FCC Test Report

Report No.:	RFBHBQ-WTW-P21080521
FCC ID:	2AH7L-UPSA
Test Model:	PAS800, PAS800L, PAS800P (Refer to item 3.1 for more details)
Received Date:	Aug. 12, 2021
Test Date:	Sep. 03 ~ Oct. 27, 2021
Issued Date:	Jan. 14, 2022
Applicant:	Schneider Electric Industries SAS
Address:	Electropole Site - 38EQ1, 31 rue Pierre Mendes France, Eybens - 38050 Grenoble cedex 9
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RFBHBQ-WTW-P21080521	Original release	Jan. 14, 2022

1 Certificate of Conformity

Product:	EcoStruxure™ Panel Server Advanced
Brand:	Schneider Electric
Test Model:	PAS800, PAS800L, PAS800P (Refer to item 3.1 for more details)
Sample Status:	Engineering sample
Applicant:	Schneider Electric Industries SAS
Test Date:	Sep. 03 ~ Oct. 27, 2021
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10:2013

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

Prepared by : Polly Chien , **Date:** Jan. 14, 2022

Polly Chien / Specialist

Approved by : Jeremy Lin , **Date:** Jan. 14, 2022

Jeremy Lin / Project Engineer

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 -14.04dB at 0.66200MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.5dB at 4824.00MHz.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	Pass	Meet the requirement of limit.
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note:

1. For 2.4G band compliance with rule 15.247(d) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	EcoStruxure™ Panel Server Advanced
Brand	Schneider Electric
Test Model	PAS800, PAS800L, PAS800P
Model Difference	Refer to note
Sample Status	Engineering sample
Power Supply rating	PAS800: 110 to 277Vac/dc +/-10%, 50-60Hz(+/-5Hz) < 3.5W/12VA , -25°C to 70°C PAS800L: 24Vdc +/-10% , 145 mA , < 3.5W, -25°C to 70°C PAS800P: POE(PD) - Class 0, 37Vdc to 57Vdc, < 3.5 W, 48Vdc (Typical), 72 mA, -25°C to 70°C
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b:11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 150Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 7
Output Power	16.482mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	External Antenna (Brand: Schneider Electric, Model: PASA-ANT1)
Cable Supplied	NA

Note:

1. All models are listed as below.

Brand	Model	Difference
Schneider Electric	PAS800	All three models are similar in construction and functioning except the mode of powering. PAS800: powered by 110V-277Vac/dc PAS800L: powered by 24Vdc source PAS800P: Powered Over Ethernet.
	PAS800L	
	PAS800P	

2. The EUT provide 1 completed transmitter and 1 receiver.

Modulation Mode	TX Function
802.11b	1TX
802.11g	1TX
802.11n (HT20)	1TX
802.11n (HT40)	1TX

3. The following antennas were provided to the EUT.

Internal Antenna

No.	Antenna Type	Connector	Gain(dBi)		Remark
			2.4G	5G	
1	PCB	NA	3.80	2.10	WLAN, BT LE
2	PCB	NA	4.40	-	Zigbee
3	PCB	NA	5.10	-	Zigbee

External Antenna

No.	Antenna Type	Connector	Gain(dBi)		Remark
			2.4G	5G	
1	Dipole	RPSMA	2.54	3.00	WLAN, BT LE. Zigbee

* The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

4. The WLAN 2.4GHz, 5GHz, Zigbee and BT of the device can transmit simultaneously but not WLAN 2.4GHz and 5GHz at the same time.
5. Spurious emission of the simultaneous operation (WLAN 2.4GHz, 5GHz, Zigbee and BT) has been evaluated and no non-compliance was found.

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

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 (HT40):

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				Antenna	Description
	RE≥1G	RE<1G	PLC	APCM		
A1	√	√	√	√	Internal	EUT (PAS800) + AC power
A2	-	√	√	-		EUT (PAS800L) + DC power
A3	-	√	√	-		EUT (PAS800P) + PoE
B1	√	√	√	√	External	EUT (PAS800) + AC power
B2	-	√	√	-		EUT (PAS800L) + DC power
B3	-	√	√	-		EUT (PAS800P) + PoE

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 3 axis. The worst case was found when positioned on **X-plane** (for EUT) and **Z-plane** (for External antenna).
2. Radiated emission (below 1GHz) and power line conducted emission test items chosen the worst maximum power.
3. "-"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)
A1, B1	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A1, B1	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A1, B1	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A1, B1	802.11n (HT40)	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)
A1, A2, A3, B1, B2, B3	802.11g	1 to 11	6	OFDM	BPSK	6.0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A1, A2, A3, B1, B2, B3	802.11g	1 to 11	6	OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

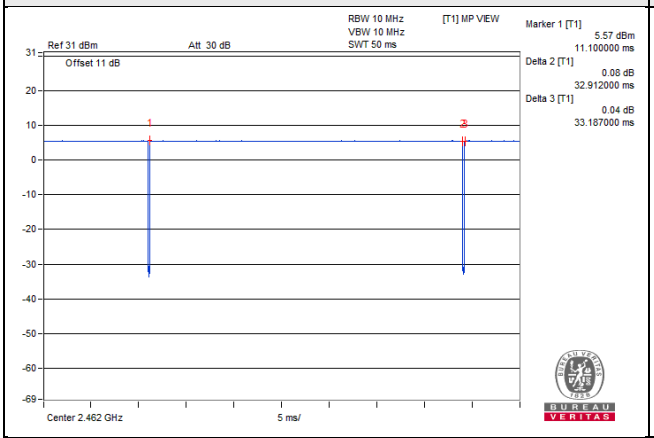
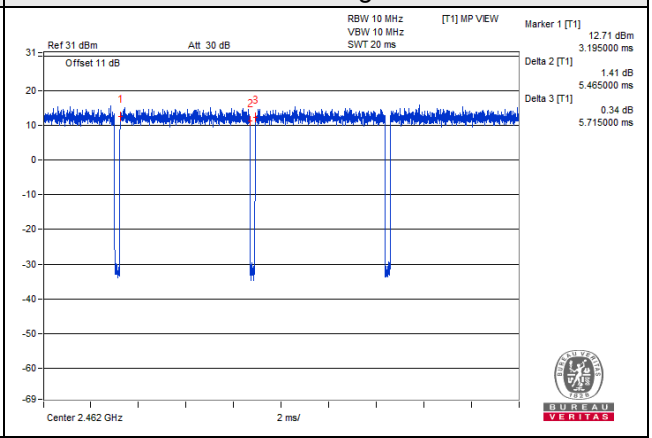
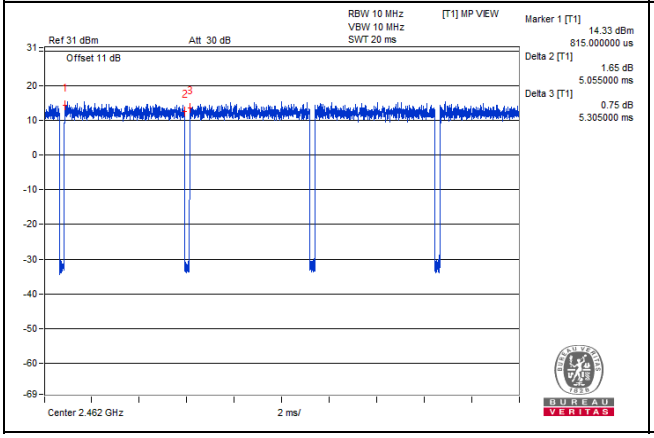
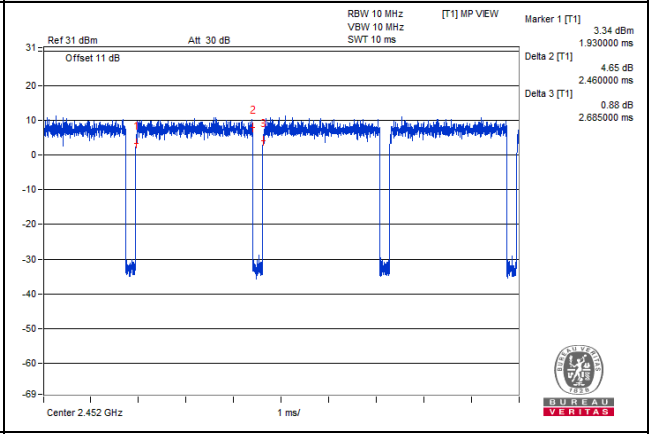
EUT Configure Mode	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
A1, B1	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A1, B1	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A1, B1	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A1, B1	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE≥1G	21 deg. C, 68% RH	120Vac, 60Hz	Rex Wang
RE<1G	20 deg. C, 67% RH	120Vac, 60Hz, 24Vdc, 56Vdc	Rex Wang
PLC	25 deg. C, 75% RH	120Vac, 60Hz, 277Vac, 24Vdc, 56Vdc	Rex Wang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Ivan Tseng, Gary Lin

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is ≥ 98%, duty factor is not required.
Duty cycle of test signal is < 98%, duty factor shall be considered.
Internal antenna:
802.11b: Duty cycle = 32.912/33.187 = 0.992
802.11g: Duty cycle = 5.465/5.715 = 0.956, Duty factor = 10 * log (1/0.956) = 0.19
802.11n (HT20): Duty cycle = 5.055/5.305 = 0.953, Duty factor = 10 * log (1/0.953) = 0.21
802.11n (HT40): Duty cycle = 2.460/2.685 = 0.916, Duty factor = 10 * log (1/0.916) = 0.38

802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

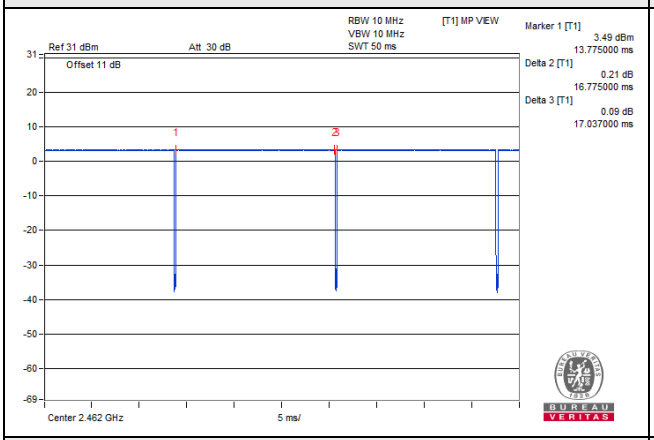
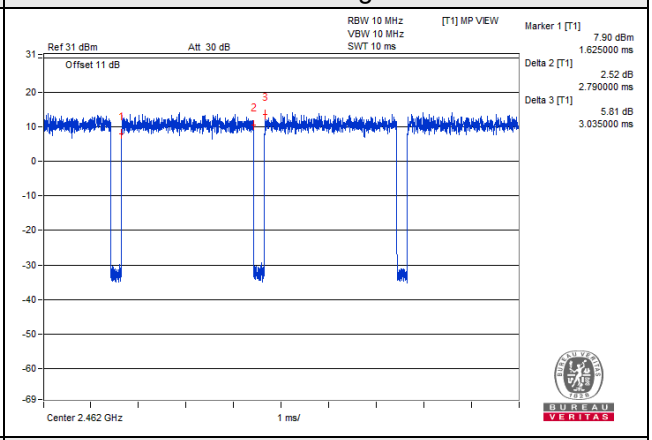
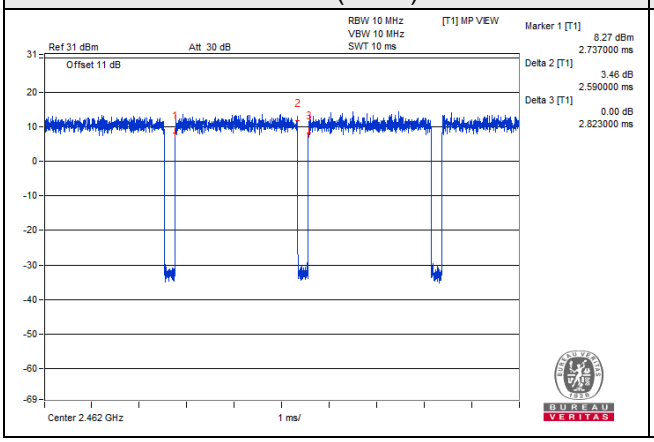
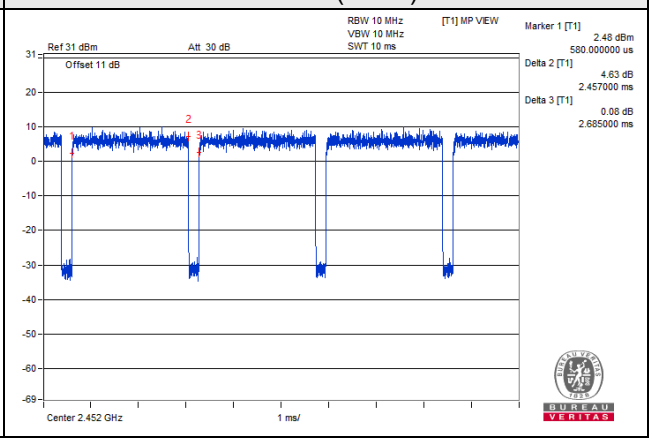
External antenna:

802.11b: Duty cycle = 16.775/17.037 = 0.985

802.11g: Duty cycle = 2.790/3.035 = 0.919, Duty factor = 10 * log (1/0.919) = 0.37

802.11n (HT20): Duty cycle = 2.590/2.823 = 0.917, Duty factor = 10 * log (1/0.917) = 0.37

802.11n (HT40): Duty cycle = 2.457/2.685 = 0.915, Duty factor = 10 * log (1/0.915) = 0.39

802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

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	Lenovo	81A4	YD02TWF5	FCC DoC Approved	-
B.	DC Power Supply	JIN YIH	ODP3033	ODP30332027416	NA	-
C.	POE	Phihong	POE29U-1AT(PL)D-R	NA	NA	Provided by client
D.	Load	NA	NA	NA	NA	-

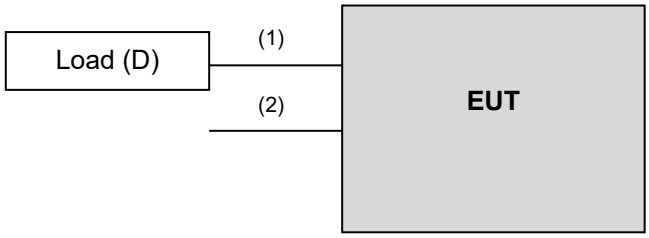
Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Items A acted as communication partners to transfer data.

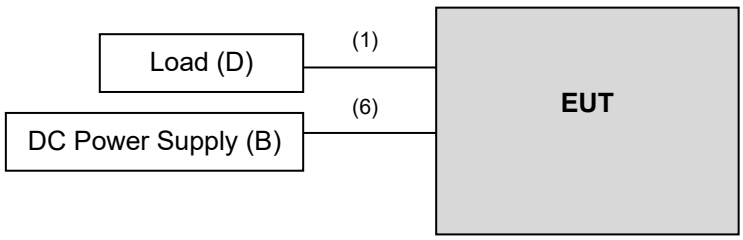
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN	2	1.5	N	0	RJ45, Cat5e
2.	DC cable	1	30	Y	0	Provided by client
3.	LAN	1	1.5	N	0	RJ45, Cat5e
4.	LAN	1	1.5	N	0	RJ45, Cat5e
5.	LAN	1	10	N	0	RJ45, Cat5e
6.	DC cable	1	30	Y	0	Provided by client

3.4.1 Configuration of System under Test

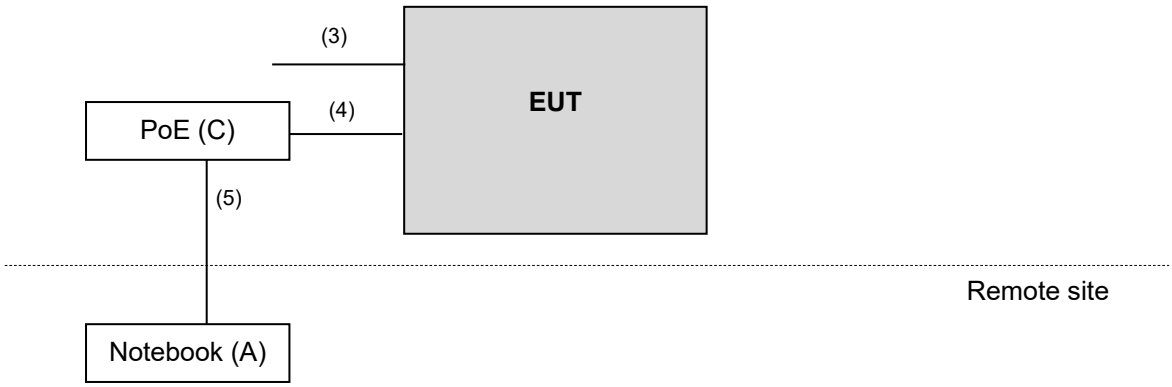
Mode A1, B1



Mode A2, B2



Mode A3, B3



3.5 General Description of Applied Standards and References

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

Test standard:
FCC Part 15, Subpart C (15.247)
ANSI C63.10-2013

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

References Test Guidance:
KDB 558074 D01 15.247 Meas Guidance v05r02

All test items have been performed as a reference to the above KDB test guidance.

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.	Cal. Date	Cal. Due
Test Receiver KEYSIGHT	N9038A	MY55420137	Apr. 09, 2021	Apr. 08, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 10, 2021	Jun. 09, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Nov. 06, 2020	Nov. 05, 2021
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-1169	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna TESEQ	HLA 6121	45745	Jul. 21, 2021	Jul. 20, 2022
Preamplifier Agilent (Below 1GHz)	8447D	2944A10638	Jun. 05, 2021	Jun. 04, 2022
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 17, 2021	Feb. 16, 2022
RF signal cable HUBER+SUHNER&EMCI	SUCOFLEX 104 & EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	Jan. 16, 2021	Jan. 15, 2022
RF signal cable Woken	8D-FB	Cable-CH9-01	Jun. 05, 2021	Jun. 04, 2022
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower &Turn BV ADT	AT100	AT93021705	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	Jan. 19, 2021	Jan. 18, 2022
Wideband Power Sensor KEYSIGHT	N1923A	MY58020002	Jan. 11, 2021	Jan. 10, 2022

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

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

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.

2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.

3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.

   (802.11b: RBW = 1MHz, VBW = 10Hz; 802.11g: RBW = 1MHz, VBW = 1kHz; 802.11n (HT20): RBW = 1MHz, VBW = 1kHz; 802.11n (HT40): RBW = 1MHz, VBW = 1kHz)

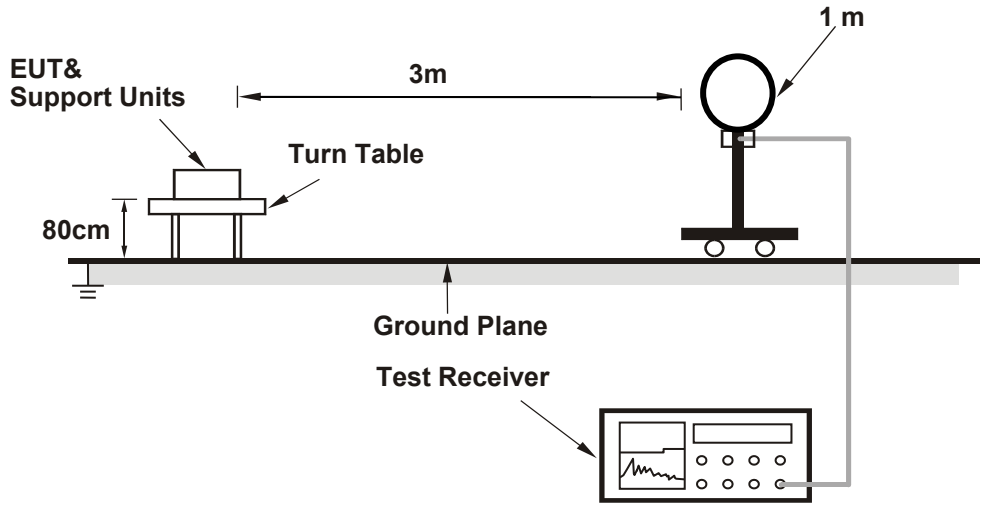
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

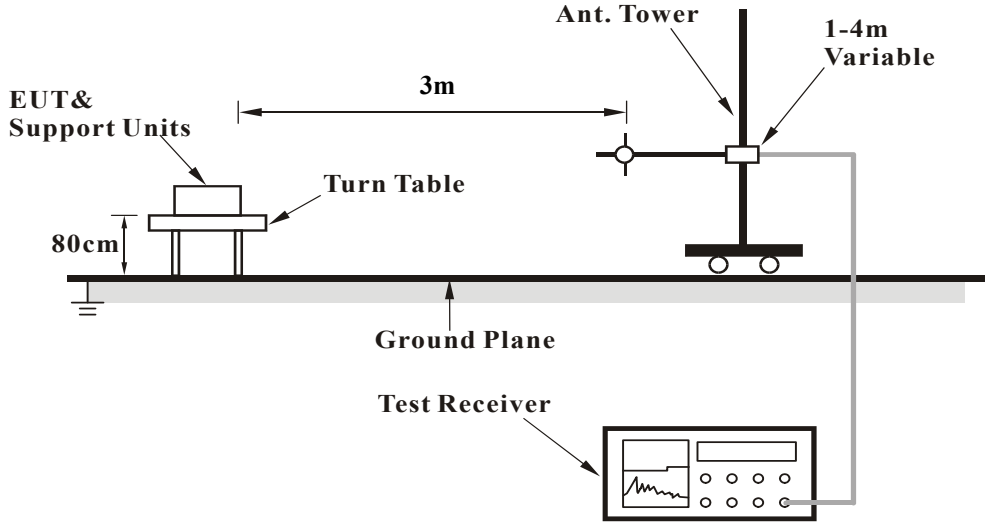
No deviation.

4.1.5 Test Setup

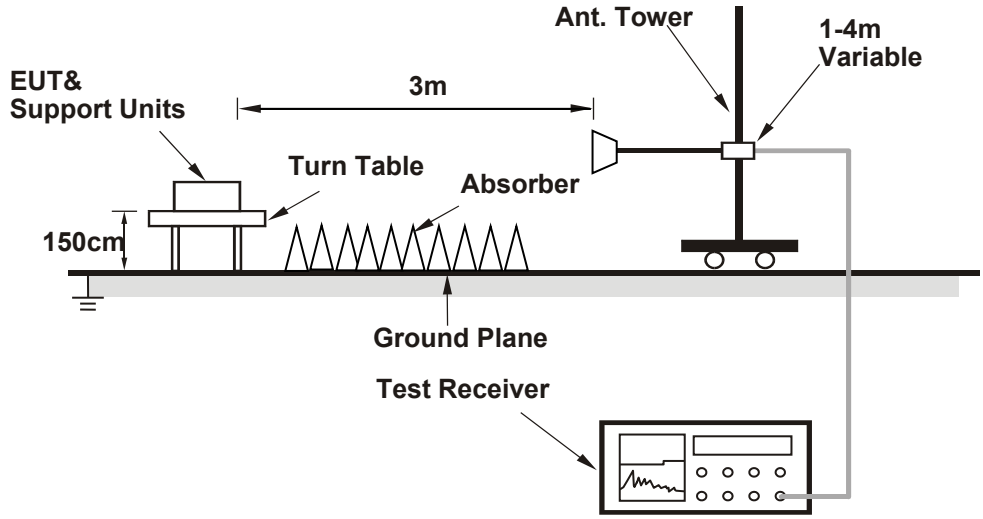
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.

