TEST REPORT

Applicant	SHENZHEN SMART DRONE UAV CO., LTD.
Address	6F East Block Building 1 Zhongyuntai Technology Industry Park, Tangtou RD.1,Shiyan Street Bao'anDistrict SZ China

Manufacturer or Supplier	SHENZHEN SMART DRONE UAV CO., LTD.
Address	6F East Block Building 1 Zhongyuntai Technology Industry Park, Tangtou RD.1,Shiyan Street Bao'anDistrict SZ China
Product	Mirage
Brand Name	SMD
Model	10001
Additional Model & Model Difference	10002, 10003, see item 3.1 note
Date of tests	Feb. 05, 2016 ~ Mar. 02, 2016

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

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

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

Tested by Breeze Jiang Project Engineer / EMC Department	Approved by Chris Chen Assistant Manager / EMC Department
	 Date: Mar. 02, 2016

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF151224N002-2	Original release	Mar. 02, 2016

1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407 Under New/ Old Rule)			
STANDARD SECTION	**TEST TYPE AND LIMIT**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emission	N/A	EUT is powered by battery
15.407 (b)(1/2/3/4/6)	Radiated Emissions: 30MHz ~ 40000MHz	PASS	Meet the requirement of limit.
15.407 (b)(1/2/3/4/6)	Band Edge Measurement	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	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 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	3.67dB
	1GHz ~ 18GHz	4.84dB
	18GHz ~ 40GHz	4.84dB

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	Mirage
MODEL NO.	10001
ADDITIONAL MODELS	10002, 10003
FCC ID	2AHXW-SMD-Q401
POWER SUPPLY	DC 14.8V From Battery, Battery Charging: DC 16.8V From Adapter (Note 5)
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 135Mbps
OPERATING FREQUENCY	5180 ~ 5240MHz, 5745 ~ 5825MHz
NUMBER OF CHANNEL	5180 ~ 5240MHz: 3 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz) 5745 ~ 5825MHz: 3 for 802.11a, 802.11n (20MHz) 2 for 802.11n (40MHz)
OUTPUT POWER	15.61dBm for 5180 ~ 5240MHz (Maximum) 15.49dBm for 5745 ~ 5825MHz (Maximum)
ANTENNA TYPE	FPCB Antenna, 2dBi Gain
I/O PORTS	Refer to user's manual
CABLE SUPPLIED	N/A

NOTE:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.
3. Please refer to the EUT photo document (Reference No.: 151224N002-1) for detailed product photo.
4. 10001 is the item# of Mirage Pro, Mirage Pro is with retractable landing gear, 5 times optical zoom camera, 14.8V 10000mAh Li-poly battery, four sides intelligent obstacle avoidance. 10002 is the Item # of Mirage 4k, the Aircraft model is the same with the Mirage Pro, the only different is that Mirage 4K is with 4K fixed camera, 14.8V 6750mAh Li-poly battery, fixed landing gear and no function of intelligent obstacle avoidance. 10003 is the item# of Mirage Optical Zoom Camera, everything is the same with Mirage Pro but only with the different is that it has no function of intelligent obstacle avoidance.

5. This product in RF mode only powered from battery.

6. The EUT provides completed transmitters and receivers ..

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

3.2 DESCRIPTION OF TEST MODES

FOR 5150 ~ 5240MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
38	5190 MHz	46	5230 MHz

FOR 5725 ~ 5850MHz

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

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

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 Fully Battery 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	5725-5825	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	5180-5240	36 to 48	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	5725-5825	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)
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	5725-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
B	802.11n (20MHz)		149 to 165	149, 157, 165	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	26deg. C, 67%RH	DC 14.8V from Fully Battery	Sen He
RE≥1G	26deg. C, 67%RH	DC 14.8V from Fully Battery	Sen He
PLC	N/A	N/A	N/A
APCM	20deg. C, 55%RH	DC 14.8V from Fully Battery	Blue Zheng

3.3 DUTY CYCLE OF TEST SIGNAL

Band 1

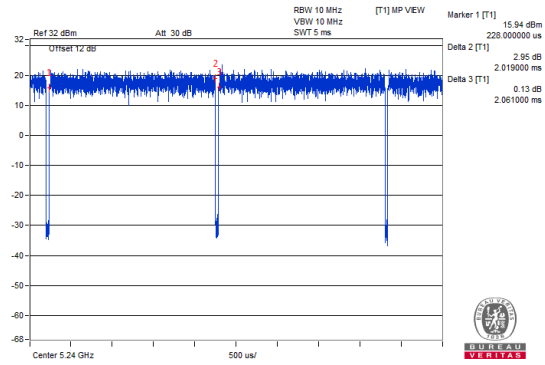
Chain 0:

802.11a: Duty cycle = 2.019/2.061= 0.980, Duty factor = 10 * log(1/0.980) = 0.088

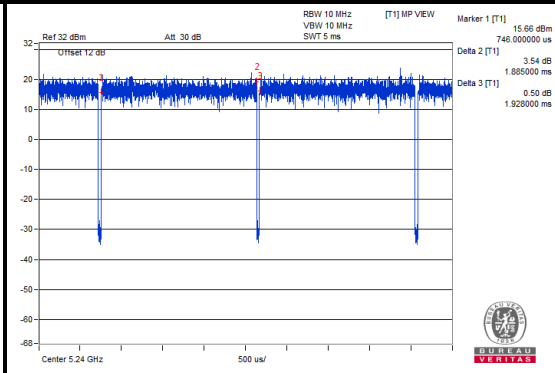
802.11n (20MHz): Duty cycle =1.885/1.928= 0.978, Duty factor = 10 * log(1/0.978) =0.097

802.11n (40MHz): Duty cycle =0.926/0.964= 0.961, Duty factor = 10 * log(1/0.961) = 0.173

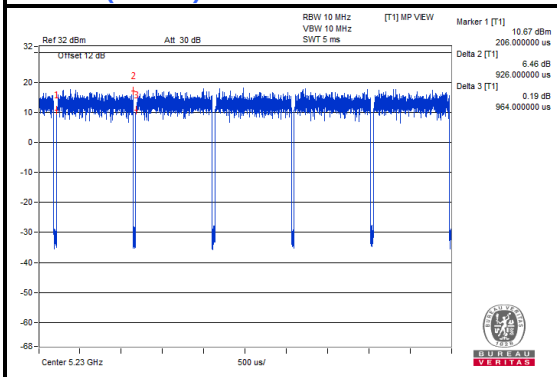
802.11a



802.11n (20MHz)



802.11n (40MHz)



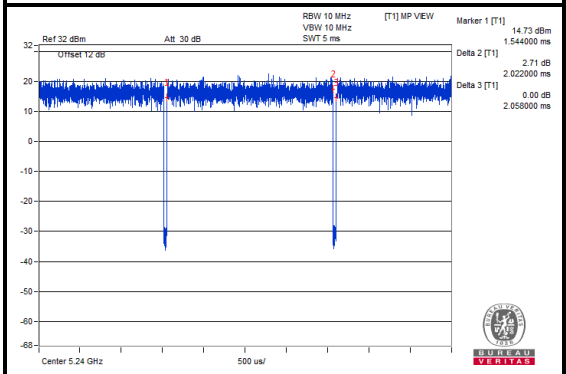
Chain 1:

802.11a: Duty cycle = 2.022/2.058 = 0.983, Duty factor = 10 * log(1/0.983) = 0.074

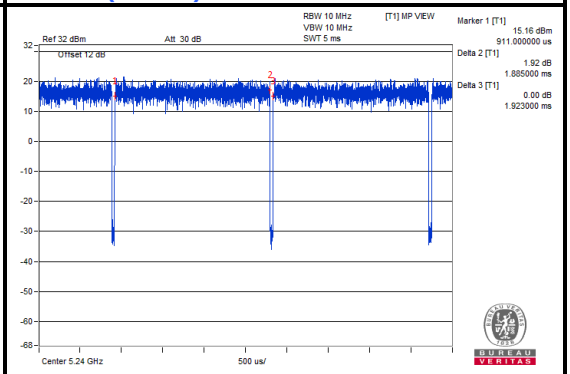
802.11n (20MHz): Duty cycle =1.885/1.923= 0.980, Duty factor = 10 * log(1/0.980) =0.088

802.11n (40MHz): Duty cycle =0.926/0.964= 0.961, Duty factor = 10 * log(1/0.961) = 0.173

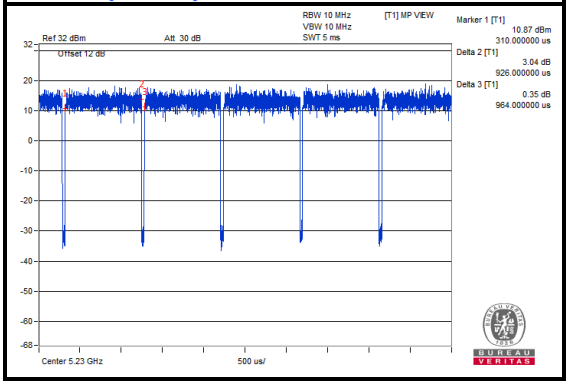
802.11a



802.11n (20MHz)



802.11n (40MHz)



Band 4

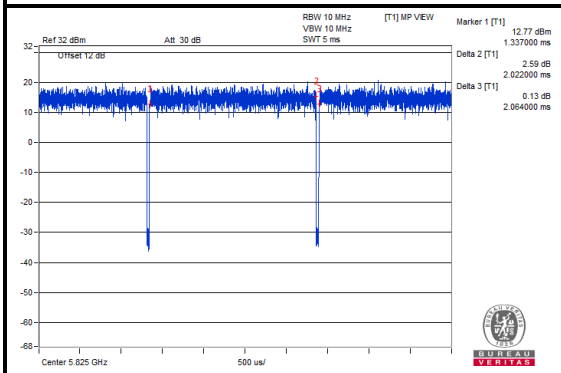
Chain 0:

802.11a: Duty cycle = 2.022/2.064 = 0.978, Duty factor = 10 * log(1/0.978) = 0.097

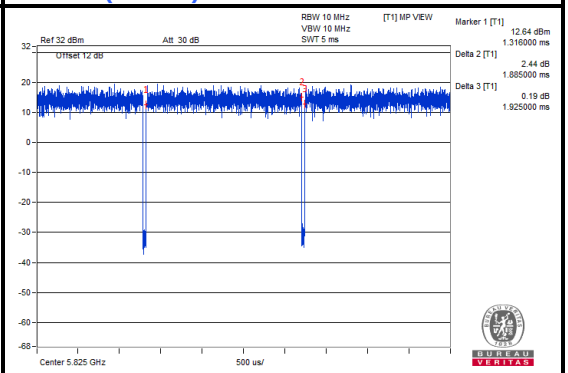
802.11n (20MHz): Duty cycle =1.885/1.925= 0.979, Duty factor = 10 * log(1/0.979) =0.092

802.11n (40MHz): Duty cycle =0.926/0.963= 0.962, Duty factor = 10 * log(1/0.962) = 0.168

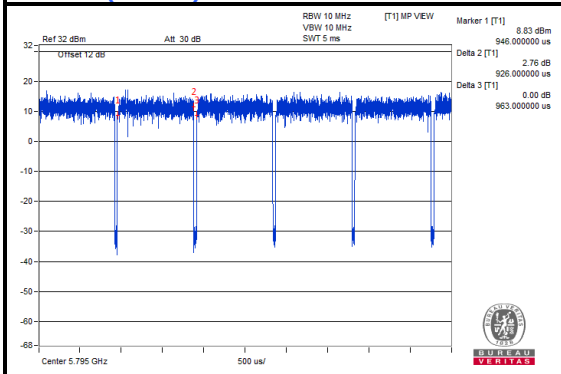
802.11a



802.11n (20MHz)



802.11n (40MHz)



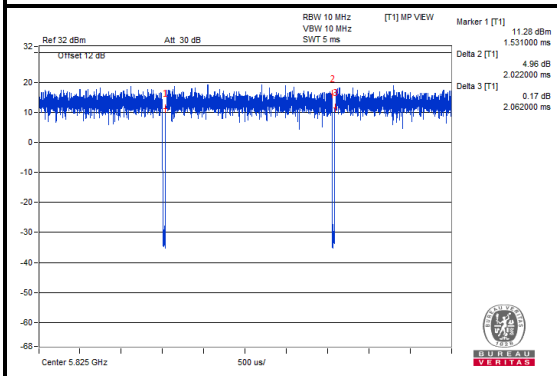
Chain 1:

802.11a: Duty cycle = 2.022/2.062= 0.981, Duty factor = 10 * log(1/0.981) = 0.083

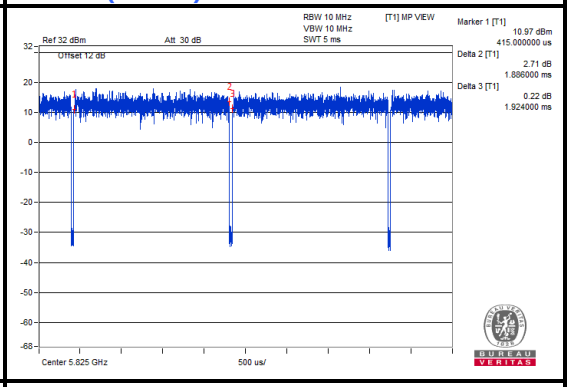
802.11n (20MHz): Duty cycle =1.886/1.924= 0.980, Duty factor = 10 * log(1/0.980) =0.088

802.11n (40MHz): Duty cycle =0.925/0.965= 0.959, Duty factor = 10 * log(1/0.959) = 0.182

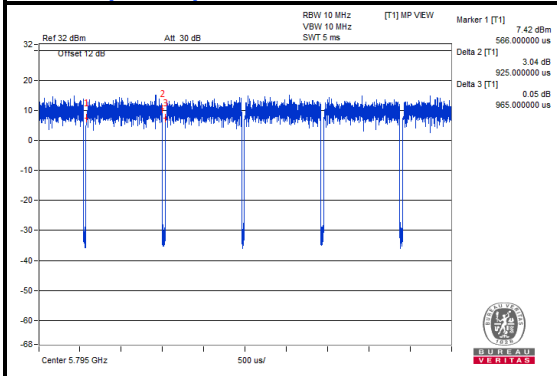
802.11a



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

NO.	DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	AC Line;unshielded, detachable 1.8m.

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 C63.10-2013

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

NOTE: It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B Verification. 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)	EQUIVALENT FIELD STRENGTH AT 3m (dBμV/m)
√	PK	PK
	-27	68.3
	-17	78.3

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).

4.1.3 TEST INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Power Sensor	Keysight	U2021XA	MY55060016	Feb. 18,16	Feb. 17,17
Power Sensor	Keysight	U2021XA	MY55060018	Feb. 18,16	Feb. 17,17
Digital Multimeter	FLUKE	15B	A1220010DG	Oct. 12, 15	Oct.11, 16
Humid & Temp Programmable Tester	Haida	HD-2257	110807201	Sep.07,15	Sep. 06,16
Oscilloscope	Agilent	DSO9254A	MY51260160	Nov. 28,15	Nov. 27,16
Signal Analyzer	Rohde & Schwarz	FSV7	102331	Nov. 05,15	Nov. 04,16
Signal Generator	Agilent	N5183A	MY50140980	Nov. 05,15	Nov. 04,16
ESG Vector Signal Generator	Agilent	E4438C	MY49072505	Apr. 22, 15	Apr. 21, 16
BLUETOOTH TESTER	Rohde&Schwarz	CBT32	100811	Sep. 01,15	Aug. 31,16

NOTE:

1. The test was performed in 966 Chamber.
2. The calibration interval of the above test instruments are 12, 24 or 36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.
3. The horn antenna is used only for the measurement of emission frequency above1GHz if tested.
4. The FCC Site Registration No. is 494399.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter semi-anechoic camber. 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.

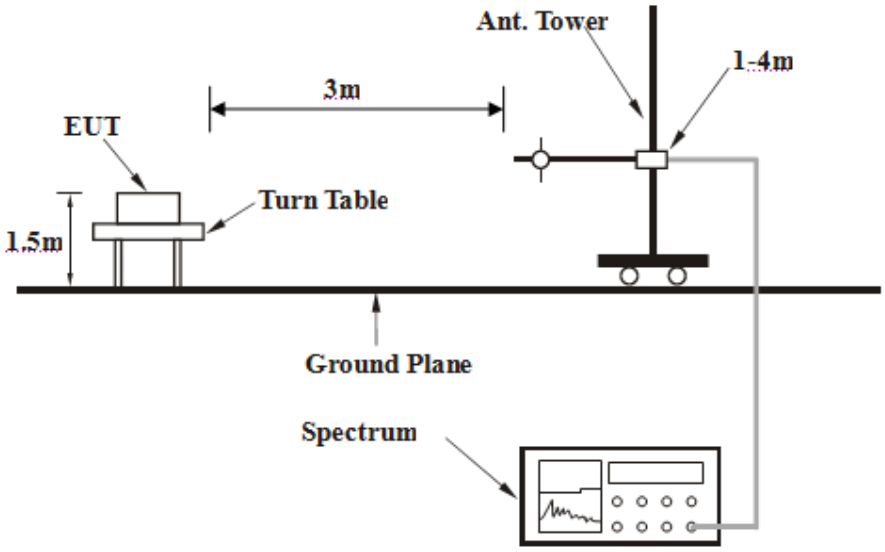
NOTE:

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:

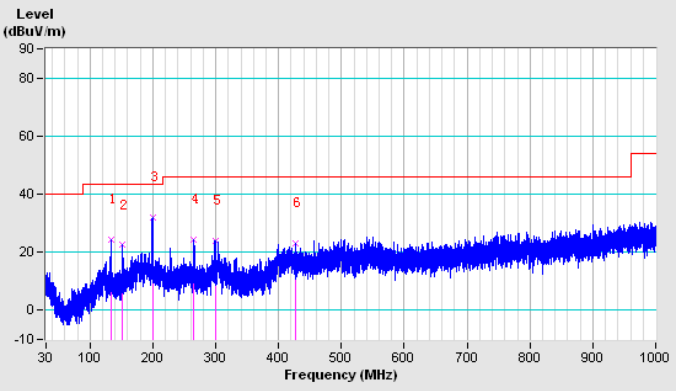
Band 1_802.11a

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 (cm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	133.24	24.33	43.50	-19.17	100	0	42.28	-17.95
2	151.90	22.45	43.50	-21.05	100	0	40.82	-18.37
3	**199.17**	**31.92**	**43.50**	**-11.58**	**100**	**0**	**52.48**	**-20.56**
4	265.56	24.51	46.00	-21.49	100	0	39.64	-15.13
5	299.83	23.80	46.00	-22.20	100	0	38.37	-14.57
6	427.36	23.06	46.00	-22.94	100	0	33.32	-10.26

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.

