FCC TEST REPORT

(Part 15, Subpart E)

Product:	LTE mission critical hand held
Model No.:	LEX F10
FCC ID:	AZ489FT7101
Applicant:	Motorola Solutions, Inc.
Address:	8000 West Sunrise Blvd Ft Lauderdale, FL 33322
Manufacturer:	Motorola Solutions, Inc.
Address:	8000 West Sunrise Blvd Ft Lauderdale, FL 33322
Prepared by:	Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch
Lab Location:	No. 34, Chenwulu Section, Guantai Rd., Houjie Town, Dongguan City, Guangdong 523942, China
TEL:	+86 769 8593 5656
FAX:	+86 769 8593 1080
E-MAIL:	customerservice.dg@cn.bureauveritas.com
Report No.:	RF170103W004-7
Received Date:	Jan. 03, 2017
Test Date:	Feb. 02, 2017 ~ Feb. 24, 2017
Issued Date:	Feb. 27, 2017

This report should not be used by the client to claim product certification, approval, or endorsement by A2LA or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF170103W004-7	Original release	Feb. 27, 2017

1 CERTIFICATION

PRODUCT:	LTE mission critical hand held
BRAND NAME:	Motorola Solutions, Inc.
MODEL NAME:	LEX F10
APPLICANT:	Motorola Solutions, Inc.
TESTED:	Feb. 02, 2017 ~ Feb. 24, 2017
TEST SAMPLE:	Identical Prototype
STANDARDS:	**FCC Part 15, Subpart E (15.407), Section 15.407** ANSI C63.10-2013

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

PREPARED BY : _____ , **DATE:** Feb. 27, 2017
(Harry Li/ Engineer)

APPROVED BY : _____ , **DATE:** Feb. 27, 2017
(Sam Tung / Manager)

2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.407(b)(5)	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -24.79dB at 0.150000MHz.
15.407(b) (1/2/3/4/6)	Radiated Emission & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.62dB at 5350MHz.
15.407(a/1/2/3)	Maximum conducted output Power	PASS	Meet the requirement of limit.
15.407(a/1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	No antenna connector is used.

2.1 MEASUREMENT UNCERTAINTY

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

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.70dB
Radiated emissions	9KHz ~ 30MHz	2.90dB
	30MHz ~ 1GMHz	4.06dB
	1GHz ~ 18GHz	4.58dB
	18GHz ~ 40GHz	1.94dB

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

3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	LTE mission critical hand held
MODEL NO.	LEX F10
TYPE NUMBER	NA
POWER SUPPLY	5.0Vdc (adapter or host equipment) 3.8Vdc (Li-ion, battery)
MODULATION TYPE	64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to MCS7
OPERATING FREQUENCY	5180 ~ 5240MHz, 5260 ~ 5320MHz 5500 ~ 5700MHz, 5745 ~ 5805MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (20MHz) 3 for 802.11n (40MHz) 5745 ~ 5805MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
AVERAGE POWER	17.783mW for 5180 ~ 5240MHz 18.836mW for 5260 ~ 5320MHz 19.588mW for 5500 ~ 5700MHz 21.281mW for 5745 ~ 5805MHz
ANTENNA TYPE	PCB Antenna
ANTENNA GAIN	5180 ~ 5240MHz: PIFA Antenna with 0.8dBi gain 5260 ~ 5320MHz: PIFA Antenna with 1.3dBi gain 5500 ~ 5700MHz: PIFA Antenna with 1dBi gain 5745 ~ 5805MHz: PIFA Antenna with -1dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB cable: non-shielded, detachable, 1.1m

NOTE:

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

2. The EUT was powered by the following adapter:

ADAPTER	
BRAND:	Motorola
MODEL:	S24A02
INPUT:	AC 100-240V, 450mA
OUTPUT:	DC 5V, 2100mA

3. The EUT matched the following USB cable:

USB CABLE	
BRAND:	Sunway
MODEL:	TBD
SIGNAL LINE:	1.1 METER

4. 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 (20MHz)	1TX/1RX
802.11n (40MHz)	1TX/1RX

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

3.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5250MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5250 ~ 5350MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

FOR 5470 ~ 5725MHz

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

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

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

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

FOR 5725 ~ 5825MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755 MHz	159	5795 MHz

3.2.1 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 (ABOVE 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
A	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
A	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
A	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
A	802.11a	5725-5805	149 to 161	149, 157, 161	OFDM	BPSK	6.0
A	802.11n (20MHz)		149 to 161	149, 157, 161	OFDM	BPSK	MCS0
A	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0

RADIATED EMISSION TEST (BELOW 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	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 TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11n (40MHz)	5260-5320	54 to 62	62	OFDM	BPSK	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 TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5240	36 to 48	36, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 48	OFDM	BPSK	MCS0
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
A	802.11a	5260-5320	52 to 64	52, 64	OFDM	BPSK	6.0
A	802.11n (20MHz)		52 to 64	52, 64	OFDM	BPSK	MCS0
A	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
A	802.11a	5500-5700	100 to 140	100, 140	OFDM	BPSK	6.0
A	802.11n (20MHz)		100 to 140	100, 140	OFDM	BPSK	MCS0
A	802.11n (40MHz)		102 to 134	102, 134	OFDM	BPSK	MCS0
A	802.11a	5725-5805	149 to 161	149, 161	OFDM	BPSK	6.0
A	802.11n (20MHz)		149 to 161	149, 161	OFDM	BPSK	MCS0
A	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	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 TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
B	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
B	802.11n (40MHz)		38 to 46	38, 46	OFDM	BPSK	MCS0
B	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
B	802.11n (20MHz)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
B	802.11n (40MHz)		54 to 62	54, 62	OFDM	BPSK	MCS0
B	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
B	802.11n (20MHz)		100 to 140	100, 116, 140	OFDM	BPSK	MCS0
B	802.11n (40MHz)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
B	802.11a	5725-5805	149 to 161	149, 157, 161	OFDM	BPSK	6.0
B	802.11n (20MHz)		149 to 161	149, 157, 161	OFDM	BPSK	MCS0
B	802.11n (40MHz)		151 to 159	151, 159	OFDM	BPSK	MCS0

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE<1G	23deg. C, 62%RH	DC 5V By Adapter	Tony Zou
RE≥1G	23deg. C, 62%RH	DC 5V By Adapter	Tony Zou
PLC	24deg. C, 61%RH	DC 5V By Adapter	Alex Chen
APCM	23.5deg. C, 60%RH	DC 3.8V By battery	Wenliang Wu

3.3 DUTY CYCLE OF TEST SIGNAL

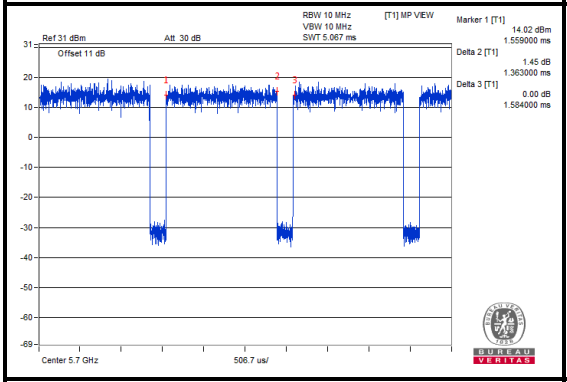
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 1.363/1.584 = 0.860, Duty factor = 10 * log(1/0.860) = 0.65

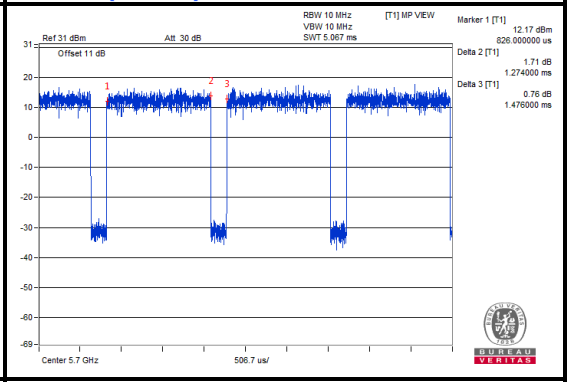
802.11n (20MHz): Duty cycle = 1.274/1.476 = 0.863, Duty factor = 10 * log(1/0.863) = 0.64

802.11n (40MHz): Duty cycle = 0.634/0.843 = 0.752, Duty factor = 10 * log(1/0.752) = 1.24

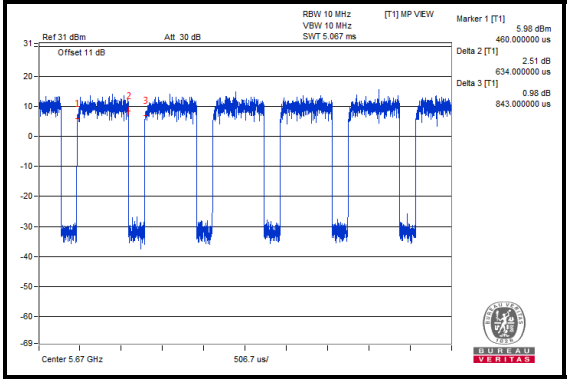
802.11a



802.11n (20MHz)



802.11n (40MHz)



3.4 DESCRIPTION OF SUPPORT UNITS

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

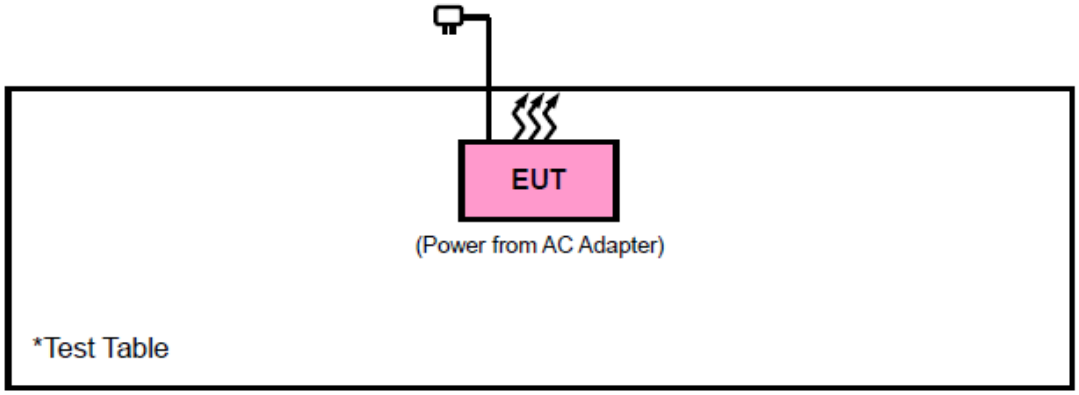
NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	LONG WEI	PS-6403D	010934269	N/A
2	PC	HP	A6608CN	3CR83825X3	N/A
3	Earphone	Minami	ME-816B5-E	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.0m
2	AC Line: Unshielded, Detachable 1.5m
3	Earphone Cable: Shielded, Detachable, 1.2m

NOTE:

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

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General U-NII Test Procedures New Rules v01r02
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.

4 TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTE:

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

4.1.2 LIMITS OF UNWANTED EMISSION

<table>
<tr><td rowspan="2">RESTRICTED BANDS</td><td>APPLICABLE TO</td><td colspan="2">LIMIT</td></tr>
<tr><td rowspan="2">789033 D02 General UNII Test Procedures New Rules v01r02</td><td colspan="2">FIELD STRENGTH AT 3m (dBµV/m)</td></tr>
<tr><td>PK : 74</td><td>AV : 54</td></tr>
<tr><td rowspan="5">OUT OF THE RESTRICTED BANDS</td><td>APPLICABLE TO</td><td>EIRP LIMIT (dBm/MHz)</td><td>EQUIVALENT FIELD STRENGTH AT 3m (dBµV/m)</td></tr>
<tr><td>15.407(b)(1)</td><td rowspan="3">PK : -27</td><td rowspan="3">PK : 68.3</td></tr>
<tr><td>15.407(b)(2)</td></tr>
<tr><td>15.407(b)(3)</td></tr>
<tr><td>15.407(b)(4)</td><td colspan="2">See note 2 (FCC 16-24)</td></tr>
</table>

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.

4.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Apr. 05,16	Apr. 04,17
Signal and Spectrum Analyzer	Rohde&Schwarz	FSV7	102331	Nov. 04,16	Nov. 03,17
Bilog Antenna	Teseq	CBL 6111D	30643	Jul. 14, 16	Jul. 13, 17
Loop antenna	Daze	ZN30900A	0708	Nov. 28, 16	Nov. 27, 17
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 18,16	May 17,17
10m Semi-anechoic Chamber	CHANGLING	21.4m*12.1m*8.8m	NSEMC006	Mar. 12,16	Mar. 11,18
Test Software	E3	V 9.160323	N/A	N/A	N/A
Horn Antenna (15GHz-40GHz)	SCHWARZBECK	BBHA 9170	BBHA9170242	Mar. 12,16	Mar. 11,17
Amplifier (9kHz-1GHz)	SONOMA	310D	186955	Mar. 04,16	Mar. 03, 17
Pre-Amplifier(1-18G)	HP	8449B	3008A00409	Apr. 25,16	Apr. 24,17
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 04,16	Nov. 03,17
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	Aug. 08,16	Aug. 07,17

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 10m Chamber.
3. The FCC Site Registration No. is 502831.

4.1.4 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 10 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:

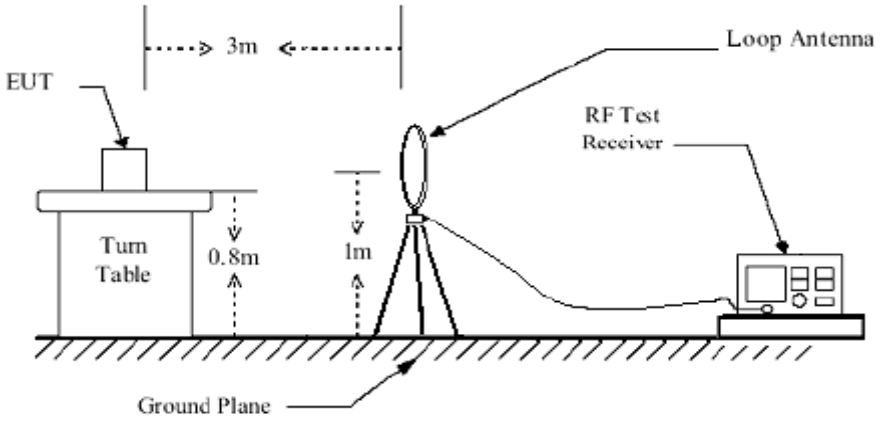
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency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

4.1.5 DEVIATION FROM TEST STANDARD

No deviation.

