FCC TEST REPORT (15.407)

REPORT NO.:	RF990622C09-3
MODEL NO.:	MRLBB-1003
FCC ID:	RTP-MRLBB1003
RECEIVED:	Jun. 22, 2010
TESTED:	Oct. 27 ~ Nov. 24, 2010
ISSUED:	Dec. 08, 2010

APPLICANT:	Hewlett-Packard Co
ADDRESS:	200 Forest Street, Marlborough, MA 01752-3085, United States

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	NA	Dec. 08, 2010

1. CERTIFICATION

PRODUCT:	802.11n Radio Module
MODEL:	MRLBB-1003
BRAND:	HP
APPLICANT:	Hewlett-Packard Co
TEST SAMPLE:	ENGINEERING SAMPLE
TESTED:	Oct. 27 ~ Nov. 24, 2010
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**
	ANSI C63.4-2003
	ANSI C63.10-2009

The above equipment (Model: MRLBB-1003) 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: Dec. 08, 2010
Ivy Lin / Specialist

APPROVED BY : _____ , DATE: Dec. 08, 2010
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 E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -9.26dB at 0.181MHz.
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -1.3dB at 5150.00MHz.
15.407(a/1/2/3)	Peak Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connectors are U.FL and Reverse SMA connectors.

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	3.34 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	802.11n Radio Module
MODEL NO.	MRLBB-1003
FCC ID	RTP-MRLBB1003
POWER SUPPLY	3.3Vdc
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK for OFDM
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 450.0Mbps
OPERATING FREQUENCY	5180.0 ~ 5240.0MHz
NUMBER OF CHANNEL	4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	47.4mW
ANTENNA TYPE	Refer to note for more details
ANTENNA CONNECTOR	Refer to note for more details
DATA CABLE	NA
I/O PORTS	NA
ACCESSORY DEVICES	NA

NOTE:

1. The EUT is an 802.11n Radio Module. The test data are separated into following test reports.

	ANT. NO.	TEST STANDARD	REFERENCE REPORT
WLAN 802.11b/g, 802.11n	1 ~ 5	FCC Part 15, Subpart C (Section 15.247)	RF990622C09-2
WLAN 802.11a, 802.11n (5745~5825 MHz)	1 ~ 5		
WLAN 802.11a, 802.11n (5180~5240MHz)	1, 4 & 5	FCC Part 15, Subpart E (Section 15.407)	RF990622C09-3

2. The EUT is a professional installation and with beam forming function.
3. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2412~2462	5180~5240	5745~5825
802.11b	√		
802.11g	√		
802.11a		√	√
802.11n (20MHz)	√	√	√
802.11n (40MHz)	√	√	√

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

MODULATION MODE	TX FUNCTION
802.11b	3TX/ 2TX
802.11g	3TX/ 2TX
802.11a	3TX/ 2TX
802.11n (20MHz) (MCS 0-7)	3TX/ 2TX
802.11n (20MHz) (MCS 8-15)	3TX/ 2TX
802.11n (20MHz) (MCS 16-23)	3TX
802.11n (40MHz) (MCS 0-7)	3TX/ 2TX
802.11n (40MHz) (MCS 8-15)	3TX/ 2TX
802.11n (40MHz) (MCS 16-23)	3TX

5. There are five antennas provided to this EUT:

No.	Brand Name	Model Name	Antenna Gain (dBi)		Antenna Type	Antenna connector	Point to Point
			For 2.4GHz	For 5.0GHz			
1	WNC	5184-6684	5.41	7.02	PIFA	U.FL	-
2	HP	J9169A	8.00	10.70	Directional	Reverse SMA	Yes
3	HP	J9170A	10.90	13.50	Directional	Reverse SMA	Yes
4	HP	J9171A	3.00	4.00	Omni	Reverse SMA	-
5	HP	J9659A	2.00	2.00	Omni	Reverse SMA	-

6. The above EUT information was 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

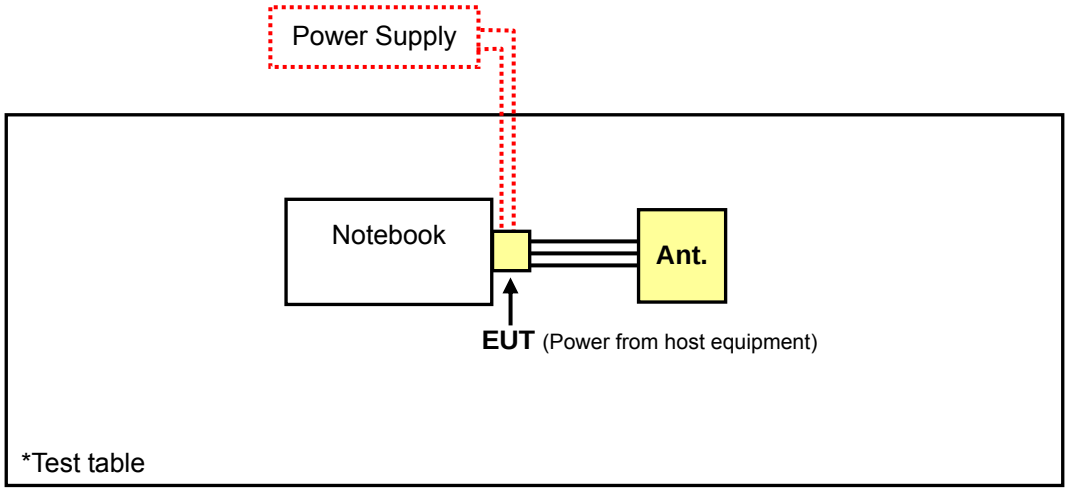
4 channels are provided for 802.11a, 802.11n (20MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180MHz	44	5220MHz
40	5200MHz	48	5240MHz

2 channels are provided for 802.11n (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190MHz	46	5230MHz

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	ANT. MODEL	BEAM FORMING FUNCTION
A	1	√	√	√	√	Ant. 1 model: 5184-6684	Enabled
	2	√	√	√	√		Disabled
B	1	√	√	√	√	Ant. 4 model: J9171A	Enabled
	2	√	√	√	√		Disabled
C	1	√	√	√	√	Ant. 5 model: J9659A	Enabled
	2	√	√	√	√		Disabled

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, 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)	AXIS
A 1, A 2, B 1, B 2, C 1, C 2	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0	Z
	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2	Z
	802.11n (40MHz)	38 to 46	38, 46	OFDM	BPSK	15.0	Z

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, 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)	AXIS
A 1	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0	Z
A 2	802.11n (20MHz)	36 to 48	36	OFDM	BPSK	7.2	Z
B 1	802.11n (20MHz)	36 to 48	36	OFDM	BPSK	7.2	Z
B 2	802.11n (20MHz)	36 to 48	40	OFDM	BPSK	7.2	Z
C 1	802.11a	36 to 48	36	OFDM	BPSK	7.2	Z
C 2	802.11n (20MHz)	36 to 48	40	OFDM	BPSK	7.2	Z

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 1	802.11n (40MHz)	38 to 46	38	OFDM	BPSK	15.0
A 2	802.11n (20MHz)	36 to 48	36	OFDM	BPSK	7.2
B 1	802.11n (20MHz)	36 to 48	36	OFDM	BPSK	7.2
B 2	802.11n (20MHz)	36 to 48	40	OFDM	BPSK	7.2
C 1	802.11a	36 to 48	36	OFDM	BPSK	7.2
C 2	802.11n (20MHz)	36 to 48	40	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)	AXIS
A 1, A 2, B 1, B 2, C 1, C 2	802.11a	36 to 48	36, 48	OFDM	BPSK	6.0	Z
	802.11n (20MHz)	36 to 48	36, 48	OFDM	BPSK	7.2	Z
	802.11n (40MHz)	38 to 46	38, 46	OFDM	BPSK	15.0	Z

ANTENNA PORT CONDUCTED 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 1, A 2, B 1, B 2, C 1, C 2	802.11a	36 to 48	36, 40, 48	OFDM	BPSK	6.0
	802.11n (20MHz)	36 to 48	36, 40, 48	OFDM	BPSK	7.2
	802.11n (40MHz)	38 to 46	38, 46	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	EUT CONFIGURE MODE	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	A 1, A 2	25deg. C, 68%RH, 1015hPa	120Vac, 60Hz	Sun Lin, Mark Liao, Frank Wang
	B 1, B 2	25deg. C, 65%RH, 1016/hPa, 25deg. C, 68%RH, 1016/hPa,	120Vac, 60Hz	Frank Wang, Sun Lin
	C1, C 2	25deg. C, 68%RH, 1018/hPa	120Vac, 60Hz	Sun Lin
RE<1G	A 1, A 2	26deg. C, 66%RH, 1014hPa	120Vac, 60Hz	Brad Wu
	B 1, B 2	26deg. C, 66%RH, 1019hPa	120Vac, 60Hz	Brad Wu
	C1, C 2	26deg. C, 66%RH, 1018hPa	120Vac, 60Hz	Brad Wu
PLC	A 1, A 2	26deg. C, 65%RH, 1016hPa	120Vac, 60Hz	Frank Wang
	B 1, B 2	26deg. C, 63%RH, 1018hPa	120Vac, 60Hz	Frank Wang
	C1, C 2	23deg. C, 63%RH, 1018hPa	120Vac, 60Hz	Frank Wang
APCM	A 1, A 2	26deg. C, 66%RH, 1014hPa	120Vac, 60Hz	Mark Liao, Sun Lin, Long Chang
	B 1, B 2	26deg. C, 66%RH, 1015hPa	120Vac, 60Hz	Sun Lin, Long Chang
	C1, C 2	26deg. C, 66%RH, 1012hPa	120Vac, 60Hz	Mark Liao, Sun Lin, Long Chang

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	D820	21498926752	NA
2	DC POWER SUPPLY	TOP WARD	TF-6306A	727263	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	NA

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

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 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

FREQUENCIES (MHz)	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m) *NOTE 3
	PK	PK
5150 ~ 5250	-27	68.3

NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts).

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 21, 2009	Dec. 20, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Dec. 31, 2009	Dec. 30, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 03, 2010	Feb. 02, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8447D	2944A10637	Dec. 10, 2009	Dec. 09, 2010
Preamplifier Agilent	8449B	3008A01922	Sep. 24, 2010	Sep. 23, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
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.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

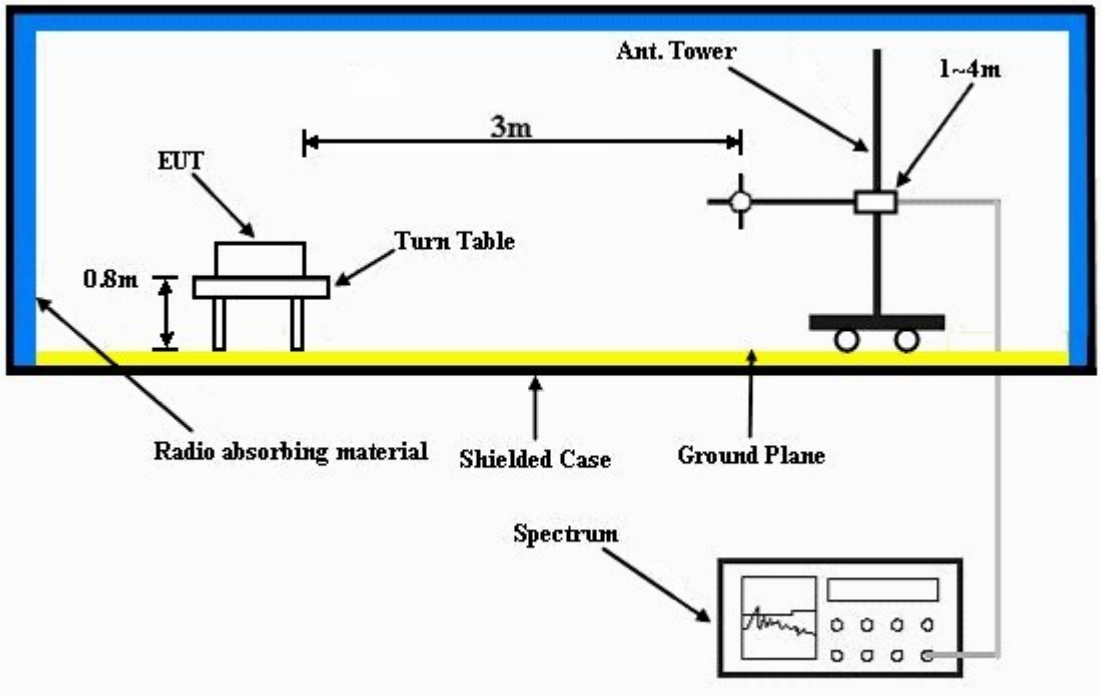
NOTE:

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

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP



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

4.1.7 EUT OPERATING CONDITION

The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.

4.1.8 TEST RESULTS (TEST MODE A 1)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	4780.00	54.0 PK	74.0	-20.0	1.05 H	244	17.90	36.10
2	4780.00	41.4 AV	54.0	-12.6	1.05 H	244	5.30	36.10
3	5150.00	53.8 PK	74.0	-20.2	1.48 H	58	17.10	36.70
4	5150.00	42.1 AV	54.0	-11.9	1.48 H	58	5.40	36.70
5	*5180.00	102.7 PK			1.58 H	122	65.90	36.80
6	*5180.00	90.0 AV			1.58 H	122	53.20	36.80
7	5400.00	57.2 PK	74.0	-16.8	1.10 H	350	20.00	37.20
8	5400.00	46.4 AV	54.0	-7.6	1.10 H	350	9.20	37.20
9	#10360.00	56.1 PK	68.3	-12.2	1.17 H	70	8.20	47.90
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	4780.00	56.1 PK	74.0	-17.9	1.00 V	123	20.00	36.10
2	4780.00	46.0 AV	54.0	-8.0	1.00 V	123	9.90	36.10
3	5150.00	54.9 PK	74.0	-19.1	1.38 V	150	18.20	36.70
4	5150.00	42.5 AV	54.0	-11.5	1.38 V	150	5.80	36.70
5	*5180.00	105.7 PK			1.08 V	100	68.90	36.80
6	*5180.00	93.4 AV			1.08 V	100	56.60	36.80
7	5400.00	57.9 PK	74.0	-16.1	1.52 V	81	20.70	37.20
8	5400.00	46.2 AV	54.0	-7.8	1.52 V	81	9.00	37.20
9	#10360.00	56.0 PK	68.3	-12.3	1.00 V	312	8.10	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	4840.00	56.5 PK	74.0	-17.5	1.00 H	165	20.40	36.10
2	4840.00	49.5 AV	54.0	-4.5	1.00 H	165	13.40	36.10
3	*5200.00	102.7 PK			1.12 H	251	65.90	36.80
4	*5200.00	89.7 AV			1.12 H	251	52.90	36.80
5	5440.00	60.3 PK	74.0	-13.7	1.13 H	255	23.00	37.30
6	5440.00	51.2 AV	54.0	-2.8	1.13 H	255	13.90	37.30
7	#10400.00	55.0 PK	68.3	-13.3	1.15 H	15	6.90	48.10
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	4840.00	58.2 PK	74.0	-15.8	1.28 V	166	22.10	36.10
2	4840.00	51.0 AV	54.0	-3.0	1.28 V	166	14.90	36.10
3	*5200.00	105.6 PK			1.12 V	285	68.80	36.80
4	*5200.00	93.5 AV			1.12 V	285	56.70	36.80
5	5440.00	59.8 PK	74.0	-14.2	1.50 V	119	22.50	37.30
6	5440.00	51.0 AV	54.0	-3.0	1.50 V	119	13.70	37.30
7	#10400.00	57.3 PK	68.3	-11.0	1.02 V	252	9.20	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	*5240.00	102.8 PK			1.06 H	313	65.90	36.90
2	*5240.00	90.0 AV			1.06 H	313	53.10	36.90
3	5360.00	52.9 PK	74.0	-21.1	1.55 H	242	15.70	37.20
4	5360.00	44.8 AV	54.0	-9.2	1.55 H	242	7.60	37.20
5	5440.00	59.2 PK	74.0	-14.8	1.08 H	282	21.90	37.30
6	5440.00	50.2 AV	54.0	-3.8	1.08 H	282	12.90	37.30
7	#10480.00	56.6 PK	68.3	-11.7	1.44 H	305	8.30	48.30
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	*5240.00	105.7 PK			1.05 V	220	68.80	36.90
2	*5240.00	93.6 AV			1.05 V	220	56.70	36.90
3	5360.00	52.9 PK	74.0	-21.1	1.66 V	225	15.70	37.20
4	5360.00	45.8 AV	54.0	-8.2	1.06 V	225	8.60	37.20
5	5440.00	59.0 PK	74.0	-15.0	1.53 V	160	21.70	37.30
6	5440.00	50.1 AV	54.0	-3.9	1.53 V	160	12.80	37.30
7	#10480.00	57.0 PK	68.3	-11.3	1.18 V	157	8.70	48.30

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.

6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	4960.00	56.1 PK	74.0	-17.9	1.16 H	283	19.70	36.40
2	4960.00	45.3 AV	54.0	-8.7	1.16 H	283	8.90	36.40
3	5150.00	60.9 PK	74.0	-13.1	1.20 H	60	24.20	36.70
4	5150.00	41.7 AV	54.0	-12.3	1.20 H	60	5.00	36.70
5	*5180.00	102.8 PK			1.22 H	183	66.00	36.80
6	*5180.00	90.1 AV			1.22 H	183	53.30	36.80
7	5400.00	59.1 PK	74.0	-14.9	1.47 H	200	21.90	37.20
8	5400.00	50.7 AV	54.0	-3.3	1.47 H	200	13.50	37.20
9	#10360.00	55.2 PK	68.3	-13.1	1.55 H	215	7.30	47.90
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	4960.00	58.2 PK	74.0	-15.8	1.29 V	250	21.80	36.40
2	4960.00	48.1 AV	54.0	-5.9	1.29 V	250	11.70	36.40
3	5150.00	62.8 PK	74.0	-11.2	1.35 V	311	26.10	36.70
4	5150.00	45.1 AV	54.0	-8.9	1.35 V	311	8.40	36.70
5	*5180.00	104.9 PK			1.32 V	285	68.10	36.80
6	*5180.00	92.5 AV			1.32 V	285	55.70	36.80
7	5400.00	58.3 PK	74.0	-15.7	1.23 V	153	21.10	37.20
8	5400.00	50.3 AV	54.0	-3.7	1.23 V	153	13.10	37.20
9	#10360.00	54.7 PK	68.3	-13.6	1.48 V	0	6.80	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	5000.00	56.1 PK	74.0	-17.9	1.35 H	300	19.63	36.47
2	5000.00	46.2 AV	54.0	-7.8	1.35 H	300	9.73	36.47
3	*5200.00	103.0 PK			1.05 H	147	66.23	36.77
4	*5200.00	90.4 AV			1.35 H	147	53.63	36.77
5	5400.00	57.5 PK	74.0	-16.5	1.28 H	299	20.30	37.20
6	5400.00	47.2 AV	54.0	-6.8	1.28 H	299	10.00	37.20
7	#10400.00	55.4 PK	68.3	-12.9	1.51 H	258	7.31	48.09
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	5000.00	58.3 PK	74.0	-15.7	1.33 V	218	21.83	36.47
2	5000.00	48.1 AV	54.0	-5.9	1.33 V	218	11.63	36.47
3	*5200.00	105.0 PK			1.06 V	343	68.23	36.77
4	*5200.00	92.8 AV			1.06 V	343	56.03	36.77
5	5400.00	57.5 PK	74.0	-16.5	1.15 V	122	20.30	37.20
6	5400.00	47.1 AV	54.0	-6.9	1.15 V	122	9.90	37.20
7	#10400.00	55.6 PK	68.3	-12.7	1.09 V	38	7.51	48.09

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 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	*5240.00	103.1 PK			1.37 H	281	66.20	36.90
2	*5240.00	90.6 AV			1.37 H	281	53.70	36.90
3	5360.00	56.3 PK	74.0	-17.7	1.10 H	300	19.15	37.15
4	5360.00	45.6 AV	54.0	-8.4	1.10 H	300	8.45	37.15
5	#10480.00	56.4 PK	68.3	-11.9	1.01 H	37	8.13	48.27
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	*5240.00	105.1 PK			1.00 V	324	68.20	36.90
2	*5240.00	93.0 AV			1.00 V	324	56.10	36.90
3	5360.00	56.5 PK	74.0	-17.5	1.25 V	22	19.35	37.15
4	5360.00	45.9 AV	54.0	-8.1	1.25 V	22	8.75	37.15
5	#10480.00	56.1 PK	68.3	-12.2	1.34 V	100	7.83	48.27

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1015 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	5150.00	63.9 PK	74.0	-10.1	1.36 H	150	27.20	36.70
2	5150.00	46.0 AV	54.0	-8.0	1.36 H	150	9.30	36.70
3	*5190.00	99.5 PK			1.08 H	32	62.70	36.80
4	*5190.00	86.9 AV			1.08 H	32	50.10	36.80
5	#10380.00	56.8 PK	68.3	-11.5	1.17 H	152	8.80	48.00
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	5150.00	65.3 PK	74.0	-8.7	1.40 V	88	28.60	36.70
2	5150.00	49.2 AV	54.0	-4.8	1.40 V	88	12.50	36.70
3	*5190.00	102.0 PK			1.04 V	354	65.20	36.80
4	*5190.00	90.1 AV			1.38 V	85	53.30	36.80
5	#10380.00	57.2 PK	68.3	-11.1	1.38 V	85	9.20	48.00

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1015 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	*5230.00	99.3 PK			1.07 H	145	62.40	36.90
2	*5230.00	86.5 AV			1.07 H	145	49.60	36.90
3	5360.00	56.8 PK	74.0	-17.2	1.40 H	315	19.60	37.20
4	5360.00	45.9 AV	54.0	-8.1	1.40 H	315	8.70	37.20
5	#10460.00	57.6 PK	68.3	-10.7	1.08 H	60	9.30	48.30
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	*5230.00	101.8 PK			1.08 V	327	64.90	36.90
2	*5230.00	89.9 AV			1.08 V	327	53.00	36.90
3	5360.00	57.1 PK	74.0	-16.9	1.05 V	102	19.90	37.20
4	5360.00	46.0 AV	54.0	-8.0	1.05 V	102	8.80	37.20
5	#10460.00	57.9 PK	68.3	-10.4	1.11 V	285	9.60	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA： 802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1014 hPa	TESTED BY	Brad Wu

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	99.89	31.6 QP	43.5	-11.9	1.75 H	63	21.50	10.10
2	199.05	41.3 QP	43.5	-2.2	1.25 H	58	31.00	10.30
3	232.11	34.8 QP	46.0	-11.2	1.25 H	100	22.90	11.90
4	527.64	33.4 QP	46.0	-12.6	1.25 H	181	12.90	20.50
5	665.68	39.8 QP	46.0	-6.2	1.25 H	135	16.70	23.10
6	928.16	34.3 QP	46.0	-11.7	1.75 H	99	7.90	26.40
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	31.84	28.4 QP	40.0	-11.6	1.00 V	169	15.90	12.50
2	199.05	32.7 QP	43.5	-10.8	1.50 V	109	22.40	10.30
3	461.53	29.3 QP	46.0	-16.7	2.00 V	10	10.50	18.80
4	529.58	30.3 QP	46.0	-15.7	1.50 V	10	9.80	20.50
5	593.74	28.1 QP	46.0	-17.9	1.50 V	10	6.20	21.90
6	665.68	40.6 QP	46.0	-5.4	1.00 V	193	17.50	23.10

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.

4.1.9 TEST RESULTS (TEST MODE A 2)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Mark Liao

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	4780.00	54.5 PK	74.0	-19.5	1.09 H	176	18.40	36.10
2	4780.00	41.8 AV	54.0	-12.2	1.09 H	176	5.70	36.10
3	5150.00	54.1 PK	74.0	-19.9	1.31 H	331	17.40	36.70
4	5150.00	42.5 AV	54.0	-11.5	1.31 H	331	5.80	36.70
5	*5180.00	103.0 PK			1.12 H	251	66.20	36.80
6	*5180.00	90.3 AV			1.12 H	251	53.50	36.80
7	5400.00	57.6 PK	74.0	-16.4	1.00 H	17	20.40	37.20
8	5400.00	46.9 AV	54.0	-7.1	1.00 H	17	9.70	37.20
9	#10360.00	56.5 PK	68.3	-11.8	1.12 H	254	8.60	47.90
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	4780.00	56.5 PK	74.0	-17.5	1.00 V	252	20.40	36.10
2	4780.00	46.3 AV	54.0	-7.7	1.00 V	252	10.20	36.10
3	5150.00	55.1 PK	74.0	-18.9	1.41 V	276	18.40	36.70
4	5150.00	42.9 AV	54.0	-11.1	1.41 V	276	6.20	36.70
5	*5180.00	106.0 PK			1.03 V	299	69.20	36.80
6	*5180.00	93.7 AV			1.03 V	299	56.90	36.80
7	5400.00	58.2 PK	74.0	-15.8	1.08 V	311	21.00	37.20
8	5400.00	46.6 AV	54.0	-7.4	1.08 V	311	9.40	37.20
9	#10360.00	56.5 PK	68.3	-11.8	1.16 V	57	8.60	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Sun Lin

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	4840.00	57.0 PK	74.0	-17.0	1.00 H	25	20.90	36.10
2	4840.00	49.8 AV	54.0	-4.2	1.00 H	25	13.70	36.10
3	*5200.00	103.2 PK			1.12 H	49	66.40	36.80
4	*5200.00	90.4 AV			1.12 H	49	53.60	36.80
5	5440.00	60.5 PK	74.0	-13.5	1.04 H	50	23.20	37.30
6	5440.00	51.5 AV	54.0	-2.5	1.04 H	50	14.20	37.30
7	#10400.00	55.4 PK	68.3	-12.9	1.08 H	358	7.30	48.10
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	4840.00	58.6 PK	74.0	-15.4	1.31 V	7	22.50	36.10
2	4840.00	51.2 AV	54.0	-2.8	1.31 V	7	15.10	36.10
3	*5200.00	105.8 PK			1.00 V	352	69.00	36.80
4	*5200.00	93.8 AV			1.00 V	352	57.00	36.80
5	5440.00	60.2 PK	74.0	-13.8	1.33 V	43	22.90	37.30
6	5440.00	51.2 AV	54.0	-2.8	1.33 V	43	13.90	37.30
7	#10400.00	57.8 PK	68.3	-10.5	1.08 V	8	9.70	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Sun Lin

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	*5240.00	103.3 PK			1.18 H	69	66.40	36.90
2	*5240.00	90.4 AV			1.18 H	69	53.50	36.90
3	5360.00	53.1 PK	74.0	-20.9	1.37 H	113	15.90	37.20
4	5360.00	45.2 AV	54.0	-8.8	1.37 H	113	8.00	37.20
5	5440.00	59.6 PK	74.0	-14.4	1.27 H	114	22.30	37.30
6	5440.00	50.5 AV	54.0	-3.5	1.27 H	114	13.20	37.30
7	#10480.00	57.2 PK	68.3	-11.1	1.17 H	63	8.90	48.30
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	*5240.00	106.2 PK			1.00 V	354	69.30	36.90
2	*5240.00	94.0 AV			1.00 V	354	57.10	36.90
3	5360.00	53.2 PK	74.0	-20.8	1.12 V	341	16.00	37.20
4	5360.00	46.2 AV	54.0	-7.8	1.12 V	341	9.00	37.20
5	5440.00	59.6 PK	74.0	-14.4	1.32 V	40	22.30	37.30
6	5440.00	50.4 AV	54.0	-3.6	1.32 V	40	13.10	37.30
7	#10480.00	57.5 PK	68.3	-10.8	1.09 V	21	9.20	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Mark Liao

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	4960.00	56.7 PK	74.0	-17.3	1.28 H	85	20.30	36.40
2	4960.00	45.8 AV	54.0	-8.2	1.28 H	85	9.40	36.40
3	5150.00	64.2 PK	74.0	-9.8	1.32 H	306	27.50	36.70
4	5150.00	45.1 AV	54.0	-8.9	1.32 H	306	8.40	36.70
5	*5180.00	108.2 PK			1.09 H	310	71.40	36.80
6	*5180.00	95.7 AV			1.09 H	310	58.90	36.80
7	5400.00	59.4 PK	74.0	-14.6	1.33 H	103	22.20	37.20
8	5400.00	51.0 AV	54.0	-3.0	1.33 H	103	13.80	37.20
9	#10360.00	55.7 PK	68.3	-12.6	1.22 H	152	7.80	47.90
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	4960.00	58.8 PK	74.0	-15.2	1.03 V	24	22.40	36.40
2	4960.00	48.5 AV	54.0	-5.5	1.03 V	24	12.10	36.40
3	5150.00	66.2 PK	74.0	-7.8	1.10 V	11	29.50	36.70
4	5150.00	48.1 AV	54.0	-5.9	1.10 V	11	11.40	36.70
5	*5180.00	110.3 PK			1.19 V	63	73.50	36.80
6	*5180.00	98.0 AV			1.19 V	63	61.20	36.80
7	5400.00	58.9 PK	74.0	-15.1	1.11 V	37	21.70	37.20
8	5400.00	50.8 AV	54.0	-3.2	1.11 V	37	13.60	37.20
9	#10360.00	55.1 PK	68.3	-13.2	1.12 V	254	7.20	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Mark Liao

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	5000.00	56.7 PK	74.0	-17.3	1.29 H	100	20.20	36.50
2	5000.00	46.6 AV	54.0	-7.4	1.29 H	100	10.10	36.50
3	*5200.00	108.3 PK			1.03 H	69	71.50	36.80
4	*5200.00	95.8 AV			1.03 H	69	59.00	36.80
5	5400.00	58.0 PK	74.0	-16.0	1.31 H	112	20.80	37.20
6	5400.00	47.6 AV	54.0	-6.4	1.31 H	112	10.40	37.20
7	#10400.00	55.9 PK	68.3	-12.4	1.22 H	55	7.80	48.10
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	5000.00	58.9 PK	74.0	-15.1	1.25 V	27	22.40	36.50
2	5000.00	48.5 AV	54.0	-5.5	1.25 V	27	12.00	36.50
3	*5200.00	110.4 PK			1.13 V	25	73.60	36.80
4	*5200.00	98.2 AV			1.13 V	25	61.40	36.80
5	5400.00	57.8 PK	74.0	-16.2	1.09 V	339	20.60	37.20
6	5400.00	47.6 AV	54.0	-6.4	1.09 V	339	10.40	37.20
7	#10400.00	55.9 PK	68.3	-12.4	1.13 V	91	7.80	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1015 hPa	TESTED BY	Mark Liao

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	*5240.00	108.5 PK			1.18 H	77	71.60	36.90
2	*5240.00	95.9 AV			1.18 H	77	59.00	36.90
3	5360.00	57.1 PK	74.0	-16.9	1.25 H	111	19.90	37.20
4	5360.00	47.2 AV	54.0	-6.8	1.25 H	111	10.00	37.20
5	#10480.00	56.9 PK	68.3	-11.4	1.08 H	94	8.60	48.30
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	*5240.00	110.5 PK			1.03 V	25	73.60	36.90
2	*5240.00	98.3 AV			1.03 V	25	61.40	36.90
3	5360.00	57.0 PK	74.0	-17.0	1.08 V	345	19.80	37.20
4	5360.00	46.3 AV	54.0	-7.7	1.08 V	345	9.10	37.20
5	#10480.00	56.4 PK	68.3	-11.9	1.22 V	69	8.10	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1015 hPa	TESTED BY	Mark Liao

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	5150.00	67.2 PK	74.0	-6.8	1.47 H	289	30.50	36.70
2	5150.00	49.6 AV	54.0	-4.4	1.47 H	289	12.90	36.70
3	*5190.00	104.9 PK			1.13 H	301	68.10	36.80
4	*5190.00	92.1 AV			1.13 H	301	55.30	36.80
5	#10380.00	57.3 PK	68.3	-11.0	1.09 H	66	9.30	48.00
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	5150.00	68.9 PK	74.0	-5.1	1.00 V	2	32.20	36.70
2	**5150.00**	**52.7 AV**	**54.0**	**-1.3**	**1.00 V**	**2**	**16.00**	**36.70**
3	*5190.00	107.4 PK			1.13 V	142	70.60	36.80
4	*5190.00	95.9 AV			1.13 V	142	59.10	36.80
5	#10380.00	57.6 PK	68.3	-10.7	1.06 V	3	9.60	48.00

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1015 hPa	TESTED BY	Mark Liao

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	*5230.00	104.5 PK			1.11 H	291	67.60	36.90
2	*5230.00	91.8 AV			1.11 H	291	54.90	36.90
3	5360.00	58.6 PK	74.0	-15.4	1.06 H	43	21.40	37.20
4	5360.00	47.5 AV	54.0	-6.5	1.06 H	43	10.30	37.20
5	#10460.00	57.9 PK	68.3	-10.4	1.02 H	255	9.60	48.30
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	*5230.00	107.1 PK			1.11 V	121	70.20	36.90
2	*5230.00	95.6 AV			1.11 V	121	58.70	36.90
3	5360.00	58.7 PK	74.0	-15.3	1.08 V	337	21.50	37.20
4	5360.00	47.6 AV	54.0	-6.4	1.08 V	337	10.40	37.20
5	#10460.00	58.3 PK	68.3	-10.0	1.10 V	25	10.00	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA： 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1014 hPa	TESTED BY	Brad Wu

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	99.89	30.3 QP	43.5	-13.2	1.50 H	10	20.20	10.10
2	199.05	40.3 QP	43.5	-3.2	1.00 H	43	30.00	10.30
3	232.11	33.1 QP	46.0	-12.9	1.00 H	88	21.20	11.90
4	527.64	32.2 QP	46.0	-13.8	1.50 H	151	11.70	20.50
5	665.68	38.9 QP	46.0	-7.1	1.00 H	142	15.80	23.10
6	928.16	33.2 QP	46.0	-12.8	1.50 H	46	6.80	26.40
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	199.05	32.7 QP	43.5	-10.8	1.50 V	109	22.40	10.30
2	333.21	26.9 QP	46.0	-19.1	1.50 V	148	11.40	15.50
3	461.53	29.3 QP	46.0	-16.7	2.00 V	10	10.50	18.80
4	529.58	30.3 QP	46.0	-15.7	1.50 V	10	9.80	20.50
5	665.68	40.6 QP	46.0	-5.4	1.00 V	193	17.50	23.10
6	924.27	35.4 QP	46.0	-10.6	1.00 V	10	9.10	26.30

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.

4.1.10 TEST RESULTS (TEST MODE B 1)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.2 PK	74.0	-17.8	1.08 H	47	19.50	36.70
2	5120.00	44.3 AV	54.0	-9.7	1.08 H	47	7.60	36.70
3	*5180.00	109.5 PK			1.05 H	52	72.70	36.80
4	*5180.00	97.3 AV			1.05 H	52	60.50	36.80
5	5400.00	58.2 PK	74.0	-15.8	1.43 H	263	21.00	37.20
6	5400.00	45.0 AV	54.0	-9.0	1.43 H	263	7.80	37.20
7	#10360.00	56.1 PK	68.3	-12.2	1.28 H	223	8.20	47.90
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	5120.00	55.8 PK	74.0	-18.2	1.32 V	85	19.10	36.70
2	5120.00	42.0 AV	54.0	-12.0	1.32 V	85	5.30	36.70
3	*5180.00	103.2 PK			1.47 V	223	66.40	36.80
4	*5180.00	91.0 AV			1.47 V	223	54.20	36.80
5	5400.00	56.0 PK	74.0	-18.0	1.23 V	288	18.80	37.20
6	5400.00	42.3 AV	54.0	-11.7	1.23 V	288	5.10	37.20
7	#10360.00	55.9 PK	68.3	-12.4	1.07 V	59	8.00	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	*5200.00	109.2 PK			1.05 H	64	72.40	36.80
2	*5200.00	97.3 AV			1.05 H	64	60.50	36.80
3	5400.00	58.0 PK	74.0	-16.0	1.27 H	115	20.80	37.20
4	5400.00	45.0 AV	54.0	-9.0	1.27 H	115	7.80	37.20
5	#10400.00	55.9 PK	68.3	-12.4	1.69 H	23	7.80	48.10
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	*5200.00	102.9 PK			1.69 V	78	66.10	36.80
2	*5200.00	90.6 AV			1.69 V	78	53.80	36.80
3	5400.00	57.0 PK	74.0	-17.0	1.88 V	281	19.80	37.20
4	5400.00	43.1 AV	54.0	-10.9	1.88 V	281	5.90	37.20
5	#10400.00	55.2 PK	68.3	-13.1	1.07 V	212	7.10	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.2 PK	74.0	-17.8	1.02 H	147	19.50	36.70
2	5120.00	44.8 AV	54.0	-9.2	1.02 H	147	8.10	36.70
3	*5240.00	109.2 PK			1.35 H	53	72.30	36.90
4	*5240.00	97.0 AV			1.35 H	53	60.10	36.90
5	5350.00	57.9 PK	74.0	-16.1	1.21 H	222	20.70	37.20
6	5350.00	42.8 AV	54.0	-11.2	1.21 H	222	5.60	37.20
7	#10480.00	56.0 PK	68.3	-12.3	1.62 H	47	7.70	48.30
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	5120.00	55.3 PK	74.0	-18.7	2.17 V	227	18.60	36.70
2	5120.00	42.0 AV	54.0	-12.0	2.17 V	227	5.30	36.70
3	*5240.00	103.0 PK			1.48 V	207	66.10	36.90
4	*5240.00	90.3 AV			1.48 V	207	53.40	36.90
5	5350.00	55.8 PK	74.0	-18.2	1.63 V	203	18.60	37.20
6	5350.00	42.0 AV	54.0	-12.0	1.63 V	203	4.80	37.20
7	#10480.00	55.0 PK	68.3	-13.3	1.37 V	10	6.70	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	57.6 PK	74.0	-16.4	1.03 H	25	20.90	36.70
2	5120.00	45.5 AV	54.0	-8.5	1.03 H	25	8.80	36.70
3	*5180.00	107.7 PK			1.08 H	56	70.90	36.80
4	*5180.00	96.0 AV			1.08 H	56	59.20	36.80
5	5400.00	57.9 PK	74.0	-16.1	1.43 H	35	20.70	37.20
6	5400.00	46.2 AV	54.0	-7.8	1.43 H	35	9.00	37.20
7	#10360.00	55.2 PK	68.3	-13.1	1.00 H	47	7.30	47.90
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	5120.00	55.3 PK	74.0	-18.7	1.93 V	58	18.60	36.70
2	5120.00	42.0 AV	54.0	-12.0	1.93 V	58	5.30	36.70
3	*5180.00	102.5 PK			1.45 V	328	65.70	36.80
4	*5180.00	90.4 AV			1.45 V	328	53.60	36.80
5	5400.00	56.3 PK	74.0	-17.7	1.22 V	39	19.10	37.20
6	5400.00	42.4 AV	54.0	-11.6	1.22 V	39	5.20	37.20
7	#10360.00	54.8 PK	68.3	-13.5	1.08 V	57	6.90	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	*5200.00	107.7 PK			1.08 H	41	70.90	36.80
2	*5200.00	96.2 AV			1.08 H	41	59.40	36.80
3	5400.00	58.6 PK	74.0	-15.4	1.12 H	247	21.40	37.20
4	5400.00	45.9 AV	54.0	-8.1	1.12 H	247	8.70	37.20
5	#10400.00	55.3 PK	68.3	-13.0	1.35 H	120	7.20	48.10
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	*5200.00	102.7 PK			1.58 V	247	65.90	36.80
2	*5200.00	90.2 AV			1.58 V	247	53.40	36.80
3	5400.00	56.3 PK	74.0	-17.7	1.65 V	203	19.10	37.20
4	5400.00	42.2 AV	54.0	-11.8	1.65 V	203	5.00	37.20
5	#10400.00	55.2 PK	68.3	-13.1	1.03 V	87	7.10	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.2 PK	74.0	-17.8	1.17 H	58	19.50	36.70
2	5120.00	44.3 AV	54.0	-9.7	1.17 H	58	7.60	36.70
3	*5240.00	107.5 PK			1.05 H	227	70.60	36.90
4	*5240.00	95.8 AV			1.05 H	227	58.90	36.90
5	5350.00	55.3 PK	74.0	-18.7	1.36 H	143	18.10	37.20
6	5350.00	42.9 AV	54.0	-11.1	1.36 H	143	5.70	37.20
7	#10480.00	55.0 PK	68.3	-13.3	1.68 H	169	6.70	48.30
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	5120.00	56.0 PK	74.0	-18.0	1.77 V	238	19.30	36.70
2	5120.00	41.9 AV	54.0	-12.1	1.77 V	238	5.20	36.70
3	*5240.00	102.3 PK			2.05 V	41	65.40	36.90
4	*5240.00	89.7 AV			2.05 V	41	52.80	36.90
5	5350.00	53.7 PK	74.0	-20.3	2.13 V	235	16.50	37.20
6	5350.00	41.2 AV	54.0	-12.8	2.13 V	235	4.00	37.20
7	#10480.00	54.8 PK	68.3	-13.5	1.47 V	99	6.50	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1016 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	5150.00	67.2 PK	74.0	-6.8	1.04 H	69	30.50	36.70
2	5150.00	50.0 AV	54.0	-4.0	1.04 H	69	13.30	36.70
3	*5190.00	106.7 PK			1.42 H	71	69.90	36.80
4	*5190.00	93.7 AV			1.42 H	71	56.90	36.80
5	5440.00	57.5 PK	74.0	-16.5	1.05 H	65	20.20	37.30
6	5440.00	46.1 AV	54.0	-7.9	1.05 H	65	8.80	37.30
7	#10380.00	56.0 PK	68.3	-12.3	1.20 H	78	8.00	48.00
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	5150.00	54.5 PK	74.0	-19.5	1.63 V	278	17.80	36.70
2	5150.00	35.3 AV	54.0	-18.7	1.63 V	278	-1.40	36.70
3	*5190.00	99.2 PK			1.45 V	328	62.40	36.80
4	*5190.00	86.0 AV			1.45 V	328	49.20	36.80
5	5440.00	52.0 PK	74.0	-22.0	1.22 V	108	14.70	37.30
6	5440.00	41.3 AV	54.0	-12.7	1.22 V	108	4.00	37.30
7	#10360.00	57.0 PK	68.3	-11.3	1.32 V	207	9.10	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	28deg. C, 68%RH 1016 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	*5230.00	106.5 PK			1.23 H	47	69.60	36.90
2	*5230.00	93.5 AV			1.23 H	47	56.60	36.90
3	5350.00	55.0 PK	74.0	-19.0	1.41 H	357	17.80	37.20
4	5350.00	41.6 AV	54.0	-12.4	1.41 H	357	4.40	37.20
5	5400.00	57.4 PK	74.0	-16.6	1.36 H	325	20.20	37.20
6	5400.00	48.7 AV	54.0	-5.3	1.36 H	325	11.50	37.20
7	#10460.00	57.2 PK	68.3	-11.1	1.27 H	89	8.90	48.30
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	*5230.00	99.0 PK			1.43 V	288	62.10	36.90
2	*5230.00	85.9 AV			1.43 V	288	49.00	36.90
3	5350.00	54.2 PK	74.0	-19.8	1.47 V	293	17.00	37.20
4	5350.00	35.7 AV	54.0	-18.3	1.47 V	293	-1.50	37.20
5	5400.00	52.0 PK	74.0	-22.0	1.05 V	23	14.80	37.20
6	5400.00	41.7 AV	54.0	-12.3	1.22 V	45	4.50	37.20
7	#10460.00	58.3 PK	68.3	-10.0	1.02 V	223	10.00	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA： 802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1019 hPa	TESTED BY	Brad Wu

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	74.62	33.3 QP	40.0	-6.7	1.75 H	35	22.60	10.70
2	166.00	38.8 QP	43.5	-4.7	1.25 H	208	25.00	13.80
3	226.27	40.7 QP	46.0	-5.3	1.75 H	299	29.10	11.60
4	300.16	41.5 QP	46.0	-4.5	1.25 H	305	26.80	14.70
5	498.47	37.1 QP	46.0	-8.9	1.75 H	209	17.30	19.80
6	772.62	36.0 QP	46.0	-10.0	1.25 H	123	11.70	24.30
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	30.00	31.9 QP	40.0	-8.1	1.25 V	113	19.40	12.50
2	195.16	32.7 QP	43.5	-10.8	1.25 V	237	22.00	10.70
3	232.11	31.0 QP	46.0	-15.0	1.75 V	162	19.10	11.90
4	300.16	33.5 QP	46.0	-12.5	1.25 V	58	18.80	14.70
5	337.10	30.0 QP	46.0	-16.0	1.25 V	63	14.40	15.60
6	751.23	33.7 QP	46.0	-12.3	1.50 V	282	9.60	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.

4.1.11 TEST RESULTS (TEST MODE B 2)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.5 PK	74.0	-17.5	1.12 H	282	19.80	36.70
2	5120.00	44.8 AV	54.0	-9.2	1.12 H	282	8.10	36.70
3	*5180.00	109.7 PK			1.00 H	30	72.90	36.80
4	*5180.00	97.7 AV			1.00 H	30	60.90	36.80
5	5400.00	58.4 PK	74.0	-15.6	1.15 H	295	21.20	37.20
6	5400.00	45.2 AV	54.0	-8.8	1.15 H	295	8.00	37.20
7	#10360.00	56.2 PK	68.3	-12.1	1.12 H	262	8.30	47.90
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	5120.00	56.0 PK	74.0	-18.0	1.66 V	13	19.30	36.70
2	5120.00	42.2 AV	54.0	-11.8	1.66 V	13	5.50	36.70
3	*5180.00	103.6 PK			2.01 V	321	66.80	36.80
4	*5180.00	91.2 AV			2.01 V	321	54.40	36.80
5	5400.00	56.3 PK	74.0	-17.7	1.25 V	293	19.10	37.20
6	5400.00	42.7 AV	54.0	-11.3	1.25 V	293	5.50	37.20
7	#10360.00	55.8 PK	68.3	-12.5	1.00 V	16	7.90	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	*5200.00	109.5 PK			1.00 H	27	72.70	36.80
2	*5200.00	97.5 AV			1.00 H	27	60.70	36.80
3	5400.00	58.2 PK	74.0	-15.8	1.33 H	293	21.00	37.20
4	5400.00	45.3 AV	54.0	-8.7	1.33 H	293	8.10	37.20
5	#10400.00	56.1 PK	68.3	-12.2	1.23 H	131	8.00	48.10
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	*5200.00	103.2 PK			2.17 V	322	66.40	36.80
2	*5200.00	90.9 AV			2.17 V	322	54.10	36.80
3	5400.00	57.1 PK	74.0	-16.9	1.91 V	322	19.90	37.20
4	5400.00	43.4 AV	54.0	-10.6	1.91 V	322	6.20	37.20
5	#10400.00	55.9 PK	68.3	-12.4	1.00 V	20	7.80	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.6 PK	74.0	-17.4	1.23 H	285	19.90	36.70
2	5120.00	45.2 AV	54.0	-8.8	1.23 H	285	8.50	36.70
3	*5240.00	109.9 PK			1.09 H	37	73.00	36.90
4	*5240.00	97.4 AV			1.09 H	37	60.50	36.90
5	5350.00	58.1 PK	74.0	-15.9	1.23 H	285	20.90	37.20
6	5350.00	43.1 AV	54.0	-10.9	1.23 H	285	5.90	37.20
7	#10480.00	56.4 PK	68.3	-11.9	1.14 H	284	8.10	48.30
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	5120.00	55.9 PK	74.0	-18.1	2.52 V	19	19.20	36.70
2	5120.00	42.3 AV	54.0	-11.7	2.52 V	19	5.60	36.70
3	*5240.00	103.4 PK			1.52 V	142	66.50	36.90
4	*5240.00	90.8 AV			1.52 V	142	53.90	36.90
5	5350.00	56.1 PK	74.0	-17.9	1.52 V	142	18.90	37.20
6	5350.00	42.3 AV	54.0	-11.7	1.52 V	142	5.10	37.20
7	#10480.00	55.7 PK	68.3	-12.6	1.00 V	18	7.40	48.30

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.

6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	58.0 PK	74.0	-16.0	1.00 H	19	21.30	36.70
2	5120.00	46.0 AV	54.0	-8.0	1.00 H	19	9.30	36.70
3	*5180.00	111.5 PK			1.00 H	21	74.70	36.80
4	*5180.00	99.8 AV			1.00 H	21	63.00	36.80
5	5400.00	58.2 PK	74.0	-15.8	1.01 H	306	21.00	37.20
6	5400.00	46.4 AV	54.0	-7.6	1.01 H	306	9.20	37.20
7	#10360.00	55.7 PK	68.3	-12.6	1.22 H	257	7.80	47.90
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	5120.00	55.9 PK	74.0	-18.1	2.20 V	324	19.20	36.70
2	5120.00	42.3 AV	54.0	-11.7	2.20 V	324	5.60	36.70
3	*5180.00	106.4 PK			1.98 V	313	69.60	36.80
4	*5180.00	94.2 AV			1.98 V	313	57.40	36.80
5	5400.00	56.7 PK	74.0	-17.3	1.44 V	214	19.50	37.20
6	5400.00	42.9 AV	54.0	-11.1	1.44 V	214	5.70	37.20
7	#10360.00	55.2 PK	68.3	-13.1	1.00 V	18	7.30	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	*5200.00	111.6 PK			1.00 H	28	74.80	36.80
2	*5200.00	100.0 AV			1.00 H	28	63.20	36.80
3	5400.00	59.0 PK	74.0	-15.0	1.00 H	307	21.80	37.20
4	5400.00	46.2 AV	54.0	-7.8	1.00 H	307	9.00	37.20
5	#10400.00	55.8 PK	68.3	-12.5	1.25 H	138	7.70	48.10
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	*5200.00	106.6 PK			1.60 V	206	69.80	36.80
2	*5200.00	94.0 AV			1.60 V	206	57.20	36.80
3	5400.00	56.9 PK	74.0	-17.1	1.47 V	241	19.70	37.20
4	5400.00	42.6 AV	54.0	-11.4	1.47 V	241	5.40	37.20
5	#10400.00	55.4 PK	68.3	-12.9	1.00 V	25	7.30	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH 1016 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	5120.00	56.9 PK	74.0	-17.1	1.00 H	18	20.20	36.70
2	5120.00	44.9 AV	54.0	-9.1	1.00 H	18	8.20	36.70
3	*5240.00	111.4 PK			1.20 H	33	74.50	36.90
4	*5240.00	99.7 AV			1.20 H	33	62.80	36.90
5	5350.00	55.7 PK	74.0	-18.3	1.20 H	33	18.50	37.20
6	5350.00	43.3 AV	54.0	-10.7	1.20 H	33	6.10	37.20
7	#10480.00	55.6 PK	68.3	-12.7	1.15 H	290	7.30	48.30
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	5120.00	56.4 PK	74.0	-17.6	2.04 V	329	19.70	36.70
2	5120.00	42.2 AV	54.0	-11.8	2.04 V	329	5.50	36.70
3	*5240.00	106.2 PK			2.12 V	318	69.30	36.90
4	*5240.00	93.8 AV			2.12 V	318	56.90	36.90
5	5350.00	54.0 PK	74.0	-20.0	2.12 V	318	16.80	37.20
6	5350.00	41.8 AV	54.0	-12.2	2.12 V	318	4.60	37.20
7	#10480.00	55.1 PK	68.3	-13.2	1.00 V	50	6.80	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1016 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	5150.00	67.9 PK	74.0	-6.1	1.23 H	30	31.20	36.70
2	5150.00	50.4 AV	54.0	-3.6	1.23 H	30	13.70	36.70
3	*5190.00	110.6 PK			1.22 H	37	73.80	36.80
4	*5190.00	97.5 AV			1.22 H	37	60.70	36.80
5	5440.00	58.0 PK	74.0	-16.0	1.12 H	305	20.70	37.30
6	5440.00	46.7 AV	54.0	-7.3	1.12 H	305	9.40	37.30
7	#10380.00	56.3 PK	68.3	-12.0	1.28 H	63	8.30	48.00
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	5150.00	55.0 PK	74.0	-19.0	1.88 V	329	18.30	36.70
2	5150.00	35.8 AV	54.0	-18.2	1.88 V	329	-0.90	36.70
3	*5190.00	103.0 PK			1.29 V	309	66.20	36.80
4	*5190.00	89.8 AV			1.29 V	309	53.00	36.80
5	5440.00	52.2 PK	74.0	-21.8	1.25 V	153	14.90	37.30
6	5440.00	41.8 AV	54.0	-12.2	1.25 V	153	4.50	37.30
7	#10360.00	57.4 PK	68.3	-10.9	1.47 V	235	9.50	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	28deg. C, 68%RH 1016 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	*5230.00	110.8 PK			1.25 H	53	73.90	36.90
2	*5230.00	97.8 AV			1.25 H	53	60.90	36.90
3	5350.00	55.5 PK	74.0	-18.5	1.18 H	43	18.30	37.20
4	5350.00	42.1 AV	54.0	-11.9	1.18 H	43	4.90	37.20
5	5400.00	57.8 PK	74.0	-16.2	1.22 H	291	20.60	37.20
6	5400.00	49.2 AV	54.0	-4.8	1.22 H	291	12.00	37.20
7	#10460.00	57.9 PK	68.3	-10.4	1.23 H	231	9.60	48.30
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	*5230.00	103.2 PK			1.58 V	347	66.30	36.90
2	*5230.00	89.9 AV			1.58 V	347	53.00	36.90
3	5350.00	54.8 PK	74.0	-19.2	1.58 V	322	17.60	37.20
4	5350.00	36.0 AV	54.0	-18.0	1.58 V	322	-1.20	37.20
5	5400.00	52.5 PK	74.0	-21.5	1.07 V	235	15.30	37.20
6	5400.00	42.0 AV	54.0	-12.0	1.07 V	235	4.80	37.20
7	#10460.00	58.8 PK	68.3	-9.5	1.53 V	45	10.50	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1019 hPa	TESTED BY	Brad Wu

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	140.72	37.6 QP	43.5	-5.9	2.00 H	259	23.60	14.00
2	166.00	39.1 QP	43.5	-4.4	1.50 H	223	25.30	13.80
3	226.27	41.4 QP	46.0	-4.6	1.50 H	262	29.80	11.60
4	300.16	40.2 QP	46.0	-5.8	1.00 H	226	25.50	14.70
5	498.47	36.6 QP	46.0	-9.4	1.50 H	202	16.80	19.80
6	601.52	35.2 QP	46.0	-10.8	1.50 H	55	13.20	22.00
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	55.18	32.1 QP	40.0	-7.9	1.00 V	31	18.30	13.80
2	195.16	33.0 QP	43.5	-10.5	1.50 V	220	22.30	10.70
3	300.16	32.1 QP	46.0	-13.9	1.50 V	10	17.40	14.70
4	337.10	28.9 QP	46.0	-17.1	1.00 V	217	13.30	15.60
5	500.42	27.7 QP	46.0	-18.3	1.50 V	82	7.90	19.80
6	751.23	32.0 QP	46.0	-14.0	1.00 V	358	7.90	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.

4.1.12 TEST RESULTS (TEST MODE C 1)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5120.00	54.0 PK	74.0	-20.0	1.67 H	205	17.30	36.70
2	5120.00	43.0 AV	54.0	-11.0	1.67 H	205	6.30	36.70
3	*5180.00	109.6 PK			1.58 H	232	72.80	36.80
4	*5180.00	97.4 AV			1.58 H	232	60.60	36.80
5	5400.00	57.1 PK	74.0	-16.9	1.05 H	299	19.90	37.20
6	5400.00	45.7 AV	54.0	-8.3	1.05 H	299	8.50	37.20
7	#10380.00	56.5 PK	68.3	-11.8	1.12 H	98	8.50	48.00
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	5120.00	56.0 PK	74.0	-18.0	1.02 V	178	19.30	36.70
2	5120.00	42.0 AV	54.0	-12.0	1.02 V	178	5.30	36.70
3	*5180.00	108.7 PK			1.36 V	102	71.90	36.80
4	*5180.00	96.4 AV			1.36 V	102	59.60	36.80
5	5400.00	54.2 PK	74.0	-19.8	1.05 V	52	17.00	37.20
6	5400.00	41.0 AV	54.0	-13.0	1.05 V	52	3.80	37.20
7	#10360.00	57.0 PK	68.3	-11.3	1.53 V	56	9.10	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	*5200.00	109.2 PK			1.17 H	169	72.40	36.80
2	*5200.00	97.0 AV			1.17 H	169	60.20	36.80
3	5400.00	56.8 PK	74.0	-17.2	1.32 H	103	19.60	37.20
4	5400.00	45.5 AV	54.0	-8.5	1.32 H	103	8.30	37.20
5	#10400.00	56.5 PK	68.3	-11.8	1.03 H	8	8.40	48.10
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	*5200.00	108.3 PK			1.22 V	98	71.50	36.80
2	*5200.00	96.1 AV			1.22 V	98	59.30	36.80
3	5400.00	54.0 PK	74.0	-20.0	1.18 V	336	16.80	37.20
4	5400.00	40.8 AV	54.0	-13.2	1.18 V	336	3.60	37.20
5	#10400.00	57.2 PK	68.3	-11.1	1.29 V	134	9.10	48.10

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.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5120.00	54.2 PK	74.0	-19.8	1.25 H	214	17.50	36.70
2	5120.00	43.1 AV	54.0	-10.9	1.25 H	214	6.40	36.70
3	*5240.00	109.2 PK			1.28 H	198	72.30	36.90
4	*5240.00	96.9 AV			1.28 H	198	60.00	36.90
5	5360.00	54.7 PK	74.0	-19.3	1.23 H	3	17.50	37.20
6	5360.00	42.2 AV	54.0	-11.8	1.23 H	3	5.00	37.20
7	#10480.00	56.4 PK	68.3	-11.9	1.03 H	12	8.10	48.30
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	5120.00	53.9 PK	74.0	-20.1	1.02 V	107	17.20	36.70
2	5120.00	40.8 AV	54.0	-13.2	1.02 V	107	4.10	36.70
3	*5240.00	108.2 PK			1.31 V	17	71.30	36.90
4	*5240.00	95.9 AV			1.31 V	17	59.00	36.90
5	5360.00	54.2 PK	74.0	-19.8	1.03 V	15	17.00	37.20
6	5360.00	43.7 AV	54.0	-10.3	1.03 V	15	6.50	37.20
7	#10480.00	57.8 PK	68.3	-10.5	1.02 V	358	9.50	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5120.00	54.1 PK	74.0	-19.9	1.27 H	193	17.40	36.70
2	5120.00	43.2 AV	54.0	-10.8	1.27 H	193	6.50	36.70
3	*5180.00	109.8 PK			1.52 H	63	73.00	36.80
4	*5180.00	97.6 AV			1.52 H	63	60.80	36.80
5	5400.00	56.9 PK	74.0	-17.1	1.01 H	335	19.70	37.20
6	5400.00	45.2 AV	54.0	-8.8	1.01 H	335	8.00	37.20
7	#10380.00	56.0 PK	68.3	-12.3	1.03 H	352	8.00	48.00
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	5120.00	56.2 PK	74.0	-17.8	1.53 V	147	19.50	36.70
2	5120.00	42.1 AV	54.0	-11.9	1.53 V	147	5.40	36.70
3	*5180.00	109.1 PK			1.38 V	27	72.30	36.80
4	*5180.00	97.0 AV			1.38 V	27	60.20	36.80
5	5400.00	54.1 PK	74.0	-19.9	1.26 V	107	16.90	37.20
6	5400.00	41.2 AV	54.0	-12.8	1.26 V	107	4.00	37.20
7	#10360.00	57.1 PK	68.3	-11.2	1.43 V	165	9.20	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	52.8 PK	74.0	-21.2	1.16 H	58	16.30	36.50
2	5000.00	43.1 AV	54.0	-10.9	1.16 H	58	6.60	36.50
3	*5200.00	109.8 PK			1.47 H	12	73.00	36.80
4	*5200.00	97.5 AV			1.47 H	112	60.70	36.80
5	#10400.00	57.1 PK	68.3	-11.2	1.23 H	7	9.00	48.10
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	5000.00	56.2 PK	74.0	-17.8	1.18 V	204	19.70	36.50
2	5000.00	42.6 AV	54.0	-11.4	1.18 V	204	6.10	36.50
3	*5200.00	108.7 PK			1.03 V	188	71.90	36.80
4	*5200.00	96.8 AV			1.03 V	188	60.00	36.80
5	#10400.00	57.3 PK	68.3	-11.0	1.32 V	205	9.20	48.10

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.

6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	53.3 PK	74.0	-20.7	1.05 H	203	16.80	36.50
2	5000.00	43.7 AV	54.0	-10.3	1.05 H	203	7.20	36.50
3	*5240.00	109.3 PK			1.14 H	165	72.40	36.90
4	*5240.00	97.1 AV			1.14 H	165	60.20	36.90
5	5360.00	54.9 PK	74.0	-19.1	1.38 H	347	17.70	37.20
6	5360.00	42.5 AV	54.0	-11.5	1.38 H	347	5.30	37.20
7	#10480.00	57.3 PK	68.3	-11.0	1.02 H	18	9.00	48.30
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	5000.00	54.3 PK	74.0	-19.7	1.08 V	236	17.80	36.50
2	5000.00	43.0 AV	54.0	-11.0	1.08 V	236	6.50	36.50
3	*5240.00	108.9 PK			1.02 V	117	72.00	36.90
4	*5240.00	97.0 AV			1.02 V	117	60.10	36.90
5	5360.00	55.0 PK	74.0	-19.0	1.43 V	25	17.80	37.20
6	5360.00	43.9 AV	54.0	-10.1	1.43 V	25	6.70	37.20
7	#10480.00	57.5 PK	68.3	-10.8	1.26 V	47	9.20	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	55.3 PK	74.0	-18.7	1.43 H	205	18.80	36.50
2	5000.00	46.1 AV	54.0	-7.9	1.43 H	205	9.60	36.50
3	5150.00	70.2 PK	74.0	-3.8	1.57 H	269	33.50	36.70
4	5150.00	51.1 AV	54.0	-2.9	1.57 H	269	14.40	36.70
5	*5190.00	104.9 PK			1.07 H	287	68.10	36.80
6	*5190.00	93.6 AV			1.07 H	287	56.80	36.80
7	#10380.00	57.2 PK	68.3	-11.1	1.00 H	69	9.20	48.00
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	5000.00	57.3 PK	74.0	-16.7	1.08 V	278	20.80	36.50
2	5000.00	48.0 AV	54.0	-6.0	1.08 V	278	11.50	36.50
3	5150.00	57.1 PK	74.0	-16.9	1.16 V	21	20.40	36.70
4	5150.00	48.2 AV	54.0	-5.8	1.16 V	21	11.50	36.70
5	*5190.00	104.1 PK			1.42 V	268	67.30	36.80
6	*5190.00	101.7 AV			1.42 V	268	64.90	36.80
7	#10380.00	55.8 PK	68.3	-12.5	1.20 V	326	7.80	48.00

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	55.2 PK	74.0	-18.8	1.08 H	243	18.70	36.50
2	5000.00	45.3 AV	54.0	-8.7	1.08 H	243	8.80	36.50
3	*5230.00	105.3 PK			1.22 H	262	68.40	36.90
4	*5230.00	93.9 AV			1.22 H	262	57.00	36.90
5	5360.00	54.7 PK	74.0	-19.3	1.02 H	35	17.50	37.20
6	5360.00	43.0 AV	54.0	-11.0	1.02 H	35	5.80	37.20
7	#10460.00	57.2 PK	68.3	-11.1	1.39 H	47	8.90	48.30
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	5000.00	55.1 PK	74.0	-18.9	1.35 V	199	18.60	36.50
2	5000.00	44.5 AV	54.0	-9.5	1.35 V	199	8.00	36.50
3	*5230.00	104.5 PK			1.09 V	57	67.60	36.90
4	*5230.00	102.0 AV			1.09 V	57	65.10	36.90
5	5360.00	54.2 PK	74.0	-19.8	1.27 V	132	17.00	37.20
6	5360.00	43.5 AV	54.0	-10.5	1.27 V	132	6.30	37.20
7	#10460.00	56.0 PK	68.3	-12.3	1.24 V	358	7.70	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1018 hPa	TESTED BY	Brad Wu

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	199.05	33.3 QP	43.5	-10.2	1.25 H	35	23.00	10.30
2	232.11	33.7 QP	46.0	-12.3	1.25 H	105	21.80	11.90
3	298.21	32.5 QP	46.0	-13.5	1.25 H	304	17.90	14.60
4	463.48	31.4 QP	46.0	-14.6	1.75 H	104	12.50	18.90
5	500.42	35.1 QP	46.0	-10.9	1.75 H	228	15.30	19.80
6	667.63	40.0 QP	46.0	-6.0	1.25 H	61	16.90	23.10
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	61.01	30.6 QP	40.0	-9.4	1.50 V	63	17.60	13.00
2	138.78	26.3 QP	43.5	-17.2	1.75 V	9	12.40	13.90
3	333.21	29.1 QP	46.0	-16.9	1.75 V	41	13.60	15.50
4	529.58	31.9 QP	46.0	-14.1	1.25 V	117	11.40	20.50
5	593.74	30.7 QP	46.0	-15.3	1.25 V	305	8.80	21.90
6	665.68	37.5 QP	46.0	-8.5	1.25 V	199	14.40	23.10

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.

4.1.13 TEST RESULTS (TEST MODE C 2)

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5120.00	54.3 PK	74.0	-19.7	1.88 H	175	17.60	36.70
2	5120.00	43.3 AV	54.0	-10.7	1.88 H	175	6.60	36.70
3	*5180.00	109.8 PK			1.78 H	169	73.00	36.80
4	*5180.00	97.6 AV			1.78 H	169	60.80	36.80
5	5400.00	57.4 PK	74.0	-16.6	1.38 H	308	20.20	37.20
6	5400.00	46.0 AV	54.0	-8.0	1.38 H	308	8.80	37.20
7	#10380.00	56.7 PK	68.3	-11.6	1.05 H	43	8.70	48.00
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	5120.00	56.3 PK	74.0	-17.7	1.22 V	138	19.60	36.70
2	5120.00	42.4 AV	54.0	-11.6	1.22 V	138	5.70	36.70
3	*5180.00	109.1 PK			1.28 V	98	72.30	36.80
4	*5180.00	96.8 AV			1.28 V	98	60.00	36.80
5	5400.00	54.6 PK	74.0	-19.4	1.00 V	40	17.40	37.20
6	5400.00	41.3 AV	54.0	-12.7	1.00 V	40	4.10	37.20
7	#10360.00	57.3 PK	68.3	-11.0	1.22 V	293	9.40	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	*5200.00	109.6 PK			1.35 H	158	72.80	36.80
2	*5200.00	97.3 AV			1.35 H	158	60.50	36.80
3	5400.00	57.2 PK	74.0	-16.8	1.22 H	23	20.00	37.20
4	5400.00	45.9 AV	54.0	-8.1	1.22 H	23	8.70	37.20
5	#10400.00	56.9 PK	68.3	-11.4	1.15 H	63	8.80	48.10
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	*5200.00	108.7 PK			1.17 V	269	71.90	36.80
2	*5200.00	96.5 AV			1.17 V	269	59.70	36.80
3	5400.00	54.5 PK	74.0	-19.5	1.08 V	43	17.30	37.20
4	5400.00	41.1 AV	54.0	-12.9	1.08 V	43	3.90	37.20
5	#10400.00	57.5 PK	68.3	-10.8	1.39 V	198	9.40	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5120.00	54.6 PK	74.0	-19.4	1.05 H	315	17.90	36.70
2	5120.00	43.4 AV	54.0	-10.6	1.05 H	315	6.70	36.70
3	*5240.00	109.4 PK			1.03 H	269	72.50	36.90
4	*5240.00	97.1 AV			1.03 H	269	60.20	36.90
5	5360.00	55.1 PK	74.0	-18.9	1.05 H	318	17.90	37.20
6	5360.00	42.6 AV	54.0	-11.4	1.05 H	318	5.40	37.20
7	#10480.00	56.8 PK	68.3	-11.5	1.27 H	65	8.50	48.30
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	5120.00	54.2 PK	74.0	-19.8	1.14 V	92	17.50	36.70
2	5120.00	41.0 AV	54.0	-13.0	1.14 V	92	4.30	36.70
3	*5240.00	108.5 PK			1.13 V	8	71.60	36.90
4	*5240.00	96.2 AV			1.13 V	8	59.30	36.90
5	5360.00	54.7 PK	74.0	-19.3	1.12 V	10	17.50	37.20
6	5360.00	44.1 AV	54.0	-9.9	1.12 V	10	6.90	37.20
7	#10480.00	58.2 PK	68.3	-10.1	1.62 V	42	9.90	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1008 hPa	TESTED BY	Sun Lin

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	5120.00	54.7 PK	74.0	-19.3	1.63 H	188	18.00	36.70
2	5120.00	43.8 AV	54.0	-10.2	1.63 H	188	7.10	36.70
3	*5180.00	110.4 PK			1.68 H	178	73.60	36.80
4	*5180.00	98.2 AV			1.68 H	178	61.40	36.80
5	5400.00	57.2 PK	74.0	-16.8	1.13 H	256	20.00	37.20
6	5400.00	45.8 AV	54.0	-8.2	1.13 H	256	8.60	37.20
7	#10380.00	56.3 PK	68.3	-12.0	1.32 H	257	8.30	48.00
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	5120.00	56.7 PK	74.0	-17.3	1.01 V	137	20.00	36.70
2	5120.00	42.8 AV	54.0	-11.2	1.01 V	137	6.10	36.70
3	*5180.00	109.7 PK			1.38 V	27	72.90	36.80
4	*5180.00	97.5 AV			1.37 V	27	60.70	36.80
5	5400.00	54.9 PK	74.0	-19.1	1.07 V	99	17.70	37.20
6	5400.00	41.7 AV	54.0	-12.3	1.07 V	99	4.50	37.20
7	#10360.00	57.8 PK	68.3	-10.5	1.31 V	104	9.90	47.90

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	53.2 PK	74.0	-20.8	1.05 H	109	16.70	36.50
2	5000.00	43.7 AV	54.0	-10.3	1.05 H	109	7.20	36.50
3	*5200.00	110.3 PK			1.35 H	238	73.50	36.80
4	*5200.00	98.0 AV			1.35 H	238	61.20	36.80
5	#10400.00	57.5 PK	68.3	-10.8	1.43 H	203	9.40	48.10
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	5000.00	56.9 PK	74.0	-17.1	1.22 V	352	20.40	36.50
2	5000.00	43.0 AV	54.0	-11.0	1.22 V	352	6.50	36.50
3	*5200.00	109.2 PK			1.45 V	117	72.40	36.80
4	*5200.00	97.2 AV			1.45 V	117	60.40	36.80
5	#10400.00	57.9 PK	68.3	-10.4	1.24 V	299	9.80	48.10

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	53.8 PK	74.0	-20.2	1.21 H	152	17.30	36.50
2	5000.00	44.2 AV	54.0	-9.8	1.21 H	152	7.70	36.50
3	*5240.00	109.8 PK			1.33 H	172	72.90	36.90
4	*5240.00	97.8 AV			1.33 H	172	60.90	36.90
5	5360.00	55.3 PK	74.0	-18.7	1.29 H	177	18.10	37.20
6	5360.00	42.8 AV	54.0	-11.2	1.29 H	177	5.60	37.20
7	#10480.00	57.8 PK	68.3	-10.5	1.27 H	267	9.50	48.30
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	5000.00	54.8 PK	74.0	-19.2	1.35 V	185	18.30	36.50
2	5000.00	43.5 AV	54.0	-10.5	1.35 V	185	7.00	36.50
3	*5240.00	109.3 PK			1.41 V	58	72.40	36.90
4	*5240.00	97.5 AV			1.41 V	58	60.60	36.90
5	5360.00	55.3 PK	74.0	-18.7	1.32 V	48	18.10	37.20
6	5360.00	44.3 AV	54.0	-9.7	1.32 V	48	7.10	37.20
7	#10480.00	57.8 PK	68.3	-10.5	1.57 V	293	9.50	48.30

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.
6. "#":The radiated frequency is out the restricted band.

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1018 hPa	TESTED BY	Sun Lin

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	5000.00	55.8 PK	74.0	-18.2	1.02 H	191	19.30	36.50
2	5000.00	46.5 AV	54.0	-7.5	1.02 H	191	10.00	36.50
3	5150.00	70.9 PK	74.0	-3.1	1.18 H	143	34.20	36.70
4	5150.00	51.5 AV	54.0	-2.5	1.18 H	143	14.80	36.70
5	*5190.00	105.3 PK			1.29 H	190	68.50	36.80
6	*5190.00	94.0 AV			1.29 H	190	57.20	36.80
7	#10380.00	57.6 PK	68.3	-10.7	1.35 H	47	9.60	48.00
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	5000.00	57.7 PK	74.0	-16.3	1.00 V	306	21.20	36.50
2	5000.00	48.4 AV	54.0	-5.6	1.00 V	306	11.90	36.50
3	5150.00	57.5 PK	74.0	-16.5	1.00 V	6	20.80	36.70
4	5150.00	48.6 AV	54.0	-5.4	1.00 V	6	11.90	36.70
5	*5190.00	104.7 PK			1.00 V	7	67.90	36.80
6	*5190.00	92.3 AV			1.00 V	7	55.50	36.80
7	#10380.00	56.2 PK	68.3	-12.1	1.28 V	153	8.20	48.00

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.
6. "#":The radiated frequency is out the restricted band.

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH 1008 hPa	TESTED BY	Sun Lin

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	5000.00	55.9 PK	74.0	-18.1	1.01 H	189	19.40	36.50
2	5000.00	45.9 AV	54.0	-8.1	1.01 H	189	9.40	36.50
3	*5230.00	105.7 PK			1.32 H	157	68.80	36.90
4	*5230.00	94.3 AV			1.32 H	157	57.40	36.90
5	5360.00	55.0 PK	74.0	-19.0	1.00 H	298	17.80	37.20
6	5360.00	43.4 AV	54.0	-10.6	1.00 H	298	6.20	37.20
7	#10460.00	57.5 PK	68.3	-10.8	1.07 H	128	9.20	48.30
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	5000.00	55.6 PK	74.0	-18.4	1.13 V	192	19.10	36.50
2	5000.00	45.0 AV	54.0	-9.0	1.13 V	192	8.50	36.50
3	*5230.00	105.0 PK			1.05 V	53	68.10	36.90
4	*5230.00	92.5 AV			1.05 V	53	55.60	36.90
5	5360.00	54.5 PK	74.0	-19.5	1.00 V	147	17.30	37.20
6	5360.00	43.9 AV	54.0	-10.1	1.00 V	147	6.70	37.20
7	#10460.00	56.5 PK	68.3	-11.8	1.38 V	27	8.20	48.30

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.
6. "#":The radiated frequency is out the restricted band.

BELOW 1GHz WORST-CASE DATA：802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	Below 1000MHz
INPUT POWER (SYSTEM)	120 Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	26deg. C, 66%RH 1018 hPa	TESTED BY	Brad Wu

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	232.11	34.0 QP	46.0	-12.0	1.00 H	91	22.10	11.90
2	298.21	33.0 QP	46.0	-13.0	1.00 H	286	18.40	14.60
3	500.42	34.5 QP	46.0	-11.5	1.50 H	55	14.70	19.80
4	529.58	33.3 QP	46.0	-12.7	1.50 H	115	12.80	20.50
5	667.63	40.2 QP	46.0	-5.8	1.00 H	91	17.10	23.10
6	900.94	32.5 QP	46.0	-13.5	1.50 H	232	6.60	25.90
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	61.01	29.2 QP	40.0	-10.8	1.50 V	10	16.20	13.00
2	333.21	28.0 QP	46.0	-18.0	1.50 V	28	12.50	15.50
3	463.48	29.0 QP	46.0	-17.0	1.00 V	10	10.10	18.90
4	529.58	32.3 QP	46.0	-13.7	1.00 V	10	11.80	20.50
5	665.68	38.7 QP	46.0	-7.3	1.00 V	178	15.60	23.10
6	926.22	35.0 QP	46.0	-11.0	1.00 V	28	8.70	26.30

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.

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	100288	Sep. 30, 2010	Sep. 29, 2011
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 31, 2009	Dec. 30, 2010
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Dec. 25, 2009	Dec. 24, 2010
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.

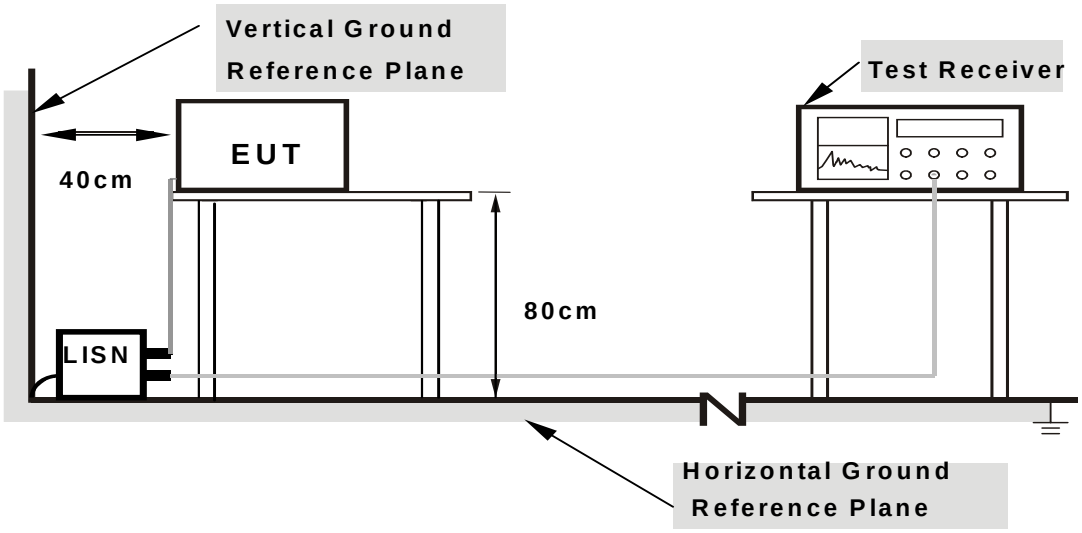
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

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

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.

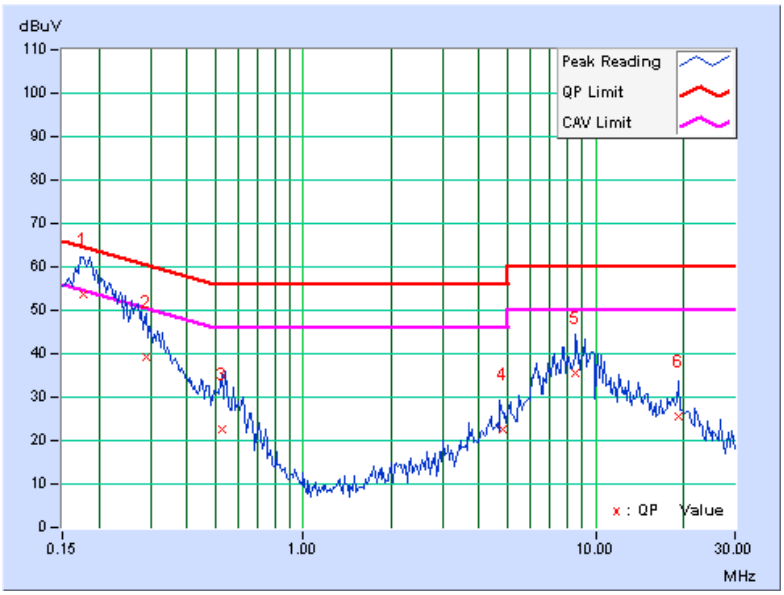
4.2.7 TEST RESULTS (TEST MODE A 1)

CONDUCTED WORST-CASE DATA：802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.177	0.16	53.54	-	53.70	-	64.61	54.61	-10.91	-
2	0.291	0.17	39.06	-	39.23	-	60.51	50.51	-21.28	-
3	0.525	0.19	22.36	-	22.55	-	56.00	46.00	-33.45	-
4	4.816	0.35	22.35	-	22.70	-	56.00	46.00	-33.30	-
5	8.508	0.35	35.28	-	35.63	-	60.00	50.00	-24.37	-
6	19.266	0.66	24.86	-	25.52	-	60.00	50.00	-34.48	-

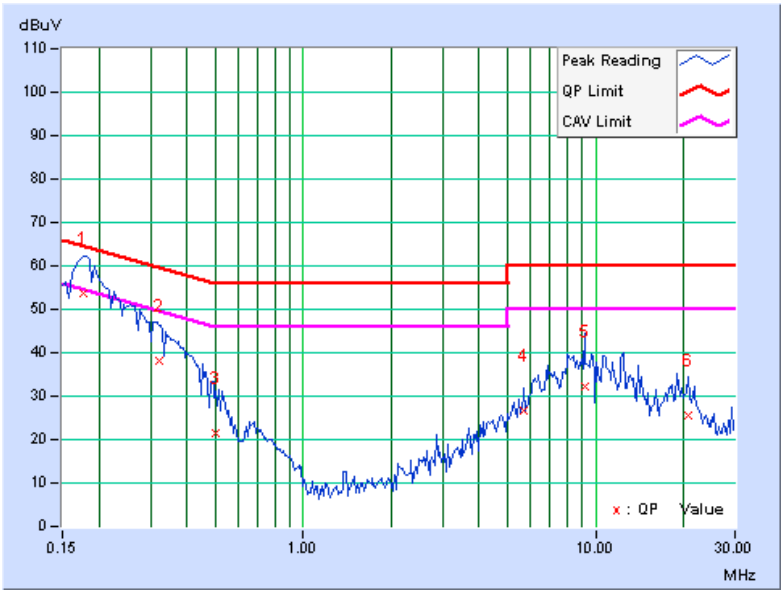
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.177	0.13	53.51	-	53.64	-	64.61	54.61	-10.97	-
2	0.322	0.15	37.95	-	38.10	-	59.66	49.66	-21.56	-
3	0.502	0.17	21.39	-	21.56	-	56.00	46.00	-34.44	-
4	5.648	0.38	26.32	-	26.70	-	60.00	50.00	-33.30	-
5	9.160	0.43	31.90	-	32.33	-	60.00	50.00	-27.67	-
6	20.734	0.91	24.56	-	25.47	-	60.00	50.00	-34.53	-

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.



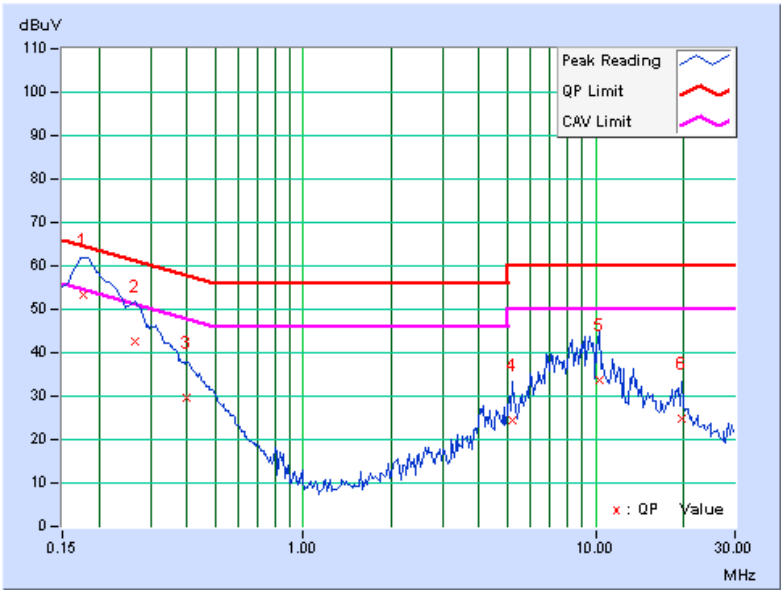
4.2.8 TEST RESULTS (TEST MODE A 2)

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

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.177	0.16	53.29	-	53.45	-	64.61	54.61	-11.16	-
2	0.267	0.17	42.41	-	42.58	-	61.20	51.20	-18.63	-
3	0.400	0.18	29.59	-	29.77	-	57.85	47.85	-28.08	-
4	5.172	0.35	24.10	-	24.45	-	60.00	50.00	-35.55	-
5	10.344	0.36	33.48	-	33.84	-	60.00	50.00	-26.16	-
6	19.645	0.68	24.09	-	24.77	-	60.00	50.00	-35.23	-

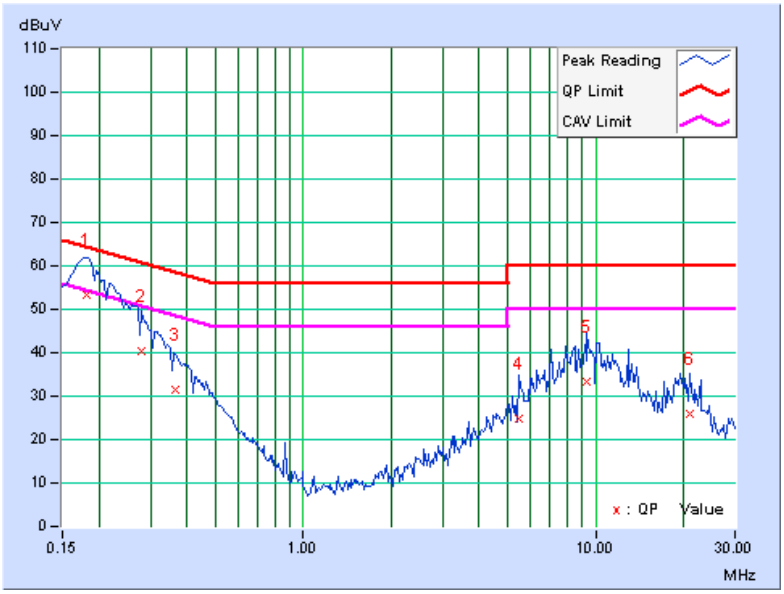
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.181	0.13	53.15	-	53.28	-	64.43	54.43	-11.15	-
2	0.279	0.14	40.41	-	40.55	-	60.85	50.85	-20.30	-
3	0.365	0.15	31.36	-	31.51	-	58.62	48.62	-27.10	-
4	5.469	0.38	24.56	-	24.94	-	60.00	50.00	-35.06	-
5	9.371	0.43	32.85	-	33.28	-	60.00	50.00	-26.72	-
6	21.102	0.91	25.02	-	25.93	-	60.00	50.00	-34.07	-

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.



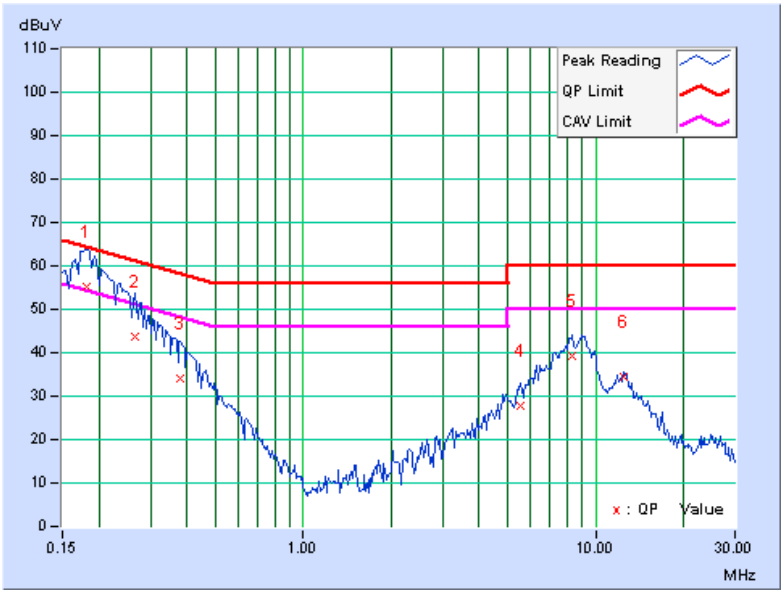
4.2.9 TEST RESULTS (TEST MODE B 1)

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

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	**0.181**	**0.16**	**55.01**	**24.62**	**55.17**	**24.78**	**64.43**	**54.43**	**-9.26**	**-29.65**
2	0.267	0.17	43.50	-	43.67	-	61.20	51.20	-17.54	-
3	0.380	0.18	33.85	-	34.03	-	58.27	48.27	-24.24	-
4	5.547	0.35	27.57	-	27.92	-	60.00	50.00	-32.08	-
5	8.332	0.35	38.85	-	39.20	-	60.00	50.00	-20.80	-
6	12.480	0.42	34.18	-	34.60	-	60.00	50.00	-25.40	-

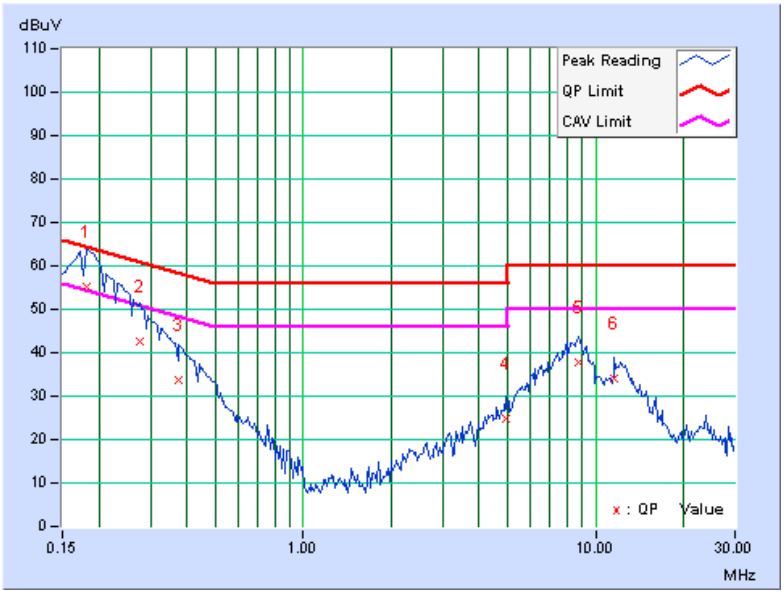
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.181	0.13	54.95	24.50	55.08	24.63	64.43	54.43	-9.35	-29.80
2	0.275	0.14	42.50	-	42.64	-	60.97	50.97	-18.32	-
3	0.377	0.16	33.56	-	33.72	-	58.35	48.35	-24.64	-
4	4.910	0.37	24.28	-	24.65	-	56.00	46.00	-31.35	-
5	8.801	0.42	37.48	-	37.90	-	60.00	50.00	-22.10	-
6	11.590	0.51	33.55	-	34.06	-	60.00	50.00	-25.94	-

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.



