FCC TEST REPORT

REPORT NO.:	RF110322C11
MODEL NO.:	MBR95
FCC ID:	UXX-MBR95
RECEIVED:	Mar. 22, 2011
TESTED:	Mar. 30 ~ Apr. 11, 2011
ISSUED:	Apr. 13, 2011

APPLICANT:	Cradlepoint, Inc.
ADDRESS:	805 West Franklin Street. Boise, ID 83702

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang, Taipei Hsien 244, Taiwan, R.O.C.
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	Apr. 13, 2011

1. CERTIFICATION

PRODUCT: Mobile Broadband Router
MODEL: MBR95
BRAND: cradlepoint
APPLICANT: Cradlepoint, Inc.
TESTED: Mar. 30 ~ Apr. 11, 2011
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart C (Section 15.247)**
ANSI C63.4-2003
ANSI C63.10-2009

The above equipment (Model: MBR95) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Polly Chien , DATE: Apr. 13, 2011
Polly Chien / Specialist

APPROVED BY : Gary Chang , DATE: Apr. 13, 2011
Gary Chang / Assistant Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART C (SECTION 15.247)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -7.96dB at 0.185MHz.
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 124.99MHz.
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.19 dB
	200MHz ~1000MHz	3.21 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Mobile Broadband Router
MODEL NO.	MBR95
FCC ID	UXX-MBR95
POWER SUPPLY	12Vdc (Adapter)
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 300.0Mbps
OPERATING FREQUENCY	2412 ~ 2462MHz
NUMBER OF CHANNEL	11 for 802.11b, 802.11g, 802.11n (20MHz) 7 for 802.11n (40MHz)
OUTPUT POWER	121.9mW
ANTENNA TYPE	PIFA antenna with -2dBi gain
ANTENNA CONNECTOR	NA
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter

NOTE:

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

MODULATION MODE	TX FUNCTION
802.11b	1TX
802.11g	1TX
802.11n (20MHz)	2TX
802.11n (40MHz)	2TX

2. The EUT were powered by the following adapters:

ADAPTER 1	
BRAND:	LEI
MODEL:	MU18-D120150-A1
INPUT:	100-240Vac, 50-60Hz, 0.6A
OUTPUT:	12Vdc, 1.5A
POWER LINE:	1.5m non-shielded cable without core

ADAPTER 2	
BRAND:	TENPAO
MODEL:	S018EM1200150
INPUT:	100-240Vac, 50-60Hz, 500mA
OUTPUT:	12Vdc, 1.5A
POWER LINE:	1.8m non-shielded cable without core

3. Co-transmitting emission of WLAN and 3G dongle have been evaluated and no non-compliance detected.

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

3.2 DESCRIPTION OF TEST MODES

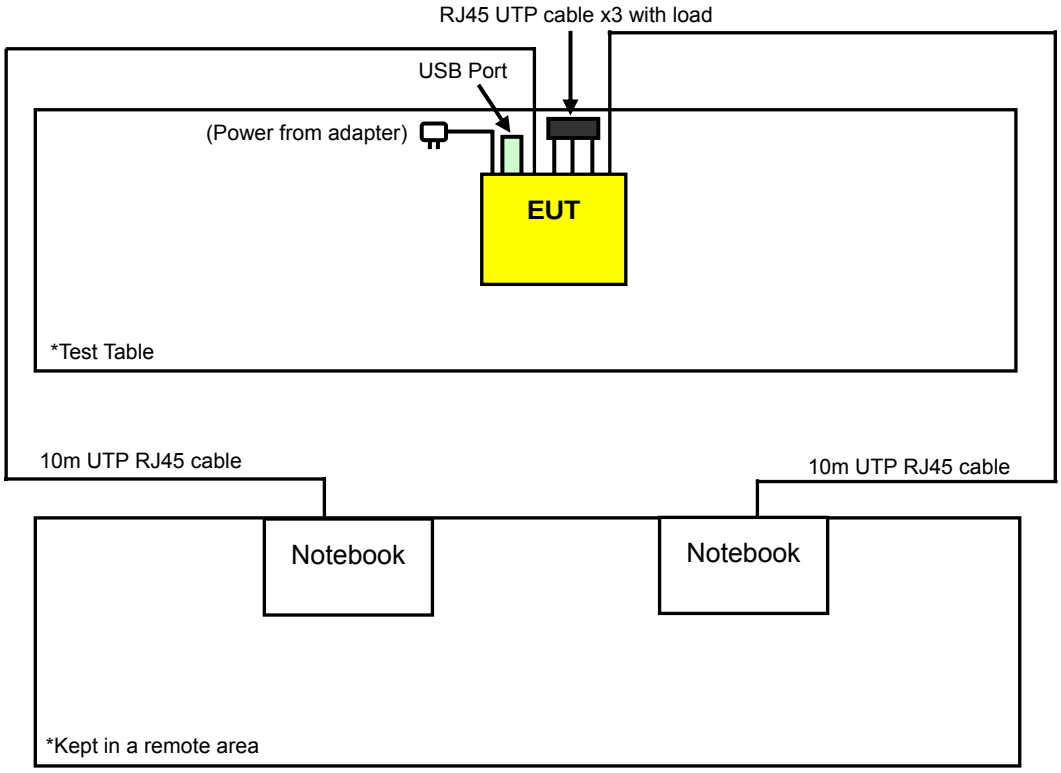
11 channels are provided for 802.11b, 802.11g and 802.11n (20MHz):

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 (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
1	2422MHz	5	2442MHz
2	2427MHz	6	2447MHz
3	2432MHz	7	2452MHz
4	2437MHz		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from Adapter 1: MU18-D120150-A1
B	-	√	√	-	Power from Adapter 2: S018EM1200150

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

NOTE: "-" 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, XYZ axis and antenna ports (if EUT with antenna diversity architecture).

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	AXIS
A	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0	Y
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0	Y
A	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2	Y
A	802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0	Y

RADIATED EMISSION TEST (BELOW 1GHz):

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

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	AXIS
A, B	802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2	Y

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	802.11n (20MHz)	1 to 11	1	OFDM	BPSK	7.2

BANDEDGE MEASUREMENT:

☒ 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	802.11b	1 to 11	1, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 11	OFDM	BPSK	6.0
A	802.11n (20MHz)	1 to 11	1, 11	OFDM	BPSK	7.2
A	802.11n (40MHz)	1 to 7	1, 7	OFDM	BPSK	15.0

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	802.11b	1 to 11	1, 6, 11	DSSS	DBPSK	1.0
A	802.11g	1 to 11	1, 6, 11	OFDM	BPSK	6.0
A	802.11n (20MHz)	1 to 11	1, 6, 11	OFDM	BPSK	7.2
A	802.11n (40MHz)	1 to 7	1, 4, 7	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH, 1012 hPa	120Vac, 60Hz	Frank Wang, David Huang
RE<1G	25deg. C, 68%RH, 1014 hPa	120Vac, 60Hz	Sun Lin
PLC	22deg. C, 64%RH, 1016 hPa	120Vac, 60Hz	Brad Wu
APCM	25deg. C, 65%RH, 1012 hPa	120Vac, 60Hz	Frank Wang

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart C (15.247)
ANSI C63.4-2003
ANSI C63.10-2009

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D600	N09-00319	QDS-BRCM1005-D
2	NOTEBOOK	DELL	E5410	1HC2XM1	NA
3	USB PORT	SPRINT	CMU-300	NA	TARCMU-300

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m UTP RJ45 cable
2	10m UTP RJ45 cable
3	NA

NOTE:
1. All power cords of the above support units are non shielded (1.8m).
2. Items 1-2 acted as communication partners to transfer data.
3. Item 3 was supplied from client.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

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. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Dec. 27, 2010	Dec. 26, 2011
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Aug. 02, 2010	Aug. 01, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Apr. 28, 2010	Apr. 27, 2011
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-408	Jan. 06, 2011	Jan. 05, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8449B	3008A01961	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8447D	2944A10738	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274041/4	Aug. 21, 2010	Aug. 20, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283397/4	Aug. 21, 2010	Aug. 20, 2011
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table ADT.	TT100.	TT93021704	NA	NA
Turn Table Controller ADT.	SC100.	SC93021704	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 Chamber 4.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC7450F-4.

4.1.3 TEST PROCEDURES

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

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

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

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

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

f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

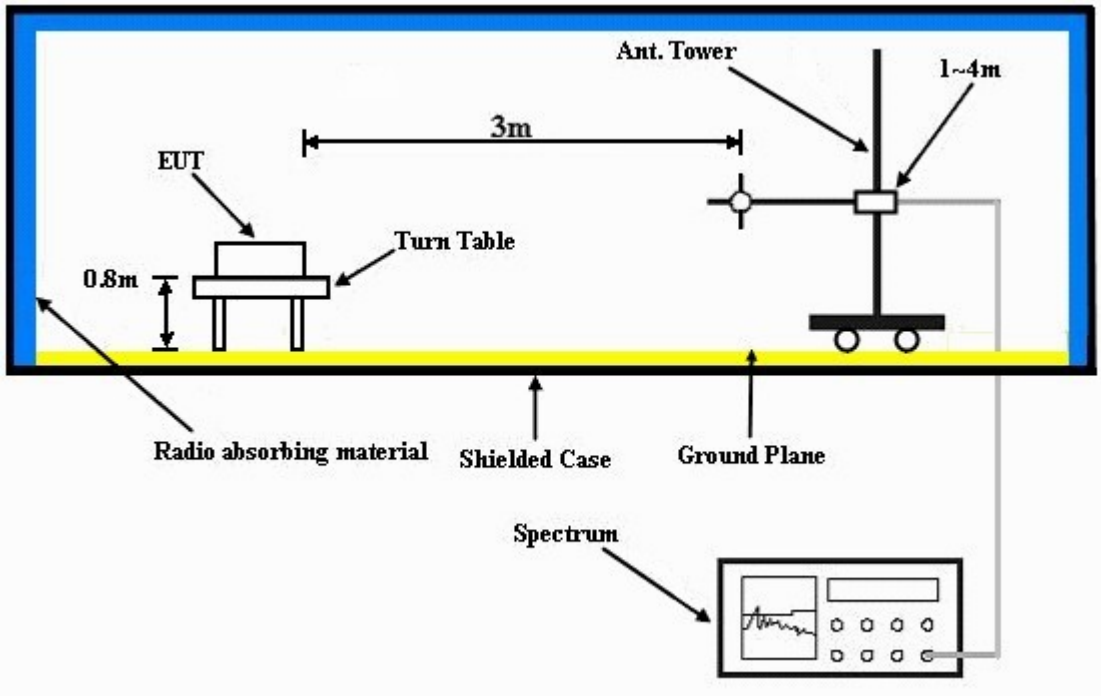
NOTE:

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

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



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

4.1.6 EUT OPERATING CONDITIONS

a. Placed the EUT on the testing table.
b. Prepared notebook systems to act as communication partner and placed them outside of testing area.
c. The communication partners connected with EUT via a RJ45 cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The necessary accessories enable the EUT in full functions.

4.1.7 TEST RESULTS

802.11b

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	**FREQUENCY RANGE**	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	**TESTED BY**	Frank Wang

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	53.5 PK	74.0	-20.5	1.40 H	322	22.40	31.10
2	2390.00	42.3 AV	54.0	-11.7	1.40 H	322	11.20	31.10
3	*2412.00	93.3 PK			1.40 H	322	62.10	31.20
4	*2412.00	89.4 AV			1.40 H	322	58.20	31.20
5	4824.00	55.5 PK	74.0	-18.5	1.14 H	270	18.30	37.20
6	4824.00	52.3 AV	54.0	-1.7	1.14 H	270	15.10	37.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	2390.00	53.0 PK	74.0	-21.0	1.00 V	23	21.90	31.10
2	2390.00	41.3 AV	54.0	-12.7	1.00 V	23	10.20	31.10
3	*2412.00	87.5 PK			1.00 V	23	56.30	31.20
4	*2412.00	83.6 AV			1.00 V	23	52.40	31.20
5	4824.00	48.4 PK	74.0	-25.6	1.00 V	38	11.20	37.20
6	4824.00	41.0 AV	54.0	-13.0	1.00 V	38	3.80	37.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	94.7 PK			1.40 H	320	63.50	31.20
2	*2437.00	90.7 AV			1.40 H	320	59.50	31.20
3	2483.50	53.4 PK	74.0	-20.6	1.40 H	320	22.00	31.40
4	2483.50	42.4 AV	54.0	-11.6	1.40 H	320	11.00	31.40
5	4874.00	55.4 PK	74.0	-18.6	1.12 H	270	18.10	37.30
6	4874.00	52.8 AV	54.0	-1.2	1.12 H	270	15.50	37.30
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	88.4 PK			1.20 V	18	57.20	31.20
2	*2437.00	84.5 AV			1.20 V	18	53.30	31.20
3	2483.50	53.0 PK	74.0	-21.0	1.20 V	18	21.60	31.40
4	2483.50	41.9 AV	54.0	-12.1	1.20 V	18	10.50	31.40
5	4874.00	50.5 PK	74.0	-23.5	1.26 V	92	13.20	37.30
6	4874.00	44.6 AV	54.0	-9.4	1.26 V	92	7.30	37.30

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	95.9 PK			1.10 H	308	64.60	31.30
2	*2462.00	92.1 AV			1.10 H	308	60.80	31.30
3	2483.50	55.0 PK	74.0	-19.0	1.10 H	308	23.60	31.40
4	2483.50	42.7 AV	54.0	-11.3	1.10 H	308	11.30	31.40
5	4924.00	55.2 PK	74.0	-18.8	1.10 H	257	17.80	37.40
6	4924.00	52.4 AV	54.0	-1.6	1.10 H	257	15.00	37.40
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	90.6 PK			1.00 V	118	59.30	31.30
2	*2462.00	86.7 AV			1.00 V	118	55.40	31.30
3	2483.50	54.4 PK	74.0	-19.6	1.00 V	118	23.00	31.40
4	2483.50	42.0 AV	54.0	-12.0	1.00 V	118	10.60	31.40
5	4924.00	52.8 PK	74.0	-21.2	1.20 V	115	15.40	37.40
6	4924.00	49.0 AV	54.0	-5.0	1.20 V	115	11.60	37.40

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.2 PK	74.0	-13.8	1.42 H	313	29.10	31.10
2	2390.00	45.1 AV	54.0	-8.9	1.42 H	313	14.00	31.10
3	*2412.00	100.7 PK			1.12 H	303	69.50	31.20
4	*2412.00	89.6 AV			1.12 H	303	58.40	31.20
5	4824.00	67.4 PK	74.0	-6.6	1.14 H	266	30.20	37.20
6	4824.00	52.6 AV	54.0	-1.4	1.14 H	266	15.40	37.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	52.9 PK	74.0	-21.1	1.20 V	35	21.80	31.10
2	2390.00	42.0 AV	54.0	-12.0	1.20 V	35	10.90	31.10
3	*2412.00	95.6 PK			1.20 V	35	64.40	31.20
4	*2412.00	84.8 AV			1.20 V	35	53.60	31.20
5	4824.00	54.8 PK	74.0	-19.2	1.00 V	37	17.60	37.20
6	4824.00	40.5 AV	54.0	-13.5	1.00 V	37	3.30	37.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	103.4 PK			1.40 H	320	72.20	31.20
2	*2437.00	91.2 AV			1.40 H	320	60.00	31.20
3	2483.50	56.1 PK	74.0	-17.9	1.40 H	320	24.70	31.40
4	2483.50	44.3 AV	54.0	-9.7	1.40 H	320	12.90	31.40
5	4874.00	66.7 PK	74.0	-7.3	1.13 H	267	29.40	37.30
6	4874.00	52.5 AV	54.0	-1.5	1.13 H	267	15.20	37.30
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	97.6 PK			1.20 V	15	66.40	31.20
2	*2437.00	85.5 AV			1.20 V	15	54.30	31.20
3	2483.50	53.9 PK	74.0	-20.1	1.20 V	15	22.50	31.40
4	2483.50	41.8 AV	54.0	-12.2	1.20 V	15	10.40	31.40
5	4874.00	57.2 PK	74.0	-16.8	1.44 V	85	19.90	37.30
6	4874.00	42.7 AV	54.0	-11.3	1.44 V	85	5.40	37.30

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	103.0 PK			1.57 H	315	71.70	31.30
2	*2462.00	92.7 AV			1.57 H	315	61.40	31.30
3	2483.50	62.1 PK	74.0	-11.9	1.36 H	320	30.70	31.40
4	2483.50	47.1 AV	54.0	-6.9	1.36 H	320	15.70	31.40
5	4924.00	61.7 PK	74.0	-12.3	1.20 H	258	24.30	37.40
6	4924.00	47.5 AV	54.0	-6.5	1.20 H	258	10.10	37.40
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	98.3 PK			1.17 V	18	67.00	31.30
2	*2462.00	87.5 AV			1.17 V	18	56.20	31.30
3	2483.50	58.0 PK	74.0	-16.0	1.17 V	18	26.60	31.40
4	2483.50	43.6 AV	54.0	-10.4	1.17 V	18	12.20	31.40
5	4924.00	58.8 PK	74.0	-15.2	1.20 V	84	21.40	37.40
6	4924.00	44.5 AV	54.0	-9.5	1.20 V	84	7.10	37.40

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 (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	60.7 PK	74.0	-13.3	1.39 H	312	29.60	31.10
2	2390.00	47.0 AV	54.0	-7.0	1.39 H	312	15.90	31.10
3	*2412.00	105.6 PK			1.39 H	312	74.40	31.20
4	*2412.00	92.3 AV			1.39 H	312	61.10	31.20
5	4824.00	68.0 PK	74.0	-6.0	1.22 H	264	30.80	37.20
6	4824.00	50.1 AV	54.0	-3.9	1.22 H	264	12.90	37.20
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	54.5 PK	74.0	-19.5	1.19 V	39	23.40	31.10
2	2390.00	43.7 AV	54.0	-10.3	1.19 V	39	12.60	31.10
3	*2412.00	102.0 PK			1.19 V	39	70.80	31.20
4	*2412.00	89.5 AV			1.19 V	39	58.30	31.20
5	4824.00	57.5 PK	74.0	-16.5	1.00 V	37	20.30	37.20
6	4824.00	40.7 AV	54.0	-13.3	1.00 V	37	3.50	37.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 6	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	103.3 PK			1.37 H	307	72.10	31.20
2	*2437.00	90.7 AV			1.37 H	307	59.50	31.20
3	4874.00	67.1 PK	74.0	-6.9	1.15 H	264	29.80	37.30
4	4874.00	48.6 AV	54.0	-5.4	1.15 H	264	11.30	37.30
5	7311.00	51.0 PK	74.0	-23.0	1.15 H	264	7.80	43.20
6	7311.00	38.6 AV	54.0	-15.4	1.15 H	264	-4.60	43.20
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	99.6 PK			1.19 V	37	68.40	31.20
2	*2437.00	87.6 AV			1.19 V	37	56.40	31.20
3	4874.00	55.9 PK	74.0	-18.1	1.00 V	19	18.60	37.30
4	4874.00	41.8 AV	54.0	-12.2	1.00 V	19	4.50	37.30
5	7311.00	50.5 PK	74.0	-23.5	1.00 V	167	7.30	43.20
6	7311.00	37.7 AV	54.0	-16.3	1.00 V	167	-5.50	43.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 11	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	Frank Wang

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	103.4 PK			1.32 H	309	72.10	31.30
2	*2462.00	90.9 AV			1.32 H	309	59.60	31.30
3	2483.50	56.3 PK	74.0	-17.7	1.32 H	309	24.90	31.40
4	2483.50	44.5 AV	54.0	-9.5	1.32 H	309	13.10	31.40
5	4924.00	61.1 PK	74.0	-12.9	1.18 H	263	23.70	37.40
6	4924.00	47.1 AV	54.0	-6.9	1.18 H	263	9.70	37.40
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	99.8 PK			1.18 V	236	68.50	31.30
2	*2462.00	87.8 AV			1.18 V	236	56.50	31.30
3	2483.50	54.8 PK	74.0	-19.2	1.18 V	236	23.40	31.40
4	2483.50	44.3 AV	54.0	-9.7	1.18 V	236	12.90	31.40
5	4924.00	56.7 PK	74.0	-17.3	1.00 V	168	19.30	37.40
6	4924.00	42.6 AV	54.0	-11.4	1.00 V	168	5.20	37.40

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 (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	David Huang

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	63.2 PK	74.0	-10.8	1.37 H	312	32.10	31.10
2	2390.00	49.6 AV	54.0	-4.4	1.37 H	312	18.50	31.10
3	*2422.00	101.2 PK			1.37 H	312	70.00	31.20
4	*2422.00	87.4 AV			1.37 H	312	56.20	31.20
5	4844.00	63.0 PK	74.0	-11.0	1.20 H	264	25.80	37.20
6	4844.00	50.7 AV	54.0	-3.3	1.20 H	264	13.50	37.20
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	58.3 PK	74.0	-15.7	1.18 V	35	27.20	31.10
2	2390.00	47.3 AV	54.0	-6.7	1.18 V	35	16.20	31.10
3	*2422.00	97.5 PK			1.18 V	35	66.30	31.20
4	*2422.00	84.6 AV			1.18 V	35	53.40	31.20
5	4844.00	55.4 PK	74.0	-18.6	1.00 V	42	18.20	37.20
6	4844.00	41.5 AV	54.0	-12.5	1.00 V	42	4.30	37.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 4	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	David Huang

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	101.5 PK			1.35 H	323	70.30	31.20
2	*2437.00	87.7 AV			1.35 H	323	56.50	31.20
3	4874.00	61.6 PK	74.0	-12.4	1.10 H	149	24.30	37.30
4	4874.00	48.7 AV	54.0	-5.3	1.10 H	149	11.40	37.30
5	7311.00	51.6 PK	74.0	-22.4	1.10 H	123	8.40	43.20
6	7311.00	38.9 AV	54.0	-15.1	1.10 H	123	-4.30	43.20
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	97.8 PK			1.20 V	103	66.60	31.20
2	*2437.00	84.9 AV			1.20 V	103	53.70	31.20
3	4874.00	58.4 PK	74.0	-15.6	1.00 V	186	21.10	37.30
4	4874.00	46.2 AV	54.0	-7.8	1.00 V	186	8.90	37.30
5	7311.00	51.1 PK	74.0	-22.9	1.00 V	156	7.90	43.20
6	7311.00	38.2 AV	54.0	-15.8	1.00 V	156	-5.00	43.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 7	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1012 hPa	TESTED BY	David Huang

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	101.6 PK			1.36 H	317	70.30	31.30
2	*2452.00	87.7 AV			1.36 H	317	56.40	31.30
3	2483.50	62.0 PK	74.0	-12.0	1.36 H	317	30.60	31.40
4	2483.50	50.0 AV	54.0	-4.0	1.36 H	317	18.60	31.40
5	4904.00	62.2 PK	74.0	-11.8	1.23 H	266	24.90	37.30
6	4904.00	49.1 AV	54.0	-4.9	1.23 H	266	11.80	37.30
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	97.2 PK			1.20 V	104	65.90	31.30
2	*2452.00	84.3 AV			1.20 V	104	53.00	31.30
3	2483.50	57.1 PK	74.0	-16.9	1.20 V	104	25.70	31.40
4	2483.50	48.3 AV	54.0	-5.7	1.20 V	104	16.90	31.40
5	4904.00	58.5 PK	74.0	-15.5	1.10 V	257	21.20	37.30
6	4904.00	47.3 AV	54.0	-6.7	1.10 V	257	10.00	37.30

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： 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1014 hPa	TESTED BY	Sun Lin
TEST MODE	A		

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	125.17	38.1 QP	43.5	-5.4	1.25 H	277	26.10	12.00
2	158.22	32.1 QP	43.5	-11.4	1.50 H	289	18.30	13.80
3	249.60	38.2 QP	46.0	-7.8	1.25 H	271	25.30	12.90
4	401.26	31.6 QP	46.0	-14.4	2.00 H	286	15.40	16.20
5	480.97	32.7 QP	46.0	-13.3	1.50 H	271	14.00	18.70
6	669.57	30.4 QP	46.0	-15.6	1.25 H	37	7.90	22.50
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	40.34	34.3 QP	40.0	-5.7	1.00 V	203	21.80	12.50
2	**124.99**	**42.4 QP**	**43.5**	**-1.1**	**1.00 V**	**24**	**30.40**	**12.00**
3	249.60	34.5 QP	46.0	-11.5	1.00 V	355	21.60	12.90
4	401.26	35.5 QP	46.0	-10.5	1.50 V	133	19.30	16.20
5	480.97	32.2 QP	46.0	-13.8	1.25 V	223	13.50	18.70
6	669.57	30.1 QP	46.0	-15.9	1.50 V	10	7.60	22.50

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1014 hPa	TESTED BY	Sun Lin
TEST MODE	B		

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	125.17	36.5 QP	43.5	-7.0	1.75 H	292	24.50	12.00
2	249.60	38.0 QP	46.0	-8.0	1.00 H	283	25.10	12.90
3	315.71	30.6 QP	46.0	-15.4	1.00 H	277	16.50	14.10
4	401.26	32.5 QP	46.0	-13.5	2.00 H	301	16.30	16.20
5	480.97	33.2 QP	46.0	-12.8	1.75 H	292	14.50	18.70
6	669.57	36.0 QP	46.0	-10.0	1.00 H	25	13.50	22.50
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	30.7 QP	40.0	-9.3	1.00 V	235	17.00	13.70
2	125.17	41.1 QP	43.5	-2.4	1.25 V	355	29.10	12.00
3	249.60	39.3 QP	46.0	-6.7	1.00 V	247	26.40	12.90
4	401.26	33.3 QP	46.0	-12.7	1.50 V	43	17.10	16.20
5	500.42	32.7 QP	46.0	-13.3	1.25 V	10	13.40	19.30
6	669.57	31.5 QP	46.0	-14.5	1.50 V	166	9.00	22.50

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 OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	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.

