FCC Test Report

Report No.:	RF200630E06-1
FCC ID:	MQT-AT100R6
Test Model:	xCL_AT-100-R6-18U
Received Date:	June 30, 2020
Test Date:	July 10 to Aug. 19, 2020
Issued Date:	Oct. 23, 2020
Applicant:	XAC AUTOMATION CORP.
Address:	4F, No. 30, INDUSTRY E. RD. IX, SCIENCE-BASED INDUSTRIAL PARK,HSINCHU,TAIWAN
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RF200630E06-1	Original release.	Oct. 23, 2020

1 Certificate of Conformity

Product:	Terminal
Brand:	XAC
Test Model:	xCL_AT-100-R6-18U
Sample Status:	ENGINEERING SAMPLE
Applicant:	XAC AUTOMATION CORP.
Test Date:	July 10 to Aug. 19, 2020
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10: 2013

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

Prepared by : _____ , **Date:** Oct. 23, 2020

Joyce Kuo / Specialist

Approved by : _____ , **Date:** Oct. 23, 2020

Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -20.01dB at 0.38047MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement*	PASS	Meet the requirement of limit. Minimum passing margin is -0.4dB at 5350.00MHz, 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6dB bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) not a standard connector.

Note:

- For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
- For U-NII-1, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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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	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.4 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.3 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Terminal
Brand	XAC
Test Model	xCL_AT-100-R6-18U
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	Refer to note 3
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	DSSS,OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 150 Mbps
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462 GHz **5GHz:** 5.18 ~ 5.24 GHz, 5.26 ~ 5.32 GHz, 5.50 ~ 5.72 GHz, 5.745 ~ 5.825 GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20): 11 **5GHz:** 802.11a, 802.11n (HT20):25 802.11n (HT40): 12
Output Power	**2.4 GHz:** 280.543 mW **5.18 ~ 5.24 GHz:** 53.456 mW **5.26 ~ 5.32 GHz:** 55.976 mW **5.5 ~ 5.72 GHz:** 25.527 mW **5.745 ~ 5.825 GHz:** 72.111 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Battery x1 (Option)
Cable Supplied	NA

Note:

1. The EUT has three radios as following table:

Radio 1	Radio 2	Radio 3
WLAN(2.4GHz + 5GHz) + Bluetooth	WWAN(LTE + WCDMA)	NFC

2. Simultaneously transmission condition.

Condition	Technology	
1	WWAN	NFC
2	WWAN	Bluetooth
3	WLAN 2.4GHz	NFC
4	WLAN 5GHz	NFC
5	Bluetooth	NFC
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

3. The EUT must be supplied power adapter and battery as following table:

Adapter (Only test not for sale)		
Brand	Model	Specification
DEE VAN ENTERPRISE CO., LTD	DSA-18PFCA-05 050300	AC Input: 100-240Vac, 0.6A, 50-60Hz DC Output: 5Vdc, 3A
Battery (Option)		
Brand	Model	Specification
Shenzhen Rishengzhi Electronics Technology Co., Ltd.	W001	3.6V, 6700mAh, 24.12Wh

4. The antennas provided to the EUT, please refer to the following table:

Antenna Set.	RF Chain NO.	Brand	Model (NCC 必填)	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type
NFC	Main	XAC	RTOS	13	13.56MHz	wire	None
Wi-Fi BT	Main	AWAN	AYF6P-100002	2.29	2400MHz~2500MHz	PIFA	i-pex(MHF)
				2.77	5150MHz~5850MHz		
LTE	Main(B2) TX	AWAN	AXF6P-100015	2.11	1850 MHz to 1910 MHz	PIFA	i-pex(MHF)
	Main(B4) TX			1.33	1710 MHz to 1755 MHz		
	Main(B12) TX			1.46	699 MHz to 715 MHz		
	Main(B2) RX			2.69	1930 MHz to 1990 MHz		
	Main(B4) RX			0.66	2110 MHz to 2155 MHz		
	Main(B12) RX			2.64	729 MHz to 745 MHz		
	Aux(B2) RX	AWAN	AXF6P-100005	1.95	1930 MHz to 1990 MHz	PIFA	i-pex(MHF)
	Aux(B4) RX			2.96	2110 MHz to 2155 MHz		
	Aux(B12) RX			2.61	729 MHz to 746 MHz		
WCDMA	Main(B2) TX	AWAN	AXF6P-100015	2.11	1850 MHz to 1910 MHz	PIFA	i-pex(MHF)
	Main(B5) TX			0.32	824 MHz to 849 MHz		
	Main(B2) RX			2.69	1930 MHz to 1990 MHz		
	Main(B5) RX			2.53	869 MHz to 894 MHz		
	Aux(B2) RX	AWAN	AXF6P-100005	2.45	1930 MHz to 1990 MHz	PIFA	i-pex(MHF)
	Aux(B5) RX			1.23	869 MHz to 894 MHz		
GPS	Main	YAGEO	ANT8010JLD2B151	3.29	1575.42MHz	Chip	i-pex(MHF)

5. The EUT was pre-tested for radiated emission test under following test modes:

Pre-test Mode	Power
Mode A	**Power from Adapter**
Mode B	Power from Battery
From the above modes, the worst radiated test was found in **Mode A**.	

6. The EUT was pre-tested for conducted emission test under following test modes:

Pre-test Mode	Power
Mode A	**Power from Adapter**
Mode B	Power from Laptop
From the above modes, the worst conducted emission test was found in **Mode A**.	

7. The EUT incorporates a SISO function.

2.4GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11b	1TX	1RX
802.11g	1TX	1RX
802.11n (HT20)	1TX	1RX
5GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11a	1TX	1RX
802.11n (HT20)	1TX	1RX
802.11n (HT40)	1TX	1RX

8. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.
9. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20):

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

FOR 5500 ~ 5720MHz

12 channels are provided for 802.11a, 802.11n (HT20):

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

6 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20):

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

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

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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6
802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6
802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11n (HT40)	5180-5240, 5260-5320, 5500-5720 5745-5825	38 to 46 54 to 62, 102 to 142, 151 to 159	159	OFDM	BPSK	13.5

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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11n (HT40)	5180-5240, 5260-5320, 5500-5720 5745-5825	38 to 46 54 to 62, 102 to 142, 151 to 159	159	OFDM	BPSK	13.5

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.

Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6
802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6
802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5

Test Condition:

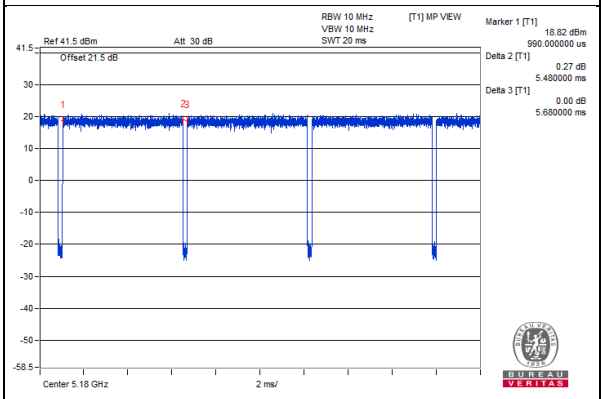
Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE≥1G	22deg. C, 70%RH	120Vac, 60Hz	Nelson Teng
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Nelson Teng
PLC	25deg. C, 75%RH	120Vac, 60Hz	Kevin Ko
APCM	25deg. C, 60%RH	120Vac, 60Hz	Kevin Ko

3.3 Duty Cycle of Test Signal

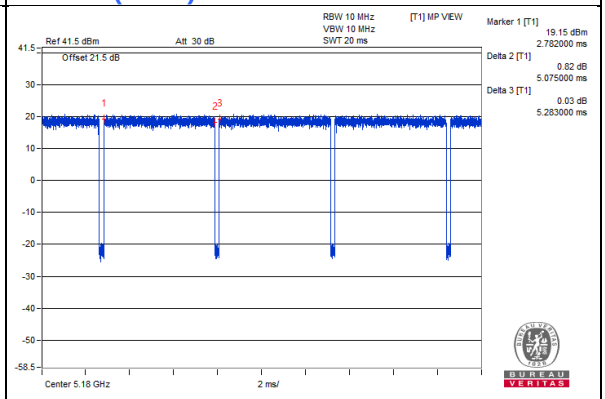
If duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 5.48 ms/5.68 ms =0.965, Duty factor = 10 * log (1/Duty cycle) = 0.16dB
802.11n (HT20): Duty cycle = 5.075 ms/5.283 ms = 0.961, Duty factor = 10 * log (1/Duty cycle) = 0.17dB
802.11n (HT40): Duty cycle = 2.467 ms/2.685 ms = 0.919, Duty factor = 10 * log (1/Duty cycle) = 0.37dB

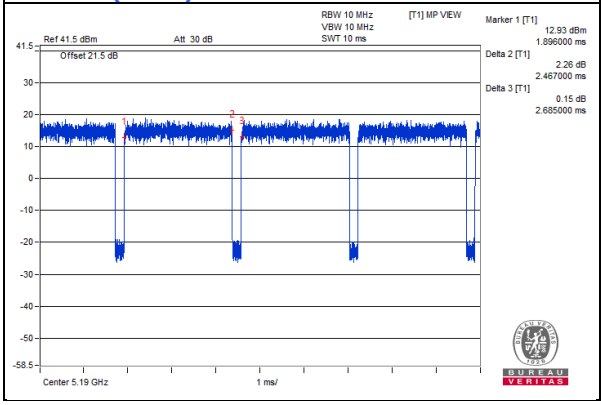
802.11a



802.11n (HT20)



802.11n (HT40)



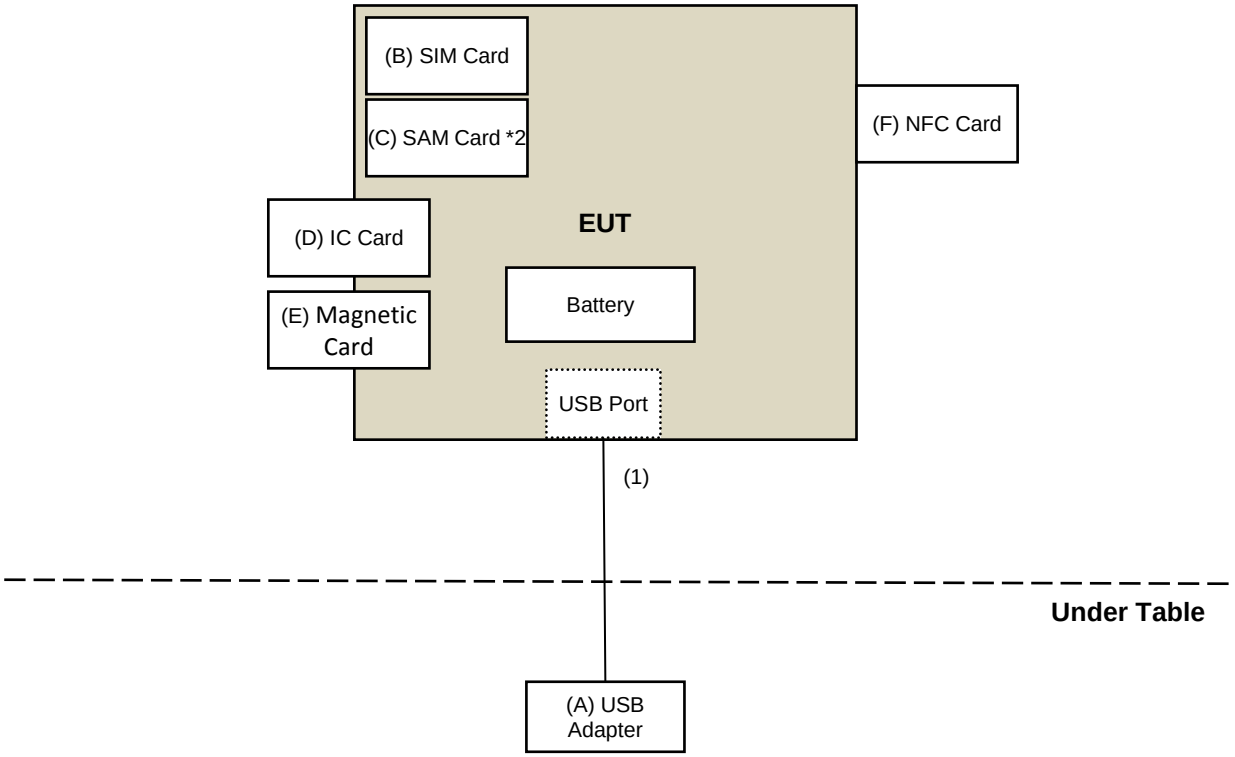
3.4 Description of Support Units

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.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	USB Adapter	DEE VAN	DSA-18PFCA-05 050300	NA	NA	Supplied by client
B.	SIM Card	Keysight	NA	NA	NA	Provided by Lab
C.	SAM Card *2	XAC	NA	NA	NA	Supplied by client
D.	IC Card	XAC	NA	NA	NA	Supplied by client
E.	Magnetic Card	XAC	NA	NA	NA	Supplied by client
F.	NFC Card	XAC	NA	NA	NA	Supplied by client

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Type C to USB Cable	1	1.2	Yes	0	Supplied by client

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standard and references

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

Test standard:

FCC Part 15, Subpart E (15.407)
ANSI C63.10-2013

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

References Test Guidance :

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

All test items have been performed as a reference to the above KDB test guidance.

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.

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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).

4.1.2 Test Instruments

For Radiated Emission test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 06, 2020	July 05, 2021
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 11, 2019	Nov. 10, 2020
RF Cable	8D	966-3-1	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-2	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-3	Mar. 17, 2020	Mar. 16, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 26, 2019	Sep. 25, 2020
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-1200	160922	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-2000	180601	June 09, 2020	June 08, 2021
RF Cable	EMC104-SM-SM-6000	180602	June 09, 2020	June 08, 2021
Spectrum Analyzer Keysight	N9030A	MY54490679	July 13, 2020	July 12, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. Tested Date: Aug. 03, 2020

For Bandedge test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY51210202	Dec. 13, 2019	Dec. 12, 2020
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCI	EMC 12630 SE	980638	Apr. 08, 2020	Apr. 07, 2021
RF Cable	EMC104-SM-SM-1200	160923	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-2000	180502	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-6000	180418	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. Tested Date: July 10 to 13, 2020

For other test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Spectrum Analyzer Keysight	N9030A	MY54490679	July 13, 2020	July 12, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
Mech Switch Absorptive Mini-Circuits	MSP4TA-18+	0140	Feb. 10, 2020	Feb. 09, 2021
FXD ATTEN Mini-Circuits	BW-S3W2+	MN71981	Feb. 10, 2020	Feb. 09, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

NOTE:
1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Aug. 19, 2020

4.1.3 Test Procedure

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case 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 Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna 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 quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

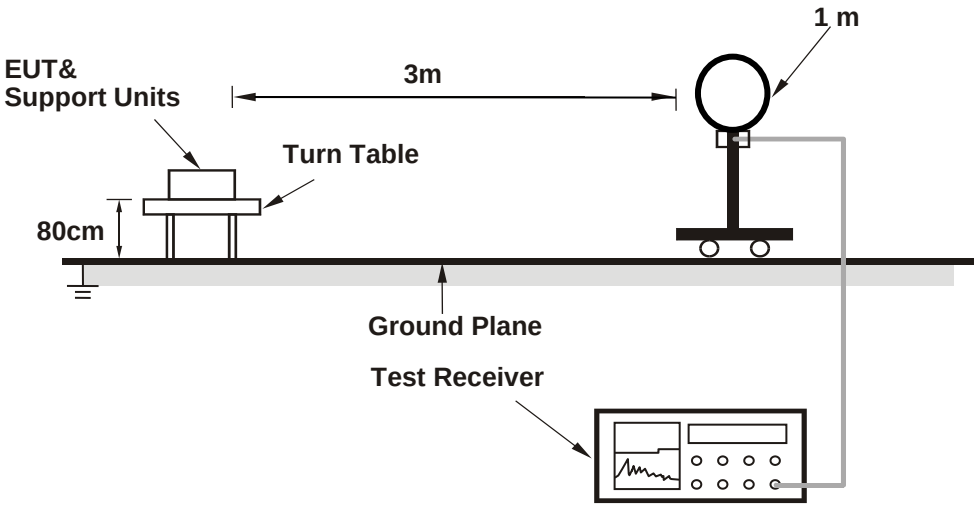
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

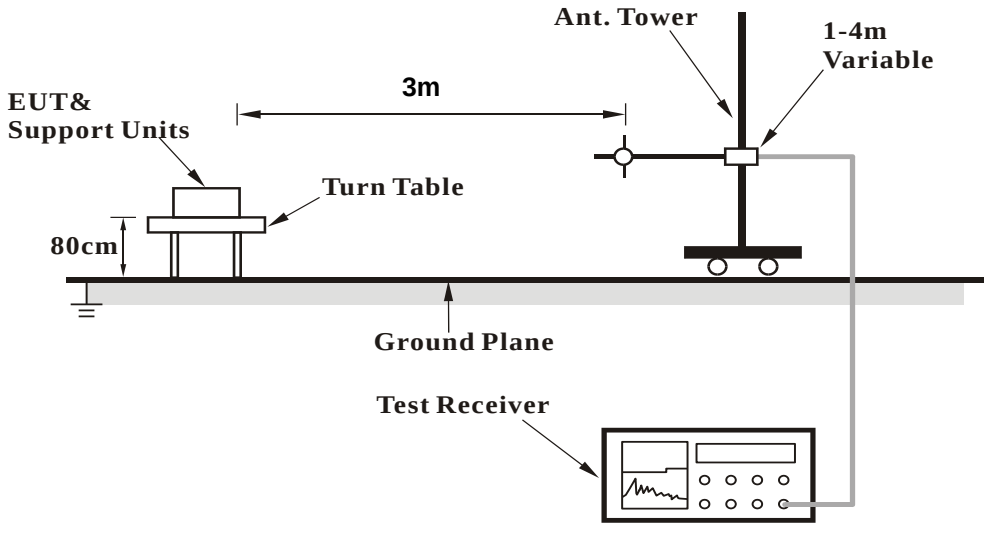
No deviation.

