

FCC Test Report (WLAN)

Report No.: RF170414E05

FCC ID: MQT-E200CP

Test Model: xCL_E200CP

Received Date: Apr. 14, 2017

Test Date: Apr. 18 to May 17, 2017

Issued Date: May 31, 2017

Applicant: XAC AUTOMATION CORP.

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PARK,HSINCHU,TAIWAN

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

Issue No.	Description	Date Issued
RF170414E05	Original release.	May 31, 2017

1 Certificate of Conformity

Product: Terminal

Brand: XAC

Test Model: xCL_E200CP

Sample Status: ENGINEERING SAMPLE

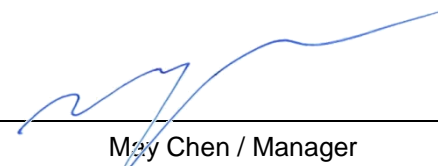
Applicant: XAC AUTOMATION CORP.

Test Date: Apr. 18 to May 17, 2017

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10: 2013

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

Prepared by :  _____, **Date:** May 31, 2017
Claire Kuan / Specialist

Approved by :  _____, **Date:** May 31, 2017
May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (SECTION 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -3.36dB at 0.16991MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.2dB at 2483.50MHz
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex (MHF) not a standard connector.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.30 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.16 dB
	6GHz ~ 18GHz	4.91 dB
	18GHz ~ 40GHz	5.30 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (WLAN)

Product	Terminal
Brand	XAC
Test Model	xCL_E200CP
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter or 12Vdc from host equipment
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 150Mbps
Operating Frequency	2.4GHz: 2.412 ~ 2.462GHz 5GHz: 5.18~5.24GHz, 5.26~5.32GHz, 5.50~5.70GHz, 5.745~5.825GHz
Number of Channel	2.4GHz: 802.11b, 802.11g, 802.11n (HT20): 11 802.11n (HT40): 7 5GHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 24 802.11n (HT40), 802.11ac (VHT40): 11 802.11ac (VHT80): 5
Output Power	2.4GHz: 171.002mW 5.18GHz ~ 5.24GHz: 15.922mW 5.26~5.32GHz 17.418mW 5.50~5.70GHz 19.907mW 5.745GHz ~ 5.825GHz: 16.788mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. There are WLAN, Bluetooth, RFID technology used for the EUT.
2. Simultaneously transmission condition.

Condition	Technology		
1	WLAN (2.4GHz)	Bluetooth	RFID
2	WLAN (5GHz)	Bluetooth	RFID

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

3. The EUT could be supplied with a power adapter (only for test) as the following table:

Brand	Model No.	Spec.
DELTA	ADP-36PH B	AC I/P: 100-240V, 50-60Hz, 1A DC O/P: 12V, 3A DC output cable(Unshielded, 1.7m, with one core)

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

WiFi/BT Antenna Spec.			
Antenna Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Antenna Connector
4.01	2.4~2.4835	PCB	i-pex(MHF)
3.79	5.15~5.85		
RFID Antenna Spec.			
Antenna Net Gain(dBi)	Frequency range (MHz)	Antenna Type	Antenna Connector
13	13.56	Loop	N/A

5. The EUT incorporates a SISO function.

2.4GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	1TX	1RX
802.11g	6 ~ 54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX
5GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11a	6 ~ 54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX

6. For radiated emission test, the EUT was pre-tested under the following test modes :

Pre-test Mode	Power
Mode A	Power from adapter
Mode B	Power from host equipment

The worst radiated emission was found in **Mode A**. Therefore only the test data of the modes were recorded in this report.

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

3.2 Description of Test Modes

11 channels are provided for 802.11b, 802.11g and 802.11n (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				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
1	√	√	√	√	With adapter
2	-	-	√	-	With host equipment

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

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

Radiated Emission Test (Above 1GHz):

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

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1	DSSS	DBPSK	1

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1	DSSS	DBPSK	1

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6
802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
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 \geq 1G	24deg. C, 67%RH	120Vac, 60Hz	Weiwei Lo
RE<1G	23deg. C, 64%RH	120Vac, 60Hz	Jyunchun Lin
PLC	25deg. C, 65%RH	120Vac, 60Hz	Andy Ho
APCM	23deg. C, 66%RH	120Vac, 60Hz	Robert Cheng

3.3 Duty Cycle of Test Signal

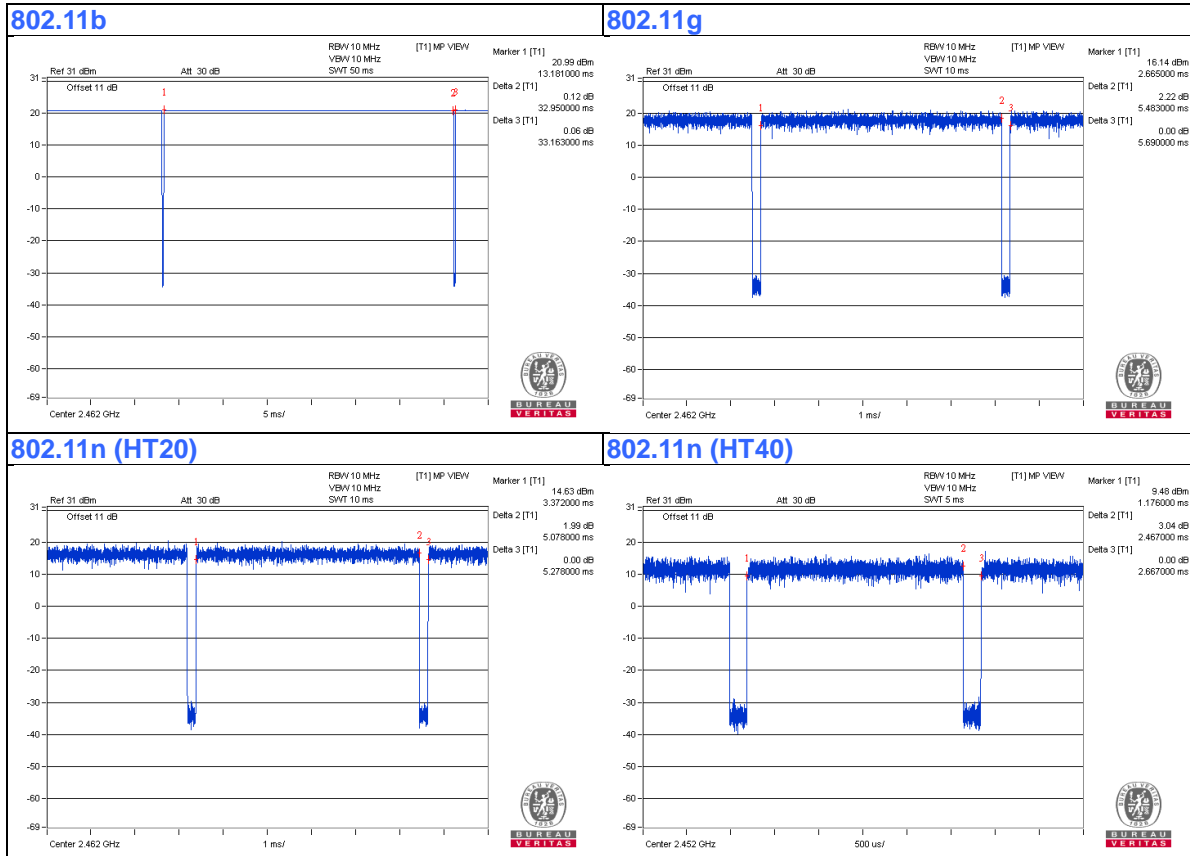
If duty cycle of test signal is < 98%, duty factor shall be considered.
 If duty cycle of test signal is ≥ 98 %, duty factor is not required.

802.11b: Duty cycle = $32.95/33.163 = 0.994$

802.11g: Duty cycle = $5.483/5.69 = 0.964$, Duty factor = $10 * \log(1/0.964) = 0.16$

802.11n (HT20): Duty cycle = $5.078/5.278 = 0.962$, Duty factor = $10 * \log(1/0.962) = 0.17$

802.11n (HT40): Duty cycle = $2.467/2.667 = 0.925$, Duty factor = $10 * \log(1/0.925) = 0.34$



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.	iPod	Apple	MD778TA/A	CC4JMFL0F4T1	NA	Provided by Lab
B.	Earphone	Jazz	i82	NA	NA	Supplied by client
C.	PC	IBM	4810-350	NA	NA	Supplied by client
D.	NB	DELL	E6420	482T3R1	FCC DoC	Provided by Lab
E.	SAM card	NA	NA	NA	NA	Supplied by client

Note:

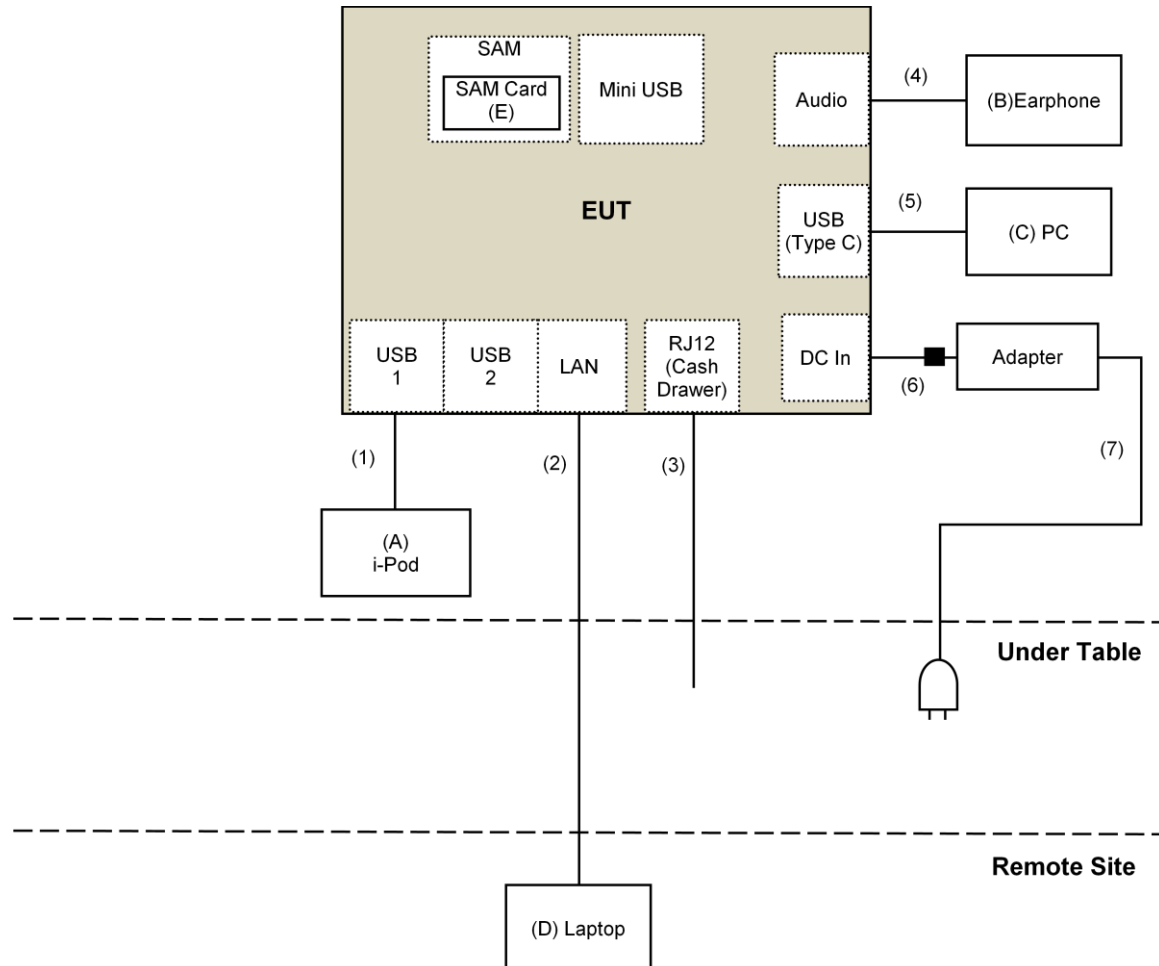
1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Cable	1	0.1	Yes	0	Provided by Lab
2.	RJ45 Cable	1	10	No	0	Provided by Lab
3.	RJ12 Cash Drawer Cable	1	1.2	No	0	Supplied by client
4.	Audio Cable	1	1.2	No	0	Supplied by client
5.	USB TypeC Cable	1	1	Yes	0	Supplied by client
6.	DC Cable	1	1.7	No	1	Supplied by client
7.	AC Cable	1	1	No	0	Supplied by client
8.	Power USB Cable	1	1.2	Yes	1	Supplied by client
9.	AC Cable	1	1.8	No	0	Provided by Lab

