

## FCC Test Report

**Report No.:** RFBHQC-WTW-P20110629-1

**FCC ID:** UID-G36

**Test Model:** G36

**Series Model:** G34

**Received Date:** Nov. 19, 2020

**Test Date:** Dec. 10 to 13, 2020

**Issued Date:** Jan. 13, 2021

**Applicant:** ARRIS

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
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**FCC Registration /  
Designation Number:** 723255 / TW2022



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## Table of Contents

<b>Release Control Record .....</b>	<b>4</b>
<b>1 Certificate of Conformity .....</b>	<b>5</b>
<b>2 Summary of Test Results .....</b>	<b>6</b>
2.1 Measurement Uncertainty .....	6
2.2 Modification Record .....	6
<b>3 General Information .....</b>	<b>7</b>
3.1 General Description of EUT .....	7
3.2 Description of Test Modes .....	10
3.2.1 Test Mode Applicability and Tested Channel Detail .....	12
3.3 Duty Cycle of Test Signal .....	16
3.4 Description of Support Units .....	17
3.4.1 Configuration of System under Test .....	18
3.5 General Description of Applied Standard and References .....	19
<b>4 Test Types and Results .....</b>	<b>20</b>
4.1 Radiated Emission and Bandedge Measurement .....	20
4.1.1 Limits of Radiated Emission and Bandedge Measurement .....	20
4.1.2 Test Instruments .....	21
4.1.3 Test Procedure .....	23
4.1.4 Deviation from Test Standard .....	24
4.1.5 Test Setup .....	24
4.1.6 EUT Operating Condition .....	25
4.1.7 Test Results .....	26
4.2 Conducted Emission Measurement .....	72
4.2.1 Limits of Conducted Emission Measurement .....	72
4.2.2 Test Instruments .....	72
4.2.3 Test Procedure .....	73
4.2.4 Deviation from Test Standard .....	73
4.2.5 Test Setup .....	73
4.2.6 EUT Operating Condition .....	73
4.2.7 Test Results .....	74
4.3 Transmit Power Measurement .....	76
4.3.1 Limits of Transmit Power Measurement .....	76
4.3.2 Test Setup .....	76
4.3.3 Test Instruments .....	77
4.3.4 Test Procedure .....	77
4.3.5 Deviation from Test Standard .....	77
4.3.6 EUT Operating Condition .....	77
4.3.7 Test Results .....	78
4.4 Occupied Bandwidth Measurement .....	115
4.4.1 Test Setup .....	115
4.4.2 Test Instruments .....	115
4.4.3 Test Procedure .....	115
4.4.4 Test Results .....	116
4.5 Peak Power Spectral Density Measurement .....	121
4.5.1 Limits of Peak Power Spectral Density Measurement .....	121
4.5.2 Test Setup .....	121
4.5.3 Test Instruments .....	121
4.5.4 Test Procedure .....	121
4.5.5 Deviation from Test Standard .....	122
4.5.6 EUT Operating Condition .....	122
4.5.7 Test Results .....	123

4.6	Frequency Stability Measurement.....	130
4.6.1	Limits of Frequency Stability Measurement .....	130
4.6.2	Test Setup.....	130
4.6.3	Test Instruments .....	130
4.6.4	Test Procedure .....	130
4.6.5	Deviation from Test Standard .....	130
4.6.6	EUT Operating Condition .....	130
4.6.7	Test Results .....	131
4.7	6dB Bandwidth Measurement .....	132
4.7.1	Limits of 6dB Bandwidth Measurement.....	132
4.7.2	Test Setup.....	132
4.7.3	Test Instruments .....	132
4.7.4	Test Procedure .....	132
4.7.5	Deviation from Test Standard .....	132
4.7.6	EUT Operating Condition .....	132
4.7.7	Test Results .....	133
<b>5</b>	<b>Pictures of Test Arrangements.....</b>	<b>135</b>
	<b>Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band) .....</b>	<b>136</b>
	<b>Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band) .....</b>	<b>139</b>
	<b>Appendix – Information of the Testing Laboratories .....</b>	<b>148</b>

### Release Control Record

Issue No.	Description	Date Issued
RFBHQC-WTW-P20110629-1	Original release.	Jan. 13, 2021

## 1 Certificate of Conformity

**Product:** DOCSIS 3.1 Wireless Cable Modem

**Brand:** ARRIS

**Test Model:** G36

**Series Model:** G34


**Sample Status:** Engineering sample

**Applicant:** ARRIS

**Test Date:** Dec. 10 to 13, 2020

**Standard:** 47 CFR FCC Part 15, Subpart E (Section 15.407)  
ANSI C63.10: 2013

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

**Prepared by :**  , **Date:** Jan. 13, 2021  
Joyce Kuo / Specialist

**Approved by :**  , **Date:** Jan. 13, 2021  
Clark Lin / Technical Manager

## 2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -14.63dB at 0.57578 MHz.
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 -0.1 dB at 5725.00 MHz, 11490.00 MHz, 11650.00 MHz, 5350.00 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

### Note:

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

### 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) ( $\pm$ )
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Conducted emissions	-	2.5 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.4 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.0 dB
	18GHz ~ 40GHz	5.3 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	DOCSIS 3.1 Wireless Cable Modem
Brand	ARRIS
Test Model	G36
Series Model	G34
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from power 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
Transfer Rate	802.11b: up to 11 Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 300 Mbps 802.11ac: up to 1733.3 Mbps 802.11ax: up to 2401.9 Mbps
Operating Frequency	<b>2.4GHz:</b> 2.412 ~ 2.462GHz <b>5GHz:</b> 5.18 ~ 5.32GHz, 5.50 ~ 5.72GHz, 5.745 ~ 5.825GHz
Number of Channel	<b>2.4GHz:</b> 802.11b, 802.11g, 802.11n (HT20), VHT20, 802.11ax (HE20): 11 802.11n (HT40), VHT40, 802.11ax (HE40): 7 <b>5GHz:</b> 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 25 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 12 802.11ac (VHT80), 802.11ax (HE80): 6 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	<b>CDD Mode:</b> <b>2.412 ~ 2.462 GHz:</b> 893.433 mW <b>5.18 ~ 5.25 GHz:</b> 737.061 mW <b>5.25 ~ 5.32GHz:</b> 246.604 mW <b>5.50 ~ 5.72GHz:</b> 233.538 mW <b>5.745 ~ 5.825 GHz:</b> 952.044 mW <b>Beamforming Mode:</b> <b>2.412 ~ 2.462 GHz:</b> 893.433 mW <b>5.18 ~ 5.25 GHz:</b> 737.061 mW <b>5.25 ~ 5.32GHz:</b> 187.849 mW <b>5.50 ~ 5.72GHz:</b> 176.12 mW <b>5.745 ~ 5.825 GHz:</b> 697.341 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. The EUT has two model names, which are identical to each other in all aspects except for the following information:

Brand	Product name	Model	Difference
ARRIS	DOCSIS 3.1 Wireless Cable Modem	G36	-
		G34	The different is without 2.5 GHz

From the above models, model: G36 was selected as representative model for the test and its data are recorded in this report.

2. 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.

1. The EUT power needs to be supplied from one power adapter, the information is as below table:

No.	Brand	Model No.	Spec.
1	HONOTO	ADS-40FSI-12 12030EPCU-L	Input: 120Vac, 1A Max, 60Hz Output: 12Vdc, 2.5A DC output cable: Unshielded, 1.8m
2	Ktec	KSAS0361200250HU	Input: 120Vac, 1A Max, 60Hz Output: 12Vdc, 2.5A DC output cable: Unshielded, 1.8m

Note:

1. From the above models, the worst Radiated Emissions test was found in Adapter 1 and Conducted Emissions test was found in Adapter 2. Therefore only the test data of the modes were recorded in this report.

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

Antenna NO.	RF Chain NO	Brand	Antenna Net Gain(dBi)	Frequency range	Antenna Type	Connector Type	Cable Length
ANT1	Chain0	2G	2.82	2.4~2.4835GHz	Dipole	i-pex(MHF)	40mm
			5G	3.88			
		3.88		5.25~5.35GHz			
		4.3		5.47~5.725GHz			
		4.42	5.725~5.85GHz				
ANT2	Chain1	2G	2.84	2.4~2.4835GHz	Dipole	i-pex(MHF)	130mm
			5G	3.85			
		4.33		5.25~5.35GHz			
		4.3		5.47~5.725GHz			
		4.38	5.725~5.85GHz				



4. The EUT incorporates a MISO function:

2.4GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11b	1Tx Fixed Chain 0	1Rx
802.11g	1Tx Diversity	1Rx
802.11n (HT20)	2Tx	1Rx
802.11n (HT40)	2Tx	1Rx
VHT20	2Tx	1Rx
VHT40	2Tx	1Rx
802.11ax (HE20)	2Tx	1Rx
802.11ax (HE40)	2Tx	1Rx
5GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	1Tx Diversity	1Rx
802.11n (HT20)	2Tx	1Rx
802.11n (HT40)	2Tx	1Rx
802.11ac (VHT20)	2Tx	1Rx
802.11ac (VHT40)	2Tx	1Rx
802.11ac (VHT80)	2Tx	1Rx
802.11ac (VHT160)	2Tx	1Rx
802.11ax (HE20)	2Tx	1Rx
802.11ax (HE40)	2Tx	1Rx
802.11ax (HE80)	2Tx	1Rx
802.11ax (HE160)	2Tx	1Rx

Note:

1. All of modulation mode support beamforming function 802.11b, 802.11g and 802.11a modulation mode.
2. The EUT support Beamforming and CDD 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 the manufacturer will control the power for 802.11n/ac mode is the same as the 802.11ax mode or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 3.2.1)

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

### 3.2 Description of Test Modes

#### FOR 5180 ~ 5320MHz

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

Channel	Frequency	Channel	Frequency
36	5180 MHz	52	5260 MHz
40	5200 MHz	56	5280 MHz
44	5220 MHz	60	5300 MHz
48	5240 MHz	64	5320 MHz

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	54	5270 MHz
46	5230 MHz	62	5310 MHz

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

Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz

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

Channel	Frequency
50	5250 MHz

### FOR 5500 ~ 5720MHz

12 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	144	5720 MHz

6 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	142	5710 MHz

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

Channel	Frequency	Channel	Frequency
106	5530 MHz	122	5610 MHz
138	5690 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 $\geq$ 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE $\geq$ 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.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6Mb/s
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500 ~ 5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	OFDMA	BPSK	MCS0
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ax (HE20)		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.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5180-5320 5500 ~ 5720 5745-5825	36 to 64 100 to 144 149 to 165	149	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.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ax (HE20)	5180-5320 5500 ~ 5720 5745-5825	36 to 64 100 to 144 149 to 165	149	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.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11a	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		38 to 62	38, 46, 54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		42, 58	42, 58	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a		5500 ~ 5720	100 to 144	100, 116, 140, 144	OFDM	BPSK
802.11ac (VHT20) (Output power only)	100 to 144		100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)	102 to 142		102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)	106 to 138		106, 138	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)	114		114	OFDMA	BPSK	MCS0
802.11ax (HE20)	100 to 144		100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)	102 to 142		102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)	106 to 138		106, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)	114	114	OFDMA	BPSK	MCS0	
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		151 to 159	151, 159	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		155	155	OFDM	BPSK	MCS0
802.11ax (HE20)		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 (output power only)						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ac (VHT20)	5180-5320	36 to 64	36, 40, 48, 52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40)		38 to 62	38, 46, 54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80)		42, 58	42, 58	OFDM	BPSK	MCS0
802.11ac (VHT160)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		36 to 64	36, 40, 48, 52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		38 to 62	38, 46, 54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		42, 58	42, 58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ac (VHT20)	5500 ~ 5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	MCS0
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	MCS0
802.11ac (VHT80)		106 to 138	106, 138	OFDM	BPSK	MCS0
802.11ac (VHT160)		114	114	OFDMA	BPSK	MCS0
802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	BPSK	MCS0
802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	BPSK	MCS0
802.11ax (HE80)		106 to 138	106, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		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
802.11ax (HE20)		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

### Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE $\geq$ 1G	24deg. C, 69%RH	120Vac, 60Hz	Tom Yang
RE $<$ 1G	22deg. C, 70%RH	120Vac, 60Hz	Tom Yang
PLC	25deg. C, 75%RH	120Vac, 60Hz	Tom Yang
APCM	25deg. C, 60%RH	120Vac, 60Hz	Eric Peng

### 3.3 Duty Cycle of Test Signal

If duty cycle of test signal is  $\geq 98\%$ , duty factor is not required.  
 If duty cycle of test signal is  $< 98\%$ , duty factor shall be considered.

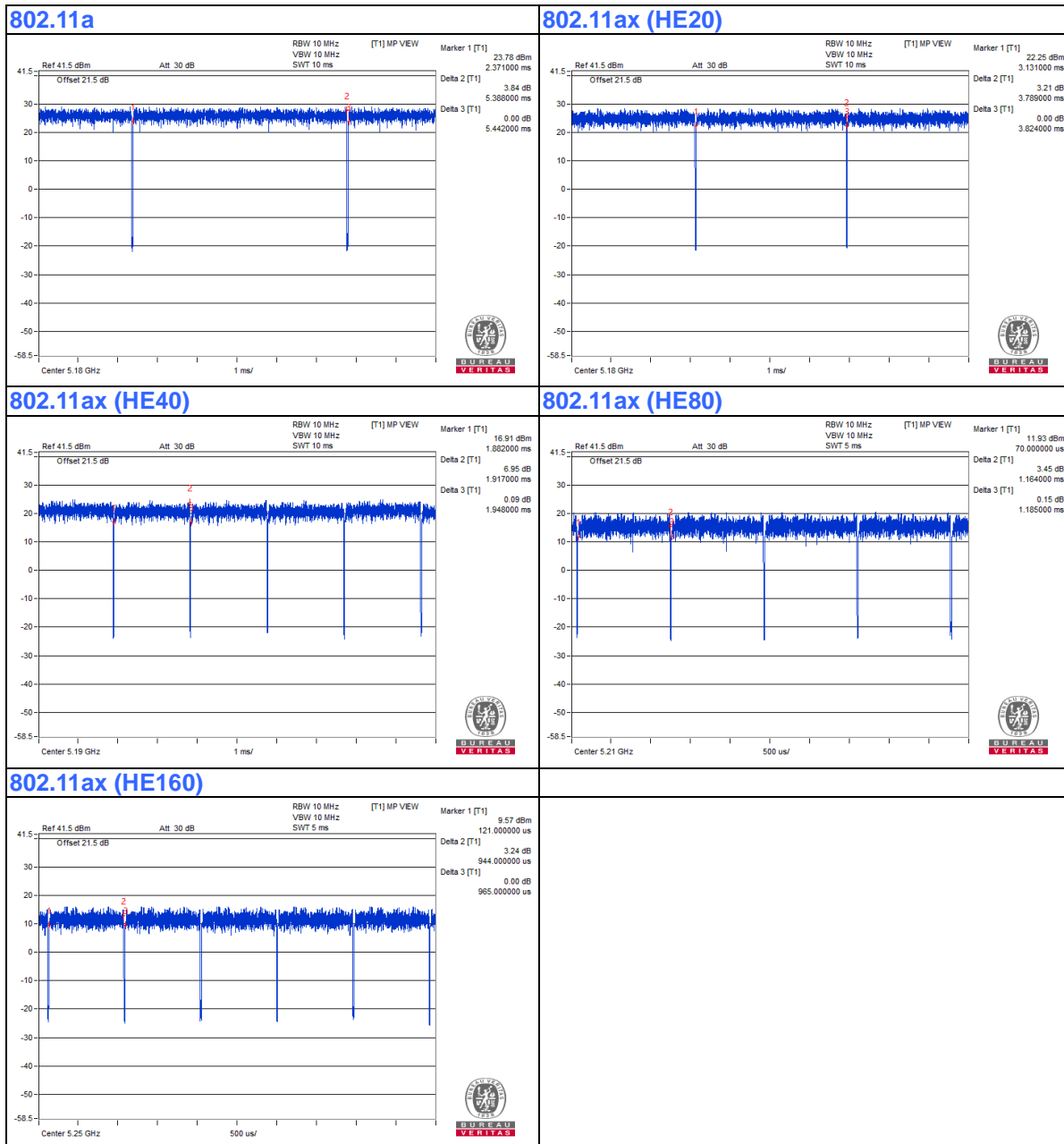
**802.11a:** Duty cycle = 5.388 ms / 5.442 ms = 0.99

**802.11ax (HE20):** Duty cycle = 3.789 ms / 3.824 ms = 0.991

**802.11ax (HE40):** Duty cycle = 1.917 ms / 1.948 ms = 0.984

**802.11ax (HE80):** Duty cycle = 1.164 ms / 1.185 ms = 0.982

**802.11ax (HE160):** Duty cycle = 0.944 ms / 0.965 ms = 0.978, Duty factor =  $10 * \log(1/\text{Duty cycle}) = 0.10 \text{ dB}$





### 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.

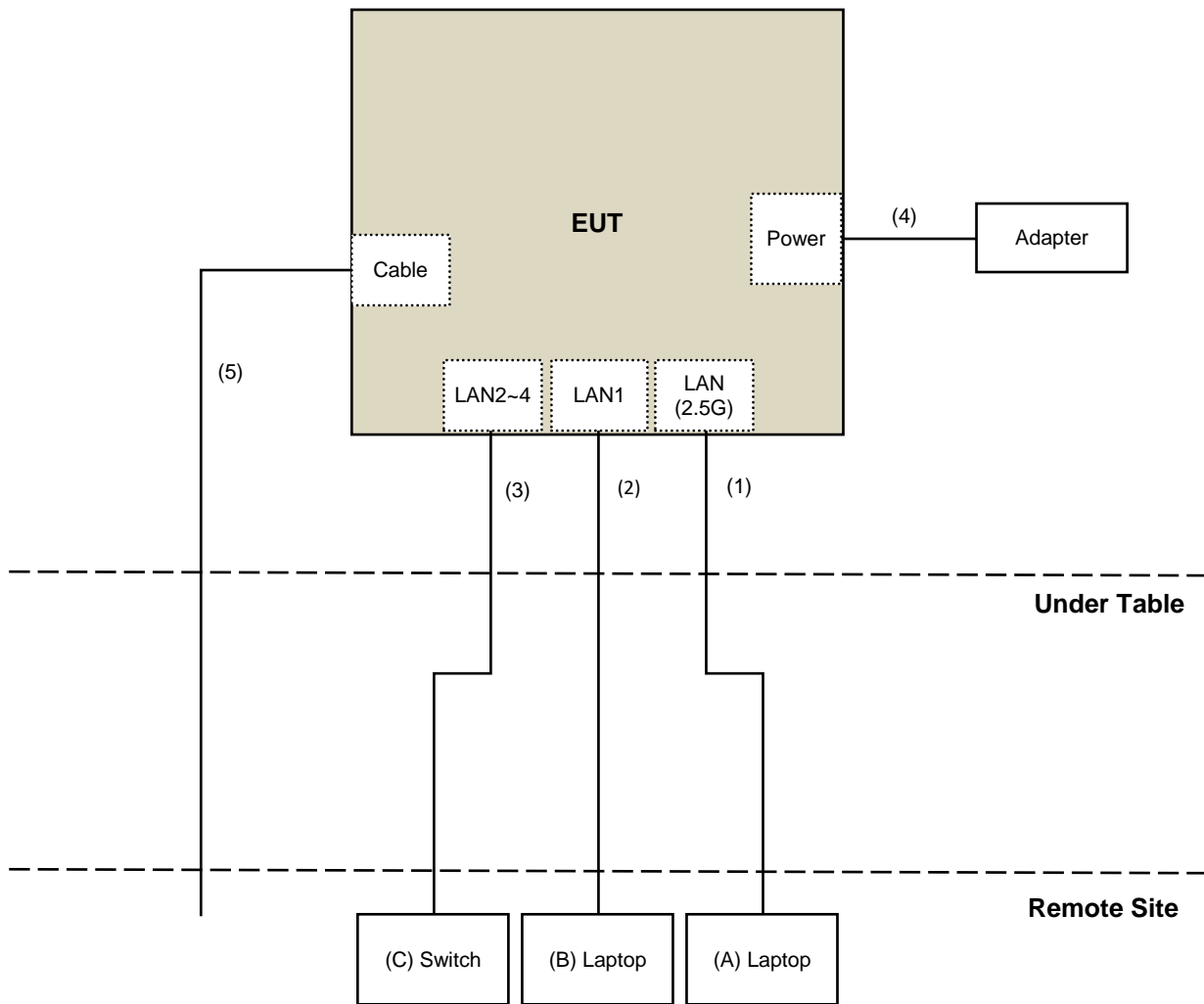
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	4YV4VY1	FCC DoC	Provided by Lab
B.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
C.	Switch	D-Link	DGS-1005D	DR8WC92000523	NA	Provided by Lab

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.	RJ-45 Cable	3	10	No	0	Provided by Lab
4.	DC Cable	1	1.8	No	0	Supplied by client
5.	Coaxial Cable	1	10	No	0	Provided by Lab

### 3.4.1 Configuration of System under Test



### 3.5 General Description of Applied Standard and References

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

**Test Standard:**

**FCC Part 15, Subpart E (15.407)**

**ANSI C63.10-2013**

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

**References Test Guidance:**

**KDB 789033 D02 General UNII Test Procedure New Rules v02r01**

**KDB 662911 D01 Multiple Transmitter Output v02r01**

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

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

#### NOTE:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBuV/m)	AV:54 (dBuV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBuV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK:-27 (dBm/MHz) <sup>*1</sup> PK:10 (dBm/MHz) <sup>*2</sup> PK:15.6 (dBm/MHz) <sup>*3</sup> PK:27 (dBm/MHz) <sup>*4</sup>	PK: 68.2(dBuV/m) <sup>*1</sup> PK:105.2 (dBuV/m) <sup>*2</sup> PK: 110.8(dBuV/m) <sup>*3</sup> PK:122.2 (dBuV/m) <sup>*4</sup>
<sup>*1</sup> beyond 75 MHz or more above of the band edge.		<sup>*2</sup> below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
<sup>*3</sup> below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		<sup>*4</sup> from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

#### Note:

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

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

## 4.1.2 Test Instruments

**For Radiated Emission & OOB & BandEdge test:**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 06, 2020	July 05, 2021
Pre-Amplifier EMCI	EMC001340	980142	May 25, 2020	May 24, 2021
Loop Antenna Electro-Metrics	EM-6879	264	Feb. 18, 2020	Feb. 17, 2021
RF Cable	NA	LOOPCAB-001	Jan. 08, 2020	Jan. 07, 2021
RF Cable	NA	LOOPCAB-002	Jan. 08, 2020	Jan. 07, 2021
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 05, 2020	Nov. 04, 2021
RF Cable	8D	966-3-1	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-2	Mar. 17, 2020	Mar. 16, 2021
RF Cable	8D	966-3-3	Mar. 17, 2020	Mar. 16, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 24, 2020	Sep. 23, 2021
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 22, 2020	Nov. 21, 2021
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC104-SM-SM-1500	180504	Apr. 29, 2020	Apr. 28, 2021
RF Cable	EMC104-SM-SM-2000	180601	June 09, 2020	June 08, 2021
RF Cable	EMC104-SM-SM-6000	180602	June 09, 2020	June 08, 2021
Spectrum Analyzer Keysight	N9030A	MY54490679	July 13, 2020	July 12, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 22, 2020	Nov. 21, 2021
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

**Note:**

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

**For other test items:**

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021
Power meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021
Power sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 16, 2020	Jan. 15, 2021
True RMS Clamp Meter FLUKE	325	31130711WS	June 06, 2020	June 05, 2021
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA

- NOTE:**
1. The test was performed in Oven room 2.
  2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
  3. Tested Date: Dec. 10, 2020

#### 4.1.3 Test Procedure

##### **For Radiated emission below 30MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

##### **Note:**

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

##### **For Radiated emission above 30MHz**

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

##### **Note:**

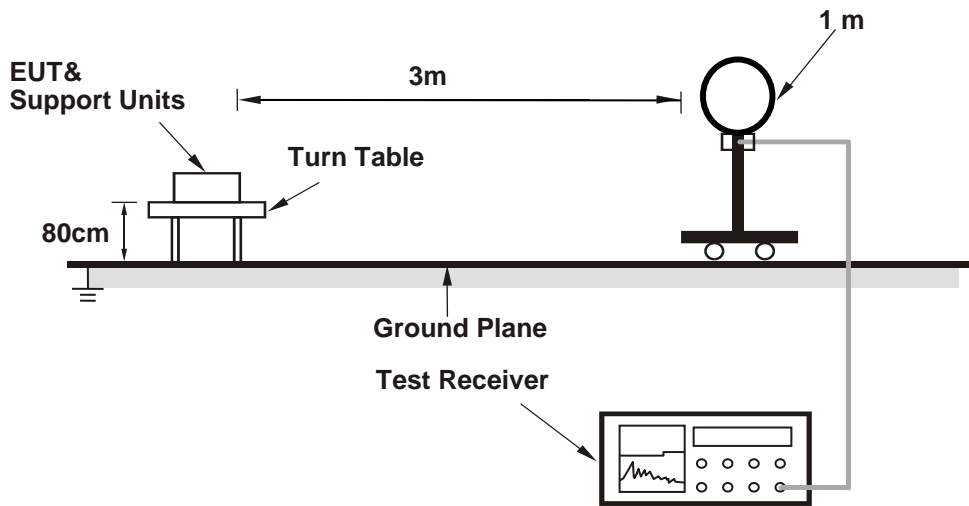
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10Hz (Duty cycle  $\geq 98\%$ ) 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

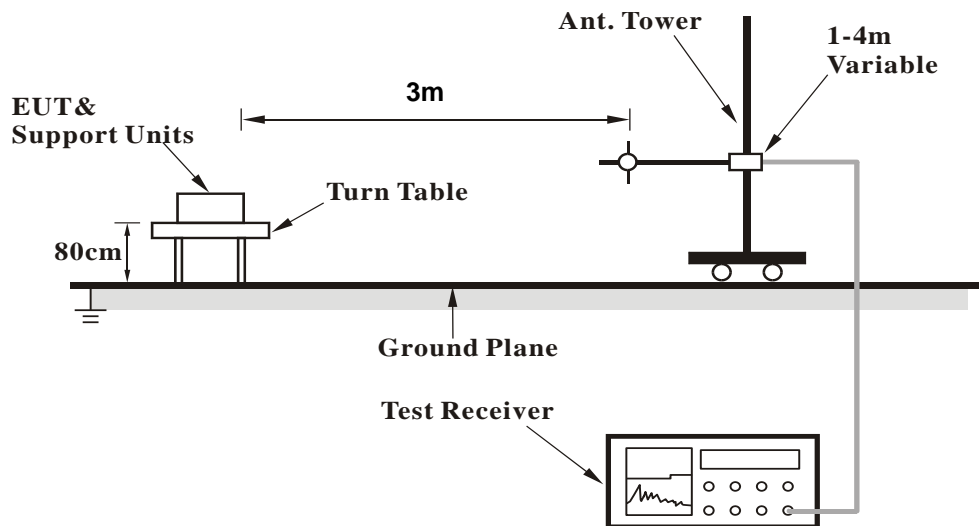
No deviation.

4.1.5 Test Setup

**For Radiated emission below 30MHz**

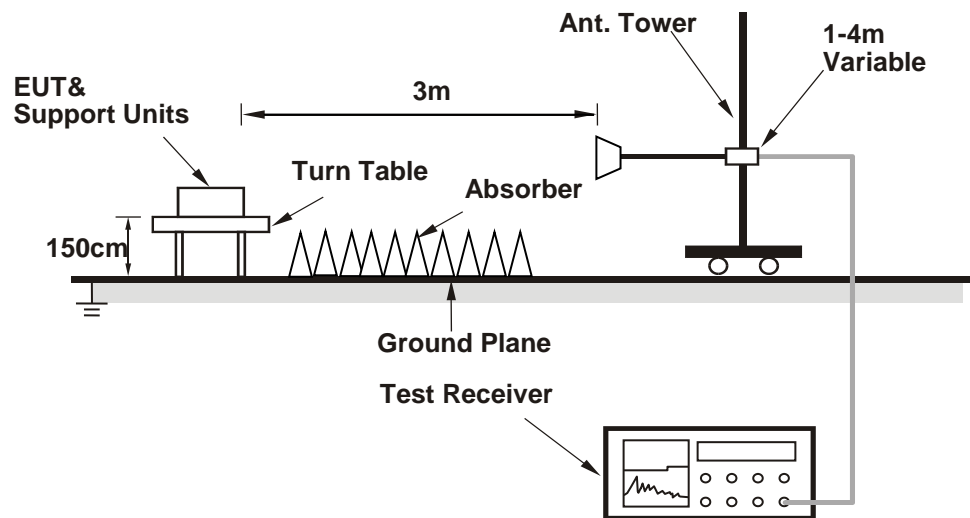


**For Radiated emission 30MHz to 1GHz**





### 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 Laptop which is placed on remote site.
- b. Controlling software (DUT\_setup.610.32) has been activated to set the EUT under transmission condition continuously.