4.1.5 Test Setup

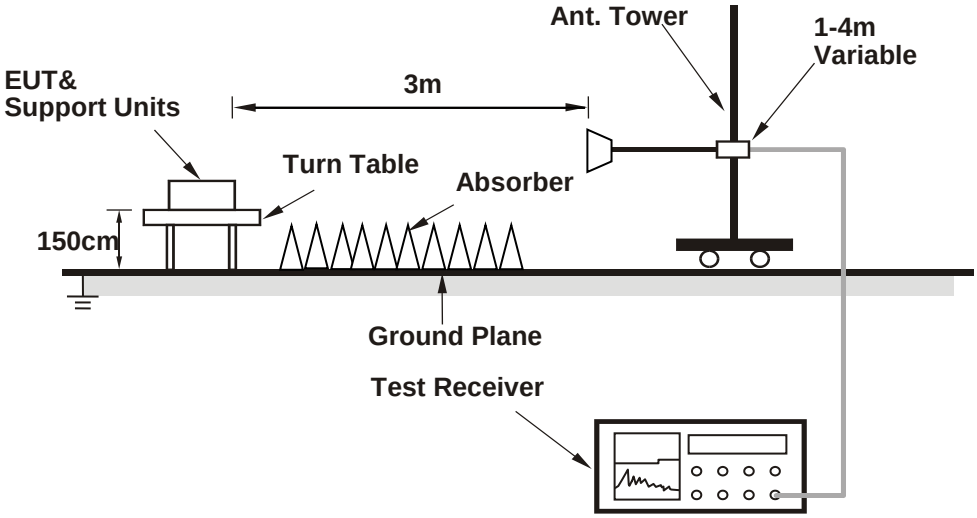
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Condition

a. Placed the EUT on the testing table.
b. Controlling software (QDART 4.8.29) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz 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	**Frequency (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	48.8 PK	74.0	-25.2	1.82 H	327	45.8	3.0
2	5150.00	38.7 AV	54.0	-15.3	1.82 H	327	35.7	3.0
3	*5180.00	93.7 PK			1.82 H	327	90.7	3.0
4	*5180.00	84.8 AV			1.82 H	327	81.8	3.0
5	#10360.00	46.6 PK	68.2	-21.6	1.81 H	257	33.4	13.2
6	15540.00	49.7 PK	74.0	-24.3	1.60 H	290	36.1	13.6
7	15540.00	37.8 AV	54.0	-16.2	1.60 H	290	24.2	13.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	**Frequency (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	53.5 PK	74.0	-20.5	1.60 V	342	50.5	3.0
2	5150.00	41.5 AV	54.0	-12.5	1.60 V	342	38.5	3.0
3	*5180.00	100.4 PK			1.60 V	342	97.4	3.0
4	*5180.00	91.0 AV			1.60 V	342	88.0	3.0
5	#10360.00	46.7 PK	68.2	-21.5	2.07 V	144	33.5	13.2
6	15540.00	50.6 PK	74.0	-23.4	2.71 V	103	37.0	13.6
7	15540.00	38.4 AV	54.0	-15.6	2.71 V	103	24.8	13.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (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			1.77 H	322	90.7	2.9
2	*5200.00	84.4 AV			1.77 H	322	81.5	2.9
3	#10400.00	46.3 PK	68.2	-21.9	1.71 H	271	33.0	13.3
4	15600.00	50.4 PK	74.0	-23.6	1.68 H	278	36.5	13.9
5	15600.00	38.5 AV	54.0	-15.5	1.68 H	278	24.6	13.9
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	101.6 PK			2.43 V	160	98.7	2.9
2	*5200.00	92.8 AV			2.43 V	160	89.9	2.9
3	#10400.00	46.5 PK	68.2	-21.7	2.09 V	146	33.2	13.3
4	15600.00	51.1 PK	74.0	-22.9	2.69 V	103	37.2	13.9
5	15600.00	38.8 AV	54.0	-15.2	2.69 V	103	24.9	13.9

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (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	96.4 PK			1.78 H	327	93.5	2.9
2	*5240.00	87.8 AV			1.78 H	327	84.9	2.9
3	5350.00	49.0 PK	74.0	-25.0	1.78 H	327	46.0	3.0
4	5350.00	38.1 AV	54.0	-15.9	1.78 H	327	35.1	3.0
5	#10480.00	46.3 PK	68.2	-21.9	1.81 H	240	32.8	13.5
6	15720.00	49.8 PK	74.0	-24.2	1.60 H	288	36.4	13.4
7	15720.00	37.8 AV	54.0	-16.2	1.60 H	288	24.4	13.4
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	103.2 PK			2.58 V	160	100.3	2.9
2	*5240.00	94.6 AV			2.58 V	160	91.7	2.9
3	5350.00	49.9 PK	74.0	-24.1	2.58 V	160	46.9	3.0
4	5350.00	38.8 AV	54.0	-15.2	2.58 V	160	35.8	3.0
5	#10480.00	46.6 PK	68.2	-21.6	2.14 V	119	33.1	13.5
6	15720.00	50.8 PK	74.0	-23.2	2.74 V	99	37.4	13.4
7	15720.00	38.7 AV	54.0	-15.3	2.74 V	99	25.3	13.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 52	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	48.7 PK	74.0	-25.3	1.72 H	334	45.7	3.0
2	5150.00	37.6 AV	54.0	-16.4	1.72 H	334	34.6	3.0
3	*5260.00	95.8 PK			1.72 H	334	93.0	2.8
4	*5260.00	87.4 AV			1.72 H	334	84.6	2.8
5	#10520.00	46.5 PK	68.2	-21.7	1.80 H	270	32.9	13.6
6	15780.00	49.9 PK	74.0	-24.1	1.68 H	282	36.8	13.1
7	15780.00	37.6 AV	54.0	-16.4	1.68 H	282	24.5	13.1
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	49.7 PK	74.0	-24.3	2.53 V	158	46.7	3.0
2	5150.00	39.7 AV	54.0	-14.3	2.53 V	158	36.7	3.0
3	*5260.00	103.4 PK			2.53 V	158	100.6	2.8
4	*5260.00	95.9 AV			2.53 V	158	93.1	2.8
5	#10520.00	46.9 PK	68.2	-21.3	2.13 V	129	33.3	13.6
6	15780.00	51.1 PK	74.0	-22.9	2.67 V	81	38.0	13.1
7	15780.00	38.9 AV	54.0	-15.1	2.67 V	81	25.8	13.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 60	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	96.2 PK			1.77 H	331	93.3	2.9
2	*5300.00	87.6 AV			1.77 H	331	84.7	2.9
3	10600.00	47.0 PK	74.0	-27.0	1.77 H	244	33.8	13.2
4	10600.00	35.4 AV	54.0	-18.6	1.77 H	244	22.2	13.2
5	15900.00	50.3 PK	74.0	-23.7	1.63 H	271	37.2	13.1
6	15900.00	38.5 AV	54.0	-15.5	1.63 H	271	25.4	13.1
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	104.7 PK			2.53 V	162	101.8	2.9
2	*5300.00	94.6 AV			2.53 V	162	91.7	2.9
3	10600.00	46.7 PK	74.0	-27.3	2.13 V	133	33.5	13.2
4	10600.00	35.3 AV	54.0	-18.7	2.13 V	133	22.1	13.2
5	15900.00	50.4 PK	74.0	-23.6	2.70 V	86	37.3	13.1
6	15900.00	38.1 AV	54.0	-15.9	2.70 V	86	25.0	13.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 64	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	102.8 PK			1.08 H	241	99.9	2.9
2	*5320.00	92.5 AV			1.08 H	241	89.6	2.9
3	5350.00	60.5 PK	74.0	-13.5	1.08 H	241	57.5	3.0
4	5350.00	45.2 AV	54.0	-8.8	1.08 H	241	42.2	3.0
5	10640.00	47.0 PK	74.0	-27.0	1.77 H	244	33.7	13.3
6	10640.00	35.4 AV	54.0	-18.6	1.77 H	244	22.1	13.3
7	15960.00	50.3 PK	74.0	-23.7	1.63 H	271	36.9	13.4
8	15960.00	38.5 AV	54.0	-15.5	1.63 H	271	25.1	13.4
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	106.5 PK			2.53 V	155	103.6	2.9
2	*5320.00	96.7 AV			2.53 V	155	93.8	2.9
3	5350.00	64.6 PK	74.0	-9.4	2.53 V	155	61.6	3.0
4	5350.00	50.0 AV	54.0	-4.0	2.53 V	155	47.0	3.0
5	10640.00	46.5 PK	74.0	-27.5	2.09 V	132	33.2	13.3
6	10640.00	35.2 AV	54.0	-18.8	2.09 V	132	21.9	13.3
7	15960.00	50.3 PK	74.0	-23.7	2.68 V	95	36.9	13.4
8	15960.00	38.0 AV	54.0	-16.0	2.68 V	95	24.6	13.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 100	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5447.76	54.2 PK	74.0	-19.8	1.01 H	244	51.0	3.2
2	5447.76	42.4 AV	54.0	-11.6	1.01 H	244	39.2	3.2
3	#5470.00	63.5 PK	68.2	-4.7	1.01 H	244	60.3	3.2
4	*5500.00	104.8 PK			1.01 H	244	101.5	3.3
5	*5500.00	95.6 AV			1.01 H	244	92.3	3.3
6	11000.00	47.0 PK	74.0	-27.0	1.77 H	244	33.0	14.0
7	11000.00	35.4 AV	54.0	-18.6	1.77 H	244	21.4	14.0
8	#16500.00	50.3 PK	68.2	-17.9	1.63 H	271	34.8	15.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5447.76	56.4 PK	74.0	-17.6	2.52 V	152	53.2	3.2
2	5447.76	43.4 AV	54.0	-10.6	2.52 V	152	40.2	3.2
3	#5470.00	67.1 PK	68.2	-1.1	2.52 V	152	63.9	3.2
4	*5500.00	105.9 PK			2.52 V	152	102.6	3.3
5	*5500.00	96.4 AV			2.52 V	152	93.1	3.3
6	11000.00	46.2 PK	74.0	-27.8	2.06 V	130	32.2	14.0
7	11000.00	35.0 AV	54.0	-19.0	2.06 V	130	21.0	14.0
8	#16500.00	50.6 PK	68.2	-17.6	2.66 V	81	35.1	15.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 116	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	104.4 PK			1.05 H	241	101.1	3.3
2	*5580.00	95.2 AV			1.05 H	241	91.9	3.3
3	11160.00	47.0 PK	74.0	-27.0	1.77 H	244	33.6	13.4
4	11160.00	35.4 AV	54.0	-18.6	1.77 H	244	22.0	13.4
5	#16740.00	50.3 PK	68.2	-17.9	1.63 H	271	33.7	16.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	106.8 PK			2.68 V	157	103.5	3.3
2	*5580.00	96.7 AV			2.68 V	157	93.4	3.3
3	11160.00	46.8 PK	74.0	-27.2	2.17 V	139	33.4	13.4
4	11160.00	35.7 AV	54.0	-18.3	2.17 V	139	22.3	13.4
5	#16740.00	50.4 PK	68.2	-17.8	2.75 V	108	33.8	16.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 140	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	104.8 PK			1.04 H	236	101.0	3.8
2	*5700.00	95.4 AV			1.04 H	236	91.6	3.8
3	#5725.00	63.0 PK	68.2	-5.2	1.04 H	236	59.2	3.8
4	11400.00	47.0 PK	74.0	-27.0	1.77 H	244	32.8	14.2
5	11400.00	35.4 AV	54.0	-18.6	1.77 H	244	21.2	14.2
6	#17100.00	50.3 PK	68.2	-17.9	1.63 H	271	32.8	17.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	106.6 PK			2.51 V	147	102.8	3.8
2	*5700.00	96.8 AV			2.51 V	147	93.0	3.8
3	#5725.00	67.7 PK	68.2	-0.5	2.51 V	147	63.9	3.8
4	11400.00	47.0 PK	74.0	-27.0	2.09 V	126	32.8	14.2
5	11400.00	35.6 AV	54.0	-18.4	2.09 V	126	21.4	14.2
6	#17100.00	50.2 PK	68.2	-18.0	2.64 V	102	32.7	17.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 144	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	50.2 PK	74.0	-23.8	1.01 H	221	47.0	3.2
2	5460.00	39.8 AV	54.0	-14.2	1.01 H	221	36.6	3.2
3	#5470.00	51.3 PK	68.2	-16.9	1.01 H	221	48.1	3.2
4	*5720.00	104.8 PK			1.01 H	221	101.0	3.8
5	*5720.00	95.6 AV			1.01 H	221	91.8	3.8
6	#5850.00	49.9 PK	68.2	-18.3	1.01 H	221	45.7	4.2
7	11440.00	47.0 PK	74.0	-27.0	1.77 H	244	32.9	14.1
8	11440.00	35.4 AV	54.0	-18.6	1.77 H	244	21.3	14.1
9	#17160.00	50.3 PK	68.2	-17.9	1.63 H	271	33.3	17.0
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	2.38 V	160	46.9	3.2
2	5460.00	39.4 AV	54.0	-14.6	2.38 V	160	36.2	3.2
3	#5470.00	51.2 PK	68.2	-17.0	2.38 V	160	48.0	3.2
4	*5720.00	105.6 PK			2.38 V	160	101.8	3.8
5	*5720.00	97.3 AV			2.38 V	160	93.5	3.8
6	#5850.00	50.2 PK	68.2	-18.0	2.38 V	160	46.0	4.2
7	11440.00	47.0 PK	74.0	-27.0	2.10 V	140	32.9	14.1
8	11440.00	35.5 AV	54.0	-18.5	2.10 V	140	21.4	14.1
9	#17160.00	51.3 PK	68.2	-16.9	2.65 V	90	34.3	17.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 149	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5581.85	56.9 PK	68.2	-11.3	1.00 H	246	53.6	3.3
2	*5745.00	110.1 PK			1.00 H	246	106.3	3.8
3	*5745.00	100.6 AV			1.00 H	246	96.8	3.8
4	#5931.70	57.9 PK	68.2	-10.3	1.00 H	246	53.9	4.0
5	11490.00	47.0 PK	74.0	-27.0	1.77 H	244	33.0	14.0
6	11490.00	35.4 AV	54.0	-18.6	1.77 H	244	21.4	14.0
7	#17235.00	50.3 PK	68.2	-17.9	1.63 H	271	33.8	16.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5615.10	56.7 PK	68.2	-11.5	2.40 V	135	53.3	3.4
2	*5745.00	110.8 PK			2.40 V	135	107.0	3.8
3	*5745.00	100.7 AV			2.40 V	135	96.9	3.8
4	#5945.25	56.7 PK	68.2	-11.5	2.40 V	135	52.7	4.0
5	11490.00	47.0 PK	74.0	-27.0	2.17 V	142	33.0	14.0
6	11490.00	35.8 AV	54.0	-18.2	2.17 V	142	21.8	14.0
7	#17235.00	50.4 PK	68.2	-17.8	2.72 V	78	33.9	16.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5587.13	57.0 PK	68.2	-11.2	1.06 H	255	53.7	3.3
2	*5785.00	109.8 PK			1.06 H	255	105.9	3.9
3	*5785.00	100.4 AV			1.06 H	255	96.5	3.9
4	#5977.02	57.6 PK	68.2	-10.6	1.06 H	255	53.5	4.1
5	11570.00	47.0 PK	74.0	-27.0	1.77 H	244	33.4	13.6
6	11570.00	35.4 AV	54.0	-18.6	1.77 H	244	21.8	13.6
7	#17355.00	50.3 PK	68.2	-17.9	1.63 H	271	33.3	17.0
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5604.14	56.8 PK	68.2	-11.4	2.52 V	134	53.4	3.4
2	*5785.00	109.1 PK			2.52 V	134	105.2	3.9
3	*5785.00	99.5 AV			2.52 V	134	95.6	3.9
4	#6007.46	57.9 PK	68.2	-10.3	2.52 V	134	53.8	4.1
5	11570.00	47.0 PK	74.0	-27.0	2.08 V	143	33.4	13.6
6	11570.00	35.7 AV	54.0	-18.3	2.08 V	143	22.1	13.6
7	#17355.00	51.5 PK	68.2	-16.7	2.73 V	87	34.5	17.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5567.16	56.8 PK	68.2	-11.4	1.05 H	256	53.5	3.3
2	*5825.00	110.0 PK			1.05 H	256	105.9	4.1
3	*5825.00	100.7 AV			1.05 H	256	96.6	4.1
4	#5972.49	57.6 PK	68.2	-10.6	1.05 H	256	53.5	4.1
5	11650.00	47.0 PK	74.0	-27.0	1.77 H	244	33.5	13.5
6	11650.00	35.4 AV	54.0	-18.6	1.77 H	244	21.9	13.5
7	#17475.00	50.3 PK	68.2	-17.9	1.63 H	271	31.7	18.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5576.34	56.2 PK	68.2	-12.0	2.53 V	160	52.9	3.3
2	*5825.00	109.0 PK			2.53 V	160	104.9	4.1
3	*5825.00	99.3 AV			2.53 V	160	95.2	4.1
4	#6010.03	57.6 PK	68.2	-10.6	2.53 V	160	53.5	4.1
5	11650.00	46.6 PK	74.0	-27.4	2.15 V	148	33.1	13.5
6	11650.00	35.5 AV	54.0	-18.5	2.15 V	148	22.0	13.5
7	#17475.00	50.6 PK	68.2	-17.6	2.70 V	90	32.0	18.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11n (HT20)

Channel	TX Channel 36	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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 H	235	46.5	3.0
2	5150.00	39.2 AV	54.0	-14.8	1.00 H	235	36.2	3.0
3	*5180.00	94.0 PK			1.00 H	235	91.0	3.0
4	*5180.00	85.0 AV			1.00 H	235	82.0	3.0
5	#10360.00	47.0 PK	68.2	-21.2	1.77 H	244	33.8	13.2
6	15540.00	50.3 PK	74.0	-23.7	1.63 H	271	36.7	13.6
7	15540.00	38.5 AV	54.0	-15.5	1.63 H	271	24.9	13.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	52.1 PK	74.0	-21.9	2.42 V	163	49.1	3.0
2	5150.00	42.0 AV	54.0	-12.0	2.42 V	163	39.0	3.0
3	*5180.00	99.5 PK			2.42 V	163	96.5	3.0
4	*5180.00	90.6 AV			2.42 V	163	87.6	3.0
5	#10360.00	47.1 PK	68.2	-21.1	2.15 V	120	33.9	13.2
6	15540.00	49.9 PK	74.0	-24.1	2.71 V	94	36.3	13.6
7	15540.00	38.0 AV	54.0	-16.0	2.71 V	94	24.4	13.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (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	93.8 PK			1.01 H	233	90.9	2.9
2	*5200.00	85.0 AV			1.01 H	233	82.1	2.9
3	#10400.00	47.4 PK	68.2	-20.8	1.78 H	259	34.1	13.3
4	15600.00	50.2 PK	74.0	-23.8	1.61 H	265	36.3	13.9
5	15600.00	38.5 AV	54.0	-15.5	1.61 H	265	24.6	13.9
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	100.4 PK			2.49 V	159	97.5	2.9
2	*5200.00	91.6 AV			2.49 V	159	88.7	2.9
3	#10400.00	46.7 PK	68.2	-21.5	2.07 V	126	33.4	13.3
4	15600.00	51.1 PK	74.0	-22.9	2.71 V	94	37.2	13.9
5	15600.00	38.6 AV	54.0	-15.4	2.71 V	94	24.7	13.9

