ACCREDITED
Certificate # 3939.01

VARIANT 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-1487
FCC ID:	2AJOTTA-1487
Date of tests:	Aug. 03, 2022 ~ Sep. 16, 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 Wang Date: Sep. 16, 2022	Luke Lu Date: Sep. 16, 2022

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
W7L-P22070038RF03	Original release	Aug. 31, 2022
W7L-P22070039RF03	Based on the original product remove WWAN components, change model name, verify CE, Power(Spot Check) and RSE worst case (802.11ac (80MHz) CH42).other test data is copied from the original test report W7L-P22070038RF03.	Sep. 16, 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 datas of 802.11a & 802.11n/ac (20/40) & 802.11ac 80 please refer to the appendix.

2. Only the worest data were reported

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 (9KHz-30MHz)	±2.16 dB
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-1487
NOMINAL VOLTAGE	5.0Vdc(adapter or host equipment) 3.85Vdc (Li-ion, battery)
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) 2 for 802.11n/ac (40MHz) 1 for 802.11ac (80MHz)
AVERAGE POWER	38.73mW for 5180 ~ 5240MHz 35.24mW for 5260 ~ 5320MHz 41.88mW for 5500 ~ 5720MHz 37.24mW for 5745 ~ 5825MHz
ANTENNA TYPE	PIFA Antenna
ANTENNA GAIN	-0.24 dBi for 5180 ~ 5240MHz -0.24 dBi for 5260 ~ 5320MHz -0.24 dBi for 5500 ~ 5720MHz -0.24 dBi for 5745 ~ 5825MHz
HW VERSION	EM_U1630_V1.2 L20
SW VERSION	V0.492_B01

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	Guangdong Fenghua New Energy Co., Ltd.	WTT80	Capacity：3.8 Vdc, 8000mAh
AC Adapter	NOKIA	Shenzhen Baijunda Electronic Co., Ltd	AD-010U	I/P: 100-240Vac, 0.35A, O/P: 5.0Vdc, 2.0A
Earphone	NOKIA	JUWEI ELECTRONICS CO., LTD	JWEP1242-W09 H	Signal Line, 1.5meter
USB Cable	NOKIA	Saibao (Jiangxi) Industrial Co., Ltd	AC-2A	Signal Line, 1.0meter

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755 MHz	159	5795 MHz

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

CHANNEL	FREQUENCY
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	149 to 165	149, 157,165	OFDM	6.0
A	802.11an/ac (20MHz)		149 to 165	149, 157,165	OFDM	MCS0
A	802.11an/ac (40MHz)		151 to 159	151, 159	OFDM	MCS0
A	802.11ac (80MHz)		155	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. Of this test report.

WORST-CASE DATA:

Measured Duty Cycle		
Mode		Duty Cycle [%]
		ANT1
5GHZ	11a	89.10
	11n20	87.41
	11n40	76.47
	11ac20	87.50
	11ac40	75.64
	11ac80	61.22

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

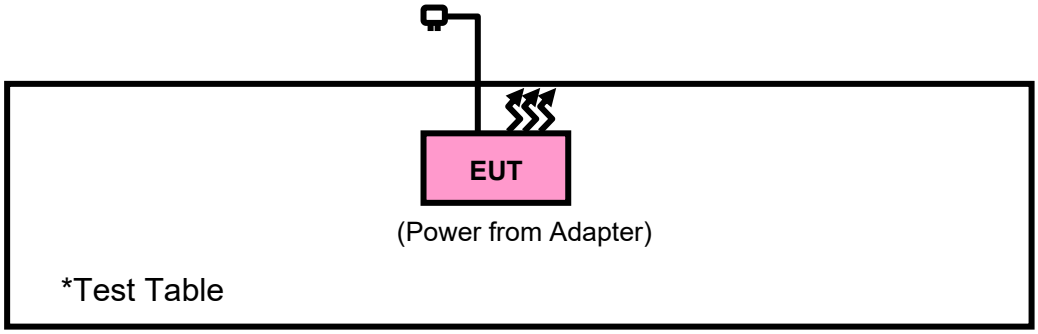
2.4 DESCRIPTION OF SUPPORT UNITS

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
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40-K-SG/QMS-00361	15433	Aug. 24, 22	Aug. 23, 23
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. 02,22	Jun. 01,23
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 21,22	Feb. 20,23
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
DC Source	Kikusui/JP	PMX18-5A	0000001	Aug. 24,22	Aug. 23,23
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
Loop Antenna	Schwarzbeck	FMZB 1519B	00173	Sep. 04,22	Sep. 03,23

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:

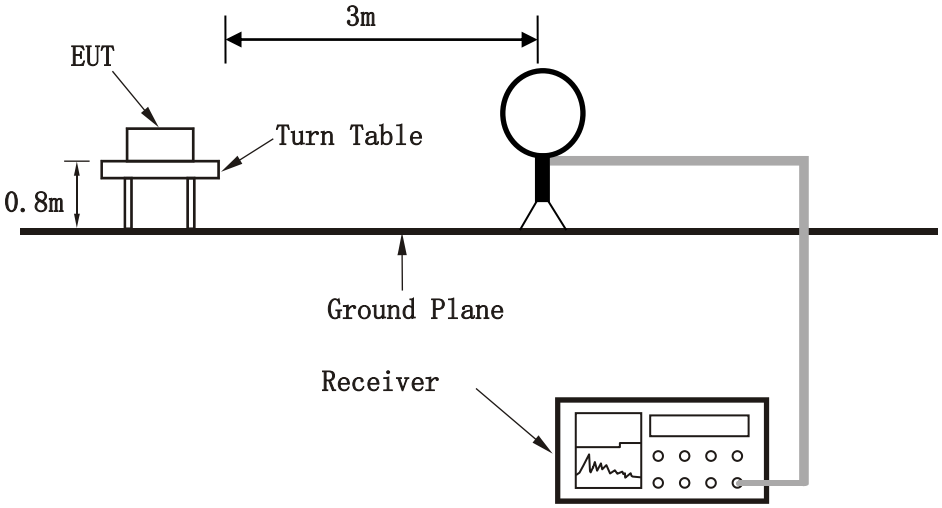
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency 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

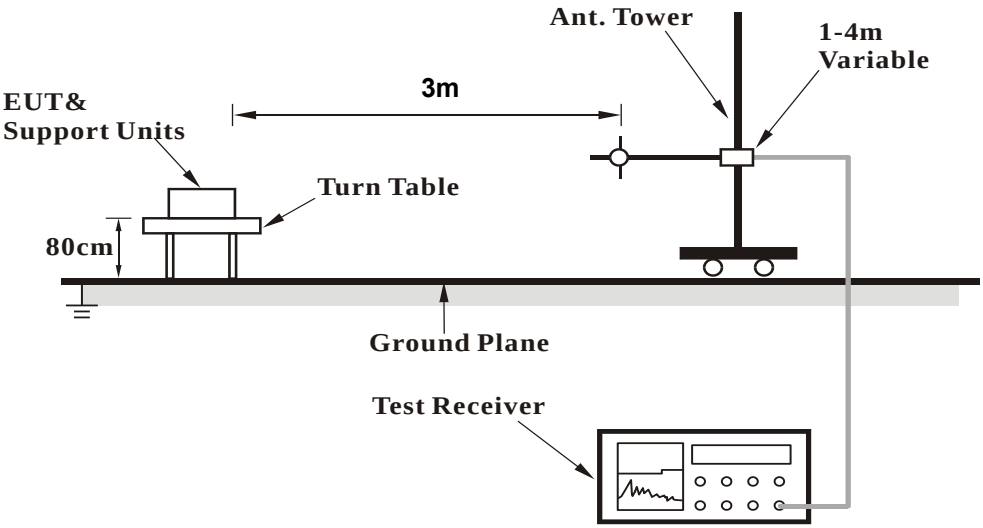
No deviation.

3.1.6 TEST SETUP

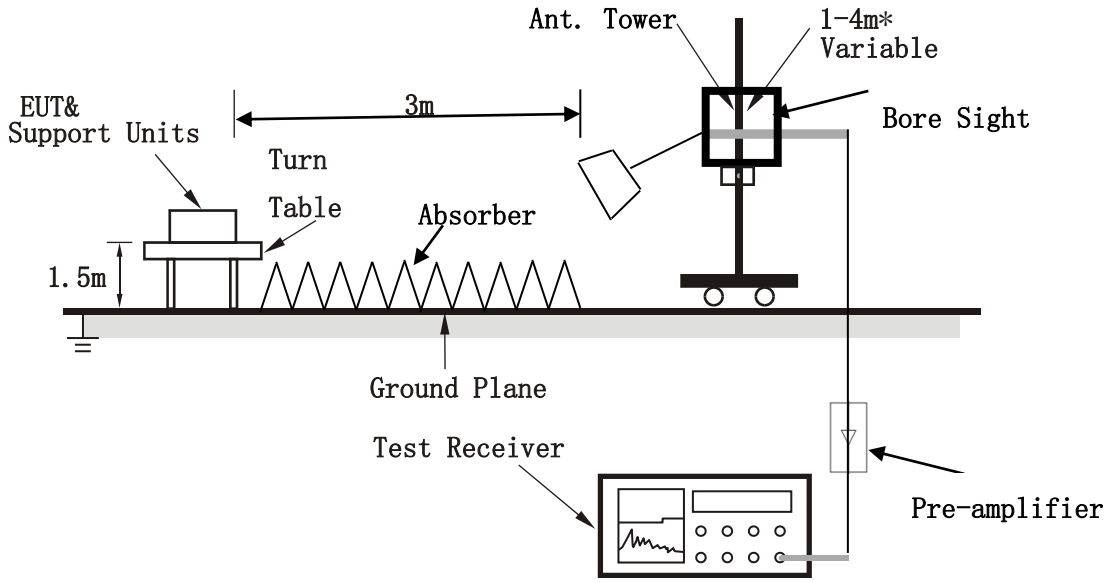
<Frequency Range 9KHz~30MHz >



< 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

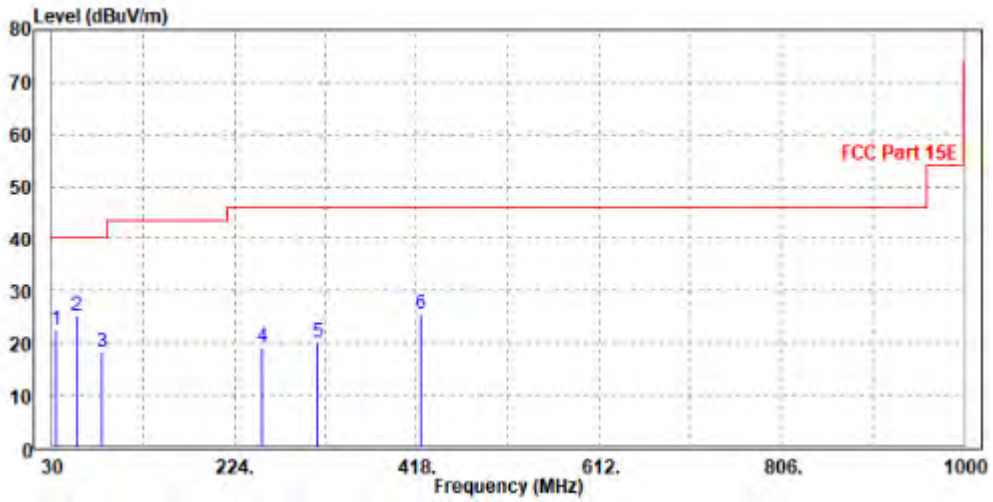
802.11ac (80MHz)

CHANNEL	TX Channel 42	**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	22.52	40.5	40	-17.48	19.07	0.33	37.38	169	0	QP
56.19	25.35	52.3	40	-14.65	9.58	0.43	36.96	113	143	QP
82.38	18.13	46.61	40	-21.87	7.99	0.5	36.97	188	340	QP
253.1	19.11	41.01	46	-26.89	13.53	0.84	36.27	139	89	QP
313.24	20.17	41.23	46	-25.83	14.29	0.93	36.28	152	267	QP
422.85	25.54	44.27	46	-20.46	16.63	1.11	36.47	107	117	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.