#### 4.1.7 Test Results

##### Above 1GHz Data:

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.7 PK	74.0	-13.3	1.52 H	179	56.0	4.7
2	5150.00	45.1 AV	54.0	-8.9	1.52 H	179	40.4	4.7
3	*5180.00	106.3 PK			1.52 H	179	101.8	4.5
4	*5180.00	96.6 AV			1.52 H	179	92.1	4.5
5	#10360.00	56.2 PK	68.2	-12.0	1.62 H	262	42.5	13.7
6	15540.00	56.1 PK	74.0	-17.9	1.61 H	109	42.2	13.9
7	15540.00	42.9 AV	54.0	-11.1	1.61 H	109	29.0	13.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.9 PK	74.0	-3.1	1.67 V	326	66.2	4.7
2	5150.00	53.6 AV	54.0	-0.4	1.67 V	326	48.9	4.7
3	*5180.00	115.6 PK			1.67 V	326	111.1	4.5
4	*5180.00	105.3 AV			1.67 V	326	100.8	4.5
5	#10360.00	47.2 PK	68.2	-21.0	1.60 V	254	33.5	13.7
6	15540.00	54.8 PK	74.0	-19.2	2.26 V	218	40.9	13.9
7	15540.00	42.7 AV	54.0	-11.3	2.26 V	218	28.8	13.9

##### Remarks:

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	60.9 PK	74.0	-13.1	1.57 H	191	56.2	4.7
2	5150.00	45.2 AV	54.0	-8.8	1.57 H	191	40.5	4.7
3	*5200.00	109.8 PK			1.57 H	191	105.6	4.2
4	*5200.00	99.1 AV			1.57 H	191	94.9	4.2
5	#10400.00	55.3 PK	68.2	-12.9	1.57 H	295	41.7	13.6
6	15600.00	56.9 PK	74.0	-17.1	1.54 H	119	42.8	14.1
7	15600.00	43.3 AV	54.0	-10.7	1.54 H	119	29.2	14.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.4 PK	74.0	-4.6	1.68 V	325	64.7	4.7
2	5150.00	53.5 AV	54.0	-0.5	1.68 V	325	48.8	4.7
3	*5200.00	117.9 PK			1.68 V	325	113.7	4.2
4	*5200.00	108.2 AV			1.68 V	325	104.0	4.2
5	#10400.00	48.2 PK	68.2	-20.0	1.60 V	257	34.6	13.6
6	15600.00	55.3 PK	74.0	-18.7	2.31 V	226	41.2	14.1
7	15600.00	43.0 AV	54.0	-11.0	2.31 V	226	28.9	14.1

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	107.3 PK			1.51 H	173	103.0	4.3
2	*5240.00	97.1 AV			1.51 H	173	92.8	4.3
3	5350.00	49.7 PK	74.0	-24.3	1.51 H	173	45.5	4.2
4	5350.00	37.8 AV	54.0	-16.2	1.51 H	173	33.6	4.2
5	#10480.00	56.4 PK	68.2	-11.8	1.57 H	277	42.7	13.7
6	15720.00	55.7 PK	74.0	-18.3	1.55 H	119	41.3	14.4
7	15720.00	42.9 AV	54.0	-11.1	1.55 H	119	28.5	14.4

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	115.6 PK			1.67 V	325	111.3	4.3
2	*5240.00	105.7 AV			1.67 V	325	101.4	4.3
3	5350.00	54.5 PK	74.0	-19.5	1.67 V	325	50.3	4.2
4	5350.00	42.8 AV	54.0	-11.2	1.67 V	325	38.6	4.2
5	#10480.00	47.1 PK	68.2	-21.1	1.61 V	270	33.4	13.7
6	15720.00	55.3 PK	74.0	-18.7	2.29 V	209	40.9	14.4
7	15720.00	42.9 AV	54.0	-11.1	2.29 V	209	28.5	14.4

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	50.9 PK	74.0	-23.1	1.56 H	190	46.2	4.7
2	5150.00	37.9 AV	54.0	-16.1	1.56 H	190	33.2	4.7
3	*5260.00	107.4 PK			1.56 H	190	103.1	4.3
4	*5260.00	97.3 AV			1.56 H	190	93.0	4.3
5	#10520.00	56.3 PK	68.2	-11.9	1.62 H	271	42.6	13.7
6	15780.00	55.9 PK	74.0	-18.1	1.60 H	120	41.9	14.0
7	15780.00	43.0 AV	54.0	-11.0	1.60 H	120	29.0	14.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.6 PK	74.0	-20.4	1.68 V	324	48.9	4.7
2	5150.00	42.7 AV	54.0	-11.3	1.68 V	324	38.0	4.7
3	*5260.00	115.8 PK			1.68 V	324	111.5	4.3
4	*5260.00	105.7 AV			1.68 V	324	101.4	4.3
5	#10520.00	47.4 PK	68.2	-20.8	1.56 V	248	33.7	13.7
6	15780.00	54.9 PK	74.0	-19.1	2.29 V	208	40.9	14.0
7	15780.00	42.8 AV	54.0	-11.2	2.29 V	208	28.8	14.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	106.9 PK			1.59 H	204	102.6	4.3
2	*5300.00	96.8 AV			1.59 H	204	92.5	4.3
3	10600.00	55.8 PK	74.0	-18.2	1.63 H	286	41.9	13.9
4	10600.00	51.1 AV	54.0	-2.9	1.63 H	286	37.2	13.9
5	15900.00	55.2 PK	74.0	-18.8	1.56 H	128	41.5	13.7
6	15900.00	42.6 AV	54.0	-11.4	1.56 H	128	28.9	13.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	115.5 PK			1.64 V	308	111.2	4.3
2	*5300.00	105.6 AV			1.64 V	308	101.3	4.3
3	10600.00	47.8 PK	74.0	-26.2	1.57 V	259	33.9	13.9
4	10600.00	41.2 AV	54.0	-12.8	1.57 V	259	27.3	13.9
5	15900.00	54.7 PK	74.0	-19.3	2.26 V	215	41.0	13.7
6	15900.00	42.6 AV	54.0	-11.4	2.26 V	215	28.9	13.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	106.8 PK			1.45 H	178	102.5	4.3
2	*5320.00	96.7 AV			1.45 H	178	92.4	4.3
3	5350.00	64.1 PK	74.0	-9.9	1.45 H	178	59.9	4.2
4	5350.00	46.6 AV	54.0	-7.4	1.45 H	178	42.4	4.2
5	10640.00	56.2 PK	74.0	-17.8	1.66 H	284	42.3	13.9
6	10640.00	51.2 AV	54.0	-2.8	1.66 H	284	37.3	13.9
7	15960.00	55.2 PK	74.0	-18.8	1.51 H	132	41.5	13.7
8	15960.00	42.8 AV	54.0	-11.2	1.51 H	132	29.1	13.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	114.9 PK			1.64 V	321	110.6	4.3
2	*5320.00	104.9 AV			1.64 V	321	100.6	4.3
3	5350.00	69.6 PK	74.0	-4.4	1.64 V	321	65.4	4.2
4	5350.00	53.7 AV	54.0	-0.3	1.64 V	321	49.5	4.2
5	10640.00	47.5 PK	74.0	-26.5	1.63 V	259	33.6	13.9
6	10640.00	41.2 AV	54.0	-12.8	1.63 V	259	27.3	13.9
7	15960.00	54.6 PK	74.0	-19.4	2.31 V	201	40.9	13.7
8	15960.00	42.3 AV	54.0	-11.7	2.31 V	201	28.6	13.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5458.26	54.5 PK	74.0	-19.5	1.52 H	181	50.1	4.4
2	5458.26	39.7 AV	54.0	-14.3	1.52 H	181	35.3	4.4
3	5460.00	52.8 PK	74.0	-21.2	1.52 H	181	48.4	4.4
4	5460.00	39.8 AV	54.0	-14.2	1.52 H	181	35.4	4.4
5	#5470.00	58.9 PK	68.2	-9.3	1.52 H	181	54.4	4.5
6	*5500.00	104.8 PK			1.52 H	181	100.2	4.6
7	*5500.00	95.0 AV			1.52 H	181	90.4	4.6
8	11000.00	55.6 PK	74.0	-18.4	1.65 H	298	41.3	14.3
9	11000.00	51.2 AV	54.0	-2.8	1.65 H	298	36.9	14.3
10	#16500.00	55.1 PK	68.2	-13.1	1.64 H	103	39.6	15.5

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.4 PK	74.0	-15.6	1.68 V	317	54.0	4.4
2	5460.00	44.4 AV	54.0	-9.6	1.68 V	317	40.0	4.4
3	#5469.68	67.6 PK	68.2	-0.6	1.68 V	317	63.1	4.5
4	*5500.00	113.1 PK			1.68 V	317	108.5	4.6
5	*5500.00	103.3 AV			1.68 V	317	98.7	4.6
6	11000.00	46.7 PK	74.0	-27.3	1.64 V	254	32.4	14.3
7	11000.00	40.3 AV	54.0	-13.7	1.64 V	254	26.0	14.3
8	#16500.00	55.1 PK	68.2	-13.1	2.30 V	186	39.6	15.5

**Remarks:**

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



<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	107.7 PK			1.53 H	184	103.1	4.6
2	*5580.00	97.6 AV			1.53 H	184	93.0	4.6
3	11160.00	55.9 PK	74.0	-18.1	1.63 H	298	41.7	14.2
4	11160.00	51.2 AV	54.0	-2.8	1.63 H	298	37.0	14.2
5	#16740.00	55.3 PK	68.2	-12.9	1.60 H	118	38.4	16.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	115.7 PK			1.73 V	340	111.1	4.6
2	*5580.00	105.7 AV			1.73 V	340	101.1	4.6
3	11160.00	47.8 PK	74.0	-26.2	1.60 V	249	33.6	14.2
4	11160.00	41.6 AV	54.0	-12.4	1.60 V	249	27.4	14.2
5	#16740.00	54.9 PK	68.2	-13.3	2.32 V	207	38.0	16.9

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	104.7 PK			1.58 H	170	100.1	4.6
2	*5700.00	94.9 AV			1.58 H	170	90.3	4.6
3	#5725.00	58.7 PK	68.2	-9.5	1.58 H	170	54.0	4.7
4	11400.00	56.3 PK	74.0	-17.7	1.62 H	301	42.1	14.2
5	11400.00	51.5 AV	54.0	-2.5	1.62 H	301	37.3	14.2
6	#17100.00	55.9 PK	68.2	-12.3	1.59 H	109	38.1	17.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	112.1 PK			1.88 V	318	107.5	4.6
2	*5700.00	102.0 AV			1.88 V	318	97.4	4.6
3	#5725.00	68.1 PK	68.2	-0.1	1.88 V	318	63.4	4.7
4	11400.00	46.7 PK	74.0	-27.3	1.65 V	260	32.5	14.2
5	11400.00	40.3 AV	54.0	-13.7	1.65 V	260	26.1	14.2
6	#17100.00	54.7 PK	68.2	-13.5	2.35 V	203	36.9	17.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.3 PK	74.0	-21.7	1.53 H	199	47.9	4.4
2	5460.00	38.7 AV	54.0	-15.3	1.53 H	199	34.3	4.4
3	#5470.00	54.1 PK	68.2	-14.1	1.53 H	199	49.6	4.5
4	*5720.00	107.5 PK			1.53 H	199	102.8	4.7
5	*5720.00	97.4 AV			1.53 H	199	92.7	4.7
6	#5850.00	53.0 PK	68.2	-15.2	1.53 H	199	48.0	5.0
7	11440.00	56.9 PK	74.0	-17.1	1.67 H	285	42.4	14.5
8	11440.00	51.7 AV	54.0	-2.3	1.67 H	285	37.2	14.5
9	#17160.00	54.9 PK	68.2	-13.3	1.53 H	142	36.9	18.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	52.6 PK	74.0	-21.4	1.75 V	323	48.2	4.4
2	5460.00	38.8 AV	54.0	-15.2	1.75 V	323	34.4	4.4
3	#5470.00	53.5 PK	68.2	-14.7	1.75 V	323	49.0	4.5
4	*5720.00	112.6 PK			1.75 V	323	107.9	4.7
5	*5720.00	104.5 AV			1.75 V	323	99.8	4.7
6	#5850.00	52.7 PK	68.2	-15.5	1.75 V	323	47.7	5.0
7	11440.00	47.9 PK	74.0	-26.1	1.60 V	255	33.4	14.5
8	11440.00	41.5 AV	54.0	-12.5	1.60 V	255	27.0	14.5
9	#17160.00	55.0 PK	68.2	-13.2	2.28 V	198	37.0	18.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5550.99	51.9 PK	68.2	-16.3	1.24 H	188	47.3	4.6
2	*5745.00	108.5 PK			1.24 H	188	103.7	4.8
3	*5745.00	98.5 AV			1.24 H	188	93.7	4.8
4	#5999.67	51.2 PK	68.2	-17.0	1.24 H	188	45.9	5.3
5	11490.00	59.2 PK	74.0	-14.8	3.21 H	320	44.6	14.6
<b>6</b>	<b>11490.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>3.21 H</b>	<b>320</b>	<b>39.3</b>	<b>14.6</b>
7	#17235.00	59.1 PK	68.2	-9.1	1.78 H	125	40.9	18.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5638.24	58.0 PK	68.2	-10.2	1.70 V	311	53.5	4.5
2	*5745.00	117.4 PK			1.70 V	311	112.6	4.8
3	*5745.00	107.1 AV			1.70 V	311	102.3	4.8
4	#5955.50	52.4 PK	68.2	-15.8	1.70 V	311	47.1	5.3
5	11490.00	52.9 PK	74.0	-21.1	1.50 V	305	38.3	14.6
6	11490.00	49.5 AV	54.0	-4.5	1.50 V	305	34.9	14.6
7	#17235.00	53.3 PK	68.2	-14.9	1.49 V	96	35.1	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5616.13	51.5 PK	68.2	-16.7	1.26 H	180	47.0	4.5
2	*5785.00	108.9 PK			1.26 H	180	104.0	4.9
3	*5785.00	98.9 AV			1.26 H	180	94.0	4.9
4	#5926.97	52.3 PK	68.2	-15.9	1.26 H	180	47.2	5.1
5	11570.00	59.0 PK	74.0	-15.0	3.20 H	317	44.4	14.6
6	11570.00	53.8 AV	54.0	-0.2	3.20 H	317	39.2	14.6
7	#17355.00	59.5 PK	68.2	-8.7	1.75 H	136	41.3	18.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5593.49	55.5 PK	68.2	-12.7	1.71 V	312	50.9	4.6
2	*5785.00	117.6 PK			1.71 V	312	112.7	4.9
3	*5785.00	107.4 AV			1.71 V	312	102.5	4.9
4	#5934.07	52.3 PK	68.2	-15.9	1.71 V	312	47.2	5.1
5	11570.00	52.9 PK	74.0	-21.1	1.52 V	292	38.3	14.6
6	11570.00	49.7 AV	54.0	-4.3	1.52 V	292	35.1	14.6
7	#17355.00	53.9 PK	68.2	-14.3	1.50 V	96	35.7	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11a	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5619.35	51.5 PK	68.2	-16.7	1.28 H	186	47.0	4.5
2	*5825.00	108.4 PK			1.28 H	186	103.5	4.9
3	*5825.00	98.5 AV			1.28 H	186	93.6	4.9
4	#5929.74	52.3 PK	68.2	-15.9	1.28 H	186	47.2	5.1
5	11650.00	58.6 PK	74.0	-15.4	3.26 H	317	44.0	14.6
<b>6</b>	<b>11650.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>3.26 H</b>	<b>317</b>	<b>39.3</b>	<b>14.6</b>
7	#17475.00	58.9 PK	68.2	-9.3	1.77 H	131	40.1	18.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5575.77	53.7 PK	68.2	-14.5	1.70 V	311	49.1	4.6
2	*5825.00	117.3 PK			1.70 V	311	112.4	4.9
3	*5825.00	107.0 AV			1.70 V	311	102.1	4.9
4	#5939.27	55.6 PK	68.2	-12.6	1.70 V	311	50.4	5.2
5	11650.00	52.7 PK	74.0	-21.3	1.46 V	293	38.1	14.6
6	11650.00	49.1 AV	54.0	-4.9	1.46 V	293	34.5	14.6
7	#17475.00	53.8 PK	68.2	-14.4	1.44 V	104	35.0	18.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 36 : 5180 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.7 PK	74.0	-4.3	1.40 H	183	65.0	4.7
2	5150.00	52.3 AV	54.0	-1.7	1.40 H	183	47.6	4.7
3	*5180.00	113.6 PK			1.40 H	183	109.1	4.5
4	*5180.00	102.9 AV			1.40 H	183	98.4	4.5
5	#10360.00	53.6 PK	68.2	-14.6	1.66 H	284	39.9	13.7
6	15540.00	56.7 PK	74.0	-17.3	1.46 H	131	42.8	13.9
7	15540.00	43.6 AV	54.0	-10.4	1.46 H	131	29.7	13.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	71.5 PK	74.0	-2.5	1.80 V	331	66.8	4.7
2	5150.00	53.8 AV	54.0	-0.2	1.80 V	331	49.1	4.7
3	*5180.00	117.1 PK			1.80 V	331	112.6	4.5
4	*5180.00	104.6 AV			1.80 V	331	100.1	4.5
5	#10360.00	49.9 PK	68.2	-18.3	1.44 V	38	36.2	13.7
6	15540.00	56.7 PK	74.0	-17.3	2.51 V	339	42.8	13.9
7	15540.00	45.1 AV	54.0	-8.9	2.51 V	339	31.2	13.9

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 40 : 5200 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.4 PK	74.0	-4.6	1.39 H	191	64.7	4.7
2	5150.00	52.6 AV	54.0	-1.4	1.39 H	191	47.9	4.7
3	*5200.00	116.4 PK			1.39 H	191	112.2	4.2
4	*5200.00	106.0 AV			1.39 H	191	101.8	4.2
5	#10400.00	53.9 PK	68.2	-14.3	1.62 H	292	40.3	13.6
6	15600.00	56.7 PK	74.0	-17.3	1.50 H	119	42.6	14.1
7	15600.00	43.7 AV	54.0	-10.3	1.50 H	119	29.6	14.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.7 PK	74.0	-7.3	1.75 V	330	62.0	4.7
2	5150.00	53.6 AV	54.0	-0.4	1.75 V	330	48.9	4.7
3	*5200.00	120.0 PK			1.75 V	330	115.8	4.2
4	*5200.00	107.8 AV			1.75 V	330	103.6	4.2
5	#10400.00	50.1 PK	68.2	-18.1	1.42 V	56	36.5	13.6
6	15600.00	56.3 PK	74.0	-17.7	2.39 V	321	42.2	14.1
7	15600.00	44.1 AV	54.0	-9.9	2.39 V	321	30.0	14.1

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 48 : 5240 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	115.8 PK			1.28 H	182	111.5	4.3
2	*5240.00	104.5 AV			1.28 H	182	100.2	4.3
3	5350.00	50.8 PK	74.0	-23.2	1.28 H	182	46.6	4.2
4	5350.00	38.9 AV	54.0	-15.1	1.28 H	182	34.7	4.2
5	#10480.00	53.4 PK	68.2	-14.8	1.58 H	304	39.7	13.7
6	15720.00	57.0 PK	74.0	-17.0	1.47 H	104	42.6	14.4
7	15720.00	43.8 AV	54.0	-10.2	1.47 H	104	29.4	14.4

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	118.9 PK			1.60 V	323	114.6	4.3
2	*5240.00	106.0 AV			1.60 V	323	101.7	4.3
3	5350.00	52.9 PK	74.0	-21.1	1.60 V	323	48.7	4.2
4	5350.00	41.7 AV	54.0	-12.3	1.60 V	323	37.5	4.2
5	#10480.00	50.0 PK	68.2	-18.2	1.46 V	25	36.3	13.7
6	15720.00	56.2 PK	74.0	-17.8	2.50 V	355	41.8	14.4
7	15720.00	44.8 AV	54.0	-9.2	2.50 V	355	30.4	14.4

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 52 : 5260 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	51.8 PK	74.0	-22.2	1.34 H	180	47.1	4.7
2	5150.00	40.5 AV	54.0	-13.5	1.34 H	180	35.8	4.7
3	*5260.00	116.2 PK			1.34 H	180	111.9	4.3
4	*5260.00	104.1 AV			1.34 H	180	99.8	4.3
5	#10520.00	53.9 PK	68.2	-14.3	1.66 H	282	40.2	13.7
6	15780.00	56.7 PK	74.0	-17.3	1.46 H	112	42.7	14.0
7	15780.00	43.5 AV	54.0	-10.5	1.46 H	112	29.5	14.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.1 PK	74.0	-20.9	1.70 V	321	48.4	4.7
2	5150.00	41.7 AV	54.0	-12.3	1.70 V	321	37.0	4.7
3	*5260.00	117.9 PK			1.70 V	321	113.6	4.3
4	*5260.00	106.1 AV			1.70 V	321	101.8	4.3
5	#10520.00	50.0 PK	68.2	-18.2	1.39 V	53	36.3	13.7
6	15780.00	56.3 PK	74.0	-17.7	2.47 V	342	42.3	14.0
7	15780.00	44.6 AV	54.0	-9.4	2.47 V	342	30.6	14.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 60 : 5300 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	116.2 PK			1.29 H	196	111.9	4.3
2	*5300.00	104.2 AV			1.29 H	196	99.9	4.3
3	10600.00	54.7 PK	74.0	-19.3	1.66 H	296	40.8	13.9
4	10600.00	52.3 AV	54.0	-1.7	1.66 H	296	38.4	13.9
5	15900.00	57.1 PK	74.0	-16.9	1.48 H	124	43.4	13.7
6	15900.00	44.1 AV	54.0	-9.9	1.48 H	124	30.4	13.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	117.9 PK			1.76 V	333	113.6	4.3
2	*5300.00	106.4 AV			1.76 V	333	102.1	4.3
3	10600.00	49.6 PK	74.0	-24.4	1.44 V	56	35.7	13.9
4	10600.00	41.5 AV	54.0	-12.5	1.44 V	56	27.6	13.9
5	15900.00	56.4 PK	74.0	-17.6	2.42 V	331	42.7	13.7
6	15900.00	44.5 AV	54.0	-9.5	2.42 V	331	30.8	13.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 64 : 5320 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	115.1 PK			1.50 H	174	110.8	4.3
2	*5320.00	102.5 AV			1.50 H	174	98.2	4.3
3	5353.00	67.3 PK	74.0	-6.7	1.50 H	174	63.1	4.2
4	5353.00	49.5 AV	54.0	-4.5	1.50 H	174	45.3	4.2
5	10640.00	53.2 PK	74.0	-20.8	1.58 H	291	39.3	13.9
6	10640.00	51.3 AV	54.0	-2.7	1.58 H	291	37.4	13.9
7	15960.00	57.1 PK	74.0	-16.9	1.52 H	127	43.4	13.7
8	15960.00	43.9 AV	54.0	-10.1	1.52 H	127	30.2	13.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	115.9 PK			1.79 V	340	111.6	4.3
2	*5320.00	105.1 AV			1.79 V	340	100.8	4.3
3	5350.00	70.1 PK	74.0	-3.9	1.79 V	340	65.9	4.2
4	<b>5350.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>1.79 V</b>	<b>340</b>	<b>49.7</b>	<b>4.2</b>
5	10640.00	50.2 PK	74.0	-23.8	1.47 V	22	36.3	13.9
6	10640.00	42.2 AV	54.0	-11.8	1.47 V	22	28.3	13.9
7	15960.00	57.1 PK	74.0	-16.9	2.49 V	330	43.4	13.7
8	15960.00	45.6 AV	54.0	-8.4	2.49 V	330	31.9	13.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 100 : 5500 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5458.40	53.7 PK	74.0	-20.3	1.22 H	179	49.3	4.4
2	5458.40	41.1 AV	54.0	-12.9	1.22 H	179	36.7	4.4
3	#5468.96	62.0 PK	68.2	-6.2	1.22 H	179	57.5	4.5
4	*5500.00	113.2 PK			1.22 H	179	108.6	4.6
5	*5500.00	101.0 AV			1.22 H	179	96.4	4.6
6	11000.00	54.6 PK	74.0	-19.4	1.63 H	310	40.3	14.3
7	11000.00	52.2 AV	54.0	-1.8	1.63 H	310	37.9	14.3
8	#16500.00	56.5 PK	68.2	-11.7	1.47 H	108	41.0	15.5

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5459.60	56.8 PK	74.0	-17.2	1.71 V	338	52.4	4.4
2	5459.60	44.4 AV	54.0	-9.6	1.71 V	338	40.0	4.4
3	#5468.86	67.6 PK	68.2	-0.6	1.71 V	338	63.1	4.5
4	*5500.00	114.9 PK			1.71 V	338	110.3	4.6
5	*5500.00	102.4 AV			1.71 V	338	97.8	4.6
6	11000.00	49.6 PK	74.0	-24.4	1.44 V	33	35.3	14.3
7	11000.00	41.6 AV	54.0	-12.4	1.44 V	33	27.3	14.3
8	#16500.00	56.9 PK	68.2	-11.3	2.53 V	350	41.4	15.5

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 116 : 5580 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	116.4 PK			1.30 H	196	111.8	4.6
2	*5580.00	104.6 AV			1.30 H	196	100.0	4.6
3	11160.00	54.6 PK	74.0	-19.4	1.64 H	293	40.4	14.2
4	11160.00	52.0 AV	54.0	-2.0	1.64 H	293	37.8	14.2
5	#16740.00	56.7 PK	68.2	-11.5	1.42 H	110	39.8	16.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	117.8 PK			1.76 V	318	113.2	4.6
2	*5580.00	106.1 AV			1.76 V	318	101.5	4.6
3	11160.00	49.4 PK	74.0	-24.6	1.38 V	64	35.2	14.2
4	11160.00	41.3 AV	54.0	-12.7	1.38 V	64	27.1	14.2
5	#16740.00	55.8 PK	68.2	-12.4	2.40 V	334	38.9	16.9

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 140 : 5700 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.8 PK			1.31 H	184	107.2	4.6
2	*5700.00	100.4 AV			1.31 H	184	95.8	4.6
3	#5725.00	64.7 PK	68.2	-3.5	1.31 H	184	60.0	4.7
4	11400.00	54.5 PK	74.0	-19.5	1.62 H	298	40.3	14.2
5	11400.00	51.9 AV	54.0	-2.1	1.62 H	298	37.7	14.2
6	#17100.00	56.9 PK	68.2	-11.3	1.42 H	107	39.1	17.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	113.1 PK			2.00 V	305	108.5	4.6
2	*5700.00	102.0 AV			2.00 V	305	97.4	4.6
3	#5725.00	67.9 PK	68.2	-0.3	2.00 V	305	63.2	4.7
4	11400.00	49.7 PK	74.0	-24.3	1.44 V	60	35.5	14.2
5	11400.00	41.5 AV	54.0	-12.5	1.44 V	60	27.3	14.2
6	#17100.00	55.6 PK	68.2	-12.6	2.45 V	342	37.8	17.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 144 : 5720 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	49.3 PK	74.0	-24.7	1.37 H	180	44.9	4.4
2	5460.00	37.0 AV	54.0	-17.0	1.37 H	180	32.6	4.4
3	#5470.00	48.9 PK	68.2	-19.3	1.37 H	180	44.4	4.5
4	*5720.00	112.8 PK			1.37 H	180	108.1	4.7
5	*5720.00	103.6 AV			1.37 H	180	98.9	4.7
6	#5850.00	49.3 PK	68.2	-18.9	1.37 H	180	44.3	5.0
7	11440.00	54.8 PK	74.0	-19.2	1.64 H	298	40.3	14.5
8	11440.00	52.0 AV	54.0	-2.0	1.64 H	298	37.5	14.5
9	#17160.00	56.6 PK	68.2	-11.6	1.42 H	102	38.6	18.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	49.1 PK	74.0	-24.9	2.08 V	307	44.7	4.4
2	5460.00	37.8 AV	54.0	-16.2	2.08 V	307	33.4	4.4
3	#5470.00	49.5 PK	68.2	-18.7	2.08 V	307	45.0	4.5
4	*5720.00	116.1 PK			2.08 V	307	111.4	4.7
5	*5720.00	104.8 AV			2.08 V	307	100.1	4.7
6	#5850.00	50.8 PK	68.2	-17.4	2.08 V	307	45.8	5.0
7	11440.00	50.3 PK	74.0	-23.7	1.36 V	58	35.8	14.5
8	11440.00	41.9 AV	54.0	-12.1	1.36 V	58	27.4	14.5
9	#17160.00	55.6 PK	68.2	-12.6	2.51 V	332	37.6	18.0

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.12	62.2 PK	68.2	-6.0	1.03 H	184	57.7	4.5
2	*5745.00	117.5 PK			1.03 H	184	112.7	4.8
3	*5745.00	106.5 AV			1.03 H	184	101.7	4.8
4	#5947.84	50.8 PK	68.2	-17.4	1.03 H	184	45.6	5.2
5	11490.00	59.7 PK	74.0	-14.3	2.89 H	301	45.1	14.6
<b>6</b>	<b>11490.00</b>	<b>53.9 AV</b>	<b>54.0</b>	<b>-0.1</b>	<b>2.89 H</b>	<b>301</b>	<b>39.3</b>	<b>14.6</b>
7	#17235.00	58.2 PK	68.2	-10.0	1.52 H	318	40.0	18.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5647.48	58.7 PK	68.2	-9.5	2.93 V	92	54.2	4.5
2	*5745.00	120.9 PK			2.93 V	92	116.1	4.8
3	*5745.00	108.7 AV			2.93 V	92	103.9	4.8
4	#5938.40	51.9 PK	68.2	-16.3	2.93 V	92	46.7	5.2
5	11490.00	53.3 PK	74.0	-20.7	1.50 V	305	38.7	14.6
6	11490.00	49.5 AV	54.0	-4.5	1.50 V	305	34.9	14.6
7	#17235.00	58.9 PK	68.2	-9.3	3.28 V	280	40.7	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 157 : 5785 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5631.70	53.2 PK	68.2	-15.0	1.14 H	181	48.7	4.5
2	*5785.00	118.2 PK			1.14 H	181	113.3	4.9
3	*5785.00	106.7 AV			1.14 H	181	101.8	4.9
4	#5990.02	51.1 PK	68.2	-17.1	1.14 H	181	45.8	5.3
5	11570.00	59.8 PK	74.0	-14.2	2.94 H	290	45.2	14.6
6	11570.00	53.8 AV	54.0	-0.2	2.94 H	290	39.2	14.6
7	#17355.00	58.9 PK	68.2	-9.3	1.47 H	324	40.7	18.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.03	52.9 PK	68.2	-15.3	2.90 V	92	48.4	4.5
2	*5785.00	120.9 PK			2.90 V	92	116.0	4.9
3	*5785.00	108.5 AV			2.90 V	92	103.6	4.9
4	#5950.70	51.8 PK	68.2	-16.4	2.90 V	92	46.6	5.2
5	11570.00	53.2 PK	74.0	-20.8	1.52 V	305	38.6	14.6
6	11570.00	49.4 AV	54.0	-4.6	1.52 V	305	34.8	14.6
7	#17355.00	59.4 PK	68.2	-8.8	3.23 V	276	41.2	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 165 : 5825 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5553.21	52.7 PK	68.2	-15.5	1.10 H	182	48.1	4.6
2	*5825.00	117.4 PK			1.10 H	182	112.5	4.9
3	*5825.00	106.3 AV			1.10 H	182	101.4	4.9
4	#5936.09	52.8 PK	68.2	-15.4	1.10 H	182	47.6	5.2
5	11650.00	59.7 PK	74.0	-14.3	2.94 H	302	45.1	14.6
6	11650.00	53.8 AV	54.0	-0.2	2.94 H	302	39.2	14.6
7	#17475.00	58.0 PK	68.2	-10.2	1.55 H	328	39.2	18.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5550.25	53.3 PK	68.2	-14.9	2.86 V	92	48.7	4.6
2	*5825.00	121.6 PK			2.86 V	92	116.7	4.9
3	*5825.00	108.8 AV			2.86 V	92	103.9	4.9
4	#5926.32	55.8 PK	68.2	-12.4	2.86 V	92	50.7	5.1
5	11650.00	53.9 PK	74.0	-20.1	1.51 V	310	39.3	14.6
6	11650.00	49.9 AV	54.0	-4.1	1.51 V	310	35.3	14.6
7	#17475.00	58.8 PK	68.2	-9.4	3.28 V	293	40.0	18.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 38 : 5190 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.3 PK	74.0	-3.7	1.41 H	175	65.6	4.7
2	5150.00	51.6 AV	54.0	-2.4	1.41 H	175	46.9	4.7
3	*5190.00	110.5 PK			1.41 H	175	106.1	4.4
4	*5190.00	98.3 AV			1.41 H	175	93.9	4.4
5	#10380.00	51.5 PK	68.2	-16.7	1.75 H	265	38.0	13.5
6	15570.00	54.8 PK	74.0	-19.2	1.51 H	130	40.8	14.0
7	15570.00	42.2 AV	54.0	-11.8	1.51 H	130	28.2	14.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.0 PK	74.0	-4.0	1.86 V	325	65.3	4.7
2	5150.00	53.8 AV	54.0	-0.2	1.86 V	325	49.1	4.7
3	*5190.00	112.7 PK			1.86 V	325	108.3	4.4
4	*5190.00	100.4 AV			1.86 V	325	96.0	4.4
5	#10380.00	50.0 PK	68.2	-18.2	1.45 V	9	36.5	13.5
6	15570.00	55.7 PK	74.0	-18.3	2.44 V	306	41.7	14.0
7	15570.00	44.9 AV	54.0	-9.1	2.44 V	306	30.9	14.0

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 46 : 5230 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	111.7 PK			1.44 H	169	107.4	4.3
2	*5230.00	98.8 AV			1.44 H	169	94.5	4.3
3	5350.00	52.6 PK	74.0	-21.4	1.44 H	169	48.4	4.2
4	5350.00	40.1 AV	54.0	-13.9	1.44 H	169	35.9	4.2
5	#10460.00	52.4 PK	68.2	-15.8	1.78 H	280	38.8	13.6
6	15690.00	55.4 PK	74.0	-18.6	1.46 H	146	40.8	14.6
7	15690.00	42.5 AV	54.0	-11.5	1.46 H	146	27.9	14.6

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	114.4 PK			1.75 V	320	110.1	4.3
2	*5230.00	101.0 AV			1.75 V	320	96.7	4.3
3	5350.00	53.3 PK	74.0	-20.7	1.75 V	320	49.1	4.2
4	5350.00	41.4 AV	54.0	-12.6	1.75 V	320	37.2	4.2
5	#10460.00	50.1 PK	68.2	-18.1	1.45 V	19	36.5	13.6
6	15690.00	56.2 PK	74.0	-17.8	2.47 V	315	41.6	14.6
7	15690.00	45.4 AV	54.0	-8.6	2.47 V	315	30.8	14.6

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 54 : 5270 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.2 PK	74.0	-20.8	1.47 H	177	48.5	4.7
2	5150.00	40.4 AV	54.0	-13.6	1.47 H	177	35.7	4.7
3	*5270.00	112.2 PK			1.47 H	177	107.9	4.3
4	*5270.00	99.1 AV			1.47 H	177	94.8	4.3
5	#10540.00	52.2 PK	68.2	-16.0	1.75 H	273	38.4	13.8
6	15810.00	54.9 PK	74.0	-19.1	1.49 H	141	41.0	13.9
7	15810.00	42.2 AV	54.0	-11.8	1.49 H	141	28.3	13.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	53.2 PK	74.0	-20.8	1.75 V	316	48.5	4.7
2	5150.00	41.5 AV	54.0	-12.5	1.75 V	316	36.8	4.7
3	*5270.00	113.8 PK			1.75 V	316	109.5	4.3
4	*5270.00	100.8 AV			1.75 V	316	96.5	4.3
5	#10540.00	50.5 PK	68.2	-17.7	1.36 V	23	36.7	13.8
6	15810.00	56.3 PK	74.0	-17.7	2.51 V	306	42.4	13.9
7	15810.00	45.4 AV	54.0	-8.6	2.51 V	306	31.5	13.9