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

4.1.7 Test Results

Above 1GHz Data:

Internal antenna: Mode A1

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	59.1 PK	74.0	-14.9	2.92 H	282	25.4	33.7
2	2390.00	45.0 AV	54.0	-9.0	2.92 H	282	11.3	33.7
3	*2412.00	103.3 PK			2.92 H	282	69.6	33.7
4	*2412.00	100.0 AV			2.92 H	282	66.3	33.7
5	4824.00	56.0 PK	74.0	-18.0	1.97 H	187	48.7	7.3
6	**4824.00**	**53.5 AV**	**54.0**	**-0.5**	**1.97 H**	**187**	**46.2**	**7.3**
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	58.3 PK	74.0	-15.7	2.78 V	194	24.6	33.7
2	2390.00	44.7 AV	54.0	-9.3	2.78 V	194	11.0	33.7
3	*2412.00	99.0 PK			2.78 V	194	65.3	33.7
4	*2412.00	96.7 AV			2.78 V	194	63.0	33.7
5	4824.00	54.9 PK	74.0	-19.1	1.46 V	198	47.6	7.3
6	4824.00	50.9 AV	54.0	-3.1	1.46 V	198	43.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.0 PK			3.33 H	282	69.4	33.6
2	*2437.00	99.3 AV			3.33 H	282	65.7	33.6
3	4874.00	55.5 PK	74.0	-18.5	1.80 H	209	48.2	7.3
4	4874.00	53.0 AV	54.0	-1.0	1.80 H	209	45.7	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	97.9 PK			2.77 V	203	64.3	33.6
2	*2437.00	95.2 AV			2.77 V	203	61.6	33.6
3	4874.00	54.4 PK	74.0	-19.6	1.50 V	196	47.1	7.3
4	4874.00	50.8 AV	54.0	-3.2	1.50 V	196	43.5	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	103.6 PK			3.72 H	278	69.9	33.7
2	*2462.00	100.9 AV			3.72 H	278	67.2	33.7
3	2483.50	58.7 PK	74.0	-15.3	3.72 H	278	25.0	33.7
4	2483.50	48.4 AV	54.0	-5.6	3.72 H	278	14.7	33.7
5	4924.00	55.6 PK	74.0	-18.4	2.15 H	204	48.3	7.3
6	4924.00	52.9 AV	54.0	-1.1	2.15 H	204	45.6	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	97.6 PK			2.47 V	208	63.9	33.7
2	*2462.00	95.4 AV			2.47 V	208	61.7	33.7
3	2483.50	59.3 PK	74.0	-14.7	2.47 V	208	25.6	33.7
4	2483.50	48.0 AV	54.0	-6.0	2.47 V	208	14.3	33.7
5	4924.00	54.4 PK	74.0	-19.6	1.47 V	199	47.1	7.3
6	4924.00	50.6 AV	54.0	-3.4	1.47 V	199	43.3	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	3.42 H	283	29.8	33.7
2	2390.00	46.4 AV	54.0	-7.6	3.42 H	283	12.7	33.7
3	*2412.00	103.8 PK			3.42 H	283	70.1	33.7
4	*2412.00	94.1 AV			3.42 H	283	60.4	33.7
5	4824.00	53.2 PK	74.0	-20.8	1.55 H	208	45.9	7.3
6	4824.00	41.6 AV	54.0	-12.4	1.55 H	208	34.3	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	59.3 PK	74.0	-14.7	3.17 V	201	25.6	33.7
2	2390.00	45.4 AV	54.0	-8.6	3.17 V	201	11.7	33.7
3	*2412.00	101.1 PK			3.17 V	201	67.4	33.7
4	*2412.00	91.5 AV			3.17 V	201	57.8	33.7
5	4824.00	51.8 PK	74.0	-22.2	1.45 V	196	44.5	7.3
6	4824.00	42.0 AV	54.0	-12.0	1.45 V	196	34.7	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	108.4 PK			3.31 H	279	74.8	33.6
2	*2437.00	98.3 AV			3.31 H	279	64.7	33.6
3	4874.00	59.2 PK	74.0	-14.8	3.05 H	232	51.9	7.3
4	4874.00	45.8 AV	54.0	-8.2	3.05 H	232	38.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.0 PK			2.81 V	195	69.4	33.6
2	*2437.00	95.0 AV			2.81 V	195	61.4	33.6
3	4874.00	54.1 PK	74.0	-19.9	1.49 V	200	46.8	7.3
4	4874.00	44.9 AV	54.0	-9.1	1.49 V	200	37.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	104.3 PK			3.27 H	283	70.6	33.7
2	*2462.00	93.9 AV			3.27 H	283	60.2	33.7
3	2483.50	64.1 PK	74.0	-9.9	3.27 H	283	30.4	33.7
4	2483.50	48.9 AV	54.0	-5.1	3.27 H	283	15.2	33.7
5	4924.00	55.1 PK	74.0	-18.9	2.66 H	230	47.8	7.3
6	4924.00	41.8 AV	54.0	-12.2	2.66 H	230	34.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	101.1 PK			2.98 V	199	67.4	33.7
2	*2462.00	91.9 AV			2.98 V	199	58.2	33.7
3	2483.50	61.0 PK	74.0	-13.0	2.98 V	199	27.3	33.7
4	2483.50	48.6 AV	54.0	-5.4	2.98 V	199	14.9	33.7
5	4924.00	53.9 PK	74.0	-20.1	1.58 V	205	46.6	7.3
6	4924.00	43.2 AV	54.0	-10.8	1.58 V	205	35.9	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	3.84 H	279	27.0	33.7
2	2390.00	46.4 AV	54.0	-7.6	3.84 H	279	12.7	33.7
3	*2412.00	103.6 PK			3.84 H	279	69.9	33.7
4	*2412.00	93.3 AV			3.84 H	279	59.6	33.7
5	4824.00	50.3 PK	74.0	-23.7	4.00 H	296	43.0	7.3
6	4824.00	43.3 AV	54.0	-10.7	3.80 H	296	36.0	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	60.8 PK	74.0	-13.2	3.16 V	197	27.1	33.7
2	2390.00	45.7 AV	54.0	-8.3	3.16 V	197	12.0	33.7
3	*2412.00	101.1 PK			3.16 V	197	67.4	33.7
4	*2412.00	90.8 AV			3.16 V	197	57.1	33.7
5	4824.00	51.5 PK	74.0	-22.5	1.55 V	196	44.2	7.3
6	4824.00	43.8 AV	54.0	-10.2	1.55 V	196	36.5	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	107.3 PK			3.78 H	274	73.7	33.6
2	*2437.00	97.2 AV			3.78 H	274	63.6	33.6
3	4874.00	57.0 PK	74.0	-17.0	2.71 H	271	49.7	7.3
4	4874.00	45.9 AV	54.0	-8.1	2.71 H	271	38.6	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.5 PK			2.96 V	203	69.9	33.6
2	*2437.00	94.8 AV			2.96 V	203	61.2	33.6
3	4874.00	54.9 PK	74.0	-19.1	1.49 V	192	47.6	7.3
4	4874.00	44.1 AV	54.0	-9.9	1.49 V	192	36.8	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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			3.28 H	280	70.8	33.7
2	*2462.00	94.1 AV			3.28 H	280	60.4	33.7
3	2483.50	64.8 PK	74.0	-9.2	3.28 H	280	31.1	33.7
4	2483.50	49.2 AV	54.0	-4.8	3.28 H	280	15.5	33.7
5	4924.00	56.5 PK	74.0	-17.5	2.98 H	266	49.2	7.3
6	4924.00	43.9 AV	54.0	-10.1	2.98 H	266	36.6	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	101.4 PK			3.05 V	198	67.7	33.7
2	*2462.00	91.7 AV			3.05 V	198	58.0	33.7
3	2483.50	58.8 PK	74.0	-15.2	3.05 V	198	25.1	33.7
4	2483.50	45.4 AV	54.0	-8.6	3.05 V	198	11.7	33.7
5	4924.00	51.8 PK	74.0	-22.2	1.66 V	204	44.5	7.3
6	4924.00	43.5 AV	54.0	-10.5	1.66 V	204	36.2	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	65.4 PK	74.0	-8.6	3.40 H	281	31.7	33.7
2	2390.00	46.9 AV	54.0	-7.1	3.40 H	281	13.2	33.7
3	*2422.00	99.4 PK			3.40 H	281	65.7	33.7
4	*2422.00	89.1 AV			3.40 H	281	55.4	33.7
5	4844.00	49.8 PK	74.0	-24.2	3.71 H	272	42.5	7.3
6	4844.00	41.8 AV	54.0	-12.2	3.71 H	272	34.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	62.2 PK	74.0	-11.8	3.11 V	201	28.5	33.7
2	2390.00	45.7 AV	54.0	-8.3	3.11 V	201	12.0	33.7
3	*2422.00	96.0 PK			3.11 V	201	62.3	33.7
4	*2422.00	86.0 AV			3.11 V	201	52.3	33.7
5	4844.00	49.8 PK	74.0	-24.2	1.52 V	194	42.5	7.3
6	4844.00	42.1 AV	54.0	-11.9	1.52 V	194	34.8	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.9 PK			3.34 H	282	70.3	33.6
2	*2437.00	93.3 AV			3.34 H	282	59.7	33.6
3	4874.00	53.5 PK	74.0	-20.5	1.52 H	208	46.2	7.3
4	4874.00	41.8 AV	54.0	-12.2	1.52 H	208	34.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	98.9 PK			3.31 V	204	65.3	33.6
2	*2437.00	88.3 AV			3.31 V	204	54.7	33.6
3	4874.00	50.6 PK	74.0	-23.4	1.47 V	202	43.3	7.3
4	4874.00	42.6 AV	54.0	-11.4	1.47 V	202	35.3	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	99.9 PK			3.31 H	283	66.2	33.7
2	*2452.00	89.5 AV			3.31 H	283	55.8	33.7
3	2483.50	64.1 PK	74.0	-9.9	3.31 H	283	30.4	33.7
4	2483.50	48.8 AV	54.0	-5.2	3.31 H	281	15.1	33.7
5	4904.00	52.7 PK	74.0	-21.3	1.66 H	205	45.5	7.2
6	4904.00	44.7 AV	54.0	-9.3	1.66 H	205	37.5	7.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	94.9 PK			3.31 V	200	61.2	33.7
2	*2452.00	84.7 AV			3.31 V	200	51.0	33.7
3	2483.50	62.3 PK	74.0	-11.7	3.31 V	200	28.6	33.7
4	2483.50	48.3 AV	54.0	-5.7	3.31 V	200	14.6	33.7
5	4904.00	50.4 PK	74.0	-23.6	1.46 V	199	43.2	7.2
6	4904.00	41.7 AV	54.0	-12.3	1.46 V	199	34.5	7.2

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

External antenna: Mode B1

RF Mode	TX 802.11b	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	59.1 PK	74.0	-14.9	1.46 H	114	25.4	33.7
2	2390.00	44.3 AV	54.0	-9.7	1.46 H	114	10.6	33.7
3	*2412.00	96.2 PK			1.46 H	114	62.5	33.7
4	*2412.00	92.6 AV			1.46 H	114	58.9	33.7
5	4824.00	51.7 PK	74.0	-22.3	1.51 H	10	44.4	7.3
6	4824.00	42.9 AV	54.0	-11.1	1.51 H	10	35.6	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	58.7 PK	74.0	-15.3	1.57 V	7	25.0	33.7
2	2390.00	44.5 AV	54.0	-9.5	1.57 V	7	10.8	33.7
3	*2412.00	99.7 PK			1.57 V	7	66.0	33.7
4	*2412.00	96.9 AV			1.57 V	7	63.2	33.7
5	4824.00	53.8 PK	74.0	-20.2	1.50 V	335	46.5	7.3
6	4824.00	45.9 AV	54.0	-8.1	1.50 V	335	38.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	95.0 PK			1.59 H	100	61.4	33.6
2	*2437.00	92.0 AV			1.59 H	100	58.4	33.6
3	4874.00	51.5 PK	74.0	-22.5	1.54 H	10	44.2	7.3
4	4874.00	43.0 AV	54.0	-11.0	1.54 H	10	35.7	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	99.5 PK			1.45 V	26	65.9	33.6
2	*2437.00	96.8 AV			1.45 V	26	63.2	33.6
3	4874.00	53.7 PK	74.0	-20.3	1.55 V	334	46.4	7.3
4	4874.00	45.8 AV	54.0	-8.2	1.55 V	334	38.5	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11b	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	95.6 PK			1.63 H	103	61.9	33.7
2	*2462.00	93.0 AV			1.63 H	103	59.3	33.7
3	2483.50	58.4 PK	74.0	-15.6	1.63 H	103	24.7	33.7
4	2483.50	48.0 AV	54.0	-6.0	1.63 H	103	14.3	33.7
5	4924.00	52.1 PK	74.0	-21.9	1.53 H	11	44.8	7.3
6	4924.00	42.8 AV	54.0	-11.2	1.53 H	11	35.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	100.7 PK			1.69 V	7	67.0	33.7
2	*2462.00	97.9 AV			1.69 V	7	64.2	33.7
3	2483.50	58.9 PK	74.0	-15.1	1.69 V	7	25.2	33.7
4	2483.50	47.2 AV	54.0	-6.8	1.69 V	7	13.5	33.7
5	4924.00	54.3 PK	74.0	-19.7	1.53 V	342	47.0	7.3
6	4924.00	46.2 AV	54.0	-7.8	1.53 V	342	38.9	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	58.3 PK	74.0	-15.7	1.72 H	104	24.6	33.7
2	2390.00	45.3 AV	54.0	-8.7	1.72 H	104	11.6	33.7
3	*2412.00	95.0 PK			1.72 H	104	61.3	33.7
4	*2412.00	85.3 AV			1.72 H	104	51.6	33.7
5	4824.00	47.3 PK	74.0	-26.7	1.45 H	12	40.0	7.3
6	4824.00	35.6 AV	54.0	-18.4	1.45 H	12	28.3	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	60.8 PK	74.0	-13.2	1.52 V	4	27.1	33.7
2	2390.00	45.4 AV	54.0	-8.6	1.52 V	4	11.7	33.7
3	*2412.00	99.7 PK			1.52 V	4	66.0	33.7
4	*2412.00	89.9 AV			1.52 V	4	56.2	33.7
5	4824.00	48.4 PK	74.0	-25.6	1.69 V	272	41.1	7.3
6	4824.00	38.9 AV	54.0	-15.1	1.69 V	272	31.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	98.7 PK			1.59 H	105	65.1	33.6
2	*2437.00	88.4 AV			1.59 H	105	54.8	33.6
3	4874.00	48.6 PK	74.0	-25.4	1.54 H	16	41.3	7.3
4	4874.00	35.6 AV	54.0	-18.4	1.54 H	16	28.3	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.8 PK			1.48 V	26	70.2	33.6
2	*2437.00	94.1 AV			1.48 V	26	60.5	33.6
3	4874.00	51.9 PK	74.0	-22.1	1.54 V	296	44.6	7.3
4	4874.00	39.7 AV	54.0	-14.3	1.54 V	296	32.4	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11g	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	94.9 PK			1.61 H	104	61.2	33.7
2	*2462.00	84.7 AV			1.61 H	104	51.0	33.7
3	2483.50	59.0 PK	74.0	-15.0	1.61 H	104	25.3	33.7
4	2483.50	48.1 AV	54.0	-5.9	1.61 H	104	14.4	33.7
5	4924.00	48.5 PK	74.0	-25.5	1.50 H	9	41.2	7.3
6	4924.00	36.3 AV	54.0	-17.7	1.50 H	9	29.0	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	100.1 PK			1.75 V	51	66.4	33.7
2	*2462.00	89.7 AV			1.75 V	51	56.0	33.7
3	2483.50	60.1 PK	74.0	-13.9	1.75 V	51	26.4	33.7
4	2483.50	48.3 AV	54.0	-5.7	1.75 V	51	14.6	33.7
5	4924.00	52.0 PK	74.0	-22.0	1.52 V	326	44.7	7.3
6	4924.00	39.1 AV	54.0	-14.9	1.52 V	326	31.8	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 1：2412 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	58.8 PK	74.0	-15.2	1.72 H	100	25.1	33.7
2	2390.00	45.0 AV	54.0	-9.0	1.72 H	100	11.3	33.7
3	*2412.00	94.3 PK			1.72 H	100	60.6	33.7
4	*2412.00	84.5 AV			1.72 H	100	50.8	33.7
5	4874.00	47.1 PK	74.0	-26.9	1.49 H	17	39.8	7.3
6	4874.00	35.8 AV	54.0	-18.2	1.49 H	17	28.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	60.0 PK	74.0	-14.0	1.70 V	37	26.3	33.7
2	2390.00	45.4 AV	54.0	-8.6	1.70 V	37	11.7	33.7
3	*2412.00	100.9 PK			1.70 V	37	67.2	33.7
4	*2412.00	89.6 AV			1.70 V	37	55.9	33.7
5	4824.00	49.8 PK	74.0	-24.2	1.53 V	278	42.5	7.3
6	4824.00	38.4 AV	54.0	-15.6	1.53 V	278	31.1	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	97.9 PK			1.68 H	109	64.3	33.6
2	*2437.00	88.1 AV			1.68 H	109	54.5	33.6
3	4874.00	47.6 PK	74.0	-26.4	1.44 H	21	40.3	7.3
4	4874.00	35.7 AV	54.0	-18.3	1.44 H	21	28.4	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	103.2 PK			1.75 V	33	69.6	33.6
2	*2437.00	93.2 AV			1.75 V	33	59.6	33.6
3	4874.00	51.1 PK	74.0	-22.9	1.68 V	329	43.8	7.3
4	4874.00	39.9 AV	54.0	-14.1	1.68 V	329	32.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT20)	Channel	CH 11：2462 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	94.3 PK			1.70 H	106	60.6	33.7
2	*2462.00	85.1 AV			1.70 H	106	51.4	33.7
3	2483.50	60.1 PK	74.0	-13.9	1.70 H	106	26.4	33.7
4	2483.50	48.0 AV	54.0	-6.0	1.70 H	106	14.3	33.7
5	4924.00	47.9 PK	74.0	-26.1	1.48 H	15	40.6	7.3
6	4924.00	35.7 AV	54.0	-18.3	1.48 H	15	28.4	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	100.6 PK			1.93 V	61	66.9	33.7
2	*2462.00	90.7 AV			1.93 V	61	57.0	33.7
3	2483.50	63.1 PK	74.0	-10.9	1.93 V	61	29.4	33.7
4	2483.50	48.4 AV	54.0	-5.6	1.93 V	61	14.7	33.7
5	4924.00	50.3 PK	74.0	-23.7	1.66 V	275	43.0	7.3
6	4924.00	38.8 AV	54.0	-15.2	1.66 V	275	31.5	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 3：2422 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	58.4 PK	74.0	-15.6	2.04 H	69	24.7	33.7
2	2390.00	45.2 AV	54.0	-8.8	2.04 H	69	11.5	33.7
3	*2422.00	89.6 PK			2.04 H	69	55.9	33.7
4	*2422.00	79.9 AV			2.04 H	69	46.2	33.7
5	4844.00	47.5 PK	74.0	-26.5	1.53 H	8	40.2	7.3
6	4844.00	35.8 AV	54.0	-18.2	1.53 H	8	28.5	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	58.8 PK	74.0	-15.2	1.89 V	56	25.1	33.7
2	2390.00	45.2 AV	54.0	-8.8	1.89 V	56	11.5	33.7
3	*2422.00	94.4 PK			1.89 V	56	60.7	33.7
4	*2422.00	84.1 AV			1.89 V	56	50.4	33.7
5	4844.00	49.8 PK	74.0	-24.2	1.74 V	343	42.5	7.3
6	4844.00	38.4 AV	54.0	-15.6	1.74 V	343	31.1	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 6：2437 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	94.7 PK			1.88 H	110	61.1	33.6
2	*2437.00	84.8 AV			1.88 H	110	51.2	33.6
3	4874.00	47.7 PK	74.0	-26.3	1.55 H	13	40.4	7.3
4	4874.00	36.6 AV	54.0	-17.4	1.55 H	13	29.3	7.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2437.00	99.5 PK			1.68 V	30	65.9	33.6
2	*2437.00	89.8 AV			1.68 V	30	56.2	33.6
3	4874.00	50.6 PK	74.0	-23.4	1.52 V	335	43.3	7.3
4	4874.00	38.9 AV	54.0	-15.1	1.52 V	335	31.6	7.3

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

RF Mode	TX 802.11n (HT40)	Channel	CH 9：2452 MHz
Frequency Range	1GHz ~ 25GHz	Detector Function	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	89.8 PK			1.91 H	109	56.1	33.7
2	*2452.00	79.7 AV			1.91 H	109	46.0	33.7
3	2483.50	58.7 PK	74.0	-15.3	1.91 H	109	25.0	33.7
4	2483.50	48.1 AV	54.0	-5.9	1.91 H	109	14.4	33.7
5	4904.00	47.8 PK	74.0	-26.2	1.53 H	12	40.6	7.2
6	4904.00	35.8 AV	54.0	-18.2	1.53 H	12	28.6	7.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	95.1 PK			1.77 V	27	61.4	33.7
2	*2452.00	84.5 AV			1.77 V	27	50.8	33.7
3	2483.50	62.9 PK	74.0	-11.1	1.77 V	27	29.2	33.7
4	2483.50	48.2 AV	54.0	-5.8	1.77 V	27	14.5	33.7
5	4904.00	50.1 PK	74.0	-23.9	1.53 V	336	42.9	7.2
6	4904.00	39.3 AV	54.0	-14.7	1.53 V	336	32.1	7.2

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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz worst-case data:

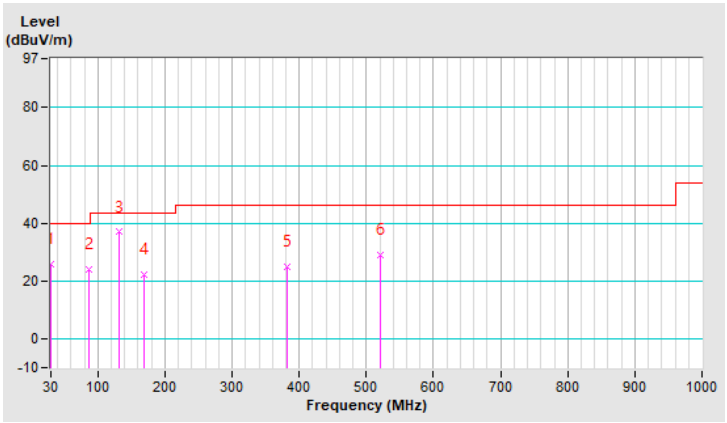
802.11g

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A1 (120Vac)

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	30.00	26.0 QP	40.0	-14.0	2.00 H	46	41.2	-15.2
2	87.23	23.8 QP	40.0	-16.2	1.50 H	74	43.4	-19.6
3	131.85	36.9 QP	43.5	-6.6	1.00 H	184	51.8	-14.9
4	168.71	22.4 QP	43.5	-21.1	1.00 H	184	36.3	-13.9
5	382.11	24.7 QP	46.0	-21.3	1.25 H	184	34.8	-10.1
6	520.82	29.0 QP	46.0	-17.0	1.50 H	184	36.0	-7.0

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

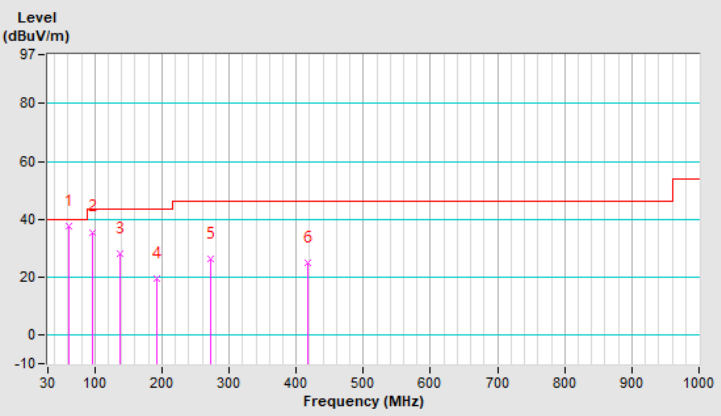


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A1 (120Vac)

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	61.04	37.5 QP	40.0	-2.5	1.00 V	4	52.4	-14.9
2	96.93	35.6 QP	43.5	-7.9	1.00 V	19	54.7	-19.1
3	137.67	28.3 QP	43.5	-15.2	1.50 V	19	42.7	-14.4
4	192.96	19.3 QP	43.5	-24.2	1.00 V	4	35.7	-16.4
5	271.53	26.2 QP	46.0	-19.8	1.25 V	4	38.9	-12.7
6	418.00	25.1 QP	46.0	-20.9	1.25 V	127	34.4	-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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

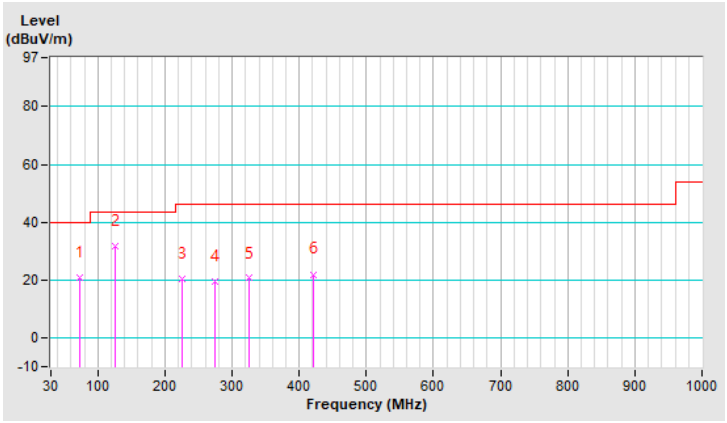


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A2 (24Vdc)

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	73.65	21.0 QP	40.0	-19.0	1.25 H	228	38.0	-17.0
2	125.06	31.7 QP	43.5	-11.8	1.00 H	228	47.2	-15.5
3	224.97	20.6 QP	46.0	-25.4	2.00 H	273	36.7	-16.1
4	274.44	19.5 QP	46.0	-26.5	1.50 H	219	32.0	-12.5
5	324.88	20.6 QP	46.0	-25.4	1.00 H	241	31.7	-11.1
6	420.91	22.0 QP	46.0	-24.0	1.00 H	273	31.2	-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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

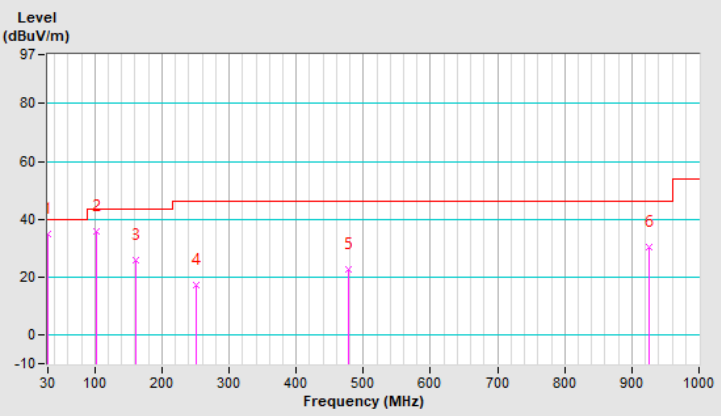


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A2 (24Vdc)

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	30.97	34.8 QP	40.0	-5.2	1.00 V	159	50.3	-15.5
2	101.78	35.6 QP	43.5	-7.9	1.00 V	110	53.8	-18.2
3	161.92	25.9 QP	43.5	-17.6	1.50 V	54	39.4	-13.5
4	250.19	17.3 QP	46.0	-28.7	1.25 V	136	31.1	-13.8
5	477.17	22.8 QP	46.0	-23.2	1.00 V	6	30.6	-7.8
6	925.31	30.2 QP	46.0	-15.8	1.50 V	221	29.1	1.1

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

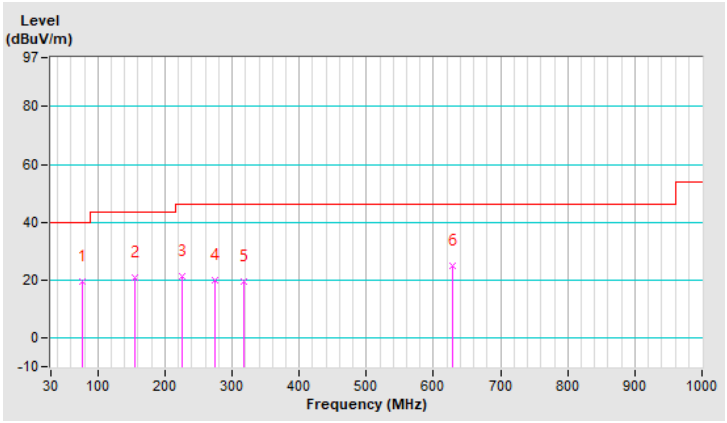


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A3 (56Vdc)

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	76.56	19.6 QP	40.0	-20.4	1.25 H	311	37.2	-17.6
2	155.13	20.7 QP	43.5	-22.8	1.00 H	133	34.3	-13.6
3	224.97	21.4 QP	46.0	-24.6	1.50 H	263	37.5	-16.1
4	274.44	19.7 QP	46.0	-26.3	1.25 H	323	32.2	-12.5
5	318.09	19.4 QP	46.0	-26.6	1.00 H	263	30.6	-11.2
6	628.49	24.8 QP	46.0	-21.2	1.25 H	238	29.6	-4.8

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

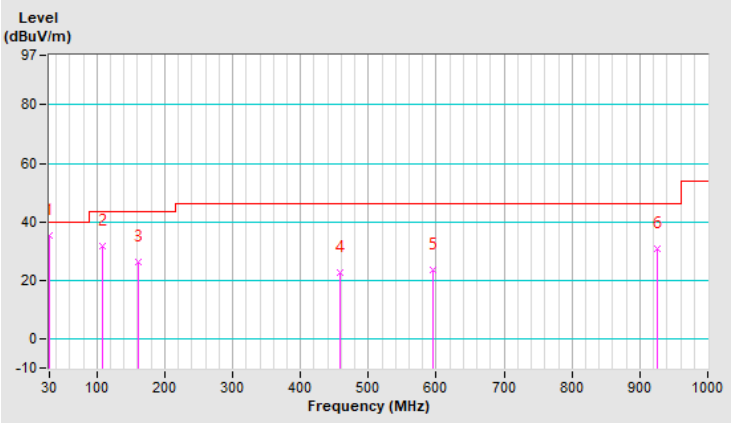


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A3 (56Vdc)

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	30.97	35.3 QP	40.0	-4.7	1.00 V	168	50.8	-15.5
2	107.60	31.6 QP	43.5	-11.9	1.50 V	7	48.7	-17.1
3	161.92	26.3 QP	43.5	-17.2	1.50 V	134	39.8	-13.5
4	458.74	22.5 QP	46.0	-23.5	1.00 V	4	30.6	-8.1
5	594.54	23.7 QP	46.0	-22.3	2.00 V	296	29.0	-5.3
6	925.31	30.9 QP	46.0	-15.1	1.00 V	205	29.8	1.1

