

FCC TEST REPORT (WLAN_15.407)

REPORT NO.: RF130312C15-4

MODEL NO.: 202F

FCC ID: YUW-202F

RECEIVED: Mar. 12, 2013

TESTED: Mar. 30 ~ Apr. 10, 2013

ISSUED: Apr. 12, 2013

APPLICANT: Fujitsu Mobile Communications Ltd.

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

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF130312C15-4	Original release	Apr. 12, 2013

1. CERTIFICATION

PRODUCT: Mobile Phone

MODEL: 202F

BRAND: ARROWS

APPLICANT: Fujitsu Mobile Communications Ltd.

TESTED: Mar. 30 ~ Apr. 10, 2013

TEST SAMPLE: Production Unit

STANDARDS: FCC Part 15, Subpart E (Section 15.407)

ANSI C63.10-2009

The above equipment (model: 202F) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : Polly Chien , **DATE** : Apr. 12, 2013
Polly Chien / Specialist

APPROVED BY : Ken Liu , **DATE** : Apr. 12, 2013
Ken Liu / Senior Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -11.40dB at 0.20469MHz.
15.407(b/1/2/3)(b)(6)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -2.0dB at 62.98MHz.
15.407(a/1/2)	Max Average 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)	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	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	2.93 dB
	200MHz ~1000MHz	2.95 dB
	1GHz ~ 18GHz	2.26 dB
	18GHz ~ 40GHz	1.94 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Mobile Phone
MODEL NO.	202F
POWER SUPPLY	3.8Vdc (Battery) 5.0Vdc (Adapter or cradle or host equipment)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK 256QAM for OFDM in 11ac mode only
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz & 5500 ~ 5700MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 802.11a, 802.11n (20MHz): 4 802.11n (40MHz): 2 802.11ac (80MHz): 1 5260 ~ 5320MHz: 802.11a, 802.11n (20MHz): 4 802.11n (40MHz): 2 802.11ac (80MHz): 1 5500 ~ 5700MHz: 802.11a, 802.11n (20MHz): 8 802.11n (40MHz): 3 802.11ac (80MHz): 1
OUTPUT POWER	6.209mW for 5180 ~ 5240MHz 6.194mW for 5260 ~ 5320MHz 5.943mW for 5500 ~ 5700MHz
ANTENNA TYPE	$\lambda/4$ Monopole antenna with -5dBi gain
ANTENNA CONNECTOR	N/A
DATA CABLE	Refer to Note
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Refer to Note

NOTE:

1. The EUT provides one completed transmitter and one receiver.

MODULATION MODE	TX FUNCTION
802.11a	1TX
802.11n (20MHz)	1TX
802.11n (40MHz)	1TX
802.11ac (80MHz)	1TX

2. The EUT has following accessories.

No.	Product	Brand	Model	Description
1	Power Adapter	Softbank	FMCAB1	I/P: 100-240V, 220mA O/P: 5.0Vdc, 1800mA
2	Battery	Fujitsu Limited	CA54310-0046	Rating: 3.8V, 3020mA Type: Li-ion
3	Cradle	Softbank	FMEAC1	Input: 5.0Vdc, 1.5A Output: 5.0Vdc, 1.5A
4	USB Cable	NA	NA	1.1m shielded cable without core

3. SW version is R18.1e.
4. HW version is V2.1.0.
5. IMEI Code: 355320050010498.
6. IEEE 802.11ac is still draft version.
7. The above EUT information is declared by manufacturer and for more detailed feature description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
42	5210MHz

FOR 5260 ~ 5320MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
58	5290MHz

FOR 5500 ~ 5700MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	116	5580 MHz
104	5520 MHz	132	5660 MHz
108	5540 MHz	136	5680 MHz
112	5560 MHz	140	5700 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	134	5670 MHz
110	5550 MHz		

1 channel is provided for 802.11ac (80MHz):

CHANNEL	FREQUENCY
106	5530MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from adapter
B	-	√	√	-	Power from cradle
C	-	√	√	-	Power from host equipment

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

NOTE:

1. "-" means no effect.
2. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5210	42	42	OFDM	BPSK	29.3
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5290	58	58	OFDM	BPSK	29.3
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5530	106	106	OFDM	BPSK	29.3

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C	802.11n (40MHz)	5180-5320	38 to 62	38	OFDM	BPSK	6.5
A, B, C	802.11a	5500-5700	100 to 140	116	OFDM	BPSK	6.0

POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C	802.11n (40MHz)	5180-5320	38 to 62	38	OFDM	BPSK	6.5
A, B, C	802.11a	5500-5700	100 to 140	116	OFDM	BPSK	6.0

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5210	42	42	OFDM	BPSK	29.3
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5290	58	58	OFDM	BPSK	29.3
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
A	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
A	802.11ac (80MHz)	5530	106	106	OFDM	BPSK	29.3

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE \geq 1G	26deg. C, 70%RH	120Vac, 60Hz	Cedric Wu
RE<1G	25deg. C, 68%RH	120Vac, 60Hz	Martin Lee
PLC	20deg. C, 70%RH	120Vac, 60Hz	Martin Lee
APCM	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui

3.3 DUTY CYCLE OF TEST SIGNAL

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

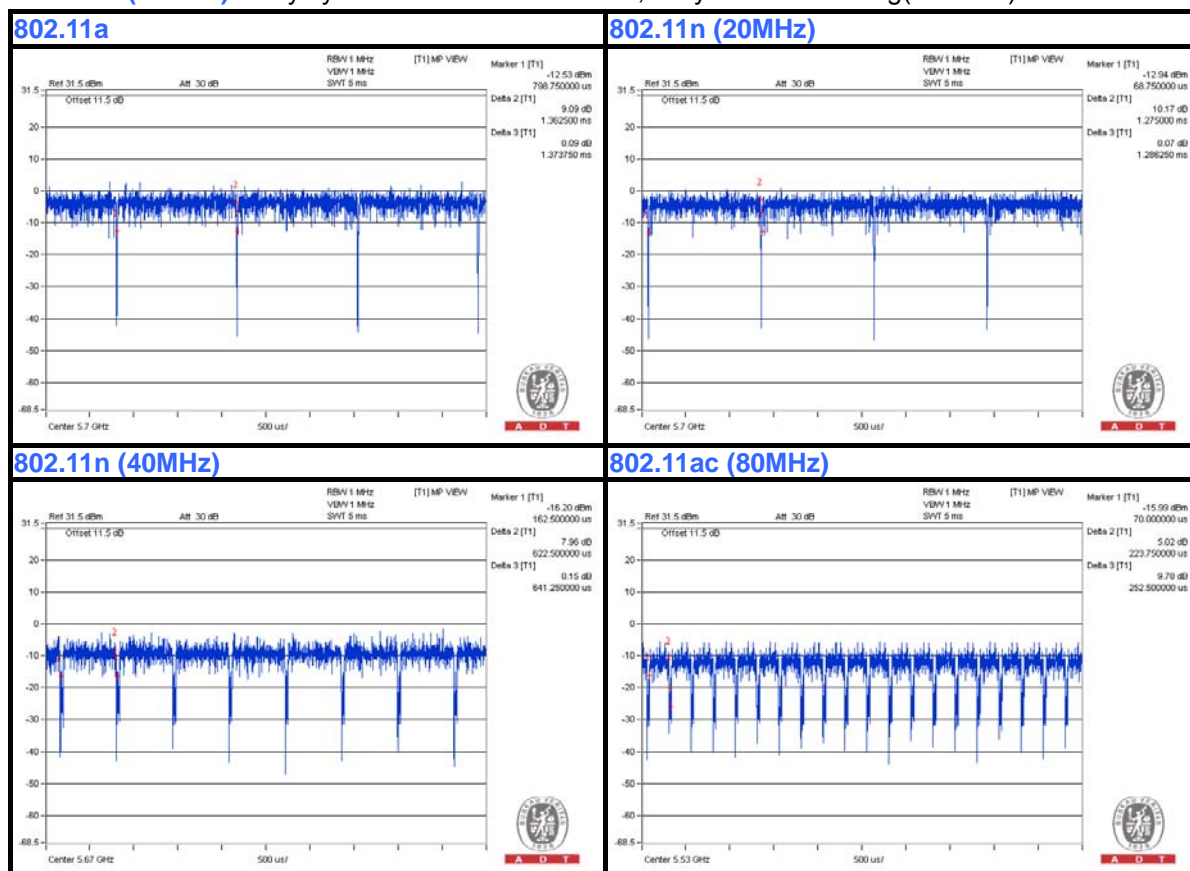
802.11a: Duty cycle = $1.362/1.374 = 0.991$

802.11n (20MHz): Duty cycle = $1.275/1.286 = 0.991$

If duty cycle is < 98%, duty factor shall be considered.

802.11n (40MHz): Duty cycle = $0.622/0.641 = 0.97$, Duty factor = $10 * \log(1/0.97) = 0.13$

802.11ac (80MHz): Duty cycle = $0.224/0.253 = 0.885$, Duty factor = $10 * \log(1/0.885) = 0.53$



3.4 DESCRIPTION OF SUPPORT UNITS

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

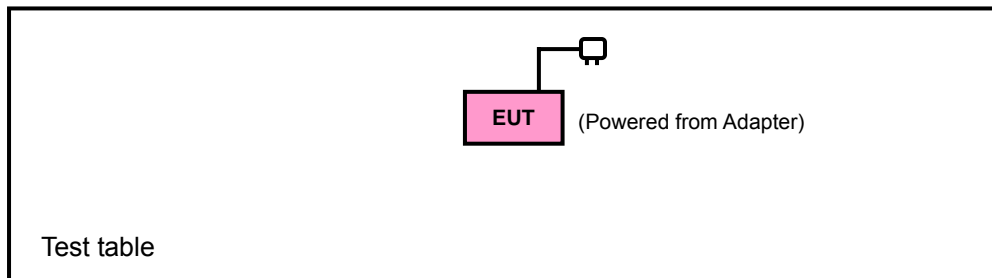
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK	DELL	D531	CN-0XM006-48643-81U-2973	QDS-BRCM1020

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

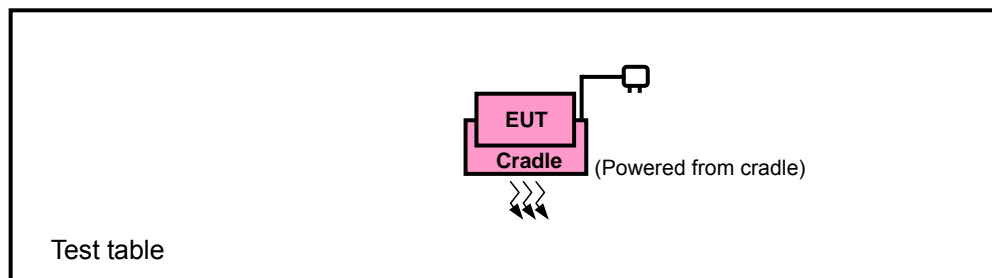
NOTE: All power cords of the above support units are non shielded (1.8m).

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST

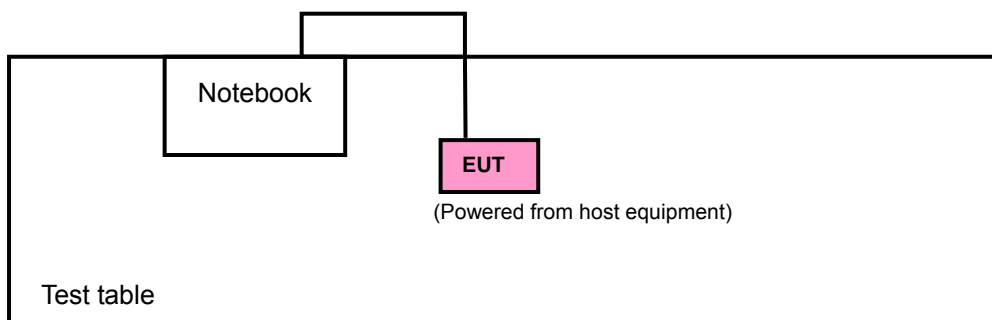
Test Mode A



Test Mode B



Test Mode C



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D01 General UNII Test Procedures v01 r02

662911 D01 Multiple Transmitter Output v01 r02

ANSI C63.10-2009

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

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

4. TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table:

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

NOTE:

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

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
√	FIELD STRENGTH AT 3m (dBμV/m)	
	PK	AV
	74	54
	EIRP LIMIT (dBm)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	PK	PK
	-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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100289	Nov. 16, 2012	Nov. 15, 2013
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jan. 28, 2013	Jan. 27, 2014
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Mar. 22, 2013	Mar. 21, 2014
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Sep. 03, 2012	Sep. 02, 2013
HORN Antenna SCHWARZBECK	BBHA 9170	148	Jul. 11, 2012	Jul. 10, 2013
Preamplifier Agilent	8449B	3008A01911	Oct. 25, 2012	Oct. 24, 2013
Preamplifier Agilent	8447D	2944A10638	Oct. 25, 2012	Oct. 24, 2013
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295013/4 283403/4	Aug. 28, 2012	Aug. 27, 2013
RF signal cable Worken	8D-FB	Cable-HYCH9-01	Aug. 11, 2012	Aug. 10, 2013
Software	ADT_Radiated_ V7.6.15.9.2	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower & Turn Table Controller EMCO	2090	NA	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 25, 2012	Oct. 24, 2013
High Speed Peak Power Meter	ML2495A	0842014	Apr. 28, 2012	Apr. 27, 2013
Power Sensor	MA2411B	0738404	Apr. 28, 2012	Apr. 27, 2013
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 13, 2012	Jun. 12, 2013

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 9.
3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 460141.
5. The IC Site Registration No. is IC 7450F-4.