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

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 23, 2010	Nov. 22, 2011
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 30, 2010	Dec. 29, 2011
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 06, 2011	Jan. 05, 2012
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jul. 08, 2010	Jul. 07, 2011
Software ADT	ADT_Cond_ V7.3.7	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

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

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

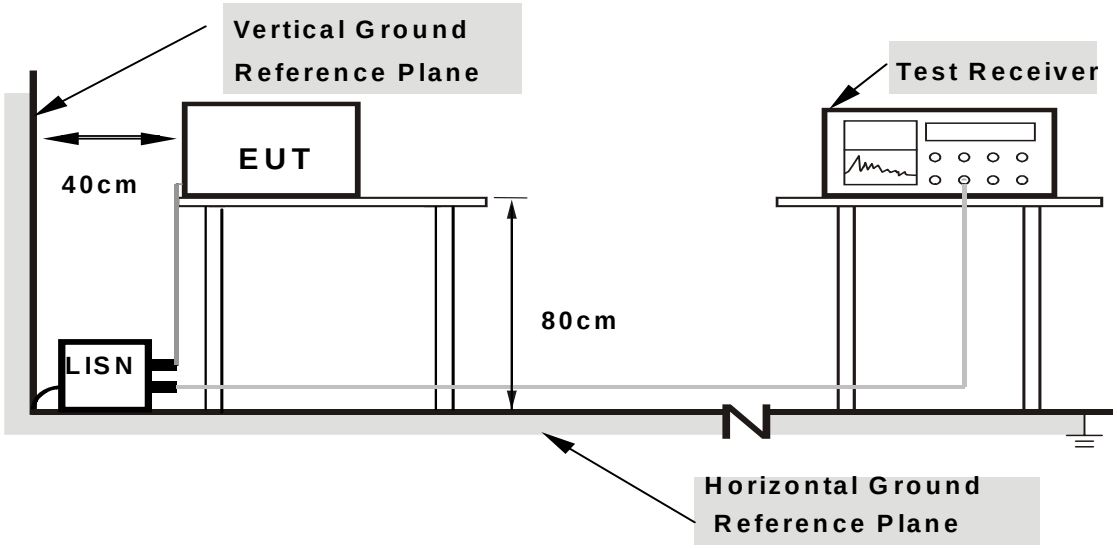
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

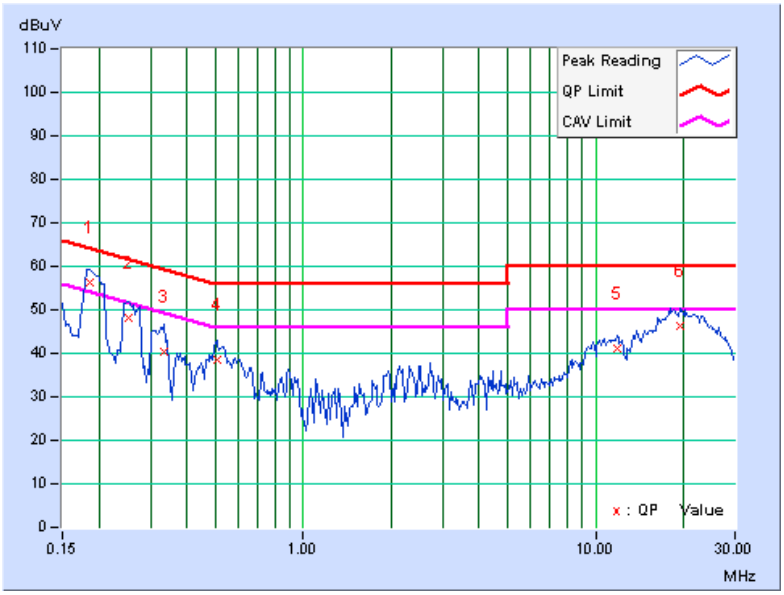
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：802.11n (20MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.185**	**0.15**	**56.14**	**40.32**	**56.29**	**40.47**	**64.25**	**54.25**	**-7.96**	**-13.78**
2	0.252	0.16	47.97	-	48.13	-	61.71	51.71	-13.58	-
3	0.334	0.16	40.36	-	40.52	-	59.36	49.36	-18.84	-
4	0.505	0.17	38.34	-	38.51	-	56.00	46.00	-17.49	-
5	11.836	0.67	40.46	-	41.13	-	60.00	50.00	-18.87	-
6	19.449	1.11	45.35	-	46.46	-	60.00	50.00	-13.54	-

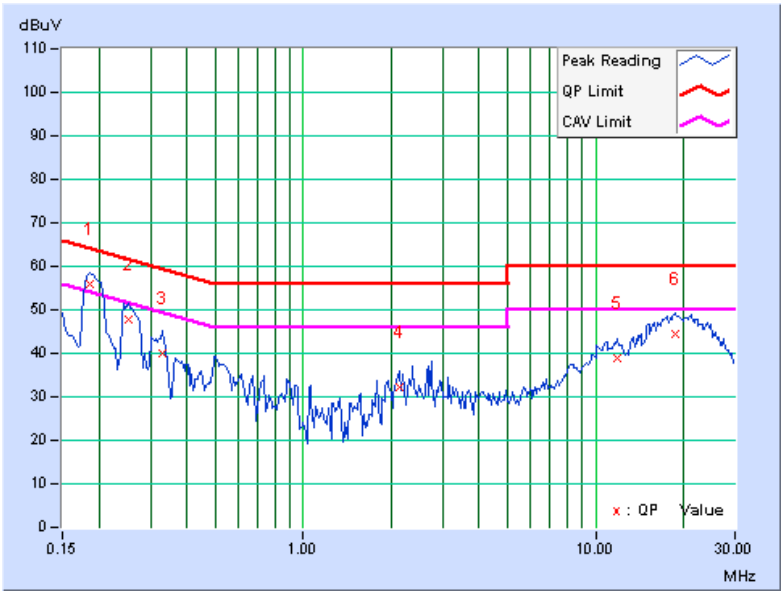
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	A		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.17	55.93	38.98	56.10	39.15	64.25	54.25	-8.16	-15.11
2	0.252	0.18	47.69	-	47.87	-	61.71	51.71	-13.84	-
3	0.330	0.18	39.65	-	39.83	-	59.46	49.46	-19.63	-
4	2.137	0.24	31.89	-	32.13	-	56.00	46.00	-23.87	-
5	11.891	0.59	38.34	-	38.93	-	60.00	50.00	-21.07	-
6	18.797	0.87	43.62	-	44.49	-	60.00	50.00	-15.51	-

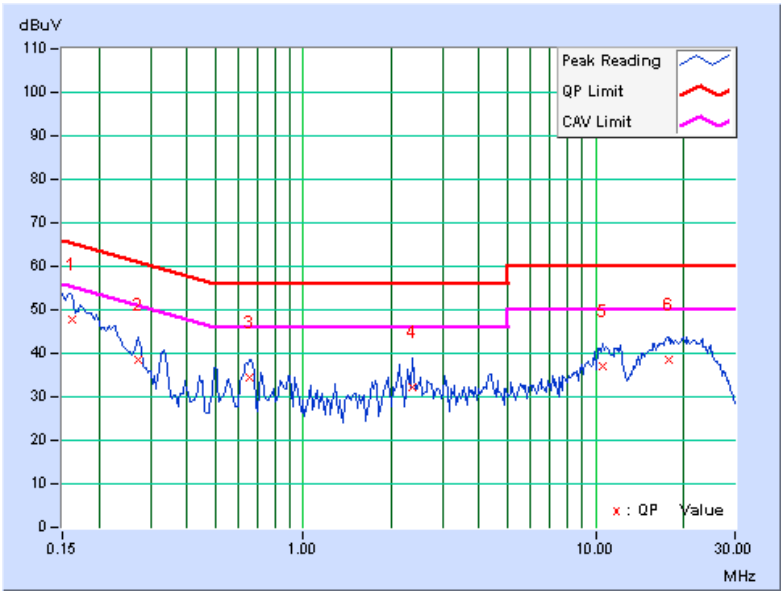
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 1	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.15	47.45	-	47.60	-	65.38	55.38	-17.78	-
2	0.271	0.16	38.53	-	38.69	-	61.08	51.08	-22.40	-
3	0.658	0.18	34.20	-	34.38	-	56.00	46.00	-21.62	-
4	2.363	0.24	31.82	-	32.06	-	56.00	46.00	-23.94	-
5	10.594	0.60	36.33	-	36.93	-	60.00	50.00	-23.07	-
6	17.891	1.03	37.42	-	38.45	-	60.00	50.00	-21.55	-

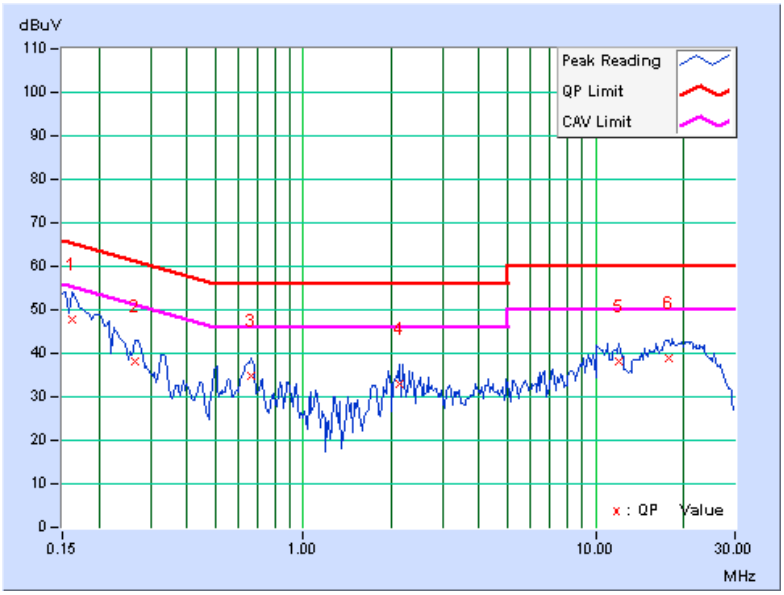
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz
TEST MODE	B		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.162	0.16	47.69	-	47.85	-	65.38	55.38	-17.53	-
2	0.267	0.18	37.96	-	38.14	-	61.20	51.20	-23.07	-
3	0.662	0.20	34.53	-	34.73	-	56.00	46.00	-21.27	-
4	2.141	0.24	32.58	-	32.82	-	56.00	46.00	-23.18	-
5	12.043	0.59	37.61	-	38.20	-	60.00	50.00	-21.80	-
6	17.719	0.83	38.00	-	38.83	-	60.00	50.00	-21.17	-

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



4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100040	Jul. 17, 2010	Jul. 16, 2011

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

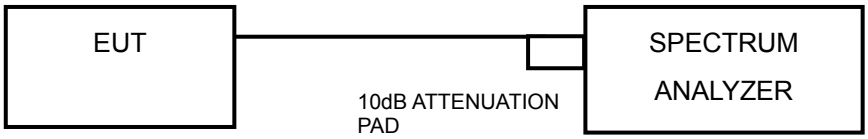
4.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation.

4.3.5 TEST SETUP



4.3.6 EUT OPERATING CONDITIONS

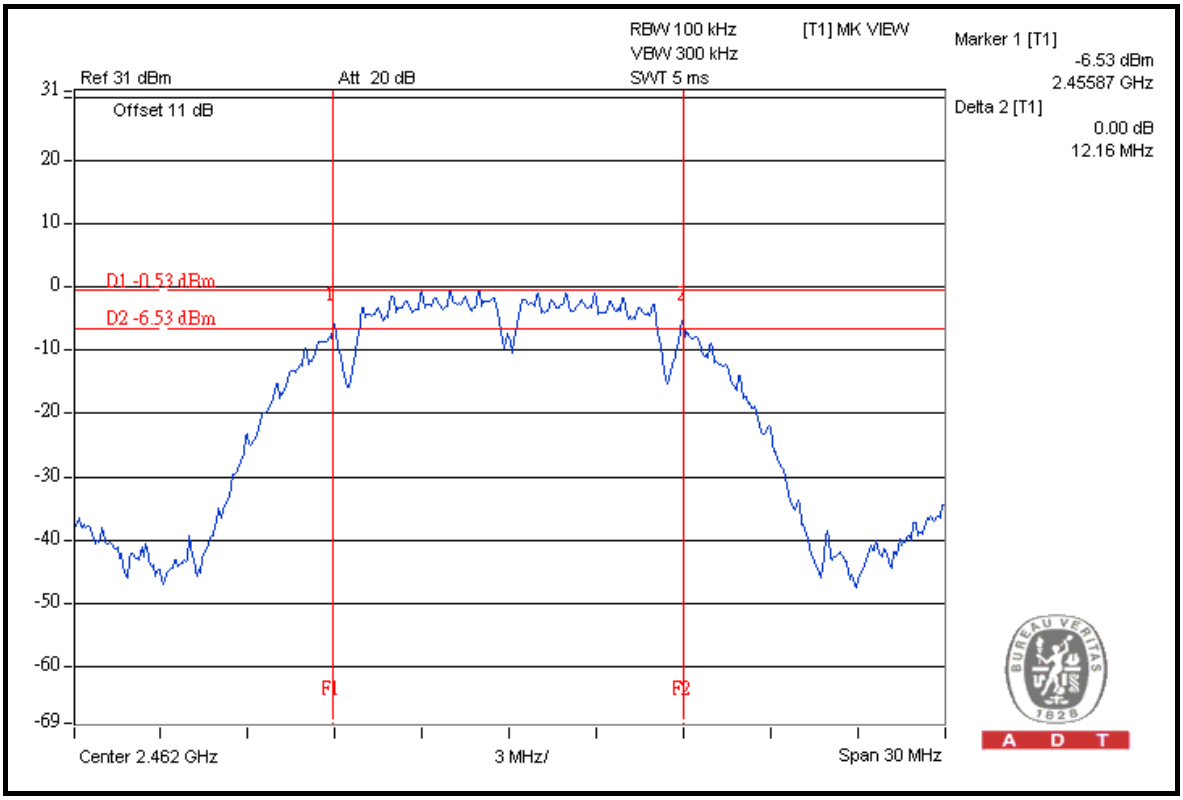
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	12.15	0.5	PASS
6	2437	12.16	0.5	PASS
11	2462	12.16	0.5	PASS

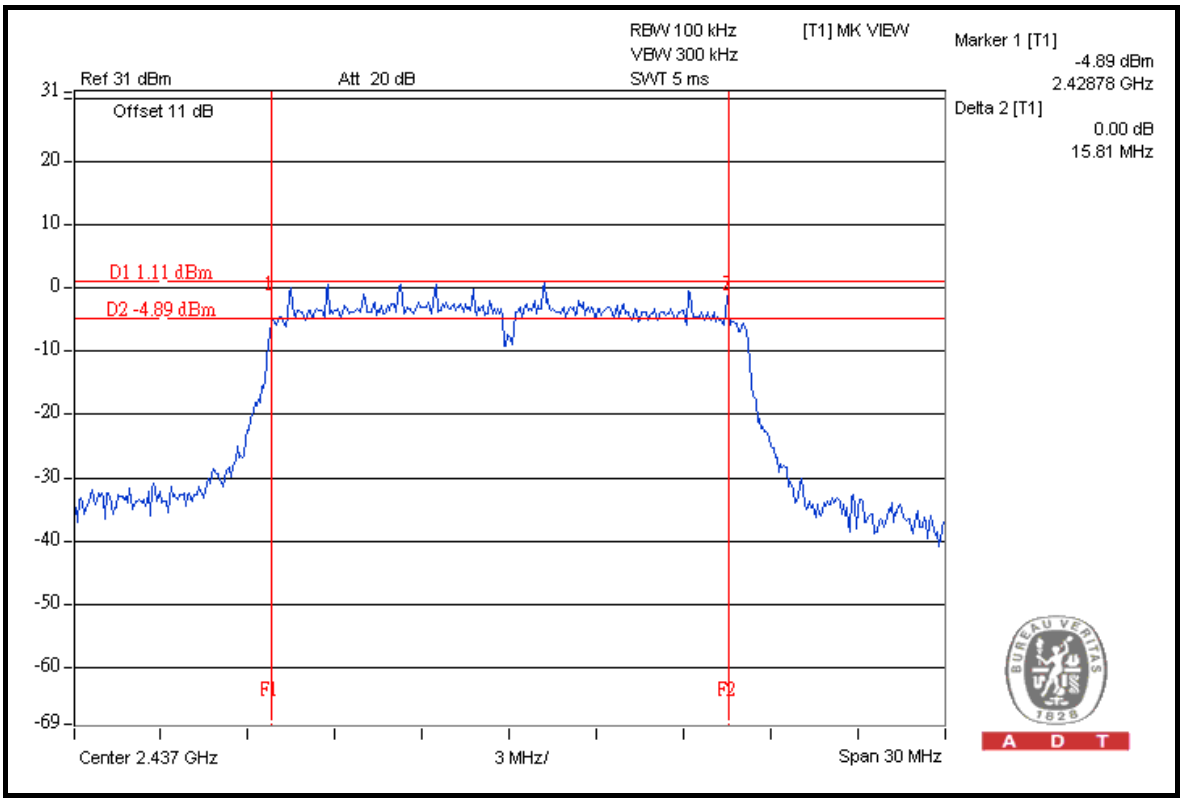
CH 11



802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	14.71	0.5	PASS
6	2437	15.81	0.5	PASS
11	2462	15.77	0.5	PASS

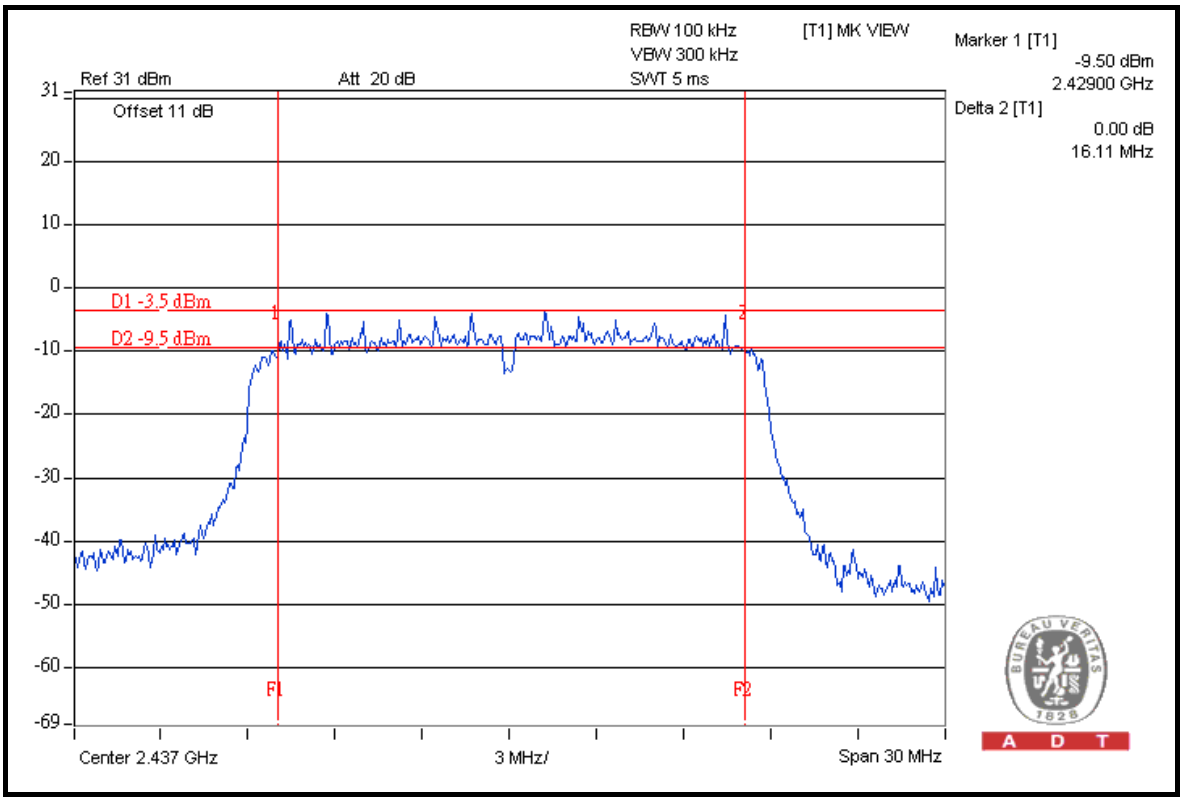
CH 6



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	15.48	16.04	0.5	PASS
6	2437	16.03	16.11	0.5	PASS
11	2462	15.78	15.88	0.5	PASS

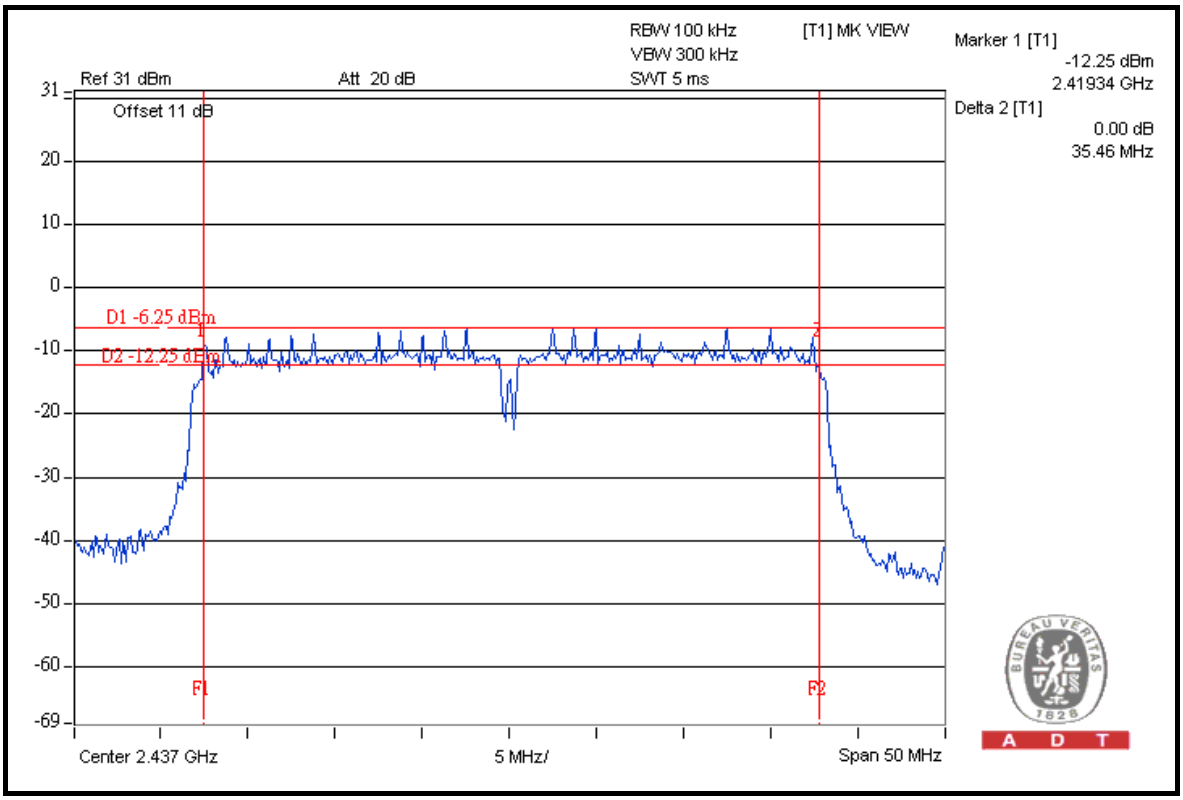
FOR CHAIN 1: CH 6



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2422	35.21	35.28	0.5	PASS
4	2437	35.28	35.46	0.5	PASS
7	2452	34.03	35.15	0.5	PASS

FOR CHAIN 1: CH 4



4.4 MAXIMUM OUTPUT POWER

4.4.1 LIMITS OF MAXIMUM OUTPUT POWER MEASUREMENT

The Maximum Output Power Measurement is 30dBm.

4.4.2 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
High Speed Peak Power Meter	ML2495A	0842014	Apr. 21, 2010	Apr. 20, 2011
Power Sensor	MA2411B	0738404	Apr. 21, 2010	Apr. 20, 2011

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. Measurement Bandwidth of ML2495A is 65MHz greater than 6dB bandwidth of emission.

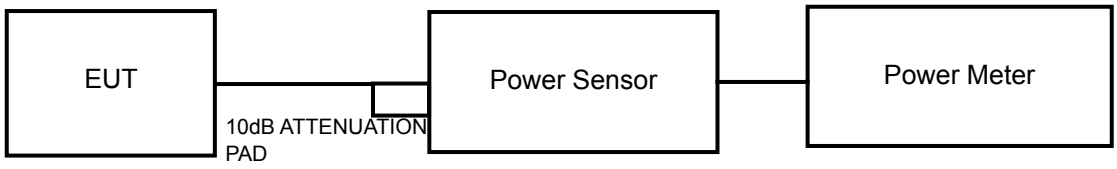
4.4.3 TEST PROCEDURES

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

4.4.4 DEVIATION FROM TEST STANDARD

No deviation.

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	12.0	10.8	30	PASS
6	2437	14.1	11.5	30	PASS
11	2462	25.1	14.0	30	PASS

802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	2412	53.7	17.3	30	PASS
6	2437	87.1	19.4	30	PASS
11	2462	120.2	20.8	30	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	17.8	17.9	**121.9**	20.9	30	PASS
6	2437	16.5	16.4	88.3	19.5	30	PASS
11	2462	16.6	16.9	94.7	19.8	30	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2422	16.7	16.9	95.8	19.8	30	PASS
4	2437	16.7	16.5	91.4	19.6	30	PASS
7	2452	16.7	16.7	93.5	19.7	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 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100040	Jul. 17, 2010	Jul. 16, 2011

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

4.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3kHz RBW and 30kHz VBW, set sweep time = span/3kHz. The power spectral density was measured and recorded.

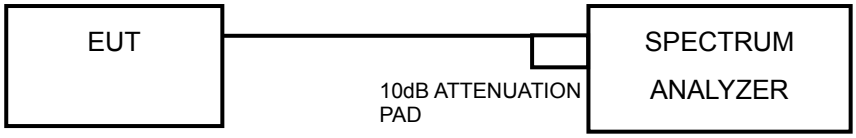
The sweep time is allowed to be longer than span/3kHz for a full response of the mixer in the spectrum analyzer.

Follow method 2 of KDB 662911 D01 Multiple Transmitter Output v01 to calculate total power density of 2 TX port.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation.