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

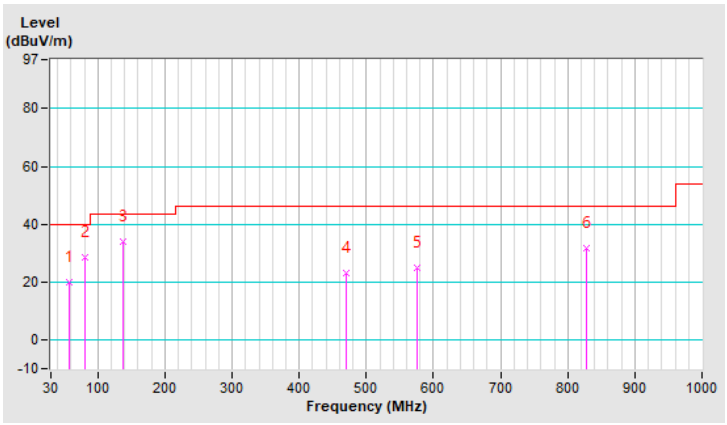


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B1 (120Vac)

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	57.16	20.0 QP	40.0	-20.0	1.25 H	187	34.5	-14.5
2	80.44	28.4 QP	40.0	-11.6	1.25 H	16	47.0	-18.6
3	136.70	34.0 QP	43.5	-9.5	1.00 H	142	48.5	-14.5
4	470.38	23.2 QP	46.0	-22.8	1.00 H	291	31.2	-8.0
5	575.14	24.9 QP	46.0	-21.1	1.50 H	42	30.9	-6.0
6	827.34	31.7 QP	46.0	-14.3	1.00 H	152	32.9	-1.2

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

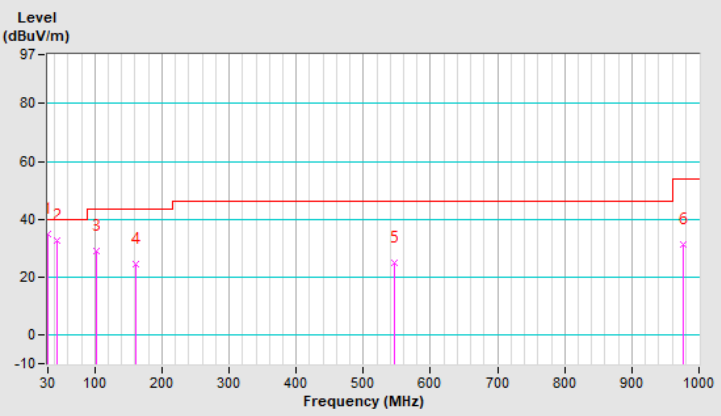


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B1 (120Vac)

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	30.97	34.9 QP	40.0	-5.1	1.00 V	54	50.4	-15.5
2	43.58	32.8 QP	40.0	-7.2	1.25 V	132	47.1	-14.3
3	101.78	28.8 QP	43.5	-14.7	2.00 V	1	47.0	-18.2
4	161.92	24.6 QP	43.5	-18.9	1.00 V	76	38.1	-13.5
5	546.04	25.0 QP	46.0	-21.0	1.00 V	174	31.6	-6.6
6	976.72	31.3 QP	54.0	-22.7	1.25 V	233	29.8	1.5

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

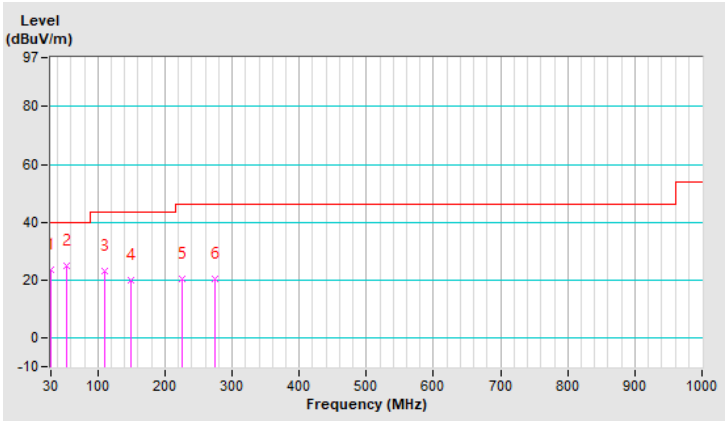


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B2 (24Vdc)

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	30.97	23.7 QP	40.0	-16.3	1.50 H	130	39.2	-15.5
2	54.25	24.9 QP	40.0	-15.1	1.00 H	14	39.1	-14.2
3	109.54	23.1 QP	43.5	-20.4	1.25 H	127	40.1	-17.0
4	149.31	20.1 QP	43.5	-23.4	1.00 H	190	33.8	-13.7
5	224.97	20.2 QP	46.0	-25.8	2.00 H	14	36.3	-16.1
6	274.44	20.4 QP	46.0	-25.6	1.00 H	252	32.9	-12.5

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

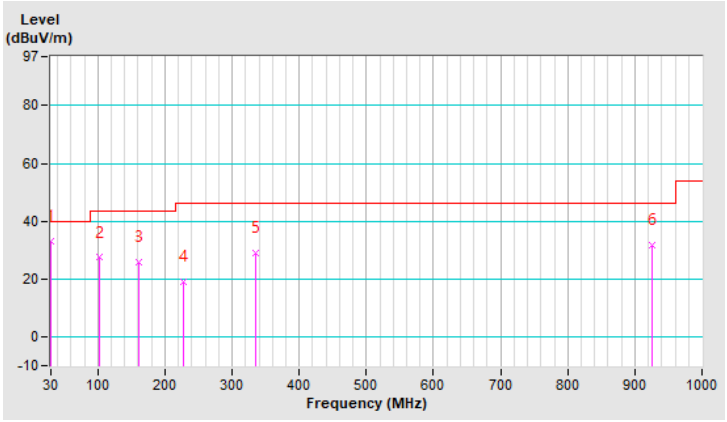


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B2 (24Vdc)

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	30.97	33.2 QP	40.0	-6.8	1.50 V	350	48.7	-15.5
2	101.78	27.4 QP	43.5	-16.1	1.00 V	46	45.6	-18.2
3	161.92	25.9 QP	43.5	-17.6	1.50 V	248	39.4	-13.5
4	226.91	19.2 QP	46.0	-26.8	2.00 V	183	35.1	-15.9
5	334.58	28.8 QP	46.0	-17.2	1.00 V	180	39.6	-10.8
6	925.31	31.9 QP	46.0	-14.1	1.25 V	211	30.8	1.1

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

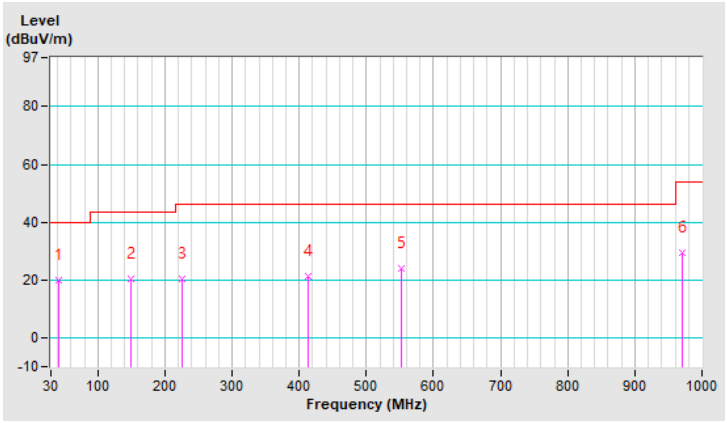


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B3 (56Vdc)

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	41.64	19.7 QP	40.0	-20.3	1.25 H	303	34.0	-14.3
2	149.31	20.2 QP	43.5	-23.3	1.00 H	210	33.9	-13.7
3	224.97	20.3 QP	46.0	-25.7	1.50 H	275	36.4	-16.1
4	413.15	21.2 QP	46.0	-24.8	1.25 H	125	30.8	-9.6
5	552.83	23.8 QP	46.0	-22.2	1.00 H	244	30.3	-6.5
6	969.93	29.3 QP	54.0	-24.7	1.25 H	17	27.8	1.5

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

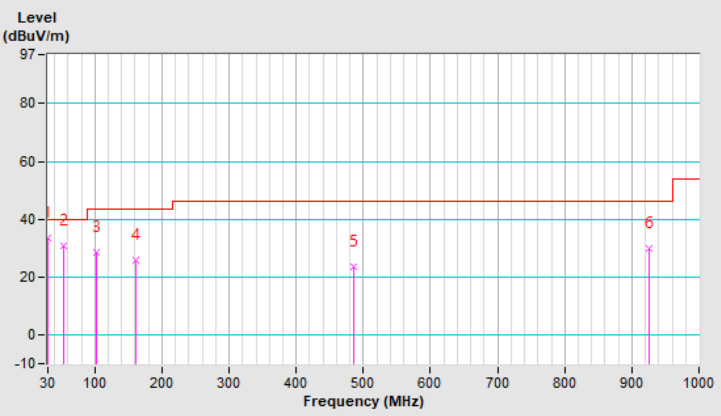


CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B3 (56Vdc)

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	30.97	33.4 QP	40.0	-6.6	1.00 V	345	48.9	-15.5
2	53.28	30.8 QP	40.0	-9.2	1.50 V	325	44.8	-14.0
3	101.78	28.5 QP	43.5	-15.0	1.00 V	314	46.7	-18.2
4	161.92	25.6 QP	43.5	-17.9	1.50 V	249	39.1	-13.5
5	485.90	23.5 QP	46.0	-22.5	1.00 V	10	31.2	-7.7
6	925.31	29.9 QP	46.0	-16.1	2.00 V	183	28.8	1.1

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 of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
5. The emission levels were very low against the limit of frequency range 9kHz ~ 30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Jan. 29, 2021	Jan. 28, 2022
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 04, 2021	Sep. 03, 2022
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 28, 2021	Jan. 27, 2022
LISN ROHDE & SCHWARZ (Peripheral)	ENV216	101196	Apr. 26, 2021	Apr. 25, 2022
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2 (Conduction 2).
3. The VCCI Site Registration No. is C-12047.
4. Tested date: Sep. 07 ~ Sep 10, 2021

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.

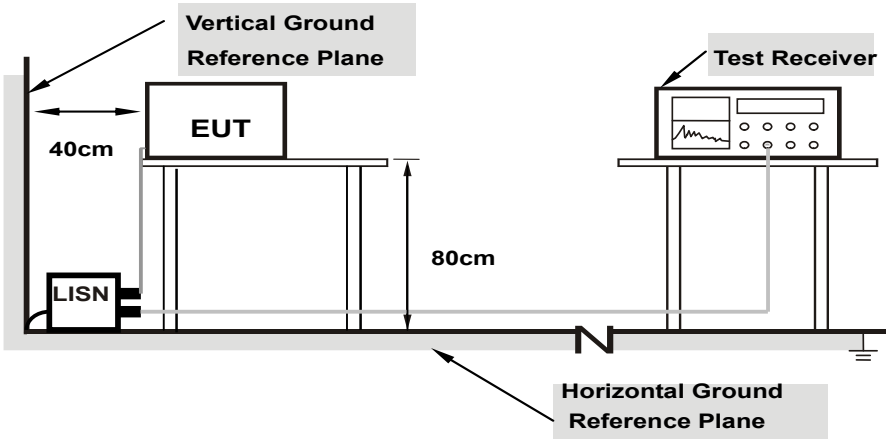
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

Worst-case data:

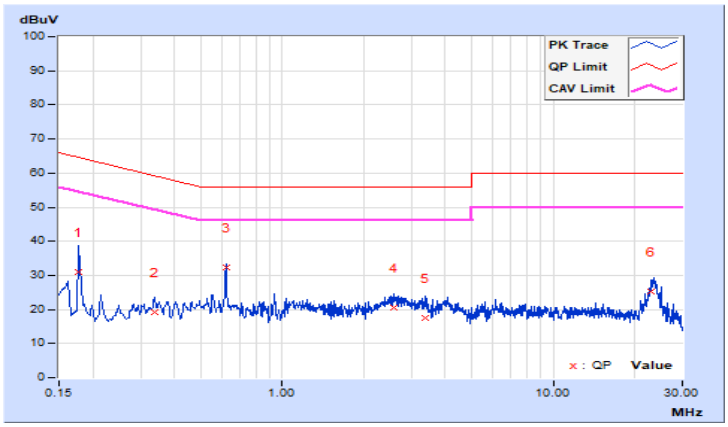
802.11g

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A1 (120Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17800	10.12	20.79	4.51	30.91	14.63	64.58	54.58	-33.67	-39.95
2	0.33767	10.14	8.92	5.45	19.06	15.59	59.26	49.26	-40.20	-33.67
3	0.62200	10.15	22.17	19.09	32.32	29.24	56.00	46.00	-23.68	-16.76
4	2.57000	10.22	10.29	6.88	20.51	17.10	56.00	46.00	-35.49	-28.90
5	3.38200	10.23	7.24	0.89	17.47	11.12	56.00	46.00	-38.53	-34.88
6	22.95800	10.36	14.96	11.75	25.32	22.11	60.00	50.00	-34.68	-27.89

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.

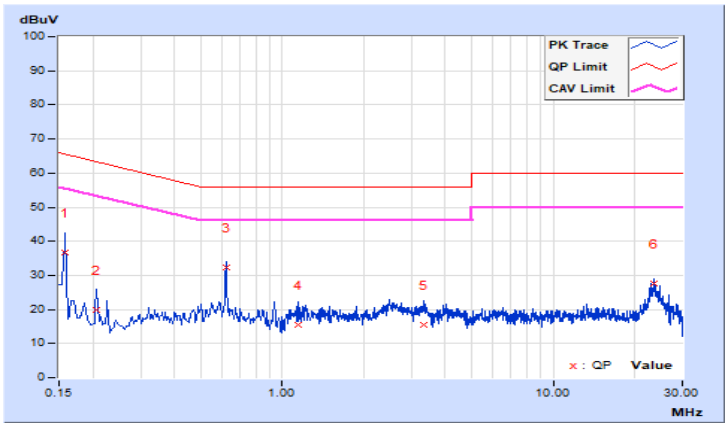


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A1 (120Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.12	26.50	5.67	36.62	15.79	65.57	55.57	-28.95	-39.78
2	0.20600	10.13	9.88	3.15	20.01	13.28	63.37	53.37	-43.36	-40.09
3	0.62200	10.16	22.11	19.06	32.27	29.22	56.00	46.00	-23.73	-16.78
4	1.15000	10.19	5.41	0.15	15.60	10.34	56.00	46.00	-40.40	-35.66
5	3.31000	10.26	5.13	1.35	15.39	11.61	56.00	46.00	-40.61	-34.39
6	23.58600	10.53	17.24	12.71	27.77	23.24	60.00	50.00	-32.23	-26.76

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.

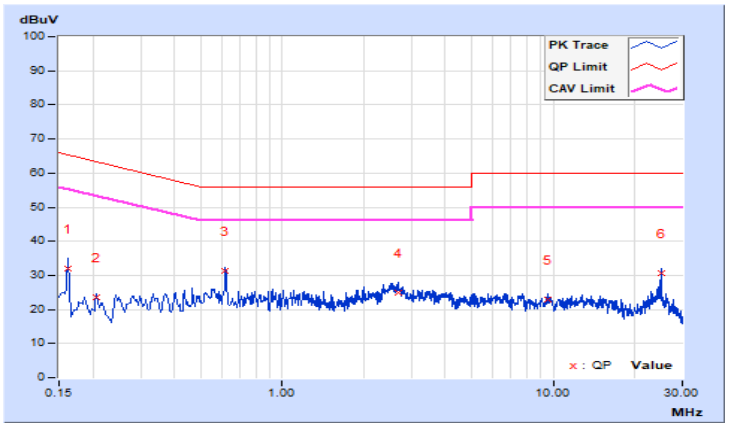


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A1 (277Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.11	21.82	3.01	31.93	13.12	65.36	55.36	-33.43	-42.24
2	0.20600	10.13	13.58	2.34	23.71	12.47	63.37	53.37	-39.66	-40.90
3	0.61800	10.15	21.04	18.65	31.19	28.80	56.00	46.00	-24.81	-17.20
4	2.67400	10.22	14.78	11.32	25.00	21.54	56.00	46.00	-31.00	-24.46
5	9.52200	10.32	12.45	2.04	22.77	12.36	60.00	50.00	-37.23	-37.64
6	24.99800	10.29	20.27	18.89	30.56	29.18	60.00	50.00	-29.44	-20.82

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.

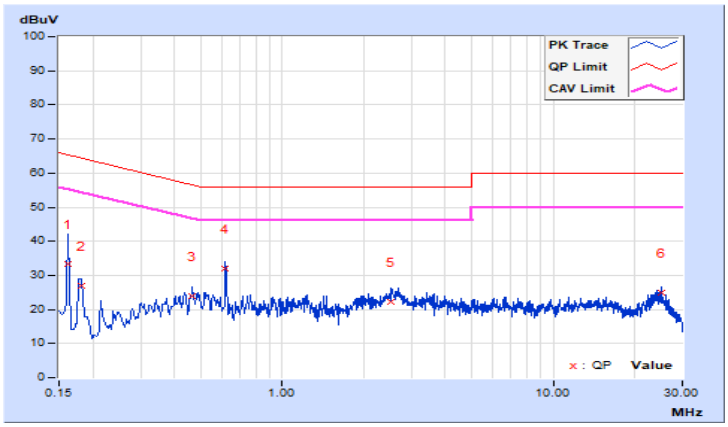


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A1 (277Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.12	23.27	0.12	33.39	10.24	65.36	55.36	-31.97	-45.12
2	0.18037	10.13	16.68	2.44	26.81	12.57	64.47	54.47	-37.66	-41.90
3	0.46567	10.15	13.89	8.85	24.04	19.00	56.59	46.59	-32.55	-27.59
4	0.61800	10.16	21.91	18.50	32.07	28.66	56.00	46.00	-23.93	-17.34
5	2.52600	10.24	12.05	5.52	22.29	15.76	56.00	46.00	-33.71	-30.24
6	24.99800	10.48	14.38	11.44	24.86	21.92	60.00	50.00	-35.14	-28.08

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.

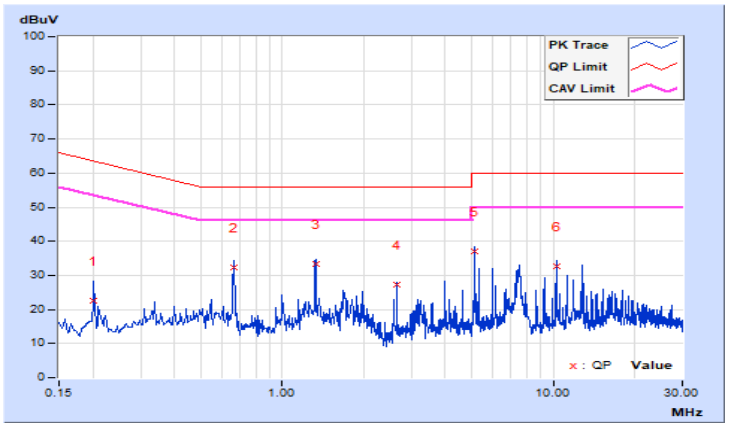


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A2 (24Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20200	10.13	12.36	7.15	22.49	17.28	63.53	53.53	-41.04	-36.25
2	0.66200	10.15	22.28	21.30	32.43	31.45	56.00	46.00	-23.57	-14.55
3	1.32600	10.18	23.30	19.19	33.48	29.37	56.00	46.00	-22.52	-16.63
4	2.65000	10.22	16.98	14.30	27.20	24.52	56.00	46.00	-28.80	-21.48
5	5.15400	10.26	26.69	14.62	36.95	24.88	60.00	50.00	-23.05	-25.12
6	10.27000	10.33	22.36	10.49	32.69	20.82	60.00	50.00	-27.31	-29.18

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.

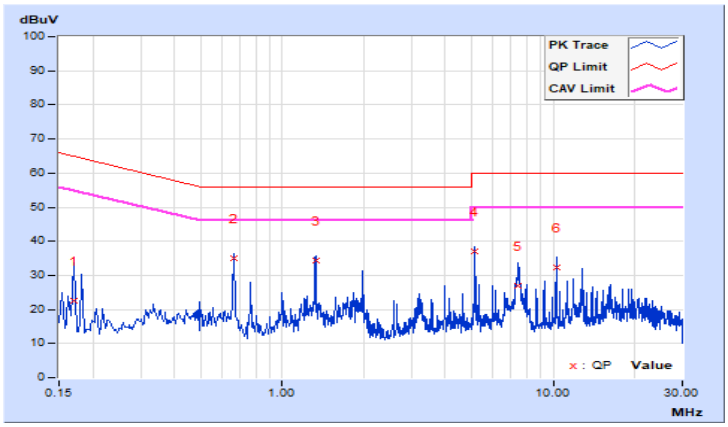


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A2 (24Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17000	10.12	12.51	4.44	22.63	14.56	64.96	54.96	-42.33	-40.40
2	**0.66200**	**10.16**	**24.78**	**21.80**	**34.94**	**31.96**	**56.00**	**46.00**	**-21.06**	**-14.04**
3	1.32600	10.19	24.16	20.82	34.35	31.01	56.00	46.00	-21.65	-14.99
4	5.13000	10.31	26.72	14.10	37.03	24.41	60.00	50.00	-22.97	-25.59
5	7.45400	10.36	16.66	7.72	27.02	18.08	60.00	50.00	-32.98	-31.92
6	10.29000	10.43	21.82	10.21	32.25	20.64	60.00	50.00	-27.75	-29.36

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.

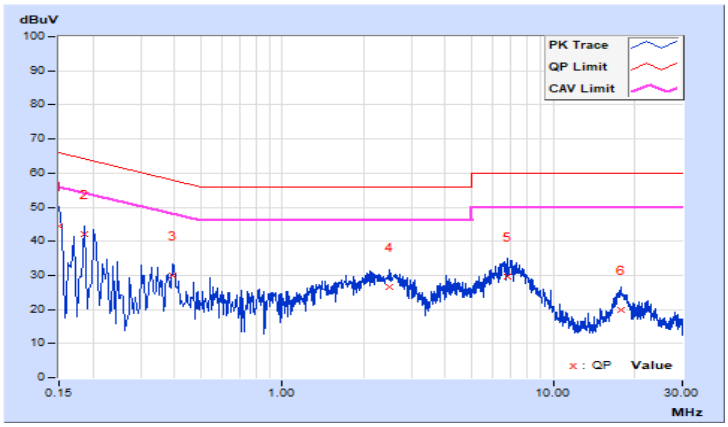


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A3 (56Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.11	34.23	11.79	44.34	21.90	66.00	56.00	-21.66	-34.10
2	0.18600	10.12	32.13	6.69	42.25	16.81	64.21	54.21	-21.96	-37.40
3	0.39400	10.14	19.75	6.85	29.89	16.99	57.98	47.98	-28.09	-30.99
4	2.49000	10.22	16.45	3.93	26.67	14.15	56.00	46.00	-29.33	-31.85
5	6.77800	10.28	19.32	6.57	29.60	16.85	60.00	50.00	-30.40	-33.15
6	17.87400	10.44	9.33	2.23	19.77	12.67	60.00	50.00	-40.23	-37.33

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.

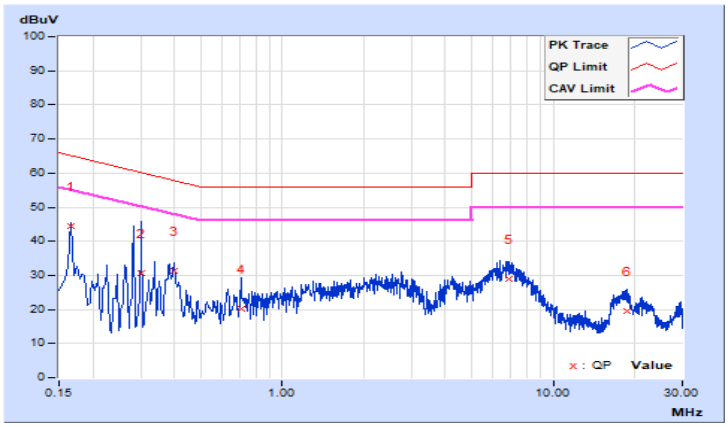


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A3 (56Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16600	10.12	34.32	11.37	44.44	21.49	65.16	55.16	-20.72	-33.67
2	0.30200	10.14	20.50	1.76	30.64	11.90	60.19	50.19	-29.55	-38.29
3	0.39800	10.15	21.21	10.12	31.36	20.27	57.90	47.90	-26.54	-27.63
4	0.70600	10.17	10.19	3.22	20.36	13.39	56.00	46.00	-35.64	-32.61
5	6.89800	10.35	18.68	6.43	29.03	16.78	60.00	50.00	-30.97	-33.22
6	18.65800	10.64	8.93	2.55	19.57	13.19	60.00	50.00	-40.43	-36.81

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.

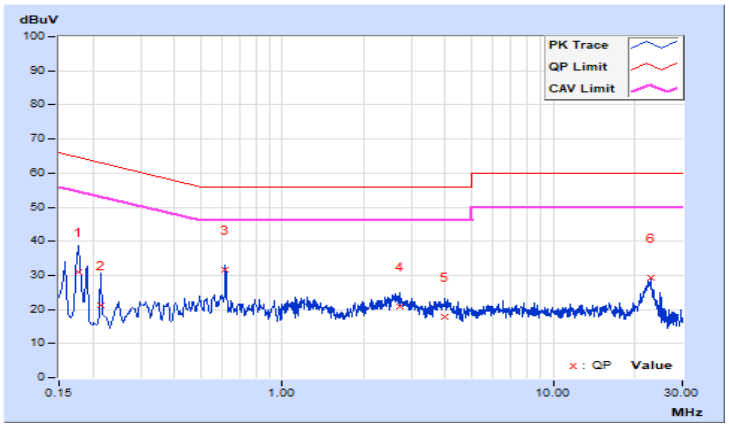


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B1 (120Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17800	10.12	21.02	2.07	31.14	12.19	64.58	54.58	-33.44	-42.39
2	0.21400	10.13	10.97	5.45	21.10	15.58	63.05	53.05	-41.95	-37.47
3	0.61800	10.15	21.59	18.16	31.74	28.31	56.00	46.00	-24.26	-17.69
4	2.71800	10.22	10.56	5.15	20.78	15.37	56.00	46.00	-35.22	-30.63
5	4.00200	10.24	7.56	2.04	17.80	12.28	56.00	46.00	-38.20	-33.72
6	22.94600	10.37	19.07	14.55	29.44	24.92	60.00	50.00	-30.56	-25.08

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.

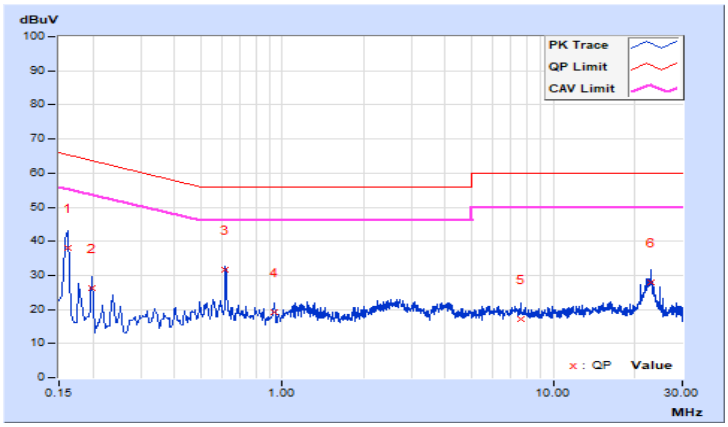


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B1 (120Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16190	10.12	28.05	4.05	38.17	14.17	65.37	55.37	-27.20	-41.20
2	0.19800	10.13	16.13	3.36	26.26	13.49	63.69	53.69	-37.43	-40.20
3	0.61800	10.16	21.39	17.90	31.55	28.06	56.00	46.00	-24.45	-17.94
4	0.93400	10.18	9.00	6.70	19.18	16.88	56.00	46.00	-36.82	-29.12
5	7.63000	10.36	6.89	2.24	17.25	12.60	60.00	50.00	-42.75	-37.40
6	22.94600	10.56	17.36	12.40	27.92	22.96	60.00	50.00	-32.08	-27.04

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.

