

TEST REPORT

Applicant	Sichuan Qianteng Dejin Electronic Technology Co., Ltd.
Address	Room 4, 2nd Floor, No. 330, Baituba Road, Shunqing District, Nanchong City, Sichuan Province

Manufacturer or Supplier	Sichuan Qianteng Dejin Electronic Technology Co., Ltd.
Address	Room 4, 2nd Floor, No. 330, Baituba Road, Shunqing District, Nanchong City, Sichuan Province
Product	Action Camera
Brand Name	N/A
Model	Speed 20
Additional Model & Model Difference	Speed 30; See item 3.1
Date of tests	May. 20, 2026 ~ May. 21, 2026

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart C, Section 15.247**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Andrew Sha Project Engineer / EMC Department	Approved by Glyn He Assistant Manager / EMC Department
	 Date: Jun. 03, 2026

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Test Report No.: RF2603WDG0502

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF2603WDG0502	Original release	Jun. 03, 2026

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	TEST TYPE AND LIMIT	RESULT	REMARK
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted Output power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex not a standard connector.

2 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	UNCERTAINTY
Conducted emissions	9kHz~30MHz	3.36dB
Radiated emissions	30MHz ~ 1GMHz	4.65dB
	1GHz ~ 18GHz	5.01dB
	18GHz ~ 40GHz	4.10dB
Occupied Channel Bandwidth	1GHz ~ 18GHz	$\pm 1.132 \times 10^{-4} \%$

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Action Camera
MODEL NO.	Speed 20
ADDITIONAL NO.	Speed 30
FCC ID	2BKIR-SPEED20A
NOMINAL VOLTAGE	Camera: DC 3.7V from Li-ion battery or USB 5V from host unit Battery charger: input: USB 5V from host unit; output: DC 4.2V
MODULATION TECHNOLOGY	DSSS, OFDM
MODULATION TYPE	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
OPERATING FREQUENCY	2412-2462MHz for 11b/g/n(HT20)
PEAK OUTPUT POWER	39.628 mW(Maximum)
ANTENNA TYPE	FPC Antenna, with 1.67dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable: Shielded, Detachable, 0.5m

NOTES:

1. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.
2. Please refer to the EUT photo document (Reference No.: 2603WDG0502) for detailed product photo.
3. The additional model Speed 30 is identical to the test model Speed 20 except for the model name for trading purposes.
4. The EUT provides completed transmitters and receivers:

MODULATION MODE	FUNCTION
802.11b	1TX/1RX
802.11g	1TX/1RX
802.11n (HT20)	1TX/1RX

3.2 DESCRIPTION OF TEST MODES

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

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

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

Please see section 5 photographs of the test configuration for reference.

3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis, power supply voltage range and antenna ports. The worst case was found when positioned on X axis for radiated emission. Following test modes were selected for the final test, and the final worst case is marked in boldface and recorded in the report:

EUT CONFIGURE MODE	APPLICABLE TO				MODE
	RE<1G	RE≥1G	PLC	APCM	
A	√	√	√	-	DC 5V powered by Adapter
B	-	-	-	√	DC 3.7V from battery

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

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	TESTED CONDITION
A	WIFI (2.4G) Link

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, XYZ axis 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)
A	802.11b	1 to 11	1	DSSS	DBPSK	1.0

For the test results, only the worst case was shown in test report.

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, XYZ axis 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)
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A	802.11n HT20	1 to 11	1, 6, 11	OFDM	BPSK	6.5

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)
B	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
B	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
B	802.11n HT20	1 to 11	1, 6, 11	OFDM	BPSK	6.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER(POE)	TESTED BY
RE<1G	25deg. C, 53%RH	DC 5V from Adapter	Ludius
RE≥1G	25deg. C, 53%RH	DC 5V from Adapter	Ludius
PLC	20deg. C, 56%RH	DC 5V from Adapter	Summer
APCM	25deg. C, 60%RH	DC 3.7V from battery	Vincent

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C, Section 15.247

KDB 558074 D01 15.247 Meas Guidance v05r02

ANSI C63.10-2020

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

3.4 DESCRIPTION OF SUPPORT UNITS

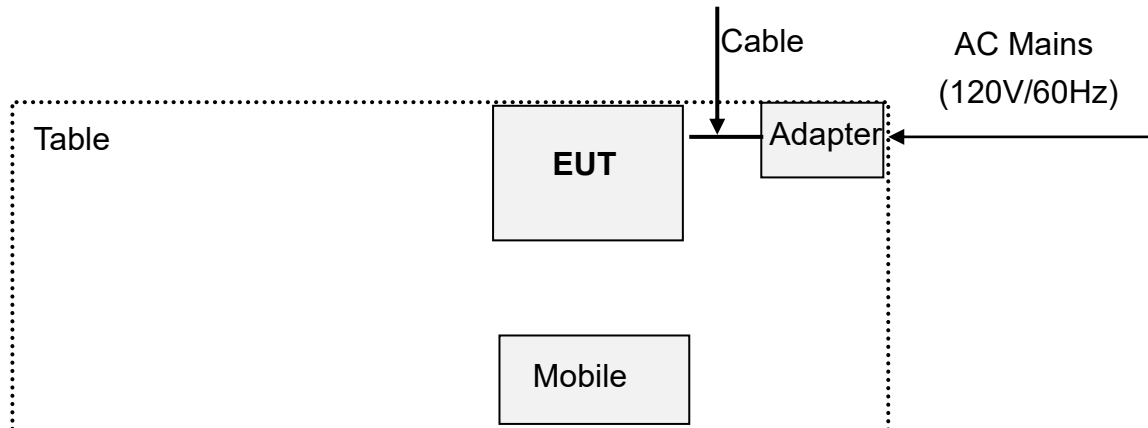
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	Provided by
1	Notebook	DELL	Latitude 5420	127710614	Lab
2	Adapter	N/A	C120A2400500PI	N/A	Lab
3	Iphone	Apple	A2408	DNPDN9WZ0D9G	Lab

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 1.0m; DC Line: Unshielded, Detachable 1.5m.
2	N/A
3	N/A

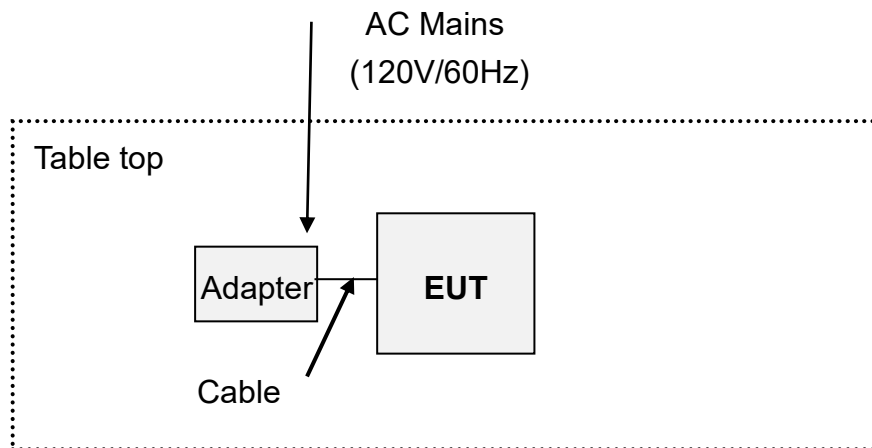
3.5 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted Emission Test



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

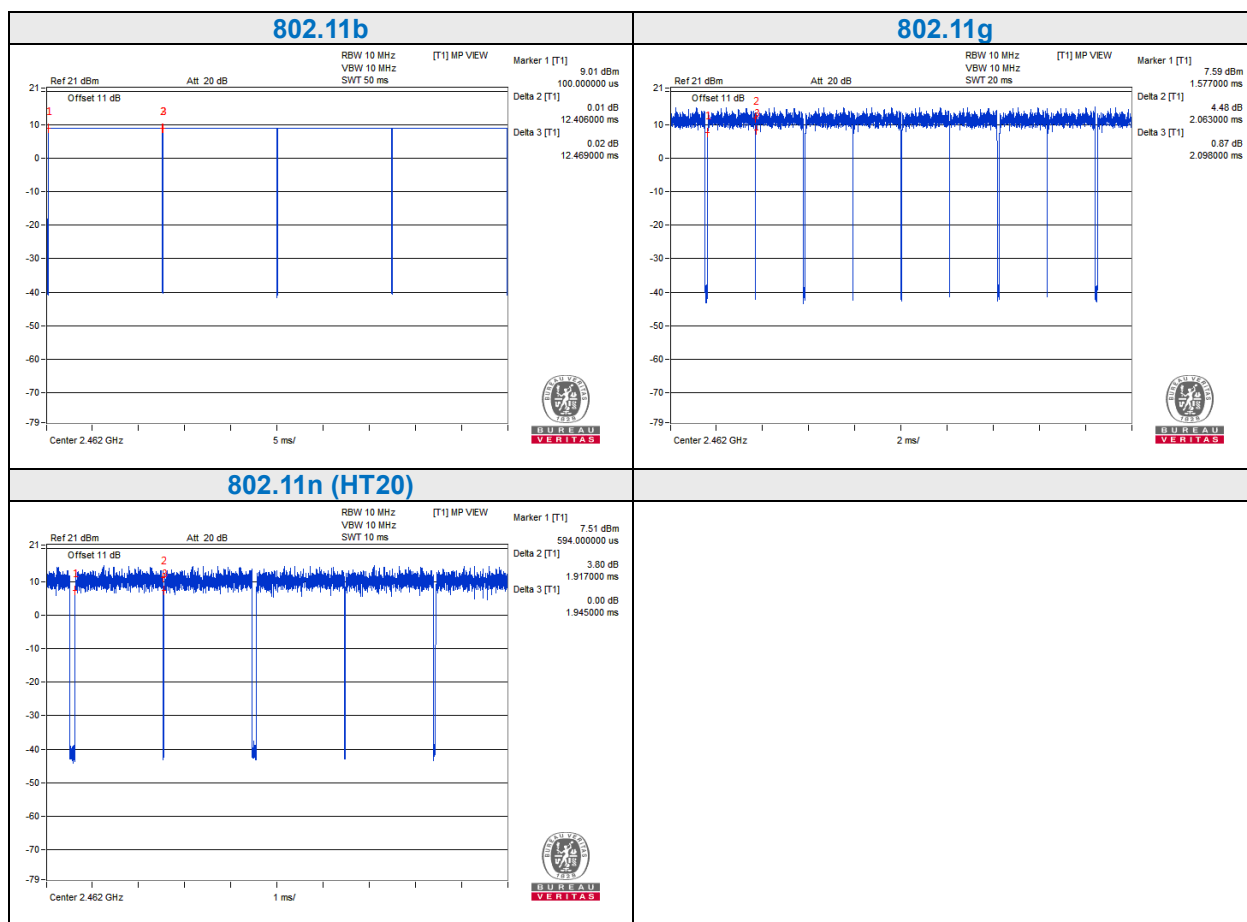
For Radiated Emission Test



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

3.6 DUTY CYCLE OF TESET SIGNAL

Test Mode	On Time (ms)	Period (ms)	Duty Cycle (%)	Duty factor (dB)	1/T Min. VBW (KHz)	VBW Setting
802.11b	12.406	12.469	99.5	-	-	10Hz
802.11g	2.063	2.098	98.3	-	-	10Hz
802.11n (HT20)	1.917	1.945	98.6	-	-	10Hz



4 TEST TYPES AND RESULTS

4.1. CONDUCTED EMISSION MEASUREMENT

4.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ V)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

- NOTES:**
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.
 3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Oct. 10, 26
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Oct. 10, 26
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Oct. 10, 26
Artificial Mains Network	SCHWARZBECK	NSLK 8122	8122-05001	Nov. 04, 26
V-LISN (CISPR 25)	SCHWARZBECK	NNBM 8124-200	8124-200 05857	Apr. 08, 27
V-LISN (CISPR 25)	SCHWARZBECK	NNBM 8124-200	8124-200 05858	Apr. 08, 27
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Apr. 07, 27
Coaxial RF Cable	SUHNER	RG 223/U-CE	C2310066DG	Jun. 22, 26
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A

- NOTES:**
1. The test was performed in shielded room 553.
 2. Equipment are calibrated by calibration laboratory accredited to ISO/IEC 17025 by a mutually recognized Accreditation and all tests are conducted within a valid calibration cycle.

4.1.3 TEST PROCEDURES

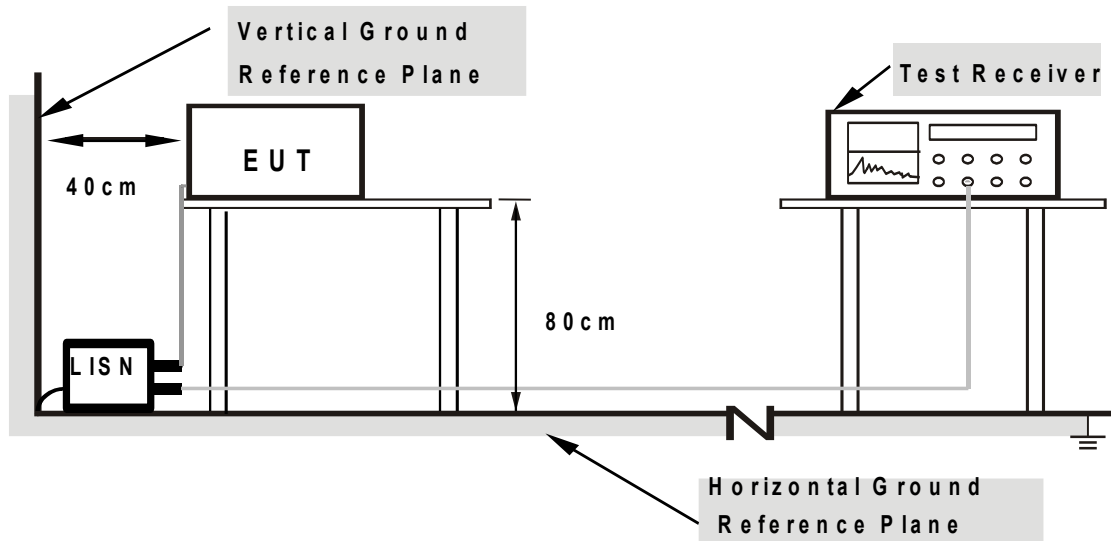
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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: 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



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

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

4.1.6 EUT OPERATING CONDITIONS

- Turned on the power and connected of all equipment.
- EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

