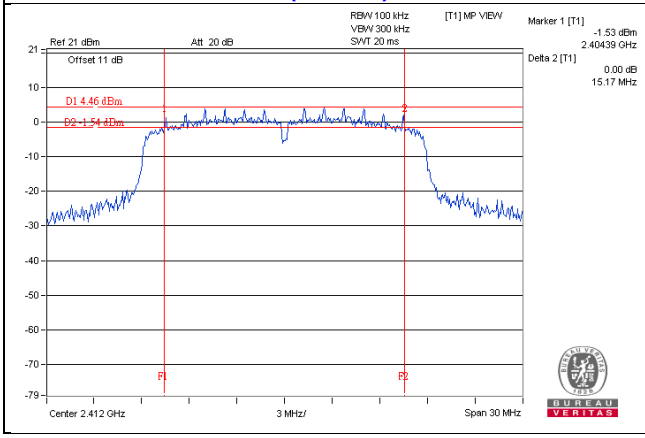
802.11b / CH11



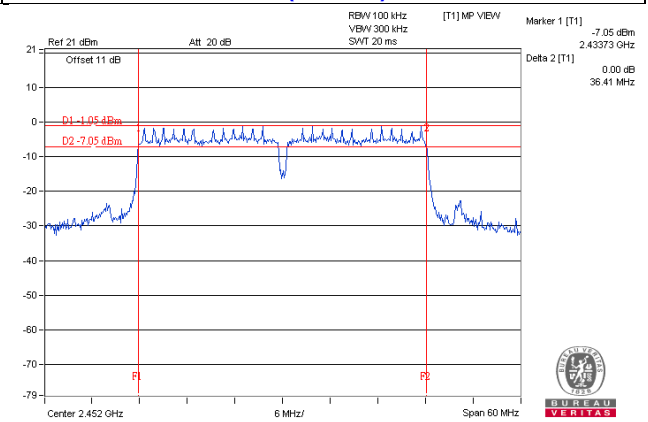
802.11g / CH1



802.11n (20MHz) / CH1



802.11n (40MHz) / CH9



4.3.8 Test Result (Mode 2)

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	8.59	0.5	PASS
6	2437	9.07	0.5	PASS
11	2462	8.13	0.5	PASS

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.21	0.5	PASS
6	2437	15.38	0.5	PASS
11	2462	15.83	0.5	PASS

802.11n (20MHz)

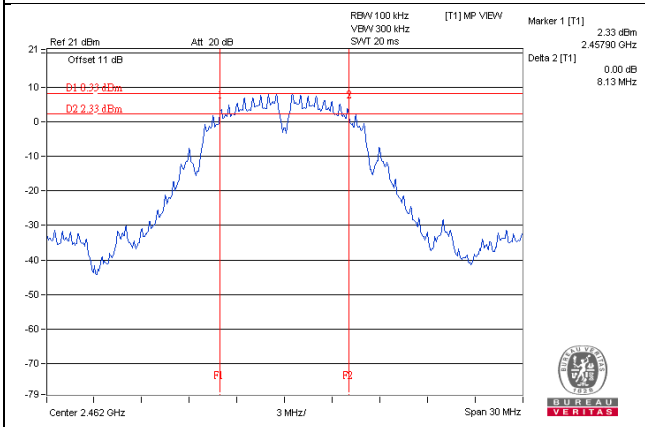
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.50	0.5	PASS
6	2437	15.21	0.5	PASS
11	2462	15.19	0.5	PASS

802.11n (40MHz)

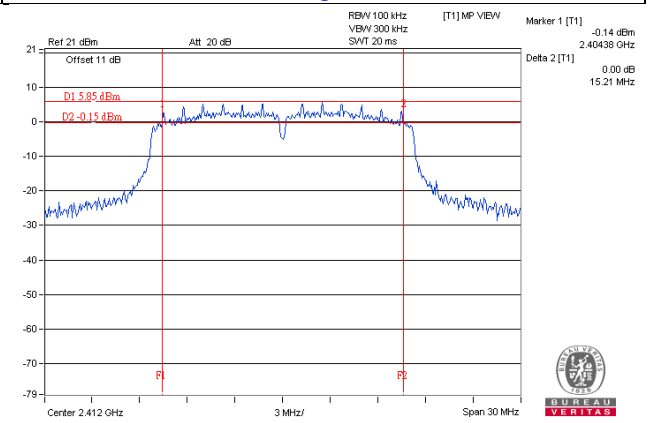
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	36.36	0.5	Pass
6	2437	36.40	0.5	Pass
9	2452	36.39	0.5	Pass

Spectrum Plot of Worst Value

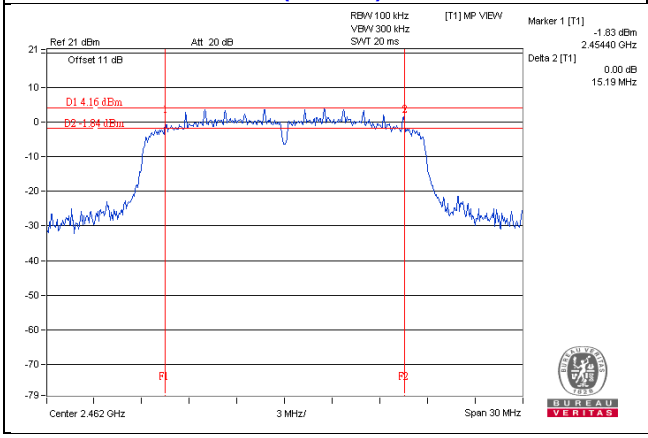
802.11b / CH11



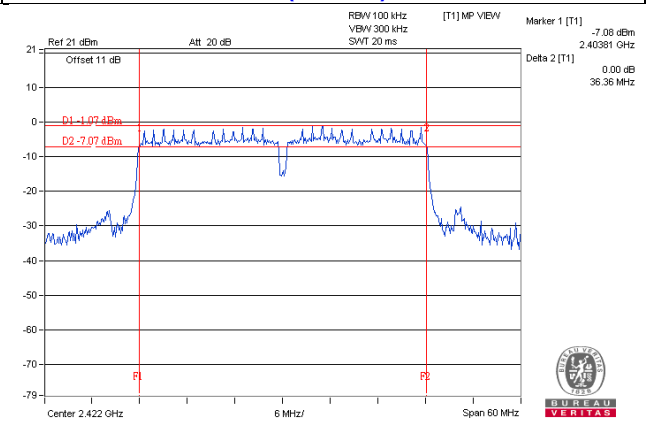
802.11g / CH1



802.11n (20MHz) / CH11



802.11n (40MHz) / CH3



4.3.9 Test Result (Mode 3)

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.40	15.52	0.5	PASS
6	2437	15.41	15.24	0.5	PASS
11	2462	15.55	15.82	0.5	PASS

802.11n (20MHz)

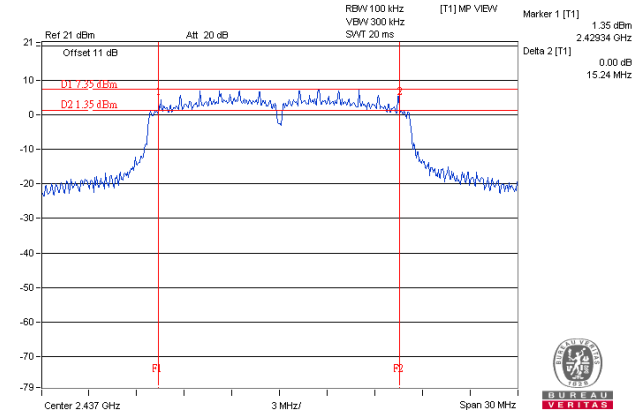
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	15.72	15.84	0.5	PASS
6	2437	15.61	16.07	0.5	PASS
11	2462	15.86	16.34	0.5	PASS

802.11n (40MHz)

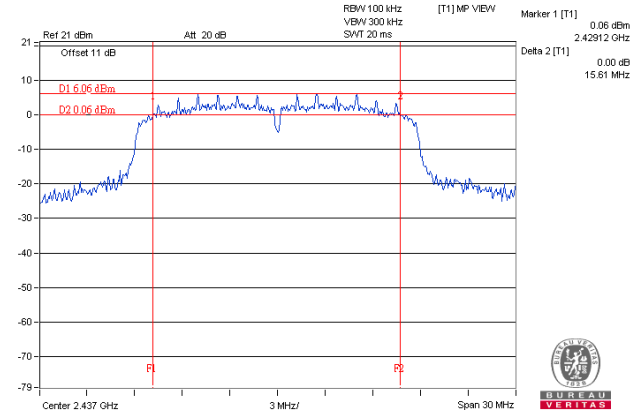
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	36.38	36.52	0.5	PASS
6	2437	36.27	36.48	0.5	PASS
9	2452	36.41	36.46	0.5	PASS

Spectrum Plot of Worst Value

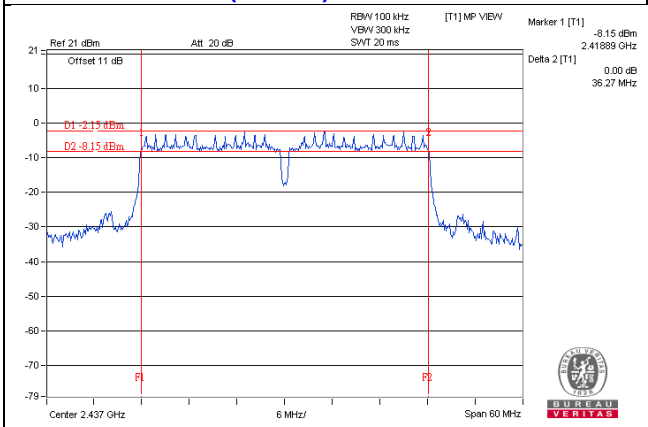
802.11g / Chain 1 : CH6



802.11n (20MHz) / Chain 0 : CH6



802.11n (40MHz) / Chain 0 : CH6



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

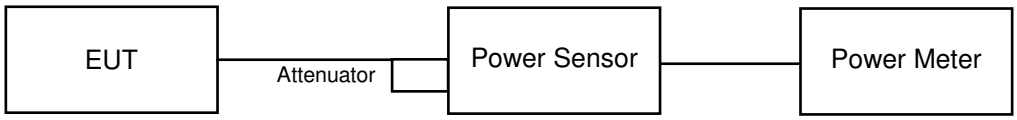
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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

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 (Mode 1)

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	108.393	20.35	30	Pass
6	2437	142.561	21.54	30	Pass
11	2462	73.961	18.69	30	Pass

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	46.238	16.65	30	Pass
6	2437	77.446	18.89	30	Pass
11	2462	44.771	16.51	30	Pass

802.11n (20MHz)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	37.497	15.74	30	Pass
6	2437	51.88	17.15	30	Pass
11	2462	41.687	16.20	30	Pass

802.11n (40MHz)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
3	2422	14.191	11.52	30	Pass
6	2437	27.29	14.36	30	Pass
9	2452	22.594	13.54	30	Pass

4.4.8 Test Results (Mode 2)

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	81.47	19.11	30	Pass
6	2437	116.145	20.65	30	Pass
11	2462	52.602	17.21	30	Pass

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	37.497	15.74	30	Pass
6	2437	89.536	19.52	30	Pass
11	2462	37.931	15.79	30	Pass

802.11n (20MHz)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	43.351	16.37	30	Pass
6	2437	66.374	18.22	30	Pass
11	2462	31.989	15.05	30	Pass

802.11n (40MHz)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass/Fail
3	2422	17.338	12.39	30	Pass
6	2437	29.444	14.69	30	Pass
9	2452	23.014	13.62	30	Pass

4.4.9 Test Results (Mode 3)

802.11g

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	13.66	14.83	53.636	17.29	30	Pass
6	2437	18.65	19.10	154.565	21.89	30	Pass
11	2462	13.54	14.65	51.768	17.14	30	Pass

802.11n (20MHz)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	12.05	13.13	36.591	15.63	30	Pass
6	2437	17.62	18.15	123.123	20.90	30	Pass
11	2462	12.07	13.41	38.034	15.80	30	Pass

802.11n (40MHz)

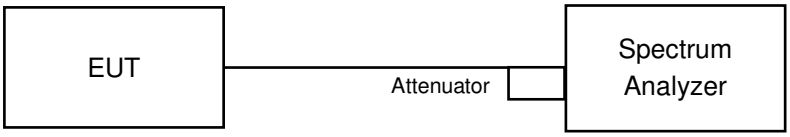
Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	10.12	10.31	21.02	13.23	30	Pass
6	2437	11.84	12.74	34.069	15.32	30	Pass
9	2452	10.75	11.53	26.108	14.17	30	Pass

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

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

a) Set instrument center frequency to DTS channel center frequency.
b) Set span to at least 1.5 times the OBW.
c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz. .
d) Set VBW ≥3 x RBW.
e) Detector = power averaging (RMS) or sample detector (when RMS not available).
f) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g) Sweep time = auto couple.
h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
i) Use the peak marker function to determine the maximum amplitude level.