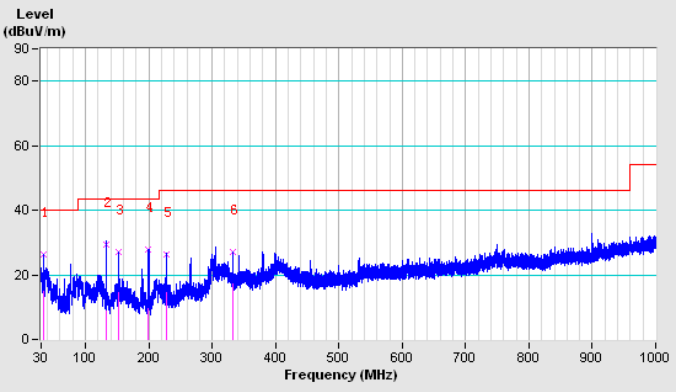


CHANNEL	Channel 36	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	34.56	26.39	40.00	-13.61	100	0	40.86	-14.47
2	132.76	29.43	43.50	-14.07	100	0	47.38	-17.95
3	152.19	27.05	43.50	-16.45	100	0	45.43	-18.38
4	199.17	27.97	43.50	-15.53	100	0	48.53	-20.56
5	228.18	26.32	46.00	-19.68	100	0	44.90	-18.58
6	333.17	27.11	46.00	-18.89	100	0	40.97	-13.86

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:

802.11a

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

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	47.2 PK	74.0	-26.8	1.62 H	360	38.20	9.00
2	5150.00	36.7 AV	54.0	-17.3	1.62 H	360	27.70	9.00
3	*5180.00	92.3 PK			1.62 H	360	83.30	9.00
4	*5180.00	77.9 AV			1.62 H	360	68.90	9.00
5	#10360.00	60.3 PK	74.0	-13.7	1.02 H	113	44.30	16.00
6	#10360.00	44.2 AV	54.0	-9.8	1.02 H	113	28.20	16.00
7	15540.00	62.6 PK	74.0	-11.4	1.02 H	52	42.00	20.60
8	15540.00	48.1 AV	54.0	-5.9	1.02 H	52	27.50	20.60
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	50.5 PK	74.0	-23.5	1.37 V	289	41.50	9.00
2	5150.00	37.1 AV	54.0	-16.9	1.37 V	289	28.10	9.00
3	*5180.00	93.6 PK			1.37 V	289	84.60	9.00
4	*5180.00	77.8 AV			1.37 V	289	68.80	9.00
5	#10360.00	57.9 PK	74.0	-16.1	1.03 V	14	41.90	16.00
6	#10360.00	41.6 AV	54.0	-12.4	1.03 V	14	25.60	16.00
7	15540.00	61.8 PK	74.0	-12.2	1.01 V	284	41.20	20.60
8	15540.00	47.2 AV	54.0	-6.8	1.01 V	284	26.60	20.60

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 40	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	*5200.00	92.2 PK			1.07 H	354	83.10	9.10
2	*5200.00	78.4 AV			1.07 H	354	69.30	9.10
3	#10400.00	56.3 PK	74.0	-17.7	1.00 H	216	40.20	16.10
4	#10400.00	42.0 AV	54.0	-12.0	1.00 H	216	25.90	16.10
5	15600.00	61.8 PK	74.0	-12.2	1.01 H	47	41.10	20.70
6	15600.00	46.6 AV	54.0	-7.4	1.01 H	47	25.90	20.70
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	*5200.00	94.1 PK			1.88 V	226	85.00	9.10
2	*5200.00	78.6 AV			1.88 V	226	69.50	9.10
3	#10400.00	57.4 PK	74.0	-16.6	1.00 V	5	41.30	16.10
4	#10400.00	42.9 AV	54.0	-11.1	1.00 V	5	26.80	16.10
5	15600.00	63.1 PK	74.0	-10.9	1.04 V	89	42.40	20.70
6	15600.00	48.2 AV	54.0	-5.8	1.04 V	89	27.50	20.70

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.

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

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	90.8 PK			1.04 H	1	81.60	9.20
2	*5240.00	77.3 AV			1.04 H	1	68.10	9.20
3	#10480.00	57.2 PK	74.0	-16.8	1.00 H	188	41.00	16.20
4	#10480.00	41.9 AV	54.0	-12.1	1.00 H	188	25.70	16.20
5	15720.00	62.3 PK	74.0	-11.7	1.01 H	76	41.40	20.90
6	15720.00	48.2 AV	54.0	-5.8	1.01 H	76	27.30	20.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	92.9 PK			1.19 V	292	83.70	9.20
2	*5240.00	79.5 AV			1.19 V	292	70.30	9.20
3	#10480.00	56.4 PK	74.0	-17.6	1.01 V	28	40.20	16.20
4	#10480.00	41.1 AV	54.0	-12.9	1.01 V	28	24.90	16.20
5	15720.00	61.6 PK	74.0	-12.4	1.00 V	62	40.70	20.90
6	15720.00	47.8 AV	54.0	-6.2	1.00 V	62	26.90	20.90

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	48.2 PK	74.0	-25.8	1.09 H	13	39.20	9.00
2	5150.00	34.0 AV	54.0	-20.0	1.09 H	13	25.00	9.00
3	*5180.00	90.9 PK			1.09 H	13	81.90	9.00
4	*5180.00	76.1 AV			1.09 H	13	67.10	9.00
5	#10360.00	47.3 PK	74.0	-26.7	1.00 H	157	31.30	16.00
6	#10360.00	41.9 AV	54.0	-12.1	1.00 H	157	25.90	16.00
7	15540.00	61.6 PK	74.0	-12.4	1.01 H	110	41.00	20.60
8	15540.00	48.0 AV	54.0	-6.0	1.01 H	110	27.40	20.60
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	1.18 V	291	40.00	9.00
2	5150.00	35.2 AV	54.0	-18.8	1.18 V	291	26.20	9.00
3	*5180.00	91.2 PK			1.18 V	291	82.20	9.00
4	*5180.00	76.6 AV			1.18 V	291	67.60	9.00
5	#10360.00	48.2 PK	74.0	-25.8	1.02 V	316	32.20	16.00
6	#10360.00	42.3 AV	54.0	-11.7	1.02 V	316	26.30	16.00
7	15540.00	62.0 PK	74.0	-12.0	1.00 V	8	41.40	20.60
8	15540.00	47.6 AV	54.0	-6.4	1.00 V	8	27.00	20.60

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

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	*5200.00	93.6 PK			2.04 H	88	84.50	9.10
2	*5200.00	78.8 AV			2.04 H	88	69.70	9.10
3	#10400.00	56.9 PK	74.0	-17.1	1.00 H	311	40.80	16.10
4	#10400.00	41.9 AV	54.0	-12.1	1.00 H	311	25.80	16.10
5	15600.00	61.9 PK	74.0	-12.1	1.00 H	30	41.20	20.70
6	15600.00	47.0 AV	54.0	-7.0	1.00 H	30	26.30	20.70
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	*5200.00	92.2 PK			1.21 V	108	83.10	9.10
2	*5200.00	76.6 AV			1.21 V	108	67.50	9.10
3	#10400.00	57.7 PK	74.0	-16.3	1.02 V	226	41.60	16.10
4	#10400.00	42.2 AV	54.0	-11.8	1.02 V	226	26.10	16.10
5	15600.00	62.3 PK	74.0	-11.7	1.00 V	163	41.60	20.70
6	15600.00	47.2 AV	54.0	-6.8	1.00 V	163	26.50	20.70

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.

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

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	92.3 PK			1.17 H	80	83.10	9.20
2	*5240.00	77.7 AV			1.17 H	80	68.50	9.20
3	#10480.00	48.2 PK	74.0	-25.8	1.06 H	77	32.00	16.20
4	#10480.00	41.6 AV	54.0	-12.4	1.06 H	77	25.40	16.20
5	15720.00	61.4 PK	74.0	-12.6	1.00 H	325	40.50	20.90
6	15720.00	47.3 AV	54.0	-6.7	1.00 H	325	26.40	20.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	93.6 PK			1.25 V	304	84.40	9.20
2	*5240.00	78.8 AV			1.25 V	304	69.60	9.20
3	#10480.00	56.1 PK	74.0	-17.9	1.01 V	116	39.90	16.20
4	#10480.00	42.1 AV	54.0	-11.9	1.01 V	116	25.90	16.20
5	15720.00	61.7 PK	74.0	-12.3	1.00 V	87	40.80	20.90
6	15720.00	47.3 AV	54.0	-6.7	1.00 V	87	26.40	20.90

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	46.0 PK	74.0	-28.0	1.39 H	3	37.00	9.00
2	5150.00	33.8 AV	54.0	-20.2	1.39 H	3	24.80	9.00
3	*5190.00	90.2 PK			1.39 H	3	81.20	9.00
4	*5190.00	74.1 AV			1.39 H	3	65.10	9.00
5	#10380.00	56.6 PK	74.0	-17.4	1.00 H	84	40.60	16.00
6	#10380.00	42.2 AV	54.0	-11.8	1.00 H	84	26.20	16.00
7	15570.00	61.8 PK	74.0	-12.2	1.01 H	284	41.20	20.60
8	**15570.00**	**48.3 AV**	**54.0**	**-5.7**	**1.01 H**	**284**	**27.70**	**20.60**
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	46.9 PK	74.0	-27.1	1.17 V	290	37.90	9.00
2	5150.00	33.7 AV	54.0	-20.3	1.17 V	290	24.70	9.00
3	*5190.00	89.9 PK			1.17 V	290	80.90	9.00
4	*5190.00	73.6 AV			1.17 V	290	64.60	9.00
5	#10380.00	57.2 PK	74.0	-16.8	1.02 V	166	41.20	16.00
6	#10380.00	41.9 AV	54.0	-12.1	1.02 V	166	25.90	16.00
7	15570.00	62.0 PK	74.0	-12.0	1.00 V	332	41.40	20.60
8	15570.00	47.8 AV	54.0	-6.2	1.00 V	332	27.20	20.60

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 46	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	90.1 PK			1.93 H	104	81.00	9.10
2	*5230.00	74.2 AV			1.93 H	104	65.10	9.10
3	#10460.00	56.9 PK	74.0	-17.1	1.03 H	130	40.80	16.10
4	#10460.00	42.2 AV	54.0	-11.8	1.03 H	130	26.10	16.10
5	15690.00	62.3 PK	74.0	-11.7	1.01 H	8	41.40	20.90
6	15690.00	47.8 AV	54.0	-6.2	1.01 H	8	26.90	20.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	*5230.00	91.3 PK			1.72 V	328	82.20	9.10
2	*5230.00	74.8 AV			1.72 V	328	65.70	9.10
3	#10460.00	57.2 PK	74.0	-16.8	1.10 V	215	41.10	16.10
4	#10460.00	43.0 AV	54.0	-11.0	1.10 V	215	26.90	16.10
5	15690.00	61.9 PK	74.0	-12.1	1.00 V	55	41.00	20.90
6	15690.00	47.3 AV	54.0	-6.7	1.00 V	55	26.40	20.90

REMARKS:

1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
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.