4.1.6 TEST SETUP

< Frequency Range below 30MHz>



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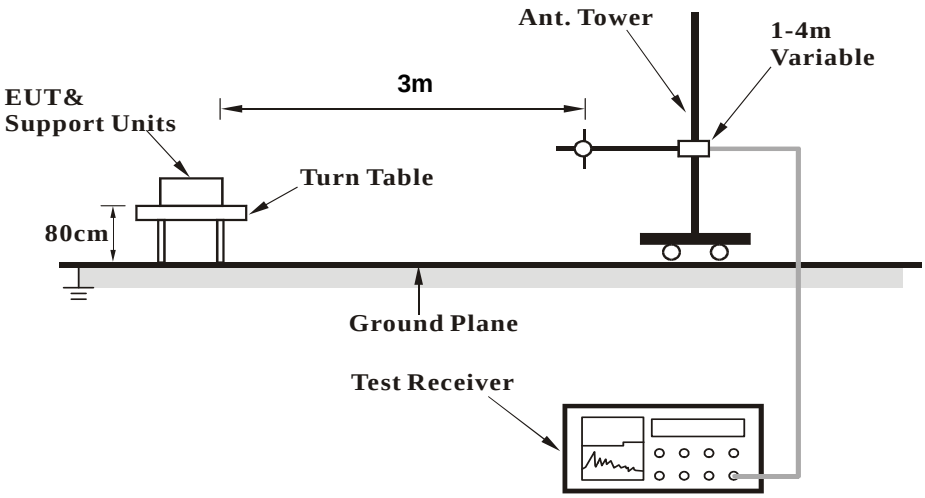
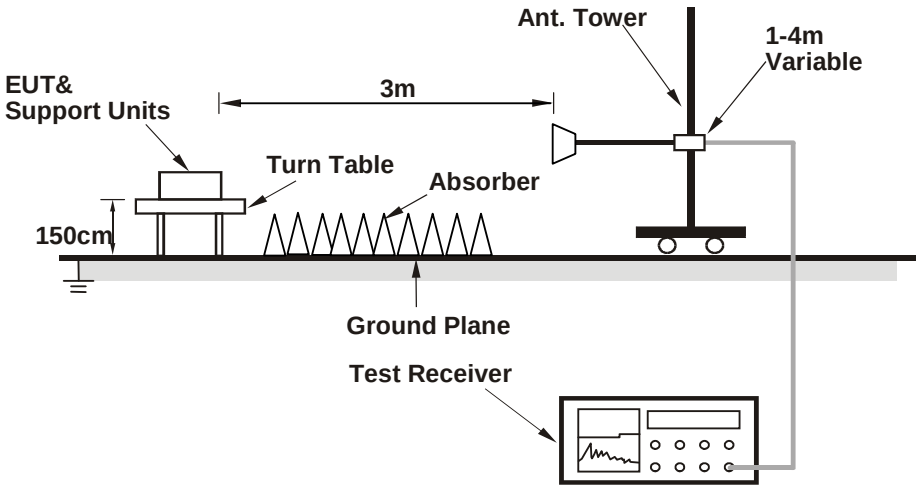


<Frequency Range above 1GHz>



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

4.1.7 EUT OPERATING CONDITION

a. 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.

4.1.8 Test RESULTs

BELOW 1GHz WORST-CASE DATA:

9 KHz – 30 MHz data: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required in the report.

30 MHz – 1GHz data:

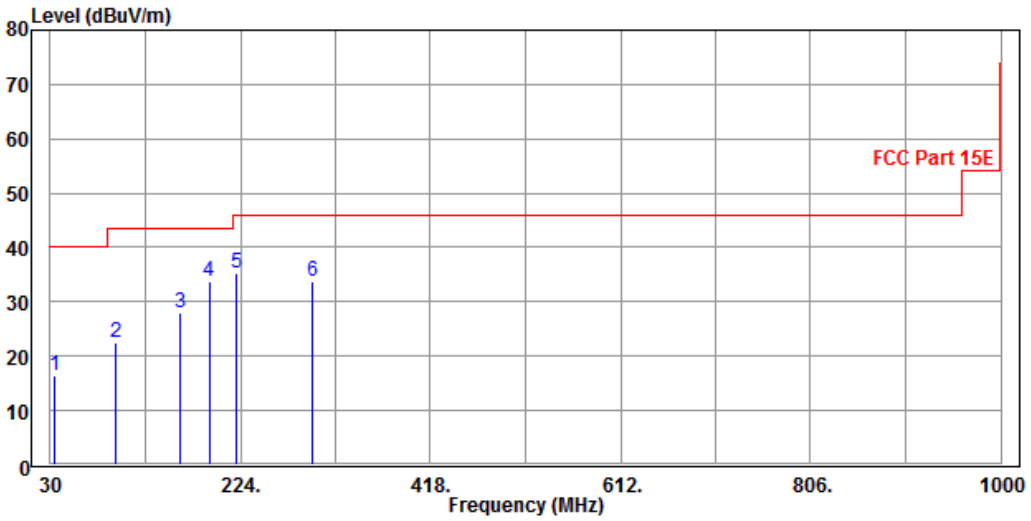
802.11n (40MHz)

CHANNEL	TX Channel 62	**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
34.85	16.50	39.38	40.00	-23.50	13.75	0.89	37.52	200	30	QP
96.93	22.51	50.34	43.50	-20.99	7.66	1.52	37.01	200	96	QP
161.92	28.01	52.64	43.50	-15.49	10.17	1.94	36.74	200	208	QP
191.99	33.67	58.12	43.50	-9.83	10.02	2.13	36.60	200	48	QP
220.12	35.42	58.64	46.00	-10.58	11.03	2.28	36.53	200	188	QP
297.72	33.72	54.54	46.00	-12.28	12.97	2.71	36.50	200	256	QP

REMARKS:

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

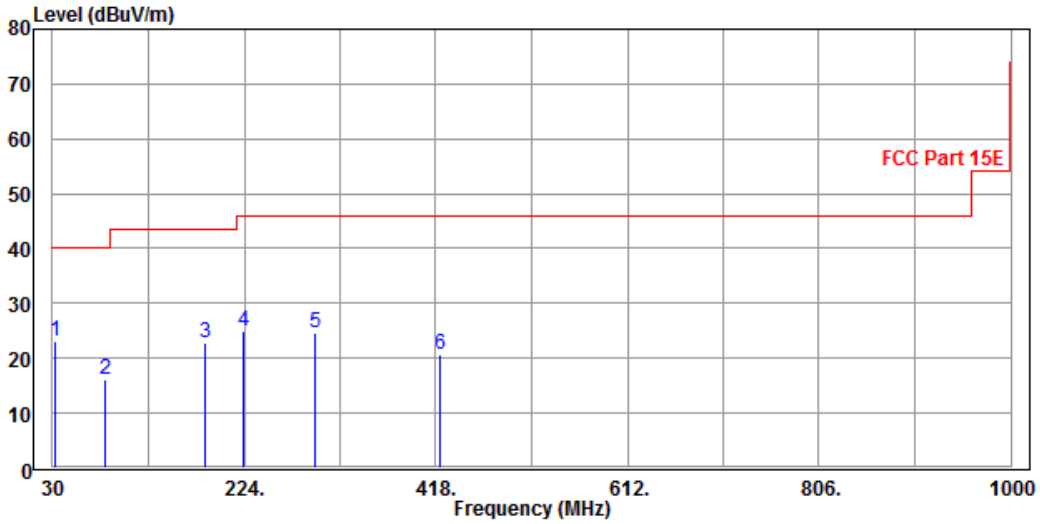


CHANNEL	Channel 62	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

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
32.91	23.10	44.71	40.00	-16.90	15.09	0.84	37.54	100	15	QP
83.35	16.12	45.12	40.00	-23.88	6.70	1.41	37.11	100	60	QP
185.2	22.82	47.43	43.50	-20.68	9.95	2.09	36.65	100	98	QP
224	24.86	47.89	46.00	-21.14	11.20	2.30	36.53	100	114	QP
295.78	24.55	45.40	46.00	-21.45	12.95	2.70	36.50	100	248	QP
422.85	20.81	36.89	46.00	-25.19	17.47	3.22	36.77	100	72	QP

REMARKS:

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



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	45.87	46.69	54.00	-8.13	34.48	13.71	49.01	100	10	Average
5150	57.18	58.00	74.00	-16.82	34.48	13.71	49.01	100	10	Peak
5180	97.02	97.73			34.52	13.79	49.02	100	10	Average
5180	107.33	108.04			34.52	13.79	49.02	100	10	Peak
5350	42.43	42.51	54.00	-11.57	34.72	14.28	49.08	100	10	Average
5350	52.87	52.95	74.00	-21.13	34.72	14.28	49.08	100	10	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
5150	44.03	44.85	54.00	-9.97	34.48	13.71	49.01	100	220	Average
5150	55.38	56.20	74.00	-18.62	34.48	13.71	49.01	100	220	Peak
5180	93.83	94.54			34.52	13.79	49.02	100	220	Average
5180	104.03	104.74			34.52	13.79	49.02	100	220	Peak
5350	42.48	42.56	54.00	-11.52	34.72	14.28	49.08	100	220	Average
5350	53.88	53.96	74.00	-20.12	34.72	14.28	49.08	100	220	Peak

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 44	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	43.00	43.82	54.00	-11.00	34.48	13.71	49.01	100	9	Average
5150	53.97	54.79	74.00	-20.03	34.48	13.71	49.01	100	9	Peak
5220	98.54	99.11			34.56	13.91	49.04	100	9	Average
5220	107.75	108.32			34.56	13.91	49.04	100	9	Peak
5350	42.53	42.61	54.00	-11.47	34.72	14.28	49.08	100	9	Average
5350	52.55	52.63	74.00	-21.45	34.72	14.28	49.08	100	9	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
5150	43.00	43.82	54.00	-11.00	34.48	13.71	49.01	100	210	Average
5150	53.77	54.59	74.00	-20.23	34.48	13.71	49.01	100	210	Peak
5220	95.86	96.43			34.56	13.91	49.04	100	210	Average
5220	104.13	104.70			34.56	13.91	49.04	100	210	Peak
5350	42.53	42.61	54.00	-11.47	34.72	14.28	49.08	100	210	Average
5350	52.97	53.05	74.00	-21.03	34.72	14.28	49.08	100	210	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5220MHz: 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	43.04	43.86	54.00	-10.96	34.48	13.71	49.01	100	10	Average
5150	54.45	55.27	74.00	-19.55	34.48	13.71	49.01	100	10	Peak
5240	98.57	99.05			34.59	13.97	49.04	100	10	Average
5240	107.64	108.12			34.59	13.97	49.04	100	10	Peak
5350	42.56	42.64	54.00	-11.44	34.72	14.28	49.08	100	10	Average
5350	53.13	53.21	74.00	-20.87	34.72	14.28	49.08	100	10	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
5150	43.01	43.83	54.00	-10.99	34.48	13.71	49.01	102	220	Average
5150	53.22	54.04	74.00	-20.78	34.48	13.71	49.01	102	220	Peak
5240	94.75	95.23			34.59	13.97	49.04	102	220	Average
5240	104.19	104.67			34.59	13.97	49.04	102	220	Peak
5350	42.53	42.61	54.00	-11.47	34.72	14.28	49.08	102	220	Average
5350	53.10	53.18	74.00	-20.90	34.72	14.28	49.08	102	220	Peak

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	46.26	47.08	54.00	-7.74	34.48	13.71	49.01	100	12	Average
5150	58.36	59.18	74.00	-15.64	34.48	13.71	49.01	100	12	Peak
5180	96.97	97.68			34.52	13.79	49.02	100	12	Average
5180	106.85	107.56			34.52	13.79	49.02	100	12	Peak
5350	42.58	42.66	54.00	-11.42	34.72	14.28	49.08	100	12	Average
5350	52.98	53.06	74.00	-21.02	34.72	14.28	49.08	100	12	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**
5150	46.50	47.32	54.00	-7.50	34.48	13.71	49.01	100	215	Average
5150	59.64	60.46	74.00	-14.36	34.48	13.71	49.01	100	215	Peak
5180	94.52	95.23			34.52	13.79	49.02	100	215	Average
5180	104.46	105.17			34.52	13.79	49.02	100	215	Peak
5350	42.53	42.61	54.00	-11.47	34.72	14.28	49.08	100	215	Average
5350	53.29	53.37	74.00	-20.71	34.72	14.28	49.08	100	215	Peak

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 44	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	43.04	43.86	54.00	-10.96	34.48	13.71	49.01	100	8	Average
5150	53.97	54.79	74.00	-20.03	34.48	13.71	49.01	100	8	Peak
5220	97.02	97.59			34.56	13.91	49.04	100	8	Average
5220	106.80	107.37			34.56	13.91	49.04	100	8	Peak
5350	42.55	42.63	54.00	-11.45	34.72	14.28	49.08	100	8	Average
5350	53.47	53.55	74.00	-20.53	34.72	14.28	49.08	100	8	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
5150	43.10	43.92	54.00	-10.90	34.48	13.71	49.01	105	220	Average
5150	53.34	54.16	74.00	-20.66	34.48	13.71	49.01	105	220	Peak
5220	93.57	94.14			34.56	13.91	49.04	105	220	Average
5220	103.52	104.09			34.56	13.91	49.04	105	220	Peak
5350	42.56	42.64	54.00	-11.44	34.72	14.28	49.08	105	220	Average
5350	52.67	52.75	74.00	-21.33	34.72	14.28	49.08	105	220	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5220MHz: 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	43.07	43.89	54.00	-10.93	34.48	13.71	49.01	100	10	Average
5150	53.83	54.65	74.00	-20.17	34.48	13.71	49.01	100	10	Peak
5240	98.96	99.44			34.59	13.97	49.04	100	10	Average
5240	107.63	108.11			34.59	13.97	49.04	100	10	Peak
5350	42.53	42.61	54.00	-11.47	34.72	14.28	49.08	100	10	Average
5350	53.51	53.59	74.00	-20.49	34.72	14.28	49.08	100	10	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
5150	43.09	43.91	54.00	-10.91	34.48	13.71	49.01	105	218	Average
5150	53.91	54.73	74.00	-20.09	34.48	13.71	49.01	105	218	Peak
5240	95.83	96.31			34.59	13.97	49.04	105	218	Average
5240	103.86	104.34			34.59	13.97	49.04	105	218	Peak
5350	42.55	42.63	54.00	-11.45	34.72	14.28	49.08	105	218	Average
5350	53.20	53.28	74.00	-20.80	34.72	14.28	49.08	105	218	Peak

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	50.91	51.73	54.00	-3.09	34.48	13.71	49.01	100	10	Average
5150	63.48	64.30	74.00	-10.52	34.48	13.71	49.01	100	10	Peak
5190	91.94	92.62			34.53	13.82	49.03	100	10	Average
5190	102.56	103.24			34.53	13.82	49.03	100	10	Peak
5350	40.46	40.54	54.00	-13.54	34.72	14.28	49.08	100	10	Average
5350	50.91	50.99	74.00	-23.09	34.72	14.28	49.08	100	10	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**
5150	50.63	51.45	54.00	-3.37	34.48	13.71	49.01	100	210	Average
5150	65.39	66.21	74.00	-8.61	34.48	13.71	49.01	100	210	Peak
5190	89.91	90.59			34.53	13.82	49.03	100	210	Average
5190	100.34	101.02			34.53	13.82	49.03	100	210	Peak
5350	42.61	42.69	54.00	-11.39	34.72	14.28	49.08	100	210	Average
5350	52.98	53.06	74.00	-21.02	34.72	14.28	49.08	100	210	Peak

