



A D T

# FCC TEST REPORT (15.407) (WLAN)

**REPORT NO.:** RF981005A05-1

**MODEL NO.:** T7Mxxxxxx

– multiple listing see item 3.1

**RECEIVED:** Oct. 5, 2009

**TESTED:** Nov. 12 ~ Dec. 3, 2009

**ISSUED:** March 30, 2010

**APPLICANT:** TWINHEAD INTERNATIONAL CORP.

**ADDRESS:** 10F, No. 550, Rueiguang Rd., Neihu Chiu,  
Taipei, Taiwan 114, R.O.C.

**ISSUED BY:** Bureau Veritas Consumer Products Services  
(H.K.) Ltd., Taoyuan Branch

**LAB LOCATION:** No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou  
Hsiang, Taipei Hsien, 244 Taiwan

This test report consists of 111 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by TAF or any government agencies. The test results in the report only apply to the tested sample.





A D T

## TABLE OF CONTENTS

1.	CERTIFICATION .....	4
2.	SUMMARY OF TEST RESULTS .....	5
2.1	MEASUREMENT UNCERTAINTY .....	5
3.	GENERAL INFORMATION .....	6
3.1	GENERAL DESCRIPTION OF EUT .....	6
3.2	DESCRIPTION OF TEST MODES .....	9
3.2.1	CONFIGURATION OF SYSTEM UNDER TEST .....	10
3.2.2	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL .....	11
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS .....	14
3.4	DESCRIPTION OF SUPPORT UNITS .....	14
4.	TEST TYPES AND RESULTS .....	15
4.1	RADIATED EMISSION MEASUREMENT .....	15
4.1.1	LIMITS OF RADIATED EMISSION MEASUREMENT .....	15
4.1.2	LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS .....	15
4.1.3	TEST INSTRUMENTS .....	16
4.1.4	TEST PROCEDURES .....	17
4.1.5	DEVIATION FROM TEST STANDARD .....	17
4.1.6	TEST SETUP .....	18
4.1.7	EUT OPERATING CONDITION .....	18
4.1.8	TEST RESULT .....	19
4.2	CONDUCTED EMISSION MEASUREMENT .....	51
4.2.1	LIMITS OF CONDUCTED EMISSION MEASUREMENT .....	51
4.2.2	TEST INSTRUMENTS .....	51
4.2.3	TEST PROCEDURES .....	52
4.2.4	DEVIATION FROM TEST STANDARD .....	52
4.2.5	TEST SETUP .....	53
4.2.6	EUT OPERATING CONDITIONS .....	53
4.2.7	TEST RESULTS .....	54
4.3	MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT .....	58
4.3.1	LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT .....	58
4.3.2	TEST INSTRUMENTS .....	58
4.3.3	TEST PROCEDURES .....	59
4.3.4	DEVIATION FROM TEST STANDARD .....	59
4.3.5	TEST SETUP .....	59
4.3.6	EUT OPERATING CONDITIONS .....	59
4.3.7	TEST RESULTS .....	60
4.4	PEAK POWER EXCURSION MEASUREMENT .....	66
4.4.1	LIMITS OF PEAK POWER EXCURSION MEASUREMENT .....	66
4.4.2	TEST INSTRUMENTS .....	66
4.4.3	TEST PROCEDURE .....	66
4.4.4	DEVIATION FROM TEST STANDARD .....	67



A D T

4.4.5	TEST SETUP.....	67
4.4.6	EUT OPERATING CONDITIONS .....	67
4.4.7	TEST RESULTS .....	68
4.5	PEAK POWER SPECTRAL DENSITY MEASUREMENT .....	74
4.5.1	LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT .....	74
4.5.2	TEST INSTRUMENTS.....	74
4.5.3	TEST PROCEDURES .....	74
4.5.4	DEVIATION FROM TEST STANDARD.....	75
4.5.5	TEST SETUP.....	75
4.5.6	EUT OPERATING CONDITIONS .....	75
4.5.7	TEST RESULTS .....	76
4.6	FREQUENCY STABILITY .....	79
4.6.1	LIMITS OF FREQUENCY STABILITY MEASUREMENT .....	79
4.6.2	TEST INSTRUMENTS.....	79
4.6.3	TEST PROCEDURE.....	79
4.6.4	DEVIATION FROM TEST STANDARD.....	80
4.6.5	TEST SETUP.....	80
4.6.6	EUT OPERATING CONDITION.....	80
4.6.7	TEST RESULTS .....	81
4.7	BAND EDGES MEASUREMENT .....	83
4.7.1	TEST INSTRUMENTS.....	83
4.7.2	TEST PROCEDURE.....	84
4.7.3	EUT OPERATING CONDITION.....	84
4.7.4	TEST RESULTS .....	85
5.	PHOTOGRAPHS OF THE TEST CONFIGURATION .....	109
6.	INFORMATION ON THE TESTING LABORATORIES.....	110
7.	APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB.....	111



## 1. CERTIFICATION

**PRODUCT:** Tablet PC  
**BRAND NAME:** DURABOOK, TabletKiosk, MobileDemand™, PaceBlade, LOGIC INSTRUMENT  
**MODEL NO.:** T7Mxxxxxx – multiple listing see item 3.1  
**APPLICANT:** TWINHEAD INTERNATIONAL CORP.  
**TEST SAMPLE:** R&D SAMPLE  
**TESTED:** Nov. 12 ~ Dec. 3, 2009  
**STANDARDS:** FCC Part 15, Subpart E (Section 15.407)  
ANSI C63.4-2003

The above equipment (Model: T7MD1) 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 :** Annie Chang , **DATE:** March 30, 2010  
( Annie Chang / Senior Specialist )

**TECHNICAL ACCEPTANCE :** Jamison Chan , **DATE:** March 30, 2010  
Responsible for RF ( Jamison Chan / Supervisor )

**APPROVED BY :** Ken Liu , **DATE:** March 30, 2010  
( Ken Liu / 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 -13.79dB at 0.710MHz.
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 -0.1dB at 5150.00MHz, 5470.00MHz, 10480.00MHz, 11340.00MHz & 11400.00MHz.
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 connector is U.FL not a standard connector.

### 2.1 MEASUREMENT UNCERTAINTY

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

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz~30MHz	2.44 dB
Radiated emissions	30MHz~1GHz	3.86 dB
	Above 1GHz	2.89 dB



A D T

### 3. GENERAL INFORMATION

#### 3.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Tablet PC
<b>MODEL NO.</b>	T7Mxxxxxx – multiple listing see below
<b>FCC ID</b>	FKGT7M
<b>POWER SUPPLY</b>	19Vdc from AC adapter or 7.4Vdc from Battery
<b>MODULATION TYPE</b>	64QAM, 16QAM, QPSK, BPSK
<b>MODULATION TECHNOLOGY</b>	OFDM
<b>TRANSFER RATE</b>	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps
<b>OPERATING FREQUENCY</b>	5180 ~ 5320MHz & 5500 ~ 5700MHz
<b>NUMBER OF CHANNEL</b>	5180 ~ 5320MHz: 8 for 802.11a, 802.11n (20MHz) 4 for 802.11n (40MHz) 5500 ~ 5700MHz: 11 for 802.11a, 802.11n (20MHz) 5 for 802.11n (40MHz)
<b>OUTPUT POWER</b>	34.7mW
<b>ANTENNA TYPE</b>	<b>2.4GHz:</b> PIFA antenna with 1.01dBi gain <b>5.0GHz:</b> PIFA antenna with 2.87dBi gain
<b>ANTENNA CONNECTOR</b>	Antenna connector is U.FL not a standard connector.
<b>I/O PORTS</b>	Refer to user's manual
<b>DATA CABLE</b>	NA
<b>ACCESSORY DEVICES</b>	Refer to note below



**NOTE:**

1. The EUT is a Tablet PC, the functions of EUT listed as below:

Function	Test Standard	Reference Report	
<b>WLAN IEEE802.11abgn Mini-PCI Card</b> (Brand: Intel, Model: 512AN)	<b>WLAN 802.11bgn</b>	FCC Part 15, Subpart C (Section 15.247)	
	<b>WLAN 802.11an</b> (5745~5825 MHz)		
	<b>WLAN 802.11an</b> (5180~5320MHz, 5500~5700MHz)	FCC Part 15, Subpart E (Section 15.407)	RF981005A05-1
	<b>WLAN 802.11a</b> (For DFS report) (Model: T7MD1) (5260~5320MHz, 5500~5700MHz)	FCC Part 15, Subpart E (Section 15.407)	RF981005A05-2
	<b>WLAN 802.11a</b> (For DFS report) (Model: T7MK1) (5260~5320MHz, 5500~5700MHz)	FCC Part 15, Subpart E (Section 15.407)	RF981005A05-5
	<b>WLAN 802.11a</b> (For DFS report) (Model: T7ML1) (5260~5320MHz, 5500~5700MHz)	FCC Part 15, Subpart E (Section 15.407)	RF981005A05-6
<b>Bluetooth module</b> (Brand: Billionton, Model: GUBTCR42M)	FCC Part 15, Subpart C (Section 15.247)	RF981005A05-3	
<b>RFID</b> (Brand: Microprogram, Model: R-07050S1S8)	FCC Part 15, Subpart C (Section 15.225)	RF981005A05-4	

2. The EUT has several models, which are identical to each other except for their brand name differences only, as the following:

BRAND	MODEL NO.	DESCRIPTION
DURABOOK	T7Mxxxxxx ("x" = 0~9, A~Z or blank)	For marketing different
TabletKiosk	a72xxxx ("x" = 0~9, A~Z or blank)	
MobileDemand™	xTablet® T7000XXXX ("x" = 0~9, A~Z or blank)	
PaceBlade	Pacebook RD7 series	
LOGIC INSTRUMENT	FIELDBOOK	

During the test, the **model no.: T7MD1** was selected as the representative model and only its test data was recorded in this report.

The Model: T7Mxxxxxx has three samples, which are identical to each other except for their interface differences only, as the below:

MODEL NO.	T7MD1	T7MK1	T7ML1
<b>INTERFACE DESCRIPTION</b>	USB x2 DB9 Card Reader (Express card & SD Card)	Audio x2 (Microphone & headphone) USB x2 RJ-45 Card Reader (Express card & SD Card)	Audio x2 (Microphone & headphone) USB x2 RJ-45 Card Reader (PCMCIA & SD Card)

The above three samples were tested, during the test, the **model no.: T7MD1** was the worst case and only its test data was recorded in this report.



A D T

3. The frequency bands used in this EUT are listed as follows:

Frequency Band (MHz)	2412~2462	5180~5320	5500~5700	5745~5825
802.11b	√			
802.11g	√			
802.11a		√	√	√
802.11n (20MHz)	√	√	√	√
802.11n (40MHz)	√	√	√	√

4. The EUT incorporates a SIMO function. Physically, the EUT provides one completed transmitter and two receivers.

MODULATION MODE	TX FUNCTION
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX

5. The EUT doesn't operate in 5600 ~ 5650MHz via software controls.

6. The EUT consumes power from an AC adapter or battery, as follows:

BRAND	MODEL NO.	SPEC.
FSP	FSP065-RAB	AC I/P: 100-240V, 1.5A, 50-60Hz DC O/P: 19V, 3.42A Non-shielded AC 3-pin (1.8m) Non-shielded DC (1.8m) with one ferrite core
FSP	T7M	7.4Vdc 2580mAh

7. 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

#### Operated in 5180 ~ 5320MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

#### Operated in 5500 ~ 5700MHz

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

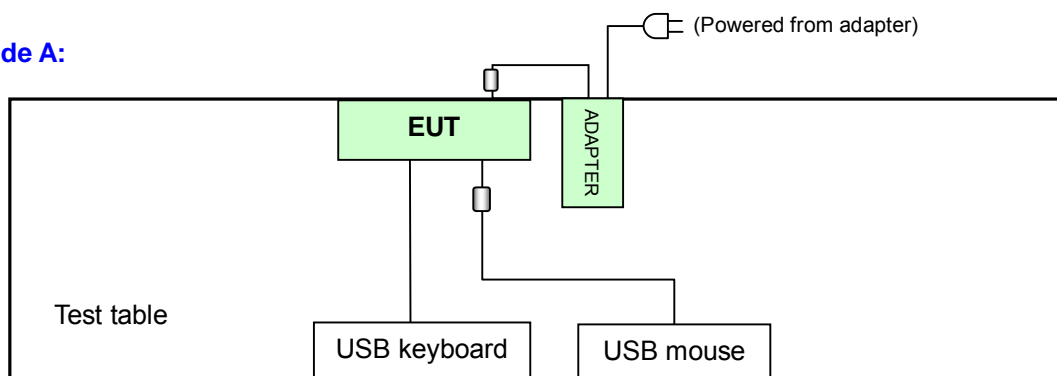
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

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

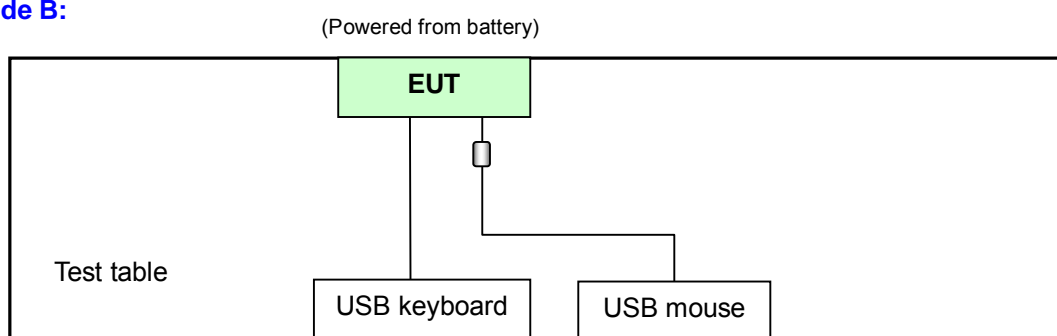
CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz		

### 3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

**Mode A:**



**Mode B:**





### 3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE <sup>≥</sup> 1G	RE<1G	PLC	APCM	
A	√	√	√	√	EUT w. AC adapter
B	-	√	-	-	EUT w. Battery

Where **RE<sup>≥</sup>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, data rates, XYZ axis and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	AXIS
A	802.11a	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.0	X
		100 to 140	100, 120, 140	OFDM	BPSK	6.0	X
A	802.11n (20MHz)	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.5	X
		100 to 140	100, 120, 140	OFDM	BPSK	6.5	X
A	802.11n (40MHz)	38 to 62	38, 46, 54, 62	OFDM	BPSK	13.5	X
		102 to 134	102, 110, 134	OFDM	BPSK	13.5	X

#### RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	AXIS
A & B	802.11n (20MHz)	36 to 64	64	OFDM	BPSK	6.5	X
		100 to 140	100	OFDM	BPSK	6.5	X

**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	802.11n (20MHz)	36 to 64	64	OFDM	BPSK	6.5
A	802.11n (20MHz)	100 to 140	100	OFDM	BPSK	6.5

**BANDEDGE MEASUREMENT:**

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	AXIS
A	802.11a	36 to 64	36, 64	OFDM	BPSK	6.0	X
		100 to 140	100, 140	OFDM	BPSK	6.0	X
A	802.11n (20MHz)	36 to 64	36, 64	OFDM	BPSK	6.5	X
		100 to 140	100, 140	OFDM	BPSK	6.5	X
A	802.11n (40MHz)	38 to 62	38, 62	OFDM	BPSK	13.5	X
		102 to 134	102, 134	OFDM	BPSK	13.5	X

**ANTENNA PORT CONDUCTED MEASUREMENT:**

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

EUT CONFIGURE MODE	MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.0
		100 to 140	100, 120, 140	OFDM	BPSK	6.0
A	802.11n (20MHz)	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6.5
		100 to 140	100, 120, 140	OFDM	BPSK	6.5
A	802.11n (40MHz)	38 to 62	38, 46, 54, 62	OFDM	BPSK	13.5
		102 to 134	102, 110, 134	OFDM	BPSK	13.5

**TEST CONDITION:**

APPLICABLE TO	EUT CONFIGURE MODE	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE <sup>3</sup> 1G	A	23deg. C, 74% RH, 1015hPa	120Vac, 60Hz	Nick Chen
RE <1G	A	23deg. C, 83% RH, 1013hPa	120Vac, 60Hz	Nick Chen
	B	23deg. C, 83% RH, 1013hPa	7.4Vdc	Nick Chen
PLC	A	20deg. C, 85% RH, 1020hPa	120Vac, 60Hz	Nick Chen
APCM	A	23deg. C, 70% RH, 1020hPa	120Vac, 60Hz	Nick Chen



### 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 E (Section 15.407)

ANSI C63.4-2003

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	USB KEYBOARD	BTC	5200U	G09302046659	E5XKB5122U
2	USB MOUSE	MICROSOFT	X800898	9241804-30608	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	1.5 m braid shielded wire, terminated with USB connector via drain wire, w/o core.
2	1.8 m foil shielded wire, terminated with USB connector via drain wire, with 1 core.

**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
	PK	PK
5150 ~ 5350	-27	68.3
5470 ~ 5725	-27	68.3

**NOTE:**

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

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



### 4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	May 04, 2009	May 03, 2010
HP Preamplifier	8449B	3008A01924	Aug. 31, 2009	Aug. 30, 2010
HP Preamplifier	8449B	3008A01292	Aug. 10, 2009	Aug. 09, 2010
ROHDE & SCHWARZ TEST RECEIVER	ESU26	100005	Jun. 06, 2009	Jun. 05, 2010
Schwarzbeck Antenna	VULB 9168	137	Apr. 29, 2009	Apr. 28, 2010
Schwarzbeck Antenna	VHBA 9123	480	Apr. 21, 2009	Apr. 20, 2010
EMCO Horn Antenna	3115	6714	Oct. 26, 2009	Oct. 25, 2010
EMCO Horn Antenna	3115	9312-4192	Apr. 17, 2009	Apr. 16, 2010
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	ADT_Radiated_V 7.6.15.9.2	NA	NA	NA
SUHNER RF cable	SF104-26.5	CABLE-CH6-17m -01	Aug. 20, 2009	Aug. 19, 2010
ROHDE & SCHWARZ Spectrum Analyzer	FSP 40	100036	Apr. 03, 2009	Apr. 02, 2010

- NOTE:**
1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
  2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  3. The test was performed in Chamber No. 6.
  4. The Industry Canada Reference No. IC 7450E-6.
  5. The FCC Site Registration No. is 447212.



#### 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 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 height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to 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.

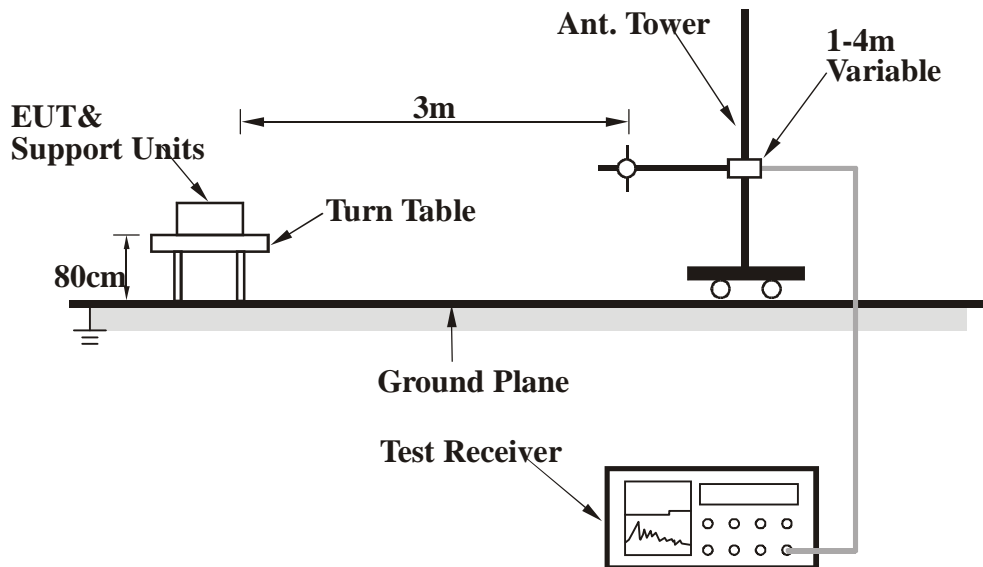
**NOTE:**

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 10Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

#### 4.1.5 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

- a. Turn on the power of all equipment.
- b. The Tablet PC (EUT) ran a test program (provided by manufacture) to enable it under transmitting condition at specific channel continuously.
- c. The Tablet PC (EUT) sent messages to LCD panel and displayed on its screen.
- d. Repeated c ~ d.



A D T

### 4.1.8 TEST RESULT

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	71.2 PK	74.0	-2.8	1.56 H	9	32.64	38.52
2	5150.00	51.2 AV	54.0	-2.8	1.56 H	9	12.71	38.52
3	*5180.00	108.6 PK			1.56 H	9	69.96	38.61
4	*5180.00	97.2 AV			1.56 H	9	58.60	38.61
5	#6906.00	60.1 PK	68.3	-8.2	1.48 H	24	17.18	42.93
6	#10360.00	64.9 PK	68.3	-3.4	1.38 H	304	16.13	48.77
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	67.2 PK	74.0	-6.8	1.09 V	90	28.66	38.52
2	5150.00	50.5 AV	54.0	-3.5	1.09 V	90	12.00	38.52
3	*5180.00	107.3 PK			1.09 V	90	68.70	38.61
4	*5180.00	96.1 AV			1.09 V	90	57.52	38.61
5	#6906.00	55.7 PK	68.3	-12.6	1.09 V	266	12.75	42.93
6	#10360.00	65.7 PK	68.3	-2.7	1.22 V	334	16.88	48.77

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	110.1 PK			1.60 H	11	71.39	38.67
2	*5200.00	98.7 AV			1.60 H	11	60.04	38.67
3	#6933.00	57.8 PK	68.3	-10.5	1.49 H	21	14.77	43.05
4	#10400.00	65.2 PK	68.3	-3.1	1.44 H	302	16.38	48.78
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	109.4 PK			1.08 V	90	70.77	38.67
2	*5200.00	98.1 AV			1.08 V	90	59.46	38.67
3	#6933.00	55.7 PK	68.3	-12.6	1.08 V	266	12.64	43.05
4	#10400.00	67.0 PK	68.3	-1.3	1.22 V	352	18.21	48.78

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.2 PK			1.46 H	11	71.60	38.64
2	*5240.00	98.6 AV			1.46 H	11	59.98	38.64
3	5350.00	60.7 PK	74.0	-13.3	1.46 H	11	22.08	38.66
4	5350.00	50.3 AV	54.0	-3.7	1.46 H	11	11.63	38.66
5	#6986.00	57.5 PK	68.3	-10.9	1.45 H	24	14.15	43.30
6	#10480.00	65.0 PK	68.3	-3.3	1.43 H	306	16.13	48.88
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	109.8 PK			1.42 V	97	71.18	38.64
2	*5240.00	98.5 AV			1.42 V	97	59.88	38.64
3	5350.00	62.5 PK	74.0	-11.5	1.42 V	97	23.83	38.66
4	5350.00	49.9 AV	54.0	-4.1	1.42 V	97	11.26	38.66
5	#6986.00	55.0 PK	68.3	-13.3	1.24 V	259	11.69	43.30
6	#10480.00	68.0 PK	68.3	-0.3	1.29 V	354	19.15	48.88

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.47 H	7	20.94	38.52
2	5150.00	48.0 AV	54.0	-6.0	1.47 H	7	9.51	38.52
3	*5260.00	112.1 PK			1.47 H	7	73.51	38.63
4	*5260.00	100.6 AV			1.47 H	7	61.95	38.63
5	#7013.00	56.7 PK	68.3	-11.7	1.44 H	25	13.29	43.36
6	#10520.00	64.1 PK	68.3	-4.2	1.44 H	304	15.19	48.94
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	59.3 PK	74.0	-14.7	1.41 V	85	20.81	38.52
2	5150.00	48.0 AV	54.0	-6.0	1.41 V	85	9.49	38.52
3	*5260.00	111.2 PK			1.41 V	85	72.58	38.63
4	*5260.00	99.9 AV			1.41 V	85	61.30	38.63
5	#7013.00	53.9 PK	68.3	-14.4	1.31 V	293	10.51	43.36
6	#10520.00	68.0 PK	68.3	-0.3	1.47 V	353	19.06	48.94

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.1 PK			1.43 H	11	73.45	38.60
2	*5300.00	100.7 AV			1.43 H	11	62.06	38.60
3	#7066.00	56.2 PK	68.3	-12.1	1.34 H	1	12.86	43.38
4	10600.00	65.4 PK	74.0	-8.6	1.36 H	307	16.29	49.12
5	10600.00	47.6 AV	54.0	-6.5	1.36 H	307	-1.57	49.12

**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	*5300.00	111.3 PK			1.32 V	99	72.73	38.60
2	*5300.00	100.0 AV			1.32 V	99	61.40	38.60
3	#7066.00	53.5 PK	68.3	-14.9	1.34 V	355	10.07	43.38
4	10600.00	68.2 PK	74.0	-5.8	1.54 V	357	19.09	49.12
5	10600.00	49.3 AV	54.0	-4.7	1.54 V	357	0.18	49.12

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.5 PK			1.40 H	11	73.86	38.62
2	*5320.00	101.1 AV			1.40 H	11	62.43	38.62
3	5350.00	64.7 PK	74.0	-9.3	1.40 H	11	26.02	38.66
4	5350.00	51.7 AV	54.0	-2.3	1.40 H	11	13.00	38.66
5	#7093.00	56.3 PK	68.3	-12.0	1.55 H	24	12.91	43.39
6	10640.00	63.9 PK	74.0	-10.1	1.27 H	274	14.76	49.14
7	10640.00	46.9 AV	54.0	-7.1	1.27 H	274	-2.26	49.14
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	*5320.00	112.3 PK			1.38 V	96	73.63	38.62
2	*5320.00	100.8 AV			1.38 V	96	62.15	38.62
3	5350.00	65.8 PK	74.0	-8.2	1.38 V	96	27.18	38.66
4	5350.00	51.9 AV	54.0	-2.1	1.38 V	96	13.27	38.66
5	#7093.00	53.0 PK	68.3	-15.3	1.39 V	356	9.65	43.39
6	10640.00	69.2 PK	74.0	-4.8	1.14 V	354	20.05	49.14
7	10640.00	48.8 AV	54.0	-5.2	1.14 V	354	-0.37	49.14

- 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.