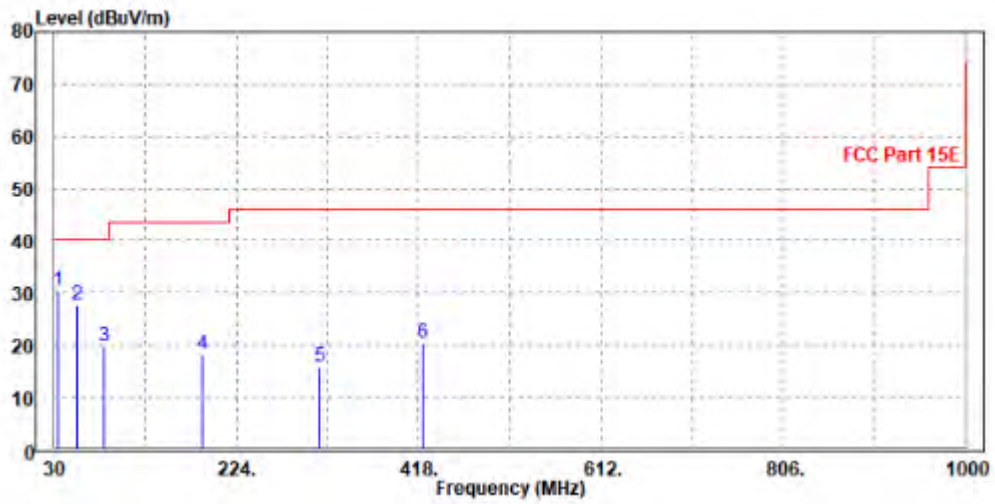


CHANNEL	Channel 42	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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	30.45	49.14	40	-9.55	18.36	0.33	37.38	126	50	QP
55.22	27.57	54.98	40	-12.43	9.13	0.43	36.97	137	20	QP
82.38	19.69	48.32	40	-20.31	7.84	0.5	36.97	116	256	QP
188.11	18.29	42.6	43.5	-25.21	11.32	0.72	36.35	186	243	QP
312.27	15.8	36.87	46	-30.2	14.28	0.93	36.28	197	17	QP
422.85	20.27	39.03	46	-25.73	16.6	1.11	36.47	191	192	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	58.11	59.18	74	-15.89	34.52	9.92	45.51	100	290	Peak
5150	50.17	51.24	54	-3.83	34.52	9.92	45.51	100	290	Average
5180	102.78	103.84	/	/	34.54	9.91	45.51	100	290	Peak
5180	95.45	96.51	/	/	34.54	9.91	45.51	100	290	Average
5350	53.63	54.61	74	-20.37	34.68	9.85	45.51	100	290	Peak
5350	47.15	48.13	54	-6.85	34.68	9.85	45.51	100	290	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	54.62	55.61	74	-19.38	34.6	9.92	45.51	100	140	Peak
5150	49.44	50.43	54	-4.56	34.6	9.92	45.51	100	140	Average
5180	97.23	98.23	/	/	34.6	9.91	45.51	100	140	Peak
5180	89.87	90.87	/	/	34.6	9.91	45.51	100	140	Average
5350	53.01	54.07	74	-20.99	34.6	9.85	45.51	100	140	Peak
5350	46.92	47.98	54	-7.08	34.6	9.85	45.51	100	140	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	54.22	55.29	74	-19.78	34.52	9.92	45.51	100	290	Peak
5150	48.58	49.65	54	-5.42	34.52	9.92	45.51	100	290	Average
5200	102.55	103.6	/	/	34.56	9.9	45.51	100	290	Peak
5200	95.42	96.47	/	/	34.56	9.9	45.51	100	290	Average
5350	53.61	54.59	74	-20.39	34.68	9.85	45.51	100	290	Peak
5350	47.24	48.22	54	-6.76	34.68	9.85	45.51	100	290	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	56.23	57.22	74	-17.77	34.6	9.92	45.51	100	140	Peak
5150	48.74	49.73	54	-5.26	34.6	9.92	45.51	100	140	Average
5200	97.16	98.17	/	/	34.6	9.9	45.51	100	140	Peak
5200	90.61	91.62	/	/	34.6	9.9	45.51	100	140	Average
5350	53.44	54.5	74	-20.56	34.6	9.85	45.51	100	140	Peak
5350	47.13	48.19	54	-6.87	34.6	9.85	45.51	100	140	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	55.93	57	74	-18.07	34.52	9.92	45.51	100	290	Peak
5150	48.6	49.67	54	-5.4	34.52	9.92	45.51	100	290	Average
5240	103.02	104.05	/	/	34.59	9.89	45.51	100	290	Peak
5240	95.46	96.49	/	/	34.59	9.89	45.51	100	290	Average
5350	53.5	54.48	74	-20.5	34.68	9.85	45.51	100	290	Peak
5350	47.29	48.27	54	-6.71	34.68	9.85	45.51	100	290	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	54.75	55.74	74	-19.25	34.6	9.92	45.51	100	140	Peak
5150	48.74	49.73	54	-5.26	34.6	9.92	45.51	100	140	Average
5240	96.87	97.89	/	/	34.6	9.89	45.51	100	140	Peak
5240	90.1	91.12	/	/	34.6	9.89	45.51	100	140	Average
5350	53.5	54.56	74	-20.5	34.6	9.85	45.51	100	140	Peak
5350	47.3	48.36	54	-6.7	34.6	9.85	45.51	100	140	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	56.97	58.04	74	-17.03	34.52	9.92	45.51	100	290	Peak
5150	50.67	51.74	54	-3.33	34.52	9.92	45.51	100	290	Average
5180	103.66	104.72	/	/	34.54	9.91	45.51	100	290	Peak
5180	95.5	96.56	/	/	34.54	9.91	45.51	100	290	Average
5350	55.01	55.99	74	-18.99	34.68	9.85	45.51	100	290	Peak
5350	47.1	48.08	54	-6.9	34.68	9.85	45.51	100	290	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	56.21	57.2	74	-17.79	34.6	9.92	45.51	100	140	Peak
5150	49.77	50.76	54	-4.23	34.6	9.92	45.51	100	140	Average
5180	98.05	99.05	/	/	34.6	9.91	45.51	100	140	Peak
5180	89.89	90.89	/	/	34.6	9.91	45.51	100	140	Average
5350	53.21	54.27	74	-20.79	34.6	9.85	45.51	100	140	Peak
5350	47.39	48.45	54	-6.61	34.6	9.85	45.51	100	140	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	56.14	57.21	74	-17.86	34.52	9.92	45.51	100	290	Peak
5150	48.85	49.92	54	-5.15	34.52	9.92	45.51	100	290	Average
5200	103.02	104.07	/	/	34.56	9.9	45.51	100	290	Peak
5200	95.21	96.26	/	/	34.56	9.9	45.51	100	290	Average
5350	55.49	56.47	74	-18.51	34.68	9.85	45.51	100	290	Peak
5350	47.08	48.06	54	-6.92	34.68	9.85	45.51	100	290	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	55.53	56.52	74	-18.47	34.6	9.92	45.51	100	140	Peak
5150	49	49.99	54	-5	34.6	9.92	45.51	100	140	Average
5200	98.46	99.47	/	/	34.6	9.9	45.51	100	140	Peak
5200	91.32	92.33	/	/	34.6	9.9	45.51	100	140	Average
5350	53.55	54.61	74	-20.45	34.6	9.85	45.51	100	140	Peak
5350	47.13	48.19	54	-6.87	34.6	9.85	45.51	100	140	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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	55.33	56.4	74	-18.67	34.52	9.92	45.51	100	290	Peak
5150	48.53	49.6	54	-5.47	34.52	9.92	45.51	100	290	Average
5240	103.11	104.14	/	/	34.59	9.89	45.51	100	290	Peak
5240	95.14	96.17	/	/	34.59	9.89	45.51	100	290	Average
5350	54.47	55.45	74	-19.53	34.68	9.85	45.51	100	290	Peak
5350	47.13	48.11	54	-6.87	34.68	9.85	45.51	100	290	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	55.92	56.91	74	-18.08	34.6	9.92	45.51	100	140	Peak
5150	48.8	49.79	54	-5.2	34.6	9.92	45.51	100	140	Average
5240	98.82	99.84	/	/	34.6	9.89	45.51	100	140	Peak
5240	90.85	91.87	/	/	34.6	9.89	45.51	100	140	Average
5350	55.07	56.13	74	-18.93	34.6	9.85	45.51	100	140	Peak
5350	47.27	48.33	54	-6.73	34.6	9.85	45.51	100	140	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	55.7	56.77	74	-18.3	34.52	9.92	45.51	100	290	Peak
5150	50.8	51.87	54	-3.2	34.52	9.92	45.51	100	290	Average
5190	97.41	98.46	/	/	34.55	9.91	45.51	100	290	Peak
5190	90.34	91.39	/	/	34.55	9.91	45.51	100	290	Average
5350	54.91	55.89	74	-19.09	34.68	9.85	45.51	100	290	Peak
5350	47.48	48.46	54	-6.52	34.68	9.85	45.51	100	290	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	57.01	58	74	-16.99	34.6	9.92	45.51	100	140	Peak
5150	49.26	50.25	54	-4.74	34.6	9.92	45.51	100	140	Average
5190	93.1	94.1	/	/	34.6	9.91	45.51	100	140	Peak
5190	86.31	87.31	/	/	34.6	9.91	45.51	100	140	Average
5350	53.57	54.63	74	-20.43	34.6	9.85	45.51	100	140	Peak
5350	47.08	48.14	54	-6.92	34.6	9.85	45.51	100	140	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	55.8	56.87	74	-18.2	34.52	9.92	45.51	100	290	Peak
5150	48.99	50.06	54	-5.01	34.52	9.92	45.51	100	290	Average
5230	98.05	99.09	/	/	34.58	9.89	45.51	100	290	Peak
5230	90.99	92.03	/	/	34.58	9.89	45.51	100	290	Average
5350	53.08	54.06	74	-20.92	34.68	9.85	45.51	100	290	Peak
5350	47.31	48.29	54	-6.69	34.68	9.85	45.51	100	290	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	55.57	56.56	74	-18.43	34.6	9.92	45.51	100	140	Peak
5150	48.63	49.62	54	-5.37	34.6	9.92	45.51	100	140	Average
5230	94.33	95.35	/	/	34.6	9.89	45.51	100	140	Peak
5230	87.36	88.38	/	/	34.6	9.89	45.51	100	140	Average
5350	54.57	55.63	74	-19.43	34.6	9.85	45.51	100	140	Peak
5350	47.57	48.63	54	-6.43	34.6	9.85	45.51	100	140	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	58.6	59.67	74	-15.4	34.52	9.92	45.51	100	305	Peak
5150	50.58	51.65	54	-3.42	34.52	9.92	45.51	100	305	Average
5180	104.07	105.13	/	/	34.54	9.91	45.51	100	305	Peak
5180	96.22	97.28	/	/	34.54	9.91	45.51	100	305	Average
5350	54.12	55.1	74	-19.88	34.68	9.85	45.51	100	305	Peak
5350	47.37	48.35	54	-6.63	34.68	9.85	45.51	100	305	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	55.79	56.78	74	-18.21	34.6	9.92	45.51	100	142	Peak
5150	49.47	50.46	54	-4.53	34.6	9.92	45.51	100	142	Average
5180	99.79	100.79	/	/	34.6	9.91	45.51	100	142	Peak
5180	90.72	91.72	/	/	34.6	9.91	45.51	100	142	Average
5350	53.68	54.74	74	-20.32	34.6	9.85	45.51	100	142	Peak
5350	47.3	48.36	54	-6.7	34.6	9.85	45.51	100	142	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	55.98	57.05	74	-18.02	34.52	9.92	45.51	100	305	Peak
5150	49.35	50.42	54	-4.65	34.52	9.92	45.51	100	305	Average
5200	103.86	104.91	/	/	34.56	9.9	45.51	100	305	Peak
5200	95.87	96.92	/	/	34.56	9.9	45.51	100	305	Average
5350	53.15	54.13	74	-20.85	34.68	9.85	45.51	100	305	Peak
5350	47.63	48.61	54	-6.37	34.68	9.85	45.51	100	305	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	56.52	57.51	74	-17.48	34.6	9.92	45.51	100	142	Peak
5150	49.13	50.12	54	-4.87	34.6	9.92	45.51	100	142	Average
5200	99.03	100.04	/	/	34.6	9.9	45.51	100	142	Peak
5200	90.64	91.65	/	/	34.6	9.9	45.51	100	142	Average
5350	54.28	55.34	74	-19.72	34.6	9.85	45.51	100	142	Peak
5350	47.53	48.59	54	-6.47	34.6	9.85	45.51	100	142	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	54.99	56.06	74	-19.01	34.52	9.92	45.51	100	305	Peak
5150	48.85	49.92	54	-5.15	34.52	9.92	45.51	100	305	Average
5240	103.76	104.79	/	/	34.59	9.89	45.51	100	305	Peak
5240	95.02	96.05	/	/	34.59	9.89	45.51	100	305	Average
5350	54.99	55.97	74	-19.01	34.68	9.85	45.51	100	305	Peak
5350	47.49	48.47	54	-6.51	34.68	9.85	45.51	100	305	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	56.85	57.84	74	-17.15	34.6	9.92	45.51	100	142	Peak
5150	49.01	50	54	-4.99	34.6	9.92	45.51	100	142	Average
5240	97.45	98.47	/	/	34.6	9.89	45.51	100	142	Peak
5240	89.22	90.24	/	/	34.6	9.89	45.51	100	142	Average
5350	53.16	54.22	74	-20.84	34.6	9.85	45.51	100	142	Peak
5350	47.32	48.38	54	-6.68	34.6	9.85	45.51	100	142	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	55.85	56.92	74	-18.15	34.52	9.92	45.51	100	305	Peak
5150	50.83	51.9	54	-3.17	34.52	9.92	45.51	100	305	Average
5190	98.18	99.23	/	/	34.55	9.91	45.51	100	305	Peak
5190	91.2	92.25	/	/	34.55	9.91	45.51	100	305	Average
5350	55.66	56.64	74	-18.34	34.68	9.85	45.51	100	305	Peak
5350	47.46	48.44	54	-6.54	34.68	9.85	45.51	100	305	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	57.83	58.82	74	-16.17	34.6	9.92	45.51	100	142	Peak
5150	49.74	50.73	54	-4.26	34.6	9.92	45.51	100	142	Average
5190	92.11	93.11	/	/	34.6	9.91	45.51	100	142	Peak
5190	85.5	86.5	/	/	34.6	9.91	45.51	100	142	Average
5350	53.5	54.56	74	-20.5	34.6	9.85	45.51	100	142	Peak
5350	47.21	48.27	54	-6.79	34.6	9.85	45.51	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	54.69	55.76	74	-19.31	34.52	9.92	45.51	100	305	Peak
5150	49.14	50.21	54	-4.86	34.52	9.92	45.51	100	305	Average
5230	97.95	98.99	/	/	34.58	9.89	45.51	100	305	Peak
5230	91.19	92.23	/	/	34.58	9.89	45.51	100	305	Average
5350	53.22	54.2	74	-20.78	34.68	9.85	45.51	100	305	Peak
5350	47.09	48.07	54	-6.91	34.68	9.85	45.51	100	305	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	55.16	56.15	74	-18.84	34.6	9.92	45.51	100	142	Peak
5150	49.29	50.28	54	-4.71	34.6	9.92	45.51	100	142	Average
5230	91.75	92.77	/	/	34.6	9.89	45.51	100	142	Peak
5230	85.34	86.36	/	/	34.6	9.89	45.51	100	142	Average
5350	54.47	55.53	74	-19.53	34.6	9.85	45.51	100	142	Peak
5350	47.35	48.41	54	-6.65	34.6	9.85	45.51	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 (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	56.88	57.95	74	-17.12	34.52	9.92	45.51	100	240	Peak
5150	50.85	51.92	54	-3.15	34.52	9.92	45.51	100	240	Average
5210	92.25	93.29	/	/	34.57	9.9	45.51	100	240	Peak
5210	84.75	85.79	/	/	34.57	9.9	45.51	100	240	Average
5350	53.26	54.24	74	-20.74	34.68	9.85	45.51	100	240	Peak
5350	47.82	48.8	54	-6.18	34.68	9.85	45.51	100	240	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	53.96	54.95	74	-20.04	34.6	9.92	45.51	100	140	Peak
5150	49.63	50.62	54	-4.37	34.6	9.92	45.51	100	140	Average
5210	86.09	87.1	/	/	34.6	9.9	45.51	100	140	Peak
5210	78.72	79.73	/	/	34.6	9.9	45.51	100	140	Average
5350	52.95	54.01	74	-21.05	34.6	9.85	45.51	100	140	Peak
5350	47.2	48.26	54	-6.8	34.6	9.85	45.51	100	140	Average

REMARKS:

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

802.11ac (80MHz)

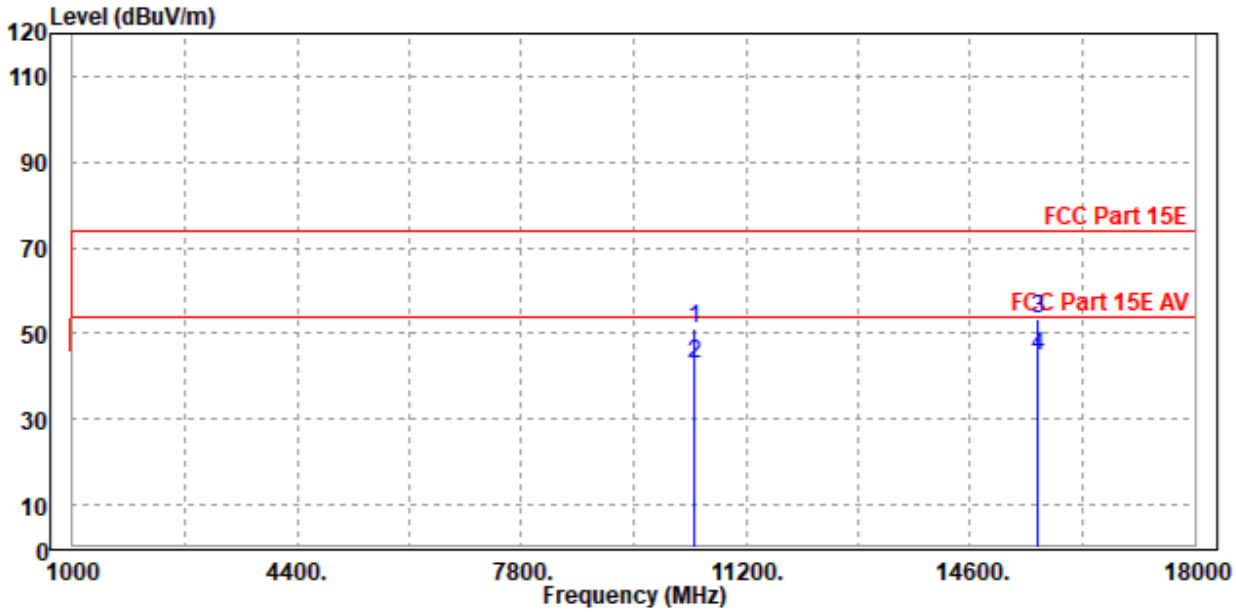
NOTE ： The 18G~40GHz amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