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (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	94.3 PK			1.06 H	239	91.4	2.9
2	*5240.00	85.3 AV			1.06 H	239	82.4	2.9
3	5350.00	49.0 PK	74.0	-25.0	1.06 H	239	46.0	3.0
4	5350.00	38.8 AV	54.0	-15.2	1.06 H	239	35.8	3.0
5	#10480.00	47.0 PK	68.2	-21.2	1.77 H	244	33.5	13.5
6	15720.00	50.3 PK	74.0	-23.7	1.63 H	271	36.9	13.4
7	15720.00	38.5 AV	54.0	-15.5	1.63 H	271	25.1	13.4
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	102.9 PK			2.53 V	160	100.0	2.9
2	*5240.00	93.6 AV			2.53 V	160	90.7	2.9
3	5350.00	50.3 PK	74.0	-23.7	2.53 V	160	47.3	3.0
4	5350.00	37.8 AV	54.0	-16.2	2.53 V	160	34.8	3.0
5	#10480.00	46.2 PK	68.2	-22.0	2.15 V	123	32.7	13.5
6	15720.00	50.8 PK	74.0	-23.2	2.64 V	86	37.4	13.4
7	15720.00	38.9 AV	54.0	-15.1	2.64 V	86	25.5	13.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 52	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	48.7 PK	74.0	-25.3	1.08 H	250	45.7	3.0
2	5150.00	38.7 AV	54.0	-15.3	1.08 H	250	35.7	3.0
3	*5260.00	94.3 PK			1.08 H	250	91.5	2.8
4	*5260.00	85.6 AV			1.08 H	250	82.8	2.8
5	#10520.00	47.0 PK	68.2	-21.2	1.77 H	244	33.4	13.6
6	15780.00	50.3 PK	74.0	-23.7	1.63 H	271	37.2	13.1
7	15780.00	38.5 AV	54.0	-15.5	1.63 H	271	25.4	13.1
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	48.5 PK	74.0	-25.5	2.49 V	162	45.5	3.0
2	5150.00	38.4 AV	54.0	-15.6	2.49 V	162	35.4	3.0
3	*5260.00	103.6 PK			2.49 V	162	100.8	2.8
4	*5260.00	94.7 AV			2.49 V	162	91.9	2.8
5	#10520.00	46.4 PK	68.2	-21.8	2.05 V	121	32.8	13.6
6	15780.00	50.8 PK	74.0	-23.2	2.67 V	94	37.7	13.1
7	15780.00	38.4 AV	54.0	-15.6	2.67 V	94	25.3	13.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 60	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	94.2 PK			1.13 H	235	91.3	2.9
2	*5300.00	85.3 AV			1.13 H	235	82.4	2.9
3	10600.00	47.0 PK	74.0	-27.0	1.77 H	244	33.8	13.2
4	10600.00	35.4 AV	54.0	-18.6	1.77 H	244	22.2	13.2
5	15900.00	50.3 PK	74.0	-23.7	1.63 H	271	37.2	13.1
6	15900.00	38.5 AV	54.0	-15.5	1.63 H	271	25.4	13.1
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	104.0 PK			2.48 V	159	101.1	2.9
2	*5300.00	94.9 AV			2.48 V	159	92.0	2.9
3	10600.00	46.2 PK	74.0	-27.8	2.11 V	147	33.0	13.2
4	10600.00	35.0 AV	54.0	-19.0	2.11 V	147	21.8	13.2
5	15900.00	50.9 PK	74.0	-23.1	2.72 V	86	37.8	13.1
6	15900.00	38.7 AV	54.0	-15.3	2.72 V	86	25.6	13.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 64	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	99.7 PK			1.01 H	237	96.8	2.9
2	*5320.00	90.8 AV			1.01 H	237	87.9	2.9
3	5350.00	57.8 PK	74.0	-16.2	1.01 H	237	54.8	3.0
4	5350.00	45.2 AV	54.0	-8.8	1.01 H	237	42.2	3.0
5	10640.00	47.0 PK	74.0	-27.0	1.77 H	244	33.7	13.3
6	10640.00	35.4 AV	54.0	-18.6	1.77 H	244	22.1	13.3
7	15960.00	50.3 PK	74.0	-23.7	1.63 H	271	36.9	13.4
8	15960.00	38.5 AV	54.0	-15.5	1.63 H	271	25.1	13.4
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	105.6 PK			2.49 V	159	102.7	2.9
2	*5320.00	95.7 AV			2.49 V	159	92.8	2.9
3	5350.00	62.8 PK	74.0	-11.2	2.49 V	159	59.8	3.0
4	5350.00	49.3 AV	54.0	-4.7	2.49 V	159	46.3	3.0
5	10640.00	47.3 PK	74.0	-26.7	2.10 V	147	34.0	13.3
6	10640.00	35.9 AV	54.0	-18.1	2.10 V	147	22.6	13.3
7	15960.00	51.1 PK	74.0	-22.9	2.70 V	89	37.7	13.4
8	15960.00	38.7 AV	54.0	-15.3	2.70 V	89	25.3	13.4

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 100	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5448.47	53.5 PK	74.0	-20.5	1.00 H	241	50.3	3.2
2	5448.47	41.8 AV	54.0	-12.2	1.00 H	241	38.6	3.2
3	#5470.00	63.7 PK	68.2	-4.5	1.00 H	241	60.5	3.2
4	*5500.00	102.5 PK			1.00 H	241	99.2	3.3
5	*5500.00	93.4 AV			1.00 H	241	90.1	3.3
6	11000.00	47.0 PK	74.0	-27.0	1.77 H	244	33.0	14.0
7	11000.00	35.4 AV	54.0	-18.6	1.77 H	244	21.4	14.0
8	#16500.00	50.3 PK	68.2	-17.9	1.63 H	271	34.8	15.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5448.47	55.5 PK	74.0	-18.5	2.48 V	155	52.3	3.2
2	5448.47	44.1 AV	54.0	-9.9	2.48 V	155	40.9	3.2
3	#5470.00	67.3 PK	68.2	-0.9	2.48 V	155	64.1	3.2
4	*5500.00	105.8 PK			2.48 V	155	102.5	3.3
5	*5500.00	95.6 AV			2.48 V	155	92.3	3.3
6	11000.00	46.6 PK	74.0	-27.4	2.17 V	134	32.6	14.0
7	11000.00	35.1 AV	54.0	-18.9	2.17 V	134	21.1	14.0
8	#16500.00	51.4 PK	68.2	-16.8	2.73 V	85	35.9	15.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 116	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	102.7 PK			1.00 H	253	99.4	3.3
2	*5580.00	93.9 AV			1.00 H	253	90.6	3.3
3	11160.00	47.0 PK	74.0	-27.0	1.77 H	244	33.6	13.4
4	11160.00	35.4 AV	54.0	-18.6	1.77 H	244	22.0	13.4
5	#16740.00	50.3 PK	68.2	-17.9	1.63 H	271	33.7	16.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	105.8 PK			2.48 V	161	102.5	3.3
2	*5580.00	95.8 AV			2.48 V	161	92.5	3.3
3	11160.00	46.5 PK	74.0	-27.5	2.07 V	125	33.1	13.4
4	11160.00	35.4 AV	54.0	-18.6	2.07 V	125	22.0	13.4
5	#16740.00	50.9 PK	68.2	-17.3	2.68 V	98	34.3	16.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 140	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	102.9 PK			1.00 H	255	99.1	3.8
2	*5700.00	93.6 AV			1.00 H	255	89.8	3.8
3	#5725.00	64.0 PK	68.2	-4.2	1.00 H	255	60.2	3.8
4	11400.00	47.0 PK	74.0	-27.0	1.77 H	244	32.8	14.2
5	11400.00	35.4 AV	54.0	-18.6	1.77 H	244	21.2	14.2
6	#17100.00	50.3 PK	68.2	-17.9	1.63 H	271	32.8	17.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	105.3 PK			2.73 V	155	101.5	3.8
2	*5700.00	96.8 AV			2.73 V	155	93.0	3.8
3	#5725.00	67.0 PK	68.2	-1.2	2.73 V	155	63.2	3.8
4	11400.00	46.8 PK	74.0	-27.2	2.17 V	126	32.6	14.2
5	11400.00	35.5 AV	54.0	-18.5	2.17 V	126	21.3	14.2
6	#17100.00	51.4 PK	68.2	-16.8	2.64 V	89	33.9	17.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 144	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	51.3 PK	74.0	-22.7	1.00 H	268	48.1	3.2
2	5460.00	38.7 AV	54.0	-15.3	1.00 H	268	35.5	3.2
3	#5470.00	50.2 PK	68.2	-18.0	1.00 H	268	47.0	3.2
4	*5720.00	103.7 PK			1.00 H	268	99.9	3.8
5	*5720.00	94.1 AV			1.00 H	268	90.3	3.8
6	#5850.00	51.2 PK	68.2	-17.0	1.00 H	268	47.0	4.2
7	11440.00	47.0 PK	74.0	-27.0	1.77 H	244	32.9	14.1
8	11440.00	35.4 AV	54.0	-18.6	1.77 H	244	21.3	14.1
9	#17160.00	50.3 PK	68.2	-17.9	1.63 H	271	33.3	17.0
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	50.9 PK	74.0	-23.1	2.70 V	140	47.7	3.2
2	5460.00	38.3 AV	54.0	-15.7	2.70 V	140	35.1	3.2
3	#5470.00	50.5 PK	68.2	-17.7	2.70 V	140	47.3	3.2
4	*5720.00	105.4 PK			2.70 V	140	101.6	3.8
5	*5720.00	96.9 AV			2.70 V	140	93.1	3.8
6	#5850.00	51.4 PK	68.2	-16.8	2.70 V	140	47.2	4.2
7	11440.00	47.0 PK	74.0	-27.0	2.07 V	119	32.9	14.1
8	11440.00	35.5 AV	54.0	-18.5	2.07 V	119	21.4	14.1
9	#17160.00	50.6 PK	68.2	-17.6	2.65 V	88	33.6	17.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 149	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5595.42	56.3 PK	68.2	-11.9	1.02 H	239	52.9	3.4
2	*5745.00	108.6 PK			1.02 H	239	104.8	3.8
3	*5745.00	99.6 AV			1.02 H	239	95.8	3.8
4	#5967.18	56.9 PK	68.2	-11.3	1.02 H	239	52.8	4.1
5	11490.00	46.6 PK	74.0	-27.4	1.76 H	256	32.6	14.0
6	11490.00	35.2 AV	54.0	-18.8	1.76 H	256	21.2	14.0
7	#17235.00	50.1 PK	68.2	-18.1	1.64 H	275	33.6	16.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5587.09	56.7 PK	68.2	-11.5	2.71 V	152	53.4	3.3
2	*5745.00	109.8 PK			2.71 V	153	106.0	3.8
3	*5745.00	99.8 AV			2.71 V	153	96.0	3.8
4	#5973.79	56.7 PK	68.2	-11.5	2.71 V	152	52.6	4.1
5	11490.00	46.7 PK	74.0	-27.3	2.11 V	134	32.7	14.0
6	11490.00	35.4 AV	54.0	-18.6	2.11 V	134	21.4	14.0
7	#17235.00	50.7 PK	68.2	-17.5	2.69 V	94	34.2	16.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5578.69	56.8 PK	68.2	-11.4	1.03 H	240	53.5	3.3
2	*5785.00	108.3 PK			1.03 H	240	104.4	3.9
3	*5785.00	99.5 AV			1.03 H	240	95.6	3.9
4	#5987.98	57.4 PK	68.2	-10.8	1.03 H	240	53.3	4.1
5	11570.00	47.0 PK	74.0	-27.0	1.77 H	244	33.4	13.6
6	11570.00	35.4 AV	54.0	-18.6	1.77 H	244	21.8	13.6
7	#17355.00	50.3 PK	68.2	-17.9	1.63 H	271	33.3	17.0
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5619.52	57.3 PK	68.2	-10.9	2.69 V	136	53.9	3.4
2	*5785.00	108.9 PK			2.69 V	136	105.0	3.9
3	*5785.00	98.6 AV			2.69 V	136	94.7	3.9
4	#5991.02	57.8 PK	68.2	-10.4	2.69 V	136	53.7	4.1
5	11570.00	46.7 PK	74.0	-27.3	2.13 V	127	33.1	13.6
6	11570.00	35.7 AV	54.0	-18.3	2.13 V	127	22.1	13.6
7	#17355.00	50.7 PK	68.2	-17.5	2.68 V	103	33.7	17.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5626.85	56.8 PK	68.2	-11.4	1.05 H	229	53.4	3.4
2	*5825.00	108.4 PK			1.05 H	229	104.3	4.1
3	*5825.00	99.6 AV			1.05 H	229	95.5	4.1
4	#5968.38	57.2 PK	68.2	-11.0	1.05 H	229	53.1	4.1
5	11650.00	47.0 PK	74.0	-27.0	1.77 H	244	33.5	13.5
6	11650.00	35.4 AV	54.0	-18.6	1.77 H	244	21.9	13.5
7	#17475.00	50.3 PK	68.2	-17.9	1.63 H	271	31.7	18.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5632.15	56.0 PK	68.2	-12.2	2.54 V	161	52.6	3.4
2	*5825.00	109.3 PK			2.54 V	161	105.2	4.1
3	*5825.00	98.8 AV			2.54 V	161	94.7	4.1
4	#5969.90	57.1 PK	68.2	-11.1	2.54 V	161	53.0	4.1
5	11650.00	46.9 PK	74.0	-27.1	2.08 V	119	33.4	13.5
6	11650.00	35.8 AV	54.0	-18.2	2.08 V	119	22.3	13.5
7	#17475.00	50.3 PK	68.2	-17.9	2.74 V	80	31.7	18.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11n (HT40)

Channel	TX Channel 38	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	56.9 PK	74.0	-17.1	1.00 H	232	53.9	3.0
2	5150.00	45.5 AV	54.0	-8.5	1.00 H	232	42.5	3.0
3	*5190.00	90.8 PK			1.00 H	232	87.8	3.0
4	*5190.00	81.8 AV			1.00 H	232	78.8	3.0
5	#10380.00	47.0 PK	68.2	-21.2	1.77 H	244	33.8	13.2
6	15570.00	50.3 PK	74.0	-23.7	1.63 H	271	36.5	13.8
7	15570.00	38.5 AV	54.0	-15.5	1.63 H	271	24.7	13.8
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	66.3 PK	74.0	-7.7	2.64 V	159	63.3	3.0
2	5150.00	53.4 AV	54.0	-0.6	2.64 V	159	50.4	3.0
3	*5190.00	97.2 PK			2.64 V	159	94.2	3.0
4	*5190.00	89.1 AV			2.64 V	159	86.1	3.0
5	#10380.00	46.6 PK	68.2	-21.6	2.13 V	125	33.4	13.2
6	15570.00	50.5 PK	74.0	-23.5	2.72 V	96	36.7	13.8
7	15570.00	38.3 AV	54.0	-15.7	2.72 V	96	24.5	13.8

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 46	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	93.9 PK			1.05 H	226	91.0	2.9
2	*5230.00	83.9 AV			1.05 H	226	81.0	2.9
3	5350.00	50.1 PK	74.0	-23.9	1.05 H	226	47.1	3.0
4	5350.00	39.7 AV	54.0	-14.3	1.05 H	226	36.7	3.0
5	#10460.00	47.0 PK	68.2	-21.2	1.77 H	244	33.5	13.5
6	15690.00	50.3 PK	74.0	-23.7	1.63 H	271	36.8	13.5
7	15690.00	38.5 AV	54.0	-15.5	1.63 H	271	25.0	13.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	100.0 PK			2.57 V	156	97.1	2.9
2	*5230.00	91.5 AV			2.57 V	156	88.6	2.9
3	5350.00	50.2 PK	74.0	-23.8	2.57 V	156	47.2	3.0
4	5350.00	39.8 AV	54.0	-14.2	2.57 V	156	36.8	3.0
5	#10460.00	46.5 PK	68.2	-21.7	2.09 V	140	33.0	13.5
6	15690.00	50.9 PK	74.0	-23.1	2.72 V	89	37.4	13.5
7	15690.00	38.7 AV	54.0	-15.3	2.72 V	89	25.2	13.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 54	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	50.4 PK	74.0	-23.6	1.04 H	232	47.4	3.0
2	5150.00	40.0 AV	54.0	-14.0	1.04 H	232	37.0	3.0
3	*5270.00	95.0 PK			1.04 H	232	92.2	2.8
4	*5270.00	84.8 AV			1.04 H	232	82.0	2.8
5	#10540.00	47.0 PK	68.2	-21.2	1.77 H	244	33.6	13.4
6	15810.00	50.3 PK	74.0	-23.7	1.63 H	271	37.4	12.9
7	15810.00	38.5 AV	54.0	-15.5	1.63 H	271	25.6	12.9
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	2.54 V	160	46.5	3.0
2	5150.00	40.2 AV	54.0	-13.8	2.54 V	160	37.2	3.0
3	*5270.00	100.3 PK			2.54 V	160	97.5	2.8
4	*5270.00	91.6 AV			2.54 V	160	88.8	2.8
5	#10540.00	46.9 PK	68.2	-21.3	2.06 V	139	33.5	13.4
6	15810.00	51.2 PK	74.0	-22.8	2.71 V	98	38.3	12.9
7	15810.00	39.0 AV	54.0	-15.0	2.71 V	98	26.1	12.9

