FCC Test Report

Report No.:	RF161017C17
FCC ID:	PY315400332
Test Model:	C6220
Received Date:	Oct. 17, 2016
Test Date:	Nov. 01 to 03, 2016
Issued Date:	Nov. 23, 2016
Applicant:	NETGEAR, INC.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
RF161017C17	Original release.	Nov. 23, 2016

1 Certificate of Conformity

Product:	Cable Gateway
Brand:	Netgear
Test Model:	C6220
Sample Status:	ENGINEERING SAMPLE
Applicant:	NETGEAR, INC.
Test Date:	Nov. 01 to 03, 2016
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.247) ANSI C63.10: 2013

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

Prepared by : Nico Liu , **Date:** Nov. 23, 2016

Nico Liu / Specialist

Approved by : , **Date:** Nov. 23, 2016

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (SECTION 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -14.83 dB at 0.15000 MHz.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.1 dB at 2390.00MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted power	PASS	Meet the requirement of limit.
15.247(e)	Power Spectral Density	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.83 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.34 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.41 dB
	6GHz ~ 18GHz	3.49 dB
	18GHz ~ 40GHz	3.30 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Cable Gateway
Brand	Netgear
Test Model	C6220
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	DC 12V from power adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only
Modulation Technology	DSSS,OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866Mbps
Operating Frequency	**2.4GHz** 2.412 ~ 2.462GHz
	5GHz 5.18 ~ 5.24GHz and 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): 9 802.11n (HT40), 802.11ac (VHT40): 4 802.11ac (VHT80): 2
Output Power	**2.4GHz** **CDD Mode** 771.87mW
	5GHz: **5.18GHz ~ 5.24GHz:** **CDD Mode** 418.994mW **Beamforming Mode** 390.064mW **5.745GHz ~ 5.825GHz:** **CDD Mode** 539.27mW **Beamforming Mode** 565.69mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	WLAN (5GHz)
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

2. The EUT must be supplied with a power adapter following table:

No	Brand Name	Model No.	PN	Spec.
1	NETGEAR	AD2067F10	332-10797-01	Input: 100-120Vac, 50/60Hz, 1.0A Output: 12Vdc, 2.5A DC cable 1.85m

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

Antenna No.	Brand	Model	Antenna Gain(dBi)	Frequency range	Antenna connector	Antenna Type
ant_1	NA	NA	1.67	2.4~2.4835GHz	R-SMA	Dipole
			2.26	5.15~5.25GHz		
			2.41	5.725~5.85GHz		
ant_2	NA	NA	2.46	2.4~2.4835GH	R-SMA	Dipole
			3.69	5.15~5.25GHz		
			3.73	5.725~5.85GHz		

4. The EUT incorporates a MIMO function.

2.4GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11b	1 ~ 11Mbps	1TX diversity	2RX
802.11g	6 ~ 54Mbps	2TX	2RX
802.11n (HT20)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX
802.11n (HT40)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX
5GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11a	6 ~ 54Mbps	2TX	2RX
802.11n (HT20)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX
802.11n (HT40)	MCS 0~7	2TX	2RX
	MCS 8~15	2TX	2RX
802.11ac (VHT20)	MCS0~8 Nss=1	2TX	2RX
	MCS0~8 Nss=2	2TX	2RX
802.11ac (VHT40)	MCS0~9 Nss=1	2TX	2RX
	MCS0~9 Nss=2	2TX	2RX
802.11ac (VHT80)	MCS0~9 Nss=1	2TX	2RX
	MCS0~9 Nss=2	2TX	2RX

Note:
1. All of modulation mode support beamforming function except 802.11a modulation mode and 2.4GHz band.
2. For 802.11b mode will select ant_1 for the final test.

5. 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≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **X-plane**.

Radiated Emission Test (Above 1GHz):

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

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

1TX					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
2TX CDD Mode					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
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.

2TX CDD Mode					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

Power Line Conducted Emission Test:

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

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

2TX CDD Mode					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11g	1 to 11	6	OFDM	BPSK	6

Antenna Port Conducted Measurement:

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

1TX					
MODE	**AVAILABLE CHANNEL**	**TESTED CHANNEL**	**MODULATION TECHNOLOGY**	**MODULATION TYPE**	**DATA RATE (Mbps)**
802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1
2TX CDD Mode					
MODE	**AVAILABLE CHANNEL**	**TESTED CHANNEL**	**MODULATION TECHNOLOGY**	**MODULATION TYPE**	**DATA RATE (Mbps)**
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

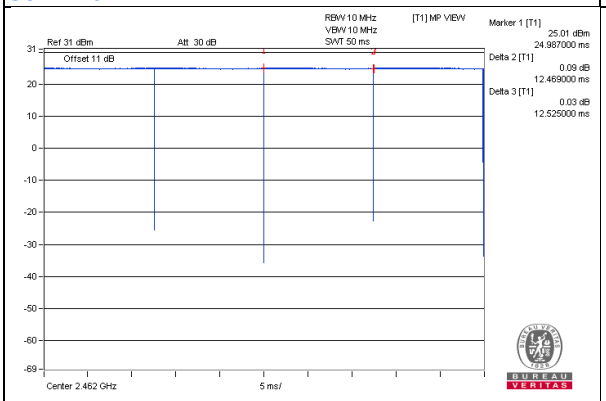
Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	21deg. C, 66%RH	120Vac, 60Hz	Robert Lo
RE<1G	21deg. C, 66%RH	120Vac, 60Hz	Gary Cheng
PLC	25deg. C, 60%RH	120Vac, 60Hz	Barry Lee
APCM	25deg. C, 60%RH	120Vac, 60Hz	Gary Cheng

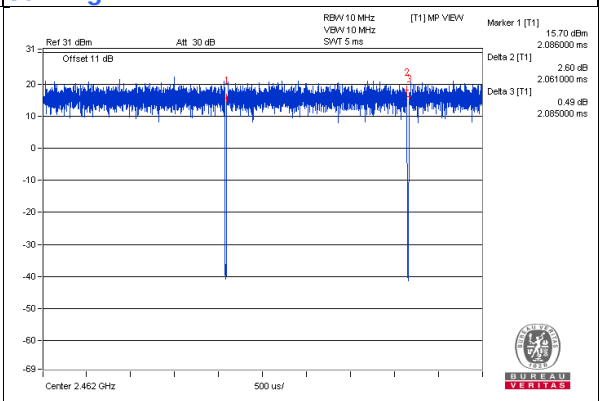
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is ≥ 98 %, duty factor is not required.
802.11b: Duty cycle = 12.469ms/12.525ms = 0.995
802.11g: Duty cycle = 2.061ms/2.085ms = 0.988
802.11n (HT20): Duty cycle = 1.916ms/1.938ms = 0.988
802.11n (HT40): Duty cycle = 0.932ms/0.951ms = 0.980

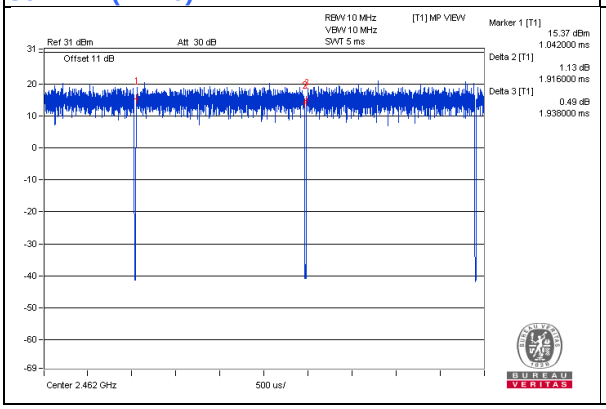
802.11b



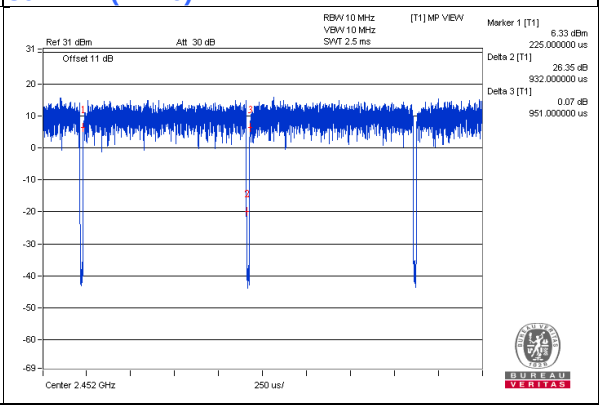
802.11g



802.11n (HT20)



802.11n (HT40)



3.4 Description of Support Units

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

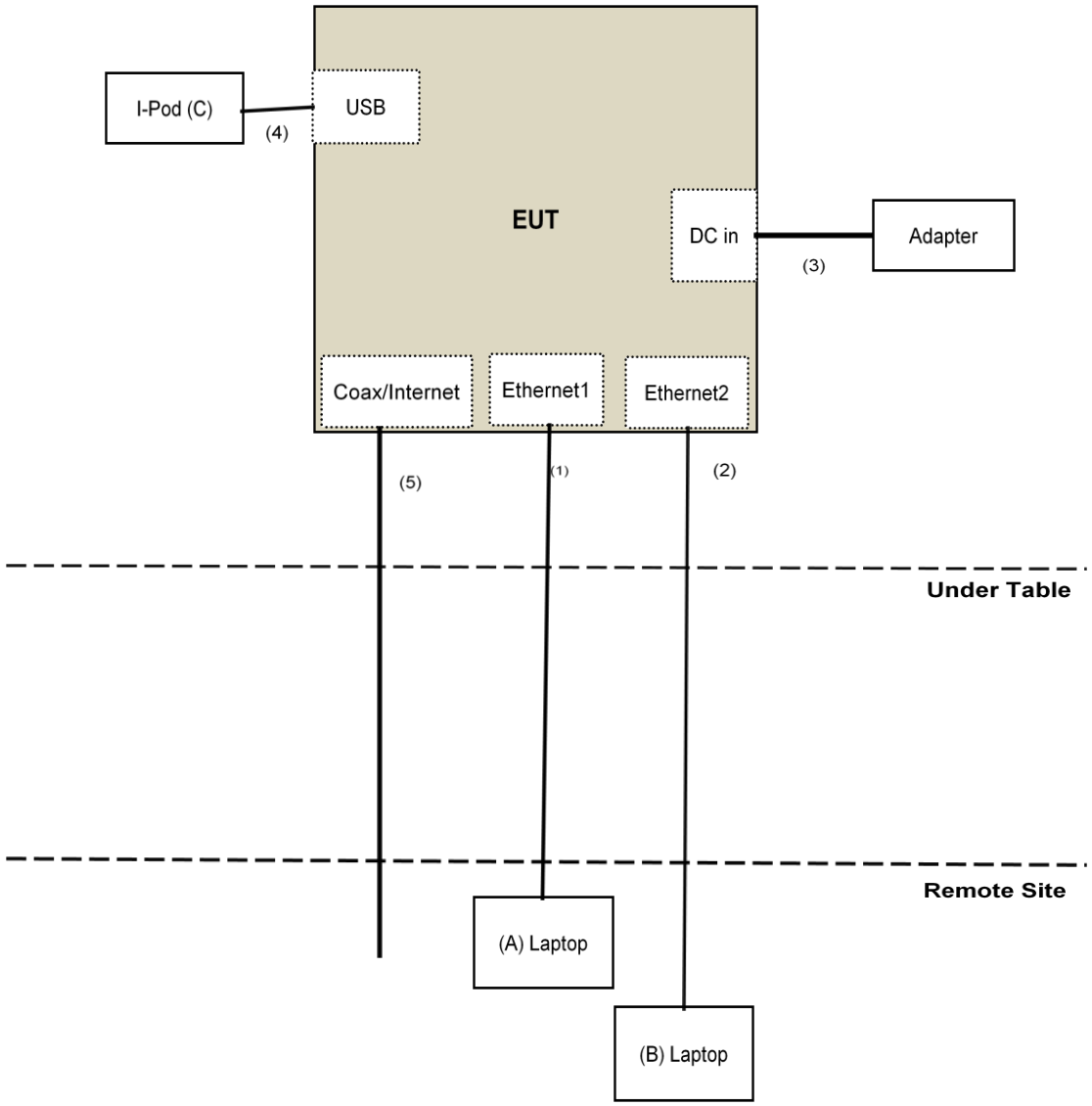
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	PP32LA	FSLB32S	FCC DoC	Provided by Lab
B.	Laptop	LENOVO	E440	PF071LWC	NA	Provided by Lab
C.	iPod	Apple	MD778TA/A	CC4JG680F4T1	NA	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ-45 Cable	1	10	No	0	Provided by Lab
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	DC Cable	1	1.85	No	0	Supplied by client
4.	USB Cable	1	0.1	Yes	0	Provided by Lab
5.	Coaxial Cable	1	10	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart C (15.247)
KDB 558074 D01 DTS Meas Guidance v03r05
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

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, 2014	Dec. 15, 2016
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 18, 2016	Jan. 17, 2017
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 11, 2015	Nov. 10, 2016
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Jan. 04, 2016	Jan. 03, 2017
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 02, 2016	Apr. 01, 2017
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 05, 2016	Oct. 04, 2017
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Jan. 19, 2016	Jan. 18, 2017
Pre-Amplifier Agilent	8449B	3008A01922	Sep. 18, 2016	Sep. 17, 2017
RF Cable	EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000	150318 150323 150324	Mar. 30, 2016	Mar. 29, 2017
Pre-Amplifier EMCI	EMC184045	980143	Jan. 15, 2016	Jan. 14, 2017
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Jan. 08, 2016	Jan. 07, 2017
RF Cable	SUCOFLEX 102	36432/2 36441/2	Jan. 16, 2016	Jan. 15, 2017
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208410	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP02	NA	NA
Spectrum Analyzer R&S	FSP40	100060	May 11, 2016	May 10, 2017
Spectrum Analyzer Agilent	E4446A	MY48250253	Dec. 22, 2015	Dec. 21, 2016
Power meter Anritsu	ML2495A	1014008	May 5, 2016	May 4, 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 Loop antenna was used for all emissions below 30 MHz.
7. Tested Date: Nov. 03, 2016

4.1.3 Test Procedures

For Radiated emission below 30MHz

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

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

c. Both X and Y axes of the antenna are set to make the measurement.