BELOW 1GHz WORST-CASE DATA:

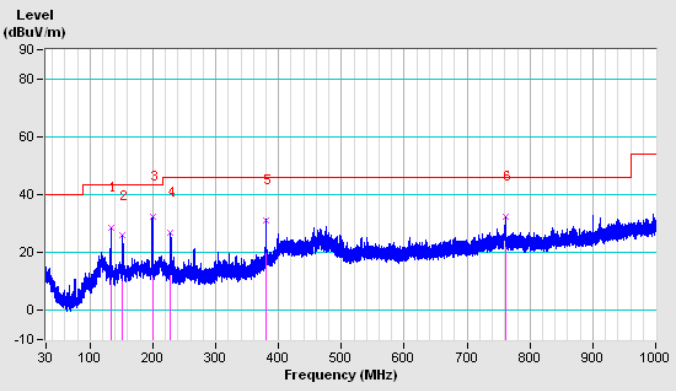
Band 4_802.11a

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 (cm)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	132.79	28.46	43.50	-15.04	100	0	46.41	-17.95
2	152.13	25.87	43.50	-17.63	100	0	44.25	-18.38
3	**199.17**	**32.53**	**43.50**	**-10.97**	**100**	**0**	**53.09**	**-20.56**
4	228.05	26.80	46.00	-19.20	100	0	45.39	-18.59
5	380.76	31.27	46.00	-14.73	100	0	43.21	-11.94
6	761.70	32.53	46.00	-13.47	100	0	34.94	-2.41

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.

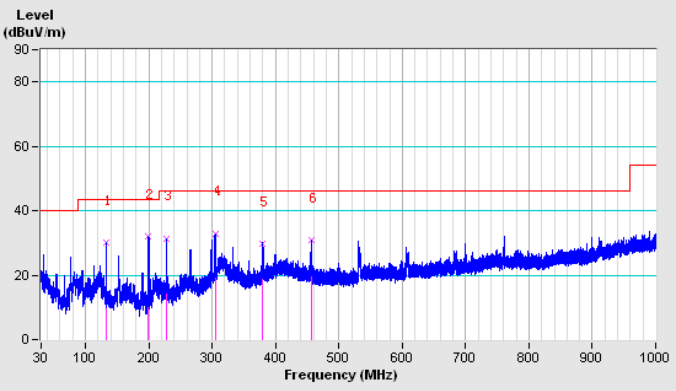


CHANNEL	Channel 36	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (cm)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	132.79	30.15	43.50	-13.35	100	0	48.10	-17.95
2	199.17	31.99	43.50	-11.51	100	0	52.55	-20.56
3	227.56	31.42	46.00	-14.58	100	0	50.05	-18.63
4	304.52	32.96	46.00	-13.04	100	0	47.39	-14.43
5	379.31	29.78	46.00	-16.22	100	0	41.77	-11.99
6	456.78	30.76	46.00	-15.24	100	0	40.08	-9.32

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 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								
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	47.3 PK	68.3	-21.0	1.12 H	207	37.10	10.20
2	#5725.00	48.0 PK	78.3	-30.3	1.12 H	207	37.70	10.30
3	*5745.00	87.1 PK			1.12 H	207	76.80	10.30
4	*5745.00	75.2 AV			1.12 H	207	64.90	10.30
5	11490.00	56.9 PK	74.0	-17.1	1.03 H	52	39.70	17.20
6	11490.00	41.1 AV	54.0	-12.9	1.03 H	52	23.90	17.20
7	#17235.00	63.2 PK	74.0	-10.8	1.04 H	88	40.10	23.10
8	#17235.00	48.1 AV	54.0	-5.9	1.04 H	88	25.00	23.10
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	48.3 PK	68.3	-20.0	1.06 V	306	38.10	10.20
2	#5725.00	48.9 PK	78.3	-29.4	1.06 V	306	38.60	10.30
3	*5745.00	88.9 PK			1.06 V	306	78.60	10.30
4	*5745.00	75.0 AV			1.06 V	306	64.70	10.30
5	11490.00	55.6 PK	74.0	-18.4	1.00 V	214	38.40	17.20
6	11490.00	40.8 AV	54.0	-13.2	1.00 V	214	23.60	17.20
7	#17235.00	62.8 PK	74.0	-11.2	1.01 V	116	39.70	23.10
8	#17235.00	47.8 AV	54.0	-6.2	1.01 V	116	24.70	23.10

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	88.5 PK			1.21 H	132	78.00	10.50
2	*5785.00	75.3 AV			1.21 H	132	64.80	10.50
3	11570.00	56.6 PK	74.0	-17.4	1.02 H	52	39.20	17.40
4	11570.00	40.1 AV	54.0	-13.9	1.02 H	52	22.70	17.40
5	#17355.00	61.9 PK	74.0	-12.1	1.00 H	11	38.80	23.10
6	#17355.00	47.2 AV	54.0	-6.8	1.00 H	11	24.10	23.10
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	87.9 PK			1.62 V	223	77.40	10.50
2	*5785.00	74.6 AV			1.62 V	223	64.10	10.50
3	11570.00	56.9 PK	74.0	-17.1	1.03 V	9	39.50	17.40
4	11570.00	41.6 AV	54.0	-12.4	1.03 V	9	24.20	17.40
5	#17355.00	63.3 PK	74.0	-10.7	1.01 V	42	40.20	23.10
6	#17355.00	48.0 AV	54.0	-6.0	1.01 V	42	24.90	23.10

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

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	87.2 PK			1.79 H	208	76.70	10.50
2	*5825.00	74.9 AV			1.79 H	208	64.40	10.50
3	#5850.00	47.7 PK	78.3	-30.6	1.79 H	208	37.10	10.60
4	#5860.00	47.1 PK	68.3	-21.2	1.79 H	208	36.50	10.60
5	11650.00	58.2 PK	74.0	-15.8	1.00 H	147	40.60	17.60
6	11650.00	43.1 AV	54.0	-10.9	1.00 H	147	25.50	17.60
7	#17475.00	62.2 PK	74.0	-11.8	1.00 H	225	39.00	23.20
8	#17475.00	47.4 AV	54.0	-6.6	1.00 H	225	24.20	23.20
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	88.1 PK			1.35 V	211	77.60	10.50
2	*5825.00	75.3 AV			1.35 V	211	64.80	10.50
3	#5850.00	48.8 PK	78.3	-29.5	1.35 V	211	38.20	10.60
4	#5860.00	48.0 PK	68.3	-20.3	1.35 V	211	37.40	10.60
5	11650.00	57.6 PK	74.0	-16.4	1.04 V	87	40.00	17.60
6	11650.00	42.3 AV	54.0	-11.7	1.04 V	87	24.70	17.60
7	#17475.00	61.6 PK	74.0	-12.4	1.01 V	336	38.40	23.20
8	#17475.00	47.9 AV	54.0	-6.1	1.01 V	336	24.70	23.20

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	47.8 PK	68.3	-20.5	1.62 H	41	37.60	10.20
2	#5725.00	49.2 PK	78.3	-29.1	1.62 H	41	38.90	10.30
3	*5745.00	87.6 PK			1.62 H	41	77.30	10.30
4	*5745.00	74.8 AV			1.62 H	41	64.50	10.30
5	11490.00	56.9 PK	74.0	-17.1	1.03 H	114	39.70	17.20
6	11490.00	43.6 AV	54.0	-10.4	1.03 H	114	26.40	17.20
7	#17235.00	62.4 PK	74.0	-11.6	1.00 H	328	39.30	23.10
8	#17235.00	47.9 AV	54.0	-6.1	1.00 H	328	24.80	23.10
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	48.6 PK	68.3	-19.7	1.06 V	304	38.40	10.20
2	#5725.00	49.3 PK	78.3	-29.0	1.06 V	304	39.00	10.30
3	*5745.00	88.1 PK			1.06 V	304	77.80	10.30
4	*5745.00	75.8 AV			1.06 V	304	65.50	10.30
5	11490.00	55.8 PK	74.0	-18.2	1.10 V	236	38.60	17.20
6	11490.00	42.1 AV	54.0	-11.9	1.10 V	236	24.90	17.20
7	#17235.00	62.8 PK	74.0	-11.2	1.04 V	52	39.70	23.10
8	#17235.00	48.2 AV	54.0	-5.8	1.04 V	52	25.10	23.10

