FCC TEST REPORT

(Part 15, Subpart E)

Applicant:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo,Finland

Manufacturer or Supplier:	HMD Global Oy
Address:	Bertel Jungin aukio 9,02600 Espoo,Finland
Product:	Tablet PC
Brand Name:	NOKIA
Model Name:	TA-1462
FCC ID:	2AJOTTA-1462
Date of tests:	May. 15, 2022 ~ May. 31, 2022

The tests have been carried out according to the requirements of the following standard:

☒ **FCC Part 15, Subpart E, Section 15.407**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Simon Wang Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Simon Date: May. 31, 2022	Luke Lu Date: May. 31, 2022

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22050002RF03	Original release	May. 31, 2022

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E		
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**
15.407(b)(6)	AC Power Conducted Emission	Compliance
15.407(b) (1/2/3/4/5)	Radiated Emission & Band Edge Measurement	Compliance
15.407(a/1/2/3)	Maximum conducted output Power	Compliance
15.407(a/1/2/3)	Peak Power Spectral Density	Compliance
15.403(i)	26 dB Bandwidth	Compliance
15.407(e)	6 dB Bandwidth	Compliance
15.203	Antenna Requirement	Compliance

NOTE:

1. Except the data of RSE and Band Edge Measurement, other data of 802.11a & 802.11n/ac (20/40) & 802.11ac 80 please refer to the appendix A/B.

2. Only the worse data were report

1.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	UNCERTAINTY
AC Power Conducted emissions	±2.70dB
Radiated emissions (30MHz~1GMHz)	±4.98dB
Radiated emissions (1GMHz ~6GMHz)	±4.70dB
Radiated emissions (6GMHz ~18GMHz)	±4.60dB
Radiated emissions (18GMHz ~40GMHz)	±4.12dB
Conducted emissions	±4.01dB
Occupied Channel Bandwidth	±43.58KHz
Conducted Output power	±2.06dB
Power Spectral Density	±0.85 dB

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

2 GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Tablet PC
BRAND NAME	NOKIA
MODEL NAME	TA-1462
NOMINAL VOLTAGE	3.8Vdc (Li-ion, battery) 5Vdc (adapter)
MODULATION	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 150.0Mbps 802.11ac: up to 433.3Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n/ac (20MHz) 2 for 802.11n/ac (40MHz) 1 for 802. 802.11ac(80MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n/ac (20MHz) 2 for 802.11n/ac (40MHz) 1 for 802.11ac (80MHz) 5500 ~ 5720MHz: 12 for 802.11a, 802.11n/ac (20MHz)/ 6 for 802.11n/ac (40MHz) 3 for 802.11ac (80MHz) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n/ac (20MHz) 3 for 802.11n/ac (40MHz) 2 for 802.11ac (80MHz)
AVERAGE POWER	37.33mW for 5180 ~ 5240MHz 43.85mW for 5260 ~ 5320MHz 61.94mW for 5500 ~ 5720MHz 58.34mW for 5745 ~ 5825MHz
ANTENNA TYPE	PIFA Antenna
ANTENNA GAIN	-0.5 dBi for 5180 ~ 5240MHz -0.5 dBi for 5260 ~ 5320MHz -0.5 dBi for 5500 ~ 5720MHz -0.5 dBi for 5745 ~ 5825MHz
HW VERSION	V0.2
SW VERSION	00WW_0_190

I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable: non-shielded cable, with w/o ferrite core, 1 meter Earphone: non-shielded cable, with w/o ferrite core, 1.5 meter

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitter and one receiver.

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

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

List of Accessory:

ACCESSORIES	BRAND	MANUFACTURER	MODEL	SPECIFICATION
Battery	NOKIA	HUNAN GAOYUAN BATTERY CO.,LTD	WWT50	Capacity：3.8 Vdc, 5100mAh
AC Adapter	NOKIA	ShenZhenBaiJunDaElectronic CO., LTD.	AD-010U	I/P: 110-240Vac, 0.35A, O/P: 5.0Vdc, 2.0A
Earphone	NOKIA	HUIZHOU JUWEI ELECTRONICS CO.,LTD	JWEP1237-W27H	Signal Line, 1.5meter
USB Cable	Saibao	Saibao(Jiangxi) Communication Industrial Co.,Ltd	SWT-A116A	Signal Line, 1.0meter
LCD Panel 1	HUAXIAN	China display Optoelectronics Technology (Huizhou) Company Limited	8019-3	LCD, 8",800 * 1280, Add-on,α-Si, Non-airgap, A3
LCD Panel 2	COE	CHONG QIAN COE DISPLAY TECHNOLOGY CO., LTD.	T080ET011-HD1-QT	LCD, 8",800 * 1280,
Front Camera 1	C&T	SHENZHEN C&T TECHNOLOGY CO.,LTD	BC12715 V0	2M
Rear Camera 1	C&T	SHENZHEN C&T TECHNOLOGY CO.,LTD	BB18716 V0	8M

2.2 DESCRIPTION OF TEST MODES

FOR 5180 ~ 5240MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
42	5210 MHz		

FOR 5260 ~ 5320MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
58	5290 MHz		

FOR 5500 ~ 5720MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
100	5500 MHz	124	5620MHz
104	5520 MHz	128	5640MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

6 channels are provided for 802.11n, 802.11ac (40MHz):

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	126	5630MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
106	5530 MHz	138	5690 MHz
122	5610 MHz		

FOR 5745 ~ 5825MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
144	5720MHz	157	5785 MHz
149	5745 MHz	165	5825 MHz
153	5765 MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
142	5710 MHz	159	5795 MHz
151	5755 MHz		

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
138	5690MHz	155	5775 MHz

2.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	-	**Powered by Adapter with wifi(5G) link**
B	-	-	-	√	Powered by Battery with wifi(5G) link
C	-	-	-	-	Powered by USB with wifi(5G) link

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

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

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11ac (40MHz)	5180-5240	38 to 46	38	OFDM	MCS0

RADIATED EMISSION TEST (ABOVE 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 48	OFDM	6.0
A	802.11an/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11an/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11an/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11an/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11an/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11an/ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144, 149, 157,165	OFDM	6.0
A	802.11an/ac (20MHz)		144 to 165	144, 149, 157,165	OFDM	MCS0
A	802.11an/ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	138, 155	OFDM	MCS0

POWER LINE CONDUCTED EMISSION TEST:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11ac (80MHz)	5180-5240	42	42	OFDM	MCS0

BANDEDGE MEASUREMENT:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 48	OFDM	6.0
A	802.11an/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11an/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11an/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11an/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11an/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11an/ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac(80MHz))		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144, 149, 157,165	OFDM	6.0
A	802.11an/ac (20MHz)		144 to 165	144, 149, 157,165	OFDM	MCS0
A	802.11an/ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	138, 155	OFDM	MCS0

ANTENNA PORT CONDUCTED MEASUREMENT:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 48	OFDM	6.0
A	802.11an/ac (20MHz)		36 to 48	36, 48	OFDM	MCS0
A	802.11an/ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (80MHz)		42	42	OFDM	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
A	802.11an/ac (20MHz)		52 to 64	52, 60, 64	OFDM	MCS0
A	802.11an/ac (40MHz)		54 to 62	54, 62	OFDM	MCS0
A	802.11ac (80MHz)		58	58	OFDM	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
A	802.11an/ac (20MHz)		100 to 144	100, 116, 140, 144	OFDM	MCS0
A	802.11an/ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	MCS0
A	802.11ac (80MHz)		106 to 138	106, 138	OFDM	MCS0
A	802.11a	5745-5825	144 to 165	144, 149, 157,165	OFDM	6.0
A	802.11an/ac (20MHz)		144 to 165	144, 149, 157,165	OFDM	MCS0
A	802.11an/ac (40MHz)		142 to 159	142, 151, 159	OFDM	MCS0
A	802.11ac (80MHz)		138,155	138, 155	OFDM	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 70%RH	DC 5V By Adapter	Star Le
RE≥1G	23deg. C, 70%RH	DC 5V By Adapter	Star Le
PLC	25deg. C, 52%RH	DC 5V By Adapter	James Fu
APCM	25deg. C, 60%RH	DC 3.8V By Battery	James Fu

2.3 DUTY CYCLE OF TEST SIGNAL

Please Refer to Appendix A/B. Of this test report.

WORST-CASE DATA:

Measured Duty Cycle		
Mode		Duty Cycle [%]
		ANT0
5GHZ	11a	95.14
	11n20	94.26
	11n40	89.23
	11ac20	94.31
	11ac40	89.23
	11ac80	80.56

Note:
Duty cycle of test signal is < 98%, duty factor shall be considered.

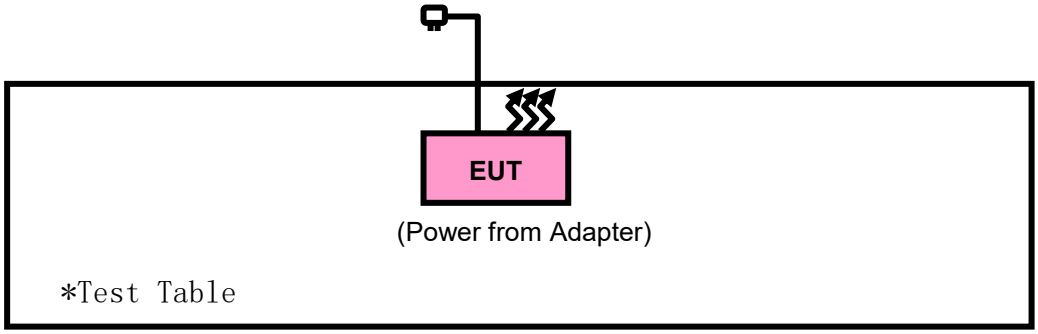
2.4 DESCRIPTION OF SUPPORT UNITS

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

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Desktop	Lenovo	M73 SFF	PC04GRQV	N/A
2	Desktop	Lenovo	M73 SFF	PC06CS27	N/A
3	Laptop	Lenovo	Thnikpad L440	R90FTFKN	N/A
4	DC source	Kikusui/JP	PMX18-5A	0000001	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line: Unshielded, Detachable 1.5m
2	AC Line: Unshielded, Detachable 1.5m
3	AC Line: Unshielded, Detachable 1.5m
4	DC Line: Unshielded, Detachable 1.0m

2.4.1 CONFIGURATION OF SYSTEM UNDER TEST



2.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
ANSI C63.10-2013

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

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

3 TEST TYPES AND RESULTS

3.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

3.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTE:

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

3.1.2 LIMITS OF UNWANTED EMISSION

	APPLICABLE TO	LIMIT	
RESTRICTED BANDS	789033 D02 General UNII Test Procedures New Rules v02r01	FIELD STRENGTH AT 3m (dBμV/m)	
		PK : 74	AV : 54
OUT OF THE RESTRICTED BANDS	APPLICABLE TO	EIRP LIMIT (dBm/MHz)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
	15.407(b)(1)	PK : -27	PK : 68.2
	15.407(b)(2)		
	15.407(b)(3)		
	15.407(b)(4)	See note 2 (FCC 16-24)	

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

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

2. All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

3.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn-CT0001143-1216	May. 19,20	May. 18,23
Bilog Antenna	ETS-LINDGREN	3143B	00161965	Mar. 06,22	Mar. 05,23
Horn Antenna	ETS-LINDGREN	3117	00168692	Mar. 06,22	Mar. 05,23
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 25, 21	Aug. 24, 22
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	JS1120-3	3.2.06	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SMA	1505	Jun. 03,21	Jun. 02,22
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 18,22	Feb. 17,23
Signal Pre-Amplifier	EMSI	EMC 9135	980249	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	May.12,22	May.11,23
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Feb. 21,22	Feb.20,23
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 25,21	Aug. 24,22
Power Meter	Anritsu	ML2495A	1506002	Feb. 22,22	Feb. 21,23
Power Sensor	Anritsu	MA2411B	1339352	May. 06,22	May. 05,23
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep.05,21	Sep. 04,22

NOTE: 1. The calibration interval of the above test instruments is 12 months or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Chamber.

3. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

3.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) 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 antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

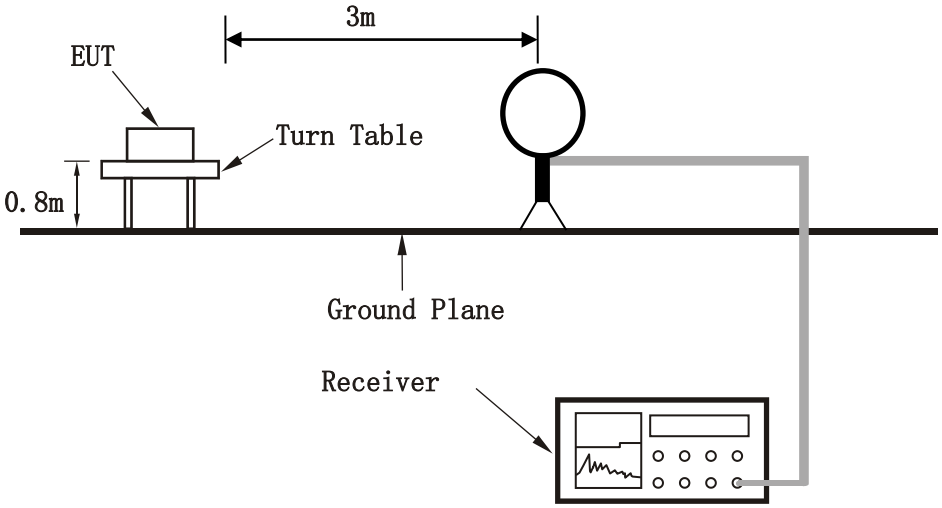
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

3.1.5 DEVIATION FROM TEST STANDARD

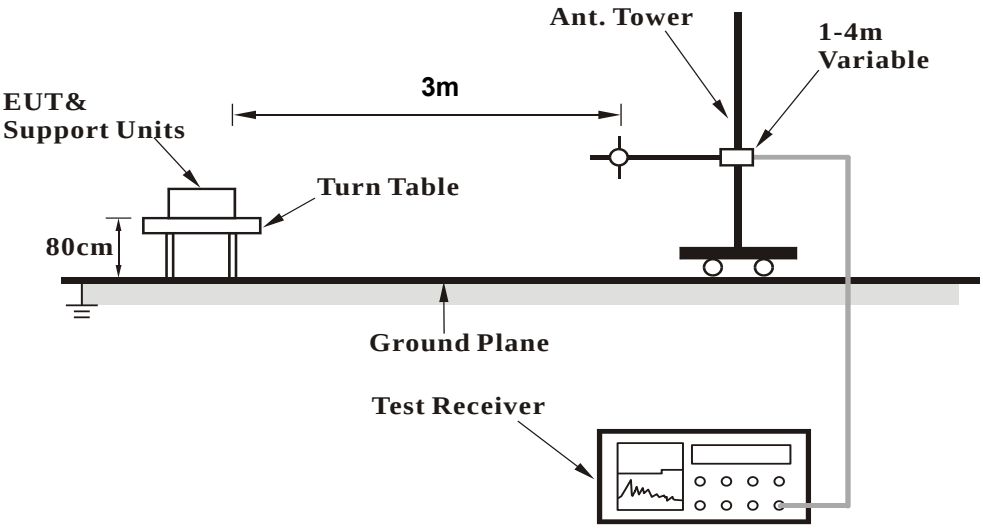
No deviation.

3.1.6 TEST SETUP

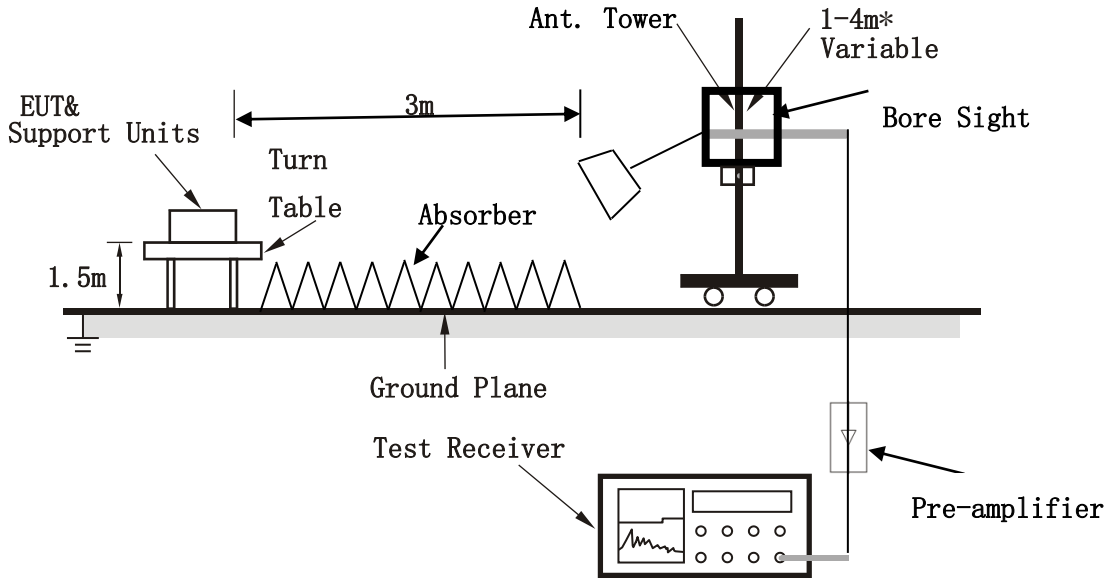
<Frequency Range 9KHz~30MHz >



< Frequency Range 30MHz~1GHz >



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

Depends on the EUT height and the antenna 3dB beamwidth both, refer to section 7.3 of CISPR 16-2-3.