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 62	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	94.7 PK			1.00 H	239	91.8	2.9
2	*5310.00	85.3 AV			1.00 H	239	82.4	2.9
3	5350.00	63.1 PK	74.0	-10.9	1.00 H	239	60.1	3.0
4	5350.00	49.0 AV	54.0	-5.0	1.00 H	239	46.0	3.0
5	10620.00	47.0 PK	74.0	-27.0	1.77 H	244	33.7	13.3
6	10620.00	35.4 AV	54.0	-18.6	1.77 H	244	22.1	13.3
7	15930.00	50.3 PK	74.0	-23.7	1.63 H	271	37.0	13.3
8	15930.00	38.5 AV	54.0	-15.5	1.63 H	271	25.2	13.3
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	99.2 PK			2.56 V	162	96.3	2.9
2	*5310.00	90.4 AV			2.56 V	162	87.5	2.9
3	5350.00	68.0 PK	74.0	-6.0	2.56 V	162	65.0	3.0
4	**5350.00**	**53.6 AV**	**54.0**	**-0.4**	**2.56 V**	**162**	**50.6**	**3.0**
5	10620.00	46.5 PK	74.0	-27.5	2.13 V	142	33.2	13.3
6	10620.00	35.3 AV	54.0	-18.7	2.13 V	142	22.0	13.3
7	15930.00	50.9 PK	74.0	-23.1	2.74 V	80	37.6	13.3
8	15930.00	38.6 AV	54.0	-15.4	2.74 V	80	25.3	13.3

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

Channel	TX Channel 102	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	53.8 PK	74.0	-20.2	1.06 H	246	50.6	3.2
2	5460.00	41.9 AV	54.0	-12.1	1.06 H	246	38.7	3.2
3	#5470.00	63.0 PK	68.2	-5.2	1.06 H	246	59.8	3.2
4	*5510.00	97.1 PK			1.06 H	246	93.9	3.2
5	*5510.00	88.0 AV			1.06 H	246	84.8	3.2
6	11020.00	47.0 PK	74.0	-27.0	1.77 H	244	33.2	13.8
7	11020.00	35.4 AV	54.0	-18.6	1.77 H	244	21.6	13.8
8	#16530.00	50.3 PK	68.2	-17.9	1.63 H	271	34.6	15.7
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	55.9 PK	74.0	-18.1	2.25 V	160	52.7	3.2
2	5460.00	44.7 AV	54.0	-9.3	2.25 V	160	41.5	3.2
3	**#5470.00**	**67.8 PK**	**68.2**	**-0.4**	**2.25 V**	**160**	**64.6**	**3.2**
4	*5510.00	99.2 PK			2.25 V	160	96.0	3.2
5	*5510.00	91.3 AV			2.25 V	160	88.1	3.2
6	11020.00	46.8 PK	74.0	-27.2	2.12 V	145	33.0	13.8
7	11020.00	35.7 AV	54.0	-18.3	2.12 V	145	21.9	13.8
8	#16530.00	50.6 PK	68.2	-17.6	2.75 V	80	34.9	15.7

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 110	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	97.2 PK			1.11 H	251	93.9	3.3
2	*5550.00	87.9 AV			1.11 H	251	84.6	3.3
3	11100.00	47.0 PK	74.0	-27.0	1.77 H	244	33.7	13.3
4	11100.00	35.4 AV	54.0	-18.6	1.77 H	244	22.1	13.3
5	#16650.00	50.3 PK	68.2	-17.9	1.63 H	271	33.7	16.6
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	102.6 PK			2.54 V	156	99.3	3.3
2	*5550.00	94.5 AV			2.54 V	156	91.2	3.3
3	11100.00	47.1 PK	74.0	-26.9	2.07 V	130	33.8	13.3
4	11100.00	35.8 AV	54.0	-18.2	2.07 V	130	22.5	13.3
5	#16650.00	50.9 PK	68.2	-17.3	2.71 V	78	34.3	16.6

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 134	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	96.8 PK			1.10 H	248	93.2	3.6
2	*5670.00	87.7 AV			1.10 H	248	84.1	3.6
3	#5725.00	58.7 PK	68.2	-9.5	1.10 H	248	54.9	3.8
4	11340.00	47.0 PK	74.0	-27.0	1.77 H	244	32.9	14.1
5	11340.00	35.4 AV	54.0	-18.6	1.77 H	244	21.3	14.1
6	#17010.00	50.3 PK	68.2	-17.9	1.63 H	271	32.5	17.8
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	103.4 PK			1.60 V	336	102.2	1.2
2	*5670.00	94.3 AV			1.60 V	336	93.1	1.2
3	#5725.00	62.9 PK	68.2	-5.3	1.60 V	336	61.5	1.4
4	11340.00	46.6 PK	74.0	-27.4	2.11 V	138	35.3	11.3
5	11340.00	35.4 AV	54.0	-18.6	2.11 V	138	24.1	11.3
6	#17010.00	50.9 PK	68.2	-17.3	2.74 V	92	33.8	17.1

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 142	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	1.06 H	252	49.7	0.9
2	5460.00	38.1 AV	54.0	-15.9	1.06 H	252	37.2	0.9
3	#5470.00	50.9 PK	68.2	-17.3	1.06 H	252	50.0	0.9
4	*5710.00	96.4 PK			1.06 H	252	95.0	1.4
5	*5710.00	87.2 AV			1.06 H	252	85.8	1.4
6	#5850.00	50.5 PK	68.2	-17.7	1.06 H	252	48.7	1.8
7	11420.00	47.0 PK	74.0	-27.0	1.77 H	244	35.4	11.6
8	11420.00	35.4 AV	54.0	-18.6	1.77 H	244	23.8	11.6
9	#17130.00	50.3 PK	68.2	-17.9	1.63 H	271	33.8	16.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (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	50.8 PK	74.0	-23.2	1.56 V	336	49.9	0.9
2	5460.00	38.3 AV	54.0	-15.7	1.56 V	336	37.4	0.9
3	#5470.00	50.2 PK	68.2	-18.0	1.56 V	336	49.3	0.9
4	*5710.00	103.4 PK			1.56 V	336	102.0	1.4
5	*5710.00	94.1 AV			1.56 V	336	92.7	1.4
6	#5850.00	50.5 PK	68.2	-17.7	1.56 V	336	48.7	1.8
7	11420.00	46.7 PK	74.0	-27.3	2.13 V	147	35.1	11.6
8	11420.00	35.4 AV	54.0	-18.6	2.13 V	147	23.8	11.6
9	#17130.00	50.3 PK	68.2	-17.9	2.72 V	104	33.8	16.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Channel	TX Channel 151	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 40GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.56	57.7 PK	68.2	-10.5	1.06 H	243	54.2	3.5
2	*5755.00	106.6 PK			1.06 H	243	105.2	1.4
3	*5755.00	98.0 AV			1.06 H	243	96.6	1.4
4	#5968.37	57.2 PK	68.2	-11.0	1.06 H	243	53.1	4.1
5	11510.00	47.0 PK	74.0	-27.0	1.77 H	244	35.4	11.6
6	11510.00	35.4 AV	54.0	-18.6	1.77 H	244	23.8	11.6
7	#17265.00	50.3 PK	68.2	-17.9	1.63 H	271	34.8	15.5
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5646.00	59.4 PK	68.2	-8.8	2.72 V	136	55.9	3.5
2	*5755.00	109.7 PK			2.72 V	136	108.3	1.4
3	*5755.00	100.1 AV			2.72 V	136	98.7	1.4
4	#5996.88	59.2 PK	68.2	-9.0	2.72 V	136	55.1	4.1
5	11510.00	46.8 PK	74.0	-27.2	2.08 V	137	35.2	11.6
6	11510.00	35.8 AV	54.0	-18.2	2.08 V	137	24.2	11.6
7	#17265.00	51.3 PK	68.2	-16.9	2.67 V	99	35.8	15.5

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
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	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5613.43	56.9 PK	68.2	-11.3	1.09 H	257	53.5	3.4
2	*5795.00	106.5 PK			1.09 H	257	105.0	1.5
3	*5795.00	97.9 AV			1.09 H	257	96.4	1.5
4	#5951.97	57.9 PK	68.2	-10.3	1.09 H	257	53.8	4.1
5	11590.00	47.0 PK	74.0	-27.0	1.77 H	244	35.5	11.5
6	11590.00	35.4 AV	54.0	-18.6	1.77 H	244	23.9	11.5
7	#17385.00	50.3 PK	68.2	-17.9	1.63 H	271	33.3	17.0
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5579.77	58.3 PK	68.2	-9.9	2.94 V	138	55.0	3.3
2	*5795.00	109.1 PK			2.94 V	138	107.6	1.5
3	*5795.00	99.4 AV			2.94 V	138	97.9	1.5
4	#6007.23	59.1 PK	68.2	-9.1	2.94 V	138	55.0	4.1
5	11590.00	47.2 PK	74.0	-26.8	2.06 V	135	35.7	11.5
6	11590.00	35.8 AV	54.0	-18.2	2.06 V	135	24.3	11.5
7	#17385.00	51.0 PK	68.2	-17.2	2.65 V	103	34.0	17.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data:

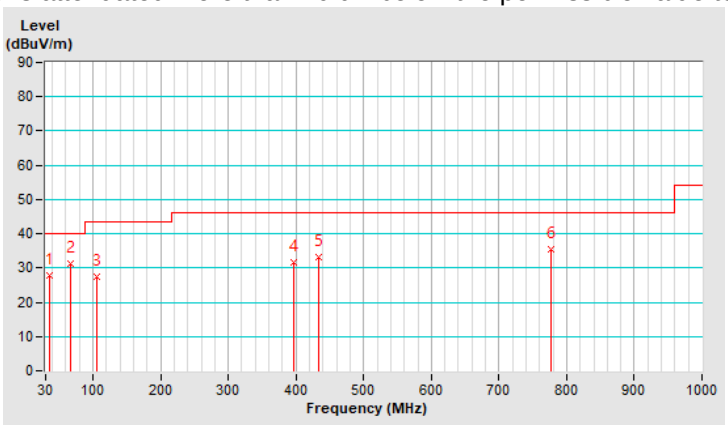
802.11n (HT40)

CHANNEL	TX Channel 159	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	**Frequency (MHz)**	**Emission Level (dBuV/m)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Height (m)**	**Table Angle (Degree)**	**Raw Value (dBuV)**	**Correction Factor (dB/m)**
1	35.94	27.7 QP	40.0	-12.3	3.00 H	206	36.6	-8.9
2	66.75	31.4 QP	40.0	-8.6	4.00 H	6	40.6	-9.2
3	105.41	27.6 QP	43.5	-15.9	3.00 H	99	38.7	-11.1
4	396.19	31.6 QP	46.0	-14.4	1.50 H	220	35.5	-3.9
5	433.99	33.2 QP	46.0	-12.8	1.00 H	263	35.8	-2.6
6	777.50	35.5 QP	46.0	-10.5	1.00 H	273	30.5	5.0

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

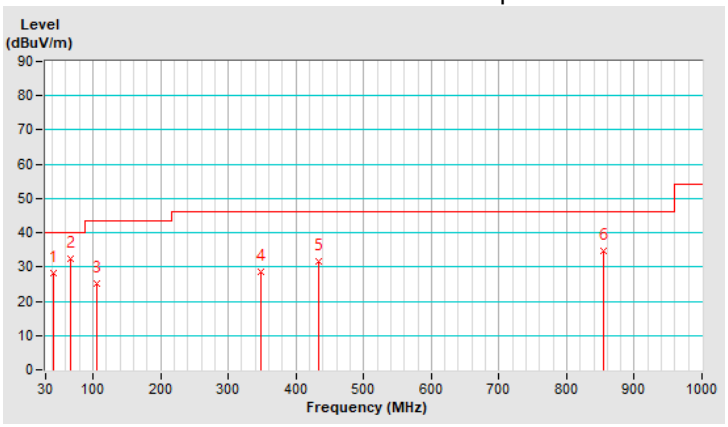


CHANNEL	TX Channel 159	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	40.73	28.2 QP	40.0	-11.8	1.50 V	354	36.5	-8.3
2	66.75	32.4 QP	40.0	-7.6	1.00 V	360	41.6	-9.2
3	106.61	25.0 QP	43.5	-18.5	2.00 V	10	35.9	-10.9
4	348.42	28.7 QP	46.0	-17.3	2.50 V	302	34.1	-5.4
5	434.14	31.8 QP	46.0	-14.2	1.00 V	16	34.4	-2.6
6	854.51	34.8 QP	46.0	-11.2	4.00 V	12	28.9	5.9

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) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	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.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 27, 2019	Sep. 26, 2020
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 30, 2019	Aug. 29, 2020
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
3. Tested Date: July 13, 2020

4.2.3 Test Procedure

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.

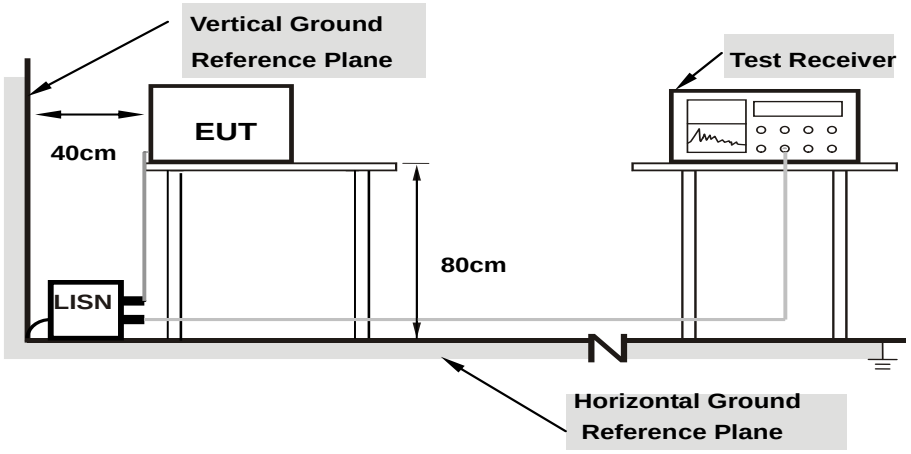
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

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

4.2.6 EUT Operating Condition

Same as 4.1.6.

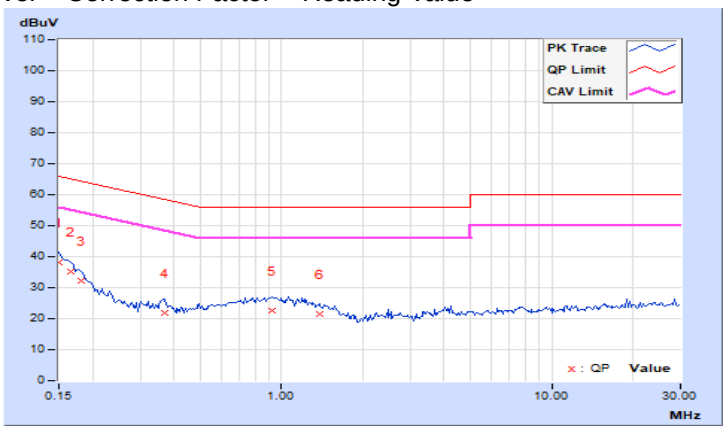
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.02	28.23	14.26	38.25	24.28	66.00	56.00	-27.75	-31.72
2	0.16562	10.03	25.17	11.11	35.20	21.14	65.18	55.18	-29.98	-34.04
3	0.18125	10.03	22.08	9.25	32.11	19.28	64.43	54.43	-32.32	-35.15
4	0.36875	10.06	11.69	3.83	21.75	13.89	58.53	48.53	-36.78	-34.64
5	0.92734	10.10	12.47	8.94	22.57	19.04	56.00	46.00	-33.43	-26.96
6	1.38281	10.14	11.31	8.16	21.45	18.30	56.00	46.00	-34.55	-27.70

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

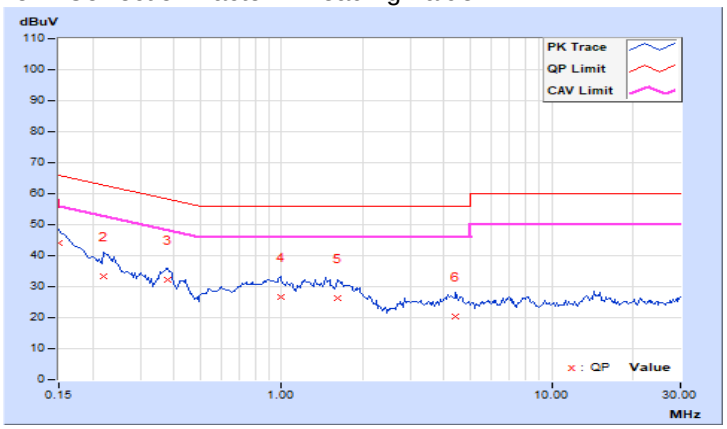


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.02	34.06	21.26	44.08	31.28	66.00	56.00	-21.92	-24.72
2	0.22031	10.04	23.38	15.03	33.42	25.07	62.81	52.81	-29.39	-27.74
3	**0.38047**	**10.06**	**22.00**	**18.20**	**32.06**	**28.26**	**58.27**	**48.27**	**-26.21**	**-20.01**
4	0.99375	10.13	16.62	12.63	26.75	22.76	56.00	46.00	-29.25	-23.24
5	1.61719	10.18	16.22	12.39	26.40	22.57	56.00	46.00	-29.60	-23.43
6	4.42969	10.36	10.05	5.02	20.41	15.38	56.00	46.00	-35.59	-30.62

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

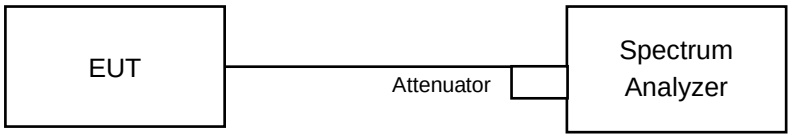
Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p ≦ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
	√	Client device	250mW (24 dBm)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

*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

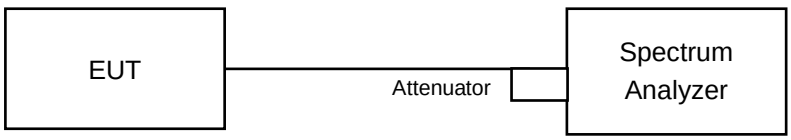
FOR POWER OUTPUT MEASUREMENT

For channel straddling 5725MHz:



For other channels:

FOR 26dB OCCUPIED BANDWIDTH



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

FOR POWER OUTPUT MEASUREMENT

For channel straddling 5725MHz:

Follow FCC KDB 789033 UNII test procedure:
Method SA-2

1. Set span to encompass the emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW ≥ 3 x RBW.
4. Number of points in sweep ≥ 2 Span / RBW.
5. Sweep time = auto.
6. Detector = RMS.
7. Trace average at least 100 traces in power averaging mode
8. Compute power by integrating the spectrum across the 26 dB EBW of the signal.
9. Duty factor need added to measured value (duty cycle < 98 percent).