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITION

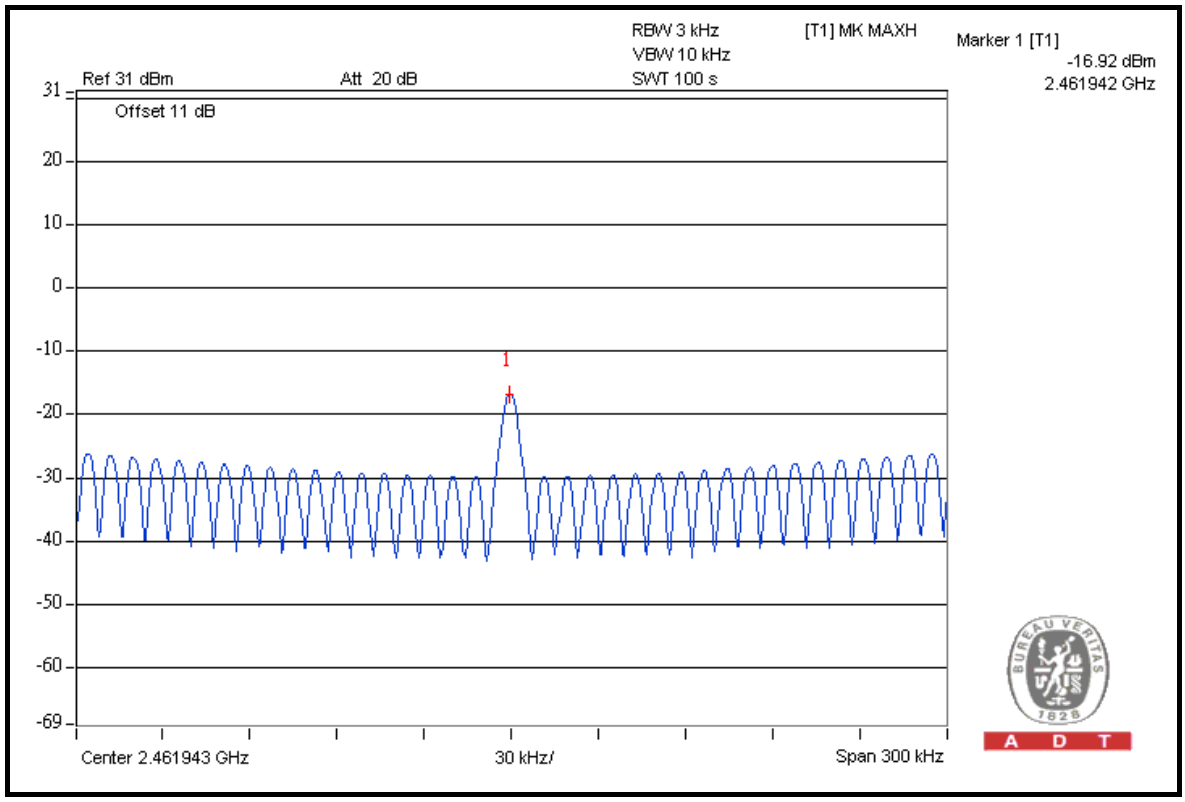
Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-20.2	8	PASS
6	2437	-20.5	8	PASS
11	2462	-16.9	8	PASS

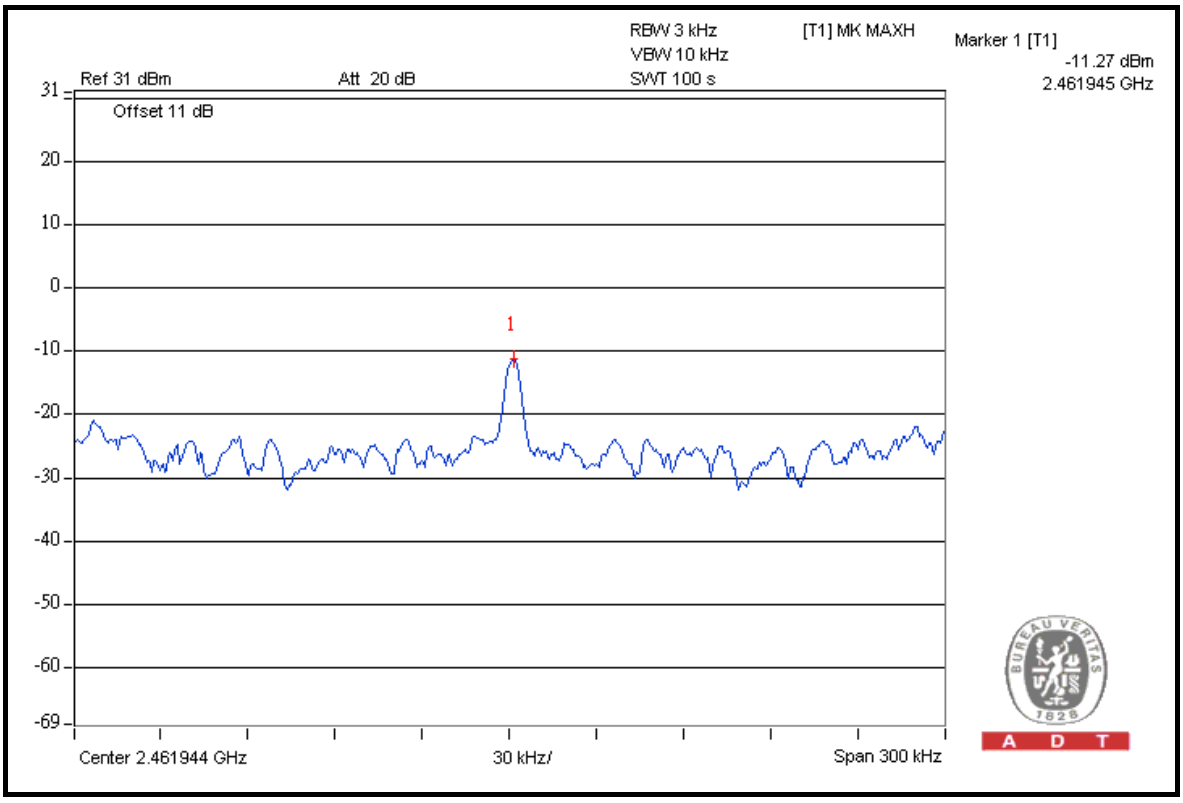
CH 11



802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	RF POWER LEVEL IN 3 kHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
1	2412	-13.4	8	PASS
6	2437	-11.4	8	PASS
11	2462	-11.3	8	PASS

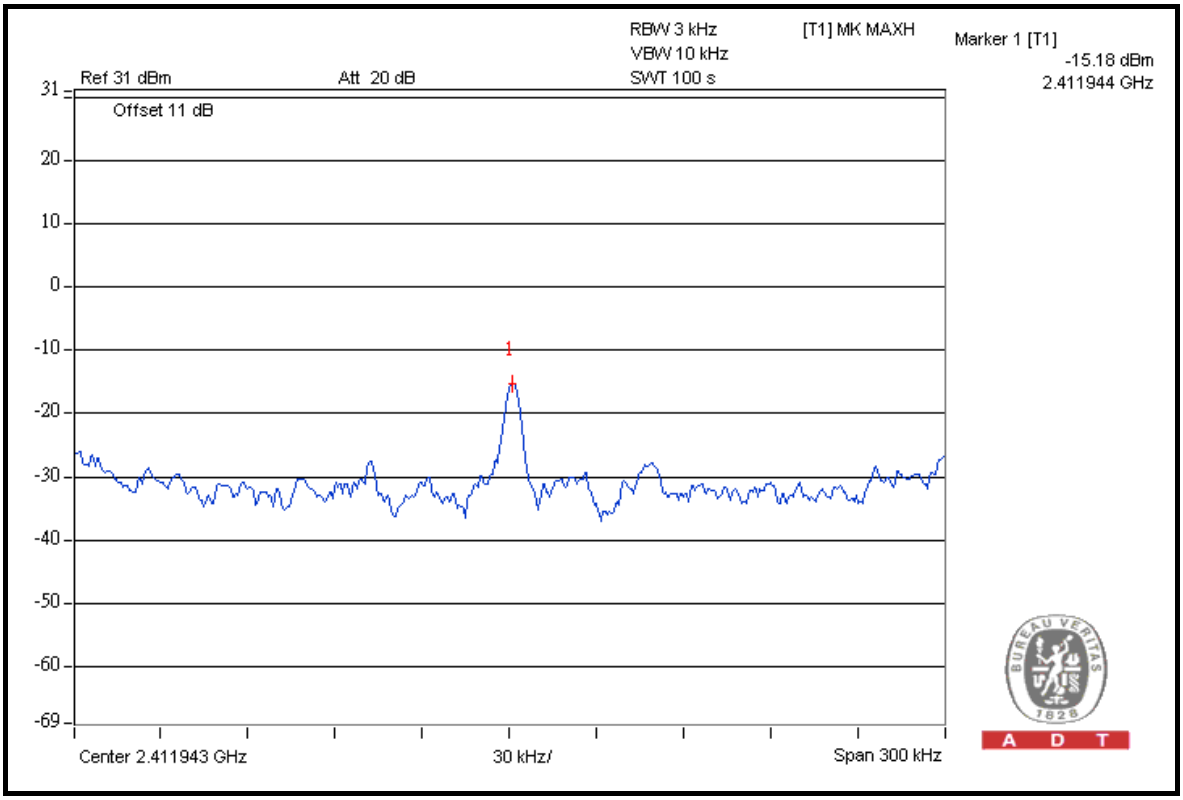
CH 11



802.11n (20MHz)

CHAIN	CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
			MEASURED	10 log (N=2) dB			
0	1	2412	-15.2	3.01	-12.2	8	PASS
	6	2437	-16.6	3.01	-13.6	8	PASS
	11	2462	-16.6	3.01	-13.6	8	PASS
1	1	2412	-16.3	3.01	-13.3	8	PASS
	6	2437	-17.7	3.01	-14.7	8	PASS
	11	2462	-17.5	3.01	-14.5	8	PASS

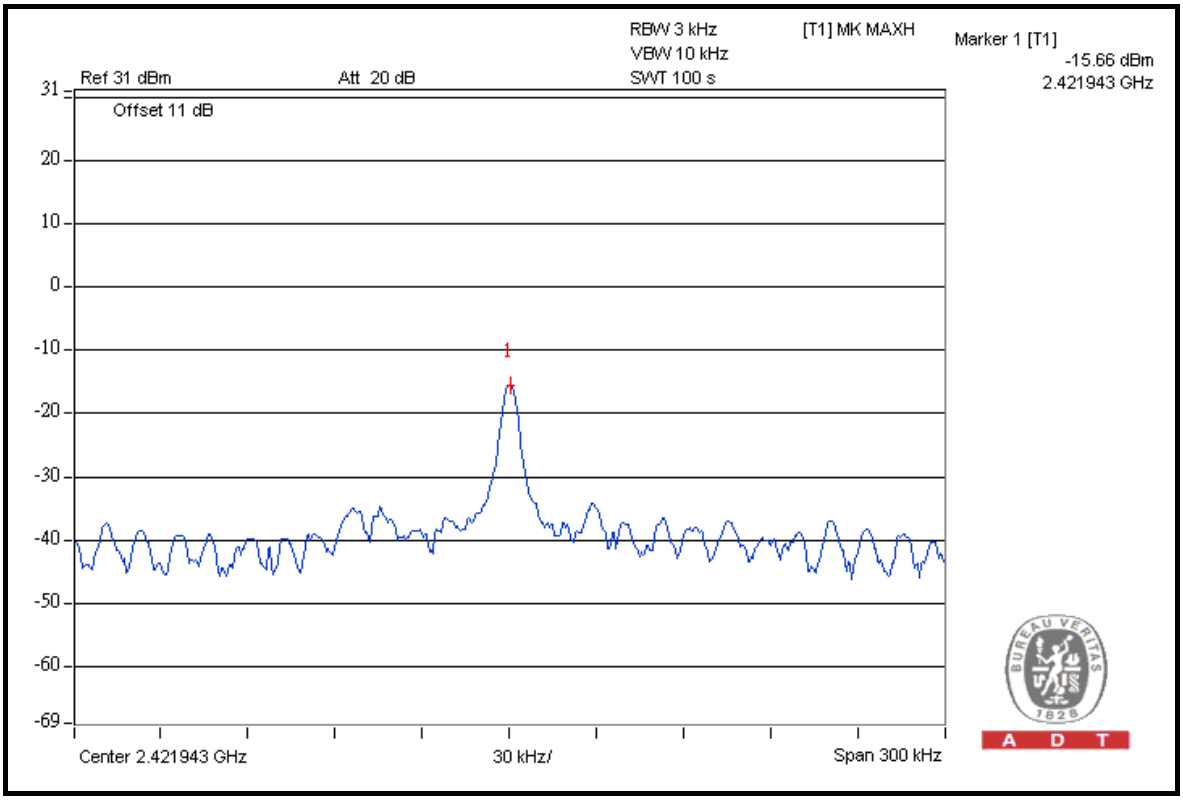
FOR CHAIN 0: CH 1



802.11n (40MHz)

CHAIN	CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 3kHz BW (dBm)		TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
			MEASURED	10 log (N=2) dB			
0	1	2422	-15.7	3.01	-12.7	8	PASS
	4	2437	-15.9	3.01	-12.9	8	PASS
	7	2452	-16.9	3.01	-13.9	8	PASS
1	1	2422	-17.1	3.01	-14.1	8	PASS
	4	2437	-17.4	3.01	-14.4	8	PASS
	7	2452	-18.3	3.01	-15.3	8	PASS

FOR CHAIN 0: CH 1



4.6 BAND EDGES MEASUREMENT

4.6.1 LIMITS OF BAND EDGES MEASUREMENT

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

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
FOR CONDUCTED MEASUREMENT				
SPECTRUM ANALYZER R&S	FSP40	100040	Jul. 17, 2010	Jul. 16, 2011
FOR RADIATED MEASUREMENT				
Test Receiver ROHDE & SCHWARZ	ESI7	838496/016	Dec. 27, 2010	Dec. 26, 2011
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Aug. 02, 2010	Aug. 01, 2011
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Apr. 28, 2010	Apr. 27, 2011
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-408	Jan. 06, 2011	Jan. 05, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8449B	3008A01961	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8447D	2944A10738	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	274041/4	Aug. 21, 2010	Aug. 20, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	283397/4	Aug. 21, 2010	Aug. 20, 2011
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table ADT.	TT100.	TT93021704	NA	NA
Turn Table Controller ADT.	SC100.	SC93021704	NA	NA

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

4.6.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100kHz with suitable frequency span including 300kMHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW =100kHz, VBW = 300kHz; Average RBW = 1MHz, VBW = 10Hz) are attached on the following pages.

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

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

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

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

e. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

The spectrum plots (Peak RBW = 100kHz, VBW = 300kHz) are attached on the following pages.

NOTE: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz for Average detection (AV) at frequency above 1GHz.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation.

4.6.5 EUT OPERATING CONDITION

Same as Item 4.3.6.

4.6.6 TEST RESULTS

The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

802.11b

RESTRICT BAND (2310 ~ 2390 MHz)

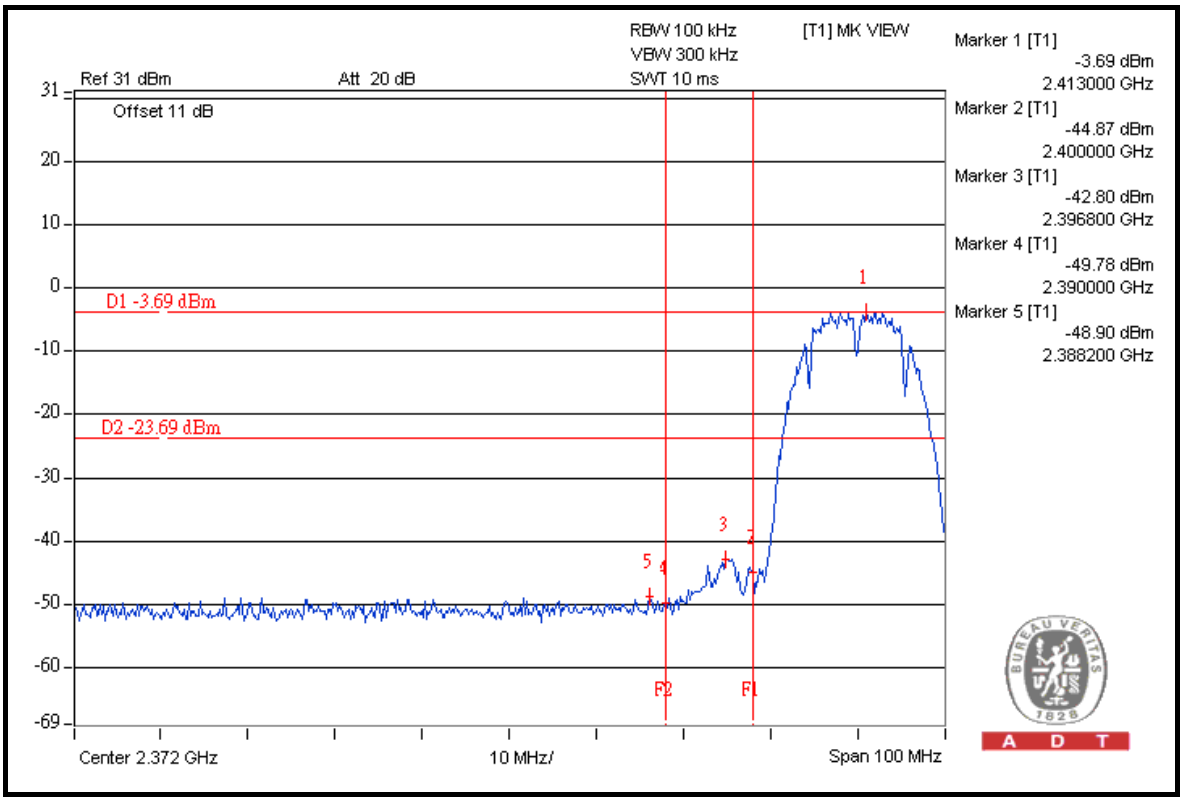
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	93.3	45.21	48.09	74.00
2412.00 (AV)	89.4	54.43	34.97	54.00

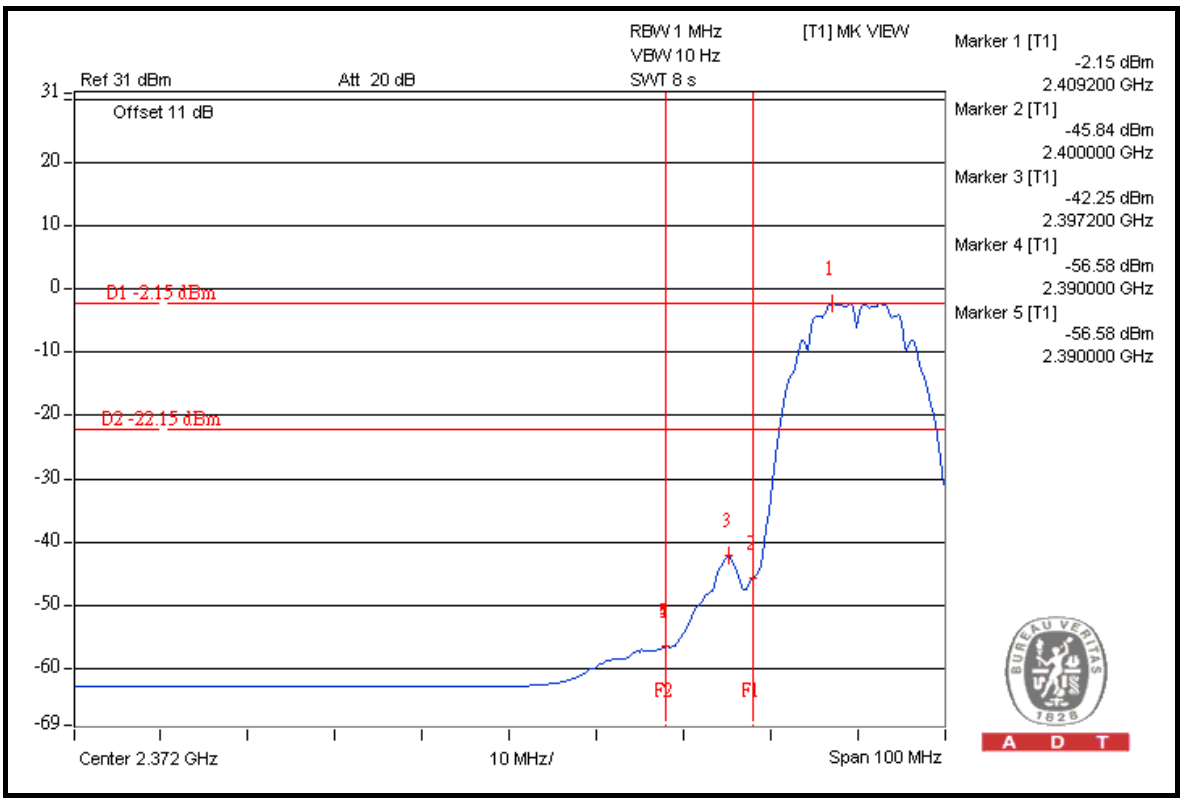
RESTRICT BAND (2483.5 ~ 2500 MHz)

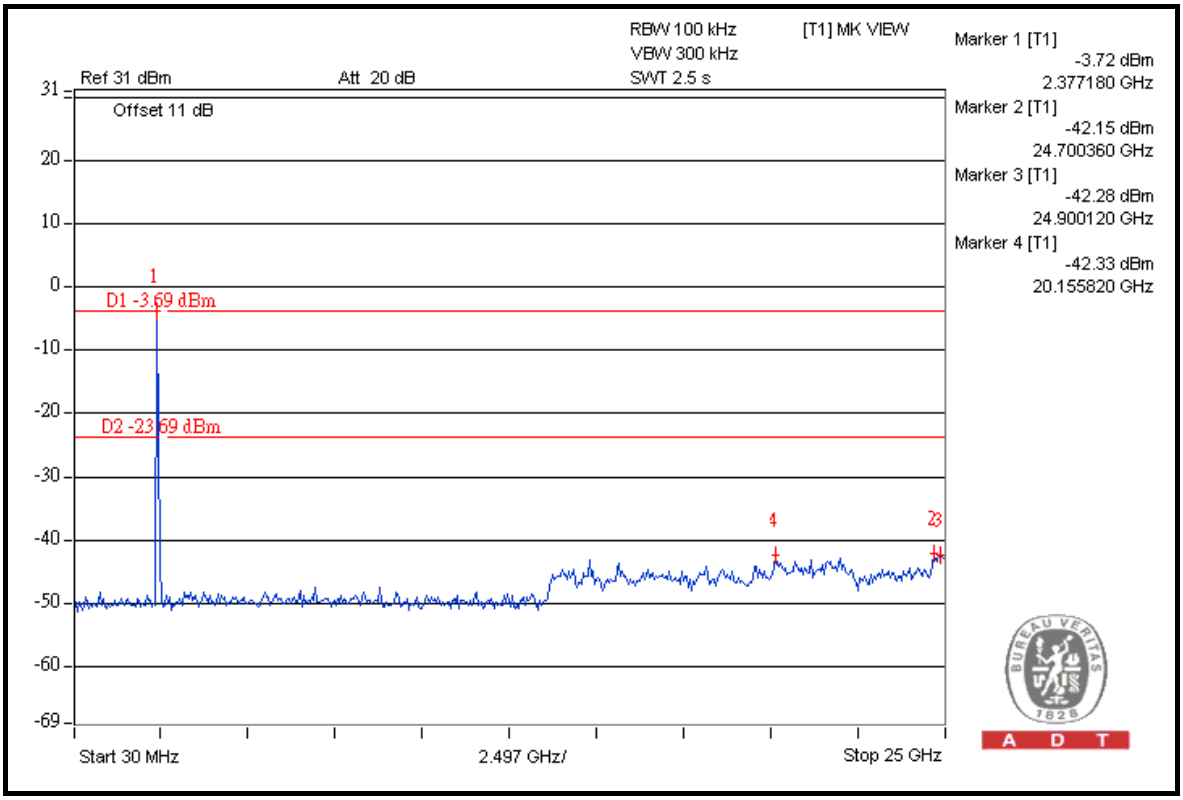
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	95.9	47.58	48.32	74.00
2462.00 (AV)	92.1	56.04	36.06	54.00

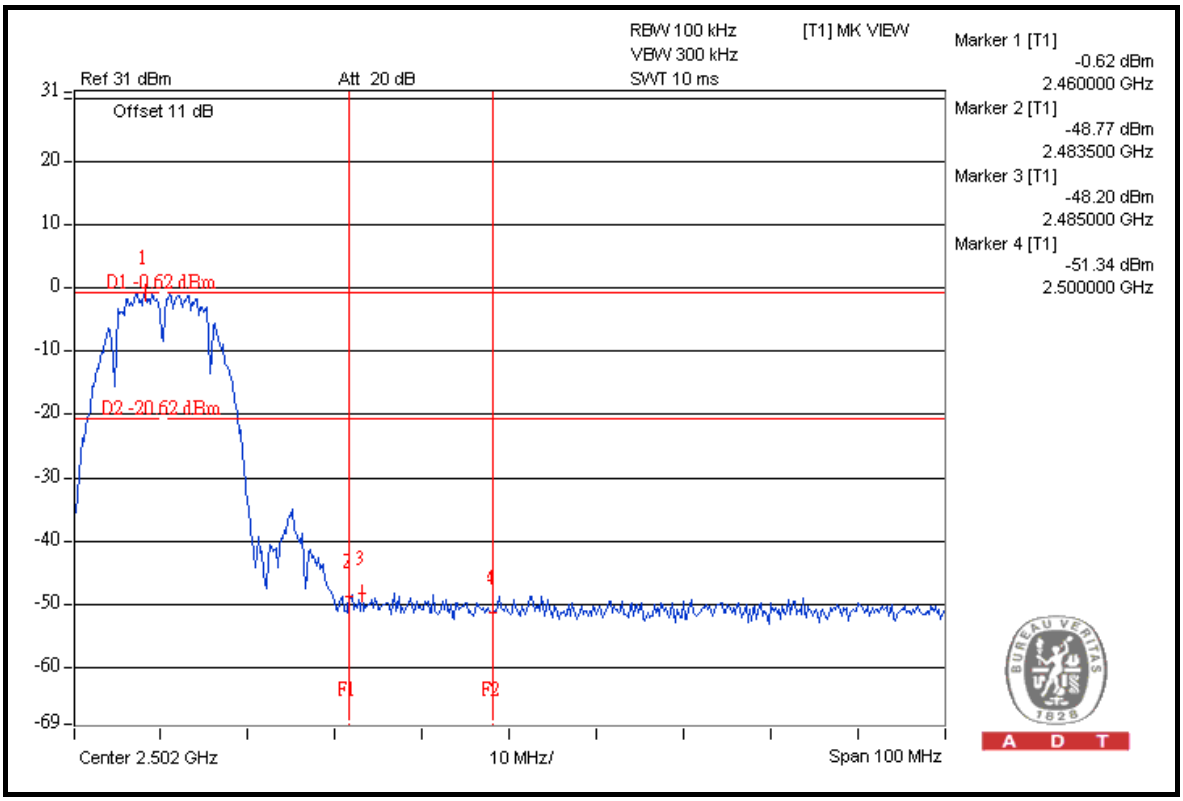
NOTE:

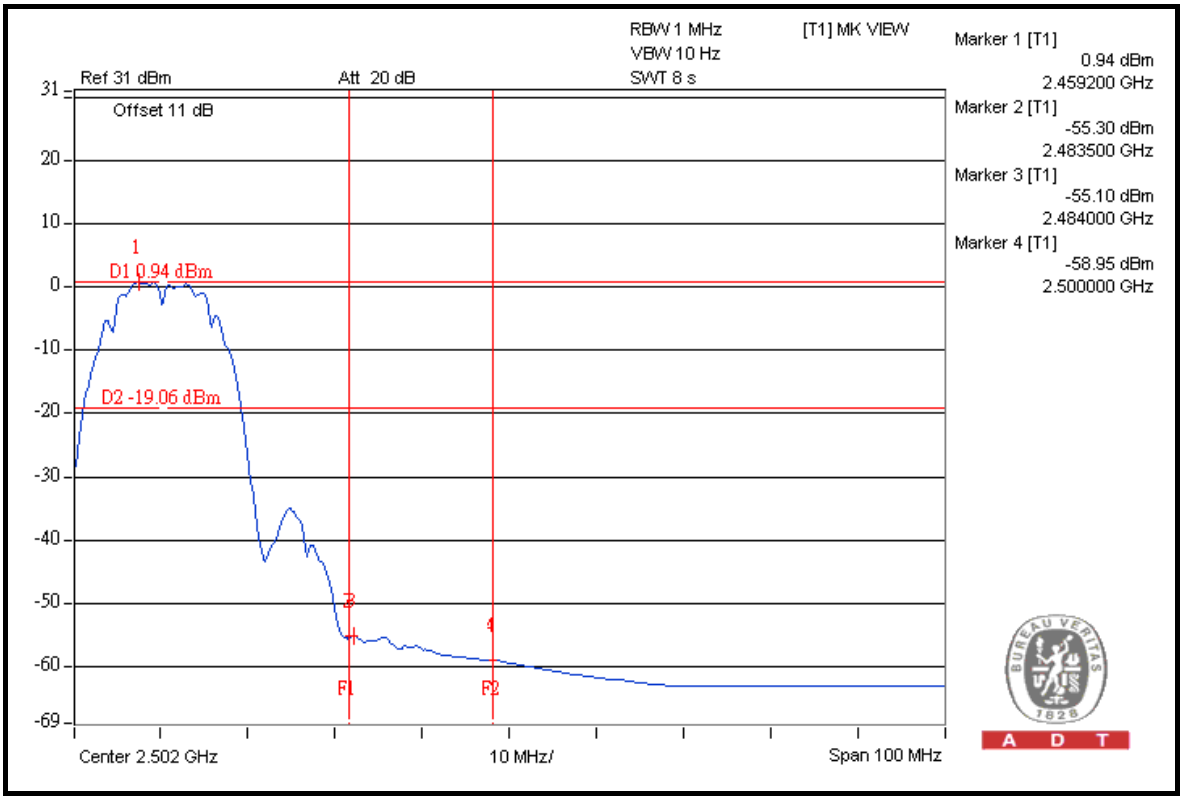
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

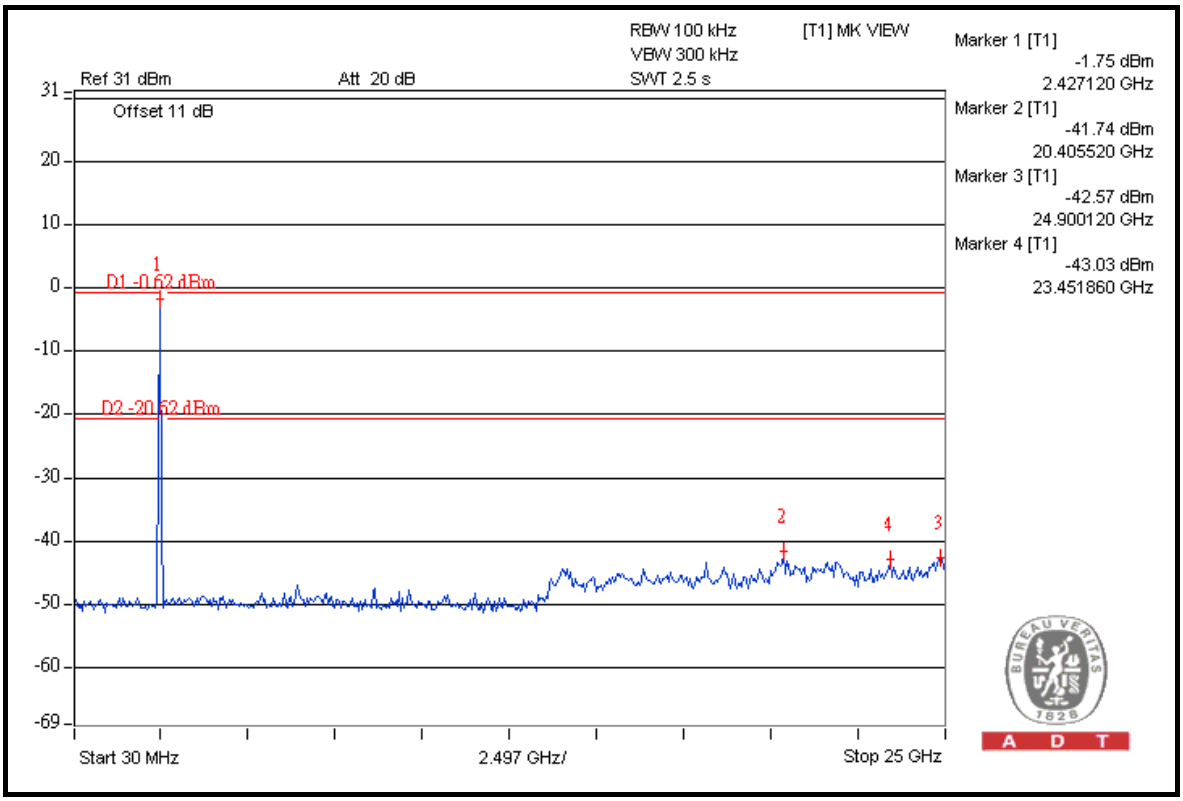

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.69 dBm
D2 -23.69 dBm
Marker 1 [T1]
-3.69 dBm
2.413000 GHz
Marker 2 [T1]
-44.87 dBm
2.400000 GHz
Marker 3 [T1]
-42.80 dBm
2.396800 GHz
Marker 4 [T1]
-49.78 dBm
2.390000 GHz
Marker 5 [T1]
-48.90 dBm
2.388200 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.15 dBm
D2 -22.15 dBm
Marker 1 [T1]
-2.15 dBm
2.409200 GHz
Marker 2 [T1]
-45.84 dBm
2.400000 GHz
Marker 3 [T1]
-42.25 dBm
2.397200 GHz
Marker 4 [T1]
-56.58 dBm
2.390000 GHz
Marker 5 [T1]
-56.58 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.69 dBm
D2 -23.69 dBm
Marker 1 [T1]
-3.72 dBm
2.377180 GHz
Marker 2 [T1]
-42.15 dBm
24.700360 GHz
Marker 3 [T1]
-42.28 dBm
24.900120 GHz
Marker 4 [T1]
-42.33 dBm
20.155820 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -0.62 dBm
D2 -20.62 dBm
F1
F2
Marker 1 [T1]
-0.62 dBm
2.460000 GHz
Marker 2 [T1]
-48.77 dBm
2.483500 GHz
Marker 3 [T1]
-48.20 dBm
2.485000 GHz
Marker 4 [T1]
-51.34 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 0.94 dBm
D2 -19.06 dBm
Marker 1 [T1]
0.94 dBm
2.459200 GHz
Marker 2 [T1]
-55.30 dBm
2.483500 GHz
Marker 3 [T1]
-55.10 dBm
2.484000 GHz
Marker 4 [T1]
-58.95 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -0.62 dBm
D2 -20.62 dBm
Marker 1 [T1]
-1.75 dBm
2.427120 GHz
Marker 2 [T1]
-41.74 dBm
20.405520 GHz
Marker 3 [T1]
-42.57 dBm
24.900120 GHz
Marker 4 [T1]
-43.03 dBm
23.451860 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11g

RESTRICT BAND (2310 ~ 2390 MHz)

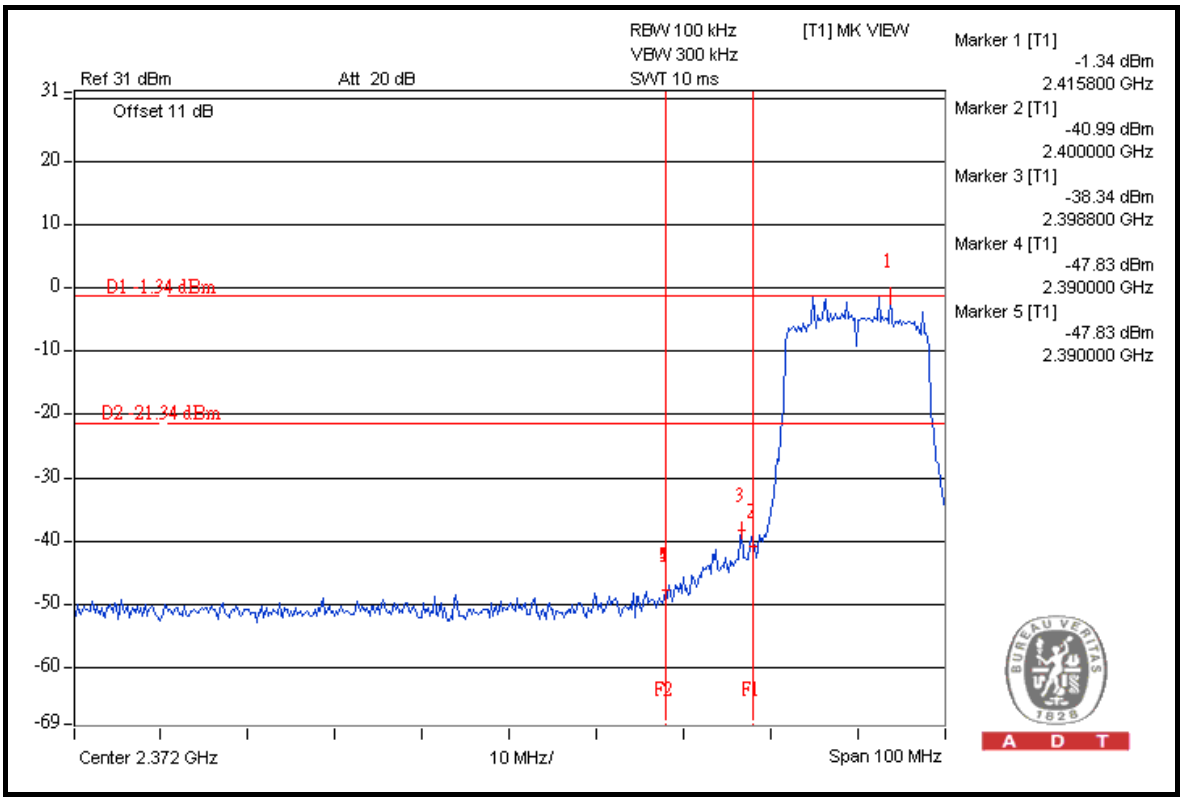
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	100.7	46.49	54.21	74.00
2412.00 (AV)	89.6	49.51	40.09	54.00

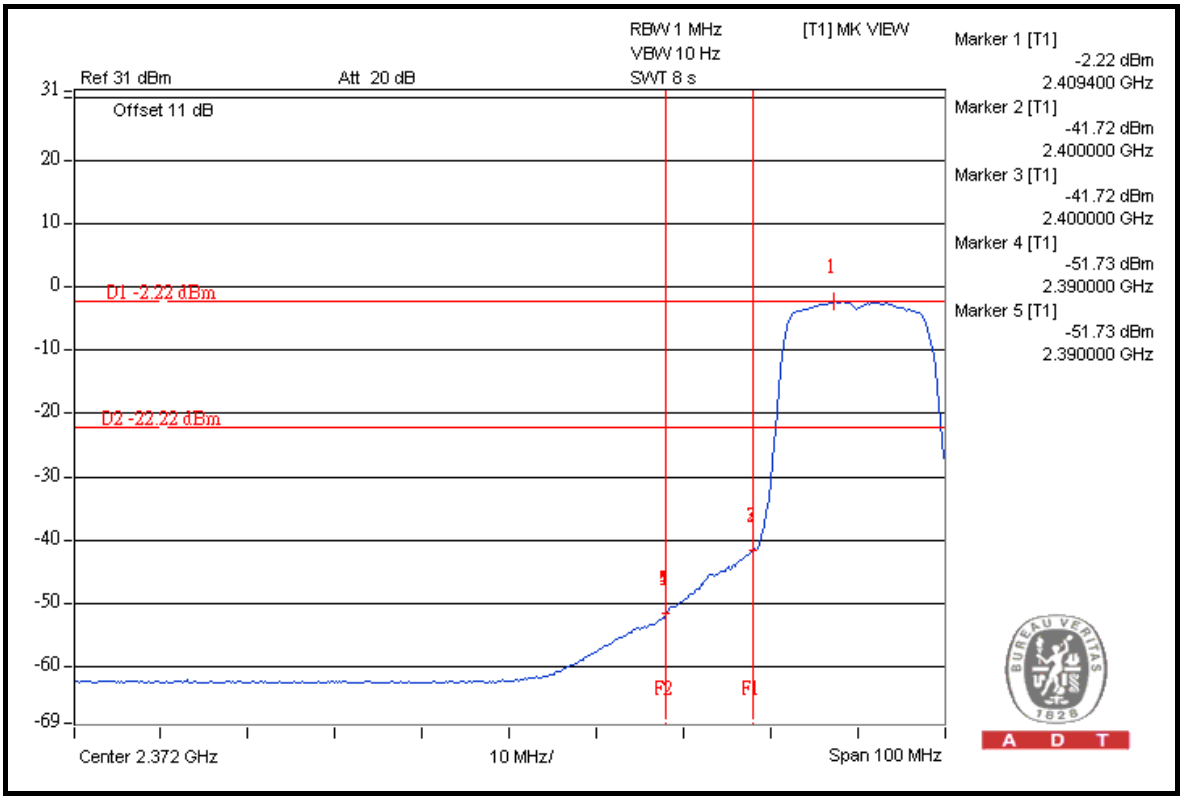
RESTRICT BAND (2483.5 ~ 2500 MHz)

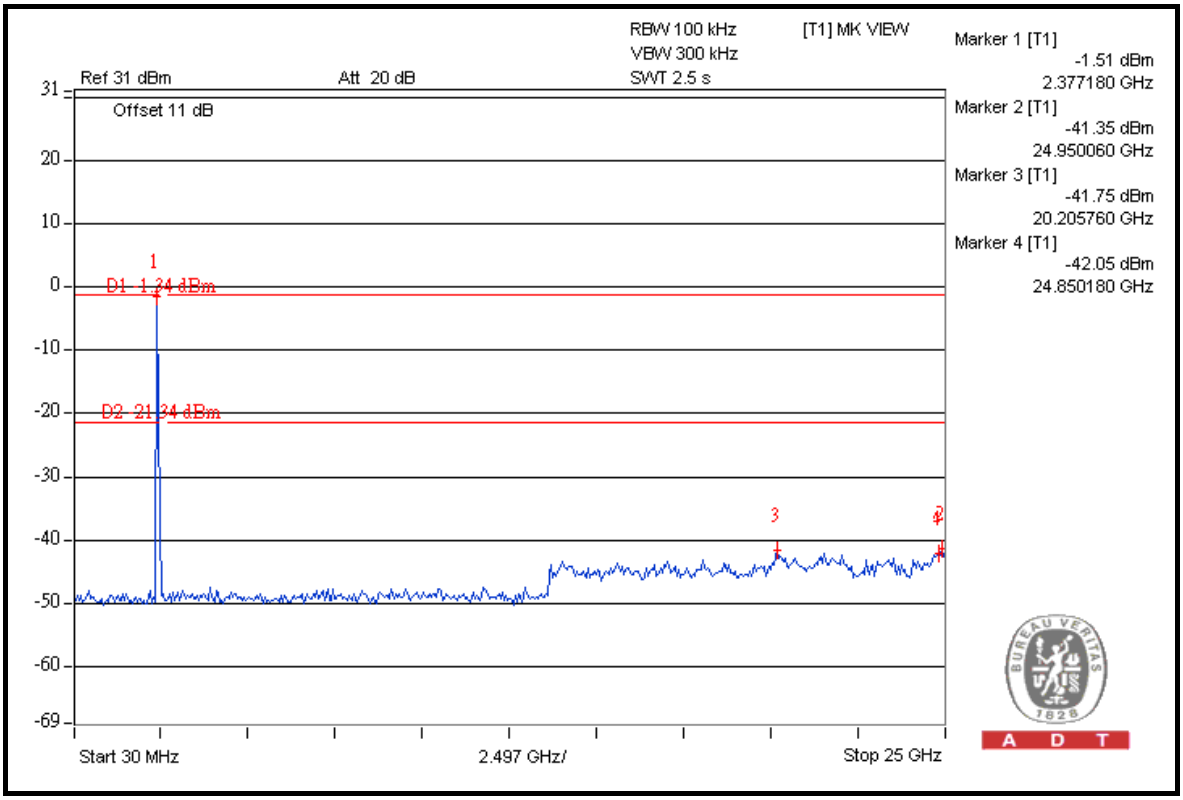
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	103.0	45.54	57.46	74.00
2462.00 (AV)	92.7	46.57	46.13	54.00

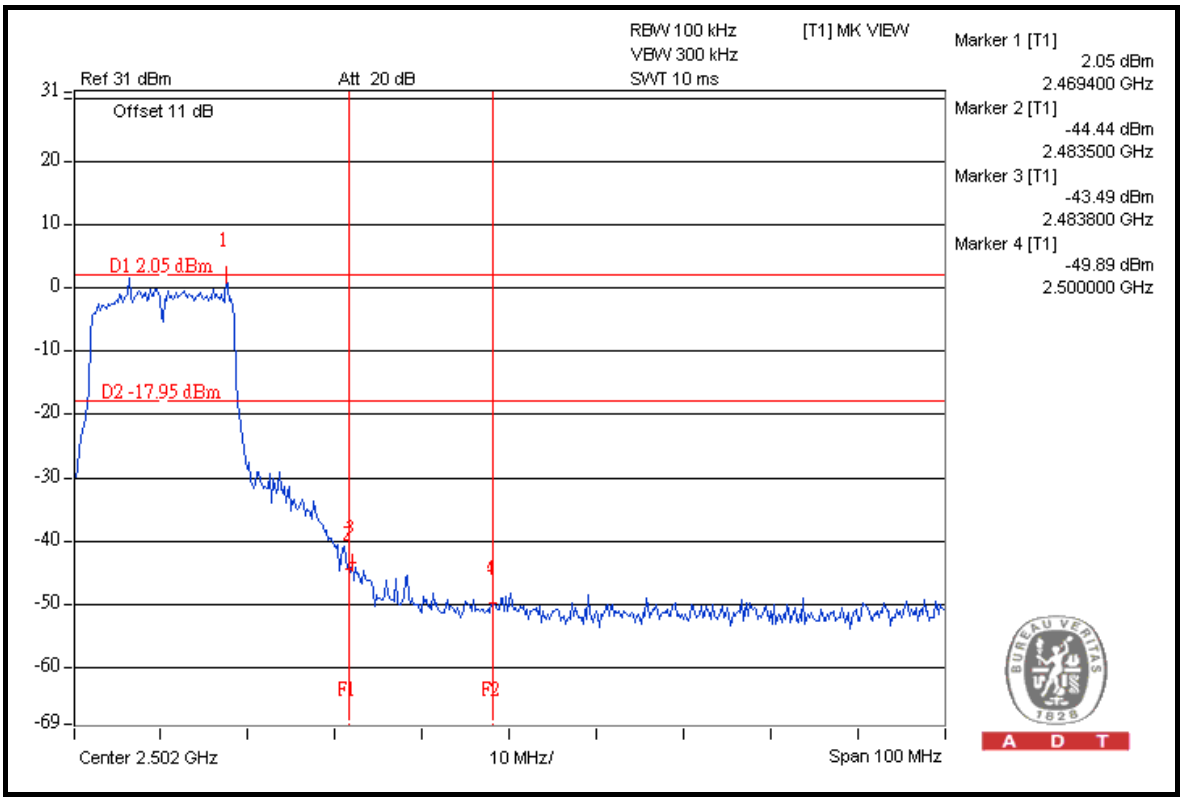
NOTE:

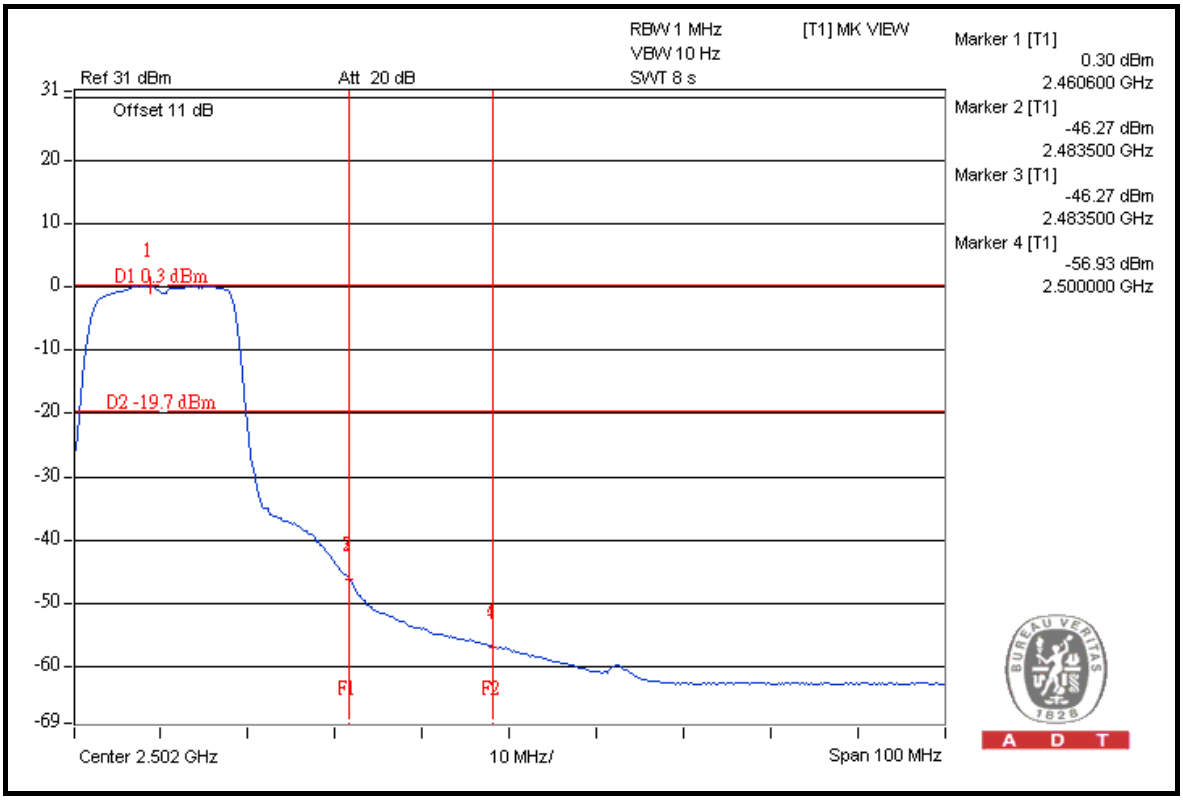
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

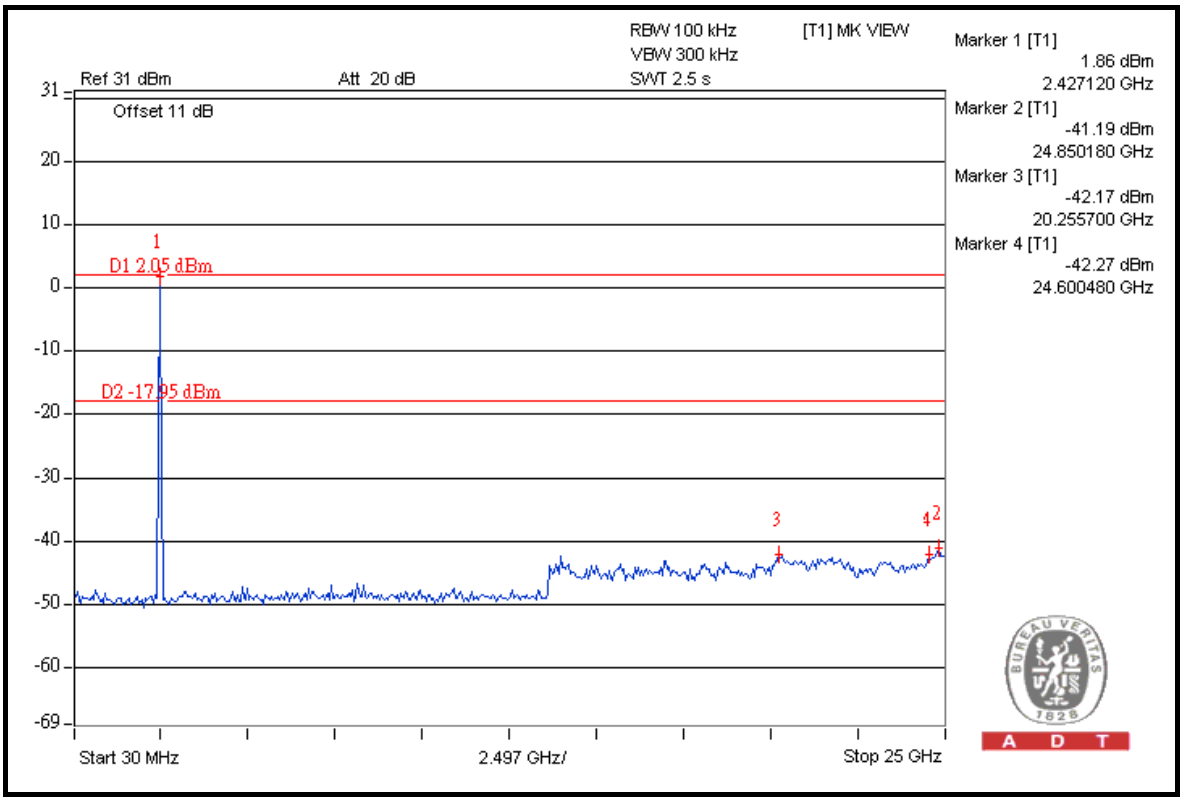

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -1.34 dBm
D2 -21.34 dBm
Marker 1 [T1]
-1.34 dBm
2.415800 GHz
Marker 2 [T1]
-40.99 dBm
2.400000 GHz
Marker 3 [T1]
-38.34 dBm
2.398800 GHz
Marker 4 [T1]
-47.83 dBm
2.390000 GHz
Marker 5 [T1]
-47.83 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.22 dBm
D2 -22.22 dBm
Marker 1 [T1]
-2.22 dBm
2.409400 GHz
Marker 2 [T1]
-41.72 dBm
2.400000 GHz
Marker 3 [T1]
-41.72 dBm
2.400000 GHz
Marker 4 [T1]
-51.73 dBm
2.390000 GHz
Marker 5 [T1]
-51.73 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 1.24 dBm
D2 -21.34 dBm
Marker 1 [T1]
-1.51 dBm
2.377180 GHz
Marker 2 [T1]
-41.35 dBm
24.950060 GHz
Marker 3 [T1]
-41.75 dBm
20.205760 GHz
Marker 4 [T1]
-42.05 dBm
24.850180 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.05 dBm
D2 -17.95 dBm
Marker 1 [T1]
2.05 dBm
2.469400 GHz
Marker 2 [T1]
-44.44 dBm
2.483500 GHz
Marker 3 [T1]
-43.49 dBm
2.483800 GHz
Marker 4 [T1]
-49.89 dBm
2.500000 GHz
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 0.3 dBm
D2 -19.7 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
0.30 dBm
2.460600 GHz
Marker 2 [T1]
-46.27 dBm
2.483500 GHz
Marker 3 [T1]
-46.27 dBm
2.483500 GHz
Marker 4 [T1]
-56.93 dBm
2.500000 GHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.05 dBm
D2 -17.95 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
1.86 dBm
2.427120 GHz
Marker 2 [T1]
-41.19 dBm
24.850180 GHz
Marker 3 [T1]
-42.17 dBm
20.255700 GHz
Marker 4 [T1]
-42.27 dBm
24.600480 GHz