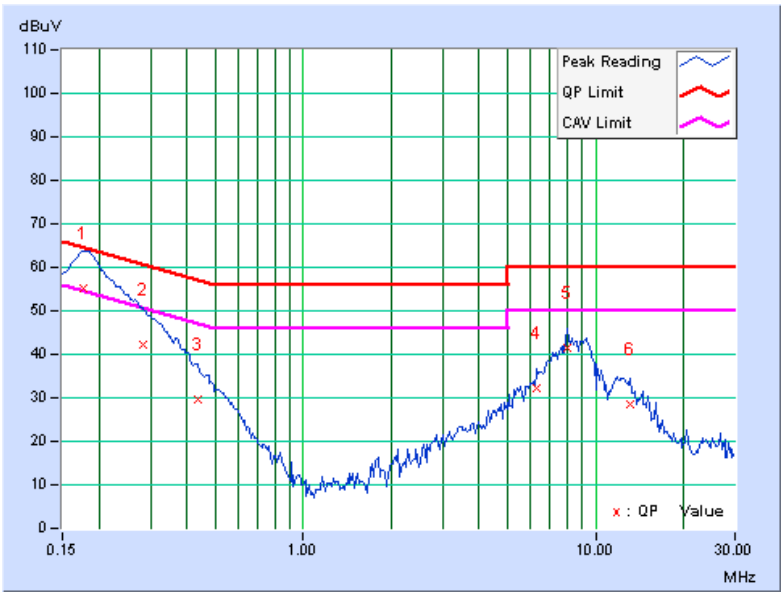
4.2.10 TEST RESULTS (TEST MODE B 2)

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

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.177	0.16	55.03	24.36	55.19	24.52	64.61	54.61	-9.42	-30.09
2	0.283	0.17	42.18	-	42.35	-	60.73	50.73	-18.38	-
3	0.435	0.18	29.29	-	29.47	-	57.15	47.15	-27.68	-
4	6.313	0.35	31.72	-	32.07	-	60.00	50.00	-27.93	-
5	8.023	0.35	41.06	-	41.41	-	60.00	50.00	-18.59	-
6	13.082	0.44	27.96	-	28.40	-	60.00	50.00	-31.60	-

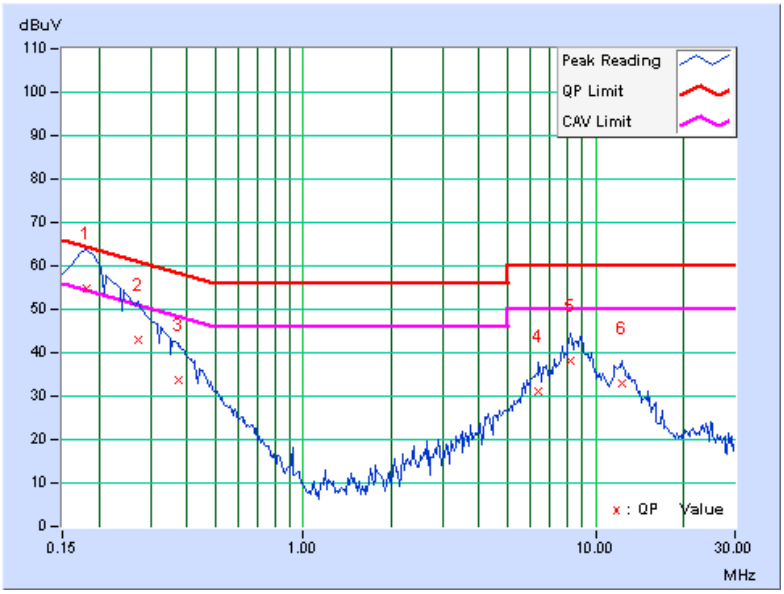
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.181	0.13	54.87	24.28	55.00	24.41	64.43	54.43	-9.43	-30.02
2	0.271	0.14	43.00	-	43.14	-	61.08	51.08	-17.94	-
3	0.373	0.16	33.68	-	33.84	-	58.44	48.44	-24.61	-
4	6.395	0.39	30.81	-	31.20	-	60.00	50.00	-28.80	-
5	8.215	0.42	37.61	-	38.03	-	60.00	50.00	-21.97	-
6	12.324	0.54	32.36	-	32.90	-	60.00	50.00	-27.10	-

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.



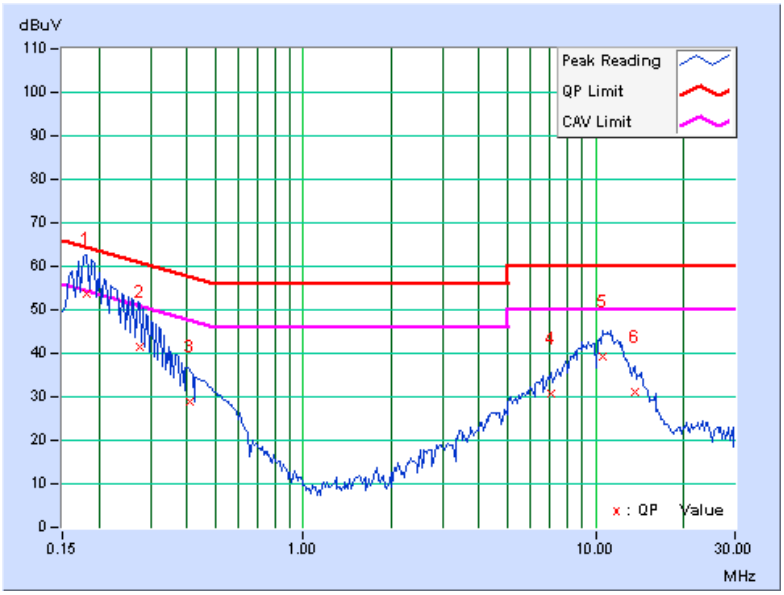
4.2.11 TEST RESULTS (TEST MODE C 1)

CONDUCTED WORST-CASE DATA：802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz

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	0.181	0.16	53.61	-	53.77	-	64.43	54.43	-10.66	-
2	0.275	0.17	41.21	-	41.38	-	60.97	50.97	-19.59	-
3	0.408	0.18	28.60	-	28.78	-	57.69	47.69	-28.91	-
4	7.012	0.35	30.42	-	30.77	-	60.00	50.00	-29.23	-
5	10.586	0.37	38.71	-	39.08	-	60.00	50.00	-20.92	-
6	13.570	0.46	30.80	-	31.26	-	60.00	50.00	-28.74	-

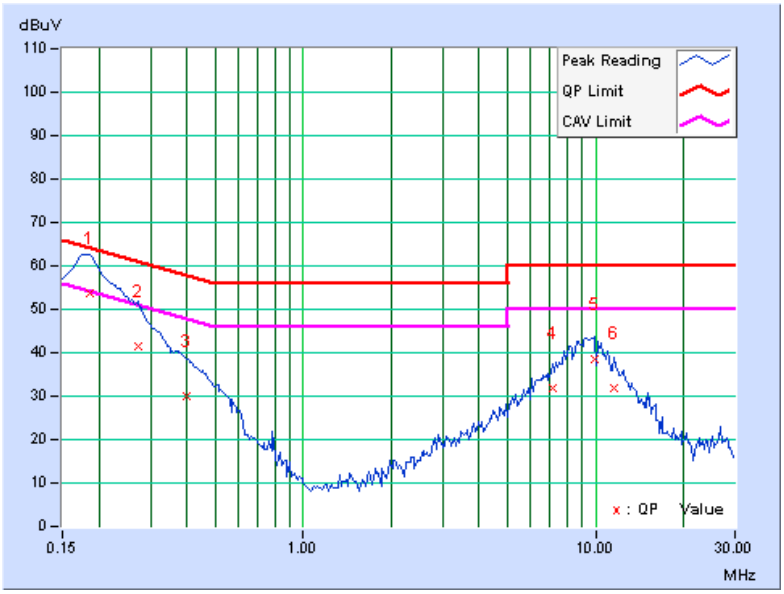
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.13	53.65	-	53.78	-	64.25	54.25	-10.47	-
2	0.271	0.14	41.37	-	41.51	-	61.08	51.08	-19.57	-
3	0.400	0.16	29.83	-	29.99	-	57.85	47.85	-27.86	-
4	7.148	0.40	31.45	-	31.85	-	60.00	50.00	-28.15	-
5	9.949	0.44	38.07	-	38.51	-	60.00	50.00	-21.49	-
6	11.598	0.51	31.29	-	31.80	-	60.00	50.00	-28.20	-

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.



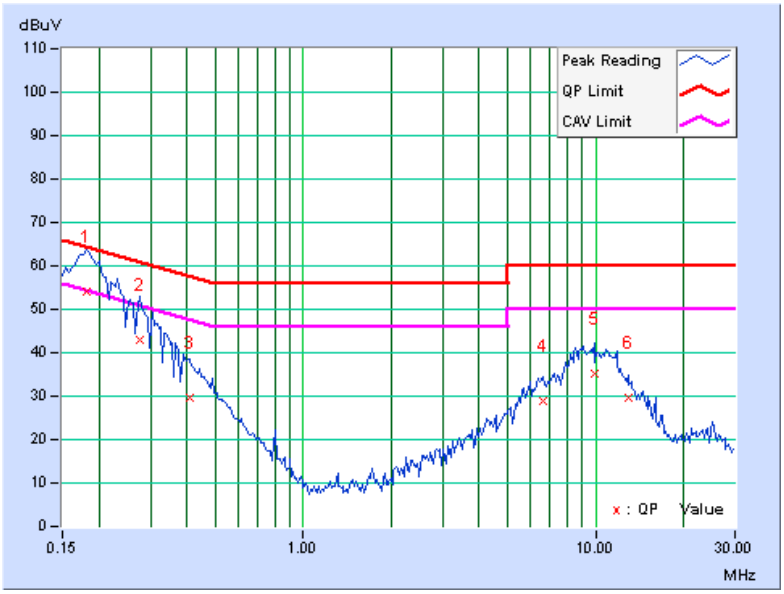
4.2.12 TEST RESULTS (TEST MODE C 2)

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

PHASE	Line 1	6dB BANDWIDTH	9kHz

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.16	54.03	-	54.19	-	64.43	54.43	-10.24	-
2	0.275	0.17	42.92	-	43.09	-	60.97	50.97	-17.88	-
3	0.408	0.18	29.37	-	29.55	-	57.69	47.69	-28.14	-
4	6.621	0.35	28.42	-	28.77	-	60.00	50.00	-31.23	-
5	9.887	0.35	34.95	-	35.30	-	60.00	50.00	-24.70	-
6	12.918	0.44	29.29	-	29.73	-	60.00	50.00	-30.27	-

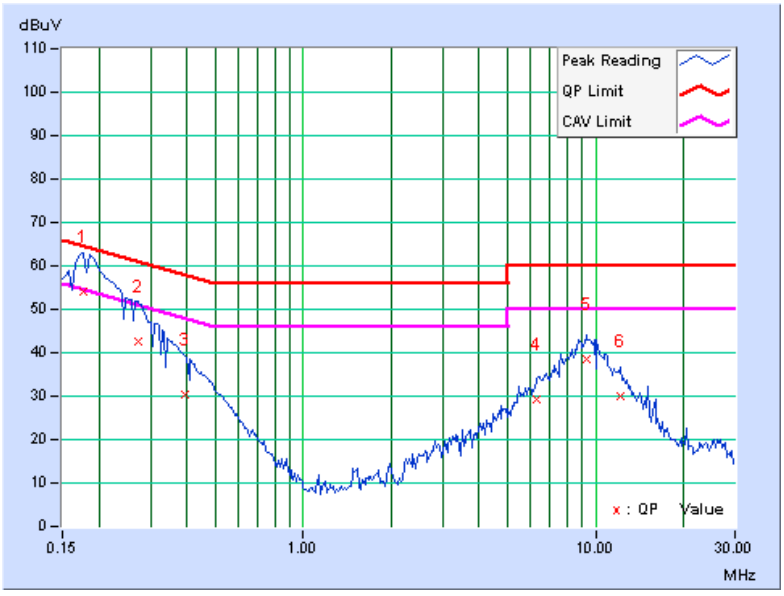
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



PHASE	Line 2	6dB BANDWIDTH	9kHz

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	0.177	0.13	54.09	-	54.22	-	64.61	54.61	-10.39	-
2	0.271	0.14	42.36	-	42.50	-	61.08	51.08	-18.58	-
3	0.392	0.16	30.17	-	30.33	-	58.02	48.02	-27.69	-
4	6.293	0.39	28.88	-	29.27	-	60.00	50.00	-30.73	-
5	9.277	0.43	38.10	-	38.53	-	60.00	50.00	-21.47	-
6	12.105	0.53	29.42	-	29.95	-	60.00	50.00	-30.05	-

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 CODUCTED POWER MEASUREMENT

4.3.1 LIMITS OF CONDUCTED POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB

NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST INSTRUMENTS

FOR POWER OUTPUT MEASUREMENT

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 26dB bandwidth of emission.

FOR 26dB OCCUPIED BANDWIDTH

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100039	Jan. 11, 2010	Jan. 10, 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

FOR POWER OUTPUT MEASUREMENT

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.

FOR 26dB OCCUPIED BANDWIDTH

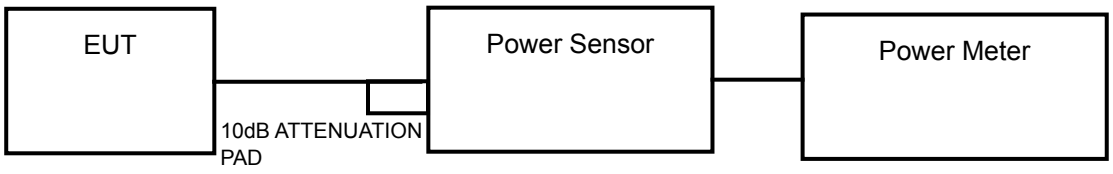
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300kHz RBW and 1MHz VBW. The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

4.3.4 DEVIATION FROM TEST STANDARD

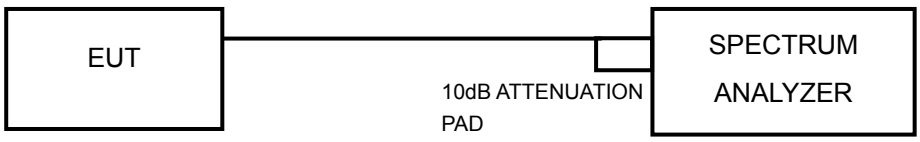
No deviation.

4.3.5 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB OCCUPIED BANDWIDTH



4.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.3.7 TEST RESULTS (TEST MODE A 1)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	5.2	6.0	6.1	11.4	10.6	11.2	PASS
40	5200	5.1	6.2	6.0	11.4	10.6	11.2	PASS
48	5240	5.0	6.0	5.9	11.0	10.4	11.2	PASS

NOTE:
1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the conducted power limit shall be reduced to 17-(11.79-6)= 11.2dBm

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	CHAIN 2				
36	5180	5.4	6.3	6.2	11.9	10.8	11.2	PASS
40	5200	5.3	6.3	6.2	11.8	10.7	11.2	PASS
48	5240	5.2	6.1	6.1	11.5	10.6	11.2	PASS

NOTE:
1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the conducted power limit shall be reduced to 17-(11.79-6)= 11.2dBm

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	CHAIN 2				
36	5180	5.4	6.4	6.2	12.0	10.8	11.2	PASS
40	5200	5.2	6.1	6.3	11.7	10.7	11.2	PASS

NOTE:
1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the conducted power limit shall be reduced to 17-(11.79-6)= 11.2dBm

4.3.8 TEST RESULTS (TEST MODE A 2)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	5.3	6.2	6.1	11.6	10.7	11.2	PASS
40	5200	5.2	6.1	6.1	11.5	10.6	11.2	PASS
48	5240	5.2	6.0	6.0	11.3	10.5	11.2	PASS

NOTE:
1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the conducted power limit shall be reduced to 17-(11.79-6)= 11.2dBm

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	CHAIN 2				
36	5180	9.8	11.3	11.2	36.2	15.6	16.0	PASS
40	5200	9.7	11.2	11.1	35.4	15.5	16.0	PASS
48	5240	9.6	11.1	11.2	35.2	15.5	16.0	PASS

NOTE: According to 15.407 (a) (1) (2) (3), the maximum antenna gain 7.02dBi is higher than 6dBi, so the limit of peak power spectral density shall be reduced by 1.02dB.

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	CHAIN 2				
36	5180	9.6	11.3	10.7	34.4	15.4	16.0	PASS
40	5200	9.7	11.2	10.8	34.5	15.4	16.0	PASS

NOTE: According to 15.407 (a) (1) (2) (3), the maximum antenna gain 7.02dBi is higher than 6dBi, so the limit of peak power spectral density shall be reduced by 1.2dB.

4.3.9 TEST RESULTS (TEST MODE B 1)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	8.2	9.2	9.1	23.1	13.6	14.2	PASS
40	5200	8.2	9.1	9.2	23.1	13.6	14.2	PASS
48	5240	8.0	9.0	9.1	22.4	13.5	14.2	PASS

NOTE:
1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the conducted power limit shall be reduced to 17-(8.77-6)= 14.2dBm

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	CHAIN 2				
36	5180	8.4	9.3	9.2	23.7	13.8	14.2	PASS
40	5200	8.3	9.3	9.2	23.6	13.7	14.2	PASS
48	5240	8.2	9.2	9.0	22.9	13.6	14.2	PASS

NOTE:
1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the conducted power limit shall be reduced to 17-(8.77-6)= 14.2dBm

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	CHAIN 2				
36	5180	8.2	9.1	9.2	23.1	13.6	14.2	PASS
40	5200	8.0	9.2	9.0	22.6	13.5	14.2	PASS

NOTE:
1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the conducted power limit shall be reduced to 17-(8.77-6)= 14.2dBm

4.3.10 TEST RESULTS (TEST MODE B 2)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	8.2	9.3	9.3	23.6	13.7	14.2	PASS
40	5200	8.3	9.2	9.4	23.8	13.8	14.2	PASS
48	5240	8.1	9.1	9.2	22.9	13.6	14.2	PASS

NOTE:
1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the conducted power limit shall be reduced to 17-(8.77-6)= 14.2dBm

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	CHAIN 2				
36	5180	10.9	12.3	12.2	45.9	16.6	17	PASS
40	5200	11.0	12.5	12.3	**47.4**	16.8	17	PASS
48	5240	10.8	12.1	12.2	44.8	16.5	17	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	CHAIN 2				
36	5180	11.1	12.4	12.2	46.9	16.7	17	PASS
40	5200	11.2	12.3	12.3	47.1	16.7	17	PASS

4.3.11 TEST RESULTS (TEST MODE C 1)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	10.7	11.6	11.5	40.3	16.1	16.2	PASS
40	5200	10.6	11.4	11.5	39.4	16.0	16.2	PASS
48	5240	10.6	11.5	11.4	39.4	16.0	16.2	PASS

NOTE:
1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the conducted power limit shall be reduced to 17-(6.77-6)=16.2dBm

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	CHAIN 2				
36	5180	10.5	11.5	11.4	39.1	15.9	16.2	PASS
40	5200	10.6	11.4	11.5	39.4	16.0	16.2	PASS
48	5240	10.5	11.6	11.6	40.1	16.0	16.2	PASS

NOTE:
1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the conducted power limit shall be reduced to 17-(6.77-6)=16.2dBm

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	CHAIN 2				
36	5180	10.5	11.6	11.5	39.8	16.0	16.2	PASS
40	5200	10.7	11.4	11.4	39.4	16.0	16.2	PASS

NOTE:
1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the conducted power limit shall be reduced to 17-(6.77-6)=16.2dBm

4.3.12 TEST RESULTS (TEST MODE C 2)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	10.8	11.7	11.6	41.3	16.2	16.2	PASS
40	5200	10.7	11.6	11.6	40.7	16.1	16.2	PASS
48	5240	10.7	11.5	11.5	40.0	16.0	16.2	PASS

NOTE:
1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the conducted power limit shall be reduced to 17-(6.77-6)=16.2dBm

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	CHAIN 2				
36	5180	10.9	12.3	12.2	45.9	16.6	17	PASS
40	5200	11.0	12.5	12.3	**47.4**	16.8	17	PASS
48	5240	10.8	12.1	12.2	44.8	16.5	17	PASS

802.11n (40MHz)

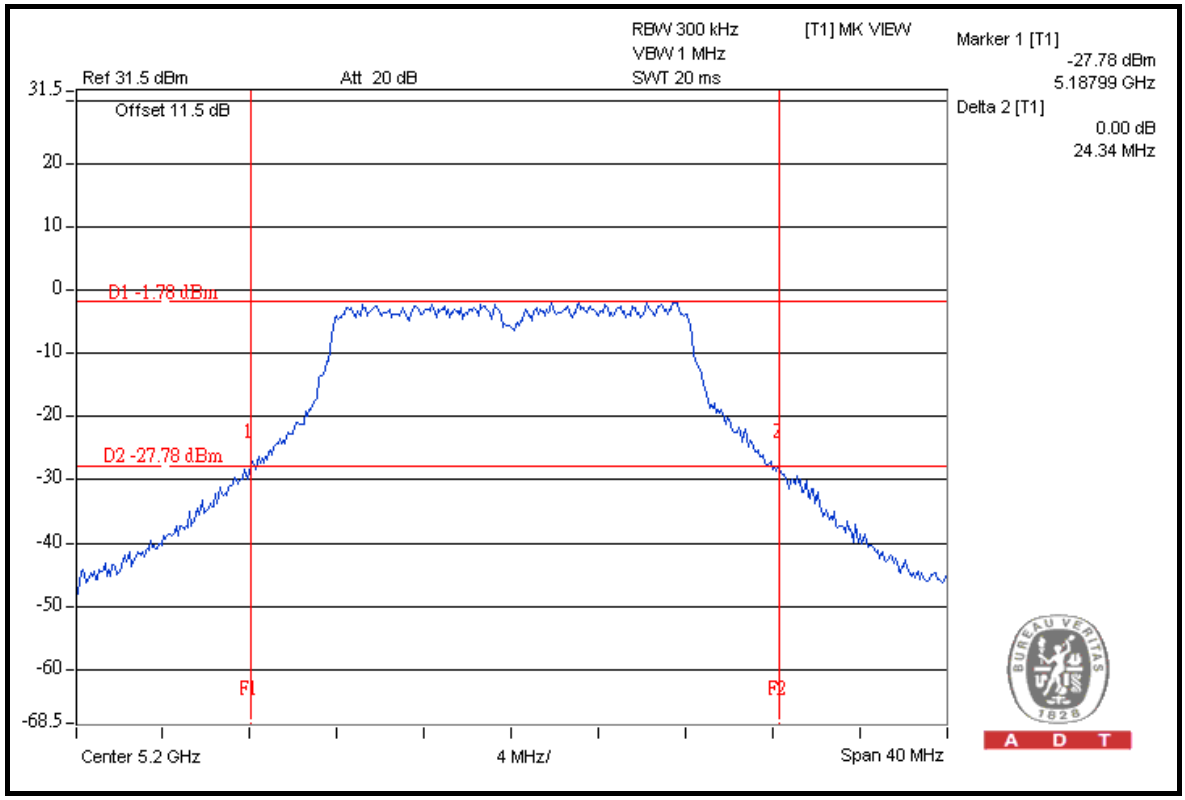
CHAN.	CHAN. FREQ. (MHz)	POWER OUTPUT (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	11.1	12.4	12.2	46.9	16.7	17	PASS
40	5200	11.2	12.3	12.3	47.1	16.7	17	PASS

4.3.13 TEST RESULTS (TEST MODE A 1)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	23.98	23.79	23.59	PASS
40	5200	23.84	24.34	23.94	PASS
48	5240	23.57	23.79	23.96	PASS

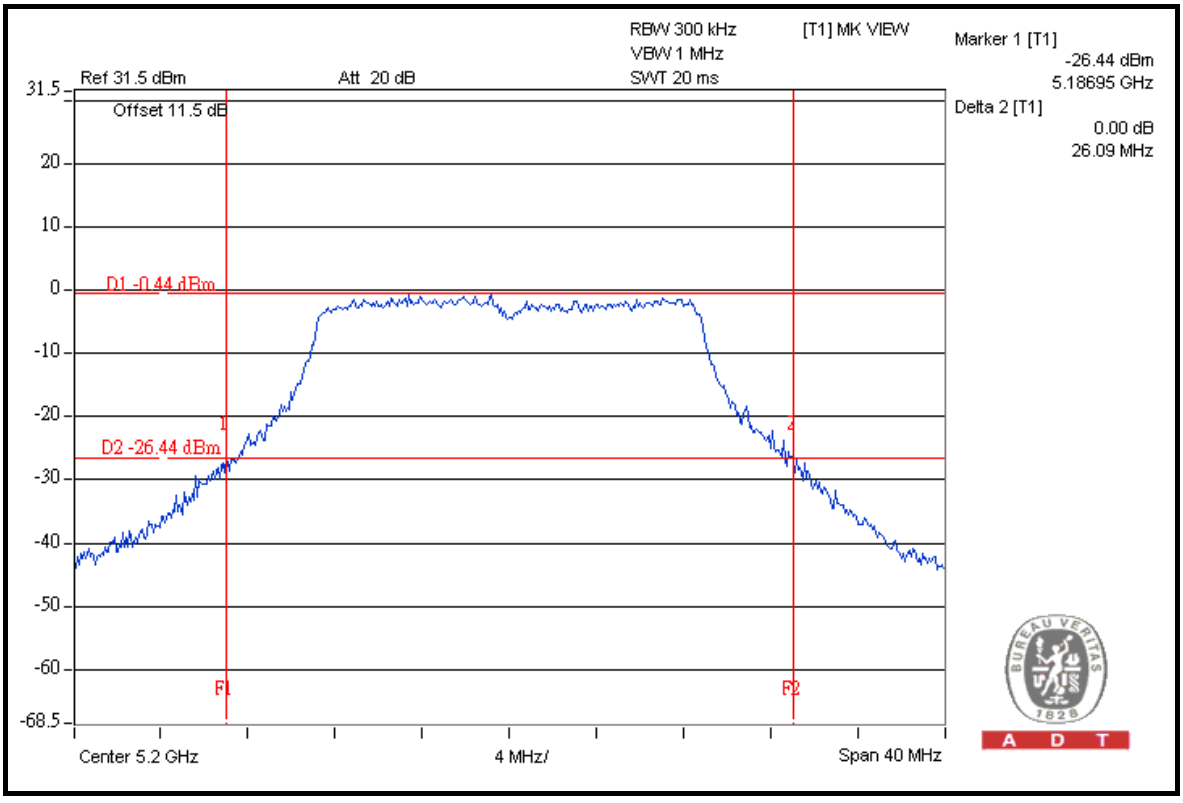
FOR CHAIN 1: CH 40



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.68	25.28	25.12	PASS
40	5200	25.88	26.09	25.86	PASS
48	5240	25.63	25.44	24.80	PASS

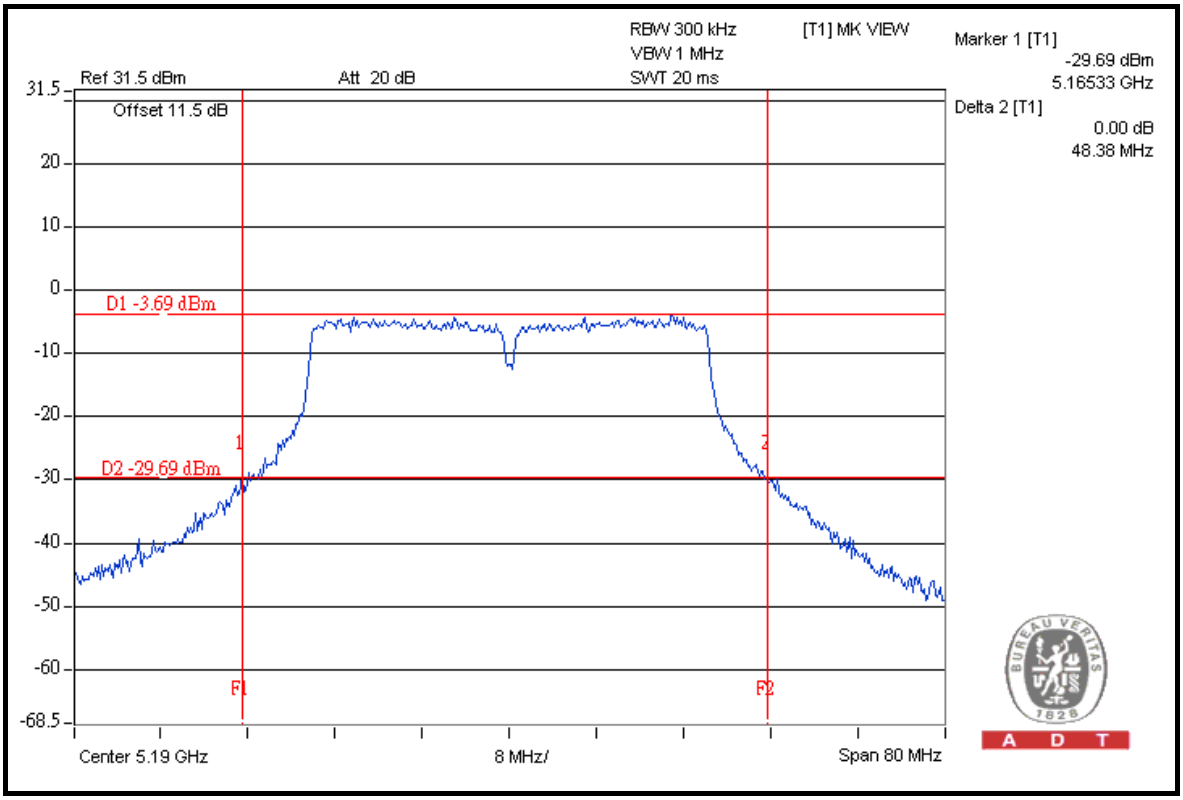
FOR CHAIN 1: CH 40



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	47.59	48.38	47.85	PASS
46	5230	47.80	47.76	48.30	PASS

FOR CHAIN 1: CH 38

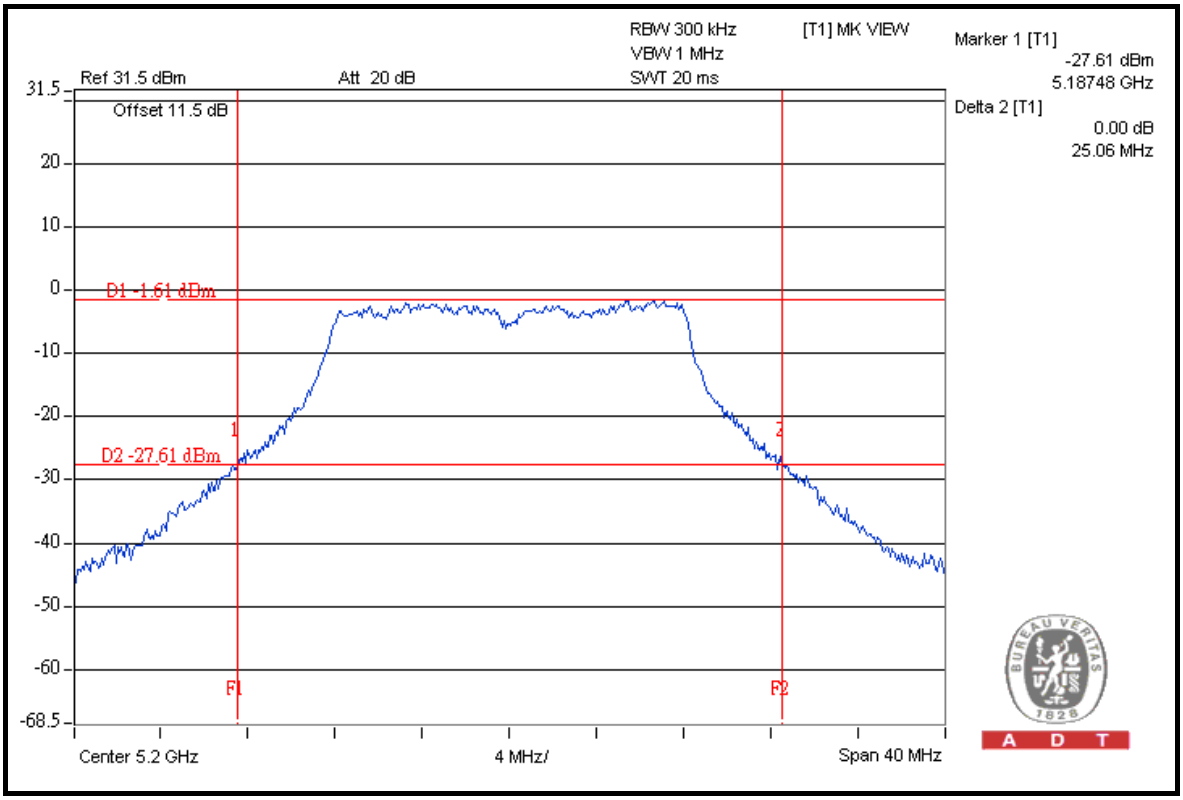


4.3.14 TEST RESULTS (TEST MODE A 2)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	24.87	24.91	23.78	PASS
40	5200	25.06	24.51	24.19	PASS
48	5240	24.70	24.32	24.10	PASS

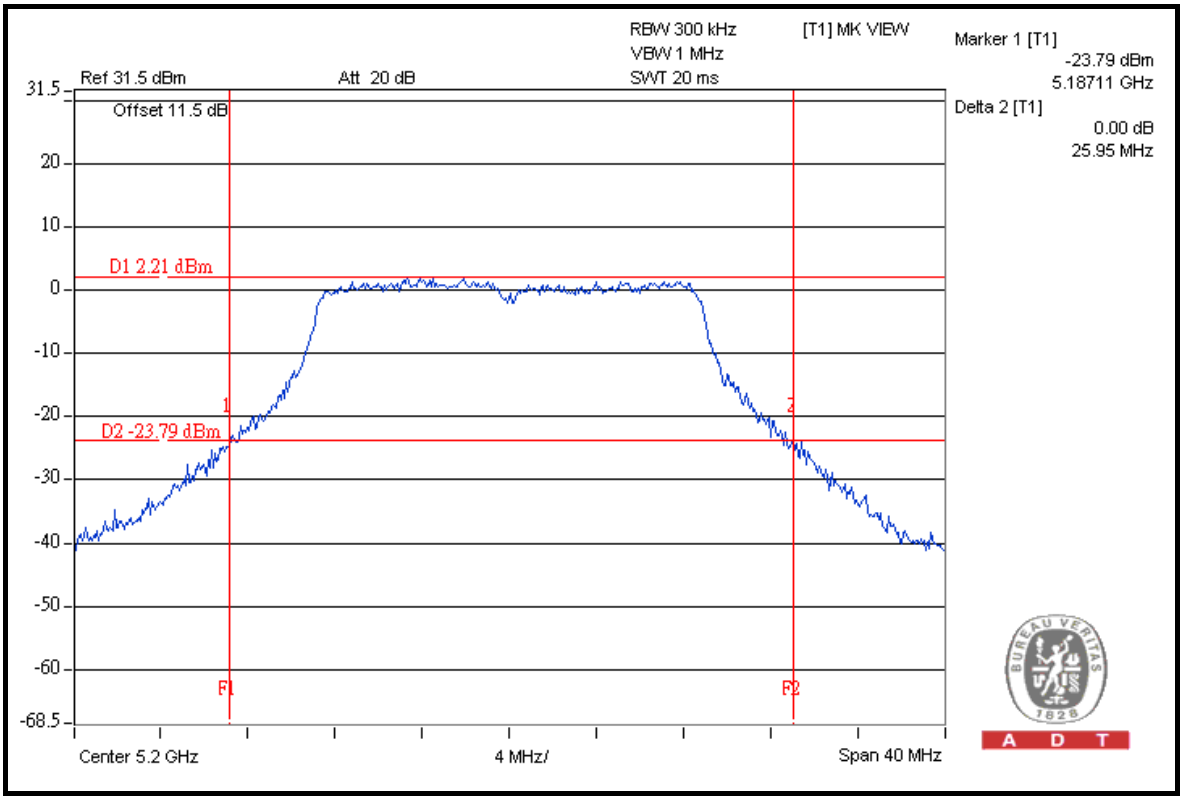
FOR CHAIN 0: CH 40



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.86	25.58	24.90	PASS
40	5200	25.95	25.92	25.18	PASS
48	5240	25.74	24.85	24.97	PASS

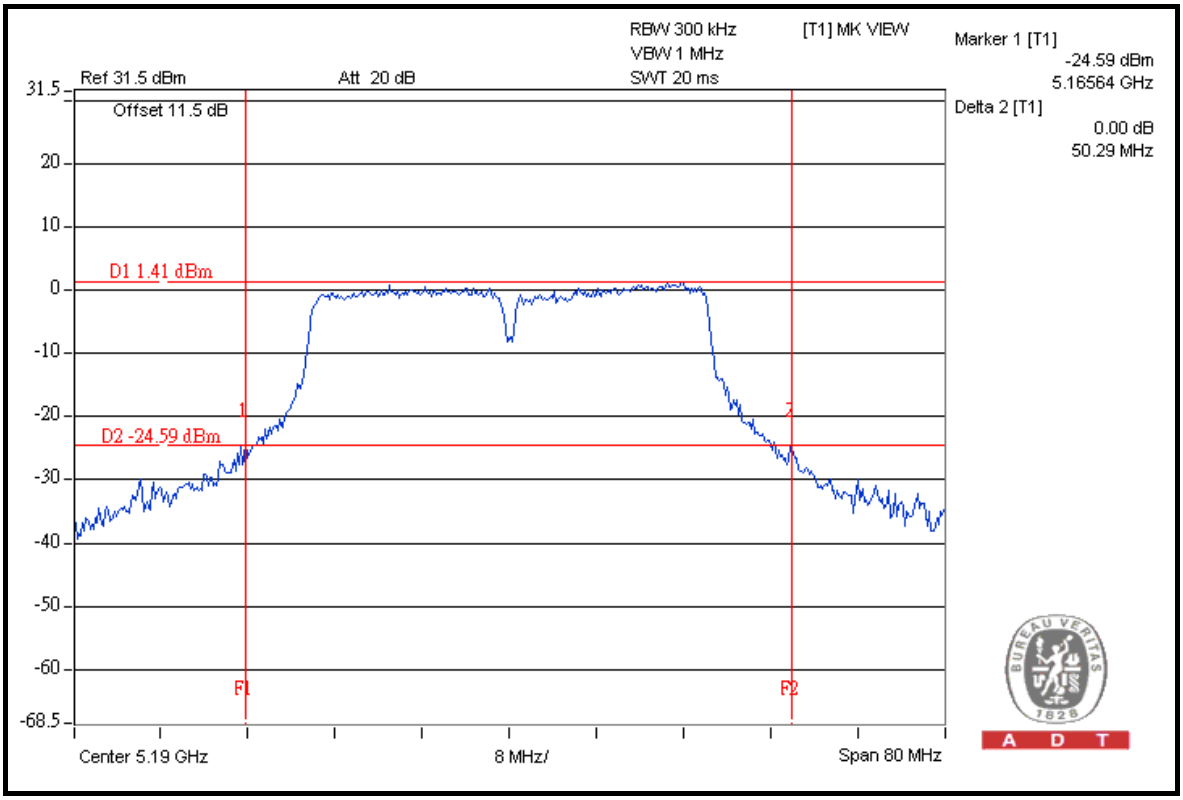
FOR CHAIN 0: CH 40



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	49.74	50.29	48.77	PASS
46	5230	48.72	48.01	47.79	PASS

FOR CHAIN 1: CH 38

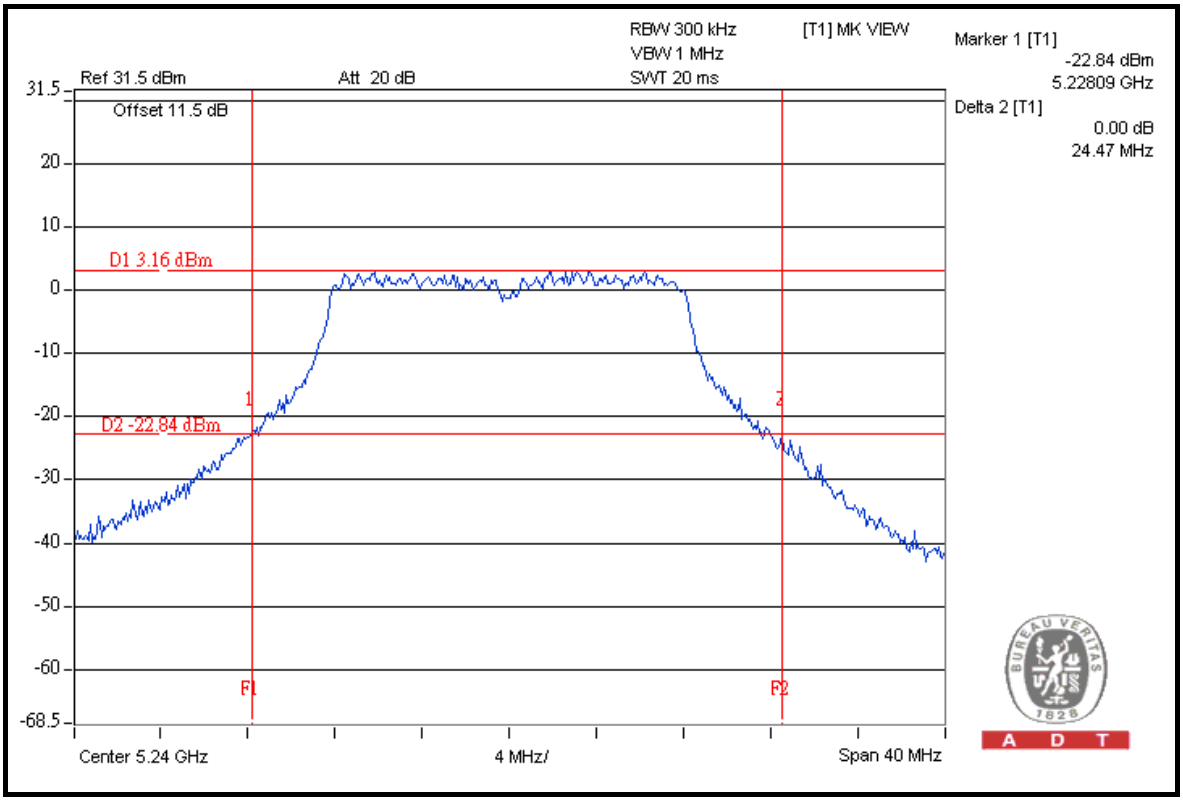


4.3.15 TEST RESULTS (TEST MODE B 1)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	24.22	24.05	24.41	PASS
40	5200	24.07	23.87	23.98	PASS
48	5240	23.98	24.21	24.47	PASS

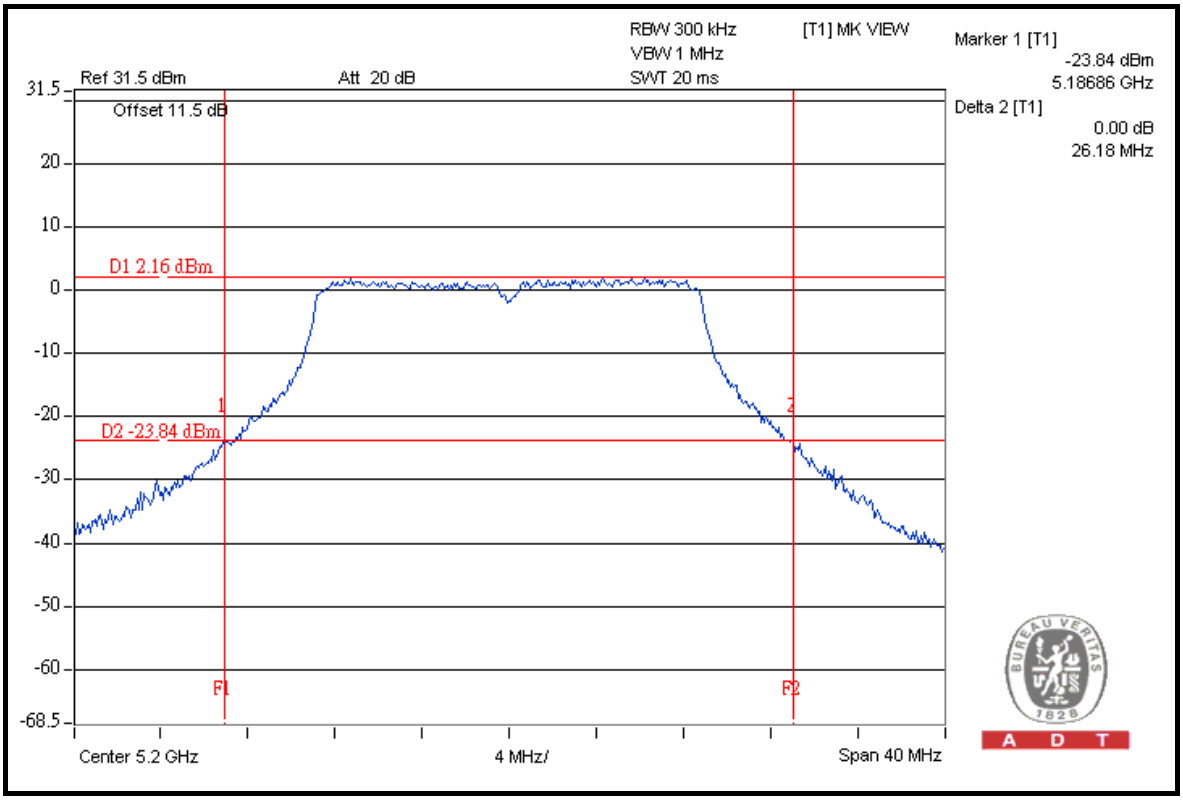
FOR CHAIN 2: CH 48



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.67	25.05	25.94	PASS
40	5200	25.41	26.18	25.45	PASS
48	5240	25.49	25.38	25.16	PASS

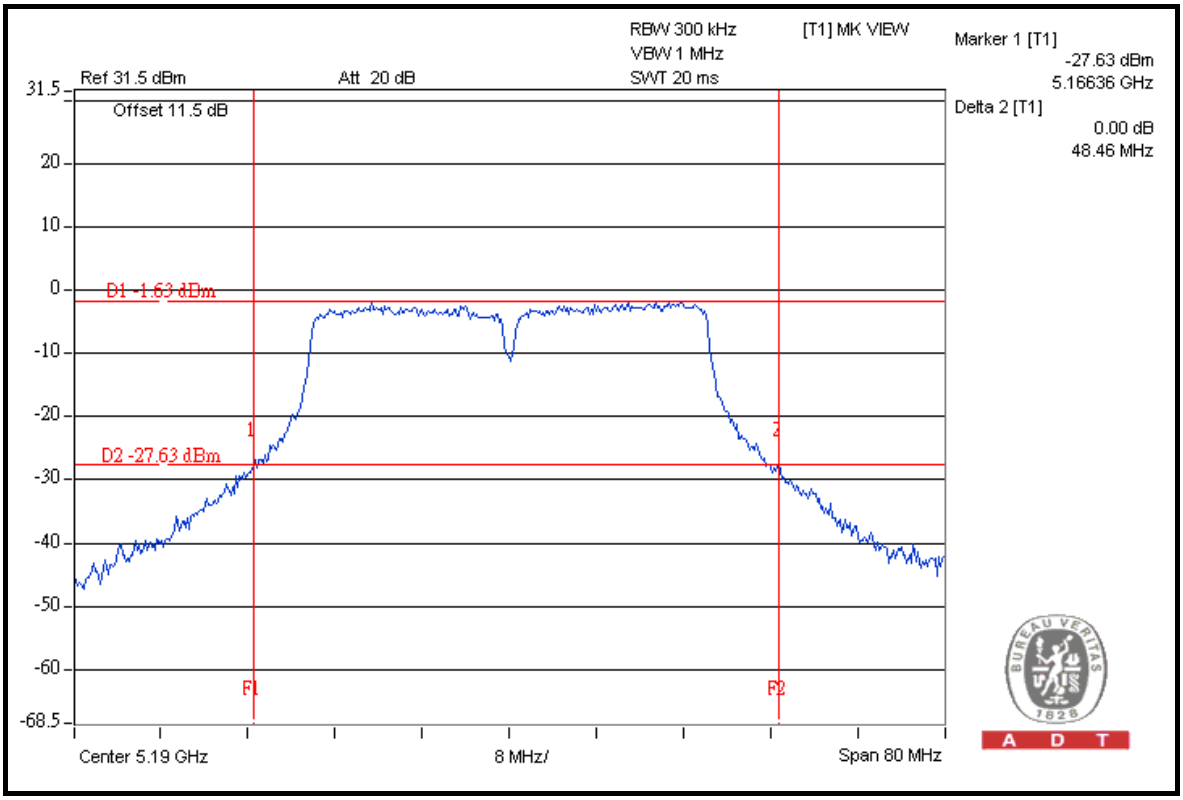
FOR CHAIN 1: CH 40



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	47.73	48.46	48.35	PASS
46	5230	47.70	48.37	48.11	PASS

FOR CHAIN 1: CH 38

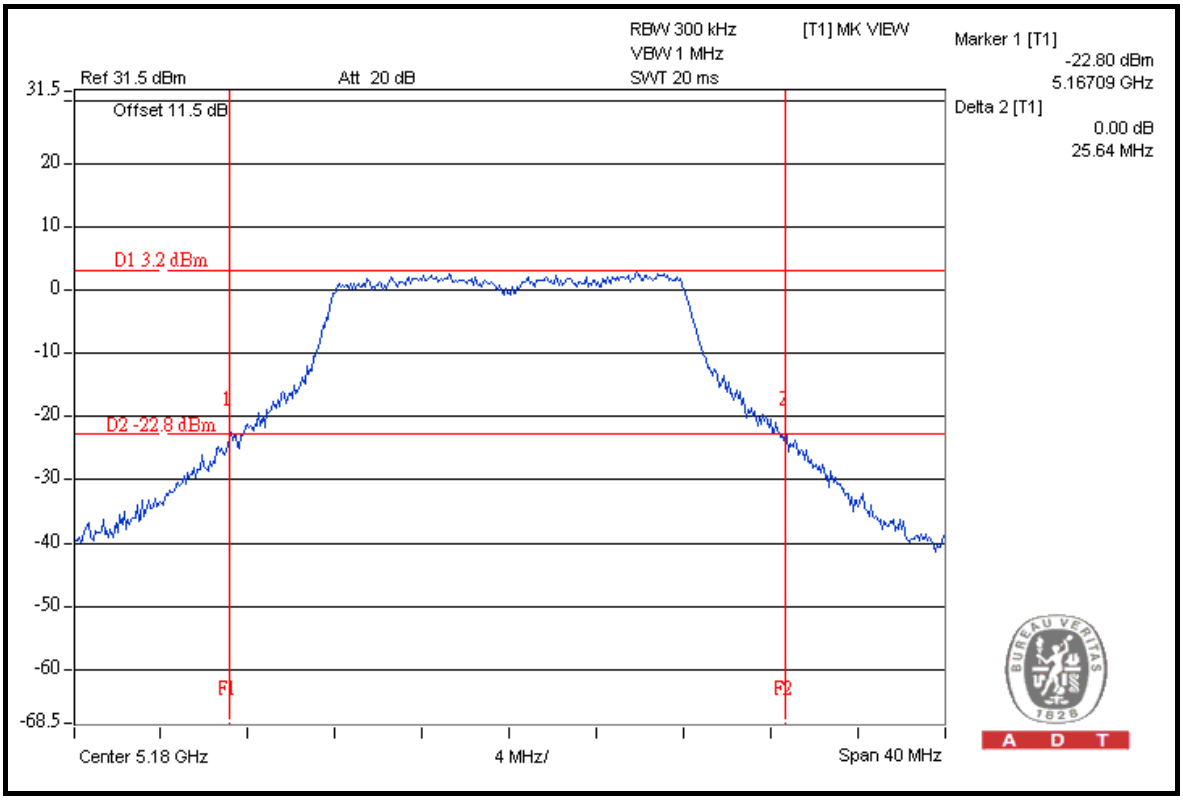


4.3.16 TEST RESULTS (TEST MODE B 2)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	24.10	24.07	25.64	PASS
40	5200	23.42	24.28	24.78	PASS
48	5240	24.35	24.39	25.21	PASS

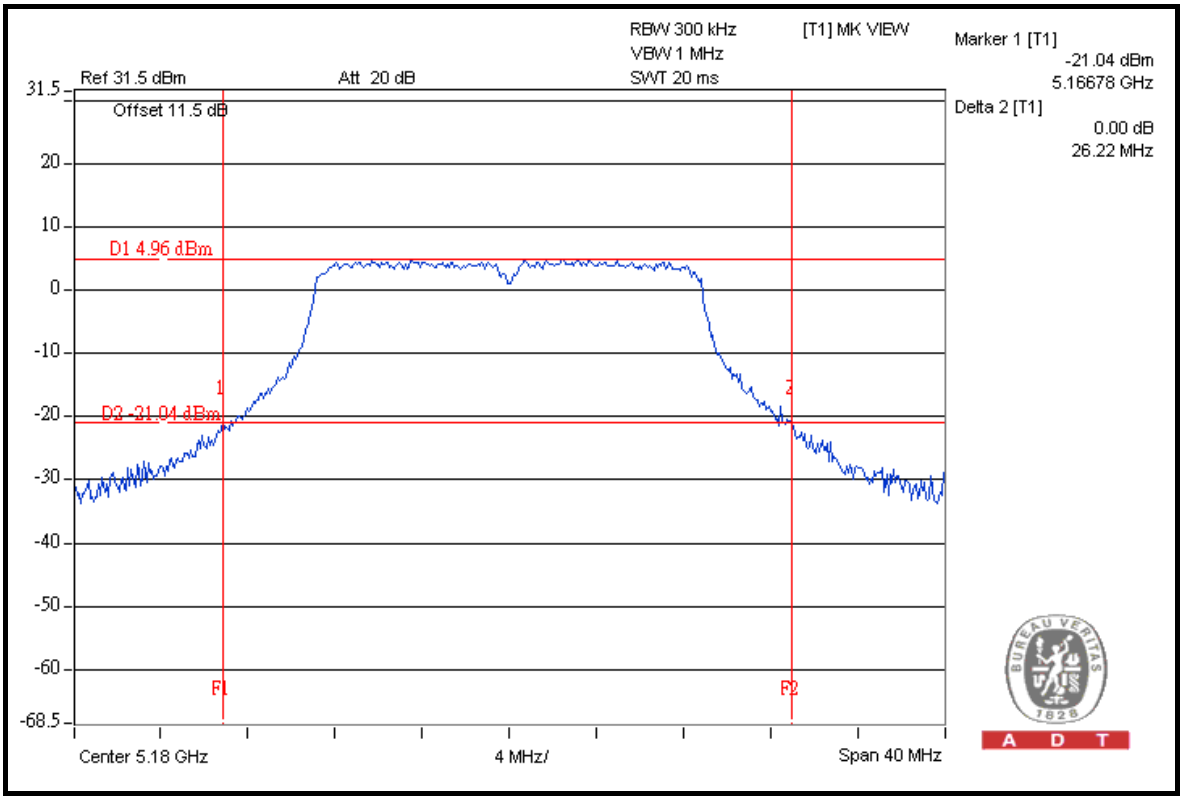
FOR CHAIN 2: CH 36



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.21	26.22	25.06	PASS
40	5200	25.16	25.96	25.21	PASS
48	5240	25.55	25.34	25.05	PASS

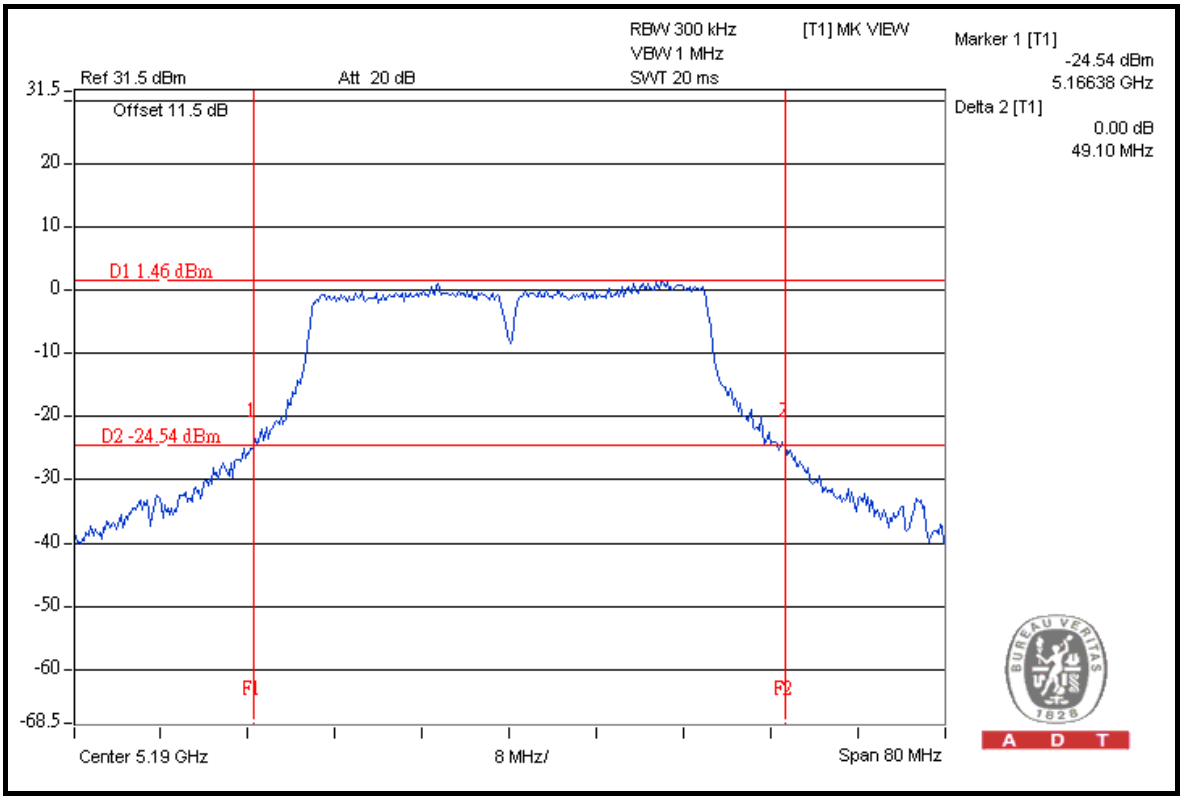
FOR CHAIN 1: CH 36



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	49.10	48.08	48.30	PASS
46	5230	47.80	48.53	48.27	PASS

FOR CHAIN 0: CH 38

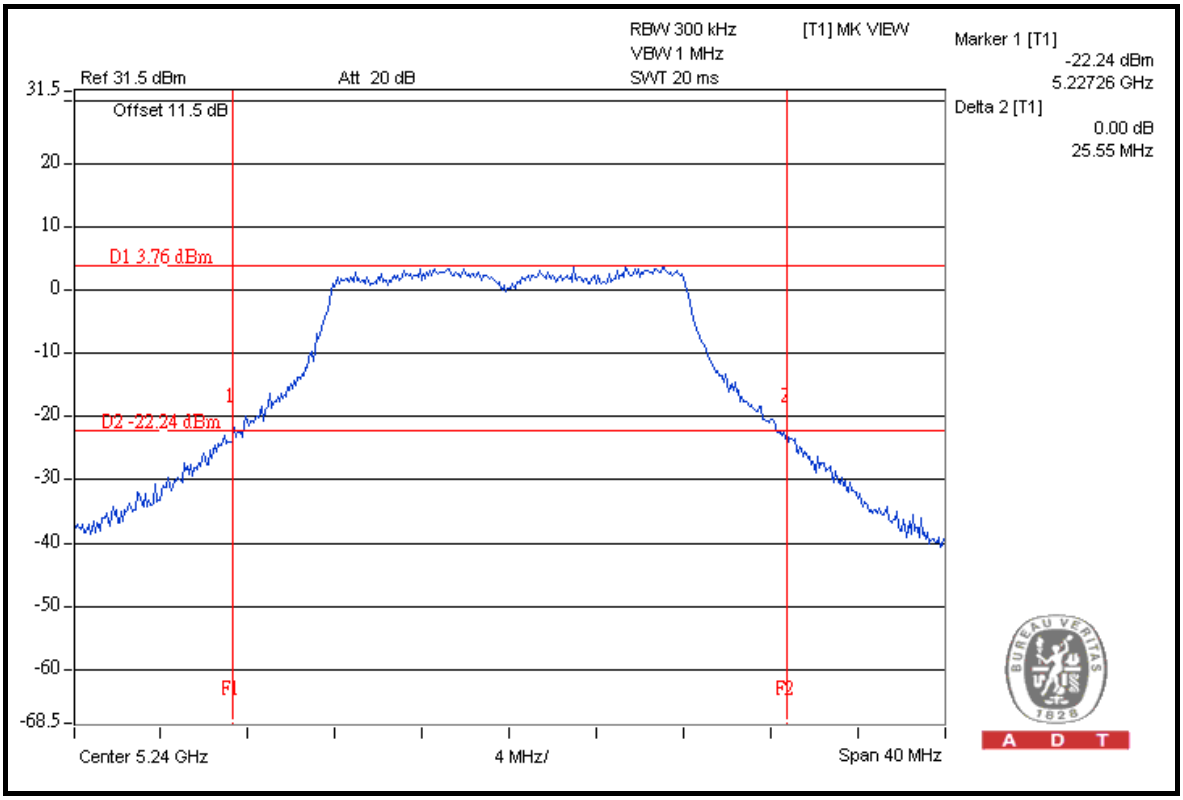


4.3.17 TEST RESULTS (TEST MODE C 1)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.13	24.65	24.42	PASS
40	5200	25.11	24.97	24.04	PASS
48	5240	25.55	24.20	24.77	PASS

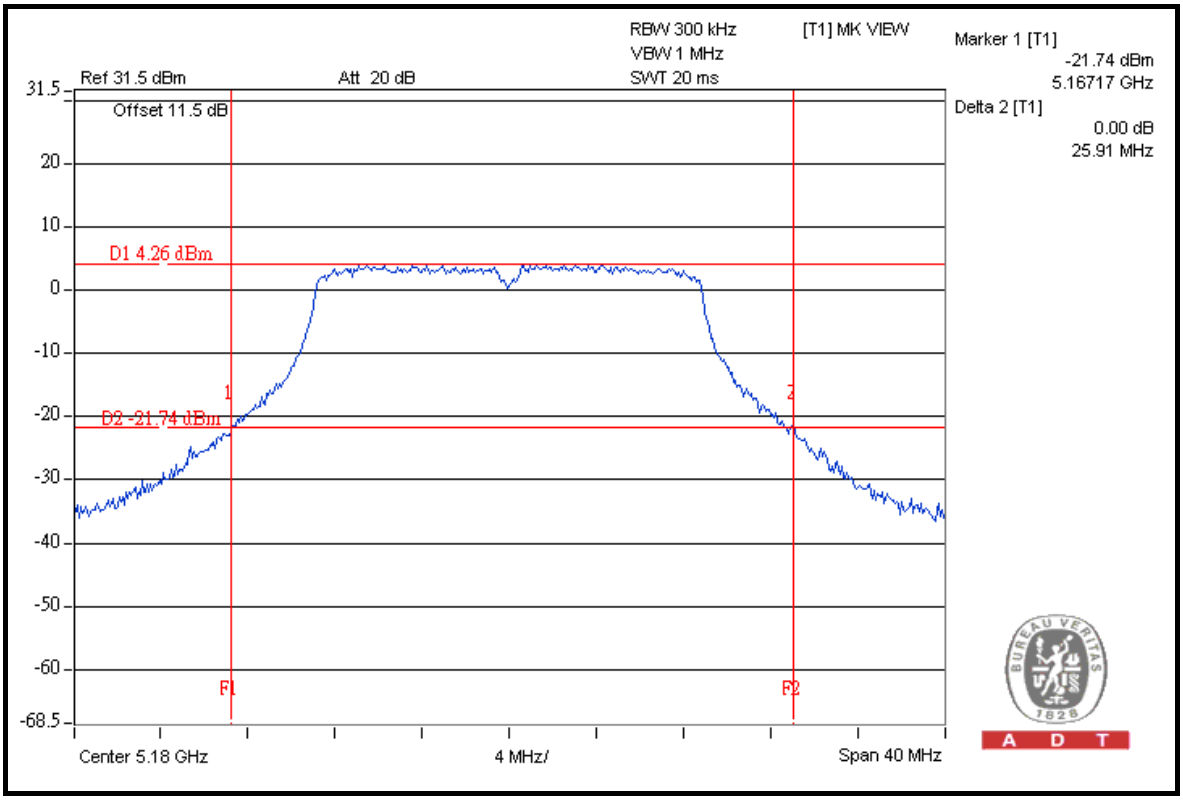
FOR CHAIN 0: CH 48



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.50	25.52	25.91	PASS
40	5200	25.70	25.44	25.66	PASS
48	5240	25.38	25.63	25.22	PASS

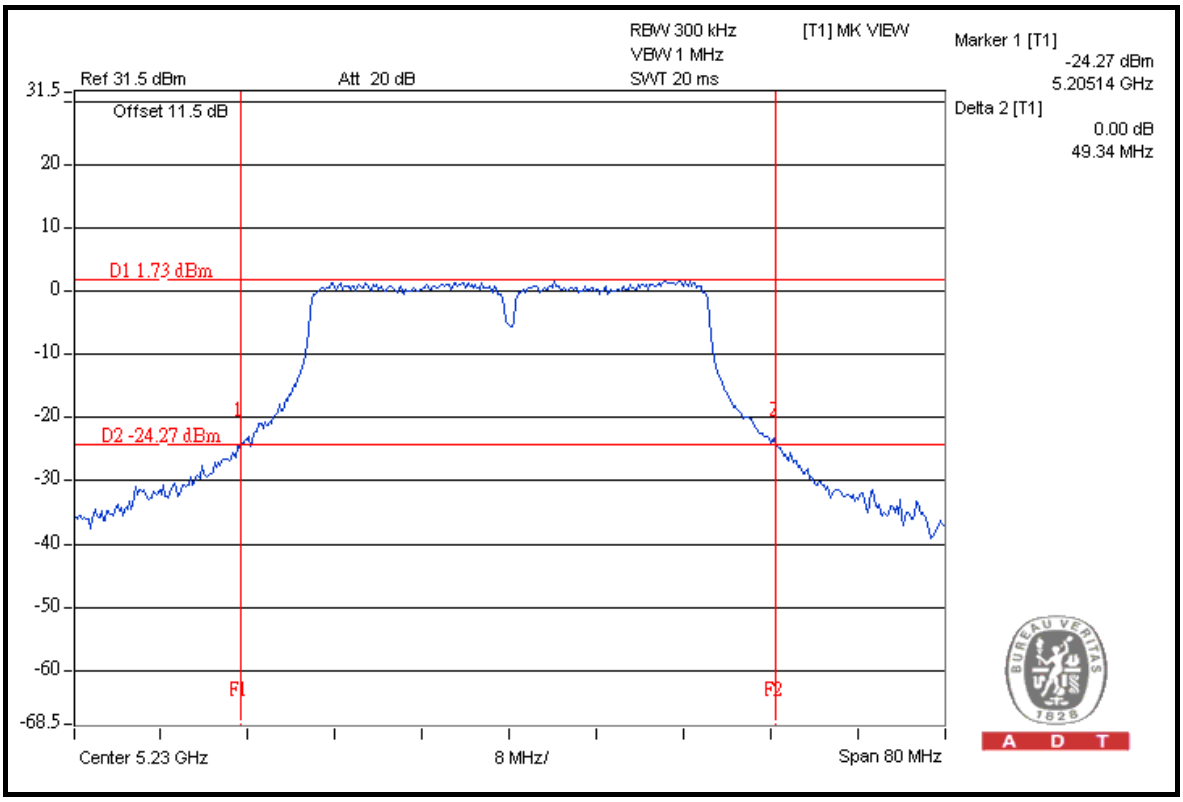
FOR CHAIN 2: CH 36



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	48.94	48.40	49.12	PASS
46	5230	48.48	48.07	49.34	PASS

FOR CHAIN 2: CH 46

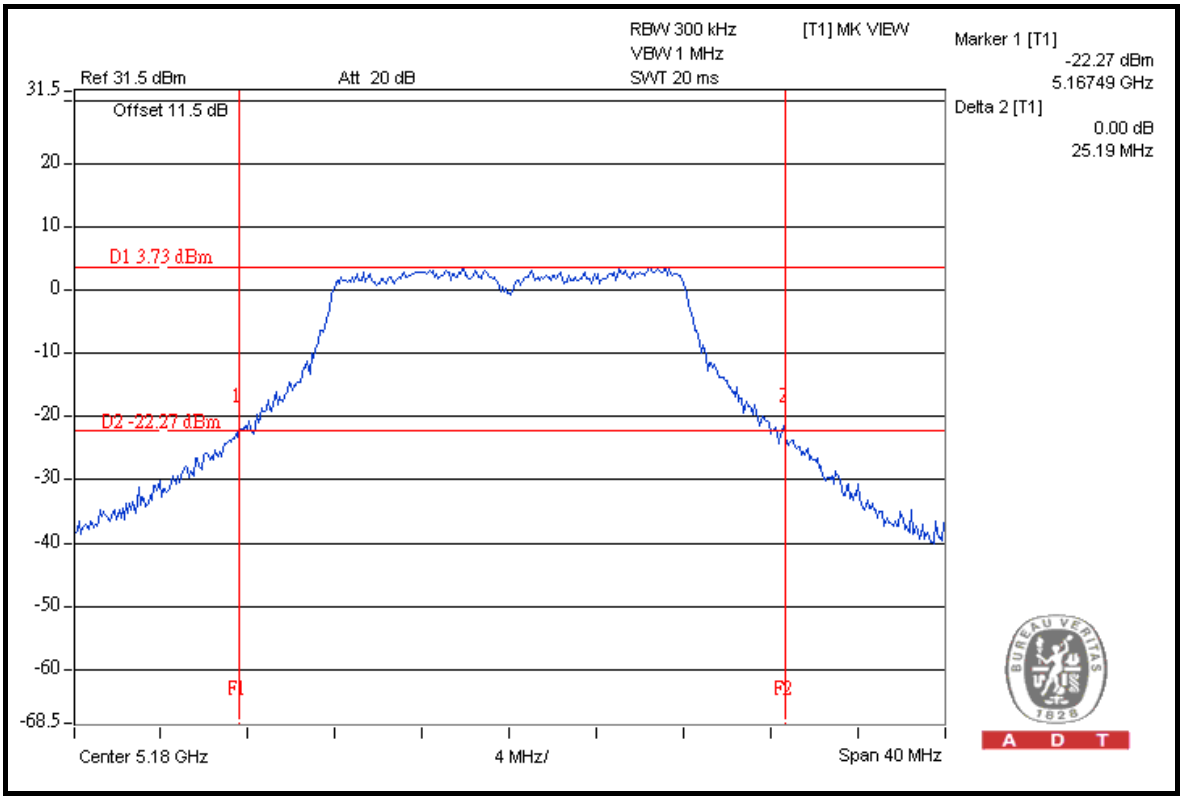


4.3.18 TEST RESULTS (TEST MODE C 2)

26dB OCCUPIED BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.19	24.72	24.25	PASS
40	5200	25.17	25.00	23.57	PASS
48	5240	24.84	24.34	23.91	PASS

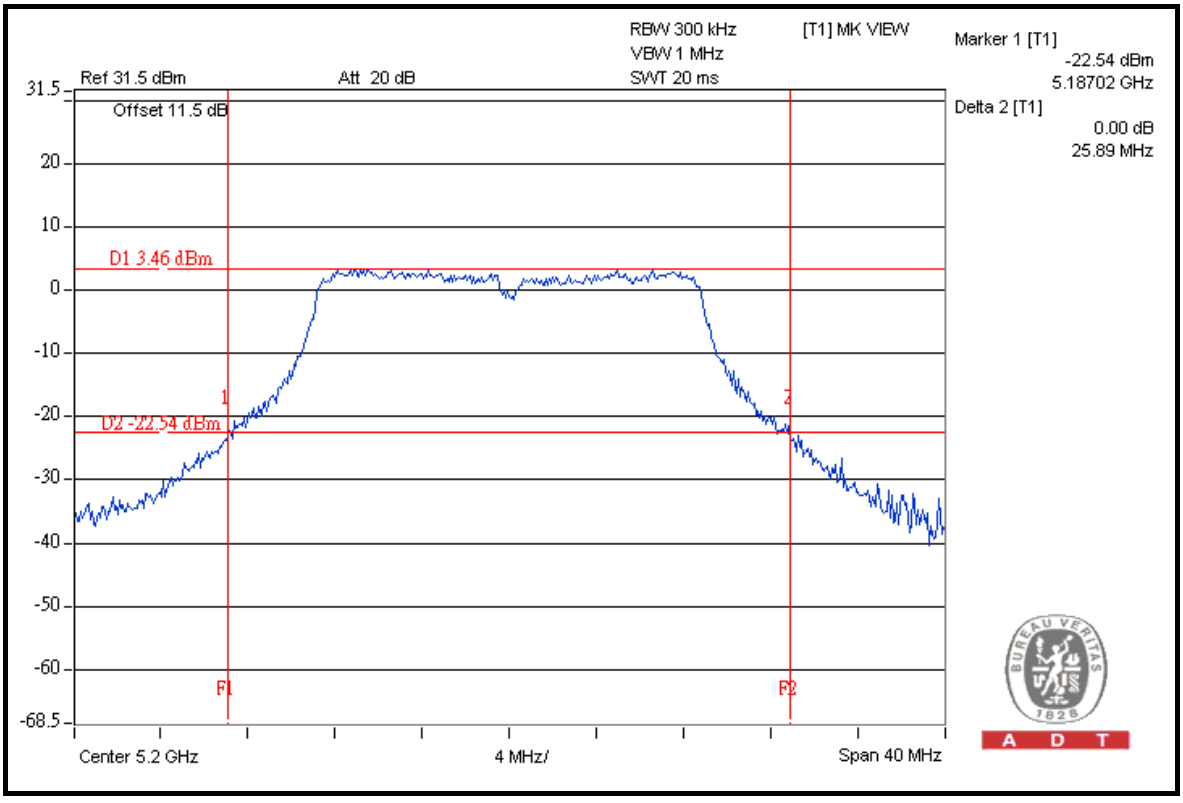
FOR CHAIN 0: CH 36



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
36	5180	25.38	25.74	24.96	PASS
40	5200	25.89	25.84	25.68	PASS
48	5240	24.96	25.07	25.72	PASS

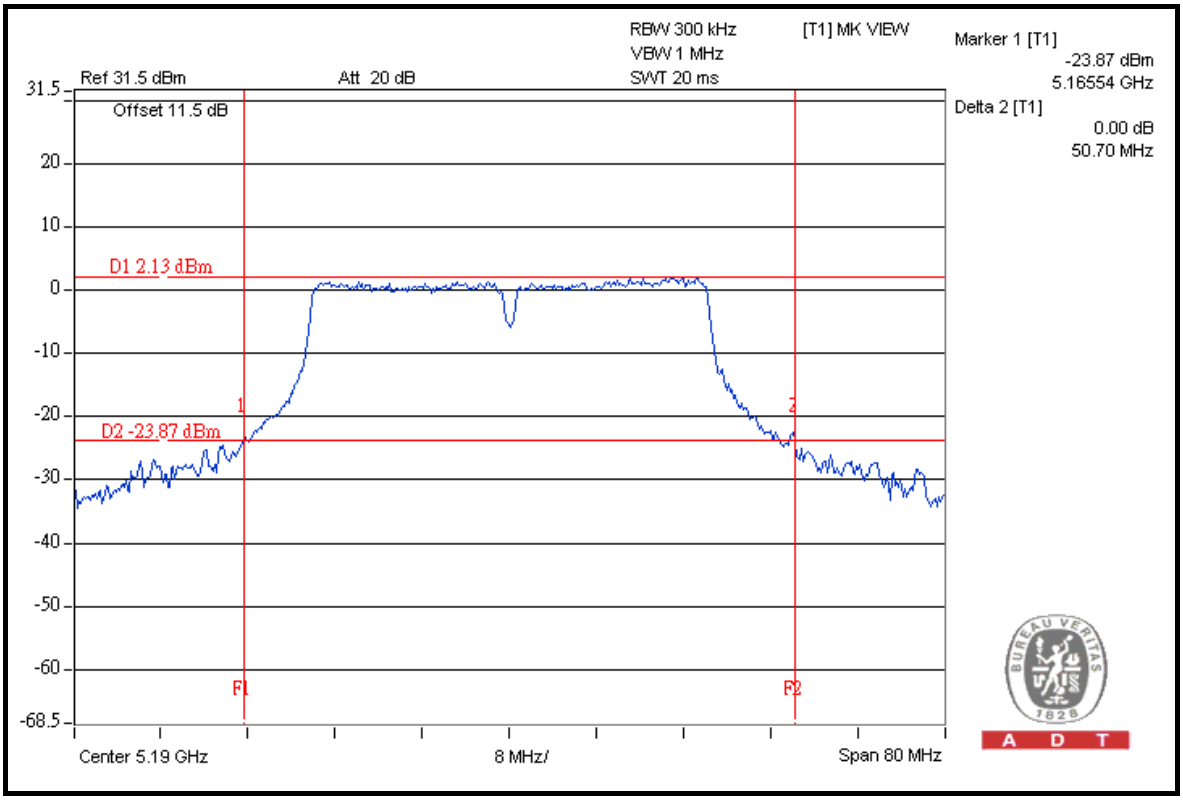
FOR CHAIN 0: CH 40



802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)			PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	
38	5190	48.63	50.70	49.80	PASS
46	5230	48.43	47.72	48.84	PASS

FOR CHAIN 1: CH 38



4.4 PEAK POWER EXCURSION MEASUREMENT

4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	13dB

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100039	Jan. 11, 2010	Jan. 10, 2011

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

4.4.3 TEST PROCEDURE

a. The transmitter output was connected to the spectrum analyzer.

b. Set the spectrum bandwidth span to view the entire spectrum.

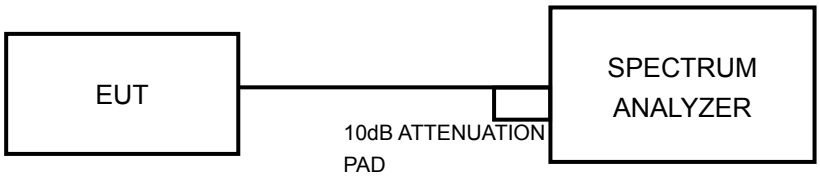
c. Using peak detector and Max-hold function for Trace 1 (RB = 1MHz, VB = 3MHz) and 2 (RB = 1MHz, VB = 300kHz).

d. The differences between Trace1 and Trace 2 in any 1MHz band at f1 to f2 range were recorded and showed to another trace.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation.