For other channels:

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 OCCUPIED 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%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results

POWER OUTPUT

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	45.29	16.56	24.00	Pass
40	5200	49.774	16.97	24.00	Pass
48	5240	53.333	17.27	24.00	Pass
52	5260	55.081	17.41	24.00	Pass
60	5300	51.05	17.08	24.00	Pass
64	5320	51.642	17.13	24.00	Pass
100	5500	25.177	14.01	24.00	Pass
116	5580	22.491	13.52	24.00	Pass
140	5700	22.387	13.50	24.00	Pass
*144 (U-NII-2C Band)	5720	8.621	9.36	24.00	Pass
*144 (U-NII-3 Band)	5720	2.206	3.44	30.00	Pass
149	5745	66.222	18.21	30.00	Pass
157	5785	68.707	18.37	30.00	Pass
165	5825	67.764	18.31	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (mW)	Average Power (dBm)
144	5720	10.827	10.35	24.434	13.88

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	45.36	27.56 > 24
60	5300	44.67	27.5 > 24
64	5320	44.02	27.43 > 24
100	5500	40.1	27.03 > 24
116	5580	37.06	26.68 > 24
140	5700	29.89	25.75 > 24
144 (U-NII-2C Band)	5720	19.44	23.88 > 24

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	45.709	16.60	24.00	Pass
40	5200	49.659	16.96	24.00	Pass
48	5240	53.456	17.28	24.00	Pass
52	5260	55.208	17.42	24.00	Pass
60	5300	51.05	17.08	24.00	Pass
64	5320	51.404	17.11	24.00	Pass
100	5500	23.281	13.67	24.00	Pass
116	5580	22.909	13.60	24.00	Pass
140	5700	20.37	13.09	24.00	Pass
*144 (U-NII-2C Band)	5720	8.307	9.19	24.00	Pass
*144 (U-NII-3 Band)	5720	2.701	4.32	30.00	Pass
149	5745	65.917	18.19	30.00	Pass
157	5785	69.343	18.41	30.00	Pass
165	5825	68.865	18.38	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (mW)	Average Power (dBm)
144	5720	11.008	10.42	24.717	13.93

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	47.32	27.75 > 24
60	5300	47.32	27.75 > 24
64	5320	47.46	27.76 > 24
100	5500	29.25	25.66 > 24
116	5580	39.87	27 > 24
140	5700	28.63	25.56 > 24
144 (U-NII-2C Band)	5720	21.05	24.23 > 24

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Limit (dBm)	Pass / Fail
38	5190	45.186	16.55	24.00	Pass
46	5230	51.523	17.12	24.00	Pass
54	5270	55.976	17.48	24.00	Pass
62	5310	37.584	15.75	24.00	Pass
102	5510	9.528	9.79	24.00	Pass
110	5550	25.527	14.07	24.00	Pass
134	5670	24.717	13.93	24.00	Pass
*142 (U-NII-2C Band)	5710	8.507	9.30	24.00	Pass
*142 (U-NII-3 Band)	5710	0.7512	-1.24	30.00	Pass
151	5755	68.234	18.34	30.00	Pass
159	5795	72.111	18.58	30.00	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

The Total Power for the straddle channel and power meter value for reference only:

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (mW)	Average Power (dBm)
142	5710	9.2582	9.67	25.586	14.08

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	92.61	30.66 > 24
62	5310	80.82	30.07 > 24
102	5510	45.88	27.61 > 24
110	5550	62.21	28.93 > 24
134	5670	81.15	30.09 > 24
142 (U-NII-2C Band)	5710	50.9	28.06 > 24

26dB OCCUPIED BANDWIDTH

802.11a

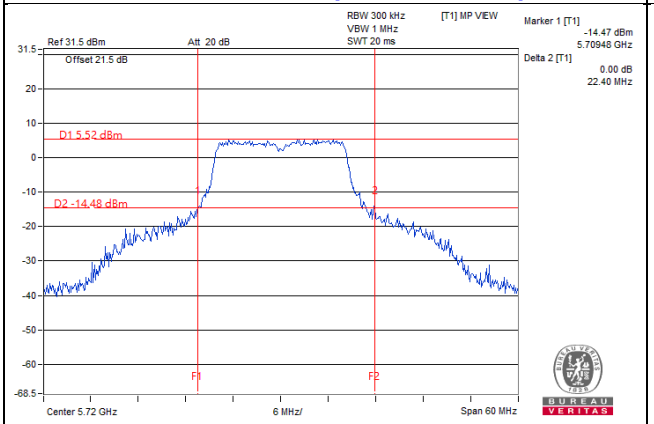
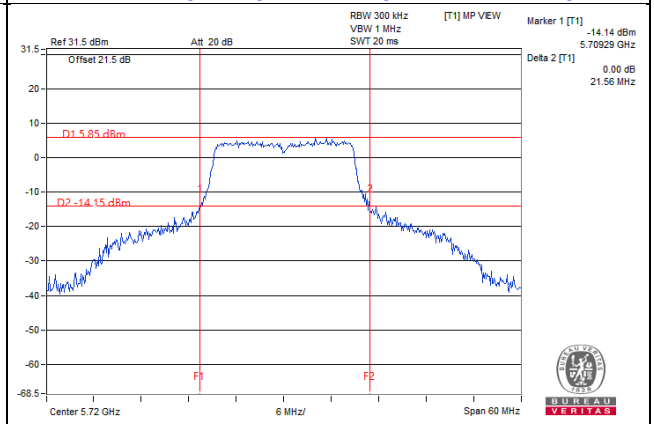
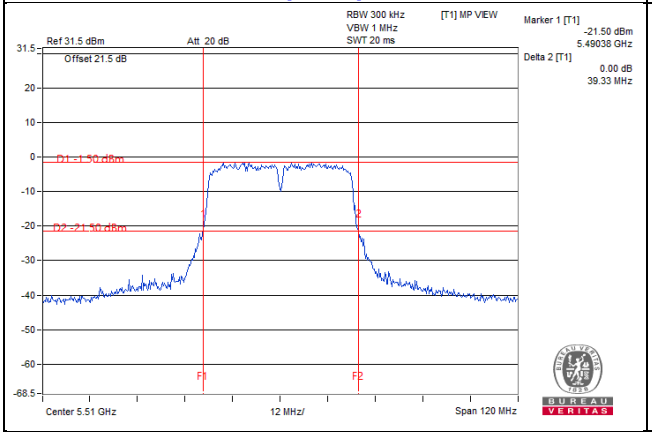
Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	45.36
60	5300	44.67
64	5320	44.02
100	5500	40.1
116	5580	37.06
140	5700	29.89
144 (U-NII-2C Band)	5720	19.44

802.11n (HT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
52	5260	47.32
60	5300	47.32
64	5320	47.46
100	5500	29.25
116	5580	39.87
140	5700	28.63
144 (U-NII-2C Band)	5720	21.05

802.11n (HT40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
54	5270	92.61
62	5310	80.82
102	5510	45.88
110	5550	62.21
134	5670	81.15
142 (U-NII-2C Band)	5710	50.9

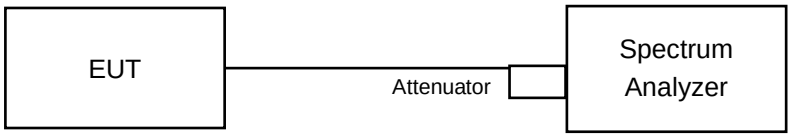
Spectrum Plot of Worst Value	
802.11a / CH144 (U-NII-2C Band)	**802.11n (HT20) / CH144 (U-NII-2C Band)**
	
802.11n (HT40) / CH102	
	

Note:

For CH144 (U-NII-2C) = 5725MHz - Marker 1

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

4.4.4 Test Results

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	20.52
40	5200	21.24
48	5240	19.56
52	5260	19.68
60	5300	18.72
64	5320	18.72
100	5500	17.16
116	5580	17.04
140	5700	17.16
144 (U-NII-2C Band)	5720	13.76
144 (U-NII-3 Band)	5720	3.64
149	5745	28.68
157	5785	27.96
165	5825	27.12

802.11n (HT20)

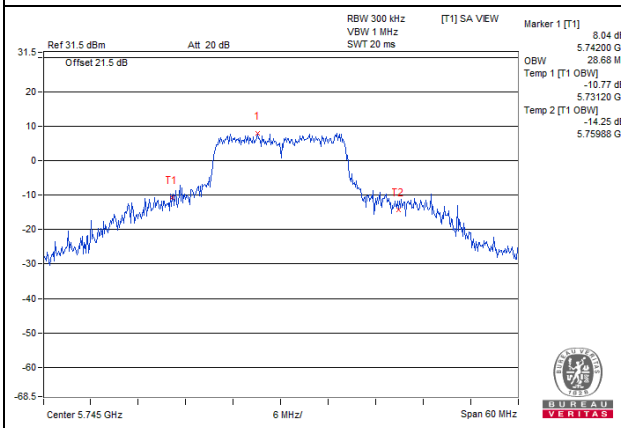
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	23.04
40	5200	22.68
48	5240	19.2
52	5260	19.92
60	5300	19.44
64	5320	19.32
100	5500	18.24
116	5580	18.12
140	5700	18.12
144 (U-NII-2C Band)	5720	14.12
144 (U-NII-3 Band)	5720	4.12
149	5745	30.84
157	5785	31.68
165	5825	29.52

802.11n (HT40)

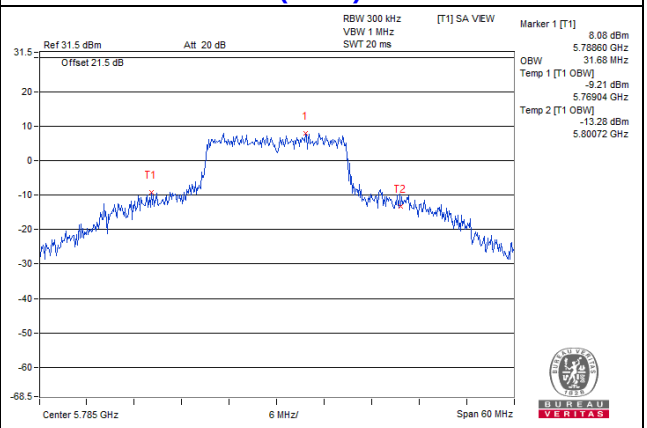
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	39.36
46	5230	39.84
54	5270	40.32
62	5310	36.96
102	5510	36.48
110	5550	36.72
134	5670	36.96
142 (U-NII-2C Band)	5710	33.48
142 (U-NII-3 Band)	5710	3.48
151	5755	53.52
159	5795	57.36

Spectrum Plot of Max. Value

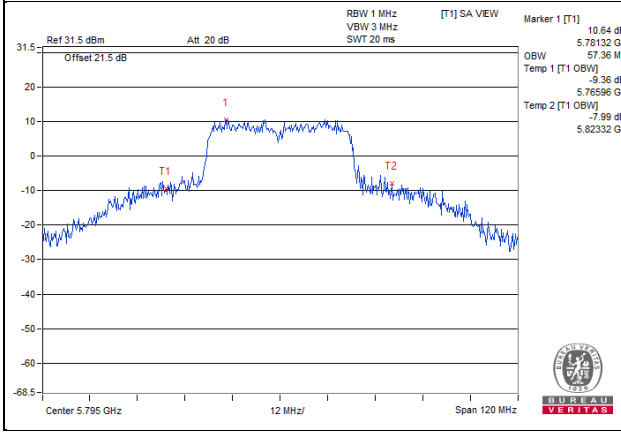
802.11a / CH149

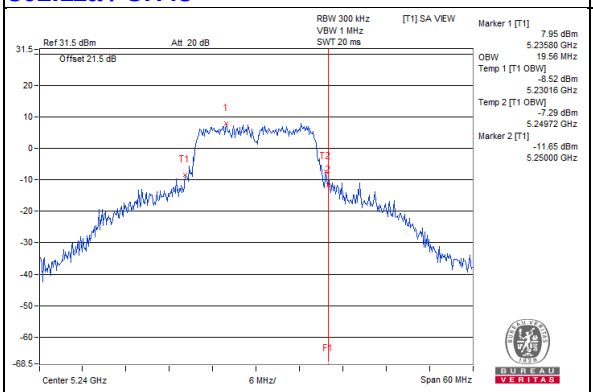
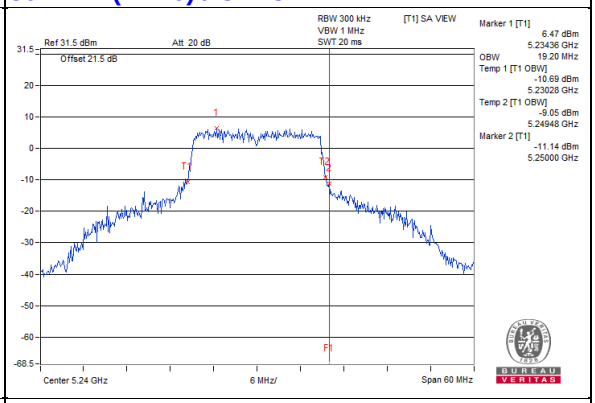
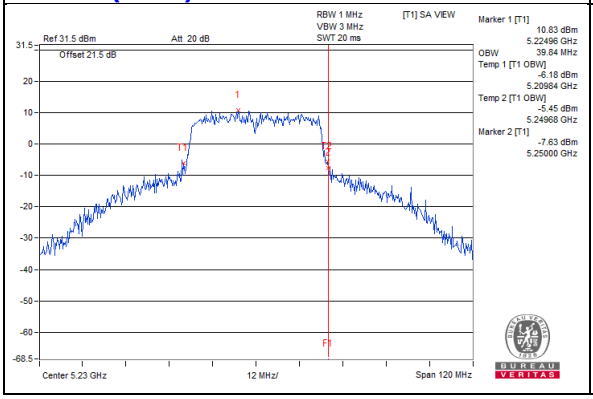


802.11n (HT20) / CH157



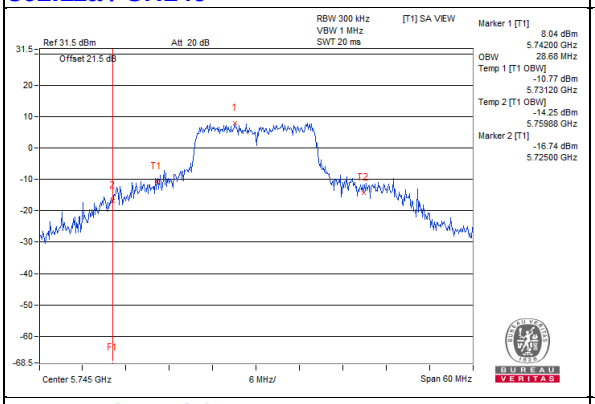
802.11n (HT40) / CH159



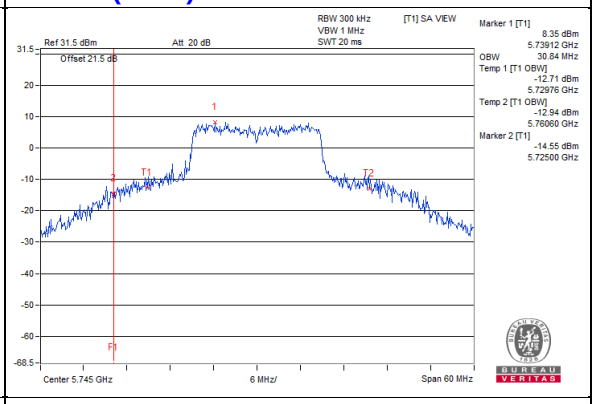
Spectrum Plot for near by DFS band (DFS is required, if 99% OCP straddle into U-NII-2A band)	
802.11a / CH48 	**802.11n (HT20) / CH48** 
802.11n (HT40) / CH46 	

Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

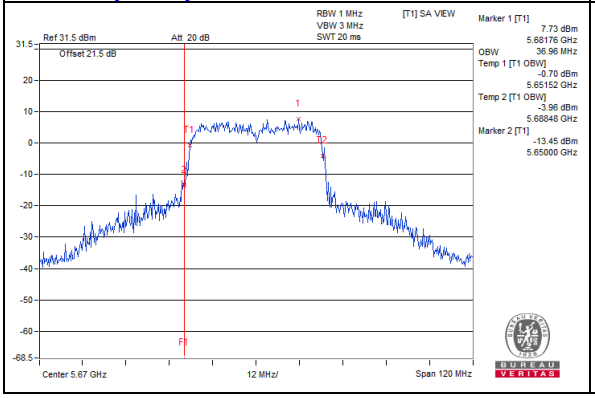
802.11a / CH149



802.11n (HT20) / CH149



802.11n (HT40) / CH151

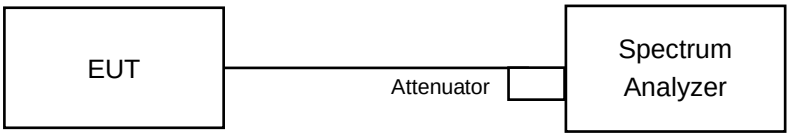


4.5 Peak Power Spectral Density Measurement

4.5.1 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	
	√	Client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

Using method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add 10 log (1/duty cycle)

For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)
5. Sweep time = auto, trigger set to “free run”.
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

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

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	2.66	0.16	2.82	11.00	PASS
40	5200	3.02	0.16	3.18	11.00	PASS
48	5240	3.47	0.16	3.63	11.00	PASS
52	5260	3.78	0.16	3.94	11.00	PASS
60	5300	3.27	0.16	3.43	11.00	PASS
64	5320	3.25	0.16	3.41	11.00	PASS
100	5500	0.37	0.16	0.53	11.00	PASS
116	5580	-0.01	0.16	0.15	11.00	PASS
140	5700	-0.14	0.16	0.02	11.00	PASS
144 (U-NII-2C Band)	5720	0.16	0.16	0.32	11.00	PASS

802.11n (HT20)

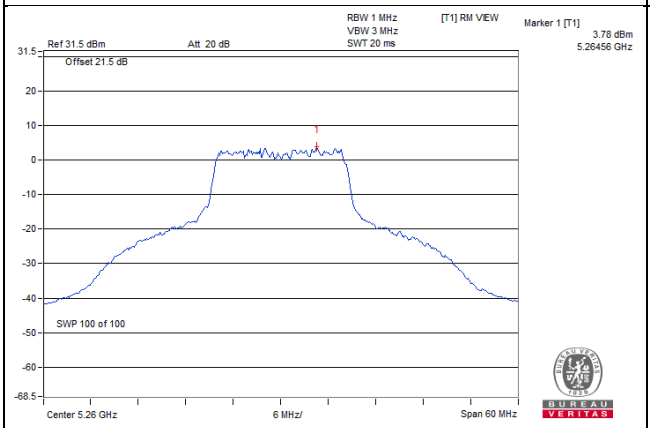
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	2.66	0.17	2.83	11.00	PASS
40	5200	2.92	0.17	3.09	11.00	PASS
48	5240	2.60	0.17	2.77	11.00	PASS
52	5260	3.10	0.17	3.27	11.00	PASS
60	5300	2.76	0.17	2.93	11.00	PASS
64	5320	2.56	0.17	2.73	11.00	PASS
100	5500	-0.31	0.17	-0.14	11.00	PASS
116	5580	-0.31	0.17	-0.14	11.00	PASS
140	5700	-1.22	0.17	-1.05	11.00	PASS
144 (U-NII-2C Band)	5720	-0.35	0.17	-0.18	11.00	PASS