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

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

NOTE:

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

For Radiated emission above 30MHz

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

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

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

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

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

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

Note:

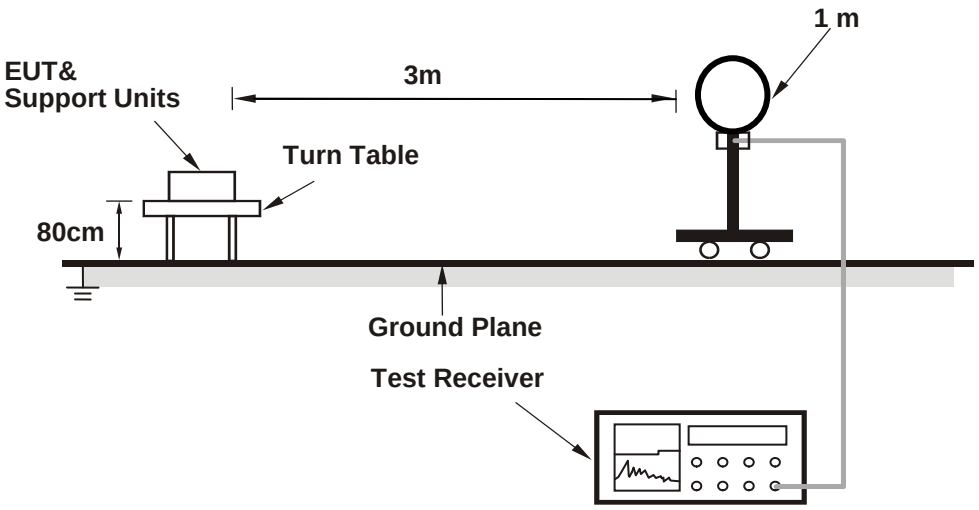
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

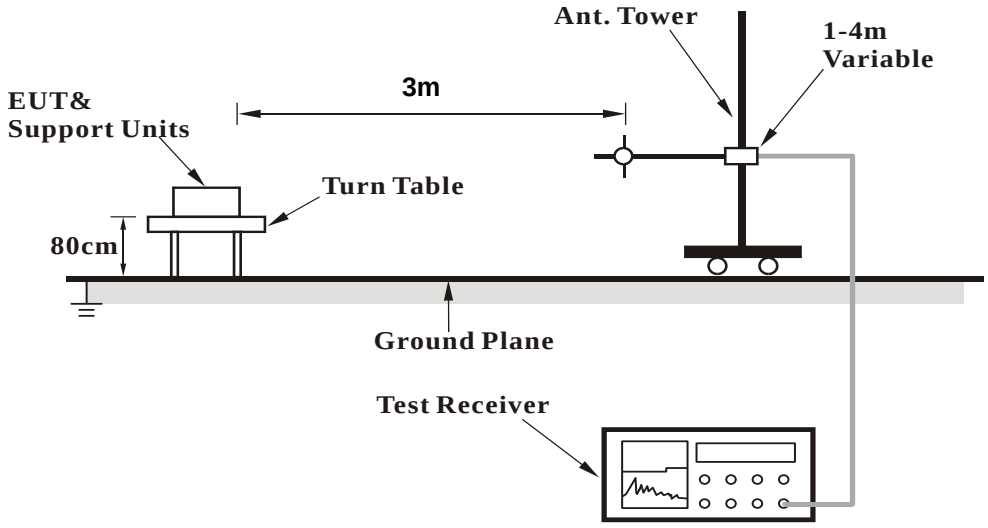
No deviation.

4.1.5 Test Setup

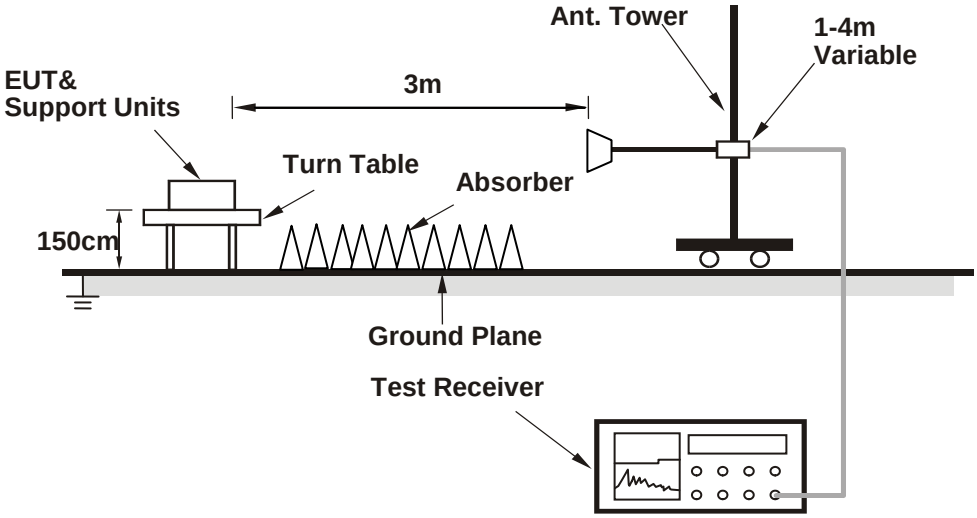
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

a. Connected the EUT with the Laptop which is placed on remote site.
b. Contorlling software (MTool 2.0.1.1.msi) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data：

1TX:

802.11b

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.4 PK	74.0	-15.6	1.16 H	335	64.1	-5.7
2	2390.00	48.7 AV	54.0	-5.3	1.16 H	335	54.4	-5.7
3	*2412.00	105.7 PK			1.16 H	335	111.3	-5.6
4	*2412.00	101.7 AV			1.16 H	335	107.3	-5.6
5	4824.00	51.0 PK	74.0	-23.0	1.37 H	172	50.2	0.8
6	4824.00	46.7 AV	54.0	-7.3	1.37 H	172	45.9	0.8
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	60.1 PK	74.0	-13.9	2.01 V	209	65.8	-5.7
2	2390.00	49.7 AV	54.0	-4.3	2.01 V	209	55.4	-5.7
3	*2412.00	111.8 PK			2.01 V	209	117.4	-5.6
4	*2412.00	108.1 AV			2.01 V	209	113.7	-5.6
5	4824.00	53.4 PK	74.0	-20.6	1.25 V	305	52.6	0.8
6	4824.00	52.5 AV	54.0	-1.5	1.25 V	305	51.7	0.8

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2437.00	106.0 PK			1.14 H	359	111.5	-5.5
2	*2437.00	102.1 AV			1.14 H	359	107.6	-5.5
3	4874.00	51.0 PK	74.0	-23.0	1.27 H	147	50.1	0.9
4	4874.00	46.9 AV	54.0	-7.1	1.27 H	147	46.0	0.9
5	7311.00	49.0 PK	74.0	-25.0	1.48 H	177	41.6	7.4
6	7311.00	37.7 AV	54.0	-16.3	1.48 H	177	30.3	7.4
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	111.4 PK			1.96 V	220	116.9	-5.5
2	*2437.00	107.8 AV			1.96 V	220	113.3	-5.5
3	4874.00	53.2 PK	74.0	-20.8	1.26 V	292	52.3	0.9
4	4874.00	52.2 AV	54.0	-1.8	1.26 V	292	51.3	0.9
5	7311.00	50.5 PK	74.0	-23.5	1.78 V	134	43.1	7.4
6	7311.00	38.2 AV	54.0	-15.8	1.78 V	134	30.8	7.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.1 PK			1.11 H	344	111.5	-5.4
2	*2462.00	102.2 AV			1.11 H	344	107.6	-5.4
3	2483.50	58.0 PK	74.0	-16.0	1.11 H	344	63.5	-5.5
4	2483.50	48.2 AV	54.0	-5.8	1.11 H	344	53.7	-5.5
5	4924.00	51.0 PK	74.0	-23.0	1.32 H	162	49.9	1.1
6	4924.00	46.8 AV	54.0	-7.2	1.32 H	162	45.7	1.1
7	7386.00	49.6 PK	74.0	-24.4	1.42 H	167	42.0	7.6
8	7386.00	38.0 AV	54.0	-16.0	1.42 H	167	30.4	7.6
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	112.2 PK			1.97 V	216	117.6	-5.4
2	*2462.00	108.5 AV			1.97 V	216	113.9	-5.4
3	2483.50	61.8 PK	74.0	-12.2	1.97 V	216	67.3	-5.5
4	2483.50	53.1 AV	54.0	-0.9	1.97 V	216	58.6	-5.5
5	4924.00	55.2 PK	74.0	-18.8	1.21 V	294	54.1	1.1
6	4924.00	52.2 AV	54.0	-1.8	1.21 V	294	51.1	1.1
7	7386.00	50.5 PK	74.0	-23.5	1.76 V	135	42.9	7.6
8	7386.00	38.1 AV	54.0	-15.9	1.76 V	135	30.5	7.6

REMARKS:

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

2TX:

CDD Mode

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.8 PK	74.0	-8.2	1.14 H	334	71.5	-5.7
2	2390.00	48.2 AV	54.0	-5.8	1.14 H	334	53.9	-5.7
3	*2412.00	108.1 PK			1.14 H	334	113.7	-5.6
4	*2412.00	96.2 AV			1.14 H	334	101.8	-5.6
5	4824.00	41.2 PK	74.0	-32.8	1.30 H	164	40.4	0.8
6	4824.00	30.0 AV	54.0	-24.0	1.30 H	164	29.2	0.8
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	73.6 PK	74.0	-0.4	1.68 V	238	79.3	-5.7
2	2390.00	53.7 AV	54.0	-0.3	1.68 V	238	59.4	-5.7
3	*2412.00	114.0 PK			1.68 V	238	119.6	-5.6
4	*2412.00	102.2 AV			1.68 V	238	107.8	-5.6
5	4824.00	41.2 PK	74.0	-32.8	1.25 V	297	40.4	0.8
6	4824.00	30.1 AV	54.0	-23.9	1.25 V	297	29.3	0.8

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	60.9 PK	74.0	-13.1	1.08 H	349	66.6	-5.7
2	2390.00	42.2 AV	54.0	-11.8	1.08 H	349	47.9	-5.7
3	*2437.00	112.4 PK			1.08 H	349	117.9	-5.5
4	*2437.00	101.6 AV			1.08 H	349	107.1	-5.5
5	2483.50	61.9 PK	74.0	-12.1	1.08 H	349	67.4	-5.5
6	2483.50	42.9 AV	54.0	-11.1	1.08 H	349	48.4	-5.5
7	4874.00	41.7 PK	74.0	-32.3	1.28 H	175	40.8	0.9
8	4874.00	30.3 AV	54.0	-23.7	1.28 H	175	29.4	0.9
9	7311.00	48.8 PK	74.0	-25.2	1.43 H	174	41.4	7.4
10	7311.00	36.0 AV	54.0	-18.0	1.43 H	174	28.6	7.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.3 PK	74.0	-4.7	2.44 V	331	75.0	-5.7
2	2390.00	49.6 AV	54.0	-4.4	2.44 V	331	55.3	-5.7
3	*2437.00	118.5 PK			2.44 V	331	124.0	-5.5
4	*2437.00	107.6 AV			2.44 V	331	113.1	-5.5
5	2483.50	70.0 PK	74.0	-4.0	2.44 V	331	75.5	-5.5
6	2483.50	51.0 AV	54.0	-3.0	2.44 V	331	56.5	-5.5
7	4874.00	41.8 PK	74.0	-32.2	1.23 V	301	40.9	0.9
8	4874.00	30.6 AV	54.0	-23.4	1.23 V	301	29.7	0.9
9	7311.00	48.3 PK	74.0	-25.7	1.74 V	137	40.9	7.4
10	7311.00	36.5 AV	54.0	-17.5	1.74 V	137	29.1	7.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.3 PK			1.07 H	358	111.7	-5.4
2	*2462.00	95.1 AV			1.07 H	358	100.5	-5.4
3	2483.50	65.4 PK	74.0	-8.6	1.07 H	358	70.9	-5.5
4	2483.50	48.1 AV	54.0	-5.9	1.07 H	358	53.6	-5.5
5	4924.00	41.0 PK	74.0	-33.0	1.31 H	160	39.9	1.1
6	4924.00	29.8 AV	54.0	-24.2	1.31 H	160	28.7	1.1
7	7386.00	47.5 PK	74.0	-26.5	1.51 H	162	39.9	7.6
8	7386.00	35.9 AV	54.0	-18.1	1.51 H	162	28.3	7.6
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	111.6 PK			1.67 V	159	117.0	-5.4
2	*2462.00	100.7 AV			1.67 V	159	106.1	-5.4
3	2483.50	73.8 PK	74.0	-0.2	1.67 V	159	79.3	-5.5
4	2483.50	52.3 AV	54.0	-1.7	1.67 V	159	57.8	-5.5
5	4924.00	40.6 PK	74.0	-33.4	1.20 V	291	39.5	1.1
6	4924.00	29.7 AV	54.0	-24.3	1.20 V	291	28.6	1.1
7	7386.00	47.1 PK	74.0	-26.9	1.75 V	119	39.5	7.6
8	7386.00	35.6 AV	54.0	-18.4	1.75 V	119	28.0	7.6

