

FCC Test Report

Report No.: RF180108C15-2

FCC ID: TOR-W118

Model: W-118

Received Date: Jan. 08, 2018

Test Date: Feb. 22 ~ Mar. 12, 2018

Issued Date: Mar. 20, 2018

Applicant: Mojo Networks, Inc.

Address: 339 N. Bernardo Avenue, Suite #200, Mountain View, California United States 94043

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RF180108C15-2	Original release	Mar. 20, 2018

1 Certificate of Conformity

Product: Wall Jack Access Point

Brand: Mojo

Model: W-118

Sample Status: Engineering sample

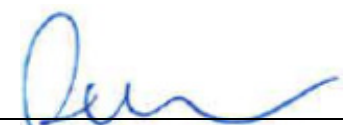
Applicant: Mojo Networks, Inc.

Test Date: Feb. 22 ~ Mar. 12, 2018

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

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

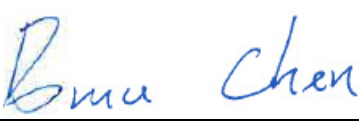
Prepared by :


Pettie Chen / Senior Specialist

Date:

Mar. 20, 2018

Approved by :


Bruce Chen / Project Engineer

Date:

Mar. 20, 2018

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -5.08dB at 0.15391MHz
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB at 2390.00, 4874.00, 4924.00MHz.
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	Antenna connector is IPEX 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	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~ 1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wall Jack Access Point
Brand	Mojo
Model	W-118
Sample Status	Engineering sample
Power Supply Rating	12Vdc from Adapter 54Vdc from POE
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b:11.0/ 5.5/ 2.0/ 1.0Mbps 802.11g: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps
Operating Frequency	2412 ~ 2462MHz
Number of Channel	11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Output Power	Radio 1: CDD Mode: 406.510mW Beamforming Mode: 147.911mW Radio 3: 75.873mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

2.4GHz Band			
Modulation Mode	TX Function	Beamforming	Remark
802.11b	2TX	Not Support	Radio 1
802.11g	2TX	Not Support	
802.11n (HT20)	2TX	Support	
802.11n (HT40)	2TX	Support	
802.11b	2TX	Not Support	Radio 3
802.11g	2TX	Not Support	
802.11n (HT20)	2TX	Not Support	
802.11n (HT40)	2TX	Not Support	

2. The EUT consumes power from following Adapter and POE. (Support unit only)

Adapter	
Brand	Powertron Electronics Corp.
Model	PA1024-120IB200
Input Power	100-240Vac, 50-60Hz, 0.6A
Output Power	12Vdc / 2.0A 24W Max
Power Cord	1.5m non-shielded cable with one core 0.5m non-shielded cable without core

POE	
Brand	EnGenius
Model	EPA5006GAT
Input Power	100-240Vac, 50-60Hz, 0.8A
Output Power	54Vdc, 0.6A

3. The EUT uses following antennas.

Type	PIFA						PIFA
Connector	IPEX						-
Radio	1		2		3		BT/Zigbee
Frequency (MHz)	2400-2500		5150-5850		2400-2500 & 5150-5850		2400-2500
Antenna	1	2	3	4	5	6	BT/Zigbee
Gain (dBi)	3.67	4.31	5.72	5.99	2.51 / 4.83	2.78 / 4.80	2.76

4. Spurious emission of the simultaneous operation mode as below and the test data please refer to report no.: RF180108C15-4.

No	Mode
1	Radio 1 + Radio 2 + Radio 3(2.4GHz) + BT LE
2	Radio 1 + Radio 3(5GHz) + BT LE
3	Radio 1 + Radio 2 + Radio 3(2.4GHz)+ Zigbee
4	Radio 1 + Radio 3(5GHz) + Zigbee

*The Radio 2 and Radio 3(5GHz) cannot transmit simultaneously.

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	Radio	Power
A	√	√	√	√	Radio 1	Power from adapter
B	-	√	√	-		Power from PoE
C	√	√	√	√	Radio 3	Power from adapter
D	-	√	√	-		Power from PoE

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 3 axis. The worst case was found when positioned on **Y-plane (For Test Mode A, B), Z-plane (For Test Mode C, D)**.
2. "-": Means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A, C	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A, C	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A, C	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Radiated Emission Test (Below 1GHz):

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C, D	802.11b	1 to 11	6	DSSS	DBPSK	1.0

Power Line Conducted Emission Test:

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C, D	802.11b	1 to 11	6	DSSS	DBPSK	1.0

Antenna Port Conducted Measurement:

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, C	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A, C	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A, C	802.11n (HT20)	1 to 11	1, 6, 11	OFDM	BPSK	6.5
A, C	802.11n (HT40)	3 to 9	3, 6, 9	OFDM	BPSK	13.5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	21 deg. C, 68% RH 20 deg. C, 68% RH	120Vac, 60Hz	Willy Cheng, Adair Peng Jones Chang
RE<1G	22 deg. C, 68% RH	120Vac, 60Hz	Adair Peng
PLC	25 deg. C, 75% RH	120Vac, 60Hz	Noah Chang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Chris Lin

3.3 Duty Cycle of Test Signal

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

Duty cycle of test signal is < 98%, duty factor shall be considered.

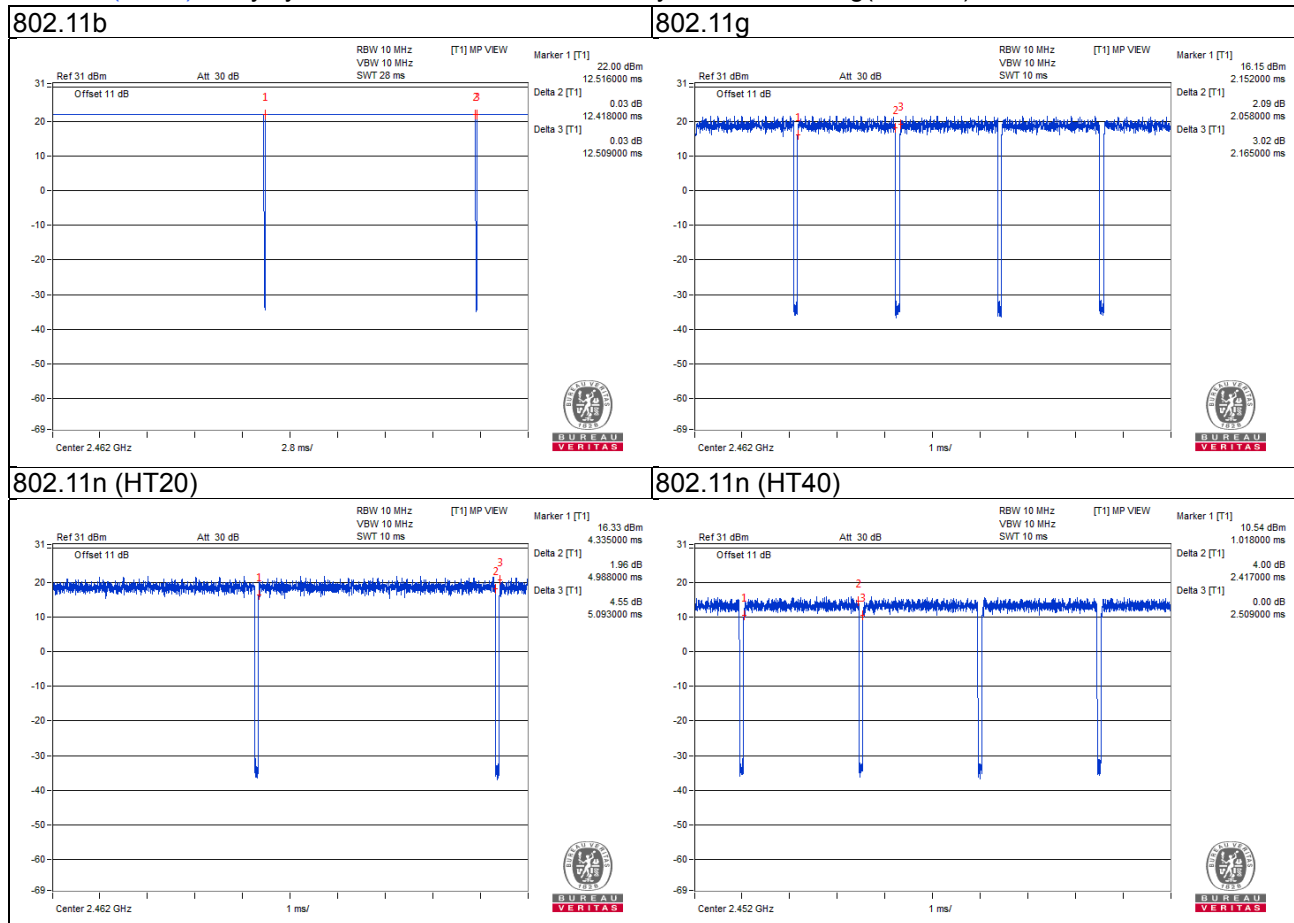
Test Mode A

802.11b: Duty cycle = $12.418/12.509 = 0.993$

802.11g: Duty cycle = $2.058/2.165 = 0.951$, Duty factor = $10 * \log(1/0.951) = 0.22$

802.11n (HT20): Duty cycle = $4.988/5.093 = 0.979$

802.11n (HT40): Duty cycle = $2.417/2.509 = 0.963$, Duty factor = $10 * \log(1/0.963) = 0.16$



Test Mode C

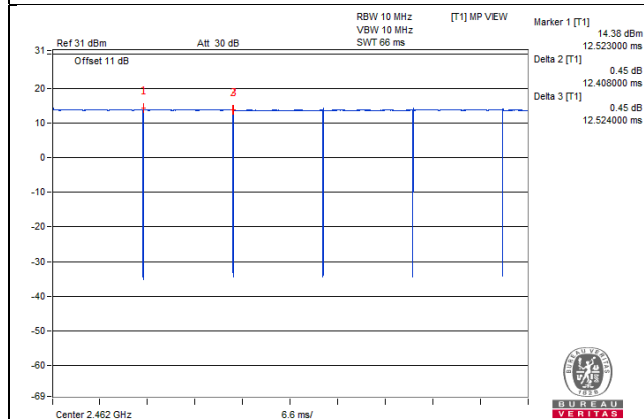
802.11b: Duty cycle = $12.408/12.524 = 0.991$

802.11g: Duty cycle = $2.062/2.172 = 0.949$, Duty factor = $10 * \log(1/0.949) = 0.23$

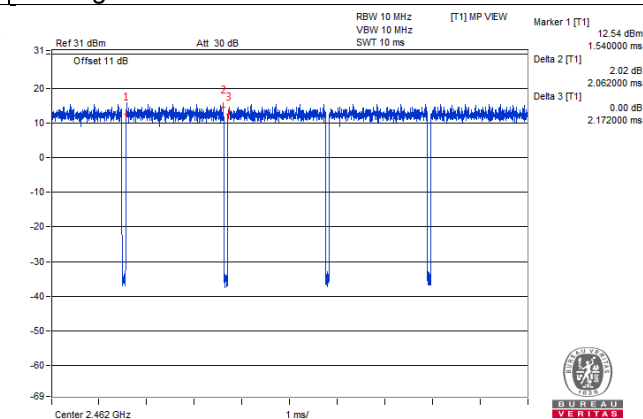
802.11n (HT20): Duty cycle = $1.914/2.002 = 0.956$, Duty factor = $10 * \log(1/0.956) = 0.20$

802.11n (HT40): Duty cycle = $0.944/1.029 = 0.917$, Duty factor = $10 * \log(1/0.917) = 0.37$

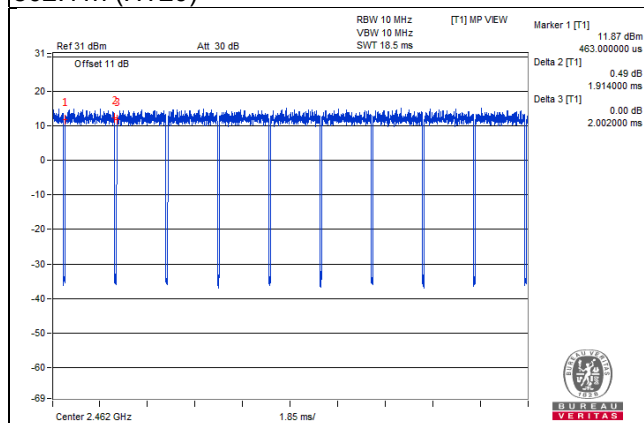
802.11b



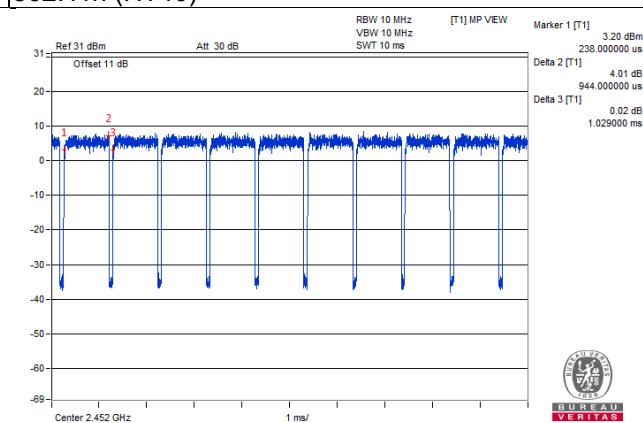
802.11g



802.11n (HT20)



802.11n (HT40)



3.4 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	Lenovo	80Q7	PF0KUGU6	FCC DoC Approved	-
B.	Adapter	Powertron	PA1024-120IB200	NA	NA	Provided by manufacturer
C.	Load	NA	NA	NA	NA	-
D.	POE	EnGenius	EPA5006GAT	NA	NA	Provided by manufacturer

Note:

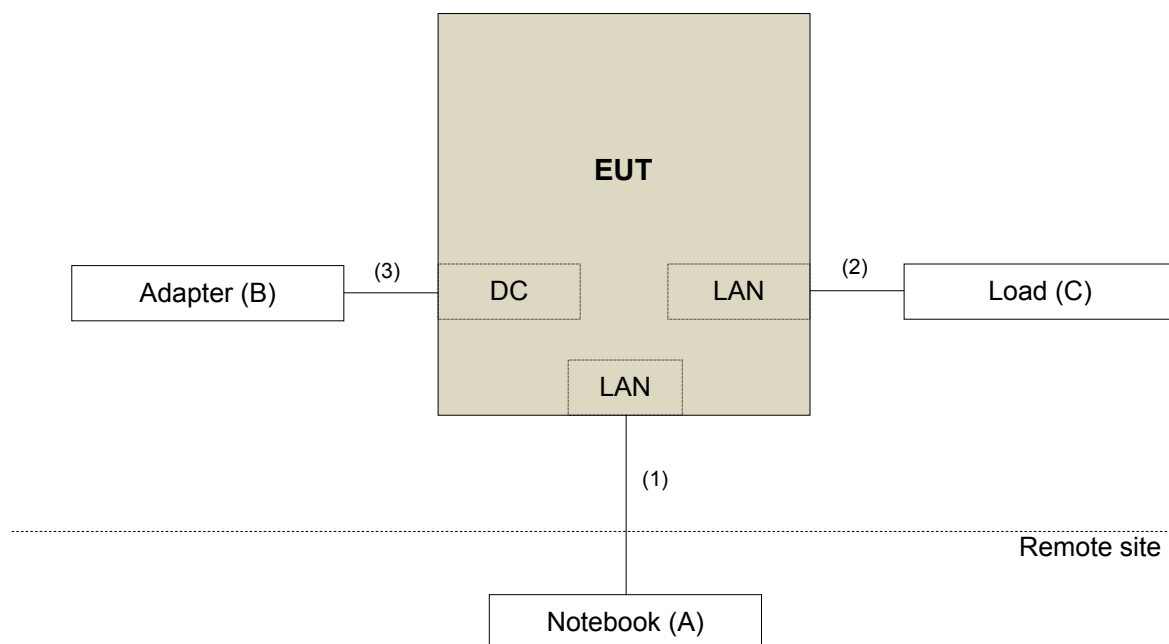
1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45, Cat5e	1	10	N	0	-
2.	RJ45, Cat5e	4	3	N	0	-
3.	Power Cord	1	1.0	N	0	-
4.	RJ45, Cat5e	1	3	N	0	-

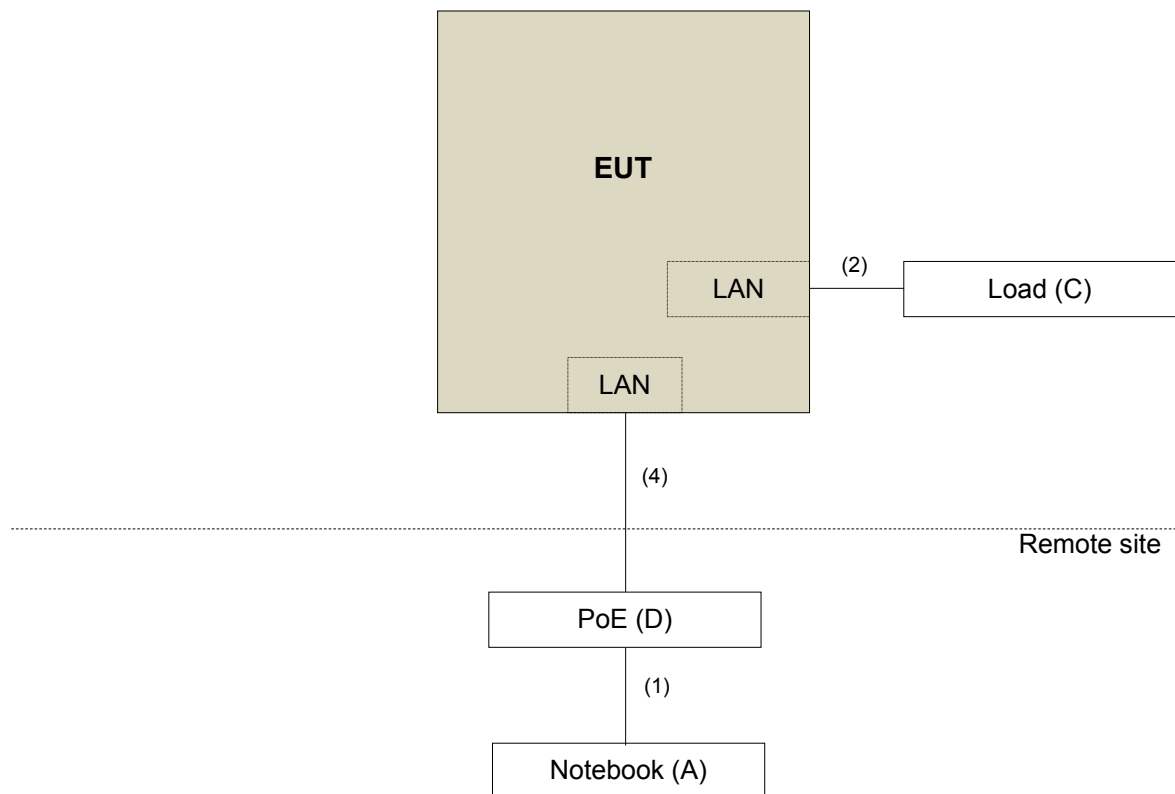
Note: The core(s) is(are) originally attached to the cable(s).

3.4.1 Configuration of System under Test

Test Mode A, C



Test Mode B, D



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

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30dB below the highest level of the desired power:

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

Note:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 30dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 02, 2017	May 01, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Dec. 12, 2017	Dec. 11, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Dec. 11, 2017	Dec. 10, 2018
HORN Antenna SCHWARZBECK	9120D	209	Dec. 13, 2017	Dec. 12, 2018
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 01, 2017	Nov. 30, 2018
Loop Antenna EMCI	EM-6879	269	Aug. 11, 2017	Aug. 10, 2018
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 21, 2017	Aug. 20, 2018
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Apr. 05, 2017	Apr. 04, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 21, 2017	Aug. 20, 2018
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-SM- 8000	Cable-CH3-03 (309224+170907)	Sep.11, 2017	Sep. 10, 2018
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
High Speed Peak Power Meter	ML2495A	0824012	Aug. 18, 2017	Aug. 17, 2018
Power Sensor	MA2411B	0738171	Aug. 18, 2017	Aug. 17, 2018

- Note:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 3.
 3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Designation Number is TW0003. The number will be varied with the Lab location and scope as attached.
 5. The IC Site Registration No. is IC 7450F-3.

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:

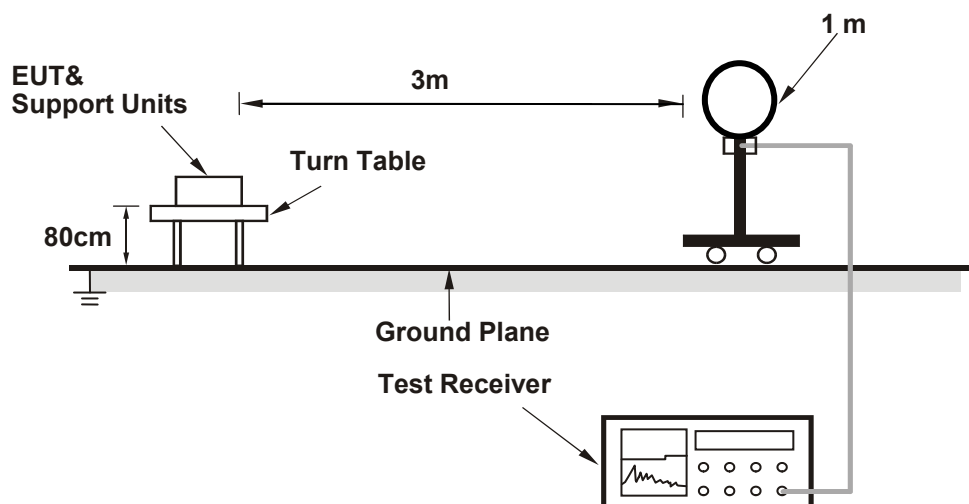
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 3 x RBW (Duty cycle $\geq 98\%$) 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

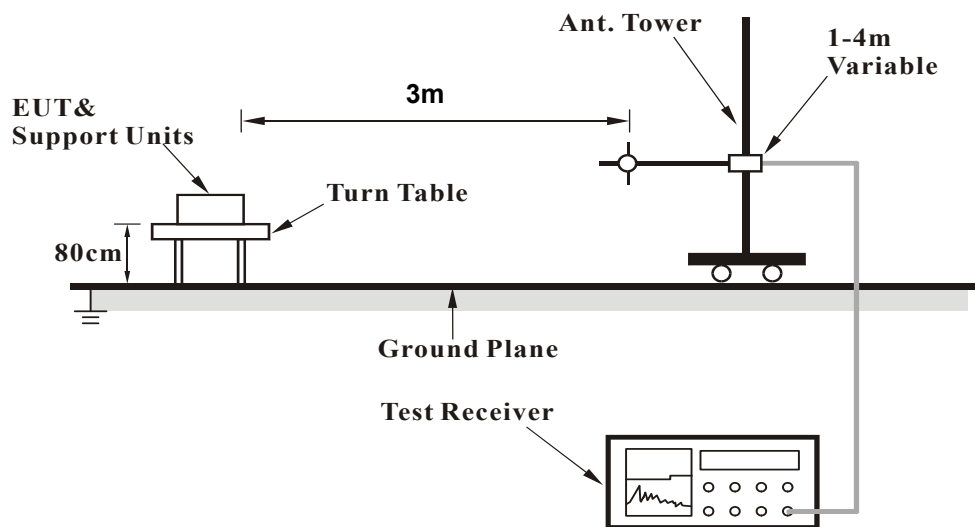
No deviation.