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 62 : 5310 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	110.6 PK			1.37 H	179	106.3	4.3
2	*5310.00	98.5 AV			1.37 H	179	94.2	4.3
3	5350.00	65.4 PK	74.0	-8.6	1.37 H	179	61.2	4.2
4	5350.00	49.5 AV	54.0	-4.5	1.37 H	179	45.3	4.2
5	10620.00	51.9 PK	74.0	-22.1	1.69 H	269	38.0	13.9
6	10620.00	50.5 AV	54.0	-3.5	1.69 H	269	36.6	13.9
7	15930.00	55.3 PK	74.0	-18.7	1.51 H	138	41.6	13.7
8	15930.00	42.6 AV	54.0	-11.4	1.51 H	138	28.9	13.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	113.6 PK			1.78 V	329	109.3	4.3
2	*5310.00	100.7 AV			1.78 V	329	96.4	4.3
3	5350.00	73.1 PK	74.0	-0.9	1.78 V	329	68.9	4.2
4	5350.00	53.8 AV	54.0	-0.2	1.78 V	329	49.6	4.2
5	10620.00	50.1 PK	74.0	-23.9	1.41 V	11	36.2	13.9
6	10620.00	42.1 AV	54.0	-11.9	1.41 V	11	28.2	13.9
7	15930.00	55.6 PK	74.0	-18.4	2.48 V	319	41.9	13.7
8	15930.00	44.9 AV	54.0	-9.1	2.48 V	319	31.2	13.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 102 : 5510 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5458.50	56.7 PK	74.0	-17.3	1.26 H	177	52.3	4.4
2	5458.50	41.4 AV	54.0	-12.6	1.26 H	177	37.0	4.4
3	#5468.76	60.0 PK	68.2	-8.2	1.26 H	177	55.5	4.5
4	*5510.00	108.9 PK			1.26 H	177	104.3	4.6
5	*5510.00	96.6 AV			1.26 H	177	92.0	4.6
6	11020.00	50.9 PK	74.0	-23.1	1.70 H	262	36.7	14.2
7	11020.00	50.0 AV	54.0	-4.0	1.70 H	262	35.8	14.2
8	#16530.00	55.1 PK	68.2	-13.1	1.53 H	120	39.4	15.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5453.60	62.4 PK	74.0	-11.6	1.79 V	325	58.1	4.3
2	5453.60	43.7 AV	54.0	-10.3	1.79 V	325	39.4	4.3
3	5459.70	58.4 PK	74.0	-15.6	1.79 V	325	54.0	4.4
4	5459.70	44.9 AV	54.0	-9.1	1.79 V	325	40.5	4.4
5	#5463.66	67.9 PK	68.2	-0.3	1.79 V	325	63.4	4.5
6	*5510.00	110.7 PK			1.79 V	325	106.1	4.6
7	*5510.00	98.3 AV			1.79 V	325	93.7	4.6
8	11020.00	50.7 PK	74.0	-23.3	1.35 V	14	36.5	14.2
9	11020.00	42.5 AV	54.0	-11.5	1.35 V	14	28.3	14.2
10	#16530.00	56.5 PK	68.2	-11.7	2.50 V	320	40.8	15.7

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 110 : 5550 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	112.3 PK			1.45 H	178	107.7	4.6
2	*5550.00	99.4 AV			1.45 H	178	94.8	4.6
3	11100.00	51.2 PK	74.0	-22.8	1.71 H	248	37.4	13.8
4	11100.00	50.2 AV	54.0	-3.8	1.71 H	248	36.4	13.8
5	#16650.00	55.2 PK	68.2	-13.0	1.47 H	131	38.7	16.5

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5550.00	113.8 PK			1.80 V	320	109.2	4.6
2	*5550.00	100.7 AV			1.80 V	320	96.1	4.6
3	11100.00	50.5 PK	74.0	-23.5	1.39 V	36	36.7	13.8
4	11100.00	42.4 AV	54.0	-11.6	1.39 V	36	28.6	13.8
5	#16650.00	57.1 PK	68.2	-11.1	2.53 V	314	40.6	16.5

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 134 : 5670 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	112.0 PK			1.44 H	175	107.4	4.6
2	*5670.00	98.8 AV			1.44 H	175	94.2	4.6
3	#5725.00	60.4 PK	68.2	-7.8	1.44 H	175	55.7	4.7
4	11340.00	52.3 PK	74.0	-21.7	1.74 H	279	37.7	14.6
5	11340.00	51.3 AV	54.0	-2.7	1.74 H	279	36.7	14.6
6	#17010.00	55.4 PK	68.2	-12.8	1.46 H	146	37.7	17.7

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	110.8 PK			1.81 V	304	106.2	4.6
2	*5670.00	100.0 AV			1.81 V	304	95.4	4.6
3	#5725.00	68.1 PK	68.2	-0.1	1.81 V	304	63.4	4.7
4	11340.00	50.5 PK	74.0	-23.5	1.35 V	30	35.9	14.6
5	11340.00	42.5 AV	54.0	-11.5	1.35 V	30	27.9	14.6
6	#17010.00	57.5 PK	68.2	-10.7	2.50 V	309	39.8	17.7

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 142 : 5710 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	49.5 PK	74.0	-24.5	1.38 H	182	45.1	4.4
2	5460.00	37.7 AV	54.0	-16.3	1.38 H	182	33.3	4.4
3	#5470.00	50.3 PK	68.2	-17.9	1.38 H	182	45.8	4.5
4	*5710.00	111.9 PK			1.38 H	182	107.2	4.7
5	*5710.00	98.6 AV			1.38 H	182	93.9	4.7
6	#5850.00	51.5 PK	68.2	-16.7	1.38 H	182	46.5	5.0
7	11420.00	52.1 PK	74.0	-21.9	1.78 H	266	37.8	14.3
8	11420.00	51.2 AV	54.0	-2.8	1.78 H	266	36.9	14.3
9	#17130.00	55.0 PK	68.2	-13.2	1.45 H	162	37.1	17.9

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	49.9 PK	74.0	-24.1	1.80 V	298	45.5	4.4
2	5460.00	37.9 AV	54.0	-16.1	1.80 V	298	33.5	4.4
3	#5470.00	50.6 PK	68.2	-17.6	1.80 V	298	46.1	4.5
4	*5710.00	110.2 PK			1.80 V	298	105.5	4.7
5	*5710.00	99.4 AV			1.80 V	298	94.7	4.7
6	#5850.00	51.2 PK	68.2	-17.0	1.80 V	298	46.2	5.0
7	11420.00	50.5 PK	74.0	-23.5	1.30 V	8	36.2	14.3
8	11420.00	42.4 AV	54.0	-11.6	1.30 V	8	28.1	14.3
9	#17130.00	56.9 PK	68.2	-11.3	2.54 V	320	39.0	17.9

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 151 : 5755 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5644.70	63.9 PK	68.2	-4.3	1.26 H	181	59.4	4.5
2	*5755.00	115.1 PK			1.26 H	181	110.3	4.8
3	*5755.00	102.5 AV			1.26 H	181	97.7	4.8
4	#5929.22	51.7 PK	68.2	-16.5	1.26 H	181	46.6	5.1
5	11510.00	59.1 PK	74.0	-14.9	2.88 H	288	44.4	14.7
6	11510.00	53.0 AV	54.0	-1.0	2.88 H	288	38.3	14.7
7	#17265.00	57.6 PK	68.2	-10.6	1.52 H	316	39.4	18.2

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5649.05	67.2 PK	68.2	-1.0	2.93 V	92	62.7	4.5
2	*5755.00	116.9 PK			2.93 V	92	112.1	4.8
3	*5755.00	105.1 AV			2.93 V	92	100.3	4.8
4	#5958.19	54.9 PK	68.2	-13.3	2.93 V	92	49.6	5.3
5	11510.00	52.4 PK	74.0	-21.6	1.55 V	302	37.7	14.7
6	11510.00	48.8 AV	54.0	-5.2	1.55 V	302	34.1	14.7
7	#17265.00	57.6 PK	68.2	-10.6	3.27 V	285	39.4	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. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " \* ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

<b>RF Mode</b>	TX 802.11ax (HE40)	<b>Channel</b>	CH 159 : 5795 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5623.71	60.6 PK	68.2	-7.6	1.11 H	178	56.1	4.5
2	*5795.00	114.2 PK			1.11 H	178	109.3	4.9
3	*5795.00	102.6 AV			1.11 H	178	97.7	4.9
4	#5941.63	59.2 PK	68.2	-9.0	1.11 H	178	54.0	5.2
5	11590.00	59.4 PK	74.0	-14.6	2.90 H	316	44.8	14.6
6	11590.00	53.5 AV	54.0	-0.5	2.90 H	316	38.9	14.6
7	#17385.00	57.8 PK	68.2	-10.4	1.53 H	331	39.5	18.3

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5643.49	61.2 PK	68.2	-7.0	2.87 V	95	56.7	4.5
2	*5795.00	116.1 PK			2.87 V	95	111.2	4.9
3	*5795.00	105.5 AV			2.87 V	95	100.6	4.9
4	#5932.28	62.6 PK	68.2	-5.6	2.87 V	95	57.5	5.1
5	11590.00	52.6 PK	74.0	-21.4	1.54 V	305	38.0	14.6
6	11590.00	49.2 AV	54.0	-4.8	1.54 V	305	34.6	14.6
7	#17385.00	57.9 PK	68.2	-10.3	3.26 V	293	39.6	18.3

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 42 : 5210 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5134.56	66.0 PK	74.0	-8.0	1.36 H	184	61.2	4.8
2	5134.56	51.9 AV	54.0	-2.1	1.36 H	184	47.1	4.8
3	5150.00	63.9 PK	74.0	-10.1	1.36 H	184	59.2	4.7
4	5150.00	52.9 AV	54.0	-1.1	1.36 H	184	48.2	4.7
5	*5210.00	106.3 PK			1.36 H	184	102.0	4.3
6	*5210.00	95.6 AV			1.36 H	184	91.3	4.3
7	5350.00	51.7 PK	74.0	-22.3	1.36 H	184	47.5	4.2
8	5350.00	43.6 AV	54.0	-10.4	1.36 H	184	39.4	4.2
9	#10420.00	51.5 PK	68.2	-16.7	1.69 H	256	38.0	13.5
10	15630.00	55.0 PK	74.0	-19.0	1.49 H	152	40.7	14.3
11	15630.00	41.9 AV	54.0	-12.1	1.49 H	152	27.6	14.3

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	71.4 PK	74.0	-2.6	1.91 V	334	66.7	4.7
2	5150.00	53.7 AV	54.0	-0.3	1.91 V	334	49.0	4.7
3	*5210.00	109.1 PK			1.91 V	334	104.8	4.3
4	*5210.00	97.6 AV			1.91 V	334	93.3	4.3
5	5350.00	51.7 PK	74.0	-22.3	1.91 V	334	47.5	4.2
6	5350.00	44.3 AV	54.0	-9.7	1.91 V	334	40.1	4.2
7	5359.50	54.1 PK	74.0	-19.9	1.91 V	334	49.8	4.3
8	5359.50	43.9 AV	54.0	-10.1	1.91 V	334	39.6	4.3
9	#10420.00	49.8 PK	68.2	-18.4	1.51 V	37	36.3	13.5
10	15630.00	55.0 PK	74.0	-19.0	2.42 V	329	40.7	14.3
11	15630.00	44.6 AV	54.0	-9.4	2.42 V	329	30.3	14.3

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 58 : 5290 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5131.82	56.2 PK	74.0	-17.8	1.34 H	184	51.4	4.8
2	5131.82	44.2 AV	54.0	-9.8	1.34 H	184	39.4	4.8
3	5150.00	55.7 PK	74.0	-18.3	1.34 H	184	51.0	4.7
4	5150.00	46.0 AV	54.0	-8.0	1.34 H	184	41.3	4.7
5	*5290.00	106.5 PK			1.34 H	184	102.2	4.3
6	*5290.00	95.9 AV			1.34 H	184	91.6	4.3
7	5353.00	62.7 PK	74.0	-11.3	1.34 H	184	58.5	4.2
8	5353.00	52.9 AV	54.0	-1.1	1.34 H	184	48.7	4.2
9	5360.00	63.2 PK	74.0	-10.8	1.34 H	184	58.9	4.3
10	5360.00	49.3 AV	54.0	-4.7	1.34 H	184	45.0	4.3
11	#10580.00	51.8 PK	68.2	-16.4	1.60 H	251	38.0	13.8
12	15870.00	55.5 PK	74.0	-18.5	1.59 H	142	41.7	13.8
13	15870.00	42.5 AV	54.0	-11.5	1.59 H	142	28.7	13.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	55.3 PK	74.0	-18.7	1.81 V	330	50.6	4.7
2	5150.00	45.8 AV	54.0	-8.2	1.81 V	330	41.1	4.7
3	*5290.00	108.9 PK			1.81 V	330	104.6	4.3
4	*5290.00	97.5 AV			1.81 V	330	93.2	4.3
5	5353.45	73.8 PK	74.0	-0.2	1.81 V	330	69.6	4.2
6	5353.45	52.9 AV	54.0	-1.1	1.81 V	330	48.7	4.2
7	#10580.00	50.1 PK	68.2	-18.1	1.52 V	32	36.3	13.8
8	15870.00	54.7 PK	74.0	-19.3	2.42 V	326	40.9	13.8
9	15870.00	44.4 AV	54.0	-9.6	2.42 V	326	30.6	13.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 106 : 5530 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5453.00	64.5 PK	74.0	-9.5	1.30 H	180	60.2	4.3
2	5453.00	45.7 AV	54.0	-8.3	1.30 H	180	41.4	4.3
3	5457.64	58.7 PK	74.0	-15.3	1.30 H	180	54.3	4.4
4	5457.64	46.0 AV	54.0	-8.0	1.30 H	180	41.6	4.4
5	#5462.50	63.0 PK	68.2	-5.2	1.30 H	180	58.6	4.4
6	*5530.00	107.7 PK			1.30 H	180	103.1	4.6
7	*5530.00	94.9 AV			1.30 H	180	90.3	4.6
8	#5783.30	53.8 PK	68.2	-14.4	1.30 H	180	48.9	4.9
9	11060.00	52.0 PK	74.0	-22.0	1.73 H	262	38.0	14.0
10	11060.00	50.5 AV	54.0	-3.5	1.73 H	262	36.5	14.0
11	#16590.00	55.2 PK	68.2	-13.0	1.49 H	130	39.2	16.0

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5438.00	65.5 PK	74.0	-8.5	1.95 V	305	61.2	4.3
2	5438.00	44.4 AV	54.0	-9.6	1.95 V	305	40.1	4.3
3	5460.00	62.1 PK	74.0	-11.9	1.95 V	305	57.7	4.4
4	5460.00	47.2 AV	54.0	-6.8	1.95 V	305	42.8	4.4
5	#5466.30	67.6 PK	68.2	-0.6	1.95 V	305	63.1	4.5
6	*5530.00	106.4 PK			1.95 V	305	101.8	4.6
7	*5530.00	95.6 AV			1.95 V	305	91.0	4.6
8	#5725.45	52.3 PK	68.2	-15.9	1.95 V	305	47.6	4.7
9	11060.00	49.8 PK	74.0	-24.2	1.38 V	14	35.8	14.0
10	11060.00	42.0 AV	54.0	-12.0	1.38 V	14	28.0	14.0
11	#16590.00	55.3 PK	68.2	-12.9	2.50 V	314	39.3	16.0

**Remarks:**

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



<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 122 : 5610 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	108.1 PK			1.38 H	194	103.6	4.5
2	*5610.00	97.3 AV			1.38 H	194	92.8	4.5
3	#5725.00	63.4 PK	68.2	-4.8	1.38 H	194	58.7	4.7
4	11220.00	52.0 PK	74.0	-22.0	1.67 H	268	37.4	14.6
5	11220.00	50.6 AV	54.0	-3.4	1.67 H	268	36.0	14.6
6	#16830.00	54.7 PK	68.2	-13.5	1.56 H	149	37.6	17.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	110.1 PK			1.85 V	327	105.6	4.5
2	*5610.00	98.3 AV			1.85 V	327	93.8	4.5
3	#5725.00	67.6 PK	68.2	-0.6	1.85 V	327	62.9	4.7
4	11220.00	50.4 PK	74.0	-23.6	1.41 V	30	35.8	14.6
5	11220.00	42.3 AV	54.0	-11.7	1.41 V	30	27.7	14.6
6	#16830.00	55.3 PK	68.2	-12.9	2.47 V	327	38.2	17.1

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 138 : 5690 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	56.0 PK	74.0	-18.0	1.33 H	186	51.6	4.4
2	5460.00	44.9 AV	54.0	-9.1	1.33 H	186	40.5	4.4
3	#5470.00	59.1 PK	68.2	-9.1	1.33 H	186	54.6	4.5
4	*5690.00	107.3 PK			1.33 H	186	102.6	4.7
5	*5690.00	96.9 AV			1.33 H	186	92.2	4.7
6	#5850.00	59.6 PK	68.2	-8.6	1.33 H	186	54.6	5.0
7	11380.00	52.1 PK	74.0	-21.9	1.64 H	260	37.7	14.4
8	11380.00	50.8 AV	54.0	-3.2	1.64 H	260	36.4	14.4
9	#17070.00	55.2 PK	68.2	-13.0	1.54 H	144	37.4	17.8

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.9 PK	74.0	-18.1	1.81 V	320	51.5	4.4
2	5460.00	45.6 AV	54.0	-8.4	1.81 V	320	41.2	4.4
3	#5470.00	59.3 PK	68.2	-8.9	1.81 V	320	54.8	4.5
4	*5690.00	109.4 PK			1.81 V	320	104.7	4.7
5	*5690.00	97.7 AV			1.81 V	320	93.0	4.7
6	#5850.00	60.1 PK	68.2	-8.1	1.81 V	320	55.1	5.0
7	11380.00	50.5 PK	74.0	-23.5	1.37 V	5	36.1	14.4
8	11380.00	42.3 AV	54.0	-11.7	1.37 V	5	27.9	14.4
9	#17070.00	55.3 PK	68.2	-12.9	2.49 V	318	37.5	17.8

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE80)	<b>Channel</b>	CH 155 : 5775 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5643.16	65.1 PK	68.2	-3.1	1.27 H	183	60.6	4.5
2	*5775.00	109.3 PK			1.27 H	183	104.4	4.9
3	*5775.00	97.3 AV			1.27 H	183	92.4	4.9
4	#5932.13	60.2 PK	68.2	-8.0	1.27 H	183	55.1	5.1
5	11550.00	59.0 PK	74.0	-15.0	2.93 H	327	44.4	14.6
6	11550.00	53.2 AV	54.0	-0.8	2.93 H	327	38.6	14.6
7	#17325.00	57.8 PK	68.2	-10.4	1.55 H	340	39.7	18.1

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5648.29	67.9 PK	68.2	-0.3	2.91 V	93	63.4	4.5
2	*5775.00	111.8 PK			2.91 V	93	106.9	4.9
3	*5775.00	99.5 AV			2.91 V	93	94.6	4.9
4	#5931.65	64.5 PK	68.2	-3.7	2.91 V	93	59.4	5.1
5	11550.00	52.4 PK	74.0	-21.6	1.51 V	310	37.8	14.6
6	11550.00	48.6 AV	54.0	-5.4	1.51 V	310	34.0	14.6
7	#17325.00	57.5 PK	68.2	-10.7	3.22 V	288	39.4	18.1

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 50 : 5250 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

**Antenna Polarity & Test Distance : Horizontal at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5116.00	71.5 PK	74.0	-2.5	1.26 H	179	66.6	4.9
2	5116.00	46.0 AV	54.0	-8.0	1.26 H	179	41.1	4.9
3	5150.00	58.8 PK	74.0	-15.2	1.26 H	179	54.1	4.7
4	5150.00	47.9 AV	54.0	-6.1	1.26 H	179	43.2	4.7
5	*5250.00	103.7 PK			1.26 H	179	99.3	4.4
6	*5250.00	91.6 AV			1.26 H	179	87.2	4.4
7	5350.00	57.5 PK	74.0	-16.5	1.26 H	179	53.3	4.2
8	5350.00	48.5 AV	54.0	-5.5	1.26 H	179	44.3	4.2
9	5413.40	65.8 PK	74.0	-8.2	1.26 H	179	61.5	4.3
10	5413.40	45.8 AV	54.0	-8.2	1.26 H	179	41.5	4.3
11	#10500.00	52.0 PK	68.2	-16.2	1.64 H	273	38.4	13.6
12	15750.00	55.0 PK	74.0	-19.0	1.47 H	122	40.7	14.3
13	15750.00	42.5 AV	54.0	-11.5	1.47 H	122	28.2	14.3

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5112.12	71.5 PK	74.0	-2.5	1.90 V	338	66.5	5.0
2	5112.12	50.5 AV	54.0	-3.5	1.90 V	338	45.5	5.0
3	5144.47	69.0 PK	74.0	-5.0	1.90 V	338	64.2	4.8
4	5144.47	53.7 AV	54.0	-0.3	1.90 V	338	48.9	4.8
5	*5250.00	105.4 PK			1.90 V	338	101.0	4.4
6	*5250.00	93.4 AV			1.90 V	338	89.0	4.4
7	5357.93	66.1 PK	74.0	-7.9	1.90 V	338	61.8	4.3
8	5357.93	52.3 AV	54.0	-1.7	1.90 V	338	48.0	4.3
9	5391.70	71.7 PK	74.0	-2.3	1.90 V	338	67.4	4.3
10	5391.70	49.5 AV	54.0	-4.5	1.90 V	338	45.2	4.3
11	#10500.00	50.2 PK	68.2	-18.0	1.46 V	23	36.6	13.6
12	15750.00	55.1 PK	74.0	-18.9	2.44 V	318	40.8	14.3
13	15750.00	44.5 AV	54.0	-9.5	2.44 V	318	30.2	14.3

**Remarks:**

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

<b>RF Mode</b>	TX 802.11ax (HE160)	<b>Channel</b>	CH 114 : 5570 MHz
<b>Frequency Range</b>	1GHz ~ 40GHz	<b>Detector Function</b>	Peak (PK) Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5443.70	67.0 PK	74.0	-7.0	1.29 H	181	62.7	4.3
2	5443.70	44.3 AV	54.0	-9.7	1.29 H	181	40.0	4.3
3	5457.90	61.9 PK	74.0	-12.1	1.29 H	181	57.5	4.4
4	5457.90	45.4 AV	54.0	-8.6	1.29 H	181	41.0	4.4
5	#5463.90	63.4 PK	68.2	-4.8	1.29 H	181	58.9	4.5
6	*5570.00	102.2 PK			1.29 H	181	97.5	4.7
7	*5570.00	91.1 AV			1.29 H	181	86.4	4.7
8	#5726.85	67.8 PK	68.2	-0.4	1.29 H	181	63.0	4.8
9	11140.00	52.1 PK	74.0	-21.9	1.69 H	263	37.9	14.2
10	11140.00	50.6 AV	54.0	-3.4	1.69 H	263	36.4	14.2
11	#16710.00	55.6 PK	68.2	-12.6	1.53 H	141	38.6	17.0

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5435.11	69.3 PK	74.0	-4.7	2.14 V	305	65.0	4.3
2	5435.11	47.2 AV	54.0	-6.8	2.14 V	305	42.9	4.3
3	5454.68	64.9 PK	74.0	-9.1	2.14 V	305	60.5	4.4
4	5454.68	48.8 AV	54.0	-5.2	2.14 V	305	44.4	4.4
5	#5462.77	62.9 PK	68.2	-5.3	2.14 V	305	58.5	4.4
6	*5570.00	103.7 PK			2.14 V	305	99.0	4.7
7	*5570.00	92.5 AV			2.14 V	305	87.8	4.7
8	#5725.00	67.9 PK	68.2	-0.3	2.14 V	305	63.2	4.7
9	11140.00	49.6 PK	74.0	-24.4	1.41 V	23	35.4	14.2
10	11140.00	41.8 AV	54.0	-12.2	1.41 V	23	27.6	14.2
11	#16710.00	55.4 PK	68.2	-12.8	2.45 V	313	38.4	17.0

**Remarks:**

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

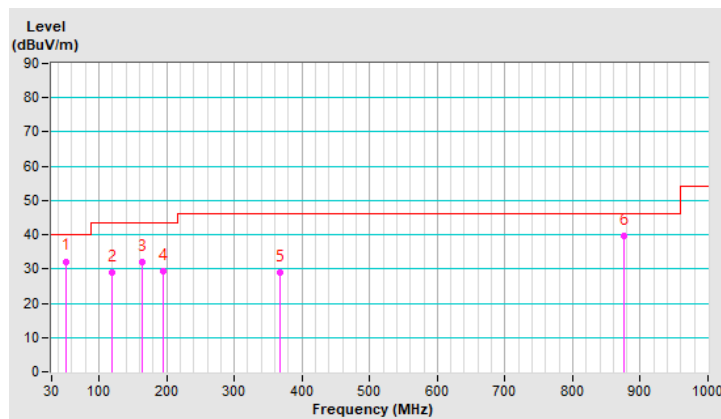
### Below 1GHz Data:

<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	9kHz ~ 1GHz	<b>Detector Function</b>	Quasi-Peak (QP)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	50.72	32.2 QP	40.0	-7.8	1.00 H	191	39.7	-7.5
2	118.99	29.0 QP	43.5	-14.5	1.50 H	302	38.2	-9.2
3	164.25	31.9 QP	43.5	-11.6	1.00 H	107	39.2	-7.3
4	195.44	29.4 QP	43.5	-14.1	1.00 H	267	39.3	-9.9
5	368.36	28.8 QP	46.0	-17.2	2.00 H	353	32.8	-4.0
6	875.00	39.5 QP	46.0	-6.5	2.00 H	332	32.5	7.0

### Remarks:

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



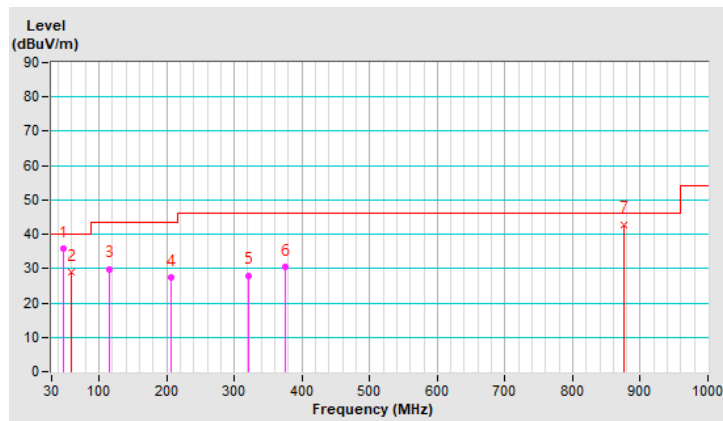
<b>RF Mode</b>	TX 802.11ax (HE20)	<b>Channel</b>	CH 149 : 5745 MHz
<b>Frequency Range</b>	9kHz ~ 1GHz	<b>Detector Function</b>	Quasi-Peak (QP)

**Antenna Polarity & Test Distance : Vertical at 3 m**

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	47.20	35.7 QP	40.0	-4.3	1.50 V	4	43.4	-7.7
2	59.47	29.1 QP	40.0	-10.9	1.50 V	68	37.2	-8.1
3	115.05	29.9 QP	43.5	-13.6	1.50 V	18	39.5	-9.6
4	207.01	27.5 QP	43.5	-16.0	1.00 V	128	37.5	-10.0
5	320.45	28.0 QP	46.0	-18.0	2.00 V	341	33.1	-5.1
6	374.99	30.4 QP	46.0	-15.6	1.50 V	264	34.1	-3.7
7	875.00	42.9 QP	46.0	-3.1	1.00 V	303	35.9	7.0

**Remarks:**

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



## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 20, 2020	Oct. 19, 2021
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 27, 2020	Oct. 26, 2021
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 26, 2020	Oct. 25, 2021
RF Cable	5D-FB	COCCAB-001	Sep. 26, 2020	Sep. 25, 2021
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 29, 2020	Aug. 28, 2021
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: Dec. 13, 2020



#### 4.2.3 Test Procedure

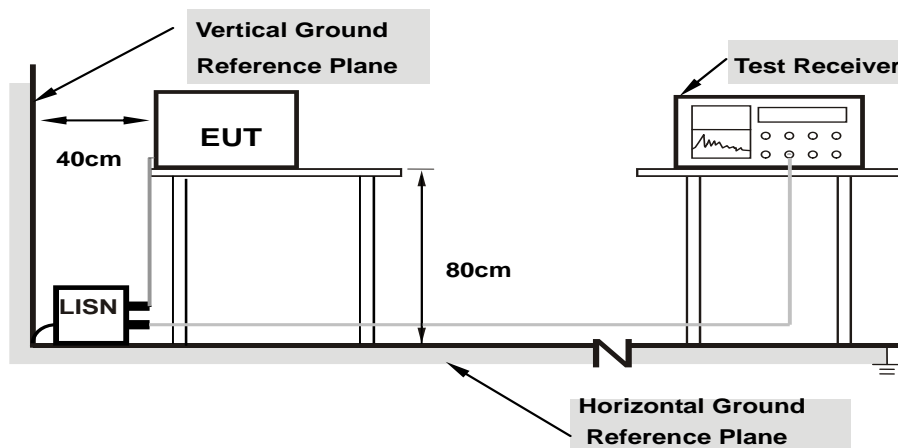
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

#### 4.2.4 Deviation from Test Standard

No deviation.

#### 4.2.5 Test Setup



**Note: 1.Support units were connected to second LISN.**

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

#### 4.2.6 EUT Operating Condition

Same as 4.1.6.

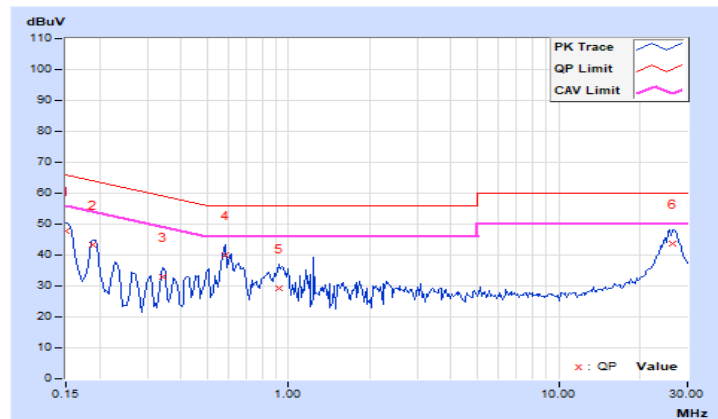
#### 4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.96	37.91	24.64	47.87	34.60	66.00	56.00	-18.13	-21.40
2	0.18906	9.98	33.27	21.73	43.25	31.71	64.08	54.08	-20.83	-22.37
3	0.34141	10.01	22.99	16.67	33.00	26.68	59.17	49.17	-26.17	-22.49
4	0.58359	10.03	30.04	18.97	40.07	29.00	56.00	46.00	-15.93	-17.00
5	0.91953	10.05	19.24	9.28	29.29	19.33	56.00	46.00	-26.71	-26.67
6	26.39453	11.65	32.10	16.49	43.75	28.14	60.00	50.00	-16.25	-21.86

#### 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

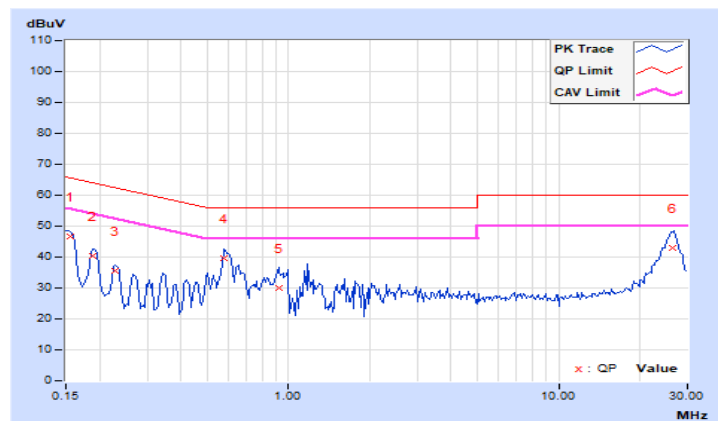


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15641	9.95	36.56	24.76	46.51	34.71	65.65	55.65	-19.14	-20.94
2	0.18906	9.97	30.27	19.97	40.24	29.94	64.08	54.08	-23.84	-24.14
3	0.22812	9.98	25.72	12.35	35.70	22.33	62.52	52.52	-26.82	-30.19
<b>4</b>	<b>0.57578</b>	<b>10.03</b>	<b>29.59</b>	<b>21.34</b>	<b>39.62</b>	<b>31.37</b>	<b>56.00</b>	<b>46.00</b>	<b>-16.38</b>	<b>-14.63</b>
5	0.91953	10.06	20.02	9.56	30.08	19.62	56.00	46.00	-25.92	-26.38
6	26.46391	11.29	31.76	17.90	43.05	29.19	60.00	50.00	-16.95	-20.81

**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 $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		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

Note: This device can support different category application which switched by access point mode and client mode by software.

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  $\geq 40$  MHz for any  $N_{ANT}$ ;

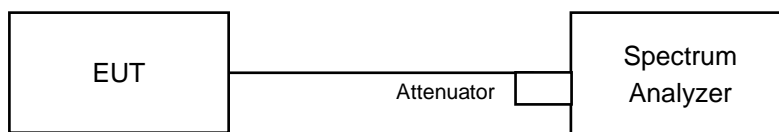
Array Gain =  $5 \log(N_{ANT}/N_{SS})$  dB or 3 dB, whichever is less for 20-MHz channel widths with  $N_{ANT} \geq 5$ .

