

FCC TEST REPORT (15.407)

REPORT NO.: RF130725E04A-1

MODEL NO.: MR34-HW

FCC ID: UDX-60025010

RECEIVED: Aug. 01, 2013

TESTED: Aug. 01 to Sep. 27, 2013

ISSUED: Oct. 02, 2013

APPLICANT: Cisco Systems, Inc.

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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
RF130725E04A-1	Original release	Aug. 27, 2013
RF130725E04A-1 R1	Modified the description on section 3.4, section 4.1, section 4.2 and section 4.4.	Oct. 02, 2013



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1. CERTIFICATION

PRODUCT: Cisco Meraki MR34
BRAND NAME: Cisco
MODEL NO.: MR34-HW
TEST SAMPLE: R&D SAMPLE
APPLICANT: Cisco Systems, Inc.
TESTED: Aug. 01 to Sep. 27, 2013
STANDARDS: FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10-2009

The above equipment (Model: MR34-HW) 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 : Phoenix Huang , **DATE:** Oct. 02, 2013
(Phoenix Huang, Specialist)

APPROVED BY : May Chen , **DATE:** Oct. 02, 2013
(May Chen, Manager)

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

For 5GHz, 5260~5320MHz, 5500~5580MHz & 5660~5700MHz

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 -6.25dB at 0.49800MHz
15.407(b)(1/2/3) (b)(5)	Spurious Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 5350.00MHz
15.407(a)(1/2/3)	Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(6)	Peak Power Excursion	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is IPEX not a standard connector.

NOTE:

1. This report is prepared for FCC class II change. (Add DFS band: 5250~5350MHz & 5470~5725MHz).
2. The DFS report was recorded in another test report.

2.1 MEASUREMENT UNCERTAINTY

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

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

Measurement	Value
Conducted emissions	2.98 dB
Radiated emissions (30MHz-1GHz) for channel 116	5.46 dB
Radiated emissions (30MHz-1GHz) for channel 100 & 140	5.63 dB
Radiated emissions (1GHz -6GHz)	3.54 dB
Radiated emissions (6GHz -18GHz)	4.08 dB
Radiated emissions (18GHz -40GHz)	4.11 dB

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Cisco Meraki MR34
MODEL NO.	MR34-HW
POWER SUPPLY	DC 12V from power adapter, DC 37~57V _{dc} , 0.5~0.3A from POE
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only.
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: up to 54Mbps 802.11n: up to 450Mbps 802.11ac: up to 1300Mbps
OPERATING FREQUENCY	5.26 ~ 5.32GHz, 5.50 ~ 5.58GHz & 5.66GHz ~ 5.70GHz
NUMBER OF CHANNEL	12 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 5 for 802.11n (HT40), 802.11ac (VHT40) 2 for 802.11ac (VHT80)
MAXIMUM OUTPUT POWER	Please see NOTE
ANTENNA TYPE	Please see NOTE
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	Adapter x1

NOTE:

1. This report is prepared for FCC class II permissive change. The difference compared with the original report design is as the following information:

u Add DFS band <5250~5350MHz & 5470~5725MHz>

2. The maximum output power table as below table:

MAXIMUM OUTPUT POWER (mW)			
Radio Card 1		Radio Card 0	
15.407		15.407	
802.11a	49.545	802.11a	112.036
802.11n (HT20)	49.774	802.11n (HT20)	194.327
802.11n (HT40)	37.497	802.11n (HT40)	194.069
		802.11ac (VHT80)	188.917

3. The EUT is a 2.4GHz & 5GHz WLAN device.

4. The EUT must be supplied with a adapter or POE (only for test not for sale) as below information:

Adapter		
Brand	Model No.	Spec.
Powertron Electronics Corp.	PA1015-2HU	AC Input : 100-240V, 0.4A, 50-60Hz DC Output : 12V, 1.5A DC output cable(unshielded ,1.6m)
POE(only for test not for sale)		
Brand	Model No.	Spec.
Power Dsine	PD-9501G/AC	AC Input : 100-240V, 1.5A, 50-60Hz DC Output : 55V, 1.35A
For the original test report: the radiated emission: From above power sources, the worst case was found in Adapter (Model: PA1015-2HU). Therefore only the test data of the mode was recorded in this report.		

5. The three radio cards and antennas provided to the EUT, please refer to the following table:

Radio Card 0 (Single band 3Tx)					
Transmitter Circuit	Gain (dBi) (Include cable loss)	Antenna Type	Connector Type	Frequency range (MHz to MHz)	Cable Length (mm)
Chain (0)	5.6	PIFA	IPEX	5150~5850	185
Chain (1)	5.5	PIFA	IPEX	5150~5850	270
Chain (2)	5.2	PIFA	IPEX	5150~5850	75
Radio Card 1 (Dual band 1Tx)					
Transmitter Circuit	Gain (dBi) (Include cable loss)	Antenna Type	Connector Type	Frequency range (MHz to MHz)	Cable Length (mm)
Chain (0)	4.3	PIFA	IPEX	2400~2500	95
	5.4	PIFA	IPEX	5150~5850	95
Radio Card 2 (Single band 3Tx)					
Transmitter Circuit	Gain (dBi) (Include cable loss)	Antenna Type	Connector Type	Frequency range (MHz to MHz)	Cable Length (mm)
Chain (0)	4.8	PIFA	IPEX	2400~2500	45
Chain (1)	2	PIFA	IPEX	2400~2500	195
Chain (2)	2.3	PIFA	IPEX	2400~2500	165

6. The EUT incorporates a MIMO function without beam forming.

MODULATION MODE	RADIO CARD	TX/RX FUNCTION
802.11b 802.11g 802.11n (HT20) <2.4GHz> 802.11n (HT40) <2.4GHz>	Card 1	1Tx/1Rx
	Card 2	1Tx/1Rx (Diversity) 2Tx/2Rx (Diversity) 3Tx/3Rx
802.11a 802.11n (HT20) <5GHz> 802.11n (HT40) <5GHz>	Card 1	1Tx/1Rx
802.11a 802.11n (HT20) <5GHz> 802.11n (HT40) <5GHz> 802.11ac (VHT20) 802.11ac (VHT40) 802.11ac (VHT80)	Card 0	1Tx/1Rx (Diversity) 2Tx/2Rx (Diversity) 3Tx/3Rx

Note: The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)



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7. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 23.
8. When the EUT operating in 802.11ac, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 9.
9. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

Operated in 5260 ~ 5320MHz band:

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY
54	5270 MHz
62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY
58	5290 MHz

Operated in 5470MHz ~ 5600MHz & 5650MHz ~ 5725MHz bands:

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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 (HT40), 802.11ac (VHT40):

CHANNEL	FREQUENCY
102	5510 MHz
110	5550 MHz
134	5670 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY
106	5530 MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	PLC	RE < 1G	RE ≥ 1G	APCM	
1	√	√	√	√	Radio Card 1 <5GHz> with Adapter
2	√	√	√	√	Radio Card 0 <5GHz> with Adapter
3	√	-	-	-	Radio Card 1 <5GHz> with POE
4	√	-	-	-	Radio Card 0 <5GHz> with POE

Where **PLC**: Power Line Conducted Emission

RE < 1G: Radiated Emission below 1GHz

RE ≥ 1G: Radiated Emission above 1GHz

APCM: Antenna Port Conducted Measurement

Note: For the original test report: the EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on **X-plane** (for below 1GHz) and **Z-plane** (for above 1GHz).

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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (HT20) (Radio Card 1)	52 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (HT20) (Radio Card 0)	52 to 140	100, 116, 140	OFDM	BPSK	19.5

RADIATED EMISSION TEST (BELOW 1 GHz):

- ☒ 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.

MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11n (HT20) (Radio Card 1)	52 to 140	100, 116, 140	OFDM	BPSK	6.5
802.11n (HT20) (Radio Card 0)	52 to 140	100, 116, 140	OFDM	BPSK	19.5

RADIATED EMISSION TEST (ABOVE 1 GHz):

- ☒ 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.

Radio Card 1 <5GHz>					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6
802.11n (HT20)	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6.5
802.11n (HT40)	54 to 134	54, 62, 102, 110, 134	OFDM	BPSK	13.5
Radio Card 0 <5GHz>					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6
802.11n (HT20)	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	19.5
802.11n (HT40)	54 to 134	54, 62, 102, 110, 134	OFDM	BPSK	40.5
802.11ac (VHT80) (Only Radio Card 0)	58 to 106	58, 106	OFDM	BPSK	87.5

ANTENNA PORT CONDUCTED MEASUREMENT:

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

Radio Card 1 <5GHz>					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6
802.11n (HT20)	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6.5
802.11n (HT40)	54 to 134	54, 62, 102, 110, 134	OFDM	BPSK	13.5
Radio Card 0 <5GHz>					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	6
802.11n (HT20)	52 to 140	52, 60, 64, 100, 116, 132, 140	OFDM	BPSK	19.5
802.11n (HT40)	54 to 134	54, 62, 102, 110, 134	OFDM	BPSK	40.5
802.11ac (VHT80) (Only Radio Card 0)	58 to 106	58, 106	OFDM	BPSK	87.5

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
PLC	26deg. C, 66%RH	120Vac, 60Hz	JyunChun Lin
	25deg. C, 50%RH	120Vac, 60Hz	Scott Chen
	26deg. C, 60%RH	120Vac, 60Hz	Barry Lee
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Nelson Teng
	25deg. C, 65%RH	120Vac, 60Hz	Chilin Lee
RE ³ 1G	23deg. C, 70%RH	120Vac, 60Hz	Tim Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	James Chan
	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng
	25deg. C, 60%RH	120Vac, 60Hz	Chilin Lee



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3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)

789033 D01 General UNII Test Procedures v01 r03

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 has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DUTY CYCLE OF TEST SIGNAL

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

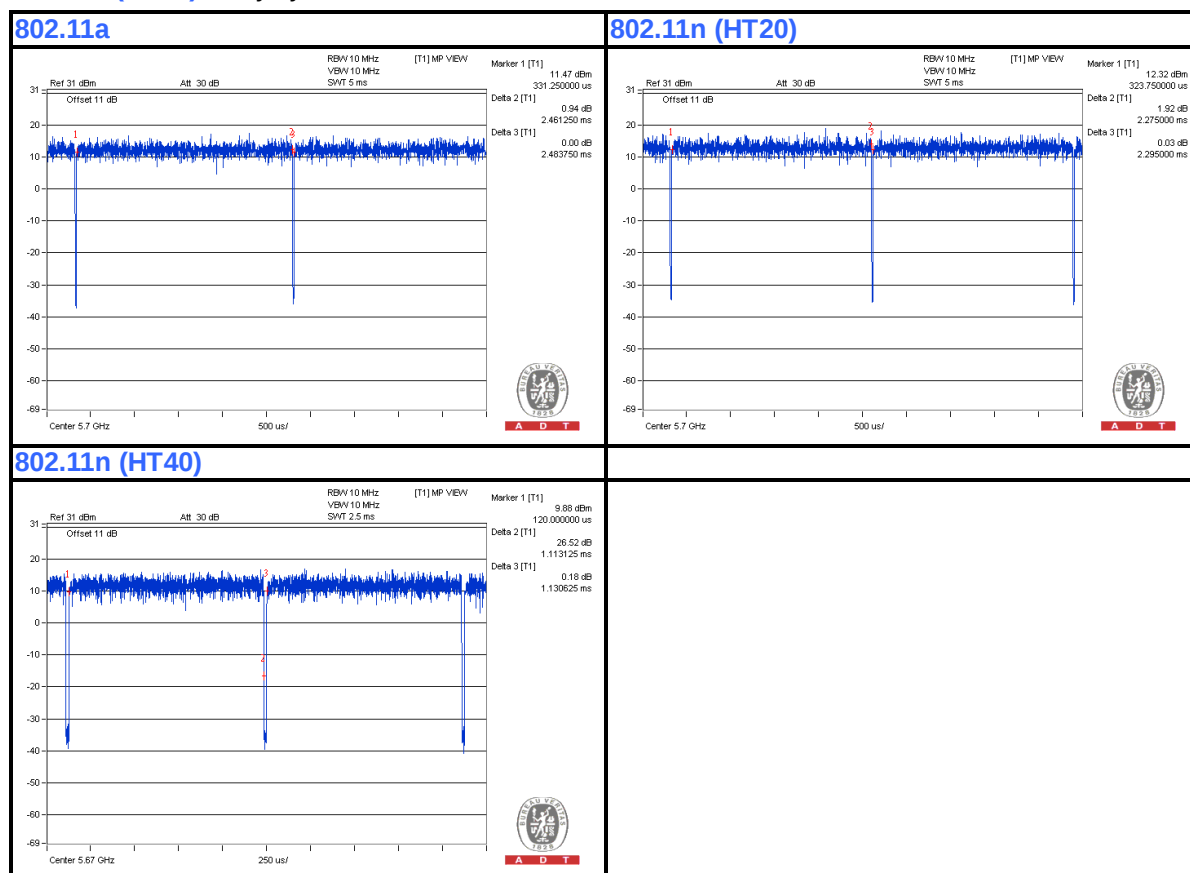
If duty cycle of test signal is < 98%, duty factor shall be considered.

Radio Card 1 (5G)

802.11a: Duty cycle = 2.461 ms/2.484 ms = 0.991

802.11n (HT20): Duty cycle = 2.275 ms/2.295 ms = 0.991

802.11n (HT40): Duty cycle = 1.113 ms/1.131 ms = 0.984





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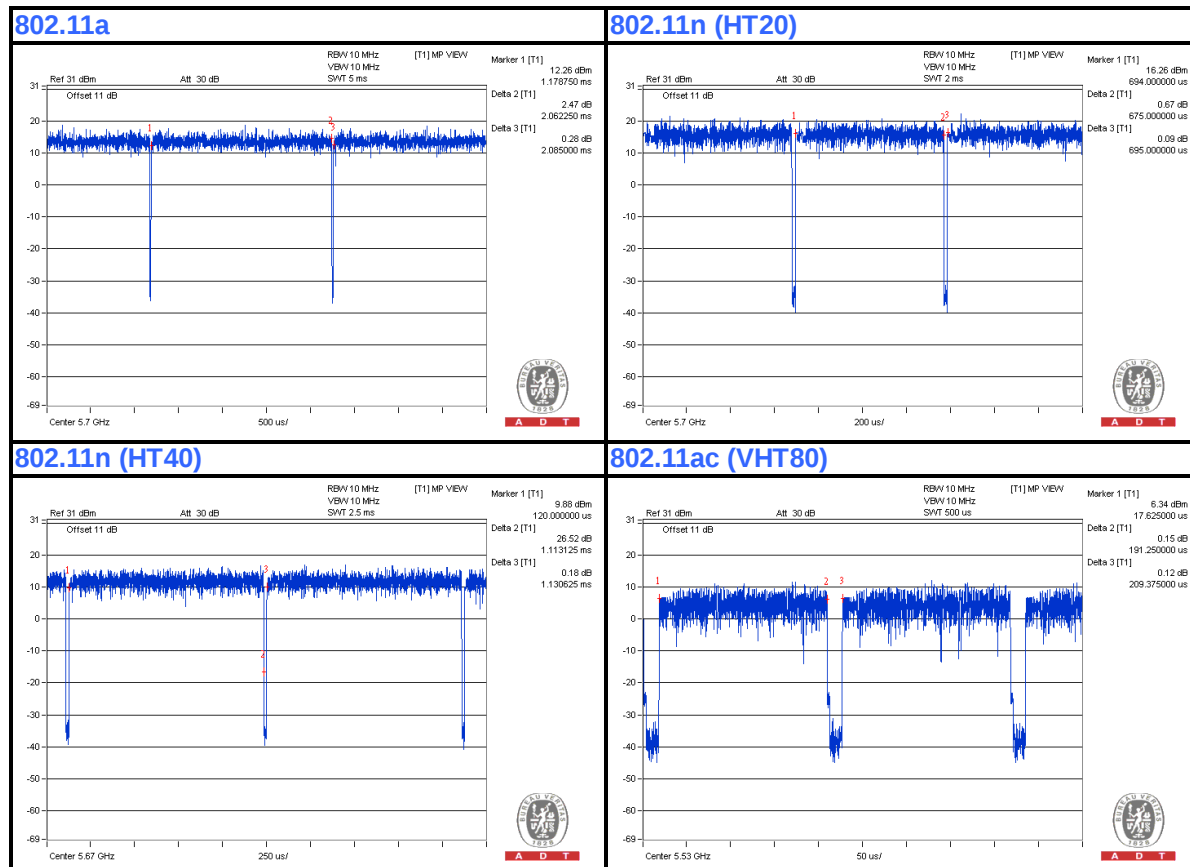
Radio Card 0

802.11a: Duty cycle = $2.062 \text{ ms} / 2.085 \text{ ms} = 0.989$

802.11n (HT20): Duty cycle = $0.675 \text{ ms} / 0.695 \text{ ms} = 0.971$, Duty factor = $10 * \log(1/0.971) = 0.13$

802.11n (HT40): Duty cycle = $0.353 \text{ ms} / 0.369 \text{ ms} = 0.957$, Duty factor = $10 * \log(1/0.957) = 0.19$

802.11ac (VHT80): Duty cycle = $0.191 \text{ ms} / 0.209 \text{ ms} = 0.914$, Duty factor = $10 * \log(1/0.914) = 0.39$





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3.5 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.

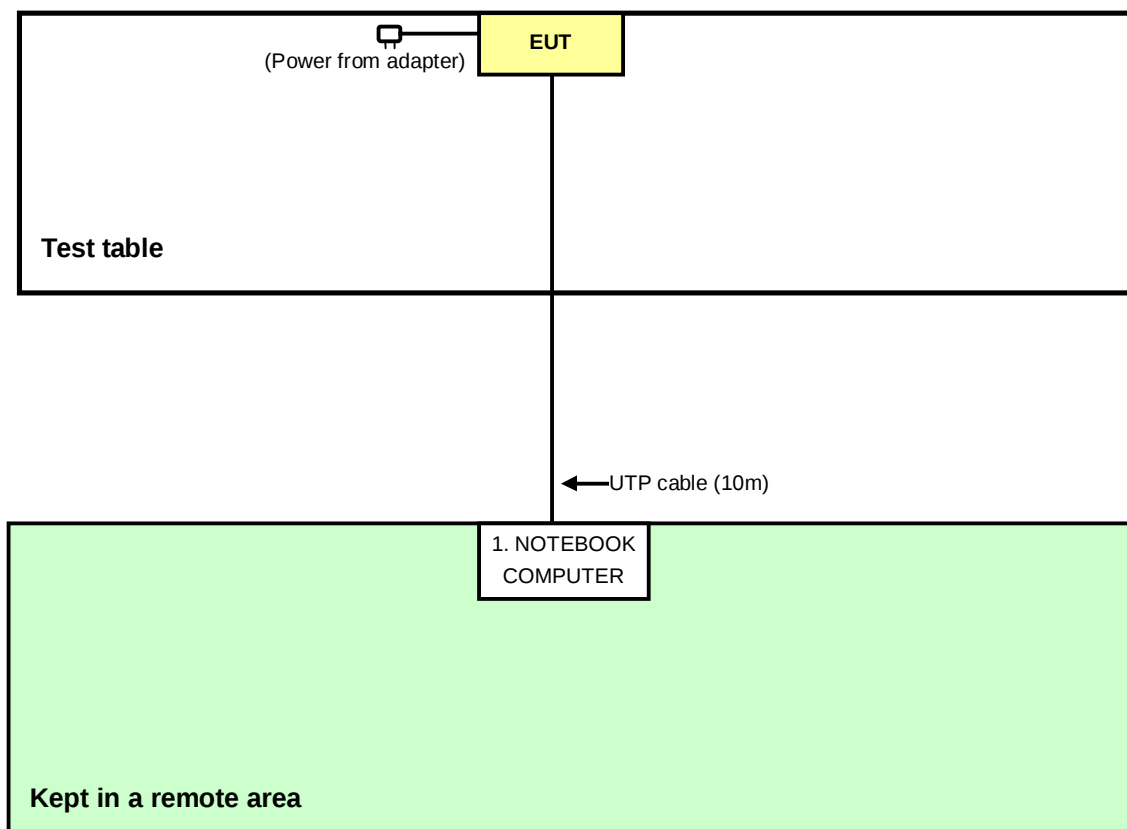
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP32LA	FSLB32S	FCC DoC
2	POE	Power Dsine	PD-9501G/AC	NA	NA

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

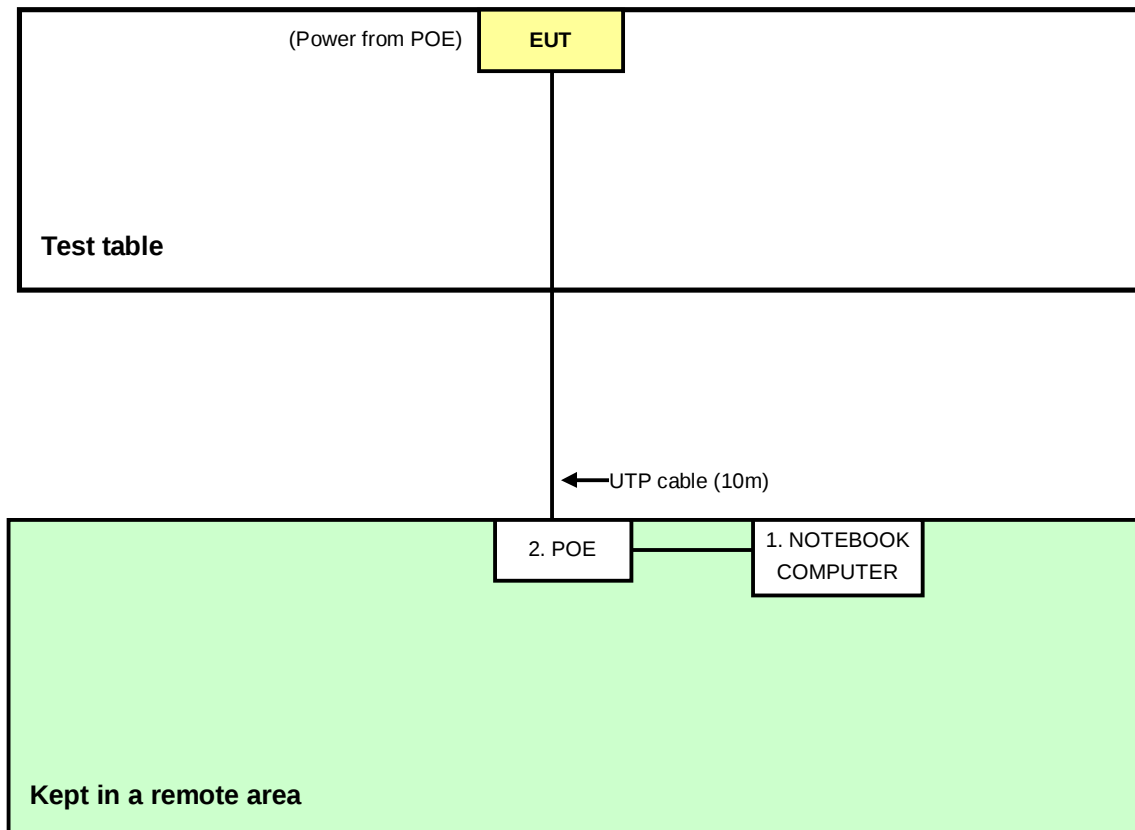
NOTE: All power cords of the above support units are non shielded (1.8m).

3.6 CONFIGURATION OF SYSTEM UNDER TEST

For Conducted Emission (Mode 1~2) / Radiated Emission test:



For Conducted Emission (Mode 3~4) test:



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

4.1.1 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 0.50 MHz.