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 antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

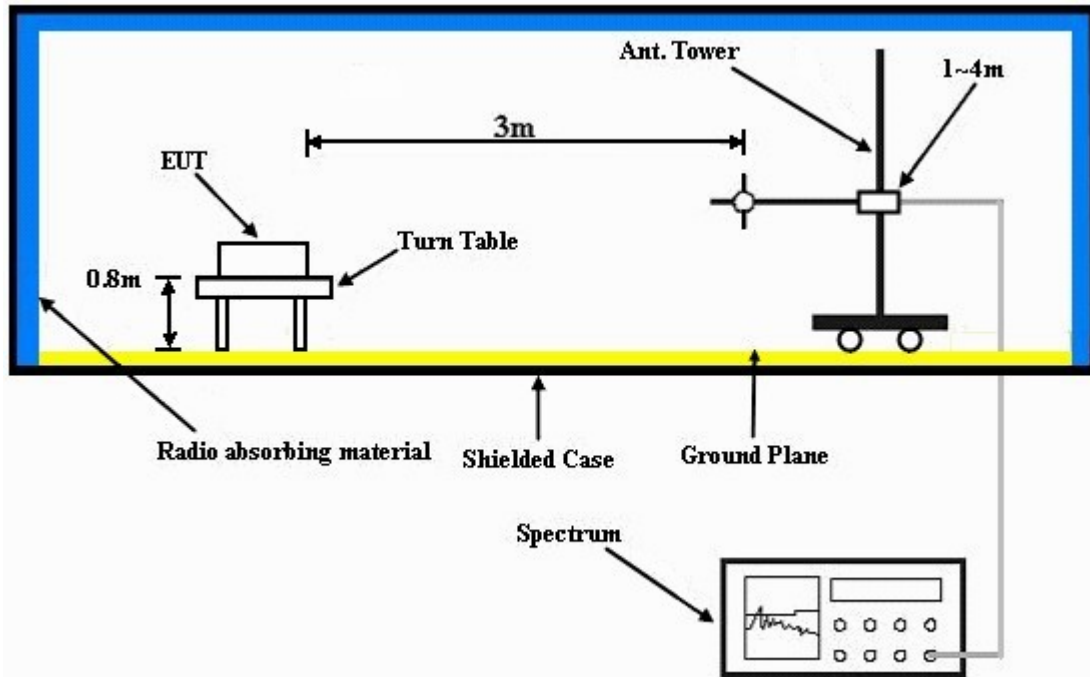
NOTE:

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

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP



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

4.1.7 EUT OPERATING CONDITION

Test Mode A, B

- Placed the EUT on a testing table.
- Use the software to control the EUT under transmission condition continuously at specific channel frequency.

Test Mode C

- The EUT was connected to the notebook with USB cable and placed them on the testing table.
- The notebook system ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.

4.1.8 TEST RESULTS

ABOVE 1GHz DATA:

802.11a

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.3 PK	74.0	-13.7	1.05 H	164	16.50	43.80
2	5150.00	48.0 AV	54.0	-6.0	1.05 H	164	4.20	43.80
3	*5180.00	92.8 PK			1.08 H	160	48.90	43.90
4	*5180.00	81.9 AV			1.08 H	160	38.00	43.90
5	#10360.00	58.1 PK	74.0	-15.9	1.00 H	220	7.20	50.90
6	#10360.00	45.3 AV	54.0	-8.7	1.00 H	220	-5.6	50.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.00 V	187	16.60	43.80
2	5150.00	47.6 AV	54.0	-6.4	1.00 V	187	3.80	43.80
3	*5180.00	85.2 PK			1.00 V	187	41.30	43.90
4	*5180.00	74.9 AV			1.00 V	187	31.00	43.90
5	#10360.00	57.0 PK	74.0	-17.0	1.00 V	333	6.10	50.90
6	#10360.00	44.1 AV	54.0	-9.9	1.00 V	333	-6.8	50.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWE	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	92.6 PK			1.08 H	159	48.70	43.90
2	*5200.00	82.7 AV			1.08 H	159	38.80	43.90
3	#10400.00	58.4 PK	74.0	-15.6	1.00 H	226	7.50	50.90
4	#10400.00	45.7 AV	54.0	-8.3	1.00 H	226	-5.20	50.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	86.6 PK			1.00 V	184	42.70	43.90
2	*5200.00	75.3 AV			1.00 V	184	31.40	43.90
3	#10400.00	57.4 PK	74.0	-16.6	1.00 V	340	6.50	50.90
4	#10400.00	44.5 AV	54.0	-9.5	1.00 V	340	-6.40	50.90

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	93.8 PK			1.05 H	157	49.80	44.00
2	*5240.00	83.2 AV			1.05 H	157	39.20	44.00
3	5350.00	61.4 PK	74.0	-12.6	1.05 H	160	17.30	44.10
4	5350.00	48.1 AV	54.0	-5.9	1.05 H	160	4.00	44.10
5	#10480.00	57.4 PK	74.0	-16.6	1.00 H	211	6.20	51.20
6	#10480.00	45.6 AV	54.0	-8.4	1.00 H	211	-5.60	51.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	84.8 PK			1.00 V	193	40.80	44.00
2	*5240.00	74.9 AV			1.00 V	193	30.90	44.00
3	5350.00	60.7 PK	74.0	-13.3	1.00 V	195	16.60	44.10
4	5350.00	47.9 AV	54.0	-6.1	1.00 V	195	3.80	44.10
5	#10480.00	56.4 PK	74.0	-17.6	1.00 V	329	5.20	51.20
6	#10480.00	44.4 AV	54.0	-9.6	1.00 V	329	-6.80	51.20

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.06 H	155	15.70	43.80
2	5150.00	47.5 AV	54.0	-6.5	1.06 H	155	3.70	43.80
3	*5260.00	95.4 PK			1.05 H	158	51.40	44.00
4	*5260.00	84.2 AV			1.05 H	158	40.20	44.00
5	#10520.00	58.3 PK	74.0	-15.7	1.00 H	240	7.00	51.30
6	#10520.00	45.2 AV	54.0	-8.8	1.00 H	240	-6.10	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.00 V	188	15.70	43.80
2	5150.00	47.5 AV	54.0	-6.5	1.00 V	188	3.70	43.80
3	*5260.00	86.2 PK			1.00 V	182	42.20	44.00
4	*5260.00	75.5 AV			1.00 V	182	31.50	44.00
5	#10520.00	57.5 PK	74.0	-16.5	1.00 V	340	6.20	51.30
6	#10520.00	44.5 AV	54.0	-9.5	1.00 V	340	-6.80	51.30

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	96.5 PK			1.04 H	163	52.40	44.10
2	*5300.00	86.1 AV			1.04 H	163	42.00	44.10
3	10600.00	58.9 PK	74.0	-15.1	1.00 H	246	7.60	51.30
4	10600.00	45.8 AV	54.0	-8.2	1.00 H	246	-5.50	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	87.2 PK			1.00 V	182	43.10	44.10
2	*5300.00	76.8 AV			1.00 V	182	32.70	44.10
3	10600.00	58.2 PK	74.0	-15.8	1.00 V	346	6.90	51.30
4	10600.00	44.1 AV	54.0	-9.9	1.00 V	346	-7.20	51.30

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.7 PK			1.05 H	159	50.60	44.10
2	*5320.00	83.9 AV			1.05 H	159	39.80	44.10
3	5350.00	60.6 PK	74.0	-13.4	1.04 H	161	16.50	44.10
4	5350.00	47.9 AV	54.0	-6.1	1.04 H	161	3.80	44.10
5	10640.00	58.0 PK	74.0	-16.0	1.00 H	231	6.60	51.40
6	10640.00	44.9 AV	54.0	-9.1	1.00 H	231	-6.50	51.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	83.9 PK			1.00 V	199	39.80	44.10
2	*5320.00	73.7 AV			1.00 V	199	29.60	44.10
3	5350.00	60.3 PK	74.0	-13.7	1.00 V	202	16.20	44.10
4	5350.00	47.3 AV	54.0	-6.7	1.00 V	202	3.20	44.10
5	10640.00	57.3 PK	74.0	-16.7	1.00 V	332	5.90	51.40
6	10640.00	44.2 AV	54.0	-9.8	1.00 V	332	-7.20	51.40

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.4 PK	74.0	-13.6	1.00 H	156	16.10	44.30
2	5460.00	47.5 AV	54.0	-6.5	1.00 H	156	3.20	44.30
3	#5470.00	60.2 PK	74.0	-13.8	1.00 H	154	15.90	44.30
4	#5470.00	47.2 AV	54.0	-6.8	1.00 H	154	2.90	44.30
5	*5500.00	97.0 PK			1.00 H	158	52.60	44.40
6	*5500.00	84.8 AV			1.00 H	158	40.40	44.40
7	11000.00	57.8 PK	74.0	-16.2	1.00 H	235	5.90	51.90
8	11000.00	45.6 AV	54.0	-8.4	1.00 H	235	-6.30	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.2 PK	74.0	-13.8	1.00 V	102	15.90	44.30
2	5460.00	47.5 AV	54.0	-6.5	1.00 V	102	3.20	44.30
3	#5470.00	60.0 PK	74.0	-14.0	1.02 V	100	15.70	44.30
4	#5470.00	47.1 AV	54.0	-6.9	1.02 V	100	2.80	44.30
5	*5500.00	88.3 PK			1.02 V	104	43.90	44.40
6	*5500.00	76.7 AV			1.02 V	104	32.30	44.40
7	11000.00	56.9 PK	74.0	-17.1	1.00 V	350	5.00	51.90
8	11000.00	44.4 AV	54.0	-9.6	1.00 V	350	-7.50	51.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5580.00	95.8 PK			1.00 H	150	51.40	44.40
2	5580.00	86.3 AV			1.00 H	150	41.90	44.40
3	11160.00	58.3 PK	74.0	-15.7	1.00 H	241	6.20	52.10
4	11160.00	46.0 AV	54.0	-8.0	1.00 H	241	-6.10	52.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5580.00	89.3 PK			1.00 V	103	44.90	44.40
2	5580.00	79.8 AV			1.00 V	103	35.40	44.40
3	11160.00	57.3 PK	74.0	-16.7	1.00 V	353	5.20	52.10
4	11160.00	44.9 AV	54.0	-9.1	1.00 V	353	-7.20	52.10

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	95.2 PK			1.00 H	171	50.60	44.60
2	*5700.00	87.6 AV			1.00 H	171	43.00	44.60
3	#5725.00	58.0 PK	74.0	-16.0	1.00 H	175	13.40	44.60
4	#5725.00	45.8 AV	54.0	-8.2	1.00 H	175	1.20	44.60
5	11400.00	57.4 PK	74.0	-16.6	1.00 H	231	5.00	52.40
6	11400.00	45.1 AV	54.0	-8.9	1.00 H	231	-7.30	52.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	86.8 PK			1.00 V	99	42.20	44.60
2	*5700.00	76.5 AV			1.00 V	99	31.90	44.60
3	#5725.00	57.5 PK	74.0	-16.5	1.00 V	99	12.90	44.60
4	#5725.00	45.5 AV	54.0	-8.5	1.00 V	99	0.90	44.60
5	11400.00	56.4 PK	74.0	-17.6	1.00 V	344	4.00	52.40
6	11400.00	44.0 AV	54.0	-10.0	1.00 V	344	-8.40	52.40

REMARKS:

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

802.11n (20MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 36	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.5 PK	74.0	-13.5	1.00 H	186	16.70	43.80
2	5150.00	47.6 AV	54.0	-6.4	1.00 H	186	3.80	43.80
3	*5180.00	93.1 PK			1.00 H	180	49.20	43.90
4	*5180.00	81.7 AV			1.00 H	180	37.80	43.90
5	#10360.00	56.9 PK	74.0	-17.1	1.00 H	200	6.00	50.90
6	#10360.00	44.3 AV	54.0	-9.7	1.00 H	200	-6.60	50.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.00 V	180	14.30	43.80
2	5150.00	46.6 AV	54.0	-7.4	1.00 V	180	2.80	43.80
3	*5180.00	85.6 PK			1.00 V	179	41.70	43.90
4	*5180.00	72.3 AV			1.00 V	179	28.40	43.90
5	#10360.00	56.3 PK	74.0	-17.7	1.00 V	320	5.40	50.90
6	#10360.00	43.0 AV	54.0	-11.0	1.00 V	320	-7.90	50.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 40	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWE	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	93.5 PK			1.06 H	160	49.60	43.90
2	*5200.00	82.4 AV			1.06 H	160	38.50	43.90
3	#10400.00	57.5 PK	74.0	-16.5	1.00 H	222	6.60	50.90
4	#10400.00	44.8 AV	54.0	-9.2	1.00 H	222	-6.10	50.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	84.8 PK			1.00 V	184	40.90	43.90
2	*5200.00	74.6 AV			1.00 V	184	30.70	43.90
3	#10400.00	56.7 PK	74.0	-17.3	1.00 V	322	5.80	50.90
4	#10400.00	43.5 AV	54.0	-10.5	1.00 V	322	-7.40	50.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 48	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	93.4 PK			1.06 H	158	49.40	44.00
2	*5240.00	82.7 AV			1.06 H	158	38.70	44.00
3	5350.00	59.3 PK	74.0	-14.7	1.08 H	160	15.20	44.10
4	5350.00	47.2 AV	54.0	-6.8	1.08 H	160	3.10	44.10
5	#10480.00	56.5 PK	74.0	-17.5	1.00 H	188	5.30	51.20
6	#10480.00	44.0 AV	54.0	-10.0	1.00 H	188	-7.20	51.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	85.0 PK			1.00 V	191	41.00	44.00
2	*5240.00	74.3 AV			1.00 V	191	30.30	44.00
3	5350.00	60.3 PK	74.0	-13.7	1.00 V	193	16.20	44.10
4	5350.00	47.2 AV	54.0	-6.8	1.00 V	193	3.10	44.10
5	#10480.00	56.0 PK	74.0	-18.0	1.00 V	316	4.80	51.20
6	#10480.00	42.6 AV	54.0	-11.4	1.00 V	316	-8.60	51.20

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 52	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.2 PK	74.0	-23.8	1.05 H	158	6.40	43.80
2	5150.00	47.7 AV	54.0	-6.3	1.05 H	158	3.90	43.80
3	*5260.00	94.8 PK			1.03 H	157	50.80	44.00
4	*5260.00	84.2 AV			1.03 H	157	40.20	44.00
5	#10520.00	59.0 PK	74.0	-15.0	1.00 H	255	7.70	51.30
6	#10520.00	45.9 AV	54.0	-8.1	1.00 H	255	-5.40	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.4 PK	74.0	-14.6	1.00 V	182	15.60	43.80
2	5150.00	47.5 AV	54.0	-6.5	1.00 V	182	3.70	43.80
3	*5260.00	85.3 PK			1.00 V	180	41.30	44.00
4	*5260.00	74.1 AV			1.00 V	180	30.10	44.00
5	#10520.00	58.1 PK	74.0	-15.9	1.00 V	345	6.80	51.30
6	#10520.00	44.0 AV	54.0	-10.0	1.00 V	345	-7.30	51.30

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 60	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	95.3 PK			1.06 H	161	51.20	44.10
2	*5300.00	84.5 AV			1.06 H	161	40.40	44.10
3	10600.00	59.4 PK	74.0	-14.6	1.00 H	266	8.10	51.30
4	10600.00	46.3 AV	54.0	-7.7	1.00 H	266	-5.00	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	87.3 PK			1.00 V	184	43.20	44.10
2	*5300.00	76.3 AV			1.00 V	184	32.20	44.10
3	10600.00	58.4 PK	74.0	-15.6	1.00 V	351	7.10	51.30
4	10600.00	44.6 AV	54.0	-9.4	1.00 V	351	-6.70	51.30

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 64	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	94.7 PK			1.07 H	158	50.60	44.10
2	*5320.00	83.8 AV			1.07 H	158	39.70	44.10
3	5350.00	59.9 PK	74.0	-14.1	1.05 H	157	15.80	44.10
4	5350.00	47.3 AV	54.0	-6.7	1.05 H	157	3.20	44.10
5	10640.00	58.7 PK	74.0	-15.3	1.00 H	251	7.30	51.40
6	10640.00	45.7 AV	54.0	-8.3	1.00 H	251	-5.70	51.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	84.6 PK			1.00 V	190	40.50	44.10
2	*5320.00	73.4 AV			1.00 V	190	29.30	44.10
3	5350.00	60.0 PK	74.0	-14.0	1.00 V	191	15.90	44.10
4	5350.00	47.4 AV	54.0	-6.6	1.00 V	191	3.30	44.10
5	10640.00	57.7 PK	74.0	-16.3	1.00 V	341	6.30	51.40
6	10640.00	43.5 AV	54.0	-10.5	1.00 V	341	-7.90	51.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 100	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.4 PK	74.0	-13.6	1.00 H	147	16.10	44.30
2	5460.00	47.4 AV	54.0	-6.6	1.00 H	147	3.10	44.30
3	#5470.00	60.4 PK	74.0	-13.6	1.00 H	147	16.10	44.30
4	#5470.00	47.0 AV	54.0	-7.0	1.00 H	147	2.70	44.30
5	*5500.00	95.8 PK			1.00 H	145	51.40	44.40
6	*5500.00	85.1 AV			1.00 H	145	40.70	44.40
7	11000.00	57.1 PK	74.0	-16.9	1.00 H	249	5.20	51.90
8	11000.00	45.0 AV	54.0	-9.0	1.00 H	249	-6.90	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.2 PK	74.0	-14.8	1.00 V	103	14.90	44.30
2	5460.00	46.4 AV	54.0	-7.6	1.00 V	103	2.10	44.30
3	#5470.00	60.0 PK	74.0	-14.0	1.02 V	100	15.70	44.30
4	#5470.00	46.7 AV	54.0	-7.3	1.02 V	100	2.40	44.30
5	*5500.00	87.5 PK			1.03 V	102	43.10	44.40
6	*5500.00	76.8 AV			1.03 V	102	32.40	44.40
7	11000.00	56.1 PK	74.0	-17.9	1.00 V	1	4.20	51.90
8	11000.00	43.7 AV	54.0	-10.3	1.00 V	1	-8.20	51.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	94.4 PK			1.00 H	177	50.00	44.40
2	*5580.00	83.8 AV			1.00 H	177	39.40	44.40
3	11000.00	57.4 PK	74.0	-16.6	1.00 H	257	5.50	51.90
4	11000.00	45.2 AV	54.0	-8.8	1.00 H	257	-6.70	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	85.7 PK			1.00 V	104	41.30	44.40
2	*5580.00	76.8 AV			1.00 V	104	32.40	44.40
3	11000.00	56.3 PK	74.0	-17.7	1.00 V	4	4.40	51.90
4	11000.00	43.8 AV	54.0	-10.2	1.00 V	4	-8.10	51.90

REMARKS:

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



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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 140	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	26deg. C, 70%RH	TESTED BY	Cedric Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	94.7 PK			1.00 H	185	50.10	44.60
2	*5700.00	83.2 AV			1.00 H	185	38.60	44.60
3	#5725.00	58.3 PK	74.0	-15.7	1.00 H	180	13.70	44.60
4	#5725.00	46.1 AV	54.0	-7.9	1.00 H	180	1.50	44.60
5	11400.00	57.0 PK	74.0	-17.0	1.00 H	233	4.60	52.40
6	11400.00	44.7 AV	54.0	-9.3	1.00 H	233	-7.70	52.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	87.1 PK			1.00 V	105	42.50	44.60
2	*5700.00	76.3 AV			1.00 V	105	31.70	44.60
3	#5725.00	57.9 PK	74.0	-16.1	1.00 V	102	13.30	44.60
4	#5725.00	45.8 AV	54.0	-8.2	1.00 V	102	1.20	44.60
5	11400.00	55.8 PK	74.0	-18.2	1.00 V	355	3.40	52.40
6	11400.00	43.5 AV	54.0	-10.5	1.00 V	355	-8.90	52.40

REMARKS:

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

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	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.8 PK	74.0	-14.2	1.00 H	340	16.00	43.80
2	5150.00	46.4 AV	54.0	-7.6	1.00 H	340	2.60	43.80
3	*5190.00	91.9 PK			1.00 H	349	48.00	43.90
4	*5190.00	81.1 AV			1.00 H	349	37.20	43.90
5	#10380.00	56.5 PK	74.0	-17.5	1.00 H	200	5.60	50.90
6	#10380.00	43.7 AV	54.0	-10.3	1.00 H	200	-7.20	50.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.7 PK	74.0	-15.3	1.23 V	312	14.90	43.80
2	5150.00	45.0 AV	54.0	-9.0	1.23 V	312	1.20	43.80
3	*5190.00	82.8 PK			1.25 V	316	38.90	43.90
4	*5190.00	72.1 AV			1.25 V	316	28.20	43.90
5	#10380.00	56.1 PK	74.0	-17.9	1.00 V	321	5.20	50.90
6	#10380.00	43.0 AV	54.0	-11.0	1.00 V	321	-7.90	50.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 46	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.5 PK	74.0	-15.5	1.00 H	340	14.70	43.80
2	5150.00	44.5 AV	54.0	-9.5	1.00 H	340	0.70	43.80
3	*5230.00	92.2 PK			1.00 H	343	48.30	43.90
4	*5230.00	81.5 AV			1.00 H	343	37.60	43.90
5	#10460.00	56.1 PK	74.0	-17.9	1.00 H	180	5.00	51.10
6	#10460.00	43.5 AV	54.0	-10.5	1.00 H	180	-7.60	51.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.3 PK	74.0	-15.7	1.00 V	311	14.50	43.80
2	5150.00	43.9 AV	54.0	-10.1	1.00 V	311	0.10	43.80
3	*5230.00	83.5 PK			1.00 V	317	39.60	43.90
4	*5230.00	73.1 AV			1.00 V	317	29.20	43.90
5	#10460.00	55.7 PK	74.0	-18.3	1.00 V	320	4.60	51.10
6	#10460.00	42.8 AV	54.0	-11.2	1.00 V	320	-8.30	51.10

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 54	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	92.8 PK			1.00 H	346	48.80	44.00
2	*5270.00	81.3 AV			1.00 H	346	37.30	44.00
3	5350.00	58.4 PK	74.0	-15.6	1.00 H	343	14.30	44.10
4	5350.00	46.2 AV	54.0	-7.8	1.00 H	343	2.10	44.10
5	#10540.00	58.1 PK	74.0	-15.9	1.00 H	243	6.80	51.30
6	#10540.00	44.7 AV	54.0	-9.3	1.00 H	243	-6.60	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	84.2 PK			1.00 V	329	40.20	44.00
2	*5270.00	73.1 AV			1.00 V	329	29.10	44.00
3	5350.00	57.2 PK	74.0	-16.8	1.00 V	326	13.10	44.10
4	5350.00	44.8 AV	54.0	-9.2	1.00 V	326	0.70	44.10
5	#10540.00	57.9 PK	74.0	-16.1	1.00 V	346	6.60	51.30
6	#10540.00	44.1 AV	54.0	-9.9	1.00 V	346	-7.20	51.30

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 62	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	92.1 PK			1.00 H	345	48.00	44.10
2	*5310.00	82.7 AV			1.00 H	345	38.60	44.10
3	5350.00	59.9 PK	74.0	-14.1	1.00 H	340	15.80	44.10
4	5350.00	47.3 AV	54.0	-6.7	1.00 H	340	3.20	44.10
5	10620.00	57.5 PK	74.0	-16.5	1.00 H	230	6.10	51.40
6	10620.00	44.3 AV	54.0	-9.7	1.00 H	230	-7.10	51.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	84.6 PK			1.00 V	331	40.50	44.10
2	*5310.00	73.7 AV			1.00 V	331	29.60	44.10
3	5350.00	58.8 PK	74.0	-15.2	1.00 V	339	14.70	44.10
4	5350.00	46.0 AV	54.0	-8.0	1.00 V	339	1.90	44.10
5	10620.00	57.2 PK	74.0	-16.8	1.00 V	339	5.80	51.40
6	10620.00	43.7 AV	54.0	-10.3	1.00 V	339	-7.70	51.40