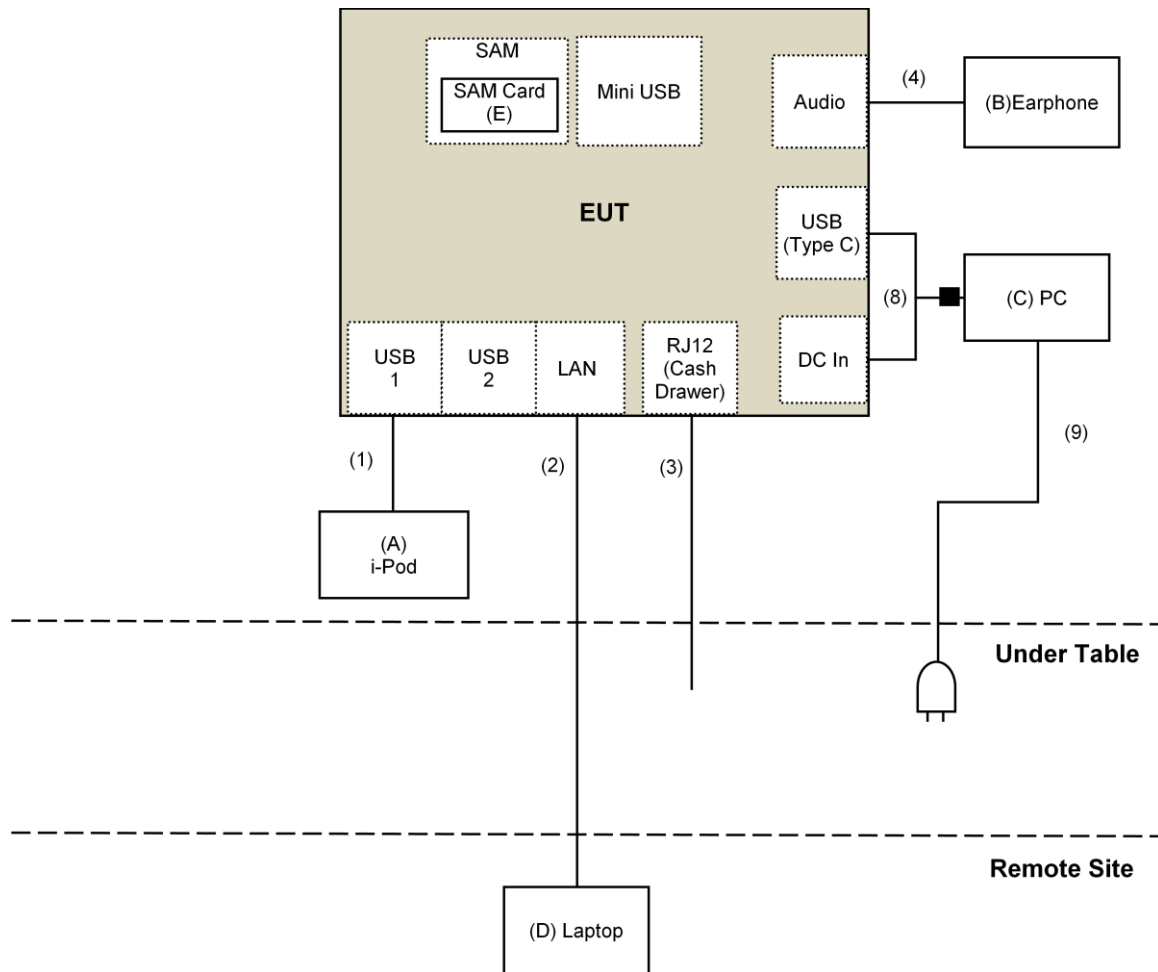
Note: The core(s) is(are) originally attached to the cable(s).

3.4.1 Configuration of System under Test

For adapter mode:



For host equipment mode:



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.247)
KDB 558074 D01 DTS Meas Guidance v04
ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 20, 2016	July 19, 2017
Pre-Amplifier ^(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna ^(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 17, 2017	Jan. 16, 2018
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 10, 2016	Nov. 09, 2017
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Dec. 13, 2016	Dec. 12, 2017
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 01, 2017	Mar. 31, 2018
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 05, 2016	Oct. 04, 2017
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Dec. 27, 2016	Dec. 26, 2017
Pre-Amplifier EMCI	EMC12630SE	980385	Feb. 02, 2017	Feb. 01, 2018
RF Cable	EMC104-SM-SM-1200 EMC104-SM-SM-2000 EMC104-SM-SM-5000	160923 150318 150323	Feb. 02, 2017 Mar. 29, 2017 Mar. 29, 2017	Feb. 01, 2018 Mar. 28, 2018 Mar. 28, 2018
Pre-Amplifier EMCI	EMC184045SE	980387	Feb. 02, 2017	Feb. 01, 2018
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 15, 2016	Dec. 14, 2017
RF Cable	SUCOFLEX 102	36432/2 36433/2	Jan. 15, 2017	Jan. 14, 2018
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208410	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP02	NA	NA
Spectrum Analyzer R&S	FSv40	100964	June 28, 2016	June 27, 2017
Spectrum Analyzer Agilent	E4446A	MY48250253	Dec. 21, 2016	Dec. 20, 2017
Power meter Anritsu	ML2495A	0824006	May 26, 2016	May 25, 2017
Power sensor Anritsu	MA2411B	0738172	May 26, 2016	May 25, 2017

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. *The calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 4.
4. The FCC Site Registration No. is 292998
5. The CANADA Site Registration No. is 20331-2
6. Tested Date: Apr. 18 to May 16, 2017

4.1.3 Test Procedures

For Radiated emission below 30MHz

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

NOTE:

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

For Radiated emission above 30MHz

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

Note:

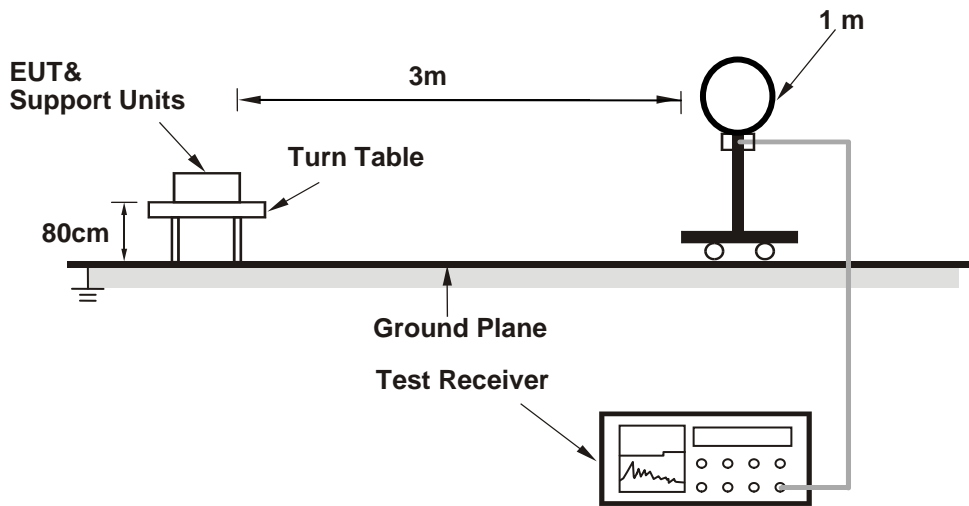
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Average detection (AV) at frequency above 1GHz. If duty cycle of test signal is < 98%, the duty factor need added to measured value.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

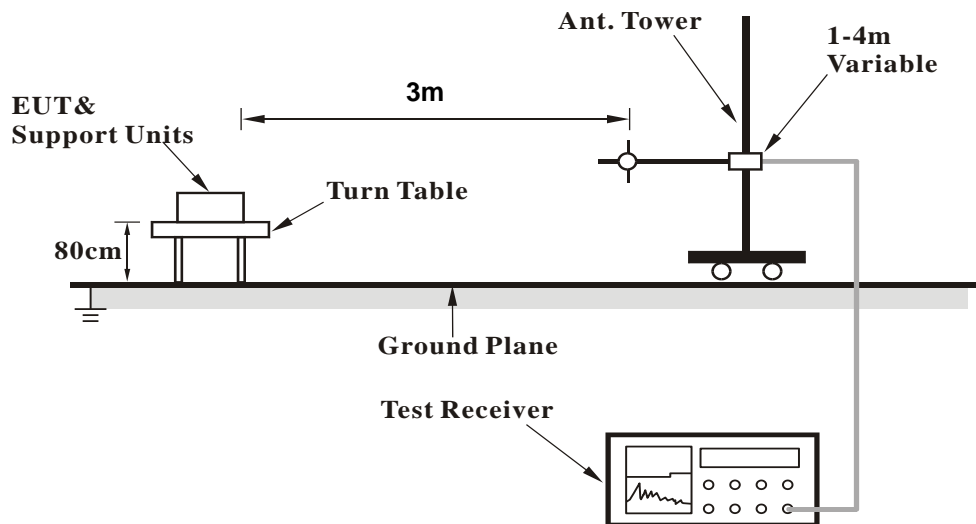
No deviation.