Worst case harmonic:

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

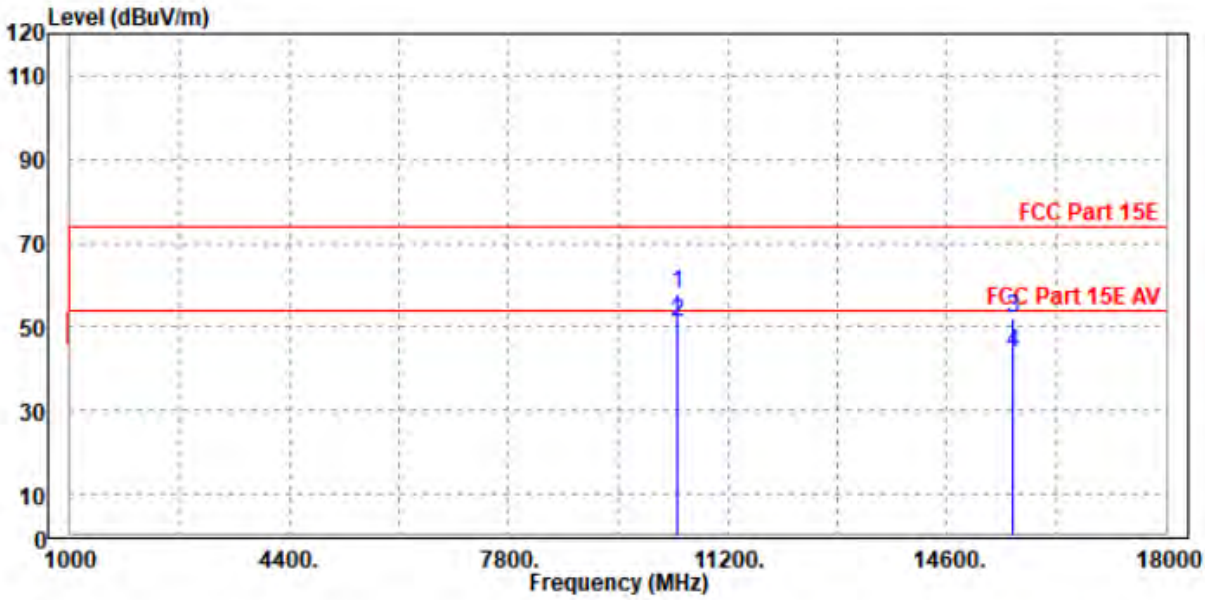
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10418.000	51.28	44.38	74.00	-22.72	6.90	Peak	Horizontal
2	10418.000	42.76	35.86	54.00	-11.24	6.90	Average	Horizontal
3	PK15630.000	53.25	40.15	74.00	-20.75	13.10	Peak	Horizontal
4	PP15630.000	44.68	31.58	54.00	-9.32	13.10	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	PK10418.000	57.83	49.71	74.00	-16.17	8.12	Peak	Vertical
2	PP10418.000	50.95	42.83	54.00	-3.05	8.12	Average	Vertical
3	15630.000	52.09	40.08	74.00	-21.91	12.01	Peak	Vertical
4	15630.000	43.84	31.83	54.00	-10.16	12.01	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5210MHz: 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	54.37	55.44	74	-19.63	34.52	9.92	45.51	100	273	Peak
5150	49.22	50.29	54	-4.78	34.52	9.92	45.51	100	273	Average
5260	103.45	104.47	/	/	34.61	9.88	45.51	100	273	Peak
5260	96.34	97.36	/	/	34.61	9.88	45.51	100	273	Average
5350	54.88	55.86	74	-19.12	34.68	9.85	45.51	100	273	Peak
5350	47.59	48.57	54	-6.41	34.68	9.85	45.51	100	273	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	55.67	56.66	74	-18.33	34.6	9.92	45.51	100	175	Peak
5150	48.77	49.76	54	-5.23	34.6	9.92	45.51	100	175	Average
5260	96.9	97.93	/	/	34.6	9.88	45.51	100	175	Peak
5260	89.98	91.01	/	/	34.6	9.88	45.51	100	175	Average
5350	54.35	55.41	74	-19.65	34.6	9.85	45.51	100	175	Peak
5350	47.84	48.9	54	-6.16	34.6	9.85	45.51	100	175	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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	54.25	55.32	74	-19.75	34.52	9.92	45.51	100	273	Peak
5150	48.77	49.84	54	-5.23	34.52	9.92	45.51	100	273	Average
5300	102.8	103.8	/	/	34.64	9.87	45.51	100	273	Peak
5300	95.95	96.95	/	/	34.64	9.87	45.51	100	273	Average
5350	54.52	55.5	74	-19.48	34.68	9.85	45.51	100	273	Peak
5350	47.58	48.56	54	-6.42	34.68	9.85	45.51	100	273	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	54.85	55.84	74	-19.15	34.6	9.92	45.51	100	140	Peak
5150	48.66	49.65	54	-5.34	34.6	9.92	45.51	100	140	Average
5300	95.68	96.72	/	/	34.6	9.87	45.51	100	140	Peak
5300	88.65	89.69	/	/	34.6	9.87	45.51	100	140	Average
5350	56.01	57.07	74	-17.99	34.6	9.85	45.51	100	140	Peak
5350	47.52	48.58	54	-6.48	34.6	9.85	45.51	100	140	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	54.15	55.22	74	-19.85	34.52	9.92	45.51	100	273	Peak
5150	48.8	49.87	54	-5.2	34.52	9.92	45.51	100	273	Average
5320	102.41	103.4	/	/	34.66	9.86	45.51	100	273	Peak
5320	95.42	96.41	/	/	34.66	9.86	45.51	100	273	Average
5350	57.03	58.01	74	-16.97	34.68	9.85	45.51	100	273	Peak
5350	49.42	50.4	54	-4.58	34.68	9.85	45.51	100	273	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	54.37	55.36	74	-19.63	34.6	9.92	45.51	100	145	Peak
5150	48.97	49.96	54	-5.03	34.6	9.92	45.51	100	145	Average
5320	95.14	96.19	/	/	34.6	9.86	45.51	100	145	Peak
5320	88.1	89.15	/	/	34.6	9.86	45.51	100	145	Average
5350	53.73	54.79	74	-20.27	34.6	9.85	45.51	100	145	Peak
5350	47.8	48.86	54	-6.2	34.6	9.85	45.51	100	145	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	54.42	55.49	74	-19.58	34.52	9.92	45.51	100	273	Peak
5150	48.91	49.98	54	-5.09	34.52	9.92	45.51	100	273	Average
5260	103.19	104.21	/	/	34.61	9.88	45.51	100	273	Peak
5260	96.08	97.1	/	/	34.61	9.88	45.51	100	273	Average
5350	54.56	55.54	74	-19.44	34.68	9.85	45.51	100	273	Peak
5350	47.48	48.46	54	-6.52	34.68	9.85	45.51	100	273	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	54.7	55.69	74	-19.3	34.6	9.92	45.51	100	145	Peak
5150	49.02	50.01	54	-4.98	34.6	9.92	45.51	100	145	Average
5260	97.01	98.04	/	/	34.6	9.88	45.51	100	145	Peak
5260	88.86	89.89	/	/	34.6	9.88	45.51	100	145	Average
5350	54.69	55.75	74	-19.31	34.6	9.85	45.51	100	145	Peak
5350	47.24	48.3	54	-6.76	34.6	9.85	45.51	100	145	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	55.31	56.38	74	-18.69	34.52	9.92	45.51	100	273	Peak
5150	48.8	49.87	54	-5.2	34.52	9.92	45.51	100	273	Average
5300	104	105	/	/	34.64	9.87	45.51	100	273	Peak
5300	96	97	/	/	34.64	9.87	45.51	100	273	Average
5350	54.71	55.69	74	-19.29	34.68	9.85	45.51	100	273	Peak
5350	48.07	49.05	54	-5.93	34.68	9.85	45.51	100	273	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	56.21	57.2	74	-17.79	34.6	9.92	45.51	100	145	Peak
5150	48.9	49.89	54	-5.1	34.6	9.92	45.51	100	145	Average
5300	95.77	96.81	/	/	34.6	9.87	45.51	100	145	Peak
5300	88.23	89.27	/	/	34.6	9.87	45.51	100	145	Average
5350	53.98	55.04	74	-20.02	34.6	9.85	45.51	100	145	Peak
5350	47.26	48.32	54	-6.74	34.6	9.85	45.51	100	145	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	54.47	55.54	74	-19.53	34.52	9.92	45.51	100	273	Peak
5150	48.98	50.05	54	-5.02	34.52	9.92	45.51	100	273	Average
5320	103.42	104.41	/	/	34.66	9.86	45.51	100	273	Peak
5320	95.28	96.27	/	/	34.66	9.86	45.51	100	273	Average
5350	57.85	58.83	74	-16.15	34.68	9.85	45.51	100	273	Peak
5350	49.86	50.84	54	-4.14	34.68	9.85	45.51	100	273	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	54.6	55.59	74	-19.4	34.6	9.92	45.51	100	145	Peak
5150	49.23	50.22	54	-4.77	34.6	9.92	45.51	100	145	Average
5320	96.13	97.18	/	/	34.6	9.86	45.51	100	145	Peak
5320	88.23	89.28	/	/	34.6	9.86	45.51	100	145	Average
5350	53.19	54.25	74	-20.81	34.6	9.85	45.51	100	145	Peak
5350	47.58	48.64	54	-6.42	34.6	9.85	45.51	100	145	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	54.21	55.28	74	-19.79	34.52	9.92	45.51	200	250	Peak
5150	49.45	50.52	54	-4.55	34.52	9.92	45.51	200	250	Average
5270	99.39	100.4	/	/	34.62	9.88	45.51	200	250	Peak
5270	92.67	93.68	/	/	34.62	9.88	45.51	200	250	Average
5350	53.81	54.79	74	-20.19	34.68	9.85	45.51	200	250	Peak
5350	47.32	48.3	54	-6.68	34.68	9.85	45.51	200	250	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	54.62	55.61	74	-19.38	34.6	9.92	45.51	100	140	Peak
5150	50.14	51.13	54	-3.86	34.6	9.92	45.51	100	140	Average
5270	92.76	93.79	/	/	34.6	9.88	45.51	100	140	Peak
5270	85.12	86.15	/	/	34.6	9.88	45.51	100	140	Average
5350	53.62	54.68	74	-20.38	34.6	9.85	45.51	100	140	Peak
5350	46.99	48.05	54	-7.01	34.6	9.85	45.51	100	140	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	54.87	55.94	74	-19.13	34.52	9.92	45.51	200	250	Peak
5150	49.86	50.93	54	-4.14	34.52	9.92	45.51	200	250	Average
5310	98.49	99.49	/	/	34.65	9.86	45.51	200	250	Peak
5310	91.27	92.27	/	/	34.65	9.86	45.51	200	250	Average
5350	55.88	56.86	74	-18.12	34.68	9.85	45.51	200	250	Peak
5350	50.88	51.86	54	-3.12	34.68	9.85	45.51	200	250	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	56.9	74	-18.09	34.6	9.92	45.51	100	140	Peak
5150	50.32	51.31	54	-3.68	34.6	9.92	45.51	100	140	Average
5310	91.31	92.36	/	/	34.6	9.86	45.51	100	140	Peak
5310	82.59	83.64	/	/	34.6	9.86	45.51	100	140	Average
5350	53.42	54.48	74	-20.58	34.6	9.85	45.51	100	140	Peak
5350	47.56	48.62	54	-6.44	34.6	9.85	45.51	100	140	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	54.7	55.77	74	-19.3	34.52	9.92	45.51	200	250	Peak
5150	49.73	50.8	54	-4.27	34.52	9.92	45.51	200	250	Average
5260	103.76	104.78	/	/	34.61	9.88	45.51	200	250	Peak
5260	95.36	96.38	/	/	34.61	9.88	45.51	200	250	Average
5350	55.73	56.71	74	-18.27	34.68	9.85	45.51	200	250	Peak
5350	47.74	48.72	54	-6.26	34.68	9.85	45.51	200	250	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	55.59	56.58	74	-18.41	34.6	9.92	45.51	100	140	Peak
5150	49.54	50.53	54	-4.46	34.6	9.92	45.51	100	140	Average
5260	95.88	96.91	/	/	34.6	9.88	45.51	100	140	Peak
5260	87.16	88.19	/	/	34.6	9.88	45.51	100	140	Average
5350	52.91	53.97	74	-21.09	34.6	9.85	45.51	100	140	Peak
5350	47.28	48.34	54	-6.72	34.6	9.85	45.51	100	140	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	56.17	57.24	74	-17.83	34.52	9.92	45.51	200	250	Peak
5150	49.33	50.4	54	-4.67	34.52	9.92	45.51	200	250	Average
5300	103.31	104.31	/	/	34.64	9.87	45.51	200	250	Peak
5300	94.87	95.87	/	/	34.64	9.87	45.51	200	250	Average
5350	54.92	55.9	74	-19.08	34.68	9.85	45.51	200	250	Peak
5350	47.96	48.94	54	-6.04	34.68	9.85	45.51	200	250	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	56.45	57.44	74	-17.55	34.6	9.92	45.51	100	140	Peak
5150	50	50.99	54	-4	34.6	9.92	45.51	100	140	Average
5300	96.09	97.13	/	/	34.6	9.87	45.51	100	140	Peak
5300	86.45	87.49	/	/	34.6	9.87	45.51	100	140	Average
5350	53.33	54.39	74	-20.67	34.6	9.85	45.51	100	140	Peak
5350	48.8	49.86	54	-5.2	34.6	9.85	45.51	100	140	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	55.25	56.32	74	-18.75	34.52	9.92	45.51	200	260	Peak
5150	49.81	50.88	54	-4.19	34.52	9.92	45.51	200	260	Average
5320	103.49	104.48	/	/	34.66	9.86	45.51	200	260	Peak
5320	95.4	96.39	/	/	34.66	9.86	45.51	200	260	Average
5350	54.92	55.9	74	-19.08	34.68	9.85	45.51	200	260	Peak
5350	49.31	50.29	54	-4.69	34.68	9.85	45.51	200	260	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	57.13	58.12	74	-16.87	34.6	9.92	45.51	100	145	Peak
5150	49.69	50.68	54	-4.31	34.6	9.92	45.51	100	145	Average
5320	95.79	96.84	/	/	34.6	9.86	45.51	100	145	Peak
5320	87.52	88.57	/	/	34.6	9.86	45.51	100	145	Average
5350	53.63	54.69	74	-20.37	34.6	9.85	45.51	100	145	Peak
5350	47.28	48.34	54	-6.72	34.6	9.85	45.51	100	145	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	54.49	55.56	74	-19.51	34.52	9.92	45.51	200	260	Peak
5150	49.13	50.2	54	-4.87	34.52	9.92	45.51	200	260	Average
5270	99.65	100.66	/	/	34.62	9.88	45.51	200	260	Peak
5270	92.19	93.2	/	/	34.62	9.88	45.51	200	260	Average
5350	54.06	55.04	74	-19.94	34.68	9.85	45.51	200	260	Peak
5350	47.99	48.97	54	-6.01	34.68	9.85	45.51	200	260	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	56.49	57.48	74	-17.51	34.6	9.92	45.51	100	145	Peak
5150	50.32	51.31	54	-3.68	34.6	9.92	45.51	100	145	Average
5270	92.24	93.27	/	/	34.6	9.88	45.51	100	145	Peak
5270	84.14	85.17	/	/	34.6	9.88	45.51	100	145	Average
5350	53.85	54.91	74	-20.15	34.6	9.85	45.51	100	145	Peak
5350	48.69	49.75	54	-5.31	34.6	9.85	45.51	100	145	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	55.97	57.04	74	-18.03	34.52	9.92	45.51	200	260	Peak
5150	49.78	50.85	54	-4.22	34.52	9.92	45.51	200	260	Average
5310	98.66	99.66	/	/	34.65	9.86	45.51	200	260	Peak
5310	91.51	92.51	/	/	34.65	9.86	45.51	200	260	Average
5350	56.78	57.76	74	-17.22	34.68	9.85	45.51	200	260	Peak
5350	50.36	51.34	54	-3.64	34.68	9.85	45.51	200	260	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	55.58	56.57	74	-18.42	34.6	9.92	45.51	100	145	Peak
5150	49.89	50.88	54	-4.11	34.6	9.92	45.51	100	145	Average
5310	91.79	92.84	/	/	34.6	9.86	45.51	100	145	Peak
5310	85.47	86.52	/	/	34.6	9.86	45.51	100	145	Average
5350	54.04	55.1	74	-19.96	34.6	9.85	45.51	100	145	Peak
5350	48.35	49.41	54	-5.65	34.6	9.85	45.51	100	145	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	53.8	54.87	74	-20.2	34.52	9.92	45.51	200	260	Peak
5150	50.49	51.56	54	-3.51	34.52	9.92	45.51	200	260	Average
5290	94.1	95.11	/	/	34.63	9.87	45.51	200	260	Peak
5290	87.43	88.44	/	/	34.63	9.87	45.51	200	260	Average
5350	53.69	54.67	74	-20.31	34.68	9.85	45.51	200	260	Peak
5350	49.03	50.01	54	-4.97	34.68	9.85	45.51	200	260	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	54.63	55.62	74	-19.37	34.6	9.92	45.51	100	145	Peak
5150	49.65	50.64	54	-4.35	34.6	9.92	45.51	100	145	Average
5290	86.42	87.46	/	/	34.6	9.87	45.51	100	145	Peak
5290	79.18	80.22	/	/	34.6	9.87	45.51	100	145	Average
5350	56.78	57.84	74	-17.22	34.6	9.85	45.51	100	145	Peak
5350	47.69	48.75	54	-6.31	34.6	9.85	45.51	100	145	Average