802.11n (20MHz)

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	105.6	40.82	64.78	74.00
2412.00 (AV)	92.3	46.46	45.84	54.00

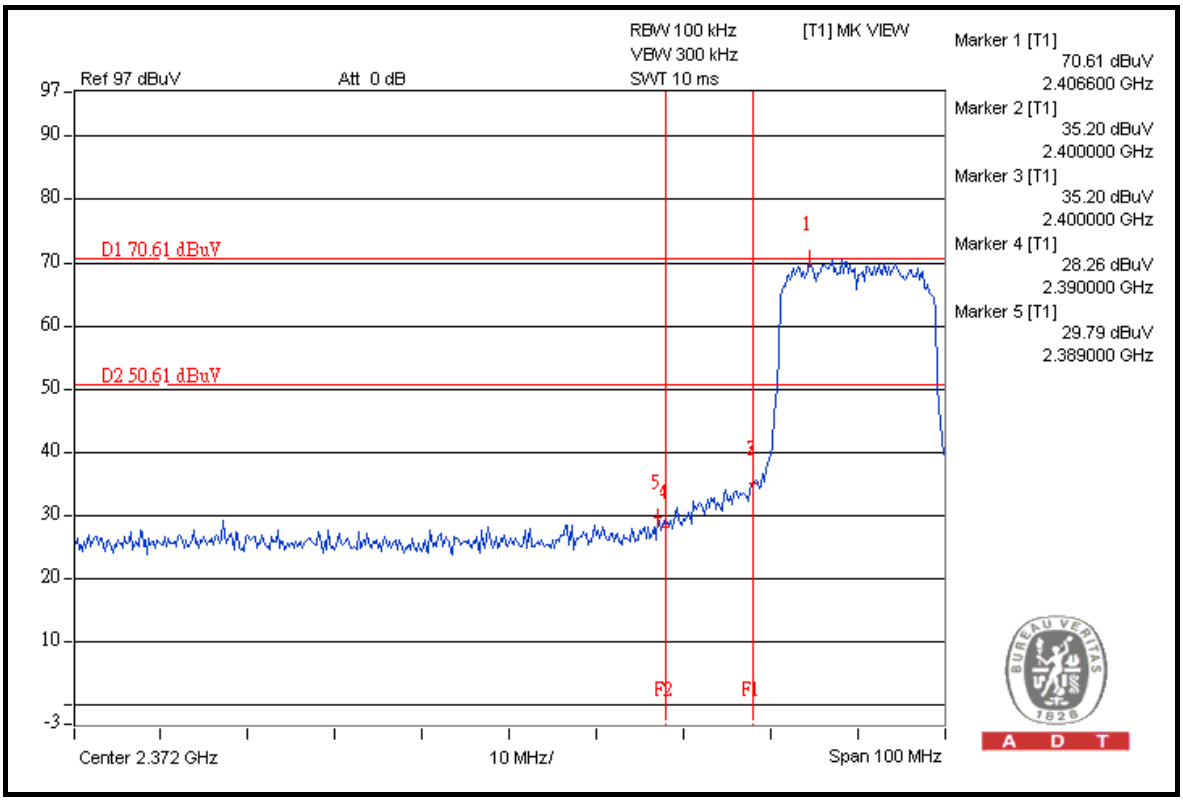
RESTRICT BAND (2483.5 ~ 2500 MHz)

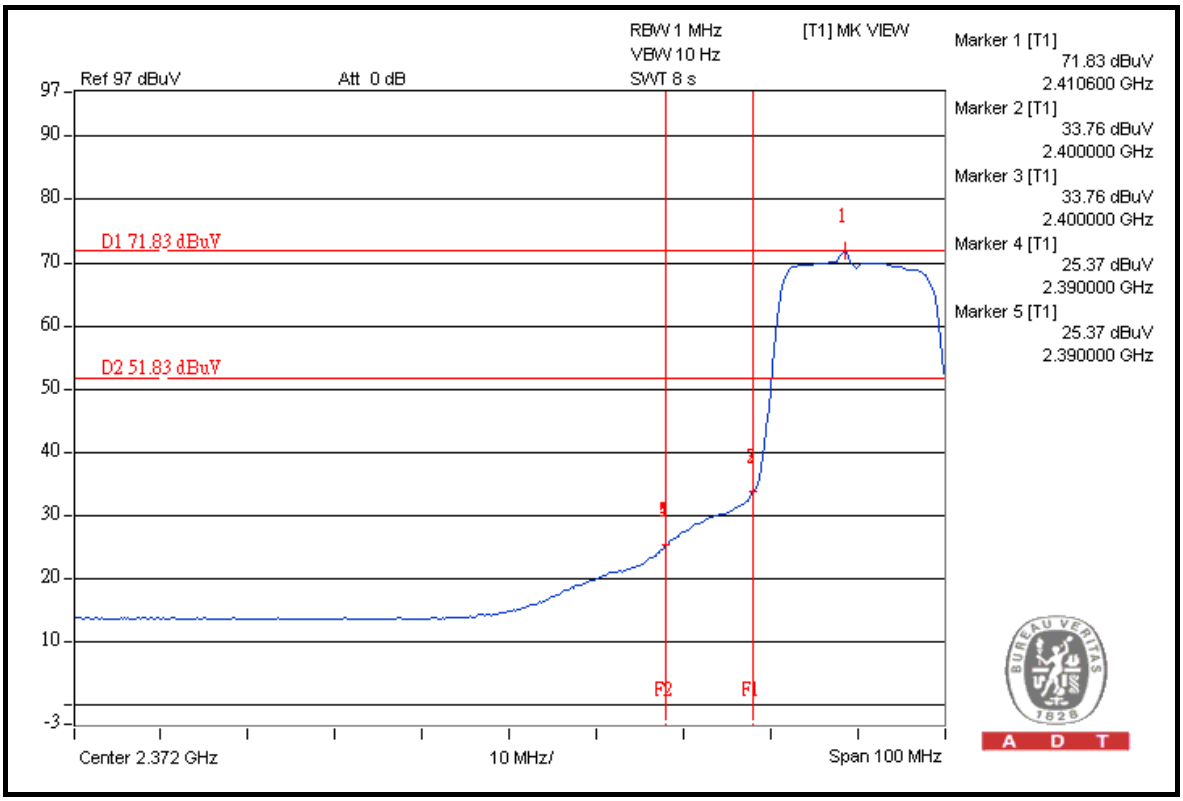
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	103.4	41.04	62.36	74.00
2462.00 (AV)	90.9	48.86	42.04	54.00

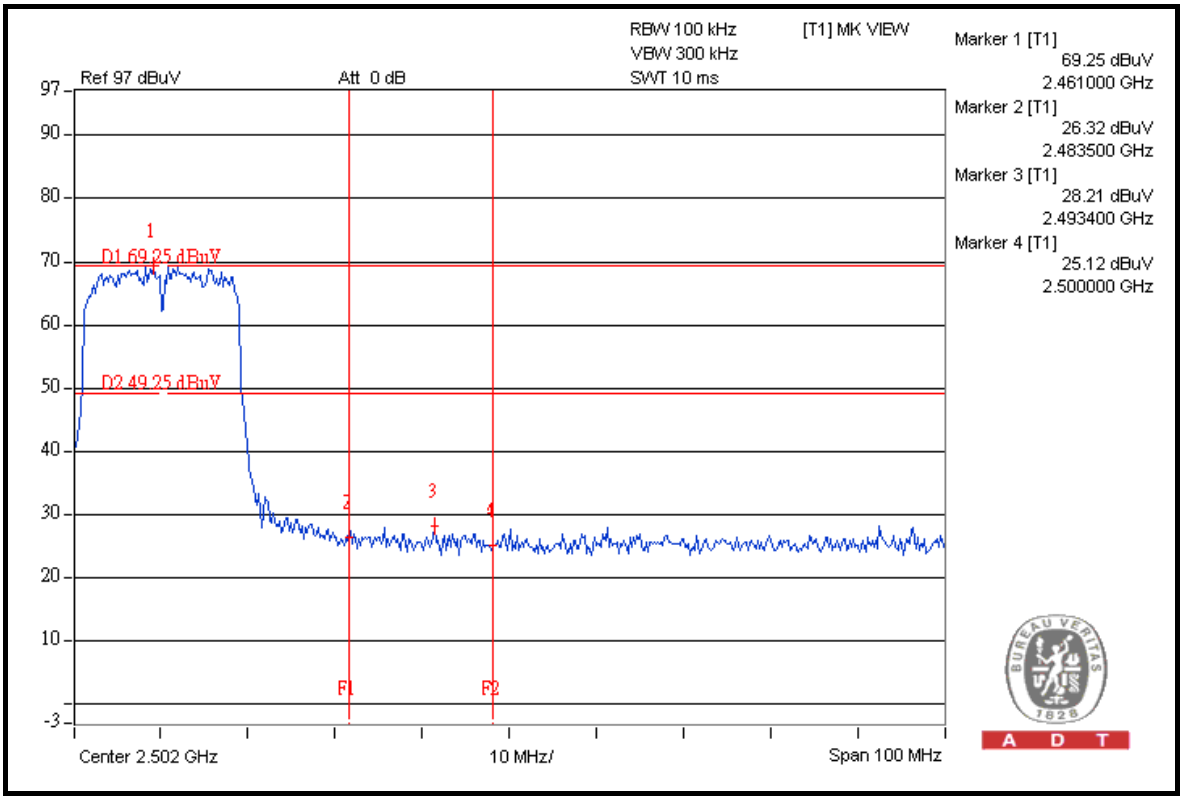
NOTE:

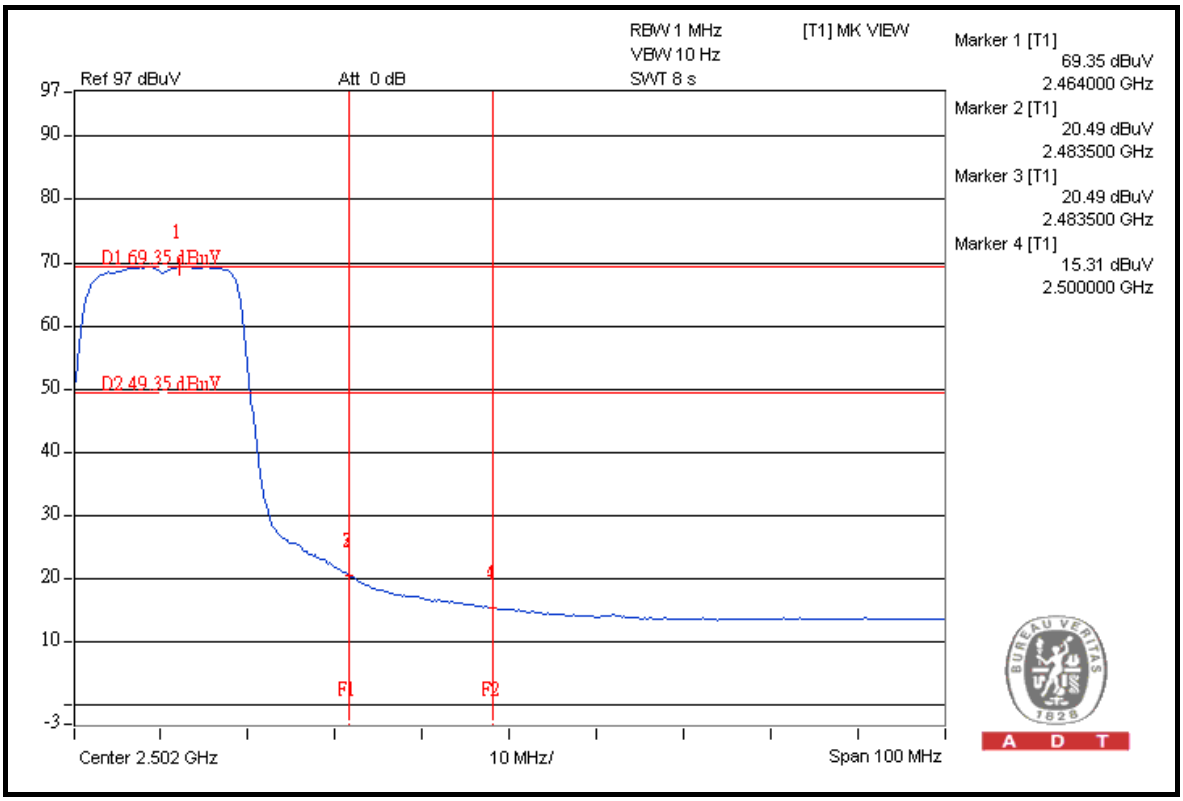
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

FOR RADIATED MEASURED



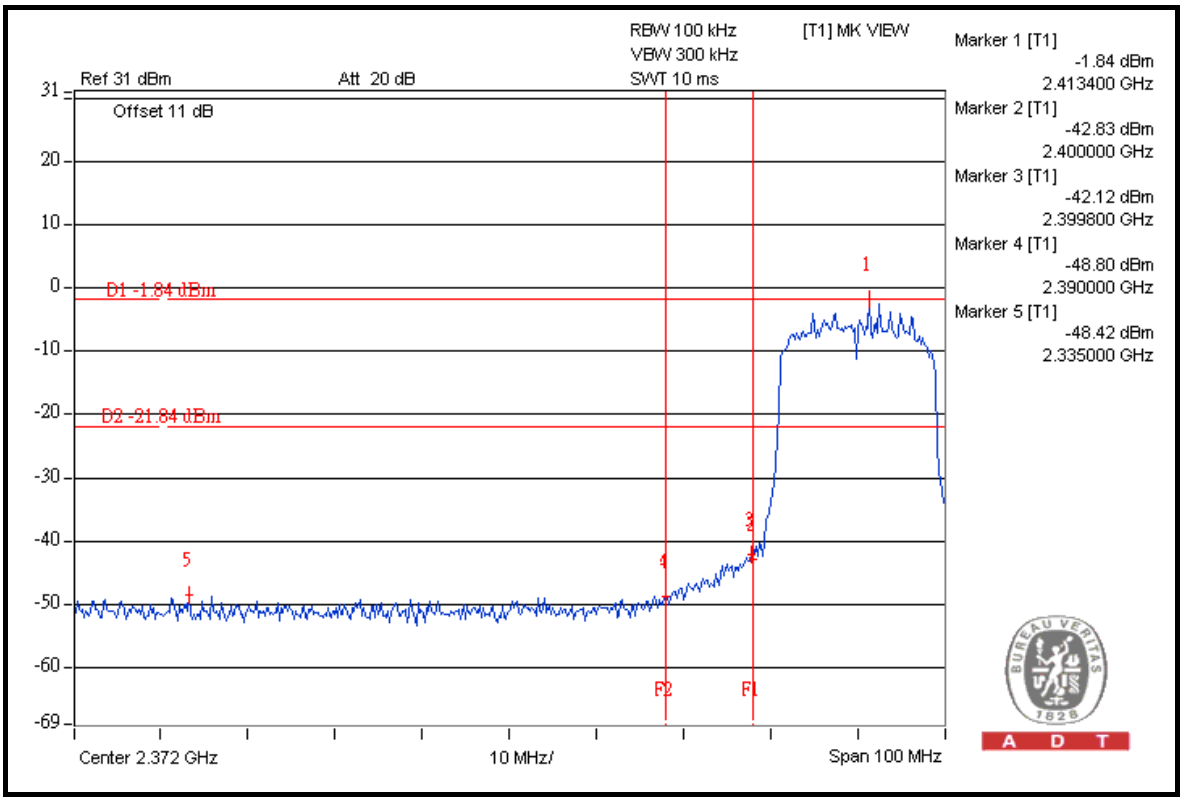


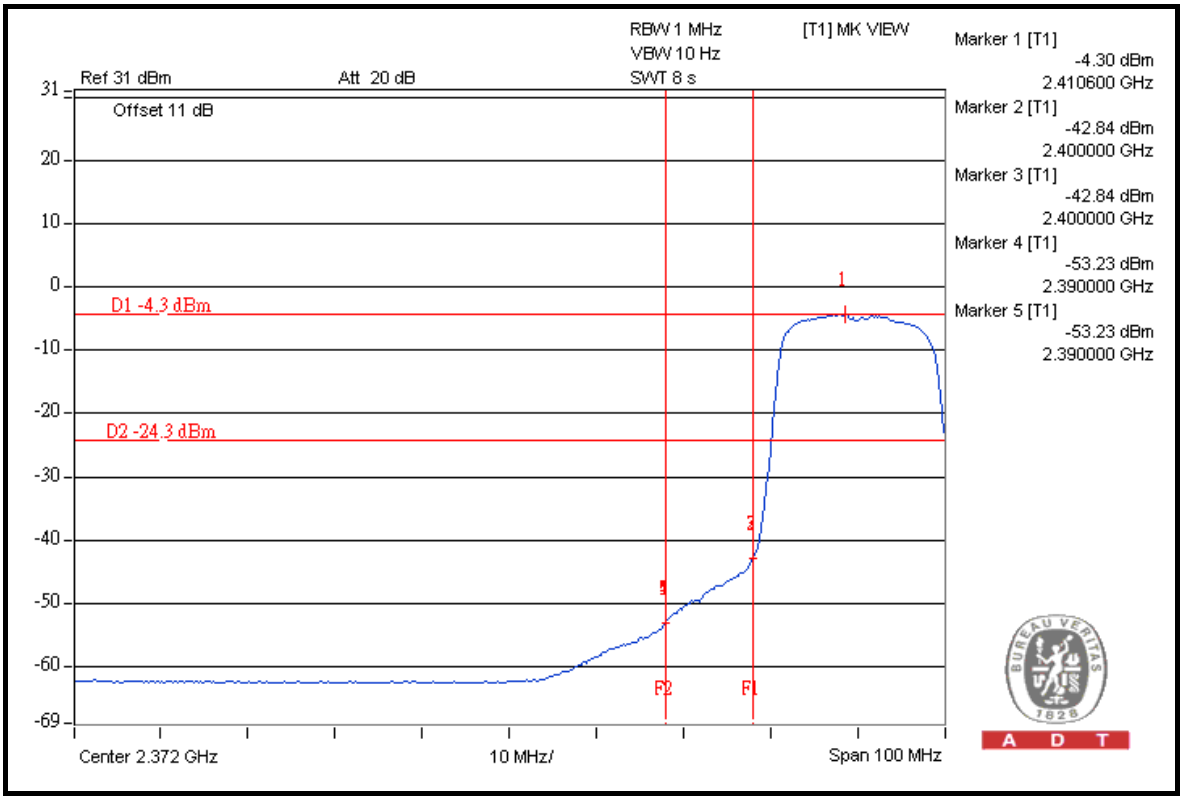

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.25 dBuV
2.461000 GHz
Marker 2 [T1]
26.32 dBuV
2.483500 GHz
Marker 3 [T1]
28.21 dBuV
2.493400 GHz
Marker 4 [T1]
25.12 dBuV
2.500000 GHz
D1 69.25 dBuV
D2 49.25 dBuV
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

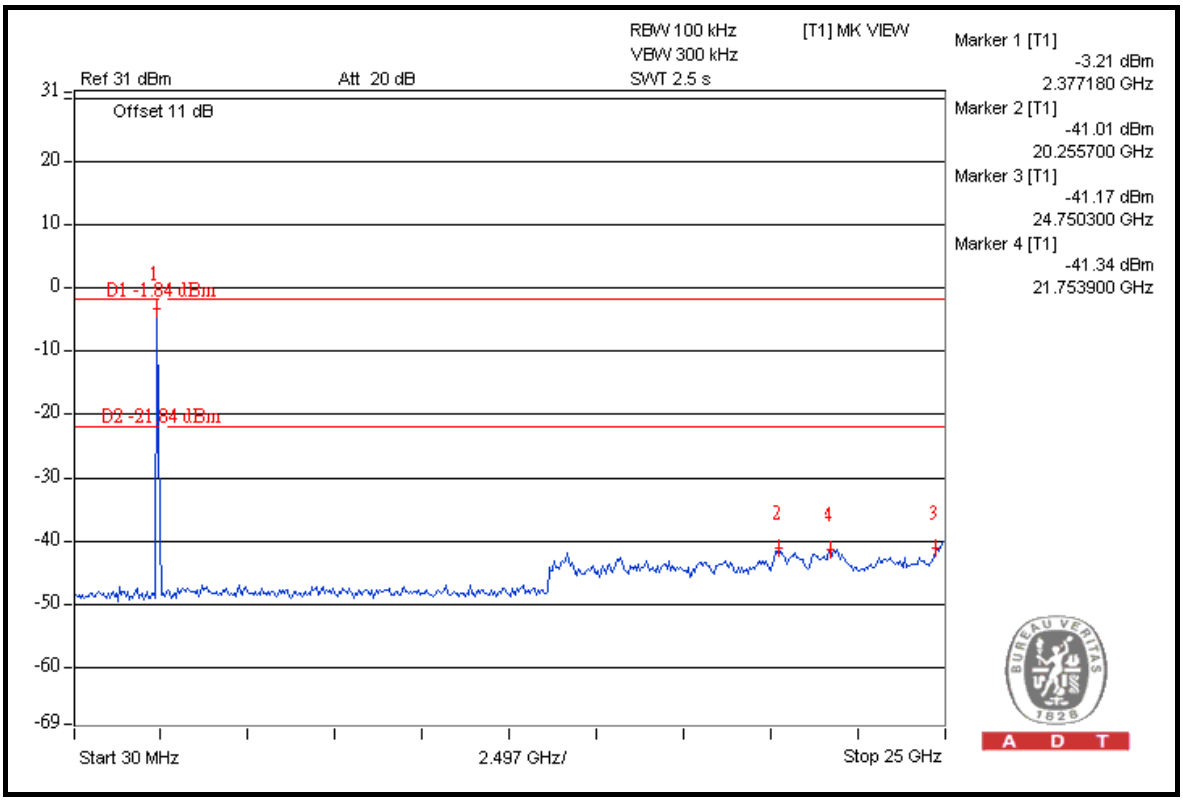

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.35 dBuV
2.464000 GHz
Marker 2 [T1]
20.49 dBuV
2.483500 GHz
Marker 3 [T1]
20.49 dBuV
2.483500 GHz
Marker 4 [T1]
15.31 dBuV
2.500000 GHz
D1 69.35 dBuV
D2 49.35 dBuV
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz

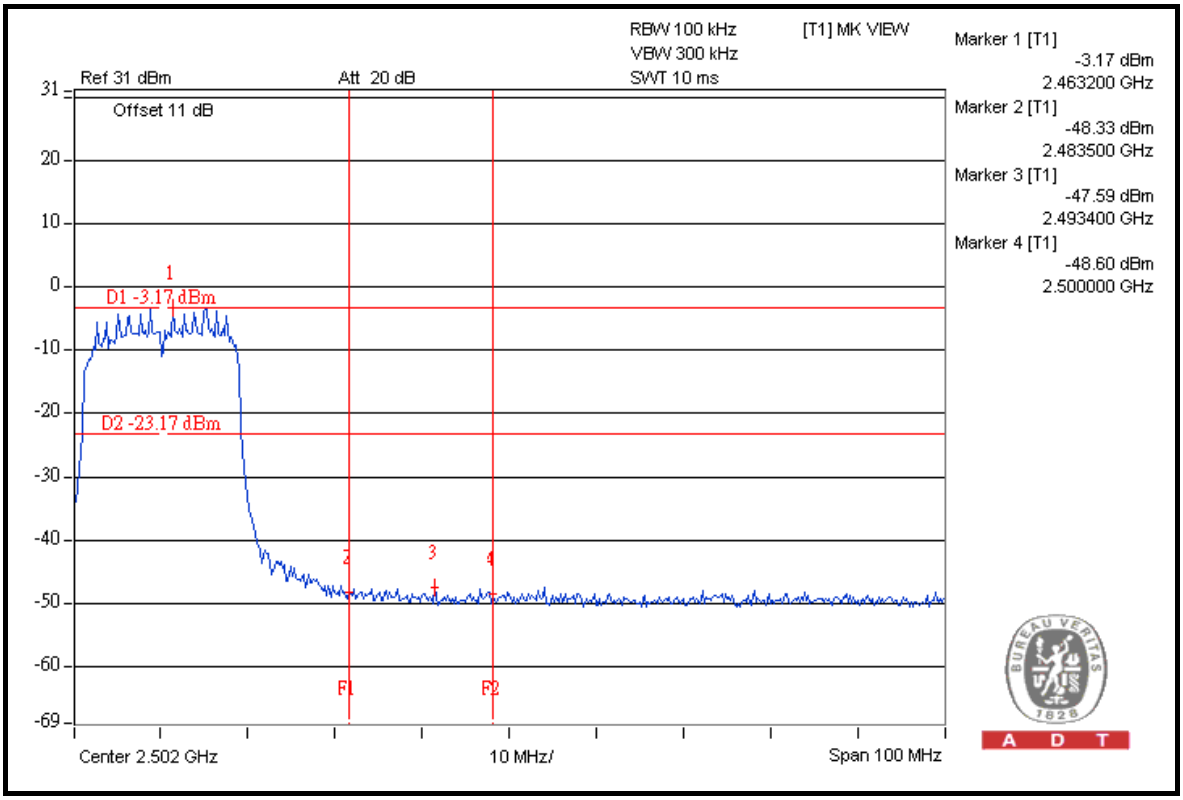
FOR CONDUCTED MEASURED

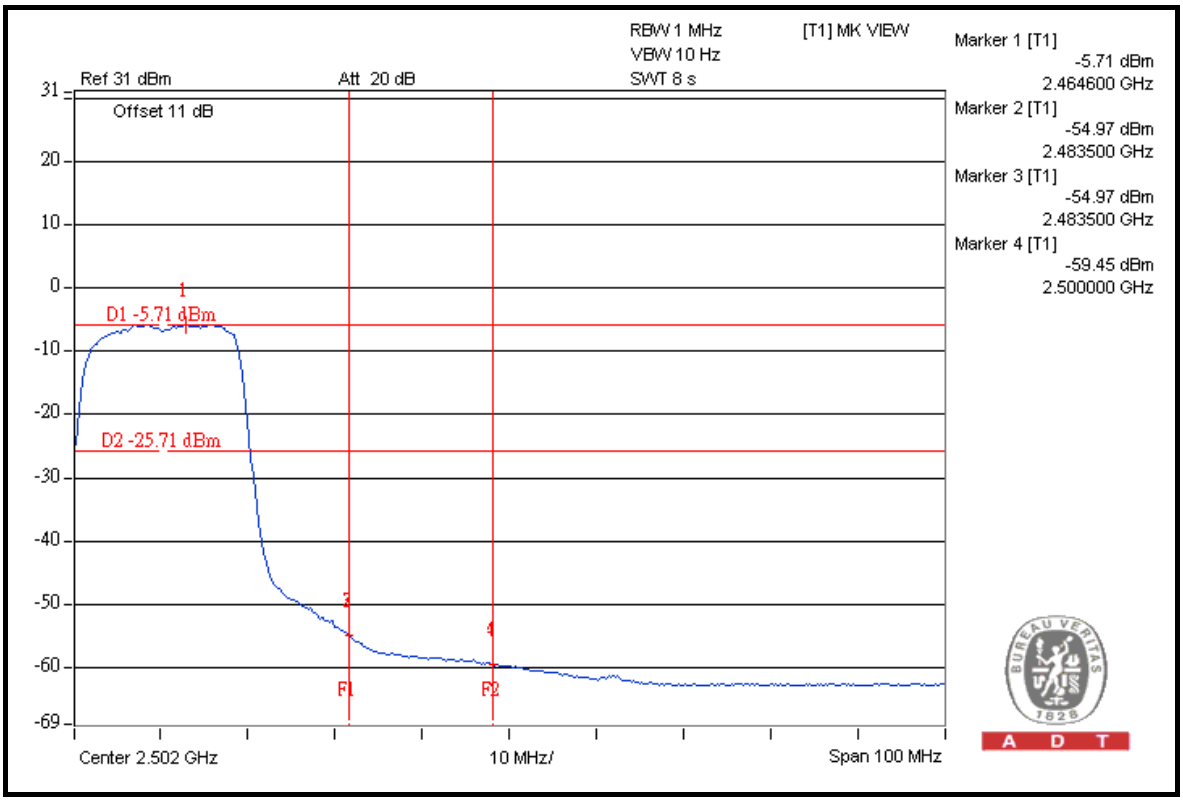
CHAIN 0

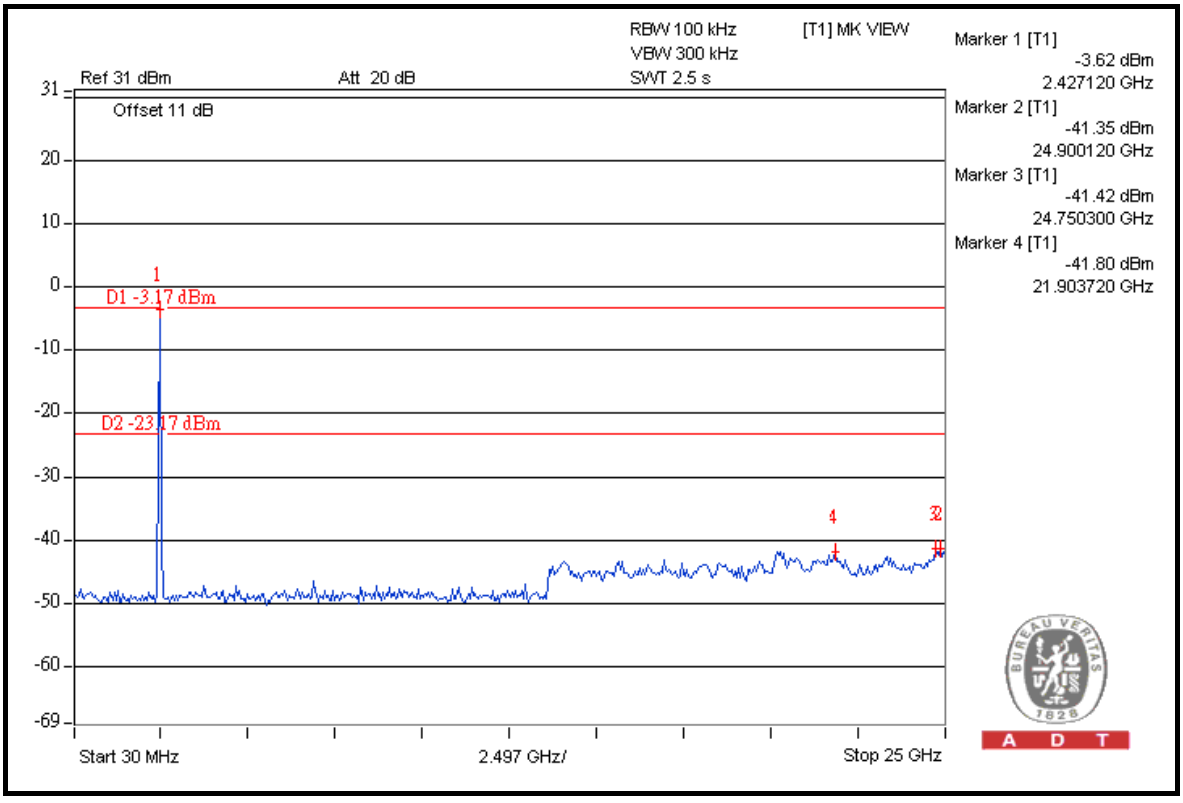




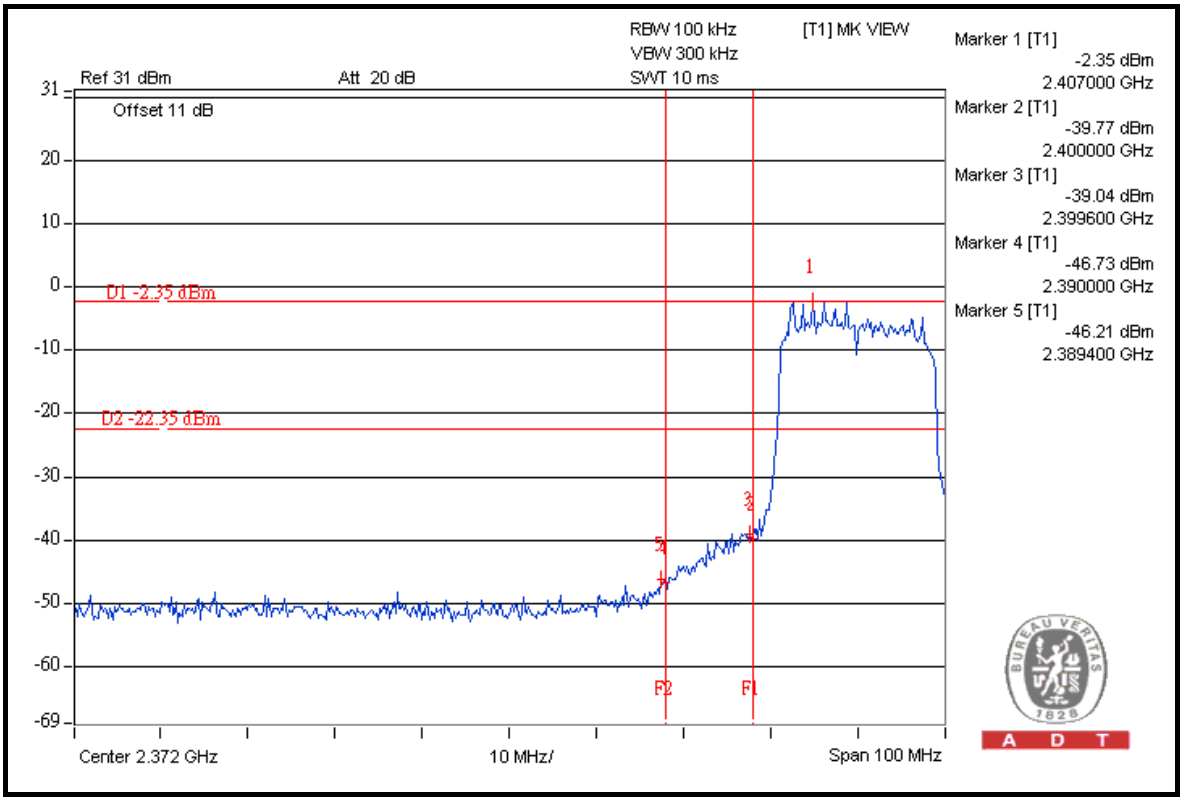

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -1.84 dBm
D2 -21.84 dBm
Marker 1 [T1]
-3.21 dBm
2.377180 GHz
Marker 2 [T1]
-41.01 dBm
20.255700 GHz
Marker 3 [T1]
-41.17 dBm
24.750300 GHz
Marker 4 [T1]
-41.34 dBm
21.753900 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

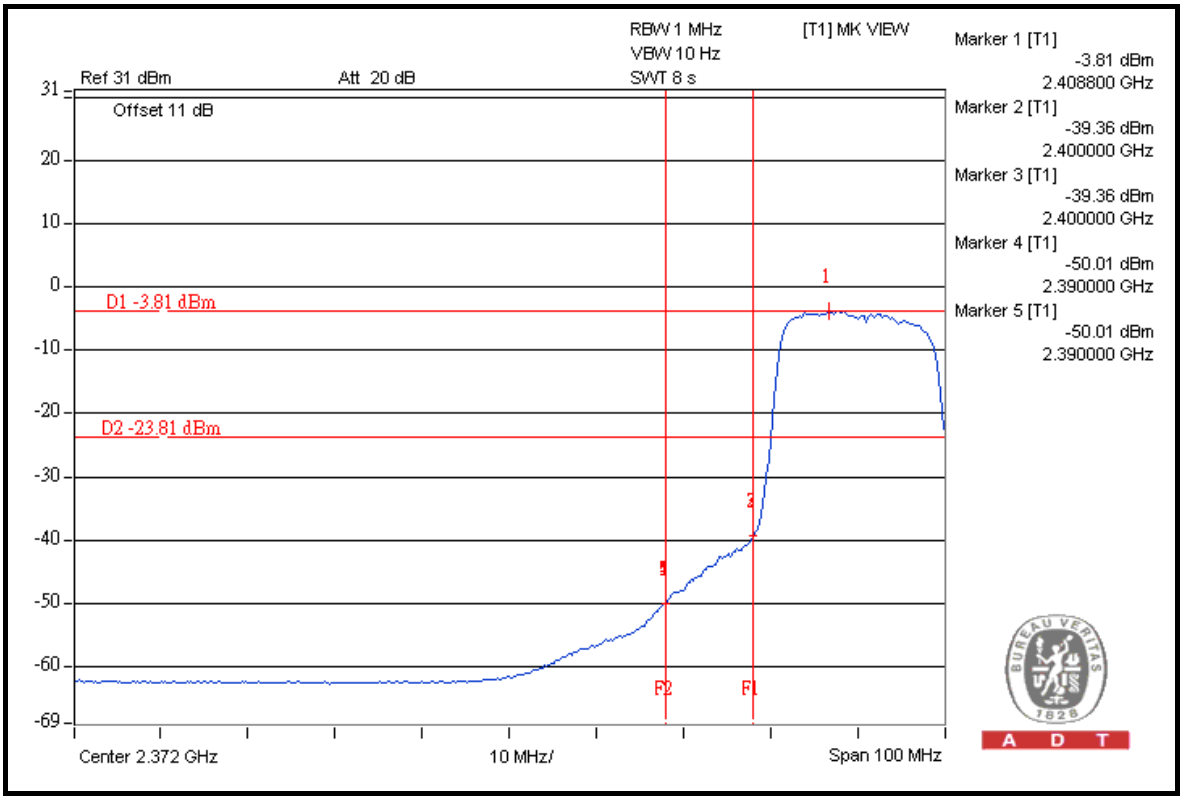

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.17 dBm
D2 -23.17 dBm
Marker 1 [T1]
-3.17 dBm
2.463200 GHz
Marker 2 [T1]
-48.33 dBm
2.483500 GHz
Marker 3 [T1]
-47.59 dBm
2.493400 GHz
Marker 4 [T1]
-48.60 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz

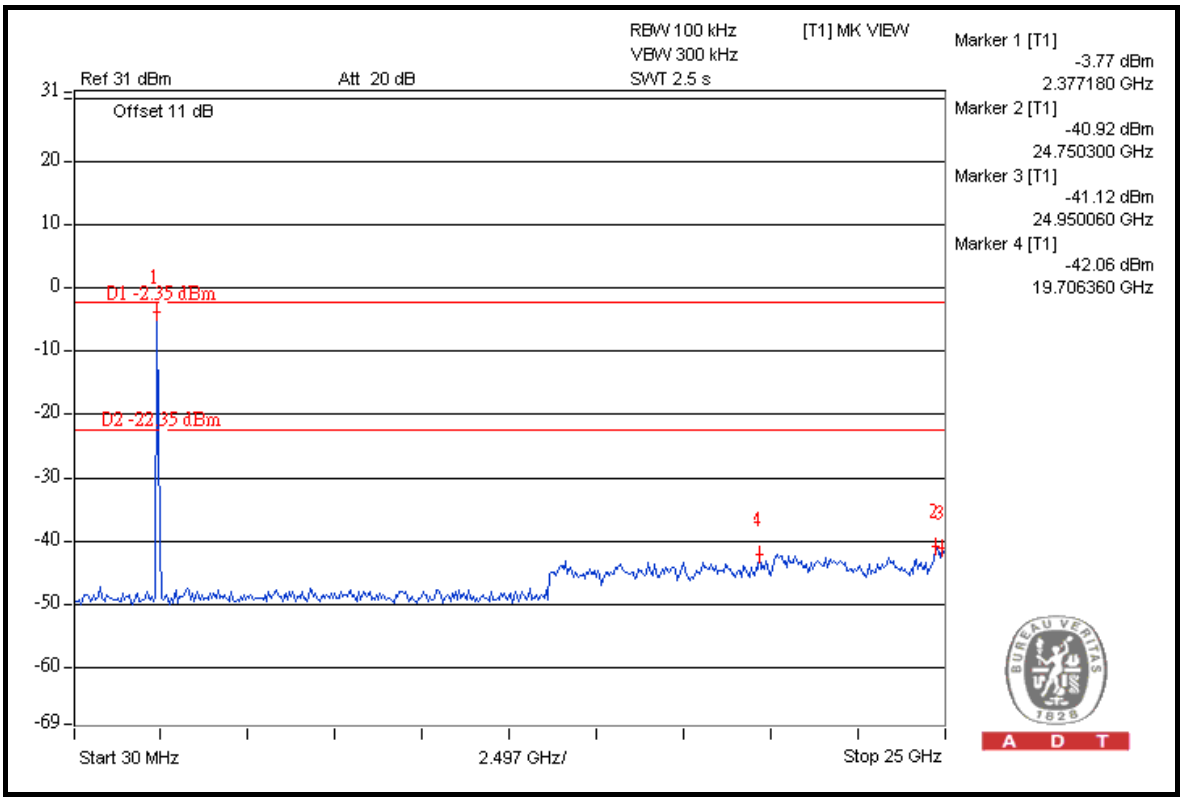

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.71 dBm
D2 -25.71 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
-5.71 dBm
2.464600 GHz
Marker 2 [T1]
-54.97 dBm
2.483500 GHz
Marker 3 [T1]
-54.97 dBm
2.483500 GHz
Marker 4 [T1]
-59.45 dBm
2.500000 GHz

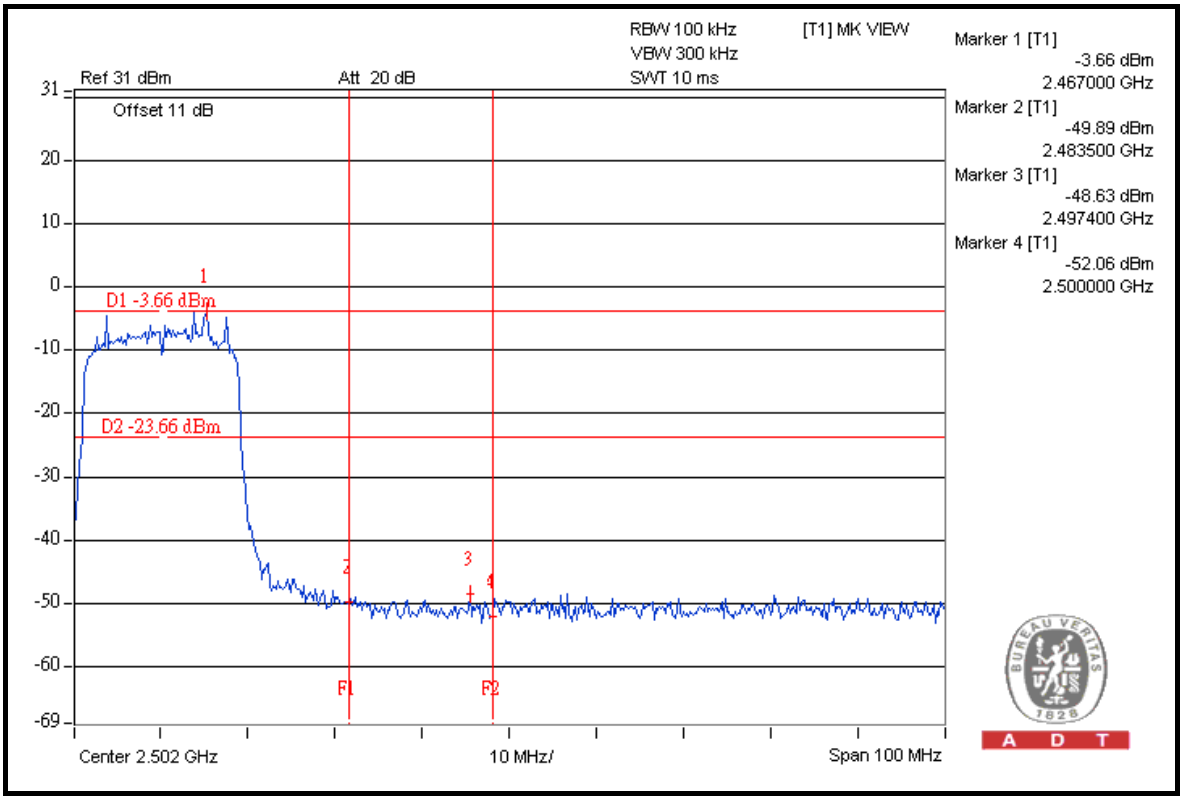

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.17 dBm
D2 -23.17 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
-3.62 dBm
2.427120 GHz
Marker 2 [T1]
-41.35 dBm
24.900120 GHz
Marker 3 [T1]
-41.42 dBm
24.750300 GHz
Marker 4 [T1]
-41.80 dBm
21.903720 GHz

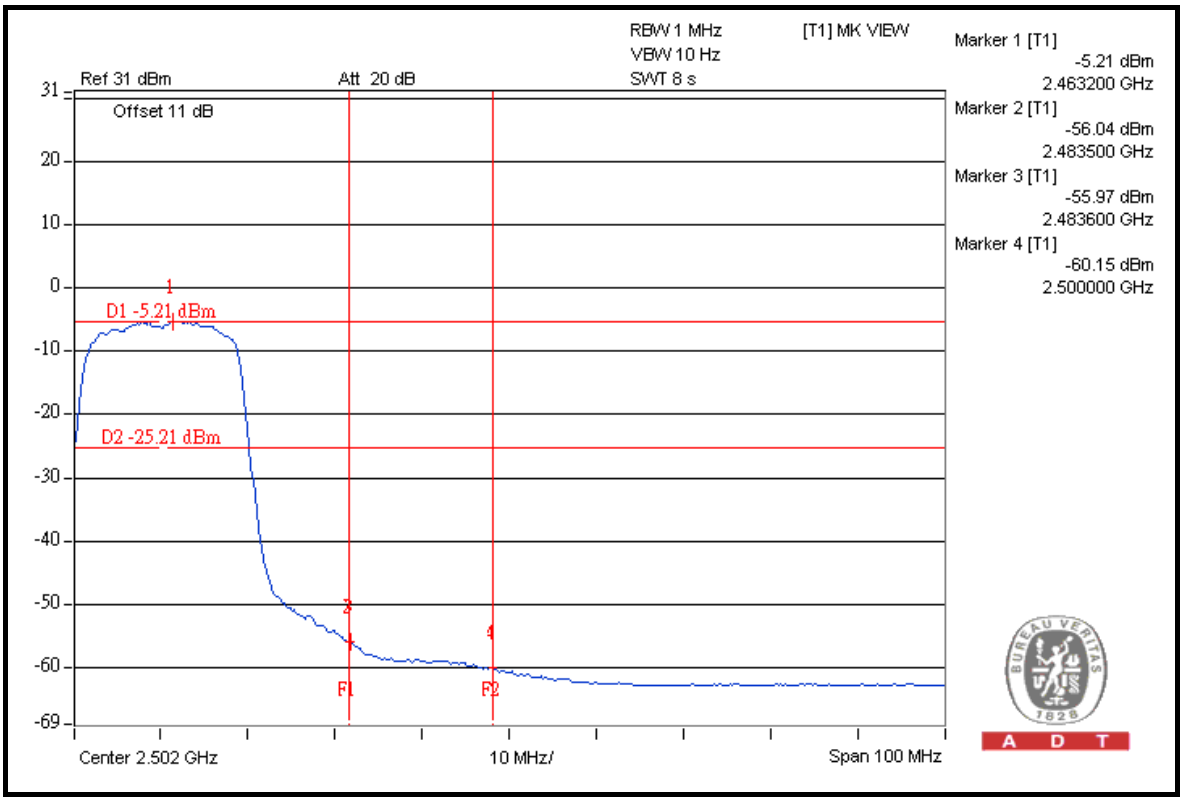
CHAIN 1

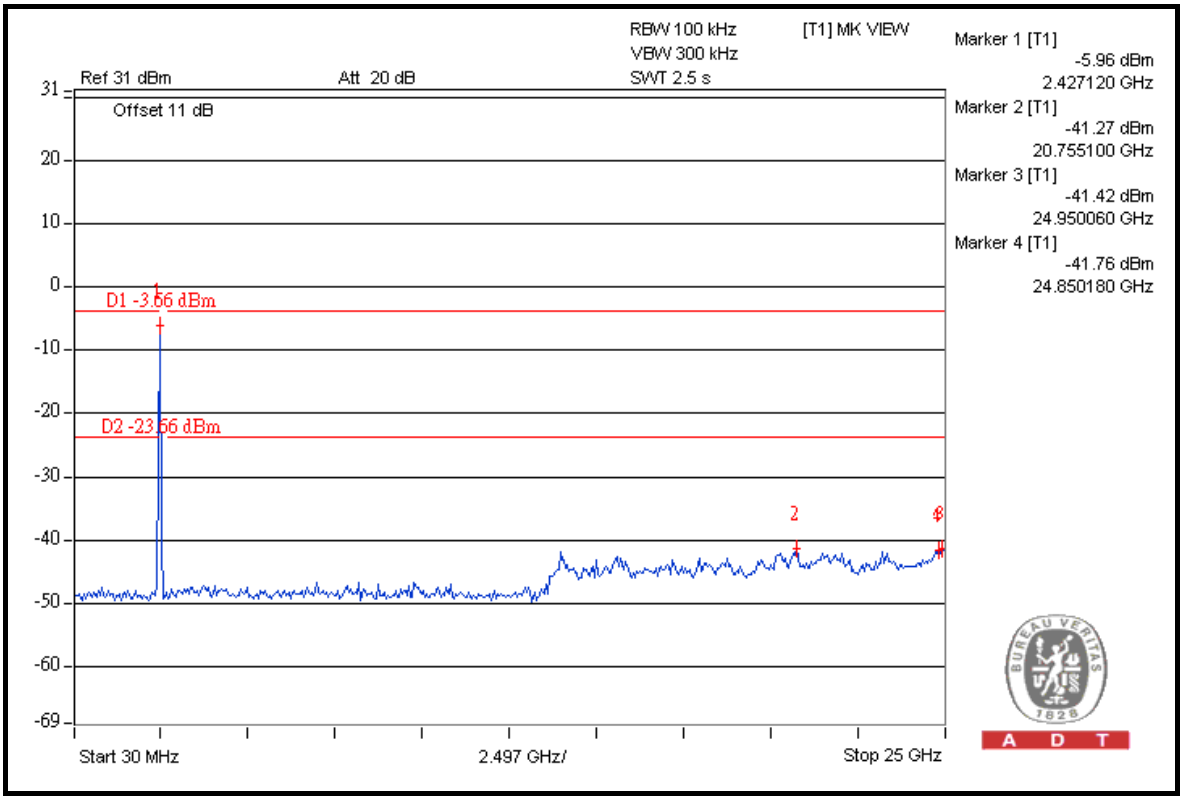

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.35 dBm
D2 -22.35 dBm
Marker 1 [T1]
-2.35 dBm
2.407000 GHz
Marker 2 [T1]
-39.77 dBm
2.400000 GHz
Marker 3 [T1]
-39.04 dBm
2.399600 GHz
Marker 4 [T1]
-46.73 dBm
2.390000 GHz
Marker 5 [T1]
-46.21 dBm
2.389400 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.81 dBm
D2 -23.81 dBm
Marker 1 [T1]
-3.81 dBm
2.408800 GHz
Marker 2 [T1]
-39.36 dBm
2.400000 GHz
Marker 3 [T1]
-39.36 dBm
2.400000 GHz
Marker 4 [T1]
-50.01 dBm
2.390000 GHz
Marker 5 [T1]
-50.01 dBm
2.390000 GHz
Center 2.372 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.35 dBm
D2 -22.35 dBm
Marker 1 [T1]
-3.77 dBm
2.377180 GHz
Marker 2 [T1]
-40.92 dBm
24.750300 GHz
Marker 3 [T1]
-41.12 dBm
24.950060 GHz
Marker 4 [T1]
-42.06 dBm
19.706360 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -3.66 dBm
D2 -23.66 dBm
Marker 1 [T1]
-3.66 dBm
2.467000 GHz
Marker 2 [T1]
-49.89 dBm
2.483500 GHz
Marker 3 [T1]
-48.63 dBm
2.497400 GHz
Marker 4 [T1]
-52.06 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
Marker 1 [T1]
-5.21 dBm
2.463200 GHz
Marker 2 [T1]
-56.04 dBm
2.483500 GHz
Marker 3 [T1]
-55.97 dBm
2.483600 GHz
Marker 4 [T1]
-60.15 dBm
2.500000 GHz
D1 -5.21 dBm
D2 -25.21 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
Marker 1 [T1]
-5.96 dBm
2.427120 GHz
Marker 2 [T1]
-41.27 dBm
20.755100 GHz
Marker 3 [T1]
-41.42 dBm
24.950060 GHz
Marker 4 [T1]
-41.76 dBm
24.850180 GHz
D1 -3.66 dBm
D2 -23.66 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11n (40MHz)