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 (Mode 1)

802.11b

Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-8.20	8	Pass
6	2437	-7.29	8	Pass
11	2462	-9.17	8	Pass

802.11g

Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-13.02	8	Pass
6	2437	-11.35	8	Pass
11	2462	-13.56	8	Pass

802.11n (20MHz)

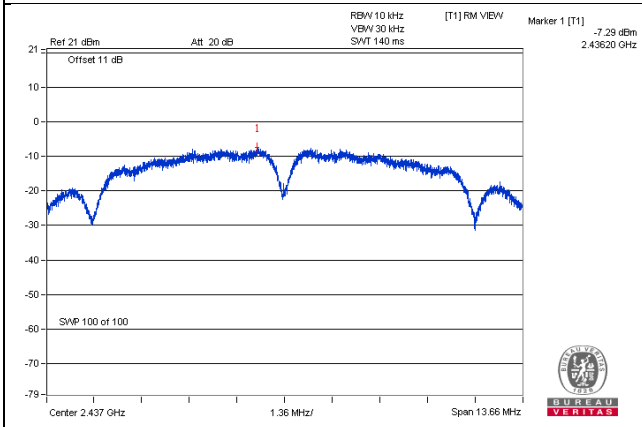
Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-14.42	8	Pass
6	2437	-13.24	8	Pass
11	2462	-14.33	8	Pass

802.11n (40MHz)

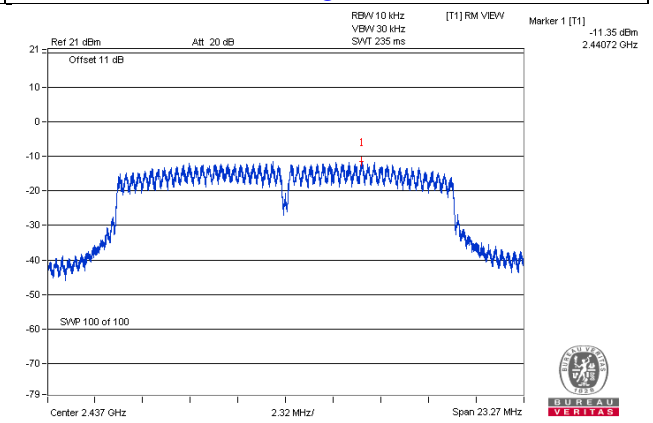
Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-22.00	8	Pass
6	2437	-19.40	8	Pass
9	2452	-19.61	8	Pass

Spectrum Plot of Worst Value

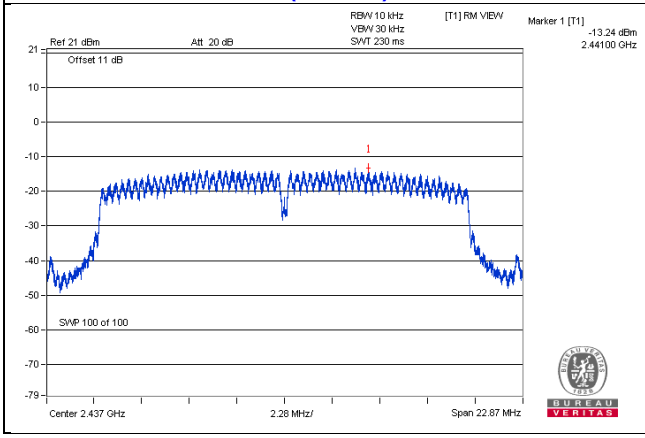
802.11b / CH6



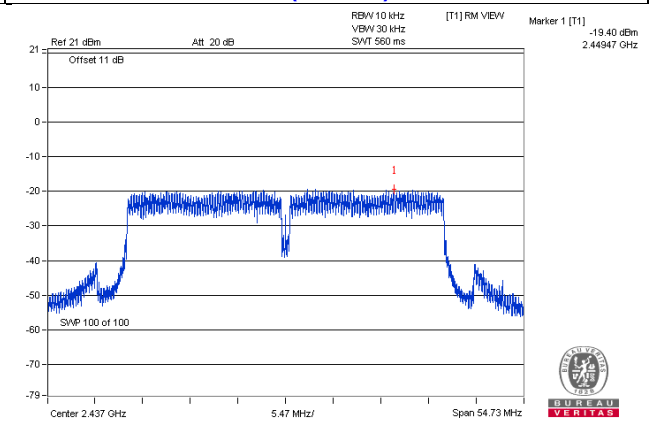
802.11g / CH6



802.11n (20MHz) / CH6



802.11n (40MHz) / CH6



4.5.8 Test Results (Mode 2)

802.11b

Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-8.92	8	Pass
6	2437	-8.03	8	Pass
11	2462	-11.08	8	Pass

802.11g

Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-13.16	8	Pass
6	2437	-10.63	8	Pass
11	2462	-13.46	8	Pass

802.11n (20MHz)

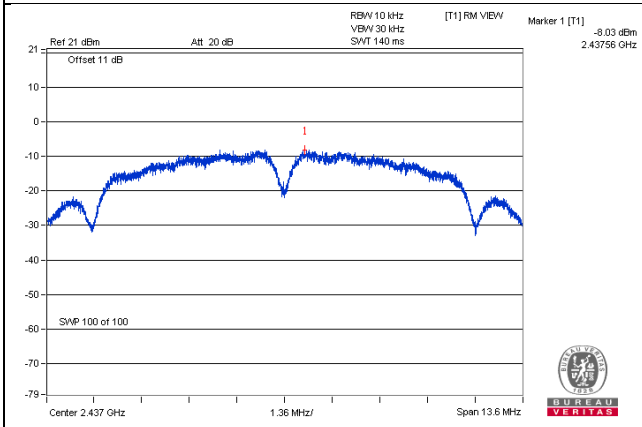
Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-12.85	8	Pass
6	2437	-10.93	8	Pass
11	2462	-15.09	8	Pass

802.11n (40MHz)

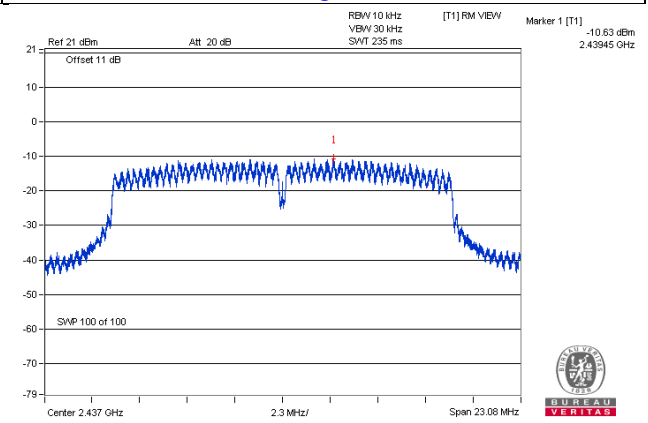
Channel	Freq. (MHz)	PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-19.58	8	Pass
6	2437	-17.64	8	Pass
9	2452	-19.16	8	Pass

Spectrum Plot of Worst Value

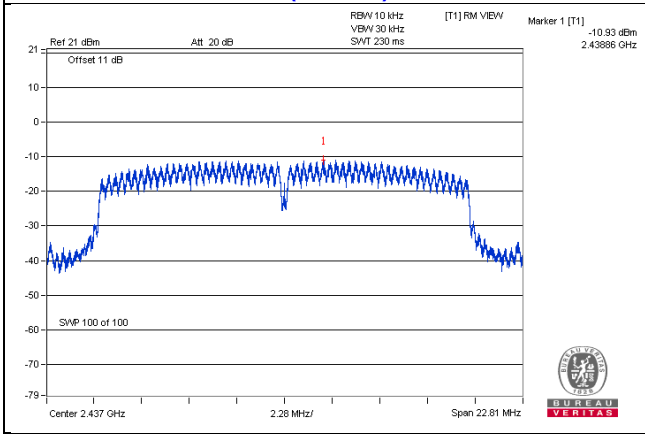
802.11b / CH6



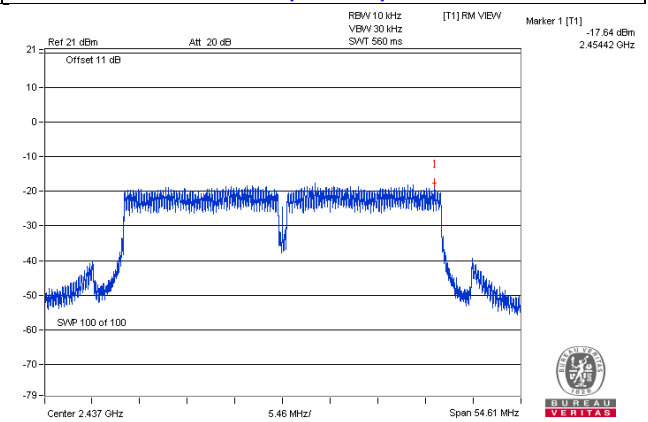
802.11g / CH6



802.11n (20MHz) / CH6



802.11n (40MHz) / CH6



4.5.9 Test Results (Mode 3)

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-15.58	3.01	-12.57	8	Pass
	6	2437	-11.04	3.01	-8.03	8	Pass
	11	2462	-16.64	3.01	-13.63	8	Pass
1	1	2412	-14.47	3.01	-11.46	8	Pass
	6	2437	-11.26	3.01	-8.25	8	Pass
	11	2462	-15.33	3.01	-12.32	8	Pass

NOTE: Directional gain = 4.17dBi (2412MHz), 4.28dBi (2437MHz), 4.60dBi (2462MHz) < 6dBi , so the power density limit shall not be reduced.

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-17.63	3.01	-14.62	8	Pass
	6	2437	-12.82	3.01	-9.81	8	Pass
	11	2462	-17.70	3.01	-14.69	8	Pass
1	1	2412	-17.07	3.01	-14.06	8	Pass
	6	2437	-12.46	3.01	-9.45	8	Pass
	11	2462	-17.14	3.01	-14.13	8	Pass

NOTE: Directional gain = 4.17dBi (2412MHz), 4.28dBi (2437MHz), 4.60dBi (2462MHz) < 6dBi , so the power density limit shall not be reduced.

