FCC Test Report

Report No.:	RF180521E10-1
FCC ID:	PY318200414
Test Model:	Jaguar
Received Date:	May 21, 2018
Test Date:	June 05 to July 17, 2018
Issued Date:	July 25, 2018
Applicant:	NETGEAR, Inc.
Address:	350 East Plumeria Drive San Jose, CA 95134
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 R.O.C.
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RF180521E10-1	Original release.	July 25, 2018

1 Certificate of Conformity

Product:	Nighthawk X12 Smart WiFi Router
Brand:	NETGEAR
Test Model:	Jaguar
Sample Status:	ENGINEERING SAMPLE
Applicant:	NETGEAR, Inc.
Test Date:	June 05 to July 17, 2018
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:** July 25, 2018

Wendy Wu / Specialist

Approved by : _____ , **Date:** July 25, 2018

May Chen / 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 -13.34dB at 0.15781MHz.
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 -0.1dB at 5150.00MHz, 5350.00MHz, 5733.00MHz, 5649.25MHz, 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.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.

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	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.33 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.10 dB
	6GHz ~ 18GHz	4.85 dB
	18GHz ~ 40GHz	5.24 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Nighthawk X12 Smart WiFi Router
Brand	NETGEAR
Test Model	Jaguar
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	19Vdc from adapter
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode and VHT (20/40) mode in 2.4GHz 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	DSSS,OFDM,OFDMA
Operating Frequency	**2.4GHz:** 2.412 ~ 2.462GHz **5GHz:** 5.18 ~ 5.24GHz, 5.26 ~ 5.32GHz, 5.5 ~ 5.7GHz, 5.745 ~ 5.825GHz
Number of Channel	**2.4GHz:** 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7 **5GHz:** 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 24 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 11 802.11ac (VHT80), 802.11ax (HE80): 5 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	**Non-Beamforming Mode:** **2.4GHz:** 998.128mW **5.18 ~ 5.24GHz:** 965.303mW **5.26 ~ 5.32GHz:** 245.567mW **5.5 ~ 5.7GHz:** 234.441mW **5.745 ~ 5.825GHz:** 944.853mW **Beamforming Mode:** **2.4GHz:** 988.657mW **5.18 ~ 5.24GHz:** 988.161mW **5.26 ~ 5.32GHz:** 248.698mW **5.5 ~ 5.7GHz:** 238.154mW **5.745 ~ 5.825GHz:** 946.94mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	RJ45 cable x 1 (unshielded, 1.8m)

Note:

1. Simultaneously transmission condition.

Condition	Technology	
1	WLAN (2.4GHz)	WLAN (5GHz)
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

2. The EUT must be supplied power adapter and following different models could be chosen as following table:

No.	Brand	Model No.	P/N	Spec.
1	NETGEAR	AD2003F10	332-10631-01	Input: 100-120Vac, 1.5A, 50/60Hz Output: 19V, 3.16A DC Output cable: Unshielded, 1.8m
2	NETGEAR	2ABS060K 1 NA	332-10788-01	Input: 100-120Vac, 1.7A, 50/60Hz Output: 19V, 3.16A DC Output cable: Unshielded, 1.8m
From the above adapters, the worse radiated emissions was found in Adapter 2. Therefore only the test data of the mode was recorded in this report.				

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

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	4.28	Dipole	i-pex(MHF)
5.15~5.25	5.56		
5.25~5.35	5.56		
5.47~5.725	6.22		
5.725~5.85	6.22		
Note: More detailed information, please refer to opearating description.			

4. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11b	4TX	4RX
802.11g	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
VHT20	4TX	4RX
VHT40	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
5GHz Band		
MODULATION MODE	**TX & RX CONFIGURATION**	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ac (VHT160)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX
802.11ax (HE160)	4TX	4RX

Note:
1. All of modulation mode support beamforming function except 802.11a/b/g modulation mode.
2. The EUT support Beamforming and non-beamforming mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz), 802.11ac mode for 20MHz (40MHz, 80MHz, 160MHz) and 802.11ax mode for 20MHz (40MHz, 80MHz, 160MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (VHT80):

Channel	Frequency
42	5210 MHz

FOR 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
58	5290 MHz

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
50	5250 MHz

FOR 5500 ~ 5700MHz

11 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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		

5 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

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

2 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
114	5570 MHz

FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
155	5775 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
1	√	√	√	√	With adapter: 2ABS060K 1 NA
2	-	-	√	-	With adapter: AD2003F10

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.

Non-Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6Mb/s
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6Mb/s
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE20)	5180-5240	36 to 48	36, 40, 48	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 46	38, 46	OFDMA	BPSK	MCS0
802.11ax (HE80)		42	42	OFDMA	BPSK	MCS0
802.11ax (HE20)	5260-5320	52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ax (HE20)	5500-5700	100 to 140	100, 116, 140	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 134	102, 110, 134	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 122	106, 122	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11ax (HE20)	5745-5825	149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0

Radiated Emission Test (Below 1GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE40)	5180-5240 5260-5320 5500-5700 5745-5825	38 to 46 54 to 62 102 to 134 151 to 159	151	OFDMA	BPSK	MCS0

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE40)	5180-5240 5260-5320 5500-5700 5745-5825	38 to 46 54 to 62 102 to 134 151 to 159	151	OFDMA	BPSK	MCS0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

Non-Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6Mb/s
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6Mb/s
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
Beamforming Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ax (HE20)	5180-5240	36 to 48	36, 40, 48	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 46	38, 46	OFDMA	BPSK	MCS0
802.11ax (HE80)		42	42	OFDMA	BPSK	MCS0
802.11ax (HE20)	5260-5320	52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ax (HE20)	5500-5700	100 to 140	100, 116, 140	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 134	102, 110, 134	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 122	106, 122	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11ax (HE20)	5745-5825	149 to 165	149, 157, 165	OFDMA	BPSK	MCS0
802.11ax (HE40)		151 to 159	151, 159	OFDMA	BPSK	MCS0
802.11ax (HE80)		155	155	OFDMA	BPSK	MCS0
Beamforming Mode (Out power only)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate Parameter**
802.11ac (VHT20)	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	MCS0
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	MCS0
802.11ac (VHT80)		42	42	OFDM	BPSK	MCS0
802.11ac (VHT20)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80)		58	58	OFDM	BPSK	MCS0
802.11ac (VHT160)		50	50	OFDM	BPSK	MCS0
802.11ac (VHT20)	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	MCS0
802.11ac (VHT40)		102 to 134	102, 110, 134	OFDM	BPSK	MCS0
802.11ac (VHT80)		106 to 122	106, 122	OFDM	BPSK	MCS0
802.11ac (VHT160)		114	114	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80)		155	155	OFDM	BPSK	MCS0

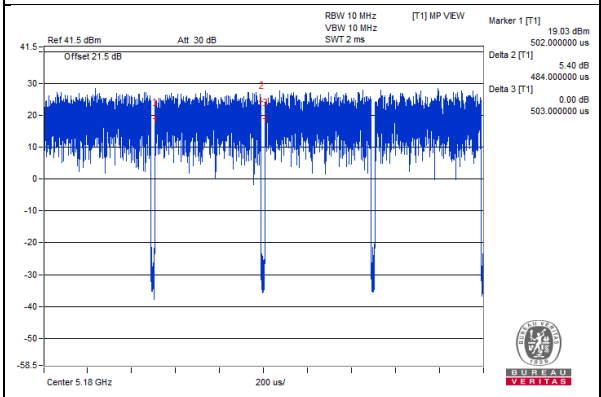
Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	21deg. C, 64%RH	120Vac, 60Hz	Eason Tseng
RE<1G	22deg. C, 65%RH	120Vac, 60Hz	Robert Cheng
PLC	25deg. C, 75%RH	120Vac, 60Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

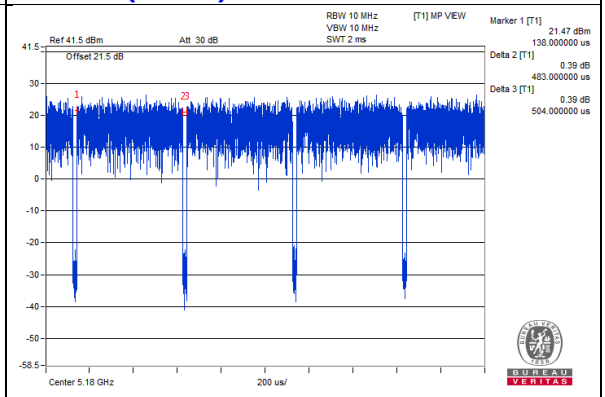
3.3 Duty Cycle of Test Signal

If duty cycle of test signal is ≥ 98 %, duty factor is not required.
If duty cycle of test signal is < 98%, duty factor shall be considered.
802.11a: Duty cycle = 0.484 ms/0.503 ms = 0.962, Duty factor = 10 * log(1/0.962) = 0.17
802.11ac (VHT20): Duty cycle = 0.483 ms/0.504 ms = 0.958, Duty factor = 10 * log(1/0.958) = 0.18
802.11ac (VHT40): Duty cycle = 0.255 ms/0.275 ms = 0.927, Duty factor = 10 * log(1/0.927) = 0.33
802.11ac (VHT80): Duty cycle = 0.427 ms/0.491 ms = 0.961, Duty factor = 10 * log(1/0.961) = 0.17
802.11ac (VHT160): Duty cycle = 0.052 ms/0.071 ms = 0.732, Duty factor = 10 * log(1/0.732) = 1.35

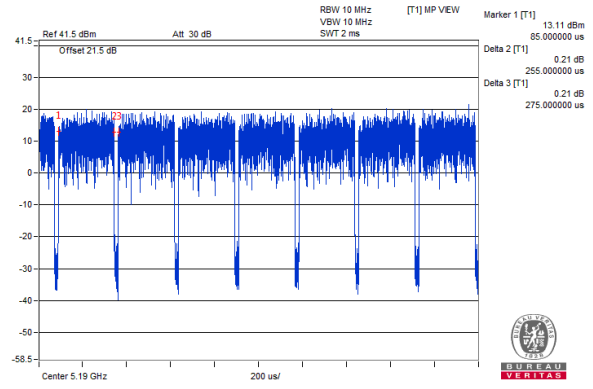
802.11a



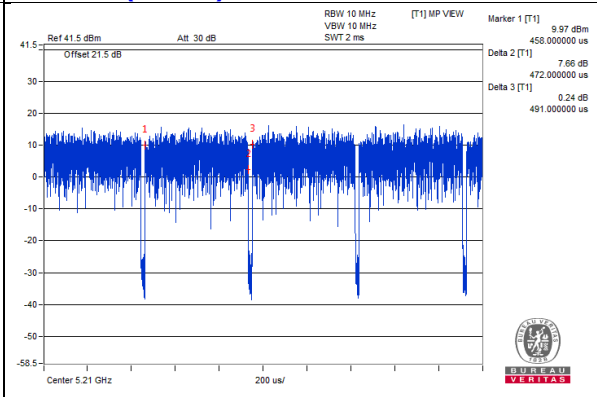
802.11ac (VHT20)



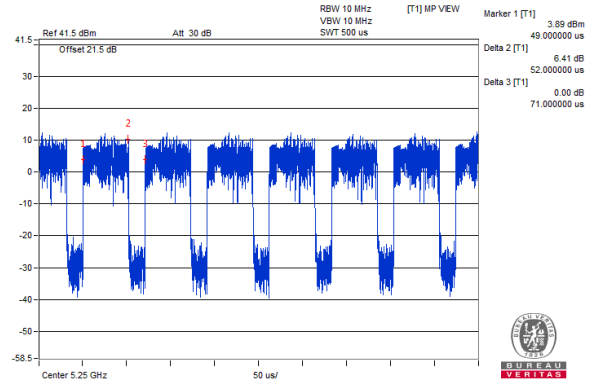
802.11ac (VHT40)



802.11ac (VHT80)

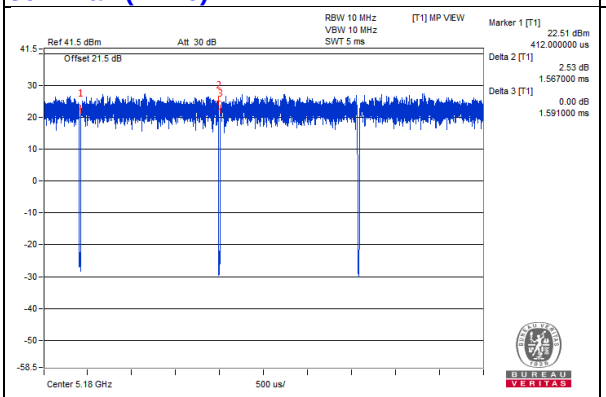


802.11ac (VHT160)

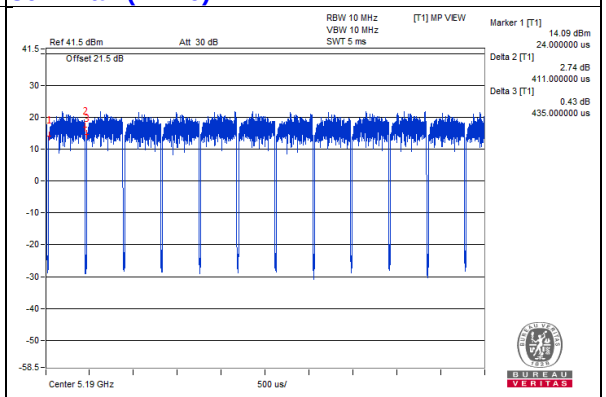


802.11ax (HE20): Duty cycle = 1.567 ms/1.591 ms = 0.985
802.11ax (HE40): Duty cycle = 0.411 ms/0.435 ms = 0.945, Duty factor = 10 * log(1/0.945) = 0.25
802.11ax (HE80): Duty cycle = 0.231 ms/0.252 ms = 0.917, Duty factor = 10 * log(1/0.917) = 0.38
802.11ax (HE160): Duty cycle = 0.052 ms/0.071 ms = 0.732, Duty factor = 10 * log(1/0.732) = 1.35

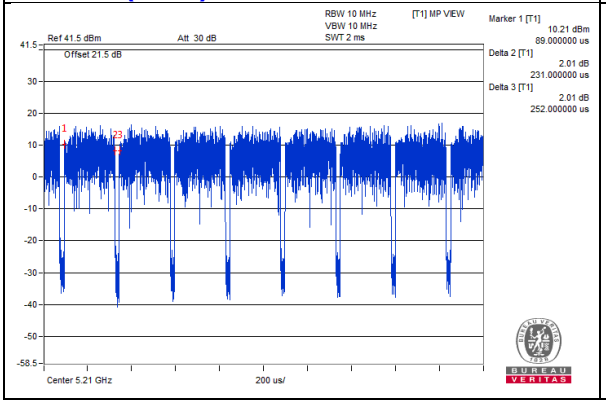
802.11ax (HE20)



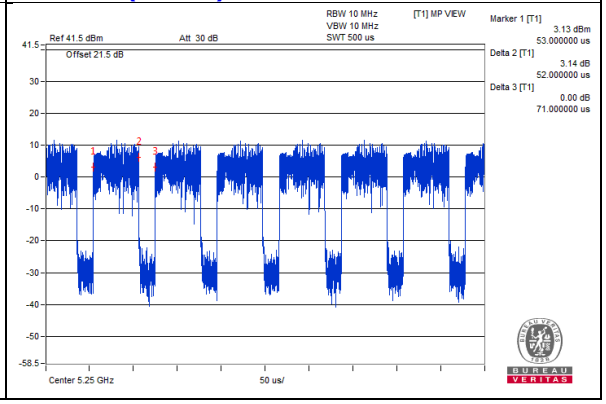
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



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.

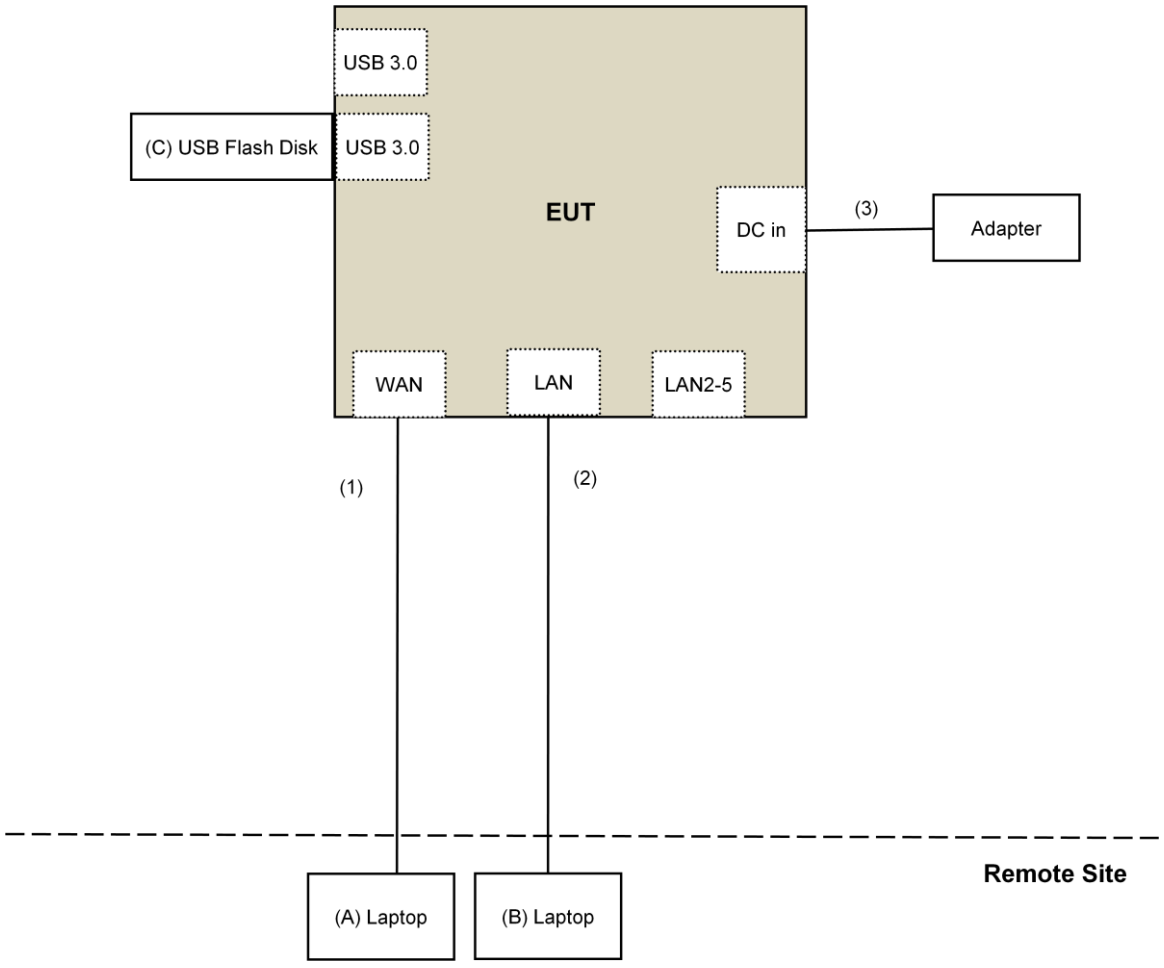
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
C.	USB Disk	Transcend	16GB	NA	NA	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ-45 Cable	1	10	No	0	Provided by Lab
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	DC Cable	1	1.8	No	0	Supplied by client

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standard

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

FCC Part 15, Subpart E (15.407)
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

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

<table>
<tr><td colspan="2">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="2" rowspan="2">789033 D02 General UNII Test Procedure New Rules v02r01</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK:74 (dBμV/m)</td><td>AV:54 (dBμV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK:-27 (dBm/MHz)</td><td rowspan="3">PK:68.2(dBμV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☒</td><td>15.407(b)(4)(i)</td><td>PK:-27 (dBm/MHz) *1
PK:10 (dBm/MHz) *2
PK:15.6 (dBm/MHz) *3
PK:27 (dBm/MHz) *4</td><td>PK: 68.2(dBμV/m) *1
PK:105.2 (dBμV/m) *2
PK: 110.8(dBμV/m) *3
PK:122.2 (dBμV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="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.</td></tr>
</table>

Note:

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

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

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 05, 2018	July 04, 2019
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001	Jan. 15, 2018	Jan. 14, 2019
RF Cable	NA	LOOPCAB-002	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 09, 2017	Nov. 08, 2018
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-4-1	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-2	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-3	Mar. 21, 2018	Mar. 20, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 03, 2017	Oct. 02, 2018
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Dec. 12, 2017	Dec. 11, 2018
Pre-Amplifier EMCI	EMC12630SE	980385	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-1200	160923	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-2000	150318	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-5000	150321	Jan. 29, 2018	Jan. 28, 2019
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 29, 2018	Jan. 28, 2019
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 14, 2017	Dec. 13, 2018
RF Cable	EMC102-KM-KM-1200	160925	Jan. 29, 2018	Jan. 28, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Spectrum Analyzer Agilent	E4446A	MY48250254	Nov. 21, 2017	Nov. 20, 2018
Power meter Anritsu	ML2495A	1014008	May 09, 2018	May 08, 2019
Power sensor Anritsu	MA2411B	0917122	May 09, 2018	May 08, 2019
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 10, 2018	Jan. 09, 2019
True RMS Clamp Meter FLUKE	325	31130711WS	May 22, 2018	May 21, 2019

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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 4.
4. The CANADA Site Registration No. is 20331-2
5. Loop antenna was used for all emissions below 30 MHz.
6. Tested Date: July 09 to 17, 2018

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:

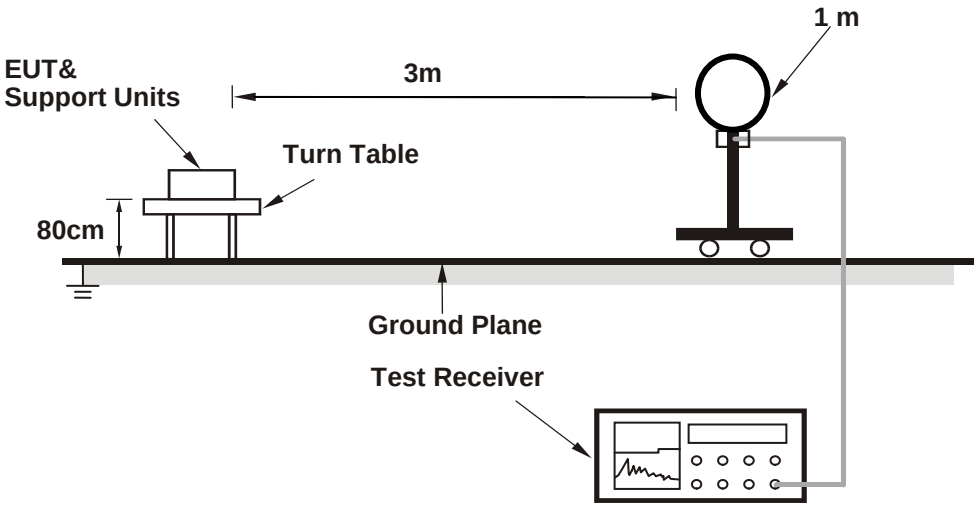
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

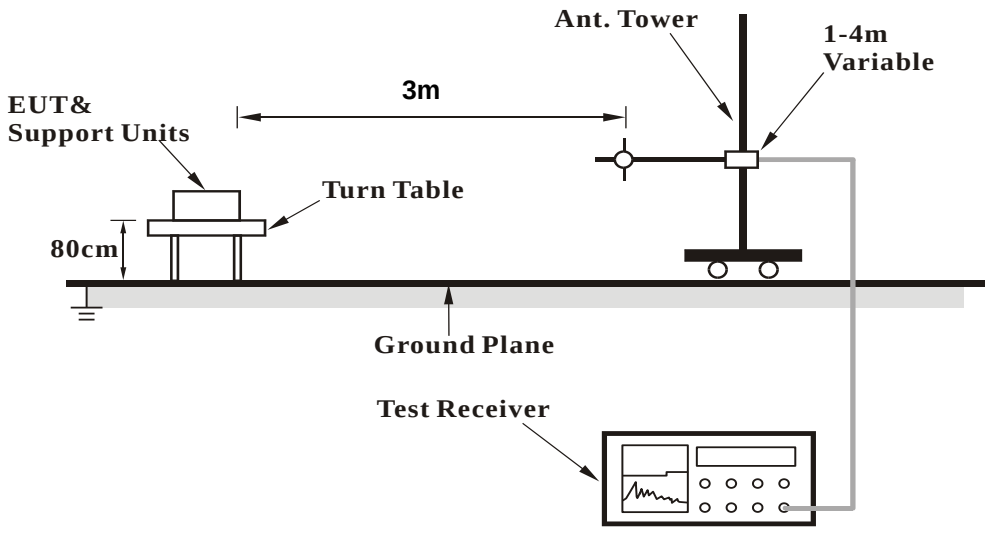
No deviation.