REMARKS:

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

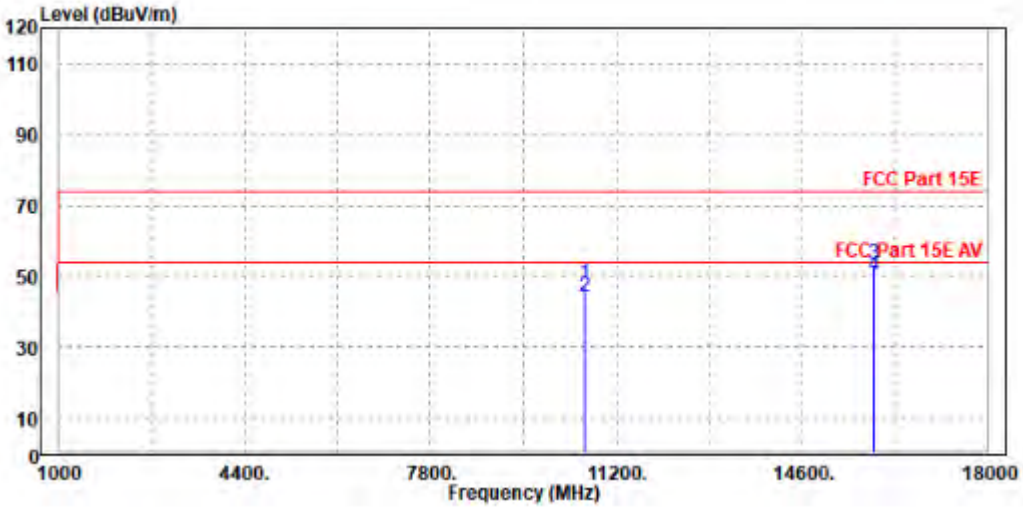
802.11n (40MHz)

Worst case harmonic:

CHANNEL	TX Channel 62	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

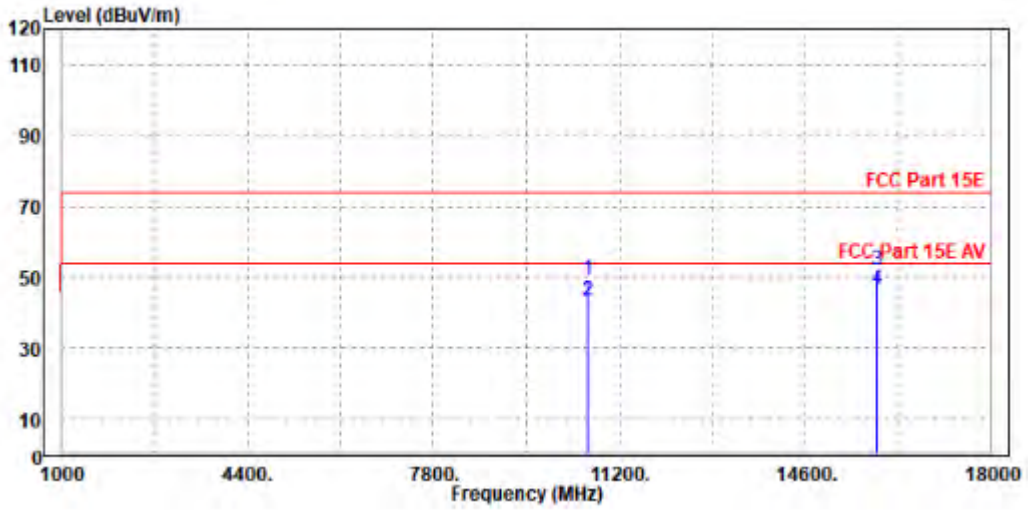
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	10620.000	48.06	41.13	74.00	-25.94	6.93	Peak	Horizontal
2	10620.000	44.42	37.49	54.00	-9.58	6.93	Average	Horizontal
3	PK15926.000	53.27	39.00	74.00	-20.73	14.27	Peak	Horizontal
4	PP15926.000	50.11	35.84	54.00	-3.89	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	10622.000	49.08	40.99	74.00	-24.92	8.09	Peak	Vertical
2	10622.000	43.57	35.48	54.00	-10.43	8.09	Average	Vertical
3	PK15930.000	52.24	39.46	74.00	-21.76	12.78	Peak	Vertical
4	PP15930.000	46.36	33.58	54.00	-7.64	12.78	Average	Vertical



REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5310MHz: 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	55.03	55.96	74	-18.97	34.77	9.81	45.51	200	285	Peak
5460	48.07	49	54	-5.93	34.77	9.81	45.51	200	285	Average
5470	58.29	59.21	68.2	-9.91	34.78	9.81	45.51	200	285	Peak
5500	104.1	105	/	/	34.8	9.8	45.5	200	285	Peak
5500	97.57	98.47	/	/	34.8	9.8	45.5	200	285	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	54.41	55.51	74	-19.59	34.6	9.81	45.51	100	145	Peak
5460	47.55	48.65	54	-6.45	34.6	9.81	45.51	100	145	Average
5470	52.36	53.46	68.2	-15.84	34.6	9.81	45.51	100	145	Peak
5500	94.24	95.34	/	/	34.6	9.8	45.5	100	145	Peak
5500	86.78	87.88	/	/	34.6	9.8	45.5	100	145	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	53.98	54.91	74	-20.02	34.77	9.81	45.51	200	285	Peak
5460	47.53	48.46	54	-6.47	34.77	9.81	45.51	200	285	Average
5470	52.38	53.3	68.2	-15.82	34.78	9.81	45.51	200	285	Peak
5580	103.98	104.75	/	/	34.9	9.83	45.5	200	285	Peak
5580	96.56	97.33	/	/	34.9	9.83	45.5	200	285	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	53.21	54.31	74	-20.79	34.6	9.81	45.51	100	145	Peak
5460	47.2	48.3	54	-6.8	34.6	9.81	45.51	100	145	Average
5470	54.77	55.87	68.2	-13.43	34.6	9.81	45.51	100	145	Peak
5580	94.61	95.58	/	/	34.7	9.83	45.5	100	145	Peak
5580	87.71	88.68	/	/	34.7	9.83	45.5	100	145	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	104.91	105.5	/	/	35.04	9.87	45.5	105	285	Peak
5700	97.85	98.44	/	/	35.04	9.87	45.5	105	285	Average
5725	62.33	62.88	68.2	-5.87	35.07	9.88	45.5	105	285	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	95.71	96.5	/	/	34.84	9.87	45.5	100	145	Peak
5700	88.86	89.65	/	/	34.84	9.87	45.5	100	145	Average
5725	58.5	59.25	68.2	-9.7	34.87	9.88	45.5	100	145	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	54.76	55.68	68.2	-13.44	34.78	9.81	45.51	100	285	Peak
5720	103.78	104.35	/	/	35.06	9.87	45.5	100	285	Peak
5720	96.72	97.29	/	/	35.06	9.87	45.5	100	285	Average
5850	54.22	54.58	68.2	-13.98	35.22	9.92	45.5	100	285	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	55.13	56.23	68.2	-13.07	34.6	9.81	45.51	100	142	Peak
5720	97.56	98.33	/	/	34.86	9.87	45.5	100	142	Peak
5720	89.84	90.61	/	/	34.86	9.87	45.5	100	142	Average
5850	54.89	55.45	68.2	-13.31	35.02	9.92	45.5	100	142	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	55.28	56.21	74	-18.72	34.77	9.81	45.51	105	285	Peak
5460	48.32	49.25	54	-5.68	34.77	9.81	45.51	105	285	Average
5470	60.77	61.69	68.2	-7.43	34.78	9.81	45.51	105	285	Peak
5500	103.19	104.09	/	/	34.8	9.8	45.5	105	285	Peak
5500	95.43	96.33	/	/	34.8	9.8	45.5	105	285	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	53.45	54.55	74	-20.55	34.6	9.81	45.51	100	145	Peak
5460	47.76	48.86	54	-6.24	34.6	9.81	45.51	100	145	Average
5470	53.25	54.35	68.2	-14.95	34.6	9.81	45.51	100	145	Peak
5500	94.6	95.7	/	/	34.6	9.8	45.5	100	145	Peak
5500	86.68	87.78	/	/	34.6	9.8	45.5	100	145	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	53.42	54.35	74	-20.58	34.77	9.81	45.51	190	285	Peak
5460	47.29	48.22	54	-6.71	34.77	9.81	45.51	190	285	Average
5470	55.02	55.94	68.2	-13.18	34.78	9.81	45.51	190	285	Peak
5580	104.68	105.45	/	/	34.9	9.83	45.5	190	285	Peak
5580	96.35	97.12	/	/	34.9	9.83	45.5	190	285	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	54.27	55.37	74	-19.73	34.6	9.81	45.51	100	145	Peak
5460	47.73	48.83	54	-6.27	34.6	9.81	45.51	100	145	Average
5470	54.26	55.36	68.2	-13.94	34.6	9.81	45.51	100	145	Peak
5580	96.88	97.85	/	/	34.7	9.83	45.5	100	145	Peak
5580	88.76	89.73	/	/	34.7	9.83	45.5	100	145	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	105.1	105.69	/	/	35.04	9.87	45.5	190	285	Peak
5700	97.54	98.13	/	/	35.04	9.87	45.5	190	285	Average
5725	62.87	63.42	68.2	-5.33	35.07	9.88	45.5	190	285	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	97.48	98.27	/	/	34.84	9.87	45.5	100	145	Peak
5700	87.71	88.5	/	/	34.84	9.87	45.5	100	145	Average
5725	58.16	58.91	68.2	-10.04	34.87	9.88	45.5	100	145	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	53.34	54.26	68.2	-14.86	34.78	9.81	45.51	100	285	Peak
5720	103.5	104.07	/	/	35.06	9.87	45.5	100	285	Peak
5720	96.83	97.4	/	/	35.06	9.87	45.5	100	285	Average
5850	54.92	55.28	68.2	-13.28	35.22	9.92	45.5	100	285	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	54.54	55.64	68.2	-13.66	34.6	9.81	45.51	100	142	Peak
5720	97.06	97.83	/	/	34.86	9.87	45.5	100	142	Peak
5720	89.85	90.62	/	/	34.86	9.87	45.5	100	142	Average
5850	53.93	54.49	68.2	-14.27	35.02	9.92	45.5	100	142	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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	54.03	54.96	74	-19.97	34.77	9.81	45.51	200	280	Peak
5460	49.53	50.46	54	-4.47	34.77	9.81	45.51	200	280	Average
5470	59.43	60.35	68.2	-8.77	34.78	9.81	45.51	200	280	Peak
5510	99.33	100.22	/	/	34.81	9.8	45.5	200	280	Peak
5510	93.46	94.35	/	/	34.81	9.8	45.5	200	280	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	52.89	53.99	74	-21.11	34.6	9.81	45.51	100	145	Peak
5460	48.31	49.41	54	-5.69	34.6	9.81	45.51	100	145	Average
5470	52.55	53.65	68.2	-15.65	34.6	9.81	45.51	100	145	Peak
5510	90.46	91.55	/	/	34.61	9.8	45.5	100	145	Peak
5510	84.44	85.53	/	/	34.61	9.8	45.5	100	145	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	52.67	53.6	74	-21.33	34.77	9.81	45.51	200	280	Peak
5460	47.95	48.88	54	-6.05	34.77	9.81	45.51	200	280	Average
5470	53.14	54.06	68.2	-15.06	34.78	9.81	45.51	200	280	Peak
5550	98.47	99.29	/	/	34.86	9.82	45.5	200	280	Peak
5550	93.83	94.65	/	/	34.86	9.82	45.5	200	280	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	54.42	55.52	74	-19.58	34.6	9.81	45.51	100	145	Peak
5460	47.65	48.75	54	-6.35	34.6	9.81	45.51	100	145	Average
5470	52.5	53.6	68.2	-15.7	34.6	9.81	45.51	100	145	Peak
5550	91.02	92.04	/	/	34.66	9.82	45.5	100	145	Peak
5550	84.55	85.57	/	/	34.66	9.82	45.5	100	145	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	100.48	101.12	/	/	35	9.86	45.5	145	285	Peak
5670	94.66	95.3	/	/	35	9.86	45.5	145	285	Average
5725	56.1	56.65	68.2	-12.1	35.07	9.88	45.5	145	285	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	92.06	92.9	/	/	34.8	9.86	45.5	100	145	Peak
5670	85.56	86.4	/	/	34.8	9.86	45.5	100	145	Average
5725	54.47	55.22	68.2	-13.73	34.87	9.88	45.5	100	145	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	54.3	55.22	68.2	-13.9	34.78	9.81	45.51	100	285	Peak
5710	98.23	98.81	/	/	35.05	9.87	45.5	100	285	Peak
5710	93.02	93.6	/	/	35.05	9.87	45.5	100	285	Average
5850	55.66	56.02	68.2	-12.54	35.22	9.92	45.5	100	285	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	53.78	54.88	68.2	-14.42	34.6	9.81	45.51	100	142	Peak
5710	92.36	93.14	/	/	34.85	9.87	45.5	100	142	Peak
5710	86.48	87.26	/	/	34.85	9.87	45.5	100	142	Average
5850	54.62	55.18	68.2	-13.58	35.02	9.92	45.5	100	142	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	54.89	55.82	74	-19.11	34.77	9.81	45.51	145	285	Peak
5460	48.16	49.09	54	-5.84	34.77	9.81	45.51	145	285	Average
5470	56.37	57.29	68.2	-11.83	34.78	9.81	45.51	145	285	Peak
5500	104.29	105.19	/	/	34.8	9.8	45.5	145	285	Peak
5500	95.9	96.8	/	/	34.8	9.8	45.5	145	285	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	54.11	55.21	74	-19.89	34.6	9.81	45.51	100	145	Peak
5460	47.29	48.39	54	-6.71	34.6	9.81	45.51	100	145	Average
5470	54.44	55.54	68.2	-13.76	34.6	9.81	45.51	100	145	Peak
5500	94.44	95.54	/	/	34.6	9.8	45.5	100	145	Peak
5500	86.26	87.36	/	/	34.6	9.8	45.5	100	145	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	53.47	54.4	74	-20.53	34.77	9.81	45.51	145	285	Peak
5460	47.15	48.08	54	-6.85	34.77	9.81	45.51	145	285	Average
5470	54.04	54.96	68.2	-14.16	34.78	9.81	45.51	145	285	Peak
5580	104.32	105.09	/	/	34.9	9.83	45.5	145	285	Peak
5580	95.68	96.45	/	/	34.9	9.83	45.5	145	285	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	54.48	55.58	74	-19.52	34.6	9.81	45.51	100	145	Peak
5460	47.05	48.15	54	-6.95	34.6	9.81	45.51	100	145	Average
5470	53.6	54.7	68.2	-14.6	34.6	9.81	45.51	100	145	Peak
5580	96.07	97.04	/	/	34.7	9.83	45.5	100	145	Peak
5580	88.05	89.02	/	/	34.7	9.83	45.5	100	145	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	105.9	106.49	/	/	35.04	9.87	45.5	145	285	Peak
5700	97.42	98.01	/	/	35.04	9.87	45.5	145	285	Average
5725	63.49	64.04	68.2	-4.71	35.07	9.88	45.5	145	285	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	96.69	97.48	/	/	34.84	9.87	45.5	100	145	Peak
5700	88.39	89.18	/	/	34.84	9.87	45.5	100	145	Average
5725	57.79	58.54	68.2	-10.41	34.87	9.88	45.5	100	145	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	52.74	53.66	68.2	-15.46	34.78	9.81	45.51	100	285	Peak
5720	103.58	104.15	/	/	35.06	9.87	45.5	100	285	Peak
5720	96.84	97.41	/	/	35.06	9.87	45.5	100	285	Average
5850	55.17	55.53	68.2	-13.03	35.22	9.92	45.5	100	285	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	54.59	55.69	68.2	-13.61	34.6	9.81	45.51	100	142	Peak
5720	96.89	97.66	/	/	34.86	9.87	45.5	100	142	Peak
5720	89.95	90.72	/	/	34.86	9.87	45.5	100	142	Average
5850	56.05	56.61	68.2	-12.15	35.02	9.92	45.5	100	142	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	54.31	55.24	74	-19.69	34.77	9.81	45.51	145	285	Peak
5460	48.97	49.9	54	-5.03	34.77	9.81	45.51	145	285	Average
5470	59.25	60.17	68.2	-8.95	34.78	9.81	45.51	145	285	Peak
5510	99.07	99.96	/	/	34.81	9.8	45.5	145	285	Peak
5510	92.6	93.49	/	/	34.81	9.8	45.5	145	285	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	55.1	56.2	74	-18.9	34.6	9.81	45.51	100	145	Peak
5460	47.42	48.52	54	-6.58	34.6	9.81	45.51	100	145	Average
5470	53.35	54.45	68.2	-14.85	34.6	9.81	45.51	100	145	Peak
5510	90.08	91.17	/	/	34.61	9.8	45.5	100	145	Peak
5510	83.8	84.89	/	/	34.61	9.8	45.5	100	145	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	52.59	53.52	74	-21.41	34.77	9.81	45.51	145	285	Peak
5460	47.7	48.63	54	-6.3	34.77	9.81	45.51	145	285	Average
5470	54.07	54.99	68.2	-14.13	34.78	9.81	45.51	145	285	Peak
5550	99	99.82	/	/	34.86	9.82	45.5	145	285	Peak
5550	92.39	93.21	/	/	34.86	9.82	45.5	145	285	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	52.74	53.84	74	-21.26	34.6	9.81	45.51	100	145	Peak
5460	46.92	48.02	54	-7.08	34.6	9.81	45.51	100	145	Average
5470	52.99	54.09	68.2	-15.21	34.6	9.81	45.51	100	145	Peak
5550	89.86	90.88	/	/	34.66	9.82	45.5	100	145	Peak
5550	83.46	84.48	/	/	34.66	9.82	45.5	100	145	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	100.52	101.16	/	/	35	9.86	45.5	145	285	Peak
5670	94.77	95.41	/	/	35	9.86	45.5	145	285	Average
5725	54.47	55.02	68.2	-13.73	35.07	9.88	45.5	145	285	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	91.73	92.57	/	/	34.8	9.86	45.5	100	145	Peak
5670	85.9	86.74	/	/	34.8	9.86	45.5	100	145	Average
5725	54.08	54.83	68.2	-14.12	34.87	9.88	45.5	100	145	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	53.05	53.97	68.2	-15.15	34.78	9.81	45.51	100	285	Peak
5710	98.51	99.09	/	/	35.05	9.87	45.5	100	285	Peak
5710	93.3	93.88	/	/	35.05	9.87	45.5	100	285	Average
5850	56.41	56.77	68.2	-11.79	35.22	9.92	45.5	100	285	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	52.54	53.64	68.2	-15.66	34.6	9.81	45.51	100	142	Peak
5710	90.87	91.65	/	/	34.85	9.87	45.5	100	142	Peak
5710	86.29	87.07	/	/	34.85	9.87	45.5	100	142	Average
5850	54.82	55.38	68.2	-13.38	35.02	9.92	45.5	100	142	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	57.09	58.02	74	-16.91	34.77	9.81	45.51	145	285	Peak
5460	50.22	51.15	54	-3.78	34.77	9.81	45.51	145	285	Average
5470	57.98	58.9	68.2	-10.22	34.78	9.81	45.51	145	285	Peak
5530	94.03	94.88	/	/	34.84	9.81	45.5	145	285	Peak
5530	87.96	88.81	/	/	34.84	9.81	45.5	145	285	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	53.78	54.88	74	-20.22	34.6	9.81	45.51	100	145	Peak
5460	47.28	48.38	54	-6.72	34.6	9.81	45.51	100	145	Average
5470	54.06	55.16	68.2	-14.14	34.6	9.81	45.51	100	145	Peak
5530	84.61	85.66	/	/	34.64	9.81	45.5	100	145	Peak
5530	79.03	80.08	/	/	34.64	9.81	45.5	100	145	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	94.56	95.29	/	/	34.93	9.84	45.5	145	285	Peak
5610	88.75	89.48	/	/	34.93	9.84	45.5	145	285	Average
5725	54.39	54.94	68.2	-13.81	35.07	9.88	45.5	145	285	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	86.58	87.51	/	/	34.73	9.84	45.5	100	145	Peak
5610	80.38	81.31	/	/	34.73	9.84	45.5	100	145	Average
5725	53.77	54.52	68.2	-14.43	34.87	9.88	45.5	100	145	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	52.69	53.61	68.2	-15.51	34.78	9.81	45.51	100	285	Peak
5690	93.06	93.67	/	/	35.03	9.86	45.5	100	285	Peak
5690	88.97	89.58	/	/	35.03	9.86	45.5	100	285	Average
5850	56.94	57.3	68.2	-11.26	35.22	9.92	45.5	100	285	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	54.1	55.2	68.2	-14.1	34.6	9.81	45.51	100	142	Peak
5690	86.82	87.63	/	/	34.83	9.86	45.5	100	142	Peak
5690	81.95	82.76	/	/	34.83	9.86	45.5	100	142	Average
5850	54.19	54.75	68.2	-14.01	35.02	9.92	45.5	100	142	Peak

REMARKS:

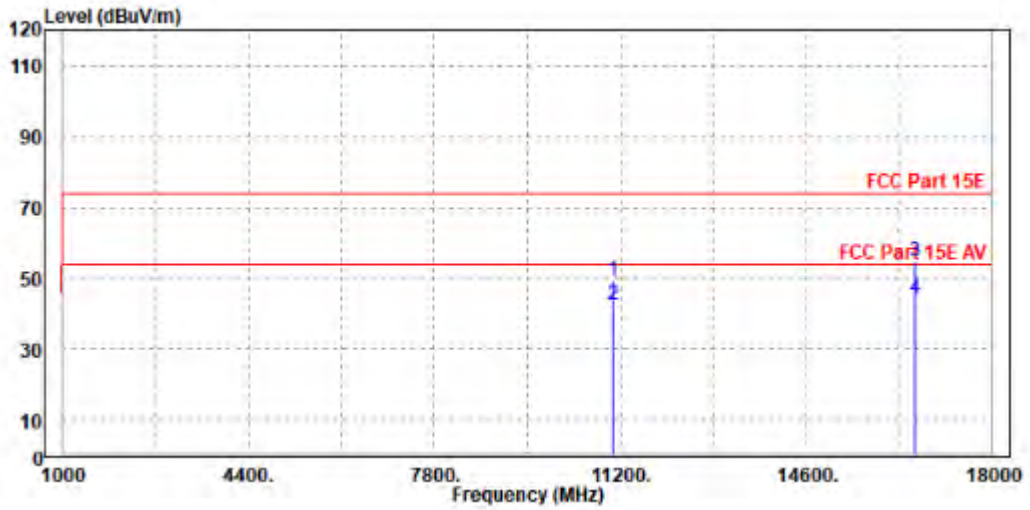
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5690MHz: Fundamental frequency.
3. #: Out of restricted band.

802.11ac (80MHz)
Worst case harmonic:

CHANNEL	TX Channel 106	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

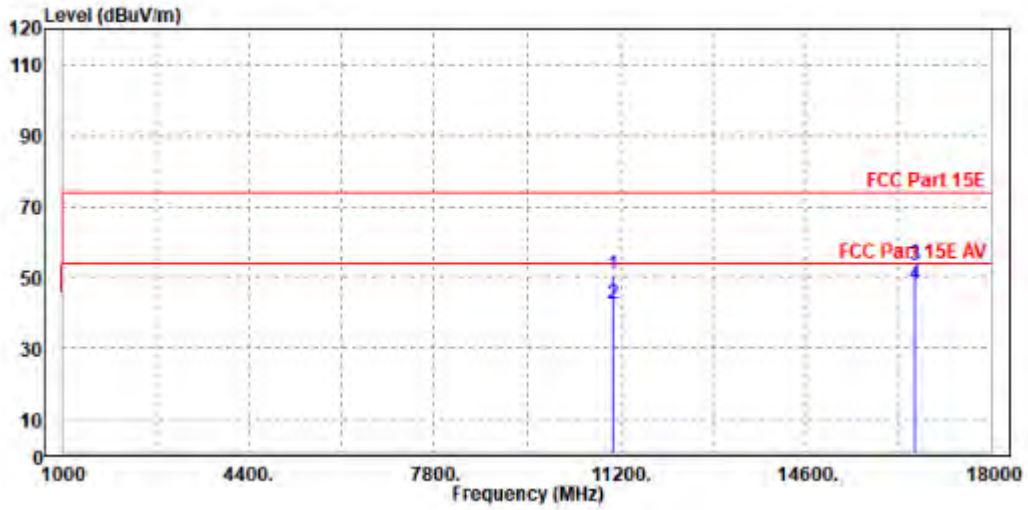
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11064.000	49.26	42.11	74.00	-24.74	7.15	Peak	Horizontal
2	11064.000	42.62	35.47	54.00	-11.38	7.15	Average	Horizontal
3	PK16590.000	54.77	38.74	74.00	-19.23	16.03	Peak	Horizontal
4	PP16590.000	44.19	28.16	54.00	-9.81	16.03	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	11060.000	50.67	43.12	74.00	-23.33	7.55	Peak	Vertical
2	11060.000	42.41	34.86	54.00	-11.59	7.55	Average	Vertical
3	PK16589.000	53.18	39.04	74.00	-20.82	14.14	Peak	Vertical
4	PP16589.000	47.89	33.75	54.00	-6.11	14.14	Average	Vertical



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.