4.1.5 Test Set Up

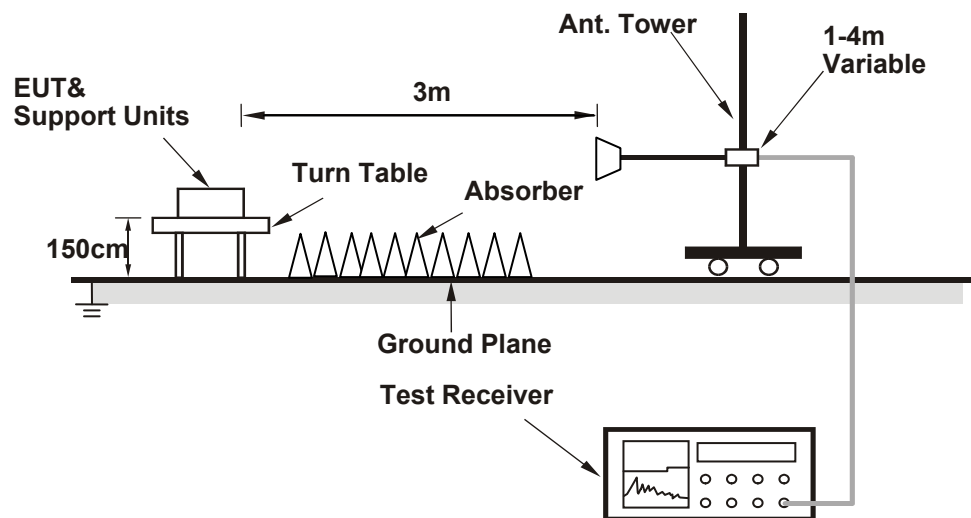
For Radiated emission below 30MHz



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

- Placed the EUT on the testing table.
- Prepared a notebook to act as a communication partner and placed it outside of testing area.
- The communication partner connected with EUT via a RJ45 cable and ran a test program (QRCT) to enable EUT under transmission condition continuously at specific channel frequency.
- The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz worst-Case data:

Test Mode A

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	61.1 PK	74.0	-12.9	1.59 H	310	27.6	33.5
2	2390.00	52.5 AV	54.0	-1.5	1.59 H	310	19.0	33.5
3	*2412.00	118.3 PK			1.14 H	309	84.9	33.4
4	*2412.00	114.6 AV			1.14 H	309	81.2	33.4
5	4824.00	47.7 PK	74.0	-26.3	1.94 H	343	44.0	3.7
6	4824.00	38.9 AV	54.0	-15.1	1.94 H	343	35.2	3.7
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	2390.00	58.7 PK	74.0	-15.3	2.58 V	56	25.2	33.5
2	2390.00	47.9 AV	54.0	-6.1	2.58 V	56	14.4	33.5
3	*2412.00	113.0 PK			2.60 V	78	79.6	33.4
4	*2412.00	109.4 AV			2.60 V	78	76.0	33.4
5	4824.00	46.5 PK	74.0	-27.5	1.20 V	355	42.8	3.7
6	4824.00	35.5 AV	54.0	-18.5	1.20 V	355	31.8	3.7

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)
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	*2437.00	118.9 PK			2.50 H	317	85.5	33.4
2	*2437.00	115.3 AV			2.50 H	317	81.9	33.4
3	4874.00	48.5 PK	74.0	-25.5	2.19 H	348	45.0	3.5
4	4874.00	41.2 AV	54.0	-12.8	2.19 H	348	37.7	3.5
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	*2437.00	113.6 PK			1.43 V	98	80.2	33.4
2	*2437.00	110.0 AV			1.43 V	98	76.6	33.4
3	4874.00	48.1 PK	74.0	-25.9	1.34 V	320	44.6	3.5
4	4874.00	40.7 AV	54.0	-13.3	1.34 V	320	37.2	3.5

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)
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	118.7 PK			1.28 H	316	85.4	33.3
2	*2462.00	114.9 AV			1.28 H	316	81.6	33.3
3	2483.50	61.8 PK	74.0	-12.2	1.47 H	317	28.6	33.2
4	2483.50	52.4 AV	54.0	-1.6	1.47 H	317	19.2	33.2
5	4924.00	45.9 PK	74.0	-28.1	1.78 H	291	42.6	3.3
6	4924.00	32.4 AV	54.0	-21.6	1.78 H	291	29.1	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	110.3 PK			1.26 V	99	77.0	33.3
2	*2462.00	106.3 AV			1.26 V	99	73.0	33.3
3	2483.50	58.5 PK	74.0	-15.5	1.64 V	101	25.3	33.2
4	2483.50	47.9 AV	54.0	-6.1	1.64 V	101	14.7	33.2
5	4924.00	45.0 PK	74.0	-29.0	1.91 V	322	41.7	3.3
6	4924.00	32.5 AV	54.0	-21.5	1.91 V	322	29.2	3.3

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)
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	68.7 PK	74.0	-5.3	1.59 H	318	35.2	33.5
2	2390.00	52.4 AV	54.0	-1.6	1.59 H	318	18.9	33.5
3	*2412.00	114.4 PK			1.79 H	310	81.0	33.4
4	*2412.00	104.1 AV			1.79 H	310	70.7	33.4
5	4824.00	46.1 PK	74.0	-27.9	2.14 H	318	42.4	3.7
6	4824.00	32.2 AV	54.0	-21.8	2.14 H	318	28.5	3.7
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	2390.00	62.0 PK	74.0	-12.0	2.17 V	110	28.5	33.5
2	2390.00	49.6 AV	54.0	-4.4	2.17 V	110	16.1	33.5
3	*2412.00	108.6 PK			2.03 V	98	75.2	33.4
4	*2412.00	96.5 AV			2.03 V	98	63.1	33.4
5	4824.00	45.6 PK	74.0	-28.4	2.22 V	298	41.9	3.7
6	4824.00	32.7 AV	54.0	-21.3	2.22 V	298	29.0	3.7

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)
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	*2437.00	120.8 PK			1.57 H	311	87.4	33.4
2	*2437.00	110.3 AV			1.57 H	311	76.9	33.4
3	2483.50	69.0 PK	74.0	-5.0	1.77 H	325	35.8	33.2
4	2483.50	52.6 AV	54.0	-1.4	1.77 H	325	19.4	33.2
5	4874.00	45.4 PK	74.0	-28.6	2.08 H	133	41.9	3.5
6	4874.00	32.4 AV	54.0	-21.6	2.08 H	133	28.9	3.5
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	*2437.00	114.4 PK			2.26 V	77	81.0	33.4
2	*2437.00	103.4 AV			2.26 V	77	70.0	33.4
3	2483.50	60.7 PK	74.0	-13.3	2.13 V	86	27.5	33.2
4	2483.50	48.4 AV	54.0	-5.6	2.13 V	86	15.2	33.2
5	4874.00	46.2 PK	74.0	-27.8	1.97 V	312	42.7	3.5
6	4874.00	32.6 AV	54.0	-21.4	1.97 V	312	29.1	3.5

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)
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	115.3 PK			1.55 H	314	82.0	33.3
2	*2462.00	105.0 AV			1.55 H	314	71.7	33.3
3	2483.50	66.9 PK	74.0	-7.1	1.18 H	332	33.7	33.2
4	2483.50	52.3 AV	54.0	-1.7	1.18 H	332	19.1	33.2
5	4924.00	45.1 PK	74.0	-28.9	1.87 H	264	41.8	3.3
6	4924.00	32.0 AV	54.0	-22.0	1.87 H	264	28.7	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.8 PK			2.12 V	69	75.5	33.3
2	*2462.00	98.1 AV			2.12 V	69	64.8	33.3
3	2483.50	59.5 PK	74.0	-14.5	2.03 V	77	26.3	33.2
4	2483.50	47.9 AV	54.0	-6.1	2.03 V	77	14.7	33.2
5	4924.00	45.6 PK	74.0	-28.4	1.99 V	298	42.3	3.3
6	4924.00	32.5 AV	54.0	-21.5	1.99 V	298	29.2	3.3

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)
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	67.0 PK	74.0	-7.0	1.55 H	312	33.5	33.5
2	2390.00	52.5 AV	54.0	-1.5	1.55 H	312	19.0	33.5
3	*2412.00	114.4 PK			1.30 H	309	81.0	33.4
4	*2412.00	103.8 AV			1.30 H	309	70.4	33.4
5	4824.00	46.5 PK	74.0	-27.5	2.03 H	347	42.8	3.7
6	4824.00	32.3 AV	54.0	-21.7	2.03 H	347	28.6	3.7
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	2390.00	62.5 PK	74.0	-11.5	1.97 V	65	29.0	33.5
2	2390.00	49.8 AV	54.0	-4.2	1.97 V	65	16.3	33.5
3	*2412.00	108.7 PK			2.01 V	58	75.3	33.4
4	*2412.00	96.7 AV			2.01 V	58	63.3	33.4
5	4824.00	45.9 PK	74.0	-28.1	1.97 V	299	42.2	3.7
6	4824.00	32.4 AV	54.0	-21.6	1.97 V	299	28.7	3.7

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)
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	*2437.00	120.6 PK			2.09 H	328	87.2	33.4
2	*2437.00	110.1 AV			2.09 H	328	76.7	33.4
3	2483.50	67.6 PK	74.0	-6.4	1.97 H	310	34.4	33.2
4	2483.50	52.2 AV	54.0	-1.8	1.97 H	310	19.0	33.2
5	4874.00	45.3 PK	74.0	-28.7	1.98 H	157	41.8	3.5
6	4874.00	32.2 AV	54.0	-21.8	1.98 H	157	28.7	3.5
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	*2437.00	113.9 PK			2.41 V	52	80.5	33.4
2	*2437.00	103.1 AV			2.41 V	52	69.7	33.4
3	2483.50	61.2 PK	74.0	-12.8	2.29 V	77	28.0	33.2
4	2483.50	48.5 AV	54.0	-5.5	2.29 V	77	15.3	33.2
5	4874.00	45.9 PK	74.0	-28.1	2.08 V	285	42.4	3.5
6	4874.00	32.4 AV	54.0	-21.6	2.08 V	285	28.9	3.5

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)
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	115.3 PK			2.46 H	316	82.0	33.3
2	*2462.00	105.0 AV			2.46 H	316	71.7	33.3
3	2483.50	67.0 PK	74.0	-7.0	2.31 H	320	33.8	33.2
4	2483.50	52.4 AV	54.0	-1.6	2.31 H	320	19.2	33.2
5	4924.00	45.5 PK	74.0	-28.5	1.85 H	266	42.2	3.3
6	4924.00	32.0 AV	54.0	-22.0	1.85 H	266	28.7	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	109.0 PK			1.89 V	100	75.7	33.3
2	*2462.00	98.3 AV			1.89 V	100	65.0	33.3
3	2483.50	60.0 PK	74.0	-14.0	1.91 V	89	26.8	33.2
4	2483.50	48.2 AV	54.0	-5.8	1.91 V	89	15.0	33.2
5	4924.00	45.7 PK	74.0	-28.3	2.02 V	310	42.4	3.3
6	4924.00	32.0 AV	54.0	-22.0	2.02 V	310	28.7	3.3

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)
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	65.7 PK	74.0	-8.3	2.30 H	300	32.2	33.5
2	2390.00	52.5 AV	54.0	-1.5	2.30 H	300	19.0	33.5
3	*2422.00	111.3 PK			1.75 H	310	77.9	33.4
4	*2422.00	101.1 AV			1.75 H	310	67.7	33.4
5	4844.00	45.2 PK	74.0	-28.8	2.22 H	313	41.6	3.6
6	4844.00	31.9 AV	54.0	-22.1	2.22 H	313	28.3	3.6
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	2390.00	62.0 PK	74.0	-12.0	1.81 V	87	28.5	33.5
2	2390.00	49.4 AV	54.0	-4.6	1.81 V	87	15.9	33.5
3	*2422.00	104.2 PK			1.75 V	100	70.8	33.4
4	*2422.00	94.2 AV			1.75 V	100	60.8	33.4
5	4844.00	45.6 PK	74.0	-28.4	1.86 V	333	42.0	3.6
6	4844.00	32.6 AV	54.0	-21.4	1.86 V	333	29.0	3.6

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)
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	66.9 PK	74.0	-7.1	1.34 H	302	33.4	33.5
2	2390.00	52.3 AV	54.0	-1.7	1.34 H	302	18.8	33.5
3	*2437.00	113.0 PK			2.23 H	313	79.6	33.4
4	*2437.00	102.9 AV			2.23 H	313	69.5	33.4
5	2483.50	68.7 PK	74.0	-5.3	1.09 H	317	35.5	33.2
6	2483.50	52.8 AV	54.0	-1.2	1.09 H	317	19.6	33.2
7	4874.00	45.5 PK	74.0	-28.5	1.89 H	262	42.0	3.5
8	4874.00	32.1 AV	54.0	-21.9	1.89 H	262	28.6	3.5
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	60.9 PK	74.0	-13.1	1.61 V	107	27.4	33.5
2	2390.00	48.4 AV	54.0	-5.6	1.61 V	107	14.9	33.5
3	*2437.00	105.8 PK			1.44 V	98	72.4	33.4
4	*2437.00	95.7 AV			1.44 V	98	62.3	33.4
5	2483.50	62.2 PK	74.0	-11.8	1.57 V	99	29.0	33.2
6	2483.50	48.6 AV	54.0	-5.4	1.57 V	99	15.4	33.2
7	4874.00	45.2 PK	74.0	-28.8	1.76 V	283	41.7	3.5
8	4874.00	32.7 AV	54.0	-21.3	1.76 V	283	29.2	3.5

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)
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	110.8 PK			1.32 H	311	77.4	33.4
2	*2452.00	99.6 AV			1.32 H	311	66.2	33.4
3	2483.50	65.5 PK	74.0	-8.5	1.00 H	339	32.3	33.2
4	2483.50	52.3 AV	54.0	-1.7	1.00 H	339	19.1	33.2
5	4904.00	45.8 PK	74.0	-28.2	1.64 H	261	42.4	3.4
6	4904.00	32.3 AV	54.0	-21.7	1.64 H	261	28.9	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	*2452.00	103.2 PK			2.14 V	71	69.8	33.4
2	*2452.00	93.2 AV			2.14 V	71	59.8	33.4
3	2483.50	60.9 PK	74.0	-13.1	1.87 V	89	27.7	33.2
4	2483.50	48.2 AV	54.0	-5.8	1.87 V	89	15.0	33.2
5	4904.00	45.8 PK	74.0	-28.2	1.77 V	293	42.4	3.4
6	4904.00	32.4 AV	54.0	-21.6	1.77 V	293	29.0	3.4

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

Test Mode C

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	56.6 PK	74.0	-17.4	1.47 H	186	23.1	33.5
2	2390.00	45.6 AV	54.0	-8.4	1.47 H	186	12.1	33.5
3	*2412.00	93.1 PK			1.47 H	186	59.7	33.4
4	*2412.00	89.6 AV			1.47 H	186	56.2	33.4
5	4824.00	55.7 PK	74.0	-18.3	1.53 H	353	52.0	3.7
6	4824.00	52.9 AV	54.0	-1.1	1.53 H	353	49.2	3.7
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	2390.00	57.0 PK	74.0	-17.0	1.87 V	348	23.5	33.5
2	2390.00	45.9 AV	54.0	-8.1	1.87 V	348	12.4	33.5
3	*2412.00	106.7 PK			1.87 V	348	73.3	33.4
4	*2412.00	102.8 AV			1.87 V	348	69.4	33.4
5	4824.00	51.2 PK	74.0	-22.8	2.89 V	348	47.5	3.7
6	4824.00	47.9 AV	54.0	-6.1	2.89 V	348	44.2	3.7

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)
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	*2437.00	97.9 PK			1.46 H	185	64.5	33.4
2	*2437.00	94.1 AV			1.46 H	185	60.7	33.4
3	4874.00	58.2 PK	74.0	-15.8	1.58 H	0	54.7	3.5
4	4874.00	53.0 AV	54.0	-1.0	1.58 H	0	49.5	3.5
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	*2437.00	110.1 PK			1.88 V	354	76.7	33.4
2	*2437.00	106.3 AV			1.88 V	354	72.9	33.4
3	4874.00	54.5 PK	74.0	-19.5	2.88 V	346	51.0	3.5
4	4874.00	51.9 AV	54.0	-2.1	2.88 V	346	48.4	3.5

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)
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	94.5 PK			1.60 H	182	61.2	33.3
2	*2462.00	90.6 AV			1.60 H	182	57.3	33.3
3	2483.50	56.5 PK	74.0	-17.5	1.60 H	182	23.3	33.2
4	2483.50	45.5 AV	54.0	-8.5	1.60 H	182	12.3	33.2
5	4924.00	57.3 PK	74.0	-16.7	1.53 H	11	54.0	3.3
6	4924.00	53.0 AV	54.0	-1.0	1.53 H	11	49.7	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	107.6 PK			1.91 V	349	74.3	33.3
2	*2462.00	103.8 AV			1.91 V	349	70.5	33.3
3	2483.50	57.0 PK	74.0	-17.0	1.91 V	349	23.8	33.2
4	2483.50	45.9 AV	54.0	-8.1	1.91 V	349	12.7	33.2
5	4924.00	53.4 PK	74.0	-20.6	2.66 V	344	50.1	3.3
6	4924.00	50.5 AV	54.0	-3.5	2.66 V	344	47.2	3.3

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)
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	59.9 PK	74.0	-14.1	1.49 H	180	26.4	33.5
2	2390.00	48.0 AV	54.0	-6.0	1.49 H	180	14.5	33.5
3	*2412.00	97.3 PK			1.49 H	181	63.9	33.4
4	*2412.00	87.3 AV			1.49 H	181	53.9	33.4
5	4824.00	54.8 PK	74.0	-19.2	1.63 H	357	51.1	3.7
6	4824.00	42.7 AV	54.0	-11.3	1.63 H	357	39.0	3.7
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	2390.00	67.9 PK	74.0	-6.1	1.86 V	14	34.4	33.5
2	2390.00	53.0 AV	54.0	-1.0	1.86 V	14	19.5	33.5
3	*2412.00	110.2 PK			1.90 V	333	76.8	33.4
4	*2412.00	100.2 AV			1.90 V	333	66.8	33.4
5	4824.00	50.2 PK	74.0	-23.8	2.64 V	337	46.5	3.7
6	4824.00	38.1 AV	54.0	-15.9	2.64 V	337	34.4	3.7

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)
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	*2437.00	100.5 PK			1.64 H	328	67.1	33.4
2	*2437.00	91.4 AV			1.64 H	328	58.0	33.4
3	4874.00	56.3 PK	74.0	-17.7	2.15 H	310	52.8	3.5
4	4874.00	45.5 AV	54.0	-8.5	2.15 H	310	42.0	3.5
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	*2437.00	114.3 PK			1.86 V	346	80.9	33.4
2	*2437.00	104.9 AV			1.86 V	346	71.5	33.4
3	4874.00	54.0 PK	74.0	-20.0	2.72 V	343	50.5	3.5
4	4874.00	42.4 AV	54.0	-11.6	2.72 V	343	38.9	3.5

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)
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	94.8 PK			1.59 H	181	61.5	33.3
2	*2462.00	85.7 AV			1.59 H	181	52.4	33.3
3	2483.50	56.9 PK	74.0	-17.1	1.59 H	181	23.7	33.2
4	2483.50	45.9 AV	54.0	-8.1	1.59 H	181	12.7	33.2
5	4924.00	51.5 PK	74.0	-22.5	1.66 H	3	48.2	3.3
6	4924.00	38.9 AV	54.0	-15.1	1.66 H	3	35.6	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.3 PK			1.98 V	351	75.0	33.3
2	*2462.00	98.9 AV			1.98 V	351	65.6	33.3
3	2483.50	67.0 PK	74.0	-7.0	1.45 V	7	33.8	33.2
4	2483.50	52.6 AV	54.0	-1.4	1.45 V	7	19.4	33.2
5	4924.00	49.3 PK	74.0	-24.7	2.51 V	345	46.0	3.3
6	4924.00	36.9 AV	54.0	-17.1	2.51 V	345	33.6	3.3

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)
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	57.4 PK	74.0	-16.6	1.47 H	189	23.9	33.5
2	2390.00	46.5 AV	54.0	-7.5	1.47 H	189	13.0	33.5
3	*2412.00	95.9 PK			1.47 H	189	62.5	33.4
4	*2412.00	85.9 AV			1.47 H	189	52.5	33.4
5	4824.00	53.2 PK	74.0	-20.8	1.66 H	355	49.5	3.7
6	4824.00	41.8 AV	54.0	-12.2	1.66 H	355	38.1	3.7
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	2390.00	68.6 PK	74.0	-5.4	2.01 V	321	35.1	33.5
2	2390.00	53.0 AV	54.0	-1.0	2.01 V	321	19.5	33.5
3	*2412.00	109.0 PK			1.88 V	333	75.6	33.4
4	*2412.00	98.7 AV			1.88 V	333	65.3	33.4
5	4824.00	49.7 PK	74.0	-24.3	2.61 V	350	46.0	3.7
6	4824.00	37.5 AV	54.0	-16.5	2.61 V	350	33.8	3.7

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)
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	*2437.00	100.8 PK			1.48 H	189	67.4	33.4
2	*2437.00	91.6 AV			1.48 H	189	58.2	33.4
3	4874.00	58.5 PK	74.0	-15.5	2.06 H	3	55.0	3.5
4	4874.00	44.7 AV	54.0	-9.3	2.06 H	3	41.2	3.5
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	*2437.00	113.9 PK			1.89 V	348	80.5	33.4
2	*2437.00	104.7 AV			1.89 V	348	71.3	33.4
3	4874.00	56.1 PK	74.0	-17.9	2.74 V	344	52.6	3.5
4	4874.00	41.8 AV	54.0	-12.2	2.74 V	344	38.3	3.5

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)
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	93.8 PK			1.62 H	186	60.5	33.3
2	*2462.00	83.9 AV			1.62 H	186	50.6	33.3
3	2483.50	56.8 PK	74.0	-17.2	1.62 H	186	23.6	33.2
4	2483.50	45.8 AV	54.0	-8.2	1.62 H	186	12.6	33.2
5	4924.00	52.5 PK	74.0	-21.5	1.71 H	0	49.2	3.3
6	4924.00	41.0 AV	54.0	-13.0	1.71 H	0	37.7	3.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	108.3 PK			1.75 V	345	75.0	33.3
2	*2462.00	98.6 AV			1.75 V	345	65.3	33.3
3	2483.50	66.5 PK	74.0	-7.5	1.75 V	320	33.3	33.2
4	2483.50	52.5 AV	54.0	-1.5	1.75 V	320	19.3	33.2
5	4924.00	49.2 PK	74.0	-24.8	2.75 V	353	45.9	3.3
6	4924.00	37.3 AV	54.0	-16.7	2.75 V	353	34.0	3.3

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)
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	55.9 PK	74.0	-18.1	1.57 H	183	22.4	33.5
2	2390.00	45.3 AV	54.0	-8.7	1.57 H	183	11.8	33.5
3	*2422.00	88.4 PK			1.57 H	183	55.0	33.4
4	*2422.00	79.5 AV			1.57 H	183	46.1	33.4
5	4844.00	45.4 PK	74.0	-28.6	1.76 H	342	41.8	3.6
6	4844.00	32.1 AV	54.0	-21.9	1.76 H	342	28.5	3.6
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	2390.00	66.5 PK	74.0	-7.5	1.74 V	315	33.0	33.5
2	2390.00	52.5 AV	54.0	-1.5	1.74 V	315	19.0	33.5
3	*2422.00	102.0 PK			1.87 V	347	68.6	33.4
4	*2422.00	92.7 AV			1.87 V	347	59.3	33.4
5	4844.00	46.2 PK	74.0	-27.8	2.89 V	19	42.6	3.6
6	4844.00	34.1 AV	54.0	-19.9	2.89 V	19	30.5	3.6

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)
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	56.6 PK	74.0	-17.4	1.60 H	345	23.1	33.5
2	2390.00	45.5 AV	54.0	-8.5	1.60 H	345	12.0	33.5
3	*2437.00	93.4 PK			1.47 H	186	60.0	33.4
4	*2437.00	84.0 AV			1.47 H	186	50.6	33.4
5	2483.50	57.2 PK	74.0	-16.8	1.69 H	179	24.0	33.2
6	2483.50	46.5 AV	54.0	-7.5	1.69 H	179	13.3	33.2
7	4874.00	48.7 PK	74.0	-25.3	1.58 H	356	45.2	3.5
8	4874.00	36.8 AV	54.0	-17.2	1.58 H	356	33.3	3.5
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	67.0 PK	74.0	-7.0	1.58 V	7	33.5	33.5
2	2390.00	52.1 AV	54.0	-1.9	1.58 V	7	18.6	33.5
3	*2437.00	106.2 PK			1.81 V	351	72.8	33.4
4	*2437.00	97.0 AV			1.81 V	351	63.6	33.4
5	2483.50	66.5 PK	74.0	-7.5	1.71 V	341	33.3	33.2
6	2483.50	52.5 AV	54.0	-1.5	1.71 V	341	19.3	33.2
7	4874.00	47.9 PK	74.0	-26.1	2.81 V	352	44.4	3.5
8	4874.00	35.8 AV	54.0	-18.2	2.81 V	352	32.3	3.5

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)
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	89.1 PK			1.49 H	187	55.7	33.4
2	*2452.00	80.0 AV			1.49 H	187	46.6	33.4
3	2483.50	56.5 PK	74.0	-17.5	1.50 H	188	23.3	33.2
4	2483.50	45.5 AV	54.0	-8.5	1.50 H	188	12.3	33.2
5	4904.00	45.5 PK	74.0	-28.5	1.70 H	349	42.1	3.4
6	4904.00	32.9 AV	54.0	-21.1	1.70 H	349	29.5	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	*2452.00	102.0 PK			1.82 V	354	68.6	33.4
2	*2452.00	92.7 AV			1.82 V	354	59.3	33.4
3	2483.50	63.9 PK	74.0	-10.1	1.76 V	320	30.7	33.2
4	2483.50	52.7 AV	54.0	-1.3	1.76 V	320	19.5	33.2
5	4904.00	47.0 PK	74.0	-27.0	2.59 V	358	43.6	3.4
6	4904.00	34.7 AV	54.0	-19.3	2.59 V	358	31.3	3.4

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

Below 1GHz worst-case data:

Test Mode A

802.11b

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	57.12	28.4 QP	40.0	-11.6	1.99 H	213	42.8	-14.4
2	162.11	31.4 QP	43.5	-12.1	1.49 H	244	45.3	-13.9
3	340.99	34.9 QP	46.0	-11.1	1.00 H	208	47.0	-12.1
4	525.69	28.3 QP	46.0	-17.7	1.49 H	177	37.4	-9.1
5	747.34	31.0 QP	46.0	-15.0	1.99 H	19	35.8	-4.8
6	836.78	31.5 QP	46.0	-14.5	1.99 H	68	35.0	-3.5
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	51.29	34.2 QP	40.0	-5.8	1.00 V	301	48.3	-14.1
2	82.40	36.6 QP	40.0	-3.4	1.00 V	148	55.3	-18.7
3	162.11	29.4 QP	43.5	-14.1	1.00 V	141	43.3	-13.9
4	335.15	29.4 QP	46.0	-16.6	1.00 V	120	41.5	-12.1
5	638.46	29.4 QP	46.0	-16.6	1.00 V	81	36.0	-6.6
6	836.78	36.7 QP	46.0	-9.3	1.99 V	114	40.2	-3.5