802.11n (HT40)

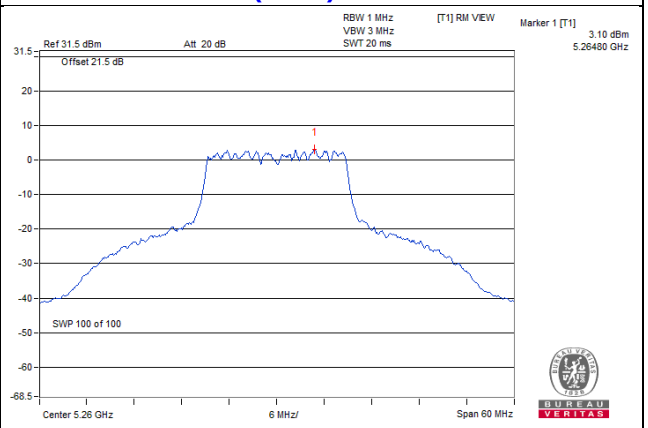
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
38	5190	-0.27	0.37	0.10	11.00	PASS
46	5230	-0.74	0.37	-0.37	11.00	PASS
54	5270	0.11	0.37	0.48	11.00	PASS
62	5310	-1.52	0.37	-1.15	11.00	PASS
102	5510	-7.82	0.37	-7.45	11.00	PASS
110	5550	-3.20	0.37	-2.83	11.00	PASS
134	5670	-3.60	0.37	-3.23	11.00	PASS
142 (U-NII-2C Band)	5710	-2.69	0.37	-2.32	11.00	PASS

Spectrum Plot of Worst Value

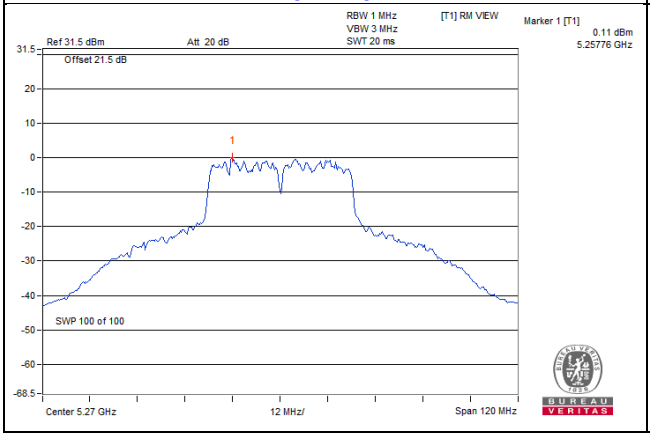
802.11a / CH52 5260



802.11n (HT20) / CH52 5260



802.11n (HT40) / CH54



Note:

For CH142 (U-NII-2C) = 5725MHz - Marker 1

For U-NII-3:

802.11a

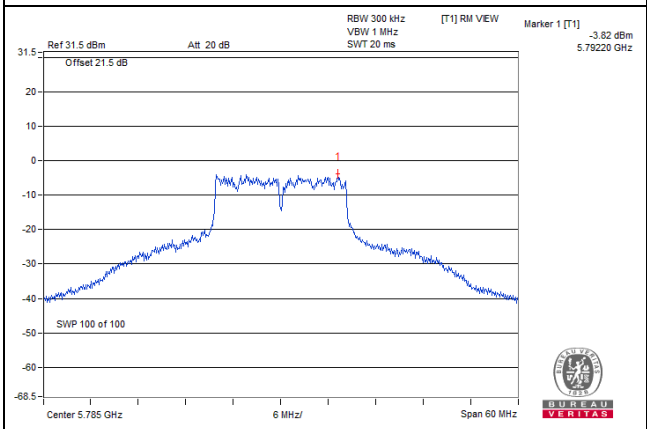
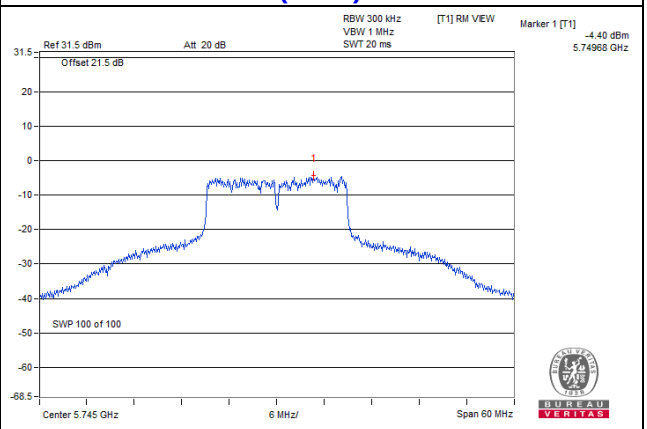
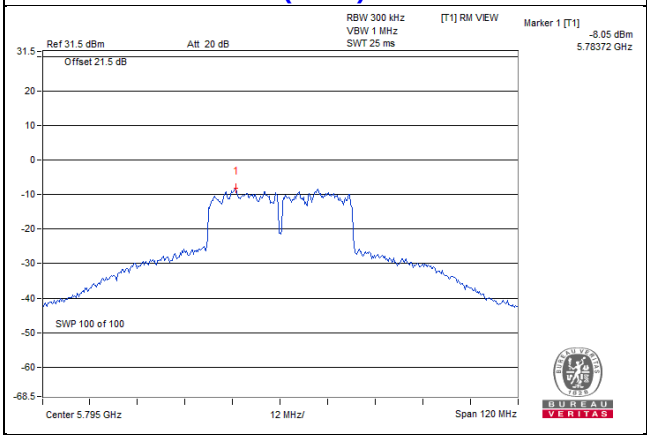
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
144 (U-NII-3 Band)	5720	-8.23	0.16	0.156	-8.07	-5.85	30.00	PASS
149	5745	-4.30	0.16	0.3855	-4.14	-1.92	30.00	PASS
157	5785	-3.82	0.16	0.4305	-3.66	-1.44	30.00	PASS
165	5825	-4.10	0.16	0.4036	-3.94	-1.72	30.00	PASS

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
144 (U-NII-3 Band)	5720	-8.58	0.17	0.1442	-8.41	-6.19	30.00	PASS
149	5745	-4.40	0.17	0.3776	-4.23	-2.01	30.00	PASS
157	5785	-4.63	0.17	0.3581	-4.46	-2.24	30.00	PASS
165	5825	-4.79	0.17	0.3451	-4.62	-2.40	30.00	PASS

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)	Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
142 (U-NII-3 Band)	5710	-11.99	0.37	0.06887	-11.62	-9.40	30.00	PASS
151	5755	-8.50	0.37	0.1538	-8.13	-5.91	30.00	PASS
159	5795	-8.05	0.37	0.1706	-7.68	-5.46	30.00	PASS

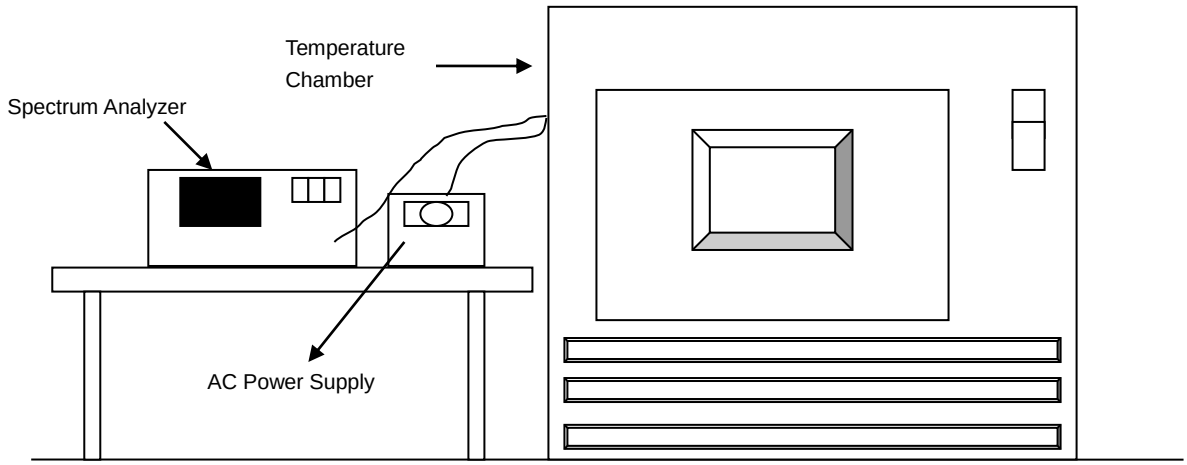
Spectrum Plot of Worst Value	
802.11a / CH157	**802.11n (HT20) / CH149**
	
802.11n (HT40) / CH159	
	

4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC 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 (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.

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.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
40	120	5180.0223	PASS	5180.0245	PASS	5180.0258	PASS	5180.0224	PASS
30	120	5180.019	PASS	5180.0178	PASS	5180.0175	PASS	5180.0144	PASS
20	120	5179.9918	PASS	5179.9909	PASS	5179.9908	PASS	5179.9902	PASS
10	120	5180.0045	PASS	5180.0085	PASS	5180.0063	PASS	5180.0064	PASS
0	120	5180.0131	PASS	5180.014	PASS	5180.0118	PASS	5180.0104	PASS

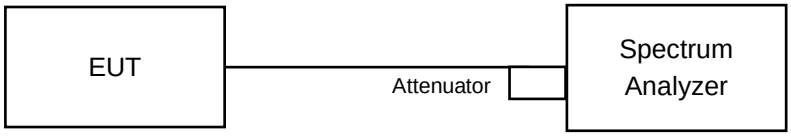
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5180.0041	PASS	5180.0077	PASS	5180.0065	PASS	5180.0064	PASS
	120	5180.0045	PASS	5180.0085	PASS	5180.0063	PASS	5180.0064	PASS
	102	5180.0036	PASS	5180.0086	PASS	5180.0061	PASS	5180.0061	PASS

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

MEASUREMENT PROCEDURE REF

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.7.7 Test Results

802.11a

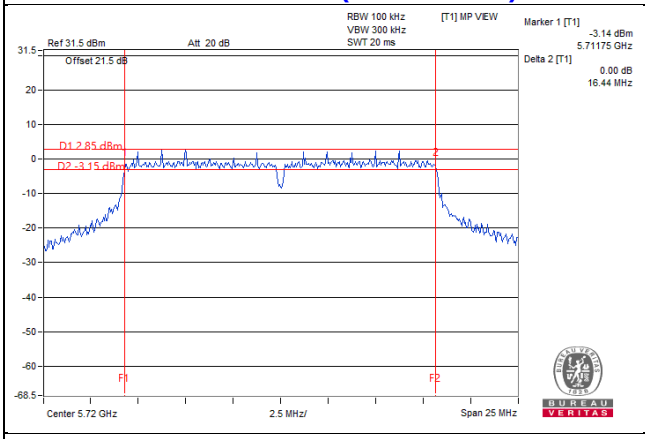
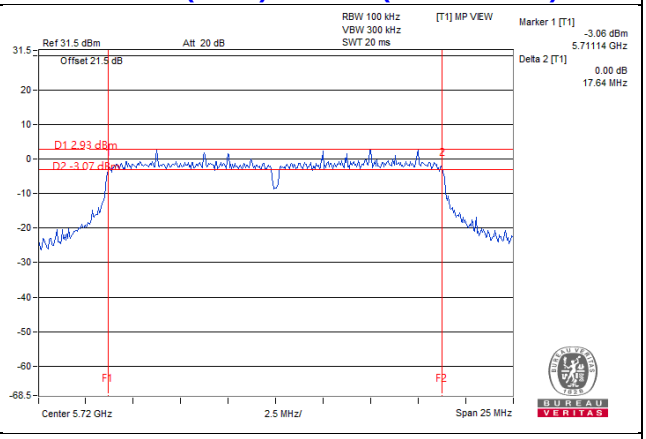
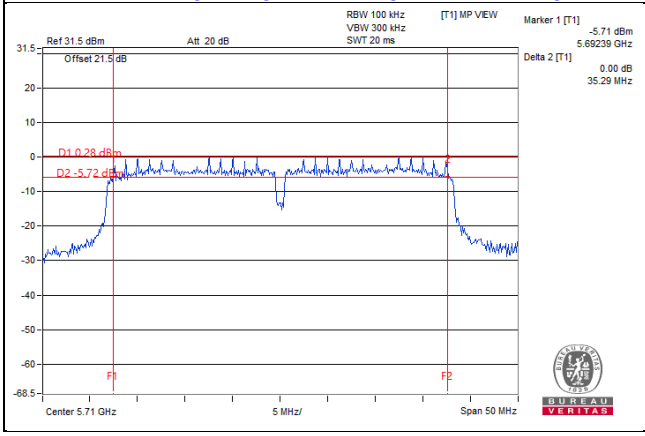
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
144 (U-NII-3 Band)	5720	3.19	Pass
149	5745	16.41	Pass
157	5785	16.42	Pass
165	5825	16.4	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
144 (U-NII-3 Band)	5720	3.78	Pass
149	5745	17.63	Pass
157	5785	17.66	Pass
165	5825	17.65	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
142 (U-NII-3 Band)	5710	2.68	Pass
151	5755	35.52	Pass
159	5795	35.75	Pass

Spectrum Plot of Worst Value	
802.11a / CH144 (U-NII-3 Band)	**802.11n (HT20) / CH144 (U-NII-3 Band)**
	
802.11n (HT40) / CH142 (U-NII-3 Band)	
	

Note:

For CH144 (U-NII-3 Band) = 5725MHz - Marker 1

For CH142 (U-NII-3 Band) = 5725MHz - Marker 1

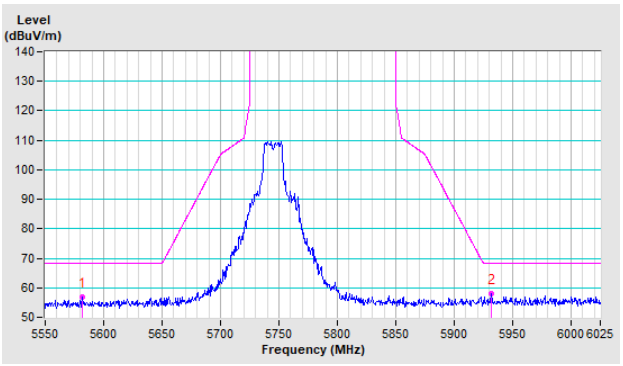
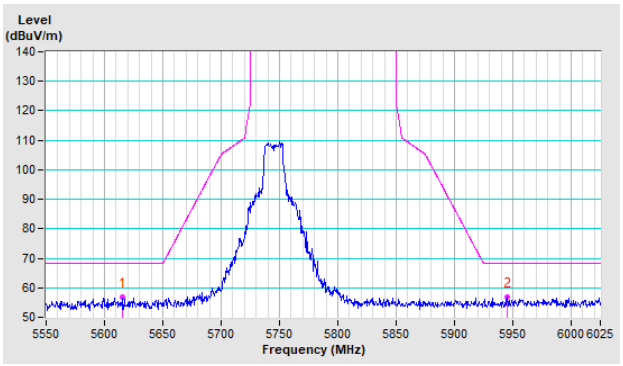
5 Pictures of Test Arrangements

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

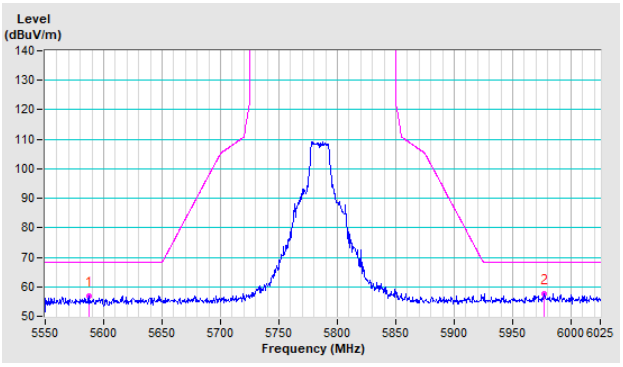
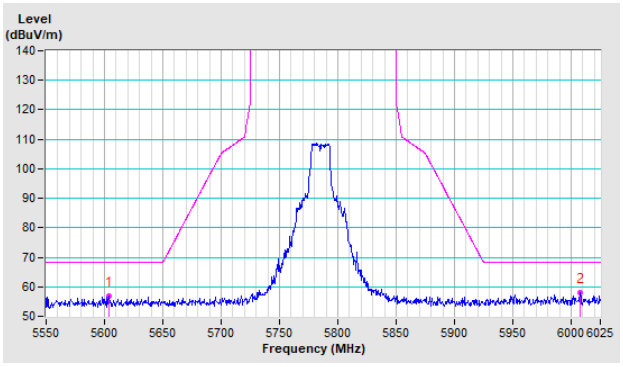
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

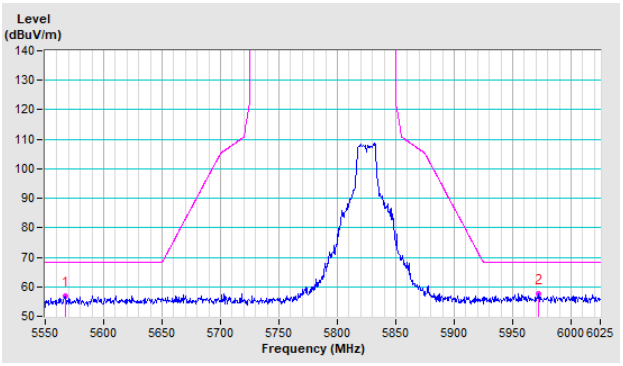
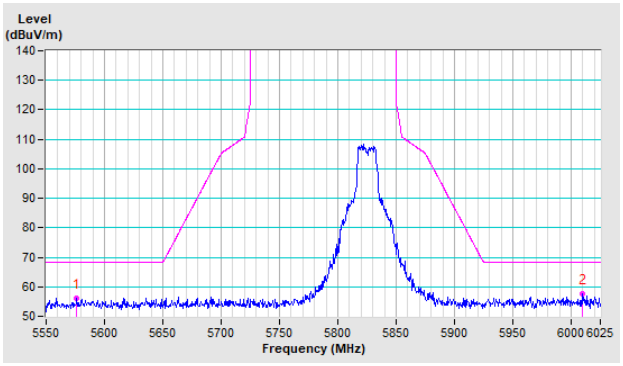
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