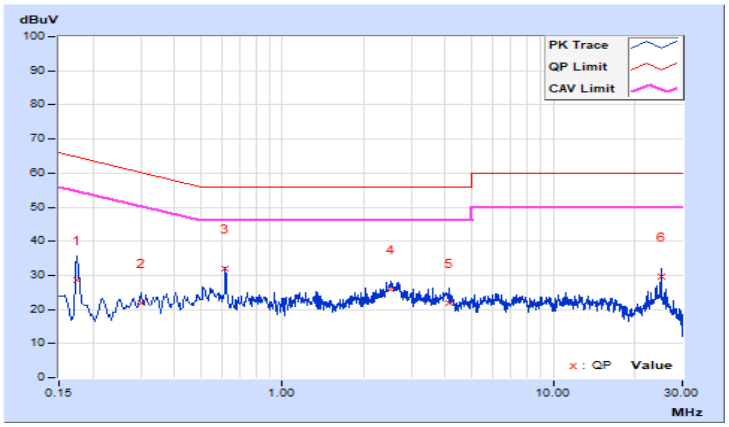


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B1 (277Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17400	10.12	18.64	2.22	28.76	12.34	64.77	54.77	-36.01	-42.43
2	0.30200	10.14	11.84	6.69	21.98	16.83	60.19	50.19	-38.21	-33.36
3	0.61800	10.15	21.86	18.72	32.01	28.87	56.00	46.00	-23.99	-17.13
4	2.53000	10.22	15.62	11.31	25.84	21.53	56.00	46.00	-30.16	-24.47
5	4.15400	10.24	11.69	6.38	21.93	16.62	56.00	46.00	-34.07	-29.38
6	25.00200	10.28	19.28	17.51	29.56	27.79	60.00	50.00	-30.44	-22.21

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.

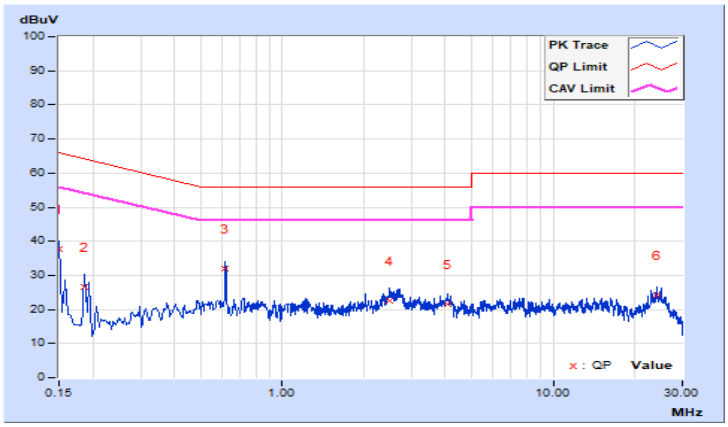


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B1 (277Vac)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.12	27.74	6.45	37.86	16.57	66.00	56.00	-28.14	-39.43
2	0.18600	10.13	16.33	1.10	26.46	11.23	64.21	54.21	-37.75	-42.98
3	0.61800	10.16	21.79	18.53	31.95	28.69	56.00	46.00	-24.05	-17.31
4	2.49400	10.23	12.21	7.26	22.44	17.49	56.00	46.00	-33.56	-28.51
5	4.08200	10.28	11.36	3.81	21.64	14.09	56.00	46.00	-34.36	-31.91
6	24.17400	10.51	13.88	10.05	24.39	20.56	60.00	50.00	-35.61	-29.44

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.

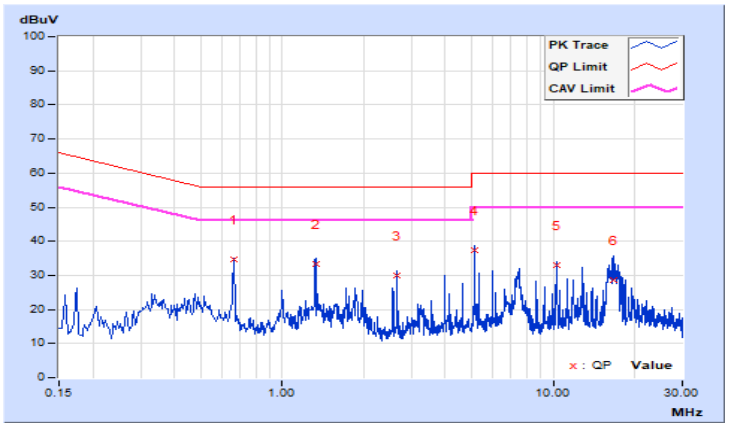


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B2 (24Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.66200	10.15	24.39	21.28	34.54	31.43	56.00	46.00	-21.46	-14.57
2	1.32600	10.18	23.23	19.08	33.41	29.26	56.00	46.00	-22.59	-16.74
3	2.64997	10.22	19.87	14.28	30.09	24.50	56.00	46.00	-25.91	-21.50
4	5.15400	10.26	27.06	18.02	37.32	28.28	60.00	50.00	-22.68	-21.72
5	10.29000	10.33	22.54	10.92	32.87	21.25	60.00	50.00	-27.13	-28.75
6	16.65000	10.42	18.32	4.63	28.74	15.05	60.00	50.00	-31.26	-34.95

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.

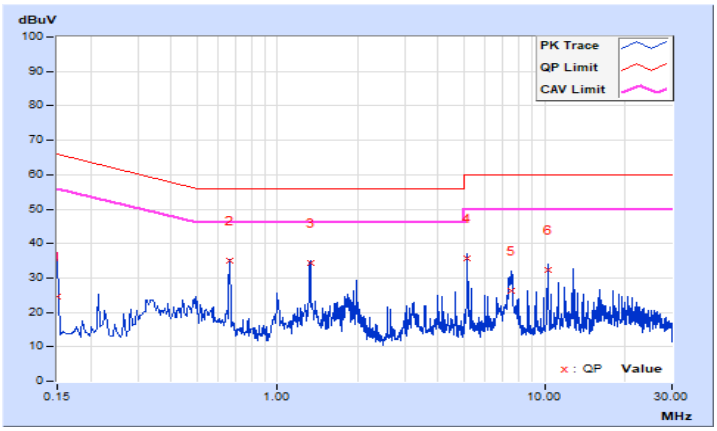


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B2 (24Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.12	14.32	3.17	24.44	13.29	66.00	56.00	-41.56	-42.71
2	0.66200	10.16	24.78	21.79	34.94	31.95	56.00	46.00	-21.06	-14.05
3	1.32600	10.19	24.17	20.80	34.36	30.99	56.00	46.00	-21.64	-15.01
4	5.13000	10.31	25.38	13.87	35.69	24.18	60.00	50.00	-24.31	-25.82
5	7.55400	10.36	16.01	4.71	26.37	15.07	60.00	50.00	-33.63	-34.93
6	10.29000	10.43	21.86	10.24	32.29	20.67	60.00	50.00	-27.71	-29.33

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.

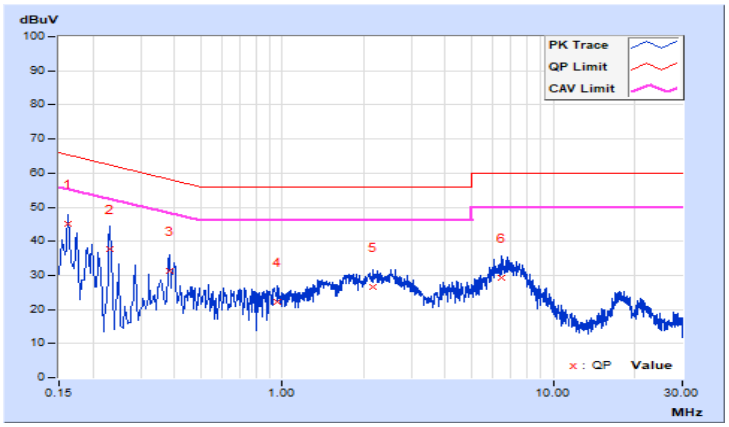


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B3 (56Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.11	34.94	10.82	45.05	20.93	65.36	55.36	-20.31	-34.43
2	0.23000	10.13	27.60	3.11	37.73	13.24	62.45	52.45	-24.72	-39.21
3	0.38200	10.14	21.28	6.97	31.42	17.11	58.24	48.24	-26.82	-31.13
4	0.96200	10.17	12.19	1.25	22.36	11.42	56.00	46.00	-33.64	-34.58
5	2.16600	10.21	16.48	3.42	26.69	13.63	56.00	46.00	-29.31	-32.37
6	6.41400	10.28	19.00	6.71	29.28	16.99	60.00	50.00	-30.72	-33.01

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.

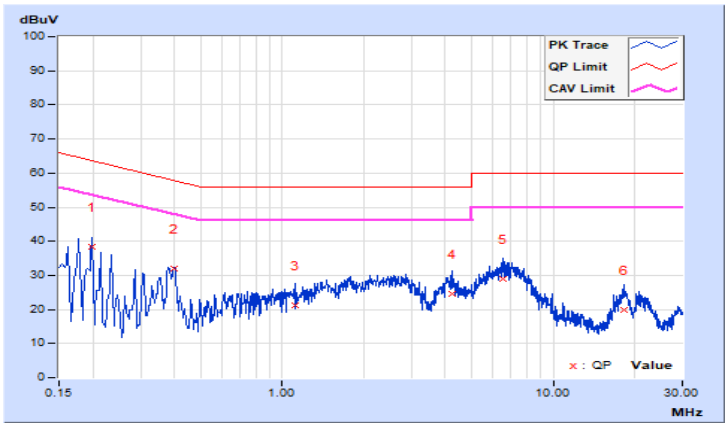


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B3 (56Vdc)		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19800	10.13	28.14	6.21	38.27	16.34	63.69	53.69	-25.42	-37.35
2	0.39758	10.15	21.74	9.70	31.89	19.85	57.90	47.90	-26.01	-28.05
3	1.11800	10.18	10.91	0.24	21.09	10.42	56.00	46.00	-34.91	-35.58
4	4.23400	10.29	14.35	1.78	24.64	12.07	56.00	46.00	-31.36	-33.93
5	6.54600	10.34	18.74	6.14	29.08	16.48	60.00	50.00	-30.92	-33.52
6	18.36600	10.63	9.20	1.23	19.83	11.86	60.00	50.00	-40.17	-38.14

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.

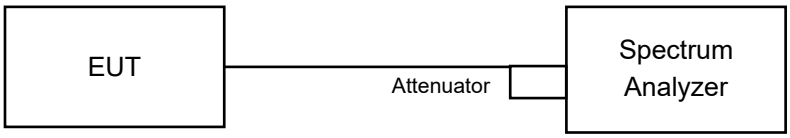


4.3 6dB Bandwidth Measurement

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

Internal antenna: Mode A1

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	10.11	0.5	Pass
6	2437	10.11	0.5	Pass
11	2462	10.11	0.5	Pass

802.11g

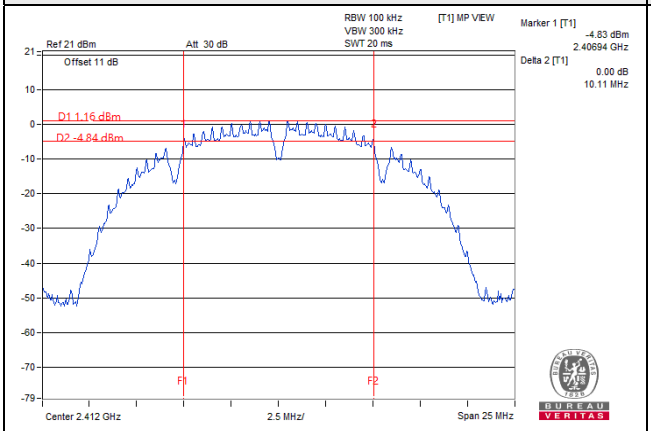
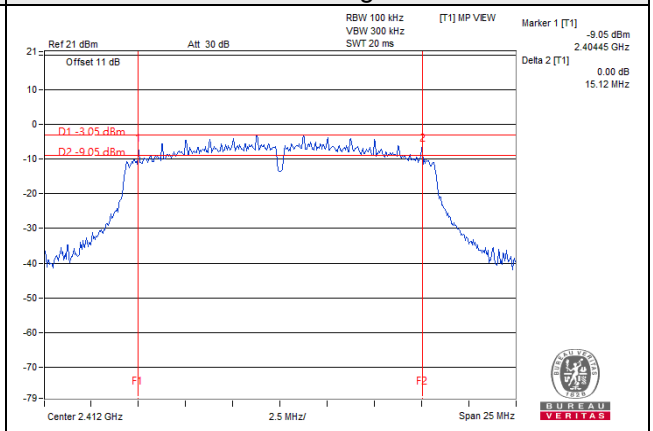
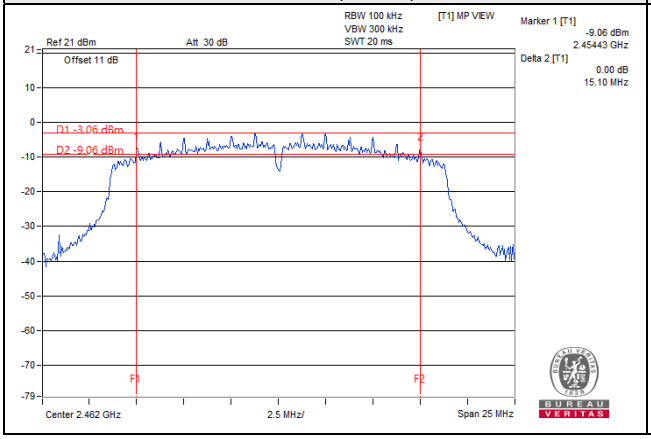
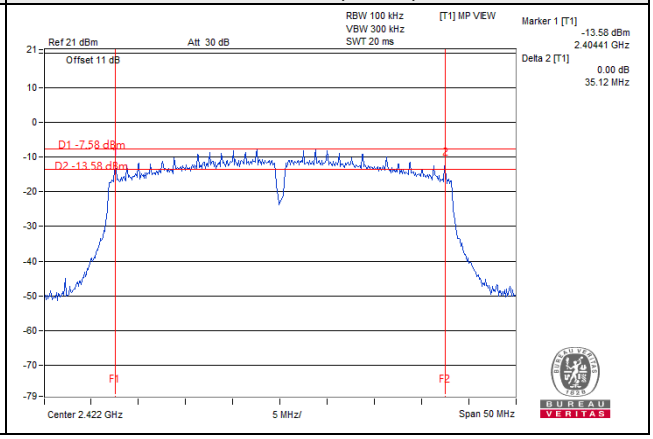
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.12	0.5	Pass
6	2437	15.15	0.5	Pass
11	2462	15.14	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.14	0.5	Pass
6	2437	15.15	0.5	Pass
11	2462	15.10	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	35.12	0.5	Pass
6	2437	35.22	0.5	Pass
9	2452	35.22	0.5	Pass

Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

External antenna: Mode B1

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	10.09	0.5	Pass
6	2437	10.11	0.5	Pass
11	2462	10.11	0.5	Pass

802.11g

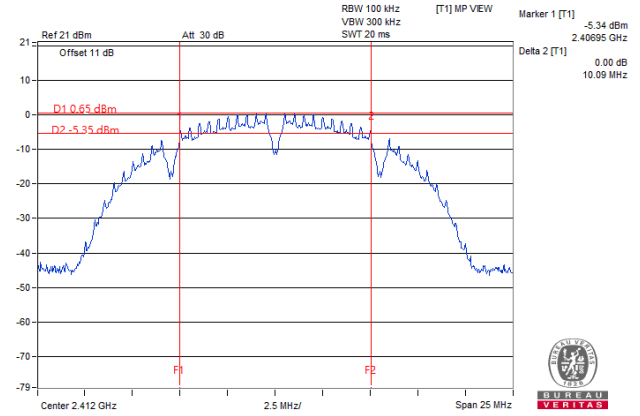
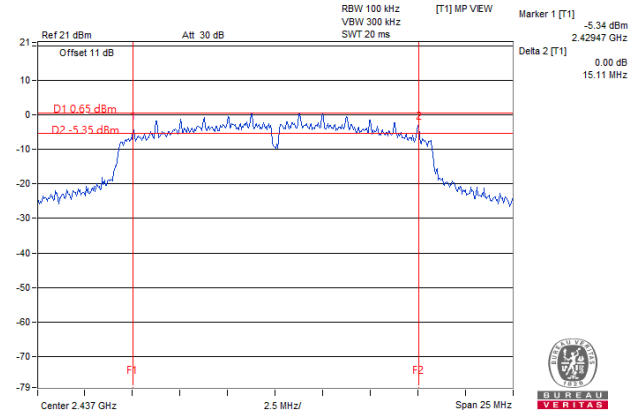
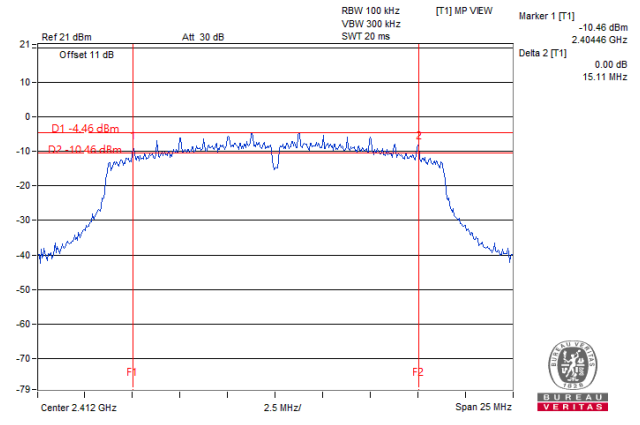
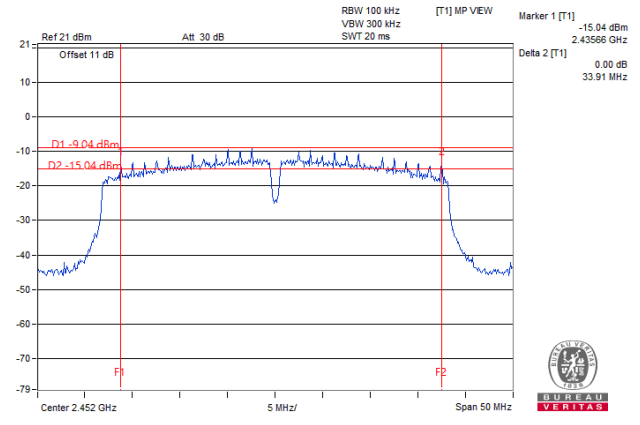
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.16	0.5	Pass
6	2437	15.11	0.5	Pass
11	2462	15.11	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	15.11	0.5	Pass
6	2437	15.14	0.5	Pass
11	2462	15.14	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	35.18	0.5	Pass
6	2437	33.93	0.5	Pass
9	2452	33.91	0.5	Pass

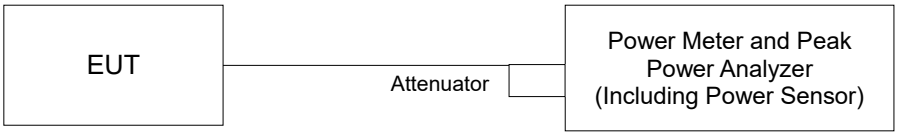
Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

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)

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

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as item 4.3.6.

4.4.7 Test Results

Internal antenna: Mode A1

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	10.471	10.20	30.00	Pass
6	2437	5.058	7.04	30.00	Pass
11	2462	4.943	6.94	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	5.848	7.67	30.00	Pass
6	2437	**16.482**	12.17	30.00	Pass
11	2462	5.534	7.43	30.00	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	6.124	7.87	30.00	Pass
6	2437	13.614	11.34	30.00	Pass
11	2462	5.140	7.11	30.00	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
3	2422	3.491	5.43	30.00	Pass
6	2437	3.342	5.24	30.00	Pass
9	2452	3.365	5.27	30.00	Pass

External antenna: Mode B1

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	10.328	10.14	30.00	Pass
6	2437	10.447	10.19	30.00	Pass
11	2462	10.814	10.34	30.00	Pass

802.11g

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	4.385	6.42	30.00	Pass
6	2437	**12.823**	11.08	30.00	Pass
11	2462	4.645	6.67	30.00	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	4.645	6.67	30.00	Pass
6	2437	10.740	10.31	30.00	Pass
11	2462	4.477	6.51	30.00	Pass

802.11n (HT40)

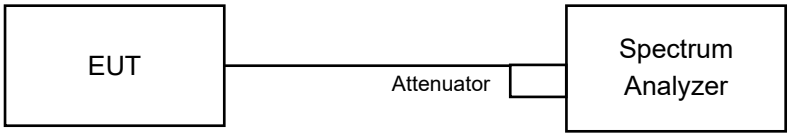
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
3	2422	2.270	3.56	30.00	Pass
6	2437	7.709	8.87	30.00	Pass
9	2452	2.193	3.41	30.00	Pass

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm per 3kHz.

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

For Average Power (Duty cycle ≥ 98%)
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.

For Average Power (Duty cycle < 98%)
a) Measure the duty cycle (x).
b) Set instrument center frequency to DTS channel center frequency.
c) Set span to at least 1.5 times the OBW.
d) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
e) Set VBW ≥3 x RBW.
f) Detector = power averaging (RMS) or sample detector (when RMS not available).
g) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
h) Sweep time = auto couple.
i) Do not use sweep triggering. Allow sweep to “free run”.
j) Employ trace averaging (RMS) mode over a minimum of 100 traces.
k) Use the peak marker function to determine the maximum amplitude level.
l) Add 10 log (1/x), where x is the duty cycle measured in step (a, to the measured PSD to compute the average PSD during the actual transmission time.

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

Internal antenna: Mode A1

802.11b

Channel	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-24.28	8.00	Pass
6	2437	-27.04	8.00	Pass
11	2462	-27.30	8.00	Pass

802.11g

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-28.22	0.19	-28.03	8.00	Pass
6	2437	-23.61	0.19	-23.42	8.00	Pass
11	2462	-28.26	0.19	-28.07	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

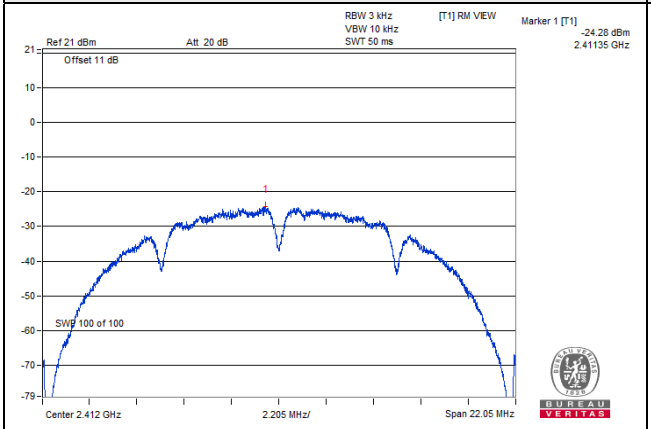
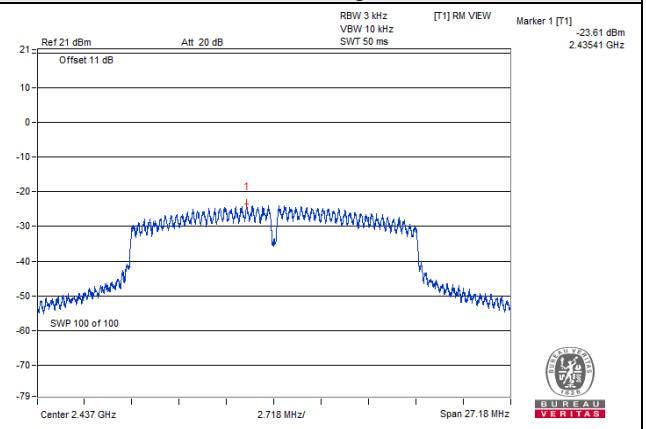
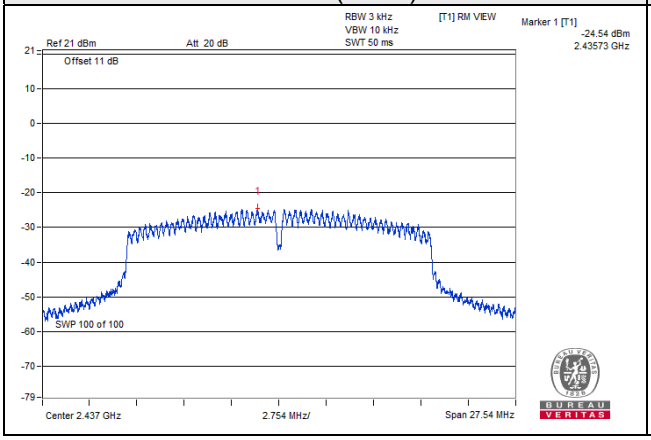
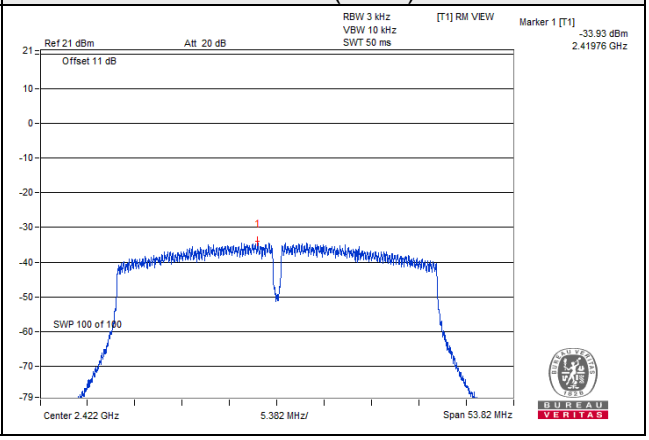
Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-28.52	0.21	-28.31	8.00	Pass
6	2437	-24.54	0.21	-24.33	8.00	Pass
11	2462	-28.48	0.21	-28.27	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
3	2422	-33.93	0.38	-33.55	8.00	Pass
6	2437	-34.38	0.38	-34.00	8.00	Pass
9	2452	-34.08	0.38	-33.70	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

External antenna: Mode B1

802.11b

Channel	Frequency (MHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-24.02	8.00	Pass
6	2437	-23.72	8.00	Pass
11	2462	-23.34	8.00	Pass

802.11g

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-29.91	0.37	-29.54	8.00	Pass
6	2437	-24.45	0.37	-24.08	8.00	Pass
11	2462	-29.42	0.37	-29.05	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

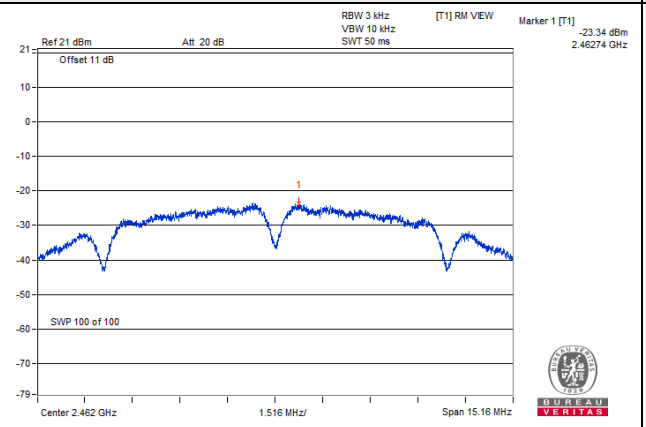
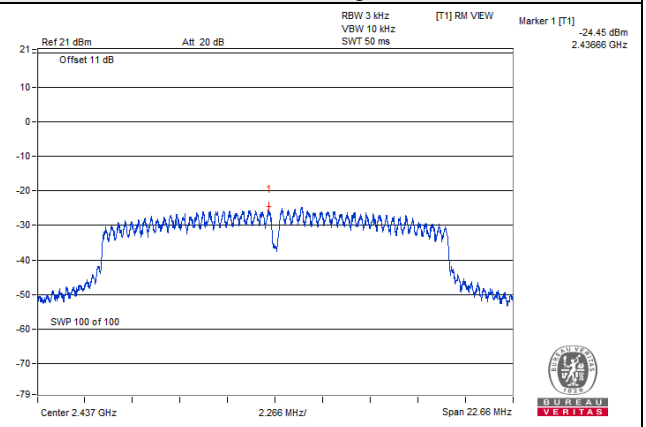
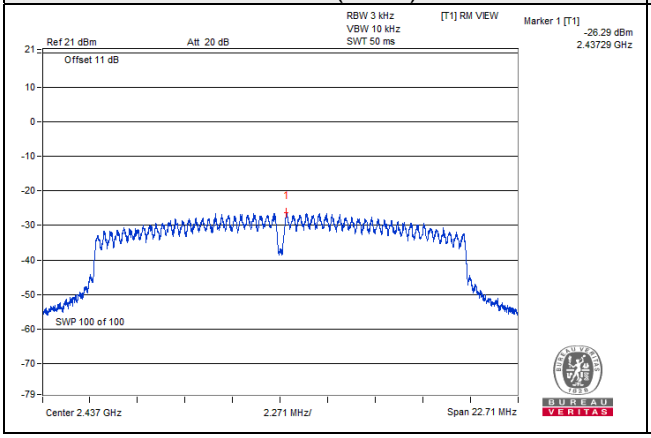
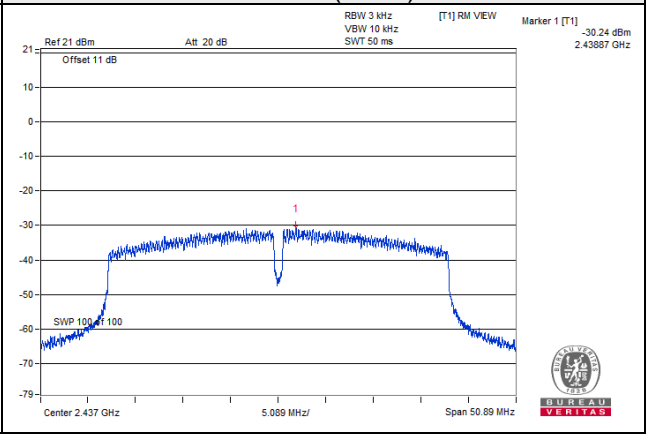
Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	2412	-29.69	0.37	-29.32	8.00	Pass
6	2437	-26.29	0.37	-25.92	8.00	Pass
11	2462	-29.36	0.37	-28.99	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Channel	Frequency (MHz)	PSD W/O Duty Factor (dBm/3kHz)	Duty Factor (dB)	Total PSD With Duty Factor (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
3	2422	-34.99	0.39	-34.60	8.00	Pass
6	2437	-30.24	0.39	-29.85	8.00	Pass
9	2452	-34.82	0.39	-34.43	8.00	Pass

Note: Refer to section 3.3 for duty cycle spectrum plot.