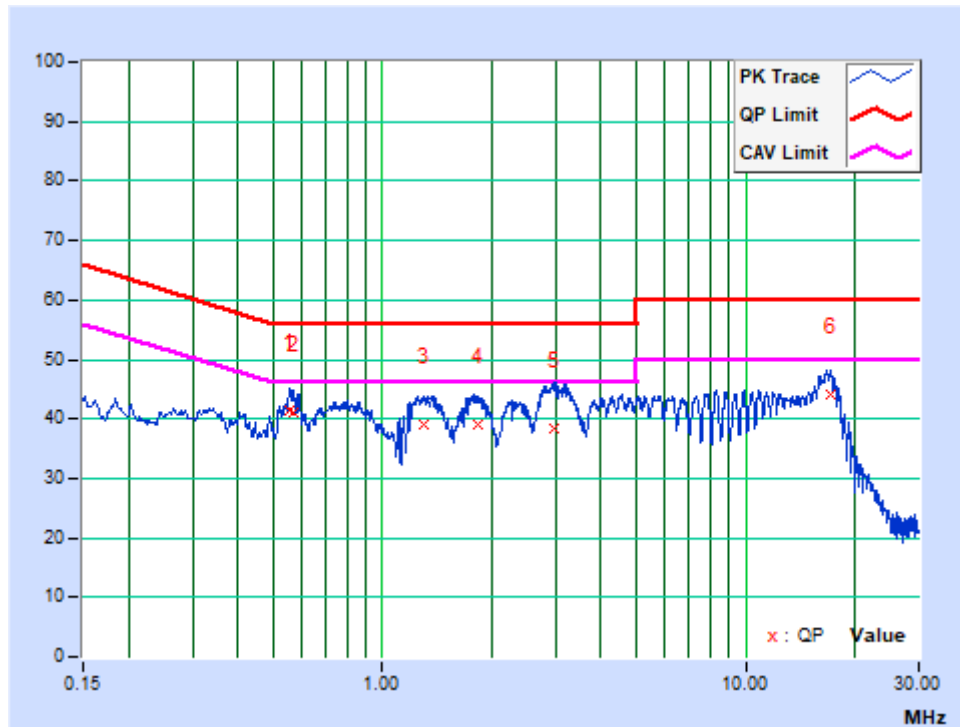
4.1.7 TEST RESULTS

CONDUCTED WORST-CASE DATA: WIFI

PHASE	Line	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.55518	9.80	31.66	22.06	41.46	31.86	56.00	46.00	-14.54	-14.14
2	0.57154	9.80	31.35	21.04	41.15	30.84	56.00	46.00	-14.85	-15.16
3	1.30259	9.85	29.13	19.94	38.98	29.79	56.00	46.00	-17.02	-16.21
4	1.82154	9.89	29.31	16.91	39.20	26.80	56.00	46.00	-16.80	-19.20
5	2.96250	9.97	28.54	20.82	38.51	30.79	56.00	46.00	-17.49	-15.21
6	17.17125	10.60	33.34	22.62	43.94	33.22	60.00	50.00	-16.06	-16.78

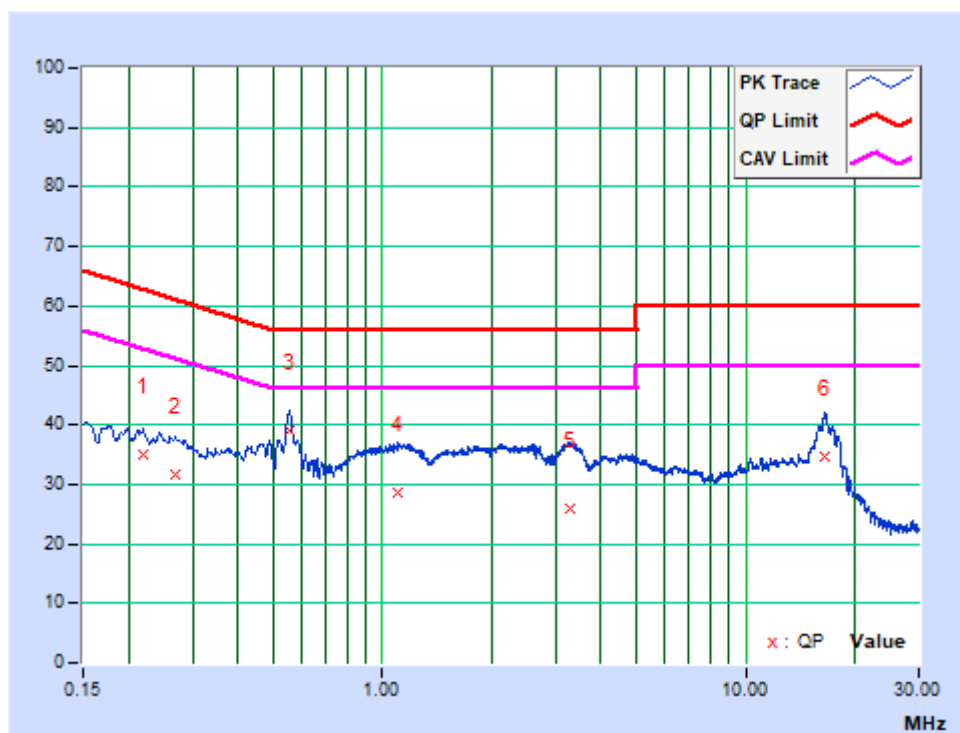
- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



PHASE	Neutral	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.21976	9.63	25.25	14.40	34.88	24.03	62.83	52.83	-27.94	-28.79
2	0.26930	9.64	22.13	14.62	31.77	24.26	61.14	51.14	-29.37	-26.88
3	0.55664	9.65	29.26	19.99	38.91	29.64	56.00	46.00	-17.09	-16.36
4	1.10882	9.70	18.84	9.87	28.54	19.57	56.00	46.00	-27.46	-26.43
5	3.27975	9.86	16.18	6.22	26.04	16.08	56.00	46.00	-29.96	-29.92
6	16.61325	10.58	23.98	11.64	34.56	22.22	60.00	50.00	-25.44	-27.78

- REMARKS:**
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
 2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
 3. The emission levels of other frequencies were very low against the limit.
 4. Margin value = Emission level - Limit value
 5. Correction factor = Insertion loss + Cable loss
 6. Emission Level = Correction Factor + Reading Value.



4.2. RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).

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

NOTES:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), 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.

4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU40	100449	Oct. 09, 26
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Apr. 08, 27
Active Loop Antenna (9KHz -30MHz)	SCHWARZBECK	FMZB 1519B	1519B-045	Apr. 12, 27
Amplifier (9KHz -1GHz)	Burgeon	BPA-530	100210	Feb. 12, 27
Trilog-Broadband Antenna	SCHWARZBECK	VULB 9168	9168-554	Dec. 14, 26
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	0085519	Oct. 11, 26
Horn Antenna (18GHz -40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170147	Apr. 18, 27
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May. 16, 27
Test Software	ADT	ADT_Radiated_V7.6.15.9.2	N/A	N/A
Broadband Preamplifier (1GHz~18GHz)	SCHWARZBECK	BBV9718	305	Feb. 12, 27
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Oct. 10, 26

NOTES:

1. The test was performed in 966 Chamber.
2. Equipment are calibrated by calibration laboratory accredited to ISO/IEC 17025 by a mutually recognized Accreditation and all tests are conducted within a valid calibration cycle.
3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
4. Test Firm Registration Number: 749762.
5. Designation Number: CN1174

4.2.3 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 1.5 meters (above 1GHz) and 0.8 meters (below 1GHz) above the ground at a 3 meters semi-anechoic chamber. 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. For below 1GHz was used bilog antenna, and above 1GHz was used horn antenna, and its height 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT, the lowest height of the magnetic antenna shall be 1m above the ground.
- g. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using fresh batteries. The turntable was rotated to maximize the emission level.

NOTES:

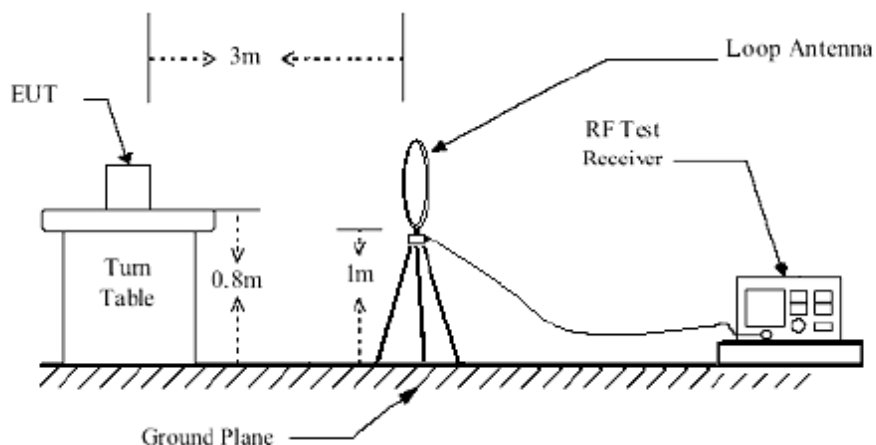
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.
5. The testing of the EUT was performed on all 3 orthogonal axes, the worst-case test configuration was reported on the file test setup photo.

4.2.4 DEVIATION FROM TEST STANDARD

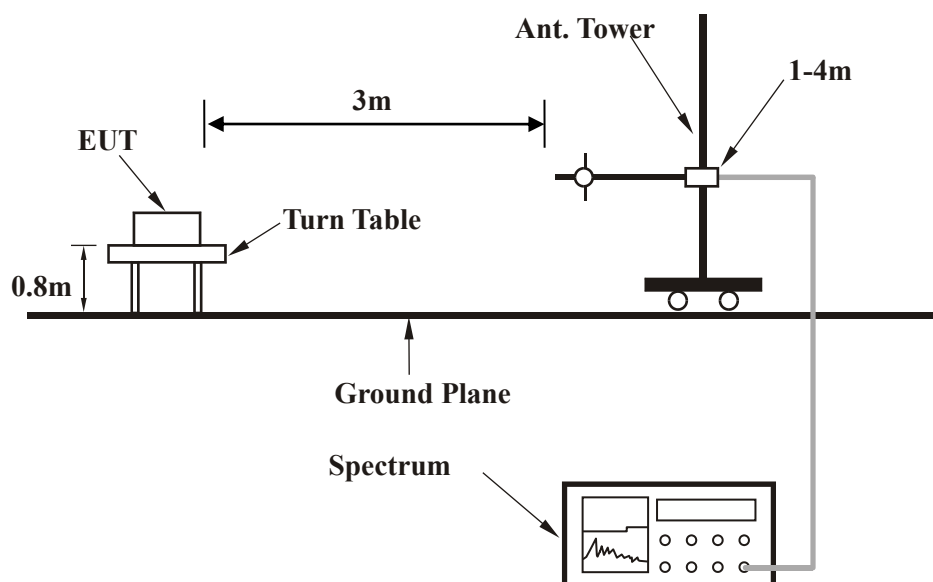
No deviation.

4.2.5 TEST SETUP

Below 30MHz test setup

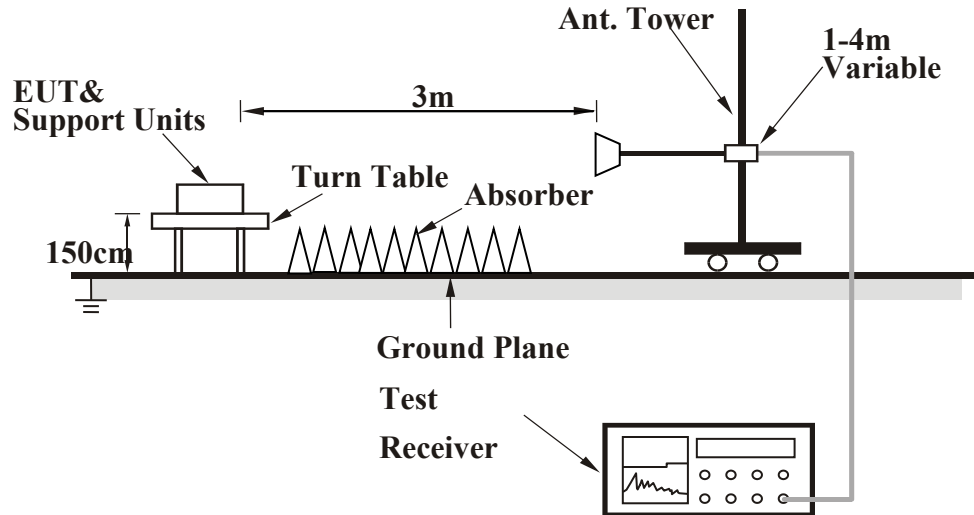


Below 1GHz test setup



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

Above 1GHz test setup



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

4.2.6 EUT OPERATING CONDITIONS

- Placed the EUT on a testing table.
- Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.
- The necessary accessories enable the EUT in full functions.

4.2.7 TEST RESULTS

BELOW 1GHz WORST-CASE DATA:

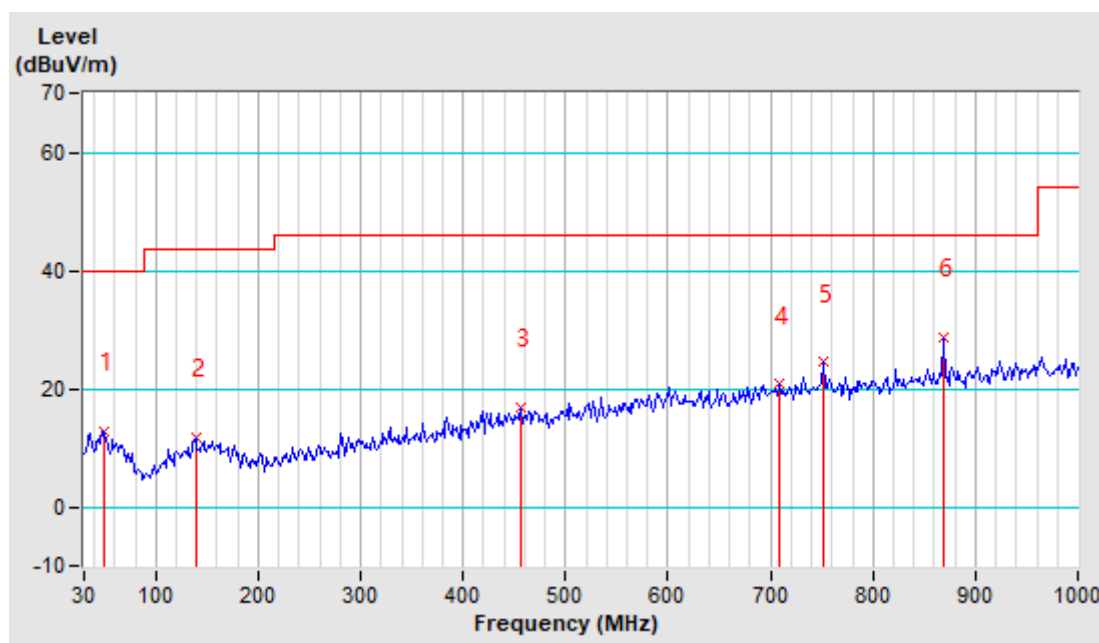
802.11b

CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	50.21	12.86	40.00	-27.14	203 H	19	29.55	-16.69
2	138.81	11.74	43.50	-31.76	191 H	32	28.69	-16.95
3	455.93	16.74	46.00	-29.26	178 H	44	28.11	-11.37
4	709.31	20.68	46.00	-25.32	164 H	58	27.24	-6.56
5	751.28	24.46	46.00	-21.54	152 H	70	30.18	-5.72
6	869.42	28.56	46.00	-17.44	140 H	82	32.70	-4.14

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).
3. The emission levels of other frequencies were greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.