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	103.82	104.35	/	/	35.09	9.88	45.5	100	275	Peak
5745	97.18	97.71	/	/	35.09	9.88	45.5	100	275	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	97.41	98.14	/	/	34.89	9.88	45.5	100	135	Peak
5745	94.22	94.95	/	/	34.89	9.88	45.5	100	135	Average

REMARKS:

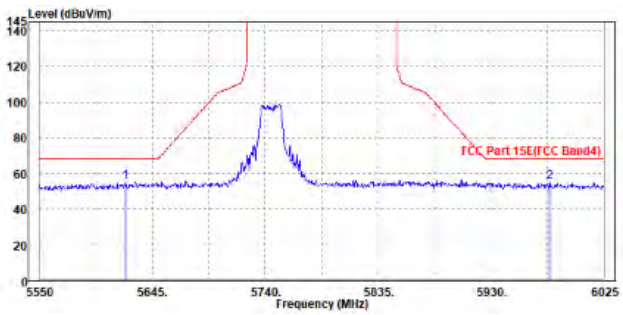
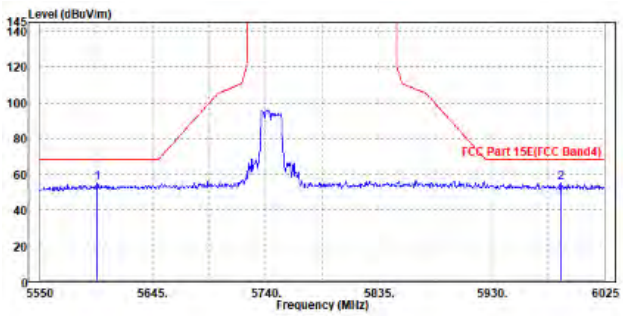
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

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
5622.2	55.09	55.8	68.2	-13.11	34.95	9.84	45.5	200	0	Peak
5979.4	55.13	55.29	68.2	-13.07	35.38	9.96	45.5	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
5598.45	55.12	56.07	68.2	-13.08	34.72	9.83	45.5	100	360	Peak
5988.425	54.94	55.28	68.2	-13.26	35.19	9.97	45.5	100	360	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	103.22	103.68	/	/	35.14	9.9	45.5	100	275	Peak
5785	96.49	96.95	/	/	35.14	9.9	45.5	100	275	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	98.35	99.01	/	/	34.94	9.9	45.5	100	135	Peak
5785	91.18	91.84	/	/	34.94	9.9	45.5	100	135	Average

REMARKS:

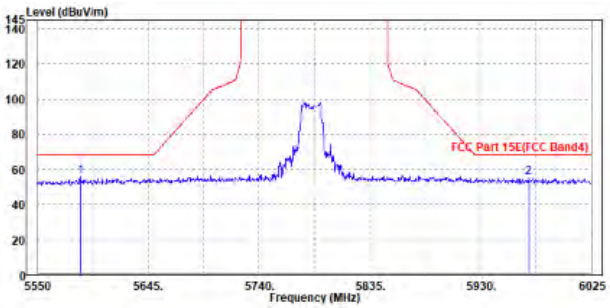
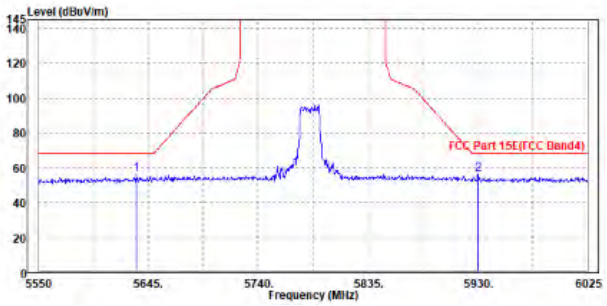
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

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
5587.05	55.64	56.41	68.2	-12.56	34.9	9.83	45.5	200	360	Peak
5971.325	54.92	55.09	68.2	-13.28	35.37	9.96	45.5	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
5635.025	56.48	57.37	68.2	-11.72	34.76	9.85	45.5	100	0	Peak
5930.475	56.37	56.8	68.2	-11.83	35.12	9.95	45.5	100	0	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	103.15	103.55	/	/	35.19	9.91	45.5	100	275	Peak
5825	95.69	96.09	/	/	35.19	9.91	45.5	100	275	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	97.35	97.95	/	/	34.99	9.91	45.5	100	135	Peak
5825	90.84	91.44	/	/	34.99	9.91	45.5	100	135	Average

REMARKS:

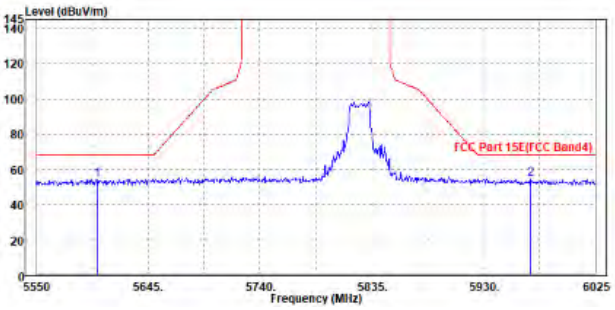
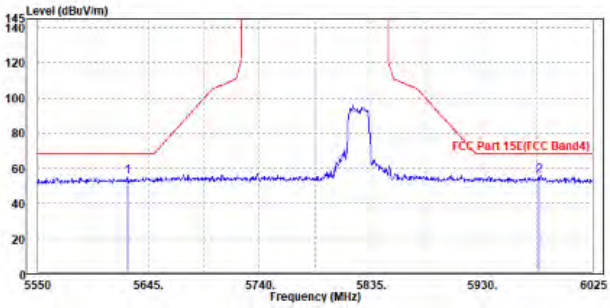
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

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
5601.3	54.1	54.85	68.2	-14.1	34.92	9.83	45.5	100	0	Peak
5969.9	54.71	54.89	68.2	-13.49	35.36	9.96	45.5	100	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
5626.95	54.9	55.81	68.2	-13.3	34.75	9.84	45.5	100	360	Peak
5979.4	55.48	55.84	68.2	-12.72	35.18	9.96	45.5	100	360	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	103.72	104.25	/	/	35.09	9.88	45.5	100	275	Peak
5745	96.55	97.08	/	/	35.09	9.88	45.5	100	275	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	98.07	98.8	/	/	34.89	9.88	45.5	100	135	Peak
5745	90.92	91.65	/	/	34.89	9.88	45.5	100	135	Average

REMARKS:

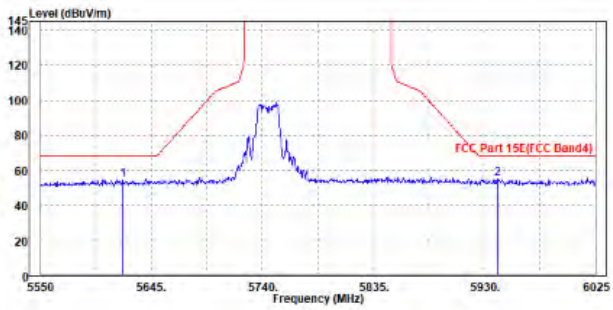
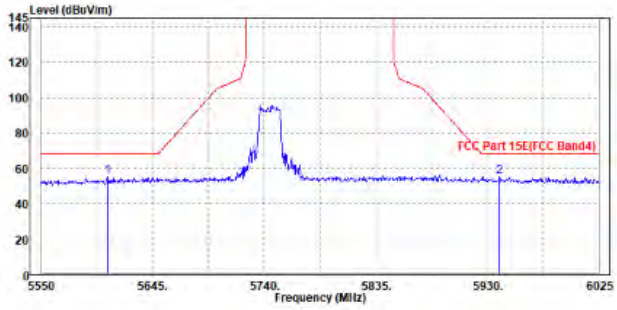
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

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
5620.3	54.78	55.5	68.2	-13.42	34.94	9.84	45.5	200	360	Peak
5941.4	55.05	55.27	68.2	-13.15	35.33	9.95	45.5	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
5606.525	54.95	55.88	68.2	-13.25	34.73	9.84	45.5	100	0	Peak
5940.45	54.96	55.38	68.2	-13.24	35.13	9.95	45.5	100	0	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	103.9	104.36	/	/	35.14	9.9	45.5	100	275	Peak
5785	95.87	96.33	/	/	35.14	9.9	45.5	100	275	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	98.98	99.64	/	/	34.94	9.9	45.5	100	135	Peak
5785	90.84	91.5	/	/	34.94	9.9	45.5	100	135	Average

REMARKS:

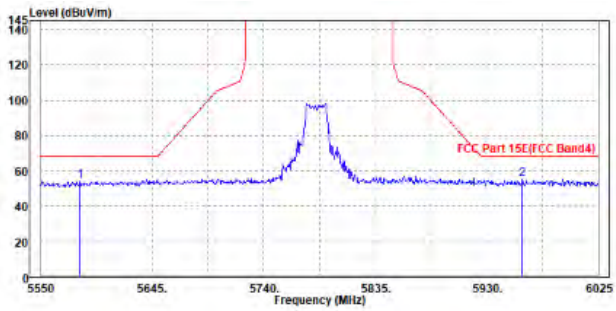
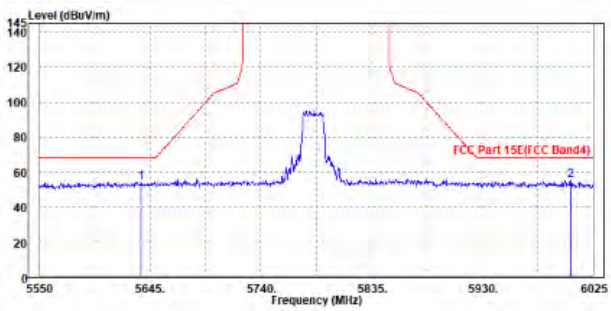
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

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
5583.25	54.02	54.79	68.2	-14.18	34.9	9.83	45.5	100	0	Peak
5960.4	55.39	55.58	68.2	-12.81	35.35	9.96	45.5	100	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
5637.4	54.19	55.08	68.2	-14.01	34.76	9.85	45.5	100	360	Peak
6005.525	55.03	55.35	68.2	-13.17	35.21	9.97	45.5	100	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	104.05	104.45	/	/	35.19	9.91	45.5	100	275	Peak
5825	95.57	95.97	/	/	35.19	9.91	45.5	100	275	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	97.99	98.59	/	/	34.99	9.91	45.5	100	135	Peak
5825	90.02	90.62	/	/	34.99	9.91	45.5	100	135	Average

REMARKS:

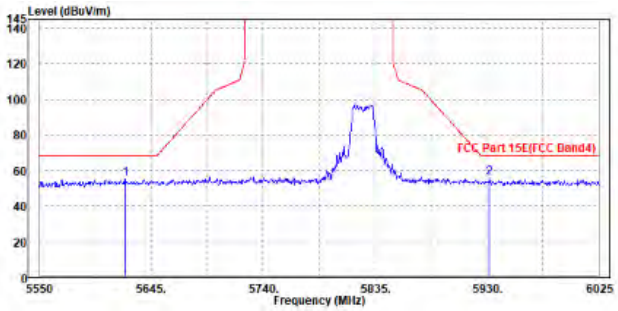
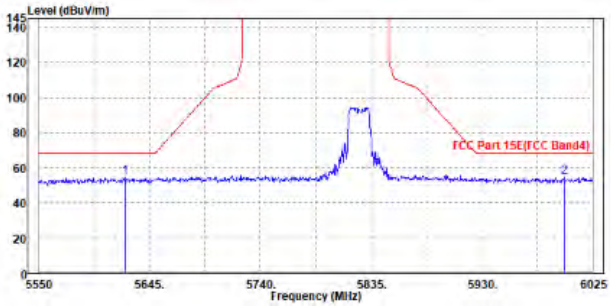
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

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
5623.15	55.21	55.92	68.2	-12.99	34.95	9.84	45.5	100	360	Peak
5932.375	55.5	55.73	68.2	-12.7	35.32	9.95	45.5	100	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
5623.625	54.61	55.52	68.2	-13.59	34.75	9.84	45.5	100	0	Peak
6000.3	54.35	54.68	68.2	-13.85	35.2	9.97	45.5	100	0	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	98.41	98.91	/	/	35.11	9.89	45.5	100	275	Peak
5755	92.62	93.12	/	/	35.11	9.89	45.5	100	275	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	92.9	93.6	/	/	34.91	9.89	45.5	100	135	Peak
5755	87.28	87.98	/	/	34.91	9.89	45.5	100	135	Average

REMARKS:

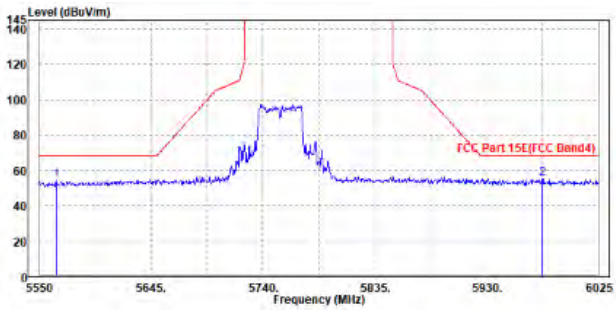
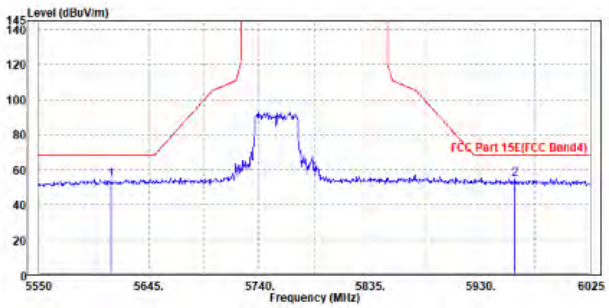
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

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
5564.725	53.94	54.74	68.2	-14.26	34.88	9.82	45.5	200	0	Peak
5977.5	55.13	55.3	68.2	-13.07	35.37	9.96	45.5	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
5612.7	54.1	55.02	68.2	-14.1	34.74	9.84	45.5	100	360	Peak
5959.925	54.79	55.18	68.2	-13.41	35.15	9.96	45.5	100	360	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	99.14	99.59	/	/	35.15	9.9	45.5	100	275	Peak
5795	92.45	92.9	/	/	35.15	9.9	45.5	100	275	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	94.13	94.78	/	/	34.95	9.9	45.5	100	135	Peak
5795	87.22	87.87	/	/	34.95	9.9	45.5	100	135	Average

REMARKS:

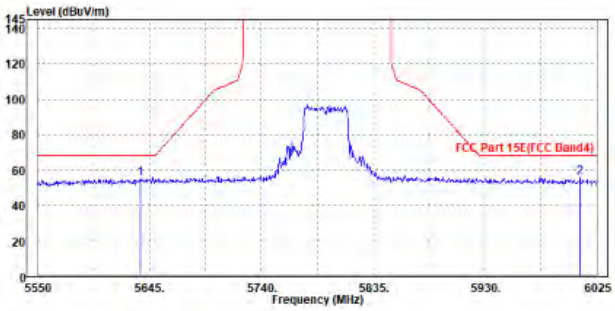
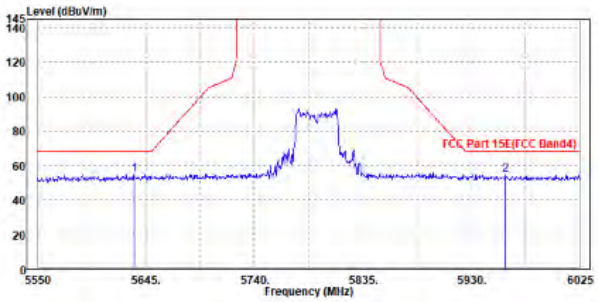
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

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
5636.925	55.11	55.8	68.2	-13.09	34.96	9.85	45.5	200	360	Peak
6010.75	55.91	56.03	68.2	-12.29	35.4	9.98	45.5	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
5634.55	54.67	55.56	68.2	-13.53	34.76	9.85	45.5	100	0	Peak
5960.4	54.69	55.08	68.2	-13.51	35.15	9.96	45.5	100	0	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	103.44	103.97	/	/	35.09	9.88	45.5	100	275	Peak
5745	96.11	96.64	/	/	35.09	9.88	45.5	100	275	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	97.83	98.56	/	/	34.89	9.88	45.5	100	135	Peak
5745	90.86	91.59	/	/	34.89	9.88	45.5	100	135	Average

REMARKS:

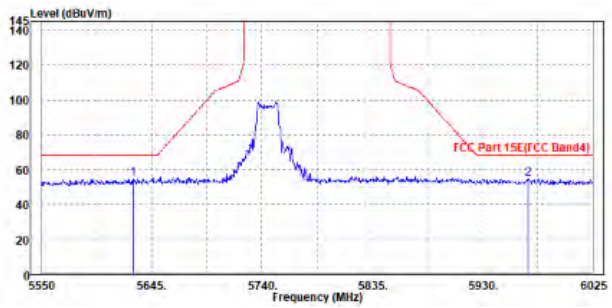
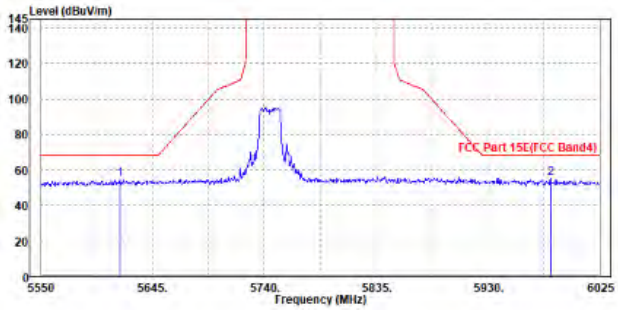
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5745MHz: Fundamental frequency.