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)
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	41.15	41.97	54.00	-12.85	34.48	13.71	49.01	100	8	Average
5150	51.55	52.37	74.00	-22.45	34.48	13.71	49.01	100	8	Peak
5230	91.84	92.36			34.58	13.94	49.04	100	8	Average
5230	103.03	103.55			34.58	13.94	49.04	100	8	Peak
5350	40.51	40.59	54.00	-13.49	34.72	14.28	49.08	100	8	Average
5350	51.35	51.43	74.00	-22.65	34.72	14.28	49.08	100	8	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
5150	41.24	42.06	54.00	-12.76	34.48	13.71	49.01	105	220	Average
5150	50.89	51.71	74.00	-23.11	34.48	13.71	49.01	105	220	Peak
5230	88.53	89.05			34.58	13.94	49.04	105	220	Average
5230	99.99	100.51			34.58	13.94	49.04	105	220	Peak
5350	40.49	40.57	54.00	-13.51	34.72	14.28	49.08	105	220	Average
5350	51.21	51.29	74.00	-22.79	34.72	14.28	49.08	105	220	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5230MHz: 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	40.99	41.81	54.00	-13.01	34.48	13.71	49.01	100	10	Average
5150	51.54	52.36	74.00	-22.46	34.48	13.71	49.01	100	10	Peak
5260	99.33	99.75			34.61	14.02	49.05	100	10	Average
5260	108.45	108.87			34.61	14.02	49.05	100	10	Peak
5350	41.09	41.17	54.00	-12.91	34.72	14.28	49.08	100	10	Average
5350	52.68	52.76	74.00	-21.32	34.72	14.28	49.08	100	10	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**
5150	41.16	41.98	54.00	-12.84	34.48	13.71	49.01	100	220	Average
5150	52.75	53.57	74.00	-21.25	34.48	13.71	49.01	100	220	Peak
5260	93.82	94.24			34.61	14.02	49.05	100	220	Average
5260	102.94	103.36			34.61	14.02	49.05	100	220	Peak
5350	41.98	42.06	54.00	-12.02	34.72	14.28	49.08	100	220	Average
5350	53.41	53.49	74.00	-20.59	34.72	14.28	49.08	100	220	Peak

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	41.07	41.89	54.00	-12.93	34.48	13.71	49.01	100	10	Average
5150	51.47	52.29	74.00	-22.53	34.48	13.71	49.01	100	10	Peak
5300	99.01	99.27			34.66	14.14	49.06	100	10	Average
5300	108.22	108.48			34.66	14.14	49.06	100	10	Peak
5350	42.61	42.69	54.00	-11.39	34.72	14.28	49.08	100	10	Average
5350	52.41	52.49	74.00	-21.59	34.72	14.28	49.08	100	10	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
5150	41.21	42.03	54.00	-12.79	34.48	13.71	49.01	100	218	Average
5150	51.33	52.15	74.00	-22.67	34.48	13.71	49.01	100	218	Peak
5300	92.82	93.08			34.66	14.14	49.06	100	218	Average
5300	102.55	102.81			34.66	14.14	49.06	100	218	Peak
5350	42.70	42.78	54.00	-11.30	34.72	14.28	49.08	100	218	Average
5350	52.63	52.71	74.00	-21.37	34.72	14.28	49.08	100	218	Peak

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)
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	41.32	42.14	54.00	-12.68	34.48	13.71	49.01	100	6	Average
5150	51.78	52.60	74.00	-22.22	34.48	13.71	49.01	100	6	Peak
5320	98.67	98.86			34.68	14.20	49.07	100	6	Average
5320	107.49	107.68			34.68	14.20	49.07	100	6	Peak
5350	49.32	49.40	54.00	-4.68	34.72	14.28	49.08	100	6	Average
5350	59.02	59.10	74.00	-14.98	34.72	14.28	49.08	100	6	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
5150	41.26	42.08	54.00	-12.74	34.48	13.71	49.01	120	220	Average
5150	52.00	52.82	74.00	-22.00	34.48	13.71	49.01	120	220	Peak
5320	93.85	94.04			34.68	14.20	49.07	120	220	Average
5320	103.34	103.53			34.68	14.20	49.07	120	220	Peak
5350	44.75	44.83	54.00	-9.25	34.72	14.28	49.08	120	220	Average
5350	54.73	54.81	74.00	-19.27	34.72	14.28	49.08	120	220	Peak

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	41.00	41.82	54.00	-13.00	34.48	13.71	49.01	100	8	Average
5150	51.24	52.06	74.00	-22.76	34.48	13.71	49.01	100	8	Peak
5260	98.32	98.74			34.61	14.02	49.05	100	8	Average
5260	108.04	108.46			34.61	14.02	49.05	100	8	Peak
5350	41.12	41.20	54.00	-12.88	34.72	14.28	49.08	100	8	Average
5350	52.70	52.78	74.00	-21.30	34.72	14.28	49.08	100	8	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**
5150	41.13	41.95	54.00	-12.87	34.48	13.71	49.01	100	218	Average
5150	51.36	52.18	74.00	-22.64	34.48	13.71	49.01	100	218	Peak
5260	92.81	93.23			34.61	14.02	49.05	100	218	Average
5260	102.61	103.03			34.61	14.02	49.05	100	218	Peak
5350	41.00	41.08	54.00	-13.00	34.72	14.28	49.08	100	218	Average
5350	51.41	51.49	74.00	-22.59	34.72	14.28	49.08	100	218	Peak

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	41.10	41.92	54.00	-12.90	34.48	13.71	49.01	100	10	Average
5150	51.76	52.58	74.00	-22.24	34.48	13.71	49.01	100	10	Peak
5300	98.28	98.54			34.66	14.14	49.06	100	10	Average
5300	107.60	107.86			34.66	14.14	49.06	100	10	Peak
5350	47.02	47.10	54.00	-6.98	34.72	14.28	49.08	100	10	Average
5350	55.36	55.44	74.00	-18.64	34.72	14.28	49.08	100	10	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
5150	41.22	42.04	54.00	-12.78	34.48	13.71	49.01	100	220	Average
5150	51.66	52.48	74.00	-22.34	34.48	13.71	49.01	100	220	Peak
5300	92.31	92.57			34.66	14.14	49.06	100	220	Average
5300	102.86	103.12			34.66	14.14	49.06	100	220	Peak
5350	42.42	42.50	54.00	-11.58	34.72	14.28	49.08	100	220	Average
5350	52.44	52.52	74.00	-21.56	34.72	14.28	49.08	100	220	Peak

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	41.32	42.14	54.00	-12.68	34.48	13.71	49.01	100	8	Average
5150	51.52	52.34	74.00	-22.48	34.48	13.71	49.01	100	8	Peak
5320	97.87	98.06			34.68	14.20	49.07	100	8	Average
5320	107.56	107.75			34.68	14.20	49.07	100	8	Peak
5350	49.71	49.79	54.00	-4.29	34.72	14.28	49.08	100	8	Average
5350	62.51	62.59	74.00	-11.49	34.72	14.28	49.08	100	8	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
5150	41.19	42.01	54.00	-12.81	34.48	13.71	49.01	120	215	Average
5150	52.11	52.93	74.00	-21.89	34.48	13.71	49.01	120	215	Peak
5320	91.50	91.69			34.68	14.20	49.07	120	215	Average
5320	101.78	101.97			34.68	14.20	49.07	120	215	Peak
5350	43.91	43.99	54.00	-10.09	34.72	14.28	49.08	120	215	Average
5350	54.90	54.98	74.00	-19.10	34.72	14.28	49.08	120	215	Peak

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)
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	41.27	42.09	54.00	-12.73	34.48	13.71	49.01	100	10	Average
5150	50.96	51.78	74.00	-23.04	34.48	13.71	49.01	100	10	Peak
5270	94.13	94.51			34.62	14.05	49.05	100	10	Average
5270	104.66	105.04			34.62	14.05	49.05	100	10	Peak
5350	42.01	42.09	54.00	-11.99	34.72	14.28	49.08	100	10	Average
5350	52.15	52.23	74.00	-21.85	34.72	14.28	49.08	100	10	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
5150	41.33	42.15	54.00	-12.67	34.48	13.71	49.01	100	220	Average
5150	52.24	53.06	74.00	-21.76	34.48	13.71	49.01	100	220	Peak
5270	88.31	88.69			34.62	14.05	49.05	100	220	Average
5270	98.99	99.37			34.62	14.05	49.05	100	220	Peak
5350	41.17	41.25	54.00	-12.83	34.72	14.28	49.08	100	220	Average
5350	51.62	51.70	74.00	-22.38	34.72	14.28	49.08	100	220	Peak

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	41.24	42.06	54.00	-12.76	34.48	13.71	49.01	100	8	Average
5150	51.45	52.27	74.00	-22.55	34.48	13.71	49.01	100	8	Peak
5310	93.11	93.33			34.67	14.17	49.06	100	8	Average
5310	103.71	103.93			34.67	14.17	49.06	100	8	Peak
5350	**52.38**	**52.46**	**54.00**	**-1.62**	**34.72**	**14.28**	**49.08**	**100**	**8**	Average
5350	68.48	68.56	74.00	-5.52	34.72	14.28	49.08	100	8	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
5150	41.29	42.11	54.00	-12.71	34.48	13.71	49.01	100	218	Average
5150	51.58	52.40	74.00	-22.42	34.48	13.71	49.01	100	218	Peak
5310	86.53	86.75			34.67	14.17	49.06	100	218	Average
5310	97.39	97.61			34.67	14.17	49.06	100	218	Peak
5350	48.98	49.06	54.00	-5.02	34.72	14.28	49.08	100	218	Average
5350	58.99	59.07	74.00	-15.01	34.72	14.28	49.08	100	218	Peak

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	46.35	46.01	54.00	-7.65	34.85	14.60	49.11	100	10	Average
5460	54.13	53.79	74.00	-19.87	34.85	14.60	49.11	100	10	Peak
#5470	59.76	59.39	68.30	-8.54	34.86	14.62	49.11	100	10	Peak
5500	98.22	97.73			34.90	14.71	49.12	100	10	Average
5500	106.95	106.46			34.90	14.71	49.12	100	10	Peak
#5725	55.73	53.52	68.30	-12.57	35.17	16.18	49.14	100	10	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**
5460	43.63	43.29	54.00	-10.37	34.85	14.60	49.11	100	260	Average
5460	51.18	50.84	74.00	-22.82	34.85	14.60	49.11	100	260	Peak
#5470	54.84	54.47	68.30	-13.46	34.86	14.62	49.11	100	260	Peak
5500	92.62	92.13			34.90	14.71	49.12	100	260	Average
5500	100.91	100.42			34.90	14.71	49.12	100	260	Peak
#5725	56.53	54.32	68.30	-11.77	35.17	16.18	49.14	100	260	Peak

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)
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	41.23	40.89	54.00	-12.77	34.85	14.60	49.11	100	5	Average
5460	51.09	50.75	74.00	-22.91	34.85	14.60	49.11	100	5	Peak
#5470	53.62	53.25	68.30	-14.68	34.86	14.62	49.11	100	5	Peak
5580	100.36	99.26			35.00	15.23	49.13	100	5	Average
5580	108.93	107.83			35.00	15.23	49.13	100	5	Peak
#5725	56.16	53.95	68.30	-12.14	35.17	16.18	49.14	100	5	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
5460	41.22	40.88	54.00	-12.78	34.85	14.60	49.11	100	245	Average
5460	50.94	50.60	74.00	-23.06	34.85	14.60	49.11	100	245	Peak
#5470	52.74	52.37	68.30	-15.56	34.86	14.62	49.11	100	245	Peak
5580	92.31	91.21			35.00	15.23	49.13	100	245	Average
5580	99.90	98.80			35.00	15.23	49.13	100	245	Peak
#5725	55.48	53.27	68.30	-12.82	35.17	16.18	49.14	100	245	Peak

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)
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	40.70	40.36	54.00	-13.30	34.85	14.60	49.11	100	20	Average
5460	51.59	51.25	74.00	-22.41	34.85	14.60	49.11	100	20	Peak
#5470	53.62	53.25	68.30	-14.68	34.86	14.62	49.11	100	20	Peak
5700	100.92	98.91			35.14	16.01	49.14	100	20	Average
5700	109.22	107.21			35.14	16.01	49.14	100	20	Peak
#5725	62.12	59.91	68.30	-6.18	35.17	16.18	49.14	100	20	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
5460	40.92	40.58	54.00	-13.08	34.85	14.60	49.11	100	305	Average
5460	52.72	52.38	74.00	-21.28	34.85	14.60	49.11	100	305	Peak
#5470	53.72	53.35	68.30	-14.58	34.86	14.62	49.11	100	305	Peak
5700	94.35	92.34			35.14	16.01	49.14	100	305	Average
5700	102.52	100.51			35.14	16.01	49.14	100	305	Peak
#5725	59.11	56.90	68.30	-9.19	35.17	16.18	49.14	100	305	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.

802.11n (20MHz)

CHANNEL	TX Channel 100	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	46.11	45.77	54.00	-7.89	34.85	14.60	49.11	110	20	Average
5460	57.35	57.01	74.00	-16.65	34.85	14.60	49.11	110	20	Peak
#5470	62.54	62.17	68.30	-5.76	34.86	14.62	49.11	110	20	Peak
5500	99.12	98.63			34.90	14.71	49.12	110	20	Average
5500	107.71	107.22			34.90	14.71	49.12	110	20	Peak
#5725	55.68	53.47	68.30	-12.62	35.17	16.18	49.14	110	20	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
5460	44.07	43.73	54.00	-9.93	34.85	14.60	49.11	100	260	Average
5460	52.77	52.43	74.00	-21.23	34.85	14.60	49.11	100	260	Peak
#5470	53.80	53.43	68.30	-14.50	34.86	14.62	49.11	100	260	Peak
5500	93.20	92.71			34.90	14.71	49.12	100	260	Average
5500	102.51	102.02			34.90	14.71	49.12	100	260	Peak
#5725	56.32	54.11	68.30	-11.98	35.17	16.18	49.14	100	260	Peak

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)
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	42.19	41.85	54.00	-11.81	34.85	14.60	49.11	100	10	Average
5460	52.65	52.31	74.00	-21.35	34.85	14.60	49.11	100	10	Peak
#5470	54.16	53.79	68.30	-14.14	34.86	14.62	49.11	100	10	Peak
5580	100.22	99.12			35.00	15.23	49.13	100	10	Average
5580	108.51	107.41			35.00	15.23	49.13	100	10	Peak
#5725	56.16	53.95	68.30	-12.14	35.17	16.18	49.14	100	10	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
5460	42.17	41.83	54.00	-11.83	34.85	14.60	49.11	100	245	Average
5460	52.30	51.96	74.00	-21.70	34.85	14.60	49.11	100	245	Peak
#5470	53.06	52.69	68.30	-15.24	34.86	14.62	49.11	100	245	Peak
5580	92.68	91.58			35.00	15.23	49.13	100	245	Average
5580	100.90	99.80			35.00	15.23	49.13	100	245	Peak
#5725	55.25	53.04	68.30	-13.05	35.17	16.18	49.14	100	245	Peak

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)
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	41.59	41.25	54.00	-12.41	34.85	14.60	49.11	100	20	Average
5460	53.92	53.58	74.00	-20.08	34.85	14.60	49.11	100	20	Peak
#5470	54.24	53.87	68.30	-14.06	34.86	14.62	49.11	100	20	Peak
5700	99.42	97.41			35.14	16.01	49.14	100	20	Average
5700	108.13	106.12			35.14	16.01	49.14	100	20	Peak
#5725	65.66	63.45	68.30	-2.64	35.17	16.18	49.14	100	20	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
5460	42.18	41.84	54.00	-11.82	34.85	14.60	49.11	100	305	Average
5460	52.40	52.06	74.00	-21.60	34.85	14.60	49.11	100	305	Peak
#5470	54.06	53.69	68.30	-14.24	34.86	14.62	49.11	100	305	Peak
5700	94.07	92.06			35.14	16.01	49.14	100	305	Average
5700	102.43	100.42			35.14	16.01	49.14	100	305	Peak
#5725	62.01	59.80	68.30	-6.29	35.17	16.18	49.14	100	305	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.