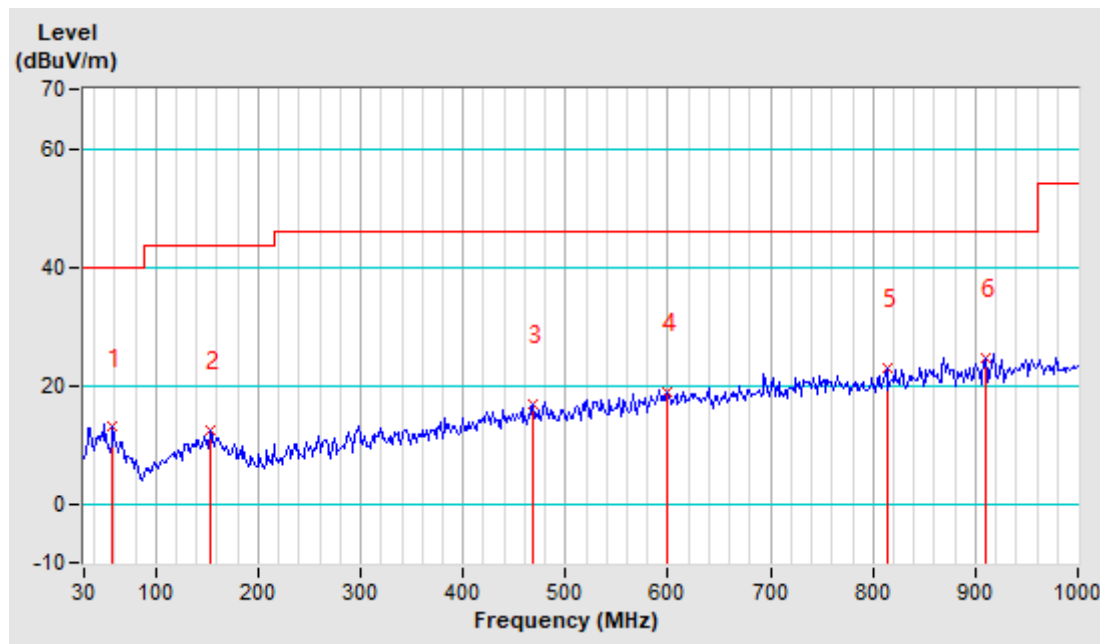


CHANNEL	TX Channel 1	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9KHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.98	12.89	40.00	-27.11	203 V	244	29.82	-16.93
2	152.80	12.39	43.50	-31.11	188 V	259	28.92	-16.53
3	468.37	16.92	46.00	-29.08	135 V	311	28.11	-11.19
4	598.94	18.98	46.00	-27.02	173 V	274	27.04	-8.06
5	813.46	22.96	46.00	-23.04	147 V	299	28.43	-5.47
6	909.84	24.57	46.00	-21.43	160 V	287	28.36	-3.79

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).
3. The emission levels of other frequencies were greater than 20dB margin.
4. 9KHz~30MHz have been test and test data more than 20dB margin.
5. Margin value = Emission level – Limit value.



ABOVE 1GHz DATA

802.11b

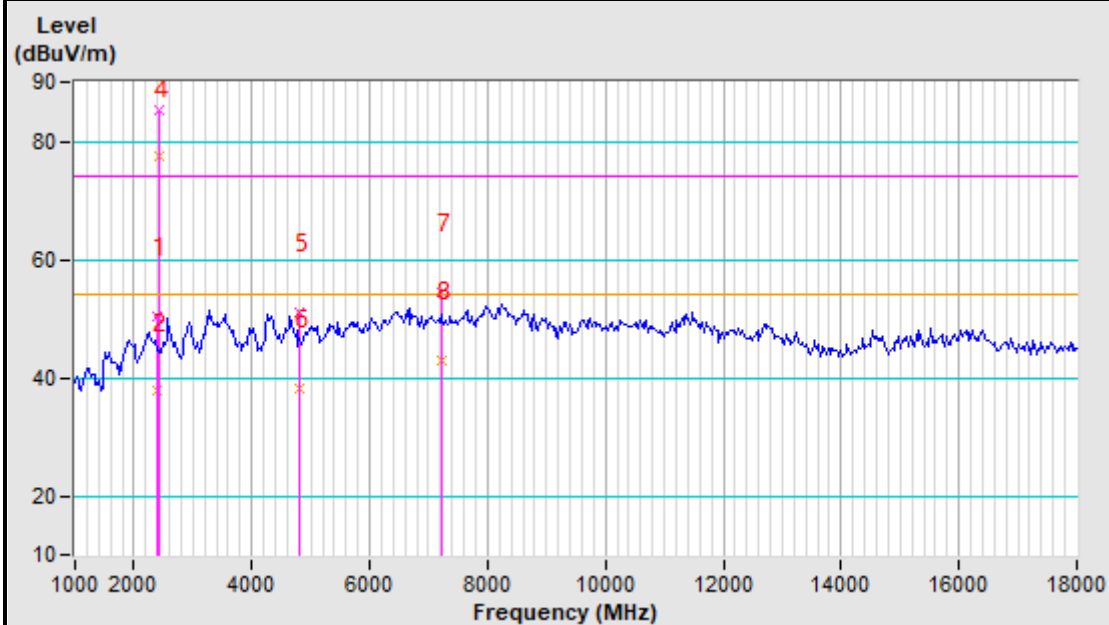
CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	50.44 PK	74.00	-23.56	156 H	45	48.19	2.25
2	2390.00	37.69 AV	54.00	-16.31	156 H	45	35.44	2.25
3	*2412.00	85.22 PK			156 H	56	82.93	2.29
4	*2412.00	77.31 AV			156 H	56	75.02	2.29
5	4824.00	51.16 PK	74.00	-22.84	156 H	5	45.31	5.85
6	4824.00	38.14 AV	54.00	-15.86	156 H	5	32.29	5.85
7	7236.00	54.56 PK	74.00	-19.44	165 H	45	45.77	8.79
8	7236.00	42.84 AV	54.00	-11.16	165 H	45	34.05	8.79
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	48.24 PK	74.00	-25.76	156 V	56	45.99	2.25
2	2390.00	34.69 AV	54.00	-19.31	156 V	56	32.44	2.25
3	*2412.00	85.63 PK			325 V	56	83.34	2.29
4	*2412.00	77.88 AV			325 V	56	75.59	2.29
5	4824.00	51.13 PK	74.00	-22.87	156 V	45	45.28	5.85
6	4824.00	38.90 AV	54.00	-15.10	156 V	45	33.05	5.85
7	7236.00	54.16 PK	74.00	-19.84	256 V	156	45.37	8.79
8	7236.00	41.85 AV	54.00	-12.15	256 V	156	33.06	8.79

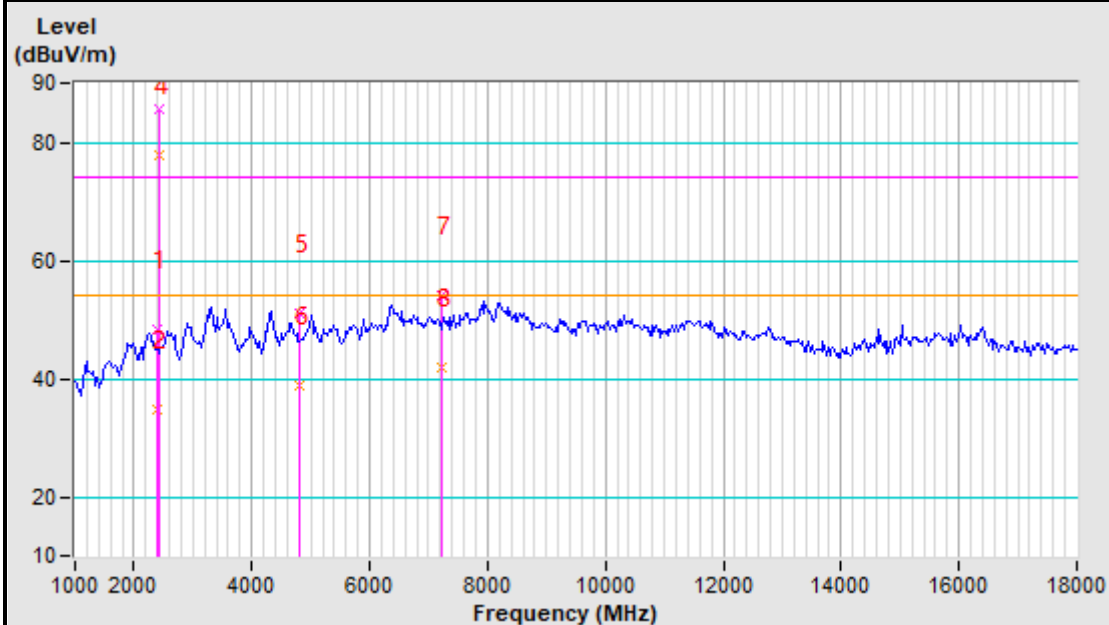
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2412MHz Horizontal



2412MHz Vertical



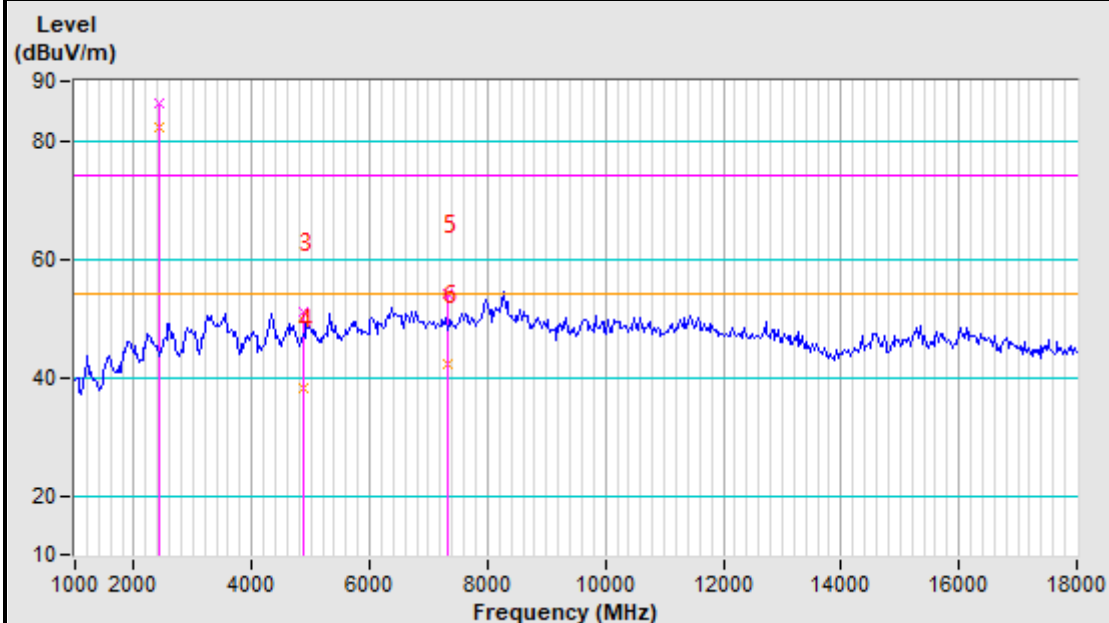
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	86.16 PK			100 H	5	83.85	2.31
2	*2437.00	82.16 AV			100 H	5	79.85	2.31
3	4874.00	51.16 PK	74.00	-22.84	165 H	45	45.42	5.74
4	4874.00	38.16 AV	54.00	-15.84	165 H	45	32.42	5.74
5	7311.00	54.16 PK	74.00	-19.84	165 H	45	45.33	8.83
6	7311.00	42.18 AV	54.00	-11.82	165 H	45	33.35	8.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	85.16 PK			165 V	45	82.85	2.31
2	*2437.00	84.16 AV			165 V	45	81.85	2.31
3	4874.00	51.13 PK	74.00	-22.87	156 V	65	45.39	5.74
4	4874.00	39.15 AV	54.00	-14.85	156 V	65	33.41	5.74
5	7311.00	53.53 PK	74.00	-20.47	156 V	45	44.70	8.83
6	7311.00	42.15 AV	54.00	-11.85	156 V	45	33.32	8.83

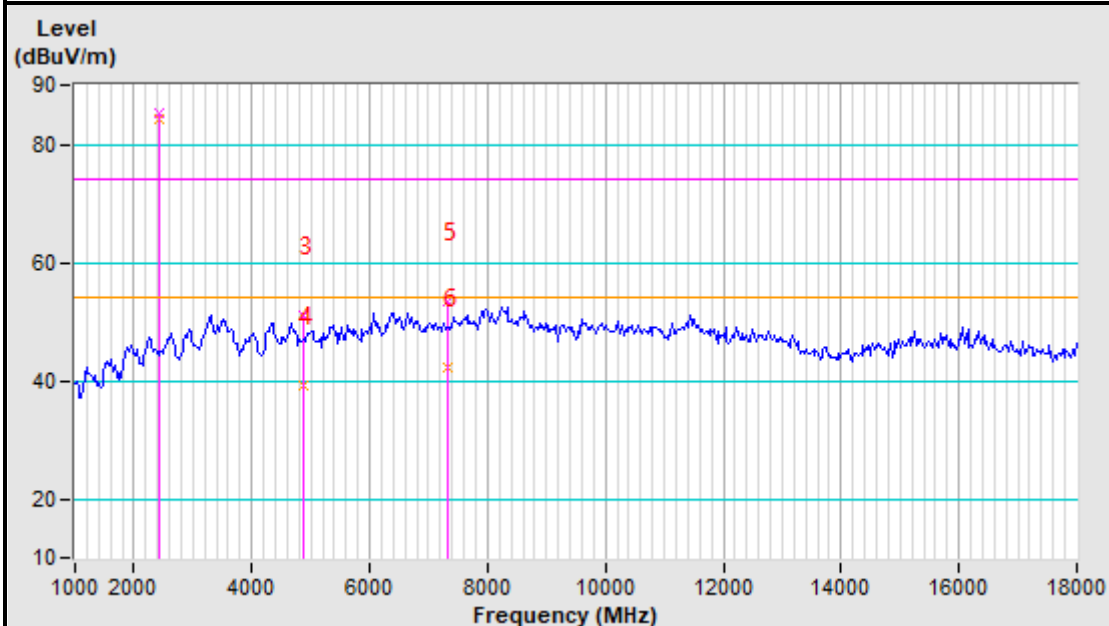
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2437MHz Horizontal



2437MHz Vertical



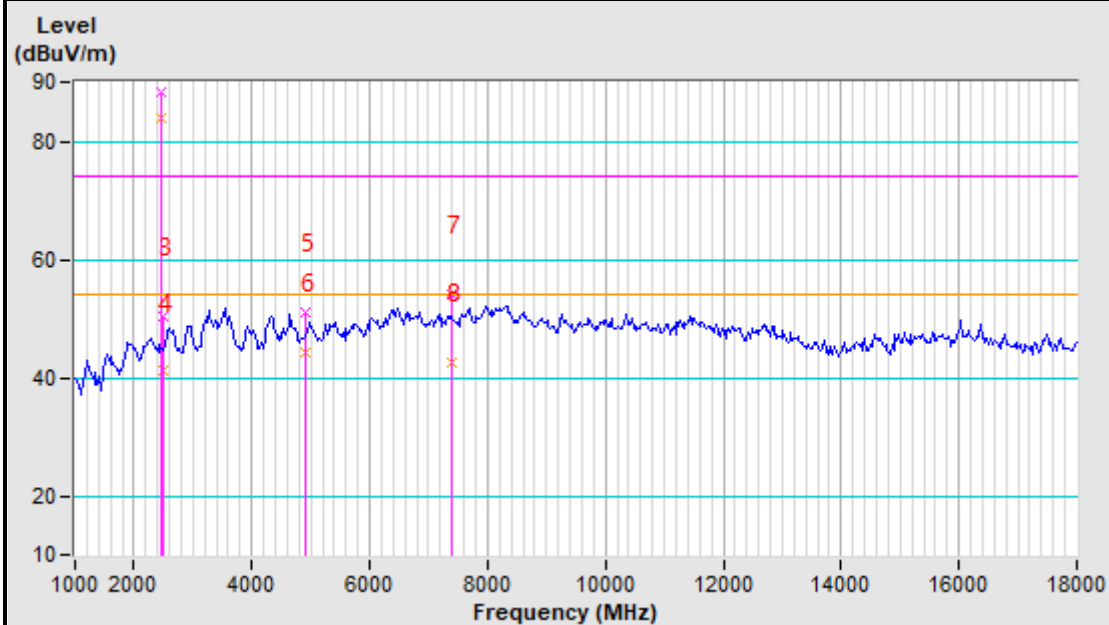
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	88.23			156 H	360	85.89	2.34
2	*2462.00	83.93			156 H	360	81.59	2.34
3	2483.50	50.30	74.00	-23.70	165 H	45	47.94	2.36
4	2483.50	41.09	54.00	-12.91	165 H	45	38.73	2.36
5	4924.00	51.16	74.00	-22.84	165 H	56	45.52	5.64
6	4924.00	44.23	54.00	-9.77	165 H	56	38.59	5.64
7	7386.00	54.16	74.00	-19.84	165 H	5	45.27	8.89
8	7386.00	42.48	54.00	-11.52	165 H	5	33.59	8.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	84.19			156 V	56	81.85	2.34
2	*2462.00	78.31			156 V	56	75.97	2.34
3	2483.50	50.34	74.00	-23.66	156 V	15	47.98	2.36
4	2483.50	40.56	54.00	-13.44	156 V	15	38.20	2.36
5	4924.00	52.10	74.00	-21.90	325 V	360	46.46	5.64
6	4924.00	38.56	54.00	-15.44	325 V	360	32.92	5.64
7	7386.00	54.16	74.00	-19.84	156 V	45	45.27	8.89
8	7386.00	42.84	54.00	-11.16	156 V	45	33.95	8.89

