

FCC TEST REPORT (15.407)

REPORT NO.: RF120920C28G

MODEL NO.: WAP551

FCC ID: PD5-WAP551

RECEIVED: Feb. 26, 2014

TESTED: Jan. 26 ~ Feb. 09, 2015

ISSUED: Feb. 13, 2015

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ISSUED BY: Bureau Veritas Consumer Products Services
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF120920C28G	Original release.	Feb. 13, 2015

1. CERTIFICATION

PRODUCT: Wireless AP with PoE
MODEL: WAP551
BRAND: CISCO
APPLICANT: Delta Networks, Inc.
TESTED: Jan. 26 ~ Feb. 09, 2015
TEST SAMPLE: ENGINEERING SAMPLE
STANDARDS: **FCC Part 15, Subpart E (Section 15.407)**
ANSI C63.10-2009

The above equipment (model: WAP551) 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 : Celine Chou , **DATE :** Feb. 13, 2015
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE :** Feb. 13, 2015
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 UNDER NEW RULE)			
STANDARD SECTION	TEST TYPE	RESULT	REMARK
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -2.51dB at 0.48235MHz.
15.407(b)(1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.2dB at 5714.90MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6dB bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is IPEX not a standard connector.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 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	Wireless AP with PoE
MODEL NO.	WAP551
POWER SUPPLY	55Vdc (from POE)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 450.0Mbps
OPERATING FREQUENCY	5125 ~ 5250MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5125 ~ 5250MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	5125 ~ 5250MHz: 20.754mW 5745 ~ 5825MHz: 74.414mW
ANTENNA TYPE	Refer to note for more details
ANTENNA CONNECTOR	Refer to note for more details
DATA CABLE	N/A
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	N/A

NOTE:

1. This report is issued as a supplementary report to the original BV ADT report no.: RF120920C28A and RF120920C28A-1.
2. This report is prepared for FCC class II permissive change. Difference compared with the original report is updating standard to the FCC new rule for U-NII 1 and U-NII-3 Band.
3. The EUT incorporates a MIMO function. Physically, the EUT provides three completed transmitters and three receivers.

MODULATION MODE	TX FUNCTION
802.11a	3TX
802.11n (20MHz)	3TX
802.11n (40MHz)	3TX

4. The EUT with follow antennas gain is listed as table below.

Antenna Item	Antenna Type	Connector	Gain(dBi)		X-plane	Z-plane
			2.4GHz	5GHz		
1	PIFA	IPEX	5.2dBi	5.5dBi	√	√
2	PIFA		3.2dBi	4.6dBi	√	
3	PIFA		4.4dBi	4.6dBi		√
4	PIFA		3.9dBi	5.6dBi	√	
5	PIFA		4.5dBi	5.8dBi		√

**For EUT position on X-plane, chosen antenna item 1, 2, 4 for final test.

**For EUT position on Z-plane, chosen antenna item 1, 3, 5 for final test.

5. The EUT consumes power from the following POE.

POE	
BRAND:	PowerDsine
MODEL:	PD-9001G
INPUT:	100-250Vac, 50/60Hz, 0.8A
OUTPUT:	55Vdc, 0.60A

* POE was supplied for optional accessory.

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

3.2 DESCRIPTION OF TEST MODES

5125 ~ 5250MHz:

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190MHz	46	5230MHz

5745 ~ 5825MHz:

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
149	5745MHz	161	5805MHz
153	5765MHz	165	5825MHz
157	5785MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	-	Lying flat
B	√	√	-	√	Standing

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: "-" means no effect.

RADIATED EMISSION TEST (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11a	5125-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A, B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
A, B	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	15.0
A, B	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
A, B	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	7.2
A, B	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	15.0

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B	802.11a	5125-5250	36 to 48	36	OFDM	BPSK	6.0
		5745-5825	149 to 165		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	802.11a	5125-5250	36 to 48	36	OFDM	BPSK	6.0
		5745-5825	149 to 165		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)
B	802.11a	5125-5250	36 to 48	36, 40, 48	OFDM	BPSK	6.0
B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
B	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	15.0
B	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
B	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	7.2
B	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	15.0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE $\geq$ 1G	27deg. C, 66%RH 26deg. C, 66%RH	120Vac, 60Hz	Alan Wu
RE<1G	26deg. C, 66%RH	120Vac, 60Hz	Alan Wu
PLC	18deg. C, 70%RH	120Vac, 60Hz	Nick Hsu
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nick Hsu

3.3 DUTY CYCLE OF TEST SIGNAL

802.11a, 802.11n (40MHz): Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11n (20MHz): Duty cycle of test signal is > 98 %, duty factor is not required.

802.11a: Duty cycle = $2.060/2.255 = 0.914$, Duty factor = $10 * \log(1/0.914) = 0.39$

802.11n (20MHz): Duty cycle = $1.925/1.950 = 0.987$

802.11n (40MHz): Duty cycle = $0.782/0.935 = 0.836$, Duty factor = $10 * \log(1/0.836) = 0.78$



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.

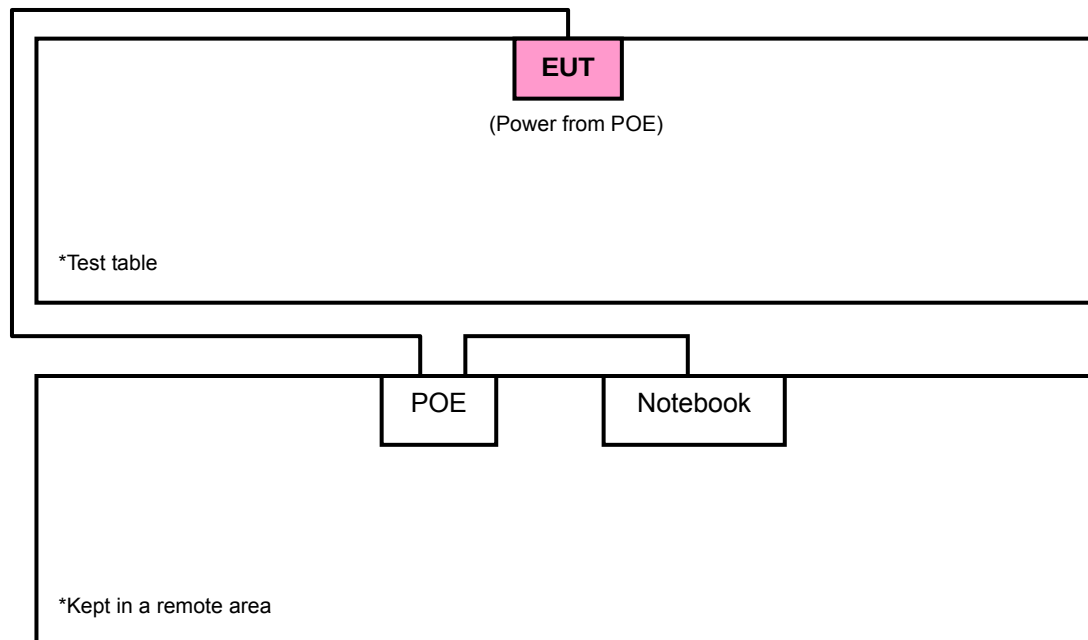
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	E5420	BPQ7MQ1	FCC Doc Approved
2	POE	PowerDsine	PD-9001G	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	3m LAN cable
2	1.8m LAN cable

NOTE:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item 1 acted as a communication partner to transfer data.
3. Item 2 was used for mode B only.

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v01

662911 D01 Multiple Transmitter Output v02r01

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	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 3m	
	PK: 74 (dBuV/m)	AV: 54 (dBuV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBuV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	PK: -27 (dBm/MHz) ^{*1} PK: -17 (dBm/MHz) ^{*2}	PK: 68.2 (dBuV/m) ^{*1} PK: 78.2 (dBuV/m) ^{*2}

NOTE: ^{*1} beyond 10MHz of the band edge ^{*2} within 10 MHz of band edge

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	ESCI	100424	Oct. 06, 2014	Oct. 05, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSU 43	100115	Dec. 18, 2014	Dec. 17, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01961	Oct. 18, 2014	Oct. 17, 2015
Preamplifier Agilent	8447D	2944A10738	Oct. 18, 2014	Oct. 17, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 09, 2014	Aug. 08, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller inn-co GmbH	CO2000	019303	NA	NA
Turn Table BV ADT	TT100.	TT93021704	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021704	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 26, 2014	Jul. 25, 2015
Power Sensor	MA2411B	0738171	Jul. 26, 2014	Jul. 25, 2015
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 09, 2014	Jun. 08, 2015

- NOTE:**
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Chamber 4.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC7450F-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:

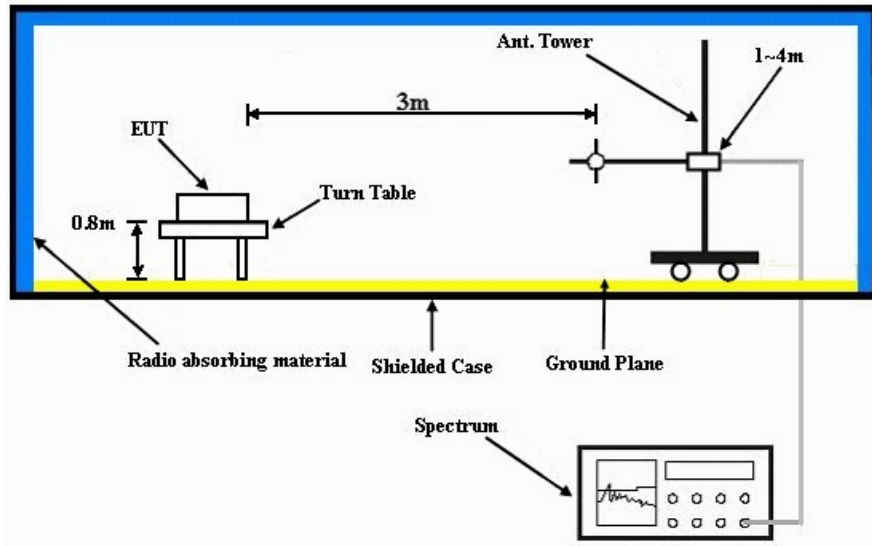
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 DEVIATION FROM TEST STANDARD

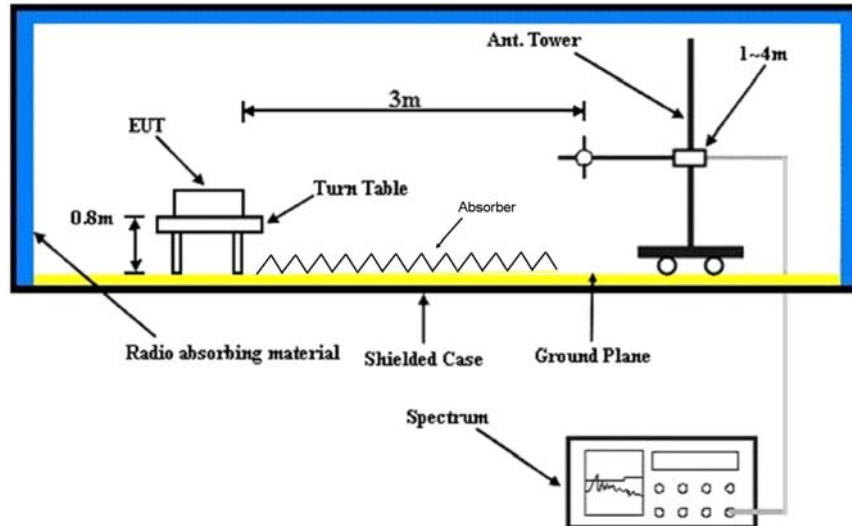
No deviation.

4.1.6 TEST SETUP

Frequency range 30MHz~1GHz



Frequency range above 1GHz



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

4.1.7 EUT OPERATING CONDITION

- a. Placed the EUT on the testing table.
- b. Prepared notebook to act as communication partner and placed it outside of testing area.
- c. The communication partner connected with EUT via a RJ45 cable and run a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- d. The communication partner sent data to EUT by command "PING".

4.1.8 TEST RESULTS

ABOVE 1GHz DATA

TEST MODE A

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	57.2 PK	74.0	-16.8	1.27 H	192	51.50	5.70
2	5150.00	44.9 AV	54.0	-9.1	1.27 H	192	39.20	5.70
3	*5180.00	103.4 PK			1.21 H	199	63.90	39.50
4	*5180.00	93.1 AV			1.21 H	199	53.60	39.50
5	#10360.00	61.9 PK	74.0	-12.1	1.00 H	241	43.40	18.50
6	#10360.00	47.1 AV	54.0	-6.9	1.00 H	241	28.60	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.9 PK	74.0	-17.1	1.00 V	190	51.20	5.70
2	5150.00	44.3 AV	54.0	-9.7	1.00 V	190	38.60	5.70
3	*5180.00	100.6 PK			1.00 V	199	61.10	39.50
4	*5180.00	91.2 AV			1.00 V	199	51.70	39.50
5	#10360.00	59.1 PK	74.0	-14.9	1.00 V	141	40.60	18.50
6	#10360.00	45.8 AV	54.0	-8.2	1.00 V	141	27.30	18.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	102.3 PK			1.21 H	199	62.70	39.60
2	*5200.00	92.3 AV			1.21 H	199	52.70	39.60
3	#10400.00	62.0 PK	74.0	-12.0	1.00 H	247	43.70	18.30
4	#10400.00	47.4 AV	54.0	-6.6	1.00 H	247	29.10	18.30
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	*5200.00	101.0 PK			1.00 V	198	61.40	39.60
2	*5200.00	91.3 AV			1.00 V	198	51.70	39.60
3	#10400.00	59.6 PK	74.0	-14.4	1.00 V	146	41.30	18.30
4	#10400.00	46.0 AV	54.0	-8.0	1.00 V	146	27.70	18.30

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.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	103.4 PK			1.19 H	200	63.80	39.60
2	*5240.00	93.3 AV			1.19 H	200	53.70	39.60
3	5350.00	56.5 PK	74.0	-17.5	1.17 H	198	50.70	5.80
4	5350.00	44.4 AV	54.0	-9.6	1.17 H	198	38.60	5.80
5	#10480.00	61.1 PK	74.0	-12.9	1.00 H	245	43.40	17.70
6	#10480.00	46.7 AV	54.0	-7.3	1.00 H	245	29.00	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	101.8 PK			1.00 V	197	62.20	39.60
2	*5240.00	92.0 AV			1.00 V	197	52.40	39.60
3	5350.00	56.2 PK	74.0	-17.8	1.00 V	192	50.40	5.80
4	5350.00	44.0 AV	54.0	-10.0	1.00 V	192	38.20	5.80
5	#10480.00	58.9 PK	74.0	-15.1	1.00 V	147	41.20	17.70
6	#10480.00	45.8 AV	54.0	-8.2	1.00 V	147	28.10	17.70

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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	59.2 PK	74.0	-14.8	1.06 H	183	52.70	6.50
2	#5714.90	45.9 AV	54.0	-8.1	1.06 H	183	39.40	6.50
3	#5722.90	64.8 PK	78.2	-13.4	1.06 H	183	58.30	6.50
4	*5745.00	110.0 PK			1.08 H	186	69.60	40.40
5	*5745.00	100.2 AV			1.08 H	186	59.80	40.40
6	11490.00	61.4 PK	74.0	-12.6	1.00 H	343	43.90	17.50
7	11490.00	47.2 AV	54.0	-6.8	1.00 H	343	29.70	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	58.9 PK	74.0	-15.1	1.00 V	174	52.40	6.50
2	#5714.90	45.4 AV	54.0	-8.6	1.00 V	174	38.90	6.50
3	#5722.90	63.2 PK	78.2	-15.0	1.00 V	174	56.70	6.50
4	*5745.00	108.5 PK			1.00 V	173	68.10	40.40
5	*5745.00	98.7 AV			1.00 V	173	58.30	40.40
6	11490.00	59.5 PK	74.0	-14.5	1.00 V	14	42.00	17.50
7	11490.00	46.6 AV	54.0	-7.4	1.00 V	14	29.10	17.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5785.00	109.7 PK			1.07 H	187	69.10	40.60
2	*5785.00	99.7 AV			1.07 H	187	59.10	40.60
3	11570.00	61.9 PK	74.0	-12.1	1.00 H	345	44.40	17.50
4	11570.00	47.8 AV	54.0	-6.2	1.00 H	345	30.30	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	108.1 PK			1.00 V	169	67.50	40.60
2	*5785.00	98.7 AV			1.00 V	169	58.10	40.60
3	11570.00	59.8 PK	74.0	-14.2	1.00 V	7	42.30	17.50
4	11570.00	47.1 AV	54.0	-6.9	1.00 V	7	29.60	17.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	109.6 PK			1.40 H	188	68.90	40.70
2	*5825.00	99.7 AV			1.40 H	188	59.00	40.70
3	#5852.10	59.7 PK	78.2	-18.5	1.43 H	189	52.90	6.80
4	#5860.10	57.9 PK	74.0	-16.1	1.43 H	189	51.10	6.80
5	#5860.10	45.2 AV	54.0	-8.8	1.43 H	189	38.40	6.80
6	11650.00	62.3 PK	74.0	-11.7	1.00 H	346	44.30	18.00
7	11650.00	48.0 AV	54.0	-6.0	1.00 H	346	30.00	18.00
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	*5825.00	109.3 PK			1.03 V	193	68.60	40.70
2	*5825.00	99.3 AV			1.03 V	193	58.60	40.70
3	#5852.10	59.1 PK	78.2	-19.1	1.09 V	193	52.30	6.80
4	#5860.10	57.6 PK	74.0	-16.4	1.09 V	193	50.80	6.80
5	#5860.10	44.7 AV	54.0	-9.3	1.09 V	193	37.90	6.80
6	11650.00	60.3 PK	74.0	-13.7	1.00 V	12	42.30	18.00
7	11650.00	46.7 AV	54.0	-7.3	1.00 V	12	28.70	18.00

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.