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

3.1.7 EUT OPERATING CONDITION

a. Set the EUT under full load condition and placed them on a testing table.

b. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.

c. The necessary accessories enable the EUT in full functions.

3.1.8 TEST RESULTS

NOTE ： The 9K~30MHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

30 MHz – 1GHz data:

Band 1

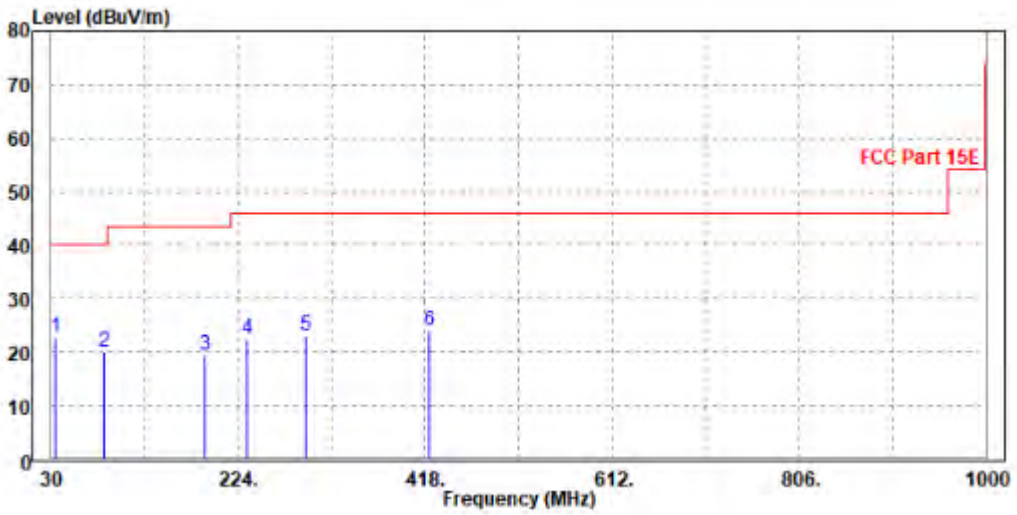
802.11ac (40MHz)

CHANNEL	TX Channel 38	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
33.88	22.72	40.85	40	-17.28	19.07	0.33	37.53	150	280	QP
84.32	20.14	48.72	40	-19.86	8.22	0.5	37.3	100	225	QP
190.05	19.58	44.1	43.5	-23.92	11.35	0.72	36.59	150	275	QP
232.73	22.65	45.73	46	-23.35	12.74	0.8	36.62	200	244	QP
294.81	22.98	44.87	46	-23.02	13.95	0.9	36.74	100	103	QP
422.85	24.04	43.17	46	-21.96	16.63	1.11	36.87	100	53	QP

REMARKS:

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

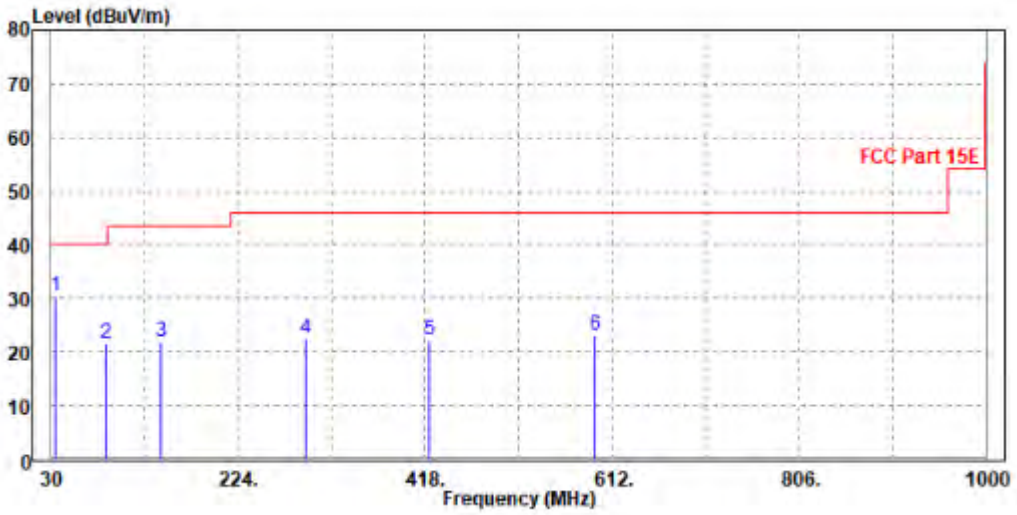


CHANNEL	Channel 38	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
33.88	30.53	49.37	40	-9.47	18.36	0.33	37.53	100	96	QP
87.23	21.54	49.98	40	-18.46	8.32	0.51	37.27	200	237	QP
143.49	21.92	48.7	43.5	-21.58	9.46	0.64	36.88	150	356	QP
294.81	22.66	44.65	46	-23.34	13.85	0.9	36.74	100	178	QP
422.85	22.24	41.4	46	-23.76	16.6	1.11	36.87	100	214	QP
594.54	23.02	39.53	46	-22.98	19.49	1.35	37.35	100	114	QP

REMARKS:

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



ABOVE 1GHz WORST-CASE DATA:

Note: For higher frequency, the emission is too low to be detected.

Band 1

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.74	57.05	74	-19.26	34.52	9.52	46.35	100	137	Peak
5150	49.09	51.4	54	-4.91	34.52	9.52	46.35	100	137	Average
5180	99.32	101.55	/	/	34.54	9.58	46.35	150	194	Peak
5180	91.26	93.49	/	/	34.54	9.58	46.35	150	194	Average
5350	54.55	56.23	74	-19.45	34.68	9.94	46.3	100	160	Peak
5350	47.61	49.29	54	-6.39	34.68	9.94	46.3	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.93	58.16	74	-18.07	34.6	9.52	46.35	100	124	Peak
5150	50	52.23	54	-4	34.6	9.52	46.35	100	124	Average
5180	99.05	101.22	/	/	34.6	9.58	46.35	150	178	Peak
5180	92.7	94.87	/	/	34.6	9.58	46.35	150	178	Average
5350	55.41	57.17	74	-18.59	34.6	9.94	46.3	200	156	Peak
5350	48.81	50.57	54	-5.19	34.6	9.94	46.3	200	156	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.57	56.88	74	-19.43	34.52	9.52	46.35	150	163	Peak
5150	48.99	51.3	54	-5.01	34.52	9.52	46.35	150	163	Average
5200	100.06	102.22	/	/	34.56	9.62	46.34	200	110	Peak
5200	91.29	93.45	/	/	34.56	9.62	46.34	200	110	Average
5350	54.63	56.31	74	-19.37	34.68	9.94	46.3	100	200	Peak
5350	47.45	49.13	54	-6.55	34.68	9.94	46.3	100	200	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.82	57.05	74	-19.18	34.6	9.52	46.35	100	121	Peak
5150	48.97	51.2	54	-5.03	34.6	9.52	46.35	100	121	Average
5200	99.18	101.3	/	/	34.6	9.62	46.34	200	120	Peak
5200	91.46	93.58	/	/	34.6	9.62	46.34	200	120	Average
5350	54.95	56.71	74	-19.05	34.6	9.94	46.3	100	200	Peak
5350	47.89	49.65	54	-6.11	34.6	9.94	46.3	100	200	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.69	57	74	-19.31	34.52	9.52	46.35	100	57	Peak
5150	48.81	51.12	54	-5.19	34.52	9.52	46.35	100	57	Average
5240	99.05	101.08	/	/	34.59	9.71	46.33	150	177	Peak
5240	91.54	93.57	/	/	34.59	9.71	46.33	150	177	Average
5350	54.5	56.18	74	-19.5	34.68	9.94	46.3	100	134	Peak
5350	48.17	49.85	54	-5.83	34.68	9.94	46.3	100	134	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.4	55.63	74	-20.6	34.6	9.52	46.35	150	162	Peak
5150	48.7	50.93	54	-5.3	34.6	9.52	46.35	150	162	Average
5240	98.77	100.79	/	/	34.6	9.71	46.33	200	125	Peak
5240	91.28	93.3	/	/	34.6	9.71	46.33	200	125	Average
5350	53.33	55.09	74	-20.67	34.6	9.94	46.3	100	184	Peak
5350	47.44	49.2	54	-6.56	34.6	9.94	46.3	100	184	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.8	57.11	74	-19.2	34.52	9.52	46.35	150	197	Peak
5150	50.54	52.85	54	-3.46	34.52	9.52	46.35	150	197	Average
5180	98.87	101.1	/	/	34.54	9.58	46.35	200	135	Peak
5180	91.2	93.43	/	/	34.54	9.58	46.35	200	135	Average
5350	54.9	56.58	74	-19.1	34.68	9.94	46.3	200	103	Peak
5350	48.09	49.77	54	-5.91	34.68	9.94	46.3	200	103	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.96	60.19	74	-16.04	34.6	9.52	46.35	200	171	Peak
5150	50.42	52.65	54	-3.58	34.6	9.52	46.35	200	171	Average
5180	98.99	101.16	/	/	34.6	9.58	46.35	150	158	Peak
5180	90.27	92.44	/	/	34.6	9.58	46.35	150	158	Average
5350	54.12	55.88	74	-19.88	34.6	9.94	46.3	200	173	Peak
5350	48.31	50.07	54	-5.69	34.6	9.94	46.3	200	173	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.59	56.9	74	-19.41	34.52	9.52	46.35	100	200	Peak
5150	49.57	51.88	54	-4.43	34.52	9.52	46.35	100	200	Average
5200	99.86	102.02	/	/	34.56	9.62	46.34	150	118	Peak
5200	90.53	92.69	/	/	34.56	9.62	46.34	150	118	Average
5350	56.2	57.88	74	-17.8	34.68	9.94	46.3	100	171	Peak
5350	48.15	49.83	54	-5.85	34.68	9.94	46.3	100	171	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.87	57.1	74	-19.13	34.6	9.52	46.35	100	103	Peak
5150	49.55	51.78	54	-4.45	34.6	9.52	46.35	100	103	Average
5200	98.56	100.68	/	/	34.6	9.62	46.34	150	139	Peak
5200	90.24	92.36	/	/	34.6	9.62	46.34	150	139	Average
5350	55.9	57.66	74	-18.1	34.6	9.94	46.3	200	169	Peak
5350	48.37	50.13	54	-5.63	34.6	9.94	46.3	200	169	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.58	57.89	74	-18.42	34.52	9.52	46.35	150	209	Peak
5150	49	51.31	54	-5	34.52	9.52	46.35	150	209	Average
5240	99.34	101.37	/	/	34.59	9.71	46.33	150	141	Peak
5240	90.42	92.45	/	/	34.59	9.71	46.33	150	141	Average
5350	55.61	57.29	74	-18.39	34.68	9.94	46.3	200	120	Peak
5350	48.08	49.76	54	-5.92	34.68	9.94	46.3	200	120	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.53	56.76	74	-19.47	34.6	9.52	46.35	200	197	Peak
5150	49.12	51.35	54	-4.88	34.6	9.52	46.35	200	197	Average
5240	98.77	100.79	/	/	34.6	9.71	46.33	150	185	Peak
5240	90.81	92.83	/	/	34.6	9.71	46.33	150	185	Average
5350	54.11	55.87	74	-19.89	34.6	9.94	46.3	200	174	Peak
5350	48.29	50.05	54	-5.71	34.6	9.94	46.3	200	174	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.43	57.74	74	-18.57	34.52	9.52	46.35	200	89	Peak
5150	50.09	52.4	54	-3.91	34.52	9.52	46.35	200	89	Average
5190	93.87	96.06	/	/	34.55	9.6	46.34	150	162	Peak
5190	87.13	89.32	/	/	34.55	9.6	46.34	150	162	Average
5350	57.32	59	74	-16.68	34.68	9.94	46.3	150	196	Peak
5350	48.23	49.91	54	-5.77	34.68	9.94	46.3	150	196	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.75	57.98	74	-18.25	34.6	9.52	46.35	100	49	Peak
5150	50.55	52.78	54	-3.45	34.6	9.52	46.35	100	49	Average
5190	95.03	97.17	/	/	34.6	9.6	46.34	150	162	Peak
5190	87.24	89.38	/	/	34.6	9.6	46.34	150	162	Average
5350	54.98	56.74	74	-19.02	34.6	9.94	46.3	100	142	Peak
5350	50.1	51.86	54	-3.9	34.6	9.94	46.3	100	142	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	53.71	56.02	74	-20.29	34.52	9.52	46.35	200	101	Peak
5150	49.39	51.7	54	-4.61	34.52	9.52	46.35	200	101	Average
5230	95.37	97.43	/	/	34.58	9.69	46.33	150	183	Peak
5230	87.16	89.22	/	/	34.58	9.69	46.33	150	183	Average
5350	54.82	56.5	74	-19.18	34.68	9.94	46.3	100	133	Peak
5350	48.86	50.54	54	-5.14	34.68	9.94	46.3	100	133	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.64	56.87	74	-19.36	34.6	9.52	46.35	100	187	Peak
5150	48.41	50.64	54	-5.59	34.6	9.52	46.35	100	187	Average
5230	95.54	97.58	/	/	34.6	9.69	46.33	200	127	Peak
5230	88.08	90.12	/	/	34.6	9.69	46.33	200	127	Average
5350	53.8	55.56	74	-20.2	34.6	9.94	46.3	100	142	Peak
5350	47.98	49.74	54	-6.02	34.6	9.94	46.3	100	142	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.

802.11ac (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.94	60.25	74	-16.06	34.52	9.52	46.35	100	184	Peak
5150	50.7	53.01	54	-3.3	34.52	9.52	46.35	100	184	Average
5180	99.55	101.78	/	/	34.54	9.58	46.35	150	150	Peak
5180	90.68	92.91	/	/	34.54	9.58	46.35	150	150	Average
5350	53.57	55.25	74	-20.43	34.68	9.94	46.3	200	148	Peak
5350	48.26	49.94	54	-5.74	34.68	9.94	46.3	200	148	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.99	58.22	74	-18.01	34.6	9.52	46.35	150	230	Peak
5150	50.54	52.77	54	-3.46	34.6	9.52	46.35	150	230	Average
5180	100.1	102.27	/	/	34.6	9.58	46.35	150	172	Peak
5180	91.84	94.01	/	/	34.6	9.58	46.35	150	172	Average
5350	55.91	57.67	74	-18.09	34.6	9.94	46.3	150	108	Peak
5350	48.35	50.11	54	-5.65	34.6	9.94	46.3	150	108	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5180MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.01	57.32	74	-18.99	34.52	9.52	46.35	150	189	Peak
5150	49.55	51.86	54	-4.45	34.52	9.52	46.35	150	189	Average
5200	100.09	102.25	/	/	34.56	9.62	46.34	150	198	Peak
5200	91.04	93.2	/	/	34.56	9.62	46.34	150	198	Average
5350	54.52	56.2	74	-19.48	34.68	9.94	46.3	100	120	Peak
5350	48.97	50.65	54	-5.03	34.68	9.94	46.3	100	120	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.6	57.83	74	-18.4	34.6	9.52	46.35	100	189	Peak
5150	49.5	51.73	54	-4.5	34.6	9.52	46.35	100	189	Average
5200	99.35	101.47	/	/	34.6	9.62	46.34	200	149	Peak
5200	91.24	93.36	/	/	34.6	9.62	46.34	200	149	Average
5350	54.51	56.27	74	-19.49	34.6	9.94	46.3	100	143	Peak
5350	48.87	50.63	54	-5.13	34.6	9.94	46.3	100	143	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5200MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.13	58.44	74	-17.87	34.52	9.52	46.35	150	124	Peak
5150	49.31	51.62	54	-4.69	34.52	9.52	46.35	150	124	Average
5240	99.05	101.08	/	/	34.59	9.71	46.33	150	168	Peak
5240	92.22	94.25	/	/	34.59	9.71	46.33	150	168	Average
5350	54.35	56.03	74	-19.65	34.68	9.94	46.3	200	153	Peak
5350	48.74	50.42	54	-5.26	34.68	9.94	46.3	200	153	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.93	57.16	74	-19.07	34.6	9.52	46.35	150	157	Peak
5150	49.1	51.33	54	-4.9	34.6	9.52	46.35	150	157	Average
5240	98.83	100.85	/	/	34.6	9.71	46.33	150	122	Peak
5240	91.14	93.16	/	/	34.6	9.71	46.33	150	122	Average
5350	55.41	57.17	74	-18.59	34.6	9.94	46.3	200	158	Peak
5350	48.64	50.4	54	-5.36	34.6	9.94	46.3	200	158	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5240MHz: Fundamental frequency.