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	45.76	45.42	54.00	-8.24	34.85	14.60	49.11	100	20	Average
5460	55.46	55.12	74.00	-18.54	34.85	14.60	49.11	100	20	Peak
#5470	62.55	62.18	68.30	-5.75	34.86	14.62	49.11	100	20	Peak
5510	92.29	91.72			34.91	14.78	49.12	100	20	Average
5510	103.12	102.55			34.91	14.78	49.12	100	20	Peak
#5725	55.67	53.46	68.30	-12.63	35.17	16.18	49.14	100	20	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
5460	42.72	42.38	54.00	-11.28	34.85	14.60	49.11	100	260	Average
5460	52.53	52.19	74.00	-21.47	34.85	14.60	49.11	100	260	Peak
#5470	56.83	56.46	68.30	-11.47	34.86	14.62	49.11	100	260	Peak
5510	86.50	85.93			34.91	14.78	49.12	100	260	Average
5510	97.54	96.97			34.91	14.78	49.12	100	260	Peak
#5725	55.89	53.68	68.30	-12.41	35.17	16.18	49.14	100	260	Peak

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)
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	41.98	41.64	54.00	-12.02	34.85	14.60	49.11	100	15	Average
5460	50.28	49.94	74.00	-23.72	34.85	14.60	49.11	100	15	Peak
#5470	53.92	53.55	68.30	-14.38	34.86	14.62	49.11	100	15	Peak
5550	94.38	93.50			34.96	15.04	49.12	100	15	Average
5550	104.54	103.66			34.96	15.04	49.12	100	15	Peak
#5725	56.32	54.11	68.30	-11.98	35.17	16.18	49.14	100	15	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
5460	41.33	40.99	54.00	-12.67	34.85	14.60	49.11	100	260	Average
5460	50.82	50.48	74.00	-23.18	34.85	14.60	49.11	100	260	Peak
#5470	54.06	53.69	68.30	-14.24	34.86	14.62	49.11	100	260	Peak
5550	87.48	86.60			34.96	15.04	49.12	100	260	Average
5550	97.98	97.10			34.96	15.04	49.12	100	260	Peak
#5725	56.22	54.01	68.30	-12.08	35.17	16.18	49.14	100	260	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5550MHz: Fundamental frequency.
3. #: Out of restricted band.

CHANNEL	TX Channel 134	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	41.37	41.03	54.00	-12.63	34.85	14.60	49.11	100	20	Average
5460	52.76	52.42	74.00	-21.24	34.85	14.60	49.11	100	20	Peak
#5470	54.13	53.76	68.30	-14.17	34.86	14.62	49.11	100	20	Peak
5670	96.65	94.87			35.10	15.82	49.14	100	20	Average
5670	106.15	104.37			35.10	15.82	49.14	100	20	Peak
#5725	63.12	60.91	68.30	-5.18	35.17	16.18	49.14	100	20	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
5460	41.38	41.04	54.00	-12.62	34.85	14.60	49.11	100	305	Average
5460	52.68	52.34	74.00	-21.32	34.85	14.60	49.11	100	305	Peak
#5470	53.84	53.47	68.30	-14.46	34.86	14.62	49.11	100	305	Peak
5670	89.97	88.19			35.10	15.82	49.14	100	305	Average
5670	99.47	97.69			35.10	15.82	49.14	100	305	Peak
#5725	58.21	56.00	68.30	-10.09	35.17	16.18	49.14	100	305	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.

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	101.17	98.81			35.19	16.31	49.14	100	26	Average
5745	110.11	107.75			35.19	16.31	49.14	100	26	Peak
11490	48.49	38.47	54.00	-5.51	39.10	19.08	48.16	100	300	Average
11490	60.80	50.78	74.00	-13.20	39.10	19.08	48.16	100	300	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**
5745	94.95	92.59			35.19	16.31	49.14	100	305	Average
5745	103.86	101.50			35.19	16.31	49.14	100	305	Peak
11490	48.14	38.12	54.00	-5.86	39.10	19.08	48.16	100	45	Average
11490	60.27	50.25	74.00	-13.73	39.10	19.08	48.16	100	45	Peak

REMARKS:

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

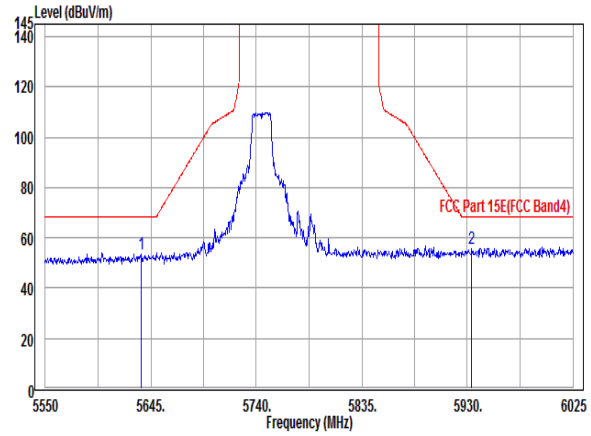
OOBE DATA

802.11a

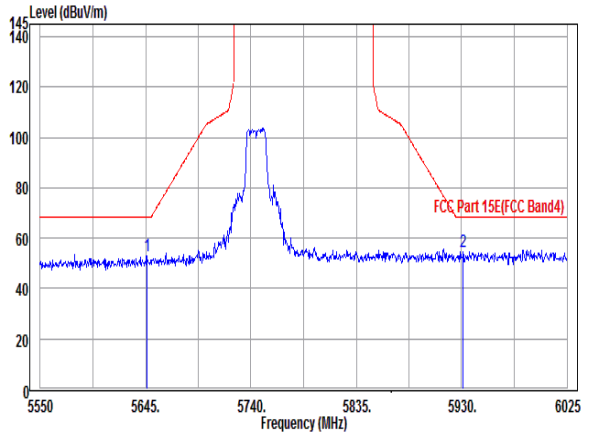
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5636.45	53.25	51.72	68.30	-15.05	35.06	15.60	49.13	100	26	Peak
5933.80	55.82	52.02	68.30	-12.48	35.42	17.54	49.16	100	26	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
5645.95	52.95	51.34	68.30	-15.35	35.08	15.66	49.13	100	305	Peak
5931.43	54.66	50.88	68.30	-13.64	35.42	17.52	49.16	100	305	Peak

CH 149

Horiontal



Vertical



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	101.86	99.20			35.24	16.57	49.15	110	25	Average
5785	111.30	108.64			35.24	16.57	49.15	110	25	Peak
11570	48.24	38.13	54.00	-5.76	39.16	19.12	48.17	100	280	Average
11570	61.49	51.38	74.00	-12.51	39.16	19.12	48.17	100	280	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
5785	94.40	91.74			35.24	16.57	49.15	120	305	Average
5785	104.00	101.34			35.24	16.57	49.15	120	305	Peak
11570	48.13	38.02	54.00	-5.87	39.16	19.12	48.17	100	90	Average
11570	61.23	51.12	74.00	-12.77	39.16	19.12	48.17	100	90	Peak

REMARKS:

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

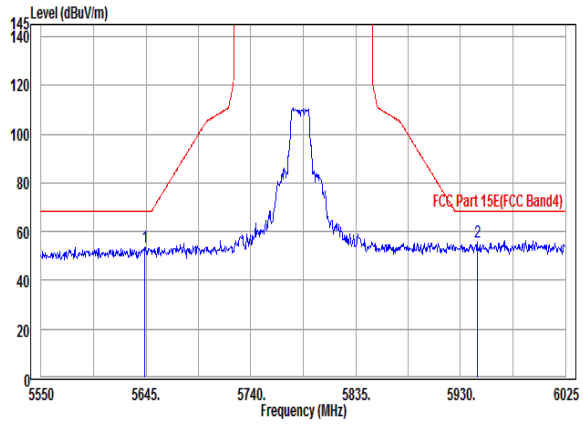
OOBE DATA

802.11a

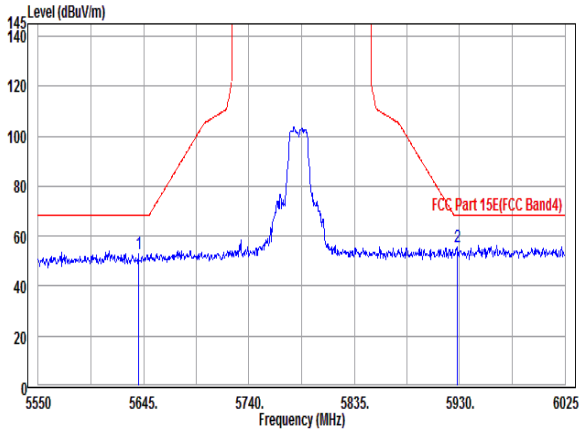
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5643.58	53.52	51.93	68.30	-14.78	35.07	15.65	49.13	110	25	Peak
5945.20	55.62	51.74	68.30	-12.68	35.43	17.61	49.16	110	25	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
5640.25	52.93	51.37	68.30	-15.37	35.07	15.62	49.13	120	305	Peak
5927.63	55.51	51.76	68.30	-12.79	35.41	17.50	49.16	120	305	Peak

CH 157

Horiontal



Vertical



CHANNEL	TX Channel 161	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
5805	101.01	98.19			35.27	16.70	49.15	100	20	Average
5805	110.69	107.87			35.27	16.70	49.15	100	20	Peak
11610	48.61	38.46	54.00	-5.39	39.19	19.14	48.18	100	296	Average
11610	62.13	51.98	74.00	-11.87	39.19	19.14	48.18	100	296	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
5805	95.15	92.33			35.27	16.70	49.15	100	290	Average
5805	104.48	101.66			35.27	16.70	49.15	100	290	Peak
11610	48.41	38.26	54.00	-5.59	39.19	19.14	48.18	100	80	Average
11610	61.90	51.75	74.00	-12.10	39.19	19.14	48.18	100	80	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5805MHz: Fundamental frequency.

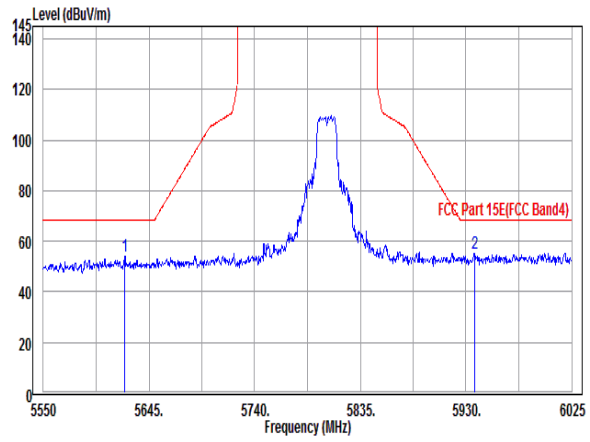
OOBE DATA

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
5623.15	53.81	52.38	68.30	-14.49	35.05	15.51	49.13	100	20	Peak
5937.60	55.37	51.54	68.30	-12.93	35.43	17.56	49.16	100	20	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
5621.25	53.10	51.68	68.30	-15.20	35.05	15.50	49.13	100	290	Peak
5930.95	54.38	50.60	68.30	-13.92	35.42	17.52	49.16	100	290	Peak

CH 165

Horiontal



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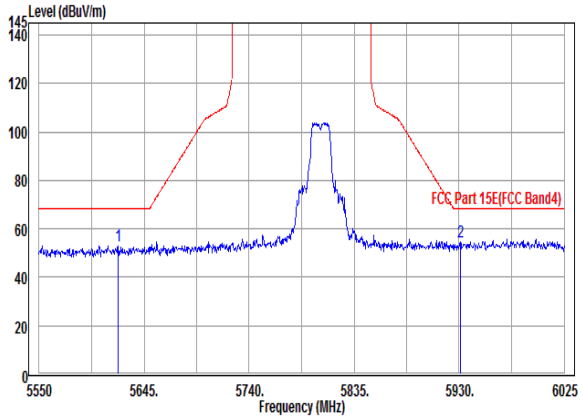


802.11n (20MHz)

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	100.75	98.39			35.19	16.31	49.14	100	20	Average
5745	110.24	107.88			35.19	16.31	49.14	100	20	Peak
11490	48.04	38.02	54.00	-5.96	39.10	19.08	48.16	100	310	Average
11490	60.77	50.75	74.00	-13.23	39.10	19.08	48.16	100	310	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**
5745	94.82	92.46			35.19	16.31	49.14	100	305	Average
5745	104.54	102.18			35.19	16.31	49.14	100	305	Peak
11590	48.15	38.02	54.00	-5.85	39.17	19.13	48.17	100	35	Average
11590	60.09	49.96	74.00	-13.91	39.17	19.13	48.17	100	35	Peak

REMARKS:

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

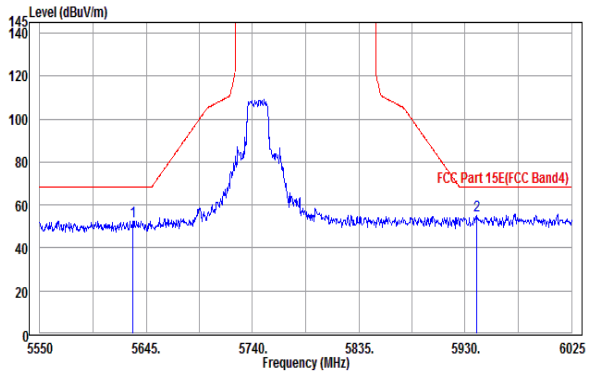
OOBE DATA

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
5633.13	52.64	51.13	68.30	-15.66	35.06	15.58	49.13	100	20	Peak
5939.98	54.97	51.12	68.30	-13.33	35.43	17.58	49.16	100	20	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
5635.50	52.88	51.36	68.30	-15.42	35.06	15.59	49.13	100	305	Peak
5949.95	56.73	52.81	68.30	-11.57	35.44	17.64	49.16	100	305	Peak

CH 149

Horiontal



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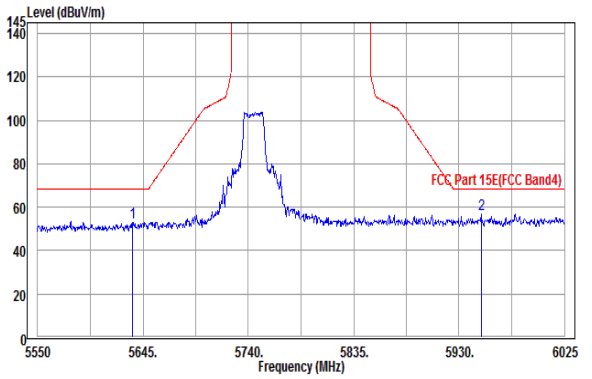


CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5785	101.41	98.75			35.24	16.57	49.15	110	18	Average
5785	111.03	108.37			35.24	16.57	49.15	110	18	Peak
11570	48.67	38.56	54.00	-5.33	39.16	19.12	48.17	110	275	Average
11570	61.13	51.02	74.00	-12.87	39.16	19.12	48.17	110	275	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
5785	94.35	91.69			35.24	16.57	49.15	100	290	Average
5785	103.12	100.46			35.24	16.57	49.15	100	290	Peak
11570	48.24	38.13	54.00	-5.76	39.16	19.12	48.17	100	120	Average
11570	59.97	49.86	74.00	-14.03	39.16	19.12	48.17	100	120	Peak

REMARKS:

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

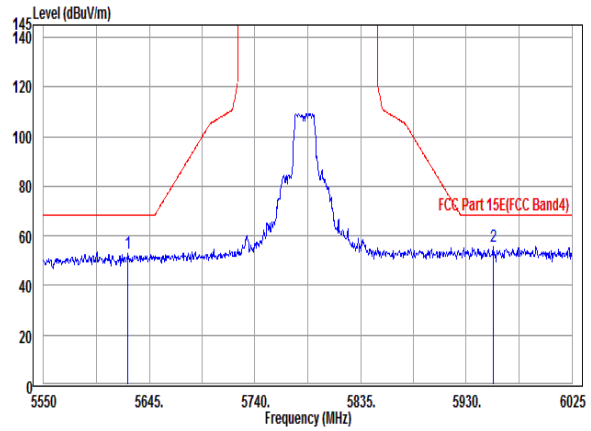
OOBE DATA

802.11n (20MHZ)

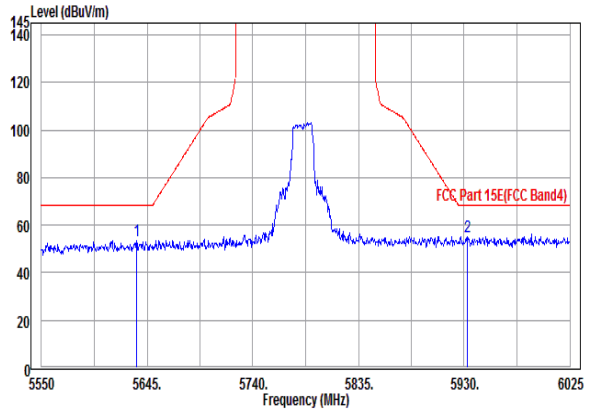
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5626	52.71	51.26	68.30	-15.59	35.05	15.53	49.13	110	18	Peak
5954.7	55.78	51.83	68.30	-12.52	35.45	17.67	49.17	110	18	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
5635.50	53.30	51.78	68.30	-15.00	35.06	15.59	49.13	100	290	Peak
5932.85	55.31	51.52	68.30	-12.99	35.42	17.53	49.16	100	290	Peak

CH 157

Horiontal



Vertical



CHANNEL	TX Channel 161	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
5805	101.37	98.55			35.27	16.70	49.15	110	20	Average
5805	110.77	107.95			35.27	16.70	49.15	110	20	Peak
11610	48.94	38.79	54.00	-5.06	39.19	19.14	48.18	100	280	Average
11610	61.13	50.98	74.00	-12.87	39.19	19.14	48.18	100	280	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
5805	94.84	92.02			35.27	16.70	49.15	100	290	Average
5805	104.68	101.86			35.27	16.70	49.15	100	290	Peak
11610	48.10	37.95	54.00	-5.90	39.19	19.14	48.18	100	120	Average
11610	60.12	49.97	74.00	-13.88	39.19	19.14	48.18	100	120	Peak

REMARKS:

1. Emission Level = Read Level+ Antenna Factor + Cable Loss- Preamp Factor
   Margin value = Emission level – Limit value.
2. 5805MHz: Fundamental frequency.

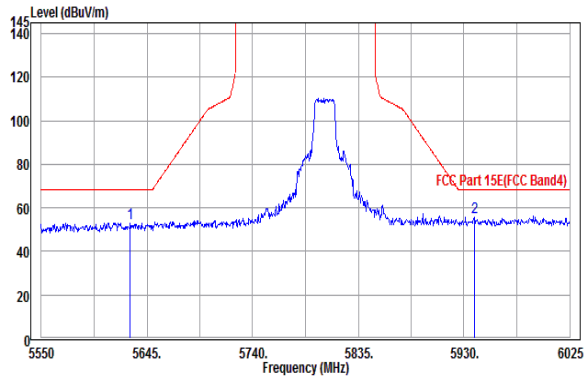
OOBE DATA

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
5629.80	52.84	51.35	68.30	-15.46	35.06	15.56	49.13	110	20	Peak
5939.50	55.61	51.76	68.30	-12.69	35.43	17.58	49.16	110	20	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
5624.10	53.64	52.20	68.30	-14.66	35.05	15.52	49.13	100	290	Peak
5929.05	54.10	50.34	68.30	-14.20	35.41	17.51	49.16	100	290	Peak

CH 165

Horiontal



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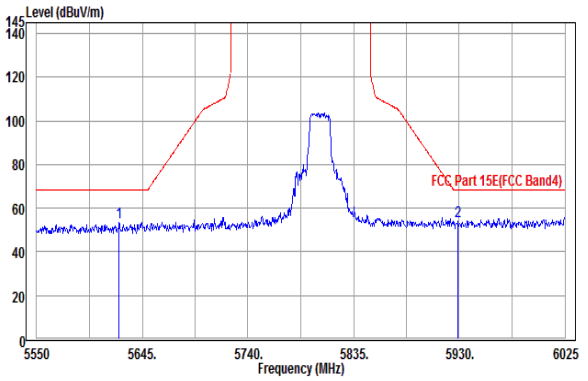


802.11n (40MHz)

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	96.42	93.99			35.21	16.37	49.15	115	20	Average
5755	105.83	103.40			35.21	16.37	49.15	115	20	Peak
11510	48.18	38.14	54.00	-5.82	39.11	19.09	48.16	100	156	Average
11510	60.40	50.36	54.00	6.40	39.11	19.09	48.16	100	156	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	89.57	87.14			35.21	16.37	49.15	100	290	Average
5755	99.73	97.30			35.21	16.37	49.15	100	290	Peak
11510	47.89	37.85	54.00	-6.11	39.11	19.09	48.16	100	115	Average
11510	59.67	49.63	74.00	-14.33	39.11	19.09	48.16	100	115	Peak

REMARKS:

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

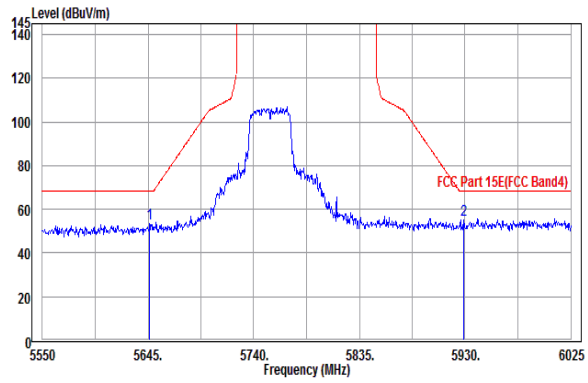
OOBE DATA

802.11n (40MHZ)

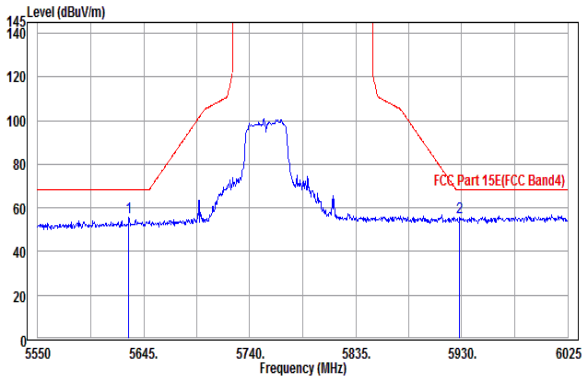
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5646.43	53.63	52.02	68.30	-14.67	35.08	15.66	49.13	115	20	Peak
5929.05	55.26	51.50	68.30	-13.04	35.41	17.51	49.16	115	20	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
5631.70	55.92	54.42	68.30	-12.38	35.06	15.57	49.13	100	290	Peak
5928.10	55.63	51.88	68.30	-12.67	35.41	17.50	49.16	100	290	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	96.32	93.59			35.25	16.63	49.15	110	20	Average
5795	106.80	104.07			35.25	16.63	49.15	110	20	Peak
11590	48.25	38.12	54.00	-5.75	39.17	19.13	48.17	100	256	Average
11590	60.98	50.85	74.00	-13.02	39.17	19.13	48.17	100	256	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
5795	89.73	87.00			35.25	16.63	49.15	100	290	Average
5795	100.99	98.26			35.25	16.63	49.15	100	290	Peak
11590	47.69	37.56	54.00	-6.31	39.17	19.13	48.17	100	120	Average
11590	60.34	50.21	74.00	-13.66	39.17	19.13	48.17	100	120	Peak

REMARKS:

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

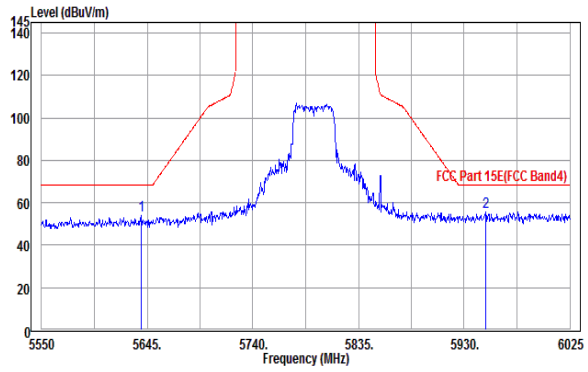
OOBE DATA

802.11n (40MHZ)

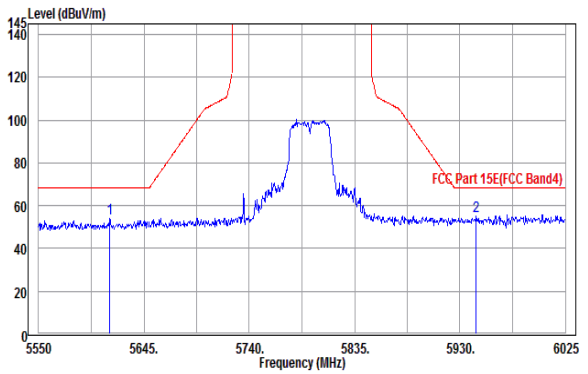
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M										
FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	READ LEVEL (dBuV)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA FACTOR (dB /m)	CABLE LOSS (dB)	PREAMP FACTOR (dB)	ANTENNA HEIGHT (cm)	TABLE ANGLE (Degree)	REMARK
5639.30	53.80	52.24	68.30	-14.50	35.07	15.62	49.13	110	20	Peak
5949.48	55.43	51.51	68.30	-12.87	35.44	17.64	49.16	110	20	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
5614.13	53.81	52.45	68.30	-14.49	35.04	15.45	49.13	100	290	Peak
5944.73	54.86	50.98	68.30	-13.44	35.43	17.61	49.16	100	290	Peak

CH 159

Horiontal



Vertical



4.2 CONDUCTED EMISSION MEASUREMENT

4.2.1 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.

4.2.2 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESR7	101494	Apr. 05,16	Apr. 04,17
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	Mar. 04,16	Mar. 03,17
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	Apr. 05,16	Apr. 04,17
Voltage probe	SCHWARZBECK	TK 9421	TK 9421-176	Nov. 25,16	Nov. 24,17
Test software	ADT	ADT_Cond_V7.3.7	N/A	N/A	N/A

NOTE:

1. The test was performed in shielded room 553.
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.

4.2.3 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.

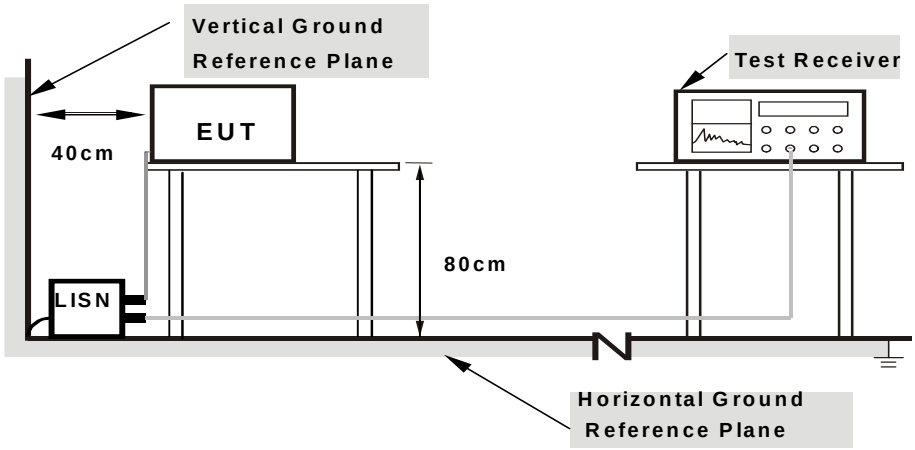
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



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

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

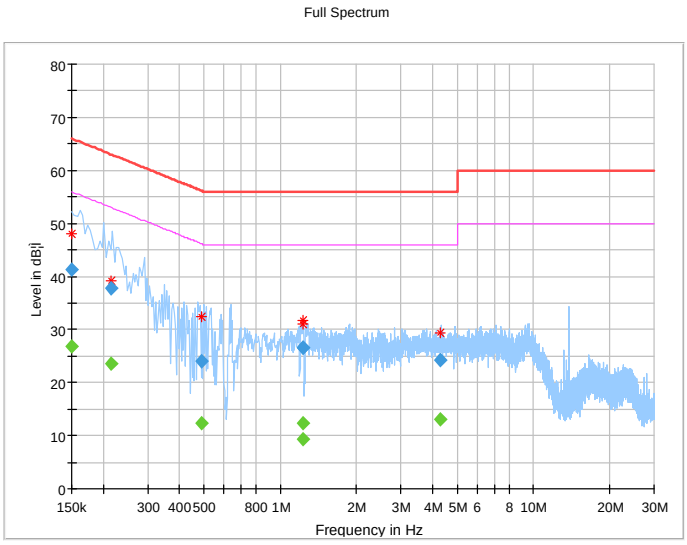
4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：

Frequency Range	150KHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	**Environmental Conditions**	24deg. C, 55RH
Tested By	Alex Chen	**TEST DATE**	2017/02/09

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	26.82	56.00	-29.18	L	ON	9.6
0.150000	**41.21**	**---**	**66.00**	**-24.79**	**L**	**ON**	**9.6**
0.216000	---	23.60	52.97	-29.37	L	ON	9.7
0.216000	37.80	---	62.97	-25.17	L	ON	9.7
0.488000	---	12.29	46.20	-33.91	L	ON	9.7
0.488000	24.02	---	56.20	-32.18	L	ON	9.7
1.224000	26.60	---	56.00	-29.40	L	ON	9.7
1.224000	---	9.34	46.00	-36.66	L	ON	9.7
1.236000	26.60	---	56.00	-29.40	L	ON	9.7
1.236000	---	12.33	46.00	-33.67	L	ON	9.7
4.308000	---	13.13	46.00	-32.87	L	ON	9.7
4.308000	24.27	---	56.00	-31.73	L	ON	9.7

