

FCC TEST REPORT

(WIFI 5G)

Product: LENOVO CAST

Model Name: WD200

FCC ID: O57WD200

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Report No.: RF150414N009-2

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Test Report No.: RF150414N009-2

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF150414N009-2	Original release	May 06, 2015



1 CERTIFICATION

PRODUCT: LENOVO CAST
BRAND NAME: Lenovo
MODEL NAME: WD200
APPLICANT: Lenovo (Shanghai) Electronics Technology Co., Ltd.
TESTED: Apr. 15, 2015 ~ May 05, 2015
TEST SAMPLE: Production Unit
STANDARDS: **FCC Part 15, Subpart E (15.407), Section 15.407**
ANSI C63.10-2009

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 : Yuqiang Yin , **DATE:** May 06, 2015
(Yuqiang Yin / Engineer)

APPROVED BY : Glyn He , **DATE:** May 06, 2015
(Glyn He / Supervisor)



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	N/A	N/A
15.407(b/1/2/3) (b)(5)	Electric Field Strength Spurious Emissions, 30MHz ~ 40000MHz	PASS	Meet the requirement of limit. Minimum passing margin is -5.1dB at 30.00MHz.
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(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
Radiated emissions	9KHz ~ 30MHz	2.74dB
	30MHz ~ 1GMHz	3.55dB
	1GHz ~ 18GHz	4.84dB
	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

PRODUCT	LENOVO CAST
MODEL NAME	WD200
POWER SUPPLY	5.0Vdc (adapter or host equipment)
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 ~ 5825MHz
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 ~ 5825MHz: 4 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
AVERAGE POWER	18.355mW for 5180 ~ 5240MHz 17.795mW for 5260 ~ 5320MHz 19.472mW for 5500 ~ 5700MHz 17.826mW for 5745 ~ 5825MHz
ANTENNA TYPE	5180 ~ 5240MHz: PIFA Antenna with 2dBi gain 5260 ~ 5320MHz: PIFA Antenna with 2dBi gain 5500 ~ 5700MHz: PIFA Antenna with 2dBi gain 5745 ~ 5825MHz: PIFA Antenna with 2dBi gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	USB Cable: Shielded, Detachable, 1.0m HDMI Cable: Shielded, Detachable, 1.0m

NOTE:

- For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- The EUT incorporates a SISO function. Physically, the EUT provides one completed transmitters and one receivers.

MODULATION MODE	TX FUNCTION
802.11a	1TX/1RX
802.11n (20MHz)	2TX/2RX
802.11n (40MHz)	2TX/2RX

- 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 ~ 5850MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
151	5755MHz	159	5795MHz



3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	-	√	Powered by USB with wifi(5G) link
B	-	-	-	-	Powered by Battery with wifi(5G) link
C	-	-	-	-	Powered by Adapter 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, 44, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 44, 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 165	149, 157, 165	OFDM	BPSK	6.0
A	802.11n (20MHz)		149 to 165	149, 157, 165	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	802.11a	5180-5320	36 to 64	36	OFDM	BPSK	6.0



POWER LINE CONDUCTED EMISSION TEST:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A	802.11a	5180-5320	36 to 64	36	OFDM	BPSK	6.0

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 165	149, 165	OFDM	BPSK	6.0
A	802.11n (20MHz)		149 to 165	149, 165	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)
A	802.11a	5180-5240	36 to 48	36, 44, 48	OFDM	BPSK	6.0
A	802.11n (20MHz)		36 to 48	36, 44, 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 165	149, 157, 165	OFDM	BPSK	6.0
A	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
A	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	5.0Vdc (adapter or host equipment)	Blue Zheng
RE≥1G	23deg. C, 62%RH	5.0Vdc (adapter or host equipment)	Blue Zheng
PLC	24deg. C, 61%RH	5.0Vdc (adapter or host equipment)	Yuqiang Yin
APCM	23.5deg. C, 60%RH	5.0Vdc (adapter or host equipment)	Yuqiang Yin



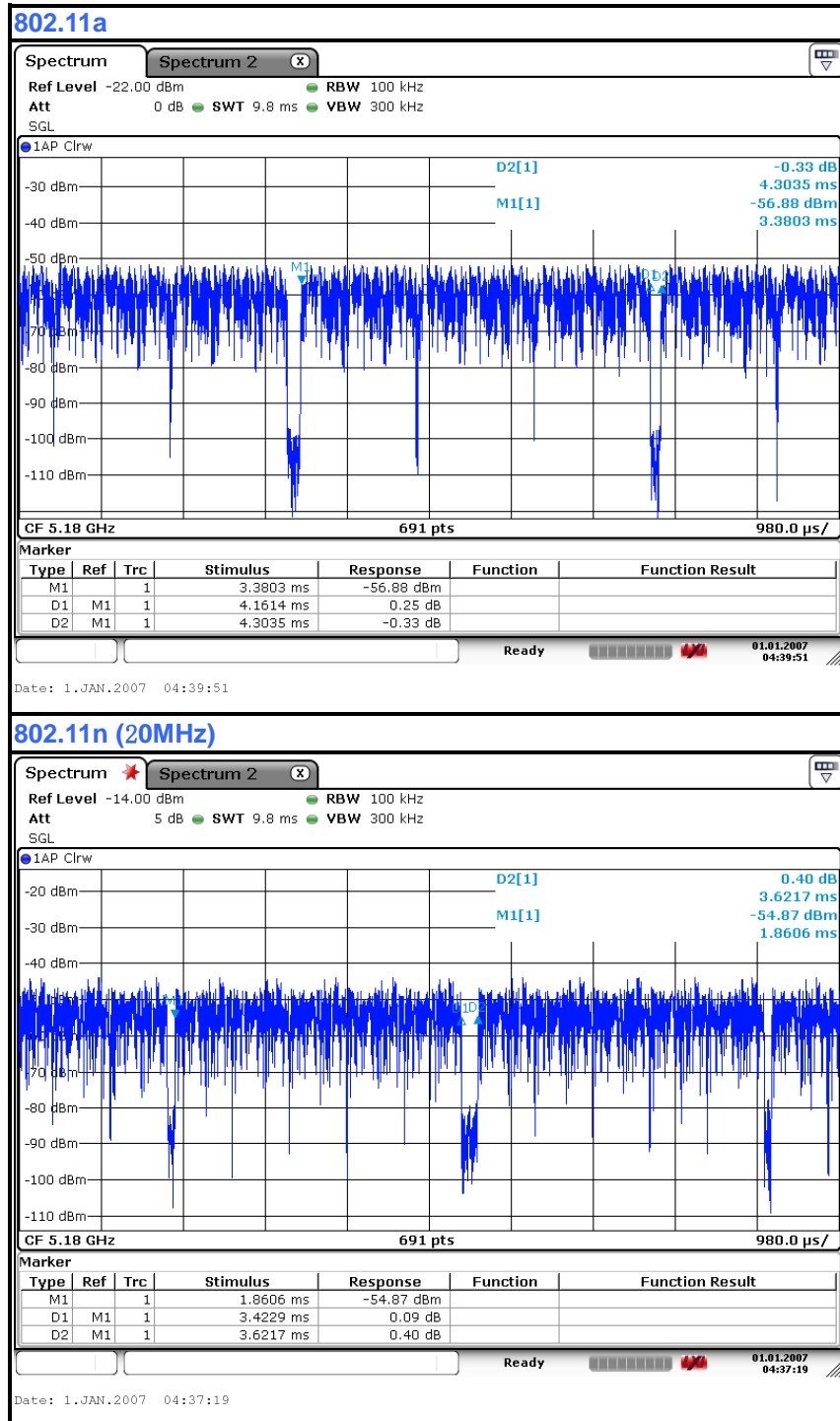
3.3 DUTY CYCLE OF TEST SIGNAL

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

802.11a: Duty cycle = 4.161/4.304 = 0.967, Duty factor = 10 * log(1/0.967) = 0.15

802.11n (20MHz): Duty cycle = 3.423/3.622 = 0.945, Duty factor = 10 * log(1/0.945) = 0.25

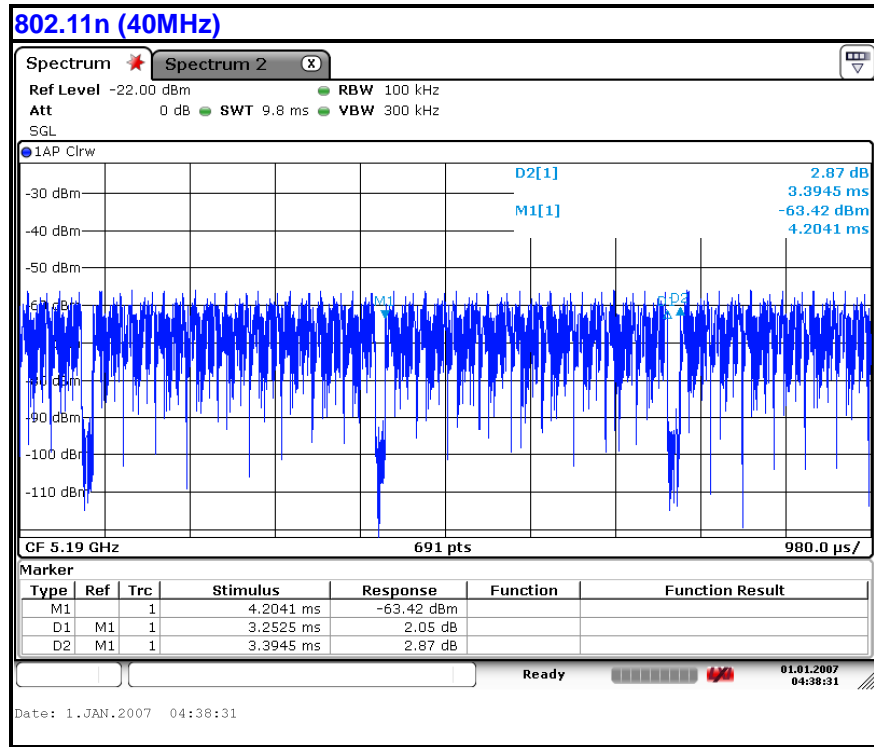
802.11n (40MHz): Duty cycle = 3.253/3.395 = 0.958, Duty factor = 10 * log(1/0.958) = 0.19





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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

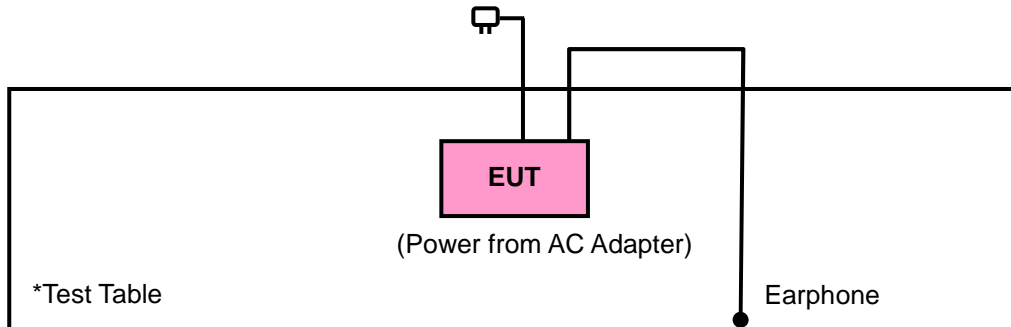
NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.0m
2	AC Line: Unshielded, Detachable 1.5m

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_v01_General UNII Test Procedures New Rules

ANSI C63.10-2009

NOTE:

1. All test items have been performed and recorded as per the above standards. Due to the EUT is through the DC power supply, there was no need for Conducted Emission test.
2. The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.



4 TEST TYPES AND RESULTS

4.1 RADIATED EMISSION AND BANDEDGE MEASUREMENT

4.1.1 LIMITS OF RADIATED EMISSION AND BANDEDGE MEASUREMENT

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

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

NOTE:

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

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
	FIELD STRENGTH AT 3m (dBµV/m)	
	PK	AV
	74	54
√	EIRP LIMIT (dBm)	
	PK	PK
	-27	68.3

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

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



4.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESU 26	100005	May 13,14	May 12,15
Bilog Antenna	Teseq	CBL 6111D	30643	Jul. 25, 14	Jul. 24, 15
Horn Antenna (1GHz -18GHz)	ETS -Lindgren	3117	00062558	May 30, 14	May 29, 16
Amplifier (9kHz-1GHz)	SONOMA	310D	186955	Mar. 04,15	Mar. 03, 16
Pre-Amplifier (18GHz-40GHz)	EMCI	EMC 184045	980102	Nov. 20,14	Nov. 19,15
Pre-Amplifier (100MHz-26.5GHz)	Agilent	8449B	3008A00409	May 13,14	May 12,15
GPS Generator+ Antenna	TOJOIN	GNSS-5000A	E1-010119	Aug. 08, 14	Aug. 07, 15
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	Apr. 19,14	Apr. 18,16
Test Software	ADT	ADT_Radiated _V7.6.15.9.2	N/A	N/A	N/A

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 966 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 above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

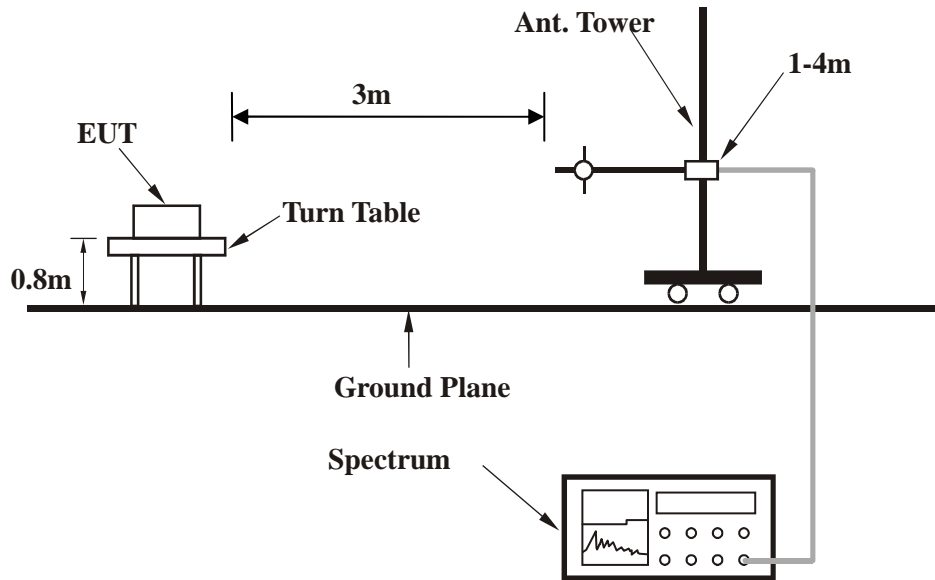
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency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