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

Test Mode B

802.11b

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	37.68	24.9 QP	40.0	-15.1	1.00 H	122	40.2	-15.3
2	136.84	25.7 QP	43.5	-17.8	1.00 H	248	40.5	-14.8
3	319.60	26.2 QP	46.0	-19.8	1.50 H	204	38.4	-12.2
4	496.53	22.4 QP	46.0	-23.6	1.50 H	46	31.9	-9.5
5	564.58	26.0 QP	46.0	-20.0	1.00 H	3	34.3	-8.3
6	939.83	36.7 QP	46.0	-9.3	1.50 H	25	38.7	-2.0
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	55.18	36.5 QP	40.0	-3.5	1.00 V	5	50.8	-14.3
2	179.61	27.0 QP	43.5	-16.5	1.00 V	170	42.0	-15.0
3	323.49	23.8 QP	46.0	-22.2	1.00 V	184	36.0	-12.2
4	547.08	26.0 QP	46.0	-20.0	1.00 V	257	34.7	-8.7
5	729.84	41.0 QP	46.0	-5.0	1.49 V	67	46.2	-5.2
6	937.88	37.1 QP	46.0	-8.9	1.00 V	353	39.1	-2.0

Remarks:

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

Test Mode C

802.11b

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	57.12	27.9 QP	40.0	-12.1	1.99 H	33	42.3	-14.4
2	169.89	28.2 QP	43.5	-15.3	1.49 H	253	42.3	-14.1
3	317.65	27.4 QP	46.0	-18.6	1.00 H	124	39.7	-12.3
4	543.19	28.6 QP	46.0	-17.4	1.49 H	323	37.3	-8.7
5	747.34	33.7 QP	46.0	-12.3	1.00 H	99	38.5	-4.8
6	939.83	32.9 QP	46.0	-13.1	1.99 H	1	34.9	-2.0
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	49.34	34.3 QP	40.0	-5.7	1.00 V	16	48.4	-14.1
2	162.11	29.0 QP	43.5	-14.5	1.00 V	200	42.9	-13.9
3	401.26	30.4 QP	46.0	-15.6	1.00 V	204	41.5	-11.1
4	545.14	30.6 QP	46.0	-15.4	1.00 V	171	39.3	-8.7
5	729.84	30.8 QP	46.0	-15.2	1.00 V	80	36.0	-5.2
6	933.99	33.6 QP	46.0	-12.4	1.00 V	16	35.7	-2.1

Remarks:

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

Test Mode D

802.11b

CHANNEL	TX Channel 6	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 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	57.12	25.9 QP	40.0	-14.1	1.99 H	65	40.3	-14.4
2	140.72	27.0 QP	43.5	-16.5	1.99 H	90	41.4	-14.4
3	189.33	27.2 QP	43.5	-16.3	1.00 H	249	43.4	-16.2
4	329.32	28.1 QP	46.0	-17.9	1.50 H	117	40.2	-12.1
5	568.47	26.3 QP	46.0	-19.7	1.00 H	281	34.6	-8.3
6	937.88	37.1 QP	46.0	-8.9	1.00 H	109	39.1	-2.0
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	37.68	33.0 QP	40.0	-7.0	1.00 V	207	48.3	-15.3
2	152.39	26.4 QP	43.5	-17.1	1.00 V	184	40.2	-13.8
3	251.55	26.5 QP	46.0	-19.5	1.50 V	307	41.0	-14.5
4	337.10	27.7 QP	46.0	-18.3	1.00 V	166	39.8	-12.1
5	550.97	30.6 QP	46.0	-15.4	1.99 V	55	39.2	-8.6
6	939.83	30.3 QP	46.0	-15.7	1.00 V	177	32.3	-2.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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

Tested date: Mar. 08, 2018

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Aug. 17, 2017	Aug. 16, 2018
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 08, 2017	Sep. 07, 2018
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 02, 2017	Aug. 01, 2018
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

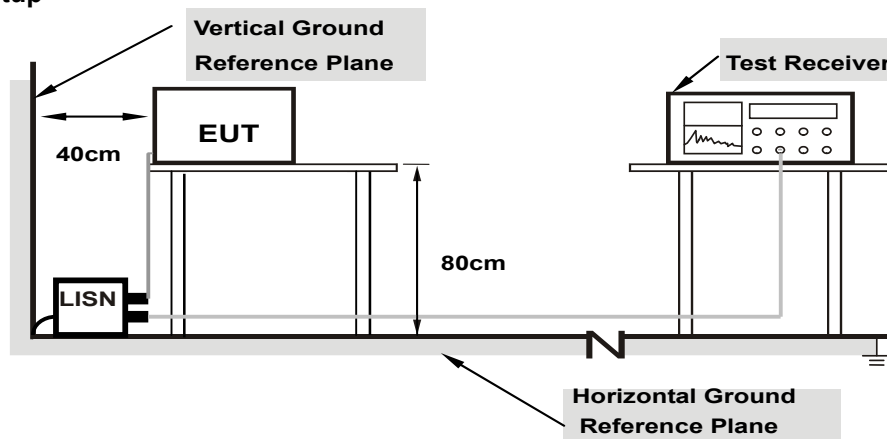
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

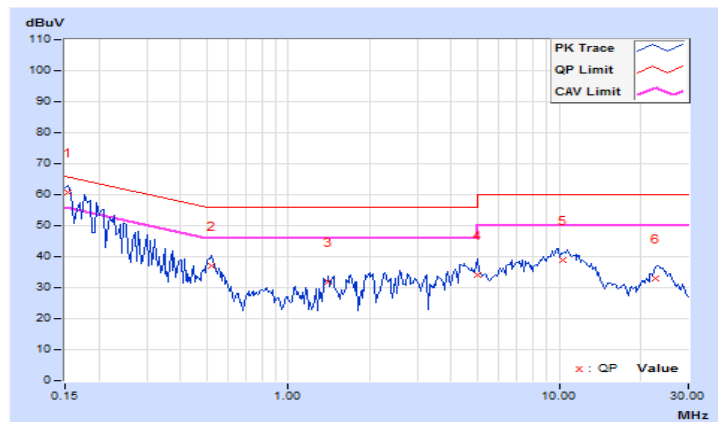
Test Mode A

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.29	50.42	33.19	60.71	43.48	65.79	55.79	-5.08	-12.31
2	0.52109	10.35	26.56	20.29	36.91	30.64	56.00	46.00	-19.09	-15.36
3	1.40234	10.41	21.58	16.21	31.99	26.62	56.00	46.00	-24.01	-19.38
4	4.97656	10.60	23.52	16.12	34.12	26.72	56.00	46.00	-21.88	-19.28
5	10.26563	10.86	27.95	22.98	38.81	33.84	60.00	50.00	-21.19	-16.16
6	22.81641	11.63	21.31	16.08	32.94	27.71	60.00	50.00	-27.06	-22.29

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.

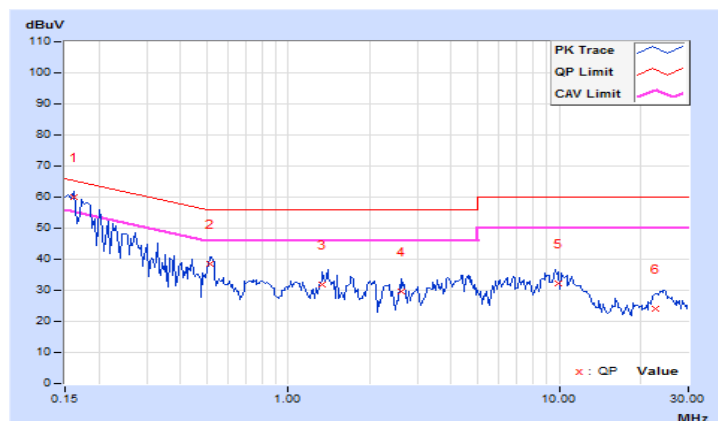


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	10.33	49.52	31.84	59.85	42.17	65.38	55.38	-5.53	-13.21
2	0.51719	10.32	28.24	20.21	38.56	30.53	56.00	46.00	-17.44	-15.47
3	1.33984	10.42	21.57	16.28	31.99	26.70	56.00	46.00	-24.01	-19.30
4	2.62500	10.49	19.16	14.76	29.65	25.25	56.00	46.00	-26.35	-20.75
5	9.91797	10.78	21.30	15.14	32.08	25.92	60.00	50.00	-27.92	-24.08
6	22.67188	11.32	12.63	7.87	23.95	19.19	60.00	50.00	-36.05	-30.81

Remarks:

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



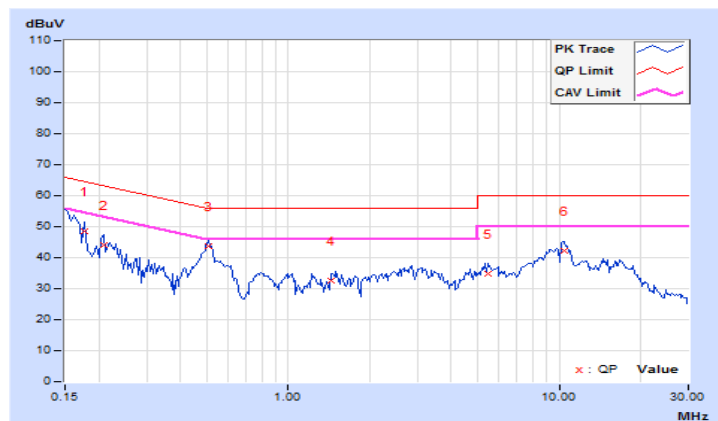
Test Mode B

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17734	10.31	38.39	20.67	48.70	30.98	64.61	54.61	-15.91	-23.63
2	0.20859	10.32	33.58	17.04	43.90	27.36	63.26	53.26	-19.36	-25.90
3	0.50547	10.35	33.35	29.24	43.70	39.59	56.00	46.00	-12.30	-6.41
4	1.44141	10.41	22.28	17.86	32.69	28.27	56.00	46.00	-23.31	-17.73
5	5.43359	10.62	24.11	18.97	34.73	29.59	60.00	50.00	-25.27	-20.41
6	10.47266	10.88	31.42	26.85	42.30	37.73	60.00	50.00	-17.70	-12.27

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.

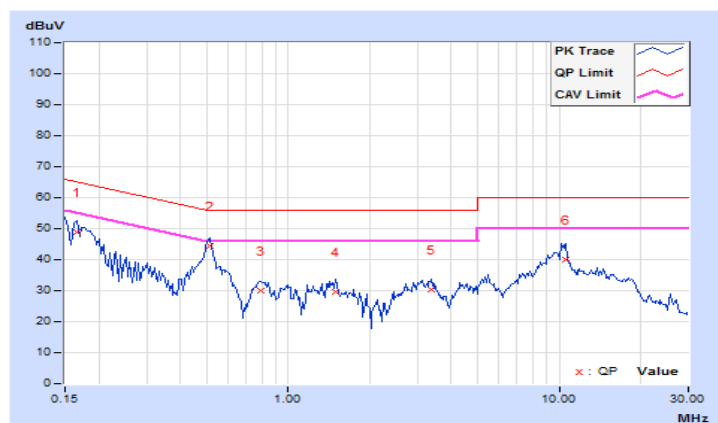


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	10.33	38.40	19.93	48.73	30.26	65.18	55.18	-16.45	-24.92
2	0.51328	10.32	34.20	29.56	44.52	39.88	56.00	46.00	-11.48	-6.12
3	0.79453	10.36	19.61	15.97	29.97	26.33	56.00	46.00	-26.03	-19.67
4	1.49219	10.43	19.14	14.23	29.57	24.66	56.00	46.00	-26.43	-21.34
5	3.37109	10.52	19.68	14.28	30.20	24.80	56.00	46.00	-25.80	-21.20
6	10.54297	10.81	29.34	24.72	40.15	35.53	60.00	50.00	-19.85	-14.47

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.



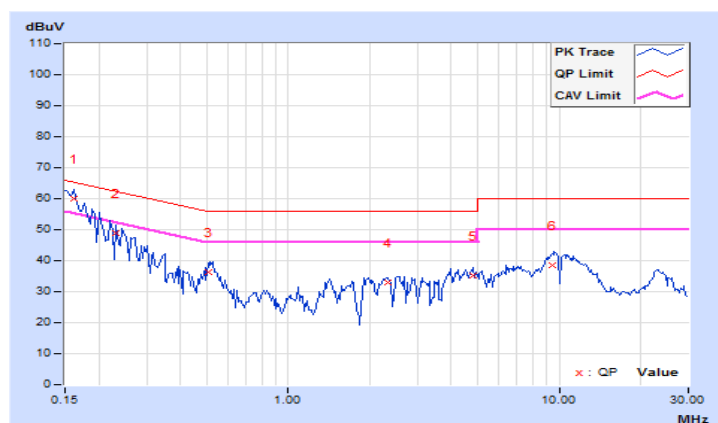
Test Mode C

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	10.30	49.56	32.03	59.86	42.33	65.38	55.38	-5.52	-13.05
2	0.23203	10.33	38.40	20.46	48.73	30.79	62.38	52.38	-13.65	-21.59
3	0.50547	10.35	26.12	21.24	36.47	31.59	56.00	46.00	-19.53	-14.41
4	2.32422	10.45	22.62	17.48	33.07	27.93	56.00	46.00	-22.93	-18.07
5	4.80469	10.59	24.58	18.73	35.17	29.32	56.00	46.00	-20.83	-16.68
6	9.40625	10.82	27.77	21.84	38.59	32.66	60.00	50.00	-21.41	-17.34

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.

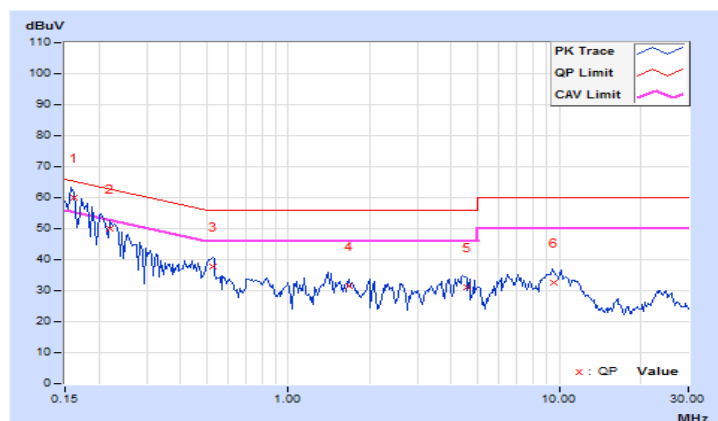


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	10.33	49.62	31.44	59.95	41.77	65.38	55.38	-5.43	-13.61
2	0.22031	10.29	39.81	21.81	50.10	32.10	62.81	52.81	-12.71	-20.71
3	0.52500	10.32	27.63	22.36	37.95	32.68	56.00	46.00	-18.05	-13.32
4	1.67578	10.44	21.04	18.62	31.48	29.06	56.00	46.00	-24.52	-16.94
5	4.57031	10.57	20.36	12.78	30.93	23.35	56.00	46.00	-25.07	-22.65
6	9.53906	10.77	21.90	14.81	32.67	25.58	60.00	50.00	-27.33	-24.42

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.



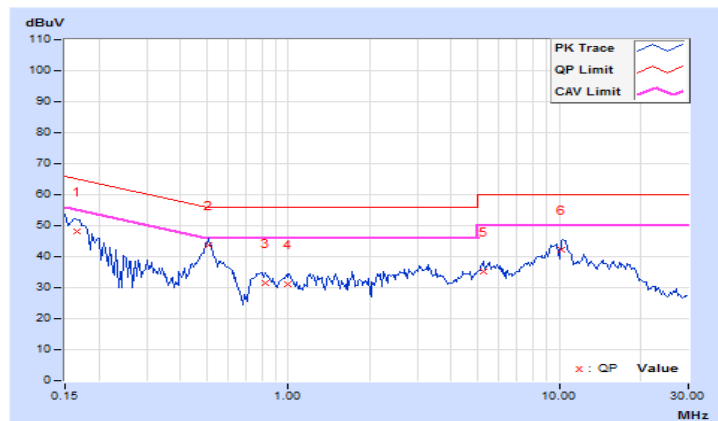
Test Mode D

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	10.30	37.91	19.21	48.21	29.51	65.18	55.18	-16.97	-25.67
2	0.50547	10.35	33.34	29.27	43.69	39.62	56.00	46.00	-12.31	-6.38
3	0.82188	10.38	21.23	16.31	31.61	26.69	56.00	46.00	-24.39	-19.31
4	0.98984	10.40	20.88	16.42	31.28	26.82	56.00	46.00	-24.72	-19.18
5	5.25391	10.61	24.59	19.37	35.20	29.98	60.00	50.00	-24.80	-20.02
6	10.16797	10.86	31.47	26.76	42.33	37.62	60.00	50.00	-17.67	-12.38

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.

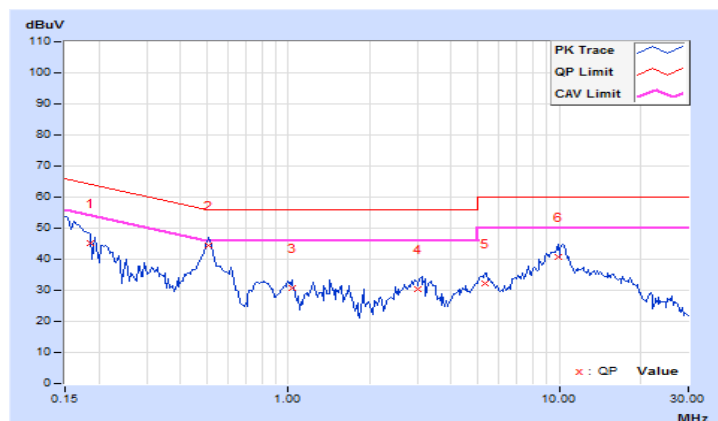


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18516	10.31	34.88	17.44	45.19	27.75	64.25	54.25	-19.06	-26.50
2	0.50547	10.32	34.26	30.19	44.58	40.51	56.00	46.00	-11.42	-5.49
3	1.03125	10.40	20.26	15.64	30.66	26.04	56.00	46.00	-25.34	-19.96
4	2.99219	10.51	19.85	14.39	30.36	24.90	56.00	46.00	-25.64	-21.10
5	5.31641	10.60	21.50	14.95	32.10	25.55	60.00	50.00	-27.90	-24.45
6	9.95703	10.78	29.94	24.93	40.72	35.71	60.00	50.00	-19.28	-14.29

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.

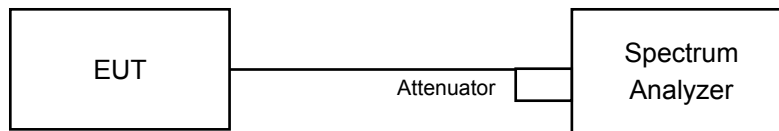


4.3 6dB Bandwidth Measurement

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

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = average.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

Test Mode A

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	8.11	8.12	0.5	Pass
6	2437	10.06	10.05	0.5	Pass
11	2462	8.11	8.12	0.5	Pass

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.38	16.39	0.5	Pass
6	2437	16.34	16.36	0.5	Pass
11	2462	16.37	16.39	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	17.60	17.62	0.5	Pass
6	2437	17.61	17.56	0.5	Pass
11	2462	17.60	17.60	0.5	Pass

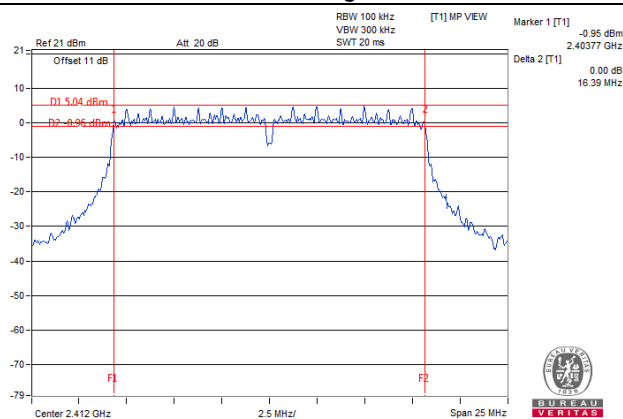
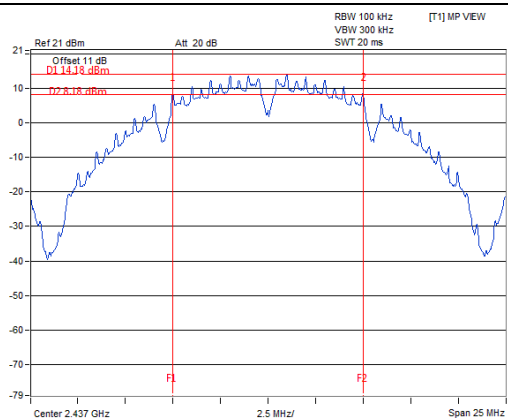
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	35.30	35.27	0.5	Pass
6	2437	35.16	35.26	0.5	Pass
9	2452	35.16	35.15	0.5	Pass

Spectrum Plot of Worst Value

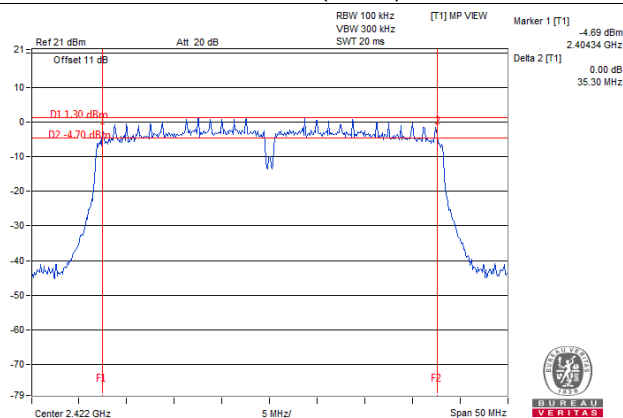
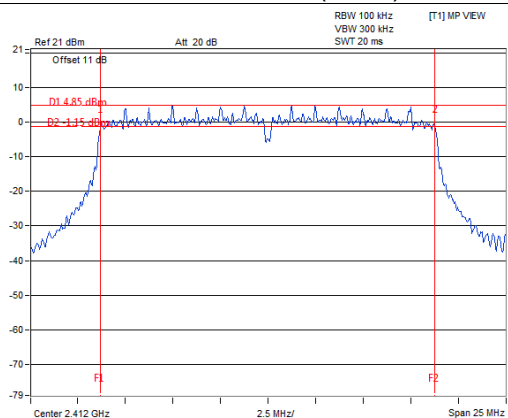
802.11b

802.11g



802.11n (HT20)

802.11n (HT40)



Test Mode C

802.11b

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	10.11	9.63	0.5	Pass
6	2437	10.13	10.12	0.5	Pass
11	2462	10.13	10.13	0.5	Pass

802.11g

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.33	16.32	0.5	Pass
6	2437	16.32	16.33	0.5	Pass
11	2462	16.36	16.36	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
1	2412	16.90	17.23	0.5	Pass
6	2437	17.20	16.85	0.5	Pass
11	2462	16.98	17.19	0.5	Pass

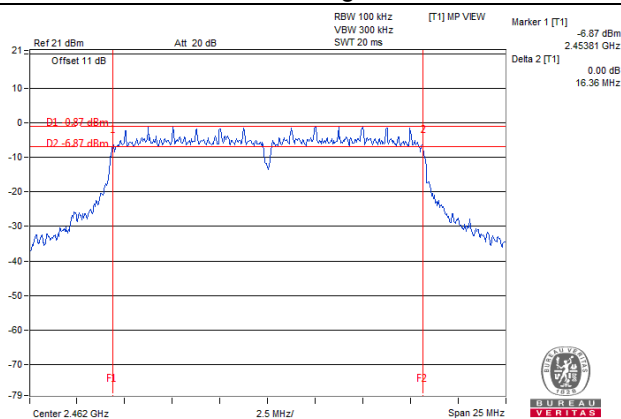
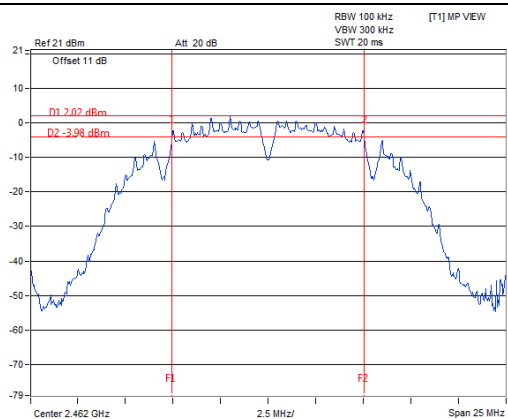
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
3	2422	35.45	35.22	0.5	Pass
6	2437	35.41	35.20	0.5	Pass
9	2452	35.48	35.26	0.5	Pass

Spectrum Plot of Worst Value

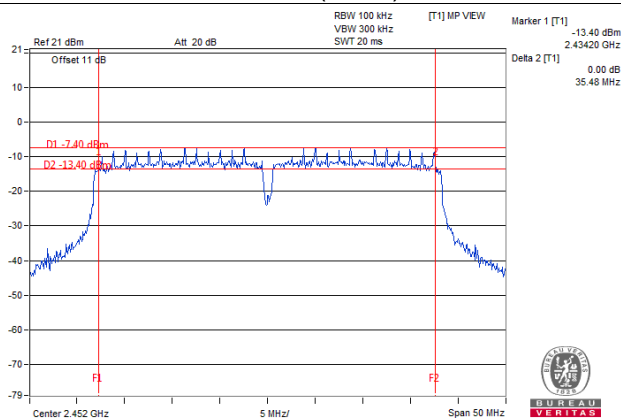
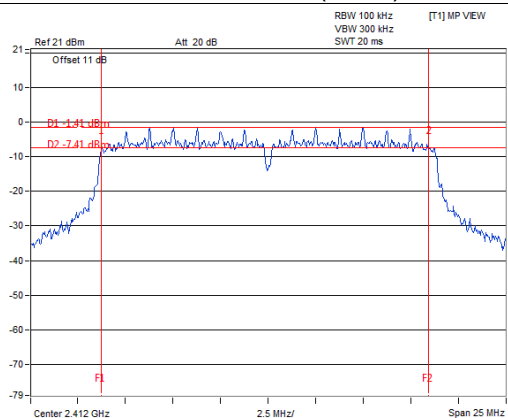
802.11b

802.11g



802.11n (HT20)

802.11n (HT40)



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

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

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

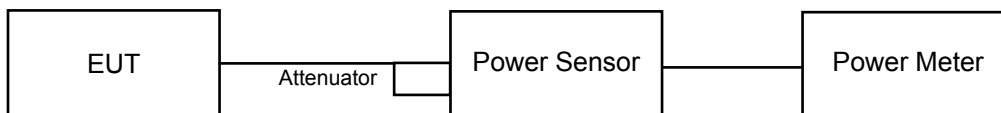
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

Test Mode A

CDD Mode

802.11b

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	21.61	22.06	305.571	24.85	30	Pass
6	2437	23.14	23.02	406.510	26.09	30	Pass
11	2462	20.11	19.86	199.393	23.00	30	Pass

802.11g

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.82	17.11	99.488	19.98	30	Pass
6	2437	21.53	21.55	285.122	24.55	30	Pass
11	2462	15.71	15.64	73.883	18.69	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	16.85	17.05	99.116	19.96	30	Pass
6	2437	21.73	21.67	295.829	24.71	30	Pass
11	2462	15.91	15.71	76.233	18.82	30	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	15.61	15.79	74.323	18.71	30	Pass
6	2437	16.75	16.80	95.178	19.79	30	Pass
9	2452	13.22	13.21	41.930	16.23	30	Pass

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	13.84	14.04	49.545	16.95	28.68	Pass
6	2437	18.72	18.66	147.911	21.70	28.68	Pass
11	2462	12.90	12.70	38.107	15.81	28.68	Pass

Note: Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (7.32 - 6) = 28.68\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	12.60	12.78	37.154	15.70	28.68	Pass
6	2437	13.74	13.79	47.643	16.78	28.68	Pass
9	2452	10.21	10.20	20.989	13.22	28.68	Pass

Note: Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (7.32 - 6) = 28.68\text{dBm}$.