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 102	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.0 PK	74.0	-14.0	1.00 H	337	15.70	44.30
2	5460.00	46.3 AV	54.0	-7.7	1.00 H	337	2.00	44.30
3	#5470.00	60.5 PK	74.0	-13.5	1.00 H	337	16.20	44.30
4	#5470.00	46.7 AV	54.0	-7.3	1.00 H	337	2.40	44.30
5	*5510.00	92.5 PK			1.00 H	331	48.10	44.40
6	*5510.00	81.8 AV			1.00 H	331	37.40	44.40
7	11020.00	56.8 PK	74.0	-17.2	1.00 H	247	4.90	51.90
8	11020.00	44.5 AV	54.0	-9.5	1.00 H	247	-7.40	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.1 PK	74.0	-14.9	1.00 V	343	14.80	44.30
2	5460.00	45.4 AV	54.0	-8.6	1.00 V	343	1.10	44.30
3	#5470.00	59.5 PK	74.0	-14.5	1.00 V	343	15.20	44.30
4	#5470.00	45.9 AV	54.0	-8.1	1.00 V	343	1.60	44.30
5	*5510.00	85.2 PK			1.00 V	343	40.80	44.40
6	*5510.00	73.7 AV			1.00 V	343	29.30	44.40
7	11020.00	56.4 PK	74.0	-17.6	1.00 V	3	4.50	51.90
8	11020.00	43.9 AV	54.0	-10.1	1.00 V	3	-8.00	51.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 110	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	92.5 PK			1.00 H	331	48.10	44.40
2	*5550.00	81.6 AV			1.00 H	331	37.20	44.40
3	11100.00	57.1 PK	74.0	-16.9	1.00 H	259	5.20	51.90
4	11100.00	44.7 AV	54.0	-9.3	1.00 H	259	-7.20	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	86.3 PK			1.11 V	191	41.90	44.40
2	*5550.00	75.2 AV			1.11 V	191	30.80	44.40
3	11100.00	56.8 PK	74.0	-17.2	1.00 V	3	4.90	51.90
4	11100.00	44.1 AV	54.0	-9.9	1.00 V	3	-7.80	51.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 134	FREQUENCY RANGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	93.3 PK			1.00 H	358	48.80	44.50
2	*5670.00	81.8 AV			1.00 H	358	37.30	44.50
3	#5725.00	59.0 PK	74.0	-15.0	1.00 H	353	14.40	44.60
4	#5725.00	46.1 AV	54.0	-7.9	1.00 H	353	1.50	44.60
5	11340.00	56.5 PK	74.0	-17.5	1.00 H	232	4.10	52.40
6	11340.00	44.1 AV	54.0	-9.9	1.00 H	232	-8.30	52.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	85.4 PK			1.00 V	282	40.90	44.50
2	*5670.00	74.7 AV			1.00 V	282	30.20	44.50
3	#5725.00	58.5 PK	74.0	-15.5	1.00 V	283	13.90	44.60
4	#5725.00	45.7 AV	54.0	-8.3	1.00 V	283	1.10	44.60
5	11340.00	56.1 PK	74.0	-17.9	1.00 V	353	3.70	52.40
6	11340.00	43.5 AV	54.0	-10.5	1.00 V	353	-8.90	52.40

REMARKS:

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

802.11ac (80MHz)

EUT TEST CONDITION		MEBSUREMENT DETBIL	
CHBNNEL	Channel 42	FREQUENCY RBNGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTBL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.4 PK	74.0	-14.6	1.00 H	347	15.60	43.80
2	5150.00	46.3 AV	54.0	-7.7	1.00 H	347	2.50	43.80
3	*5210.00	88.0 PK			1.00 H	349	44.10	43.90
4	*5210.00	76.5 AV			1.00 H	349	32.60	43.90
5	#10420.00	57.3 PK	74.0	-16.7	1.00 H	210	6.30	51.00
6	#10420.00	44.1 AV	54.0	-9.9	1.00 H	210	-6.90	51.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.3 PK	74.0	-15.7	1.00 V	324	14.50	43.80
2	5150.00	45.9 AV	54.0	-8.1	1.00 V	324	2.10	43.80
3	*5210.00	80.5 PK			1.00 V	320	36.60	43.90
4	*5210.00	68.8 AV			1.00 V	320	24.90	43.90
5	#10420.00	57.0 PK	74.0	-17.0	1.00 V	333	6.00	51.00
6	#10420.00	43.5 AV	54.0	-10.5	1.00 V	333	-7.50	51.00

REMARKS:

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



A D T

EUT TEST CONDITION		MEBSUREMENT DETBIL	
CHBNNEL	Channel 58	FREQUENCY RBNGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTBL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	87.4 PK			1.00 H	346	43.30	44.10
2	*5290.00	76.3 AV			1.00 H	346	32.20	44.10
3	5350.00	60.0 PK	74.0	-14.0	1.00 H	347	15.90	44.10
4	5350.00	46.7 AV	54.0	-7.3	1.00 H	347	2.60	44.10
5	#10580.00	57.5 PK	74.0	-16.5	1.00 H	212	6.20	51.30
6	#10580.00	44.8 AV	54.0	-9.2	1.00 H	212	-6.50	51.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	81.3 PK			1.10 V	318	37.20	44.10
2	*5290.00	69.9 AV			1.10 V	318	25.80	44.10
3	5350.00	59.5 PK	74.0	-14.5	1.06 V	310	15.40	44.10
4	5350.00	45.3 AV	54.0	-8.7	1.06 V	310	1.20	44.10
5	#10580.00	57.2 PK	74.0	-16.8	1.00 V	336	5.90	51.30
6	#10580.00	44.2 AV	54.0	-9.8	1.00 V	336	-7.10	51.30

REMARKS:

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



A D T

EUT TEST CONDITION		MEBSUREMENT DETBIL	
CHBNNEL	Channel 106	FREQUENCY RBNGE	1 ~ 40GHz
INPUT POWER	120Vac, 60Hz	DETECTOR FUNCTION	Peak (PK) Average (AV)
ENVIRONMENTBL CONDITIONS	24deg. C, 73%RH	TESTED BY	Alan Wu

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.1 PK	74.0	-14.9	1.00 H	331	14.80	44.30
2	5460.00	46.3 AV	54.0	-7.7	1.00 H	331	2.00	44.30
3	#5470.00	59.2 PK	74.0	-14.8	1.00 H	331	14.90	44.30
4	#5470.00	46.7 AV	54.0	-7.3	1.00 H	331	2.40	44.30
5	*5530.00	88.6 PK			1.00 H	330	44.20	44.40
6	*5530.00	76.8 AV			1.00 H	330	32.40	44.40
7	11060.00	57.9 PK	74.0	-16.1	1.00 H	211	6.00	51.90
8	11060.00	45.6 AV	54.0	-8.4	1.00 H	211	-6.30	51.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.5 PK	74.0	-15.5	1.00 V	175	14.20	44.30
2	5460.00	44.4 AV	54.0	-9.6	1.00 V	175	0.10	44.30
3	#5470.00	59.0 PK	74.0	-15.0	1.00 V	175	14.70	44.30
4	#5470.00	45.9 AV	54.0	-8.1	1.00 V	175	1.60	44.30
5	*5530.00	82.3 PK			1.00 V	173	37.90	44.40
6	*5530.00	70.8 AV			1.00 V	173	26.40	44.40
7	11060.00	57.6 PK	74.0	-16.4	1.00 V	334	5.70	51.90
8	11060.00	45.1 AV	54.0	-8.9	1.00 V	334	-6.80	51.90

REMARKS:

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

BELOW 1GHz WORST-CASE DATA :

5260 ~ 5320MHz

802.11n (40MHz)

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
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	47.88	17.2 QP	40.0	-22.8	1.36 H	334	3.70	13.50
2	132.56	15.8 QP	43.5	-27.7	1.88 H	239	3.40	12.40
3	183.26	27.1 QP	43.5	-16.4	1.00 H	278	14.90	12.20
4	208.48	35.8 QP	43.5	-7.7	1.74 H	270	24.60	11.20
5	220.36	33.0 QP	46.0	-13.0	1.96 H	263	21.30	11.70
6	288.02	19.6 QP	46.0	-26.4	1.00 H	88	5.20	14.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	33.88	22.6 QP	40.0	-17.4	1.39 V	358	10.30	12.30
2	99.84	19.8 QP	43.5	-23.7	1.77 V	239	10.90	8.90
3	177.44	20.2 QP	43.5	-23.3	1.50 V	236	7.60	12.60
4	208.48	26.1 QP	43.5	-17.4	2.00 V	337	14.90	11.20
5	270.56	19.4 QP	46.0	-26.6	1.95 V	292	5.60	13.80
6	551.86	23.7 QP	46.0	-22.3	1.35 V	176	2.40	21.30

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
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	51.34	16.5 QP	40.0	-23.5	1.56 H	180	3.00	13.50
2	152.32	22.4 QP	43.5	-21.1	1.77 H	201	8.80	13.60
3	192.96	37.0 QP	43.5	-6.5	1.63 H	317	25.60	11.40
4	204.77	36.8 QP	43.5	-6.7	2.00 H	279	25.80	11.00
5	305.48	20.9 QP	46.0	-25.1	1.19 H	148	5.90	15.00
6	544.25	28.6 QP	46.0	-17.4	1.36 H	273	7.50	21.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	32.63	23.4 QP	40.0	-16.6	1.96 V	320	11.10	12.30
2	100.05	20.2 QP	43.5	-23.3	1.20 V	254	11.20	9.00
3	192.06	32.3 QP	43.5	-11.2	1.74 V	274	20.90	11.40
4	202.69	32.7 QP	43.5	-10.8	1.69 V	211	21.80	10.90
5	220.12	25.0 QP	46.0	-21.0	2.14 V	189	13.30	11.70
6	340.40	22.4 QP	46.0	-23.6	2.00 V	352	6.50	15.90

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 38	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
TEST MODE	C		

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	61.04	36.8 QP	40.0	-3.2	1.25 H	224	23.70	13.10
2	163.86	36.6 QP	43.5	-6.9	1.14 H	100	23.10	13.50
3	227.88	40.3 QP	46.0	-5.7	1.63 H	250	28.30	12.00
4	524.70	34.5 QP	46.0	-11.5	1.85 H	262	13.90	20.60
5	600.36	37.6 QP	46.0	-8.4	1.00 H	262	15.20	22.40
6	672.14	33.5 QP	46.0	-12.5	1.20 H	267	10.40	23.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	62.30	37.8 QP	40.0	-2.2	1.00 V	308	24.80	13.00
2	150.28	29.6 QP	43.5	-13.9	1.52 V	82	16.00	13.60
3	204.60	28.9 QP	43.5	-14.6	2.14 V	131	17.90	11.00
4	336.52	33.5 QP	46.0	-12.5	1.63 V	213	17.70	15.80
5	375.32	31.3 QP	46.0	-14.7	1.00 V	226	14.50	16.80
6	524.70	27.5 QP	46.0	-18.5	2.11 V	150	6.90	20.60

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.