REMARKS:

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

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.9 PK	74.0	-8.1	1.09 H	338	71.6	-5.7
2	2390.00	48.3 AV	54.0	-5.7	1.09 H	338	54.0	-5.7
3	*2412.00	106.1 PK			1.09 H	338	111.7	-5.6
4	*2412.00	95.1 AV			1.09 H	338	100.7	-5.6
5	4824.00	40.9 PK	74.0	-33.1	1.31 H	166	40.1	0.8
6	4824.00	30.0 AV	54.0	-24.0	1.31 H	166	29.2	0.8
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	73.8 PK	74.0	-0.2	1.67 V	238	79.5	-5.7
2	2390.00	53.7 AV	54.0	-0.3	1.67 V	238	59.4	-5.7
3	*2412.00	111.4 PK			1.67 V	238	117.0	-5.6
4	*2412.00	100.3 AV			1.67 V	238	105.9	-5.6
5	4824.00	41.1 PK	74.0	-32.9	1.21 V	304	40.3	0.8
6	4824.00	30.2 AV	54.0	-23.8	1.21 V	304	29.4	0.8

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	60.5 PK	74.0	-13.5	1.30 H	223	66.2	-5.7
2	2390.00	42.0 AV	54.0	-12.0	1.30 H	223	47.7	-5.7
3	*2437.00	112.3 PK			1.30 H	223	117.8	-5.5
4	*2437.00	101.4 AV			1.30 H	223	106.9	-5.5
5	2483.50	62.5 PK	74.0	-11.5	1.30 H	223	68.0	-5.5
6	2483.50	43.3 AV	54.0	-10.7	1.30 H	223	48.8	-5.5
7	4874.00	41.1 PK	74.0	-32.9	1.27 H	173	40.2	0.9
8	4874.00	29.8 AV	54.0	-24.2	1.27 H	173	28.9	0.9
9	7311.00	47.5 PK	74.0	-26.5	1.46 H	159	40.1	7.4
10	7311.00	35.9 AV	54.0	-18.1	1.46 H	159	28.5	7.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	67.4 PK	74.0	-6.6	2.44 V	194	73.1	-5.7
2	2390.00	48.9 AV	54.0	-5.1	2.44 V	194	54.6	-5.7
3	*2437.00	117.9 PK			2.44 V	194	123.4	-5.5
4	*2437.00	106.9 AV			2.44 V	194	112.4	-5.5
5	2483.50	68.7 PK	74.0	-5.3	2.44 V	194	74.2	-5.5
6	2483.50	50.8 AV	54.0	-3.2	2.44 V	194	56.3	-5.5
7	4874.00	40.9 PK	74.0	-33.1	1.21 V	311	40.0	0.9
8	4874.00	30.1 AV	54.0	-23.9	1.21 V	311	29.2	0.9
9	7311.00	47.1 PK	74.0	-26.9	1.66 V	133	39.7	7.4
10	7311.00	35.6 AV	54.0	-18.4	1.66 V	133	28.2	7.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	106.5 PK			1.17 H	344	111.9	-5.4
2	*2462.00	94.2 AV			1.17 H	344	99.6	-5.4
3	2483.50	65.4 PK	74.0	-8.6	1.17 H	344	70.9	-5.5
4	2483.50	48.1 AV	54.0	-5.9	1.17 H	344	53.6	-5.5
5	4924.00	41.2 PK	74.0	-32.8	1.33 H	179	40.1	1.1
6	4924.00	30.1 AV	54.0	-23.9	1.33 H	179	29.0	1.1
7	7386.00	47.5 PK	74.0	-26.5	1.53 H	168	39.9	7.6
8	7386.00	36.2 AV	54.0	-17.8	1.53 H	168	28.6	7.6
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	111.6 PK			2.06 V	203	117.0	-5.4
2	*2462.00	99.4 AV			2.06 V	203	104.8	-5.4
3	2483.50	73.8 PK	74.0	-0.2	2.06 V	203	79.3	-5.5
4	2483.50	53.5 AV	54.0	-0.5	2.06 V	203	59.0	-5.5
5	4924.00	41.3 PK	74.0	-32.7	1.28 V	287	40.2	1.1
6	4924.00	30.4 AV	54.0	-23.6	1.28 V	287	29.3	1.1
7	7386.00	46.9 PK	74.0	-27.1	1.70 V	113	39.3	7.6
8	7386.00	35.7 AV	54.0	-18.3	1.70 V	113	28.1	7.6

REMARKS:

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

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	65.1 PK	74.0	-8.9	1.17 H	347	70.8	-5.7
2	2390.00	47.6 AV	54.0	-6.4	1.17 H	347	53.3	-5.7
3	*2422.00	103.1 PK			1.17 H	347	108.6	-5.5
4	*2422.00	90.1 AV			1.17 H	347	95.6	-5.5
5	4844.00	41.5 PK	74.0	-32.5	1.30 H	165	40.7	0.8
6	4844.00	30.1 AV	54.0	-23.9	1.30 H	165	29.3	0.8
7	7266.00	47.6 PK	74.0	-26.4	1.53 H	155	40.1	7.5
8	7266.00	35.9 AV	54.0	-18.1	1.53 H	155	28.4	7.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	70.0 PK	74.0	-4.0	1.96 V	205	75.7	-5.7
2	**2390.00**	**53.9 AV**	**54.0**	**-0.1**	**1.96 V**	**205**	**59.6**	**-5.7**
3	*2422.00	108.4 PK			1.96 V	205	113.9	-5.5
4	*2422.00	95.4 AV			1.96 V	205	100.9	-5.5
5	4844.00	40.9 PK	74.0	-33.1	1.30 V	306	40.1	0.8
6	4844.00	29.9 AV	54.0	-24.1	1.30 V	306	29.1	0.8
7	7266.00	46.8 PK	74.0	-27.2	1.67 V	125	39.3	7.5
8	7266.00	35.6 AV	54.0	-18.4	1.67 V	125	28.1	7.5

REMARKS:

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

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Peak (PK)
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	64.1 PK	74.0	-9.9	1.09 H	356	69.8	-5.7
2	2390.00	46.2 AV	54.0	-7.8	1.09 H	356	51.9	-5.7
3	*2437.00	105.1 PK			1.09 H	356	110.6	-5.5
4	*2437.00	93.1 AV			1.09 H	356	98.6	-5.5
5	2483.50	64.5 PK	74.0	-9.5	1.09 H	356	70.0	-5.5
6	2483.50	46.5 AV	54.0	-7.5	1.09 H	356	52.0	-5.5
7	4874.00	40.8 PK	74.0	-33.2	1.35 H	172	39.9	0.9
8	4874.00	29.9 AV	54.0	-24.1	1.35 H	172	29.0	0.9
9	7311.00	46.9 PK	74.0	-27.1	1.52 H	167	39.5	7.4
10	7311.00	35.5 AV	54.0	-18.5	1.52 H	167	28.1	7.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	69.6 PK	74.0	-4.4	1.93 V	199	75.3	-5.7
2	2390.00	52.2 AV	54.0	-1.8	1.93 V	199	57.9	-5.7
3	*2437.00	110.1 PK			1.93 V	199	115.6	-5.5
4	*2437.00	98.1 AV			1.93 V	199	103.6	-5.5
5	2483.50	73.8 PK	74.0	-0.2	1.93 V	199	79.3	-5.5
6	2483.50	52.5 AV	54.0	-1.5	1.93 V	199	58.0	-5.5
7	4874.00	41.4 PK	74.0	-32.6	1.28 V	283	40.5	0.9
8	4874.00	30.3 AV	54.0	-23.7	1.28 V	283	29.4	0.9
9	7311.00	46.3 PK	74.0	-27.7	1.72 V	116	38.9	7.4
10	7311.00	35.2 AV	54.0	-18.8	1.72 V	116	27.8	7.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	100.2 PK			1.20 H	354	105.7	-5.5
2	*2452.00	89.1 AV			1.20 H	354	94.6	-5.5
3	2483.50	65.3 PK	74.0	-8.7	1.20 H	354	70.8	-5.5
4	2483.50	47.9 AV	54.0	-6.1	1.20 H	354	53.4	-5.5
5	4904.00	41.1 PK	74.0	-32.9	1.33 H	173	40.1	1.0
6	4904.00	29.7 AV	54.0	-24.3	1.33 H	173	28.7	1.0
7	7356.00	47.6 PK	74.0	-26.4	1.44 H	171	40.0	7.6
8	7356.00	35.8 AV	54.0	-18.2	1.44 H	171	28.2	7.6
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	106.7 PK			1.89 V	203	112.2	-5.5
2	*2452.00	94.9 AV			1.89 V	203	100.4	-5.5
3	2483.50	71.4 PK	74.0	-2.6	1.89 V	203	76.9	-5.5
4	2483.50	53.7 AV	54.0	-0.3	1.89 V	203	59.2	-5.5
5	4904.00	41.4 PK	74.0	-32.6	1.31 V	294	40.4	1.0
6	4904.00	30.1 AV	54.0	-23.9	1.31 V	294	29.1	1.0
7	7356.00	46.7 PK	74.0	-27.3	1.66 V	122	39.1	7.6
8	7356.00	35.2 AV	54.0	-18.8	1.66 V	122	27.6	7.6

REMARKS:

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

Below 1GHz Data:

802.11g

CHANNEL	TX Channel 6	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	110.75	30.9 QP	43.5	-12.6	1.50 H	90	42.2	-11.3
2	176.49	31.3 QP	43.5	-12.2	1.50 H	9	41.2	-9.9
3	250.00	32.1 QP	46.0	-13.9	1.00 H	33	42.1	-10.0
4	375.00	32.4 QP	46.0	-13.6	1.00 H	35	38.4	-6.0
5	625.00	36.7 QP	46.0	-9.3	1.50 H	84	36.7	0.0
6	874.99	41.2 QP	46.0	-4.8	2.00 H	360	37.8	3.4
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	44.70	35.8 QP	40.0	-4.2	1.00 V	33	44.6	-8.8
2	109.78	32.5 QP	43.5	-11.0	1.00 V	10	44.0	-11.5
3	157.53	29.4 QP	43.5	-14.1	1.00 V	17	37.9	-8.5
4	540.00	35.3 QP	46.0	-10.7	1.00 V	107	37.5	-2.2
5	675.00	31.8 QP	46.0	-14.2	1.00 V	148	31.6	0.2
6	724.98	32.4 QP	46.0	-13.6	1.50 V	124	31.1	1.3

REMARKS:

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

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	100287	Apr. 16, 2016	Apr. 15, 2017
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-523	Oct. 11, 2016	Oct. 10, 2017
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100071	Nov. 11, 2015	Nov. 10, 2016
RF Cable	5D-FB	COACAB-001	May 24, 2016	May 23, 2017
10 dB PAD Mini-Circuits	HAT-10+	CONATT-001	Sep. 13, 2016	Sep. 12, 2017
50 ohms Terminator	N/A	EMC-01	Oct. 06, 2016	Oct. 05, 2017
50 ohms Terminator	N/A	EMC-02	Sep. 29, 2016	Sep. 28, 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. A.
3. Tested Date:Nov. 03, 2016

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4.2.3 Test Procedures

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

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

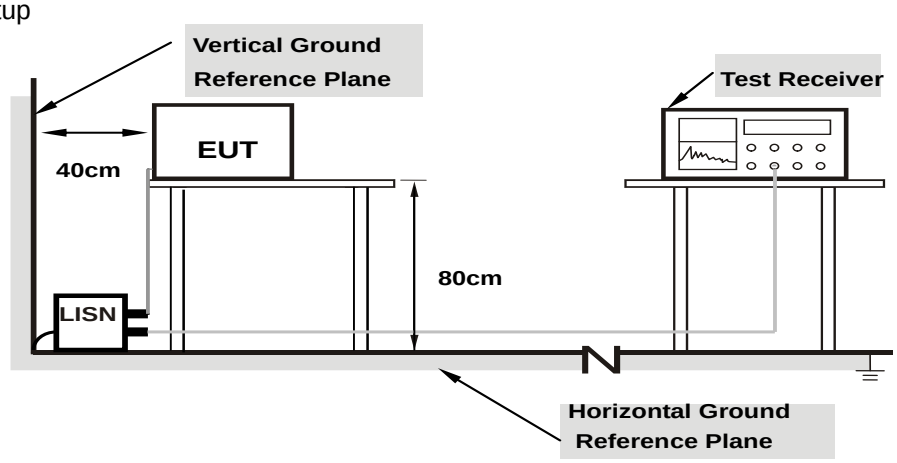
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