A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.6 PK	74.0	-12.4	1.46 H	13	22.76	38.87
2	5460.00	49.5 AV	54.0	-4.5	1.46 H	13	10.64	38.87
3	#5470.00	68.1 PK	68.3	-0.3	1.46 H	13	29.16	38.90
4	*5500.00	107.8 PK			1.46 H	13	68.81	38.97
5	*5500.00	96.5 AV			1.46 H	13	57.48	38.97
6	7333.00	52.6 PK	74.0	-21.4	1.30 H	26	8.37	44.19
7	7333.00	40.7 AV	54.0	-13.4	1.30 H	26	-3.55	44.19
8	11000.00	60.6 PK	74.0	-13.4	1.27 H	299	10.78	49.80
9	11000.00	46.9 AV	54.0	-7.1	1.27 H	299	-2.92	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

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	5460.00	61.7 PK	74.0	-12.3	1.35 V	94	22.86	38.87
2	5460.00	49.8 AV	54.0	-4.2	1.35 V	94	10.89	38.87
3	#5470.00	60.9 PK	68.3	-7.4	1.35 V	94	22.01	38.90
4	*5500.00	106.2 PK			1.35 V	94	67.27	38.97
5	*5500.00	95.8 AV			1.35 V	94	56.84	38.97
6	7333.00	52.6 PK	74.0	-21.4	1.46 V	7	8.37	44.19
7	7333.00	41.3 AV	54.0	-12.8	1.46 V	7	-2.95	44.19
8	11000.00	62.2 PK	74.0	-11.8	1.27 V	332	12.36	49.80
9	11000.00	48.3 AV	54.0	-5.7	1.27 V	332	-1.47	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	106.8 PK			1.62 H	12	67.61	39.17
2	*5600.00	95.7 AV			1.62 H	12	56.51	39.17
3	7466.00	53.4 PK	74.0	-20.6	1.52 H	34	8.80	44.62
4	7466.00	40.5 AV	54.0	-13.5	1.52 H	34	-4.15	44.62
5	11200.00	63.2 PK	74.0	-10.8	1.33 H	292	13.66	49.55
6	11200.00	49.6 AV	54.0	-4.5	1.33 H	292	0.00	49.55
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	*5600.00	106.6 PK			1.32 V	93	67.42	39.17
2	*5600.00	95.1 AV			1.32 V	93	55.96	39.17
3	7466.00	53.0 PK	74.0	-21.0	1.22 V	51	8.40	44.62
4	7466.00	41.1 AV	54.0	-12.9	1.22 V	51	-3.50	44.62
5	11200.00	66.6 PK	74.0	-7.4	1.31 V	348	17.04	49.55
6	11200.00	52.5 AV	54.0	-1.5	1.31 V	348	2.95	49.55

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.9 PK			1.53 H	19	65.42	39.45
2	*5700.00	93.4 AV			1.53 H	19	53.98	39.45
3	#5725.00	68.7 PK	68.3	-5.3	1.53 H	19	29.16	39.50
4	7600.00	54.0 PK	74.0	-20.1	1.45 H	37	9.13	44.82
5	7600.00	40.4 AV	54.0	-13.6	1.45 H	37	-4.44	44.82
6	11400.00	68.0 PK	74.0	-6.0	1.58 H	73	18.53	49.50
7	<b>11400.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.58 H</b>	<b>73</b>	<b>4.36</b>	<b>49.50</b>
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	*5700.00	104.4 PK			1.28 V	104	64.92	39.45
2	*5700.00	92.4 AV			1.28 V	104	52.91	39.45
3	#5725.00	59.3 PK	68.3	-14.7	1.28 V	104	19.82	39.50
4	7600.00	53.1 PK	74.0	-20.9	1.39 V	52	8.31	44.82
5	7600.00	40.2 AV	54.0	-13.8	1.39 V	52	-4.64	44.82
6	11400.00	68.1 PK	74.0	-5.9	1.41 V	10	18.63	49.50
7	<b>11400.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.41 V</b>	<b>10</b>	<b>4.43</b>	<b>49.50</b>

- 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.



A D T

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	72.6 PK	74.0	-1.4	1.55 H	8	34.05	38.52
2	5150.00	53.2 AV	54.0	-0.8	1.55 H	8	14.65	38.52
3	*5180.00	110.9 PK			1.55 H	8	72.30	38.61
4	*5180.00	98.8 AV			1.55 H	8	60.23	38.61
5	#6906.00	60.5 PK	68.3	-7.8	1.38 H	22	17.59	42.93
6	#10360.00	66.2 PK	68.3	-2.1	1.35 H	307	17.42	48.77

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	68.8 PK	74.0	-5.2	1.43 V	97	30.24	38.52
2	5150.00	51.4 AV	54.0	-2.6	1.43 V	97	12.89	38.52
3	*5180.00	108.1 PK			1.43 V	97	69.44	38.61
4	*5180.00	96.2 AV			1.43 V	97	57.56	38.61
5	#6906.00	56.1 PK	68.3	-12.2	1.37 V	279	13.13	42.93
6	#10360.00	66.0 PK	68.3	-2.3	1.29 V	331	17.19	48.77

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	110.8 PK			1.52 H	8	72.09	38.67
2	*5200.00	99.3 AV			1.52 H	8	60.64	38.67
3	#6933.00	58.7 PK	68.3	-9.6	1.46 H	22	15.60	43.05
4	#10400.00	66.8 PK	68.3	-1.5	1.48 H	306	18.05	48.78

**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	110.2 PK			1.42 V	97	71.48	38.67
2	*5200.00	98.7 AV			1.42 V	97	60.01	38.67
3	#6933.00	55.1 PK	68.3	-13.2	1.56 V	312	12.05	43.05
4	#10400.00	68.1 PK	68.3	-0.2	1.22 V	6	19.35	48.78

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.9 PK			1.45 H	8	72.21	38.64
2	*5240.00	99.3 AV			1.45 H	8	60.65	38.64
3	5350.00	62.3 PK	74.0	-11.7	1.45 H	8	23.63	38.66
4	5350.00	50.0 AV	54.0	-4.0	1.45 H	8	11.32	38.66
5	#6986.00	57.9 PK	68.3	-10.4	1.45 H	0	14.57	43.30
6	#10480.00	66.2 PK	68.3	-2.1	1.39 H	310	17.33	48.88
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	109.2 PK			1.41 V	87	70.51	38.64
2	*5240.00	97.8 AV			1.41 V	87	59.12	38.64
3	5350.00	62.1 PK	74.0	-11.9	1.41 V	87	23.40	38.66
4	5350.00	49.8 AV	54.0	-4.2	1.41 V	87	11.18	38.66
5	#6986.00	54.4 PK	68.3	-13.9	1.23 V	283	11.06	43.30
6	#10480.00	68.2 PK	68.3	-0.1	1.28 V	0	19.33	48.88

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.4 PK	74.0	-14.6	1.47 H	10	20.88	38.52
2	5150.00	48.0 AV	54.0	-6.0	1.47 H	10	9.47	38.52
3	*5260.00	110.7 PK			1.47 H	10	72.10	38.63
4	*5260.00	98.6 AV			1.47 H	10	59.98	38.63
5	#7013.00	57.1 PK	68.3	-11.2	1.45 H	23	13.76	43.36
6	#10520.00	62.6 PK	68.3	-5.7	1.44 H	302	13.65	48.94
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	59.9 PK	74.0	-14.1	1.41 V	96	21.33	38.52
2	5150.00	48.0 AV	54.0	-6.0	1.41 V	96	9.47	38.52
3	*5260.00	109.5 PK			1.41 V	96	70.82	38.63
4	*5260.00	97.3 AV			1.41 V	96	58.71	38.63
5	#7013.00	54.0 PK	68.3	-14.3	1.24 V	263	10.66	43.36
6	#10520.00	67.8 PK	68.3	-0.5	1.14 V	350	18.88	48.94

- 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.





A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	110.0 PK			1.32 H	9	71.38	38.60
2	*5300.00	98.5 AV			1.32 H	9	59.93	38.60
3	#7066.00	56.8 PK	68.3	-11.5	1.41 H	0	13.38	43.38
4	10600.00	66.6 PK	74.0	-7.4	1.39 H	303	17.51	49.12
5	10600.00	47.3 AV	54.0	-6.7	1.39 H	303	-1.81	49.12

**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	*5300.00	109.6 PK			1.32 V	98	71.02	38.60
2	*5300.00	97.7 AV			1.32 V	98	59.12	38.60
3	#7066.00	53.6 PK	68.3	-14.7	1.33 V	263	10.19	43.38
4	10600.00	67.5 PK	74.0	-6.5	1.13 V	345	18.38	49.12
5	10600.00	46.6 AV	54.0	-7.4	1.13 V	345	-2.50	49.12

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.0 PK			1.58 H	10	73.33	38.62
2	*5320.00	100.1 AV			1.58 H	10	61.52	38.62
3	5350.00	70.1 PK	74.0	-3.9	1.58 H	10	31.45	38.66
4	5350.00	52.0 AV	54.0	-2.0	1.58 H	10	13.37	38.66
5	#7093.00	55.3 PK	68.3	-13.0	1.31 H	23	11.91	43.39
6	10640.00	65.4 PK	74.0	-8.6	1.45 H	301	16.27	49.14
7	10640.00	47.5 AV	54.0	-6.5	1.45 H	301	-1.62	49.14
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	*5320.00	111.5 PK			1.36 V	97	72.88	38.62
2	*5320.00	100.0 AV			1.36 V	97	61.35	38.62
3	5350.00	70.5 PK	74.0	-3.5	1.36 V	97	31.87	38.66
4	5350.00	52.4 AV	54.0	-1.6	1.36 V	97	13.76	38.66
5	#7093.00	54.1 PK	68.3	-14.2	1.22 V	261	10.72	43.39
6	10640.00	71.8 PK	74.0	-2.2	1.13 V	353	22.65	49.14
7	10640.00	50.5 AV	54.0	-3.5	1.13 V	353	1.40	49.14

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	67.5 PK	74.0	-6.5	1.58 H	14	28.67	38.87
2	5460.00	50.0 AV	54.0	-4.0	1.58 H	14	11.09	38.87
3	#5470.00	67.8 PK	68.3	-0.5	1.58 H	14	28.92	38.90
4	*5500.00	108.2 PK			1.58 H	14	69.18	38.97
5	*5500.00	96.6 AV			1.58 H	14	57.60	38.97
6	7333.00	53.5 PK	74.0	-20.5	1.36 H	25	9.27	44.19
7	7333.00	41.0 AV	54.0	-13.0	1.36 H	25	-3.24	44.19
8	11000.00	61.7 PK	74.0	-12.3	1.21 H	297	11.91	49.80
9	11000.00	47.9 AV	54.0	-6.1	1.21 H	297	-1.94	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

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	5460.00	61.5 PK	74.0	-12.5	1.35 V	95	22.64	38.87
2	5460.00	49.7 AV	54.0	-4.3	1.35 V	95	10.87	38.87
3	#5470.00	68.2 PK	68.3	-0.1	1.35 V	95	29.30	38.90
4	*5500.00	107.5 PK			1.35 V	95	68.51	38.97
5	*5500.00	96.1 AV			1.35 V	95	57.17	38.97
6	7333.00	52.4 PK	74.0	-21.6	1.16 V	259	8.19	44.19
7	7333.00	39.7 AV	54.0	-14.3	1.16 V	259	-4.54	44.19
8	11000.00	62.7 PK	74.0	-11.4	1.21 V	320	12.85	49.80
9	11000.00	47.8 AV	54.0	-6.2	1.21 V	320	-1.97	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 120	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5600.00	110.9 PK			1.62 H	11	71.73	39.17
2	*5600.00	99.7 AV			1.62 H	11	60.52	39.17
3	7466.00	53.5 PK	74.0	-20.5	1.45 H	34	8.86	44.62
4	7466.00	40.8 AV	54.0	-13.2	1.45 H	34	-3.82	44.62
5	11200.00	64.8 PK	74.0	-9.2	1.19 H	294	15.24	49.55
6	11200.00	50.3 AV	54.0	-3.7	1.19 H	294	0.73	49.55
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	*5600.00	110.6 PK			1.23 V	95	71.45	39.17
2	*5600.00	99.2 AV			1.23 V	95	60.03	39.17
3	7466.00	52.7 PK	74.0	-21.3	1.23 V	265	8.07	44.62
4	7466.00	39.2 AV	54.0	-14.9	1.23 V	265	-5.47	44.62
5	11200.00	68.4 PK	74.0	-5.6	1.17 V	331	18.86	49.55
6	11200.00	53.4 AV	54.0	-0.6	1.17 V	331	3.81	49.55

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.7 PK			1.60 H	19	67.29	39.45
2	*5700.00	94.4 AV			1.60 H	19	54.90	39.45
3	#5725.00	60.1 PK	68.3	-13.9	1.60 H	19	20.58	39.50
4	7600.00	52.9 PK	74.0	-21.1	1.39 H	38	8.07	44.82
5	7600.00	41.0 AV	54.0	-13.0	1.39 H	38	-3.81	44.82
6	11400.00	68.2 PK	74.0	-5.8	1.24 H	298	18.67	49.50
7	11400.00	52.6 AV	54.0	-1.4	1.24 H	298	3.08	49.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.4 PK			1.19 V	94	66.92	39.45
2	*5700.00	94.1 AV			1.19 V	94	54.65	39.45
3	#5725.00	59.8 PK	68.3	-14.2	1.19 V	94	20.32	39.50
4	7600.00	53.7 PK	74.0	-20.4	1.19 V	312	8.83	44.82
5	7600.00	46.0 AV	54.0	-8.0	1.19 V	312	1.15	44.82
6	11400.00	68.9 PK	74.0	-5.1	1.28 V	352	19.41	49.50
7	11400.00	53.9 AV	54.0	-0.1	1.28 V	352	4.37	49.50

- REMARKS:**
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
  2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.
  5. “ \* “: Fundamental frequency.
  6. “#”:The radiated frequency is out the restricted band.



A D T

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.3 PK	74.0	-4.7	1.53 H	10	30.82	38.52
2	5150.00	54.0 AV	54.0	-0.1	1.53 H	10	15.42	38.52
3	*5190.00	104.1 PK			1.53 H	10	65.42	38.64
4	*5190.00	87.3 AV			1.53 H	10	48.65	38.64
5	#6920.00	59.5 PK	68.3	-8.9	1.49 H	22	16.46	42.99
6	#10380.00	61.0 PK	68.3	-7.3	1.46 H	303	12.20	48.77

**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	1.36 V	96	30.38	38.52
2	5150.00	53.6 AV	54.0	-0.4	1.36 V	96	15.04	38.52
3	*5190.00	103.3 PK			1.36 V	96	64.69	38.64
4	*5190.00	85.6 AV			1.36 V	96	46.99	38.64
5	#6920.00	55.7 PK	68.3	-12.6	1.39 V	274	12.73	42.99
6	#10380.00	61.9 PK	68.3	-6.4	1.34 V	350	13.08	48.77

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	109.9 PK			1.47 H	9	71.28	38.65
2	*5230.00	92.9 AV			1.47 H	9	54.29	38.65
3	5350.00	65.0 PK	74.0	-9.0	1.47 H	9	26.34	38.66
4	5350.00	50.8 AV	54.0	-3.2	1.47 H	9	12.12	38.66
5	#6973.00	57.6 PK	68.3	-10.7	1.46 H	20	14.33	43.24
6	#10460.00	63.9 PK	68.3	-4.4	1.34 H	314	15.09	48.85
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	108.9 PK			1.34 V	96	70.23	38.65
2	*5230.00	91.9 AV			1.34 V	96	53.28	38.65
3	5350.00	66.5 PK	74.0	-7.5	1.34 V	96	27.83	38.66
4	5350.00	50.2 AV	54.0	-3.8	1.34 V	96	11.53	38.66
5	#6973.00	54.1 PK	68.3	-14.2	1.06 V	263	10.88	43.24
6	#10460.00	66.1 PK	68.3	-2.2	1.34 V	348	17.22	48.85

- 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.





A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.0 PK	74.0	-15.0	1.46 H	10	20.46	38.52
2	5150.00	47.9 AV	54.0	-6.1	1.46 H	10	9.41	38.52
3	*5270.00	110.7 PK			1.46 H	10	72.07	38.62
4	*5270.00	92.7 AV			1.46 H	10	54.12	38.62
5	#7026.00	56.3 PK	68.3	-12.0	1.41 H	24	12.96	43.37
6	#10540.00	64.2 PK	68.3	-4.1	1.45 H	302	15.21	48.99
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	59.4 PK	74.0	-14.6	1.32 V	96	20.86	38.52
2	5150.00	48.2 AV	54.0	-5.8	1.32 V	96	9.63	38.52
3	*5270.00	109.9 PK			1.32 V	96	71.25	38.62
4	*5270.00	92.8 AV			1.32 V	96	54.21	38.62
5	#7026.00	53.5 PK	68.3	-14.8	1.35 V	263	10.10	43.37
6	#10540.00	67.5 PK	68.3	-0.8	1.20 V	353	18.50	48.99

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	105.7 PK			1.58 H	10	67.12	38.61
2	*5310.00	89.6 AV			1.58 H	10	51.00	38.61
3	5350.00	72.0 PK	74.0	-2.0	1.58 H	10	33.32	38.66
4	5350.00	52.4 AV	54.0	-1.7	1.58 H	10	13.69	38.66
5	#7080.00	56.0 PK	68.3	-12.4	1.15 H	22	12.56	43.38
6	10620.00	60.3 PK	74.0	-13.7	1.19 H	337	11.14	49.13
7	10620.00	45.0 AV	54.0	-9.0	1.19 H	337	-4.09	49.13
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	*5310.00	105.5 PK			1.32 V	95	66.92	38.61
2	*5310.00	89.3 AV			1.32 V	95	50.72	38.61
3	5350.00	73.5 PK	74.0	-0.5	1.32 V	95	34.81	38.66
4	5350.00	53.0 AV	54.0	-1.1	1.32 V	95	14.29	38.66
5	#7080.00	54.8 PK	68.3	-13.5	1.32 V	263	11.42	43.38
6	10620.00	62.4 PK	74.0	-11.6	1.30 V	249	13.25	49.13
7	10620.00	44.7 AV	54.0	-9.3	1.30 V	249	-4.39	49.13

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	69.0 PK	74.0	-5.0	1.41 H	10	30.09	38.87
2	5460.00	49.9 AV	54.0	-4.1	1.41 H	10	11.03	38.87
3	#5470.00	67.6 PK	68.3	-0.7	1.41 H	10	28.69	38.90
4	*5510.00	103.7 PK			1.41 H	10	64.66	38.99
5	*5510.00	88.6 AV			1.41 H	10	49.64	38.99
6	7346.00	53.8 PK	74.0	-20.2	1.29 H	23	9.59	44.21
7	7346.00	41.8 AV	54.0	-12.2	1.29 H	23	-2.42	44.21
8	11020.00	59.4 PK	74.0	-14.6	1.23 H	348	9.61	49.80
9	11020.00	45.2 AV	54.0	-8.8	1.23 H	348	-4.59	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

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	5460.00	69.4 PK	74.0	-4.6	1.26 V	99	30.55	38.87
2	5460.00	50.5 AV	54.0	-3.5	1.26 V	99	11.59	38.87
3	#5470.00	68.2 PK	68.3	-0.1	1.26 V	99	29.34	38.90
4	*5510.00	103.5 PK			1.26 V	99	64.54	38.99
5	*5510.00	87.3 AV			1.26 V	99	48.27	38.99
6	7346.00	52.3 PK	74.0	-21.7	1.26 V	259	8.12	44.21
7	7346.00	40.3 AV	54.0	-13.7	1.26 V	259	-3.94	44.21
8	11020.00	59.2 PK	74.0	-14.8	1.17 V	323	9.44	49.80
9	11020.00	45.2 AV	54.0	-8.8	1.17 V	323	-4.62	49.80

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	109.9 PK			1.42 H	12	70.83	39.07
2	*5550.00	92.9 AV			1.42 H	12	53.81	39.07
3	7400.00	52.4 PK	74.0	-21.6	1.23 H	27	8.11	44.26
4	7400.00	39.8 AV	54.0	-14.2	1.23 H	27	-4.44	44.26
5	11100.00	64.0 PK	74.0	-10.0	1.17 H	293	14.22	49.78
6	11100.00	47.7 AV	54.0	-6.3	1.17 H	293	-2.11	49.78
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	*5550.00	109.8 PK			1.24 V	95	70.75	39.07
2	*5550.00	92.4 AV			1.24 V	95	53.36	39.07
3	7400.00	52.2 PK	74.0	-21.8	1.36 V	259	7.94	44.26
4	7400.00	39.7 AV	54.0	-14.4	1.36 V	259	-4.61	44.26
5	11100.00	65.4 PK	74.0	-8.6	1.13 V	332	15.63	49.78
6	11100.00	48.2 AV	54.0	-5.8	1.13 V	332	-1.54	49.78

- 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.
  6. "#":The radiated frequency is out the restricted band.
  4. Margin value = Emission level – Limit value.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	23deg. C, 74% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	106.5 PK			1.45 H	19	67.15	39.37
2	*5670.00	90.0 AV			1.45 H	19	50.66	39.37
3	#5725.00	68.3 PK	68.3	-5.7	1.45 H	19	28.78	39.50
4	7560.00	53.8 PK	74.0	-20.3	1.43 H	37	8.94	44.82
5	7560.00	41.2 AV	54.0	-12.8	1.43 H	37	-3.63	44.82
6	11340.00	68.0 PK	74.0	-6.0	1.18 H	293	18.40	49.56
7	11340.00	52.7 AV	54.0	-1.3	1.18 H	293	3.11	49.56
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	*5670.00	105.7 PK			1.18 V	95	66.33	39.37
2	*5670.00	89.1 AV			1.18 V	95	49.70	39.37
3	#5725.00	61.6 PK	68.3	-12.4	1.18 V	95	22.11	39.50
4	7560.00	52.4 PK	74.0	-21.6	1.31 V	281	7.57	44.82
5	7560.00	40.0 AV	54.0	-14.1	1.31 V	281	-4.86	44.82
6	11340.00	69.8 PK	74.0	-4.2	1.16 V	354	20.20	49.56
7	11340.00	53.9 AV	54.0	-0.1	1.16 V	354	4.30	49.56

- 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.



A D T

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	112.39	29.0 QP	43.5	-14.5	1.55 H	283	18.61	10.43
2	199.44	29.3 QP	43.5	-14.2	1.63 H	148	18.03	11.26
3	365.77	31.6 QP	46.0	-14.4	1.00 H	355	14.42	17.15
4	602.05	34.2 QP	46.0	-11.8	1.08 H	307	10.91	23.25
5	630.03	30.1 QP	46.0	-15.9	1.00 H	322	6.36	23.71
6	661.12	30.9 QP	46.0	-15.1	1.00 H	193	6.70	24.21
7	797.92	38.8 QP	46.0	-7.2	1.00 H	190	12.24	26.58
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	93.73	28.8 QP	43.5	-14.7	1.66 V	157	20.41	8.39
2	104.62	34.2 QP	43.5	-9.3	1.59 V	118	24.71	9.46
3	199.44	32.0 QP	43.5	-11.5	1.74 V	70	20.70	11.26
4	633.14	30.9 QP	46.0	-15.1	1.42 V	196	7.16	23.76
5	696.88	30.3 QP	46.0	-15.7	1.34 V	283	5.53	24.76
6	799.47	32.4 QP	46.0	-13.6	1.25 V	175	5.78	26.60

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	106.17	32.8 QP	43.5	-10.7	1.05 H	103	23.18	9.66
2	165.24	36.9 QP	43.5	-6.6	1.50 H	253	23.01	13.91
3	199.44	35.7 QP	43.5	-7.8	1.36 H	154	24.41	11.26
4	365.77	32.9 QP	46.0	-13.2	1.03 H	10	15.70	17.15
5	633.14	30.0 QP	46.0	-16.0	1.84 H	271	6.27	23.76
6	801.03	32.8 QP	46.0	-13.2	1.00 H	253	6.17	26.63
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	104.62	34.8 QP	43.5	-8.7	1.42 V	112	25.31	9.46
2	132.60	31.9 QP	43.5	-11.6	1.68 V	265	19.21	12.73
3	168.35	32.1 QP	43.5	-11.4	1.48 V	67	18.21	13.86
4	199.44	40.2 QP	43.5	-3.3	1.44 V	10	28.96	11.26
5	633.14	31.2 QP	46.0	-14.8	1.32 V	208	7.40	23.76
6	699.98	30.4 QP	46.0	-15.6	1.55 V	274	5.60	24.81

- 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.





A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	258.51	33.3 QP	46.0	-12.7	1.59 H	10	19.85	13.44
2	365.77	31.8 QP	46.0	-14.2	1.63 H	10	14.67	17.15
3	622.26	29.4 QP	46.0	-16.7	1.22 H	295	5.76	23.59
4	701.54	34.7 QP	46.0	-11.3	1.00 H	184	9.83	24.84
5	797.92	35.8 QP	46.0	-10.2	1.00 H	229	9.21	26.58
6	833.67	30.8 QP	46.0	-15.2	1.06 H	121	3.65	27.14
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	67.31	24.5 QP	40.0	-15.5	1.52 V	241	12.15	12.35
2	533.65	29.0 QP	46.0	-17.0	1.63 V	79	7.19	21.84
3	602.05	29.6 QP	46.0	-16.4	1.00 V	223	6.32	23.25
4	650.24	29.1 QP	46.0	-16.9	1.50 V	226	5.07	24.04
5	701.54	30.4 QP	46.0	-15.6	1.59 V	208	5.52	24.84
6	797.92	34.3 QP	46.0	-11.7	1.42 V	199	7.70	26.58

- 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.



A D T

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	7.4Vdc	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	23deg. C, 83% RH 1013hPa	TESTED BY	Nick Chen
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	258.51	33.5 QP	46.0	-12.5	1.59 H	334	20.05	13.44
2	311.36	30.2 QP	46.0	-15.8	1.22 H	334	14.51	15.73
3	701.54	29.7 QP	46.0	-16.3	1.00 H	16	4.86	24.84
4	799.47	30.3 QP	46.0	-15.7	1.39 H	202	3.70	26.60
5	864.76	29.9 QP	46.0	-16.1	1.00 H	106	2.35	27.59
6	895.85	33.1 QP	46.0	-12.9	1.00 H	16	5.11	27.99
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	39.33	29.5 QP	40.0	-10.6	1.19 V	10	16.23	13.22
2	68.86	28.9 QP	40.0	-11.1	1.08 V	226	16.69	12.25
3	625.37	31.7 QP	46.0	-14.3	1.00 V	325	8.07	23.64
4	661.12	29.0 QP	46.0	-17.0	1.50 V	238	4.83	24.21
5	696.88	30.2 QP	46.0	-15.8	1.56 V	307	5.48	24.76
6	796.36	34.0 QP	46.0	-12.0	1.00 V	214	7.46	26.55

- 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 (dB $\mu$ V)	
	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.	CALIBRATED DATE	CALIBRATED UNTIL
ROHDE & SCHWARZ Test Receiver	ESCS 30	838251/021	Mar. 05, 2009	Mar. 04, 2010
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH3-Z5	100218	Nov. 24, 2008	Nov. 23, 2009
LISN With Adapter (for EUT)	AD10	C10Ada-001	Nov. 24, 2008	Nov. 23, 2009
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	100219	Nov. 23, 2009	Nov. 22, 2010
Software	ADT_Cond_V7.3.7	NA	NA	NA
Software	ADT_ISN_V7.3.7	NA	NA	NA
RF cable (JYEBAO)	5D-FB	Cable-C10.01	Feb. 26, 2009	Feb. 25, 2010
SUHNER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010773	Feb. 27, 2009	Feb. 26, 2010

- 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 Shielded Room No. 10.  
 3. The VCCI Site Registration No. C-1852.

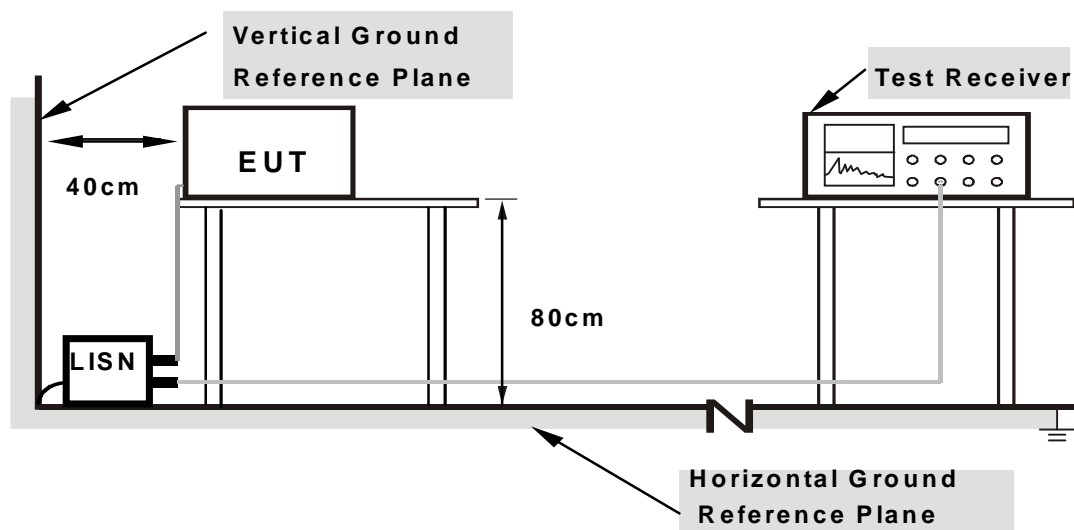
### 4.2.3 TEST PROCEDURES

- 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.