4.1.5 Test Setup

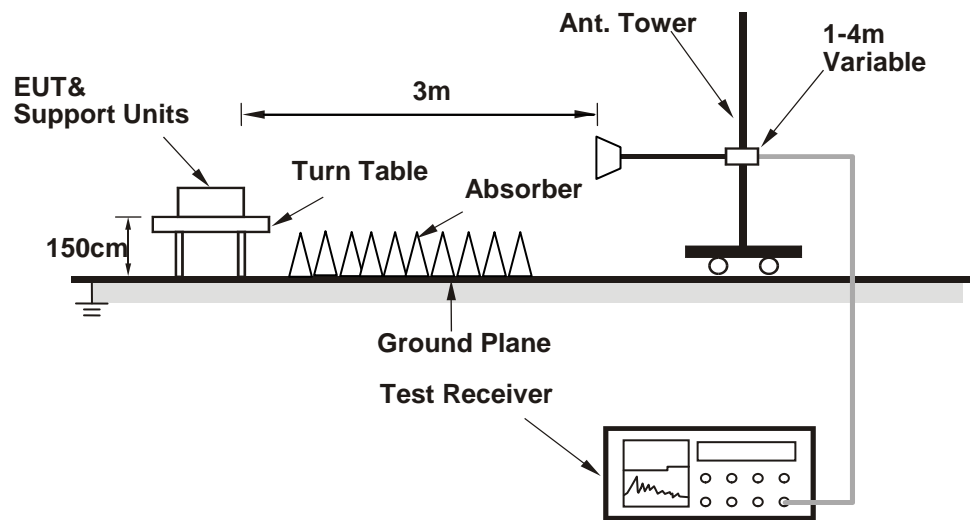
For Radiated emission below 30MHz



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

- Connected the EUT with the Laptop which is placed on remote site.
- Controlling software (QRCT 3.0.124.0) has been activated to set the EUT on specific status.

4.1.7 Test Results

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	54.9 PK	74.0	-19.1	2.40 H	145	56.2	-1.3
2	2390.00	41.6 AV	54.0	-12.4	2.40 H	145	42.9	-1.3
3	*2412.00	111.5 PK			2.40 H	145	112.6	-1.1
4	*2412.00	109.0 AV			2.40 H	145	110.1	-1.1
5	4824.00	45.2 PK	74.0	-28.8	2.86 H	116	42.0	3.2
6	4824.00	41.7 AV	54.0	-12.3	2.86 H	116	38.5	3.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	52.8 PK	74.0	-21.2	1.12 V	110	54.1	-1.3
2	2390.00	40.7 AV	54.0	-13.3	1.12 V	110	42.0	-1.3
3	*2412.00	107.8 PK			1.12 V	110	108.9	-1.1
4	*2412.00	105.8 AV			1.12 V	110	106.9	-1.1
5	4824.00	44.0 PK	74.0	-30.0	1.37 V	176	40.8	3.2
6	4824.00	36.9 AV	54.0	-17.1	1.37 V	176	33.7	3.2

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.9 PK	74.0	-18.1	2.37 H	143	57.2	-1.3
2	2390.00	42.1 AV	54.0	-11.9	2.37 H	143	43.4	-1.3
3	*2437.00	112.1 PK			2.37 H	143	113.3	-1.2
4	*2437.00	109.7 AV			2.37 H	143	110.9	-1.2
5	2483.50	55.2 PK	74.0	-18.8	2.37 H	143	56.2	-1.0
6	2483.50	42.9 AV	54.0	-11.1	2.37 H	143	43.9	-1.0
7	4874.00	45.4 PK	74.0	-28.6	2.88 H	128	42.1	3.3
8	4874.00	42.1 AV	54.0	-11.9	2.88 H	128	38.8	3.3
9	7311.00	44.6 PK	74.0	-29.4	1.12 H	315	34.8	9.8
10	7311.00	31.1 AV	54.0	-22.9	1.12 H	315	21.3	9.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	53.4 PK	74.0	-20.6	1.12 V	111	54.7	-1.3
2	2390.00	41.3 AV	54.0	-12.7	1.12 V	111	42.6	-1.3
3	*2437.00	108.4 PK			1.12 V	111	109.6	-1.2
4	*2437.00	106.5 AV			1.12 V	111	107.7	-1.2
5	2483.50	53.2 PK	74.0	-20.8	1.12 V	111	54.2	-1.0
6	2483.50	41.7 AV	54.0	-12.3	1.12 V	111	42.7	-1.0
7	4874.00	44.5 PK	74.0	-29.5	1.34 V	170	41.2	3.3
8	4874.00	37.1 AV	54.0	-16.9	1.34 V	170	33.8	3.3
9	7311.00	43.9 PK	74.0	-30.1	1.31 V	259	34.1	9.8
10	7311.00	31.1 AV	54.0	-22.9	1.31 V	259	21.3	9.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	111.8 PK			2.31 H	145	112.9	-1.1
2	*2462.00	109.5 AV			2.31 H	145	110.6	-1.1
3	2483.50	58.1 PK	74.0	-15.9	2.31 H	145	59.1	-1.0
4	2483.50	47.7 AV	54.0	-6.3	2.31 H	145	48.7	-1.0
5	4924.00	44.7 PK	74.0	-29.3	2.83 H	126	41.2	3.5
6	4924.00	41.1 AV	54.0	-12.9	2.83 H	126	37.6	3.5
7	7386.00	45.2 PK	74.0	-28.8	1.09 H	325	35.3	9.9
8	7386.00	31.6 AV	54.0	-22.4	1.09 H	325	21.7	9.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.7 PK			1.11 V	110	109.8	-1.1
2	*2462.00	106.3 AV			1.11 V	110	107.4	-1.1
3	2483.50	56.4 PK	74.0	-17.6	1.11 V	110	57.4	-1.0
4	2483.50	46.1 AV	54.0	-7.9	1.11 V	110	47.1	-1.0
5	4924.00	43.0 PK	74.0	-31.0	1.29 V	180	39.5	3.5
6	4924.00	35.6 AV	54.0	-18.4	1.29 V	180	32.1	3.5
7	7386.00	44.2 PK	74.0	-29.8	1.29 V	261	34.3	9.9
8	7386.00	31.2 AV	54.0	-22.8	1.29 V	261	21.3	9.9

REMARKS:

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

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.7 PK	74.0	-6.3	2.59 H	150	69.0	-1.3
2	2390.00	49.7 AV	54.0	-4.3	2.59 H	150	51.0	-1.3
3	*2412.00	109.4 PK			2.59 H	150	110.5	-1.1
4	*2412.00	99.1 AV			2.59 H	150	100.2	-1.1
5	4824.00	37.7 PK	74.0	-36.3	2.35 H	145	34.5	3.2
6	4824.00	27.1 AV	54.0	-26.9	2.35 H	145	23.9	3.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.7 PK	74.0	-11.3	3.66 V	360	64.0	-1.3
2	2390.00	46.0 AV	54.0	-8.0	3.66 V	360	47.3	-1.3
3	*2412.00	103.8 PK			3.66 V	360	104.9	-1.1
4	*2412.00	93.8 AV			3.66 V	360	94.9	-1.1
5	4824.00	37.7 PK	74.0	-36.3	2.52 V	320	34.5	3.2
6	4824.00	26.3 AV	54.0	-27.7	2.52 V	320	23.1	3.2

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.5 PK	74.0	-18.5	2.57 H	149	56.8	-1.3
2	2390.00	42.1 AV	54.0	-11.9	2.57 H	149	43.4	-1.3
3	*2437.00	110.5 PK			2.57 H	149	111.7	-1.2
4	*2437.00	100.3 AV			2.57 H	149	101.5	-1.2
5	2483.50	55.8 PK	74.0	-18.2	2.57 H	149	56.8	-1.0
6	2483.50	43.0 AV	54.0	-11.0	2.57 H	149	44.0	-1.0
7	4874.00	37.8 PK	74.0	-36.2	2.39 H	152	34.5	3.3
8	4874.00	27.2 AV	54.0	-26.8	2.39 H	152	23.9	3.3
9	7311.00	43.1 PK	74.0	-30.9	1.55 H	249	33.3	9.8
10	7311.00	31.4 AV	54.0	-22.6	1.55 H	249	21.6	9.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	50.5 PK	74.0	-23.5	3.61 V	360	51.8	-1.3
2	2390.00	38.4 AV	54.0	-15.6	3.61 V	360	39.7	-1.3
3	*2437.00	104.8 PK			3.61 V	360	106.0	-1.2
4	*2437.00	94.9 AV			3.61 V	360	96.1	-1.2
5	2483.50	50.8 PK	74.0	-23.2	3.61 V	360	51.8	-1.0
6	2483.50	40.0 AV	54.0	-14.0	3.61 V	360	41.0	-1.0
7	4874.00	37.6 PK	74.0	-36.4	2.55 V	332	34.3	3.3
8	4874.00	26.2 AV	54.0	-27.8	2.55 V	332	22.9	3.3
9	7311.00	43.3 PK	74.0	-30.7	1.48 V	110	33.5	9.8
10	7311.00	31.6 AV	54.0	-22.4	1.48 V	110	21.8	9.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.8 PK			3.88 H	141	109.9	-1.1
2	*2462.00	97.6 AV			3.88 H	141	98.7	-1.1
3	2483.50	73.3 PK	74.0	-0.7	3.88 H	141	74.3	-1.0
4	2483.50	53.8 AV	54.0	-0.2	3.88 H	141	54.8	-1.0
5	4924.00	37.9 PK	74.0	-36.1	2.38 H	146	34.4	3.5
6	4924.00	27.2 AV	54.0	-26.8	2.38 H	146	23.7	3.5
7	7386.00	43.5 PK	74.0	-30.5	1.49 H	256	33.6	9.9
8	7386.00	31.7 AV	54.0	-22.3	1.49 H	256	21.8	9.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.1 PK			3.65 V	360	104.2	-1.1
2	*2462.00	92.2 AV			3.65 V	360	93.3	-1.1
3	2483.50	68.3 PK	74.0	-5.7	3.65 V	360	69.3	-1.0
4	2483.50	50.1 AV	54.0	-3.9	3.65 V	360	51.1	-1.0
5	4924.00	38.1 PK	74.0	-35.9	2.61 V	330	34.6	3.5
6	4924.00	26.4 AV	54.0	-27.6	2.61 V	330	22.9	3.5
7	7386.00	43.2 PK	74.0	-30.8	1.47 V	98	33.3	9.9
8	7386.00	31.4 AV	54.0	-22.6	1.47 V	98	21.5	9.9

REMARKS:

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

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.2 PK	74.0	-6.8	2.42 H	144	68.5	-1.3
2	2390.00	51.2 AV	54.0	-2.8	2.42 H	144	52.5	-1.3
3	*2412.00	108.2 PK			2.42 H	144	109.3	-1.1
4	*2412.00	97.9 AV			2.42 H	144	99.0	-1.1
5	4824.00	37.7 PK	74.0	-36.3	2.31 H	145	34.5	3.2
6	4824.00	26.9 AV	54.0	-27.1	2.31 H	145	23.7	3.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.3 PK	74.0	-11.7	3.61 V	360	63.6	-1.3
2	2390.00	45.5 AV	54.0	-8.5	3.61 V	360	46.8	-1.3
3	*2412.00	102.5 PK			3.61 V	360	103.6	-1.1
4	*2412.00	92.5 AV			3.61 V	360	93.6	-1.1
5	4824.00	38.7 PK	74.0	-35.3	2.64 V	340	35.5	3.2
6	4824.00	27.1 AV	54.0	-26.9	2.64 V	340	23.9	3.2

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	55.2 PK	74.0	-18.8	2.43 H	156	56.5	-1.3
2	2390.00	41.8 AV	54.0	-12.2	2.43 H	156	43.1	-1.3
3	*2437.00	108.4 PK			2.43 H	156	109.6	-1.2
4	*2437.00	98.3 AV			2.43 H	156	99.5	-1.2
5	2483.50	55.3 PK	74.0	-18.7	2.43 H	156	56.3	-1.0
6	2483.50	42.5 AV	54.0	-11.5	2.43 H	156	43.5	-1.0
7	4874.00	37.7 PK	74.0	-36.3	2.33 H	133	34.4	3.3
8	4874.00	27.0 AV	54.0	-27.0	2.33 H	133	23.7	3.3
9	7311.00	43.3 PK	74.0	-30.7	1.52 H	259	33.5	9.8
10	7311.00	31.4 AV	54.0	-22.6	1.52 H	259	21.6	9.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	51.0 PK	74.0	-23.0	3.63 V	360	52.3	-1.3
2	2390.00	38.8 AV	54.0	-15.2	3.63 V	360	40.1	-1.3
3	*2437.00	102.7 PK			3.63 V	360	103.9	-1.2
4	*2437.00	92.9 AV			3.63 V	360	94.1	-1.2
5	2483.50	50.8 PK	74.0	-23.2	3.63 V	360	51.8	-1.0
6	2483.50	40.2 AV	54.0	-13.8	3.63 V	360	41.2	-1.0
7	4874.00	38.5 PK	74.0	-35.5	2.62 V	330	35.2	3.3
8	4874.00	26.7 AV	54.0	-27.3	2.62 V	330	23.4	3.3
9	7311.00	43.1 PK	74.0	-30.9	1.50 V	105	33.3	9.8
10	7311.00	31.4 AV	54.0	-22.6	1.50 V	105	21.6	9.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.4 PK			3.89 H	136	107.5	-1.1
2	*2462.00	96.0 AV			3.89 H	136	97.1	-1.1
3	2483.50	72.6 PK	74.0	-1.4	3.89 H	136	73.6	-1.0
4	2483.50	53.7 AV	54.0	-0.3	3.89 H	136	54.7	-1.0
5	4924.00	38.1 PK	74.0	-35.9	2.39 H	139	34.6	3.5
6	4924.00	27.5 AV	54.0	-26.5	2.39 H	139	24.0	3.5
7	7386.00	43.9 PK	74.0	-30.1	1.48 H	256	34.0	9.9
8	7386.00	31.8 AV	54.0	-22.2	1.48 H	256	21.9	9.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	100.7 PK			3.64 V	360	101.8	-1.1
2	*2462.00	90.6 AV			3.64 V	360	91.7	-1.1
3	2483.50	68.1 PK	74.0	-5.9	3.64 V	360	69.1	-1.0
4	2483.50	49.9 AV	54.0	-4.1	3.64 V	360	50.9	-1.0
5	4924.00	37.8 PK	74.0	-36.2	2.63 V	341	34.3	3.5
6	4924.00	26.0 AV	54.0	-28.0	2.63 V	341	22.5	3.5
7	7386.00	43.2 PK	74.0	-30.8	1.41 V	89	33.3	9.9
8	7386.00	31.4 AV	54.0	-22.6	1.41 V	89	21.5	9.9

REMARKS:

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

802.11n (HT40)

CHANNEL	TX Channel 3	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	62.8 PK	74.0	-11.2	3.47 H	158	64.1	-1.3
2	2390.00	49.8 AV	54.0	-4.2	3.47 H	158	51.1	-1.3
3	*2422.00	103.4 PK			3.47 H	158	104.7	-1.3
4	*2422.00	92.7 AV			3.47 H	158	94.0	-1.3
5	4844.00	37.3 PK	74.0	-36.7	2.40 H	148	34.0	3.3
6	4844.00	26.7 AV	54.0	-27.3	2.40 H	148	23.4	3.3
7	7266.00	42.8 PK	74.0	-31.2	1.53 H	251	33.0	9.8
8	7266.00	31.2 AV	54.0	-22.8	1.53 H	251	21.4	9.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.6 PK	74.0	-11.4	3.57 V	357	63.9	-1.3
2	2390.00	46.0 AV	54.0	-8.0	3.57 V	357	47.3	-1.3
3	*2422.00	96.7 PK			3.57 V	357	98.0	-1.3
4	*2422.00	86.3 AV			3.57 V	357	87.6	-1.3
5	4844.00	37.7 PK	74.0	-36.3	2.61 V	342	34.4	3.3
6	4844.00	26.3 AV	54.0	-27.7	2.61 V	342	23.0	3.3
7	7266.00	42.9 PK	74.0	-31.1	1.43 V	105	33.1	9.8
8	7266.00	30.9 AV	54.0	-23.1	1.43 V	105	21.1	9.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	54.8 PK	74.0	-19.2	2.96 H	152	56.1	-1.3
2	2390.00	43.8 AV	54.0	-10.2	2.96 H	152	45.1	-1.3
3	*2437.00	103.8 PK			2.96 H	152	105.0	-1.2
4	*2437.00	93.2 AV			2.96 H	152	94.4	-1.2
5	2483.50	60.7 PK	74.0	-13.3	2.96 H	152	61.7	-1.0
6	2483.50	46.8 AV	54.0	-7.2	2.96 H	152	47.8	-1.0
7	4874.00	37.2 PK	74.0	-36.8	2.41 H	153	33.9	3.3
8	4874.00	26.8 AV	54.0	-27.2	2.41 H	153	23.5	3.3
9	7311.00	43.4 PK	74.0	-30.6	1.54 H	257	33.6	9.8
10	7311.00	31.6 AV	54.0	-22.4	1.54 H	257	21.8	9.8

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	50.9 PK	74.0	-23.1	3.67 V	360	52.2	-1.3
2	2390.00	38.7 AV	54.0	-15.3	3.67 V	360	40.0	-1.3
3	*2437.00	97.1 PK			3.67 V	360	98.3	-1.2
4	*2437.00	86.8 AV			3.67 V	360	88.0	-1.2
5	2483.50	50.5 PK	74.0	-23.5	3.67 V	360	51.5	-1.0
6	2483.50	39.9 AV	54.0	-14.1	3.67 V	360	40.9	-1.0
7	4874.00	38.2 PK	74.0	-35.8	2.59 V	331	34.9	3.3
8	4874.00	26.3 AV	54.0	-27.7	2.59 V	331	23.0	3.3
9	7311.00	43.0 PK	74.0	-31.0	1.43 V	101	33.2	9.8
10	7311.00	31.4 AV	54.0	-22.6	1.43 V	101	21.6	9.8

REMARKS:

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

CHANNEL	TX Channel 9	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	*2452.00	104.7 PK			2.80 H	150	105.8	-1.1
2	*2452.00	92.3 AV			2.80 H	150	93.4	-1.1
3	2483.50	70.3 PK	74.0	-3.7	2.80 H	150	71.3	-1.0
4	2483.50	53.7 AV	54.0	-0.3	2.80 H	150	54.7	-1.0
5	4904.00	37.5 PK	74.0	-36.5	2.34 H	142	34.0	3.5
6	4904.00	27.0 AV	54.0	-27.0	2.34 H	142	23.5	3.5
7	7356.00	43.8 PK	74.0	-30.2	1.43 H	250	33.9	9.9
8	7356.00	31.9 AV	54.0	-22.1	1.43 H	250	22.0	9.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	98.0 PK			3.67 V	360	99.1	-1.1
2	*2452.00	85.9 AV			3.67 V	360	87.0	-1.1
3	2483.50	68.6 PK	74.0	-5.4	3.67 V	360	69.6	-1.0
4	2483.50	50.4 AV	54.0	-3.6	3.67 V	360	51.4	-1.0
5	4904.00	37.6 PK	74.0	-36.4	2.58 V	342	34.1	3.5
6	4904.00	26.1 AV	54.0	-27.9	2.58 V	342	22.6	3.5
7	7356.00	43.0 PK	74.0	-31.0	1.49 V	102	33.1	9.9
8	7356.00	31.4 AV	54.0	-22.6	1.49 V	102	21.5	9.9

REMARKS:

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

Below 1GHz 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	203.75	40.2 QP	43.5	-3.3	1.00 H	238	51.6	-11.4
2	220.73	30.2 QP	46.0	-15.8	1.00 H	294	41.7	-11.5
3	240.00	29.5 QP	46.0	-16.5	1.00 H	280	39.5	-10.0
4	360.02	27.7 QP	46.0	-18.3	1.00 H	102	33.8	-6.1
5	611.20	31.4 QP	46.0	-14.6	1.50 H	304	31.6	-0.2
6	814.92	30.8 QP	46.0	-15.2	1.50 H	194	28.1	2.7

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	54.47	26.8 QP	40.0	-13.2	1.50 V	0	34.8	-8.0
2	148.68	25.4 QP	43.5	-18.1	1.00 V	108	33.5	-8.1
3	203.75	34.1 QP	43.5	-9.4	2.50 V	0	45.5	-11.4
4	220.73	27.7 QP	46.0	-18.3	1.50 V	355	39.2	-11.5
5	611.20	29.8 QP	46.0	-16.2	1.00 V	77	30.0	-0.2
6	814.95	29.6 QP	46.0	-16.4	2.50 V	119	26.9	2.7

REMARKS:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

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

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 24, 2016	Oct. 23, 2017
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 26, 2016	Oct. 25, 2017
RF Cable	5D-FB	COCCAB-001	Sep. 30, 2016	Sep. 29, 2017
10 dB PAD Mini-Circuits	HAT-10+	CONATT-004	June 20, 2016	June 19, 2017
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. 1.
3. Tested Date: May 16 to 17, 2017