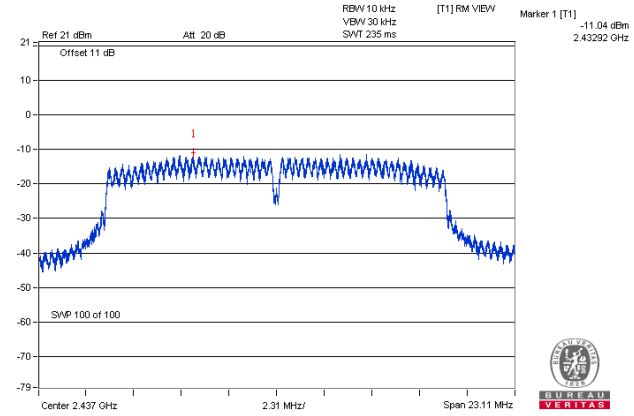
802.11n (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass /Fail
0	3	2422	-22.65	3.01	-19.64	8	Pass
	6	2437	-20.58	3.01	-17.57	8	Pass
	9	2452	-21.77	3.01	-18.76	8	Pass
1	3	2422	-22.62	3.01	-19.61	8	Pass
	6	2437	-20.32	3.01	-17.31	8	Pass
	9	2452	-21.48	3.01	-18.47	8	Pass

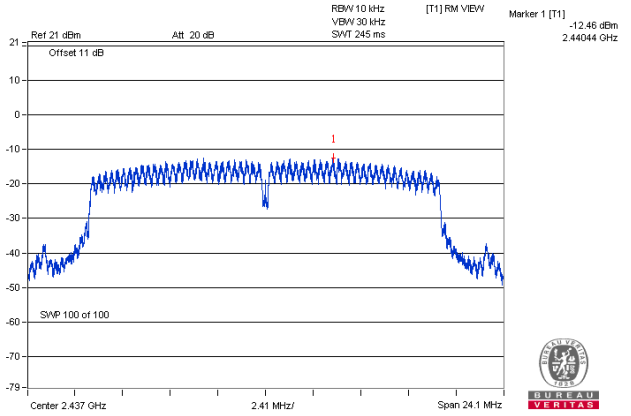
NOTE: Directional gain = 4.22dBi (2422MHz), 4.28dBi (2437MHz), 4.51dBi (2452MHz) < 6dBi , so the power density limit shall not be reduced.

Spectrum Plot of Worst Value

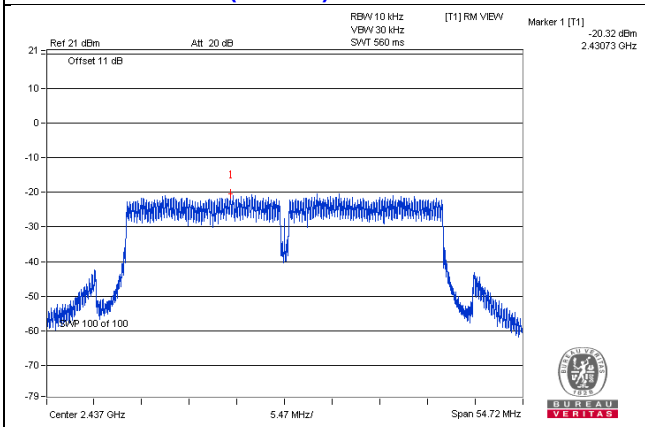
802.11g / Chain 0 : CH6



802.11n (20MHz) / Chain 1 : CH6



802.11n (40MHz) / Chain 1 : CH6

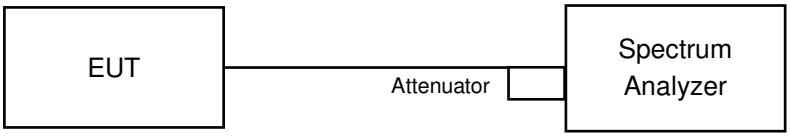


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 30dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

1. Set RBW = 100 kHz.
2. Set VBW ≥ 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. 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

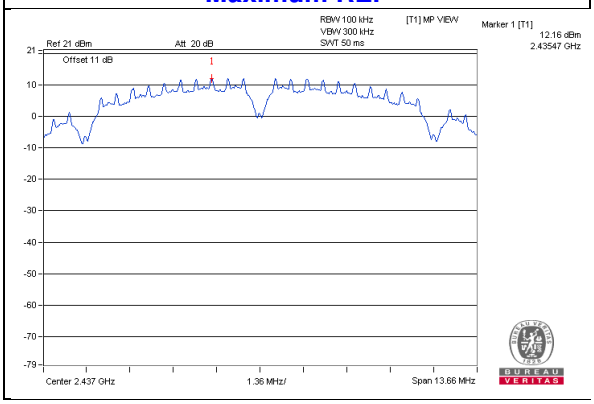
Same as Item 4.3.6

4.6.7 Test Results (Mode 1)

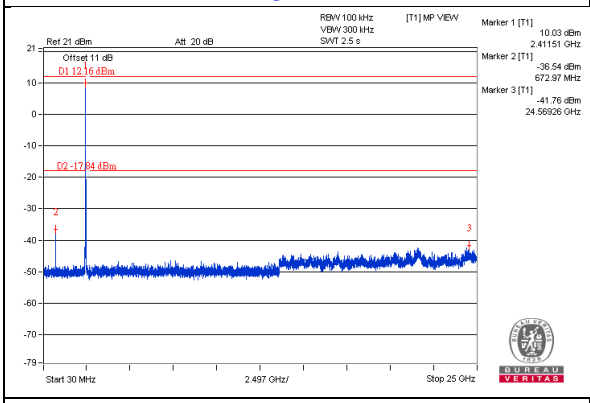
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