4.1.5 Test Setup

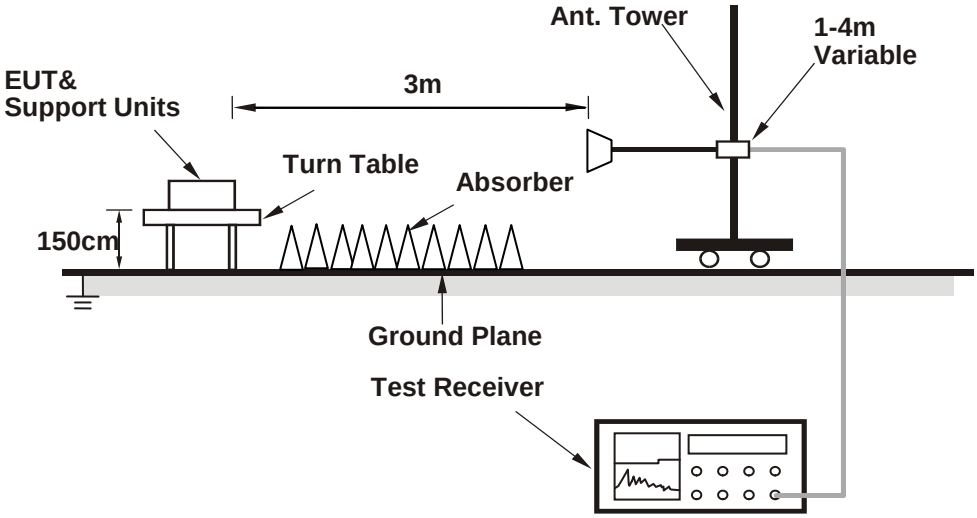
For Radiated emission below 30MHz



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. Connected the EUT with the Notebook Computer which is placed on remote site.
b. Controlling software (Mtool_3.0.0.8) has been activated to set the EUT on specific status.

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.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.9 PK	74.0	-5.1	1.55 H	119	65.9	3.0
2	5150.00	48.7 AV	54.0	-5.3	1.55 H	119	45.7	3.0
3	*5180.00	114.6 PK			1.55 H	119	111.8	2.8
4	*5180.00	104.4 AV			1.55 H	119	101.6	2.8
5	#10360.00	40.8 PK	74.0	-33.2	1.36 H	91	28.4	12.4
6	#10360.00	31.1 AV	54.0	-22.9	1.36 H	91	18.7	12.4
7	15540.00	41.7 PK	74.0	-32.3	1.61 H	237	28.9	12.8
8	15540.00	31.9 AV	54.0	-22.1	1.61 H	237	19.1	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	**5150.00**	**73.9 PK**	**74.0**	**-0.1**	**1.70 V**	**15**	**70.9**	**3.0**
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.70 V**	**15**	**50.9**	**3.0**
3	*5180.00	122.1 PK			1.70 V	15	119.3	2.8
4	*5180.00	112.5 AV			1.70 V	15	109.7	2.8
5	#10360.00	40.9 PK	74.0	-33.1	2.22 V	80	28.5	12.4
6	#10360.00	31.7 AV	54.0	-22.3	2.22 V	80	19.3	12.4
7	15540.00	41.2 PK	74.0	-32.8	1.57 V	319	28.4	12.8
8	15540.00	32.5 AV	54.0	-21.5	1.57 V	319	19.7	12.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	115.4 PK			1.51 H	127	112.7	2.7
2	*5200.00	105.9 AV			1.51 H	127	103.2	2.7
3	#10400.00	41.0 PK	74.0	-33.0	1.37 H	90	28.5	12.5
4	#10400.00	31.3 AV	54.0	-22.7	1.37 H	90	18.8	12.5
5	15600.00	41.9 PK	74.0	-32.1	1.59 H	235	29.1	12.8
6	15600.00	32.1 AV	54.0	-21.9	1.59 H	235	19.3	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	123.4 PK			1.91 V	187	120.7	2.7
2	*5200.00	113.2 AV			1.91 V	187	110.5	2.7
3	#10400.00	41.1 PK	74.0	-32.9	2.17 V	75	28.6	12.5
4	#10400.00	31.8 AV	54.0	-22.2	2.17 V	75	19.3	12.5
5	15600.00	42.0 PK	74.0	-32.0	1.54 V	325	29.2	12.8
6	15600.00	32.4 AV	54.0	-21.6	1.54 V	325	19.6	12.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	115.1 PK			1.57 H	134	112.6	2.5
2	*5240.00	105.7 AV			1.57 H	134	103.2	2.5
3	5350.00	55.8 PK	74.0	-18.2	1.57 H	134	53.2	2.6
4	5350.00	41.4 AV	54.0	-12.6	1.57 H	134	38.8	2.6
5	#10480.00	40.9 PK	74.0	-33.1	1.40 H	87	27.9	13.0
6	#10480.00	31.2 AV	54.0	-22.8	1.40 H	87	18.2	13.0
7	15720.00	41.7 PK	74.0	-32.3	1.52 H	221	29.3	12.4
8	15720.00	32.0 AV	54.0	-22.0	1.52 H	221	19.6	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	123.2 PK			1.52 V	4	120.7	2.5
2	*5240.00	113.1 AV			1.52 V	4	110.6	2.5
3	5350.00	60.1 PK	74.0	-13.9	1.52 V	4	57.5	2.6
4	5350.00	46.9 AV	54.0	-7.1	1.52 V	4	44.3	2.6
5	#10480.00	41.5 PK	74.0	-32.5	2.17 V	64	28.5	13.0
6	#10480.00	31.5 AV	54.0	-22.5	2.17 V	64	18.5	13.0
7	15720.00	42.3 PK	74.0	-31.7	1.50 V	318	29.9	12.4
8	15720.00	31.3 AV	54.0	-22.7	1.50 V	318	18.9	12.4

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.1 PK	74.0	-22.9	1.52 H	127	48.1	3.0
2	5150.00	38.7 AV	54.0	-15.3	1.52 H	127	35.7	3.0
3	*5260.00	109.2 PK			1.52 H	127	106.8	2.4
4	*5260.00	99.2 AV			1.52 H	127	96.8	2.4
5	#10520.00	40.0 PK	74.0	-34.0	1.35 H	102	27.1	12.9
6	#10520.00	30.5 AV	54.0	-23.5	1.35 H	102	17.6	12.9
7	15780.00	41.0 PK	74.0	-33.0	1.58 H	237	28.5	12.5
8	15780.00	31.5 AV	54.0	-22.5	1.58 H	237	19.0	12.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.7 PK	74.0	-17.3	1.88 V	17	53.7	3.0
2	5150.00	43.2 AV	54.0	-10.8	1.88 V	17	40.2	3.0
3	*5260.00	116.4 PK			1.86 V	11	114.0	2.4
4	*5260.00	107.3 AV			1.86 V	11	104.9	2.4
5	#10520.00	40.4 PK	74.0	-33.6	2.19 V	85	27.5	12.9
6	#10520.00	30.9 AV	54.0	-23.1	2.19 V	85	18.0	12.9
7	15780.00	41.4 PK	74.0	-32.6	1.50 V	342	28.9	12.5
8	15780.00	31.5 AV	54.0	-22.5	1.50 V	342	19.0	12.5

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	109.4 PK			1.55 H	141	106.9	2.5
2	*5300.00	99.6 AV			1.55 H	141	97.1	2.5
3	10600.00	40.2 PK	74.0	-33.8	1.33 H	97	27.8	12.4
4	10600.00	30.8 AV	54.0	-23.2	1.33 H	97	18.4	12.4
5	15900.00	41.2 PK	74.0	-32.8	1.59 H	227	28.9	12.3
6	15900.00	31.4 AV	54.0	-22.6	1.59 H	227	19.1	12.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	116.7 PK			1.92 V	22	114.2	2.5
2	*5300.00	107.8 AV			1.92 V	22	105.3	2.5
3	10600.00	40.5 PK	74.0	-33.5	2.13 V	77	28.1	12.4
4	10600.00	31.2 AV	54.0	-22.8	2.13 V	77	18.8	12.4
5	15900.00	41.6 PK	74.0	-32.4	1.49 V	337	29.3	12.3
6	15900.00	31.7 AV	54.0	-22.3	1.49 V	337	19.4	12.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.4 PK			1.54 H	135	105.9	2.5
2	*5320.00	99.4 AV			1.54 H	135	96.9	2.5
3	5350.00	51.6 PK	74.0	-22.4	1.54 H	135	49.0	2.6
4	5350.00	38.9 AV	54.0	-15.1	1.54 H	135	36.3	2.6
5	10640.00	38.2 PK	74.0	-35.8	1.36 H	93	25.6	12.6
6	10640.00	30.4 AV	54.0	-23.6	1.36 H	93	17.8	12.6
7	15960.00	40.9 PK	74.0	-33.1	1.54 H	221	28.4	12.5
8	15960.00	31.2 AV	54.0	-22.8	1.54 H	221	18.7	12.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.9 PK			1.97 V	38	114.4	2.5
2	*5320.00	107.4 AV			1.97 V	38	104.9	2.5
3	5350.00	56.6 PK	74.0	-17.4	1.90 V	24	54.0	2.6
4	5350.00	43.3 AV	54.0	-10.7	1.90 V	24	40.7	2.6
5	10640.00	40.3 PK	74.0	-33.7	2.08 V	81	27.7	12.6
6	10640.00	31.0 AV	54.0	-23.0	2.08 V	81	18.4	12.6
7	15960.00	41.3 PK	74.0	-32.7	1.51 V	353	28.8	12.5
8	15960.00	31.4 AV	54.0	-22.6	1.51 V	353	18.9	12.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	62.1 PK	74.0	-11.9	1.52 H	118	59.2	2.9
2	#5470.00	42.4 AV	54.0	-11.6	1.52 H	118	39.5	2.9
3	*5500.00	109.1 PK			1.52 H	118	106.2	2.9
4	*5500.00	99.4 AV			1.52 H	118	96.5	2.9
5	11000.00	38.6 PK	74.0	-35.4	1.36 H	99	25.4	13.2
6	11000.00	30.5 AV	54.0	-23.5	1.36 H	99	17.3	13.2
7	#16500.00	41.1 PK	74.0	-32.9	1.58 H	219	26.1	15.0
8	#16500.00	31.7 AV	54.0	-22.3	1.58 H	219	16.7	15.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	67.3 PK	74.0	-6.7	1.55 V	175	64.4	2.9
2	#5470.00	47.4 AV	54.0	-6.6	1.55 V	175	44.5	2.9
3	*5500.00	116.1 PK			1.95 V	8	113.2	2.9
4	*5500.00	107.8 AV			1.95 V	8	104.9	2.9
5	11000.00	39.7 PK	74.0	-34.3	2.11 V	91	26.5	13.2
6	11000.00	30.7 AV	54.0	-23.3	2.11 V	91	17.5	13.2
7	#16500.00	41.7 PK	74.0	-32.3	1.50 V	324	26.7	15.0
8	#16500.00	31.8 AV	54.0	-22.2	1.50 V	324	16.8	15.0

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.3 PK			1.52 H	123	106.1	3.2
2	*5580.00	99.8 AV			1.52 H	123	96.6	3.2
3	11160.00	38.4 PK	74.0	-35.6	1.32 H	108	25.3	13.1
4	11160.00	30.3 AV	54.0	-23.7	1.32 H	108	17.2	13.1
5	#16740.00	41.2 PK	74.0	-32.8	1.56 H	207	24.8	16.4
6	#16740.00	31.1 AV	54.0	-22.9	1.56 H	207	14.7	16.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	116.9 PK			1.89 V	31	113.7	3.2
2	*5580.00	107.7 AV			1.89 V	31	104.5	3.2
3	11160.00	40.9 PK	74.0	-33.1	2.15 V	91	27.8	13.1
4	11160.00	31.4 AV	54.0	-22.6	2.15 V	91	18.3	13.1
5	#16740.00	41.5 PK	74.0	-32.5	1.52 V	330	25.1	16.4
6	#16740.00	31.8 AV	54.0	-22.2	1.52 V	330	15.4	16.4

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.6 PK			1.53 H	134	105.2	3.4
2	*5700.00	99.3 AV			1.53 H	134	95.9	3.4
3	#5725.00	62.3 PK	74.0	-11.7	1.53 H	134	59.0	3.3
4	#5725.00	42.3 AV	54.0	-11.7	1.53 H	134	39.0	3.3
5	11400.00	38.8 PK	74.0	-35.2	1.28 H	93	25.3	13.5
6	11400.00	30.7 AV	54.0	-23.3	1.28 H	93	17.2	13.5
7	#17100.00	40.7 PK	74.0	-33.3	1.58 H	215	24.6	16.1
8	#17100.00	30.7 AV	54.0	-23.3	1.58 H	215	14.6	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.5 PK			1.97 V	0	113.1	3.4
2	*5700.00	107.6 AV			1.97 V	0	104.2	3.4
3	#5725.00	67.6 PK	74.0	-6.4	1.54 V	165	64.3	3.3
4	#5725.00	47.8 AV	54.0	-6.2	1.54 V	165	44.5	3.3
5	11400.00	40.2 PK	74.0	-33.8	2.07 V	96	26.7	13.5
6	11400.00	30.6 AV	54.0	-23.4	2.07 V	96	17.1	13.5
7	#17100.00	41.7 PK	74.0	-32.3	1.49 V	312	25.6	16.1
8	#17100.00	31.6 AV	54.0	-22.4	1.49 V	312	15.5	16.1

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5614.58	58.5 PK	68.2	-9.7	2.09 H	170	55.2	3.3
2	*5745.00	115.5 PK			1.52 H	137	112.2	3.3
3	*5745.00	106.1 AV			1.52 H	137	102.8	3.3
4	#5990.61	55.8 PK	68.2	-12.4	2.09 H	170	52.1	3.7
5	11490.00	40.9 PK	74.0	-33.1	1.33 H	86	27.5	13.4
6	11490.00	31.2 AV	54.0	-22.8	1.33 H	86	17.8	13.4
7	#17235.00	41.9 PK	74.0	-32.1	1.58 H	232	25.2	16.7
8	#17235.00	32.0 AV	54.0	-22.0	1.58 H	232	15.3	16.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5643.22	61.5 PK	68.2	-6.7	1.54 V	175	57.2	4.3
2	*5745.00	123.0 PK			1.92 V	181	119.7	3.3
3	*5745.00	113.1 AV			1.92 V	181	109.8	3.3
4	#5952.28	58.0 PK	68.2	-10.2	1.54 V	175	53.4	4.6
5	11490.00	41.6 PK	74.0	-32.4	2.14 V	81	28.2	13.4
6	11490.00	32.0 AV	54.0	-22.0	2.14 V	81	18.6	13.4
7	#17235.00	42.3 PK	74.0	-31.7	1.50 V	339	25.6	16.7
8	#17235.00	32.6 AV	54.0	-21.4	1.50 V	339	15.9	16.7

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5643.69	58.2 PK	68.2	-10.0	1.86 H	171	55.0	3.2
2	*5785.00	115.6 PK			1.49 H	136	112.3	3.3
3	*5785.00	106.3 AV			1.49 H	136	103.0	3.3
4	#5966.06	55.0 PK	68.2	-13.2	1.86 H	171	51.5	3.5
5	11570.00	41.0 PK	74.0	-33.0	1.40 H	78	27.6	13.4
6	11570.00	31.3 AV	54.0	-22.7	1.40 H	78	17.9	13.4
7	#17355.00	41.7 PK	74.0	-32.3	1.59 H	237	24.4	17.3
8	#17355.00	32.1 AV	54.0	-21.9	1.59 H	237	14.8	17.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5611.88	61.0 PK	68.2	-7.2	1.56 V	189	57.7	3.3
2	*5785.00	123.8 PK			1.90 V	186	120.5	3.3
3	*5785.00	113.3 AV			1.90 V	186	110.0	3.3
4	#5950.75	58.2 PK	68.2	-10.0	1.56 V	189	54.7	3.5
5	11570.00	41.9 PK	74.0	-32.1	2.19 V	87	28.5	13.4
6	11570.00	32.2 AV	54.0	-21.8	2.19 V	87	18.8	13.4
7	#17355.00	42.5 PK	74.0	-31.5	1.56 V	335	25.2	17.3
8	#17355.00	32.7 AV	54.0	-21.3	1.56 V	335	15.4	17.3

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5574.45	58.2 PK	68.2	-10.0	2.06 H	171	55.0	3.2
2	*5825.00	115.3 PK			1.50 H	134	111.8	3.5
3	*5825.00	106.1 AV			1.50 H	134	102.6	3.5
4	#5964.86	55.6 PK	68.2	-12.6	2.06 H	171	52.1	3.5
5	11650.00	40.4 PK	74.0	-33.6	1.32 H	76	27.1	13.3
6	11650.00	31.0 AV	54.0	-23.0	1.32 H	76	17.7	13.3
7	#17475.00	41.3 PK	74.0	-32.7	1.59 H	236	23.1	18.2
8	#17475.00	31.8 AV	54.0	-22.2	1.59 H	236	13.6	18.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.52	60.4 PK	68.2	-7.8	1.69 V	177	56.1	4.3
2	*5825.00	123.3 PK			1.84 V	187	119.8	3.5
3	*5825.00	113.0 AV			1.84 V	187	109.5	3.5
4	#5932.09	60.2 PK	68.2	-8.0	1.69 V	177	55.6	4.6
5	11650.00	42.1 PK	74.0	-31.9	2.15 V	101	28.8	13.3
6	11650.00	32.6 AV	54.0	-21.4	2.15 V	101	19.3	13.3
7	#17475.00	42.6 PK	74.0	-31.4	1.55 V	336	24.4	18.2
8	#17475.00	32.8 AV	54.0	-21.2	1.55 V	336	14.6	18.2

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

802.11ax (HE20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.3 PK	74.0	-11.7	1.42 H	131	59.3	3.0
2	5150.00	47.5 AV	54.0	-6.5	1.42 H	131	44.5	3.0
3	*5180.00	114.6 PK			1.42 H	131	111.8	2.8
4	*5180.00	102.7 AV			1.42 H	131	99.9	2.8
5	#10360.00	40.2 PK	74.0	-33.8	1.41 H	119	27.8	12.4
6	#10360.00	31.9 AV	54.0	-22.1	1.41 H	119	19.5	12.4
7	15540.00	40.3 PK	74.0	-33.7	1.66 H	205	27.5	12.8
8	15540.00	32.2 AV	54.0	-21.8	1.66 H	205	19.4	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.9 PK	74.0	-7.1	2.45 V	7	63.9	3.0
2	5150.00	53.8 AV	54.0	-0.2	2.45 V	7	50.8	3.0
3	*5180.00	120.5 PK			2.45 V	7	117.7	2.8
4	*5180.00	111.3 AV			2.45 V	7	108.5	2.8
5	#10360.00	43.3 PK	74.0	-30.7	2.12 V	75	30.9	12.4
6	#10360.00	32.5 AV	54.0	-21.5	2.12 V	75	20.1	12.4
7	15540.00	45.1 PK	74.0	-28.9	1.50 V	344	32.3	12.8
8	15540.00	34.0 AV	54.0	-20.0	1.50 V	344	21.2	12.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	117.3 PK			1.36 H	122	114.6	2.7
2	*5200.00	105.3 AV			1.36 H	122	102.6	2.7
3	#10400.00	40.1 PK	74.0	-33.9	1.42 H	106	27.6	12.5
4	#10400.00	32.1 AV	54.0	-21.9	1.42 H	106	19.6	12.5
5	15600.00	40.3 PK	74.0	-33.7	1.65 H	206	27.5	12.8
6	15600.00	32.0 AV	54.0	-22.0	1.65 H	206	19.2	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	123.7 PK			1.86 V	198	121.0	2.7
2	*5200.00	113.7 AV			1.86 V	198	111.0	2.7
3	#10400.00	43.1 PK	74.0	-30.9	2.10 V	91	30.6	12.5
4	#10400.00	32.4 AV	54.0	-21.6	2.10 V	91	19.9	12.5
5	15600.00	44.6 PK	74.0	-29.4	1.53 V	340	31.8	12.8
6	15600.00	33.5 AV	54.0	-20.5	1.53 V	340	20.7	12.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	117.4 PK			1.47 H	135	114.9	2.5
2	*5240.00	105.6 AV			1.47 H	135	103.1	2.5
3	5350.00	51.1 PK	74.0	-22.9	1.47 H	135	48.5	2.6
4	5350.00	38.0 AV	54.0	-16.0	1.47 H	135	35.4	2.6
5	#10480.00	40.3 PK	74.0	-33.7	1.43 H	121	27.3	13.0
6	#10480.00	32.1 AV	54.0	-21.9	1.43 H	121	19.1	13.0
7	15720.00	41.0 PK	74.0	-33.0	1.66 H	233	28.6	12.4
8	15720.00	32.7 AV	54.0	-21.3	1.66 H	233	20.3	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	123.4 PK			1.52 V	174	120.9	2.5
2	*5240.00	113.5 AV			1.52 V	174	111.0	2.5
3	5350.00	60.6 PK	74.0	-13.4	1.52 V	174	58.0	2.6
4	5350.00	46.1 AV	54.0	-7.9	1.52 V	174	43.5	2.6
5	#10480.00	42.9 PK	74.0	-31.1	2.14 V	77	29.9	13.0
6	#10480.00	32.3 AV	54.0	-21.7	2.14 V	77	19.3	13.0
7	15720.00	44.5 PK	74.0	-29.5	1.56 V	336	32.1	12.4
8	15720.00	33.2 AV	54.0	-20.8	1.56 V	336	20.8	12.4