A D T

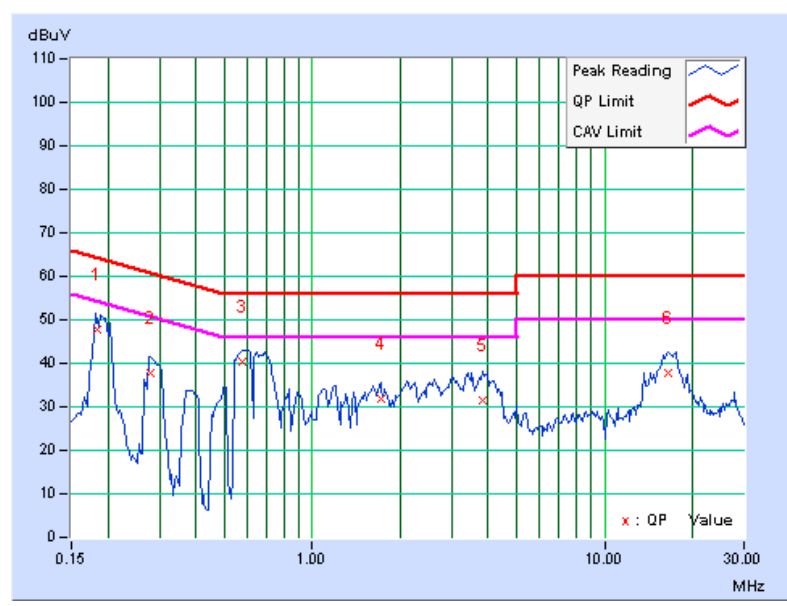
### 4.2.7 TEST RESULTS

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

CHANNEL	Channel 64	PHASE	Line 1
TEST MODE	A	6dB BANDWIDTH	9kHz

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.184	0.13	47.80	-	47.93	-	64.28	54.28	-16.35	-
2	0.280	0.17	37.66	-	37.83	-	60.83	50.83	-23.00	-
3	0.574	0.24	39.98	-	40.22	-	56.00	46.00	-15.78	-
4	1.715	0.34	31.58	-	31.92	-	56.00	46.00	-24.08	-
5	3.828	0.51	31.01	-	31.52	-	56.00	46.00	-24.48	-
6	16.527	1.33	36.49	-	37.82	-	60.00	50.00	-22.18	-

- 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.



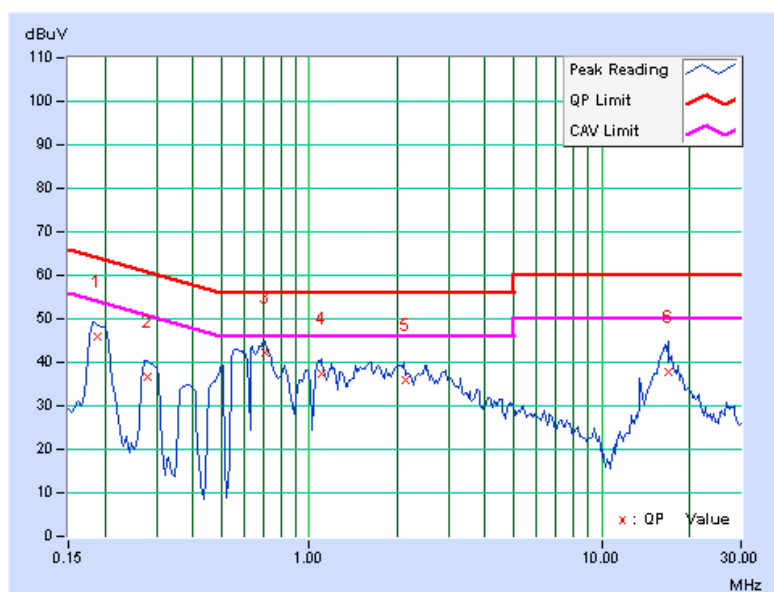


A D T

<b>CHANNEL</b>	Channel 64	<b>PHASE</b>	Line 2
<b>TEST MODE</b>	A	<b>6dB BANDWIDTH</b>	9kHz

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor (dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.188	0.13	45.71	-	45.84	-	64.13	54.13	-18.29	-
2	0.280	0.17	36.62	-	36.79	-	60.80	50.80	-24.01	-
3	0.705	0.30	41.79	-	42.09	-	56.00	46.00	-13.91	-
4	1.099	0.38	37.17	-	37.55	-	56.00	46.00	-18.45	-
5	2.124	0.46	35.61	-	36.07	-	56.00	46.00	-19.93	-
6	16.869	1.20	36.41	-	37.61	-	60.00	50.00	-22.39	-

- 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.



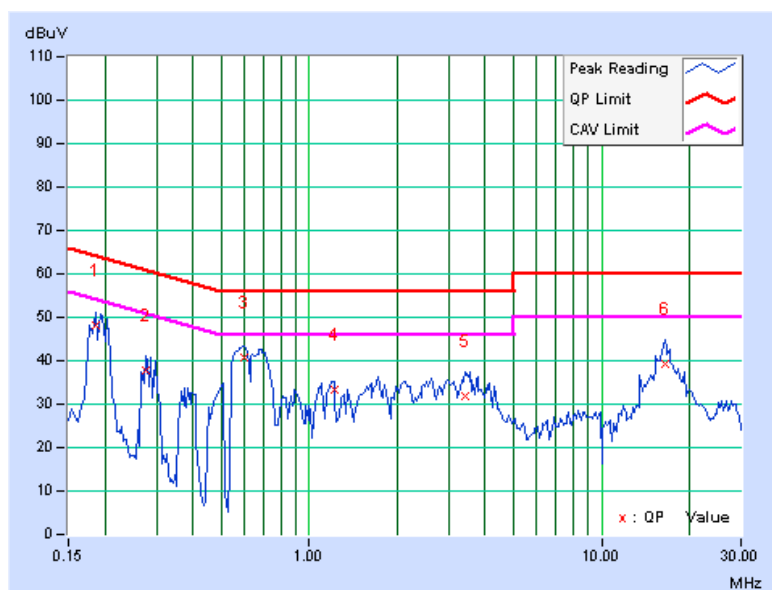


A D T

<b>CHANNEL</b>	Channel 100	<b>PHASE</b>	Line 1
<b>TEST MODE</b>	A	<b>6dB BANDWIDTH</b>	9kHz

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.13	47.87	-	48.00	-	64.24	54.24	-16.24	-
2	0.277	0.17	37.60	-	37.77	-	60.90	50.90	-23.13	-
3	0.599	0.25	40.57	-	40.82	-	56.00	46.00	-15.18	-
4	1.215	0.30	33.07	-	33.37	-	56.00	46.00	-22.63	-
5	3.428	0.48	31.45	-	31.93	-	56.00	46.00	-24.07	-
6	16.461	1.32	37.89	-	39.21	-	60.00	50.00	-20.79	-

- 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.





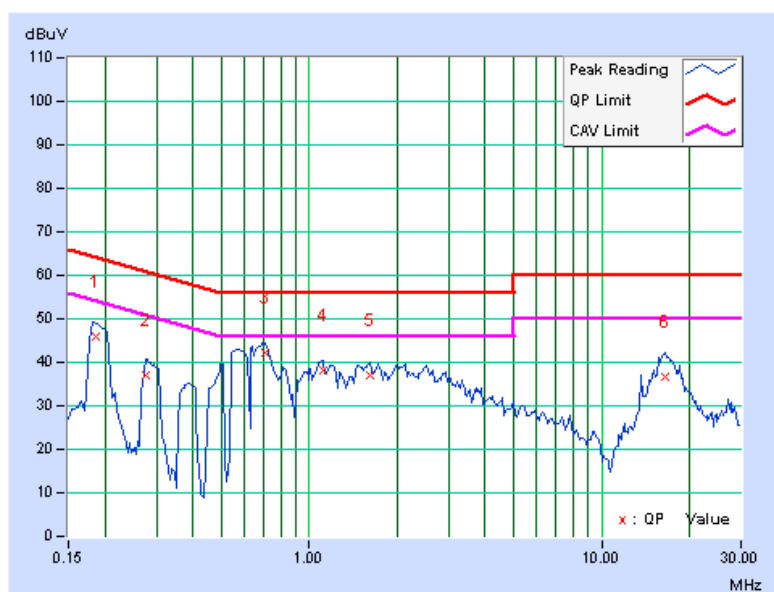


A D T

<b>CHANNEL</b>	Channel 100	<b>PHASE</b>	Line 2
<b>TEST MODE</b>	A	<b>6dB BANDWIDTH</b>	9kHz

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor (dB)	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.186	0.13	45.76	-	45.89	-	64.20	54.20	-18.31	-
2	0.278	0.17	36.76	-	36.93	-	60.89	50.89	-23.96	-
<b>3</b>	<b>0.710</b>	<b>0.30</b>	<b>41.91</b>	-	<b>42.21</b>	-	<b>56.00</b>	<b>46.00</b>	<b>-13.79</b>	-
4	1.112	0.38	37.67	-	38.05	-	56.00	46.00	-17.95	-
5	1.621	0.42	36.65	-	37.07	-	56.00	46.00	-18.93	-
6	16.533	1.17	35.65	-	36.82	-	60.00	50.00	-23.18	-

- 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 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

#### 4.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.250 ~ 5.350GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.470 ~ 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 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	CALIBRATED UNTIL
Anritsu Power Meter	ML2495A	0842014	Apr. 25, 2009	Apr. 25, 2010
Anritsu Power Sensor	MA2411B	0738404	Apr. 25, 2009	Apr. 25, 2010

**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	100036	Apr. 03, 2009	Apr. 02, 2010

**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 PROCEDURES

#### 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

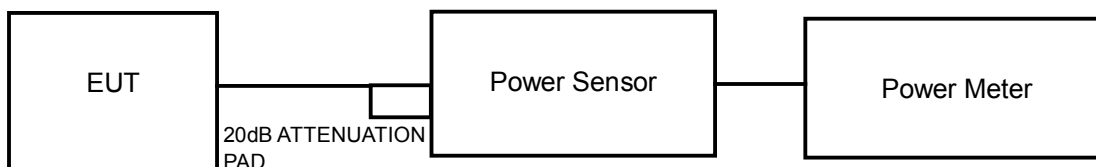
The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300kHz RBW and 1MHz VBW. The 26dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 26dB.

### 4.3.4 DEVIATION FROM TEST STANDARD

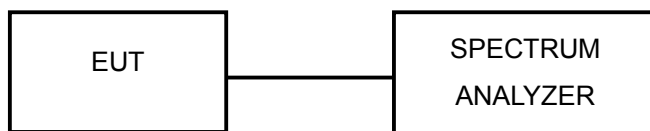
No deviation

### 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.



A D T

## 4.3.7 TEST RESULTS

POWER OUTPUT: 802.11a

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (dBm)	OUTPUT POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	13.9	24.5	17	PASS
40	5200	14.9	30.9	17	PASS
48	5240	15.1	32.4	17	PASS
52	5260	15.1	32.4	24	PASS
60	5300	15.0	31.6	24	PASS
64	5320	15.2	33.1	24	PASS
100	5500	12.4	17.4	24	PASS
120	5600	11.3	13.5	24	PASS
140	5700	9.2	8.3	24	PASS



A D T

### 802.11n (20MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (dBm)	OUTPUT POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
36	5180	14.1	25.7	17	PASS
40	5200	15.1	32.4	17	PASS
48	5240	15.1	32.4	17	PASS
52	5260	14.3	26.9	24	PASS
60	5300	13.1	20.4	24	PASS
64	5320	14.9	30.9	24	PASS
100	5500	12.2	16.6	24	PASS
120	5600	12.4	17.4	24	PASS
140	5700	9.0	7.9	24	PASS



A D T

### 802.11n (40MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	OUTPUT POWER (dBm)	OUTPUT POWER (mW)	POWER LIMIT (dBm)	PASS / FAIL
38	5190	10.7	11.7	17	PASS
46	5230	15.4	<b>34.7</b>	17	PASS
54	5270	15.0	31.6	24	PASS
62	5310	9.8	9.6	24	PASS
102	5510	8.5	7.1	24	PASS
110	5550	12.5	17.8	24	PASS
134	5670	12.1	16.2	24	PASS



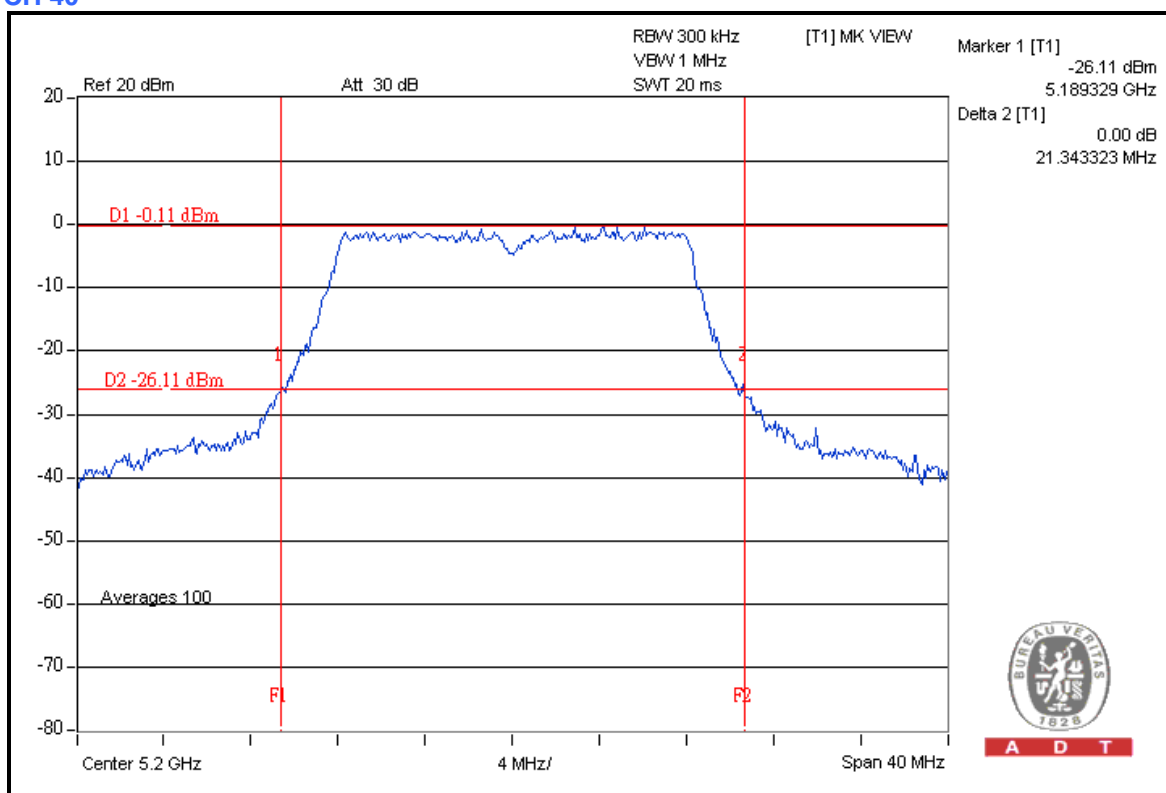
A D T

### 26dB OCCUPIED BANDWIDTH: 802.11a

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)	PASS / FAIL
36	5180	21.1	PASS
40	5200	21.3	PASS
48	5240	21.3	PASS
52	5260	21.3	PASS
60	5300	21.1	PASS
64	5320	21.2	PASS
100	5500	21.0	PASS
120	5600	21.1	PASS
140	5700	21.1	PASS

### CH 40





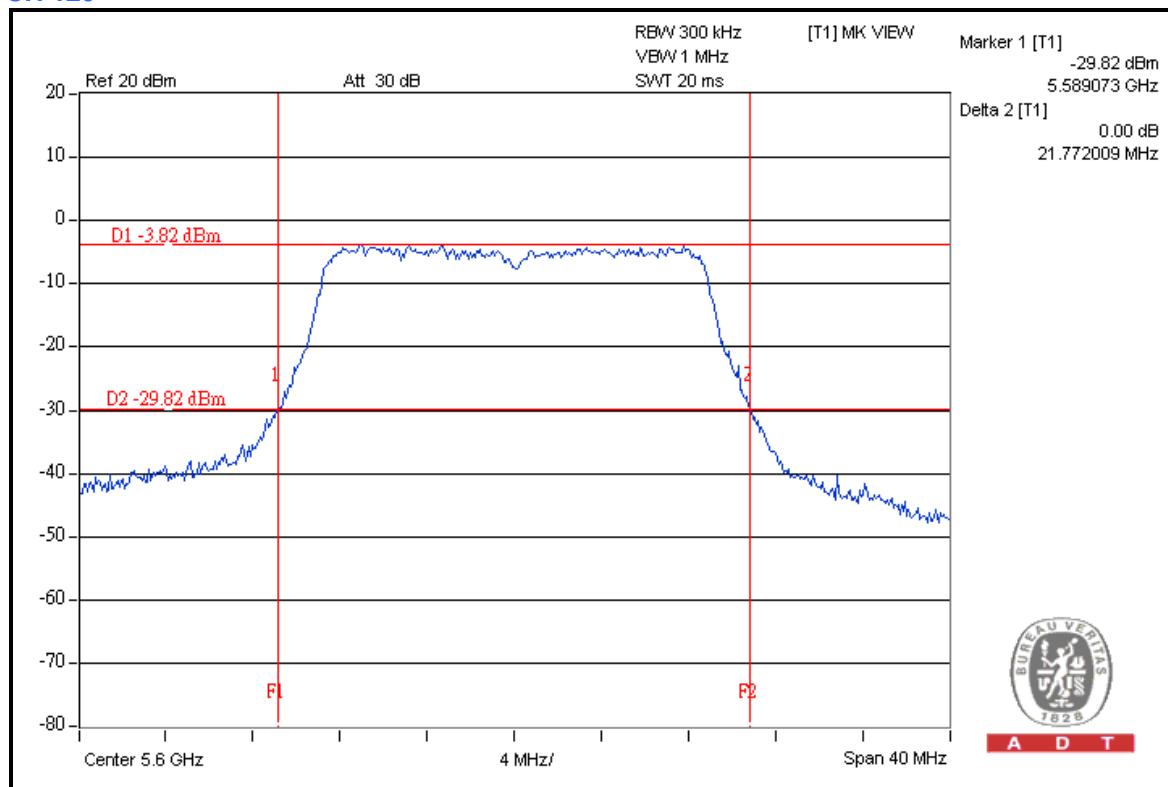
A D T

### 802.11n (20MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)	PASS / FAIL
36	5180	21.2	PASS
40	5200	21.2	PASS
48	5240	21.2	PASS
52	5260	21.2	PASS
60	5300	20.9	PASS
64	5320	21.3	PASS
100	5500	21.1	PASS
120	5600	21.8	PASS
140	5700	21.1	PASS

### CH 120



A D T





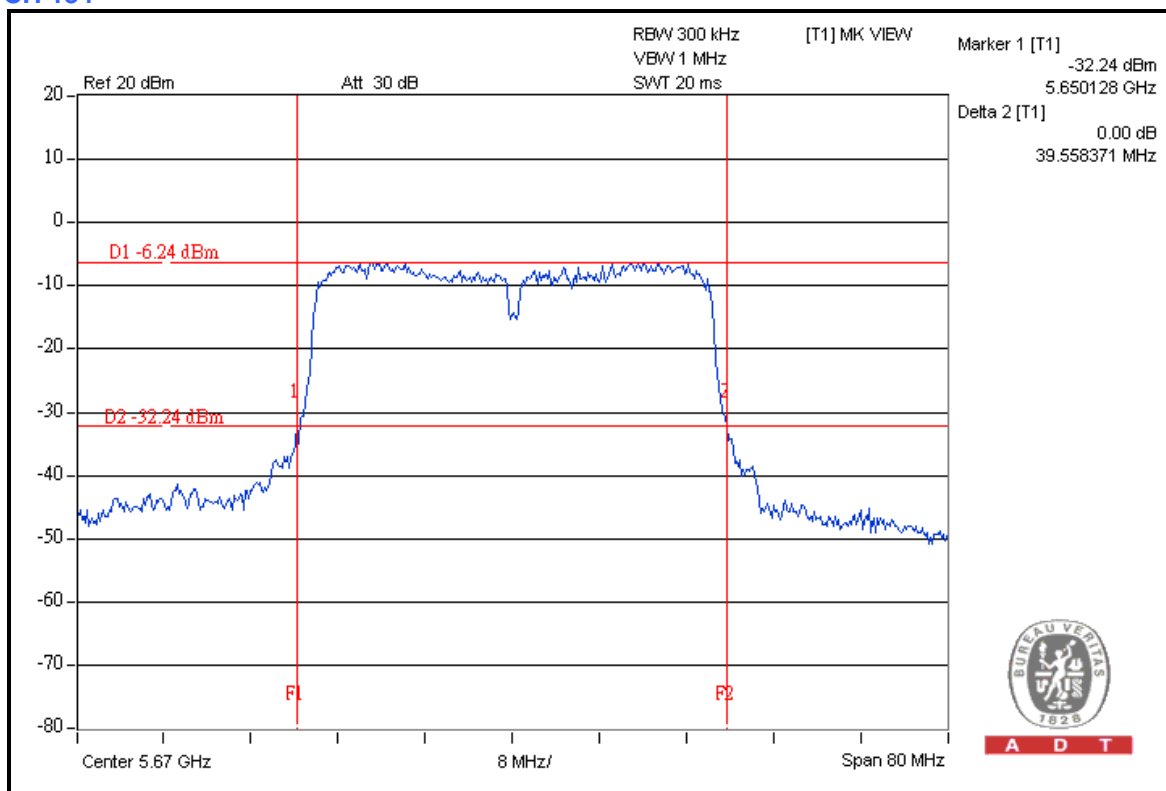
A D T

### 802.11n (40MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc OCCUPIED BANDWIDTH (MHz)	PASS / FAIL
38	5190	39.3	PASS
46	5230	39.2	PASS
54	5270	39.1	PASS
62	5310	38.7	PASS
102	5510	39.0	PASS
118	5590	38.8	PASS
134	5670	39.6	PASS

### CH 134



A D T

## 4.4 PEAK POWER EXCURSION MEASUREMENT

### 4.4.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	13dB
5.250 ~ 5.350GHz	13dB
5.470 ~ 5.725GHz	13dB

### 4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER	FSP 40	100036	Apr. 3, 2009	Apr. 2, 2010

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

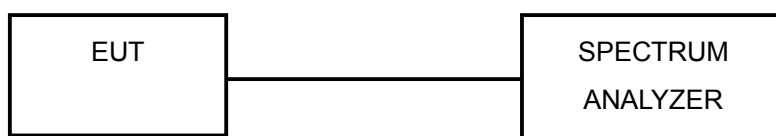
### 4.4.3 TEST PROCEDURE

- 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 = 300 kHz).
- 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.



A D T

## 4.4.7 TEST RESULTS

802.11a

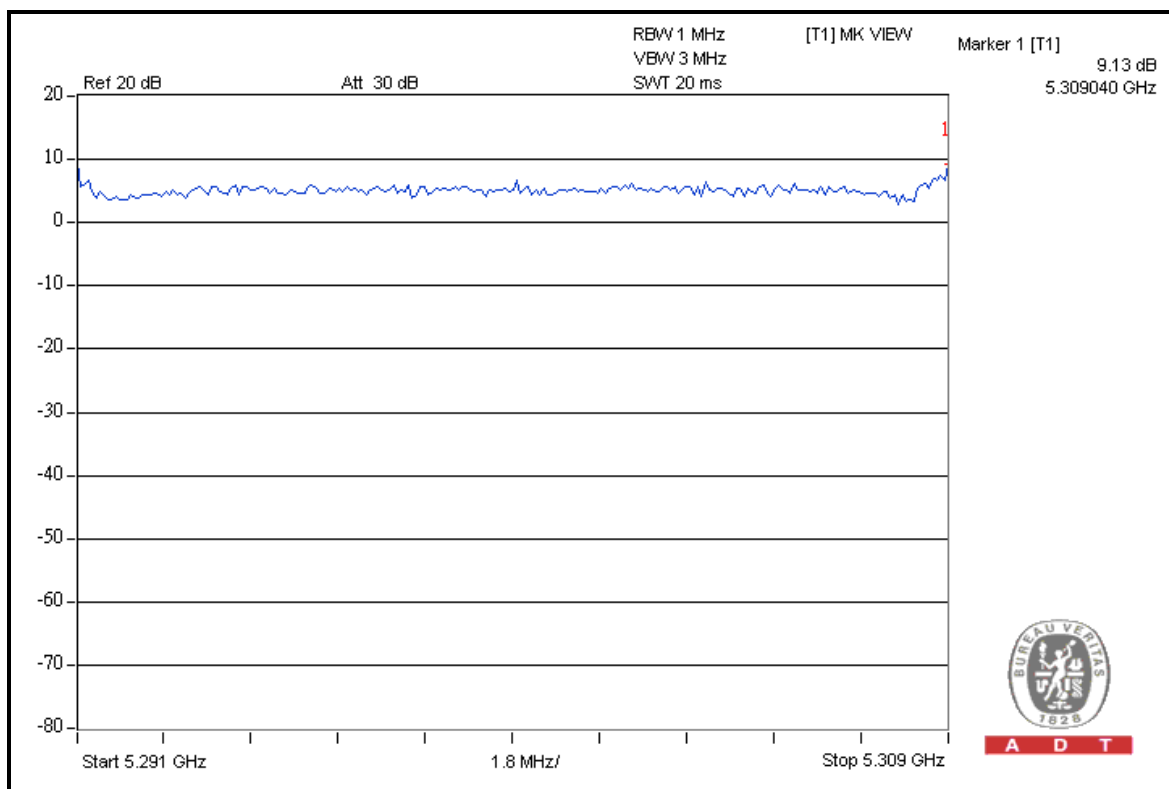
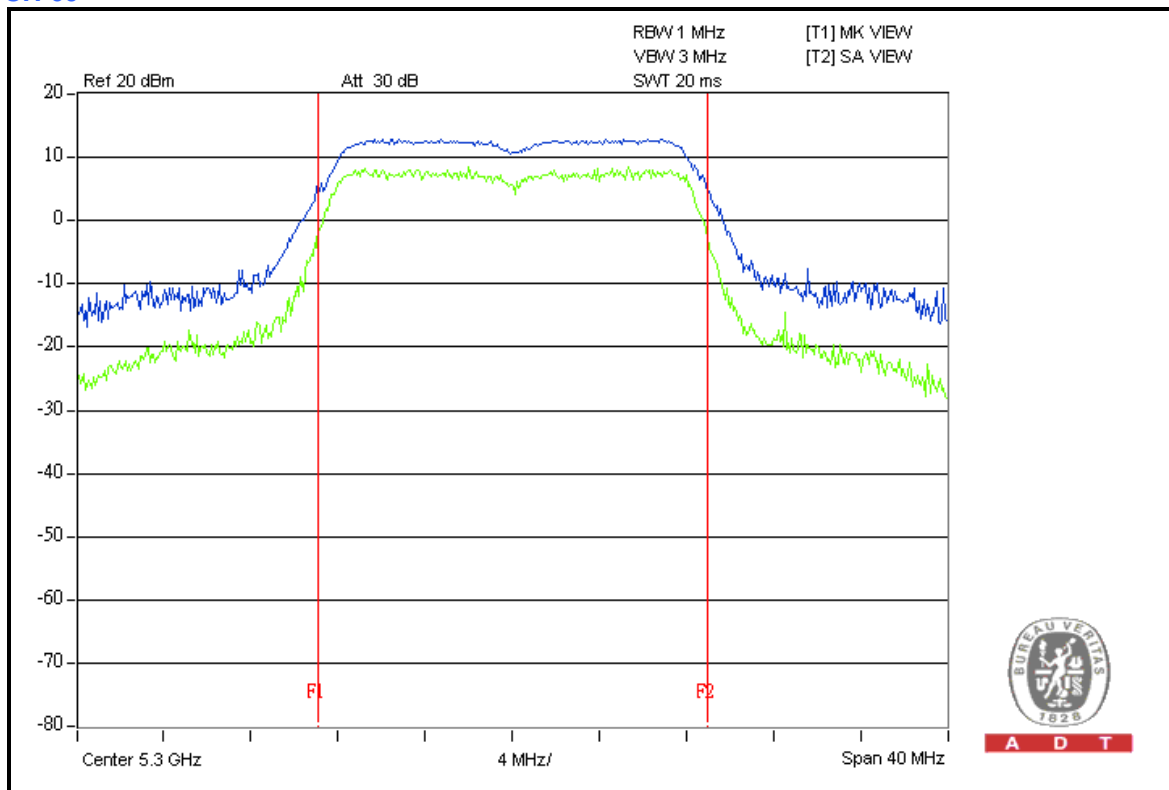
For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK TO AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	7.2	13	PASS
40	5200	7.8	13	PASS
48	5240	7.6	13	PASS
52	5260	7.2	13	PASS
60	5300	9.1	13	PASS
64	5320	8.1	13	PASS
100	5500	7.8	13	PASS
120	5600	8.9	13	PASS
140	5700	7.6	13	PASS