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:

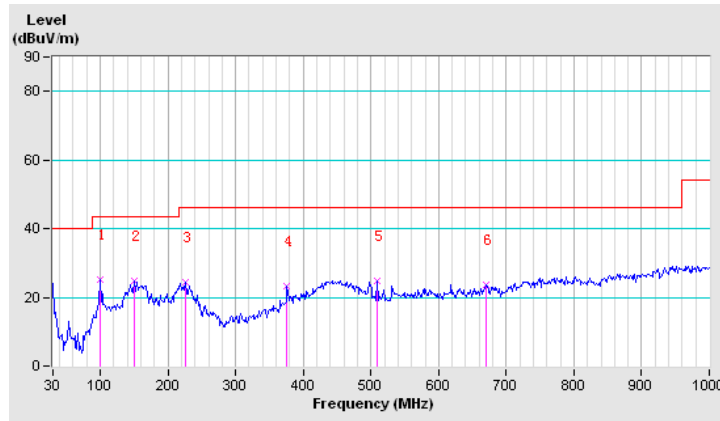
802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.52	25.3 QP	43.5	-18.2	1.00 H	0	45.56	-20.27
2	149.63	24.8 QP	43.5	-18.7	1.00 H	0	43.48	-18.70
3	225.62	24.5 QP	46.0	-21.5	1.00 H	0	43.84	-19.35
4	375.97	23.2 QP	46.0	-22.8	1.00 H	0	36.02	-12.78
5	508.53	24.8 QP	46.0	-21.2	1.00 H	0	33.16	-8.33
6	670.20	23.6 QP	46.0	-22.4	1.00 H	0	28.76	-5.18

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.



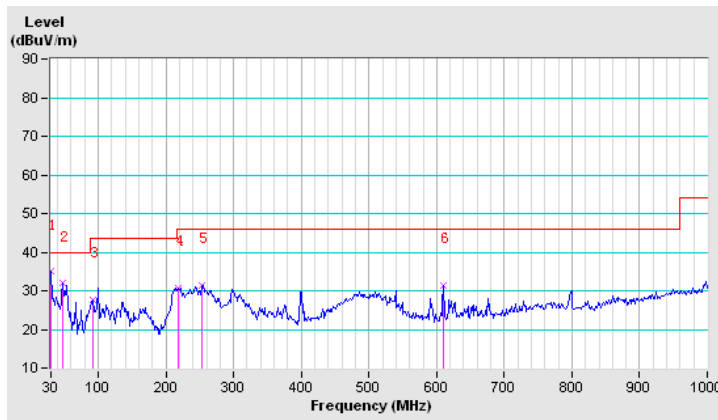


CHANNEL	Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	34.9 QP	40.0	-5.1	1.00 V	0	47.48	-12.55
2	47.78	31.9 QP	40.0	-8.1	1.00 V	0	53.45	-21.54
3	91.43	27.7 QP	43.5	-15.8	1.00 V	0	48.77	-21.06
4	217.53	30.8 QP	46.0	-15.2	1.00 V	0	50.67	-19.88
5	253.10	31.4 QP	46.0	-14.6	1.00 V	0	47.86	-16.44
6	610.38	31.3 QP	46.0	-14.7	1.00 V	0	37.21	-5.89

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: Band 1

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.2 PK	74.0	-24.8	1.01 H	346	39.04	10.12
2	5150.00	35.5 AV	54.0	-18.5	1.01 H	346	25.42	10.12
3	*5180.00	84.4 PK			1.01 H	346	74.18	10.20
4	*5180.00	72.9 AV			1.01 H	346	62.71	10.20
5	#10360.00	55.3 PK	74.0	-18.7	1.00 H	203	38.05	17.27
6	#10360.00	41.0 AV	54.0	-13.0	1.00 H	203	23.74	17.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.5 PK	74.0	-24.5	1.00 V	300	39.39	10.12
2	5150.00	35.7 AV	54.0	-18.3	1.00 V	300	25.54	10.12
3	*5180.00	82.4 PK			1.00 V	300	72.21	10.20
4	*5180.00	73.1 AV			1.00 V	300	62.92	10.20
5	#10360.00	54.3 PK	74.0	-19.7	1.00 V	142	37.05	17.27
6	#10360.00	40.8 AV	54.0	-13.2	1.00 V	142	23.50	17.27

REMARKS:

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



CHANNEL	TX Channel 44	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	86.4 PK			1.01 H	318	76.11	10.31
2	*5220.00	72.0 AV			1.01 H	318	61.72	10.31
3	#10440.00	54.3 PK	74.0	-19.7	1.00 H	312	36.89	17.37
4	#10440.00	42.1 AV	54.0	-11.9	1.00 H	312	24.69	17.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	84.2 PK			1.02 V	302	73.92	10.31
2	*5220.00	72.0 AV			1.02 V	302	61.64	10.31
3	#10440.00	47.1 PK	74.0	-26.9	1.00 V	88	29.75	17.37
4	#10440.00	42.6 AV	54.0	-11.4	1.00 V	88	25.23	17.37

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	87.3 PK			1.57 H	292	76.90	10.36
2	*5240.00	78.3 AV			1.57 H	292	67.91	10.36
3	#10480.00	54.1 PK	74.0	-20.0	1.00 H	274	36.64	17.41
4	#10480.00	41.7 AV	54.0	-12.3	1.00 H	274	24.31	17.41
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	82.9 PK			1.00 V	301	72.50	10.36
2	*5240.00	71.6 AV			1.00 V	301	61.25	10.36
3	#10480.00	54.0 PK	74.0	-20.0	1.00 V	268	36.55	17.41
4	#10480.00	41.3 AV	54.0	-12.7	1.00 V	268	23.89	17.41

REMARKS:

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



802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.2 PK	74.0	-24.8	1.01 H	142	39.04	10.12
2	5150.00	35.8 AV	54.0	-18.2	1.01 H	142	25.68	10.12
3	*5180.00	88.2 PK			1.01 H	142	78.00	10.20
4	*5180.00	75.9 AV			1.01 H	142	65.73	10.20
5	#10360.00	54.0 PK	74.0	-20.0	1.00 H	226	36.75	17.27
6	#10360.00	41.1 AV	54.0	-12.9	1.00 H	226	23.83	17.27
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.2 PK	74.0	-24.8	1.00 V	354	39.08	10.12
2	5150.00	35.5 AV	54.0	-18.5	1.00 V	354	25.42	10.12
3	*5180.00	84.6 PK			1.00 V	354	74.42	10.20
4	*5180.00	70.2 AV			1.00 V	354	60.00	10.20
5	#10360.00	54.3 PK	74.0	-19.8	1.00 V	177	36.98	17.27
6	#10360.00	40.6 AV	54.0	-13.4	1.00 V	177	23.34	17.27

REMARKS:

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



CHANNEL	TX Channel 44	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	87.1 PK			1.10 H	111	76.79	10.31
2	*5220.00	75.3 AV			1.10 H	111	65.03	10.31
3	#10440.00	54.0 PK	74.0	-20.0	1.00 H	342	36.65	17.37
4	#10440.00	40.3 AV	54.0	-13.8	1.00 H	342	22.88	17.37
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5220.00	84.3 PK			1.01 V	281	74.00	10.31
2	*5220.00	70.1 AV			1.01 V	281	59.81	10.31
3	#10440.00	53.9 PK	74.0	-20.1	1.00 V	71	36.51	17.37
4	#10440.00	40.3 AV	54.0	-13.7	1.00 V	71	22.89	17.37

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	90.0 PK			1.02 H	95	79.68	10.36
2	*5240.00	79.1 AV			1.02 H	95	68.69	10.36
3	#10480.00	54.3 PK	74.0	-19.7	1.00 H	136	36.87	17.41
4	#10480.00	41.4 AV	54.0	-12.6	1.00 H	136	23.99	17.41

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	88.4 PK			1.01 V	12	78.05	10.36
2	*5240.00	72.4 AV			1.01 V	12	62.00	10.36
3	#10480.00	53.7 PK	74.0	-20.3	1.00 V	280	36.28	17.41
4	#10480.00	40.8 AV	54.0	-13.2	1.00 V	280	23.41	17.41

REMARKS:

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



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.6 PK	74.0	-24.4	1.00 H	172	39.50	10.12
2	5150.00	36.1 AV	54.0	-17.9	1.00 H	172	25.99	10.12
3	*5190.00	84.3 PK			1.00 H	172	74.03	10.23
4	*5190.00	71.3 AV			1.00 H	172	61.04	10.23
5	#10380.00	53.8 PK	74.0	-20.2	1.00 H	349	36.52	17.29
6	#10380.00	40.1 AV	54.0	-13.9	1.00 H	349	22.77	17.29
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	49.0 PK	74.0	-25.0	1.00 V	111	38.91	10.12
2	5150.00	35.4 AV	54.0	-18.6	1.00 V	111	25.32	10.12
3	*5190.00	83.2 PK			1.00 V	111	72.97	10.23
4	*5190.00	70.0 AV			1.00 V	111	59.77	10.23
5	#10380.00	54.0 PK	74.0	-20.0	1.00 V	242	36.74	17.29
6	#10380.00	40.2 AV	54.0	-13.8	1.00 V	242	22.87	17.29

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5230.00	84.8 PK			1.05 H	139	74.48	10.33
2	#5230.00	72.9 AV			1.05 H	139	62.54	10.33
3	#10460.00	54.3 PK	74.0	-19.7	1.00 H	92	36.89	17.39
4	#10460.00	41.0 AV	54.0	-13.0	1.00 H	92	23.63	17.39

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5230.00	82.2 PK			1.06 V	119	71.87	10.33
2	#5230.00	69.7 AV			1.06 V	119	59.36	10.33
3	#10460.00	53.4 PK	74.0	-20.6	1.00 V	258	36.01	17.39
4	#10460.00	40.3 AV	54.0	-13.7	1.00 V	258	22.94	17.39

REMARKS:

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



ABOVE 1GHz WORST-CASE DATA: Band 2

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	88.4 PK			2.00 H	48	77.99	10.41
2	*5260.00	78.9 AV			2.00 H	48	68.46	10.41
3	#10520.00	52.7 PK	74.0	-21.3	1.00 H	146	35.25	17.43
4	#10520.00	39.9 AV	54.0	-14.1	1.00 H	146	22.51	17.43
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	84.5 PK			1.00 V	258	74.08	10.41
2	*5260.00	70.7 AV			1.00 V	258	60.26	10.41
3	#10520.00	54.1 PK	74.0	-19.9	1.00 V	269	36.68	17.43
4	#10520.00	40.8 AV	54.0	-13.3	1.00 V	269	23.32	17.43

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	91.6 PK			2.54 H	295	81.06	10.52
2	*5300.00	82.2 AV			2.54 H	295	71.72	10.52
3	10600.00	53.6 PK	74.0	-20.4	1.00 H	214	36.22	17.40
4	10600.00	40.2 AV	54.0	-13.8	1.00 H	214	22.84	17.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	83.8 PK			1.02 V	258	73.28	10.52
2	*5300.00	70.9 AV			1.02 V	258	60.41	10.52
3	10600.00	53.0 PK	74.0	-21.0	1.00 V	290	35.57	17.40
4	10600.00	40.7 AV	54.0	-13.3	1.00 V	290	23.31	17.40

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	89.7 PK			2.55 H	294	79.10	10.57
2	*5320.00	79.9 AV			2.55 H	294	69.31	10.57
3	5350.00	53.6 PK	74.0	-20.4	2.55 H	294	42.96	10.65
4	5350.00	37.5 AV	54.0	-16.5	2.55 H	294	26.83	10.65
5	10620.00	54.4 PK	74.0	-19.6	1.00 H	305	37.02	17.40
6	10620.00	40.9 AV	54.0	-13.1	1.00 H	305	23.49	17.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	84.6 PK			1.00 V	256	74.05	10.57
2	*5320.00	70.1 AV			1.00 V	256	59.48	10.57
3	5350.00	49.7 PK	74.0	-24.3	1.00 V	256	39.02	10.65
4	5350.00	36.6 AV	54.0	-17.4	1.00 V	256	25.98	10.65
5	10640.00	54.7 PK	74.0	-19.3	1.00 V	241	37.30	17.39
6	10640.00	41.1 AV	54.0	-12.9	1.00 V	241	23.73	17.39

REMARKS:

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



802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	87.4 PK			1.03 H	284	77.03	10.41
2	*5260.00	75.9 AV			1.03 H	284	65.51	10.41
3	#10520.00	53.2 PK	74.0	-20.8	1.00 H	134	35.79	17.43
4	#10520.00	40.6 AV	54.0	-13.4	1.00 H	134	23.19	17.43

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	82.2 PK			1.00 V	139	71.80	10.41
2	*5260.00	69.3 AV			1.00 V	139	58.86	10.41
3	#10520.00	54.0 PK	74.0	-20.0	1.00 V	318	36.59	17.43
4	#10520.00	40.3 AV	54.0	-13.7	1.00 V	318	22.90	17.43

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	89.4 PK			1.71 H	289	78.88	10.52
2	*5300.00	76.7 AV			1.71 H	289	66.16	10.52
3	10600.00	53.7 PK	74.0	-20.3	1.00 H	244	36.26	17.40
4	10600.00	41.0 AV	54.0	-13.0	1.00 H	244	23.63	17.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	83.2 PK			2.71 V	190	72.70	10.52
2	*5300.00	70.0 AV			2.71 V	190	59.49	10.52
3	10600.00	53.7 PK	74.0	-20.3	1.00 V	255	36.33	17.40
4	10600.00	40.5 AV	54.0	-13.5	1.00 V	255	23.12	17.40