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	51.1 PK	74.0	-22.9	1.43 H	138	48.1	3.0
2	5150.00	38.0 AV	54.0	-16.0	1.43 H	138	35.0	3.0
3	*5260.00	110.2 PK			1.43 H	138	107.8	2.4
4	*5260.00	100.1 AV			1.43 H	138	97.7	2.4
5	#10520.00	40.2 PK	74.0	-33.8	1.32 H	118	27.3	12.9
6	#10520.00	32.0 AV	54.0	-22.0	1.32 H	118	19.1	12.9
7	15780.00	40.9 PK	74.0	-33.1	1.56 H	235	28.4	12.5
8	15780.00	32.5 AV	54.0	-21.5	1.56 H	235	20.0	12.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	52.6 PK	74.0	-21.4	1.77 V	176	49.6	3.0
2	5150.00	40.1 AV	54.0	-13.9	1.77 V	176	37.1	3.0
3	*5260.00	118.0 PK			1.77 V	176	115.6	2.4
4	*5260.00	108.2 AV			1.77 V	176	105.8	2.4
5	#10520.00	42.9 PK	74.0	-31.1	2.12 V	98	30.0	12.9
6	#10520.00	32.3 AV	54.0	-21.7	2.12 V	98	19.4	12.9
7	15780.00	44.4 PK	74.0	-29.6	1.47 V	341	31.9	12.5
8	15780.00	33.1 AV	54.0	-20.9	1.47 V	341	20.6	12.5

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	110.4 PK			1.45 H	125	107.9	2.5
2	*5300.00	100.5 AV			1.45 H	125	98.0	2.5
3	10600.00	40.0 PK	74.0	-34.0	1.49 H	109	27.6	12.4
4	10600.00	31.7 AV	54.0	-22.3	1.49 H	109	19.3	12.4
5	15900.00	40.9 PK	74.0	-33.1	1.66 H	247	28.6	12.3
6	15900.00	32.4 AV	54.0	-21.6	1.66 H	247	20.1	12.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	118.9 PK			1.72 V	173	116.4	2.5
2	*5300.00	108.8 AV			1.72 V	173	106.3	2.5
3	10600.00	42.9 PK	74.0	-31.1	2.12 V	90	30.5	12.4
4	10600.00	31.9 AV	54.0	-22.1	2.12 V	90	19.5	12.4
5	15900.00	45.0 PK	74.0	-29.0	1.49 V	326	32.7	12.3
6	15900.00	34.0 AV	54.0	-20.0	1.49 V	326	21.7	12.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	110.1 PK			1.46 H	130	107.6	2.5
2	*5320.00	99.9 AV			1.46 H	130	97.4	2.5
3	5350.00	51.9 PK	74.0	-22.1	1.46 H	130	49.3	2.6
4	5350.00	38.5 AV	54.0	-15.5	1.46 H	130	35.9	2.6
5	10640.00	40.8 PK	74.0	-33.2	1.47 H	108	28.2	12.6
6	10640.00	32.4 AV	54.0	-21.6	1.47 H	108	19.8	12.6
7	15960.00	41.2 PK	74.0	-32.8	1.65 H	217	28.7	12.5
8	15960.00	33.1 AV	54.0	-20.9	1.65 H	217	20.6	12.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	118.0 PK			1.73 V	174	115.5	2.5
2	*5320.00	108.0 AV			1.73 V	174	105.5	2.5
3	5350.00	58.1 PK	74.0	-15.9	1.73 V	174	55.5	2.6
4	5350.00	45.5 AV	54.0	-8.5	1.73 V	174	42.9	2.6
5	10640.00	43.2 PK	74.0	-30.8	2.04 V	103	30.6	12.6
6	10640.00	32.5 AV	54.0	-21.5	2.04 V	103	19.9	12.6
7	15960.00	44.2 PK	74.0	-29.8	1.55 V	332	31.7	12.5
8	15960.00	33.2 AV	54.0	-20.8	1.55 V	332	20.7	12.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	51.6 PK	74.0	-22.4	1.51 H	134	48.7	2.9
2	#5470.00	38.4 AV	54.0	-15.6	1.51 H	134	35.5	2.9
3	*5500.00	110.7 PK			1.51 H	134	107.8	2.9
4	*5500.00	100.4 AV			1.51 H	134	97.5	2.9
5	11000.00	40.1 PK	74.0	-33.9	1.45 H	122	26.9	13.2
6	11000.00	31.8 AV	54.0	-22.2	1.45 H	122	18.6	13.2
7	#16500.00	40.5 PK	74.0	-33.5	1.71 H	231	25.5	15.0
8	#16500.00	32.3 AV	54.0	-21.7	1.71 H	231	17.3	15.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.8 PK	74.0	-16.2	1.75 V	175	54.9	2.9
2	#5470.00	45.4 AV	54.0	-8.6	1.75 V	175	42.5	2.9
3	*5500.00	118.5 PK			1.75 V	175	115.6	2.9
4	*5500.00	108.7 AV			1.75 V	175	105.8	2.9
5	11000.00	43.7 PK	74.0	-30.3	2.13 V	78	30.5	13.2
6	11000.00	32.7 AV	54.0	-21.3	2.13 V	78	19.5	13.2
7	#16500.00	43.9 PK	74.0	-30.1	1.56 V	329	28.9	15.0
8	#16500.00	33.0 AV	54.0	-21.0	1.56 V	329	18.0	15.0

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.9 PK			1.46 H	135	106.7	3.2
2	*5580.00	99.9 AV			1.46 H	135	96.7	3.2
3	11160.00	40.6 PK	74.0	-33.4	1.38 H	113	27.5	13.1
4	11160.00	32.3 AV	54.0	-21.7	1.38 H	113	19.2	13.1
5	#16740.00	41.0 PK	74.0	-33.0	1.67 H	218	24.6	16.4
6	#16740.00	32.6 AV	54.0	-21.4	1.67 H	218	16.2	16.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	118.5 PK			1.77 V	178	115.3	3.2
2	*5580.00	108.5 AV			1.77 V	178	105.3	3.2
3	11160.00	42.8 PK	74.0	-31.2	2.09 V	97	29.7	13.1
4	11160.00	32.0 AV	54.0	-22.0	2.09 V	97	18.9	13.1
5	#16740.00	44.6 PK	74.0	-29.4	1.56 V	329	28.2	16.4
6	#16740.00	33.7 AV	54.0	-20.3	1.56 V	329	17.3	16.4

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	110.3 PK			1.52 H	150	106.9	3.4
2	*5700.00	100.1 AV			1.52 H	150	96.7	3.4
3	#5725.00	51.2 PK	74.0	-22.8	1.52 H	150	47.9	3.3
4	#5725.00	37.8 AV	54.0	-16.2	1.52 H	150	34.5	3.3
5	11400.00	40.1 PK	74.0	-33.9	1.41 H	134	26.6	13.5
6	11400.00	31.7 AV	54.0	-22.3	1.41 H	134	18.2	13.5
7	#17100.00	40.9 PK	74.0	-33.1	1.68 H	243	24.8	16.1
8	#17100.00	32.4 AV	54.0	-21.6	1.68 H	243	16.3	16.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	118.2 PK			1.81 V	175	114.8	3.4
2	*5700.00	108.3 AV			1.81 V	175	104.9	3.4
3	#5725.00	56.3 PK	74.0	-17.7	1.81 V	175	53.0	3.3
4	#5725.00	43.2 AV	54.0	-10.8	1.81 V	175	39.9	3.3
5	11400.00	42.7 PK	74.0	-31.3	2.05 V	106	29.2	13.5
6	11400.00	32.2 AV	54.0	-21.8	2.05 V	106	18.7	13.5
7	#17100.00	44.4 PK	74.0	-29.6	1.52 V	352	28.3	16.1
8	#17100.00	33.1 AV	54.0	-20.9	1.52 V	352	17.0	16.1

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5588.96	57.5 PK	68.2	-10.7	1.74 H	185	54.3	3.2
2	*5745.00	114.8 PK			1.51 H	148	111.5	3.3
3	*5745.00	107.9 AV			1.51 H	148	104.6	3.3
4	#5946.02	54.9 PK	68.2	-13.3	1.74 H	185	51.4	3.5
5	11490.00	40.3 PK	74.0	-33.7	1.41 H	126	26.9	13.4
6	11490.00	31.9 AV	54.0	-22.1	1.41 H	126	18.5	13.4
7	#17235.00	41.0 PK	74.0	-33.0	1.61 H	248	24.3	16.7
8	#17235.00	33.0 AV	54.0	-21.0	1.61 H	248	16.3	16.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.13	59.9 PK	68.2	-8.3	1.78 V	174	56.6	3.3
2	*5745.00	121.5 PK			1.78 V	174	118.2	3.3
3	*5745.00	114.4 AV			1.78 V	174	111.1	3.3
4	#5930.97	57.2 PK	68.2	-11.0	1.78 V	174	53.6	3.6
5	11490.00	43.3 PK	74.0	-30.7	2.10 V	99	29.9	13.4
6	11490.00	32.8 AV	54.0	-21.2	2.10 V	99	19.4	13.4
7	#17235.00	44.9 PK	74.0	-29.1	1.50 V	345	28.2	16.7
8	#17235.00	33.7 AV	54.0	-20.3	1.50 V	345	17.0	16.7

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5617.87	57.1 PK	68.2	-11.1	1.50 H	186	53.8	3.3
2	*5785.00	114.3 PK			1.52 H	132	111.0	3.3
3	*5785.00	107.9 AV			1.52 H	132	104.6	3.3
4	#5968.76	55.2 PK	68.2	-13.0	1.50 H	186	51.6	3.6
5	11570.00	40.1 PK	74.0	-33.9	1.42 H	129	26.7	13.4
6	11570.00	31.9 AV	54.0	-22.1	1.42 H	129	18.5	13.4
7	#17355.00	41.2 PK	74.0	-32.8	1.62 H	248	23.9	17.3
8	#17355.00	32.9 AV	54.0	-21.1	1.62 H	248	15.6	17.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.90	60.1 PK	68.2	-8.1	1.76 V	177	56.8	3.3
2	*5785.00	122.1 PK			1.76 V	177	118.8	3.3
3	*5785.00	114.9 AV			1.76 V	177	111.6	3.3
4	#5932.53	57.6 PK	68.2	-10.6	1.76 V	177	54.0	3.6
5	11570.00	43.5 PK	74.0	-30.5	2.07 V	95	30.1	13.4
6	11570.00	32.6 AV	54.0	-21.4	2.07 V	95	19.2	13.4
7	#17355.00	44.5 PK	74.0	-29.5	1.48 V	340	27.2	17.3
8	#17355.00	33.4 AV	54.0	-20.6	1.48 V	340	16.1	17.3

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5599.93	56.9 PK	68.2	-11.3	1.83 H	172	53.7	3.2
2	*5825.00	114.5 PK			1.49 H	144	111.0	3.5
3	*5825.00	107.8 AV			1.49 H	144	104.3	3.5
4	#5940.96	56.2 PK	68.2	-12.0	1.83 H	172	52.7	3.5
5	11650.00	39.8 PK	74.0	-34.2	1.43 H	114	26.5	13.3
6	11650.00	31.8 AV	54.0	-22.2	1.43 H	114	18.5	13.3
7	#17475.00	40.5 PK	74.0	-33.5	1.69 H	240	22.3	18.2
8	#17475.00	32.4 AV	54.0	-21.6	1.69 H	240	14.2	18.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5589.53	59.7 PK	68.2	-8.5	1.75 V	174	56.5	3.2
2	*5825.00	121.6 PK			1.75 V	174	118.1	3.5
3	*5825.00	114.7 AV			1.75 V	174	111.2	3.5
4	#5933.29	59.3 PK	68.2	-8.9	1.75 V	174	55.7	3.6
5	11650.00	42.9 PK	74.0	-31.1	2.04 V	97	29.6	13.3
6	11650.00	32.0 AV	54.0	-22.0	2.04 V	97	18.7	13.3
7	#17475.00	44.0 PK	74.0	-30.0	1.57 V	333	25.8	18.2
8	#17475.00	33.1 AV	54.0	-20.9	1.57 V	333	14.9	18.2

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

802.11ax (HE40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.9 PK	74.0	-10.1	1.53 H	149	60.9	3.0
2	5150.00	48.1 AV	54.0	-5.9	1.53 H	149	45.1	3.0
3	*5190.00	106.2 PK			1.53 H	149	103.4	2.8
4	*5190.00	95.3 AV			1.53 H	149	92.5	2.8
5	5350.00	40.4 PK	74.0	-33.6	1.53 H	149	37.8	2.6
6	5350.00	37.5 AV	54.0	-16.5	1.53 H	149	34.9	2.6
7	#10380.00	40.7 PK	74.0	-33.3	1.45 H	96	28.3	12.4
8	#10380.00	32.5 AV	54.0	-21.5	1.45 H	96	20.1	12.4
9	15570.00	40.3 PK	74.0	-33.7	1.62 H	214	27.5	12.8
10	15570.00	32.4 AV	54.0	-21.6	1.62 H	214	19.6	12.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.2 PK	74.0	-3.8	1.74 V	161	67.2	3.0
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.74 V**	**161**	**50.9**	**3.0**
3	*5190.00	114.6 PK			1.74 V	161	111.8	2.8
4	*5190.00	104.2 AV			1.74 V	161	101.4	2.8
5	5350.00	45.6 PK	74.0	-28.4	1.74 V	161	43.0	2.6
6	5350.00	42.1 AV	54.0	-11.9	1.74 V	161	39.5	2.6
7	#10380.00	43.2 PK	74.0	-30.8	2.13 V	77	30.8	12.4
8	#10380.00	32.7 AV	54.0	-21.3	2.13 V	77	20.3	12.4
9	15570.00	44.6 PK	74.0	-29.4	1.53 V	320	31.8	12.8
10	15570.00	33.5 AV	54.0	-20.5	1.53 V	320	20.7	12.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.8 PK	74.0	-10.2	1.52 H	158	60.8	3.0
2	5150.00	47.2 AV	54.0	-6.8	1.52 H	158	44.2	3.0
3	*5230.00	110.9 PK			1.52 H	158	108.4	2.5
4	*5230.00	101.0 AV			1.52 H	158	98.5	2.5
5	5350.00	55.3 PK	74.0	-18.7	1.52 H	158	52.7	2.6
6	5350.00	42.7 AV	54.0	-11.3	1.52 H	158	40.1	2.6
7	#10460.00	41.1 PK	74.0	-32.9	1.44 H	117	28.2	12.9
8	#10460.00	33.0 AV	54.0	-21.0	1.44 H	117	20.1	12.9
9	15690.00	40.1 PK	74.0	-33.9	1.71 H	218	27.7	12.4
10	15690.00	32.0 AV	54.0	-22.0	1.71 H	218	19.6	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.5 PK	74.0	-4.5	1.77 V	172	66.5	3.0
2	5150.00	52.8 AV	54.0	-1.2	1.77 V	172	49.8	3.0
3	*5230.00	119.7 PK			1.77 V	172	117.2	2.5
4	*5230.00	109.2 AV			1.77 V	172	106.7	2.5
5	5350.00	59.9 PK	74.0	-14.1	1.77 V	172	57.3	2.6
6	5350.00	46.7 AV	54.0	-7.3	1.77 V	172	44.1	2.6
7	#10460.00	42.8 PK	74.0	-31.2	2.15 V	66	29.9	12.9
8	#10460.00	32.4 AV	54.0	-21.6	2.15 V	66	19.5	12.9
9	15690.00	44.9 PK	74.0	-29.1	1.52 V	344	32.5	12.4
10	15690.00	33.3 AV	54.0	-20.7	1.52 V	344	20.9	12.4

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

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.6 PK	74.0	-18.4	1.47 H	153	52.6	3.0
2	5150.00	42.0 AV	54.0	-12.0	1.47 H	153	39.0	3.0
3	*5270.00	104.5 PK			1.47 H	153	102.1	2.4
4	*5270.00	95.4 AV			1.47 H	153	93.0	2.4
5	#10540.00	40.9 PK	74.0	-33.1	1.45 H	106	28.1	12.8
6	#10540.00	32.9 AV	54.0	-21.1	1.45 H	106	20.1	12.8
7	15810.00	40.7 PK	74.0	-33.3	1.71 H	234	28.3	12.4
8	15810.00	32.4 AV	54.0	-21.6	1.71 H	234	20.0	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.77 V	187	57.4	3.0
2	5150.00	46.9 AV	54.0	-7.1	1.77 V	187	43.9	3.0
3	*5270.00	113.9 PK			1.77 V	187	111.5	2.4
4	*5270.00	103.1 AV			1.77 V	187	100.7	2.4
5	#10540.00	43.5 PK	74.0	-30.5	2.07 V	70	30.7	12.8
6	#10540.00	32.9 AV	54.0	-21.1	2.07 V	70	20.1	12.8
7	15810.00	44.5 PK	74.0	-29.5	1.50 V	321	32.1	12.4
8	15810.00	33.3 AV	54.0	-20.7	1.50 V	321	20.9	12.4

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	104.2 PK			1.53 H	138	101.8	2.4
2	*5310.00	95.2 AV			1.53 H	138	92.8	2.4
3	5350.00	64.2 PK	74.0	-9.8	1.53 H	138	61.6	2.6
4	5350.00	48.6 AV	54.0	-5.4	1.53 H	138	46.0	2.6
5	10620.00	40.5 PK	74.0	-33.5	1.45 H	118	28.0	12.5
6	10620.00	32.4 AV	54.0	-21.6	1.45 H	118	19.9	12.5
7	15930.00	40.2 PK	74.0	-33.8	1.72 H	218	27.8	12.4
8	15930.00	32.1 AV	54.0	-21.9	1.72 H	218	19.7	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	114.5 PK			1.76 V	161	112.1	2.4
2	*5310.00	103.7 AV			1.76 V	161	101.3	2.4
3	5350.00	72.1 PK	74.0	-1.9	1.76 V	161	69.5	2.6
4	**5350.00**	**53.9 AV**	**54.0**	**-0.1**	**1.76 V**	**161**	**51.3**	**2.6**
5	10620.00	43.7 PK	74.0	-30.3	2.14 V	74	31.2	12.5
6	10620.00	33.1 AV	54.0	-20.9	2.14 V	74	20.6	12.5
7	15930.00	44.5 PK	74.0	-29.5	1.49 V	323	32.1	12.4
8	15930.00	33.4 AV	54.0	-20.6	1.49 V	323	21.0	12.4

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
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.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	50.7 PK	74.0	-23.3	1.52 H	134	47.8	2.9
2	#5470.00	38.2 AV	54.0	-15.8	1.52 H	134	35.3	2.9
3	*5510.00	103.9 PK			1.52 H	134	101.0	2.9
4	*5510.00	94.6 AV			1.52 H	134	91.7	2.9
5	11020.00	41.0 PK	74.0	-33.0	1.48 H	100	27.8	13.2
6	11020.00	32.7 AV	54.0	-21.3	1.48 H	100	19.5	13.2
7	#16530.00	40.9 PK	74.0	-33.1	1.70 H	219	26.0	14.9
8	#16530.00	32.7 AV	54.0	-21.3	1.70 H	219	17.8	14.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.7 PK	74.0	-17.3	1.83 V	175	53.8	2.9
2	#5470.00	43.4 AV	54.0	-10.6	1.83 V	175	40.5	2.9
3	*5510.00	114.1 PK			1.83 V	175	111.2	2.9
4	*5510.00	103.0 AV			1.83 V	175	100.1	2.9
5	11020.00	43.5 PK	74.0	-30.5	2.07 V	88	30.3	13.2
6	11020.00	33.2 AV	54.0	-20.8	2.07 V	88	20.0	13.2
7	#16530.00	44.8 PK	74.0	-29.2	1.48 V	324	29.9	14.9
8	#16530.00	33.3 AV	54.0	-20.7	1.48 V	324	18.4	14.9

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	104.7 PK			1.45 H	159	101.7	3.0
2	*5550.00	95.3 AV			1.45 H	159	92.3	3.0
3	11100.00	40.4 PK	74.0	-33.6	1.50 H	106	27.4	13.0
4	11100.00	32.5 AV	54.0	-21.5	1.50 H	106	19.5	13.0
5	#16650.00	40.1 PK	74.0	-33.9	1.64 H	236	24.5	15.6
6	#16650.00	32.1 AV	54.0	-21.9	1.64 H	236	16.5	15.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	115.1 PK			1.78 V	190	112.1	3.0
2	*5550.00	103.9 AV			1.78 V	190	100.9	3.0
3	11100.00	43.0 PK	74.0	-31.0	2.08 V	72	30.0	13.0
4	11100.00	32.7 AV	54.0	-21.3	2.08 V	72	19.7	13.0
5	#16650.00	44.8 PK	74.0	-29.2	1.46 V	316	29.2	15.6
6	#16650.00	33.8 AV	54.0	-20.2	1.46 V	316	18.2	15.6