Test Mode C

802.11b

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	9.94	9.93	19.703	12.95	30	Pass
6	2437	12.91	12.90	39.041	15.92	30	Pass
11	2462	11.69	11.29	28.216	14.50	30	Pass

802.11g

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	10.93	10.96	24.862	13.96	30	Pass
6	2437	15.86	15.72	75.873	18.80	30	Pass
11	2462	10.72	10.32	22.568	13.53	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
1	2412	9.87	9.95	19.591	12.92	30	Pass
6	2437	15.83	15.69	75.350	18.77	30	Pass
11	2462	9.96	9.64	19.112	12.81	30	Pass

802.11n (HT40)

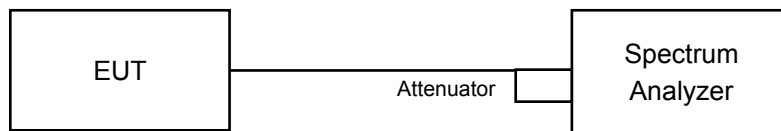
Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
3	2422	6.52	6.49	8.944	9.52	30	Pass
6	2437	10.86	10.75	24.075	13.82	30	Pass
9	2452	7.14	6.76	9.918	9.96	30	Pass

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

For duty cycle $\geq 98\%$

- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set VBW $\geq 3 \times \text{RBW}$.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
- Sweep time = auto couple.
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.

For duty cycle $< 98\%$

- Measure the duty cycle (x).
- Set instrument center frequency to DTS channel center frequency.
- Set span to at least 1.5 times the OBW.
- Set RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- Set VBW $\geq 3 \times \text{RBW}$.
- Detector = power averaging (RMS) or sample detector (when RMS not available).
- Ensure that the number of measurement points in the sweep $\geq 2 \times \text{span}/\text{RBW}$.
- Sweep time = auto couple.
- Do not use sweep triggering. Allow sweep to "free run".
- Employ trace averaging (RMS) mode over a minimum of 100 traces.
- Use the peak marker function to determine the maximum amplitude level.
- Add $10 \log (1/x)$, where x is the duty cycle measured in step (a), to the measured PSD to compute the average PSD during the actual transmission time.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6

4.5.7 Test Results

Test Mode A

802.11b

TX chain	Chan.	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-6.32	3.01	-3.31	6.68	Pass
	6	2437	-5.08	3.01	-2.07	6.68	Pass
	11	2462	-7.53	3.01	-4.52	6.68	Pass
1	1	2412	-5.52	3.01	-2.51	6.68	Pass
	6	2437	-5.31	3.01	-2.30	6.68	Pass
	11	2462	-7.28	3.01	-4.27	6.68	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (7.32 - 6) = 6.68\text{dBm}$.

802.11g

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Duty Factor	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-14.36	3.01	0.22	-11.13	6.68	Pass
	6	2437	-8.72	3.01	0.22	-5.49	6.68	Pass
	11	2462	-15.32	3.01	0.22	-12.09	6.68	Pass
1	1	2412	-14.28	3.01	0.22	-11.05	6.68	Pass
	6	2437	-9.53	3.01	0.22	-6.30	6.68	Pass
	11	2462	-15.40	3.01	0.22	-12.17	6.68	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (7.32 - 6) = 6.68\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-13.67	3.01	-10.57	6.68	Pass
	6	2437	-9.00	3.01	-5.90	6.68	Pass
	11	2462	-14.78	3.01	-11.68	6.68	Pass
1	1	2412	-13.60	3.01	-10.50	6.68	Pass
	6	2437	-9.04	3.01	-5.94	6.68	Pass
	11	2462	-14.55	3.01	-11.45	6.68	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (7.32 - 6) = 6.68\text{dBm}$.

802.11n (HT40)

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Duty Factor	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-18.13	3.01	0.16	-14.96	6.68	Pass
	6	2437	-16.58	3.01	0.16	-13.41	6.68	Pass
	9	2452	-20.05	3.01	0.16	-16.88	6.68	Pass
1	3	2422	-18.43	3.01	0.16	-15.26	6.68	Pass
	6	2437	-17.27	3.01	0.16	-14.10	6.68	Pass
	9	2452	-20.46	3.01	0.16	-17.29	6.68	Pass

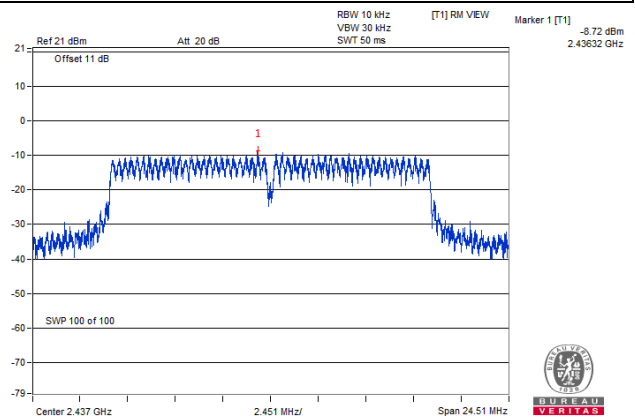
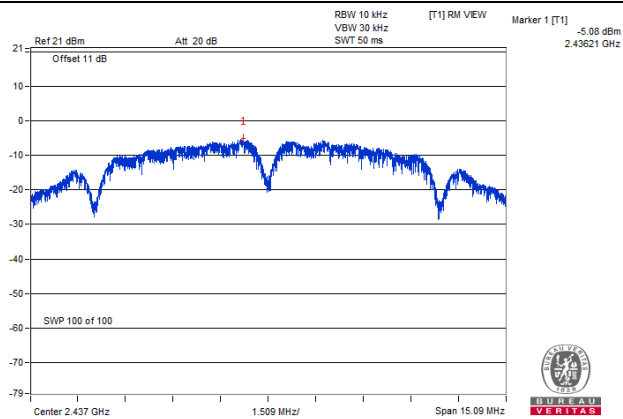
Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $4.31\text{dBi} + 10\log(2) = 7.32\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $8 - (7.32 - 6) = 6.68\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

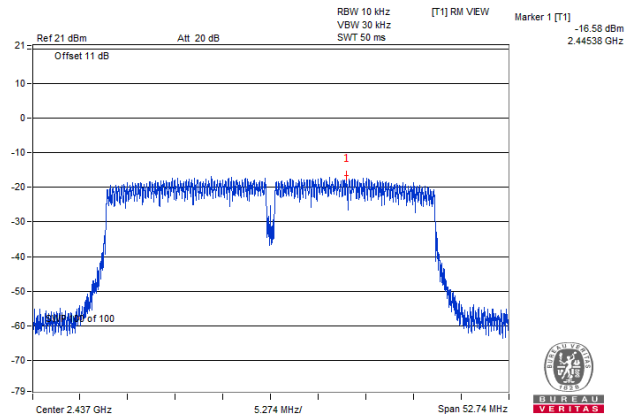
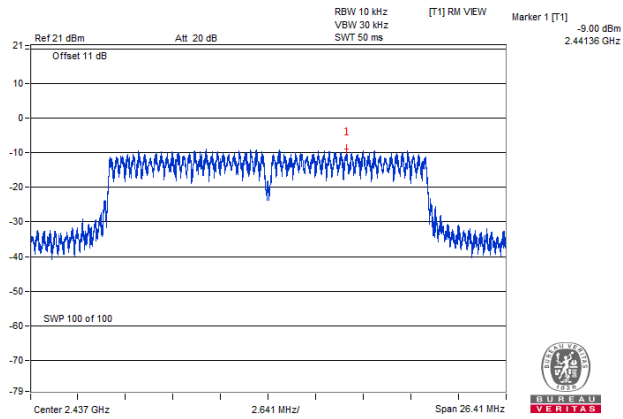
802.11b

802.11g



802.11n (HT20)

802.11n (HT40)



Test Mode C

802.11b

TX chain	Chan.	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-18.42	3.01	-15.41	8	Pass
	6	2437	-15.40	3.01	-12.39	8	Pass
	11	2462	-16.69	3.01	-13.68	8	Pass
1	1	2412	-18.90	3.01	-15.89	8	Pass
	6	2437	-15.86	3.01	-12.85	8	Pass
	11	2462	-17.55	3.01	-14.54	8	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $2.78\text{dBi} + 10\log(2) = 5.79\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduced.

802.11g

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Duty Factor	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-20.45	3.01	0.23	-17.21	8	Pass
	6	2437	-15.10	3.01	0.23	-11.86	8	Pass
	11	2462	-20.74	3.01	0.23	-17.50	8	Pass
1	1	2412	-19.75	3.01	0.23	-16.51	8	Pass
	6	2437	-15.99	3.01	0.23	-12.75	8	Pass
	11	2462	-21.48	3.01	0.23	-18.24	8	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $2.78\text{dBi} + 10\log(2) = 5.79\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Duty Factor	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	1	2412	-21.64	3.01	0.20	-18.43	8	Pass
	6	2437	-15.88	3.01	0.20	-12.67	8	Pass
	11	2462	-21.86	3.01	0.20	-18.65	8	Pass
1	1	2412	-21.62	3.01	0.20	-18.41	8	Pass
	6	2437	-16.10	3.01	0.20	-12.89	8	Pass
	11	2462	-21.90	3.01	0.20	-18.69	8	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $2.78\text{dBi} + 10\log(2) = 5.79\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX chain	Channel	Frequency (MHz)	PSD (dBm/10kHz)	10 log (N=2) dB	Duty Factor	Total PSD (dBm/10kHz)	Limit (dBm/3kHz)	Pass / Fail
0	3	2422	-28.81	3.01	0.37	-25.43	8	Pass
	6	2437	-24.43	3.01	0.37	-21.05	8	Pass
	9	2452	-28.57	3.01	0.37	-25.19	8	Pass
1	3	2422	-28.96	3.01	0.37	-25.58	8	Pass
	6	2437	-24.98	3.01	0.37	-21.60	8	Pass
	9	2452	-28.77	3.01	0.37	-25.39	8	Pass

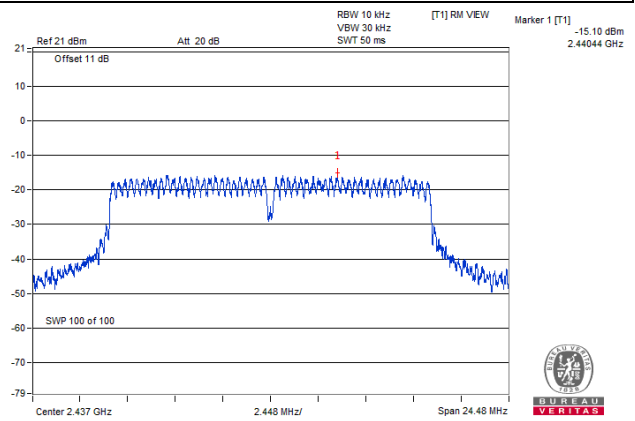
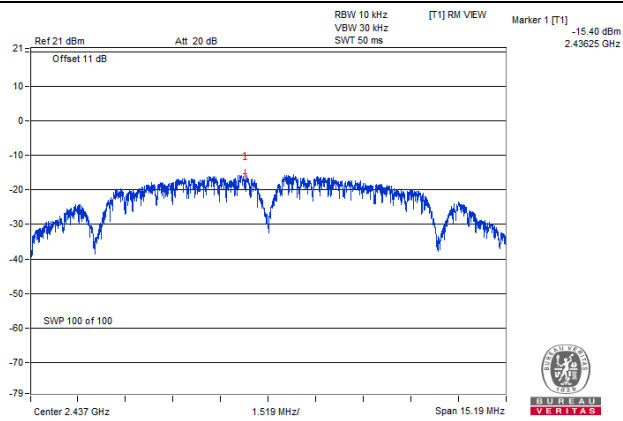
Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = $2.78\text{dBi} + 10\log(2) = 5.79\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

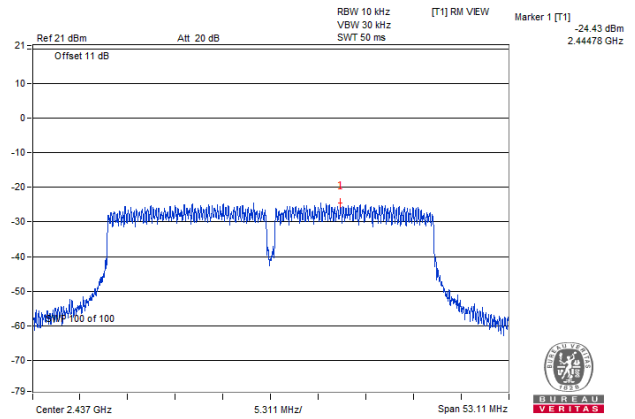
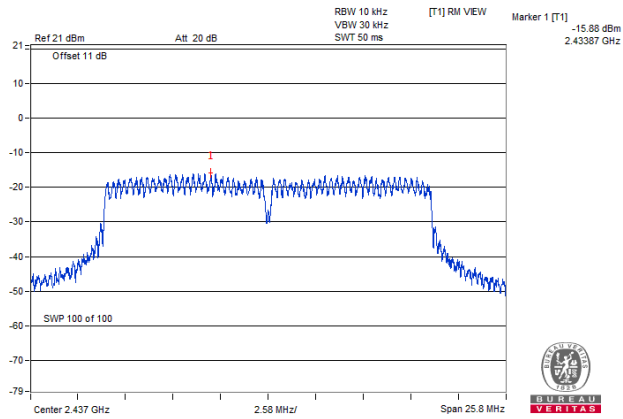
802.11b

802.11g



802.11n (HT20)

802.11n (HT40)

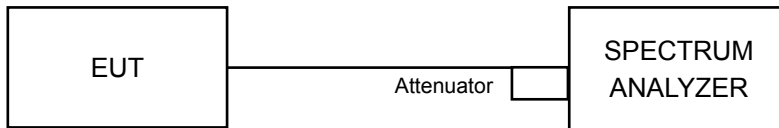


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW $\geq$ 300 kHz.
- Ensure that the number of measurement points $\geq$ span/RBW
- According to measurement points to set differ measurement span.
- Detector = average.
- Trace Mode = max hold.
- Sweep = auto couple.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

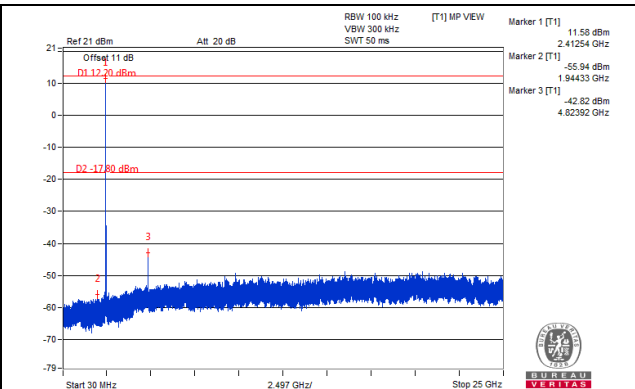
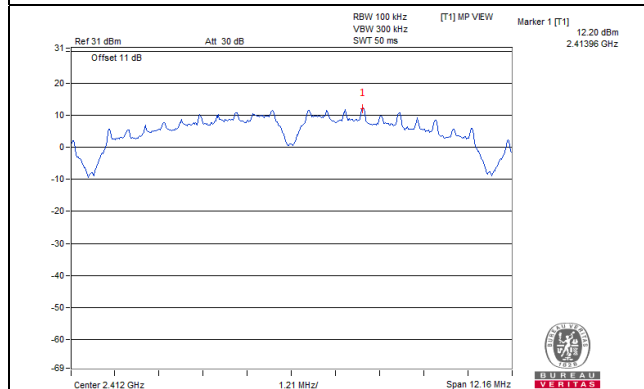
Same as Item 4.3.6

4.6.7 Test Results

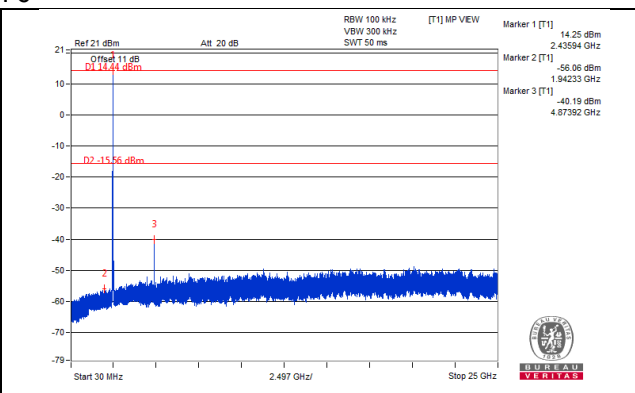
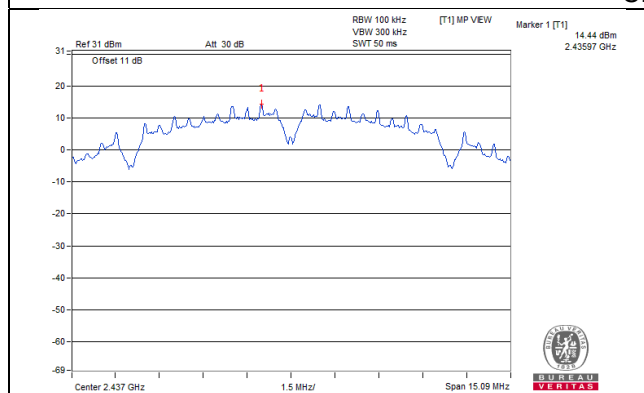
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 30dB offset below D1. It shows compliance with the requirement.

Test Mode A
802.11b Chain 0

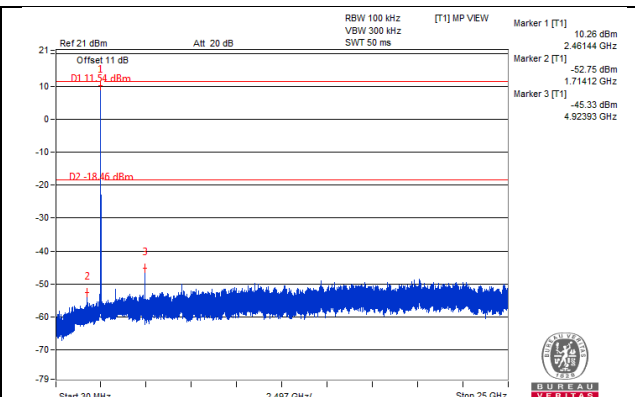
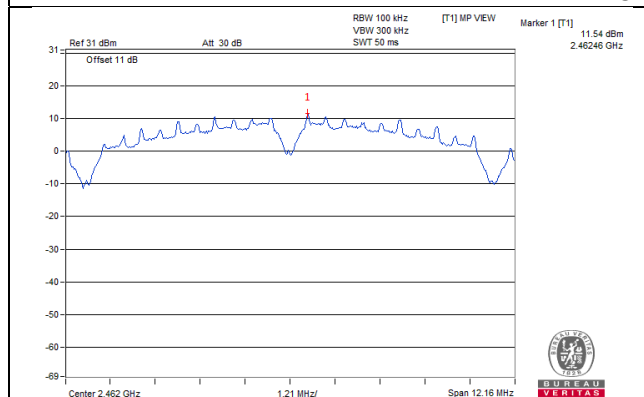
CH 1



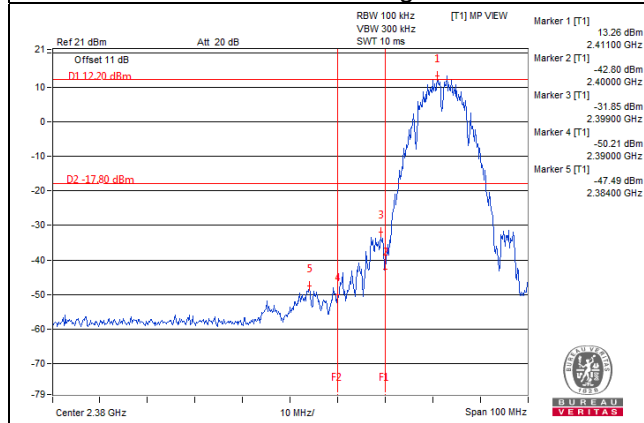
CH 6



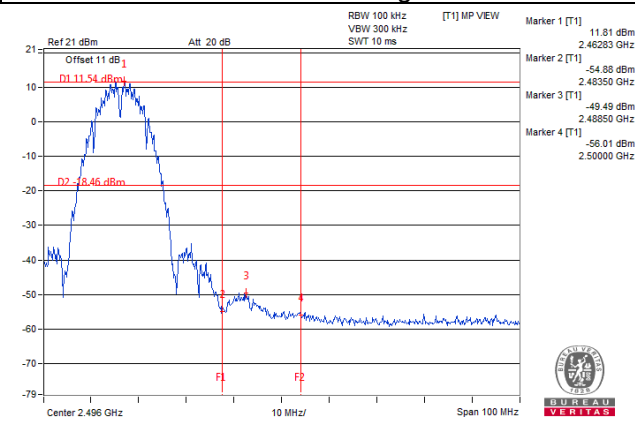
CH 11



CH 1 Band edge

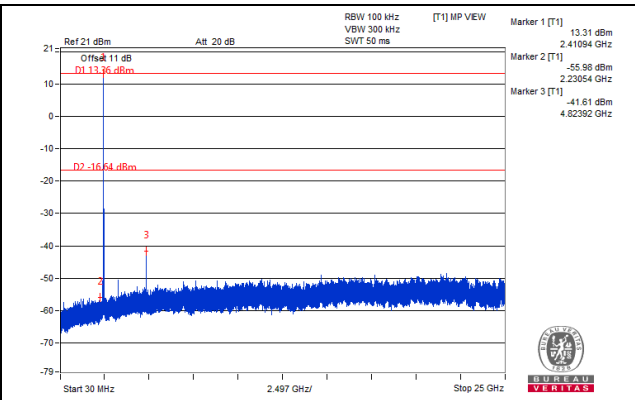
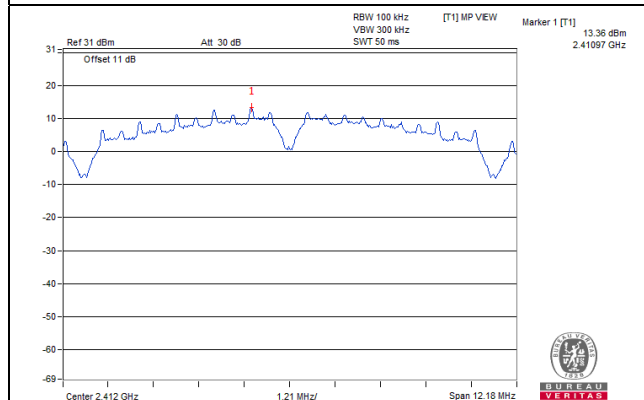