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

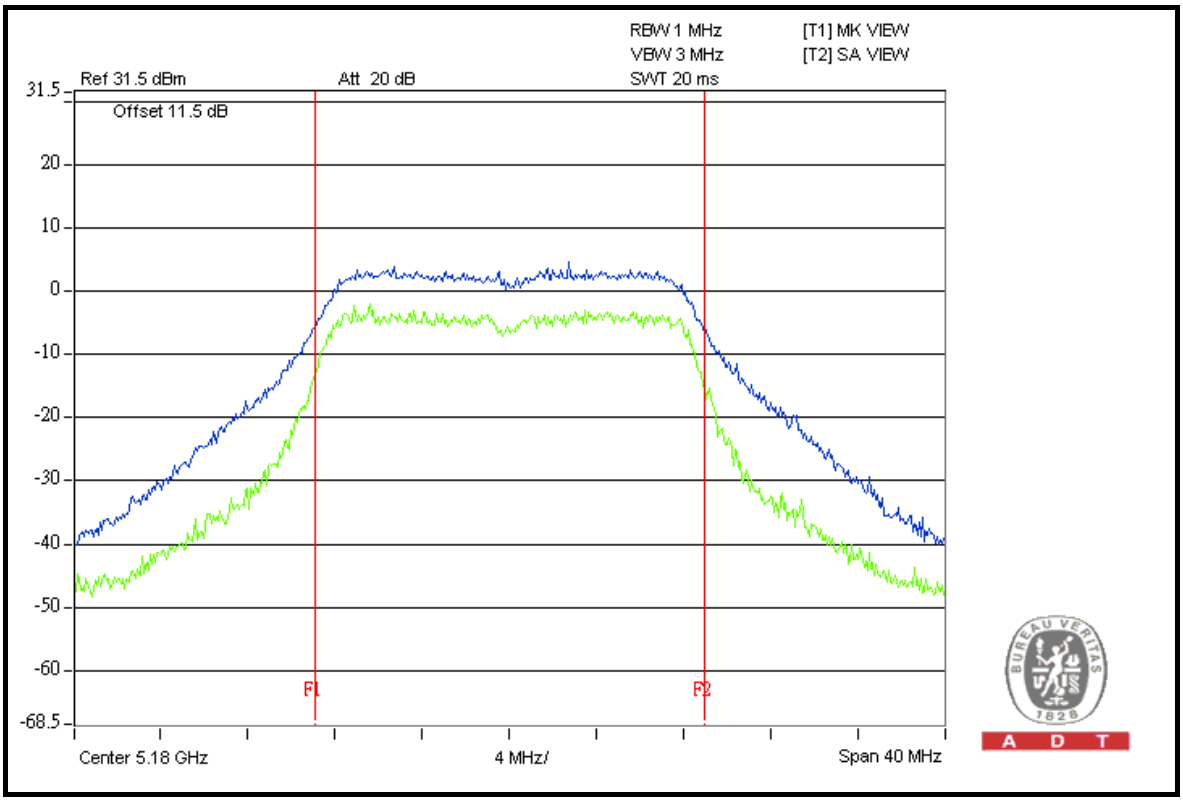
The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

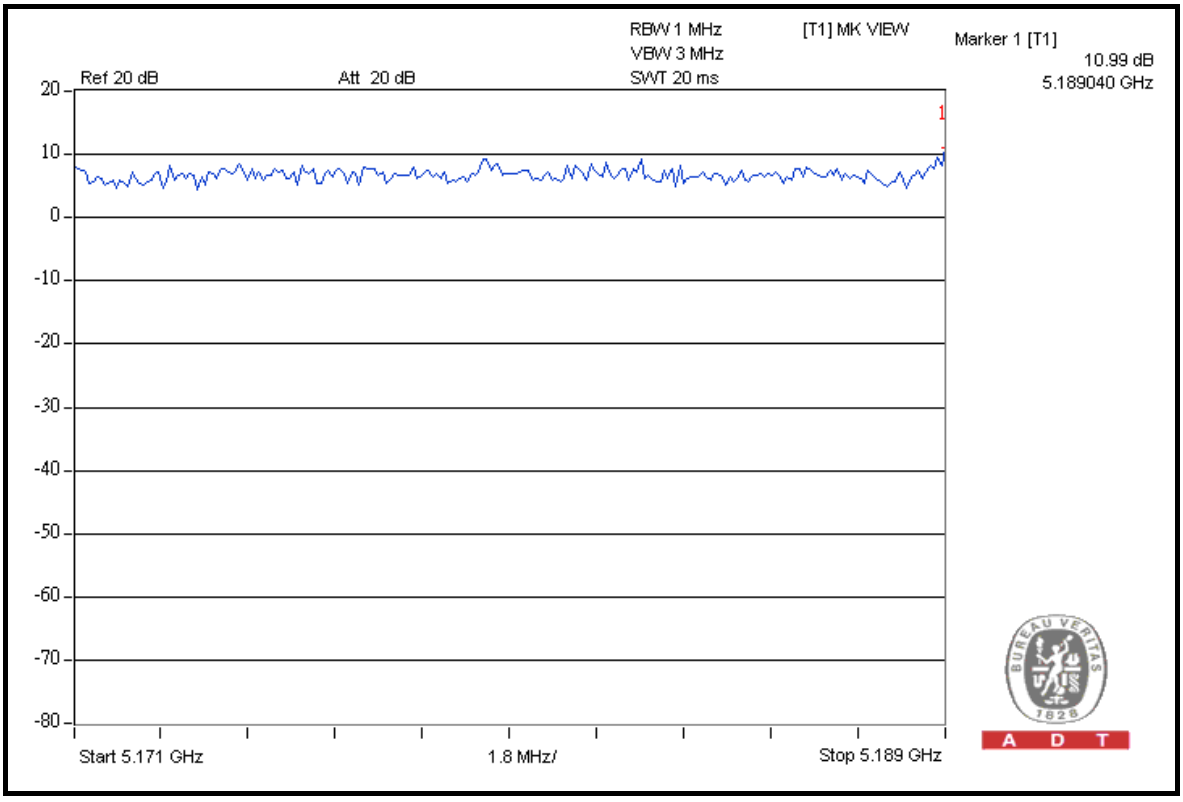
4.4.7 TEST RESULTS (TEST MODE A 1)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.25	10.99	9.62	13	PASS
40	5200	9.16	8.84	8.02	13	PASS
48	5240	8.53	9.35	8.07	13	PASS

FOR CHAIN 1: CH 36

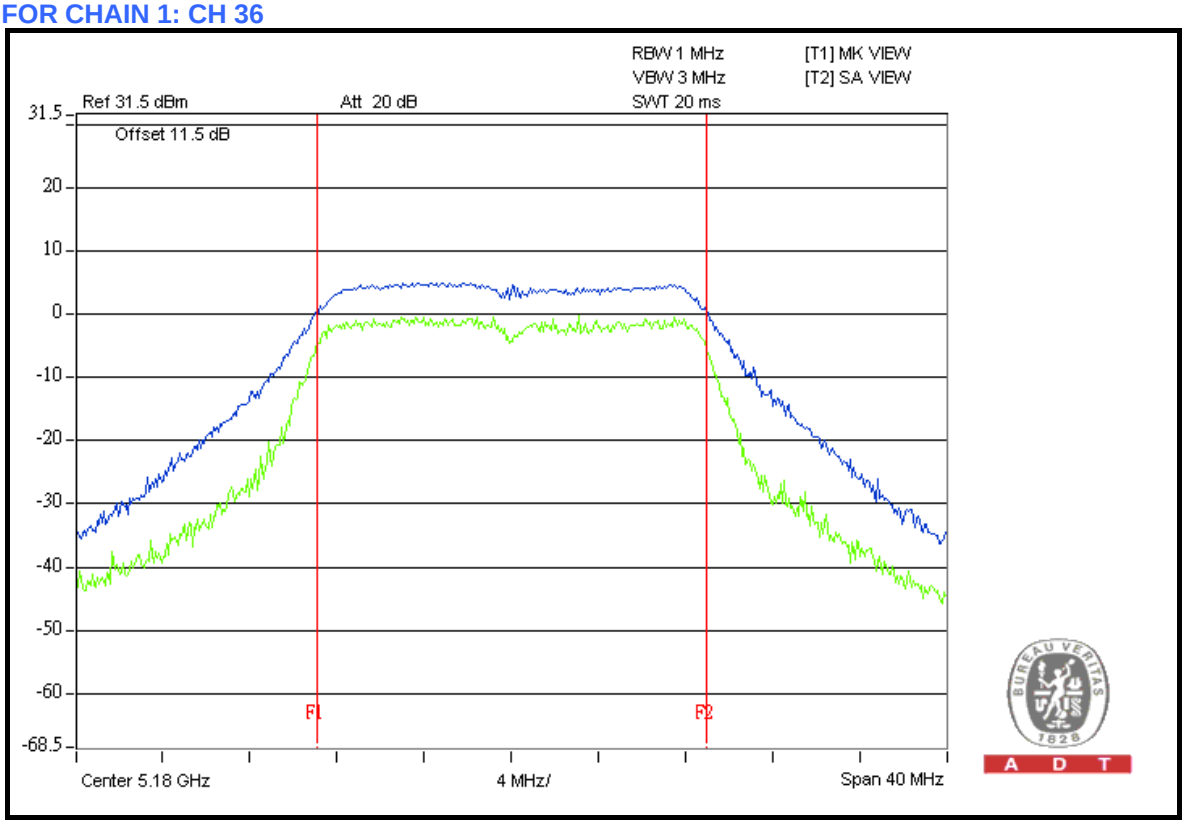


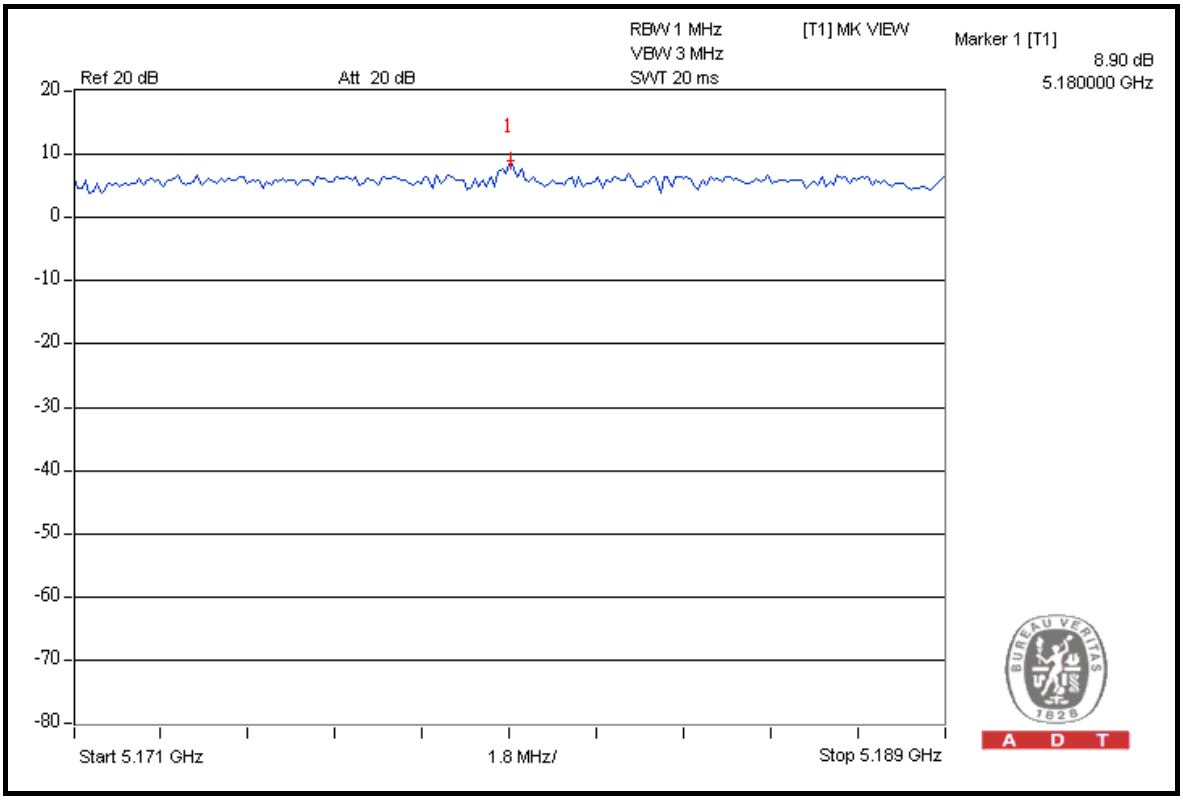


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.46	8.90	8.11	13	PASS
40	5200	7.91	7.01	8.14	13	PASS
48	5240	8.00	8.69	8.15	13	PASS

FOR CHAIN 1: CH 36

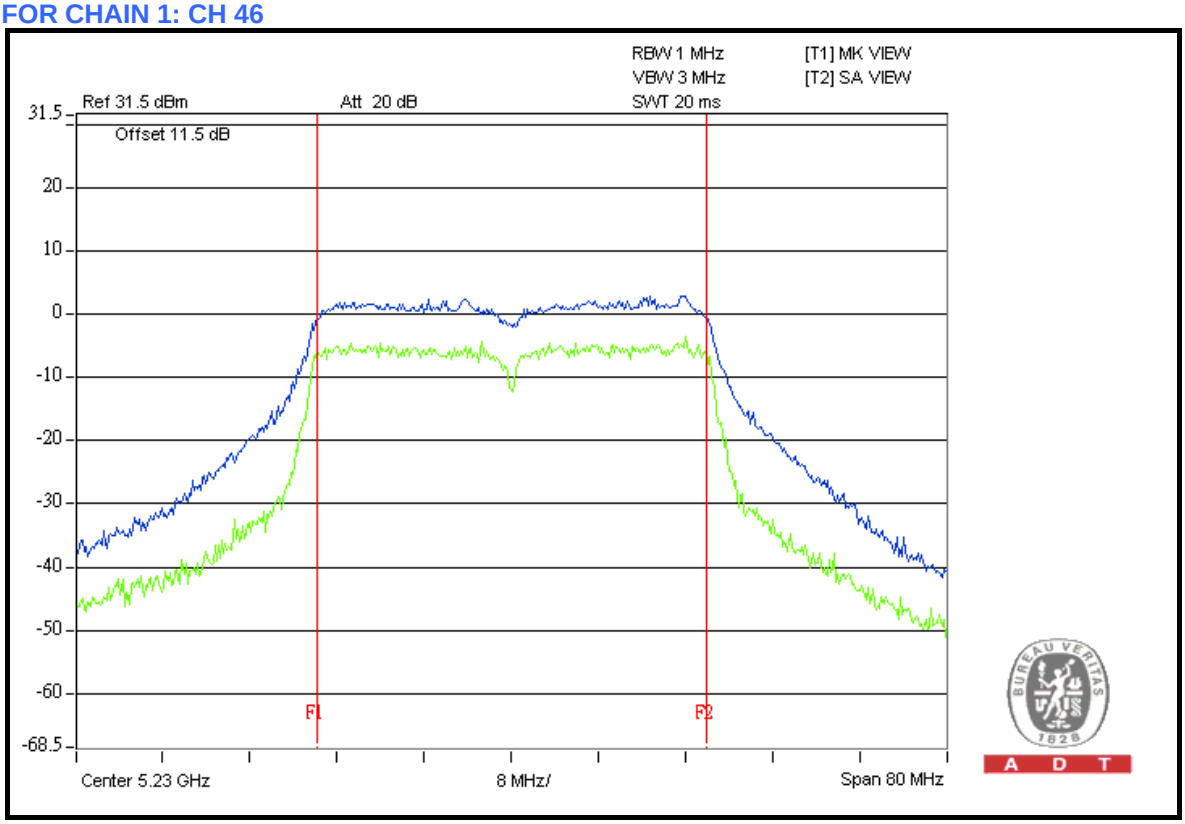


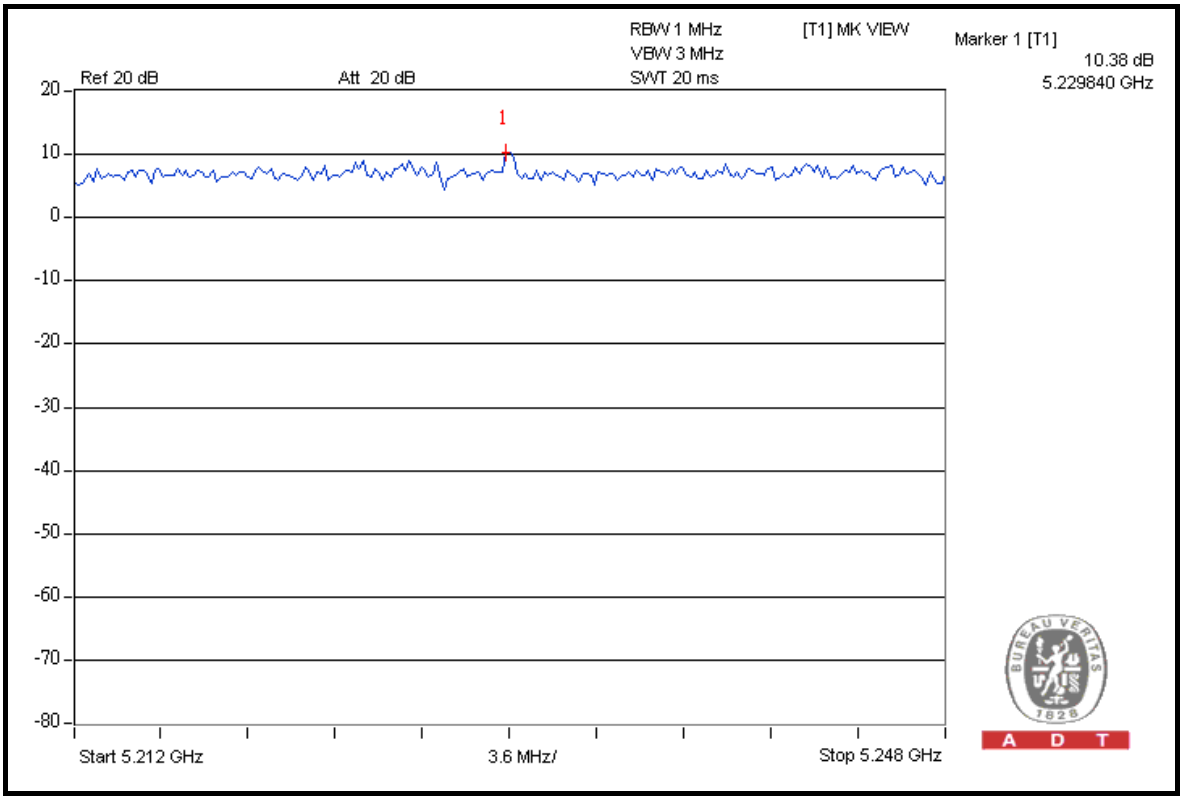


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	8.57	8.73	8.43	13	PASS
46	5230	9.42	10.38	9.24	13	PASS

FOR CHAIN 1: CH 46



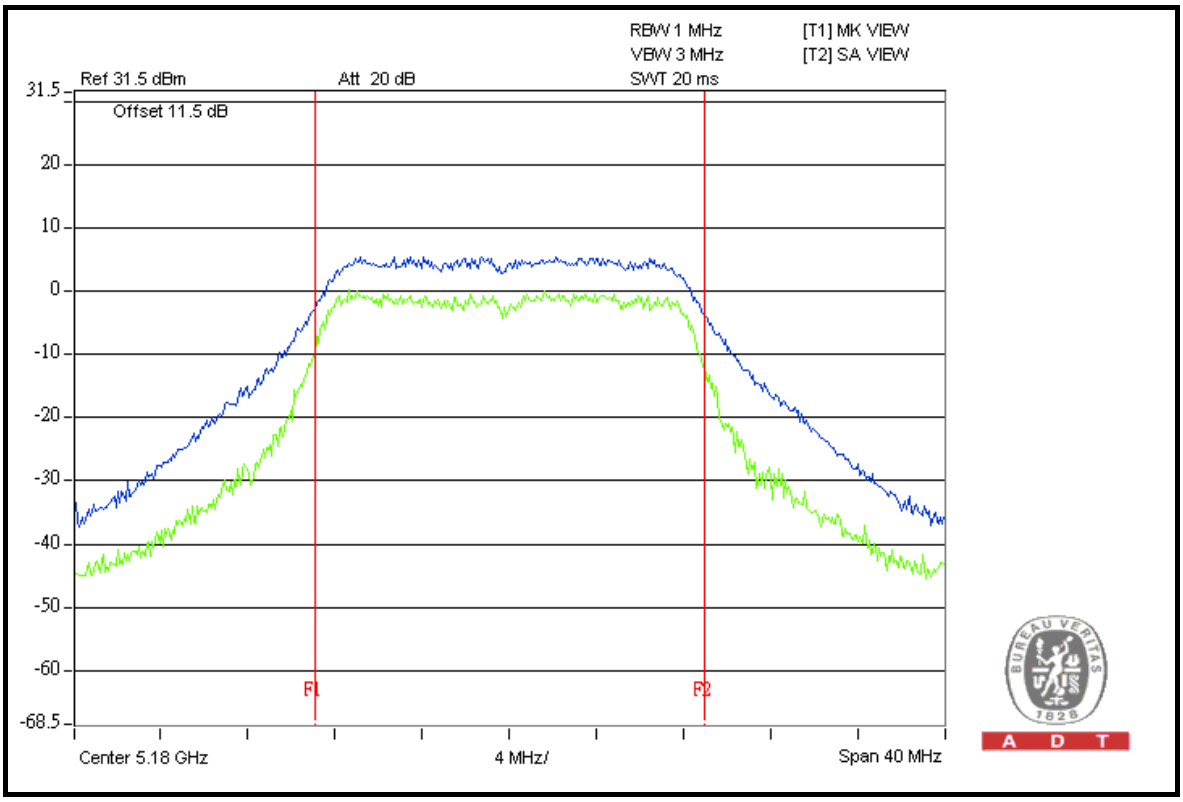


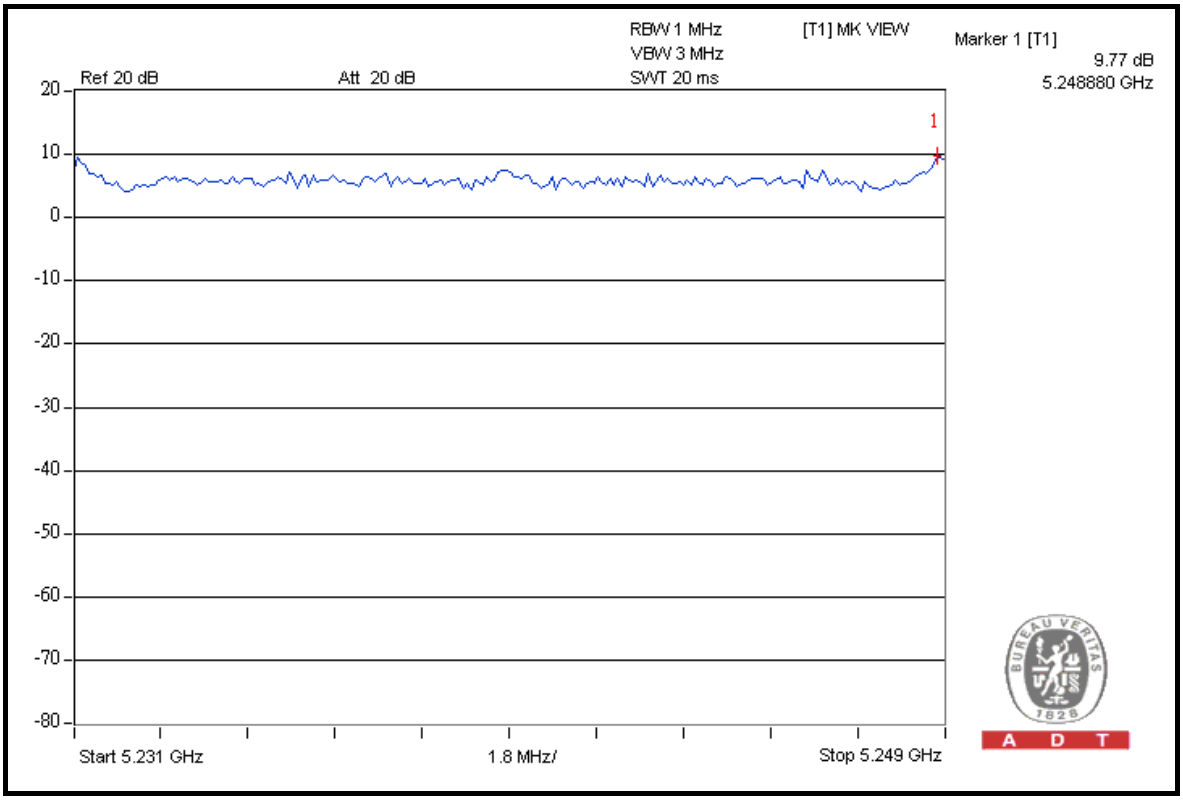
4.4.8 TEST RESULTS (TEST MODE A 2)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.49	9.53	8.66	13	PASS
40	5200	8.58	9.38	8.37	13	PASS
48	5240	9.77	8.95	8.82	13	PASS

FOR CHAIN 0: CH 48

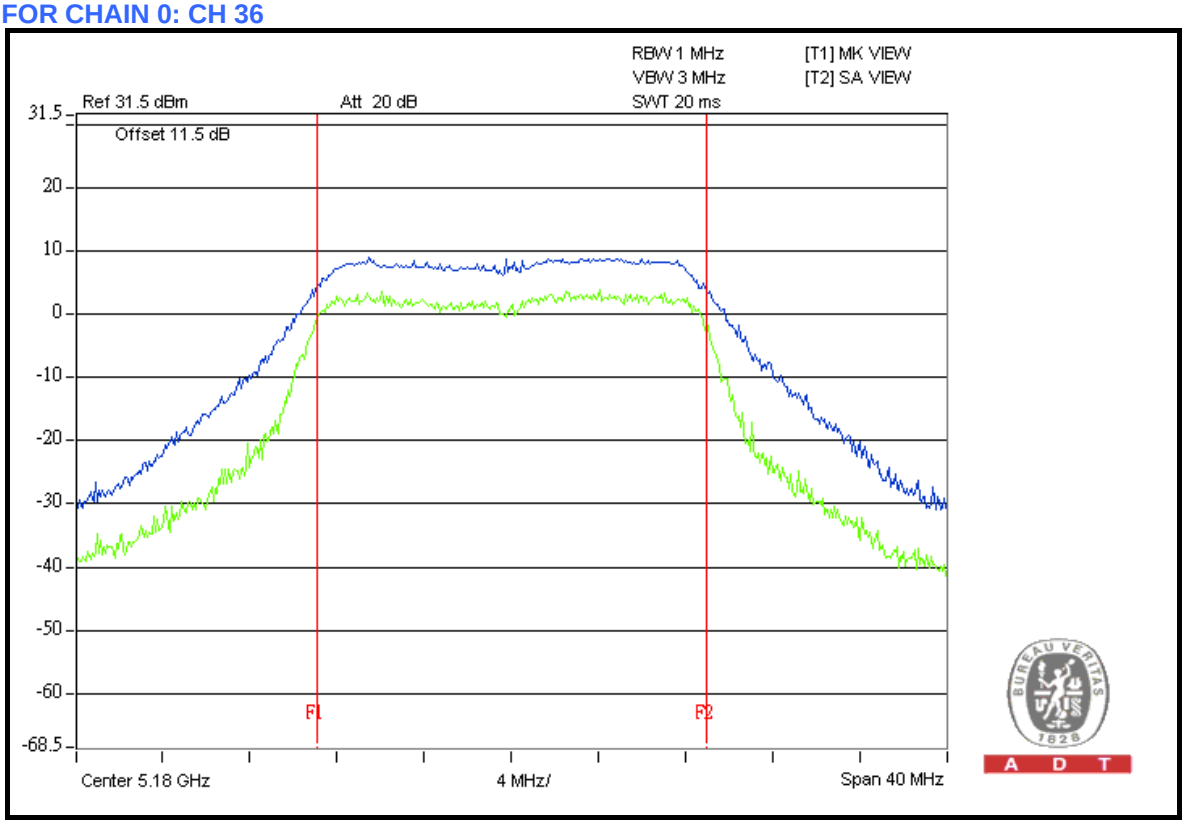


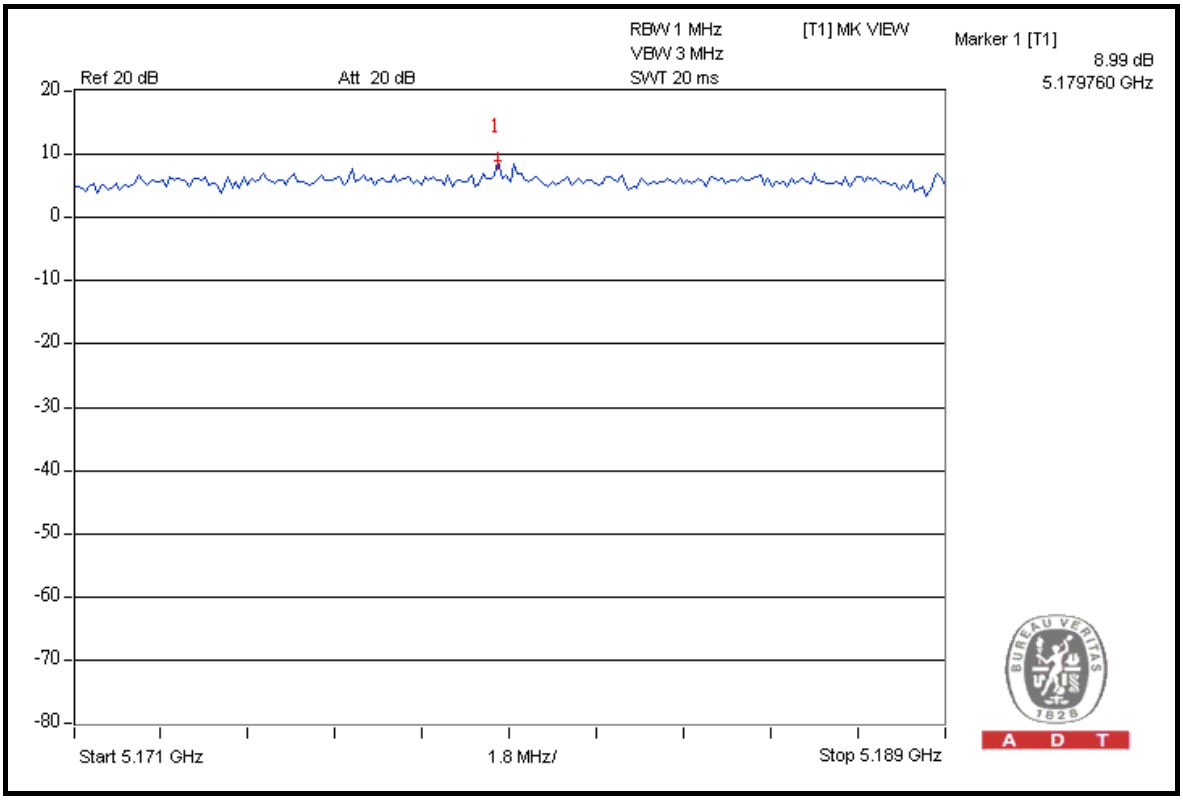


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.99	8.14	8.32	13	PASS
40	5200	7.58	7.55	7.96	13	PASS
48	5240	7.98	7.25	8.03	13	PASS

FOR CHAIN 0: CH 36

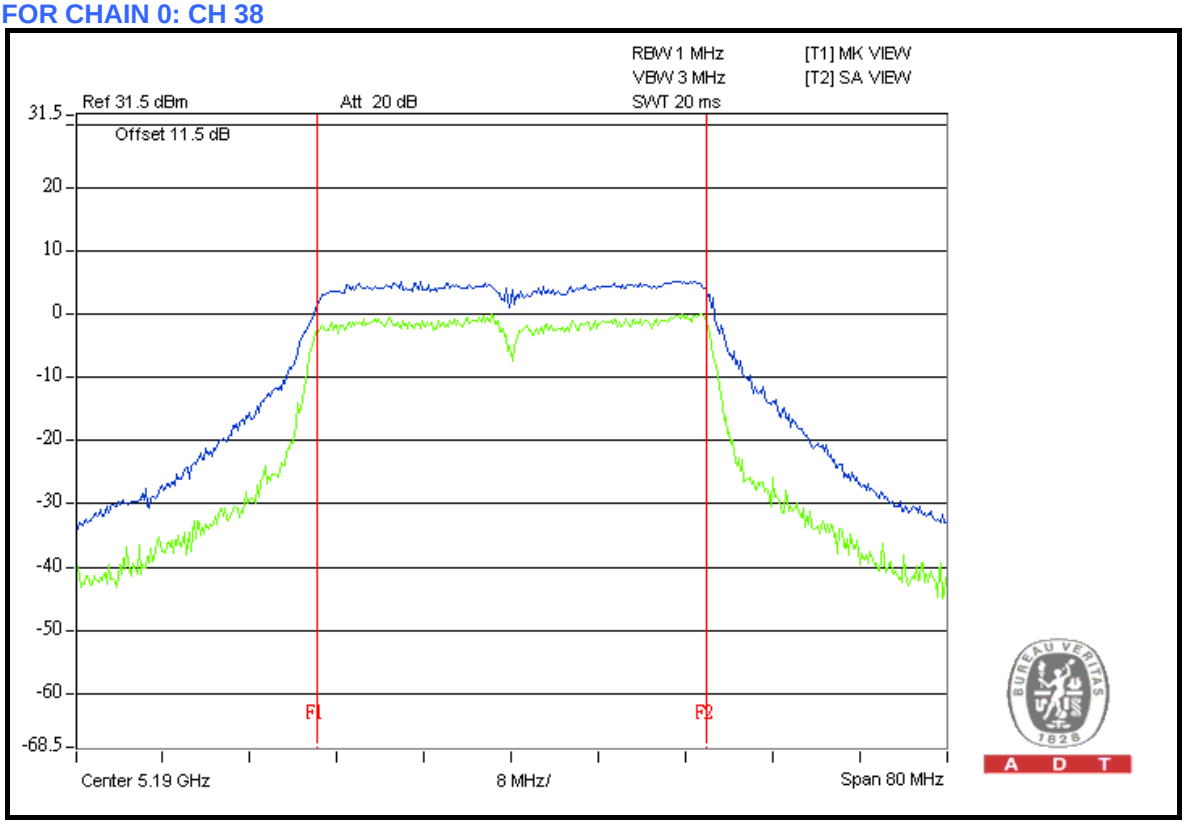


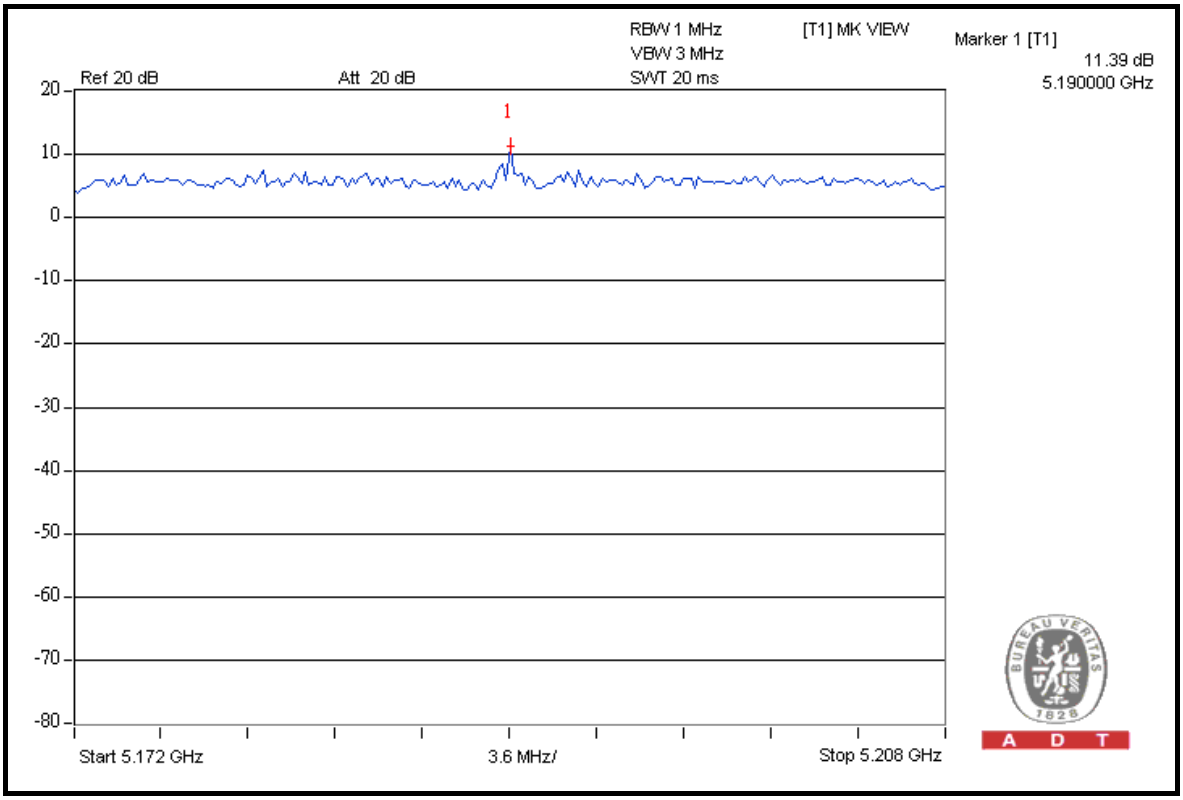


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	11.39	10.28	9.00	13	PASS
46	5230	8.71	11.25	9.88	13	PASS

FOR CHAIN 0: CH 38



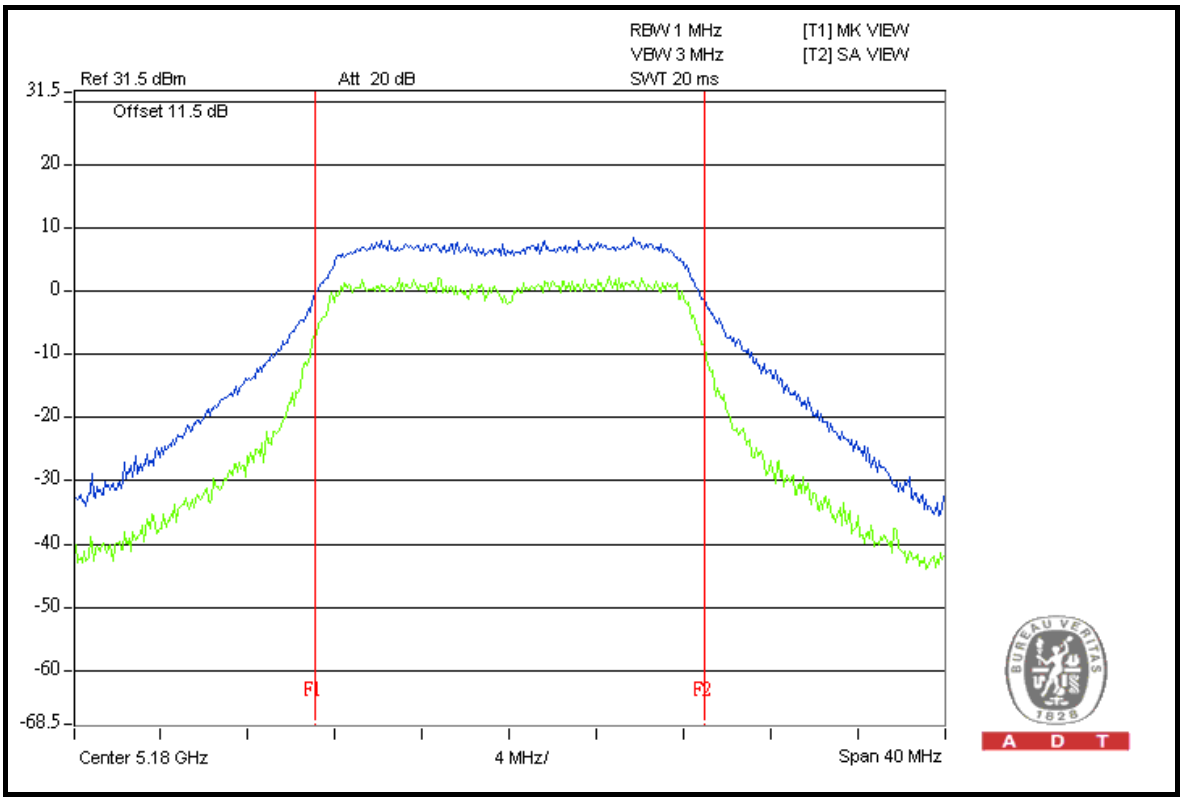


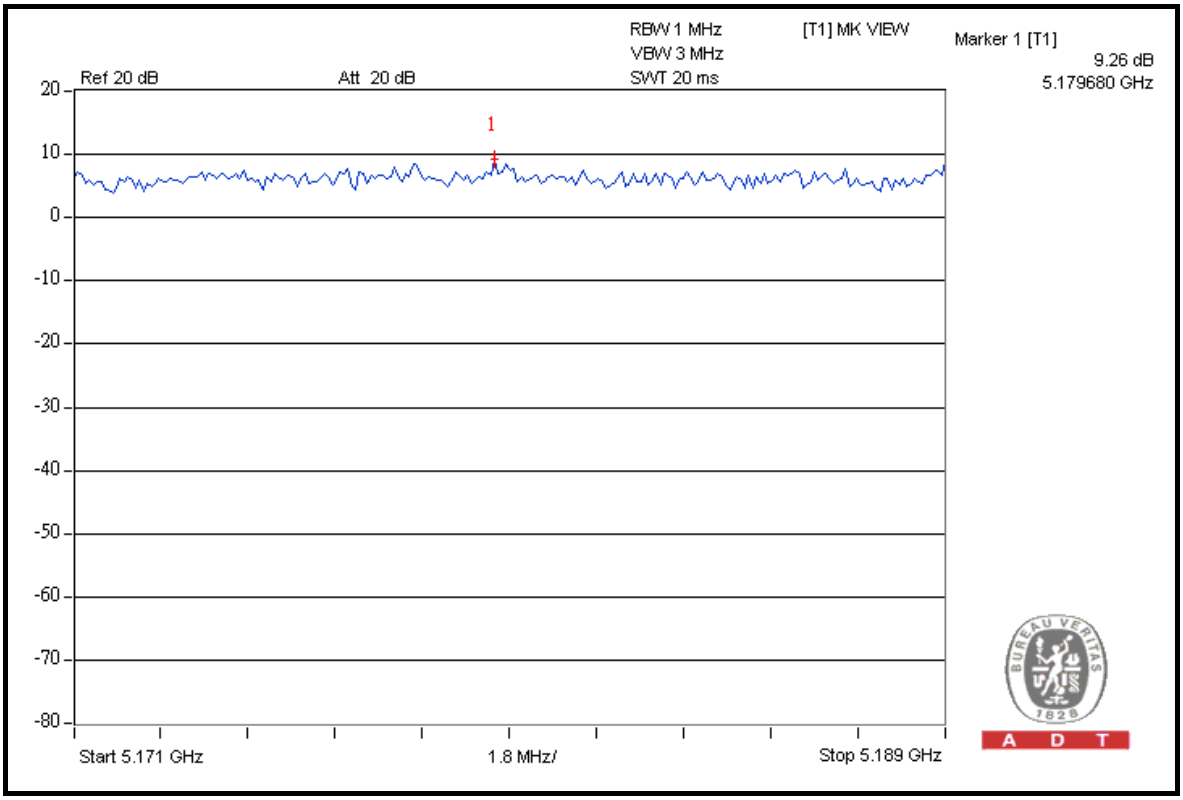
4.4.9 TEST RESULTS (TEST MODE B 1)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.42	9.26	8.82	13	PASS
40	5200	8.49	9.15	8.64	13	PASS
48	5240	9.14	8.05	8.55	13	PASS

FOR CHAIN 1: CH 36

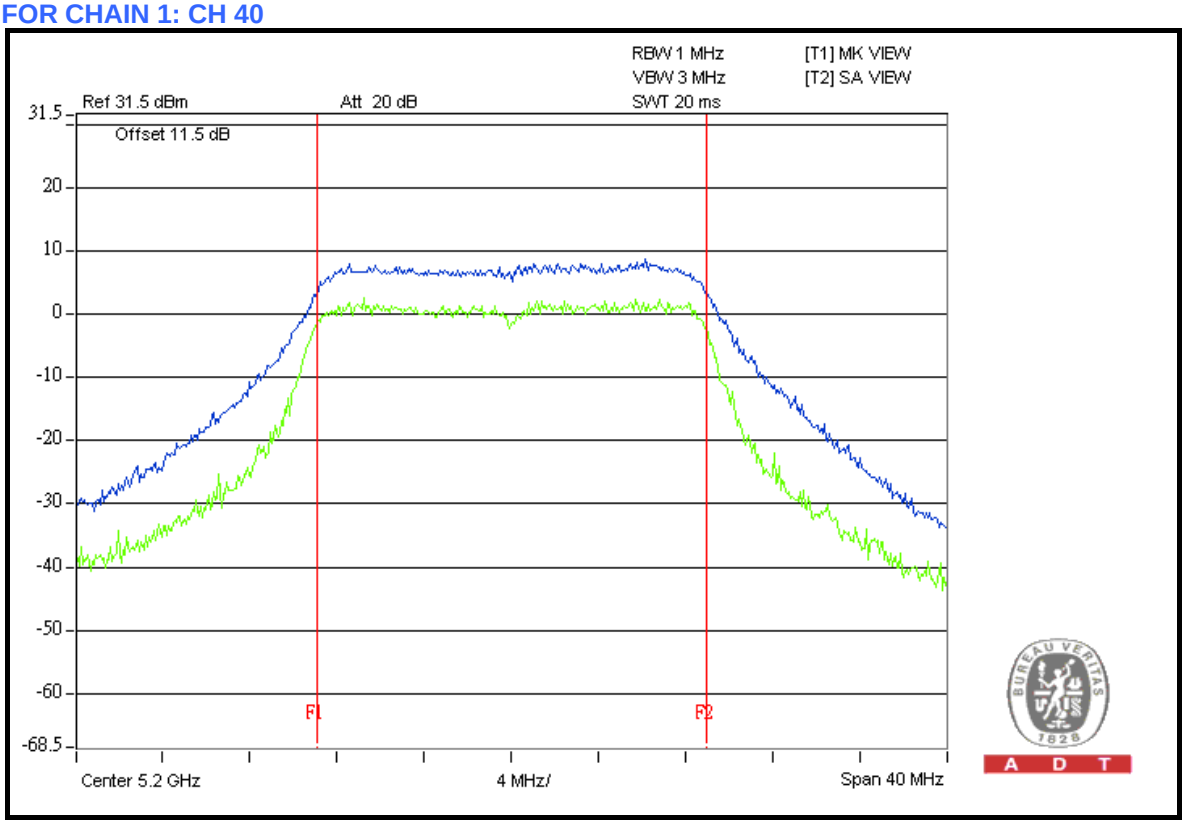


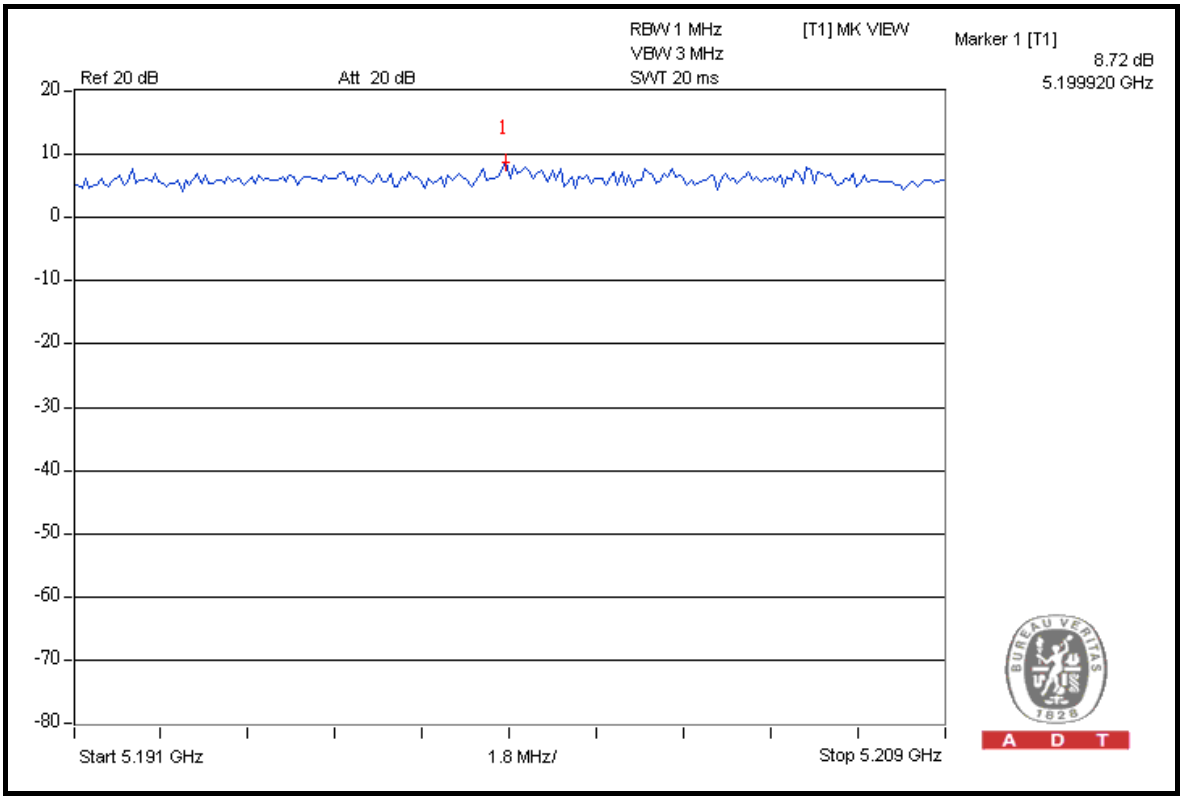


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.25	7.95	8.12	13	PASS
40	5200	8.09	8.72	8.40	13	PASS
48	5240	8.40	8.15	8.61	13	PASS

FOR CHAIN 1: CH 40

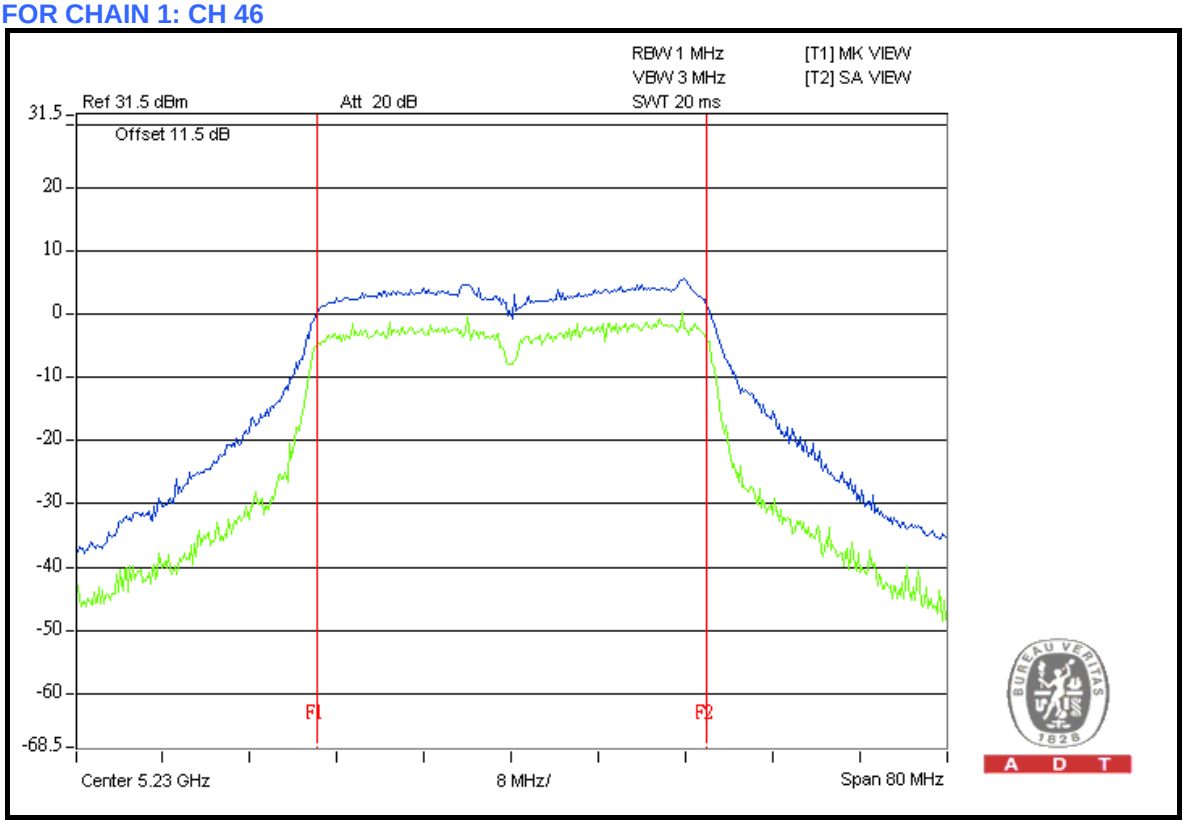


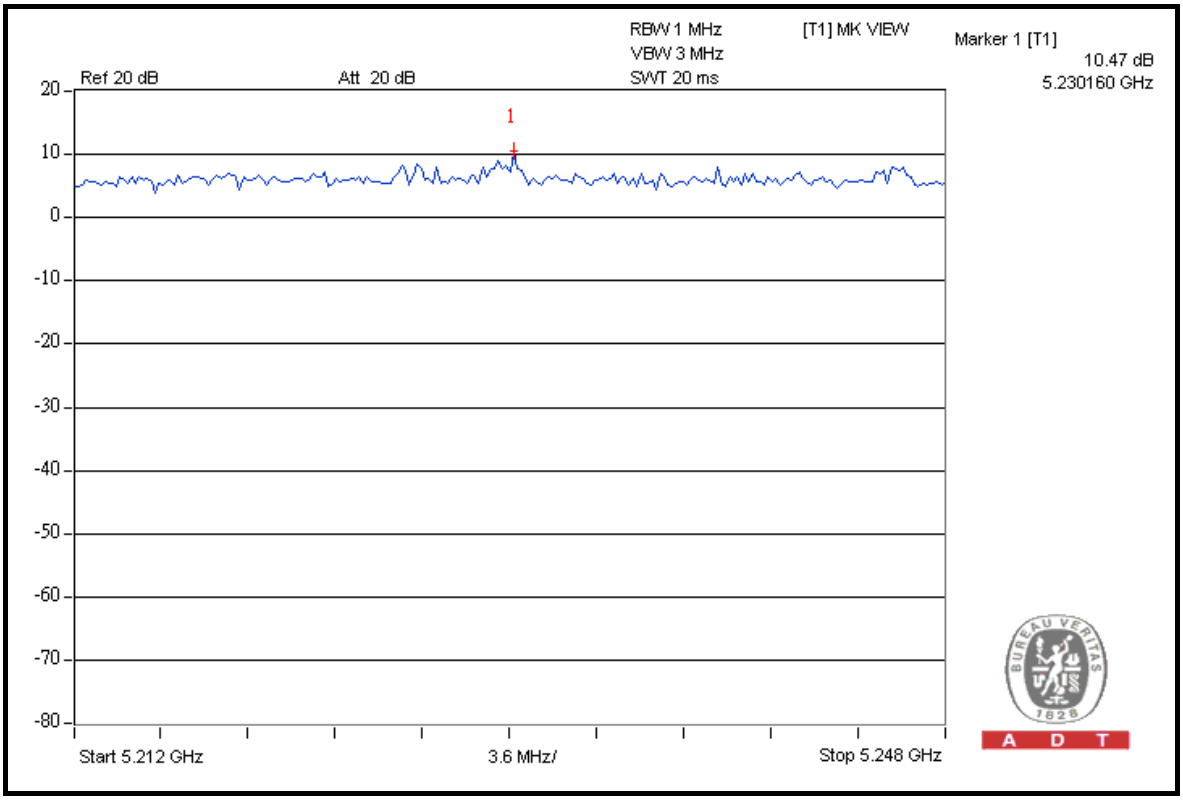


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	8.64	9.49	8.74	13	PASS
46	5230	9.00	10.47	9.54	13	PASS

FOR CHAIN 1: CH 46



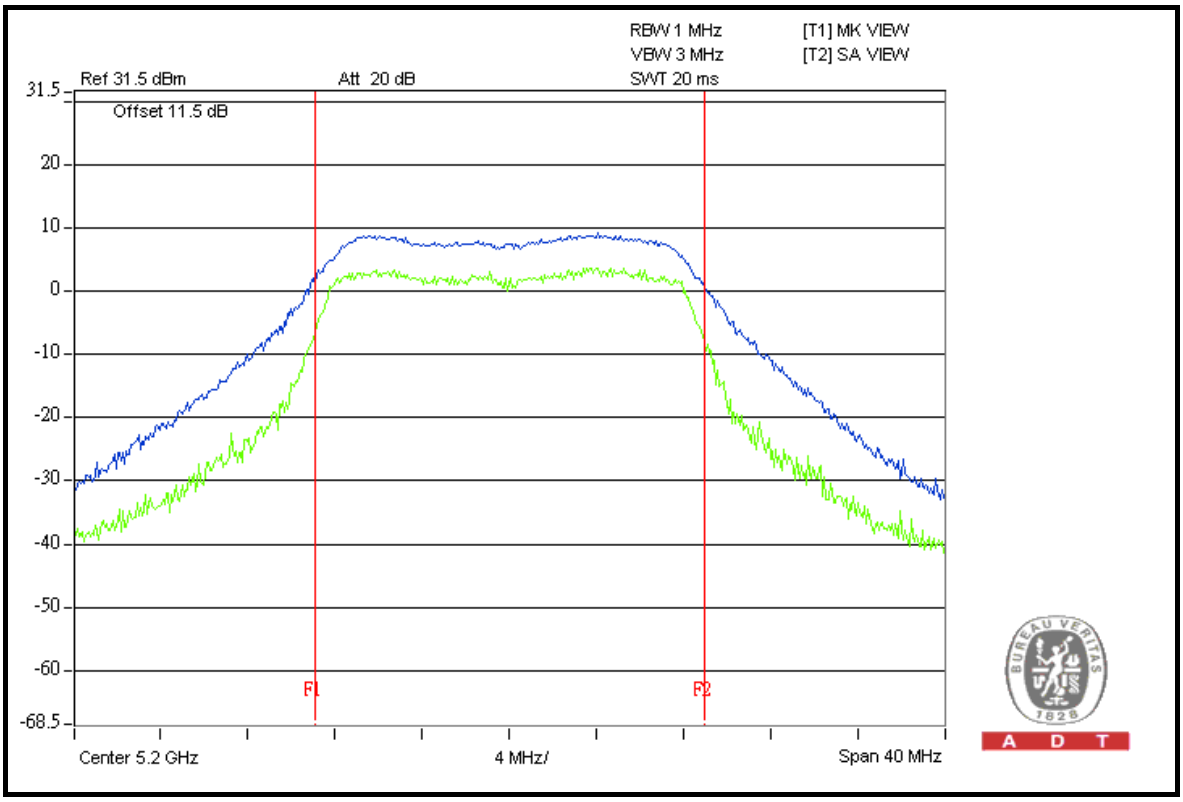


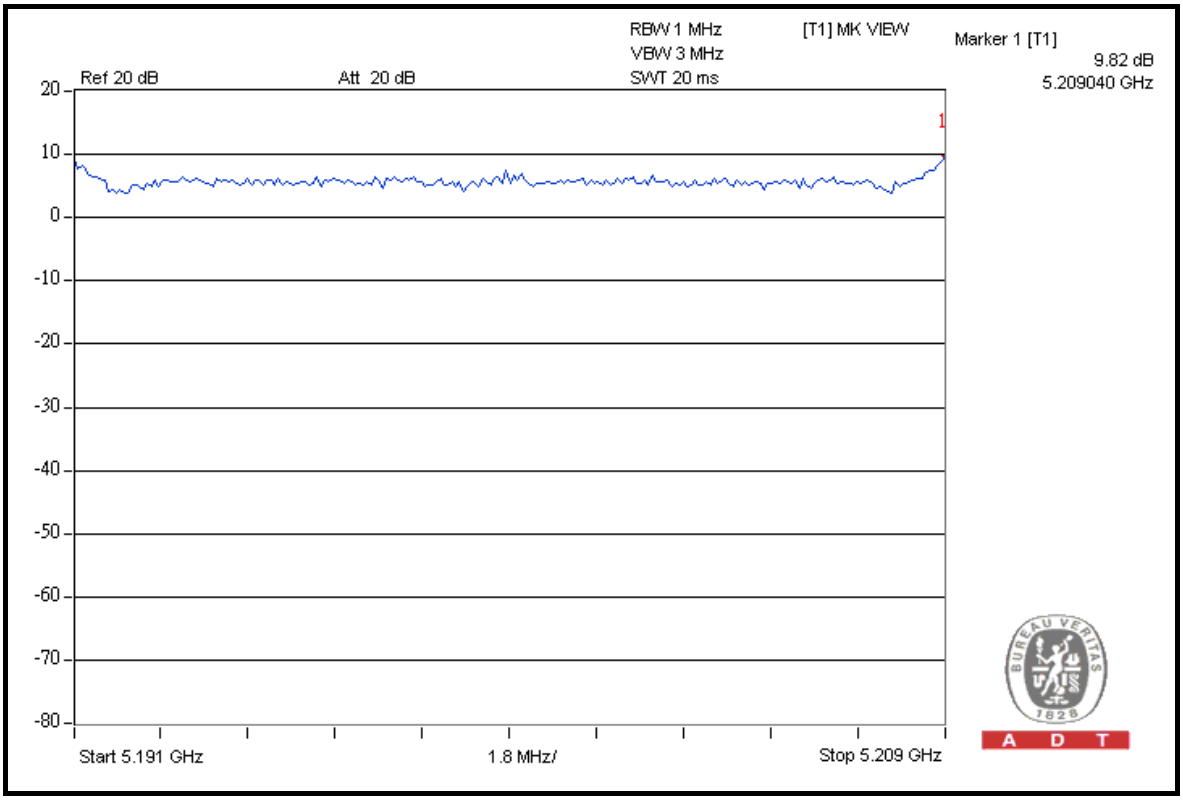
4.4.10 TEST RESULTS (TEST MODE B 2)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.06	9.19	9.02	13	PASS
40	5200	8.73	9.16	9.82	13	PASS
48	5240	9.63	9.34	9.09	13	PASS

FOR CHAIN 2: CH 40

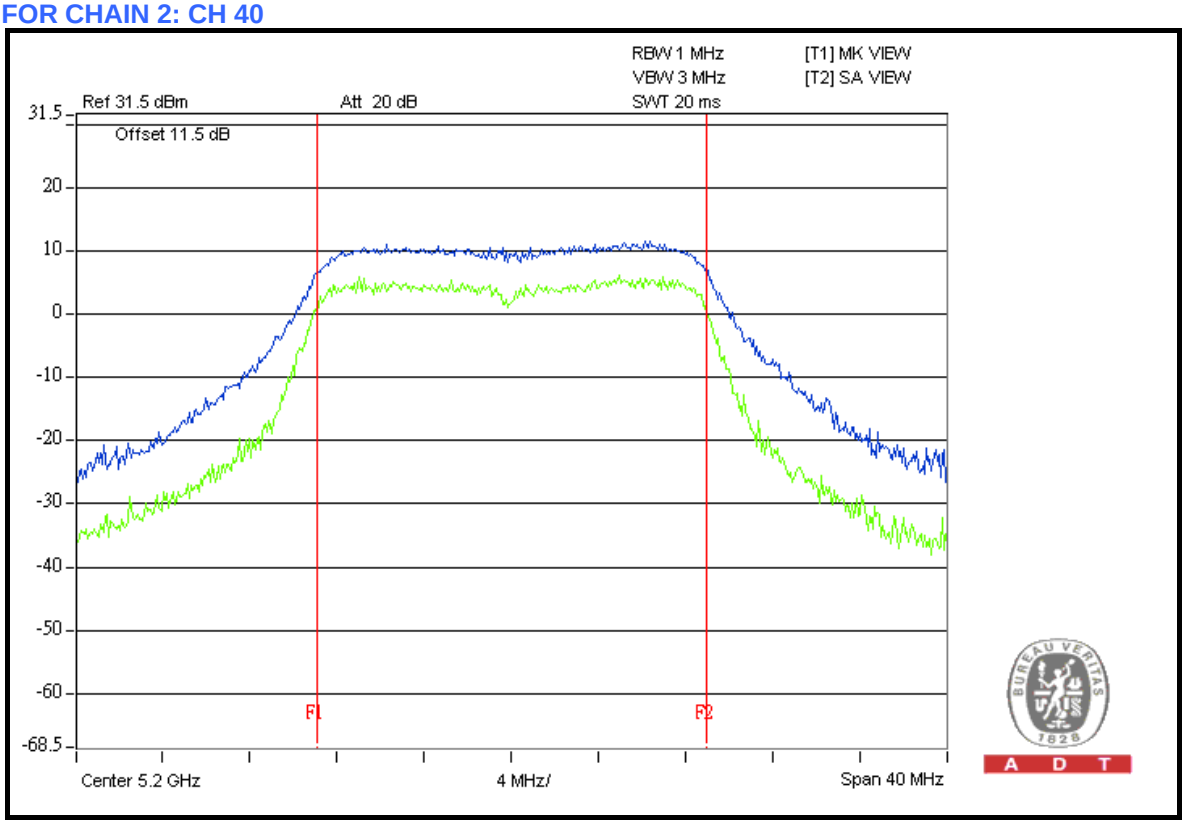


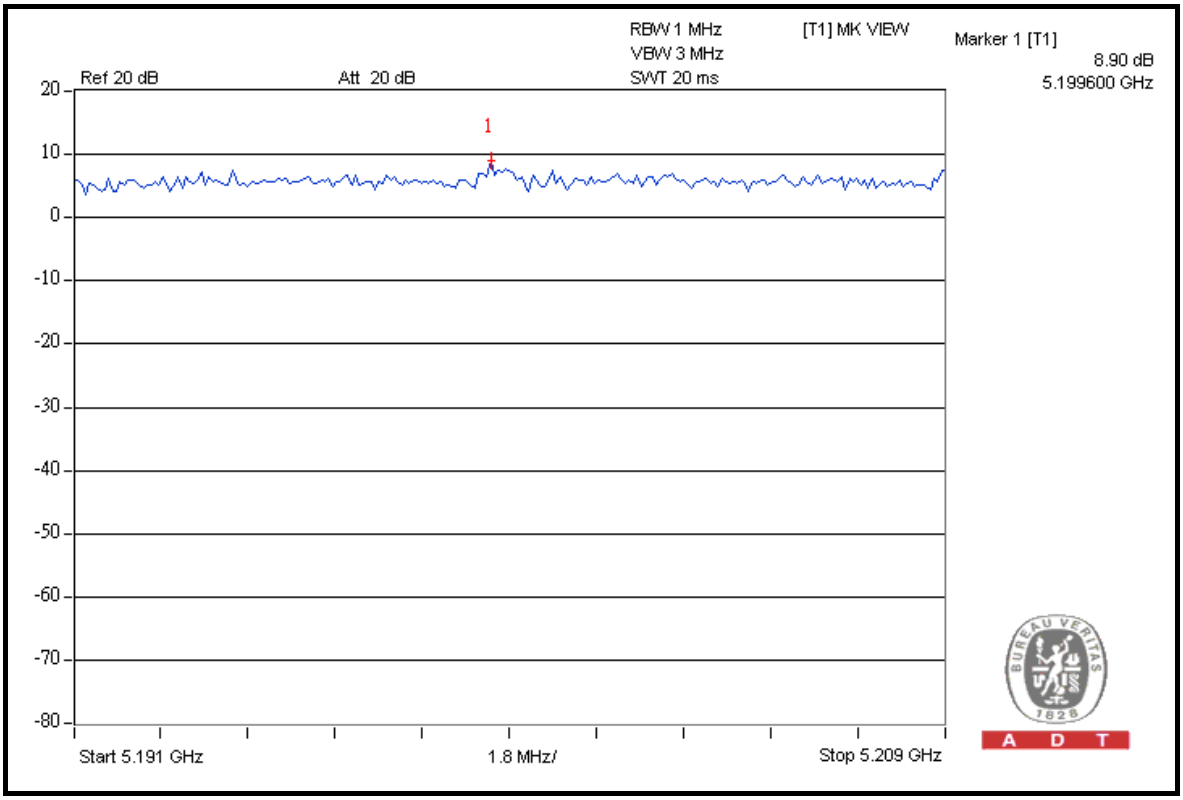


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.33	8.22	8.47	13	PASS
40	5200	7.91	7.87	8.90	13	PASS
48	5240	8.76	8.41	7.62	13	PASS

FOR CHAIN 2: CH 40

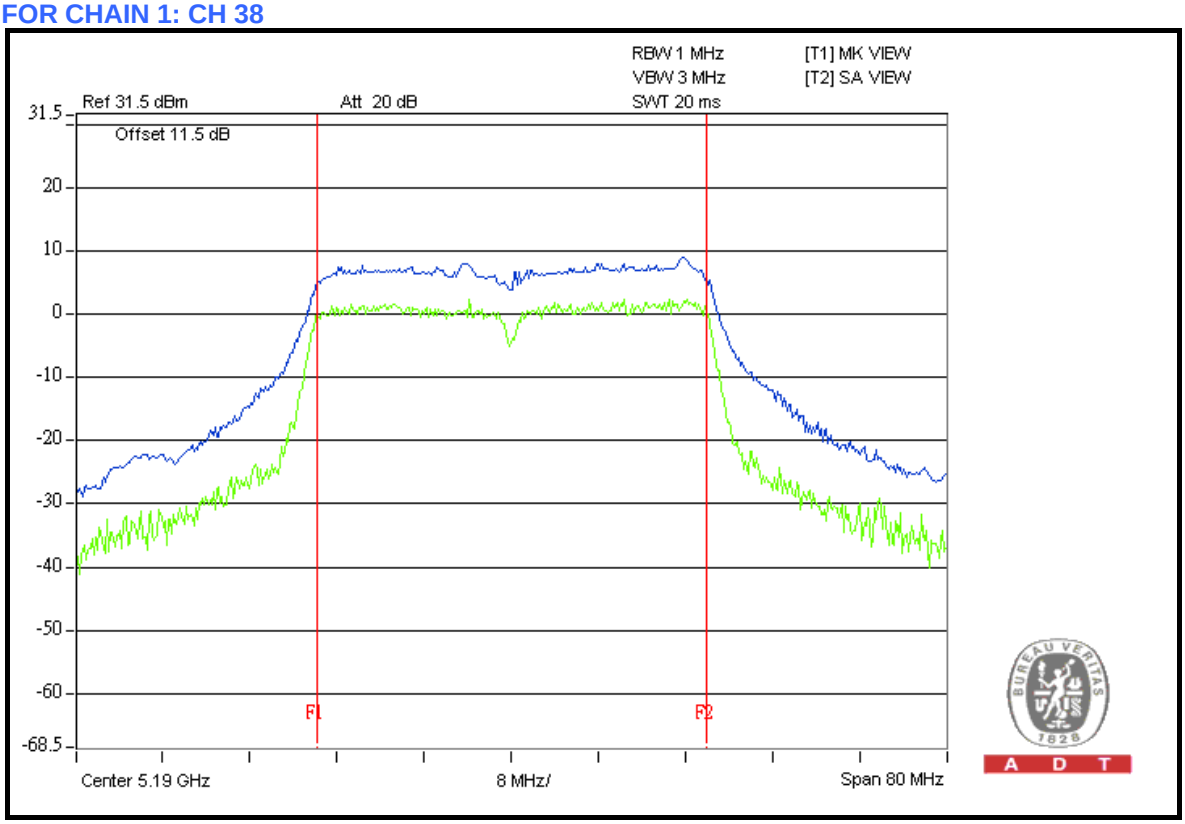


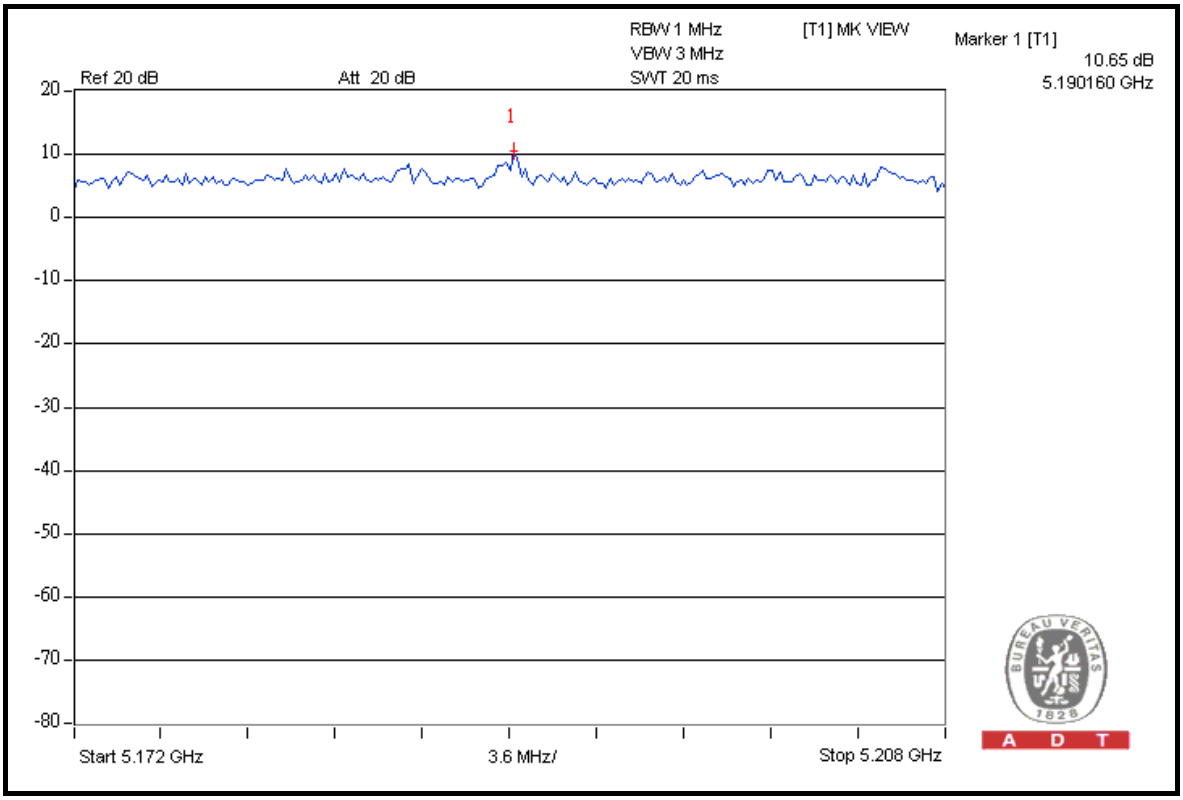


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	10.18	10.65	7.99	13	PASS
46	5230	9.41	9.99	8.28	13	PASS

FOR CHAIN 1: CH 38



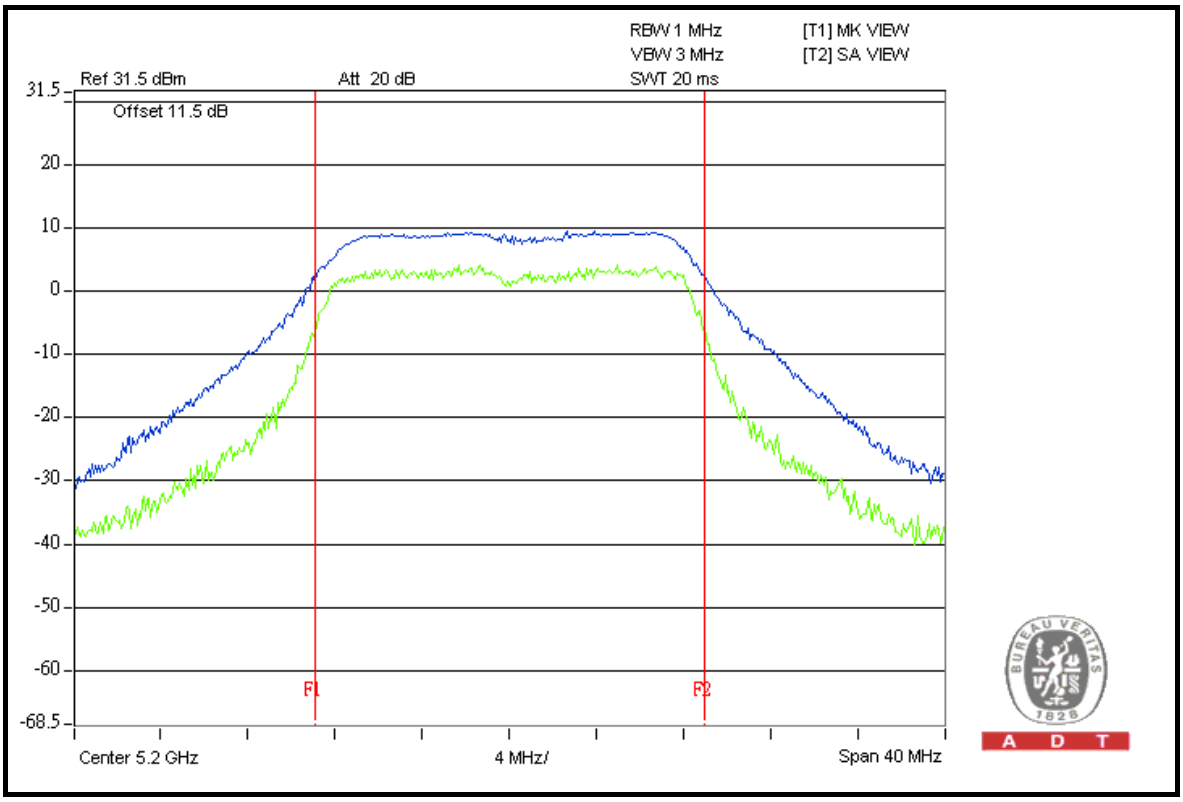


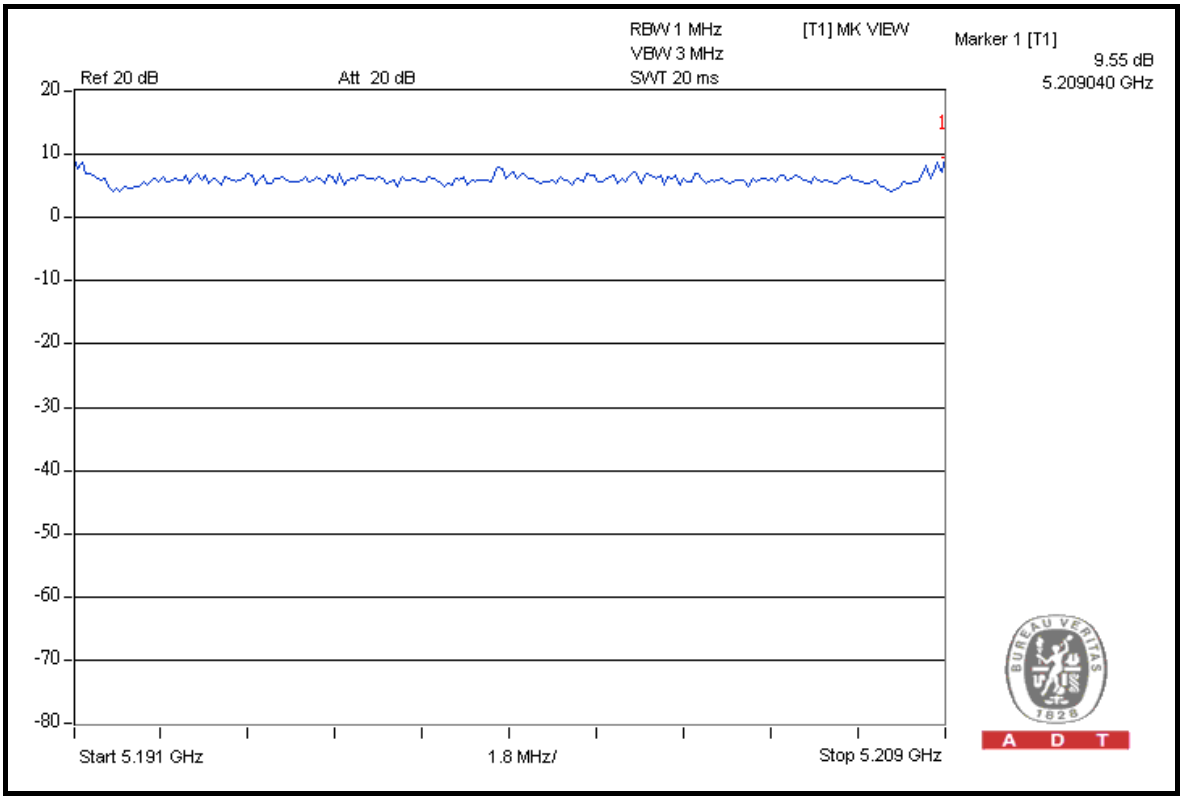
4.4.11 TEST RESULTS (TEST MODE C 1)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	9.37	9.10	8.97	13	PASS
40	5200	9.55	9.03	8.66	13	PASS
48	5240	9.23	9.12	8.82	13	PASS

FOR CHAIN 0: CH 40

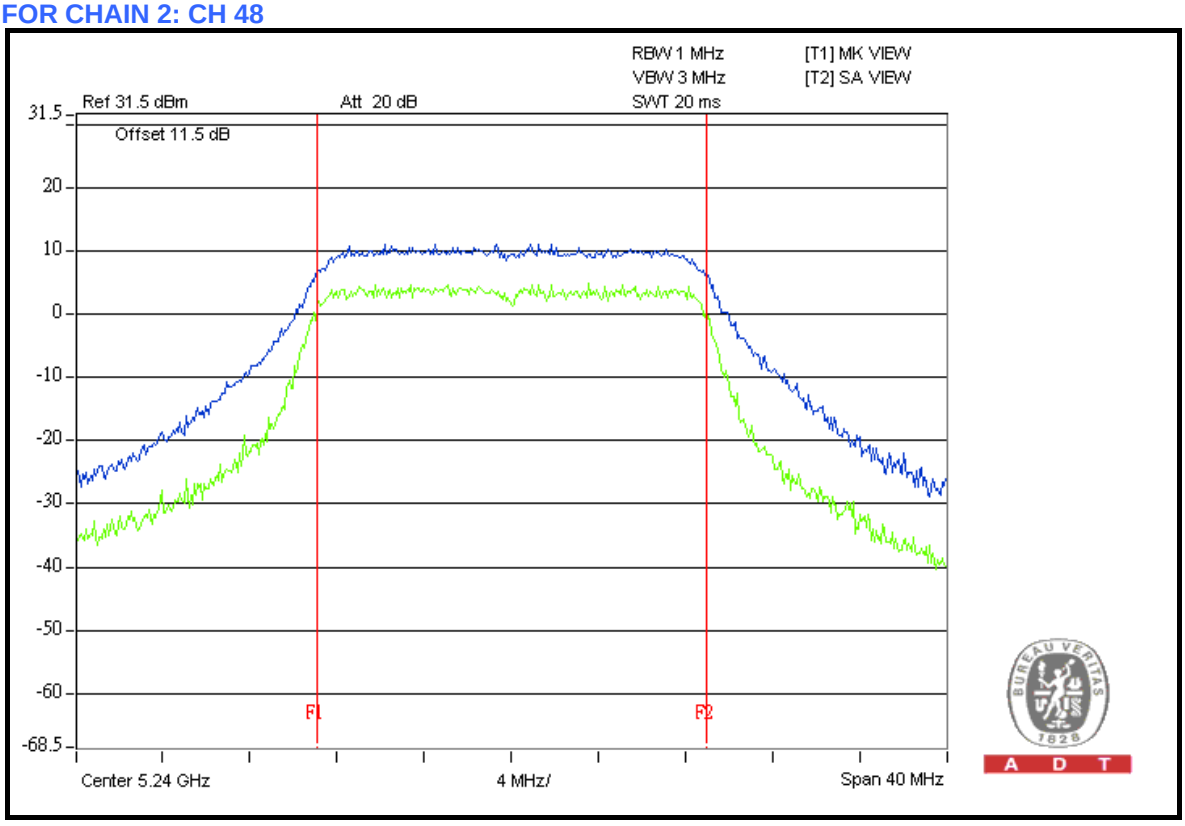


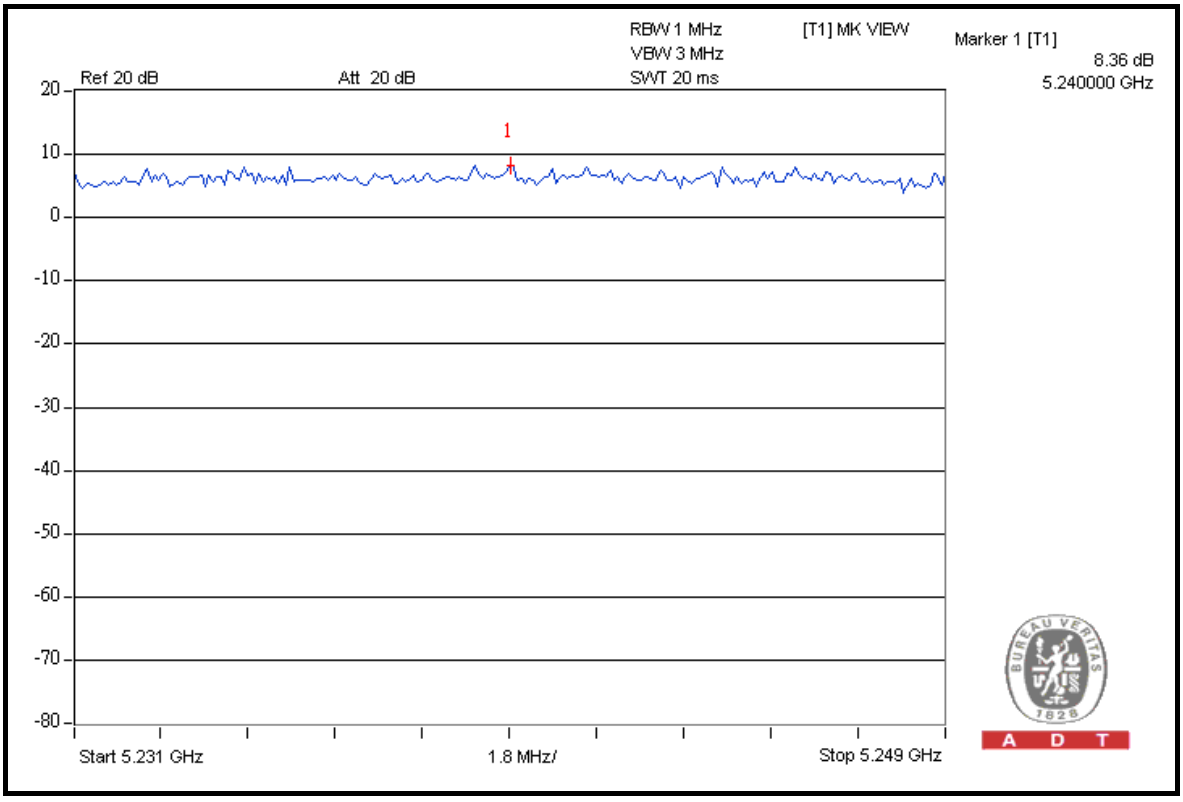


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.35	7.51	7.94	13	PASS
40	5200	7.72	8.22	7.88	13	PASS
48	5240	8.30	8.32	8.36	13	PASS

FOR CHAIN 2: CH 48

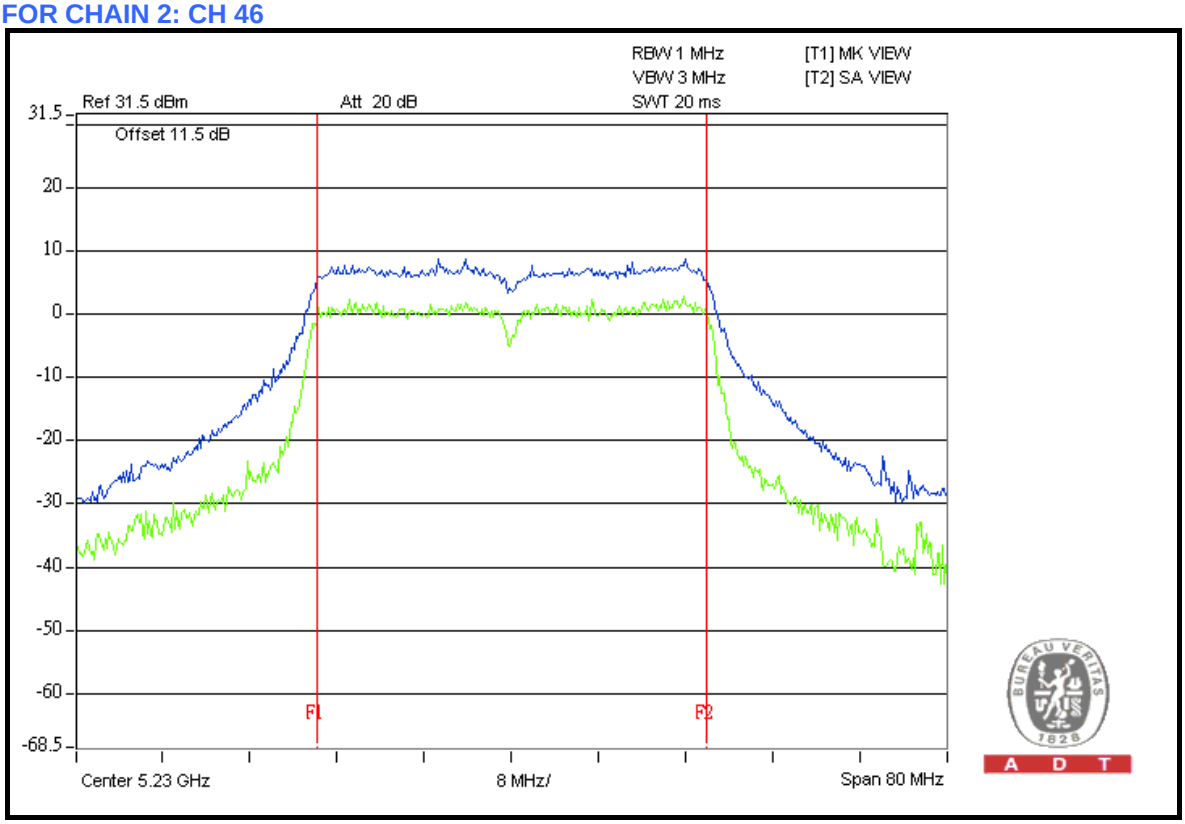


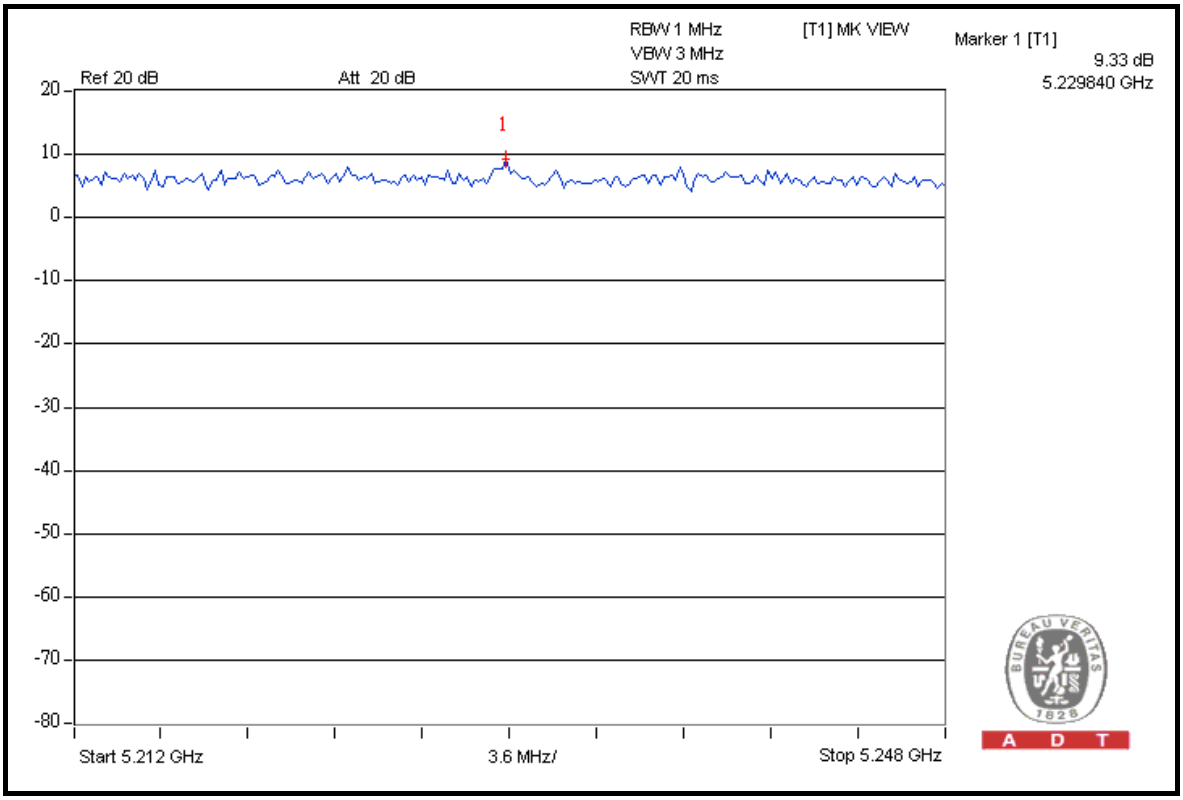


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	8.48	8.71	8.26	13	PASS
46	5230	9.03	8.81	9.33	13	PASS

FOR CHAIN 2: CH 46



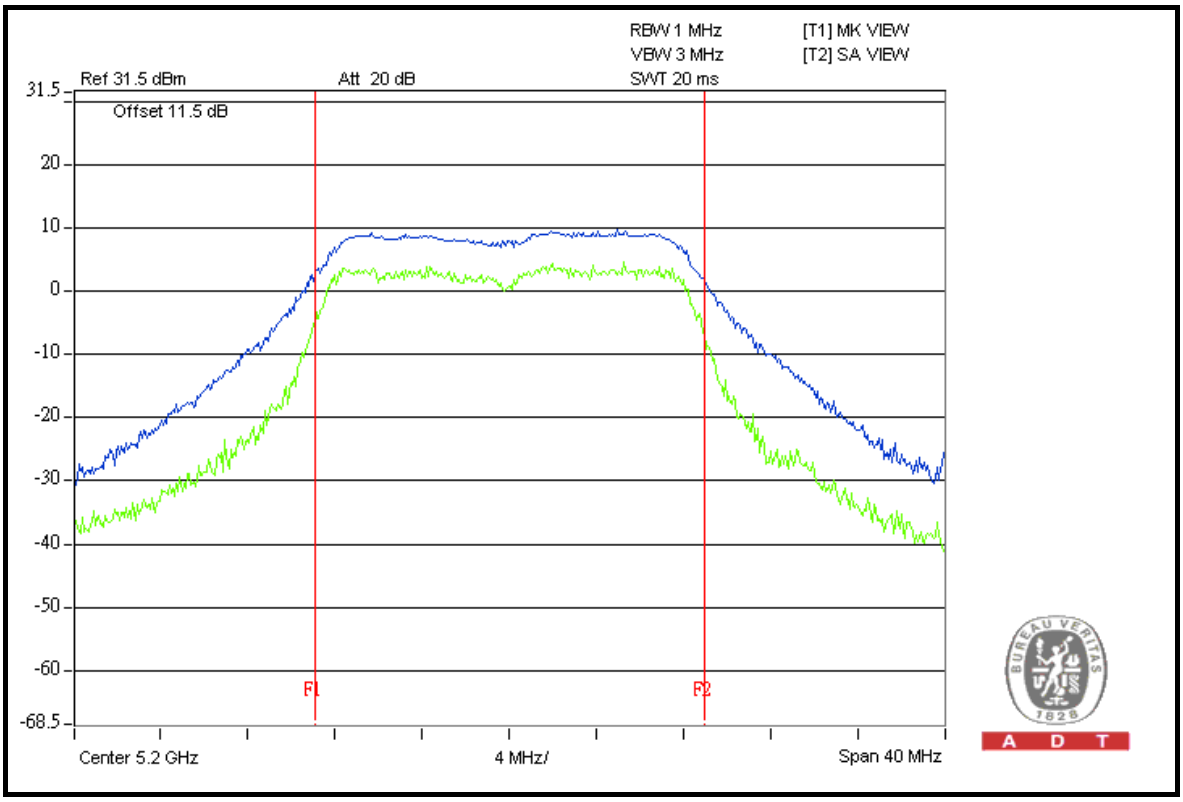


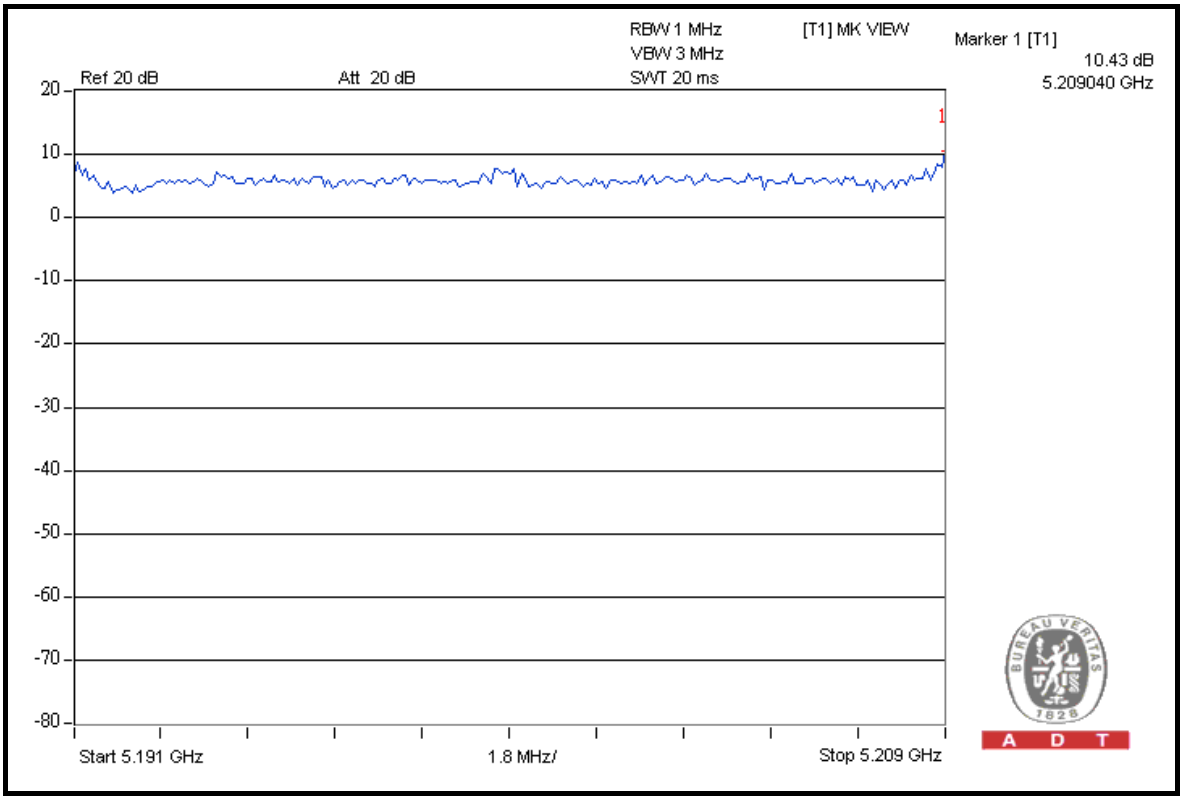
4.4.12 TEST RESULTS (TEST MODE C 2)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.92	8.33	9.13	13	PASS
40	5200	10.43	9.84	8.43	13	PASS
48	5240	9.08	8.96	8.56	13	PASS

