FCC TEST REPORT (15.247)

REPORT NO.:	RF110722C19C
MODEL NO.:	TEW-735AP
FCC ID:	XU8TEW735AP
RECEIVED:	Jul. 22, 2011
TESTED:	Aug. 16 ~ Sep. 15, 2011 (All tests except 6dB bandwidth and Power Spectral Density tests) Jul. 31, 2013 (6dB bandwidth and Power Spectral Density tests)
ISSUED:	Aug. 05, 2013

APPLICANT:	TRENDNET, Inc.
ADDRESS:	20675 Manhattan Place, Torrance, CA 90501, USA

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47, 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 Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF110722C19C	Original release	Aug. 05, 2013

1. CERTIFICATION

PRODUCT:	N300 High Power PoE Access Point
MODEL NO.:	TEW-735AP
BRAND:	TRENDnet
APPLICANT:	TRENDNET, Inc.
TESTED:	Aug. 16 ~ Sep. 15, 2011 (All tests except 6dB bandwidth and Power Spectral Density tests) Jul. 31, 2013 (6dB bandwidth and Power Spectral Density tests)
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 15, Subpart C (Section 15.247)** ANSI C63.10-2009

The above equipment (model: TEW-735AP) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ **, DATE :** Aug. 05, 2013
Ivy Lin / Specialist

APPROVED BY : _____ **, DATE :** Aug. 05, 2013
Ken Liu / Senior 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**	**RESULT**	**REMARK**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -3.46dB at 4.854MHz.
15.247(d) 15.209	Radiated Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -1.2dB at 2483.50MHz
15.247(d)	Band Edge Measurement	PASS	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	PASS	Meet the requirement of limit.
15.247(b)	Conducted 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	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.34 dB
	200MHz ~1000MHz	3.35 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	N300 High Power PoE Access Point
MODEL NO.	TEW-735AP
POWER SUPPLY	12Vdc (Adapter) 48Vdc (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 802.11a: 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	719mW
ANTENNA TYPE	PCB antenna with 4dBi gain
ANTENNA CONNECTOR	IPEX
DATA CABLE	NA
I/O PORTS	RJ45
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) MCS 0-7	1TX
802.11n (20MHz) MCS 8-15	2TX
802.11n (40MHz) MCS 0-7	1TX
802.11n (40MHz) MCS 8-15	2TX

2. The EUT is powered by the following adapter.

BRAND:	DVE
MODEL:	DSA-12G-12 FUS 120120
INPUT:	100-240Vac, 50/60Hz, 0.3A
OUTPUT:	12Vdc, 1.0A
POWER LINE:	DC 1.8m non-shielded cable without core

3. 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
3	2422MHz	7	2442MHz
4	2427MHz	8	2447MHz
5	2432MHz	9	2452MHz
6	2437MHz		

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	The EUT with Adapter
B	-	√	√	-	The EUT with POE

Where **RE≥1G:** Radiated Emission above 1GHz **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 **Z-plane**.
2. "-"means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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)	3 to 9	3, 6, 9	OFDM	BPSK	15.0

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

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)	3 to 9	3, 9	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)	3 to 9	3, 6, 9	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	25deg. C, 65%RH	120Vac, 60Hz	David Huang, Antony Lee
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	David Huang
PLC	24deg. C, 62%RH	120Vac, 60Hz	Antony Lee
APCM	26deg. C, 67%RH, 25deg. C, 60%RH	120Vac, 60Hz	Sun Lin, Match Tsui

3.3 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.

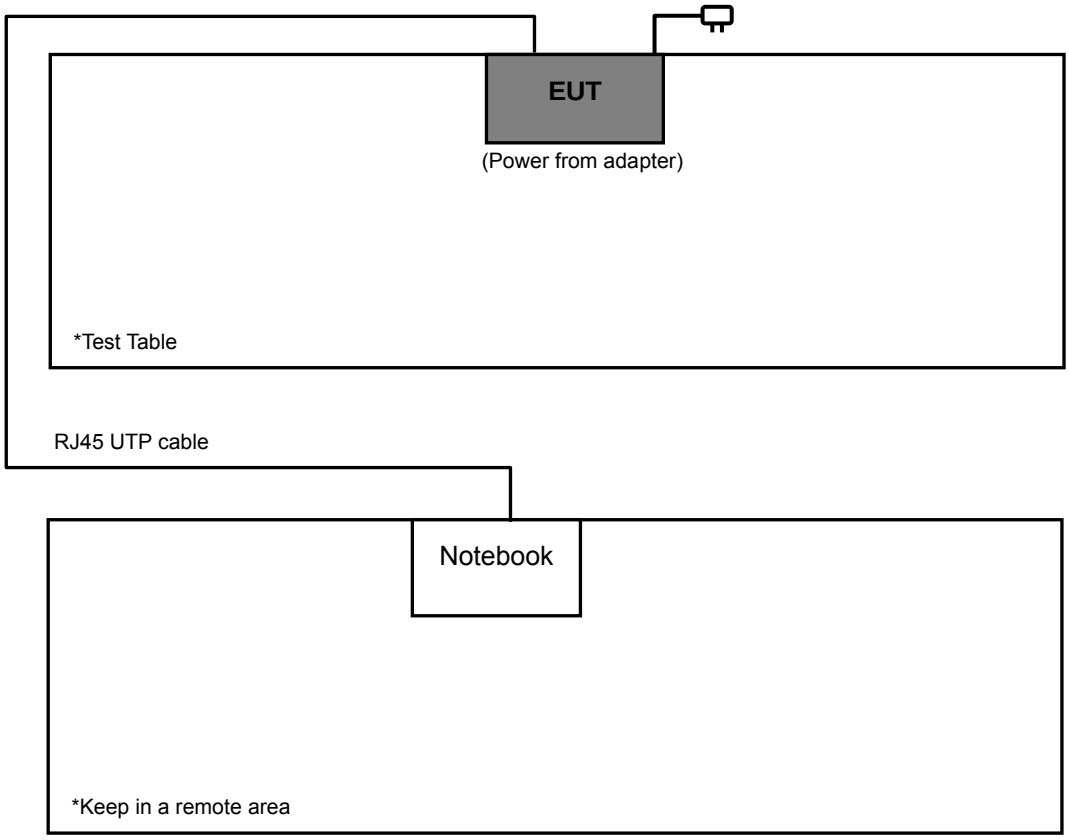
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D820	21498926752	FCC DoC Approved
2	POE	PowerDsine	PD-3001/AC	NA	NA

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

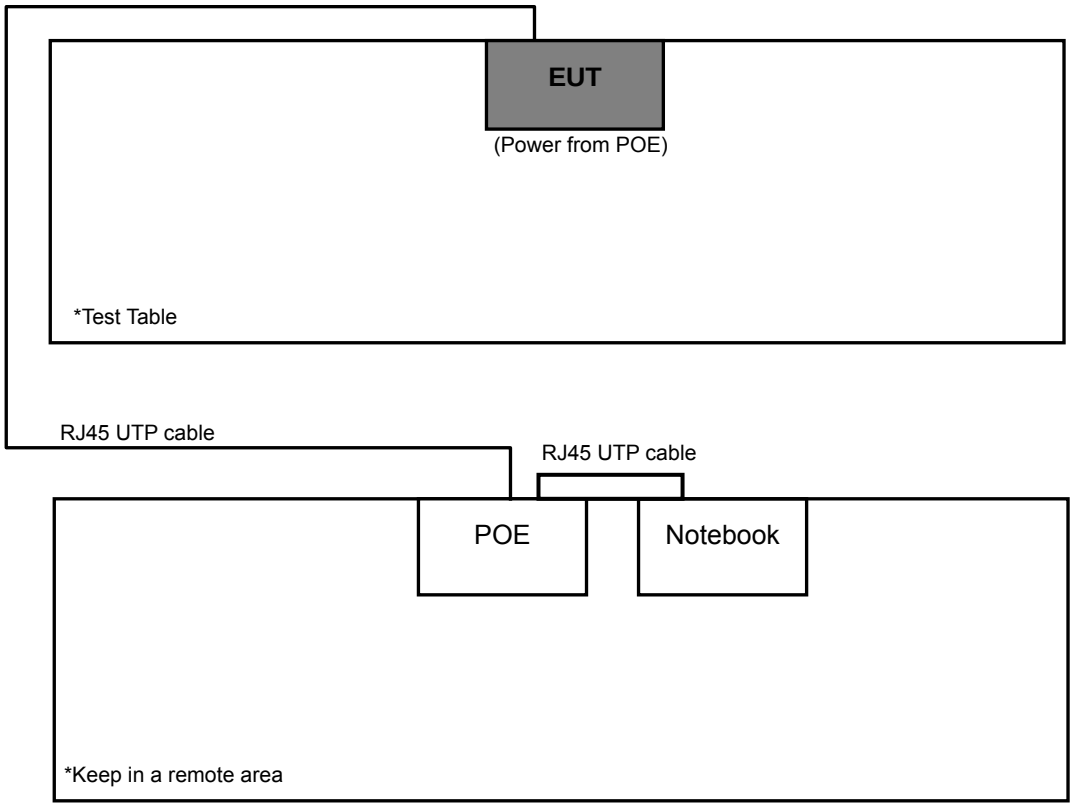
NOTE:
1. All power cords of the above support units are non shielded (1.8m).
2. Item 1 acted as a communication partner to transfer data for test mode A.
3. Items 1 ~ 2 acted as communication partners to transfer data for test mode B.
4. Item 2 is provided by the client.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

Test Mode A



Test Mode B


EUT
(Power from POE)
*Test Table
RJ45 UTP cable
RJ45 UTP cable
POE
Notebook
*Keep in a remote area

3.4 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)
558074 D01 DTS Meas Guidance v03r01
662911 D01 Multiple Transmitter Output v01 r02
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.

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION MEASUREMENT

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

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/meter)	MEASUREMENT DISTANCE (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

NOTE:

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

4.1.2 TEST INSTRUMENTS

Tested Date: Aug. 25 ~ Sep. 15, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	Aug. 02, 2011	Aug. 01, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP 40	100041	Jul. 21, 2011	Jul. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 13, 2011	Apr. 12, 2012
HORN Antenna SCHWARZBECK	9120D	209	Aug. 25, 2011	Aug. 24, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8447D	2944A10633	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01964	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295014/4	Aug. 19, 2011	Aug. 18, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	Aug. 19, 2011	Aug. 18, 2012
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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 3.

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 IC 7450F-3.

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.

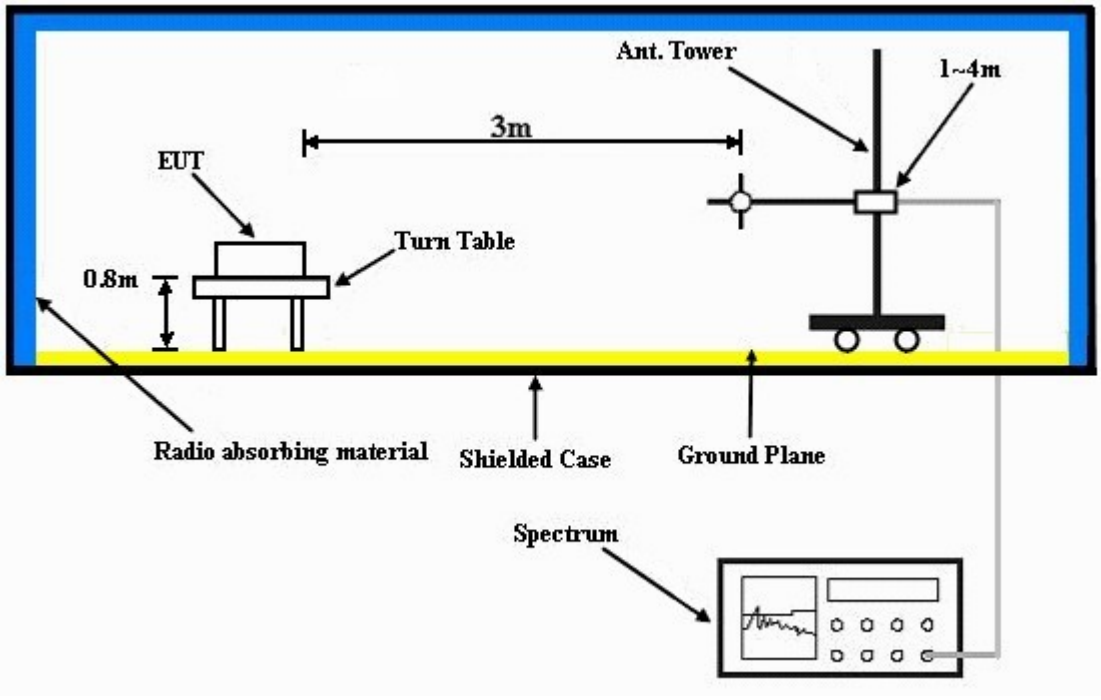
NOTE:

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 1kHz(Duty cycle < 98%) or 10Hz(Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 DEVIATION FROM TEST STANDARD

No deviation.

4.1.5 TEST SETUP



For 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. The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
c. The necessary accessories enable the system in full functions.

4.1.7 TEST RESULTS

ABOVE 1GHz DATA：

802.11b

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	58.6 PK	74.0	-15.4	1.85 H	228	25.90	32.70
2	2390.00	49.4 AV	54.0	-4.6	1.85 H	228	16.70	32.70
3	*2412.00	112.2 PK			1.87 H	228	79.50	32.70
4	*2412.00	108.3 AV			1.87 H	228	75.60	32.70
5	4824.00	53.7 PK	74.0	-20.3	1.42 H	64	14.70	39.00
6	4824.00	50.0 AV	54.0	-4.0	1.42 H	64	11.00	39.00
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	54.0 PK	74.0	-20.0	1.45 V	177	21.30	32.70
2	2390.00	44.4 AV	54.0	-9.6	1.45 V	177	11.70	32.70
3	*2412.00	107.3 PK			1.45 V	178	74.60	32.70
4	*2412.00	103.4 AV			1.45 V	178	70.70	32.70
5	4824.00	54.3 PK	74.0	-19.7	1.53 V	176	15.30	39.00
6	4824.00	52.3 AV	54.0	-1.7	1.53 V	176	13.30	39.00

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Antony Lee

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	111.1 PK			1.83 H	229	78.30	32.80
2	*2437.00	107.4 AV			1.83 H	229	74.60	32.80
3	4874.00	52.6 PK	74.0	-21.4	1.40 H	62	13.50	39.10
4	4874.00	49.1 AV	54.0	-4.9	1.40 H	62	10.00	39.10
5	7311.00	57.1 PK	74.0	-16.9	1.00 H	23	12.00	45.10
6	7311.00	45.2 AV	54.0	-8.8	1.00 H	23	0.10	45.10
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	106.0 PK			1.08 V	33	73.20	32.80
2	*2437.00	102.3 AV			1.08 V	33	69.50	32.80
3	4874.00	55.5 PK	74.0	-18.5	1.20 V	173	16.40	39.10
4	4874.00	52.3 AV	54.0	-1.7	1.20 V	173	13.20	39.10
5	7311.00	56.0 PK	74.0	-18.0	1.00 V	191	11.00	45.00
6	7311.00	47.7 AV	54.0	-6.3	1.00 V	191	2.70	45.00

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Antony Lee

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	111.5 PK			1.00 H	224	78.60	32.90
2	*2462.00	107.7 AV			1.00 H	224	74.80	32.90
3	2483.50	59.5 PK	74.0	-14.5	1.00 H	224	26.60	32.90
4	2483.50	48.2 AV	54.0	-5.8	1.00 H	224	15.30	32.90
5	4924.00	51.4 PK	74.0	-22.6	1.00 H	17	12.20	39.20
6	4924.00	46.9 AV	54.0	-7.1	1.00 H	17	7.70	39.20
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	*2462.00	106.4 PK			1.14 V	161	73.50	32.90
2	*2462.00	102.7 AV			1.14 V	161	69.80	32.90
3	2483.50	57.2 PK	74.0	-16.8	1.14 V	161	24.30	32.90
4	2483.50	47.3 AV	54.0	-6.7	1.14 V	161	14.40	32.90
5	4924.00	55.3 PK	74.0	-18.7	1.17 V	178	16.10	39.20
6	4924.00	52.5 AV	54.0	-1.5	1.17 V	178	13.30	39.20
7	7386.00	55.7 PK	74.0	-18.3	1.02 V	191	10.50	45.20
8	7386.00	48.3 AV	54.0	-5.7	1.02 V	191	3.10	45.20

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.

802.11g

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	2390.00	62.7 PK	74.0	-11.3	1.90 H	207	30.00	32.70
2	2390.00	49.9 AV	54.0	-4.1	1.90 H	207	17.20	32.70
3	*2412.00	109.6 PK			1.04 H	212	76.90	32.70
4	*2412.00	100.6 AV			1.04 H	212	67.90	32.70
5	4824.00	48.3 PK	74.0	-25.7	1.02 H	335	9.30	39.00
6	4824.00	38.5 AV	54.0	-15.5	1.02 H	335	-0.50	39.00
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	56.5 PK	74.0	-17.5	1.00 V	145	23.80	32.70
2	2390.00	46.1 AV	54.0	-7.9	1.00 V	145	13.40	32.70
3	*2412.00	101.9 PK			1.00 V	145	69.20	32.70
4	*2412.00	93.2 AV			1.00 V	145	60.50	32.70
5	4824.00	48.8 PK	74.0	-25.2	1.00 V	52	9.80	39.00
6	4824.00	36.3 AV	54.0	-17.7	1.00 V	52	-2.70	39.00

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Antony Lee

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	109.3 PK			1.00 H	223	76.50	32.80
2	*2437.00	100.2 AV			1.00 H	223	67.40	32.80
3	4874.00	51.4 PK	74.0	-22.6	1.01 H	336	12.30	39.10
4	4874.00	38.0 AV	54.0	-16.0	1.01 H	336	-1.10	39.10
5	7311.00	51.6 PK	74.0	-22.4	1.00 H	251	6.50	45.10
6	7311.00	38.7 AV	54.0	-15.3	1.00 H	251	-6.40	45.10
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	101.8 PK			1.08 V	36	69.00	32.80
2	*2437.00	92.7 AV			1.08 V	36	59.90	32.80
3	4874.00	48.0 PK	74.0	-26.0	1.00 V	104	8.90	39.10
4	4874.00	36.1 AV	54.0	-17.9	1.00 V	104	-3.00	39.10
5	7311.00	53.3 PK	74.0	-20.7	1.00 V	54	8.20	45.10
6	7311.00	39.2 AV	54.0	-14.8	1.00 V	54	-5.90	45.10

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	Antony Lee

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	109.7 PK			1.00 H	222	76.80	32.90
2	*2462.00	100.6 AV			1.00 H	222	67.70	32.90
3	2483.50	61.8 PK	74.0	-12.2	1.00 H	222	28.80	33.00
4	2483.50	50.5 AV	54.0	-3.5	1.00 H	222	17.50	33.00
5	4924.00	48.5 PK	74.0	-25.5	1.01 H	338	9.30	39.20
6	4924.00	38.6 AV	54.0	-15.4	1.01 H	338	-0.60	39.20
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	*2462.00	101.3 PK			1.14 V	161	68.40	32.90
2	*2462.00	93.6 AV			1.14 V	161	60.70	32.90
3	2483.50	62.2 PK	74.0	-11.8	1.14 V	168	29.30	32.90
4	2483.50	50.2 AV	54.0	-3.8	1.14 V	168	17.30	32.90
5	4924.00	49.3 PK	74.0	-24.7	1.00 V	57	10.10	39.20
6	4924.00	37.2 AV	54.0	-16.8	1.00 V	57	-2.00	39.20

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.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	62.4 PK	74.0	-11.6	1.03 H	31	31.30	31.10
2	2390.00	50.4 AV	54.0	-3.6	1.03 H	31	19.30	31.10
3	*2412.00	112.4 PK			1.03 H	0	81.20	31.20
4	*2412.00	101.1 AV			1.03 H	0	69.90	31.20
5	2492.00	60.9 PK	74.0	-13.1	1.00 H	349	29.40	31.50
6	2492.00	49.9 AV	54.0	-4.1	1.00 H	349	18.40	31.50
7	4824.00	45.4 PK	74.0	-28.6	1.00 H	124	8.50	36.90
8	4824.00	32.6 AV	54.0	-21.4	1.00 H	124	-4.30	36.90
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	56.4 PK	74.0	-17.6	1.05 V	239	25.30	31.10
2	2390.00	45.3 AV	54.0	-8.7	1.05 V	239	14.20	31.10
3	*2412.00	103.5 PK			1.05 V	239	72.30	31.20
4	*2412.00	92.1 AV			1.05 V	239	60.90	31.20
5	4824.00	46.4 PK	74.0	-27.6	1.10 V	241	9.50	36.90
6	4824.00	34.8 AV	54.0	-19.2	1.10 V	241	-2.10	36.90

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	112.7 PK			1.04 H	0	81.40	31.30
2	*2437.00	101.8 AV			1.04 H	0	70.50	31.30
3	2497.00	61.7 PK	74.0	-12.3	1.00 H	350	30.20	31.50
4	2497.00	50.9 AV	54.0	-3.1	1.00 H	350	19.40	31.50
5	4874.00	45.8 PK	74.0	-28.2	1.10 H	254	8.80	37.00
6	4874.00	32.8 AV	54.0	-21.2	1.10 H	254	-4.20	37.00
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	103.1 PK			1.05 V	242	71.80	31.30
2	*2437.00	91.5 AV			1.05 V	242	60.20	31.30
3	2497.00	56.6 PK	74.0	-17.4	1.05 V	267	25.10	31.50
4	2497.00	44.9 AV	54.0	-9.1	1.05 V	267	13.40	31.50
5	4874.00	46.9 PK	74.0	-27.1	1.00 V	201	9.90	37.00
6	4874.00	33.6 AV	54.0	-20.4	1.00 V	201	-3.40	37.00

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	*2462.00	112.8 PK			1.00 H	0	81.40	31.40
2	*2462.00	101.9 AV			1.00 H	0	70.50	31.40
3	2483.50	63.7 PK	74.0	-10.3	1.00 H	34	32.30	31.40
4	**2483.50**	**52.8 AV**	**54.0**	**-1.2**	**1.00 H**	**34**	**21.40**	**31.40**
5	4924.00	45.8 PK	74.0	-28.2	1.00 H	154	8.70	37.10
6	4924.00	32.6 AV	54.0	-21.4	1.00 H	154	-4.50	37.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2462.00	103.7 PK			1.00 V	154	72.30	31.40
2	*2462.00	92.0 AV			1.00 V	154	60.60	31.40
3	2483.50	55.8 PK	74.0	-18.2	1.00 V	154	24.40	31.40
4	2483.50	44.4 AV	54.0	-9.6	1.00 V	154	13.00	31.40
5	4924.00	45.9 PK	74.0	-28.1	1.00 V	157	8.80	37.10
6	4924.00	33.9 AV	54.0	-20.1	1.00 V	157	-3.20	37.10

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 3	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	64.5 PK	74.0	-9.5	1.03 H	7	33.40	31.10
2	2390.00	52.7 AV	54.0	-1.3	1.03 H	7	21.60	31.10
3	*2422.00	109.2 PK			1.03 H	0	78.00	31.20
4	*2422.00	98.2 AV			1.03 H	0	67.00	31.20
5	4844.00	45.3 PK	74.0	-28.7	1.00 H	254	8.40	36.90
6	4844.00	32.5 AV	54.0	-21.5	1.00 H	254	-4.40	36.90
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	58.4 PK	74.0	-15.6	1.05 V	247	27.30	31.10
2	2390.00	46.9 AV	54.0	-7.1	1.05 V	247	15.80	31.10
3	*2422.00	100.3 PK			1.05 V	240	69.10	31.20
4	*2422.00	88.9 AV			1.05 V	240	57.70	31.20
5	4844.00	44.4 PK	74.0	-29.6	1.10 V	196	7.50	36.90
6	4844.00	32.3 AV	54.0	-21.7	1.10 V	196	-4.60	36.90