CH 11 Band edge

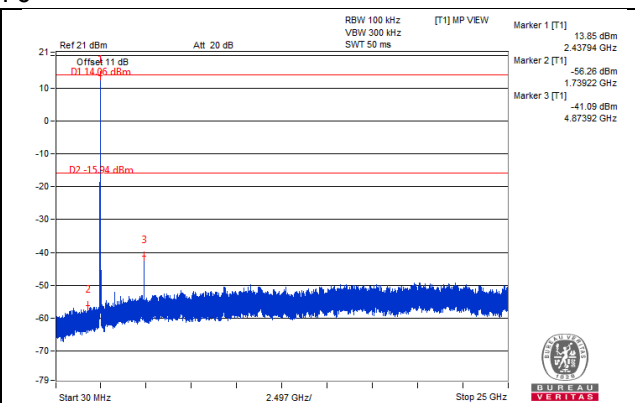
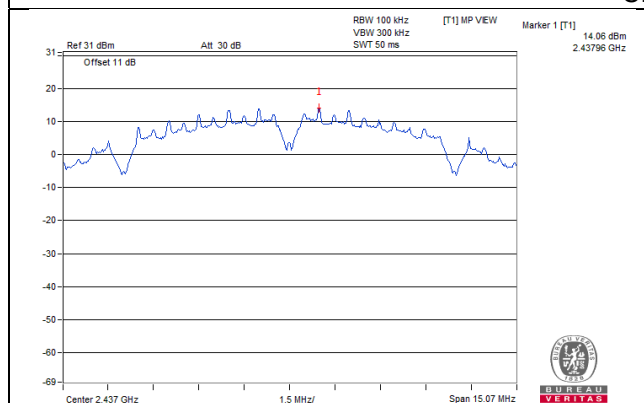


802.11b_Chain 1

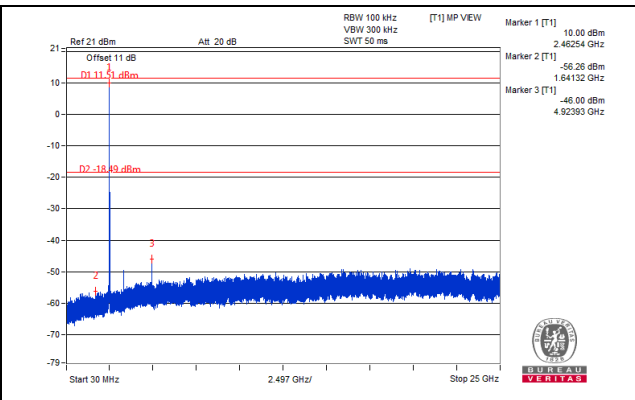
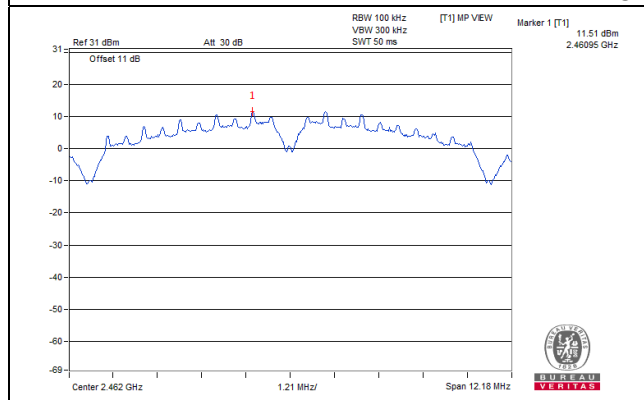
CH 1



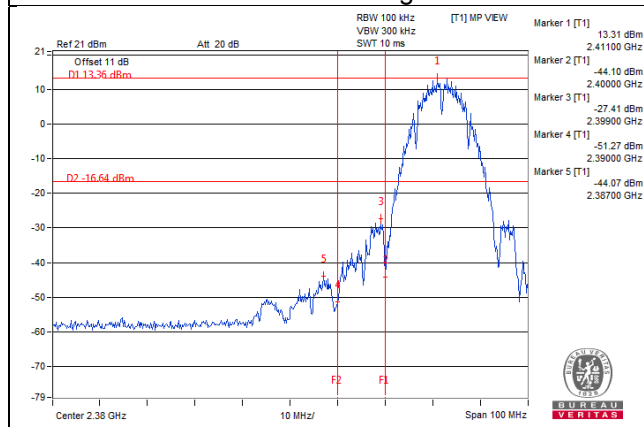
CH 6



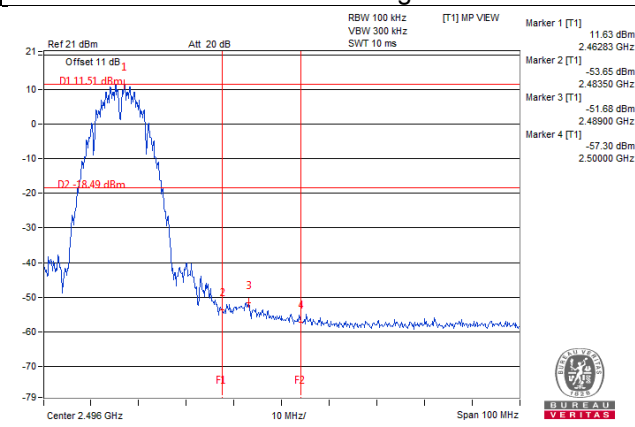
CH 11



CH 1 Band edge

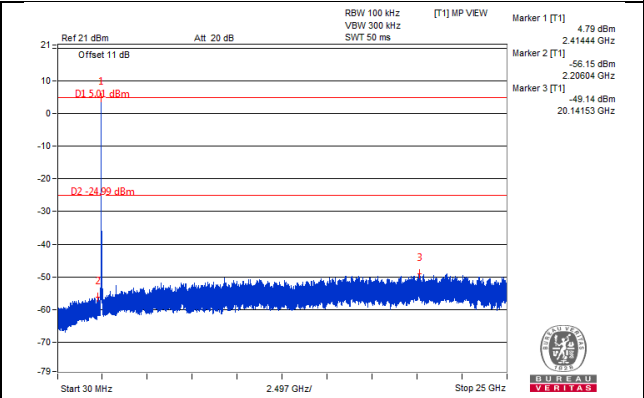
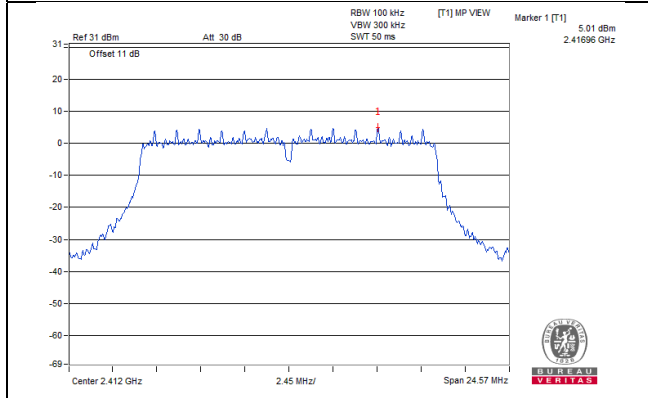


CH 11 Band edge

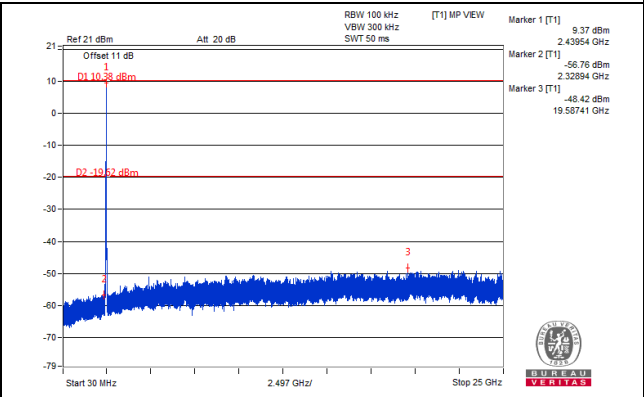
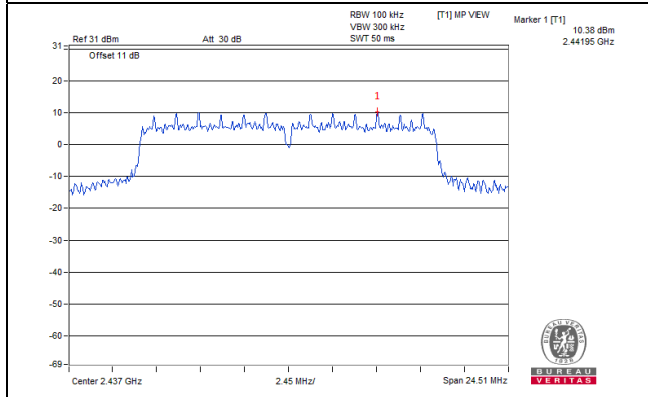


802.11g_Chain 0

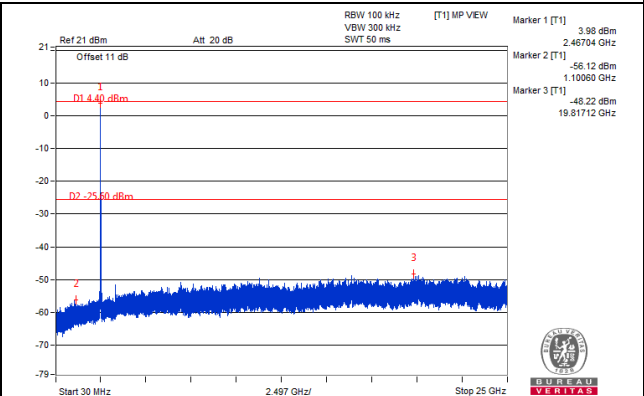
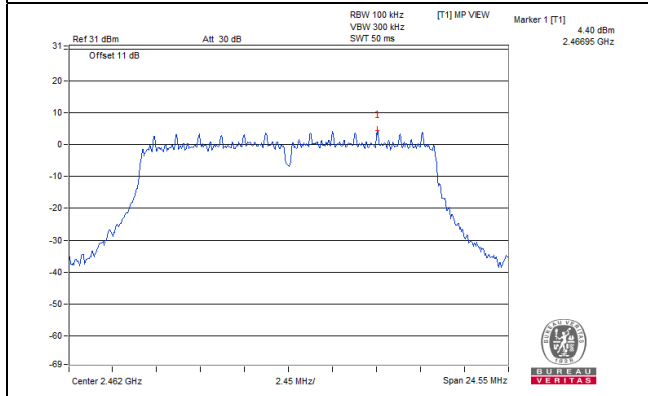
CH 1



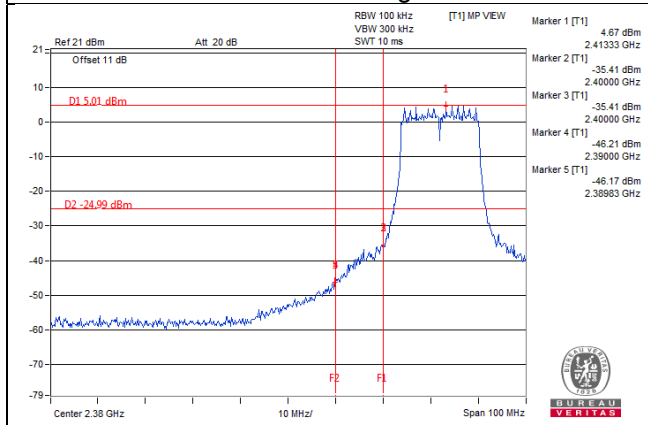
CH 6



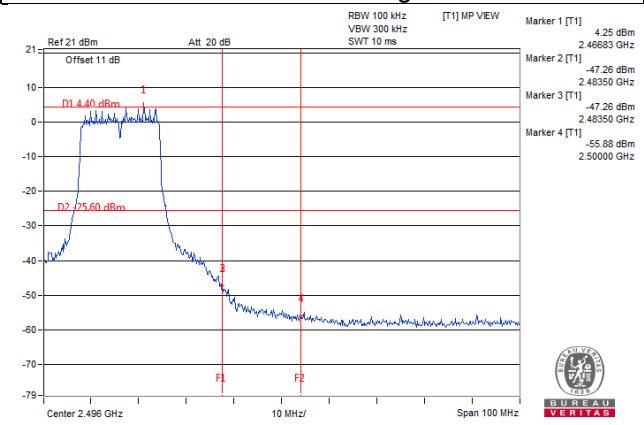
CH 11



CH 1 Band edge

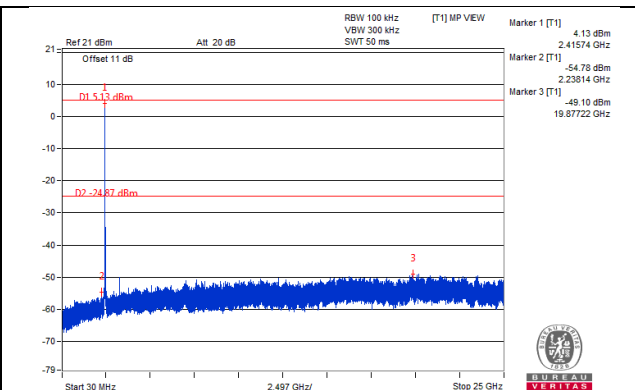
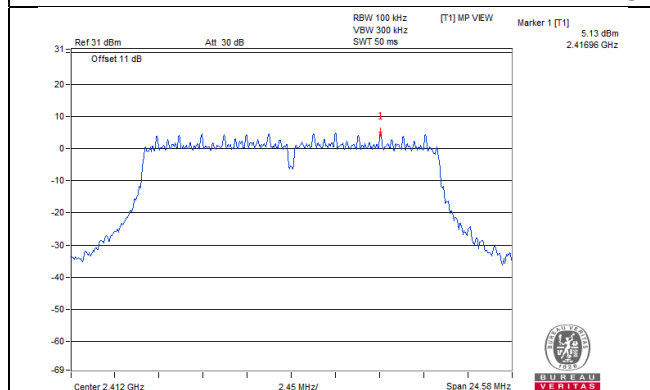


CH 11 Band edge

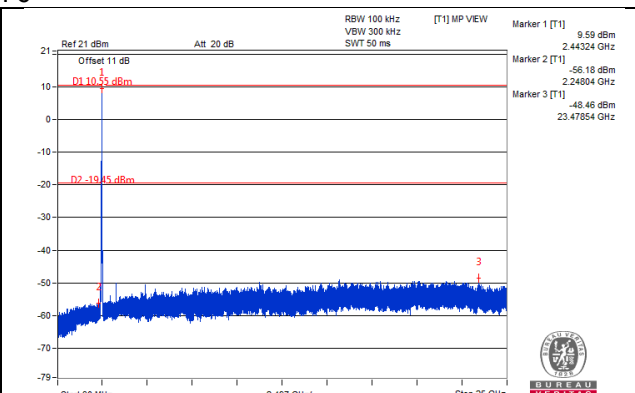
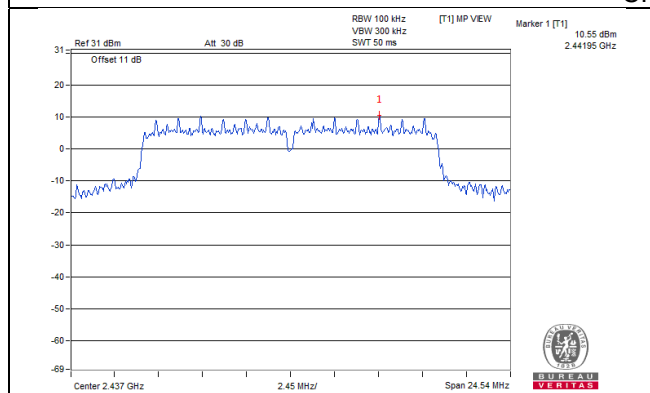


802.11g_Chain 1

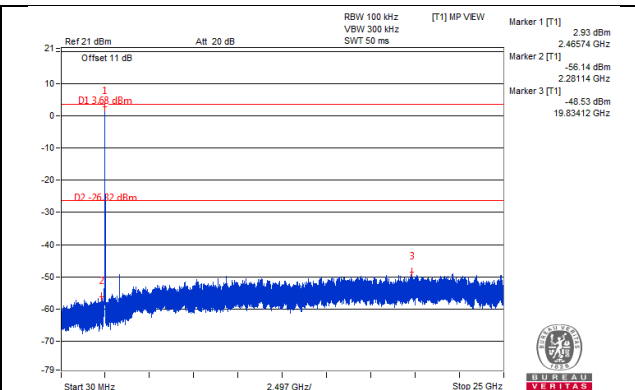
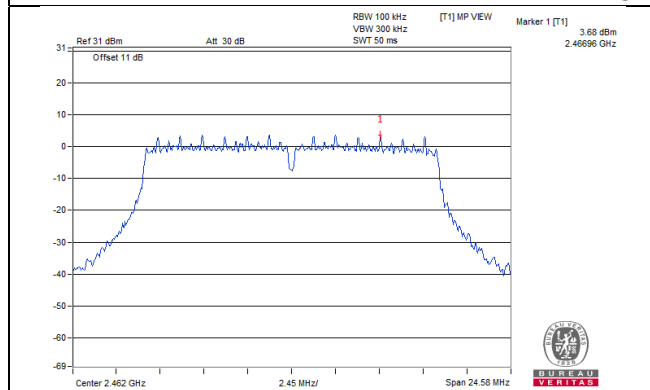
CH 1



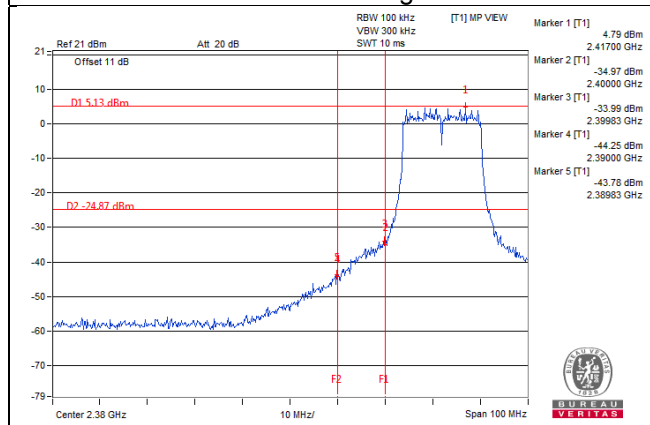
CH 6



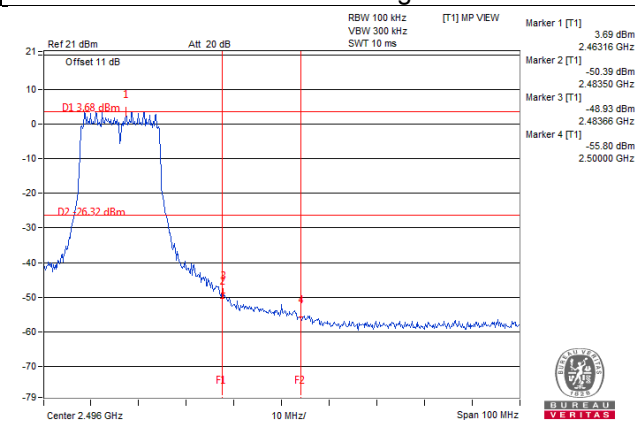
CH 11



CH 1 Band edge

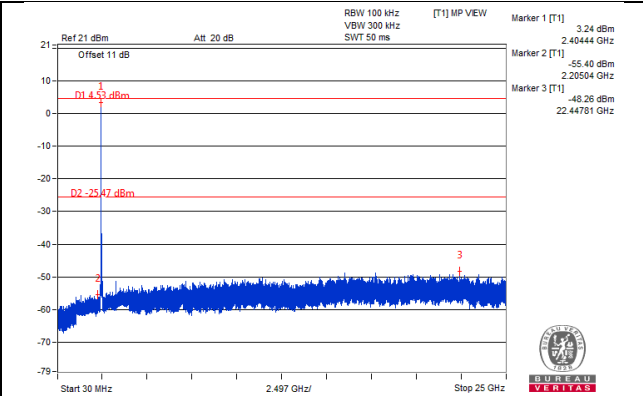
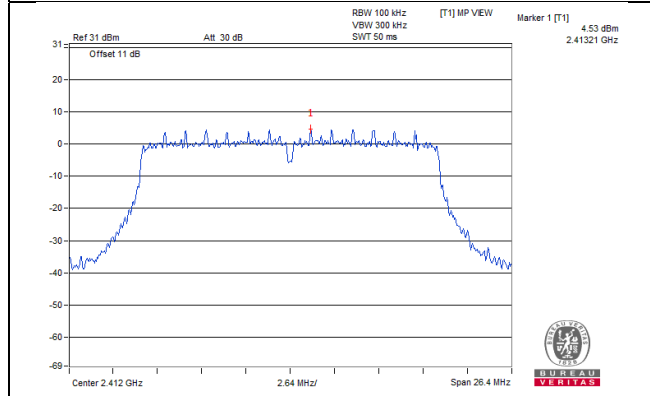


CH 11 Band edge

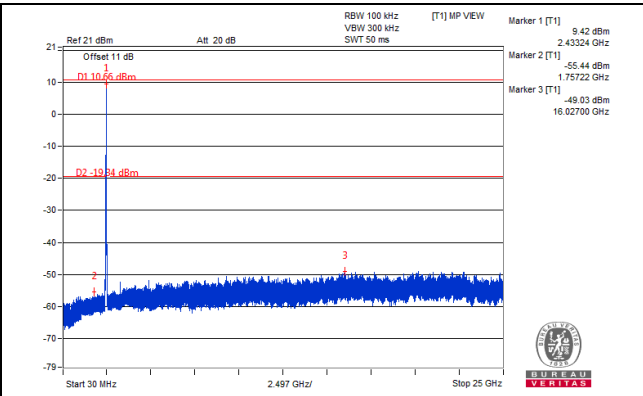
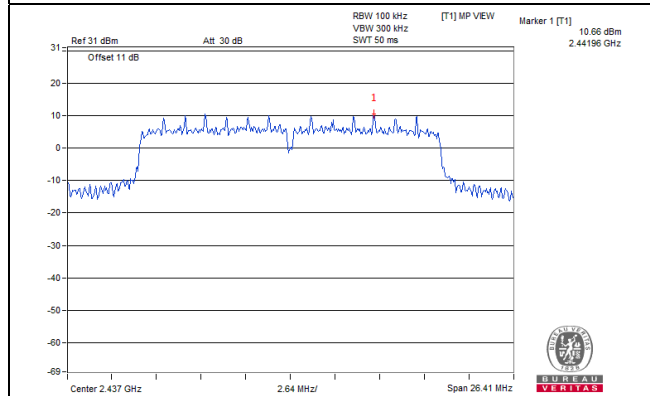


802.11n (HT20)_Chain 0

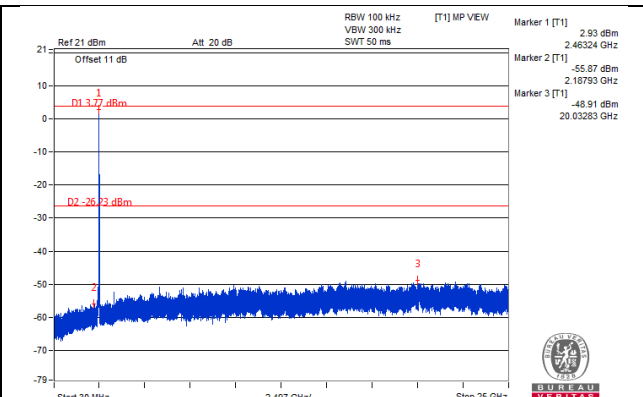
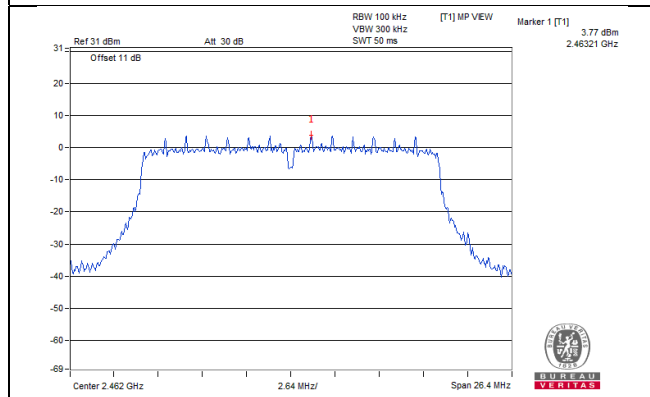
CH 1