802.11b

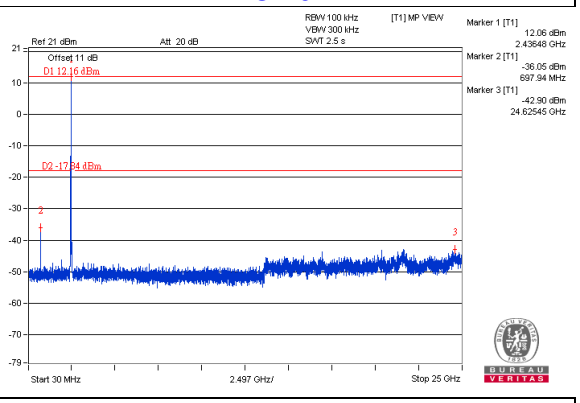
Maximum REF



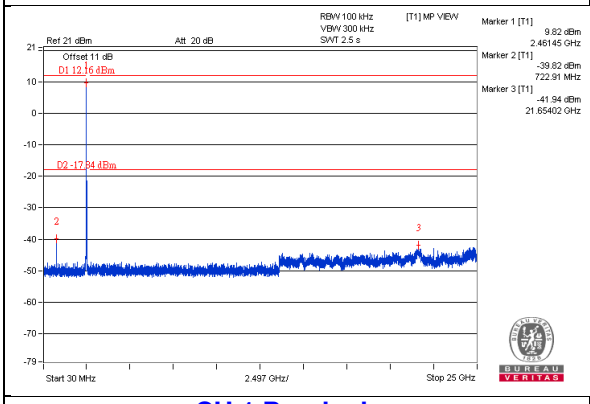
CH 1



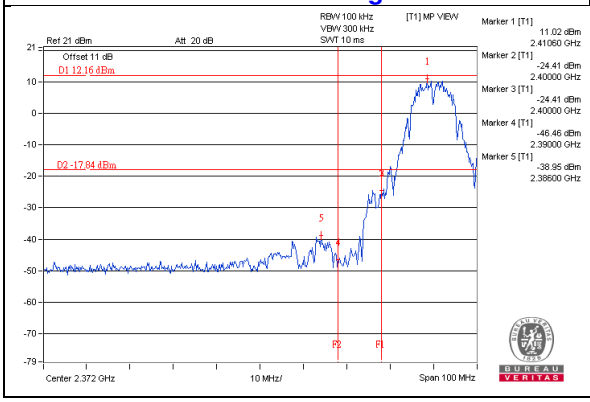
CH 6



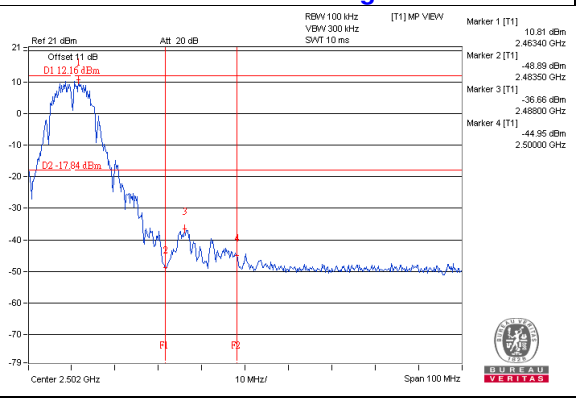
CH 11



CH 1 Band edge

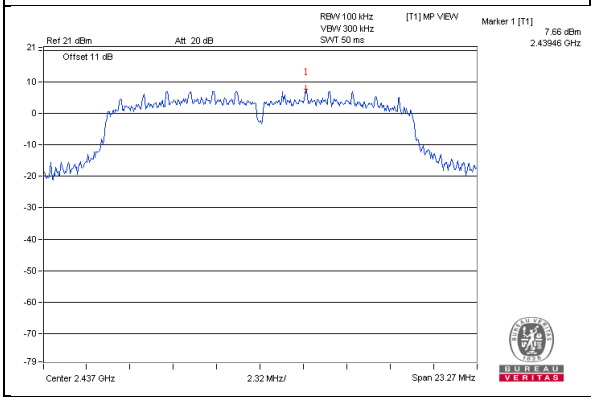


CH 11 Band edge

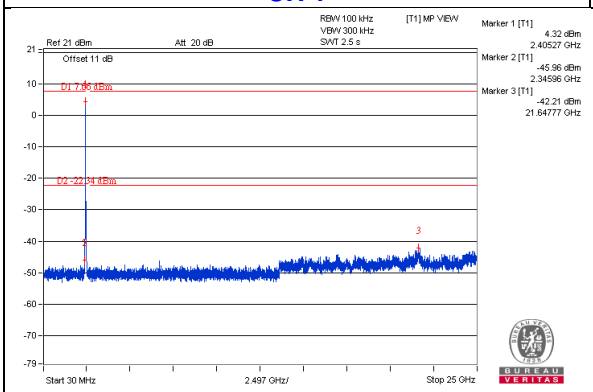


802.11g

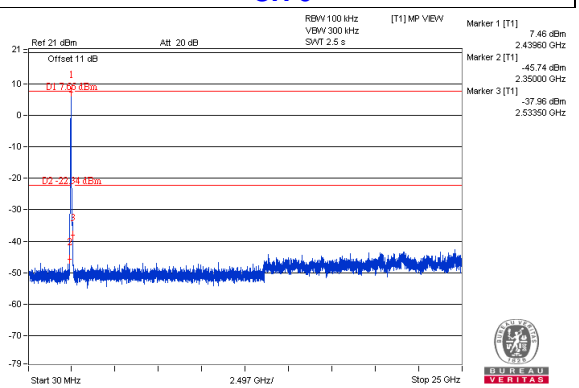
Maximum REF



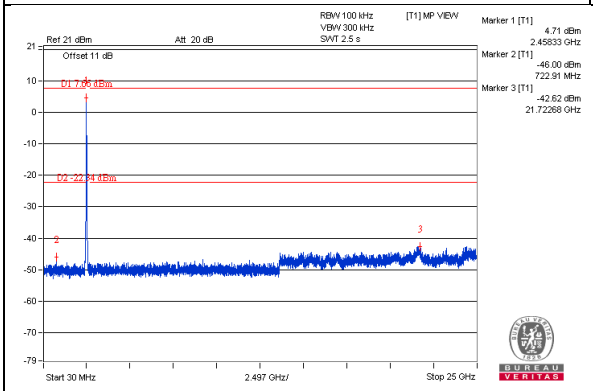
CH 1



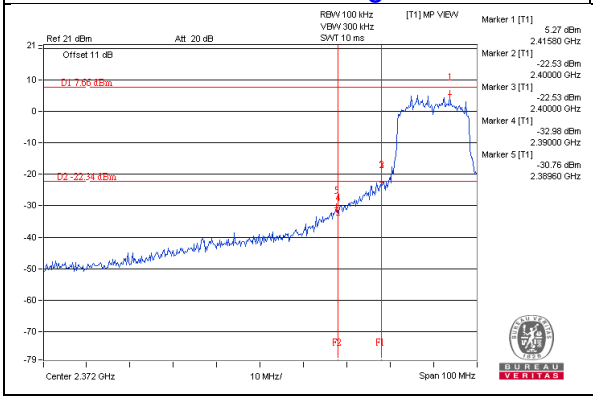
CH 6



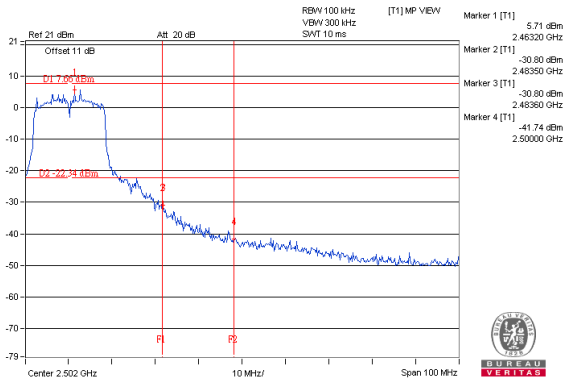
CH 11



CH 1 Band edge

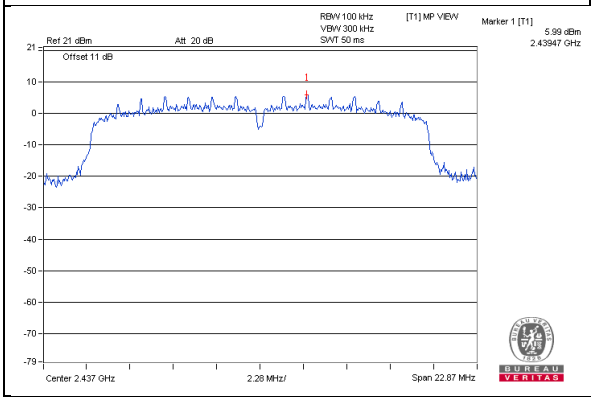


CH 11 Band edge

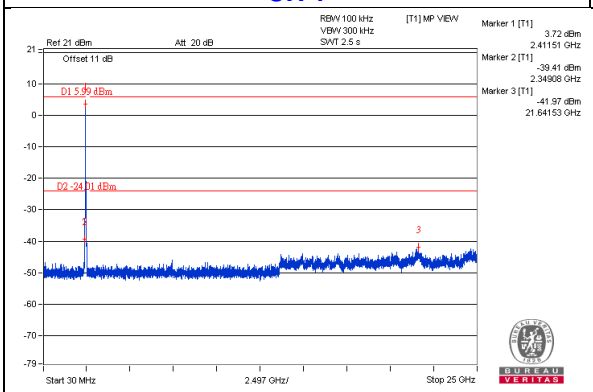


802.11n (HT20)

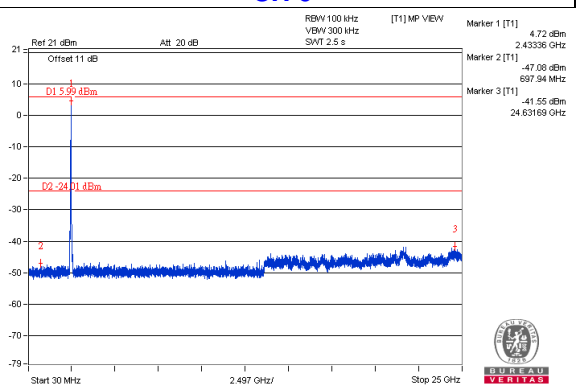
Maximum REF



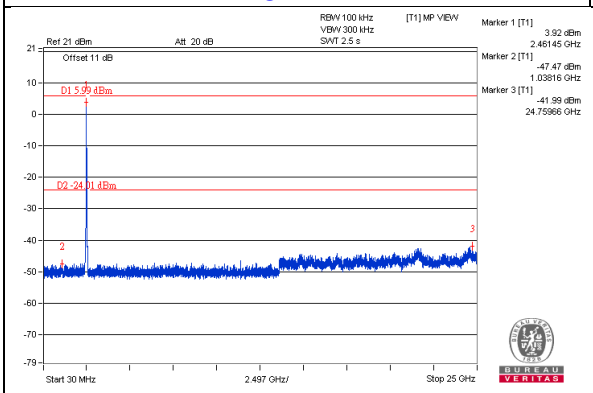
CH 1



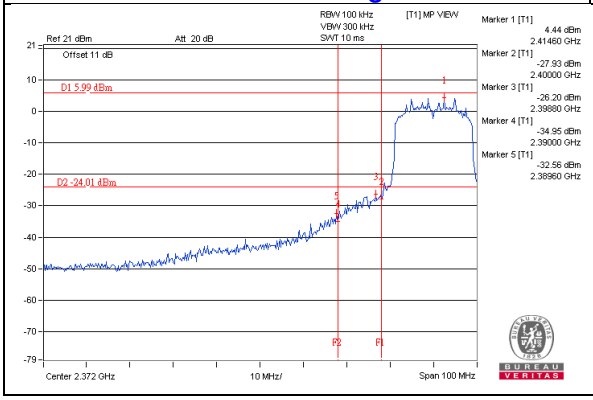
CH 6



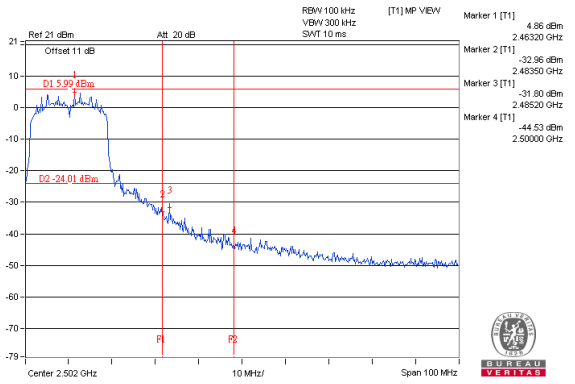
CH 11



CH 1 Band edge

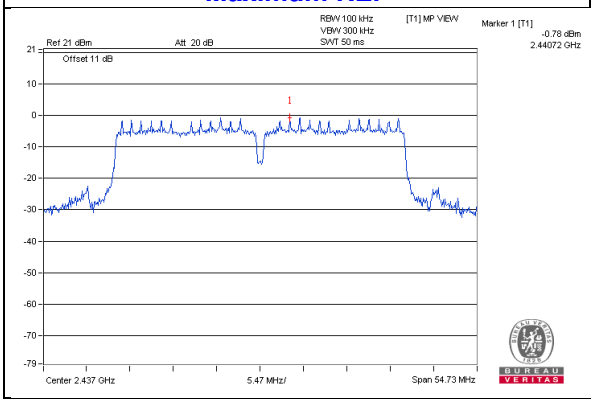


CH 11 Band edge

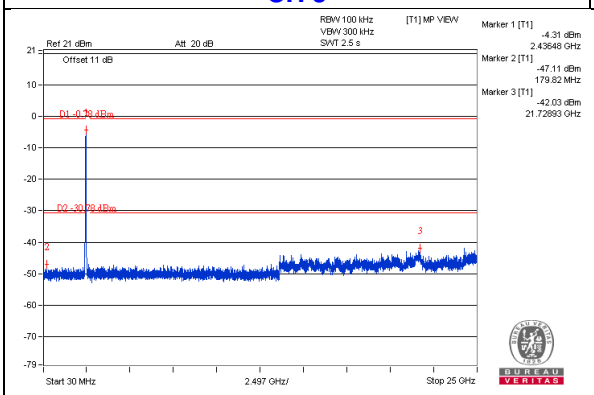


802.11n (HT40)