4.2.3 Test Procedures

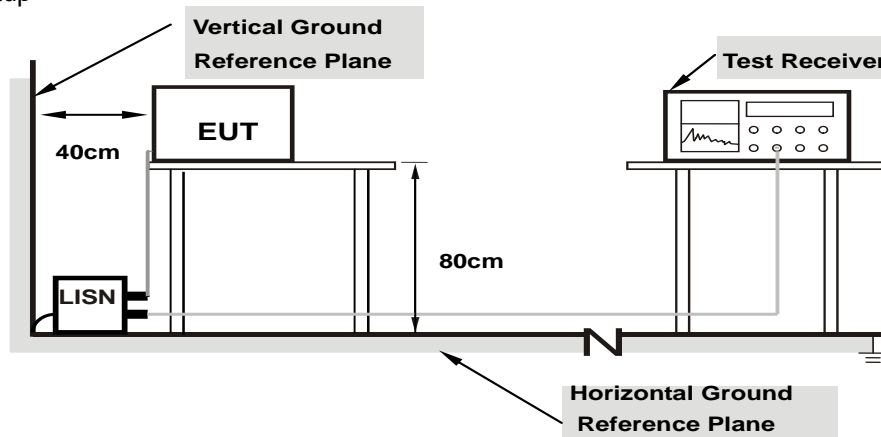
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

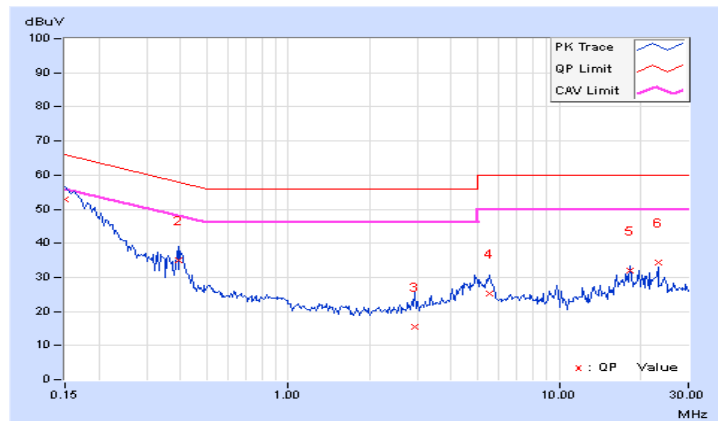
4.2.7 Test Results (Mode 1)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.19	42.74	25.89	52.93	36.08	66.00	56.00	-13.07	-19.92
2	0.39219	10.22	24.74	15.93	34.96	26.15	58.02	48.02	-23.06	-21.87
3	2.92188	10.24	5.33	-2.11	15.57	8.13	56.00	46.00	-40.43	-37.87
4	5.50781	10.32	14.85	9.68	25.17	20.00	60.00	50.00	-34.83	-30.00
5	18.24219	11.26	20.62	19.47	31.88	30.73	60.00	50.00	-28.12	-19.27
6	23.12891	11.41	22.81	20.36	34.22	31.77	60.00	50.00	-25.78	-18.23

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

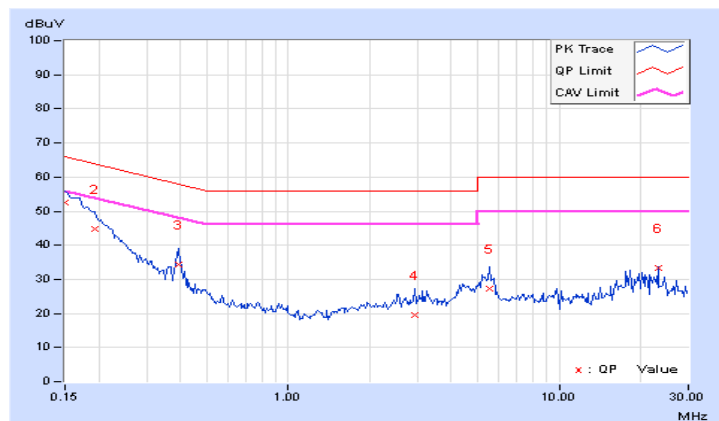


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.18	42.25	25.28	52.43	35.46	66.00	56.00	-13.57	-20.54
2	0.19297	10.16	34.67	19.02	44.83	29.18	63.91	53.91	-19.08	-24.73
3	0.39219	10.21	24.07	14.35	34.28	24.56	58.02	48.02	-23.74	-23.46
4	2.94141	10.22	9.35	3.49	19.57	13.71	56.00	46.00	-36.43	-32.29
5	5.53125	10.24	17.05	9.60	27.29	19.84	60.00	50.00	-32.71	-30.16
6	23.12891	11.08	22.33	20.13	33.41	31.21	60.00	50.00	-26.59	-18.79

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



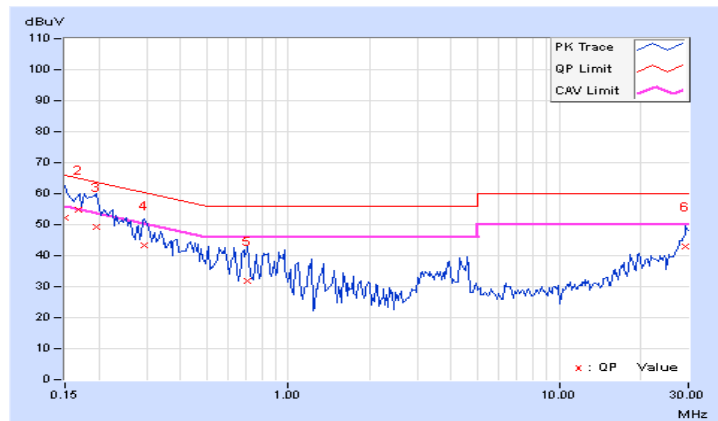
4.2.8 Test Results (Mode 2)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.19	42.03	19.76	52.22	29.95	66.00	56.00	-13.78	-26.05
2	0.16837	10.19	44.78	41.24	54.97	51.43	65.04	55.04	-10.07	-3.61
3	0.19687	10.19	39.23	29.22	49.42	39.41	63.74	53.74	-14.32	-14.33
4	0.29453	10.20	33.16	25.09	43.36	35.29	60.40	50.40	-17.04	-15.11
5	0.70859	10.24	21.50	9.37	31.74	19.61	56.00	46.00	-24.26	-26.39
6	29.42188	11.46	31.65	25.87	43.11	37.33	60.00	50.00	-16.89	-12.67

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

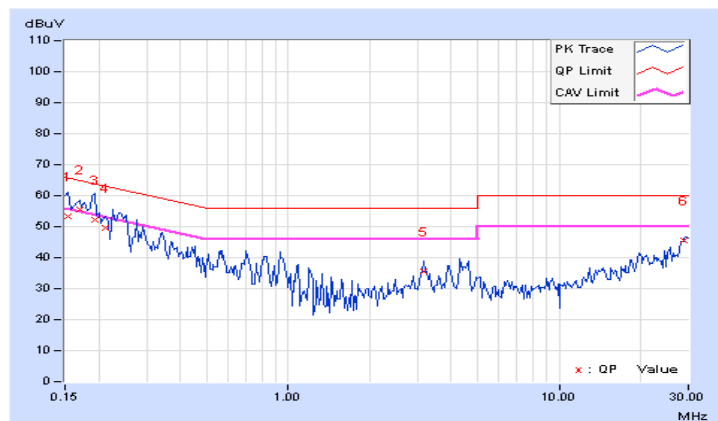


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.18	43.27	21.01	53.45	31.19	65.79	55.79	-12.34	-24.60
2	0.16991	10.17	45.35	41.43	55.52	51.60	64.96	54.96	-9.44	-3.36
3	0.19297	10.16	42.18	36.09	52.34	46.25	63.91	53.91	-11.57	-7.66
4	0.21084	10.16	39.43	33.17	49.59	43.33	63.17	53.17	-13.58	-9.84
5	3.16797	10.21	25.53	20.43	35.74	30.64	56.00	46.00	-20.26	-15.36
6	28.98047	11.06	34.52	26.61	45.58	37.67	60.00	50.00	-14.42	-12.33

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

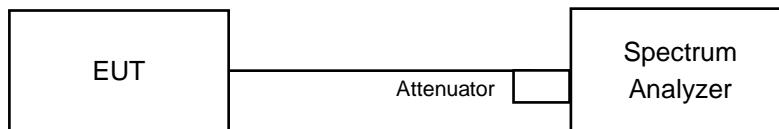


4.3 6dB Bandwidth Measurement

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) $\geq 3 \times$ 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 from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	8.01	0.5	PASS
6	2437	7.15	0.5	PASS
11	2462	7.60	0.5	PASS

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	16.41	0.5	PASS
6	2437	16.43	0.5	PASS
11	2462	16.42	0.5	PASS

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	17.61	0.5	PASS
6	2437	17.65	0.5	PASS
11	2462	17.65	0.5	PASS

802.11n (HT40)

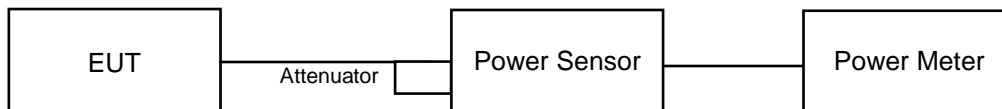
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
3	2422	35.25	0.5	PASS
6	2437	35.53	0.5	PASS
9	2452	35.32	0.5	PASS

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

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

FOR PEAK POWER

802.11b

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	171.002	22.33	30	Pass
6	2437	159.588	22.03	30	Pass
11	2462	158.125	21.99	30	Pass

802.11g

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	165.196	22.18	30	Pass
6	2437	163.682	22.14	30	Pass
11	2462	170.608	22.32	30	Pass

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
1	2412	141.906	21.52	30	Pass
6	2437	137.721	21.39	30	Pass
11	2462	133.968	21.27	30	Pass

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass / Fail
3	2422	125.893	21.00	30	Pass
6	2437	132.739	21.23	30	Pass
9	2452	113.24	20.54	30	Pass

FOR AVERAGE POWER
802.11b

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	95.06	19.78
6	2437	92.045	19.64
11	2462	86.099	19.35

802.11g

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	38.994	15.91
6	2437	37.411	15.73
11	2462	35.481	15.50

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	31.769	15.02
6	2437	31.477	14.98
11	2462	27.606	14.41

802.11n (HT40)

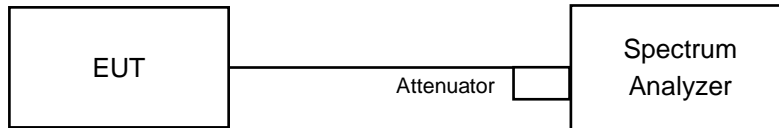
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
3	2422	21.878	13.40
6	2437	22.08	13.44
9	2452	17.947	12.54

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

- a. Set analyzer center frequency to DTS channel center frequency.
- b. Set the span to 1.5 times the DTS bandwidth.
- c. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d. Set the VBW $\geq 3 \times \text{RBW}$.
- e. Detector = peak.
- f. Sweep time = auto couple.
- 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.