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EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
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	45.52	15.7 QP	40.0	-24.3	1.65 H	96	2.10	13.60
2	132.82	16.2 QP	43.5	-27.3	1.17 H	10	3.80	12.40
3	183.26	25.7 QP	43.5	-17.8	1.20 H	283	13.50	12.20
4	208.33	36.7 QP	43.5	-6.8	1.63 H	288	25.50	11.20
5	220.12	29.0 QP	46.0	-17.0	2.15 H	284	17.30	11.70
6	544.10	26.3 QP	46.0	-19.7	1.85 H	10	5.20	21.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	29.2 QP	40.0	-10.8	1.50 V	9	17.00	12.20
2	39.70	24.1 QP	40.0	-15.9	1.00 V	174	10.90	13.20
3	99.84	20.2 QP	43.5	-23.3	1.65 V	209	11.30	8.90
4	183.26	21.8 QP	43.5	-21.7	1.33 V	264	9.60	12.20
5	209.48	25.2 QP	43.5	-18.3	1.25 V	333	14.00	11.20
6	277.32	23.4 QP	46.0	-22.6	1.44 V	318	9.40	14.00

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
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	62.85	19.7 QP	40.0	-20.3	1.25 H	333	6.80	12.90
2	155.85	21.4 QP	43.5	-22.1	1.37 H	175	7.70	13.70
3	183.98	31.2 QP	43.5	-12.3	1.64 H	297	19.10	12.10
4	199.85	36.4 QP	43.5	-7.1	1.11 H	165	25.60	10.80
5	208.54	37.7 QP	43.5	-5.8	1.46 H	271	26.50	11.20
6	544.02	30.1 QP	46.0	-15.9	2.00 H	266	9.00	21.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.88	23.4 QP	40.0	-16.6	1.02 V	320	11.20	12.20
2	180.58	28.6 QP	43.5	-14.9	1.14 V	278	16.20	12.40
3	189.77	33.0 QP	43.5	-10.5	1.99 V	261	21.40	11.60
4	195.36	33.8 QP	43.5	-9.7	1.45 V	224	22.60	11.20
5	215.37	28.5 QP	43.5	-15.0	1.49 V	206	17.00	11.50
6	386.96	19.8 QP	46.0	-26.2	1.00 V	85	2.80	17.00

REMARKS:

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

EUT TEST CONDITION		MEASUREMENT DETAIL	
CHANNEL	Channel 116	FREQUENCY RANGE	Below 1000MHz
INPUT POWER	120Vac, 60 Hz	DETECTOR FUNCTION	Quasi-Peak
ENVIRONMENTAL CONDITIONS	24deg. C, 73%RH	TESTED BY	Martin Lee
TEST MODE	C		

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	62.98	38.0 QP	40.0	-2.0	1.24 H	220	25.10	12.90
2	156.10	35.8 QP	43.5	-7.7	1.63 H	109	22.10	13.70
3	227.88	40.9 QP	46.0	-5.1	1.52 H	271	28.90	12.00
4	262.80	37.9 QP	46.0	-8.1	2.14 H	251	24.40	13.50
5	336.52	32.1 QP	46.0	-13.9	1.69 H	52	16.30	15.80
6	600.36	39.9 QP	46.0	-6.1	1.74 H	249	17.50	22.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.94	29.4 QP	40.0	-10.6	1.00 V	167	17.20	12.20
2	61.04	37.9 QP	40.0	-2.1	1.02 V	325	24.80	13.10
3	169.68	29.7 QP	43.5	-13.8	1.65 V	195	16.50	13.20
4	231.76	28.7 QP	46.0	-17.3	1.00 V	39	16.50	12.20
5	336.52	31.9 QP	46.0	-14.1	1.07 V	208	16.10	15.80
6	375.32	29.4 QP	46.0	-16.6	2.26 V	220	12.60	16.80

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.

4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dB μ 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.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 09, 2012	Nov. 08, 2013
RF signal cable Woken	5D-FB	Cable-HYCO2-01	Dec. 28, 2012	Dec. 27, 2013
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 21, 2012	Dec. 20, 2013
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 06, 2012	Jul. 05, 2013
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- NOTE:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 2.
 3. The VCCI Site Registration No. is C-2047.

4.2.3 TEST PROCEDURES

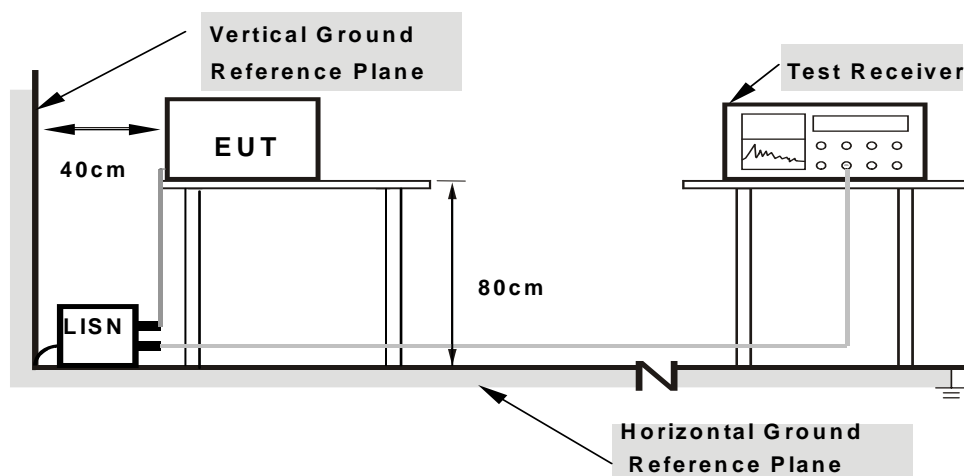
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA :

5260 ~ 5320MHz

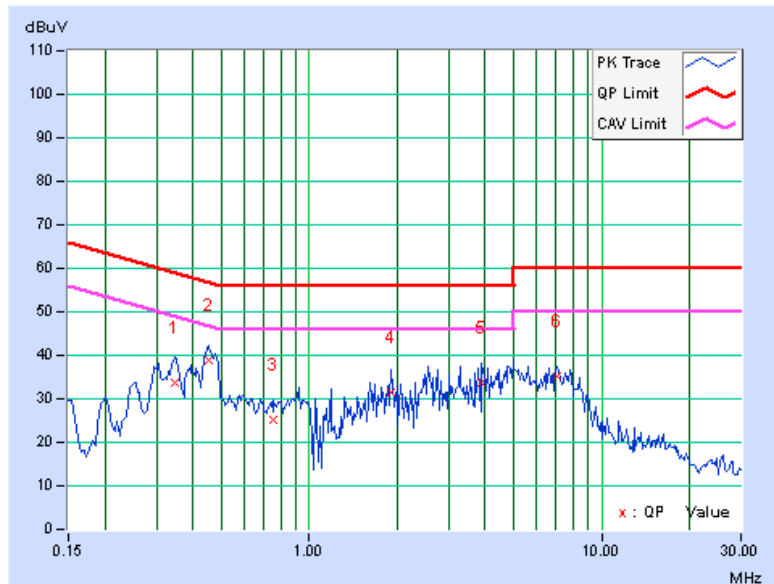
802.11n (40MHz)

PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	A

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	0.34531	0.20	33.59	25.97	33.79	26.17	59.07	49.07	-25.29	-22.91
2	0.45078	0.22	38.52	31.29	38.74	31.51	56.86	46.86	-18.13	-15.36
3	0.75547	0.25	25.08	11.67	25.33	11.92	56.00	46.00	-30.67	-34.08
4	1.91406	0.28	31.05	22.80	31.33	23.08	56.00	46.00	-24.67	-22.92
5	3.90234	0.37	33.44	24.73	33.81	25.10	56.00	46.00	-22.19	-20.90
6	7.07031	0.40	34.72	24.92	35.12	25.32	60.00	50.00	-24.88	-24.68

REMARKS:

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

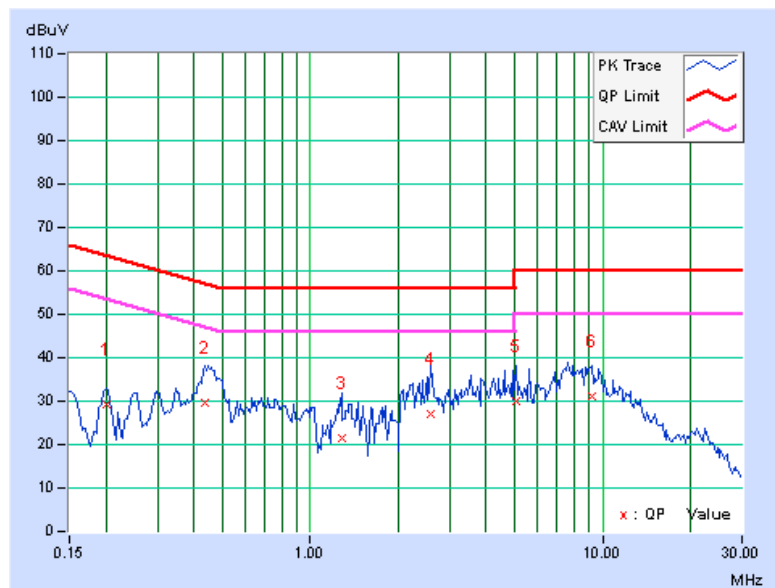


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	A

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	0.20078	0.18	29.12	23.34	29.30	23.52	63.58	53.58	-34.28	-30.06
2	0.43516	0.25	29.33	22.63	29.58	22.88	57.15	47.15	-27.57	-24.27
3	1.28125	0.24	21.17	15.12	21.41	15.36	56.00	46.00	-34.59	-30.64
4	2.59766	0.31	26.72	20.17	27.03	20.48	56.00	46.00	-28.97	-25.52
5	5.05469	0.41	29.42	22.62	29.83	23.03	60.00	50.00	-30.17	-26.97
6	9.17578	0.47	30.51	25.24	30.98	25.71	60.00	50.00	-29.02	-24.29

REMARKS:

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

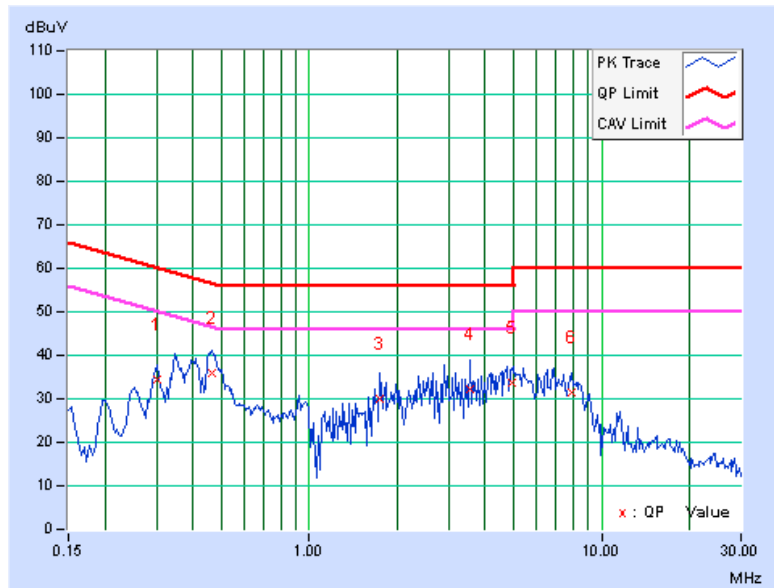


PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	B

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	0.30234	0.19	34.26	26.24	34.45	26.43	60.18	50.18	-25.73	-23.75
2	0.46250	0.22	35.87	28.32	36.09	28.54	56.65	46.65	-20.56	-18.11
3	1.75000	0.28	29.71	20.25	29.99	20.53	56.00	46.00	-26.01	-25.47
4	3.52734	0.35	31.89	23.13	32.24	23.48	56.00	46.00	-23.76	-22.52
5	4.94141	0.38	33.45	25.46	33.83	25.84	56.00	46.00	-22.17	-20.16
6	7.86719	0.41	30.90	21.09	31.31	21.50	60.00	50.00	-28.69	-28.50

REMARKS:

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

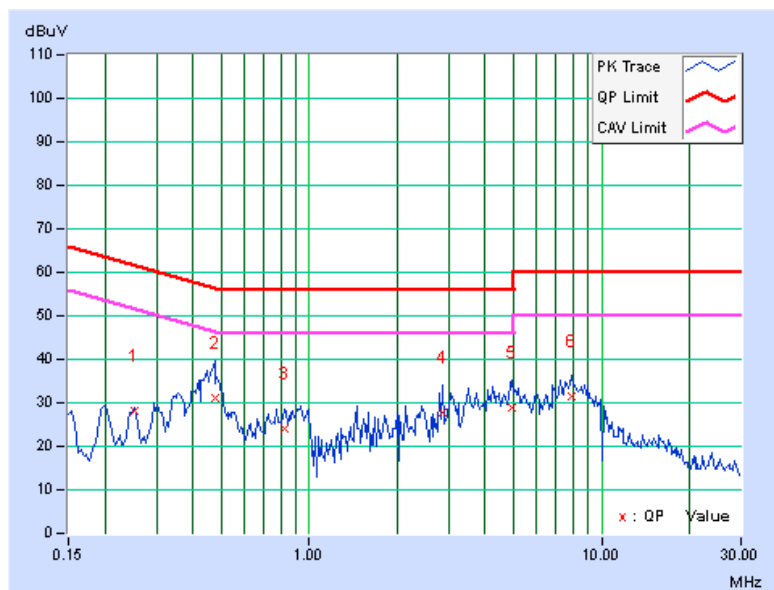


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	B

No	Freq.	Corr. Factor	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	0.25156	0.20	27.85	20.74	28.05	20.94	61.71	51.71	-33.66	-30.77
2	0.47422	0.25	30.77	24.21	31.02	24.46	56.44	46.44	-25.42	-21.98
3	0.82578	0.24	23.95	17.18	24.19	17.42	56.00	46.00	-31.81	-28.58
4	2.87109	0.33	27.60	21.82	27.93	22.15	56.00	46.00	-28.07	-23.85
5	4.92578	0.40	28.48	22.43	28.88	22.83	56.00	46.00	-27.12	-23.17
6	7.93359	0.45	30.97	22.86	31.42	23.31	60.00	50.00	-28.58	-26.69