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	2377.00	60.1 PK	74.0	-13.9	1.31 H	268	29.10	31.00
2	2377.00	49.5 AV	54.0	-4.5	1.31 H	268	18.50	31.00
3	*2437.00	107.6 PK			1.27 H	2	76.30	31.30
4	*2437.00	97.4 AV			1.27 H	2	66.10	31.30
5	2497.00	61.5 PK	74.0	-12.5	1.31 H	332	30.00	31.50
6	2497.00	51.1 AV	54.0	-2.9	1.31 H	332	19.60	31.50
7	4874.00	45.7 PK	74.0	-28.3	1.10 H	296	8.70	37.00
8	4874.00	32.9 AV	54.0	-21.1	1.10 H	296	-4.10	37.00
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	2320.00	57.8 PK	74.0	-16.2	1.00 V	241	26.90	30.90
2	2320.00	47.7 AV	54.0	-6.3	1.00 V	241	16.80	30.90
3	*2437.00	100.1 PK			1.04 V	239	68.80	31.30
4	*2437.00	88.5 AV			1.04 V	239	57.20	31.30
5	4874.00	44.4 PK	74.0	-29.6	1.00 V	158	7.40	37.00
6	4874.00	32.5 AV	54.0	-21.5	1.00 V	158	-4.50	37.00

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 9	FREQUENCY RANGE	1 ~ 25GHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	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	107.0 PK			1.01 H	0	75.60	31.40
2	*2452.00	96.4 AV			1.01 H	0	65.00	31.40
3	2483.50	63.8 PK	74.0	-10.2	1.01 H	0	32.30	31.50
4	2483.50	52.5 AV	54.0	-1.5	1.01 H	0	21.00	31.50
5	4924.00	46.9 PK	74.0	-27.1	1.00 H	135	9.80	37.10
6	4924.00	33.5 AV	54.0	-20.5	1.00 H	135	-3.60	37.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*2452.00	98.3 PK			1.00 V	153	67.00	31.30
2	*2452.00	87.0 AV			1.00 V	153	55.70	31.30
3	2483.50	55.7 PK	74.0	-18.3	1.00 V	167	24.30	31.40
4	2483.50	44.4 AV	54.0	-9.6	1.00 V	167	13.00	31.40
5	4924.00	44.5 PK	74.0	-29.5	1.00 V	210	7.40	37.10
6	4924.00	32.5 AV	54.0	-21.5	1.00 V	210	-4.60	37.10

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 (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang
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	156.28	32.9 QP	43.5	-10.6	2.25 H	82	18.20	14.70
2	249.60	38.7 QP	46.0	-7.3	1.00 H	265	25.70	13.00
3	434.31	38.2 QP	46.0	-7.8	2.25 H	319	19.80	18.40
4	549.03	36.1 QP	46.0	-9.9	1.50 H	31	14.80	21.30
5	624.85	39.1 QP	46.0	-6.9	1.25 H	316	16.20	22.90
6	677.35	38.4 QP	46.0	-7.6	1.00 H	40	14.70	23.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	36.8 QP	40.0	-3.2	1.50 V	106	23.30	13.50
2	121.28	37.5 QP	43.5	-6.0	1.00 V	175	24.90	12.60
3	249.60	38.1 QP	46.0	-7.9	2.00 V	211	25.10	13.00
4	414.87	38.5 QP	46.0	-7.5	1.00 V	337	20.70	17.80
5	469.31	38.6 QP	46.0	-7.4	1.00 V	10	19.30	19.30
6	500.42	38.1 QP	46.0	-7.9	1.00 V	19	17.90	20.20

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.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 1	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH	TESTED BY	David Huang
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	156.28	32.8 QP	43.5	-10.7	2.00 H	289	18.10	14.70
2	249.60	37.5 QP	46.0	-8.5	1.00 H	259	24.50	13.00
3	416.81	42.0 QP	46.0	-4.0	2.25 H	304	24.10	17.90
4	547.08	33.2 QP	46.0	-12.8	1.25 H	52	12.00	21.20
5	624.85	37.1 QP	46.0	-8.9	1.25 H	307	14.20	22.90
6	729.84	34.1 QP	46.0	-11.9	2.25 H	307	9.70	24.40
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	103.78	33.0 QP	43.5	-10.5	1.00 V	241	22.30	10.70
2	249.60	37.7 QP	46.0	-8.3	1.50 V	34	24.70	13.00
3	414.87	40.5 QP	46.0	-5.5	1.00 V	172	22.70	17.80
4	469.31	38.3 QP	46.0	-7.7	1.00 V	346	19.00	19.30
5	624.85	33.0 QP	46.0	-13.0	1.00 V	265	10.10	22.90
6	702.62	33.2 QP	46.0	-12.8	1.25 V	4	9.10	24.10

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

Tested Date: Sep. 14, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Nov. 30, 2010	Nov. 29, 2011
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 30, 2010	Dec. 29, 2011
LISN ROHDE & SCHWARZ	ESH3-Z5	100312	Jul. 07, 2011	Jul. 06, 2012
LISN ROHDE & SCHWARZ	ESH3-Z5	835239/001	Feb. 22, 2011	Feb. 21, 2012
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 1.

3. The VCCI Site Registration No. is C-2040.

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.

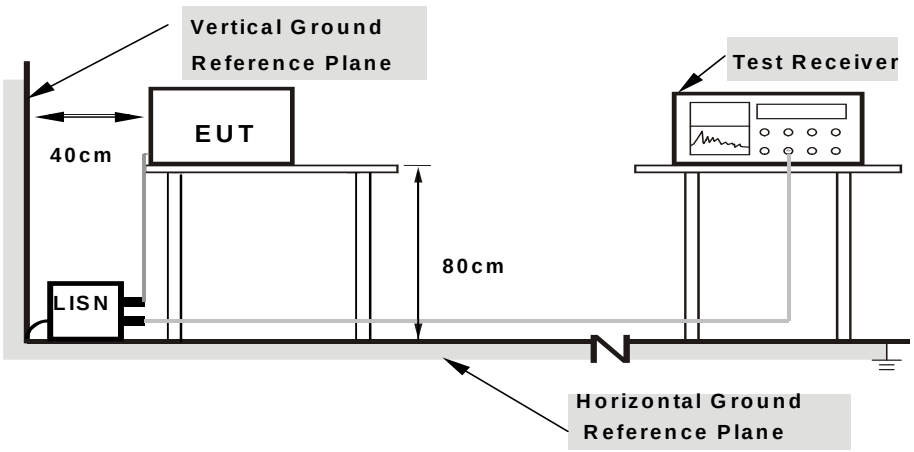
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

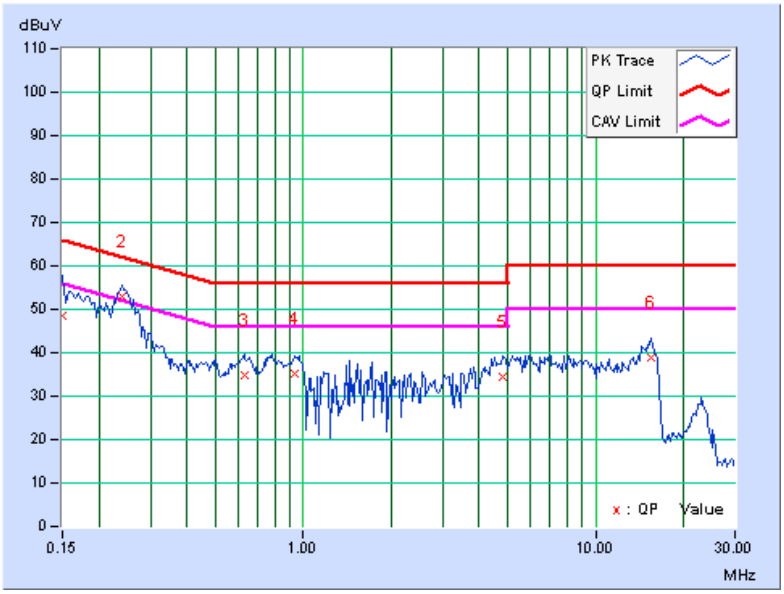
4.2.7 TEST RESULTS

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	0.150	0.11	48.39	31.69	48.51	31.80	66.00	56.00	-17.49	-24.20
2	0.240	0.12	52.85	42.73	52.97	42.85	62.10	52.10	-9.13	-9.25
3	0.627	0.14	34.84	24.17	34.98	24.31	56.00	46.00	-21.02	-21.69
4	0.931	0.16	35.06	22.27	35.22	22.43	56.00	46.00	-20.78	-23.57
5	4.785	0.36	34.25	26.54	34.61	26.90	56.00	46.00	-21.39	-19.10
6	15.492	0.90	38.06	30.93	38.96	31.83	60.00	50.00	-21.04	-18.17

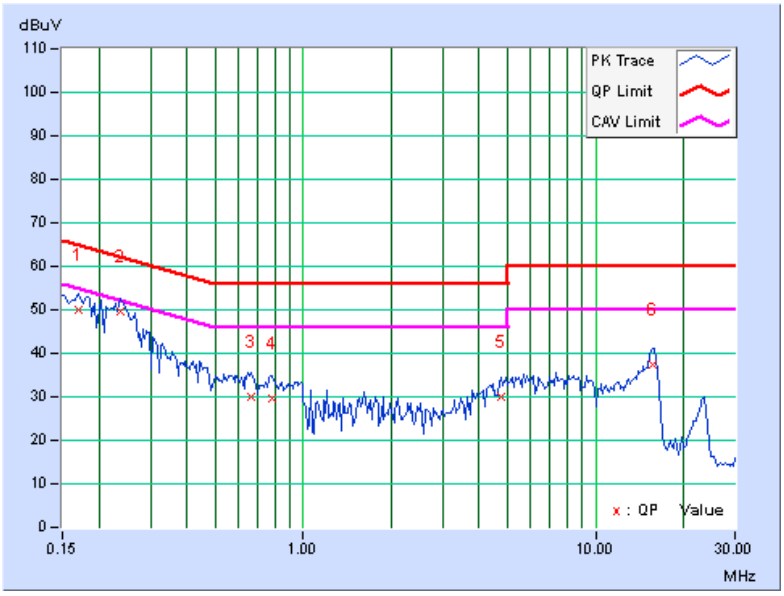
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



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	0.170	0.13	49.86	32.30	49.99	32.43	64.98	54.98	-15.00	-22.56
2	0.236	0.13	49.49	38.81	49.62	38.94	62.24	52.24	-12.62	-13.30
3	0.666	0.16	30.00	18.74	30.16	18.90	56.00	46.00	-25.84	-27.10
4	0.783	0.17	29.63	19.92	29.80	20.09	56.00	46.00	-26.20	-25.91
5	4.746	0.36	29.66	21.23	30.02	21.59	56.00	46.00	-25.98	-24.41
6	15.629	0.77	36.81	28.66	37.58	29.43	60.00	50.00	-22.42	-20.57

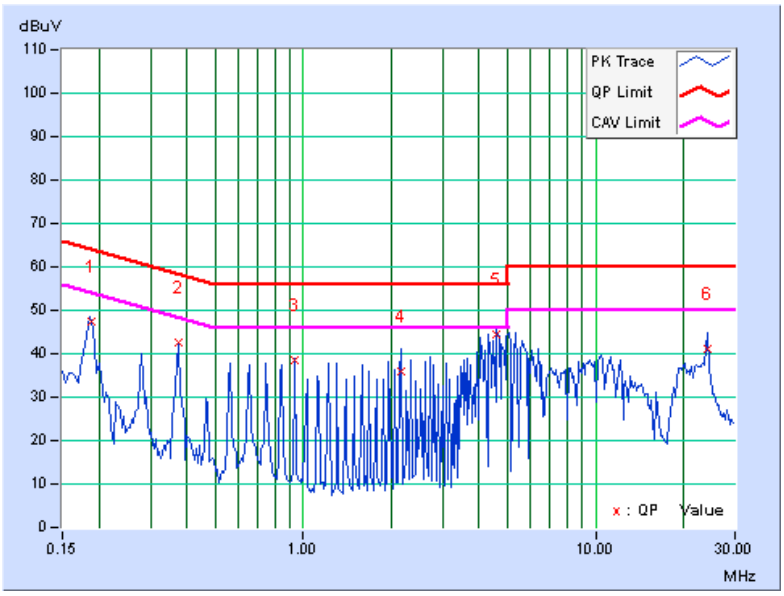
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	0.188	0.12	47.21	40.63	47.33	40.75	64.14	54.14	-16.81	-13.39
2	0.374	0.12	42.53	42.18	42.65	42.30	58.41	48.41	-15.76	-6.11
3	0.935	0.16	38.38	37.49	38.54	37.65	56.00	46.00	-17.46	-8.35
4	2.150	0.20	35.84	32.75	36.04	32.95	56.00	46.00	-19.96	-13.05
5	4.578	0.34	44.10	41.75	44.44	42.09	56.00	46.00	-11.56	-3.91
6	24.034	1.33	39.62	39.21	40.95	40.54	60.00	50.00	-19.05	-9.46

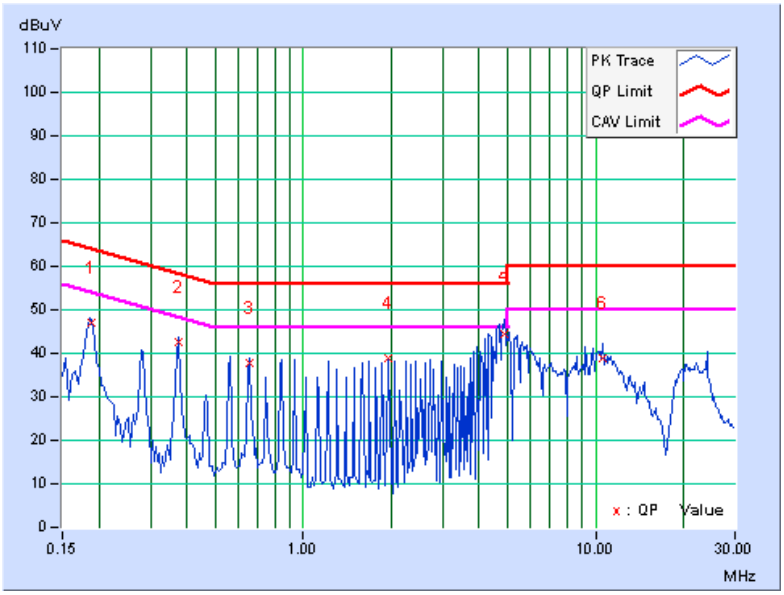
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission 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	0.188	0.13	46.76	39.79	46.89	39.92	64.14	54.14	-17.25	-14.22
2	0.375	0.14	42.37	41.89	42.51	42.03	58.39	48.39	-15.88	-6.36
3	0.654	0.16	37.74	36.97	37.90	37.13	56.00	46.00	-18.10	-8.87
4	1.961	0.20	38.64	37.67	38.84	37.87	56.00	46.00	-17.16	-8.13
5	**4.854**	**0.36**	**44.09**	**42.18**	**44.45**	**42.54**	**56.00**	**46.00**	**-11.55**	**-3.46**
6	10.551	0.63	38.20	34.99	38.83	35.62	60.00	50.00	-21.17	-14.38

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.

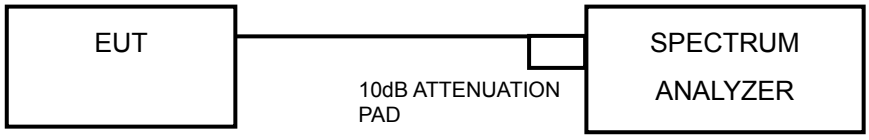


4.3 6dB BANDWIDTH MEASUREMENT

4.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Tested Date: Jul. 31, 2013

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100039	Jan. 31, 2013	Jan. 30, 2014

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

4.3.4 TEST PROCEDURE

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

4.3.5 DEVIATION 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 RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
1	2412	9.19	0.5	PASS
6	2437	9.18	0.5	PASS
11	2462	10.11	0.5	PASS

802.11g

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

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
1	2412	17.60	17.58	0.5	PASS
6	2437	17.66	17.64	0.5	PASS
11	2462	17.62	17.63	0.5	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)		MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1		
3	2422	35.84	35.78	0.5	PASS
6	2437	36.12	35.31	0.5	PASS
9	2452	35.77	35.30	0.5	PASS

4.4 CONDUCTED OUTPUT POWER

4.4.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

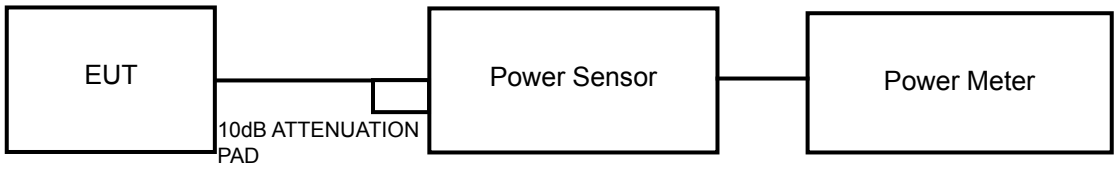
For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

Per KDB 662911 D01 Multiple Transmitter Output v01r02 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Tested Date: Aug. 16, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
High Speed Peak Power Meter	ML2495A	0824011	Aug. 04, 2011	Aug. 03, 2012
Power Sensor	MA2411B	0738171	Aug. 04, 2011	Aug. 03, 2012

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.

4.4.4 TEST PROCEDURES

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as Item 4.3.6.

4.4.7 TEST RESULTS

802.11b

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	281.8	24.5	30	PASS
6	2437	218.8	23.4	30	PASS
11	2462	229.1	23.6	30	PASS

802.11g

CHANNEL	FREQUENCY (MHz)	PEAK POWER (mW)	PEAK POWER (dBm)	LIMIT (dBm)	PASS/FAIL
1	2412	524.8	27.2	30	PASS
6	2437	549.5	27.4	30	PASS
11	2462	501.2	27.0	30	PASS

802.11n (20MHz)

CHAN.	FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
1	2412	25.3	25.8	**719.0**	28.6	30	PASS
6	2437	25.1	25.8	703.8	28.5	30	PASS
11	2462	24.9	25.3	647.9	28.1	30	PASS

802.11n (40MHz)

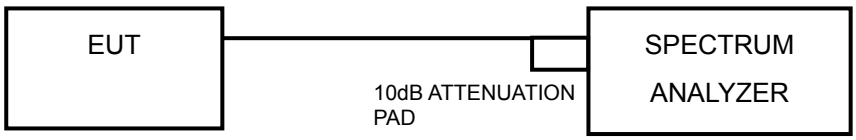
CHAN.	FREQ. (MHz)	PEAK POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
3	2422	24.9	25.4	655.8	28.2	30	PASS
6	2437	24.8	25.0	618.2	27.9	30	PASS
9	2452	23.1	23.2	413.1	26.2	30	PASS

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

Tested Date: Jul. 31, 2013

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER R&S	FSP40	100039	Jan. 31, 2013	Jan. 30, 2014

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

4.5.4 TEST PROCEDURE

a. Set the RBW = 3 kHz, VBW =10 kHz, Detector = peak.

b. Sweep time = auto couple, Trace mode = max hold, allow trace to fully stabilize.

c. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

Same as Item 4.3.6

4.5.7 TEST RESULTS

802.11b

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	3.85	8	PASS
6	2437	4.08	8	PASS
11	2462	4.49	8	PASS

802.11g

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
1	2412	-8.20	8	PASS
6	2437	-8.43	8	PASS
11	2462	-8.36	8	PASS

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	1	2412	-10.16	3.01	-7.15	6.99	PASS
	6	2437	-10.70	3.01	-7.69	6.99	PASS
	11	2462	-11.64	3.01	-8.63	6.99	PASS
1	1	2412	-10.11	3.01	-7.10	6.99	PASS
	6	2437	-10.03	3.01	-7.02	6.99	PASS
	11	2462	-10.60	3.01	-7.59	6.99	PASS

NOTE: Directional gain = 4dBi + 10log(2) = 7.01dBi > 6dBi , so the power density limit shall be reduced to 8-(7.01-6) = 6.99dBm.

802.11n (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/3kHz)	10 log (N=2) dB	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	PASS /FAIL
0	3	2422	-13.94	3.01	-10.93	6.99	PASS
	6	2437	-13.68	3.01	-10.67	6.99	PASS
	9	2452	-14.62	3.01	-11.61	6.99	PASS
1	3	2422	-12.97	3.01	-9.96	6.99	PASS
	6	2437	-13.40	3.01	-10.39	6.99	PASS
	9	2452	-14.96	3.01	-11.95	6.99	PASS

NOTE: Directional gain = 4dBi + 10log(2) = 7.01dBi > 6dBi , so the power density limit shall be reduced to 8-(7.01-6) = 6.99dBm.

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

CONDUCTED MEASUREMENT: Tested Date: Aug. 16, 2011

RADIATED MEASUREMENT: Tested Date: Aug. 25 ~ Sep. 15, 2011

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
FOR CONDUCTED MEASUREMENT				
SPECTRUM ANALYZER R&S	FSP40	100039	Feb. 23, 2011	Feb. 22, 2012
FOR RADIATED MEASUREMENT				
Test Receiver ROHDE & SCHWARZ	ESIB7	100212	Aug. 02, 2011	Aug. 01, 2012
Spectrum Analyzer ROHDE & SCHWARZ	FSP 40	100041	Jul. 21, 2011	Jul. 20, 2012
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 13, 2011	Apr. 12, 2012
HORN Antenna SCHWARZBECK	9120D	209	Aug. 25, 2011	Aug. 24, 2012
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 27, 2010	Dec. 26, 2011
Preamplifier Agilent	8447D	2944A10633	Nov. 02, 2010	Nov. 01, 2011
Preamplifier Agilent	8449B	3008A01964	Nov. 02, 2010	Nov. 01, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295014/4	Aug. 19, 2011	Aug. 18, 2012
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	Aug. 19, 2011	Aug. 18, 2012
Software ADT.	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	017303	NA	NA
Turn Table ADT.	TT100.	TT93021703	NA	NA
Turn Table Controller ADT.	SC100.	SC93021703	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.

f. 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)

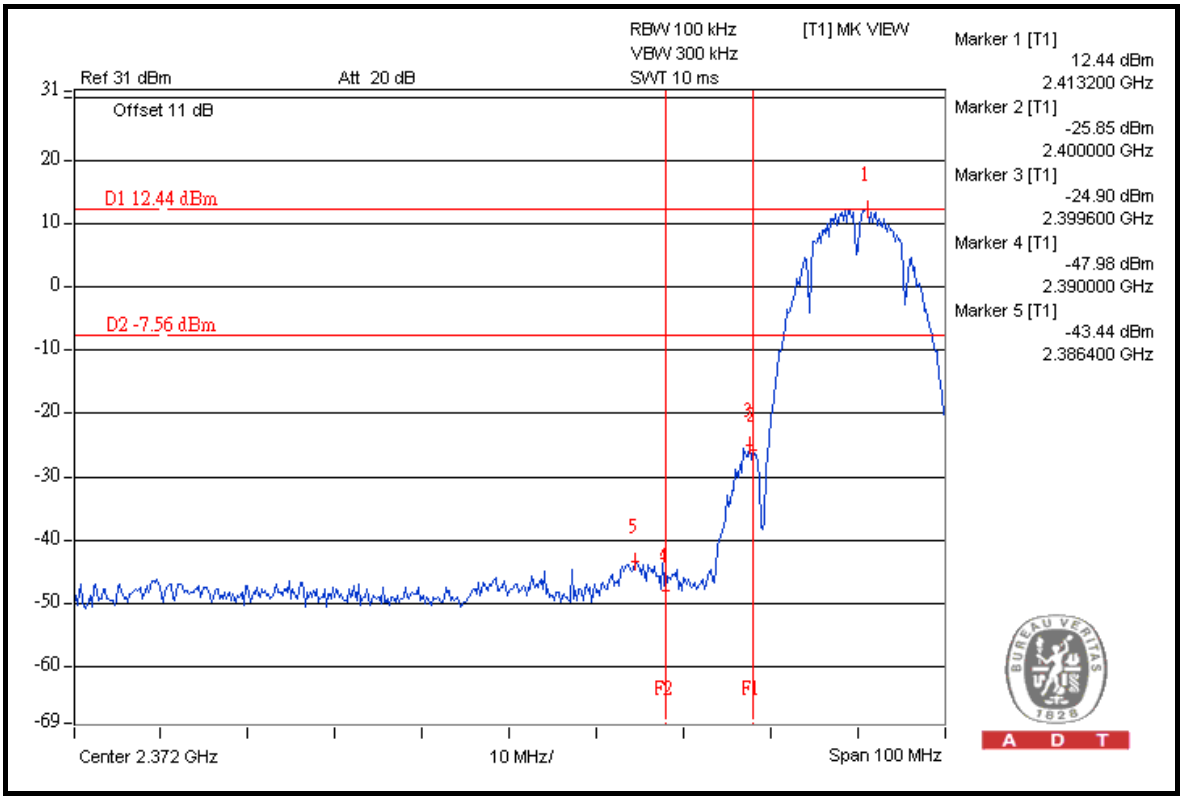
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	112.2	55.88	56.32	74.00
2412.00 (AV)	108.3	57.58	50.72	54.00