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	104.4 PK			1.53 H	153	101.1	3.3
2	*5670.00	95.2 AV			1.53 H	153	91.9	3.3
3	#5725.00	51.3 PK	74.0	-22.7	1.53 H	153	48.0	3.3
4	#5725.00	38.6 AV	54.0	-15.4	1.53 H	153	35.3	3.3
5	11340.00	40.7 PK	74.0	-33.3	1.41 H	122	27.2	13.5
6	11340.00	32.9 AV	54.0	-21.1	1.41 H	122	19.4	13.5
7	#17010.00	40.2 PK	74.0	-33.8	1.67 H	225	23.7	16.5
8	#17010.00	31.9 AV	54.0	-22.1	1.67 H	225	15.4	16.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	114.5 PK			1.82 V	174	111.2	3.3
2	*5670.00	103.5 AV			1.82 V	174	100.2	3.3
3	#5725.00	56.7 PK	74.0	-17.3	1.82 V	174	53.4	3.3
4	#5725.00	43.6 AV	54.0	-10.4	1.82 V	174	40.3	3.3
5	11340.00	43.4 PK	74.0	-30.6	2.15 V	60	29.9	13.5
6	11340.00	32.9 AV	54.0	-21.1	2.15 V	60	19.4	13.5
7	#17010.00	44.6 PK	74.0	-29.4	1.48 V	319	28.1	16.5
8	#17010.00	33.4 AV	54.0	-20.6	1.48 V	319	16.9	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.57	64.2 PK	68.2	-4.0	1.50 H	180	61.0	3.2
2	*5755.00	111.6 PK			1.50 H	154	108.3	3.3
3	*5755.00	103.0 AV			1.50 H	154	99.7	3.3
4	#5942.01	55.4 PK	68.2	-12.8	1.50 H	180	51.9	3.5
5	11510.00	41.1 PK	74.0	-32.9	1.45 H	125	27.7	13.4
6	11510.00	32.9 AV	54.0	-21.1	1.45 H	125	19.5	13.4
7	#17265.00	40.0 PK	74.0	-34.0	1.62 H	226	23.2	16.8
8	#17265.00	32.1 AV	54.0	-21.9	1.62 H	226	15.3	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5647.20	67.0 PK	68.2	-1.2	1.89 V	178	63.8	3.2
2	*5755.00	119.2 PK			1.79 V	184	115.9	3.3
3	*5755.00	109.7 AV			1.79 V	184	106.4	3.3
4	#5943.81	59.5 PK	68.2	-8.7	1.89 V	178	56.0	3.5
5	11510.00	42.7 PK	74.0	-31.3	2.13 V	85	29.3	13.4
6	11510.00	32.4 AV	54.0	-21.6	2.13 V	85	19.0	13.4
7	#17265.00	45.2 PK	74.0	-28.8	1.48 V	324	28.4	16.8
8	#17265.00	33.6 AV	54.0	-20.4	1.48 V	324	16.8	16.8

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.15	58.8 PK	68.2	-9.4	2.31 H	180	55.6	3.2
2	*5795.00	111.5 PK			1.52 H	136	108.2	3.3
3	*5795.00	103.0 AV			1.52 H	136	99.7	3.3
4	#5924.38	62.8 PK	68.7	-5.9	2.31 H	180	59.2	3.6
5	11590.00	40.9 PK	74.0	-33.1	1.43 H	118	27.5	13.4
6	11590.00	32.9 AV	54.0	-21.1	1.43 H	118	19.5	13.4
7	#17385.00	40.2 PK	74.0	-33.8	1.70 H	229	22.7	17.5
8	#17385.00	31.8 AV	54.0	-22.2	1.70 H	229	14.3	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.72	64.8 PK	68.2	-3.4	2.04 V	176	61.6	3.2
2	*5795.00	119.0 PK			1.71 V	175	115.7	3.3
3	*5795.00	109.9 AV			1.71 V	175	106.6	3.3
4	#5925.77	66.8 PK	68.2	-1.4	2.04 V	176	63.2	3.6
5	11590.00	42.4 PK	74.0	-31.6	2.09 V	86	29.0	13.4
6	11590.00	32.2 AV	54.0	-21.8	2.09 V	86	18.8	13.4
7	#17385.00	45.0 PK	74.0	-29.0	1.46 V	320	27.5	17.5
8	#17385.00	33.7 AV	54.0	-20.3	1.46 V	320	16.2	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.2 PK	74.0	-11.8	1.44 H	132	59.2	3.0
2	5150.00	46.3 AV	54.0	-7.7	1.44 H	132	43.3	3.0
3	*5210.00	106.0 PK			1.44 H	132	103.3	2.7
4	*5210.00	94.4 AV			1.44 H	132	91.7	2.7
5	5350.00	51.2 PK	74.0	-22.8	1.44 H	132	48.6	2.6
6	5350.00	38.5 AV	54.0	-15.5	1.44 H	132	35.9	2.6
7	#10420.00	40.7 PK	74.0	-33.3	1.46 H	111	28.1	12.6
8	#10420.00	32.6 AV	54.0	-21.4	1.46 H	111	20.0	12.6
9	15630.00	40.3 PK	74.0	-33.7	1.66 H	227	27.6	12.7
10	15630.00	32.2 AV	54.0	-21.8	1.66 H	227	19.5	12.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.2 PK	74.0	-4.8	1.82 V	184	66.2	3.0
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.82 V**	**184**	**50.9**	**3.0**
3	*5210.00	114.4 PK			1.82 V	183	111.7	2.7
4	*5210.00	103.3 AV			1.82 V	183	100.6	2.7
5	5350.00	57.8 PK	74.0	-16.2	1.82 V	184	55.2	2.6
6	5350.00	45.2 AV	54.0	-8.8	1.82 V	184	42.6	2.6
7	#10420.00	43.1 PK	74.0	-30.9	2.13 V	76	30.5	12.6
8	#10420.00	32.7 AV	54.0	-21.3	2.13 V	76	20.1	12.6
9	15630.00	44.7 PK	74.0	-29.3	1.51 V	330	32.0	12.7
10	15630.00	33.4 AV	54.0	-20.6	1.51 V	330	20.7	12.7

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

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	50.9 PK	74.0	-23.1	1.43 H	140	47.9	3.0
2	5150.00	38.5 AV	54.0	-15.5	1.43 H	140	35.5	3.0
3	*5290.00	106.4 PK			1.43 H	140	104.0	2.4
4	*5290.00	94.7 AV			1.43 H	140	92.3	2.4
5	5350.00	62.1 PK	74.0	-11.9	1.43 H	140	59.5	2.6
6	5350.00	48.2 AV	54.0	-5.8	1.43 H	140	45.6	2.6
7	#10580.00	39.8 PK	74.0	-34.2	1.43 H	122	27.2	12.6
8	#10580.00	31.7 AV	54.0	-22.3	1.43 H	122	19.1	12.6
9	15870.00	40.6 PK	74.0	-33.4	1.67 H	221	28.2	12.4
10	15870.00	32.3 AV	54.0	-21.7	1.67 H	221	19.9	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.4 PK	74.0	-16.6	1.76 V	186	54.4	3.0
2	5150.00	45.8 AV	54.0	-8.2	1.76 V	186	42.8	3.0
3	*5290.00	113.6 PK			1.76 V	186	111.2	2.4
4	*5290.00	102.6 AV			1.76 V	186	100.2	2.4
5	5350.00	67.9 PK	74.0	-6.1	1.76 V	186	65.3	2.6
6	5350.00	53.8 AV	54.0	-0.2	1.76 V	186	51.2	2.6
7	#10580.00	42.7 PK	74.0	-31.3	2.10 V	80	30.1	12.6
8	#10580.00	32.2 AV	54.0	-21.8	2.10 V	80	19.6	12.6
9	15870.00	44.9 PK	74.0	-29.1	1.48 V	346	32.5	12.4
10	15870.00	33.9 AV	54.0	-20.1	1.48 V	346	21.5	12.4

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	61.9 PK	74.0	-12.1	1.52 H	137	59.0	2.9
2	#5470.00	46.4 AV	54.0	-7.6	1.52 H	137	43.5	2.9
3	*5530.00	105.8 PK			1.52 H	137	102.8	3.0
4	*5530.00	94.3 AV			1.52 H	137	91.3	3.0
5	#5725.00	50.2 PK	74.0	-23.8	1.52 H	137	46.9	3.3
6	#5725.00	38.1 AV	54.0	-15.9	1.52 H	137	34.8	3.3
7	11060.00	39.9 PK	74.0	-34.1	1.42 H	120	26.7	13.2
8	11060.00	31.7 AV	54.0	-22.3	1.42 H	120	18.5	13.2
9	#16590.00	40.8 PK	74.0	-33.2	1.61 H	244	25.7	15.1
10	#16590.00	32.2 AV	54.0	-21.8	1.61 H	244	17.1	15.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	68.6 PK	74.0	-5.4	1.72 V	193	65.7	2.9
2	#5470.00	53.6 AV	54.0	-0.4	1.72 V	193	50.7	2.9
3	*5530.00	114.9 PK			1.72 V	193	111.9	3.0
4	*5530.00	103.6 AV			1.72 V	193	100.6	3.0
5	#5725.00	55.9 PK	74.0	-18.1	1.72 V	193	52.6	3.3
6	#5725.00	43.0 AV	54.0	-11.0	1.72 V	193	39.7	3.3
7	11060.00	42.9 PK	74.0	-31.1	2.11 V	103	29.7	13.2
8	11060.00	32.5 AV	54.0	-21.5	2.11 V	103	19.3	13.2
9	#16590.00	44.5 PK	74.0	-29.5	1.48 V	347	29.4	15.1
10	#16590.00	33.4 AV	54.0	-20.6	1.48 V	347	18.3	15.1

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

CHANNEL	TX Channel 122	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	100.9 PK			1.50 H	142	97.6	3.3
2	*5610.00	92.8 AV			1.50 H	142	89.5	3.3
3	#5725.00	64.5 PK	74.0	-9.5	1.50 H	142	61.2	3.3
4	#5725.00	46.8 AV	54.0	-7.2	1.50 H	142	43.5	3.3
5	#5733.00	66.4 PK	74.0	-7.6	1.50 H	142	63.1	3.3
6	#5733.00	48.2 AV	54.0	-5.8	1.50 H	142	44.9	3.3
7	11220.00	40.6 PK	74.0	-33.4	1.43 H	107	27.4	13.2
8	11220.00	32.2 AV	54.0	-21.8	1.43 H	107	19.0	13.2
9	#16830.00	41.5 PK	74.0	-32.5	1.68 H	225	24.9	16.6
10	#16830.00	33.0 AV	54.0	-21.0	1.68 H	225	16.4	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	109.7 PK			2.16 V	169	106.4	3.3
2	*5610.00	101.3 AV			2.16 V	169	98.0	3.3
3	#5725.00	66.6 PK	74.0	-7.4	2.16 V	169	63.3	3.3
4	#5725.00	52.2 AV	54.0	-1.8	2.16 V	169	48.9	3.3
5	#5733.00	71.2 PK	74.0	-2.8	2.16 V	169	67.9	3.3
6	**#5733.00**	**53.9 AV**	**54.0**	**-0.1**	**2.16 V**	**169**	**50.6**	**3.3**
7	11220.00	42.7 PK	74.0	-31.3	2.13 V	83	29.5	13.2
8	11220.00	32.2 AV	54.0	-21.8	2.13 V	83	19.0	13.2
9	#16830.00	44.8 PK	74.0	-29.2	1.47 V	325	28.2	16.6
10	#16830.00	33.6 AV	54.0	-20.4	1.47 V	325	17.0	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5646.72	59.7 PK	68.2	-8.5	2.88 H	136	56.5	3.2
2	*5775.00	103.9 PK			1.48 H	146	100.5	3.4
3	*5775.00	93.0 AV			1.48 H	146	89.6	3.4
4	#5934.24	57.2 PK	68.2	-11.0	2.88 H	136	53.6	3.6
5	11550.00	40.6 PK	74.0	-33.4	1.44 H	117	27.3	13.3
6	11550.00	32.6 AV	54.0	-21.4	1.44 H	117	19.3	13.3
7	#17325.00	41.4 PK	74.0	-32.6	1.61 H	242	24.3	17.1
8	#17325.00	33.0 AV	54.0	-21.0	1.61 H	242	15.9	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5568.66	64.1 PK	68.2	-4.1	2.09 V	184	60.9	3.2
2	**#5649.25**	**68.1 PK**	**68.2**	**-0.1**	**2.09 V**	**184**	**64.9**	**3.2**
3	*5775.00	119.6 PK			1.69 V	176	116.2	3.4
4	*5775.00	109.2 AV			1.69 V	176	105.8	3.4
5	#5914.22	67.9 PK	76.2	-8.3	2.09 V	184	64.2	3.7
6	#5928.59	63.1 PK	68.2	-5.1	2.09 V	184	59.5	3.6
7	11550.00	43.3 PK	74.0	-30.7	2.05 V	107	30.0	13.3
8	11550.00	32.6 AV	54.0	-21.4	2.05 V	107	19.3	13.3
9	#17325.00	45.0 PK	74.0	-29.0	1.56 V	336	27.9	17.1
10	#17325.00	33.9 AV	54.0	-20.1	1.56 V	336	16.8	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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ax (HE160)

CHANNEL	TX Channel 50	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.5 PK	74.0	-13.5	1.44 H	132	57.5	3.0
2	5150.00	47.6 AV	54.0	-6.4	1.44 H	132	44.6	3.0
3	*5250.00	101.3 PK			1.44 H	132	98.9	2.4
4	*5250.00	91.8 AV			1.44 H	132	89.4	2.4
5	5350.00	62.2 PK	74.0	-11.8	1.44 H	132	59.6	2.6
6	5350.00	46.1 AV	54.0	-7.9	1.44 H	132	43.5	2.6
7	#10500.00	40.6 PK	74.0	-33.4	1.45 H	114	27.4	13.2
8	#10500.00	32.2 AV	54.0	-21.8	1.45 H	114	19.0	13.2
9	15750.00	41.2 PK	74.0	-32.8	1.67 H	226	28.8	12.4
10	15750.00	32.9 AV	54.0	-21.1	1.67 H	226	20.5	12.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.6 PK	74.0	-7.4	2.09 V	191	63.6	3.0
2	5150.00	53.7 AV	54.0	-0.3	2.09 V	191	50.7	3.0
3	*5250.00	111.7 PK			2.09 V	191	109.3	2.4
4	*5250.00	99.2 AV			2.09 V	191	96.8	2.4
5	5350.00	63.5 PK	74.0	-10.5	2.09 V	191	60.9	2.6
6	5350.00	52.0 AV	54.0	-2.0	2.09 V	191	49.4	2.6
7	#10500.00	42.9 PK	74.0	-31.1	2.12 V	101	29.7	13.2
8	#10500.00	32.1 AV	54.0	-21.9	2.12 V	101	18.9	13.2
9	15750.00	44.8 PK	74.0	-29.2	1.53 V	356	32.4	12.4
10	15750.00	33.9 AV	54.0	-20.1	1.53 V	356	21.5	12.4

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

CHANNEL	TX Channel 114	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	62.3 PK	74.0	-11.7	1.47 H	122	59.4	2.9
2	#5470.00	46.4 AV	54.0	-7.6	1.47 H	122	43.5	2.9
3	*5570.00	101.3 PK			1.47 H	122	98.1	3.2
4	*5570.00	91.9 AV			1.47 H	122	88.7	3.2
5	#5725.00	58.8 PK	74.0	-15.2	1.47 H	122	55.5	3.3
6	#5725.00	41.1 AV	54.0	-12.9	1.47 H	122	37.8	3.3
7	11140.00	39.8 PK	74.0	-34.2	1.41 H	106	26.7	13.1
8	11140.00	31.8 AV	54.0	-22.2	1.41 H	106	18.7	13.1
9	#16710.00	41.0 PK	74.0	-33.0	1.60 H	219	24.8	16.2
10	#16710.00	32.4 AV	54.0	-21.6	1.60 H	219	16.2	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	68.9 PK	74.0	-5.1	2.02 V	189	66.0	2.9
2	**#5470.00**	**53.9 AV**	**54.0**	**-0.1**	**2.02 V**	**189**	**51.0**	**2.9**
3	*5570.00	111.9 PK			2.02 V	189	108.7	3.2
4	*5570.00	100.1 AV			2.02 V	189	96.9	3.2
5	#5725.00	66.6 PK	74.0	-7.4	2.02 V	189	63.3	3.3
6	#5725.00	49.8 AV	54.0	-4.2	2.02 V	189	46.5	3.3
7	11140.00	43.5 PK	74.0	-30.5	2.12 V	105	30.4	13.1
8	11140.00	32.7 AV	54.0	-21.3	2.12 V	105	19.6	13.1
9	#16710.00	44.7 PK	74.0	-29.3	1.49 V	329	28.5	16.2
10	#16710.00	33.7 AV	54.0	-20.3	1.49 V	329	17.5	16.2

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

Below 1GHz Data:

802.11ax (HE40)

CHANNEL	TX Channel 151	**DETECTOR FUNCTION**	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	30.84	33.6 QP	40.0	-6.4	1.55 H	302	47.5	-13.9
2	109.42	30.2 QP	43.5	-13.3	1.45 H	77	46.0	-15.8
3	200.18	38.5 QP	43.5	-5.0	1.46 H	22	54.6	-16.1
4	533.68	35.9 QP	46.0	-10.1	1.65 H	360	42.1	-6.2
5	792.62	41.2 QP	46.0	-4.8	1.74 H	66	42.5	-1.3
6	825.24	41.6 QP	46.0	-4.4	1.85 H	177	42.5	-0.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	57.74	35.2 QP	40.0	-4.8	1.00 V	189	48.3	-13.1
2	124.97	31.3 QP	43.5	-12.2	1.00 V	280	45.7	-14.4
3	625.03	38.3 QP	46.0	-7.7	2.00 V	360	42.2	-3.9
4	750.02	40.6 QP	46.0	-5.4	2.00 V	360	42.3	-1.7
5	798.33	40.7 QP	46.0	-5.3	1.50 V	284	42.0	-1.3
6	825.00	39.3 QP	46.0	-6.7	2.00 V	165	40.2	-0.9

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

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	Nov. 01, 2017	Oct. 31, 2018
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Nov. 15, 2017	Nov. 14, 2018
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 04, 2018	June 03, 2019
50 ohms Terminator	N/A	EMC-02	Sep. 22, 2017	Sep. 21, 2018
RF Cable	5D-FB	COCCAB-001	Sep. 29, 2017	Sep. 28, 2018
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 16, 2018	Mar. 15, 2019
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: June 05, 2018

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.

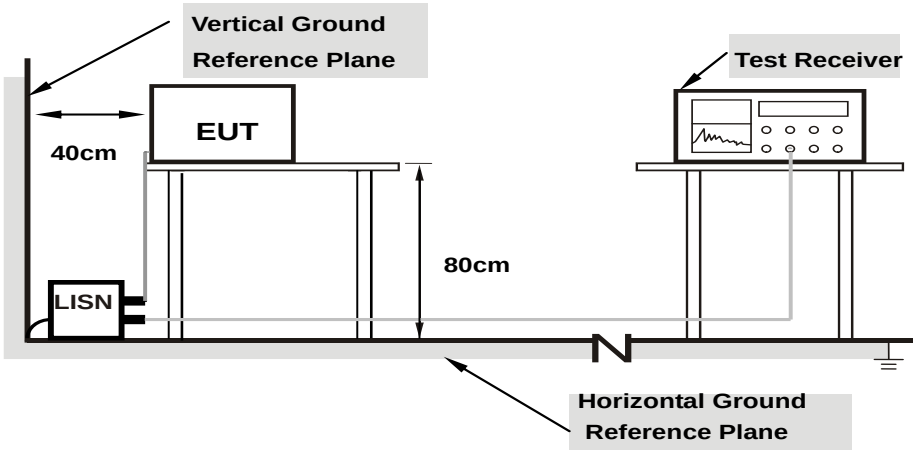
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

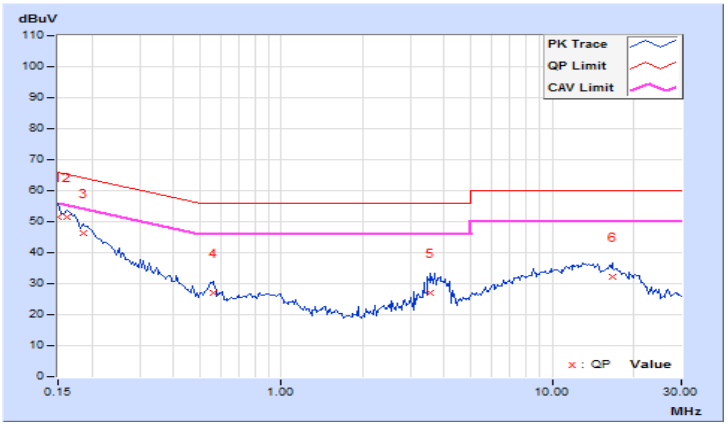
4.2.7 Test Results (Mode 1)

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	10.05	41.45	25.94	51.50	35.99	66.00	56.00	-14.50	-20.01
2	0.16172	10.05	41.41	26.72	51.46	36.77	65.38	55.38	-13.92	-18.61
3	0.18516	10.06	36.33	19.78	46.39	29.84	64.25	54.25	-17.86	-24.41
4	0.56016	10.13	17.04	7.17	27.17	17.30	56.00	46.00	-28.83	-28.70
5	3.57031	10.31	16.75	5.06	27.06	15.37	56.00	46.00	-28.94	-30.63
6	16.66016	11.17	21.06	14.84	32.23	26.01	60.00	50.00	-27.77	-23.99

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.

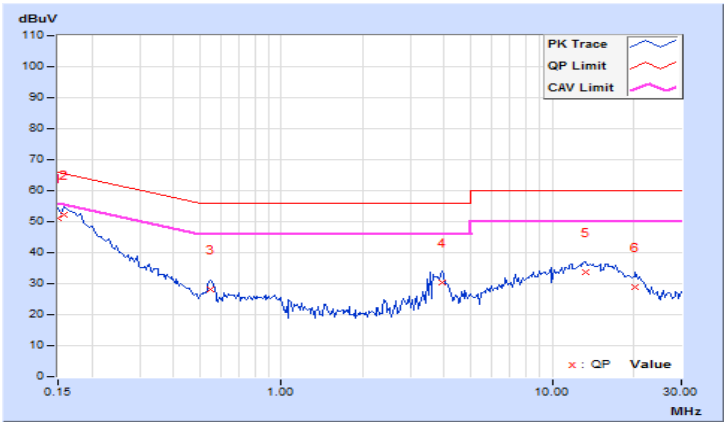


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	9.95	41.14	25.92	51.09	35.87	66.00	56.00	-14.91	-20.13
2	**0.15781**	**9.96**	**42.28**	**26.44**	**52.24**	**36.40**	**65.58**	**55.58**	**-13.34**	**-19.18**
3	0.54844	10.02	18.12	4.61	28.14	14.63	56.00	46.00	-27.86	-31.37
4	3.92969	10.19	20.27	7.96	30.46	18.15	56.00	46.00	-25.54	-27.85
5	13.30469	10.75	22.82	17.00	33.57	27.75	60.00	50.00	-26.43	-22.25
6	20.35547	11.17	17.69	12.31	28.86	23.48	60.00	50.00	-31.14	-26.52

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.