REMARKS:

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

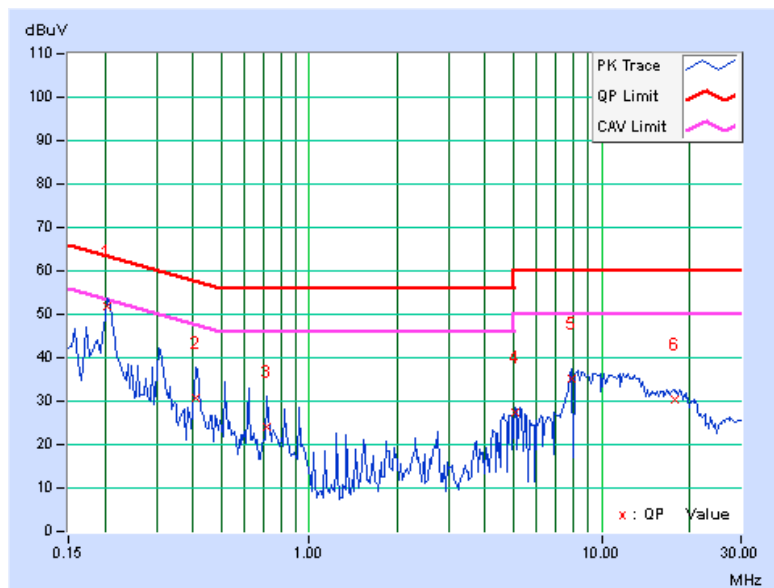


PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	C

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	0.20469	0.17	51.85	40.65	52.02	40.82	63.42	53.42	-11.40	-12.60
2	0.40781	0.21	30.60	22.79	30.81	23.00	57.69	47.69	-26.88	-24.69
3	0.72031	0.24	23.85	18.34	24.09	18.58	56.00	46.00	-31.91	-27.42
4	5.04688	0.38	26.97	25.22	27.35	25.60	60.00	50.00	-32.65	-24.40
5	7.92969	0.41	34.81	32.28	35.22	32.69	60.00	50.00	-24.78	-17.31
6	17.92578	0.60	29.95	24.29	30.55	24.89	60.00	50.00	-29.45	-25.11

REMARKS:

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

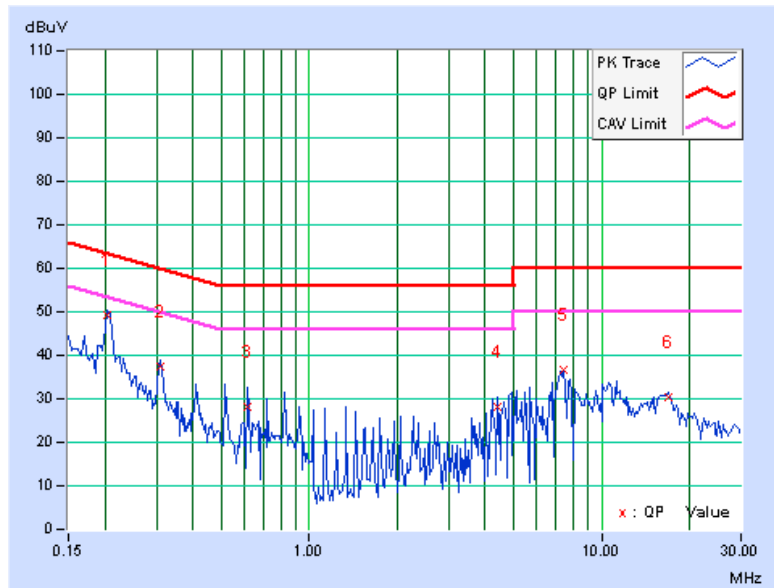


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 38	TEST MODE	C

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	0.20469	0.18	49.08	40.09	49.26	40.27	63.42	53.42	-14.16	-13.15
2	0.31016	0.22	37.05	29.88	37.27	30.10	59.97	49.97	-22.70	-19.87
3	0.61484	0.24	27.95	27.53	28.19	27.77	56.00	46.00	-27.81	-18.23
4	4.42969	0.40	27.93	25.37	28.33	25.77	56.00	46.00	-27.67	-20.23
5	7.41797	0.44	36.12	33.64	36.56	34.08	60.00	50.00	-23.44	-15.92
6	16.99609	0.65	29.56	24.96	30.21	25.61	60.00	50.00	-29.79	-24.39

REMARKS:

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



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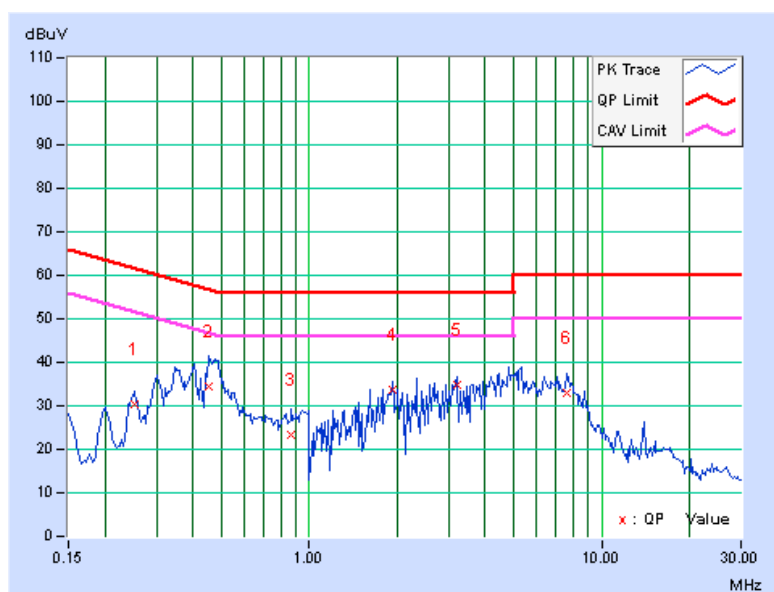
802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	A

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	0.25156	0.18	30.07	22.86	30.25	23.04	61.71	51.71	-31.46	-28.67
2	0.45078	0.22	34.30	26.90	34.52	27.12	56.86	46.86	-22.35	-19.75
3	0.86484	0.26	23.11	17.54	23.37	17.80	56.00	46.00	-32.63	-28.20
4	1.92578	0.28	33.46	24.49	33.74	24.77	56.00	46.00	-22.26	-21.23
5	3.19531	0.33	34.47	24.93	34.80	25.26	56.00	46.00	-21.20	-20.74
6	7.58984	0.41	32.43	23.27	32.84	23.68	60.00	50.00	-27.16	-26.32

REMARKS:

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

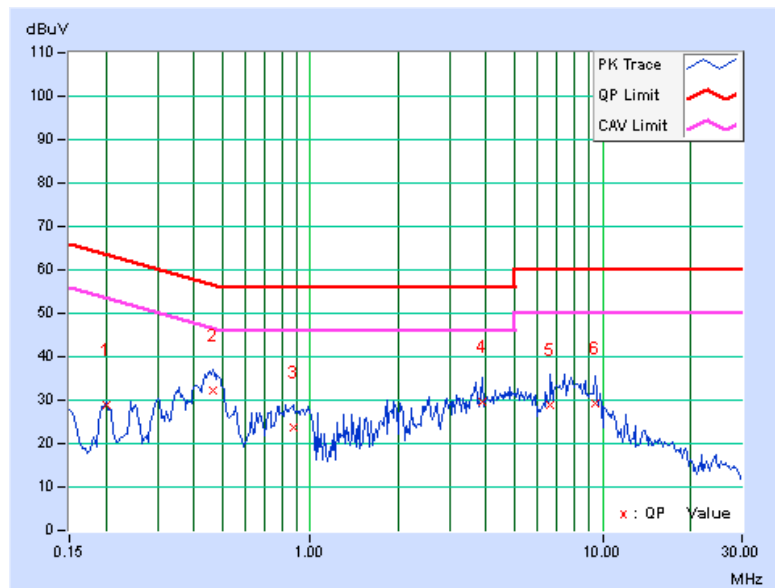


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	A

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	0.20078	0.18	28.82	23.26	29.00	23.44	63.58	53.58	-34.58	-30.14
2	0.46641	0.25	31.97	25.63	32.22	25.88	56.58	46.58	-24.36	-20.70
3	0.87266	0.23	23.44	15.89	23.67	16.12	56.00	46.00	-32.33	-29.88
4	3.87500	0.38	29.17	22.65	29.55	23.03	56.00	46.00	-26.45	-22.97
5	6.62891	0.43	28.54	21.43	28.97	21.86	60.00	50.00	-31.03	-28.14
6	9.44531	0.47	28.91	21.02	29.38	21.49	60.00	50.00	-30.62	-28.51

REMARKS:

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

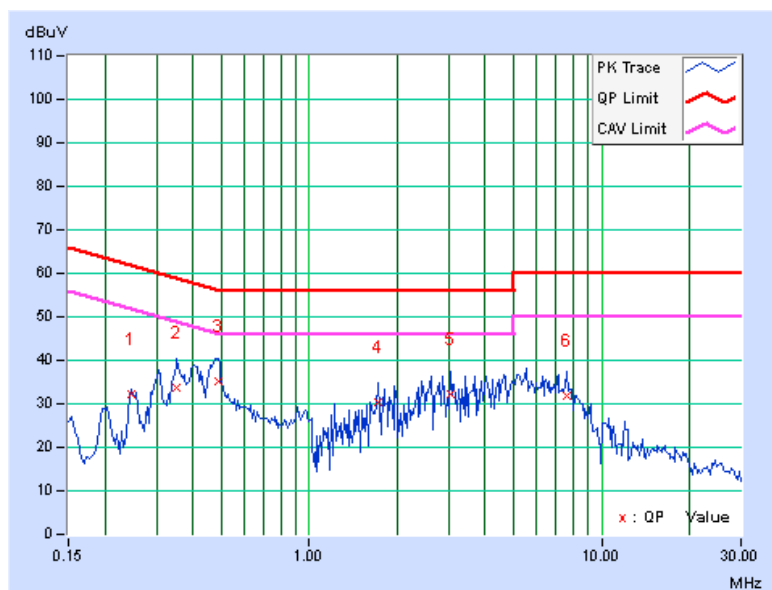


PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	B

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	0.24766	0.18	32.22	24.65	32.40	24.83	61.84	51.84	-29.44	-27.01
2	0.35313	0.20	33.38	25.47	33.58	25.67	58.89	48.89	-25.31	-23.22
3	0.48594	0.22	34.95	27.51	35.17	27.73	56.24	46.24	-21.07	-18.51
4	1.73047	0.28	29.93	20.33	30.21	20.61	56.00	46.00	-25.79	-25.39
5	3.05078	0.33	31.92	23.16	32.25	23.49	56.00	46.00	-23.75	-22.51
6	7.64063	0.41	31.38	21.92	31.79	22.33	60.00	50.00	-28.21	-27.67

REMARKS:

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

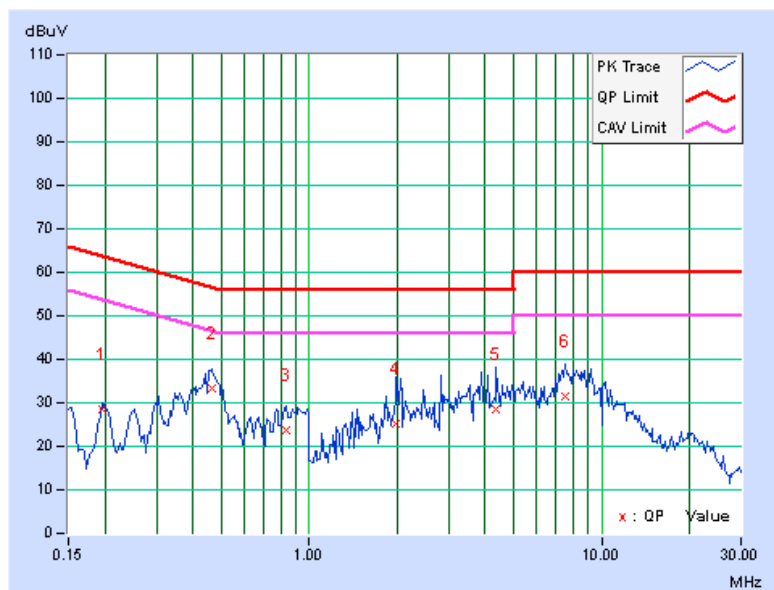


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	B

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	0.19687	0.18	28.28	21.85	28.46	22.03	63.74	53.74	-35.28	-31.71
2	0.46641	0.25	33.01	27.31	33.26	27.56	56.58	46.58	-23.32	-19.02
3	0.82969	0.24	23.43	16.57	23.67	16.81	56.00	46.00	-32.33	-29.19
4	1.98828	0.28	24.83	17.95	25.11	18.23	56.00	46.00	-30.89	-27.77
5	4.37500	0.40	28.23	22.24	28.63	22.64	56.00	46.00	-27.37	-23.36
6	7.54688	0.44	30.89	23.08	31.33	23.52	60.00	50.00	-28.67	-26.48