4.1.2 TEST INSTRUMENTS

For channel 116:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100375	Mar. 08, 2013	Mar. 07, 2014
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK8127	8127-522	Sep. 06, 2012	Sep. 05, 2013
Line-Impedance Stabilization Network (for Peripheral)	ENV216	100072	June 07, 2013	June 06, 2014
RF Cable (JYEBAO)	5DFB	COCCAB-001	Mar. 11, 2013	Mar. 10, 2014
50 ohms Terminator	50	EMC-3	Sep. 25, 2012	Sep. 24, 2013
Software ADT	BV ADT_Cond_V7.3.7. 3	NA	NA	NA

Note:

- The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
- The test was performed in Shielded Room No. C.
- The VCCI Con C Registration No. is C-3611.
- Tested Date: Aug. 02 to 05, 2013



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For other test channel:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100375	Mar. 08, 2013	Mar. 07, 2014
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK8127	8127-522	Sep. 05, 2013	Sep. 04, 2014
Line-Impedance Stabilization Network (for Peripheral)	ENV216	100072	June 06, 2013	June 05, 2014
RF Cable (JYBAO)	5DFB	COCCAB-001	Mar. 11, 2013	Mar. 10, 2014
50 ohms Terminator	50	EMC-03	Sep. 24, 2013	Sep. 23, 2014
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 Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: Sep. 25 to 27, 2013

4.1.3 TEST PROCEDURES

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

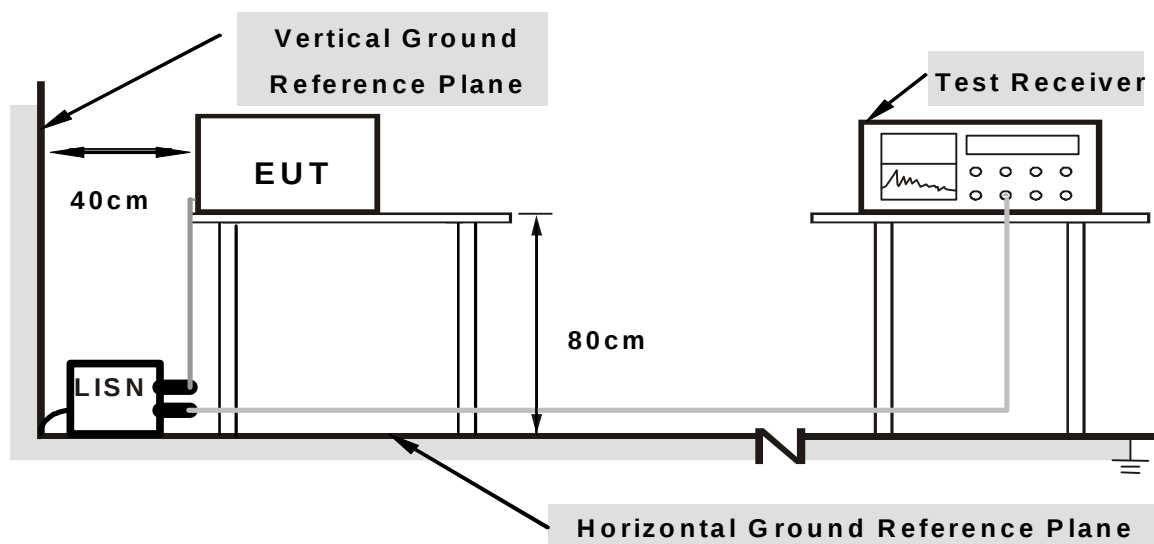
NOTE:

1. The resolution bandwidth of test receiver is 9kHz for Quasi-peak detection (QP) & Average detection (AV).

4.1.4 DEVIATION FROM TEST STANDARD

No deviation

4.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.6 EUT OPERATING CONDITIONS

1. Turn on the power of EUT.
2. The communication partner run test program “MTool V1.0.0.10.exe” to enable EUT under transmission/receiving condition continuously at specific channel frequency.

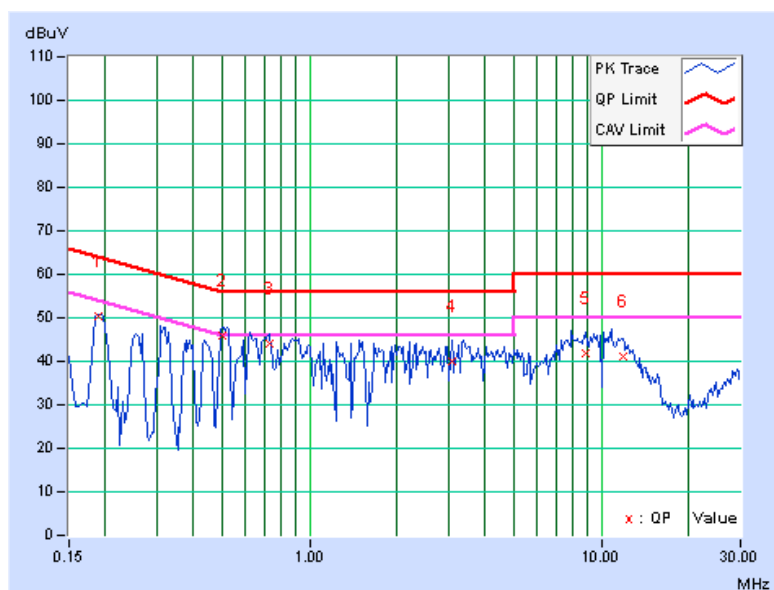
4.1.7 TEST RESULTS (MODE 1)

CHANNEL	Channel 100		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18906	0.15	50.38	38.27	50.53	38.42	64.08	54.08	-13.55	-15.66
2	0.50156	0.21	45.54	37.29	45.75	37.50	56.00	46.00	-10.25	-8.50
3	0.72813	0.23	43.66	31.36	43.89	31.59	56.00	46.00	-12.11	-14.41
4	3.06250	0.41	39.69	29.50	40.10	29.91	56.00	46.00	-15.90	-16.09
5	8.82031	0.82	41.21	33.03	42.03	33.85	60.00	50.00	-17.97	-16.15
6	11.82422	1.01	40.03	32.48	41.04	33.49	60.00	50.00	-18.96	-16.51

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

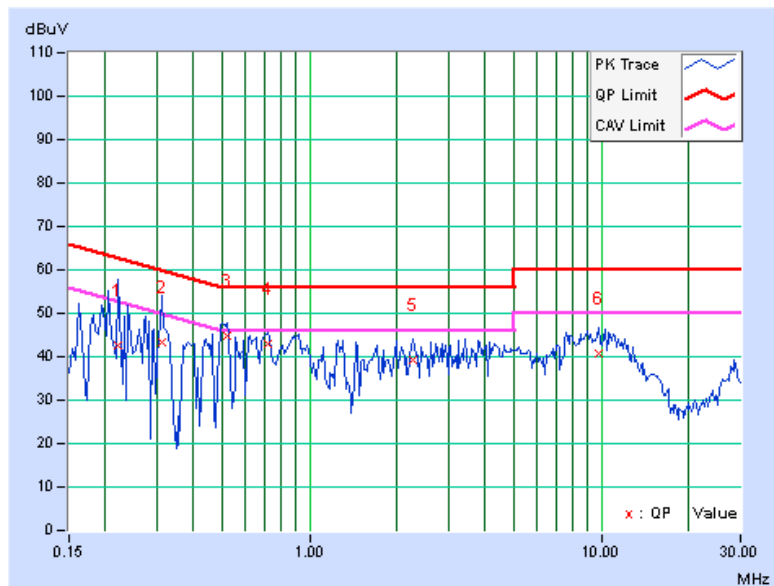


CHANNEL	Channel 100		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.22031	0.14	42.38	14.07	42.52	14.21	62.81	52.81	-20.29	-38.60
2	0.31406	0.16	43.33	35.87	43.49	36.03	59.86	49.86	-16.37	-13.83
3	0.52500	0.20	44.50	35.44	44.70	35.64	56.00	46.00	-11.30	-10.36
4	0.72422	0.21	42.62	32.12	42.83	32.33	56.00	46.00	-13.17	-13.67
5	2.26953	0.32	39.01	27.64	39.33	27.96	56.00	46.00	-16.67	-18.04
6	9.77344	0.73	40.14	32.03	40.87	32.76	60.00	50.00	-19.13	-17.24

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

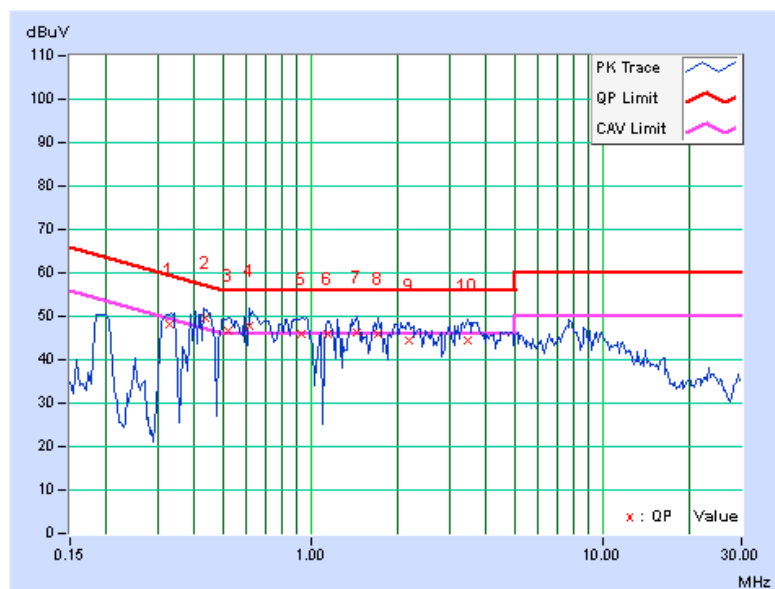


CHANNEL	Channel 116		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.32659	0.18	48.15	39.80	48.33	39.98	59.54	49.54	-11.21	-9.56
2	0.43475	0.20	49.34	38.37	49.54	38.57	57.16	47.16	-7.62	-8.59
3	0.52109	0.21	46.39	35.89	46.60	36.10	56.00	46.00	-9.40	-9.90
4	0.61875	0.22	47.65	35.03	47.87	35.25	56.00	46.00	-8.13	-10.75
5	0.92734	0.24	45.84	34.48	46.08	34.72	56.00	46.00	-9.92	-11.28
6	1.14063	0.26	45.65	32.44	45.91	32.70	56.00	46.00	-10.09	-13.30
7	1.43750	0.29	46.07	34.47	46.36	34.76	56.00	46.00	-9.64	-11.24
8	1.70703	0.31	45.52	33.15	45.83	33.46	56.00	46.00	-10.17	-12.54
9	2.16797	0.35	44.14	32.77	44.49	33.12	56.00	46.00	-11.51	-12.88
10	3.43750	0.43	43.86	32.97	44.29	33.40	56.00	46.00	-11.71	-12.60

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

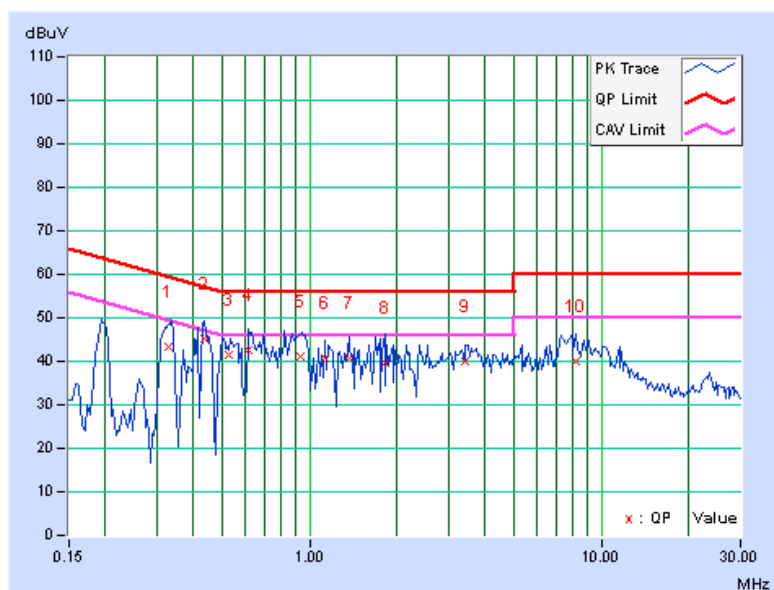


CHANNEL	Channel 116		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.32825	0.17	43.28	33.45	43.45	33.62	59.50	49.50	-16.05	-15.88
2	0.43516	0.19	44.82	33.79	45.01	33.98	57.15	47.15	-12.14	-13.17
3	0.52622	0.20	41.21	28.88	41.41	29.08	56.00	46.00	-14.59	-16.92
4	0.61875	0.20	42.44	29.07	42.64	29.27	56.00	46.00	-13.36	-16.73
5	0.92734	0.22	40.91	29.22	41.13	29.44	56.00	46.00	-14.87	-16.56
6	1.12891	0.23	40.59	28.13	40.82	28.36	56.00	46.00	-15.18	-17.64
7	1.36719	0.25	40.51	28.01	40.76	28.26	56.00	46.00	-15.24	-17.74
8	1.80859	0.28	39.46	25.70	39.74	25.98	56.00	46.00	-16.26	-20.02
9	3.41797	0.39	39.58	28.43	39.97	28.82	56.00	46.00	-16.03	-17.18
10	8.16797	0.65	39.24	30.16	39.89	30.81	60.00	50.00	-20.11	-19.19

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

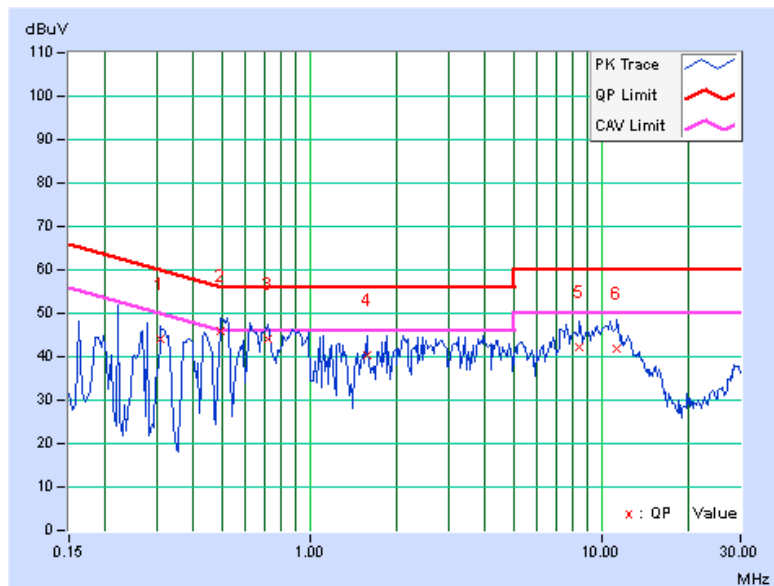


CHANNEL	Channel 140		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.31016	0.18	43.99	35.09	44.17	35.27	59.97	49.97	-15.80	-14.70
2	0.49766	0.21	45.88	35.78	46.09	35.99	56.04	46.04	-9.95	-10.05
3	0.72422	0.23	43.82	33.79	44.05	34.02	56.00	46.00	-11.95	-11.98
4	1.57031	0.30	39.97	29.60	40.27	29.90	56.00	46.00	-15.73	-16.10
5	8.44531	0.79	41.53	33.10	42.32	33.89	60.00	50.00	-17.68	-16.11
6	11.33984	0.98	40.82	33.20	41.80	34.18	60.00	50.00	-18.20	-15.82

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

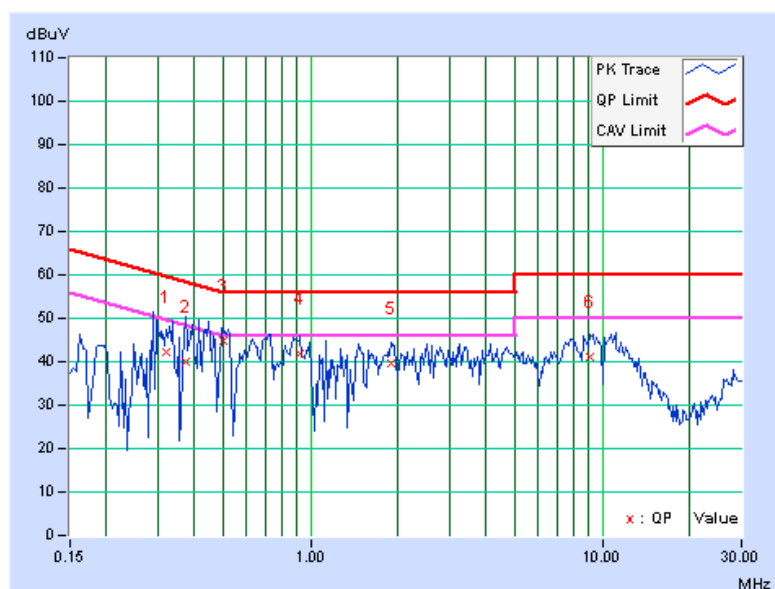


CHANNEL	Channel 140		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.32188	0.17	42.19	35.35	42.36	35.52	59.66	49.66	-17.30	-14.14
2	0.37266	0.18	39.94	30.69	40.12	30.87	58.44	48.44	-18.32	-17.57
3	0.50156	0.20	44.59	36.08	44.79	36.28	56.00	46.00	-11.21	-9.72
4	0.92344	0.22	41.73	30.75	41.95	30.97	56.00	46.00	-14.05	-15.03
5	1.89844	0.29	39.28	29.18	39.57	29.47	56.00	46.00	-16.43	-16.53
6	9.09766	0.69	40.42	32.28	41.11	32.97	60.00	50.00	-18.89	-17.03

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



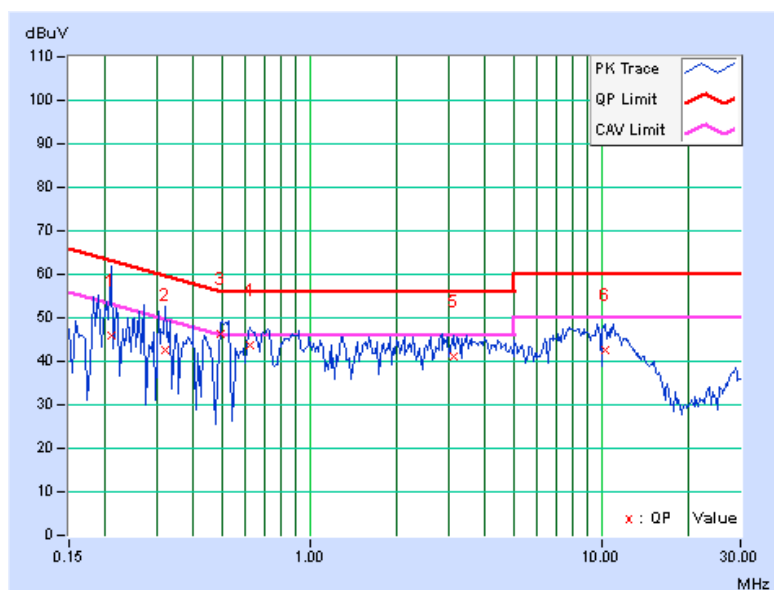
4.1.8 TEST RESULTS (MODE 2)

CHANNEL	Channel 100		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20859	0.15	45.91	19.96	46.06	20.11	63.26	53.26	-17.20	-33.15
2	0.32188	0.18	42.33	37.08	42.51	37.26	59.66	49.66	-17.15	-12.40
3	0.49766	0.21	46.08	35.98	46.29	36.19	56.04	46.04	-9.75	-9.85
4	0.62656	0.22	43.54	33.71	43.76	33.93	56.00	46.00	-12.24	-12.07
5	3.10547	0.41	40.77	30.76	41.18	31.17	56.00	46.00	-14.82	-14.83
6	10.28516	0.92	41.73	33.87	42.65	34.79	60.00	50.00	-17.35	-15.21

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

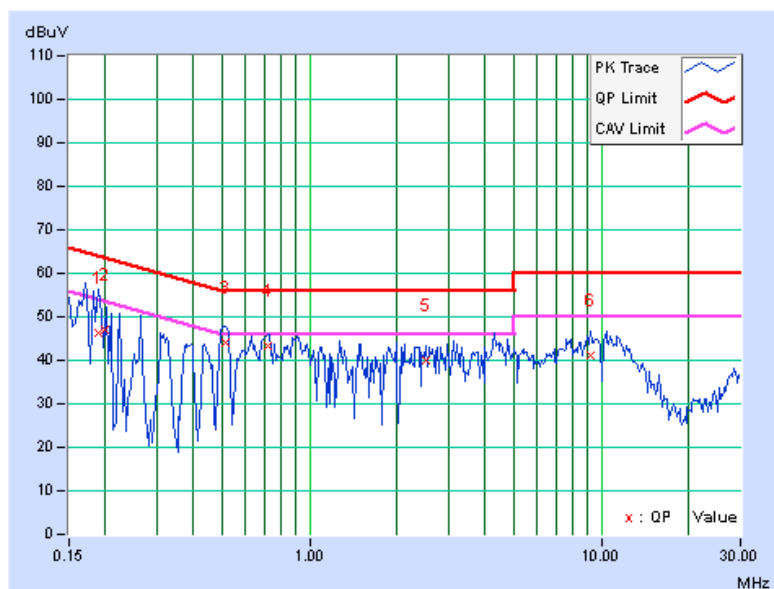


CHANNEL	Channel 100		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18906	0.13	46.07	33.16	46.20	33.29	64.08	54.08	-17.88	-20.79
2	0.20003	0.13	47.09	28.55	47.22	28.68	63.61	53.61	-16.39	-24.93
3	0.51719	0.20	43.92	36.44	44.12	36.64	56.00	46.00	-11.88	-9.36
4	0.72422	0.21	42.97	32.57	43.18	32.78	56.00	46.00	-12.82	-13.22
5	2.51953	0.33	39.58	28.71	39.91	29.04	56.00	46.00	-16.09	-16.96
6	9.19531	0.70	40.52	32.18	41.22	32.88	60.00	50.00	-18.78	-17.12

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

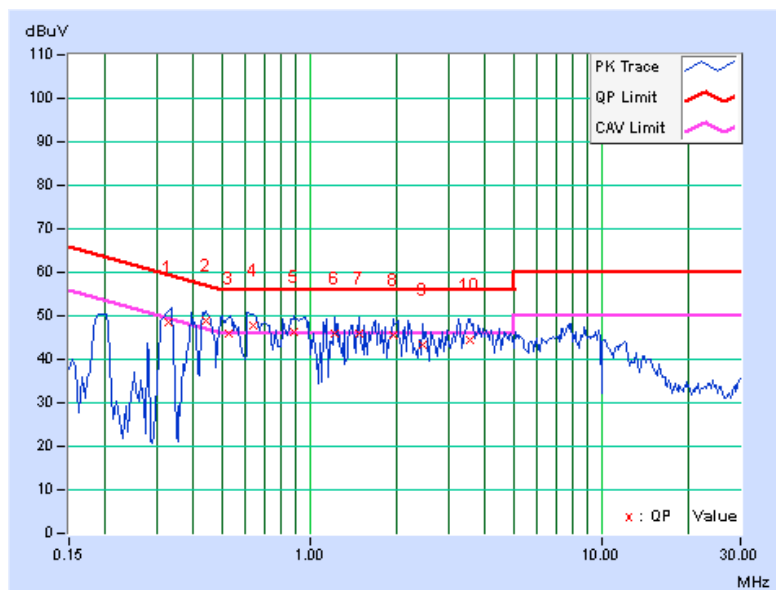


CHANNEL	Channel 116		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.32975	0.18	48.42	38.29	48.60	38.47	59.46	49.46	-10.86	-10.99
2	0.44297	0.20	48.55	38.97	48.75	39.17	57.01	47.01	-8.25	-7.83
3	0.52706	0.21	45.86	33.32	46.07	33.53	56.00	46.00	-9.93	-12.47
4	0.64219	0.22	47.60	36.24	47.82	36.46	56.00	46.00	-8.18	-9.54
5	0.88828	0.24	46.13	33.15	46.37	33.39	56.00	46.00	-9.63	-12.61
6	1.22656	0.27	45.77	31.71	46.04	31.98	56.00	46.00	-9.96	-14.02
7	1.47266	0.29	45.79	32.32	46.08	32.61	56.00	46.00	-9.92	-13.39
8	1.92969	0.33	45.10	33.52	45.43	33.85	56.00	46.00	-10.57	-12.15
9	2.45313	0.37	42.79	31.15	43.16	31.52	56.00	46.00	-12.84	-14.48
10	3.55469	0.44	44.07	32.88	44.51	33.32	56.00	46.00	-11.49	-12.68