802.11ac (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.35	59.66	74	-16.65	34.52	9.52	46.35	150	219	Peak
5150	50.9	53.21	54	-3.1	34.52	9.52	46.35	150	219	Average
5190	94.98	97.17	/	/	34.55	9.6	46.34	150	154	Peak
5190	87.74	89.93	/	/	34.55	9.6	46.34	150	154	Average
5350	55.7	57.38	74	-18.3	34.68	9.94	46.3	200	170	Peak
5350	48.38	50.06	54	-5.62	34.68	9.94	46.3	200	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.75	57.98	74	-18.25	34.6	9.52	46.35	150	70	Peak
5150	50.83	53.06	54	-3.17	34.6	9.52	46.35	150	70	Average
5190	95.78	97.92	74	21.78	34.6	9.6	46.34	200	179	Peak
5190	88.21	90.35	54	34.21	34.6	9.6	46.34	200	179	Average
5350	55.06	56.82	74	-18.94	34.6	9.94	46.3	150	118	Peak
5350	48.75	50.51	54	-5.25	34.6	9.94	46.3	150	118	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.43	56.74	74	-19.57	34.52	9.52	46.35	150	215	Peak
5150	50.02	52.33	54	-3.98	34.52	9.52	46.35	150	215	Average
5230	95.38	97.44	/	/	34.58	9.69	46.33	200	115	Peak
5230	87.38	89.44	/	/	34.58	9.69	46.33	200	115	Average
5350	55.25	56.93	74	-18.75	34.68	9.94	46.3	200	114	Peak
5350	48.18	49.86	54	-5.82	34.68	9.94	46.3	200	114	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.05	56.28	74	-19.95	34.6	9.52	46.35	100	62	Peak
5150	49.38	51.61	54	-4.62	34.6	9.52	46.35	100	62	Average
5230	95.74	97.78	/	/	34.6	9.69	46.33	150	175	Peak
5230	87.28	89.32	/	/	34.6	9.69	46.33	150	175	Average
5350	54.21	55.97	74	-19.79	34.6	9.94	46.3	200	148	Peak
5350	48.92	50.68	54	-5.08	34.6	9.94	46.3	200	148	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5230MHz: Fundamental frequency.

802.11ac (80MHz)

CHANNEL	TX Channel 42	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.98	58.29	74	-18.02	34.52	9.52	46.35	150	226	Peak
5150	50.35	52.66	54	-3.65	34.52	9.52	46.35	150	226	Average
5210	89.97	92.1	/	/	34.57	9.64	46.34	200	136	Peak
5210	82.15	84.28	/	/	34.57	9.64	46.34	200	136	Average
5350	55.81	57.49	74	-18.19	34.68	9.94	46.3	150	163	Peak
5350	48.08	49.76	54	-5.92	34.68	9.94	46.3	150	163	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.11	56.34	74	-19.89	34.6	9.52	46.35	100	194	Peak
5150	50.82	53.05	54	-3.18	34.6	9.52	46.35	100	194	Average
5210	90.31	92.41	/	/	34.6	9.64	46.34	100	135	Peak
5210	82.6	84.7	/	/	34.6	9.64	46.34	100	135	Average
5350	53.91	55.67	74	-20.09	34.6	9.94	46.3	200	147	Peak
5350	47.92	49.68	54	-6.08	34.6	9.94	46.3	200	147	Average

REMARKS:

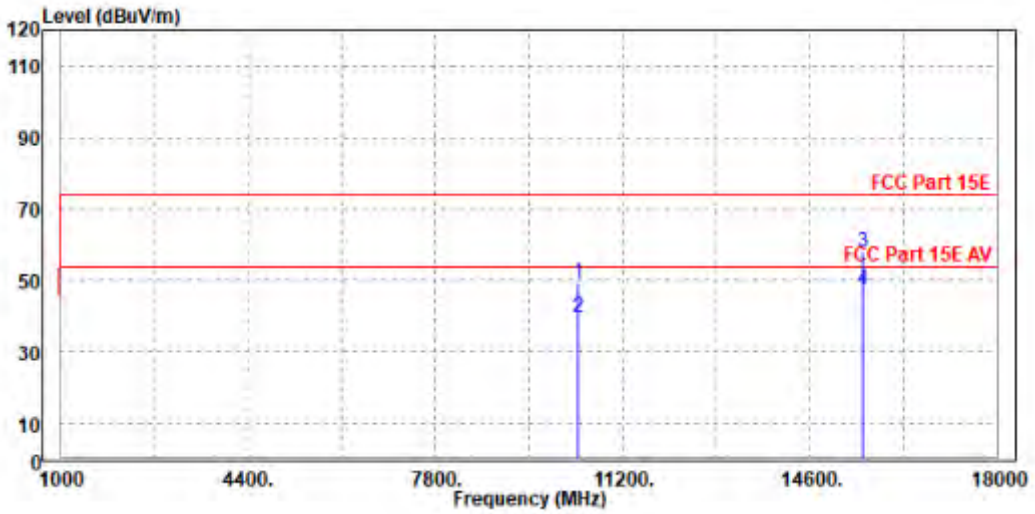
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5210MHz: Fundamental frequency.

Worst case harmonic:

CHANNEL	TX Channel 38	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

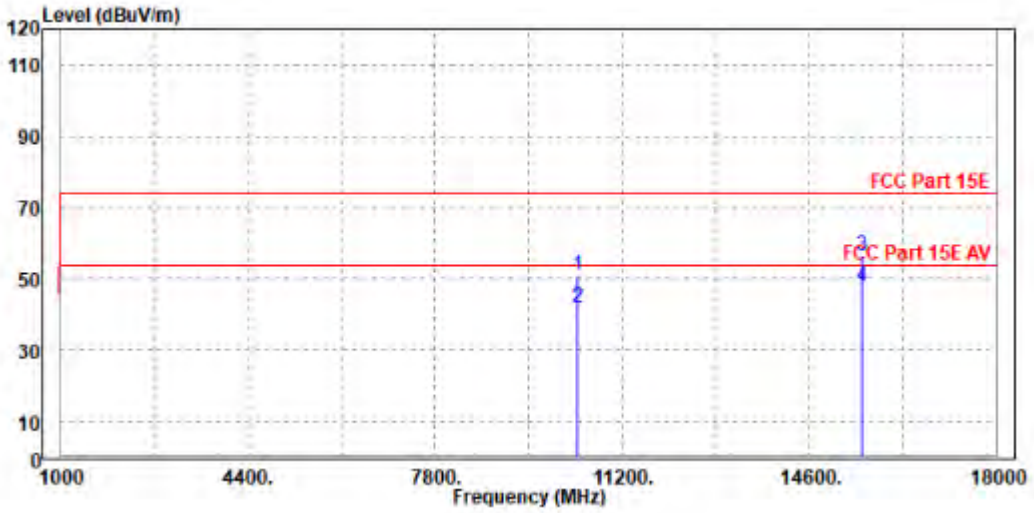
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10380.000	49.36	45.38	74.00	-24.64	3.98	Peak	Horizontal
2	10380.000	39.92	35.94	54.00	-14.08	3.98	Average	Horizontal
3	PK15570.000	58.03	43.76	74.00	-15.97	14.27	Peak	Horizontal
4	PP15570.000	47.56	33.29	54.00	-6.44	14.27	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10380.000	51.22	46.10	74.00	-22.78	5.12	Peak	Vertical
2	10380.000	42.05	36.93	54.00	-11.95	5.12	Average	Vertical
3	PK15570.000	56.65	43.37	74.00	-17.35	13.28	Peak	Vertical
4	PP15570.000	47.99	34.71	54.00	-6.01	13.28	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5190MHz: Fundamental frequency.

Band 2

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.28	58.59	74	-17.72	34.52	9.52	46.35	150	204	Peak
5150	48.71	51.02	54	-5.29	34.52	9.52	46.35	150	204	Average
5260	100.9	102.86	/	/	34.61	9.75	46.32	150	144	Peak
5260	93.2	95.16	/	/	34.61	9.75	46.32	150	144	Average
5350	54.56	56.24	74	-19.44	34.68	9.94	46.3	200	160	Peak
5350	48.56	50.24	54	-5.44	34.68	9.94	46.3	200	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.34	58.57	74	-17.66	34.6	9.52	46.35	200	96	Peak
5150	48.5	50.73	54	-5.5	34.6	9.52	46.35	200	96	Average
5260	99.93	101.9	/	/	34.6	9.75	46.32	150	114	Peak
5260	92.67	94.64	/	/	34.6	9.75	46.32	150	114	Average
5350	55.94	57.7	74	-18.06	34.6	9.94	46.3	200	129	Peak
5350	48.33	50.09	54	-5.67	34.6	9.94	46.3	200	129	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.42	56.73	74	-19.58	34.52	9.52	46.35	200	114	Peak
5150	48.93	51.24	54	-5.07	34.52	9.52	46.35	200	114	Average
5300	100.23	102.07	/	/	34.64	9.83	46.31	150	190	Peak
5300	92.88	94.72	/	/	34.64	9.83	46.31	150	190	Average
5350	53.94	55.62	74	-20.06	34.68	9.94	46.3	100	117	Peak
5350	48.01	49.69	54	-5.99	34.68	9.94	46.3	100	117	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.88	58.11	74	-18.12	34.6	9.52	46.35	200	152	Peak
5150	49.05	51.28	54	-4.95	34.6	9.52	46.35	200	152	Average
5300	98.95	100.83	/	/	34.6	9.83	46.31	150	129	Peak
5300	90.88	92.76	/	/	34.6	9.83	46.31	150	129	Average
5350	54.55	56.31	74	-19.45	34.6	9.94	46.3	200	194	Peak
5350	48.24	50	54	-5.76	34.6	9.94	46.3	200	194	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.34	59.65	74	-16.66	34.52	9.52	46.35	200	86	Peak
5150	48.93	51.24	54	-5.07	34.52	9.52	46.35	200	86	Average
5320	100.02	101.78	/	/	34.66	9.88	46.3	150	130	Peak
5320	92.39	94.15	/	/	34.66	9.88	46.3	150	130	Average
5350	55.29	56.97	74	-18.71	34.68	9.94	46.3	200	152	Peak
5350	48.43	50.11	54	-5.57	34.68	9.94	46.3	200	152	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.02	56.25	74	-19.98	34.6	9.52	46.35	200	304	Peak
5150	49.04	51.27	54	-4.96	34.6	9.52	46.35	200	304	Average
5320	97.83	99.65	/	/	34.6	9.88	46.3	150	157	Peak
5320	90.51	92.33	/	/	34.6	9.88	46.3	150	157	Average
5350	56.42	58.18	74	-17.58	34.6	9.94	46.3	200	125	Peak
5350	48.23	49.99	54	-5.77	34.6	9.94	46.3	200	125	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.

802.11n (20MHz)

CHANNEL	TX Channel 52	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	57.29	59.6	74	-16.71	34.52	9.52	46.35	200	212	Peak
5150	48.98	51.29	54	-5.02	34.52	9.52	46.35	200	212	Average
5260	100.2	102.16	/	/	34.61	9.75	46.32	150	180	Peak
5260	92.37	94.33	/	/	34.61	9.75	46.32	150	180	Average
5350	56.01	57.69	74	-17.99	34.68	9.94	46.3	200	129	Peak
5350	48.31	49.99	54	-5.69	34.68	9.94	46.3	200	129	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.62	57.85	74	-18.38	34.6	9.52	46.35	200	112	Peak
5150	48.92	51.15	54	-5.08	34.6	9.52	46.35	200	112	Average
5260	100.31	102.28	/	/	34.6	9.75	46.32	150	196	Peak
5260	91.83	93.8	/	/	34.6	9.75	46.32	150	196	Average
5350	55.64	57.4	74	-18.36	34.6	9.94	46.3	100	188	Peak
5350	47.87	49.63	54	-6.13	34.6	9.94	46.3	100	188	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.1	57.41	74	-18.9	34.52	9.52	46.35	200	163	Peak
5150	48.78	51.09	54	-5.22	34.52	9.52	46.35	200	163	Average
5300	100.15	101.99	/	/	34.64	9.83	46.31	150	159	Peak
5300	91.68	93.52	/	/	34.64	9.83	46.31	150	159	Average
5350	55.82	57.5	74	-18.18	34.68	9.94	46.3	200	178	Peak
5350	48.52	50.2	54	-5.48	34.68	9.94	46.3	200	178	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.01	57.24	74	-18.99	34.6	9.52	46.35	100	262	Peak
5150	49.12	51.35	54	-4.88	34.6	9.52	46.35	100	262	Average
5300	98.98	100.86	/	/	34.6	9.83	46.31	150	173	Peak
5300	90.16	92.04	/	/	34.6	9.83	46.31	150	173	Average
5350	55.25	57.01	74	-18.75	34.6	9.94	46.3	150	178	Peak
5350	47.96	49.72	54	-6.04	34.6	9.94	46.3	150	178	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.25	58.56	74	-17.75	34.52	9.52	46.35	200	248	Peak
5150	48.95	51.26	54	-5.05	34.52	9.52	46.35	200	248	Average
5320	100.03	101.79	/	/	34.66	9.88	46.3	150	178	Peak
5320	91.56	93.32	/	/	34.66	9.88	46.3	150	178	Average
5350	55.82	57.5	74	-18.18	34.68	9.94	46.3	200	147	Peak
5350	49.24	50.92	54	-4.76	34.68	9.94	46.3	200	147	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.48	56.71	74	-19.52	34.6	9.52	46.35	200	264	Peak
5150	48.84	51.07	54	-5.16	34.6	9.52	46.35	200	264	Average
5320	97.97	99.79	/	/	34.6	9.88	46.3	150	169	Peak
5320	89.25	91.07	/	/	34.6	9.88	46.3	150	169	Average
5350	56	57.76	74	-18	34.6	9.94	46.3	200	120	Peak
5350	48.47	50.23	54	-5.53	34.6	9.94	46.3	200	120	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.

802.11n (40MHz)

CHANNEL	TX Channel 54	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.22	58.53	74	-17.78	34.52	9.52	46.35	200	217	Peak
5150	48.76	51.07	54	-5.24	34.52	9.52	46.35	200	217	Average
5270	96.98	98.91	/	/	34.62	9.77	46.32	150	188	Peak
5270	88.98	90.91	/	/	34.62	9.77	46.32	150	188	Average
5350	54.4	56.08	74	-19.6	34.68	9.94	46.3	200	141	Peak
5350	48.25	49.93	54	-5.75	34.68	9.94	46.3	200	141	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.19	56.42	74	-19.81	34.6	9.52	46.35	100	171	Peak
5150	49.13	51.36	54	-4.87	34.6	9.52	46.35	100	171	Average
5270	95.21	97.16	/	/	34.6	9.77	46.32	150	137	Peak
5270	88.44	90.39	/	/	34.6	9.77	46.32	150	137	Average
5350	53.97	55.73	74	-20.03	34.6	9.94	46.3	200	131	Peak
5350	47.93	49.69	54	-6.07	34.6	9.94	46.3	200	131	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5270MHz: Fundamental frequency.

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.01	58.32	74	-17.99	34.52	9.52	46.35	200	157	Peak
5150	48.61	50.92	54	-5.39	34.52	9.52	46.35	200	157	Average
5310	95.5	97.31	/	/	34.65	9.85	46.31	150	174	Peak
5310	88.27	90.08	/	/	34.65	9.85	46.31	150	174	Average
5350	57.26	58.94	74	-16.74	34.68	9.94	46.3	100	171	Peak
5350	50.59	52.27	54	-3.41	34.68	9.94	46.3	100	171	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.08	56.31	74	-19.92	34.6	9.52	46.35	200	234	Peak
5150	49.06	51.29	54	-4.94	34.6	9.52	46.35	200	234	Average
5310	94.48	96.34	/	/	34.6	9.85	46.31	150	113	Peak
5310	86.89	88.75	/	/	34.6	9.85	46.31	150	113	Average
5350	55.46	57.22	74	-18.54	34.6	9.94	46.3	150	178	Peak
5350	49.47	51.23	54	-4.53	34.6	9.94	46.3	159	178	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5310MHz: Fundamental frequency.

802.11ac (20MHz)

CHANNEL	TX Channel 52	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.36	58.67	74	-17.64	34.52	9.52	46.35	100	275	Peak
5150	49.19	51.5	54	-4.81	34.52	9.52	46.35	100	275	Average
5260	100.61	102.57	/	/	34.61	9.75	46.32	150	104	Peak
5260	92.21	94.17	/	/	34.61	9.75	46.32	150	104	Average
5350	54.1	55.78	74	-19.9	34.68	9.94	46.3	200	179	Peak
5350	48.13	49.81	54	-5.87	34.68	9.94	46.3	200	179	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.07	58.3	74	-17.93	34.6	9.52	46.35	200	99	Peak
5150	48.86	51.09	54	-5.14	34.6	9.52	46.35	200	99	Average
5260	99.97	101.94	/	/	34.6	9.75	46.32	150	200	Peak
5260	91.96	93.93	/	/	34.6	9.75	46.32	150	200	Average
5350	53.81	55.57	74	-20.19	34.6	9.94	46.3	200	142	Peak
5350	48.29	50.05	54	-5.71	34.6	9.94	46.3	200	142	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5260MHz: Fundamental frequency.

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.93	59.24	74	-17.07	34.52	9.52	46.35	200	225	Peak
5150	48.78	51.09	54	-5.22	34.52	9.52	46.35	200	225	Average
5300	100.41	102.25	/	/	34.64	9.83	46.31	150	163	Peak
5300	91.91	93.75	/	/	34.64	9.83	46.31	150	163	Average
5350	54.89	56.57	74	-19.11	34.68	9.94	46.3	100	133	Peak
5350	48.57	50.25	54	-5.43	34.68	9.94	46.3	100	133	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.41	57.64	74	-18.59	34.6	9.52	46.35	200	206	Peak
5150	48.77	51	54	-5.23	34.6	9.52	46.35	200	206	Average
5300	98.77	100.65	/	/	34.6	9.83	46.31	150	142	Peak
5300	90.3	92.18	/	/	34.6	9.83	46.31	150	142	Average
5350	55.09	56.85	74	-18.91	34.6	9.94	46.3	200	117	Peak
5350	48	49.76	54	-6	34.6	9.94	46.3	200	117	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5300MHz: Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	56.49	58.8	74	-17.51	34.52	9.52	46.35	100	154	Peak
5150	48.64	50.95	54	-5.36	34.52	9.52	46.35	100	154	Average
5320	100.63	102.39	/	/	34.66	9.88	46.3	150	112	Peak
5320	91.72	93.48	/	/	34.66	9.88	46.3	150	112	Average
5350	55.38	57.06	74	-18.62	34.68	9.94	46.3	200	157	Peak
5350	49.08	50.76	54	-4.92	34.68	9.94	46.3	200	157	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.91	58.14	74	-18.09	34.6	9.52	46.35	200	121	Peak
5150	49.05	51.28	54	-4.95	34.6	9.52	46.35	200	121	Average
5320	97.6	99.42	/	/	34.6	9.88	46.3	150	153	Peak
5320	89.7	91.52	/	/	34.6	9.88	46.3	150	153	Average
5350	54.48	56.24	74	-19.52	34.6	9.94	46.3	150	169	Peak
5350	48.7	50.46	54	-5.3	34.6	9.94	46.3	150	169	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5320MHz: Fundamental frequency.