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

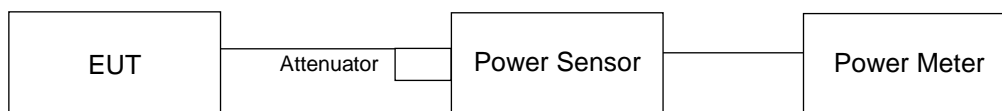
#### 4.3.2 Test Setup

##### FOR POWER OUTPUT MEASUREMENT

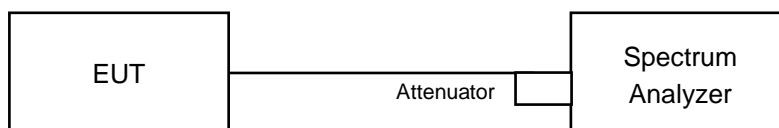
For channel straddling 5250MHz & channel straddling 5725MHz:



For other channels:



##### FOR 26dB OCCUPIED BANDWIDTH



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

##### FOR POWER OUTPUT MEASUREMENT

##### For channel straddling 5725MHz:

Follow FCC KDB 789033 UNII test procedure:

##### Method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW  $\geq 3 \times$  RBW.
4. Number of points in sweep  $\geq 2$  Span / RBW.
5. Sweep time = auto.
6. Set trigger to free run (duty cycle  $\geq 98$  percent)
7. Detector = RMS.
8. Trace average at least 100 traces in power averaging mode
9. Compute power by integrating the spectrum across the 26 dB EBW of the signal.

##### For channel straddling 5250MHz

Follow FCC KDB 789033 UNII test procedure:

##### Method SA-2

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

##### For other channels:

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

##### FOR 26dB OCCUPIED BANDWIDTH

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW  $>$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Condition

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

#### 4.3.7 Test Results

#### POWER OUTPUT

#### CDD Mode

#### 802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)	Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
36	5180	22.91	195.434	22.91	30	PASS
40	5200	26.43	439.542	26.43	30	PASS
48	5240	23.95	248.313	23.95	30	PASS
52	5260	23.90	245.471	23.90	24	PASS
60	5300	23.92	246.604	23.92	24	PASS
64	5320	23.18	207.97	23.18	24	PASS
100	5500	21.31	135.207	21.31	24	PASS
116	5580	23.17	207.491	23.17	24	PASS
140	5700	20.72	118.032	20.72	24	PASS
*144 (U-NII-2C Band)	5720	22.95	197.242	22.95	24	PASS
*144 (U-NII-3 Band)	5720	16.86	48.529	16.86	30	PASS
149	5745	26.46	442.588	26.46	30	PASS
157	5785	26.24	420.727	26.24	30	PASS
165	5825	26.07	404.576	26.07	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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	38.24	26.82 > 24
60	5300	38.33	26.83 > 24
64	5320	28.18	25.49 > 24
100	5500	24.87	24.95 > 24
116	5580	40.66	27.09 > 24
140	5700	29.23	25.65 > 24
144 (U-NII-2C Band)	5720	26.81	25.28 < 24

**802.11ac (VHT20)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.85	21.49	294.038	24.68	30	PASS
40	5200	25.89	24.78	688.758	28.38	30	PASS
48	5240	23.90	23.81	485.907	26.87	30	PASS
52	5260	19.48	19.07	169.439	22.29	24	PASS
60	5300	19.70	19.18	176.12	22.46	24	PASS
64	5320	19.59	19.04	171.159	22.33	24	PASS
100	5500	19.85	18.95	175.129	22.43	24	PASS
116	5580	20.09	18.70	176.225	22.46	24	PASS
140	5700	19.25	19.24	168.086	22.26	24	PASS
*144 (U-NII-2C Band)	5720	18.27	17.90	128.802	21.10	23.43	PASS
*144 (U-NII-3 Band)	5720	13.09	12.73	39.12	15.92	30	PASS
149	5745	26.68	26.47	909.195	29.59	30	PASS
157	5785	26.29	26.51	873.312	29.41	30	PASS
165	5825	26.27	26.29	849.241	29.29	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

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



Power Limit =  $11\text{dBm} + 10\log B < \text{U-NII-2A, U-NII-2C} >$

Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	24.52	24.89 > 24
60	5300	24.75	24.93 > 24
64	5320	24.92	24.96 > 24
100	5500	24.78	24.94 > 24
116	5580	24.32	24.85 > 24
140	5700	24.44	24.88 > 24
144 (U-NII-2C Band)	5720	17.5	23.43 < 24

**802.11ac (VHT40)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	20.71	20.58	232.048	23.66	30	PASS
46	5230	22.35	22.13	335.096	25.25	30	PASS
54	5270	20.33	20.18	212.126	23.27	24	PASS
62	5310	20.47	20.05	212.587	23.28	24	PASS
102	5510	18.64	18.31	140.878	21.49	24	PASS
110	5550	20.83	20.00	221.06	23.45	24	PASS
134	5670	20.37	20.03	209.586	23.21	24	PASS
*142 (U-NII-2C Band)	5710	19.32	18.99	164.757	22.17	24	PASS
*142 (U-NII-3 Band)	5710	9.93	9.33	18.41	12.65	30	PASS
151	5755	26.25	26.49	867.353	29.38	30	PASS
159	5795	26.22	26.63	879.05	29.44	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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	47.37	27.75 > 24
62	5310	47.02	27.72 > 24
102	5510	47.03	27.72 > 24
110	5550	47.1	27.73 > 24
134	5670	47.51	27.76 > 24
142 (U-NII-2C Band)	5710	38.47	26.85 > 24

**802.11ac (VHT80)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	19.61	19.36	177.709	22.50	30	PASS
58	5290	20.14	20.21	208.23	23.19	24	PASS
106	5530	18.37	18.29	136.16	21.34	24	PASS
122	5610	20.69	20.12	220.021	23.42	24	PASS
*138 (U-NII-2C Band)	5690	19.92	19.08	179.084	22.53	24	PASS
*138 (U-NII-3 Band)	5690	6.93	5.93	8.849	9.47	30	PASS
155	5775	23.84	24.21	505.736	27.04	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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)
58	5290	86.02	30.34 > 24
106	5530	86.02	30.34 > 24
122	5610	86.89	30.38 > 24
138 (U-NII-2C Band)	5690	78.81	29.96 > 24

**802.11ac (VHT160)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
*50 (U-NII-1 Band)	5250	15.50	15.88	75.858	18.80	30	PASS
*50 (U-NII-2A Band)	5250	16.17	15.35	77.36	18.89	24	PASS
114	5570	18.47	18.45	140.291	21.47	24	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

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

Power Limit = 11dBm + 10logB < U-NII-2A >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	85.19	30.3 > 24
114	5570	289.07	35.61 > 24

**802.11ax (HE20)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	22.25	21.79	318.888	25.04	30	PASS
40	5200	26.18	25.08	737.061	28.68	30	PASS
48	5240	24.11	24.03	510.562	27.08	30	PASS
52	5260	19.71	19.35	179.64	22.54	24	PASS
60	5300	19.98	19.46	187.849	22.74	24	PASS
64	5320	19.79	19.31	180.59	22.57	24	PASS
100	5500	20.13	19.16	185.452	22.68	24	PASS
116	5580	20.38	18.92	187.127	22.72	24	PASS
140	5700	19.55	19.53	179.9	22.55	24	PASS
*144 (U-NII-2C Band)	5720	18.52	18.12	135.985	21.33	23.43	PASS
*144 (U-NII-3 Band)	5720	13.39	12.94	41.506	16.18	30	PASS
149	5745	26.88	26.67	952.044	29.79	30	PASS
157	5785	26.57	26.68	919.528	29.64	30	PASS
165	5825	26.48	26.51	892.345	29.51	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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	24.52	24.89 > 24
60	5300	24.75	24.93 > 24
64	5320	24.92	24.96 > 24
100	5500	24.78	24.94 > 24
116	5580	24.32	24.85 > 24
140	5700	24.44	24.88 > 24
144 (U-NII-2C Band)	5720	17.5	23.43 < 24

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	20.93	20.85	245.498	23.90	30	PASS
46	5230	22.56	22.37	352.886	25.48	30	PASS
54	5270	20.63	20.40	225.259	23.53	24	PASS
62	5310	20.75	20.27	225.265	23.53	24	PASS
102	5510	18.86	18.59	149.19	21.74	24	PASS
110	5550	21.10	20.20	233.538	23.68	24	PASS
134	5670	20.60	20.25	220.741	23.44	24	PASS
*142 (U-NII-2C Band)	5710	19.78	19.28	179.783	22.55	24	PASS
*142 (U-NII-3 Band)	5710	10.31	9.79	20.268	13.07	30	PASS
151	5755	26.47	26.70	911.344	29.60	30	PASS
159	5795	26.45	26.93	934.744	29.71	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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	47.37	27.75 > 24
62	5310	47.02	27.72 > 24
102	5510	47.03	27.72 > 24
110	5550	47.1	27.73 > 24
134	5670	47.51	27.76 > 24
142 (U-NII-2C Band)	5710	38.47	26.85 > 24

**802.11ax (HE80)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	19.84	19.63	188.216	22.75	30	PASS
58	5290	20.36	20.44	219.305	23.41	24	PASS
106	5530	18.63	18.55	144.56	21.60	24	PASS
122	5610	20.91	20.32	230.957	23.64	24	PASS
*138 (U-NII-2C Band)	5690	20.12	19.51	192.132	22.84	24	PASS
*138 (U-NII-3 Band)	5690	7.16	6.37	9.535	9.79	30	PASS
155	5775	24.07	24.50	537.108	27.30	30	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

**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)
58	5290	86.02	30.34 > 24
106	5530	86.02	30.34 > 24
122	5610	86.89	30.38 > 24
138 (U-NII-2C Band)	5690	78.81	29.96 > 24

**802.11ax (HE160)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
*50 (U-NII-1 Band)	5250	15.70	16.37	82.295	19.15	30	PASS
*50 (U-NII-2A Band)	5250	16.35	15.81	83.066	19.19	24	PASS
114	5570	18.68	18.71	148.092	21.71	24	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

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

Power Limit = 11dBm + 10logB < U-NII-2A >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	85.19	30.3 > 24
114	5570	289.07	35.61 > 24



## Beamforming Mode

### 802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.85	21.49	294.038	24.68	29.12	PASS
40	5200	25.89	24.78	688.758	28.38	29.12	PASS
48	5240	23.90	23.81	485.907	26.87	29.12	PASS
52	5260	19.48	19.07	169.439	22.29	22.88	PASS
60	5300	19.70	19.18	176.12	22.46	22.88	PASS
64	5320	19.59	19.04	171.159	22.33	22.88	PASS
100	5500	19.53	18.51	160.701	22.06	22.69	PASS
116	5580	19.67	18.32	160.603	22.06	22.69	PASS
140	5700	18.99	18.86	156.163	21.94	22.69	PASS
*144 (U-NII-2C Band)	5720	18.27	17.90	128.802	21.10	22.12	PASS
*144 (U-NII-3 Band)	5720	13.09	12.73	39.12	15.92	28.59	PASS
149	5745	25.31	25.03	658.045	28.18	28.59	PASS
157	5785	24.97	24.95	626.659	27.97	28.59	PASS
165	5825	24.91	24.93	620.914	27.93	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12 \text{ dBm}$ .
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

**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	24.52	24.89 > 24
60	5300	24.75	24.93 > 24
64	5320	24.92	24.96 > 24
100	5500	24.78	24.94 > 24
116	5580	24.32	24.85 > 24
140	5700	24.44	24.88 > 24
144 (U-NII-2C Band)	5720	17.5	23.43 < 24

**802.11ac (VHT40)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	20.71	20.58	232.048	23.66	29.12	PASS
46	5230	22.35	22.13	335.096	25.25	29.12	PASS
54	5270	19.25	19.13	165.986	22.20	22.88	PASS
62	5310	19.38	19.01	166.312	22.21	22.88	PASS
102	5510	18.64	18.31	140.878	21.49	22.69	PASS
110	5550	19.42	18.96	166.203	22.21	22.69	PASS
134	5670	19.19	18.84	159.545	22.03	22.69	PASS
*142 (U-NII-2C Band)	5710	18.65	17.63	131.225	21.18	22.69	PASS
*142 (U-NII-3 Band)	5710	9.15	8.12	14.709	11.68	28.59	PASS
151	5755	25.04	25.20	650.285	28.13	28.59	PASS
159	5795	25.01	25.33	658.15	28.18	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12 \text{ dBm}$ .
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

**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	47.37	27.75 > 24
62	5310	47.02	27.72 > 24
102	5510	47.03	27.72 > 24
110	5550	47.1	27.73 > 24
134	5670	47.51	27.76 > 24
142 (U-NII-2C Band)	5710	38.47	26.85 > 24

**802.11ac (VHT80)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	19.61	19.36	177.709	22.50	29.12	PASS
58	5290	19.08	19.21	164.278	22.16	22.88	PASS
106	5530	18.37	18.29	136.16	21.34	22.69	PASS
122	5610	19.45	18.90	165.73	22.19	22.69	PASS
*138 (U-NII-2C Band)	5690	19.02	18.16	145.263	21.62	22.69	PASS
*138 (U-NII-3 Band)	5690	5.97	5.04	7.145	8.54	28.59	PASS
155	5775	23.84	24.21	505.736	27.04	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12 \text{ dBm}$ .
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

**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)
58	5290	86.02	30.34 > 24
106	5530	86.02	30.34 > 24
122	5610	86.89	30.38 > 24
138 (U-NII-2C Band)	5690	78.81	29.96 > 24

**802.11ac (VHT160)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
*50 (U-NII-1 Band)	5250	15.50	15.88	75.858	18.80	29.12	PASS
*50 (U-NII-2A Band)	5250	16.17	15.35	77.36	18.89	22.88	PASS
114	5570	18.47	18.45	140.291	21.47	22.69	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 6.88 dBi > 6 dBi, so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12$  dBm.
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.12 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".

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

Power Limit = 11dBm + 10logB < U-NII-2A >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	85.19	30.3 > 24
114	5570	289.07	35.61 > 24

**802.11ax (HE20)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	22.25	21.79	318.888	25.04	29.12	PASS
40	5200	26.18	25.08	737.061	28.68	29.12	PASS
48	5240	24.11	24.03	510.562	27.08	29.12	PASS
52	5260	19.71	19.35	179.64	22.54	22.88	PASS
60	5300	19.98	19.46	187.849	22.74	22.88	PASS
64	5320	19.79	19.31	180.59	22.57	22.88	PASS
100	5500	19.75	18.74	169.223	22.28	22.69	PASS
116	5580	19.95	18.55	170.47	22.32	22.69	PASS
140	5700	19.20	19.11	164.647	22.17	22.69	PASS
*144 (U-NII-2C Band)	5720	18.52	18.12	135.985	21.33	22.12	PASS
*144 (U-NII-3 Band)	5720	13.39	12.94	41.506	16.18	28.59	PASS
149	5745	25.51	25.25	690.597	28.39	28.59	PASS
157	5785	25.24	25.21	666.089	28.24	28.59	PASS
165	5825	25.12	25.17	653.939	28.16	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12 \text{ dBm}$ .
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

**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	24.52	24.89 > 24
60	5300	24.75	24.93 > 24
64	5320	24.92	24.96 > 24
100	5500	24.78	24.94 > 24
116	5580	24.32	24.85 > 24
140	5700	24.44	24.88 > 24
144 (U-NII-2C Band)	5720	17.5	23.43 < 24

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	20.93	20.85	245.498	23.90	29.12	PASS
46	5230	22.56	22.37	352.886	25.48	29.12	PASS
54	5270	19.54	19.34	175.851	22.45	22.88	PASS
62	5310	19.65	19.21	175.625	22.45	22.88	PASS
102	5510	18.86	18.59	149.19	21.74	22.69	PASS
110	5550	19.70	19.18	176.12	22.46	22.69	PASS
134	5670	19.47	19.06	169.049	22.28	22.69	PASS
*142 (U-NII-2C Band)	5710	18.78	18.13	140.522	21.48	22.69	PASS
*142 (U-NII-3 Band)	5710	9.20	8.61	15.579	11.93	28.59	PASS
151	5755	25.27	25.50	691.325	28.40	28.59	PASS
159	5795	25.23	25.61	697.341	28.43	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12 \text{ dBm}$ .
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} > 6 \text{ dBi}$ , therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .



**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	47.37	27.75 > 24
62	5310	47.02	27.72 > 24
102	5510	47.03	27.72 > 24
110	5550	47.1	27.73 > 24
134	5670	47.51	27.76 > 24
142 (U-NII-2C Band)	5710	38.47	26.85 > 24

**802.11ax (HE80)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	19.84	19.63	188.216	22.75	29.12	PASS
58	5290	19.35	19.42	173.598	22.40	22.88	PASS
106	5530	18.63	18.55	144.56	21.60	22.69	PASS
122	5610	19.71	19.12	175.199	22.44	22.69	PASS
*138 (U-NII-2C Band)	5690	19.12	18.63	154.604	21.89	22.69	PASS
*138 (U-NII-3 Band)	5690	6.11	5.49	7.623	8.82	28.59	PASS
155	5775	24.07	24.50	537.108	27.30	28.59	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 6.88 dBi > 6 dBi, so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12$  dBm.
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.12 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".
3. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.31 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.31-6)".
4. For UNII-3: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.41 dBi > 6 dBi, so the power limit shall be reduced to  $30 - (7.41 - 6) = 28.59$  dBm.

**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)
58	5290	86.02	30.34 > 24
106	5530	86.02	30.34 > 24
122	5610	86.89	30.38 > 24
138 (U-NII-2C Band)	5690	78.81	29.96 > 24

**802.11ax (HE160)**

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
*50 (U-NII-1 Band)	5250	15.70	16.37	82.295	19.15	29.12	PASS
*50 (U-NII-2A Band)	5250	16.35	15.81	83.066	19.19	22.88	PASS
114	5570	18.68	18.71	148.092	21.71	22.69	PASS

Note: \* Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test. The duty factor was included in the total power.

1. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 6.88 dBi > 6 dBi, so the power limit shall be reduced to  $30 - (6.88 - 6) = 29.12$  dBm.
2. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.12 dBi > 6 dBi, therefore the limit needs to reduce, so the power limit shall be reduced to "Determined Conducted Limit-(7.12-6)".

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

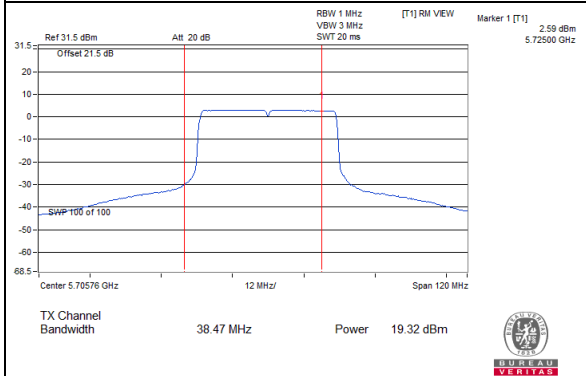
Power Limit = 11dBm + 10logB < U-NII-2A >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	85.19	30.3 > 24
114	5570	289.07	35.61 > 24

**For channel straddling 5725MHz of Power**  
**CDD Mode**

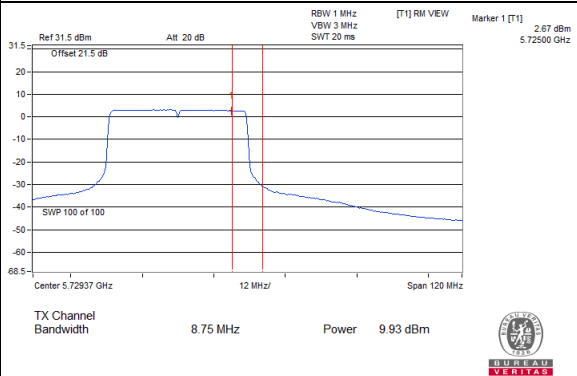


Spectrum Plot Value of Power

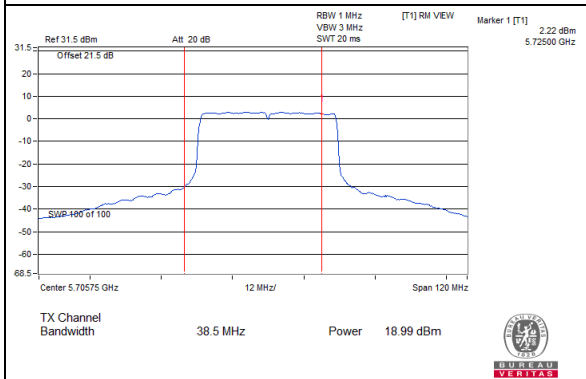
802.11ac (VHT40)\_Chain 0 / CH142 (U-NII-2C Band)



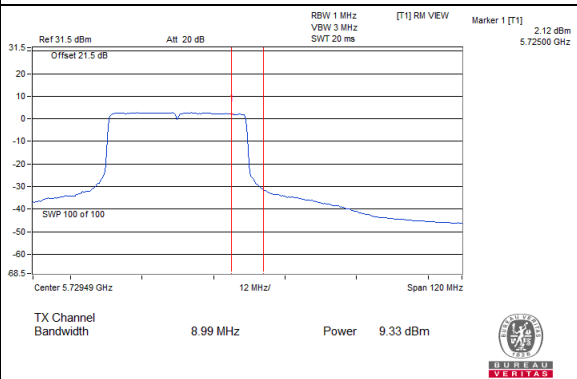
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802.11ac (VHT40)\_Chain 1 / CH142 (U-NII-2C Band)

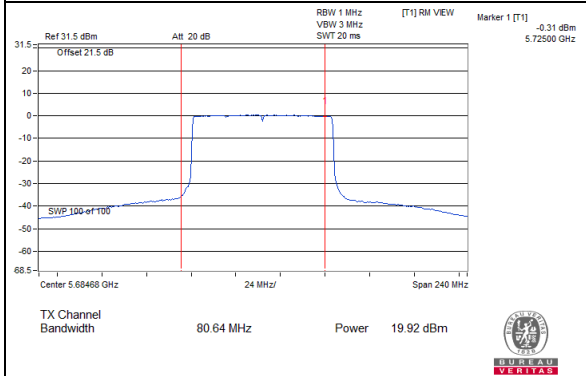


802.11ac (VHT40)\_Chain 1 / CH142 (U-NII-3 Band)

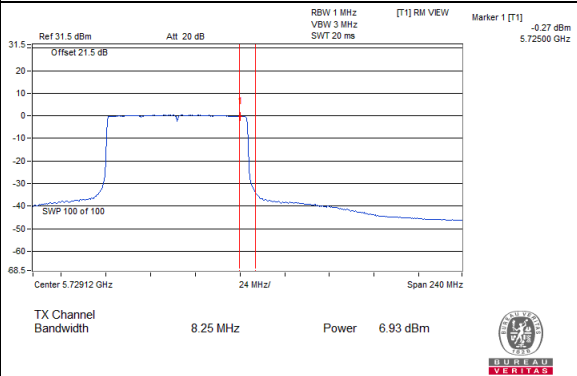


Spectrum Plot Value of Power

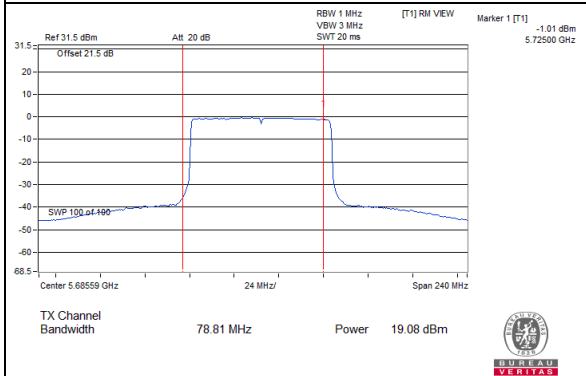
802.11ac (VHT80)\_Chain 0 / CH138 (U-NII-2C Band)



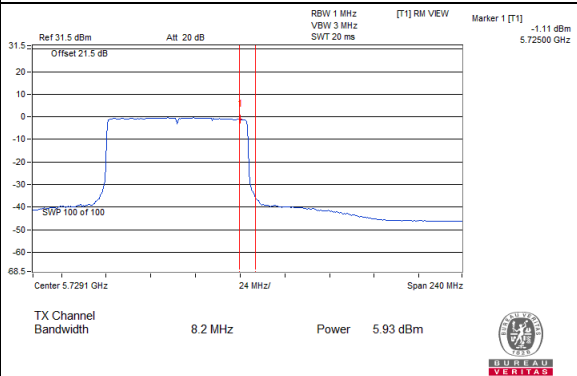
802.11ac (VHT80)\_Chain 0 / CH138 (U-NII-3 Band)



802.11ac (VHT80)\_Chain 1 / CH138 (U-NII-2C Band)

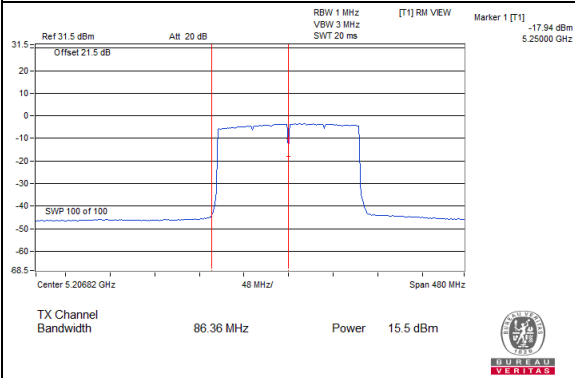


802.11ac (VHT80)\_Chain 1 / CH138 (U-NII-3 Band)

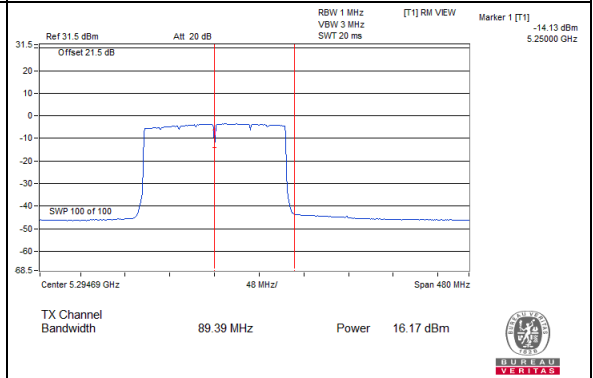


### Spectrum Plot Value of Power

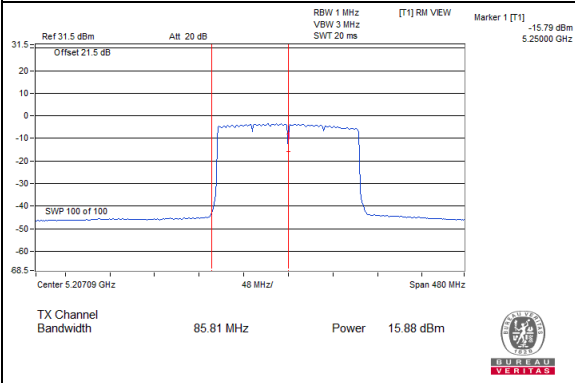
**802.11ac (VHT160)\_Chain 0 / CH50 (U-NII-1 Band)**



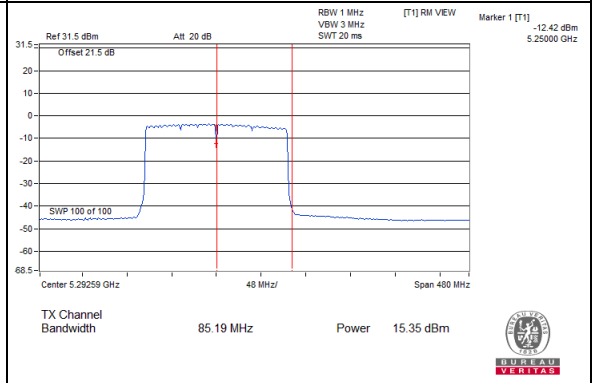
**802.11ac (VHT160)\_Chain 0 / CH50 (U-NII-2A Band)**



**802.11ac (VHT160)\_Chain 1 / CH50 (U-NII-1 Band)**

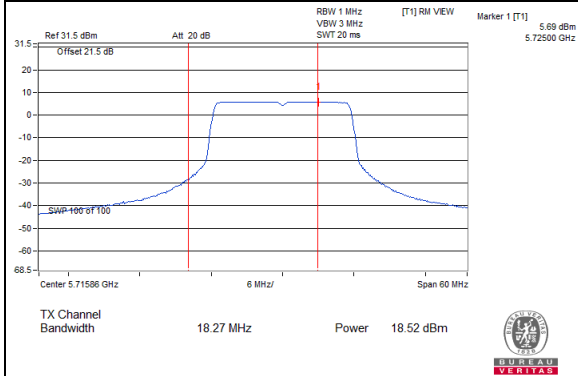


**802.11ac (VHT160)\_Chain 1 / CH50 (U-NII-2A Band)**

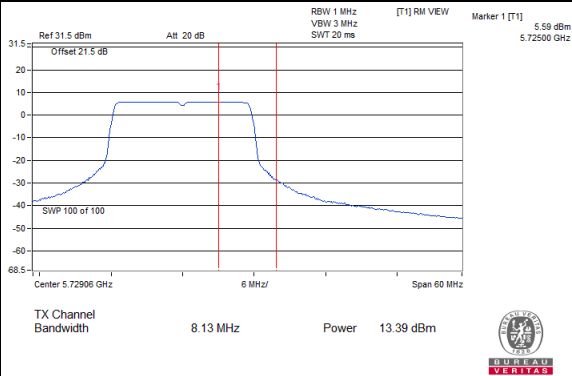


### Spectrum Plot Value of Power

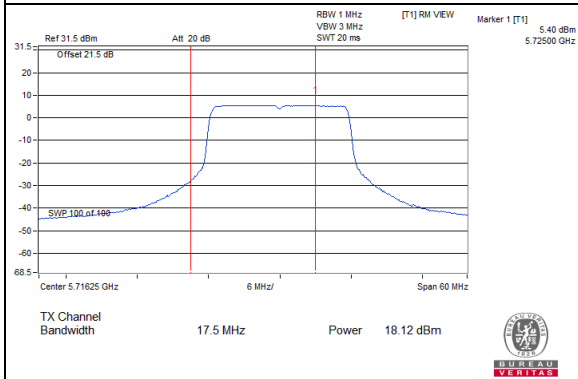
**802.11ax (HE20)\_Chain 0 / CH144 (U-NII-2C Band)**



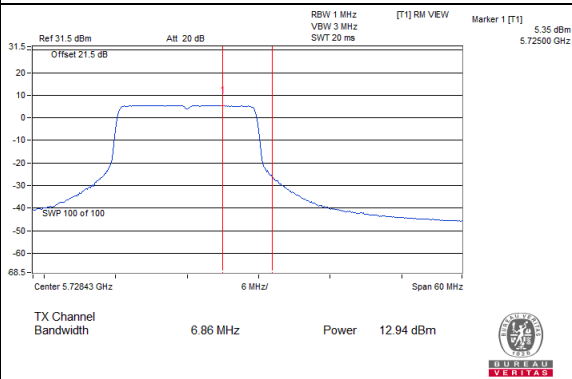
**802.11ax (HE20)\_Chain 0 / CH144 (U-NII-3 Band)**



**802.11ax (HE20)\_Chain 1 / CH144 (U-NII-2C Band)**

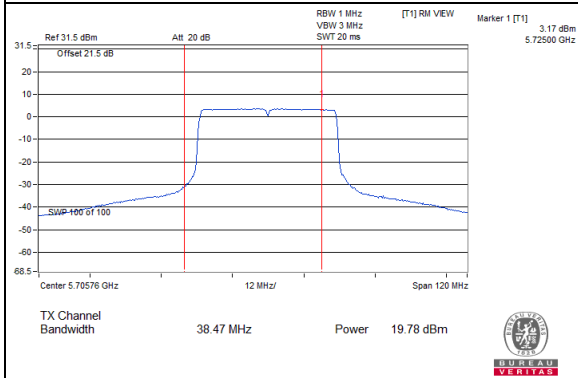


**802.11ax (HE20)\_Chain 1 / CH144 (U-NII-3 Band)**

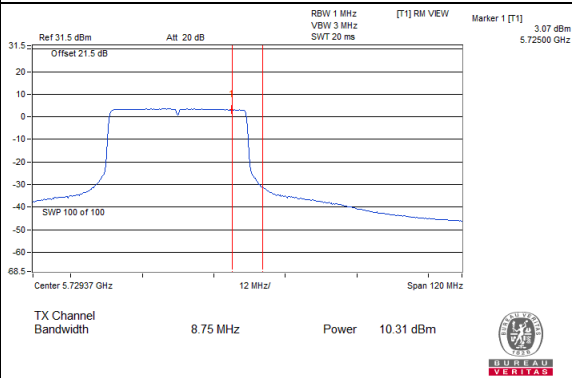


### Spectrum Plot Value of Power

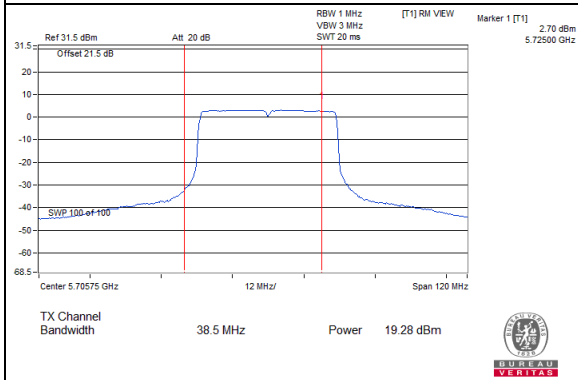
**802.11ax (HE40)\_Chain 0 / CH142 (U-NII-2C Band)**