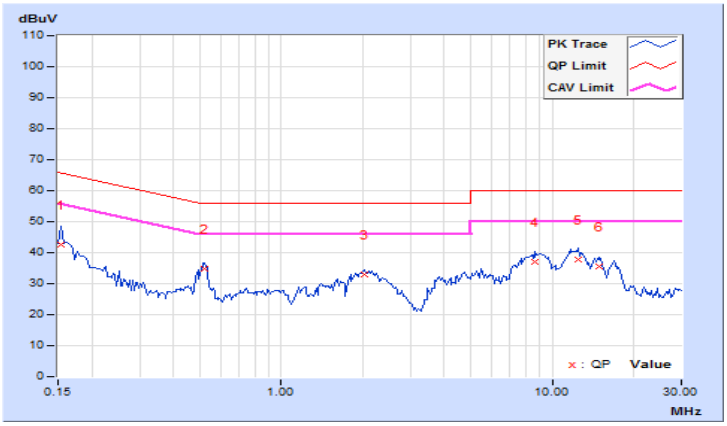
4.2.8 Test Results (Mode 2)

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	0.15391	10.05	32.60	22.61	42.65	32.66	65.79	55.79	-23.14	-23.13
2	0.52109	10.13	24.84	16.25	34.97	26.38	56.00	46.00	-21.03	-19.62
3	2.01953	10.22	22.63	16.49	32.85	26.71	56.00	46.00	-23.15	-19.29
4	8.63672	10.63	26.39	20.91	37.02	31.54	60.00	50.00	-22.98	-18.46
5	12.50391	10.89	27.00	21.21	37.89	32.10	60.00	50.00	-22.11	-17.90
6	14.85547	11.05	24.39	18.89	35.44	29.94	60.00	50.00	-24.56	-20.06

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.

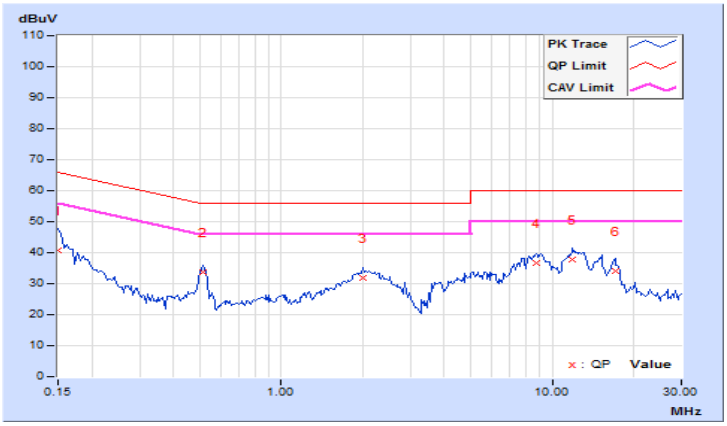


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	9.95	30.61	22.35	40.56	32.30	66.00	56.00	-25.44	-23.70
2	0.51328	10.02	23.76	16.35	33.78	26.37	56.00	46.00	-22.22	-19.63
3	2.00000	10.10	21.89	15.50	31.99	25.60	56.00	46.00	-24.01	-20.40
4	8.72656	10.47	26.21	20.83	36.68	31.30	60.00	50.00	-23.32	-18.70
5	11.88281	10.66	27.23	21.64	37.89	32.30	60.00	50.00	-22.11	-17.70
6	17.11719	10.99	22.99	17.51	33.98	28.50	60.00	50.00	-26.02	-21.50

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

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

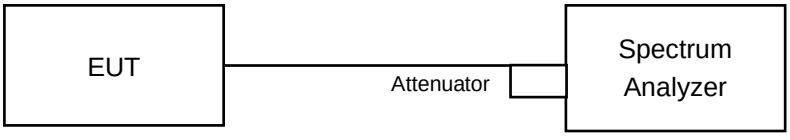
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

FOR POWER OUTPUT MEASUREMENT

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 Average Power Measurement

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

FOR 26dB 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 Result

802.11a

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	23.13	23.91	23.92	24.02	950.578	29.78	30.00	Pass
40	5200	23.23	23.89	23.97	24.12	962.969	29.84	30.00	Pass
48	5240	23.22	23.94	23.98	24.11	965.303	29.85	30.00	Pass
52	5260	17.52	18.32	18.42	17.03	244.382	23.88	24.00	Pass
60	5300	17.53	18.41	18.33	17.12	245.567	23.90	24.00	Pass
64	5320	17.42	18.25	18.21	16.98	238.152	23.77	24.00	Pass
100	5500	17.83	17.89	17.10	17.63	231.421	23.64	23.78	Pass
116	5580	17.99	17.88	17.12	17.59	233.262	23.68	23.78	Pass
140	5700	17.82	18.01	17.22	17.63	234.441	23.70	23.78	Pass
149	5745	23.65	23.60	23.76	23.65	930.249	29.69	29.78	Pass
157	5785	23.66	23.69	23.84	23.74	944.853	29.75	29.78	Pass
165	5825	23.52	23.63	24.03	23.36	925.28	29.66	29.78	Pass

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.66	21.89	21.70	21.37
60	5300	21.57	21.92	21.72	21.50
64	5320	21.72	21.93	21.75	21.44
100	5500	21.62	21.73	21.70	21.48
116	5580	21.67	21.93	21.79	21.51
140	5700	21.66	21.87	21.66	21.46

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	21.37	24.29 > 24
60	5300	21.50	24.32 > 24
64	5320	21.44	24.31 > 24
100	5500	21.48	24.32 > 24
116	5580	21.51	24.32 > 24
140	5700	21.46	24.31 > 24

802.11ac (VHT20)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	21.45	21.78	21.89	22.25	612.703	27.87	30.00	Pass
40	5200	23.56	24.12	23.78	24.10	981.033	29.92	30.00	Pass
48	5240	23.43	24.10	23.71	24.25	978.369	29.91	30.00	Pass
52	5260	17.66	18.32	17.87	17.45	243.09	23.86	24.00	Pass
60	5300	17.78	18.25	18.12	17.38	246.378	23.92	24.00	Pass
64	5320	17.72	18.31	18.11	17.28	245.09	23.89	24.00	Pass
100	5500	17.82	18.01	17.33	17.62	235.66	23.72	23.78	Pass
116	5580	17.93	17.99	17.30	17.59	236.153	23.73	23.78	Pass
140	5700	17.90	18.03	17.20	17.56	234.69	23.70	23.78	Pass
149	5745	23.56	23.69	23.67	23.80	933.562	29.70	29.78	Pass
157	5785	23.42	23.72	23.89	23.89	945.103	29.75	29.78	Pass
165	5825	23.40	23.68	23.78	23.50	914.775	29.61	29.78	Pass

Note:
1. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power limit shall not be reduced.
2. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit”- (6.22-6).
3. For UNII-3: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.94	21.55	21.81	21.70
60	5300	21.93	21.56	21.83	21.62
64	5320	21.94	21.74	21.76	21.74
100	5500	21.90	21.54	21.67	21.61
116	5580	21.88	21.27	21.78	21.52
140	5700	21.99	21.23	21.73	21.54

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	21.55	24.33 > 24
60	5300	21.56	24.33 > 24
64	5320	21.74	24.37 > 24
100	5500	21.54	24.33 > 24
116	5580	21.27	24.27 > 24
140	5700	21.23	24.26 > 24

802.11ac (VHT40)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	18.50	17.42	18.40	18.30	262.794	24.20	30.00	Pass
46	5230	23.85	23.30	23.99	23.60	936.155	29.71	30.00	Pass
54	5270	17.12	18.40	18.30	17.60	245.858	23.91	24.00	Pass
62	5310	17.20	18.50	18.20	17.55	246.23	23.91	24.00	Pass
102	5510	17.80	18.00	17.43	17.60	236.231	23.73	23.78	Pass
110	5550	17.93	17.89	17.33	17.55	234.565	23.70	23.78	Pass
134	5670	17.89	18.00	17.20	17.45	232.685	23.67	23.78	Pass
151	5755	23.46	23.70	23.86	23.85	942.124	29.74	29.78	Pass
159	5795	23.40	23.68	23.70	23.50	910.417	29.59	29.78	Pass

Note:
1. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power limit shall not be reduced.
2. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit”- (6.22-6).
3. For UNII-3: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	41.66	40.67	41.29	41.30
62	5310	41.75	40.69	41.33	41.45
102	5510	41.59	40.75	41.46	41.35
110	5550	41.54	40.68	41.28	41.17
134	5670	41.75	40.68	41.36	41.48

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	40.67	27.09 > 24
62	5310	40.69	27.09 > 24
102	5510	40.75	27.1 > 24
110	5550	40.68	27.09 > 24
134	5670	40.68	27.09 > 24

802.11ac (VHT80)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	17.52	17.63	17.15	18.10	230.882	23.63	30.00	Pass
58	5290	17.23	17.10	17.00	17.75	213.816	23.30	24.00	Pass
106	5530	17.45	17.52	17.12	17.99	226.558	23.55	23.78	Pass
122	5610	17.79	17.89	17.30	17.52	231.832	23.65	23.78	Pass
155	5775	21.53	21.60	21.30	22.10	583.854	27.66	29.78	Pass

Note:
1. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power limit shall not be reduced.
2. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power limit shall be reduced to “Determined Conducted Limit”- (6.22-6).
3. For UNII-3: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.72	82.32	82.25	82.02
106	5530	82.62	82.07	82.23	82.00
122	5610	82.44	82.34	82.37	81.98

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.02	30.13 > 24
106	5530	82.00	30.13 > 24
122	5610	81.98	30.13 > 24

802.11ac (VHT160)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250	16.52	16.42	16.82	17.10	188.098	22.74	24.00	Pass
114	5570	16.40	16.21	16.44	16.80	177.353	22.49	23.78	Pass

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5250	162.26	162.14	161.74	161.75
114	5570	162.34	161.92	161.94	161.82

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50	5250	161.74	26.08 > 24
114	5570	161.82	33.09 > 24

802.11ax (HE20)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	21.82	21.94	22.03	21.98	625.719	27.96	30.00	Pass
40	5200	23.66	23.77	24.10	24.16	988.161	29.95	30.00	Pass
48	5240	23.24	23.89	24.11	24.06	968.084	29.86	30.00	Pass
52	5260	17.49	18.26	18.24	17.55	246.659	23.92	24.00	Pass
60	5300	17.56	18.20	18.10	17.68	246.264	23.91	24.00	Pass
64	5320	17.52	18.19	18.33	17.65	248.698	23.96	24.00	Pass
100	5500	17.91	18.05	17.36	17.64	238.154	23.77	23.78	Pass
116	5580	17.90	18.02	17.33	17.62	236.932	23.75	23.78	Pass
140	5700	17.87	18.01	17.23	17.60	234.865	23.71	23.78	Pass
149	5745	23.66	23.56	23.72	23.85	937.426	29.72	29.78	Pass
157	5785	23.50	23.50	24.10	23.79	944.116	29.75	29.78	Pass
165	5825	23.42	23.70	24.00	23.72	940.903	29.74	29.78	Pass

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.74	21.70	21.47	21.56
60	5300	21.77	21.85	21.73	21.76
64	5320	21.97	21.68	21.86	21.61
100	5500	21.86	21.74	21.62	21.76
116	5580	21.97	21.85	21.54	21.91
140	5700	21.82	21.78	21.76	21.71

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	21.47	24.31 > 24
60	5300	21.73	24.37 > 24
64	5320	21.61	24.34 > 24
100	5500	21.62	24.34 > 24
116	5580	21.54	24.33 > 24
140	5700	21.71	24.36 > 24

802.11ax (HE40)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	18.53	17.46	18.44	18.32	264.747	24.23	30.00	Pass
46	5230	23.98	23.32	24.02	23.62	947.31	29.76	30.00	Pass
54	5270	17.16	18.43	18.32	17.62	247.393	23.93	24.00	Pass
62	5310	17.23	18.52	18.25	17.56	247.816	23.94	24.00	Pass
102	5510	17.90	18.00	17.32	17.63	236.65	23.74	23.78	Pass
110	5550	17.88	17.99	17.30	17.62	235.84	23.73	23.78	Pass
134	5670	17.82	17.98	17.20	17.63	233.764	23.69	23.78	Pass
151	5755	23.50	23.72	23.88	23.86	946.94	29.76	29.78	Pass
159	5795	23.48	23.79	23.86	23.78	944.177	29.75	29.78	Pass

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	42.00	41.38	41.46	41.47
62	5310	41.76	41.52	41.92	41.51
102	5510	41.72	41.40	41.59	41.55
110	5550	41.86	41.43	41.56	41.56
134	5670	41.52	41.51	41.82	41.33

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	41.38	27.16 > 24
62	5310	41.51	27.18 > 24
102	5510	41.40	27.17 > 24
110	5550	41.43	27.17 > 24
134	5670	41.33	27.16 > 24

802.11ax (HE80)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	17.56	17.61	17.24	18.12	232.522	23.66	30.00	Pass
58	5290	17.26	17.15	17.05	17.78	215.769	23.34	24.00	Pass
106	5530	17.46	17.56	17.17	17.99	227.805	23.58	23.78	Pass
122	5610	17.82	18.00	17.42	17.65	237.048	23.75	23.78	Pass
155	5775	21.56	21.68	21.69	22.12	600.951	27.79	29.78	Pass

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	81.83	82.00	82.34	82.12
106	5530	82.22	81.63	82.12	82.32
122	5610	82.23	82.15	82.25	82.60

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	81.83	30.12 > 24
106	5530	81.63	30.11 > 24
122	5610	82.15	30.14 > 24

802.11ax (HE160)

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250	16.68	16.48	16.89	17.12	191.41	22.82	24.00	Pass
114	5570	16.41	16.23	16.54	16.89	179.675	22.54	23.78	Pass

26dB BANDWIDTH:

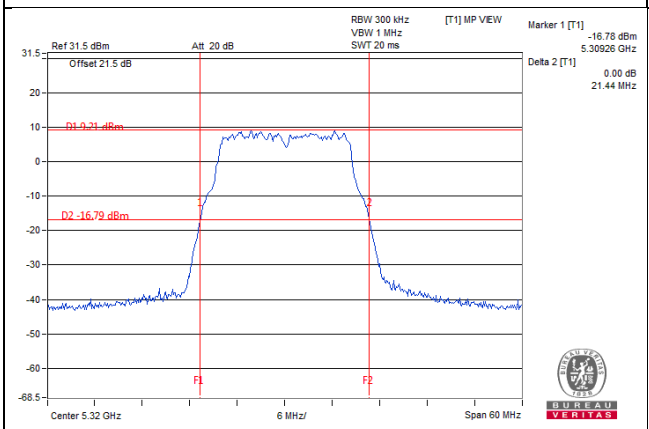
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5250	162.24	161.59	161.47	162.18
114	5570	162.34	161.36	161.67	162.14

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

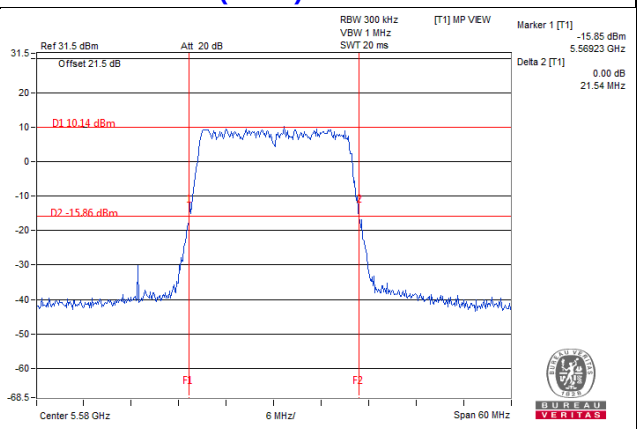
Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50	5250	161.47	26.08 > 24
114	5570	161.36	33.07 > 24

Spectrum Plot of Worst Value

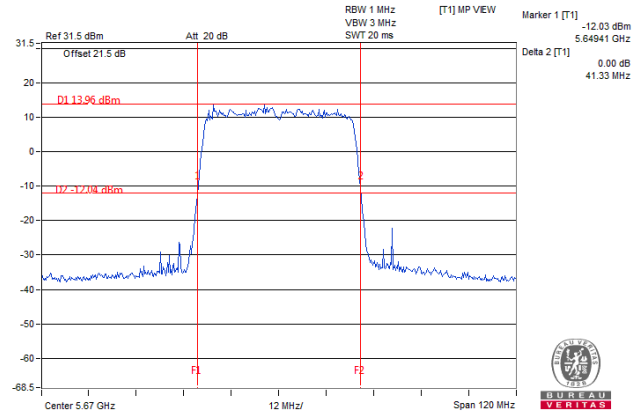
802.11a / Chain 3 : CH64



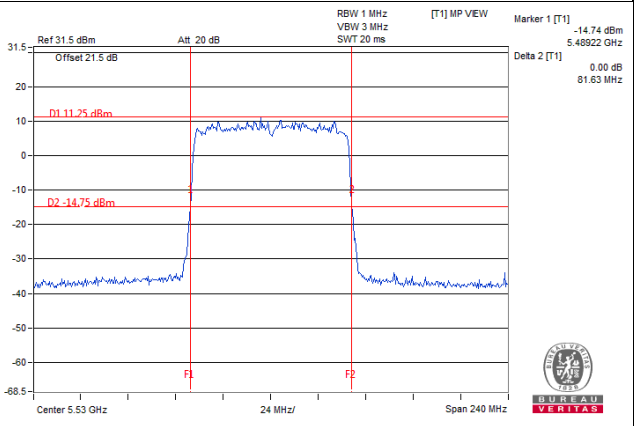
802.11ax (HE20) / Chain 2 : CH116



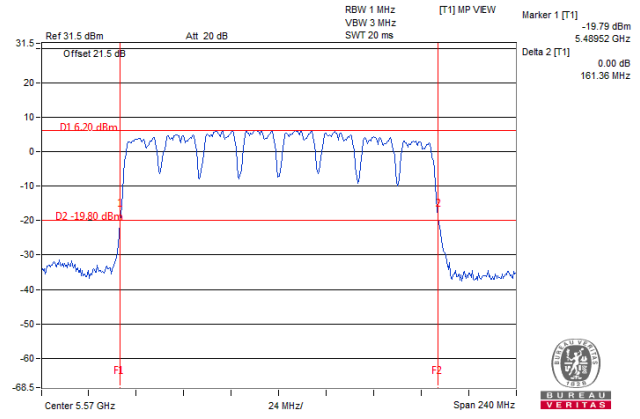
802.11ax (HE40) / Chain 3 : CH134



802.11ax (HE80) / Chain 1 : CH106

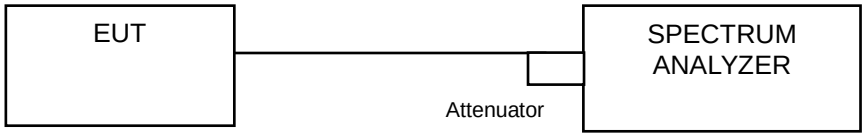


802.11ax (HE160) / Chain 1 : CH114



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)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.92	17.04	17.16	17.04
40	5200	16.92	17.16	17.16	17.04
48	5240	16.92	16.92	17.16	17.04
52	5260	17.04	17.04	17.04	16.80
60	5300	16.92	16.92	16.92	16.80
64	5320	16.92	16.92	16.92	16.92
100	5500	16.92	16.92	16.80	16.92
116	5580	17.04	16.92	16.92	16.80
140	5700	17.04	16.80	16.80	16.80
149	5745	16.80	17.04	16.92	16.80
157	5785	16.92	16.92	17.04	16.92
165	5825	17.04	16.92	16.92	17.04

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.08	19.08	19.08	19.20
40	5200	19.20	19.20	19.08	18.96
48	5240	19.08	19.08	19.20	19.08
52	5260	19.08	19.08	18.96	18.96
60	5300	19.32	18.96	18.96	18.96
64	5320	19.08	19.20	18.96	18.96
100	5500	19.20	19.08	19.08	19.20
116	5580	19.20	19.20	19.08	18.96
140	5700	19.20	19.08	19.08	19.08
149	5745	19.08	19.20	19.08	19.08
157	5785	19.08	19.08	19.20	19.08
165	5825	19.20	19.08	19.08	18.96

802.11ax (HE40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	37.92	37.92	37.92	37.92
46	5230	37.92	37.92	37.92	37.92
54	5270	37.92	37.92	37.92	38.16
62	5310	37.92	37.92	37.92	37.92
102	5510	37.92	37.92	37.68	37.92
110	5550	37.68	37.92	37.68	37.68
134	5670	37.68	37.92	37.68	37.92
151	5755	37.92	38.16	37.92	37.92
159	5795	37.92	38.16	37.68	37.92

802.11ax (HE80)

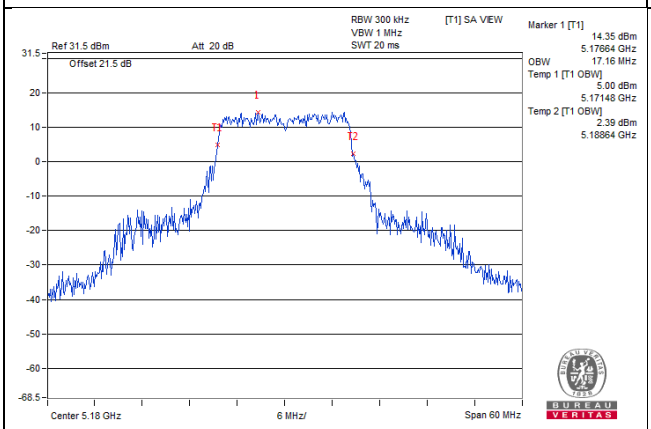
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	77.28	76.80	76.80	77.28
58	5290	76.80	77.28	77.28	77.28
106	5530	76.80	76.80	77.28	77.28
122	5610	77.28	77.28	77.28	77.28
155	5775	77.76	77.28	77.28	77.28