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

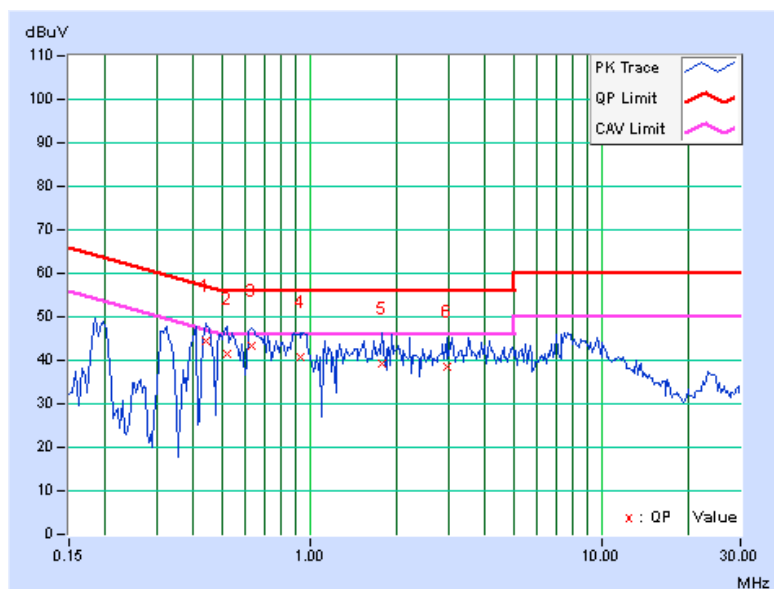


CHANNEL	Channel 116		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor (dB)	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. [dB (uV)]	AV. [dB (uV)]	Q.P. (dB)	AV. (dB)
1	0.43906	0.19	44.17	33.49	44.36	33.68	57.08	47.08	-12.72	-13.40
2	0.52500	0.20	41.17	29.37	41.37	29.57	56.00	46.00	-14.63	-16.43
3	0.63047	0.20	43.00	31.01	43.20	31.21	56.00	46.00	-12.80	-14.79
4	0.93125	0.22	40.56	28.68	40.78	28.90	56.00	46.00	-15.22	-17.10
5	1.76953	0.28	39.15	25.68	39.43	25.96	56.00	46.00	-16.57	-20.04
6	2.95313	0.36	38.17	26.22	38.53	26.58	56.00	46.00	-17.47	-19.42

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

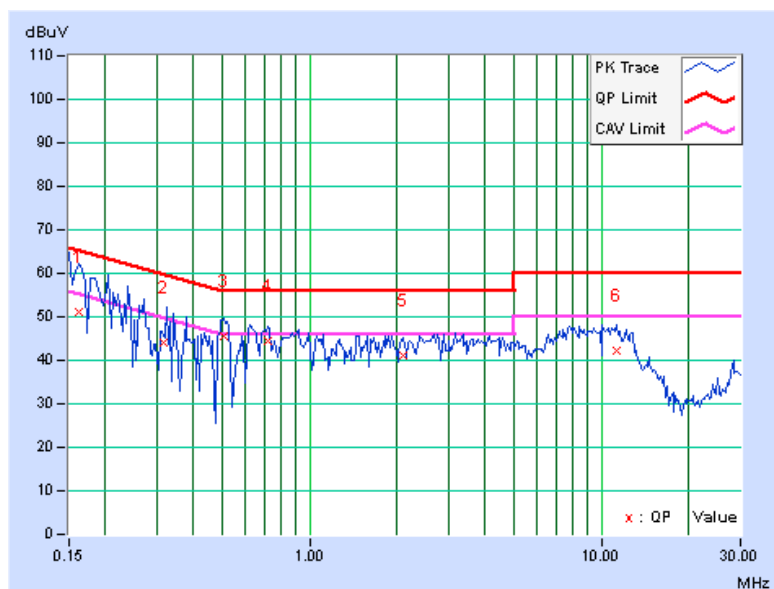


CHANNEL	Channel 140		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	0.13	50.88	23.26	51.01	23.39	65.38	55.38	-14.36	-31.98
2	0.31634	0.18	43.95	37.75	44.13	37.93	59.80	49.80	-15.67	-11.87
3	0.50938	0.21	45.40	38.39	45.61	38.60	56.00	46.00	-10.39	-7.40
4	0.72422	0.23	44.14	34.20	44.37	34.43	56.00	46.00	-11.63	-11.57
5	2.08203	0.35	40.81	30.03	41.16	30.38	56.00	46.00	-14.84	-15.62
6	11.28125	0.98	41.28	33.67	42.26	34.65	60.00	50.00	-17.74	-15.35

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

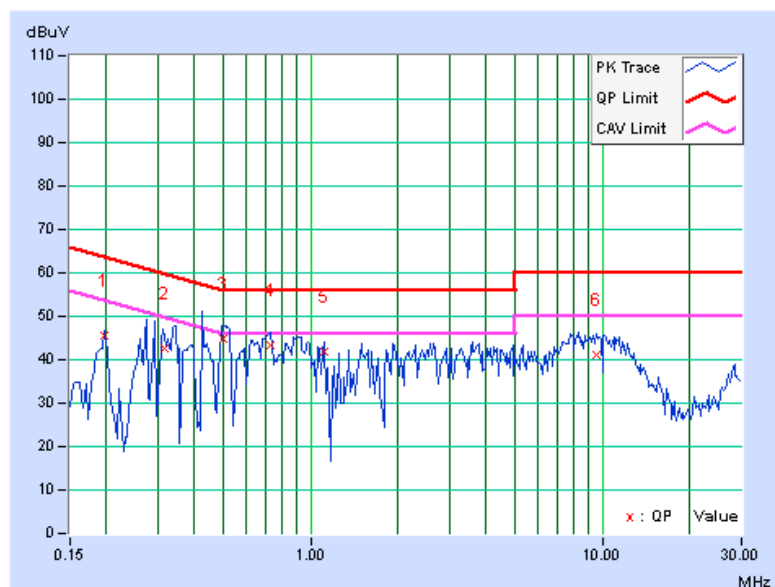


CHANNEL	Channel 140		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.13	45.52	32.17	45.65	32.30	63.74	53.74	-18.09	-21.44
2	0.31650	0.16	42.53	35.96	42.69	36.12	59.80	49.80	-17.10	-13.67
3	0.50156	0.20	44.69	36.24	44.89	36.44	56.00	46.00	-11.11	-9.56
4	0.72813	0.21	43.03	30.73	43.24	30.94	56.00	46.00	-12.76	-15.06
5	1.11719	0.23	41.48	32.02	41.71	32.25	56.00	46.00	-14.29	-13.75
6	9.53516	0.72	40.55	32.41	41.27	33.13	60.00	50.00	-18.73	-16.87

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



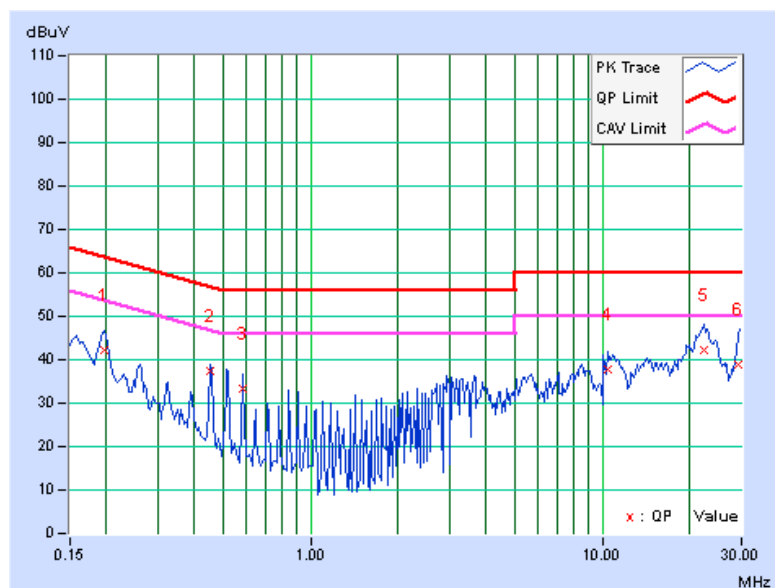
4.1.9 TEST RESULTS (MODE 3)

CHANNEL	Channel 100		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.14	41.93	32.23	42.07	32.37	63.74	53.74	-21.67	-21.37
2	0.45469	0.18	37.33	37.28	37.51	37.46	56.79	46.79	-19.28	-9.33
3	0.58359	0.19	33.04	33.04	33.23	33.23	56.00	46.00	-22.77	-12.77
4	10.44141	0.68	36.99	33.07	37.67	33.75	60.00	50.00	-22.33	-16.25
5	22.35547	1.10	40.98	34.81	42.08	35.91	60.00	50.00	-17.92	-14.09
6	29.14063	1.31	37.43	32.73	38.74	34.04	60.00	50.00	-21.26	-15.96

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

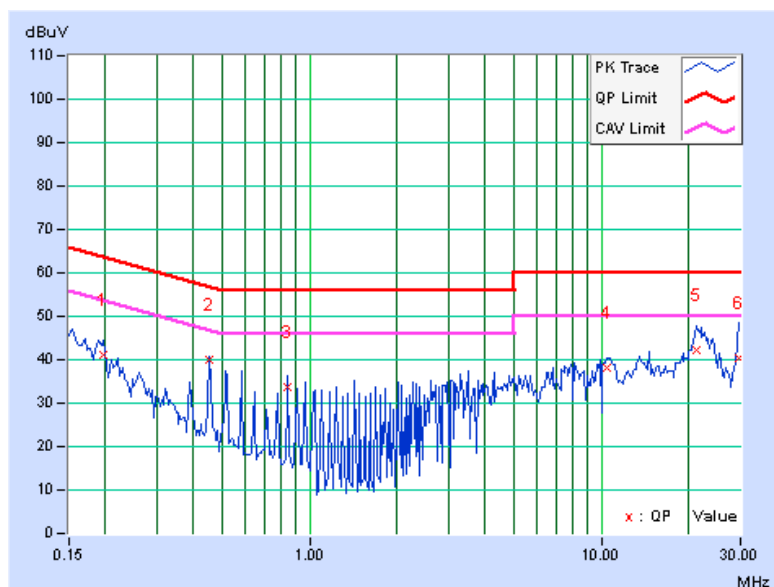


CHANNEL	Channel 100		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.12	41.05	32.84	41.17	32.96	63.74	53.74	-22.57	-20.78
2	0.45469	0.17	39.93	39.33	40.10	39.50	56.79	46.79	-16.69	-7.29
3	0.84141	0.19	33.47	33.22	33.66	33.41	56.00	46.00	-22.34	-12.59
4	10.43359	0.53	37.74	33.76	38.27	34.29	60.00	50.00	-21.73	-15.71
5	21.24609	0.75	41.39	34.64	42.14	35.39	60.00	50.00	-17.86	-14.61
6	29.44922	0.95	39.54	34.94	40.49	35.89	60.00	50.00	-19.51	-14.11

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

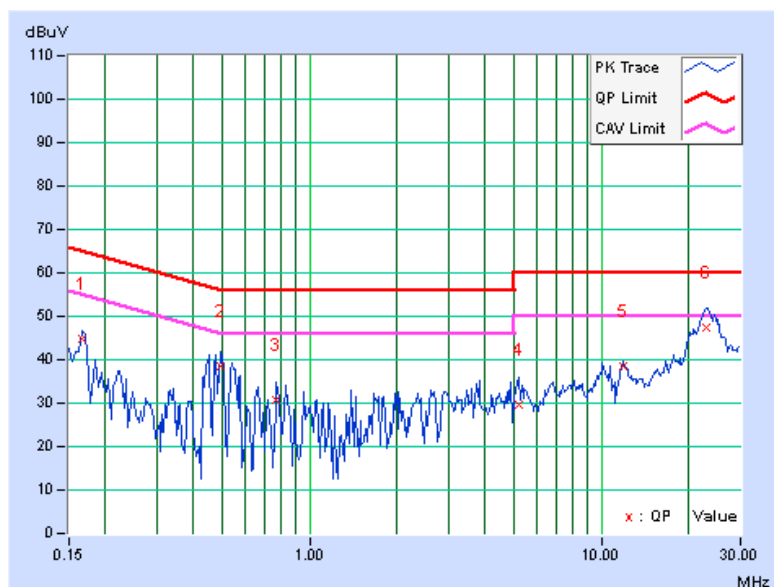


CHANNEL	Channel 116		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.13	44.51	36.80	44.64	36.93	65.18	55.18	-20.54	-18.25
2	0.49375	0.19	38.49	32.97	38.68	33.16	56.10	46.10	-17.43	-12.95
3	0.77109	0.20	30.44	24.81	30.64	25.01	56.00	46.00	-25.36	-20.99
4	5.19141	0.42	29.35	20.52	29.77	20.94	60.00	50.00	-30.23	-29.06
5	11.88672	0.74	37.94	34.96	38.68	35.70	60.00	50.00	-21.32	-14.30
6	22.98047	1.12	46.33	40.32	47.45	41.44	60.00	50.00	-12.55	-8.56

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

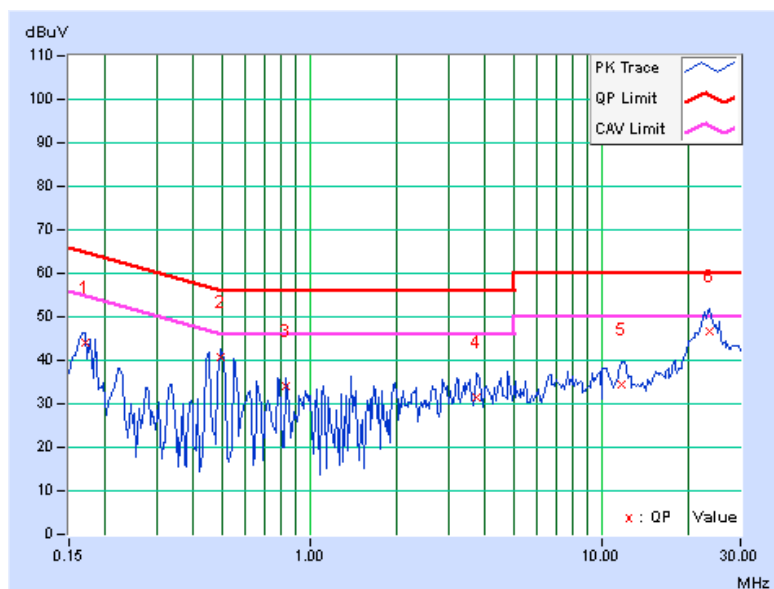


CHANNEL	Channel 116		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16953	0.11	44.08	36.68	44.19	36.79	64.98	54.98	-20.80	-18.20
2	0.49766	0.17	40.48	38.00	40.65	38.17	56.04	46.04	-15.38	-7.86
3	0.82969	0.19	33.90	29.64	34.09	29.83	56.00	46.00	-21.91	-16.17
4	3.74219	0.32	31.22	22.36	31.54	22.68	56.00	46.00	-24.46	-23.32
5	11.67969	0.56	33.95	28.28	34.51	28.84	60.00	50.00	-25.49	-21.16
6	23.38281	0.80	45.70	39.68	46.50	40.48	60.00	50.00	-13.50	-9.52

REMARKS:

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

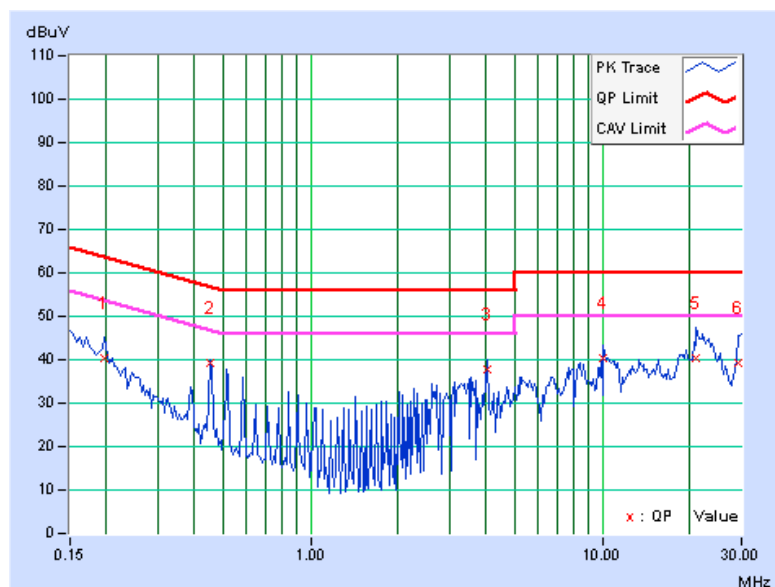


CHANNEL	Channel 140		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.14	40.32	31.05	40.46	31.19	63.74	53.74	-23.28	-22.55
2	0.45469	0.18	39.16	38.48	39.34	38.66	56.79	46.79	-17.45	-8.13
3	4.01953	0.36	37.36	36.03	37.72	36.39	56.00	46.00	-18.28	-9.61
4	10.04297	0.66	39.77	35.86	40.43	36.52	60.00	50.00	-19.57	-13.48
5	21.06250	1.06	39.39	33.71	40.45	34.77	60.00	50.00	-19.55	-15.23
6	29.16406	1.31	37.87	33.32	39.18	34.63	60.00	50.00	-20.82	-15.37

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

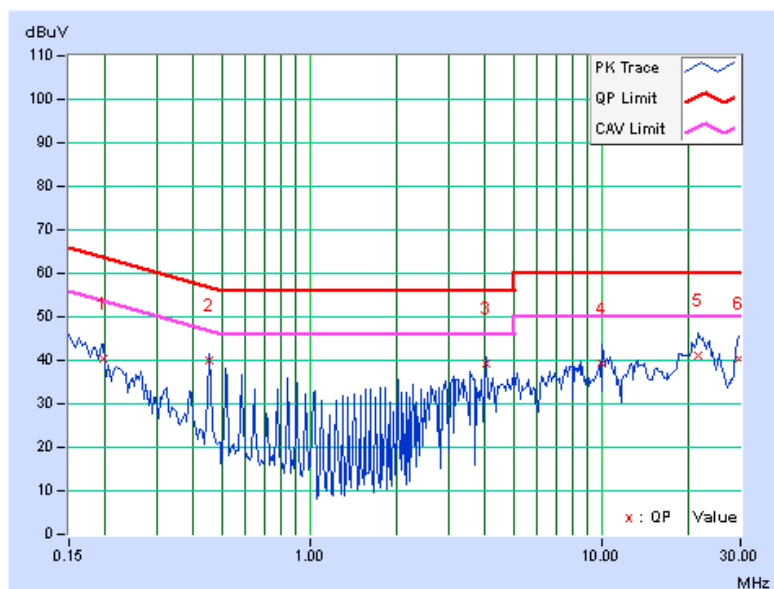


CHANNEL	Channel 140		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.12	40.30	32.12	40.42	32.24	63.74	53.74	-23.32	-21.50
2	0.45469	0.17	39.81	39.32	39.98	39.49	56.79	46.79	-16.81	-7.30
3	4.01953	0.33	39.05	36.94	39.38	37.27	56.00	46.00	-16.62	-8.73
4	10.10547	0.52	38.77	34.43	39.29	34.95	60.00	50.00	-20.71	-15.05
5	21.44141	0.75	40.50	34.65	41.25	35.40	60.00	50.00	-18.75	-14.60
6	29.44922	0.95	39.39	34.80	40.34	35.75	60.00	50.00	-19.66	-14.25

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



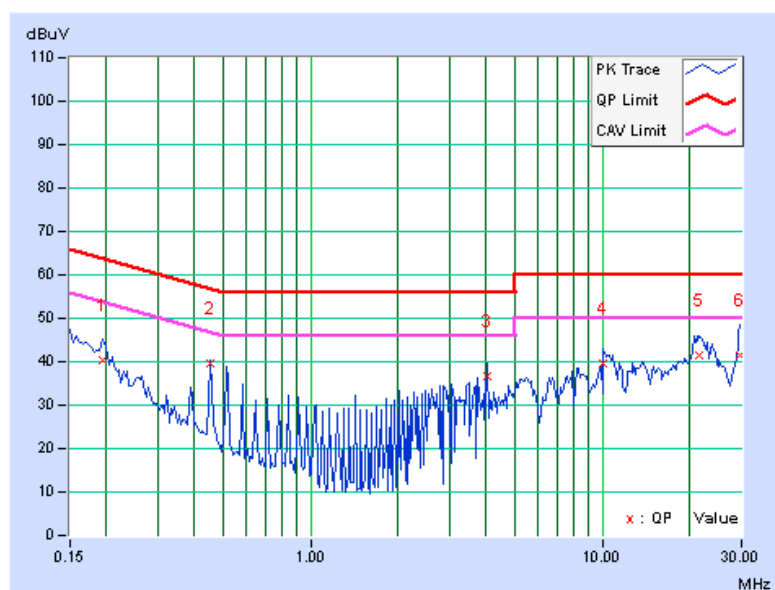
4.1.10 TEST RESULTS (MODE 4)

CHANNEL	Channel 100		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	0.14	40.34	31.29	40.48	31.43	63.91	53.91	-23.43	-22.48
2	0.45469	0.18	39.36	38.80	39.54	38.98	56.79	46.79	-17.25	-7.81
3	4.01953	0.36	36.26	34.37	36.62	34.73	56.00	46.00	-19.38	-11.27
4	10.04688	0.66	39.09	34.99	39.75	35.65	60.00	50.00	-20.25	-14.35
5	21.56641	1.08	40.36	34.40	41.44	35.48	60.00	50.00	-18.56	-14.52
6	29.62500	1.33	40.04	35.54	41.37	36.87	60.00	50.00	-18.63	-13.13

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

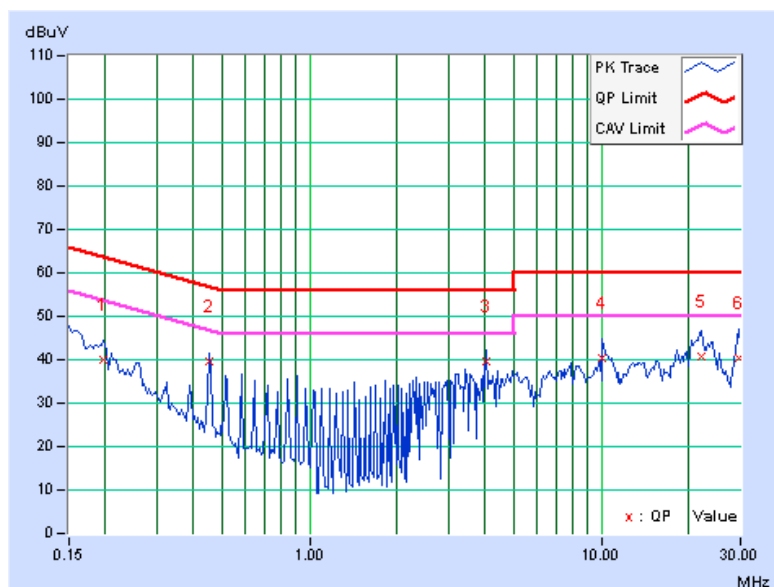


CHANNEL	Channel 100		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19687	0.12	40.06	32.31	40.18	32.43	63.74	53.74	-23.56	-21.31
2	0.45469	0.17	39.53	40.04	39.70	40.21	56.79	46.79	-17.09	-6.58
3	4.01563	0.33	39.34	37.01	39.67	37.34	56.00	46.00	-16.33	-8.66
4	10.04297	0.52	39.67	35.72	40.19	36.24	60.00	50.00	-19.81	-13.76
5	22.07813	0.77	39.98	33.16	40.75	33.93	60.00	50.00	-19.25	-16.07
6	29.55859	0.95	39.55	34.78	40.50	35.73	60.00	50.00	-19.50	-14.27