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	86.9 PK			1.00 H	88	76.30	10.57
2	*5320.00	73.7 AV			1.00 H	88	63.15	10.57
3	5350.00	49.7 PK	74.0	-24.3	1.00 H	88	39.05	10.65
4	5350.00	36.5 AV	54.0	-17.5	1.00 H	88	25.86	10.65
5	10640.00	53.3 PK	74.0	-20.7	1.00 H	66	35.88	17.39
6	10640.00	40.3 AV	54.0	-13.7	1.00 H	66	22.89	17.39
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	83.5 PK			1.01 V	323	72.88	10.57
2	*5320.00	70.2 AV			1.01 V	323	59.64	10.57
3	5350.00	49.2 PK	74.0	-24.8	1.01 V	323	38.59	10.65
4	5350.00	36.9 AV	54.0	-17.1	1.01 V	323	26.26	10.65
5	10640.00	52.7 PK	74.0	-21.3	1.00 V	142	35.31	17.39
6	10640.00	40.1 AV	54.0	-13.9	1.00 V	142	22.71	17.39

REMARKS:

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



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								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	87.6 PK			1.03 H	100	77.15	10.44
2	*5270.00	74.9 AV			1.03 H	100	64.43	10.44
3	#10540.00	52.9 PK	74.0	-21.1	1.00 H	241	35.51	17.43
4	#10540.00	40.0 AV	54.0	-14.0	1.00 H	241	22.59	17.43

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	81.1 PK			1.00 V	359	70.66	10.44
2	*5270.00	68.2 AV			1.00 V	359	57.77	10.44
3	#10540.00	54.1 PK	74.0	-19.9	1.00 V	37	36.63	17.43
4	#10540.00	40.7 AV	54.0	-13.3	1.00 V	37	23.31	17.43

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	83.9 PK			1.01 H	108	73.33	10.54
2	*5310.00	72.0 AV			1.01 H	108	61.49	10.54
3	5350.00	50.2 PK	74.0	-23.8	1.01 H	108	39.52	10.65
4	5350.00	36.9 AV	54.0	-17.1	1.01 H	108	26.26	10.65
5	10620.00	52.8 PK	74.0	-21.2	1.00 H	351	35.39	17.40
6	10620.00	40.2 AV	54.0	-13.8	1.00 H	351	22.76	17.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	80.3 PK			1.00 V	337	69.75	10.54
2	*5310.00	66.7 AV			1.00 V	337	56.20	10.54
3	5350.00	50.0 PK	74.0	-24.0	1.00 V	337	39.34	10.65
4	5350.00	36.5 AV	54.0	-17.5	1.00 V	337	25.82	10.65
5	10620.00	54.1 PK	74.0	-19.9	1.00 V	132	36.71	17.40
6	10620.00	40.0 AV	54.0	-14.0	1.00 V	132	22.63	17.40

REMARKS:

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



ABOVE 1GHz WORST-CASE DATA: Band 3

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	49.6 PK	74.0	-24.4	1.20 H	283	38.70	10.94
2	5460.00	37.0 AV	54.0	-17.0	1.20 H	283	26.03	10.94
3	#5470.00	51.3 PK	68.3	-17.0	1.20 H	283	40.29	10.97
4	*5500.00	90.1 PK			1.20 H	283	79.08	11.05
5	*5500.00	79.1 AV			1.20 H	283	68.05	11.05
6	11000.00	53.8 PK	74.0	-20.2	1.00 H	176	36.56	17.26
7	11000.00	40.1 AV	54.0	-13.9	1.00 H	176	22.86	17.26

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.1 PK	74.0	-23.9	1.00 V	297	39.18	10.94
2	5460.00	36.9 AV	54.0	-17.2	1.00 V	297	25.91	10.94
3	#5470.00	51.3 PK	68.3	-17.0	1.00 V	297	40.34	10.97
4	*5500.00	84.4 PK			1.00 V	297	73.30	11.05
5	*5500.00	72.8 AV			1.00 V	297	61.71	11.05
6	11000.00	54.0 PK	74.0	-20.0	1.00 V	231	36.76	17.26
7	11000.00	41.1 AV	54.0	-12.9	1.00 V	231	23.87	17.26

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5580.00	88.3 PK			1.33 H	284	77.14	11.11
2	#5580.00	78.9 AV			1.33 H	284	67.82	11.11
3	11160.00	53.7 PK	74.0	-20.3	1.00 H	210	36.28	17.38
4	11160.00	40.3 AV	54.0	-13.7	1.00 H	210	22.90	17.38
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5580.00	85.4 PK			1.02 V	293	74.25	11.11
2	#5580.00	71.9 AV			1.02 V	293	60.78	11.11
3	11160.00	52.7 PK	74.0	-21.3	1.00 V	93	35.32	17.38
4	11160.00	40.1 AV	54.0	-13.9	1.00 V	93	22.74	17.38

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	89.5 PK			1.20 H	298	78.32	11.20
2	*5700.00	79.3 AV			1.20 H	298	68.05	11.20
3	#5725.00	54.6 PK	68.3	-13.7	1.20 H	298	43.38	11.22
4	11400.00	53.2 PK	74.0	-20.8	1.00 H	165	35.66	17.56
5	11400.00	41.0 AV	54.0	-13.0	1.00 H	165	23.48	17.56
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	82.5 PK			1.00 V	216	71.34	11.20
2	*5700.00	71.9 AV			1.00 V	216	60.74	11.20
3	#5725.00	50.7 PK	68.3	-17.6	1.00 V	216	39.51	11.22
4	11400.00	53.2 PK	74.0	-20.8	1.00 V	349	35.66	17.56
5	11400.00	40.7 AV	54.0	-13.3	1.00 V	349	23.11	17.56

REMARKS:

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



802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.3 PK	74.0	-23.7	1.04 H	288	39.39	10.94
2	5460.00	36.4 AV	54.0	-17.6	1.04 H	288	25.50	10.94
3	#5470.00	50.4 PK	68.3	-17.9	1.04 H	288	39.44	10.97
4	*5500.00	90.9 PK			1.04 H	288	79.84	11.05
5	*5500.00	78.1 AV			1.04 H	288	67.03	11.05
6	11100.00	52.9 PK	74.0	-21.1	1.00 H	71	35.56	17.34
7	11100.00	40.2 AV	54.0	-13.8	1.00 H	71	22.82	17.34

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.1 PK	74.0	-23.9	1.07 V	27	39.17	10.94
2	5460.00	36.7 AV	54.0	-17.3	1.07 V	27	25.79	10.94
3	#5470.00	50.2 PK	68.3	-18.1	1.07 V	27	39.27	10.97
4	*5500.00	87.0 PK			1.07 V	27	75.91	11.05
5	*5500.00	75.2 AV			1.07 V	27	64.15	11.05
6	11000.00	54.1 PK	74.0	-19.9	1.00 V	218	36.84	17.26
7	11000.00	41.3 AV	54.0	-12.7	1.00 V	218	24.06	17.26

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5580.00	90.5 PK			1.49 H	282	79.43	11.11
2	#5580.00	79.7 AV			1.49 H	282	68.61	11.11
3	11160.00	53.2 PK	74.0	-20.8	1.00 H	55	35.84	17.38
4	11160.00	41.1 AV	54.0	-12.9	1.00 H	55	23.68	17.38
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5580.00	88.5 PK			1.21 V	18	77.35	11.11
2	#5580.00	75.2 AV			1.21 V	18	64.09	11.11
3	11160.00	52.7 PK	74.0	-21.3	1.00 V	125	35.36	17.38
4	11160.00	40.6 AV	54.0	-13.4	1.00 V	125	23.24	17.38

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	92.3 PK			1.01 H	130	81.09	11.20
2	*5700.00	79.1 AV			1.01 H	130	67.92	11.20
3	#5725.00	53.7 PK	68.3	-14.6	1.01 H	130	42.45	11.22
4	11400.00	53.3 PK	74.0	-20.7	1.00 H	241	35.73	17.56
5	11400.00	40.9 AV	54.0	-13.1	1.00 H	241	23.38	17.56
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	83.9 PK			1.04 V	341	72.72	11.20
2	*5700.00	72.2 AV			1.04 V	341	60.98	11.20
3	#5725.00	49.2 PK	68.3	-19.1	1.04 V	341	37.98	11.22
4	11400.00	53.2 PK	74.0	-20.8	1.00 V	201	35.64	17.56
5	11400.00	40.7 AV	54.0	-13.3	1.00 V	201	23.14	17.56

REMARKS:

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



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.6 PK	74.0	-23.4	2.65 H	300	39.68	10.94
2	5460.00	37.3 AV	54.0	-16.7	2.65 H	300	26.37	10.94
3	#5470.00	52.1 PK	68.3	-16.2	2.65 H	300	41.10	10.97
4	*5510.00	89.8 PK			2.65 H	300	78.72	11.06
5	*5510.00	78.8 AV			2.65 H	300	67.69	11.06
6	11020.00	53.2 PK	74.0	-20.8	1.00 H	160	35.90	17.28
7	11020.00	41.3 AV	54.0	-12.7	1.00 H	160	24.03	17.28
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	50.4 PK	74.0	-23.7	1.01 V	28	39.41	10.94
2	5460.00	36.9 AV	54.0	-17.1	1.01 V	28	25.99	10.94
3	#5470.00	50.5 PK	68.3	-17.8	1.01 V	28	39.54	10.97
4	*5510.00	84.3 PK			1.01 V	28	73.28	11.06
5	*5510.00	70.8 AV			1.01 V	28	59.78	11.06
6	11020.00	53.6 PK	74.0	-20.4	1.00 V	253	36.32	17.28
7	11020.00	40.1 AV	54.0	-13.9	1.00 V	253	22.84	17.28

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5550.00	85.7 PK			1.17 H	281	74.60	11.09
2	#5550.00	74.8 AV			1.17 H	281	63.75	11.09
3	11100.00	52.7 PK	74.0	-21.3	1.00 H	312	35.39	17.34
4	11100.00	41.0 AV	54.0	-13.0	1.00 H	312	23.68	17.34
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5550.00	84.0 PK			1.00 V	24	72.86	11.09
2	#5550.00	70.6 AV			1.00 V	24	59.55	11.09
3	11100.00	53.1 PK	74.0	-20.9	1.00 V	46	35.76	17.34
4	11100.00	40.8 AV	54.0	-13.3	1.00 V	46	23.41	17.34

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	89.4 PK			1.03 H	141	78.23	11.18
2	*5670.00	75.6 AV			1.03 H	141	64.44	11.18
3	#5725.00	50.6 PK	68.3	-17.7	1.03 H	141	39.42	11.22
4	11340.00	53.2 PK	74.0	-20.8	1.00 H	293	35.68	17.52
5	11340.00	41.0 AV	54.0	-13.0	1.00 H	293	23.50	17.52
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	82.7 PK			1.01 V	263	71.49	11.18
2	*5670.00	67.4 AV			1.01 V	263	56.21	11.18
3	#5725.00	50.0 PK	68.3	-18.3	1.01 V	263	38.80	11.22
4	11340.00	53.0 PK	74.0	-21.0	1.00 V	152	35.46	17.52
5	11340.00	40.6 AV	54.0	-13.4	1.00 V	152	23.11	17.52

REMARKS:

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



ABOVE 1GHz WORST-CASE DATA: Band 4

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	50.2 PK	68.3	-18.1	1.11 H	282	38.94	11.21
2	#5725.00	52.4 PK	78.3	-25.9	1.11 H	282	41.21	11.22
3	*5745.00	84.2 PK			1.11 H	282	72.92	11.23
4	*5745.00	74.6 AV			1.11 H	282	63.37	11.23
5	11490.00	52.9 PK	74.0	-21.1	1.00 H	177	35.31	17.63
6	11490.00	40.4 AV	54.0	-13.6	1.00 H	177	22.78	17.63
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	49.1 PK	68.3	-19.2	1.01 V	228	37.93	11.21
2	#5725.00	51.4 PK	78.3	-26.9	1.01 V	228	40.14	11.22
3	*5745.00	81.5 PK			1.01 V	228	70.23	11.23
4	*5745.00	68.7 AV			1.01 V	228	57.43	11.23
5	11490.00	53.2 PK	74.0	-20.8	1.00 V	162	35.59	17.63
6	11490.00	40.7 AV	54.0	-13.3	1.00 V	162	23.06	17.63

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	86.6 PK			1.00 H	284	75.31	11.26
2	*5785.00	73.6 AV			1.00 H	284	62.38	11.26
3	11570.00	54.0 PK	74.0	-20.0	1.00 H	282	36.35	17.67
4	11570.00	41.1 AV	54.0	-13.0	1.00 H	282	23.38	17.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	80.6 PK			1.02 V	275	69.36	11.26
2	*5785.00	67.1 AV			1.02 V	275	55.80	11.26
3	11570.00	52.8 PK	74.0	-21.2	1.00 V	315	35.15	17.67
4	11570.00	40.5 AV	54.0	-13.5	1.00 V	315	22.84	17.67

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5825.00	86.5 PK			1.11 H	282	75.18	11.29
2	#5825.00	75.6 AV			1.11 H	282	64.32	11.29
3	#5850.00	52.4 PK	78.3	-25.9	1.11 H	282	41.05	11.31
4	#5860.00	50.1 PK	68.3	-18.2	1.11 H	282	38.76	11.32
5	11650.00	52.8 PK	74.0	-21.2	1.00 H	193	35.06	17.70
6	11650.00	40.6 AV	54.0	-13.5	1.00 H	193	22.85	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5825.00	81.8 PK			1.02 V	86	70.48	11.29
2	#5825.00	71.0 AV			1.02 V	86	59.75	11.29
3	#5850.00	50.1 PK	78.3	-28.2	1.02 V	86	38.83	11.31
4	#5860.00	49.6 PK	68.3	-18.7	1.02 V	86	38.28	11.32
5	11650.00	53.6 PK	74.0	-20.4	1.00 V	88	35.94	17.70
6	11650.00	40.7 AV	54.0	-13.3	1.00 V	88	23.01	17.70

REMARKS:

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



802.11n (20MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	50.4 PK	68.3	-17.9	1.00 H	85	39.18	11.21
2	#5725.00	54.8 PK	78.3	-23.5	1.00 H	85	43.53	11.22
3	*5745.00	86.9 PK			1.00 H	85	75.63	11.23
4	*5745.00	73.0 AV			1.00 H	85	61.76	11.23
5	11490.00	52.5 PK	74.0	-21.5	1.01 H	267	34.85	17.63
6	11490.00	40.0 AV	54.0	-14.0	1.01 H	267	22.35	17.63
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	50.2 PK	68.3	-18.1	1.11 V	349	39.02	11.21
2	#5725.00	54.1 PK	78.3	-24.2	1.11 V	349	42.86	11.22
3	*5745.00	84.3 PK			1.11 V	349	73.03	11.23
4	*5745.00	71.4 AV			1.11 V	349	60.19	11.23
5	11490.00	53.7 PK	74.0	-20.3	1.00 V	328	36.04	17.63
6	11490.00	40.1 AV	54.0	-13.9	1.00 V	328	22.48	17.63

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	91.0 PK			1.01 H	140	79.75	11.26
2	*5785.00	78.6 AV			1.01 H	140	67.36	11.26
3	11570.00	54.1 PK	74.0	-19.9	1.00 H	354	36.43	17.67
4	11570.00	41.0 AV	54.0	-13.0	1.00 H	354	23.36	17.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	83.2 PK			1.03 V	241	71.94	11.26
2	*5785.00	71.5 AV			1.03 V	241	60.25	11.26
3	11570.00	53.8 PK	74.0	-20.2	1.00 V	29	36.10	17.67
4	11570.00	40.8 AV	54.0	-13.2	1.00 V	29	23.15	17.67

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5825.00	87.5 PK			1.02 H	44	76.16	11.29
2	#5825.00	75.8 AV			1.02 H	44	64.53	11.29
3	#5850.00	53.6 PK	78.3	-24.7	1.02 H	44	42.29	11.31
4	#5860.00	50.2 PK	68.3	-18.1	1.02 H	44	38.92	11.32
5	11650.00	52.7 PK	74.0	-21.3	1.00 H	197	34.99	17.70
6	11650.00	40.1 AV	54.0	-13.9	1.00 H	197	22.40	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5825.00	81.0 PK			1.02 V	298	69.73	11.29
2	#5825.00	70.1 AV			1.02 V	298	58.78	11.29
3	#5850.00	50.2 PK	78.3	-28.1	1.02 V	298	38.91	11.31
4	#5860.00	49.0 PK	68.3	-19.3	1.02 V	298	37.72	11.32
5	11650.00	53.7 PK	74.0	-20.3	1.00 V	234	35.96	17.70
6	11650.00	41.2 AV	54.0	-12.8	1.00 V	234	23.51	17.70

REMARKS:

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



802.11n (40MHz)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	50.3 PK	68.3	-18.0	1.01 H	141	39.06	11.21
2	#5725.00	53.2 PK	78.3	-25.1	1.01 H	141	42.02	11.22
3	*5755.00	85.1 PK			1.01 H	141	73.90	11.24
4	*5755.00	71.3 AV			1.01 H	141	60.02	11.24
5	11510.00	53.1 PK	74.0	-20.9	1.00 H	106	35.45	17.64
6	11510.00	40.3 AV	54.0	-13.7	1.00 H	106	22.64	17.64
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	49.3 PK	68.3	-19.0	1.03 V	245	38.04	11.21
2	#5725.00	51.3 PK	78.3	-27.0	1.03 V	245	40.11	11.22
3	*5755.00	80.0 PK			1.03 V	245	68.77	11.24
4	*5755.00	67.7 AV			1.03 V	245	56.45	11.24
5	11510.00	53.1 PK	74.0	-20.9	1.00 V	48	35.50	17.64
6	11510.00	40.0 AV	54.0	-14.0	1.00 V	48	22.38	17.64

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	85.6 PK			1.01 H	144	74.35	11.27
2	*5795.00	72.1 AV			1.01 H	144	60.78	11.27
3	#5850.00	52.3 PK	78.3	-26.0	1.01 H	144	41.03	11.31
4	#5860.00	50.7 PK	68.3	-17.6	1.01 H	144	39.39	11.32
5	11590.00	53.2 PK	74.0	-20.8	1.00 H	164	35.57	17.67
6	11590.00	40.7 AV	54.0	-13.3	1.00 H	164	23.02	17.67
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	80.2 PK			1.04 V	241	68.93	11.27
2	*5795.00	67.7 AV			1.04 V	241	56.46	11.27
3	#5850.00	50.2 PK	78.3	-28.1	1.04 V	241	38.89	11.31
4	#5860.00	48.7 PK	68.3	-19.6	1.04 V	241	37.41	11.32
5	11590.00	54.0 PK	74.0	-20.0	1.00 V	269	36.34	17.67
6	11590.00	40.8 AV	54.0	-13.2	1.00 V	269	23.11	17.67

REMARKS:

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



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	ESCS30	100340	May 17,14	May 16,15
Artificial Mains Network	Rohde&Schwarz	ENV216	101173	May 13,14	May 12,15
Artificial Mains Network	Rohde&Schwarz	ESH3-Z5	100317	May 13,14	May 12,15
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.

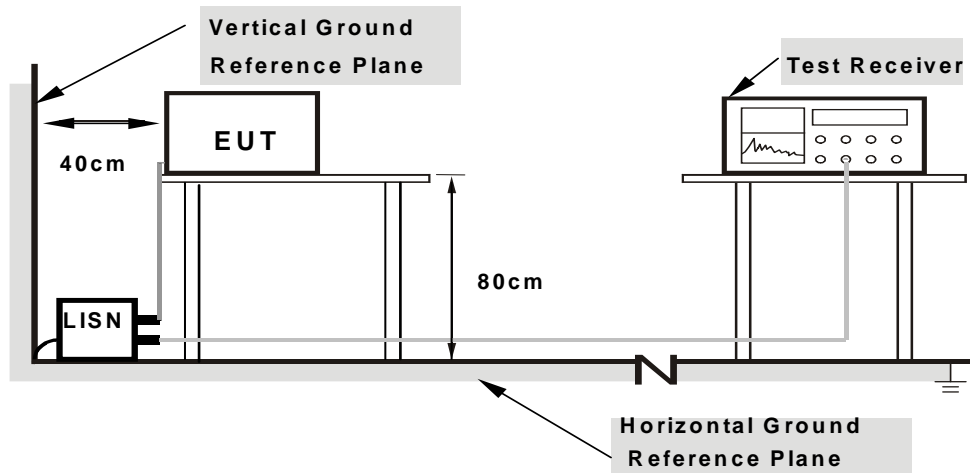
NOTE: All modes of operation were investigated and the worst-case emissions are reported.



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 cm from other units and other metal planes

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

N/A.



4.3 MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

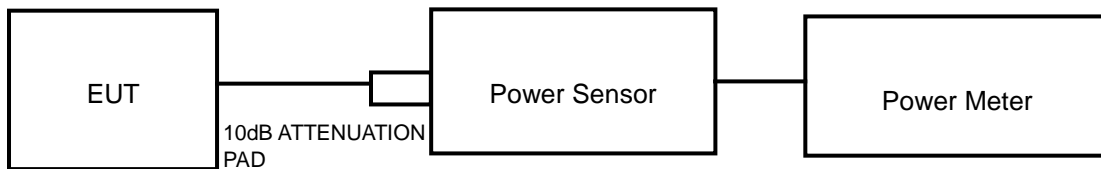
4.3.1 LIMITS OF MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

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

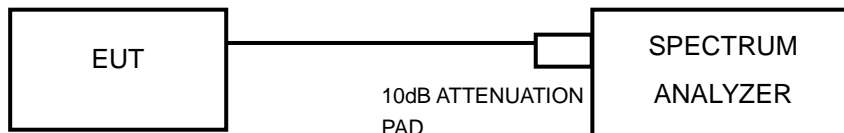
NOTE: Where B is the 26dB emission bandwidth in MHz.

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 $\geq 3 \cdot$ 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	12.560	10.99	24	PASS
44	5220	12.218	10.87	24	PASS
48	5240	12.106	10.83	24	PASS
52	5260	12.503	10.97	24	PASS
60	5300	12.647	11.02	24	PASS
64	5320	13.002	11.14	24	PASS
100	5500	12.474	10.96	24	PASS
116	5580	12.912	11.11	24	PASS
140	5700	12.531	10.98	24	PASS
149	5745	13.274	11.23	30	PASS
157	5785	12.706	11.04	30	PASS
165	5825	12.764	11.06	30	PASS



802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
		CHAIN0	CHAIN1				
36	5180	7.962	7.586	15.548	11.92	24	PASS
44	5220	8.492	7.413	15.905	12.02	24	PASS
48	5240	8.630	7.798	16.428	12.16	24	PASS
52	5260	8.770	7.889	16.659	12.22	24	PASS
60	5300	8.356	7.656	16.012	12.04	24	PASS
64	5320	8.260	7.745	16.005	12.04	24	PASS
100	5500	8.630	7.278	15.908	12.02	24	PASS
116	5580	8.185	6.653	14.838	11.71	24	PASS
140	5700	8.017	6.950	14.967	11.75	24	PASS
149	5745	8.851	7.096	15.947	12.03	30	PASS
157	5785	8.650	6.577	15.227	11.83	30	PASS
165	5825	8.570	6.668	15.238	11.83	30	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (mW)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
		CHAIN0	CHAIN1				
38	5190	9.354	8.035	17.389	12.40	24	PASS
46	5230	9.705	8.650	18.355	12.64	24	PASS
54	5270	9.419	8.375	17.794	12.50	24	PASS
62	5310	9.528	7.998	17.526	12.44	24	PASS
102	5510	10.641	8.831	19.472	12.89	24	PASS
110	5550	9.594	8.790	18.384	12.64	24	PASS
134	5670	10.328	8.810	19.138	12.82	24	PASS
151	5755	9.354	8.472	17.826	12.51	30	PASS
159	5795	8.730	8.166	16.896	12.28	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	16.56	22.75	PASS
44	5220	16.56	22.70	PASS
48	5240	16.56	22.75	PASS
52	5260	16.56	22.76	PASS
60	5300	16.56	22.75	PASS
64	5320	16.56	22.82	PASS
100	5500	16.56	22.95	PASS
116	5580	16.56	23.02	PASS
140	5700	16.56	22.91	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH (MHz)	PASS/FAIL
149	5745	16.91	16.60	PASS
157	5785	16.92	16.59	PASS
165	5825	16.92	16.60	PASS



802.11n (20MHz)

CHAIN 0

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	16.56	22.68	PASS
44	5220	16.56	22.82	PASS
48	5240	16.56	22.80	PASS
52	5260	16.56	22.89	PASS
60	5300	16.56	22.72	PASS
64	5320	17.64	23.13	PASS
100	5500	17.64	23.41	PASS
116	5580	17.64	23.30	PASS
140	5700	17.64	23.47	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH (MHz)	PASS/FAIL
149	5745	18.06	17.86	PASS
157	5785	18.06	17.83	PASS
165	5825	18.06	17.84	PASS



CHAIN 1

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
36	5180	16.54	22.66	PASS
44	5220	16.54	22.80	PASS
48	5240	16.56	22.80	PASS
52	5260	16.56	22.89	PASS
60	5300	16.54	22.70	PASS
64	5320	17.62	23.13	PASS
100	5500	17.62	23.40	PASS
116	5580	17.62	23.30	PASS
140	5700	17.63	23.46	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH (MHz)	PASS/FAIL
149	5745	18.06	17.86	PASS
157	5785	18.06	17.84	PASS
165	5825	18.06	17.82	PASS



802.11n (40MHz)

CHAIN 0

CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
38	5190	36.20	42.46	PASS
46	5230	36.40	42.58	PASS
54	5270	36.20	42.80	PASS
62	5310	36.20	42.77	PASS
102	5510	36.40	42.80	PASS
110	5550	36.40	43.08	PASS
134	5670	36.40	42.84	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH (MHz)	PASS/FAIL
151	5755	36.40	36.57	PASS
159	5795	36.60	36.56	PASS

CHAIN 1

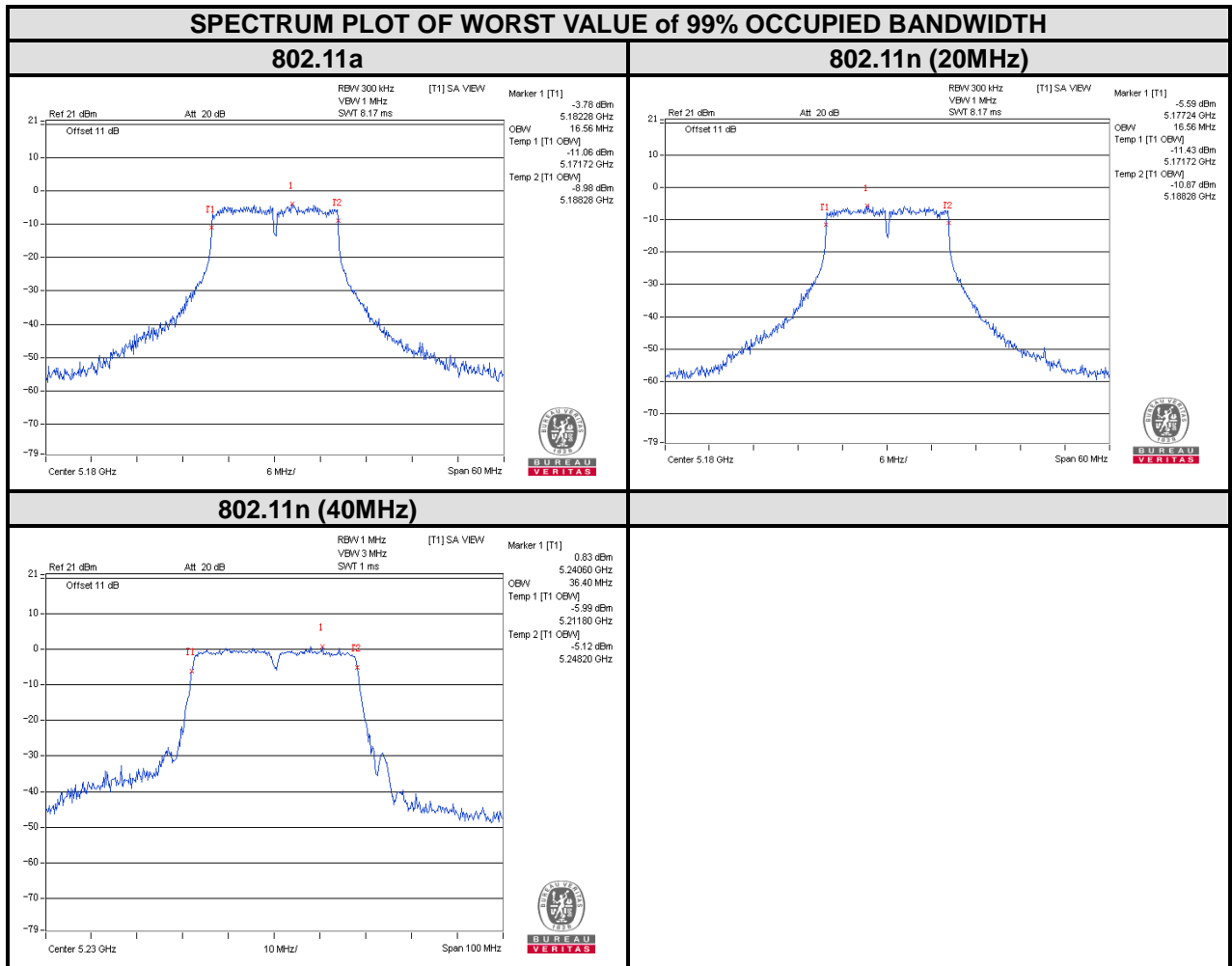
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	26dB BANDWIDTH (MHz)	PASS/FAIL
38	5190	36.20	42.44	PASS
46	5230	36.40	42.56	PASS
54	5270	36.19	42.80	PASS
62	5310	36.19	42.76	PASS
102	5510	36.37	42.78	PASS
110	5550	36.38	43.06	PASS
134	5670	36.40	42.83	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	99% OCCUPIED BANDWIDTH	6dB BANDWIDTH (MHz)	PASS/FAIL
151	5755	36.38	36.56	PASS
159	5795	36.38	36.56	PASS