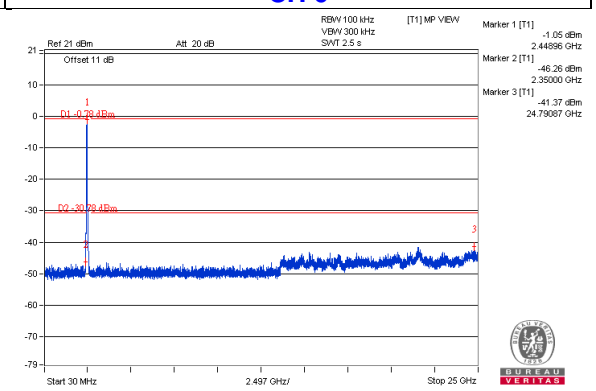
Maximum REF



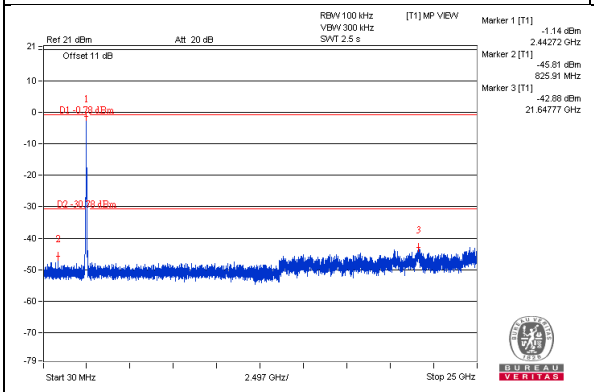
CH 3



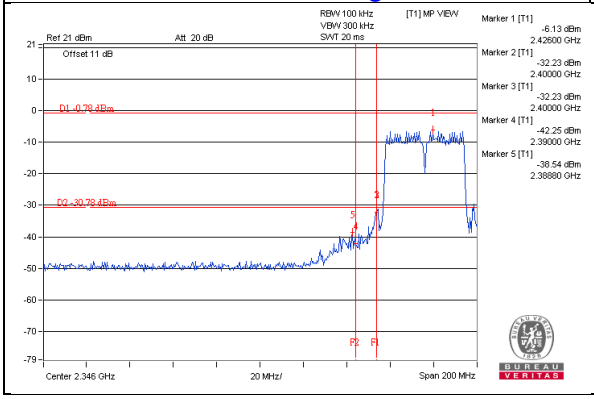
CH 6



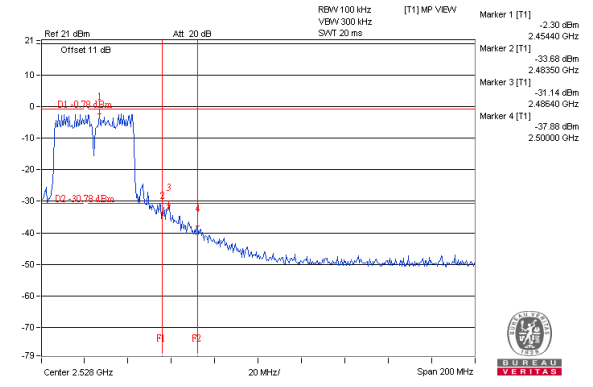
CH 9



CH 3 Band edge



CH 9 Band edge

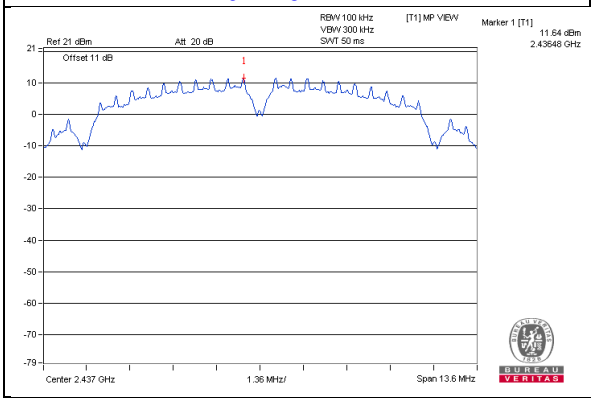


4.6.8 Test Results (Mode 2)

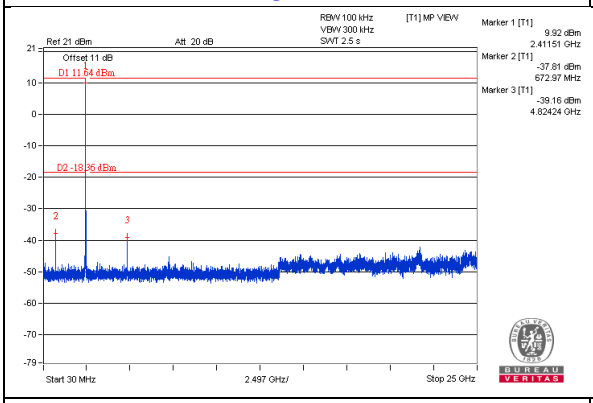
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

802.11b

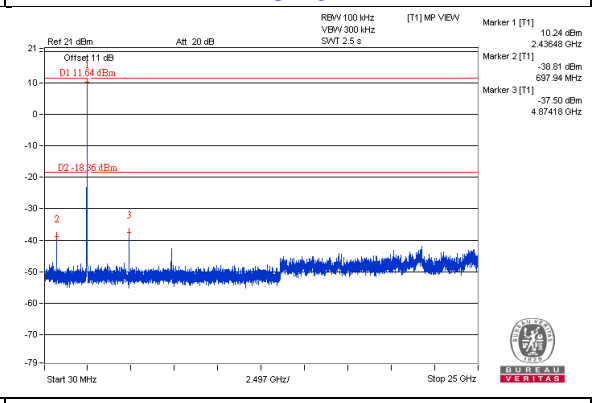
Maximum REF



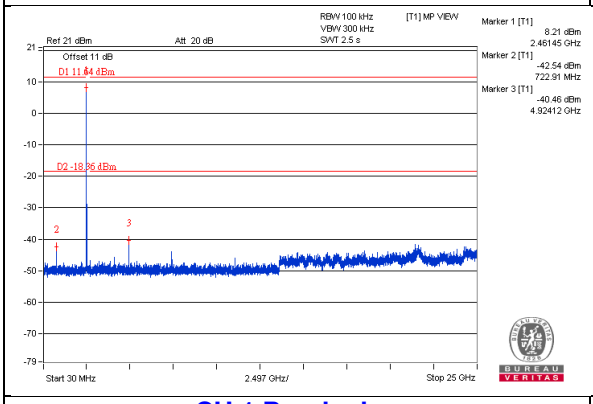
CH 1



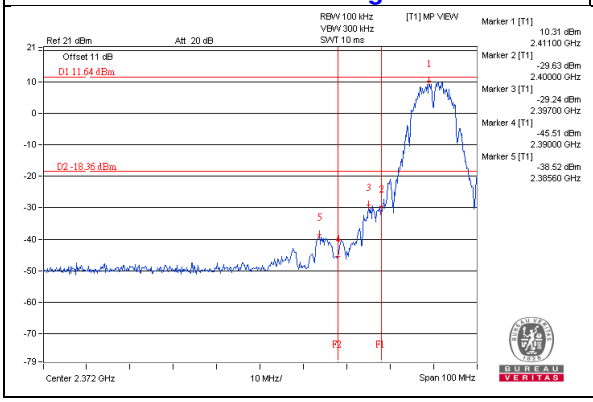
CH 6



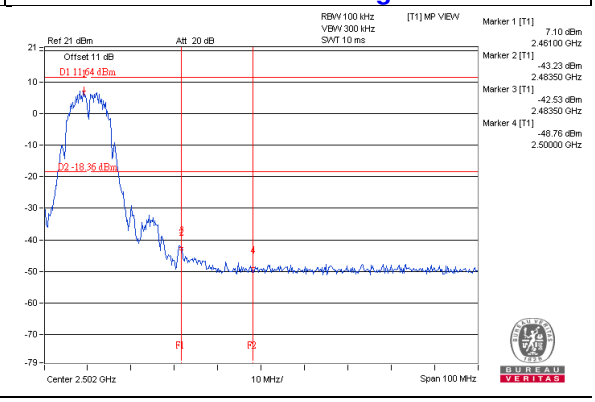
CH 11



CH 1 Band edge

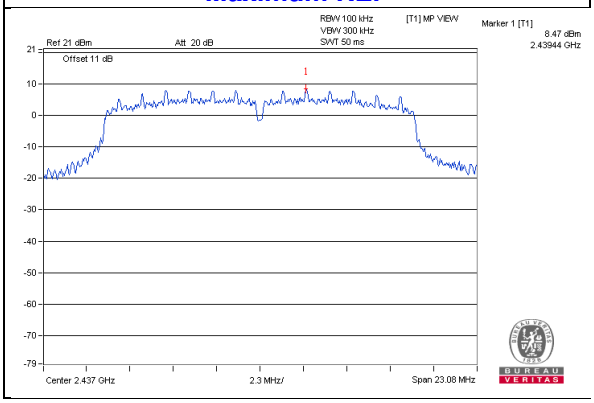


CH 11 Band edge

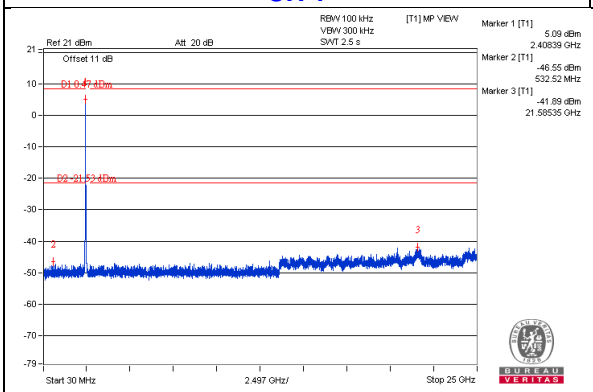


802.11g

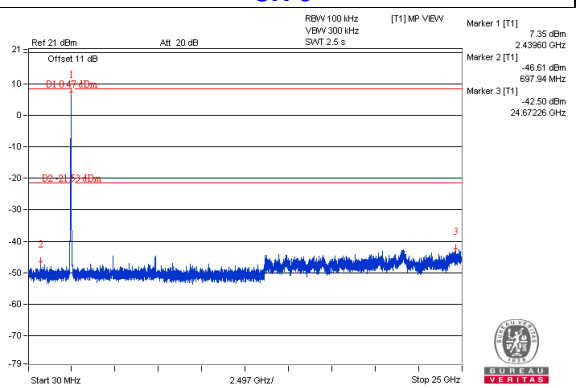
Maximum REF



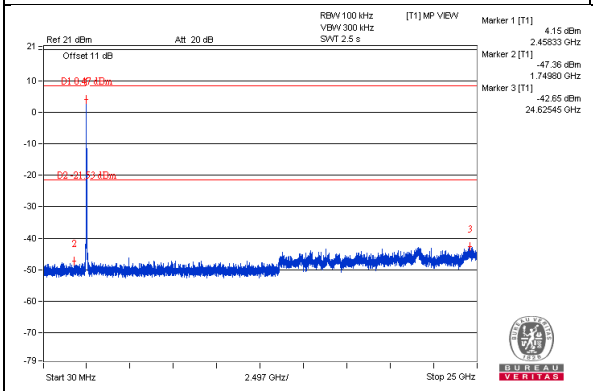
CH 1



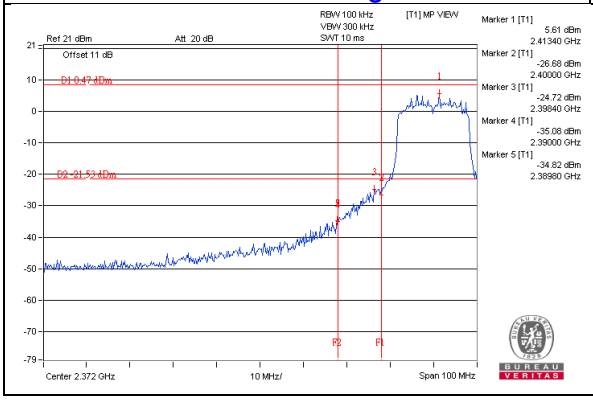
CH 6



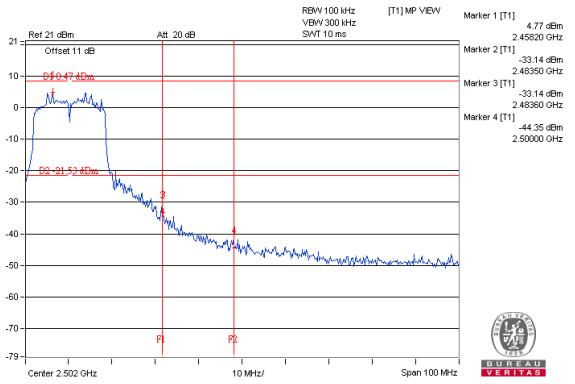
CH 11



CH 1 Band edge

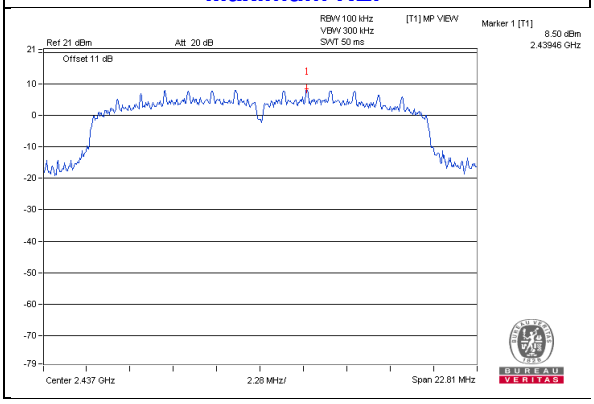


CH 11 Band edge

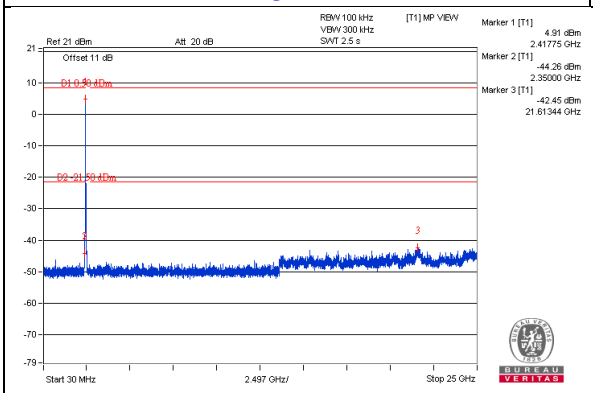


802.11n (HT20)