REMARKS:

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

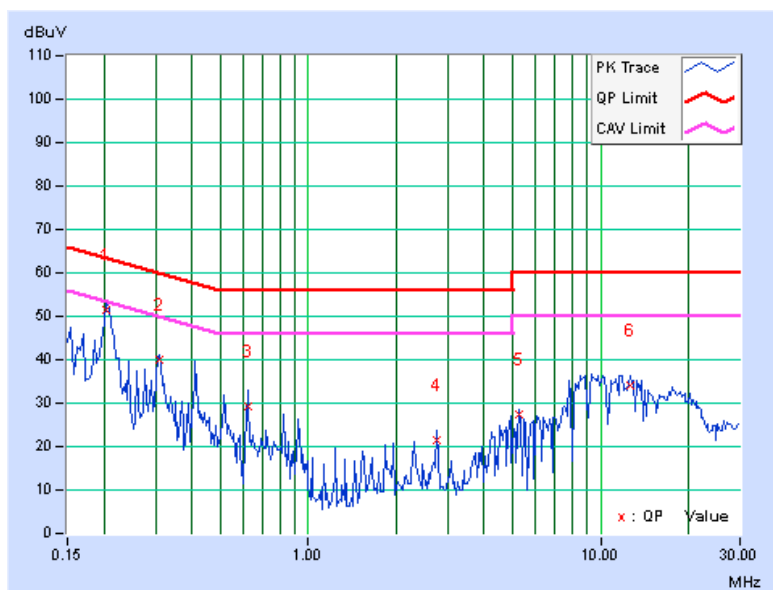


PHASE	Line 1	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	C

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	0.20469	0.17	51.27	39.86	51.44	40.03	63.42	53.42	-11.98	-13.39
2	0.31016	0.19	39.73	30.03	39.92	30.22	59.97	49.97	-20.04	-19.74
3	0.61875	0.23	28.85	28.13	29.08	28.36	56.00	46.00	-26.92	-17.64
4	2.75000	0.31	21.19	28.33	21.50	20.64	56.00	46.00	-34.50	-25.36
5	5.25391	0.38	27.17	28.86	27.55	29.24	60.00	50.00	-32.45	-20.76
6	12.56641	0.48	33.58	30.50	34.06	30.98	60.00	50.00	-25.94	-19.02

REMARKS:

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

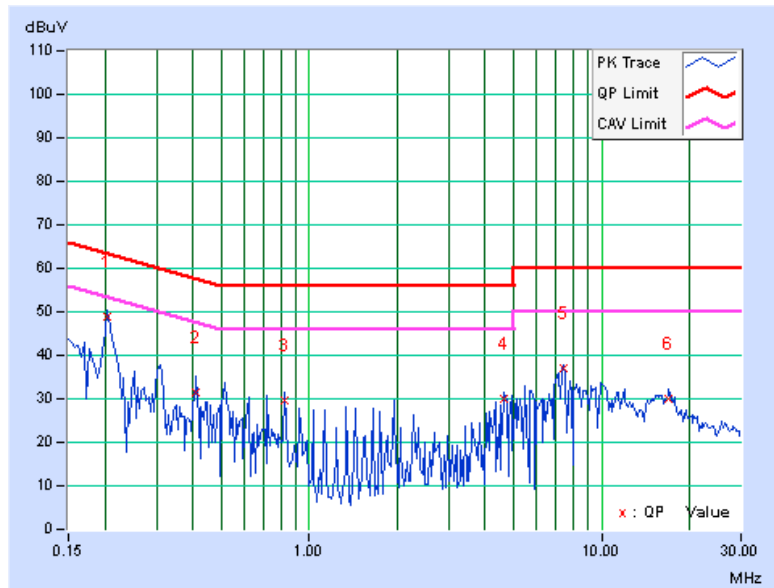


PHASE	Line 2	6dB BANDWIDTH	9kHz
CHANNEL	CH 116	TEST MODE	C

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	0.20469	0.18	48.82	39.96	49.00	40.14	63.42	53.42	-14.42	-13.28
2	0.41172	0.25	31.15	28.87	31.40	29.12	57.61	47.61	-26.21	-18.49
3	0.82188	0.24	29.32	27.20	29.56	27.44	56.00	46.00	-26.44	-18.56
4	4.63672	0.40	29.57	28.18	29.97	28.58	56.00	46.00	-26.03	-17.42
5	7.41797	0.44	36.48	34.09	36.92	34.53	60.00	50.00	-23.08	-15.47
6	16.99609	0.65	29.52	26.12	30.17	26.77	60.00	50.00	-29.83	-23.23

REMARKS:

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



4.3 PEAK TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF PEAK TRANSMIT 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.

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

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

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

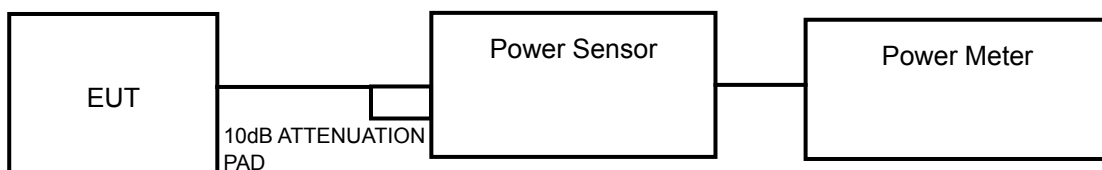
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

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

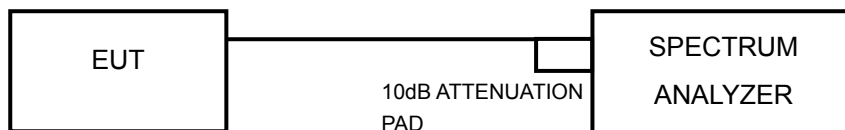
4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

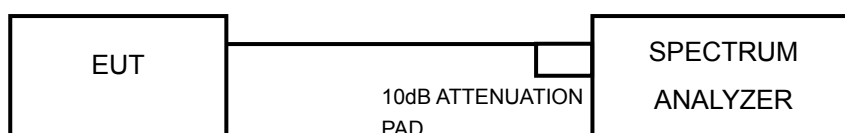
For 802.11a, 802.11n (20MHz), 802.11n (40MHz)



For 802.11ac (80MHz)



FOR 26dB BANDWIDTH



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

802.11a and 802.11n (20MHz)

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

802.11n (40MHz)

Duty cycle of test signal is < 98 %. Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

802.11ac (80MHz)

Method SA-1

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz.
- 3) Set VBW \geq 3 MHz.
- 4) Number of points in sweep \geq 2 Span / RBW.
- 5) Sweep time = auto.
- 6) Set trigger to free run (duty cycle \geq 98 percent); Set video trigger (duty cycle < 98 percent)
- 7) Detector = RMS.
- 8) Trace average at least 100 traces in power averaging mode
- 9) Compute power by integrating the spectrum across the 26 dB EBW of the signal.

FOR 26dB BANDWIDTH

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

POWER OUTPUT: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	6.095	7.85	17	PASS
40	5200	5.702	7.56	17	PASS
48	5240	5.675	7.54	17	PASS
52	5260	5.408	7.33	24	PASS
60	5300	5.346	7.28	24	PASS
64	5320	5.445	7.36	24	PASS
100	5500	4.819	6.83	24	PASS
116	5580	5.943	7.74	24	PASS
140	5700	4.875	6.88	24	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	5.875	7.69	17	PASS
40	5200	5.495	7.40	17	PASS
48	5240	5.483	7.39	17	PASS
52	5260	5.224	7.18	24	PASS
60	5300	5.445	7.36	24	PASS
64	5320	5.297	7.24	24	PASS
100	5500	4.677	6.70	24	PASS
116	5580	5.768	7.61	24	PASS
140	5700	4.699	6.72	24	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	6.180	7.91	17	PASS
46	5230	7.145	8.54	17	PASS
54	5270	5.970	7.76	24	PASS
62	5310	5.861	7.68	24	PASS
102	5510	5.105	7.08	24	PASS
110	5550	4.624	6.65	24	PASS
134	5670	5.408	7.33	24	PASS

802.11ac (80MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
42	5210	6.209	7.93	17	PASS
58	5290	6.194	7.92	17	PASS
106	5530	5.260	7.21	24	PASS

26dB BANDWIDTH: 802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	22.26	PASS
40	5200	22.57	PASS
48	5240	22.32	PASS
52	5260	22.39	PASS
60	5300	22.65	PASS
64	5320	22.42	PASS
100	5500	22.72	PASS
116	5580	22.09	PASS
140	5700	22.60	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
36	5180	22.62	PASS
40	5200	23.05	PASS
48	5240	22.81	PASS
52	5260	22.67	PASS
60	5300	22.80	PASS
64	5320	22.55	PASS
100	5500	22.84	PASS
116	5580	23.08	PASS
140	5700	22.94	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
38	5190	44.93	PASS
46	5230	46.10	PASS
54	5270	45.53	PASS
62	5310	48.33	PASS
102	5510	48.59	PASS
110	5550	45.47	PASS
134	5670	49.89	PASS

802.11ac (80MHz)

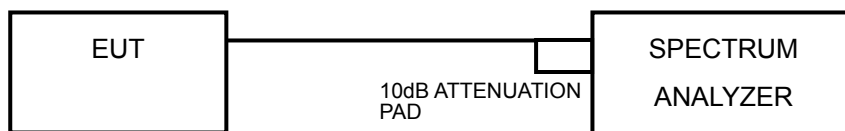
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
42	5210	85.18	PASS
58	5290	85.67	PASS
106	5530	84.99	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 30 KHz, Set VBW \geq 1 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add 10 log (1/duty cycle)

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.4.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-4.85	4	PASS
40	5200	-5.53	4	PASS
48	5240	-5.15	4	PASS
52	5260	-5.01	11	PASS
60	5300	-5.09	11	PASS
64	5320	-4.71	11	PASS
100	5500	-5.26	11	PASS
116	5580	-4.16	11	PASS
140	5700	-5.33	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
36	5180	-5.19	4	PASS
40	5200	-5.80	4	PASS
48	5240	-5.27	4	PASS
52	5260	-5.34	11	PASS
60	5300	-5.08	11	PASS
64	5320	-5.14	11	PASS
100	5500	-5.71	11	PASS
116	5580	-4.71	11	PASS
140	5700	-5.63	11	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
38	5190	-7.49	0.13	-7.36	4	PASS
46	5230	-7.50	0.13	-7.37	4	PASS
54	5270	-7.39	0.13	-7.26	11	PASS
62	5310	-7.45	0.13	-7.32	11	PASS
102	5510	-8.35	0.13	-8.22	11	PASS
110	5550	-8.48	0.13	-8.35	11	PASS
134	5670	-7.83	0.13	-7.70	11	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (80MHz)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
42	5210	-10.61	0.53	-10.08	4	PASS
58	5290	-10.49	0.53	-9.96	11	PASS
106	5530	-10.63	0.53	-10.10	11	PASS

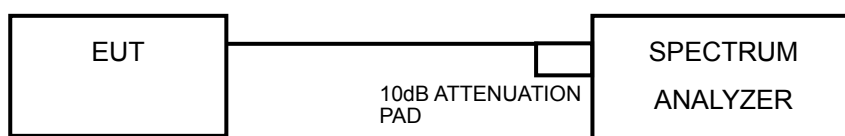
NOTE: Refer to section 3.3 for duty cycle spectrum plot.

4.5 PEAK POWER EXCURSION MEASUREMENT

4.5.1 LIMITS OF PEAK POWER EXCURSION MEASUREMENT

Shall not exceed 13 dB.