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	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-3.33	8	Pass
6	2437	-3.52	8	Pass
11	2462	-2.65	8	Pass

802.11g

Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-8.41	8	Pass
6	2437	-10.11	8	Pass
11	2462	-10.15	8	Pass

802.11n (HT20)

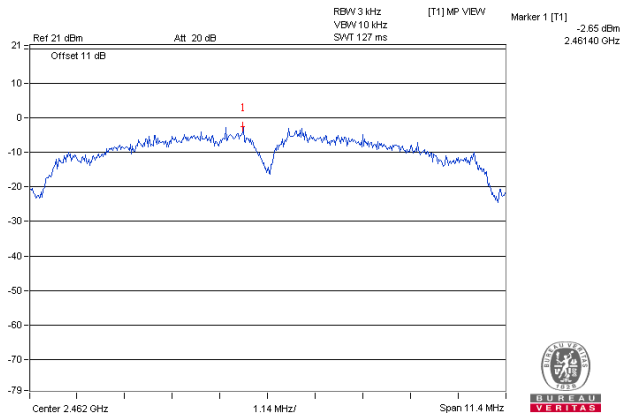
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-10.64	8	Pass
6	2437	-8.43	8	Pass
11	2462	-9.85	8	Pass

802.11n (HT40)

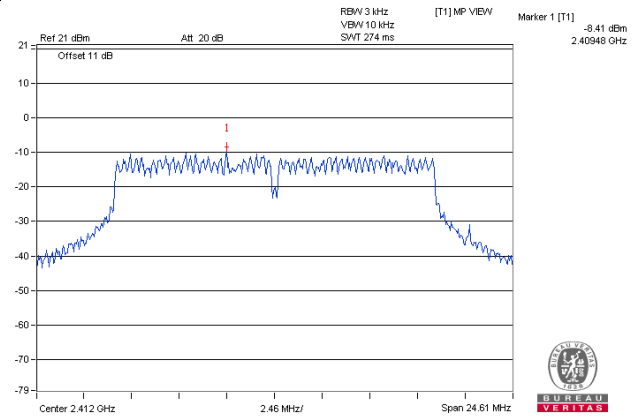
Channel	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
3	2422	-15.32	8	Pass
6	2437	-13.66	8	Pass
9	2452	-16.45	8	Pass

Spectrum Plot of Worst Value

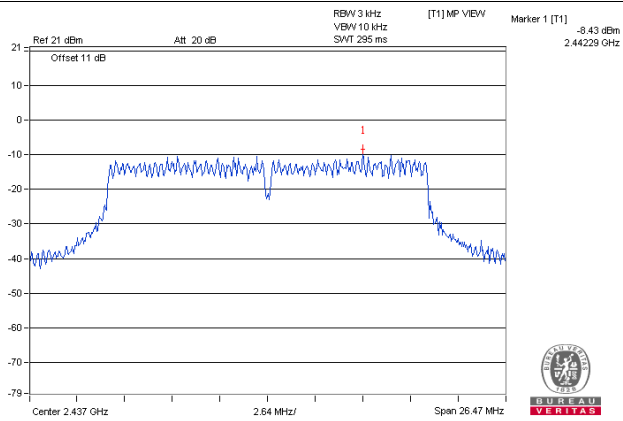
802.11b : CH11



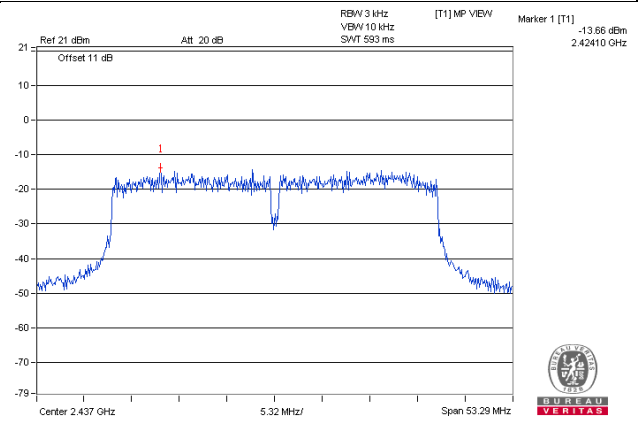
802.11g : CH1



802.11n (HT20) : CH6



802.11n (HT40) : CH6

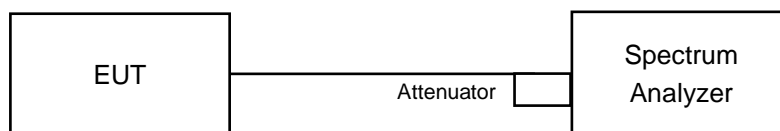


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

MEASUREMENT PROCEDURE OOB

1. Set RBW = 100 kHz.
2. Set VBW \geq 300 kHz.
3. Detector = peak.
4. Sweep = auto couple.
5. Trace Mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

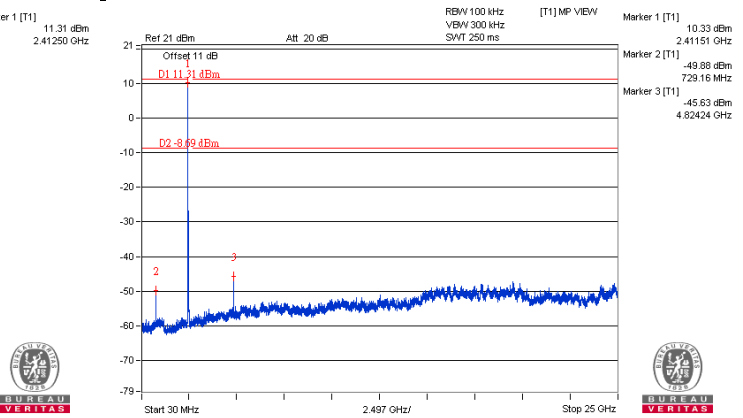
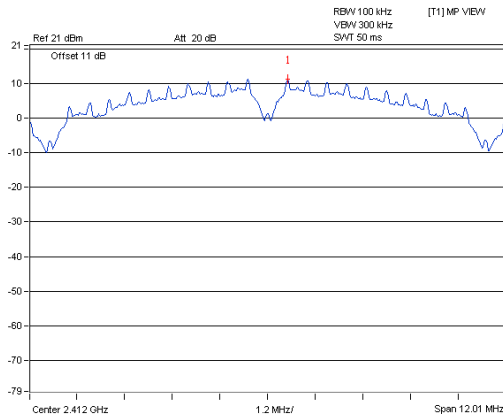
Same as Item 4.3.6

4.6.7 Test Results

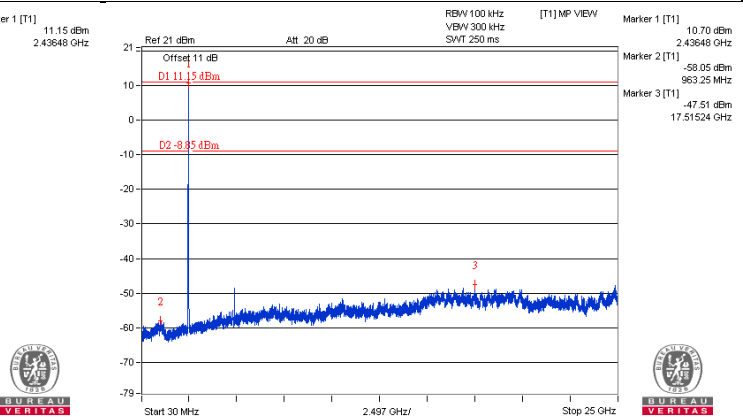
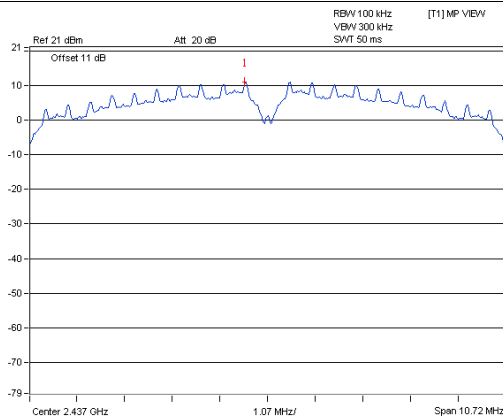
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b

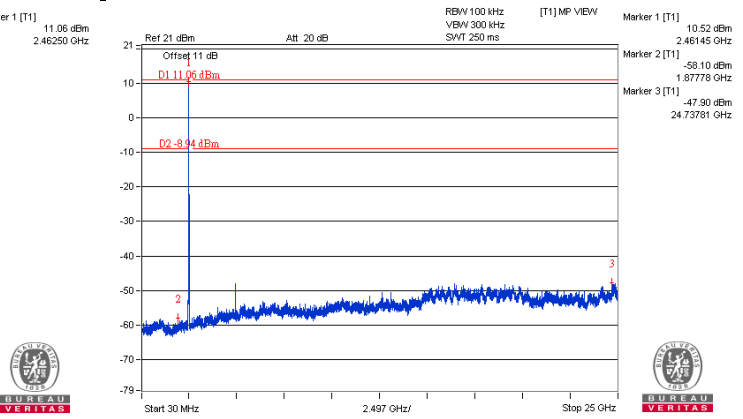
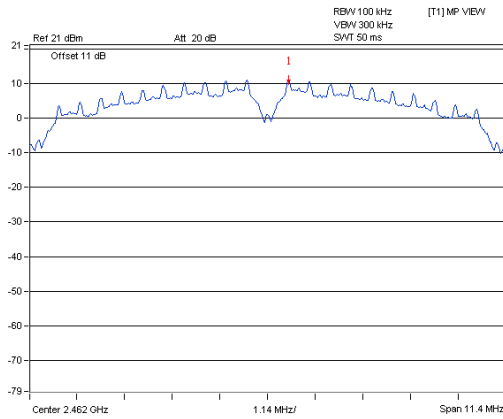
CH 1