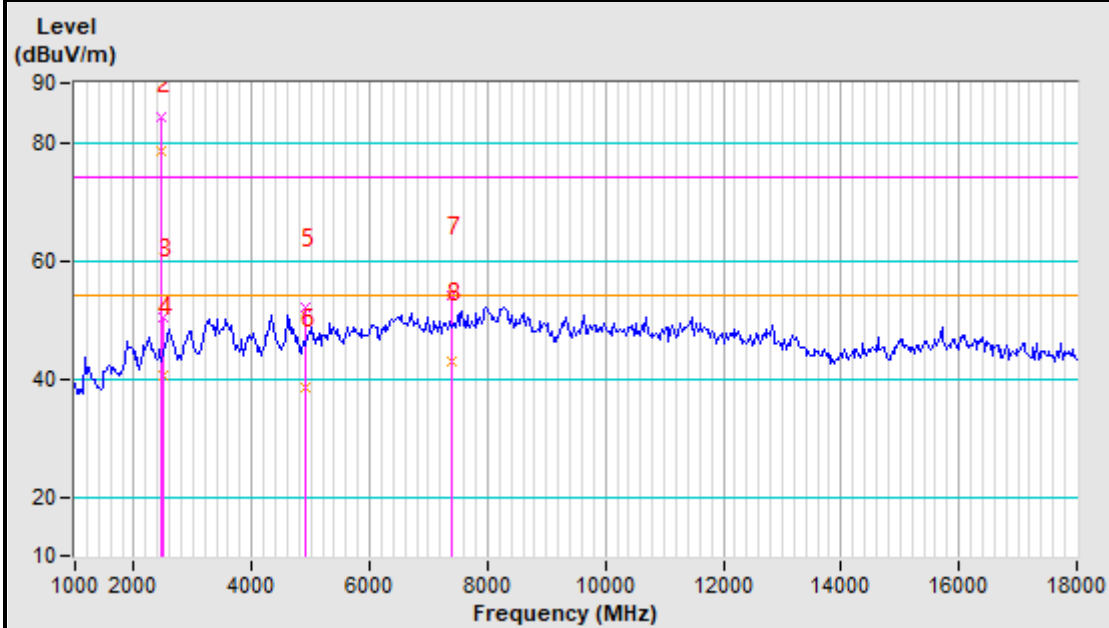
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. "*" : Fundamental frequency.

2462MHz Horizontal



2462MHz Vertical



802.11g

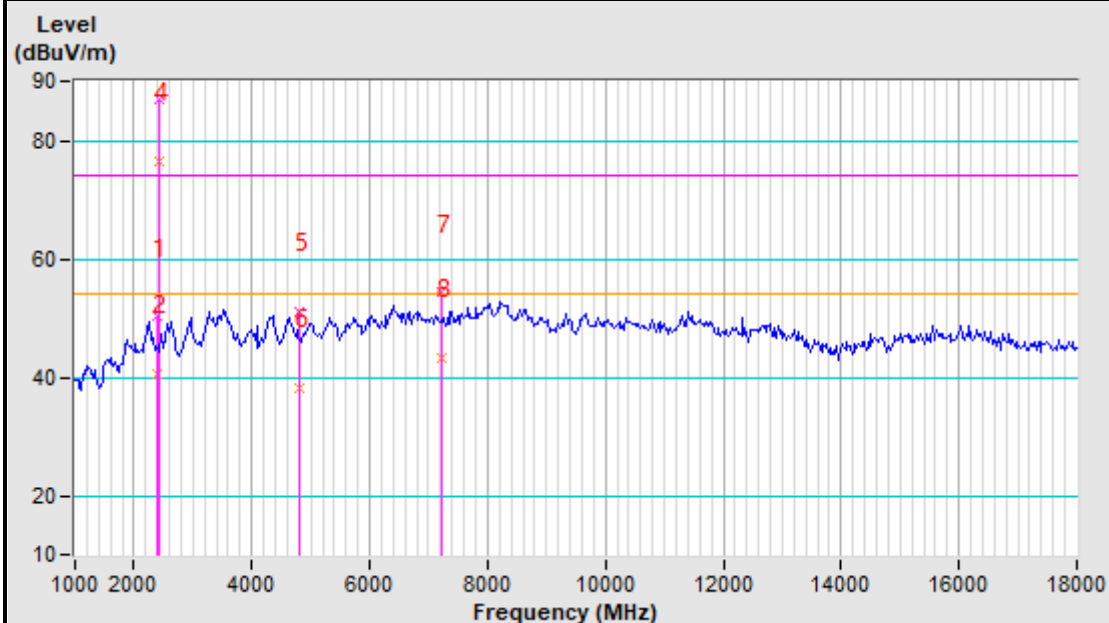
CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	50.17 PK	74.00	-23.83	156 H	56	47.92	2.25
2	2390.00	40.52 AV	54.00	-13.48	156 H	56	38.27	2.25
3	*2412.00	87.06 PK			165 H	56	84.77	2.29
4	*2412.00	76.53 AV			165 H	56	74.24	2.29
5	4824.00	51.13 PK	74.00	-22.87	325 H	165	45.28	5.85
6	4824.00	38.16 AV	54.00	-15.84	325 H	165	32.31	5.85
7	7236.00	54.25 PK	74.00	-19.75	165 H	45	45.46	8.79
8	7236.00	43.28 AV	54.00	-10.72	165 H	45	34.49	8.79
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	49.53 PK	74.00	-24.47	165 V	45	47.28	2.25
2	2390.00	40.59 AV	54.00	-13.41	165 V	45	38.34	2.25
3	*2412.00	86.31 PK			156 V	56	84.02	2.29
4	*2412.00	75.30 AV			156 V	56	73.01	2.29
5	4824.00	51.16 PK	74.00	-22.84	165 V	45	45.31	5.85
6	4824.00	38.16 AV	54.00	-15.84	165 V	45	32.31	5.85
7	7236.00	54.25 PK	74.00	-19.75	156 V	45	45.46	8.79
8	7236.00	42.18 AV	54.00	-11.82	156 V	45	33.39	8.79

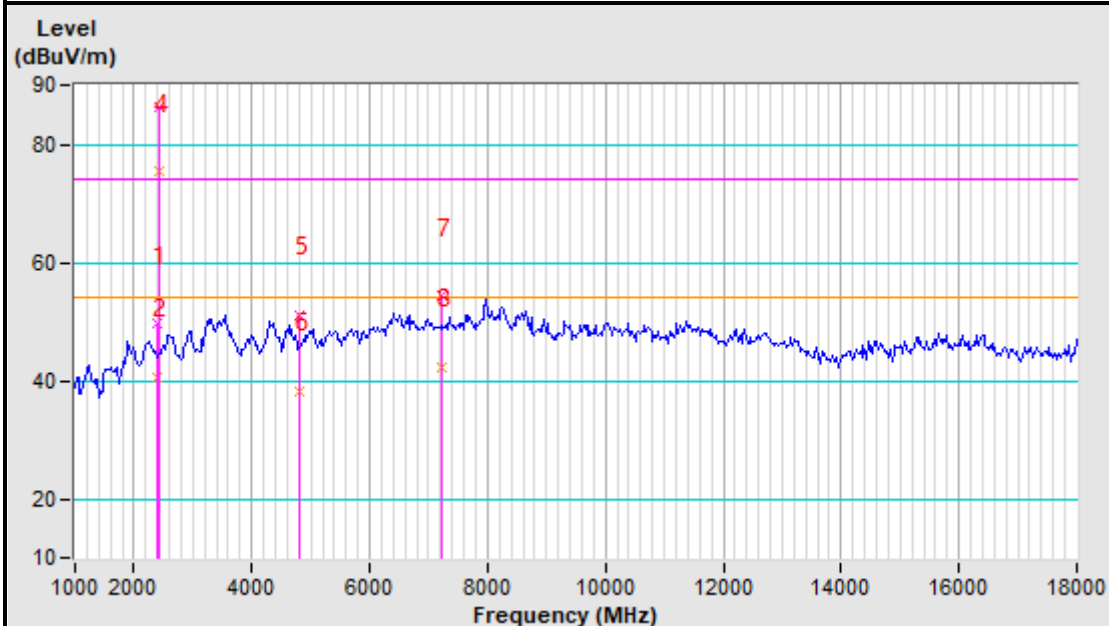
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2412MHz Horizontal



2412MHz Vertical



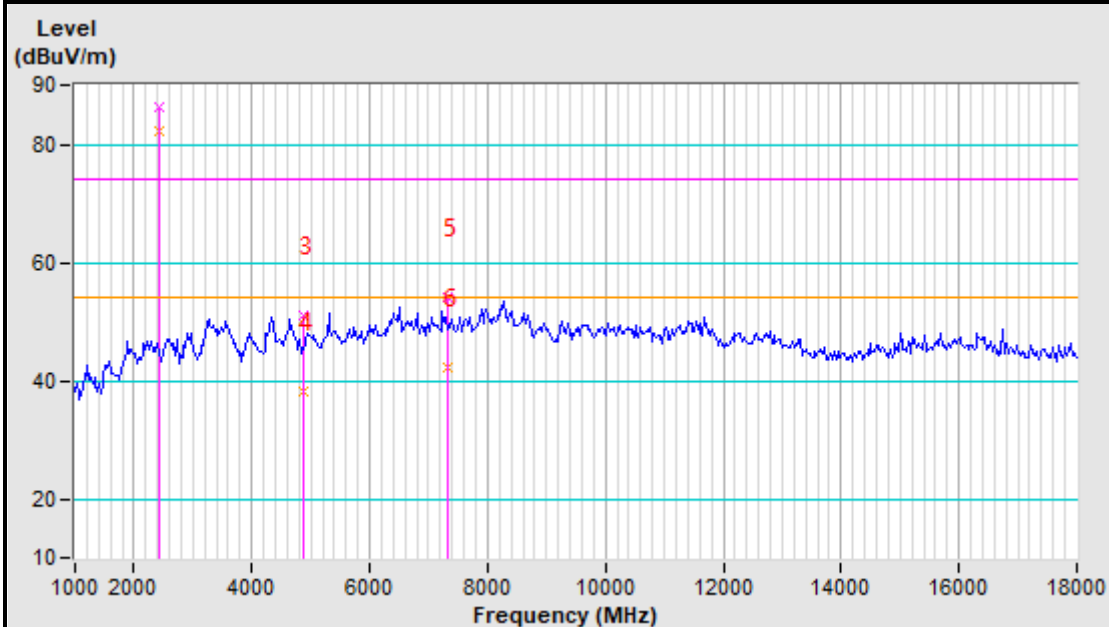
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	86.36 PK			165 H	360	84.05	2.31
2	*2437.00	82.16 AV			165 H	360	79.85	2.31
3	4874.00	51.16 PK	74.00	-22.84	165 H	56	45.42	5.74
4	4874.00	38.15 AV	54.00	-15.85	165 H	56	32.41	5.74
5	7311.00	54.16 PK	74.00	-19.84	165 H	45	45.33	8.83
6	7311.00	42.15 AV	54.00	-11.85	165 H	45	33.32	8.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	87.16 PK			165 V	360	84.85	2.31
2	*2437.00	80.16 AV			165 V	360	77.85	2.31
3	4874.00	50.16 PK	74.00	-23.84	156 V	45	44.42	5.74
4	4874.00	39.16 AV	54.00	-14.84	156 V	45	33.42	5.74
5	7311.00	53.88 PK	74.00	-20.12	100 V	45	45.05	8.83
6	7311.00	42.49 AV	54.00	-11.51	100 V	45	33.66	8.83

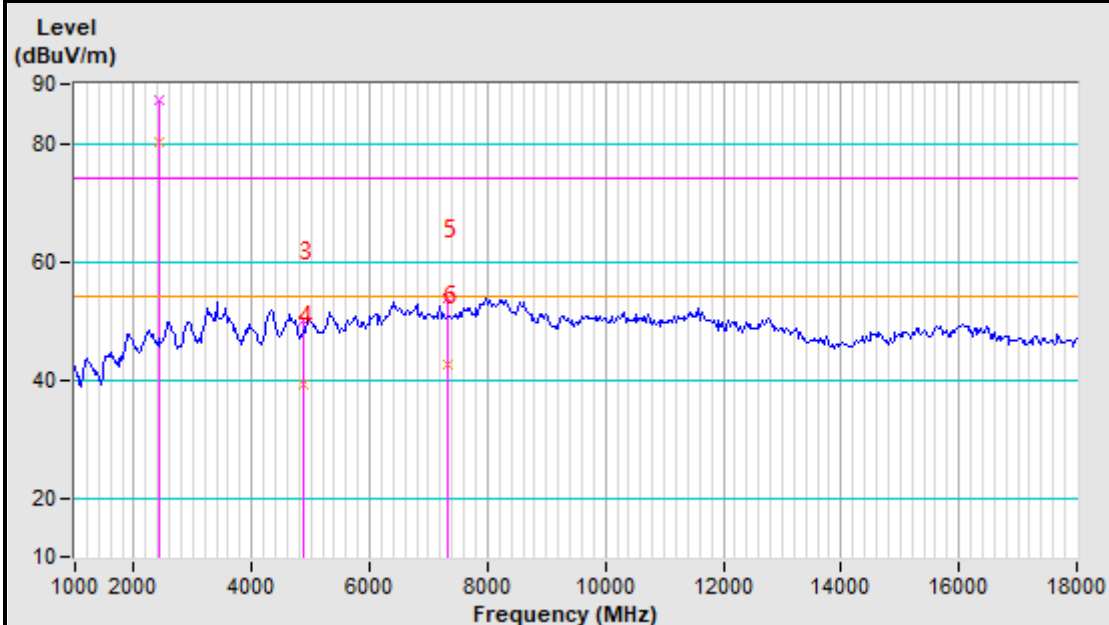
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2437MHz Horizontal