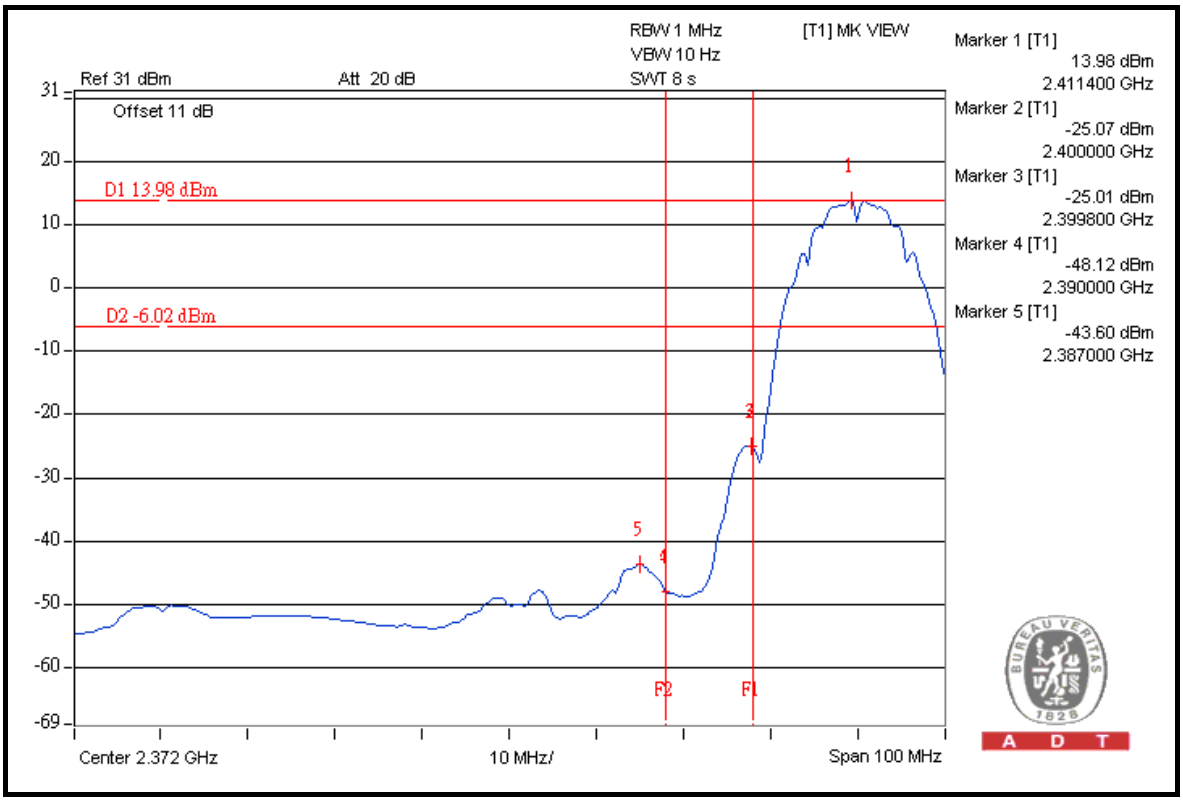
RESTRICT BAND (2483.5 ~ 2500 MHz)

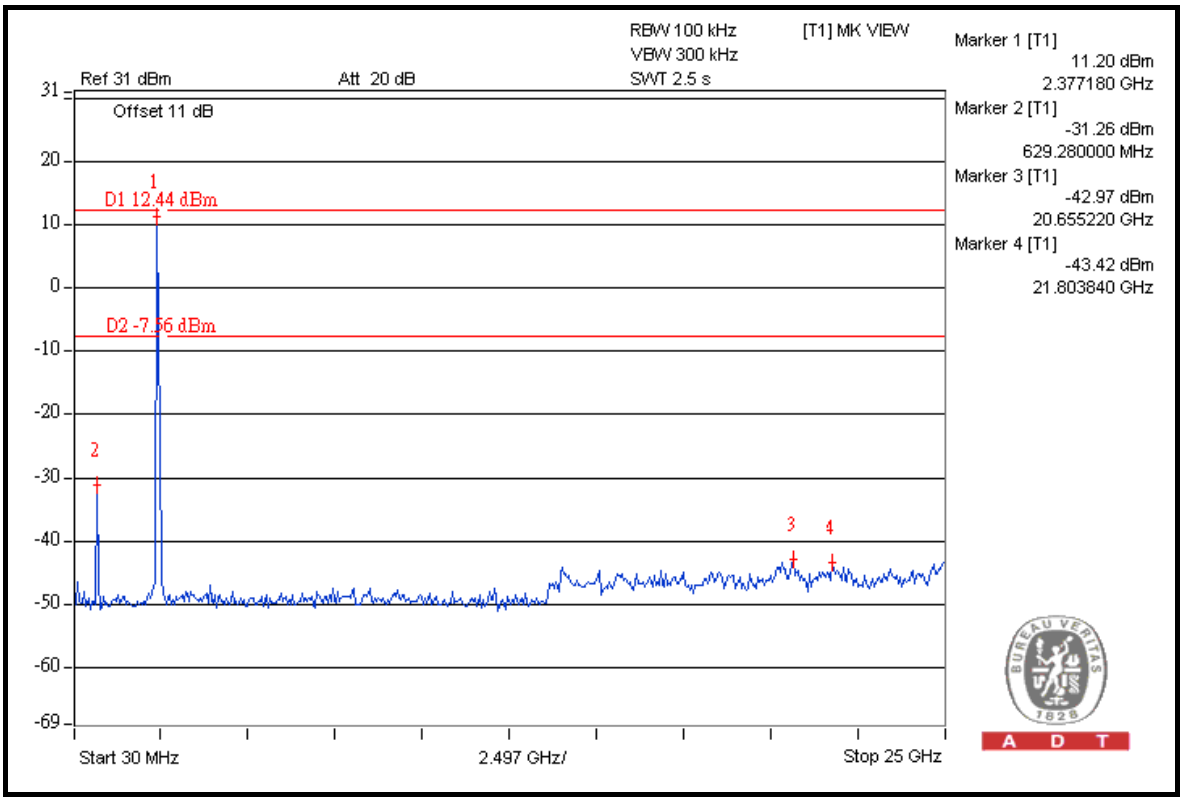
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	111.5	56.90	54.60	74.00
2462.00 (AV)	107.7	58.62	49.08	54.00

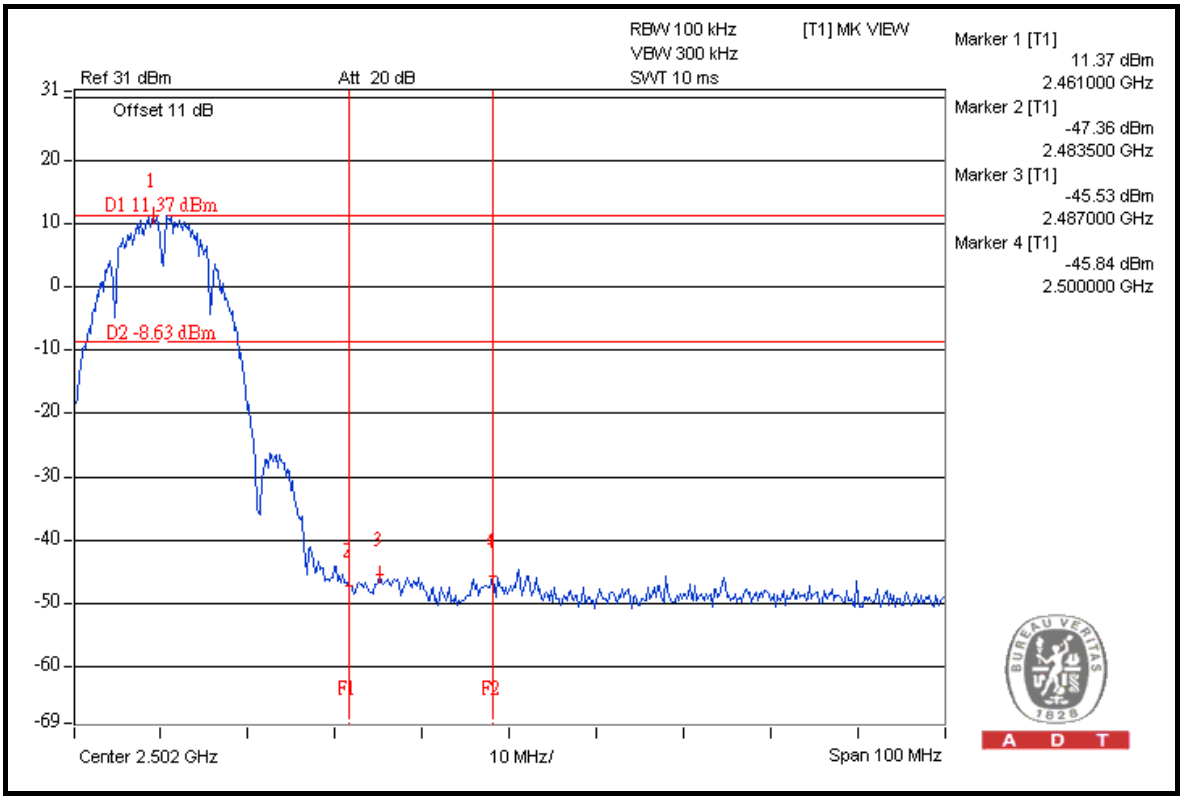
NOTE:

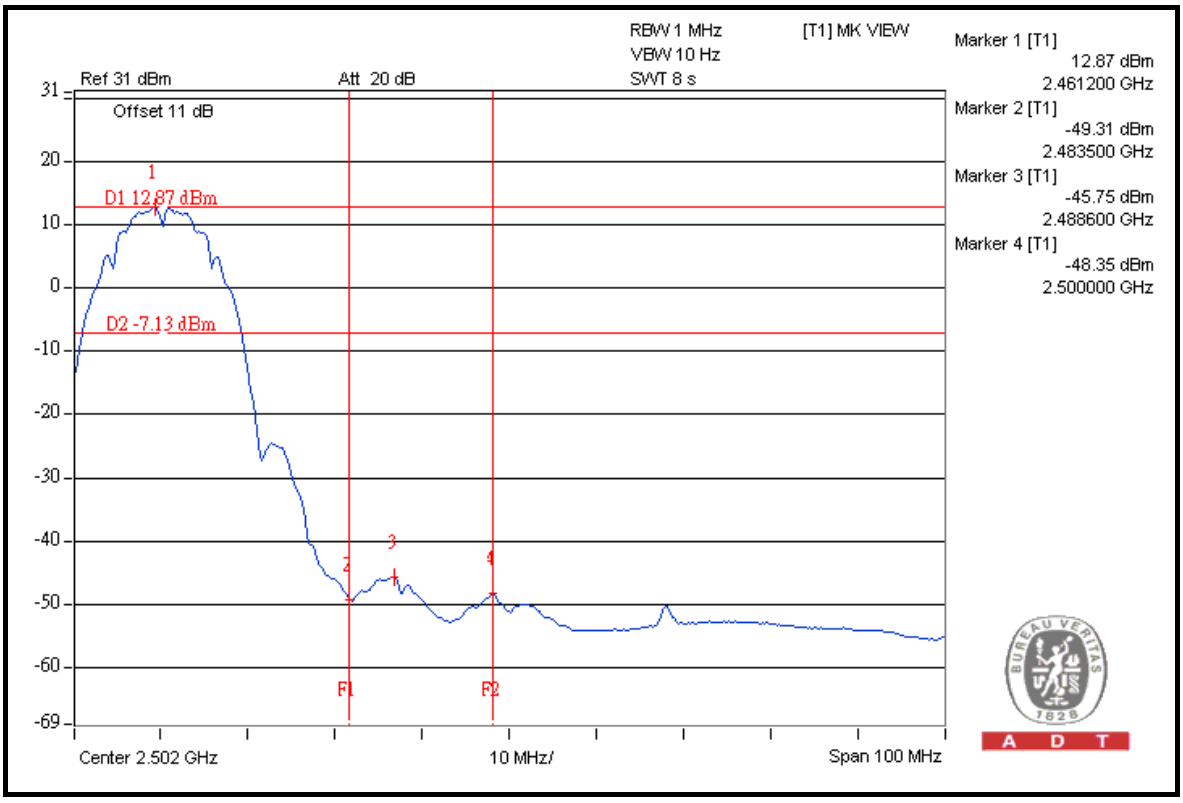
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

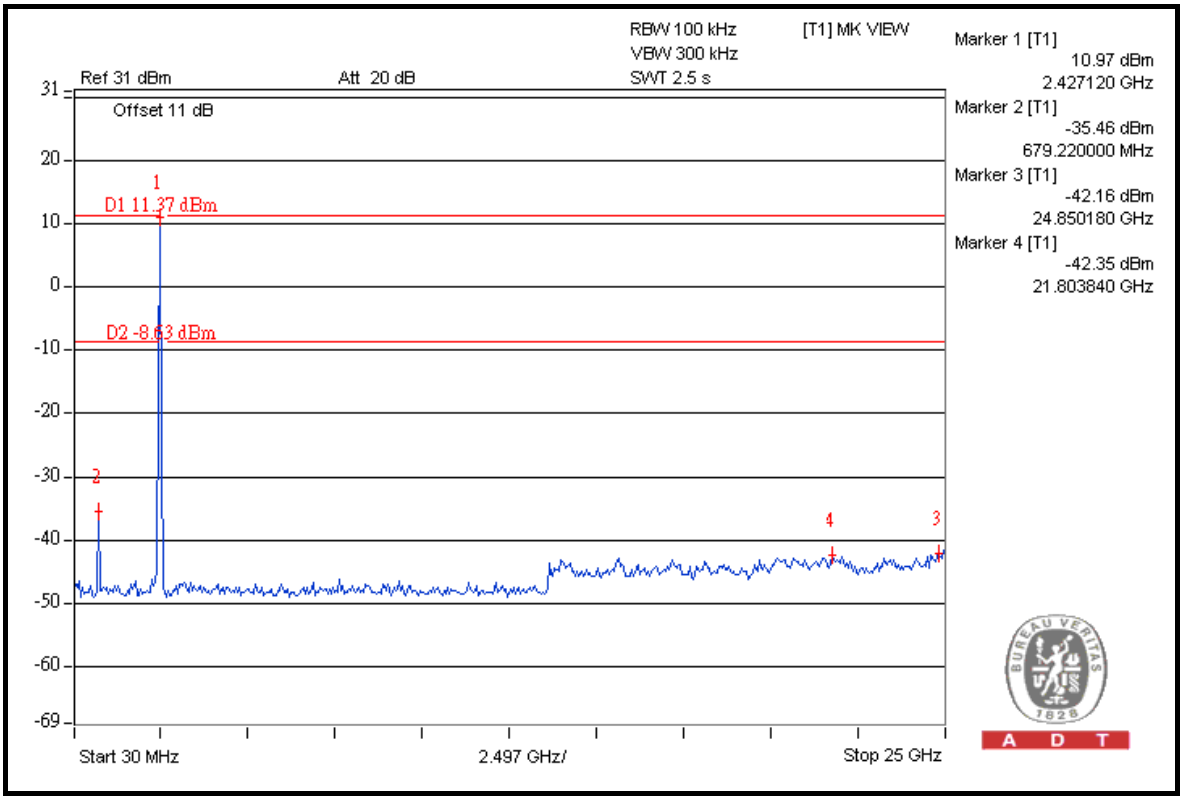

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 12.44 dBm
D2 -7.56 dBm
Marker 1 [T1]
12.44 dBm
2.413200 GHz
Marker 2 [T1]
-25.85 dBm
2.400000 GHz
Marker 3 [T1]
-24.90 dBm
2.399600 GHz
Marker 4 [T1]
-47.98 dBm
2.390000 GHz
Marker 5 [T1]
-43.44 dBm
2.386400 GHz
Center 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 13.98 dBm
D2 -6.02 dBm
Marker 1 [T1]
13.98 dBm
2.411400 GHz
Marker 2 [T1]
-25.07 dBm
2.400000 GHz
Marker 3 [T1]
-25.01 dBm
2.399800 GHz
Marker 4 [T1]
-48.12 dBm
2.390000 GHz
Marker 5 [T1]
-43.60 dBm
2.387000 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 12.44 dBm
D2 -7.56 dBm
Marker 1 [T1]
11.20 dBm
2.377180 GHz
Marker 2 [T1]
-31.26 dBm
629.280000 MHz
Marker 3 [T1]
-42.97 dBm
20.655220 GHz
Marker 4 [T1]
-43.42 dBm
21.803840 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 11.37 dBm
D2 -8.63 dBm
Marker 1 [T1]
11.37 dBm
2.461000 GHz
Marker 2 [T1]
-47.36 dBm
2.483500 GHz
Marker 3 [T1]
-45.53 dBm
2.487000 GHz
Marker 4 [T1]
-45.84 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 12.87 dBm
D2 -7.13 dBm
Marker 1 [T1]
12.87 dBm
2.461200 GHz
Marker 2 [T1]
-49.31 dBm
2.483500 GHz
Marker 3 [T1]
-45.75 dBm
2.488600 GHz
Marker 4 [T1]
-48.35 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 11.37 dBm
D2 -8.63 dBm
Marker 1 [T1]
10.97 dBm
2.427120 GHz
Marker 2 [T1]
-35.46 dBm
679.220000 MHz
Marker 3 [T1]
-42.16 dBm
24.850180 GHz
Marker 4 [T1]
-42.35 dBm
21.803840 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

802.11g

RESTRICT BAND (2310 ~ 2390 MHz)

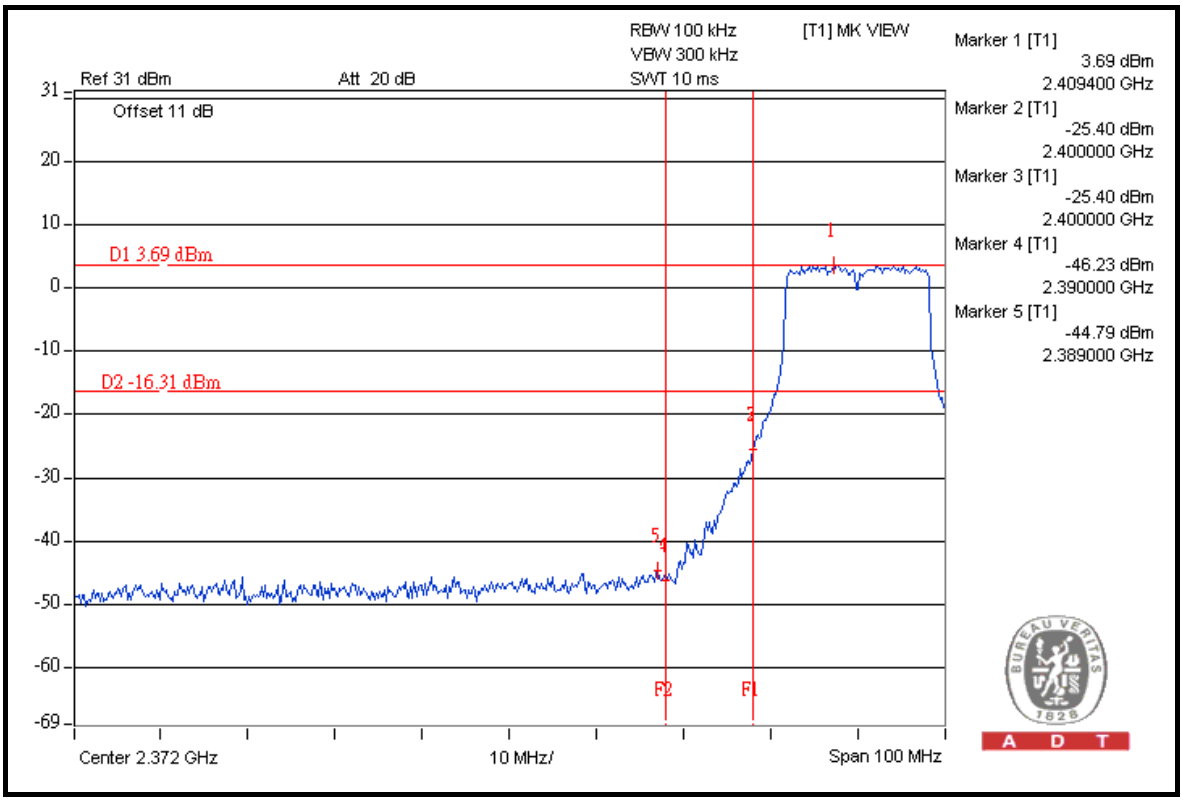
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2412.00 (PK)	109.6	48.48	61.12	74.00
2412.00 (AV)	100.6	51.92	48.68	54.00

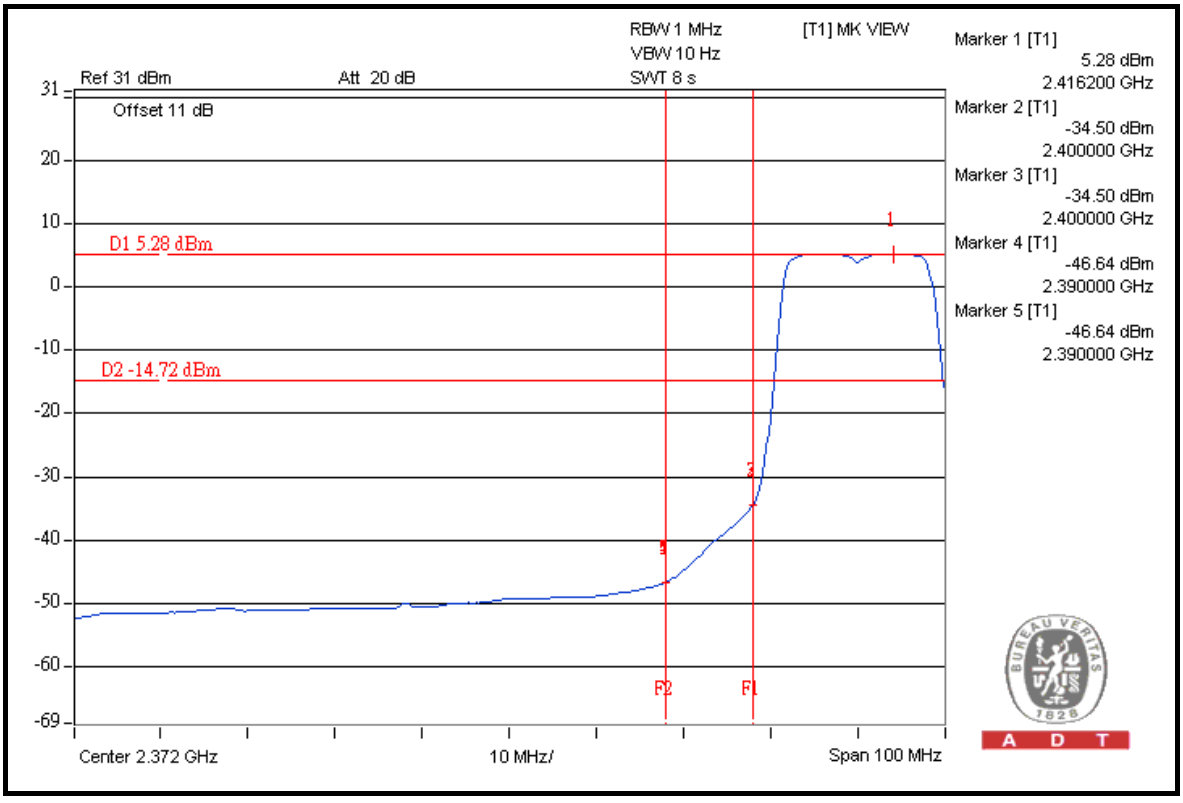
RESTRICT BAND (2483.5 ~ 2500 MHz)