802.11ac (40MHz)

CHANNEL	TX Channel 54	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.53	57.84	74	-18.47	34.52	9.52	46.35	100	141	Peak
5150	48.76	51.07	54	-5.24	34.52	9.52	46.35	100	141	Average
5270	96.1	98.03	/	/	34.62	9.77	46.32	150	136	Peak
5270	89.23	91.16	/	/	34.62	9.77	46.32	150	136	Average
5350	54.68	56.36	74	-19.32	34.68	9.94	46.3	200	108	Peak
5350	48.09	49.77	54	-5.91	34.68	9.94	46.3	200	108	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.43	57.66	74	-18.57	34.6	9.52	46.35	200	259	Peak
5150	48.59	50.82	54	-5.41	34.6	9.52	46.35	200	259	Average
5270	95.27	97.22	/	/	34.6	9.77	46.32	150	104	Peak
5270	88.5	90.45	/	/	34.6	9.77	46.32	150	104	Average
5350	54.71	56.47	74	-19.29	34.6	9.94	46.3	200	175	Peak
5350	48.06	49.82	54	-5.94	34.6	9.94	46.3	200	175	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5270MHz: Fundamental frequency.

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.09	57.4	74	-18.91	34.52	9.52	46.35	200	193	Peak
5150	48.76	51.07	54	-5.24	34.52	9.52	46.35	200	193	Average
5310	95.64	97.45	/	/	34.65	9.85	46.31	150	132	Peak
5310	88.39	90.2	/	/	34.65	9.85	46.31	150	132	Average
5350	56	57.68	74	-18	34.68	9.94	46.3	200	175	Peak
5350	50.48	52.16	54	-3.52	34.68	9.94	46.3	200	175	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.16	56.39	74	-19.84	34.6	9.52	46.35	200	210	Peak
5150	48.56	50.79	54	-5.44	34.6	9.52	46.35	200	210	Average
5310	94.49	96.35	/	/	34.6	9.85	46.31	150	129	Peak
5310	86.94	88.8	/	/	34.6	9.85	46.31	150	129	Average
5350	54.84	56.6	74	-19.16	34.6	9.94	46.3	200	168	Peak
5350	49.75	51.51	54	-4.25	34.6	9.94	46.3	200	168	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5310MHz: Fundamental frequency.

802.11ac (80MHz)

CHANNEL	TX Channel 58	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	55.73	58.04	74	-18.27	34.52	9.52	46.35	150	344	Peak
5150	49.2	51.51	54	-4.8	34.52	9.52	46.35	150	344	Average
5290	93.07	94.94	/	/	34.63	9.81	46.31	200	191	Peak
5290	86.47	88.34	/	/	34.63	9.81	46.31	200	191	Average
5350	55.83	57.51	74	-18.17	34.68	9.94	46.3	200	184	Peak
5350	50.87	52.55	54	-3.13	34.68	9.94	46.3	200	184	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5150	54.26	56.49	74	-19.74	34.6	9.52	46.35	150	297	Peak
5150	49.18	51.41	54	-4.82	34.6	9.52	46.35	150	297	Average
5290	90.41	92.31	/	/	34.6	9.81	46.31	150	145	Peak
5290	84.52	86.42	/	/	34.6	9.81	46.31	150	145	Average
5350	57.12	58.88	74	-16.88	34.6	9.94	46.3	200	149	Peak
5350	50.43	52.19	54	-3.57	34.6	9.94	46.3	200	149	Average

REMARKS:

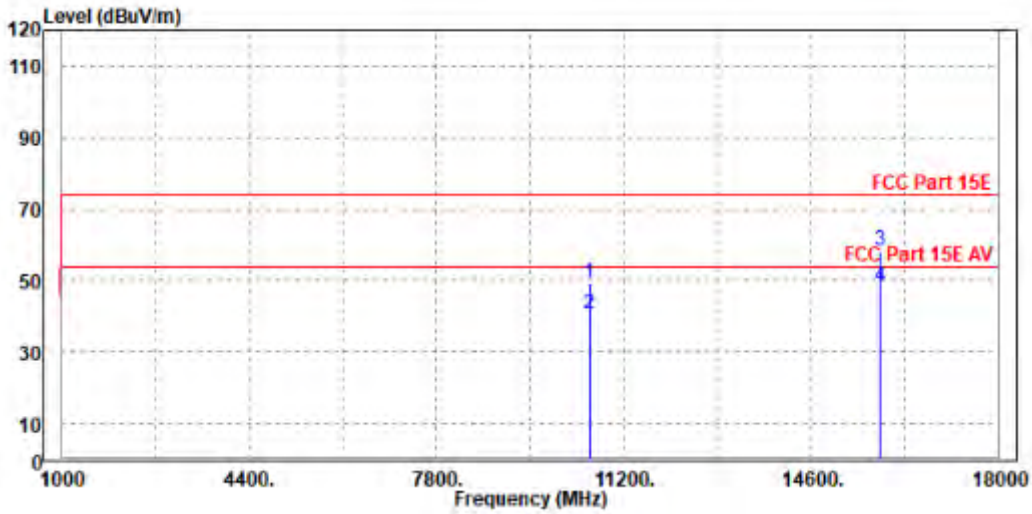
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5290MHz: Fundamental frequency.

Worst case harmonic:

CHANNEL	TX Channel 58	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

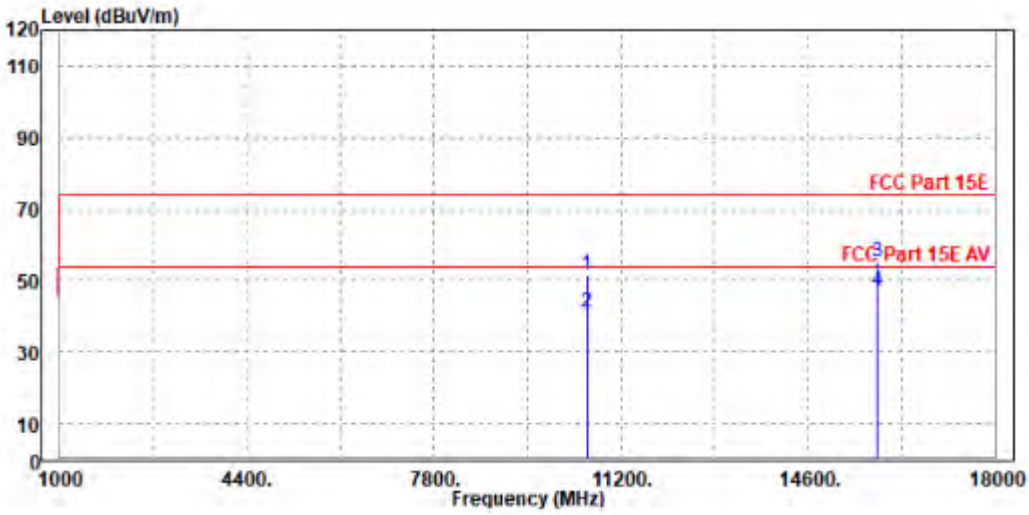
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10580.000	49.15	45.20	74.00	-24.85	3.95	Peak	Horizontal
2	10580.000	40.82	36.87	54.00	-13.18	3.95	Average	Horizontal
3	PK15870.000	58.18	43.55	74.00	-15.82	14.63	Peak	Horizontal
4	PP15870.000	48.20	33.57	54.00	-5.80	14.63	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10580.000	51.77	46.58	74.00	-22.23	5.19	Peak	Vertical
2	10580.000	41.16	35.97	54.00	-12.84	5.19	Average	Vertical
3	PK15870.000	55.33	42.11	74.00	-18.67	13.22	Peak	Vertical
4	PP15870.000	46.78	33.56	54.00	-7.22	13.22	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5290MHz: Fundamental frequency.

Band 3

802.11a

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54.54	55.86	74	-19.46	34.77	10.17	46.26	100	160	Peak
5460	48.21	49.53	54	-5.79	34.77	10.17	46.26	100	160	Average
5470	56.22	57.51	68.2	-11.98	34.78	10.19	46.26	100	160	Peak
5500	99.07	100.26	/	/	34.8	10.26	46.25	100	160	Peak
5500	91.59	92.78	/	/	34.8	10.26	46.25	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54	55.49	74	-20	34.6	10.17	46.26	100	270	Peak
5460	48.17	49.66	54	-5.83	34.6	10.17	46.26	100	270	Average
5470	54.63	56.1	68.2	-13.57	34.6	10.19	46.26	100	270	Peak
5500	94.31	95.7	/	/	34.6	10.26	46.25	100	270	Peak
5500	86.51	87.9	/	/	34.6	10.26	46.25	100	270	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54.59	55.91	74	-19.41	34.77	10.17	46.26	100	160	Peak
5460	48.26	49.58	54	-5.74	34.77	10.17	46.26	100	160	Average
5470	54.16	55.45	68.2	-14.04	34.78	10.19	46.26	100	160	Peak
5580	98.67	99.41	/	/	34.9	10.59	46.23	100	160	Peak
5580	91.39	92.13	/	/	34.9	10.59	46.23	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54.02	55.51	74	-19.98	34.6	10.17	46.26	100	270	Peak
5460	48.12	49.61	54	-5.88	34.6	10.17	46.26	100	270	Average
5470	54.05	55.52	68.2	-14.15	34.6	10.19	46.26	100	270	Peak
5580	94.78	95.72	/	/	34.7	10.59	46.23	100	270	Peak
5580	86.94	87.88	/	/	34.7	10.59	46.23	100	270	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5580MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 140	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5700	100.33	100.39	/	/	35.04	11.09	46.19	100	160	Peak
5700	93.2	93.26	/	/	35.04	11.09	46.19	100	160	Average
5725	58.46	58.38	68.2	-9.74	35.07	11.2	46.19	100	160	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5700	96.38	96.64	/	/	34.84	11.09	46.19	100	270	Peak
5700	89.57	89.83	/	/	34.84	11.09	46.19	100	270	Average
5725	56.31	56.43	68.2	-11.89	34.87	11.2	46.19	100	270	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5700MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	55.04	56.33	74	-18.96	34.78	10.19	46.26	150	335	Peak
5720	99.2	99.15	/	/	35.06	11.18	46.19	150	335	Peak
5720	91.98	91.93	/	/	35.06	11.18	46.19	150	335	Average
5850	58.49	57.7	68.2	-9.71	35.22	11.72	46.15	150	335	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.02	55.49	74	-19.98	34.6	10.19	46.26	150	275	Peak
5720	98.75	98.9	/	/	34.86	11.18	46.19	150	275	Peak
5720	91.67	91.82	/	/	34.86	11.18	46.19	150	275	Average
5850	60.13	59.54	68.2	-8.07	35.02	11.72	46.15	150	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11n (20MHz)

CHANNEL	TX Channel 100	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54.73	56.05	74	-19.27	34.77	10.17	46.26	100	160	Peak
5460	48.02	49.34	54	-5.98	34.77	10.17	46.26	100	160	Average
5470	54.49	55.78	68.2	-13.71	34.78	10.19	46.26	100	160	Peak
5500	99.88	101.07	/	/	34.8	10.26	46.25	100	160	Peak
5500	91.11	92.3	/	/	34.8	10.26	46.25	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	52.76	54.25	74	-21.24	34.6	10.17	46.26	100	270	Peak
5460	47.38	48.87	54	-6.62	34.6	10.17	46.26	100	270	Average
5470	54.19	55.66	68.2	-14.01	34.6	10.19	46.26	100	270	Peak
5500	94.47	95.86	/	/	34.6	10.26	46.25	100	270	Peak
5500	84.88	86.27	/	/	34.6	10.26	46.25	100	270	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.6	54.92	74	-20.4	34.77	10.17	46.26	100	160	Peak
5460	48.01	49.33	54	-5.99	34.77	10.17	46.26	100	160	Average
5470	54.55	55.84	68.2	-13.65	34.78	10.19	46.26	100	160	Peak
5580	99.21	99.95	/	/	34.9	10.59	46.23	100	160	Peak
5580	90.71	91.45	/	/	34.9	10.59	46.23	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	52.69	54.18	74	-21.31	34.6	10.17	46.26	100	270	Peak
5460	48.37	49.86	54	-5.63	34.6	10.17	46.26	100	270	Average
5470	54.49	55.96	68.2	-13.71	34.6	10.19	46.26	100	270	Peak
5580	94.51	95.45	/	/	34.7	10.59	46.23	100	270	Peak
5580	85.57	86.51	/	/	34.7	10.59	46.23	100	270	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5580MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5700	98.59	98.65	/	/	35.04	11.09	46.19	100	160	Peak
5700	91.36	91.42	/	/	35.04	11.09	46.19	100	160	Average
5725	60.73	60.65	68.2	-7.47	35.07	11.2	46.19	100	160	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5700	95.6	95.86	/	/	34.84	11.09	46.19	100	270	Peak
5700	88.37	88.63	/	/	34.84	11.09	46.19	100	270	Average
5725	59.07	59.19	68.2	-9.13	34.87	11.2	46.19	100	270	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5700MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.27	55.56	74	-19.73	34.78	10.19	46.26	108	335	Peak
5720	99.34	99.29	/	/	35.06	11.18	46.19	108	335	Peak
5720	90.13	90.08	/	/	35.06	11.18	46.19	108	335	Average
5850	58.8	58.01	68.2	-9.4	35.22	11.72	46.15	108	335	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.84	56.31	74	-19.16	34.6	10.19	46.26	100	275	Peak
5720	98.5	98.65	/	/	34.86	11.18	46.19	100	275	Peak
5720	90.47	90.62	/	/	34.86	11.18	46.19	100	275	Average
5850	58.2	57.61	68.2	-10	35.02	11.72	46.15	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11n (40MHz)

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.51	54.83	74	-20.49	34.77	10.17	46.26	100	160	Peak
5460	49.61	50.93	54	-4.39	34.77	10.17	46.26	100	160	Average
5470	56.85	58.14	68.2	-11.35	34.78	10.19	46.26	100	160	Peak
5510	94.92	96.06	/	/	34.81	10.3	46.25	100	160	Peak
5510	87.75	88.89	/	/	34.81	10.3	46.25	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	52.81	54.3	74	-21.19	34.6	10.17	46.26	100	275	Peak
5460	47.88	49.37	54	-6.12	34.6	10.17	46.26	100	275	Average
5470	54.12	55.59	68.2	-14.08	34.6	10.19	46.26	100	275	Peak
5510	89.25	90.59	/	/	34.61	10.3	46.25	100	275	Peak
5510	83.43	84.77	/	/	34.61	10.3	46.25	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5510MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.69	55.01	74	-20.31	34.77	10.17	46.26	100	160	Peak
5460	48.53	49.85	54	-5.47	34.77	10.17	46.26	100	160	Average
5470	56.59	57.88	68.2	-11.61	34.78	10.19	46.26	100	160	Peak
5550	93.22	94.13	/	/	34.86	10.47	46.24	100	160	Peak
5550	86.95	87.86	/	/	34.86	10.47	46.24	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	55.92	57.41	74	-18.08	34.6	10.17	46.26	100	275	Peak
5460	47.79	49.28	54	-6.21	34.6	10.17	46.26	100	275	Average
5470	54.25	55.72	68.2	-13.95	34.6	10.19	46.26	100	275	Peak
5550	89.22	90.33	/	/	34.66	10.47	46.24	100	275	Peak
5550	83.03	84.14	/	/	34.66	10.47	46.24	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 134	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5670	96.66	96.89	/	/	35	10.97	46.2	100	65	Peak
5670	87.93	88.16	/	/	35	10.97	46.2	100	65	Average
5725	58.04	57.96	68.2	-10.16	35.07	11.2	46.19	100	65	Peak
ANTENNA POLARITY & test distance: Vertical at 3 m										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5670	91.83	92.26	/	/	34.8	10.97	46.2	100	275	Peak
5670	85.6	86.03	/	/	34.8	10.97	46.2	100	275	Average
5725	54.43	54.55	68.2	-13.77	34.87	11.2	46.19	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5670MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	53.46	54.75	74	-20.54	34.78	10.19	46.26	108	335	Peak
5710	93.42	93.42	/	/	35.05	11.14	46.19	108	335	Peak
5710	86.87	86.87	/	/	35.05	11.14	46.19	108	335	Average
5850	59.15	58.36	68.2	-9.05	35.22	11.72	46.15	108	335	Peak
ANTENNA POLARITY & test distance: Vertical at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	53.13	54.6	74	-20.87	34.6	10.19	46.26	100	275	Peak
5710	92.97	93.17	/	/	34.85	11.14	46.19	100	275	Peak
5710	86.69	86.89	/	/	34.85	11.14	46.19	100	275	Average
5850	57.04	56.45	68.2	-11.16	35.02	11.72	46.15	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5710MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11ac (20MHz)