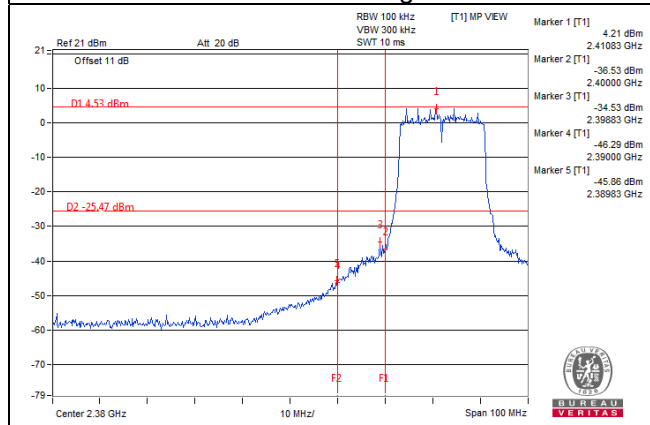
CH 6



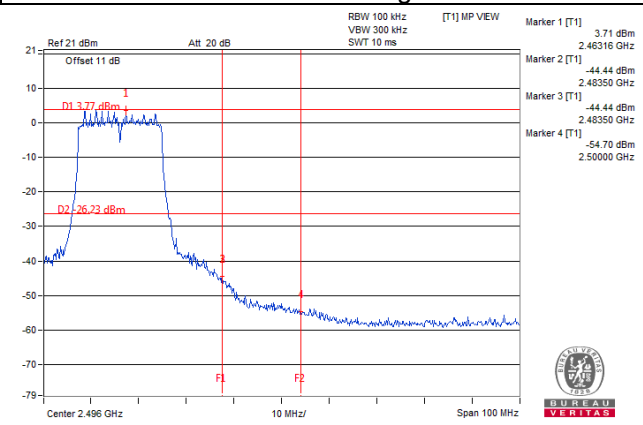
CH 11



CH 1 Band edge

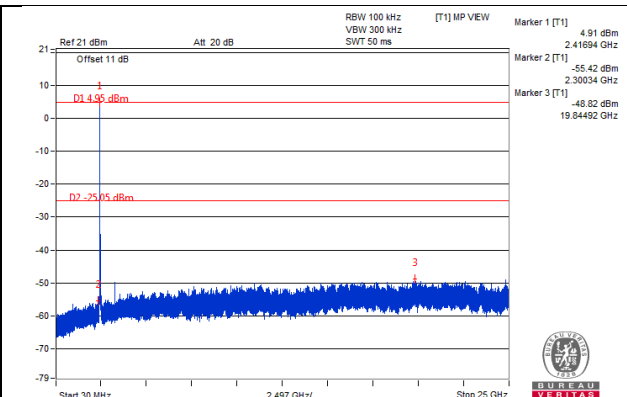
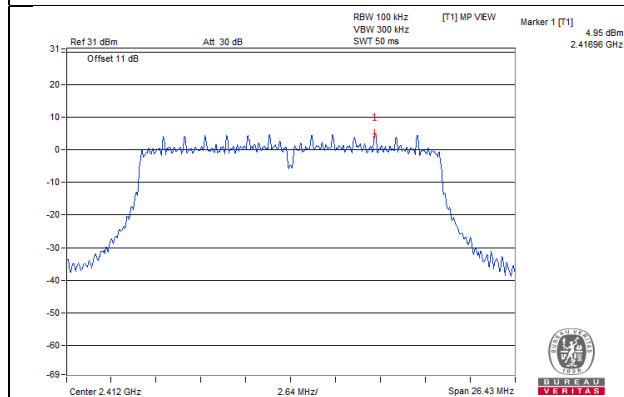


CH 11 Band edge

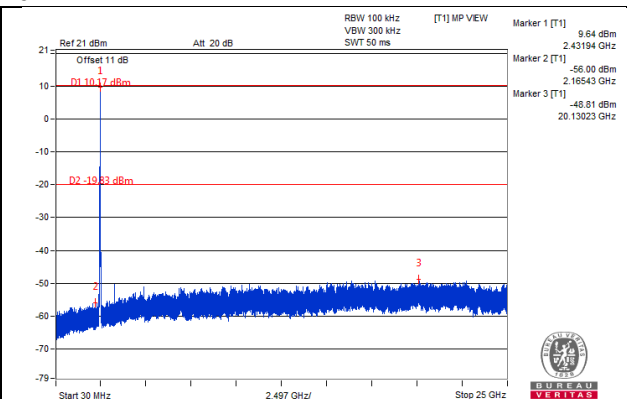
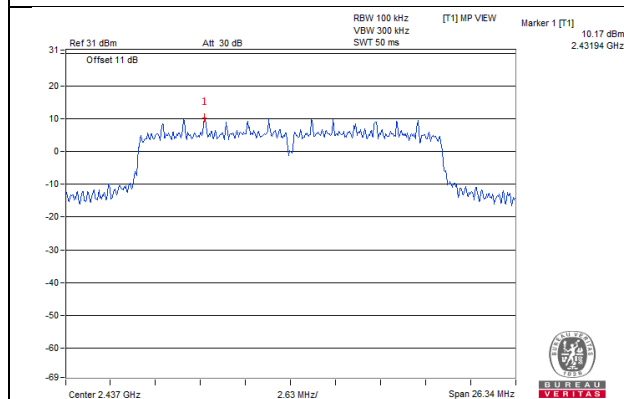


802.11n (HT20)_Chain 1

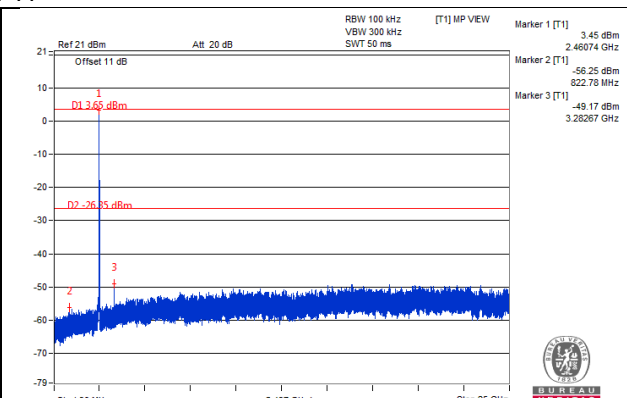
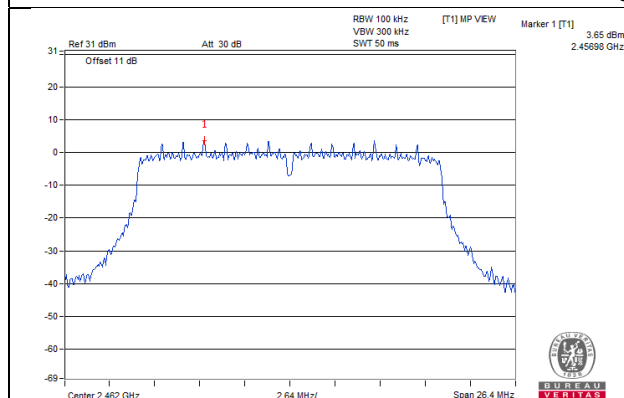
CH 1



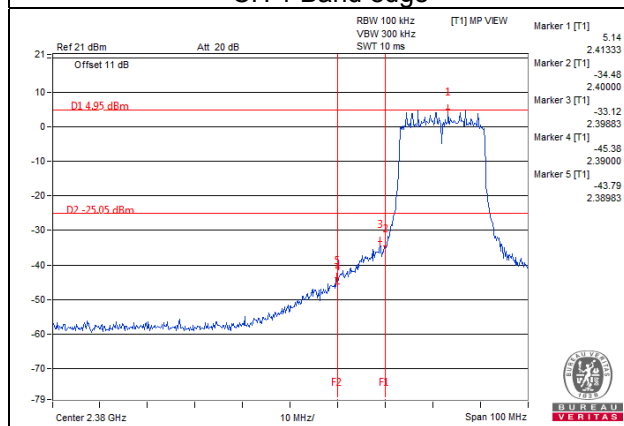
CH 6



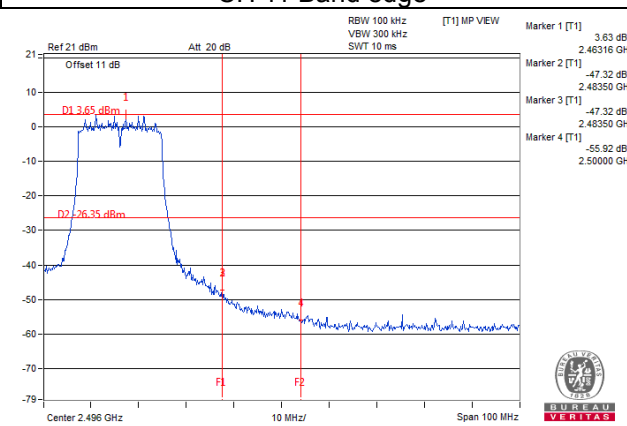
CH 11



CH 1 Band edge

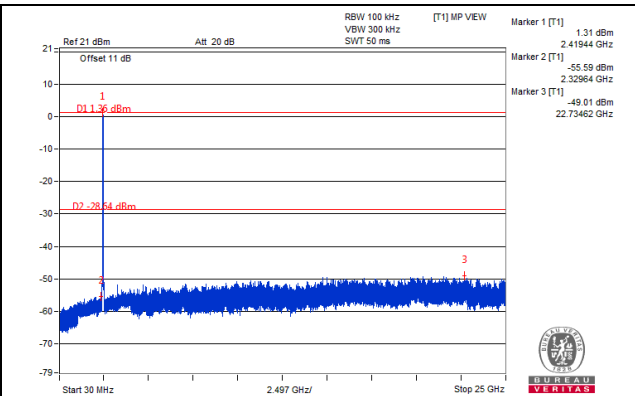
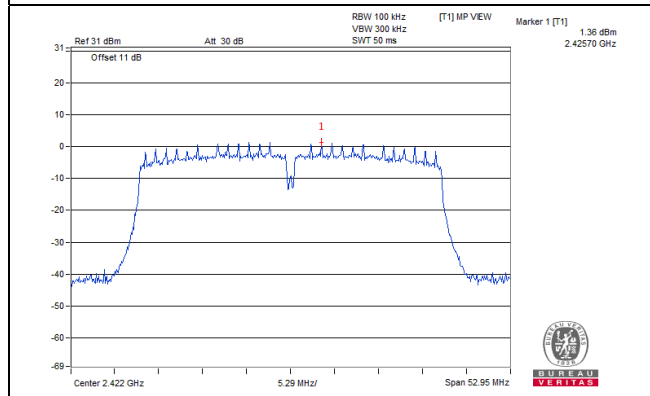


CH 11 Band edge

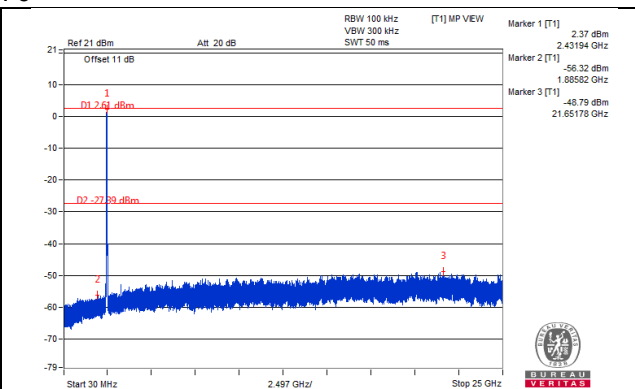
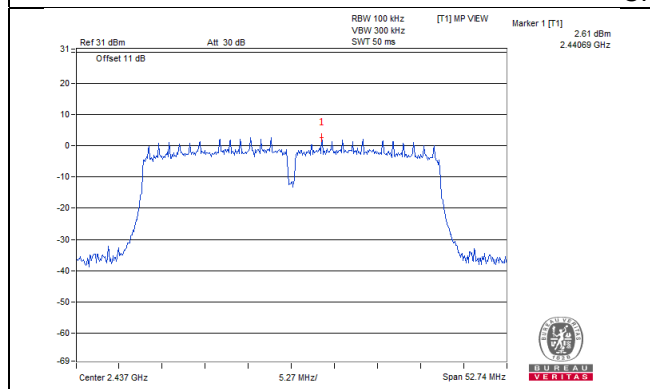


802.11n (HT40)_Chain 0

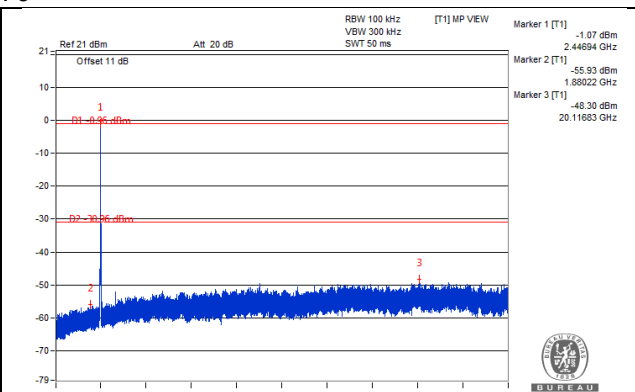
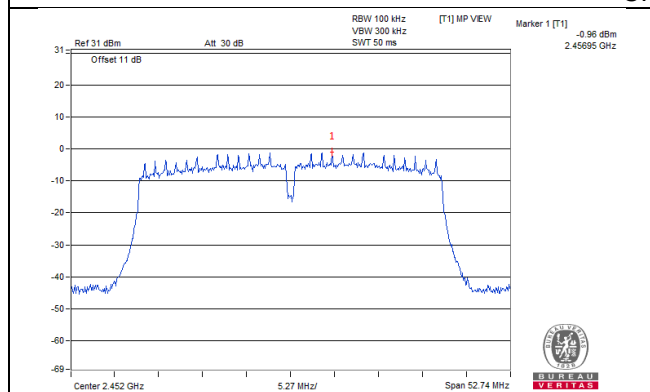
CH 3



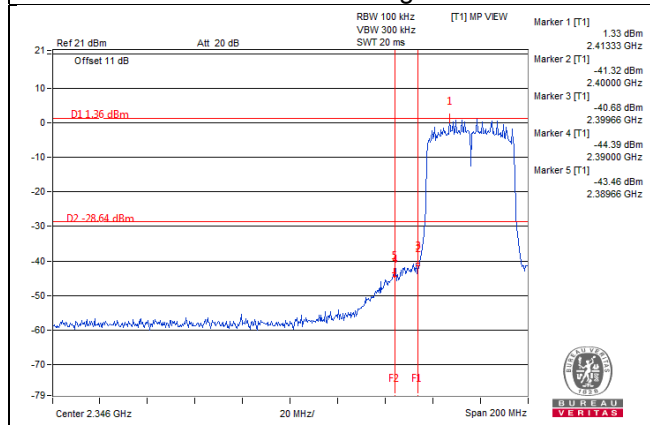
CH 6



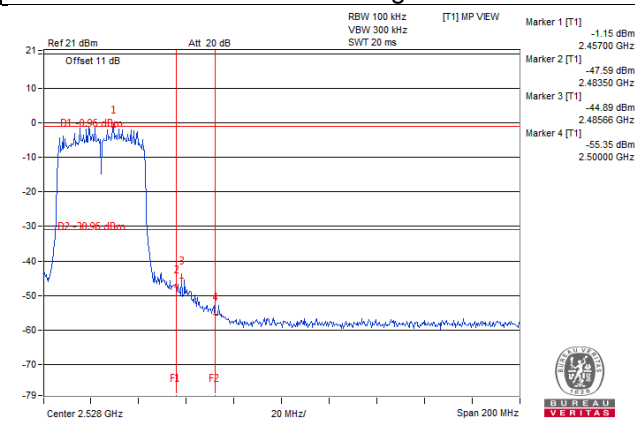
CH 9



CH 3 Band edge

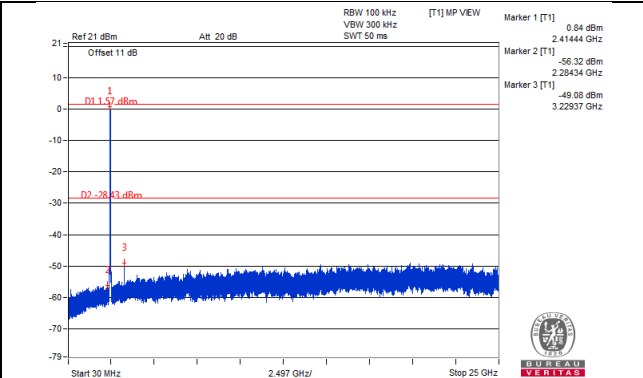
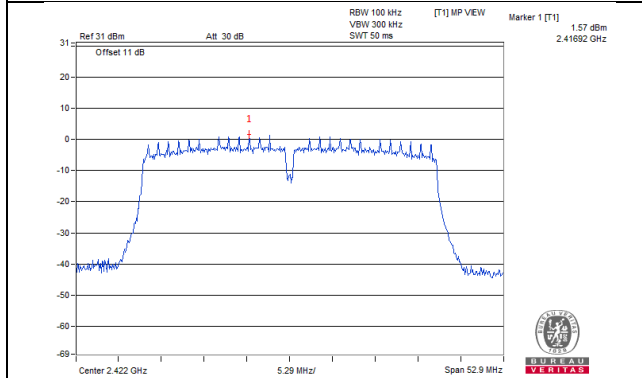


CH 9 Band edge

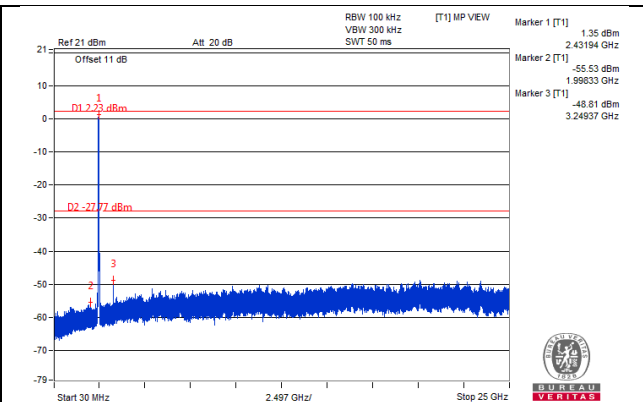
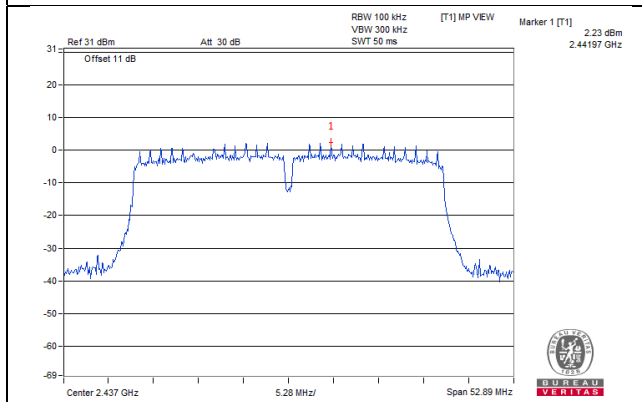


802.11n (HT40)_Chain 1

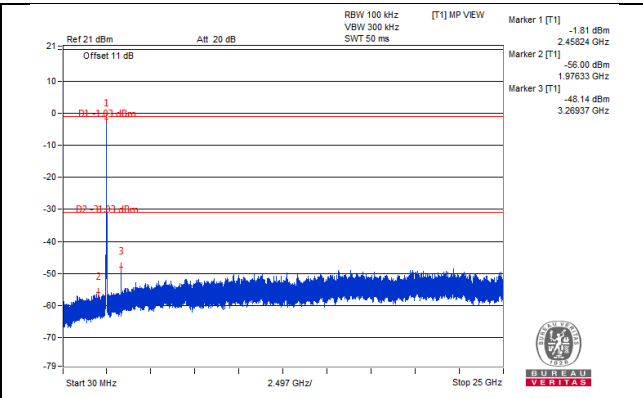
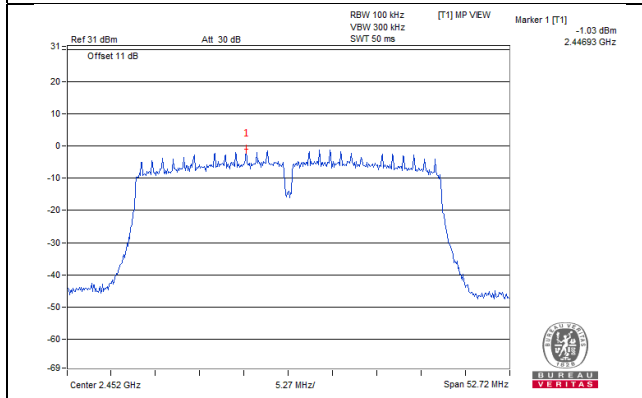
CH 3



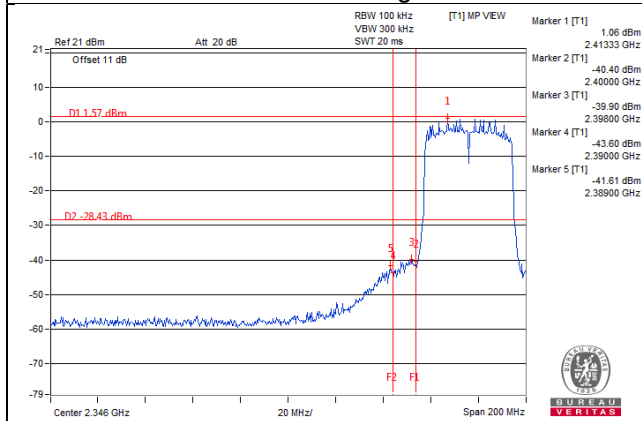
CH 6



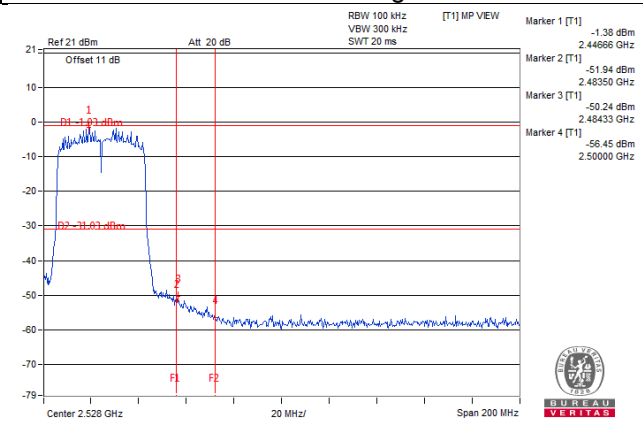
CH 9



CH 3 Band edge



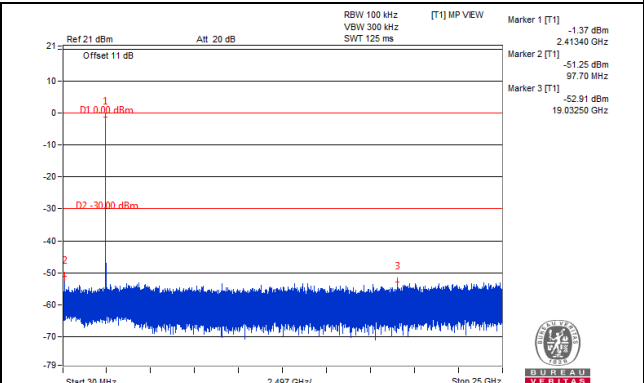
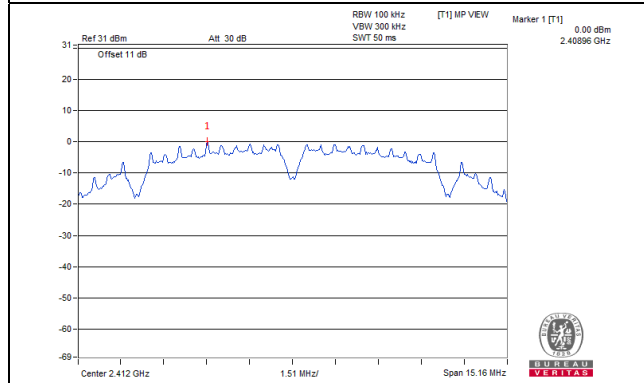
CH 9 Band edge



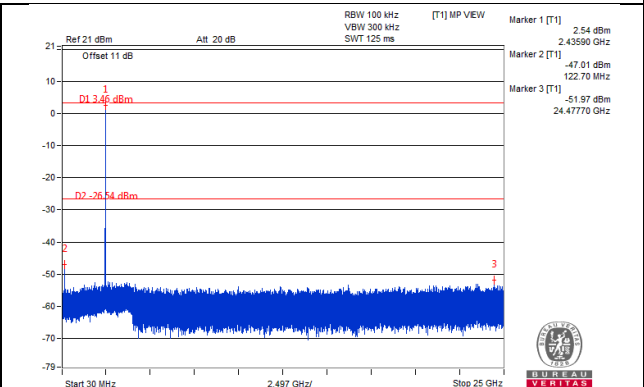
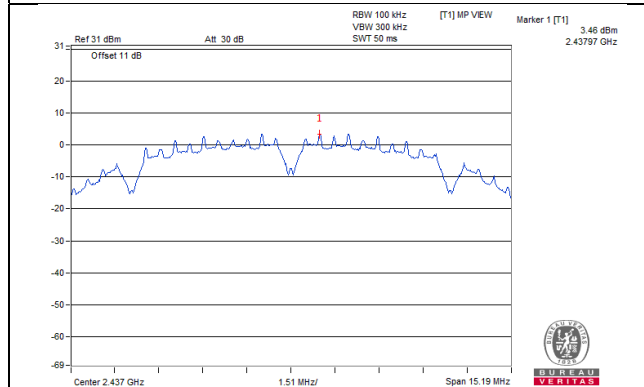
Test Mode C