FOR CHAIN 0: CH 40

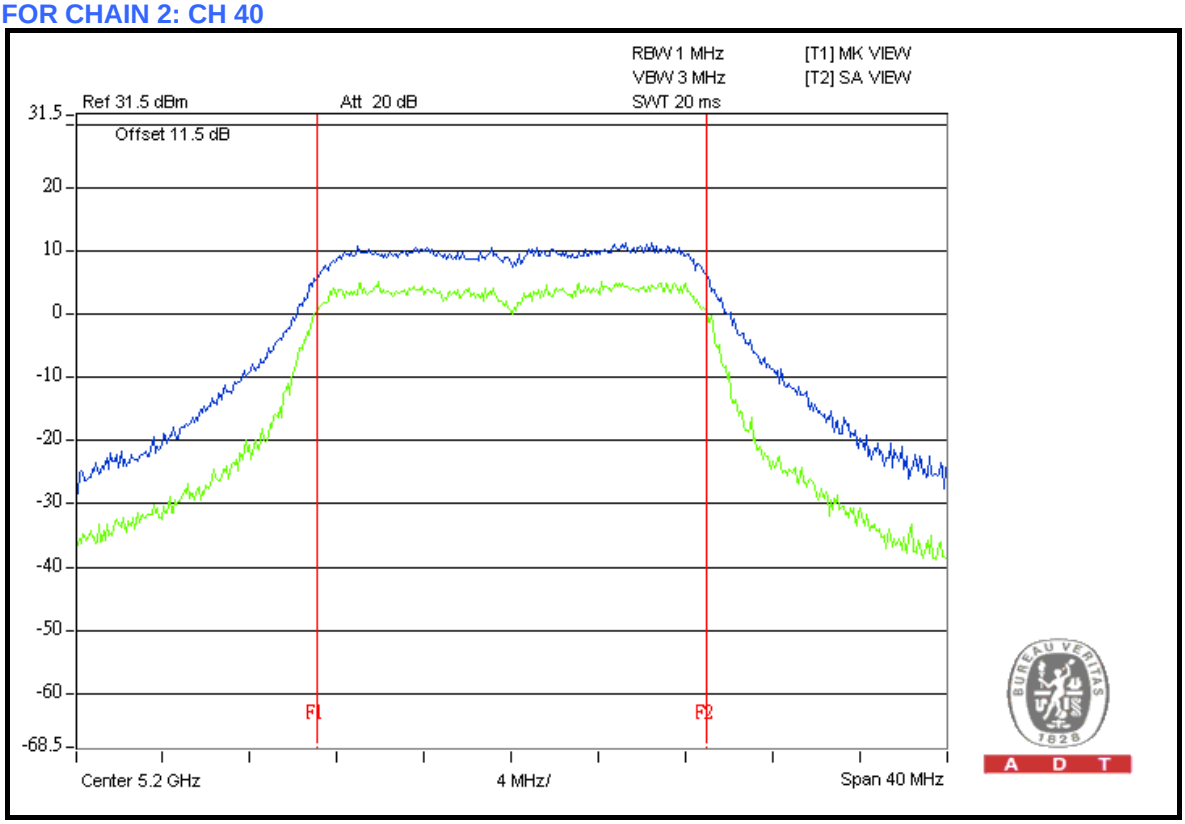


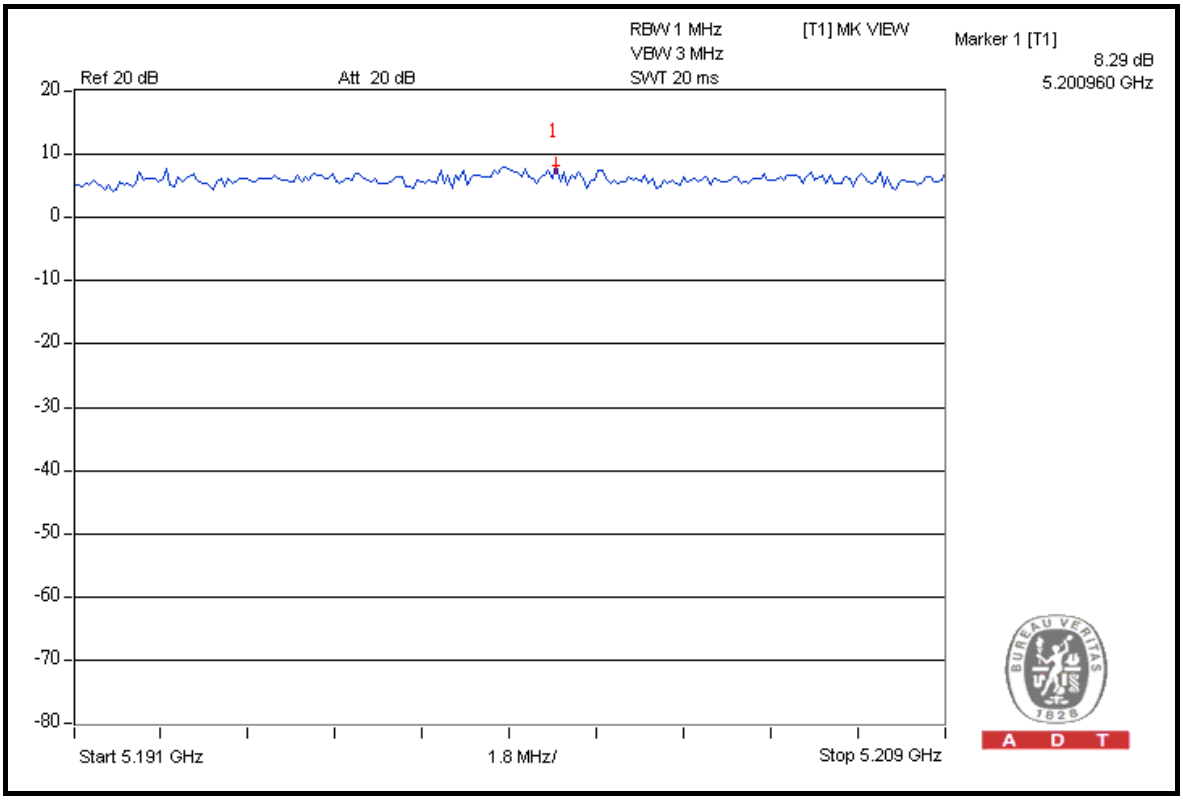


802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
36	5180	8.00	7.76	8.03	13	PASS
40	5200	7.51	7.59	8.29	13	PASS
48	5240	7.79	7.36	8.14	13	PASS

FOR CHAIN 2: CH 40

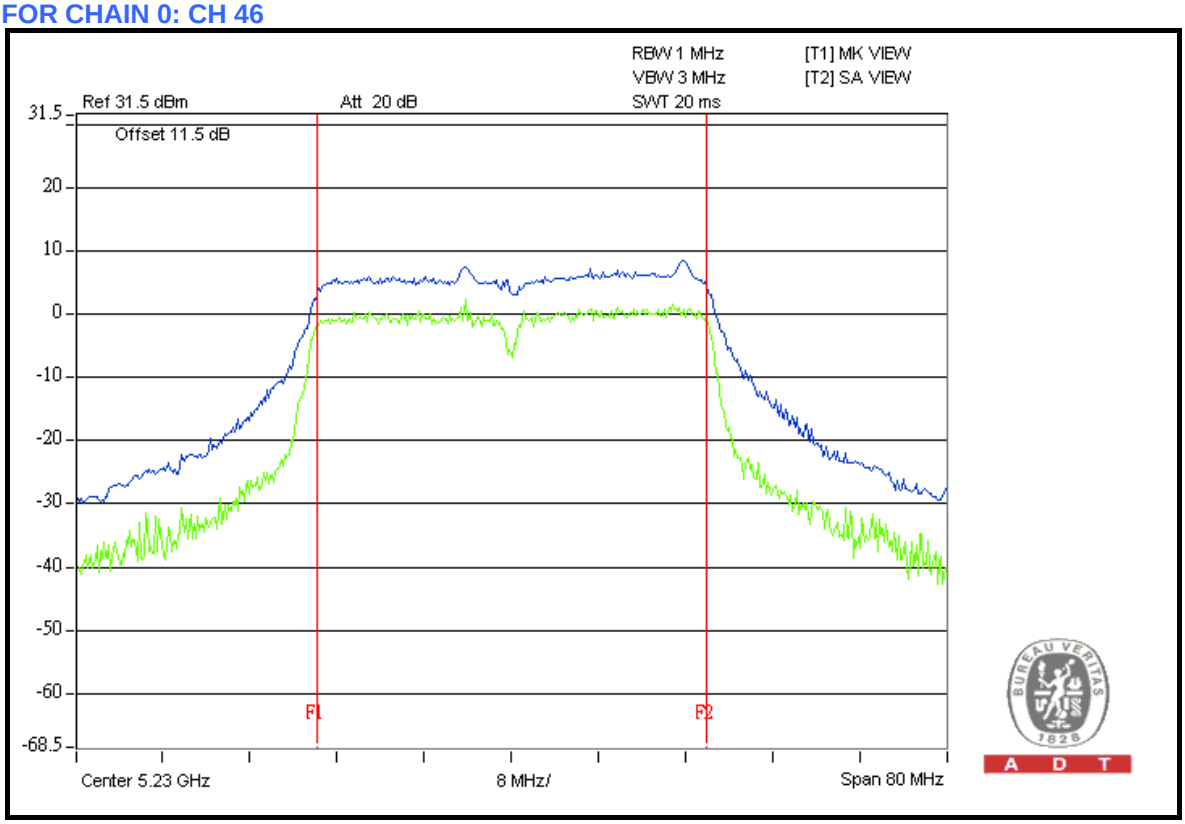


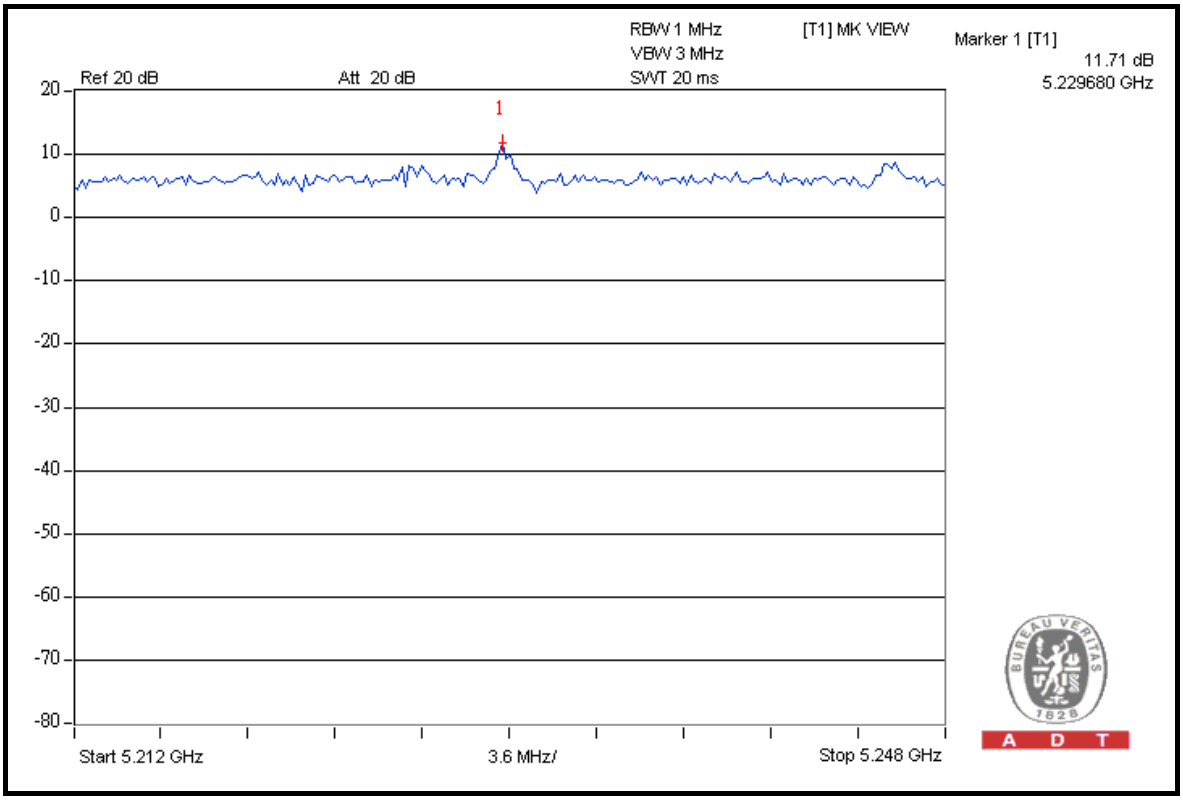


802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)			PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
38	5190	8.29	8.37	9.31	13	PASS
46	5230	11.71	9.87	10.47	13	PASS

FOR CHAIN 0: CH 46





4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.15 ~ 5.25GHz	4dBm

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100039	Jan. 11, 2010	Jan. 10, 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 PROCEDURES

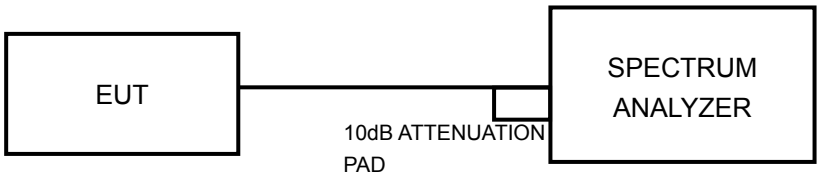
a. The transmitter output was connected to the spectrum analyzer.

b. Set RBW = 1MHz, VBW = 3MHz. The PPSD is the highest level found across the emission in any 1MHz band.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation.

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.5.7 TEST RESULTS (TEST MODE A 1)

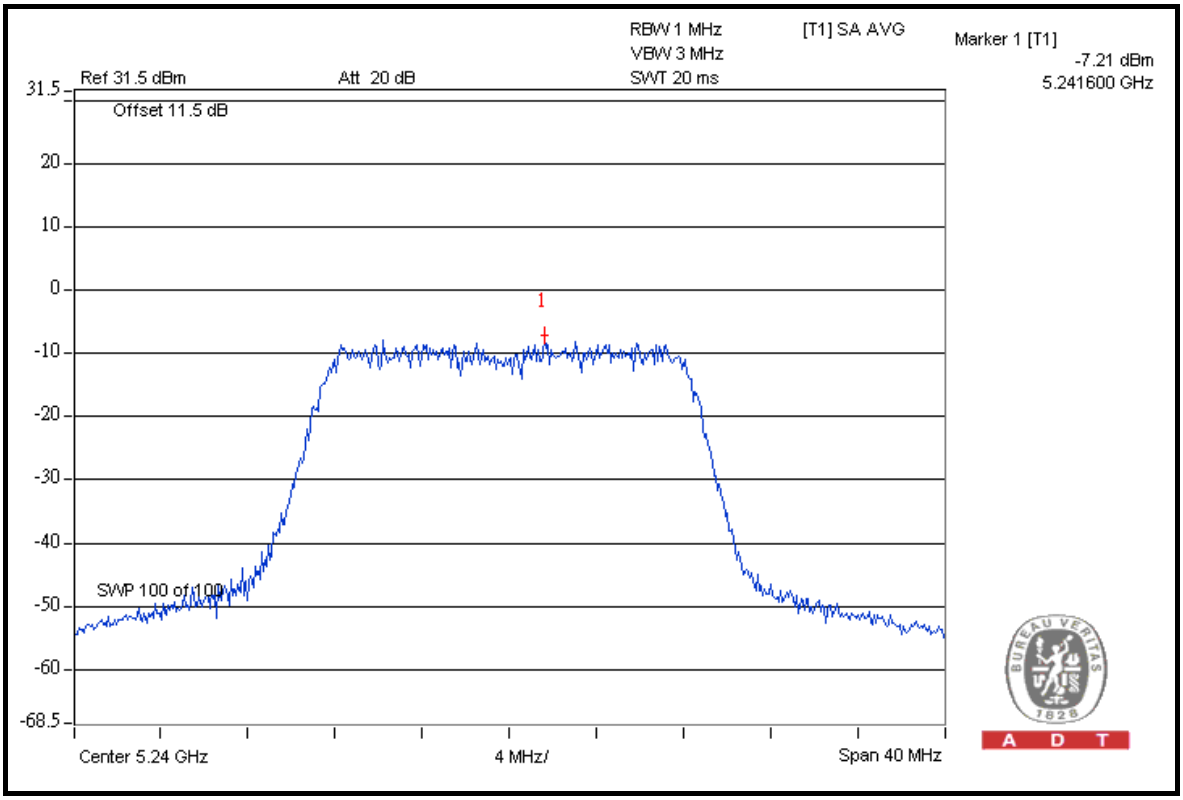
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-7.8	-7.4	-7.4	-2.76	-1.79	PASS
40	5200	-8.0	-7.4	-7.3	-2.77	-1.79	PASS
48	5240	-7.8	-7.2	-7.4	-2.71	-1.79	PASS

NOTE:

1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(11.79-6)= -1.79dBm

FOR CHAIN 1: CH 48



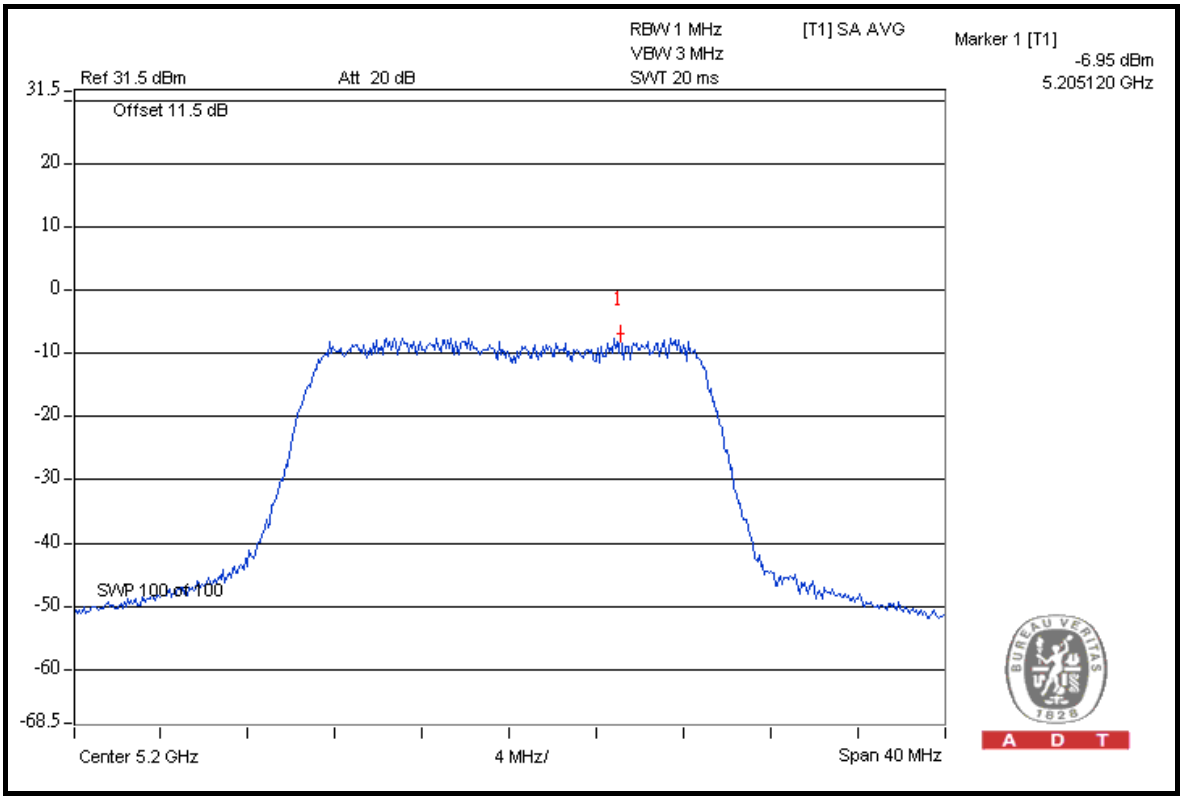
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-7.4	-7.1	-7.5	-2.56	-1.79	PASS
40	5200	-7.5	-7.0	-7.4	-2.49	-1.79	PASS
48	5240	-7.5	-7.1	-7.6	-2.60	-1.79	PASS

NOTE:

1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(11.79-6)= -1.79dBm

FOR CHAIN 1: CH 40



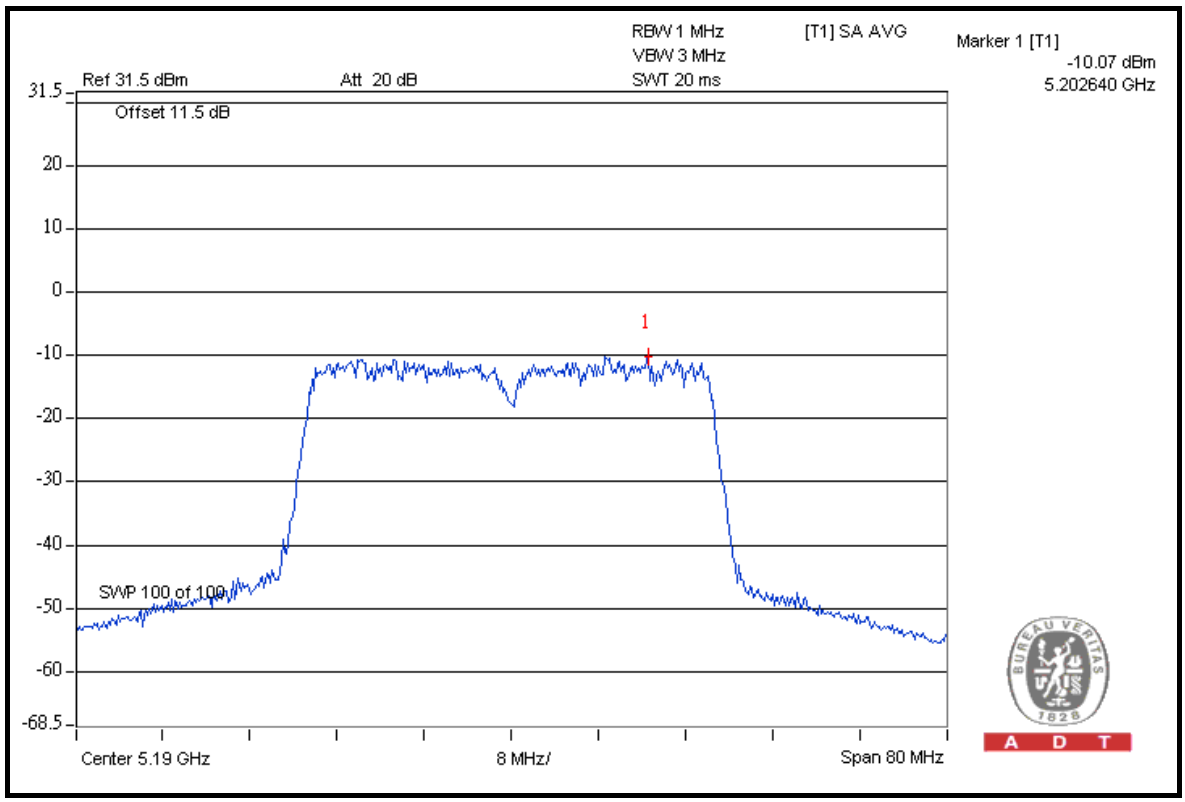
802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-11.7	-10.1	-10.4	-5.87	-1.79	PASS
46	5230	-11.7	-10.4	-10.4	-6.04	-1.79	PASS

NOTE:

1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(11.79-6)= -1.79dBm

FOR CHAIN 1: CH 38



4.5.8 TEST RESULTS (TEST MODE A 2)

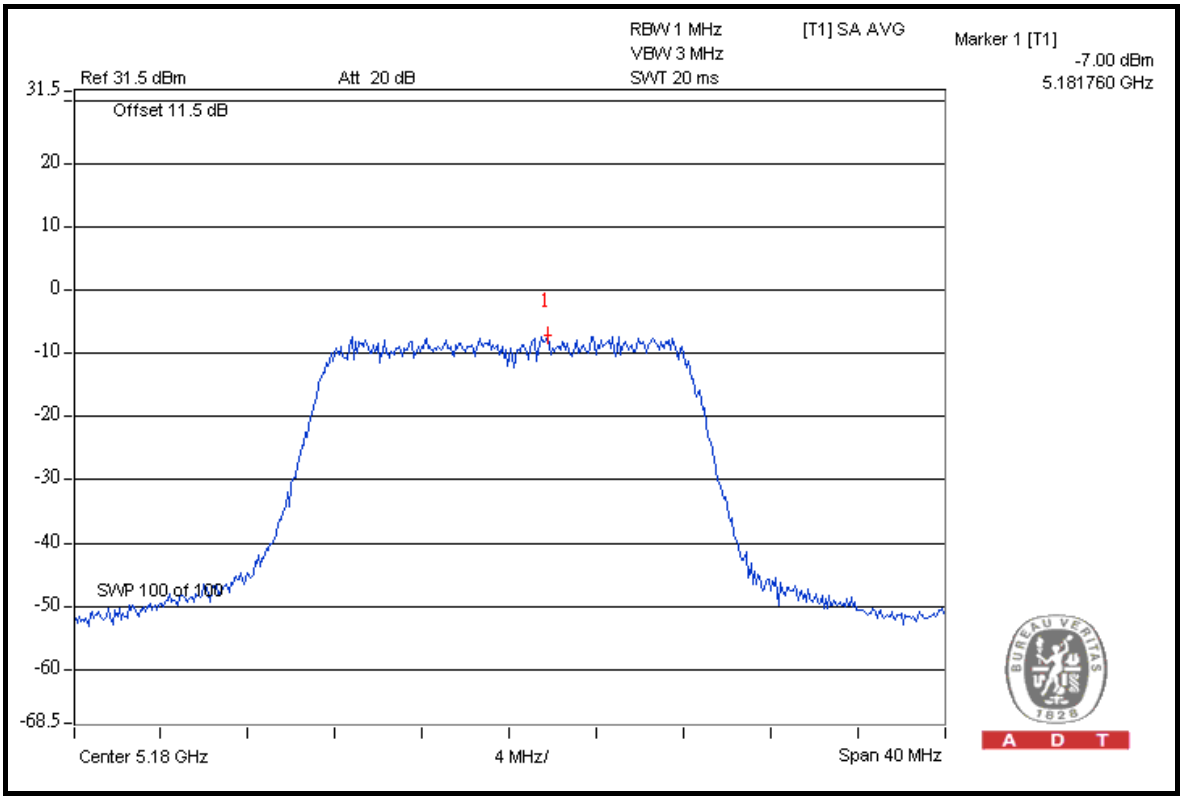
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-7.7	-7.0	-7.1	-2.50	-1.79	PASS
40	5200	-7.8	-7.0	-7.2	-2.55	-1.79	PASS
48	5240	-7.8	-7.3	-7.2	-2.65	-1.79	PASS

NOTE:

1. Antenna 1 (Model: 5184-6684) is not used for point to point operation.
2. Directional gain =7.02dBi + 10log(3)=11.79dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(11.79-6)= -1.79dBm

FOR CHAIN 1: CH 36

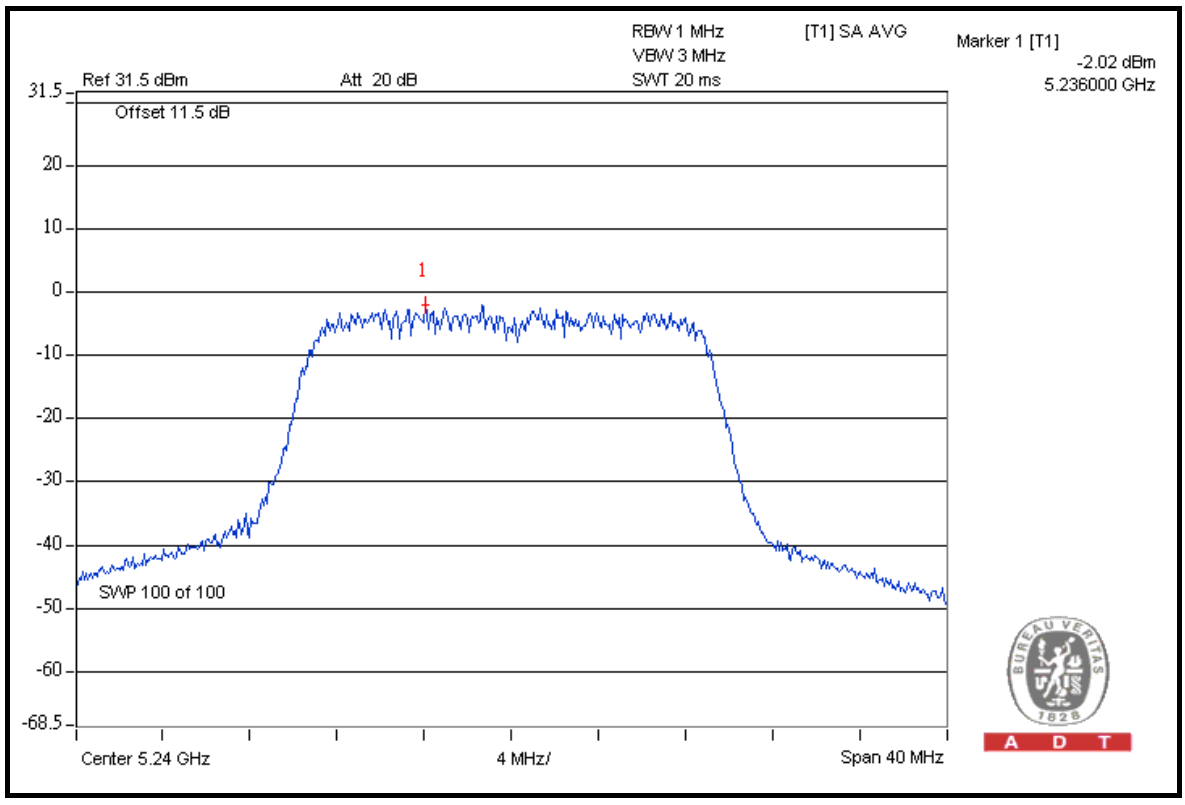


802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-3.5	-2.2	-2.1	2.22	2.98	PASS
40	5200	-3.5	-2.3	-2.4	2.09	2.98	PASS
48	5240	-3.4	-2.0	-2.0	2.33	2.98	PASS

NOTE: According to 15.407 (a) (1) (2) (3), the maximum antenna gain 7.02dBi is higher than 6dBi, so the limit of power spectral density shall be reduced by 1.02dB.

FOR CHAIN 2: CH 48

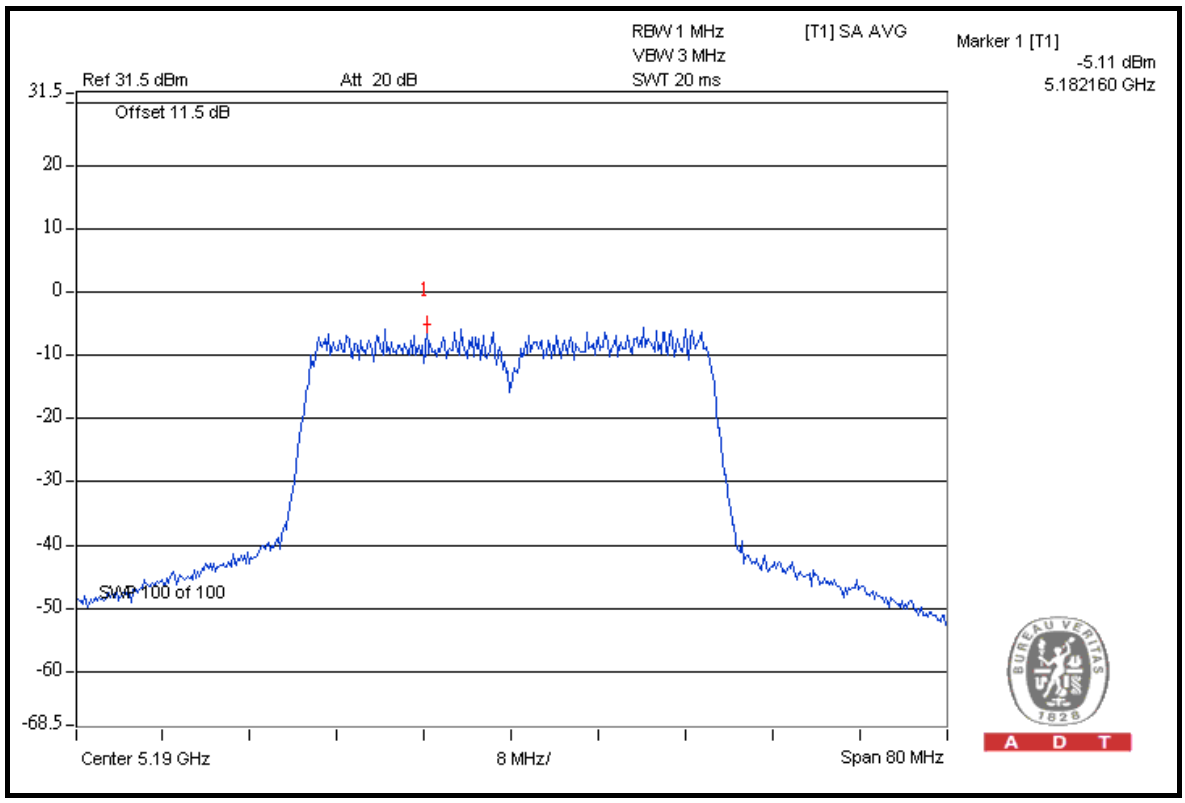


802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-7.6	-5.1	-5.9	-1.30	2.98	PASS
46	5230	-7.5	-5.3	-5.9	-1.34	2.98	PASS

NOTE: According to 15.407 (a) (1) (2) (3), the maximum antenna gain 7.02dBi is higher than 6dBi, so the limit of power spectral density shall be reduced by 1.02dB.

FOR CHAIN 1: CH 38



4.5.9 TEST RESULTS (TEST MODE B 1)

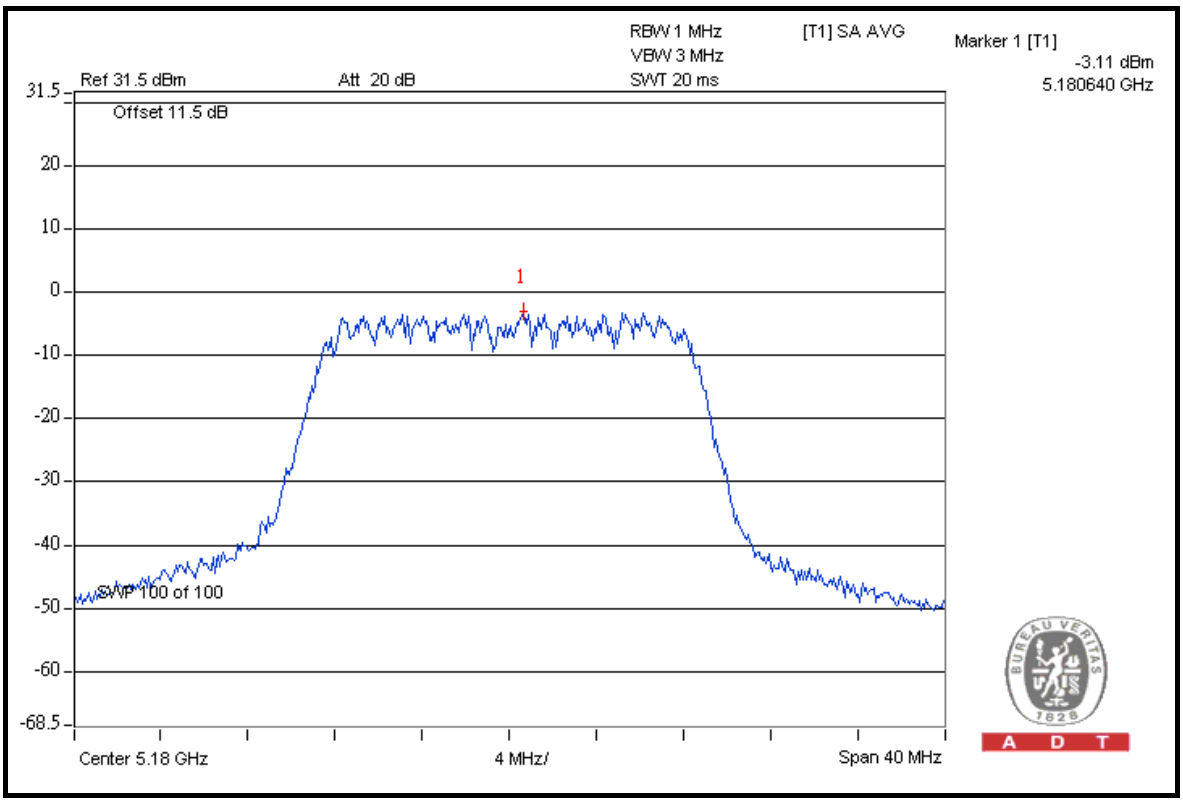
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-3.1	-4.0	-3.8	1.16	1.23	PASS
40	5200	-3.2	-4.1	-3.5	1.20	1.23	PASS
48	5240	-3.2	-4.0	-3.6	1.17	1.23	PASS

NOTE:

1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(8.77-6)=1.23dBm

FOR CHAIN 0: CH 36



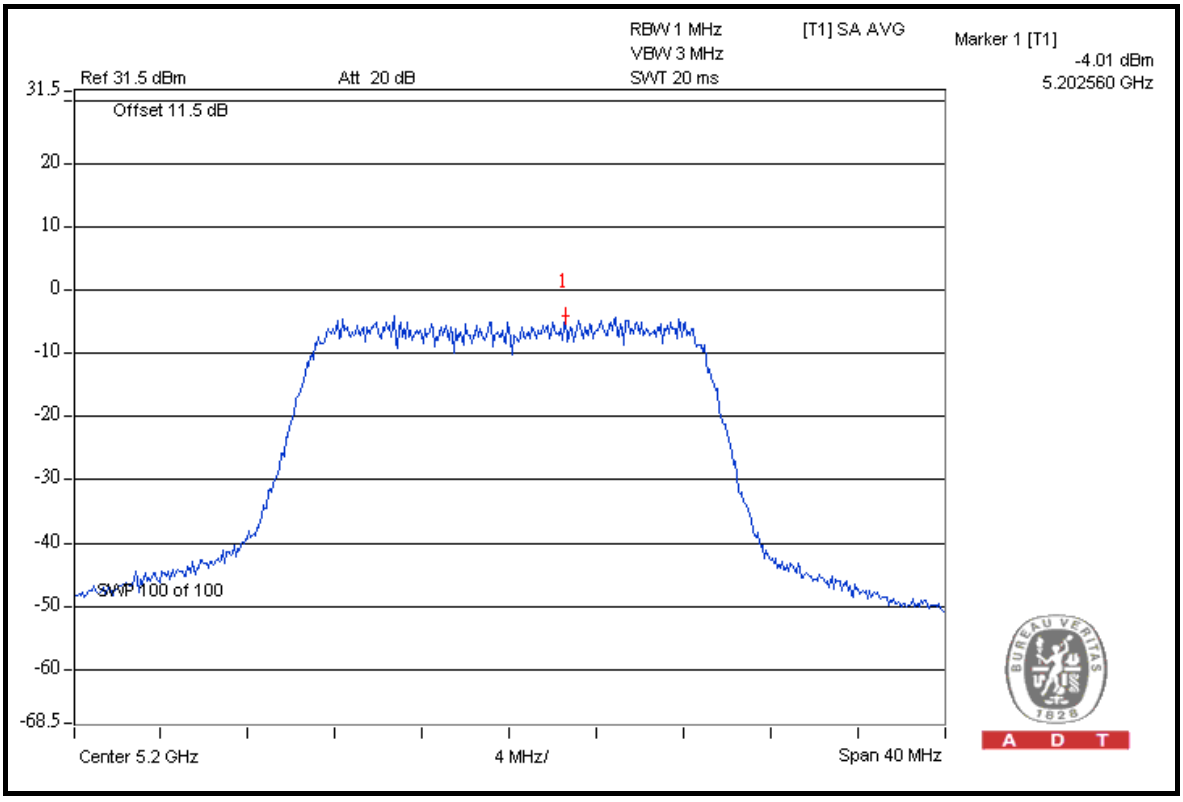
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-4.0	-4.2	-4.0	0.67	1.23	PASS
40	5200	-4.2	-4.0	-4.1	0.69	1.23	PASS
48	5240	-4.4	-4.3	-4.1	0.55	1.23	PASS

NOTE:

1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(8.77-6)=1.23dBm

FOR CHAIN 1: CH 40



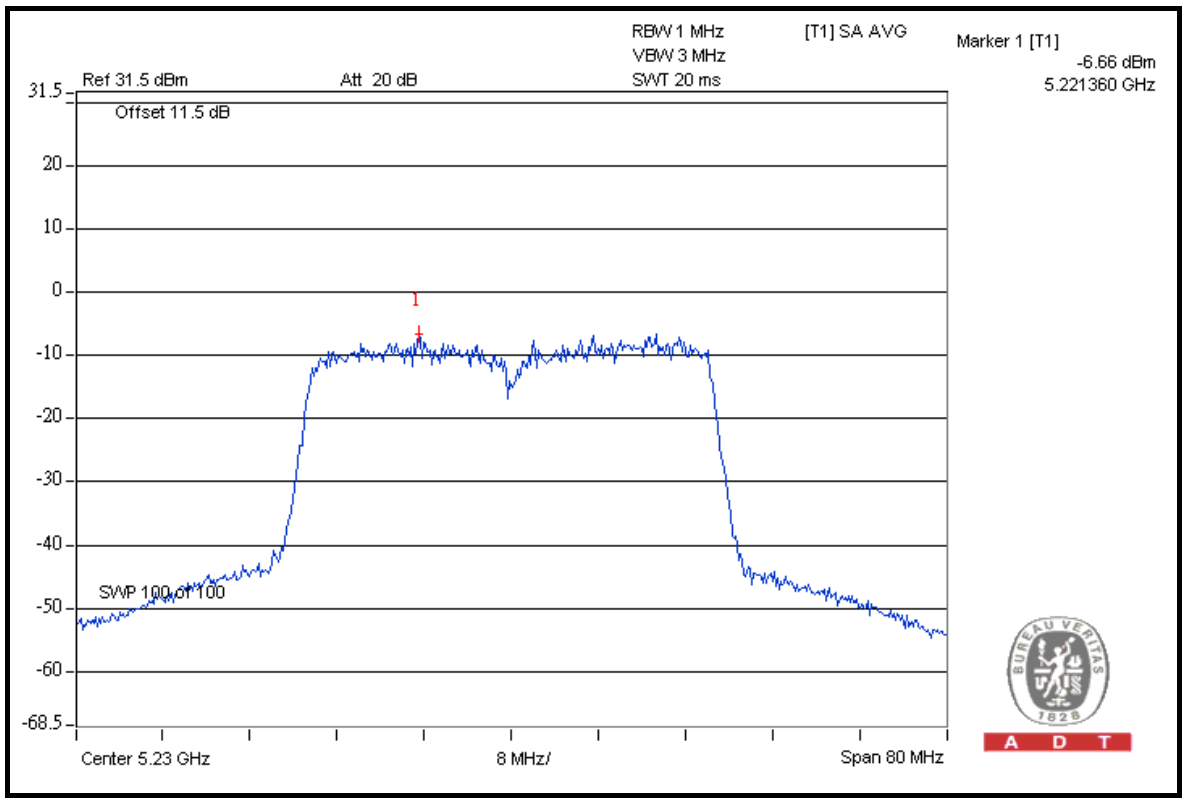
802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-8.6	-6.7	-6.9	-2.55	1.23	PASS
46	5230	-8.6	-6.7	-6.9	-2.55	1.23	PASS

NOTE:

1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(8.77-6)=1.23dBm

FOR CHAIN 1: CH 46



4.5.10 TEST RESULTS (TEST MODE B 2)

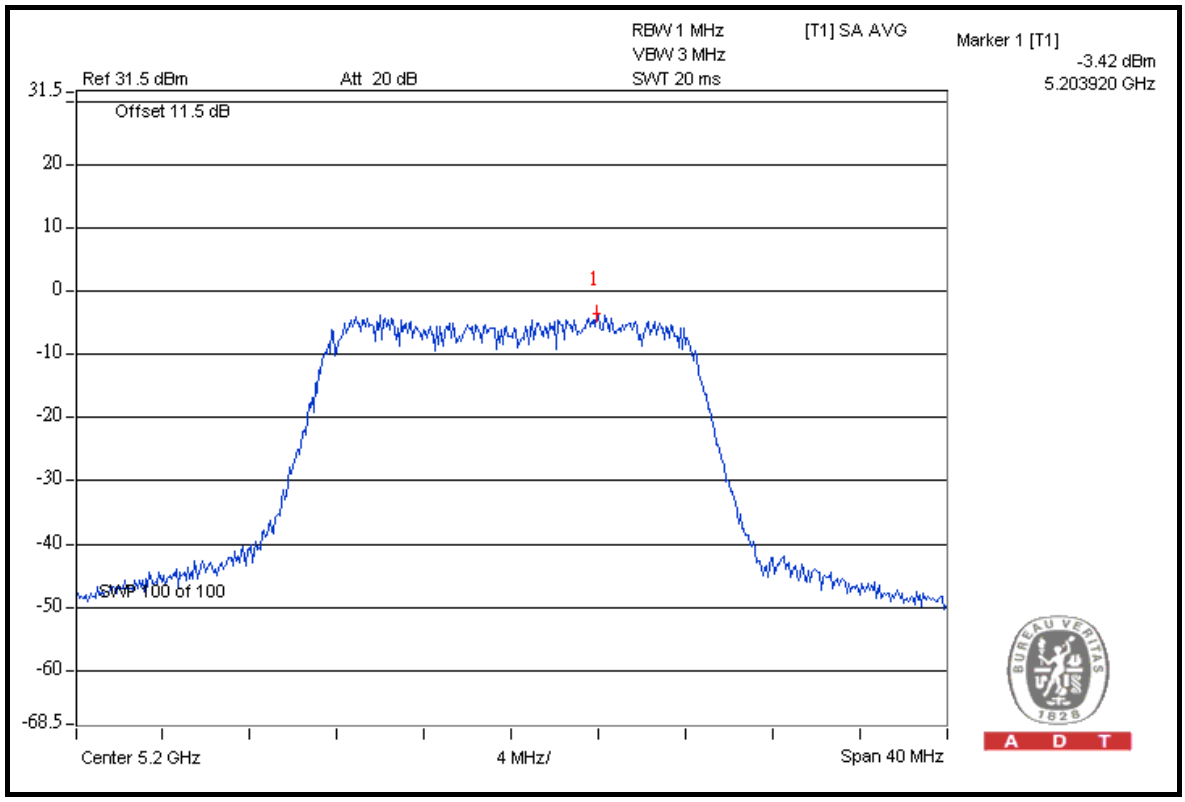
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-4.6	-3.9	-3.7	0.76	1.23	PASS
40	5200	-4.6	-3.9	-3.4	0.85	1.23	PASS
48	5240	-4.8	-3.9	-3.6	0.71	1.23	PASS

NOTE:

1. Antenna 4 (Model: J9171A) is not used for point to point operation.
2. Directional gain =4dBi + 10log(3)=8.77dBi > 6dBi , so the power spectral density limit shall be reduced to 4-(8.77-6)=1.23dBm

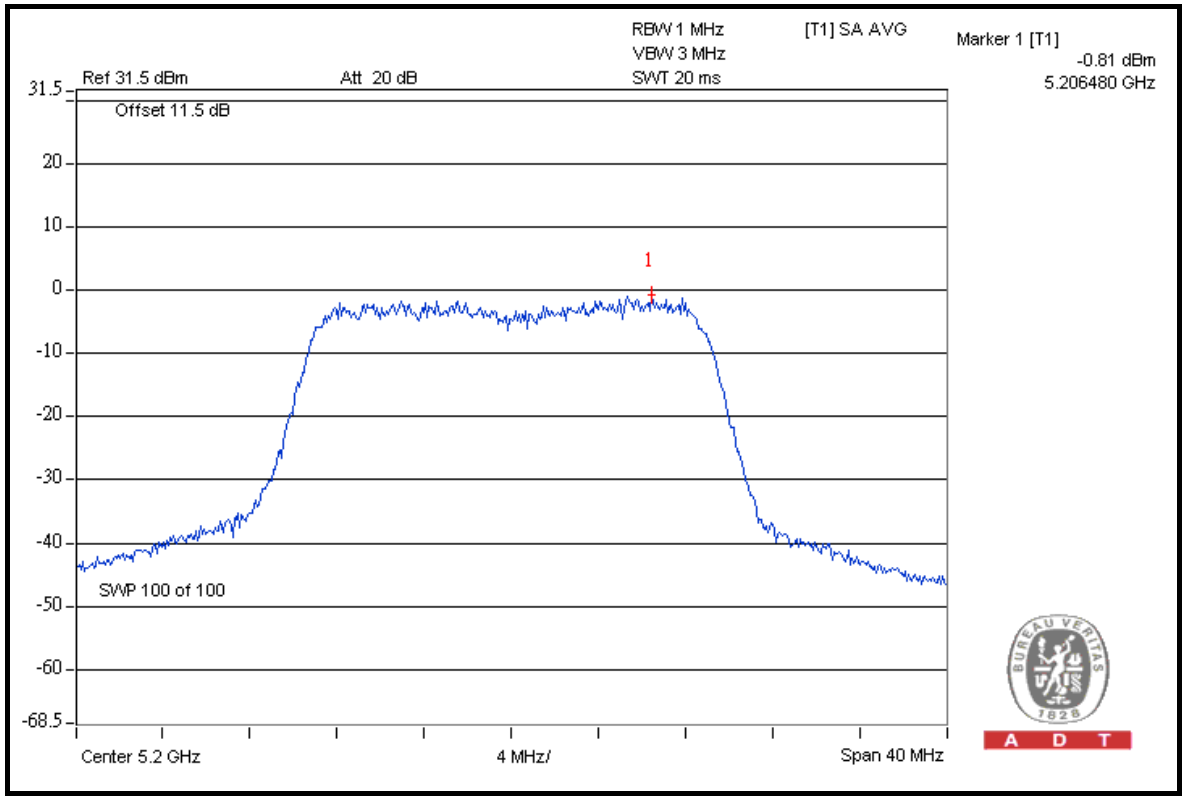
FOR CHAIN 2: CH 40



802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-1.8	-1.3	-1.1	3.40	4	PASS
40	5200	-1.7	-0.9	-0.8	3.66	4	PASS
48	5240	-1.8	-1.2	-0.9	3.49	4	PASS

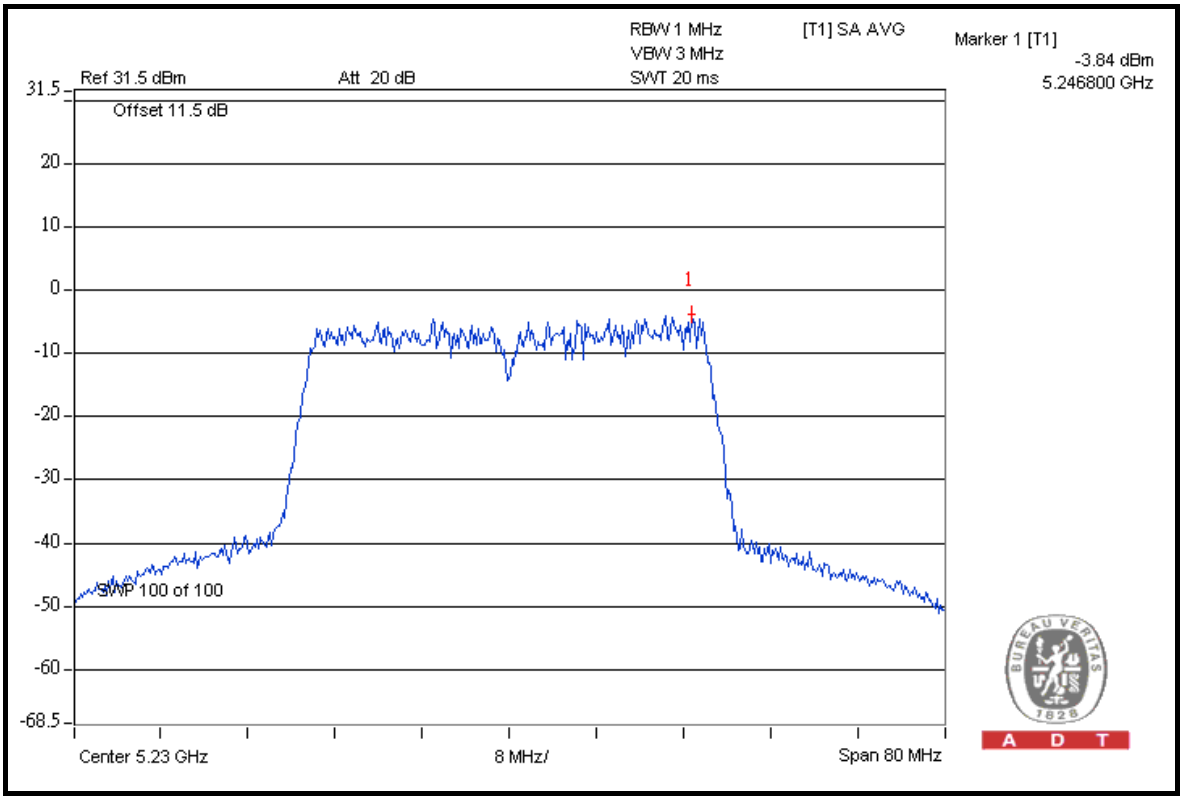
FOR CHAIN 2: CH 40



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-5.9	-3.9	-4.2	0.20	4	PASS
46	5230	-5.8	-3.8	-4.3	0.20	4	PASS

FOR CHAIN 1: CH 46



4.5.11 TEST RESULTS (TEST MODE C 1)

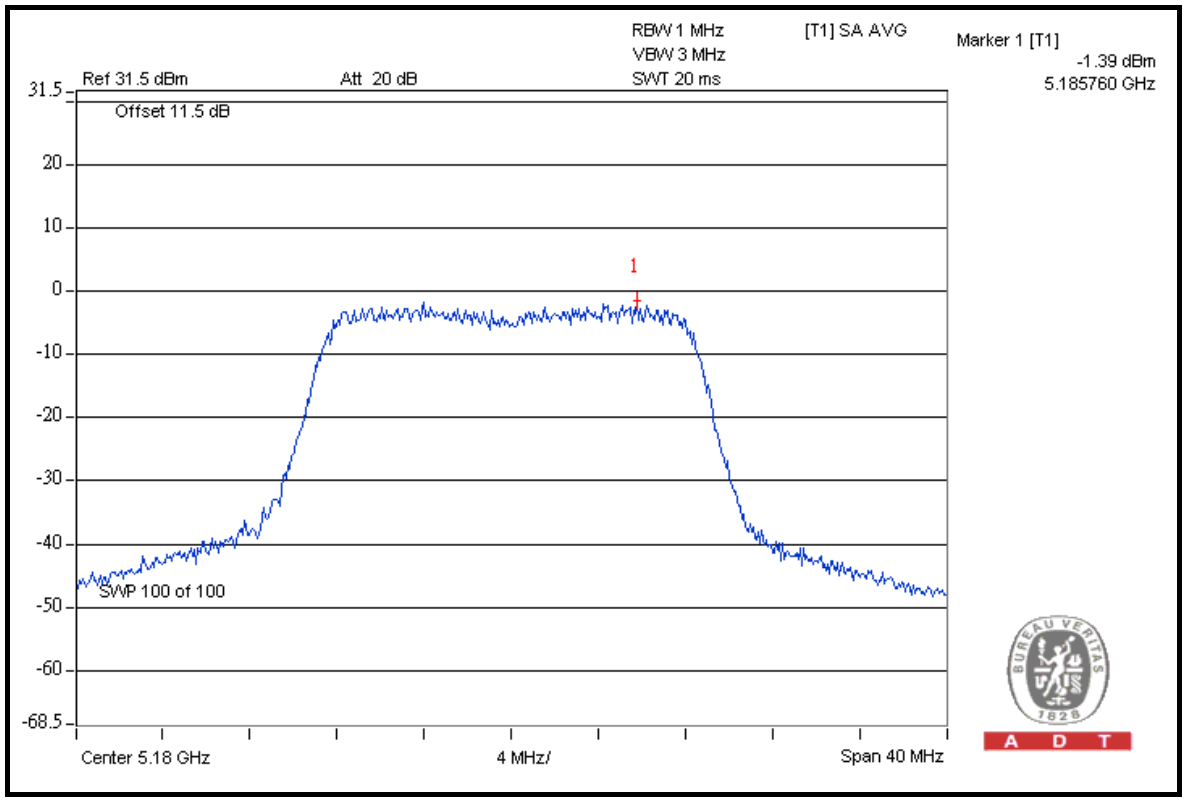
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-1.8	-1.5	-1.4	3.20	3.23	PASS
40	5200	-1.9	-1.5	-1.5	3.17	3.23	PASS
48	5240	-1.8	-1.5	-1.5	3.15	3.23	PASS

NOTE:

1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the power spectral density limit shall be reduced to 4-(6.77-6)=3.23dBm

FOR CHAIN 2: CH 36



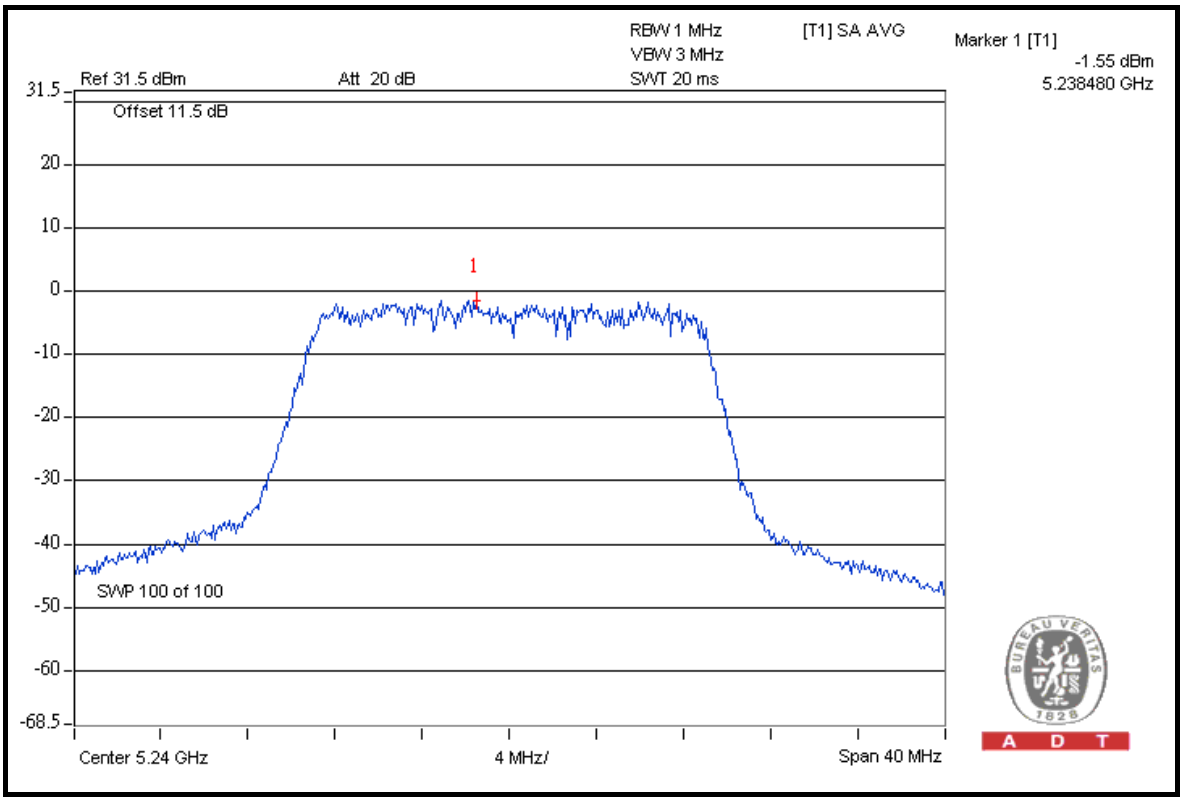
802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-1.9	-2.1	-1.9	2.85	3.23	PASS
40	5200	-1.9	-2.0	-1.7	2.90	3.23	PASS
48	5240	-1.8	-1.9	-1.6	3.03	3.23	PASS

NOTE:

1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the power spectral density limit shall be reduced to 4-(6.77-6)=3.23dBm

FOR CHAIN 2: CH 48



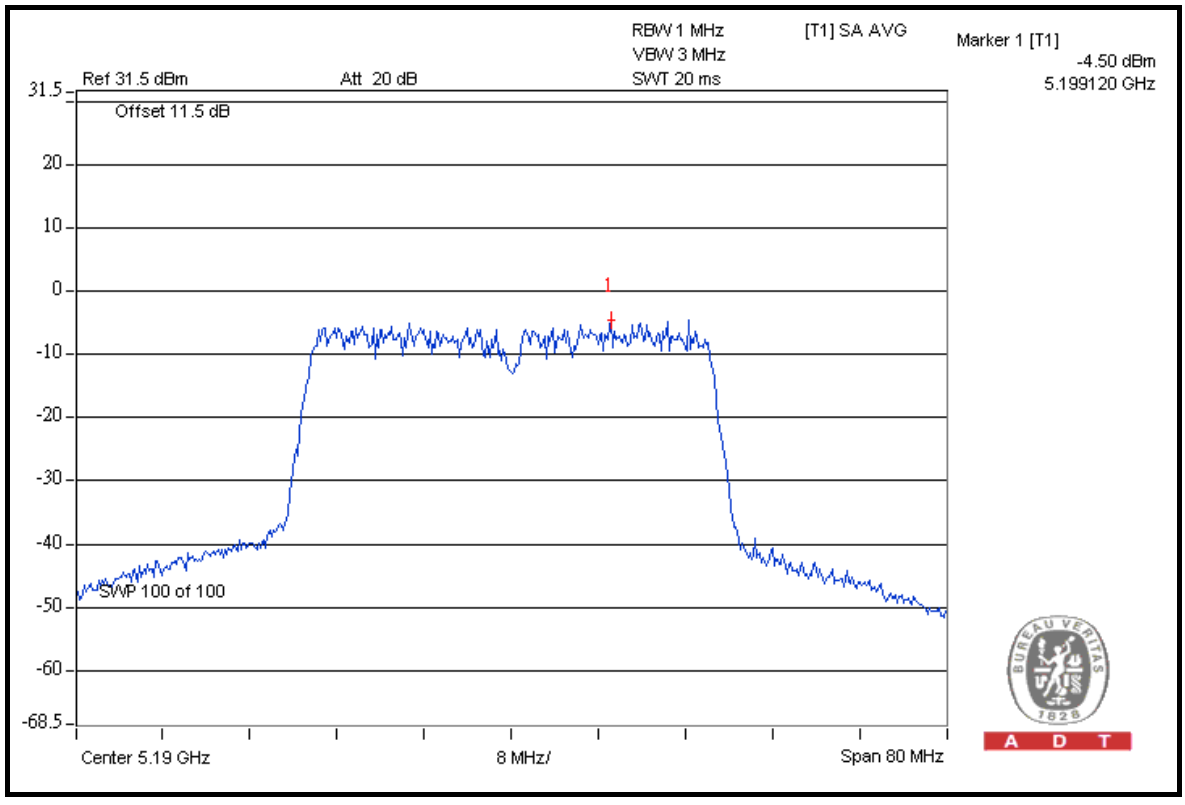
802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-6.8	-4.5	-4.9	-0.55	3.23	PASS
46	5230	-6.5	-4.7	-4.9	-0.51	3.23	PASS

NOTE:

1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the power spectral density limit shall be reduced to 4-(6.77-6)=3.23dBm

FOR CHAIN 1: CH 38



4.5.12 TEST RESULTS (TEST MODE C 2)

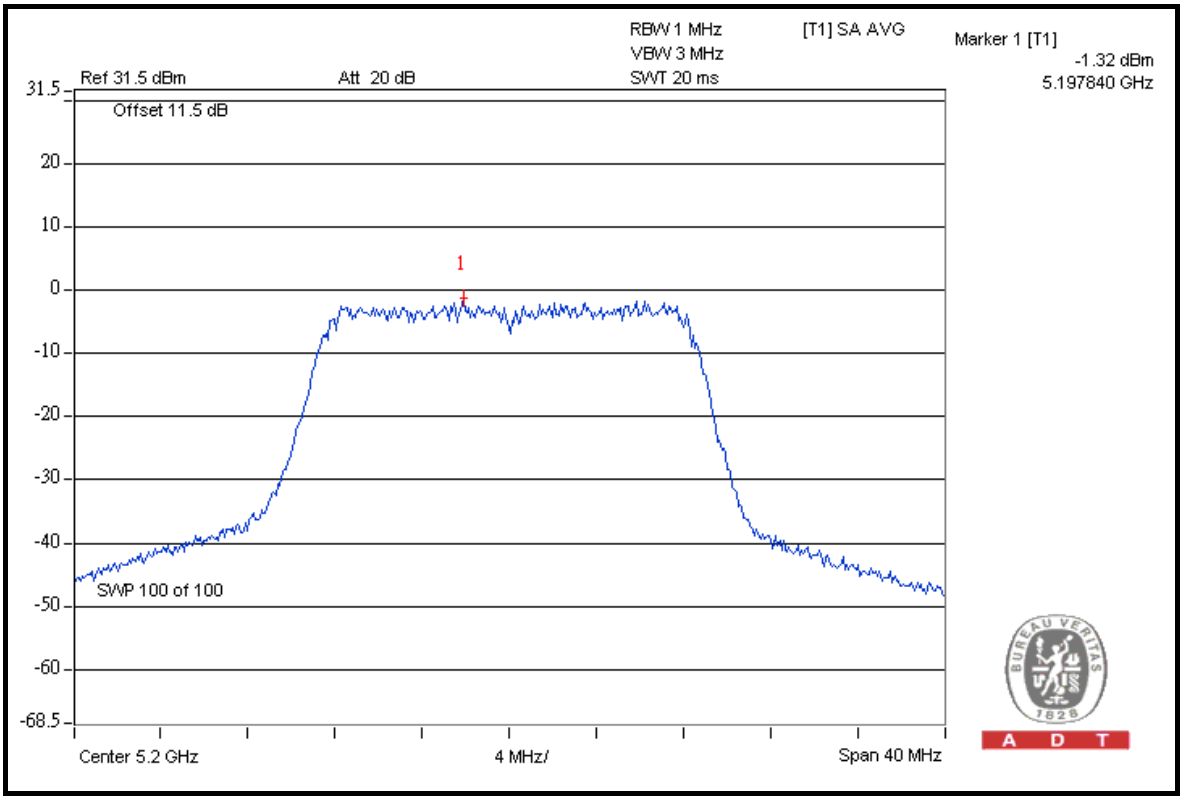
802.11a

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-1.9	-1.4	-1.4	3.20	3.23	PASS
40	5200	-2.1	-1.4	-1.3	3.19	3.23	PASS
48	5240	-1.8	-1.5	-1.4	3.21	3.23	PASS

NOTE:

1. Antenna 5 (Model: J9659A) is not used for point to point operation.
2. Directional gain =2dBi + 10log(3)=6.77dBi > 6dBi, so the power spectral density limit shall be reduced to 4-(6.77-6)=3.23dBm

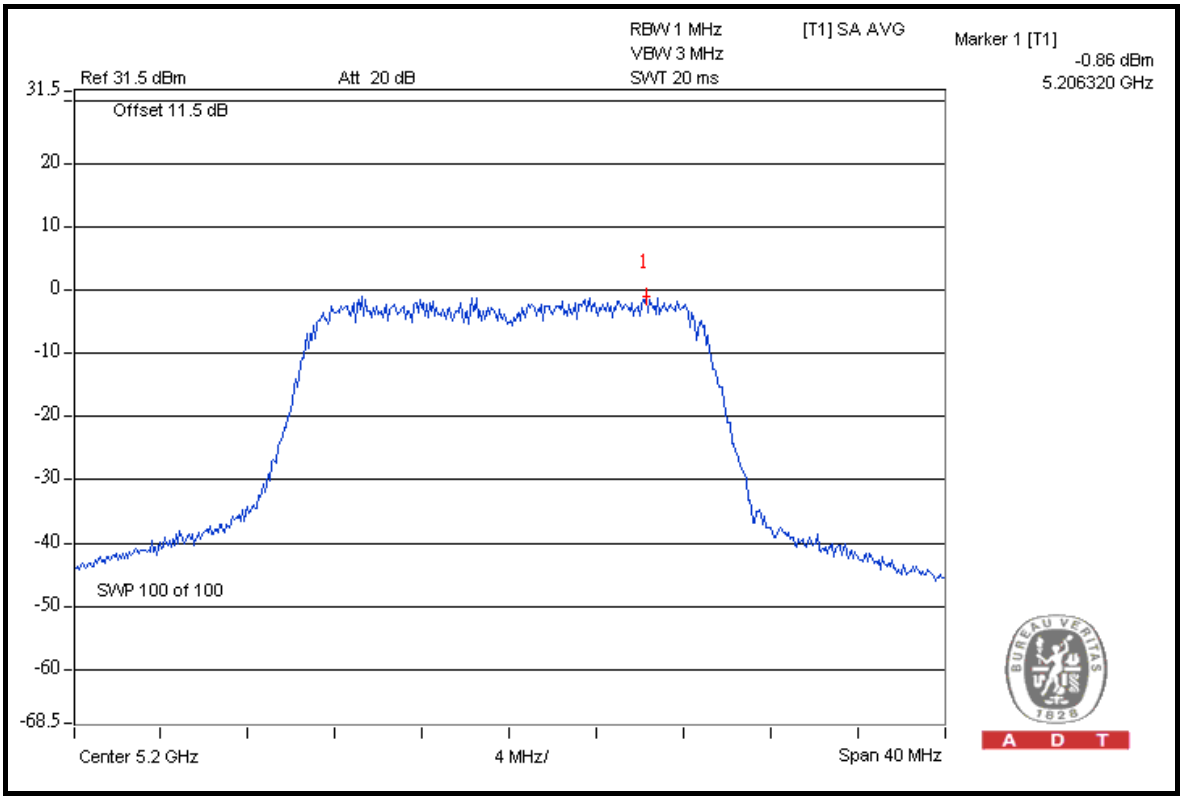
FOR CHAIN 2: CH 40



802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-1.5	-1.3	-1.1	3.50	4	PASS
40	5200	-1.6	-0.9	-1.1	3.59	4	PASS
48	5240	-1.7	-1.3	-0.9	3.47	4	PASS

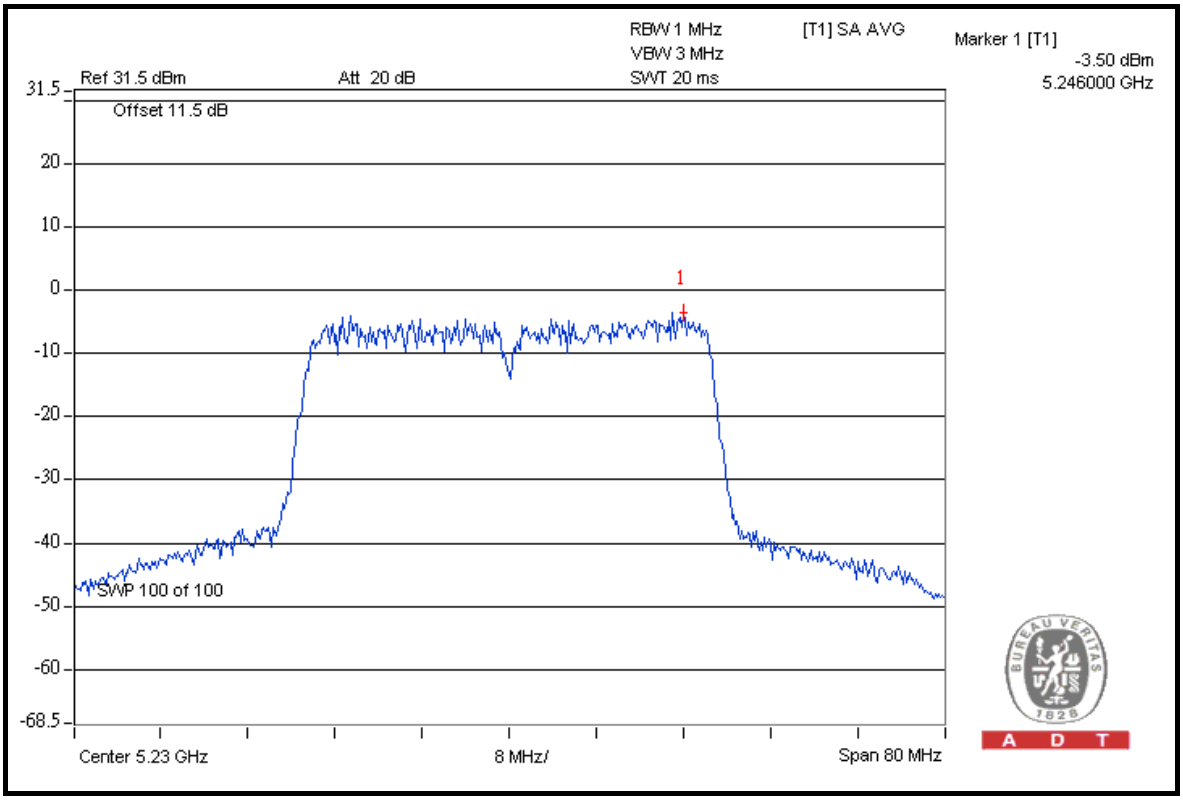
FOR CHAIN 1: CH 40



802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	RF POWER LEVEL IN 1MHz BW (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
38	5190	-6.2	-3.7	-4.3	0.18	4	PASS
46	5230	-5.9	-3.5	-4.2	0.33	4	PASS

FOR CHAIN 1: CH 46



4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency tolerance of the carrier signal shall be maintained within the band of operation frequency over a temperature variation of –30 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
R&S SPECTRUM ANALYZER	FSP40	100039	Jan. 11, 2010	Jan. 10, 2011
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W981030	Jun. 28, 2010	Jun. 27, 2011

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

4.6.3 TEST PROCEDURE

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

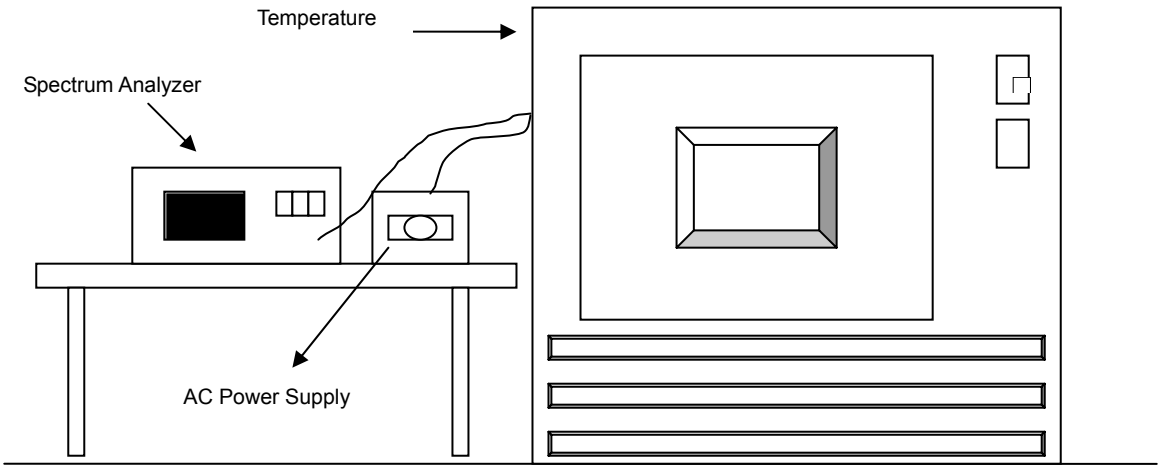
e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation.

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

Same as Item 4.1.6.

4.6.7 TEST RESULTS (TEST MODE A 1)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.014398	2.769	5200.014017	2.696	5200.014076	2.707	5200.014389	2.767
40	3.3	5200.013713	2.637	5200.013815	2.657	5200.013343	2.566	5200.013210	2.540
30	3.3	5199.996160	-0.738	5199.996194	-0.732	5199.996126	-0.745	5199.996299	-0.712
20	3.3	5199.976481	-4.523	5199.976208	-4.575	5199.976899	-4.442	5199.976628	-4.495
10	3.3	5200.006752	1.298	5200.007183	1.381	5200.006909	1.329	5200.006560	1.262
0	3.3	5200.007231	1.391	5200.006716	1.292	5200.007532	1.448	5200.007386	1.420
-10	3.3	5199.972338	-5.320	5199.972501	-5.288	5199.972784	-5.234	5199.971970	-5.390
-20	3.3	5200.020229	3.890	5200.020461	3.935	5200.020854	4.010	5200.020423	3.927
-30	3.3	5199.991306	-1.672	5199.991304	-1.672	5199.991749	-1.587	5199.990880	-1.754

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.976585	-4.503	5199.976334	-4.551	5199.976249	-4.567	5199.976726	-4.476
	3.3	5199.976481	-4.523	5199.976208	-4.575	5199.976899	-4.442	5199.976628	-4.495
	3.8	5199.976648	-4.491	5199.976432	-4.532	5199.976205	-4.576	5199.976130	-4.590

4.6.8 TEST RESULTS (TEST MODE A 2)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.013884	2.670	5200.014044	2.701	5200.014414	2.772	5200.014198	2.730
40	3.3	5200.013442	2.585	5200.013371	2.571	5200.013649	2.625	5200.013221	2.543
30	3.3	5199.996129	-0.744	5199.995843	-0.799	5199.996002	-0.769	5199.996709	-0.633
20	3.3	5199.976138	-4.589	5199.976227	-4.572	5199.976856	-4.451	5199.976717	-4.477
10	3.3	5200.006507	1.251	5200.006873	1.322	5200.007098	1.365	5200.007061	1.358
0	3.3	5200.006902	1.327	5200.006478	1.246	5200.007554	1.453	5200.006688	1.286
-10	3.3	5199.972331	-5.321	5199.972215	-5.343	5199.972552	-5.278	5199.972276	-5.332
-20	3.3	5200.020483	3.939	5200.020475	3.938	5200.020806	4.001	5200.020867	4.013
-30	3.3	5199.991114	-1.709	5199.991662	-1.603	5199.991710	-1.594	5199.991638	-1.608

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.976280	-4.562	5199.976219	-4.573	5199.976154	-4.586	5199.976595	-4.501
	3.3	5199.976088	-4.598	5199.976072	-4.602	5199.976129	-4.591	5199.976431	-4.532
	3.8	5199.976293	-4.559	5199.976372	-4.544	5199.976466	-4.526	5199.976240	-4.569

4.6.9 TEST RESULTS (TEST MODE B 1)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.015250	2.933	5200.014962	2.877	5200.014405	2.770	5200.015012	2.887
40	3.3	5200.013978	2.688	5200.014303	2.751	5200.013774	2.649	5200.014544	2.797
30	3.3	5199.995902	-0.788	5199.996650	-0.644	5199.995884	-0.792	5199.996104	-0.749
20	3.3	5199.975886	-4.637	5199.975722	-4.669	5199.976400	-4.538	5199.976199	-4.577
10	3.3	5200.007222	1.389	5200.007598	1.461	5200.006882	1.323	5200.007434	1.430
0	3.3	5200.007485	1.439	5200.007105	1.366	5200.007510	1.444	5200.007414	1.426
-10	3.3	5199.973337	-5.127	5199.972326	-5.322	5199.973010	-5.190	5199.972868	-5.218
-20	3.3	5200.020799	4.000	5200.020126	3.870	5200.020721	3.985	5200.020411	3.925
-30	3.3	5199.991924	-1.553	5199.991812	-1.575	5199.991714	-1.593	5199.992142	-1.511

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.977120	-4.400	5199.977126	-4.399	5199.976711	-4.479	5199.977361	-4.354
	3.3	5199.975886	-4.637	5199.975722	-4.669	5199.976400	-4.538	5199.976199	-4.577
	3.8	5199.977235	-4.378	5199.976562	-4.507	5199.976443	-4.530	5199.976562	-4.507

4.6.10 TEST RESULTS (TEST MODE B 2)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.014863	2.858	5200.014772	2.841	5200.015148	2.913	5200.014873	2.860
40	3.3	5200.014168	2.725	5200.014352	2.760	5200.014246	2.740	5200.013702	2.635
30	3.3	5199.996423	-0.688	5199.996786	-0.618	5199.996435	-0.686	5199.996956	-0.585
20	3.3	5199.975930	-4.629	5199.975702	-4.673	5199.975786	-4.657	5199.975735	-4.666
10	3.3	5200.007524	1.447	5200.007570	1.456	5200.007201	1.385	5200.007447	1.432
0	3.3	5200.007031	1.352	5200.007779	1.496	5200.007786	1.497	5200.007040	1.354
-10	3.3	5199.973278	-5.139	5199.973159	-5.162	5199.972908	-5.210	5199.972258	-5.335
-20	3.3	5200.020543	3.951	5200.020773	3.995	5200.020992	4.037	5200.020632	3.968
-30	3.3	5199.991995	-1.539	5199.991840	-1.569	5199.991384	-1.657	5199.991693	-1.598

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.977375	-4.351	5199.976769	-4.467	5199.977132	-4.398	5199.977038	-4.416
	3.3	5199.975930	-4.629	5199.975702	-4.673	5199.975786	-4.657	5199.975735	-4.666
	3.8	5199.976879	-4.446	5199.976878	-4.447	5199.977111	-4.402	5199.976890	-4.444

4.6.11 TEST RESULTS (TEST MODE C 1)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.014427	2.774	5200.014589	2.806	5200.014270	2.744	5200.015190	2.921
40	3.3	5200.013627	2.621	5200.013956	2.684	5200.014031	2.698	5200.014251	2.741
30	3.3	5199.996226	-0.726	5199.996683	-0.638	5199.996773	-0.621	5199.995675	-0.832
20	3.3	5199.976253	-4.567	5199.975496	-4.712	5199.975699	-4.673	5199.976057	-4.604
10	3.3	5200.007401	1.423	5200.007588	1.459	5200.007906	1.520	5200.007013	1.349
0	3.3	5200.006927	1.332	5200.007148	1.375	5200.007623	1.466	5200.006779	1.304
-10	3.3	5199.972592	-5.271	5199.973019	-5.189	5199.972473	-5.294	5199.972854	-5.220
-20	3.3	5200.020946	4.028	5200.020328	3.909	5200.020945	4.028	5200.020667	3.974
-30	3.3	5199.992320	-1.477	5199.992192	-1.502	5199.991991	-1.540	5199.992037	-1.531

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.976884	-4.445	5199.976963	-4.430	5199.976678	-4.485	5199.977283	-4.369
	3.3	5199.976253	-4.567	5199.975496	-4.712	5199.975699	-4.673	5199.976057	-4.604
	3.8	5199.976798	-4.462	5199.976543	-4.511	5199.976771	-4.467	5199.976527	-4.514

4.6.12 TEST RESULTS (TEST MODE C 2)

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
50	3.3	5200.014567	2.801	5200.013792	2.652	5200.013612	2.618	5200.014650	2.817
40	3.3	5200.013785	2.651	5200.013649	2.625	5200.013882	2.670	5200.014159	2.723
30	3.3	5199.996107	-0.749	5199.996515	-0.670	5199.996271	-0.717	5199.996022	-0.765
20	3.3	5199.975796	-4.655	5199.976541	-4.511	5199.976252	-4.567	5199.976295	-4.559
10	3.3	5200.007135	1.372	5200.006895	1.326	5200.006610	1.271	5200.006732	1.295
0	3.3	5200.007075	1.361	5200.006839	1.315	5200.007017	1.349	5200.006931	1.333
-10	3.3	5199.972609	-5.267	5199.972459	-5.296	5199.971964	-5.392	5199.972840	-5.223
-20	3.3	5200.020399	3.923	5200.020383	3.920	5200.020641	3.969	5200.020586	3.959
-30	3.3	5199.991635	-1.609	5199.991295	-1.674	5199.991416	-1.651	5199.991571	-1.621

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5200MHz									
TEMP. (℃)	POWER SUPPLY (Vdc))	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	2.8	5199.976788	-4.464	5199.976852	-4.452	5199.976715	-4.478	5199.976493	-4.521
	3.3	5199.975796	-4.655	5199.976541	-4.511	5199.976252	-4.567	5199.976295	-4.559
	3.8	5199.976746	-4.472	5199.976559	-4.508	5199.976627	-4.495	5199.976054	-4.605

4.7 BAND EDGES MEASUREMENT

4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 21, 2009	Dec. 20, 2010
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Dec. 31, 2009	Dec. 30, 2010
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Apr. 27, 2010	Apr. 26, 2011
HORN Antenna SCHWARZBECK	9120D	9120D-405	Feb. 03, 2010	Feb. 02, 2011
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170243	Dec. 25, 2009	Dec. 24, 2010
Preamplifier Agilent	8447D	2944A10637	Dec. 10, 2009	Dec. 09, 2010
Preamplifier Agilent	8449B	3008A01922	Sep. 24, 2010	Sep. 23, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	238141/4	May 14, 2010	May 13, 2011
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	12738/6	May 14, 2010	May 13, 2011
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
26GHz ~ 40GHz Amplifier	EM26400	07026401	Aug. 25, 2010	Aug. 24, 2011

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

4.7.2 TEST PROCEDURE

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 1MHz and 3MHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

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

4.7.3 EUT OPERATING CONDITION

The software provided by client to enable the EUT under transmission condition continuously at specific channel frequencies individually.