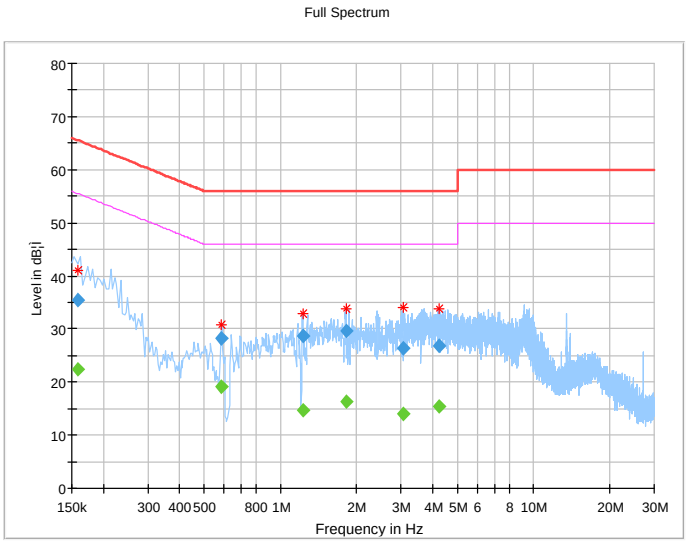
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission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



Frequency Range	150KHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120Vac, 60Hz	Environmental Conditions	24deg. C, 55RH
Tested By	Alex Chen	TEST DATE	2017/02/09

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.158000	---	22.29	55.57	-33.28	N	ON	10.1
0.158000	35.43	---	65.57	-30.14	N	ON	10.1
0.588000	---	19.20	46.00	-26.80	N	ON	10.1
0.588000	28.27	---	56.00	-27.73	N	ON	10.1
1.228000	---	14.75	46.00	-31.25	N	ON	9.9
1.228000	28.58	---	56.00	-27.42	N	ON	9.9
1.824000	---	16.42	46.00	-29.58	N	ON	9.8
1.824000	29.58	---	56.00	-26.42	N	ON	9.8
3.044000	---	14.01	46.00	-31.99	N	ON	9.8
3.044000	26.24	---	56.00	-29.76	N	ON	9.8
4.240000	---	15.30	46.00	-30.70	N	ON	9.8
4.240000	26.77	---	56.00	-29.23	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 = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

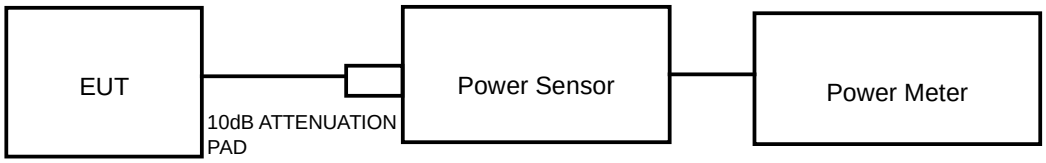
4.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

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)

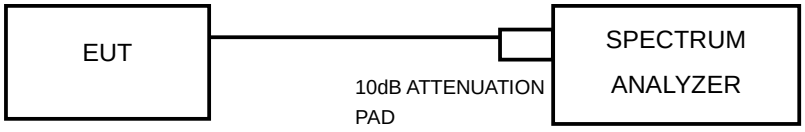
NOTE: Where B is the 26dB emission bandwidth in MHz.

4.3.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 26dB BANDWIDTH



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR POWER MEASUREMENT

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

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.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

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

4.3.7 TEST RESULTS

OUTPUT POWER:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	17.701	12.48	24	PASS
40	5200	16.672	12.22	24	PASS
48	5240	16.406	12.15	24	PASS
52	5260	17.783	12.50	24	PASS
60	5300	17.906	12.53	24	PASS
64	5320	18.408	12.65	24	PASS
100	5500	17.061	12.32	24	PASS
116	5580	16.444	12.16	24	PASS
132	5660	18.030	12.56	24	PASS
140	5700	19.588	12.92	24	PASS
149	5745	20.417	13.10	30	PASS
157	5785	20.230	13.06	30	PASS
161	5805	19.320	12.86	30	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
36	5180	17.783	12.50	24	PASS
40	5200	17.418	12.41	24	PASS
48	5240	16.181	12.09	24	PASS
52	5260	17.219	12.36	24	PASS
60	5300	18.113	12.58	24	PASS
64	5320	18.836	12.75	24	PASS
100	5500	16.520	12.18	24	PASS
116	5580	16.749	12.24	24	PASS
132	5660	18.707	12.72	24	PASS
140	5700	15.417	11.88	24	PASS
149	5745	21.281	13.28	30	PASS
157	5785	20.184	13.05	30	PASS
161	5805	19.143	12.82	30	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)	AVERAGE POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
38	5190	15.885	12.01	24	PASS
46	5230	15.596	11.93	24	PASS
54	5270	16.331	12.13	24	PASS
62	5310	16.558	12.19	24	PASS
102	5510	12.764	11.06	24	PASS
110	5550	14.388	11.58	24	PASS
134	5670	19.588	12.92	24	PASS
151	5755	20.417	13.10	30	PASS
161	5805	19.634	12.93	30	PASS

99% OCCUPIED BANDWIDTH & 26dB BANDWIDTH/6dB BANDWIDTH:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	17.10	27.32	PASS
40	5200	17.04	25.21	PASS
48	5240	17.04	27.22	PASS
52	5260	17.04	25.47	PASS
60	5300	16.98	27.91	PASS
64	5320	17.04	31.22	PASS
100	5500	17.10	26.96	PASS
116	5580	17.04	26.55	PASS
132	5660	17.04	28.39	PASS
140	5700	16.95	25.73	PASS
CHANNEL	**CHANNEL FREQUENCY (MHz)**	**99% OCCUPIED BANDWIDTH**	**6dB BANDWIDTH (MHz)**	**PASS/FAIL**
149	5745	24.78	16.31	PASS
157	5785	25.32	16.31	PASS
161	5805	25.74	16.30	PASS

802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	17.94	26.61	PASS
40	5200	18.06	27.98	PASS
48	5240	18.06	23.05	PASS
52	5260	18.06	26.77	PASS
60	5300	17.82	26.77	PASS
64	5320	18.06	24.40	PASS
100	5500	18.06	28.96	PASS
116	5580	18.12	30.95	PASS
132	5660	18.18	36.62	PASS
140	5700	18.00	24.07	PASS
CHANNEL	**CHANNEL FREQUENCY (MHz)**	**99% OCCUPIED BANDWIDTH**	**6dB BANDWIDTH (MHz)**	**PASS/FAIL**
149	5745	25.68	17.49	PASS
157	5785	27.90	17.55	PASS
161	5805	26.88	17.52	PASS

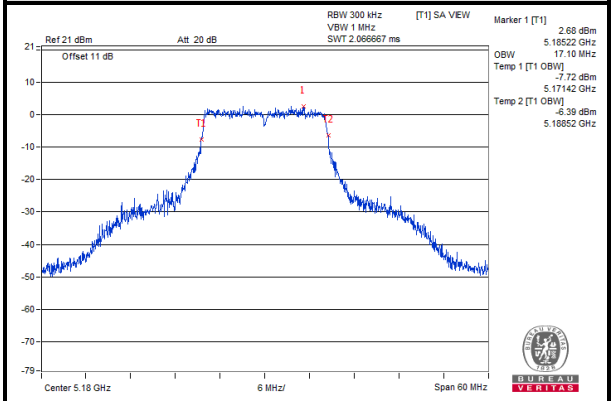
802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
38	5190	36.48	51.60	PASS
46	5230	36.48	52.03	PASS
54	5270	36.48	45.60	PASS
62	5310	36.30	49.55	PASS
102	5510	36.42	46.35	PASS
110	5550	36.42	45.11	PASS
134	5670	36.36	53.75	PASS
CHANNEL	**CHANNEL FREQUENCY (MHz)**	**99% OCCUPIED BANDWIDTH**	**6dB BANDWIDTH (MHz)**	**PASS/FAIL**
151	5755	38.34	35.04	PASS
159	5795	40.86	35.10	PASS

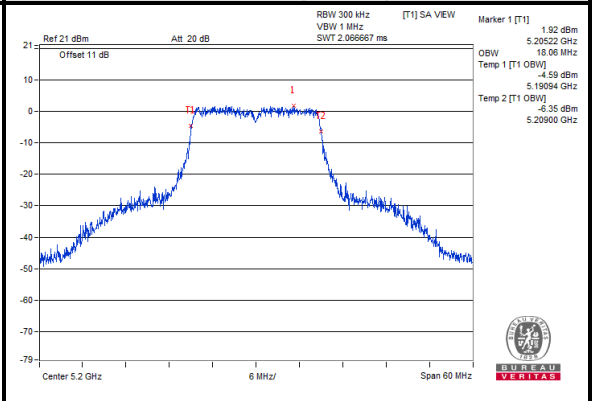
For U-NII-1:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH

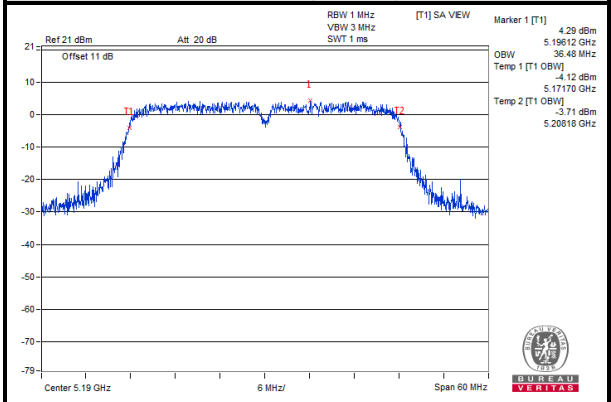
802.11a

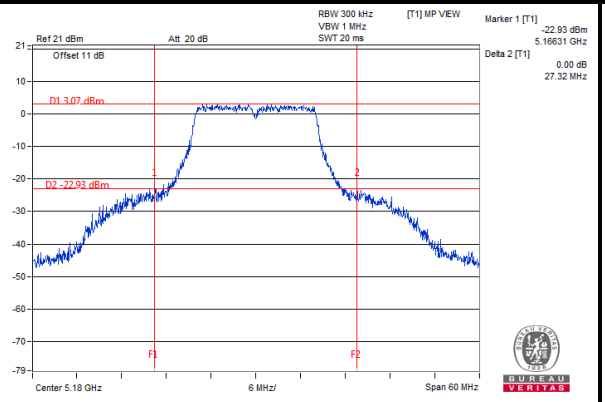
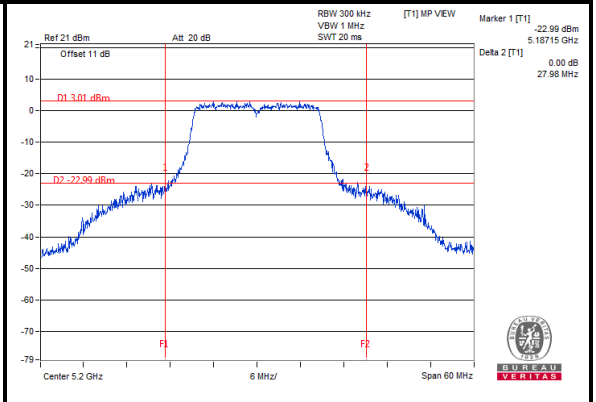
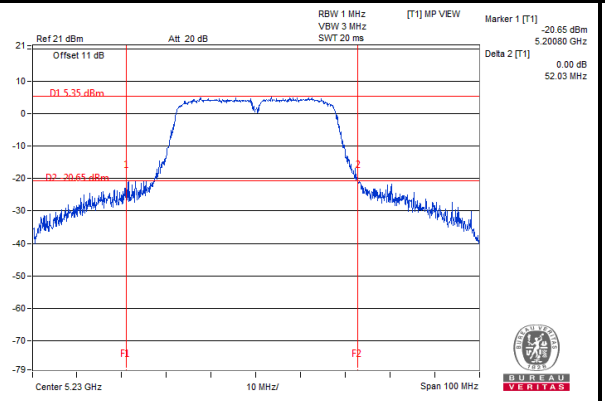


802.11n (20MHz)

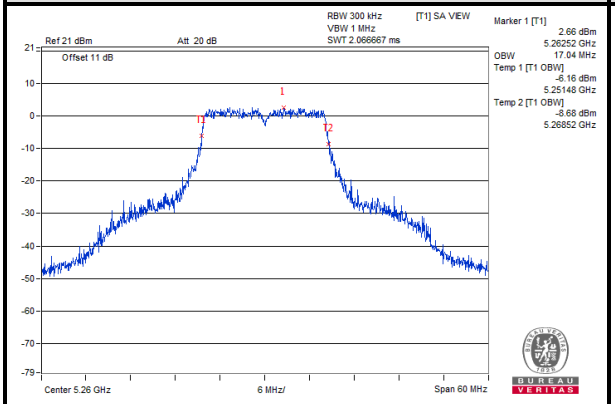
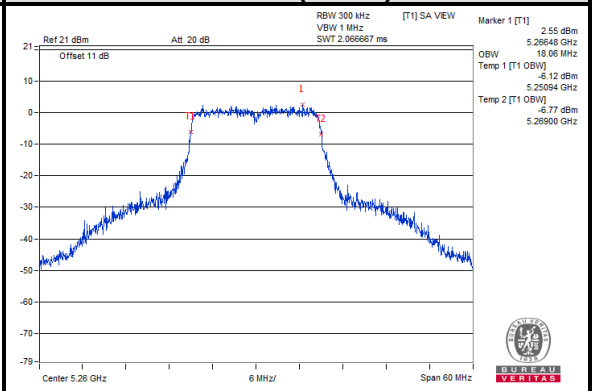
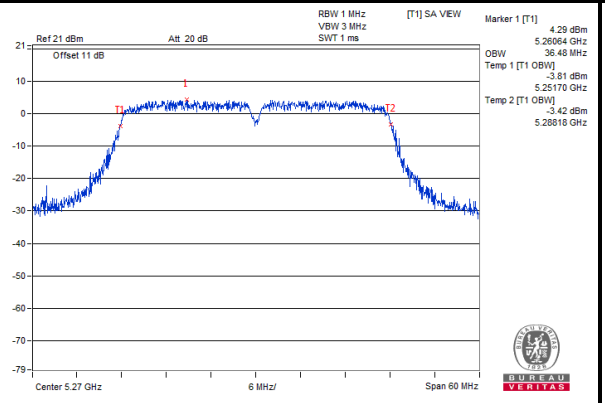