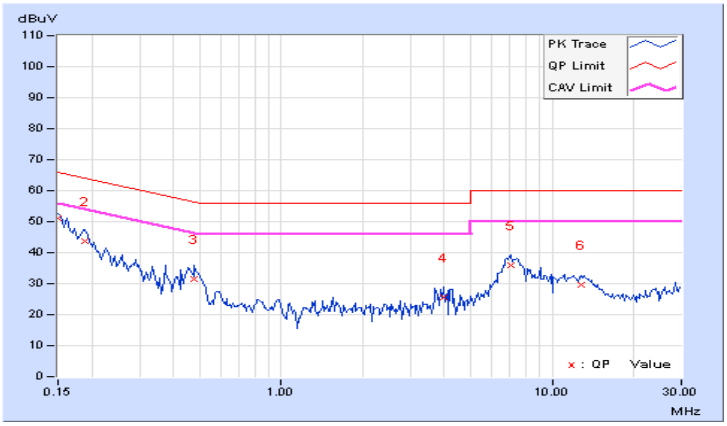
4.2.7 Test Results

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

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.30	40.77	25.75	51.07	36.05	66.00	56.00	-14.93	-19.95
2	0.18906	10.29	33.49	18.42	43.78	28.71	64.08	54.08	-20.30	-25.37
3	0.47813	10.36	21.11	13.56	31.47	23.92	56.37	46.37	-24.90	-22.45
4	3.98047	10.50	15.06	5.52	25.56	16.02	56.00	46.00	-30.44	-29.98
5	7.00781	10.57	25.44	20.50	36.01	31.07	60.00	50.00	-23.99	-18.93
6	12.78125	10.74	18.81	13.00	29.55	23.74	60.00	50.00	-30.45	-26.26

Remarks:

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

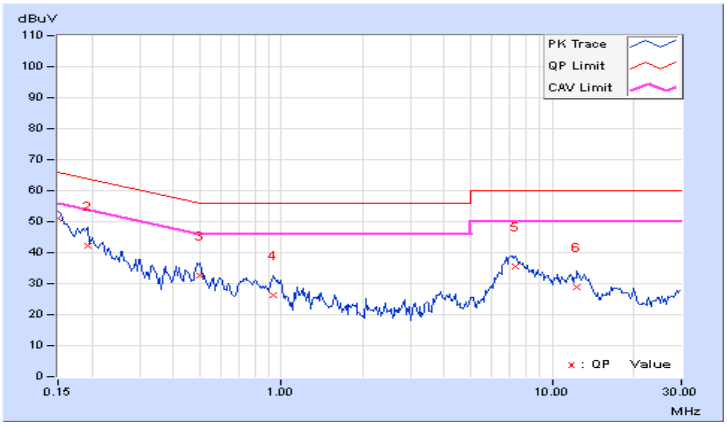


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

Phase Of Power : Neutral (N)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	**0.15000**	**10.36**	**40.81**	**26.84**	**51.17**	**37.20**	**66.00**	**56.00**	**-14.83**	**-18.80**
2	0.19297	10.36	31.81	16.71	42.17	27.07	63.91	53.91	-21.74	-26.84
3	0.50156	10.46	22.06	13.53	32.52	23.99	56.00	46.00	-23.48	-22.01
4	0.93516	10.54	15.84	11.00	26.38	21.54	56.00	46.00	-29.62	-24.46
5	7.33203	10.63	25.00	19.96	35.63	30.59	60.00	50.00	-24.37	-19.41
6	12.40234	10.75	18.22	12.57	28.97	23.32	60.00	50.00	-31.03	-26.68

Remarks:

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

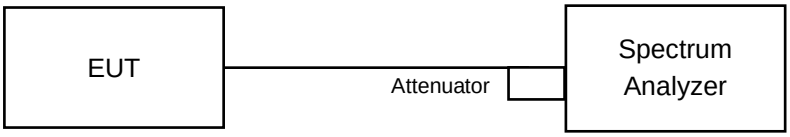


4.3 6dB Bandwidth Measurement

4.3.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	2412	8.14	0.5	PASS
6	2437	8.13	0.5	PASS
11	2462	8.13	0.5	PASS

802.11g

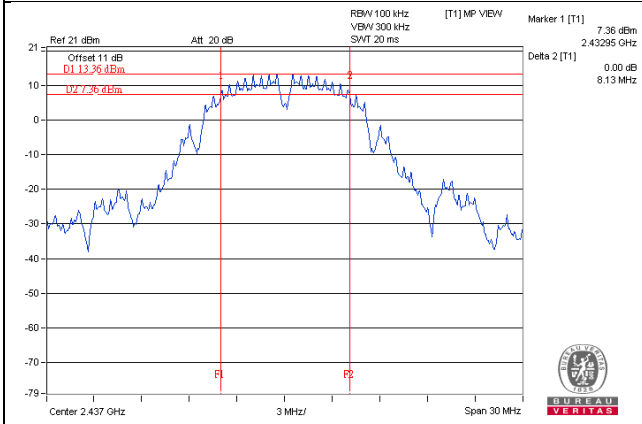
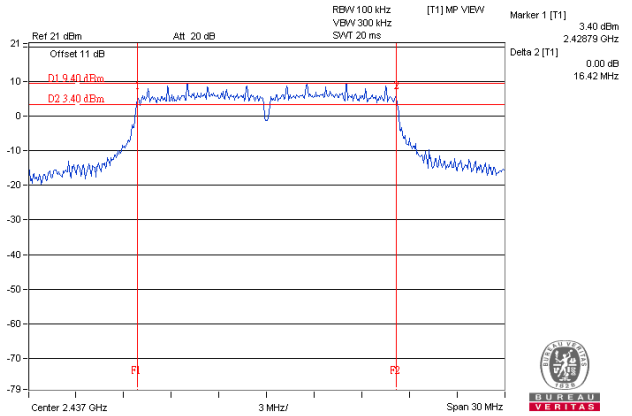
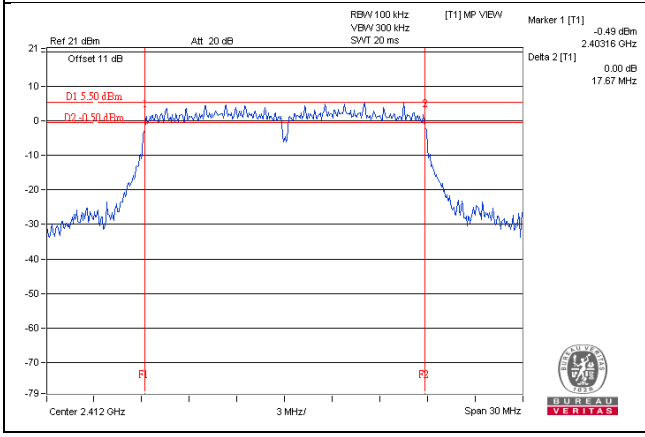
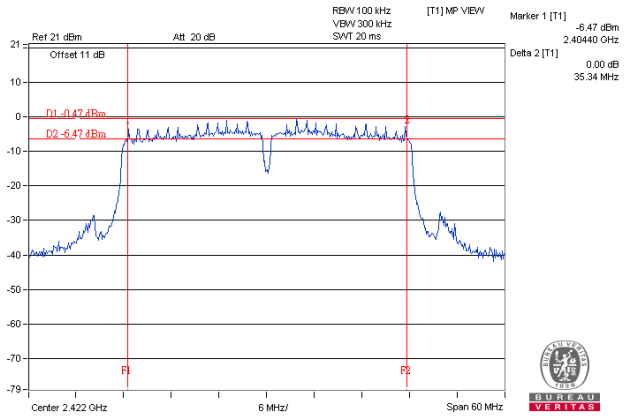
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.49	16.47	0.5	PASS
6	2437	16.42	16.43	0.5	PASS
11	2462	16.43	16.42	0.5	PASS

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	17.68	17.67	0.5	Pass
6	2437	17.68	17.67	0.5	Pass
11	2462	17.68	17.70	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	35.34	36.05	0.5	Pass
6	2437	35.40	35.82	0.5	Pass
9	2452	35.66	35.91	0.5	Pass

Spectrum Plot of Worst Value	
802.11b / CH6	**802.11g / Chain 0 : CH6**
	
802.11n (HT20) / Chain 1 : CH1	**802.11n (HT40) / Chain 0 : CH3**
	

4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

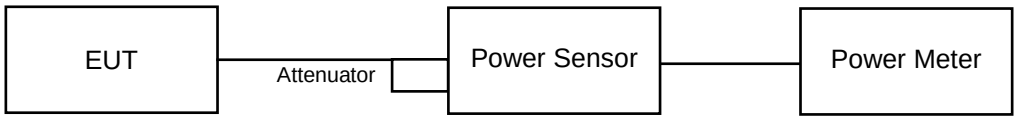
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

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

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	2412	284.446	24.54	30	Pass
6	2437	277.971	24.44	30	Pass
11	2462	287.74	24.59	30	Pass

802.11g

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	25.05	25.15	647.231	28.11	30	Pass
6	2437	25.83	25.90	771.87	28.88	30	Pass
11	2462	22.65	22.52	362.726	25.60	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	24.88	25.15	634.951	28.03	30	Pass
6	2437	25.73	25.74	749.084	28.75	30	Pass
11	2462	23.60	23.50	452.959	26.56	30	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	Peak Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	21.69	23.83	389.117	25.90	30	Pass
6	2437	24.38	25.12	599.244	27.78	30	Pass
9	2452	22.16	22.94	361.226	25.58	30	Pass

FOR AVERAGE POWER

802.11b

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	2412	135.519	21.32
6	2437	132.739	21.23
11	2462	137.721	21.39

802.11g

Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	16.77	17.32	101.485	20.06
6	2437	21.51	21.86	295.041	24.70
11	2462	14.62	15.15	61.707	17.90

802.11n (HT20)

Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
1	2412	16.48	16.95	94.008	19.73
6	2437	21.62	22.13	308.516	24.89
11	2462	14.29	14.63	55.893	17.47

802.11n (HT40)

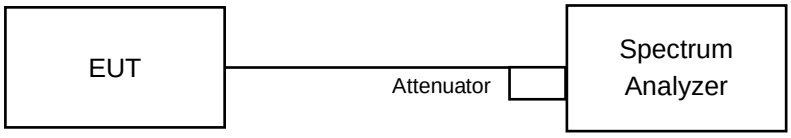
Chan.	Frequency (MHz)	Avg. Power (dBm)		Total Power (mW)	Total Power (dBm)
		Chain 0	Chain 1		
3	2422	13.33	14.22	47.952	16.81
6	2437	16.39	17.48	99.527	19.98
9	2452	12.57	13.12	38.584	15.86

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 kHz ≤ RBW ≤ 100 kHz.
d. Set the VBW ≥ 3 × 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	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
1	2412	-1.83	8	Pass
6	2437	-0.10	8	Pass
11	2462	-0.58	8	Pass

802.11g

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-9.10	3.01	-6.09	8	Pass
	6	2437	-5.59	3.01	-2.58	8	Pass
	11	2462	-11.13	3.01	-8.12	8	Pass
1	1	2412	-7.74	3.01	-4.73	8	Pass
	6	2437	-3.97	3.01	-0.96	8	Pass
	11	2462	-10.19	3.01	-7.18	8	Pass

NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.08dBi < 6dBi , so the power density limit shall not be reduced.

802.11n (HT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	1	2412	-8.72	3.01	-5.71	8	Pass
	6	2437	-5.17	3.01	-2.16	8	Pass
	11	2462	-11.73	3.01	-8.72	8	Pass
1	1	2412	-7.53	3.01	-4.52	8	Pass
	6	2437	-5.25	3.01	-2.24	8	Pass
	11	2462	-10.25	3.01	-7.24	8	Pass

NOTE: Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20})^2$ / 2] = 5.08dBi < 6dBi , so the power density limit shall not be reduced.

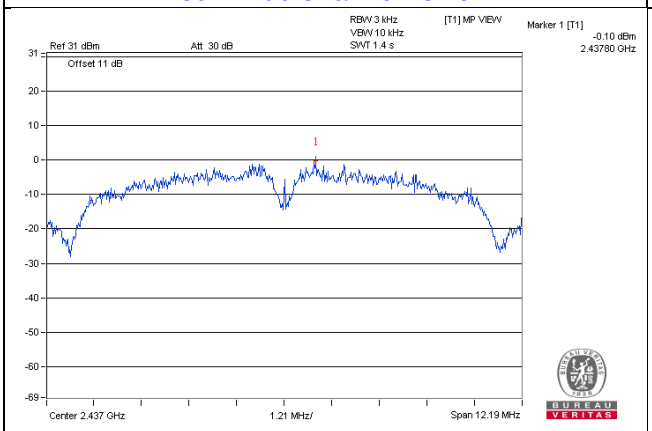
802.11n (HT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass /Fail
0	3	2422	-15.78	3.01	-12.77	8	Pass
	6	2437	-12.61	3.01	-9.60	8	Pass
	9	2452	-15.60	3.01	-12.59	8	Pass
1	3	2422	-14.26	3.01	-11.25	8	Pass
	6	2437	-10.84	3.01	-7.83	8	Pass
	9	2452	-15.52	3.01	-12.51	8	Pass

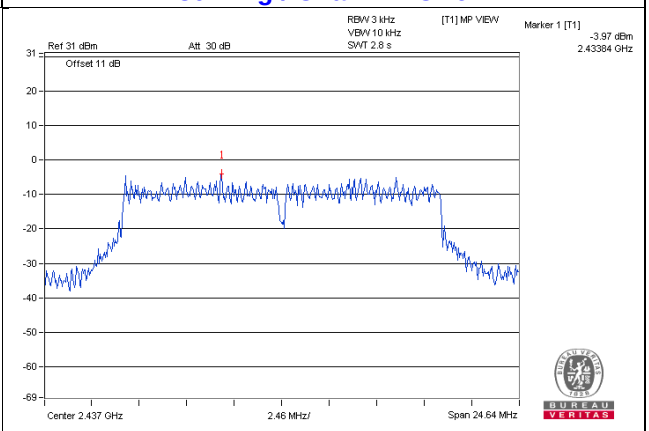
NOTE: Directional gain = 10 log[($10^{G1/20}$ + $10^{G2/20}$)^2 / 2] = 5.08dBi < 6dBi , so the power density limit shall not be reduced.