4.7.4 TEST RESULTS (TEST MODE A 1)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

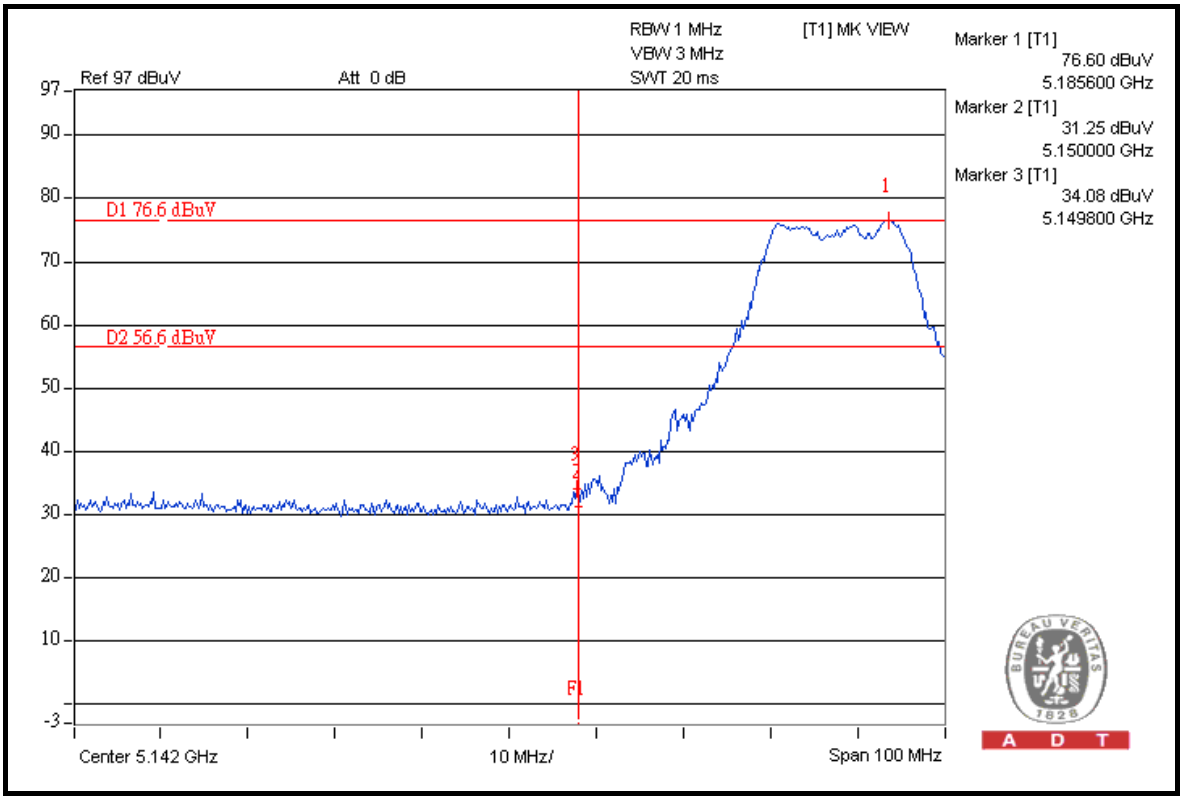
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	105.7	42.52	63.18	74.00
5180.00 (AV)	93.4	46.10	47.30	54.00

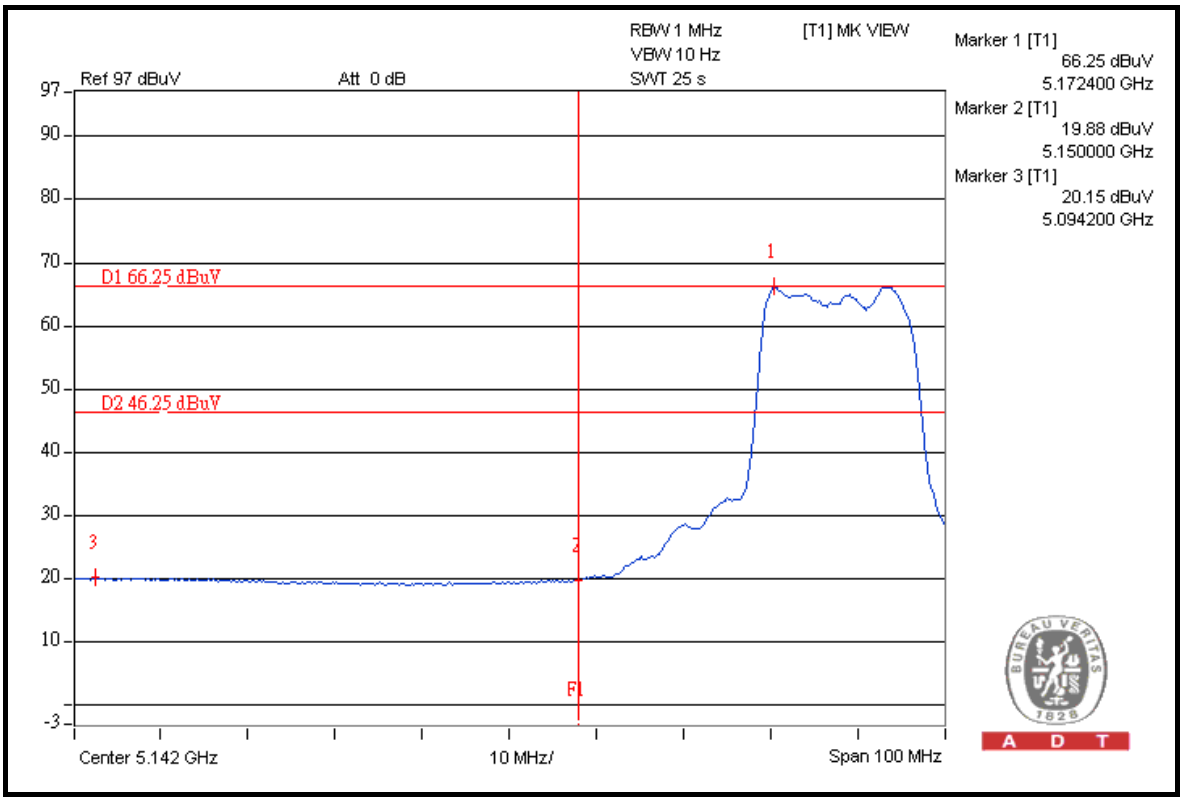
RESTRICT BAND (5350 ~ 5460 MHz)

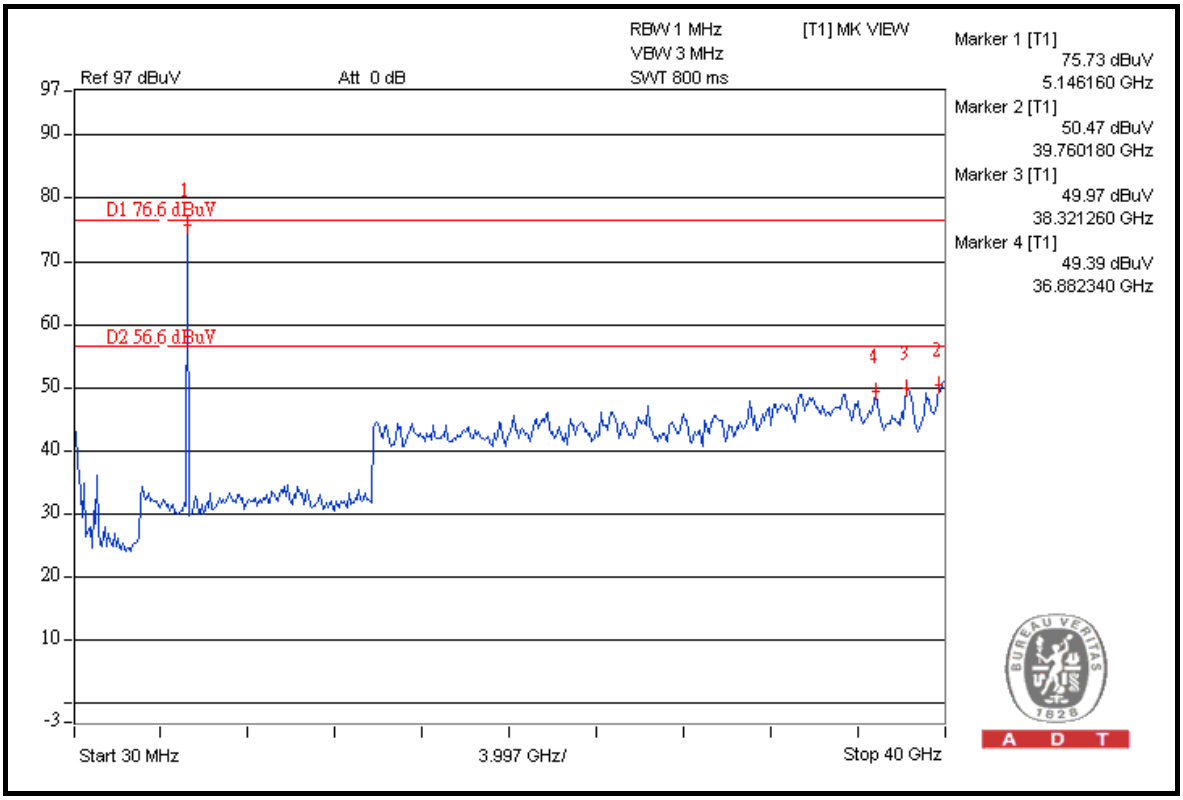
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	105.7	44.32	61.38	74.00
5240.00 (AV)	93.6	46.94	46.66	54.00

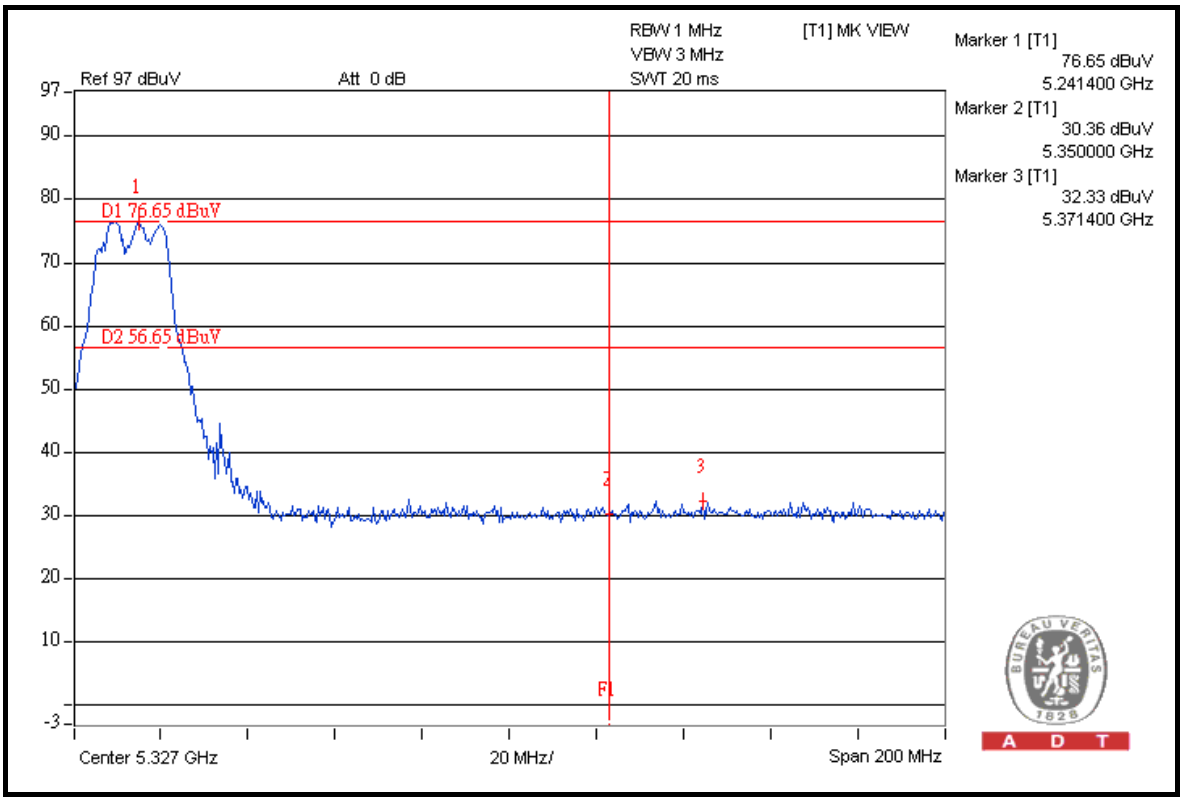
NOTE:

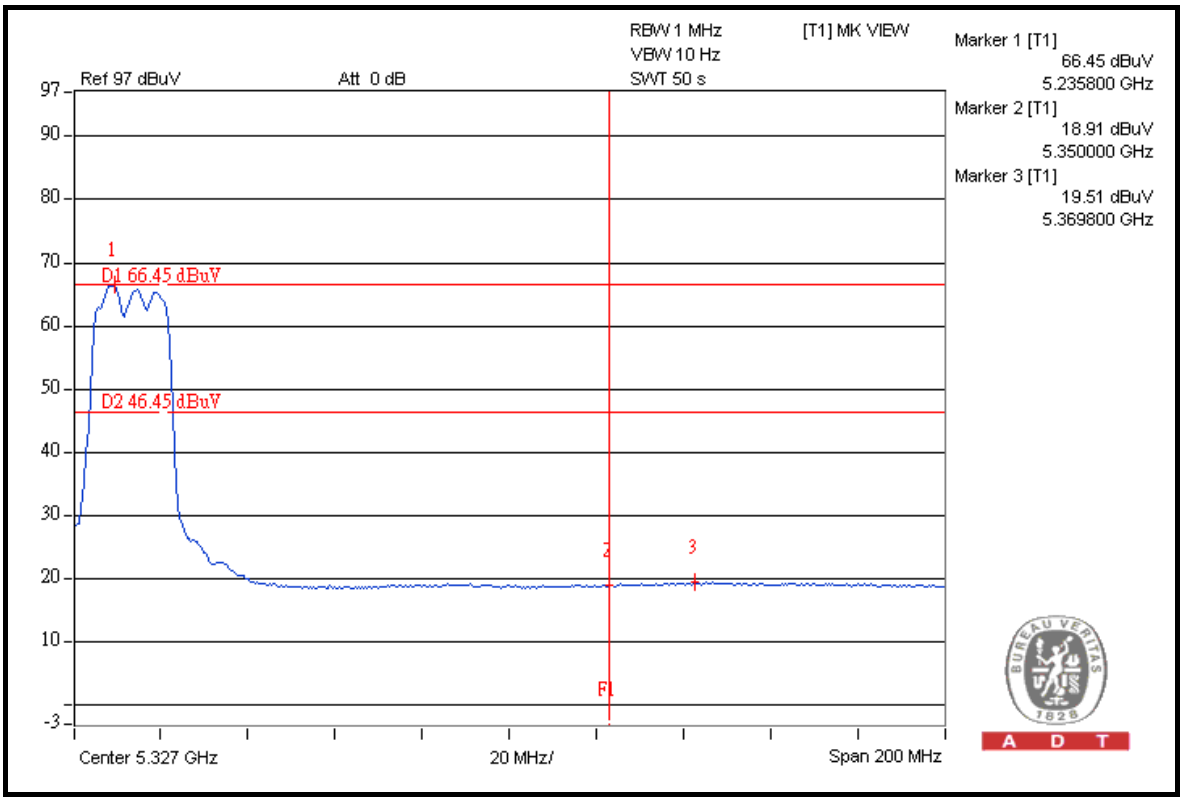
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

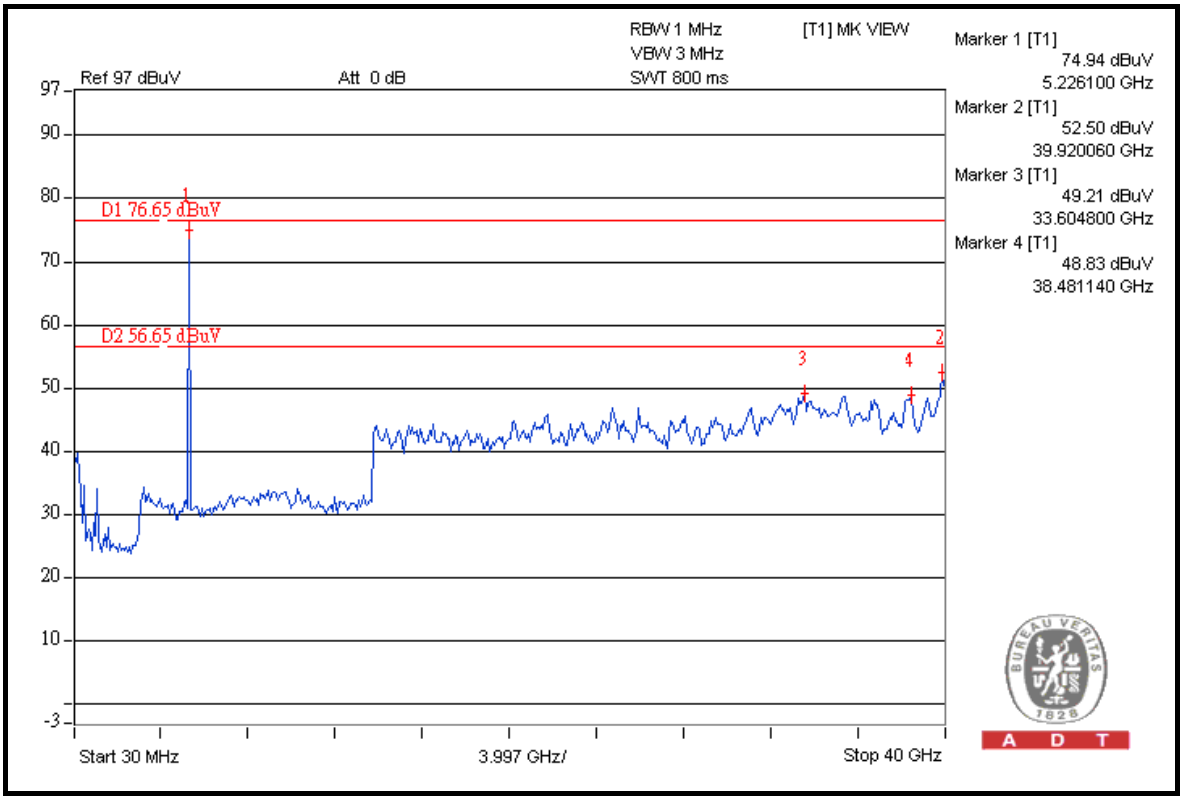

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
76.60 dBuV
5.185600 GHz
Marker 2 [T1]
31.25 dBuV
5.150000 GHz
Marker 3 [T1]
34.08 dBuV
5.149800 GHz
D1 76.6 dBuV
D2 56.6 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.25 dBuV
5.172400 GHz
Marker 2 [T1]
19.88 dBuV
5.150000 GHz
Marker 3 [T1]
20.15 dBuV
5.094200 GHz
D1 66.25 dBuV
D2 46.25 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.6 dBuV
D2 56.6 dBuV
Marker 1 [T1]
75.73 dBuV
5.146160 GHz
Marker 2 [T1]
50.47 dBuV
39.760180 GHz
Marker 3 [T1]
49.97 dBuV
38.321260 GHz
Marker 4 [T1]
49.39 dBuV
36.882340 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 76.65 dBuV
D2 56.65 dBuV
Marker 1 [T1]
76.65 dBuV
5.241400 GHz
Marker 2 [T1]
30.36 dBuV
5.350000 GHz
Marker 3 [T1]
32.33 dBuV
5.371400 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.45 dBuV
5.235800 GHz
Marker 2 [T1]
18.91 dBuV
5.350000 GHz
Marker 3 [T1]
19.51 dBuV
5.369800 GHz
D1 66.45 dBuV
D2 46.45 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
74.94 dBuV
5.226100 GHz
Marker 2 [T1]
52.50 dBuV
39.920060 GHz
Marker 3 [T1]
49.21 dBuV
33.604800 GHz
Marker 4 [T1]
48.83 dBuV
38.481140 GHz
D1 76.65 dBuV
D2 56.65 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

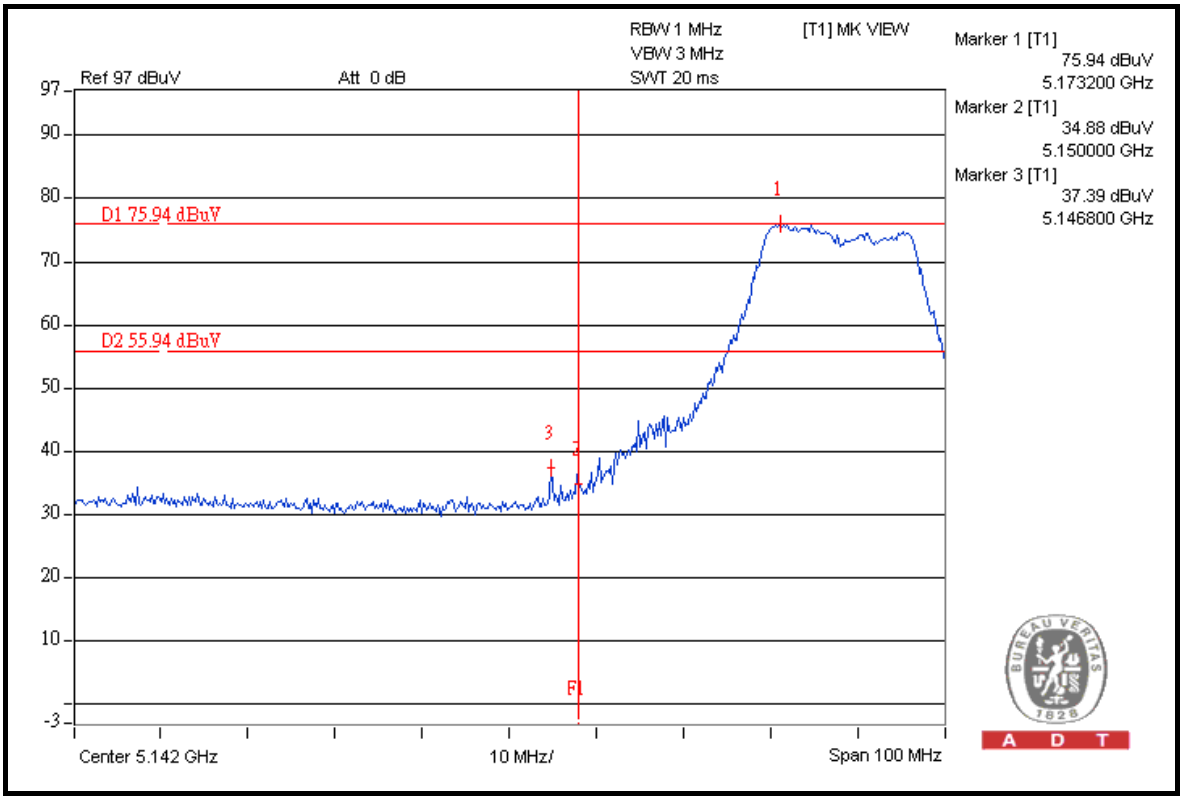
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	104.9	38.55	66.35	74.00
5180.00 (AV)	92.5	44.64	47.86	54.00

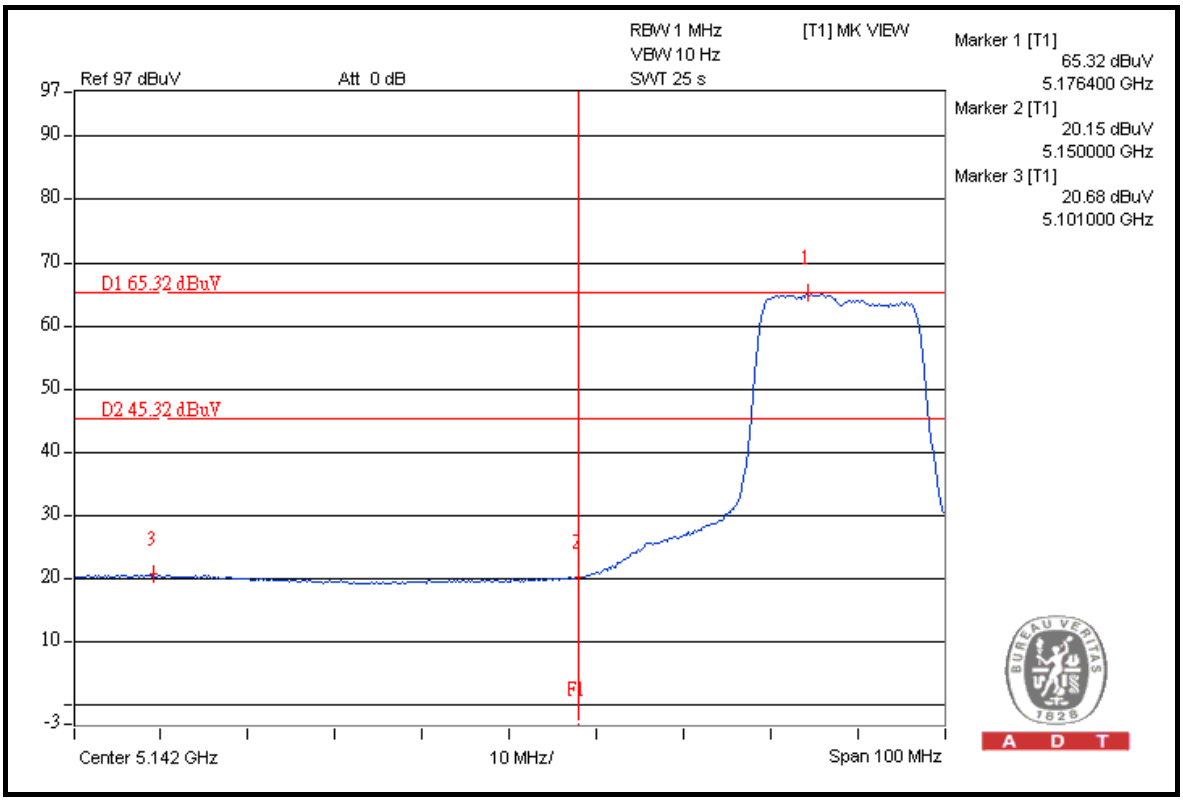
RESTRICT BAND (5350 ~ 5460 MHz)

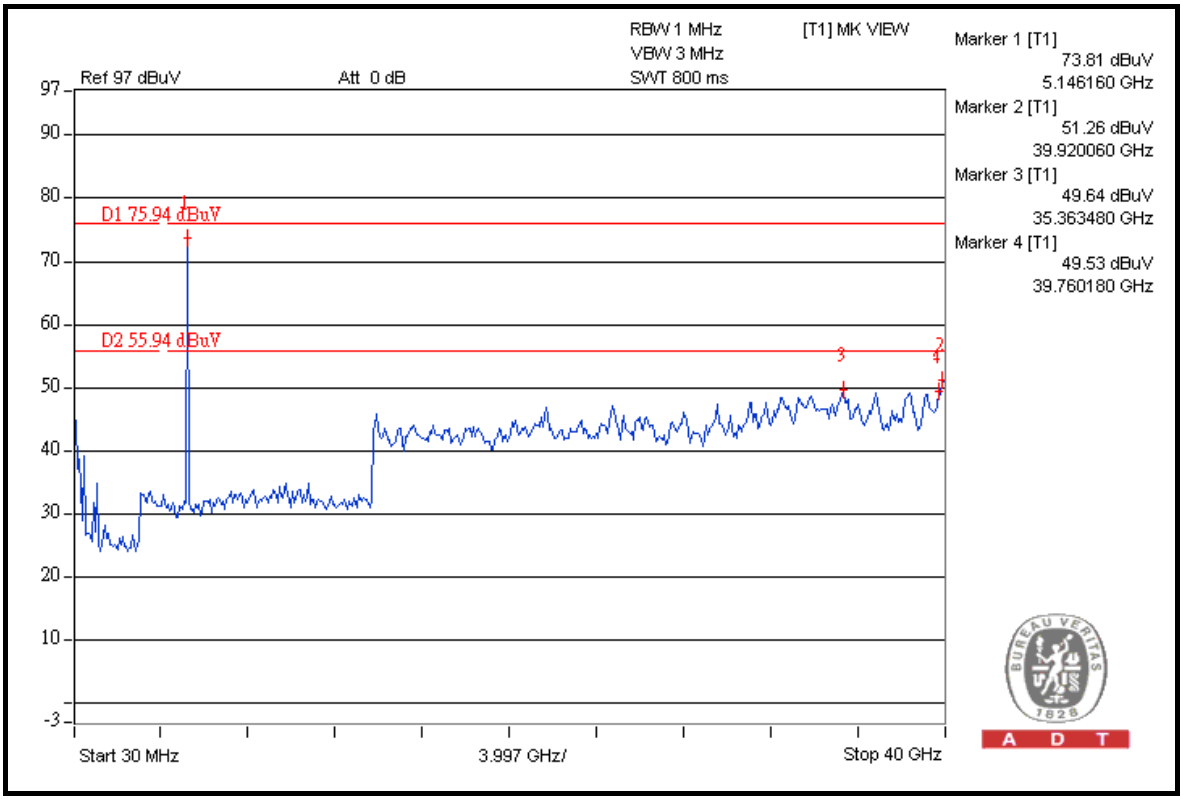
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	105.1	44.06	61.04	74.00
5240.00 (AV)	93.0	46.16	46.84	54.00

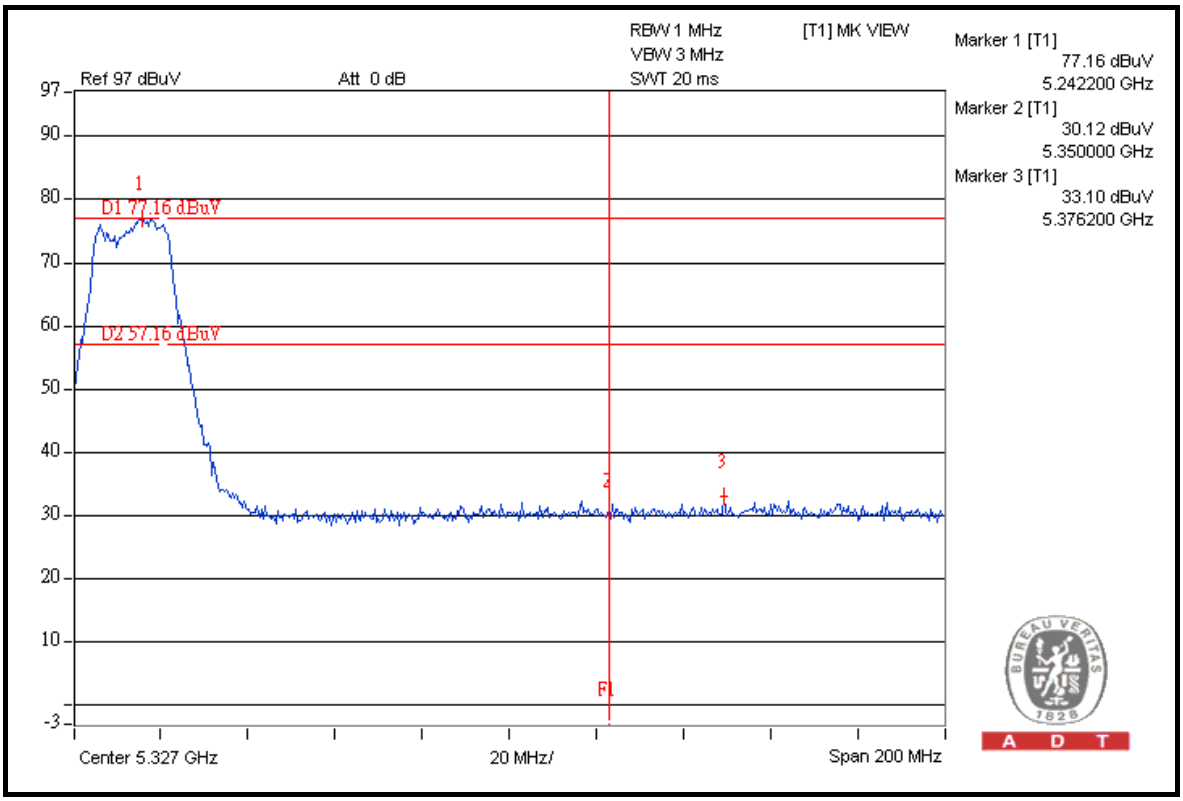
NOTE:

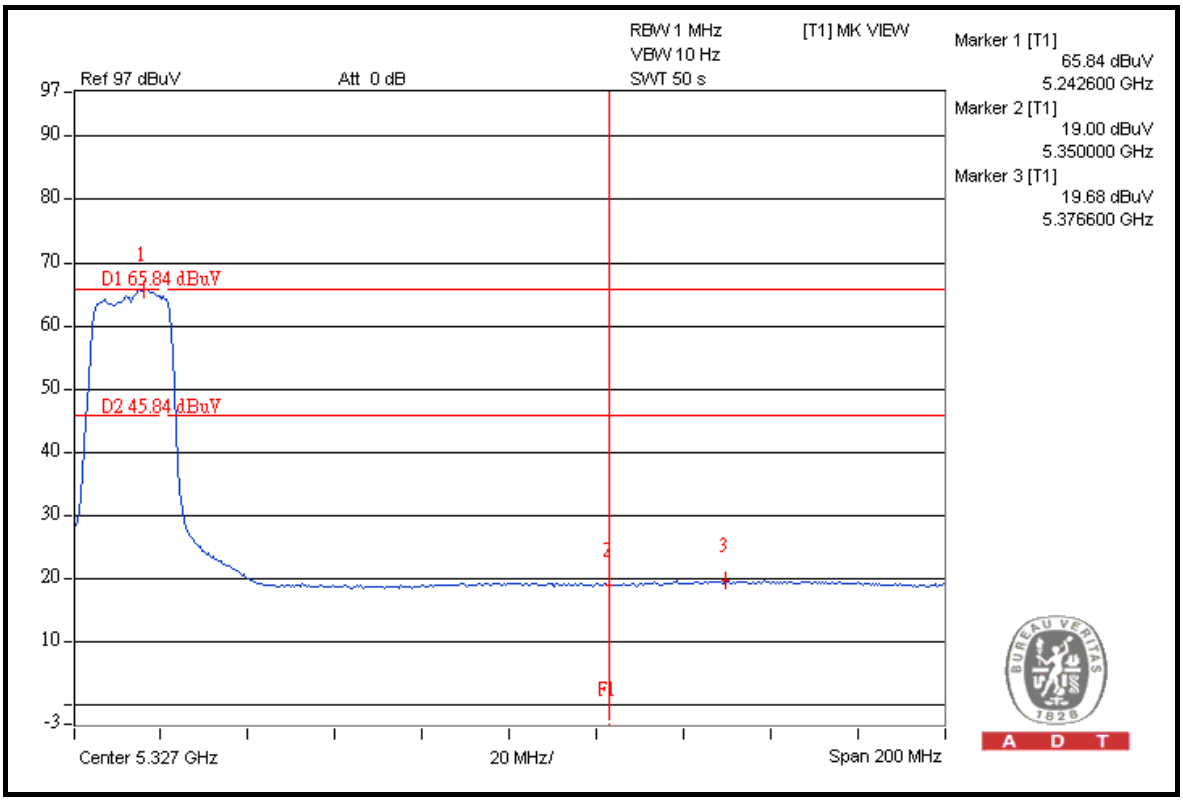
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

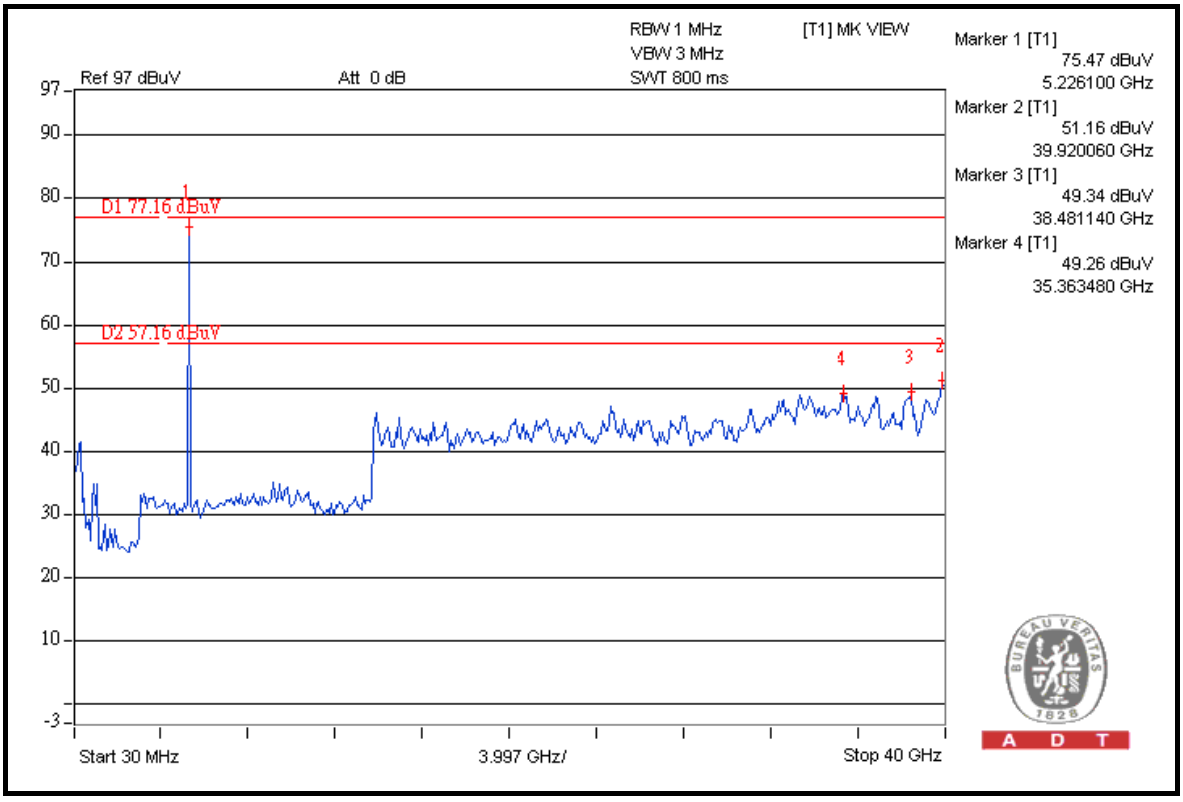

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.94 dBuV
5.173200 GHz
Marker 2 [T1]
34.88 dBuV
5.150000 GHz
Marker 3 [T1]
37.39 dBuV
5.146800 GHz
D1 75.94 dBuV
D2 55.94 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
65.32 dBuV
5.176400 GHz
Marker 2 [T1]
20.15 dBuV
5.150000 GHz
Marker 3 [T1]
20.68 dBuV
5.101000 GHz
D1 65.32 dBuV
D2 45.32 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.81 dBuV
5.146160 GHz
Marker 2 [T1]
51.26 dBuV
39.920060 GHz
Marker 3 [T1]
49.64 dBuV
35.363480 GHz
Marker 4 [T1]
49.53 dBuV
39.760180 GHz
D1 75.94 dBuV
D2 55.94 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.16 dBuV
5.242200 GHz
Marker 2 [T1]
30.12 dBuV
5.350000 GHz
Marker 3 [T1]
33.10 dBuV
5.376200 GHz
D1 77.16 dBuV
D2 57.16 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
65.84 dBuV
5.242600 GHz
Marker 2 [T1]
19.00 dBuV
5.350000 GHz
Marker 3 [T1]
19.68 dBuV
5.376600 GHz
D1 65.84 dBuV
D2 45.84 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.47 dBuV
5.226100 GHz
Marker 2 [T1]
51.16 dBuV
39.920060 GHz
Marker 3 [T1]
49.34 dBuV
38.481140 GHz
Marker 4 [T1]
49.26 dBuV
35.363480 GHz
D1 77.16 dBuV
D2 57.16 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	102.0	40.68	61.32	74.00
5190.00 (AV)	90.1	41.86	48.24	54.00

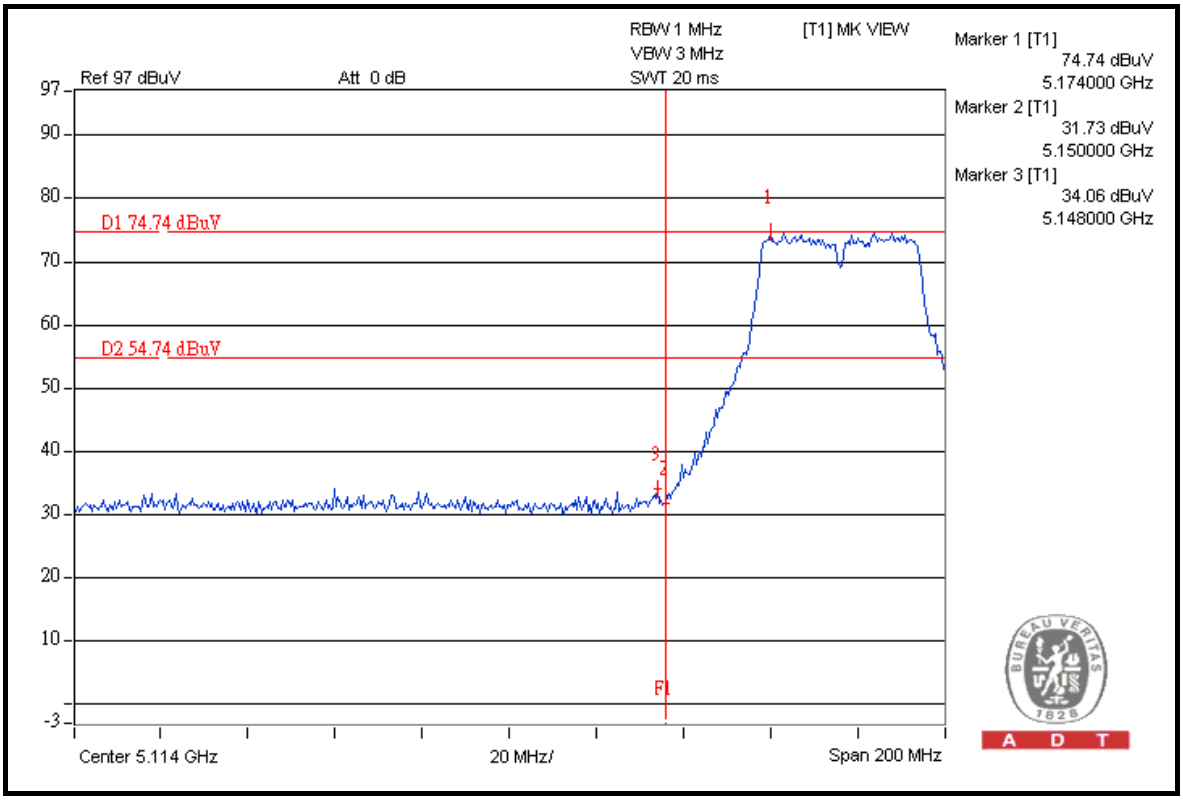
RESTRICT BAND (5350 ~ 5460 MHz)

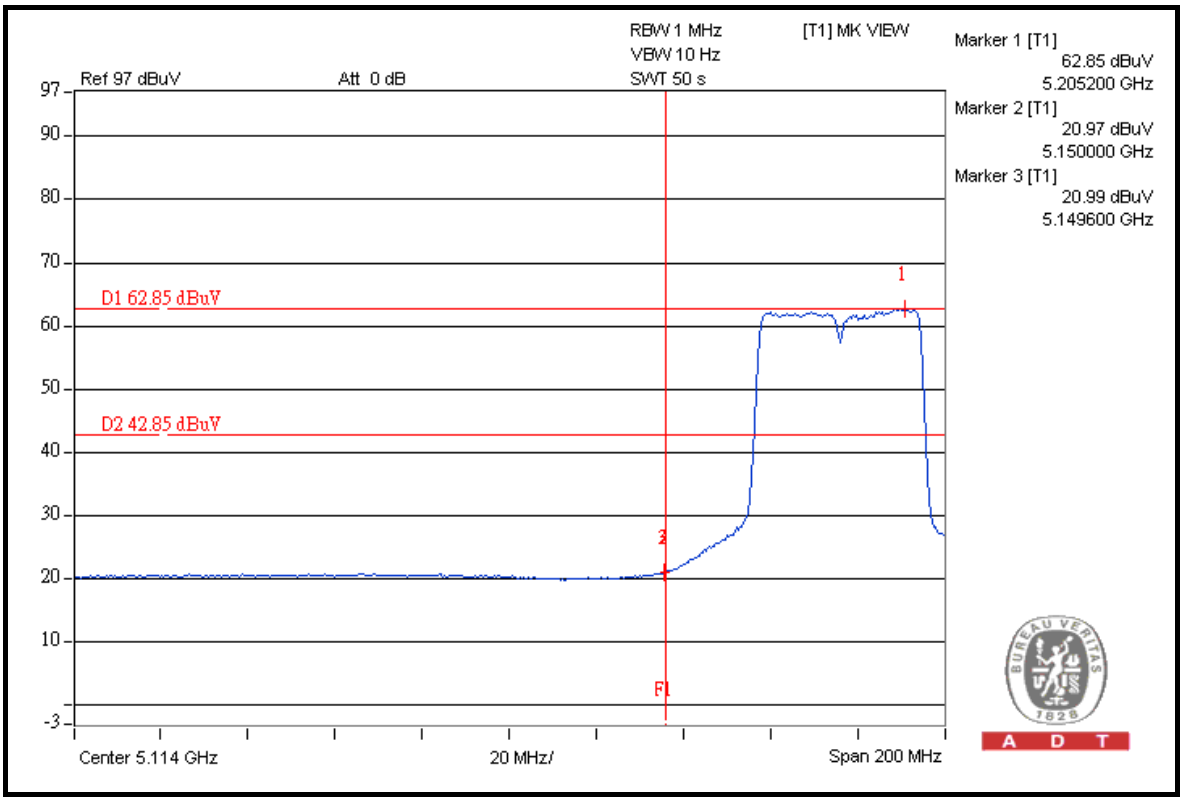
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	101.8	44.05	57.75	74.00
5230.00 (AV)	89.9	41.69	48.21	54.00

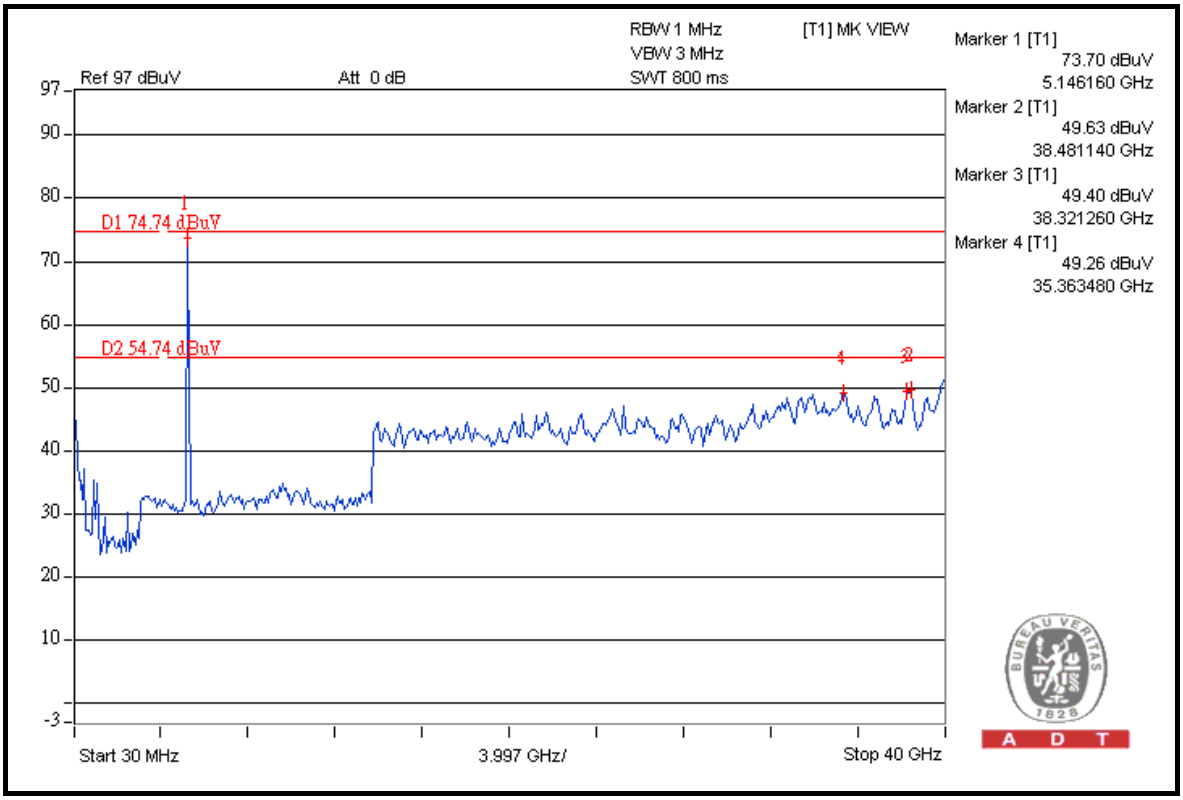
NOTE:

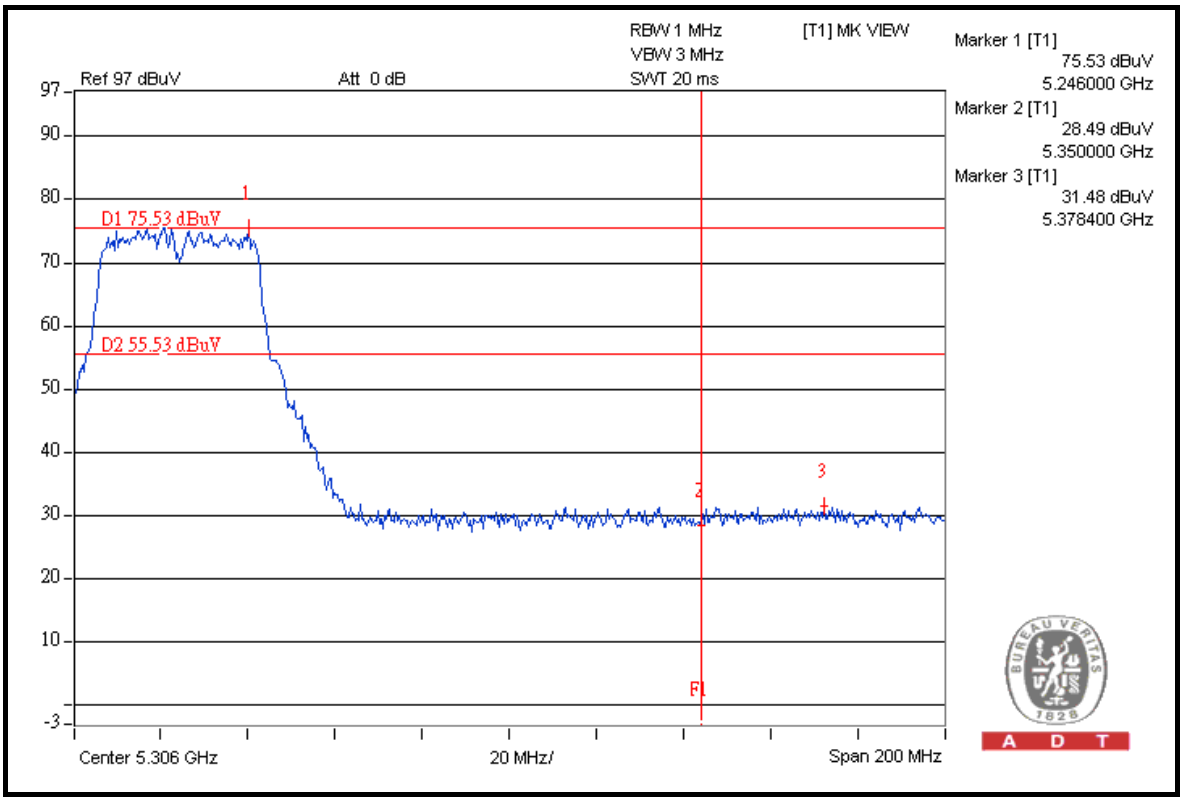
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

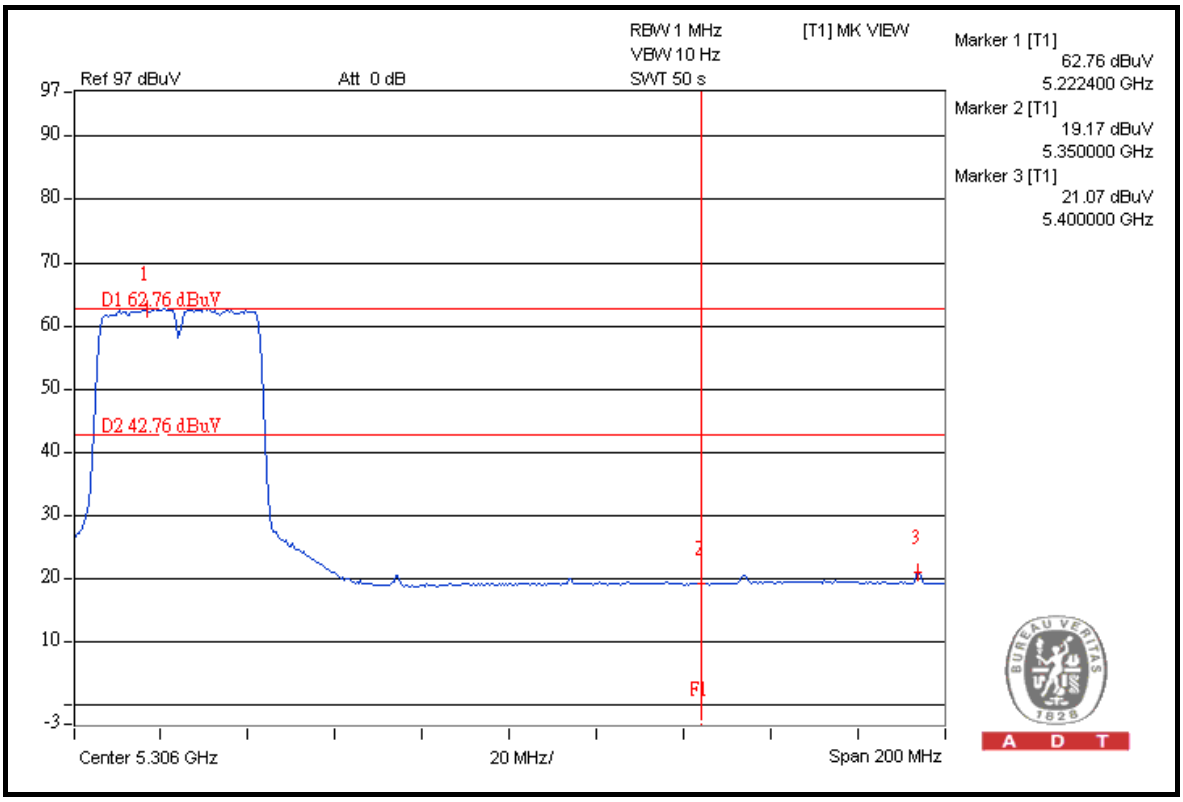
2. Maximum field strength in restrict band = Fundamental emission – Delta.

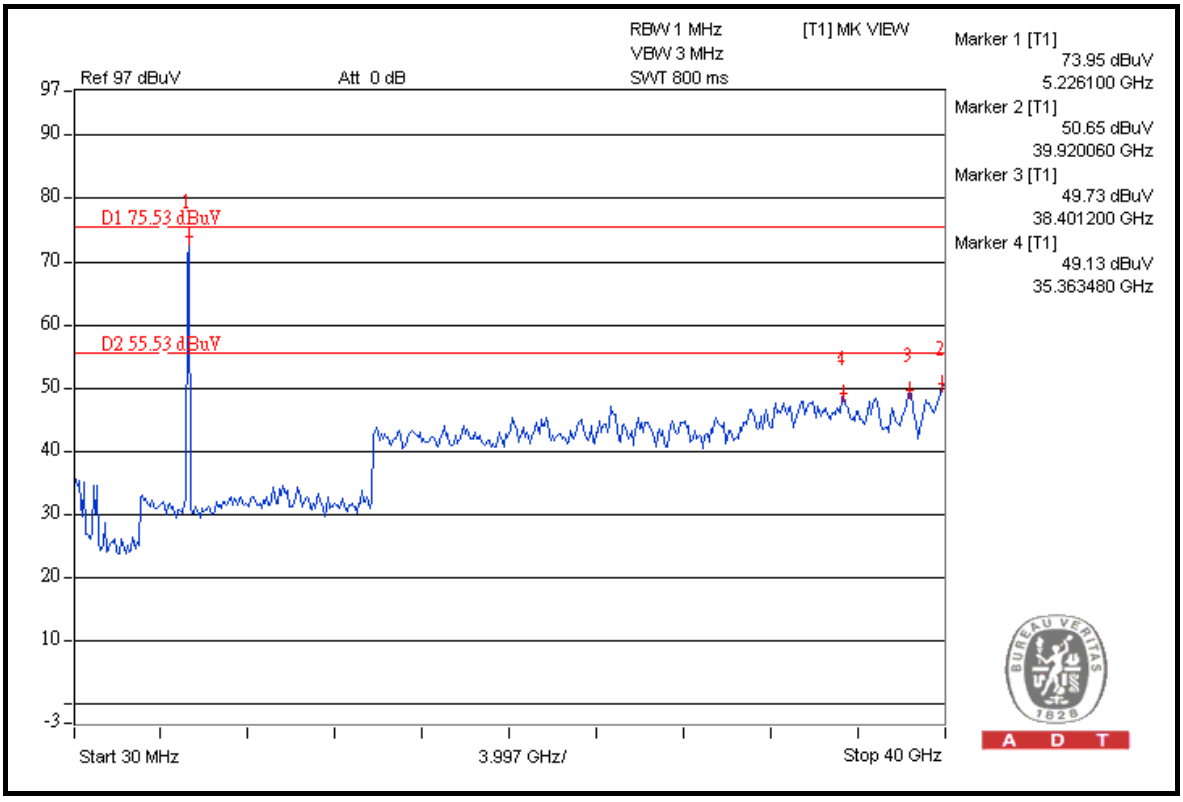

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
74.74 dBuV
5.174000 GHz
Marker 2 [T1]
31.73 dBuV
5.150000 GHz
Marker 3 [T1]
34.06 dBuV
5.148000 GHz
D1 74.74 dBuV
D2 54.74 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
62.85 dBuV
5.205200 GHz
Marker 2 [T1]
20.97 dBuV
5.150000 GHz
Marker 3 [T1]
20.99 dBuV
5.149600 GHz
D1 62.85 dBuV
D2 42.85 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.70 dBuV
5.146160 GHz
Marker 2 [T1]
49.63 dBuV
38.481140 GHz
Marker 3 [T1]
49.40 dBuV
38.321260 GHz
Marker 4 [T1]
49.26 dBuV
35.363480 GHz
D1 74.74 dBuV
D2 54.74 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.53 dBuV
5.246000 GHz
Marker 2 [T1]
28.49 dBuV
5.350000 GHz
Marker 3 [T1]
31.48 dBuV
5.378400 GHz
D1 75.53 dBuV
D2 55.53 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
62.76 dBuV
5.222400 GHz
Marker 2 [T1]
19.17 dBuV
5.350000 GHz
Marker 3 [T1]
21.07 dBuV
5.400000 GHz
D1 62.76 dBuV
D2 42.76 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
73.95 dBuV
5.226100 GHz
Marker 2 [T1]
50.65 dBuV
39.920060 GHz
Marker 3 [T1]
49.73 dBuV
38.401200 GHz
Marker 4 [T1]
49.13 dBuV
35.363480 GHz
D1 75.53 dBuV
D2 55.53 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.7.5 TEST RESULTS (TEST MODE A 2)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

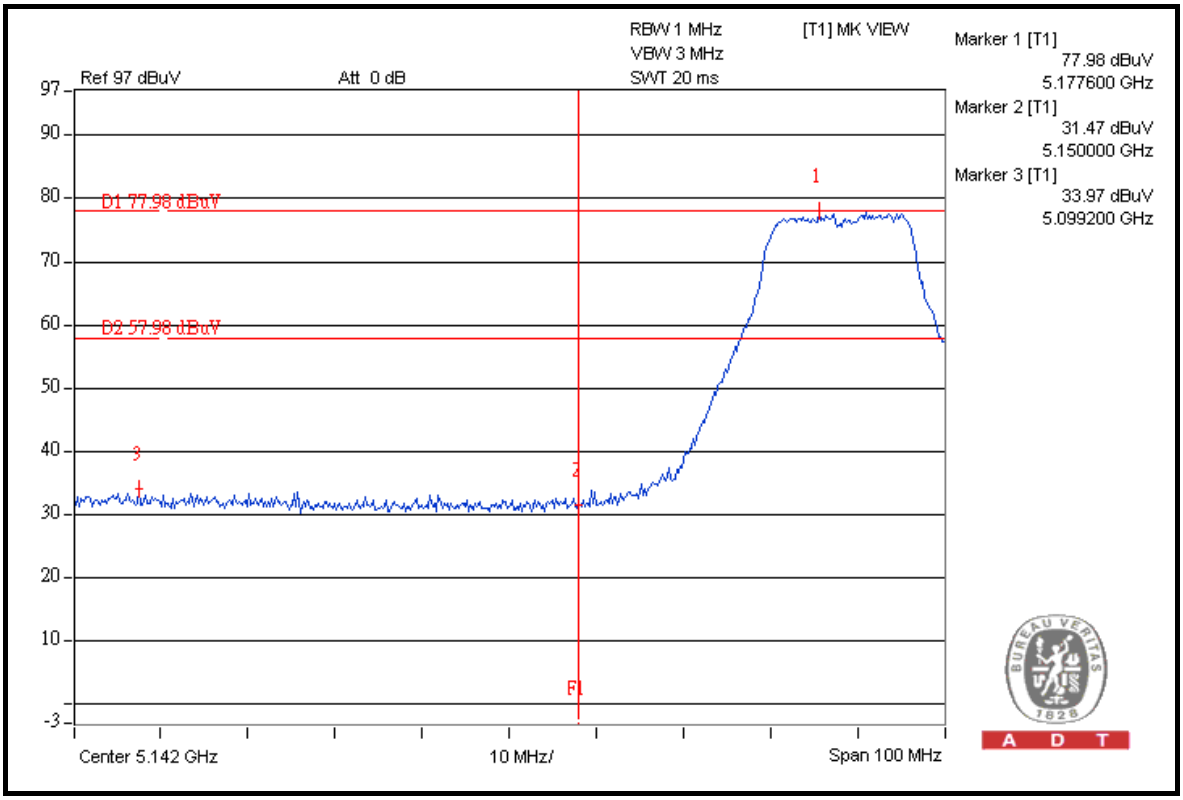
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	106.0	44.01	61.99	74.00
5180.00 (AV)	93.7	45.75	47.95	54.00

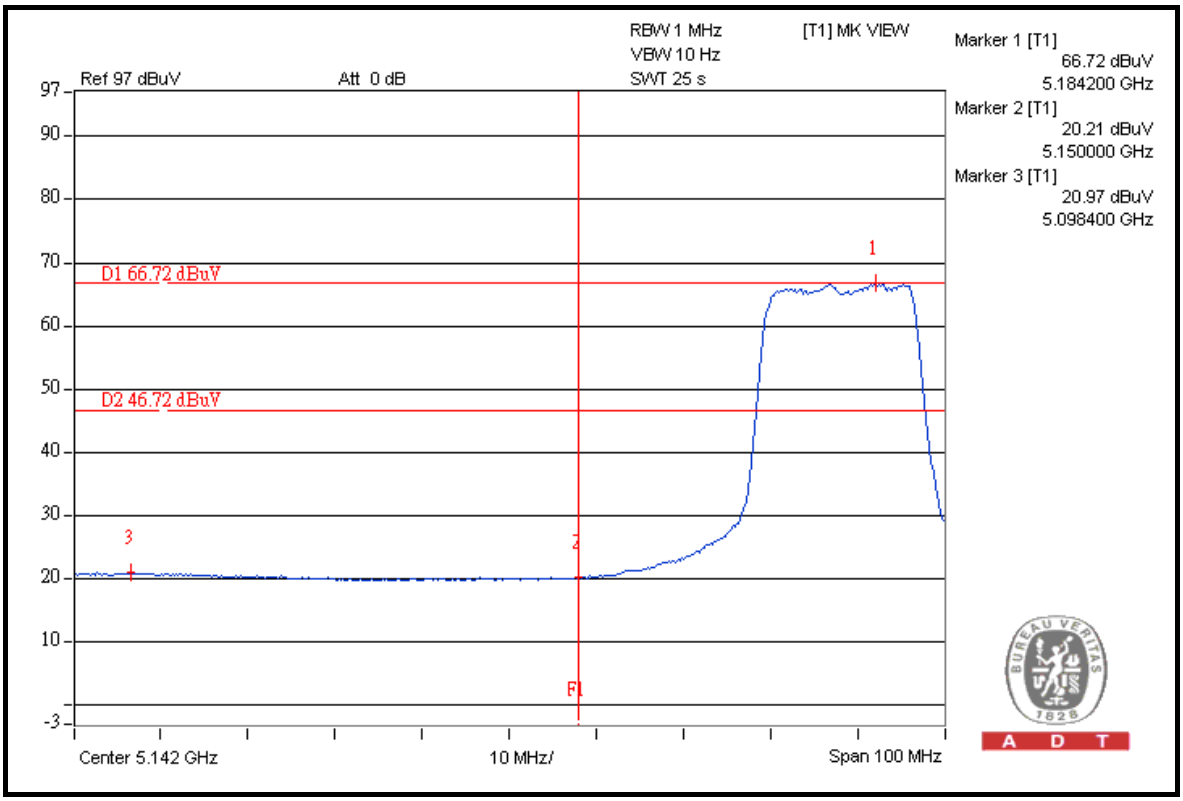
RESTRICT BAND (5350 ~ 5460 MHz)

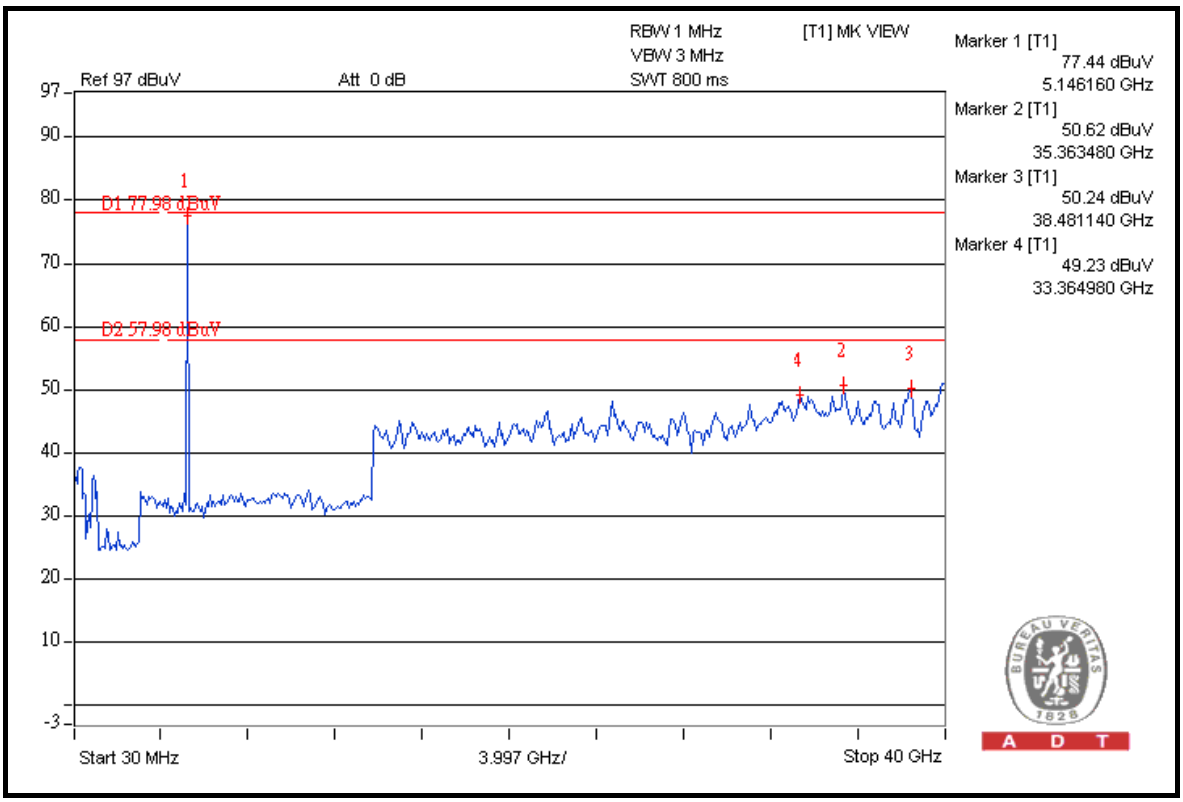
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	106.2	45.45	60.75	74.00
5240.00 (AV)	94.0	45.97	48.03	54.00

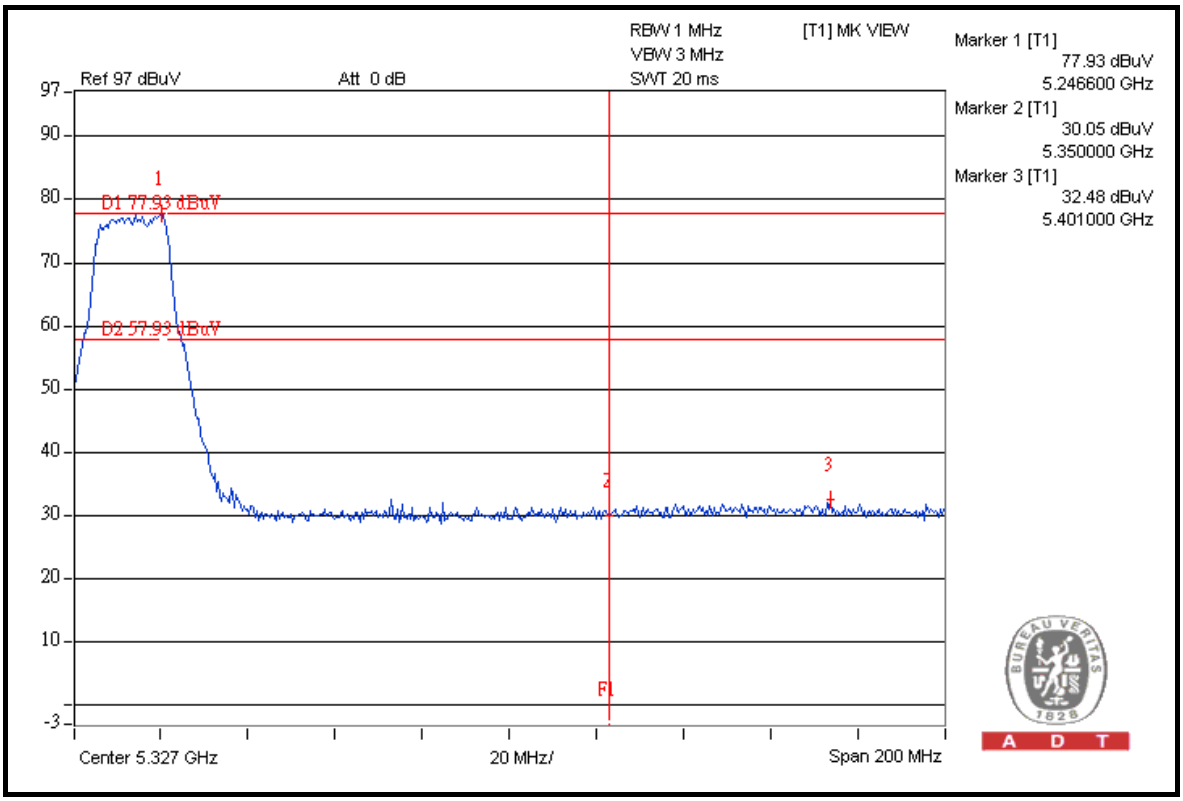
NOTE:

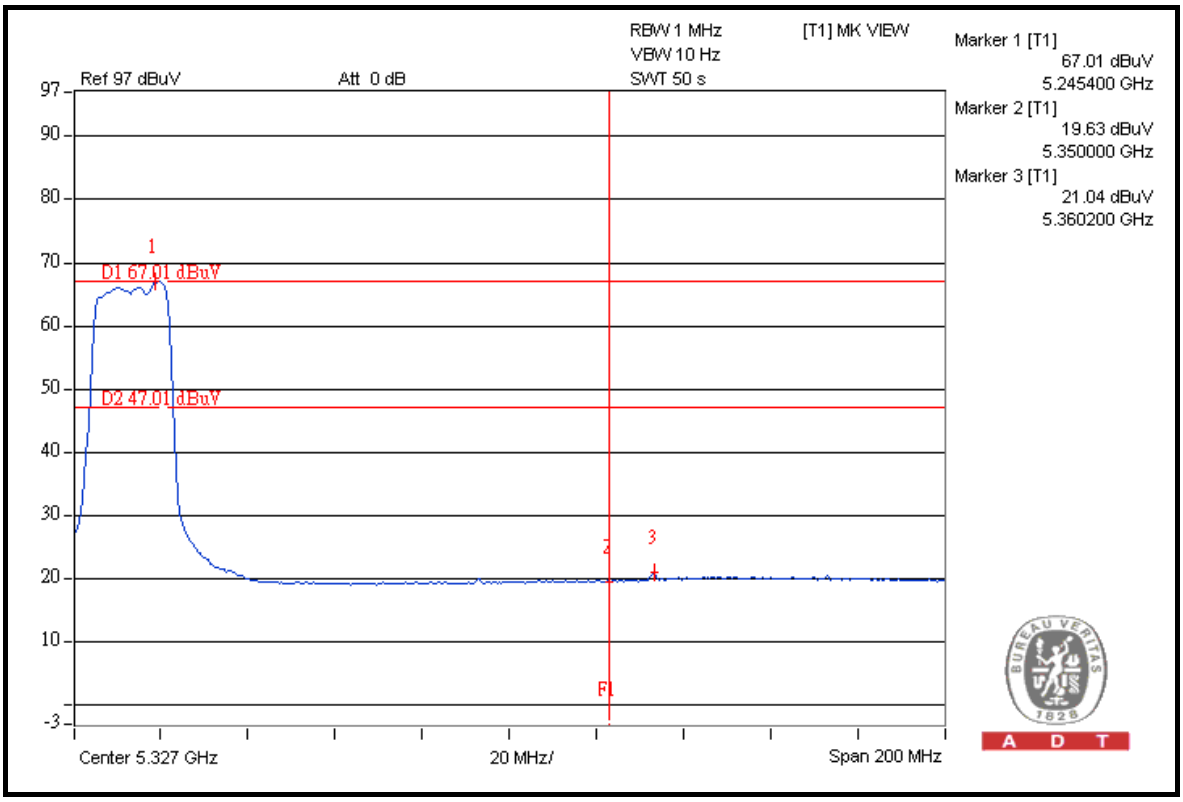
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

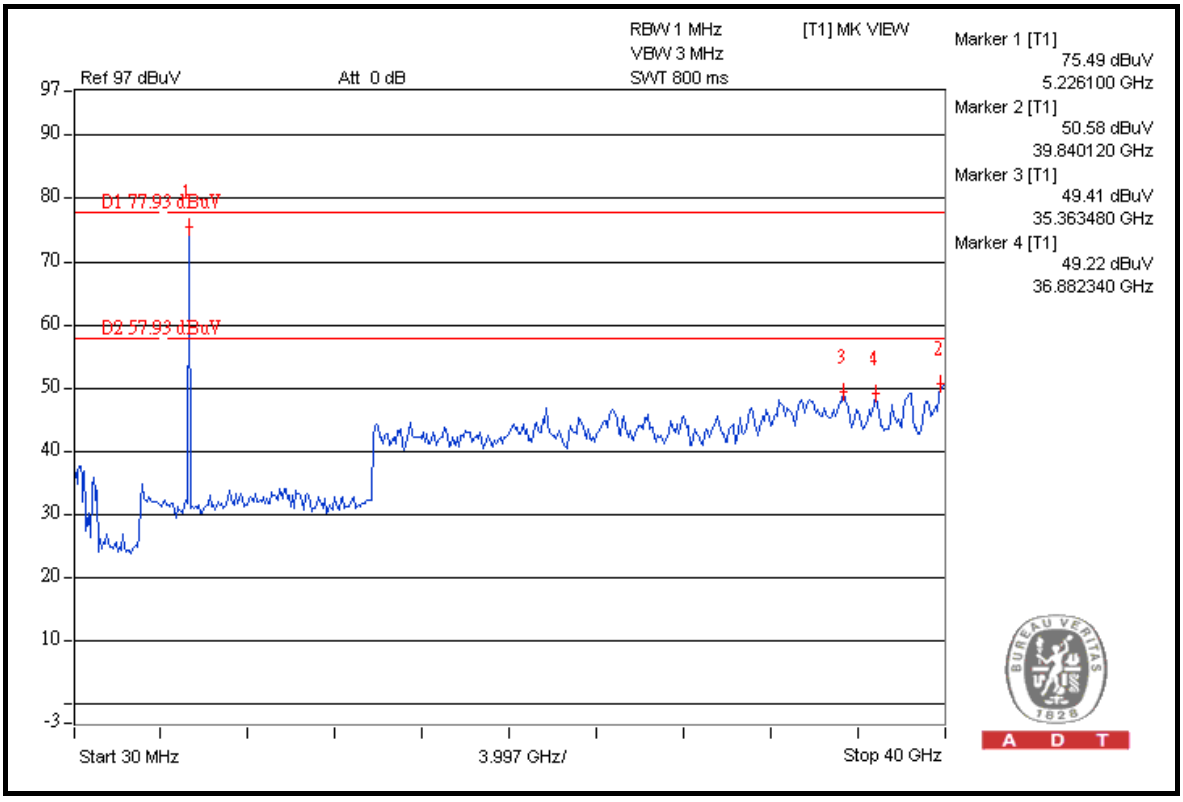

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.98 dBuV
5.177600 GHz
Marker 2 [T1]
31.47 dBuV
5.150000 GHz
Marker 3 [T1]
33.97 dBuV
5.099200 GHz
D1 77.98 dBuV
D2 57.98 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.72 dBuV
5.184200 GHz
Marker 2 [T1]
20.21 dBuV
5.150000 GHz
Marker 3 [T1]
20.97 dBuV
5.098400 GHz
D1 66.72 dBuV
D2 46.72 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.44 dBuV
5.146160 GHz
Marker 2 [T1]
50.62 dBuV
35.363480 GHz
Marker 3 [T1]
50.24 dBuV
38.481140 GHz
Marker 4 [T1]
49.23 dBuV
33.364980 GHz
D1 77.98 dBuV
D2 57.98 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.93 dBuV
5.246600 GHz
Marker 2 [T1]
30.05 dBuV
5.350000 GHz
Marker 3 [T1]
32.48 dBuV
5.401000 GHz
D1 77.93 dBuV
D2 57.93 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
67.01 dBuV
5.245400 GHz
Marker 2 [T1]
19.63 dBuV
5.350000 GHz
Marker 3 [T1]
21.04 dBuV
5.360200 GHz
D1 67.01 dBuV
D2 47.01 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
75.49 dBuV
5.226100 GHz
Marker 2 [T1]
50.58 dBuV
39.840120 GHz
Marker 3 [T1]
49.41 dBuV
35.363480 GHz
Marker 4 [T1]
49.22 dBuV
36.882340 GHz
D1 77.93 dBuV
D2 57.93 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

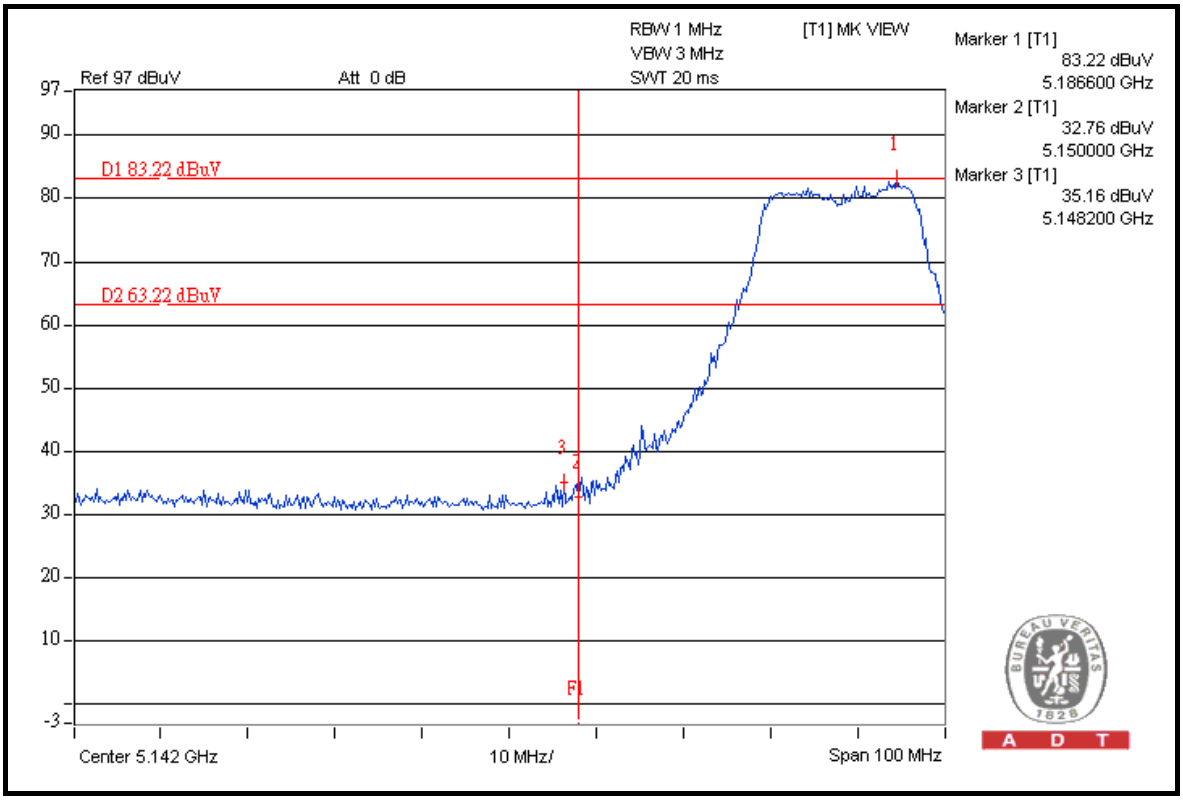
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	110.3	48.06	62.24	74.00
5180.00 (AV)	98.0	49.92	48.08	54.00

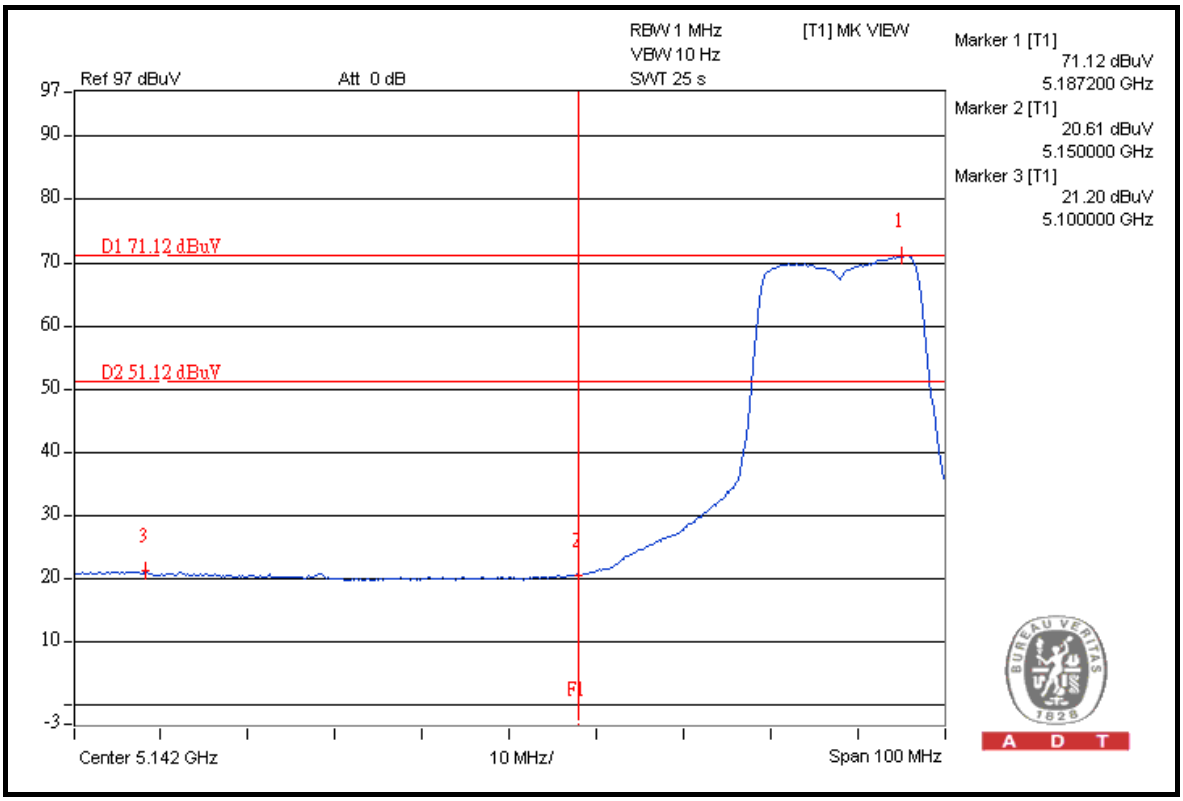
RESTRICT BAND (5350 ~ 5460 MHz)

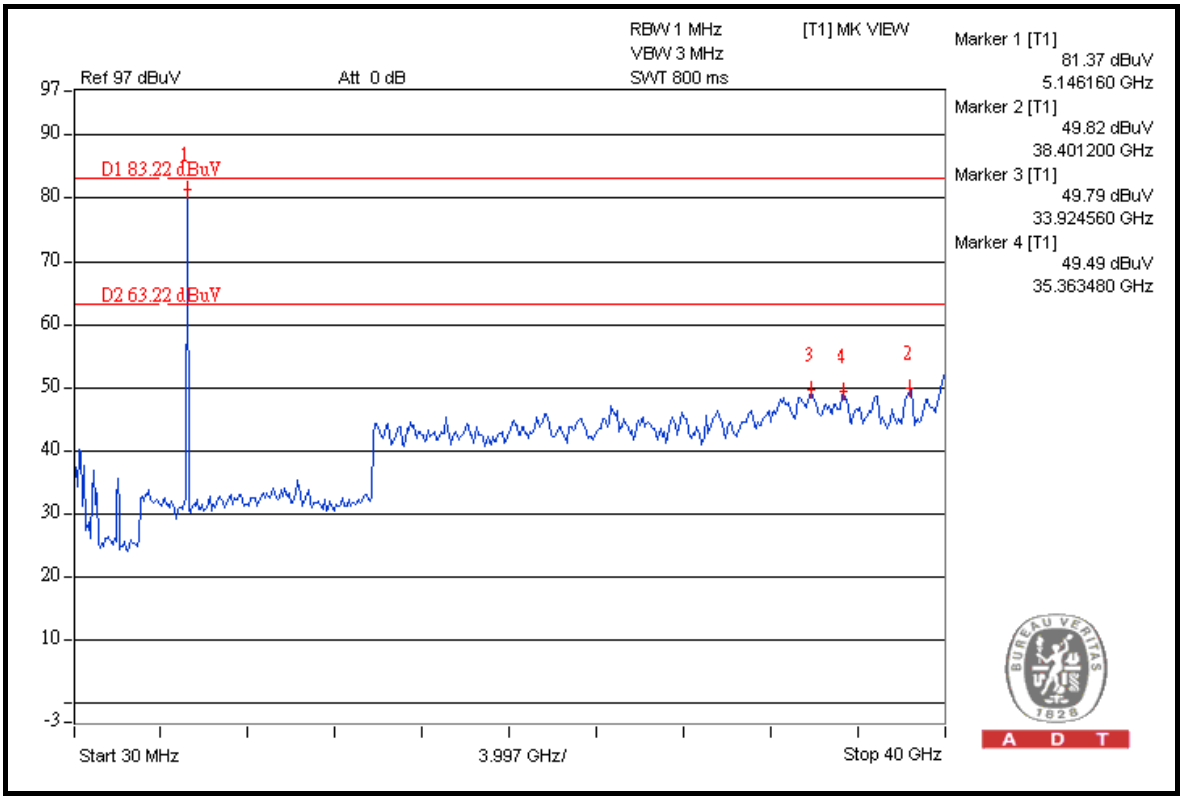
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	110.5	49.98	60.52	74.00
5240.00 (AV)	98.3	49.19	49.11	54.00

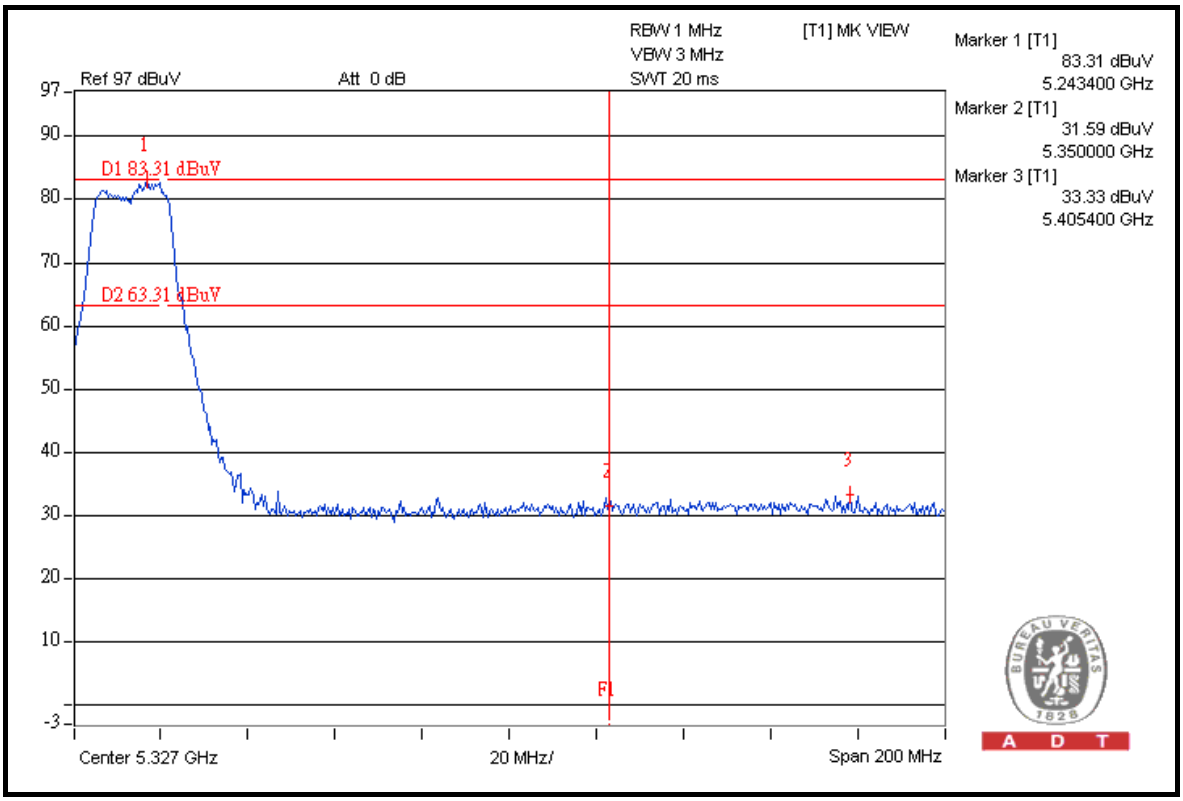
NOTE:

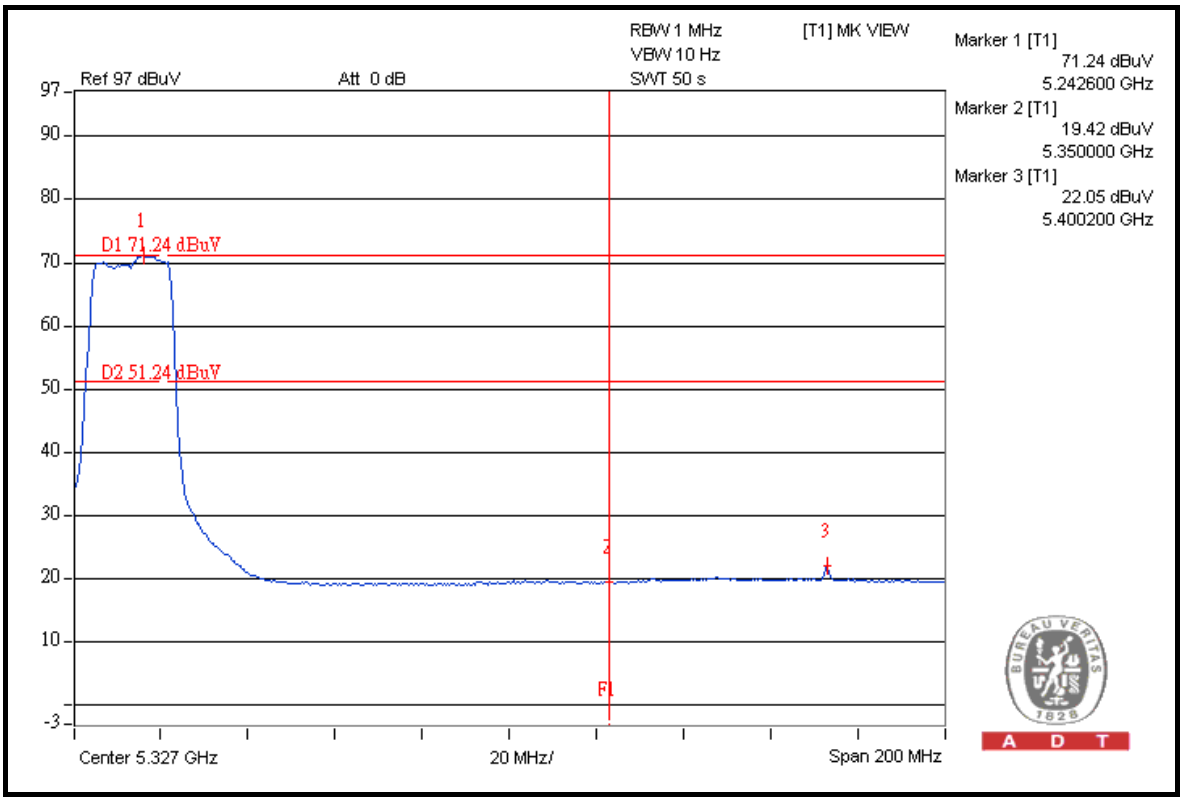
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

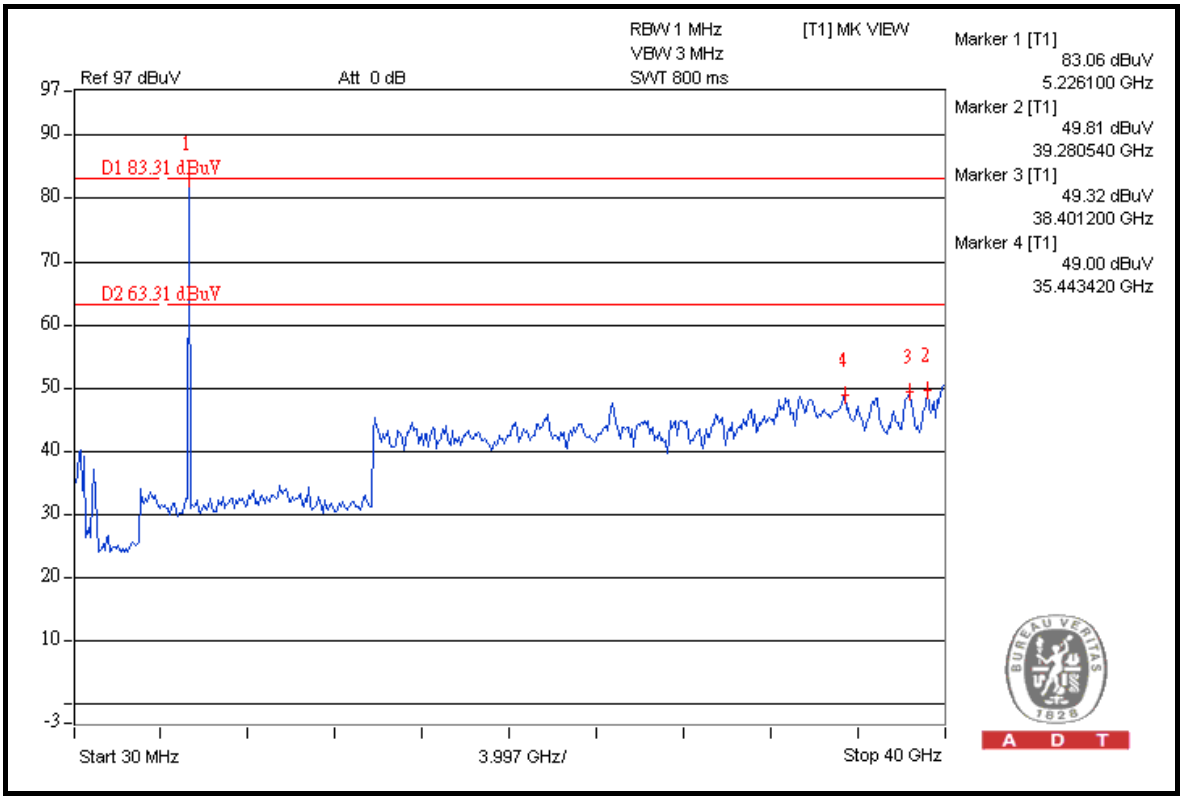

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.22 dBuV
5.186600 GHz
Marker 2 [T1]
32.76 dBuV
5.150000 GHz
Marker 3 [T1]
35.16 dBuV
5.148200 GHz
D1 83.22 dBuV
D2 63.22 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.12 dBuV
5.187200 GHz
Marker 2 [T1]
20.61 dBuV
5.150000 GHz
Marker 3 [T1]
21.20 dBuV
5.100000 GHz
D1 71.12 dBuV
D2 51.12 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.37 dBuV
5.146160 GHz
Marker 2 [T1]
49.82 dBuV
38.401200 GHz
Marker 3 [T1]
49.79 dBuV
33.924560 GHz
Marker 4 [T1]
49.49 dBuV
35.363480 GHz
D1 83.22 dBuV
D2 63.22 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.31 dBuV
5.243400 GHz
Marker 2 [T1]
31.59 dBuV
5.350000 GHz
Marker 3 [T1]
33.33 dBuV
5.405400 GHz
D1 83.31 dBuV
D2 63.31 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.24 dBuV
5.242600 GHz
Marker 2 [T1]
19.42 dBuV
5.350000 GHz
Marker 3 [T1]
22.05 dBuV
5.400200 GHz
D1 71.24 dBuV
D2 51.24 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.06 dBuV
5.226100 GHz
Marker 2 [T1]
49.81 dBuV
39.280540 GHz
Marker 3 [T1]
49.32 dBuV
38.401200 GHz
Marker 4 [T1]
49.00 dBuV
35.443420 GHz
D1 83.31 dBuV
D2 63.31 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	107.4	38.10	69.30	74.00
5190.00 (AV)	95.9	43.24	52.66	54.00

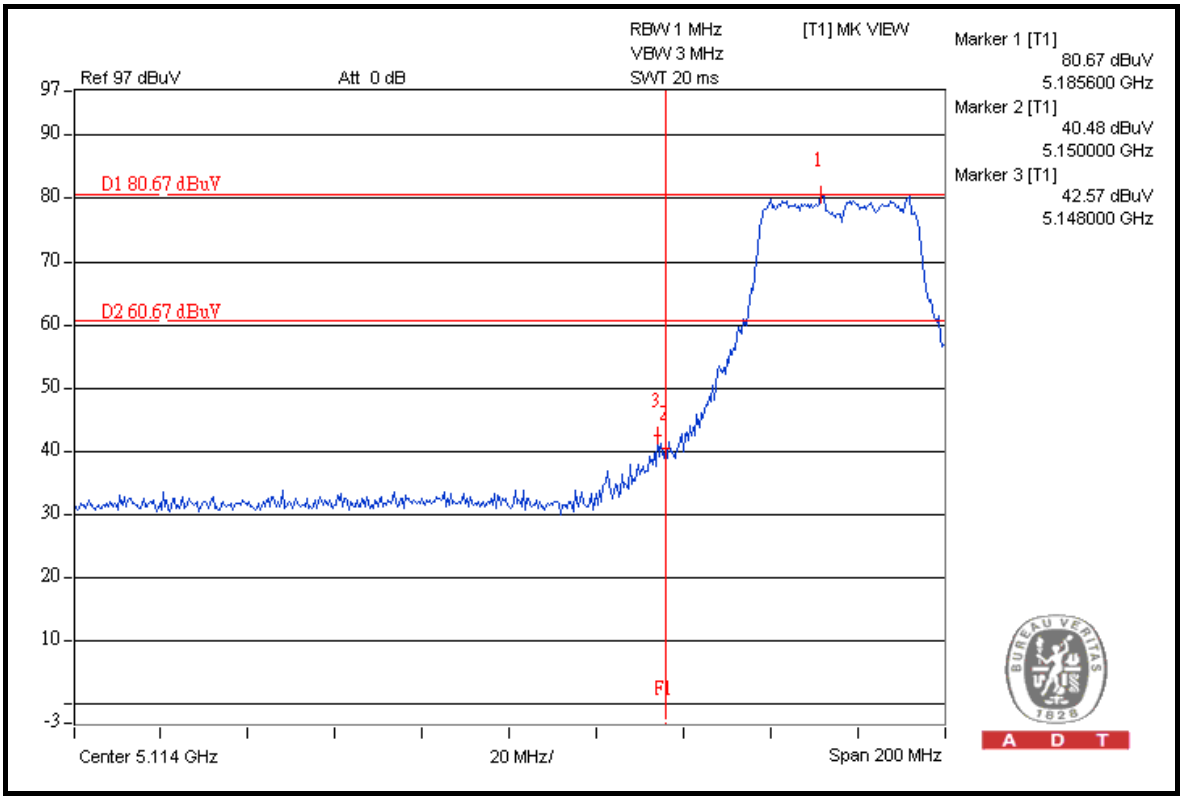
RESTRICT BAND (5350 ~ 5460 MHz)

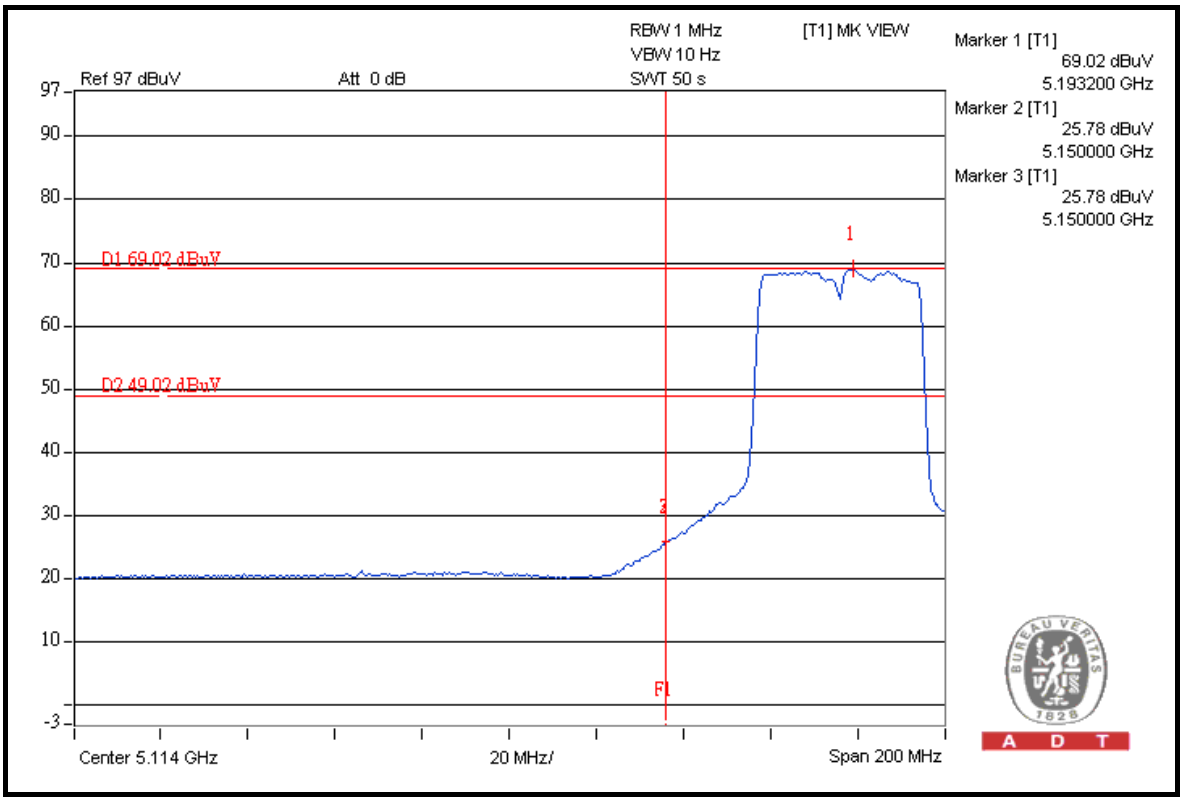
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	107.1	47.43	59.67	74.00
5230.00 (AV)	95.6	46.86	48.74	54.00

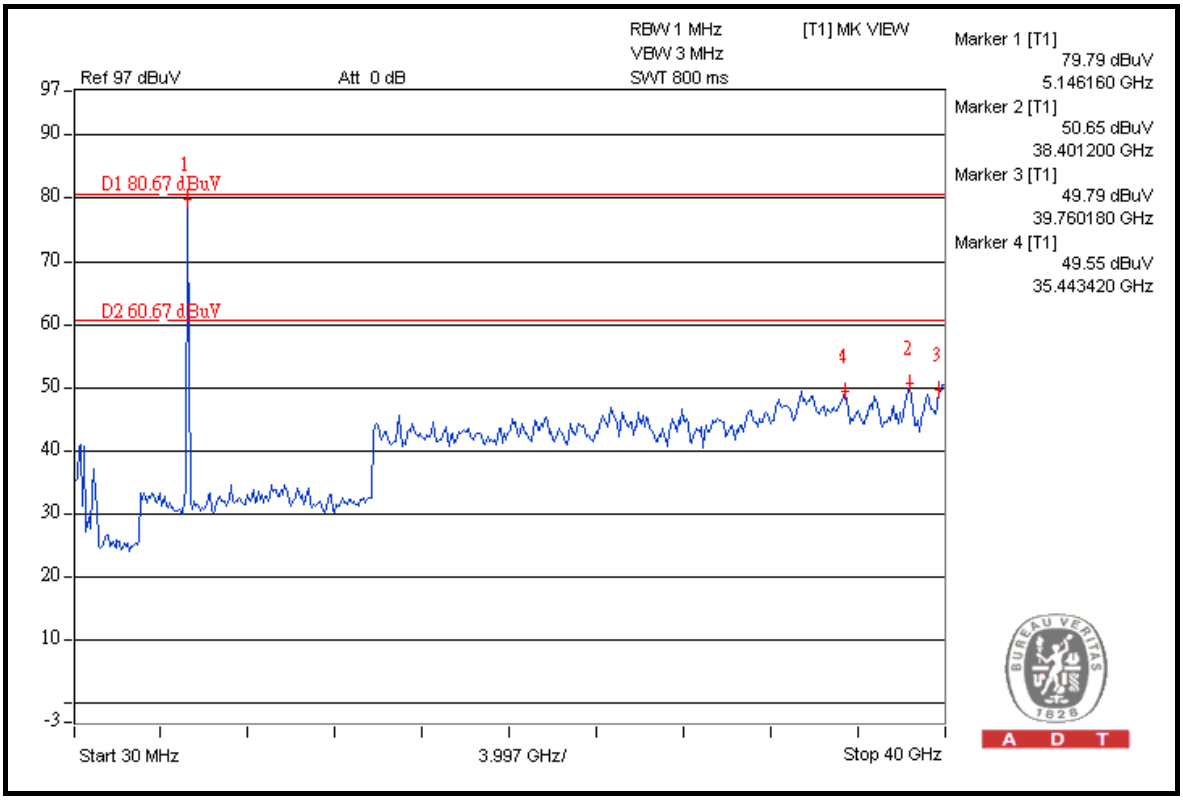
NOTE:

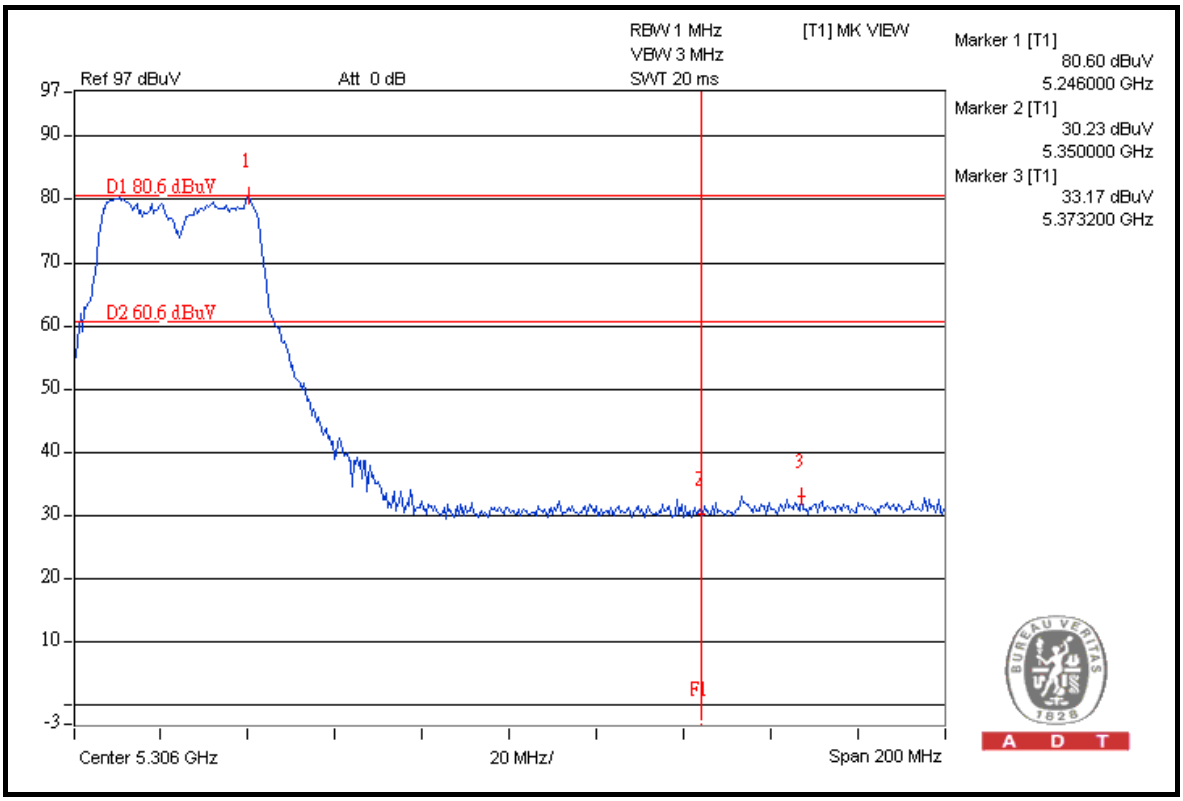
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

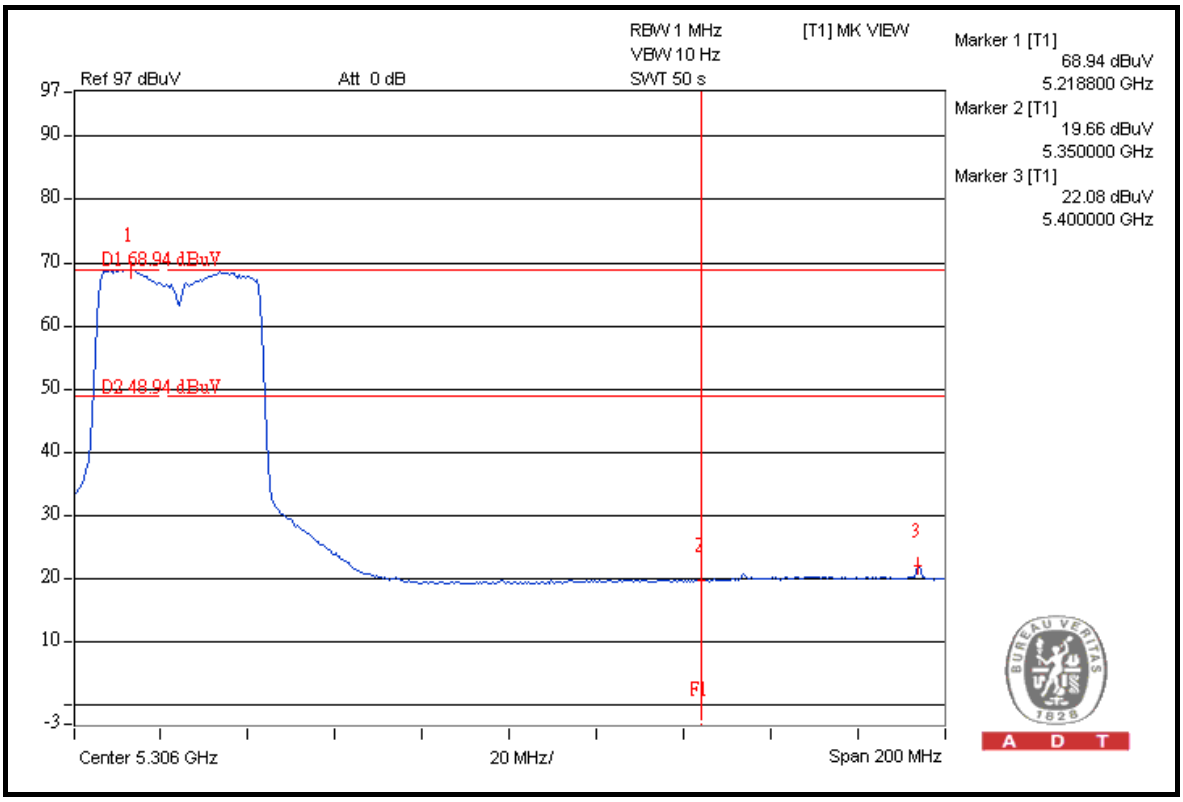
2. Maximum field strength in restrict band = Fundamental emission – Delta.

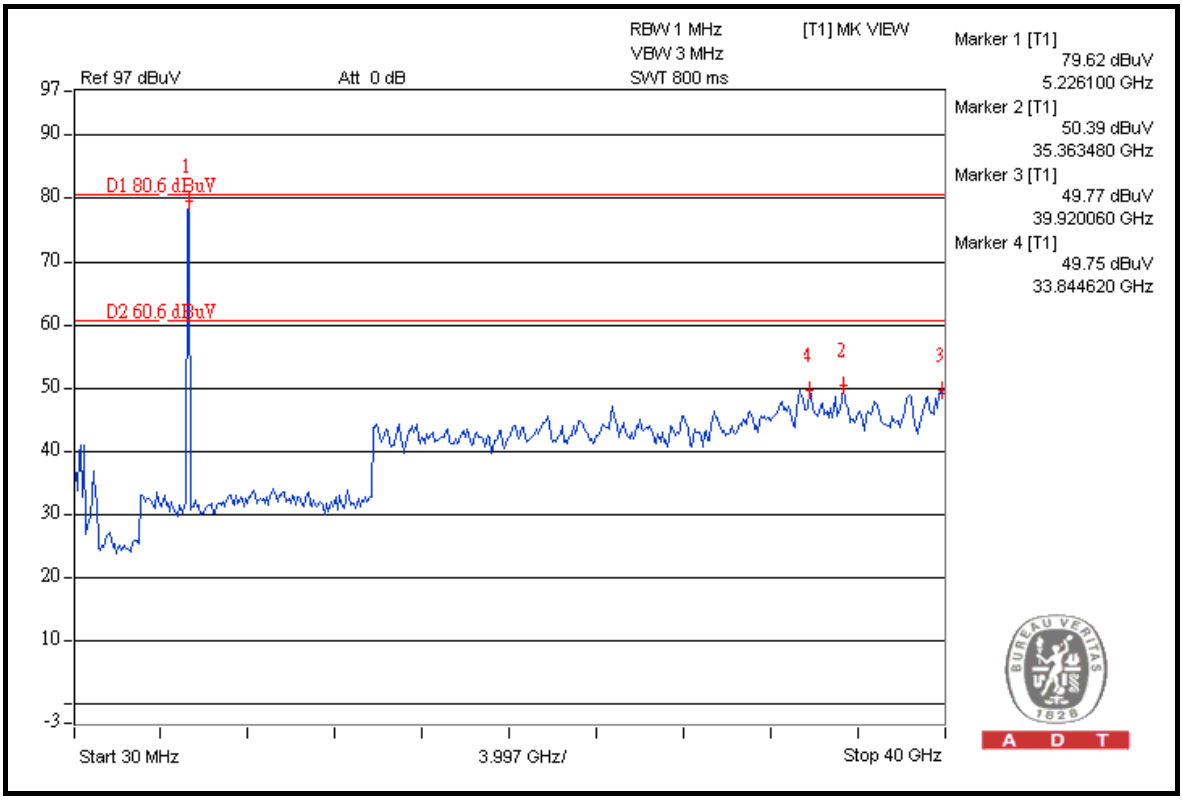

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.67 dBuV
5.185600 GHz
Marker 2 [T1]
40.48 dBuV
5.150000 GHz
Marker 3 [T1]
42.57 dBuV
5.148000 GHz
D1 80.67 dBuV
D2 60.67 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.02 dBuV
5.193200 GHz
Marker 2 [T1]
25.78 dBuV
5.150000 GHz
Marker 3 [T1]
25.78 dBuV
5.150000 GHz
D1 69.02 dBuV
D2 49.02 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.67 dBuV
D2 60.67 dBuV
Marker 1 [T1]
79.79 dBuV
5.146160 GHz
Marker 2 [T1]
50.65 dBuV
38.401200 GHz
Marker 3 [T1]
49.79 dBuV
39.760180 GHz
Marker 4 [T1]
49.55 dBuV
35.443420 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.6 dBuV
D2 60.6 dBuV
Marker 1 [T1]
80.60 dBuV
5.246000 GHz
Marker 2 [T1]
30.23 dBuV
5.350000 GHz
Marker 3 [T1]
33.17 dBuV
5.373200 GHz
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
68.94 dBuV
5.218800 GHz
Marker 2 [T1]
19.66 dBuV
5.350000 GHz
Marker 3 [T1]
22.08 dBuV
5.400000 GHz
D1 68.94 dBuV
D2 48.94 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.62 dBuV
5.226100 GHz
Marker 2 [T1]
50.39 dBuV
35.363480 GHz
Marker 3 [T1]
49.77 dBuV
39.920060 GHz
Marker 4 [T1]
49.75 dBuV
33.844620 GHz
D1 80.6 dBuV
D2 60.6 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.7.6 TEST RESULTS (TEST MODE B 1)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

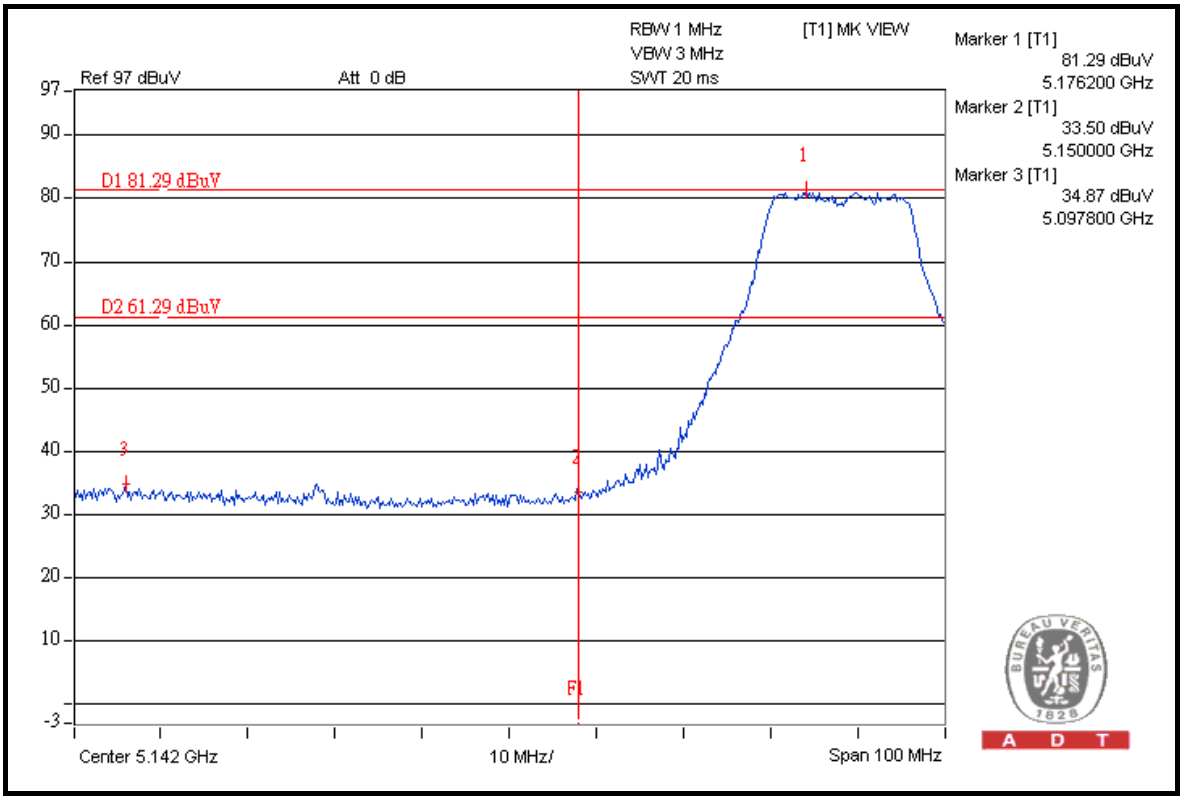
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	109.5	46.42	63.08	74.00
5180.00 (AV)	97.3	44.63	52.67	54.00

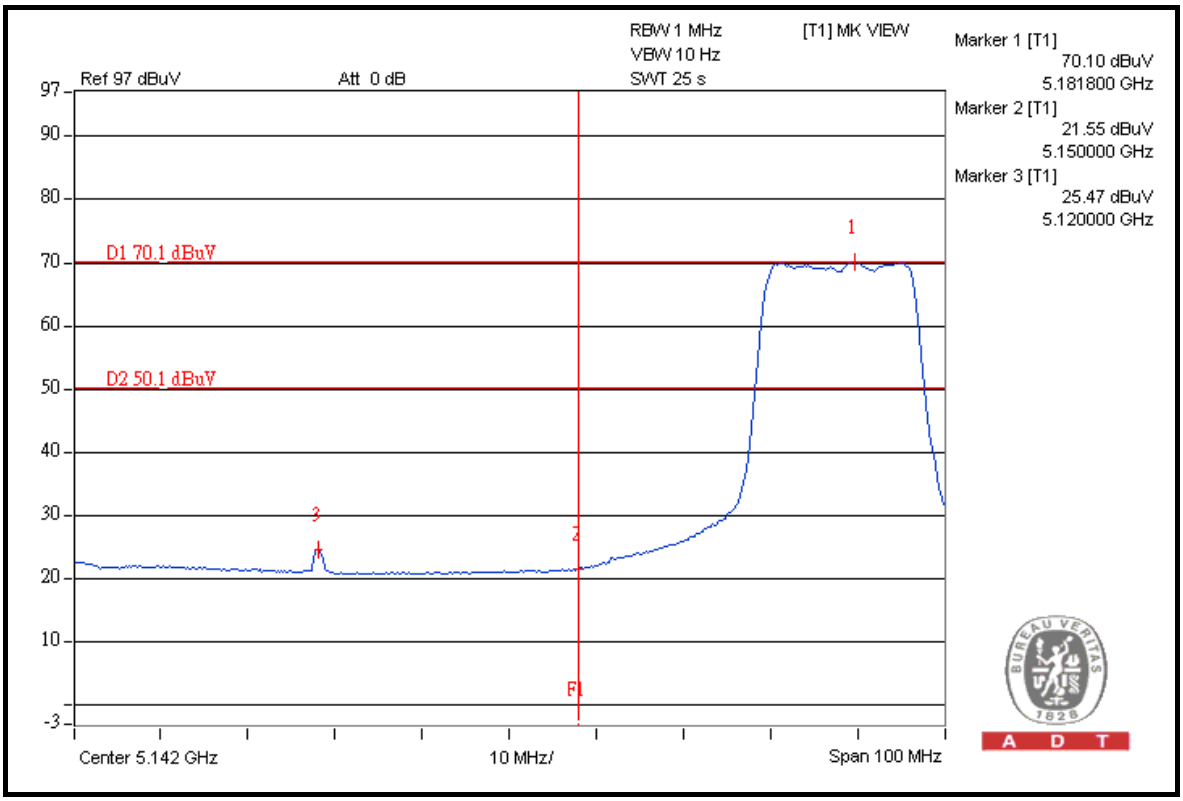
RESTRICT BAND (5350 ~ 5460 MHz)

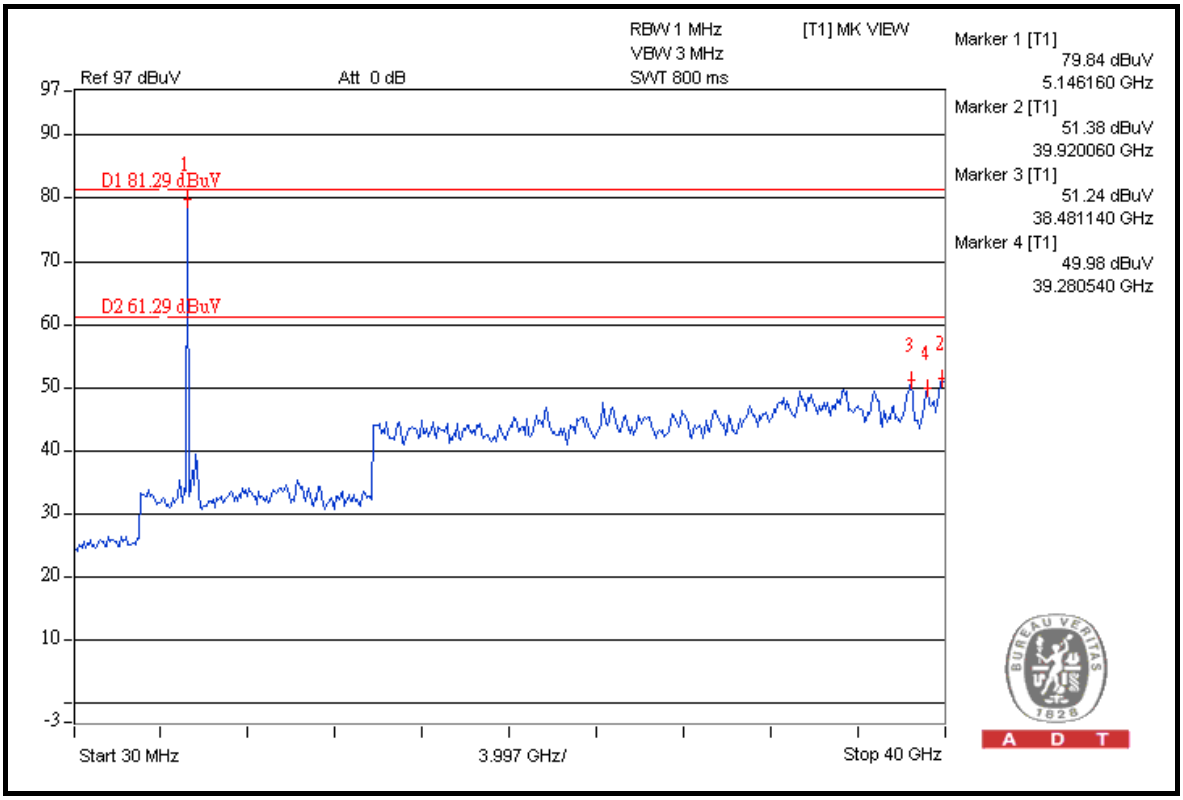
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.2	47.30	61.90	74.00
5240.00 (AV)	97.0	47.59	49.41	54.00

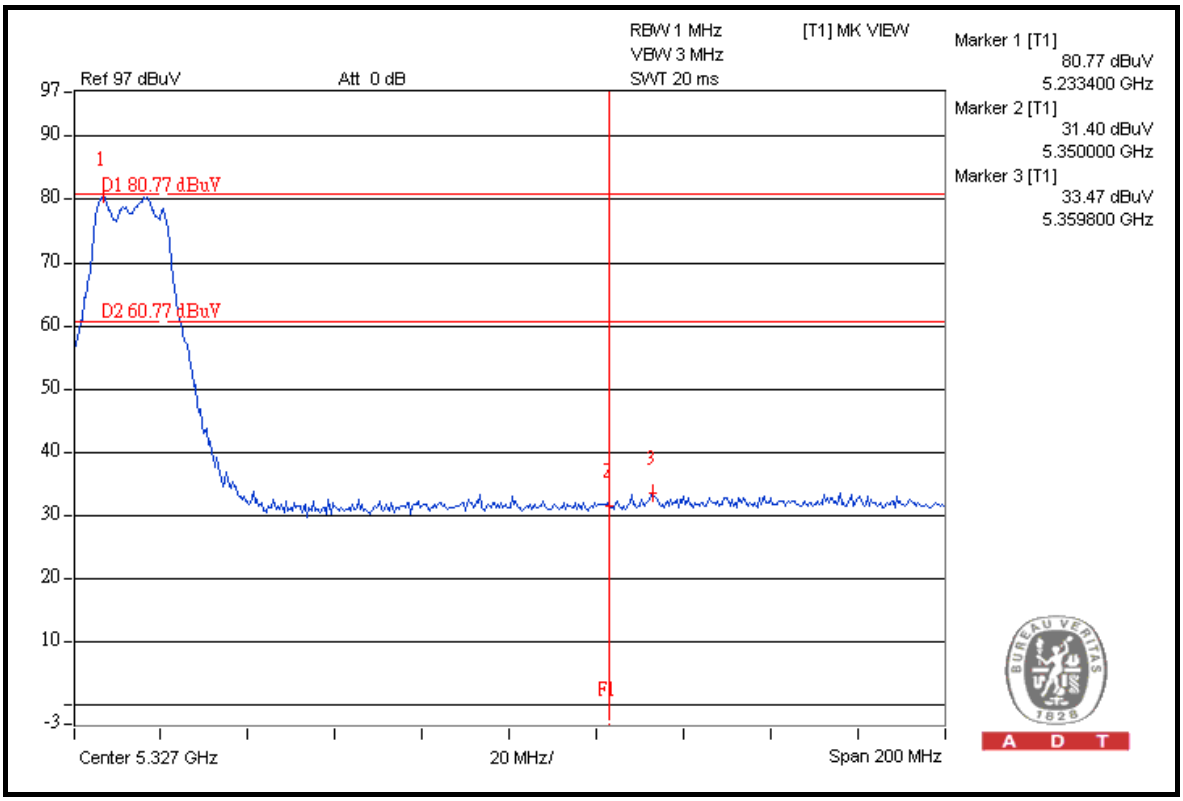
NOTE:

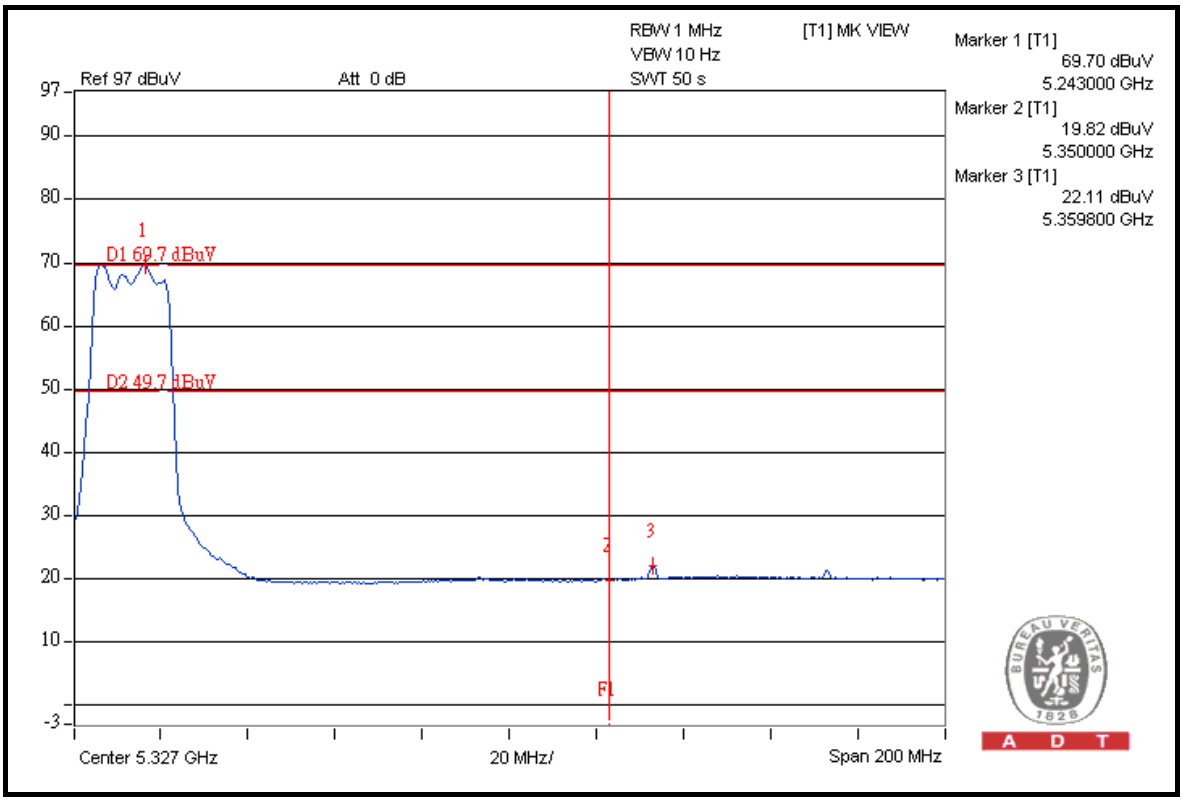
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

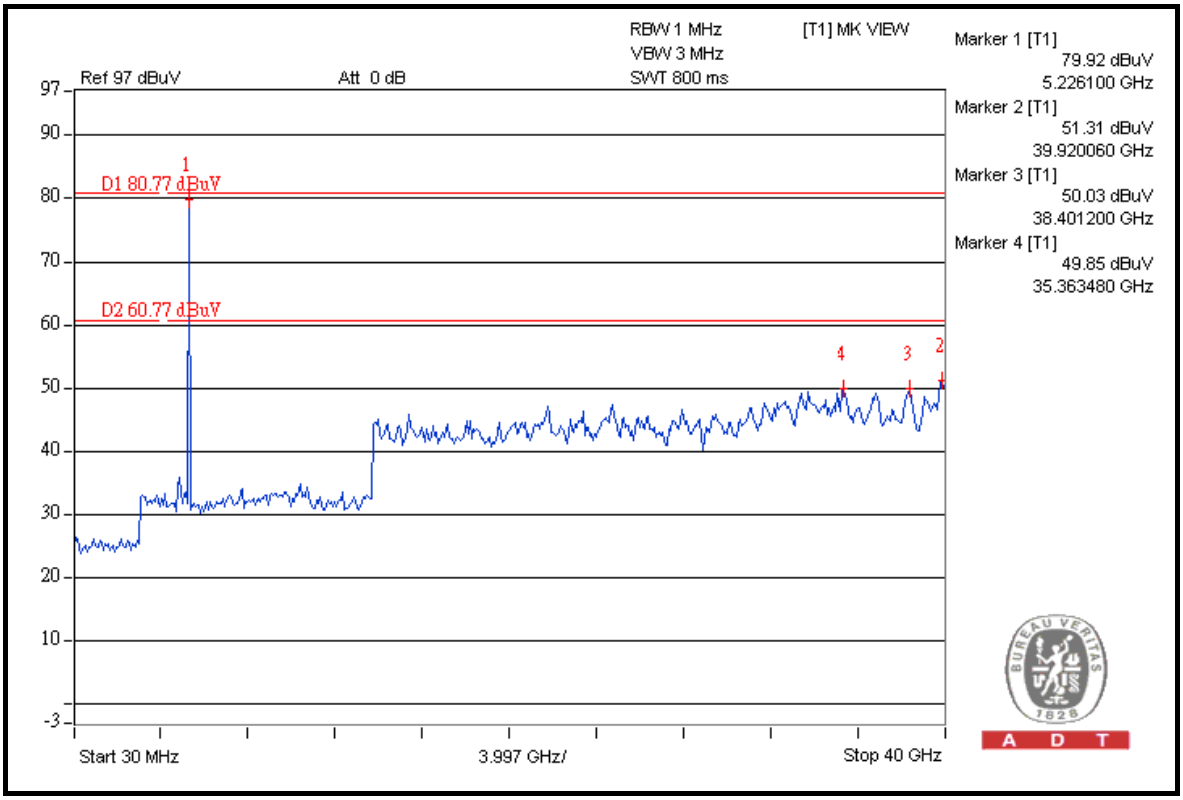

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.29 dBuV
5.176200 GHz
Marker 2 [T1]
33.50 dBuV
5.150000 GHz
Marker 3 [T1]
34.87 dBuV
5.097800 GHz
D1 81.29 dBuV
D2 61.29 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.10 dBuV
5.181800 GHz
Marker 2 [T1]
21.55 dBuV
5.150000 GHz
Marker 3 [T1]
25.47 dBuV
5.120000 GHz
D1 70.1 dBuV
D2 50.1 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.29 dBuV
D2 61.29 dBuV
Marker 1 [T1]
79.84 dBuV
5.146160 GHz
Marker 2 [T1]
51.38 dBuV
39.920060 GHz
Marker 3 [T1]
51.24 dBuV
38.481140 GHz
Marker 4 [T1]
49.98 dBuV
39.280540 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.77 dBuV
D2 60.77 dBuV
Marker 1 [T1]
80.77 dBuV
5.233400 GHz
Marker 2 [T1]
31.40 dBuV
5.350000 GHz
Marker 3 [T1]
33.47 dBuV
5.359800 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.70 dBuV
5.243000 GHz
Marker 2 [T1]
19.82 dBuV
5.350000 GHz
Marker 3 [T1]
22.11 dBuV
5.359800 GHz
D1 69.7 dBuV
D2 49.7 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.92 dBuV
5.226100 GHz
Marker 2 [T1]
51.31 dBuV
39.920060 GHz
Marker 3 [T1]
50.03 dBuV
38.401200 GHz
Marker 4 [T1]
49.85 dBuV
35.363480 GHz
D1 80.77 dBuV
D2 60.77 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

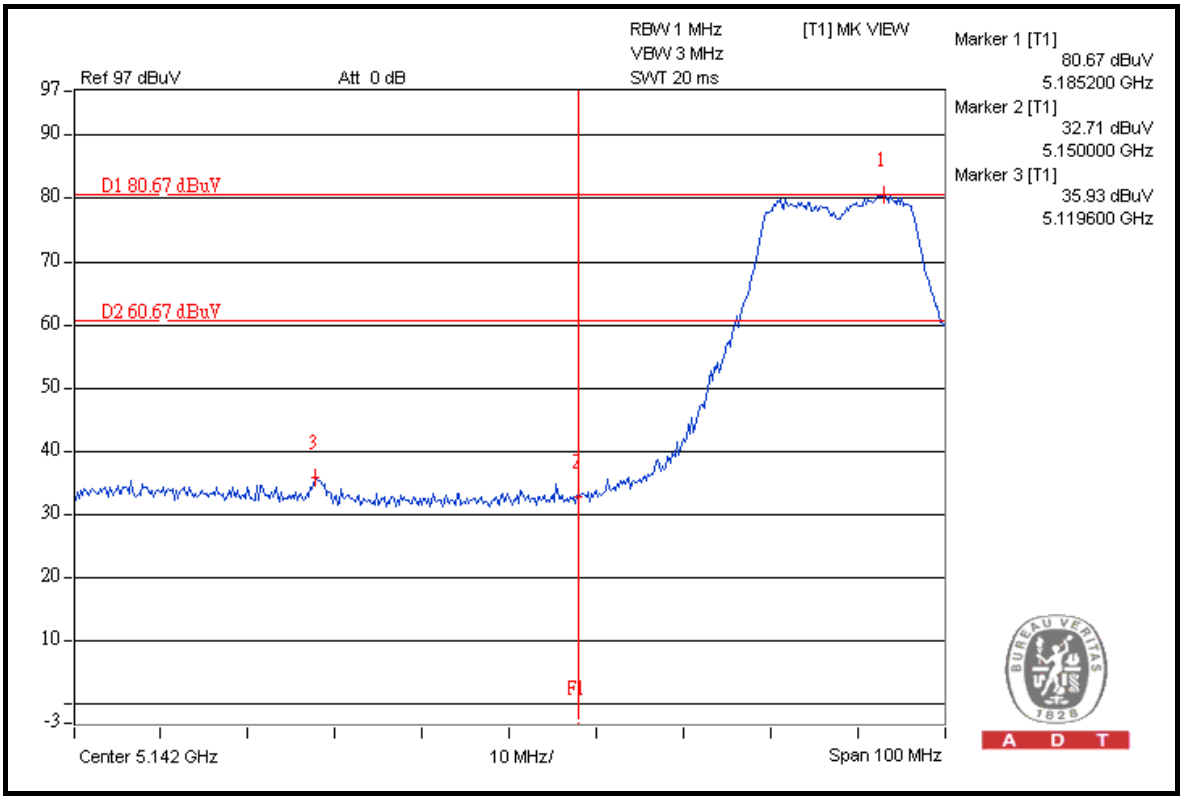
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	107.7	44.74	62.96	74.00
5180.00 (AV)	96.0	43.39	52.61	54.00

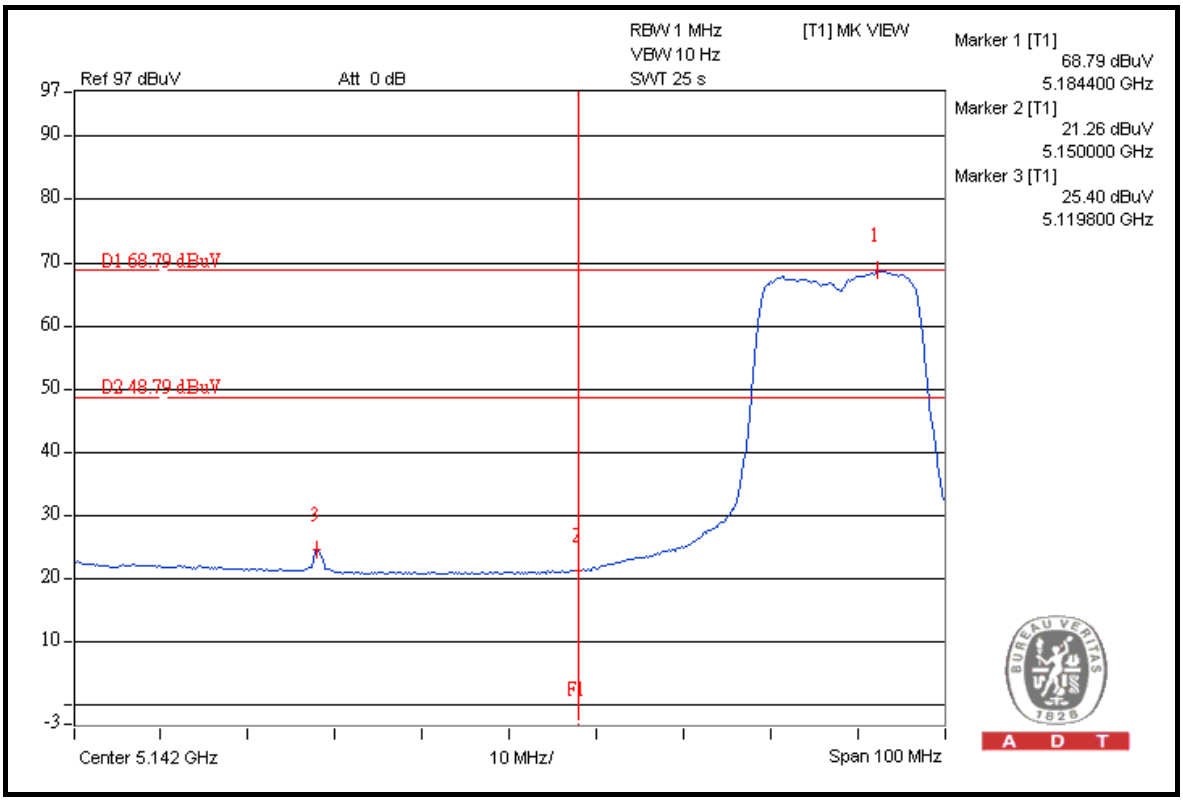
RESTRICT BAND (5350 ~ 5460 MHz)

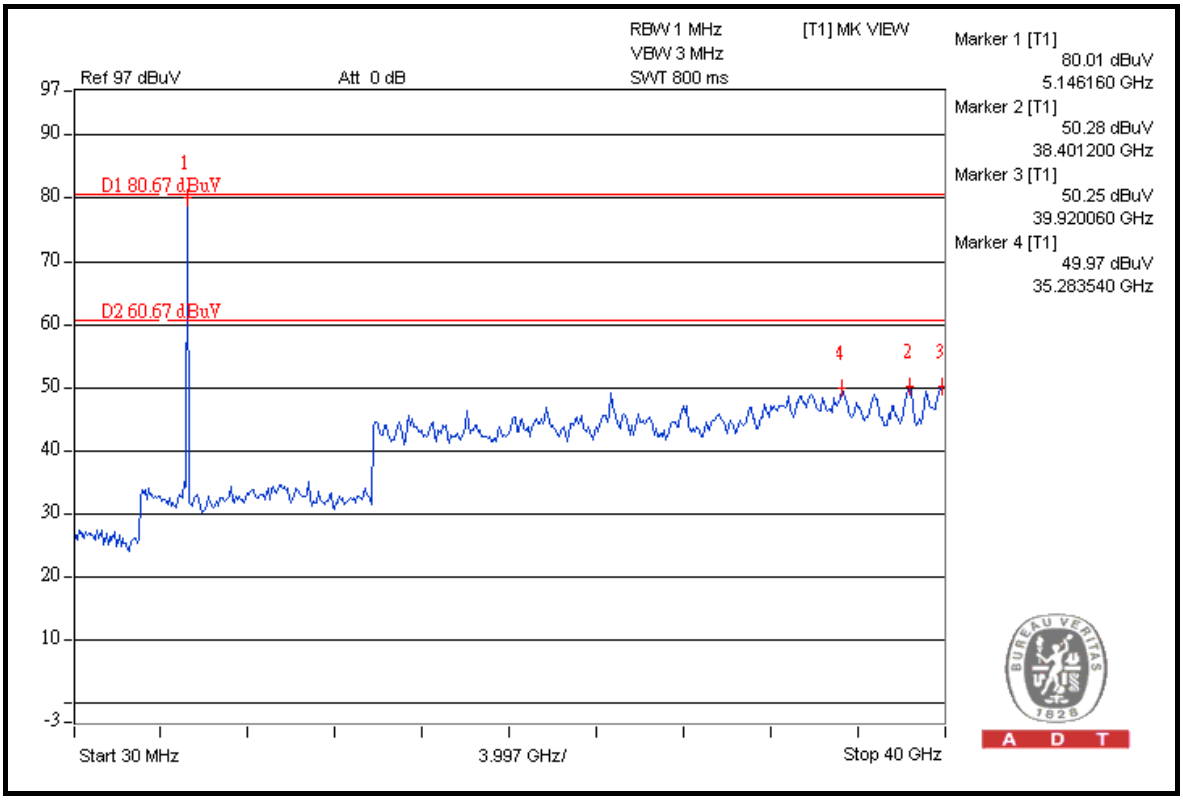
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	107.5	47.69	59.81	74.00
5240.00 (AV)	95.8	47.97	47.83	54.00

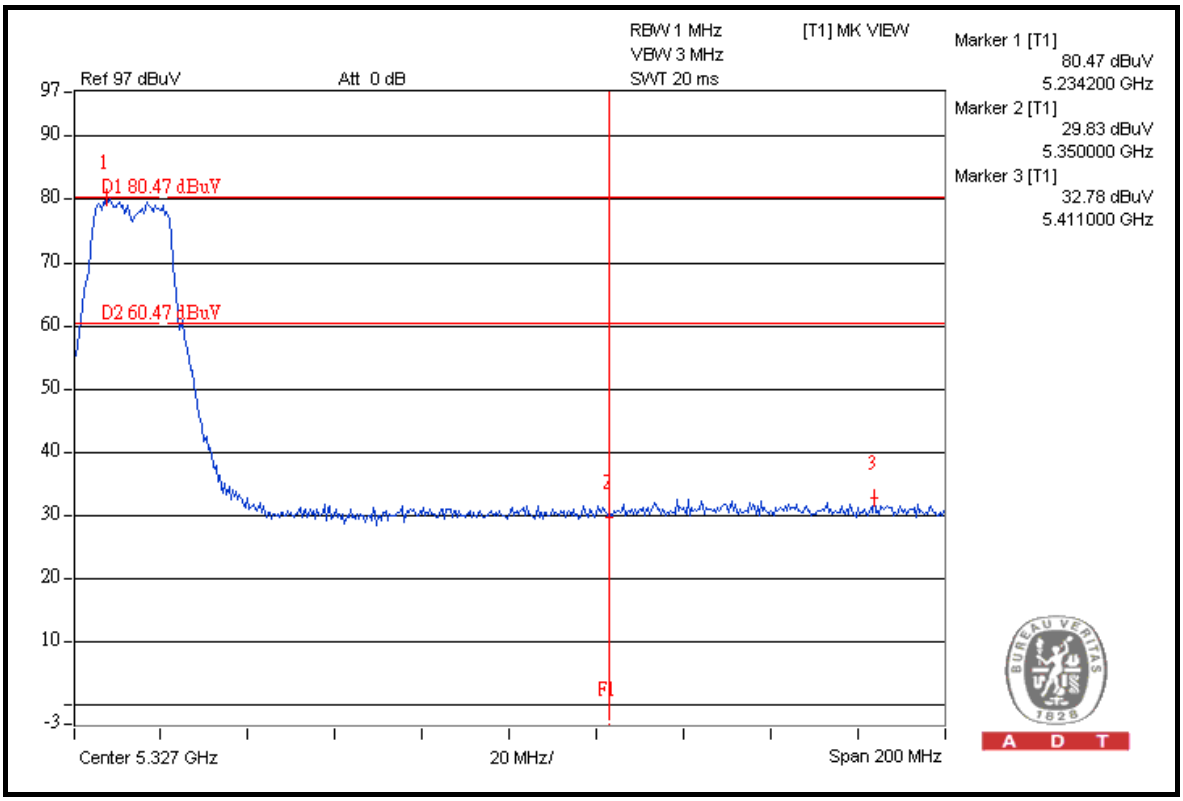
NOTE:

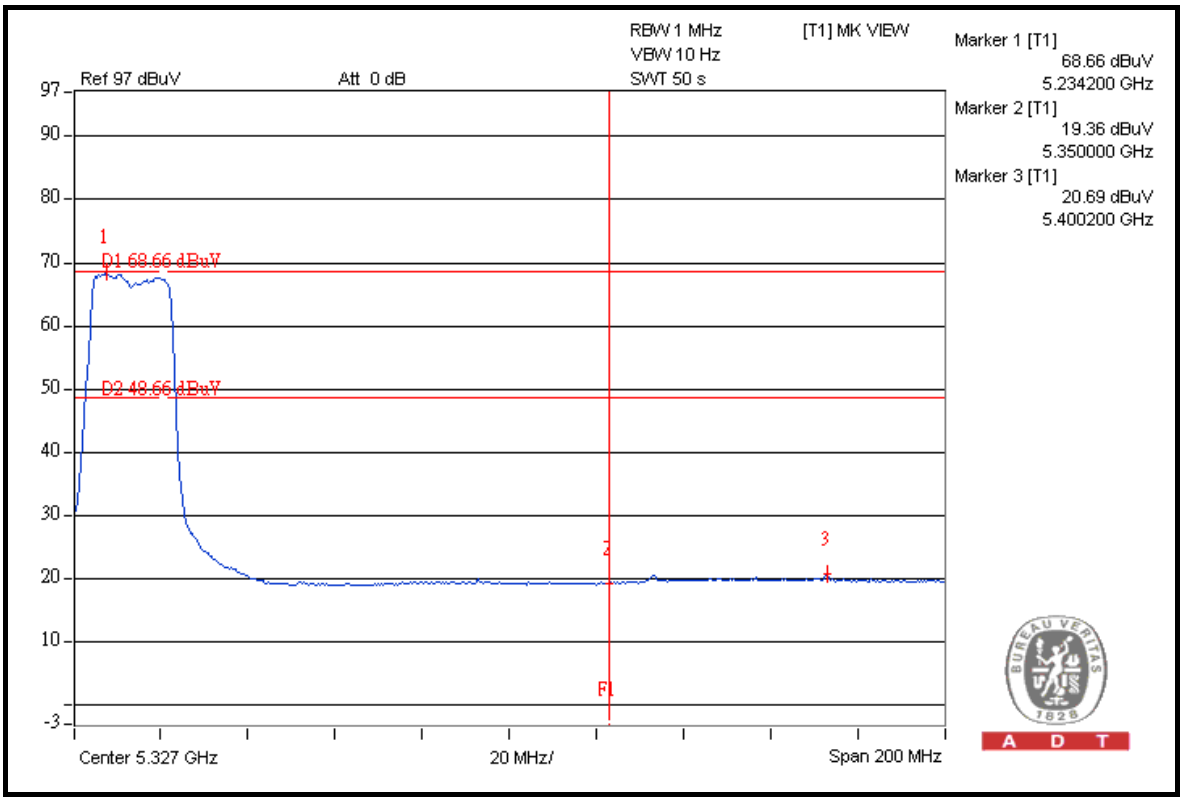
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

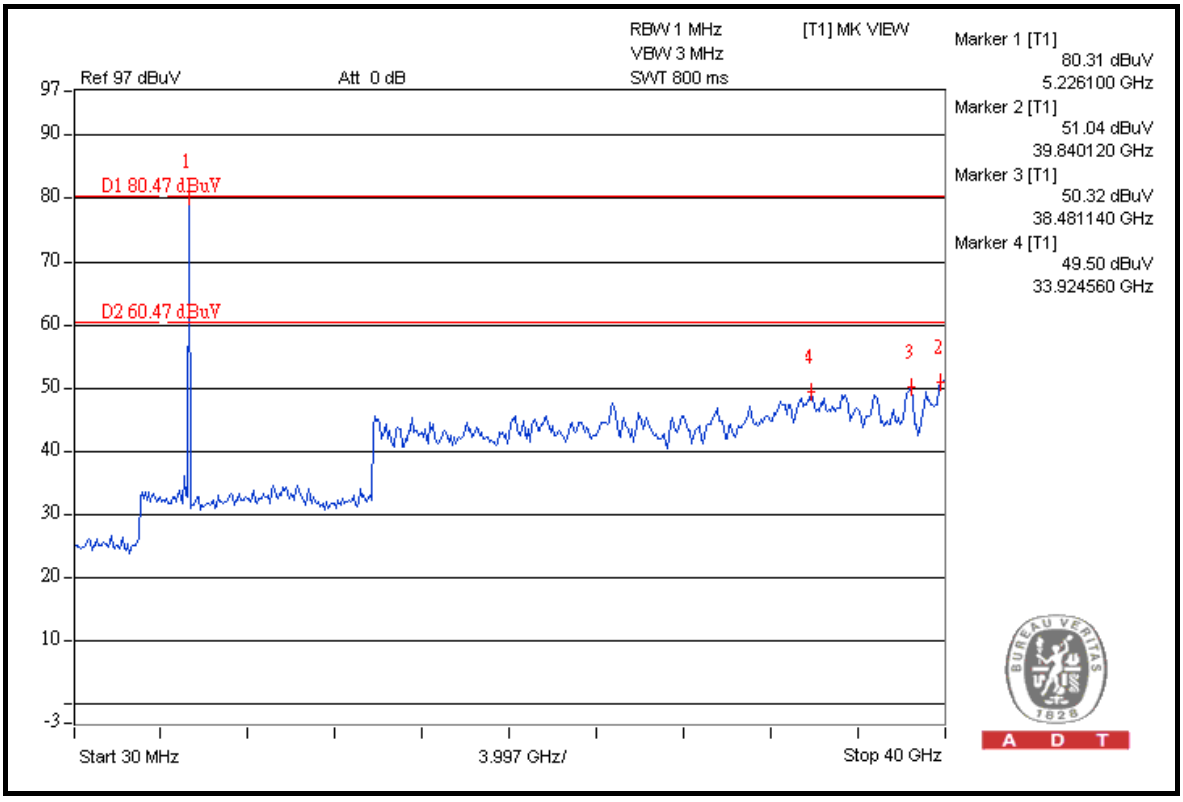

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.67 dBuV
5.185200 GHz
Marker 2 [T1]
32.71 dBuV
5.150000 GHz
Marker 3 [T1]
35.93 dBuV
5.119600 GHz
D1 80.67 dBuV
D2 60.67 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
68.79 dBuV
5.184400 GHz
Marker 2 [T1]
21.26 dBuV
5.150000 GHz
Marker 3 [T1]
25.40 dBuV
5.119800 GHz
D1 68.79 dBuV
D2 48.79 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.67 dBuV
D2 60.67 dBuV
Marker 1 [T1]
80.01 dBuV
5.146160 GHz
Marker 2 [T1]
50.28 dBuV
38.401200 GHz
Marker 3 [T1]
50.25 dBuV
39.920060 GHz
Marker 4 [T1]
49.97 dBuV
35.283540 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.47 dBuV
D2 60.47 dBuV
Marker 1 [T1]
80.47 dBuV
5.234200 GHz
Marker 2 [T1]
29.83 dBuV
5.350000 GHz
Marker 3 [T1]
32.78 dBuV
5.411000 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
68.66 dBuV
5.234200 GHz
Marker 2 [T1]
19.36 dBuV
5.350000 GHz
Marker 3 [T1]
20.69 dBuV
5.400200 GHz
D1 68.66 dBuV
D2 48.66 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.31 dBuV
5.226100 GHz
Marker 2 [T1]
51.04 dBuV
39.840120 GHz
Marker 3 [T1]
50.32 dBuV
38.481140 GHz
Marker 4 [T1]
49.50 dBuV
33.924560 GHz
D1 80.47 dBuV
D2 60.47 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	106.7	41.63	65.07	74.00
5190.00 (AV)	93.7	42.92	50.78	54.00

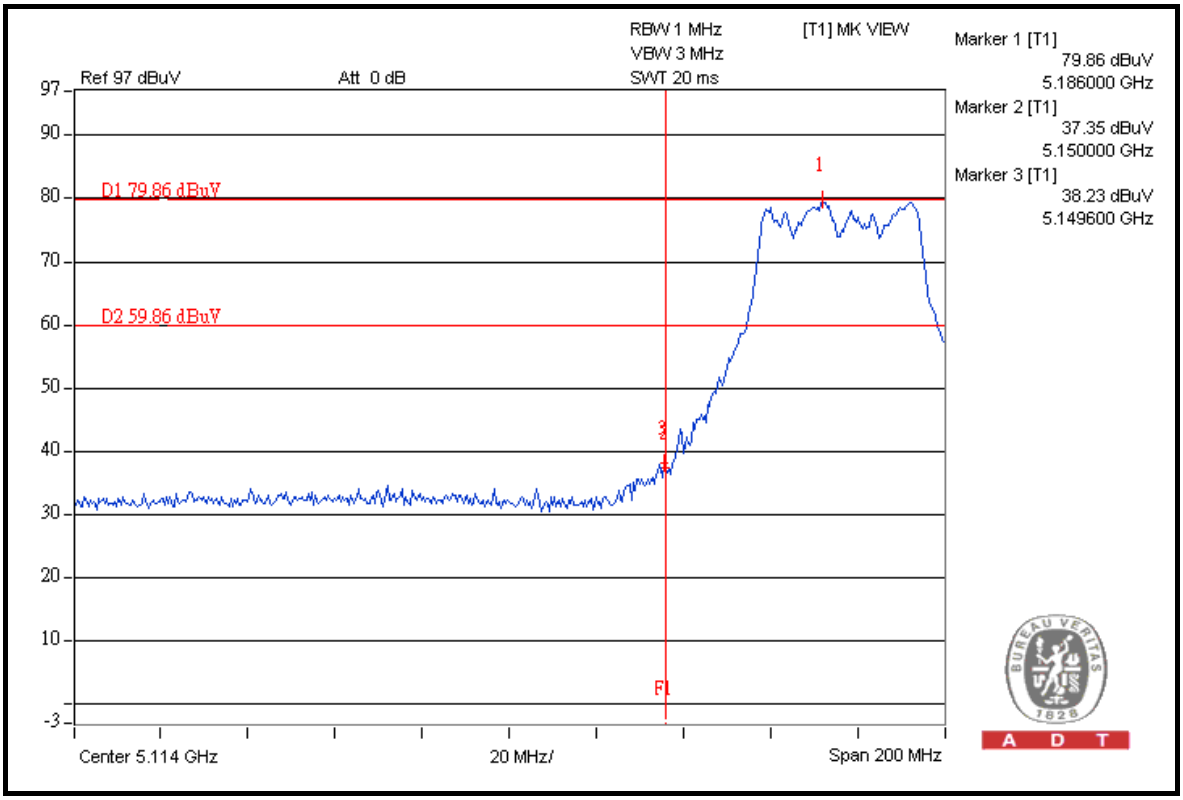
RESTRICT BAND (5350 ~ 5460 MHz)

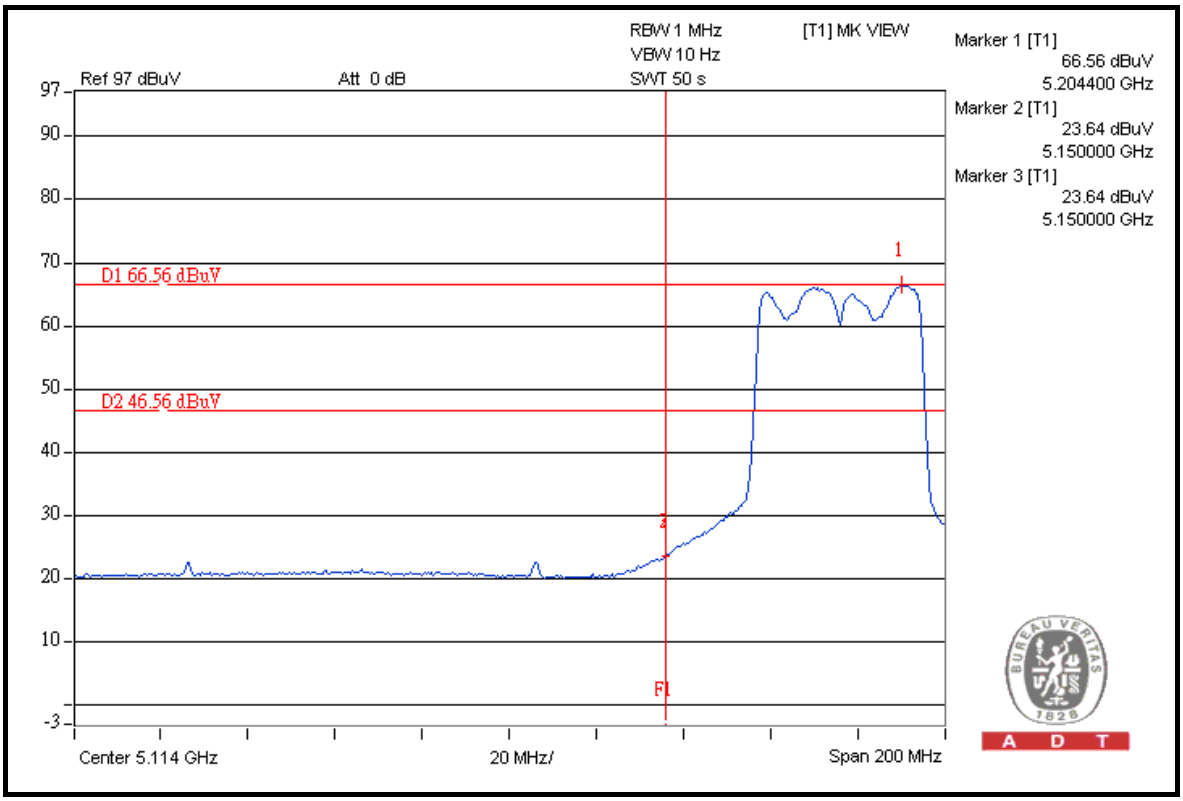
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	106.5	45.39	61.11	74.00
5230.00 (AV)	93.5	43.72	49.78	54.00

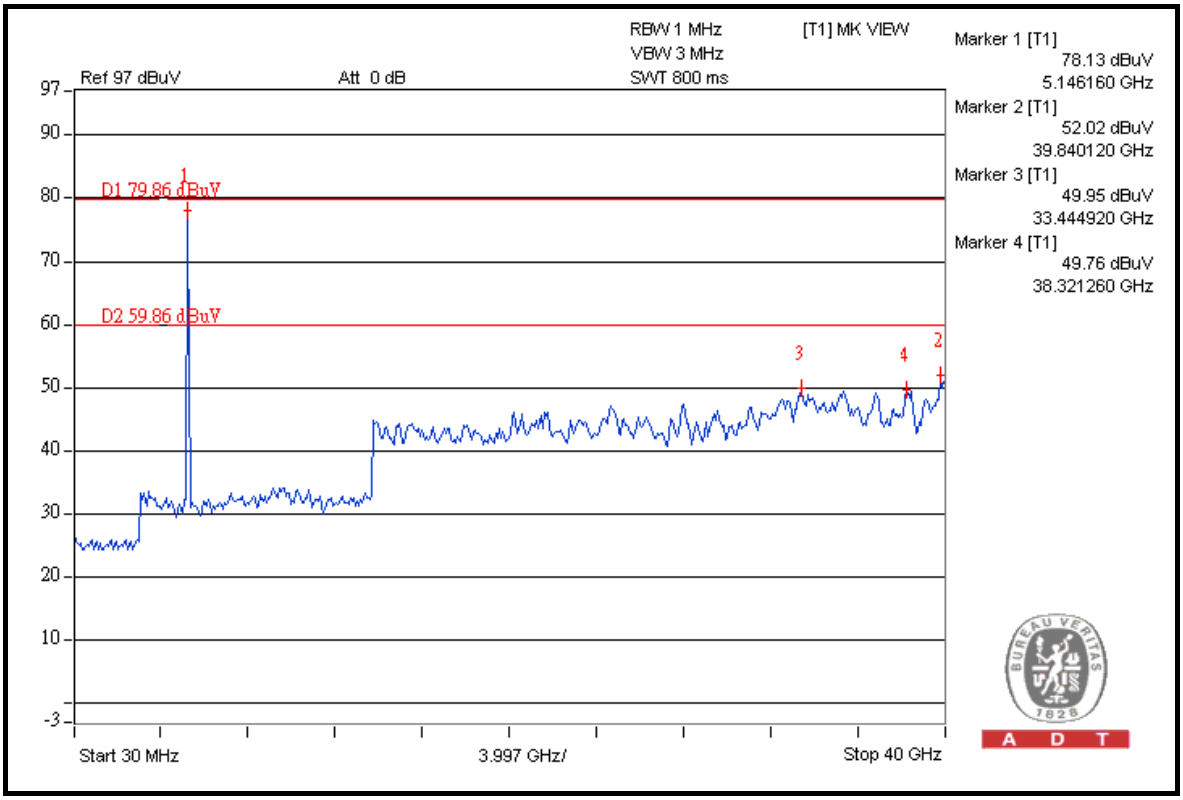
NOTE:

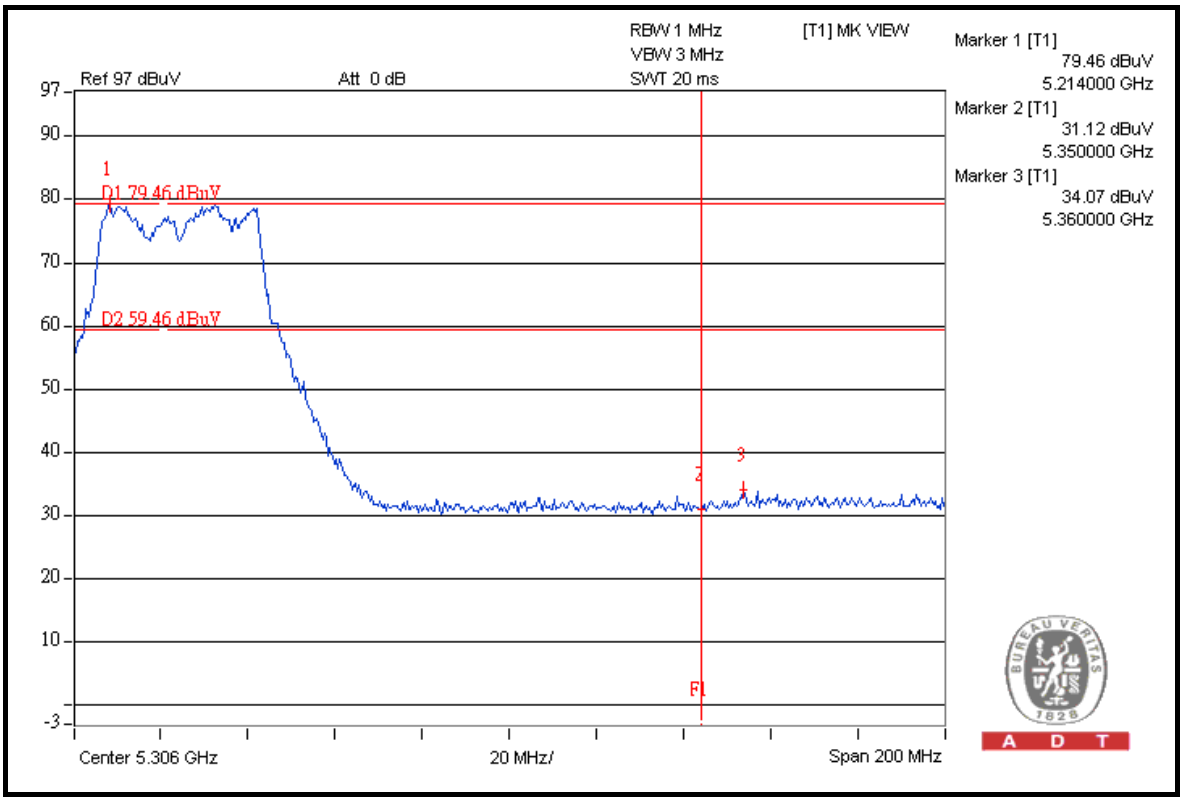
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

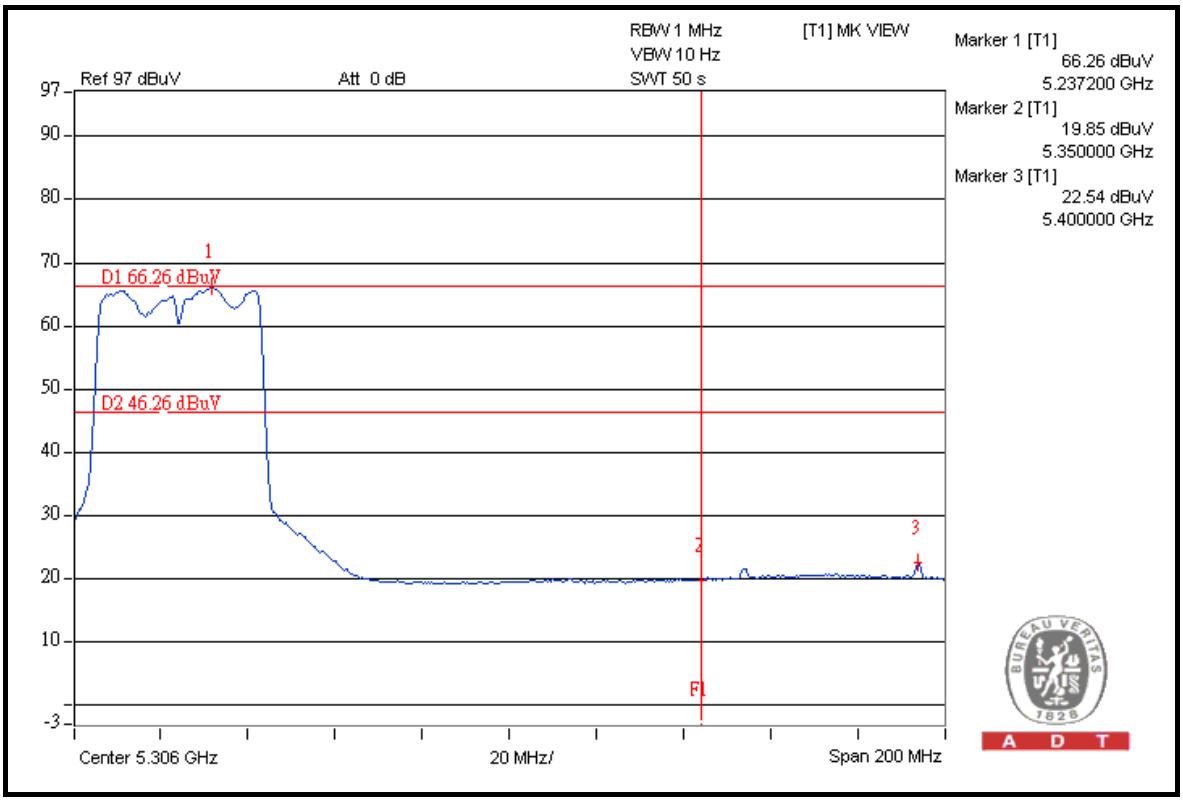
2. Maximum field strength in restrict band = Fundamental emission – Delta.