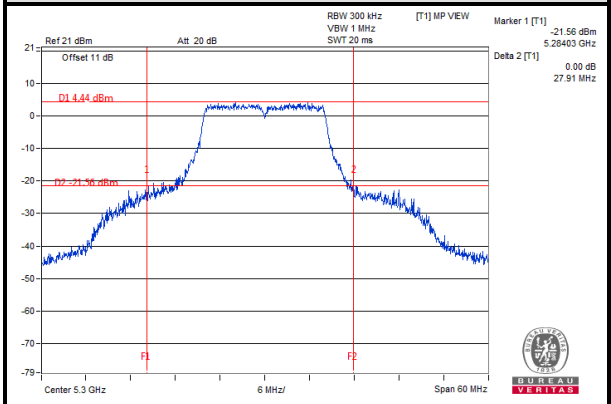
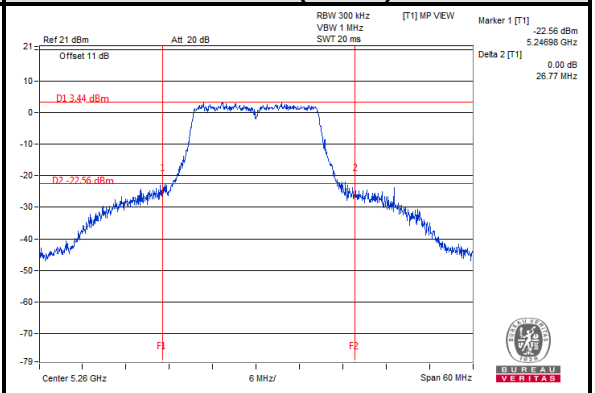
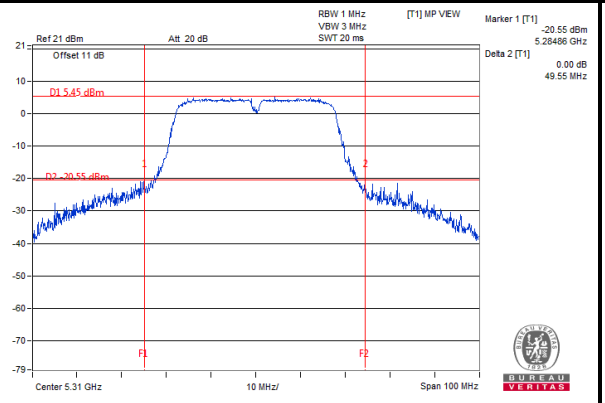
802.11n (40MHz)



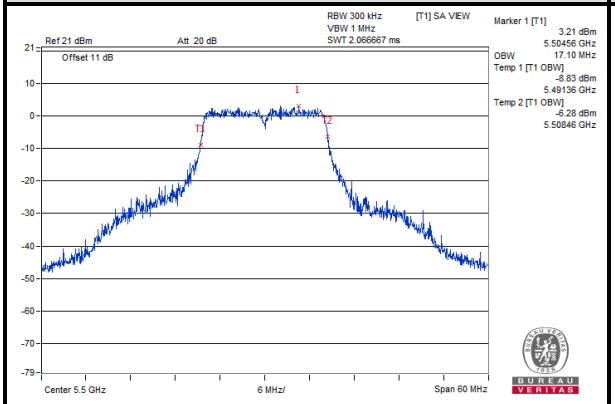
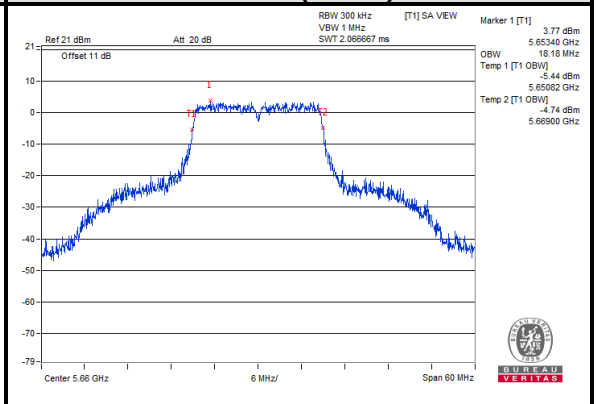
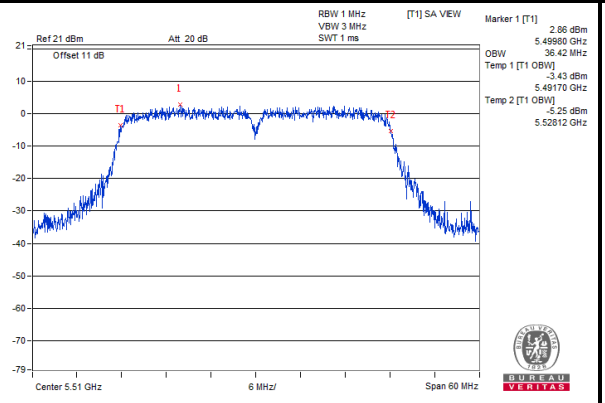
SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

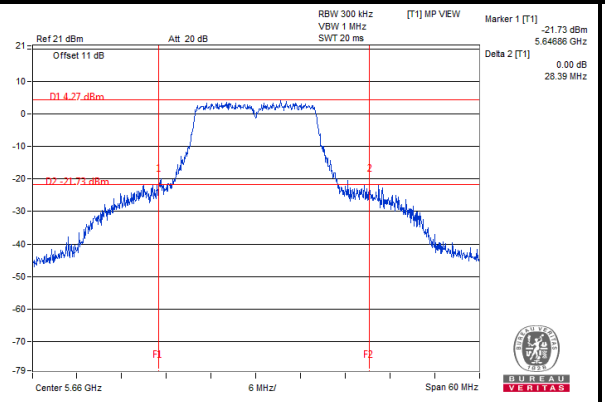
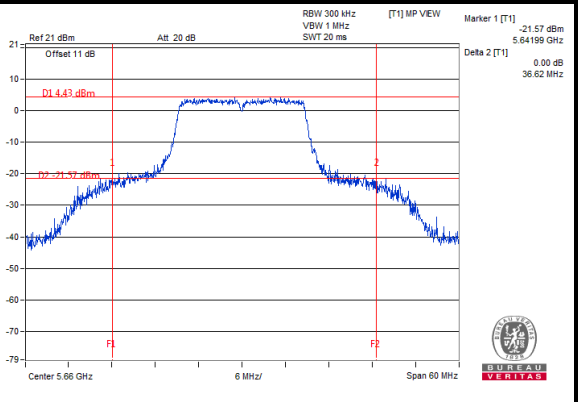
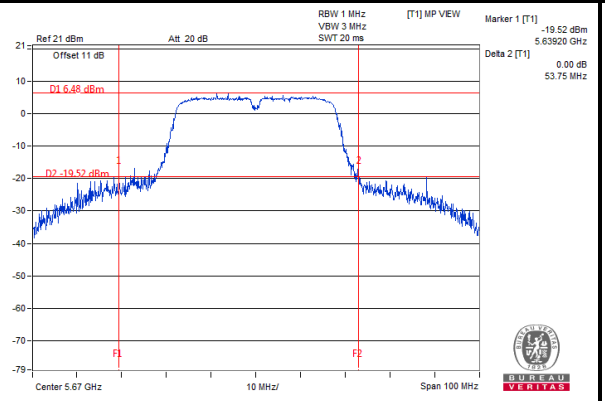
For U-NII-2A:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

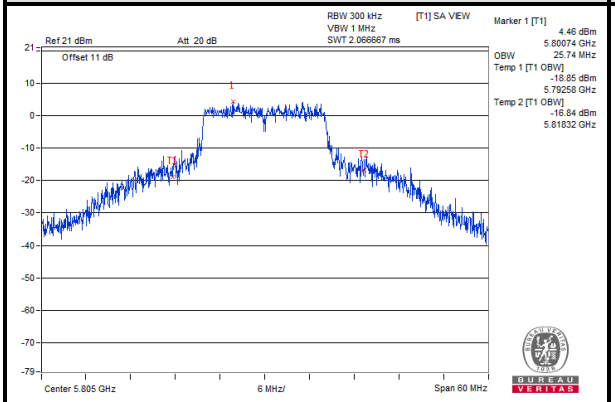
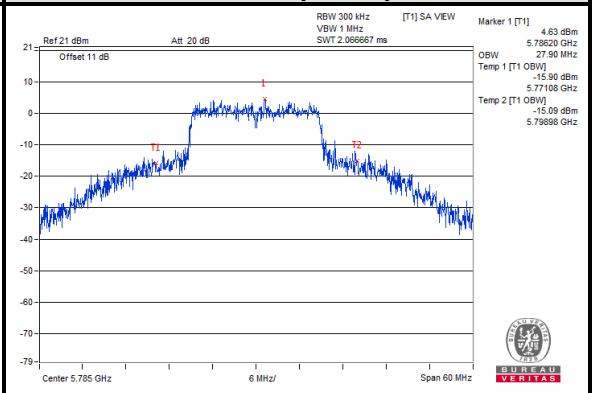
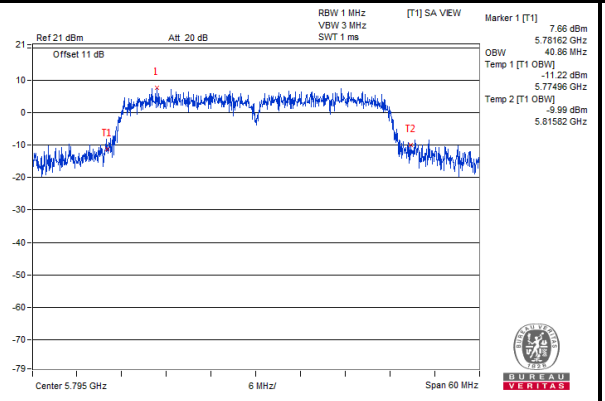
SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

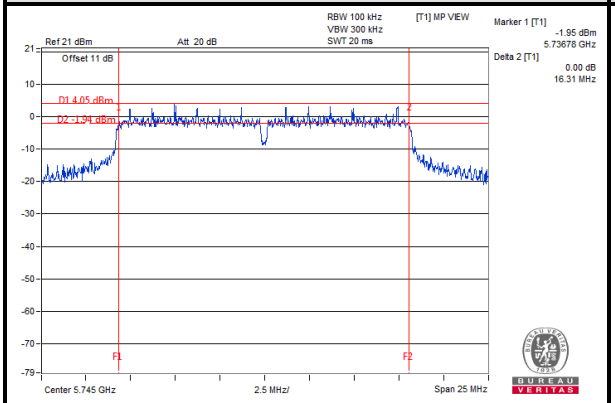
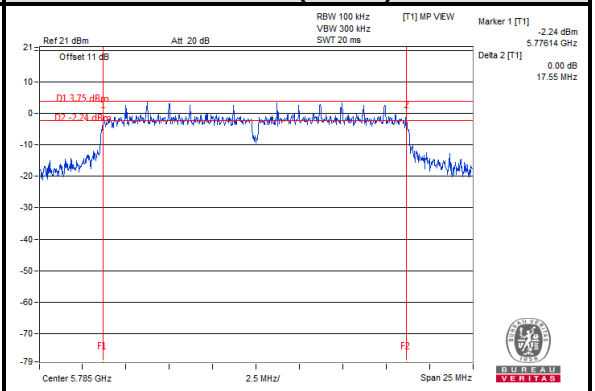
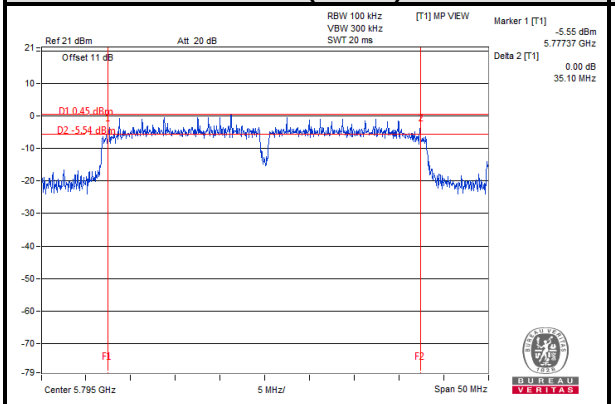
For U-NII-2C:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

SPECTRUM PLOT OF WORST VALUE of 26dB Bandwidth	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

For U-NII-3:

SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

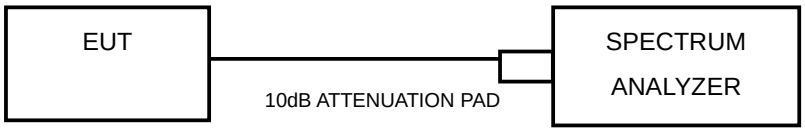
SPECTRUM PLOT OF WORST VALUE of 6dB Bandwidth	
802.11a	**802.11n (20MHz)**
	
802.11n (40MHz)	
	

4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

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

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.4.7 TEST RESULTS

For U-NII-1, U-NII-2A & U-NII-2C:

802.11a

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
36	5180	5.76	0.65	6.41	11	PASS
40	5200	5.63	0.65	6.28	11	PASS
48	5240	5.41	0.65	6.06	11	PASS
52	5260	5.70	0.65	6.35	11	PASS
60	5300	6.63	0.65	7.28	11	PASS
64	5320	6.35	0.65	7.00	11	PASS
100	5500	5.99	0.65	6.64	11	PASS
116	5580	5.76	0.65	6.41	11	PASS
132	5660	6.11	0.65	6.76	11	PASS
140	5700	6.30	0.65	6.95	11	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
36	5180	5.53	0.64	6.17	11	PASS
40	5200	6.14	0.64	6.78	11	PASS
48	5240	5.11	0.64	5.75	11	PASS
52	5260	5.71	0.64	6.35	11	PASS
60	5300	5.86	0.64	6.5	11	PASS
64	5320	5.59	0.64	6.23	11	PASS
100	5500	5.28	0.64	5.92	11	PASS
116	5580	6.63	0.64	7.27	11	PASS
132	5660	6.38	0.64	7.02	11	PASS
140	5700	4.73	0.64	5.37	11	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
38	5190	1.80	1.24	3.04	11	PASS
46	5230	1.15	1.24	2.39	11	PASS
54	5270	1.81	1.24	3.05	11	PASS
62	5310	2.23	1.24	3.47	11	PASS
102	5510	-0.11	1.24	1.13	11	PASS
110	5550	0.31	1.24	1.55	11	PASS
134	5670	2.35	1.24	3.59	11	PASS

For U-NII-3:

802.11a

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
149	5745	8.92	0.65	9.57	30	PASS
157	5785	8.53	0.65	9.18	30	PASS
161	5805	8.67	0.65	9.32	30	PASS