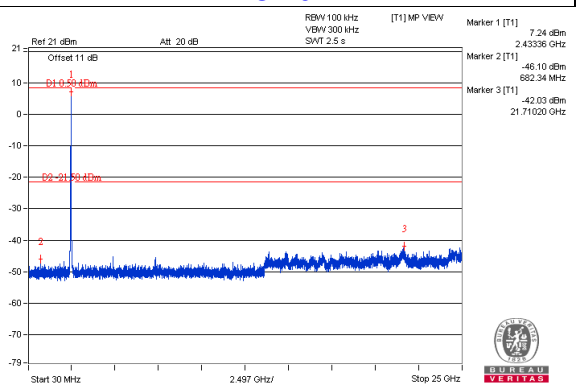
Maximum REF



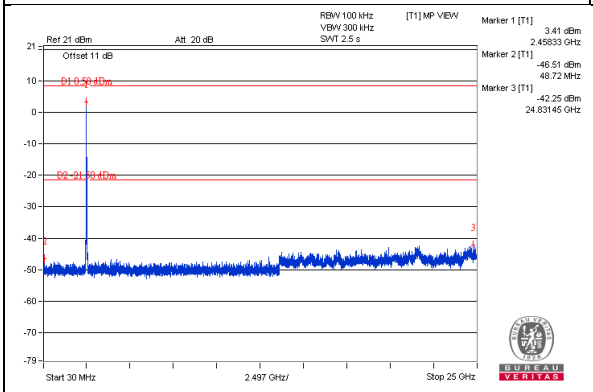
CH 1



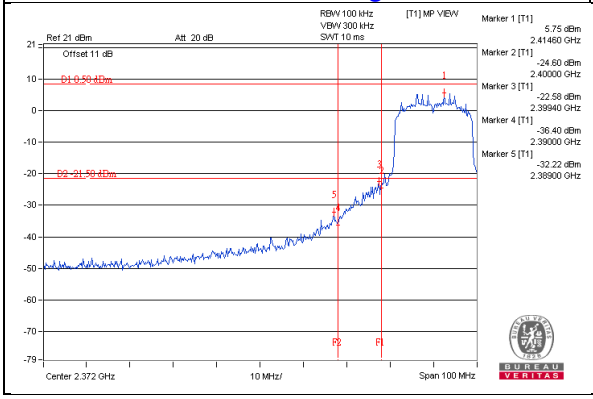
CH 6



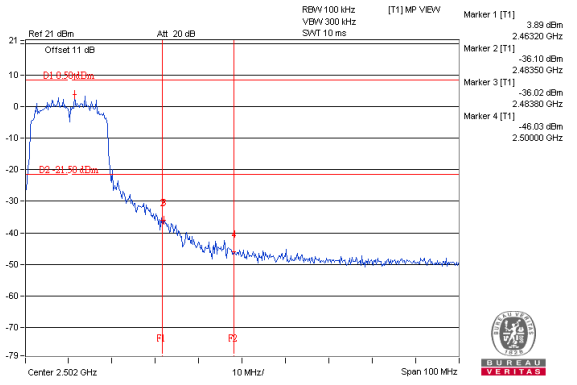
CH 11



CH 1 Band edge

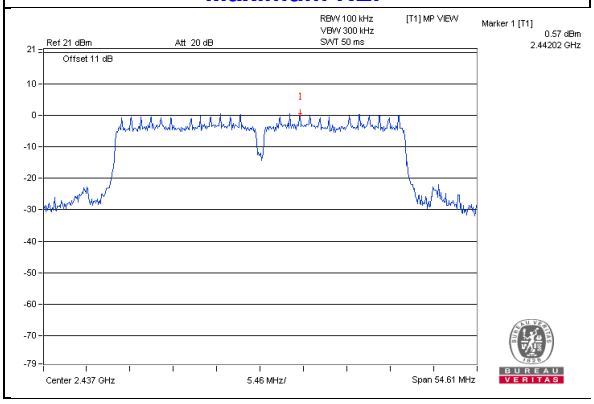


CH 11 Band edge

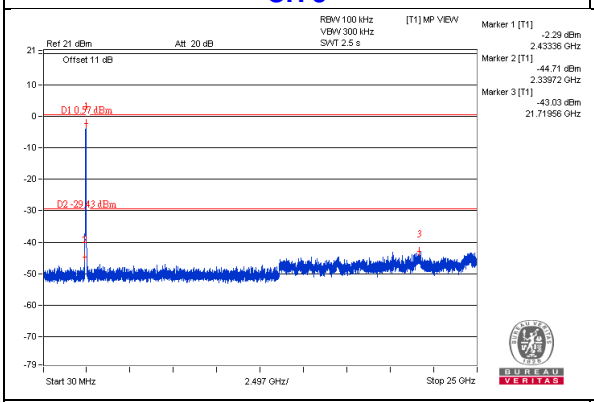


802.11n (HT40)