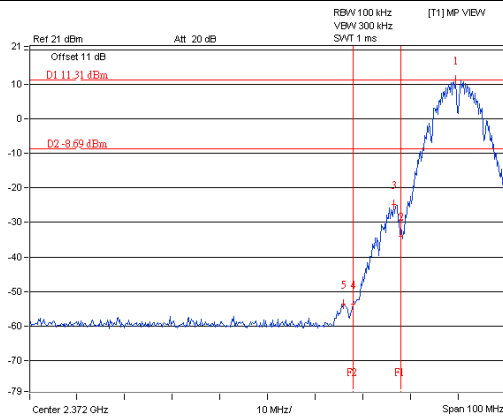
CH 6



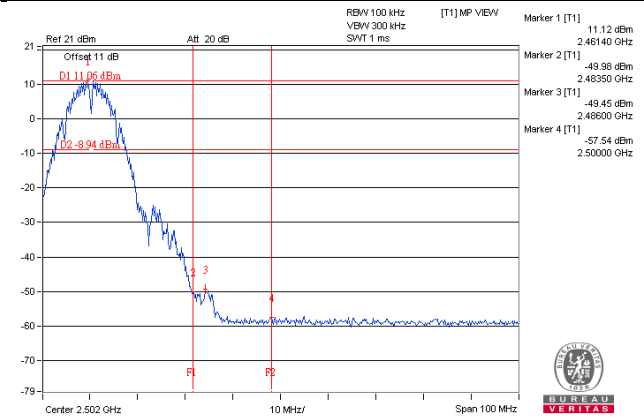
CH 11



CH 1 Band edge

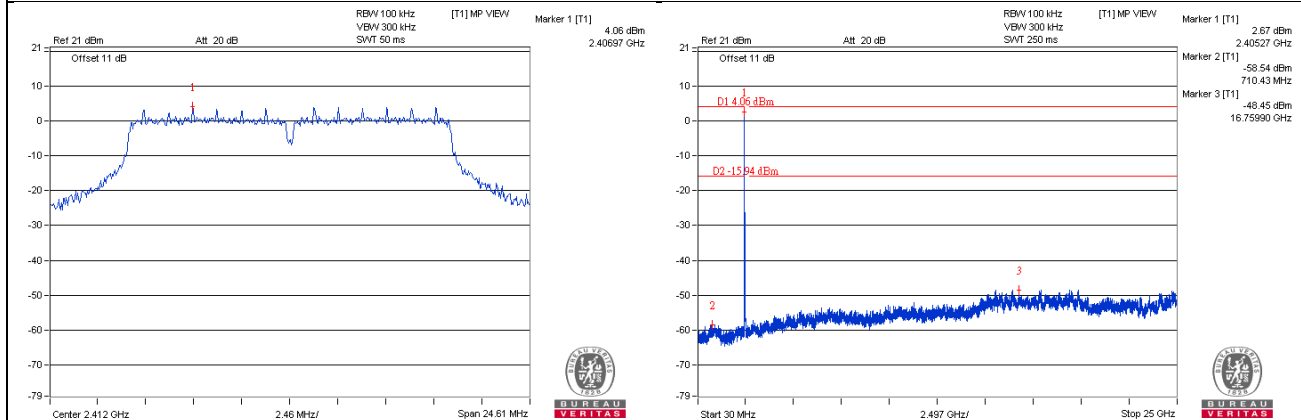


CH 11 Band edge

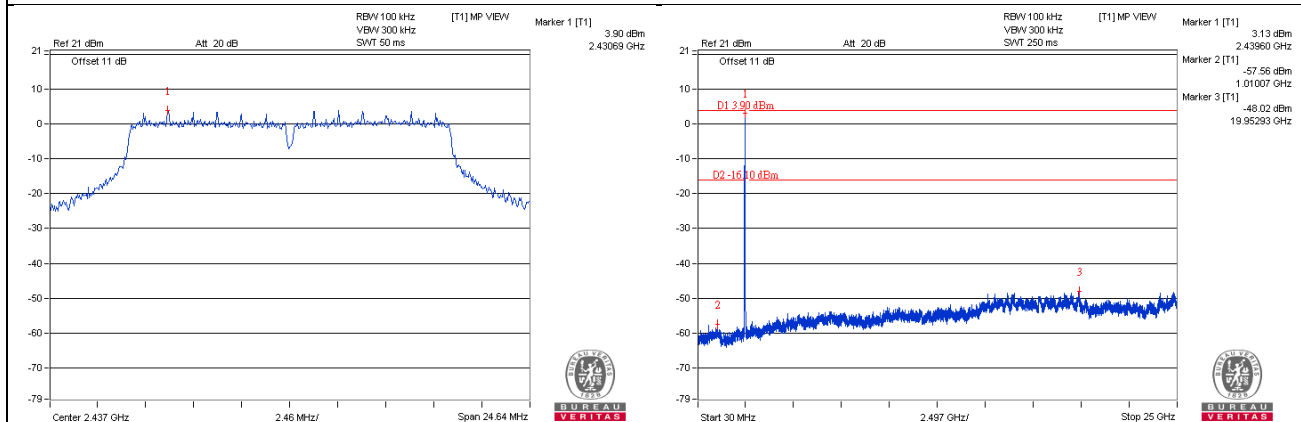


802.11g

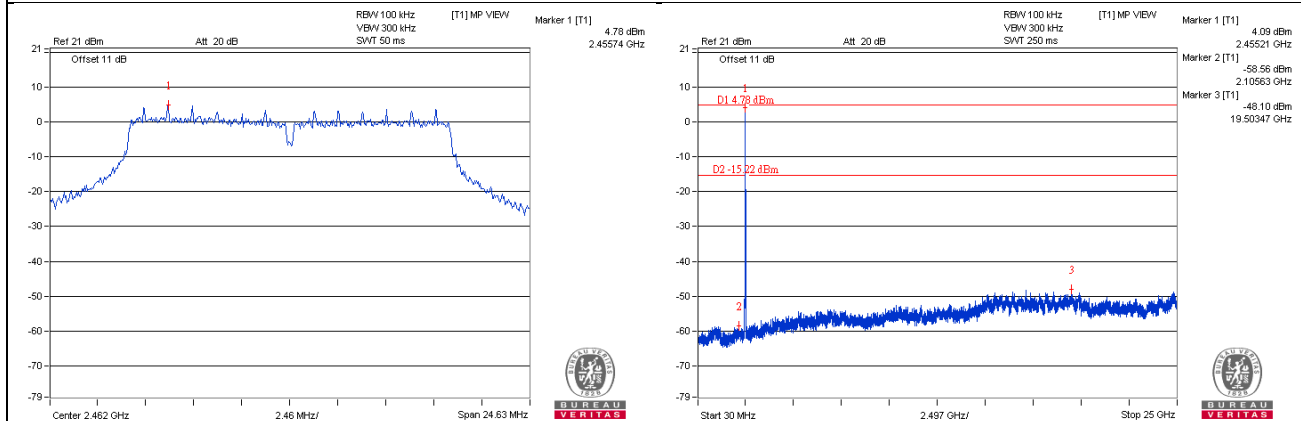
CH 1



CH 6

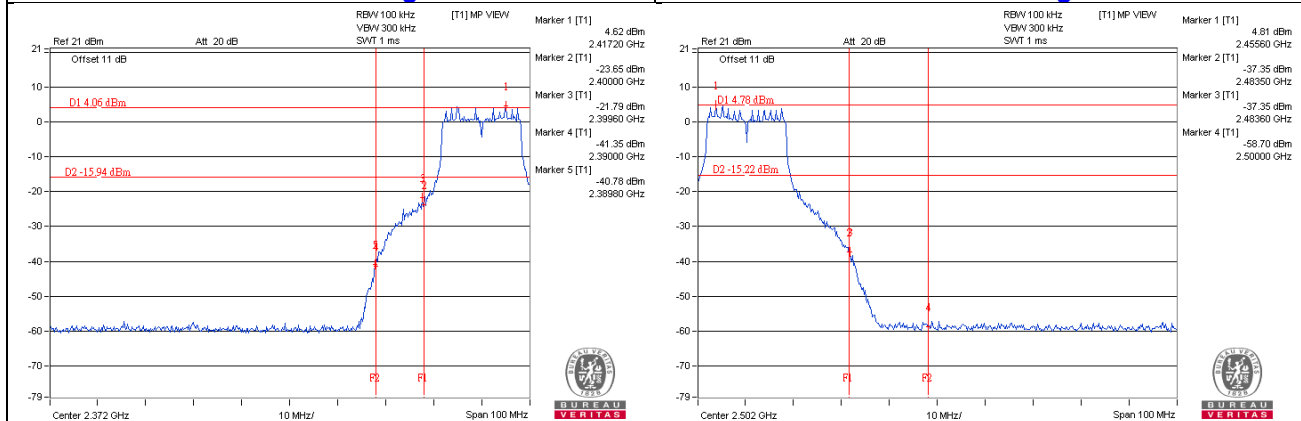


CH 11



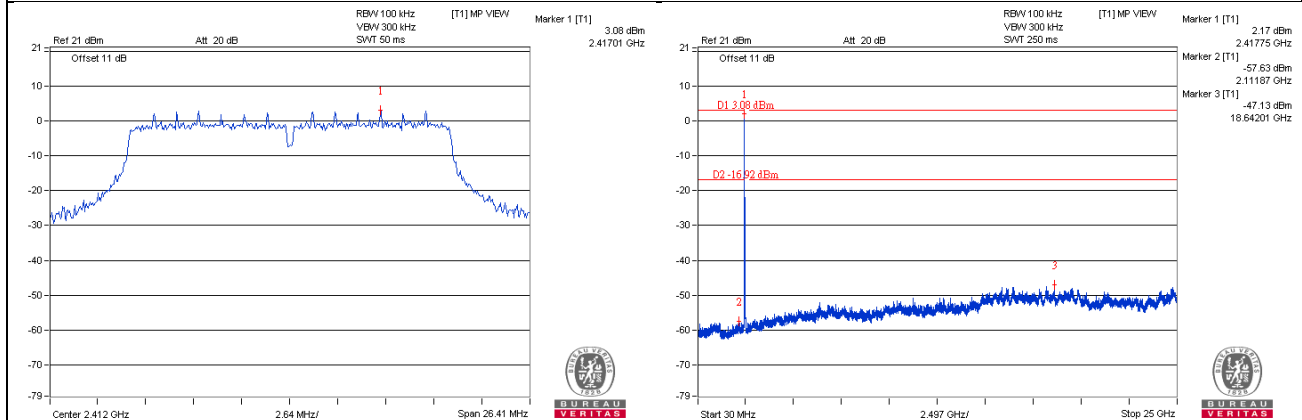
CH 1 Band edge

CH 11 Band edge

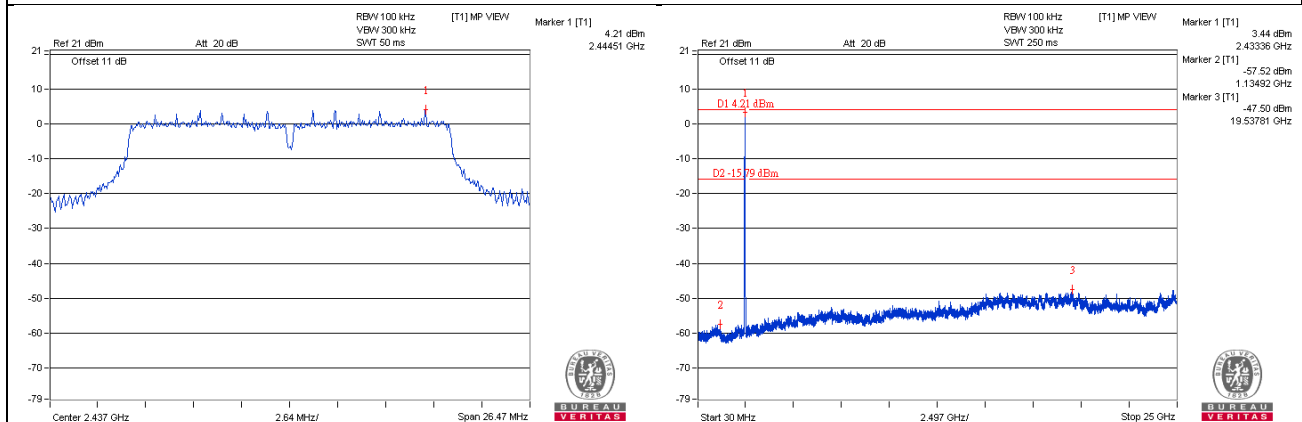


802.11n (HT20)