802.11ax (HE160)

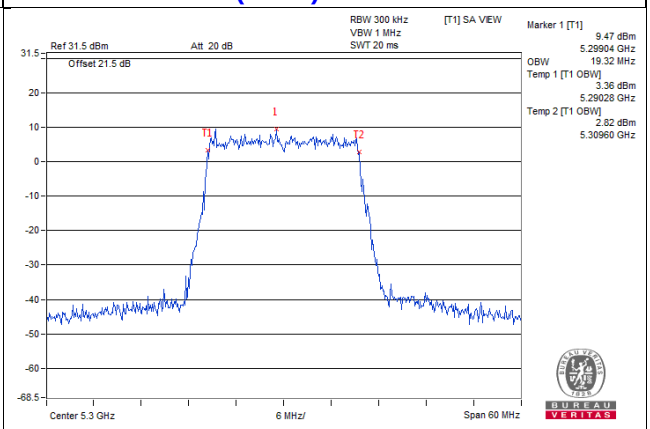
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50	5250	154.56	154.56	153.60	155.52
114	5570	154.56	154.56	154.56	153.60

Spectrum Plot of Worst Value

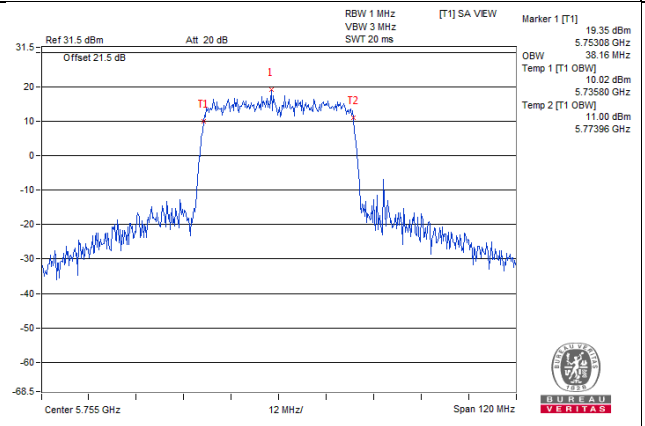
802.11a / Chain 0 : CH36



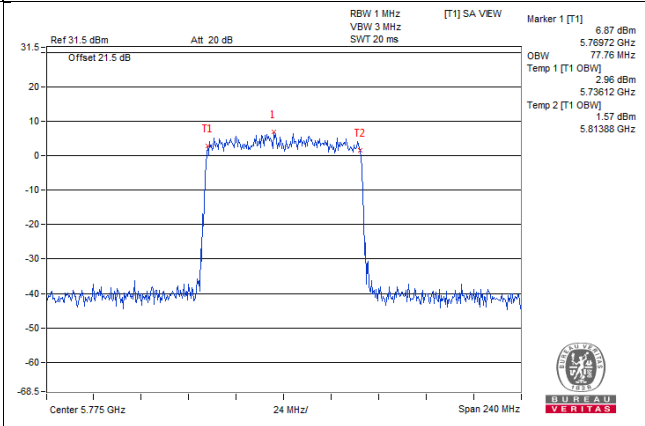
802.11ax (HE20) / Chain 0 : CH60



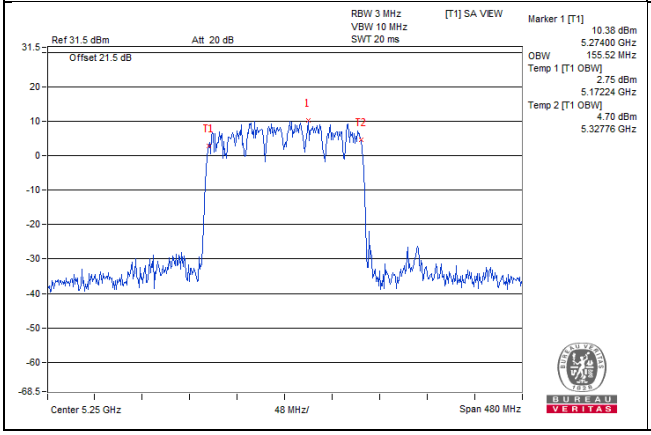
802.11ax (HE40) / Chain 1 : CH151



802.11ax (HE80) / Chain 0 : CH155

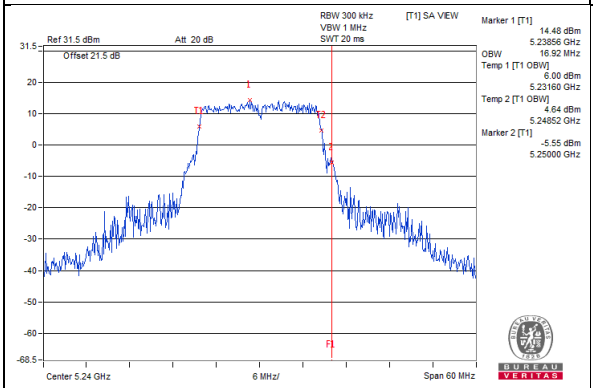


802.11ax (HE160) / Chain 3 : CH50

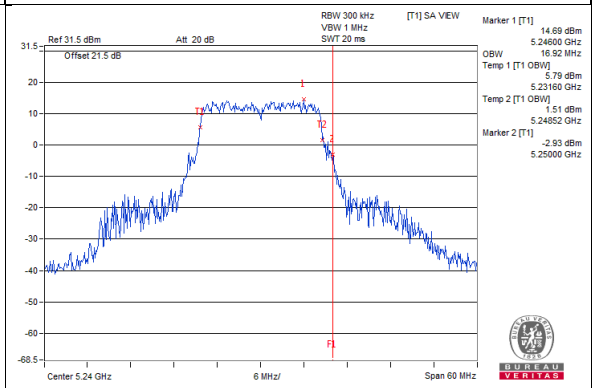


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

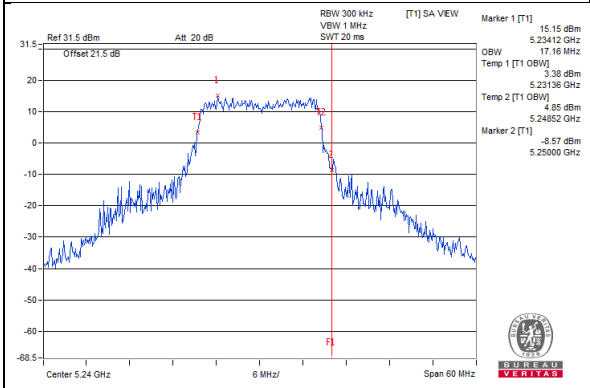
802.11a / Chain 0 : CH48



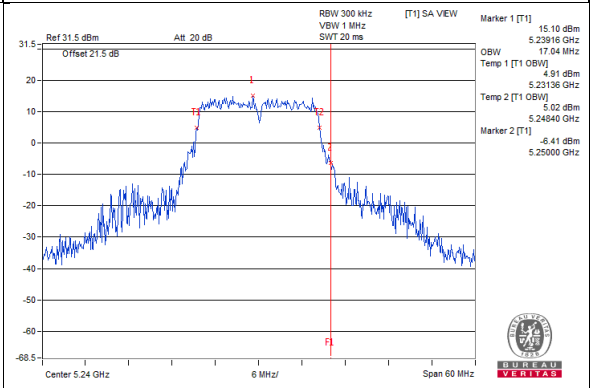
802.11a / Chain 1 : CH48



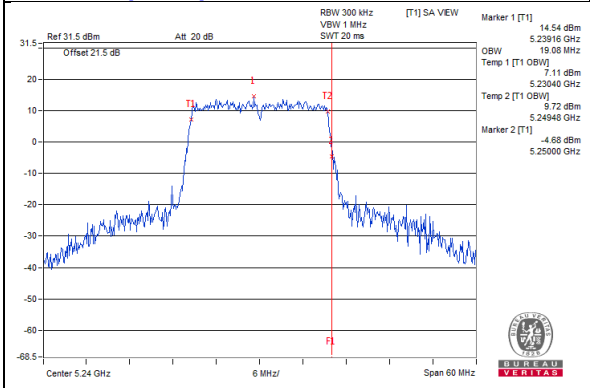
802.11a / Chain 2 : CH48



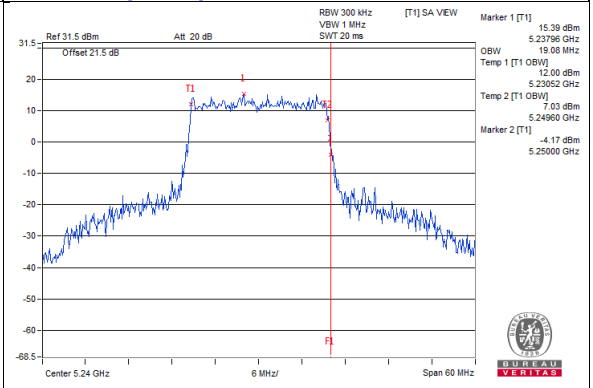
802.11a / Chain 3 : CH48



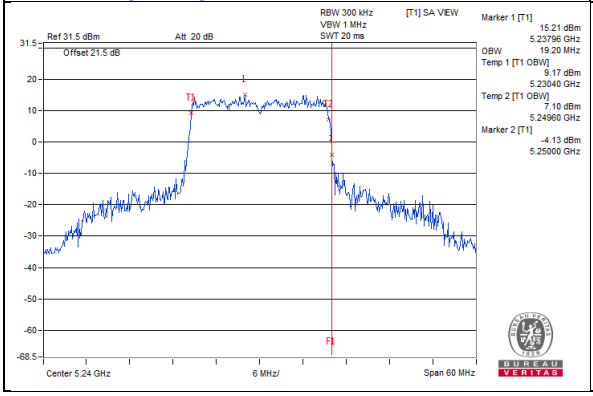
802.11ax (HE20) / Chain 0 : CH48



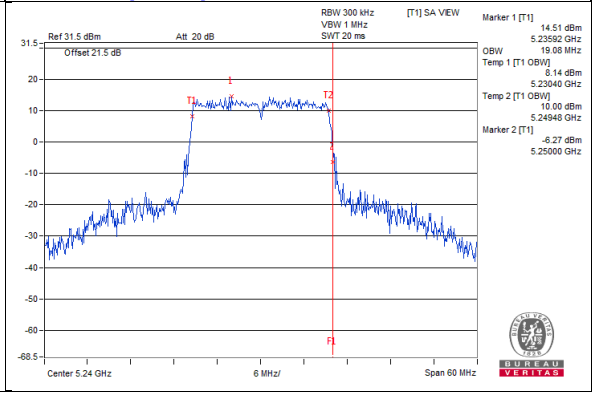
802.11ax (HE20) / Chain 1 : CH48



802.11ax (HE20) / Chain 2 : CH48

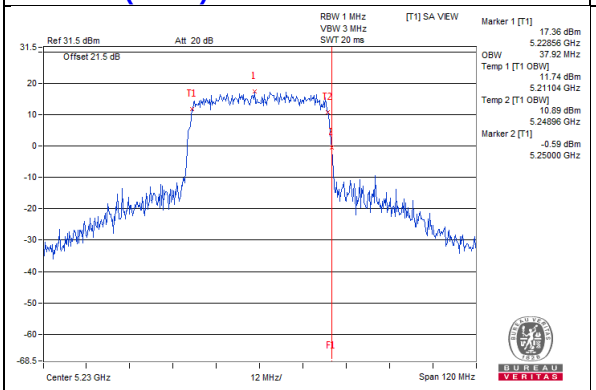


802.11ax (HE20) / Chain 3 : CH48

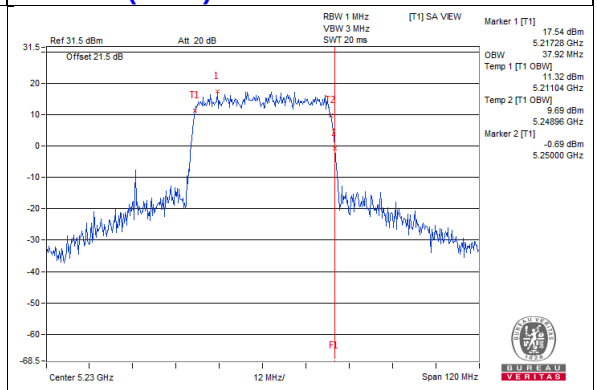


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2A band)

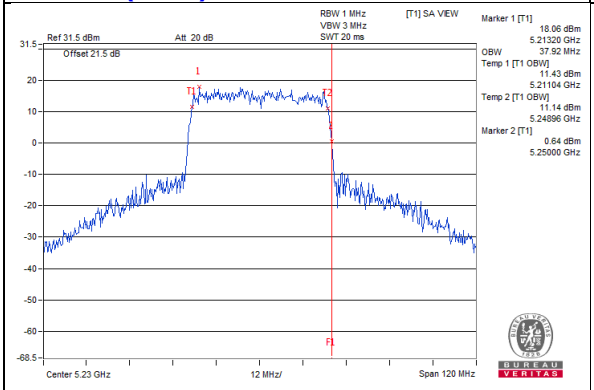
802.11ax (HE40) / Chain 0 : CH46



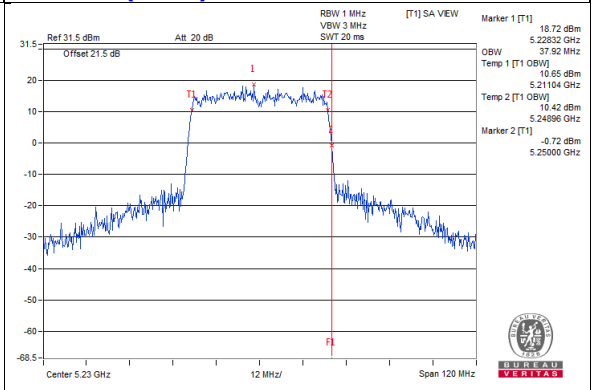
802.11ax (HE40) / Chain 1 : CH46



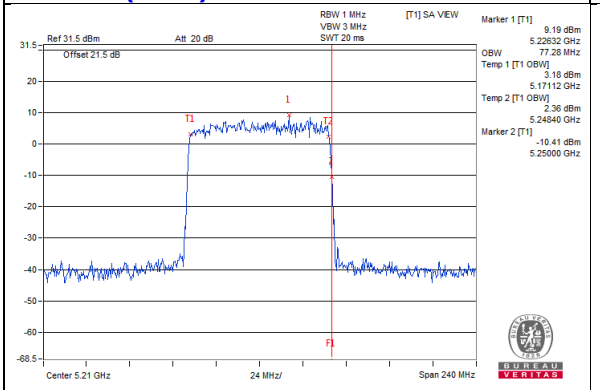
802.11ax (HE40) / Chain 2 : CH46



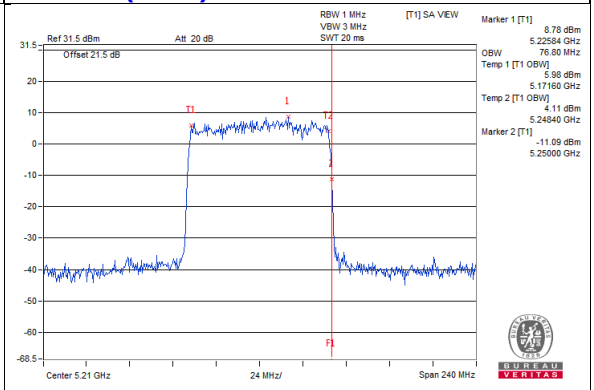
802.11ax (HE40) / Chain 3 : CH46



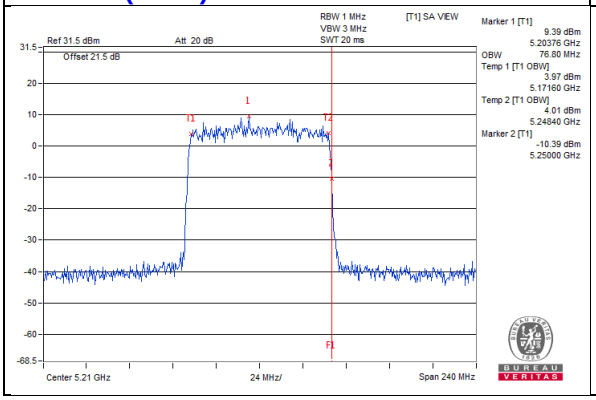
802.11ax (HE80) / Chain 0 : CH42



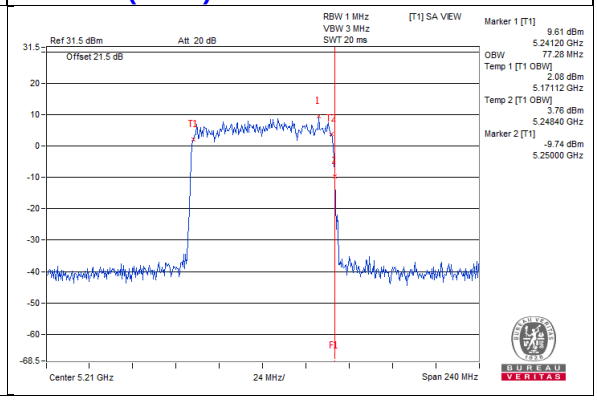
802.11ax (HE80) / Chain 1 : CH42



802.11ax (HE80) / Chain 2 : CH42

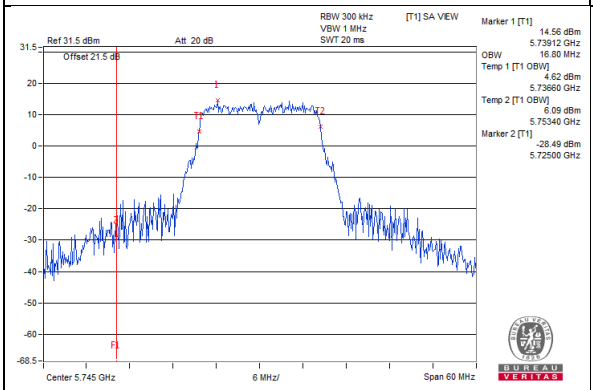


802.11ax (HE80) / Chain 3 : CH42

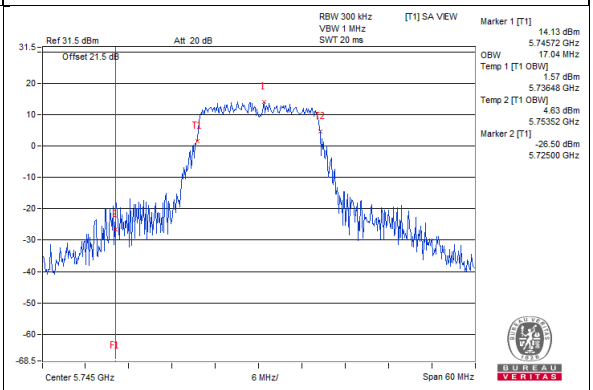


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

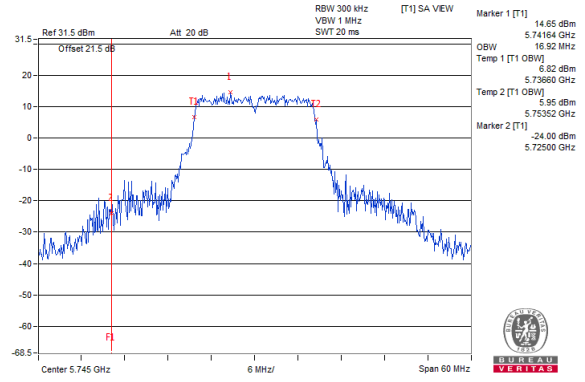
802.11a / Chain 0 : CH149



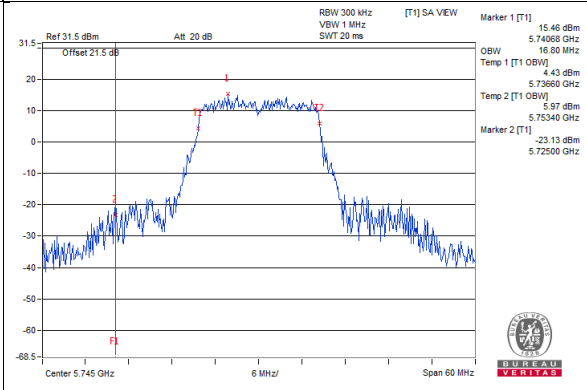
802.11a / Chain 1 : CH149



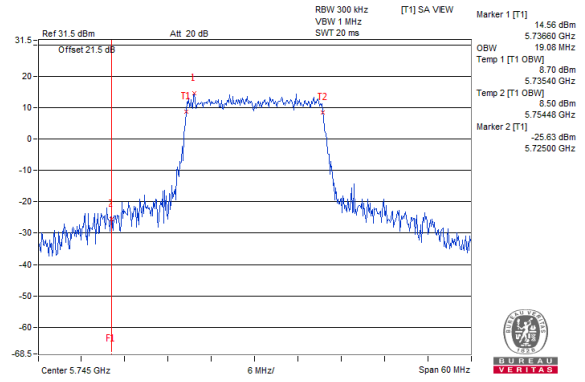
802.11a / Chain 2 : CH149



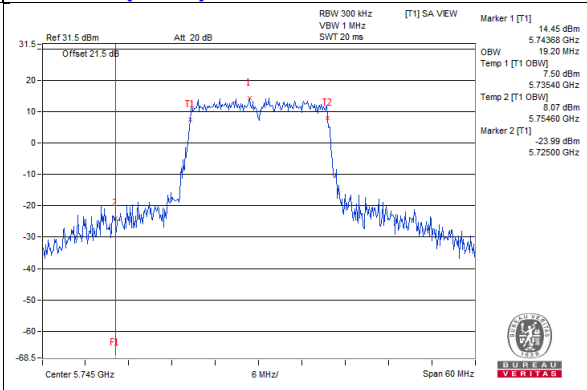
802.11a / Chain 3 : CH149



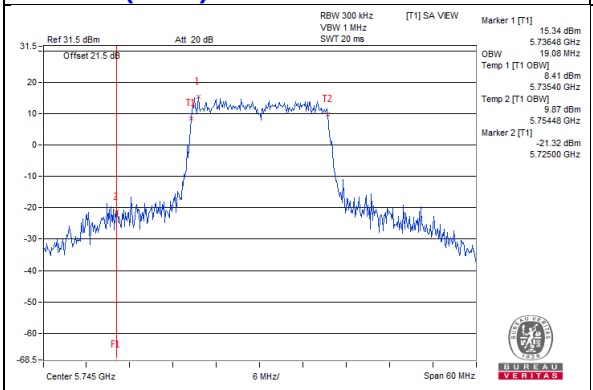
802.11ax (HE20) / Chain 0 : CH149



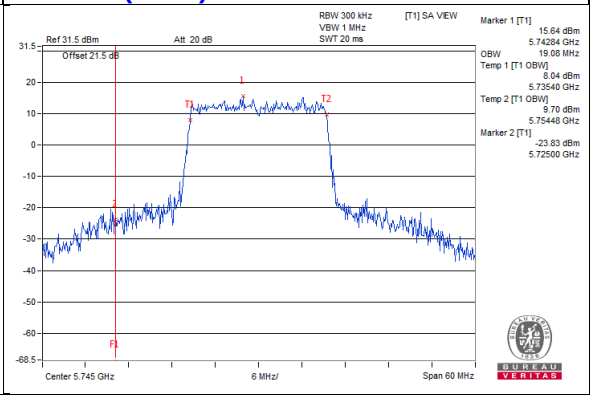
802.11ax (HE20) / Chain 1 : CH149



802.11ax (HE20) / Chain 2 : CH149

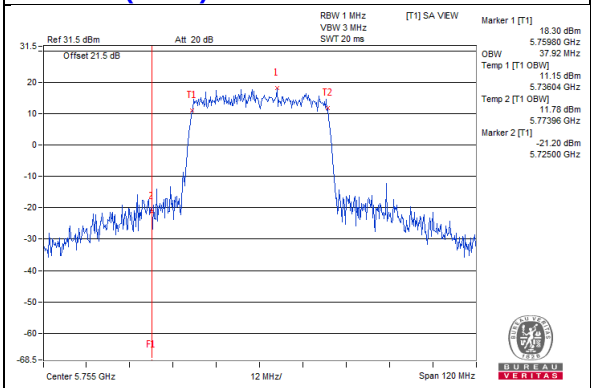


802.11ax (HE20) / Chain 3 : CH149

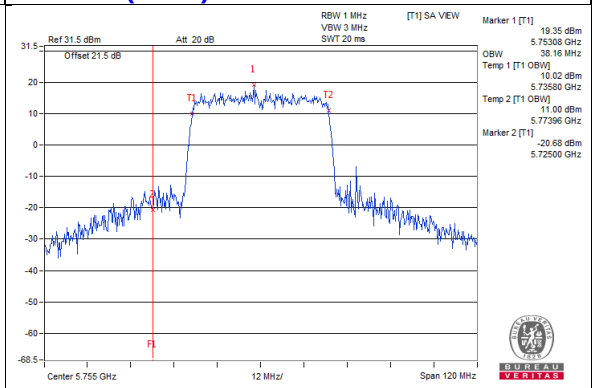


Spectrum Plot for near by DFS band
(DFS is required, if 99% OCP straddle into U-NII-2C band)