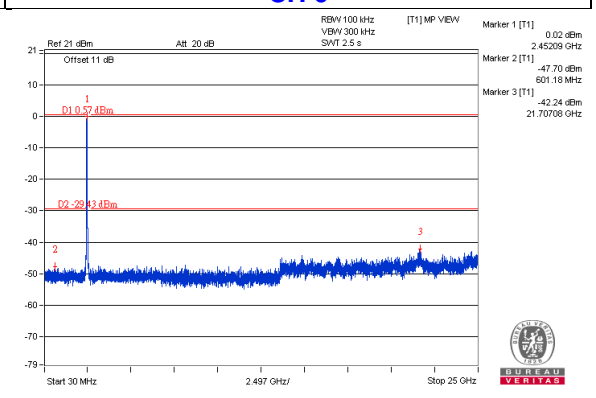
Maximum REF



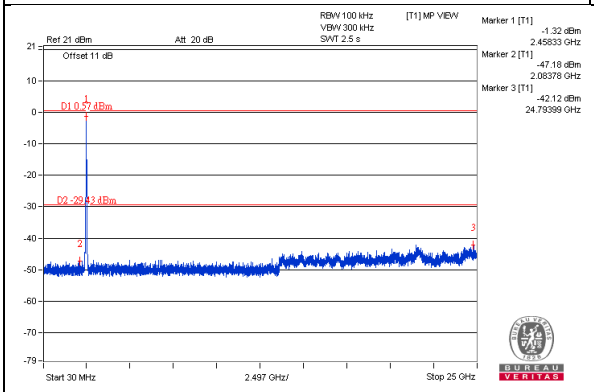
CH 3



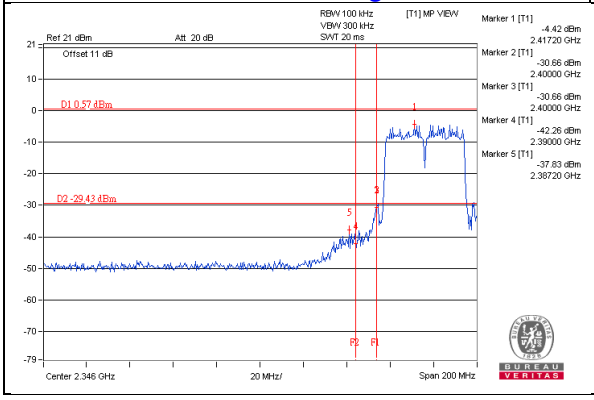
CH 6



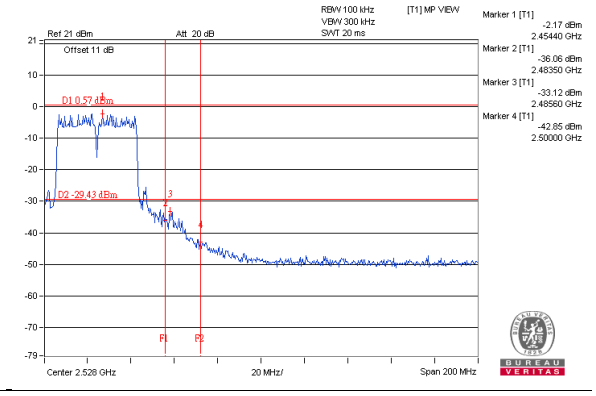
CH 9



CH 3 Band edge



CH 9 Band edge

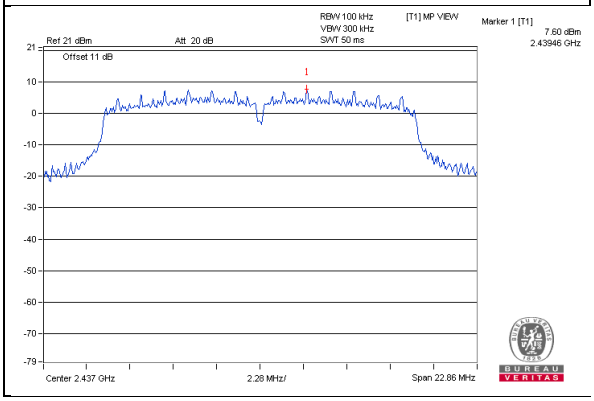


4.6.9 Test Results (Mode 3)

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

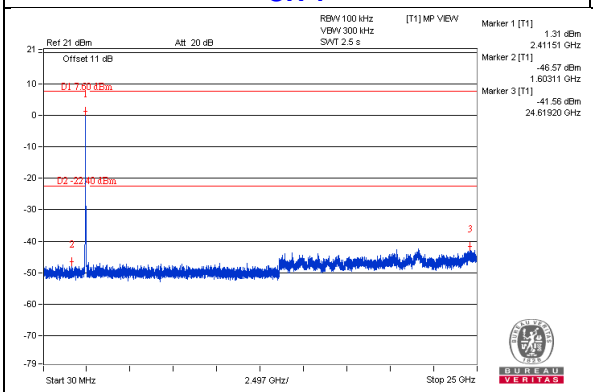
802.11g

Maximum REF

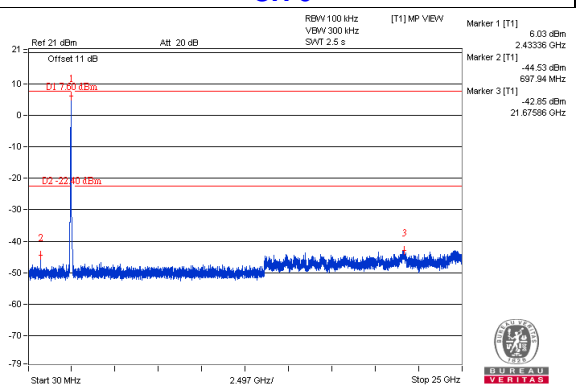


Chain 0

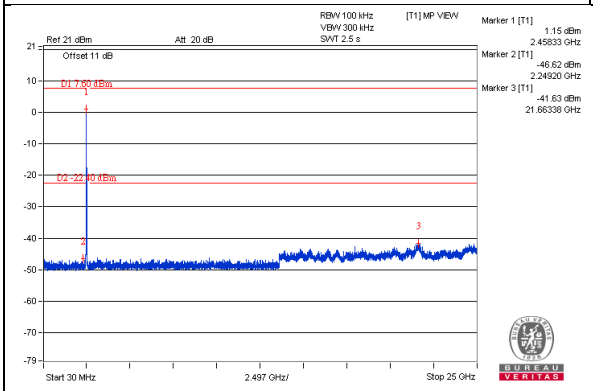
CH 1



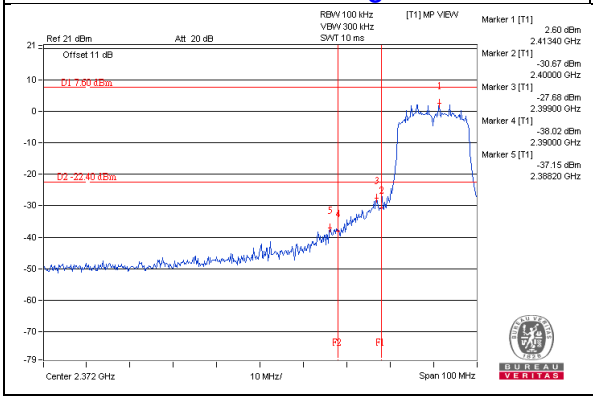
CH 6



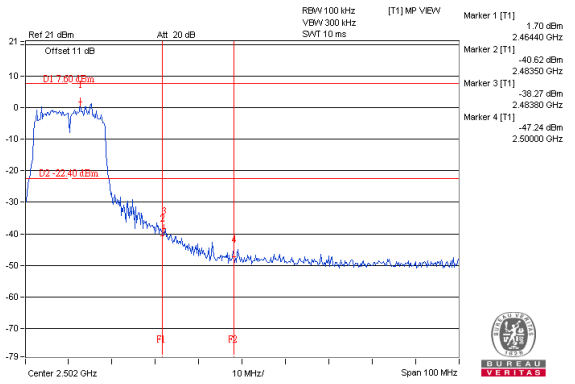
CH 11



CH 1 Band edge

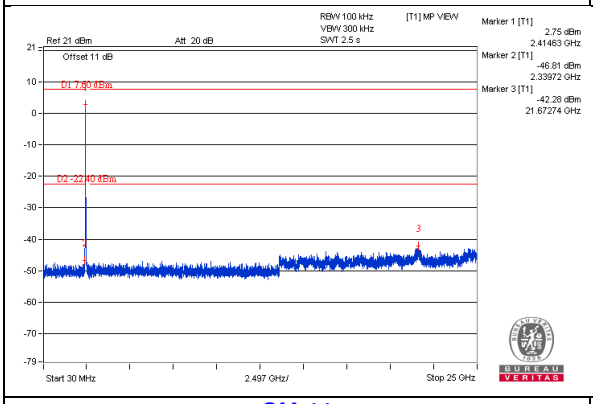


CH 11 Band edge

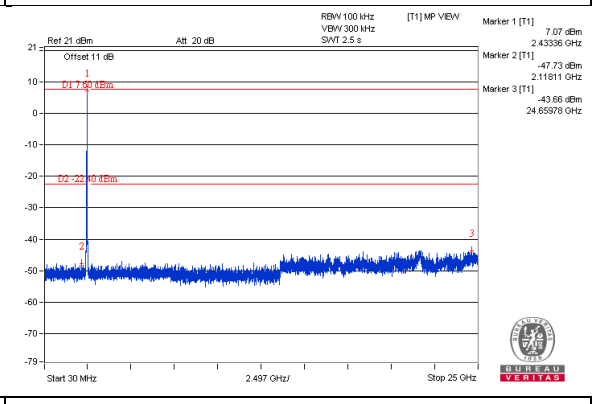


Chain 1

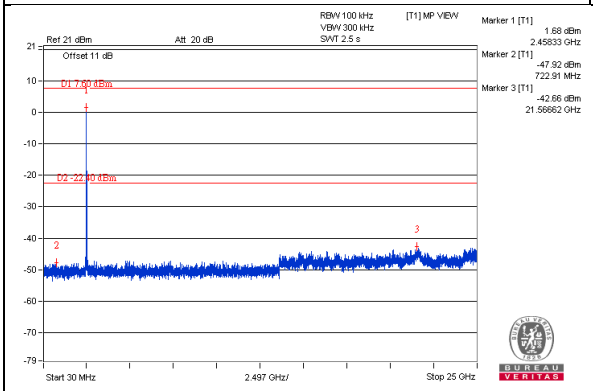
CH 1



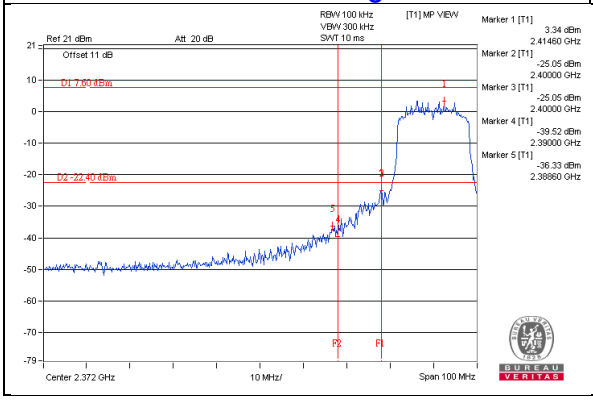
CH 6



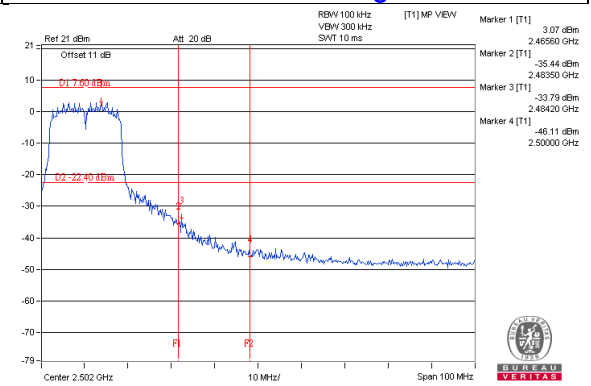
CH 11



CH 1 Band edge

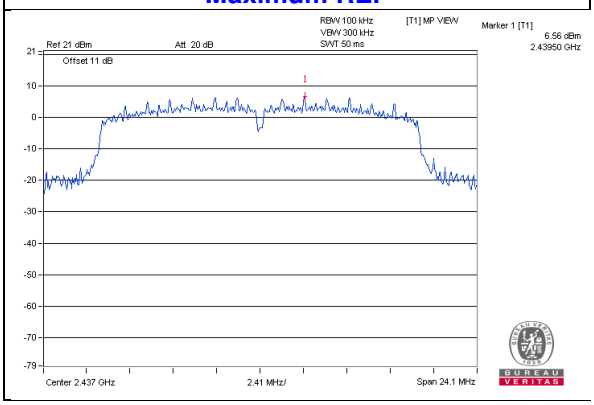


CH 11 Band edge



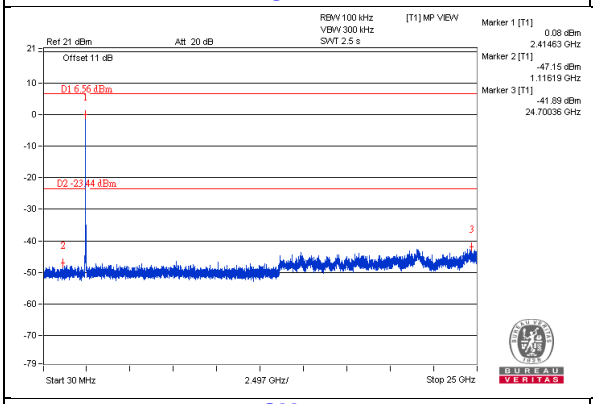
802.11n (HT20)