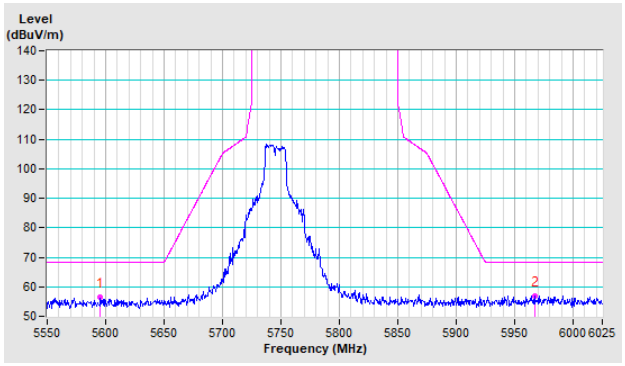
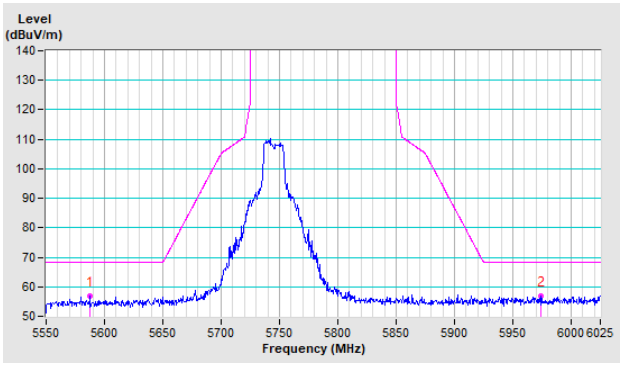
Horizontal	Vertical
	

CH 165 5825 MHz

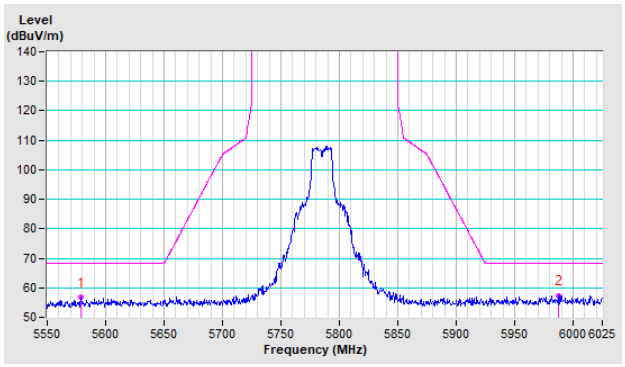
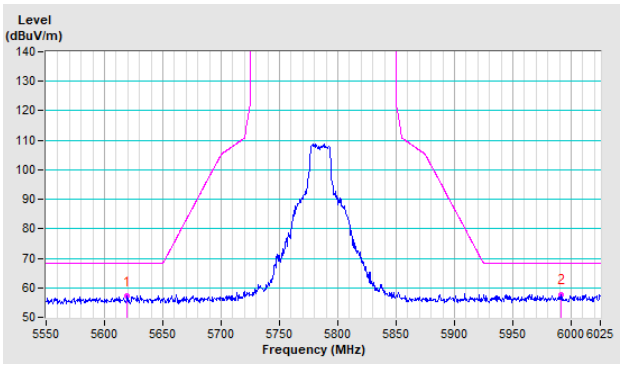
Horizontal	Vertical
	

802.11n (HT20)

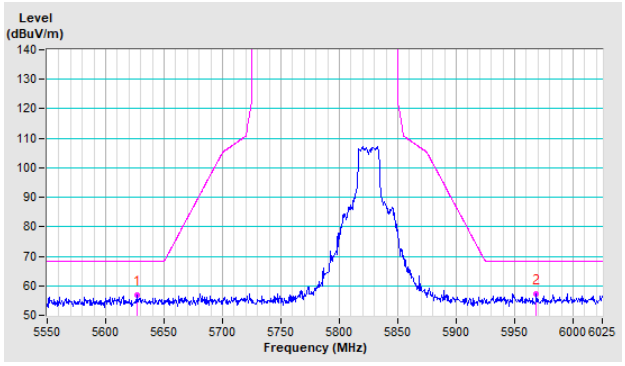
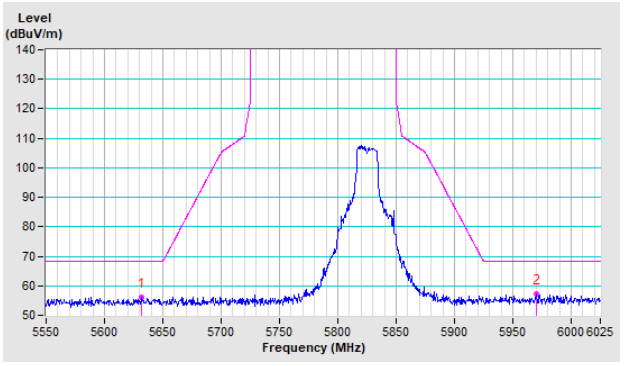
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

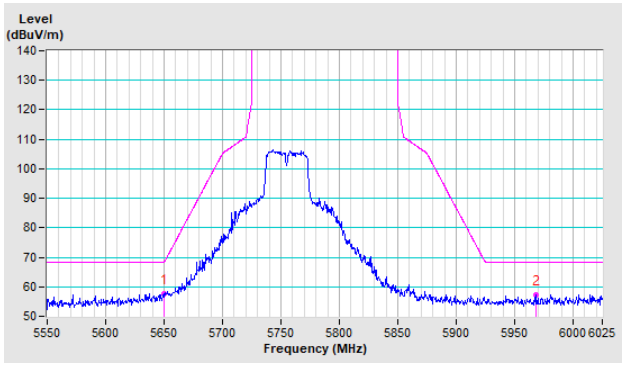
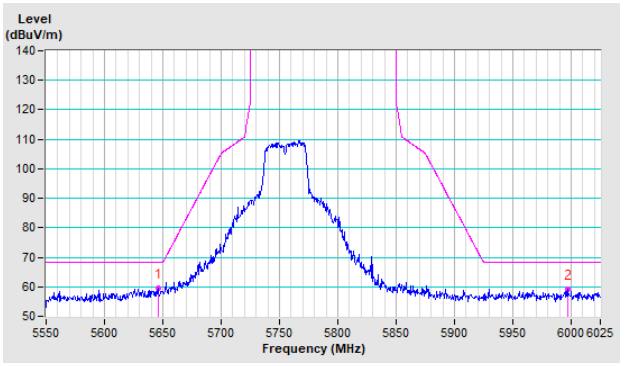
Horizontal	Vertical
	

CH 165 5825 MHz

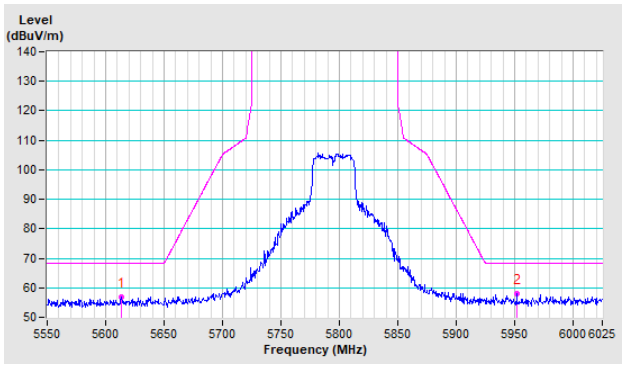
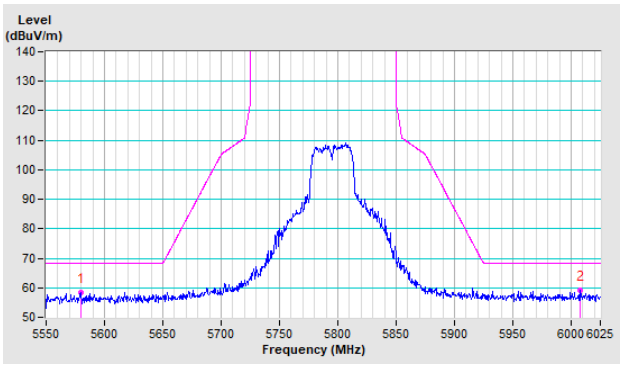
Horizontal	Vertical
	

802.11n (HT40)

CH 151 5755 MHz

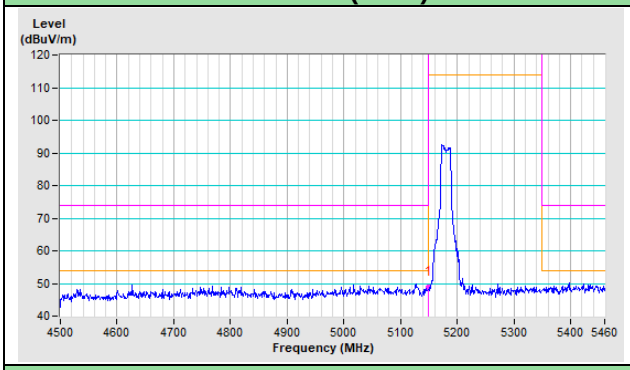
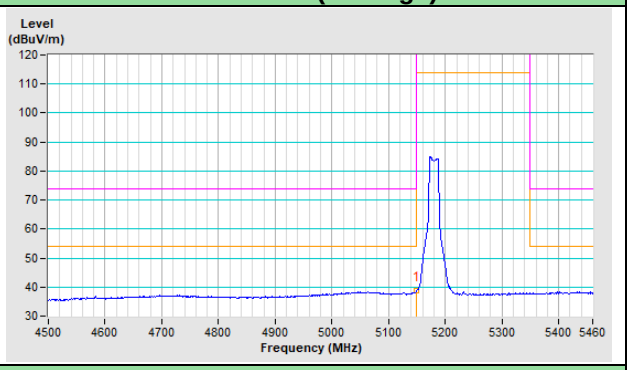
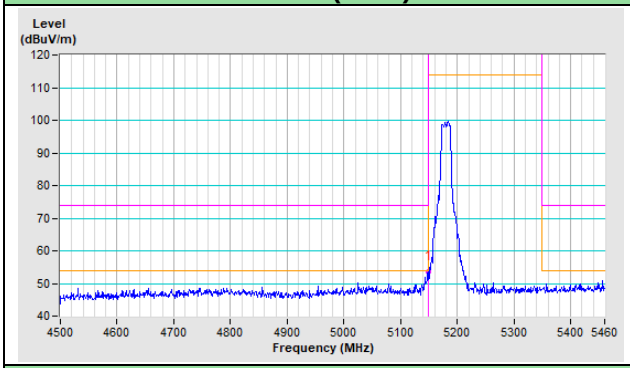
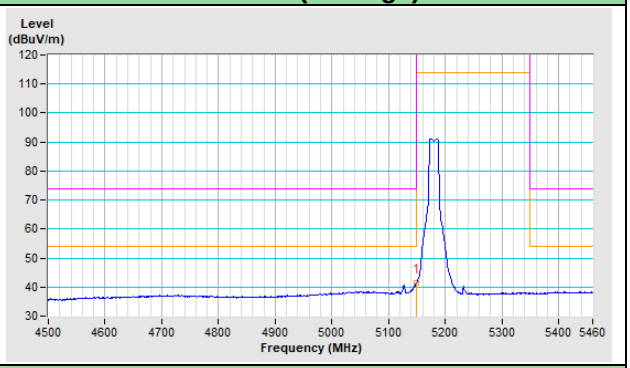
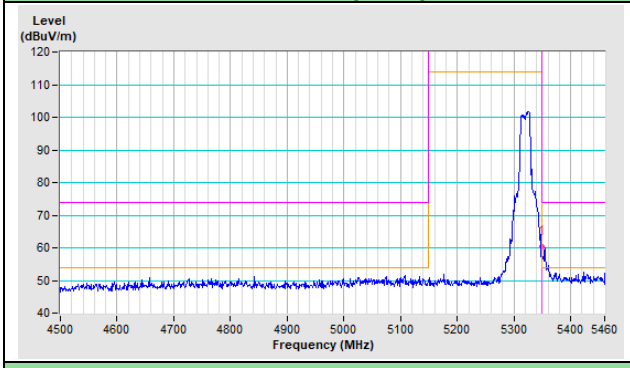
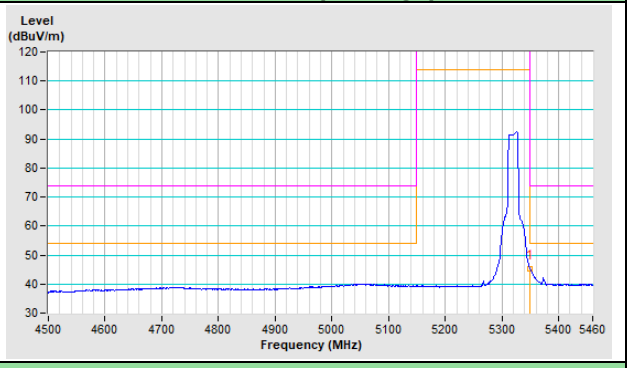
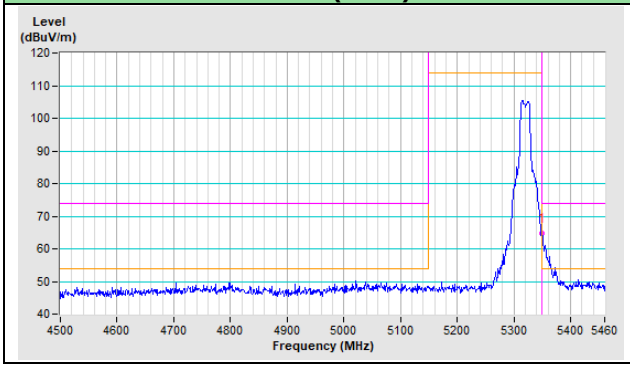
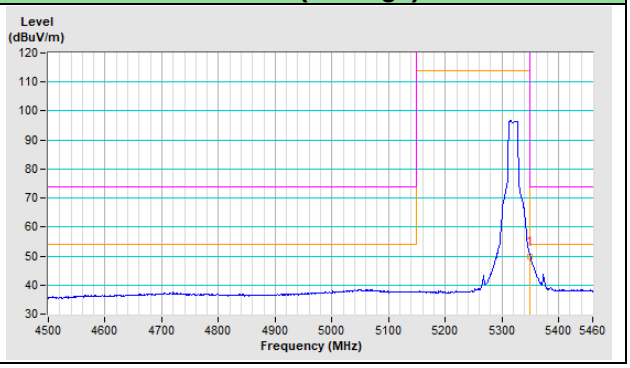
Horizontal	Vertical
	

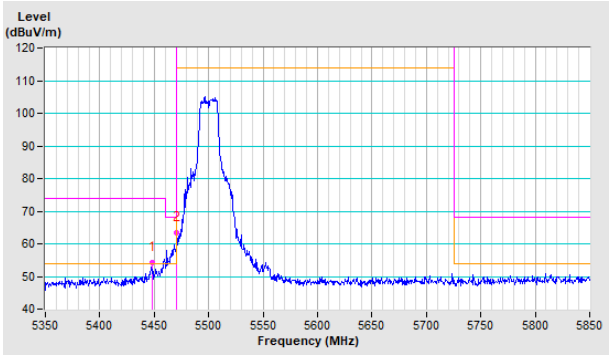
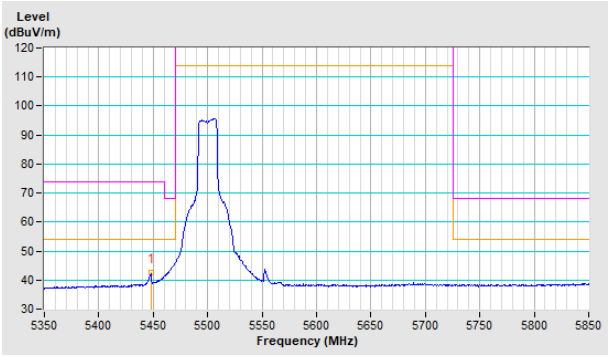
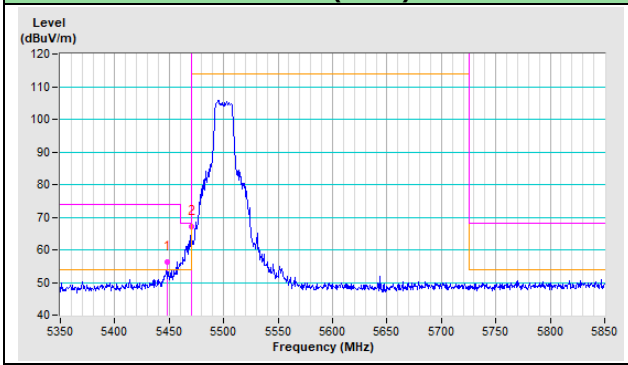
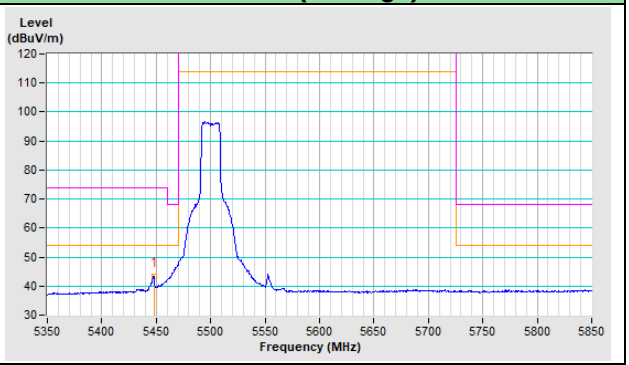
CH 159 5795 MHz

Horizontal	Vertical
	

Annex B- Band-edge measurement (For U-NII-1 band)

802.11a

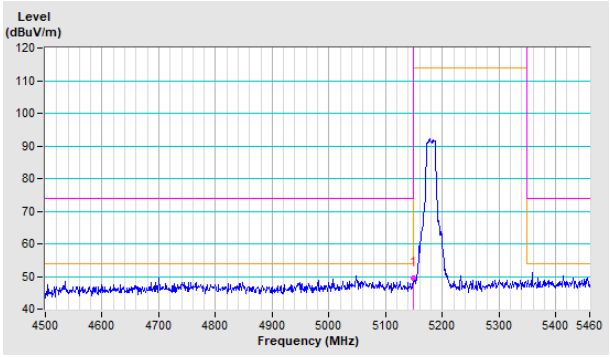
Channel 36	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
Channel 64	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