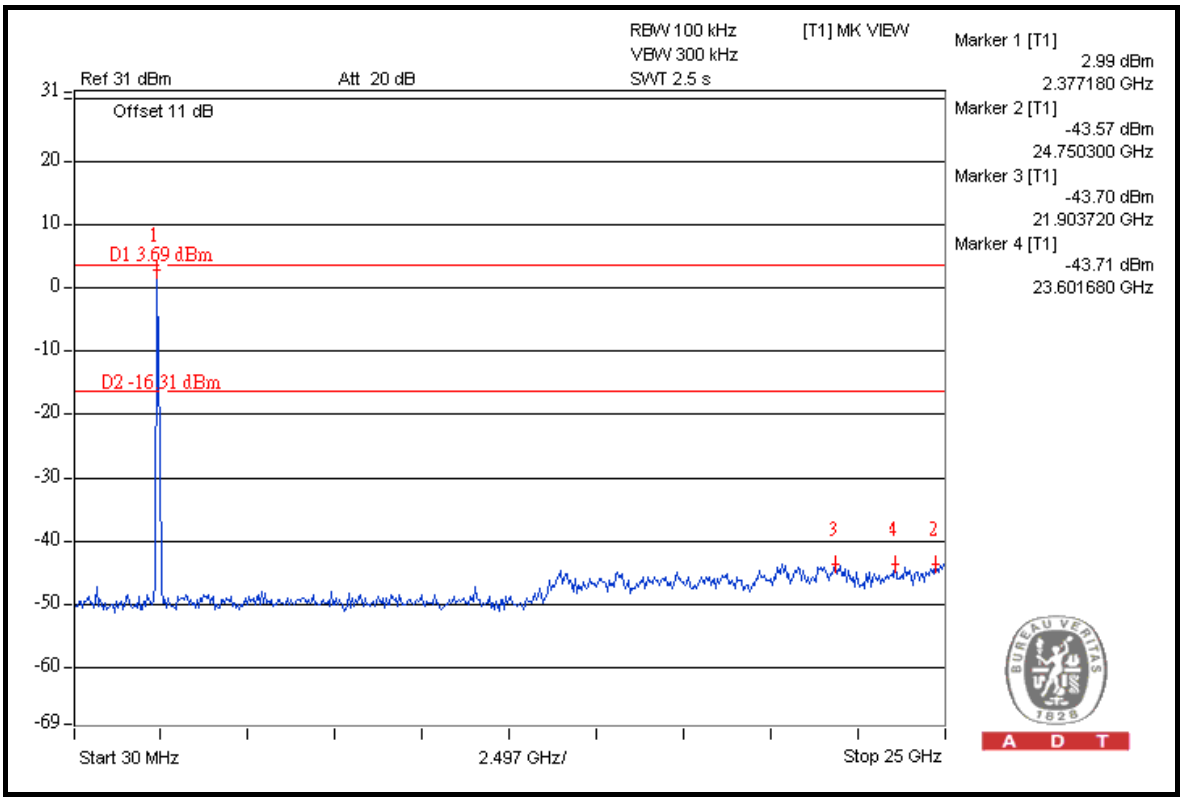
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	109.7	46.47	63.23	74.00
2462.00 (AV)	100.6	49.82	50.78	54.00

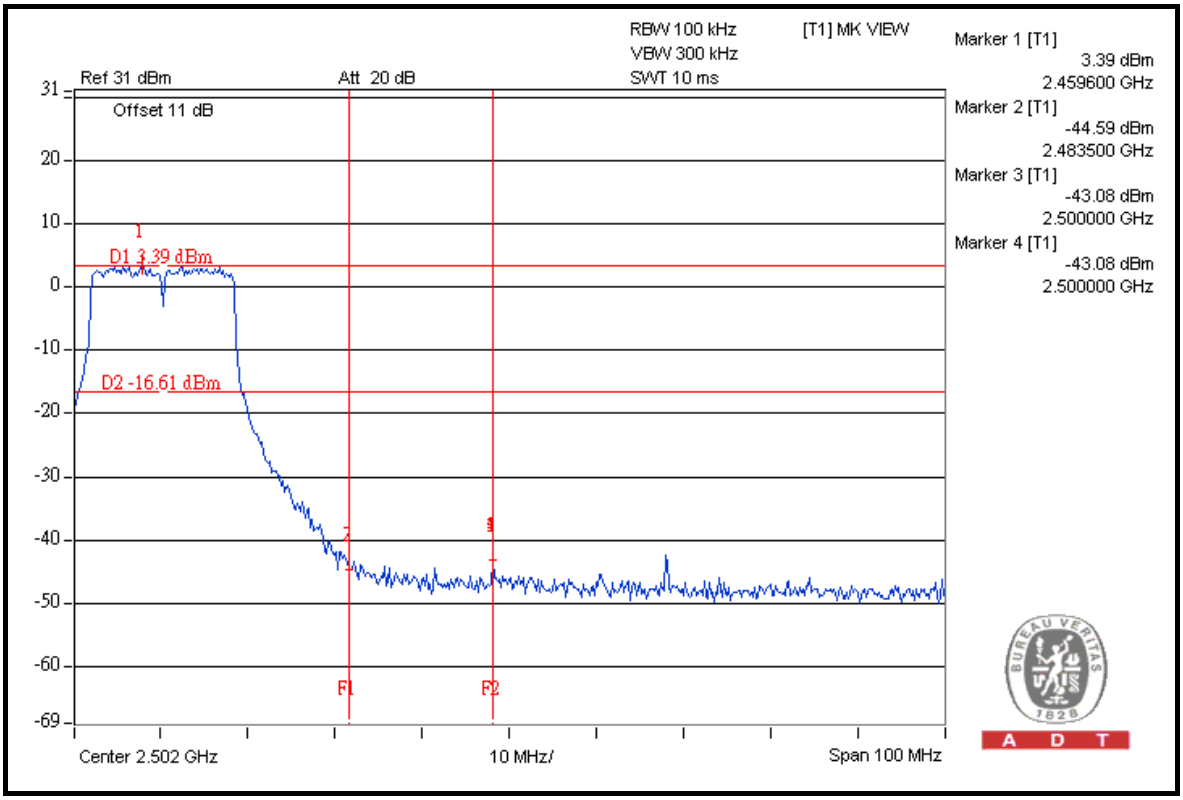
NOTE:

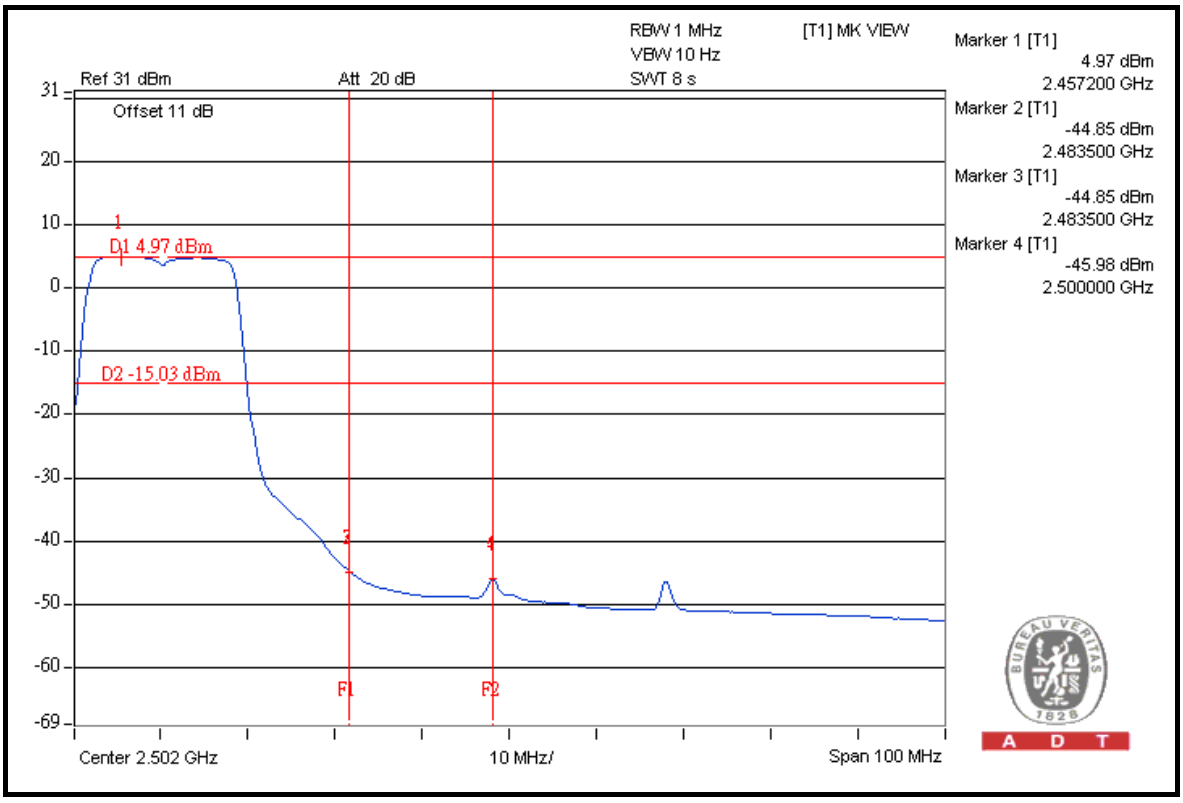
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

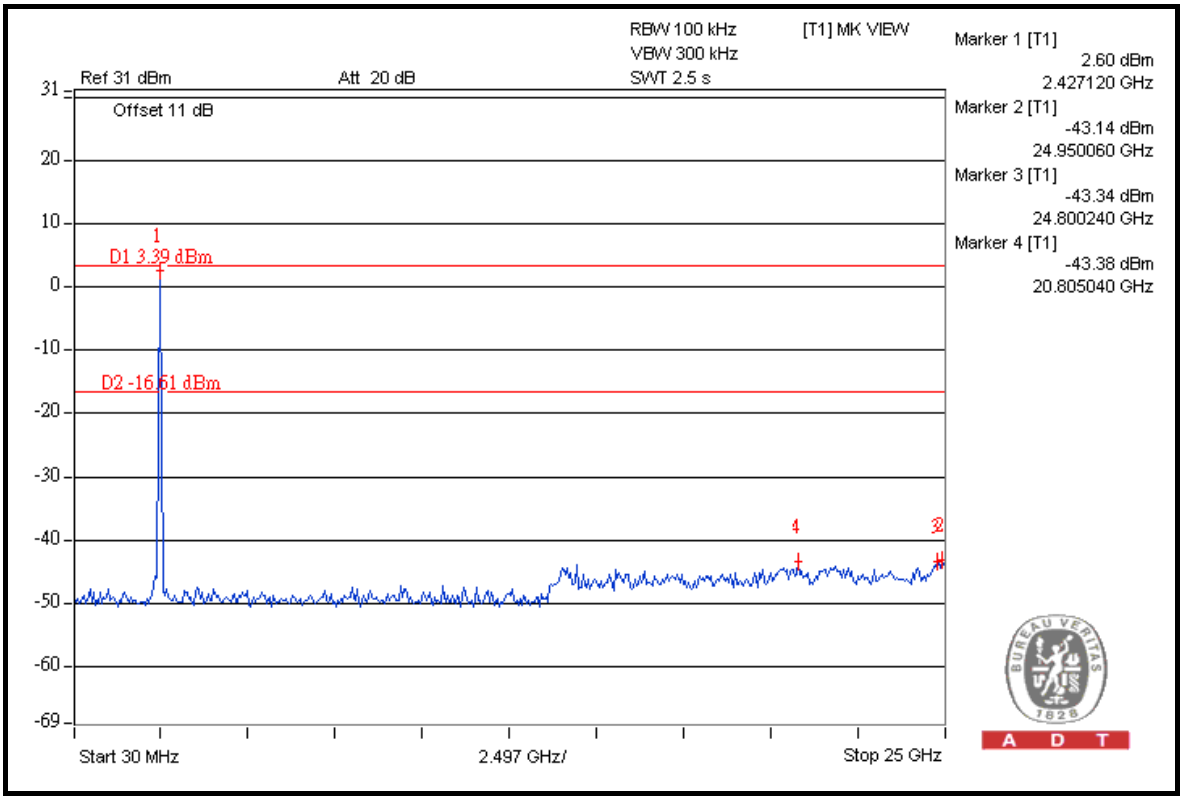

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 3.69 dBm
D2 -16.31 dBm
Marker 1 [T1]
3.69 dBm
2.409400 GHz
Marker 2 [T1]
-25.40 dBm
2.400000 GHz
Marker 3 [T1]
-25.40 dBm
2.400000 GHz
Marker 4 [T1]
-46.23 dBm
2.390000 GHz
Marker 5 [T1]
-44.79 dBm
2.389000 GHz
Center 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 5.28 dBm
D2 -14.72 dBm
Marker 1 [T1]
5.28 dBm
2.416200 GHz
Marker 2 [T1]
-34.50 dBm
2.400000 GHz
Marker 3 [T1]
-34.50 dBm
2.400000 GHz
Marker 4 [T1]
-46.64 dBm
2.390000 GHz
Marker 5 [T1]
-46.64 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 -16.31 dBm
Marker 1 [T1]
2.99 dBm
2.377180 GHz
Marker 2 [T1]
-43.57 dBm
24.750300 GHz
Marker 3 [T1]
-43.70 dBm
21.903720 GHz
Marker 4 [T1]
-43.71 dBm
23.601680 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 3.39 dBm
D2 -16.61 dBm
Marker 1 [T1]
3.39 dBm
2.459600 GHz
Marker 2 [T1]
-44.59 dBm
2.483500 GHz
Marker 3 [T1]
-43.08 dBm
2.500000 GHz
Marker 4 [T1]
-43.08 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 4.97 dBm
D2 -15.03 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
4.97 dBm
2.457200 GHz
Marker 2 [T1]
-44.85 dBm
2.483500 GHz
Marker 3 [T1]
-44.85 dBm
2.483500 GHz
Marker 4 [T1]
-45.98 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 3.39 dBm
D2 -16.61 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
2.60 dBm
2.427120 GHz
Marker 2 [T1]
-43.14 dBm
24.950060 GHz
Marker 3 [T1]
-43.34 dBm
24.800240 GHz
Marker 4 [T1]
-43.38 dBm
20.805040 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)	112.4	48.46	63.94	74.00
2412.00 (AV)	101.1	51.08	50.02	54.00

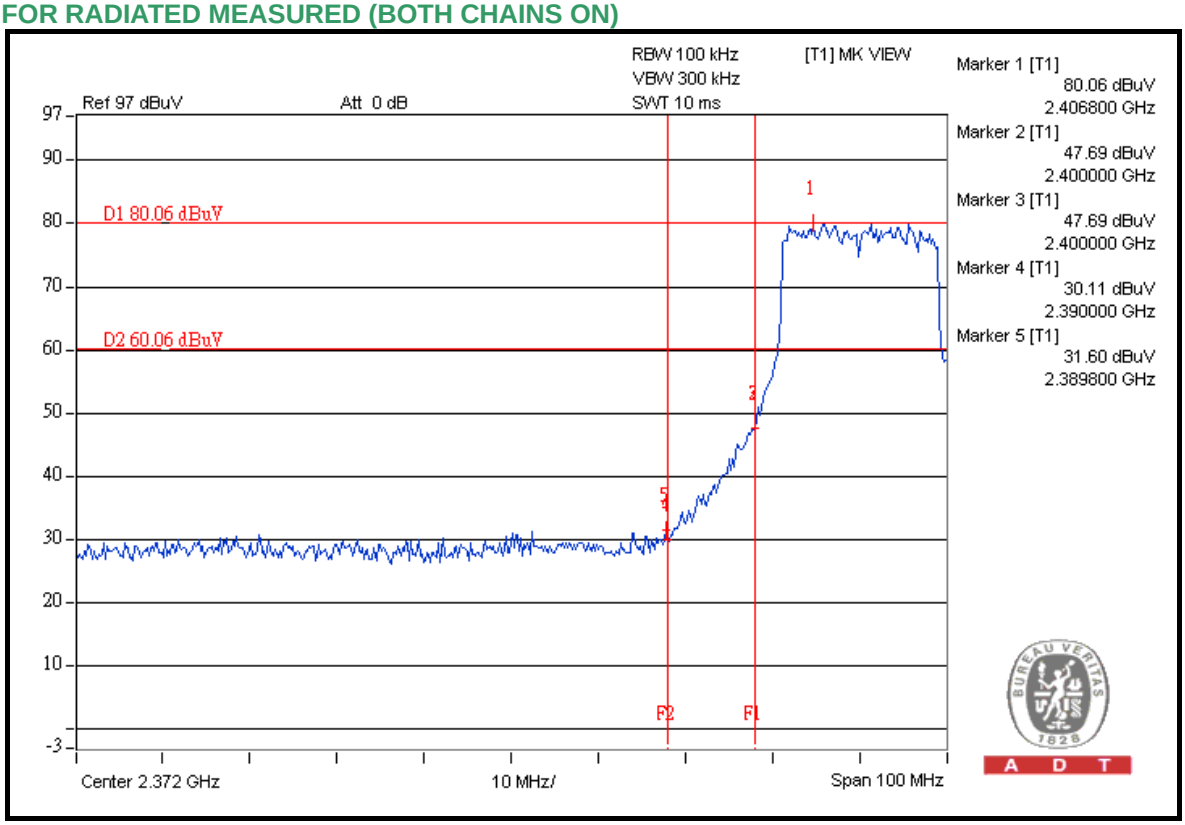
RESTRICT BAND (2483.5 ~ 2500 MHz)

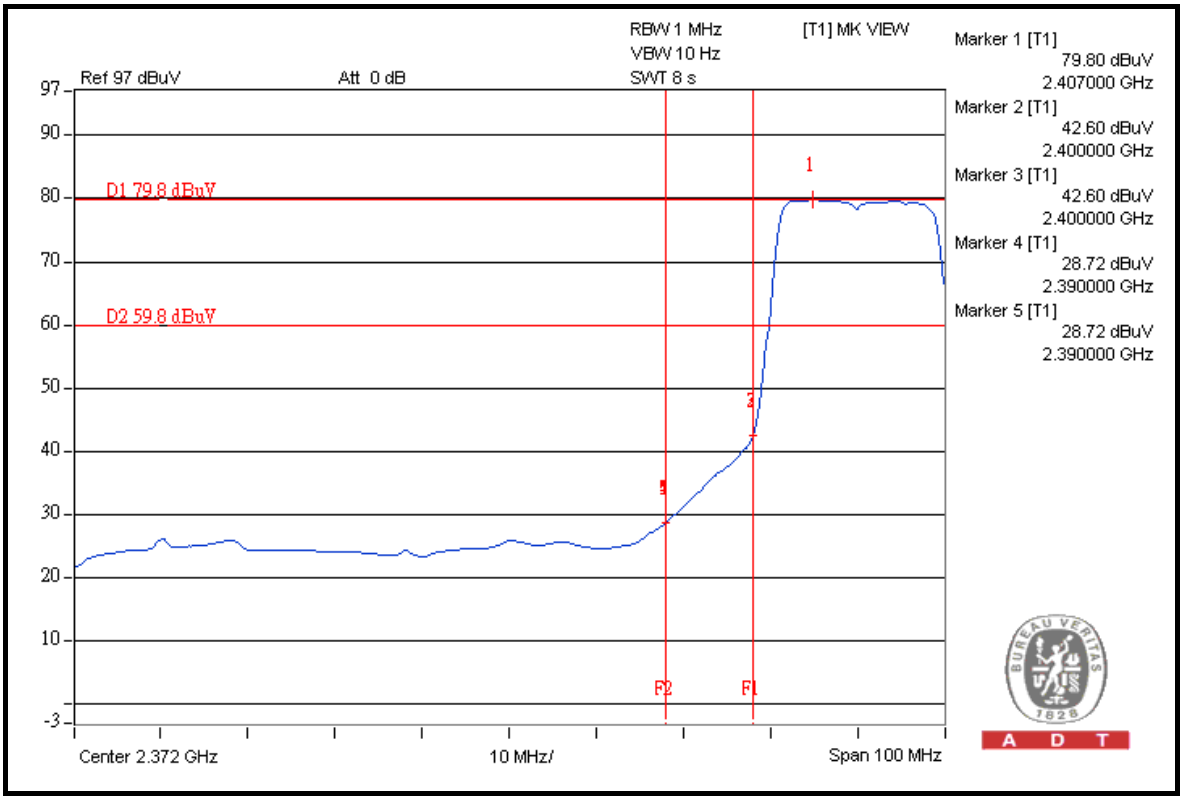
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2462.00 (PK)	112.8	46.93	65.87	74.00
2462.00 (AV)	101.9	49.17	52.73	54.00

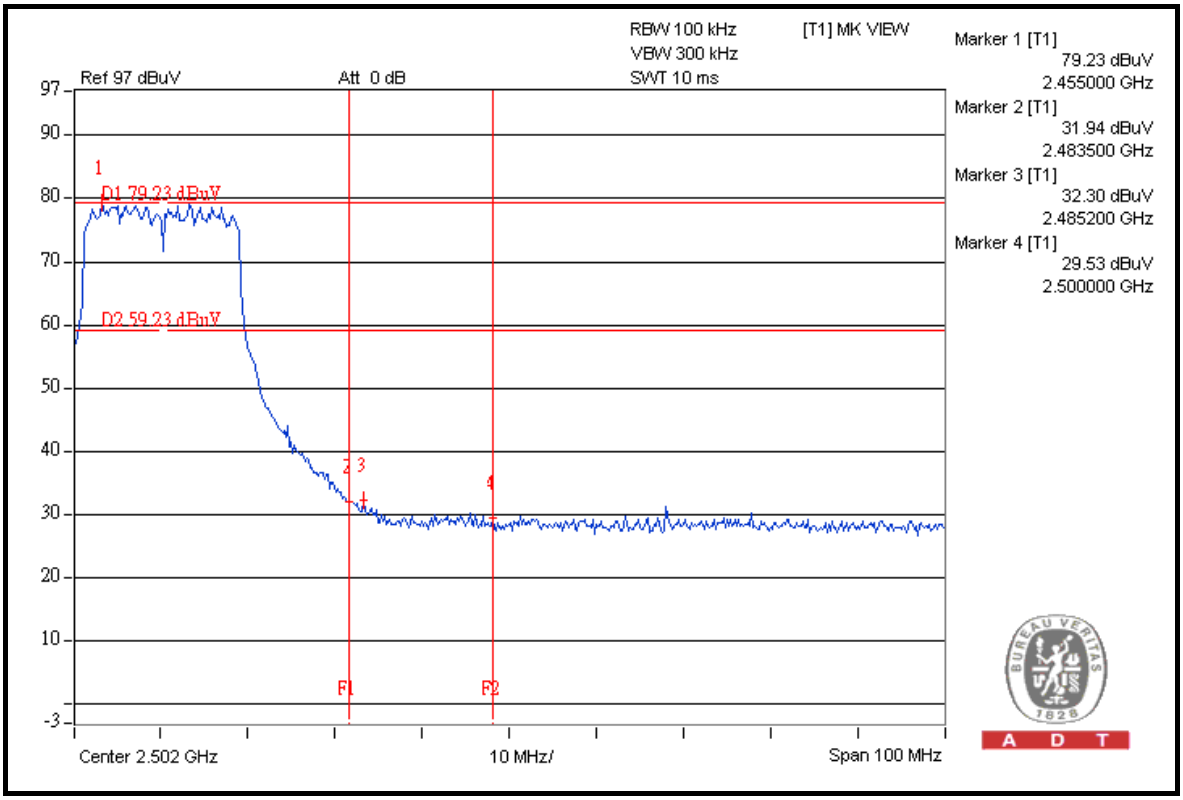
NOTE:

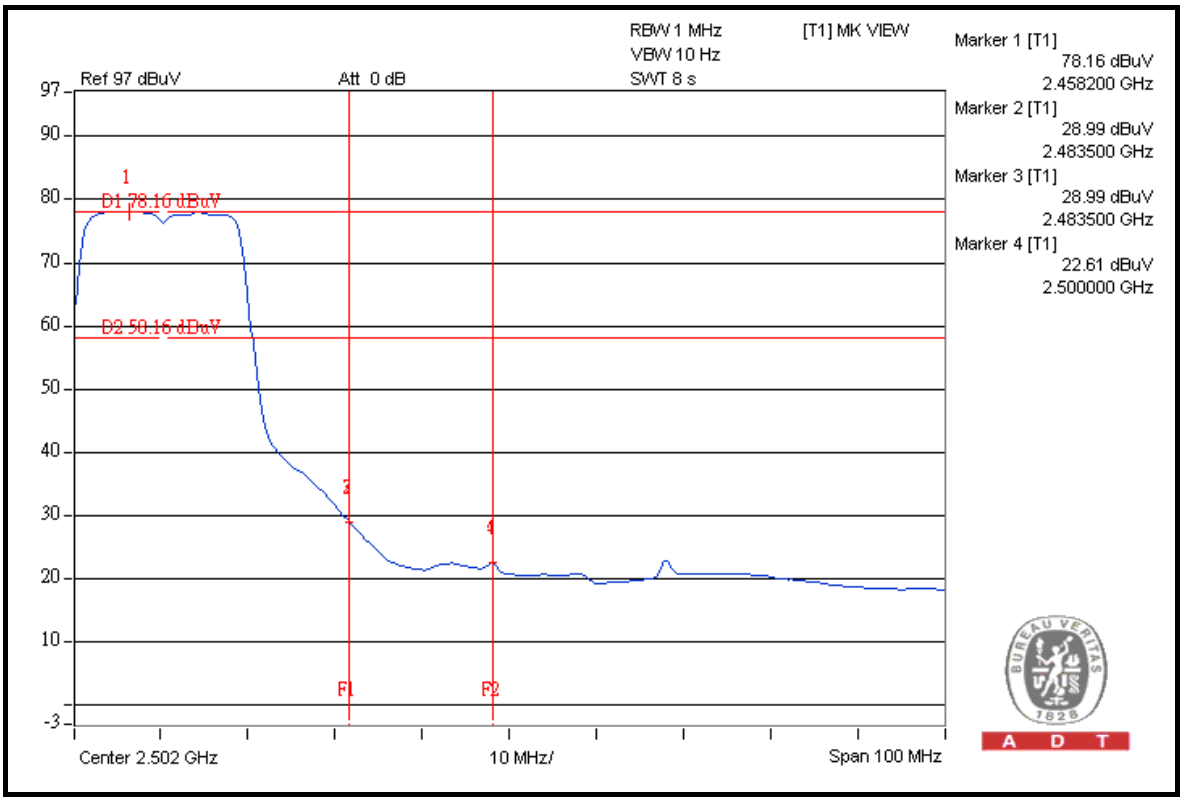
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

FOR RADIATED MEASURED (BOTH CHAINS ON)



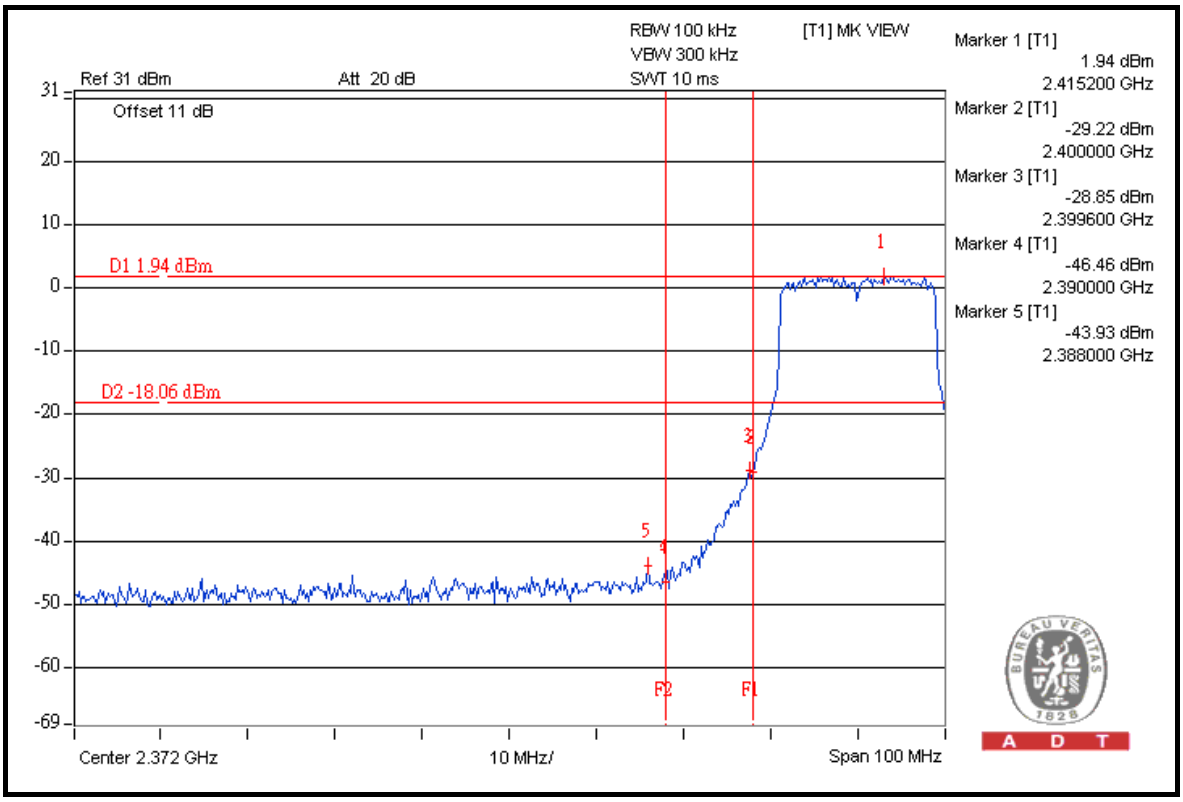


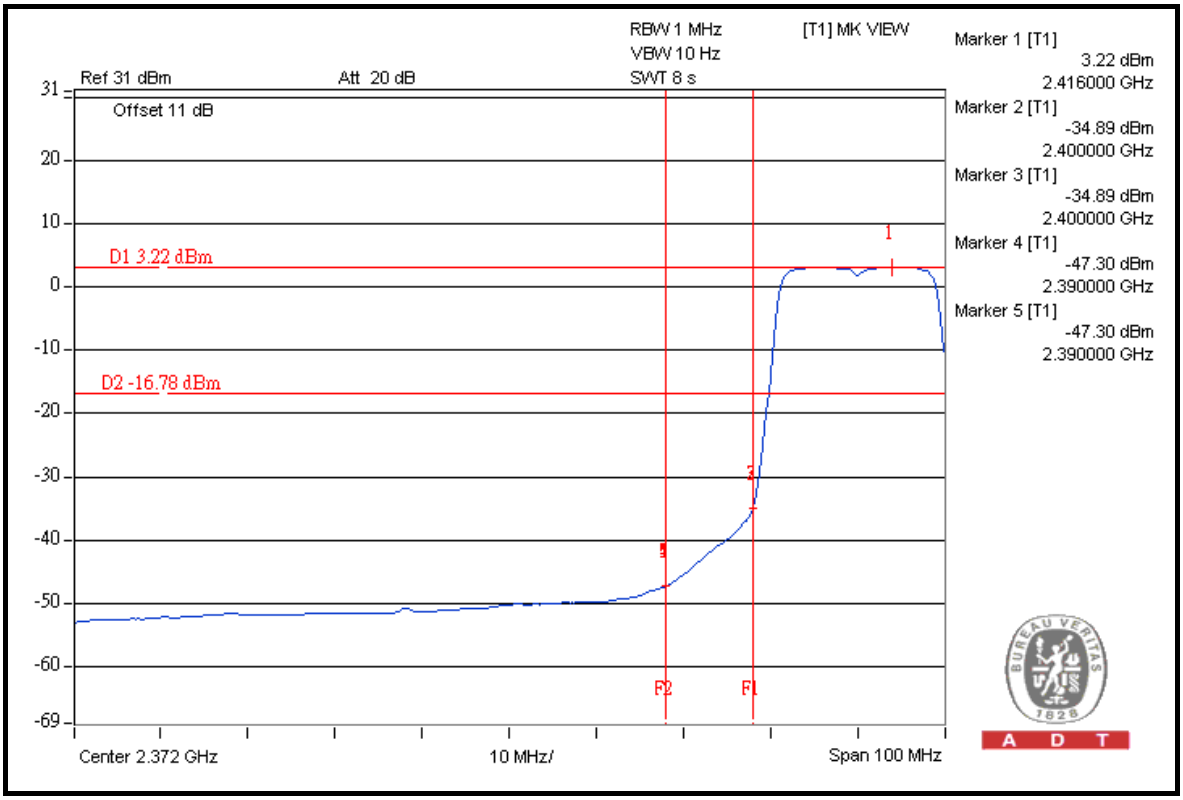

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.23 dBuV
D2 59.23 dBuV
Marker 1 [T1]
79.23 dBuV
2.455000 GHz
Marker 2 [T1]
31.94 dBuV
2.483500 GHz
Marker 3 [T1]
32.30 dBuV
2.485200 GHz
Marker 4 [T1]
29.53 dBuV
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz

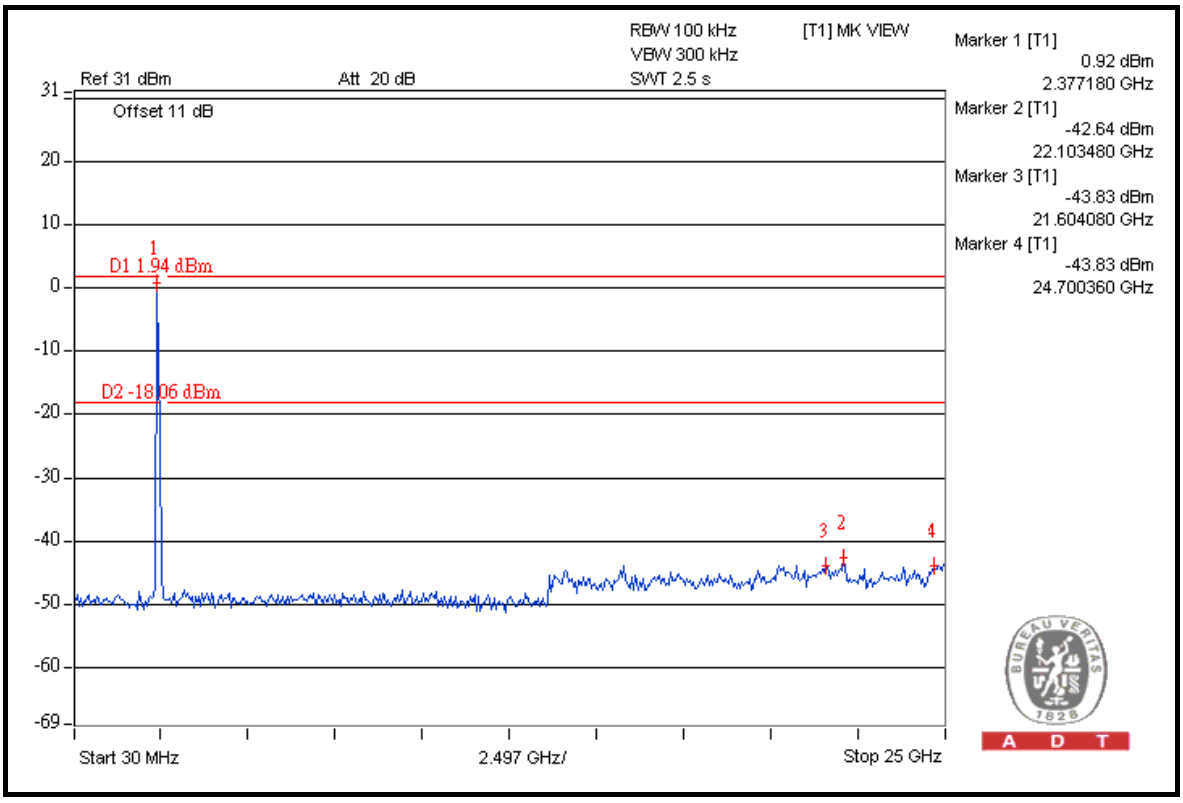

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 78.16 dBuV
D2 50.16 dBuV
Marker 1 [T1]
78.16 dBuV
2.458200 GHz
Marker 2 [T1]
28.99 dBuV
2.483500 GHz
Marker 3 [T1]
28.99 dBuV
2.483500 GHz
Marker 4 [T1]
22.61 dBuV
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz

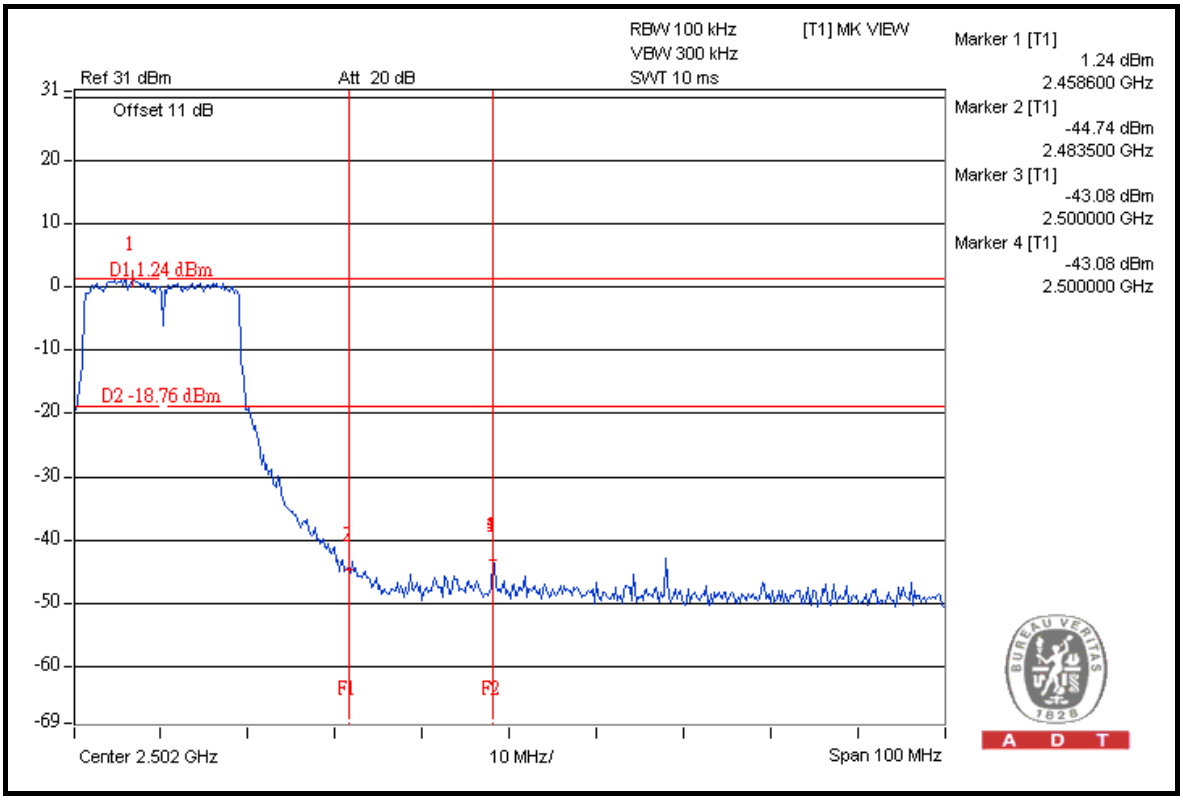
FOR CONDUCTED MEASURED

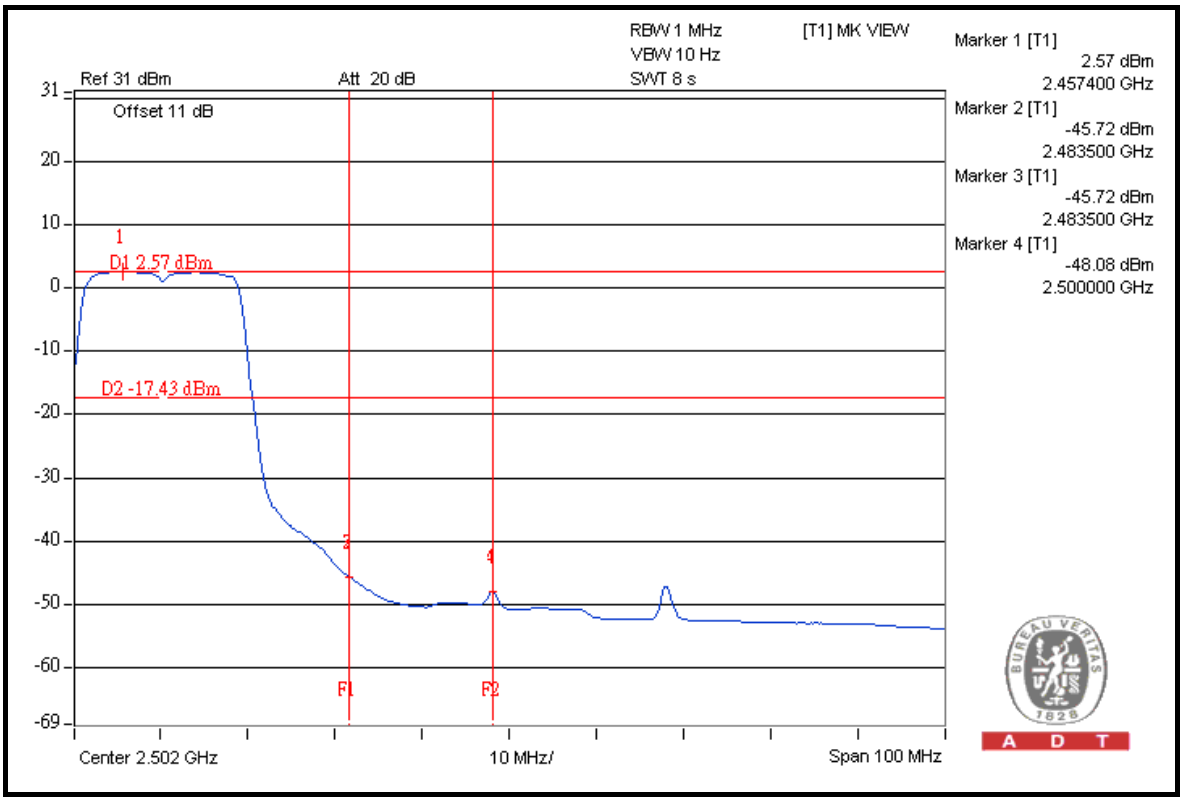
CHAIN 0

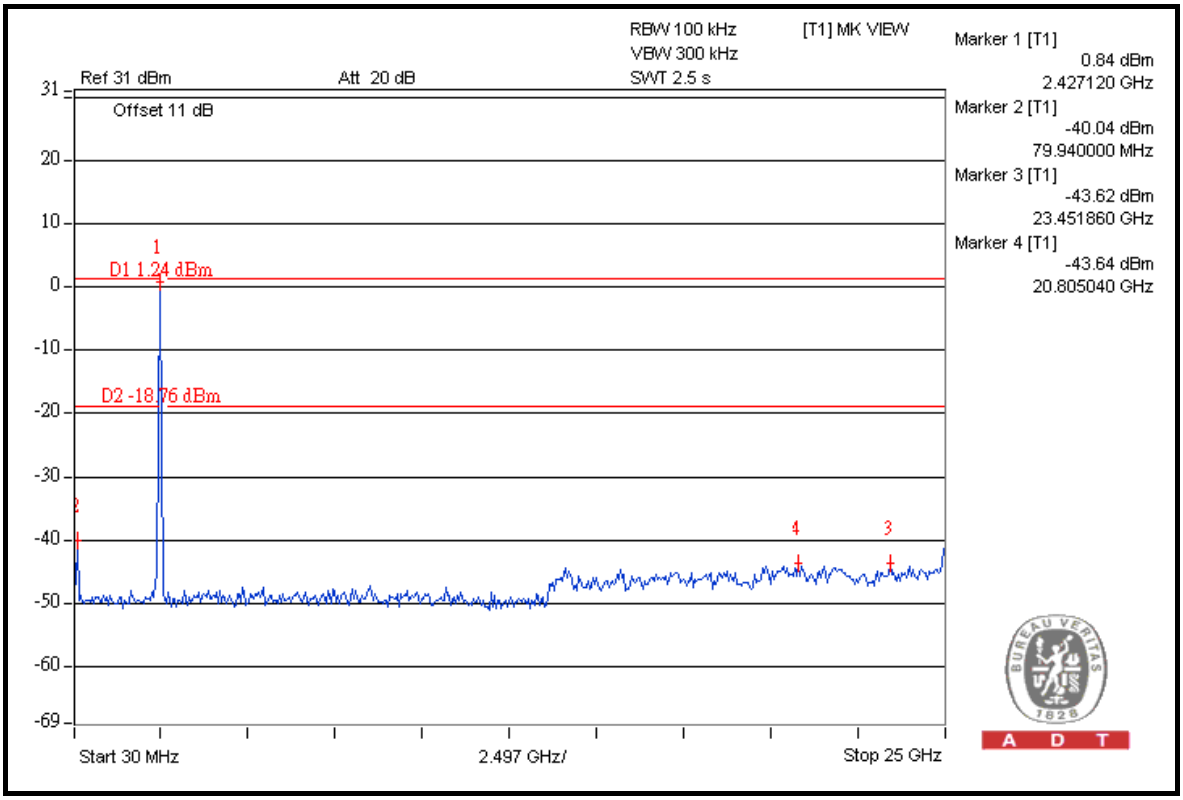




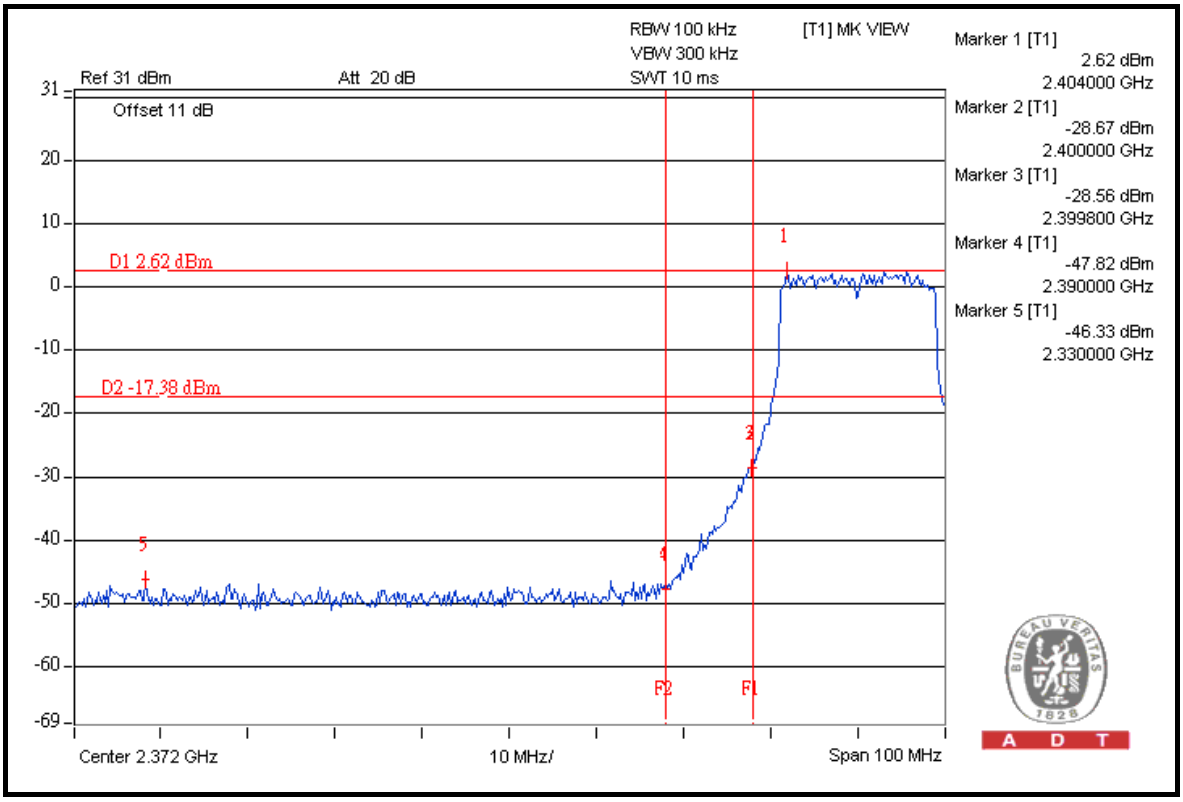

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 1.94 dBm
D2 -18.06 dBm
Marker 1 [T1]
0.92 dBm
2.377180 GHz
Marker 2 [T1]
-42.64 dBm
22.103480 GHz
Marker 3 [T1]
-43.83 dBm
21.604080 GHz
Marker 4 [T1]
-43.83 dBm
24.700360 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