A D T

### CH 60





A D T

802.11n (20MHz)

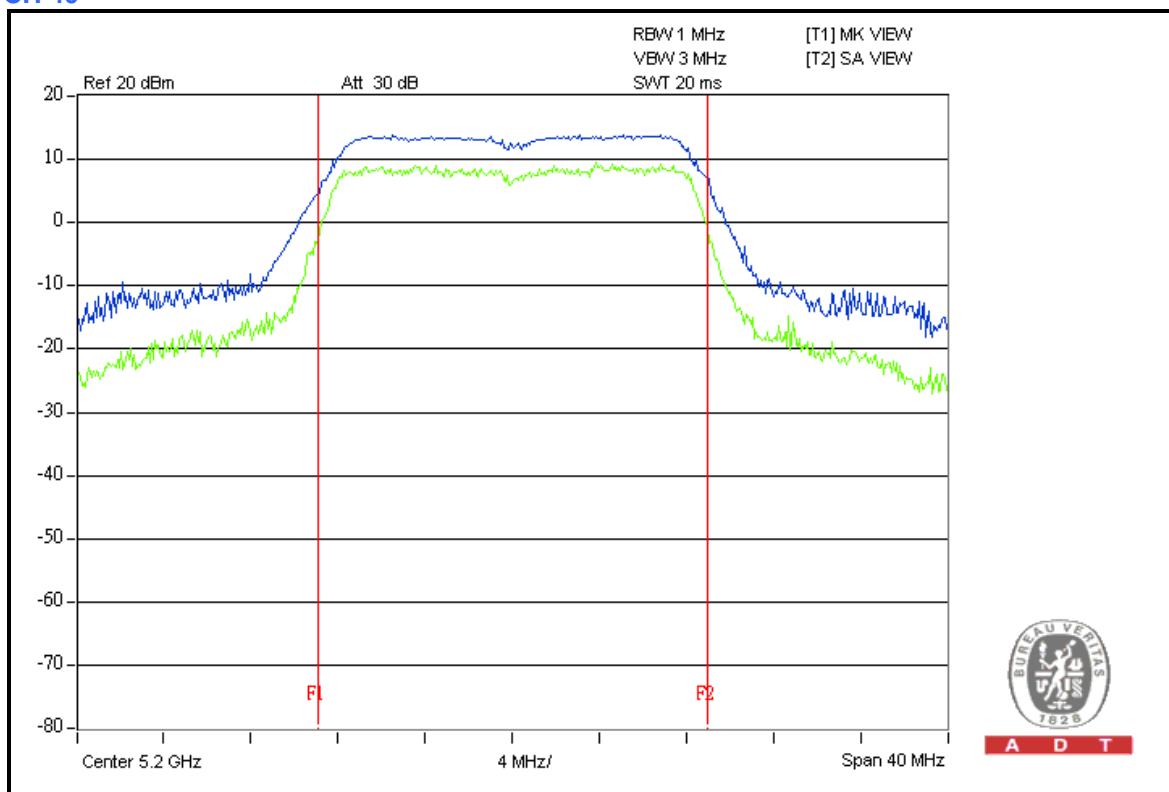
For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER EXCURSION (dB)	PEAK TO AVERAGE EXCURSION LIMIT (dB)	PASS/FAIL
36	5180	8.0	13	PASS
40	5200	10.2	13	PASS
48	5240	7.7	13	PASS
52	5260	7.0	13	PASS
60	5300	7.6	13	PASS
64	5320	8.1	13	PASS
100	5500	8.3	13	PASS
120	5600	7.4	13	PASS
140	5700	7.8	13	PASS

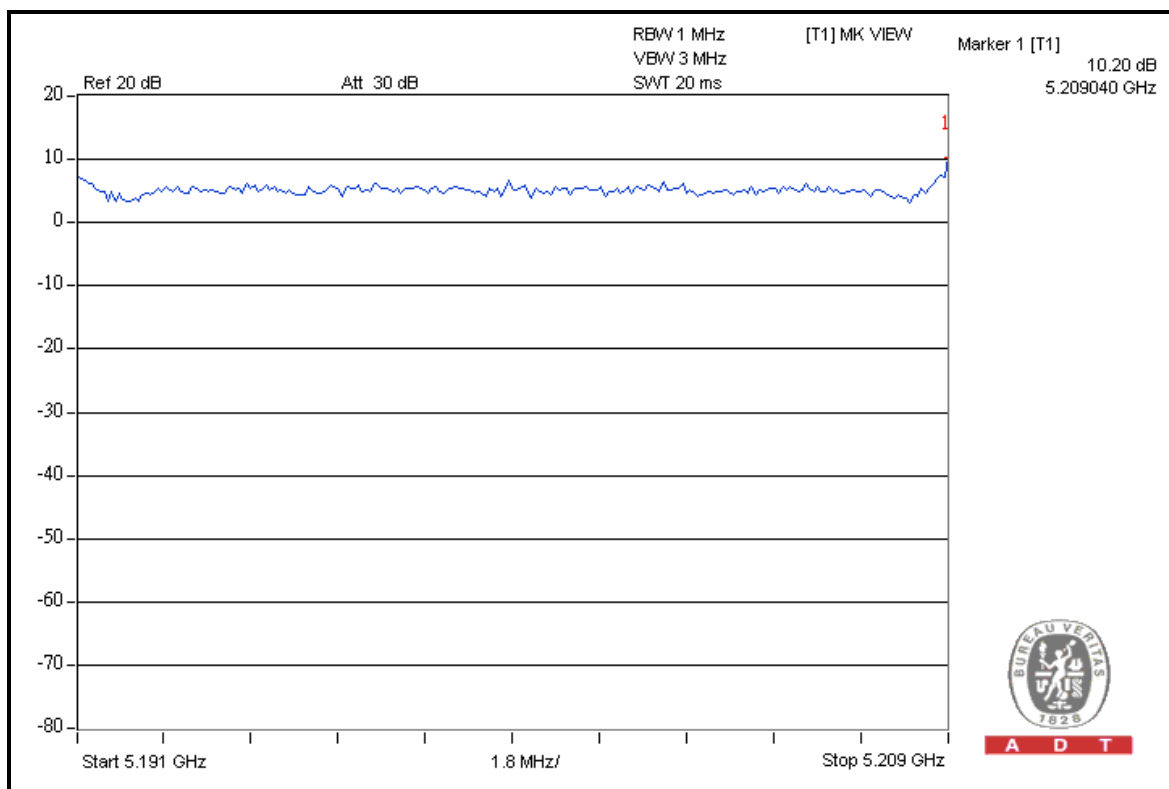


A D T

### CH 40



A D T



A D T



A D T

**802.11n (40MHz)**

**For Mode A:**

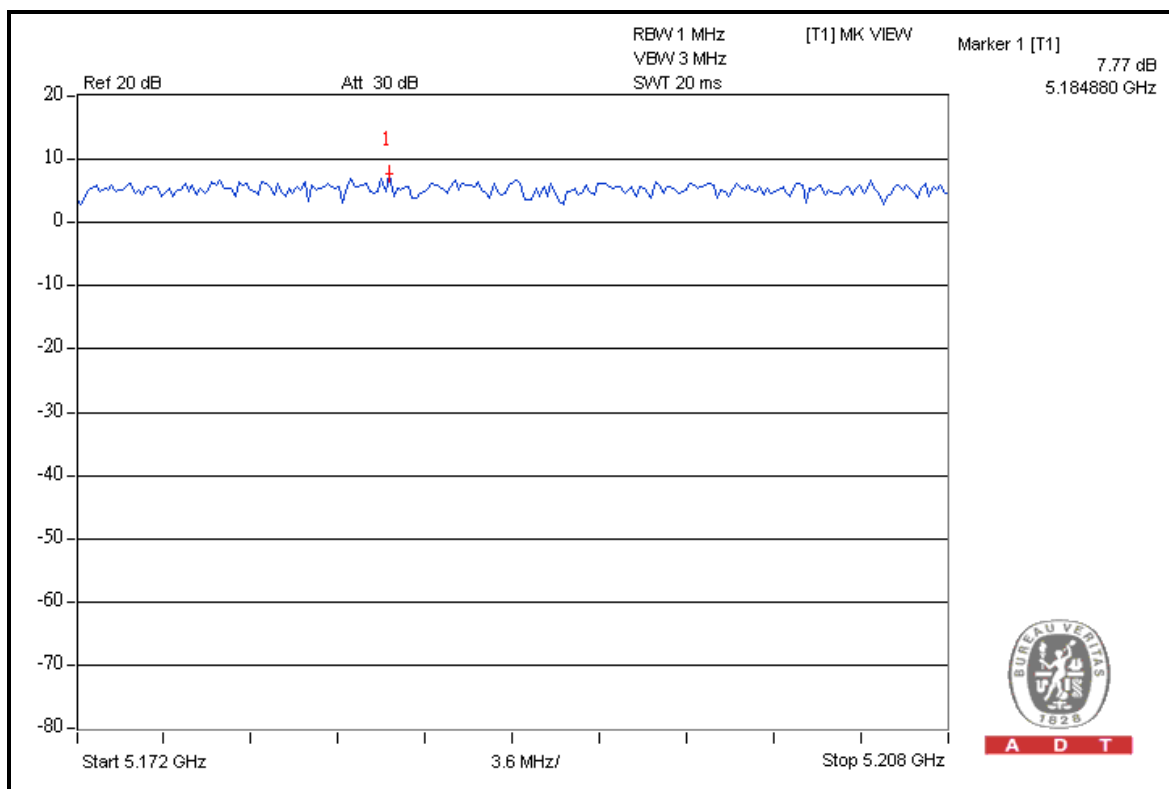
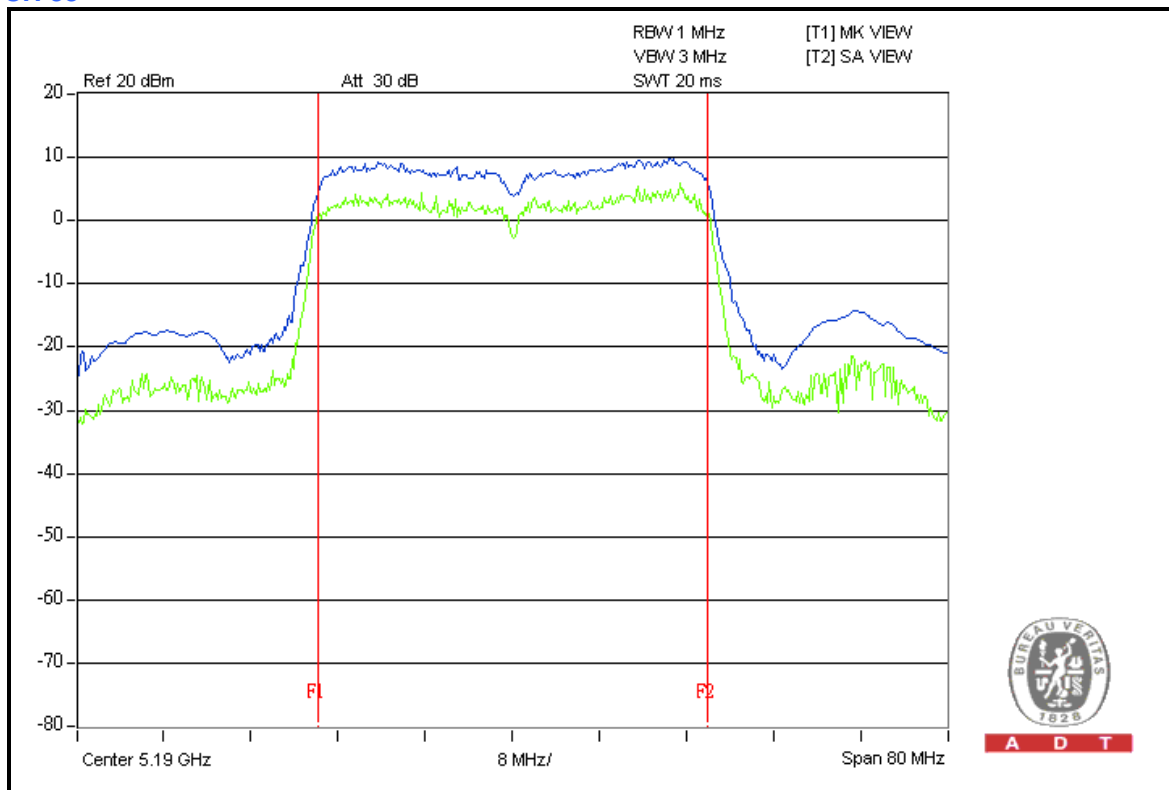
<b>CHANNEL</b>	<b>CHANNEL FREQUENCY (MHz)</b>	<b>PEAK POWER EXCURSION (dB)</b>	<b>PEAK TO AVERAGE EXCURSION LIMIT (dB)</b>	<b>PASS/FAIL</b>
38	5190	7.8	13	PASS
46	5230	7.3	13	PASS
54	5270	7.7	13	PASS
62	5310	7.3	13	PASS
102	5510	7.6	13	PASS
118	5590	7.5	13	PASS
134	5670	7.4	13	PASS





A D T

### CH 38



## 4.5 PEAK POWER SPECTRAL DENSITY MEASUREMENT

### 4.5.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

FREQUENCY BAND	LIMIT
5.150 ~ 5.250GHz	4dBm
5.250 ~ 5.350GHz	11dBm
5.470 ~ 5.725GHz	11dBm

### 4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
SPECTRUM ANALYZER	FSP 40	100036	Apr. 3, 2009	Apr. 2, 2010

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

USA.

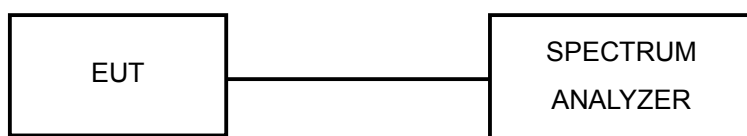
### 4.5.3 TEST PROCEDURES

- 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 4.4.6



A D T

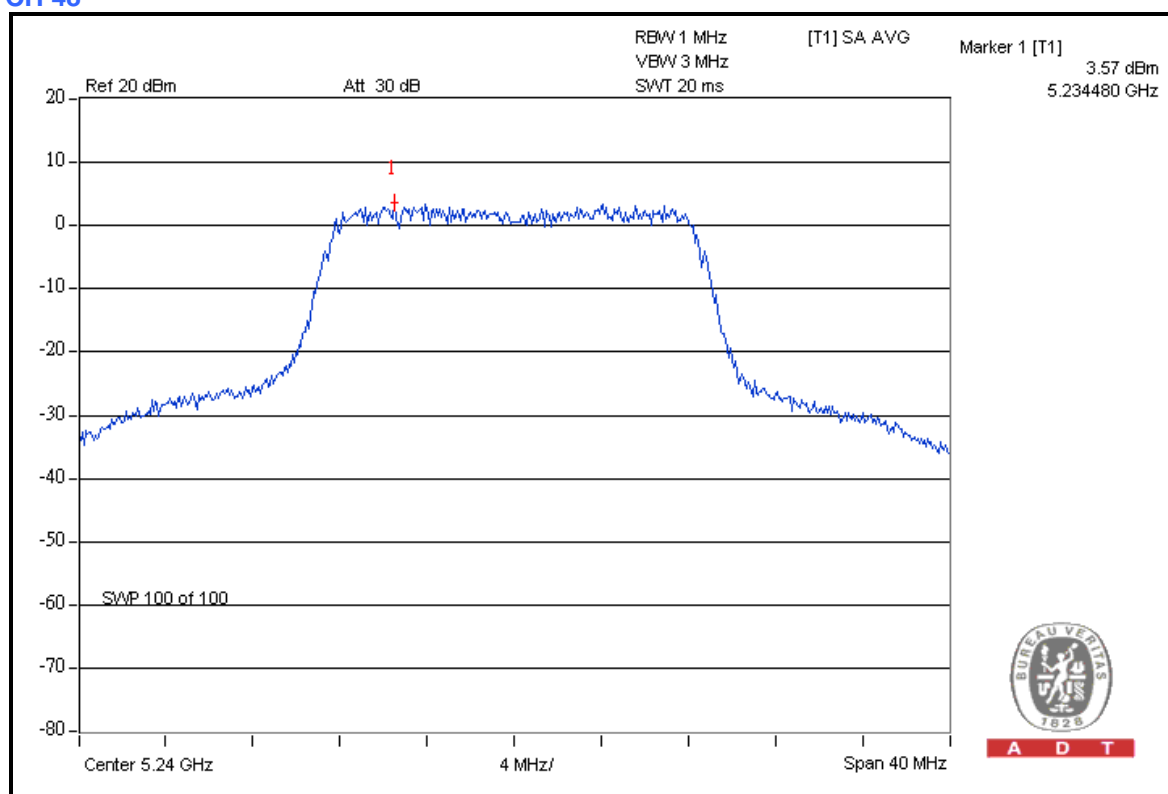
## 4.5.7 TEST RESULTS

802.11a

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
36	5180	2.9	4	PASS
40	5200	3.3	4	PASS
48	5240	3.6	4	PASS
52	5260	3.0	11	PASS
60	5300	2.8	11	PASS
64	5320	2.6	11	PASS
100	5500	-0.7	11	PASS
120	5600	-1.0	11	PASS
140	5700	-2.8	11	PASS

### CH 48



A D T



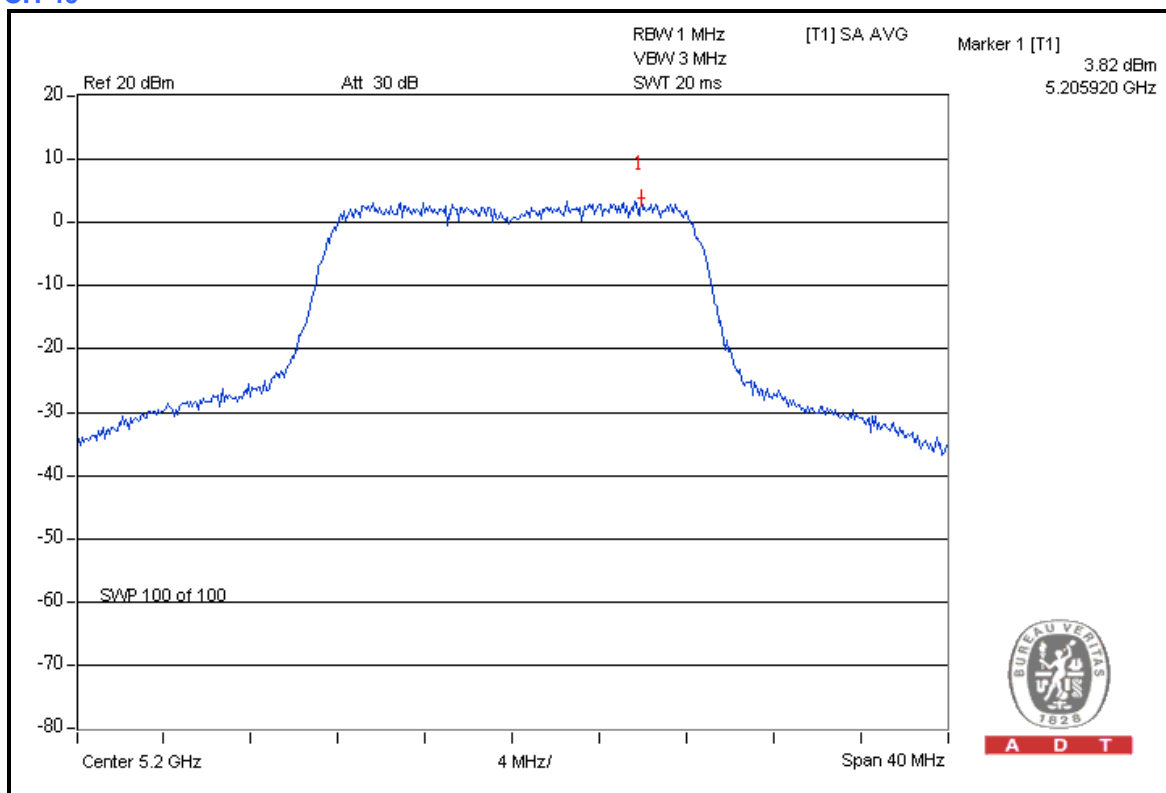
A D T

### 802.11n (20MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
36	5180	2.9	4	PASS
40	5200	3.8	4	PASS
48	5240	3.4	4	PASS
52	5260	1.8	11	PASS
60	5300	0.3	11	PASS
64	5320	2.8	11	PASS
100	5500	-0.5	11	PASS
120	5600	-0.8	11	PASS
140	5700	-2.9	11	PASS

### CH 40





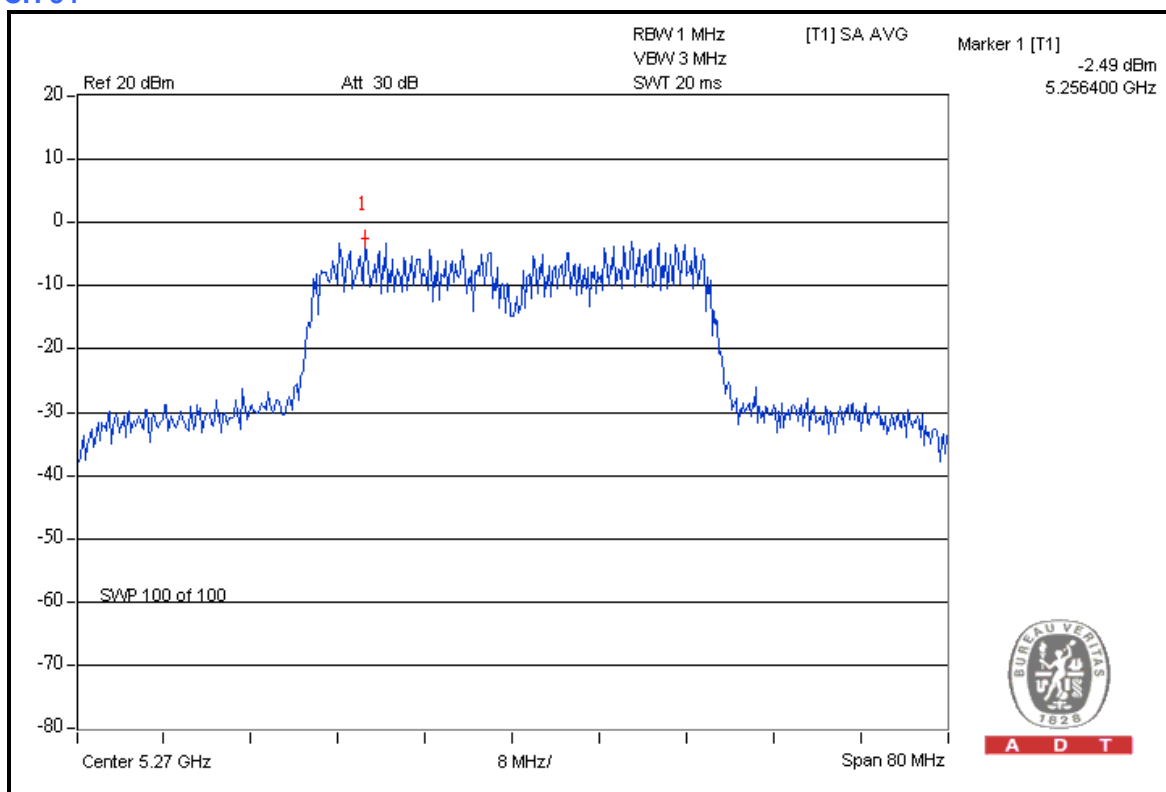
A D T

### 802.11n (40MHz)

For Mode A:

CHANNEL	CHANNEL FREQUENCY (MHz )	RF POWER LEVEL IN 1MHz BW (dBm)	MAXIMUM LIMIT (dBm)	PASS / FAIL
38	5190	-6.2	4	PASS
46	5230	-2.7	4	PASS
54	5270	-2.5	11	PASS
62	5310	-8.8	11	PASS
102	5510	-10.9	11	PASS
118	5590	-9.7	11	PASS
134	5670	-6.1	11	PASS

### CH 54



A D T

## 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 the operating frequency over a temperature variation of  $-20$  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
SPECTRUM ANALYZER	FSP 40	100036	Apr. 3, 2009	Apr. 2, 2010
Temperature & Humidity Chamber	MHU-225AU	920409	Apr. 30, 2009	Apr. 29, 2010

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

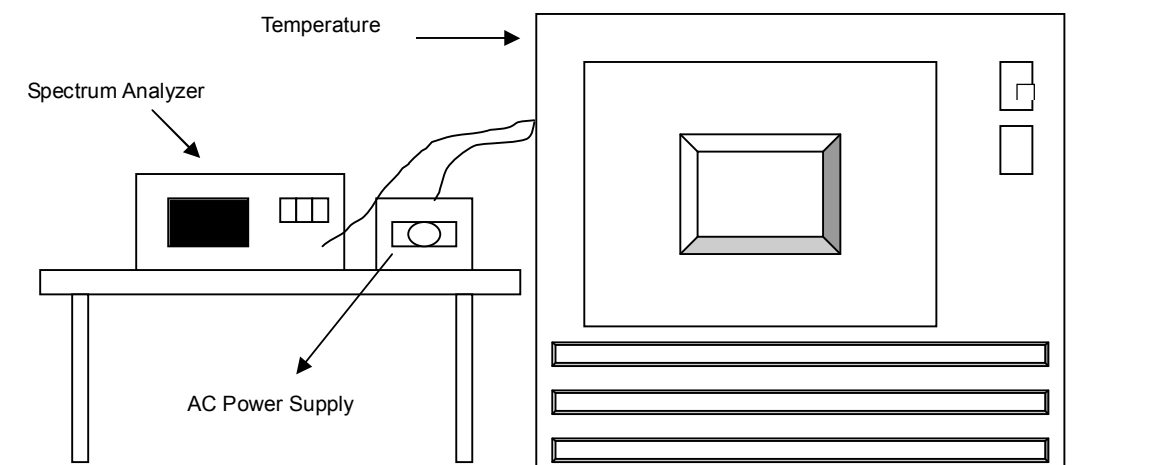
### 4.6.3 TEST PROCEDURE

- 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 b and c 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 4.1.7





A D T

## 4.6.7 TEST RESULTS

For Mode A:

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120.0	5319.96808	-0.0006000	5319.968201	-0.0005977	5319.96783	-0.0006047	5319.968056	-0.0006005
40	120.0	5319.968315	-0.0005956	5319.96832	-0.0005955	5319.968249	-0.0005968	5319.968387	-0.0005942
30	120.0	5319.967744	-0.0006063	5319.967619	-0.0006087	5319.9676	-0.0006090	5319.967681	-0.0006075
20	120.0	5319.967648	-0.0006081	5319.967569	-0.0006096	5319.967812	-0.0006050	5319.967692	-0.0006073
10	120.0	5319.96728	-0.0006150	5319.96742	-0.0006124	5319.967356	-0.0006136	5319.967284	-0.0006150
0	120.0	5319.96701	-0.0006201	5319.967039	-0.0006196	5319.966986	-0.0006206	5319.966919	-0.0006218
-10	120.0	5319.966738	-0.0006252	5319.966657	-0.0006267	5319.966648	-0.0006269	5319.96648	-0.0006301
-20	120.0	5319.966531	-0.0006291	5319.966383	-0.0006319	5319.96639	-0.0006318	5319.966516	-0.0006294

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138.0	5319.967484	-0.0006112	5319.96759	-0.0006092	5319.96766	-0.0006079	5319.967384	-0.0006131
	120.0	5319.967648	-0.0006081	5319.967569	-0.0006096	5319.967812	-0.0006050	5319.967692	-0.0006073
	102.0	5319.967748	-0.0006062	5319.967668	-0.0006077	5319.967577	-0.0006095	5319.96783	-0.0006047



**For Mode B:**

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	7.40	5319.967945	-0.0006025	5319.967904	-0.0006033	5319.96802	-0.0006011	5319.967984	-0.0006018
40	7.40	5319.968318	-0.0005955	5319.968207	-0.0005976	5319.968403	-0.0005939	5319.968356	-0.0005948
30	7.40	5319.967827	-0.0006048	5319.967791	-0.0006054	5319.968007	-0.0006014	5319.967835	-0.0006046
20	7.40	5319.967744	-0.0006063	5319.967757	-0.0006061	5319.967931	-0.0006028	5319.967809	-0.0006051
10	7.40	5319.967435	-0.0006121	5319.967642	-0.0006082	5319.967435	-0.0006121	5319.967345	-0.0006138
0	7.40	5319.966764	-0.0006247	5319.966777	-0.0006245	5319.966635	-0.0006272	5319.966619	-0.0006275
-10	7.40	5319.966663	-0.0006266	5319.966824	-0.0006236	5319.96696	-0.0006211	5319.966515	-0.0006294
-20	7.40	5319.966672	-0.0006265	5319.966703	-0.0006259	5319.966771	-0.0006246	5319.9665	-0.0006297

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	8.51	5319.967629	-0.0006085	5319.967828	-0.0006047	5319.967732	-0.0006065	5319.967631	-0.0006084
	7.40	5319.967744	-0.0006063	5319.967757	-0.0006061	5319.967931	-0.0006028	5319.967809	-0.0006051
	6.29	5319.967704	-0.0006071	5319.967753	-0.0006061	5319.967917	-0.0006031	5319.967692	-0.0006073

## 4.7 BAND EDGES MEASUREMENT

### 4.7.1 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	CALIBRATED UNTIL
<b>FOR CONDUCTED MEASUREMENT:</b>				
R&S SPECTRUM ANALYZER	FSP 40	100036	Apr. 03, 2009	Apr. 02, 2010
<b>FOR RADIATED MEASUREMENT:</b>				
HP Preamplifier	8447D	2432A03504	May 04, 2009	May 03, 2010
HP Preamplifier	8449B	3008A01924	Aug. 31, 2009	Aug. 30, 2010
HP Preamplifier	8449B	3008A01292	Aug. 10, 2009	Aug. 09, 2010
ROHDE & SCHWARZ TEST RECEIVER	ESU26	100005	Jun. 06, 2009	Jun. 05, 2010
Schwarzbeck Antenna	VULB 9168	137	Apr. 29, 2009	Apr. 28, 2010
Schwarzbeck Antenna	VHBA 9123	480	Apr. 21, 2009	Apr. 20, 2010
EMCO Horn Antenna	3115	6714	Oct. 26, 2009	Oct. 25, 2010
EMCO Horn Antenna	3115	9312-4192	Apr. 17, 2009	Apr. 16, 2010
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	ADT_Radiated_V7.6.15.9.2	NA	NA	NA
SUHNER RF cable	SF104-26.5	CABLE-CH6-17 m-01	Aug. 20, 2009	Aug. 19, 2010
ROHDE & SCHWARZ Spectrum Analyzer	FSP 40	100036	Apr. 03, 2009	Apr. 02, 2010

- NOTE:**
1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
  2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
  3. The test was performed in Chamber No. 6.
  4. The Industry Canada Reference No. IC 7450E-6.
  5. The FCC Site Registration No. is 447212.