802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	57.4 PK	74.0	-16.6	1.21 H	199	51.70	5.70
2	5150.00	45.3 AV	54.0	-8.7	1.21 H	199	39.60	5.70
3	*5180.00	103.5 PK			1.21 H	200	64.00	39.50
4	*5180.00	92.8 AV			1.21 H	200	53.30	39.50
5	#10360.00	61.0 PK	74.0	-13.0	1.00 H	248	42.50	18.50
6	#10360.00	46.9 AV	54.0	-7.1	1.00 H	248	28.40	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.00 V	201	51.40	5.70
2	5150.00	44.9 AV	54.0	-9.1	1.00 V	201	39.20	5.70
3	*5180.00	100.2 PK			1.00 V	206	60.70	39.50
4	*5180.00	90.3 AV			1.00 V	206	50.80	39.50
5	#10360.00	58.7 PK	74.0	-15.3	1.00 V	149	40.20	18.50
6	#10360.00	45.5 AV	54.0	-8.5	1.00 V	149	27.00	18.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	103.1 PK			1.20 H	204	63.50	39.60
2	*5200.00	92.2 AV			1.20 H	204	52.60	39.60
3	#10400.00	61.6 PK	74.0	-12.4	1.00 H	242	43.30	18.30
4	#10400.00	47.3 AV	54.0	-6.7	1.00 H	242	29.00	18.30
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	*5200.00	100.2 PK			1.00 V	201	60.60	39.60
2	*5200.00	90.5 AV			1.00 V	201	50.90	39.60
3	#10400.00	58.9 PK	74.0	-15.1	1.00 V	141	40.60	18.30
4	#10400.00	45.9 AV	54.0	-8.1	1.00 V	141	27.60	18.30

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.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	102.9 PK			1.18 H	200	63.30	39.60
2	*5240.00	92.4 AV			1.18 H	200	52.80	39.60
3	5350.00	56.8 PK	74.0	-17.2	1.15 H	204	51.00	5.80
4	5350.00	44.3 AV	54.0	-9.7	1.15 H	204	38.50	5.80
5	#10480.00	60.8 PK	74.0	-13.2	1.00 H	241	43.10	17.70
6	#10480.00	46.4 AV	54.0	-7.6	1.00 H	241	28.70	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	101.0 PK			1.00 V	201	61.40	39.60
2	*5240.00	91.5 AV			1.00 V	201	51.90	39.60
3	5350.00	56.4 PK	74.0	-17.6	1.00 V	208	50.60	5.80
4	5350.00	43.8 AV	54.0	-10.2	1.00 V	208	38.00	5.80
5	#10480.00	58.6 PK	74.0	-15.4	1.00 V	147	40.90	17.70
6	#10480.00	45.4 AV	54.0	-8.6	1.00 V	147	27.70	17.70

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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	59.8 PK	74.0	-14.2	1.01 H	184	53.30	6.50
2	#5714.90	45.8 AV	54.0	-8.2	1.01 H	184	39.30	6.50
3	#5722.90	68.5 PK	78.2	-9.7	1.01 H	184	62.00	6.50
4	*5745.00	109.3 PK			1.07 H	186	68.90	40.40
5	*5745.00	98.0 AV			1.07 H	186	57.60	40.40
6	11490.00	61.9 PK	74.0	-12.1	1.00 H	345	44.40	17.50
7	11490.00	47.8 AV	54.0	-6.2	1.00 H	345	30.30	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	59.1 PK	74.0	-14.9	1.00 V	179	52.60	6.50
2	#5714.90	45.3 AV	54.0	-8.7	1.00 V	179	38.80	6.50
3	#5722.90	67.2 PK	78.2	-11.0	1.00 V	179	60.70	6.50
4	*5745.00	107.7 PK			1.00 V	173	67.30	40.40
5	*5745.00	97.8 AV			1.00 V	173	57.40	40.40
6	11490.00	59.8 PK	74.0	-14.2	1.00 V	9	42.30	17.50
7	11490.00	47.1 AV	54.0	-6.9	1.00 V	9	29.60	17.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5785.00	110.7 PK			1.06 H	188	70.10	40.60
2	*5785.00	99.9 AV			1.06 H	188	59.30	40.60
3	11570.00	62.7 PK	74.0	-11.3	1.00 H	343	45.20	17.50
4	11570.00	47.9 AV	54.0	-6.1	1.00 H	343	30.40	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	107.8 PK			1.00 V	171	67.20	40.60
2	*5785.00	98.3 AV			1.00 V	171	57.70	40.60
3	11570.00	59.9 PK	74.0	-14.1	1.00 V	5	42.40	17.50
4	11570.00	47.3 AV	54.0	-6.7	1.00 V	5	29.80	17.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	109.4 PK			1.07 H	190	68.70	40.70
2	*5825.00	98.9 AV			1.07 H	190	58.20	40.70
3	#5852.10	63.7 PK	78.2	-14.5	1.08 H	192	56.90	6.80
4	#5860.10	57.9 PK	74.0	-16.1	1.08 H	192	51.10	6.80
5	#5860.10	45.2 AV	54.0	-8.8	1.08 H	192	38.40	6.80
6	11650.00	62.6 PK	74.0	-11.4	1.00 H	340	44.60	18.00
7	11650.00	47.7 AV	54.0	-6.3	1.00 H	340	29.70	18.00
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	*5825.00	108.0 PK			1.00 V	178	67.30	40.70
2	*5825.00	98.4 AV			1.00 V	178	57.70	40.70
3	#5852.10	63.0 PK	78.2	-15.2	1.00 V	173	56.20	6.80
4	#5860.10	57.2 PK	74.0	-16.8	1.00 V	173	50.40	6.80
5	#5860.10	44.6 AV	54.0	-9.4	1.00 V	173	37.80	6.80
6	11650.00	60.0 PK	74.0	-14.0	1.00 V	3	42.00	18.00
7	11650.00	47.4 AV	54.0	-6.6	1.00 V	3	29.40	18.00

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.

802.11n (40MHz)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	57.9 PK	74.0	-16.1	1.58 H	188	52.20	5.70
2	5150.00	45.4 AV	54.0	-8.6	1.58 H	188	39.70	5.70
3	*5190.00	99.4 PK			1.53 H	186	59.90	39.50
4	*5190.00	89.5 AV			1.53 H	186	50.00	39.50
5	#10380.00	60.9 PK	74.0	-13.1	1.00 H	246	42.50	18.40
6	#10380.00	46.0 AV	54.0	-8.0	1.00 H	246	27.60	18.40
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	5150.00	57.6 PK	74.0	-16.4	1.00 V	223	51.90	5.70
2	5150.00	45.1 AV	54.0	-8.9	1.00 V	223	39.40	5.70
3	*5190.00	97.6 PK			1.00 V	222	58.10	39.50
4	*5190.00	87.9 AV			1.00 V	222	48.40	39.50
5	#10380.00	58.4 PK	74.0	-15.6	1.00 V	146	40.00	18.40
6	#10380.00	45.3 AV	54.0	-8.7	1.00 V	146	26.90	18.40

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.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	100.0 PK			1.08 H	187	60.40	39.60
2	*5230.00	89.3 AV			1.08 H	187	49.70	39.60
3	5350.00	57.5 PK	74.0	-16.5	1.08 H	189	51.70	5.80
4	5350.00	44.6 AV	54.0	-9.4	1.08 H	189	38.80	5.80
5	#10460.00	60.5 PK	74.0	-13.5	1.00 H	241	42.70	17.80
6	#10460.00	45.7 AV	54.0	-8.3	1.00 H	241	27.90	17.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	98.9 PK			1.02 V	189	59.30	39.60
2	*5230.00	88.6 AV			1.02 V	189	49.00	39.60
3	5350.00	57.2 PK	74.0	-16.8	1.06 V	180	51.40	5.80
4	5350.00	44.4 AV	54.0	-9.6	1.06 V	180	38.60	5.80
5	#10460.00	58.1 PK	74.0	-15.9	1.00 V	146	40.30	17.80
6	#10460.00	45.2 AV	54.0	-8.8	1.00 V	146	27.40	17.80

REMARKS:

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

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	67.7 PK	74.0	-6.3	1.00 H	153	61.20	6.50
2	#5714.90	50.6 AV	54.0	-3.4	1.00 H	153	44.10	6.50
3	#5722.90	68.8 PK	78.2	-9.4	1.00 H	153	62.30	6.50
4	*5755.00	105.7 PK			1.00 H	159	65.20	40.50
5	*5755.00	95.6 AV			1.00 H	159	55.10	40.50
6	11510.00	60.3 PK	74.0	-13.7	1.00 H	346	42.90	17.40
7	11510.00	46.0 AV	54.0	-8.0	1.00 H	346	28.60	17.40
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	#5714.90	68.3 PK	74.0	-5.7	1.00 V	175	61.80	6.50
2	#5714.90	51.8 AV	54.0	-2.2	1.00 V	175	45.30	6.50
3	#5722.90	70.0 PK	78.2	-8.2	1.00 V	175	63.50	6.50
4	*5755.00	105.6 PK			1.00 V	174	65.10	40.50
5	*5755.00	95.5 AV			1.00 V	174	55.00	40.50
6	11510.00	59.1 PK	74.0	-14.9	1.00 V	4	41.70	17.40
7	11510.00	45.6 AV	54.0	-8.4	1.00 V	4	28.20	17.40

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.