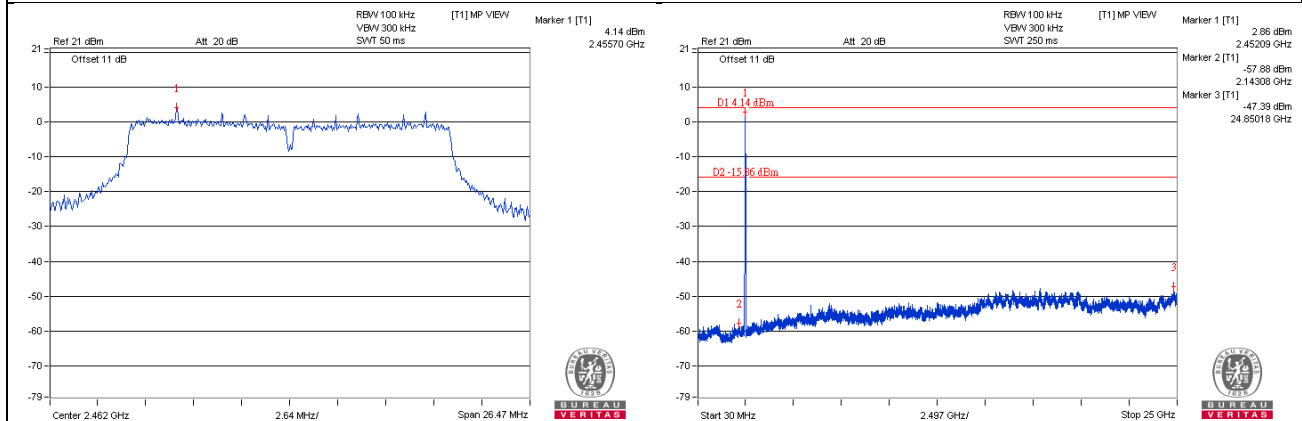
CH 1



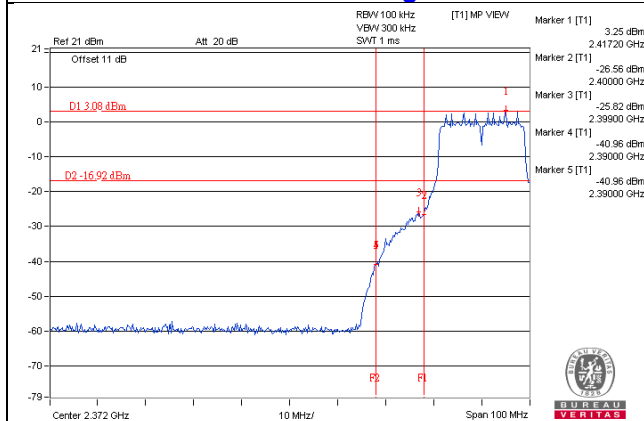
CH 6



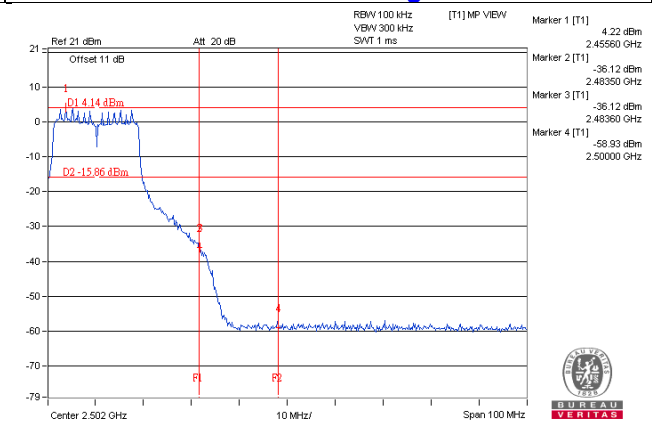
CH 11



CH 1 Band edge

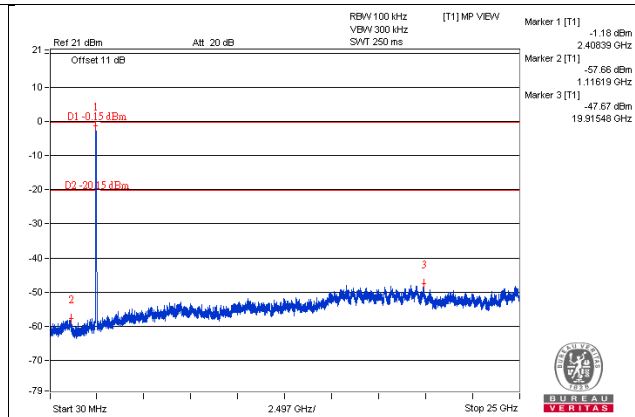
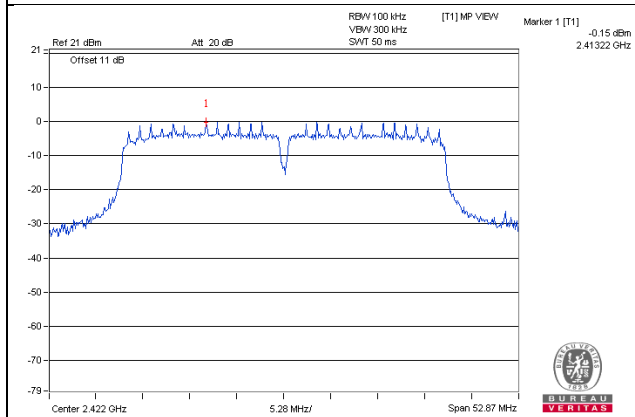


CH 11 Band edge

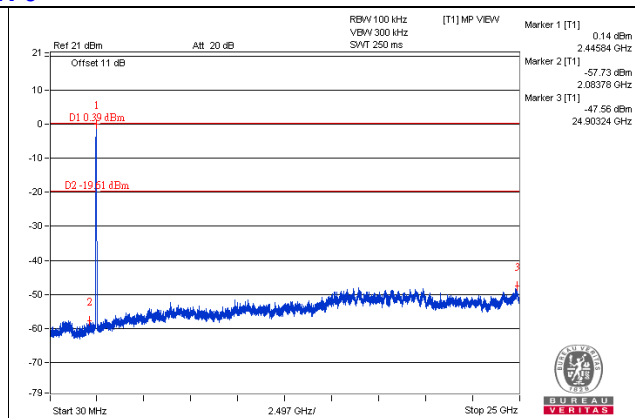
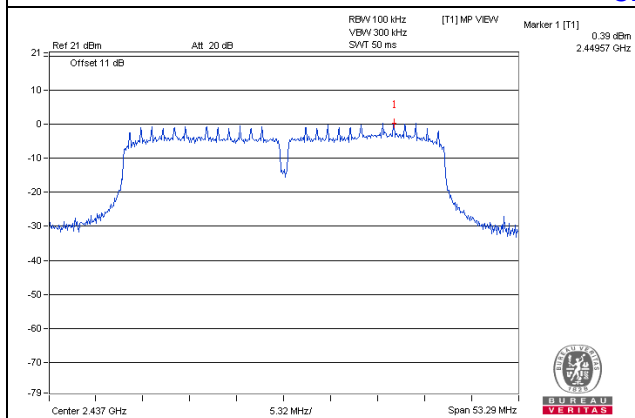


802.11n (HT40)

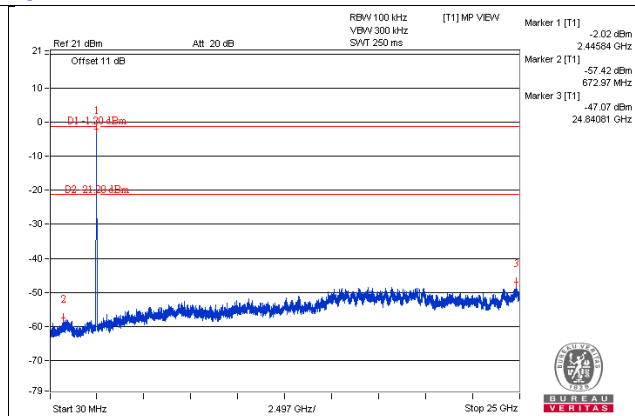
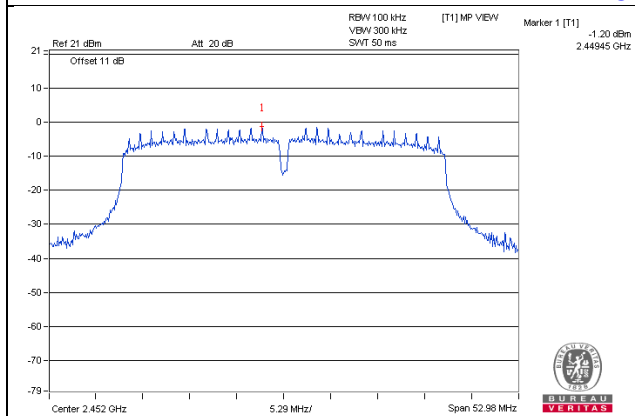
CH 3



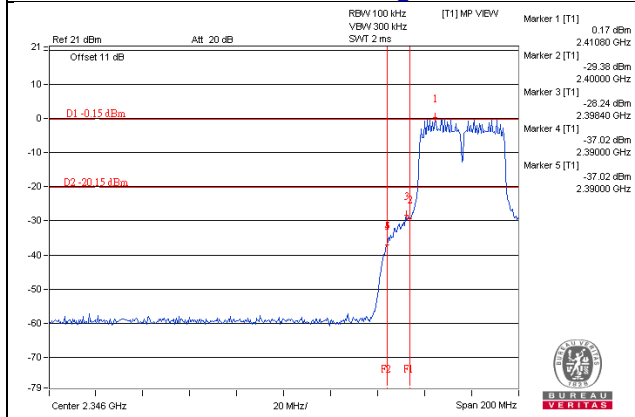
CH 6



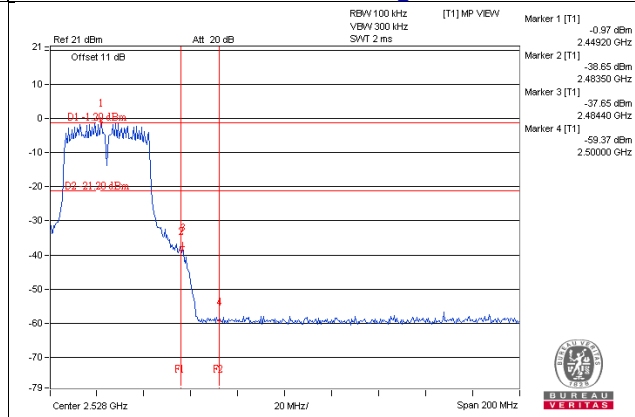
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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