Spectrum Plot of Worst Value

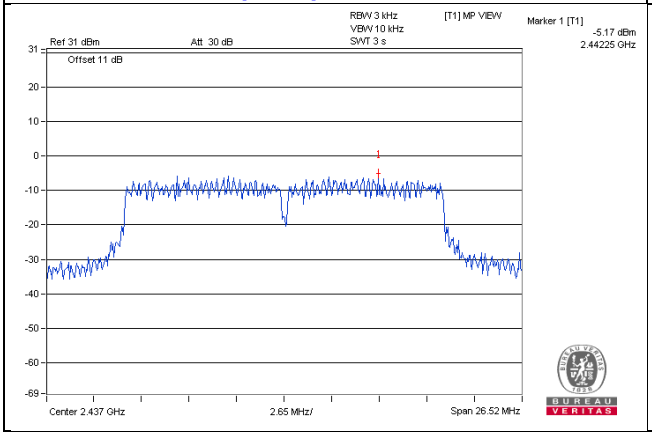
802.11b / Chain 0 : CH6



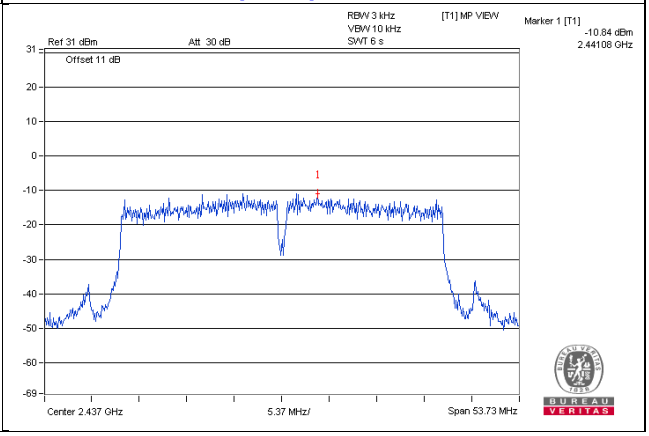
802.11g / Chain 1 : CH6



802.11n (HT20) / Chain 0 : CH6



802.11n (HT40) / Chain 1 : CH6

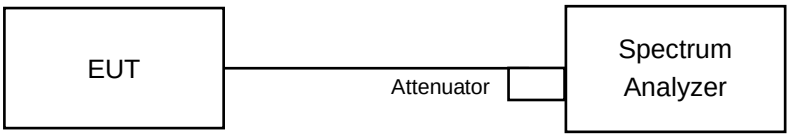


4.6 Conducted Out of Band Emission Measurement

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

MEASUREMENT PROCEDURE OOBE

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

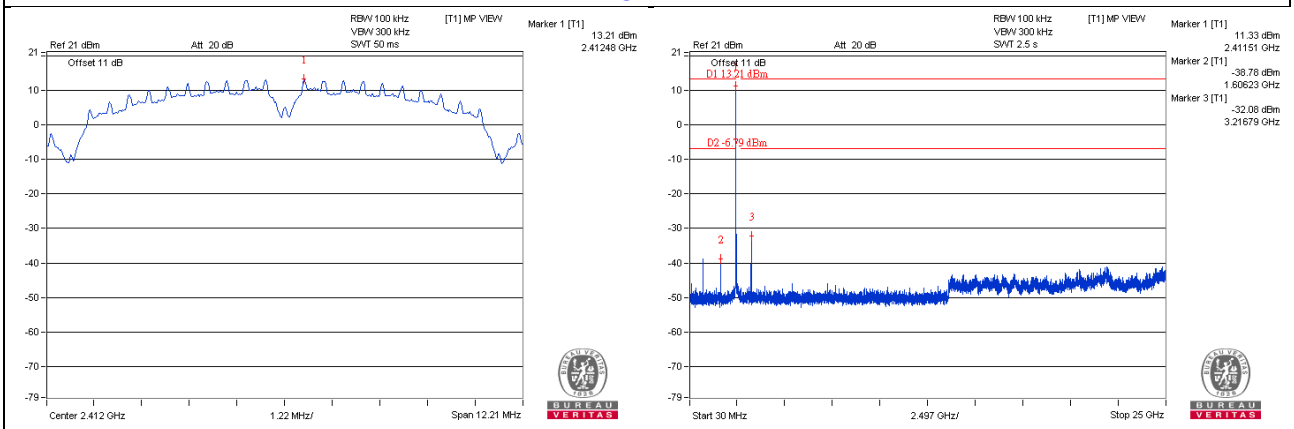
Same as Item 4.3.6

4.6.7 Test Results

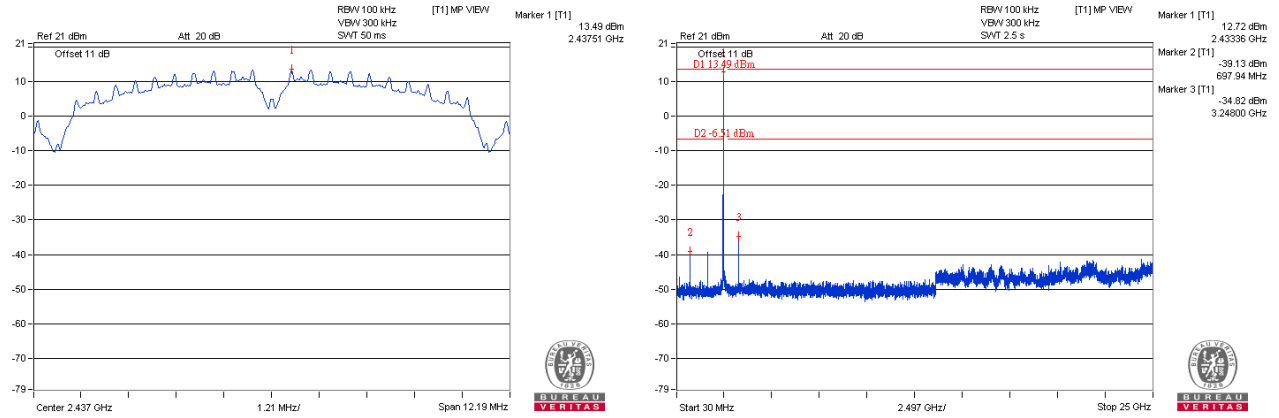
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