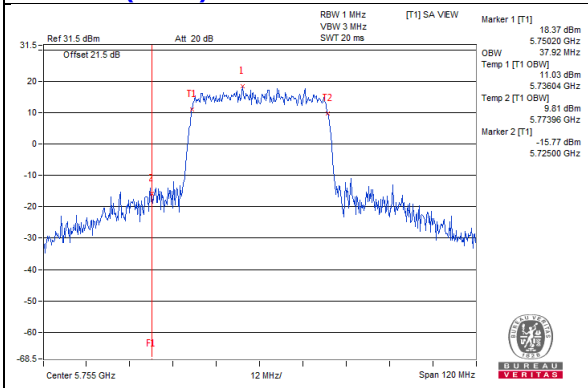
802.11ax (HE40) / Chain 0 : CH151



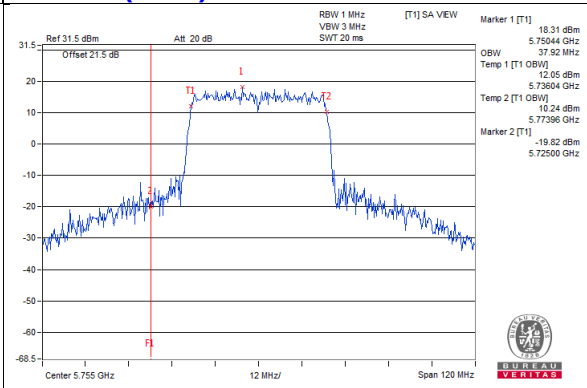
802.11ax (HE40) / Chain 1 : CH151



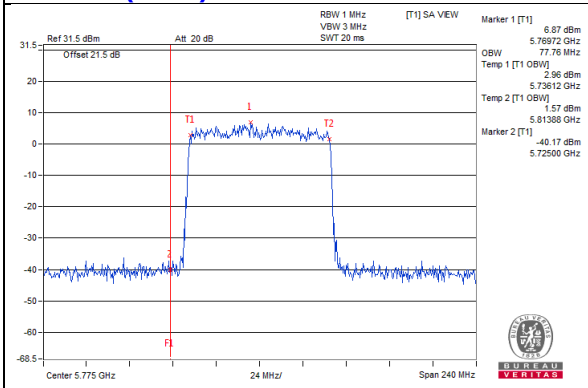
802.11ax (HE40) / Chain 2 : CH151



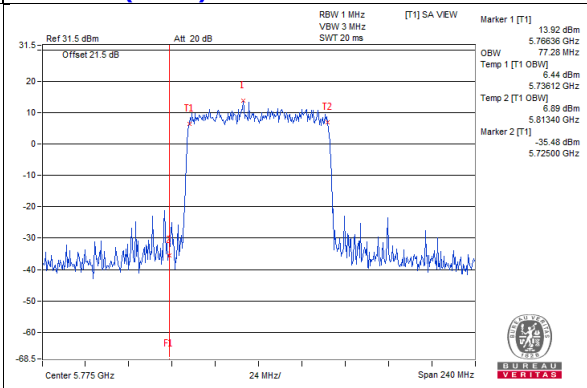
802.11ax (HE40) / Chain 3 : CH151



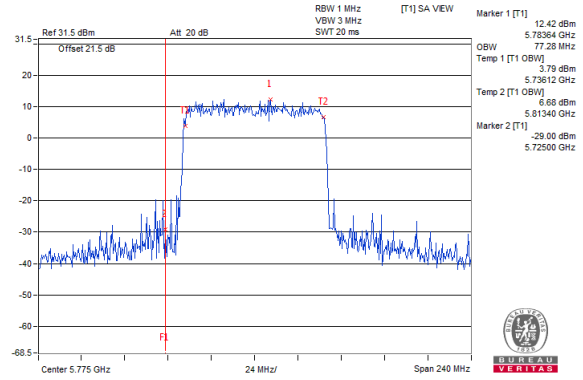
802.11ax (HE80) / Chain 0 : CH155



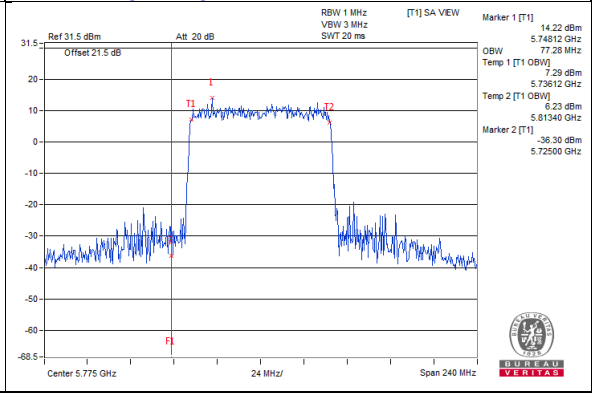
802.11ax (HE80) / Chain 1 : CH155



802.11ax (HE80) / Chain 2 : CH155



802.11ax (HE80) / Chain 3 : CH155

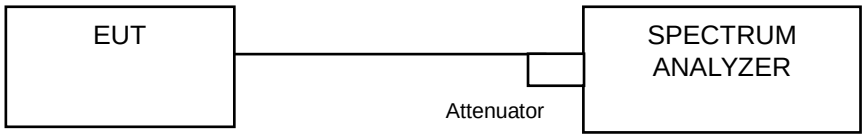


4.5 Peak Power Spectral Density Measurement

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 802.11ax (HE20):

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

Using method SA-1

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

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

For other:

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 With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	9.80	10.46	10.52	10.53	0.17	16.53	17.00	Pass
40	5200	10.28	10.78	10.80	10.66	0.17	16.82	17.00	Pass
48	5240	10.33	10.53	10.76	10.54	0.17	16.73	17.00	Pass
52	5260	4.43	5.20	4.94	3.29	0.17	10.71	11.00	Pass
60	5300	4.41	4.95	4.93	3.49	0.17	10.67	11.00	Pass
64	5320	4.37	5.13	5.05	3.65	0.17	10.78	11.00	Pass
100	5500	4.47	4.10	3.74	4.16	0.17	10.31	10.78	Pass
116	5580	4.65	4.30	4.01	3.92	0.17	10.42	10.78	Pass
140	5700	3.96	4.37	3.93	3.96	0.17	10.25	10.78	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power density limit shall not be reduced.

3. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 11-(6.22-6) = 10.78dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total Power Density (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	7.63	7.72	8.23	7.84	13.88	17.00	Pass
40	5200	9.44	9.66	10.35	9.57	15.79	17.00	Pass
48	5240	9.12	9.83	10.34	9.48	15.74	17.00	Pass
52	5260	3.52	4.20	4.45	3.18	9.89	11.00	Pass
60	5300	3.55	4.10	4.15	3.43	9.84	11.00	Pass
64	5320	3.66	4.03	3.95	3.87	9.90	11.00	Pass
100	5500	3.81	4.01	3.05	3.67	9.67	10.78	Pass
116	5580	3.98	3.90	3.32	3.22	9.64	10.78	Pass
140	5700	3.76	3.83	3.04	3.27	9.51	10.78	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power density limit shall not be reduced.
3. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 11-(6.22-6) = 10.78dBm.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	1.60	0.41	1.69	1.42	0.25	7.58	17.00	Pass
46	5230	7.30	6.45	6.78	6.53	0.25	13.04	17.00	Pass
54	5270	0.02	1.36	1.46	0.80	0.25	7.21	11.00	Pass
62	5310	0.03	1.44	1.02	0.91	0.25	7.15	11.00	Pass
102	5510	1.16	0.94	0.14	0.84	0.25	7.05	10.78	Pass
110	5550	0.59	0.83	0.57	0.88	0.25	6.99	10.78	Pass
134	5670	0.92	1.04	0.45	0.50	0.25	7.00	10.78	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power density limit shall not be reduced.
3. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 11-(6.22-6) = 10.78dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	-2.10	-1.78	-2.33	-1.20	0.38	4.57	17.00	Pass
58	5290	-2.52	-2.66	-2.86	-2.08	0.38	3.88	11.00	Pass
106	5530	-2.11	-2.47	-2.42	-2.05	0.38	4.14	10.78	Pass
122	5610	-2.03	-2.14	-2.42	-2.21	0.38	4.20	10.78	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power density limit shall not be reduced.
3. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 11-(6.22-6) = 10.78dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE160)

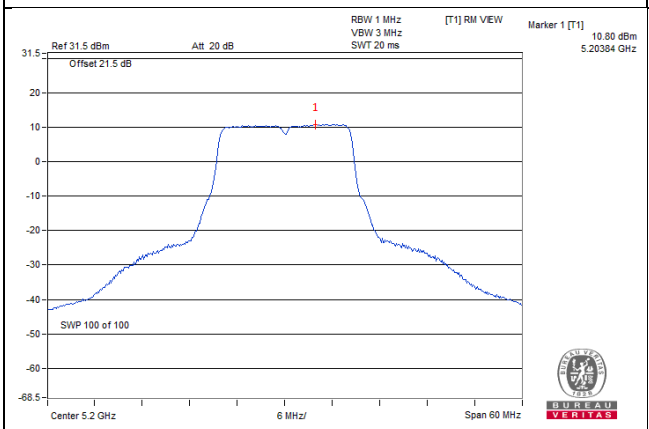
Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50	5250	-4.78	-5.13	-4.61	-4.06	1.35	2.75	4.00	Pass
114	5570	-4.72	-5.23	-4.83	-4.68	1.35	2.51	10.78	Pass

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1 & UNII-2A: Directional gain = 5.56 < 6dBi, so the power density limit shall not be reduced.
3. For UNII-2C: Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 11-(6.22-6) = 10.78dBm.

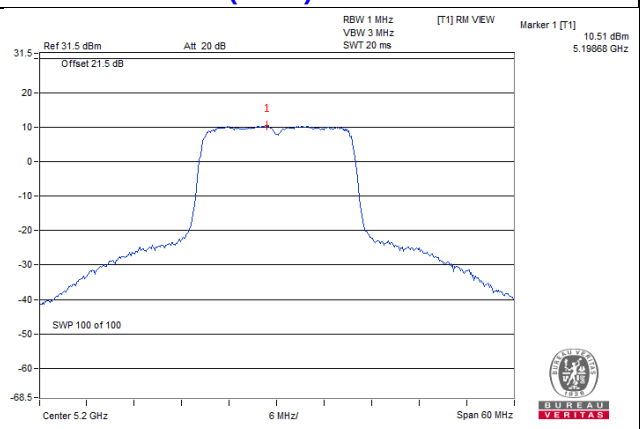
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

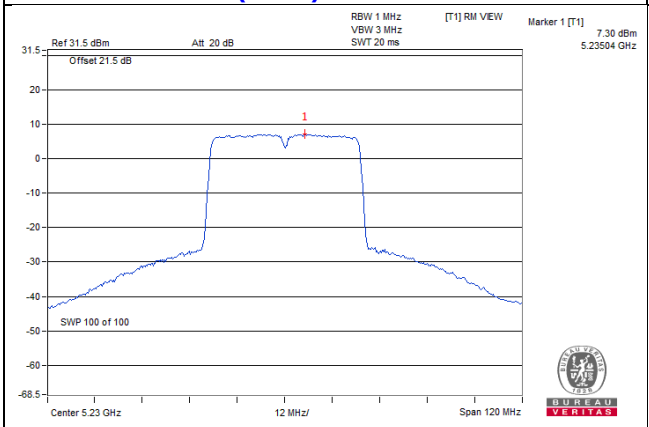
802.11a / Chain 2 : CH40



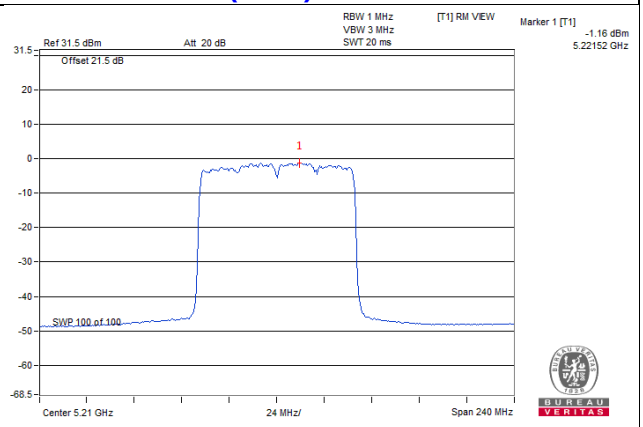
802.11ax (HE20) / Chain 2 : CH40



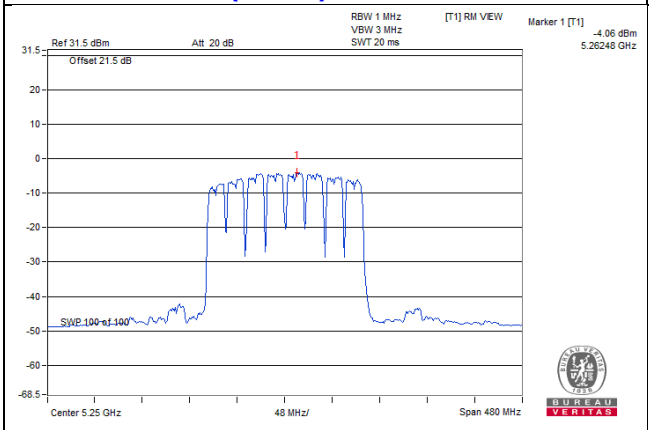
802.11ax (HE40) / Chain 0 : CH46



802.11ax (HE80) / Chain 3 : CH42



802.11ax (HE160) / Chain 3 : CH50



For U-NII-3:

802.11a

TX chain	Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	2.88	5.10	6.02	0.17	11.29	29.78	Pass
	157	5785	2.85	5.07	6.02	0.17	11.26	29.78	Pass
	165	5825	2.74	4.96	6.02	0.17	11.15	29.78	Pass
1	149	5745	2.55	4.77	6.02	0.17	10.96	29.78	Pass
	157	5785	2.61	4.83	6.02	0.17	11.02	29.78	Pass
	165	5825	2.51	4.73	6.02	0.17	10.92	29.78	Pass
2	149	5745	2.74	4.96	6.02	0.17	11.15	29.78	Pass
	157	5785	3.06	5.28	6.02	0.17	11.47	29.78	Pass
	165	5825	2.64	4.86	6.02	0.17	11.05	29.78	Pass
3	149	5745	2.56	4.78	6.02	0.17	10.97	29.78	Pass
	157	5785	2.74	4.96	6.02	0.17	11.15	29.78	Pass
	165	5825	2.47	4.69	6.02	0.17	10.88	29.78	Pass

Note: 1. Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	1.29	3.51	6.02	9.53	29.78	Pass
	157	5785	1.23	3.45	6.02	9.47	29.78	Pass
	165	5825	1.31	3.53	6.02	9.55	29.78	Pass
1	149	5745	1.32	3.54	6.02	9.56	29.78	Pass
	157	5785	1.28	3.50	6.02	9.52	29.78	Pass
	165	5825	1.13	3.35	6.02	9.37	29.78	Pass
2	149	5745	1.67	3.89	6.02	9.91	29.78	Pass
	157	5785	2.00	4.22	6.02	10.24	29.78	Pass
	165	5825	2.09	4.31	6.02	10.33	29.78	Pass
3	149	5745	1.40	3.62	6.02	9.64	29.78	Pass
	157	5785	1.22	3.44	6.02	9.46	29.78	Pass
	165	5825	1.18	3.40	6.02	9.42	29.78	Pass

Note: 1. Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

802.11ax (HE40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-1.40	0.82	6.02	7.09	29.78	Pass
	159	5795	-1.55	0.67	6.02	6.94	29.78	Pass
1	151	5755	-1.55	0.67	6.02	6.94	29.78	Pass
	159	5795	-1.72	0.50	6.02	6.77	29.78	Pass
2	151	5755	-1.63	0.59	6.02	6.86	29.78	Pass
	159	5795	-1.53	0.69	6.02	6.96	29.78	Pass
3	151	5755	-1.14	1.08	6.02	7.35	29.78	Pass
	159	5795	-1.38	0.84	6.02	7.11	29.78	Pass

Note: 1. Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

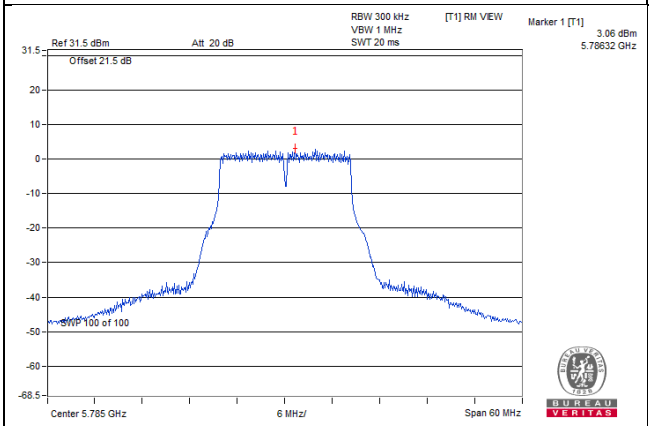
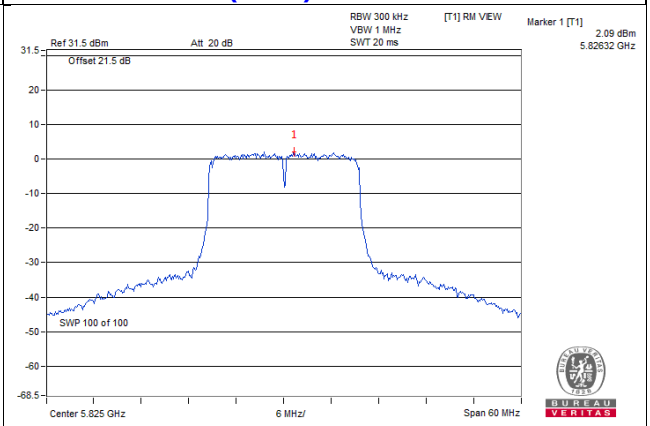
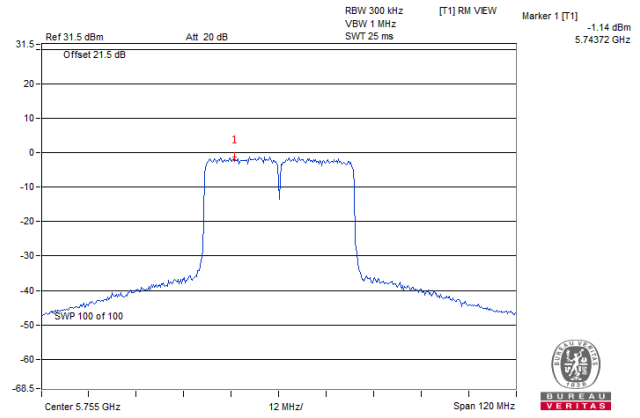
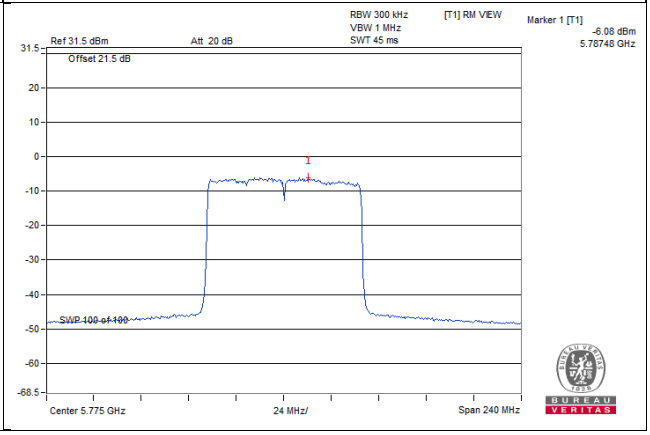
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	155	5775	-11.69	-9.47	6.02	-3.07	29.78	Pass
1	155	5775	-7.03	-4.81	6.02	1.59	29.78	Pass
2	155	5775	-6.51	-4.29	6.02	2.11	29.78	Pass
3	155	5775	-6.08	-3.86	6.02	2.54	29.78	Pass

Note: 1. Directional gain = 6.22 > 6dBi, so the power density limit shall be reduced to 30-(6.22-6) = 29.78dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

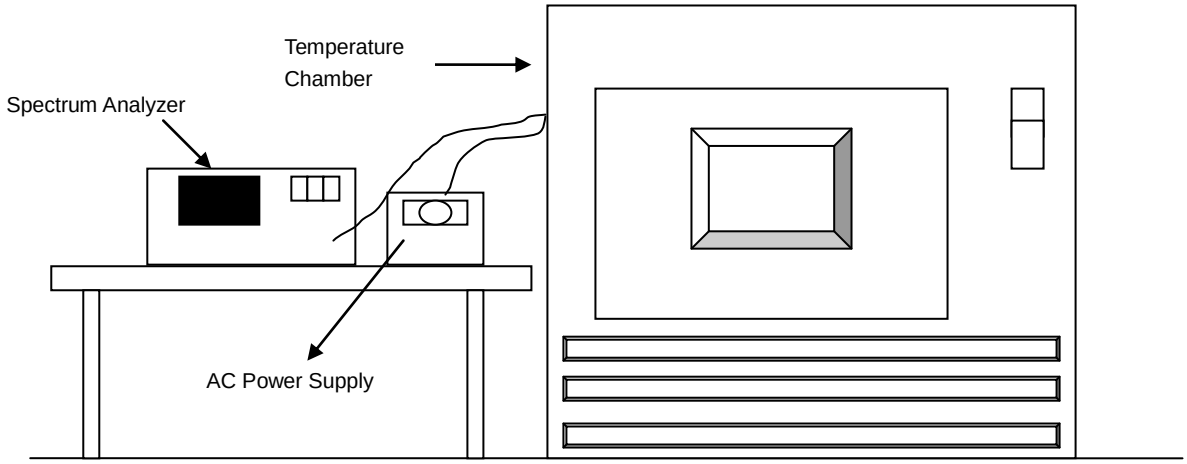
Spectrum Plot of Worst Value	
802.11a / Chain 2 : CH157	**802.11ax (HE20) / Chain 2 : CH165**
	
802.11ax (HE40) / Chain 3 : CH151	**802.11ax (HE80) / Chain 3 : CH155**
	

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 2 and 3 with the temperature chamber set to the lowest temperature.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.
.