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	90.6 PK			1.16 H	201	80.10	10.50
2	*5785.00	77.8 AV			1.16 H	201	67.30	10.50
3	11570.00	56.8 PK	74.0	-17.2	1.02 H	62	39.40	17.40
4	11570.00	42.8 AV	54.0	-11.2	1.02 H	62	25.40	17.40
5	#17355.00	63.1 PK	74.0	-10.9	1.01 H	2	40.00	23.10
6	#17355.00	47.9 AV	54.0	-6.1	1.01 H	2	24.80	23.10
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	89.1 PK			2.04 V	336	78.60	10.50
2	*5785.00	76.4 AV			2.04 V	336	65.90	10.50
3	11570.00	57.4 PK	74.0	-16.6	1.00 V	199	40.00	17.40
4	11570.00	43.6 AV	54.0	-10.4	1.00 V	199	26.20	17.40
5	#17355.00	62.9 PK	74.0	-11.1	1.02 V	58	39.80	23.10
6	#17355.00	47.1 AV	54.0	-6.9	1.02 V	58	24.00	23.10

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

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	87.0 PK			1.67 H	215	76.50	10.50
2	*5825.00	74.7 AV			1.67 H	215	64.20	10.50
3	#5850.00	48.1 PK	78.3	-30.2	1.67 H	215	37.50	10.60
4	#5860.00	47.4 PK	68.3	-20.9	1.67 H	215	36.80	10.60
5	11650.00	57.2 PK	74.0	-16.8	1.05 H	87	39.60	17.60
6	11650.00	41.9 AV	54.0	-12.1	1.05 H	87	24.30	17.60
7	#17475.00	62.2 PK	74.0	-11.8	1.00 H	61	39.00	23.20
8	#17475.00	48.1 AV	54.0	-5.9	1.00 H	61	24.90	23.20
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	87.8 PK			1.17 V	219	77.30	10.50
2	*5825.00	75.1 AV			1.17 V	219	64.60	10.50
3	#5850.00	48.6 PK	78.3	-29.7	1.17 V	219	38.00	10.60
4	#5860.00	47.7 PK	68.3	-20.6	1.17 V	219	37.10	10.60
5	11650.00	56.7 PK	74.0	-17.3	1.05 V	8	39.10	17.60
6	11650.00	41.7 AV	54.0	-12.3	1.05 V	8	24.10	17.60
7	#17475.00	61.9 PK	74.0	-12.1	1.01 V	77	38.70	23.20
8	#17475.00	47.6 AV	54.0	-6.4	1.01 V	77	24.40	23.20

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	47.2 PK	68.3	-21.1	2.02 H	102	37.00	10.20
2	#5725.00	48.9 PK	78.3	-29.4	2.02 H	102	38.60	10.30
3	*5755.00	85.7 PK			2.02 H	102	75.40	10.30
4	*5755.00	71.6 AV			2.02 H	102	61.30	10.30
5	11510.00	57.7 PK	74.0	-16.3	1.01 H	182	40.30	17.40
6	11510.00	42.3 AV	54.0	-11.7	1.01 H	182	24.90	17.40
7	#17265.00	52.8 PK	74.0	-21.2	1.03 H	266	29.70	23.10
8	#17265.00	47.9 AV	54.0	-6.1	1.03 H	266	24.80	23.10
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	48.6 PK	68.3	-19.7	1.09 V	226	38.40	10.20
2	#5725.00	51.9 PK	78.3	-26.4	1.09 V	226	41.60	10.30
3	*5755.00	86.9 PK			1.09 V	226	76.60	10.30
4	*5755.00	72.3 AV			1.09 V	226	62.00	10.30
5	11510.00	56.3 PK	74.0	-17.7	1.06 V	66	38.90	17.40
6	11510.00	41.7 AV	54.0	-12.3	1.06 V	66	24.30	17.40
7	#17265.00	63.6 PK	74.0	-10.4	1.00 V	199	40.50	23.10
8	#17265.00	48.1 AV	54.0	-5.9	1.00 V	199	25.00	23.10

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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	86.5 PK			1.27 H	99	76.00	10.50
2	*5795.00	72.7 AV			1.27 H	99	62.20	10.50
3	#5850.00	48.3 PK	78.3	-30.0	1.27 H	99	37.70	10.60
4	#5860.00	47.6 PK	68.3	-20.7	1.27 H	99	37.00	10.60
5	11590.00	56.8 PK	74.0	-17.2	1.02 H	3	39.30	17.50
6	11590.00	42.1 AV	54.0	-11.9	1.02 H	3	24.60	17.50
7	#17385.00	63.9 PK	74.0	-10.1	1.01 H	52	40.70	23.20
8	**#17385.00**	**48.7 AV**	**54.0**	**-5.3**	**1.01 H**	**52**	**25.50**	**23.20**
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	87.2 PK			1.88 V	124	76.70	10.50
2	*5795.00	73.0 AV			1.88 V	124	62.50	10.50
3	#5850.00	47.9 PK	78.3	-30.4	1.88 V	124	37.60	10.30
4	#5860.00	47.0 PK	68.3	-21.3	1.88 V	124	36.70	10.30
5	11590.00	57.1 PK	74.0	-16.9	1.00 V	118	39.60	17.50
6	11590.00	42.4 AV	54.0	-11.6	1.00 V	118	24.90	17.50
7	#17385.00	62.7 PK	74.0	-11.3	1.00 V	317	39.50	23.20
8	#17385.00	47.6 AV	54.0	-6.4	1.00 V	317	24.40	23.20

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 OUTPUT POWER MEASUREMENT

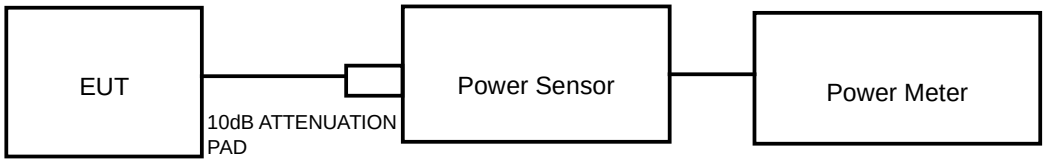
4.2.1 LIMITS OF CONDUCTED OUTPUT POWER MEASUREMENT

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)
	√	Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-2C	√		250mW(24dBm) or 11 dBm+10LogB*
U-NII-3	√		1 Watt (30 dBm)

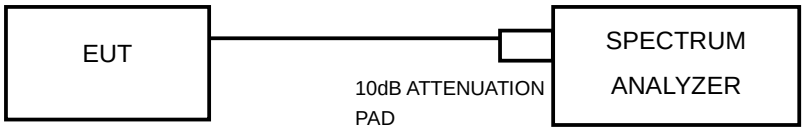
NOTE: 1. Where B is the 26dB emission bandwidth in MHz.

4.2.2 TEST SETUP

FOR POWER OUTPUT MEASUREMENT



FOR 6/26dB BANDWIDTH



4.2.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.2.4 TEST PROCEDURE

FOR PEAK 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 26dB BANDWIDTH

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = RMS.
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.

4.2.5 DEVIATION FROM TEST STANDARD

No deviation.

4.2.6 EUT OPERATING CONDITIONS

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

4.2.7 TEST RESULTS

OUTPUT POWER:

802.11a

Channel Number	Frequency (MHz)	peak power output (dBm)		peak power output (mW)		Total peak power output		peak power limit (dBm)	PASS / FAIL
		Chain0	Chain1	Chain0	Chain1	mW	dBm		
36	5180	11.17	12.56	13.092	18.030	31.122	14.93	24.00	PASS
40	5200	12.32	12.50	17.061	17.783	34.844	15.42	24.00	PASS
48	5240	12.85	12.34	19.275	17.140	36.415	**15.61**	24.00	PASS
149	5745	13.28	11.51	21.281	14.158	35.439	**15.49**	30.00	PASS
157	5785	13.05	11.48	20.184	14.060	34.244	15.35	30.00	PASS
165	5825	12.84	11.42	19.231	13.868	33.099	15.20	30.00	PASS

802.11n (20MHz)

Channel Number	Frequency (MHz)	peak power output (dBm)		peak power output (mW)		Total peak power output		peak power limit (dBm)	PASS / FAIL
		Chain0	Chain1	Chain0	Chain1	mW	dBm		
36	5180	11.12	11.32	12.942	13.552	26.494	14.23	24.00	PASS
40	5200	12.08	11.87	16.144	15.382	31.526	14.99	24.00	PASS
48	5240	12.29	12.18	16.943	16.520	33.463	15.25	24.00	PASS
149	5745	13.53	10.80	22.542	12.023	34.565	15.39	30.00	PASS
157	5785	12.47	10.31	17.660	10.740	28.400	14.53	30.00	PASS
165	5825	12.68	10.86	18.535	12.190	30.725	14.87	30.00	PASS

802.11n (40MHz)

Channel Number	Frequency (MHz)	peak power output (dBm)		peak power output (mW)		Total peak power output		peak power limit (dBm)	PASS / FAIL
		Chain0	Chain1	Chain0	Chain1	mW	dBm		
38	5190	11.53	12.54	14.223	17.947	32.170	15.07	24.00	PASS
46	5260	12.23	12.76	16.711	18.880	35.591	15.51	24.00	PASS
151	5755	12.66	10.97	18.450	12.503	30.953	14.91	30.00	PASS
159	5795	12.57	11.80	18.072	15.136	33.208	15.21	30.00	PASS

NOTE:

For 5150-5250MHz

For 5725-5850MHz

26dB BANDWIDTH & 6dB BANDWIDTH:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
36	5180	22.53	22.33	PASS
40	5200	23.32	21.83	PASS
48	5240	23.90	22.10	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	6dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
149	5745	16.34	16.39	PASS
157	5785	16.36	16.38	PASS
165	5825	16.38	16.38	PASS