CHANNEL	TX Channel 100	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.73	55.05	74	-20.27	34.77	10.17	46.26	100	160	Peak
5460	47.86	49.18	54	-6.14	34.77	10.17	46.26	100	160	Average
5470	55	56.29	68.2	-13.2	34.78	10.19	46.26	100	160	Peak
5500	97.74	98.93	/	/	34.8	10.26	46.25	100	160	Peak
5500	90.15	91.34	/	/	34.8	10.26	46.25	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.32	54.81	74	-20.68	34.6	10.17	46.26	100	275	Peak
5460	48.78	50.27	54	-5.22	34.6	10.17	46.26	100	275	Average
5470	53.77	55.24	68.2	-14.43	34.6	10.19	46.26	100	275	Peak
5500	93.59	94.98	/	/	34.6	10.26	46.25	100	275	Peak
5500	84.73	86.12	/	/	34.6	10.26	46.25	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	55.01	56.33	74	-18.99	34.77	10.17	46.26	100	160	Peak
5460	47.12	48.44	54	-6.88	34.77	10.17	46.26	100	160	Average
5470	54.27	55.56	68.2	-13.93	34.78	10.19	46.26	100	160	Peak
5580	97.45	98.19	/	/	34.9	10.59	46.23	100	160	Peak
5580	89.06	89.8	/	/	34.9	10.59	46.23	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.97	55.46	74	-20.03	34.6	10.17	46.26	100	275	Peak
5460	47.8	49.29	54	-6.2	34.6	10.17	46.26	100	275	Average
5470	53.65	55.12	68.2	-14.55	34.6	10.19	46.26	100	275	Peak
5580	93.76	94.7	/	/	34.7	10.59	46.23	100	275	Peak
5580	85.32	86.26	/	/	34.7	10.59	46.23	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5580MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 140	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5700	98.55	98.61	/	/	35.04	11.09	46.19	100	160	Peak
5700	91.42	91.48	/	/	35.04	11.09	46.19	100	160	Average
5725	58.34	58.26	68.2	-9.86	35.07	11.2	46.19	100	160	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5700	95.65	95.91	/	/	34.84	11.09	46.19	100	275	Peak
5700	88.09	88.35	/	/	34.84	11.09	46.19	100	275	Average
5725	60.54	60.66	68.2	-7.66	34.87	11.2	46.19	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5700MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	55.2	56.49	74	-18.8	34.78	10.19	46.26	108	335	Peak
5720	99.2	99.15	/	/	35.06	11.18	46.19	108	335	Peak
5720	90.51	90.46	/	/	35.06	11.18	46.19	108	335	Average
5850	57.71	56.92	68.2	-10.49	35.22	11.72	46.15	108	335	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.83	56.3	74	-19.17	34.6	10.19	46.26	100	275	Peak
5720	98.92	99.07	/	/	34.86	11.18	46.19	100	275	Peak
5720	90.35	90.5	/	/	34.86	11.18	46.19	100	275	Average
5850	59.57	58.98	68.2	-8.63	35.02	11.72	46.15	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5720MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11ac (40MHz)

CHANNEL	TX Channel 102	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5460	52.85	54.17	74	-21.15	34.77	10.17	46.26	100	160	Peak
5460	48.2	49.52	54	-5.8	34.77	10.17	46.26	100	160	Average
5470	56.07	57.36	68.2	-12.13	34.78	10.19	46.26	100	160	Peak
5510	94.33	95.47	/	/	34.81	10.3	46.25	100	160	Peak
5510	87.4	88.54	/	/	34.81	10.3	46.25	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5460	52.85	54.34	74	-21.15	34.6	10.17	46.26	100	275	Peak
5460	49.23	50.72	54	-4.77	34.6	10.17	46.26	100	275	Average
5470	53.93	55.4	68.2	-14.27	34.6	10.19	46.26	100	275	Peak
5510	88.79	90.13	/	/	34.61	10.3	46.25	100	275	Peak
5510	83.23	84.57	/	/	34.61	10.3	46.25	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5510MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	54.14	55.46	74	-19.86	34.77	10.17	46.26	100	160	Peak
5460	48.28	49.6	54	-5.72	34.77	10.17	46.26	100	160	Average
5470	53.07	54.36	68.2	-15.13	34.78	10.19	46.26	100	160	Peak
5550	93.82	94.73	/	/	34.86	10.47	46.24	100	160	Peak
5550	86.79	87.7	/	/	34.86	10.47	46.24	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.42	54.91	74	-20.58	34.6	10.17	46.26	100	275	Peak
5460	47.75	49.24	54	-6.25	34.6	10.17	46.26	100	275	Average
5470	52.9	54.37	68.2	-15.3	34.6	10.19	46.26	100	275	Peak
5550	88.74	89.85	/	/	34.66	10.47	46.24	100	275	Peak
5550	83.83	84.94	/	/	34.66	10.47	46.24	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5500MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5670	95.09	95.32	/	/	35	10.97	46.2	100	160	Peak
5670	88.07	88.3	/	/	35	10.97	46.2	100	160	Average
5725	56.54	56.46	68.2	-11.66	35.07	11.2	46.19	100	160	Peak
ANTENNA POLARITY & test distance: Vertical at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5670	90.21	90.64	/	/	34.8	10.97	46.2	100	275	Peak
5670	85.13	85.56	/	/	34.8	10.97	46.2	100	275	Average
5725	56.9	57.02	68.2	-11.3	34.87	11.2	46.19	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5670MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.5	55.79	74	-19.5	34.78	10.19	46.26	108	335	Peak
5710	93.91	93.91	/	/	35.05	11.14	46.19	108	335	Peak
5710	87.18	87.18	/	/	35.05	11.14	46.19	108	335	Average
5850	57.43	56.64	68.2	-10.77	35.22	11.72	46.15	108	335	Peak
ANTENNA POLARITY & test distance: Vertical at 3 m										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.21	55.68	74	-19.79	34.6	10.19	46.26	100	275	Peak
5710	93.09	93.29	/	/	34.85	11.14	46.19	100	275	Peak
5710	86.68	86.88	/	/	34.85	11.14	46.19	100	275	Average
5850	57.12	56.53	68.2	-11.08	35.02	11.72	46.15	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5710MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11ac (80MHz)

CHANNEL	TX Channel 106	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	53.64	54.96	74	-20.36	34.77	10.17	46.26	100	160	Peak
5460	49.06	50.38	54	-4.94	34.77	10.17	46.26	100	160	Average
5470	55.23	56.52	68.2	-12.97	34.78	10.19	46.26	100	160	Peak
5530	88.29	89.31	/	/	34.84	10.38	46.24	100	160	Peak
5530	83.76	84.78	/	/	34.84	10.38	46.24	100	160	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5460	52.71	54.2	74	-21.29	34.6	10.17	46.26	100	275	Peak
5460	49.28	50.77	54	-4.72	34.6	10.17	46.26	100	275	Average
5470	53.15	54.62	68.2	-15.05	34.6	10.19	46.26	100	275	Peak
5530	87.55	88.77	/	/	34.64	10.38	46.24	100	275	Peak
5530	72.96	74.18	/	/	34.64	10.38	46.24	100	275	Average

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5530MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 122	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5610	90.38	90.95	/	/	34.93	10.72	46.22	100	160	Peak
5610	84.36	84.93	/	/	34.93	10.72	46.22	100	160	Average
5725	53.01	54.3	68.2	-15.19	34.78	10.19	46.26	100	160	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5610	87.74	88.51	/	/	34.73	10.72	46.22	100	275	Peak
5610	82.3	83.07	/	/	34.73	10.72	46.22	100	275	Average
5725	53.29	54.76	68.2	-14.91	34.6	10.19	46.26	100	275	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5610MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.73	56.02	74	-19.27	34.78	10.19	46.26	108	335	Peak
5690	89.51	89.63	/	/	35.03	11.05	46.2	108	335	Peak
5690	83.92	84.04	/	/	35.03	11.05	46.2	108	335	Average
5850	57.92	57.13	68.2	-10.28	35.22	11.72	46.15	108	335	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5470	54.21	55.68	74	-19.79	34.6	10.19	46.26	100	275	Peak
5690	90.09	90.41	/	/	34.83	11.05	46.2	100	275	Peak
5690	83.88	84.2	/	/	34.83	11.05	46.2	100	275	Average
5850	59.6	59.01	68.2	-8.6	35.02	11.72	46.15	100	275	Peak

REMARKS:

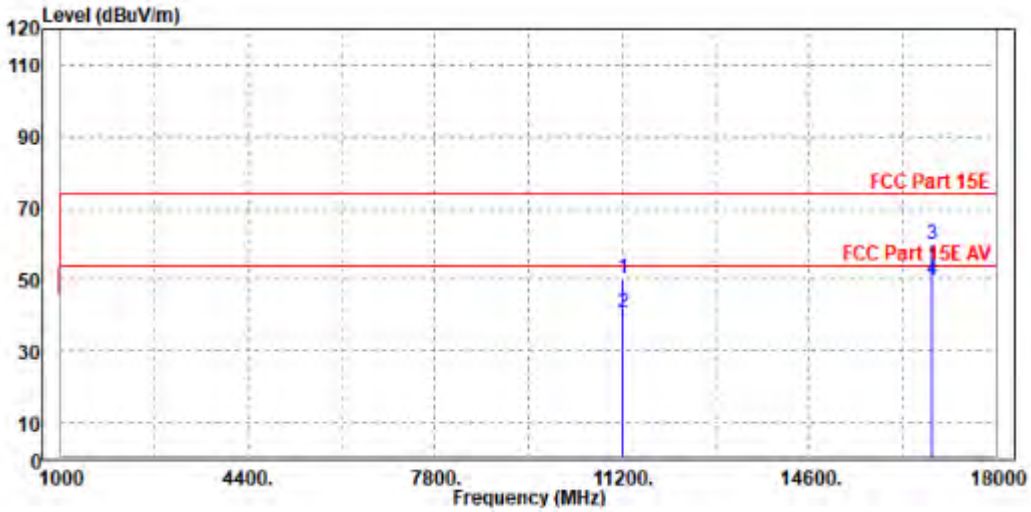
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5690MHz: Fundamental frequency.
3. #: Out of restricted band.

Worst case harmonic:

CHANNEL	TX Channel 122	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

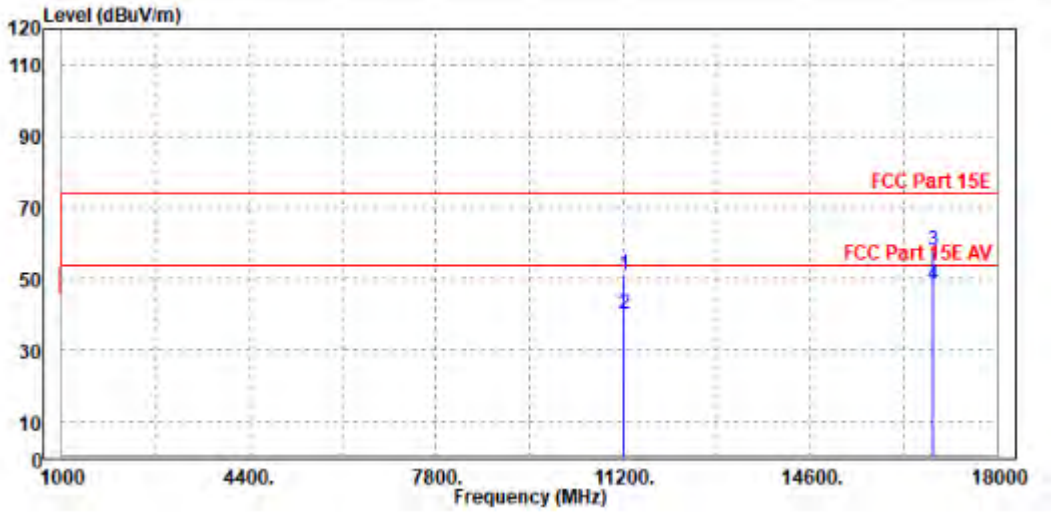
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11220.000	50.03	43.98	74.00	-23.97	6.05	Peak	Horizontal
2	11220.000	40.78	34.73	54.00	-13.22	6.05	Average	Horizontal
3	PK16830.000	59.67	43.36	74.00	-14.33	16.31	Peak	Horizontal
4	PP16830.000	49.52	33.21	54.00	-4.48	16.31	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11220.000	50.99	44.45	74.00	-23.01	6.54	Peak	Vertical
2	11220.000	40.09	33.55	54.00	-13.91	6.54	Average	Vertical
3	PK16830.000	57.75	43.28	74.00	-16.25	14.47	Peak	Vertical
4	PP16830.000	48.30	33.83	54.00	-5.70	14.47	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5610MHz: Fundamental frequency.
3. #: Out of restricted band.

Band 4:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	100.31	100.12	/	/	35.09	11.28	46.18	105	170	Peak
5745	93.01	92.82	/	/	35.09	11.28	46.18	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	96	96.01	/	/	34.89	11.28	46.18	100	255	Peak
5745	88.92	88.93	/	/	34.89	11.28	46.18	100	255	Average

REMARKS:

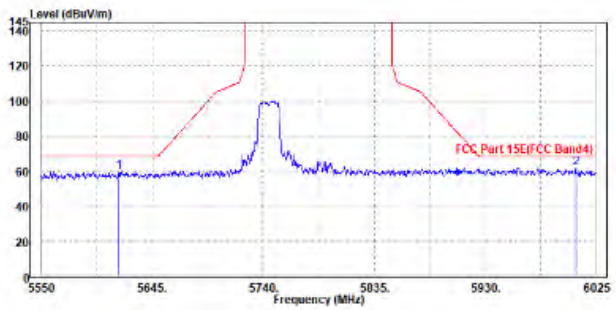
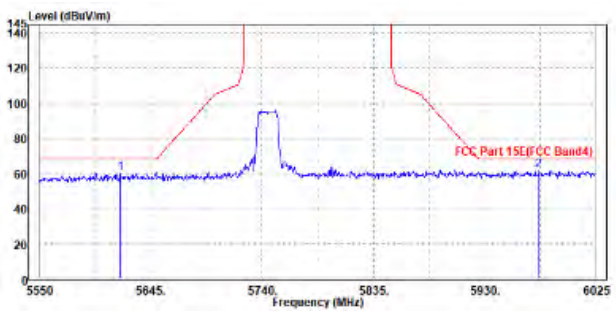
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5616.5	59.81	60.35	68.2	-8.39	34.94	10.74	46.22	205	170	Peak
6007.9	62.02	60.38	68.2	-6.18	35.4	12.35	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5618.875	60.15	60.88	68.2	-8.05	34.74	10.75	46.22	200	255	Peak
5976.075	61.95	60.65	68.2	-6.25	35.17	12.25	46.12	200	255	Peak

CH 149

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5785	100.76	100.34	/	/	35.14	11.45	46.17	105	170	Peak
5785	93.2	92.78	/	/	35.14	11.45	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5785	96.45	96.23	/	/	34.94	11.45	46.17	100	255	Peak
5785	88.9	88.68	/	/	34.94	11.45	46.17	100	255	Average

REMARKS:

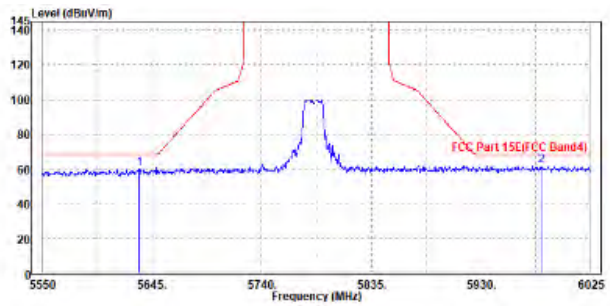
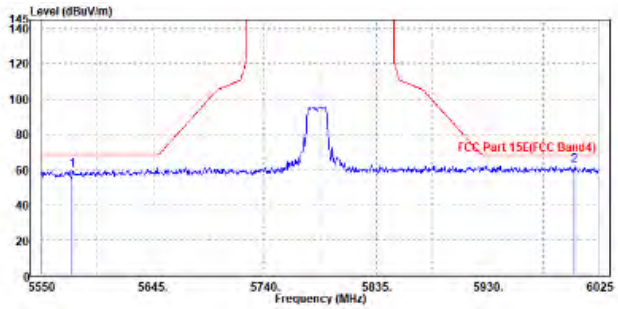
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5634.075	60.03	60.46	68.2	-8.17	34.96	10.82	46.21	205	170	Peak
5982.725	61.91	60.36	68.2	-6.29	35.38	12.28	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5576.125	59.39	60.36	68.2	-8.81	34.69	10.57	46.23	200	255	Peak
6004.1	62.34	60.9	68.2	-5.86	35.2	12.35	46.11	200	255	Peak

CH 157

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5825	100.7	100.05	/	/	35.19	11.62	46.16	105	170	Peak
5825	93.15	92.5	/	/	35.19	11.62	46.16	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5825	96.12	95.67	/	/	34.99	11.62	46.16	100	255	Peak
5825	88.63	88.18	/	/	34.99	11.62	46.16	100	255	Average

REMARKS:

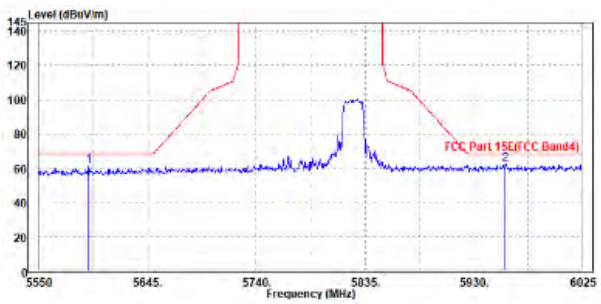
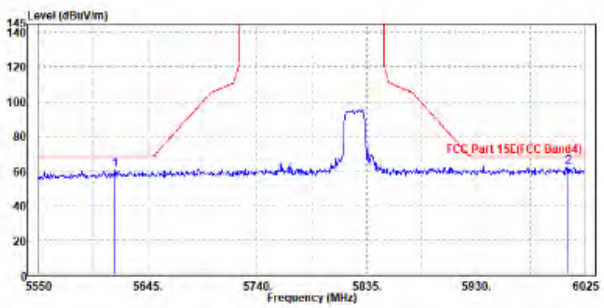
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11a

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5593.225	61.4	62.06	68.2	-6.8	34.91	10.65	46.22	205	170	Peak
5958.025	62.44	61.04	68.2	-5.76	35.35	12.17	46.12	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5616.5	60.58	61.32	68.2	-7.62	34.74	10.74	46.22	200	255	Peak
6010.275	62.15	60.69	68.2	-6.05	35.21	12.36	46.11	200	255	Peak

CH 165

Horiontal	Vertical
	

802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	101.3	101.11	/	/	35.09	11.28	46.18	105	170	Peak
5745	93.05	92.86	/	/	35.09	11.28	46.18	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	97.23	97.24	/	/	34.89	11.28	46.18	100	255	Peak
5745	89.2	89.21	/	/	34.89	11.28	46.18	100	255	Average

REMARKS:

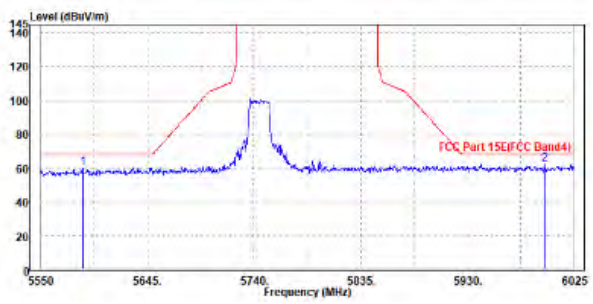
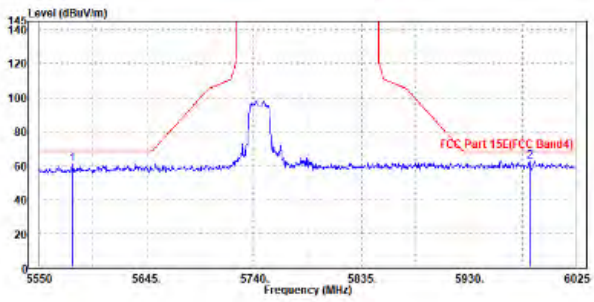
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5587.525	59.86	60.56	68.2	-8.34	34.91	10.62	46.23	205	170	Peak
5999.35	62.05	60.41	68.2	-6.15	35.4	12.35	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5578.975	60.52	61.47	68.2	-7.68	34.69	10.59	46.23	200	255	Peak
5984.15	62.27	60.92	68.2	-5.93	35.18	12.28	46.11	200	255	Peak

CH 149

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	101.53	101.11	/	/	35.14	11.45	46.17	105	170	Peak
5785	93.04	92.62	/	/	35.14	11.45	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	97.19	96.97	/	/	34.94	11.45	46.17	100	255	Peak
5785	88.88	88.66	/	/	34.94	11.45	46.17	100	255	Average

REMARKS:

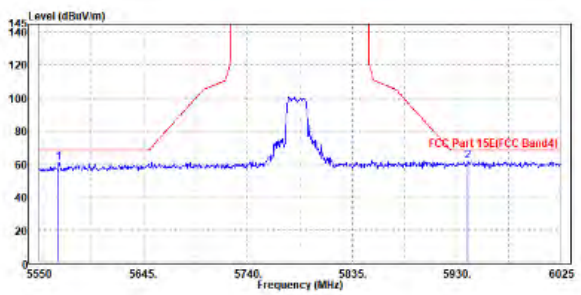
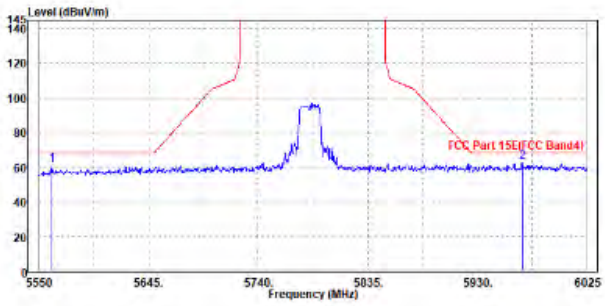
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5568.05	60.6	61.41	68.2	-7.6	34.88	10.54	46.23	205	170	Peak
5940.45	61.76	60.46	68.2	-6.44	35.33	12.1	46.13	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5560.925	61.04	62.09	68.2	-7.16	34.67	10.51	46.23	200	255	Peak
5968.95	62.58	61.32	68.2	-5.62	35.16	12.22	46.12	200	255	Peak

CH 157

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5825	101.24	100.59	/	/	35.19	11.62	46.16	105	170	Peak
5825	92.96	92.31	/	/	35.19	11.62	46.16	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	**EMISSION LEVEL (dBuV/m)**	**READ LEVEL (dBuV)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA FACTOR (dB /m)**	**CABLE LOSS (dB)**	**PREAMP FACTOR (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**REMARK**
5825	97.39	96.94	/	/	34.99	11.62	46.16	100	255	Peak
5825	88.89	88.44	/	/	34.99	11.62	46.16	100	255	Average

REMARKS:

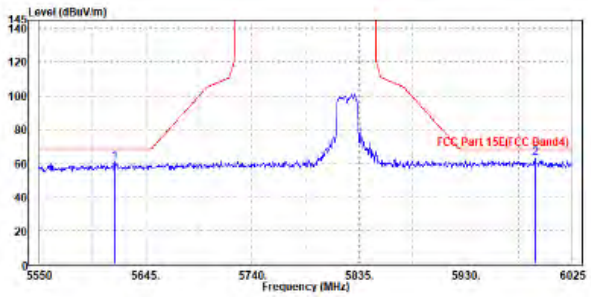
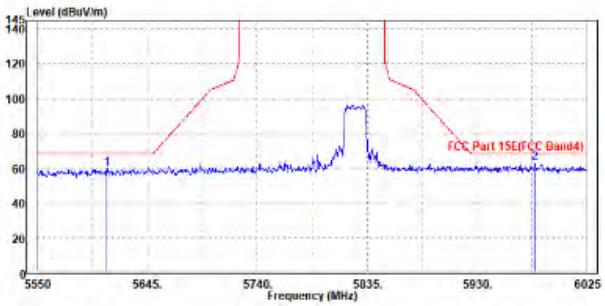
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11n (20MHz)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5616.975	60.54	61.07	68.2	-7.66	34.94	10.75	46.22	205	170	Peak
5992.225	62.63	61.03	68.2	-5.57	35.39	12.32	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5609.85	59.37	60.14	68.2	-8.83	34.73	10.72	46.22	200	255	Peak
5980.35	63.1	61.77	68.2	-5.1	35.18	12.27	46.12	200	255	Peak

CH 165

Horiontal	Vertical
	

802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	95.54	95.29	/	/	35.11	11.32	46.18	105	170	Peak
5755	89.48	89.23	/	/	35.11	11.32	46.18	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	91.65	91.6	/	/	34.91	11.32	46.18	100	255	Peak
5755	85.03	84.98	/	/	34.91	11.32	46.18	100	255	Average

REMARKS:

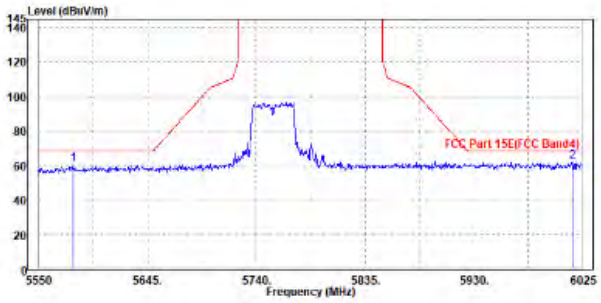
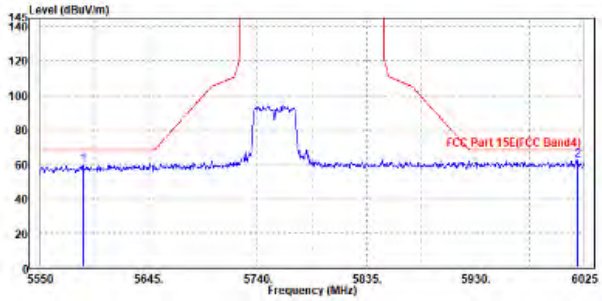
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

OOBE DATA

802.11n (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5580.4	60.51	61.25	68.2	-7.69	34.9	10.59	46.23	205	170	Peak
6015.975	62.11	60.46	68.2	-6.09	35.4	12.36	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5587.525	59.46	60.36	68.2	-8.74	34.71	10.62	46.23	200	255	Peak
6019.3	62.37	60.89	68.2	-5.83	35.22	12.36	46.1	200	255	Peak

CH 151

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	95.82	95.35	/	/	35.15	11.49	46.17	105	170	Peak
5795	89.16	88.69	/	/	35.15	11.49	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	92.89	92.62	/	/	34.95	11.49	46.17	100	255	Peak
5795	85.98	85.71	/	/	34.95	11.49	46.17	100	255	Average

REMARKS:

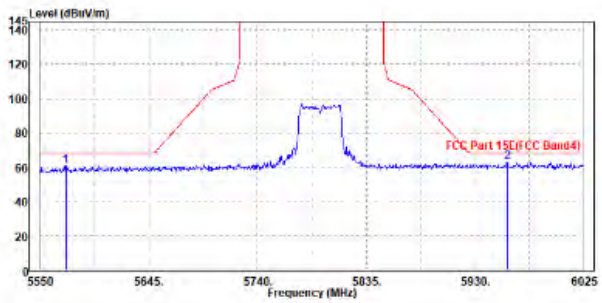
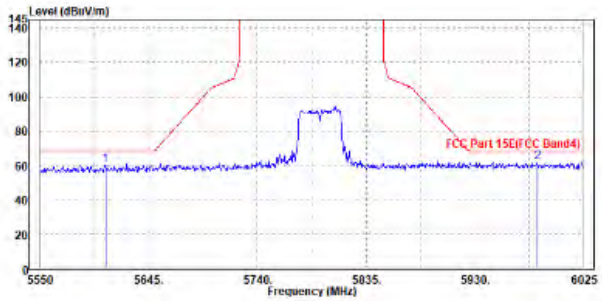
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

OOBE DATA

802.11n (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5572.325	60.65	61.43	68.2	-7.55	34.89	10.56	46.23	205	170	Peak
5958.5	62.73	61.32	68.2	-5.47	35.35	12.18	46.12	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5607	60	60.79	68.2	-8.2	34.73	10.7	46.22	200	255	Peak
5984.625	61.92	60.56	68.2	-6.28	35.18	12.29	46.11	200	255	Peak

CH 159

Horiontal	Vertical
	

802.11ac (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	99.73	99.54	/	/	35.09	11.28	46.18	105	170	Peak
5745	92.57	92.38	/	/	35.09	11.28	46.18	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5745	96.98	96.99	/	/	34.89	11.28	46.18	100	255	Peak
5745	90.23	90.24	/	/	34.89	11.28	46.18	100	255	Average

REMARKS:

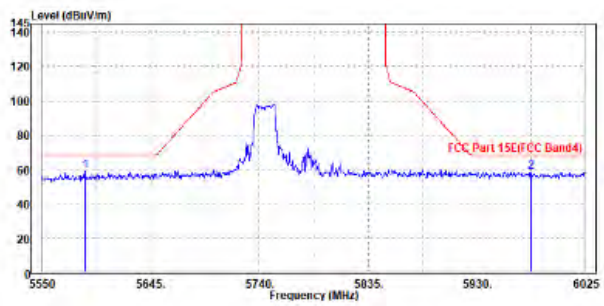
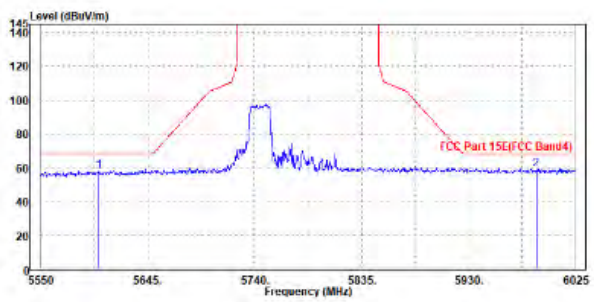
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5587.525	59.06	59.76	68.2	-9.14	34.91	10.62	46.23	205	170	Peak
5977.5	58.26	56.75	68.2	-9.94	35.37	12.26	46.12	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5601.3	58.09	58.91	68.2	-10.11	34.72	10.68	46.22	200	255	Peak
5990.325	59.24	57.85	68.2	-8.96	35.19	12.31	46.11	200	255	Peak

CH 149

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	102	101.58	/	/	35.14	11.45	46.17	105	170	Peak
5785	93.42	93	/	/	35.14	11.45	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	96.15	95.93	/	/	34.94	11.45	46.17	100	255	Peak
5785	88.87	88.65	/	/	34.94	11.45	46.17	100	255	Average

REMARKS:

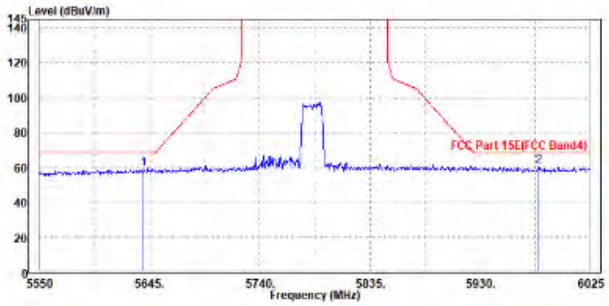
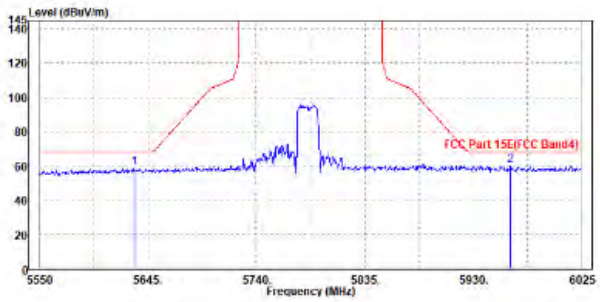
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5639.775	58.78	59.18	68.2	-9.42	34.97	10.84	46.21	200	0	Peak
5980.825	60.41	58.88	68.2	-7.79	35.38	12.27	46.12	200	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV /m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5632.65	59.12	59.76	68.2	-9.08	34.76	10.81	46.21	200	360	Peak
5962.775	59.83	58.6	68.2	-8.37	35.16	12.19	46.12	200	360	Peak

CH 157

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	101.51	100.86	/	/	35.19	11.62	46.16	105	170	Peak
5825	92.51	91.86	/	/	35.19	11.62	46.16	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5825	96.68	96.23	/	/	34.99	11.62	46.16	100	255	Peak
5825	90.12	89.67	/	/	34.99	11.62	46.16	100	255	Average

REMARKS:

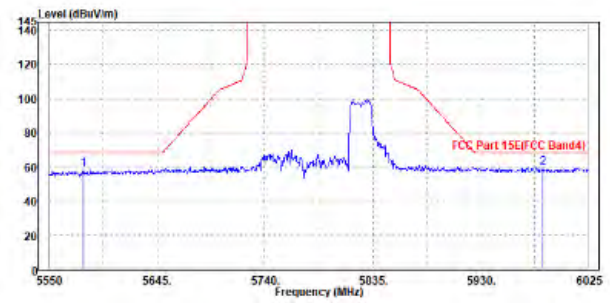
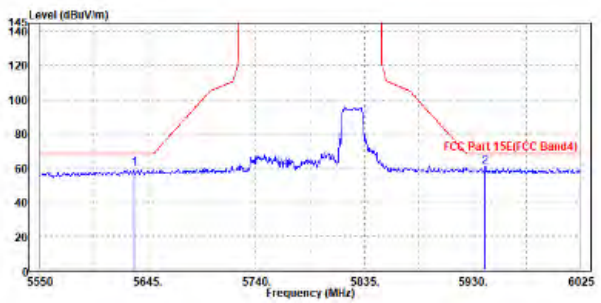
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

OOBE DATA

802.11ac (20MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5579.925	58.61	59.35	68.2	-9.59	34.9	10.59	46.23	205	170	Peak
5985.1	59.7	58.14	68.2	-8.5	35.38	12.29	46.11	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5632.65	59.39	60.03	68.2	-8.81	34.76	10.81	46.21	200	255	Peak
5941.4	60.49	59.39	68.2	-7.71	35.13	12.1	46.13	200	255	Peak

CH 165

Horiontal	Vertical
	

802.11ac (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	95.46	95.21	/	/	35.11	11.32	46.18	105	170	Peak
5755	89.99	89.74	/	/	35.11	11.32	46.18	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5755	92.85	92.8	/	/	34.91	11.32	46.18	100	255	Peak
5755	87.32	87.27	/	/	34.91	11.32	46.18	100	255	Average

REMARKS:

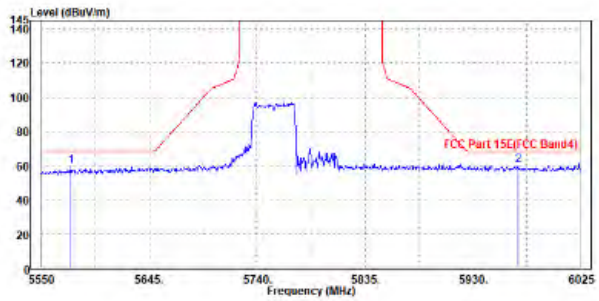
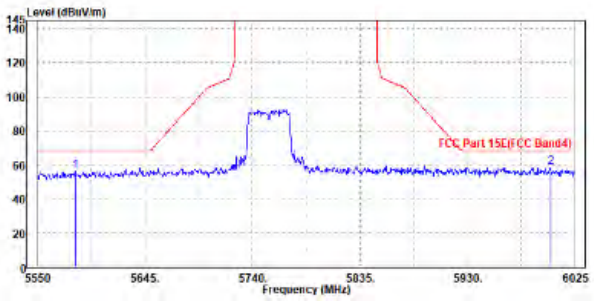
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

OOBE DATA

802.11ac (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5576.125	59.59	60.36	68.2	-8.61	34.89	10.57	46.23	205	170	Peak
5969.9	60.11	58.65	68.2	-8.09	35.36	12.22	46.12	205	170	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5583.25	56.2	57.13	68.2	-12	34.7	10.6	46.23	200	255	Peak
6003.625	58.44	57	68.2	-9.76	35.2	12.35	46.11	200	255	Peak

CH 151

Horiontal	Vertical
	

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	97.73	97.26	/	/	35.15	11.49	46.17	105	170	Peak
5795	90.05	89.58	/	/	35.15	11.49	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5795	91.37	91.1	/	/	34.95	11.49	46.17	100	255	Peak
5795	87.93	87.66	/	/	34.95	11.49	46.17	100	255	Average

REMARKS:

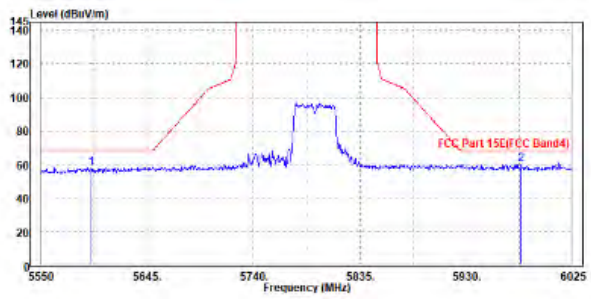
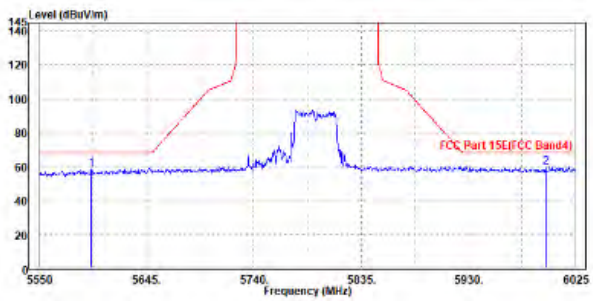
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

OOBE DATA

802.11ac (40MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5595.125	58.13	58.79	68.2	-10.07	34.91	10.65	46.22	200	0	Peak
5979.4	60.01	58.49	68.2	-8.19	35.38	12.26	46.12	200	0	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5596.075	58.55	59.39	68.2	-9.65	34.72	10.66	46.22	200	360	Peak
5998.875	59.67	58.23	68.2	-8.53	35.2	12.35	46.11	200	360	Peak

CH 159

Horiontal	Vertical
	

802.11ac (80MHz)

CHANNEL	TX Channel 155	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5775	93.93	93.56	/	/	35.13	11.41	46.17	105	170	Peak
5775	86.34	85.97	/	/	35.13	11.41	46.17	105	170	Average
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5775	87.81	87.64	/	/	34.93	11.41	46.17	100	255	Peak
5775	83.83	83.66	/	/	34.93	11.41	46.17	100	255	Average

REMARKS:

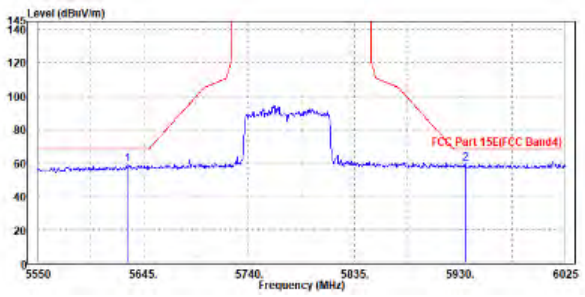
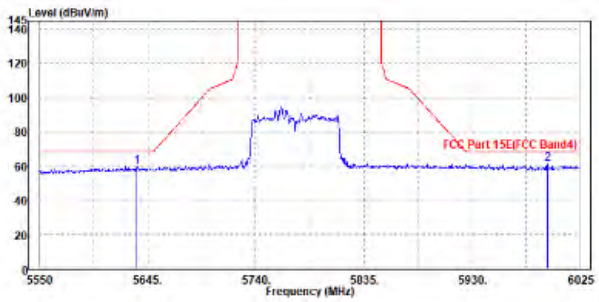
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5775MHz: Fundamental frequency.

OOBE DATA

802.11ac (80MHZ)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5630.275	58.86	59.31	68.2	-9.34	34.96	10.8	46.21	200	360	Peak
5935.7	59.78	58.51	68.2	-8.42	35.32	12.08	46.13	200	360	Peak
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5635.5	59.67	60.3	68.2	-8.53	34.76	10.82	46.21	200	0	Peak
5996.5	61.01	59.58	68.2	-7.19	35.2	12.34	46.11	200	0	Peak

CH 155

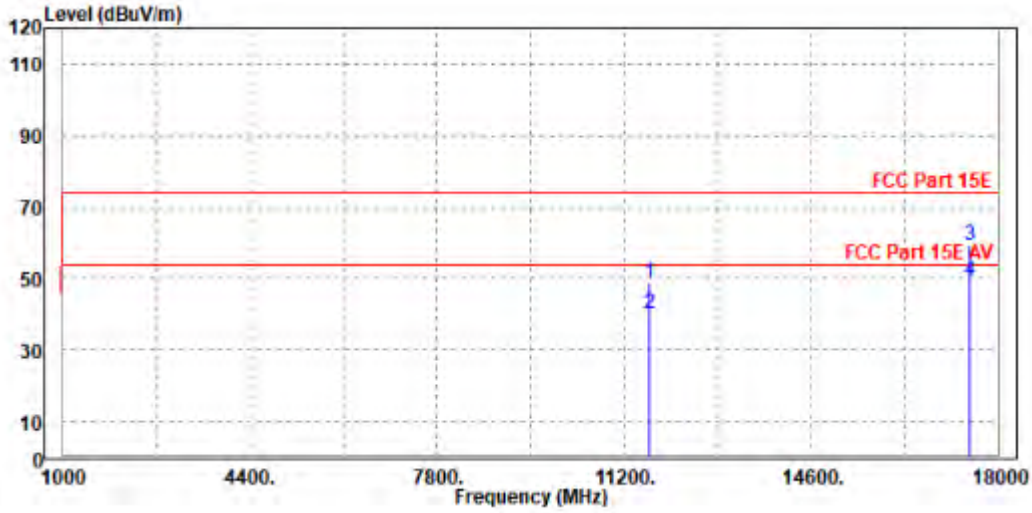
Horiontal	Vertical
	

Worst case harmonic:

CHANNEL	TX Channel 165	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

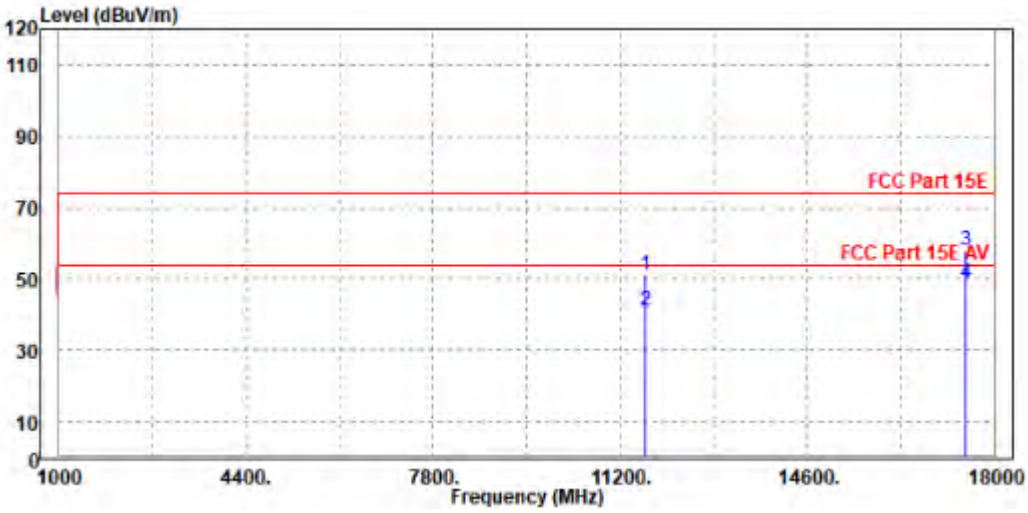
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11650.000	48.88	42.52	74.00	-25.12	6.36	Peak	Horizontal
2	11650.000	40.21	33.85	54.00	-13.79	6.36	Average	Horizontal
3	PK17475.000	59.15	42.98	74.00	-14.85	16.17	Peak	Horizontal
4	PP17475.000	49.42	33.25	54.00	-4.58	16.17	Average	Horizontal



ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11650.000	50.99	44.21	74.00	-23.01	6.78	Peak	Vertical
2	11650.000	40.99	34.21	54.00	-13.01	6.78	Average	Vertical
3	PK17475.000	58.12	42.99	74.00	-15.88	15.13	Peak	Vertical
4	PP17475.000	48.66	33.53	54.00	-5.34	15.13	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

3.2 CONDUCTED EMISSION MEASUREMENT

3.2.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

3.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR3	101900	Feb. 15,22	Feb. 14,23
EMC32 test software	Rohde&Schwarz	EMC32	NA	NA	NA
LISN network	Rohde&Schwarz	ENV216	101922	Mar. 04,22	Mar. 03,23

NOTE:
1. The test was performed in CE shielded room.
2. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

3.2.3 TEST PROCEDURES

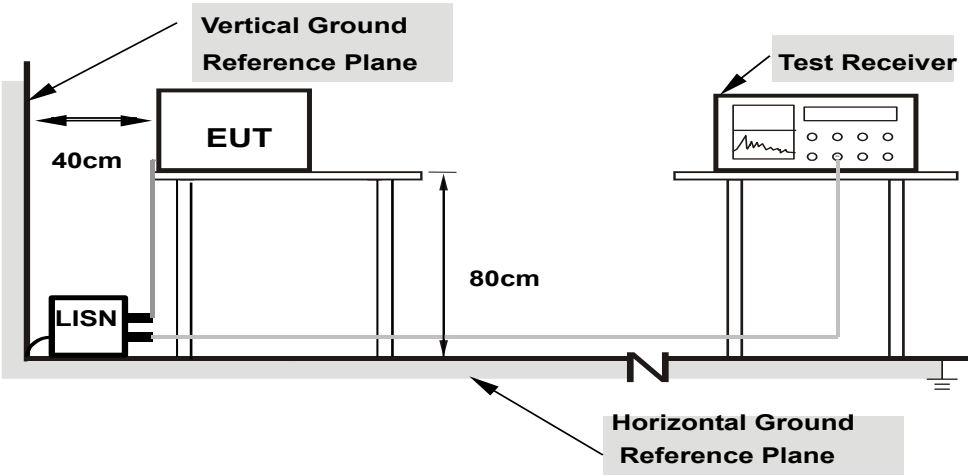
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

3.2.4 DEVIATION FROM TEST STANDARD

No deviation.

3.2.5 TEST SETUP



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

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

3.2.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.2.7 TEST RESULTS

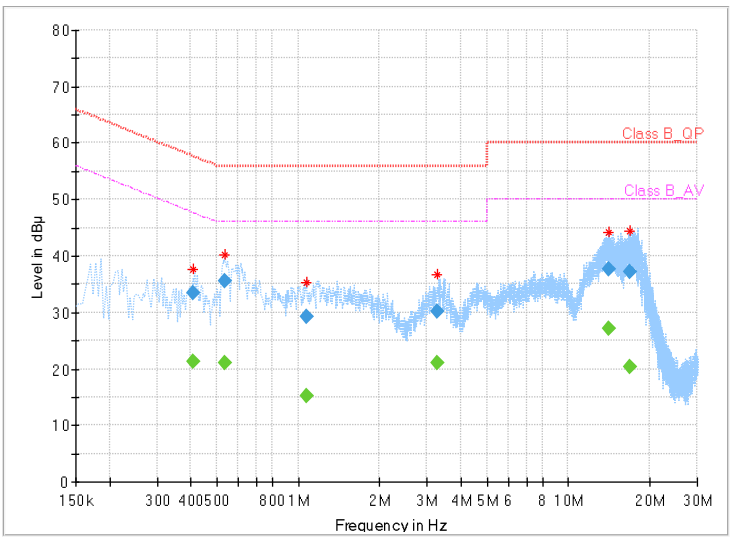
CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	24deg. C, 55%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.408000	---	21.25	47.69	26.44	L1	ON	9.7
0.408000	33.37	---	57.69	24.32	L1	ON	9.7
0.536000	---	21.17	46.00	24.83	L1	ON	9.7
0.536000	35.65	---	56.00	20.35	L1	ON	9.7
1.076000	---	15.19	46.00	30.81	L1	ON	9.7
1.076000	29.35	---	56.00	26.65	L1	ON	9.7
3.260000	---	20.96	46.00	25.04	L1	ON	9.7
3.260000	30.27	---	56.00	25.73	L1	ON	9.7
14.088000	---	27.17	50.00	22.83	L1	ON	9.8
14.088000	37.54	---	60.00	22.46	L1	ON	9.8
16.860000	---	20.45	50.00	29.55	L1	ON	9.8
16.860000	37.22	---	60.00	22.78	L1	ON	9.8

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

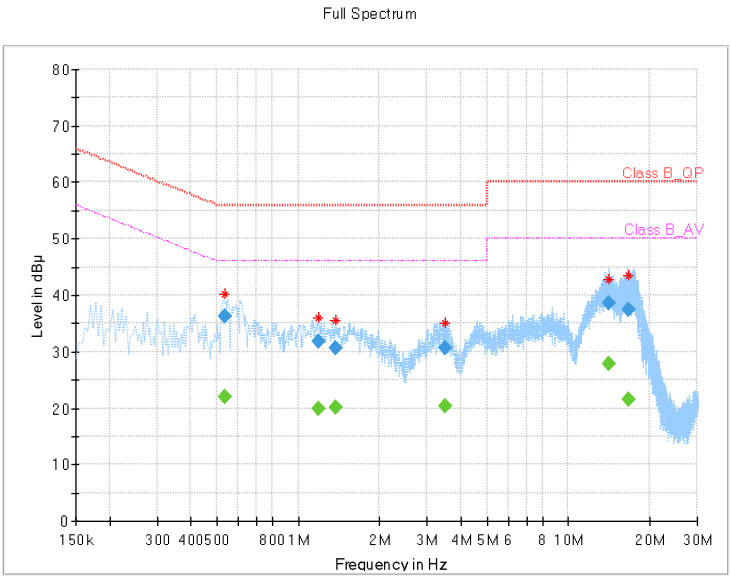
Full Spectrum



Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	24deg. C, 55%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.532000	---	22.10	46.00	23.90	N	ON	9.7
0.532000	36.17	---	56.00	19.83	N	ON	9.7
1.188000	---	19.87	46.00	26.13	N	ON	9.8
1.188000	31.80	---	56.00	24.20	N	ON	9.8
1.368000	---	20.09	46.00	25.91	N	ON	9.8
1.368000	30.71	---	56.00	25.29	N	ON	9.8
3.508000	---	20.45	46.00	25.55	N	ON	9.8
3.508000	30.59	---	56.00	25.41	N	ON	9.8
14.116000	---	27.84	50.00	22.16	N	ON	9.8
14.116000	38.51	---	60.00	21.49	N	ON	9.8
16.664000	---	21.43	50.00	28.57	N	ON	9.9
16.664000	37.40	---	60.00	22.60	N	ON	9.9

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



3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

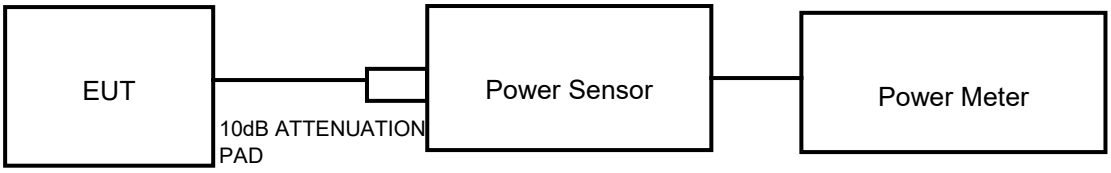
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	B	Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)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

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

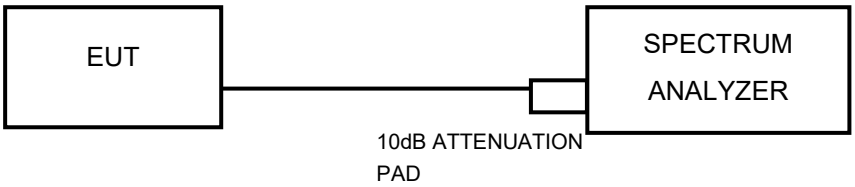
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

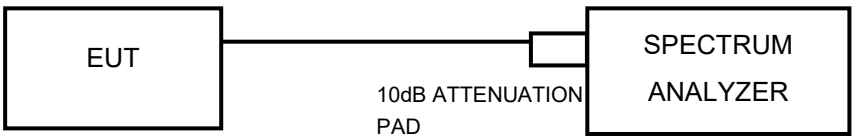
802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz) TEST CONFIGURATION



11ac TEST CONFIGURATION



FOR 26dB BANDWIDTH



3.3.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Meter	ANRITSU	ML2495A	1506002	Feb. 22,22	Feb. 21,23
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 18,22	Feb. 17,23
EXA Signal Analyzer	KEYSIGHT	N9010A-544	MY54510355	May.15,22	May.14,23
Power Sensor	ANRITSU	MA2411B	1339352	May. 06,22	May. 05,23

NOTE:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
2. The test was performed in RF Oven room.