2437MHz Vertical



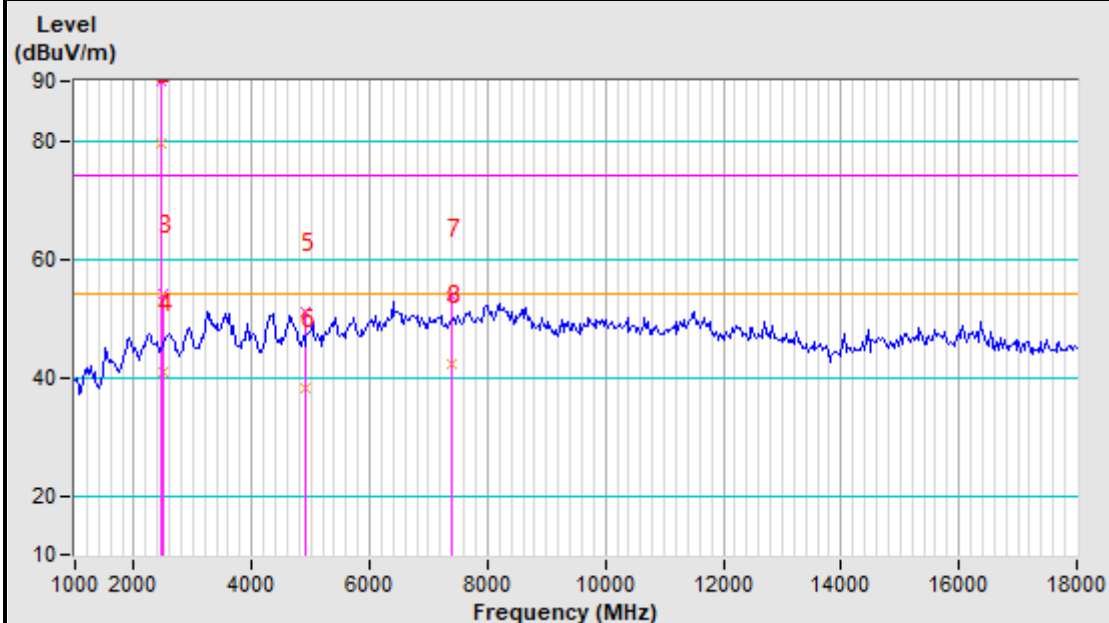
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	90.14 PK			165 H	56	87.80	2.34
2	*2462.00	79.44 AV			165 H	56	77.10	2.34
3	2483.50	53.99 PK	74.00	-20.01	165 H	45	51.63	2.36
4	2483.50	41.01 AV	54.00	-12.99	165 H	45	38.65	2.36
5	4924.00	51.16 PK	74.00	-22.84	165 H	45	45.52	5.64
6	4924.00	38.16 AV	54.00	-15.84	165 H	45	32.52	5.64
7	7386.00	53.56 PK	74.00	-20.44	156 H	5	44.67	8.89
8	7386.00	42.15 AV	54.00	-11.85	156 H	5	33.26	8.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	88.57 PK			165 V	56	86.23	2.34
2	*2462.00	77.64 AV			165 V	56	75.30	2.34
3	2483.50	53.78 PK	74.00	-20.22	165 V	56	51.42	2.36
4	2483.50	40.34 AV	54.00	-13.66	165 V	56	37.98	2.36
5	4924.00	51.10 PK	74.00	-22.90	156 V	56	45.46	5.64
6	4924.00	39.51 AV	54.00	-14.49	156 V	56	33.87	5.64
7	7386.00	52.16 PK	74.00	-21.84	100 V	45	43.27	8.89
8	7386.00	42.15 AV	54.00	-11.85	100 V	45	33.26	8.89

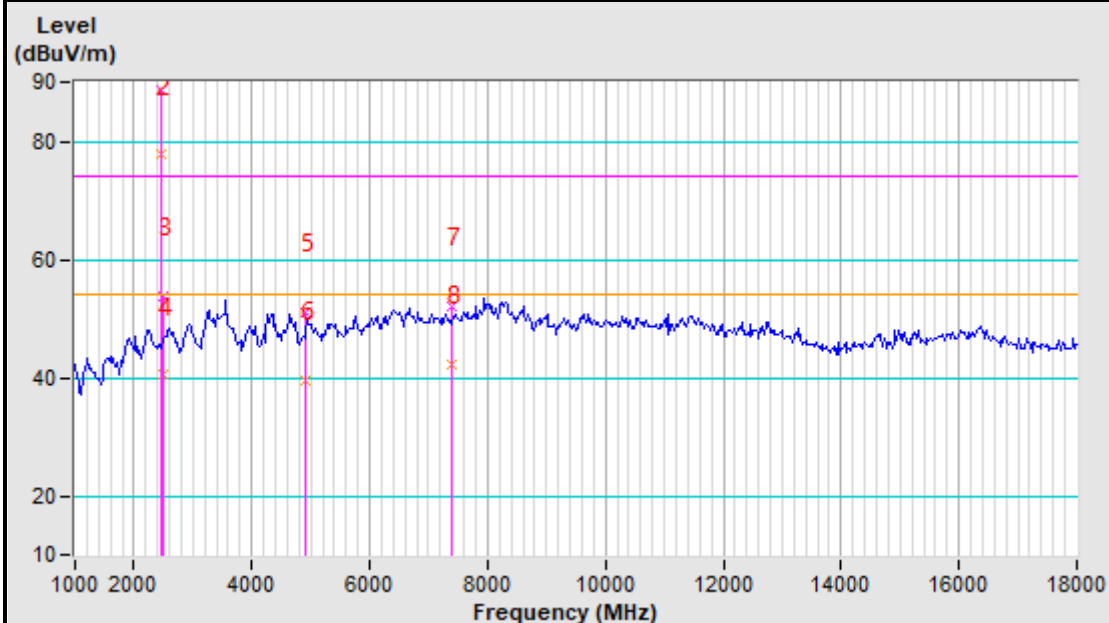
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2462MHz Horizontal



2462MHz Vertical



802.11n HT20

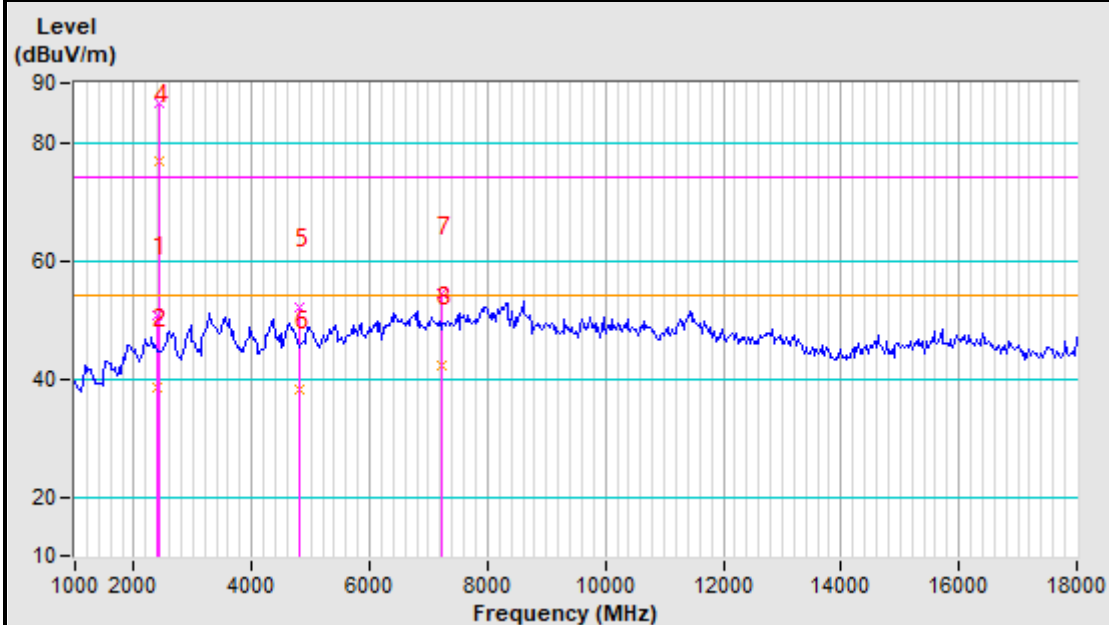
CHANNEL	TX Channel 1	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	50.61 PK	74.00	-23.39	165 H	45	48.36	2.25
2	2390.00	38.39 AV	54.00	-15.61	165 H	45	36.14	2.25
3	*2412.00	86.66 PK			156 H	56	84.37	2.29
4	*2412.00	76.62 AV			156 H	56	74.33	2.29
5	4824.00	52.16 PK	74.00	-21.84	100 H	45	46.31	5.85
6	4824.00	38.16 AV	54.00	-15.84	100 H	45	32.31	5.85
7	7236.00	54.30 PK	74.00	-19.70	165 H	5	45.51	8.79
8	7236.00	42.19 AV	54.00	-11.81	165 H	5	33.40	8.79
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	49.90 PK	74.00	-24.10	156 V	56	47.65	2.25
2	2390.00	39.22 AV	54.00	-14.78	156 V	56	36.97	2.25
3	*2412.00	88.67PK			165 V	56	86.38	2.29
4	*2412.00	78.70 AV			165 V	56	76.41	2.29
5	4824.00	51.13 PK	74.00	-22.87	165 V	5	45.28	5.85
6	4824.00	38.15 AV	54.00	-15.85	165 V	5	32.30	5.85
7	7236.00	53.89 PK	74.00	-20.11	100 V	45	45.10	8.79
8	7236.00	43.58 AV	54.00	-10.42	100 V	45	34.79	8.79

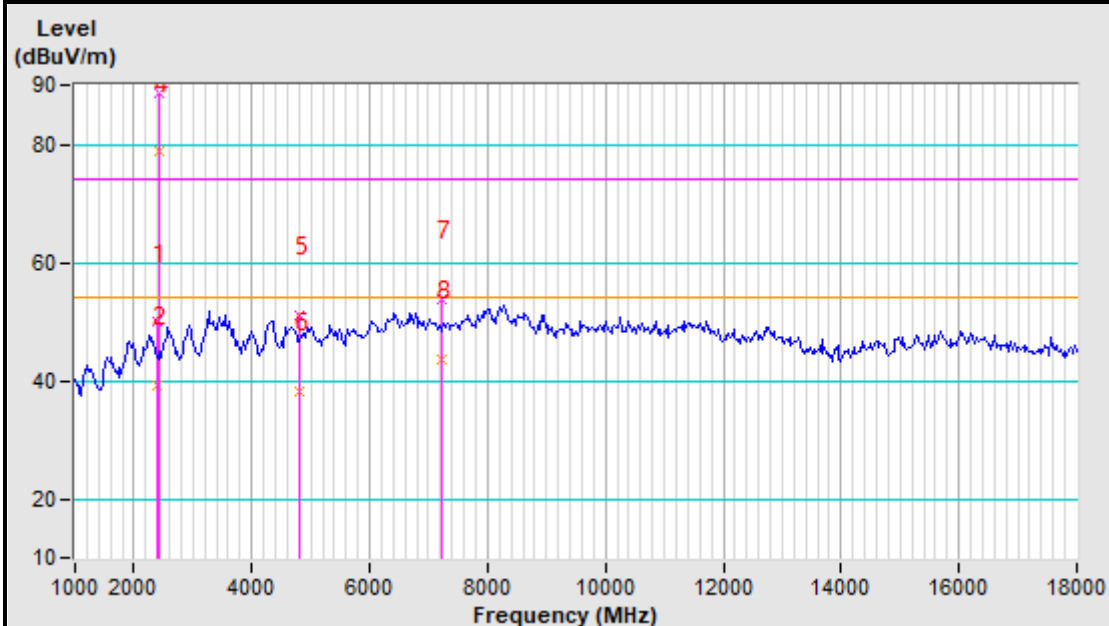
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2412MHz Horizontal



2412MHz Vertical



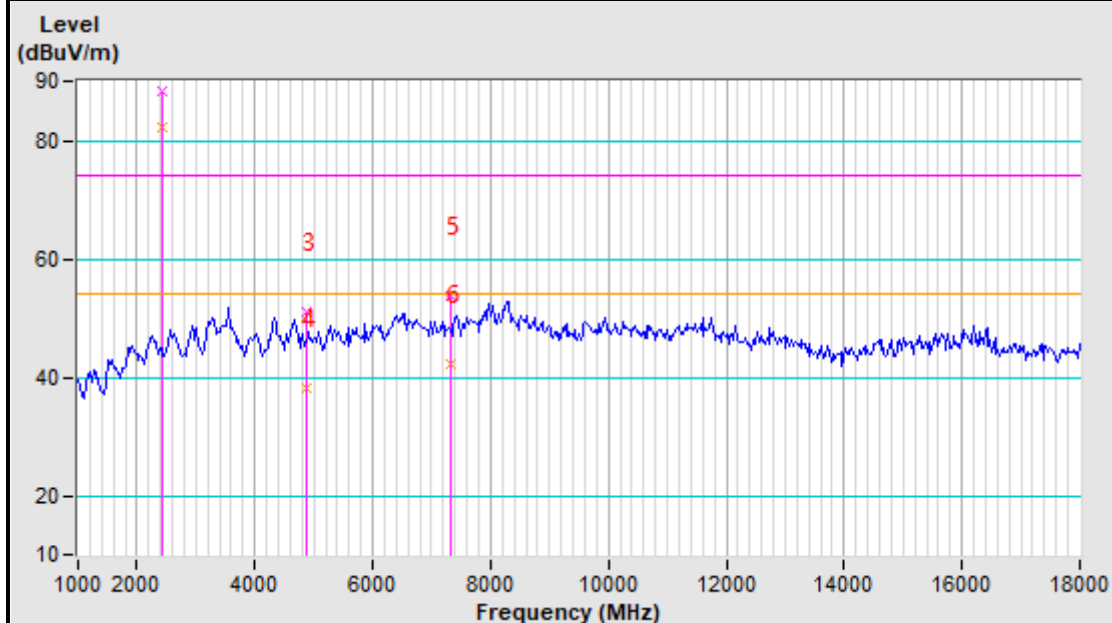
CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	88.16 PK			165 H	46	85.85	2.31
2	*2437.00	82.16 AV			165 H	46	79.85	2.31
3	4874.00	51.16PK	74.00	-22.84	100 H	56	45.42	5.74
4	4874.00	38.16 AV	54.00	-15.84	100 H	56	32.42	5.74
5	7311.00	53.69 PK	74.00	-20.31	100 H	5	44.86	8.83
6	7311.00	42.18 AV	54.00	-11.82	100 H	5	33.35	8.83
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	86.16 PK			156 V	56	83.85	2.31
2	*2437.00	78.99 AV			156 V	56	76.68	2.31
3	4874.00	51.13 PK	74.00	-22.87	132 V	56	45.39	5.74
4	4874.00	38.10 AV	54.00	-15.90	132 V	56	32.36	5.74
5	7311.00	53.69 PK	74.00	-20.31	156 V	5	44.86	8.83
6	7311.00	42.81 AV	54.00	-11.19	156 V	5	33.98	8.83

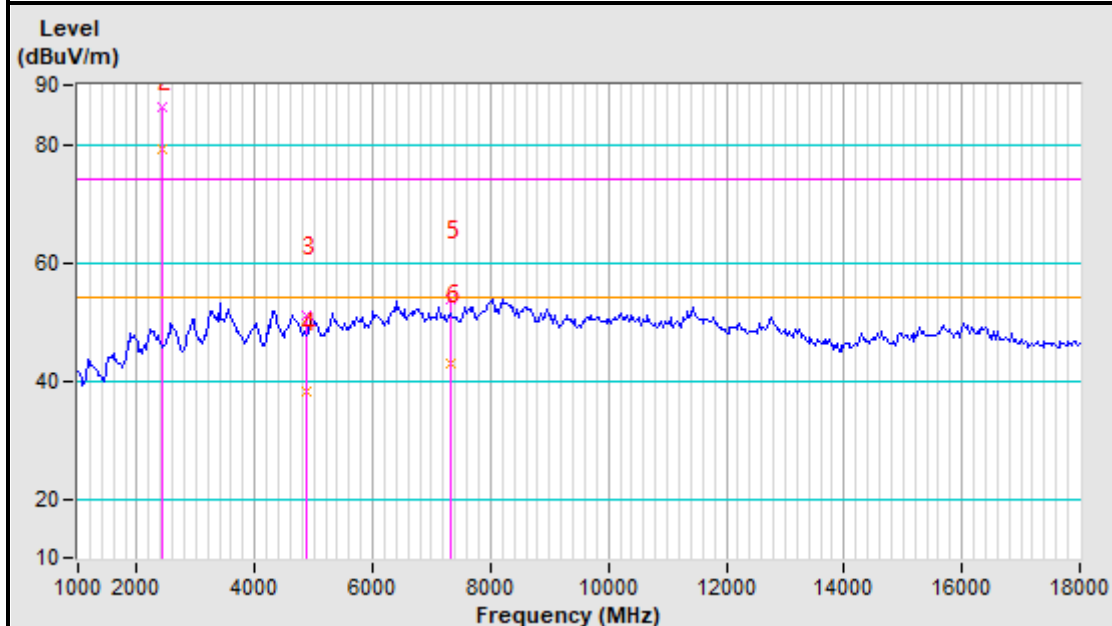
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. " * ": Fundamental frequency.