802.11b

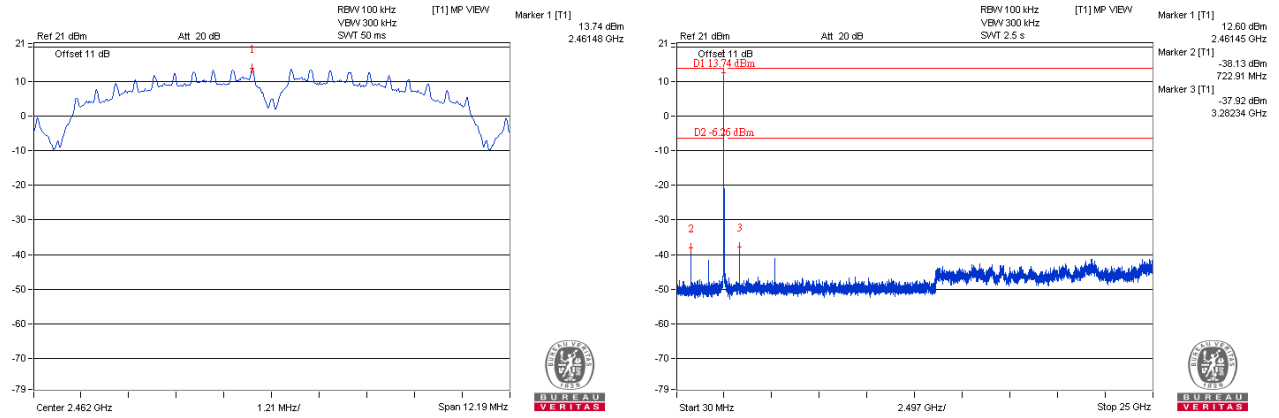
CH 1



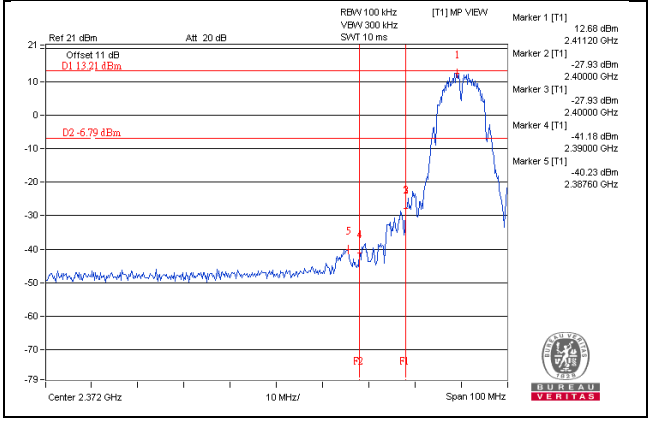
CH 6



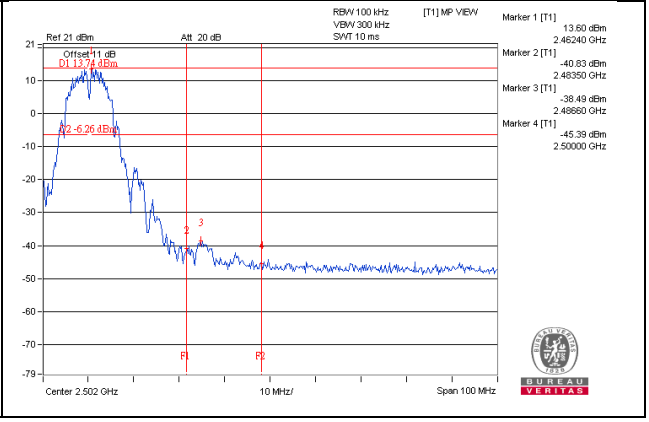
CH 11



CH 1 Band edge

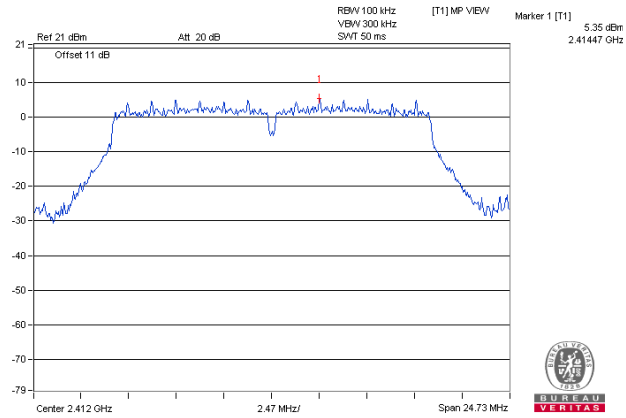


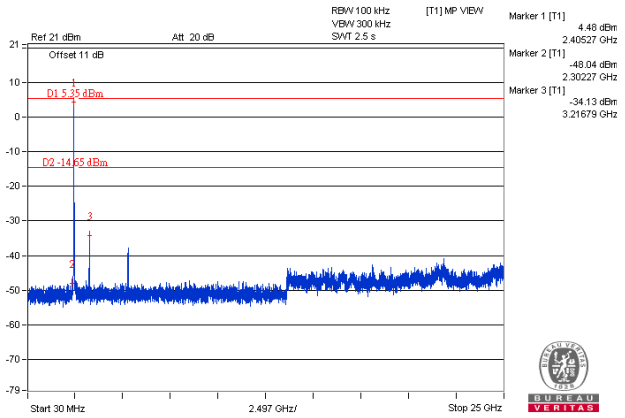
CH 11 Band edge



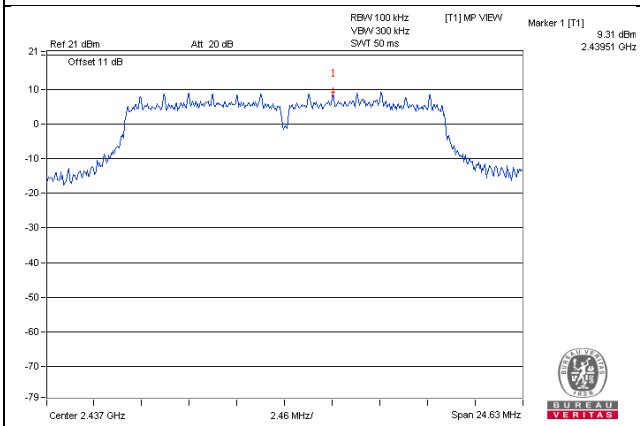
802.11g
CHAIN 0

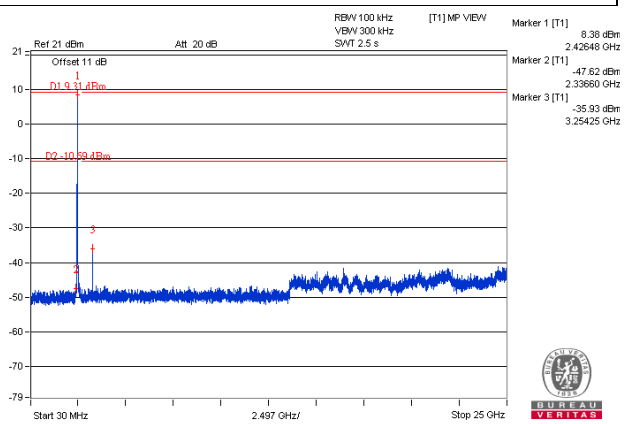
CH 1



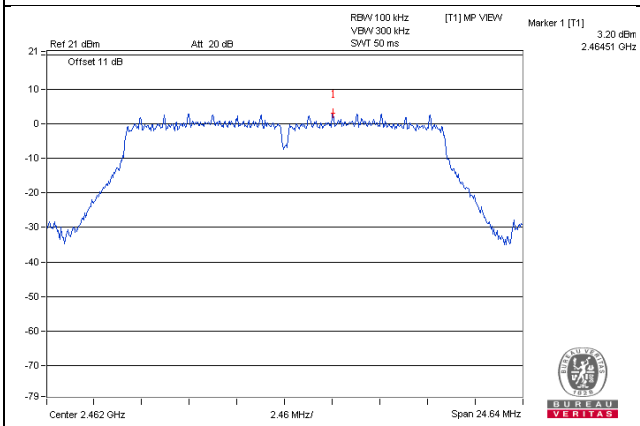


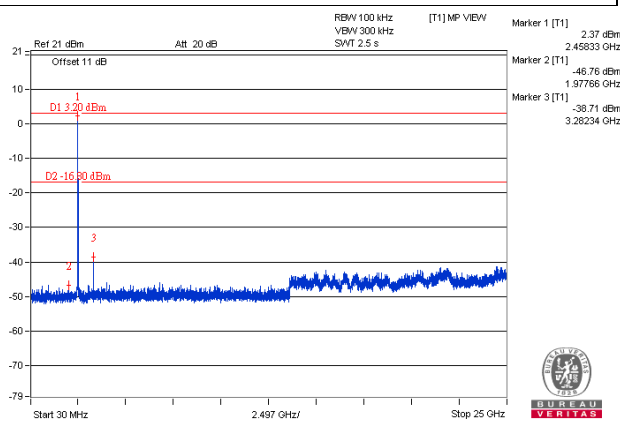
CH 6



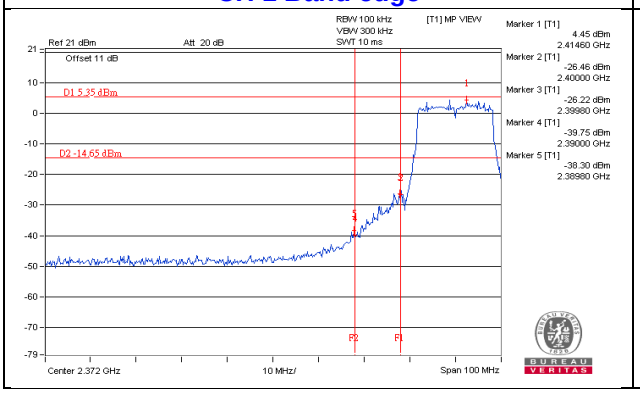


CH 11

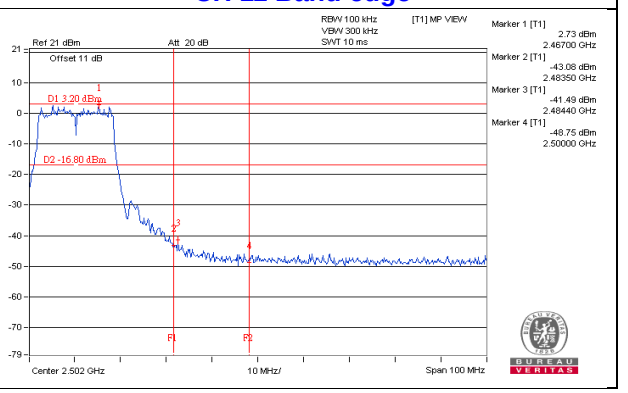




CH 1 Band edge

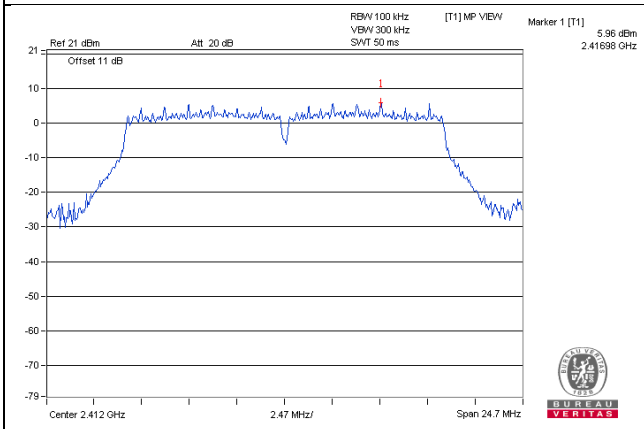


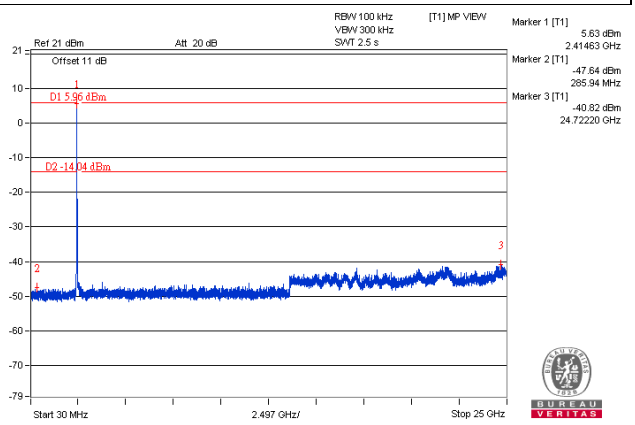
CH 11 Band edge



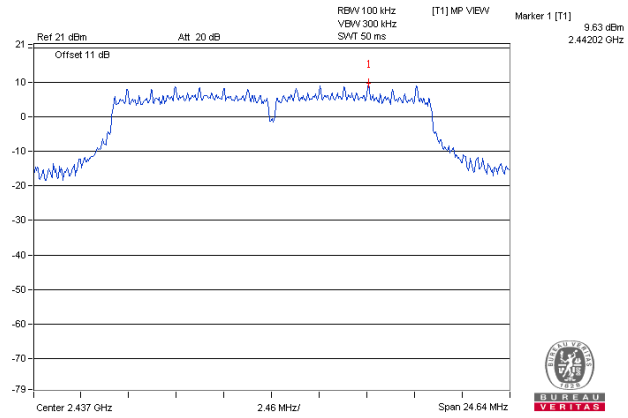
CHAIN 1

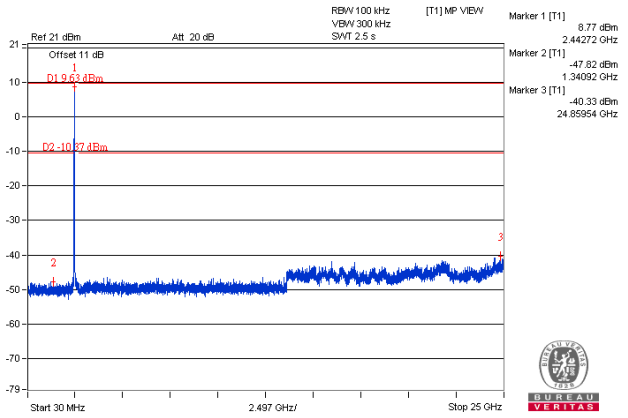
CH 1



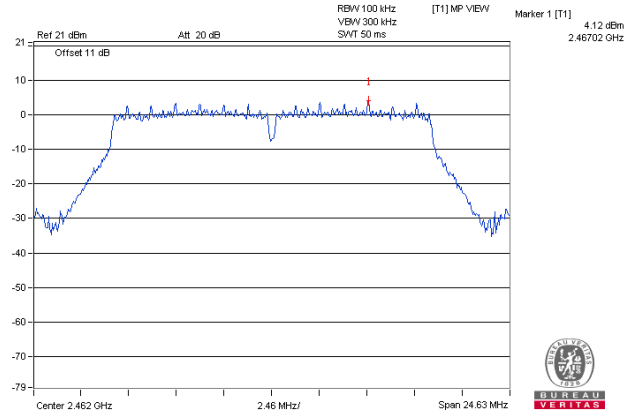


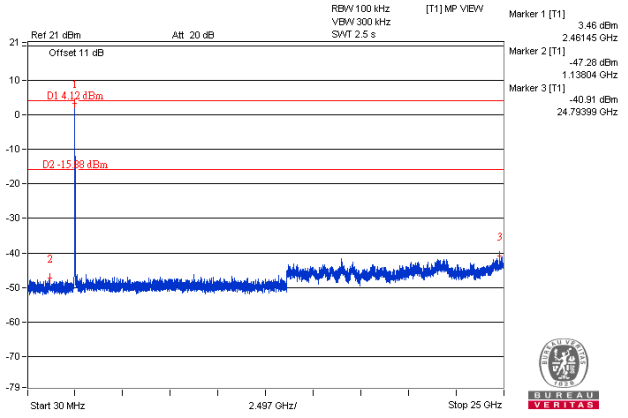
CH 6



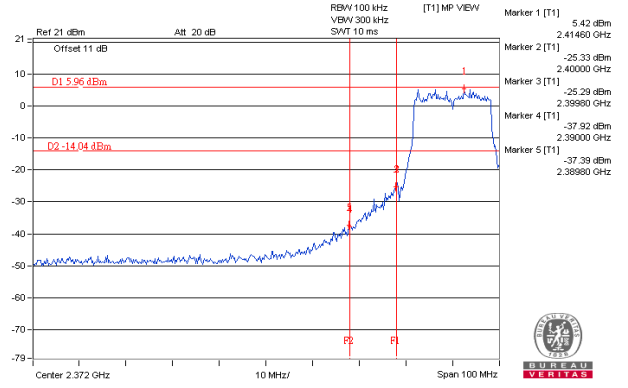


CH 11

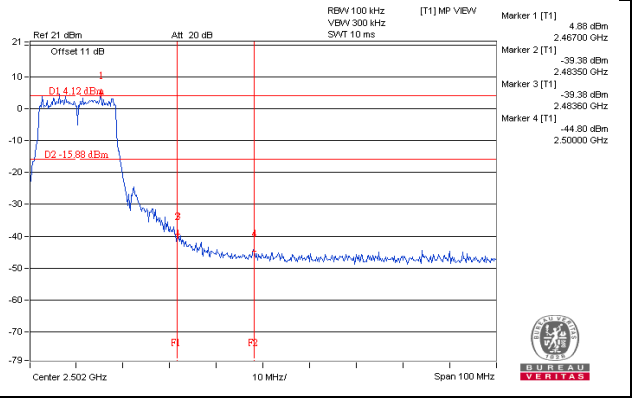