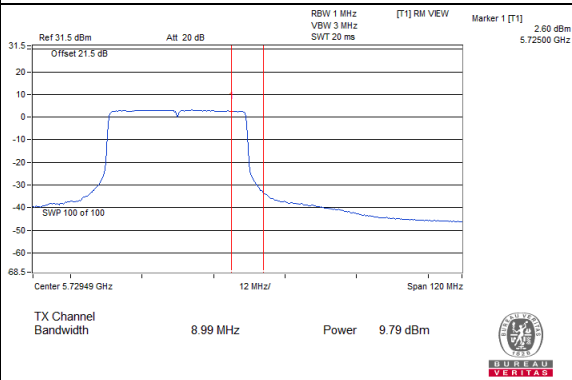
**802.11ax (HE40)\_Chain 0 / CH142 (U-NII-3 Band)**



**802.11ax (HE40)\_Chain 1 / CH142 (U-NII-2C Band)**

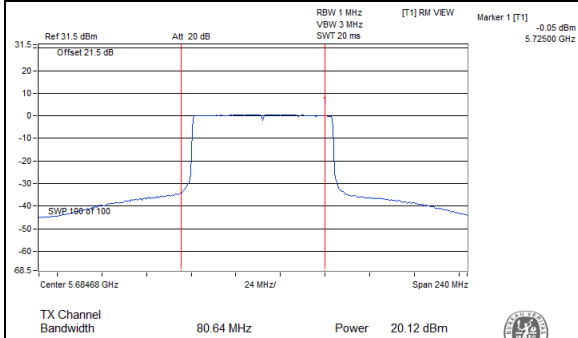


**802.11ax (HE40)\_Chain 1 / CH142 (U-NII-3 Band)**

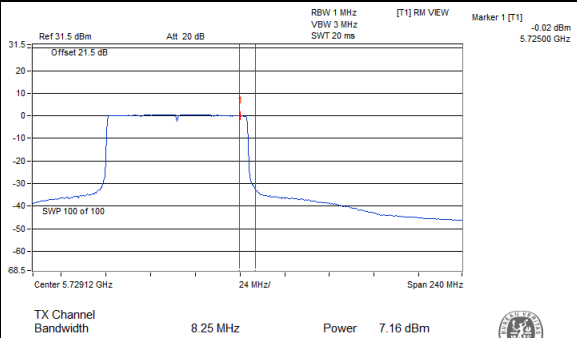


### Spectrum Plot Value of Power

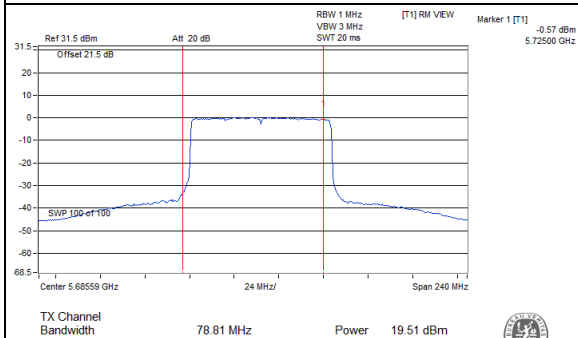
**802.11ax (HE80)\_Chain 0 / CH138 (U-NII-2C Band)**



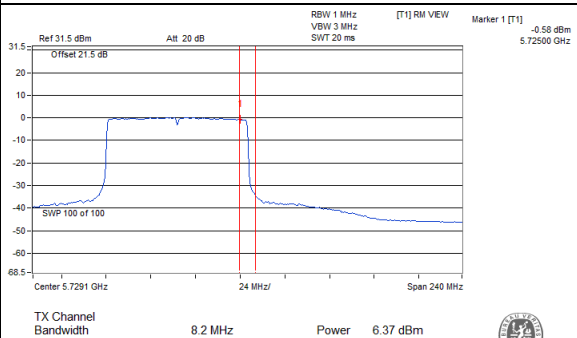
**802.11ax (HE80)\_Chain 0 / CH138 (U-NII-3 Band)**



**802.11ax (HE80)\_Chain 1 / CH138 (U-NII-2C Band)**

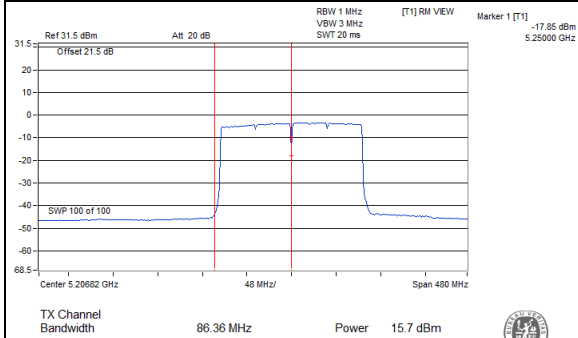


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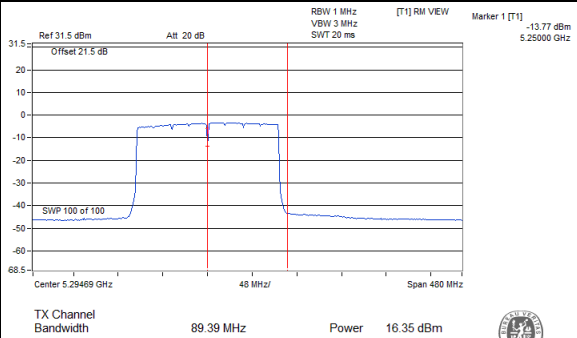


### Spectrum Plot Value of Power

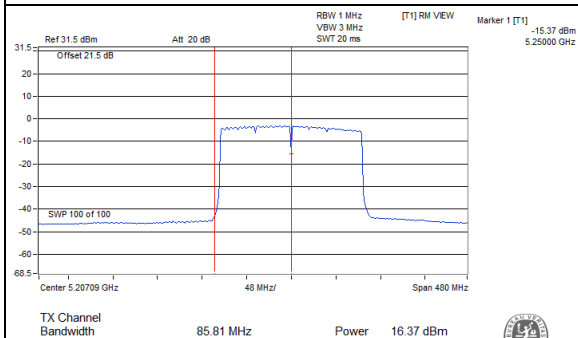
**802.11ax (HE160)\_Chain 0 / CH50 (U-NII-1 Band)**



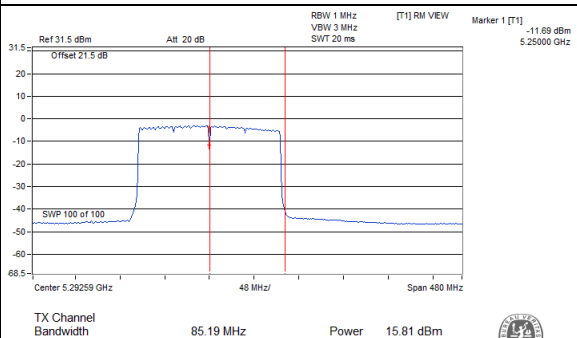
**802.11ax (HE160)\_Chain 0 / CH50 (U-NII-2A Band)**



**802.11ax (HE160)\_Chain 1 / CH50 (U-NII-1 Band)**



**802.11ax (HE160)\_Chain 1 / CH50 (U-NII-2A Band)**

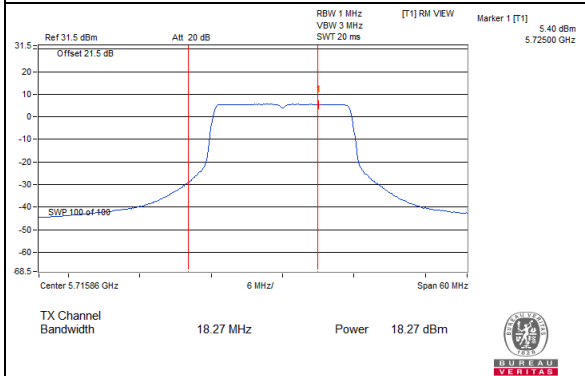




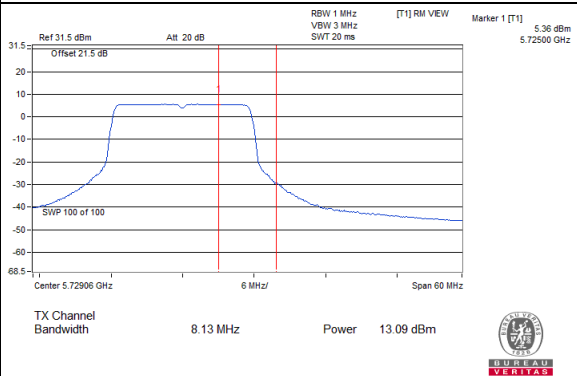
## Beamforming Mode

### Spectrum Plot Value of Power

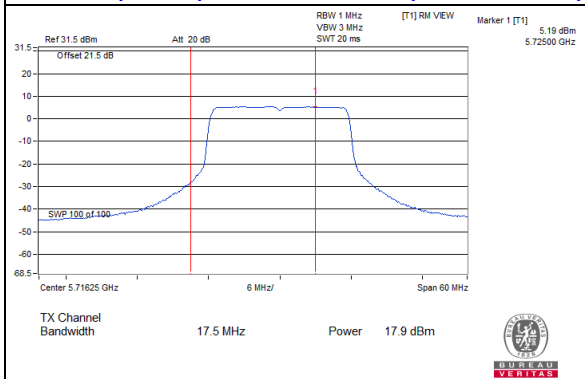
802.11ac (VHT20)\_Chain 0 / CH144 (U-NII-2C Band)



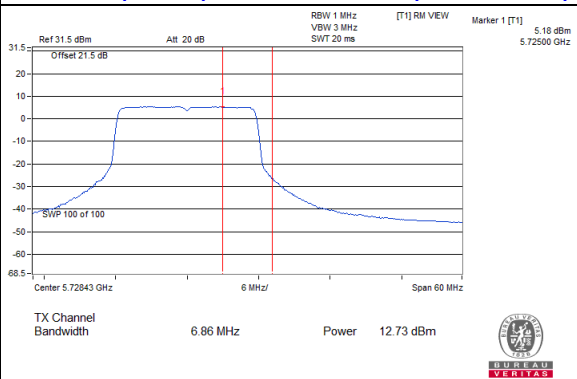
802.11ac (VHT20)\_Chain 0 / CH144 (U-NII-3 Band)



802.11ac (VHT20)\_Chain 1 / CH144 (U-NII-2C Band)

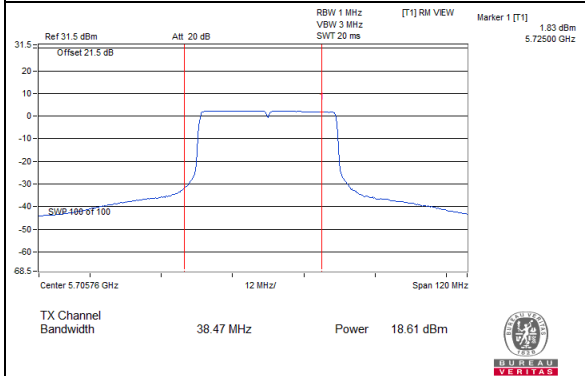


802.11ac (VHT20)\_Chain 1 / CH144 (U-NII-3 Band)

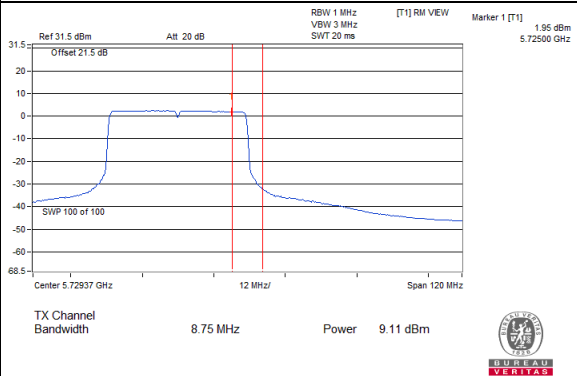


### Spectrum Plot Value of Power

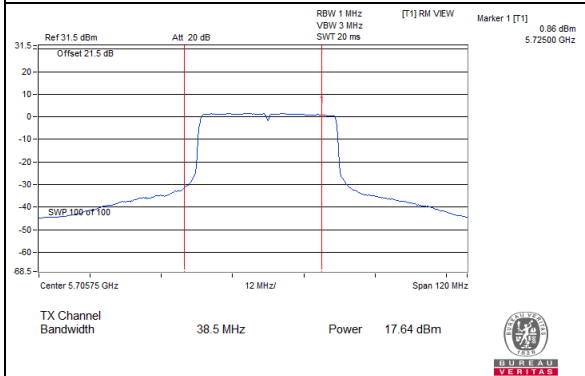
802.11ac (VHT40)\_Chain 0 / CH142 (U-NII-2C Band)



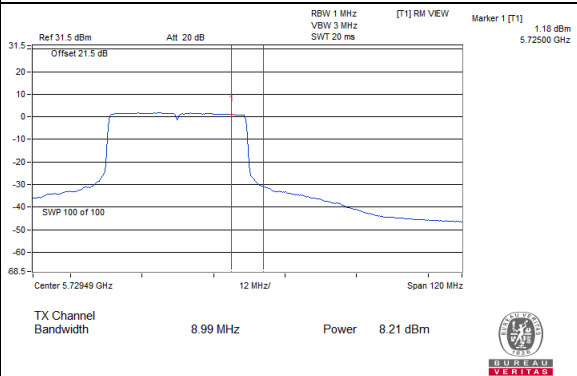
802.11ac (VHT40)\_Chain 0 / CH142 (U-NII-3 Band)



802.11ac (VHT40)\_Chain 1 / CH142 (U-NII-2C Band)

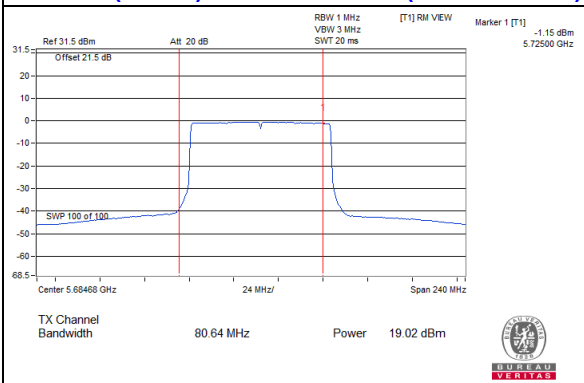


802.11ac (VHT40)\_Chain 1 / CH142 (U-NII-3 Band)

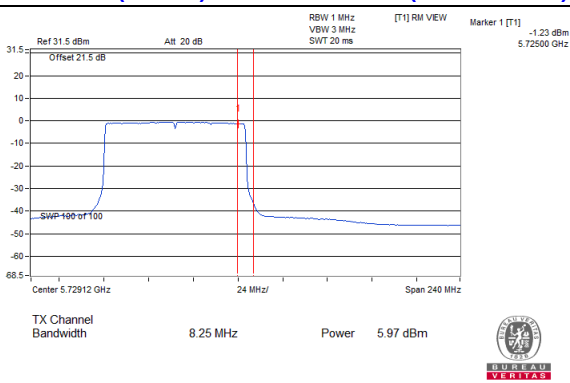


### Spectrum Plot Value of Power

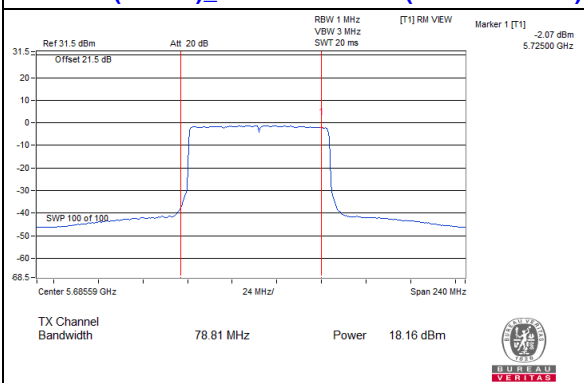
**802.11ac (VHT80)\_Chain 0 / CH138 (U-NII-2C Band)**



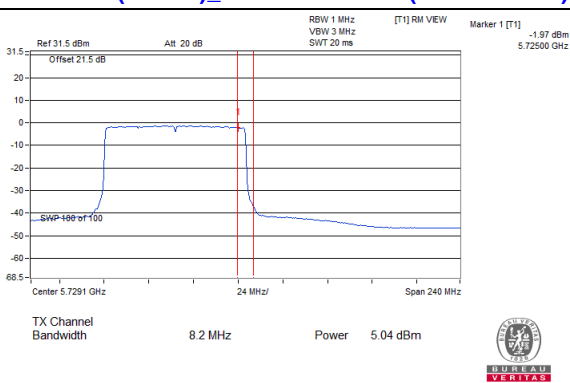
**802.11ac (VHT80)\_Chain 0 / CH138 (U-NII-3 Band)**



**802.11ac (VHT80)\_Chain 1 / CH138 (U-NII-2C Band)**

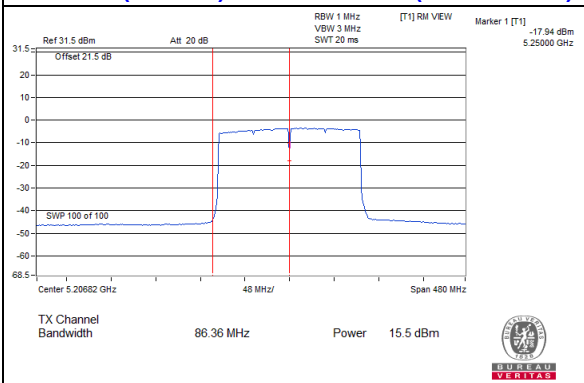


**802.11ac (VHT80)\_Chain 1 / CH138 (U-NII-3 Band)**

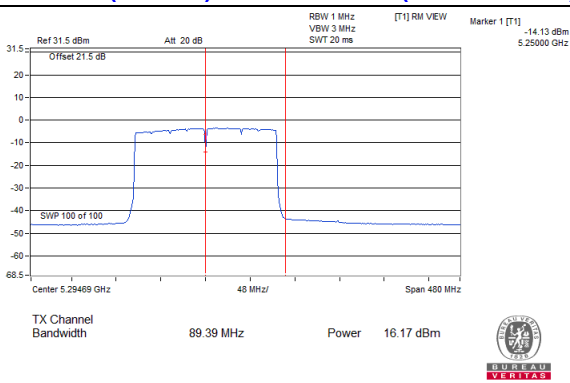


### Spectrum Plot Value of Power

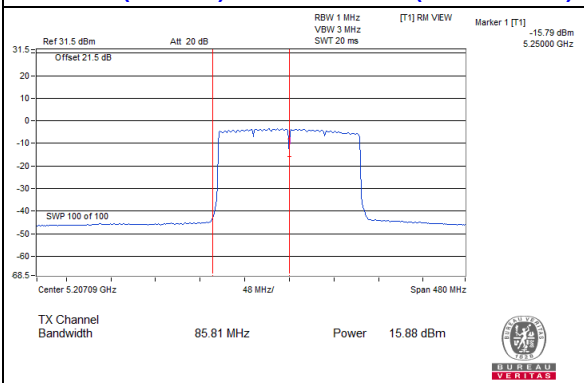
**802.11ac (VHT160)\_Chain 0 / CH50 (U-NII-1 Band)**



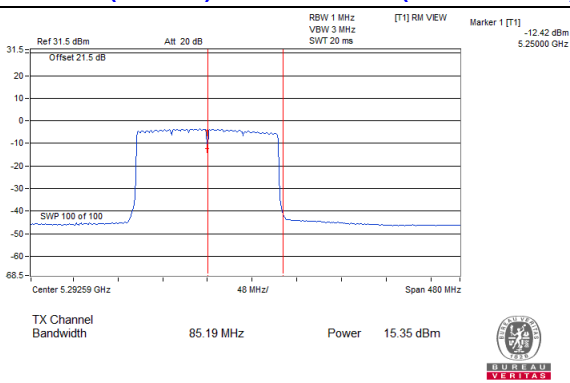
**802.11ac (VHT160)\_Chain 0 / CH50 (U-NII-2A Band)**



**802.11ac (VHT160)\_Chain 1 / CH50 (U-NII-1 Band)**

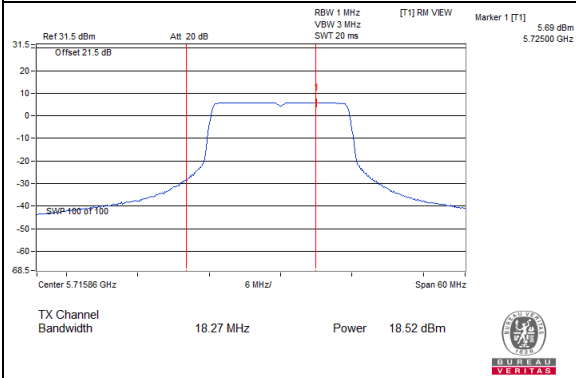


**802.11ac (VHT160)\_Chain 1 / CH50 (U-NII-2A Band)**

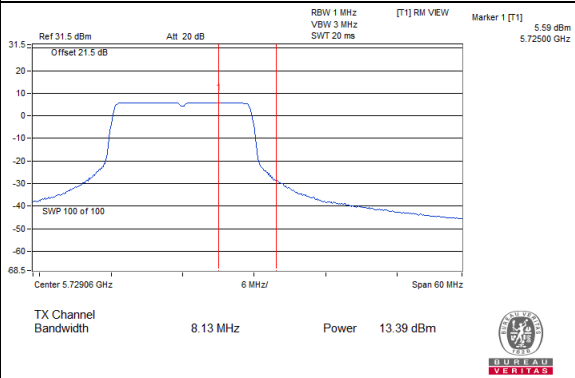


### Spectrum Plot Value of Power

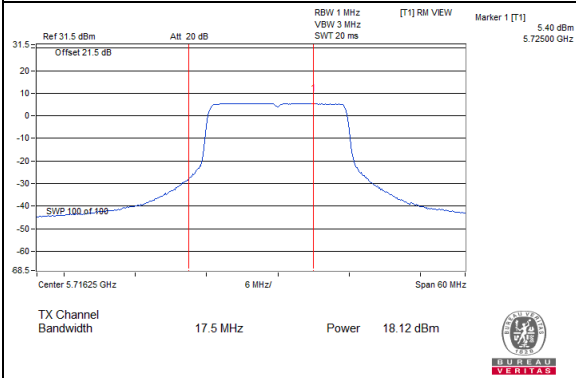
**802.11ax (HE20)\_Chain 0 / CH144 (U-NII-2C Band)**



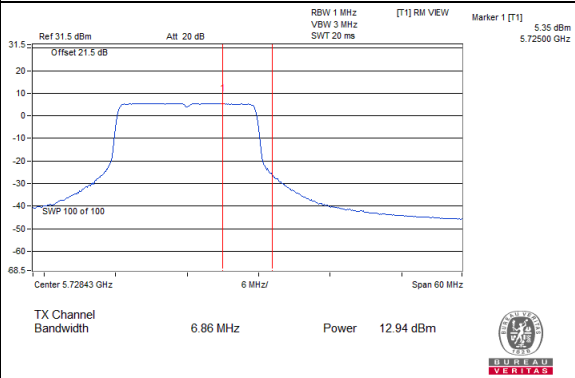
**802.11ax (HE20)\_Chain 0 / CH144 (U-NII-3 Band)**



**802.11ax (HE20)\_Chain 1 / CH144 (U-NII-2C Band)**

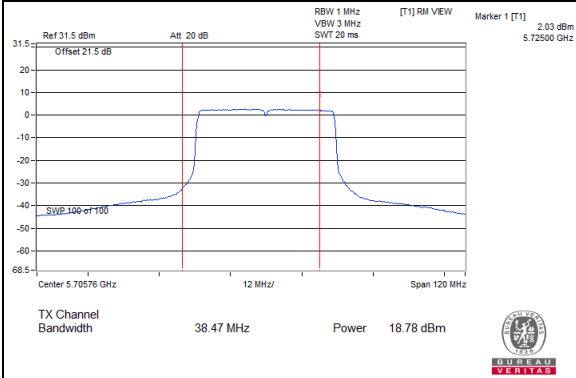


**802.11ax (HE20)\_Chain 1 / CH144 (U-NII-3 Band)**

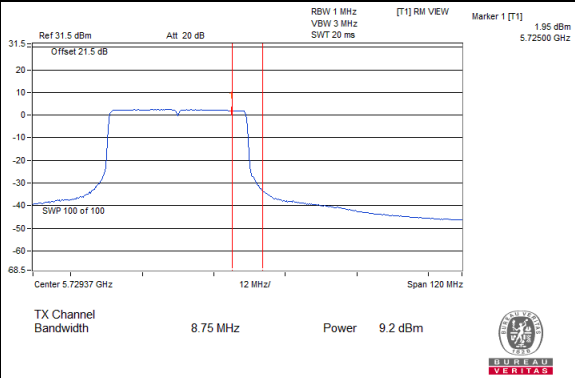


### Spectrum Plot Value of Power

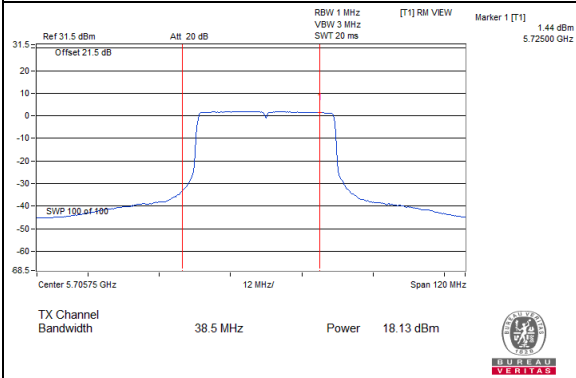
**802.11ax (HE40)\_Chain 0 / CH142 (U-NII-2C Band)**



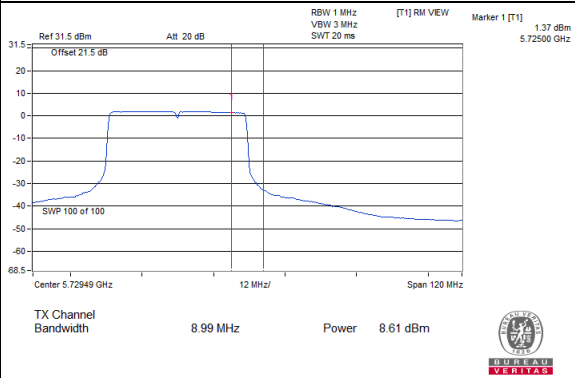
**802.11ax (HE40)\_Chain 0 / CH142 (U-NII-3 Band)**



**802.11ax (HE40)\_Chain 1 / CH142 (U-NII-2C Band)**

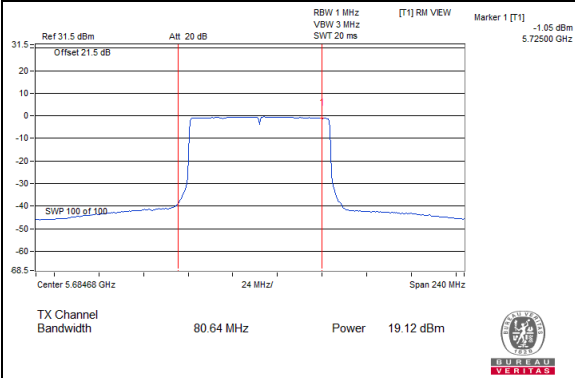


**802.11ax (HE40)\_Chain 1 / CH142 (U-NII-3 Band)**

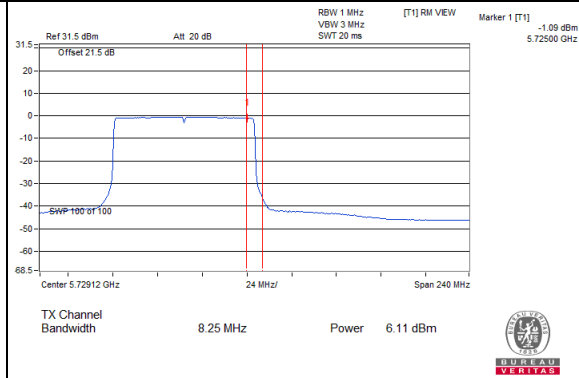


### Spectrum Plot Value of Power

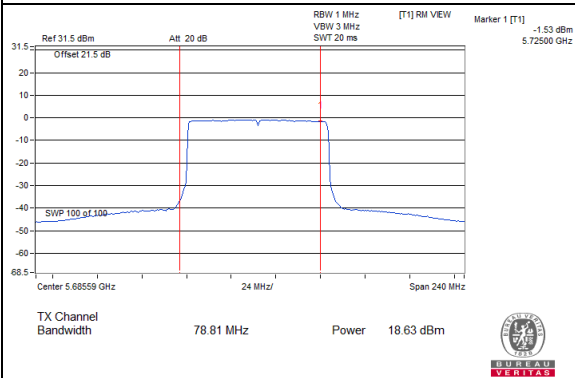
**802.11ax (HE80)\_Chain 0 / CH138 (U-NII-2C Band)**



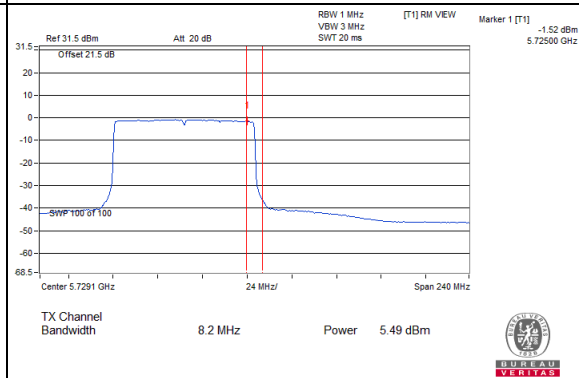
**802.11ax (HE80)\_Chain 0 / CH138 (U-NII-3 Band)**



**802.11ax (HE80)\_Chain 1 / CH138 (U-NII-2C Band)**

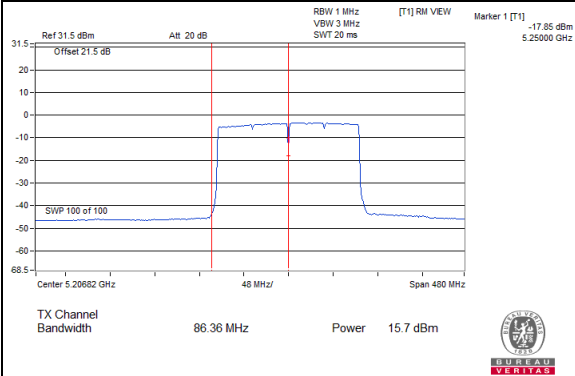


**802.11ax (HE80)\_Chain 1 / CH138 (U-NII-3 Band)**

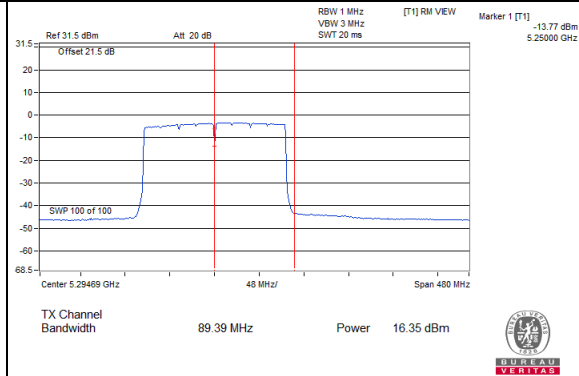


### Spectrum Plot Value of Power

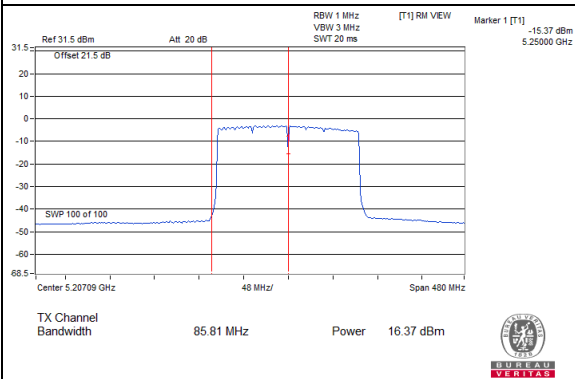
**802.11ax (HE160)\_Chain 0 / CH50 (U-NII-1 Band)**