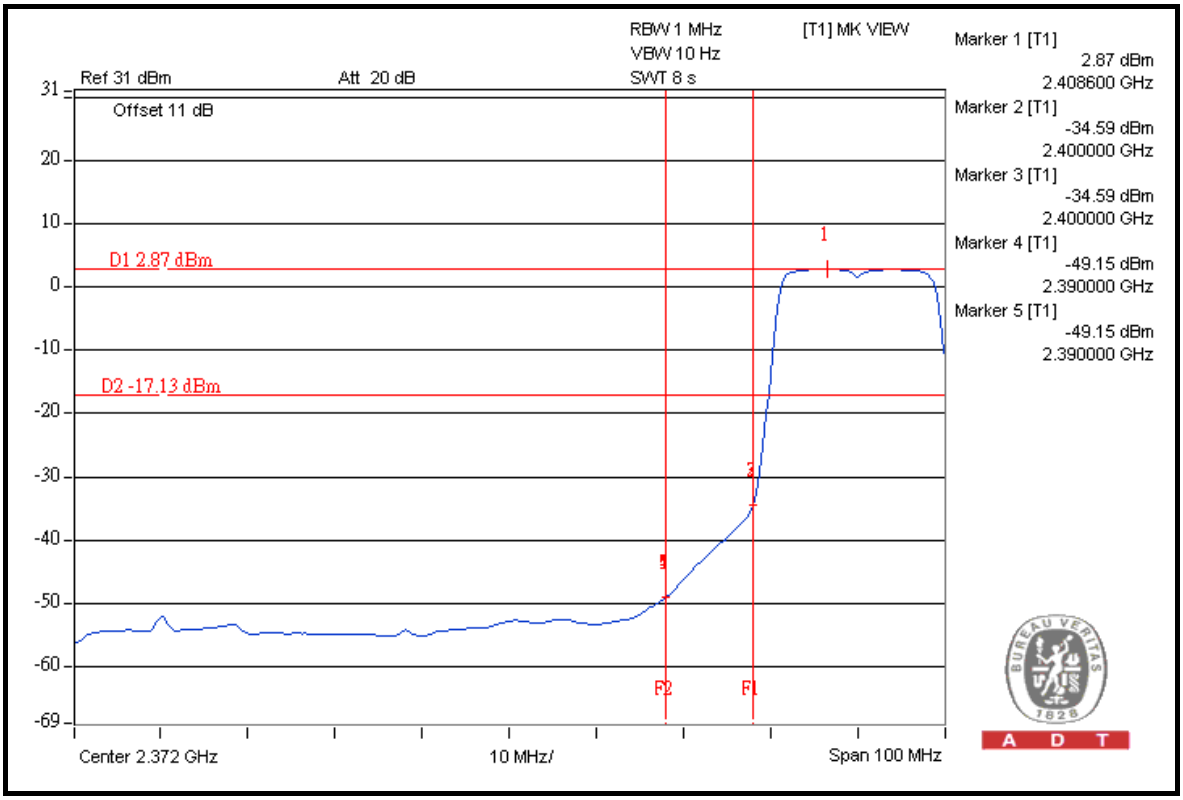

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 1.24 dBm
D2 -18.76 dBm
Marker 1 [T1]
1.24 dBm
2.458600 GHz
Marker 2 [T1]
-44.74 dBm
2.483500 GHz
Marker 3 [T1]
-43.08 dBm
2.500000 GHz
Marker 4 [T1]
-43.08 dBm
2.500000 GHz
Center 2.502 GHz
10 MHz/
Span 100 MHz

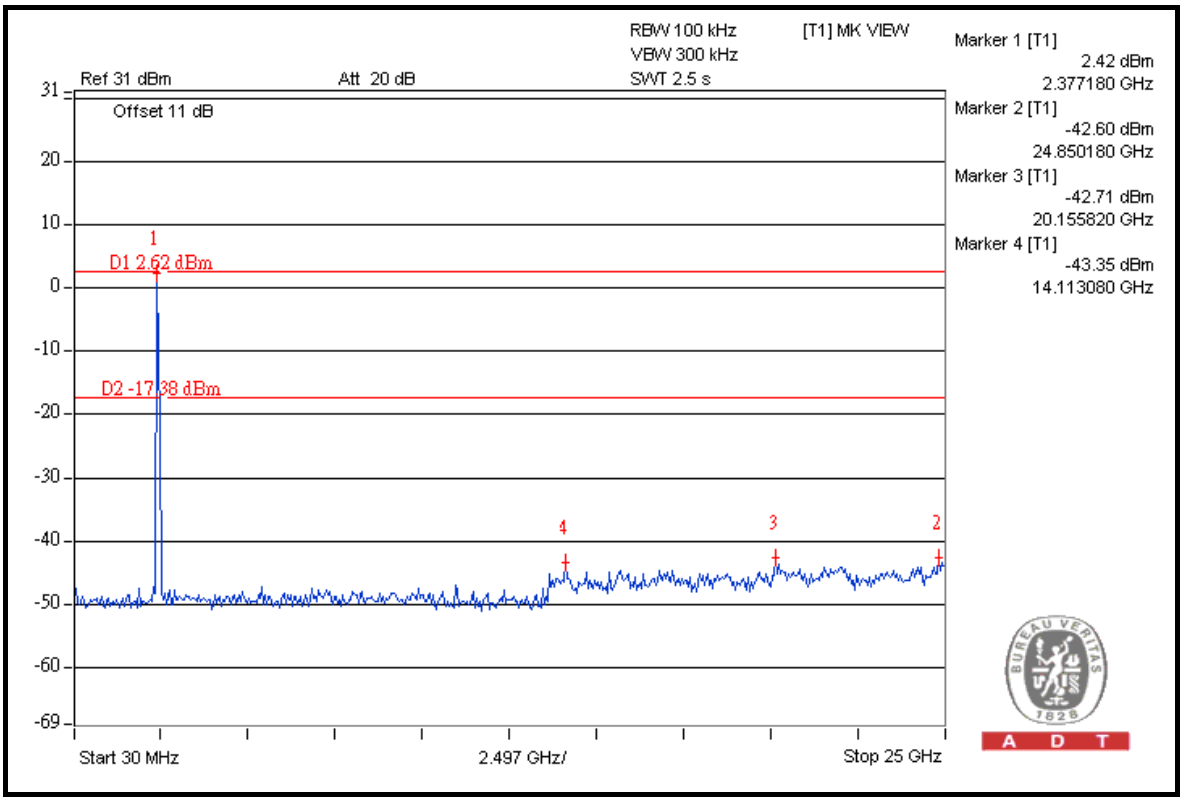

RBW 1 MHz
VBW 10 Hz
SWT 8 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.57 dBm
D2 -17.43 dBm
F1
F2
Center 2.502 GHz
10 MHz/
Span 100 MHz
Marker 1 [T1]
2.57 dBm
2.457400 GHz
Marker 2 [T1]
-45.72 dBm
2.483500 GHz
Marker 3 [T1]
-45.72 dBm
2.483500 GHz
Marker 4 [T1]
-48.08 dBm
2.500000 GHz

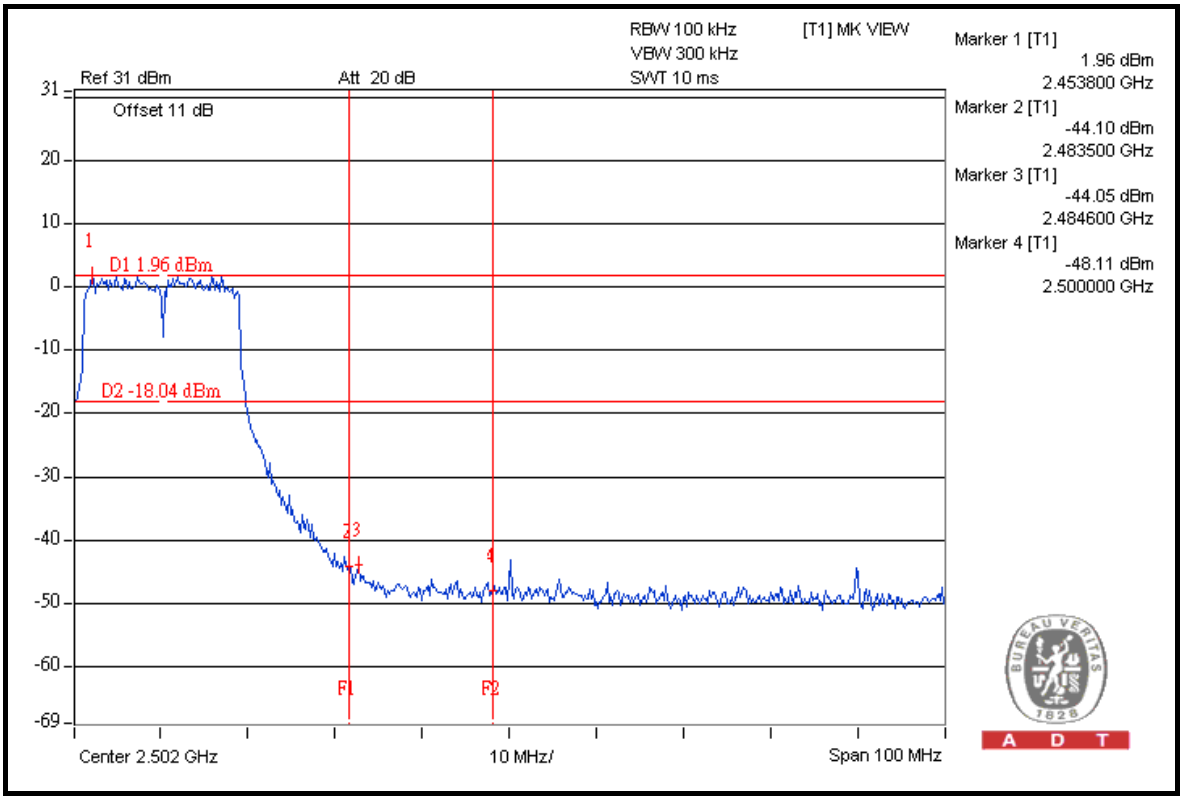

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 1.24 dBm
D2 -18.76 dBm
Start 30 MHz
2.497 GHz/
Stop 25 GHz
Marker 1 [T1]
0.84 dBm
2.427120 GHz
Marker 2 [T1]
-40.04 dBm
79.940000 MHz
Marker 3 [T1]
-43.62 dBm
23.451860 GHz
Marker 4 [T1]
-43.64 dBm
20.805040 GHz

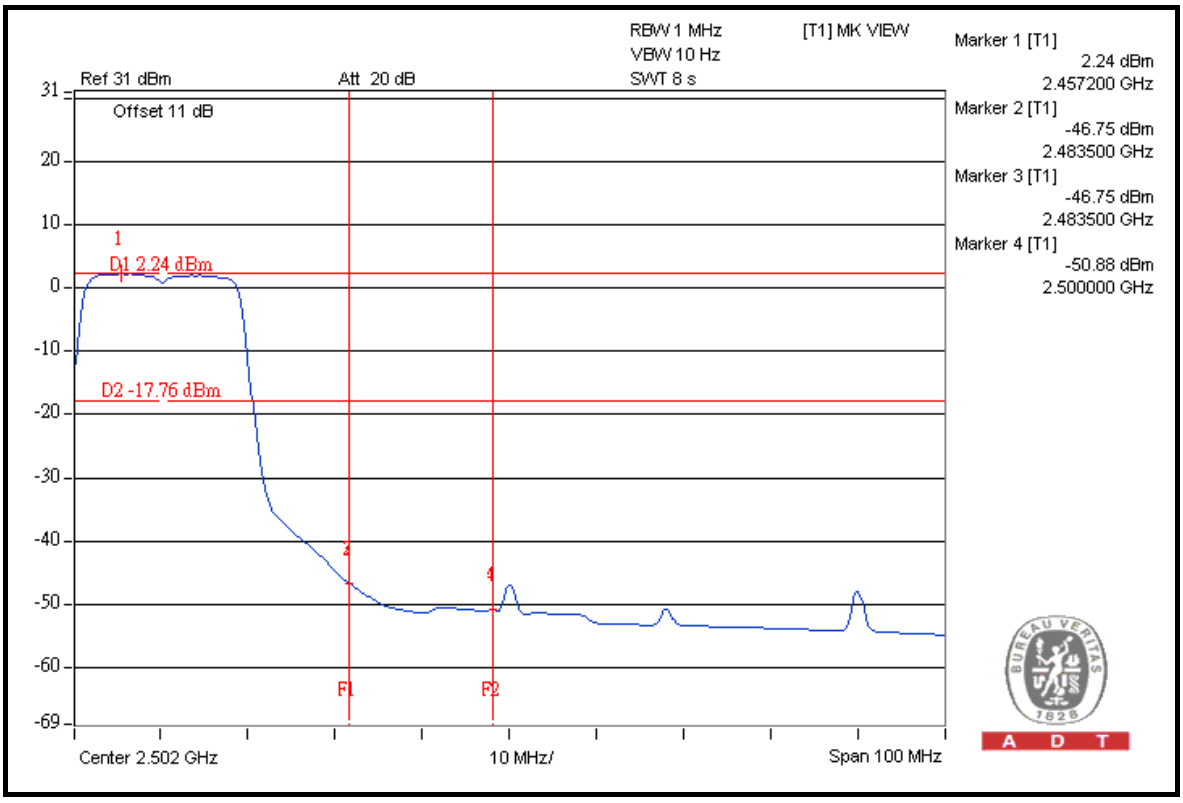
CHAIN 1

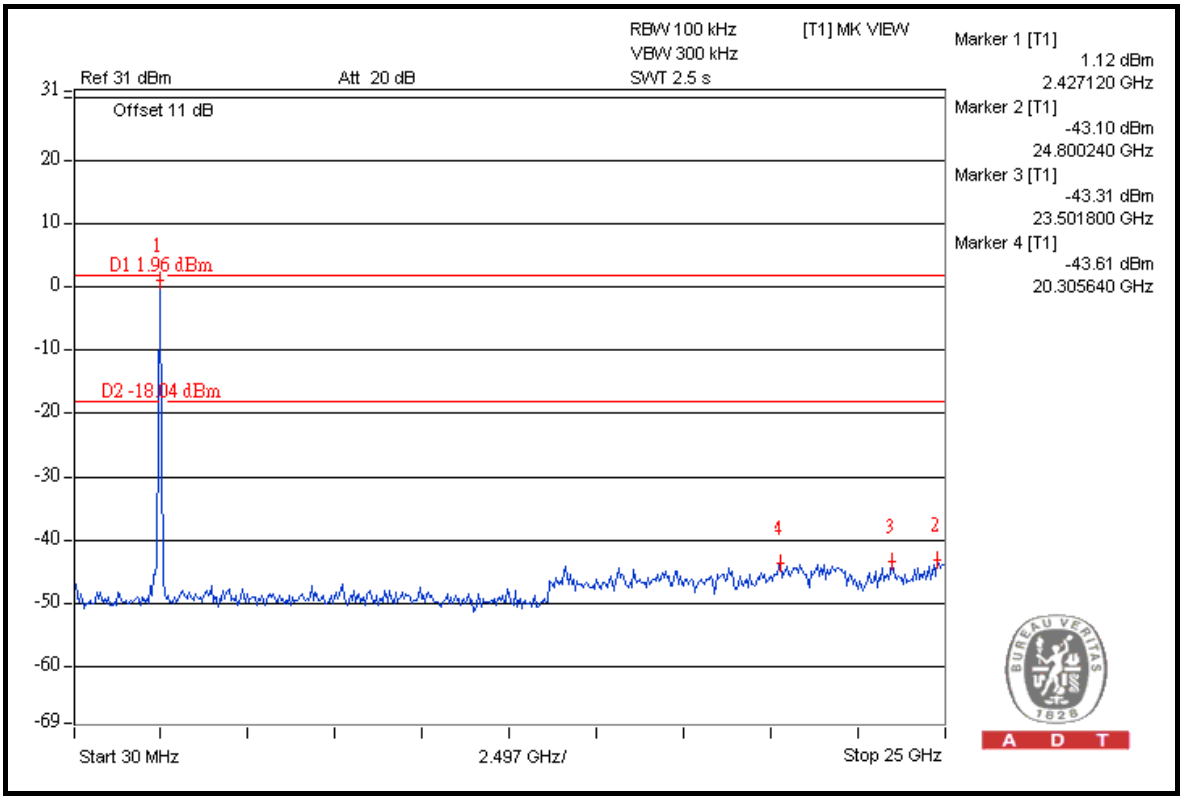

RBW 100 kHz
VBW 300 kHz
SWT 10 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 2.62 dBm
D2 -17.38 dBm
Marker 1 [T1]
2.62 dBm
2.404000 GHz
Marker 2 [T1]
-28.67 dBm
2.400000 GHz
Marker 3 [T1]
-28.56 dBm
2.399800 GHz
Marker 4 [T1]
-47.82 dBm
2.390000 GHz
Marker 5 [T1]
-46.33 dBm
2.330000 GHz
Center 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 2.87 dBm
D2 -17.13 dBm
Marker 1 [T1]
2.87 dBm
2.408600 GHz
Marker 2 [T1]
-34.59 dBm
2.400000 GHz
Marker 3 [T1]
-34.59 dBm
2.400000 GHz
Marker 4 [T1]
-49.15 dBm
2.390000 GHz
Marker 5 [T1]
-49.15 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 2.62 dBm
D2 -17.38 dBm
Marker 1 [T1]
2.42 dBm
2.377180 GHz
Marker 2 [T1]
-42.60 dBm
24.850180 GHz
Marker 3 [T1]
-42.71 dBm
20.155820 GHz
Marker 4 [T1]
-43.35 dBm
14.113080 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 1.96 dBm
D2 -18.04 dBm
Marker 1 [T1]
1.96 dBm
2.453800 GHz
Marker 2 [T1]
-44.10 dBm
2.483500 GHz
Marker 3 [T1]
-44.05 dBm
2.484600 GHz
Marker 4 [T1]
-48.11 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]
2.24 dBm
2.457200 GHz
Marker 2 [T1]
-46.75 dBm
2.483500 GHz
Marker 3 [T1]
-46.75 dBm
2.483500 GHz
Marker 4 [T1]
-50.88 dBm
2.500000 GHz
D1 2.24 dBm
D2 -17.76 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]
1.12 dBm
2.427120 GHz
Marker 2 [T1]
-43.10 dBm
24.800240 GHz
Marker 3 [T1]
-43.31 dBm
23.501800 GHz
Marker 4 [T1]
-43.61 dBm
20.305640 GHz
D1 1.96 dBm
D2 -18.04 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)	109.2	43.35	65.85	74.00
2422.00 (AV)	98.2	45.49	52.71	54.00

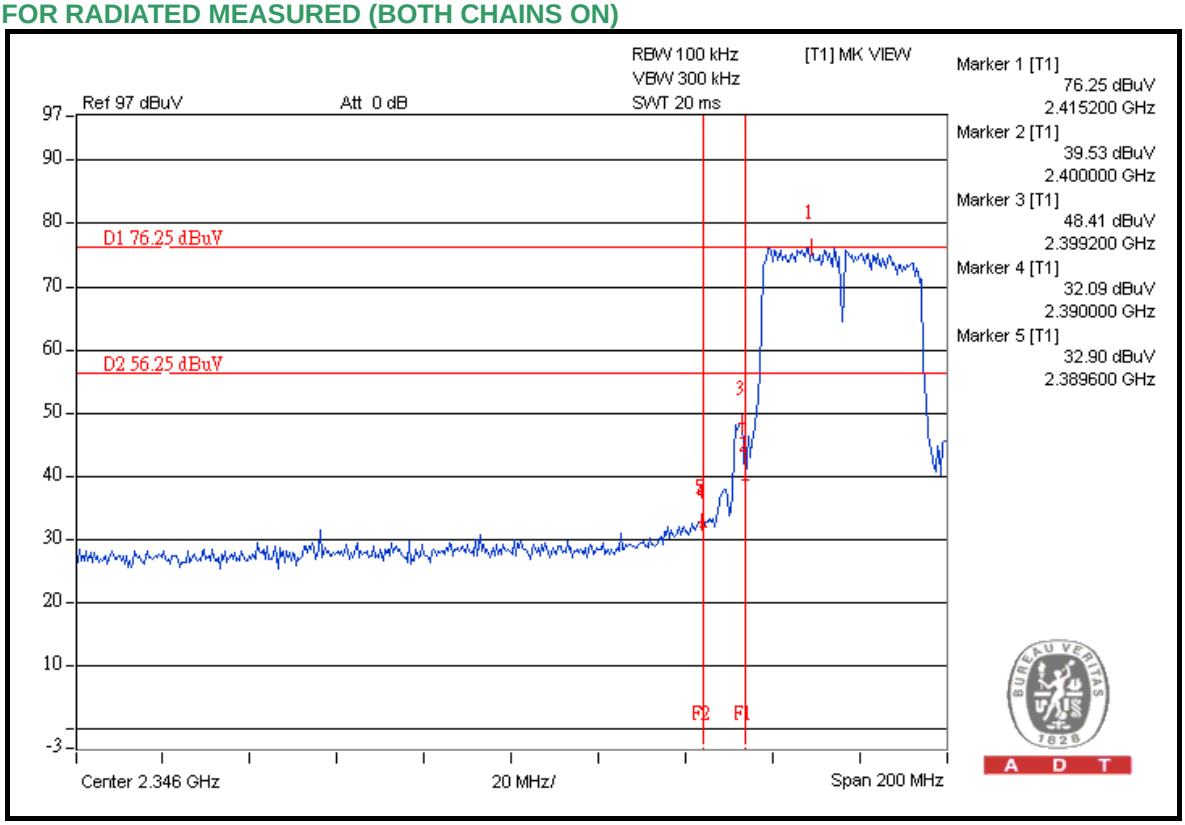
RESTRICT BAND (2483.5 ~ 2500 MHz)

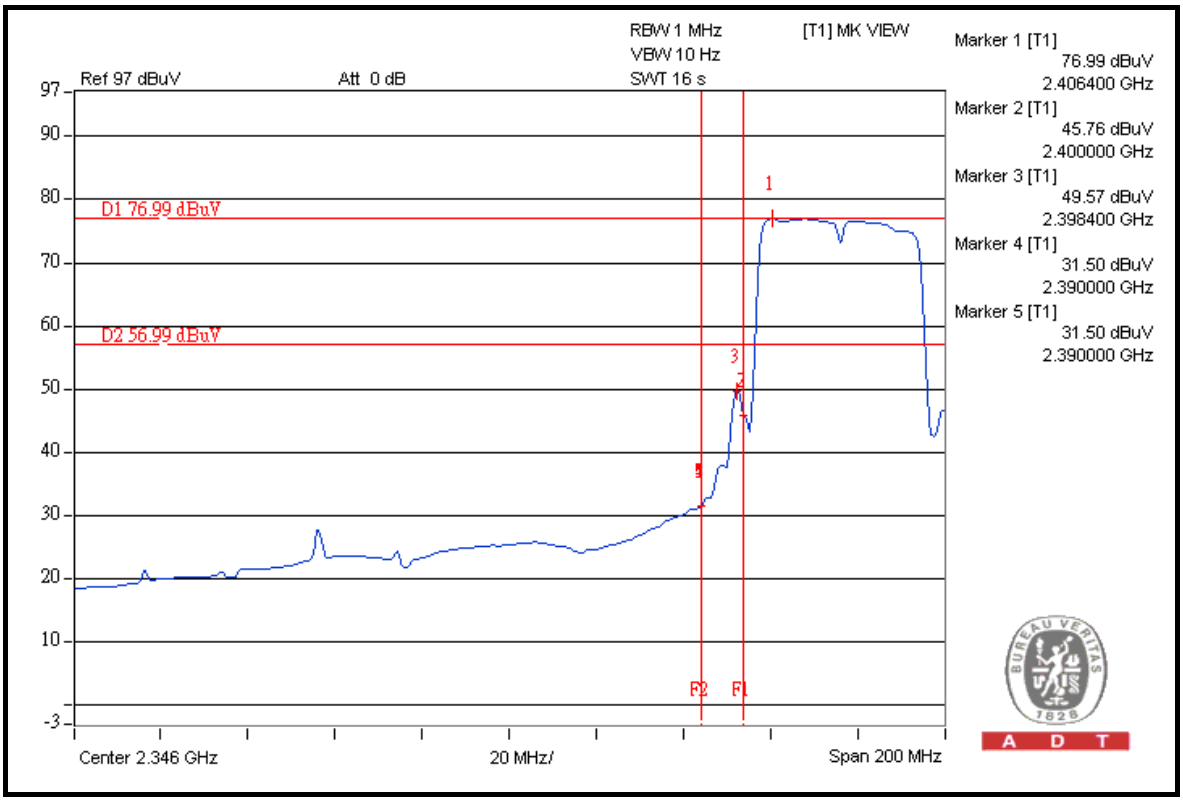
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
2452.00 (PK)	107.0	42.58	64.42	74.00
2452.00 (AV)	96.4	44.34	52.06	54.00