CH 1 Band edge

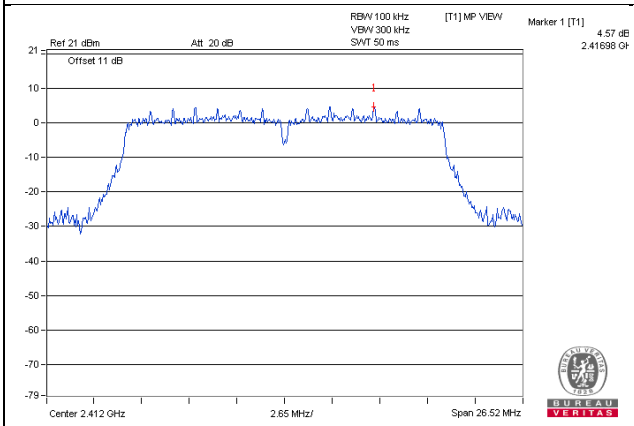


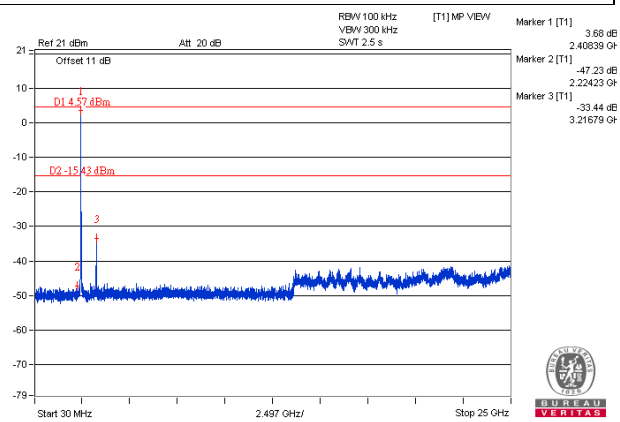
CH 11 Band edge



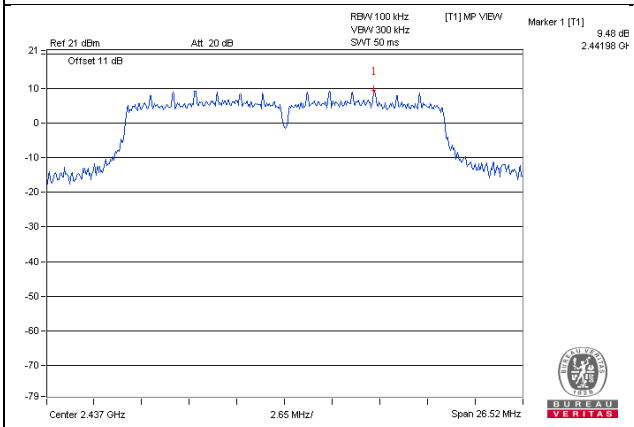
802.11n (HT20)
CHAIN 0

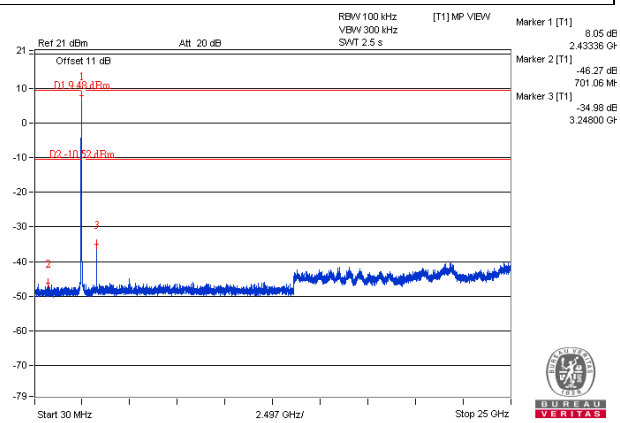
CH 1



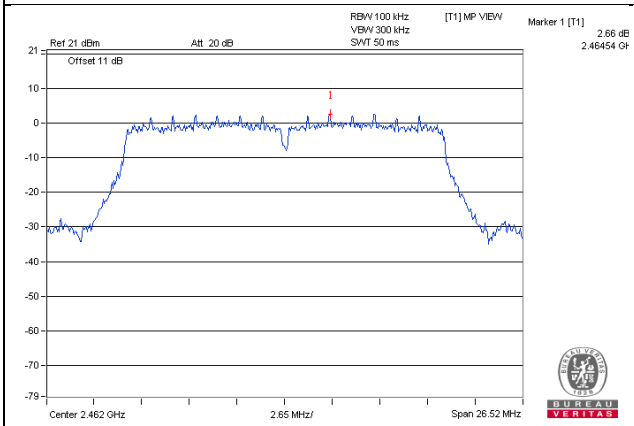


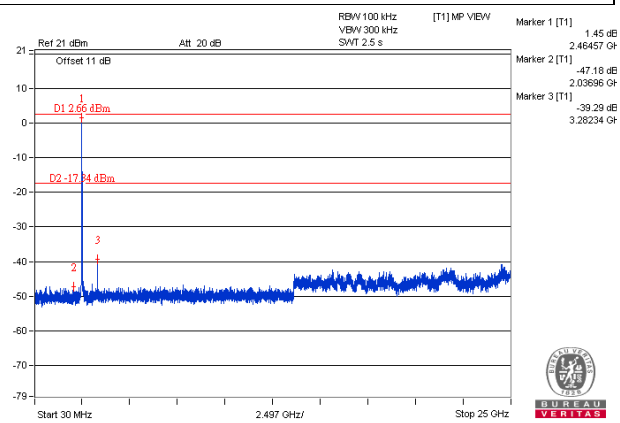
CH 6



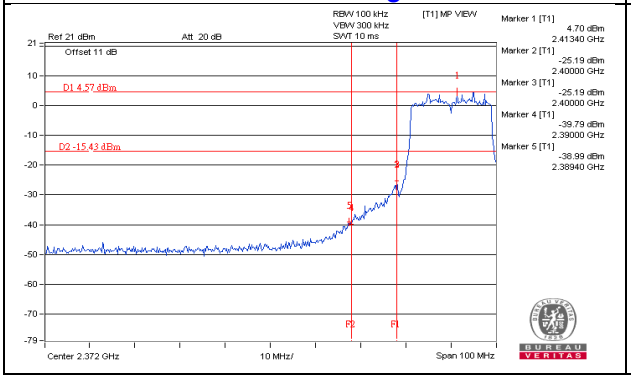


CH 11

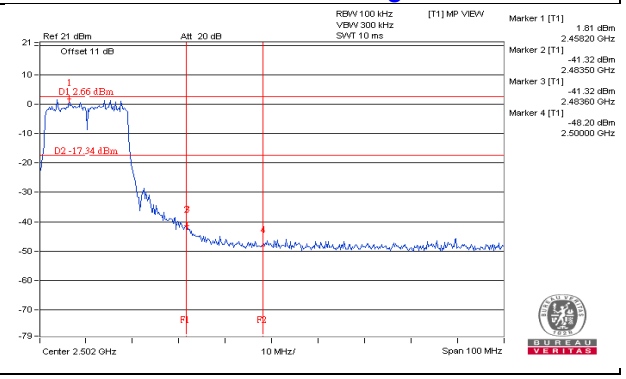




CH 1 Band edge

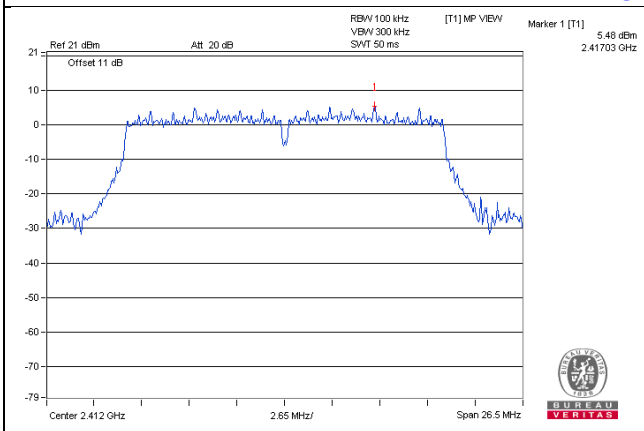


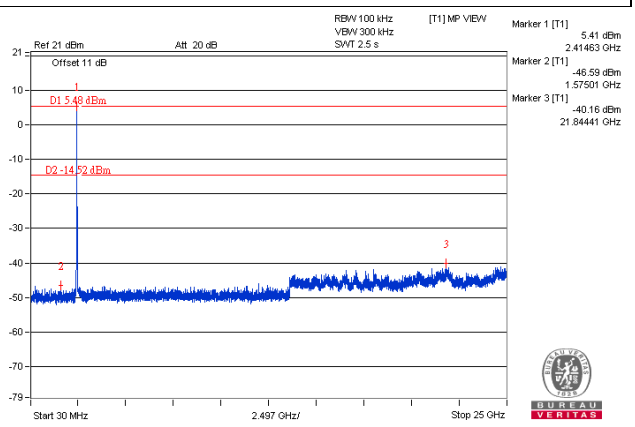
CH 11 Band edge



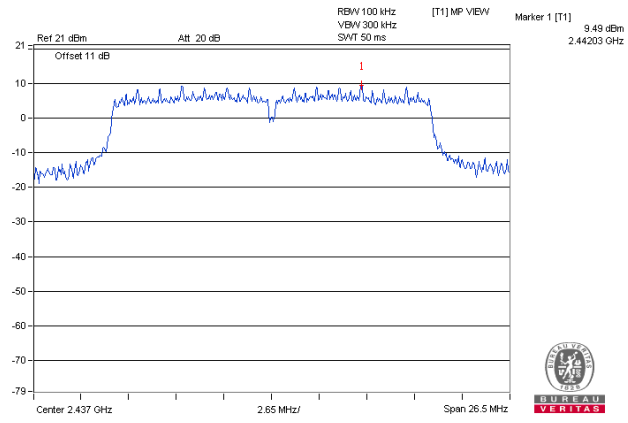
CHAIN 1

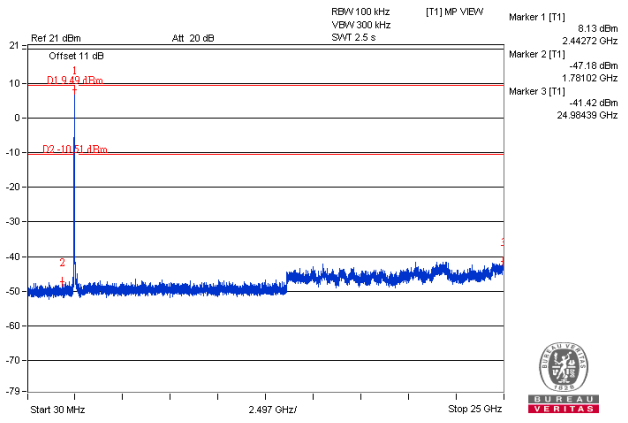
CH 1



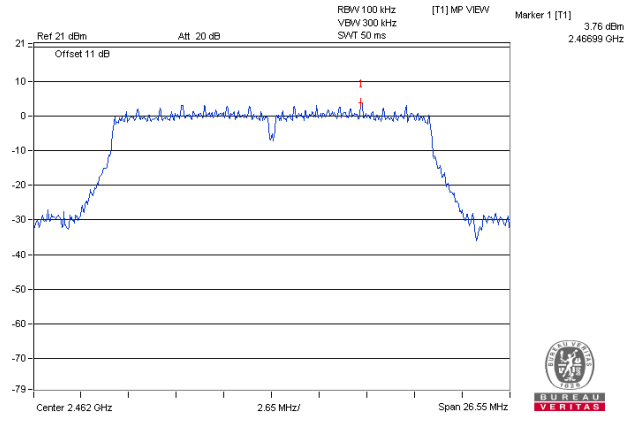


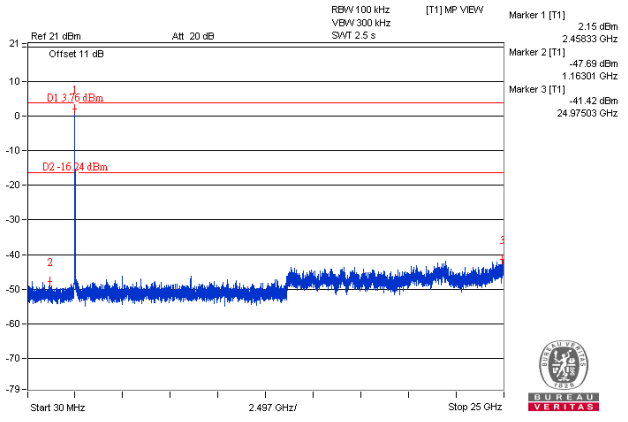
CH 6



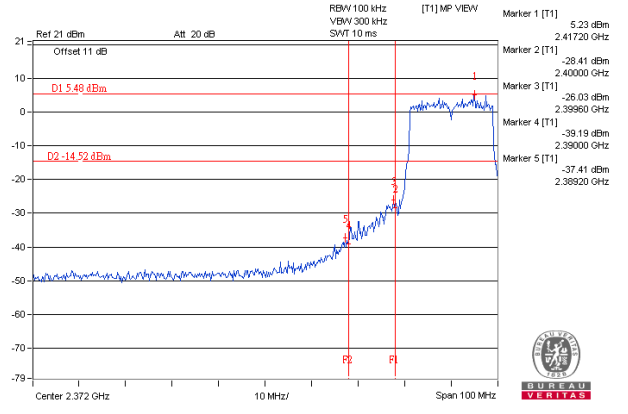


CH 11

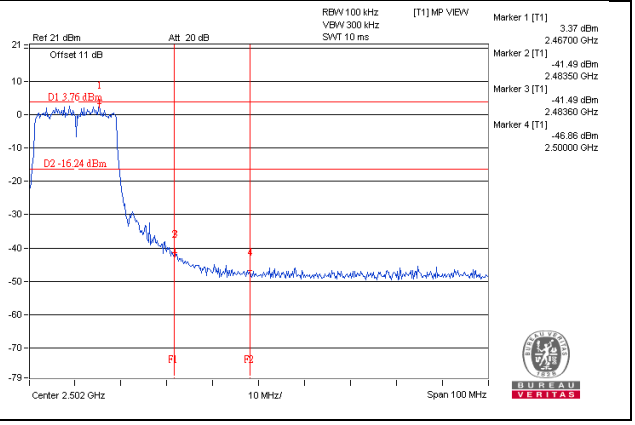




CH 1 Band edge

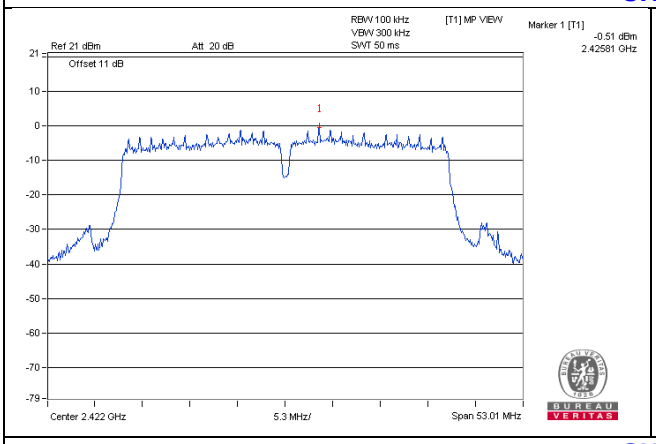


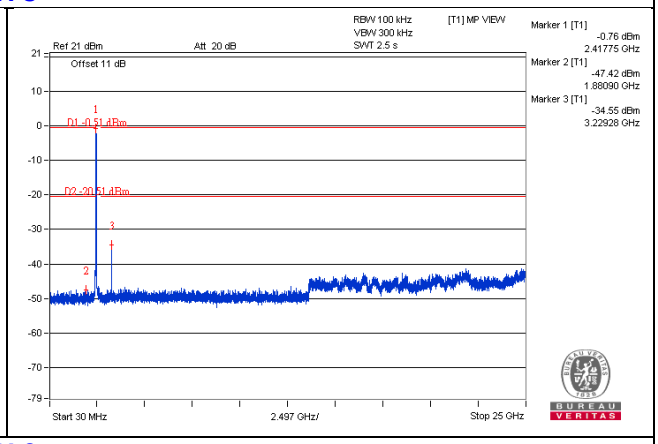
CH 11 Band edge