802.11n (20MHz)

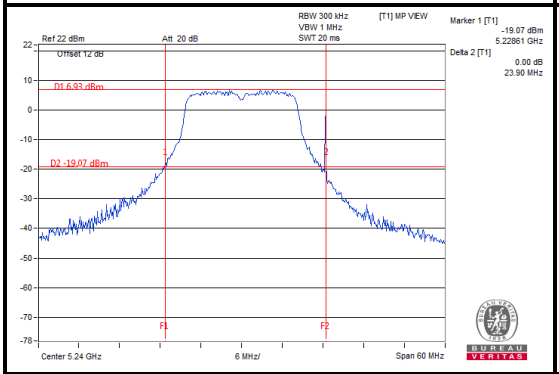
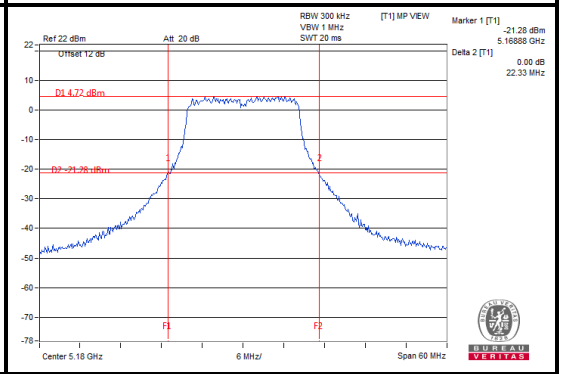
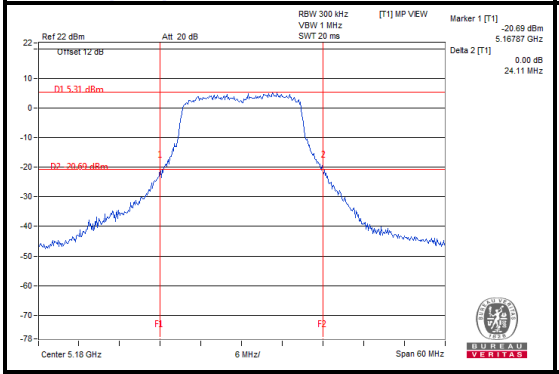
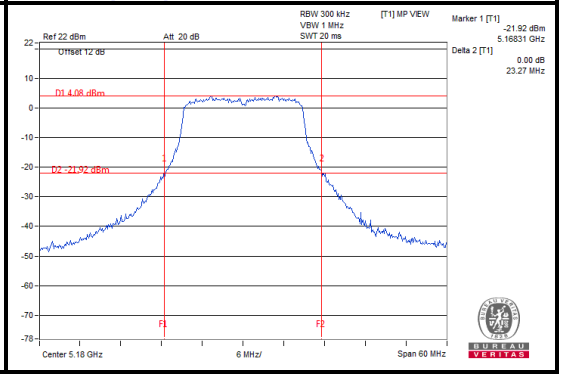
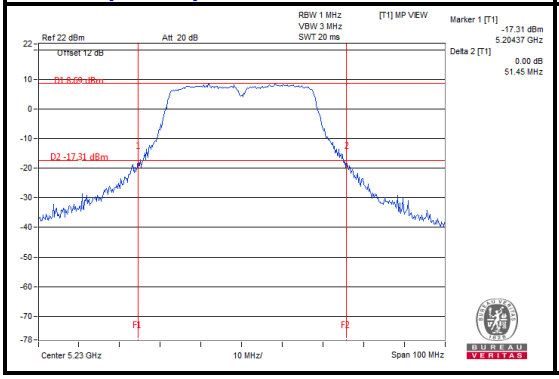
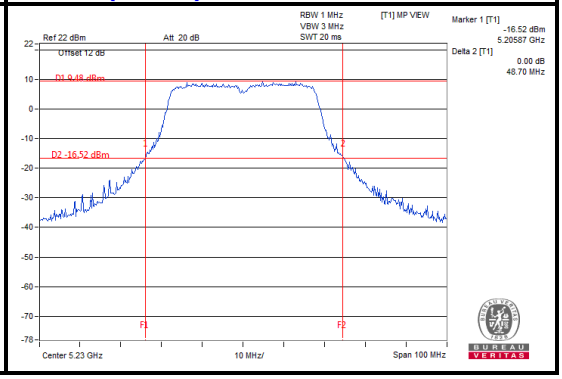
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
36	5180	24.11	23.27	PASS
40	5200	23.70	23.13	PASS
48	5240	23.94	22.88	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	6dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
149	5745	17.33	17.34	PASS
157	5785	16.97	17.59	PASS
165	5825	17.09	17.33	PASS

802.11n (40MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
36	5180	47.58	47.56	PASS
48	5240	51.45	48.70	PASS
CHANNEL	CHANNEL FREQUENCY (MHz)	6dBc BANDWIDTH (MHz)		PASS / FAIL
		Chain0	Chain1	
149	5745	35.87	35.81	PASS
165	5825	35.53	35.86	PASS

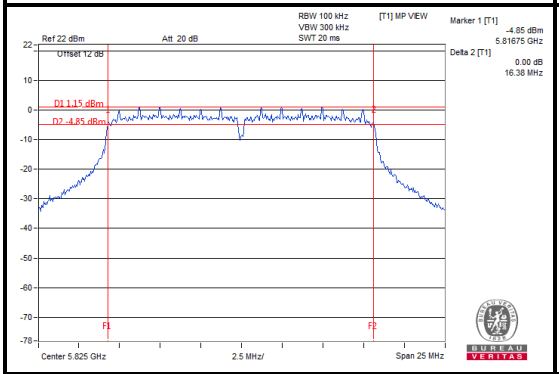
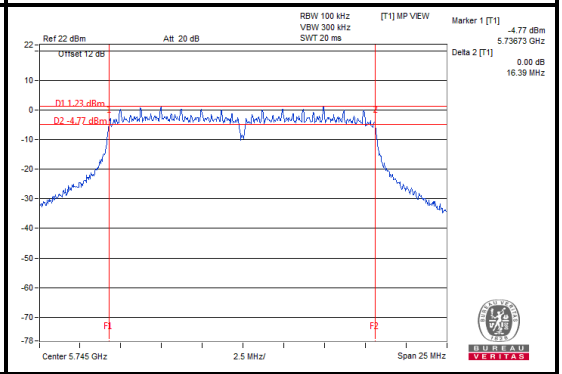
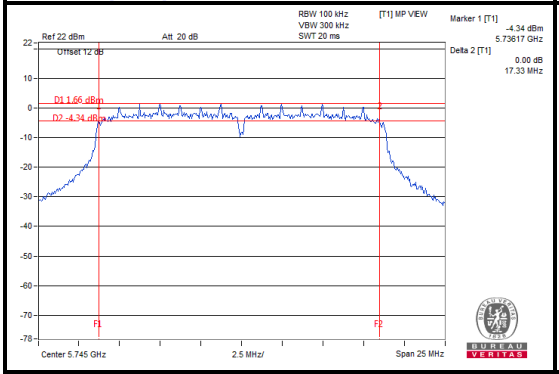
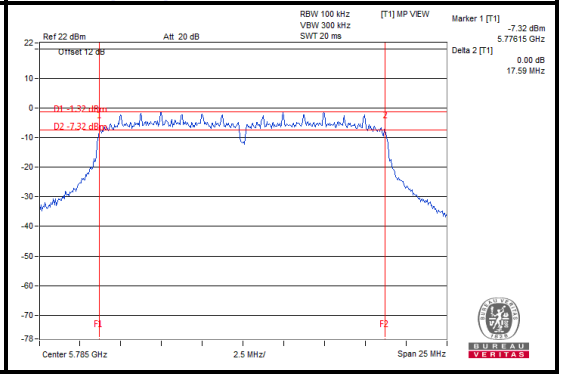
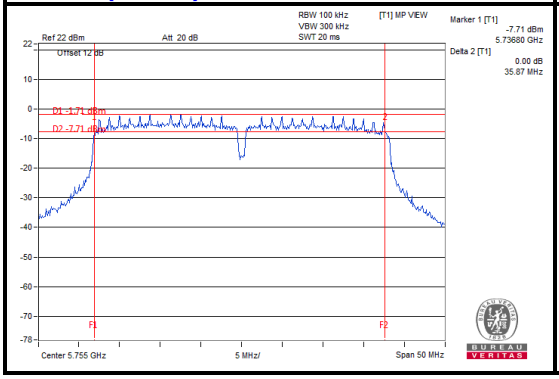
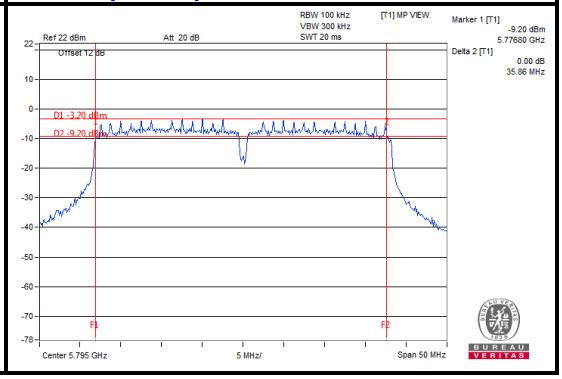
26dB BANDWIDTH TEST PLOT

For 5150-5250MHz worst plot

SPECTRUM PLOT OF WORST VALUE	
CHAIN 0	**CHAIN 1**
802.11a	**802.11a**
	
802.11n (20M)	**802.11n (20M)**
	
802.11n (40MHz)	**802.11n (40MHz)**
	

6dB BANDWIDTH TEST PLOT

For 5725-5850MHz

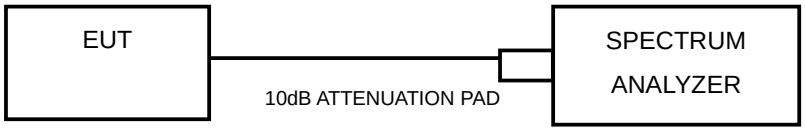
SPECTRUM PLOT OF WORST VALUE	
CHAIN 0	**CHAIN 1**
802.11a	**802.11a**
	
802.11n (20M)	**802.11n (20M)**
	
802.11n (40MHz)	**802.11n (40MHz)**
	

4.3 PEAK POWER SPECTRAL DENSITY MEASUREMENT

4.3.1 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

4.3.2 TEST SETUP



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURES

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01. (Section F) Maximum power spectral density.