RESTRICT BAND (2310 ~ 2390 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2422.00 (PK)	101.2	36.24	64.96	74.00
2422.00 (AV)	87.4	40.16	47.24	54.00

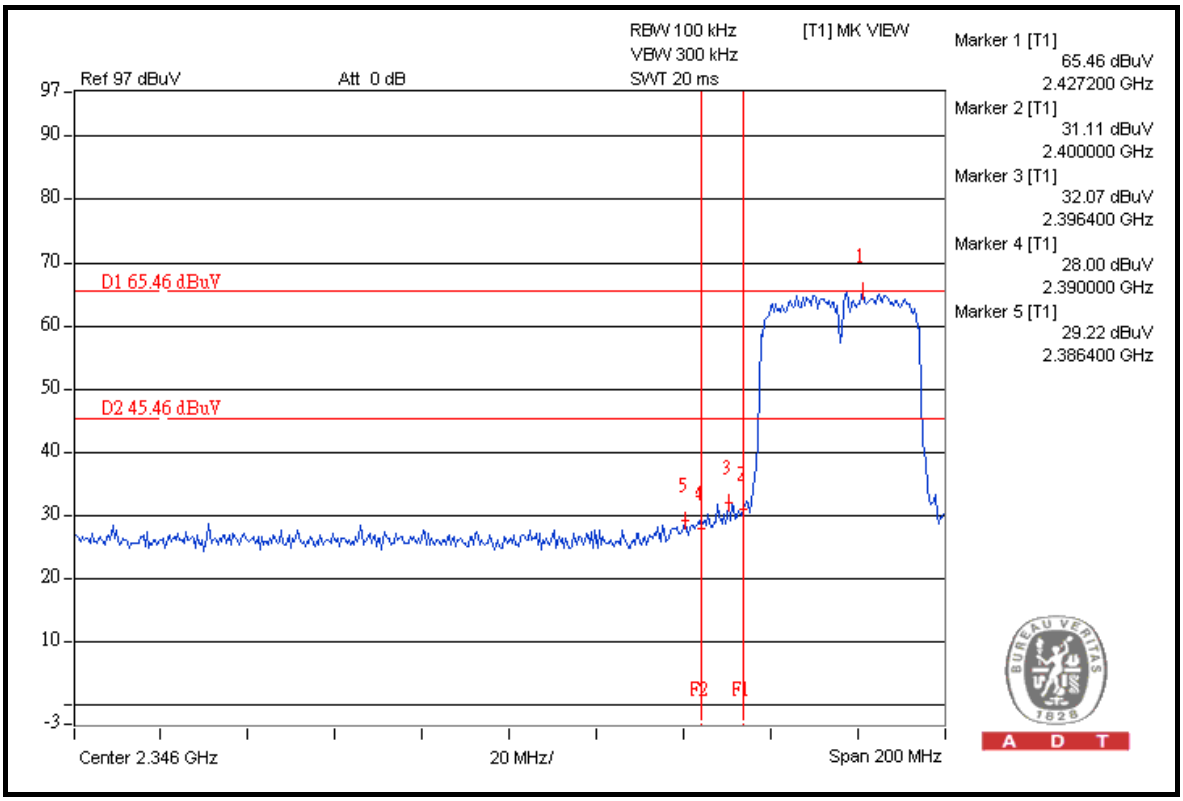
RESTRICT BAND (2483.5 ~ 2500 MHz)

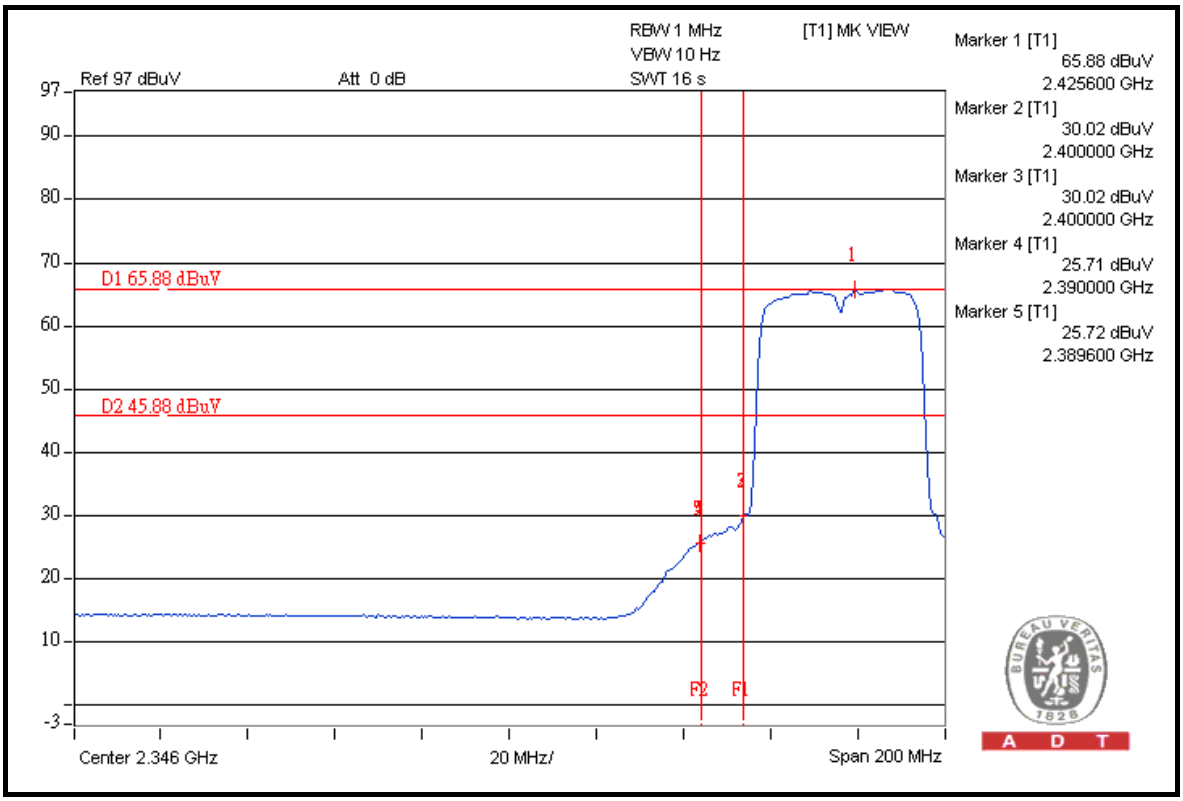
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2452.00 (PK)	101.6	35.74	65.86	74.00
2452.00 (AV)	87.7	39.95	47.75	54.00

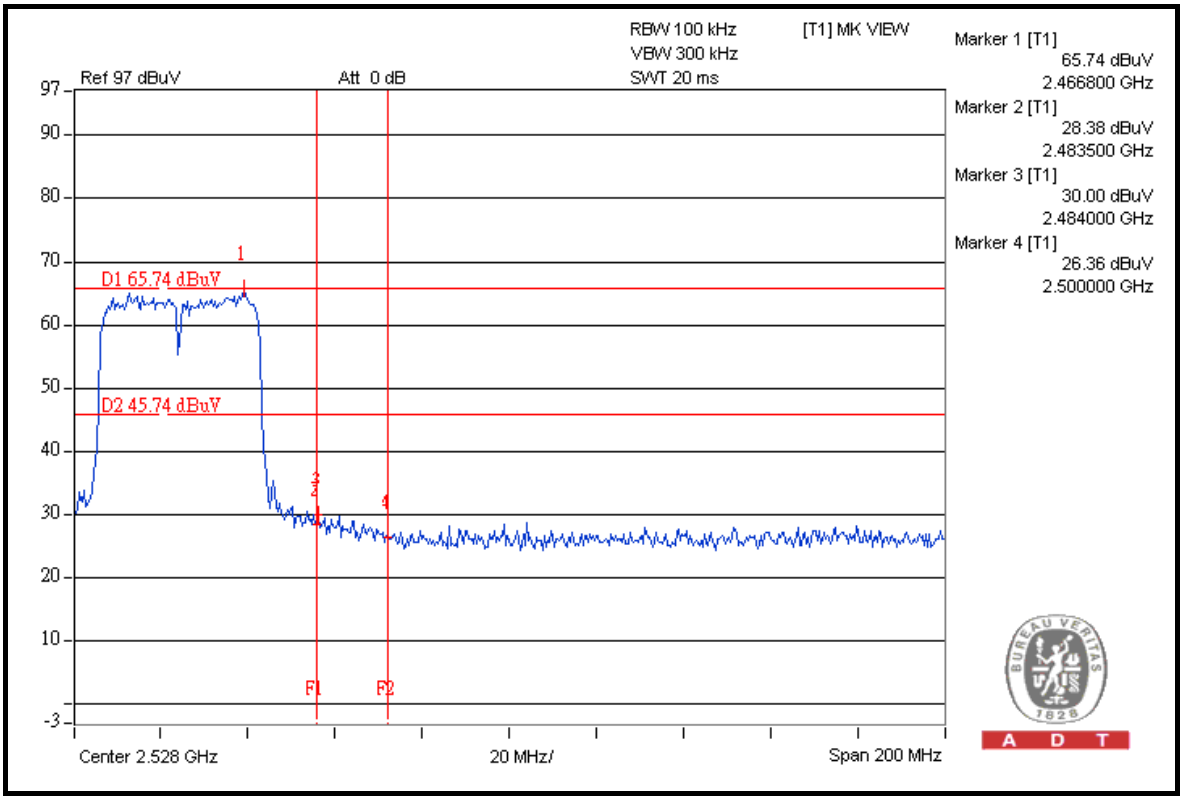
NOTE:

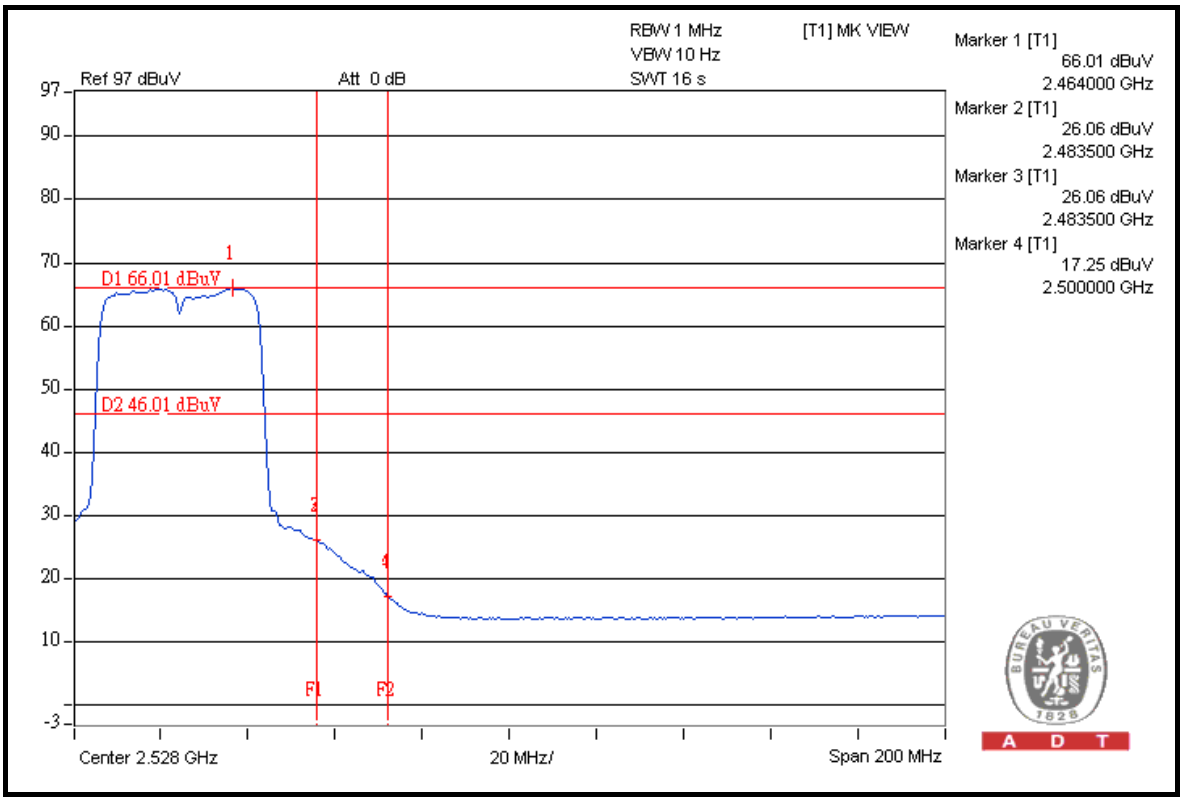
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

FOR RADIATED MEASURED



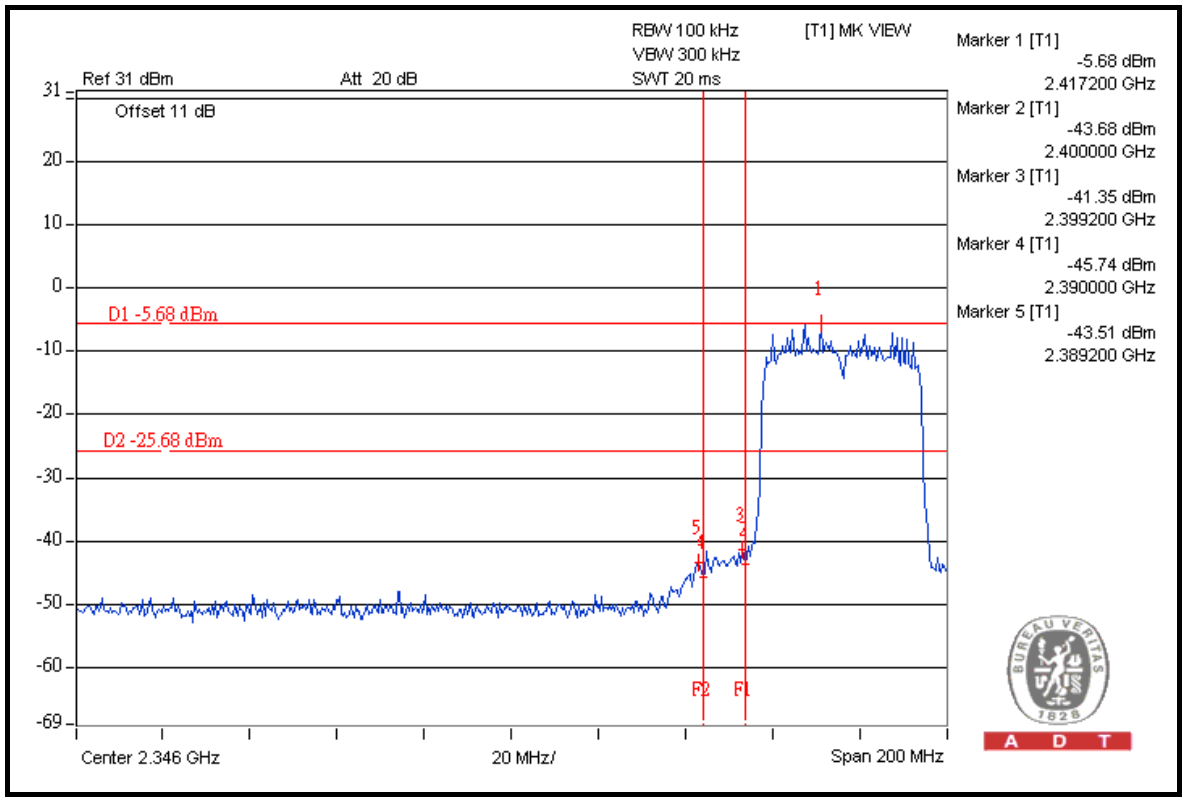


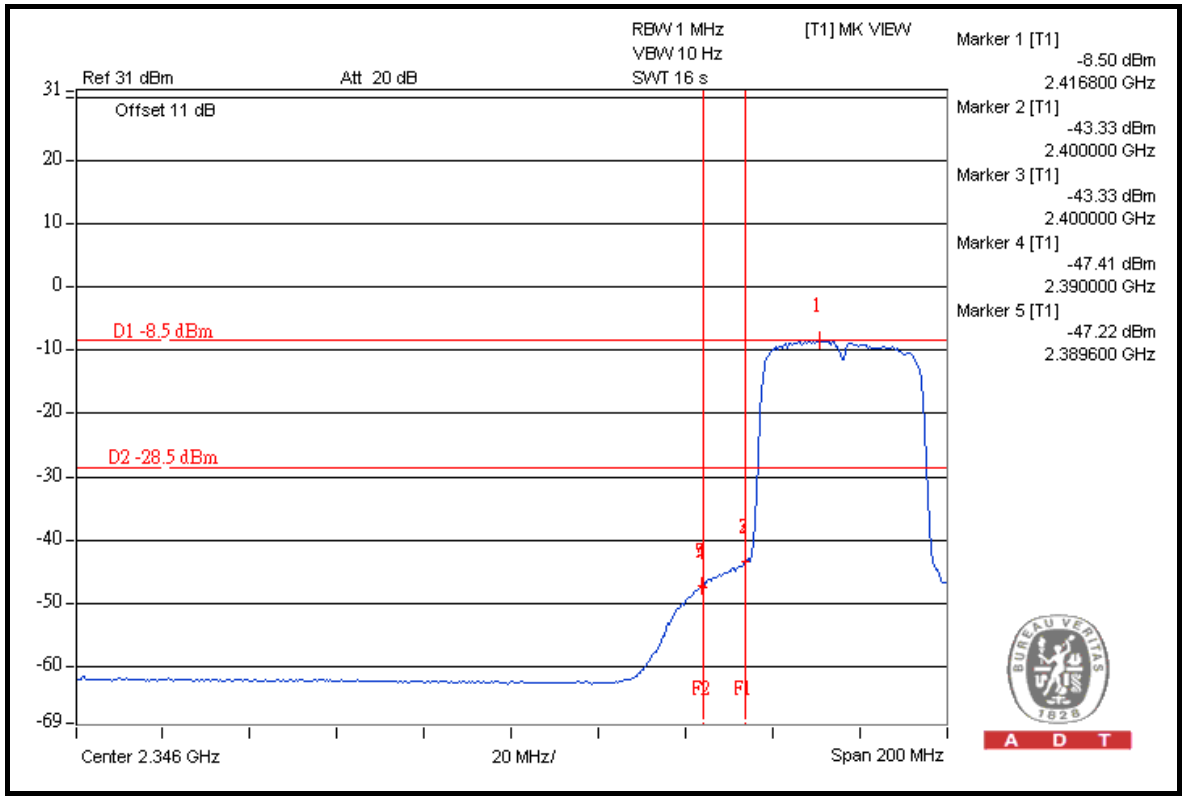

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
65.74 dBuV
2.466800 GHz
Marker 2 [T1]
28.38 dBuV
2.483500 GHz
Marker 3 [T1]
30.00 dBuV
2.484000 GHz
Marker 4 [T1]
26.36 dBuV
2.500000 GHz
D1 65.74 dBuV
D2 45.74 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz

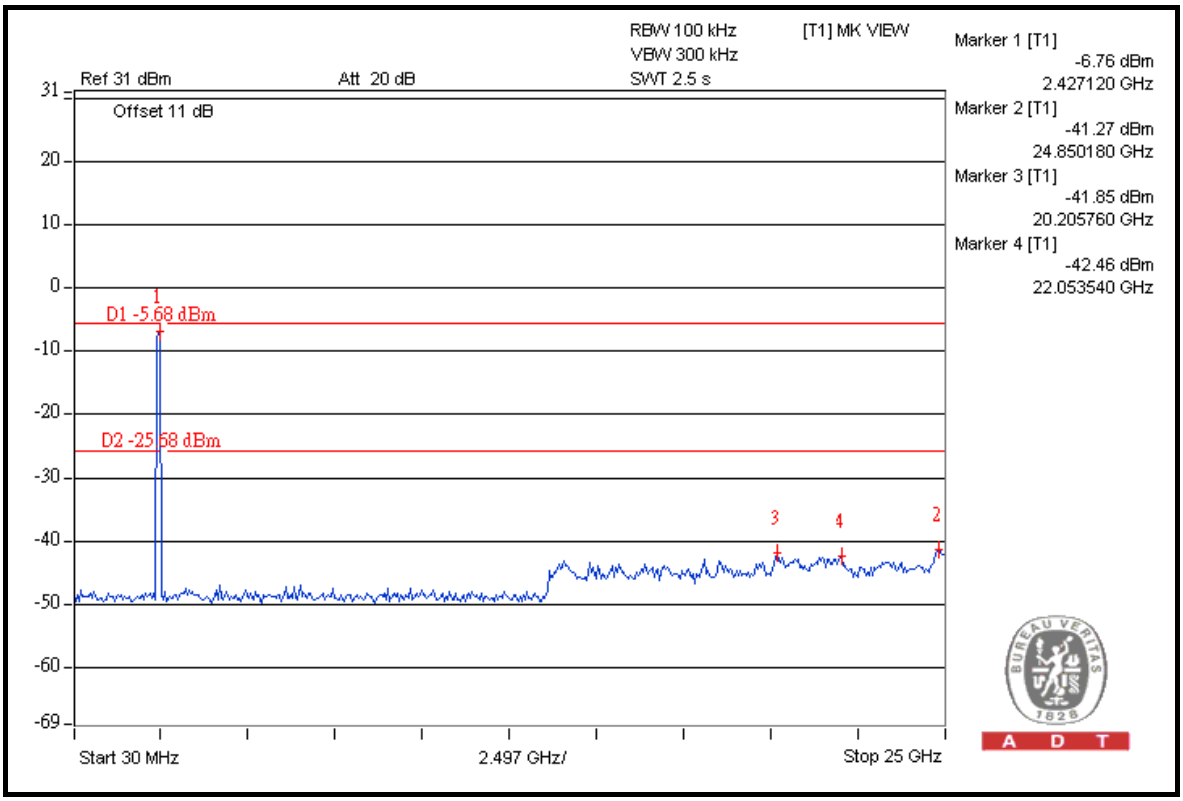

RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.01 dBuV
2.464000 GHz
Marker 2 [T1]
26.06 dBuV
2.483500 GHz
Marker 3 [T1]
26.06 dBuV
2.483500 GHz
Marker 4 [T1]
17.25 dBuV
2.500000 GHz
D1 66.01 dBuV
D2 46.01 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz

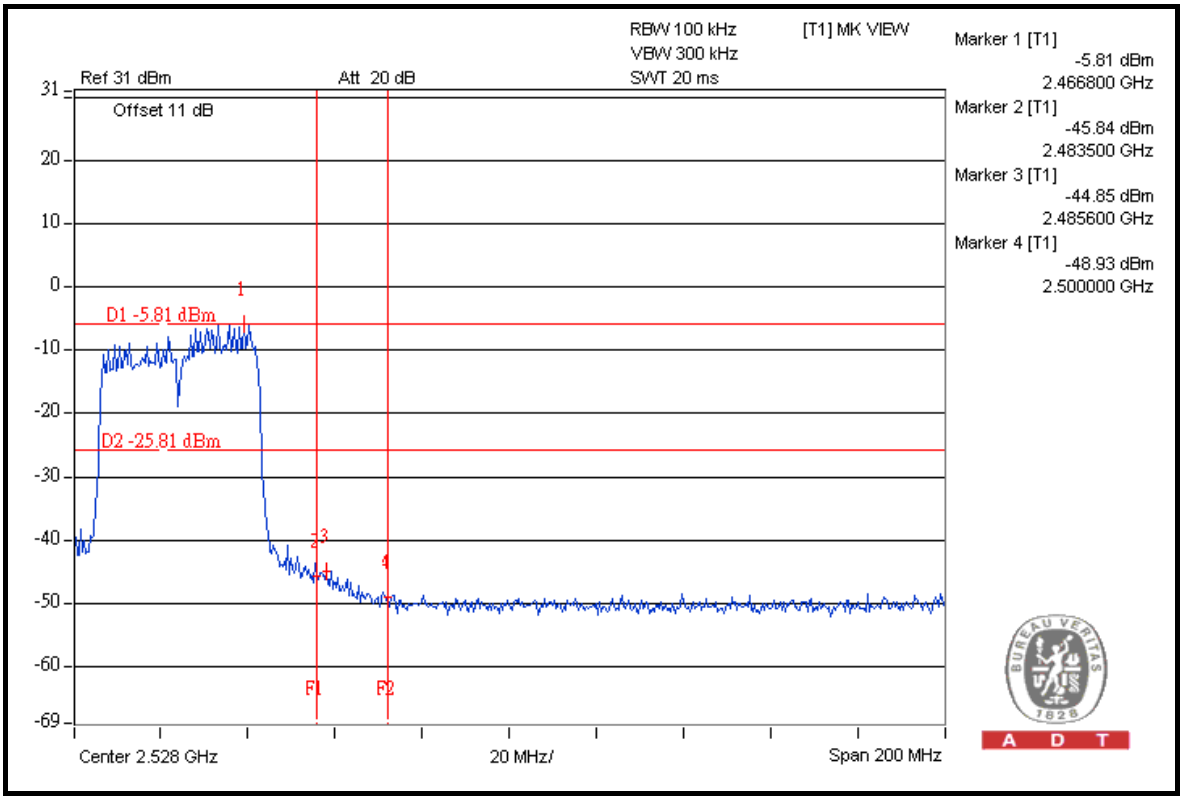
FOR CONDUCTED MEASURED

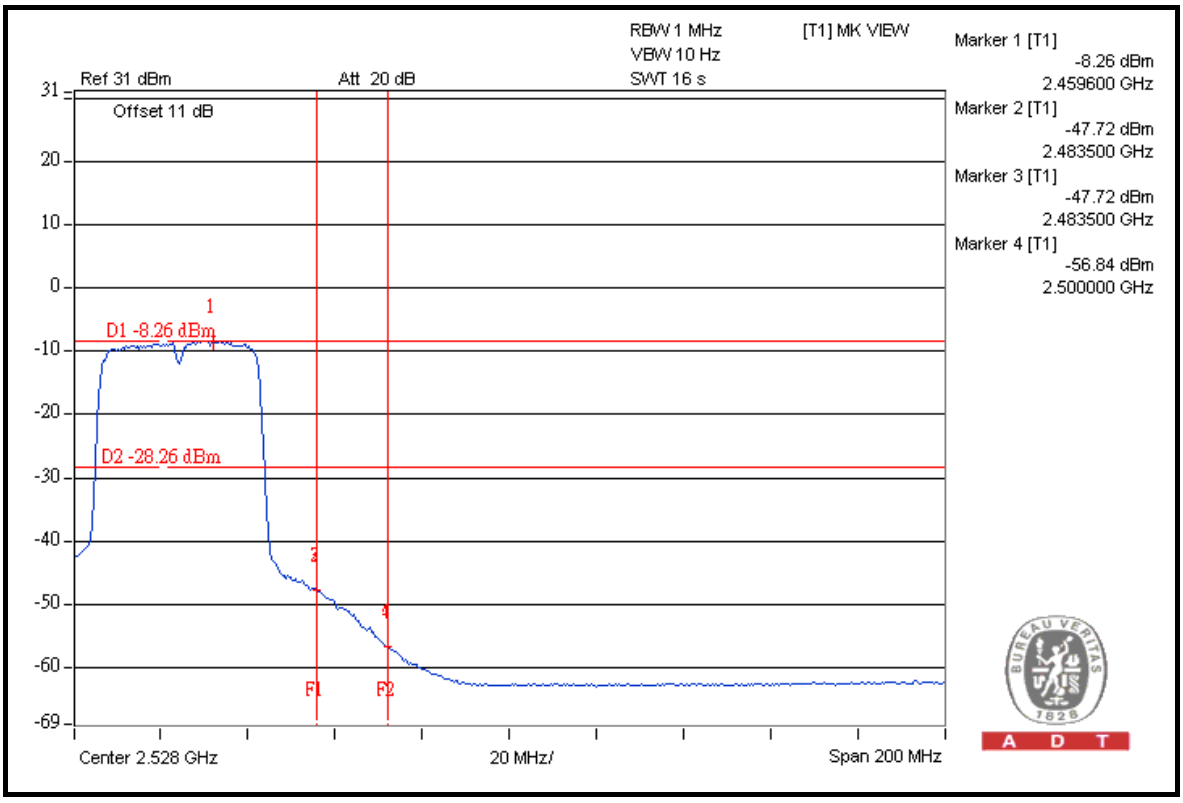
CHAIN 0

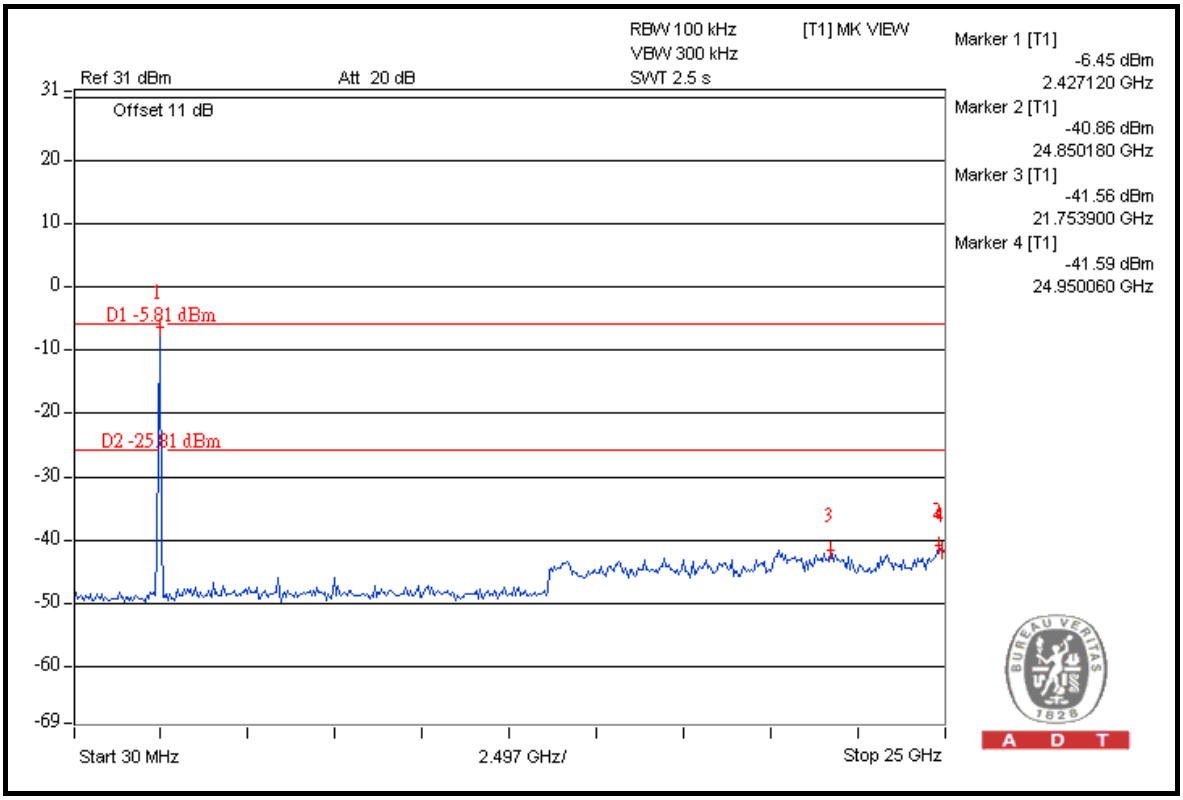




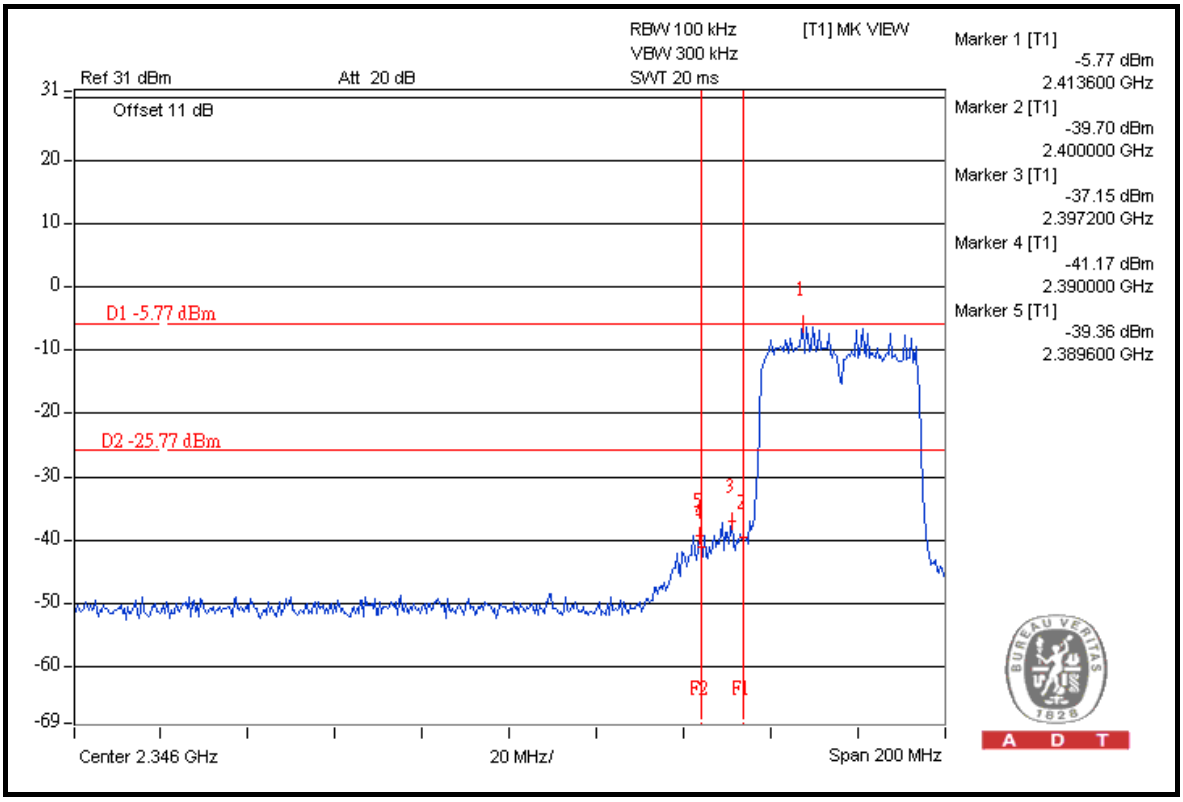

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.68 dBm
D2 -25.68 dBm
Marker 1 [T1]
-6.76 dBm
2.427120 GHz
Marker 2 [T1]
-41.27 dBm
24.850180 GHz
Marker 3 [T1]
-41.85 dBm
20.205760 GHz
Marker 4 [T1]
-42.46 dBm
22.053540 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

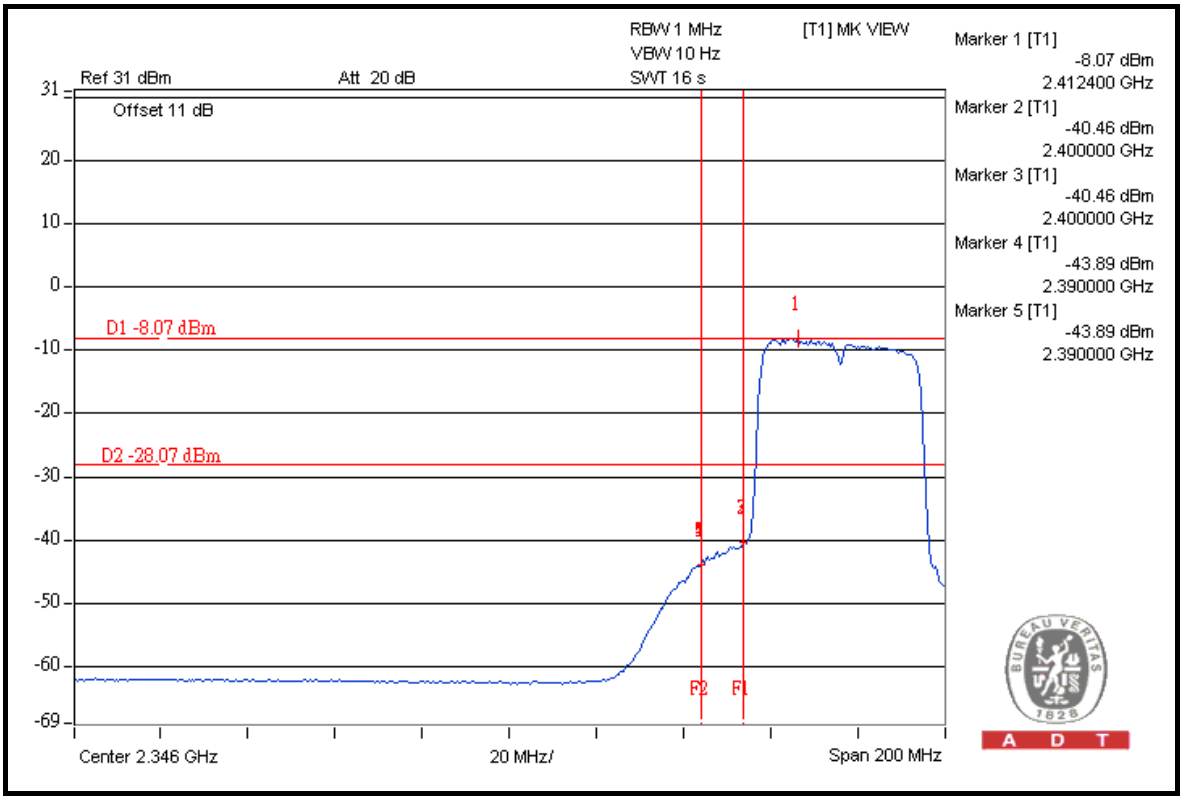

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.81 dBm
D2 -25.81 dBm
Marker 1 [T1]
-5.81 dBm
2.466800 GHz
Marker 2 [T1]
-45.84 dBm
2.483500 GHz
Marker 3 [T1]
-44.85 dBm
2.485600 GHz
Marker 4 [T1]
-48.93 dBm
2.500000 GHz
Center 2.528 GHz
20 MHz/
Span 200 MHz

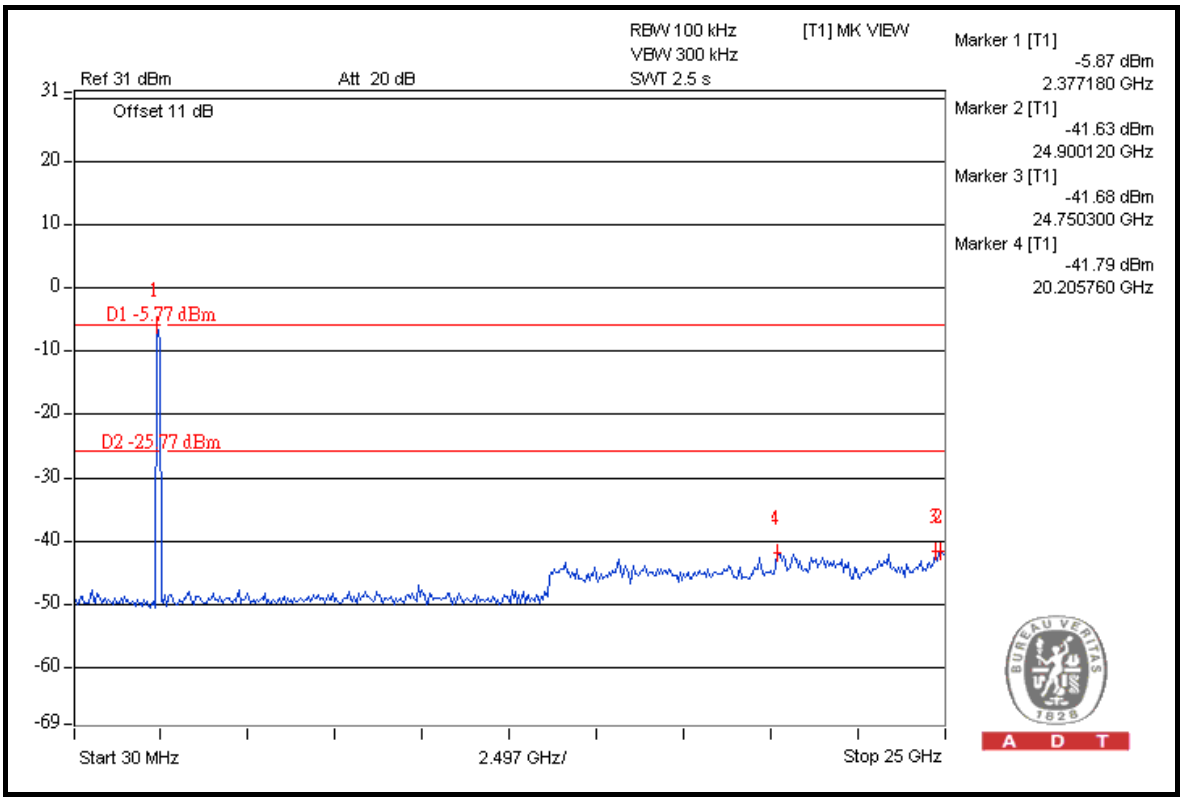

RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -8.26 dBm
D2 -28.26 dBm
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
-8.26 dBm
2.459600 GHz
Marker 2 [T1]
-47.72 dBm
2.483500 GHz
Marker 3 [T1]
-47.72 dBm
2.483500 GHz
Marker 4 [T1]
-56.84 dBm
2.500000 GHz

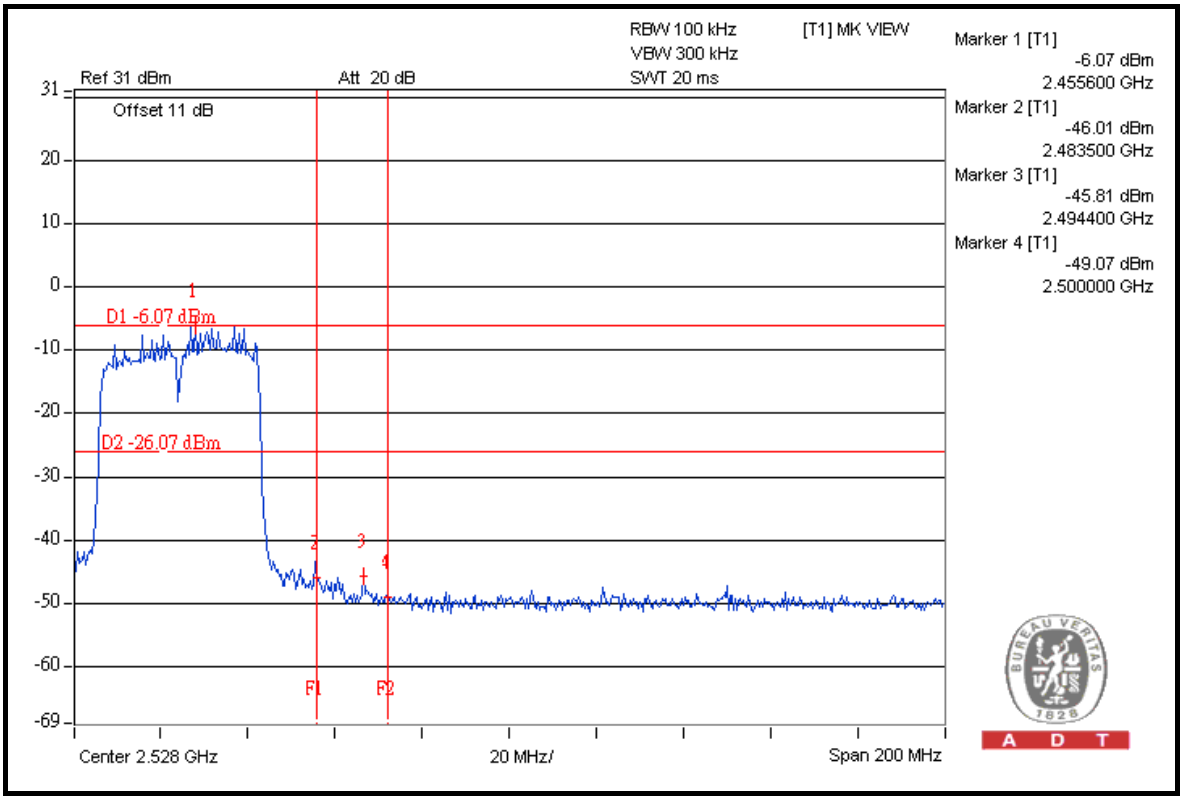

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.81 dBm
D2 -25.81 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
-6.45 dBm
2.427120 GHz
Marker 2 [T1]
-40.86 dBm
24.850180 GHz
Marker 3 [T1]
-41.56 dBm
21.753900 GHz
Marker 4 [T1]
-41.59 dBm
24.950060 GHz

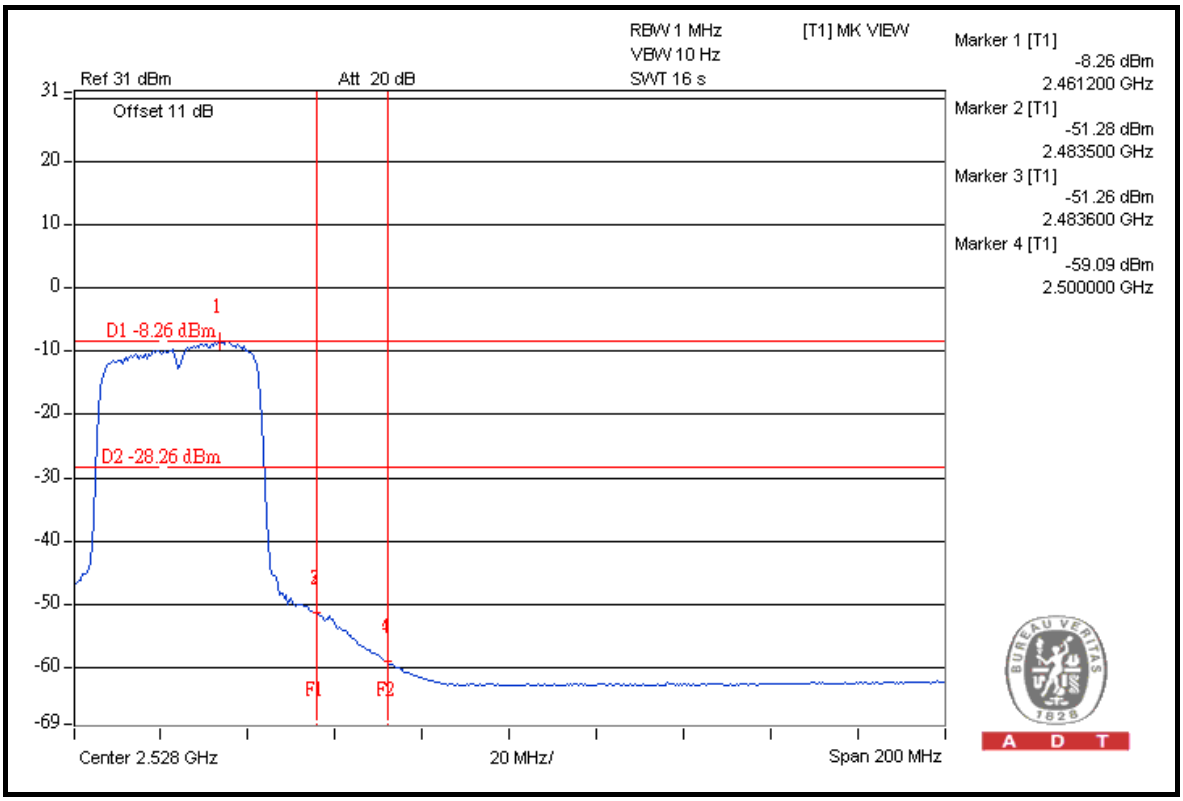
CHAIN 1

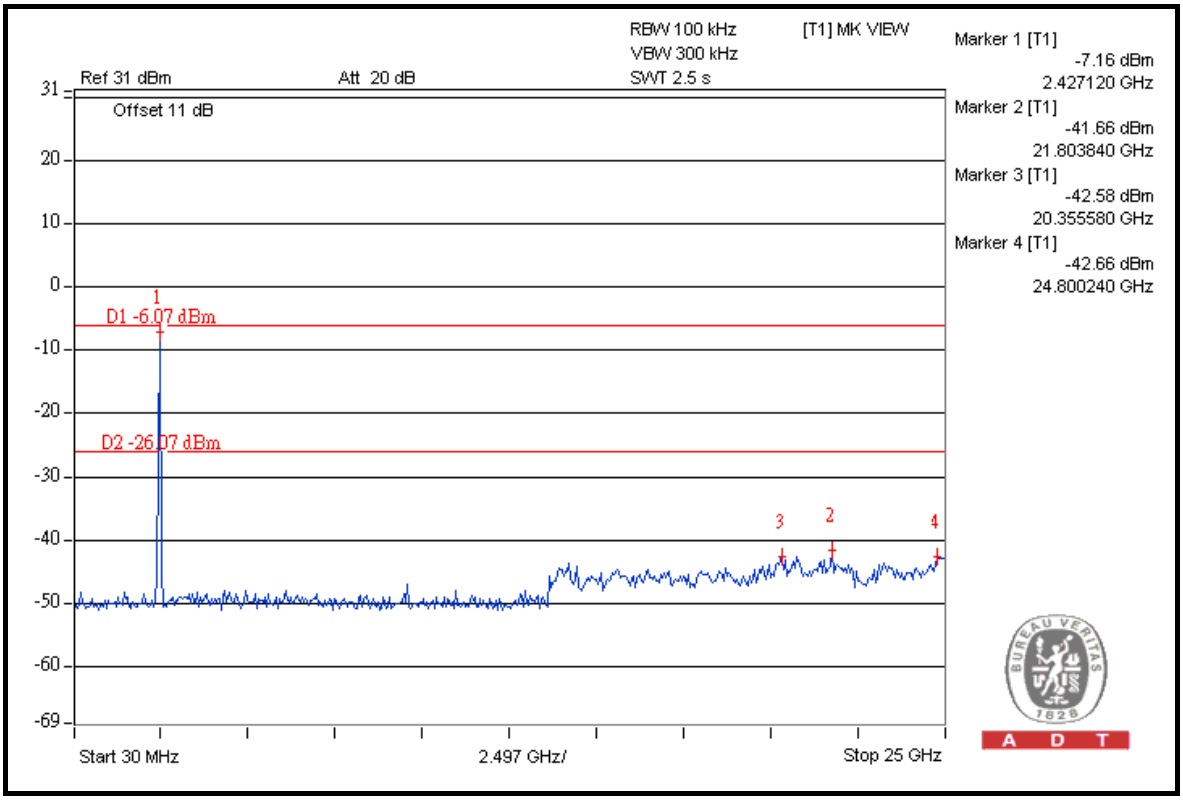

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.77 dBm
D2 -25.77 dBm
Marker 1 [T1]
-5.77 dBm
2.413600 GHz
Marker 2 [T1]
-39.70 dBm
2.400000 GHz
Marker 3 [T1]
-37.15 dBm
2.397200 GHz
Marker 4 [T1]
-41.17 dBm
2.390000 GHz
Marker 5 [T1]
-39.36 dBm
2.389600 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -8.07 dBm
D2 -28.07 dBm
Marker 1 [T1]
-8.07 dBm
2.412400 GHz
Marker 2 [T1]
-40.46 dBm
2.400000 GHz
Marker 3 [T1]
-40.46 dBm
2.400000 GHz
Marker 4 [T1]
-43.89 dBm
2.390000 GHz
Marker 5 [T1]
-43.89 dBm
2.390000 GHz
Center 2.346 GHz
20 MHz/
Span 200 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -5.77 dBm
D2 -25.77 dBm
Marker 1 [T1]
-5.87 dBm
2.377180 GHz
Marker 2 [T1]
-41.63 dBm
24.900120 GHz
Marker 3 [T1]
-41.68 dBm
24.750300 GHz
Marker 4 [T1]
-41.79 dBm
20.205760 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz


RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -6.07 dBm
D2 -26.07 dBm
Marker 1 [T1]
-6.07 dBm
2.455600 GHz
Marker 2 [T1]
-46.01 dBm
2.483500 GHz
Marker 3 [T1]
-45.81 dBm
2.494400 GHz
Marker 4 [T1]
-49.07 dBm
2.500000 GHz
Center 2.528 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
Marker 1 [T1]
-8.26 dBm
2.461200 GHz
Marker 2 [T1]
-51.28 dBm
2.483500 GHz
Marker 3 [T1]
-51.26 dBm
2.483600 GHz
Marker 4 [T1]
-59.09 dBm
2.500000 GHz
D1 -8.26 dBm
D2 -28.26 dBm
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz


RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
Marker 1 [T1]
-7.16 dBm
2.427120 GHz
Marker 2 [T1]
-41.66 dBm
21.803840 GHz
Marker 3 [T1]
-42.58 dBm
20.355580 GHz
Marker 4 [T1]
-42.66 dBm
24.800240 GHz
D1 -6.07 dBm
D2 -26.07 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

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

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5.phtml. 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 Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Web Site: www.adt.com.tw

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

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

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

---END---