2437MHz Horizontal



2437MHz Vertical



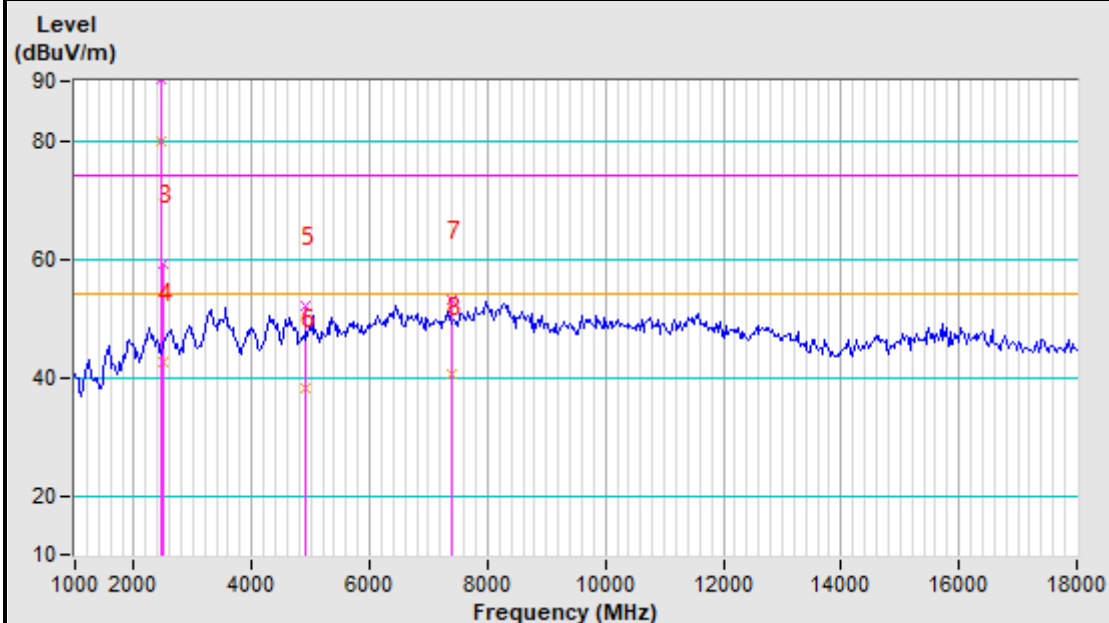
CHANNEL	TX Channel 11	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	90.37 PK			156 H	56	88.03	2.34
2	*2462.00	79.93 AV			156 H	56	77.59	2.34
3	2483.50	59.10 PK	74.00	-14.90	156 H	56	56.74	2.36
4	2483.50	42.46 AV	54.00	-11.54	156 H	56	40.10	2.36
5	4924.00	52.13 PK	74.00	-21.87	156 H	5	46.49	5.64
6	4924.00	38.15 AV	54.00	-15.85	156 H	5	32.51	5.64
7	7386.00	53.16 PK	74.00	-20.84	165 H	5	44.27	8.89
8	7386.00	40.39 AV	54.00	-13.61	165 H	5	31.50	8.89
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	87.66 PK			156 V	56	85.32	2.34
2	*2462.00	77.43 AV			156 V	56	75.09	2.34
3	2483.50	54.54 PK	74.00	-19.46	235 V	56	52.18	2.36
4	2483.50	41.01 AV	54.00	-12.99	235 V	56	38.65	2.36
5	4924.00	52.16 PK	74.00	-21.84	235 V	15	46.52	5.64
6	4924.00	38.16 AV	54.00	-15.84	235 V	15	32.52	5.64
7	7386.00	54.30 PK	74.00	-19.70	156 V	5	45.41	8.89
8	7386.00	42.22 AV	54.00	-11.78	156 V	5	33.33	8.89

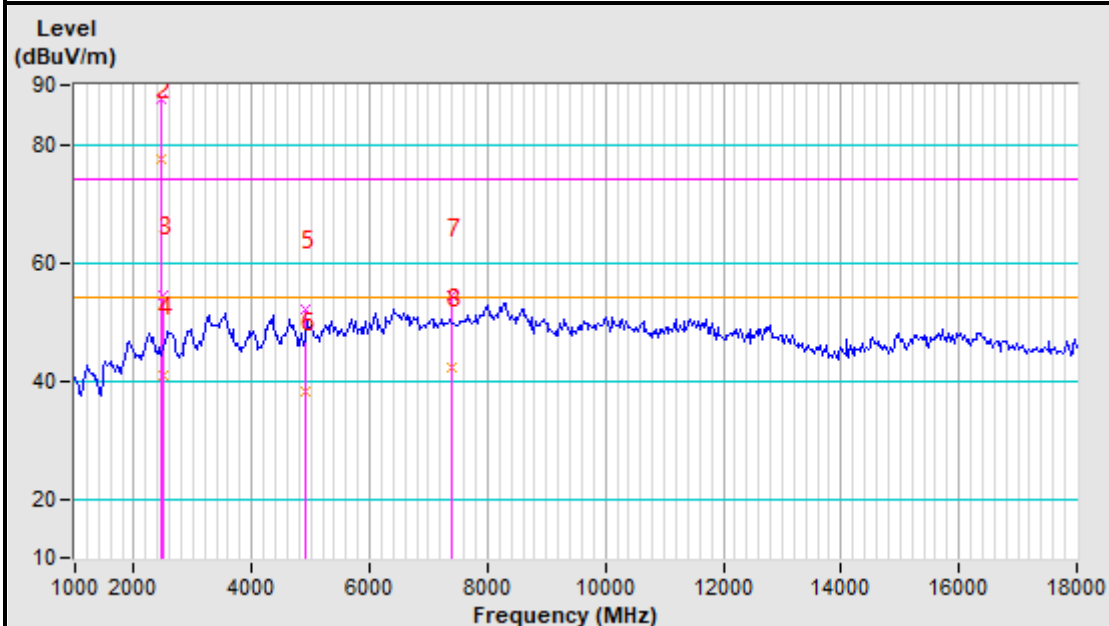
REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The emission levels of other frequencies were greater than 20dB margin.
4. Margin value = Emission level – Limit value.
5. "*" : Fundamental frequency.

2462MHz Horizontal



2462MHz Vertical



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 INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	Apr. 08, 27
Digital Multimeter	FLUKE	15B	12151063	Jun. 03, 26
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct. 10, 26
Oscilloscope	Agilent	DSO9254A	MY51260160	Jul. 06, 26
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Oct. 09, 26
Signal Generator	Agilent	N5183A	MY50140980	Jul. 06, 26
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Jul. 06, 26
Attenuator	MINI	BW-S10W2+	S130129FGE2	Jul. 06, 26
DC Source	Rohde&Schwarz	HMP2020	101295	Jun. 03, 26
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A

NOTES: 1. The test was performed in RF Oven room.
2. Equipment are calibrated by calibration laboratory accredited to ISO/IEC 17025 by a mutually recognized Accreditation and all tests are conducted within a valid calibration cycle.

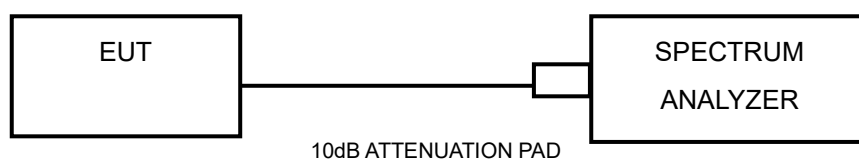
4.3.3 TEST PROCEDURE

1. Set RBW = 100K(shall be in the range of 1% to 5% of OBW, but not less than 100kHz).
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = No faster than coupled(auto) time.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



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 RESULTS

802.11b

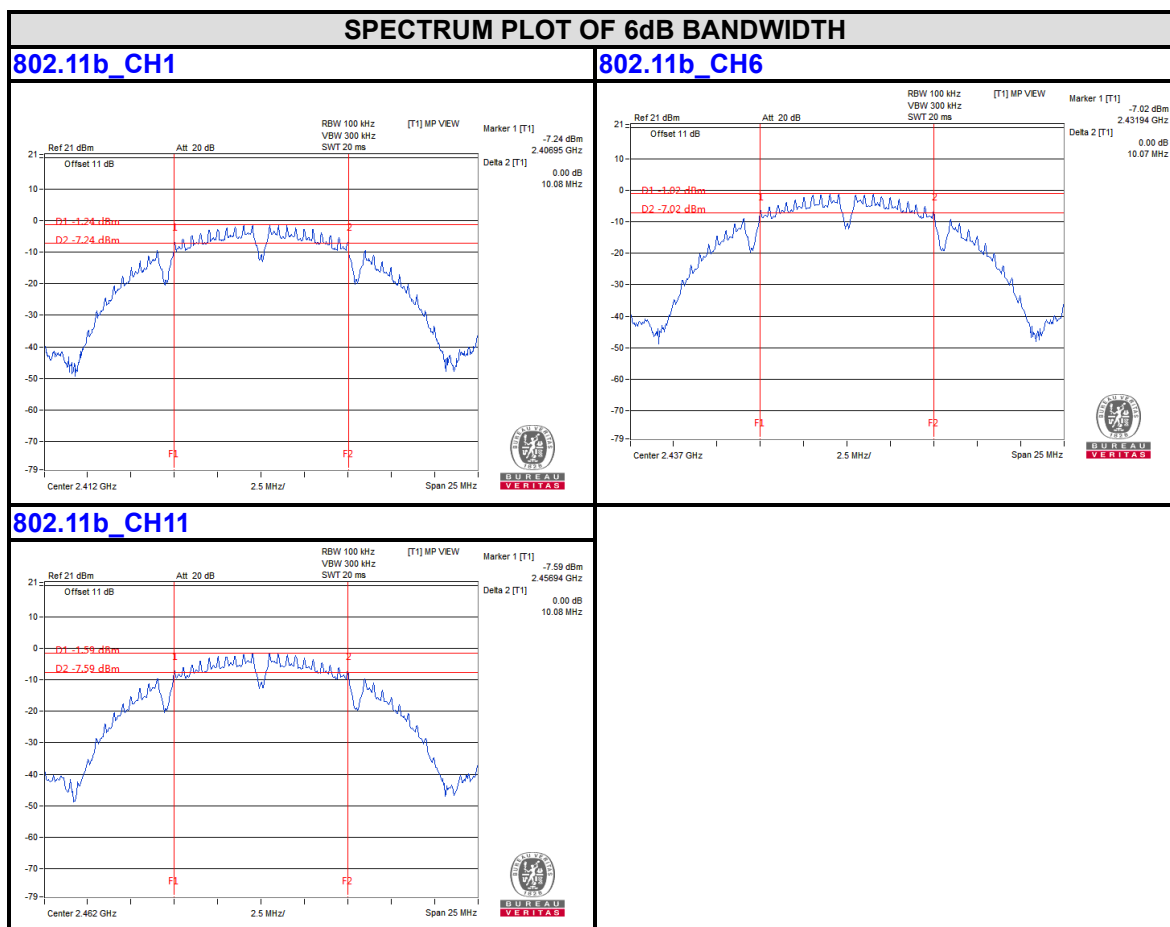
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	10.08	0.5	PASS
6	2437	10.07	0.5	PASS
11	2462	10.08	0.5	PASS