## 4.7.2 TEST PROCEDURE

### FOR CONDUCTED MEASUREMENT:

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

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

### FOR RADIATED MEASUREMENT:

- 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 height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. Set both RBW and VBW of spectrum analyzer to 100kHz and 300kHz with suitable frequency span including 100MHz bandwidth from band edge. The band edges was measured and recorded.

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

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

## 4.7.3 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

For signals in the restricted bands above and below the 5.18 to 5.32GHz & 5.5 to 5.7GHz 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 field 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: FOR 5180-5320MHz BAND (Mode A)

#### 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)	108.6	42.5	66.1	74.0
5180.00 (AV)	97.2	48.9	48.3	54.0

#### RESTRICT BAND (5350 ~ 5460 MHz)

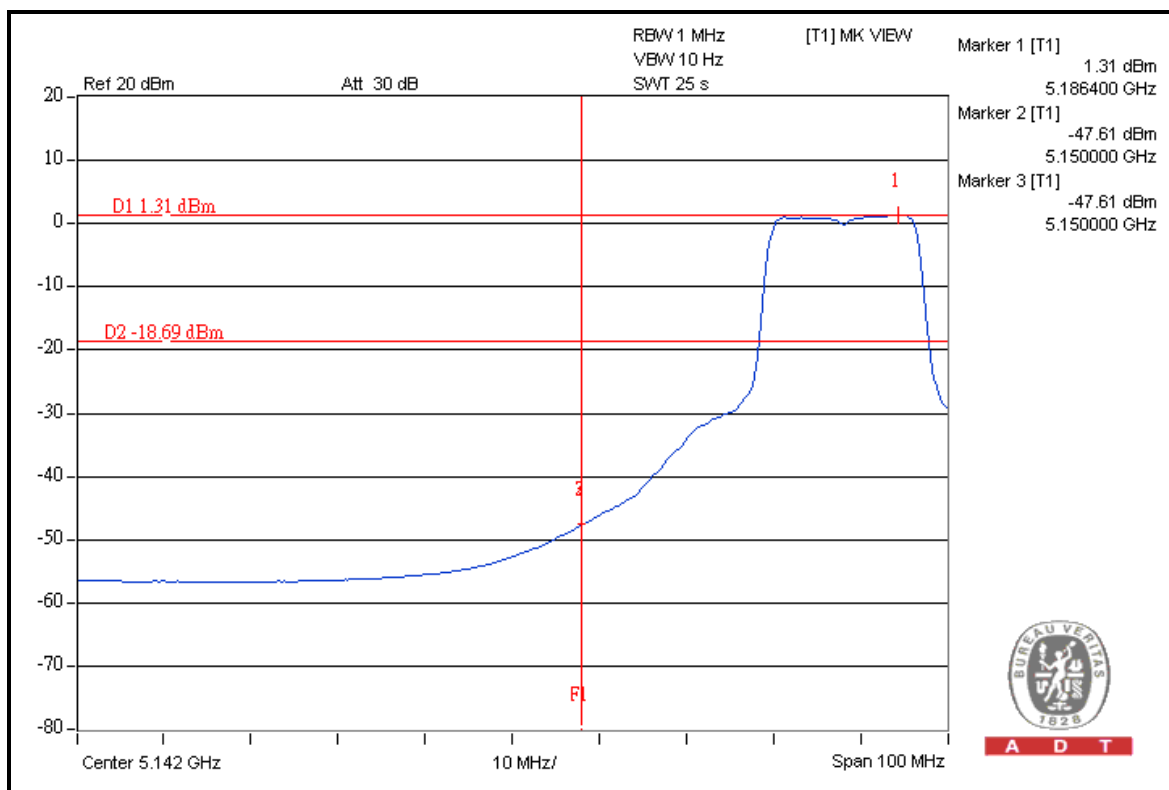
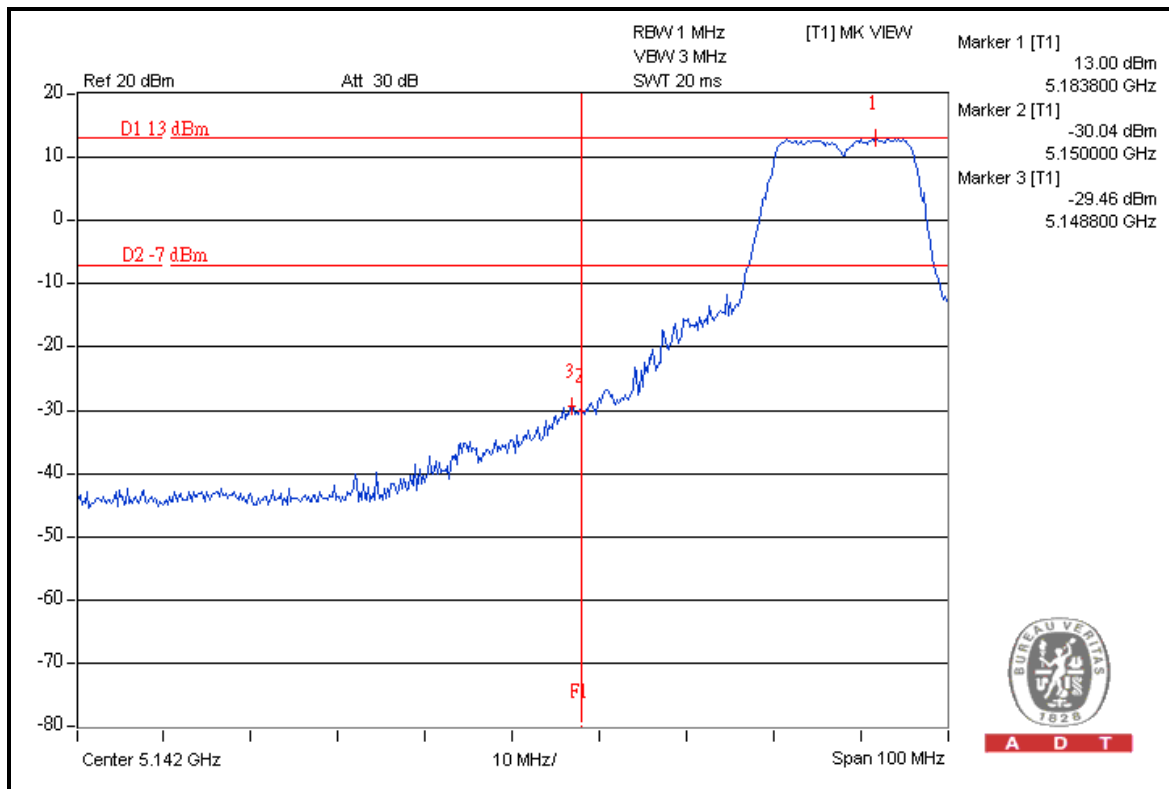
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5320.00 (PK)	112.5	44.0	68.5	74.0
5320.00 (AV)	101.1	49.7	51.4	54.0

#### 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.

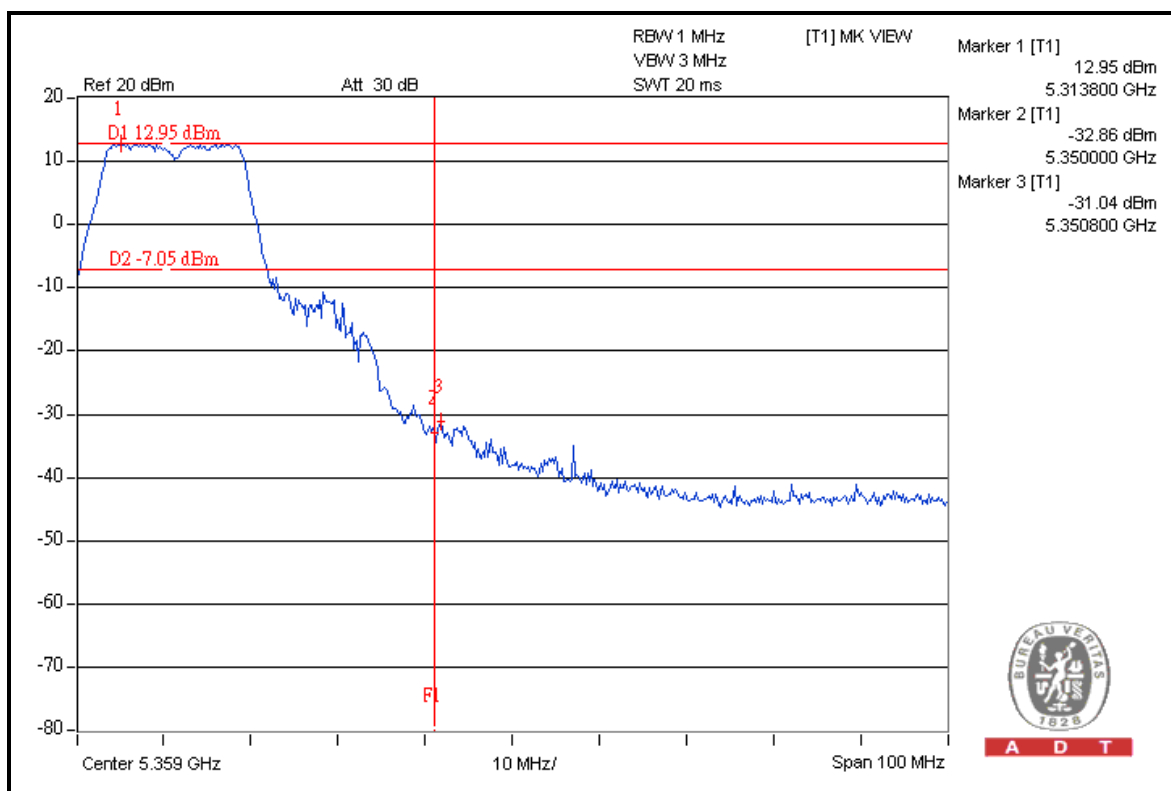
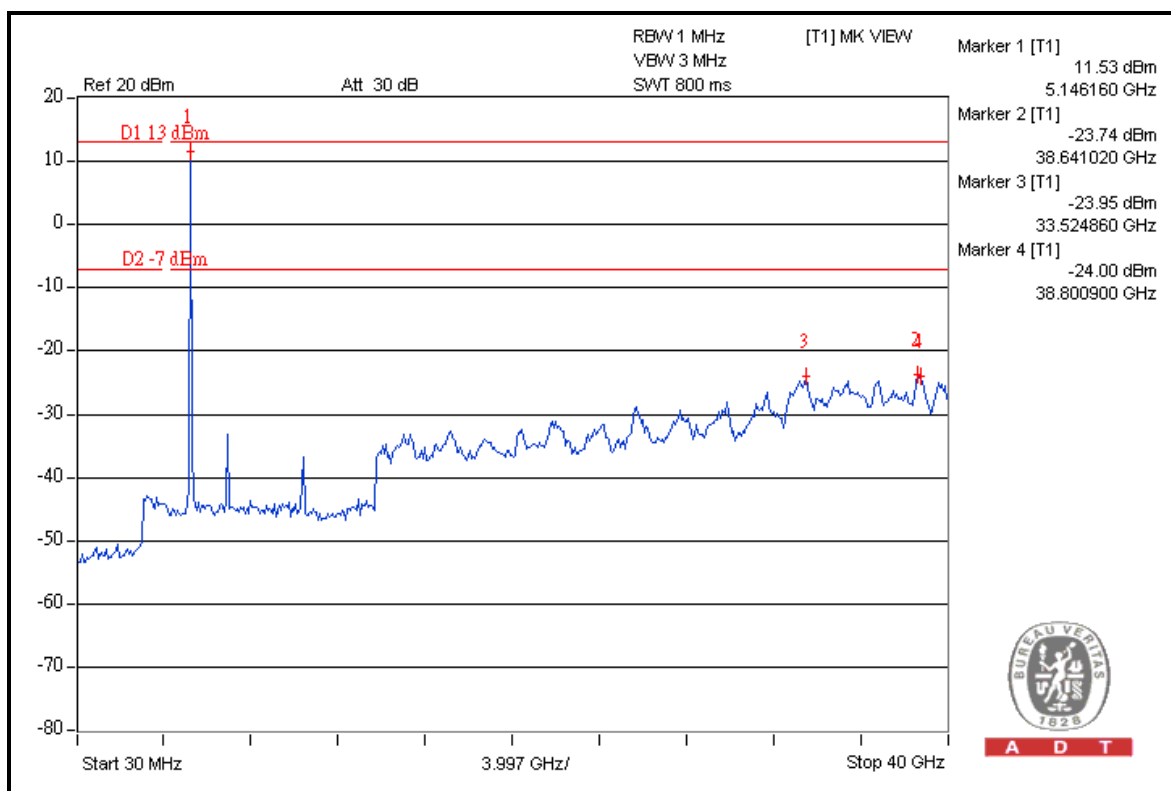


A D T



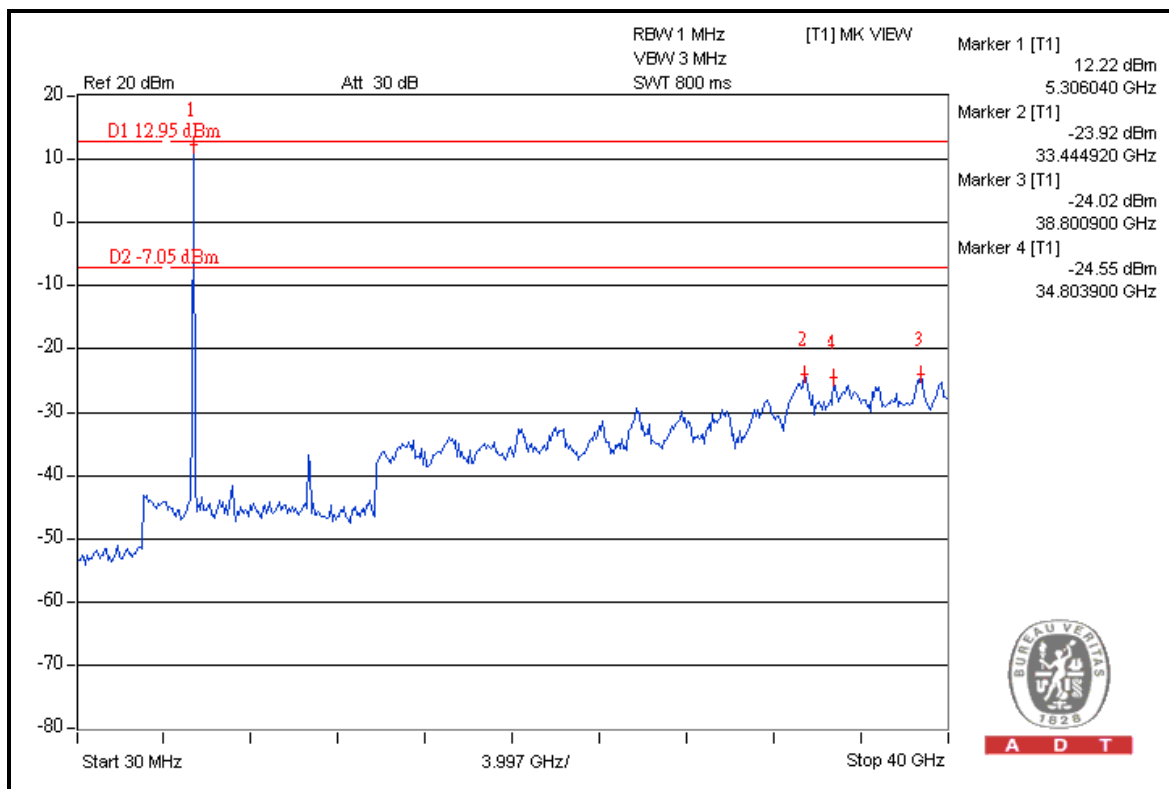
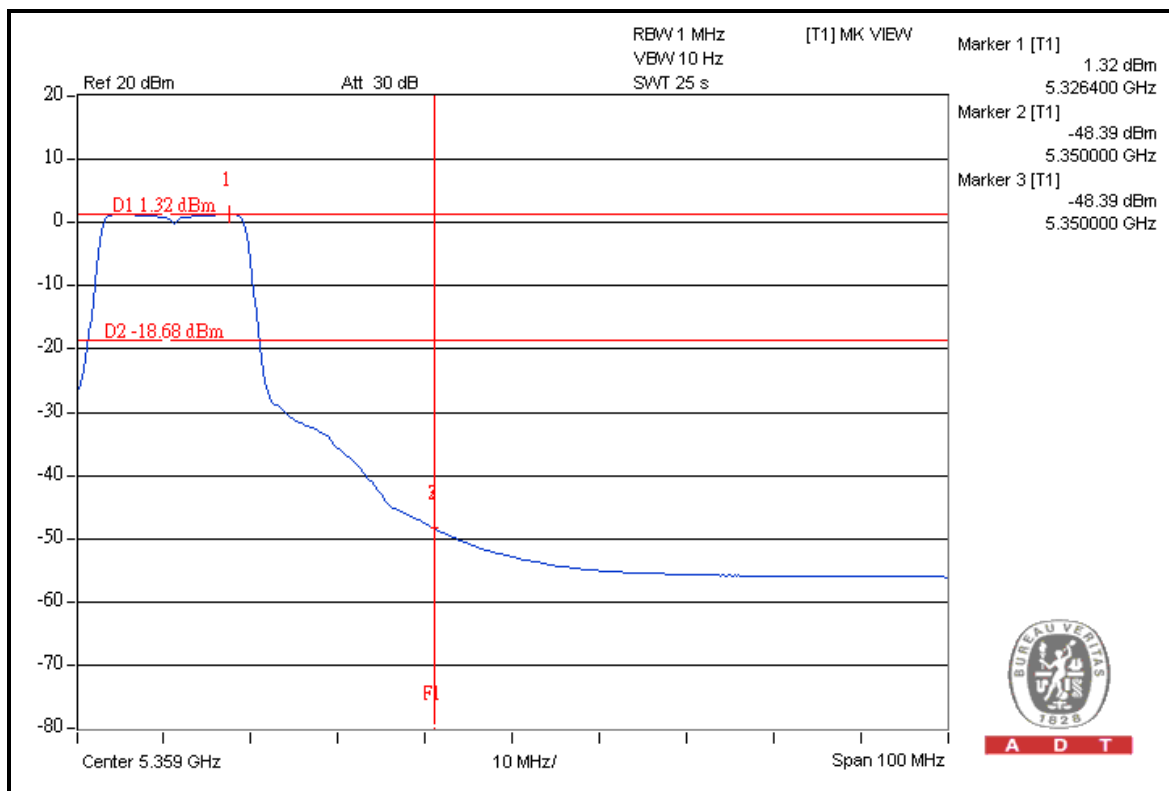


A D T





A D T







A D T

## 802.11a: FOR 5500-5700MHz BAND (Mode A)

### 5500MHz

#### RESTRICT BAND (5350 ~ 5460 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5500.00 (PK)	107.8	50.5	57.3	74.0
5500.00 (AV)	96.5	53.7	42.8	54.0

#### FREQUENCY BAND (5460 ~ 5470 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5500.00 (PK)	107.8	43.3	64.5	68.3

### 5700MHz

#### ABOVE 5725 MHz

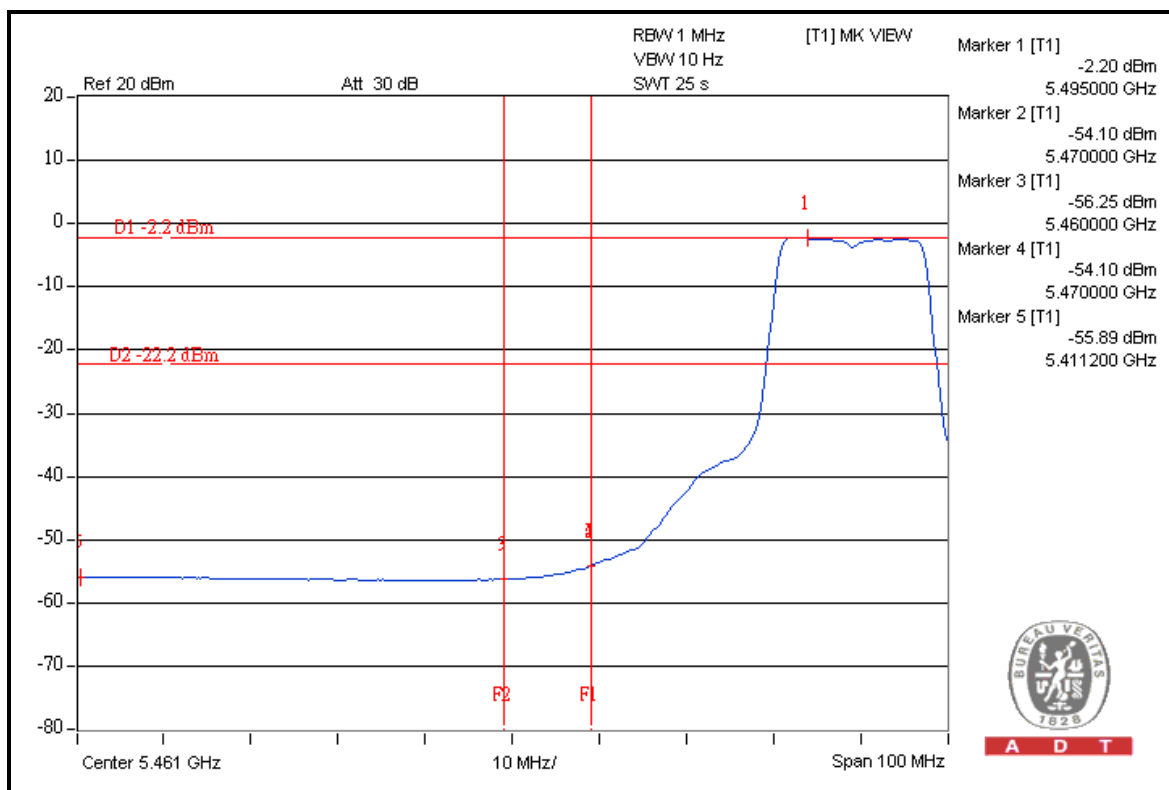
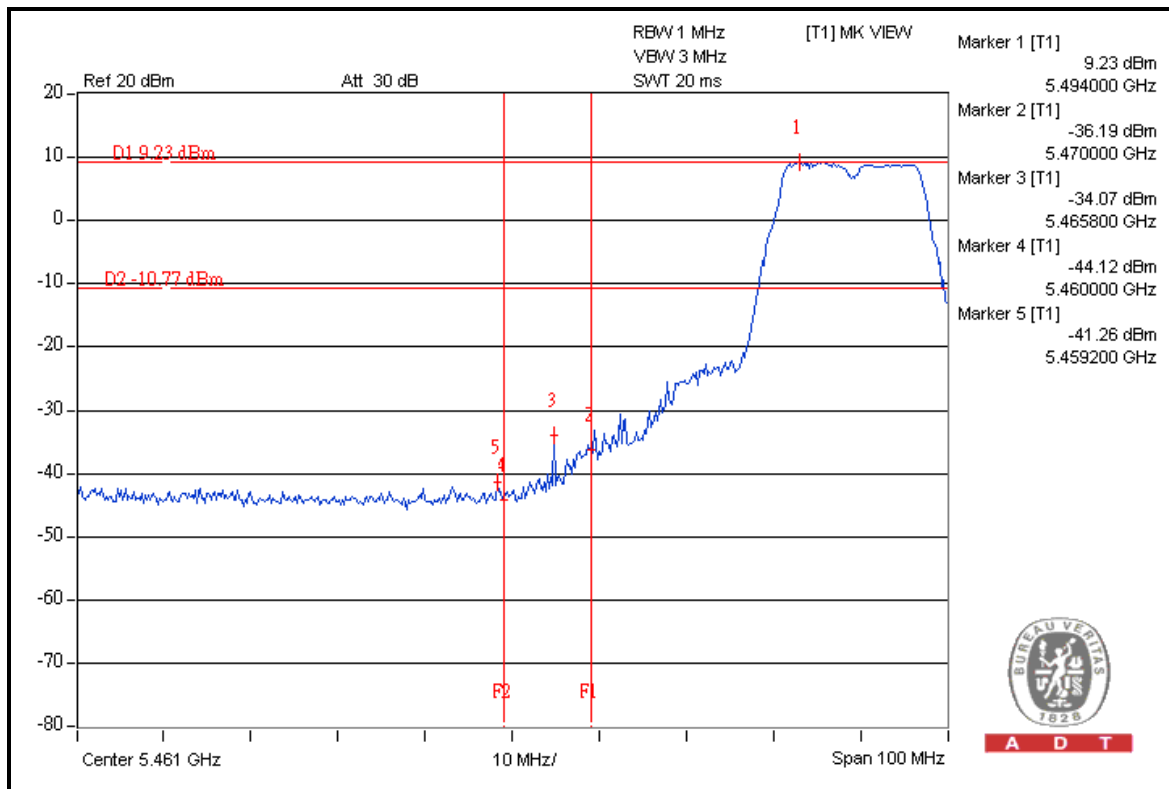
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5700.00 (PK)	104.9	46.0	58.9	68.3