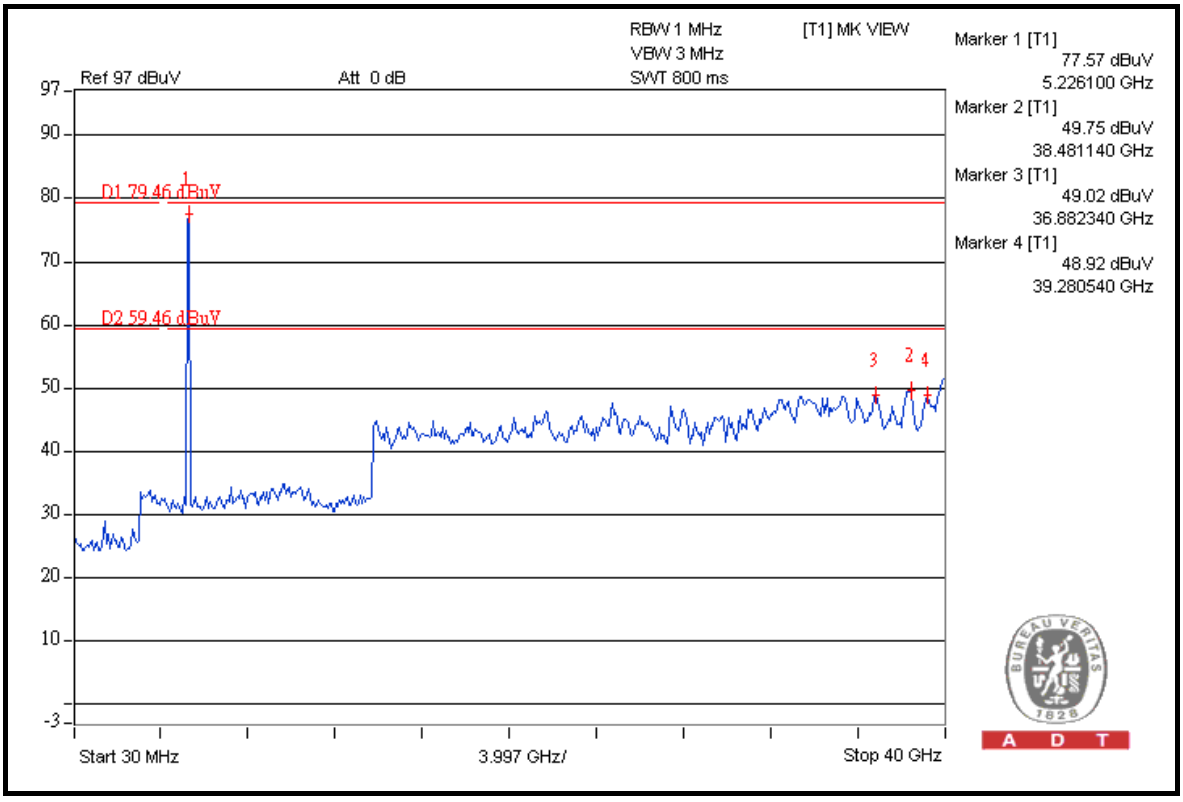

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.86 dBuV
5.186000 GHz
Marker 2 [T1]
37.35 dBuV
5.150000 GHz
Marker 3 [T1]
38.23 dBuV
5.149600 GHz
D1 79.86 dBuV
D2 59.86 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.56 dBuV
5.204400 GHz
Marker 2 [T1]
23.64 dBuV
5.150000 GHz
Marker 3 [T1]
23.64 dBuV
5.150000 GHz
D1 66.56 dBuV
D2 46.56 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.86 dBuV
D2 59.86 dBuV
Marker 1 [T1]
78.13 dBuV
5.146160 GHz
Marker 2 [T1]
52.02 dBuV
39.840120 GHz
Marker 3 [T1]
49.95 dBuV
33.444920 GHz
Marker 4 [T1]
49.76 dBuV
38.321260 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.46 dBuV
D2 59.46 dBuV
Marker 1 [T1]
79.46 dBuV
5.214000 GHz
Marker 2 [T1]
31.12 dBuV
5.350000 GHz
Marker 3 [T1]
34.07 dBuV
5.360000 GHz
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.26 dBuV
5.237200 GHz
Marker 2 [T1]
19.85 dBuV
5.350000 GHz
Marker 3 [T1]
22.54 dBuV
5.400000 GHz
D1 66.26 dBuV
D2 46.26 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.57 dBuV
5.226100 GHz
Marker 2 [T1]
49.75 dBuV
38.481140 GHz
Marker 3 [T1]
49.02 dBuV
36.882340 GHz
Marker 4 [T1]
48.92 dBuV
39.280540 GHz
D1 79.46 dBuV
D2 59.46 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.7.7 TEST RESULTS (TEST MODE B 2)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

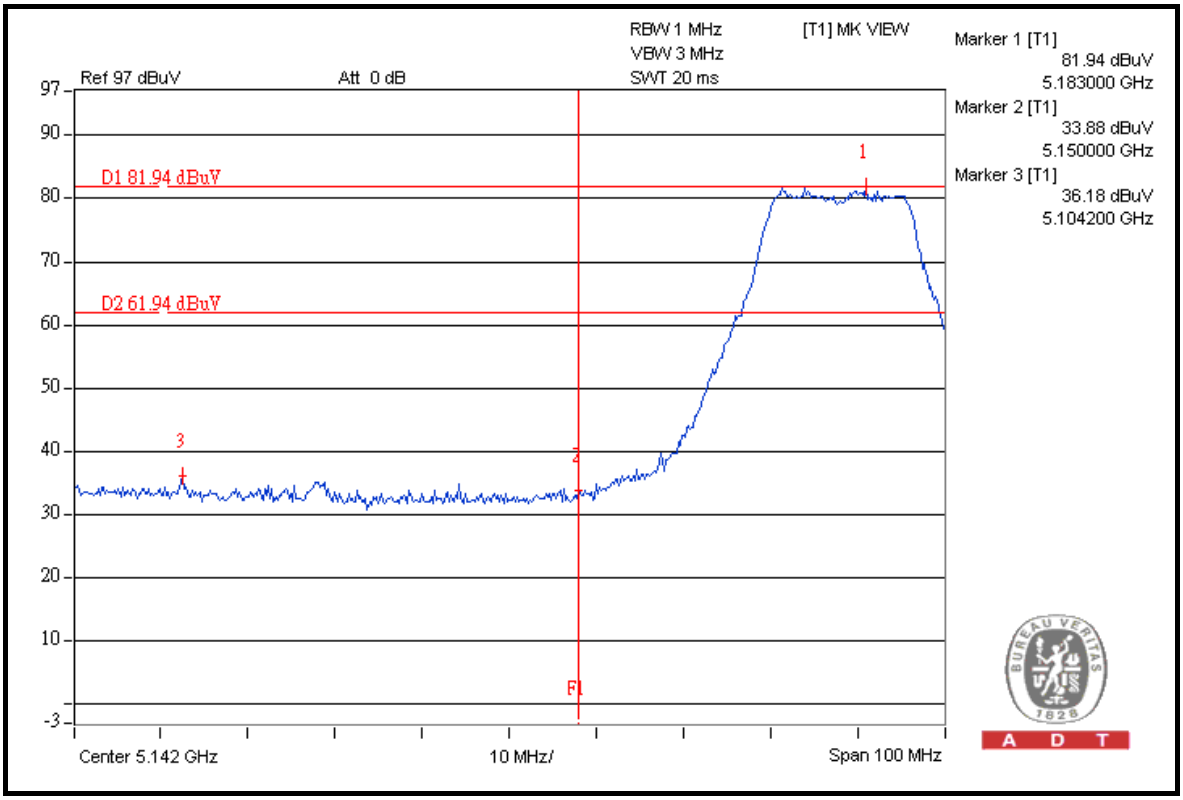
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	109.7	45.76	63.94	74.00
5180.00 (AV)	97.7	45.17	52.53	54.00

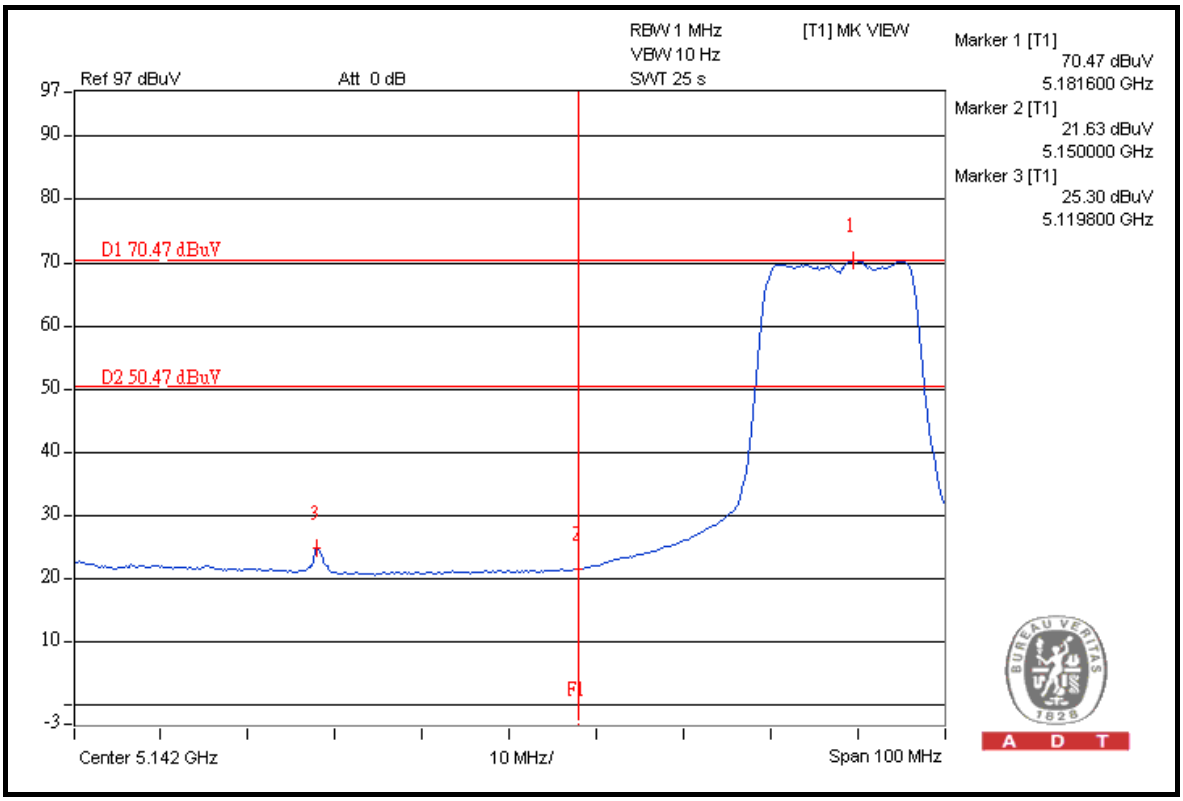
RESTRICT BAND (5350 ~ 5460 MHz)

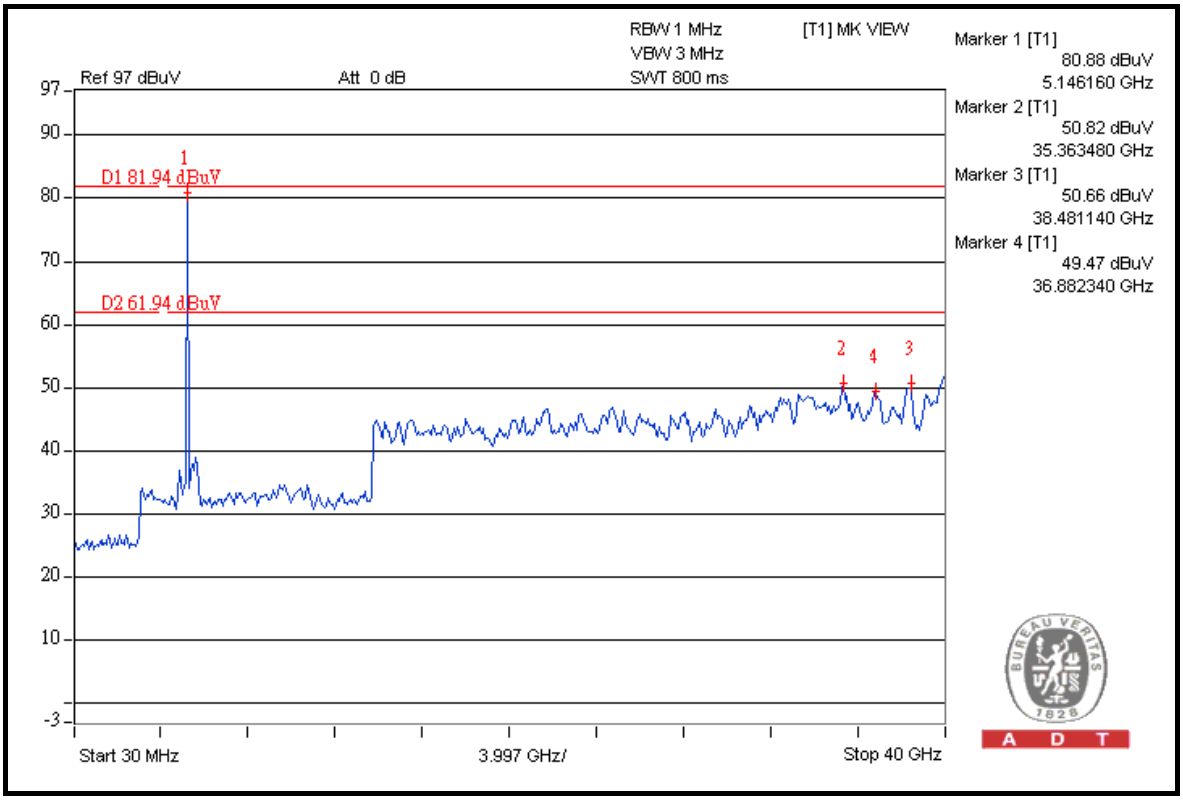
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.9	47.72	62.18	74.00
5240.00 (AV)	97.4	45.41	51.99	54.00

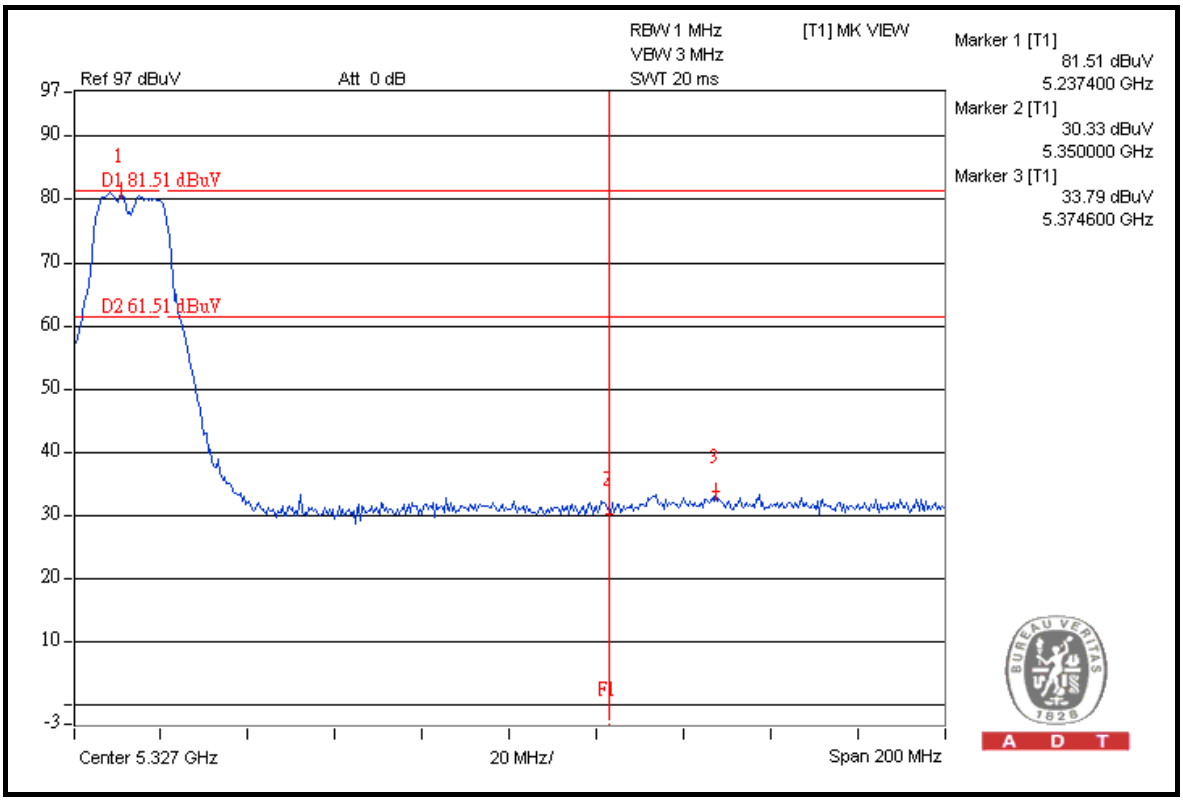
NOTE:

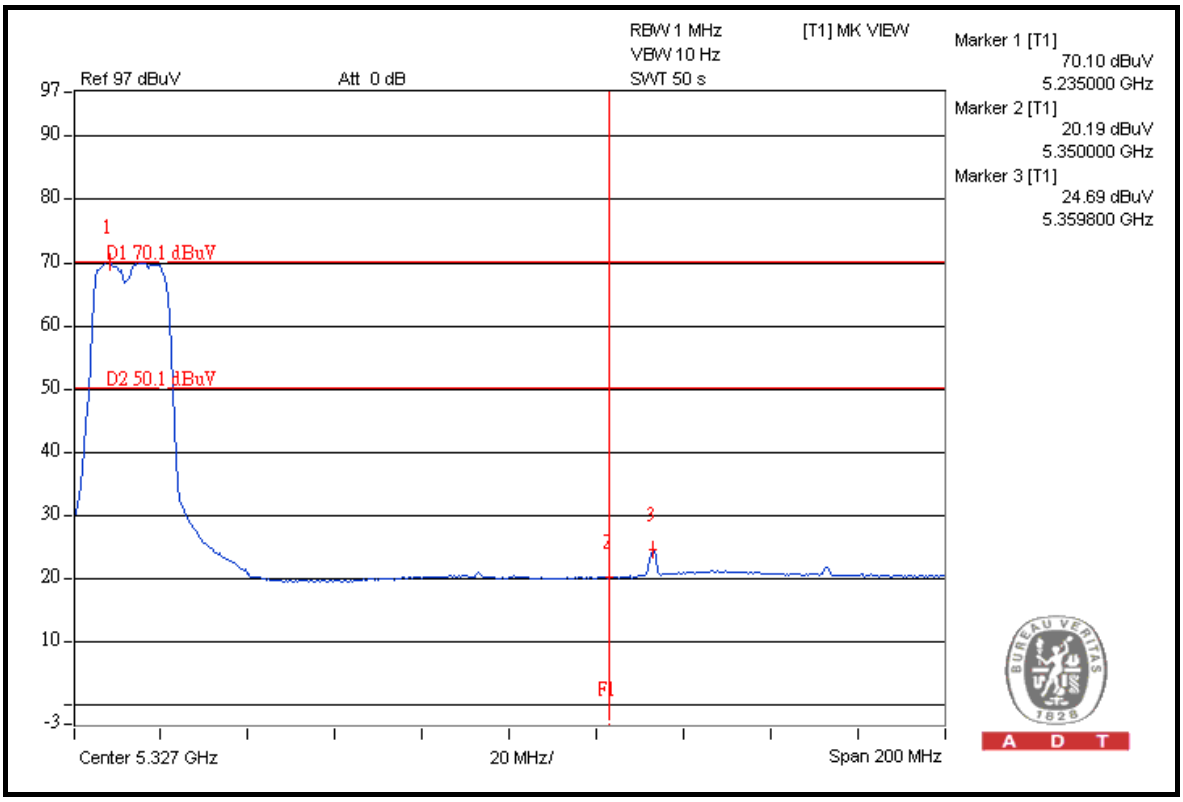
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

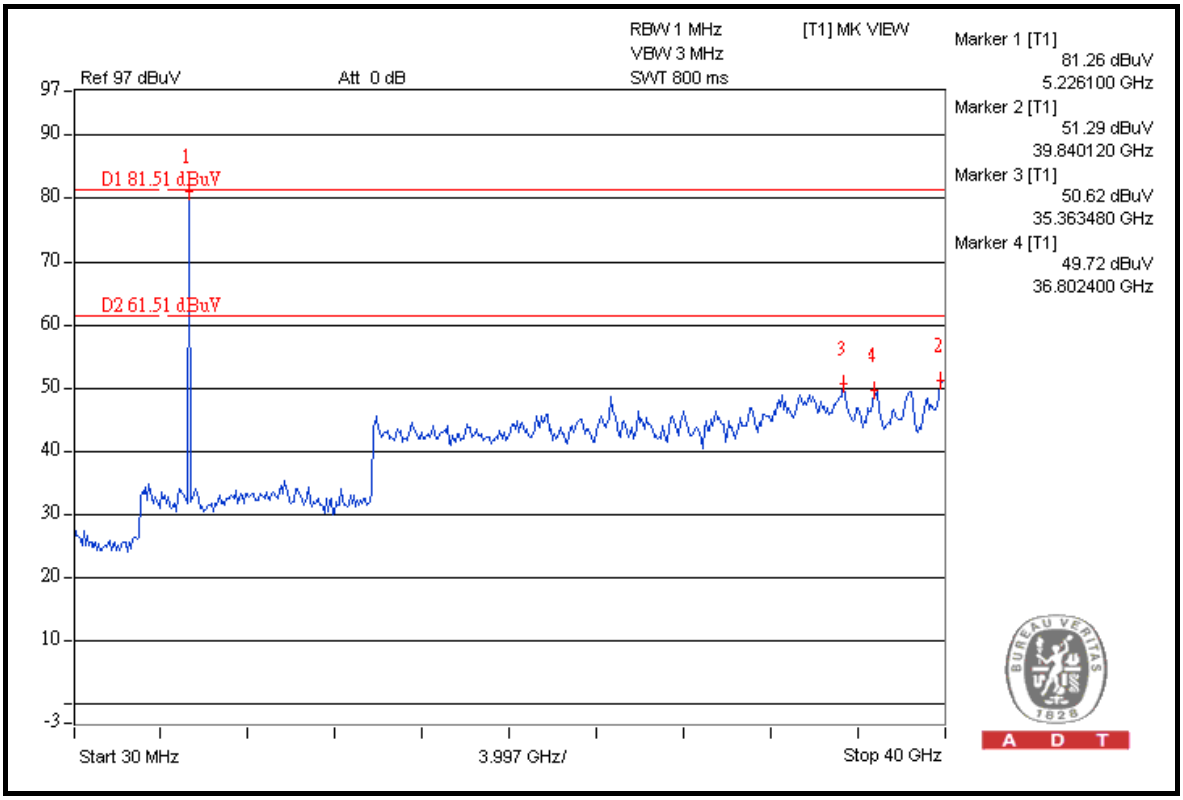

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.94 dBuV
5.183000 GHz
Marker 2 [T1]
33.88 dBuV
5.150000 GHz
Marker 3 [T1]
36.18 dBuV
5.104200 GHz
D1 81.94 dBuV
D2 61.94 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.47 dBuV
5.181600 GHz
Marker 2 [T1]
21.63 dBuV
5.150000 GHz
Marker 3 [T1]
25.30 dBuV
5.119800 GHz
D1 70.47 dBuV
D2 50.47 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.88 dBuV
5.146160 GHz
Marker 2 [T1]
50.82 dBuV
35.363480 GHz
Marker 3 [T1]
50.66 dBuV
38.481140 GHz
Marker 4 [T1]
49.47 dBuV
36.882340 GHz
D1 81.94 dBuV
D2 61.94 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.51 dBuV
5.237400 GHz
Marker 2 [T1]
30.33 dBuV
5.350000 GHz
Marker 3 [T1]
33.79 dBuV
5.374600 GHz
D1 81.51 dBuV
D2 61.51 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.10 dBuV
5.235000 GHz
Marker 2 [T1]
20.19 dBuV
5.350000 GHz
Marker 3 [T1]
24.69 dBuV
5.359800 GHz
D1 70.1 dBuV
D2 50.1 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.26 dBuV
5.226100 GHz
Marker 2 [T1]
51.29 dBuV
39.840120 GHz
Marker 3 [T1]
50.62 dBuV
35.363480 GHz
Marker 4 [T1]
49.72 dBuV
36.802400 GHz
D1 81.51 dBuV
D2 61.51 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

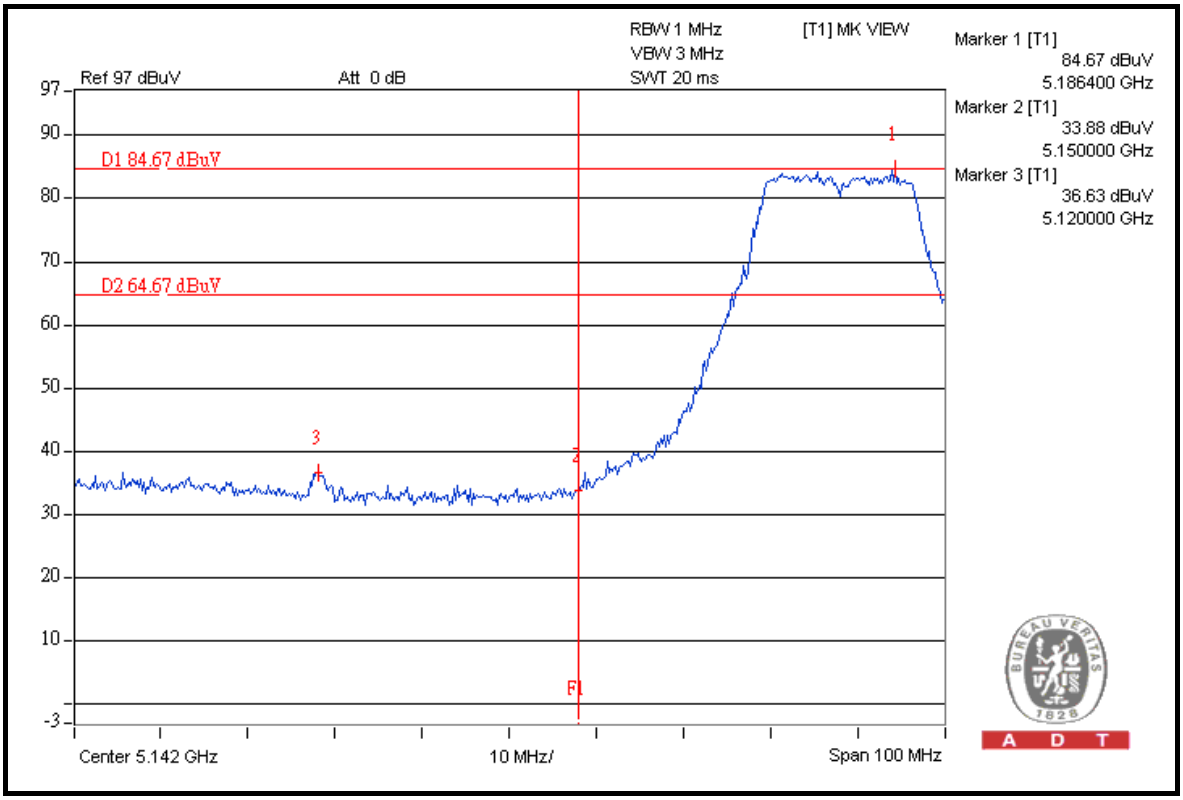
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	111.5	48.04	63.46	74.00
5180.00 (AV)	99.8	47.56	52.24	54.00

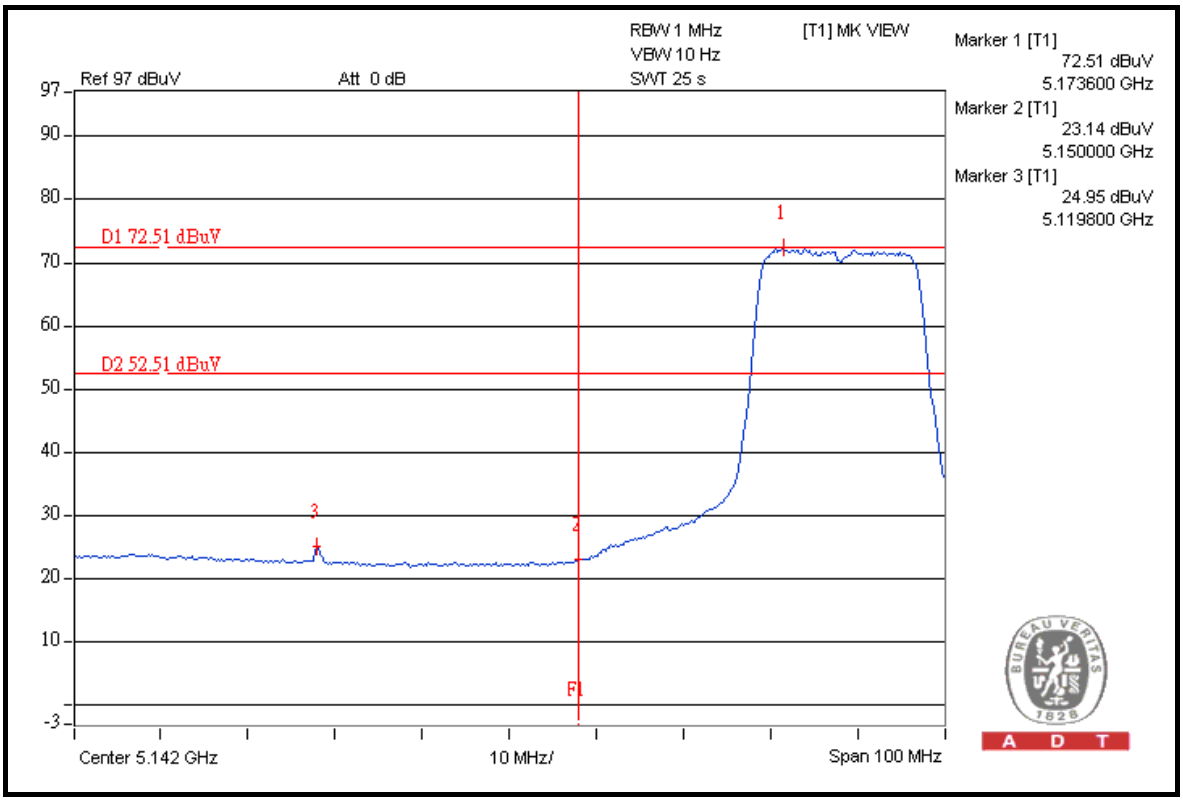
RESTRICT BAND (5350 ~ 5460 MHz)

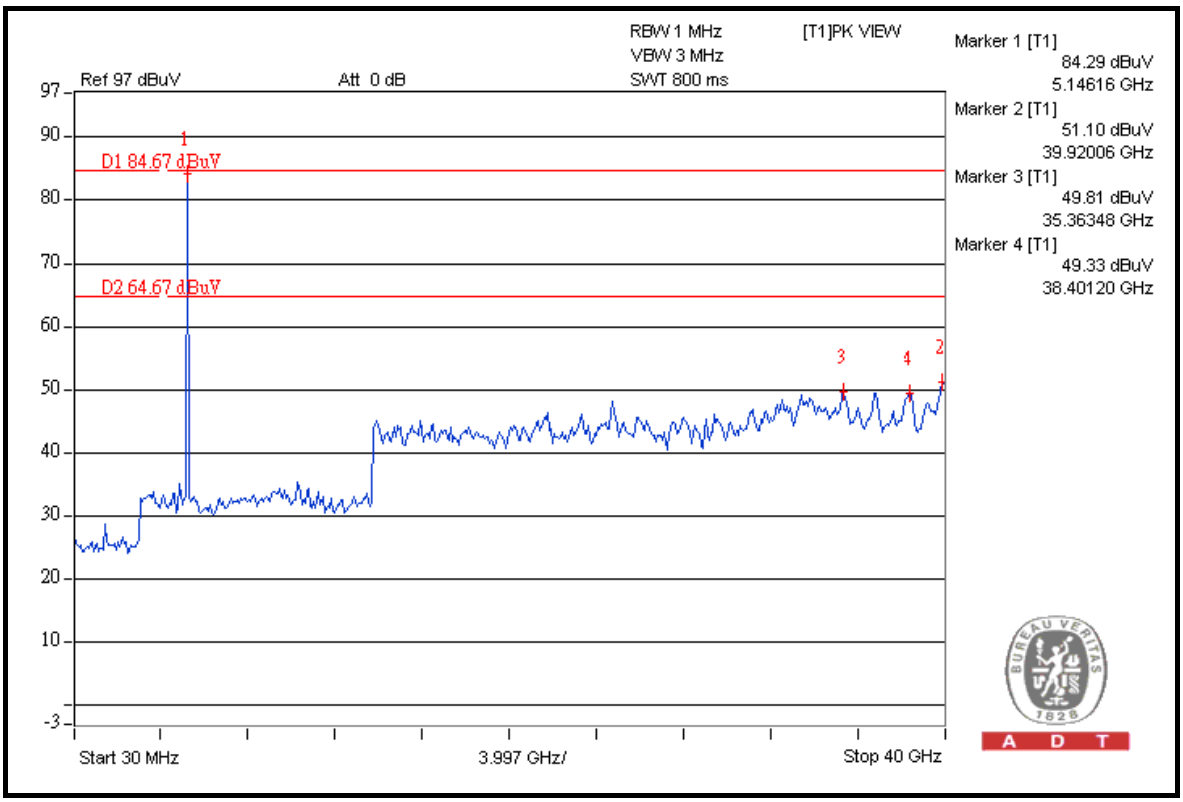
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	111.4	48.55	62.85	74.00
5240.00 (AV)	99.7	47.01	52.69	54.00

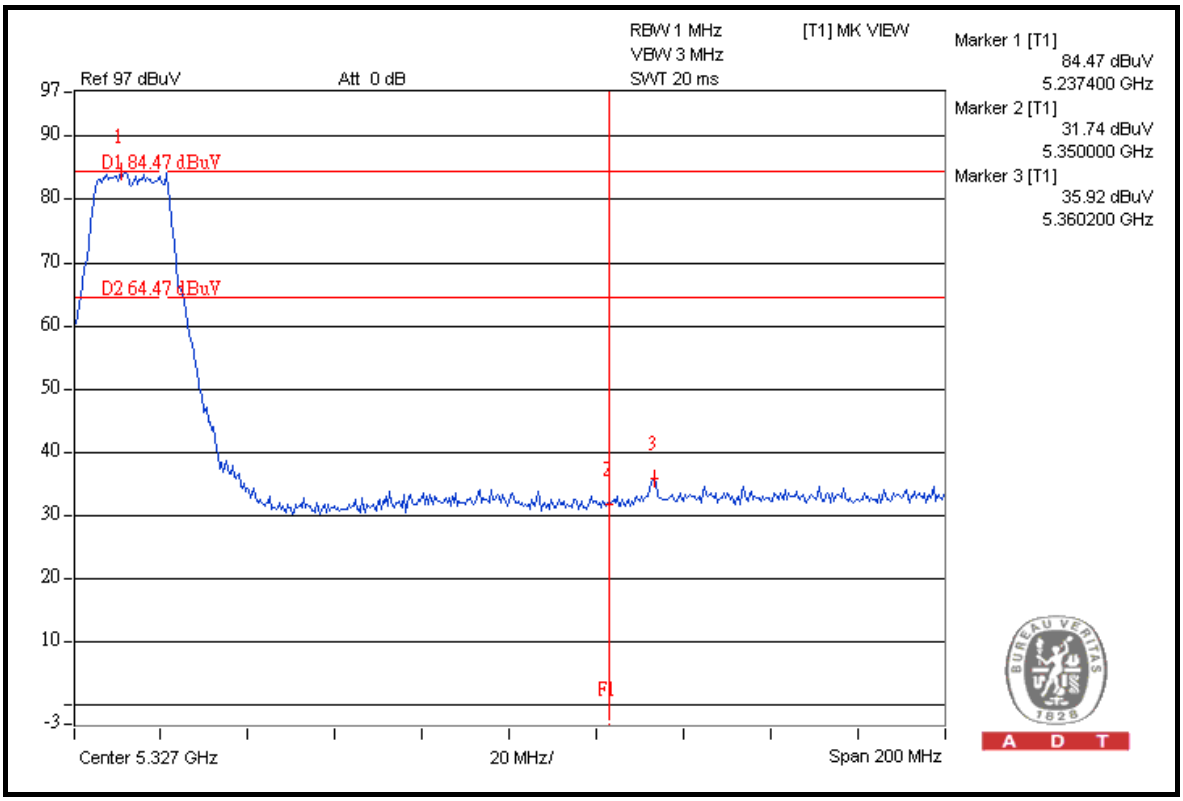
NOTE:

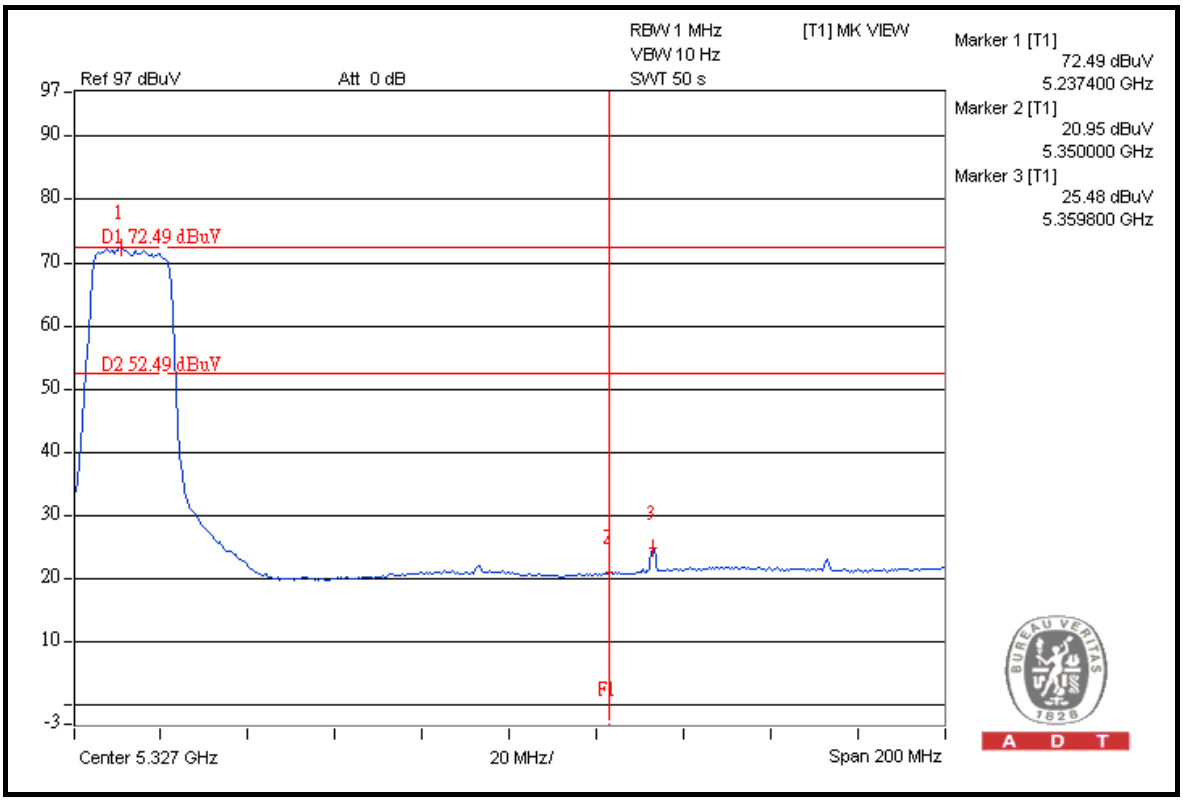
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

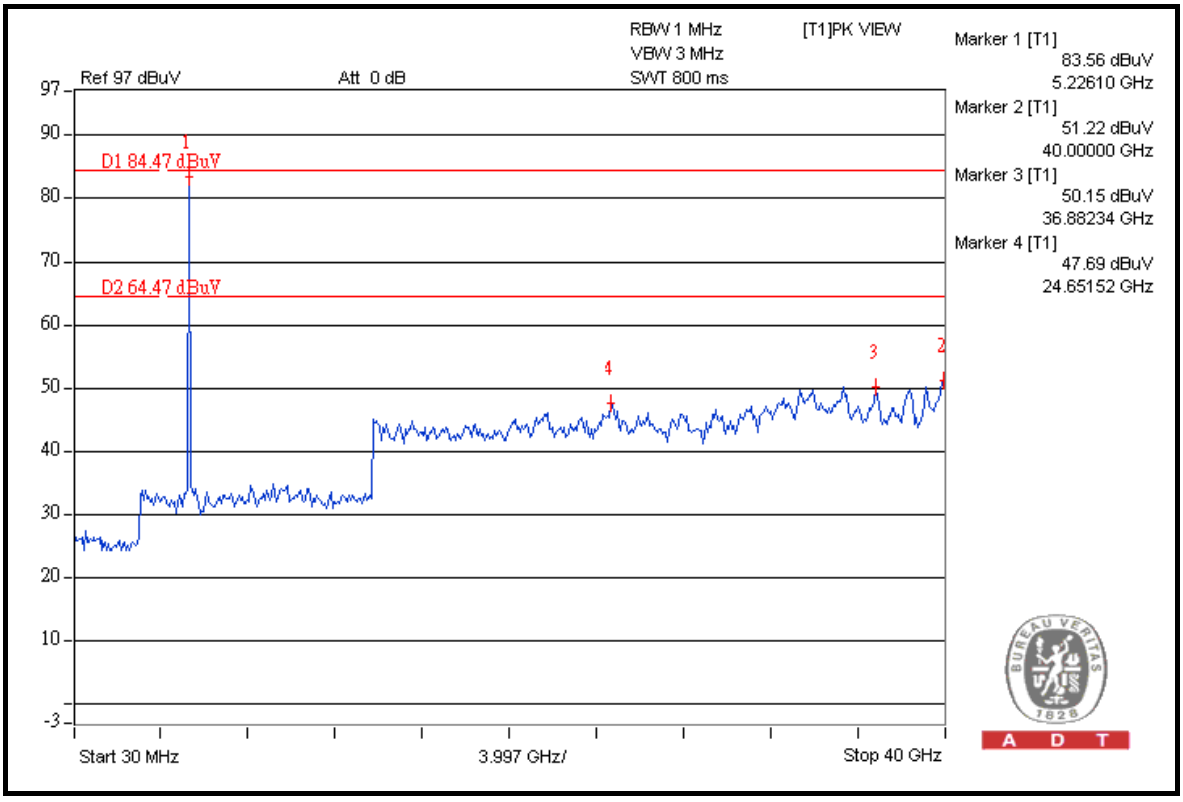

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
84.67 dBuV
5.186400 GHz
Marker 2 [T1]
33.88 dBuV
5.150000 GHz
Marker 3 [T1]
36.63 dBuV
5.120000 GHz
D1 84.67 dBuV
D2 64.67 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.51 dBuV
5.173600 GHz
Marker 2 [T1]
23.14 dBuV
5.150000 GHz
Marker 3 [T1]
24.95 dBuV
5.119800 GHz
D1 72.51 dBuV
D2 52.51 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1]PK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.67 dBuV
D2 64.67 dBuV
Marker 1 [T1]
84.29 dBuV
5.14616 GHz
Marker 2 [T1]
51.10 dBuV
39.92006 GHz
Marker 3 [T1]
49.81 dBuV
35.36348 GHz
Marker 4 [T1]
49.33 dBuV
38.40120 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.47 dBuV
D2 64.47 dBuV
Marker 1 [T1]
84.47 dBuV
5.237400 GHz
Marker 2 [T1]
31.74 dBuV
5.350000 GHz
Marker 3 [T1]
35.92 dBuV
5.360200 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
72.49 dBuV
5.237400 GHz
Marker 2 [T1]
20.95 dBuV
5.350000 GHz
Marker 3 [T1]
25.48 dBuV
5.359800 GHz
D1 72.49 dBuV
D2 52.49 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1]PK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.56 dBuV
5.22610 GHz
Marker 2 [T1]
51.22 dBuV
40.00000 GHz
Marker 3 [T1]
50.15 dBuV
36.88234 GHz
Marker 4 [T1]
47.69 dBuV
24.65152 GHz
D1 84.47 dBuV
D2 64.47 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	110.6	41.97	68.63	74.00
5190.00 (AV)	97.5	44.66	52.84	54.00

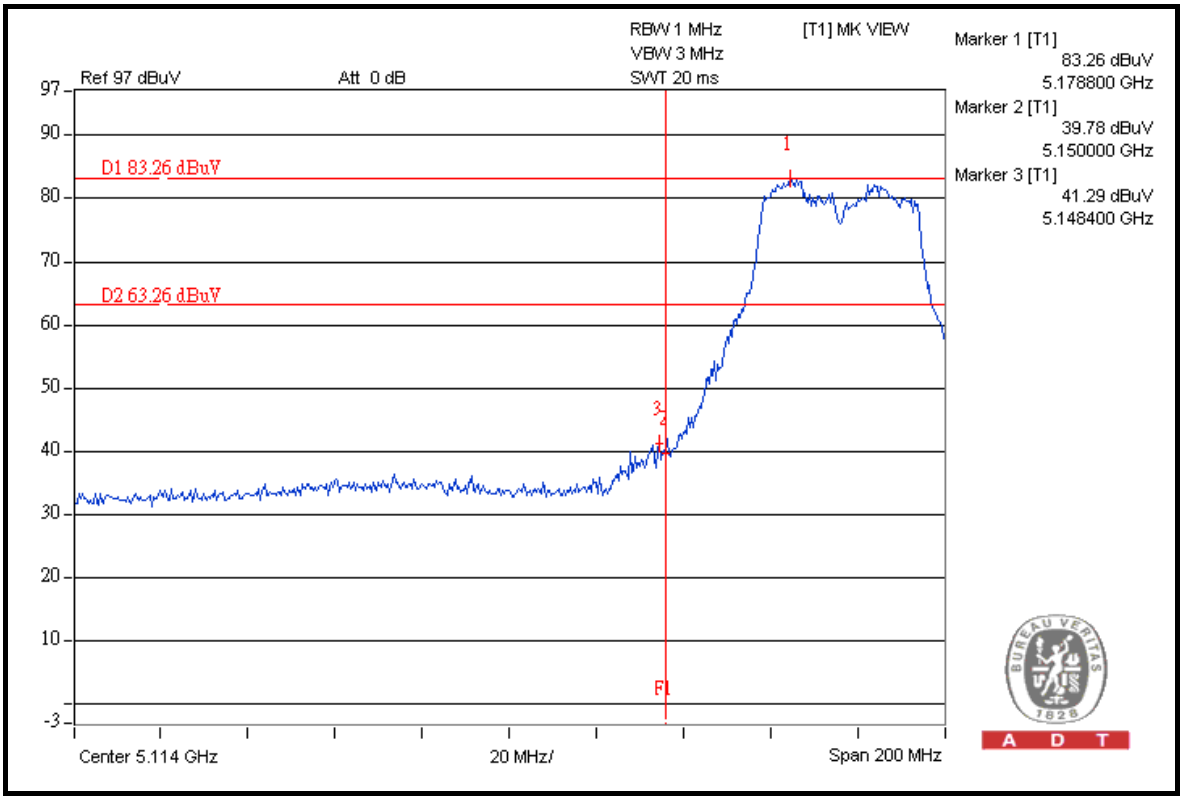
RESTRICT BAND (5350 ~ 5460 MHz)

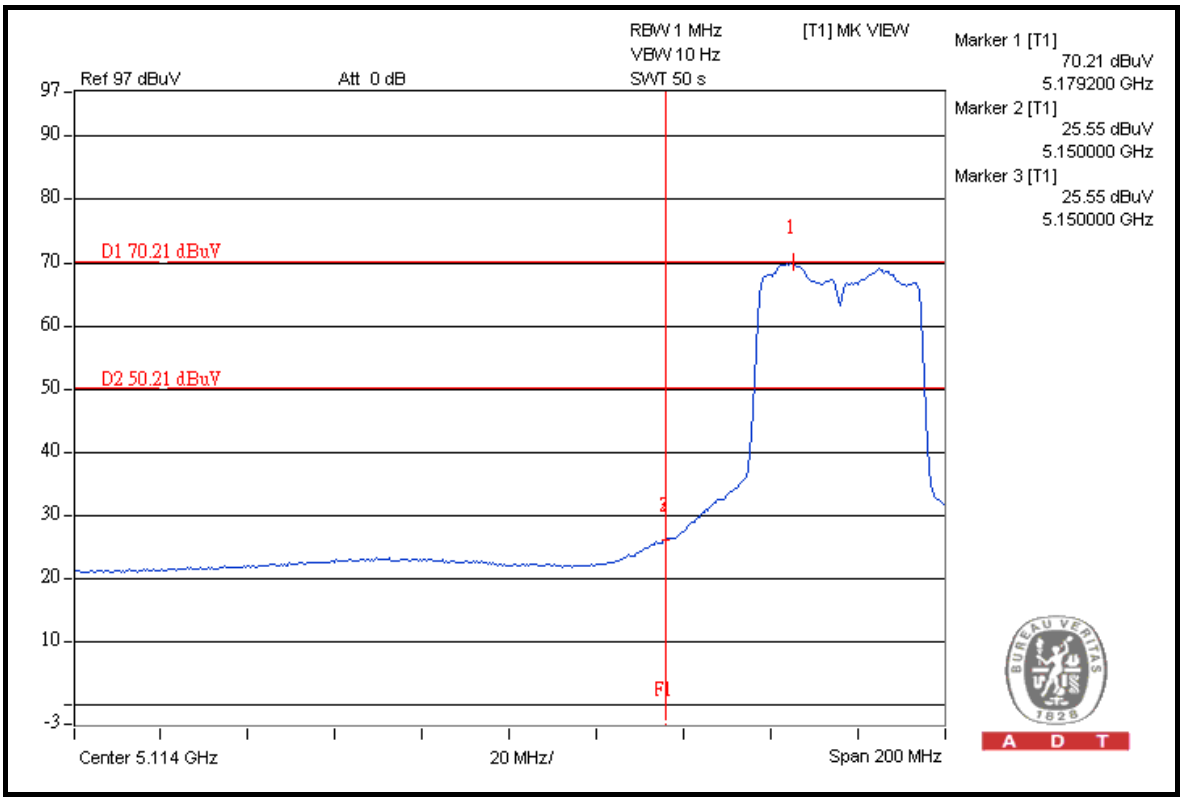
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	110.8	49.54	61.26	74.00
5230.00 (AV)	97.8	44.83	52.97	54.00

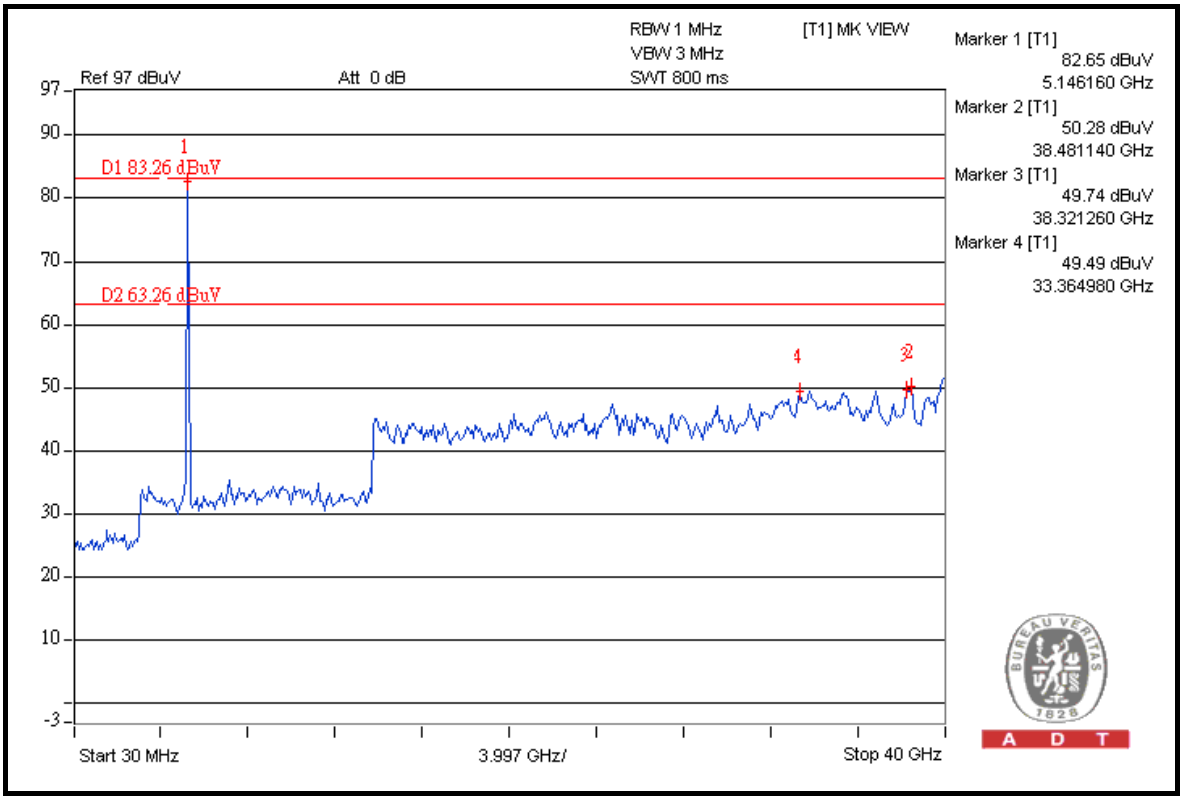
NOTE:

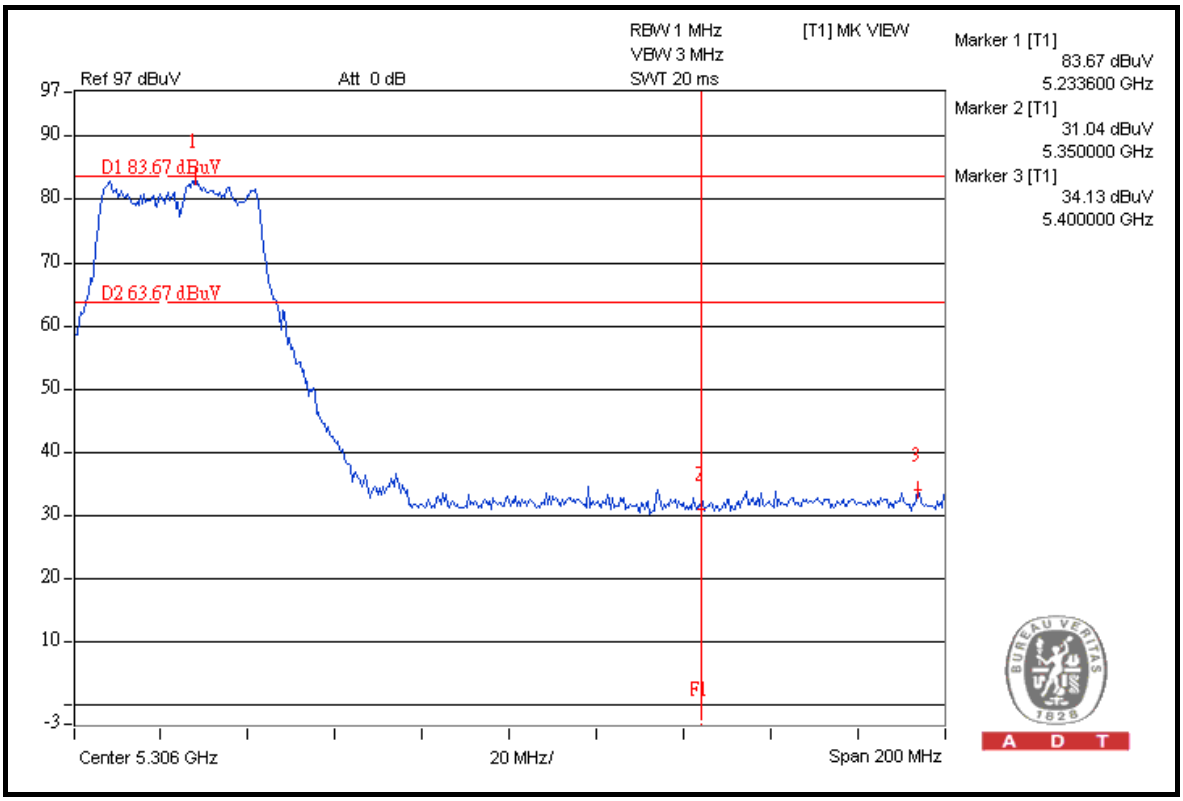
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

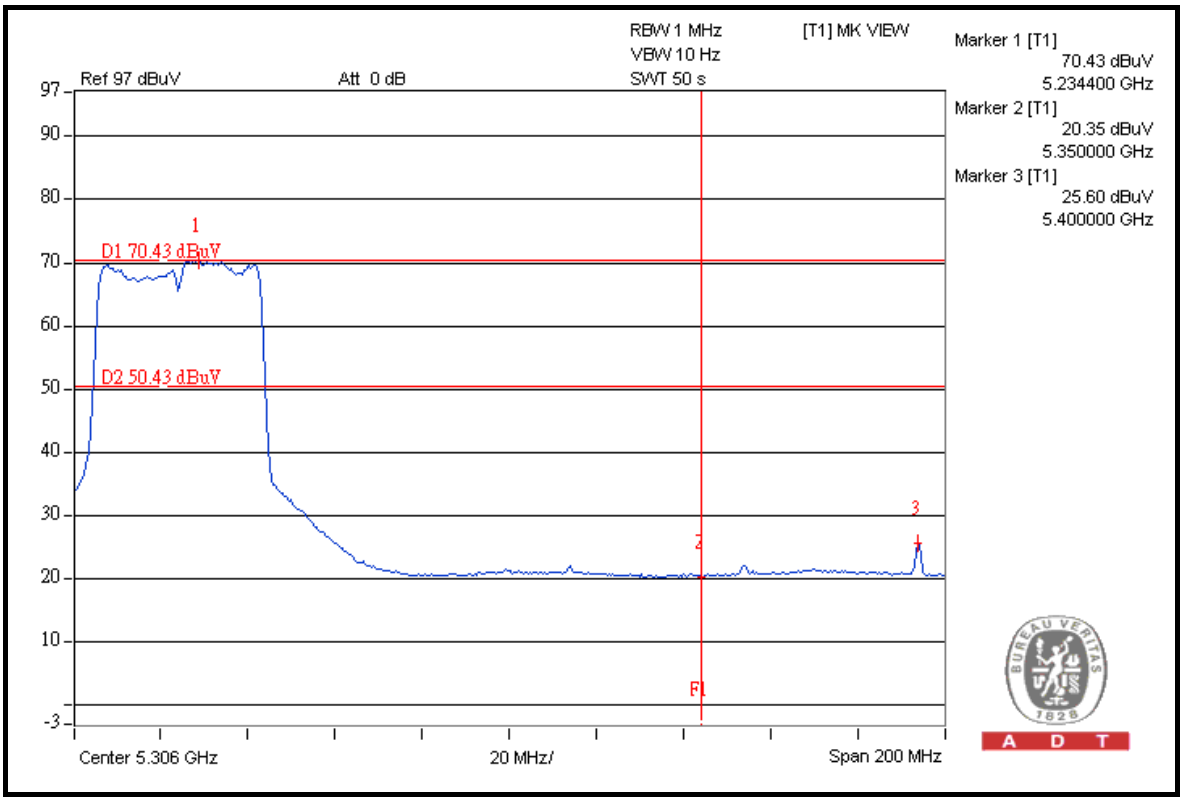
2. Maximum field strength in restrict band = Fundamental emission – Delta.

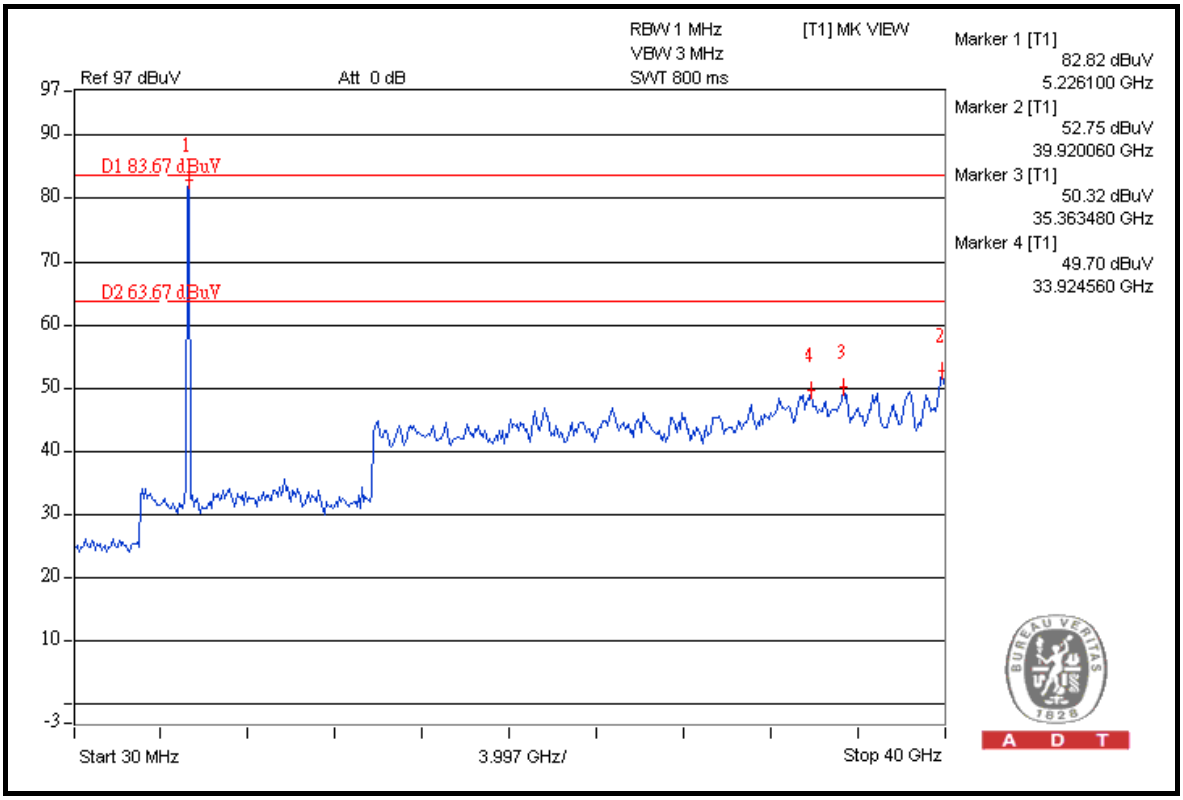

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
83.26 dBuV
5.178800 GHz
Marker 2 [T1]
39.78 dBuV
5.150000 GHz
Marker 3 [T1]
41.29 dBuV
5.148400 GHz
D1 83.26 dBuV
D2 63.26 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.21 dBuV
5.179200 GHz
Marker 2 [T1]
25.55 dBuV
5.150000 GHz
Marker 3 [T1]
25.55 dBuV
5.150000 GHz
D1 70.21 dBuV
D2 50.21 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 83.26 dBuV
D2 63.26 dBuV
Marker 1 [T1]
82.65 dBuV
5.146160 GHz
Marker 2 [T1]
50.28 dBuV
38.481140 GHz
Marker 3 [T1]
49.74 dBuV
38.321260 GHz
Marker 4 [T1]
49.49 dBuV
33.364980 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 83.67 dBuV
D2 63.67 dBuV
Marker 1 [T1]
83.67 dBuV
5.233600 GHz
Marker 2 [T1]
31.04 dBuV
5.350000 GHz
Marker 3 [T1]
34.13 dBuV
5.400000 GHz
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.43 dBuV
5.234400 GHz
Marker 2 [T1]
20.35 dBuV
5.350000 GHz
Marker 3 [T1]
25.60 dBuV
5.400000 GHz
D1 70.43 dBuV
D2 50.43 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
82.82 dBuV
5.226100 GHz
Marker 2 [T1]
52.75 dBuV
39.920060 GHz
Marker 3 [T1]
50.32 dBuV
35.363480 GHz
Marker 4 [T1]
49.70 dBuV
33.924560 GHz
D1 83.67 dBuV
D2 63.67 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.7.8 TEST RESULTS (TEST MODE C 1)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

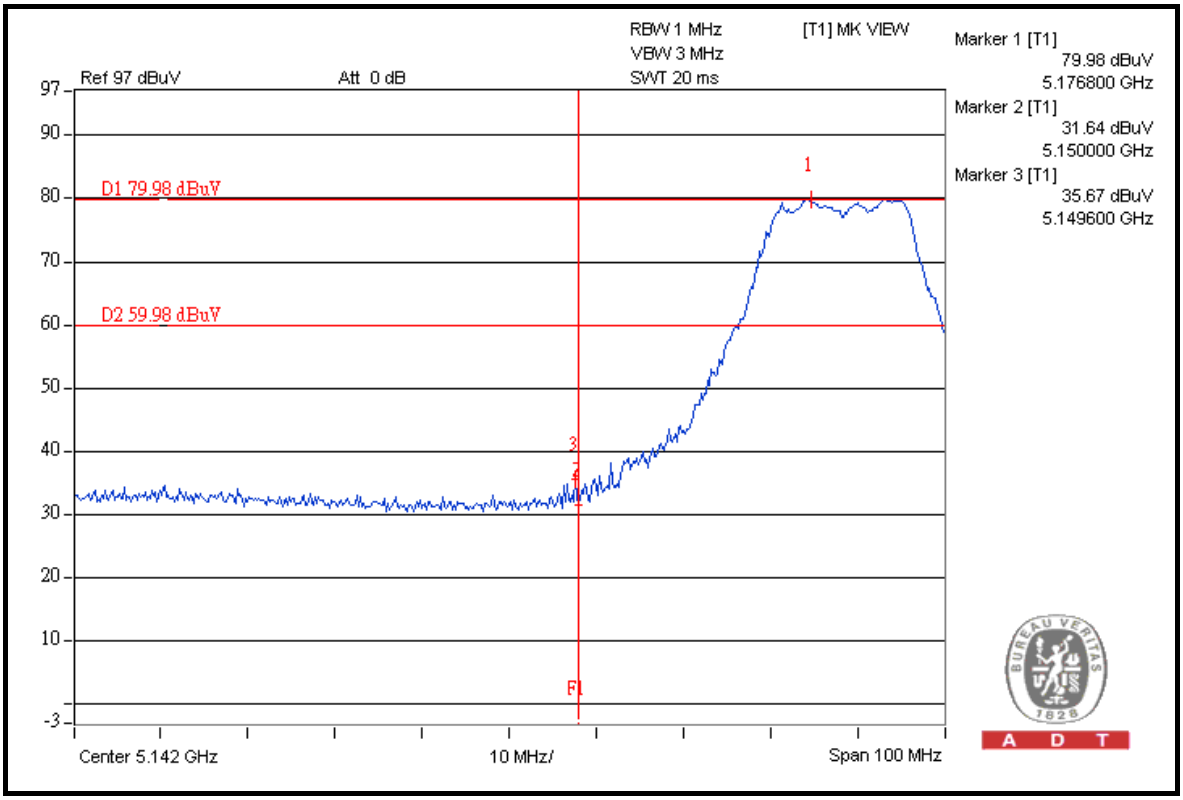
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	109.6	44.31	65.29	74.00
5180.00 (AV)	97.4	48.25	49.15	54.00

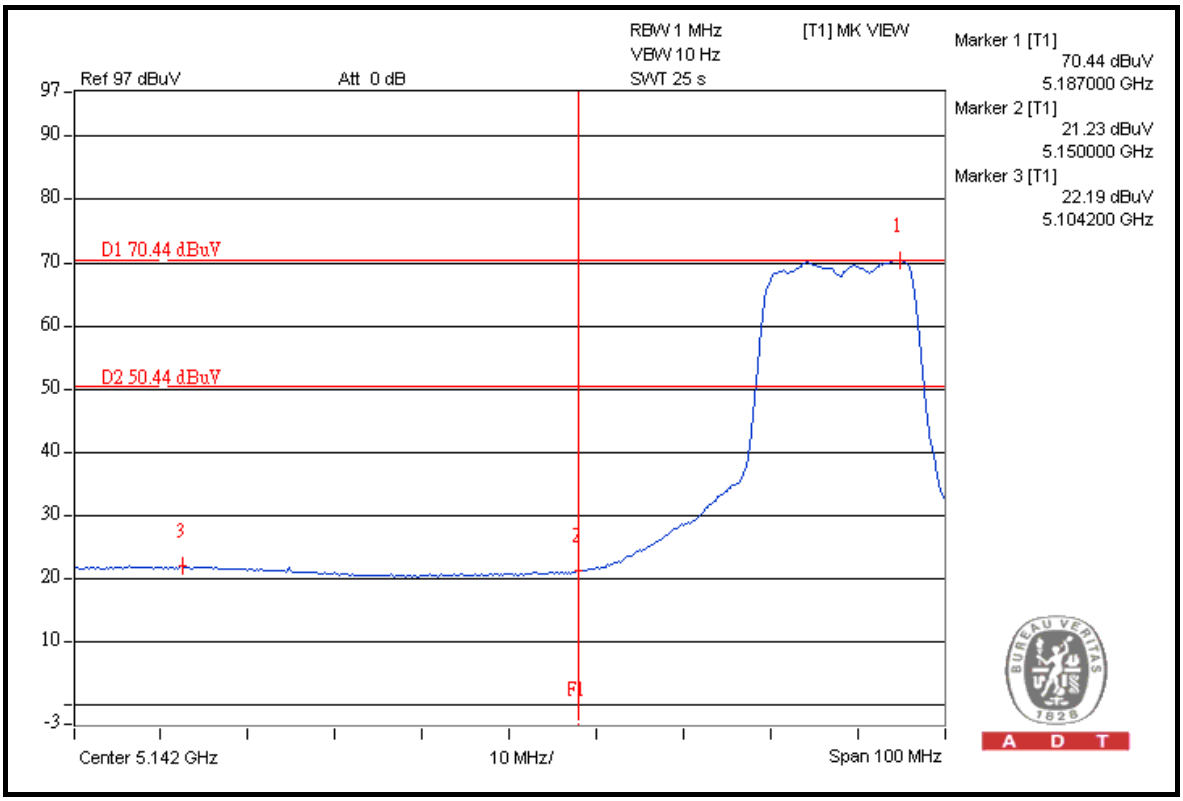
RESTRICT BAND (5350 ~ 5460 MHz)

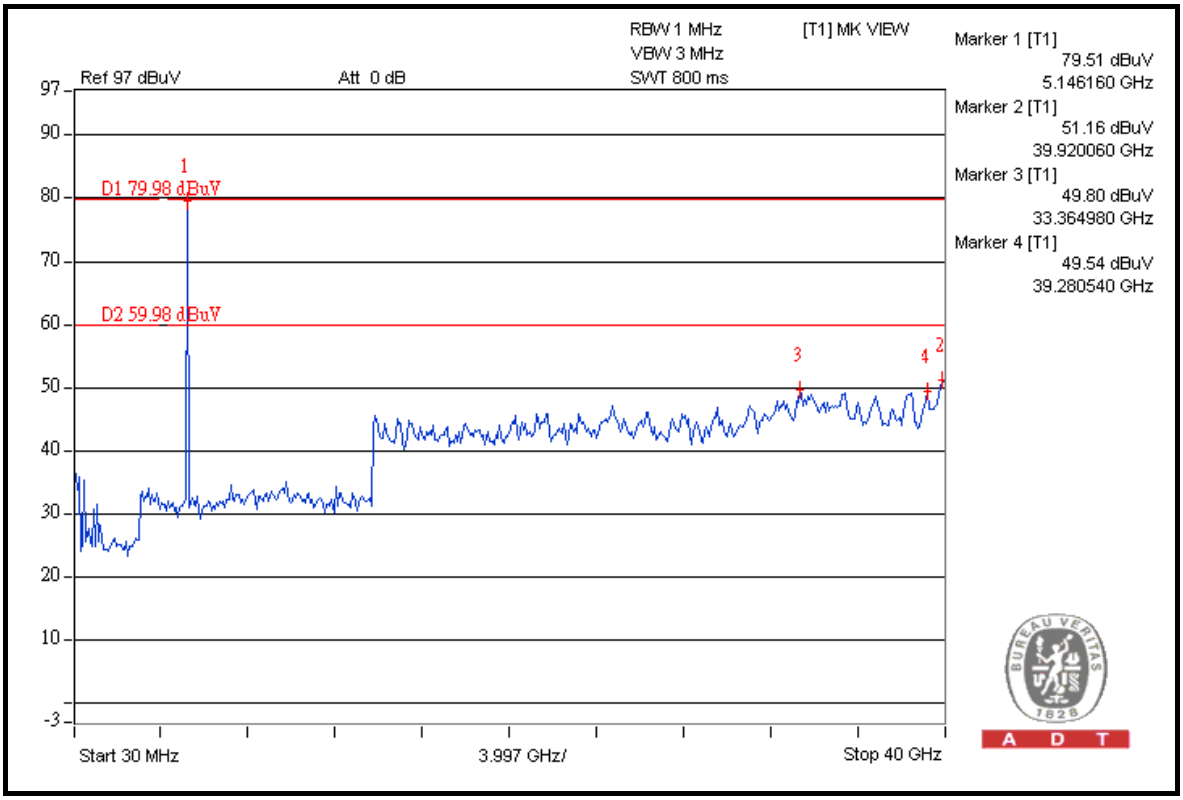
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.2	45.85	63.35	74.00
5240.00 (AV)	96.9	48.37	48.53	54.00

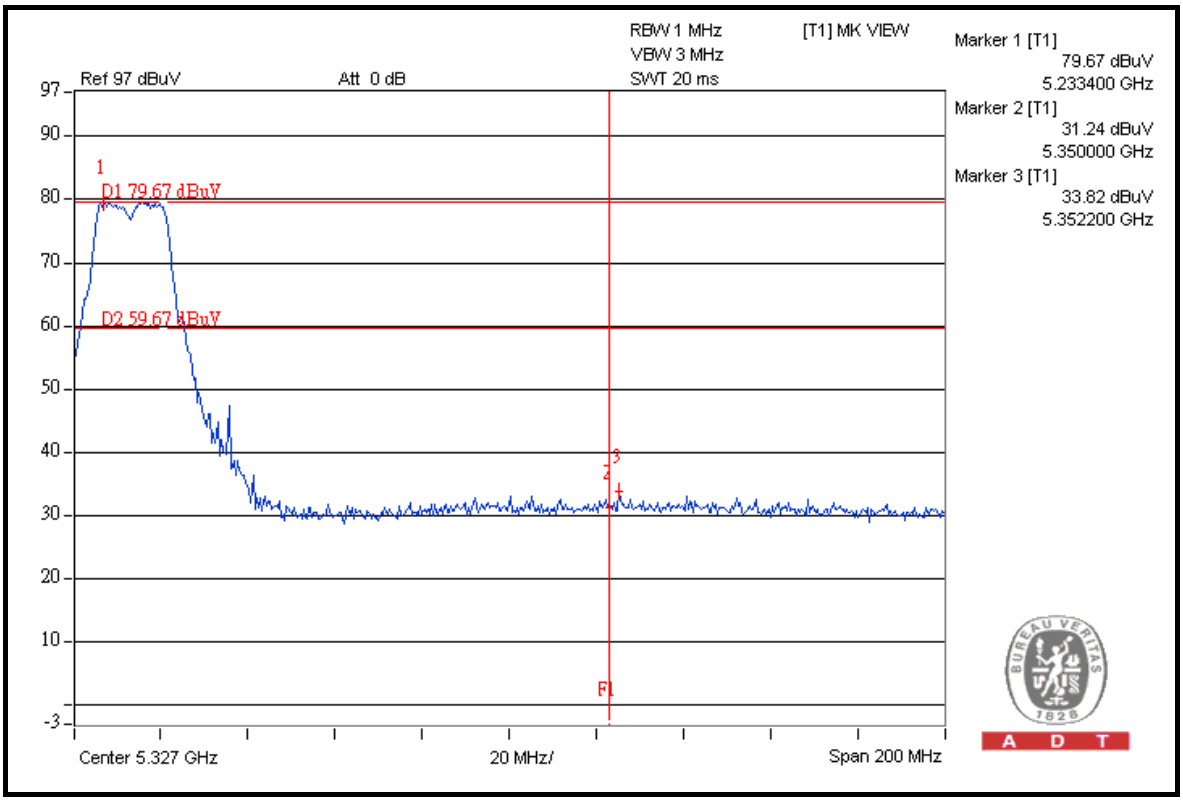
NOTE:

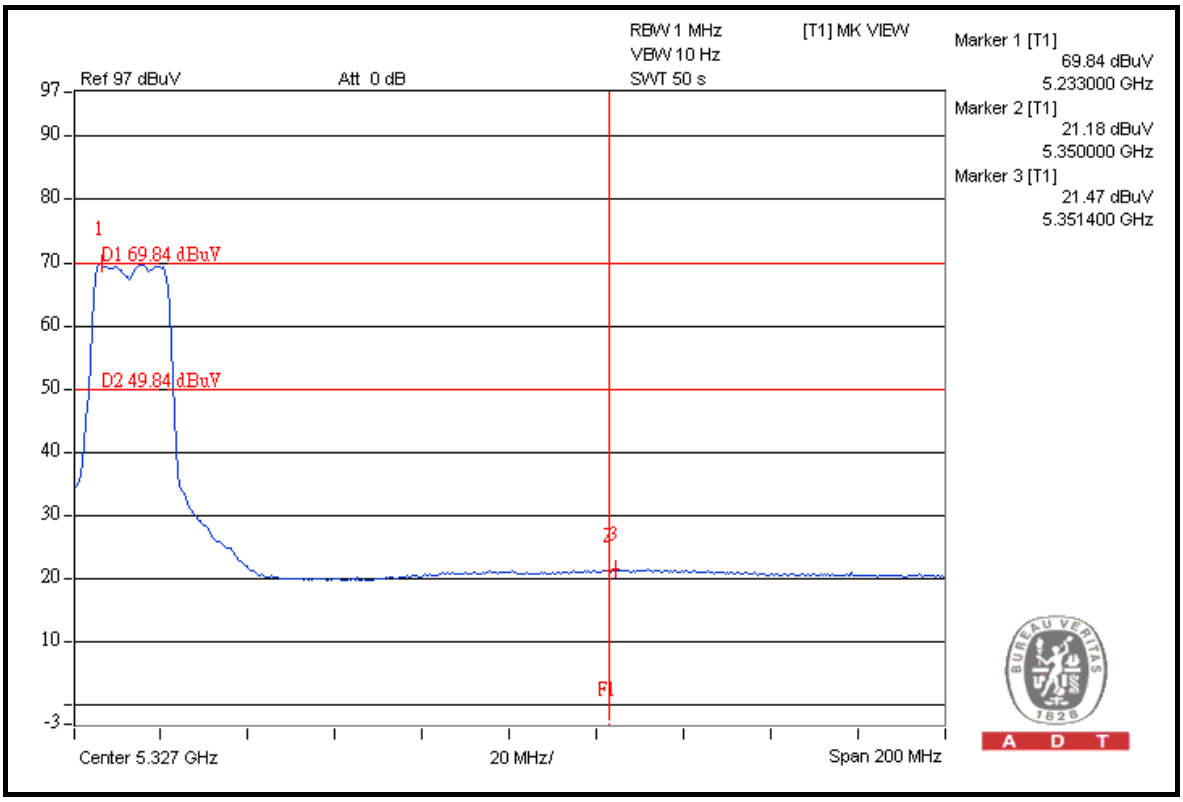
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

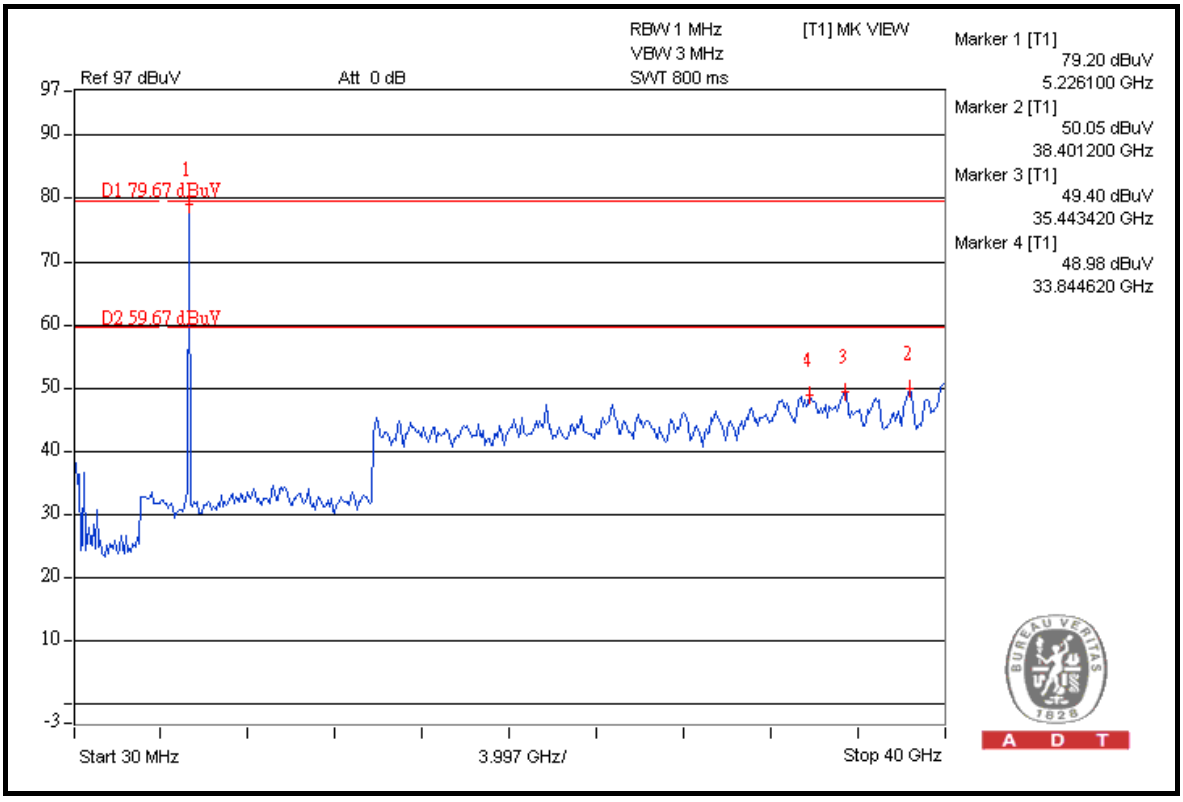

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.98 dBuV
5.176800 GHz
Marker 2 [T1]
31.64 dBuV
5.150000 GHz
Marker 3 [T1]
35.67 dBuV
5.149600 GHz
D1 79.98 dBuV
D2 59.98 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.44 dBuV
5.187000 GHz
Marker 2 [T1]
21.23 dBuV
5.150000 GHz
Marker 3 [T1]
22.19 dBuV
5.104200 GHz
D1 70.44 dBuV
D2 50.44 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.98 dBuV
D2 59.98 dBuV
Marker 1 [T1]
79.51 dBuV
5.146160 GHz
Marker 2 [T1]
51.16 dBuV
39.920060 GHz
Marker 3 [T1]
49.80 dBuV
33.364980 GHz
Marker 4 [T1]
49.54 dBuV
39.280540 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 79.67 dBuV
D2 59.67 dBuV
Marker 1 [T1]
79.67 dBuV
5.233400 GHz
Marker 2 [T1]
31.24 dBuV
5.350000 GHz
Marker 3 [T1]
33.82 dBuV
5.352200 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.84 dBuV
5.233000 GHz
Marker 2 [T1]
21.18 dBuV
5.350000 GHz
Marker 3 [T1]
21.47 dBuV
5.351400 GHz
D1 69.84 dBuV
D2 49.84 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
79.20 dBuV
5.226100 GHz
Marker 2 [T1]
50.05 dBuV
38.401200 GHz
Marker 3 [T1]
49.40 dBuV
35.443420 GHz
Marker 4 [T1]
48.98 dBuV
33.844620 GHz
D1 79.67 dBuV
D2 59.67 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

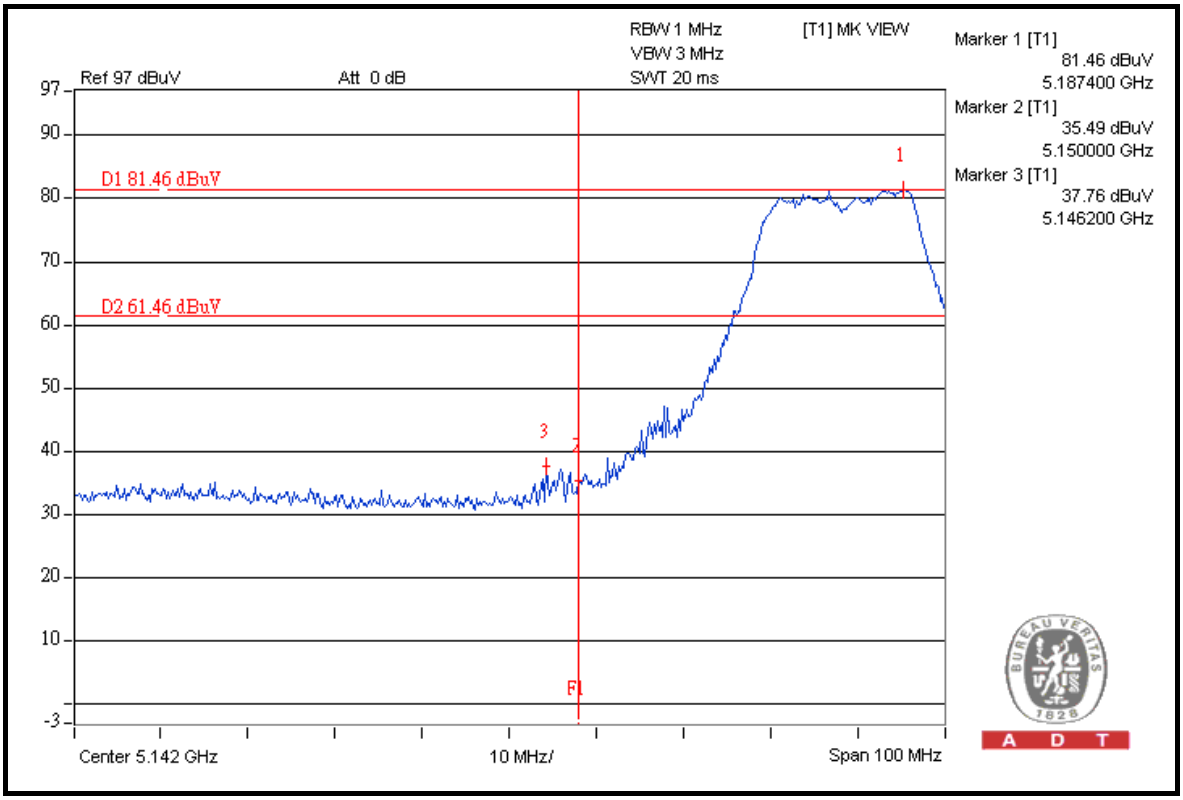
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	109.8	43.70	66.10	74.00
5180.00 (AV)	97.6	49.11	48.49	54.00

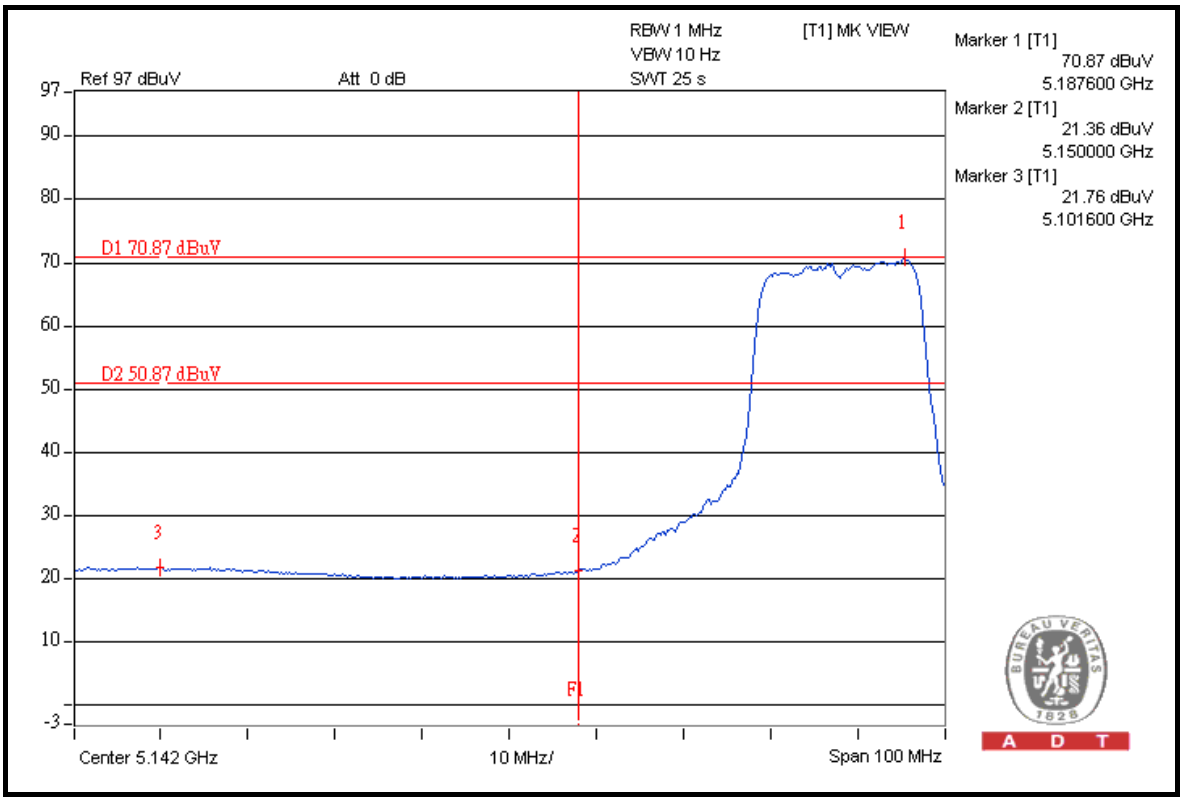
RESTRICT BAND (5350 ~ 5460 MHz)

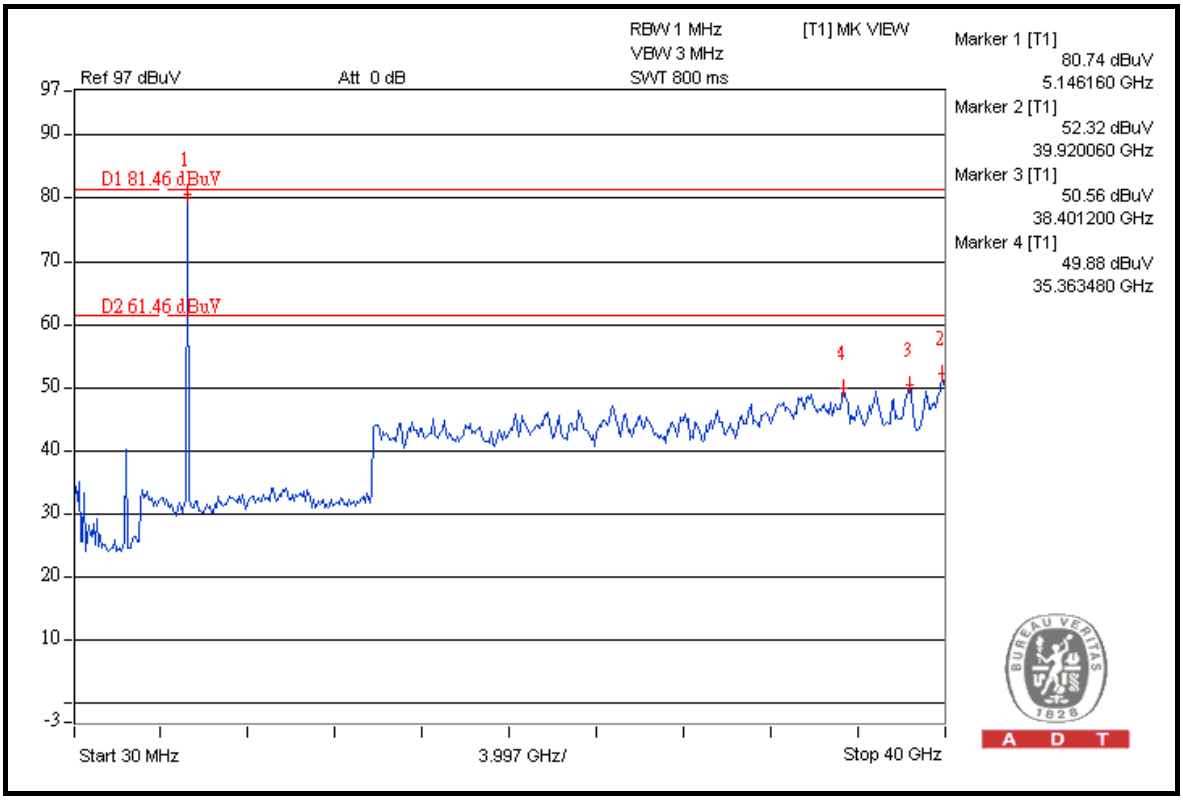
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.3	46.16	63.14	74.00
5240.00 (AV)	97.1	48.03	49.07	54.00

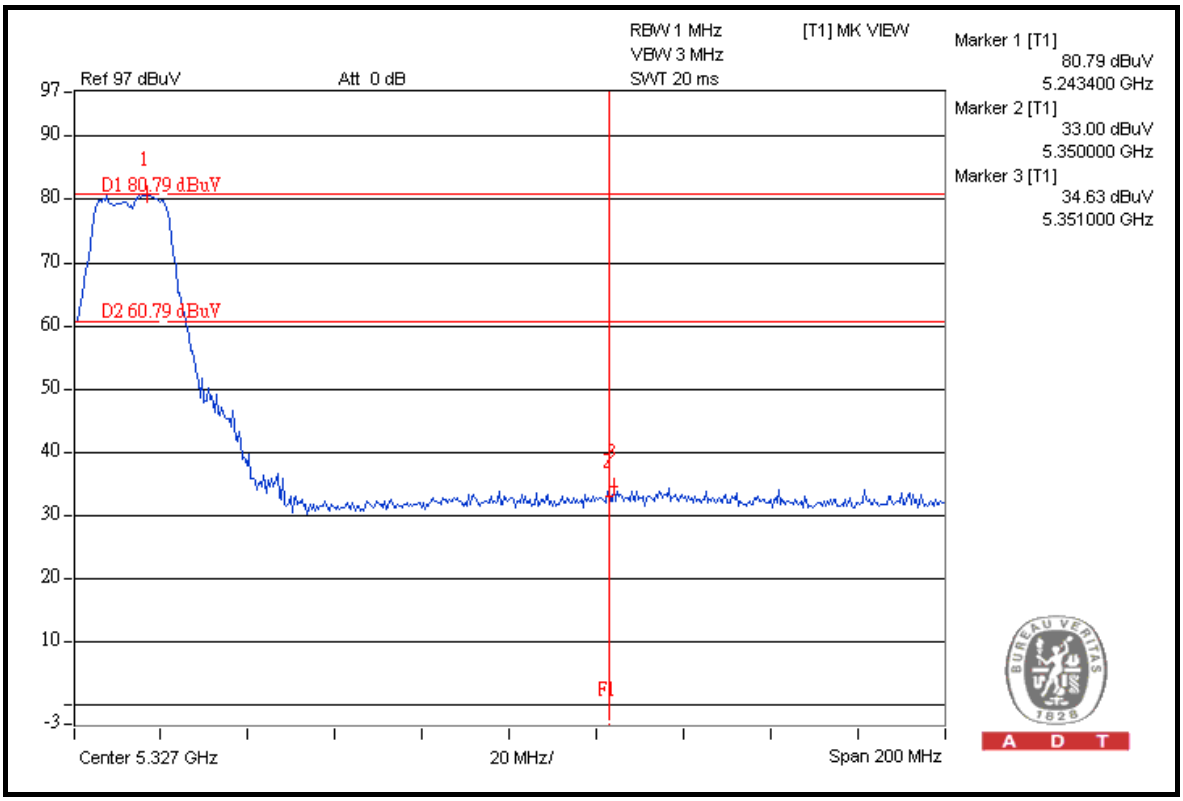
NOTE:

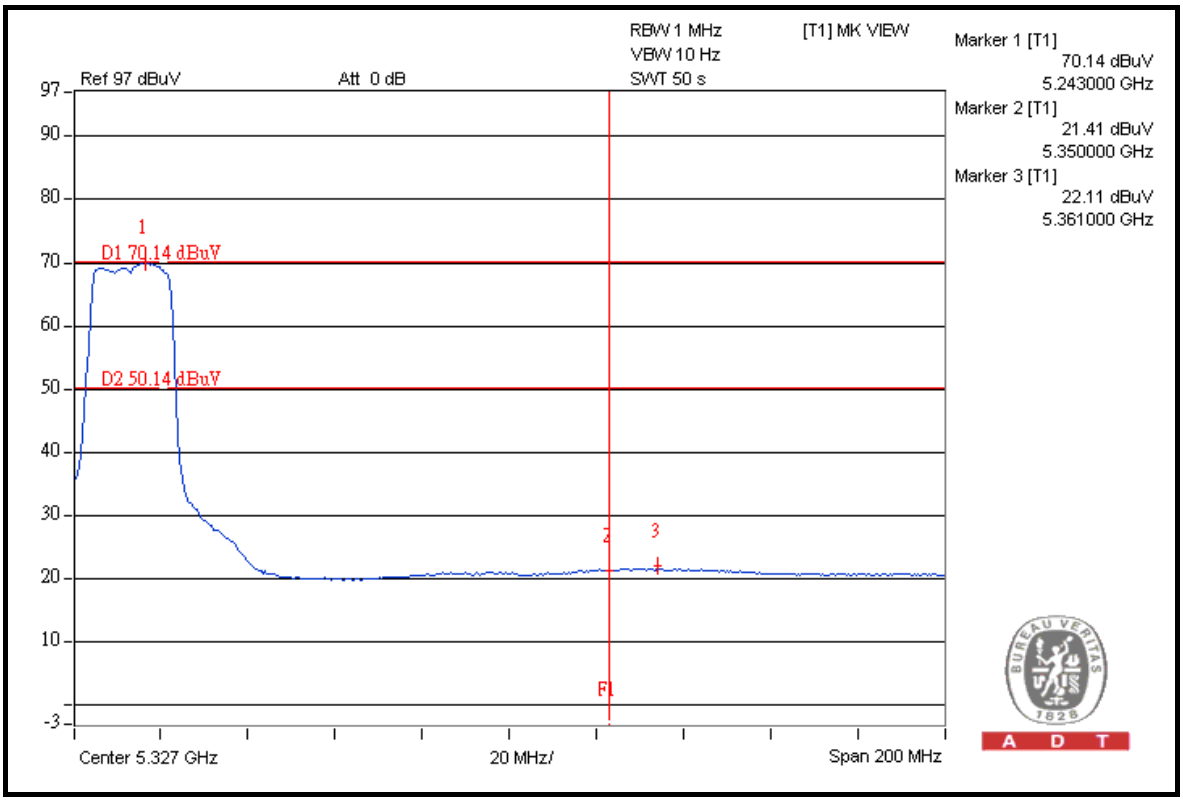
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

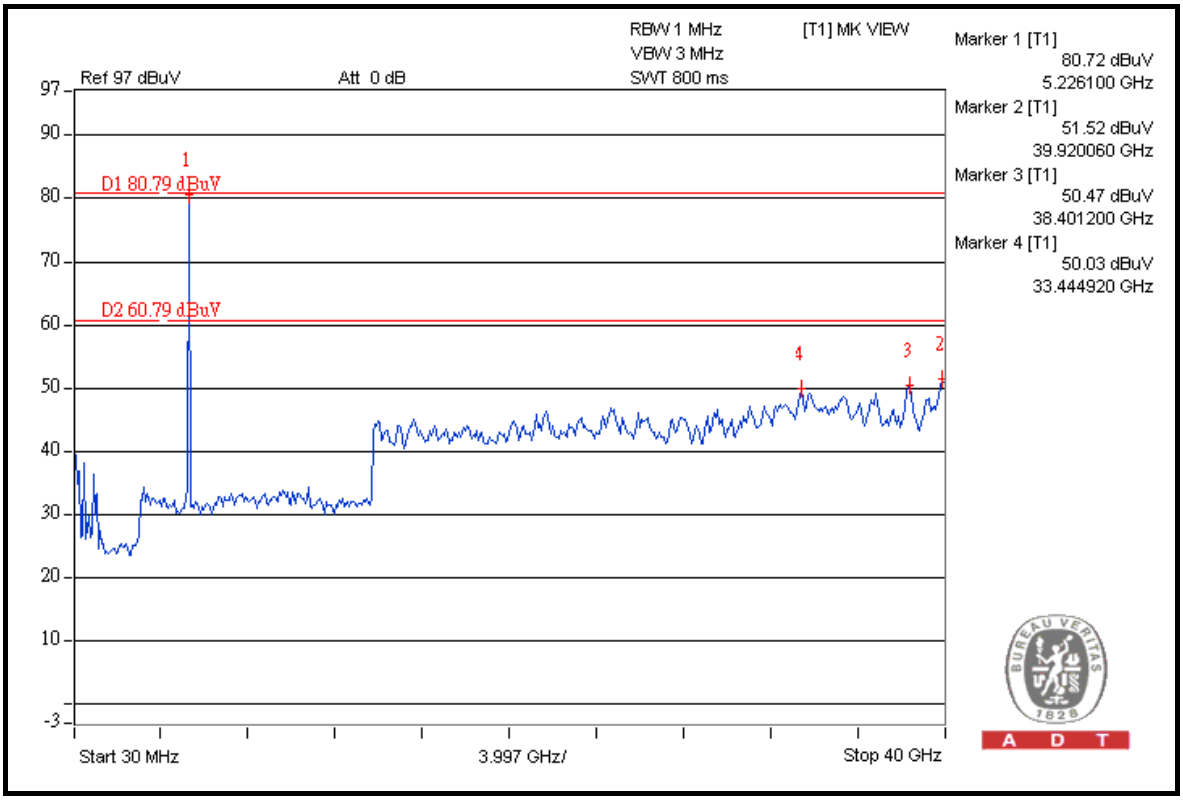

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.46 dBuV
5.187400 GHz
Marker 2 [T1]
35.49 dBuV
5.150000 GHz
Marker 3 [T1]
37.76 dBuV
5.146200 GHz
D1 81.46 dBuV
D2 61.46 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.87 dBuV
5.187600 GHz
Marker 2 [T1]
21.36 dBuV
5.150000 GHz
Marker 3 [T1]
21.76 dBuV
5.101600 GHz
D1 70.87 dBuV
D2 50.87 dBuV
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 81.46 dBuV
D2 61.46 dBuV
Marker 1 [T1]
80.74 dBuV
5.146160 GHz
Marker 2 [T1]
52.32 dBuV
39.920060 GHz
Marker 3 [T1]
50.56 dBuV
38.401200 GHz
Marker 4 [T1]
49.88 dBuV
35.363480 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.79 dBuV
D2 60.79 dBuV
Marker 1 [T1]
80.79 dBuV
5.243400 GHz
Marker 2 [T1]
33.00 dBuV
5.350000 GHz
Marker 3 [T1]
34.63 dBuV
5.351000 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.14 dBuV
5.243000 GHz
Marker 2 [T1]
21.41 dBuV
5.350000 GHz
Marker 3 [T1]
22.11 dBuV
5.361000 GHz
D1 70.14 dBuV
D2 50.14 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.72 dBuV
5.226100 GHz
Marker 2 [T1]
51.52 dBuV
39.920060 GHz
Marker 3 [T1]
50.47 dBuV
38.401200 GHz
Marker 4 [T1]
50.03 dBuV
33.444920 GHz
D1 80.79 dBuV
D2 60.79 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	104.9	36.78	68.12	74.00
5190.00 (AV)	93.6	41.94	51.66	54.00

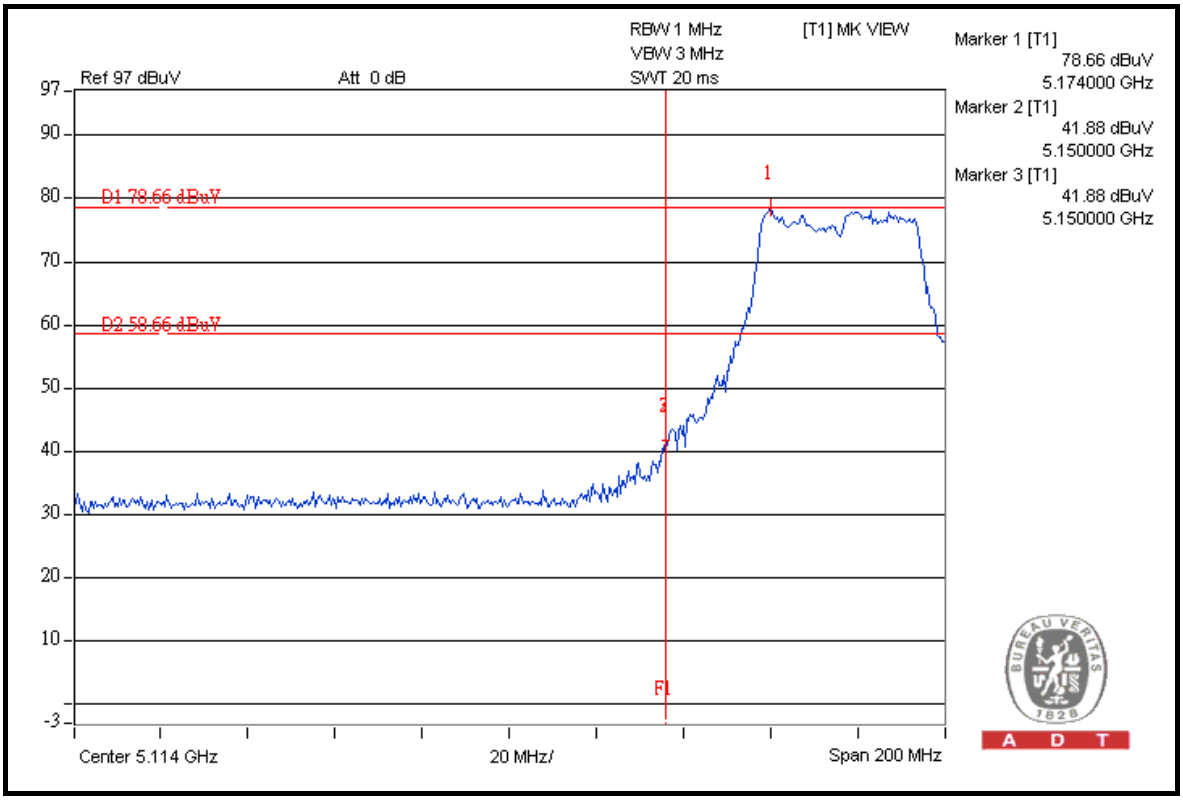
RESTRICT BAND (5350 ~ 5460 MHz)

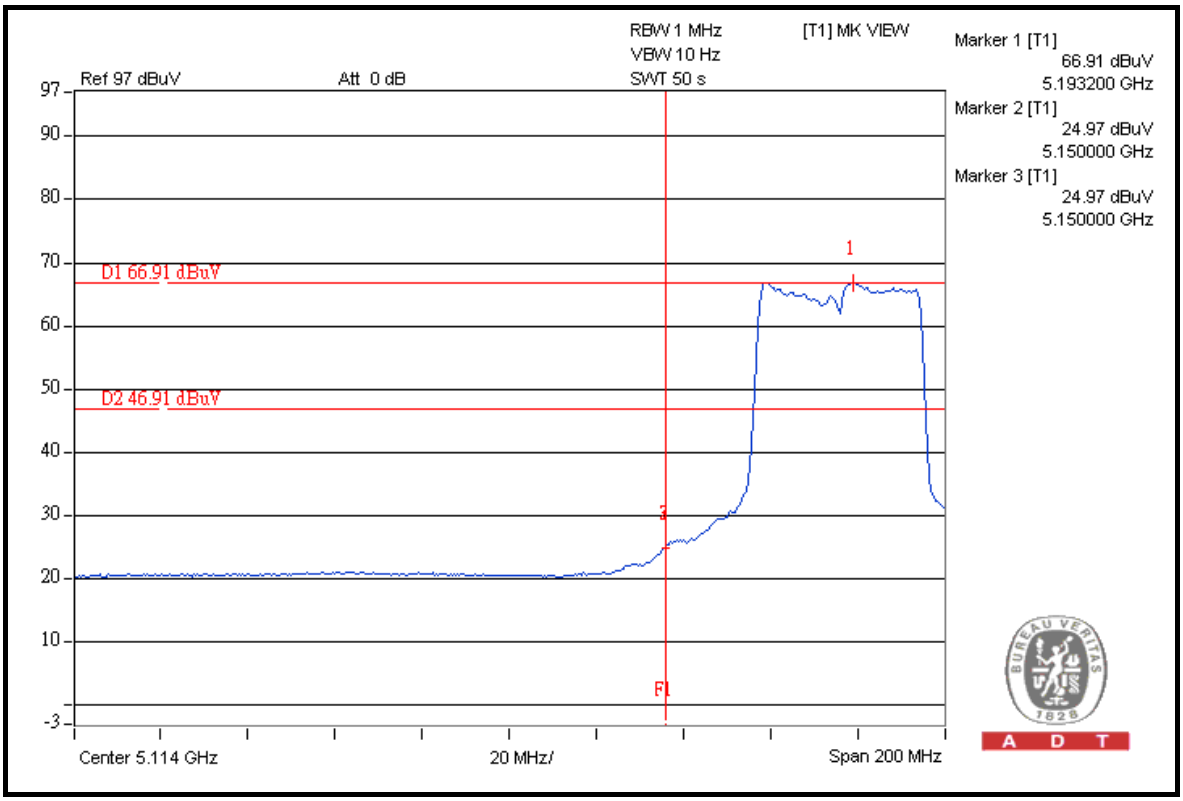
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	105.3	42.90	62.40	74.00
5230.00 (AV)	93.9	45.18	48.72	54.00

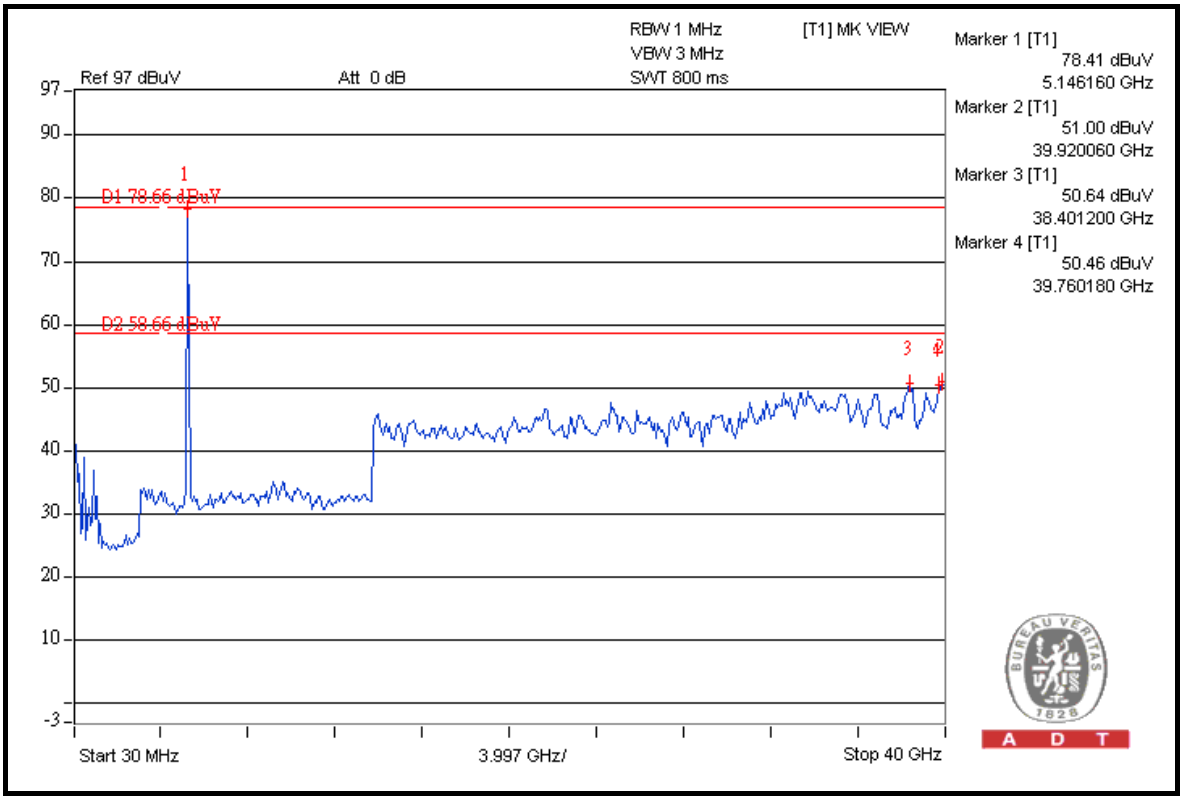
NOTE:

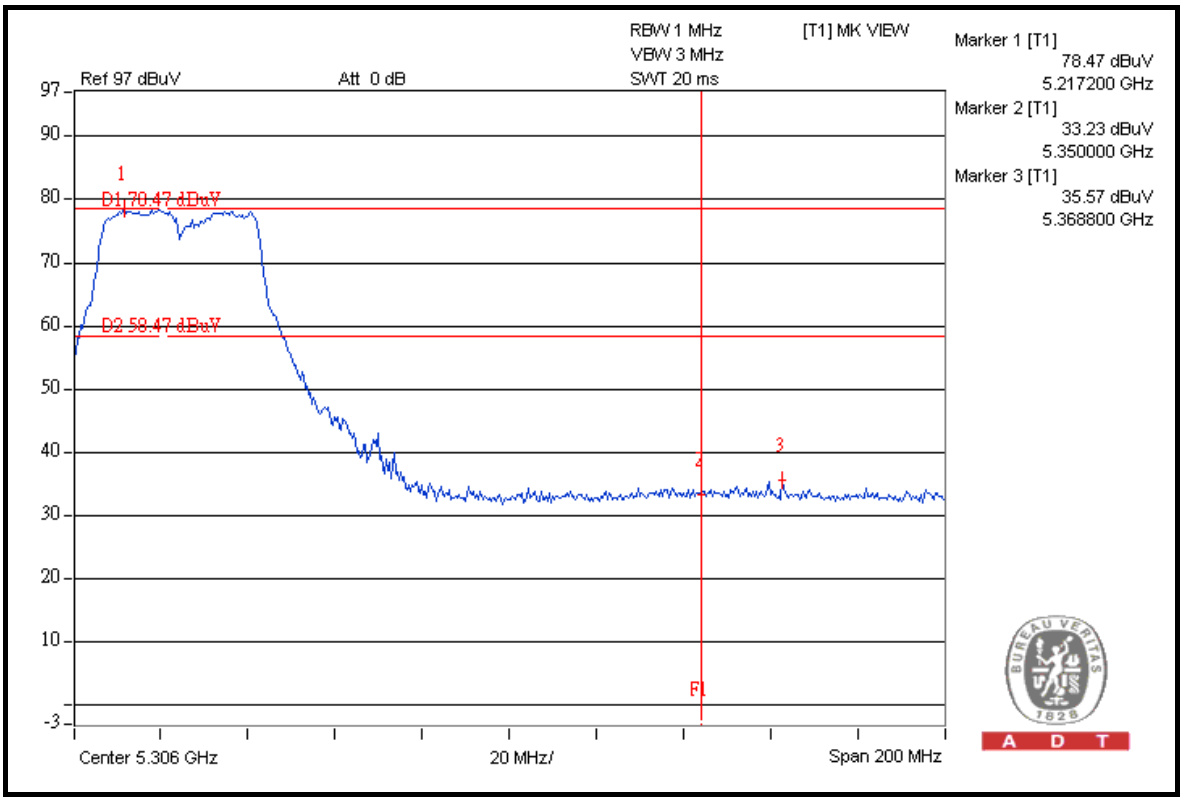
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

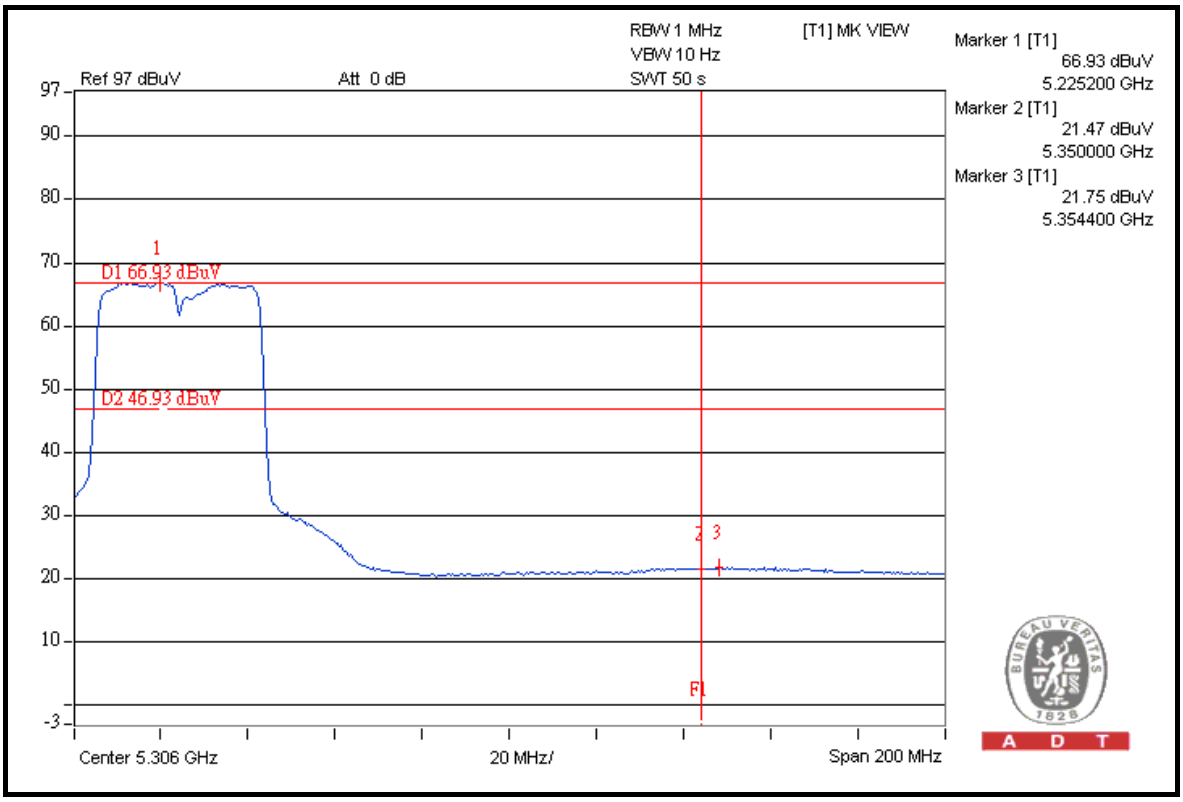
2. Maximum field strength in restrict band = Fundamental emission – Delta.

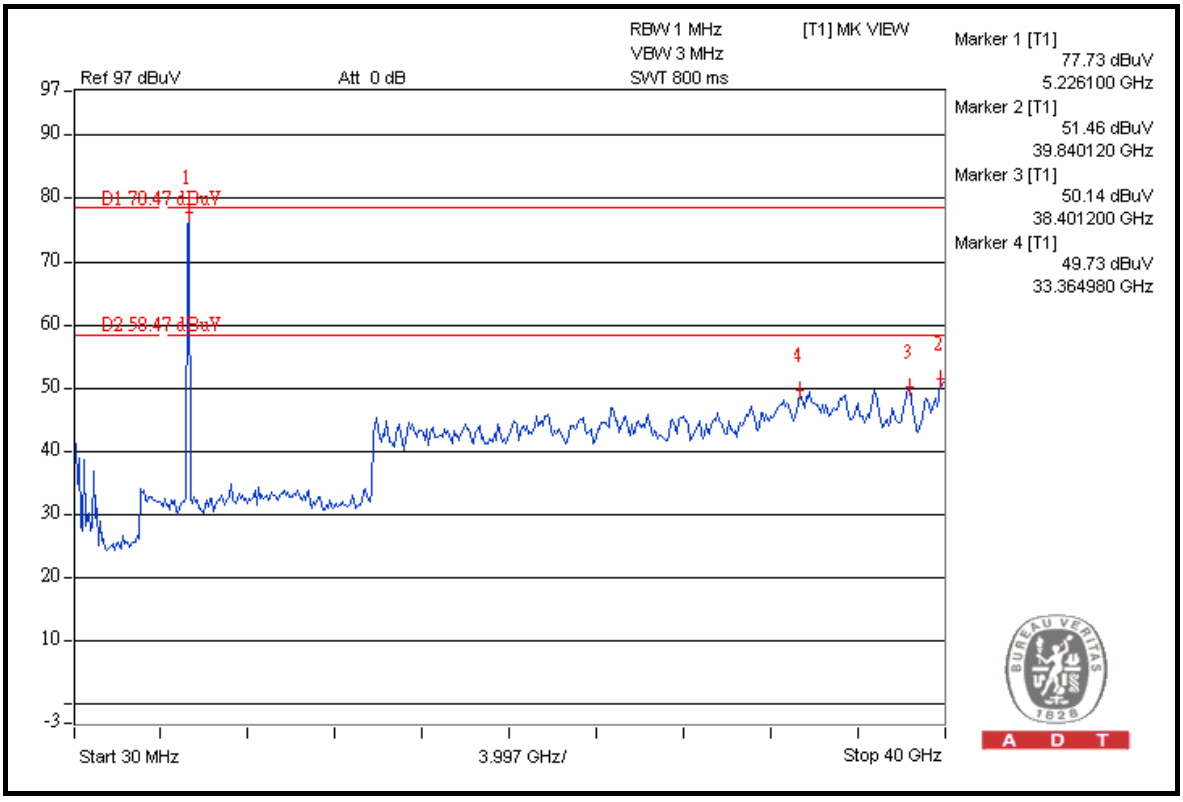

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.66 dBuV
5.174000 GHz
Marker 2 [T1]
41.88 dBuV
5.150000 GHz
Marker 3 [T1]
41.88 dBuV
5.150000 GHz
D1 78.66 dBuV
D2 58.66 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.91 dBuV
5.193200 GHz
Marker 2 [T1]
24.97 dBuV
5.150000 GHz
Marker 3 [T1]
24.97 dBuV
5.150000 GHz
D1 66.91 dBuV
D2 46.91 dBuV
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.41 dBuV
5.146160 GHz
Marker 2 [T1]
51.00 dBuV
39.920060 GHz
Marker 3 [T1]
50.64 dBuV
38.401200 GHz
Marker 4 [T1]
50.46 dBuV
39.760180 GHz
D1 78.66 dBuV
D2 58.66 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.47 dBuV
5.217200 GHz
Marker 2 [T1]
33.23 dBuV
5.350000 GHz
Marker 3 [T1]
35.57 dBuV
5.368800 GHz
D1 70.47 dBuV
D2 58.47 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.93 dBuV
5.225200 GHz
Marker 2 [T1]
21.47 dBuV
5.350000 GHz
Marker 3 [T1]
21.75 dBuV
5.354400 GHz
D1 66.93 dBuV
D2 46.93 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
77.73 dBuV
5.226100 GHz
Marker 2 [T1]
51.46 dBuV
39.840120 GHz
Marker 3 [T1]
50.14 dBuV
38.401200 GHz
Marker 4 [T1]
49.73 dBuV
33.364980 GHz
D1 70.47 dBuV
D2 58.47 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

4.7.9 TEST RESULTS (TEST MODE C 2)

For signals in the restricted bands above and below the 5.15 to 5.25GHz allocated band a measurement was made of the amplitude of the spurious emissions with respect to the intentional signals. The relative amplitude, in dBc, was applied to the average and peak filed strength of the intentional signal made on the OATS to calculate the field strength of the unintentional signals.

The spectrum plots (Peak RBW = 1MHz, VBW = 3MHz) are attached on the following pages.

802.11a

RESTRICT BAND (4500 ~ 5150 MHz)

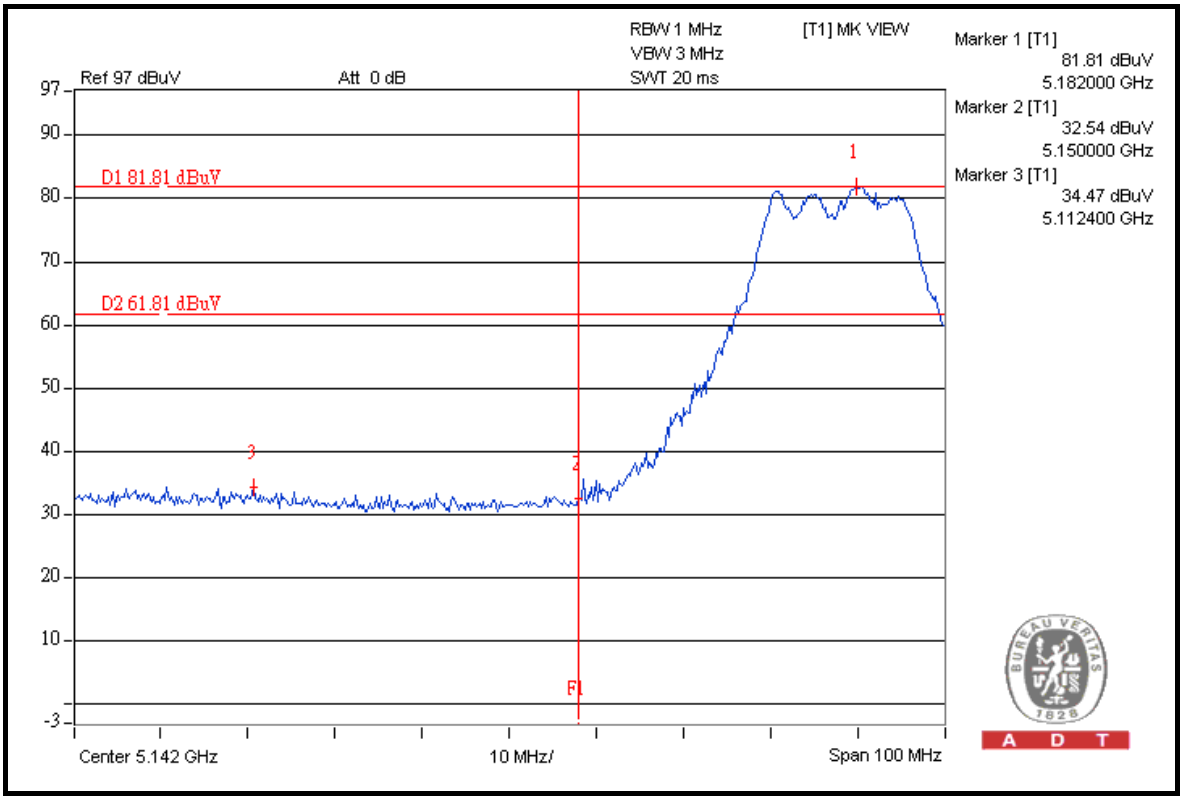
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	109.8	47.34	62.46	74.00
5180.00 (AV)	97.6	49.65	47.95	54.00

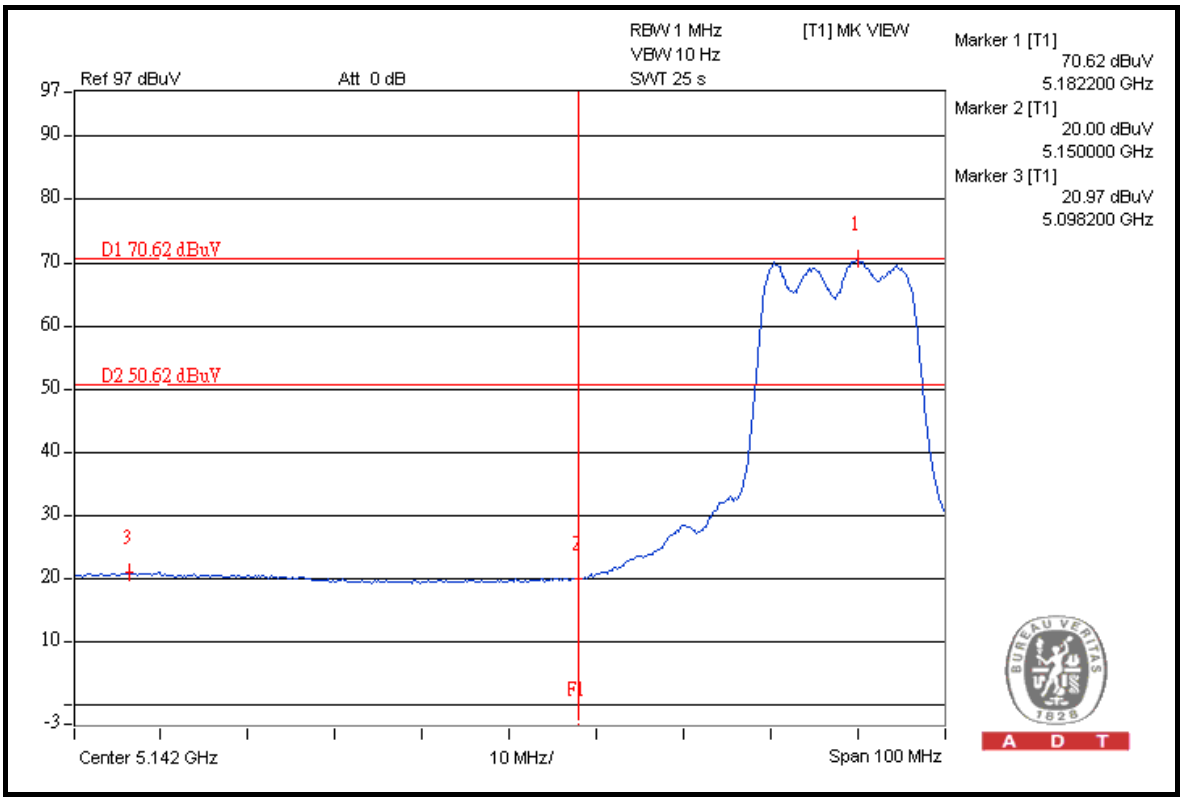
RESTRICT BAND (5350 ~ 5460 MHz)

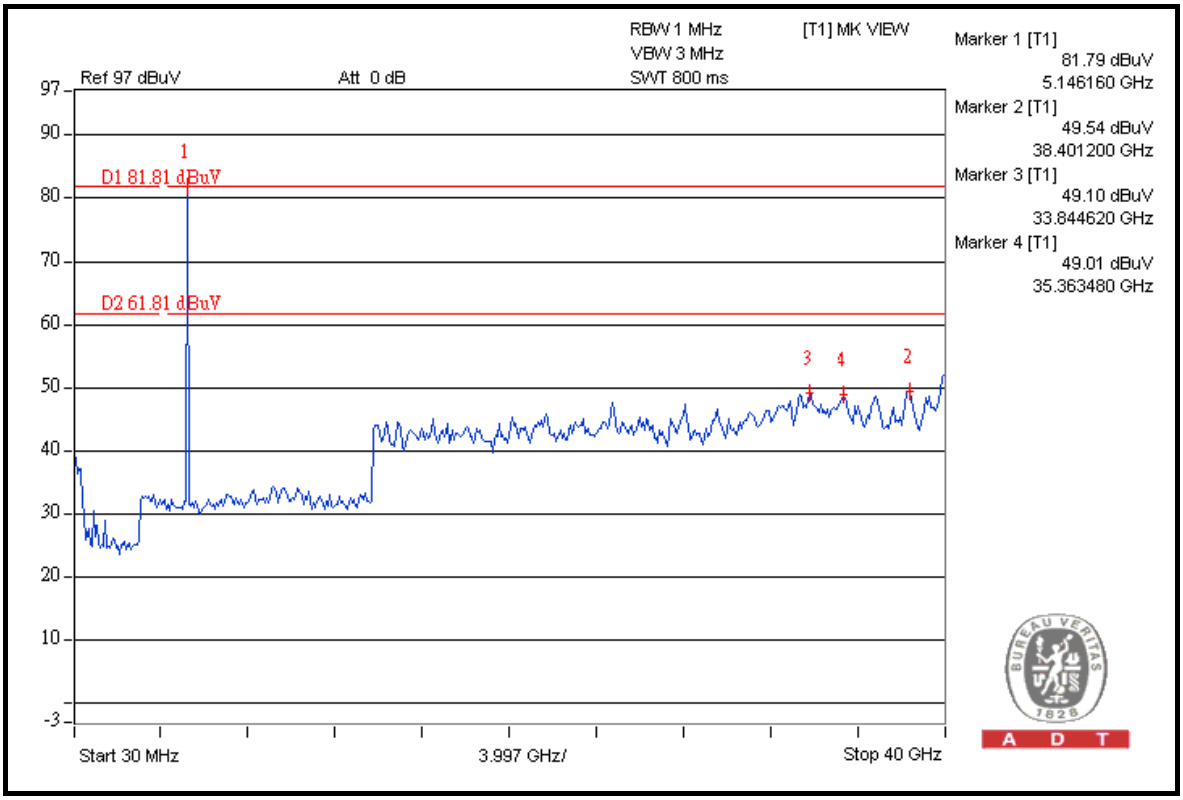
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.4	47.31	62.09	74.00
5240.00 (AV)	97.1	49.79	47.31	54.00

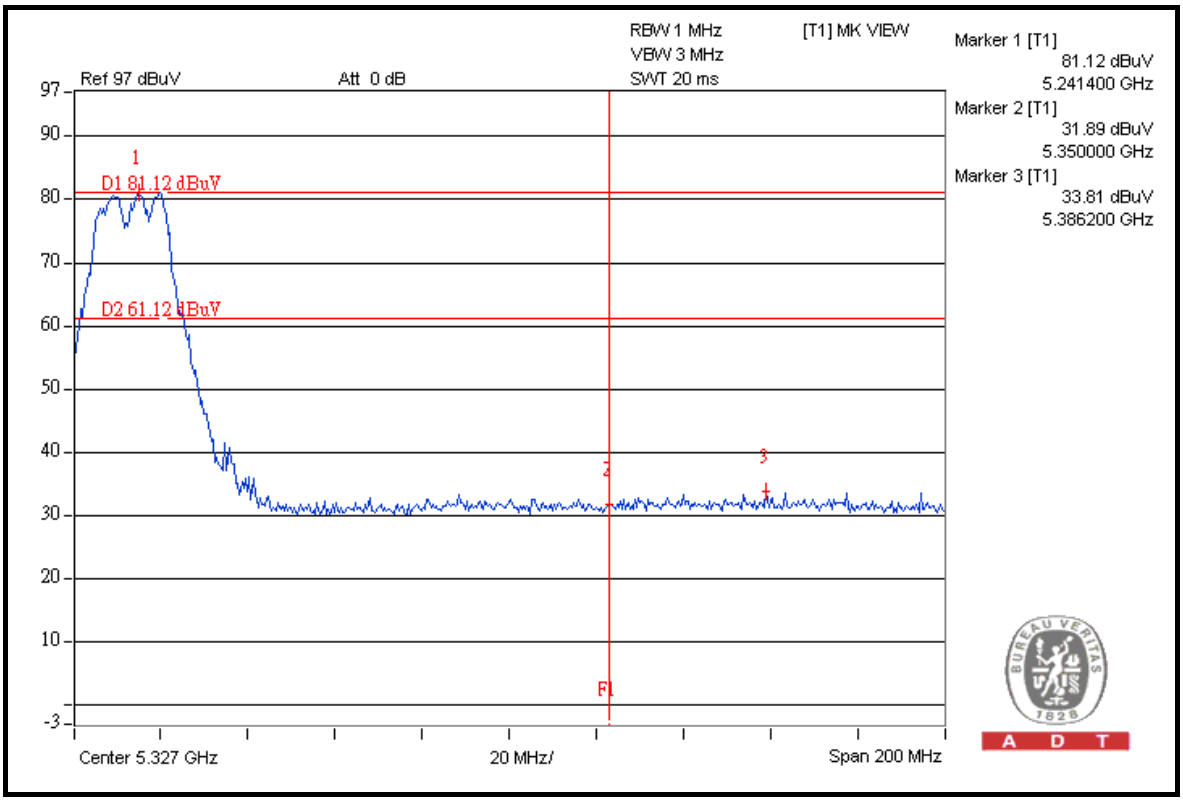
NOTE:

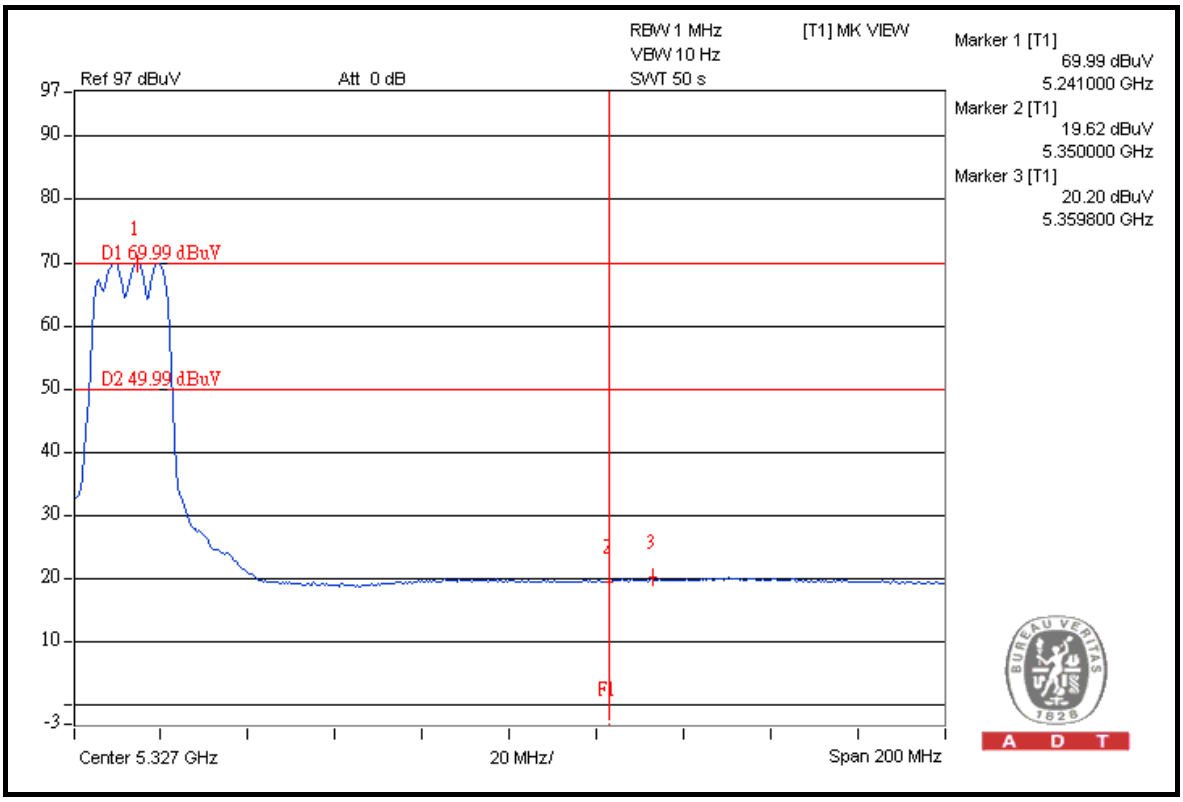
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

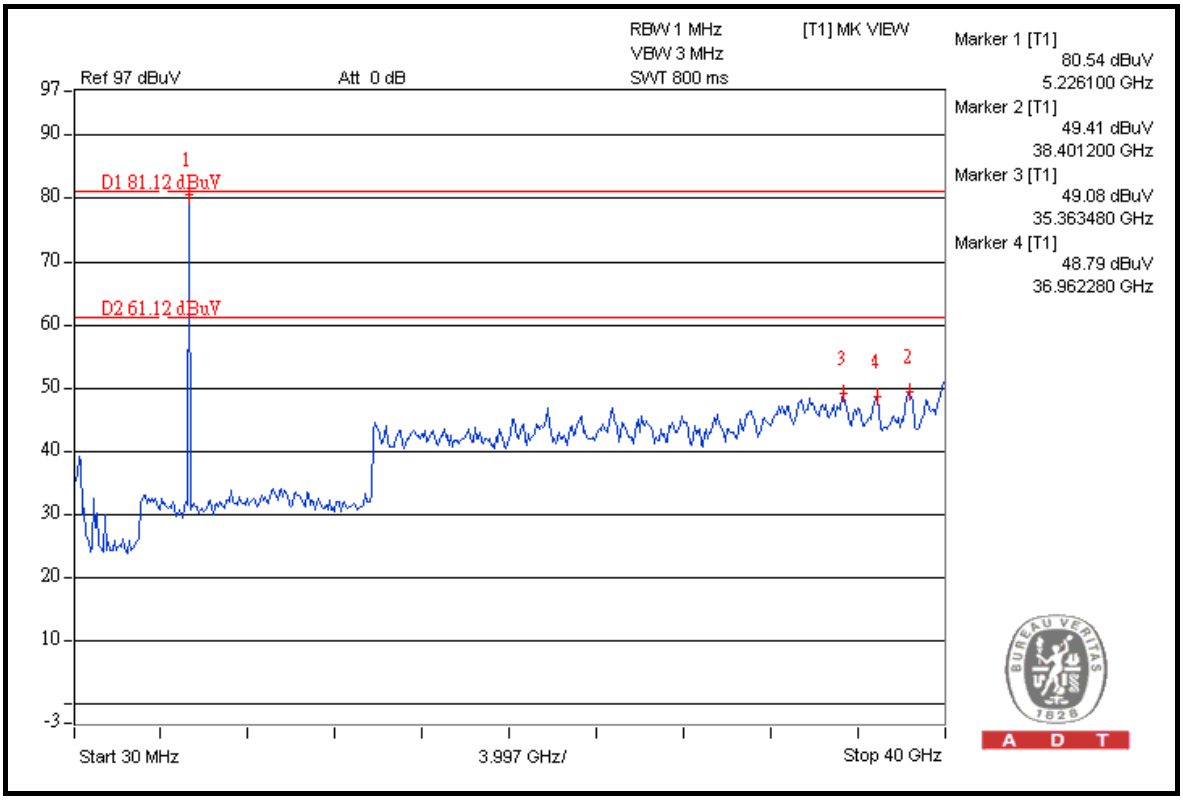

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.81 dBuV
5.182000 GHz
Marker 2 [T1]
32.54 dBuV
5.150000 GHz
Marker 3 [T1]
34.47 dBuV
5.112400 GHz
D1 81.81 dBuV
D2 61.81 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.62 dBuV
5.182200 GHz
Marker 2 [T1]
20.00 dBuV
5.150000 GHz
Marker 3 [T1]
20.97 dBuV
5.098200 GHz
D1 70.62 dBuV
D2 50.62 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.79 dBuV
5.146160 GHz
Marker 2 [T1]
49.54 dBuV
38.401200 GHz
Marker 3 [T1]
49.10 dBuV
33.844620 GHz
Marker 4 [T1]
49.01 dBuV
35.363480 GHz
D1 81.81 dBuV
D2 61.81 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.12 dBuV
5.241400 GHz
Marker 2 [T1]
31.89 dBuV
5.350000 GHz
Marker 3 [T1]
33.81 dBuV
5.386200 GHz
D1 81.12 dBuV
D2 61.12 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
69.99 dBuV
5.241000 GHz
Marker 2 [T1]
19.62 dBuV
5.350000 GHz
Marker 3 [T1]
20.20 dBuV
5.359800 GHz
D1 69.99 dBuV
D2 49.99 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.54 dBuV
5.226100 GHz
Marker 2 [T1]
49.41 dBuV
38.401200 GHz
Marker 3 [T1]
49.08 dBuV
35.363480 GHz
Marker 4 [T1]
48.79 dBuV
36.962280 GHz
D1 81.12 dBuV
D2 61.12 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (20MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

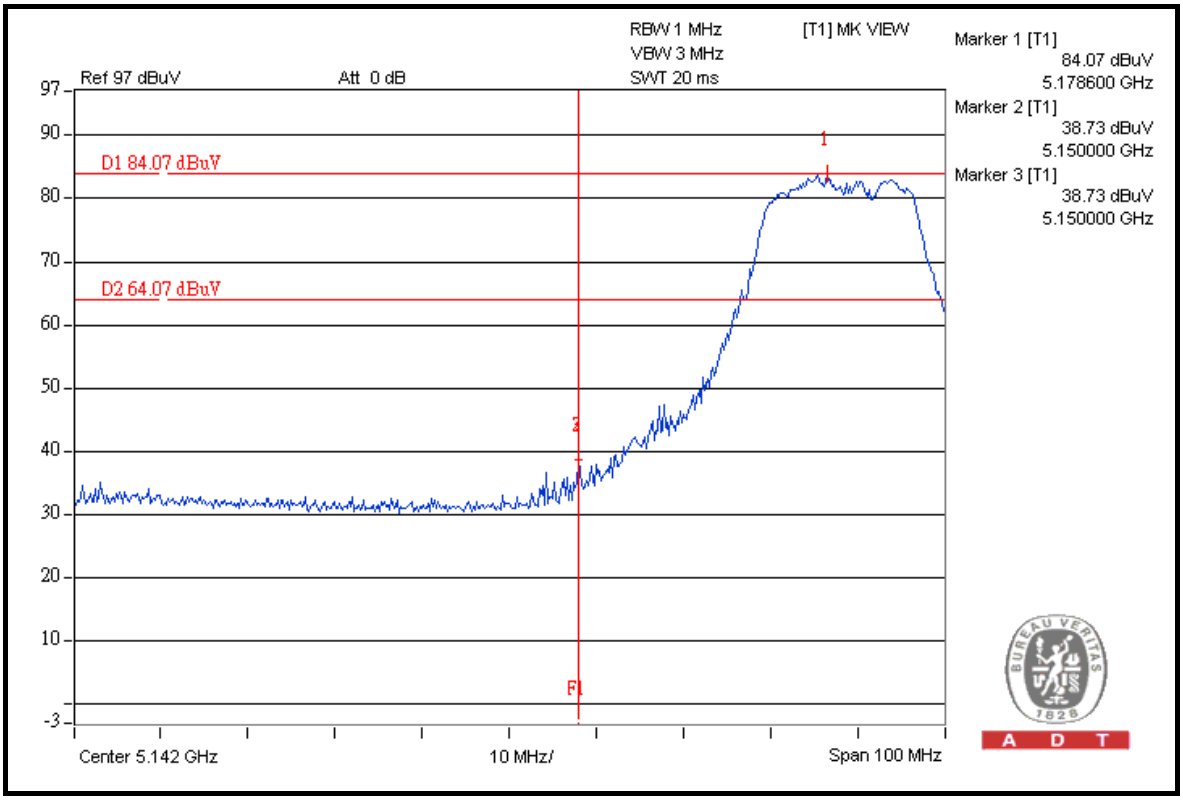
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5180.00 (PK)	110.4	45.34	65.06	74.00
5180.00 (AV)	98.2	49.95	48.25	54.00

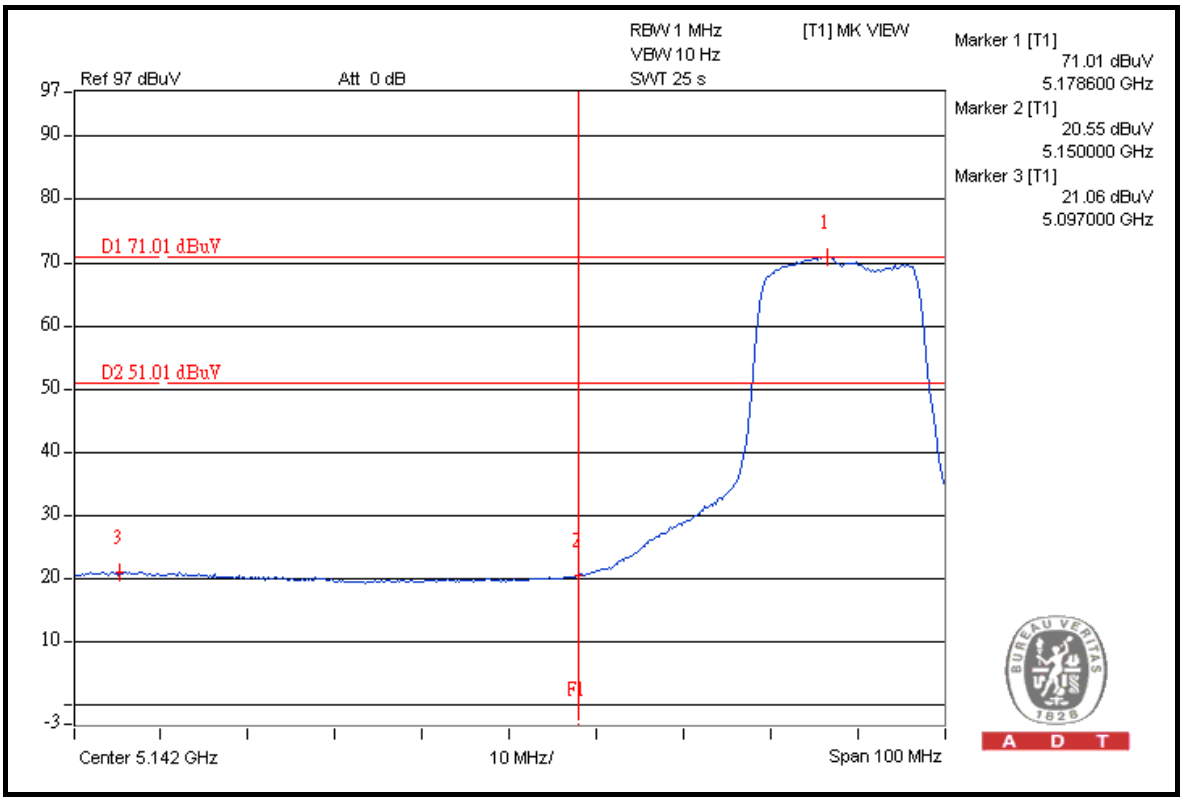
RESTRICT BAND (5350 ~ 5460 MHz)

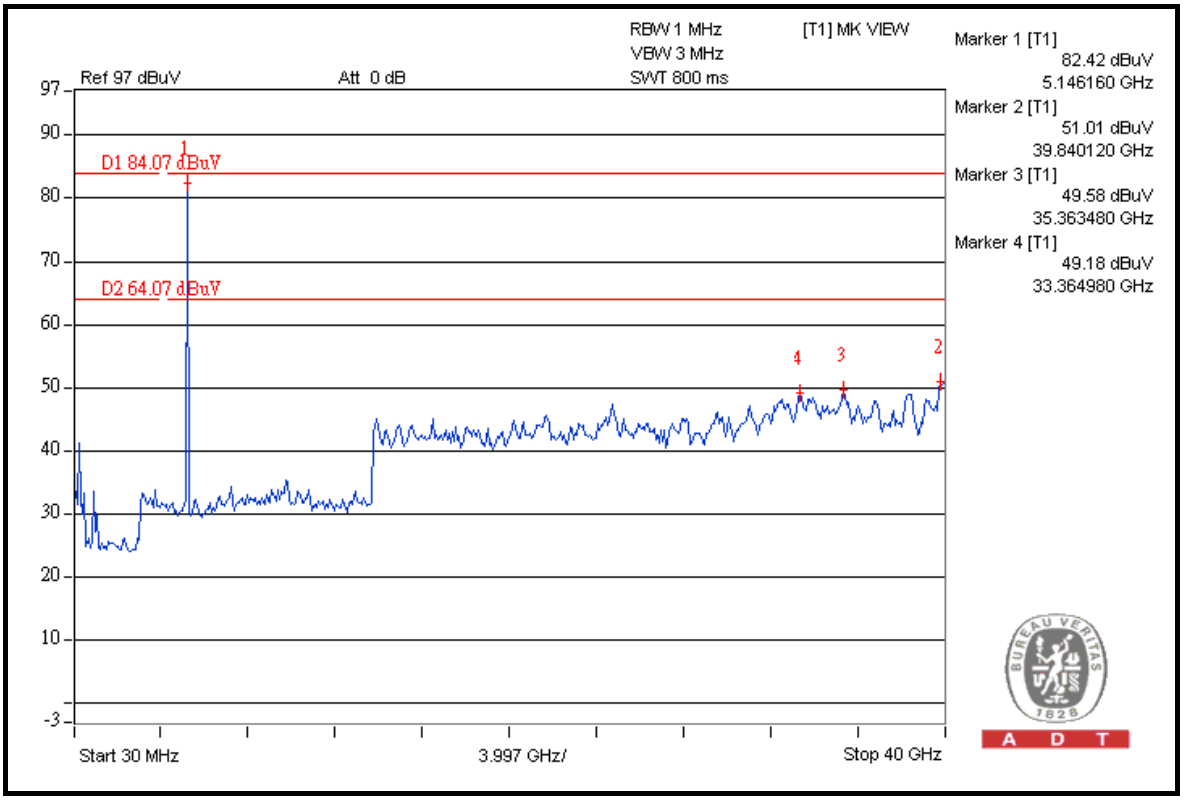
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5240.00 (PK)	109.8	50.61	59.19	74.00
5240.00 (AV)	97.8	50.61	47.19	54.00

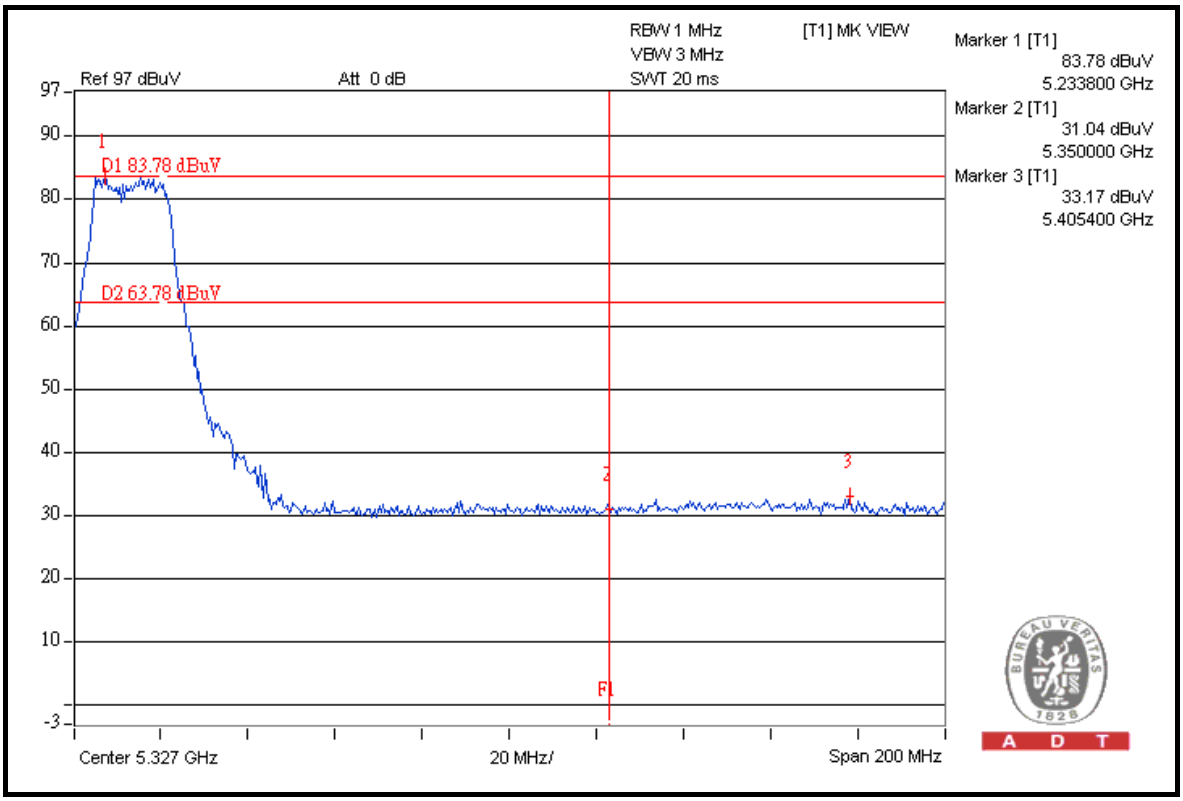
NOTE:

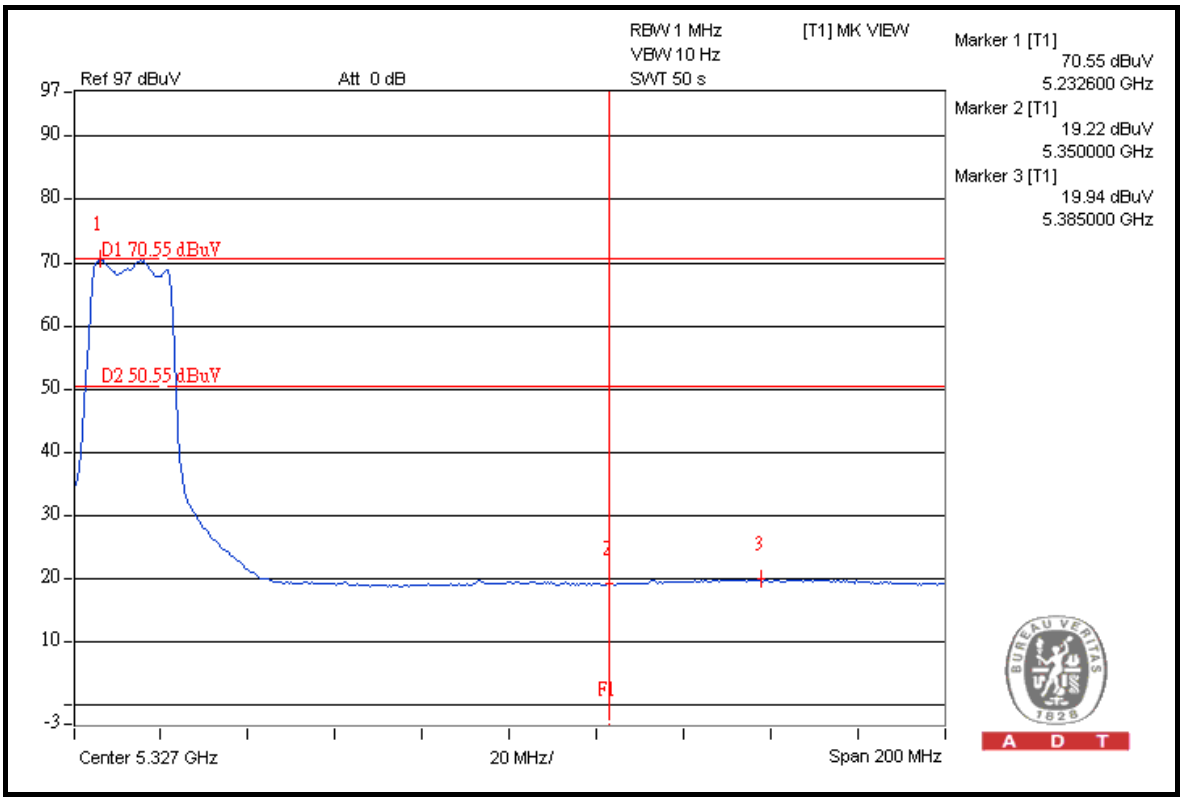
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.

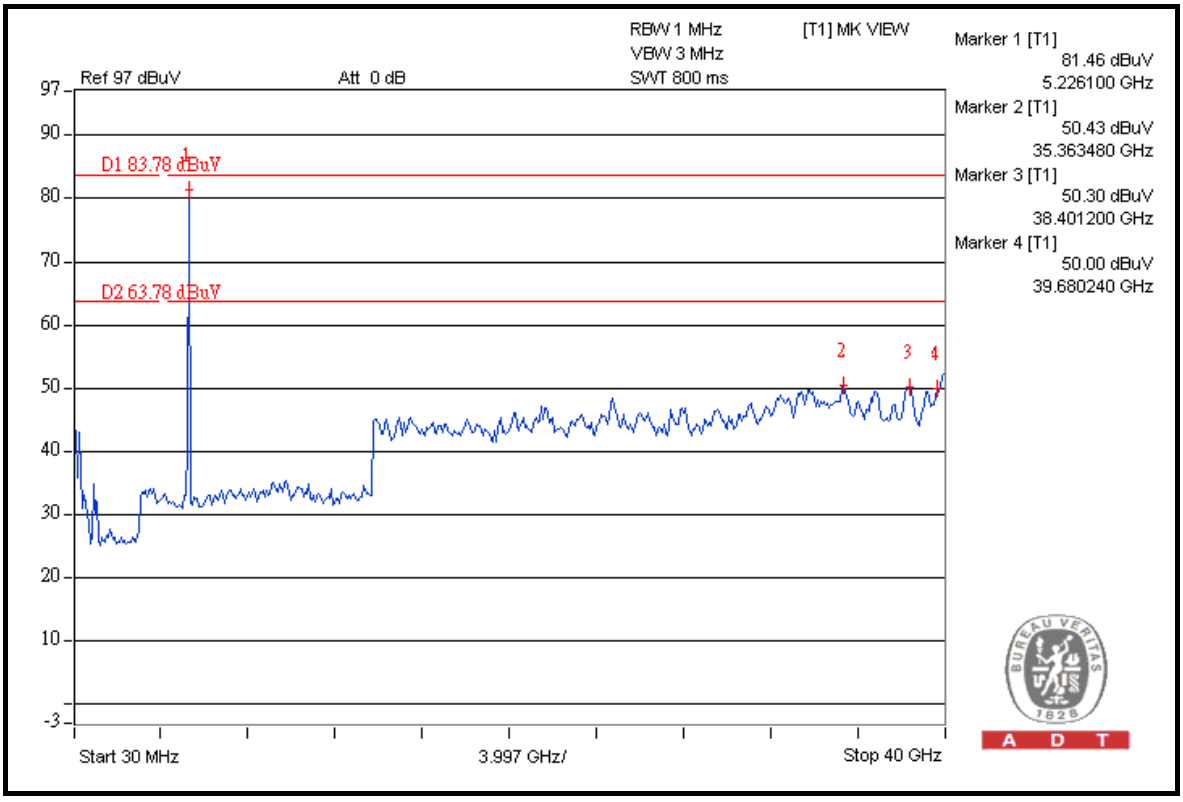

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
84.07 dBuV
5.178600 GHz
Marker 2 [T1]
38.73 dBuV
5.150000 GHz
Marker 3 [T1]
38.73 dBuV
5.150000 GHz
D1 84.07 dBuV
D2 64.07 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 10 Hz
SWT 25 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
71.01 dBuV
5.178600 GHz
Marker 2 [T1]
20.55 dBuV
5.150000 GHz
Marker 3 [T1]
21.06 dBuV
5.097000 GHz
D1 71.01 dBuV
D2 51.01 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.142 GHz
10 MHz/
Span 100 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 84.07 dBuV
D2 64.07 dBuV
Marker 1 [T1]
82.42 dBuV
5.146160 GHz
Marker 2 [T1]
51.01 dBuV
39.840120 GHz
Marker 3 [T1]
49.58 dBuV
35.363480 GHz
Marker 4 [T1]
49.18 dBuV
33.364980 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 83.78 dBuV
D2 63.78 dBuV
Marker 1 [T1]
83.78 dBuV
5.233800 GHz
Marker 2 [T1]
31.04 dBuV
5.350000 GHz
Marker 3 [T1]
33.17 dBuV
5.405400 GHz
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
70.55 dBuV
5.232600 GHz
Marker 2 [T1]
19.22 dBuV
5.350000 GHz
Marker 3 [T1]
19.94 dBuV
5.385000 GHz
D1 70.55 dBuV
D2 50.55 dBuV
Center 5.327 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
81.46 dBuV
5.226100 GHz
Marker 2 [T1]
50.43 dBuV
35.363480 GHz
Marker 3 [T1]
50.30 dBuV
38.401200 GHz
Marker 4 [T1]
50.00 dBuV
39.680240 GHz
D1 83.78 dBuV
D2 63.78 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 GHz

802.11n (40MHz)

RESTRICT BAND (4500 ~ 5150 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5190.00 (PK)	105.3	43.40	61.90	74.00
5190.00 (AV)	94.0	43.78	50.22	54.00

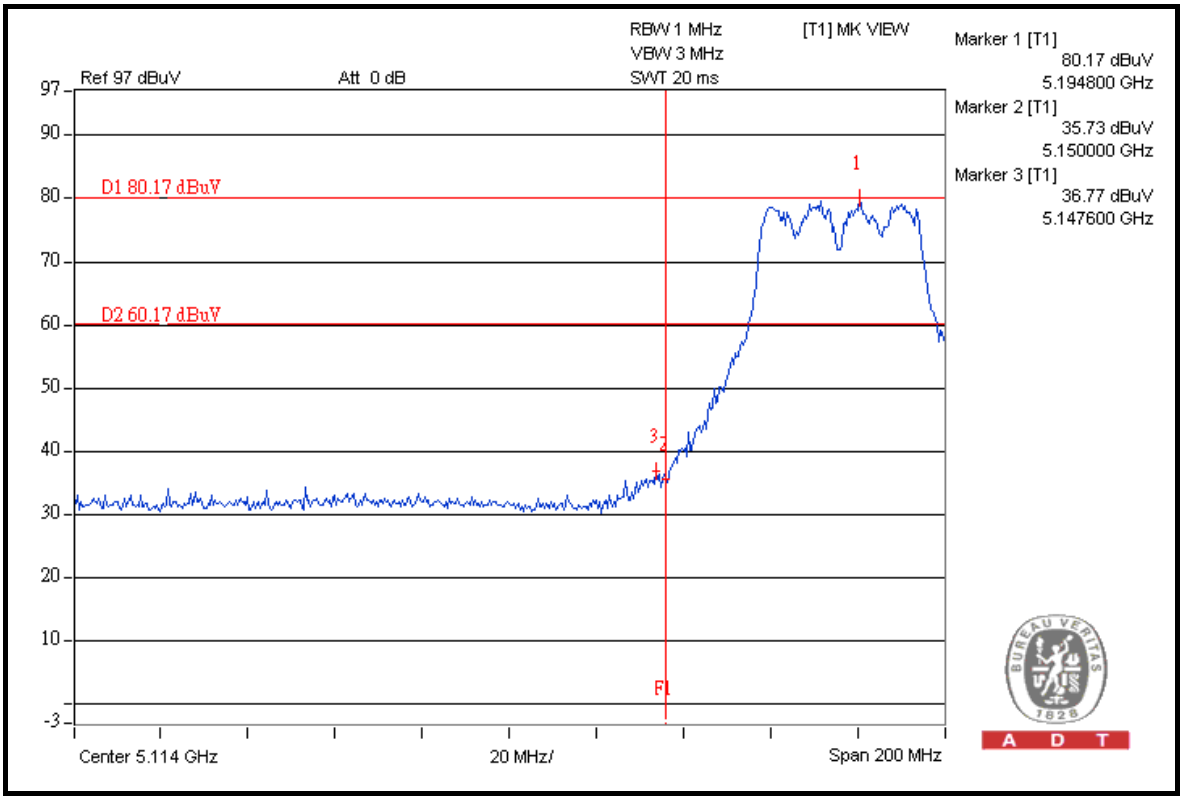
RESTRICT BAND (5350 ~ 5460 MHz)

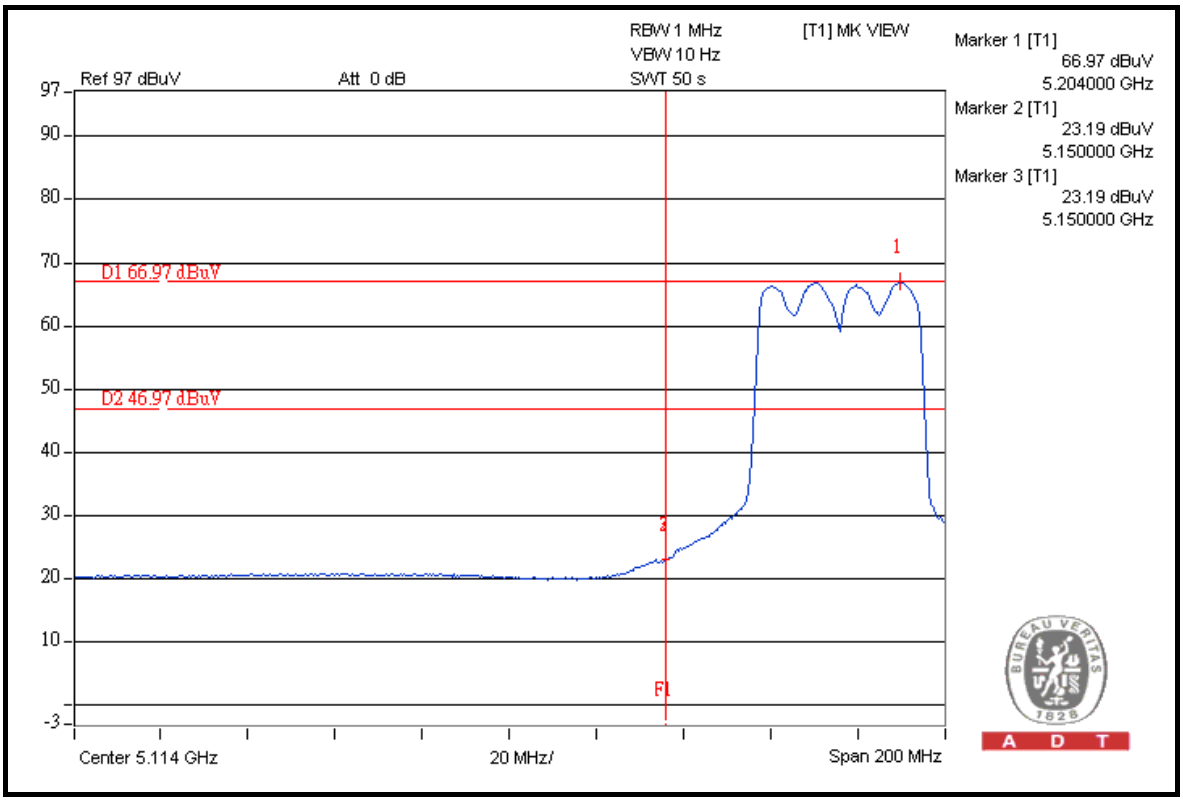
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5230.00 (PK)	105.7	48.32	57.38	74.00
5230.00 (AV)	94.3	47.05	47.25	54.00

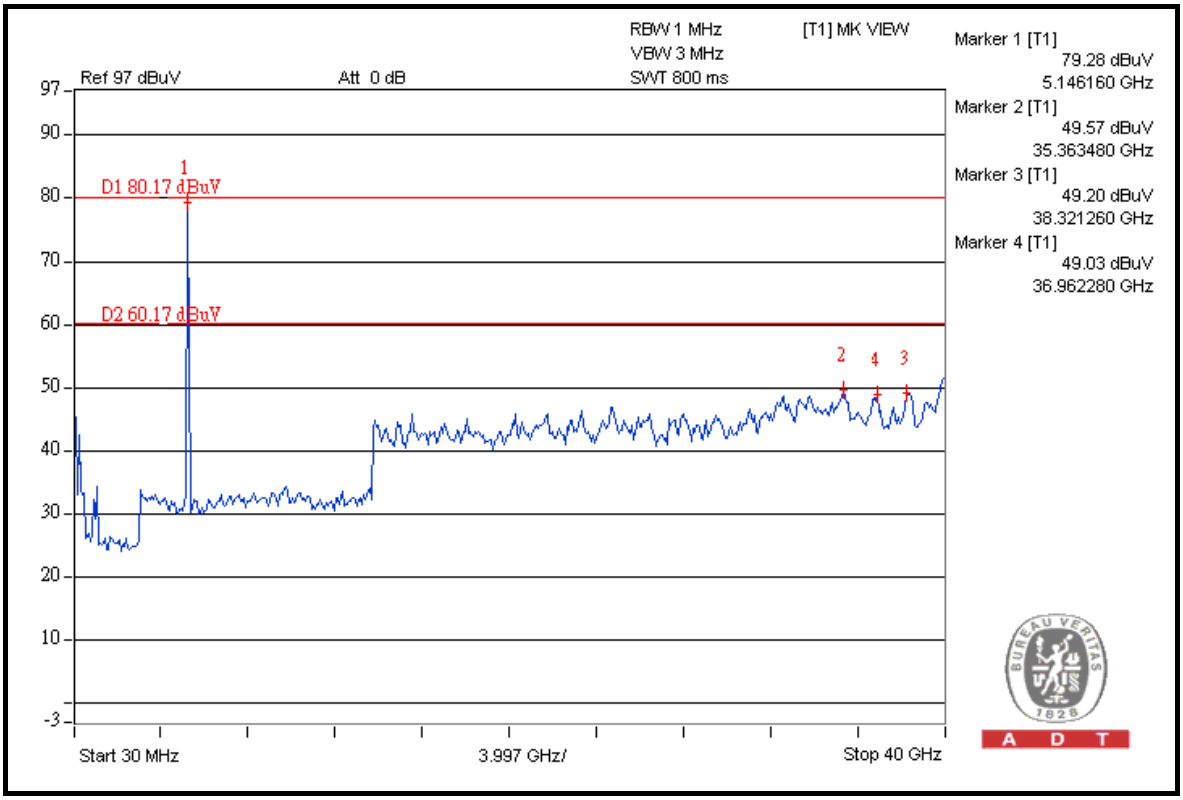
NOTE:

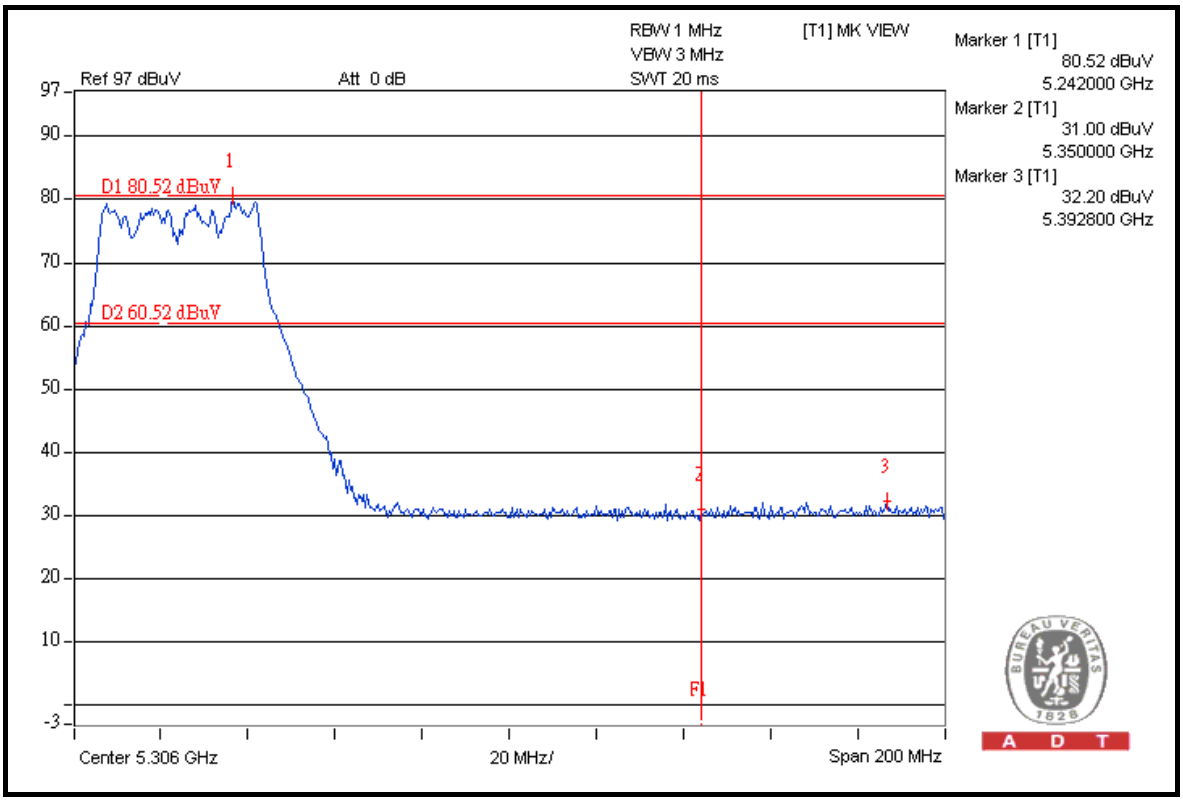
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.

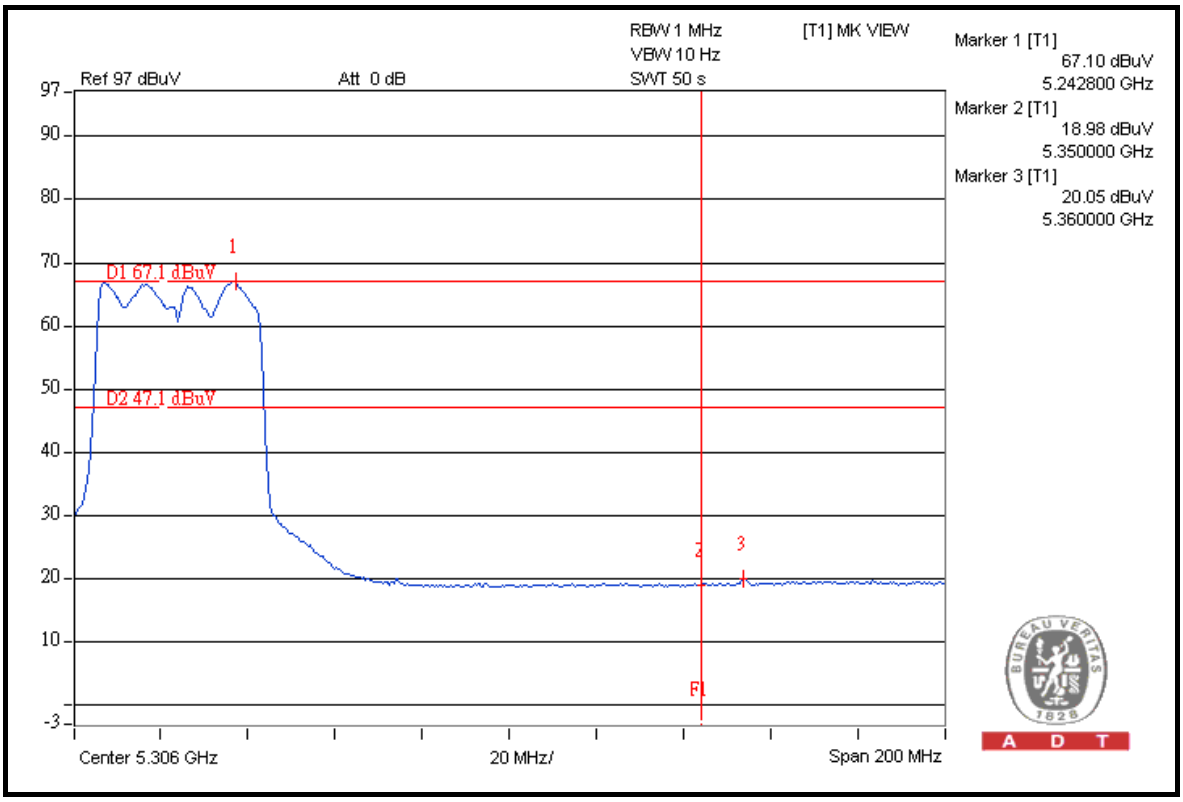
2. Maximum field strength in restrict band = Fundamental emission – Delta.

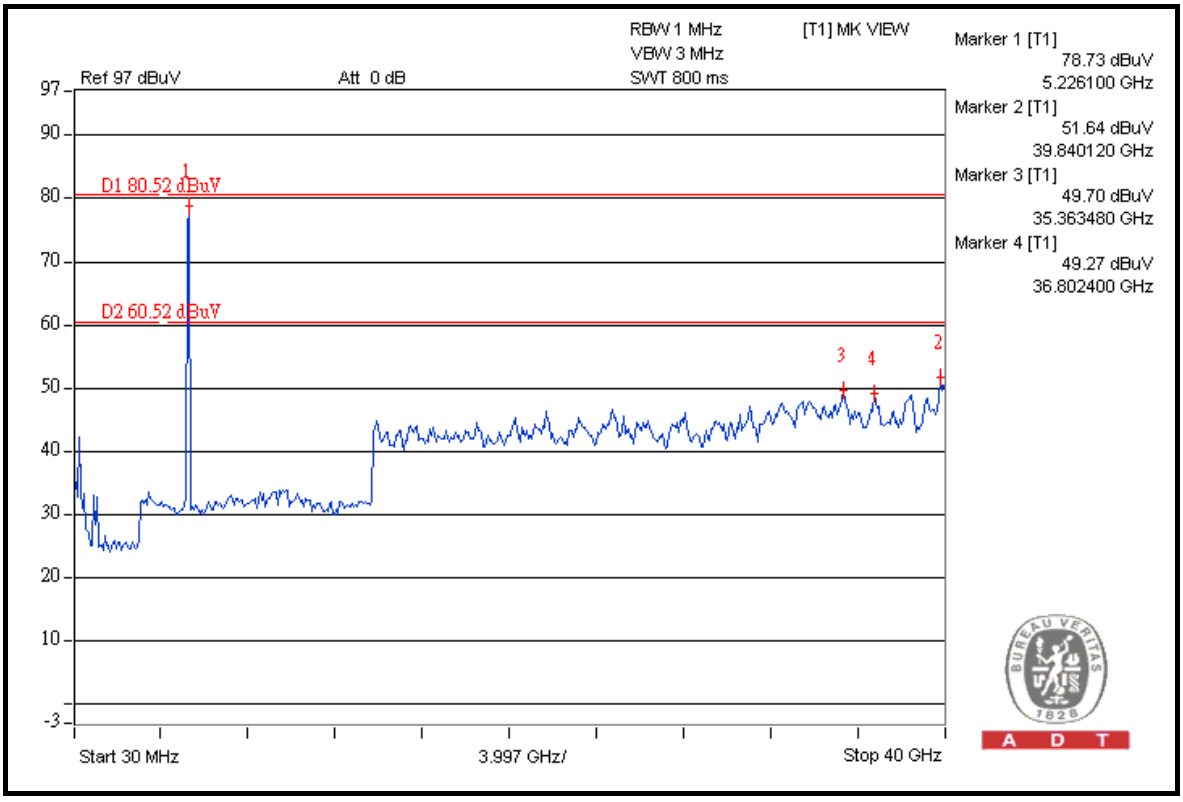

RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
80.17 dBuV
5.194800 GHz
Marker 2 [T1]
35.73 dBuV
5.150000 GHz
Marker 3 [T1]
36.77 dBuV
5.147600 GHz
D1 80.17 dBuV
D2 60.17 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
66.97 dBuV
5.204000 GHz
Marker 2 [T1]
23.19 dBuV
5.150000 GHz
Marker 3 [T1]
23.19 dBuV
5.150000 GHz
D1 66.97 dBuV
D2 46.97 dBuV
97
90
80
70
60
50
40
30
20
10
-3
Center 5.114 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.17 dBuV
D2 60.17 dBuV
Marker 1 [T1]
79.28 dBuV
5.146160 GHz
Marker 2 [T1]
49.57 dBuV
35.363480 GHz
Marker 3 [T1]
49.20 dBuV
38.321260 GHz
Marker 4 [T1]
49.03 dBuV
36.962280 GHz
Start 30 MHz
3.997 GHz/
Stop 40 GHz


RBW 1 MHz
VBW 3 MHz
SWT 20 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
D1 80.52 dBuV
D2 60.52 dBuV
Marker 1 [T1]
80.52 dBuV
5.242000 GHz
Marker 2 [T1]
31.00 dBuV
5.350000 GHz
Marker 3 [T1]
32.20 dBuV
5.392800 GHz
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 10 Hz
SWT 50 s
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
67.10 dBuV
5.242800 GHz
Marker 2 [T1]
18.98 dBuV
5.350000 GHz
Marker 3 [T1]
20.05 dBuV
5.360000 GHz
D1 67.1 dBuV
D2 47.1 dBuV
Center 5.306 GHz
20 MHz/
Span 200 MHz


RBW 1 MHz
VBW 3 MHz
SWT 800 ms
[T1] MK VIEW
Ref 97 dBuV
Att 0 dB
Marker 1 [T1]
78.73 dBuV
5.226100 GHz
Marker 2 [T1]
51.64 dBuV
39.840120 GHz
Marker 3 [T1]
49.70 dBuV
35.363480 GHz
Marker 4 [T1]
49.27 dBuV
36.802400 GHz
D1 80.52 dBuV
D2 60.52 dBuV
Start 30 MHz
3.997 GHz/
Stop 40 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---