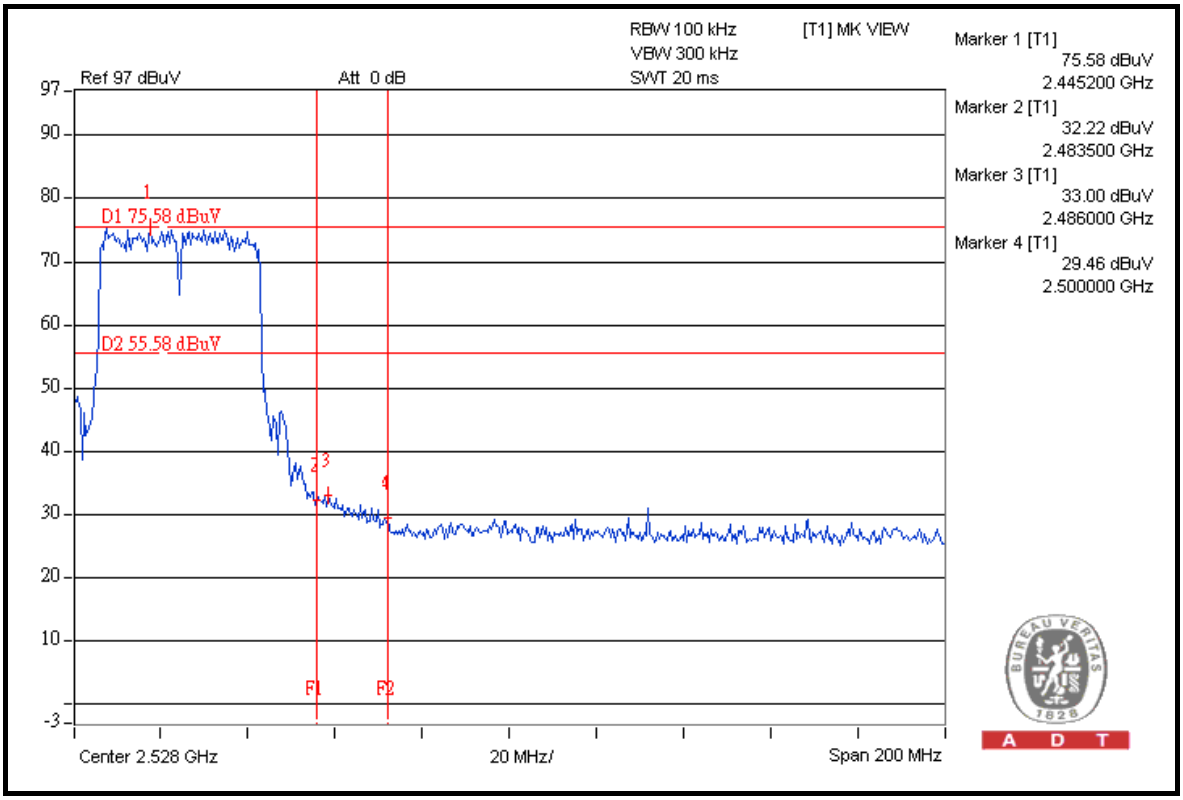
NOTE:

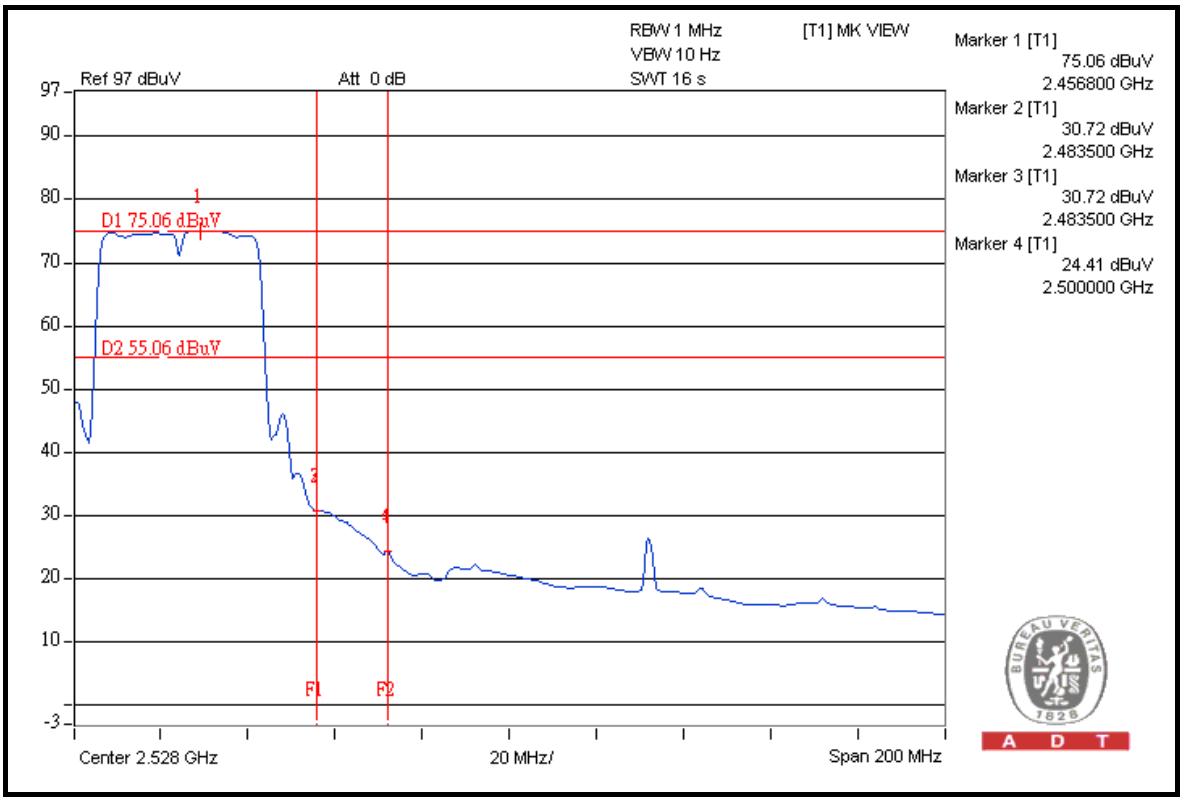
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 2 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

FOR RADIATED MEASURED (BOTH CHAINS ON)



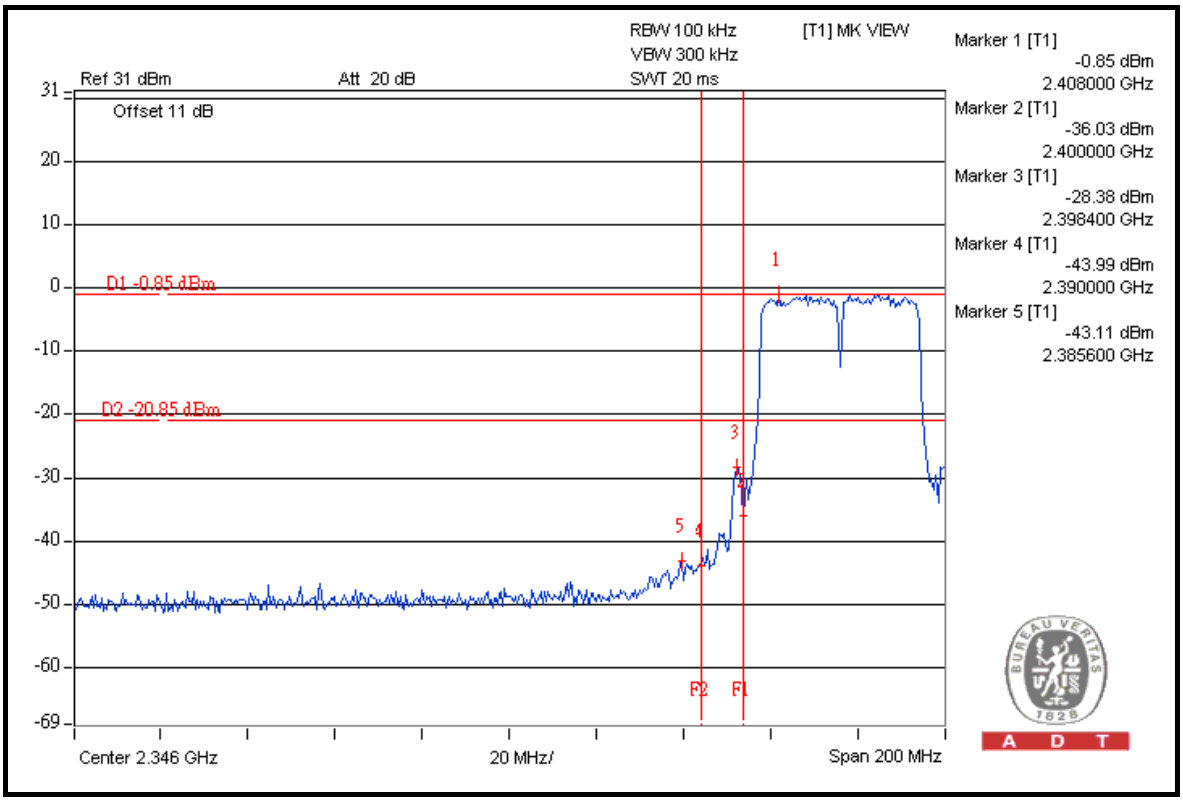


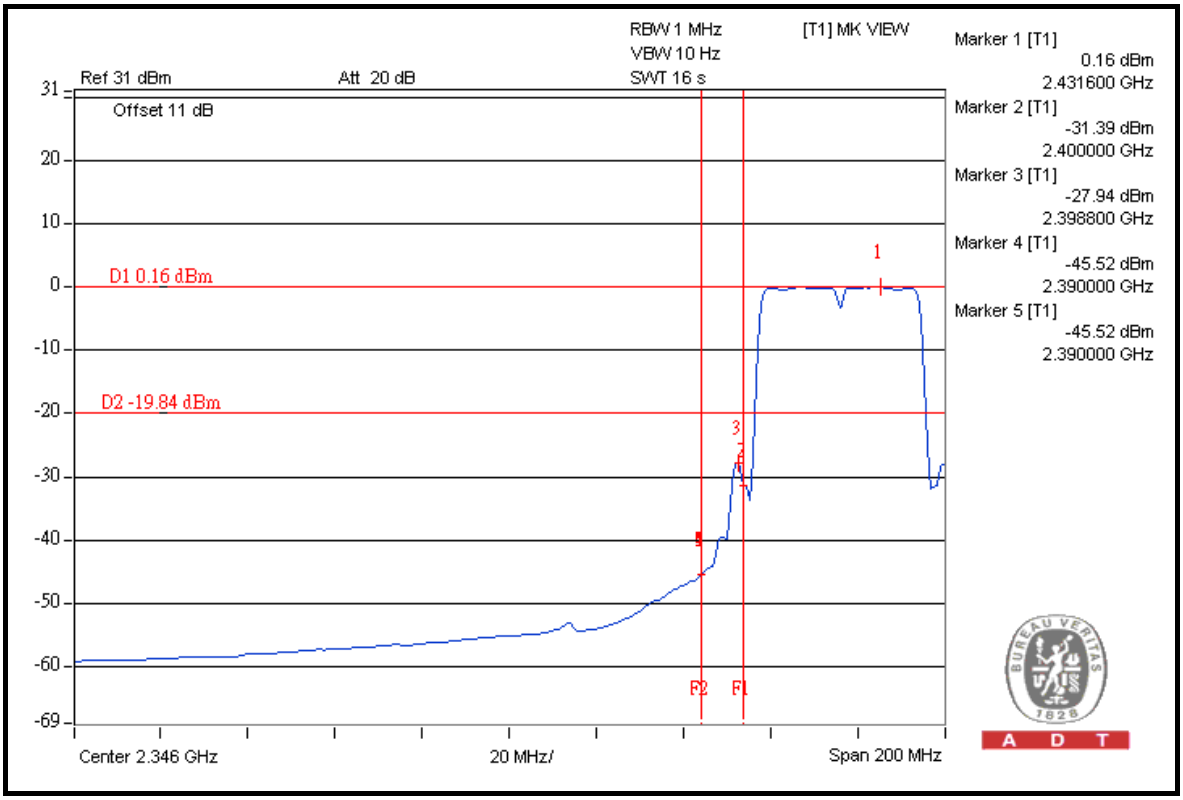

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.58 dBuV
D2 55.58 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
75.58 dBuV
2.445200 GHz
Marker 2 [T1]
32.22 dBuV
2.483500 GHz
Marker 3 [T1]
33.00 dBuV
2.486000 GHz
Marker 4 [T1]
29.46 dBuV
2.500000 GHz

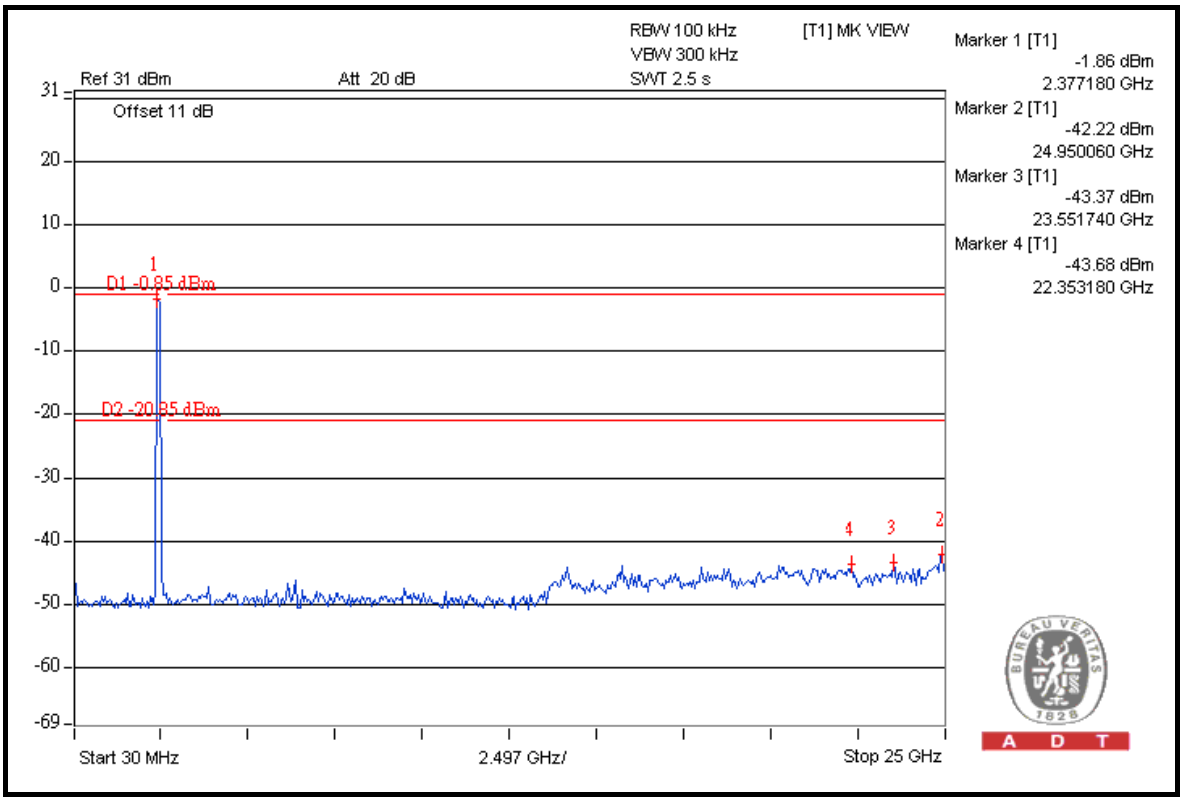

RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 75.06 dBuV
D2 55.06 dBuV
F1
F2
Center 2.528 GHz
20 MHz/
Span 200 MHz
Marker 1 [T1]
75.06 dBuV
2.456800 GHz
Marker 2 [T1]
30.72 dBuV
2.483500 GHz
Marker 3 [T1]
30.72 dBuV
2.483500 GHz
Marker 4 [T1]
24.41 dBuV
2.500000 GHz