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
5628.85	54.46	55.17	68.2	-13.74	34.95	9.84	45.5	100	0	Peak
5969.425	54.83	55.01	68.2	-13.37	35.36	9.96	45.5	100	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
5616.975	54.47	55.39	68.2	-13.73	34.74	9.84	45.5	100	360	Peak
5983.2	55.02	55.38	68.2	-13.18	35.18	9.96	45.5	100	360	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	104.62	105.08	/	/	35.14	9.9	45.5	100	275	Peak
5785	96.61	97.07	/	/	35.14	9.9	45.5	100	275	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	97.52	98.18	/	/	34.94	9.9	45.5	100	275	Peak
5785	89.32	89.98	/	/	34.94	9.9	45.5	100	275	Average

REMARKS:

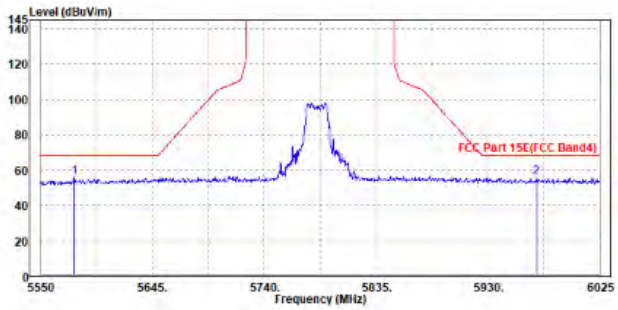
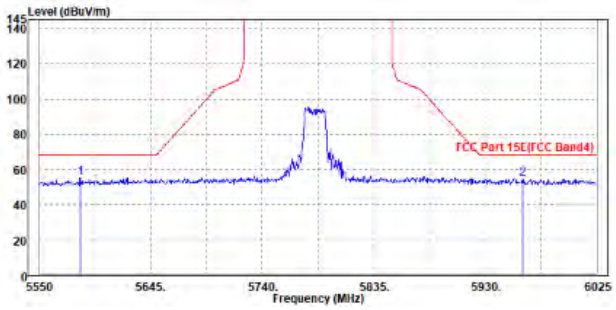
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5785MHz: Fundamental frequency.

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
5578.5	55.68	56.46	68.2	-12.52	34.89	9.83	45.5	100	360	Peak
5971.325	55.94	56.11	68.2	-12.26	35.37	9.96	45.5	100	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
5585.15	55.39	56.36	68.2	-12.81	34.7	9.83	45.5	100	0	Peak
5961.825	54.85	55.24	68.2	-13.35	35.15	9.96	45.5	100	0	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	103.78	104.18	/	/	35.19	9.91	45.5	100	275	Peak
5825	95.7	96.1	/	/	35.19	9.91	45.5	100	275	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	98.93	99.53	/	/	34.99	9.91	45.5	100	135	Peak
5825	88.87	89.47	/	/	34.99	9.91	45.5	100	135	Average

REMARKS:

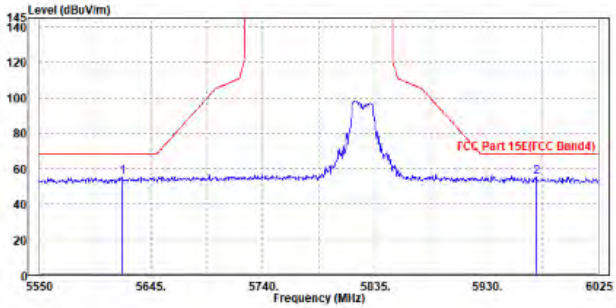
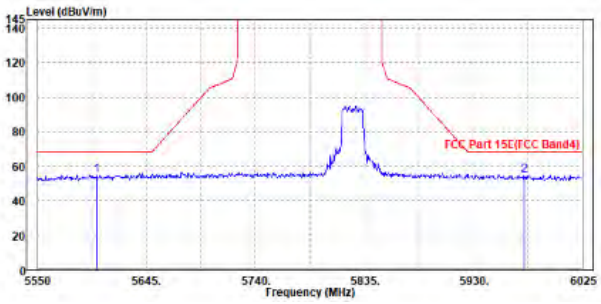
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5825MHz: Fundamental frequency.

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
5620.3	55.27	55.99	68.2	-12.93	34.94	9.84	45.5	100	0	Peak
5972.275	55.26	55.43	68.2	-12.94	35.37	9.96	45.5	100	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
5601.775	54.82	55.77	68.2	-13.38	34.72	9.83	45.5	100	360	Peak
5974.175	54.73	55.1	68.2	-13.47	35.17	9.96	45.5	100	360	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	100.16	100.66	/	/	35.11	9.89	45.5	100	275	Peak
5755	92.33	92.83	/	/	35.11	9.89	45.5	100	275	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	93.73	94.43	/	/	34.91	9.89	45.5	100	135	Peak
5755	86.42	87.12	/	/	34.91	9.89	45.5	100	135	Average

REMARKS:

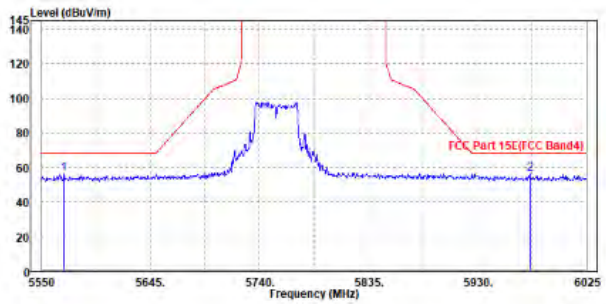
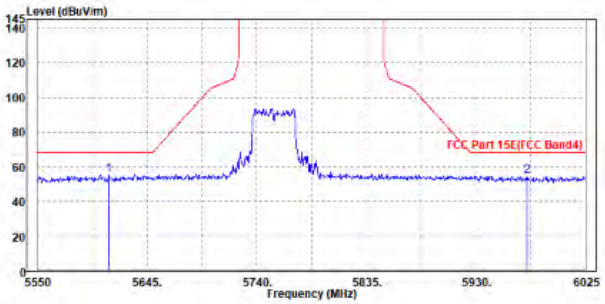
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5755MHz: Fundamental frequency.

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
5569.475	56.05	56.85	68.2	-12.15	34.88	9.82	45.5	100	360	Peak
5975.6	56.04	56.21	68.2	-12.16	35.37	9.96	45.5	100	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
5611.75	55.32	56.25	68.2	-12.88	34.73	9.84	45.5	100	0	Peak
5974.175	54.43	54.8	68.2	-13.77	35.17	9.96	45.5	100	0	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	98.75	99.2	/	/	35.15	9.9	45.5	100	275	Peak
5795	92.36	92.81	/	/	35.15	9.9	45.5	100	275	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	93.22	93.87	/	/	34.95	9.9	45.5	100	135	Peak
5795	86.93	87.58	/	/	34.95	9.9	45.5	100	135	Average

REMARKS:

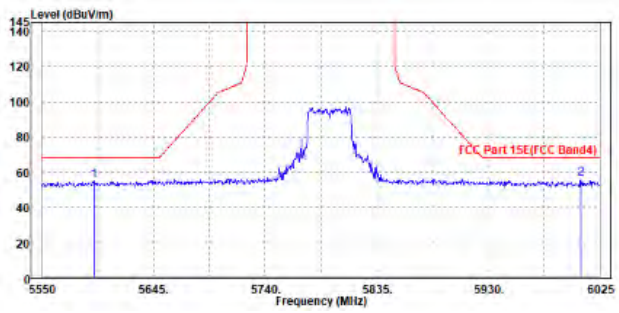
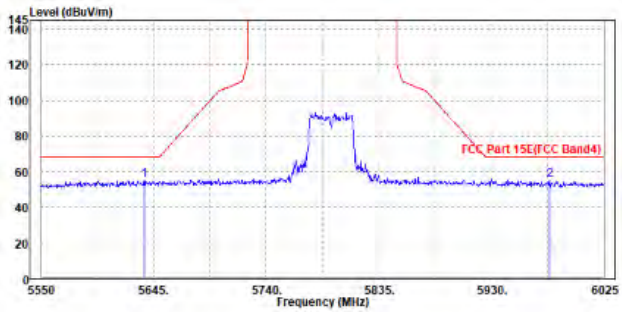
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5795MHz: Fundamental frequency.

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
5594.175	54.93	55.69	68.2	-13.27	34.91	9.83	45.5	100	0	Peak
6008.85	56.02	56.14	68.2	-12.18	35.4	9.98	45.5	100	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
5637.4	55.33	56.22	68.2	-12.87	34.76	9.85	45.5	100	360	Peak
5979.4	55.28	55.64	68.2	-12.92	35.18	9.96	45.5	100	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	94.7	95.18	/	/	35.13	9.89	45.5	100	275	Peak
5775	88.18	88.66	/	/	35.13	9.89	45.5	100	275	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	88.78	89.46	/	/	34.93	9.89	45.5	100	135	Peak
5775	81.85	82.53	/	/	34.93	9.89	45.5	100	135	Average

REMARKS:

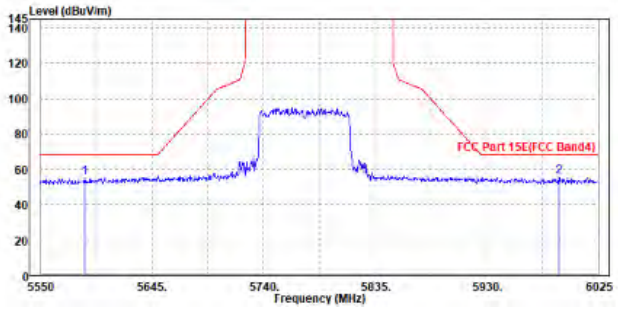
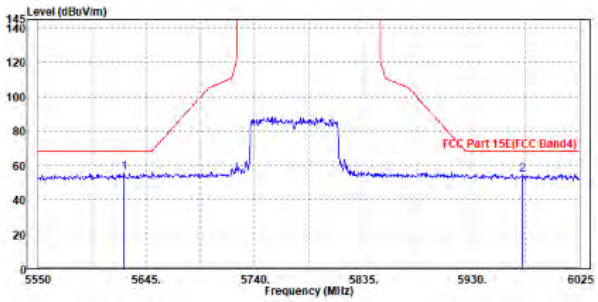
1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5775MHz: Fundamental frequency.

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
5588	55.19	55.95	68.2	-13.01	34.91	9.83	45.5	100	360	Peak
5991.75	55.81	55.95	68.2	-12.39	35.39	9.97	45.5	100	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
5626	55.43	56.34	68.2	-12.77	34.75	9.84	45.5	100	0	Peak
5975.125	54.58	54.95	68.2	-13.62	35.17	9.96	45.5	100	0	Peak

CH 155

Horiontal	Vertical
	

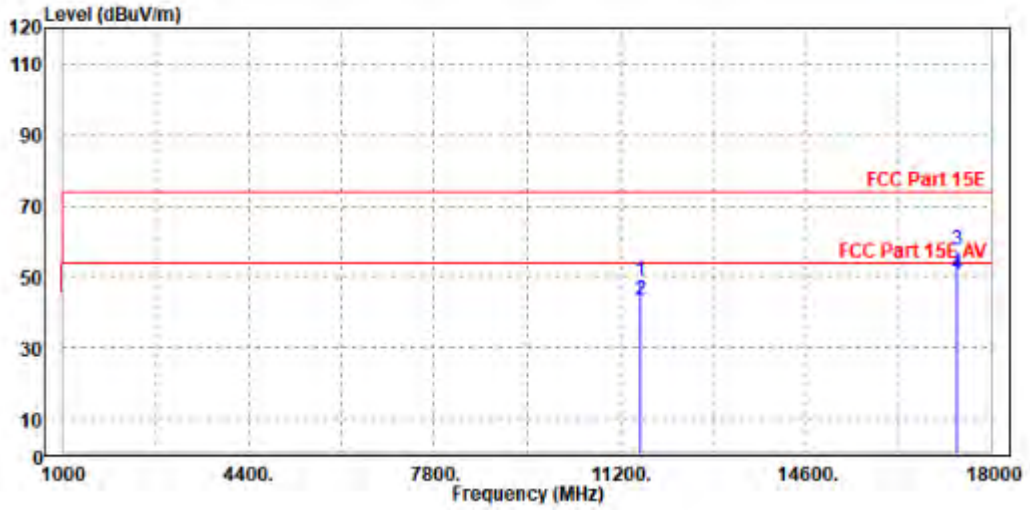
802.11a

Worst case harmonic:

CHANNEL	TX Channel 157	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 25GHz		