#### 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.

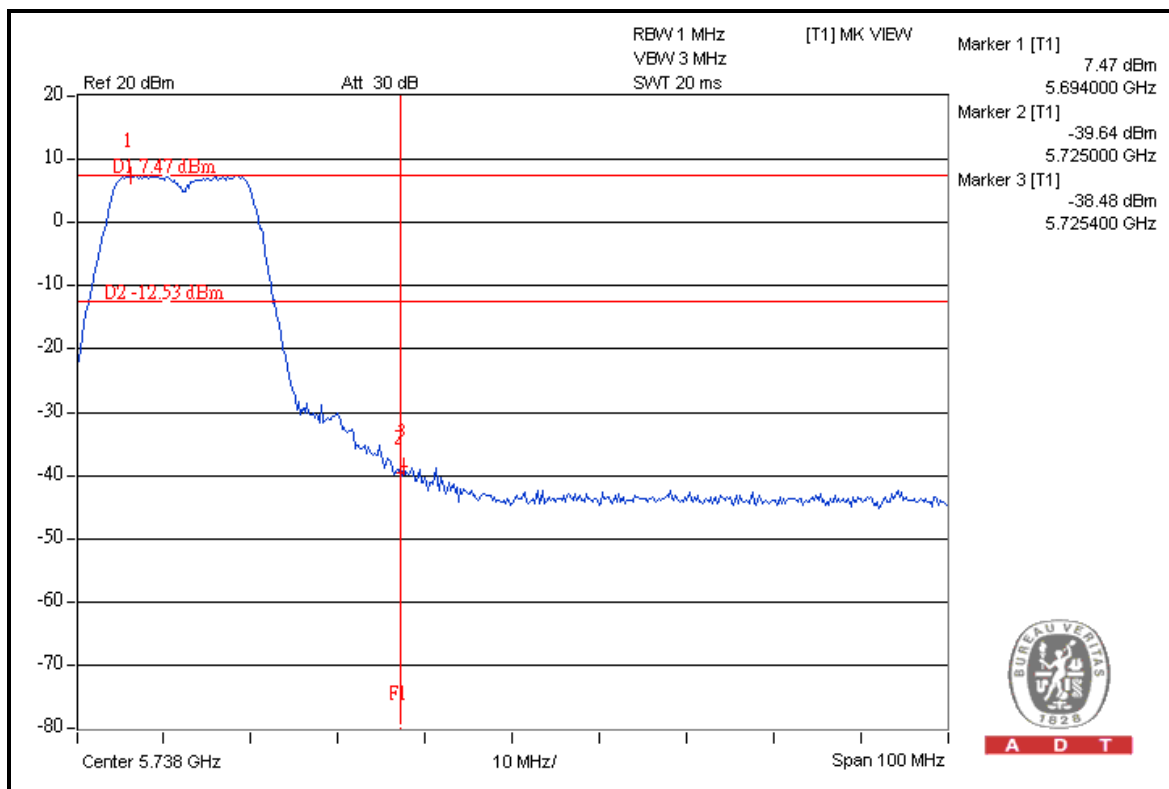
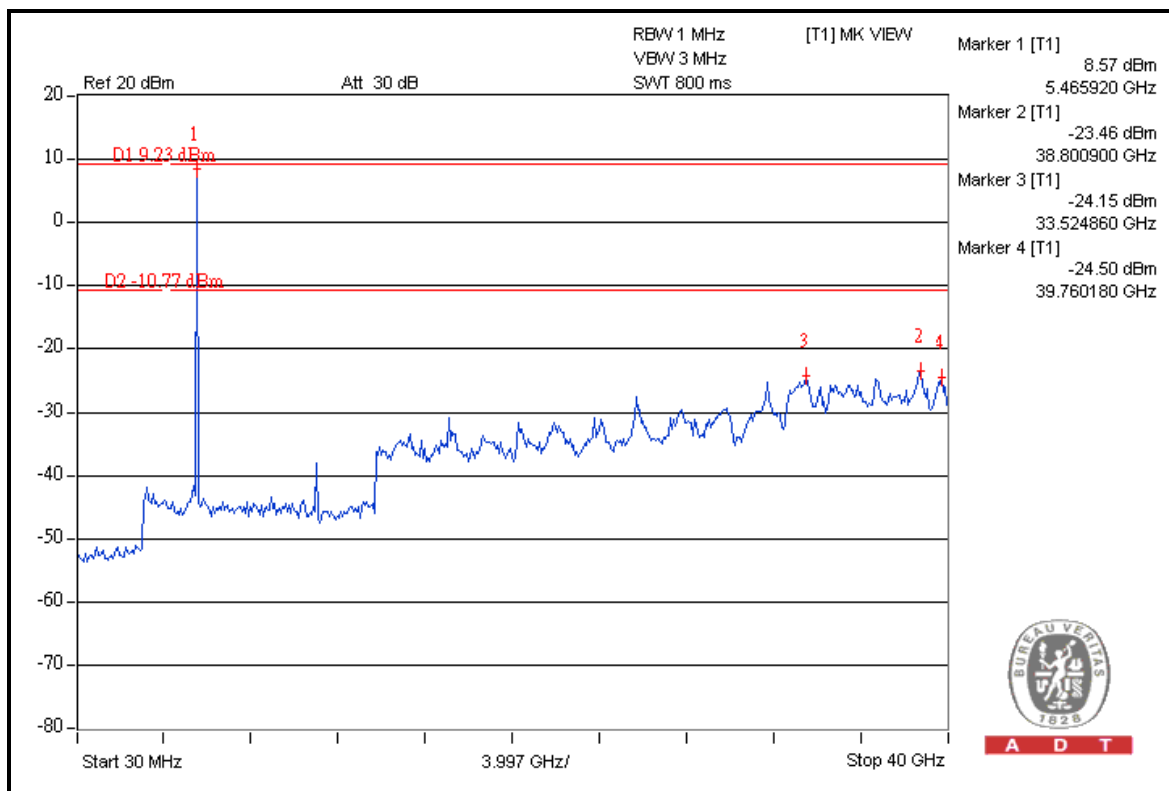


A D T



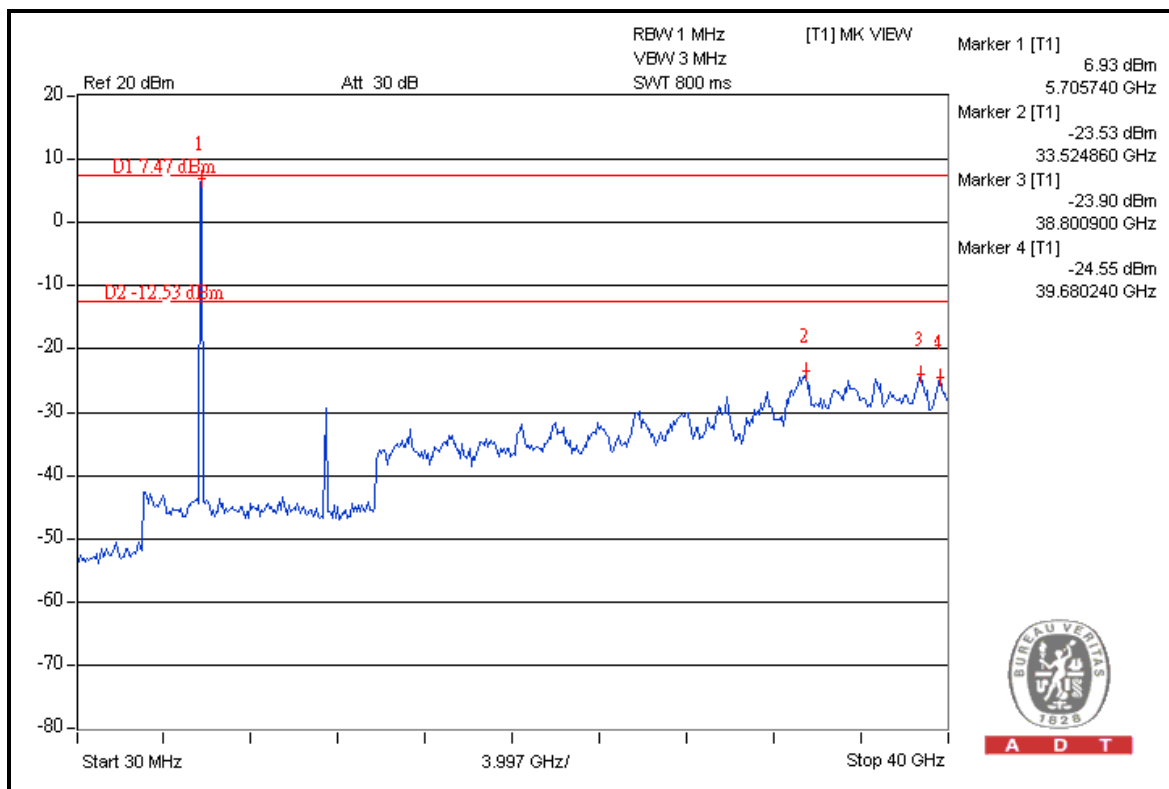
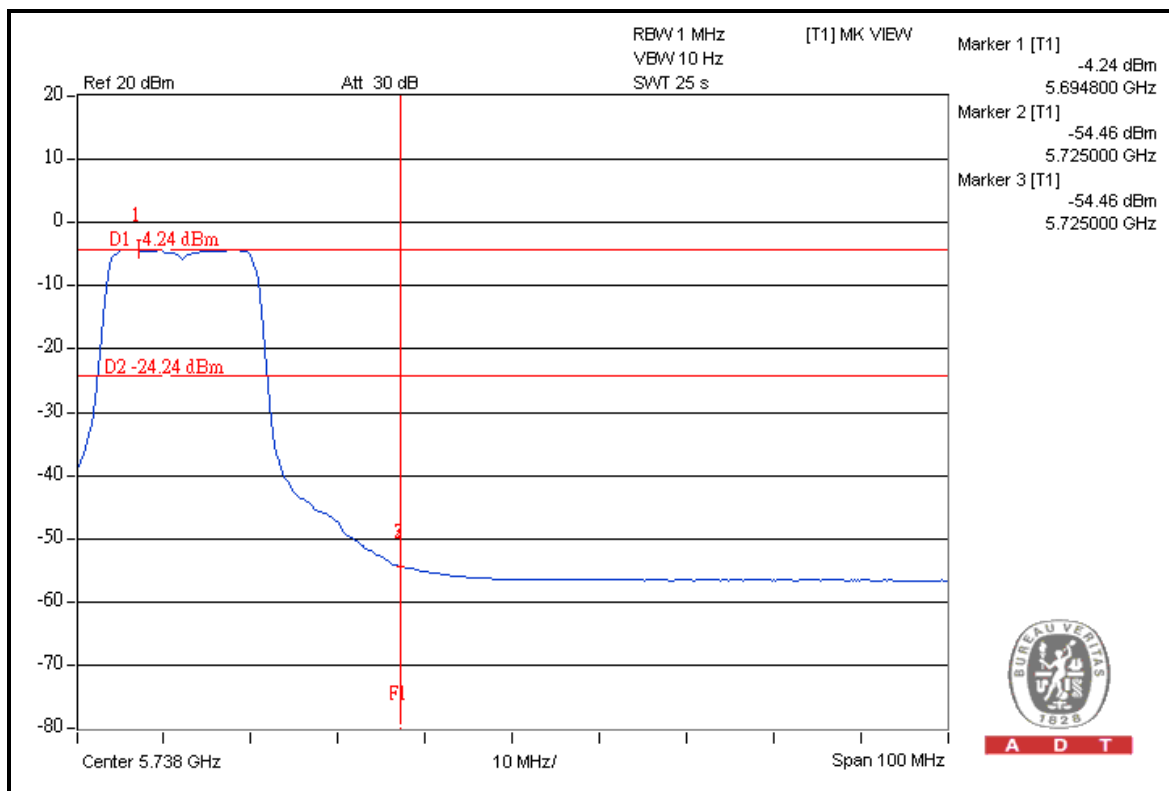


A D T





A D T





A D T

## 802.11n (20MHz): FOR 5180-5320MHz BAND (Mode A)

### For Mode A:

#### 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)	110.9	41.9	69.0	74.0
5180.00 (AV)	98.8	49.1	49.7	54.0

#### RESTRICT BAND (5350 ~ 5460 MHz)

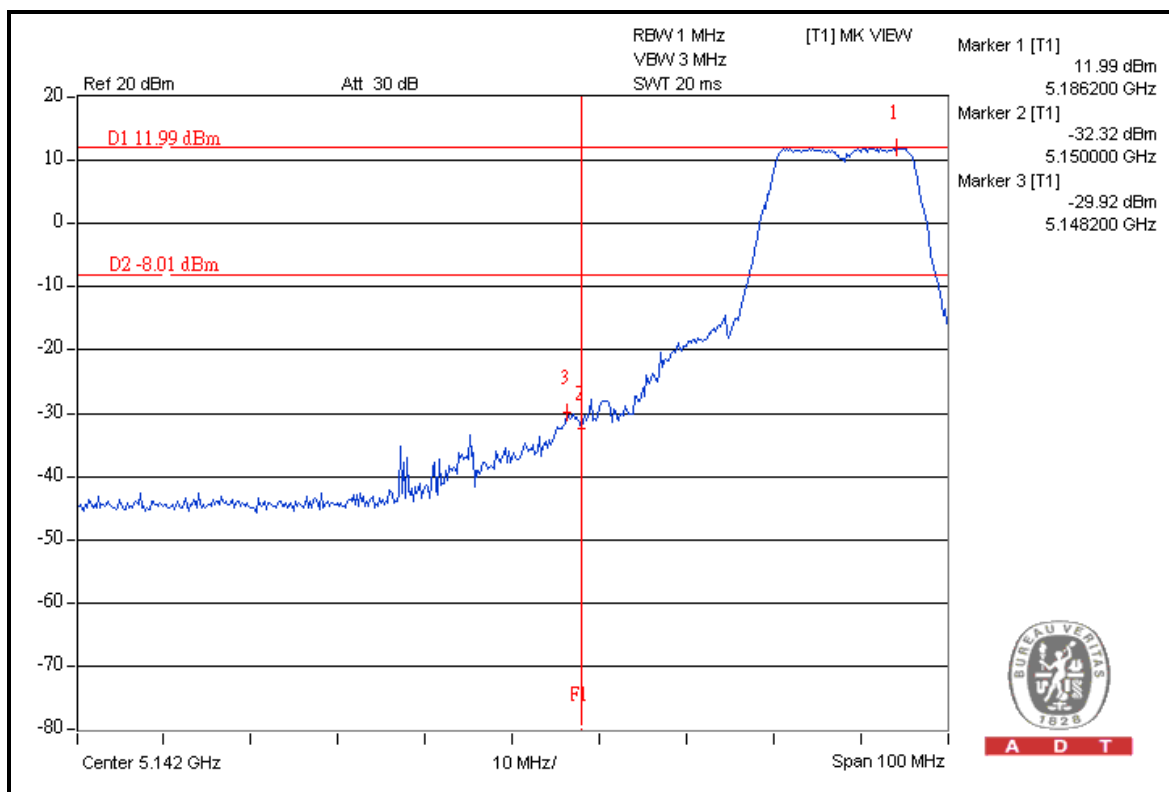
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5320.00 (PK)	112.0	44.4	67.6	74.0
5320.00 (AV)	100.1	49.6	50.5	54.0

#### NOTE:

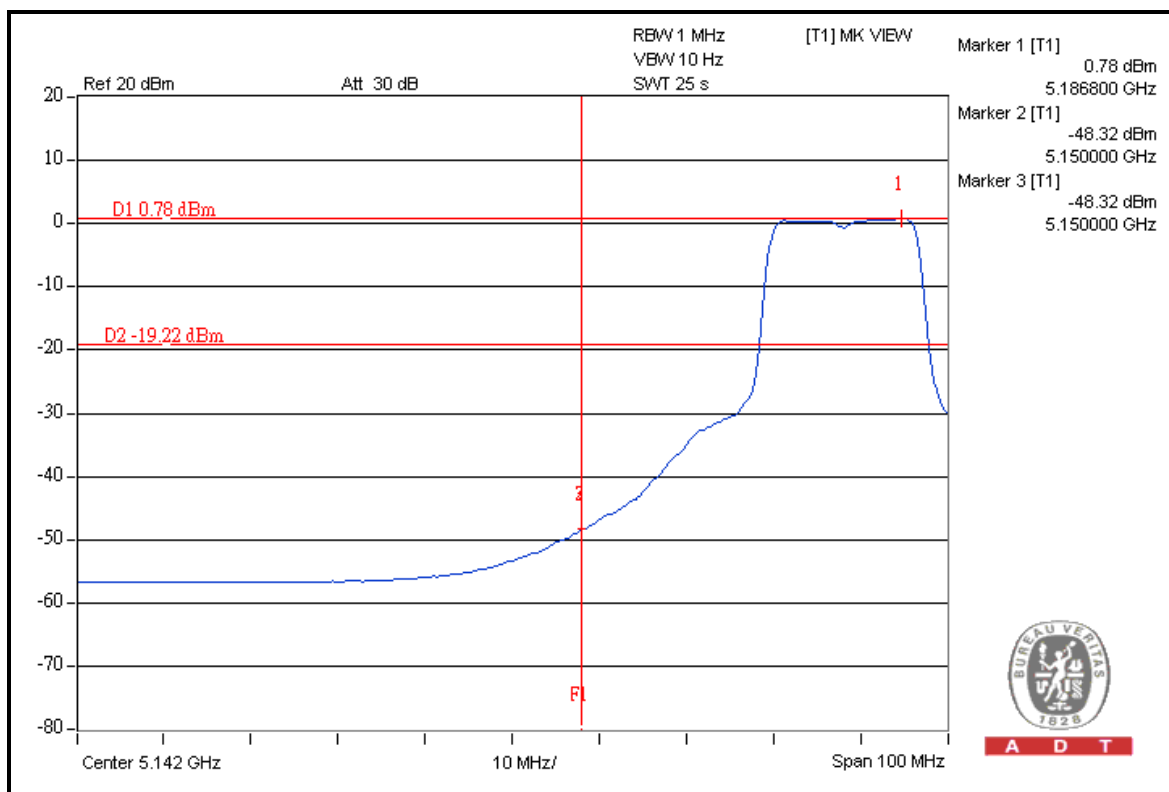
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.



A D T



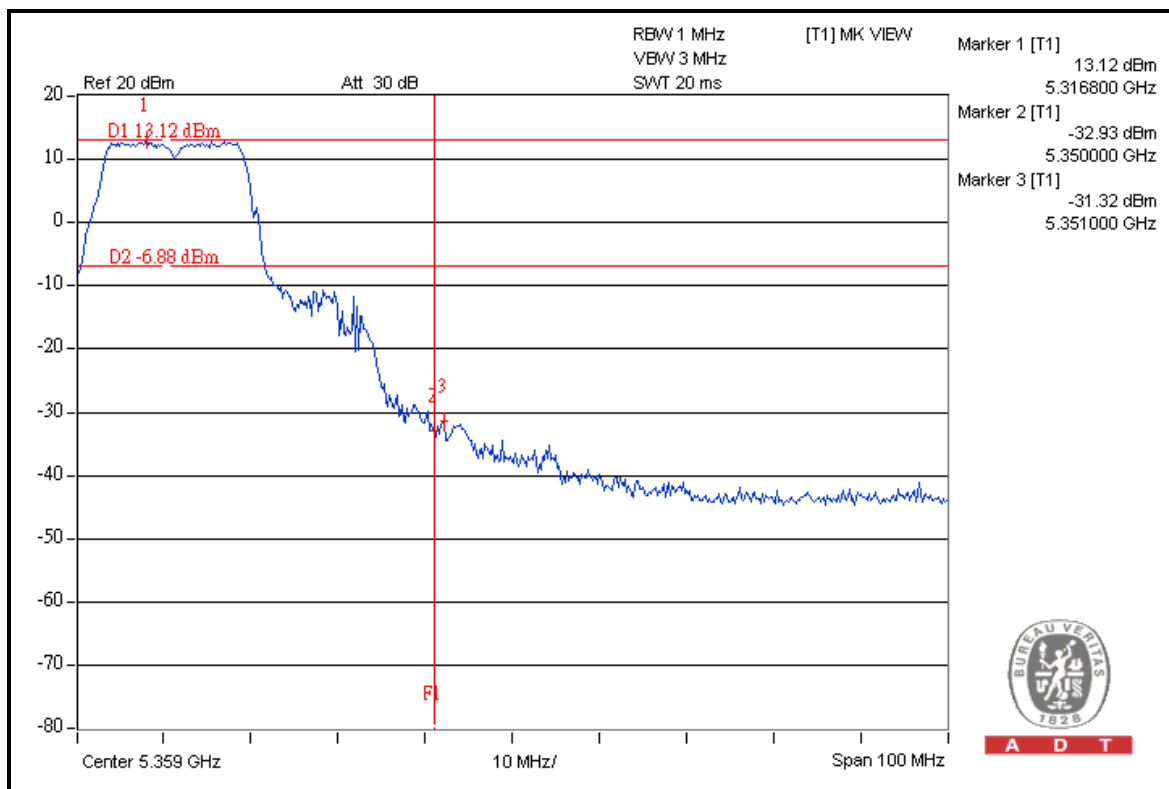
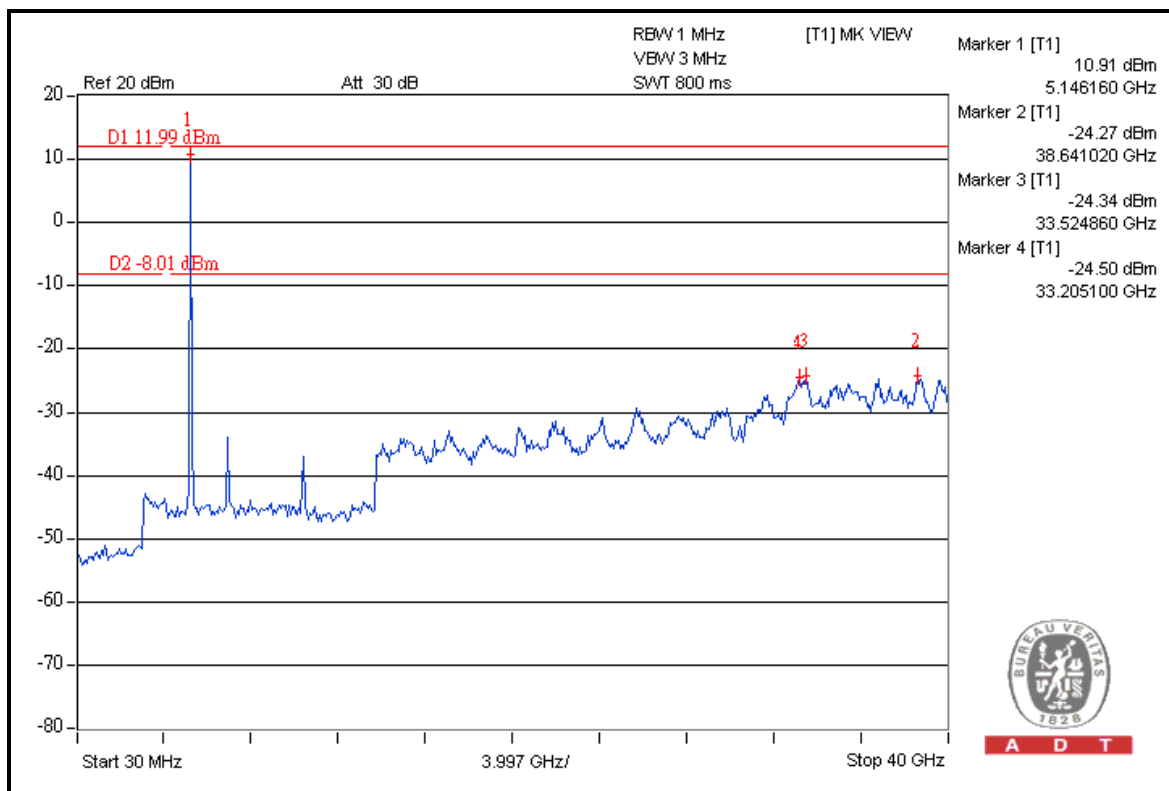
A D T



A D T

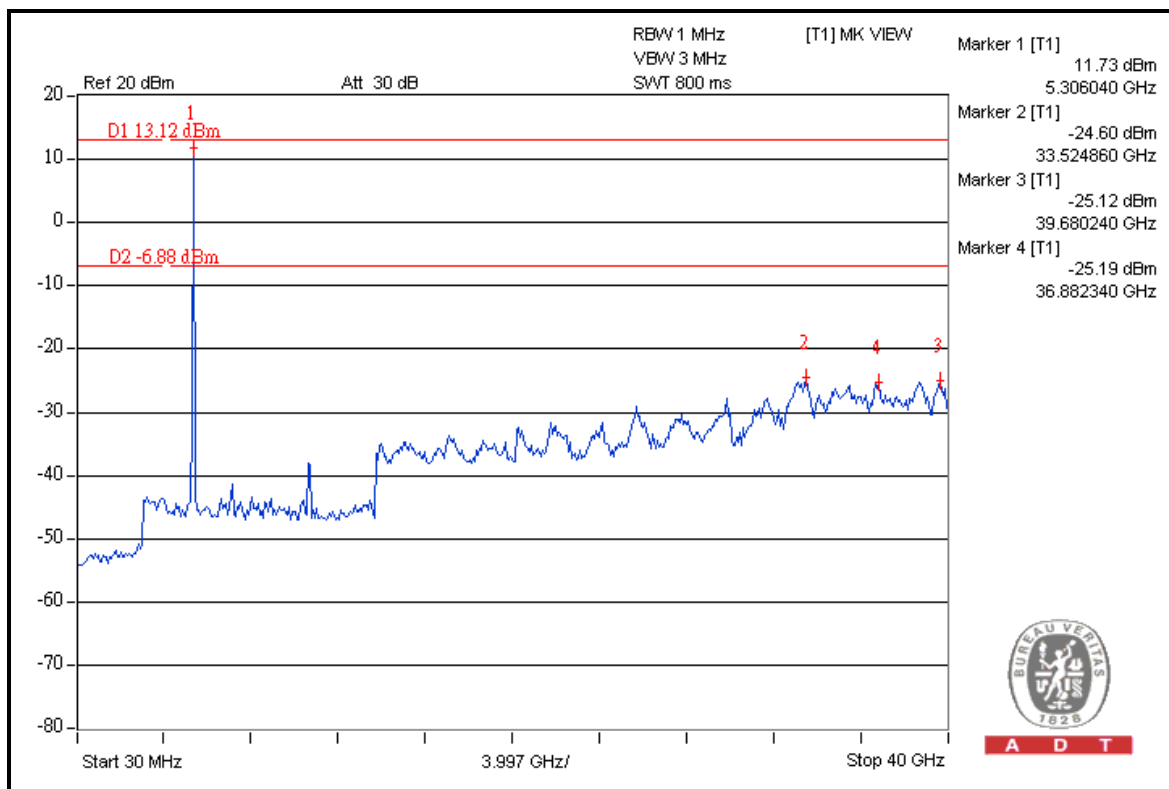
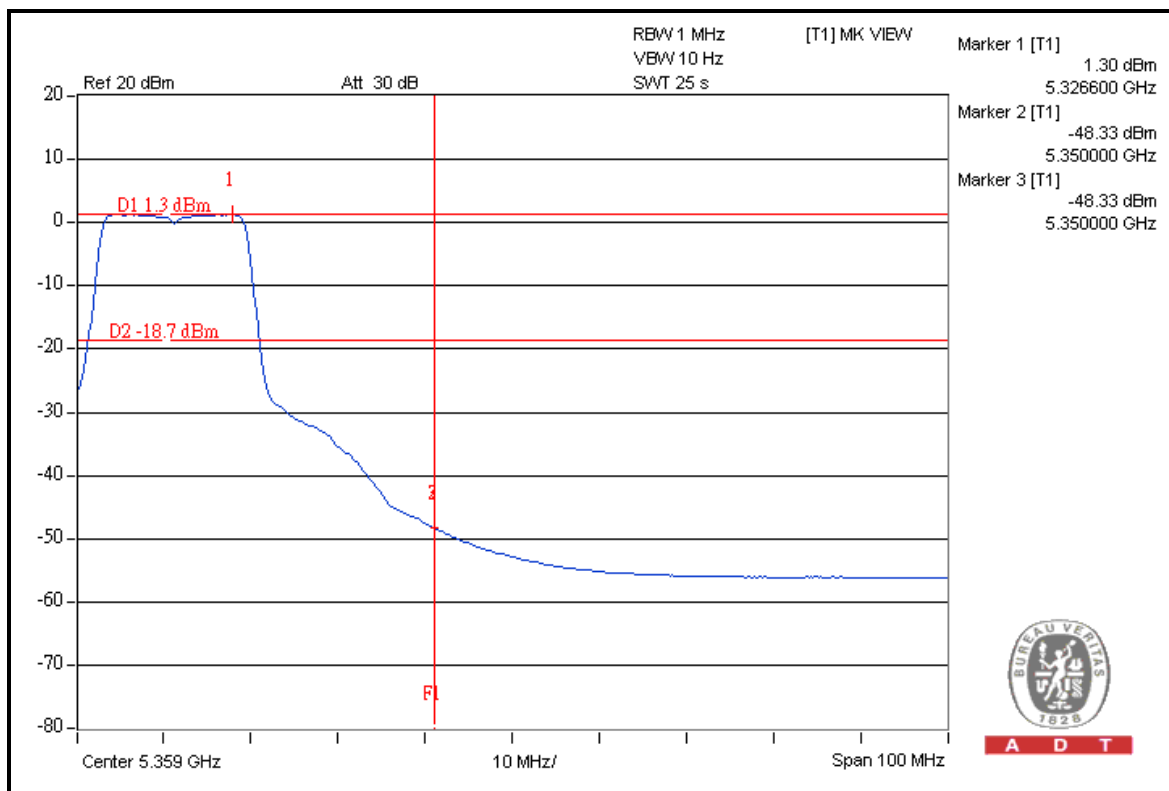