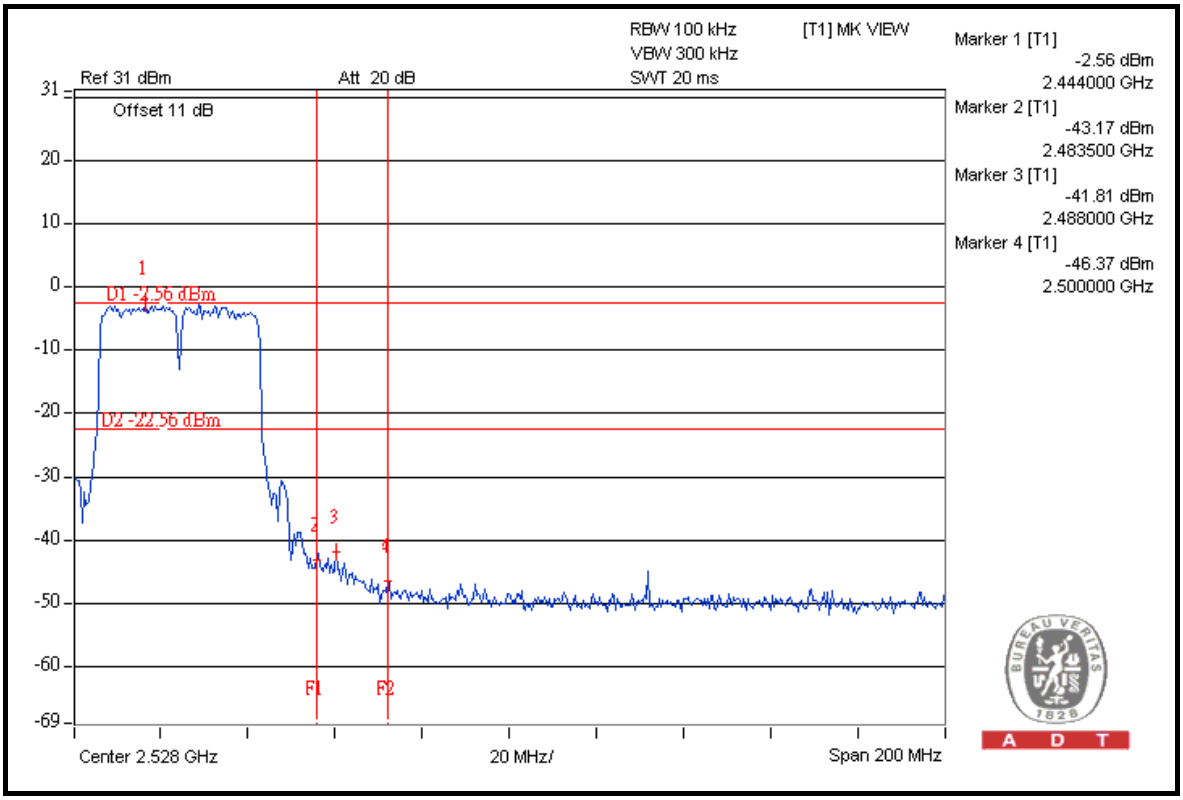
FOR CONDUCTED MEASURED

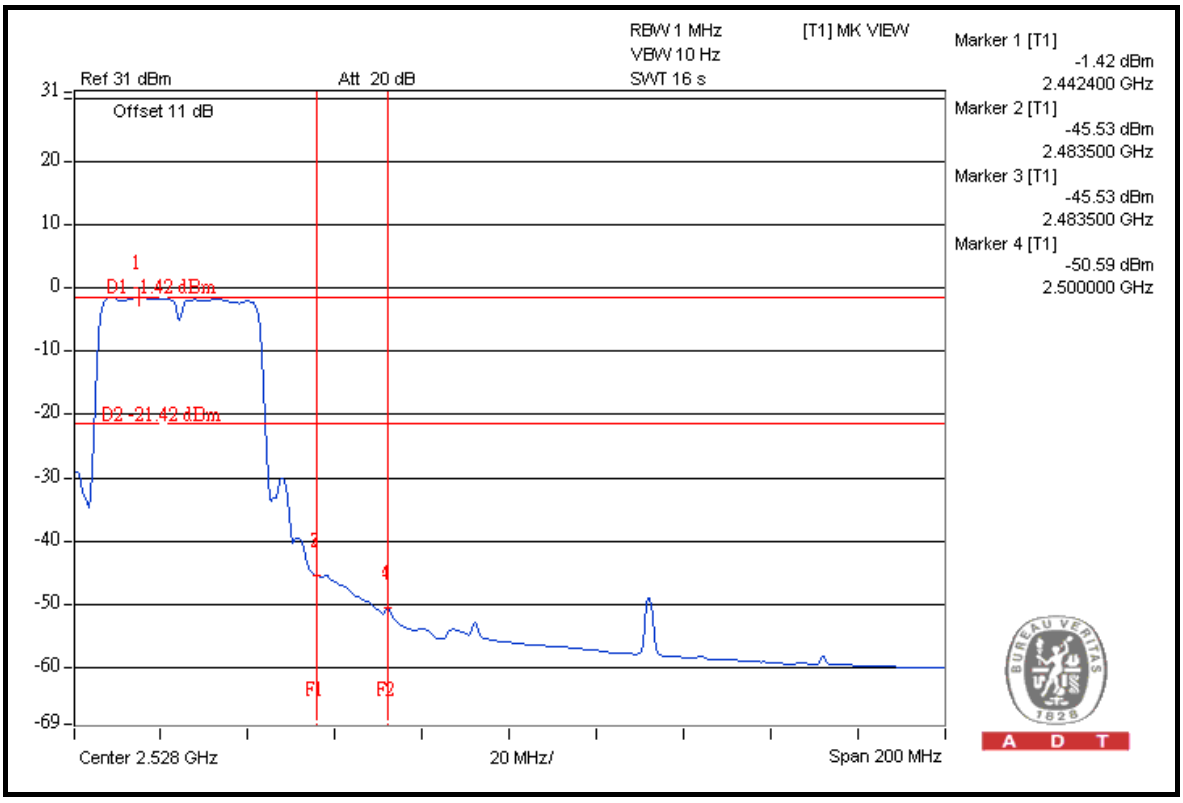
CHAIN 0

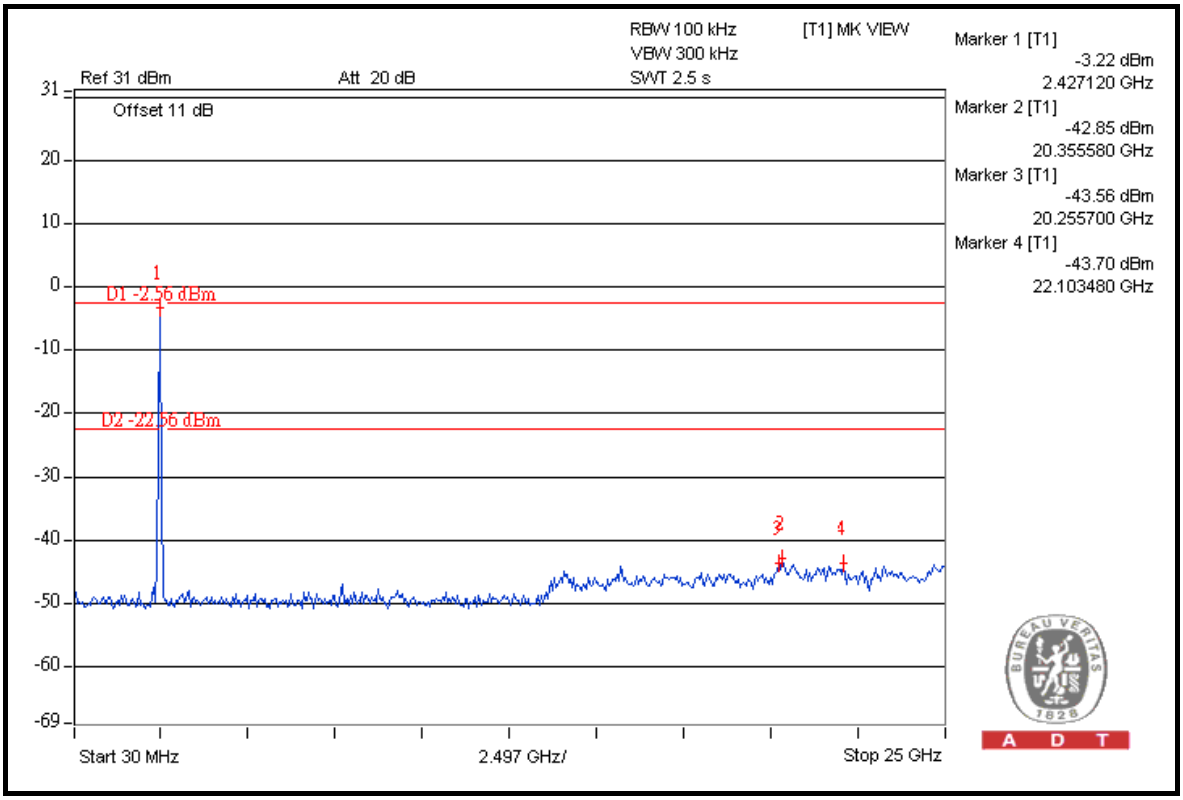




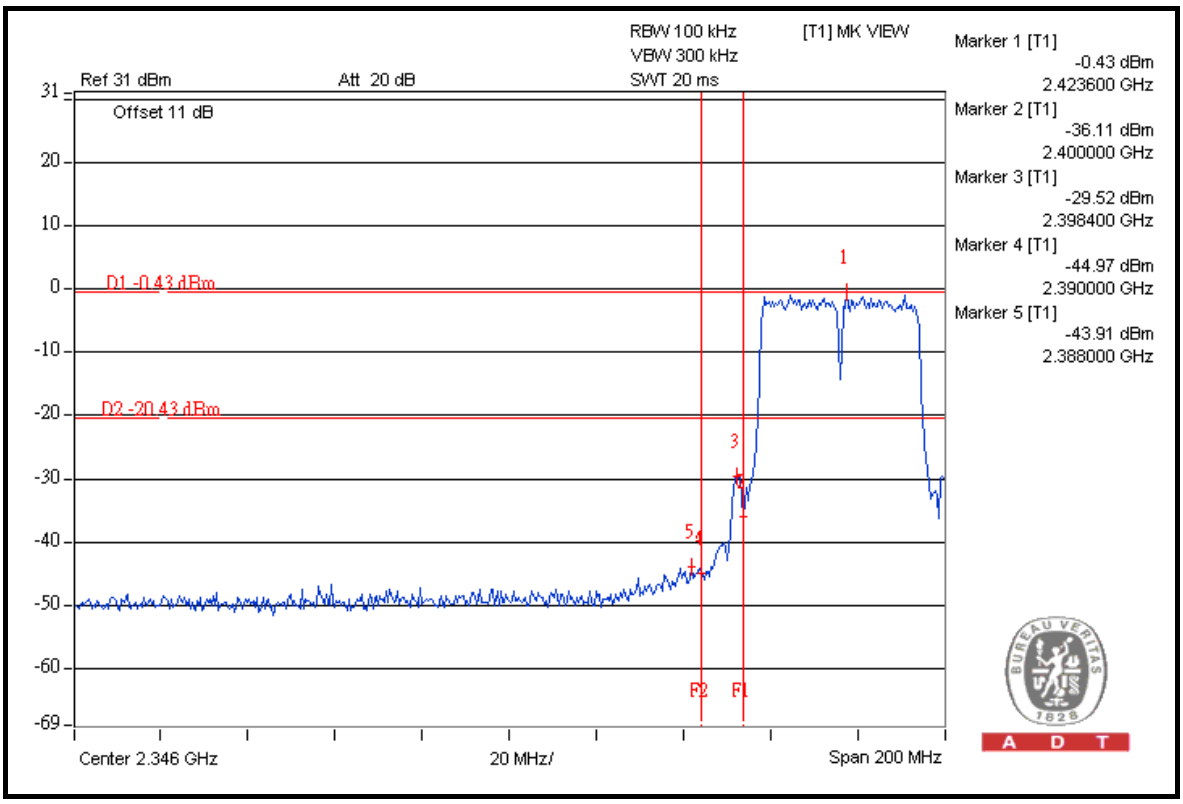

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -0.85 dBm
D2 -20.85 dBm
Marker 1 [T1]
-1.86 dBm
2.377180 GHz
Marker 2 [T1]
-42.22 dBm
24.950060 GHz
Marker 3 [T1]
-43.37 dBm
23.551740 GHz
Marker 4 [T1]
-43.68 dBm
22.353180 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

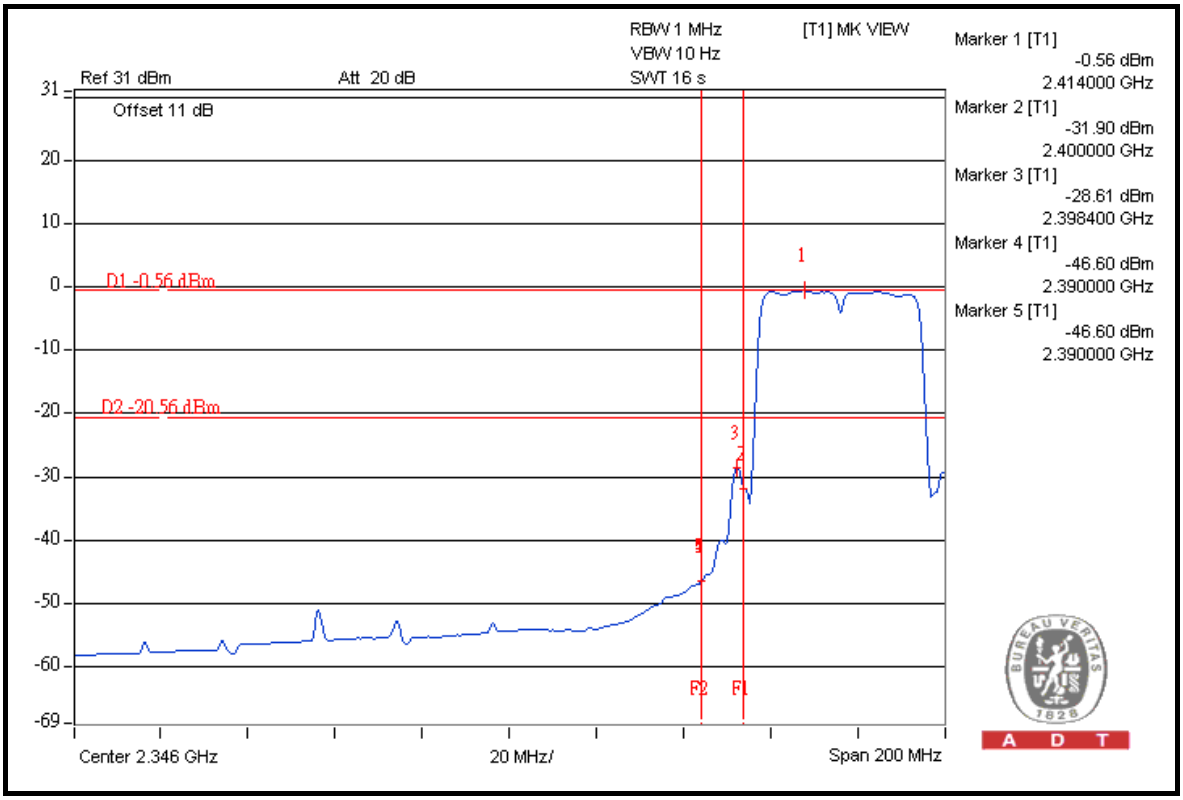

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.56 dBm
D2 -22.56 dBm
Marker 1 [T1]
-2.56 dBm
2.444000 GHz
Marker 2 [T1]
-43.17 dBm
2.483500 GHz
Marker 3 [T1]
-41.81 dBm
2.488000 GHz
Marker 4 [T1]
-46.37 dBm
2.500000 GHz
Center 2.528 GHz
20 MHz/
Span 200 MHz

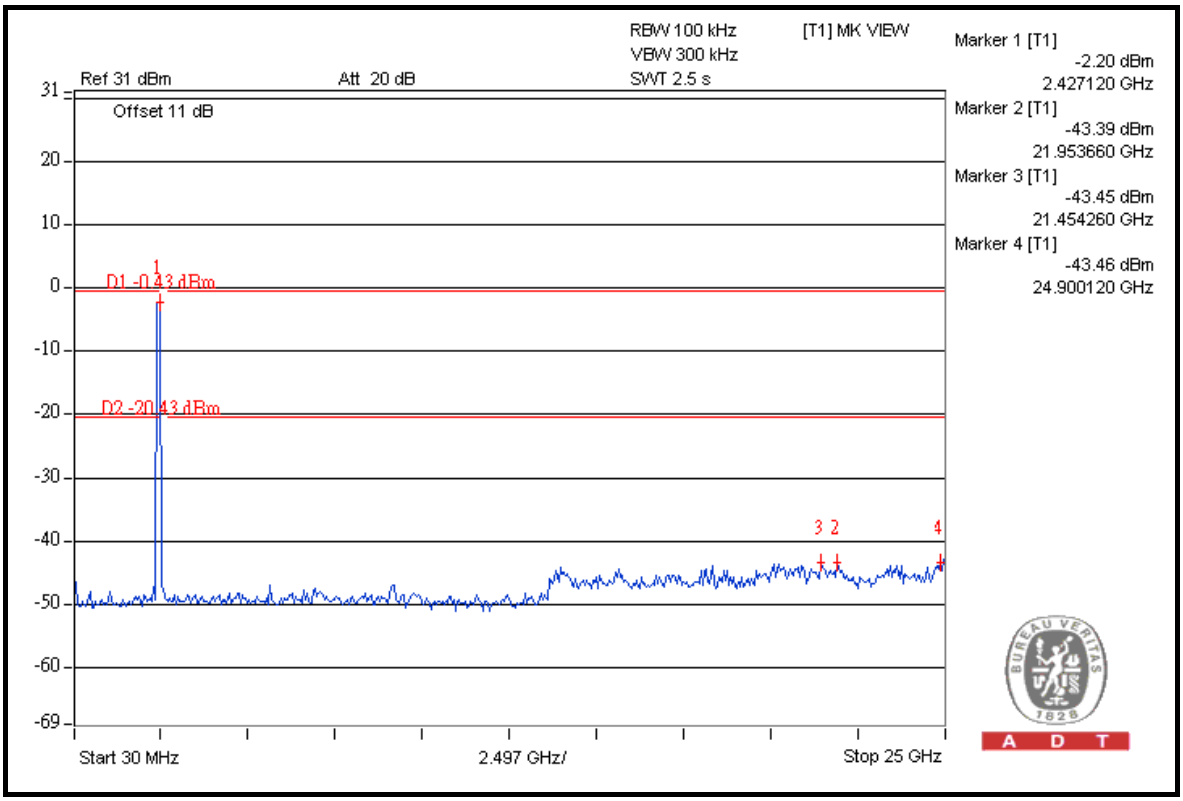

RBW 1 MHz
VBW 10 Hz
SWT 16 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -1.42 dBm
D2 -21.42 dBm
Marker 1 [T1]
-1.42 dBm
2.442400 GHz
Marker 2 [T1]
-45.53 dBm
2.483500 GHz
Marker 3 [T1]
-45.53 dBm
2.483500 GHz
Marker 4 [T1]
-50.59 dBm
2.500000 GHz
Center 2.528 GHz
20 MHz/
Span 200 MHz

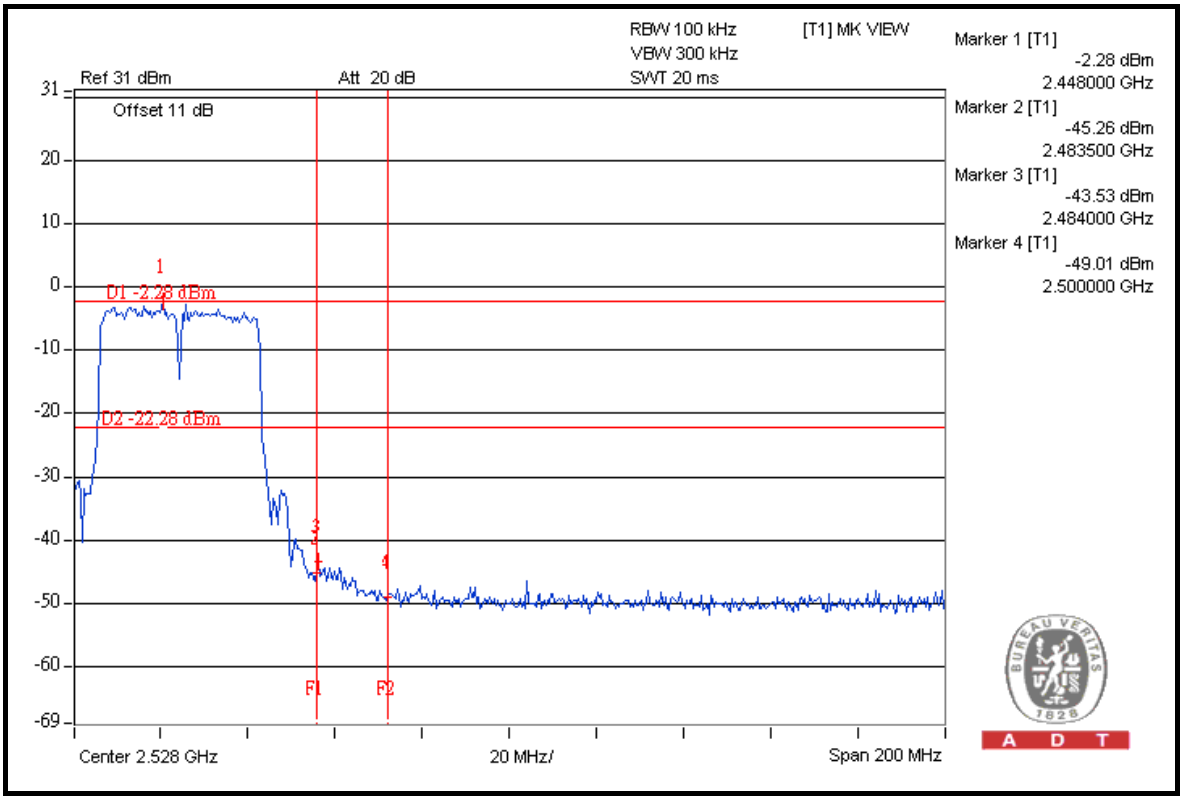

RBW 100 kHz
VBW 300 kHz
SWT 2.5 s
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -2.56 dBm
D2 -22.56 dBm
Marker 1 [T1]
-3.22 dBm
2.427120 GHz
Marker 2 [T1]
-42.85 dBm
20.355580 GHz
Marker 3 [T1]
-43.56 dBm
20.255700 GHz
Marker 4 [T1]
-43.70 dBm
22.103480 GHz
Start 30 MHz
2.497 GHz/
Stop 25 GHz

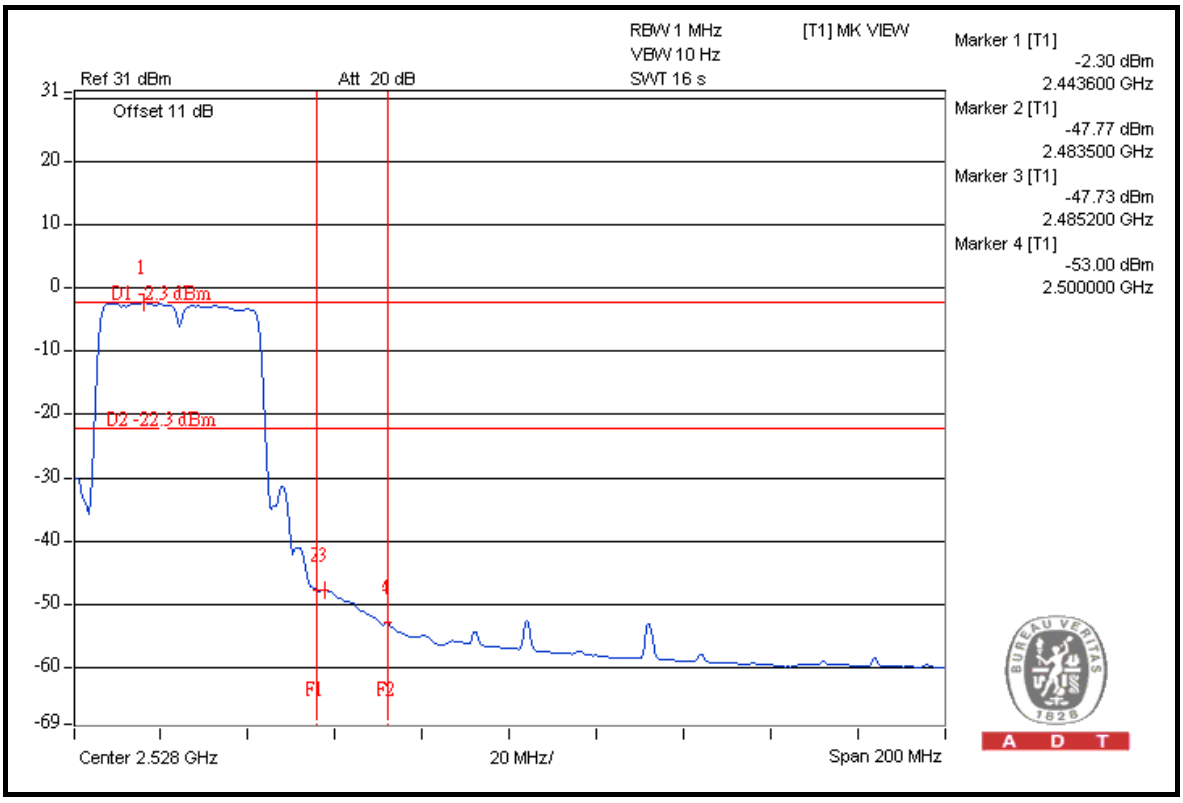
CHAIN 1

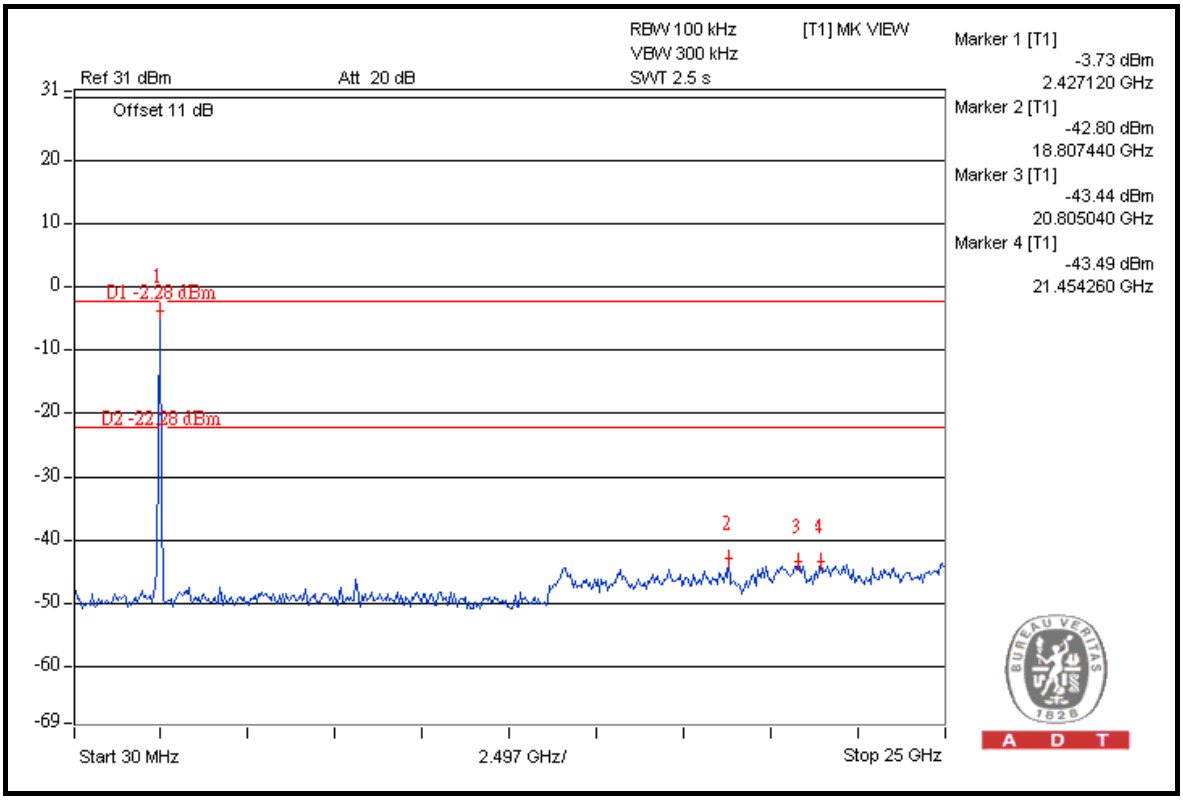

RBW 100 kHz
VBW 300 kHz
SWT 20 ms
[T1] MK VIEW
Ref 31 dBm
Att 20 dB
Offset 11 dB
D1 -0.43 dBm
D2 -20.43 dBm
Marker 1 [T1]
-0.43 dBm
2.423600 GHz
Marker 2 [T1]
-36.11 dBm
2.400000 GHz
Marker 3 [T1]
-29.52 dBm
2.398400 GHz
Marker 4 [T1]
-44.97 dBm
2.390000 GHz
Marker 5 [T1]
-43.91 dBm
2.388000 GHz
Center 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 -0.56 dBm
D2 -20.56 dBm
Marker 1 [T1]
-0.56 dBm
2.414000 GHz
Marker 2 [T1]
-31.90 dBm
2.400000 GHz
Marker 3 [T1]
-28.61 dBm
2.398400 GHz
Marker 4 [T1]
-46.60 dBm
2.390000 GHz
Marker 5 [T1]
-46.60 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 -0.43 dBm
D2 -20.43 dBm
Marker 1 [T1]
-2.20 dBm
2.427120 GHz
Marker 2 [T1]
-43.39 dBm
21.953660 GHz
Marker 3 [T1]
-43.45 dBm
21.454260 GHz
Marker 4 [T1]
-43.46 dBm
24.900120 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 -2.28 dBm
D2 -22.28 dBm
Marker 1 [T1]
-2.28 dBm
2.448000 GHz
Marker 2 [T1]
-45.26 dBm
2.483500 GHz
Marker 3 [T1]
-43.53 dBm
2.484000 GHz
Marker 4 [T1]
-49.01 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 -2.3 dBm
D2 -22.3 dBm
Marker 1 [T1]
-2.30 dBm
2.443600 GHz
Marker 2 [T1]
-47.77 dBm
2.483500 GHz
Marker 3 [T1]
-47.73 dBm
2.485200 GHz
Marker 4 [T1]
-53.00 dBm
2.500000 GHz
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
D1 -2.28 dBm
D2 -22.28 dBm
Marker 1 [T1]
-3.73 dBm
2.427120 GHz
Marker 2 [T1]
-42.80 dBm
18.807440 GHz
Marker 3 [T1]
-43.44 dBm
20.805040 GHz
Marker 4 [T1]
-43.49 dBm
21.454260 GHz
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.

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

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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

No modifications were made to the EUT by the lab during the test.

---END---