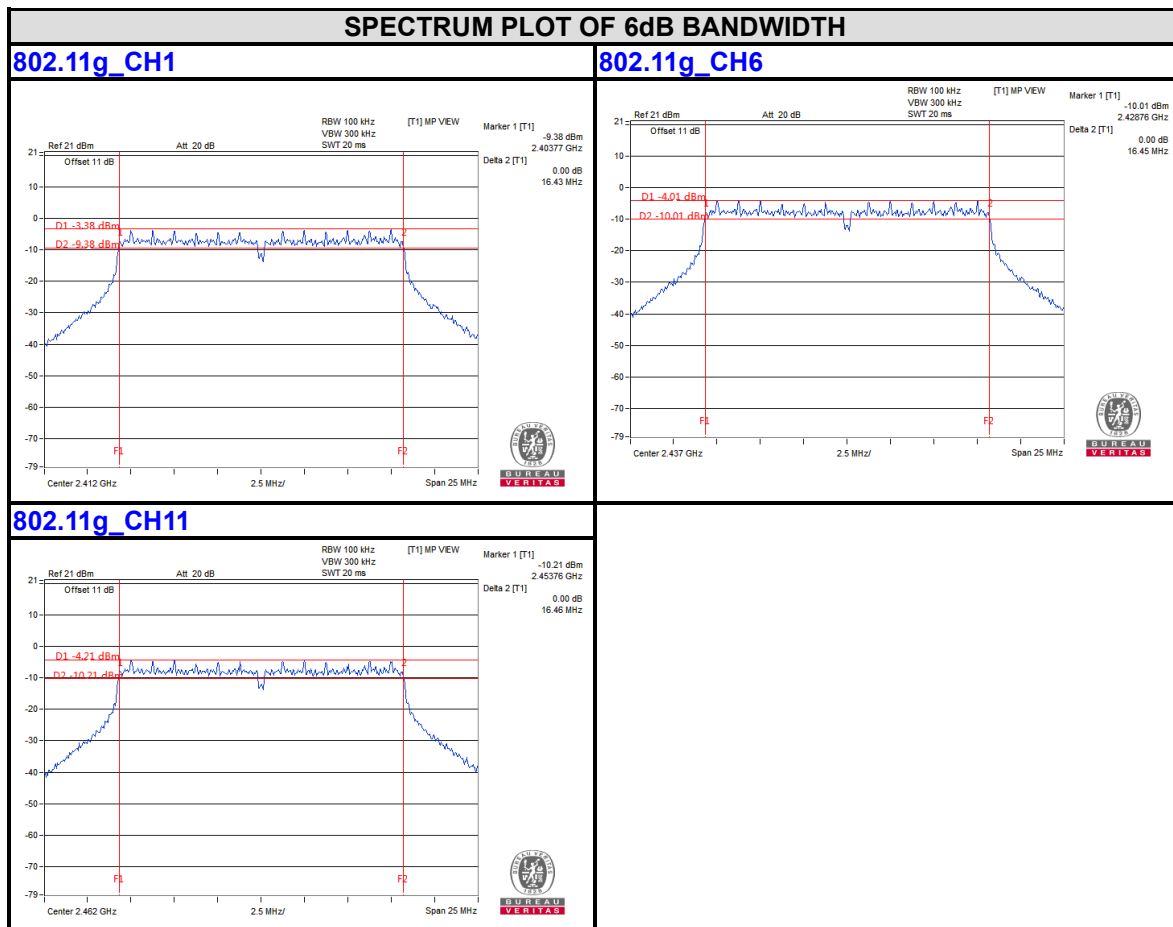
802.11g

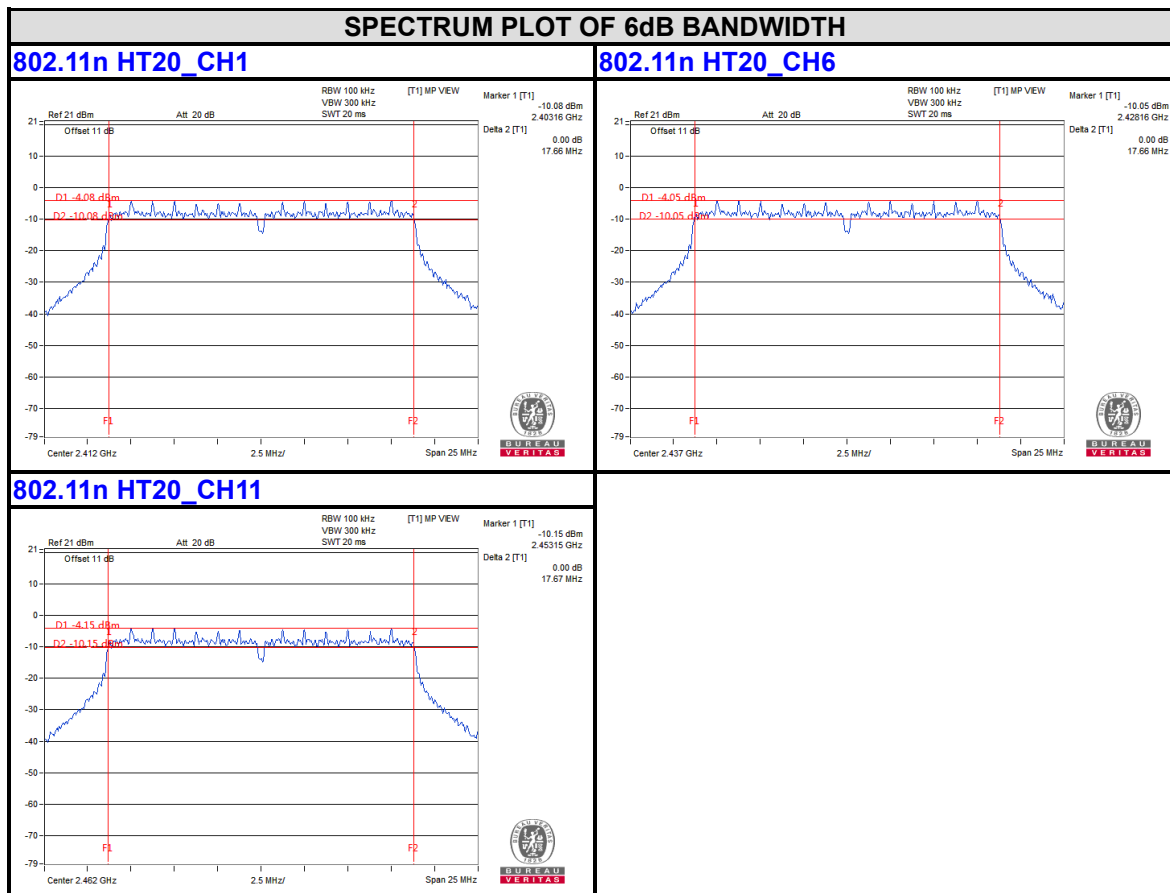
CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	16.43	0.5	PASS
6	2437	16.45	0.5	PASS
11	2462	16.46	0.5	PASS

802.11n HT20

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	17.66	0.5	PASS
6	2437	17.66	0.5	PASS
11	2462	17.67	0.5	PASS





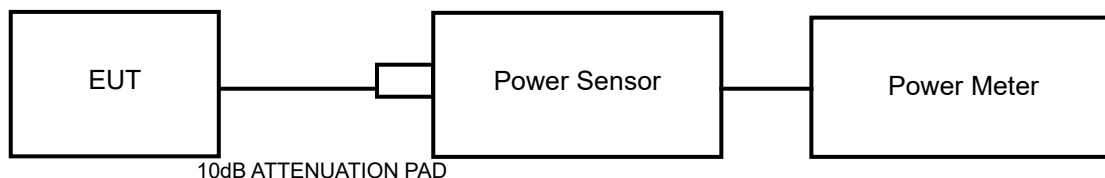


4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Next Cal.
Power Sensor	Keysight	U2021XA	MY57320002	Apr. 08, 27
Digital Multimeter	FLUKE	15B	12151063	Jun. 03, 26
Humid & Temp Programmable Tester	Haida	HD-225T	110807201	Oct. 10, 26
Oscilloscope	Agilent	DSO9254A	MY51260160	Jul. 06, 26
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV40	101003	Oct. 09, 26
Signal Generator	Agilent	N5183A	MY50140980	Jul. 06, 26
MXG-B RF Vector Signal Generator	Keysight	N5182B	MY56200288	Jul. 06, 26
Attenuator	MINI	BW-S10W2+	S130129FGE2	Jul. 06, 26
DC Source	Rohde&Schwarz	HMP2020	101295	Jun. 03, 26
Test software	ADT	ADT_RF Test Software V6.6.5.3	N/A	N/A

NOTES:

1. The test was performed in RF Oven room.
2. Equipment are calibrated by calibration laboratory accredited to ISO/IEC 17025 by a mutually recognized Accreditation and all tests are conducted within a valid calibration cycle.

4.4.4 TEST PROCEDURES

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

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

4.4.7 TEST RESULTS

MAXIMUM PEAK OUTPUT POWER

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (W)	PASS/FAIL
1	2412	11.18	13.122	1	PASS
6	2437	11.68	14.723	1	PASS
11	2462	11.28	13.428	1	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (W)	PASS/FAIL
1	2412	15.98	39.628	1	PASS
6	2437	15.26	33.574	1	PASS
11	2462	15.58	36.141	1	PASS

802.11n HT20

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER (dBm)	PEAK POWER (mW)	PEAK POWER LIMIT (W)	PASS/FAIL
1	2412	15.42	34.834	1	PASS
6	2437	15.63	36.559	1	PASS
11	2462	15.81	38.107	1	PASS

AVERAGE OUTPUT POWER (FOR REFERENCE)

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

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	AVG. POWER (mW)
1	2412	7.82	6.053
6	2437	7.93	6.209
11	2462	7.76	5.970

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	AVG. POWER (mW)
1	2412	7.88	6.138
6	2437	7.48	5.598
11	2462	7.69	5.875

802.11n HT20

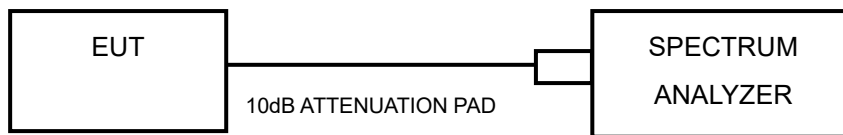
CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	AVG. POWER (mW)
1	2412	7.32	5.395
6	2437	7.58	5.728
11	2462	7.62	5.781

4.5 POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm/3KHz.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.3.2 to get information of above instrument.

4.5.4 TEST PROCEDURE

- a) Set instrument center frequency to DTS channel center frequency.
- b) Set span > 1.5 times the DTS bandwidth.
- c) Set RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100\text{KHz}$
- d) Set VBW $\geq 3 \times \text{RBW}$
- e) Detector = peak
- f) Sweep time = No faster than coupled(auto) time,
- g) Trace mode = max hold
- h) allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum amplitude level within the RBW.
- j) If measured value exceeds requirement, then reduce RBW(but no less than 3KHz) and repeat.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

Same as item 4.3.6.

4.5.7 TEST RESULTS

802.11b

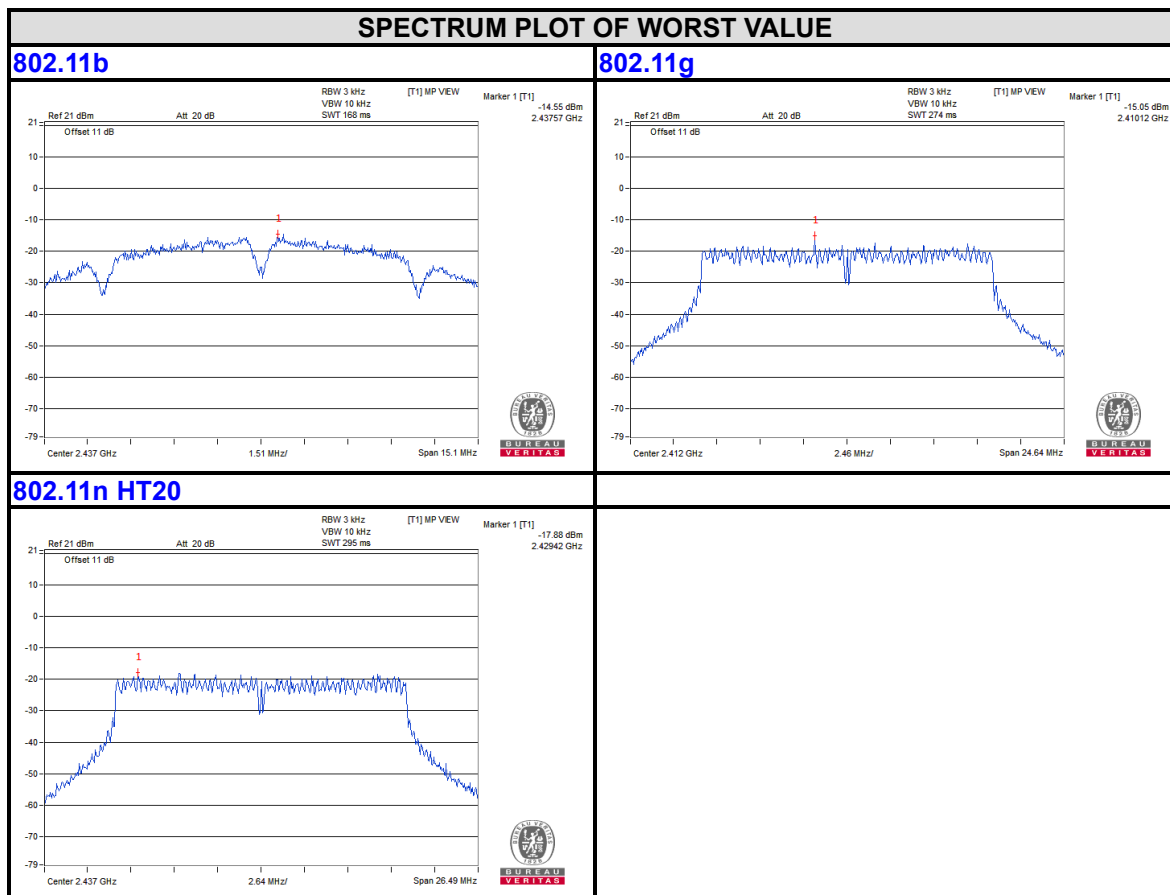
Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-15.05	8.00	PASS
6	2437	-14.55	8.00	PASS
11	2462	-15.41	8.00	PASS

802.11g

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-15.05	8.00	PASS
6	2437	-15.39	8.00	PASS
11	2462	-17.11	8.00	PASS

802.11n HT20

Channel	FREQ. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-18.04	8.00	PASS
6	2437	-17.88	8.00	PASS
11	2462	-17.91	8.00	PASS



4.6 OUT OF BAND EMISSION MEASUREMENT

4.6.1 LIMITS OF OUT OF BAND EMISSION MEASUREMENT

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

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.3.2 to get information of above instrument.

4.6.4 TEST PROCEDURE

Measurement Procedure – Reference Level

1. Set instrument center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS bandwidth.
3. Set the RBW = 100 kHz.
4. Set the VBW $\geq$ 100KHz(3x RBW).
5. Detector = peak.
6. Sweep time = No faster than coupled(auto) time.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum PSD level.

Measurement Procedure –Unwanted Emission Level

1. Set the center frequency and span to encompass frequency range to be measured.
2. Set RBW = 100 kHz.
3. Set VBW $\geq$ 300 kHz.
4. Detector = peak.
5. Sweep = No faster than coupled(auto) time.
6. Trace Mode = max hold.
7. Allow trace to fully stabilize.
8. Use the peak marker function to determine the maximum amplitude level.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