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

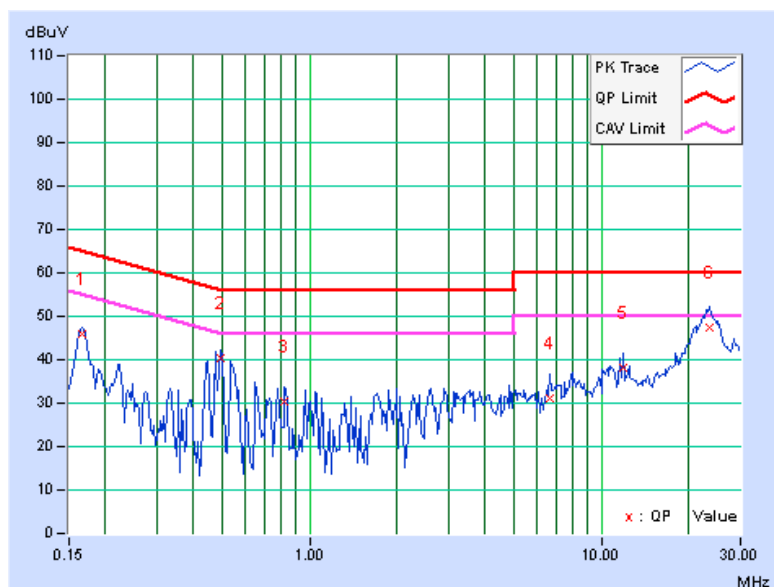


CHANNEL	Channel 116		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.13	45.80	37.53	45.93	37.66	65.18	55.18	-19.25	-17.52
2	0.49800	0.19	40.08	39.60	40.27	39.79	56.03	46.03	-15.77	-6.25
3	0.82188	0.21	30.25	22.52	30.46	22.73	56.00	46.00	-25.54	-23.27
4	6.68359	0.49	30.58	23.08	31.07	23.57	60.00	50.00	-28.93	-26.43
5	11.90416	0.74	37.44	35.12	38.18	35.86	60.00	50.00	-21.82	-14.14
6	23.41406	1.14	46.39	40.32	47.53	41.46	60.00	50.00	-12.47	-8.54

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

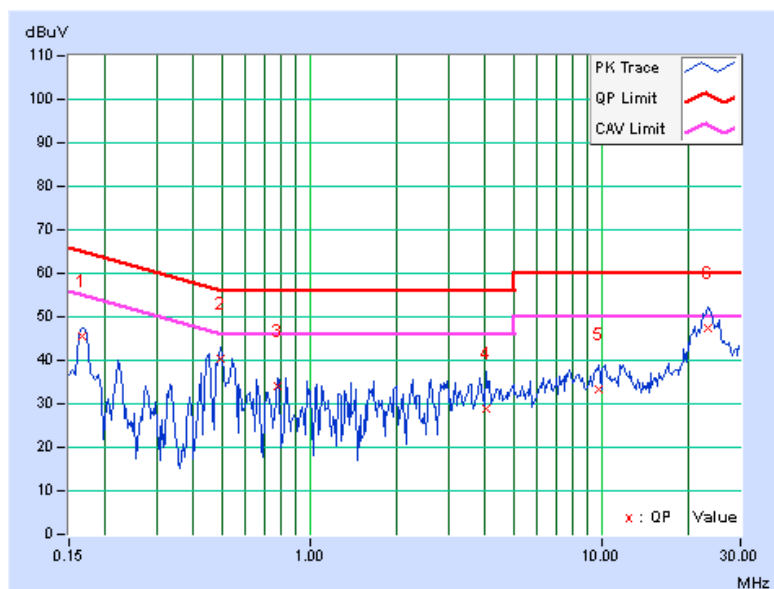


CHANNEL	Channel 116		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.11	45.38	37.95	45.49	38.06	65.18	55.18	-19.69	-17.12
2	0.49375	0.17	40.30	35.72	40.47	35.89	56.10	46.10	-15.63	-10.21
3	0.77500	0.19	34.04	32.32	34.23	32.51	56.00	46.00	-21.77	-13.49
4	4.04297	0.33	28.44	21.06	28.77	21.39	56.00	46.00	-27.23	-24.61
5	9.78906	0.51	32.93	26.70	33.44	27.21	60.00	50.00	-26.56	-22.79
6	23.09766	0.79	46.52	40.61	47.31	41.40	60.00	50.00	-12.69	-8.60

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

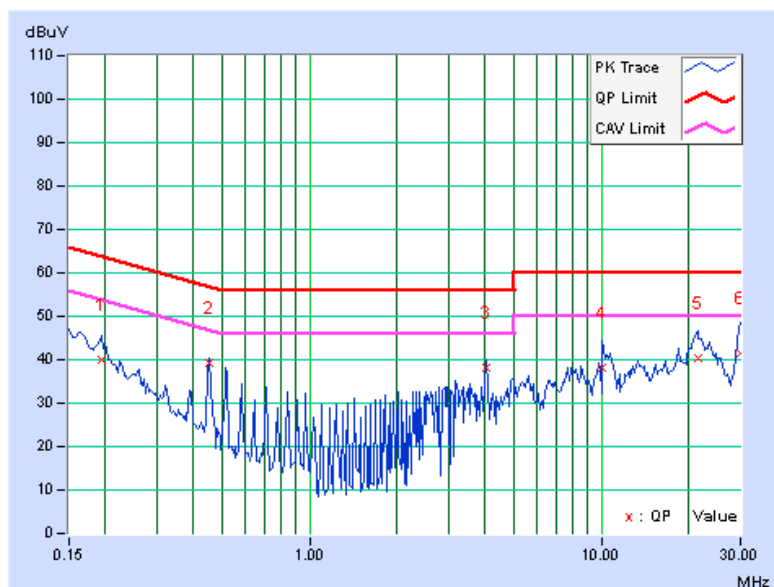


CHANNEL	Channel 140		
PHASE	Line (L)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	0.14	39.87	30.62	40.01	30.76	63.91	53.91	-23.90	-23.15
2	0.45469	0.18	38.98	38.40	39.16	38.58	56.79	46.79	-17.63	-8.21
3	4.01172	0.36	37.81	36.94	38.17	37.30	56.00	46.00	-17.83	-8.70
4	10.03516	0.66	37.41	33.19	38.07	33.85	60.00	50.00	-21.93	-16.15
5	21.42578	1.07	39.43	33.14	40.50	34.21	60.00	50.00	-19.50	-15.79
6	29.84375	1.34	39.99	35.21	41.33	36.55	60.00	50.00	-18.67	-13.45

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

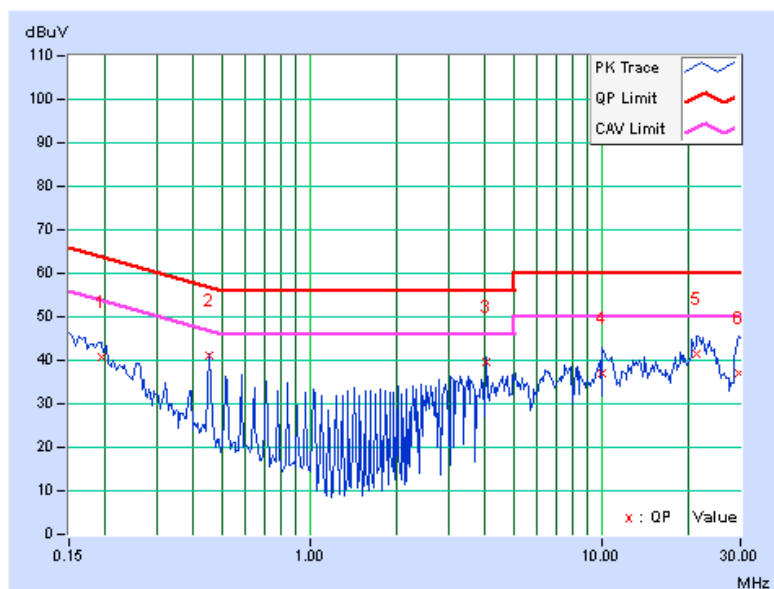


CHANNEL	Channel 140		
PHASE	Neutral (N)	DETECTOR FUNCTION	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
	[MHz]	Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19500	0.12	40.79	33.10	40.91	33.22	63.82	53.82	-22.91	-20.60
2	0.45469	0.17	40.77	40.30	40.94	40.47	56.79	46.79	-15.85	-6.32
3	4.01172	0.33	39.20	37.17	39.53	37.50	56.00	46.00	-16.47	-8.50
4	10.03125	0.52	36.66	32.47	37.18	32.99	60.00	50.00	-22.82	-17.01
5	21.30288	0.75	40.55	34.12	41.30	34.87	60.00	50.00	-18.70	-15.13
6	29.57422	0.95	36.23	35.88	37.18	36.83	60.00	50.00	-22.82	-13.17

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



4.2 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.2.1 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.

4.2.2 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:

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

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



A D T

4.2.3 TEST INSTRUMENTS

For below 1GHz (channel 100, 140):

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	Jan. 29, 2013	Jan. 28, 2014
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 14, 2012	Nov. 13, 2013
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Mar. 19, 2013	Mar. 18, 2014
RF Cable	NA	CHGCAB_001	Oct. 06, 2012	Oct. 05, 2013
Horn_Antenna AISI	AIH.8018	0000320091110	Nov. 19, 2012	Nov. 18, 2013
Pre-Amplifier Agilent	8449B	3008A02578	June 25, 2013	June 24, 2014
RF Cable	NA	RF104-201 RF104-203 RF104-204	Dec. 25, 2012	Dec. 24, 2013
Spectrum Analyzer Agilent	E4446A	MY48250253	Aug. 28, 2013	Aug. 27, 2014
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 14, 2012	Nov. 13, 2013
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 12, 2012	Oct. 11, 2013
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
5. The VCCI Site Registration No. is G-137.
6. The CANADA Site Registration No. is IC 7450H-2.
7. Tested Date: Sep. 23, 2013

For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer Agilent	E4446A	MY48250253	Sep. 03, 2012	Sep. 02, 2013
MXE EMI Receiver Agilent	N9038A	MY50010156	Jan. 16, 2013	Jan. 15, 2014
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 14, 2012	Nov. 13, 2013
Pre-Amplifier Agilent	8449B	3008A01923	Oct. 30, 2012	Oct. 29, 2013
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Nov. 14, 2012	Nov. 13, 2013
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Mar. 25, 2013	Mar. 24, 2014
Horn_Antenna AISI	AIH.8018	0000220091110	Nov. 27, 2012	Nov. 26, 2013
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Oct. 12, 2012	Oct. 11, 2013
RF Cable	NA	RF104-205 RF104-207 RF104-202	Dec. 26, 2012	Dec. 25, 2013
RF Cable	NA	CHHCAB_001	Oct. 07, 2012	Oct. 06, 2013
Software	ADT_Radiated _V8.7.05	NA	NA	NA
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
5. The CANADA Site Registration No. is IC 7450H-3.
6. Tested Date: Aug. 01 to 02, 2013

4.2.4 TEST PROCEDURES

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

NOTE:

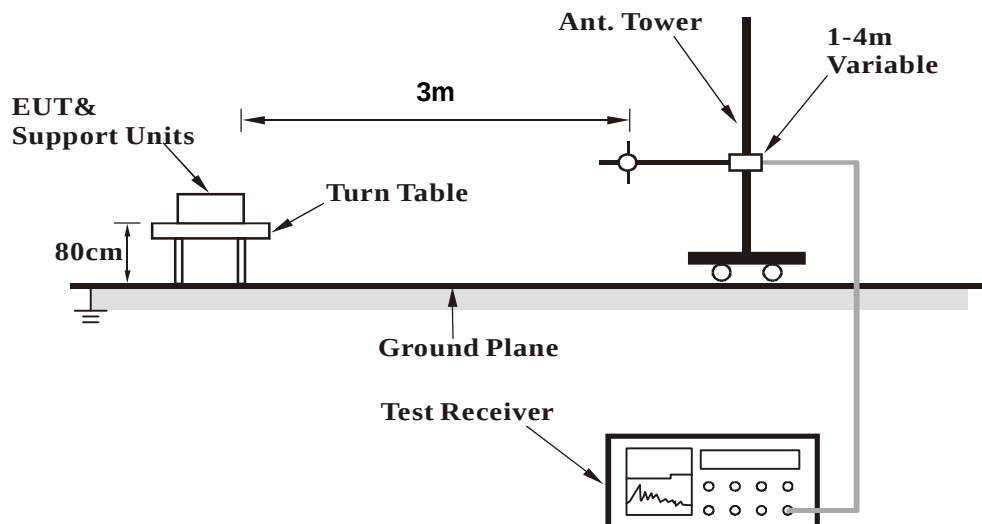
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.2.5 DEVIATION FROM TEST STANDARD

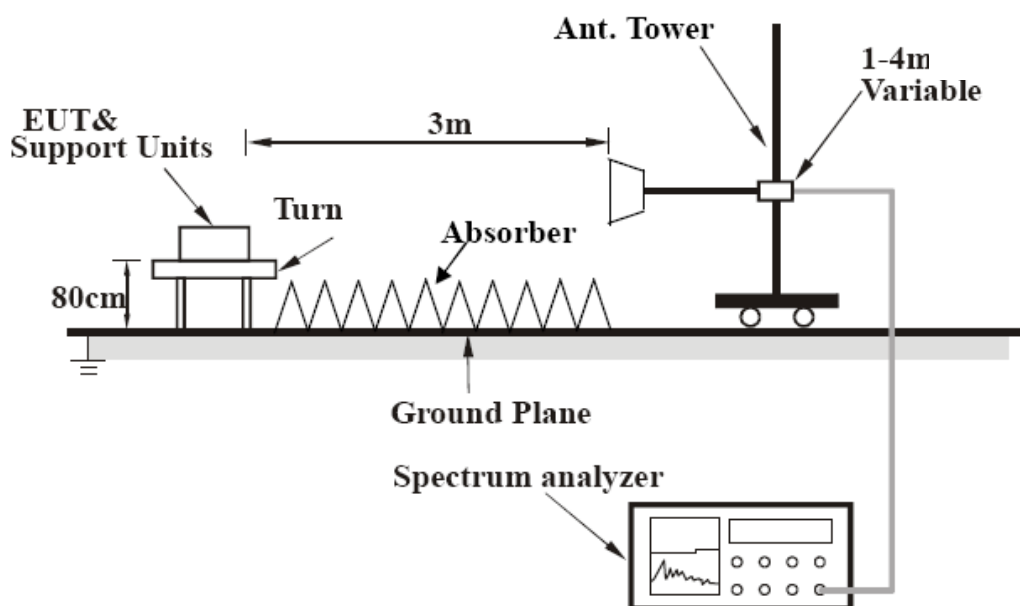
No deviation

4.2.6 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.7 EUT OPERATING CONDITION

Same as 4.1.6

4.2.8 TEST RESULTS (MODE 1)

BELOW 1GHz WORST-CASE DATA

802.11n (HT20)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	95.65	34.6 QP	43.5	-8.9	2.00 H	32	53.37	-18.74
2	222.82	33.1 QP	46.0	-12.9	1.50 H	89	49.48	-16.34
3	374.79	35.2 QP	46.0	-10.8	1.00 H	89	45.94	-10.78
4	600.26	34.8 QP	46.0	-11.2	1.50 H	27	40.30	-5.46
5	750.43	35.4 QP	46.0	-10.6	1.00 H	35	37.85	-2.46
6	875.33	43.0 QP	46.0	-3.0	1.00 H	315	43.91	-0.93
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	90.98	36.1 QP	43.5	-7.4	1.50 V	324	55.28	-19.15
2	170.73	37.1 QP	43.5	-6.4	1.00 V	92	50.88	-13.78
3	375.43	34.4 QP	46.0	-11.7	1.50 V	276	45.10	-10.75
4	500.31	36.1 QP	46.0	-9.9	1.00 V	292	43.88	-7.76
5	600.42	35.8 QP	46.0	-10.2	2.00 V	360	41.29	-5.45
6	867.05	41.7 QP	46.0	-4.3	1.00 V	13	42.68	-1.01

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	96.40	29.8 QP	43.5	-13.7	2.00 H	228	48.29	-18.47
2	176.13	33.5 QP	43.5	-10.0	1.00 H	271	48.14	-14.60
3	375.00	32.8 QP	46.0	-13.3	1.00 H	205	43.06	-10.31
4	625.00	37.2 QP	46.0	-8.8	1.00 H	264	41.96	-4.78
5	750.03	40.2 QP	46.0	-5.9	1.00 H	248	42.70	-2.55
6	866.72	38.1 QP	46.0	-7.9	1.50 H	323	39.06	-0.98
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	37.91	33.2 QP	40.0	-6.8	1.00 V	243	46.93	-13.75
2	225.30	32.1 QP	46.0	-13.9	1.00 V	311	47.91	-15.81
3	333.34	36.3 QP	46.0	-9.7	1.00 V	265	47.36	-11.06
4	466.69	36.4 QP	46.0	-9.6	1.00 V	281	44.63	-8.21
5	750.00	38.3 QP	46.0	-7.7	1.50 V	106	40.83	-2.55
6	875.02	39.7 QP	46.0	-6.3	1.00 V	281	40.52	-0.82

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	95.94	34.2 QP	43.5	-9.3	2.00 H	32	52.94	-18.72
2	223.09	32.9 QP	46.0	-13.1	1.50 H	89	49.24	-16.37
3	375.33	35.6 QP	46.0	-10.4	1.00 H	89	46.33	-10.75
4	602.26	34.5 QP	46.0	-11.5	1.50 H	27	39.82	-5.34
5	751.04	35.0 QP	46.0	-11.0	1.00 H	35	37.39	-2.43
6	875.80	42.5 QP	46.0	-3.5	1.00 H	315	43.39	-0.92
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	90.78	35.9 QP	43.5	-7.6	1.50 V	324	55.04	-19.15
2	168.73	36.2 QP	43.5	-7.3	1.00 V	92	49.96	-13.79
3	376.43	33.4 QP	46.0	-12.7	1.50 V	276	44.04	-10.69
4	501.31	35.7 QP	46.0	-10.3	1.00 V	292	43.45	-7.75
5	599.42	34.9 QP	46.0	-11.1	2.00 V	360	40.41	-5.47
6	862.05	42.3 QP	46.0	-3.7	1.00 V	13	43.42	-1.15

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 52	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	70.6 PK	74.0	-3.4	1.35 H	256	29.14	41.46
2	5150.00	47.7 AV	54.0	-6.3	1.35 H	256	6.24	41.46
3	*5260.00	116.7 PK			1.35 H	256	74.89	41.81
4	*5260.00	108.9 AV			1.35 H	256	67.09	41.81
5	5350.00	61.4 PK	74.0	-12.6	1.35 H	256	19.40	42.00
6	5350.00	44.4 AV	54.0	-9.6	1.35 H	256	2.40	42.00
7	#10520.00	51.4 PK	74.0	-22.6	1.00 H	71	2.89	48.51
8	#10520.00	39.3 AV	54.0	-14.7	1.00 H	71	-9.21	48.51
9	15780.00	59.7 PK	74.0	-14.3	1.00 H	153	5.96	53.74
10	15780.00	47.2 AV	54.0	-6.8	1.00 H	153	-6.54	53.74
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	70.5 PK	74.0	-3.5	1.05 V	360	29.04	41.46
2	5150.00	48.1 AV	54.0	-5.9	1.05 V	360	6.64	41.46
3	*5260.00	103.3 PK			1.05 V	360	61.49	41.81
4	*5260.00	94.0 AV			1.05 V	360	52.19	41.81
5	5350.00	61.1 PK	74.0	-12.9	1.05 V	360	19.10	42.00
6	5350.00	44.4 AV	54.0	-9.6	1.05 V	360	2.40	42.00
7	#10520.00	51.4 PK	74.0	-22.6	1.07 V	148	2.89	48.51
8	#10520.00	38.5 AV	54.0	-15.5	1.07 V	148	-10.01	48.51
9	15780.00	59.1 PK	74.0	-14.9	1.26 V	85	5.36	53.74
10	15780.00	45.9 AV	54.0	-8.1	1.26 V	85	-7.84	53.74

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)
– Pre-Amplifier 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 60	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	*5300.00	113.8 PK			1.30 H	244	71.89	41.91
2	*5300.00	105.7 AV			1.30 H	244	63.79	41.91
3	5350.00	68.9 PK	74.0	-5.1	1.30 H	244	26.90	42.00
4	5350.00	49.8 AV	54.0	-4.2	1.30 H	244	7.80	42.00
5	10600.00	50.6 PK	74.0	-23.4	1.28 H	146	2.19	48.41
6	10600.00	38.2 AV	54.0	-15.8	1.28 H	146	-10.21	48.41
7	15900.00	60.4 PK	74.0	-13.6	1.26 H	139	6.60	53.80
8	15900.00	48.3 AV	54.0	-5.7	1.26 H	139	-5.50	53.80
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	*5300.00	99.8 PK			1.04 V	342	57.89	41.91
2	*5300.00	89.8 AV			1.04 V	342	47.89	41.91
3	5350.00	67.8 PK	74.0	-6.2	1.04 V	342	25.80	42.00
4	5350.00	49.3 AV	54.0	-4.7	1.04 V	342	7.30	42.00
5	10600.00	50.6 PK	74.0	-23.4	1.26 V	148	2.19	48.41
6	10600.00	37.6 AV	54.0	-16.4	1.26 V	148	-10.81	48.41
7	15900.00	58.5 PK	74.0	-15.5	1.24 V	106	4.70	53.80
8	15900.00	45.3 AV	54.0	-8.7	1.24 V	106	-8.50	53.80

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)
– Pre-Amplifier 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 64	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	*5320.00	108.8 PK			1.18 H	270	66.85	41.95
2	*5320.00	101.2 AV			1.18 H	270	59.25	41.95
3	5350.00	73.9 PK	74.0	-0.1	1.18 H	270	31.90	42.00
4	5350.00	52.8 AV	54.0	-1.2	1.18 H	270	10.80	42.00
5	10640.00	50.2 PK	74.0	-23.8	1.30 H	159	1.61	48.59
6	10640.00	38.2 AV	54.0	-15.8	1.30 H	159	-10.39	48.59
7	15960.00	60.5 PK	74.0	-13.5	1.34 H	165	6.70	53.80
8	15960.00	48.5 AV	54.0	-5.5	1.34 H	165	-5.30	53.80
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	*5320.00	95.2 PK			1.03 V	341	53.25	41.95
2	*5320.00	85.9 AV			1.03 V	341	43.95	41.95
3	5350.00	55.4 PK	74.0	-18.6	1.03 V	341	13.40	42.00
4	5350.00	42.3 AV	54.0	-11.7	1.03 V	341	0.30	42.00
5	10640.00	50.3 PK	74.0	-23.7	1.26 V	160	1.71	48.59
6	10640.00	37.8 AV	54.0	-16.2	1.26 V	160	-10.79	48.59
7	15960.00	59.2 PK	74.0	-14.8	1.24 V	83	5.40	53.80
8	15960.00	45.8 AV	54.0	-8.2	1.24 V	83	-8.00	53.80