Maximum REF

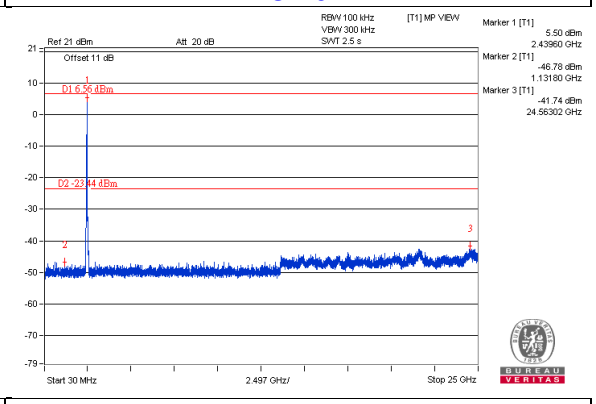


Chain 0

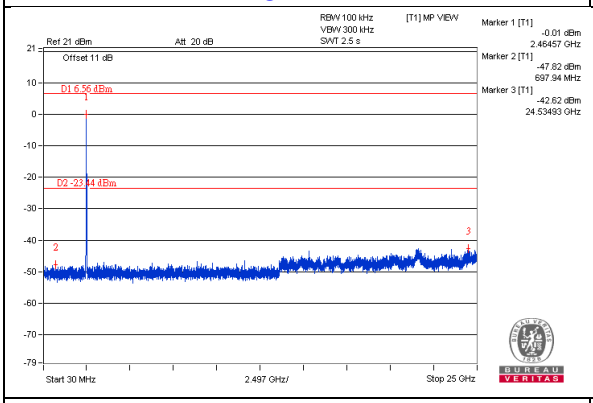
CH 1



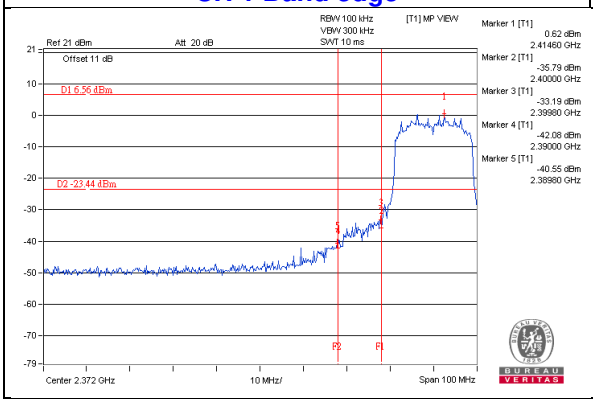
CH 6



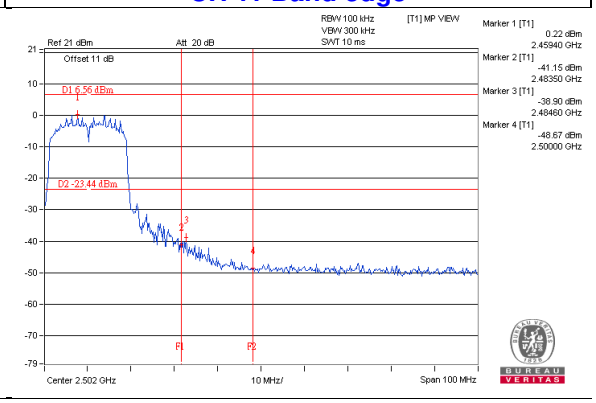
CH 11



CH 1 Band edge

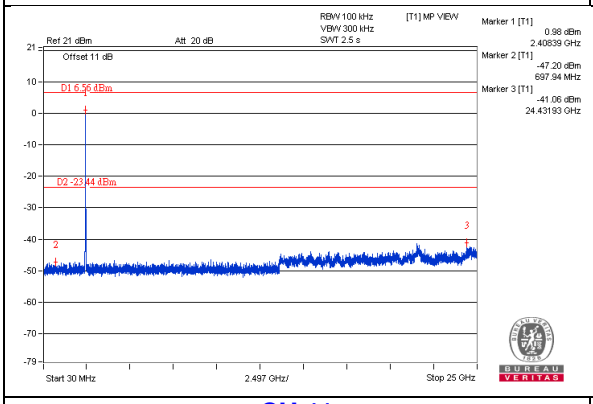


CH 11 Band edge

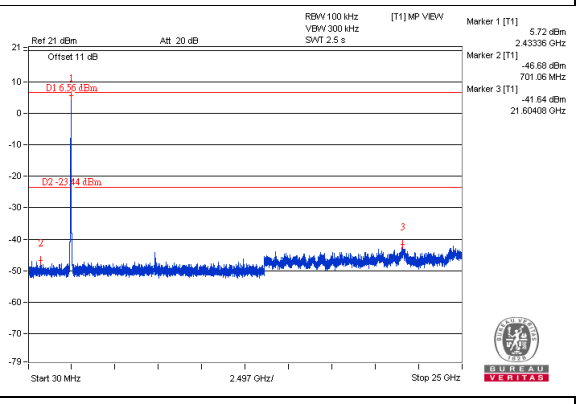


Chain 1

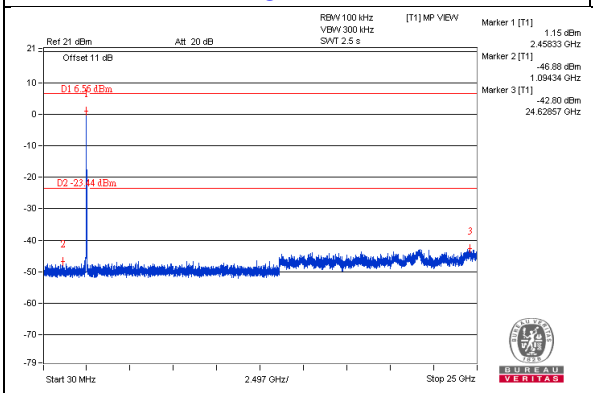
CH 1



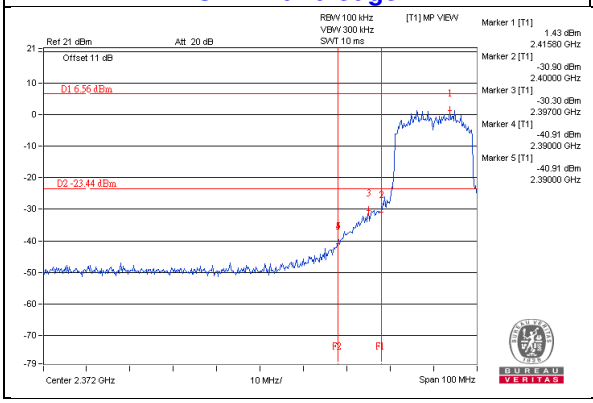
CH 6



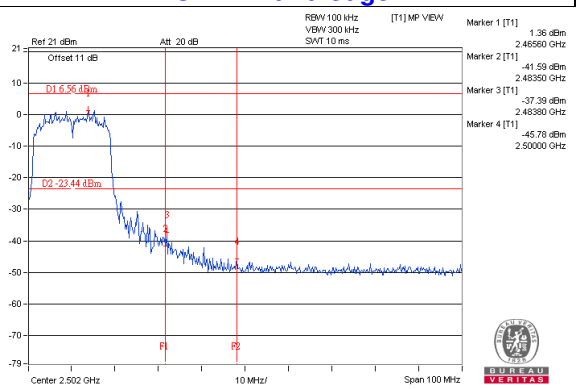
CH 11



CH 1 Band edge

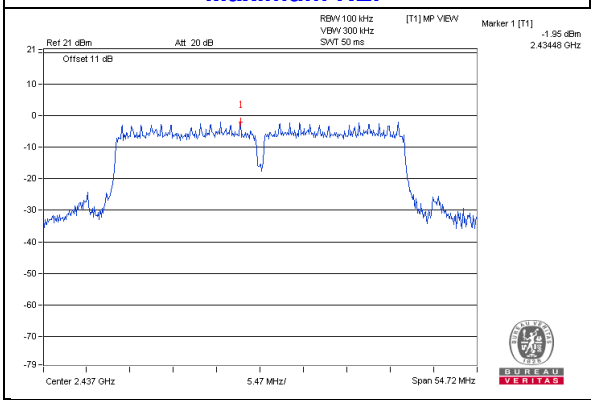


CH 11 Band edge



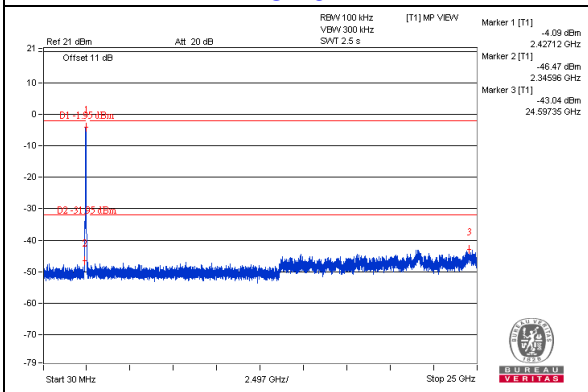
802.11n (HT40)

Maximum REF

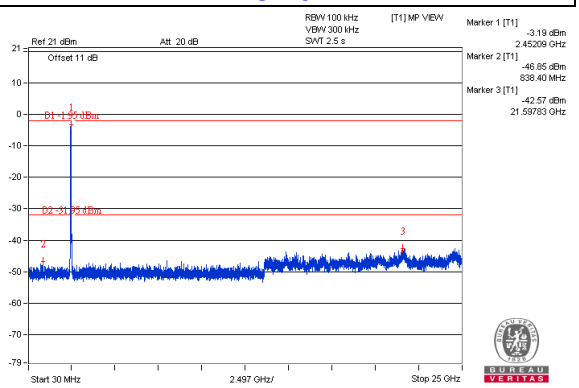


Chain 0

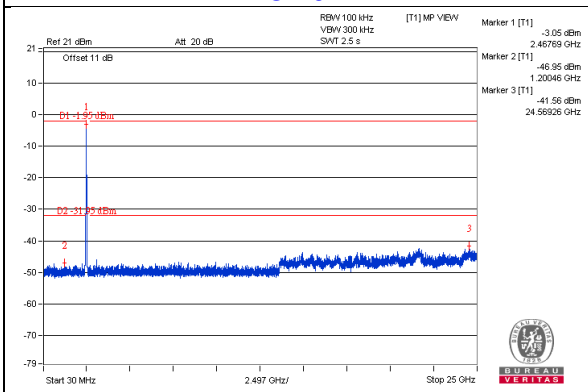
CH 3



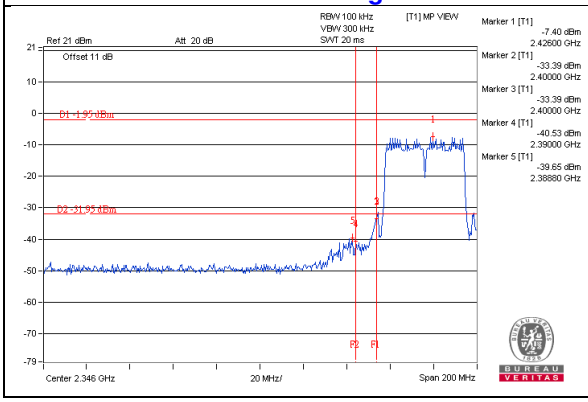
CH 6



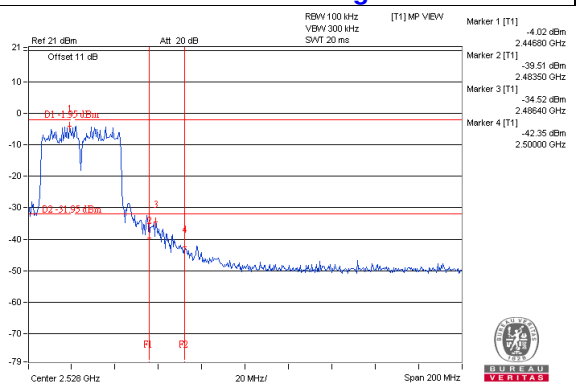
CH 9



CH 3 Band edge

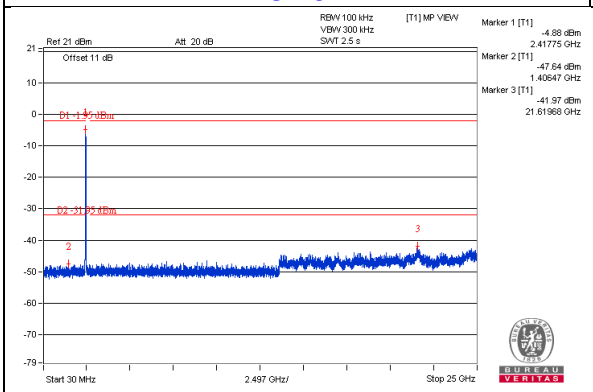


CH 9 Band edge

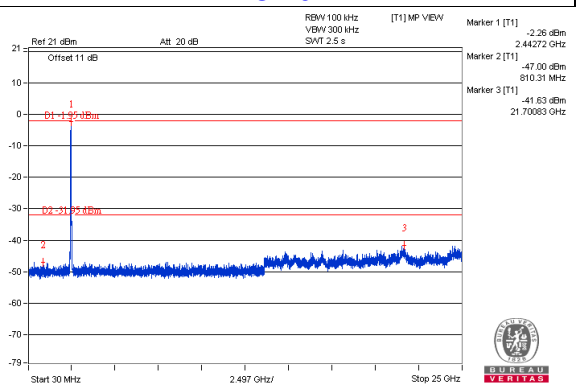


Chain 1

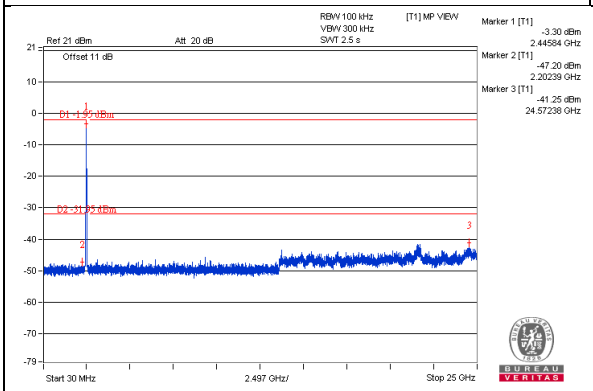
CH 3



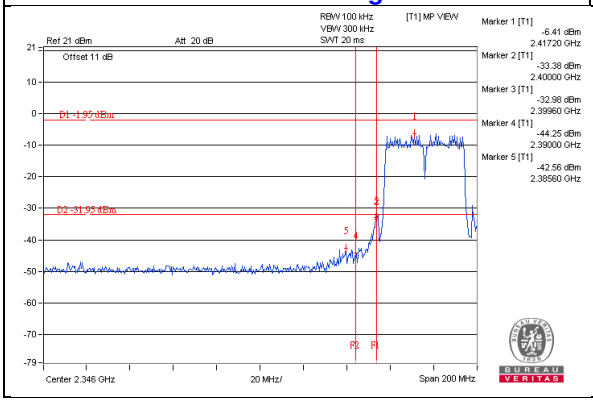
CH 6



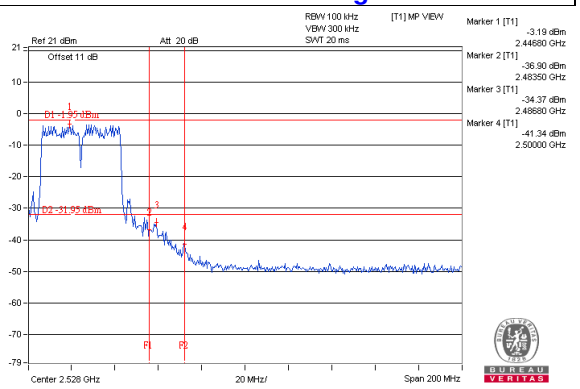
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information on 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 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 ---