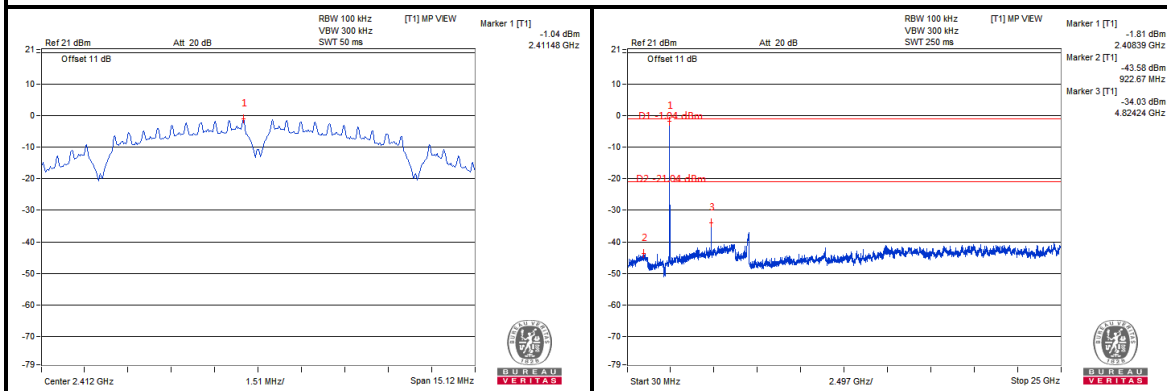
4.6.6 EUT OPERATING CONDITION

Same as item 4.3.6

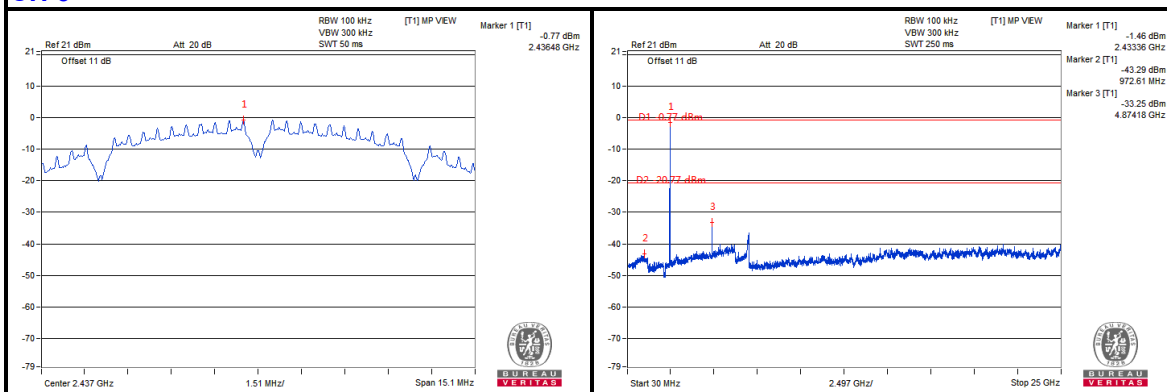
4.6.7 TEST RESULTS

802.11b

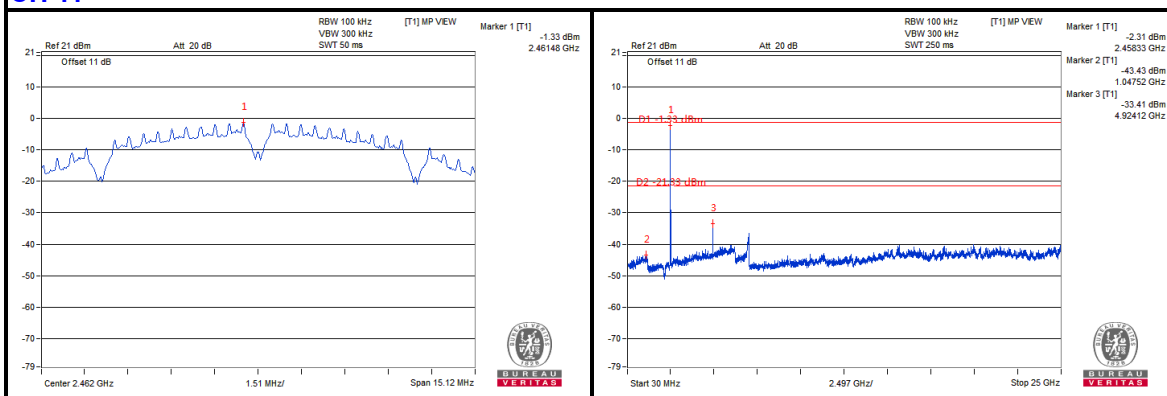
CH 1



CH 6

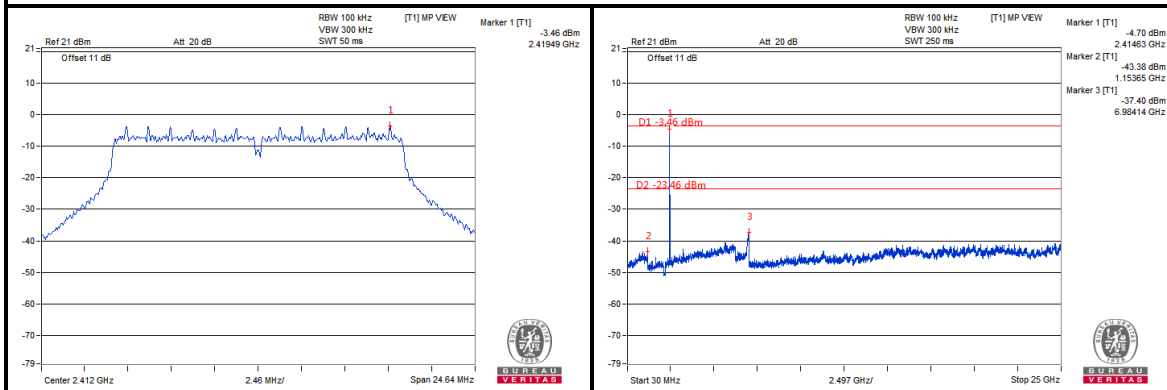


CH 11

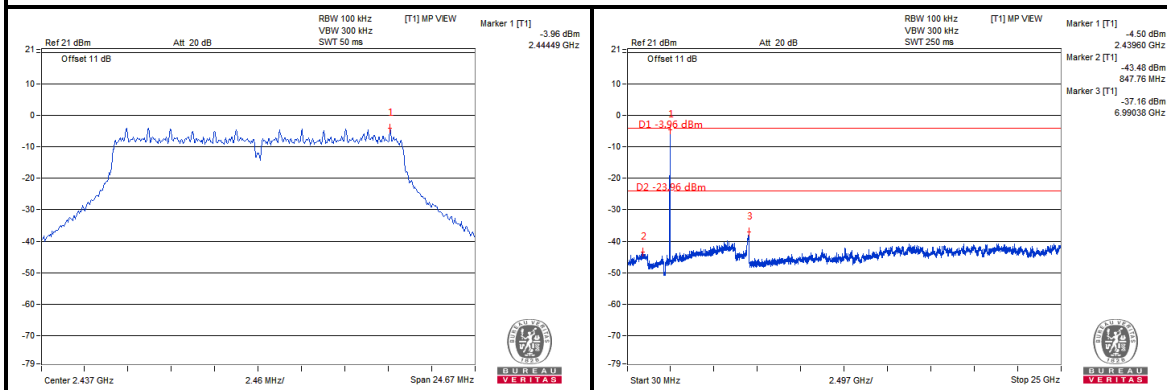


802.11g

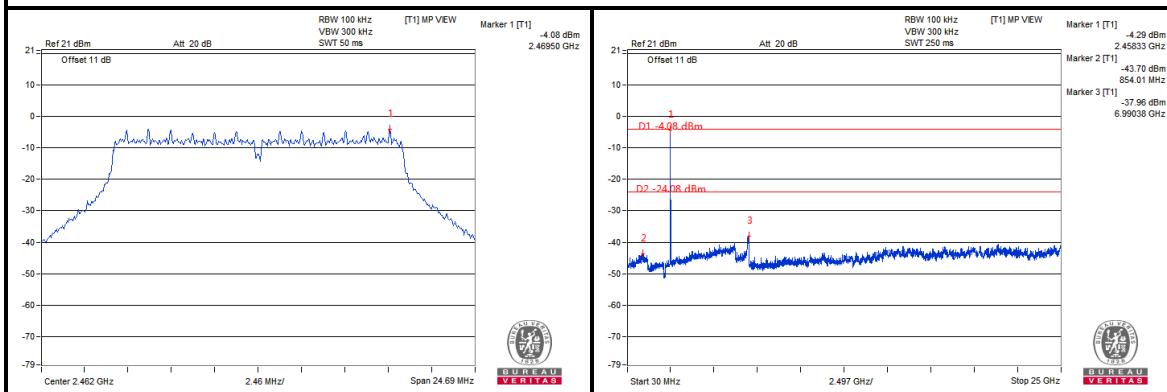
CH 1



CH 6

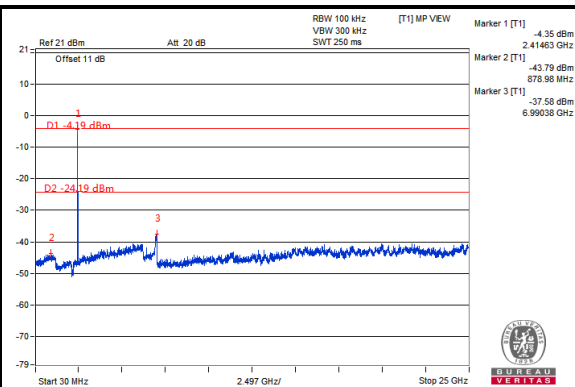
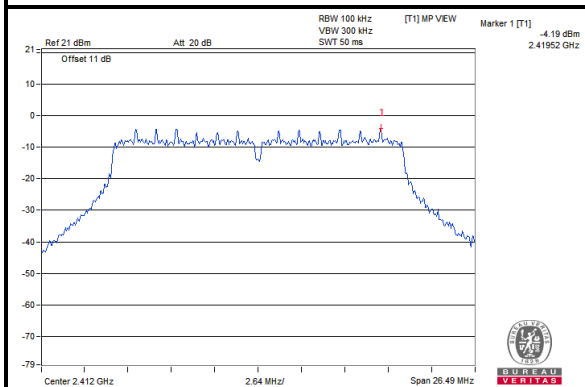


CH 11

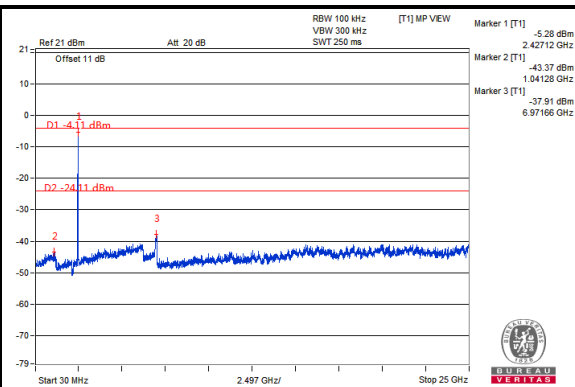
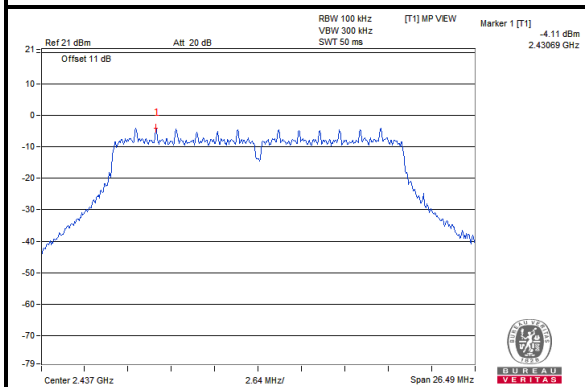


802.11n HT20

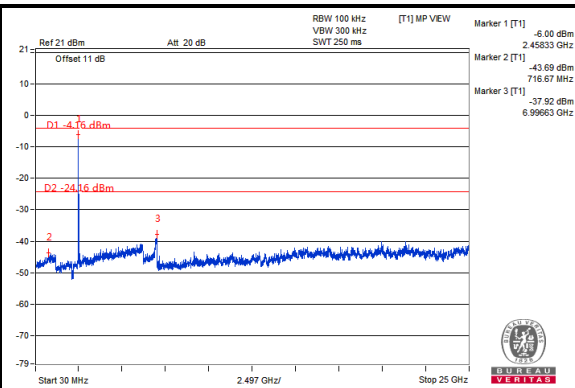
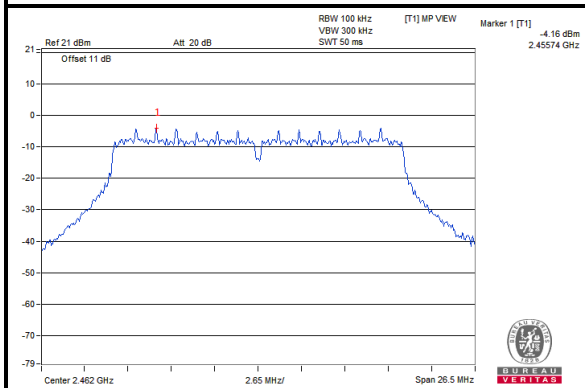
CH 1



CH 6

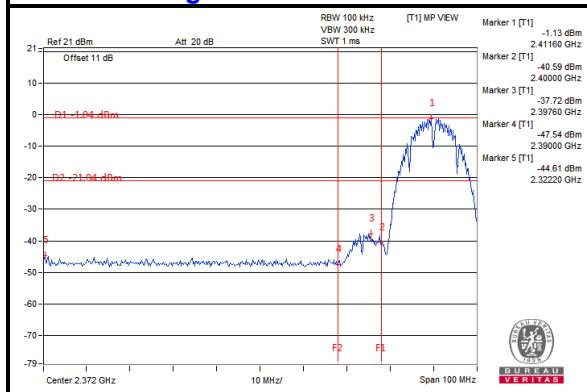


CH 11

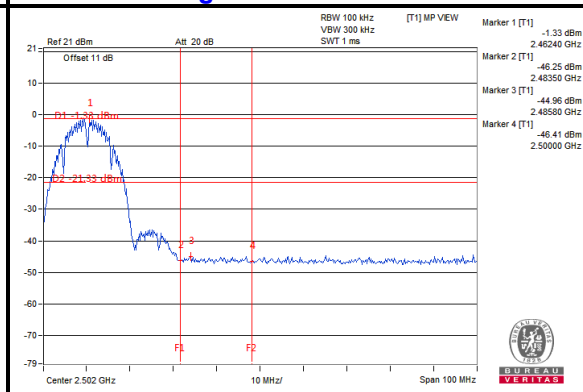


802.11b

CH 1 Band edge

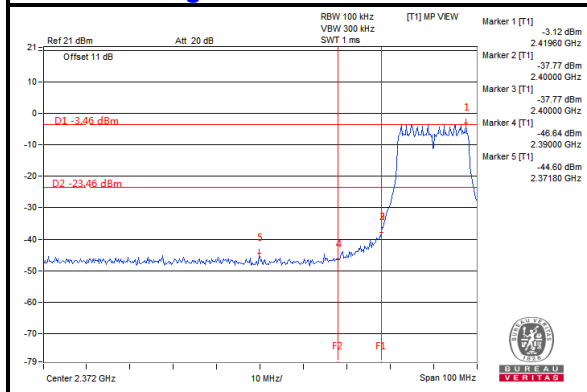


CH 11 Band edge

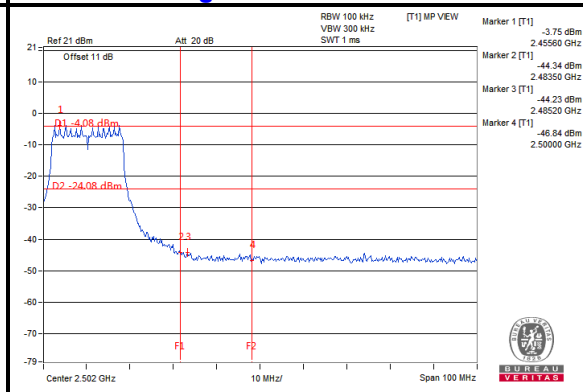


802.11g

CH 1 Band edge

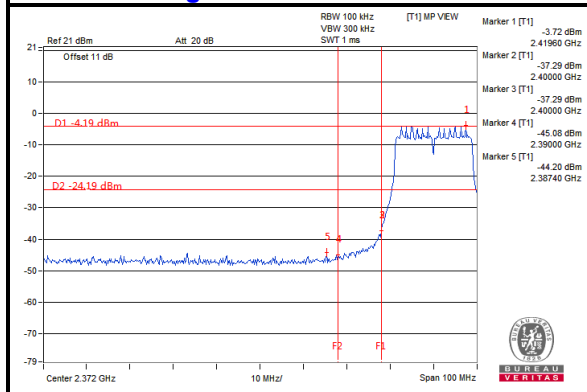


CH 11 Band edge

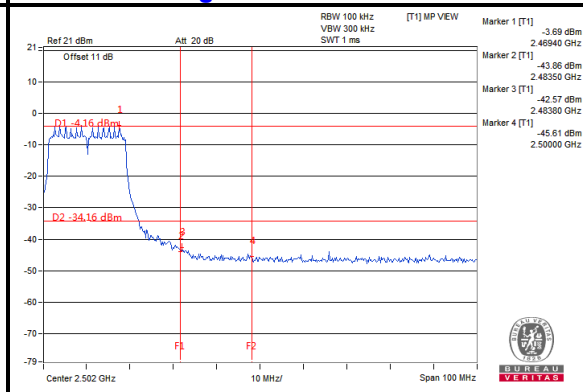


802.11n HT20

CH 1 Band edge



CH 11 Band edge



5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.

---END---