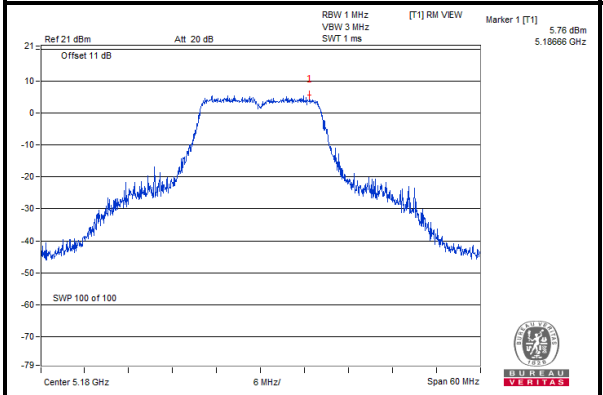
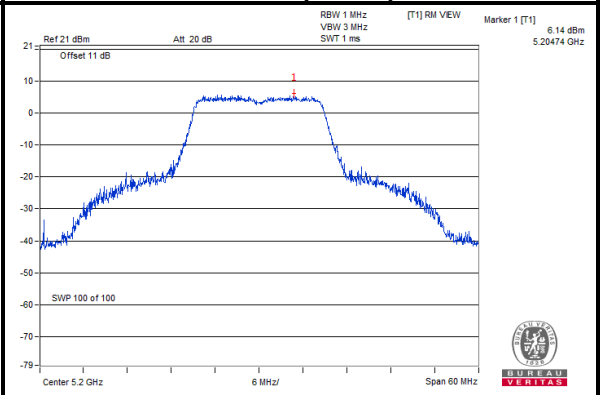
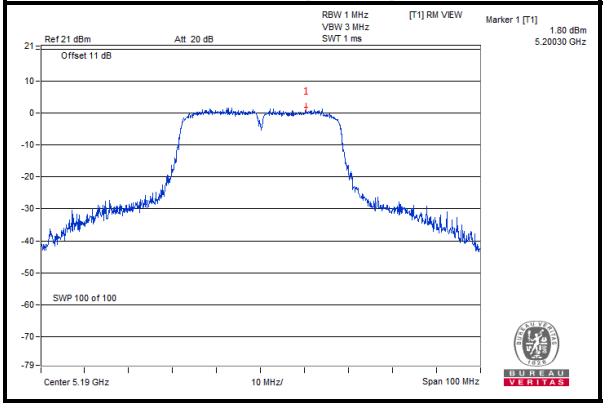
802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
149	5745	9.00	0.64	9.64	30	PASS
157	5785	8.95	0.64	9.59	30	PASS
161	5805	8.48	0.64	9.12	30	PASS

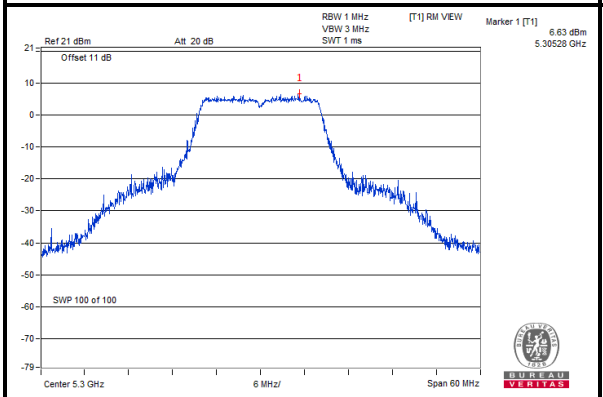
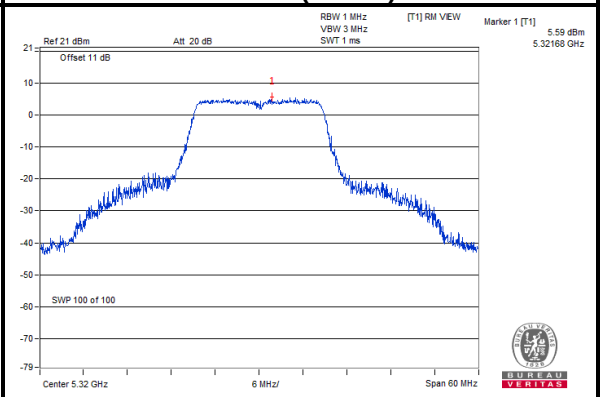
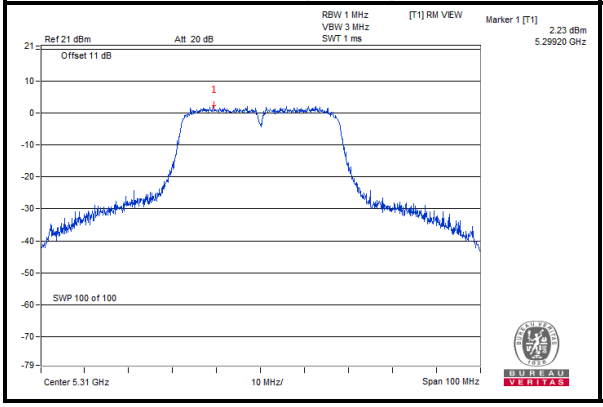
802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
151	5755	6.13	1.24	7.37	30	PASS
159	5795	5.39	1.24	6.63	30	PASS

For 5180~5240MHz

PSD w/o Duty Factor	
802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

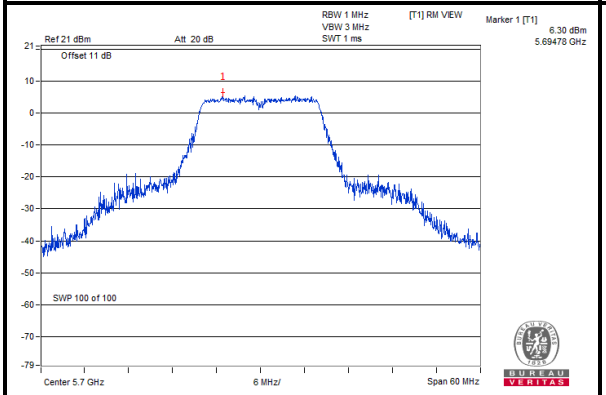
For 5260~5320MHz

PSD w/o Duty Factor	
802.11a	802.11n (20MHz)
	
802.11n (40MHz)	
	

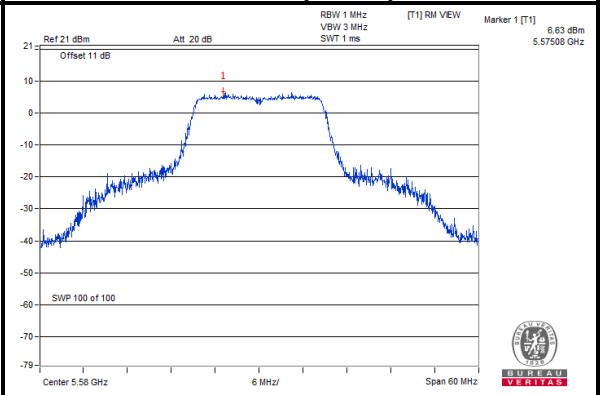
For 5500~5700MHz

PSD w/o Duty Factor

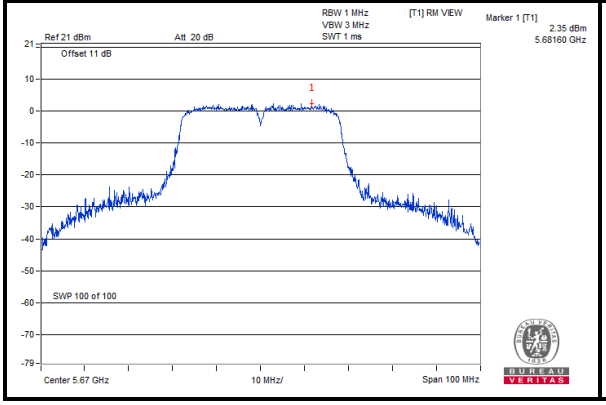
802.11a



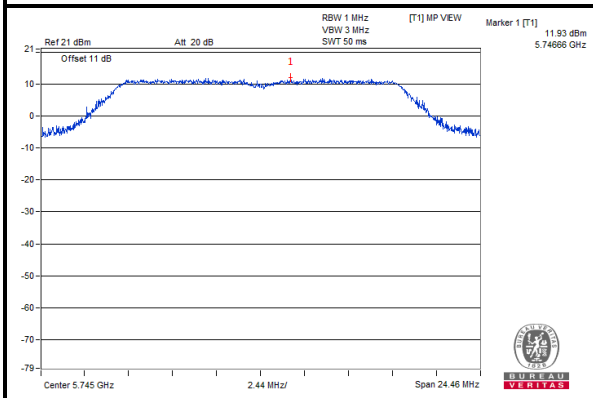
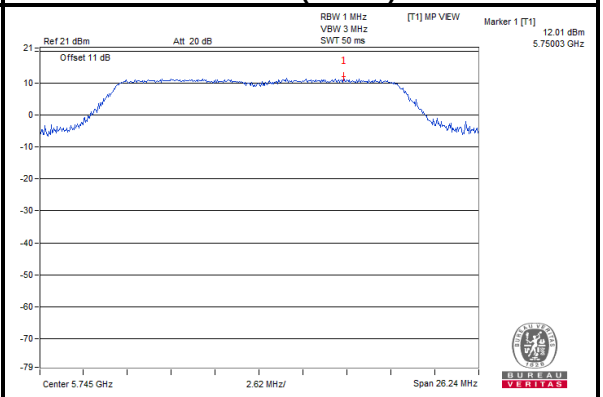
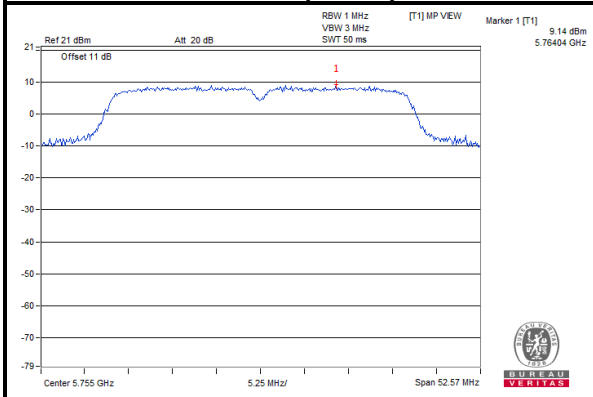
802.11n (20MHz)



802.11n (40MHz)



For 5745~5805MHz

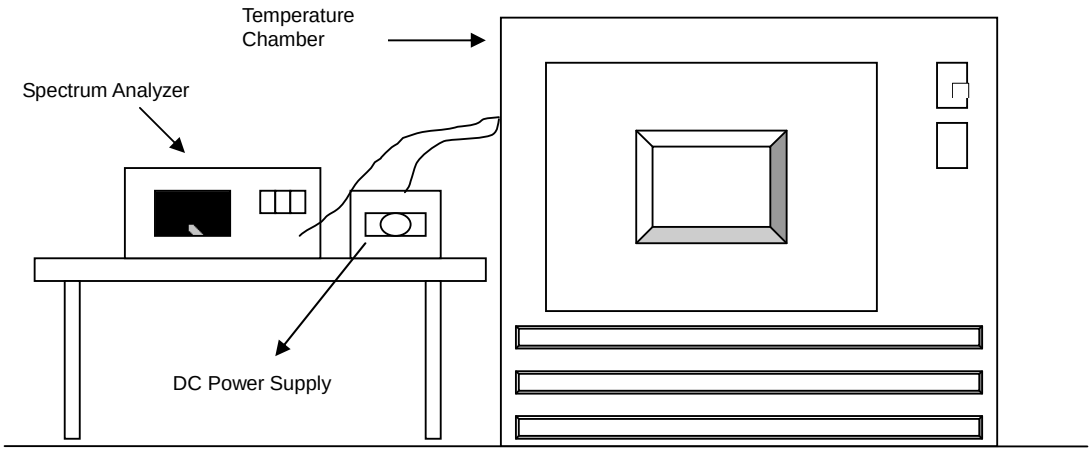
PSD w/o Duty Factor	
802.11a	**802.11n (20MHz)**
	
Note: The peak power spectral density is a "calculated" value derived from the conducted value: 11.93dBm/MHz=8.92dBm/500kHz	**Note: The peak power spectral density is a "calculated" value derived from the conducted value: 12.01dBm/MHz=9.00dBm/500kHz**
802.11n (40MHz)	
	
Note: The peak power spectral density is a "calculated" value derived from the conducted value: 9.14dBm/MHz=6.13dBm/500kHz	

4.5 FREQUENCY STABILITY

4.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

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

4.5.7 TEST RESULTS

FREQUEMCY STABILITY VERSUS TEMP.										RESULT
OPERATING FREQUENCY: 5180MHz										
TEMP. (℃)	Power Supply (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE		
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	
50	3.7	5180.0187	3.610	5180.0156	3.012	5180.0192	3.707	5180.0188	3.629	PASS
40	3.7	5180.015	2.896	5180.0103	1.988	5180.0076	1.467	5180.0106	2.046	PASS
30	3.7	5179.9751	-4.807	5179.9723	-5.347	5179.9782	-4.208	5179.9769	-4.459	PASS
20	3.7	5180.0016	0.309	5180.0065	1.255	5180.0089	1.718	5180.0039	0.753	PASS
10	3.7	5179.9852	-2.857	5179.9832	-3.243	5179.9763	-4.575	5179.9797	-3.919	PASS
0	3.7	5180.015	2.896	5180.0243	4.691	5180.0237	4.575	5180.0165	3.185	PASS
-10	3.7	5179.9944	-1.081	5179.9886	-2.201	5179.991	-1.737	5179.9884	-2.239	PASS
-20	3.7	5179.9889	-2.143	5179.9863	-2.645	5179.9916	-1.622	5179.9883	-2.259	PASS
-30	3.7	5180.0041	0.792	5180.0077	1.486	5180.0099	1.911	5180.0084	1.622	PASS

FREQUEMCY STABILITY VERSUS VOLTAGE										RESULT
OPERATING FREQUENCY: 5180MHz										
TEMP. (℃)	Power Supply (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE		
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	
20	4.35	5180.0015	0.290	5180.0063	1.216	5180.0095	1.834	5180.0044	0.849	PASS
	3.7	5180.0016	0.309	5180.0065	1.255	5180.0089	1.718	5180.0039	0.753	PASS
	3.5	5180.0017	0.328	5180.0064	1.236	5180.009	1.737	5180.0032	0.618	PASS

FREQUEMCY STABILITY VERSUS TEMP.										RESULT
OPERATING FREQUENCY: 5805MHz										
TEMP. (℃)	Power Supply (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE		
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	
50	3.7	5805.012	2.067	5805.0164	2.825	5805.0139	2.394	5805.0135	2.326	PASS
40	3.7	5804.9926	-1.275	5804.9947	-0.913	5804.9952	-0.827	5804.9998	-0.034	PASS
30	3.7	5804.9786	-3.686	5804.9817	-3.152	5804.9774	-3.893	5804.9872	-2.205	PASS
20	3.7	5805.0189	3.256	5805.0211	3.635	5805.0273	4.703	5805.0263	4.531	PASS
10	3.7	5804.9755	-4.220	5804.9798	-3.480	5804.9874	-2.171	5804.9764	-4.065	PASS
0	3.7	5805.034	5.857	5805.0276	4.755	5805.0329	5.668	5805.0276	4.755	PASS
-10	3.7	5804.9764	-4.065	5804.981	-3.273	5804.9781	-3.773	5804.9805	-3.359	PASS
-20	3.7	5804.9805	-3.359	5804.9791	-3.600	5804.9784	-3.721	5804.9777	-3.842	PASS
-30	3.7	5805.0042	0.724	5805.0018	0.310	5805.0049	0.844	5804.9994	-0.103	PASS

FREQUEMCY STABILITY VERSUS VOLTAGE										RESULT
OPERATING FREQUENCY: 5805MHz										
TEMP. (℃)	Power Supply (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE		
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	
20	4.35	5805.0176	3.032	5805.0218	3.755	5805.0277	4.772	5805.0265	4.565	PASS
	3.7	5805.0189	3.256	5805.0211	3.635	5805.0273	4.703	5805.0263	4.531	PASS
	3.5	5805.0175	3.015	5805.0232	3.997	5805.0262	4.513	5805.0264	4.548	PASS

5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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

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

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

---END---