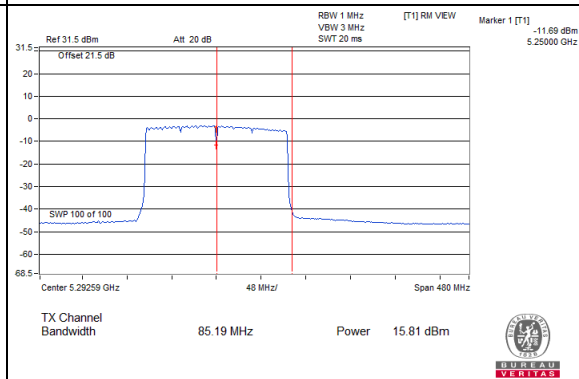
**802.11ax (HE160)\_Chain 0 / CH50 (U-NII-2A Band)**



**802.11ax (HE160)\_Chain 1 / CH50 (U-NII-1 Band)**



**802.11ax (HE160)\_Chain 1 / CH50 (U-NII-2A Band)**



## 26dB OCCUPIED BANDWIDTH

### Master

#### 802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)
36	5180	28.24
40	5200	43.98
48	5240	38.41
52	5260	38.24
60	5300	38.33
64	5320	28.18
100	5500	24.87
116	5580	40.66
140	5700	29.23
144 (U-NII-2C Band)	5720	26.81
144 (U-NII-3 Band)	5720	13.93
149	5745	54.47
157	5785	52.89
165	5825	52.99

#### 802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	25.47	24.29
40	5200	45.34	40.45
48	5240	37.06	36.77
52	5260	25.13	24.52
60	5300	25.84	24.75
64	5320	26.03	24.92
100	5500	25.65	24.78
116	5580	26.61	24.32
140	5700	25.37	24.44
144 (U-NII-2C Band)	5720	18.27	17.5
144 (U-NII-3 Band)	5720	8.13	6.86
149	5745	53.73	52.5
157	5785	52.96	52.69
165	5825	52.88	53.5

**802.11ax (HE40)**

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	47.06	47.1
46	5230	48.95	47.5
54	5270	48.8	47.37
62	5310	47.02	47.41
102	5510	47.27	47.03
110	5550	48.7	47.1
134	5670	49.08	47.51
142 (U-NII-2C Band)	5710	38.47	38.5
142 (U-NII-3 Band)	5710	8.75	8.99
151	5755	93.29	96.72
159	5795	93.53	106.34

**802.11ax (HE80)**

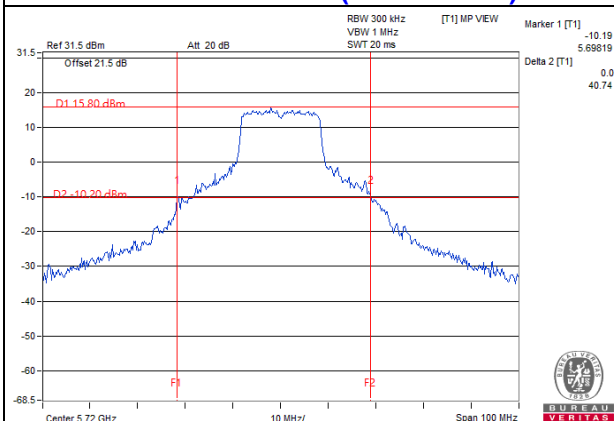
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	88	85.9
58	5290	87.94	86.02
106	5530	87.26	86.02
122	5610	90.01	86.89
138 (U-NII-2C Band)	5690	80.64	78.81
138 (U-NII-3 Band)	5690	8.25	8.2
155	5775	178.34	178.84

**802.11ax (HE160)**

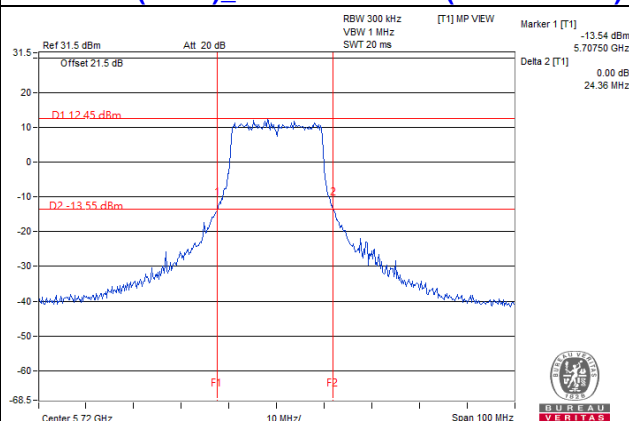
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
50 (U-NII-1 Band)	5250	86.36	85.81
50 (U-NII-2A Band)	5250	89.39	85.19
114	5570	289.07	291.97

Spectrum Plot of Worst Value

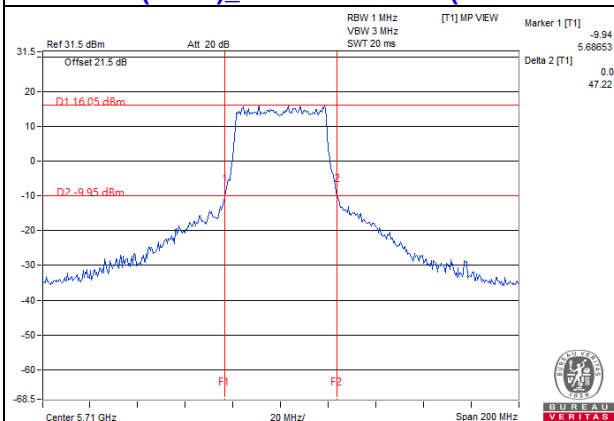
802.11a / CH144 (U-NII-3 Band)



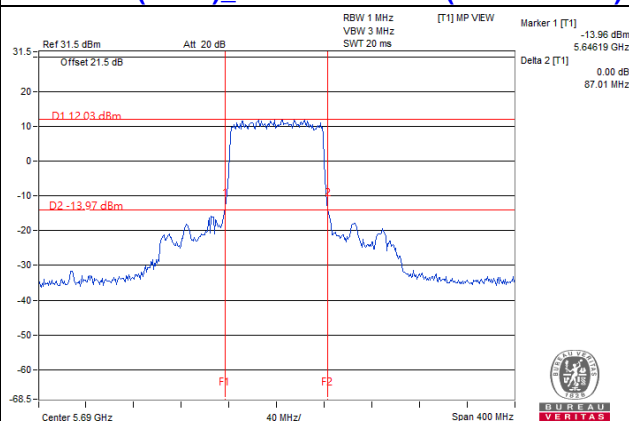
802.11ax (HE20)\_Chain 1 / CH144 (U-NII-3 Band)



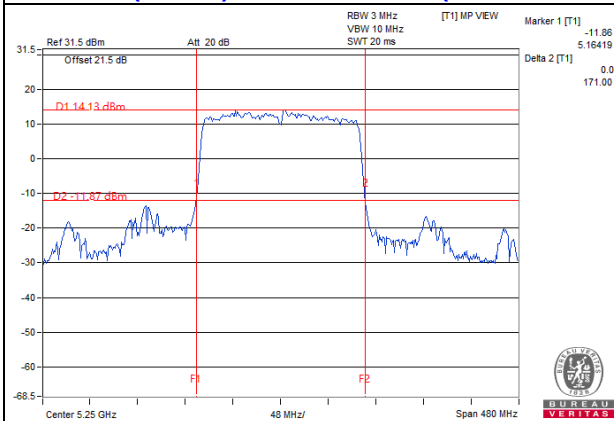
802.11ax (HE40)\_Chain 0 / CH142 (U-NII-3 Band)



802.11ax (HE80)\_Chain 1 / CH138 (U-NII-3 Band)



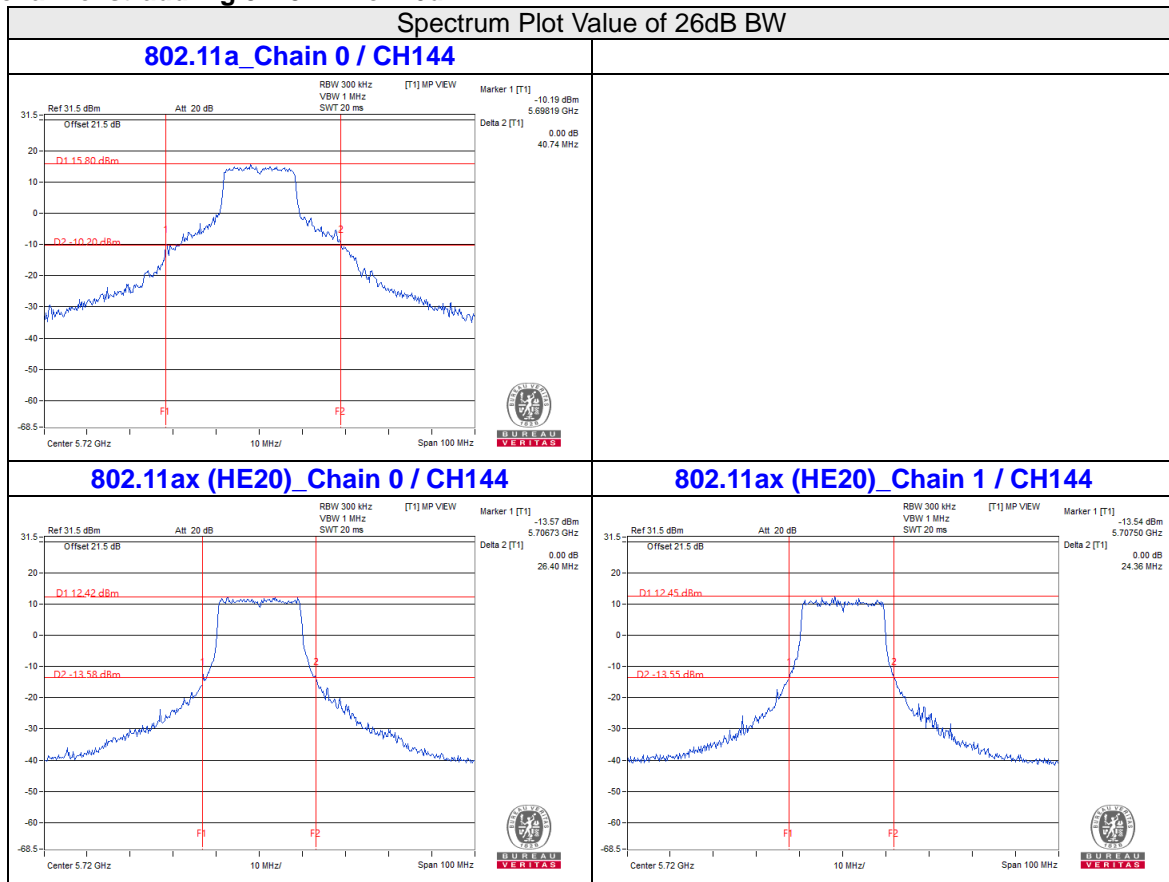
802.11ax (HE160)\_Chain 1 / CH50 (U-NII-2A Band)



Note:

- For CH144 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
- For CH142 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
- For CH138 (U-NII-3) = Delta 2 - (5725MHz - Marker 1)
- For CH50 (U-NII-1) = 5250MHz - Marker 1

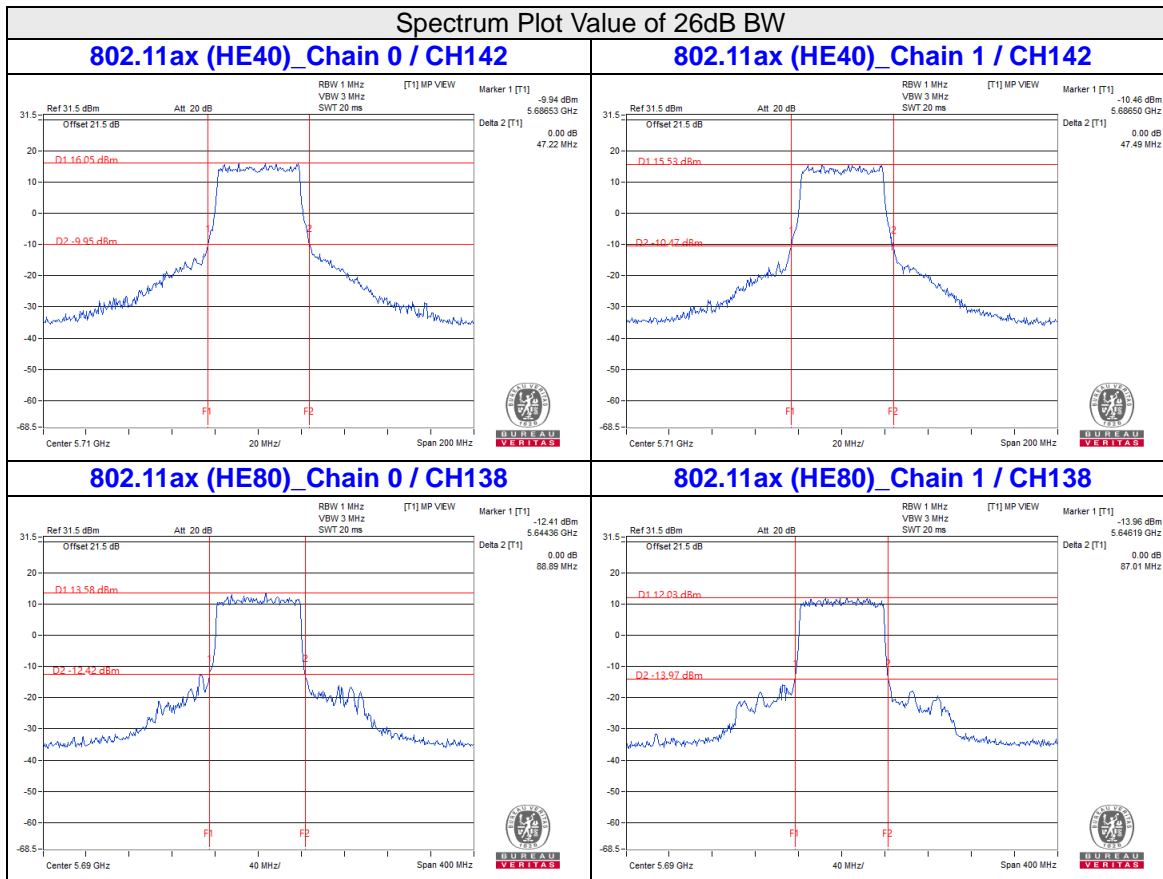
**For channel straddling 5725MHz of 26dB BW**



**Note:**

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





**Note:**

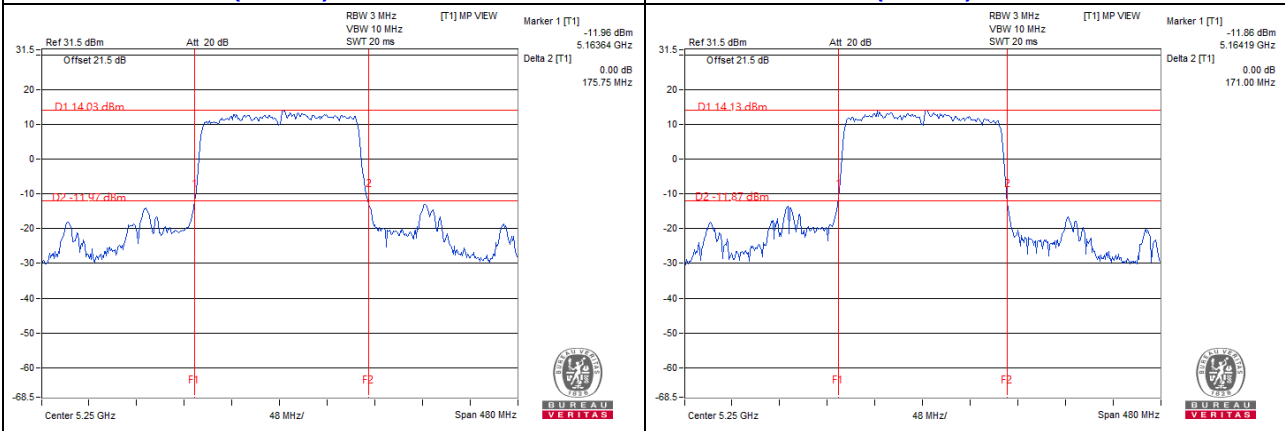
For CH142 (U-NII-2C) = 5725MHz - Marker 1  
 For CH138 (U-NII-2C) = 5725MHz - Marker 1

**For channel straddling 5250MHz of 26dB BW**

**Spectrum Plot Value of 26dB BW**

**802.11ax (HE160)\_Chain 0 / CH50**

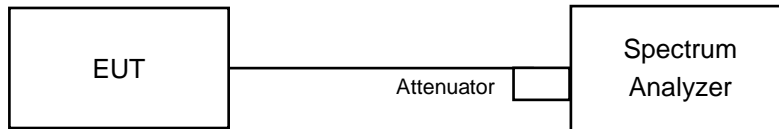
**802.11ax (HE160)\_Chain 1 / CH50**



**Note:** For CH50 (U-NII-2A) = Delta 2 – (5250MHz - Marker 1)

## 4.4 Occupied Bandwidth Measurement

### 4.4.1 Test Setup



### 4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.4.3 Test Procedure

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

#### 4.4.4 Test Results

##### CDD Mode

##### 802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
36	5180	17.28	PASS
40	5200	22.8	PASS
48	5240	18.12	PASS
52	5260	18	PASS
60	5300	17.76	PASS
64	5320	17.28	PASS
100	5500	17.16	PASS
116	5580	19.8	PASS
140	5700	17.16	PASS
144 (U-NII-2C Band)	5720	16.16	PASS
144 (U-NII-3 Band)	5720	6.52	PASS
149	5745	36.7	PASS
157	5785	33.84	PASS
165	5825	32.04	PASS

##### 802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	19.44	19.32	PASS
40	5200	20.76	19.56	PASS
48	5240	19.56	19.44	PASS
52	5260	19.44	19.32	PASS
60	5300	19.44	19.2	PASS
64	5320	19.44	19.2	PASS
100	5500	19.44	19.32	PASS
116	5580	19.44	19.32	PASS
140	5700	19.44	19.32	PASS
144 (U-NII-2C Band)	5720	14.72	14.72	PASS
144 (U-NII-3 Band)	5720	4.6	4.48	PASS
149	5745	38.17	33.36	PASS
157	5785	34.08	33.56	PASS
165	5825	33.72	35.4	PASS

**802.11ax (HE40)**

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	38.64	38.4	PASS
46	5230	38.64	38.4	PASS
54	5270	38.64	38.4	PASS
62	5310	38.64	38.4	PASS
102	5510	38.64	38.64	PASS
110	5550	38.64	38.64	PASS
134	5670	38.64	38.4	PASS
142 (U-NII-2C Band)	5710	34.2	34.2	PASS
142 (U-NII-3 Band)	5710	4.44	4.2	PASS
151	5755	47.48	54.72	PASS
159	5795	46.08	58.08	PASS

**802.11ax (HE80)**

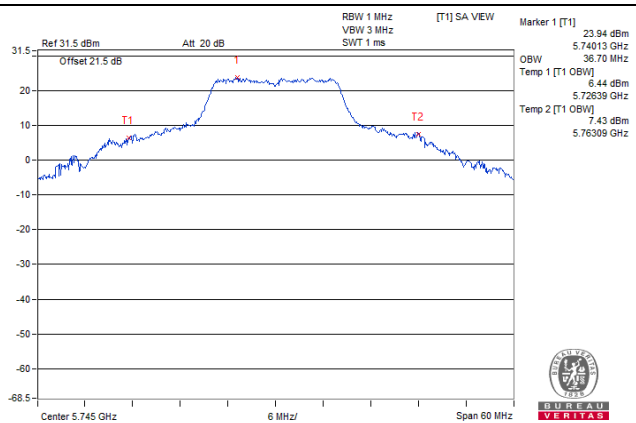
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	77.76	77.76	PASS
58	5290	77.76	77.76	PASS
106	5530	77.76	77.76	PASS
122	5610	77.76	77.76	PASS
138 (U-NII-2C Band)	5690	74.36	73.88	PASS
138 (U-NII-3 Band)	5690	3.88	3.88	PASS
155	5775	79.2	78.72	PASS

**802.11ax (HE160)**

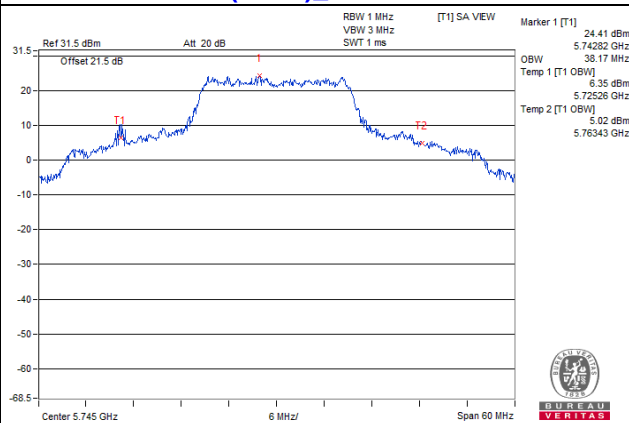
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
50 (U-NII-1 Band)	5250	78.72	78.72	PASS
50 (U-NII-2A Band)	5250	78.72	77.76	PASS
114	5570	157.44	156.48	PASS

Spectrum Plot of Max. Value

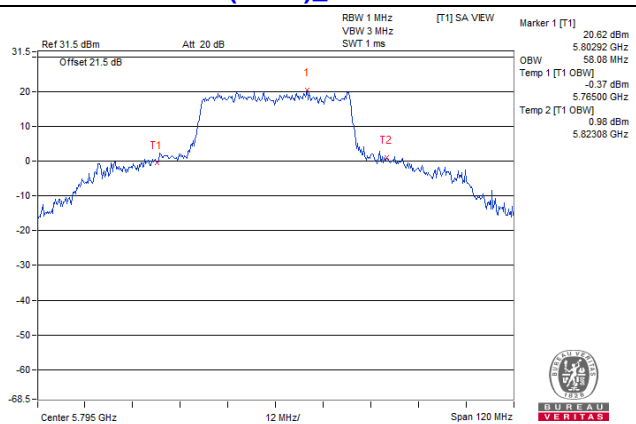
802.11a / CH149



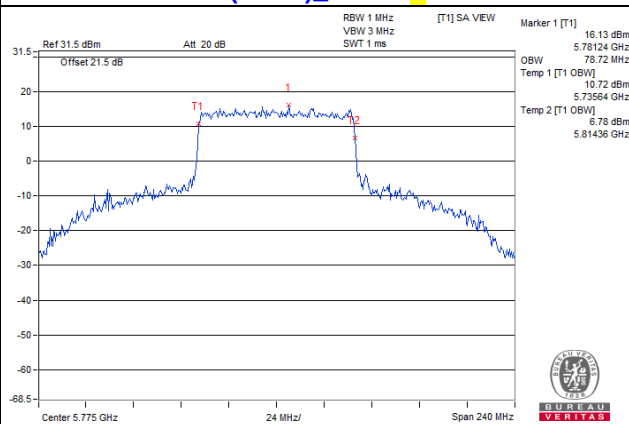
802.11ax (HE20)\_Chain 0 / CH149



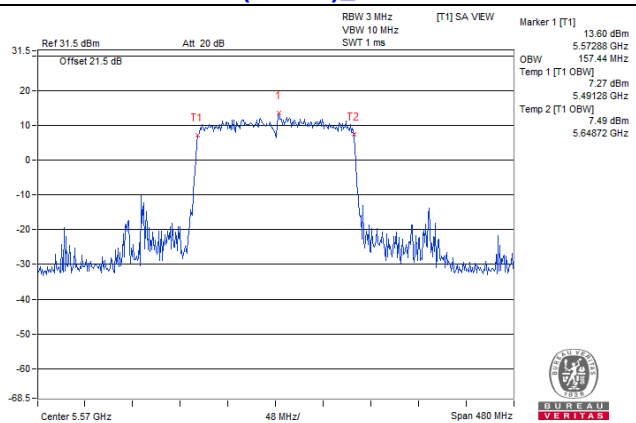
802.11ax (HE40)\_Chain 1 / CH159



802.11ax (HE80)\_Chain 1 / CH155

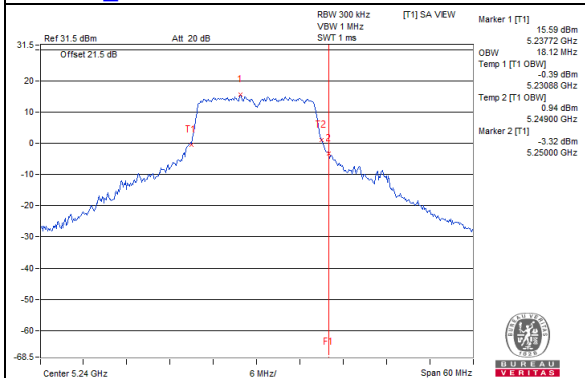


802.11ax (HE160)\_Chain 0 / 114

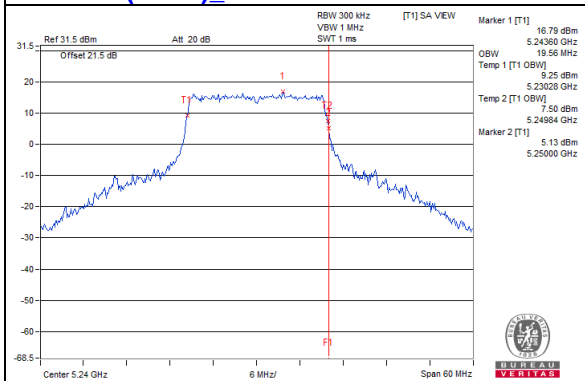


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2A band)**

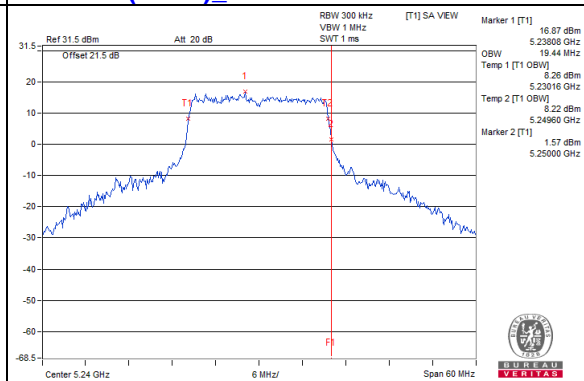
**802.11a\_Chain 0 / CH48**



**802.11ax (HE20)\_Chain 0 / CH48**

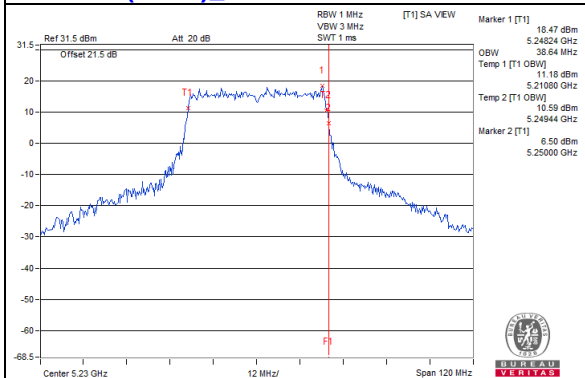


**802.11ax (HE20)\_Chain 1 / CH48**

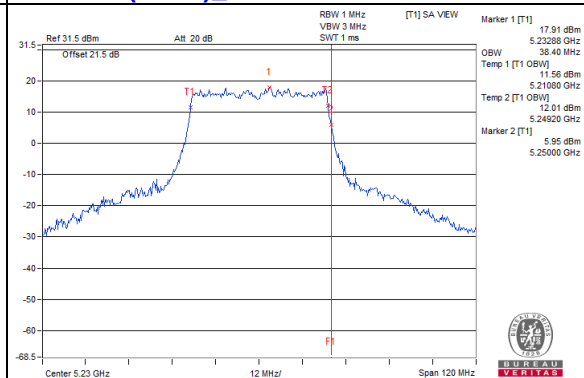


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2A band)**

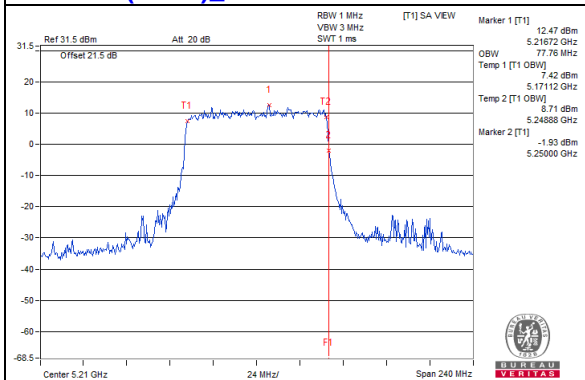
**802.11ax (HE40)\_Chain 0 / CH46**



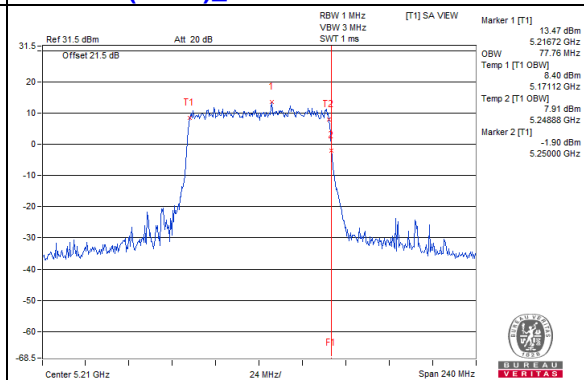
**802.11ax (HE40)\_Chain 1 / CH46**



**802.11ax (HE80)\_Chain 0 / CH42**

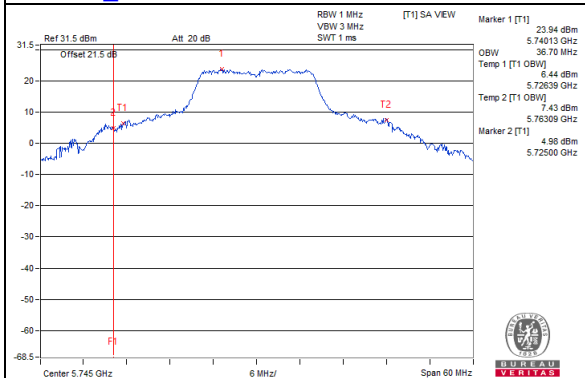


**802.11ax (HE80)\_Chain 1 / CH42**

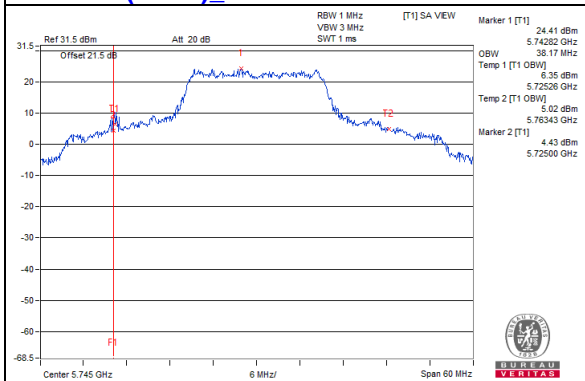


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2C band)**

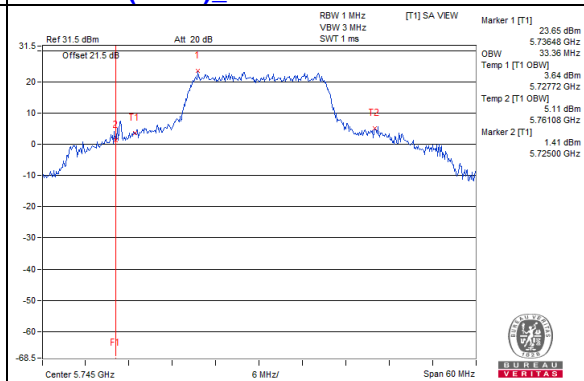
**802.11a\_Chain 0 / CH149**



**802.11ax (HE20)\_Chain 0 / CH149**

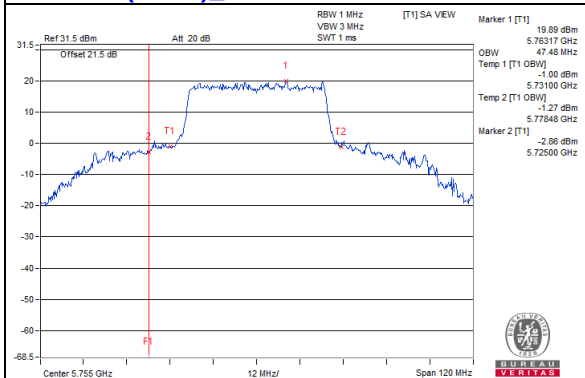


**802.11ax (HE20)\_Chain 1 / CH149**

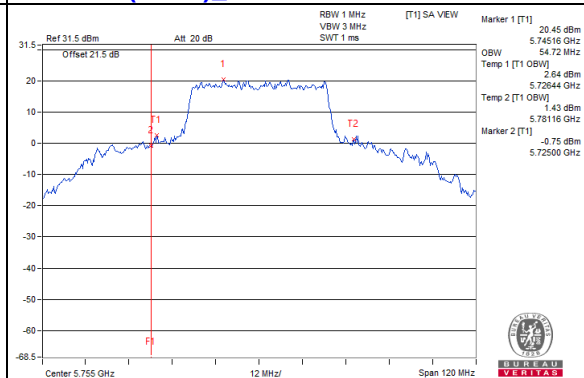


**Spectrum Plot for near by DFS band  
(DFS is required, if 99% OCP straddle into U-NII-2C band)**

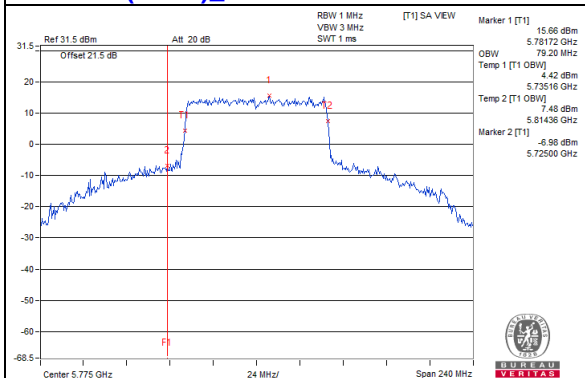
**802.11ax (HE40)\_Chain 0 / CH151**



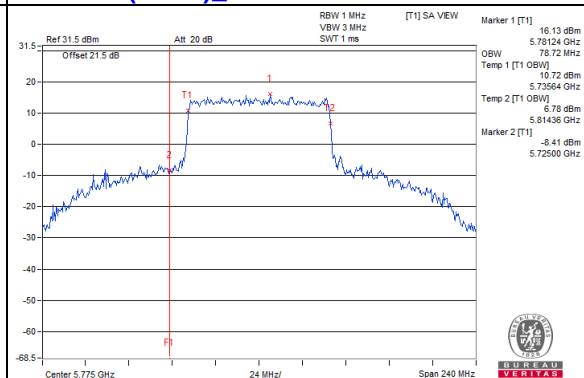
**802.11ax (HE40)\_Chain 1 / CH151**



**802.11ax (HE80)\_Chain 0 / CH155**



**802.11ax (HE80)\_Chain 1 / CH155**





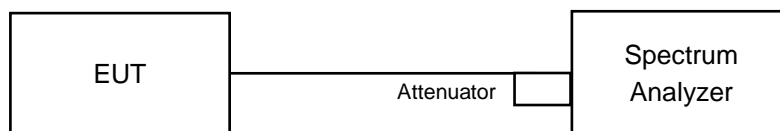
## 4.5 Peak Power Spectral Density Measurement

### 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

Note: This device can support different category application which switched by access point mode and client mode by software.