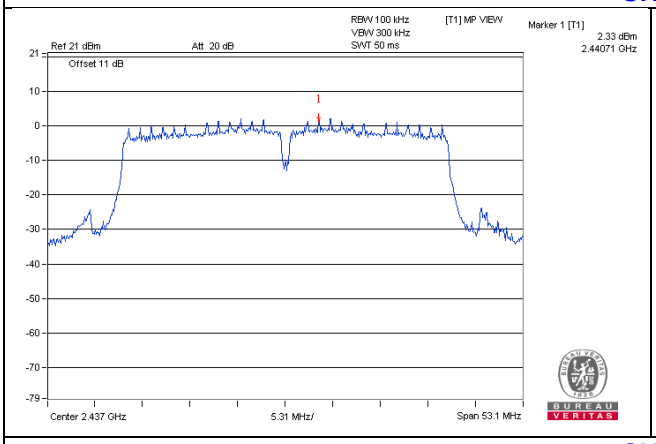
802.11n (HT40)
Chain 0

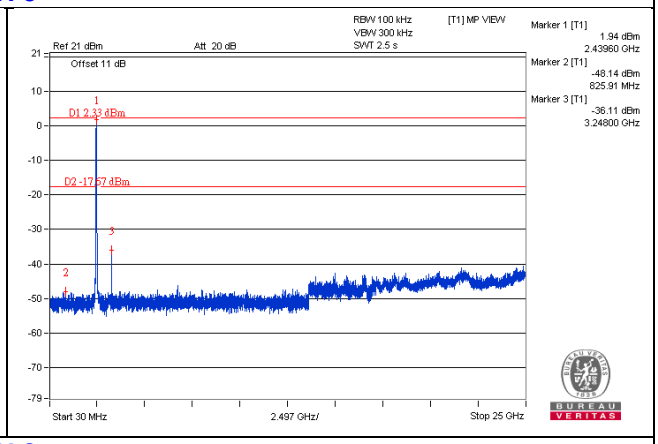
CH 3



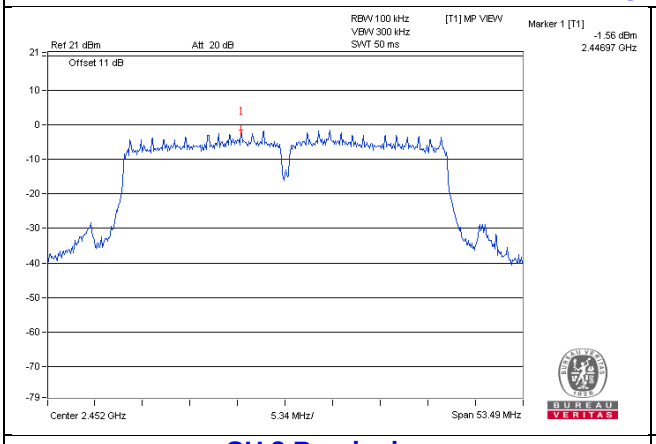


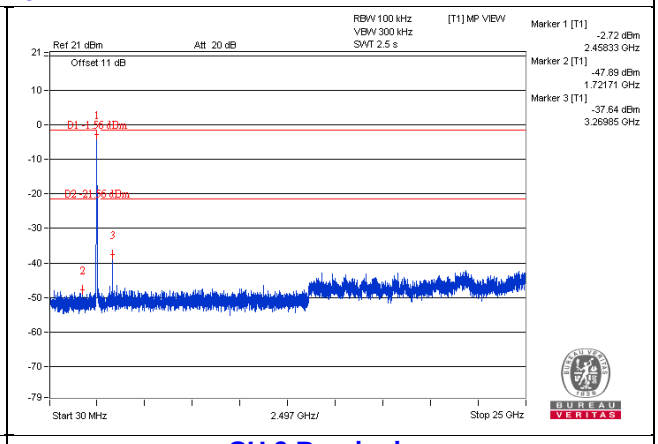
CH 6



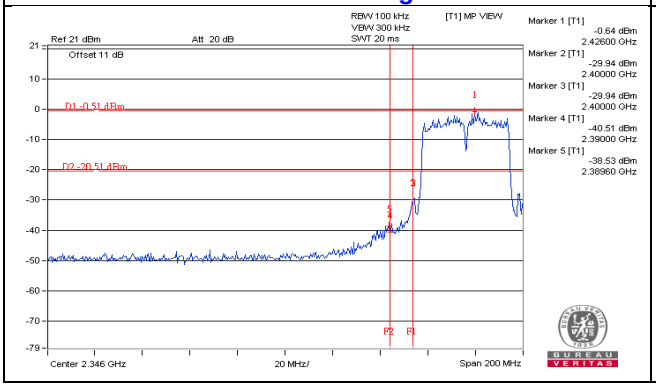


CH 9

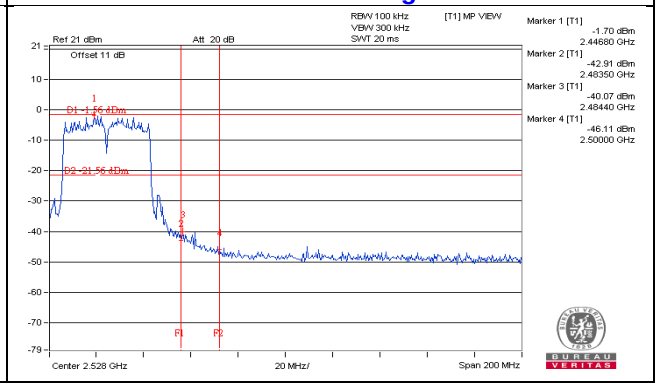




CH 3 Band edge

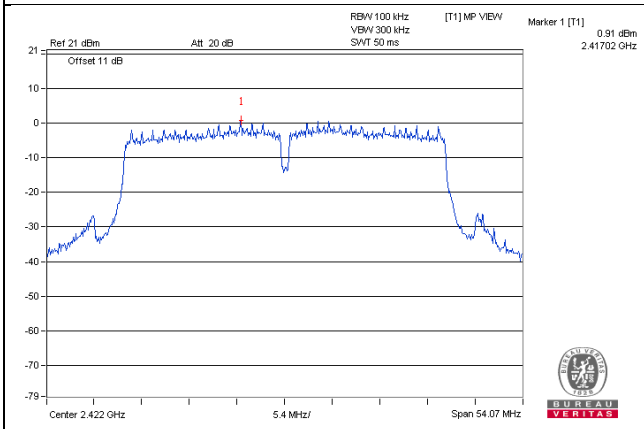


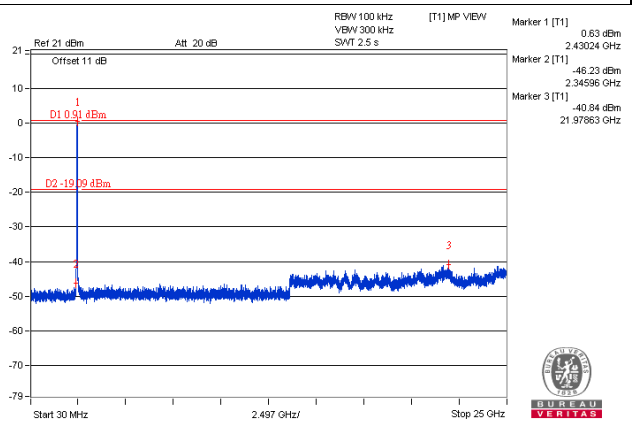
CH 9 Band edge



Chain 1

CH 3





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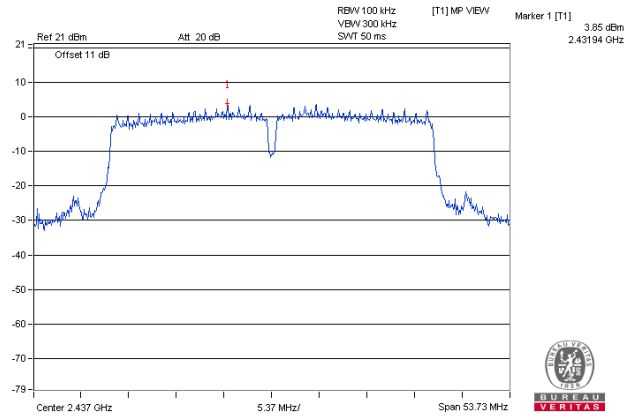
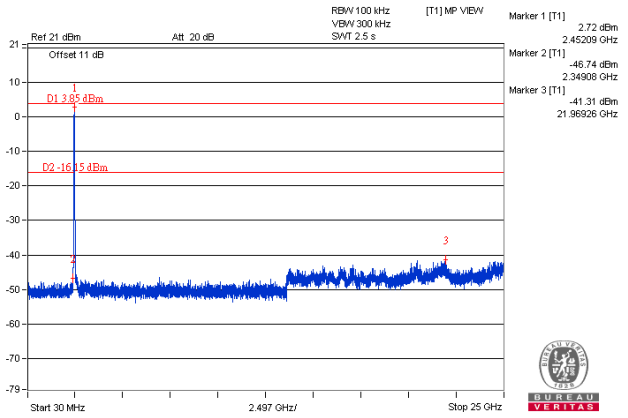
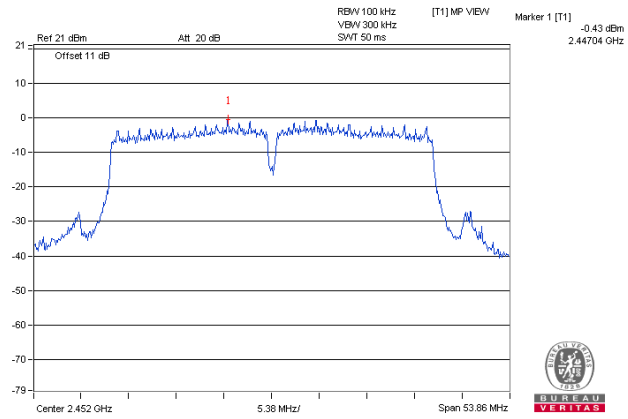
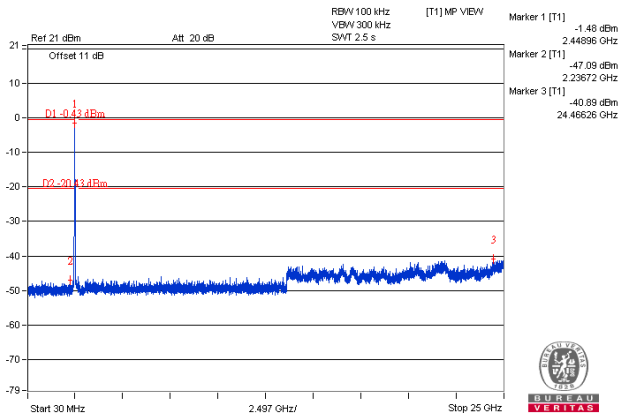


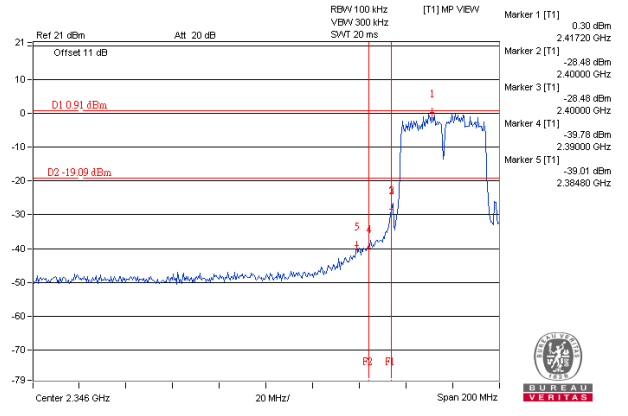


CH 9

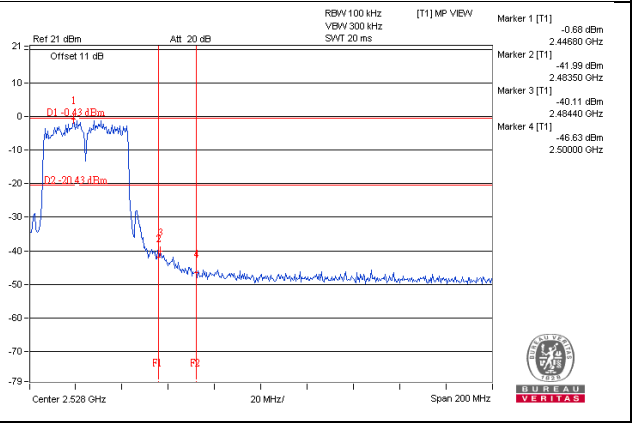




CH 3 Band edge



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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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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