Channel 100	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

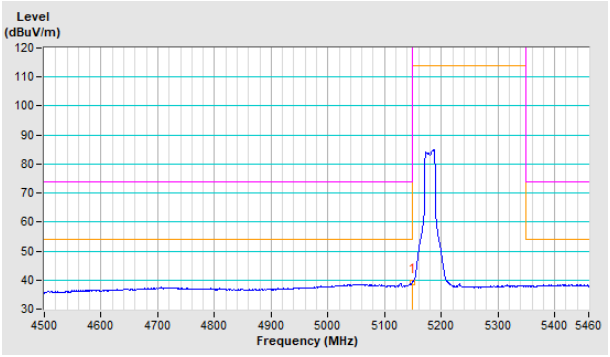
802.11n (HT20)

Channel 36

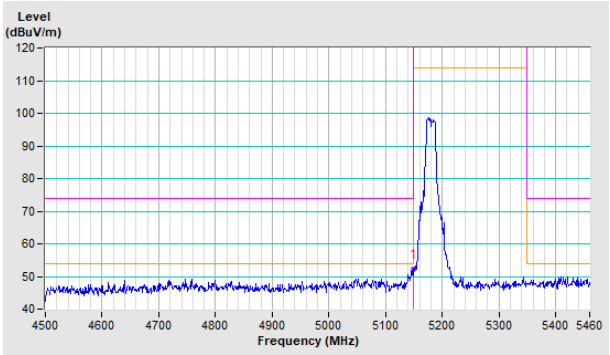
Horizontal (Peak)



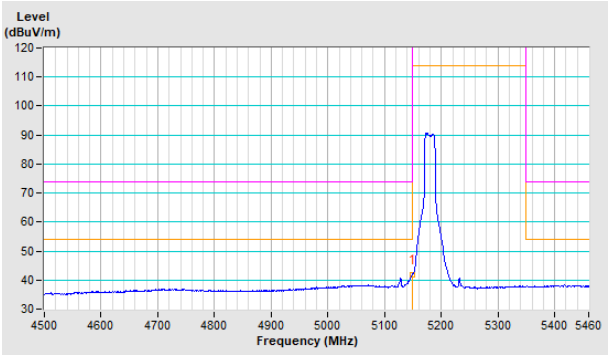
Horizontal (Average)



Vertical (Peak)

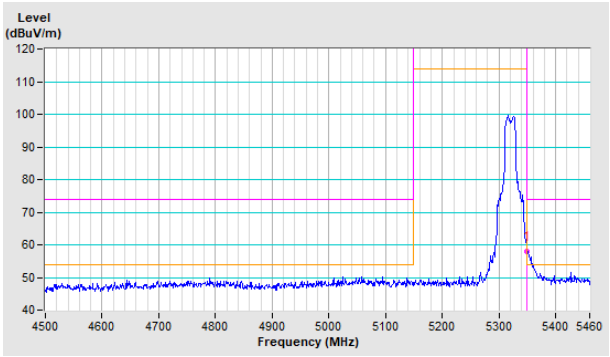


Vertical (Average)

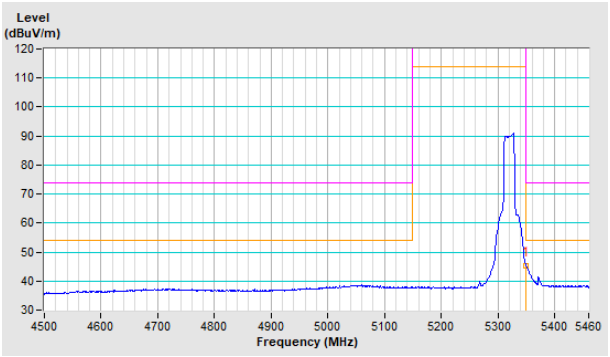


Channel 64

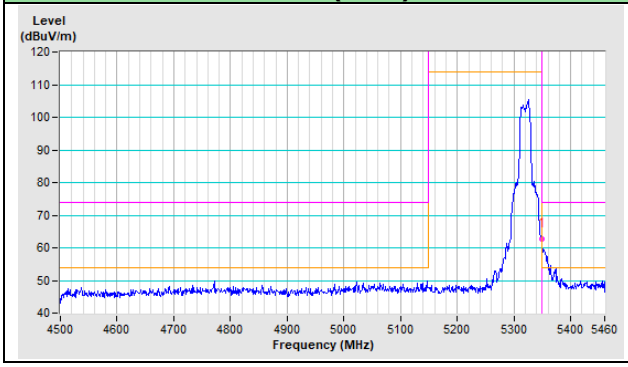
Horizontal (Peak)



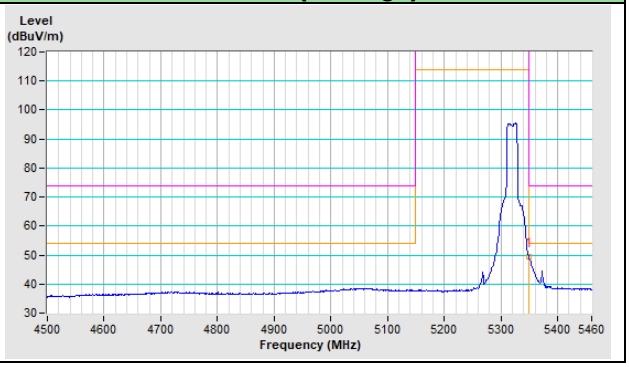
Horizontal (Average)

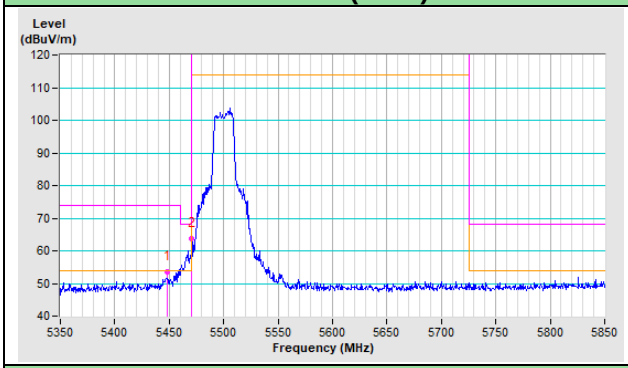
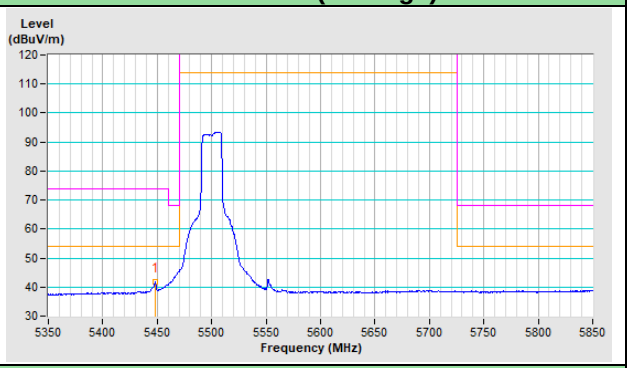
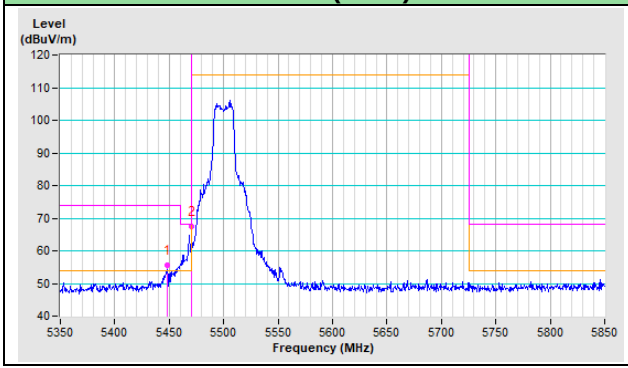
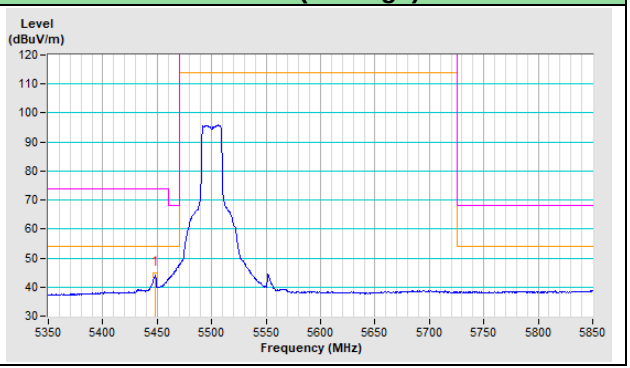


Vertical (Peak)



Vertical (Average)

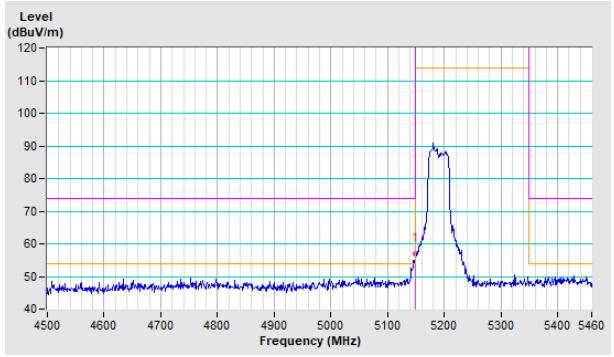


Channel 100	
Horizontal (Peak)	**Horizontal (Average)**
	
Vertical (Peak)	**Vertical (Average)**
	

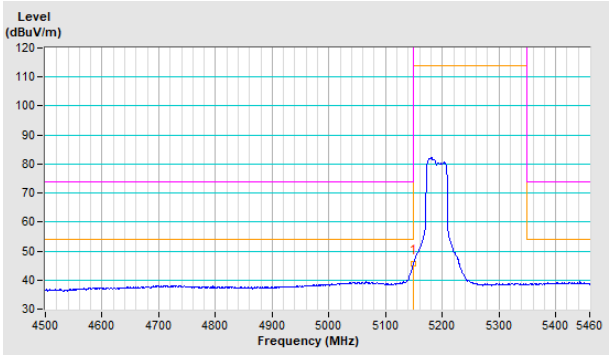
802.11n (HT40)

Channel 38

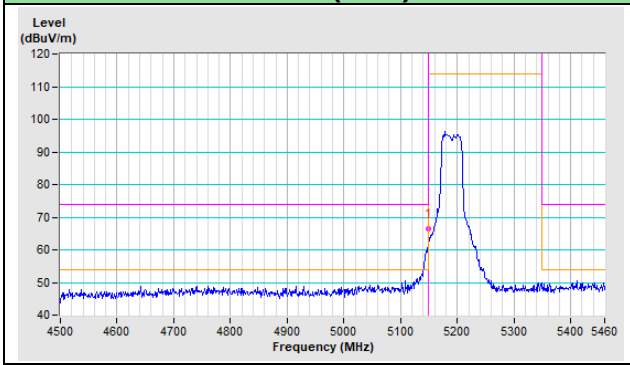
Horizontal (Peak)



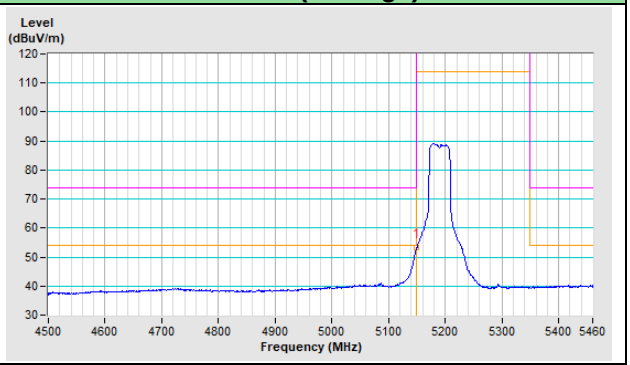
Horizontal (Average)



Vertical (Peak)

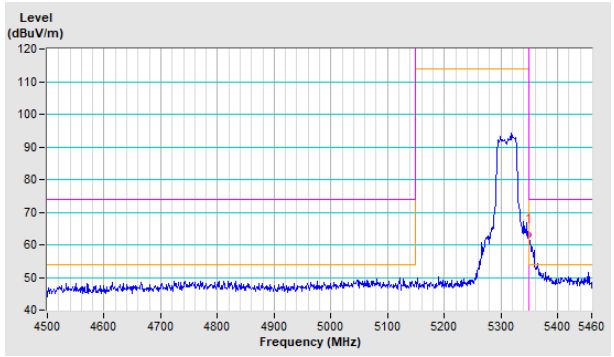


Vertical (Average)

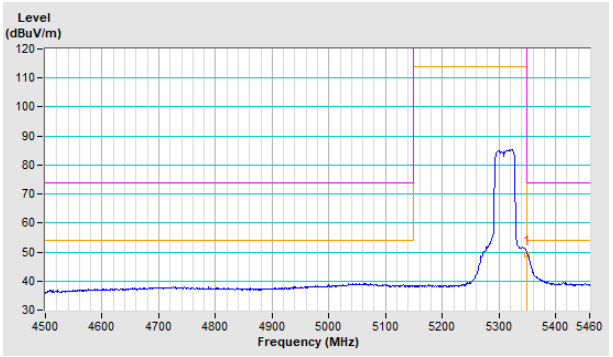


Channel 62

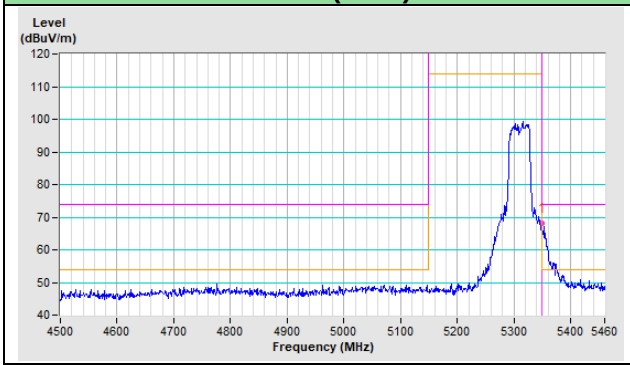
Horizontal (Peak)



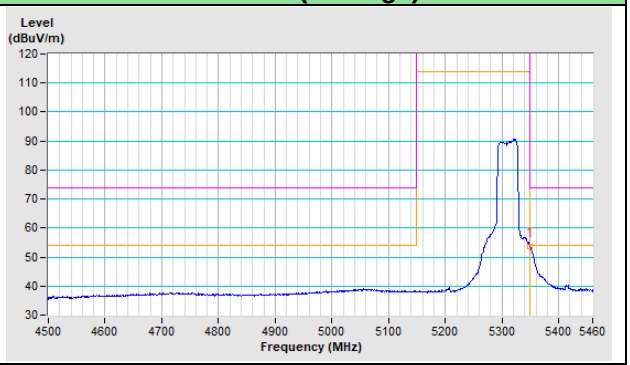
Horizontal (Average)

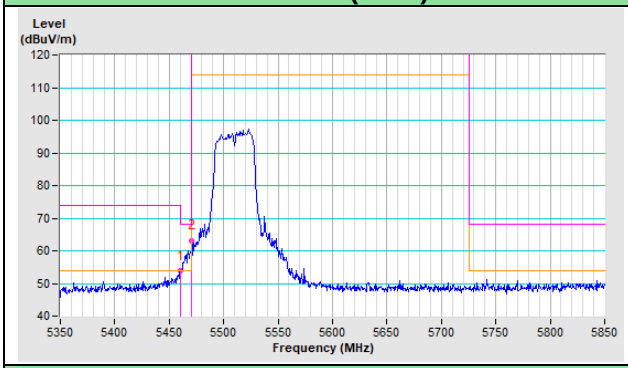
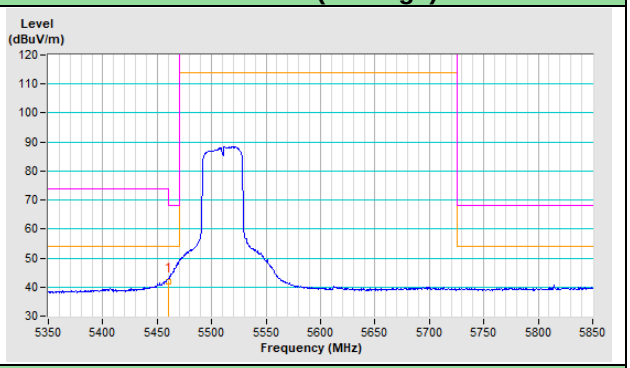
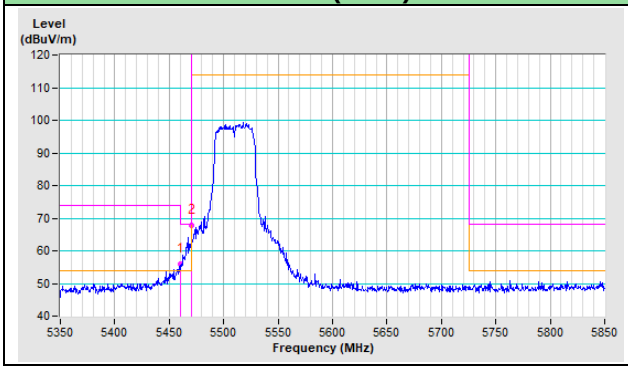
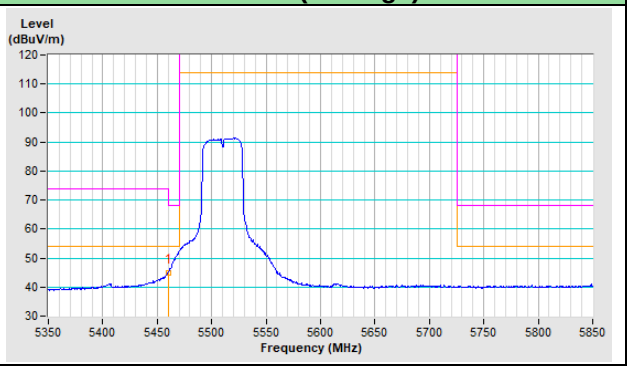


Vertical (Peak)



Vertical (Average)



Channel 102	
Horizontal (Peak)	**Horizontal (Average)**
	
Vertical (Peak)	**Vertical (Average)**
	

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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The address and road map of all our labs can be found in our web site also.

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