3.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

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

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 802.11ac (80MHz)

1. Measure the duty cycle, x, of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW ≥ 3 MHz.
5. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
8. Do not use sweep triggering. Allow the sweep to “free run.”
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Add 10 log (1/x), where x is the duty cycle, to the measured power to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10 log (1/0.25) = 6 dB if the duty cycle is 25%.

FOR 99 PERCENT OCCUPIED BANDWIDTH

The following procedure shall be used for measuring (99 %) power bandwidth:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

FOR 26dB BANDWIDTH

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

FOR 6dB BANDWIDTH

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.3.5 DEVIATION FROM TEST STANDARD

No deviation.

3.3.6 EUT OPERATING CONDITIONS

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

3.3.7 TEST RESULTS

Please Refer to Appendix A/B. Of this test report.

3.4 MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

3.4.1 LIMITS OF MAXIMUM POWER SPECTRAL DENSITY MEASUREMENT

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

3.4.2 TEST SETUP

3.4.3 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.4.4 TEST PROCEDURES

Using method SA-2

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission).
7) Record the max value

3.4.5 DEVIATION FROM TEST STANDARD

No deviation.

3.4.6 EUT OPERATING CONDITIONS

Same as 3.1.7.

3.4.7 TEST RESULTS

Please Refer to Appendix A/B. Of this test report.

3.5 AUTOMATICALLY DISCONTINUE TRANSMISSION

3.5.1 LIMIT OF AUTOMATICALLY DISCONTINUE TRANSMISSION

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signalling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization a description of how this requirement is met.

3.5.2 TEST INSTRUMENTS

Refer to section 3.3.3 to get information of above instrument.

3.5.3 TEST RESULT

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving。 The EUT can detect the controlling of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission

4 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

5 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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

6 APPENDIX A

EMISSION BANDWIDTH

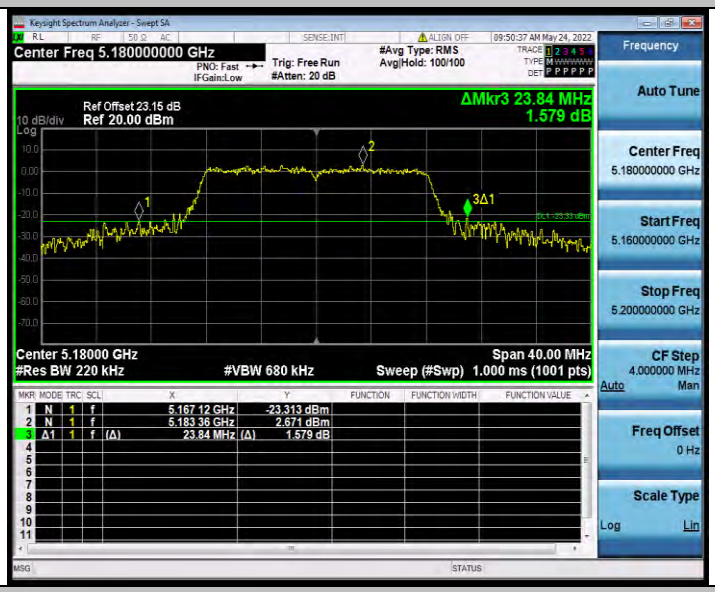
TEST RESULT

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	23.840	5167.120	5190.960	---	---
		5200	22.600	5188.920	5211.520	---	---
		5240	21.360	5229.040	5250.400	---	---
		5260	27.440	5245.600	5273.040	---	---
		5300	26.440	5287.160	5313.600	---	---
		5320	24.760	5308.360	5333.120	---	---
		5500	24.600	5486.320	5510.920	---	---
		5580	25.000	5567.160	5592.160	---	---
		5700	24.760	5687.480	5712.240	---	---
		5745	25.320	5730.240	5755.560	---	---
		5785	25.280	5773.200	5798.480	---	---
		5825	24.200	5813.280	5837.480	---	---
11N20SISO	Ant1	5180	26.280	5166.520	5192.800	---	---
		5200	30.120	5184.800	5214.920	---	---
		5240	28.960	5226.560	5255.520	---	---
		5260	24.520	5247.760	5272.280	---	---
		5300	23.720	5288.480	5312.200	---	---
		5320	25.360	5308.320	5333.680	---	---
		5500	27.840	5487.920	5515.760	---	---
		5580	26.080	5568.240	5594.320	---	---
		5700	31.320	5684.040	5715.360	---	---
		5745	28.000	5732.360	5760.360	---	---
		5785	27.360	5771.000	5798.360	---	---
		5825	29.200	5810.880	5840.080	---	---
11N40SISO	Ant1	5190	43.600	5170.240	5213.840	---	---
		5230	46.720	5208.400	5255.120	---	---
		5270	40.240	5250.400	5290.640	---	---
		5310	44.240	5286.400	5330.640	---	---
		5510	42.480	5488.160	5530.640	---	---
		5550	40.560	5529.200	5569.760	---	---
		5670	40.080	5650.240	5690.320	---	---

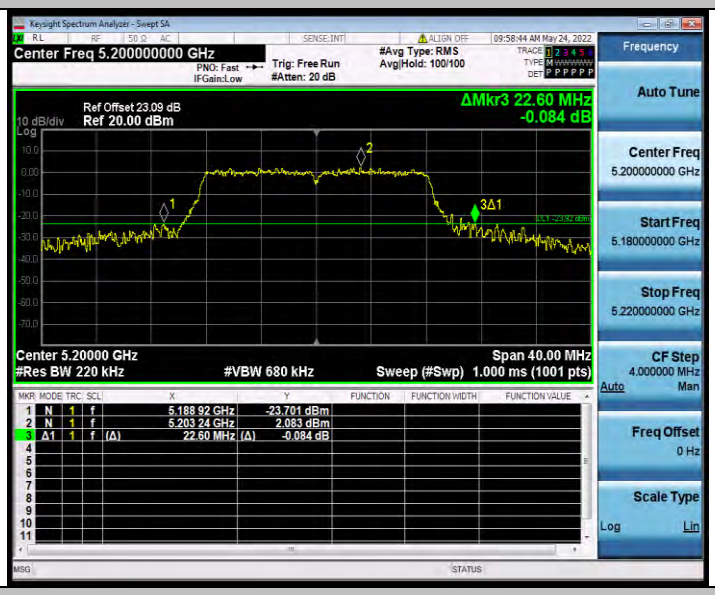
		5755	42.160	5732.760	5774.920	---	---
		5795	43.200	5773.960	5817.160	---	---
11AC20SISO	Ant1	5180	29.160	5164.200	5193.360	---	---
		5200	27.200	5187.040	5214.240	---	---
		5240	30.320	5226.880	5257.200	---	---
		5260	29.800	5243.520	5273.320	---	---
		5300	26.680	5287.000	5313.680	---	---
		5320	25.720	5307.200	5332.920	---	---
		5500	28.400	5486.320	5514.720	---	---
		5580	32.360	5563.160	5595.520	---	---
		5700	29.240	5684.480	5713.720	---	---
		5745	29.960	5728.560	5758.520	---	---
		5785	28.080	5771.160	5799.240	---	---
		5825	26.920	5811.800	5838.720	---	---
11AC40SISO	Ant1	5190	45.520	5167.200	5212.720	---	---
		5230	47.840	5208.080	5255.920	---	---
		5270	46.480	5245.920	5292.400	---	---
		5310	46.400	5287.440	5333.840	---	---
		5510	41.760	5487.920	5529.680	---	---
		5550	45.120	5524.480	5569.600	---	---
		5670	42.480	5649.760	5692.240	---	---
		5755	49.120	5730.760	5779.880	---	---
		5795	46.080	5773.400	5819.480	---	---
11AC80SISO	Ant1	5210	83.520	5169.840	5253.360	---	---
		5290	83.520	5250.640	5334.160	---	---
		5530	84.960	5488.080	5573.040	---	---
		5610	82.400	5568.560	5650.960	---	---
		5775	83.040	5734.520	5817.560	---	---

TEST GRAPHS

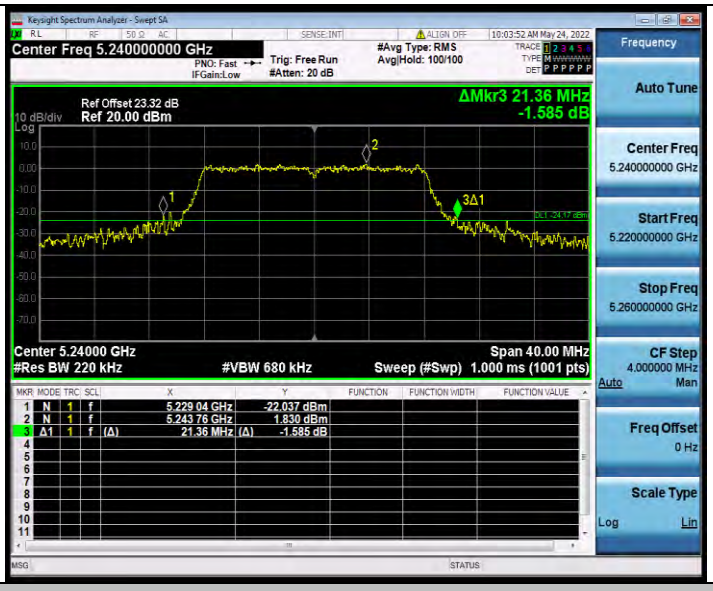
11A_Ant1_5180



11A_Ant1_5200



11A_Ant1_5240



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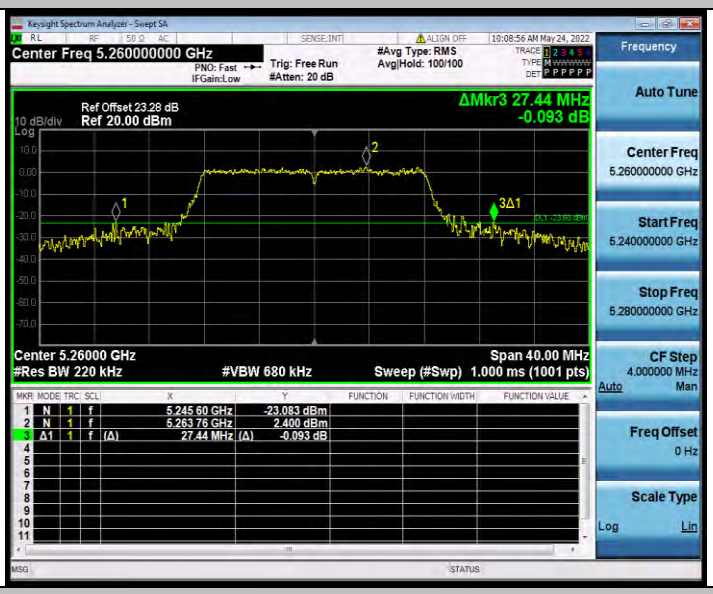

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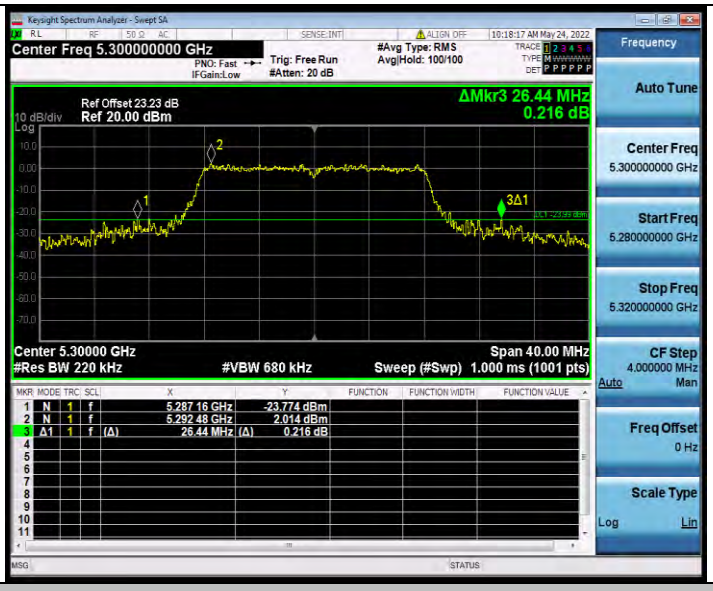

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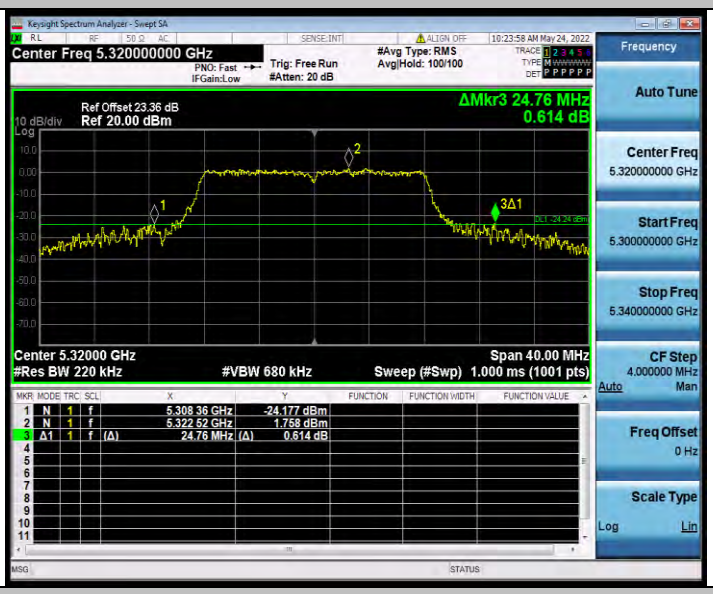

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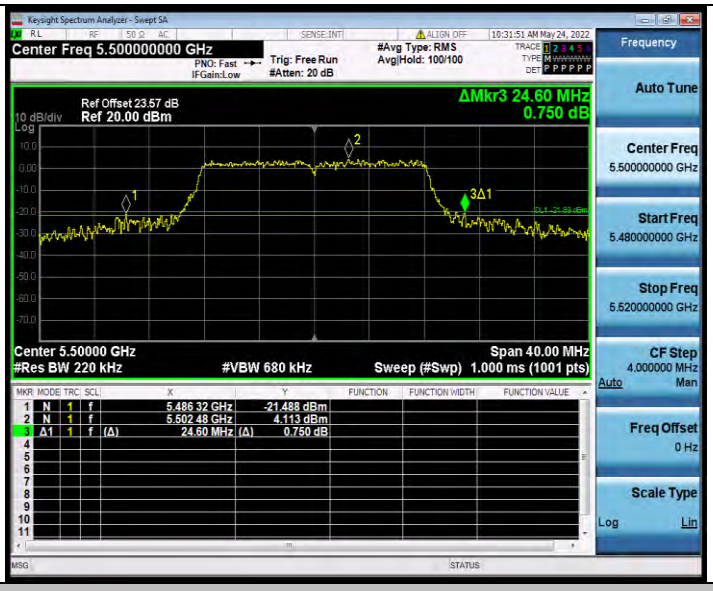

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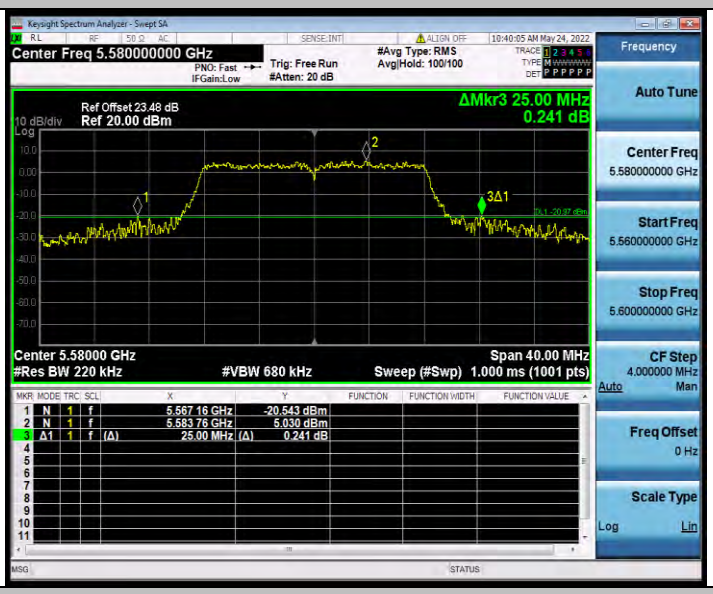

11A_Ant1_5700