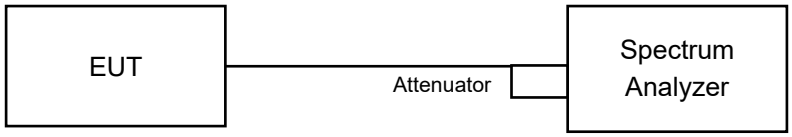
Spectrum Plot of Worst Value	
802.11b	802.11g
	
802.11n (HT20)	802.11n (HT40)
	

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

a. Set the RBW = 100 kHz.
b. Set the VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep time = auto couple.
e. Trace mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

a. Set RBW = 100 kHz.
b. Set VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep = auto couple.
e. Trace Mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

Same as item 4.3.6

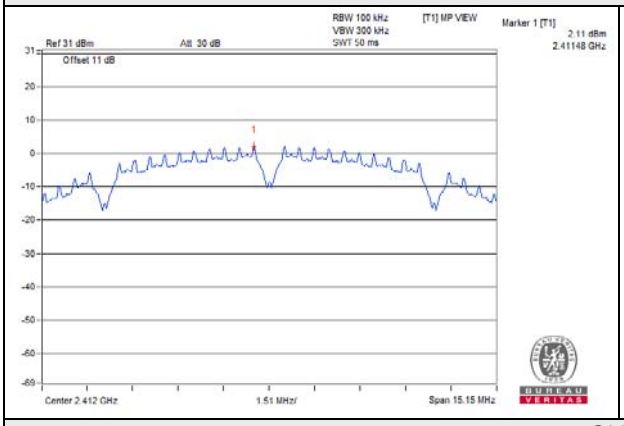
4.6.7 Test Results

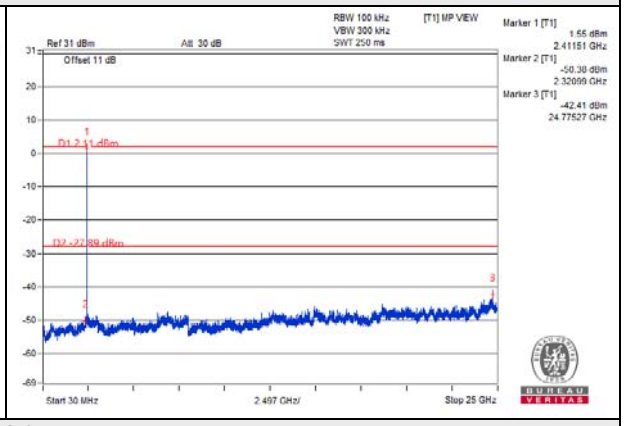
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

Internal antenna: Mode A1

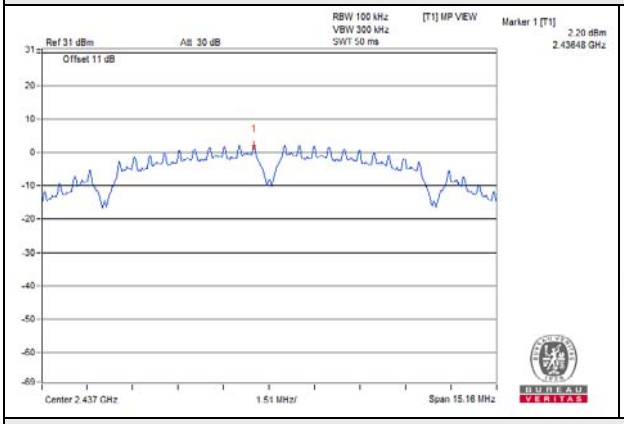
802.11b

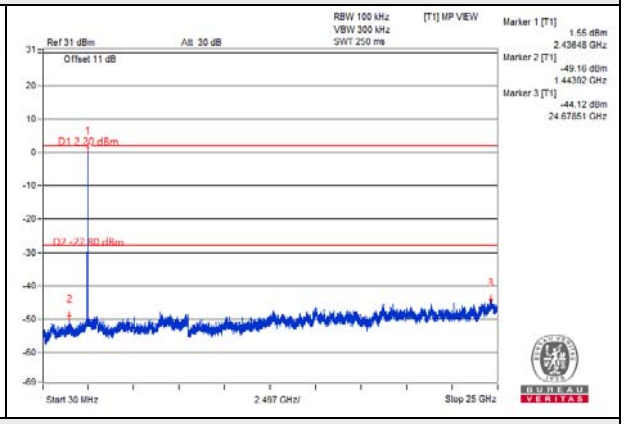
CH 1



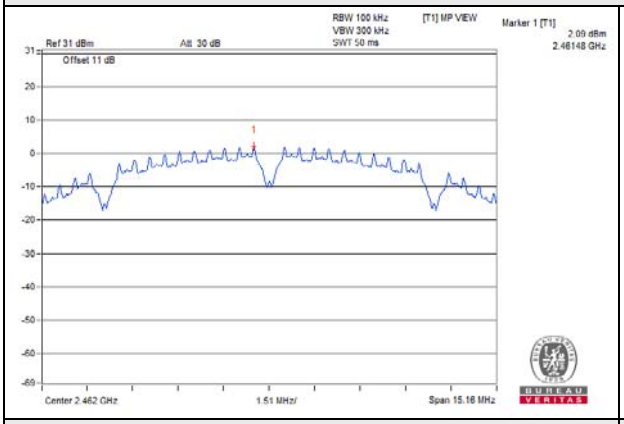


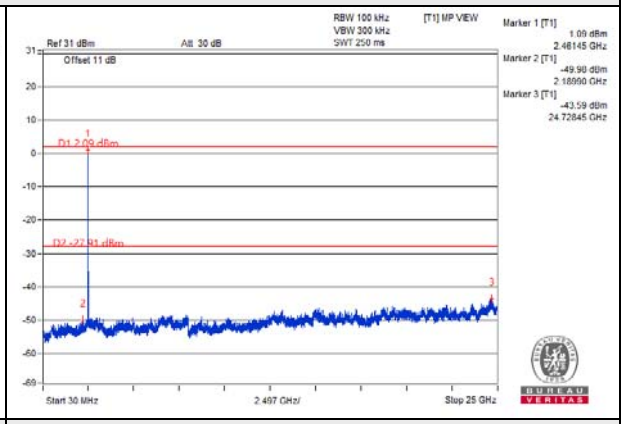
CH 6



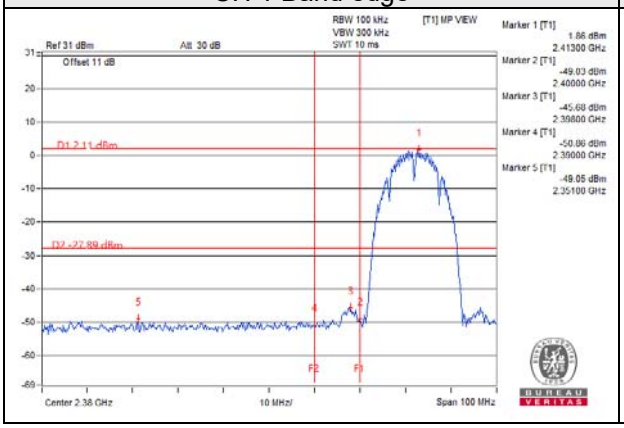


CH 11

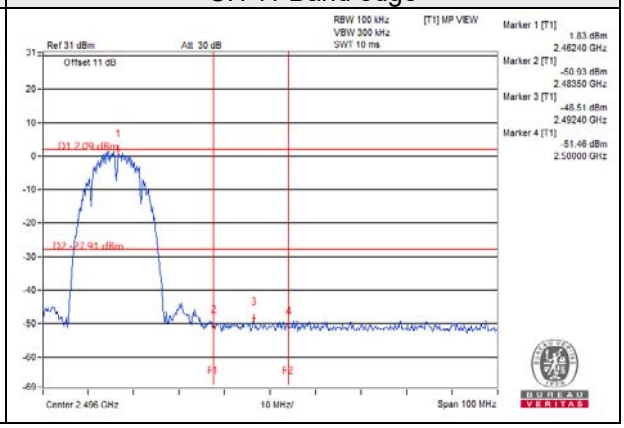




CH 1 Band edge

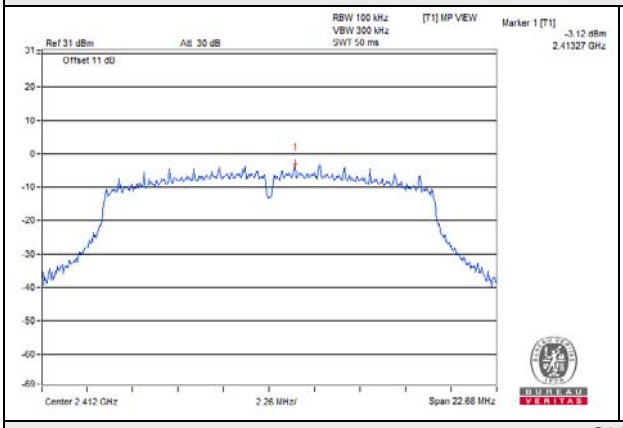


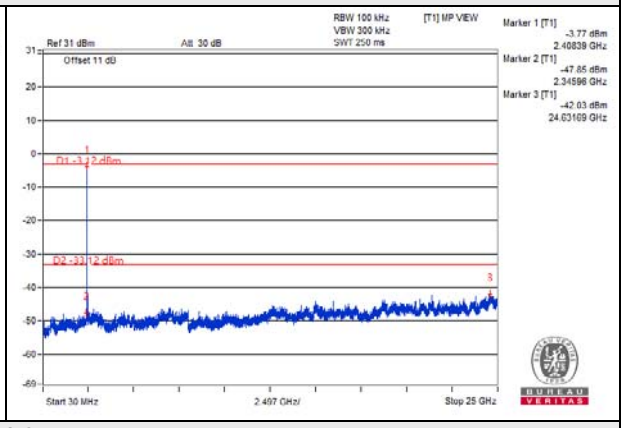
CH 11 Band edge



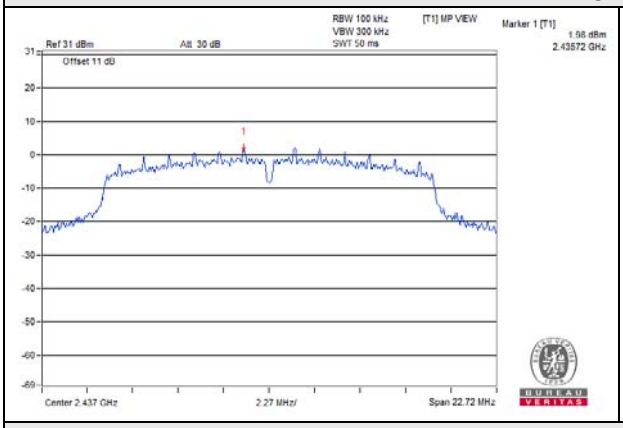
802.11g

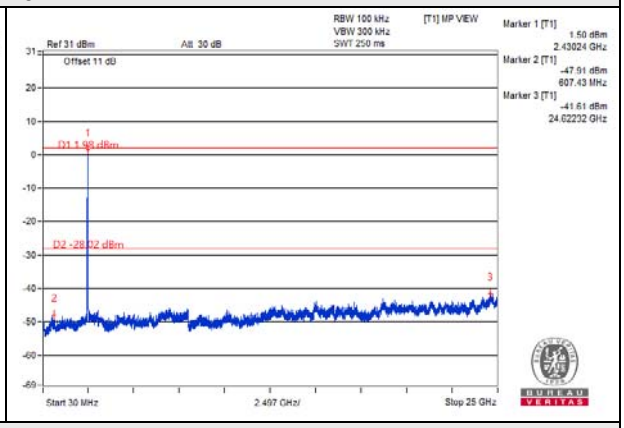
CH 1



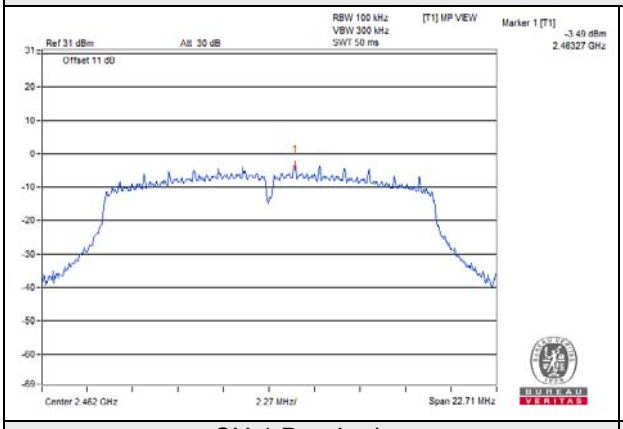


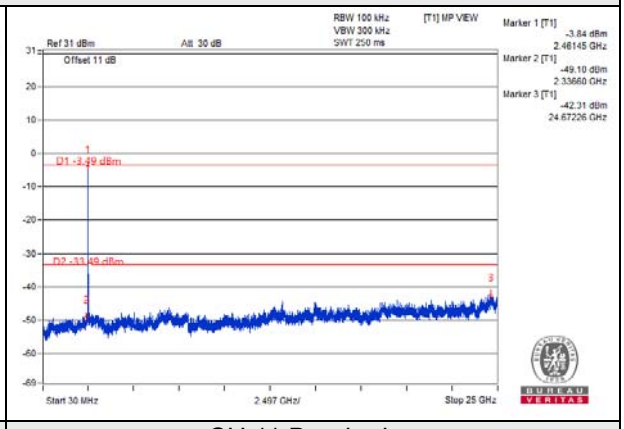
CH 6



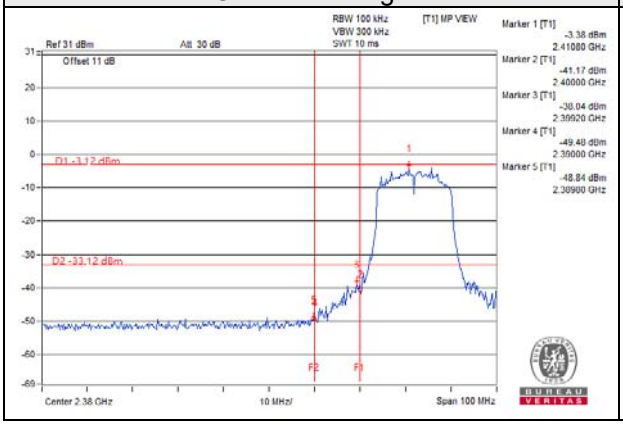


CH 11

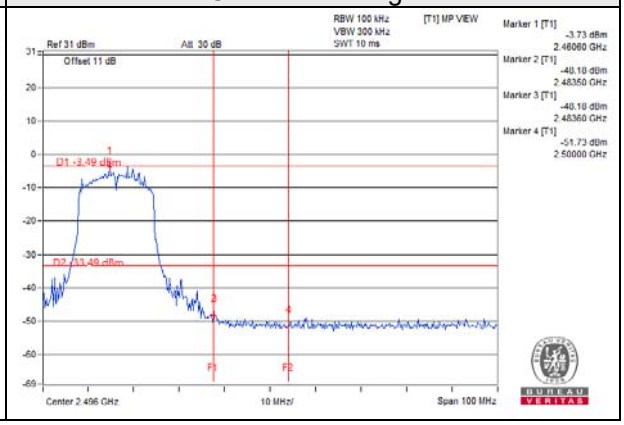




CH 1 Band edge

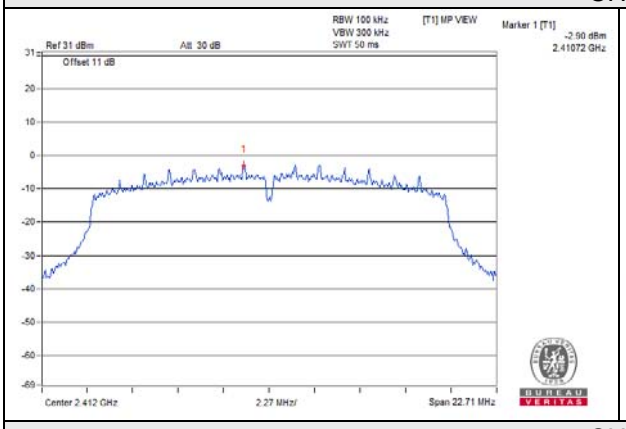


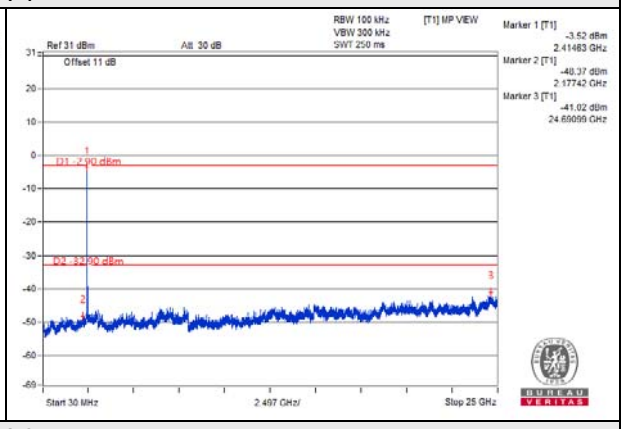
CH 11 Band edge



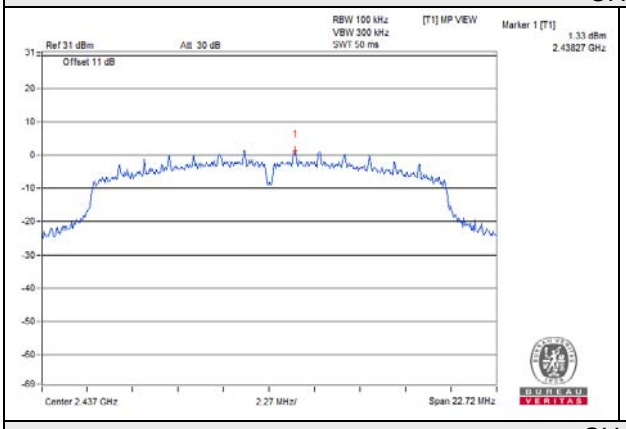
802.11n (HT20)

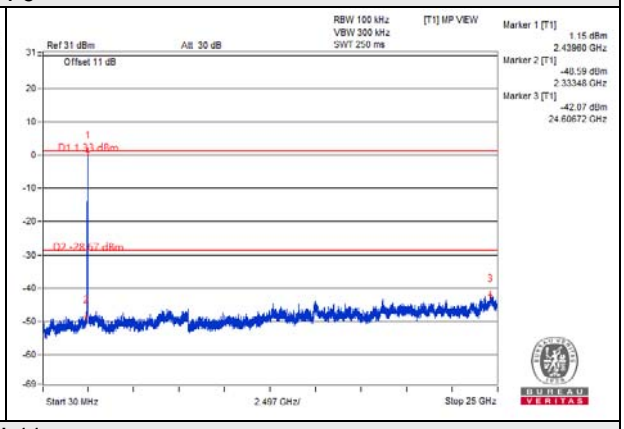
CH 1



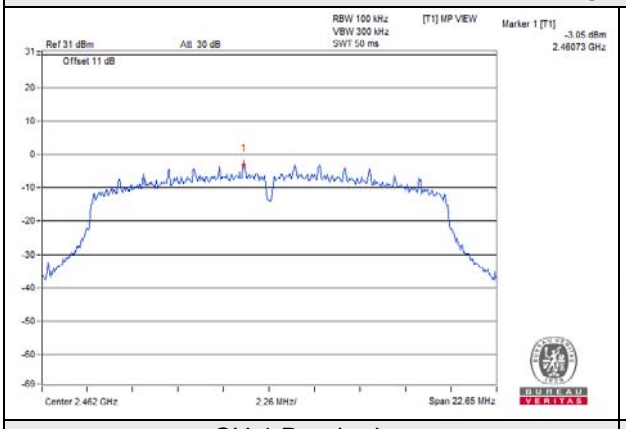


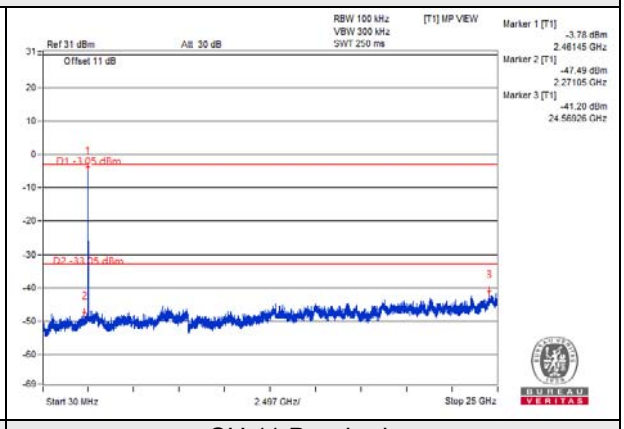
CH 6



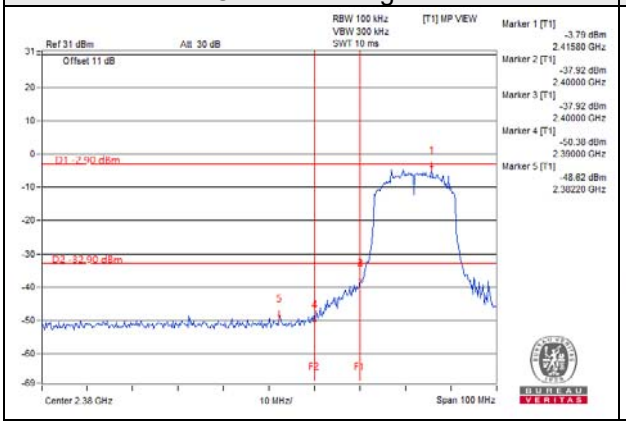


CH 11

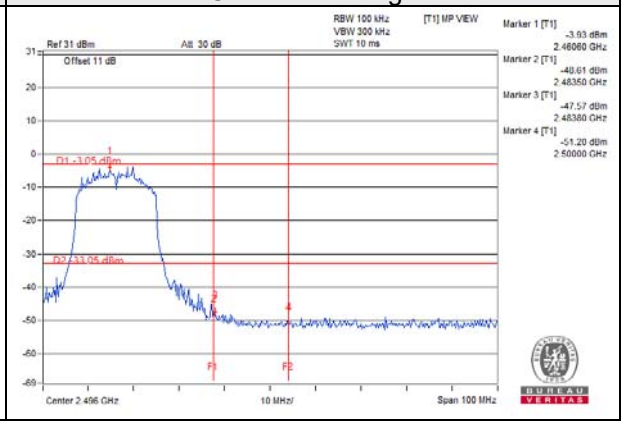




CH 1 Band edge

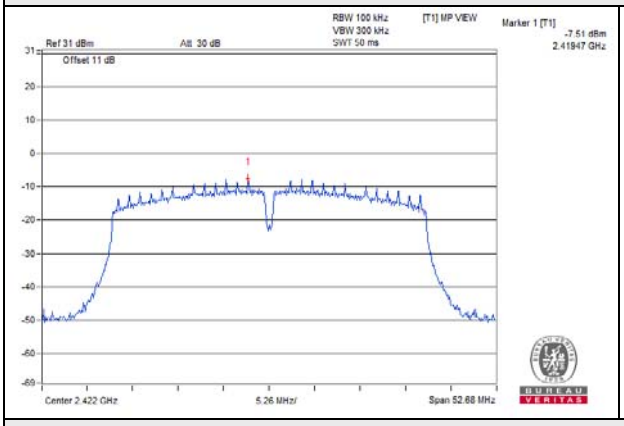


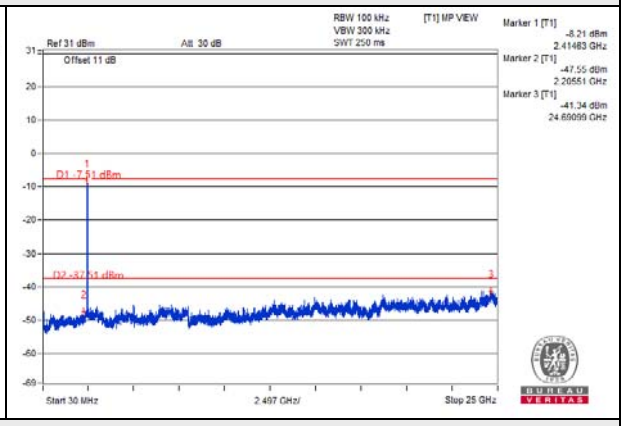
CH 11 Band edge



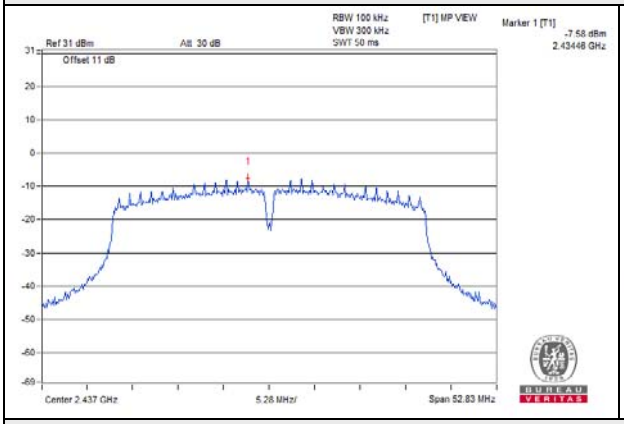
802.11n (HT40)