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5795.00	107.4 PK			1.07 H	187	66.80	40.60
2	*5795.00	96.6 AV			1.07 H	187	56.00	40.60
3	#5852.10	59.2 PK	78.2	-19.0	1.05 H	182	52.40	6.80
4	#5860.10	58.9 PK	74.0	-15.1	1.05 H	182	52.10	6.80
5	#5860.10	45.1 AV	54.0	-8.9	1.05 H	182	38.30	6.80
6	11590.00	60.9 PK	74.0	-13.1	1.00 H	343	43.40	17.50
7	11590.00	46.7 AV	54.0	-7.3	1.00 H	343	29.20	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	106.1 PK			1.00 V	174	65.50	40.60
2	*5795.00	96.4 AV			1.00 V	174	55.80	40.60
3	#5852.10	58.6 PK	78.2	-19.6	1.00 V	177	51.80	6.80
4	#5860.10	58.3 PK	74.0	-15.7	1.00 V	177	51.50	6.80
5	#5860.10	44.6 AV	54.0	-9.4	1.00 V	177	37.80	6.80
6	11590.00	59.3 PK	74.0	-14.7	1.00 V	16	41.80	17.50
7	11590.00	45.9 AV	54.0	-8.1	1.00 V	16	28.40	17.50

REMARKS:

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

TEST MODE B

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	58.0 PK	74.0	-16.0	1.00 H	196	52.30	5.70
2	5150.00	45.3 AV	54.0	-8.7	1.00 H	196	39.60	5.70
3	*5180.00	99.2 PK			1.00 H	200	59.70	39.50
4	*5180.00	89.3 AV			1.00 H	200	49.80	39.50
5	#10360.00	59.6 PK	74.0	-14.4	1.00 H	63	41.10	18.50
6	#10360.00	46.1 AV	54.0	-7.9	1.00 H	63	27.60	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.5 PK	74.0	-15.5	1.00 V	178	52.80	5.70
2	5150.00	46.0 AV	54.0	-8.0	1.00 V	178	40.30	5.70
3	*5180.00	105.0 PK			1.00 V	177	65.50	39.50
4	*5180.00	95.3 AV			1.00 V	177	55.80	39.50
5	#10360.00	62.7 PK	74.0	-11.3	1.00 V	355	44.20	18.50
6	#10360.00	48.6 AV	54.0	-5.4	1.00 V	355	30.10	18.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	99.0 PK			1.00 H	183	59.40	39.60
2	*5200.00	89.3 AV			1.00 H	183	49.70	39.60
3	#10400.00	60.2 PK	74.0	-13.8	1.00 H	32	41.90	18.30
4	#10400.00	46.3 AV	54.0	-7.7	1.00 H	32	28.00	18.30
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	*5200.00	105.0 PK			1.00 V	199	65.40	39.60
2	*5200.00	94.9 AV			1.00 V	199	55.30	39.60
3	#10400.00	62.9 PK	74.0	-11.1	1.00 V	356	44.60	18.30
4	#10400.00	49.0 AV	54.0	-5.0	1.00 V	356	30.70	18.30

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.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	99.8 PK			1.00 H	200	60.20	39.60
2	*5240.00	89.8 AV			1.00 H	200	50.20	39.60
3	5350.00	57.5 PK	74.0	-16.5	1.00 H	202	51.70	5.80
4	5350.00	44.3 AV	54.0	-9.7	1.00 H	202	38.50	5.80
5	#10480.00	60.1 PK	74.0	-13.9	1.00 H	23	42.40	17.70
6	#10480.00	46.1 AV	54.0	-7.9	1.00 H	23	28.40	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	104.7 PK			1.09 V	189	65.10	39.60
2	*5240.00	94.6 AV			1.09 V	189	55.00	39.60
3	5350.00	57.8 PK	74.0	-16.2	1.06 V	180	52.00	5.80
4	5350.00	44.9 AV	54.0	-9.1	1.06 V	180	39.10	5.80
5	#10480.00	62.0 PK	74.0	-12.0	1.00 V	354	44.30	17.70
6	#10480.00	47.7 AV	54.0	-6.3	1.00 V	354	30.00	17.70

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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	61.8 PK	74.0	-12.2	1.01 H	357	55.30	6.50
2	#5714.90	46.1 AV	54.0	-7.9	1.01 H	357	39.60	6.50
3	#5722.90	69.9 PK	78.2	-8.3	1.01 H	357	63.40	6.50
4	*5745.00	105.6 PK			1.09 H	352	65.20	40.40
5	*5745.00	95.7 AV			1.09 H	352	55.30	40.40
6	11490.00	59.9 PK	74.0	-14.1	1.00 H	52	42.40	17.50
7	11490.00	46.0 AV	54.0	-8.0	1.00 H	52	28.50	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	63.5 PK	74.0	-10.5	1.00 V	350	57.00	6.50
2	#5714.90	47.5 AV	54.0	-6.5	1.00 V	350	41.00	6.50
3	#5722.90	71.7 PK	78.2	-6.5	1.00 V	350	65.20	6.50
4	*5745.00	110.0 PK			1.00 V	358	69.60	40.40
5	*5745.00	99.8 AV			1.00 V	358	59.40	40.40
6	11490.00	61.4 PK	74.0	-12.6	1.00 V	352	43.90	17.50
7	11490.00	47.4 AV	54.0	-6.6	1.00 V	352	29.90	17.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5785.00	104.6 PK			1.00 H	5	64.00	40.60
2	*5785.00	93.9 AV			1.00 H	5	53.30	40.60
3	11570.00	60.7 PK	74.0	-13.3	1.00 H	55	43.20	17.50
4	11570.00	46.1 AV	54.0	-7.9	1.00 H	55	28.60	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	110.3 PK			1.04 V	307	69.70	40.60
2	*5785.00	100.4 AV			1.04 V	307	59.80	40.60
3	11570.00	62.3 PK	74.0	-11.7	1.00 V	336	44.80	17.50
4	11570.00	48.2 AV	54.0	-5.8	1.00 V	336	30.70	17.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	104.4 PK			1.00 H	351	63.70	40.70
2	*5825.00	93.5 AV			1.00 H	351	52.80	40.70
3	#5852.10	61.3 PK	78.2	-16.9	1.00 H	357	54.50	6.80
4	#5860.10	56.6 PK	74.0	-17.4	1.00 H	357	49.80	6.80
5	#5860.10	43.2 AV	54.0	-10.8	1.00 H	357	36.40	6.80
6	11650.00	60.5 PK	74.0	-13.5	1.00 H	47	42.50	18.00
7	11650.00	45.8 AV	54.0	-8.2	1.00 H	47	27.80	18.00
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	*5825.00	110.2 PK			1.02 V	308	69.50	40.70
2	*5825.00	100.2 AV			1.02 V	308	59.50	40.70
3	#5852.10	62.6 PK	78.2	-15.6	1.06 V	305	55.80	6.80
4	#5860.10	57.9 PK	74.0	-16.1	1.06 V	305	51.10	6.80
5	#5860.10	44.8 AV	54.0	-9.2	1.06 V	305	38.00	6.80
6	11650.00	62.1 PK	74.0	-11.9	1.00 V	358	44.10	18.00
7	11650.00	47.7 AV	54.0	-6.3	1.00 V	358	29.70	18.00

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.

802.11n (20MHz)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	57.2 PK	74.0	-16.8	1.00 H	193	51.50	5.70
2	5150.00	45.1 AV	54.0	-8.9	1.00 H	193	39.40	5.70
3	*5180.00	100.3 PK			1.00 H	199	60.80	39.50
4	*5180.00	89.5 AV			1.00 H	199	50.00	39.50
5	#10360.00	59.3 PK	74.0	-14.7	1.00 H	79	40.80	18.50
6	#10360.00	45.6 AV	54.0	-8.4	1.00 H	79	27.10	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	1.00 V	175	51.80	5.70
2	5150.00	45.6 AV	54.0	-8.4	1.00 V	175	39.90	5.70
3	*5180.00	104.3 PK			1.00 V	176	64.80	39.50
4	*5180.00	94.4 AV			1.00 V	176	54.90	39.50
5	#10360.00	61.8 PK	74.0	-12.2	1.00 V	358	43.30	18.50
6	#10360.00	48.5 AV	54.0	-5.5	1.00 V	358	30.00	18.50

REMARKS:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	100.8 PK			1.04 H	196	61.20	39.60
2	*5200.00	90.0 AV			1.04 H	196	50.40	39.60
3	#10400.00	59.5 PK	74.0	-14.5	1.00 H	52	41.20	18.30
4	#10400.00	46.2 AV	54.0	-7.8	1.00 H	52	27.90	18.30
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	*5200.00	104.4 PK			1.00 V	186	64.80	39.60
2	*5200.00	93.8 AV			1.00 V	186	54.20	39.60
3	#10400.00	62.5 PK	74.0	-11.5	1.00 V	356	44.20	18.30
4	#10400.00	48.7 AV	54.0	-5.3	1.00 V	356	30.40	18.30

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.