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS for U-NII-1
   Set RBW = 300KHz, Set VBW ≥ 1 MHz, Detector = RMS for U-NII-3
3) Sweep time = auto.
4) Trace average at least 100 traces in power averaging mode.

4.3.5 DEVIATION FROM TEST STANDARD

No deviation.

4.3.6 EUT OPERATING CONDITIONS

Same as 4.1.7.

4.3.7 TEST RESULTS

For U-NII-1:

802.11a

TX chain	Channel Number	Freq. (MHz)	PSD (dBm/MHz)	10 * log(N=2) (dB)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PASS / FAIL
0	36	5180	0.60	3.01	3.708	11.00	PASS
0	40	5200	1.67	3.01	4.768	11.00	PASS
0	48	5240	2.38	3.01	5.498	11.00	PASS
1	36	5180	0.14	3.01	3.224	11.00	PASS
1	40	5200	1.15	3.01	4.234	11.00	PASS
1	48	5240	1.43	3.01	4.524	11.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

Chain 0: Duty Factor=0.088dB; Chain 1: Duty Factor=0.074dB

802.11n (20MHz)

TX chain	Channel Number	Freq. (MHz)	PSD (dBm/MHz)	10 * log(N=2) (dB)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PASS / FAIL
0	36	5180	0.38	3.01	3.487	11.00	PASS
0	40	5200	1.08	3.01	4.187	11.00	PASS
0	48	5240	1.52	3.01	4.627	11.00	PASS
1	36	5180	-0.27	3.01	2.828	11.00	PASS
1	40	5200	1.70	3.01	4.798	11.00	PASS
1	48	5240	0.98	3.01	4.078	11.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

Chain 0: Duty Factor=0.097dB; Chain 1: Duty Factor=0.088dB

802.11n (40MHz)

TX chain	Channel Number	Freq. (MHz)	PSD (dBm/MHz)	10 * log(N=2) (dB)	Total PSD (dBm/MHz)	PSD Limit (dBm/MHz)	PASS / FAIL
0	38	5190	-2.77	3.01	0.413	11.00	PASS
0	46	5220	-2.02	3.01	1.163	11.00	PASS
1	38	5190	-2.56	3.01	0.623	11.00	PASS
1	46	5220	-1.91	3.01	1.273	11.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

Chain 0: Duty Factor=0.173dB; Chain 1: Duty Factor=0.173dB

For U-NII-3:

802.11a

TX chain	Channel Number	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 * log(N=2) (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	PASS / FAIL
0	149	5745	-9.13	-6.91	3.01	-3.803	30.00	PASS
0	157	5785	-9.22	-7.00	3.01	-3.893	30.00	PASS
0	165	5825	-9.02	-6.80	3.01	-3.693	30.00	PASS
1	149	5745	-8.89	-6.67	3.01	-3.577	30.00	PASS
1	157	5785	-12.04	-9.82	3.01	-6.727	30.00	PASS
1	165	5825	-10.59	-8.37	3.01	-5.277	30.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

Chain 0: Duty Factor=0.097dB; Chain 1: Duty Factor=0.083dB

802.11n (20M)

TX chain	Channel Number	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 * log(N=2) (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	PASS / FAIL
0	149	5745	-8.80	-6.58	3.01	-3.478	30.00	PASS
0	157	5785	-9.30	-7.08	3.01	-3.978	30.00	PASS
0	165	5825	-9.41	-7.19	3.01	-4.088	30.00	PASS
1	149	5745	-11.81	-9.59	3.01	-6.492	30.00	PASS
1	157	5785	-11.72	-9.50	3.01	-6.402	30.00	PASS
1	165	5825	-10.81	-8.59	3.01	-5.492	30.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

Chain 0: Duty Factor=0.092dB; Chain 1: Duty Factor=0.088dB

802.11n (40MHz)

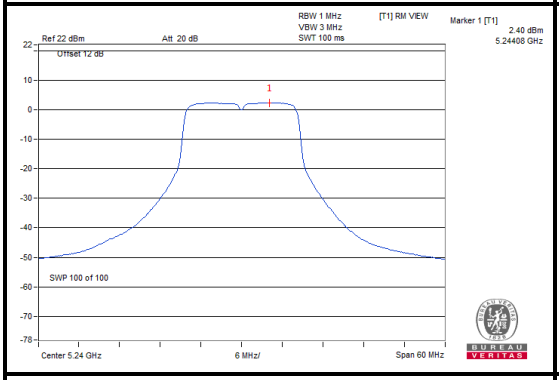
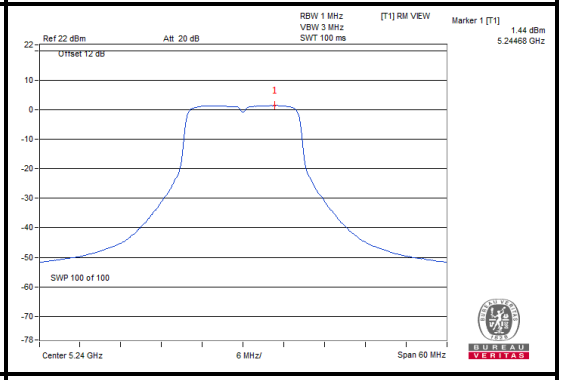
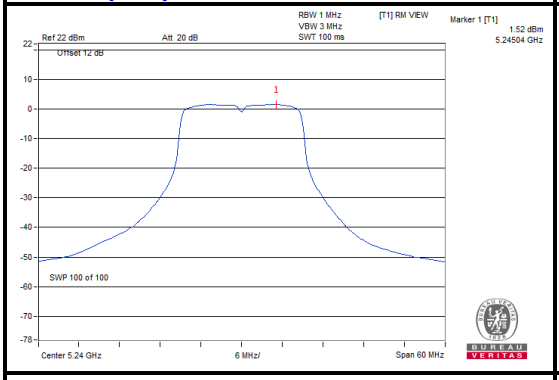
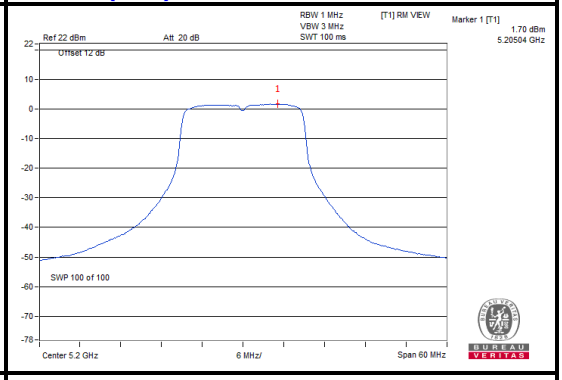
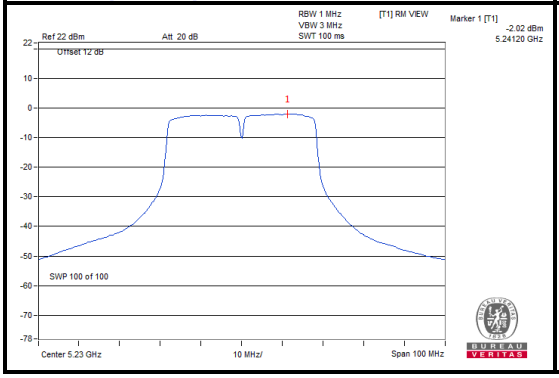
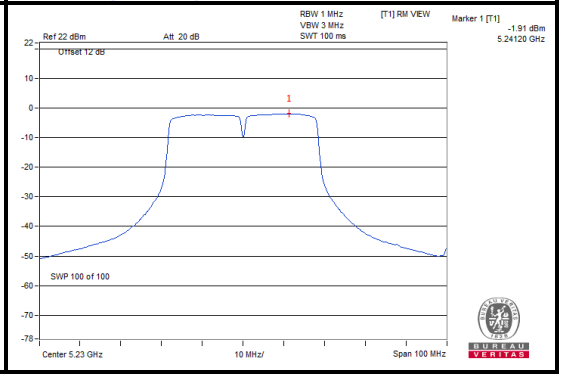
TX chain	Channel Number	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 * log(N=2) (dB)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	PASS / FAIL
0	151	5755	-12.25	-10.03	3.01	-6.852	30.00	PASS
0	159	5795	-12.58	-10.36	3.01	-7.182	30.00	PASS
1	151	5755	-14.54	-12.32	3.01	-9.128	30.00	PASS
1	159	5795	-14.35	-12.13	3.01	-8.938	30.00	PASS