802.11b Chain 0

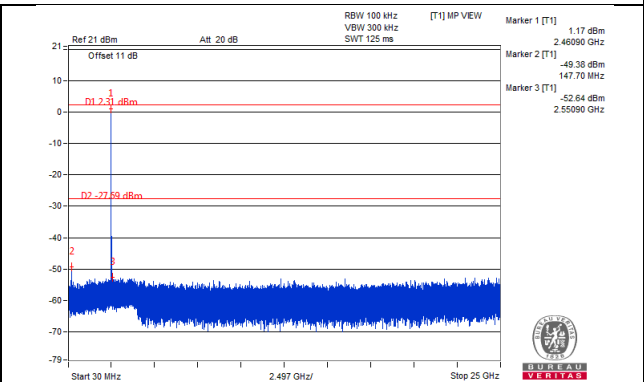
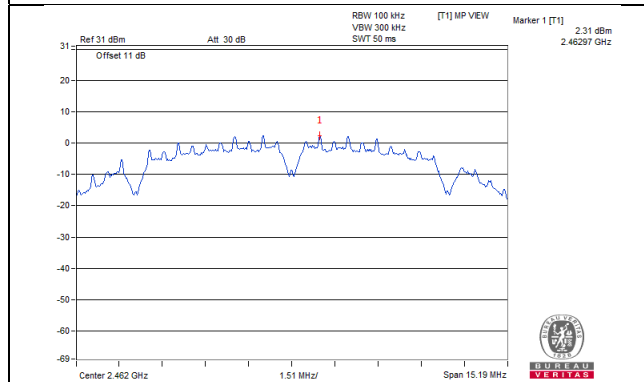
CH 1



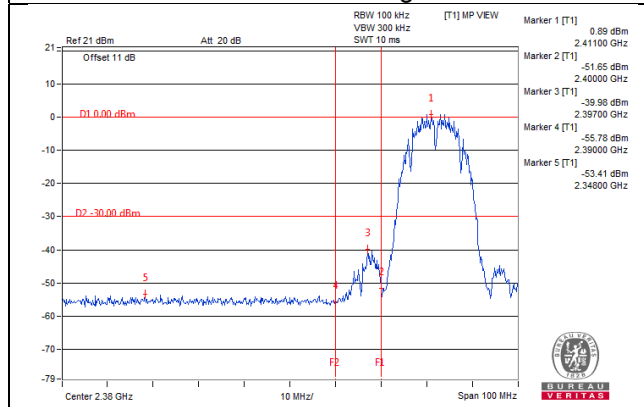
CH 6



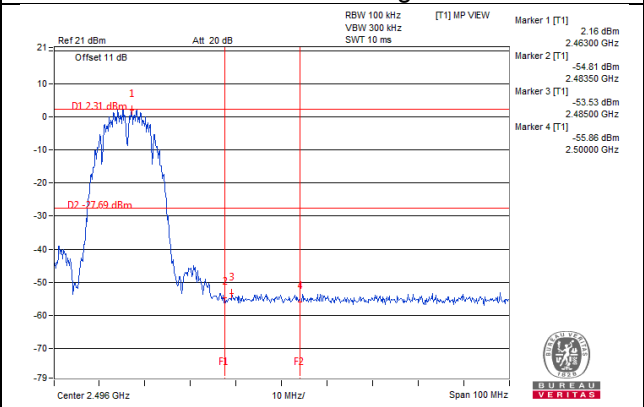
CH 11



CH 1 Band edge

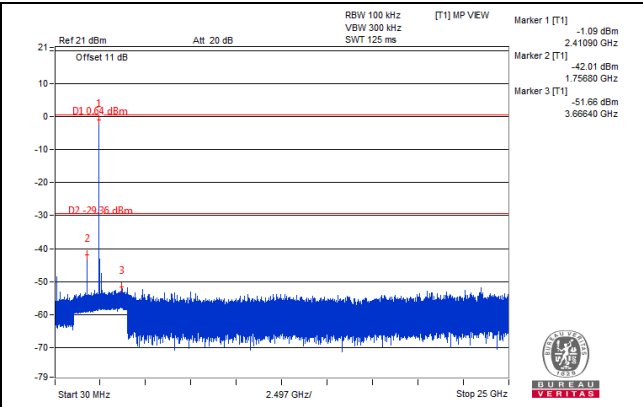
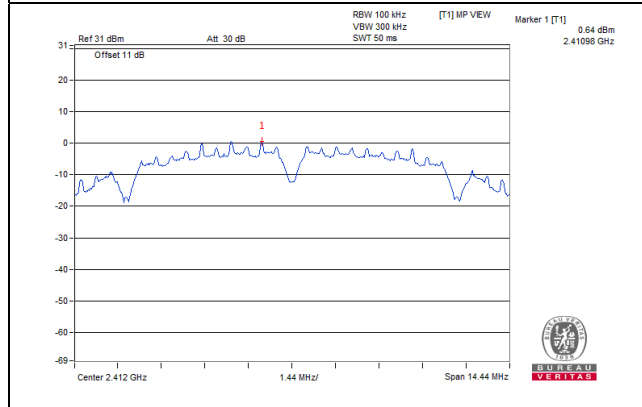


CH 11 Band edge

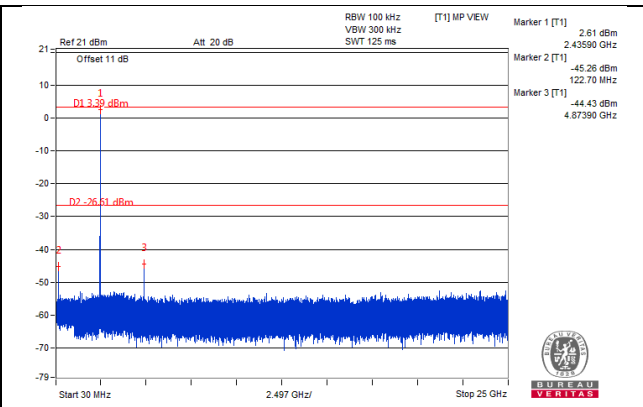
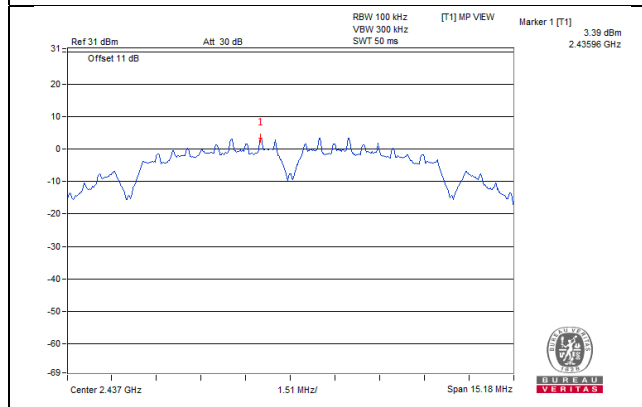


802.11b_Chain 1

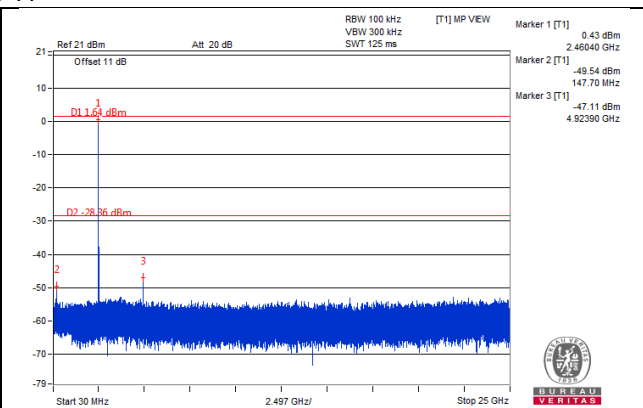
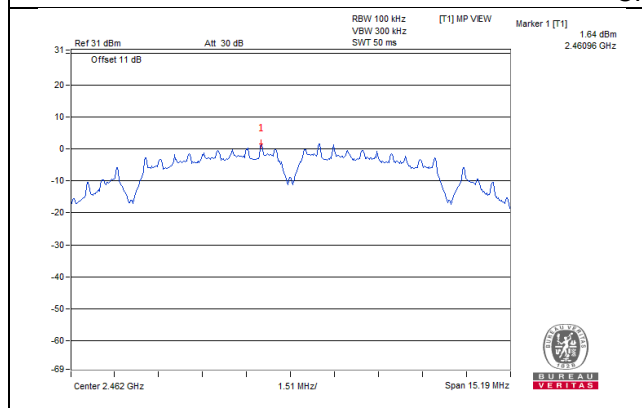
CH 1



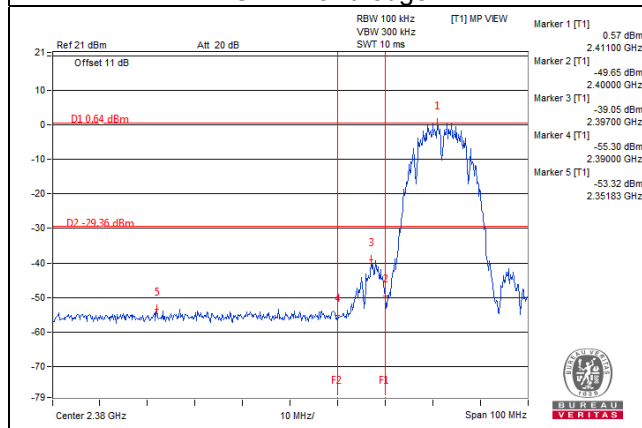
CH 6



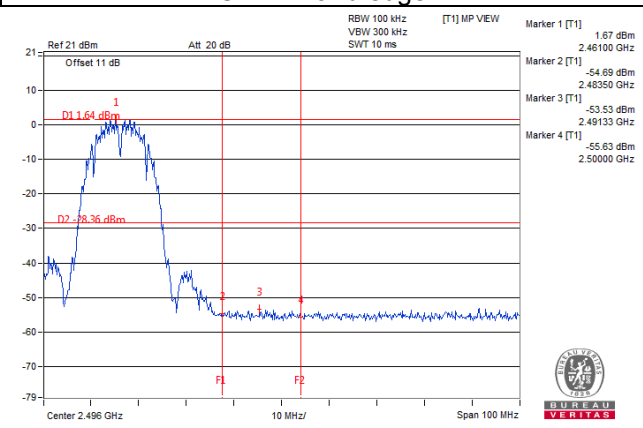
CH 11



CH 1 Band edge

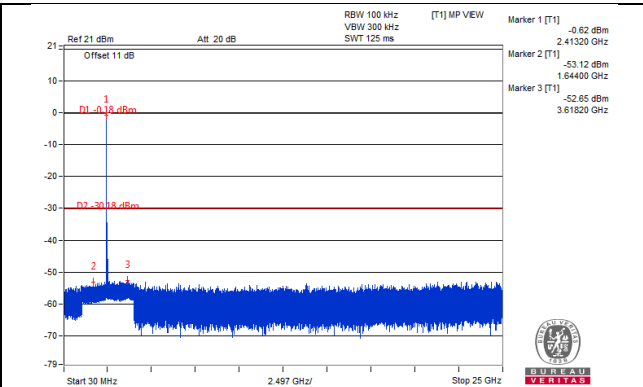
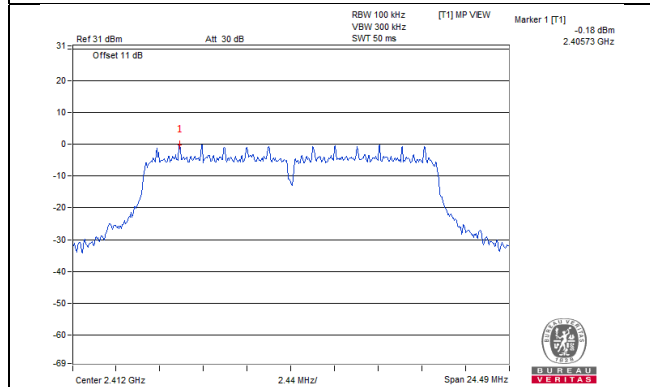


CH 11 Band edge

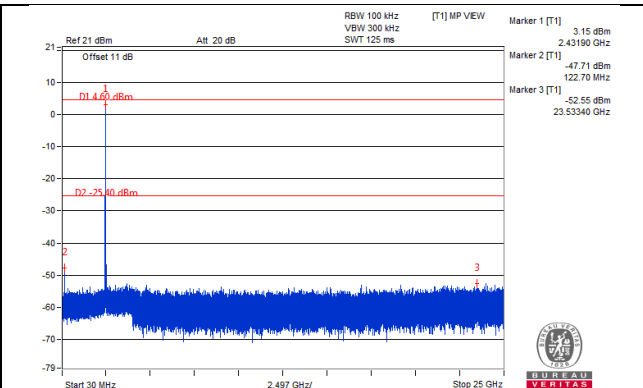
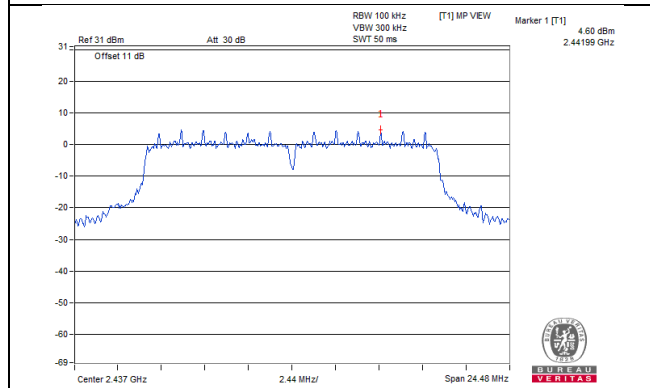


802.11g_Chain 0

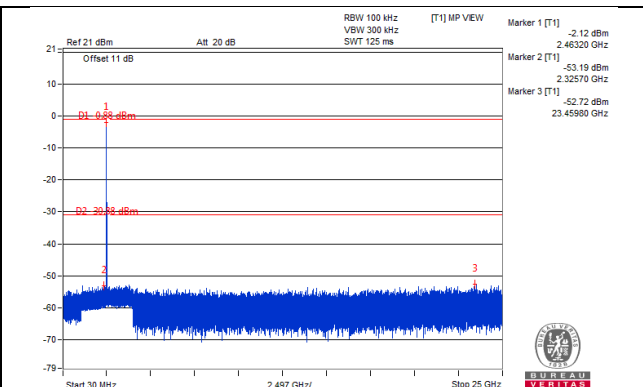
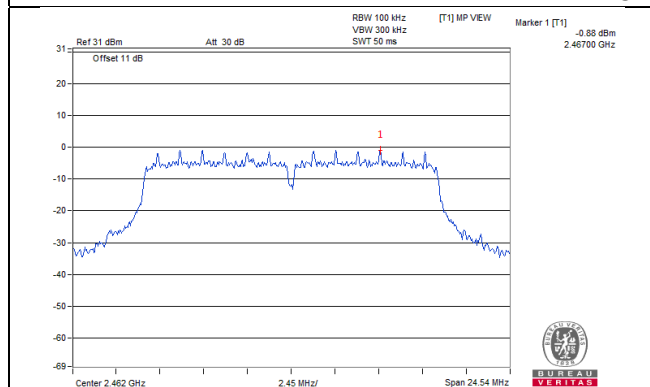
CH 1



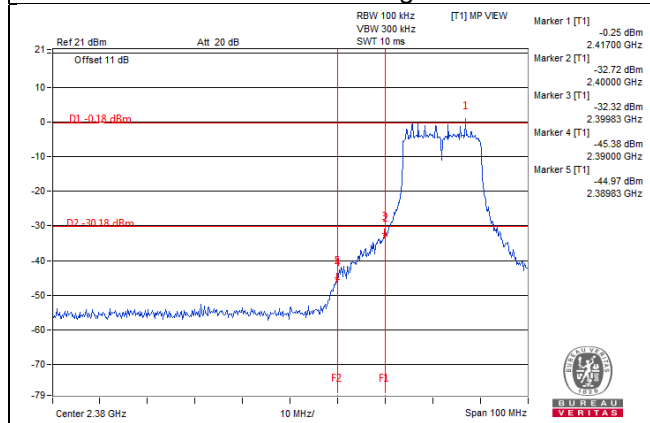
CH 6



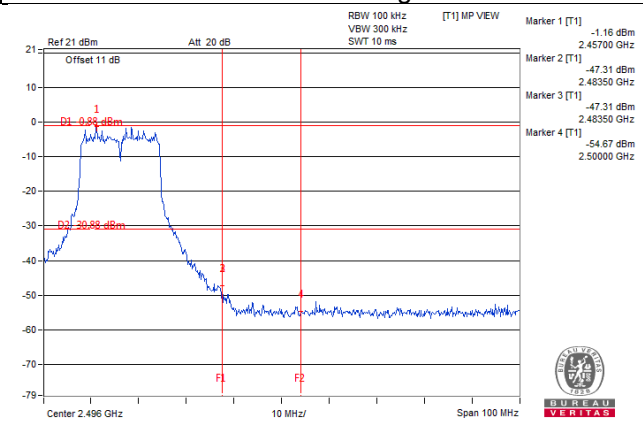
CH 11



CH 1 Band edge

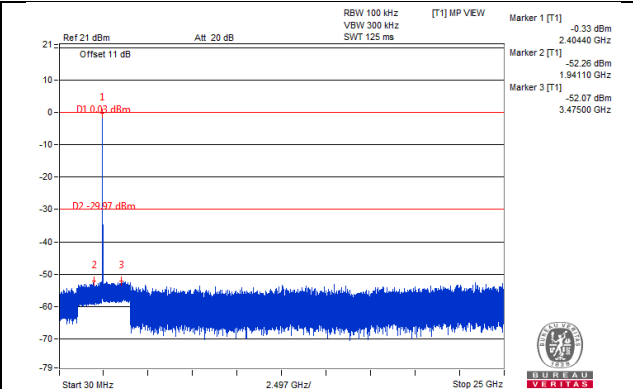
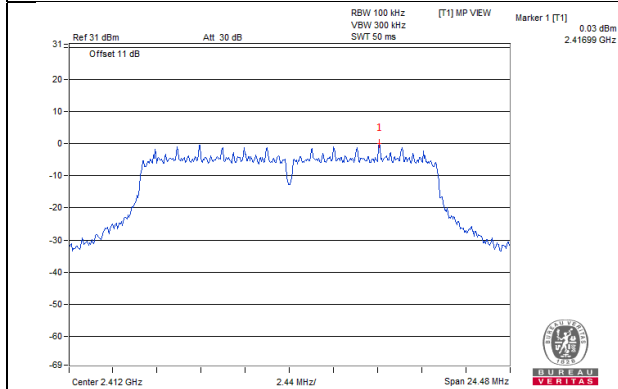


CH 11 Band edge

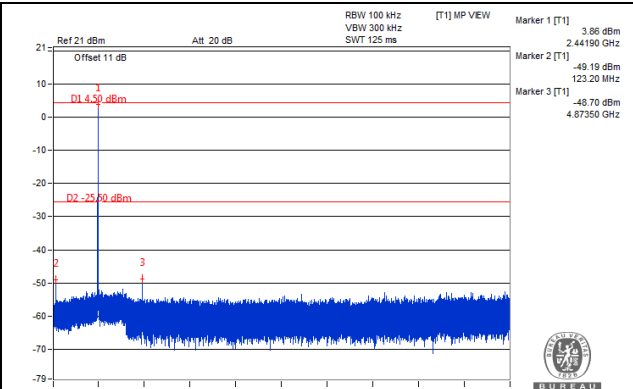
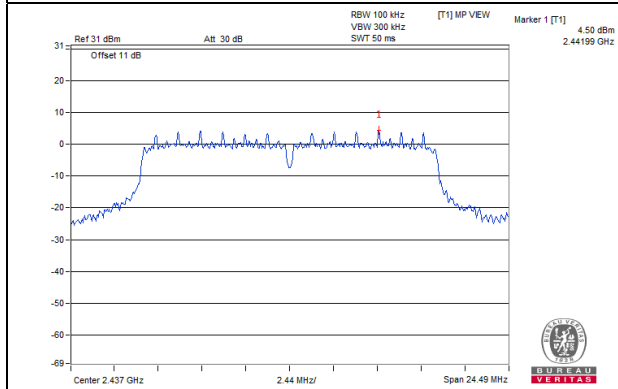


802.11g_Chain 1

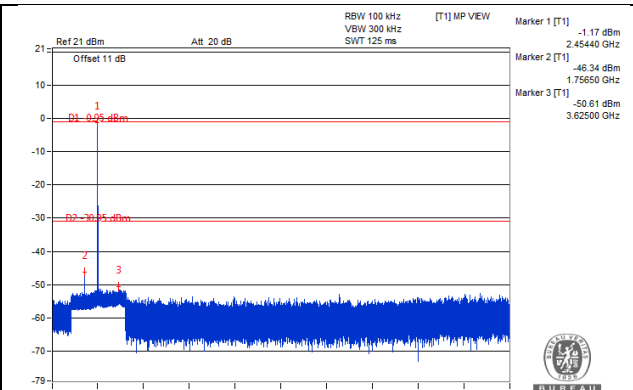
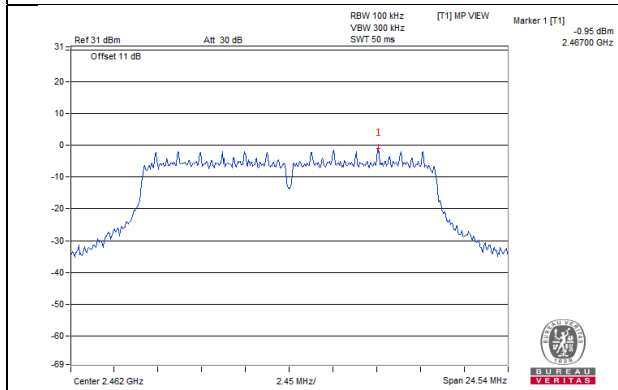
CH 1



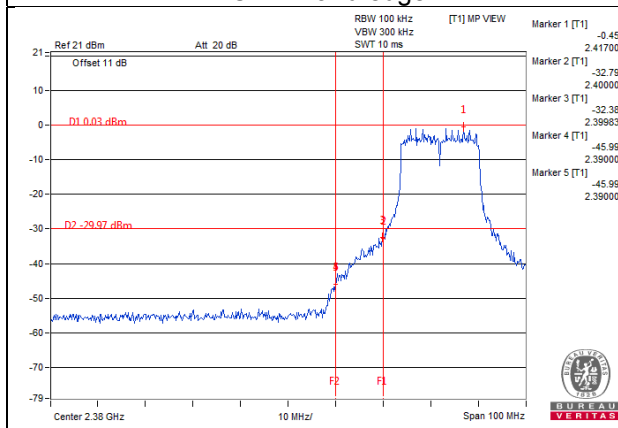
CH 6



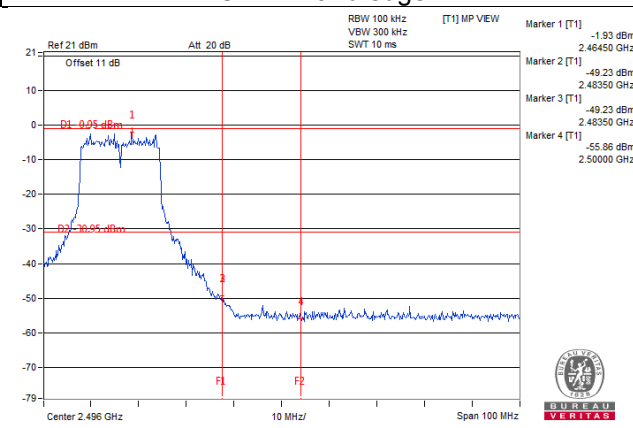
CH 11



CH 1 Band edge

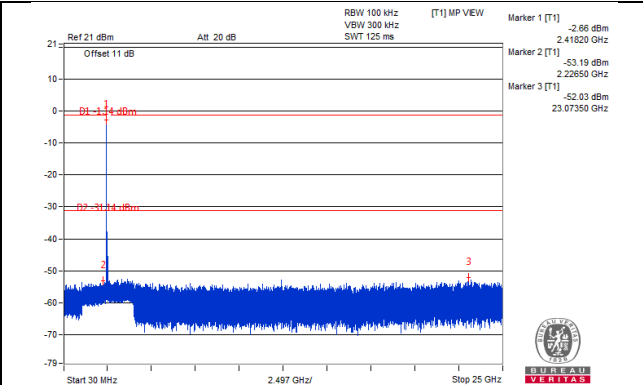
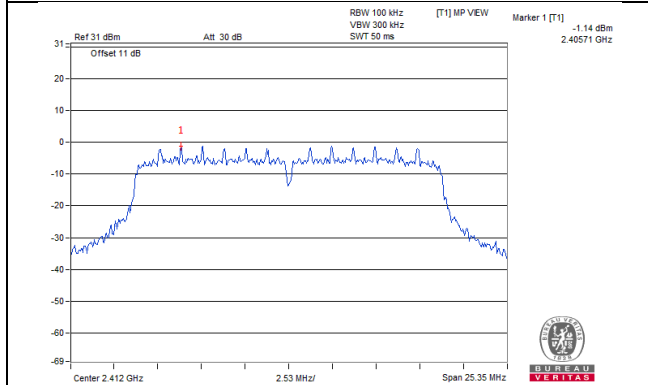