### 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 802.11b, 802.11ax (HE20), 802.11ax (HE40), 802.11ax (HE80)

**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 band:**

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 (increasing) the measured power by a bandwidth correction factor (BWCF) where  $BWCF = 10\log(500\text{kHz}/300\text{kHz})$
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 802.11ax (HE160)

**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  $\geq$  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  $10 \log (1/\text{duty cycle})$

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 band:

**CDD Mode**

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
36	5180	10.05	10.05	17.00	PASS
40	5200	13.25	13.25	17.00	PASS
48	5240	10.73	10.73	17.00	PASS
52	5260	10.66	10.66	11.00	PASS
60	5300	10.75	10.75	11.00	PASS
64	5320	10.01	10.01	11.00	PASS
100	5500	7.81	7.81	11.00	PASS
116	5580	9.61	9.61	11.00	PASS
140	5700	7.26	7.26	11.00	PASS
144 (U-NII-2C Band)	5720	10.74	10.74	11.00	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: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 3.88 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced..
3. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 3.88 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced..
4. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 4.3 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced..

**802.11ax (HE20)**

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	8.57	7.79	11.21	16.12	PASS
40	5200	12.30	11.08	14.74	16.12	PASS
48	5240	10.55	10.16	13.37	16.12	PASS
52	5260	5.62	5.58	8.61	9.88	PASS
60	5300	5.56	5.64	8.61	9.88	PASS
64	5320	5.71	5.47	8.60	9.88	PASS
100	5500	5.57	5.30	8.45	9.69	PASS
116	5580	6.08	4.91	8.54	9.69	PASS
140	5700	5.34	5.28	8.32	9.69	PASS
144 (U-NII-2C Band)	5720	5.73	5.41	8.58	9.69	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: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to  $17 - (6.88 - 6) = 16.12 \text{ dBm}$ .
3. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to  $11 - (7.12 - 6) = 9.88 \text{ dBm}$ .
4. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to  $11 - (7.31 - 6) = 9.69 \text{ dBm}$ .

### 802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	3.55	3.84	6.71	16.12	PASS
46	5230	5.56	5.77	8.68	16.12	PASS
54	5270	3.46	3.67	6.58	9.88	PASS
62	5310	3.76	2.91	6.37	9.88	PASS
102	5510	2.07	1.77	4.93	9.69	PASS
110	5550	4.04	3.31	6.70	9.69	PASS
134	5670	3.68	3.20	6.46	9.69	PASS
142 (U-NII-2C Band)	5710	3.49	3.09	6.31	9.69	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: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 17- (6.88-6) = 16.12dBm.
3. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 11- (7.12-6) = 9.88dBm.
4. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 11- (7.31-6) = 9.69dBm.

### 802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
42	5210	-0.18	0.24	3.05	16.12	PASS
58	5290	0.31	0.45	3.39	9.88	PASS
106	5530	-1.27	-1.02	1.87	9.69	PASS
122	5610	0.94	0.57	3.77	9.69	PASS
138 (U-NII-2C Band)	5690	0.46	0.13	3.31	9.69	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: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 6.88 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 17- (6.88-6) = 16.12dBm.
3. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.12 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 11- (7.12-6) = 9.88dBm.
4. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.31 \text{ dBi} < 6 \text{ dBi}$ , so the so the power density limit shall not be reduced to 11- (7.31-6) = 9.69dBm.

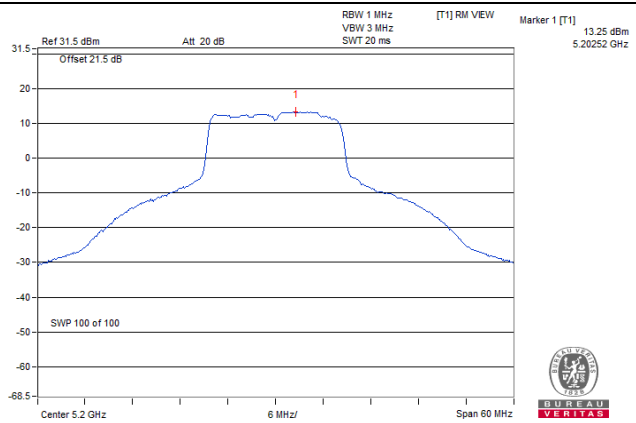
**802.11ax (HE160)**

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
50 (U-NII-1 Band)	5250	-3.70	-3.15	0.10	-0.31	16.12	PASS
50 (U-NII-2A Band)	5250	-3.52	-3.25	0.10	-0.28	9.88	PASS
114	5570	-4.02	-3.60	0.10	-0.70	9.69	PASS

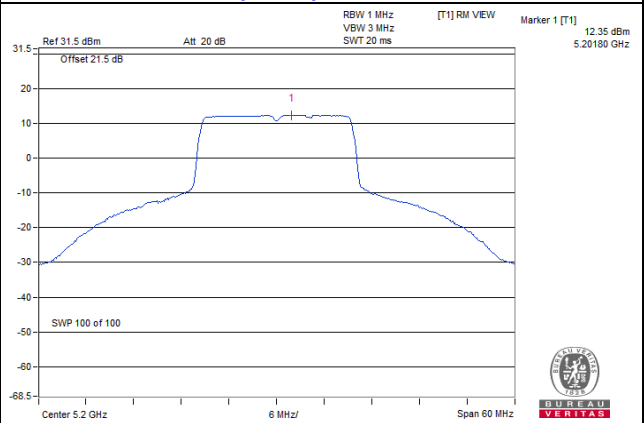
- Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For UNII-1: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 6.88 dBi > 6 dBi, so the so the power density limit shall not be reduced to 17- (6.88-6) = 16.12dBm.
3. For UNII-2A: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.12 dBi < 6 dBi, so the so the power density limit shall not be reduced to 11- (7.12-6) = 9.88dBm.
4. For UNII-2C: The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2]$  = 7.31 dBi < 6 dBi, so the so the power density limit shall not be reduced to 11- (7.31-6) = 9.69dBm.

Spectrum Plot of Worst Value

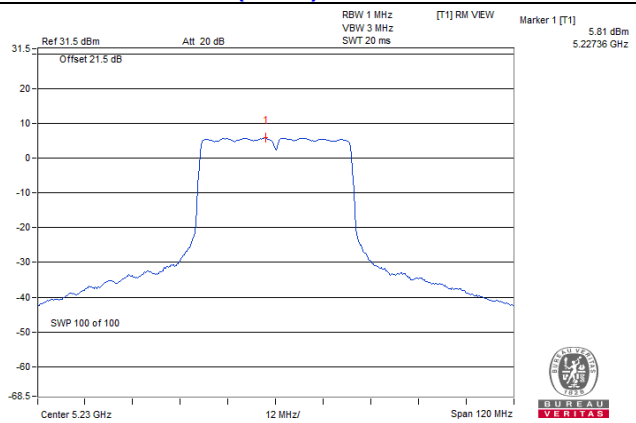
802.11a / CH40



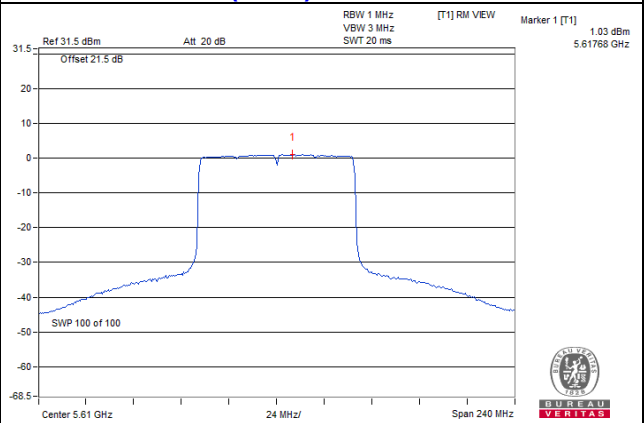
802.11ax (HE20)\_Chain 0 / CH40



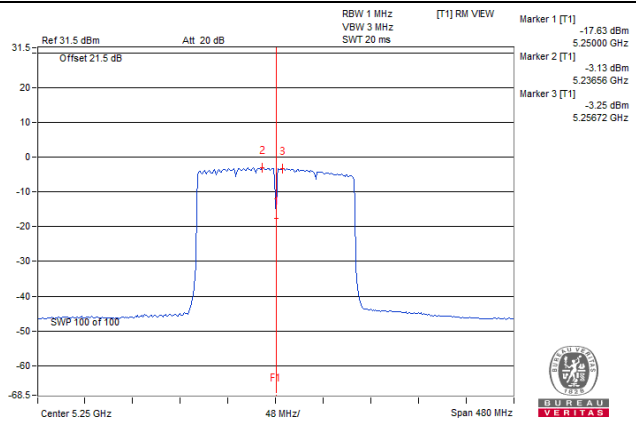
802.11ax (HE40)\_Chain 1 / CH46



802.11ax (HE80)\_Chain 0 / CH122



802.11ax (HE160)\_Chain 1 / CH50 (U-NII-1 Band)



For U-NII-3 band:

**CDD Mode**

**802.11a**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
144 (U-NII-3 Band)	5720	2.05	1.603	2.05	4.27	30.00	PASS
149	5745	4.14	2.594	4.14	6.36	30.00	PASS
157	5785	4.19	2.624	4.19	6.41	30.00	PASS
165	5825	3.97	2.495	3.97	6.19	30.00	PASS

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.  
 2. The directional gain = 4.42 dBi < 6 dBi, so the so the power density limit shall not be reduced.

**802.11ax (HE20)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
144 (U-NII-3 Band)	5720	-3.58	-4.09	0.8285	-0.82	1.40	28.59	PASS
149	5745	2.91	1.92	3.51	5.45	7.67	28.59	PASS
157	5785	2.37	2.17	3.374	5.28	7.50	28.59	PASS
165	5825	2.31	2.82	3.616	5.58	7.80	28.59	PASS

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.  
 2. The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

**802.11ax (HE40)**

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
142 (U-NII-3 Band)	5710	-6.04	-6.57	0.4692	-3.29	-1.07	28.59	PASS
151	5755	-1.48	-1.31	1.4508	1.62	3.84	28.59	PASS
159	5795	-1.39	-0.99	1.5223	1.83	4.05	28.59	PASS

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.  
 2. The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

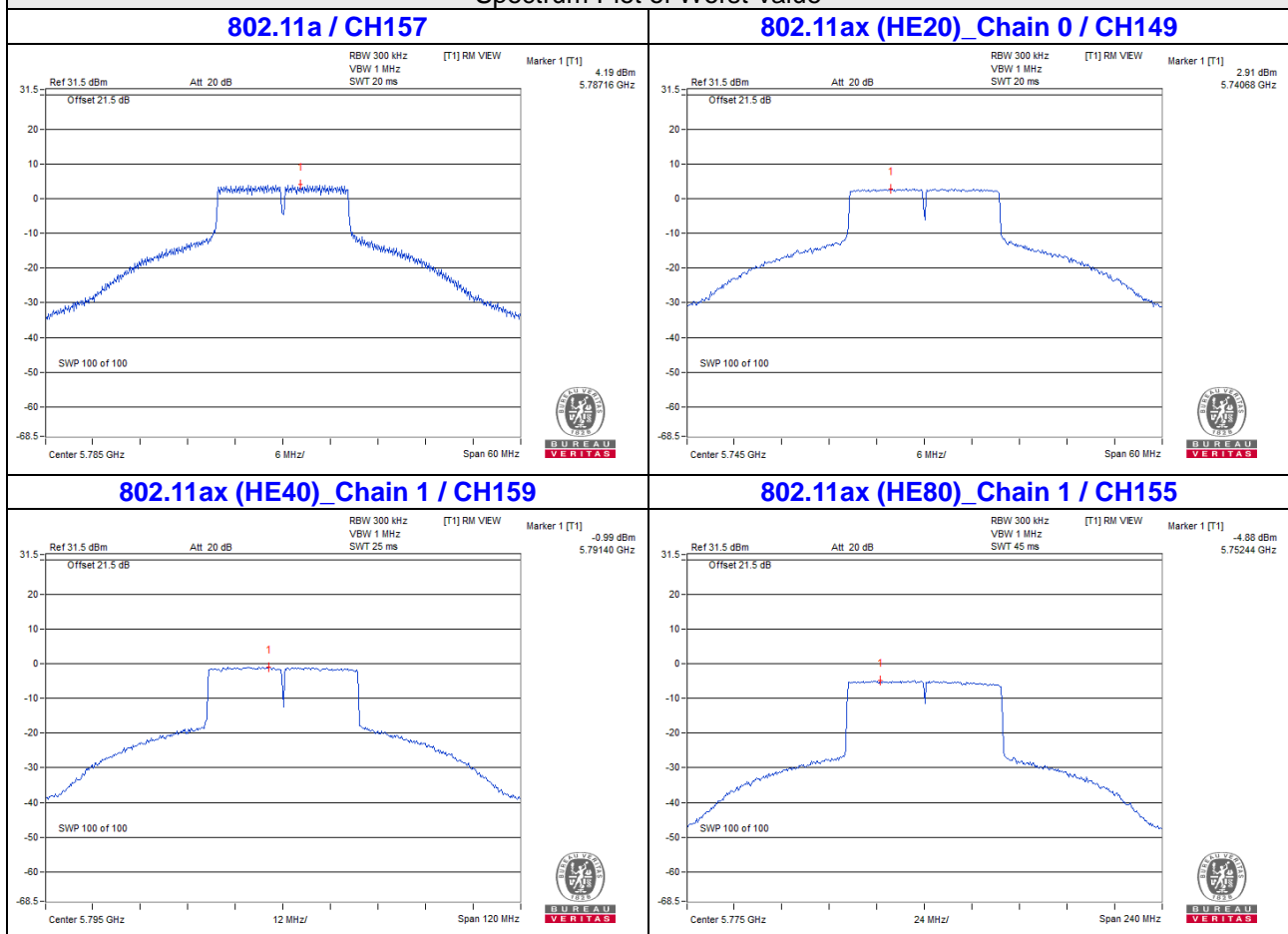


### 802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)		Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1					
138 (U-NII-3 Band)	5690	-9.37	-9.82	0.2198	-6.58	-4.36	28.59	PASS
155	5775	-5.12	-4.88	0.6327	-1.99	0.23	28.59	PASS

- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.  
 2. The directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.41 \text{ dBi} > 6 \text{ dBi}$ , so the so the power density limit shall be reduced to  $30 - (7.41 - 6) = 28.59 \text{ dBm}$ .

#### Spectrum Plot of Worst Value

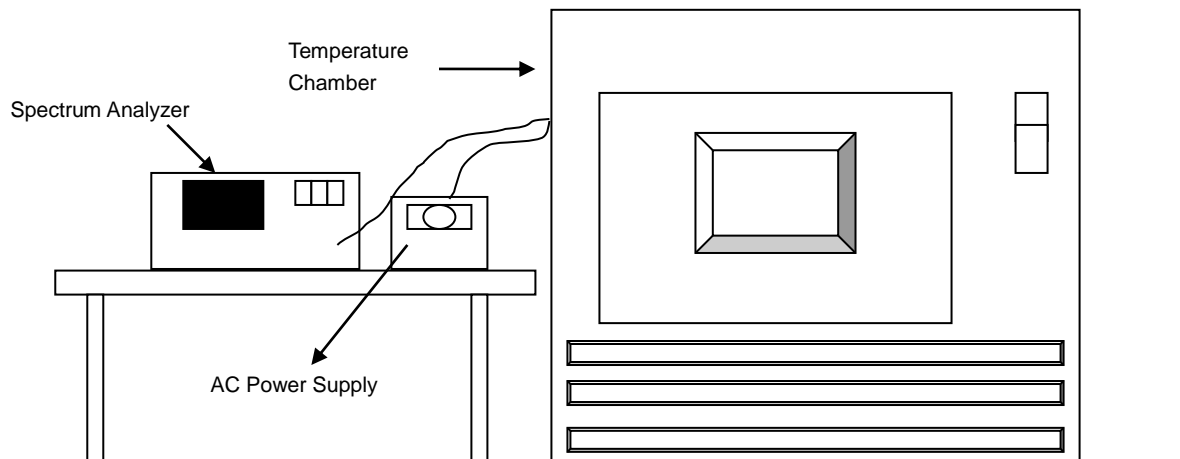


## 4.6 Frequency Stability Measurement

### 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

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- 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.
- Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
- 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. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
40	120	5179.9951	PASS	5179.9938	PASS	5179.9925	PASS	5179.9951	PASS
30	120	5180.008	PASS	5180.006	PASS	5180.0063	PASS	5180.0063	PASS
20	120	5180.0246	PASS	5180.0233	PASS	5180.0241	PASS	5180.0269	PASS
10	120	5180.0123	PASS	5180.0107	PASS	5180.0107	PASS	5180.0118	PASS
0	120	5180.0162	PASS	5180.014	PASS	5180.0181	PASS	5180.0168	PASS

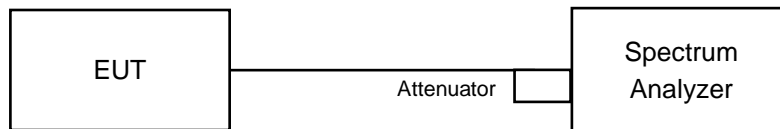
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5180.0256	PASS	5180.0232	PASS	5180.0244	PASS	5180.0276	PASS
	120	5180.0246	PASS	5180.0233	PASS	5180.0241	PASS	5180.0269	PASS
	102	5180.0242	PASS	5180.023	PASS	5180.025	PASS	5180.027	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

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW)  $\geq 3 \times$  RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

##### CDD Mode

##### 802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Pass / Fail
144 (U-NII-3 Band)	5720	3.17	PASS
149	5745	16.43	PASS
157	5785	16.4	PASS
165	5825	16.41	PASS

##### 802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
144 (U-NII-3 Band)	5720	4.57	4.53	PASS
149	5745	18.8	18.76	PASS
157	5785	19	18.96	PASS
165	5825	18.96	18.8	PASS

##### 802.11ax (HE40)

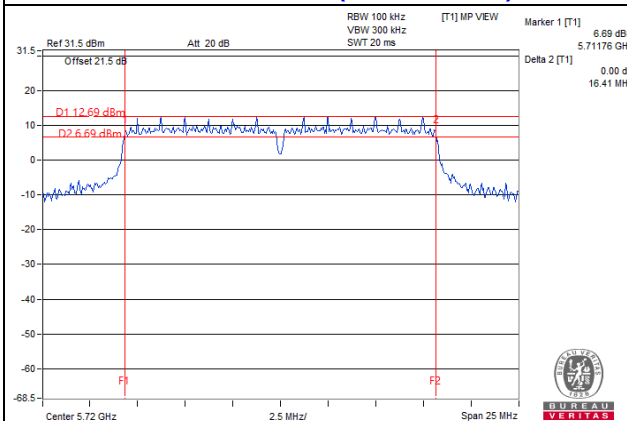
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
142 (U-NII-3 Band)	5710	4.11	4.11	PASS
151	5755	38.2	38.01	PASS
159	5795	38.22	38.08	PASS

##### 802.11ax (HE80)

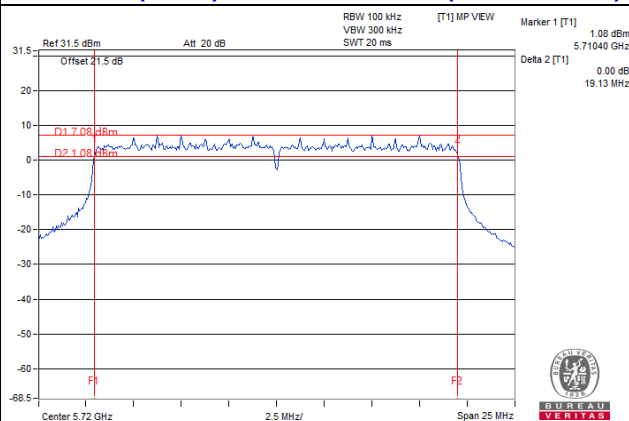
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
138 (U-NII-3 Band)	5690	4.14	3.98	PASS
155	5775	78.26	78.09	PASS

### Spectrum Plot of Worst Value

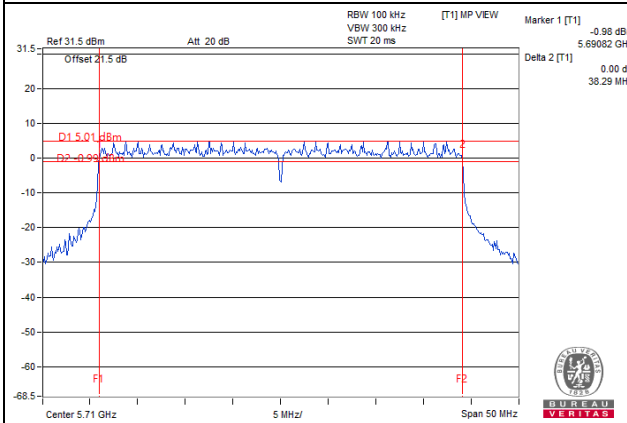
#### 802.11a/ CH144 (U-NII-3 Band)



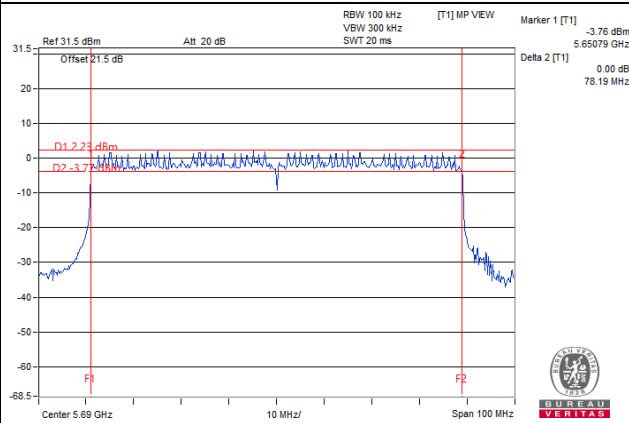
#### 802.11ax (HE20)\_Chain 1 / CH144 (U-NII-3 Band)



#### 802.11ax (HE40)\_Chain 0 / CH142 (U-NII-3 Band)



#### 802.11ax (HE80)\_Chain 1 / CH138 (U-NII-3 Band)



Note: The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

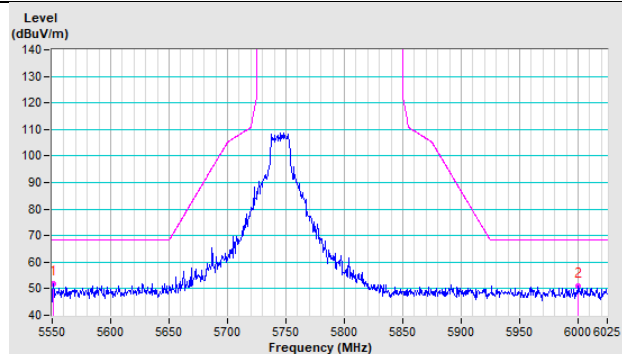
## 5 Pictures of Test Arrangements

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

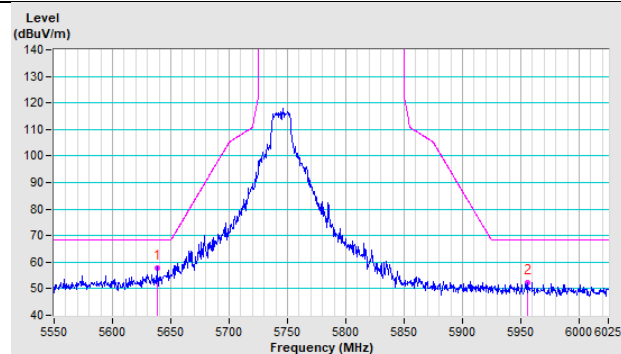
### Annex A - Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

#### 802.11a CH 149 : 5745 MHz

**Horizontal**

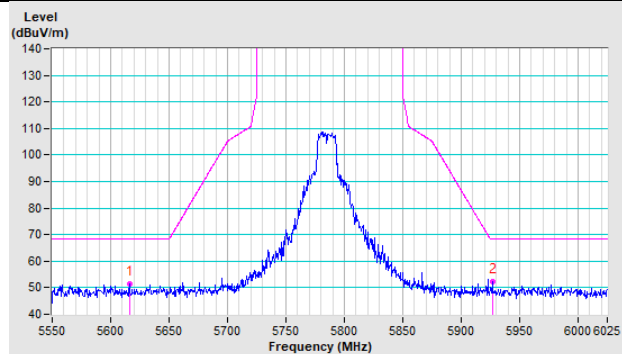


**Vertical**

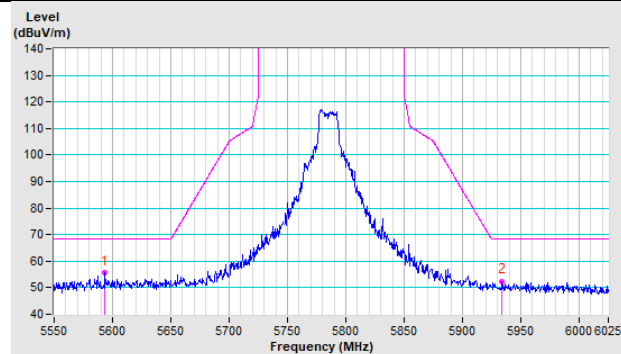


#### 802.11a CH 157 : 5785 MHz

**Horizontal**

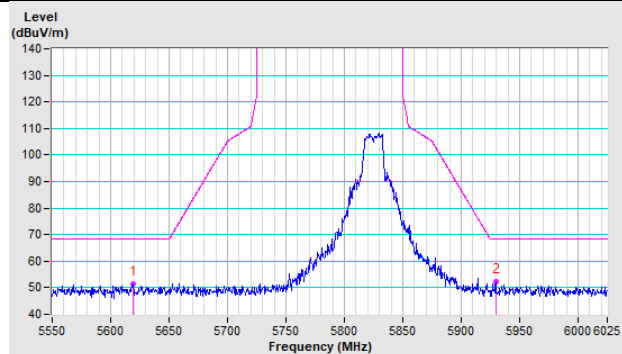


**Vertical**

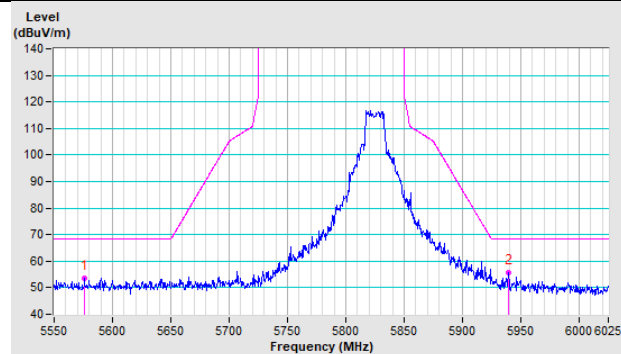


#### 802.11a CH 165 : 5825 MHz

**Horizontal**



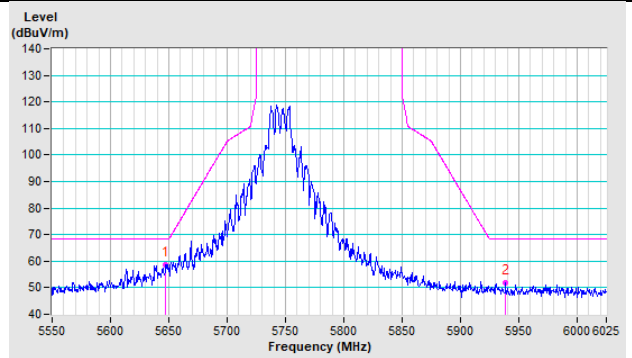
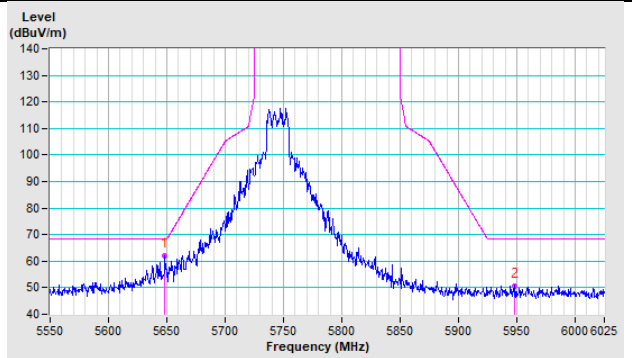
**Vertical**