A D T





A D T







A D T

## 802.11n (20MHz): FOR 5500-5700MHz BAND (Mode A)

### 5500MHz

#### RESTRICT BAND (5350 ~ 5460 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5500.00 (PK)	108.2	50.5	57.7	74.0
5500.00 (AV)	96.6	54.4	42.2	54.0

#### FREQUENCY BAND (5460 ~ 5470 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5500.00 (PK)	108.2	40.0	68.2	68.3

### 5700MHz

#### ABOVE 5725 MHz

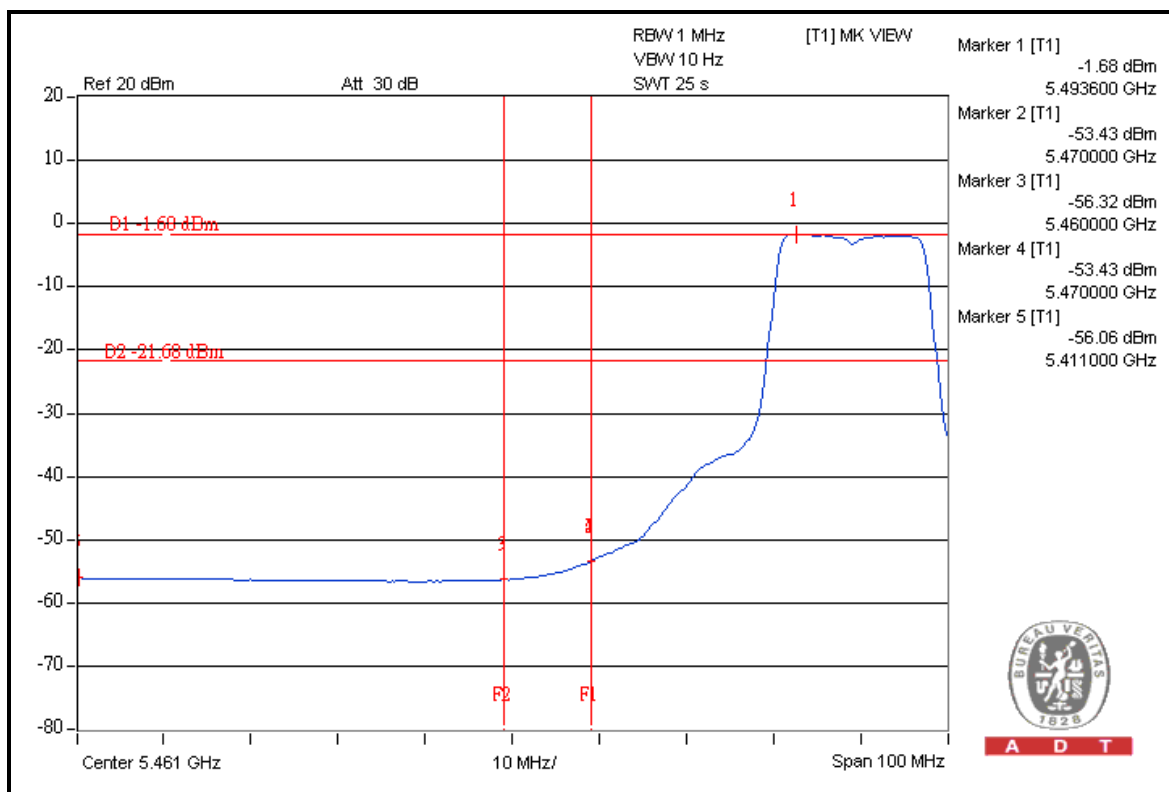
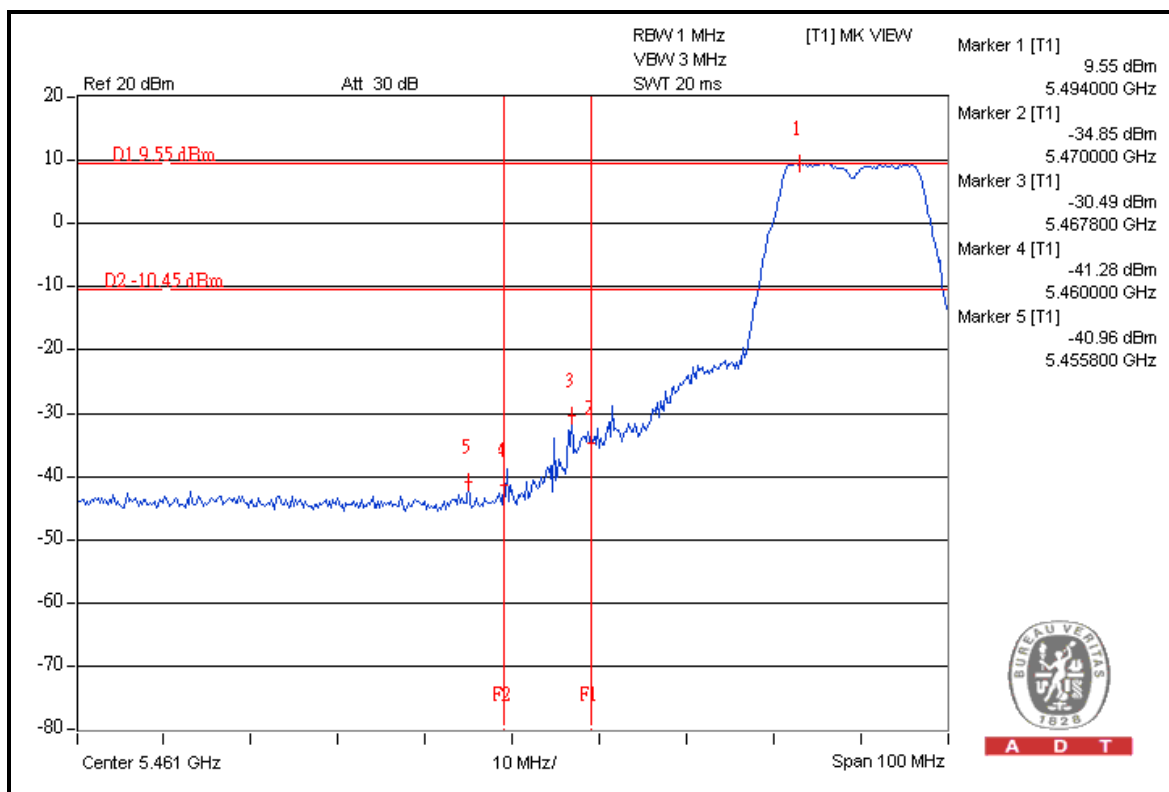
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5700.00 (PK)	106.7	44.6	62.1	68.3

#### 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.

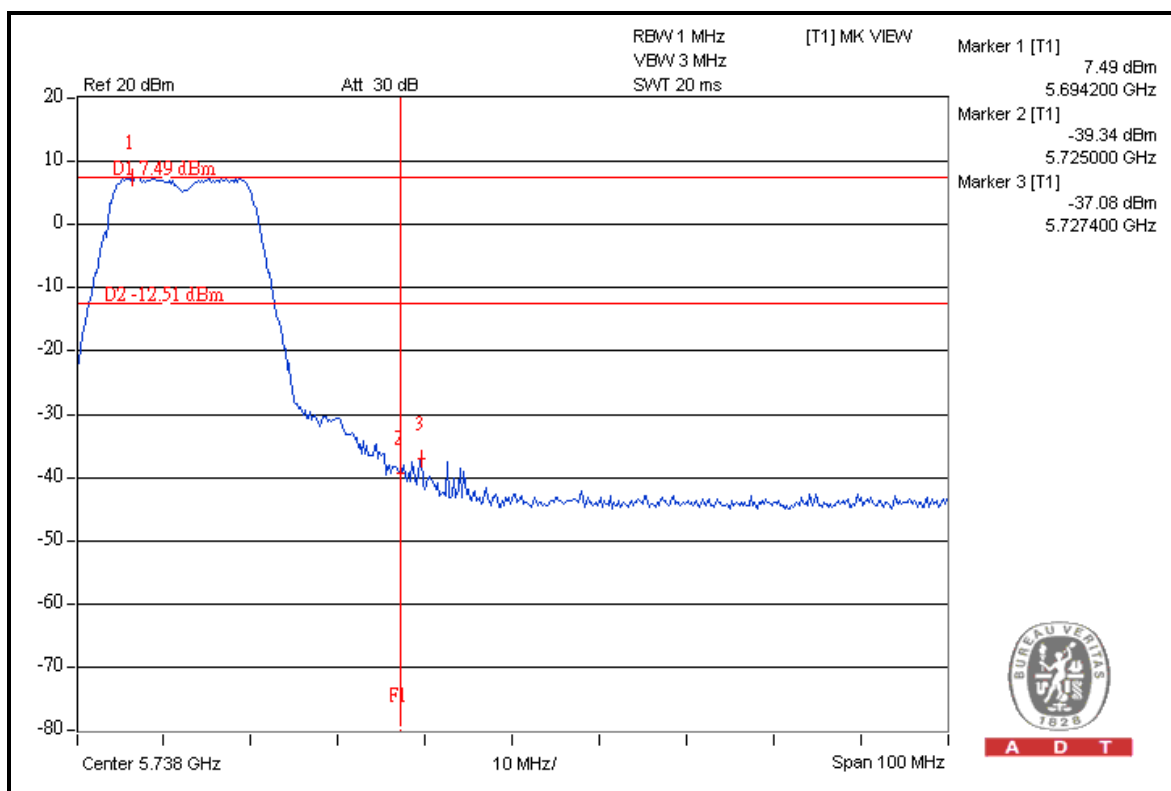
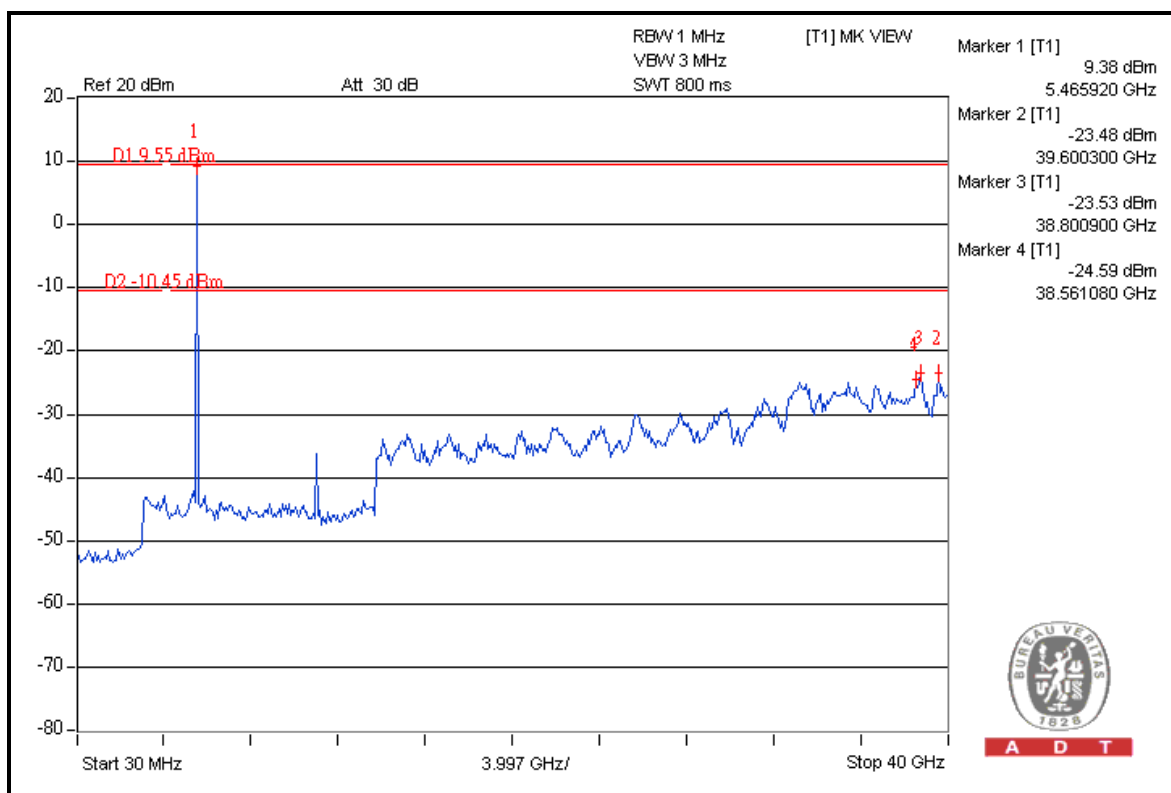


A D T



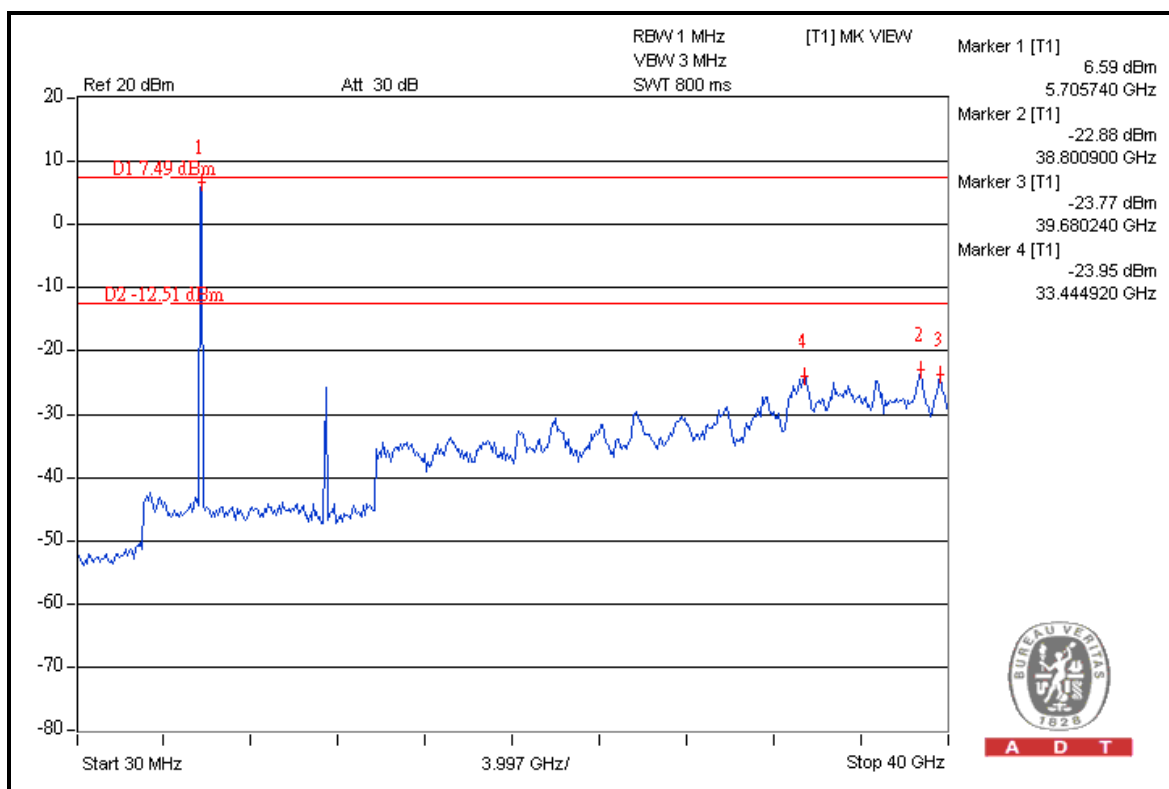
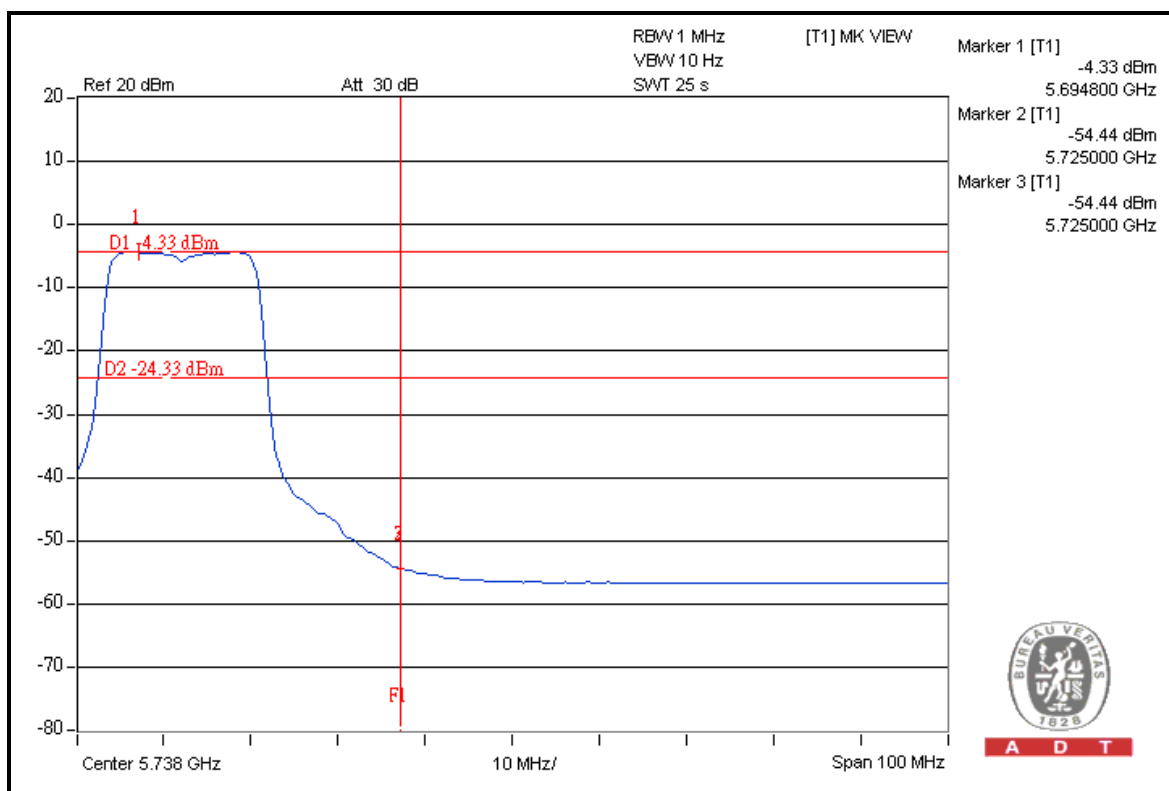


A D T





A D T





A D T

## 802.11n (40MHz): FOR 5190-5310MHz BAND (Mode A)

### 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)	104.1	34.1	70.0	74.0
5190.00 (AV)	87.3	33.9	53.4	54.0

### RESTRICT BAND (5350 ~ 5460 MHz)

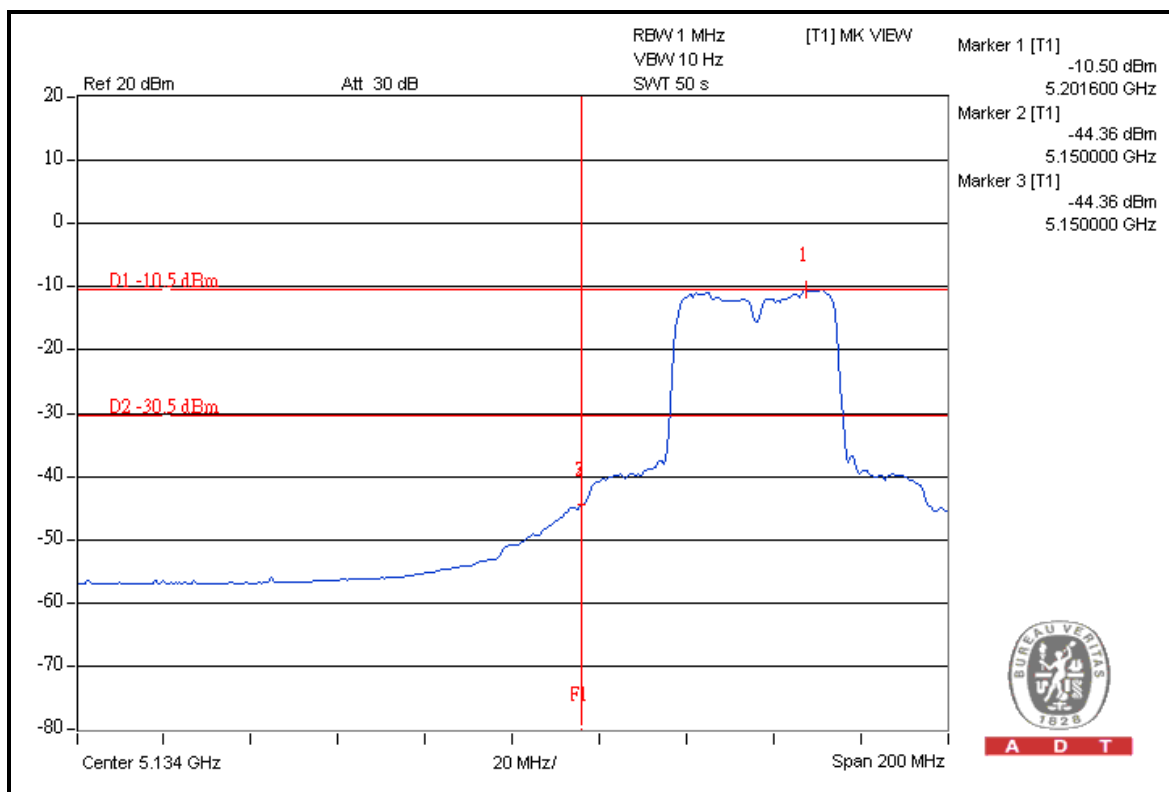
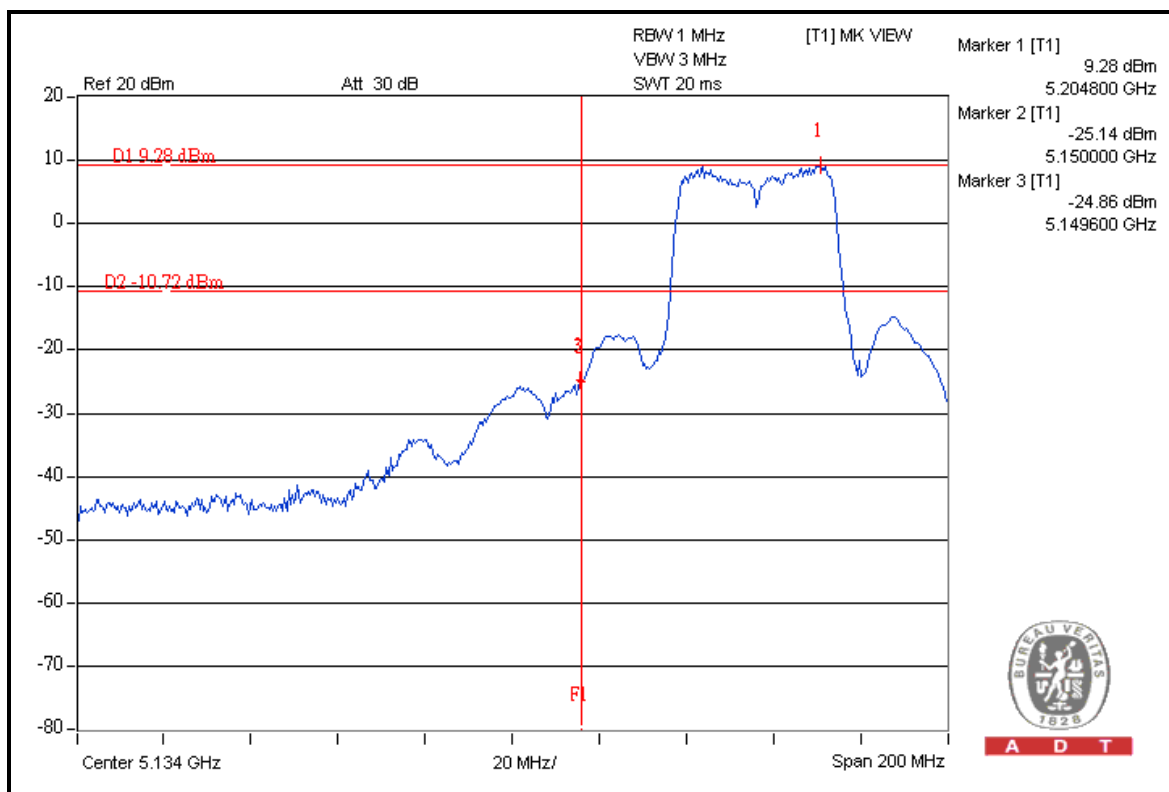
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5310.00 (PK)	105.7	32.5	73.2	74.0
5310.00 (AV)	89.6	36.6	53.0	54.0