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)
– Pre-Amplifier 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 100	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	5460.00	70.8 PK	74.0	-3.2	1.00 H	270	28.44	42.36
2	5460.00	50.1 AV	54.0	-3.9	1.00 H	270	7.74	42.36
3	#5470.00	73.5 PK	74.0	-0.5	1.00 H	270	31.09	42.41
4	#5470.00	52.8 AV	54.0	-1.2	1.00 H	270	10.39	42.41
5	*5500.00	110.7 PK			1.00 H	270	68.16	42.54
6	*5500.00	102.9 AV			1.00 H	270	60.36	42.54
7	11000.00	50.3 PK	74.0	-23.7	1.33 H	121	0.92	49.38
8	11000.00	38.3 AV	54.0	-15.7	1.33 H	121	-11.08	49.38
9	#16500.00	60.7 PK	74.0	-13.3	1.32 H	161	5.45	55.25
10	#16500.00	48.8 AV	54.0	-5.2	1.32 H	161	-6.45	55.25
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	52.8 PK	74.0	-21.2	1.07 V	333	10.44	42.36
2	5460.00	40.2 AV	54.0	-13.8	1.07 V	333	-2.16	42.36
3	#5470.00	54.6 PK	74.0	-19.4	1.07 V	333	12.19	42.41
4	#5470.00	41.9 AV	54.0	-12.1	1.07 V	333	-0.51	42.41
5	*5500.00	96.9 PK			1.07 V	333	54.36	42.54
6	*5500.00	87.7 AV			1.07 V	333	45.16	42.54
7	11000.00	50.4 PK	74.0	-23.6	1.25 V	178	1.02	49.38
8	11000.00	38.0 AV	54.0	-16.0	1.25 V	178	-11.38	49.38
9	#16500.00	58.9 PK	74.0	-15.1	1.30 V	88	3.65	55.25
10	#16500.00	45.7 AV	54.0	-8.3	1.30 V	88	-9.55	55.25

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)
– Pre-Amplifier 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 116	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	#5470.00	58.2 PK	74.0	-15.8	1.40 H	263	15.79	42.41
2	#5470.00	43.8 AV	54.0	-10.2	1.40 H	263	1.39	42.41
3	*5580.00	115.6 PK			1.40 H	263	72.77	42.83
4	*5580.00	108.0 AV			1.40 H	263	65.17	42.83
5	#5725.00	56.5 PK	74.0	-17.5	1.40 H	263	13.36	43.14
6	#5725.00	42.9 AV	54.0	-11.1	1.40 H	263	-0.24	43.14
7	11160.00	54.6 PK	74.0	-19.4	1.00 H	56	5.37	49.23
8	11160.00	42.4 AV	54.0	-11.6	1.00 H	56	-6.83	49.23
9	#16740.00	60.3 PK	74.0	-13.7	1.00 H	48	5.05	55.25
10	#16740.00	47.9 AV	54.0	-6.1	1.00 H	48	-7.35	55.25
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	#5470.00	57.3 PK	74.0	-16.7	1.01 V	334	14.89	42.41
2	#5470.00	42.9 AV	54.0	-11.1	1.01 V	334	0.49	42.41
3	*5580.00	101.8 PK			1.01 V	334	58.97	42.83
4	*5580.00	92.2 AV			1.01 V	334	49.37	42.83
5	#5725.00	56.5 PK	74.0	-17.5	1.01 V	334	13.36	43.14
6	#5725.00	42.8 AV	54.0	-11.2	1.01 V	334	-0.34	43.14
7	11160.00	49.9 PK	74.0	-24.1	1.26 V	176	0.67	49.23
8	11160.00	36.8 AV	54.0	-17.2	1.26 V	176	-12.43	49.23
9	#16740.00	58.1 PK	74.0	-15.9	1.31 V	82	2.85	55.25
10	#16740.00	44.8 AV	54.0	-9.2	1.31 V	82	-10.45	55.25

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)
– Pre-Amplifier 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 132	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	#5470.00	55.8 PK	74.0	-18.2	1.38 H	210	13.39	42.41
2	#5470.00	42.8 AV	54.0	-11.2	1.38 H	210	0.39	42.41
3	*5660.00	114.6 PK			1.38 H	210	71.59	43.01
4	*5660.00	106.8 AV			1.38 H	210	63.79	43.01
5	#5725.00	67.4 PK	74.0	-6.6	1.38 H	210	24.26	43.14
6	#5725.00	46.8 AV	54.0	-7.2	1.38 H	210	3.66	43.14
7	11320.00	55.1 PK	74.0	-18.9	1.00 H	61	5.46	49.64
8	11320.00	42.6 AV	54.0	-11.4	1.00 H	61	-7.04	49.64
9	#16980.00	60.5 PK	74.0	-13.5	1.00 H	31	4.67	55.83
10	#16980.00	48.2 AV	54.0	-5.8	1.00 H	31	-7.63	55.83
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	#5470.00	54.9 PK	74.0	-19.1	1.00 V	338	12.49	42.41
2	#5470.00	42.3 AV	54.0	-11.7	1.00 V	338	-0.11	42.41
3	*5660.00	101.5 PK			1.00 V	338	58.49	43.01
4	*5660.00	91.6 AV			1.00 V	338	48.59	43.01
5	#5725.00	67.5 PK	74.0	-6.5	1.00 V	338	24.36	43.14
6	#5725.00	46.8 AV	54.0	-7.2	1.00 V	338	3.66	43.14
7	11320.00	51.4 PK	74.0	-22.6	1.18 V	176	1.76	49.64
8	11320.00	38.4 AV	54.0	-15.6	1.18 V	176	-11.24	49.64
9	#16980.00	58.6 PK	74.0	-15.4	1.30 V	102	2.77	55.83
10	#16980.00	45.3 AV	54.0	-8.7	1.30 V	102	-10.53	55.83

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)
– Pre-Amplifier 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 140	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	*5700.00	108.2 PK			1.20 H	263	65.12	43.08
2	*5700.00	100.5 AV			1.20 H	263	57.42	43.08
3	#5725.00	73.8 PK	74.0	-0.2	1.20 H	263	30.66	43.14
4	#5725.00	51.9 AV	54.0	-2.1	1.20 H	263	8.76	43.14
5	11400.00	49.6 PK	74.0	-24.4	1.25 H	152	0.07	49.53
6	11400.00	38.0 AV	54.0	-16.0	1.25 H	152	-11.53	49.53
7	#17100.00	59.8 PK	74.0	-14.2	1.27 H	133	4.12	55.68
8	#17100.00	48.5 AV	54.0	-5.5	1.27 H	133	-7.18	55.68
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	95.6 PK			1.01 V	339	52.52	43.08
2	*5700.00	85.6 AV			1.01 V	339	42.52	43.08
3	#5725.00	55.7 PK	74.0	-18.3	1.01 V	339	12.56	43.14
4	#5725.00	42.0 AV	54.0	-12.0	1.01 V	339	-1.14	43.14
5	11400.00	50.4 PK	74.0	-23.6	1.22 V	152	0.87	49.53
6	11400.00	37.5 AV	54.0	-16.5	1.22 V	152	-12.03	49.53
7	#17100.00	57.9 PK	74.0	-16.1	1.24 V	91	2.22	55.68
8	#17100.00	45.3 AV	54.0	-8.7	1.24 V	91	-10.38	55.68

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)
– Pre-Amplifier 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 (HT20)

CHANNEL	TX Channel 52	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	69.8 PK	74.0	-4.2	1.22 H	99	28.34	41.46
2	5150.00	49.2 AV	54.0	-4.8	1.22 H	99	7.74	41.46
3	*5260.00	118.7 PK			1.22 H	99	76.89	41.81
4	*5260.00	109.1 AV			1.22 H	99	67.29	41.81
5	5350.00	68.5 PK	74.0	-5.5	1.22 H	99	26.50	42.00
6	5350.00	46.3 AV	54.0	-7.7	1.22 H	99	4.30	42.00
7	#10520.00	49.0 PK	74.0	-25.0	1.19 H	134	0.49	48.51
8	#10520.00	37.5 AV	54.0	-16.5	1.19 H	134	-11.01	48.51
9	15780.00	60.0 PK	74.0	-14.0	1.30 H	118	6.26	53.74
10	15780.00	48.8 AV	54.0	-5.2	1.30 H	118	-4.94	53.74
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	69.8 PK	74.0	-4.2	1.10 V	360	28.34	41.46
2	5150.00	48.9 AV	54.0	-5.1	1.10 V	360	7.44	41.46
3	*5260.00	105.4 PK			1.10 V	360	63.59	41.81
4	*5260.00	93.7 AV			1.10 V	360	51.89	41.81
5	5350.00	68.4 PK	74.0	-5.6	1.10 V	360	26.40	42.00
6	5350.00	46.1 AV	54.0	-7.9	1.10 V	360	4.10	42.00
7	#10520.00	50.6 PK	74.0	-23.4	1.12 V	150	2.09	48.51
8	#10520.00	37.5 AV	54.0	-16.5	1.12 V	150	-11.01	48.51
9	15780.00	57.5 PK	74.0	-16.5	1.22 V	102	3.76	53.74
10	15780.00	44.8 AV	54.0	-9.2	1.22 V	102	-8.94	53.74

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)
– Pre-Amplifier 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 60	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	*5300.00	115.6 PK			1.22 H	100	73.69	41.91
2	*5300.00	106.0 AV			1.22 H	100	64.09	41.91
3	5350.00	66.7 PK	74.0	-7.3	1.22 H	100	24.70	42.00
4	5350.00	52.1 AV	54.0	-1.9	1.22 H	100	10.10	42.00
5	10600.00	49.1 PK	74.0	-24.9	1.29 H	142	0.69	48.41
6	10600.00	37.5 AV	54.0	-16.5	1.29 H	142	-10.91	48.41
7	15900.00	59.7 PK	74.0	-14.3	1.21 H	126	5.90	53.80
8	15900.00	48.4 AV	54.0	-5.6	1.21 H	126	-5.40	53.80
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	*5300.00	102.3 PK			1.12 V	360	60.39	41.91
2	*5300.00	90.7 AV			1.12 V	360	48.79	41.91
3	5350.00	48.8 PK	74.0	-25.2	1.12 V	360	6.80	42.00
4	5350.00	42.0 AV	54.0	-12.0	1.12 V	360	0.00	42.00
5	10600.00	50.2 PK	74.0	-23.8	1.09 V	141	1.79	48.41
6	10600.00	37.3 AV	54.0	-16.7	1.09 V	141	-11.11	48.41
7	15900.00	58.1 PK	74.0	-15.9	1.29 V	85	4.30	53.80
8	15900.00	45.4 AV	54.0	-8.6	1.29 V	85	-8.40	53.80

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)
– Pre-Amplifier 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 64	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	*5320.00	109.1 PK			1.47 H	218	67.15	41.95
2	*5320.00	100.6 AV			1.47 H	218	58.65	41.95
3	5350.00	73.8 PK	74.0	-0.2	1.47 H	218	31.80	42.00
4	5350.00	53.0 AV	54.0	-1.0	1.47 H	218	11.00	42.00
5	10640.00	49.9 PK	74.0	-24.1	1.21 H	148	1.31	48.59
6	10640.00	38.1 AV	54.0	-15.9	1.21 H	148	-10.49	48.59
7	15960.00	59.9 PK	74.0	-14.1	1.31 H	119	6.10	53.80
8	15960.00	48.4 AV	54.0	-5.6	1.31 H	119	-5.40	53.80
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	*5320.00	96.2 PK			1.06 V	360	54.25	41.95
2	*5320.00	85.5 AV			1.06 V	360	43.55	41.95
3	5350.00	55.8 PK	74.0	-18.2	1.06 V	360	13.80	42.00
4	5350.00	42.9 AV	54.0	-11.1	1.06 V	360	0.90	42.00
5	10640.00	50.8 PK	74.0	-23.2	1.23 V	152	2.21	48.59
6	10640.00	37.8 AV	54.0	-16.2	1.23 V	152	-10.79	48.59
7	15960.00	58.5 PK	74.0	-15.5	1.27 V	89	4.70	53.80
8	15960.00	45.8 AV	54.0	-8.2	1.27 V	89	-8.00	53.80

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)
– Pre-Amplifier 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 100	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	5460.00	71.5 PK	74.0	-2.5	1.49 H	240	29.14	42.36
2	5460.00	50.1 AV	54.0	-3.9	1.49 H	240	7.74	42.36
3	#5470.00	73.1 PK	74.0	-0.9	1.49 H	240	30.69	42.41
4	#5470.00	51.2 AV	54.0	-2.8	1.49 H	240	8.79	42.41
5	*5500.00	110.1 PK			1.49 H	240	67.56	42.54
6	*5500.00	101.3 AV			1.49 H	240	58.76	42.54
7	11000.00	49.7 PK	74.0	-24.3	1.28 H	142	0.32	49.38
8	11000.00	38.3 AV	54.0	-15.7	1.28 H	142	-11.08	49.38
9	#16500.00	60.2 PK	74.0	-13.8	1.19 H	127	4.95	55.25
10	#16500.00	48.9 AV	54.0	-5.1	1.19 H	127	-6.35	55.25
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	52.9 PK	74.0	-21.1	1.07 V	360	10.54	42.36
2	5460.00	40.7 AV	54.0	-13.3	1.07 V	360	-1.66	42.36
3	#5470.00	54.8 PK	74.0	-19.2	1.07 V	360	12.39	42.41
4	#5470.00	41.2 AV	54.0	-12.8	1.07 V	360	-1.21	42.41
5	*5500.00	97.1 PK			1.07 V	360	54.56	42.54
6	*5500.00	86.2 AV			1.07 V	360	43.66	42.54
7	11000.00	49.6 PK	74.0	-24.4	1.23 V	152	0.22	49.38
8	11000.00	36.9 AV	54.0	-17.1	1.23 V	152	-12.48	49.38
9	#16500.00	58.1 PK	74.0	-15.9	1.21 V	106	2.85	55.25
10	#16500.00	45.7 AV	54.0	-8.3	1.21 V	106	-9.55	55.25

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 116	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	5460.00	61.3 PK	74.0	-12.7	1.25 H	100	18.94	42.36
2	5460.00	43.8 AV	54.0	-10.2	1.25 H	100	1.44	42.36
3	#5470.00	63.3 PK	74.0	-10.7	1.25 H	100	20.89	42.41
4	#5470.00	44.2 AV	54.0	-9.8	1.25 H	100	1.79	42.41
5	*5580.00	118.6 PK			1.25 H	100	75.77	42.83
6	*5580.00	108.7 AV			1.25 H	100	65.87	42.83
7	11160.00	49.4 PK	74.0	-24.6	1.28 H	146	0.17	49.23
8	11160.00	37.7 AV	54.0	-16.3	1.28 H	146	-11.53	49.23
9	#16740.00	59.6 PK	74.0	-14.4	1.25 H	125	4.35	55.25
10	#16740.00	48.2 AV	54.0	-5.8	1.25 H	125	-7.05	55.25

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.0 PK	74.0	-13.0	1.11 V	360	18.64	42.36
2	5460.00	43.5 AV	54.0	-10.5	1.11 V	360	1.14	42.36
3	#5470.00	62.5 PK	74.0	-11.5	1.11 V	360	20.09	42.41
4	#5470.00	43.6 AV	54.0	-10.4	1.11 V	360	1.19	42.41
5	*5580.00	105.2 PK			1.11 V	360	62.37	42.83
6	*5580.00	93.7 AV			1.11 V	360	50.87	42.83
7	11160.00	51.0 PK	74.0	-23.0	1.07 V	137	1.77	49.23
8	11160.00	37.9 AV	54.0	-16.1	1.07 V	137	-11.33	49.23
9	#16740.00	58.4 PK	74.0	-15.6	1.21 V	101	3.15	55.25
10	#16740.00	45.6 AV	54.0	-8.4	1.21 V	101	-9.65	55.25

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 132	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	#5470.00	63.1 PK	74.0	-10.9	1.23 H	99	20.69	42.41
2	#5470.00	43.8 AV	54.0	-10.2	1.23 H	99	1.39	42.41
3	*5660.00	118.8 PK			1.23 H	99	75.79	43.01
4	*5660.00	108.9 AV			1.23 H	99	65.89	43.01
5	#5733.00	65.6 PK	74.0	-8.4	1.23 H	99	22.44	43.16
6	#5733.00	50.1 AV	54.0	-3.9	1.23 H	99	6.94	43.16
7	11320.00	49.4 PK	74.0	-24.6	1.31 H	142	-0.24	49.64
8	11320.00	38.0 AV	54.0	-16.0	1.31 H	142	-11.64	49.64
9	#16980.00	59.1 PK	74.0	-14.9	1.18 H	108	3.27	55.83
10	#16980.00	48.1 AV	54.0	-5.9	1.18 H	108	-7.73	55.83

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	#5470.00	62.4 PK	74.0	-11.6	1.12 V	360	19.99	42.41
2	#5470.00	43.6 AV	54.0	-10.4	1.12 V	360	1.19	42.41
3	*5660.00	105.6 PK			1.12 V	360	62.59	43.01
4	*5660.00	93.7 AV			1.12 V	360	50.69	43.01
5	#5733.00	47.6 PK	74.0	-26.4	1.12 V	360	4.44	43.16
6	#5733.00	39.8 AV	54.0	-14.2	1.12 V	360	-3.36	43.16
7	11320.00	49.4 PK	74.0	-24.6	1.17 V	133	-0.24	49.64
8	11320.00	37.0 AV	54.0	-17.0	1.17 V	133	-12.64	49.64
9	#16980.00	58.2 PK	74.0	-15.8	1.21 V	76	2.37	55.83
10	#16980.00	45.4 AV	54.0	-8.6	1.21 V	76	-10.43	55.83

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)
– Pre-Amplifier 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 140	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	*5700.00	107.0 PK			1.36 H	226	63.92	43.08
2	*5700.00	99.0 AV			1.36 H	226	55.92	43.08
3	#5725.00	73.7 PK	74.0	-0.3	1.36 H	226	30.56	43.14
4	#5725.00	50.8 AV	54.0	-3.2	1.36 H	226	7.66	43.14
5	11400.00	48.9 PK	74.0	-25.1	1.29 H	167	-0.63	49.53
6	11400.00	37.7 AV	54.0	-16.3	1.29 H	167	-11.83	49.53
7	#17100.00	59.3 PK	74.0	-14.7	1.27 H	131	3.62	55.68
8	#17100.00	47.9 AV	54.0	-6.1	1.27 H	131	-7.78	55.68
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	93.5 PK			1.17 V	344	50.42	43.08
2	*5700.00	83.7 AV			1.17 V	344	40.62	43.08
3	#5725.00	54.9 PK	74.0	-19.1	1.17 V	344	11.76	43.14
4	#5725.00	40.2 AV	54.0	-13.8	1.17 V	344	-2.94	43.14
5	11400.00	50.1 PK	74.0	-23.9	1.28 V	150	0.57	49.53
6	11400.00	37.6 AV	54.0	-16.4	1.28 V	150	-11.93	49.53
7	#17100.00	57.7 PK	74.0	-16.3	1.20 V	102	2.02	55.68
8	#17100.00	45.0 AV	54.0	-9.0	1.20 V	102	-10.68	55.68

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)
– Pre-Amplifier 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 (HT40)

CHANNEL	TX Channel 54	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	*5270.00	111.5 PK			1.23 H	100	69.66	41.84
2	*5270.00	103.3 AV			1.23 H	100	61.46	41.84
3	5350.00	67.3 PK	74.0	-6.7	1.23 H	100	25.30	42.00
4	5350.00	53.4 AV	54.0	-0.6	1.23 H	100	11.40	42.00
5	#10540.00	48.7 PK	74.0	-25.3	1.30 H	153	0.21	48.49
6	#10540.00	37.5 AV	54.0	-16.5	1.30 H	153	-10.99	48.49
7	15810.00	59.0 PK	74.0	-15.0	1.22 H	133	5.19	53.81
8	15810.00	47.5 AV	54.0	-6.5	1.22 H	133	-6.31	53.81
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	98.7 PK			1.28 V	349	56.86	41.84
2	*5270.00	88.3 AV			1.28 V	349	46.46	41.84
3	5350.00	50.3 PK	74.0	-23.7	1.28 V	349	8.30	42.00
4	5350.00	43.6 AV	54.0	-10.4	1.28 V	349	1.60	42.00
5	#10540.00	50.7 PK	74.0	-23.3	1.25 V	155	2.21	48.49
6	#10540.00	38.0 AV	54.0	-16.0	1.25 V	155	-10.49	48.49
7	15810.00	58.0 PK	74.0	-16.0	1.25 V	87	4.19	53.81
8	15810.00	45.2 AV	54.0	-8.8	1.25 V	87	-8.61	53.81

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier 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 62	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	*5310.00	102.9 PK			1.19 H	267	60.98	41.92
2	*5310.00	95.1 AV			1.19 H	267	53.18	41.92
3	5350.00	73.8 PK	74.0	-0.2	1.19 H	267	31.80	42.00
4	5350.00	53.9 AV	54.0	-0.1	1.19 H	267	11.90	42.00
5	10620.00	48.5 PK	74.0	-25.5	1.25 H	179	0.00	48.50
6	10620.00	37.4 AV	54.0	-16.6	1.25 H	179	-11.10	48.50
7	15930.00	59.1 PK	74.0	-14.9	1.28 H	143	5.30	53.80
8	15930.00	47.5 AV	54.0	-6.5	1.28 H	143	-6.30	53.80
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	*5310.00	89.7 PK			1.23 V	360	47.78	41.92
2	*5310.00	79.9 AV			1.23 V	360	37.98	41.92
3	5350.00	56.4 PK	74.0	-17.6	1.23 V	360	14.40	42.00
4	5350.00	43.4 AV	54.0	-10.6	1.23 V	360	1.40	42.00
5	10620.00	50.5 PK	74.0	-23.5	1.25 V	146	2.00	48.50
6	10620.00	38.0 AV	54.0	-16.0	1.25 V	146	-10.50	48.50
7	15930.00	57.7 PK	74.0	-16.3	1.17 V	109	3.90	53.80
8	15930.00	45.2 AV	54.0	-8.8	1.17 V	109	-8.60	53.80

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)
– Pre-Amplifier 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 102	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	5460.00	66.8 PK	74.0	-7.2	1.19 H	212	24.44	42.36
2	5460.00	50.8 AV	54.0	-3.2	1.19 H	212	8.44	42.36
3	#5470.00	70.9 PK	74.0	-3.1	1.19 H	212	28.49	42.41
4	#5470.00	53.7 AV	54.0	-0.3	1.19 H	212	11.29	42.41
5	*5510.00	102.6 PK			1.19 H	212	60.03	42.57
6	*5510.00	93.7 AV			1.19 H	212	51.13	42.57
7	11020.00	49.2 PK	74.0	-24.8	1.31 H	158	-0.15	49.35
8	11020.00	38.1 AV	54.0	-15.9	1.31 H	158	-11.25	49.35
9	#16530.00	59.8 PK	74.0	-14.2	1.26 H	146	4.27	55.53
10	#16530.00	48.4 AV	54.0	-5.6	1.26 H	146	-7.13	55.53
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	49.7 PK	74.0	-24.3	1.22 V	350	7.34	42.36
2	5460.00	40.9 AV	54.0	-13.1	1.22 V	350	-1.46	42.36
3	#5470.00	54.1 PK	74.0	-19.9	1.22 V	350	11.69	42.41
4	#5470.00	43.8 AV	54.0	-10.2	1.22 V	350	1.39	42.41
5	*5510.00	89.8 PK			1.22 V	350	47.23	42.57
6	*5510.00	78.7 AV			1.22 V	350	36.13	42.57
7	11020.00	50.4 PK	74.0	-23.6	1.31 V	145	1.05	49.35
8	11020.00	37.7 AV	54.0	-16.3	1.31 V	145	-11.65	49.35
9	#16530.00	57.9 PK	74.0	-16.1	1.19 V	109	2.37	55.53
10	#16530.00	45.4 AV	54.0	-8.6	1.19 V	109	-10.13	55.53

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)
– Pre-Amplifier 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 110	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	5460.00	68.8 PK	74.0	-5.2	1.26 H	100	26.44	42.36
2	5460.00	50.1 AV	54.0	-3.9	1.26 H	100	7.74	42.36
3	#5470.00	72.5 PK	74.0	-1.5	1.26 H	100	30.09	42.41
4	#5470.00	52.2 AV	54.0	-1.8	1.26 H	100	9.79	42.41
5	*5550.00	111.5 PK			1.26 H	100	68.78	42.72
6	*5550.00	103.2 AV			1.26 H	100	60.48	42.72
7	11100.00	48.7 PK	74.0	-25.3	1.32 H	177	-0.53	49.23
8	11100.00	37.4 AV	54.0	-16.6	1.32 H	177	-11.83	49.23
9	#16650.00	59.3 PK	74.0	-14.7	1.30 H	133	3.57	55.73
10	#16650.00	48.0 AV	54.0	-6.0	1.30 H	133	-7.73	55.73
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	52.4 PK	74.0	-21.6	1.28 V	337	10.04	42.36
2	5460.00	40.5 AV	54.0	-13.5	1.28 V	337	-1.86	42.36
3	#5470.00	55.6 PK	74.0	-18.4	1.28 V	337	13.19	42.41
4	#5470.00	42.6 AV	54.0	-11.4	1.28 V	337	0.19	42.41
5	*5550.00	98.0 PK			1.28 V	337	55.28	42.72
6	*5550.00	87.7 AV			1.28 V	337	44.98	42.72
7	11100.00	50.6 PK	74.0	-23.4	1.29 V	156	1.37	49.23
8	11100.00	38.1 AV	54.0	-15.9	1.29 V	156	-11.13	49.23
9	#16650.00	57.8 PK	74.0	-16.2	1.15 V	98	2.07	55.73
10	#16650.00	44.8 AV	54.0	-9.2	1.15 V	98	-10.93	55.73

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)
– Pre-Amplifier 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 134	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	*5670.00	109.3 PK			1.20 H	261	66.28	43.02
2	*5670.00	99.9 AV			1.20 H	261	56.88	43.02
3	#5725.00	73.2 PK	74.0	-0.8	1.20 H	261	30.06	43.14
4	#5725.00	52.3 AV	54.0	-1.7	1.20 H	261	9.16	43.14
5	11340.00	49.1 PK	74.0	-24.9	1.25 H	153	-0.52	49.62
6	11340.00	37.7 AV	54.0	-16.3	1.25 H	153	-11.92	49.62
7	#17010.00	59.4 PK	74.0	-14.6	1.29 H	131	3.50	55.90
8	#17010.00	48.2 AV	54.0	-5.8	1.29 H	131	-7.70	55.90
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	*5670.00	96.5 PK			1.31 V	329	53.48	43.02
2	*5670.00	85.2 AV			1.31 V	329	42.18	43.02
3	#5725.00	56.4 PK	74.0	-17.6	1.31 V	329	13.26	43.14
4	#5725.00	42.7 AV	54.0	-11.3	1.31 V	329	-0.44	43.14
5	11340.00	49.7 PK	74.0	-24.3	1.26 V	138	0.08	49.62
6	11340.00	37.2 AV	54.0	-16.8	1.26 V	138	-12.42	49.62
7	#17010.00	56.9 PK	74.0	-17.1	1.18 V	98	1.00	55.90
8	#17010.00	44.5 AV	54.0	-9.5	1.18 V	98	-11.40	55.90

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)
– Pre-Amplifier 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.