Note: Total PSD =PSD+10log2+Duty Factor

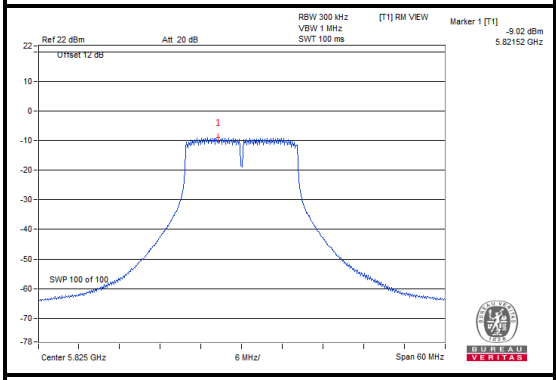
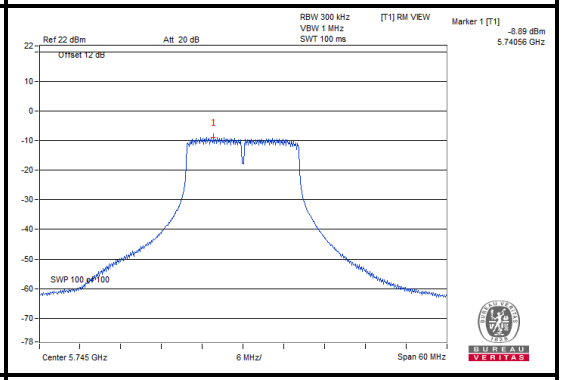
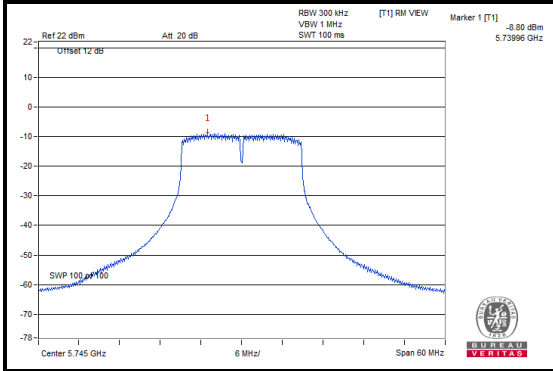
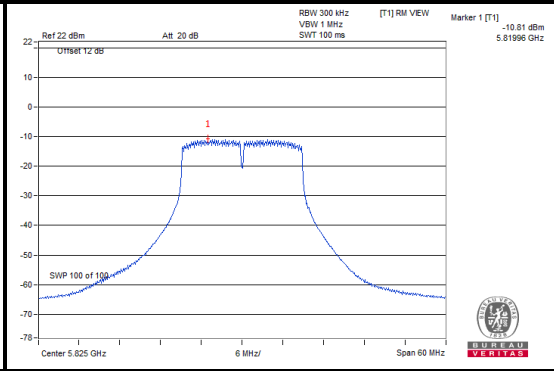
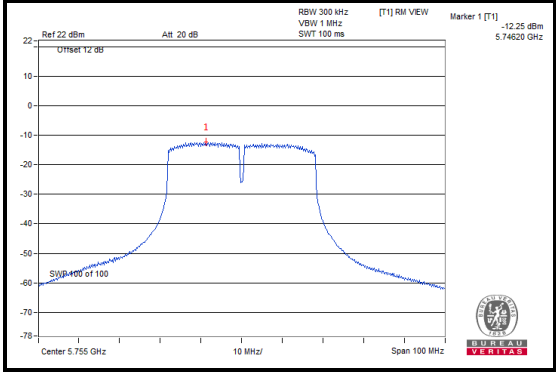
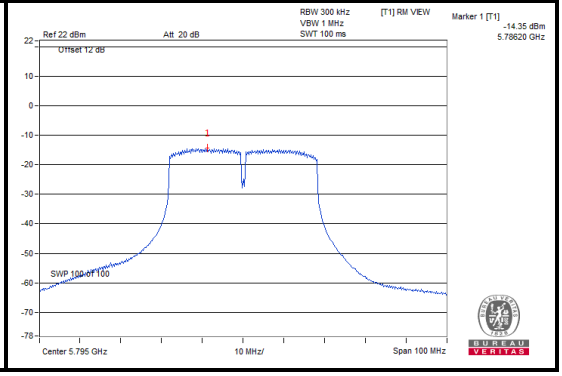
Chain 0: Duty Factor=0.168dB; Chain 1: Duty Factor=0.182dB

PSD Test Plot

For U-NII-1:

RF Power Level in 1MHz BW	
CHAIN 0	**CHAIN 1**
802.11a	**802.11a**
	
802.11n (20M)	**802.11n (20M)**
	
802.11n (40MHz)	**802.11n (40MHz)**
	

For U-NII-3:

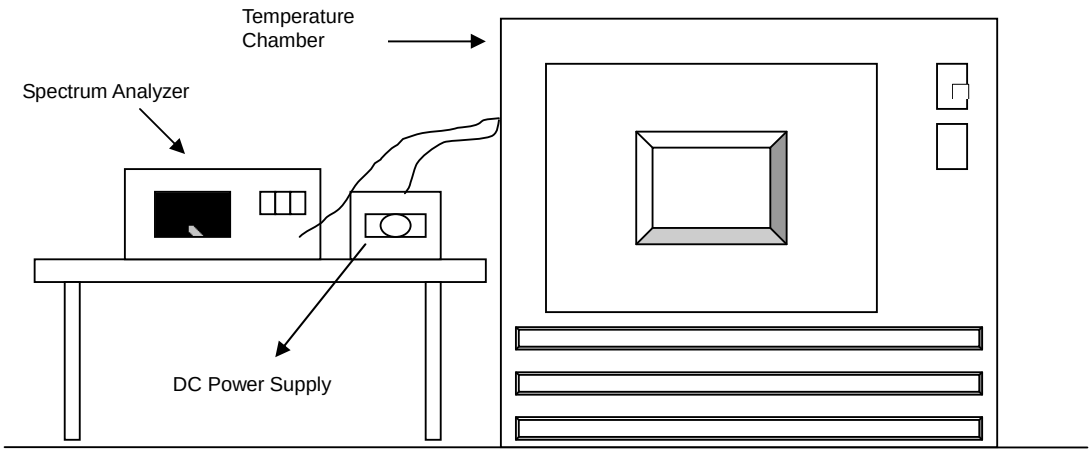
PSD (dBm/300kHz)	
CHAIN 0	**CHAIN 1**
802.11a	**802.11a**
	
802.11n (20M)	**802.11n (20M)**
	
802.11n (40MHz)	**802.11n (40MHz)**
	

4.4 FREQUENCY STABILITY

4.4.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

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

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 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.

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITION

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

4.4.7 TEST RESULTS

802. 11a

For 5180MHz

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)
50	7.4	5179.9781	-0.00042	5179.9808	-0.00037	5179.9781	-0.00042	5179.9787	-0.00041
40	7.4	5179.993	-0.00014	5179.9956	-0.00008	5179.9917	-0.00016	5179.9917	-0.00016
30	7.4	5179.981	-0.00037	5179.9785	-0.00042	5179.9805	-0.00038	5179.9811	-0.00036
20	7.4	5179.9833	-0.00032	5179.9852	-0.00029	5179.9814	-0.00036	5179.9839	-0.00031
10	7.4	5179.9779	-0.00043	5179.9789	-0.00041	5179.979	-0.00041	5179.9783	-0.00042
0	7.4	5180.0213	0.00041	5180.0246	0.00047	5180.0256	0.00049	5180.0256	0.00049
-10	7.4	5180.0007	0.00001	5179.9979	-0.00004	5179.998	-0.00004	5179.9978	-0.00004
-20	7.4	5180.0032	0.00006	5180.0068	0.00013	5180.0068	0.00013	5180.0029	0.00006
-30	7.4	5179.9841	-0.00031	5179.987	-0.00025	5179.9864	-0.00026	5179.9884	-0.00022

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)
20	8.1	5179.9838	-0.00031	5179.9846	-0.00030	5179.9823	-0.00034	5179.9841	-0.00031
	7.4	5179.9833	-0.00032	5179.9852	-0.00029	5179.9814	-0.00036	5179.9839	-0.00031
	6.7	5179.9842	-0.00031	5179.9848	-0.00029	5179.9816	-0.00036	5179.9833	-0.00032

For 5745MHz

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)
50	74	5745.0086	0.00015	5745.0081	0.00014	5745.0093	0.00016	5745.011	0.00019
40	74	5745.023	0.00040	5745.025	0.00044	5745.0253	0.00044	5745.0223	0.00039
30	74	5744.9792	-0.00036	5744.9759	-0.00042	5744.9791	-0.00036	5744.9792	-0.00036
20	74	5744.9782	-0.00038	5744.9801	-0.00035	5744.9789	-0.00037	5744.9776	-0.00039
10	74	5744.9903	-0.00017	5744.9877	-0.00021	5744.9866	-0.00023	5744.986	-0.00024
0	74	5744.9991	-0.00002	5744.9978	-0.00004	5744.9988	-0.00002	5744.9982	-0.00003
-10	74	5745.009	0.00016	5745.0055	0.00010	5745.0061	0.00011	5745.0068	0.00012
-20	74	5744.9787	-0.00037	5744.9759	-0.00042	5744.9753	-0.00043	5744.978	-0.00038
-30	74	5745.0118	0.00021	5745.011	0.00019	5745.01	0.00017	5745.0154	0.00027

FREQUEMCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vdc)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)	Reading (MHz)	Drift (%)
20	8.1	5744.9791	-0.00036	5744.9797	-0.00035	5744.978	-0.00038	5744.9787	-0.00037
	7.4	5744.9782	-0.00038	5744.9801	-0.00035	5744.9789	-0.00037	5744.9776	-0.00039
	6.7	5744.9771	-0.00040	5744.9808	-0.00033	5744.978	-0.00038	5744.9772	-0.00040

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

Modifications are made to the EUT by the lab during the test.

See material declaration.

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