4.6.5 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
50	120	5179.9904	PASS	5179.9892	PASS	5179.9852	PASS	5179.987	PASS
40	120	5179.9729	PASS	5179.9773	PASS	5179.9758	PASS	5179.9763	PASS
30	120	5180.0222	PASS	5180.0201	PASS	5180.0234	PASS	5180.0228	PASS
20	120	5179.9772	PASS	5179.9753	PASS	5179.9752	PASS	5179.9796	PASS
10	120	5180.0158	PASS	5180.0169	PASS	5180.0192	PASS	5180.0195	PASS
0	120	5179.9953	PASS	5179.9956	PASS	5179.9981	PASS	5179.9959	PASS
-10	120	5180.0094	PASS	5180.0107	PASS	5180.0114	PASS	5180.0121	PASS
-20	120	5179.9777	PASS	5179.9786	PASS	5179.9786	PASS	5179.9775	PASS
-30	120	5179.988	PASS	5179.9918	PASS	5179.9912	PASS	5179.9906	PASS

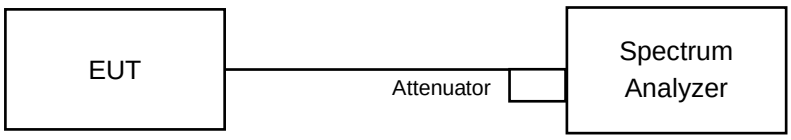
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5179.9766	PASS	5179.9758	PASS	5179.9761	PASS	5179.9802	PASS
	120	5179.9772	PASS	5179.9753	PASS	5179.9752	PASS	5179.9796	PASS
	102	5179.9764	PASS	5179.975	PASS	5179.9747	PASS	5179.9792	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)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.42	16.40	16.40	16.43	0.5	PASS
157	5785	16.40	16.40	16.40	16.39	0.5	PASS
165	5825	16.40	16.39	16.39	16.38	0.5	PASS

802.11ax (HE20)

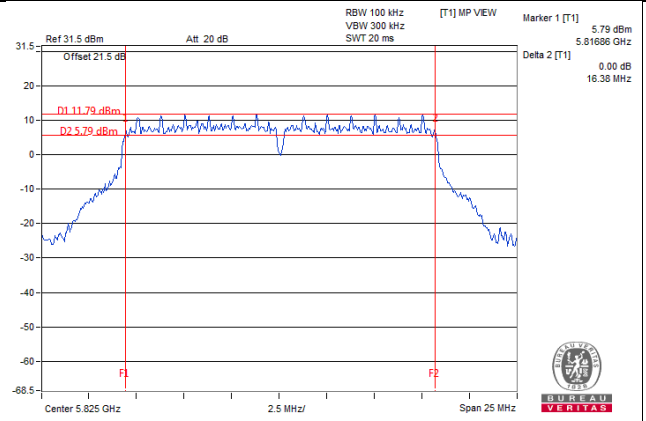
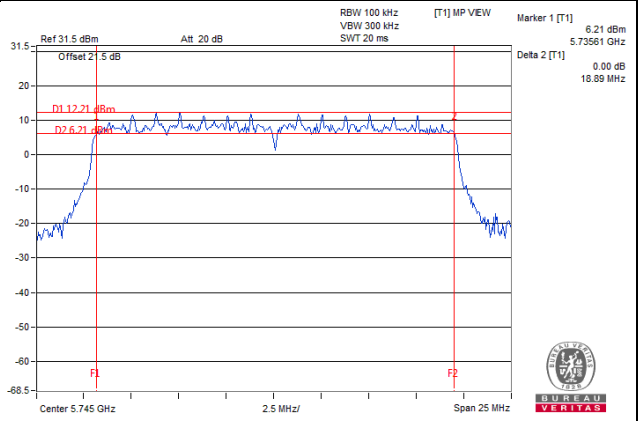
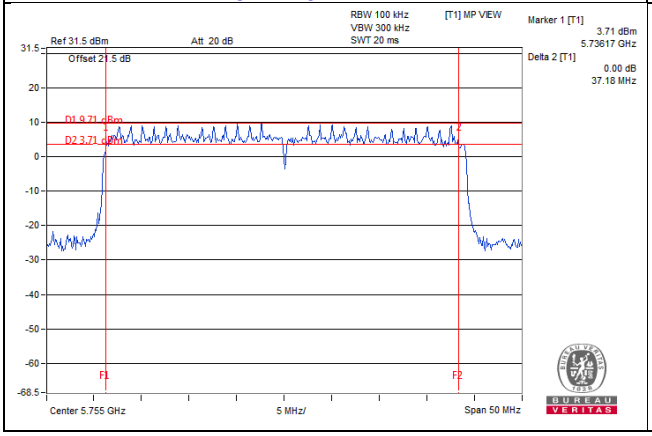
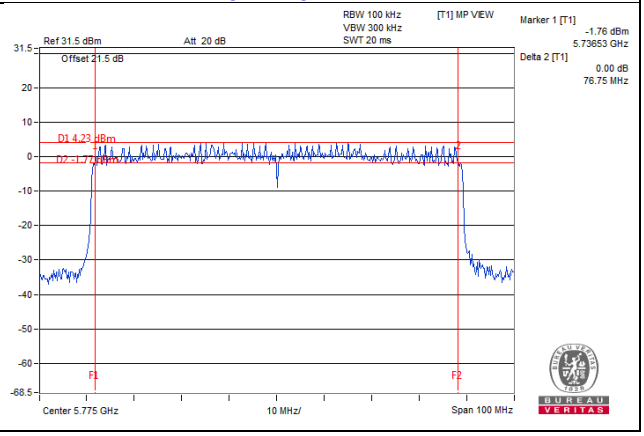
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	19.02	18.89	18.92	19.00	0.5	PASS
157	5785	19.00	19.00	18.93	18.97	0.5	PASS
165	5825	19.04	18.99	18.97	19.00	0.5	PASS

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	37.51	37.68	37.61	37.18	0.5	PASS
159	5795	37.65	37.68	37.38	37.64	0.5	PASS

802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	76.94	77.09	76.75	77.33	0.5	PASS

Spectrum Plot of Worst Value	
802.11a_Chain 3 / CH165	**802.11ax (HE20)_Chain 1 / CH149**
	
802.11ax (HE40)_Chain 3 / CH151	**802.11ax (HE80)_Chain 2 / CH155**
	

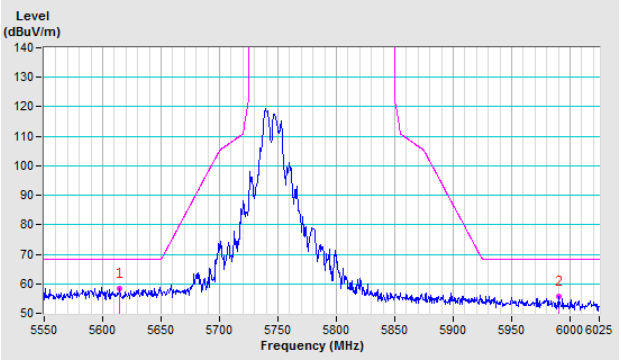
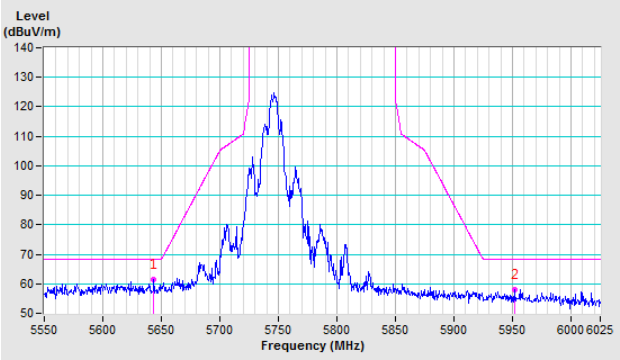
5 Pictures of Test Arrangements

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

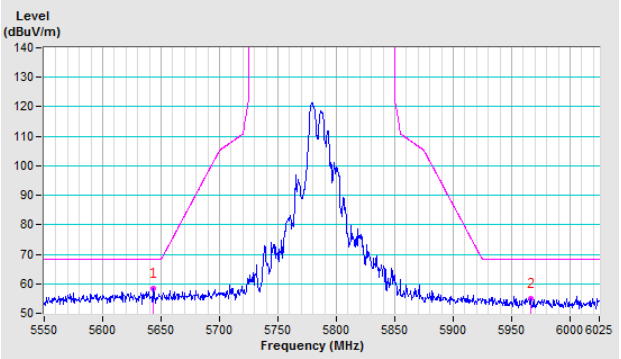
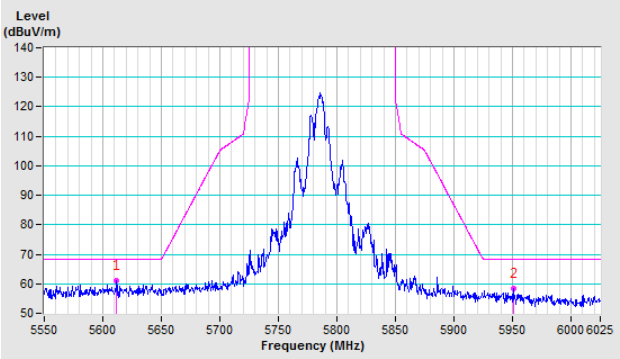
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

802.11a

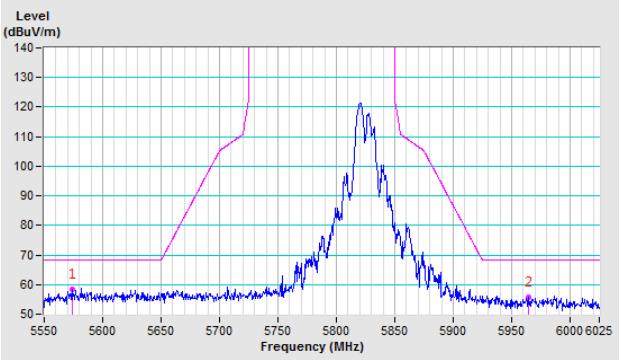
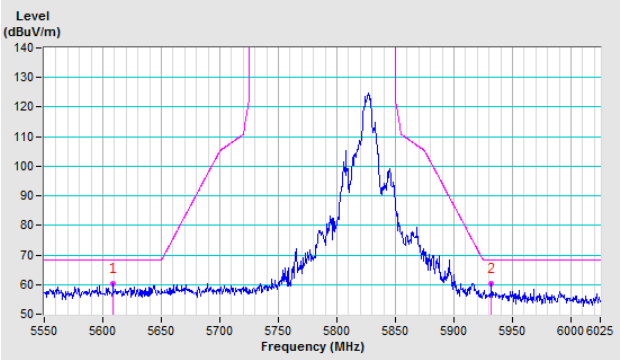
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

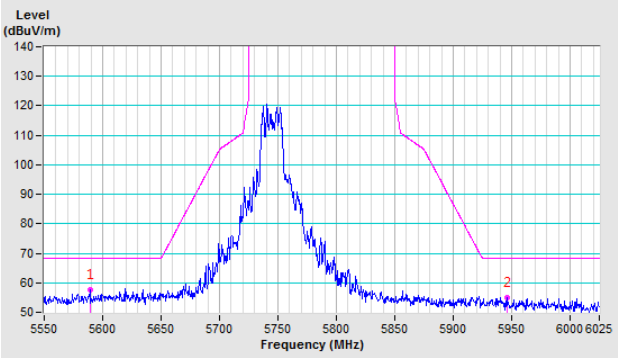
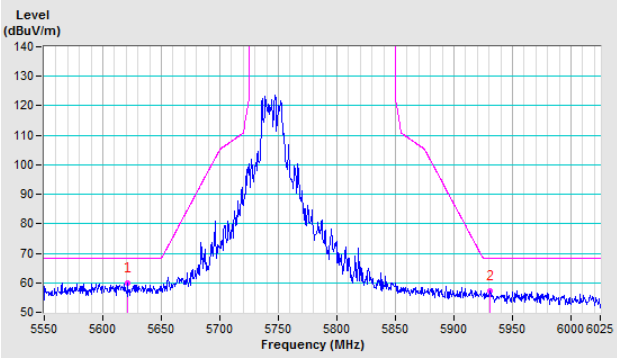
Horizontal	Vertical
	

CH 165 5825 MHz

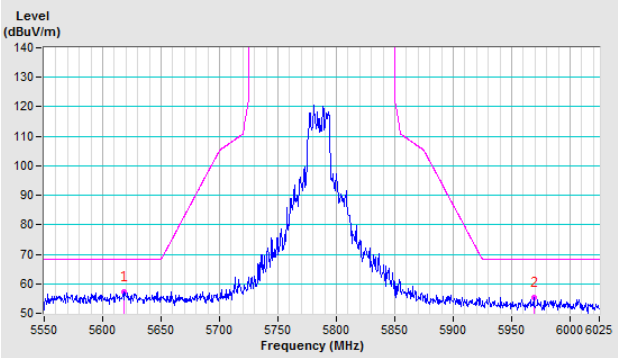
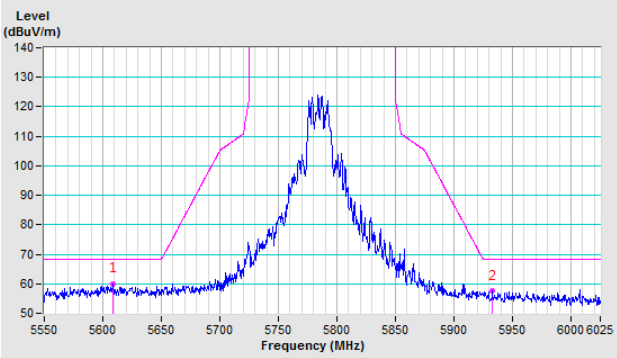
Horizontal	Vertical
	

802.11ax (HE20)

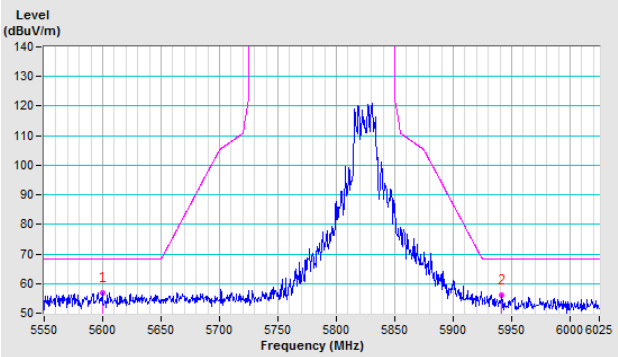
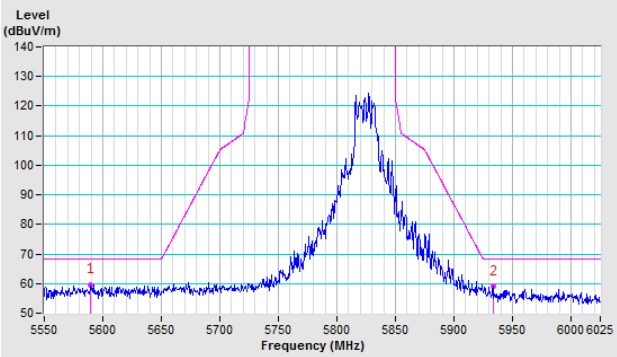
CH 149 5745 MHz

Horizontal	Vertical
	

CH 157 5785 MHz

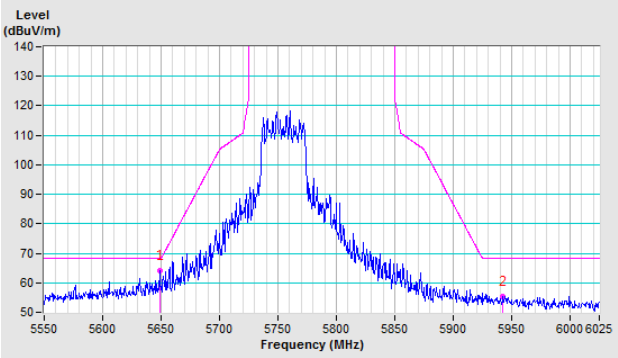
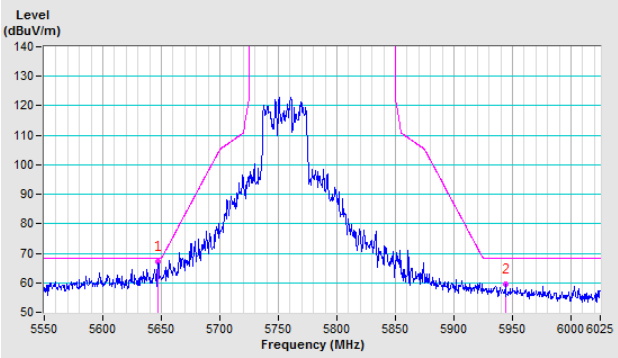
Horizontal	Vertical
	

CH 165 5825 MHz

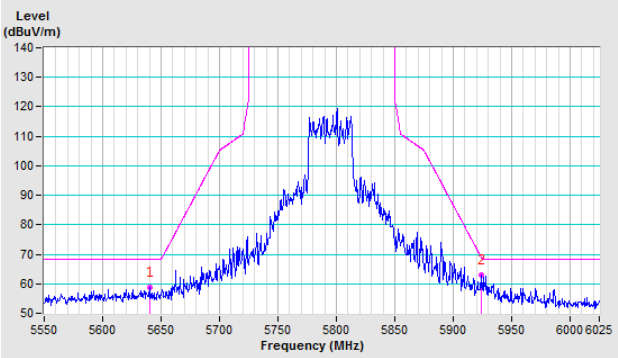
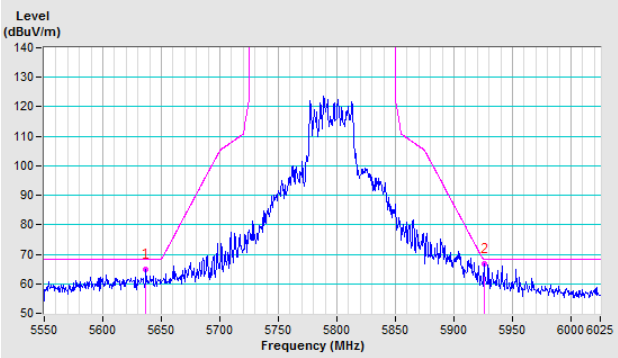
Horizontal	Vertical
	

802.11ax (HE40)

CH 151 5755 MHz

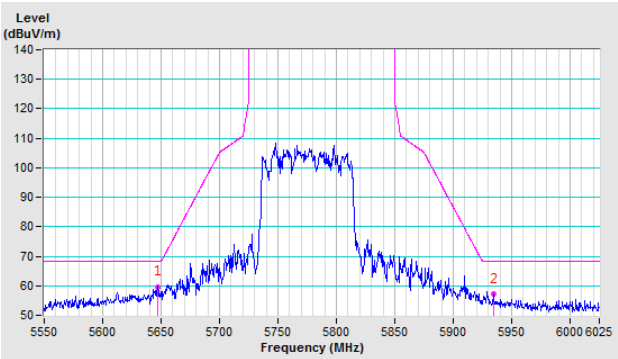
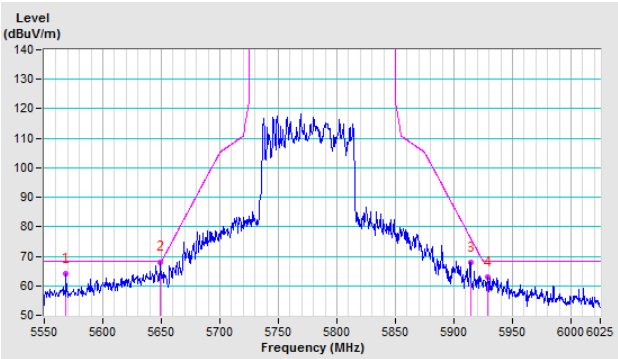
Horizontal	Vertical
	

CH 159 5795 MHz

Horizontal	Vertical
	

802.11ax (HE80)

CH 155 5775 MHz

Horizontal	Vertical
	

Appendix – Information on 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.

If you have any comments, please feel free to contact us at the following:

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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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