4.2.9 TEST RESULTS (MODE 2)

BELOW 1GHz WORST-CASE DATA

802.11n (HT20)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	94.65	35.6 QP	43.5	-7.9	2.00 H	32	54.46	-18.83
2	220.82	35.2 QP	46.0	-10.9	1.50 H	89	51.51	-16.36
3	375.79	36.2 QP	46.0	-9.9	1.00 H	89	46.88	-10.73
4	601.26	35.8 QP	46.0	-10.2	1.50 H	27	41.24	-5.40
5	751.43	36.5 QP	46.0	-9.5	1.00 H	35	38.88	-2.39
6	875.85	42.5 QP	46.0	-3.5	1.00 H	315	43.42	-0.92
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	89.78	37.2 QP	43.5	-6.4	1.50 V	324	56.33	-19.18
2	169.73	35.6 QP	43.5	-7.9	1.00 V	92	49.26	-13.69
3	374.43	33.8 QP	46.0	-12.3	1.50 V	276	44.55	-10.80
4	499.31	36.5 QP	46.0	-9.5	1.00 V	292	44.27	-7.77
5	601.42	34.7 QP	46.0	-11.3	2.00 V	360	40.14	-5.40
6	863.05	42.0 QP	46.0	-4.0	1.00 V	13	43.09	-1.12

REMARKS:

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



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CHANNEL	TX Channel 116	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	47.65	27.3 QP	40.0	-12.8	2.00 H	64	40.69	-13.44
2	84.08	30.5 QP	40.0	-9.5	2.00 H	226	49.47	-18.97
3	151.78	35.1 QP	43.5	-8.4	2.00 H	188	47.97	-12.91
4	375.02	34.8 QP	46.0	-11.2	2.00 H	156	45.14	-10.30
5	625.00	38.9 QP	46.0	-7.1	1.50 H	265	43.67	-4.78
6	875.01	39.8 QP	46.0	-6.3	2.00 H	18	40.57	-0.82
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	38.22	34.2 QP	40.0	-5.8	1.00 V	220	48.00	-13.78
2	333.33	37.7 QP	46.0	-8.3	1.45 V	245	48.78	-11.06
3	466.70	36.1 QP	46.0	-9.9	1.00 V	23	44.35	-8.21
4	625.00	35.1 QP	46.0	-11.0	1.00 V	223	39.83	-4.78
5	750.00	36.5 QP	46.0	-9.5	1.00 V	266	39.01	-2.55
6	875.01	39.3 QP	46.0	-6.7	1.00 V	249	40.12	-0.82

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	96.65	37.4 QP	43.5	-6.1	2.00 H	32	56.26	-18.83
2	218.82	36.2 QP	46.0	-9.9	1.50 H	89	52.63	-16.48
3	373.79	35.2 QP	46.0	-10.8	1.00 H	89	46.06	-10.82
4	599.26	36.1 QP	46.0	-9.9	1.50 H	27	41.61	-5.47
5	749.43	37.2 QP	46.0	-8.8	1.00 H	35	39.70	-2.51
6	876.15	42.3 QP	46.0	-3.7	1.00 H	315	43.18	-0.91
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	90.10	37.0 QP	43.5	-6.5	1.50 V	324	56.15	-19.18
2	171.73	37.6 QP	43.5	-5.9	1.00 V	92	51.51	-13.94
3	376.43	35.0 QP	46.0	-11.1	1.50 V	276	45.64	-10.69
4	500.31	37.4 QP	46.0	-8.6	1.00 V	292	45.13	-7.76
5	599.42	35.5 QP	46.0	-10.5	2.00 V	360	41.01	-5.47
6	861.05	42.3 QP	46.0	-3.7	1.00 V	13	43.51	-1.17

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)
– Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

ABOVE 1GHz DATA

802.11a

CHANNEL	TX Channel 52	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	5100.00	60.3 PK	74.0	-13.7	1.00 H	151	19.05	41.25
2	5100.00	51.2 AV	54.0	-2.8	1.00 H	151	9.95	41.25
3	*5260.00	114.3 PK			1.00 H	151	72.49	41.81
4	*5260.00	106.9 AV			1.00 H	151	65.09	41.81
5	5419.00	63.6 PK	74.0	-10.4	1.00 H	151	21.42	42.18
6	5419.00	53.3 AV	54.0	-0.7	1.00 H	151	11.12	42.18
7	#10520.00	47.8 PK	74.0	-26.2	1.01 H	155	-0.71	48.51
8	#10520.00	35.7 AV	54.0	-18.3	1.01 H	155	-12.81	48.51
9	15780.00	53.4 PK	74.0	-20.6	1.17 H	152	-0.34	53.74
10	15780.00	40.7 AV	54.0	-13.3	1.17 H	152	-13.04	53.74
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	5100.00	58.1 PK	74.0	-15.9	1.03 V	308	16.85	41.25
2	5100.00	49.1 AV	54.0	-4.9	1.03 V	308	7.85	41.25
3	*5260.00	107.8 PK			1.03 V	308	65.99	41.81
4	*5260.00	100.3 AV			1.03 V	308	58.49	41.81
5	5419.00	61.6 PK	74.0	-12.4	1.03 V	308	19.42	42.18
6	5419.00	51.5 AV	54.0	-2.5	1.03 V	308	9.32	42.18
7	#10520.00	49.9 PK	74.0	-24.1	1.11 V	117	1.39	48.51
8	#10520.00	37.3 AV	54.0	-16.7	1.11 V	117	-11.21	48.51
9	15780.00	52.6 PK	74.0	-21.4	1.26 V	23	-1.14	53.74
10	15780.00	40.5 AV	54.0	-13.5	1.26 V	23	-13.24	53.74

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 60	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	5141.00	59.7 PK	74.0	-14.3	1.02 H	154	18.28	41.42
2	5141.00	49.9 AV	54.0	-4.1	1.02 H	154	8.48	41.42
3	*5300.00	115.0 PK			1.02 H	154	73.09	41.91
4	*5300.00	107.1 AV			1.02 H	154	65.19	41.91
5	5380.00	63.1 PK	74.0	-10.9	1.02 H	154	21.05	42.05
6	5380.00	53.4 AV	54.0	-0.6	1.02 H	154	11.35	42.05
7	10600.00	47.4 PK	74.0	-26.6	1.07 H	147	-1.01	48.41
8	10600.00	35.2 AV	54.0	-18.8	1.07 H	147	-13.21	48.41
9	15900.00	53.6 PK	74.0	-20.4	1.12 H	158	-0.20	53.80
10	15900.00	41.0 AV	54.0	-13.0	1.12 H	158	-12.80	53.80
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	5141.00	58.3 PK	74.0	-15.7	1.08 V	302	16.88	41.42
2	5141.00	48.2 AV	54.0	-5.8	1.08 V	302	6.78	41.42
3	*5300.00	107.7 PK			1.08 V	302	65.79	41.91
4	*5300.00	99.7 AV			1.08 V	302	57.79	41.91
5	5380.00	61.4 PK	74.0	-12.6	1.08 V	302	19.35	42.05
6	5380.00	51.5 AV	54.0	-2.5	1.08 V	302	9.45	42.05
7	10600.00	48.3 PK	74.0	-25.7	1.10 V	122	-0.11	48.41
8	10600.00	36.1 AV	54.0	-17.9	1.10 V	122	-12.31	48.41
9	15900.00	52.5 PK	74.0	-21.5	1.20 V	9	-1.30	53.80
10	15900.00	40.3 AV	54.0	-13.7	1.20 V	9	-13.50	53.80

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 64	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	*5320.00	113.9 PK			1.01 H	151	71.95	41.95
2	*5320.00	106.3 AV			1.01 H	151	64.35	41.95
3	5350.00	67.9 PK	74.0	-6.1	1.01 H	151	25.90	42.00
4	5350.00	48.8 AV	54.0	-5.2	1.01 H	151	6.80	42.00
5	5400.00	62.8 PK	74.0	-11.2	1.01 H	151	20.71	42.09
6	5400.00	53.4 AV	54.0	-0.6	1.01 H	151	11.31	42.09
7	10640.00	47.6 PK	74.0	-26.4	1.00 H	161	-0.99	48.59
8	10640.00	35.5 AV	54.0	-18.5	1.00 H	161	-13.09	48.59
9	15960.00	54.1 PK	74.0	-19.9	1.15 H	150	0.30	53.80
10	15960.00	41.1 AV	54.0	-12.9	1.15 H	150	-12.70	53.80

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	*5320.00	107.5 PK			1.02 V	294	65.55	41.95
2	*5320.00	99.7 AV			1.02 V	294	57.75	41.95
3	5350.00	64.0 PK	74.0	-10.0	1.02 V	294	22.00	42.00
4	5350.00	44.9 AV	54.0	-9.1	1.02 V	294	2.90	42.00
5	5400.00	60.6 PK	74.0	-13.4	1.02 V	294	18.51	42.09
6	5400.00	51.2 AV	54.0	-2.8	1.02 V	294	9.11	42.09
7	10640.00	47.5 PK	74.0	-26.5	1.08 V	106	-1.09	48.59
8	10640.00	35.4 AV	54.0	-18.6	1.08 V	106	-13.19	48.59
9	15960.00	52.1 PK	74.0	-21.9	1.18 V	3	-1.70	53.80
10	15960.00	40.3 AV	54.0	-13.7	1.18 V	3	-13.50	53.80

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 100	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	#5338.00	60.6 PK	74.0	-13.4	1.38 H	142	18.62	41.98
2	#5338.00	50.0 AV	54.0	-4.0	1.38 H	142	8.02	41.98
3	5419.00	62.7 PK	74.0	-11.3	1.38 H	142	20.52	42.18
4	5419.00	53.2 AV	54.0	-0.8	1.38 H	142	11.02	42.18
5	#5470.00	55.1 PK	74.0	-18.9	1.38 H	142	12.69	42.41
6	#5470.00	42.6 AV	54.0	-11.4	1.38 H	142	0.19	42.41
7	*5500.00	112.1 PK			1.38 H	142	69.56	42.54
8	*5500.00	104.5 AV			1.38 H	142	61.96	42.54
9	11000.00	48.1 PK	74.0	-25.9	1.03 H	161	-1.28	49.38
10	11000.00	35.7 AV	54.0	-18.3	1.03 H	161	-13.68	49.38
11	#16500.00	53.4 PK	74.0	-20.6	1.14 H	160	-1.85	55.25
12	#16500.00	40.4 AV	54.0	-13.6	1.14 H	160	-14.85	55.25
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	#5338.00	59.1 PK	74.0	-14.9	1.04 V	298	17.12	41.98
2	#5338.00	48.0 AV	54.0	-6.0	1.04 V	298	6.02	41.98
3	5419.00	60.8 PK	74.0	-13.2	1.04 V	298	18.62	42.18
4	5419.00	51.1 AV	54.0	-2.9	1.04 V	298	8.92	42.18
5	#5470.00	53.5 PK	74.0	-20.5	1.04 V	298	11.09	42.41
6	#5470.00	41.0 AV	54.0	-13.0	1.04 V	298	-1.41	42.41
7	*5500.00	105.0 PK			1.04 V	298	62.46	42.54
8	*5500.00	97.5 AV			1.04 V	298	54.96	42.54
9	11000.00	47.8 PK	74.0	-26.2	1.07 V	131	-1.58	49.38
10	11000.00	35.5 AV	54.0	-18.5	1.07 V	131	-13.88	49.38
11	#16500.00	56.9 PK	74.0	-17.1	1.00 V	130	1.65	55.25
12	#16500.00	44.3 AV	54.0	-9.7	1.00 V	130	-10.95	55.25

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)
– Pre-Amplifier 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 116	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	5116.00	58.8 PK	74.0	-15.2	1.37 H	136	17.48	41.32
2	5116.00	49.0 AV	54.0	-5.0	1.37 H	136	7.68	41.32
3	5418.00	60.8 PK	74.0	-13.2	1.37 H	136	18.63	42.17
4	5418.00	50.3 AV	54.0	-3.7	1.37 H	136	8.13	42.17
5	*5580.00	115.8 PK			1.37 H	136	72.97	42.83
6	*5580.00	108.6 AV			1.37 H	136	65.77	42.83
7	#5739.00	63.1 PK	74.0	-10.9	1.37 H	136	19.91	43.19
8	#5739.00	53.2 AV	54.0	-0.8	1.37 H	136	10.01	43.19
9	11160.00	47.2 PK	74.0	-26.8	1.00 H	160	-2.03	49.23
10	11160.00	35.1 AV	54.0	-18.9	1.00 H	160	-14.13	49.23
11	#16740.00	54.1 PK	74.0	-19.9	1.15 H	173	-1.15	55.25
12	#16740.00	41.1 AV	54.0	-12.9	1.15 H	173	-14.15	55.25
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	5116.00	56.9 PK	74.0	-17.1	1.00 V	301	15.58	41.32
2	5116.00	47.1 AV	54.0	-6.9	1.00 V	301	5.78	41.32
3	5418.00	58.4 PK	74.0	-15.6	1.00 V	301	16.23	42.17
4	5418.00	47.9 AV	54.0	-6.1	1.00 V	301	5.73	42.17
5	*5580.00	109.3 PK			1.00 V	301	66.47	42.83
6	*5580.00	101.8 AV			1.00 V	301	58.97	42.83
7	#5739.00	61.2 PK	74.0	-12.8	1.00 V	301	18.01	43.19
8	#5739.00	51.5 AV	54.0	-2.5	1.00 V	301	8.31	43.19
9	11160.00	52.2 PK	74.0	-21.8	1.00 V	73	2.97	49.23
10	11160.00	39.4 AV	54.0	-14.6	1.00 V	73	-9.83	49.23
11	#16740.00	56.0 PK	74.0	-18.0	1.00 V	143	0.75	55.25
12	#16740.00	43.5 AV	54.0	-10.5	1.00 V	143	-11.75	55.25

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 132	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	#5189.00	60.3 PK	74.0	-13.7	1.14 H	132	18.68	41.62
2	#5189.00	50.3 AV	54.0	-3.7	1.14 H	132	8.68	41.62
3	5418.00	61.9 PK	74.0	-12.1	1.14 H	132	19.73	42.17
4	5418.00	51.5 AV	54.0	-2.5	1.14 H	132	9.33	42.17
5	*5660.00	112.3 PK			1.14 H	132	69.29	43.01
6	*5660.00	103.7 AV			1.14 H	132	60.69	43.01
7	#5739.00	63.4 PK	74.0	-10.6	1.14 H	132	20.21	43.19
8	#5739.00	53.1 AV	54.0	-0.9	1.14 H	132	9.91	43.19
9	11320.00	47.6 PK	74.0	-26.4	1.00 H	168	-2.04	49.64
10	11320.00	35.2 AV	54.0	-18.8	1.00 H	168	-14.44	49.64
11	#16980.00	53.5 PK	74.0	-20.5	1.13 H	158	-2.33	55.83
12	#16980.00	40.6 AV	54.0	-13.4	1.13 H	158	-15.23	55.83

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	#5189.00	58.0 PK	74.0	-16.0	1.00 V	299	16.38	41.62
2	#5189.00	48.2 AV	54.0	-5.8	1.00 V	299	6.58	41.62
3	5418.00	59.9 PK	74.0	-14.1	1.00 V	299	17.73	42.17
4	5418.00	49.3 AV	54.0	-4.7	1.00 V	299	7.13	42.17
5	*5660.00	105.4 PK			1.00 V	299	62.39	43.01
6	*5660.00	96.9 AV			1.00 V	299	53.89	43.01
7	#5739.00	61.5 PK	74.0	-12.5	1.00 V	299	18.31	43.19
8	#5739.00	51.0 AV	54.0	-3.0	1.00 V	299	7.81	43.19
9	11320.00	50.1 PK	74.0	-23.9	1.02 V	77	0.46	49.64
10	11320.00	37.2 AV	54.0	-16.8	1.02 V	77	-12.44	49.64
11	#16980.00	56.7 PK	74.0	-17.3	1.01 V	129	0.87	55.83
12	#16980.00	43.8 AV	54.0	-10.2	1.01 V	129	-12.03	55.83

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 140	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	*5700.00	112.0 PK			1.14 H	34	68.92	43.08
2	*5700.00	104.1 AV			1.14 H	34	61.02	43.08
3	#5725.00	57.5 PK	74.0	-16.5	1.14 H	34	14.36	43.14
4	#5725.00	43.9 AV	54.0	-10.1	1.14 H	34	0.76	43.14
5	#5785.00	62.6 PK	74.0	-11.4	1.14 H	34	19.30	43.30
6	#5785.00	53.1 AV	54.0	-0.9	1.14 H	34	9.80	43.30
7	#5861.00	62.2 PK	74.0	-11.8	1.14 H	34	18.58	43.62
8	#5861.00	52.9 AV	54.0	-1.1	1.14 H	34	9.28	43.62
9	11400.00	47.7 PK	74.0	-26.3	1.01 H	151	-1.83	49.53
10	11400.00	35.6 AV	54.0	-18.4	1.01 H	151	-13.93	49.53
11	#17100.00	53.4 PK	74.0	-20.6	1.11 H	175	-2.28	55.68
12	#17100.00	40.6 AV	54.0	-13.4	1.11 H	175	-15.08	55.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.7 PK			1.02 V	307	61.62	43.08
2	*5700.00	96.6 AV			1.02 V	307	53.52	43.08
3	#5725.00	55.2 PK	74.0	-18.8	1.02 V	307	12.06	43.14
4	#5725.00	41.4 AV	54.0	-12.6	1.02 V	307	-1.74	43.14
5	#5785.00	60.5 PK	74.0	-13.5	1.02 V	307	17.20	43.30
6	#5785.00	51.2 AV	54.0	-2.8	1.02 V	307	7.90	43.30
7	#5861.00	60.3 PK	74.0	-13.7	1.02 V	307	16.68	43.62
8	#5861.00	51.2 AV	54.0	-2.8	1.02 V	307	7.58	43.62
9	11400.00	51.3 PK	74.0	-22.7	1.05 V	87	1.77	49.53
10	11400.00	38.6 AV	54.0	-15.4	1.05 V	87	-10.93	49.53
11	#17100.00	56.1 PK	74.0	-17.9	1.03 V	116	0.42	55.68
12	#17100.00	43.8 AV	54.0	-10.2	1.03 V	116	-11.88	55.68

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)
– Pre-Amplifier 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 (HT20)

CHANNEL	TX Channel 52	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	*5260.00	117.9 PK			1.04 H	156	76.09	41.81
2	*5260.00	107.5 AV			1.04 H	156	65.69	41.81
3	5418.00	65.2 PK	74.0	-8.8	1.04 H	156	23.03	42.17
4	5418.00	53.4 AV	54.0	-0.6	1.04 H	156	11.23	42.17
5	#10520.00	47.6 PK	74.0	-26.4	1.05 H	139	-0.91	48.51
6	#10520.00	35.3 AV	54.0	-18.7	1.05 H	139	-13.21	48.51
7	15780.00	53.7 PK	74.0	-20.3	1.13 H	186	-0.04	53.74
8	15780.00	41.0 AV	54.0	-13.0	1.13 H	186	-12.74	53.74
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	*5260.00	111.1 PK			1.09 V	300	69.29	41.81
2	*5260.00	100.8 AV			1.09 V	300	58.99	41.81
3	5418.00	61.3 PK	74.0	-12.7	1.09 V	300	19.13	42.17
4	5418.00	49.6 AV	54.0	-4.4	1.09 V	300	7.43	42.17
5	#10520.00	52.2 PK	74.0	-21.8	1.05 V	129	3.69	48.51
6	#10520.00	39.0 AV	54.0	-15.0	1.05 V	129	-9.51	48.51
7	15780.00	53.8 PK	74.0	-20.2	1.26 V	49	0.06	53.74
8	15780.00	41.3 AV	54.0	-12.7	1.26 V	49	-12.44	53.74

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)
– Pre-Amplifier 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 60	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	5141.00	61.0 PK	74.0	-13.0	1.04 H	154	19.58	41.42
2	5141.00	48.8 AV	54.0	-5.2	1.04 H	154	7.38	41.42
3	*5300.00	115.4 PK			1.04 H	154	73.49	41.91
4	*5300.00	103.6 AV			1.04 H	154	61.69	41.91
5	5378.00	65.4 PK	74.0	-8.6	1.04 H	154	23.35	42.05
6	5378.00	53.5 AV	54.0	-0.5	1.04 H	154	11.45	42.05
7	10600.00	47.7 PK	74.0	-26.3	1.03 H	166	-0.71	48.41
8	10600.00	35.4 AV	54.0	-18.6	1.03 H	166	-13.01	48.41
9	15900.00	53.6 PK	74.0	-20.4	1.07 H	169	-0.20	53.80
10	15900.00	41.0 AV	54.0	-13.0	1.07 H	169	-12.80	53.80
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	5141.00	56.6 PK	74.0	-17.4	1.06 V	293	15.18	41.42
2	5141.00	44.7 AV	54.0	-9.3	1.06 V	293	3.28	41.42
3	*5300.00	108.2 PK			1.06 V	293	66.29	41.91
4	*5300.00	96.7 AV			1.06 V	293	54.79	41.91
5	5378.00	61.8 PK	74.0	-12.2	1.06 V	293	19.75	42.05
6	5378.00	49.9 AV	54.0	-4.1	1.06 V	293	7.85	42.05
7	10600.00	50.6 PK	74.0	-23.4	1.00 V	111	2.19	48.41
8	10600.00	37.1 AV	54.0	-16.9	1.00 V	111	-11.31	48.41
9	15900.00	53.6 PK	74.0	-20.4	1.25 V	51	-0.20	53.80
10	15900.00	41.2 AV	54.0	-12.8	1.25 V	51	-12.60	53.80