#### 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.

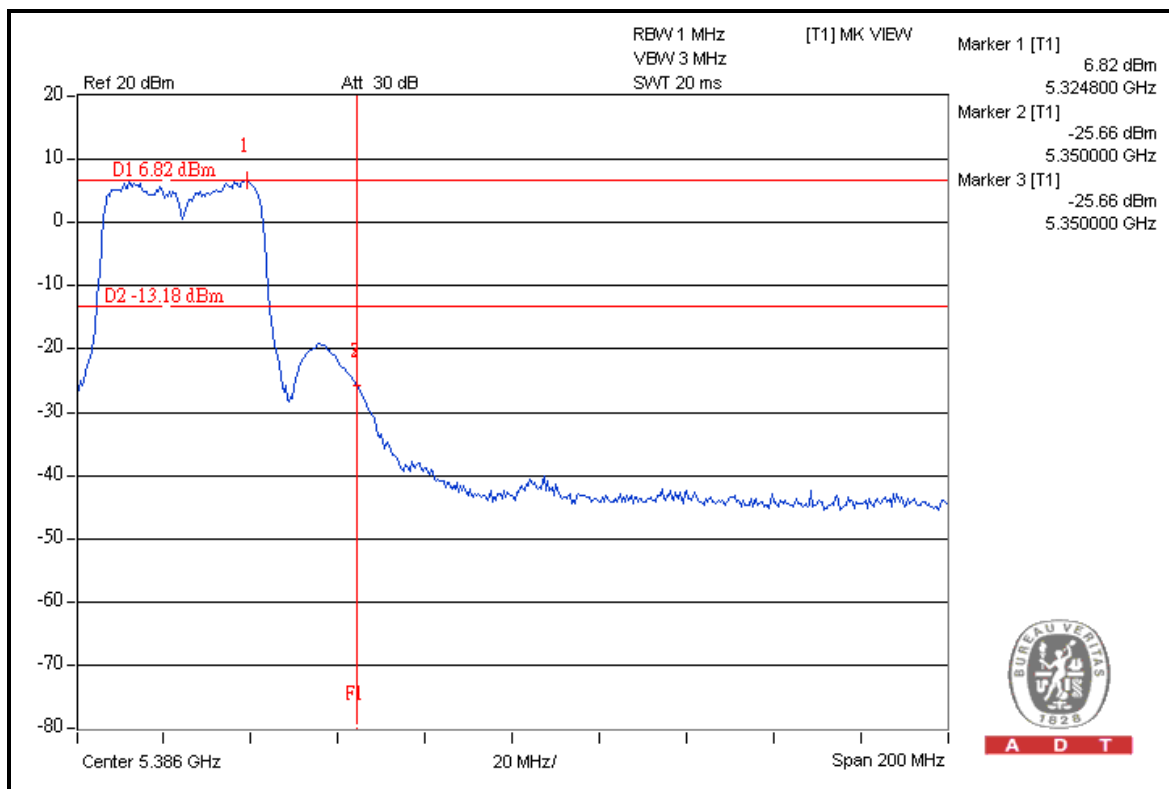
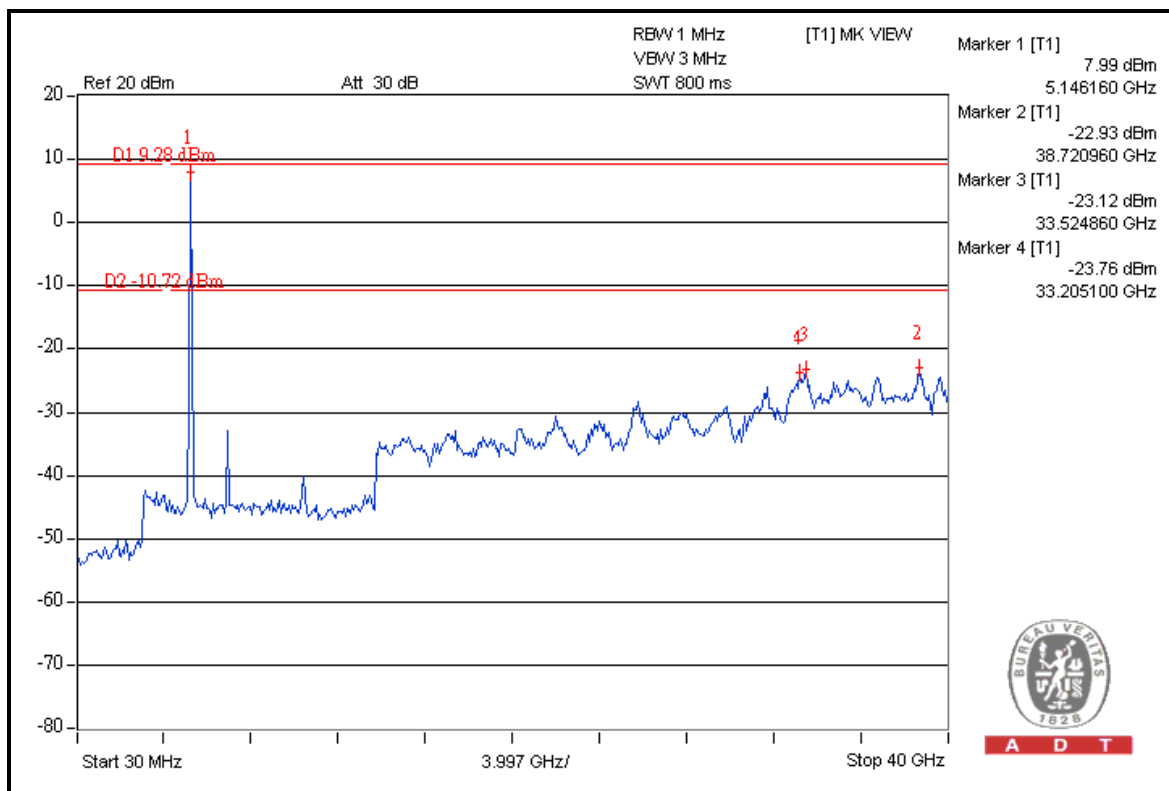


A D T



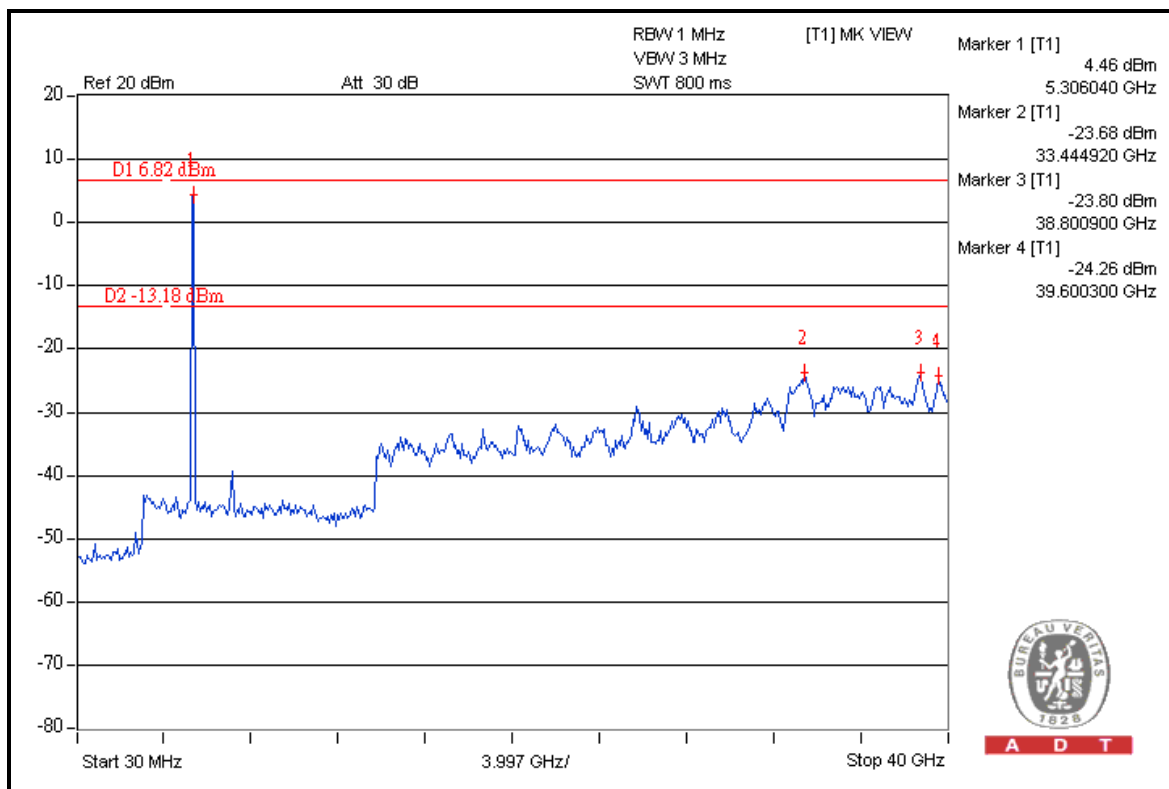
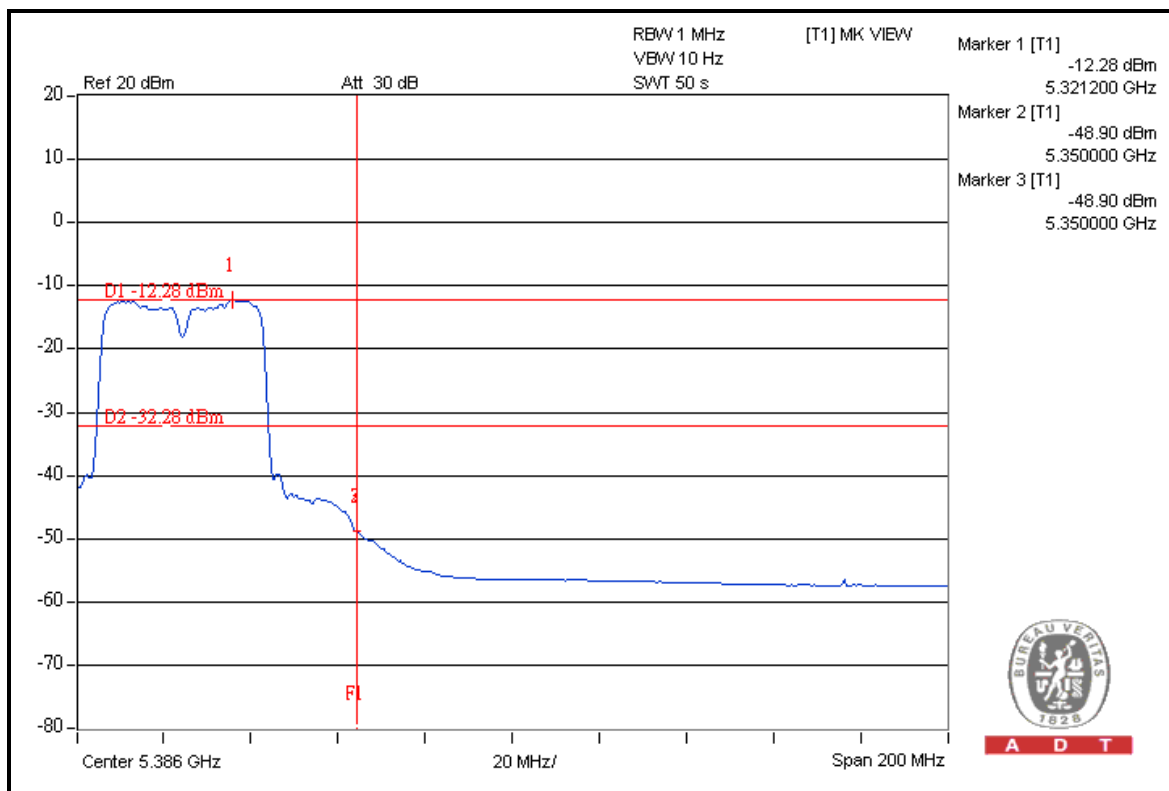


A D T





A D T







A D T

## 802.11n (40MHz): FOR 5510-5670MHz BAND (Mode A)

### 5510MHz

#### RESTRICT BAND (5350 ~ 5460 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH IN RESTRICT BAND (dBuV/m)	LIMIT (dBuV/m)
5510.00 (PK)	103.7	35.7	68.0	74.0
5510.00 (AV)	88.6	40.9	47.7	54.0

#### FREQUENCY BAND (5460 ~ 5470 MHz)

FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5510.00 (PK)	103.7	35.9	67.8	68.3

### 5670MHz

#### ABOVE 5725 MHz

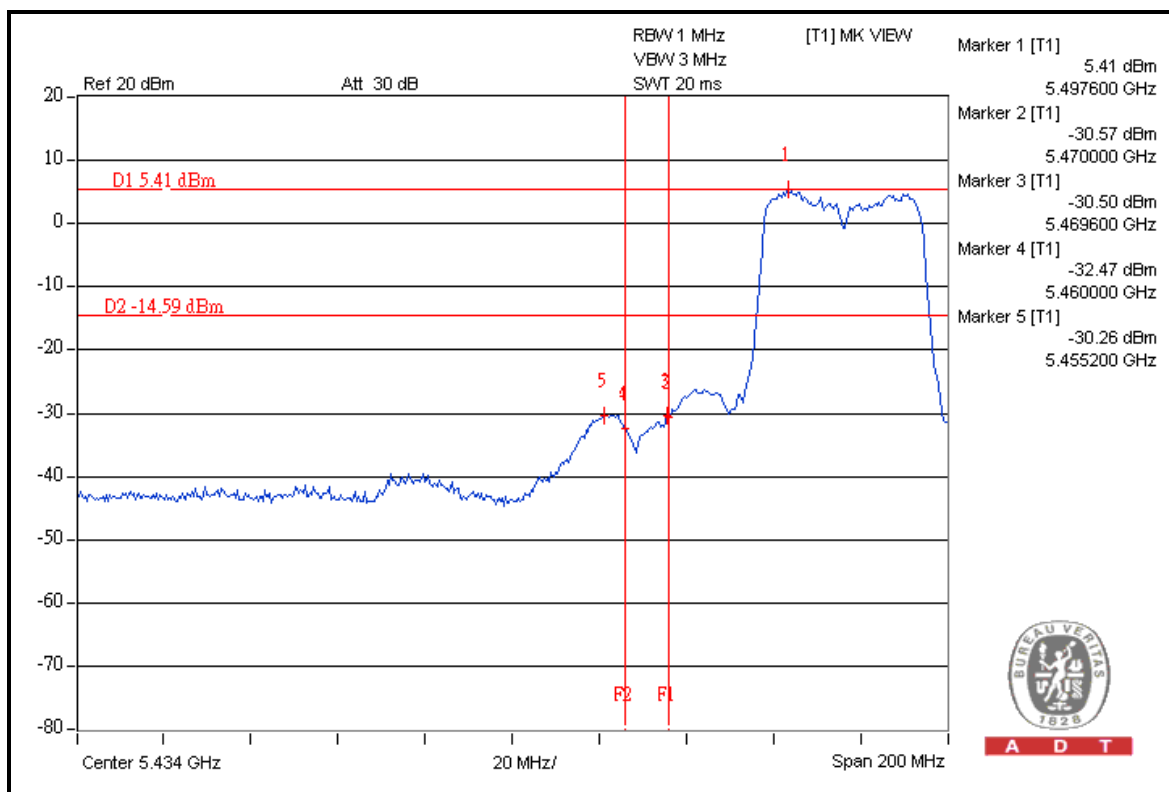
FREQUENCY (MHz)	FUNDAMENTAL EMISSION (dBuV/m)	DELTA (dB)	MAXIMUM FIELD STRENGTH (dBuV/m)	LIMIT (dBuV/m)
5670.00 (PK)	106.5	44.2	62.3	68.3

#### NOTE:

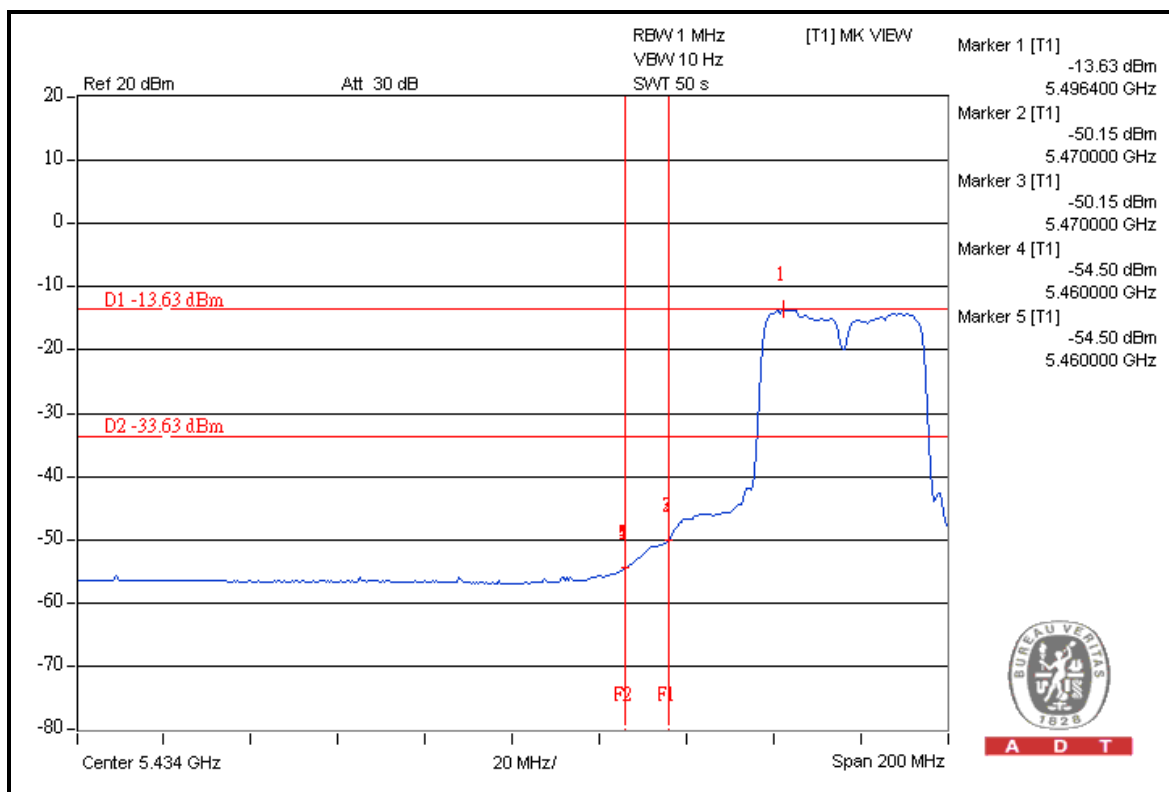
1. Delta = Amplitude between the peak of the fundamental and the peak of the band edge emission. Please check following 3 pages.
2. Maximum field strength in restrict band = Fundamental emission – Delta.



A D T



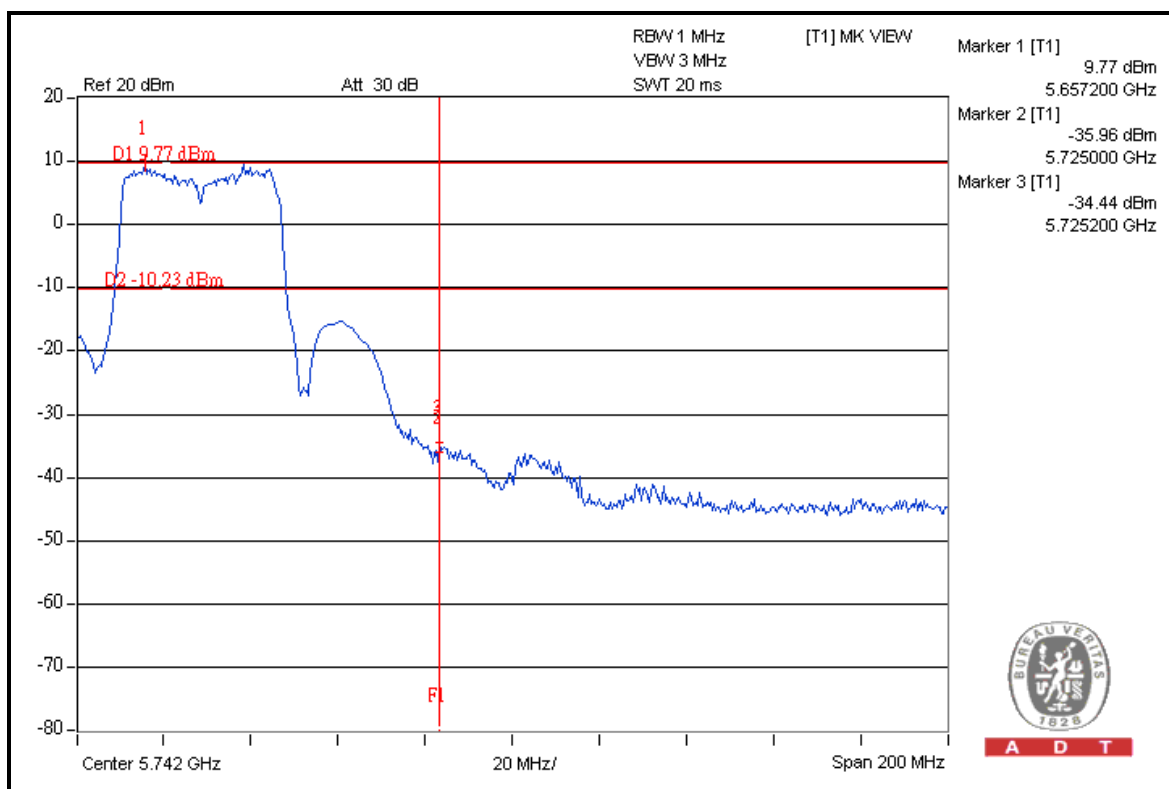
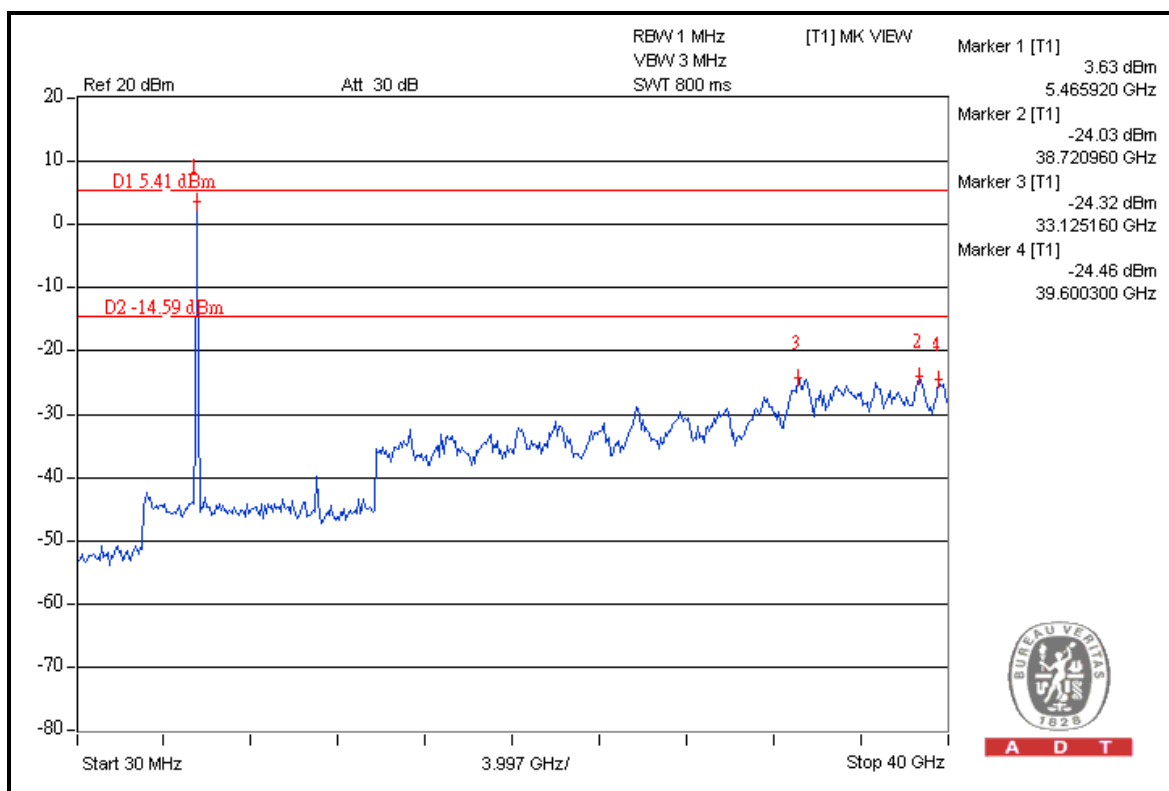
A D T



A D T

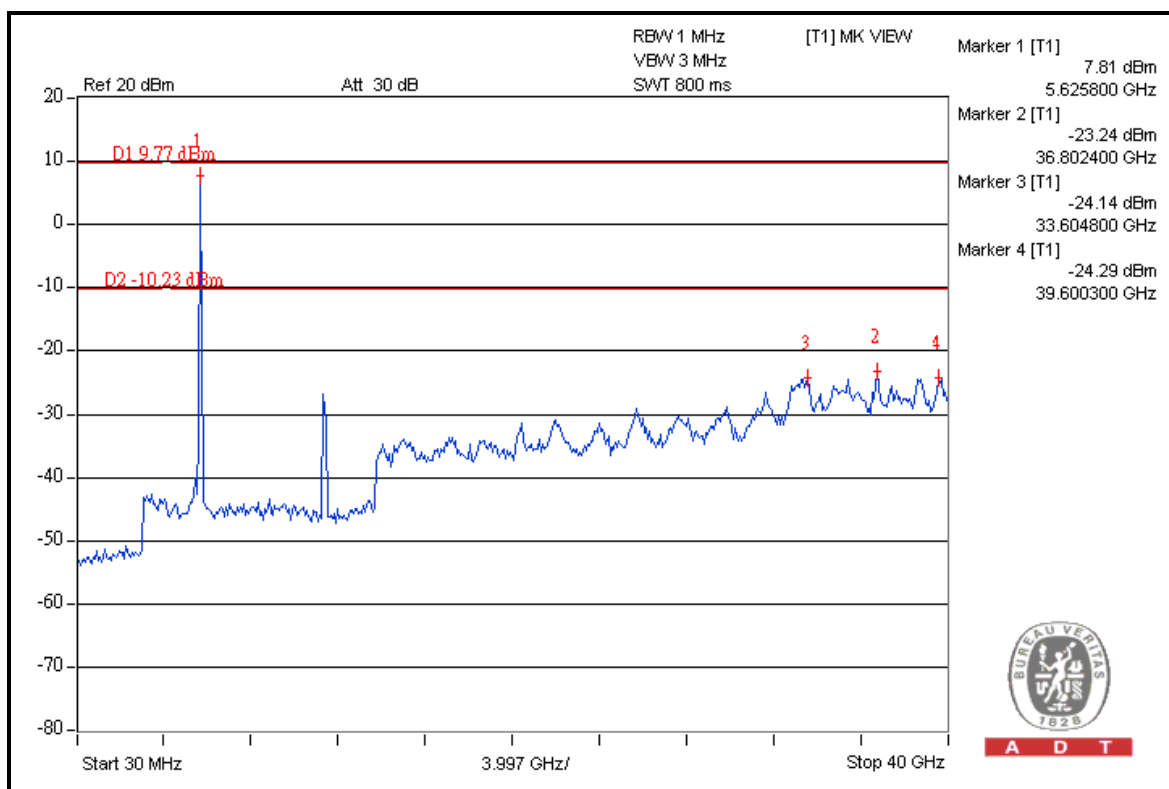
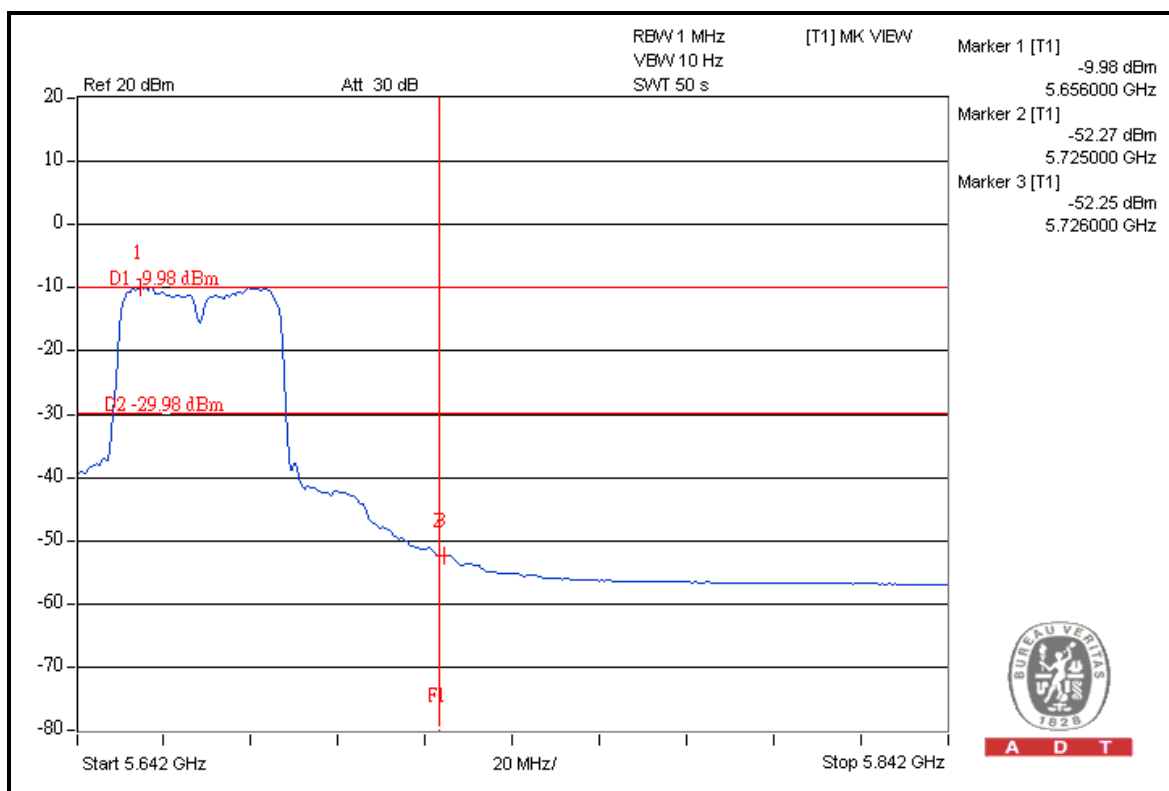


A D T





A D T



## 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](http://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](http://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---**