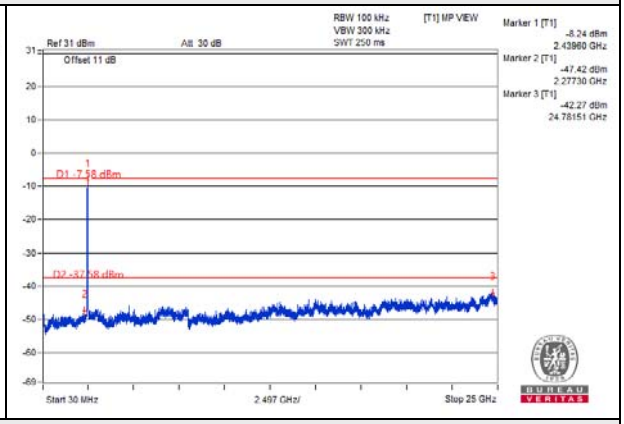
CH 3



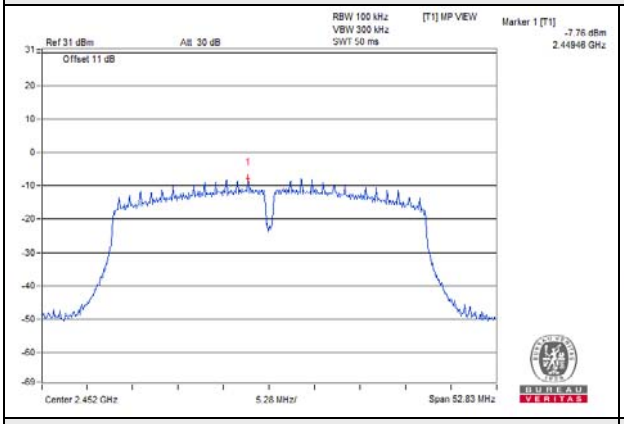


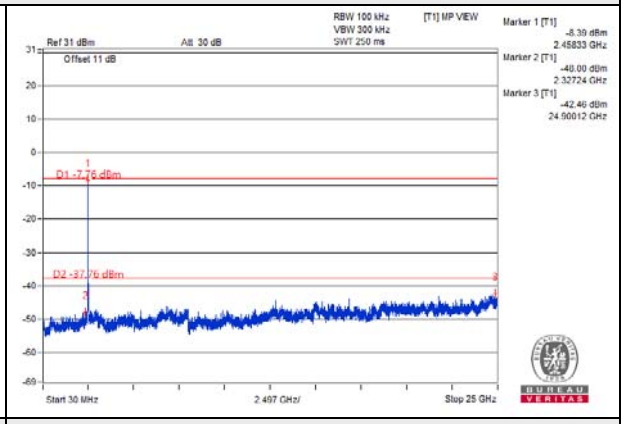
CH 6



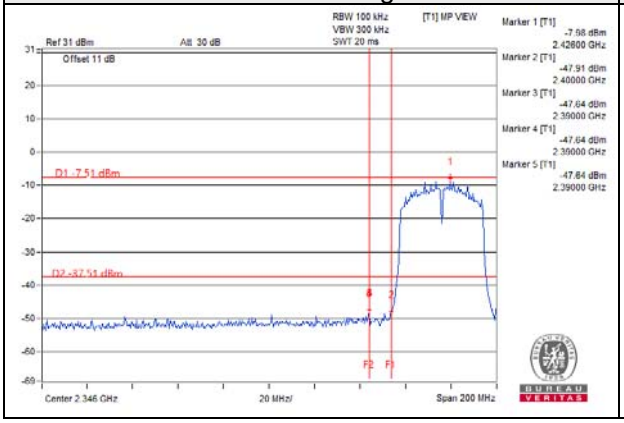


CH 9

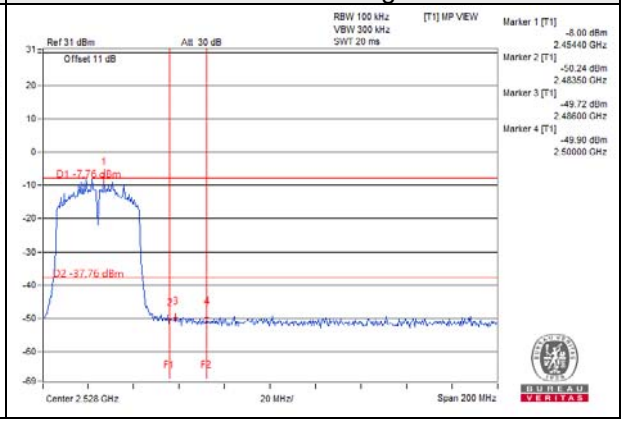




CH 3 Band edge



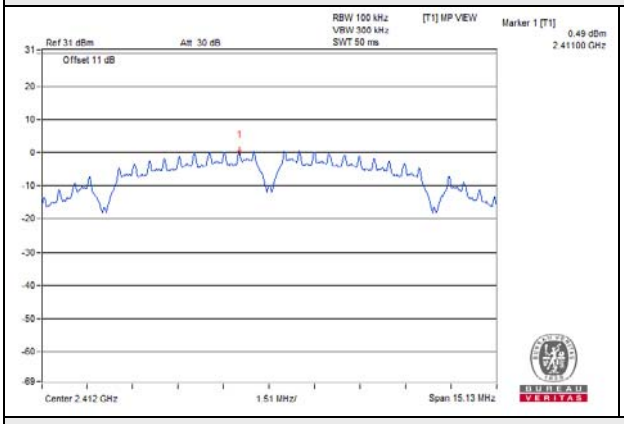
CH 9 Band edge

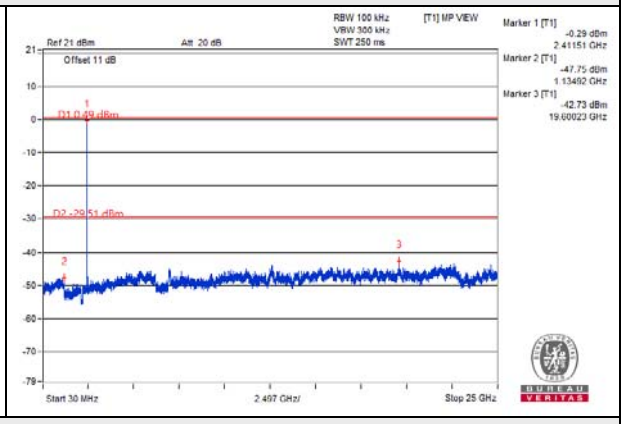


External antenna: Mode B1

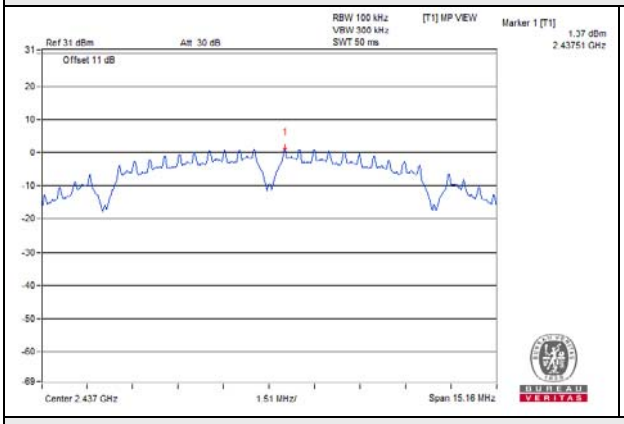
802.11b

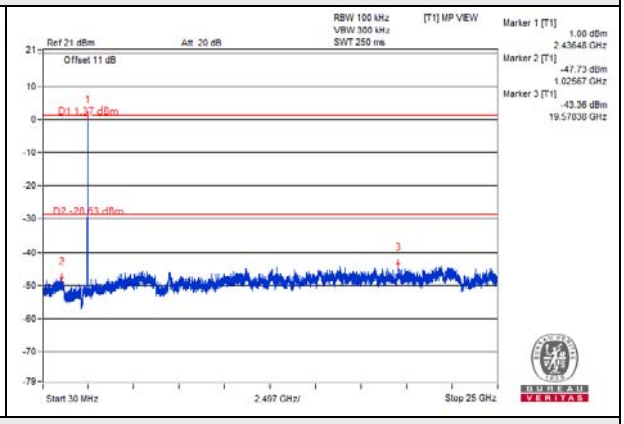
CH 1



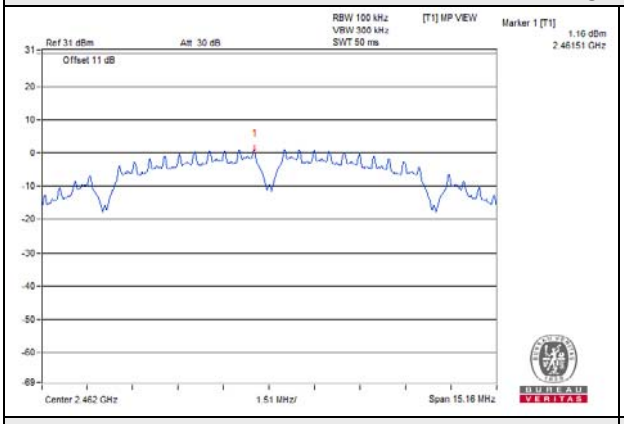


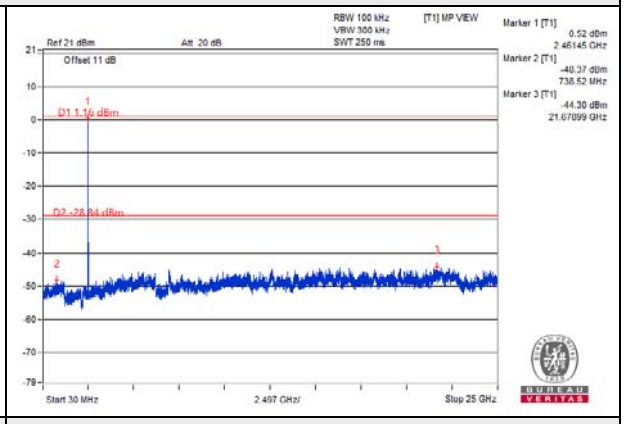
CH 6



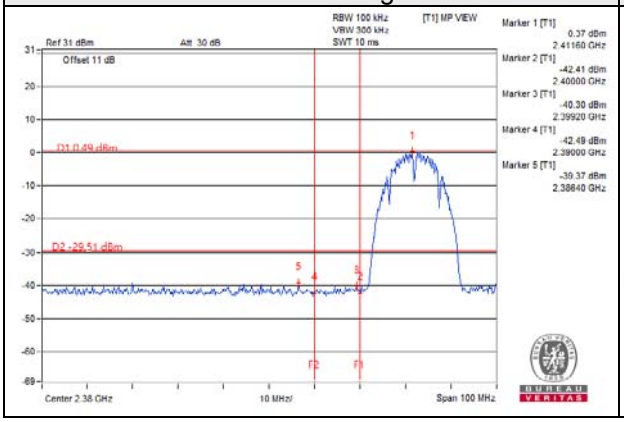


CH 11

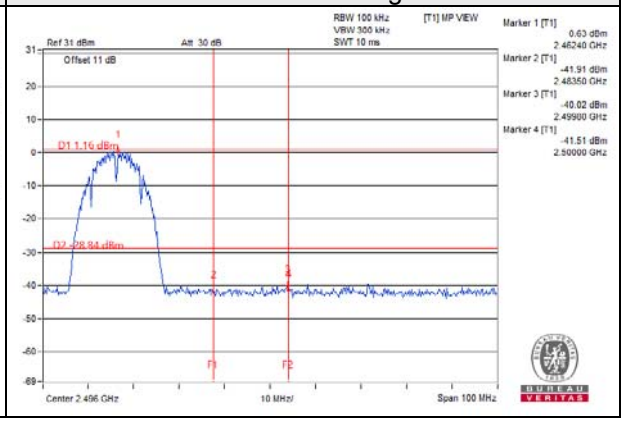




CH 1 Band edge

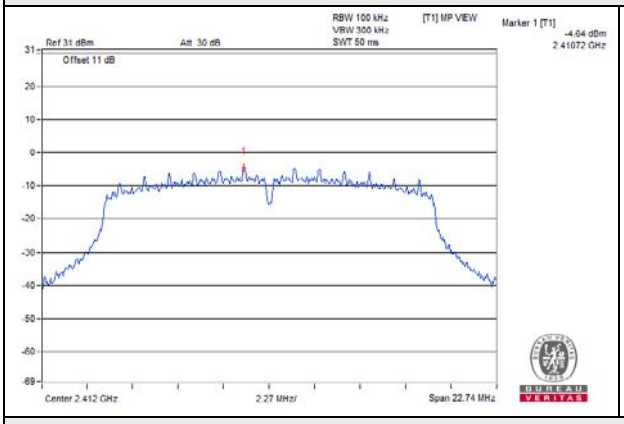


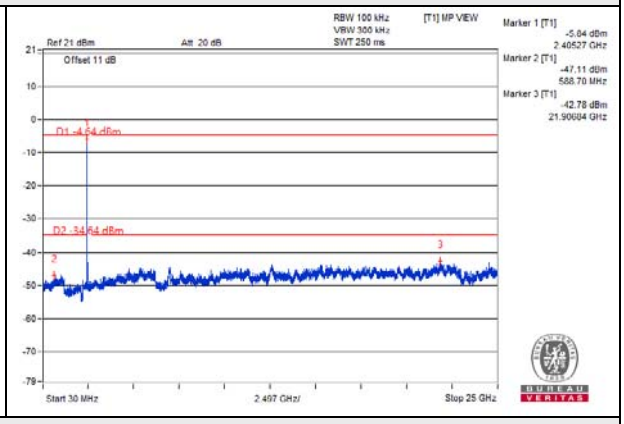
CH 11 Band edge



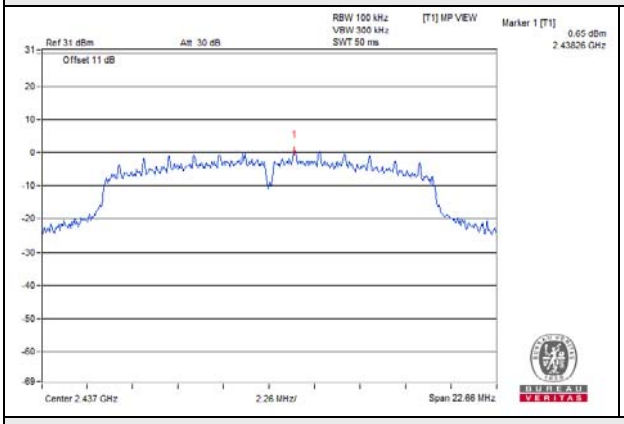
802.11g

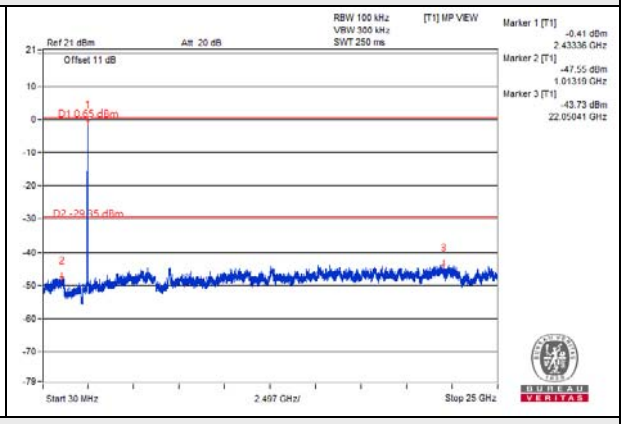
CH 1



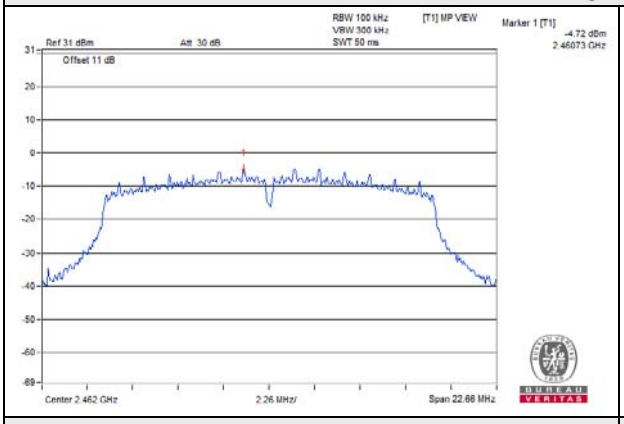


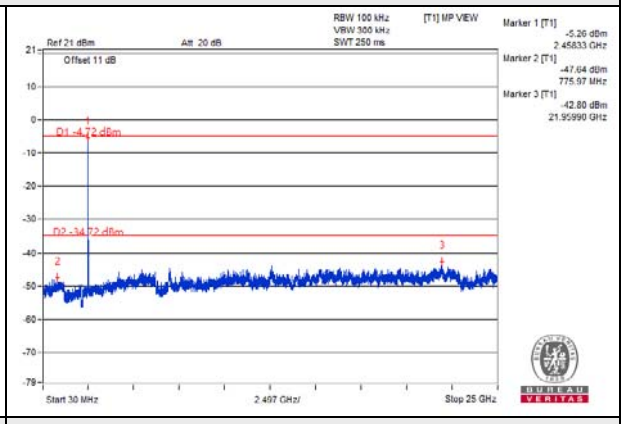
CH 6



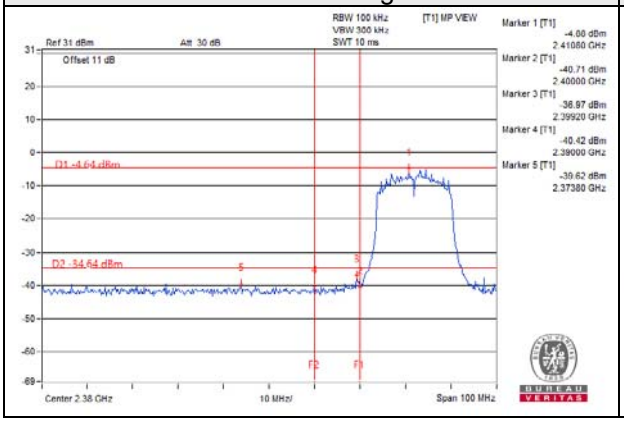


CH 11

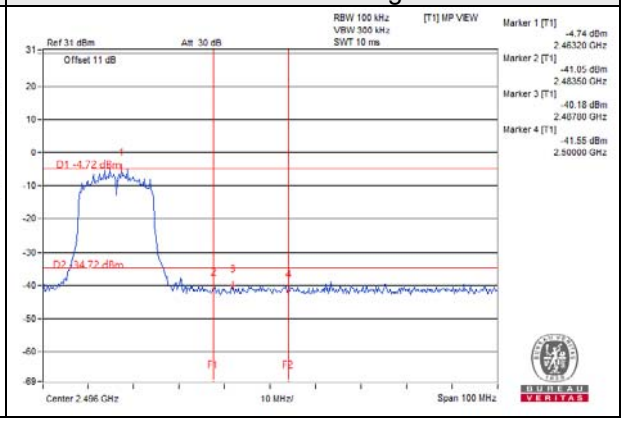




CH 1 Band edge

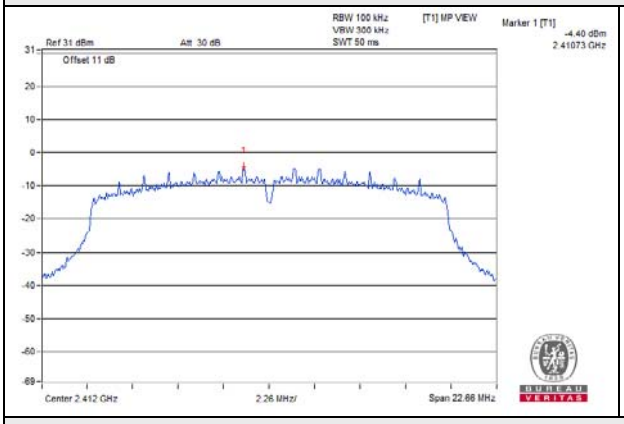


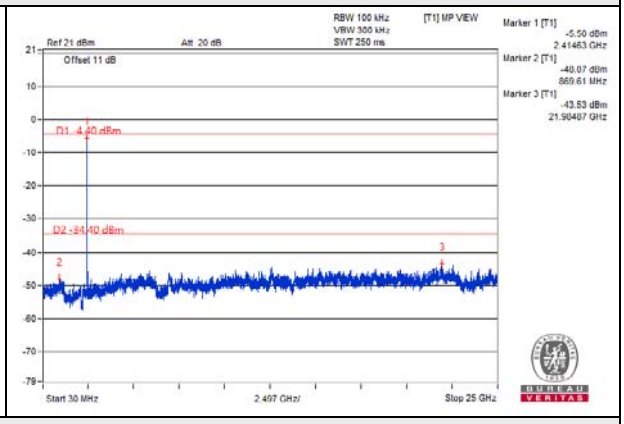
CH 11 Band edge



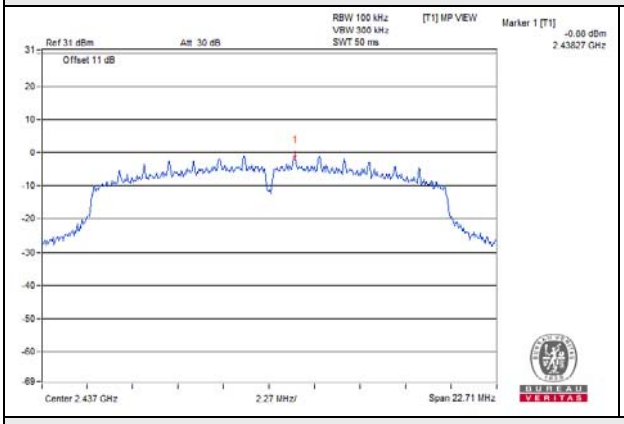
802.11n (HT20)