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VERITAS**

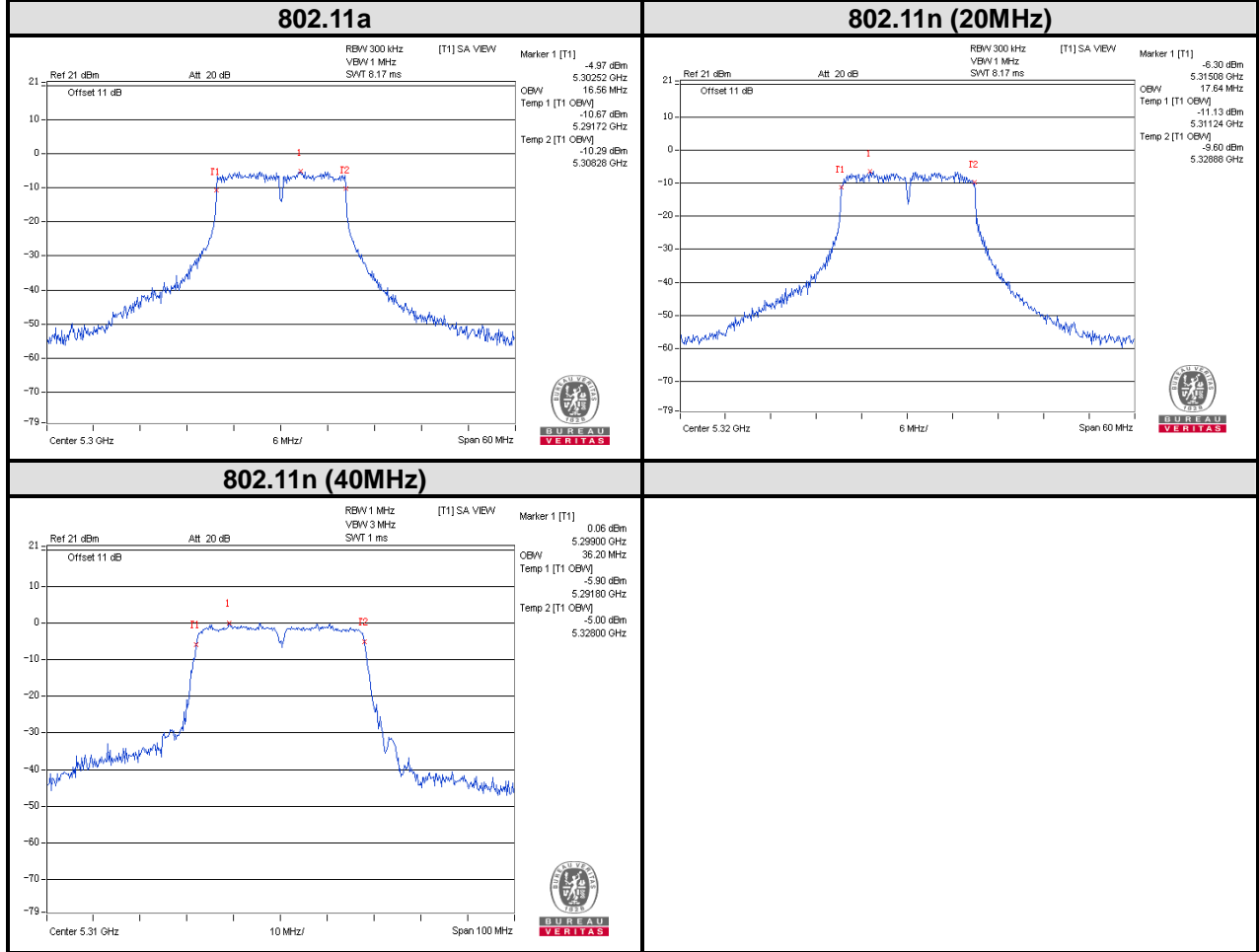
Test Report No.: RF150414N009-2

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



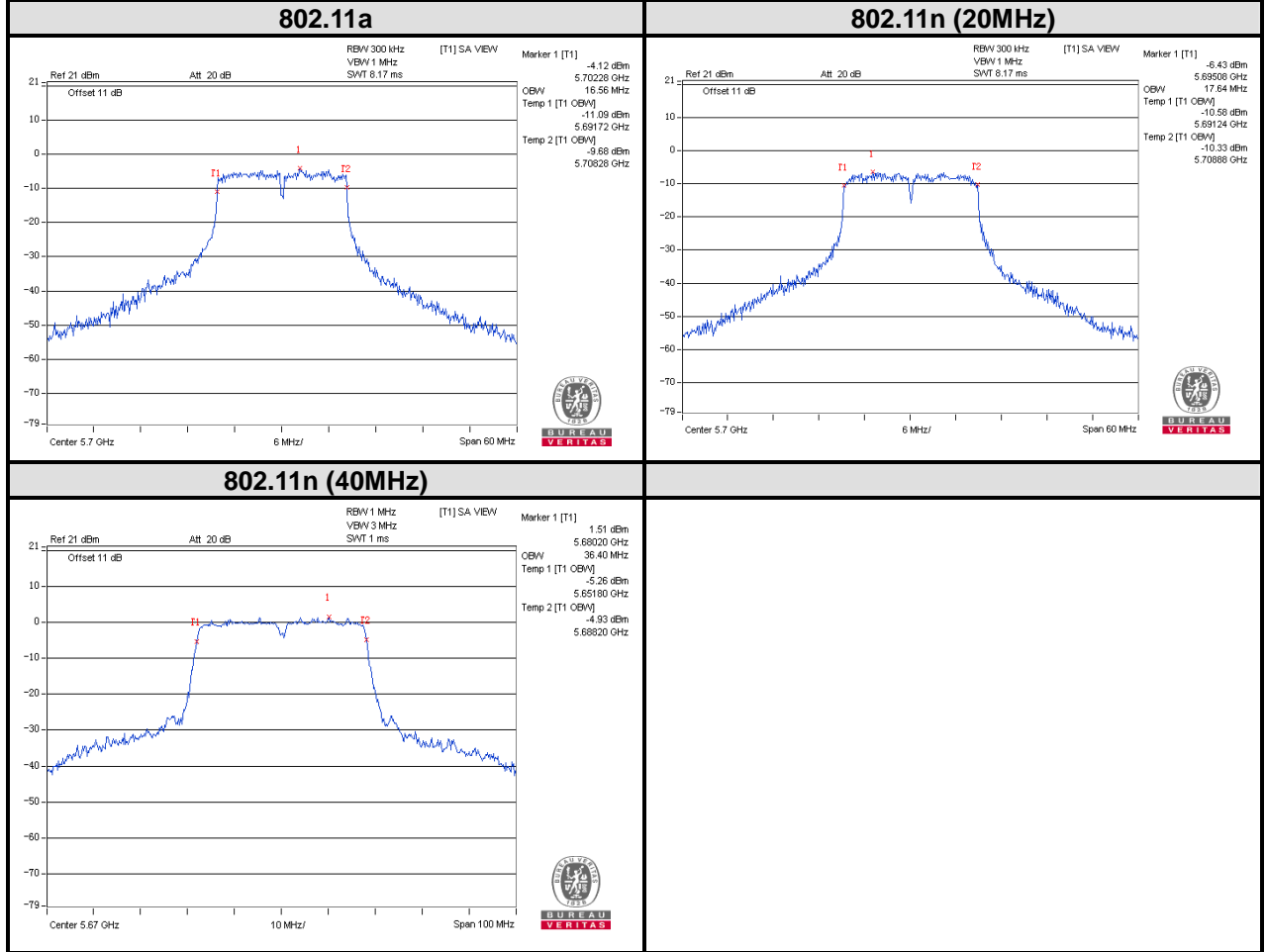


SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH





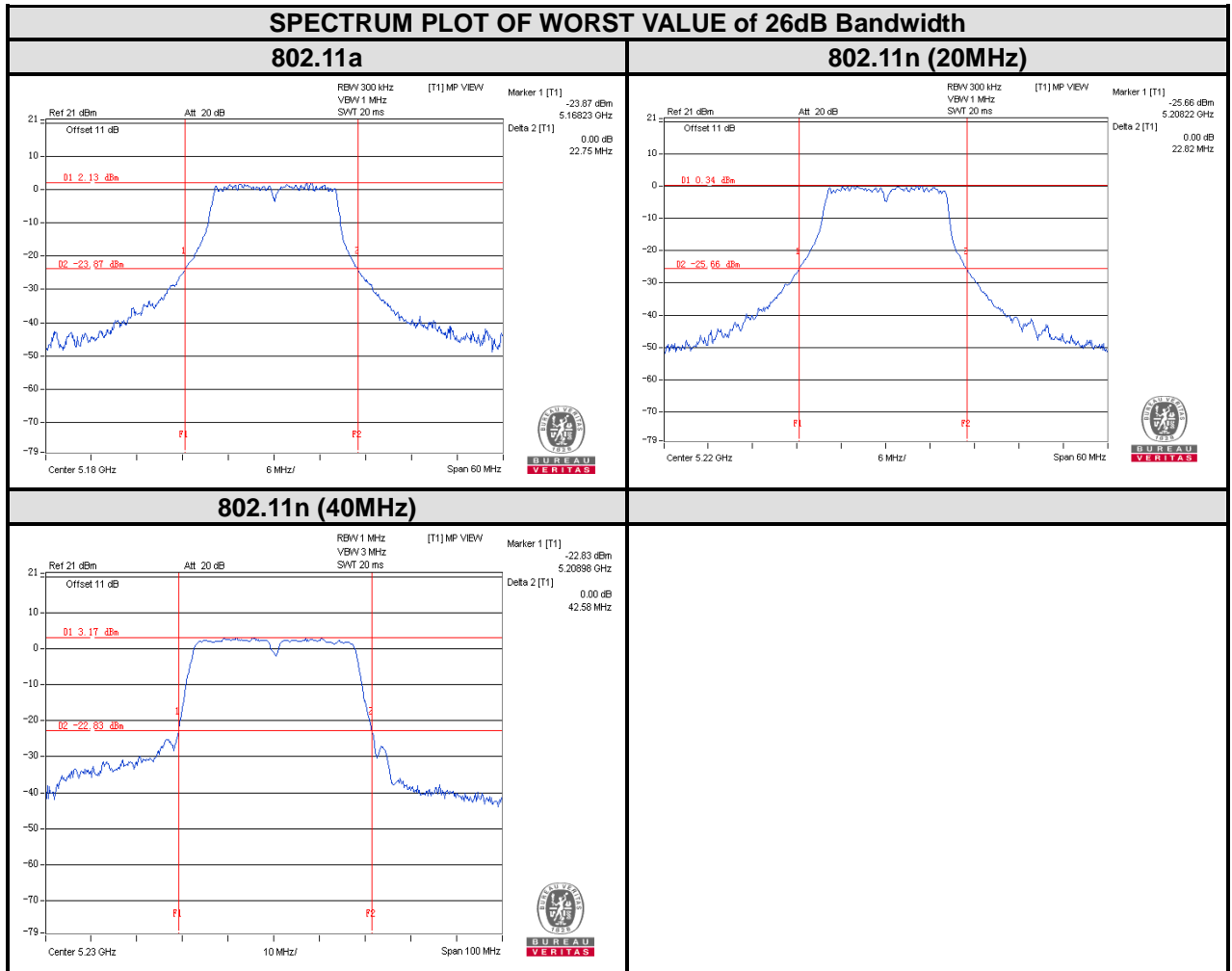
SPECTRUM PLOT OF WORST VALUE of 99% OCCUPIED BANDWIDTH