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 64	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	*5320.00	114.7 PK			1.01 H	152	72.75	41.95
2	*5320.00	103.1 AV			1.01 H	152	61.15	41.95
3	5350.00	68.1 PK	74.0	-5.9	1.01 H	152	26.10	42.00
4	5350.00	49.1 AV	54.0	-4.9	1.01 H	152	7.10	42.00
5	5400.00	65.4 PK	74.0	-8.6	1.01 H	152	23.31	42.09
6	5400.00	53.5 AV	54.0	-0.5	1.01 H	152	11.41	42.09
7	10640.00	47.5 PK	74.0	-26.5	1.00 H	148	-1.09	48.59
8	10640.00	35.3 AV	54.0	-18.7	1.00 H	148	-13.29	48.59
9	15960.00	53.4 PK	74.0	-20.6	1.12 H	171	-0.40	53.80
10	15960.00	40.4 AV	54.0	-13.6	1.12 H	171	-13.40	53.80
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	*5320.00	107.5 PK			1.07 V	291	65.55	41.95
2	*5320.00	95.8 AV			1.07 V	291	53.85	41.95
3	5350.00	63.7 PK	74.0	-10.3	1.07 V	291	21.70	42.00
4	5350.00	45.0 AV	54.0	-9.0	1.07 V	291	3.00	42.00
5	5400.00	61.1 PK	74.0	-12.9	1.07 V	291	19.01	42.09
6	5400.00	49.2 AV	54.0	-4.8	1.07 V	291	7.11	42.09
7	10640.00	50.8 PK	74.0	-23.2	1.00 V	101	2.21	48.59
8	10640.00	37.6 AV	54.0	-16.4	1.00 V	101	-10.99	48.59
9	15960.00	53.3 PK	74.0	-20.7	1.21 V	58	-0.50	53.80
10	15960.00	41.4 AV	54.0	-12.6	1.21 V	58	-12.40	53.80

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 100	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	#5339.00	62.1 PK	74.0	-11.9	1.02 H	154	20.12	41.98
2	#5339.00	50.0 AV	54.0	-4.0	1.02 H	154	8.02	41.98
3	5419.00	65.4 PK	74.0	-8.6	1.02 H	154	23.18	42.18
4	5419.00	53.3 AV	54.0	-0.7	1.02 H	154	11.12	42.18
5	#5470.00	58.7 PK	74.0	-15.3	1.02 H	154	16.29	42.41
6	#5470.00	45.7 AV	54.0	-8.3	1.02 H	154	3.29	42.41
7	*5500.00	113.6 PK			1.02 H	154	71.06	42.54
8	*5500.00	102.1 AV			1.02 H	154	59.56	42.54
9	11000.00	48.2 PK	74.0	-25.8	1.02 H	153	-1.18	49.38
10	11000.00	35.8 AV	54.0	-18.2	1.02 H	153	-13.58	49.38
11	#16500.00	53.4 PK	74.0	-20.6	1.13 H	172	-1.85	55.25
12	#16500.00	40.7 AV	54.0	-13.3	1.13 H	172	-14.55	55.25
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	5419.00	61.3 PK	74.0	-12.7	1.10 V	286	19.12	42.18
2	5419.00	49.1 AV	54.0	-4.9	1.10 V	286	6.92	42.18
3	5460.00	58.2 PK	74.0	-15.8	1.10 V	286	15.84	42.36
4	5460.00	46.1 AV	54.0	-7.9	1.10 V	286	3.74	42.36
5	#5470.00	54.9 PK	74.0	-19.1	1.10 V	286	12.49	42.41
6	#5470.00	41.8 AV	54.0	-12.2	1.10 V	286	-0.61	42.41
7	*5500.00	106.9 PK			1.10 V	286	64.36	42.54
8	*5500.00	95.2 AV			1.10 V	286	52.66	42.54
9	11000.00	55.5 PK	74.0	-18.5	1.00 V	75	6.12	49.38
10	11000.00	41.1 AV	54.0	-12.9	1.00 V	75	-8.28	49.38
11	#16500.00	57.6 PK	74.0	-16.4	1.07 V	118	2.35	55.25
12	#16500.00	44.6 AV	54.0	-9.4	1.07 V	118	-10.65	55.25

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)
– Pre-Amplifier 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 116	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	5116.00	60.3 PK	74.0	-13.7	1.32 H	154	18.98	41.32
2	5116.00	47.8 AV	54.0	-6.2	1.32 H	154	6.48	41.32
3	5418.00	64.5 PK	74.0	-9.5	1.32 H	154	22.33	42.17
4	5418.00	53.3 AV	54.0	-0.7	1.32 H	154	11.13	42.17
5	*5580.00	117.6 PK			1.32 H	154	74.77	42.83
6	*5580.00	104.9 AV			1.32 H	154	62.07	42.83
7	#5741.00	64.3 PK	74.0	-9.7	1.32 H	154	21.11	43.19
8	#5741.00	51.6 AV	54.0	-2.4	1.32 H	154	8.41	43.19
9	11160.00	47.3 PK	74.0	-26.7	1.00 H	166	-1.93	49.23
10	11160.00	35.3 AV	54.0	-18.7	1.00 H	166	-13.93	49.23
11	#16740.00	52.9 PK	74.0	-21.1	1.09 H	171	-2.35	55.25
12	#16740.00	40.4 AV	54.0	-13.6	1.09 H	171	-14.85	55.25
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	5116.00	55.9 PK	74.0	-18.1	1.07 V	274	14.58	41.32
2	5116.00	43.4 AV	54.0	-10.6	1.07 V	274	2.08	41.32
3	5418.00	60.4 PK	74.0	-13.6	1.07 V	274	18.23	42.17
4	5418.00	49.4 AV	54.0	-4.6	1.07 V	274	7.23	42.17
5	*5580.00	110.2 PK			1.07 V	274	67.37	42.83
6	*5580.00	97.7 AV			1.07 V	274	54.87	42.83
7	#5741.00	61.0 PK	74.0	-13.0	1.07 V	274	17.81	43.19
8	#5741.00	48.0 AV	54.0	-6.0	1.07 V	274	4.81	43.19
9	11160.00	57.2 PK	74.0	-16.8	1.00 V	73	7.97	49.23
10	11160.00	44.0 AV	54.0	-10.0	1.00 V	73	-5.23	49.23
11	#16740.00	57.0 PK	74.0	-17.0	1.06 V	132	1.75	55.25
12	#16740.00	44.3 AV	54.0	-9.7	1.06 V	132	-10.95	55.25

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 132	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	#5189.00	58.3 PK	74.0	-15.7	1.28 H	153	16.68	41.62
2	#5189.00	46.9 AV	54.0	-7.1	1.28 H	153	5.28	41.62
3	5418.00	58.7 PK	74.0	-15.3	1.28 H	153	16.53	42.17
4	5418.00	46.5 AV	54.0	-7.5	1.28 H	153	4.33	42.17
5	*5660.00	115.6 PK			1.28 H	153	72.59	43.01
6	*5660.00	102.6 AV			1.28 H	153	59.59	43.01
7	#5739.00	67.6 PK	74.0	-6.4	1.28 H	153	24.41	43.19
8	#5739.00	53.5 AV	54.0	-0.5	1.28 H	153	10.31	43.19
9	11320.00	47.2 PK	74.0	-26.8	1.00 H	144	-2.44	49.64
10	11320.00	35.3 AV	54.0	-18.7	1.00 H	144	-14.34	49.64
11	#16980.00	53.6 PK	74.0	-20.4	1.16 H	172	-2.23	55.83
12	#16980.00	40.7 AV	54.0	-13.3	1.16 H	172	-15.13	55.83
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	#5189.00	54.6 PK	74.0	-19.4	1.02 V	278	12.98	41.62
2	#5189.00	43.0 AV	54.0	-11.0	1.02 V	278	1.38	41.62
3	5418.00	55.0 PK	74.0	-19.0	1.02 V	278	12.83	42.17
4	5418.00	42.9 AV	54.0	-11.1	1.02 V	278	0.73	42.17
5	*5660.00	109.2 PK			1.02 V	278	66.19	43.01
6	*5660.00	96.1 AV			1.02 V	278	53.09	43.01
7	#5739.00	63.8 PK	74.0	-10.2	1.02 V	278	20.61	43.19
8	#5739.00	49.6 AV	54.0	-4.4	1.02 V	278	6.41	43.19
9	11320.00	56.5 PK	74.0	-17.5	1.00 V	68	6.86	49.64
10	11320.00	43.2 AV	54.0	-10.8	1.00 V	68	-6.44	49.64
11	#16980.00	57.4 PK	74.0	-16.6	1.09 V	144	1.57	55.83
12	#16980.00	44.3 AV	54.0	-9.7	1.09 V	144	-11.53	55.83

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)
– Pre-Amplifier 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 140	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	*5700.00	113.8 PK			1.27 H	160	70.72	43.08
2	*5700.00	101.1 AV			1.27 H	160	58.02	43.08
3	#5725.00	64.4 PK	74.0	-9.6	1.27 H	160	21.26	43.14
4	#5725.00	48.1 AV	54.0	-5.9	1.27 H	160	4.96	43.14
5	#5785.00	64.8 PK	74.0	-9.2	1.27 H	160	21.50	43.30
6	#5785.00	52.9 AV	54.0	-1.1	1.27 H	160	9.60	43.30
7	#5861.00	65.0 PK	74.0	-9.0	1.27 H	160	21.38	43.62
8	#5861.00	53.5 AV	54.0	-0.5	1.27 H	160	9.88	43.62
9	11400.00	47.7 PK	74.0	-26.3	1.00 H	156	-1.83	49.53
10	11400.00	35.9 AV	54.0	-18.1	1.00 H	156	-13.63	49.53
11	#17100.00	52.9 PK	74.0	-21.1	1.12 H	163	-2.78	55.68
12	#17100.00	40.1 AV	54.0	-13.9	1.12 H	163	-15.58	55.68
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.9 PK			1.06 V	284	63.82	43.08
2	*5700.00	94.3 AV			1.06 V	284	51.22	43.08
3	#5725.00	60.3 PK	74.0	-13.7	1.06 V	284	17.16	43.14
4	#5725.00	43.8 AV	54.0	-10.2	1.06 V	284	0.66	43.14
5	#5785.00	60.3 PK	74.0	-13.7	1.06 V	284	17.00	43.30
6	#5785.00	48.5 AV	54.0	-5.5	1.06 V	284	5.20	43.30
7	#5861.00	61.0 PK	74.0	-13.0	1.06 V	284	17.38	43.62
8	#5861.00	49.4 AV	54.0	-4.6	1.06 V	284	5.78	43.62
9	11400.00	56.7 PK	74.0	-17.3	1.03 V	57	7.17	49.53
10	11400.00	43.5 AV	54.0	-10.5	1.03 V	57	-6.03	49.53
11	#17100.00	56.6 PK	74.0	-17.4	1.14 V	157	0.92	55.68
12	#17100.00	43.5 AV	54.0	-10.5	1.14 V	157	-12.18	55.68

REMARKS:

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

802.11n (HT40)

CHANNEL	TX Channel 54	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	5128.00	62.2 PK	74.0	-11.8	1.05 H	153	20.83	41.37
2	5128.00	49.8 AV	54.0	-4.2	1.05 H	153	8.43	41.37
3	*5270.00	115.6 PK			1.05 H	153	73.76	41.84
4	*5270.00	102.7 AV			1.05 H	153	60.86	41.84
5	5354.00	68.7 PK	74.0	-5.3	1.05 H	155	26.69	42.01
6	5354.00	53.5 AV	54.0	-0.5	1.05 H	155	11.49	42.01
7	5425.00	64.5 PK	74.0	-9.5	1.05 H	153	22.30	42.20
8	5425.00	51.8 AV	54.0	-2.2	1.05 H	153	9.60	42.20
9	#10540.00	48.0 PK	74.0	-26.0	1.00 H	155	-0.49	48.49
10	#10540.00	36.0 AV	54.0	-18.0	1.00 H	155	-12.49	48.49
11	15810.00	53.3 PK	74.0	-20.7	1.09 H	166	-0.51	53.81
12	15810.00	40.4 AV	54.0	-13.6	1.09 H	166	-13.41	53.81
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	5128.00	58.0 PK	74.0	-16.0	1.00 V	30	16.63	41.37
2	5128.00	45.7 AV	54.0	-8.3	1.00 V	30	4.33	41.37
3	*5270.00	112.9 PK			1.00 V	30	71.06	41.84
4	*5270.00	99.8 AV			1.00 V	30	57.96	41.84
5	5354.00	65.3 PK	74.0	-8.7	1.00 V	30	23.29	42.01
6	5354.00	49.8 AV	54.0	-4.2	1.00 V	30	7.79	42.01
7	5425.00	60.3 PK	74.0	-13.7	1.00 V	30	18.10	42.20
8	5425.00	47.6 AV	54.0	-6.4	1.00 V	30	5.40	42.20
9	#10540.00	50.2 PK	74.0	-23.8	1.07 V	119	1.71	48.49
10	#10540.00	38.5 AV	54.0	-15.5	1.07 V	119	-9.99	48.49
11	15810.00	52.4 PK	74.0	-21.6	1.24 V	17	-1.41	53.81
12	15810.00	40.7 AV	54.0	-13.3	1.24 V	17	-13.11	53.81

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
– Pre-Amplifier 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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CHANNEL	TX Channel 62	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	*5310.00	112.4 PK			1.03 H	154	70.48	41.92
2	*5310.00	99.6 AV			1.03 H	154	57.68	41.92
3	5350.00	67.6 PK	74.0	-6.4	1.03 H	154	25.60	42.00
4	5350.00	53.3 AV	54.0	-0.7	1.03 H	154	11.30	42.00
5	5394.00	62.6 PK	74.0	-11.4	1.03 H	154	20.52	42.08
6	5394.00	50.3 AV	54.0	-3.7	1.03 H	154	8.22	42.08
7	10620.00	47.5 PK	74.0	-26.5	1.04 H	164	-1.00	48.50
8	10620.00	35.6 AV	54.0	-18.4	1.04 H	164	-12.90	48.50
9	15930.00	53.1 PK	74.0	-20.9	1.08 H	168	-0.70	53.80
10	15930.00	40.5 AV	54.0	-13.5	1.08 H	168	-13.30	53.80
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	*5310.00	109.6 PK			1.02 V	24	67.68	41.92
2	*5310.00	97.0 AV			1.02 V	24	55.08	41.92
3	5350.00	63.9 PK	74.0	-10.1	1.02 V	24	21.90	42.00
4	5350.00	49.5 AV	54.0	-4.5	1.02 V	24	7.50	42.00
5	5394.00	58.9 PK	74.0	-15.1	1.02 V	24	16.82	42.08
6	5394.00	46.5 AV	54.0	-7.5	1.02 V	24	4.42	42.08
7	10620.00	47.4 PK	74.0	-26.6	1.05 V	112	-1.10	48.50
8	10620.00	35.4 AV	54.0	-18.6	1.05 V	112	-13.10	48.50
9	15930.00	51.7 PK	74.0	-22.3	1.17 V	14	-2.10	53.80
10	15930.00	39.9 AV	54.0	-14.1	1.17 V	14	-13.90	53.80

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 102	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	5433.00	62.4 PK	74.0	-11.6	1.00 H	152	20.16	42.24
2	5433.00	49.6 AV	54.0	-4.4	1.00 H	152	7.36	42.24
3	#5470.00	69.3 PK	74.0	-4.7	1.00 H	152	26.89	42.41
4	#5470.00	53.4 AV	54.0	-0.6	1.00 H	152	10.99	42.41
5	*5510.00	110.6 PK			1.00 H	152	68.03	42.57
6	*5510.00	98.5 AV			1.00 H	152	55.93	42.57
7	11020.00	47.2 PK	74.0	-26.8	1.00 H	143	-2.15	49.35
8	11020.00	35.6 AV	54.0	-18.4	1.00 H	143	-13.75	49.35
9	#16530.00	52.4 PK	74.0	-21.6	1.15 H	178	-3.13	55.53
10	#16530.00	39.6 AV	54.0	-14.4	1.15 H	178	-15.93	55.53
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	5433.00	58.8 PK	74.0	-15.2	1.00 V	36	16.56	42.24
2	5433.00	46.1 AV	54.0	-7.9	1.00 V	36	3.86	42.24
3	#5470.00	65.4 PK	74.0	-8.6	1.00 V	36	22.99	42.41
4	#5470.00	49.5 AV	54.0	-4.5	1.00 V	36	7.09	42.41
5	*5510.00	107.5 PK			1.00 V	36	64.93	42.57
6	*5510.00	95.4 AV			1.00 V	36	52.83	42.57
7	11020.00	49.1 PK	74.0	-24.9	1.03 V	109	-0.25	49.35
8	11020.00	36.4 AV	54.0	-17.6	1.03 V	109	-12.95	49.35
9	#16530.00	56.6 PK	74.0	-17.4	1.11 V	129	1.07	55.53
10	#16530.00	44.0 AV	54.0	-10.0	1.11 V	129	-11.53	55.53

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)
– Pre-Amplifier 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

CHANNEL	TX Channel 110	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	#5465.00	66.5 PK	74.0	-7.5	1.31 H	153	24.11	42.39
2	#5465.00	53.3 AV	54.0	-0.7	1.31 H	153	10.91	42.39
3	*5550.00	114.1 PK			1.31 H	153	71.38	42.72
4	*5550.00	101.7 AV			1.31 H	153	58.98	42.72
5	#5725.00	62.6 PK	74.0	-11.4	1.31 H	153	19.46	43.14
6	#5725.00	49.3 AV	54.0	-4.7	1.31 H	153	6.16	43.14
7	11100.00	47.1 PK	74.0	-26.9	1.00 H	140	-2.13	49.23
8	11100.00	35.6 AV	54.0	-18.4	1.00 H	140	-13.63	49.23
9	#16650.00	52.8 PK	74.0	-21.2	1.05 H	135	-2.93	55.73
10	#16650.00	40.0 AV	54.0	-14.0	1.05 H	135	-15.73	55.73

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	#5465.00	62.3 PK	74.0	-11.7	1.00 V	24	19.91	42.39
2	#5465.00	49.5 AV	54.0	-4.5	1.00 V	24	7.11	42.39
3	*5550.00	110.6 PK			1.00 V	24	67.88	42.72
4	*5550.00	98.4 AV			1.00 V	24	55.68	42.72
5	#5725.00	58.5 PK	74.0	-15.5	1.00 V	24	15.36	43.14
6	#5725.00	45.4 AV	54.0	-8.6	1.00 V	24	2.26	43.14
7	11100.00	54.2 PK	74.0	-19.8	1.09 V	96	4.97	49.23
8	11100.00	41.8 AV	54.0	-12.2	1.09 V	96	-7.43	49.23
9	#16650.00	56.4 PK	74.0	-17.6	1.08 V	137	0.67	55.73
10	#16650.00	44.2 AV	54.0	-9.8	1.08 V	137	-11.53	55.73

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)
– Pre-Amplifier 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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CHANNEL	TX Channel 134	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	*5670.00	114.4 PK			1.17 H	159	71.38	43.02
2	*5670.00	101.8 AV			1.17 H	159	58.78	43.02
3	#5725.00	71.4 PK	74.0	-2.6	1.17 H	159	28.26	43.14
4	#5725.00	51.7 AV	54.0	-2.3	1.17 H	159	8.56	43.14
5	#5733.00	71.6 PK	74.0	-2.4	1.17 H	159	28.44	43.16
6	#5733.00	53.4 AV	54.0	-0.6	1.17 H	159	10.24	43.16
7	#5835.00	66.1 PK	74.0	-7.9	1.17 H	159	22.60	43.50
8	#5835.00	52.4 AV	54.0	-1.6	1.17 H	159	8.90	43.50
9	11340.00	47.7 PK	74.0	-26.3	1.00 H	142	-1.92	49.62
10	11340.00	36.0 AV	54.0	-18.0	1.00 H	142	-13.62	49.62
11	#17010.00	53.0 PK	74.0	-21.0	1.01 H	170	-2.90	55.90
12	#17010.00	40.2 AV	54.0	-13.8	1.01 H	170	-15.70	55.90

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	*5670.00	111.5 PK			1.00 V	34	68.48	43.02
2	*5670.00	98.8 AV			1.00 V	34	55.78	43.02
3	#5725.00	67.6 PK	74.0	-6.4	1.00 V	34	24.46	43.14
4	#5725.00	47.7 AV	54.0	-6.3	1.00 V	34	4.56	43.14
5	#5733.00	67.4 PK	74.0	-6.6	1.00 V	34	24.24	43.16
6	#5733.00	49.3 AV	54.0	-4.7	1.00 V	34	6.14	43.16
7	#5835.00	61.8 PK	74.0	-12.2	1.00 V	34	18.30	43.50
8	#5835.00	48.3 AV	54.0	-5.7	1.00 V	34	4.80	43.50
9	11340.00	53.8 PK	74.0	-20.2	1.07 V	102	4.18	49.62
10	11340.00	41.7 AV	54.0	-12.3	1.07 V	102	-7.92	49.62
11	#17010.00	57.5 PK	74.0	-16.5	1.09 V	126	1.60	55.90
12	#17010.00	45.0 AV	54.0	-9.0	1.09 V	126	-10.90	55.90

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)
– Pre-Amplifier 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 (VHT80)

CHANNEL	TX Channel 58	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	73.1 PK	74.0	-0.9	1.14 H	301	31.64	41.46
2	5150.00	53.4 AV	54.0	-0.6	1.14 H	301	11.94	41.46
3	*5290.00	110.8 PK			1.14 H	303	68.91	41.89
4	*5290.00	101.0 AV			1.14 H	303	59.11	41.89
5	#10580.00	47.8 PK	74.0	-26.2	1.03 H	140	-0.64	48.44
6	#10580.00	35.9 AV	54.0	-18.1	1.03 H	140	-12.54	48.44
7	15870.00	52.6 PK	74.0	-21.4	1.01 H	167	-1.20	53.80
8	15870.00	40.1 AV	54.0	-13.9	1.01 H	167	-13.70	53.80
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	5150.00	64.7 PK	74.0	-9.3	1.00 V	98	23.24	41.46
2	5150.00	46.2 AV	54.0	-7.8	1.00 V	98	4.74	41.46
3	*5290.00	104.0 PK			1.00 V	98	62.11	41.89
4	*5290.00	91.2 AV			1.00 V	98	49.31	41.89
5	#10580.00	54.0 PK	74.0	-20.0	1.12 V	91	5.56	48.44
6	#10580.00	41.8 AV	54.0	-12.2	1.12 V	91	-6.64	48.44
7	15870.00	57.7 PK	74.0	-16.3	1.09 V	127	3.90	53.80
8	15870.00	45.0 AV	54.0	-9.0	1.09 V	127	-8.80	53.80

REMARKS:

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

CHANNEL	TX Channel 106	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	#5470.00	67.3 PK	74.0	-6.7	1.36 H	290	24.89	42.41
2	#5470.00	53.2 AV	54.0	-0.8	1.36 H	290	10.79	42.41
3	*5530.00	107.8 PK			1.64 H	272	65.15	42.65
4	*5530.00	98.1 AV			1.64 H	272	55.45	42.65
5	11060.00	47.3 PK	74.0	-26.7	1.00 H	152	-1.99	49.29
6	11060.00	35.6 AV	54.0	-18.4	1.00 H	152	-13.69	49.29
7	#16590.00	52.9 PK	74.0	-21.1	1.02 H	153	-3.18	56.08
8	#16590.00	40.1 AV	54.0	-13.9	1.02 H	153	-15.98	56.08
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	#5470.00	61.3 PK	74.0	-12.7	1.00 V	168	18.89	42.41
2	#5470.00	47.1 AV	54.0	-6.9	1.00 V	168	4.69	42.41
3	*5530.00	101.2 PK			1.00 V	168	58.55	42.65
4	*5530.00	88.7 AV			1.00 V	168	46.05	42.65
5	11060.00	53.7 PK	74.0	-20.3	1.09 V	106	4.41	49.29
6	11060.00	41.9 AV	54.0	-12.1	1.09 V	106	-7.39	49.29
7	#16590.00	56.6 PK	74.0	-17.4	1.11 V	114	0.52	56.08
8	#16590.00	44.2 AV	54.0	-9.8	1.11 V	114	-11.88	56.08

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)
– Pre-Amplifier 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.