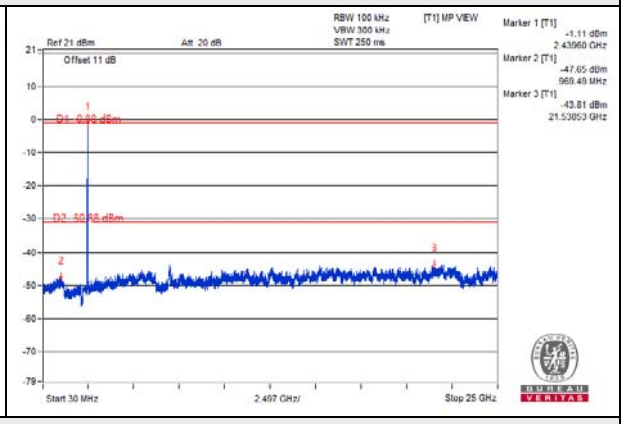
CH 1



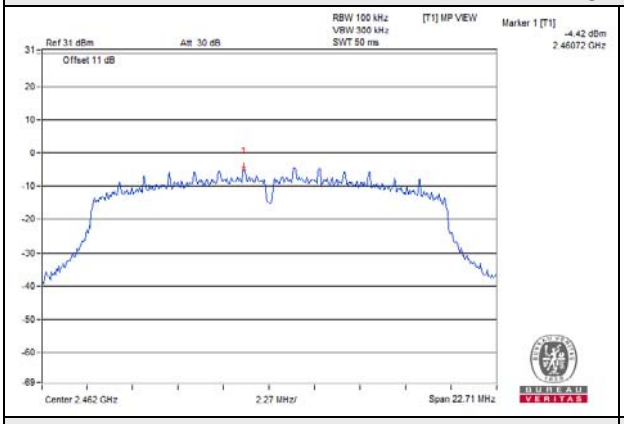


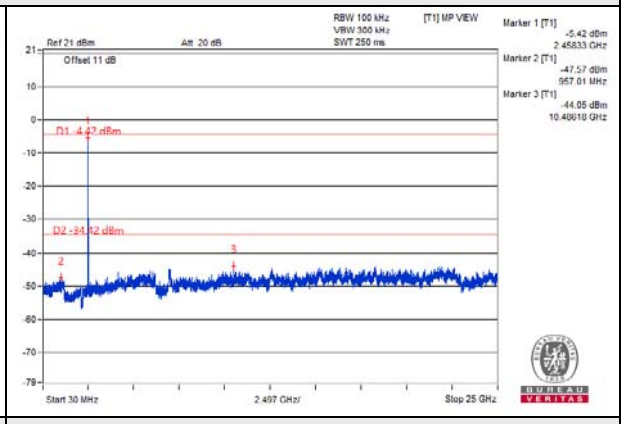
CH 6



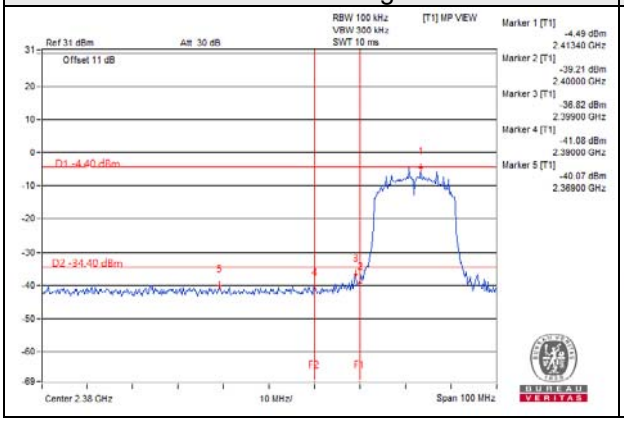


CH 11

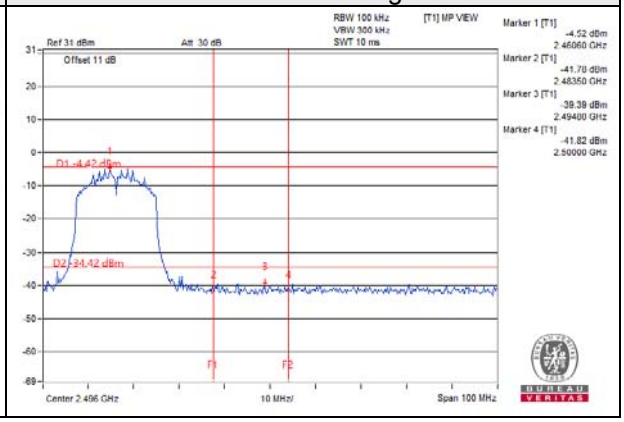




CH 1 Band edge

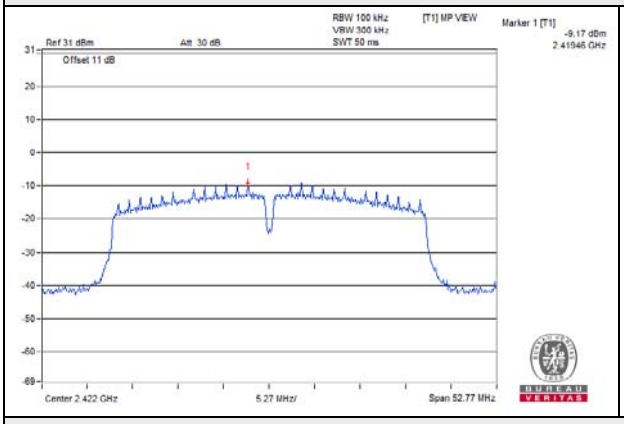


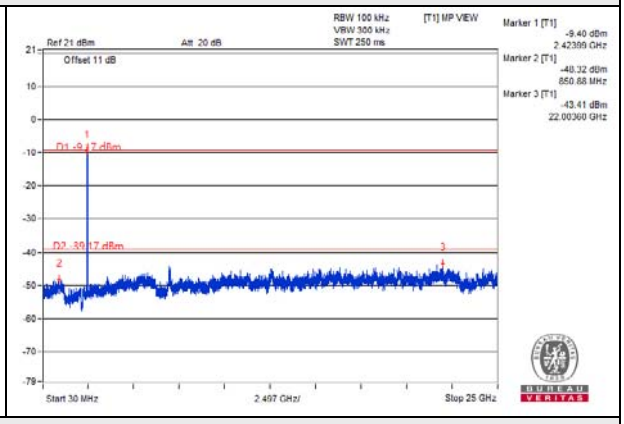
CH 11 Band edge



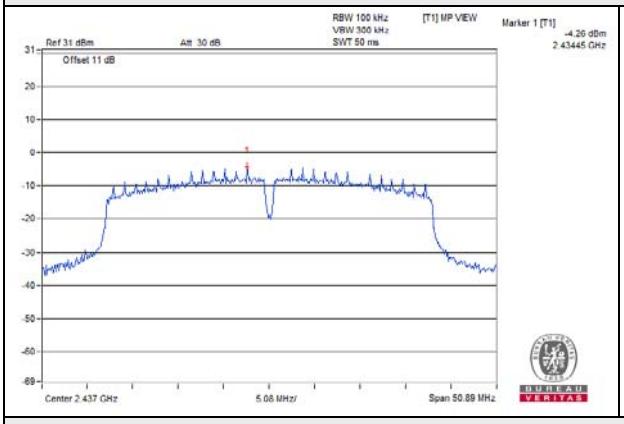
802.11n (HT40)

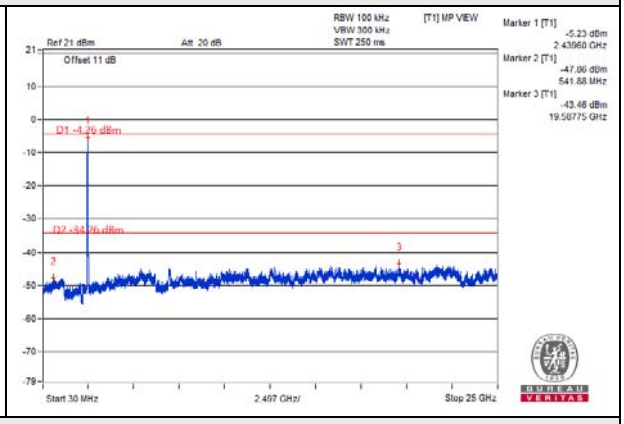
CH 3



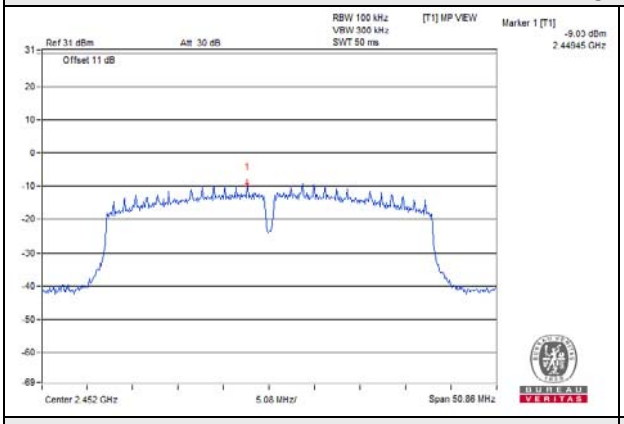


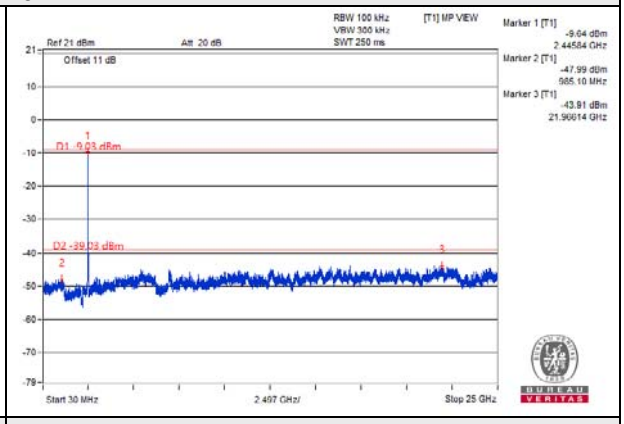
CH 6



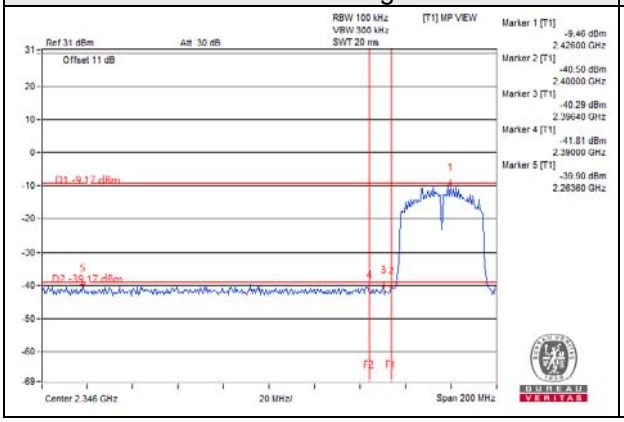


CH 9

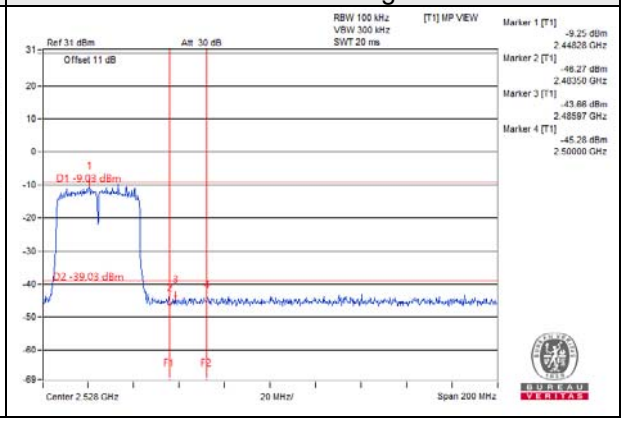




CH 3 Band edge



CH 9 Band edge

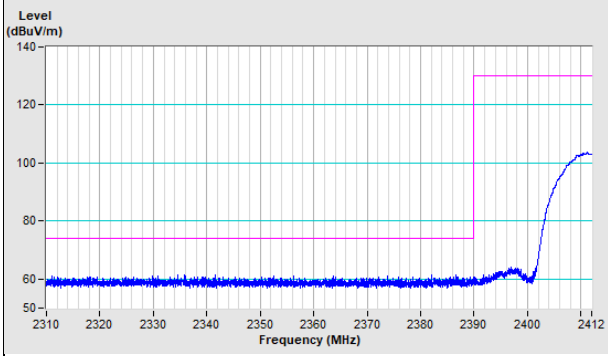


Annex A- Band Edge Measurement

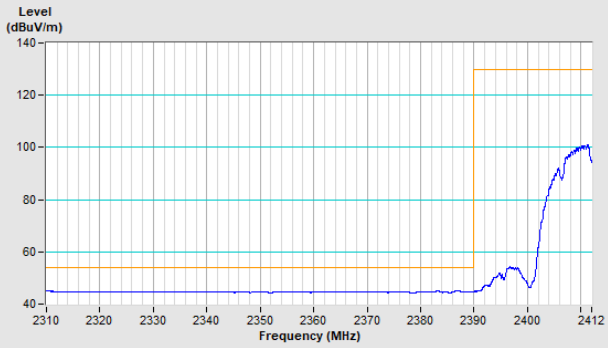
Internal antenna: Mode A1

802.11b Channel 1

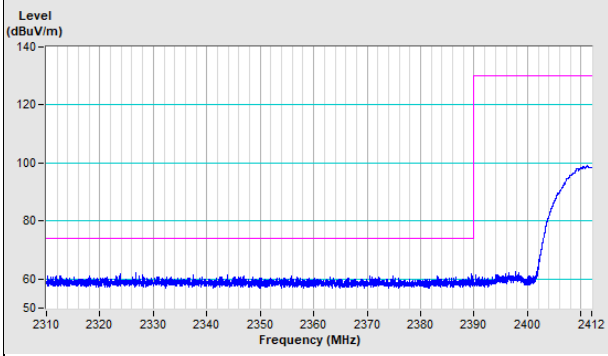
Horizontal (Peak)



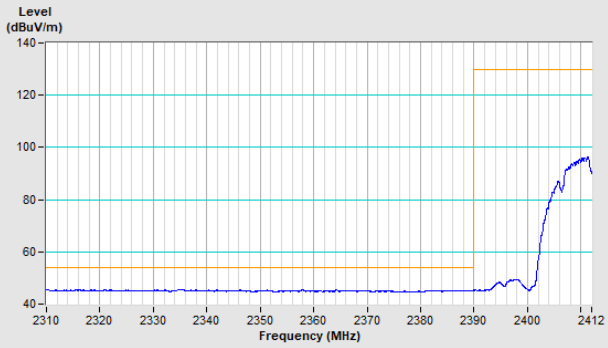
Horizontal (Average)



Vertical (Peak)

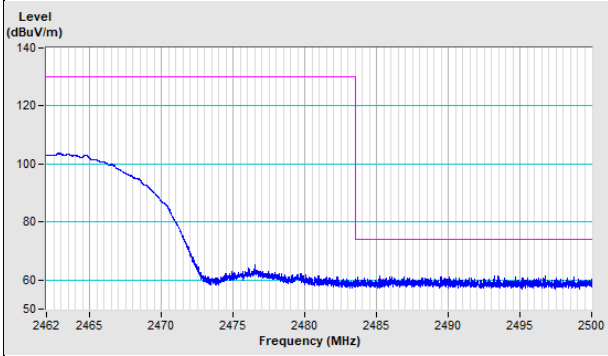


Vertical (Average)

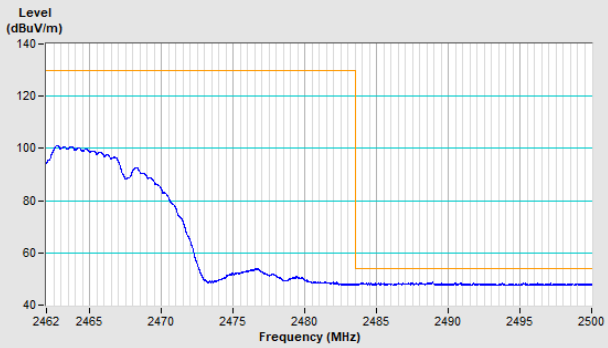


802.11b Channel 11

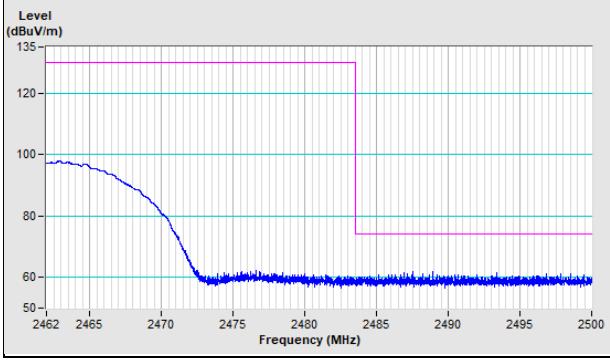
Horizontal (Peak)



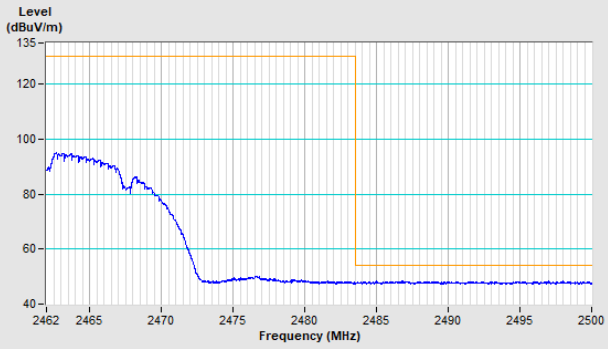
Horizontal (Average)

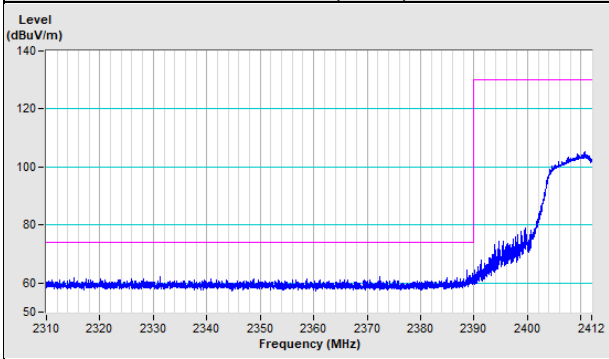
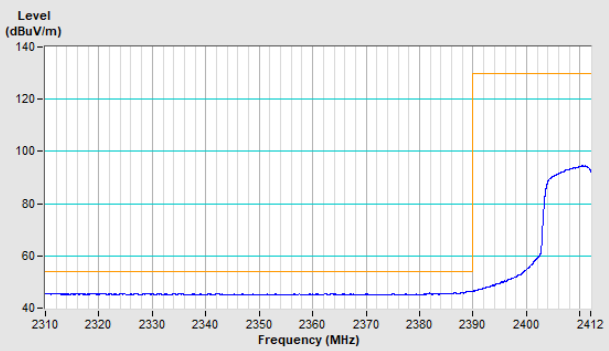
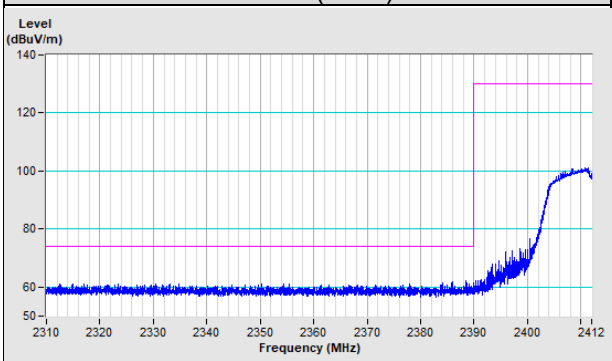
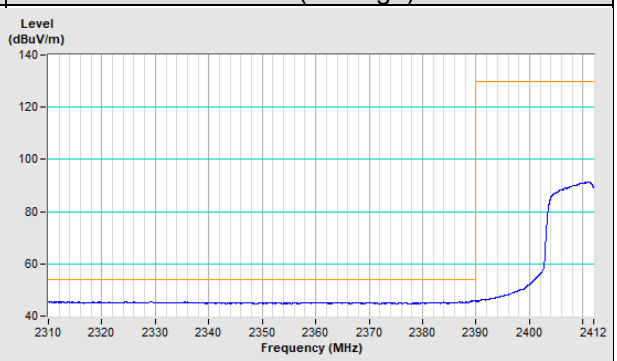
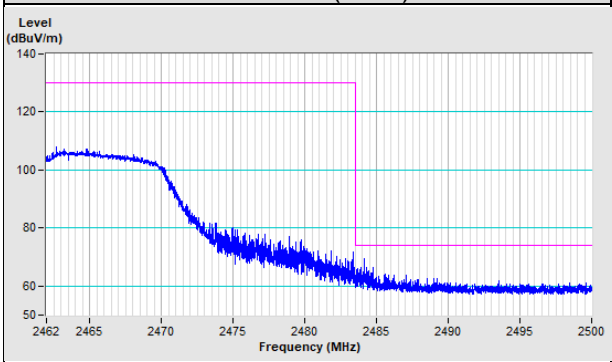
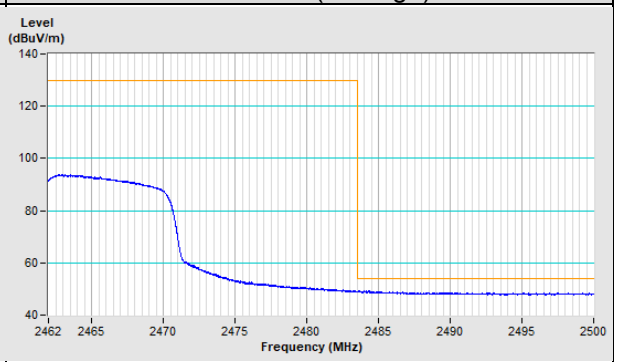
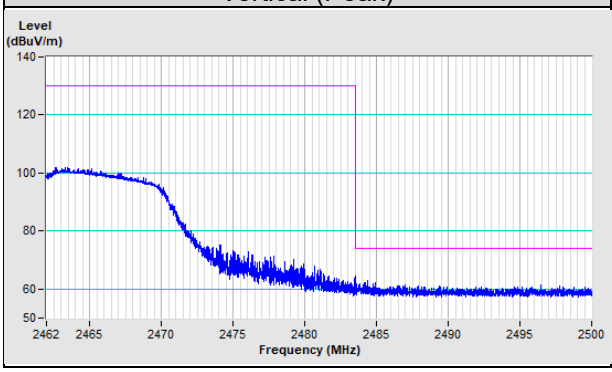
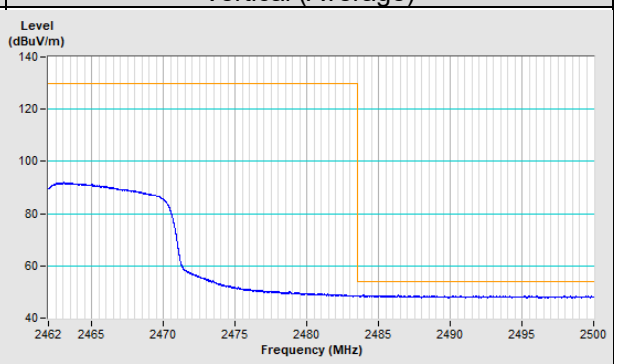


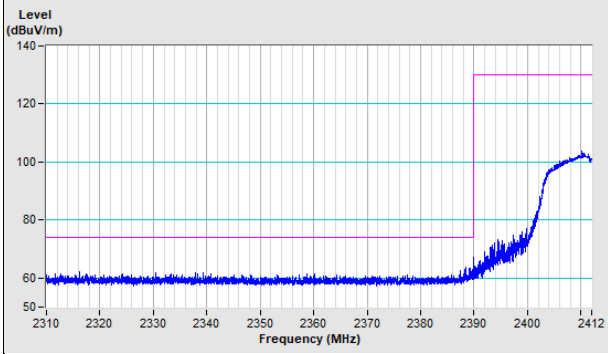
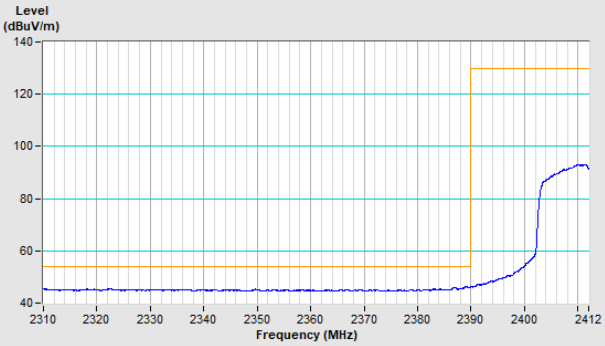
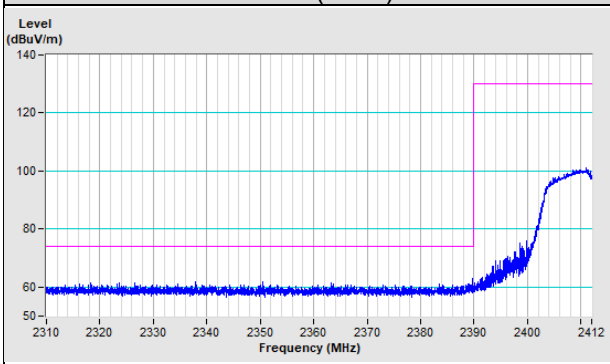
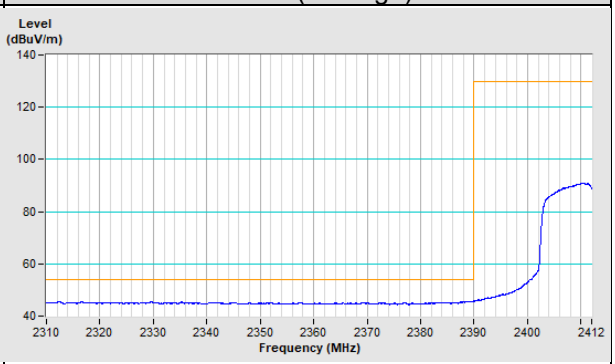
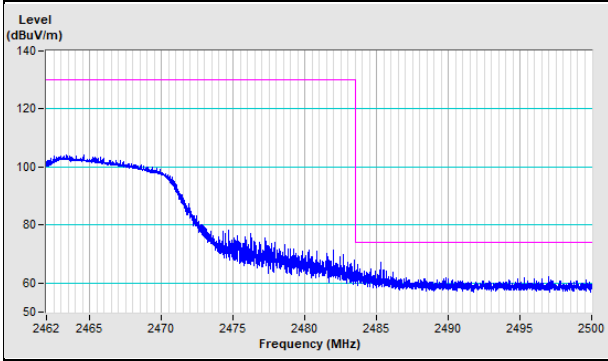
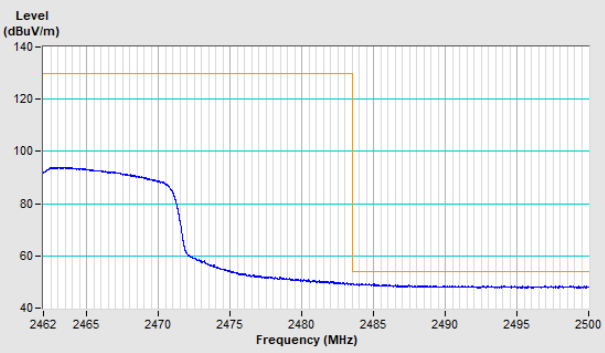
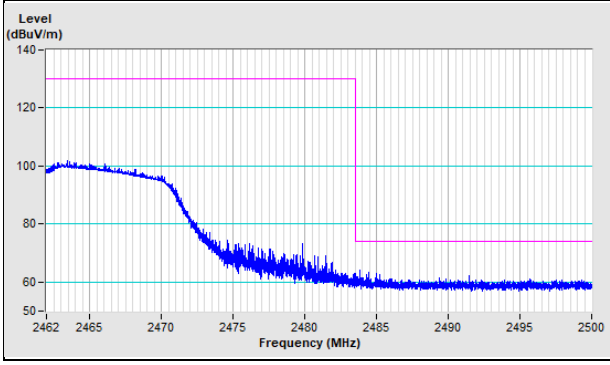
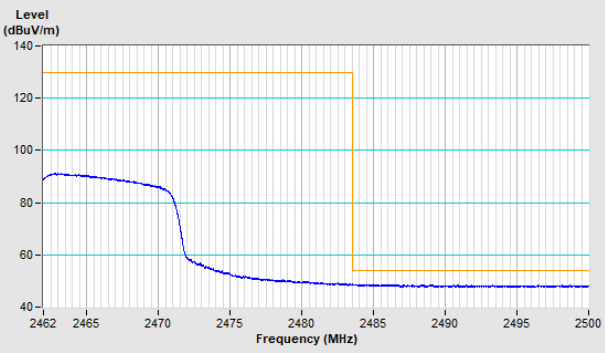
Vertical (Peak)