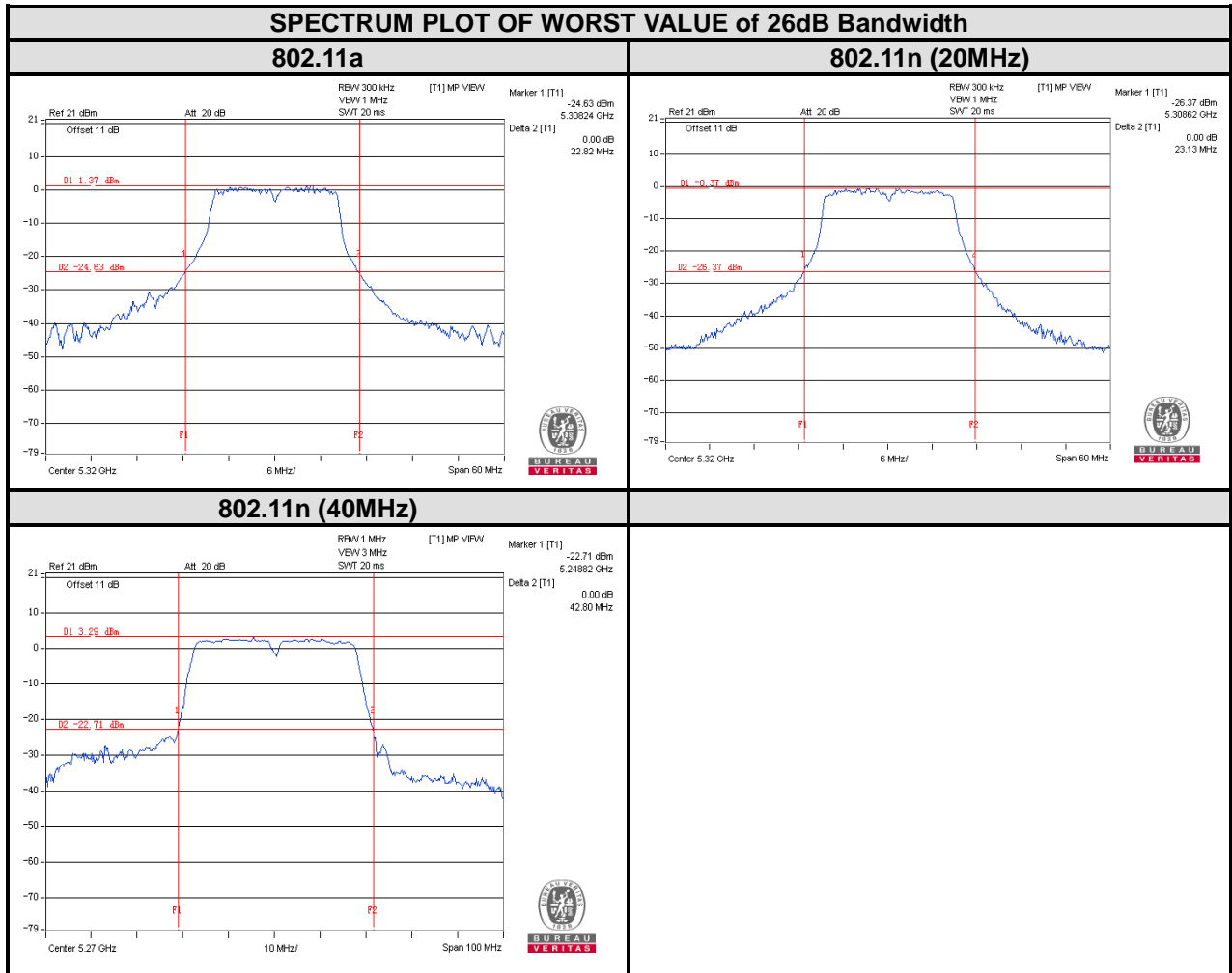


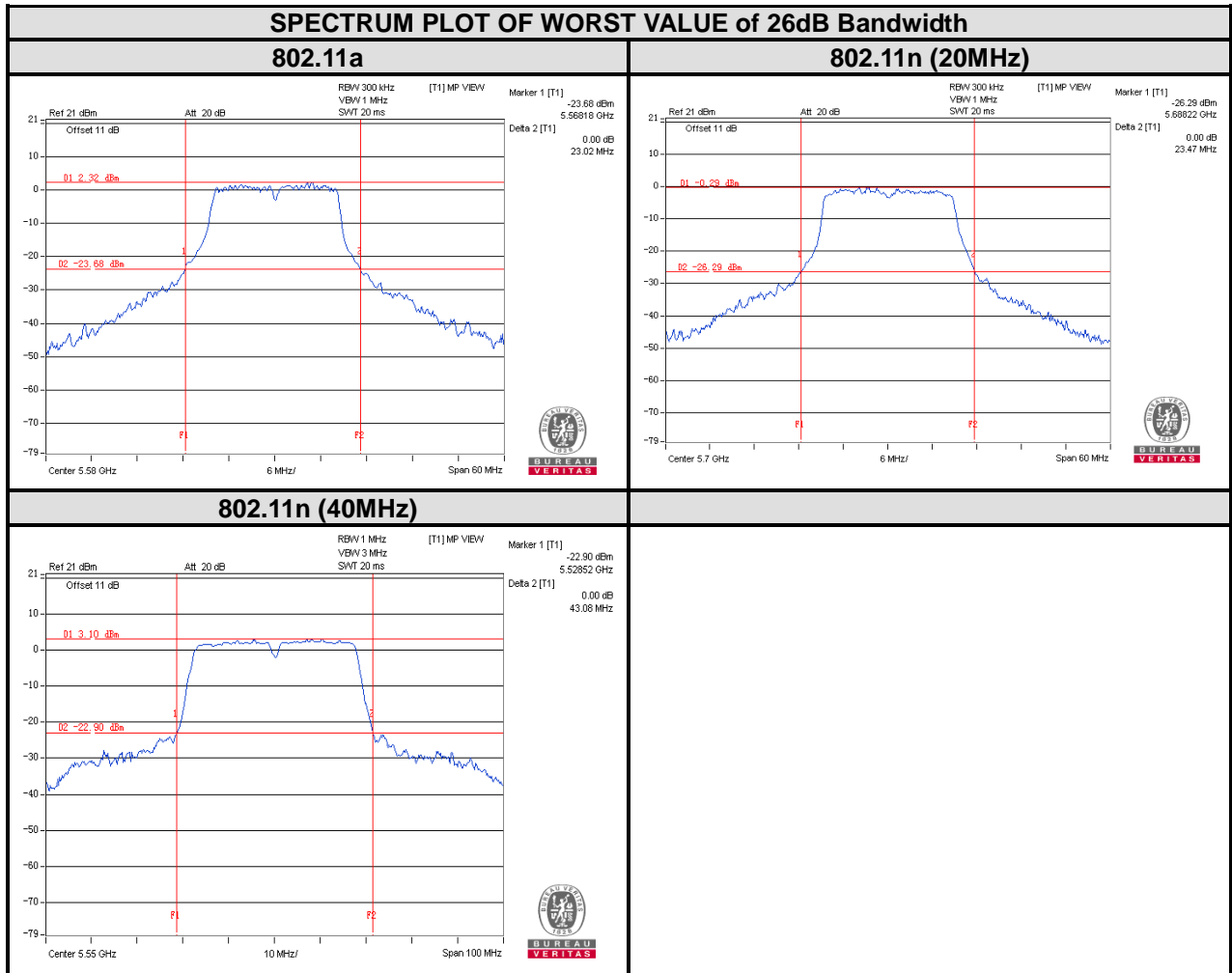


BUREAU VERITAS

Test Report No.: RF150414N009-2





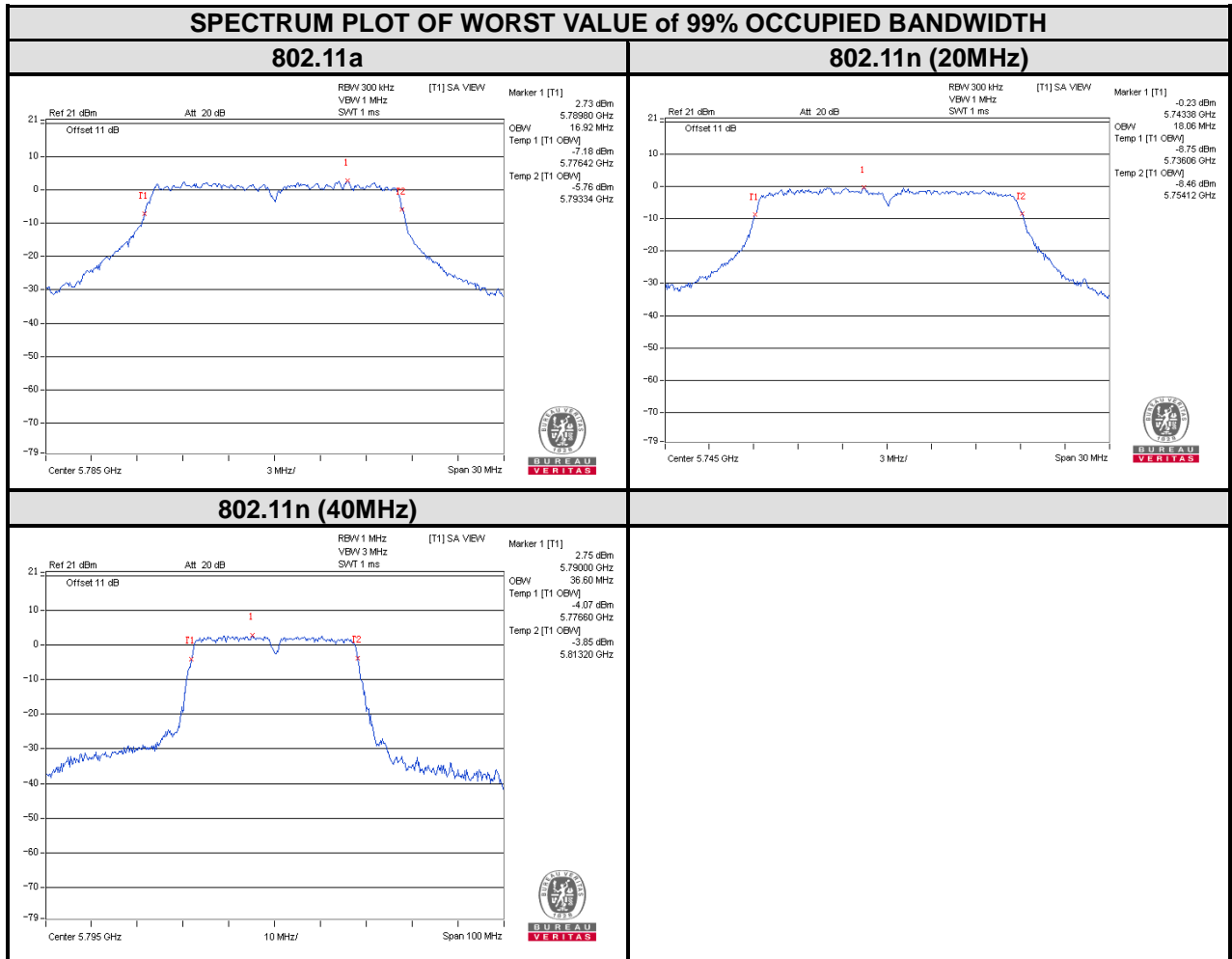




BUREAU VERITAS

Test Report No.: RF150414N009-2

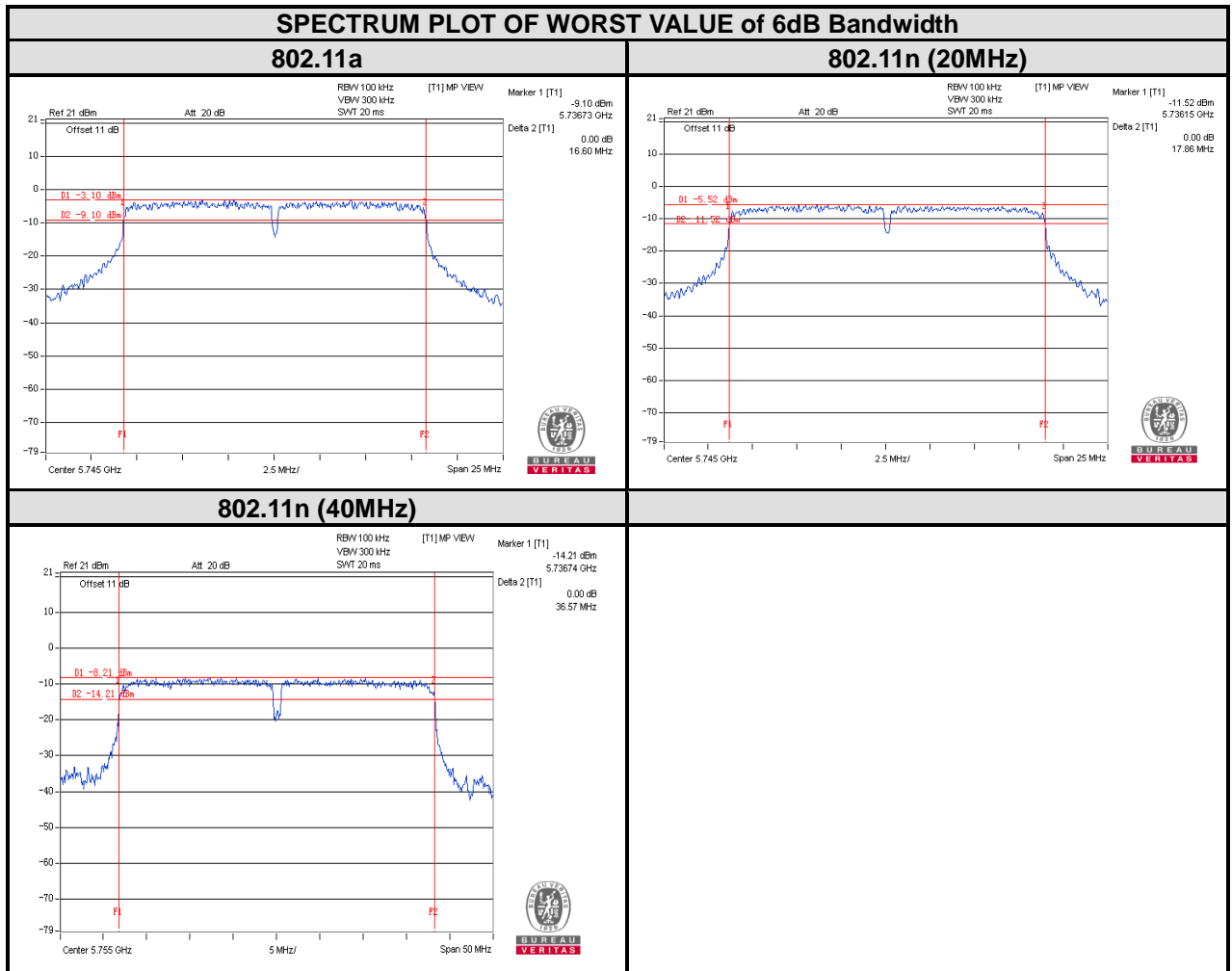
For U-NII-3:





BUREAU VERITAS

Test Report No.: RF150414N009-2



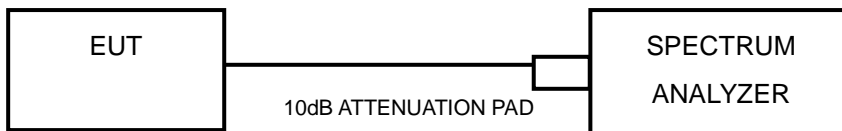


4.4 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.4.1 LIMITS OF PEAK POWER SPECTRAL DENSITY MEASUREMENT

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

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

Using method SA-1

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 30 KHz, Set VBW ≥ 1 MHz, Detector = RMS
- 3) Set Channel power measure = 1MHz
- 4) Sweep time = auto, trigger set to “free run”.
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value



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	5.19	0.15	5.34	11	PASS
44	5220	4.98	0.15	5.13	11	PASS
48	5240	4.62	0.15	4.77	11	PASS
52	5260	4.56	0.15	4.71	11	PASS
60	5300	4.68	0.15	4.73	11	PASS
64	5320	4.69	0.15	4.84	11	PASS
100	5500	4.89	0.15	5.04	11	PASS
116	5580	5.18	0.15	5.33	11	PASS
140	5700	5.02	0.15	5.17	11	PASS



802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)		TOTAL PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
		CHAIN0	CHAIN1					
36	5180	3.69	2.98	6.36	0.25	6.61	11	PASS
44	5220	3.50	2.86	6.20	0.25	6.45	11	PASS
48	5240	3.66	2.84	6.28	0.25	6.53	11	PASS
52	5260	3.83	2.87	6.39	0.25	6.64	11	PASS
60	5300	3.46	2.54	6.03	0.25	6.28	11	PASS
64	5320	4.24	3.15	6.74	0.25	6.99	11	PASS
100	5500	4.13	3.45	6.81	0.25	7.06	11	PASS
116	5580	4.08	3.64	6.88	0.25	7.13	11	PASS
140	5700	4.40	3.50	6.98	0.25	7.23	11	PASS

802.11n (40MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)		TOTAL PSD w/o Duty Factor (dBm/MHz)	Duty Factor	PSD with Duty Factor (dBm/MHz)	MAXIMUM LIMIT (dBm/MHz)	PASS/FAIL
		CHAIN0	CHAIN1					
38	5190	0.76	0.53	3.66	0.19	3.85	11	PASS
46	5230	1.88	1.87	4.89	0.19	5.08	11	PASS
54	5270	1.51	1.42	4.48	0.19	4.67	11	PASS
62	5310	1.33	1.24	4.30	0.19	4.49	11	PASS
102	5510	1.27	1.15	4.22	0.19	4.41	11	PASS
110	5550	1.65	1.24	4.46	0.19	4.65	11	PASS
134	5670	2.26	2.05	5.17	0.19	5.36	11	PASS



For U-NII-3:

802.11a

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
149	5745	5.38	2.37	0.15	2.52	30	PASS
157	5785	5.55	2.54	0.15	2.69	30	PASS
165	5825	5.18	2.17	0.15	2.32	30	PASS

802.11n (20MHz)

CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)		TOTAL PSD w/o Duty Factor (dBm/MHz)	TOTAL PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
		CHAIN0	CHAIN1						
149	5745	2.26	1.72	5.01	2.00	0.25	2.25	30	PASS
157	5785	2.84	1.98	5.44	2.43	0.25	2.68	30	PASS
165	5825	2.32	1.75	5.05	2.04	0.25	2.29	30	PASS

802.11n (40MHz)

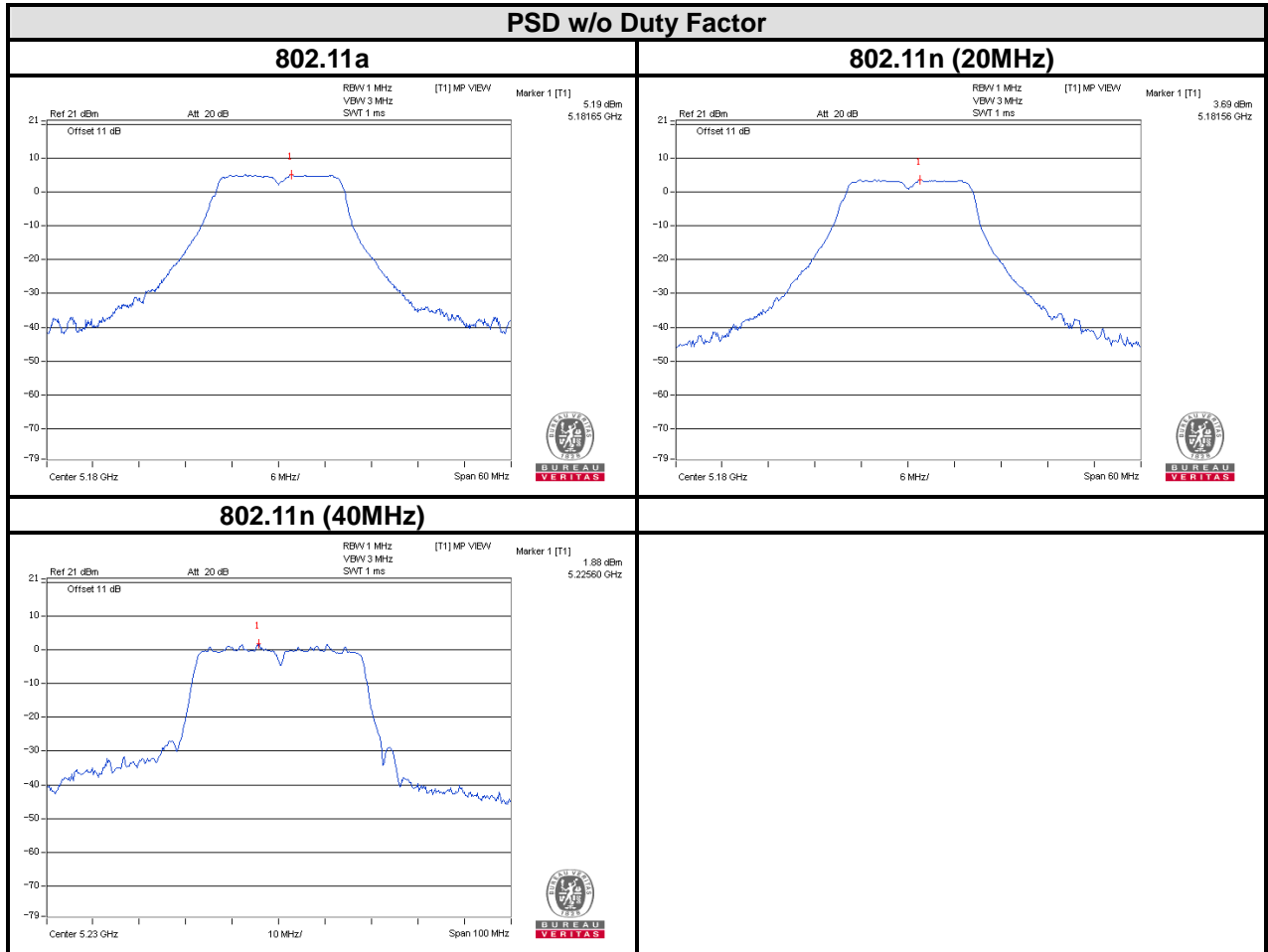
CHANNEL	FREQUENCY (MHz)	PSD w/o Duty Factor (dBm/MHz)		TOTAL PSD w/o Duty Factor (dBm/MHz)	PSD w/o Duty Factor (dBm/500kHz)	Duty Factor	PSD with Duty Factor (dBm/500kHz)	LIMIT (dBm/500kHz)	PASS /FAIL
		CHAIN0	CHAIN1						
151	5755	0.96	0.32	3.66	0.65	0.19	0.84	30	PASS
159	5795	0.67	0.15	3.43	0.42	0.19	0.61	30	PASS



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Test Report No.: RF150414N009-2