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	100.2 PK			1.00 H	199	60.60	39.60
2	*5240.00	89.2 AV			1.00 H	199	49.60	39.60
3	5350.00	56.5 PK	74.0	-17.5	1.00 H	192	50.70	5.80
4	5350.00	44.4 AV	54.0	-9.6	1.00 H	192	38.60	5.80
5	#10480.00	58.7 PK	74.0	-15.3	1.00 H	33	41.00	17.70
6	#10480.00	45.5 AV	54.0	-8.5	1.00 H	33	27.80	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	103.3 PK			1.00 V	193	63.70	39.60
2	*5240.00	92.6 AV			1.00 V	193	53.00	39.60
3	5350.00	56.9 PK	74.0	-17.1	1.00 V	193	51.10	5.80
4	5350.00	44.6 AV	54.0	-9.4	1.00 V	193	38.80	5.80
5	#10480.00	61.8 PK	74.0	-12.2	1.00 V	352	44.10	17.70
6	#10480.00	48.1 AV	54.0	-5.9	1.00 V	352	30.40	17.70

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.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	61.5 PK	74.0	-12.5	1.00 H	7	55.00	6.50
2	#5714.90	46.6 AV	54.0	-7.4	1.00 H	7	40.10	6.50
3	#5722.90	69.2 PK	78.2	-9.0	1.00 H	7	62.70	6.50
4	*5745.00	104.5 PK			1.00 H	6	64.10	40.40
5	*5745.00	94.2 AV			1.00 H	6	53.80	40.40
6	11490.00	59.7 PK	74.0	-14.3	1.00 H	42	42.20	17.50
7	11490.00	46.1 AV	54.0	-7.9	1.00 H	42	28.60	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	63.0 PK	74.0	-11.0	1.00 V	6	56.50	6.50
2	#5714.90	47.9 AV	54.0	-6.1	1.00 V	6	41.40	6.50
3	#5722.90	70.4 PK	78.2	-7.8	1.00 V	6	63.90	6.50
4	*5745.00	111.0 PK			1.00 V	2	70.60	40.40
5	*5745.00	101.0 AV			1.00 V	2	60.60	40.40
6	11490.00	61.3 PK	74.0	-12.7	1.00 V	355	43.80	17.50
7	11490.00	47.2 AV	54.0	-6.8	1.00 V	355	29.70	17.50

REMARKS:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5785.00	105.1 PK			1.00 H	6	64.50	40.60
2	*5785.00	94.4 AV			1.00 H	6	53.80	40.60
3	11570.00	60.6 PK	74.0	-13.4	1.00 H	31	43.10	17.50
4	11570.00	46.4 AV	54.0	-7.6	1.00 H	31	28.90	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	110.7 PK			1.00 V	71	70.10	40.60
2	*5785.00	100.4 AV			1.00 V	71	59.80	40.60
3	11570.00	62.0 PK	74.0	-12.0	1.00 V	350	44.50	17.50
4	11570.00	48.1 AV	54.0	-5.9	1.00 V	350	30.60	17.50

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	104.3 PK			1.00 H	352	63.60	40.70
2	*5825.00	93.6 AV			1.00 H	352	52.90	40.70
3	#5852.10	56.9 PK	78.2	-21.3	1.00 H	357	50.10	6.80
4	#5860.10	58.5 PK	74.0	-15.5	1.00 H	357	51.70	6.80
5	#5860.10	44.6 AV	54.0	-9.4	1.00 H	357	37.80	6.80
6	11650.00	60.5 PK	74.0	-13.5	1.00 H	12	42.50	18.00
7	11650.00	46.2 AV	54.0	-7.8	1.00 H	12	28.20	18.00
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	*5825.00	110.7 PK			1.00 V	63	70.00	40.70
2	*5825.00	101.0 AV			1.00 V	63	60.30	40.70
3	#5852.10	57.2 PK	78.2	-21.0	1.00 V	64	50.40	6.80
4	#5860.10	59.6 PK	74.0	-14.4	1.00 V	64	52.80	6.80
5	#5860.10	46.0 AV	54.0	-8.0	1.00 V	64	39.20	6.80
6	11650.00	61.7 PK	74.0	-12.3	1.00 V	358	43.70	18.00
7	11650.00	47.4 AV	54.0	-6.6	1.00 V	358	29.40	18.00

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.

802.11n (40MHz)

CHANNEL	TX Channel 38	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	58.3 PK	74.0	-15.7	1.00 H	192	52.60	5.70
2	5150.00	46.5 AV	54.0	-7.5	1.00 H	192	40.80	5.70
3	*5190.00	96.4 PK			1.00 H	199	56.90	39.50
4	*5190.00	86.3 AV			1.00 H	199	46.80	39.50
5	#10380.00	58.8 PK	74.0	-15.2	1.00 H	44	40.40	18.40
6	#10380.00	45.0 AV	54.0	-9.0	1.00 H	44	26.60	18.40
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	5150.00	59.4 PK	74.0	-14.6	1.00 V	183	53.70	5.70
2	5150.00	47.1 AV	54.0	-6.9	1.00 V	183	41.40	5.70
3	*5190.00	101.5 PK			1.00 V	187	62.00	39.50
4	*5190.00	91.0 AV			1.00 V	187	51.50	39.50
5	#10380.00	61.7 PK	74.0	-12.3	1.00 V	347	43.30	18.40
6	#10380.00	47.6 AV	54.0	-6.4	1.00 V	347	29.20	18.40

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.

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	97.6 PK			1.00 H	198	58.00	39.60
2	*5230.00	87.1 AV			1.00 H	198	47.50	39.60
3	5350.00	57.4 PK	74.0	-16.6	1.00 H	191	51.60	5.80
4	5350.00	45.0 AV	54.0	-9.0	1.00 H	191	39.20	5.80
5	#10460.00	58.3 PK	74.0	-15.7	1.00 H	22	40.50	17.80
6	#10460.00	45.2 AV	54.0	-8.8	1.00 H	22	27.40	17.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	100.4 PK			1.00 V	196	60.80	39.60
2	*5230.00	90.5 AV			1.00 V	196	50.90	39.60
3	5350.00	58.1 PK	74.0	-15.9	1.00 V	192	52.30	5.80
4	5350.00	45.8 AV	54.0	-8.2	1.00 V	192	40.00	5.80
5	#10460.00	61.3 PK	74.0	-12.7	1.00 V	355	43.50	17.80
6	#10460.00	47.3 AV	54.0	-6.7	1.00 V	355	29.50	17.80

REMARKS:

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

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	62.9 PK	74.0	-11.1	1.00 H	352	56.40	6.50
2	#5714.90	48.5 AV	54.0	-5.5	1.00 H	352	42.00	6.50
3	#5722.90	66.5 PK	78.2	-11.7	1.00 H	352	60.00	6.50
4	*5755.00	101.7 PK			1.00 H	350	61.20	40.50
5	*5755.00	91.0 AV			1.00 H	350	50.50	40.50
6	11510.00	58.6 PK	74.0	-15.4	1.00 H	99	41.20	17.40
7	11510.00	45.1 AV	54.0	-8.9	1.00 H	99	27.70	17.40
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	#5714.90	68.6 PK	74.0	-5.4	1.00 V	18	62.10	6.50
2	#5714.90	52.8 AV	54.0	-1.2	1.00 V	18	46.30	6.50
3	#5722.90	75.8 PK	78.2	-2.4	1.00 V	18	69.30	6.50
4	*5755.00	106.7 PK			1.00 V	11	66.20	40.50
5	*5755.00	97.2 AV			1.00 V	11	56.70	40.50
6	11510.00	60.7 PK	74.0	-13.3	1.00 V	356	43.30	17.40
7	11510.00	46.6 AV	54.0	-7.4	1.00 V	356	29.20	17.40

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.

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5795.00	101.8 PK			1.00 H	9	61.20	40.60
2	*5795.00	91.9 AV			1.00 H	9	51.30	40.60
3	#5852.10	58.2 PK	78.2	-20.0	1.00 H	7	51.40	6.80
4	#5860.10	58.0 PK	74.0	-16.0	1.00 H	7	51.20	6.80
5	#5860.10	44.0 AV	54.0	-10.0	1.00 H	7	37.20	6.80
6	11590.00	59.0 PK	74.0	-15.0	1.00 H	10	41.50	17.50
7	11590.00	45.0 AV	54.0	-9.0	1.00 H	10	27.50	17.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	106.9 PK			1.00 V	10	66.30	40.60
2	*5795.00	97.4 AV			1.00 V	10	56.80	40.60
3	#5852.10	59.0 PK	78.2	-19.2	1.00 V	9	52.20	6.80
4	#5860.10	58.7 PK	74.0	-15.3	1.00 V	9	51.90	6.80
5	#5860.10	44.6 AV	54.0	-9.4	1.00 V	9	37.80	6.80
6	11590.00	60.8 PK	74.0	-13.2	1.00 V	337	43.30	17.50
7	11590.00	47.1 AV	54.0	-6.9	1.00 V	337	29.60	17.50

REMARKS:

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

BELOW 1GHz WORST-CASE DATA

TEST MODE A

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	88.11	34.9 QP	43.5	-8.6	1.99 H	288	54.40	-19.50
2	249.17	36.7 QP	46.0	-9.3	1.24 H	318	51.10	-14.40
3	499.48	38.7 QP	46.0	-7.3	1.49 H	349	47.60	-8.90
4	549.93	35.0 QP	46.0	-11.0	1.24 H	346	43.20	-8.20
5	625.60	41.6 QP	46.0	-4.4	1.49 H	6	47.80	-6.20
6	749.79	35.5 QP	46.0	-10.5	1.00 H	46	39.10	-3.60
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	33.78	34.7 QP	40.0	-5.3	1.00 V	20	50.00	-15.30
2	76.47	32.7 QP	40.0	-7.3	1.49 V	6	49.90	-17.20
3	152.15	30.8 QP	43.5	-12.7	1.00 V	107	44.50	-13.70
4	499.48	33.2 QP	46.0	-12.8	1.00 V	273	42.10	-8.90
5	625.60	34.5 QP	46.0	-11.5	1.24 V	64	40.70	-6.20
6	749.79	33.7 QP	46.0	-12.3	2.00 V	105	37.30	-3.60

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

TEST MODE B

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	88.11	35.4 QP	43.5	-8.1	1.99 H	294	54.90	-19.50
2	140.50	31.0 QP	43.5	-12.5	1.49 H	6	45.20	-14.20
3	249.17	35.9 QP	46.0	-10.1	1.00 H	169	50.30	-14.40
4	515.00	37.8 QP	46.0	-8.2	1.49 H	302	46.40	-8.60
5	625.60	37.7 QP	46.0	-8.3	1.24 H	339	43.90	-6.20
6	749.79	38.2 QP	46.0	-7.8	1.00 H	190	41.80	-3.60
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	43.48	35.2 QP	40.0	-4.8	1.25 V	13	49.50	-14.30
2	249.17	35.1 QP	46.0	-10.9	2.00 V	44	49.50	-14.40
3	375.29	32.9 QP	46.0	-13.1	1.24 V	155	44.00	-11.10
4	499.48	36.5 QP	46.0	-9.5	1.00 V	145	45.40	-8.90
5	625.60	36.2 QP	46.0	-9.8	1.00 V	336	42.40	-6.20
6	749.79	33.2 QP	46.0	-12.8	1.24 V	187	36.80	-3.60

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

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	ESCI	100612	Sep. 30, 2014	Sep. 29, 2015
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 13, 2014	Feb. 12, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 21, 2014	Jul. 20, 2015
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 1.
3. The VCCI Site Registration No. is C-2040.

4.2.3 TEST PROCEDURES

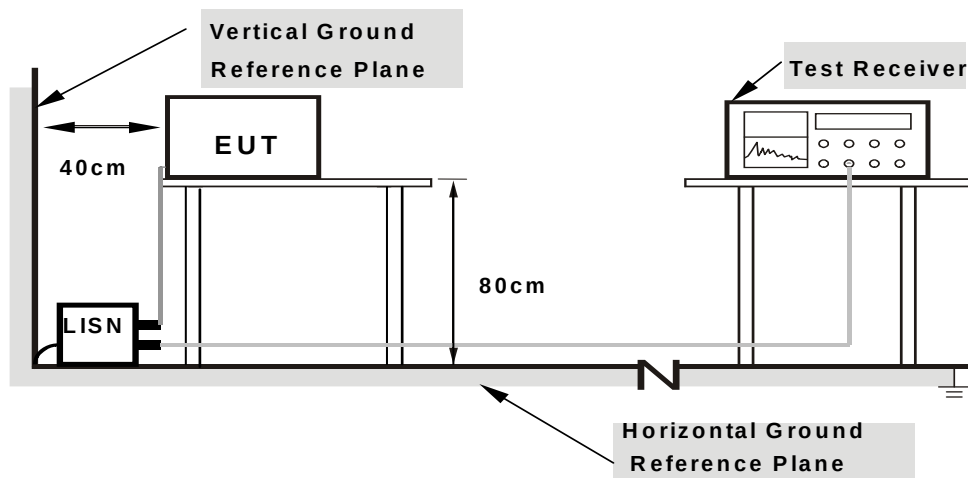
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance 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) were not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

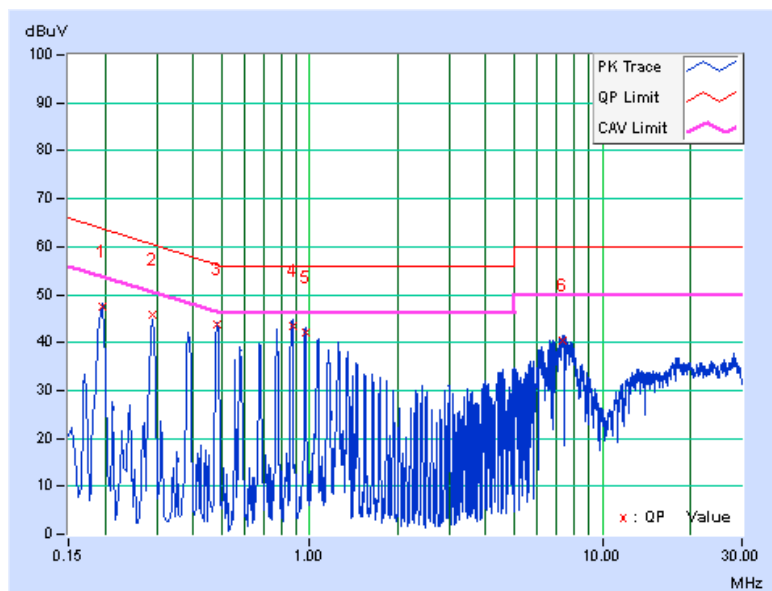
CONDUCTED WORST-CASE DATA: 802.11a

PHASE	Line 1	6dB BANDWIDTH	9kHz
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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	0.19665	0.07	47.25	43.15	47.32	43.22	63.75	53.75	-16.43	-10.53
2	0.29076	0.07	45.85	44.60	45.92	44.67	60.50	50.50	-14.58	-5.83
3	0.48235	0.08	43.80	43.70	43.88	43.78	56.30	46.30	-12.41	-2.51
4	0.87335	0.10	43.20	39.17	43.30	39.27	56.00	46.00	-12.70	-6.73
5	0.97110	0.11	42.11	36.99	42.22	37.10	56.00	46.00	-13.78	-8.90
6	7.33267	0.39	39.95	29.83	40.34	30.22	60.00	50.00	-19.66	-19.78

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

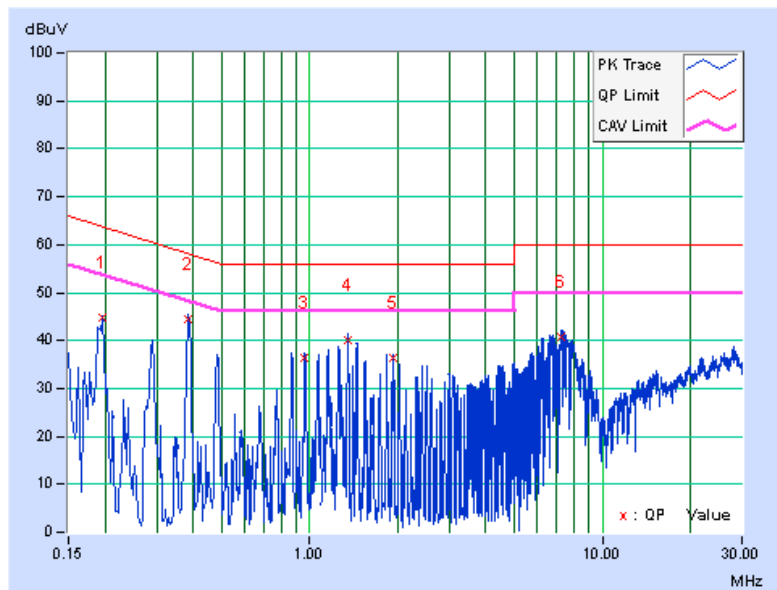


PHASE	Line 2	6dB BANDWIDTH	9kHz
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19665	0.05	44.70	39.24	44.75	39.29	63.75	53.75	-19.00	-14.46
2	0.38503	0.07	44.32	43.96	44.39	44.03	58.17	48.17	-13.78	-4.14
3	0.96319	0.09	36.33	34.74	36.42	34.83	56.00	46.00	-19.58	-11.17
4	1.35428	0.11	39.90	34.98	40.01	35.09	56.00	46.00	-15.99	-10.91
5	1.93114	0.14	36.20	32.87	36.34	33.01	56.00	46.00	-19.66	-12.99
6	7.24274	0.33	40.29	30.67	40.62	31.00	60.00	50.00	-19.38	-19.00

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 TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW (21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		Mobile and Portable client device	250mW (24 dBm)
U-NII-2A		---	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C		---	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3	√	---	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

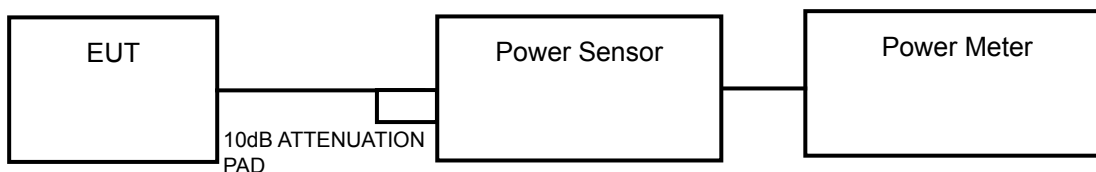
Array Gain = 0 dB (i.e., no array gain) for NANT $\leq$ 4;

Array Gain = 0 dB (i.e., no array gain) for channel widths $\geq$ 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 $\geq$ 5.