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

- 1) Set RBW = 1 MHz, VBW \geq 3 MHz, Detector = peak.
- 2) Trace mode = max-hold. Allow the sweeps to continue until the trace stabilizes.
- 3) Use the peak search function to find the peak of the spectrum.
- 4) Measure the PPSD.
- 5) Compute the ratio of the maximum of the peak-max-hold spectrum to the PPSD.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

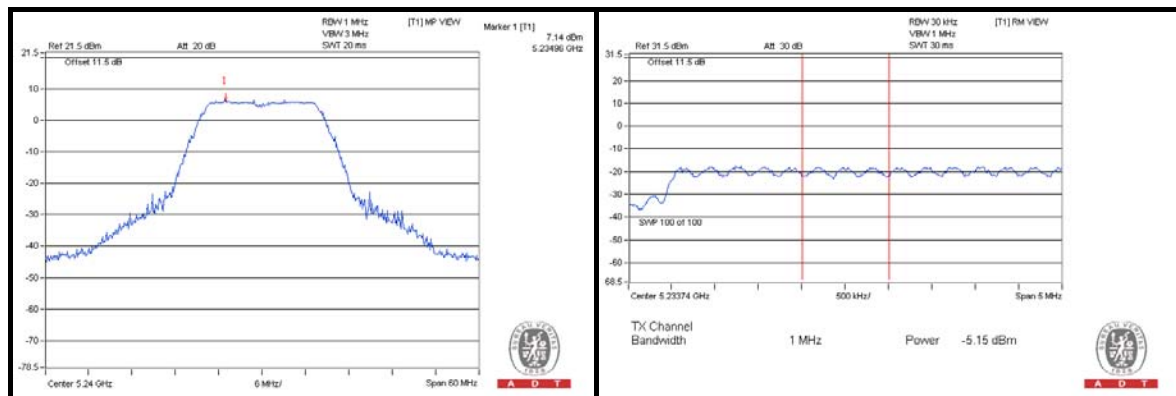
4.5.6 EUT OPERATING CONDITIONS

Same as 4.2.6

4.5.7 TEST RESULTS

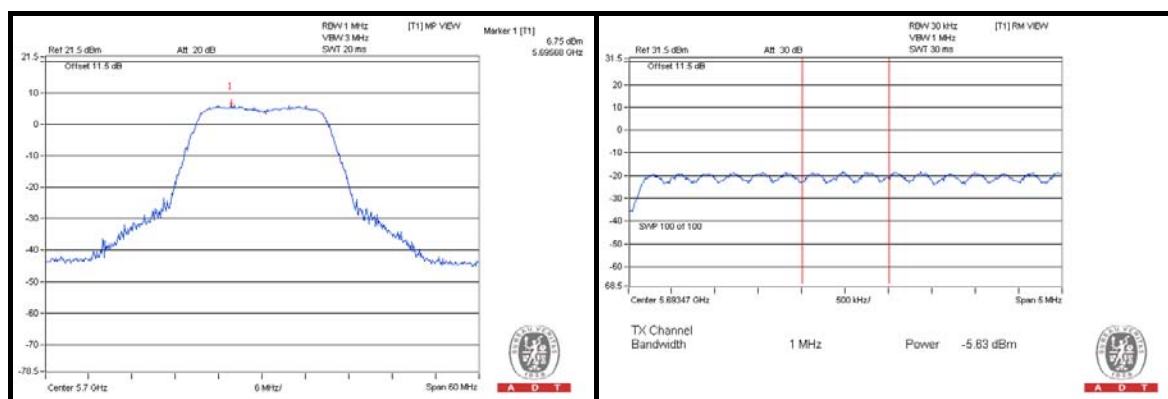
802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	6.42	-4.85	11.27	13	PASS
40	5200	6.33	-5.53	11.86	13	PASS
48	5240	7.14	-5.15	12.29	13	PASS
52	5260	6.54	-5.01	11.55	13	PASS
60	5300	6.42	-5.09	11.51	13	PASS
64	5320	6.73	-4.71	11.44	13	PASS
100	5500	5.47	-5.26	10.73	13	PASS
116	5580	6.15	-4.16	10.31	13	PASS
140	5700	6.65	-5.33	11.98	13	PASS



802.11n (20MHz)

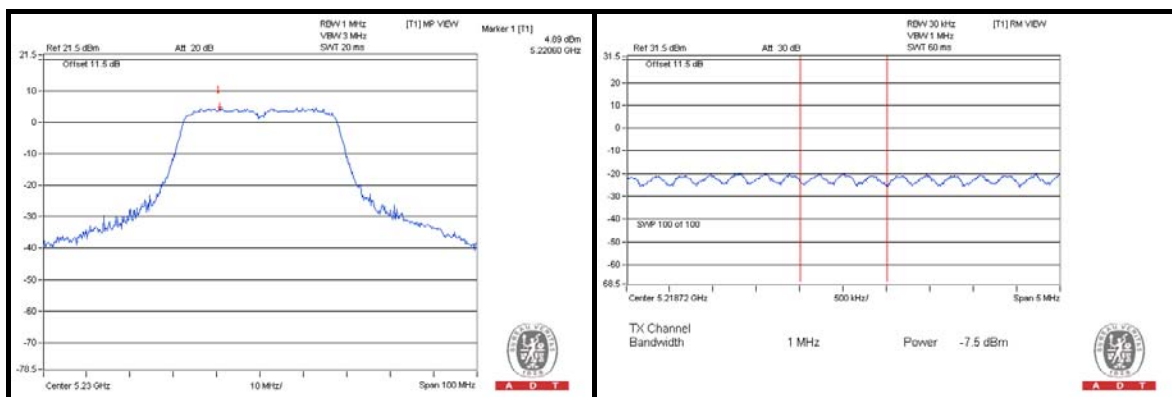
CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
36	5180	6.25	-5.19	11.44	13	PASS
40	5200	5.56	-5.80	11.36	13	PASS
48	5240	6.49	-5.27	11.76	13	PASS
52	5260	6.07	-5.34	11.41	13	PASS
60	5300	5.80	-5.08	10.88	13	PASS
64	5320	5.78	-5.14	10.92	13	PASS
100	5500	5.30	-5.71	11.01	13	PASS
116	5580	5.44	-4.71	10.15	13	PASS
140	5700	6.75	-5.63	12.38	13	PASS



802.11n (40MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
38	5190	4.33	-7.49	-7.36	11.82	13	PASS
46	5230	4.89	-7.50	-7.37	12.39	13	PASS
54	5270	3.72	-7.39	-7.26	11.11	13	PASS
62	5310	4.34	-7.45	-7.32	11.79	13	PASS
102	5510	3.26	-8.35	-8.22	11.61	13	PASS
110	5550	3.00	-8.48	-8.35	11.48	13	PASS
134	5670	3.77	-7.83	-7.70	11.60	13	PASS

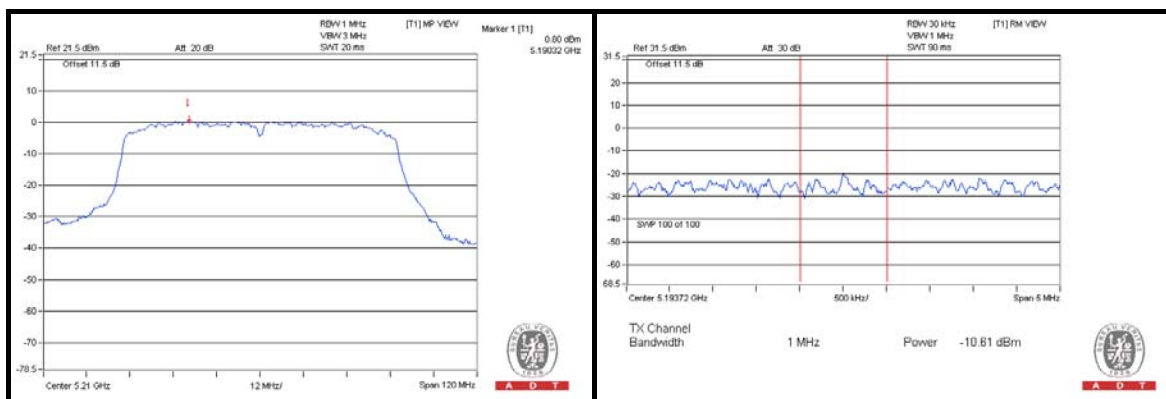
NOTE: Refer to section 3.3 for duty cycle spectrum plot.



802.11n (80MHz)

CHAN.	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD WITHOUT DUTY FACTOR (dBm)	PPSD WITH DUTY FACTOR (dBm)	PEAK POWER EXCURSION (dB)	PEAK to AVERAGE EXCURSION LIMIT (dB)	PASS /FAIL
42	5210	0.80	-10.61	-10.08	11.41	13	PASS
58	5290	0.69	-10.49	-9.96	11.18	13	PASS
106	5530	-0.55	-10.63	-10.10	10.08	13	PASS

NOTE: Refer to section 3.3 for duty cycle spectrum plot.

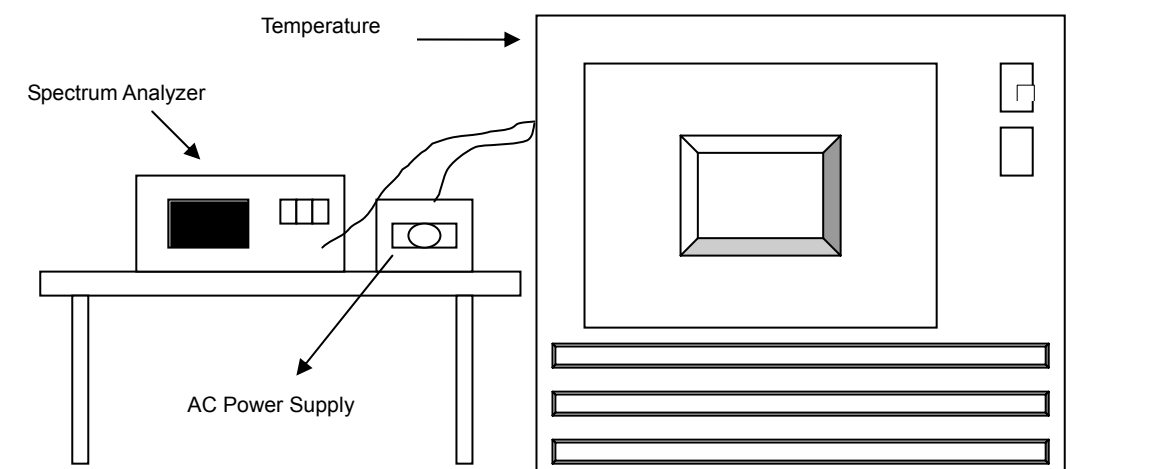


4.6 FREQUENCY STABILITY

4.6.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

The frequency of the carrier signal shall be maintained within band of operation

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.6.4 TEST PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITION

Set the EUT transmit at un-modulation mode to test frequency stability.

4.6.7 TEST RESULTS

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 (%)
60	3.9	5319.9772	-0.00043	5320.0006	0.00001	5319.9743	-0.00048	5319.9988	-0.00002
50	3.9	5320.0003	0.00001	5319.9988	-0.00002	5319.994	-0.00011	5319.9981	-0.00004
40	3.9	5319.9932	-0.00013	5319.9884	-0.00022	5319.9935	-0.00012	5319.9874	-0.00024
30	3.9	5320.0207	0.00039	5320.0244	0.00046	5320.0214	0.00040	5320.0213	0.00040
20	3.9	5320.0066	0.00012	5320.0015	0.00003	5320.0014	0.00003	5320.0002	0.00000
10	3.9	5319.9912	-0.00017	5319.9959	-0.00008	5319.9866	-0.00025	5319.9872	-0.00024
0	3.9	5320.0054	0.00010	5320.0049	0.00009	5320.0135	0.00025	5320.0055	0.00010
-10	3.9	5320.0178	0.00033	5320.0158	0.00030	5320.0149	0.00028	5320.009	0.00017
-20	3.9	5320.0215	0.00040	5320.0168	0.00032	5320.0211	0.00040	5320.0176	0.00033
-30	3.9	5319.9979	-0.00004	5320.0052	0.00010	5320.0044	0.00008	5320.0013	0.00002

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	4.485	5320.0053	0.00010	5320.0016	0.00003	5320.0021	0.00004	5320.0014	0.00003
	3.9	5320.0066	0.00012	5320.0015	0.00003	5320.0014	0.00003	5320.0002	0.00000
	3.315	5320.0051	0.00010	5320.0014	0.00003	5320.0028	0.00005	5320.0009	0.00002

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

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

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

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Web Site: www.bureauveritas-adt.com

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

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

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

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