CH 11 Band edge

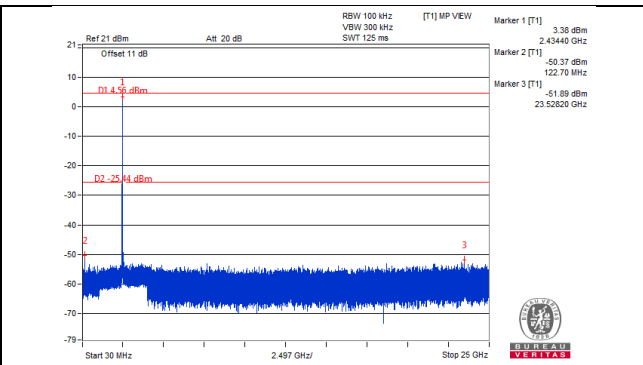
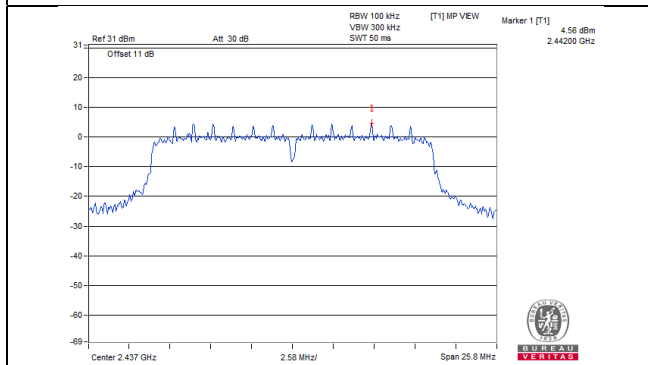


802.11n (HT20)_Chain 0

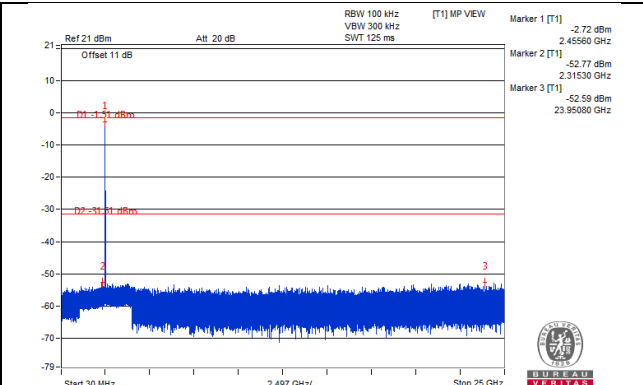
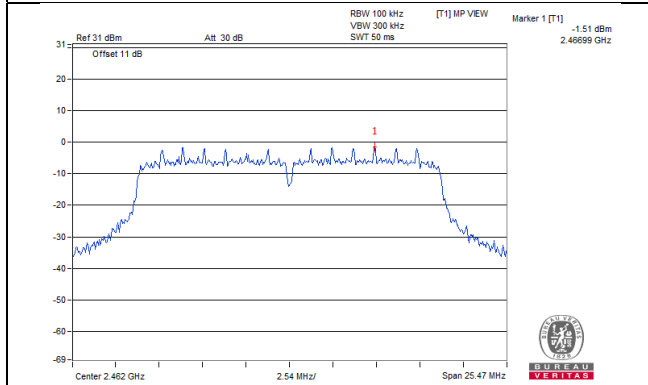
CH 1



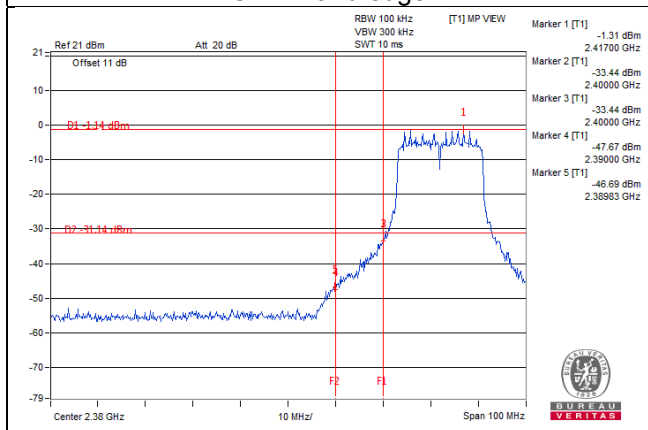
CH 6



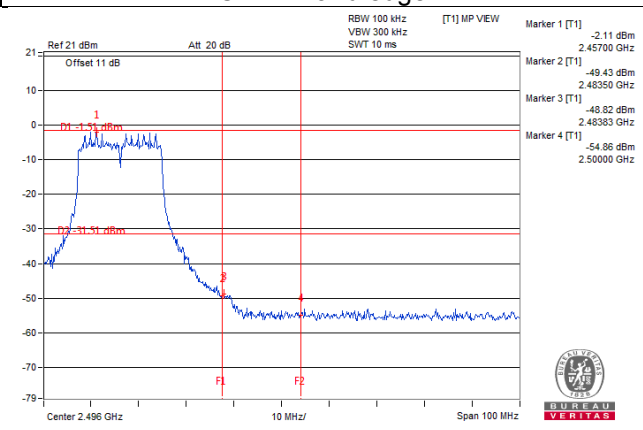
CH 11



CH 1 Band edge

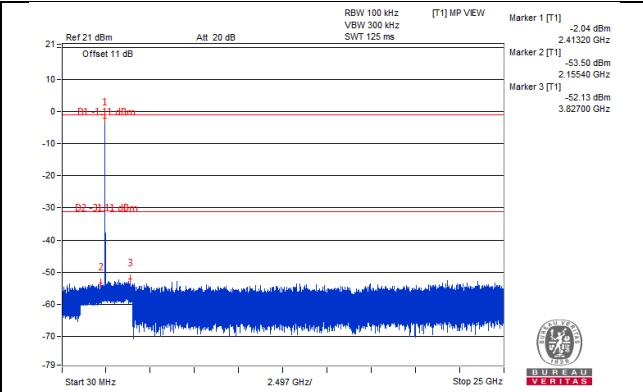
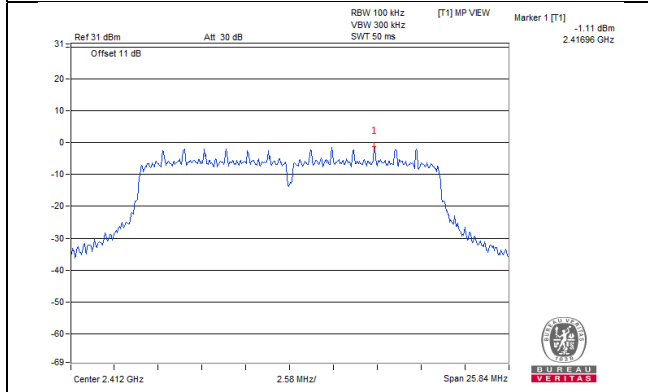


CH 11 Band edge

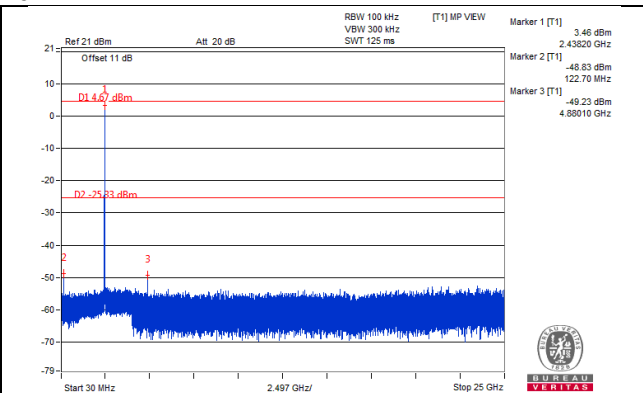
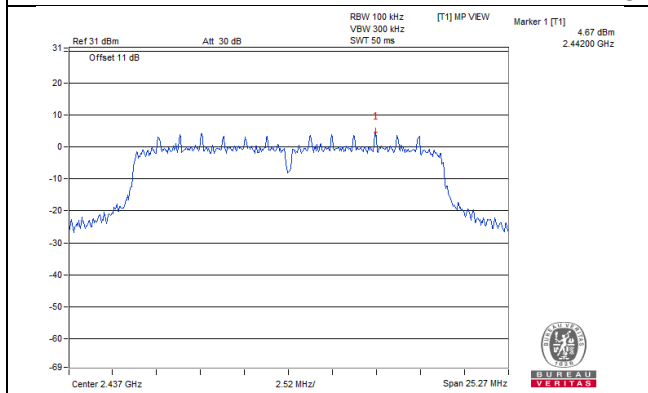


802.11n (HT20)_Chain 1

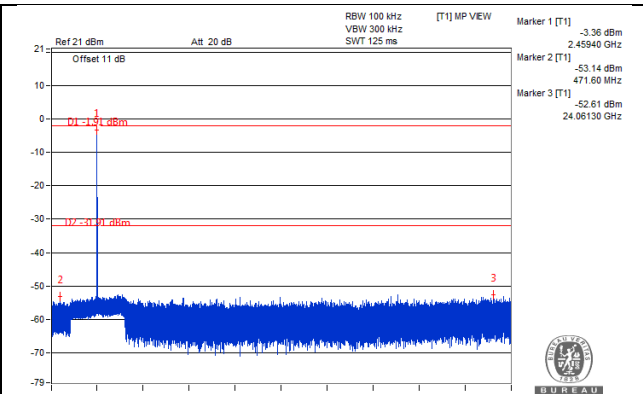
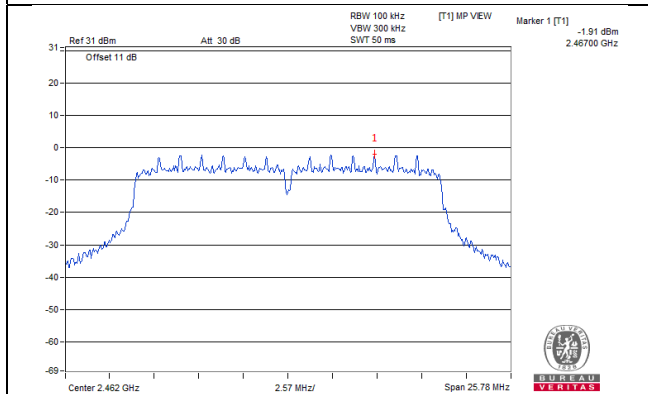
CH 1



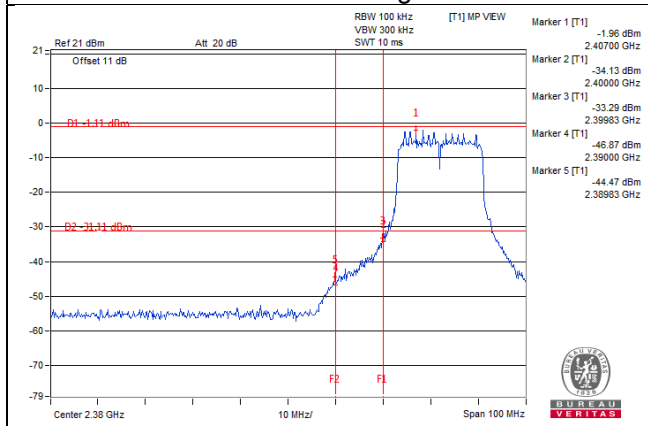
CH 6



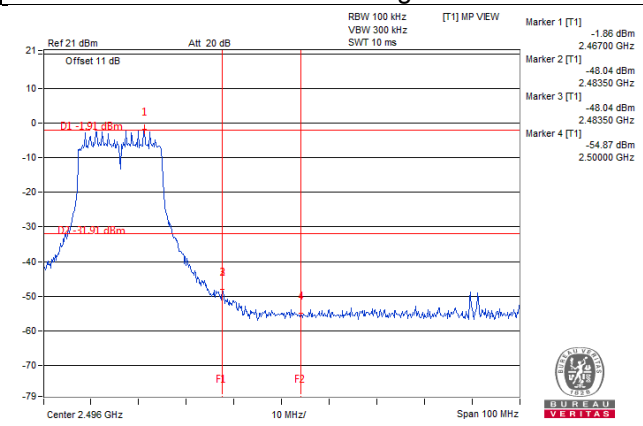
CH 11



CH 1 Band edge

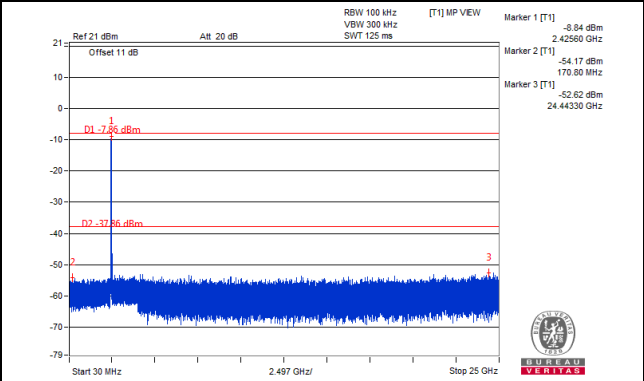
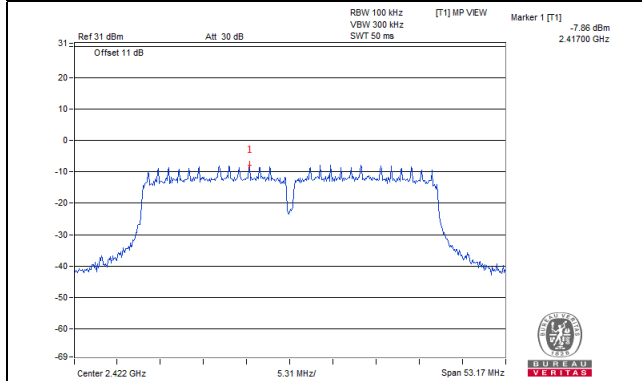


CH 11 Band edge

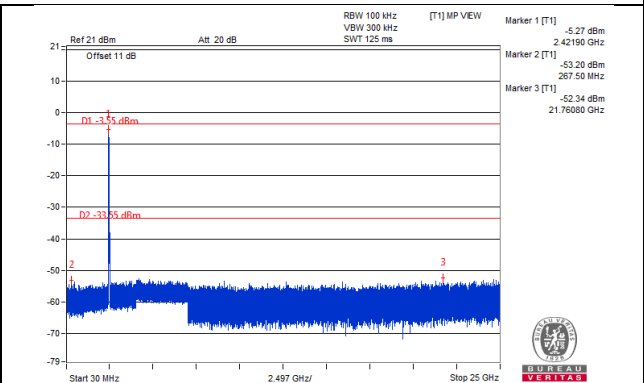
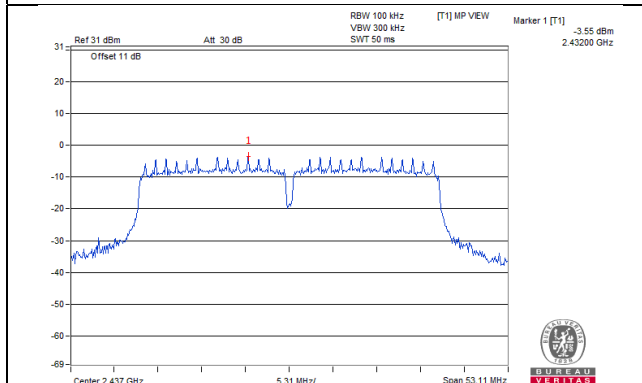


802.11n (HT40)_Chain 0

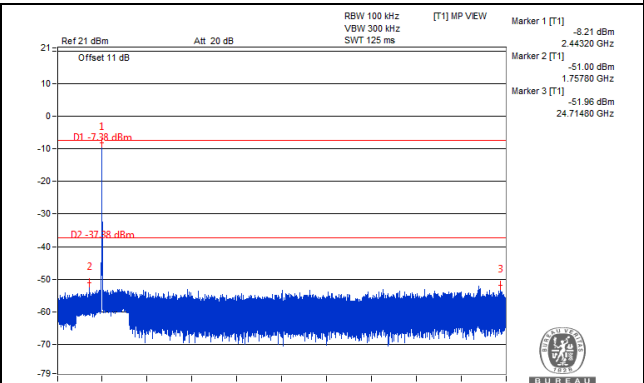
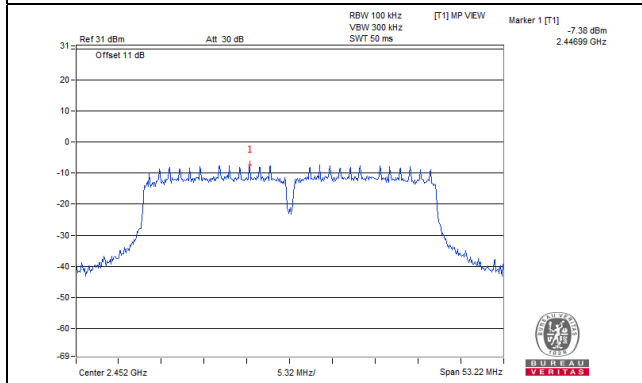
CH 3



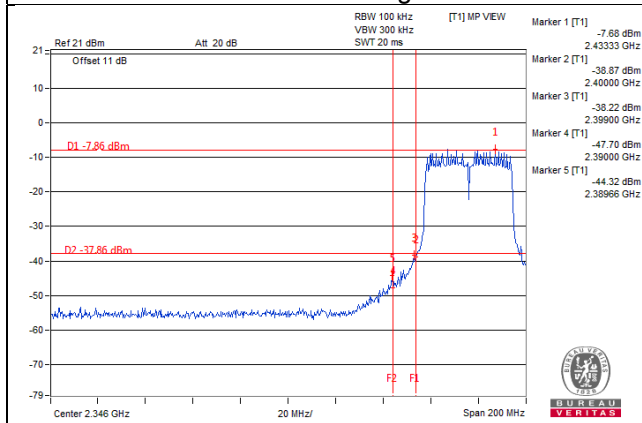
CH 6



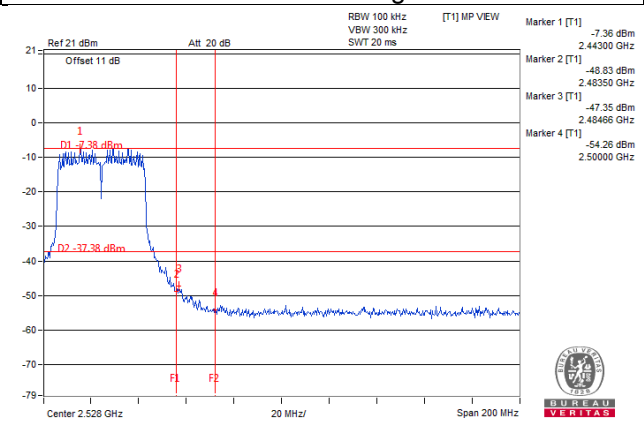
CH 9



CH 3 Band edge

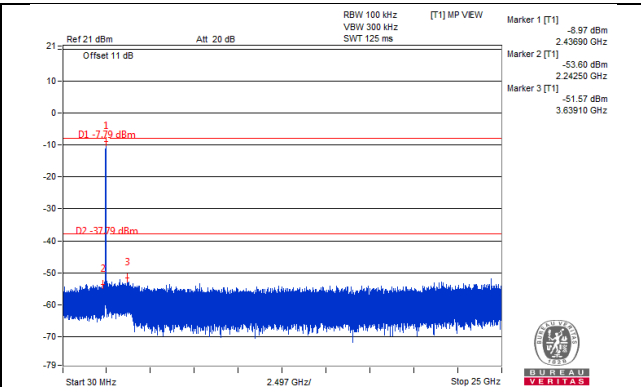
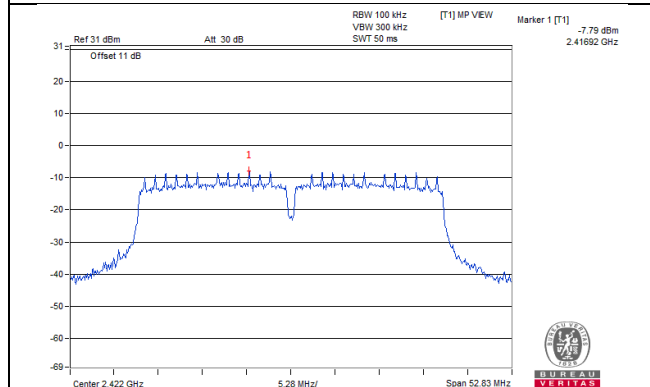


CH 9 Band edge

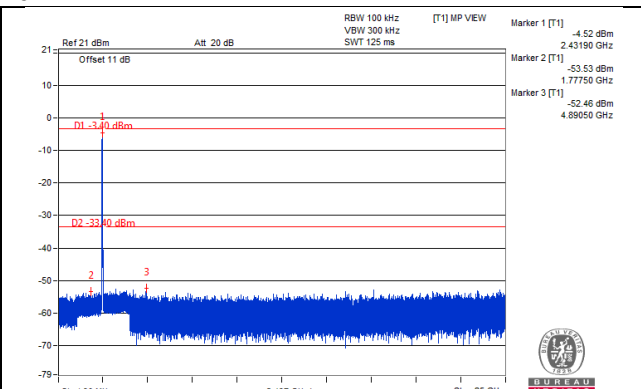
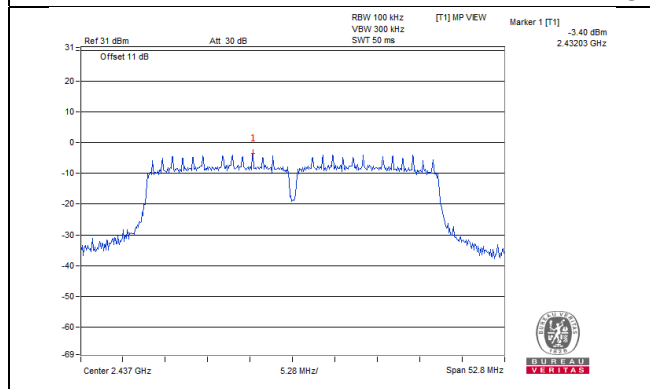


802.11n (HT40)_Chain 1

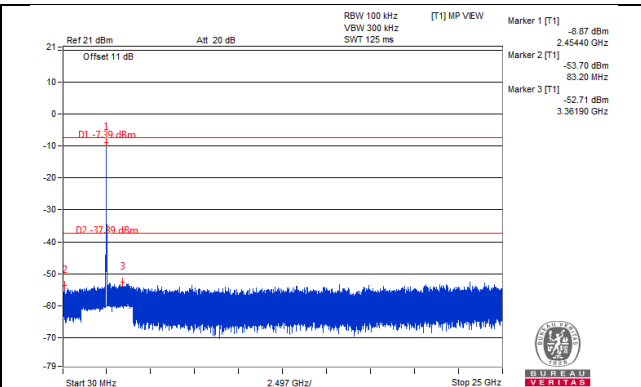
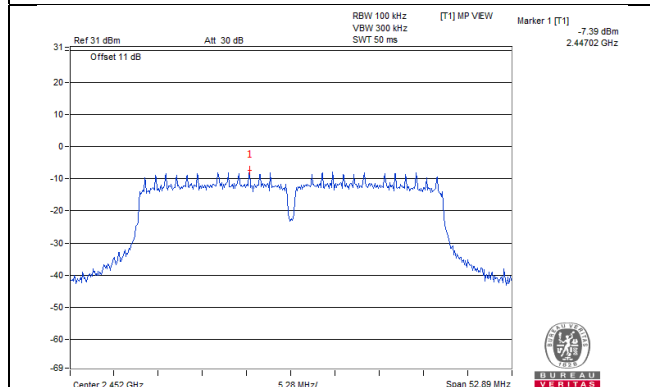
CH 3



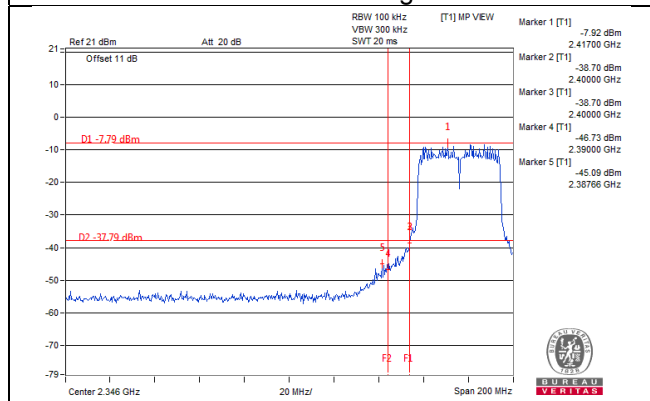
CH 6



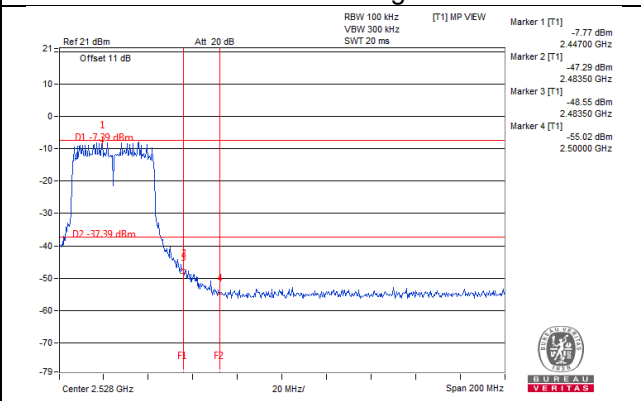
CH 9



CH 3 Band edge



CH 9 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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