4.3 TRANSMIT POWER MEASUREMENT

4.3.1 LIMITS OF TRANSMIT POWER MEASUREMENT

Frequency Band	Limit
5.15 – 5.25GHz	The lesser of 50mW (17dBm) or 4dBm + 10logB
5.25 – 5.35GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.47 – 5.725GHz	The lesser of 250mW (24dBm) or 11dBm + 10logB
5.725 – 5.825GHz	The lesser of 1W (30dBm) or 17dBm + 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 INSTRUMENTS

FOR POWER OUTPUT MEASUREMENT

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Power meter Anritsu	ML2495A	0824006	May 20, 2013	May 19, 2014
Power sensor Anritsu	MA2411B	0738172	May 20, 2013	May 19, 2014

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. Tested date : Aug. 05 to 08, 2013



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FOR 26dB OCCUPIED BANDWIDTH

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Aug. 05 to 08, 2013

4.3.3 TEST PROCEDURE

FOR POWER OUTPUT 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.

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.

FOR 26dB OCCUPIED BANDWIDTH

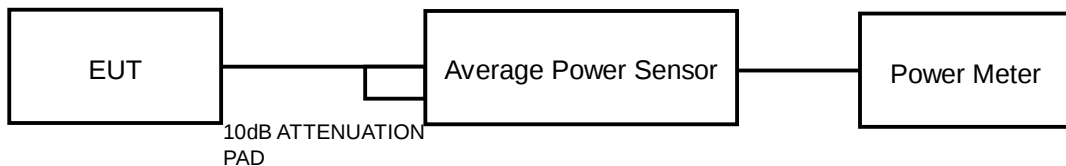
1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

4.3.4 DEVIATION FROM TEST STANDARD

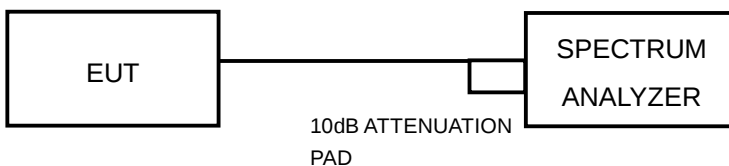
No deviation

4.3.5 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB OCCUPIED BANDWIDTH



4.3.6 EUT OPERATING CONDITIONS

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



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4.3.7 TEST RESULTS (MODE 1)

POWER OUTPUT:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
52	5260	49.204	16.92	24	PASS
60	5300	49.091	16.91	24	PASS
64	5320	19.543	12.91	24	PASS
100	5500	31.696	15.01	24	PASS
116	5580	49.545	16.95	24	PASS
132	5660	44.055	16.44	24	PASS
140	5700	9.863	9.94	23.92	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
52	5260	37.09
60	5300	36.50
64	5320	22.60
100	5500	28.61
116	5580	38.79
132	5660	41.00
140	5700	19.63

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
52	5260	37.09	26.69 > 24
60	5300	36.50	26.62 > 24
64	5320	22.60	24.54 > 24
100	5500	28.61	25.56 > 24
116	5580	38.79	26.88 > 24
132	5660	41.00	27.12 > 24
140	5700	19.63	23.92 < 24

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
52	5260	49.091	16.91	24	PASS
60	5300	48.865	16.89	24	PASS
64	5320	18.836	12.75	24	PASS
100	5500	26.792	14.28	24	PASS
116	5580	49.774	16.97	24	PASS
132	5660	48.865	16.89	24	PASS
140	5700	12.474	10.96	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
52	5260	34.17
60	5300	40.17
64	5320	22.90
100	5500	23.67
116	5580	40.61
132	5660	41.32
140	5700	23.73

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
52	5260	34.17	26.33 > 24
60	5300	40.17	27.03 > 24
64	5320	22.90	24.59 > 24
100	5500	23.67	24.74 > 24
116	5580	40.61	27.08 > 24
132	5660	41.32	27.16 > 24
140	5700	23.73	24.75 > 24

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
54	5270	34.995	15.44	24	PASS
62	5310	9.683	9.86	24	PASS
102	5510	9.376	9.72	24	PASS
110	5550	37.497	15.74	24	PASS
134	5670	23.550	13.72	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)
54	5270	91.18
62	5310	41.57
102	5510	41.38
110	5550	92.34
134	5670	91.91

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
54	5270	91.18	30.59 > 24
62	5310	41.57	27.18 > 24
102	5510	41.38	27.16 > 24
110	5550	92.34	30.65 > 24
134	5670	91.91	30.63 > 24

4.3.8 TEST RESULTS (MODE 2)

POWER OUTPUT:

802.11a

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
52	5260	15.11	15.13	14.72	94.666	19.76	24	PASS
60	5300	14.09	14.45	13.71	77.002	18.87	24	PASS
64	5320	14.16	14.35	13.69	76.677	18.85	24	PASS
100	5500	13.18	13.12	12.59	59.464	17.74	24	PASS
116	5580	15.87	16.01	15.25	112.036	20.49	24	PASS
132	5660	12.24	12.53	12.24	51.404	17.11	24	PASS
140	5700	12.83	12.81	12.65	56.694	17.54	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		
		CHAIN 0	CHAIN 1	CHAIN 2
52	5260	20.59	20.47	20.62
60	5300	20.59	20.54	20.52
64	5320	20.61	20.50	20.40
100	5500	20.56	20.45	20.55
116	5580	20.62	20.53	20.42
132	5660	20.56	20.40	20.52
140	5700	20.64	20.40	20.47

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
52	5260	20.47	24.11 > 24
60	5300	20.52	24.12 > 24
64	5320	20.40	24.09 > 24
100	5500	20.45	24.1 > 24
116	5580	20.42	24.1 > 24
132	5660	20.40	24.09 > 24
140	5700	20.40	24.09 > 24

802.11n (HT20)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
52	5260	18.06	18.24	17.64	188.730	22.76	24	PASS
60	5300	17.01	17.19	16.64	148.726	21.72	24	PASS
64	5320	17.01	17.33	16.64	150.441	21.77	24	PASS
100	5500	16.89	16.79	16.03	136.705	21.36	24	PASS
116	5580	18.34	18.23	17.75	194.327	22.89	24	PASS
132	5660	17.76	17.16	17.18	163.944	22.15	24	PASS
140	5700	16.54	16.05	15.95	124.709	20.96	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		
		CHAIN 0	CHAIN 1	CHAIN 2
52	5260	23.72	21.12	21.07
60	5300	20.93	20.68	20.58
64	5320	21.10	20.46	20.85
100	5500	20.95	20.59	20.78
116	5580	21.40	23.62	27.76
132	5660	20.70	20.63	22.84
140	5700	20.90	20.59	20.94

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
52	5260	21.07	24.23 > 24
60	5300	20.58	24.13 > 24
64	5320	20.46	24.1 > 24
100	5500	20.59	24.13 > 24
116	5580	21.40	24.3 > 24
132	5660	20.63	24.14 > 24
140	5700	20.59	24.13 > 24

802.11n (HT40)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
54	5270	18.12	18.42	17.76	194.069	22.88	24	PASS
62	5310	16.15	16.48	15.73	123.084	20.90	24	PASS
102	5510	15.56	15.47	14.92	102.258	20.10	24	PASS
110	5550	18.18	18.14	17.83	191.603	22.82	24	PASS
134	5670	18.20	17.67	17.95	186.921	22.72	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		
		CHAIN 0	CHAIN 1	CHAIN 2
54	5270	63.15	68.08	51.88
62	5310	41.51	41.11	41.16
102	5510	41.41	41.12	41.13
110	5550	66.91	67.08	64.09
134	5670	62.42	68.97	53.92

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
54	5270	51.88	28.14 > 24
62	5310	41.11	27.13 > 24
102	5510	41.12	27.14 > 24
110	5550	64.09	29.06 > 24
134	5670	53.92	28.31 > 24



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802.11ac (VHT80)

CHAN.	CHAN. FREQ. (MHz)	AVERAGE POWER (dBm)			TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
58	5290	17.89	18.27	17.80	188.917	22.76	24	PASS
106	5530	14.16	14.50	14.01	79.423	19.00	24	PASS

26dB OCCUPIED BANDWIDTH:

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		
		CHAIN 0	CHAIN 1	CHAIN 2
58	5290	90.30	84.22	90.62
106	5530	83.10	82.74	82.12

Note: For output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < Band 2~3>			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Limit (dBm)
58	5290	84.22	30.25 > 24
106	5530	82.12	30.14 > 24



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4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

Frequency Band	Limit
5.15 ~ 5.25GHz	4dBm
5.25 ~ 5.35GHz	11dBm
5.47 ~ 5.725GHz	11dBm
5.725 ~ 5.825GHz	17dBm

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Sep. 23, 2013

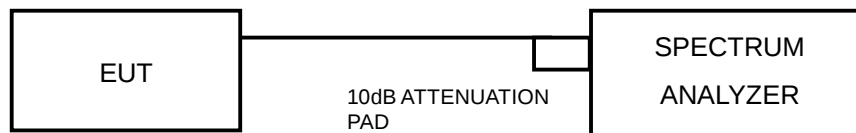
4.4.3 TEST PROCEDURES

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, 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 for duty cycle of test signal is < 98% add 10 log (1/duty cycle)

4.4.4 DEVIATION FROM TEST STANDARD

No deviation

4.4.5 TEST SETUP



4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6

4.4.7 TEST RESULTS (MODE 1)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
52	5260	5.25	11	PASS
60	5300	5.85	11	PASS
64	5320	1.32	11	PASS
100	5500	2.83	11	PASS
116	5580	4.27	11	PASS
132	5660	4.49	11	PASS
140	5700	-2.08	11	PASS

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
52	5260	5.11	11	PASS
60	5300	5.65	11	PASS
64	5320	1.11	11	PASS
100	5500	0.85	11	PASS
116	5580	3.66	11	PASS
132	5660	4.82	11	PASS
140	5700	-1.50	11	PASS

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
54	5270	1.04	11	PASS
62	5310	-5.37	11	PASS
102	5510	-7.23	11	PASS
110	5550	-0.74	11	PASS
134	5670	-2.34	11	PASS

4.4.8 TEST RESULTS (MODE 2)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD (dBm)			TOTAL POWER DENSITY (dBm)	MAX. LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2			
52	5260	2.02	1.80	1.42	6.52	6.79	PASS
60	5300	0.30	0.27	0.10	5.00	6.79	PASS
64	5320	0.41	0.42	0.16	5.10	6.79	PASS
100	5500	-1.05	-0.58	-1.29	3.81	6.79	PASS
116	5580	1.55	1.56	1.25	6.23	6.79	PASS
132	5660	-2.36	-1.99	-2.18	2.60	6.79	PASS
140	5700	-1.33	-0.97	-1.43	3.53	6.79	PASS

NOTE: 1. 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.

2. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 10.21\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (10.21 - 6) = 6.79\text{dBm}$.

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)			DUTY FACTOR (dB)	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
52	5260	4.44	4.29	3.96	0.13	9.14	11	PASS
60	5300	2.98	2.83	2.66	0.13	7.73	11	PASS
64	5320	3.19	3.02	2.90	0.13	7.94	11	PASS
100	5500	2.28	2.40	1.84	0.13	7.08	11	PASS
116	5580	3.44	3.23	3.18	0.13	8.19	11	PASS
132	5660	2.57	2.39	2.43	0.13	7.37	11	PASS
140	5700	1.84	1.72	1.40	0.13	6.56	11	PASS

NOTE: 1. 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.

2. Refer to section 3.4 for duty cycle spectrum plot.



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802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)			DUTY FACTOR (dB)	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
54	5270	1.63	1.35	1.31	0.19	6.39	11	PASS
62	5310	-0.63	-1.00	-1.09	0.19	4.06	11	PASS
102	5510	-1.79	-1.67	-2.17	0.19	3.09	11	PASS
110	5550	0.77	0.63	0.54	0.19	5.61	11	PASS
134	5670	0.20	0.21	0.17	0.19	5.15	11	PASS

- NOTE:** 1. 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.
2. Refer to section 3.4 for duty cycle spectrum plot.

802.11ac (VHT80)

CHANNEL	CHANNEL FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)			DUTY FACTOR (dBm)	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS/FAIL
		CHAIN 0	CHAIN 1	CHAIN 2				
58	5290	-2.10	-2.15	-2.06	0.39	3.06	11	PASS
106	5530	-6.39	-5.84	-6.37	0.39	-1.03	11	PASS

- NOTE:** 1. 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.
2. Refer to section 3.4 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 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100036	Jan. 21, 2013	Jan. 20, 2014

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. Tested date : Aug. 05 to 08, 2013

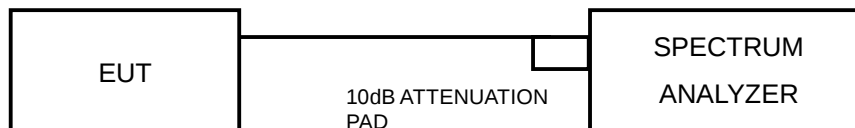
4.5.3 TEST PROCEDURE

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.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation

4.5.5 TEST SETUP



4.5.6 EUT OPERATING CONDITIONS

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



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4.5.7 TEST RESULTS (MODE 1)

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
52	5260	15.38	5.25	10.13	13	PASS
60	5300	15.77	5.85	9.92	13	PASS
64	5320	11.54	1.32	10.22	13	PASS
100	5500	13.13	2.83	10.30	13	PASS
116	5580	12.80	4.27	8.53	13	PASS
132	5660	13.48	4.49	8.99	13	PASS
140	5700	7.43	-2.08	9.51	13	PASS

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
52	5260	13.69	5.11	8.58	13	PASS
60	5300	14.13	5.65	8.48	13	PASS
64	5320	9.85	1.11	8.74	13	PASS
100	5500	10.06	0.85	9.21	13	PASS
116	5580	12.55	3.66	8.89	13	PASS
132	5660	13.35	4.82	8.53	13	PASS
140	5700	7.70	-1.50	9.20	13	PASS



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802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK VALUE (dBm)	PPSD (dBm)	PEAK EXCURSION (dB)	LIMIT (dB)	PASS/FAIL
54	5270	10.06	1.04	9.02	13	PASS
62	5310	3.33	-5.37	8.70	13	PASS
102	5510	1.41	-7.23	8.64	13	PASS
110	5550	8.07	-0.74	8.81	13	PASS
134	5670	6.65	-2.34	8.99	13	PASS

4.5.8 TEST RESULTS (MODE 2)

802.11a

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			PPSD (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
52	5260	10.33	10.20	10.47	2.02	1.80	1.42	8.31	8.40	9.05	13	PASS
60	5300	8.59	8.87	9.39	0.30	0.27	0.10	8.29	8.60	9.29	13	PASS
64	5320	8.64	9.04	9.41	0.41	0.42	0.16	8.23	8.62	9.25	13	PASS
100	5500	7.32	7.74	7.99	-1.05	-0.58	-1.29	8.37	8.32	9.28	13	PASS
116	5580	9.82	10.14	10.23	1.55	1.56	1.25	8.27	8.58	8.98	13	PASS
132	5660	5.84	6.13	6.77	-2.36	-1.99	-2.18	8.20	8.12	8.95	13	PASS
140	5700	6.99	7.22	7.61	-1.33	-0.97	-1.43	8.32	8.19	9.04	13	PASS

802.11n (HT20)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			DUTY FACTOR (dB)	PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
52	5260	13.82	14.45	13.80	0.13	4.57	4.42	4.09	9.25	10.03	9.71	13	PASS
60	5300	11.68	13.37	12.50	0.13	3.11	2.96	2.79	8.57	10.41	9.71	13	PASS
64	5320	12.69	13.56	12.60	0.13	3.32	3.15	3.03	9.37	10.41	9.57	13	PASS
100	5500	11.03	12.34	12.03	0.13	2.41	2.53	1.97	8.62	9.81	10.06	13	PASS
116	5580	12.90	13.54	13.38	0.13	3.57	3.36	3.31	9.33	10.18	10.07	13	PASS
132	5660	11.26	12.49	12.66	0.13	2.70	2.52	2.56	8.56	9.97	10.10	13	PASS
140	5700	11.62	11.77	11.77	0.13	1.97	1.85	1.53	9.65	9.92	10.24	13	PASS



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802.11n (HT40)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			DUTY FACTOR (dB)	PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
54	5270	10.65	12.37	11.36	0.19	1.82	1.54	1.50	8.83	10.83	9.86	13	PASS
62	5310	9.49	9.36	9.40	0.19	-0.44	-0.81	-0.90	9.93	10.17	10.30	13	PASS
102	5510	7.28	9.59	8.07	0.19	-1.60	-1.48	-1.98	8.88	11.07	10.05	13	PASS
110	5550	9.78	11.90	10.85	0.19	0.96	0.82	0.73	8.82	11.08	10.12	13	PASS
134	5670	10.37	10.78	10.10	0.19	0.39	0.40	0.36	9.98	10.38	9.74	13	PASS

802.11ac (VHT80)

CHAN.	CHAN. FREQ. (MHz)	PEAK VALUE (dBm)			DUTY FACTOR (dB)	PPSD WITH DUTY FACTOR (dBm)			PEAK EXCURSION (dB)			LIMIT (dB)	PASS/ FAIL
		CHAIN 0	CHAIN 1	CHAIN 2		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 0	CHAIN 1	CHAIN 2		
58	5290	7.73	8.62	8.27	0.39	-1.71	-1.76	-1.67	9.44	10.38	9.94	13	PASS
106	5530	3.04	4.60	4.19	0.39	-6.00	-5.45	-5.98	9.04	10.05	10.17	13	PASS

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 INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSP 40	100036	Jan. 21, 2013	Jan. 20, 2014
Temperature & Humidity Chamber GIANTFORCE	GTH-150-40 -SP-AR	MAA0812-008	Jan. 17, 2013	Jan. 16, 2014

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. Tested date : Aug. 05 to 08, 2013

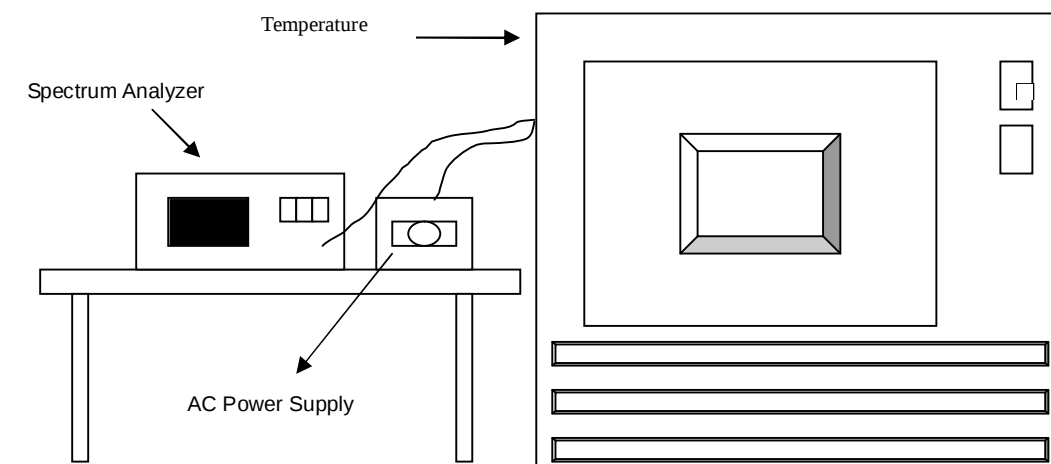
4.6.3 TEST PROCEDURE

1. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
2. Turn the EUT on and couple its output to a spectrum analyzer.
3. Turn the EUT off and set the chamber to the highest temperature specified.
4. 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.
5. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
6. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation

4.6.5 TEST SETUP



4.6.6 EUT OPERATING CONDITION

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

4.6.7 TEST RESULTS (MODE 1)

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
50	120	5320.0036	0.00007	5319.9979	-0.00004	5320.0062	0.00012	5319.9972	-0.00005
40	120	5320.0303	0.00057	5320.0293	0.00055	5320.0213	0.00040	5320.0293	0.00055
30	120	5320.0268	0.00050	5320.0234	0.00044	5320.0204	0.00038	5320.0199	0.00037
20	120	5320.0049	0.00009	5320.005	0.00009	5320.0064	0.00012	5320.0036	0.00007
10	120	5319.9884	-0.00022	5319.9814	-0.00035	5319.9896	-0.00020	5319.9832	-0.00032
0	120	5320.0284	0.00053	5320.0229	0.00043	5320.0274	0.00052	5320.0249	0.00047
-10	120	5320.0267	0.00050	5320.0213	0.00040	5320.0286	0.00054	5320.0188	0.00035
-20	120	5320.0077	0.00014	5320.001	0.00002	5320.0092	0.00017	5320.0095	0.00018
-30	120	5319.9791	-0.00039	5319.9781	-0.00041	5319.9722	-0.00052	5319.9713	-0.00054

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
20	138	5320.0057	0.00011	5320.0046	0.00009	5320.0063	0.00012	5320.0029	0.00005
	120	5320.0049	0.00009	5320.005	0.00009	5320.0064	0.00012	5320.0036	0.00007
	102	5320.0051	0.00010	5320.0043	0.00008	5320.0055	0.00010	5320.0042	0.00008

4.6.8 TEST RESULTS (MODE 2)

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
50	120	5319.9731	-0.00051	5319.9705	-0.00055	5319.969	-0.00058	5319.9698	-0.00057
40	120	5319.9695	-0.00057	5319.9754	-0.00046	5319.9704	-0.00056	5319.9762	-0.00045
30	120	5320.0139	0.00026	5320.0139	0.00026	5320.0106	0.00020	5320.0105	0.00020
20	120	5320.0088	0.00017	5320.0083	0.00016	5320.0166	0.00031	5320.0096	0.00018
10	120	5320.0102	0.00019	5320.0033	0.00006	5320.0039	0.00007	5320.0063	0.00012
0	120	5320.019	0.00036	5320.0145	0.00027	5320.0217	0.00041	5320.0198	0.00037
-10	120	5319.9947	-0.00010	5319.9931	-0.00013	5319.9904	-0.00018	5319.9897	-0.00019
-20	120	5320.0089	0.00017	5320.001	0.00002	5320.0061	0.00011	5320.004	0.00008
-30	120	5320.0207	0.00039	5320.0253	0.00048	5320.0267	0.00050	5320.0231	0.00043

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift	Measured Frequency	Frequency Drift
		(MHz)	%	(MHz)	%	(MHz)	%	(MHz)	%
20	138	5320.0097	0.00018	5320.0077	0.00014	5320.016	0.00030	5320.0092	0.00017
	120	5320.0088	0.00017	5320.0083	0.00016	5320.0166	0.00031	5320.0096	0.00018
	102	5320.0092	0.00017	5320.0087	0.00016	5320.0158	0.00030	5320.0098	0.00018

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



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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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