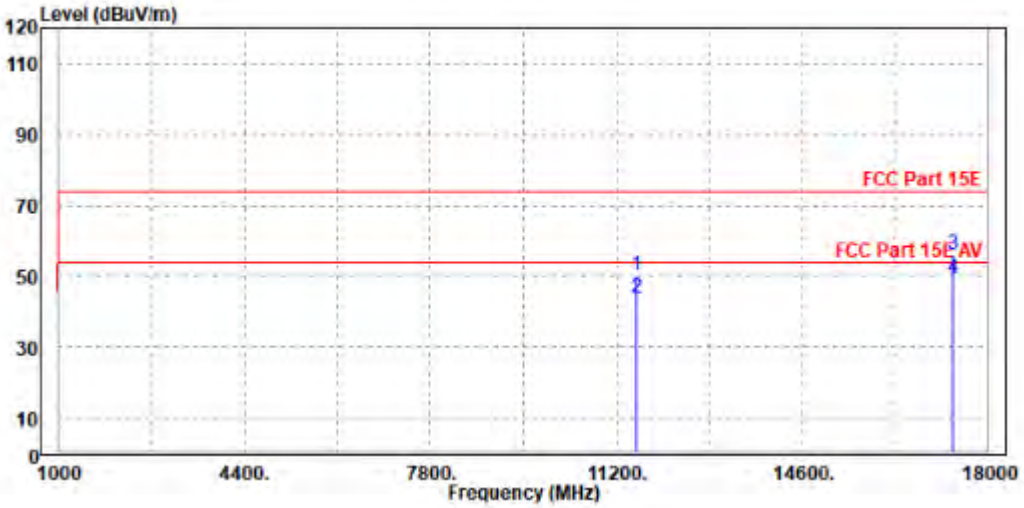
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dBuV/m	dB	dB/m		
1	11574.000	48.89	39.60	74.00	-25.11	9.29	Peak	Horizontal
2	11574.000	43.24	33.95	54.00	-10.76	9.29	Average	Horizontal
3	PK17355.000	57.32	39.02	74.00	-16.68	18.30	Peak	Horizontal
4	PP17355.000	50.76	32.46	54.00	-3.24	18.30	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	11570.000	50.27	40.48	74.00	-23.73	9.79	Peak	Vertical
2	11570.000	43.63	33.84	54.00	-10.37	9.79	Average	Vertical
3	PK17354.000	56.22	39.15	74.00	-17.78	17.07	Peak	Vertical
4	PP17354.000	49.26	32.19	54.00	-4.74	17.07	Average	Vertical



REMARKS:

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

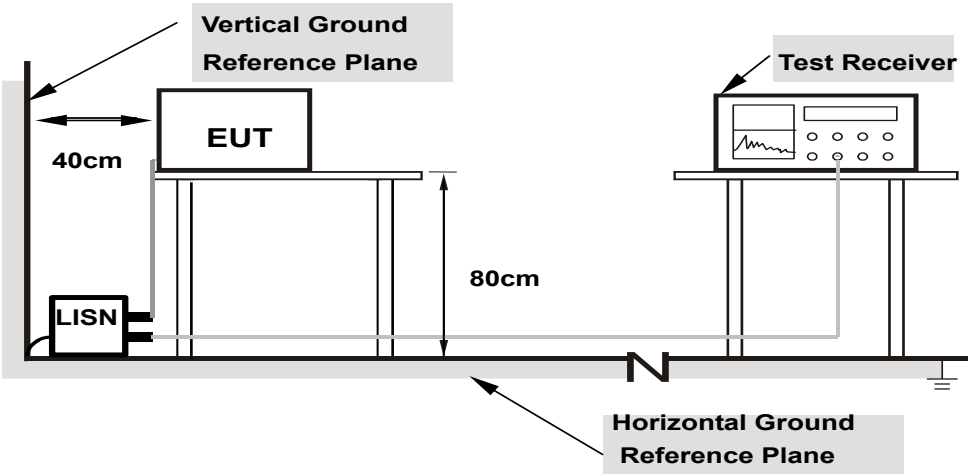
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling 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

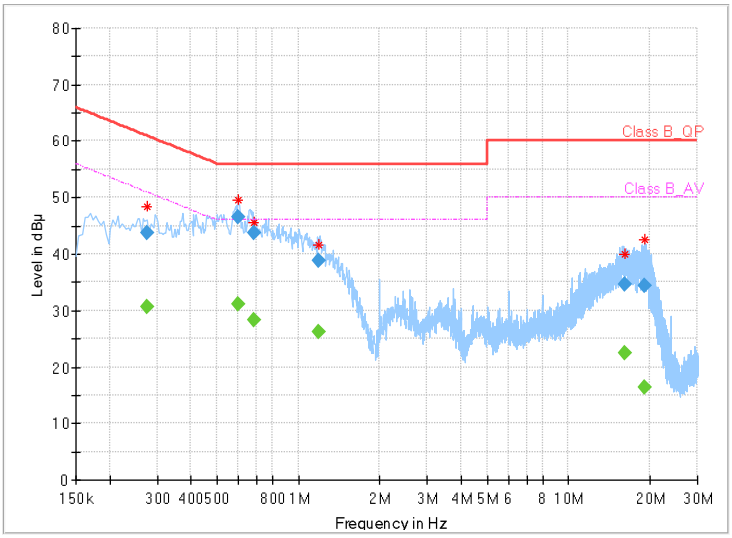
CONDUCTED WORST-CASE DATA:

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.276000	---	30.66	50.94	20.28	L1	ON	9.7
0.276000	43.75	---	60.94	17.19	L1	ON	9.7
0.600000	---	31.15	46.00	14.85	L1	ON	9.7
0.600000	46.51	---	56.00	9.49	L1	ON	9.7
0.688000	---	28.34	46.00	17.66	L1	ON	9.7
0.688000	43.64	---	56.00	12.36	L1	ON	9.7
1.192000	---	26.23	46.00	19.77	L1	ON	9.7
1.192000	38.78	---	56.00	17.22	L1	ON	9.7
16.140000	---	22.52	50.00	27.48	L1	ON	9.8
16.140000	34.69	---	60.00	25.31	L1	ON	9.8
19.128000	---	16.34	50.00	33.66	L1	ON	9.8
19.128000	34.44	---	60.00	25.56	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.

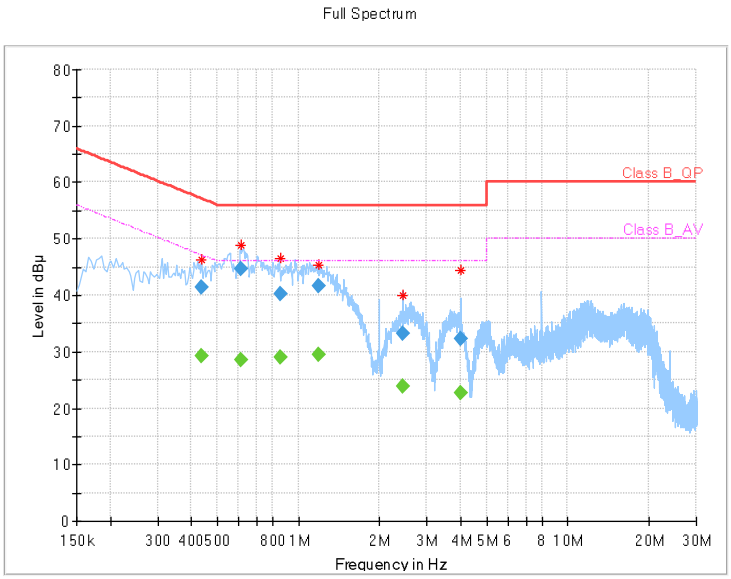
Full Spectrum



Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	26deg. C, 51%RH
Tested By	Carl Xie		

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.436000	---	29.17	47.14	17.97	N	ON	9.7
0.436000	41.45	---	57.14	15.69	N	ON	9.7
0.612000	---	28.64	46.00	17.36	N	ON	9.7
0.612000	44.57	---	56.00	11.43	N	ON	9.7
0.856000	---	28.98	46.00	17.02	N	ON	9.7
0.856000	40.33	---	56.00	15.67	N	ON	9.7
1.184000	---	29.54	46.00	16.46	N	ON	9.8
1.184000	41.63	---	56.00	14.37	N	ON	9.8
2.440000	---	23.90	46.00	22.10	N	ON	9.8
2.440000	33.17	---	56.00	22.83	N	ON	9.8
3.996000	---	22.58	46.00	23.42	N	ON	9.8
3.996000	32.19	---	56.00	23.81	N	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.



3.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

3.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

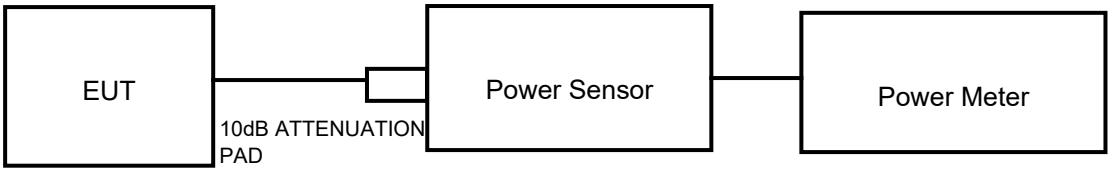
Operation Band	EUT Category		LIMIT
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Client devices	250mW (24 dBm)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

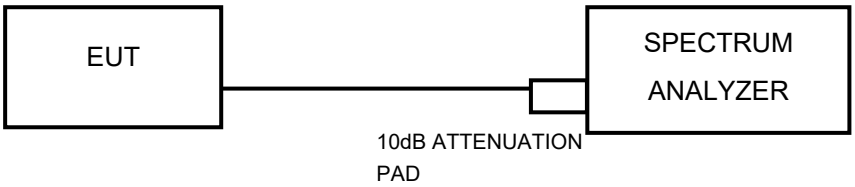
3.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT

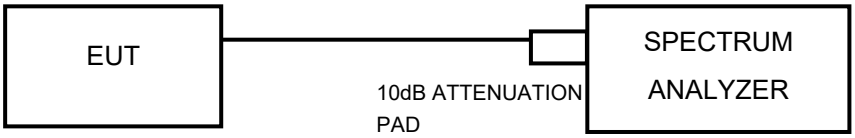
802.11a, 802.11n/ac (20MHz), 802.11 n/ac (40MHz) TEST CONFIGURATION



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. 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. 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

EMISSION BANDWIDTH

TEST RESULT

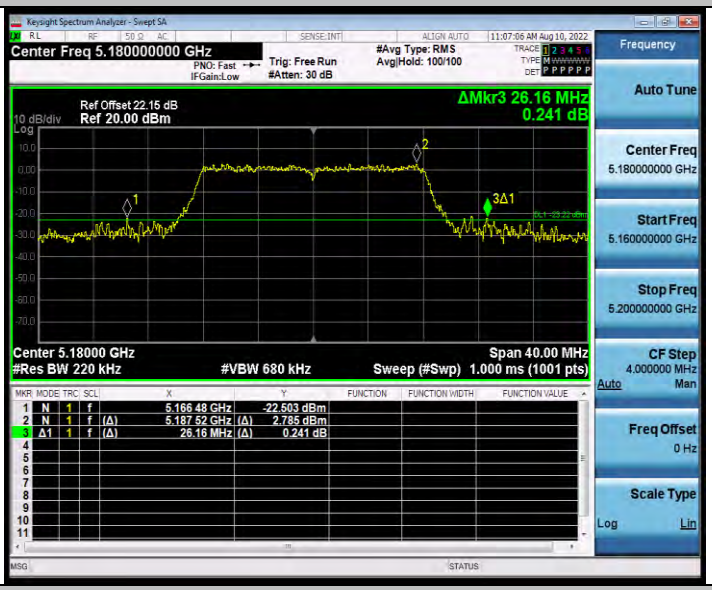
TestMode	Antenna	Frequency [MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	26.160	5166.480	5192.640	---	---
		5200	25.640	5186.160	5211.800	---	---
		5240	23.400	5228.440	5251.840	---	---
		5260	30.400	5244.600	5275.000	---	---
		5300	27.040	5285.480	5312.520	---	---
		5320	24.400	5307.800	5332.200	---	---
		5500	26.000	5485.680	5511.680	---	---
		5580	27.560	5565.600	5593.160	---	---
		5700	23.280	5686.680	5709.960	---	---
		5720	26.680	5705.960	5732.640	---	---
		5720_UNII-2C	19.04	5705.960	5725	---	---
		5720_UNII-3	7.64	5725	5732.640	---	---
		5745	24.280	5731.880	5756.160	---	---
		5785	23.200	5772.480	5795.680	---	---
		5825	22.640	5813.040	5835.680	---	---
11N20SISO	Ant1	5180	27.920	5165.640	5193.560	---	---
		5200	29.040	5185.240	5214.280	---	---
		5240	29.720	5224.560	5254.280	---	---
		5260	31.640	5243.920	5275.560	---	---
		5300	30.520	5284.200	5314.720	---	---
		5320	27.400	5305.840	5333.240	---	---
		5500	30.200	5483.960	5514.160	---	---
		5580	28.160	5565.120	5593.280	---	---
		5700	30.000	5685.120	5715.120	---	---
		5720	26.360	5706.760	5733.120	---	---
		5720_UNII-2C	18.24	5706.760	5725	---	---
		5720_UNII-3	8.12	5725	5733.120	---	---
		5745	27.480	5730.840	5758.320	---	---
		5785	27.800	5769.920	5797.720	---	---
		5825	28.360	5810.960	5839.320	---	---

11N40SISO	Ant1	5190	67.280	5155.600	5222.880	---	---
		5230	67.200	5198.640	5265.840	---	---
		5270	59.600	5241.120	5300.720	---	---
		5310	61.280	5280.400	5341.680	---	---
		5510	65.280	5477.840	5543.120	---	---
		5550	61.200	5520.560	5581.760	---	---
		5670	63.200	5636.560	5699.760	---	---
		5710	67.280	5675.920	5743.200	---	---
		5710_UNII-2C	49.08	5675.920	5725	---	---
		5710_UNII-3	18.2	5725	5743.200	---	---
		5755	65.120	5721.400	5786.520	---	---
		5795	65.040	5762.520	5827.560	---	---
11AC20SISO	Ant1	5180	28.320	5163.680	5192.000	---	---
		5200	24.160	5187.200	5211.360	---	---
		5240	25.720	5226.720	5252.440	---	---
		5260	27.640	5246.480	5274.120	---	---
		5300	26.080	5286.480	5312.560	---	---
		5320	28.400	5305.920	5334.320	---	---
		5500	30.040	5484.880	5514.920	---	---
		5580	23.360	5567.560	5590.920	---	---
		5700	22.840	5687.640	5710.480	---	---
		5720	24.920	5707.920	5732.840	---	---
		5720_UNII-2C	17.08	5707.920	5725	---	---
		5720_UNII-3	7.84	5725	5732.840	---	---
		5745	22.800	5732.360	5755.160	---	---
		5785	25.480	5772.280	5797.760	---	---
		5825	25.640	5810.920	5836.560	---	---
11AC40SISO	Ant1	5190	57.440	5160.320	5217.760	---	---
		5230	54.240	5202.640	5256.880	---	---
		5270	56.240	5241.520	5297.760	---	---
		5310	59.920	5282.160	5342.080	---	---
		5510	68.000	5474.240	5542.240	---	---
		5550	54.800	5521.920	5576.720	---	---
		5670	69.440	5633.680	5703.120	---	---
		5710	50.080	5685.680	5735.760	---	---

		5710_UNII-2C	39.32	5685.680	5725	---	---
		5710_UNII-3	10.76	5725	5735.760	---	---
		5755	53.040	5727.080	5780.120	---	---
		5795	61.760	5765.400	5827.160	---	---
11AC80SISO	Ant1	5210	126.240	5137.520	5263.760	---	---
		5290	137.440	5220.080	5357.520	---	---
		5530	102.560	5481.840	5584.400	---	---
		5610	97.440	5561.040	5658.480	---	---
		5690	84.320	5646.800	5731.120	---	---
		5690_UNII-2C	78.2	5646.800	5725	---	---
		5690_UNII-3	6.12	5725	5731.120	---	---
		5775	133.120	5698.200	5831.320	---	---

TEST GRAPHS

11A_Ant1_5180



11A_Ant1_5200