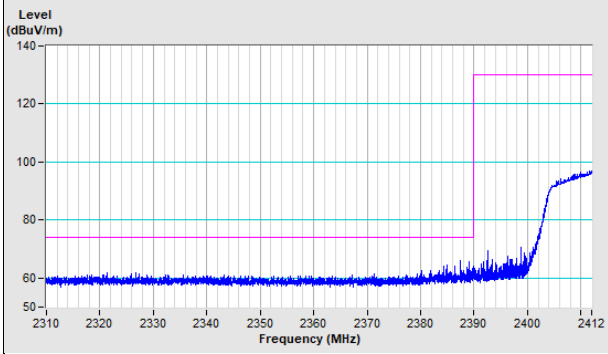
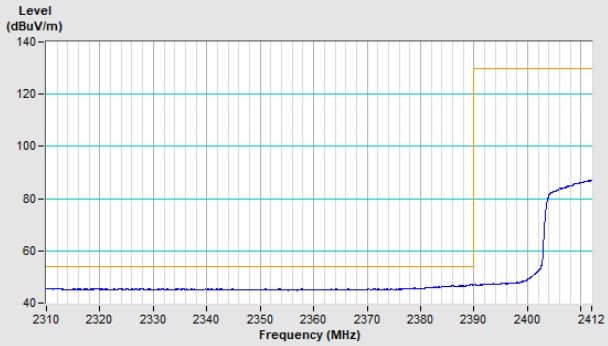
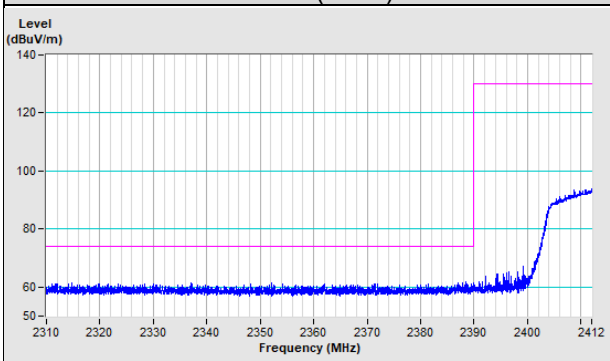
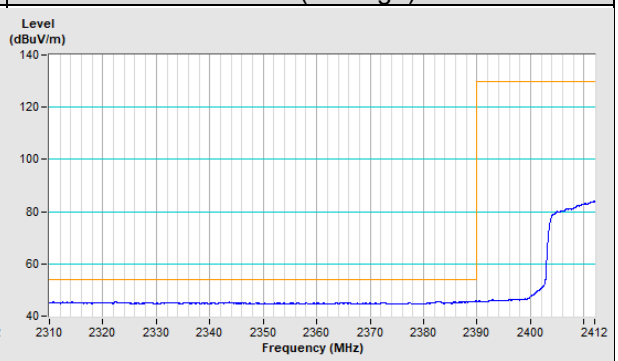
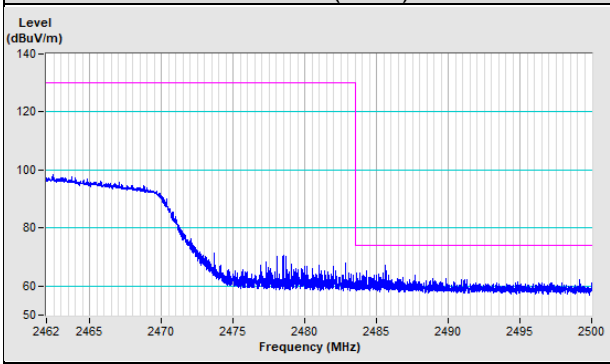
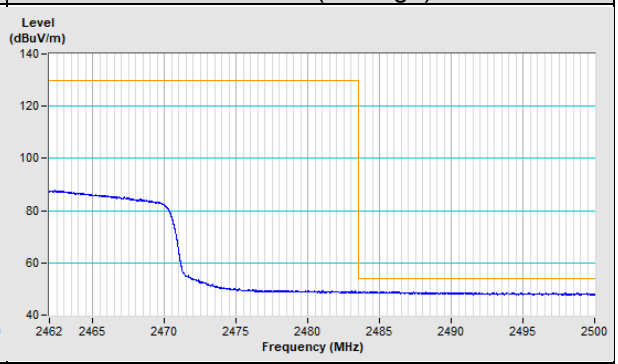
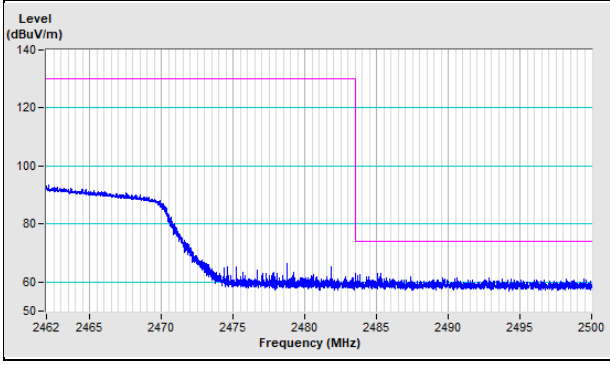
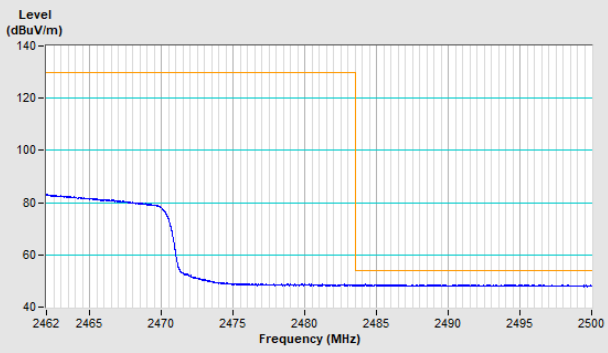


Vertical (Average)



802.11g Channel 1	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11g Channel 11	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

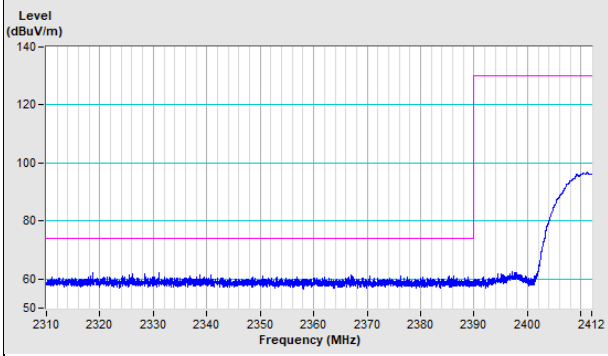
802.11n (HT20) Channel 1	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11n (HT20) Channel 11	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11n (HT40) Channel 3	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11n (HT40) Channel 9	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

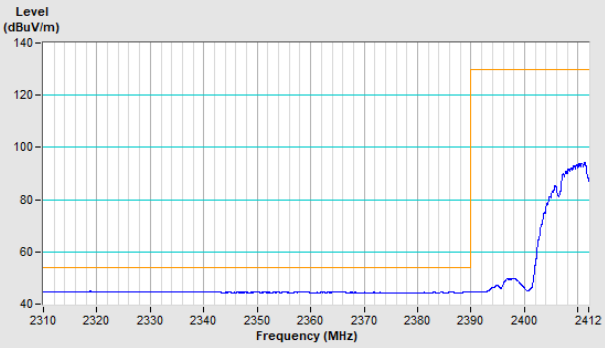
External antenna: Mode B1

802.11b Channel 1

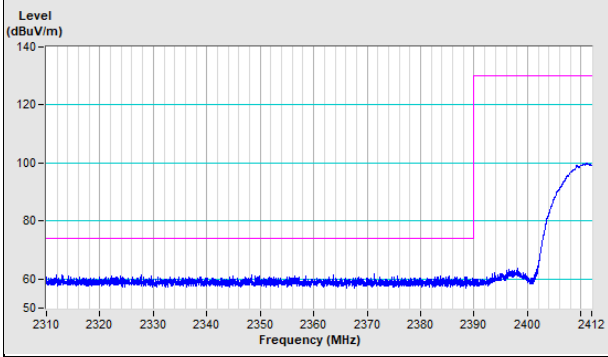
Horizontal (Peak)



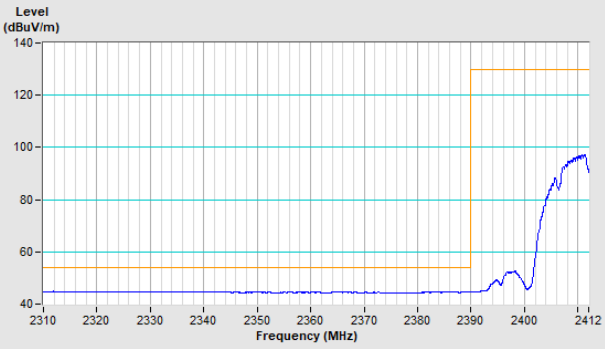
Horizontal (Average)



Vertical (Peak)

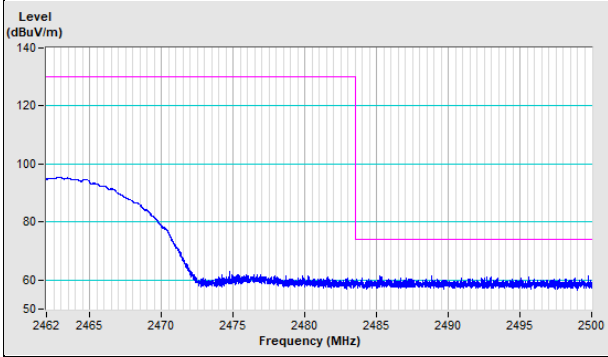


Vertical (Average)

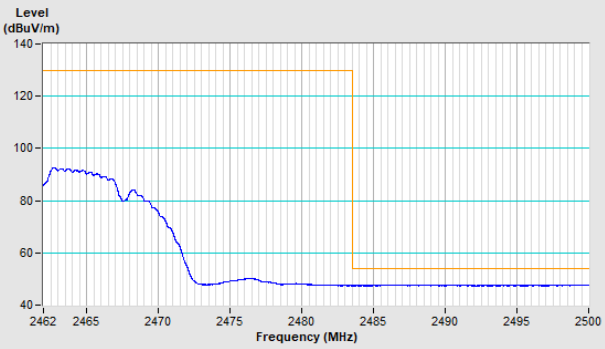


802.11b Channel 11

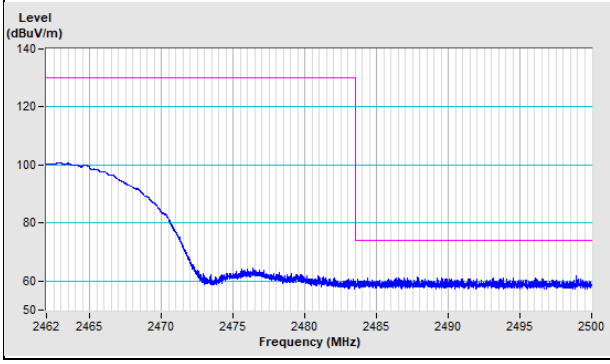
Horizontal (Peak)



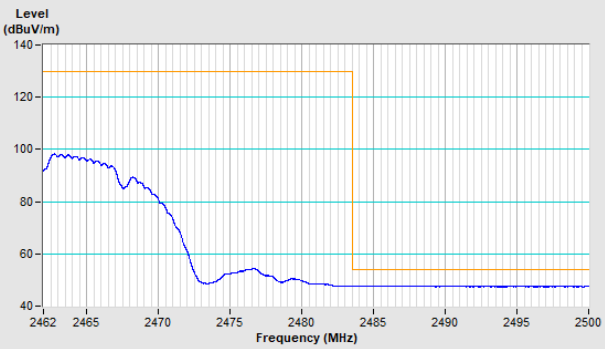
Horizontal (Average)

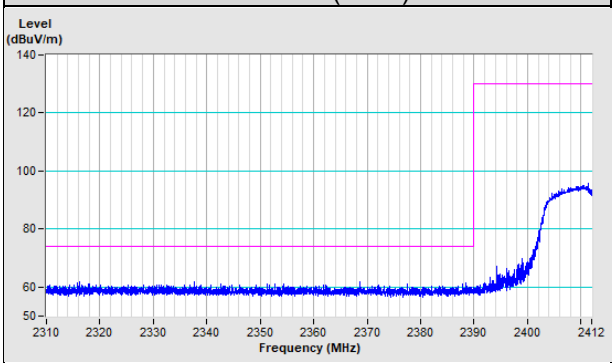
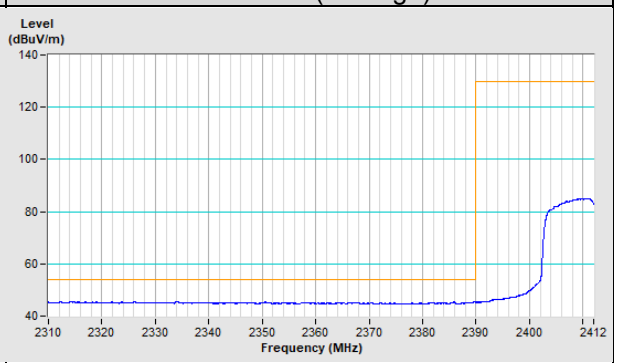
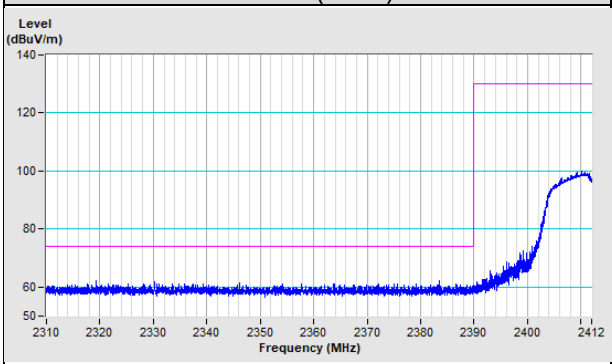
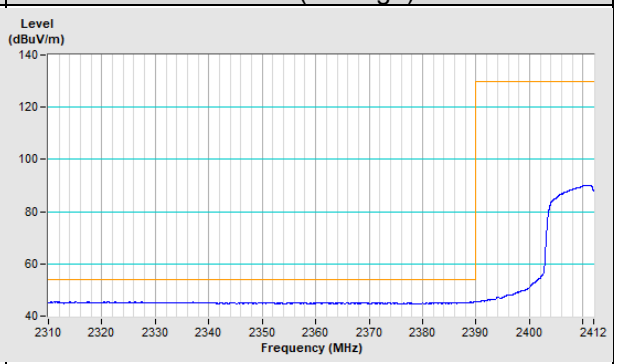
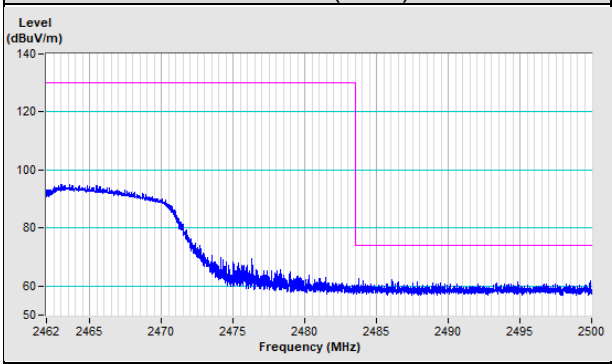
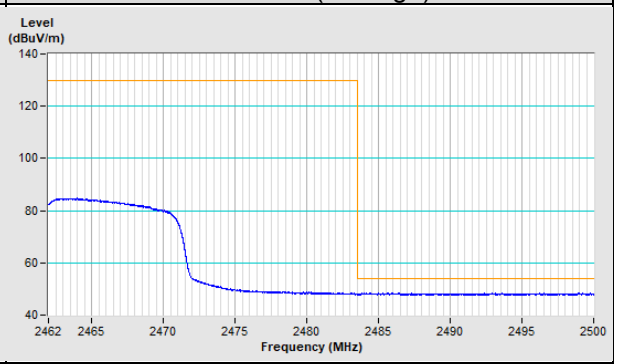
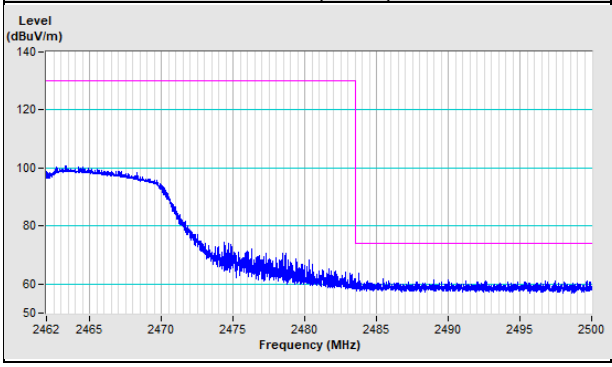
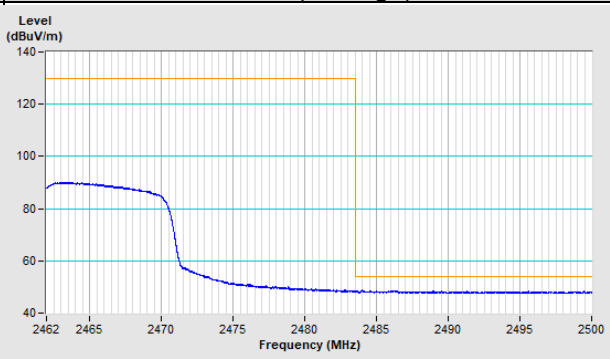


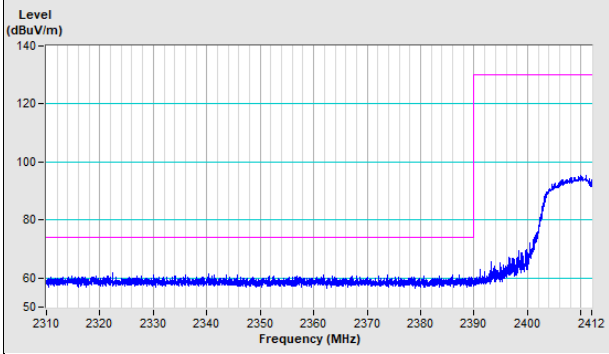
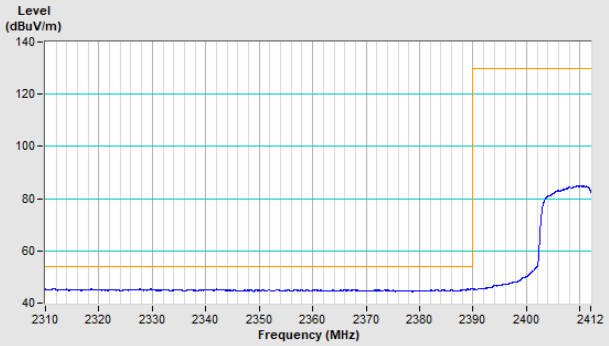
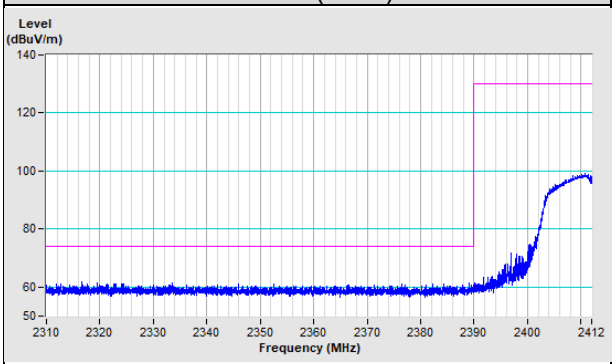
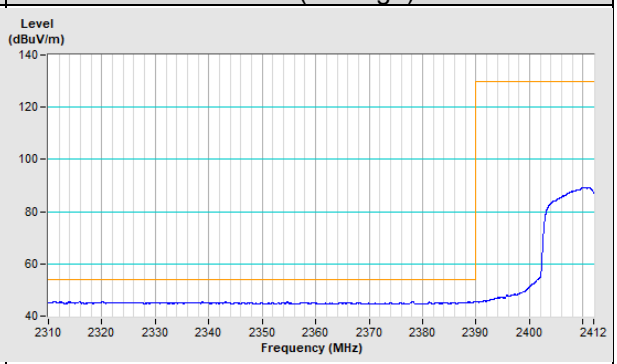
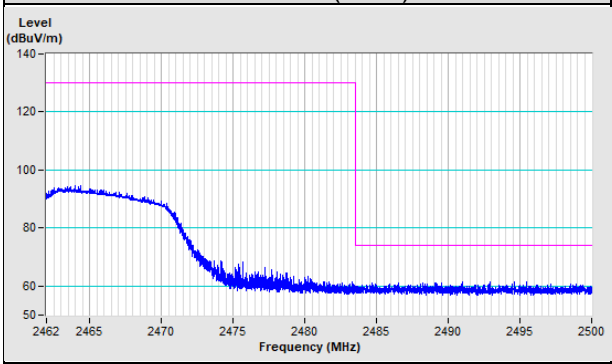
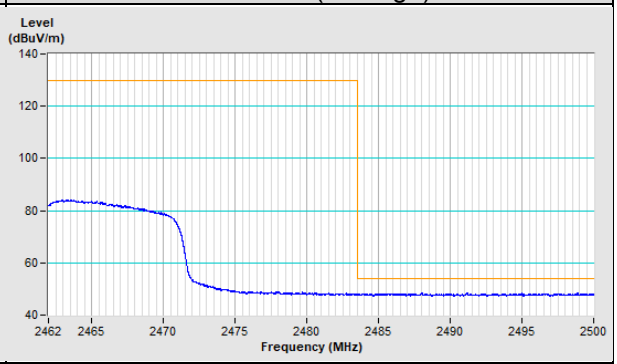
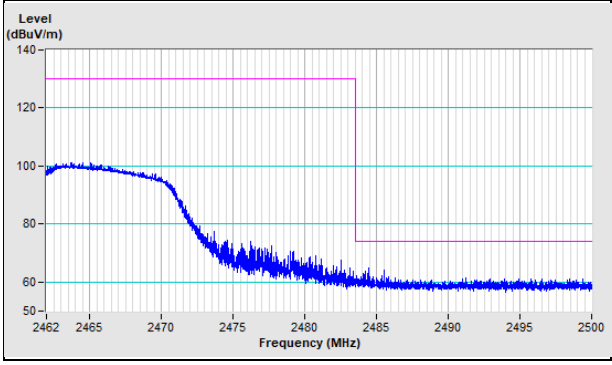
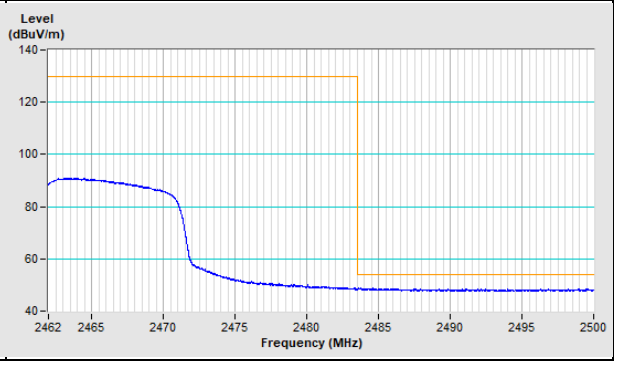
Vertical (Peak)

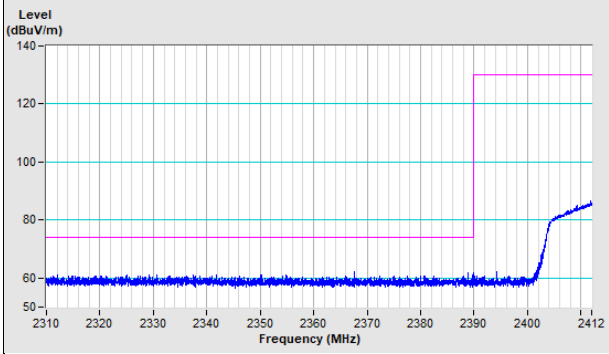
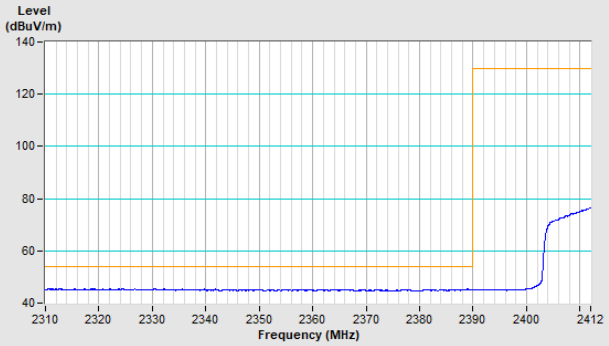
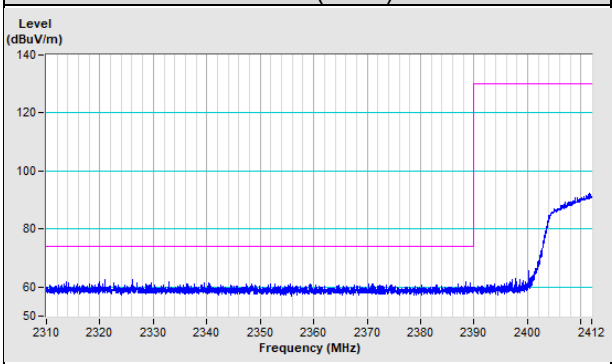
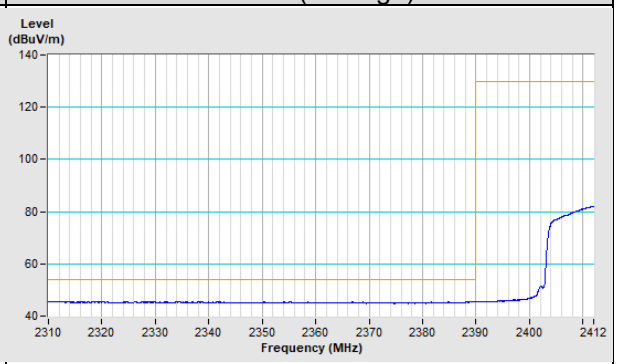
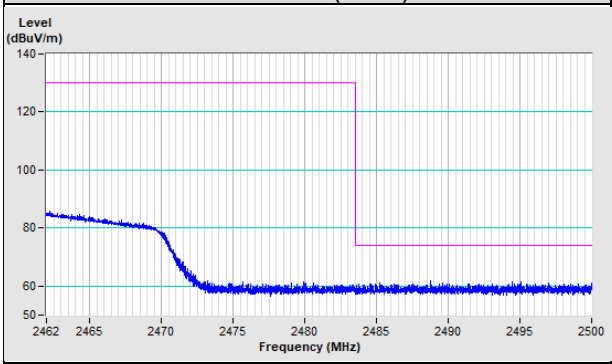
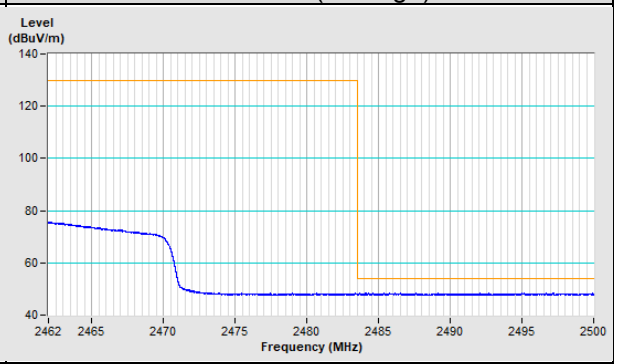
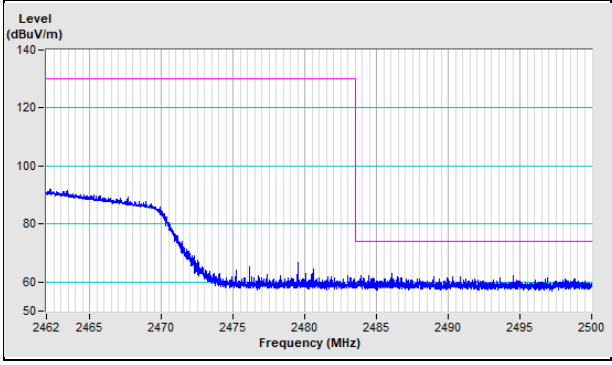
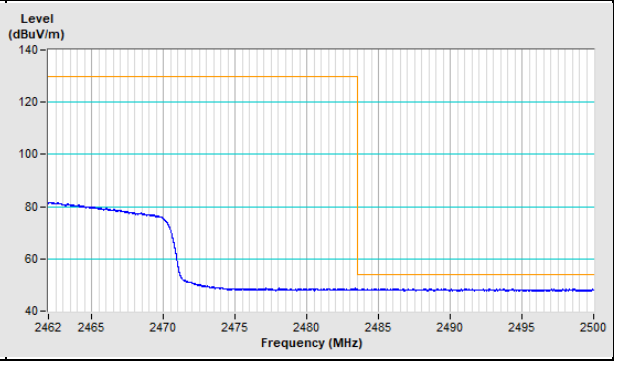


Vertical (Average)



802.11g Channel 1	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11g Channel 11	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11n (HT20) Channel 1	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11n (HT20) Channel 11	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11n (HT40) Channel 3	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11n (HT40) Channel 9	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

5 Pictures of Test Arrangements

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

Appendix – Information of the Testing Laboratories

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

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Web Site: www.bureauveritas-adt.com

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

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