For 5180~5240MHz

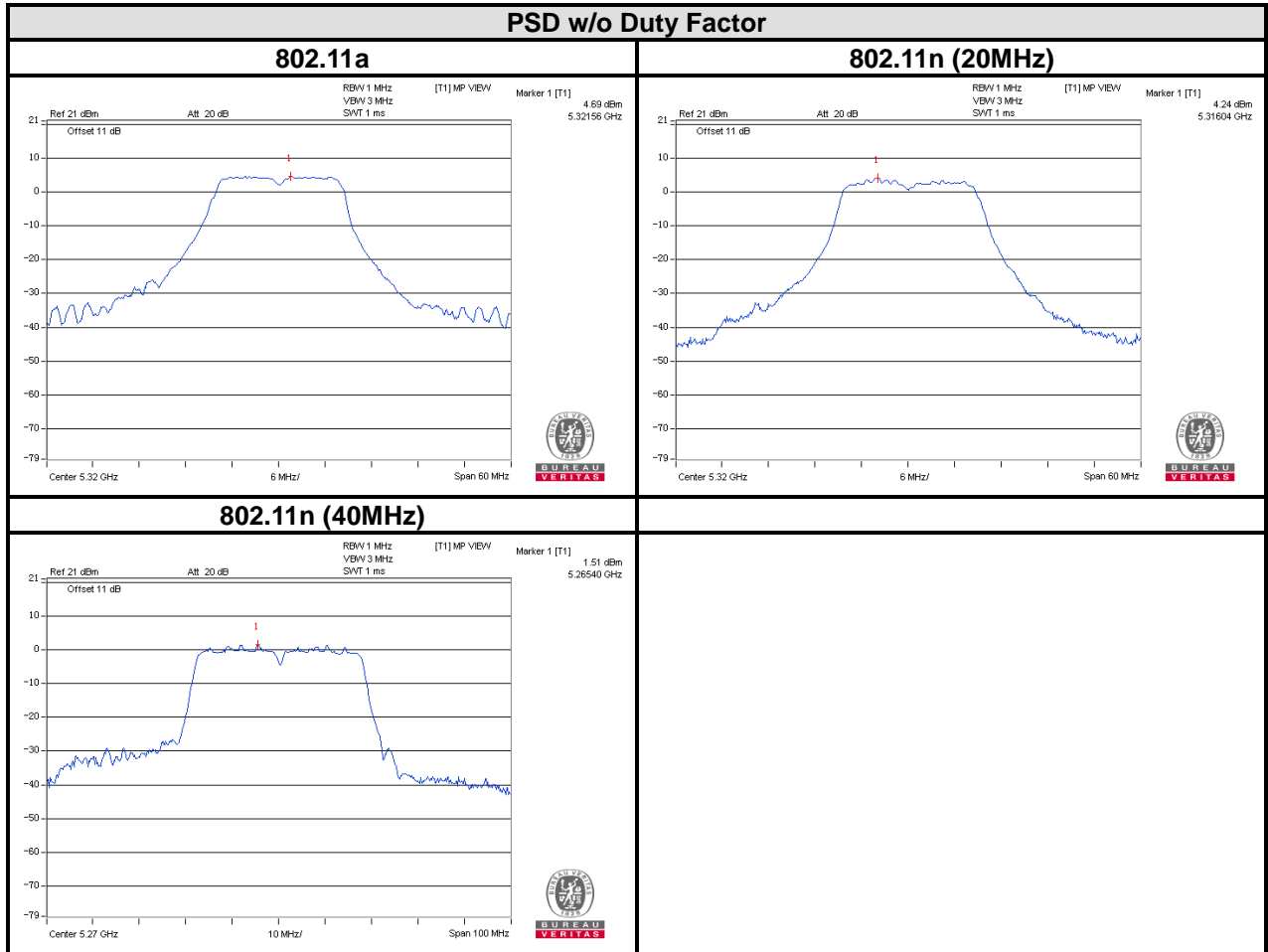




**BUREAU
VERITAS**

Test Report No.: RF150414N009-2

For 5260~5320MHz

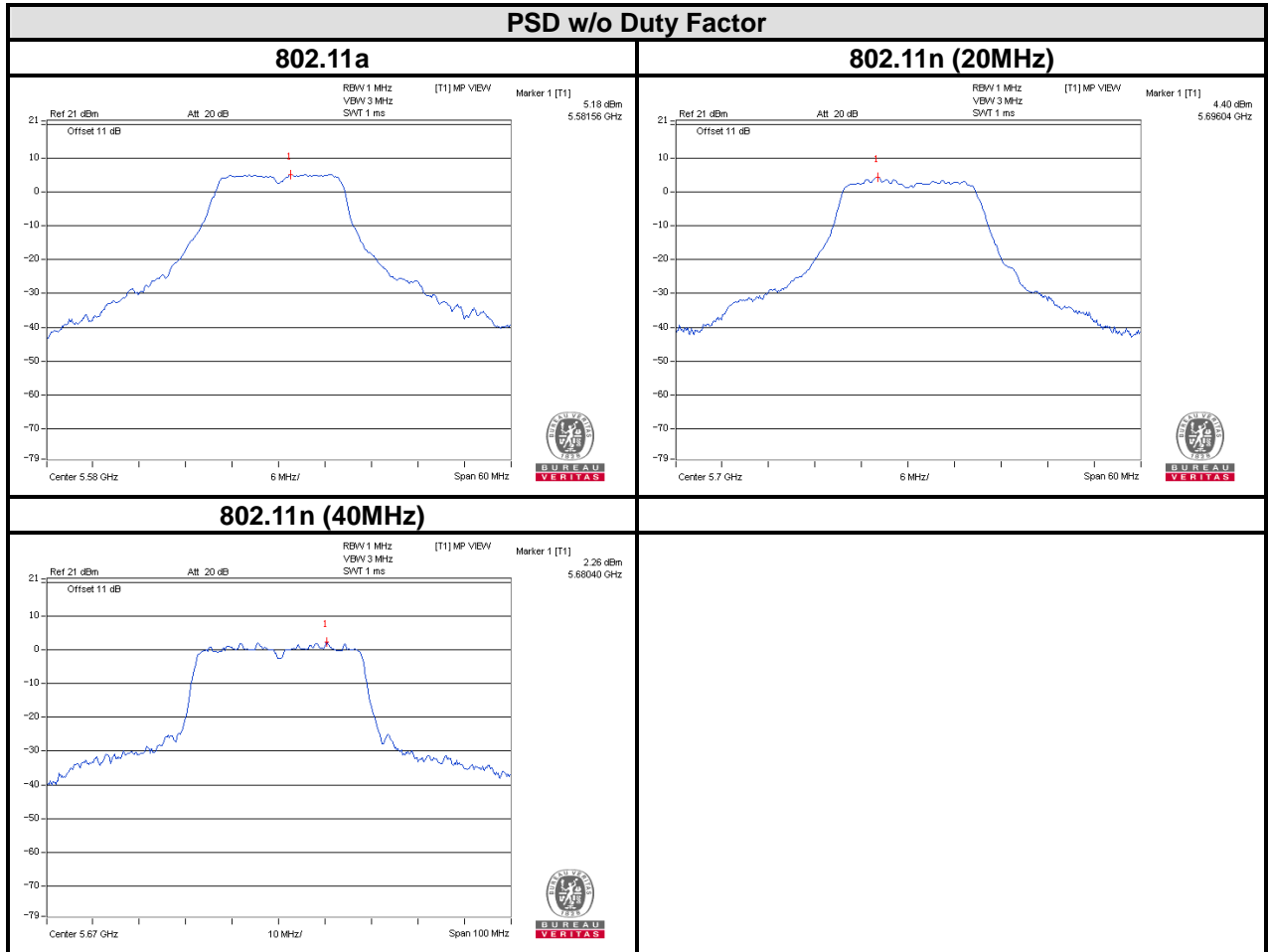




BUREAU VERITAS

Test Report No.: RF150414N009-2

For 5500~5700MHz

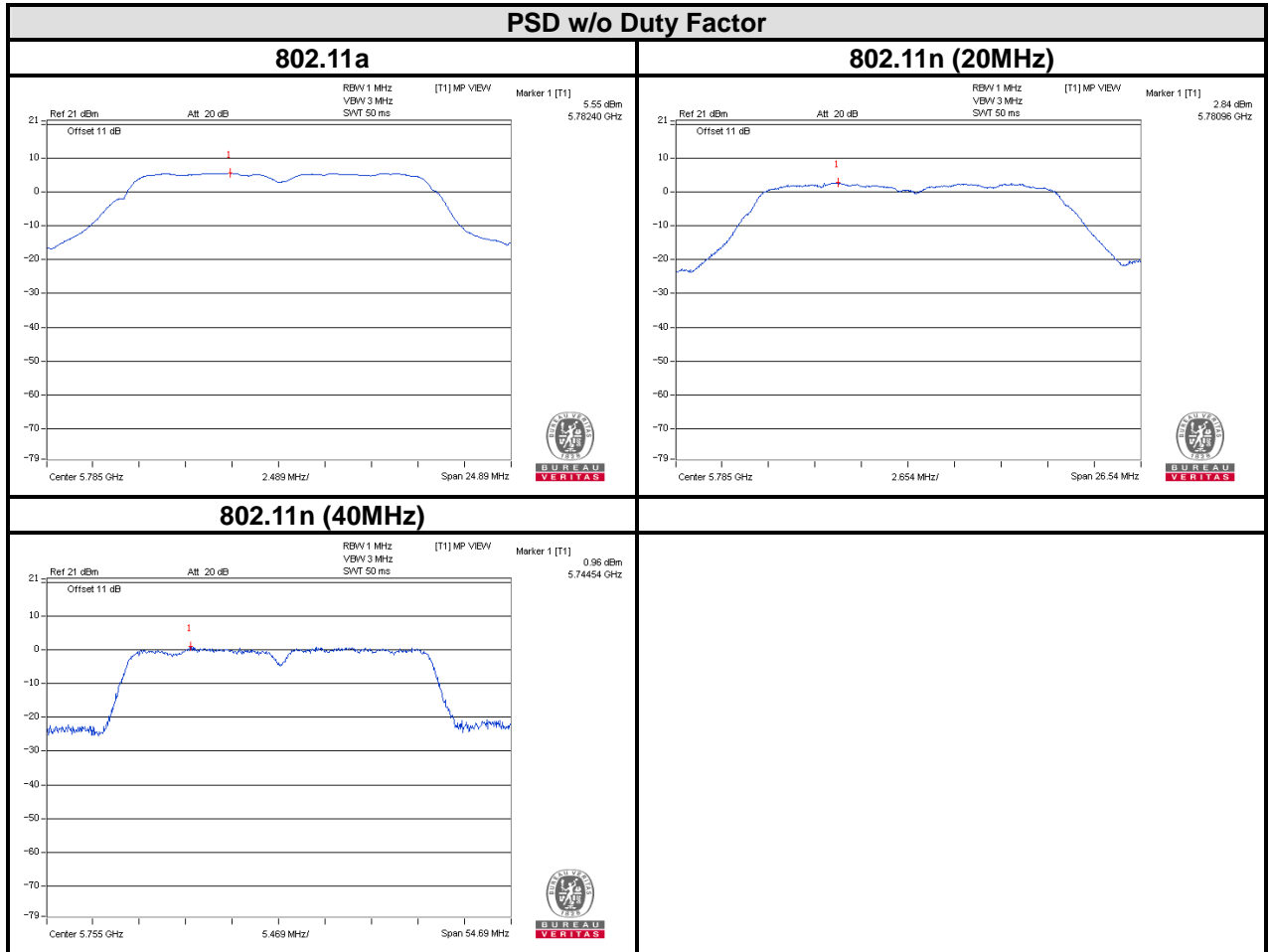




BUREAU VERITAS

Test Report No.: RF150414N009-2

For 5745~5805MHz



Note: There were CHAIN0 and CHAIN1 for PEAK POWER SPECTRAL DENSITY test. The plot is the worst case in all of their results.

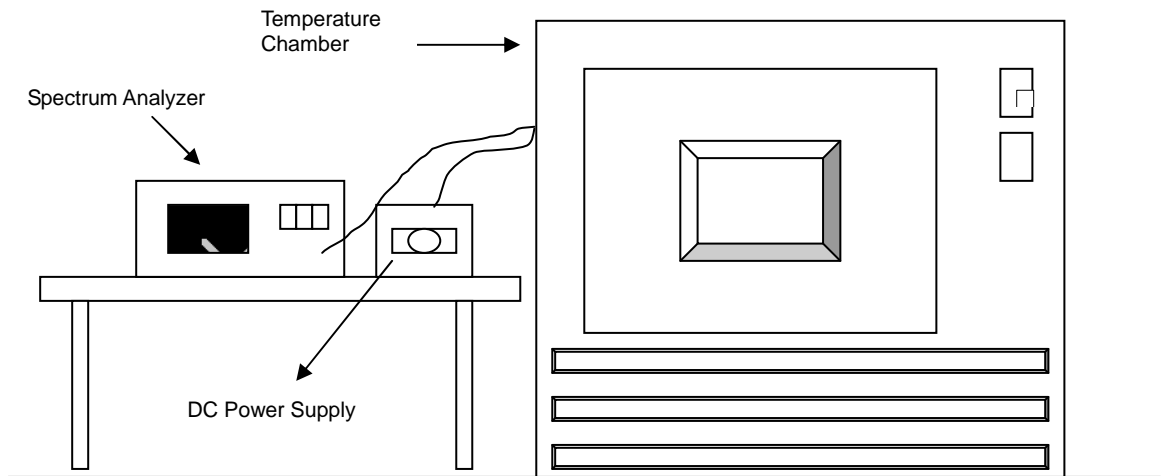


4.5 FREQUENCY STABILITY

4.5.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

4.5.2 TEST SETUP



4.5.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.



4.5.4 TEST PROCEDURE

- a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- b. Turn the EUT on and couple its output to a spectrum analyzer.
- c. Turn the EUT off and set the chamber to the highest temperature specified.
- d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

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



4.5.7 TEST RESULTS

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5220MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	5.0	5219.9853	-2.8161	5219.9815	-3.5441	5219.9873	-2.4330	5219.9855	-2.7778
40	5.0	5219.9847	-2.9310	5219.9815	-3.5441	5219.9856	-2.7586	5219.9842	-3.0268
30	5.0	5219.9852	-2.8352	5219.9809	-3.6590	5219.987	-2.4904	5219.985	-2.8736
20	5.0	5219.9939	-1.1686	5219.9968	-0.6130	5219.9985	-0.2874	5219.9956	-0.8429
10	5.0	5220.0172	3.2950	5220.0257	4.9234	5220.0169	3.2375	5220.0161	3.0843
0	5.0	5220.0158	3.0268	5220.024	4.5977	5220.0165	3.1609	5220.0166	3.1801
-10	5.0	5219.9894	-2.0307	5219.9884	-2.2222	5219.9842	-3.0268	5219.9811	-3.6207
-20	5.0	5219.9894	-2.0307	5219.9873	-2.4330	5219.9853	-2.8161	5219.9804	-3.7548
-30	5.0	5219.9889	-2.1264	5219.9885	-2.2031	5219.9839	-3.0843	5219.9806	-3.7165

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5220MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	5.25	5219.9938	-1.1877	5219.9974	-0.4981	5219.9986	-0.2682	5219.9951	-0.9387
	5.0	5219.9939	-1.1686	5219.9968	-0.6130	5219.9985	-0.2874	5219.9956	-0.8429
	4.75	5219.9951	-0.9387	5219.996	-0.7663	5219.999	-0.1916	5219.9955	-0.8621



FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	5.0	5319.9868	-2.4812	5319.9792	-3.9098	5319.9779	-4.1541	5319.9878	-2.2932
40	5.0	5319.9875	-2.3496	5319.981	-3.5714	5319.9785	-4.0414	5319.9868	-2.4812
30	5.0	5319.987	-2.4436	5319.9809	-3.5902	5319.979	-3.9474	5319.9867	-2.5000
20	5.0	5320.0157	2.9511	5320.0117	2.1992	5320.0126	2.3684	5320.0145	2.7256
10	5.0	5319.9723	-5.2068	5319.973	-5.0752	5319.9731	-5.0564	5319.9754	-4.6241
0	5.0	5319.9724	-5.1880	5319.9728	-5.1128	5319.9735	-4.9812	5319.9768	-4.3609
-10	5.0	5320.0223	4.1917	5320.0199	3.7406	5320.0238	4.4737	5320.0253	4.7556
-20	5.0	5320.0217	4.0789	5320.0199	3.7406	5320.0226	4.2481	5320.0243	4.5677
-30	5.0	5320.0217	4.0789	5320.0199	3.7406	5320.0237	4.4549	5320.0258	4.8496

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	5.25	5320.0173	3.2519	5320.0123	2.3120	5320.0127	2.3872	5320.0155	2.9135
	5.0	5320.0157	2.9511	5320.0117	2.1992	5320.0126	2.3684	5320.0145	2.7256
	4.75	5320.0156	2.9323	5320.0117	2.1992	5320.0128	2.4060	5320.0152	2.8571



FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5580MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	5.0	5580.0191	3.4229	5580.0129	2.3118	5580.0122	2.1864	5580.0131	2.3477
40	5.0	5580.0192	3.4409	5580.0122	2.1864	5580.0121	2.1685	5580.0129	2.3118
30	5.0	5580.0183	3.2796	5580.0139	2.4910	5580.0129	2.3118	5580.0138	2.4731
20	5.0	5579.994	-1.0753	5579.9928	-1.2903	5579.9979	-0.3763	5579.9928	-1.2903
10	5.0	5579.9986	-0.2509	5580.0008	0.1434	5579.9982	-0.3226	5579.9969	-0.5556
0	5.0	5580.0005	0.0896	5579.9993	-0.1254	5579.9984	-0.2867	5579.998	-0.3584
-10	5.0	5580.0051	0.9140	5580.0078	1.3978	5580.0052	0.9319	5580.0022	0.3943
-20	5.0	5580.006	1.0753	5580.0081	1.4516	5580.0042	0.7527	5580.0019	0.3405
-30	5.0	5580.005	0.8961	5580.0076	1.3620	5580.0039	0.6989	5580.0018	0.3226

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5580MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	5.25	5579.9938	-1.1111	5579.9934	-1.1828	5579.9991	-0.1613	5579.9933	-1.2007
	5.0	5579.994	-1.0753	5579.9928	-1.2903	5579.9979	-0.3763	5579.9928	-1.2903
	4.75	5579.9937	-1.1290	5579.9932	-1.2186	5579.9984	-0.2867	5579.9921	-1.4158



FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5785MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTES		5 MINUTES		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	5.0	5785.0013	0.2247	5785.0018	0.3111	5785.0071	1.2273	5785.0041	0.7087
40	5.0	5785.002	0.3457	5785.0021	0.3630	5785.0059	1.0199	5785.0032	0.5532
30	5.0	5785.001	0.1729	5785.0027	0.4667	5785.007	1.2100	5785.0035	0.6050
20	5.0	5784.9833	-2.8868	5784.9806	-3.3535	5784.9748	-4.3561	5784.9776	-3.8721
10	5.0	5784.9839	-2.7831	5784.9799	-3.4745	5784.9755	-4.2351	5784.9793	-3.5782
0	5.0	5784.984	-2.7658	5784.9809	-3.3016	5784.9755	-4.2351	5784.9782	-3.7684
-10	5.0	5785.0129	2.2299	5785.0133	2.2990	5785.0158	2.7312	5785.0113	1.9533
-20	5.0	5785.0122	2.1089	5785.0131	2.2645	5785.0151	2.6102	5785.0112	1.9360
-30	5.0	5785.0118	2.0398	5785.0118	2.0398	5785.0157	2.7139	5785.0101	1.7459

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (°C)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	5.25	5784.9861	-2.4028	5784.9793	-3.5782	5784.9759	-4.1659	5784.974	-4.4944
	5.0	5784.9863	-2.3682	5784.9812	-3.2498	5784.9762	-4.1141	5784.9748	-4.3561
	4.75	5784.9861	-2.4028	5784.9804	-3.3881	5784.9754	-4.2524	5784.9743	-4.4425



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5 PHOTOGRAPHS OF THE TEST CONFIGURATION

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



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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.

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