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

4.3.2 TEST SETUP



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

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.

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

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	9.51	7.83	7.60	20.754	13.17	30	PASS
40	5200	9.17	7.89	7.57	20.127	13.04	30	PASS
48	5240	9.19	7.83	7.51	20.002	13.01	30	PASS
149	5745	13.97	12.40	12.52	60.189	17.80	30	PASS
157	5785	13.89	12.01	12.42	57.834	17.62	30	PASS
165	5825	13.55	11.99	12.22	55.130	17.41	30	PASS

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
36	5180	9.48	7.58	7.70	20.488	13.11	30	PASS
40	5200	9.38	7.83	7.44	20.283	13.07	30	PASS
48	5240	9.21	7.62	7.42	19.639	12.93	30	PASS
149	5745	14.11	12.41	12.26	60.008	17.78	30	PASS
157	5785	14.73	12.97	13.33	71.060	18.52	30	PASS
165	5825	14.45	12.73	13.39	68.438	18.35	30	PASS

802.11n (40MHz)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
38	5190	8.95	7.84	7.03	18.980	12.78	30	PASS
46	5230	9.16	7.77	7.23	19.509	12.90	30	PASS
151	5755	13.53	11.73	11.95	53.104	17.25	30	PASS
159	5795	14.66	13.26	13.80	74.414	18.72	30	PASS

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	17dBm/ MHz
		Fixed point-to-point Access Point	
	√	Indoor Access Point	
		Mobile and Portable client device	11dBm/ MHz
U-NII-2A		---	11dBm/ MHz
U-NII-2C		---	11dBm/ MHz
U-NII-3	√	---	30dBm/ 500kHz

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

For U-NII-1:

Without duty factor

Using method SA-1

- 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

With duty factor

Using method SA-2

- 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 $10 \log (1/\text{duty cycle})$

For U-NII-3 band:

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 500 kHz, Set VBW $\geq$ 3 RBW, Detector = RMS
- 3) Sweep time = auto, trigger set to “free run”.
- 4) Trace average at least 100 traces in power averaging mode.
- 5) Record the max value and add $10 \log (1/\text{duty cycle})$
- 6) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where
$$\text{BWCF} = 10\log(500 \text{ kHz}/300\text{kHz})$$

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

For U-NII-1Band

802.11a

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
36	5180	-7.03	-7.94	-8.19	-2.92	0.39	-2.53	12.92	PASS
40	5200	-6.40	-7.45	-9.21	-2.77	0.39	-2.38	12.92	PASS
48	5240	-6.95	-7.56	-10.60	-3.33	0.39	-2.94	12.92	PASS

NOTE:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- For U-NII-1 Band:**
Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 10.08\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $17-(10.08-6) = 12.92\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
36	5180	-6.93	-8.84	-9.58	-3.53	12.92	PASS
40	5200	-6.87	-7.84	-9.18	-3.09	12.92	PASS
48	5240	-6.36	-8.02	-8.91	-2.86	12.92	PASS

NOTE:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- For U-NII-1 Band:**
Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 10.08\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $17-(10.08-6) = 12.92\text{dBm}$.

802.11n (40MHz)

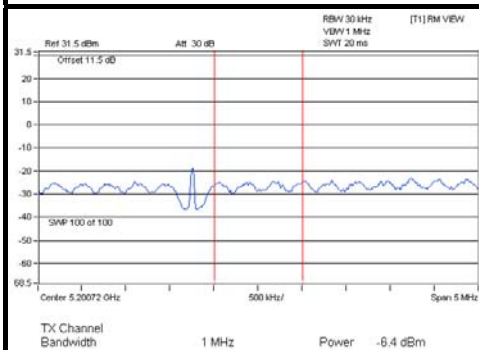
CHAN.	CHAN. FREQ. (MHz)	PSD (dBm)			TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2					
38	5190	-8.98	-11.31	-12.32	-5.87	0.78	-5.09	12.92	PASS
46	5230	-8.19	-10.01	-11.79	-4.98	0.78	-4.20	12.92	PASS

NOTE:

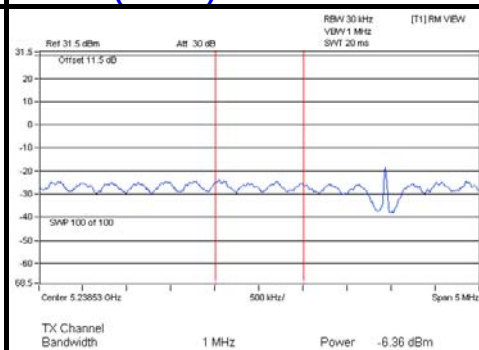
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- For U-NII-1 Band:**
Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 10.08\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $17-(10.08-6) = 12.92\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

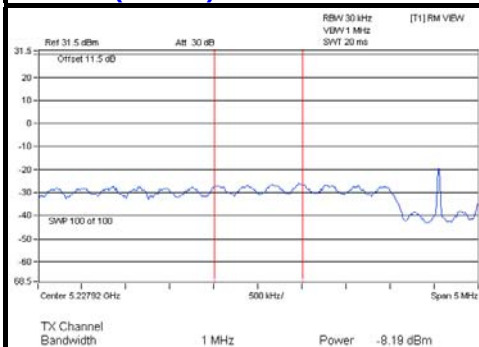
802.11a



802.11n (20MHz)



802.11n (40MHz)



For U-NII-3 Band

802.11a

TX chain	Channel	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=3) dB	Duty Factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	PASS /FAIL
0	149	5745	-6.99	-4.77	4.77	0.39	0.39	25.92	PASS
	157	5785	-7.33	-5.11	4.77	0.39	0.05	25.92	PASS
	165	5825	-7.53	-5.31	4.77	0.39	-0.15	25.92	PASS
1	149	5745	-9.20	-6.98	4.77	0.39	-1.82	25.92	PASS
	157	5785	-9.06	-6.84	4.77	0.39	-1.68	25.92	PASS
	165	5825	-9.43	-7.21	4.77	0.39	-2.05	25.92	PASS
2	149	5745	-8.55	-6.33	4.77	0.39	-1.17	25.92	PASS
	157	5785	-8.66	-6.44	4.77	0.39	-1.28	25.92	PASS
	165	5825	-8.91	-6.69	4.77	0.39	-1.53	25.92	PASS

NOTE:

1. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 10.08\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (10.08 - 6) = 25.92\text{dBm}$.
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=3) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	PASS /FAIL
0	149	5745	-7.29	-5.07	4.77	-0.30	25.92	PASS
	157	5785	-6.51	-4.29	4.77	0.48	25.92	PASS
	165	5825	-6.97	-4.75	4.77	0.02	25.92	PASS
1	149	5745	-8.98	-6.76	4.77	-1.99	25.92	PASS
	157	5785	-8.40	-6.18	4.77	-1.41	25.92	PASS
	165	5825	-8.93	-6.71	4.77	-1.94	25.92	PASS
2	149	5745	-8.16	-5.94	4.77	-1.17	25.92	PASS
	157	5785	-7.55	-5.33	4.77	-0.56	25.92	PASS
	165	5825	-7.87	-5.65	4.77	-0.88	25.92	PASS

NOTE: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 10.08\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (10.08 - 6) = 25.92\text{dBm}$.

802.11n (40MHz)

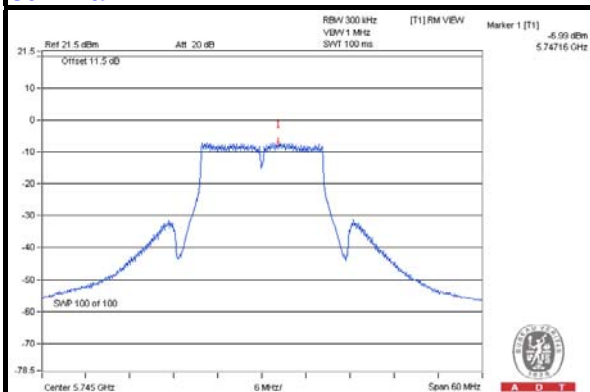
TX chain	Channel	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=3) dB	Duty Factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	PASS /FAIL
0	151	5755	-10.51	-8.29	4.77	0.78	-2.74	25.92	PASS
	159	5795	-9.00	-6.78	4.77	0.78	-1.23	25.92	PASS
1	151	5755	-12.32	-10.10	4.77	0.78	-4.55	25.92	PASS
	159	5795	-10.85	-8.63	4.77	0.78	-3.08	25.92	PASS
2	151	5755	-11.77	-9.55	4.77	0.78	-4.00	25.92	PASS
	159	5795	-10.20	-7.98	4.77	0.78	-2.43	25.92	PASS

NOTE:

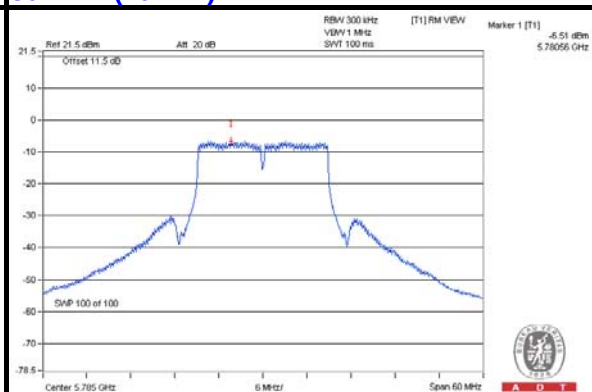
- Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2/3] = 10.08 \text{ dBi} > 6 \text{ dBi}$, so the power density limit shall be reduced to $30 - (10.08 - 6) = 25.92 \text{ dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

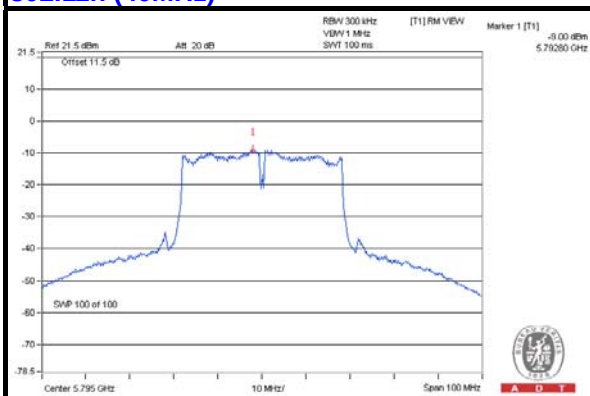
802.11a



802.11n (20MHz)



802.11n (40MHz)

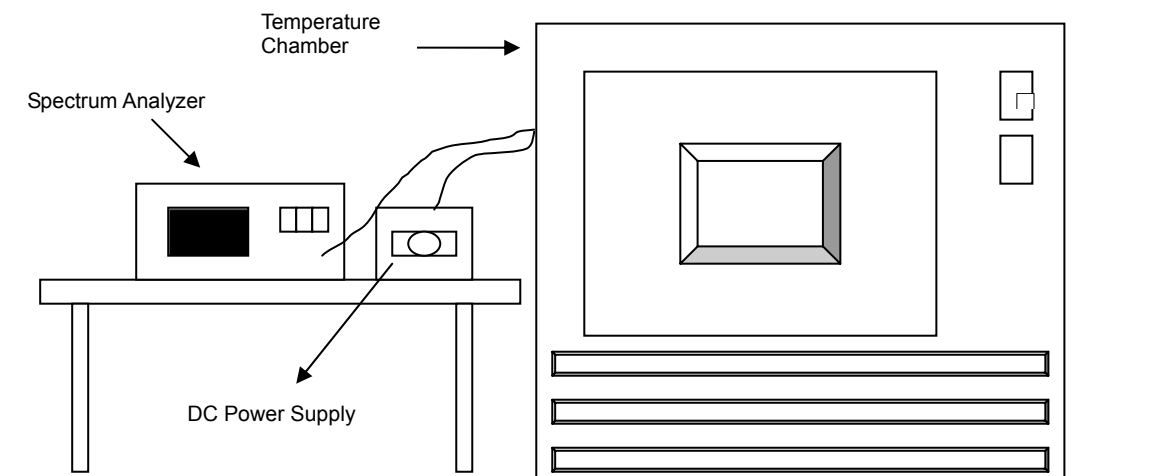


4.5 FREQUENCY STABILITY

4.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

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

- 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.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

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

4.5.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	55	5240.0002	0.00000	5239.999	-0.00002	5239.9976	-0.00005	5239.9996	-0.00001
40	55	5240.0055	0.00010	5240.007	0.00013	5240.0065	0.00012	5240.0065	0.00012
30	55	5239.9898	-0.00019	5239.9903	-0.00019	5239.9885	-0.00022	5239.9902	-0.00019
20	55	5240.0048	0.00009	5240.0018	0.00003	5240.0025	0.00005	5240.0017	0.00003
10	55	5240.0055	0.00010	5240.0066	0.00013	5240.0062	0.00012	5240.0071	0.00014
0	55	5239.9792	-0.00040	5239.9822	-0.00034	5239.9843	-0.00030	5239.981	-0.00036
-10	55	5240.0128	0.00024	5240.0131	0.00025	5240.0141	0.00027	5240.0113	0.00022
-20	55	5239.977	-0.00044	5239.9777	-0.00043	5239.9812	-0.00036	5239.9774	-0.00043
-30	55	5239.9891	-0.00021	5239.9884	-0.00022	5239.9881	-0.00023	5239.9891	-0.00021

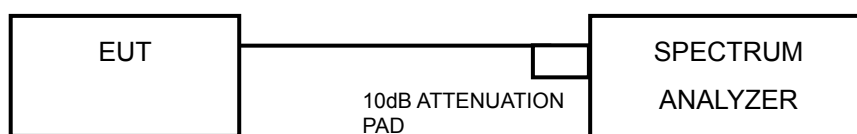
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5240MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	63.25	5240.0053	0.00010	5240.0014	0.00003	5240.0025	0.00005	5240.0026	0.00005
	55	5240.0048	0.00009	5240.0018	0.00003	5240.0025	0.00005	5240.0017	0.00003
	46.75	5240.0046	0.00009	5240.0021	0.00004	5240.0021	0.00004	5240.0022	0.00004

4.6 6dB BANDWIDTH MEASUREMENT

4.6.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 TEST SETUP



4.6.3 TEST INSTRUMENTS

Refer to section 4.1.2 to get information of above instrument.

4.6.4 TEST PROCEDURE

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

4.6.5 DEVIATION FROM TEST STANDARD

No deviation.

4.6.6 EUT OPERATING CONDITIONS

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

4.6.7 TEST RESULTS

802.11a

CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
149	5745	16.41	16.45	16.45	0.5	PASS
157	5785	16.42	16.43	16.47	0.5	PASS
165	5825	16.43	16.43	16.45	0.5	PASS

802.11n (20MHz)

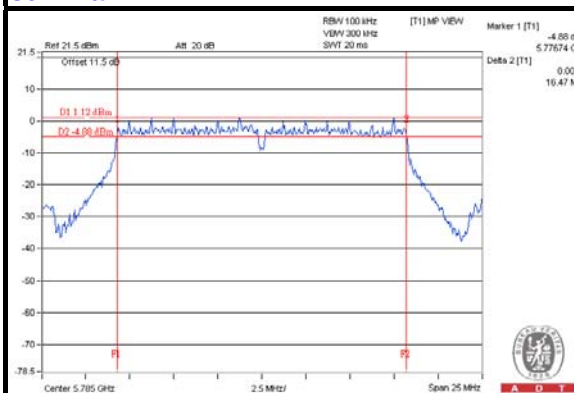
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
149	5745	17.65	17.70	17.68	0.5	PASS
157	5785	17.64	17.66	17.69	0.5	PASS
165	5825	17.64	17.66	17.64	0.5	PASS

802.11n (40MHz)

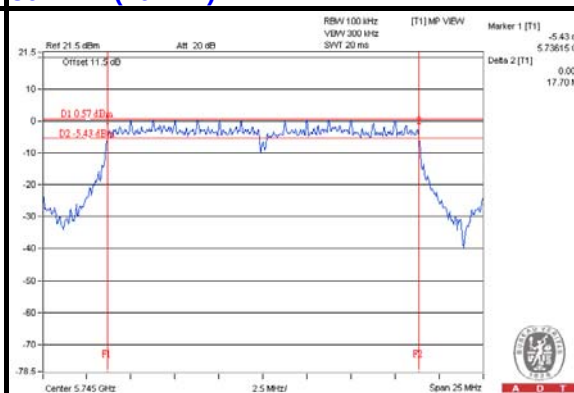
CHANNEL	FREQUENCY (MHz)	6dB BANDWIDTH (MHz)			MINIMUM LIMIT (MHz)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		
151	5755	36.43	36.47	36.13	0.5	PASS
159	5795	36.13	36.46	35.83	0.5	PASS

SPECTRUM PLOT OF WORST VALUE

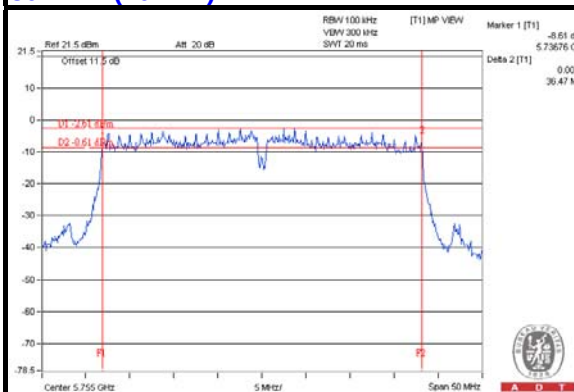
802.11a



802.11n (20MHz)



802.11n (40MHz)



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:

Linko EMC/RF Lab:

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab:

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Lab:

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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

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

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