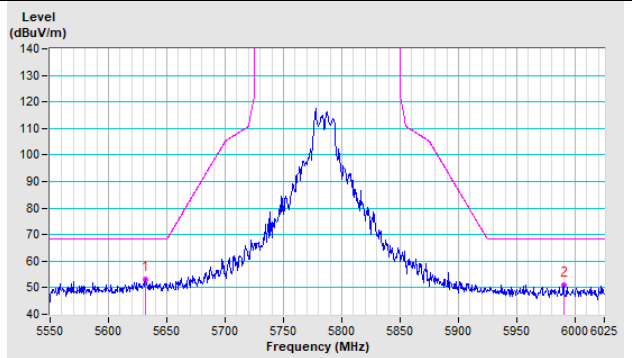
Horizontal

802.11ax (HE20) CH 149 : 5745 MHz

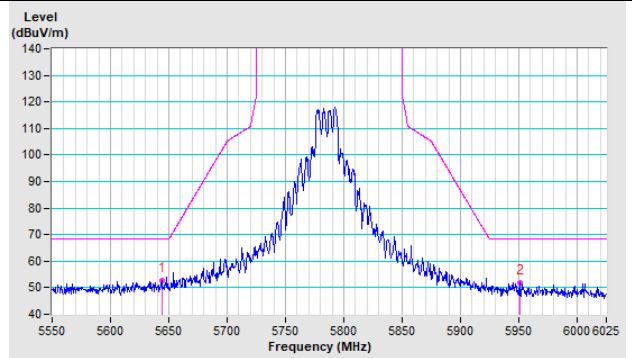


802.11ax (HE20) CH 157 : 5785 MHz

Horizontal

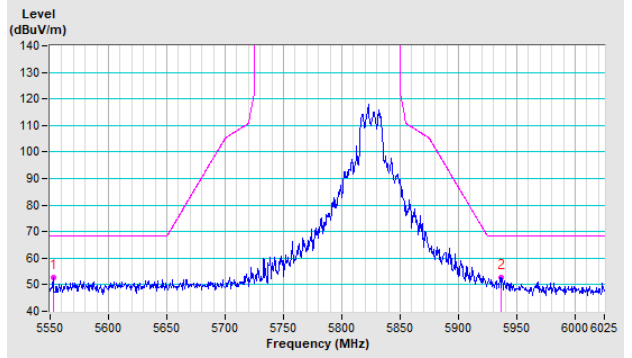


Vertical

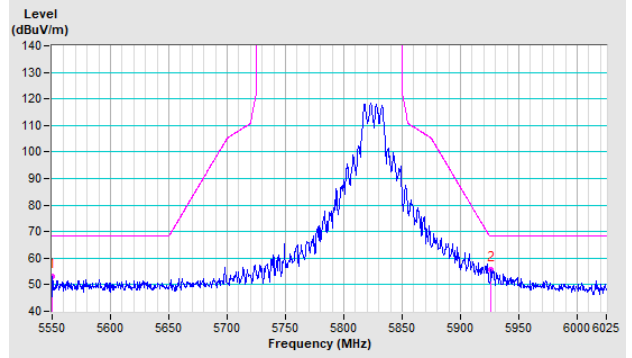


802.11ax (HE20) CH 165 : 5825 MHz

Horizontal

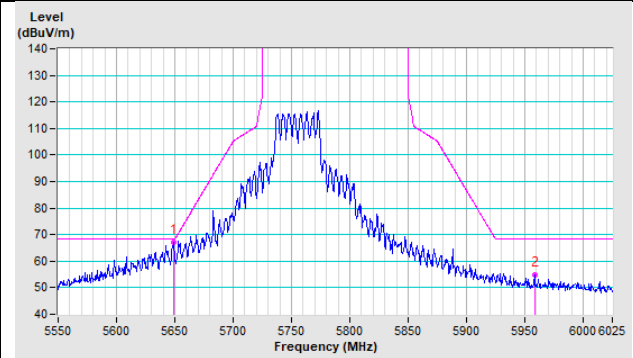
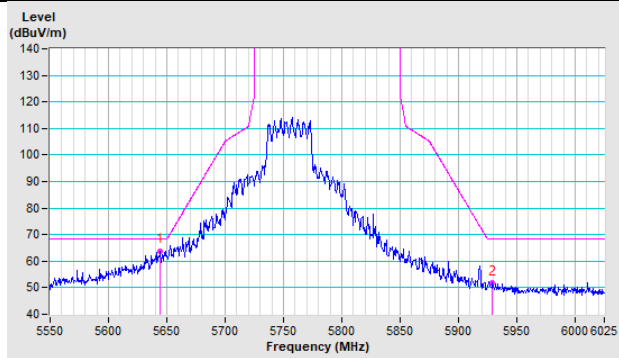


Vertical



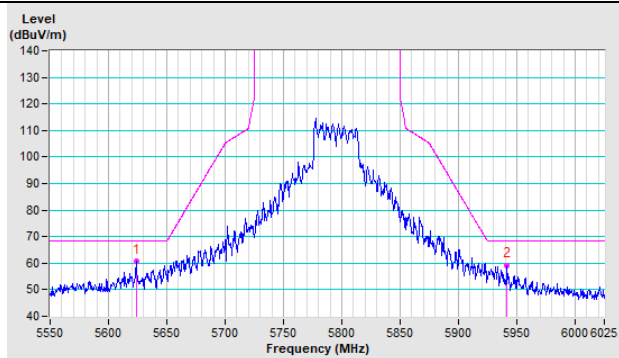
Horizontal

802.11ax (HE40) CH 151 : 5755 MHz

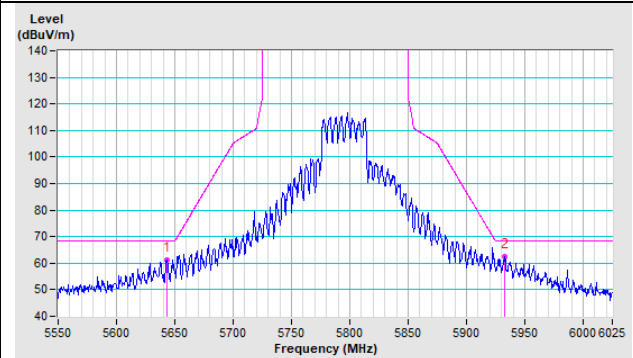


802.11ax (HE40) CH 159 : 5795 MHz

Horizontal

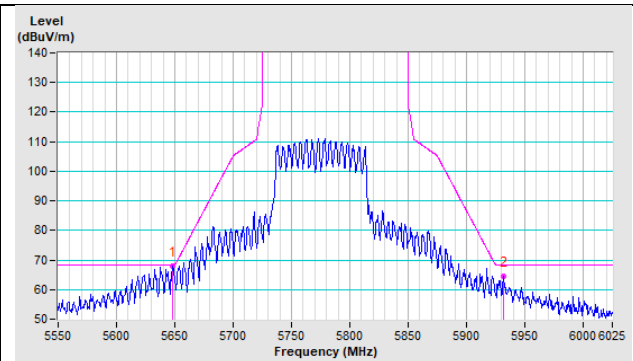
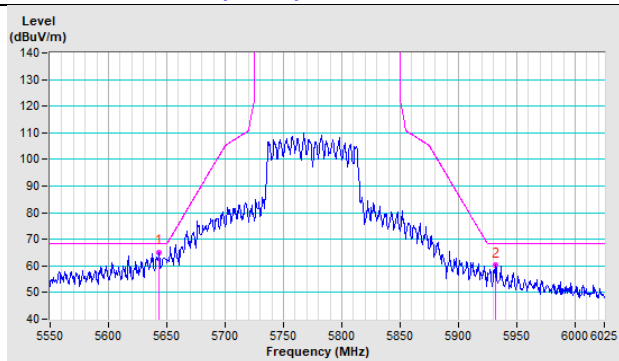


Vertical

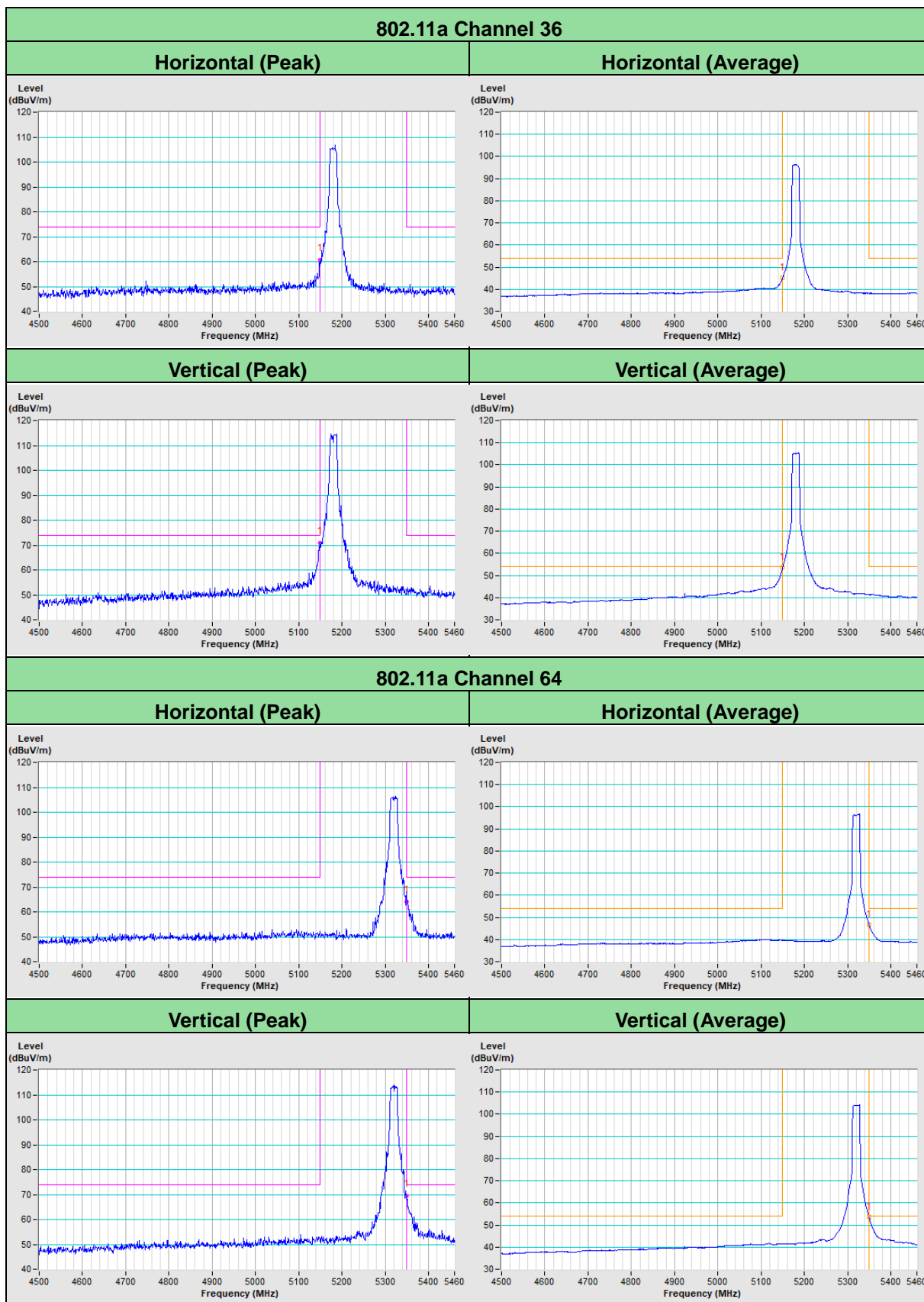


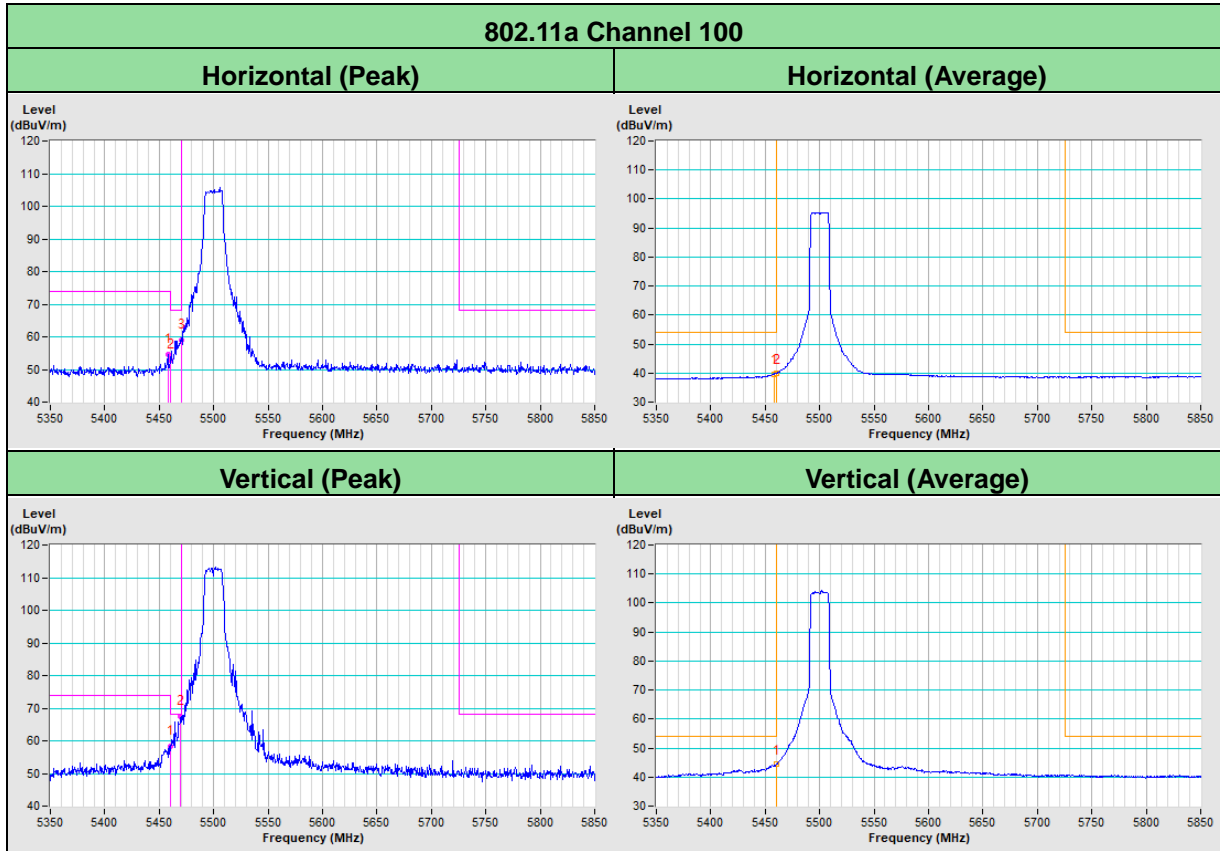
Horizontal

Vertical802.11ax (HE80) CH 155 : 5775 MHz



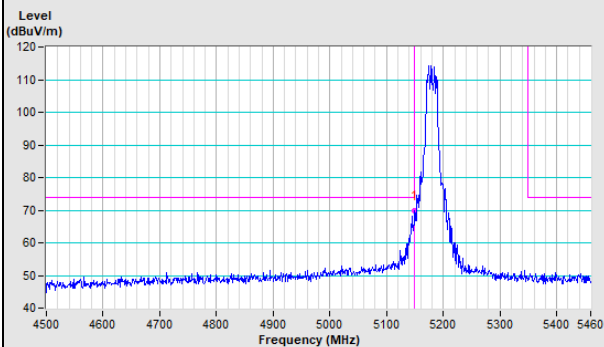
### Annex B - Band-Edge Measurement (For U-NII-1, U-NII-2A, U-NII-2C band)



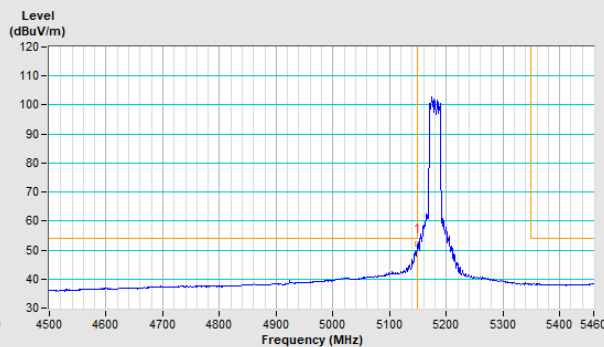


### 802.11ax (HE20) Channel 36

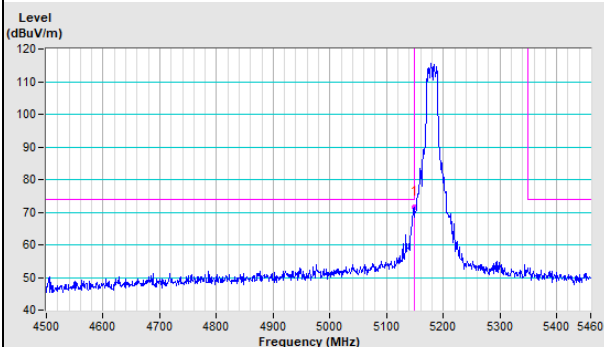
**Horizontal (Peak)**



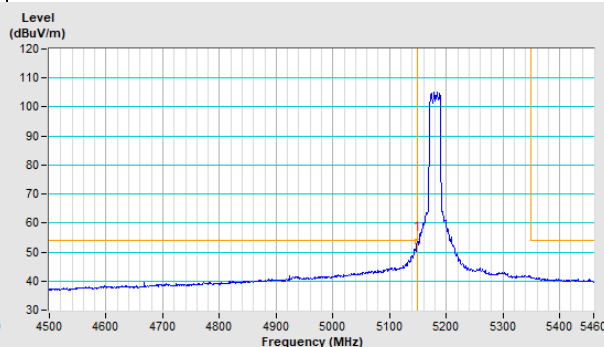
**Horizontal (Average)**



**Vertical (Peak)**

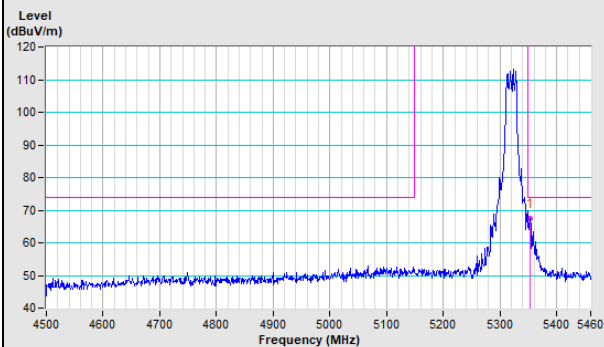


**Vertical (Average)**

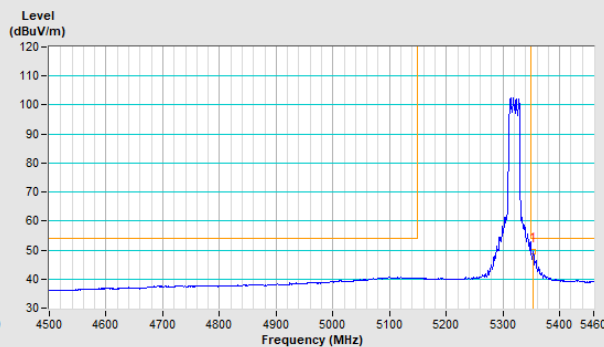


### 802.11ax (HE20) Channel 64

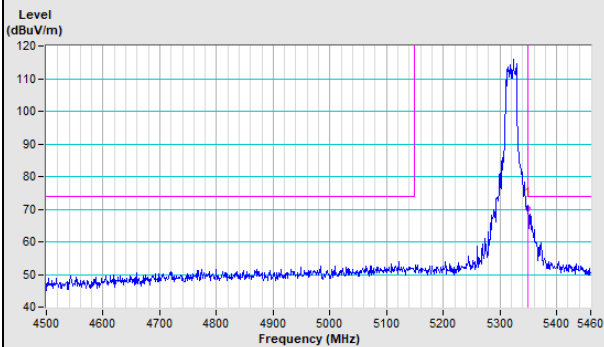
**Horizontal (Peak)**



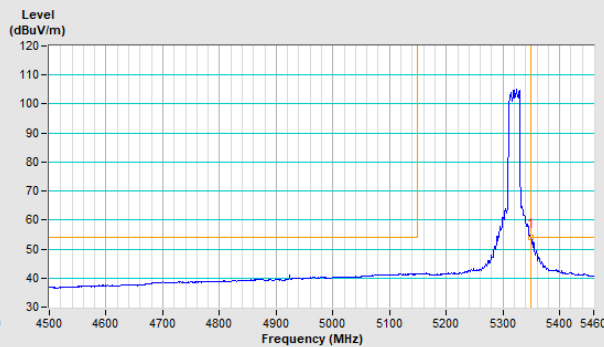
**Horizontal (Average)**



**Vertical (Peak)**

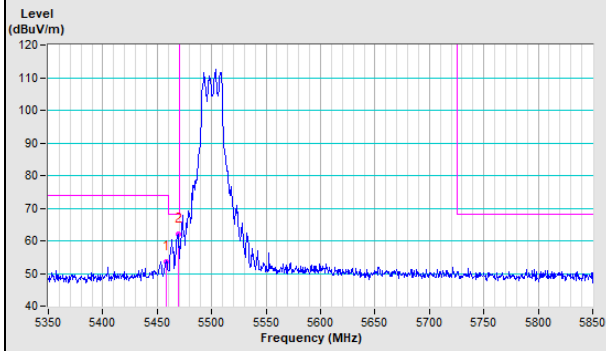


**Vertical (Average)**

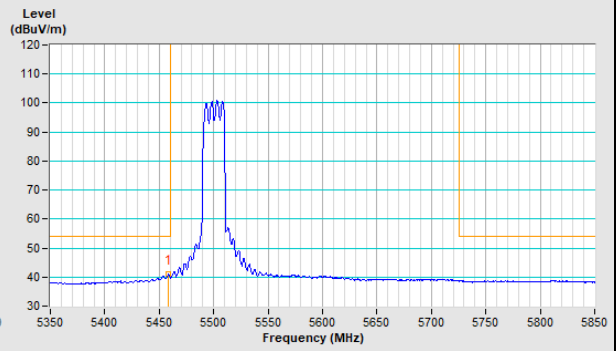


### 802.11ax (HE20) Channel 100

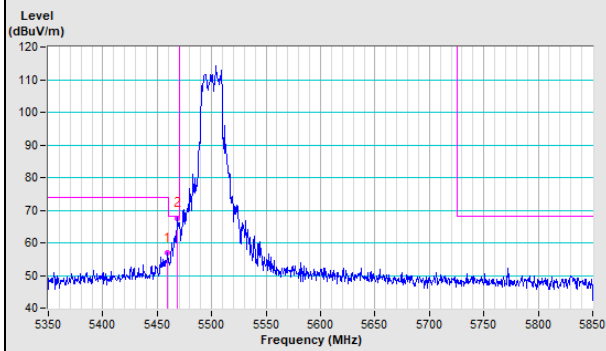
#### Horizontal (Peak)



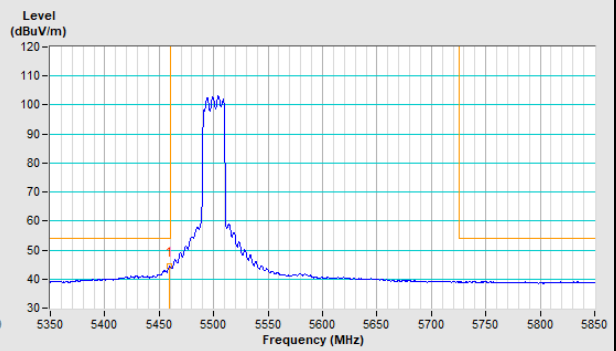
#### Horizontal (Average)



#### Vertical (Peak)

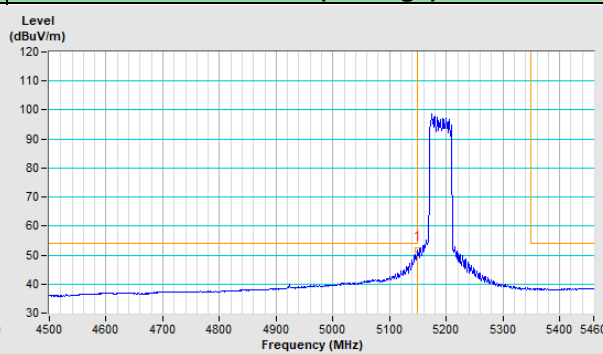
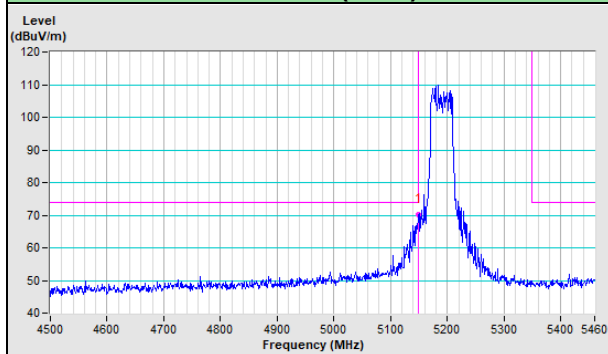


#### Vertical (Average)

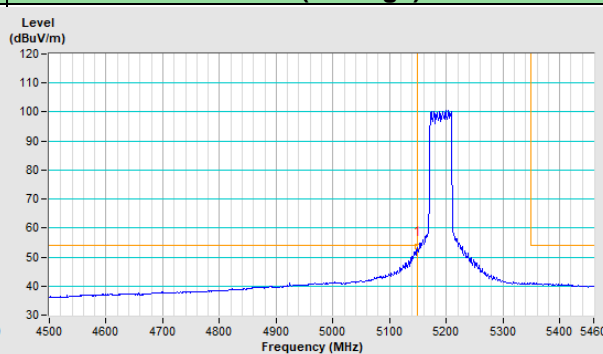
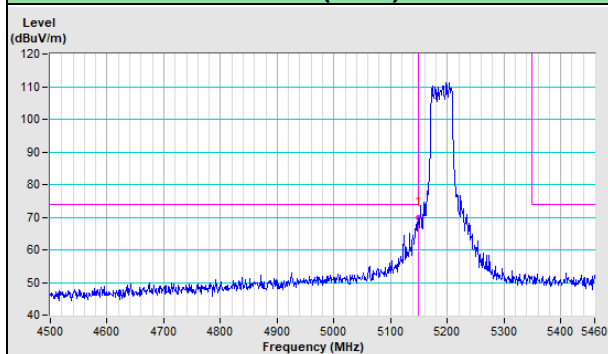


### 802.11ax (HE40) Channel 38

Horizontal (Peak)	Horizontal (Average)
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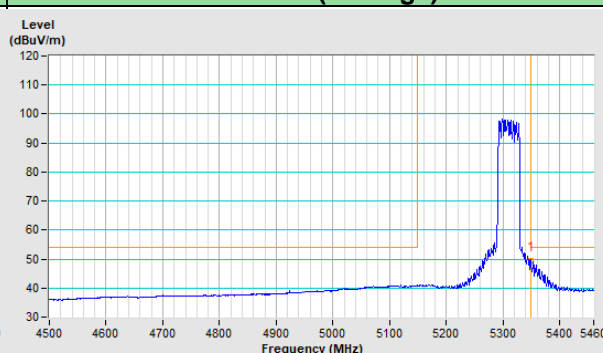
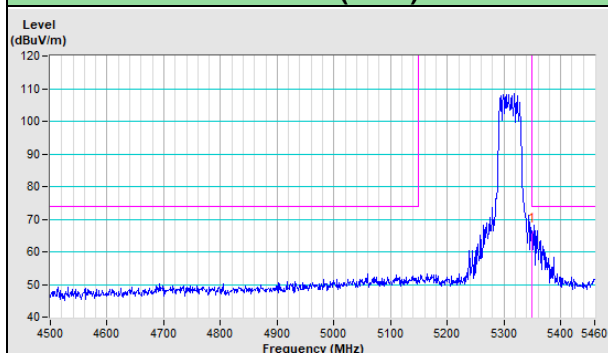


Vertical (Peak)	Vertical (Average)
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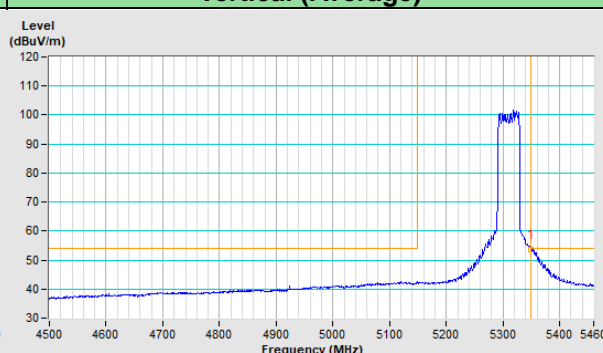
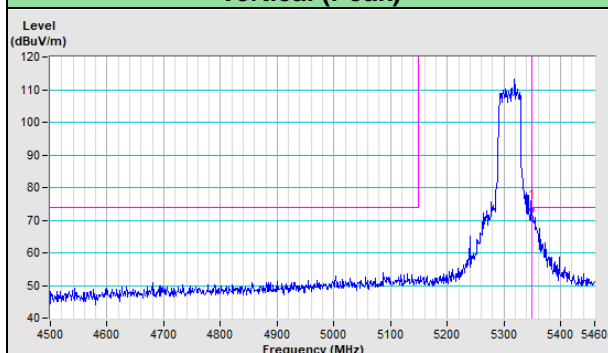


### 802.11ax (HE40) Channel 62

Horizontal (Peak)	Horizontal (Average)
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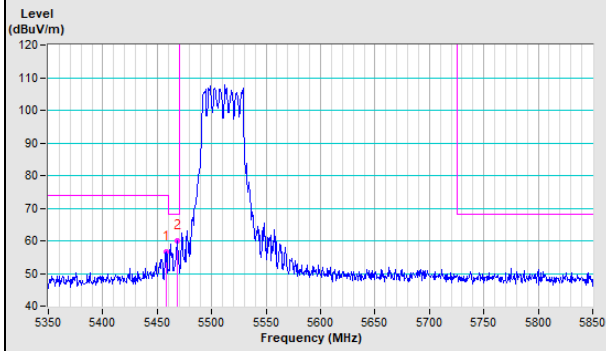


Vertical (Peak)	Vertical (Average)
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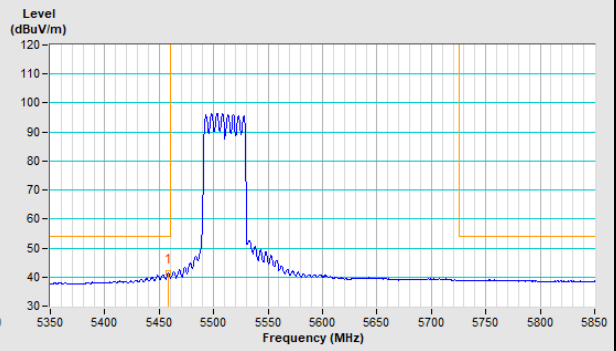


### 802.11ax (HE40) Channel 102

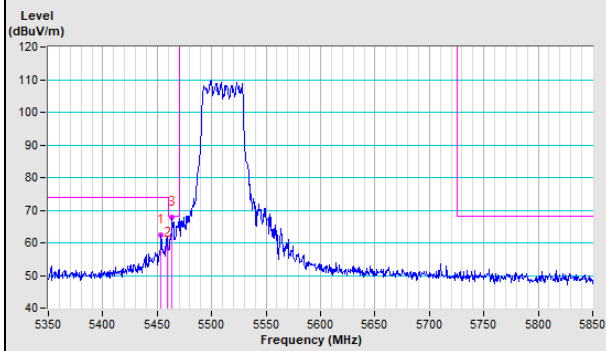
#### Horizontal (Peak)



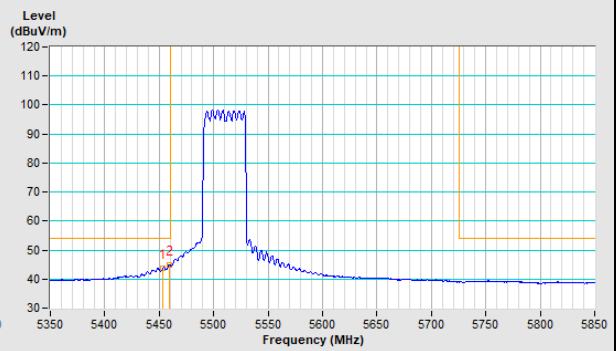
#### Horizontal (Average)



#### Vertical (Peak)

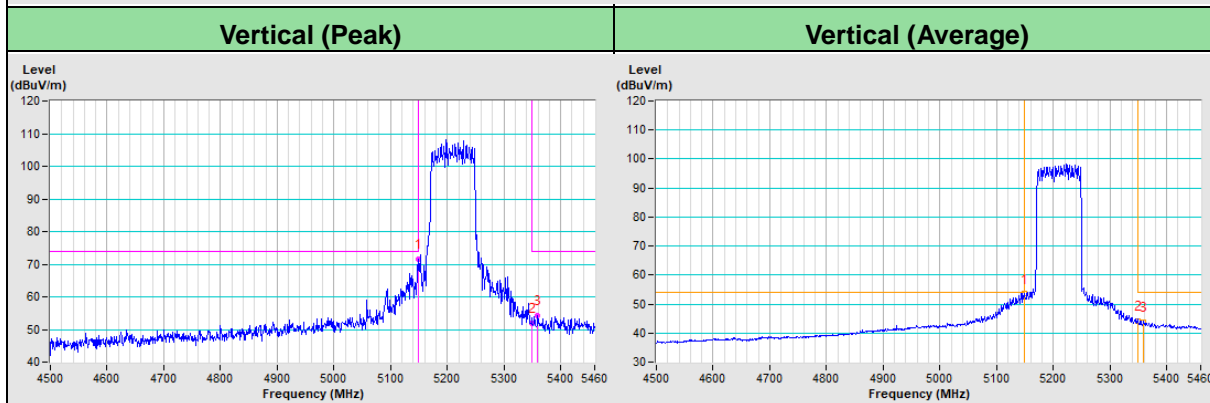
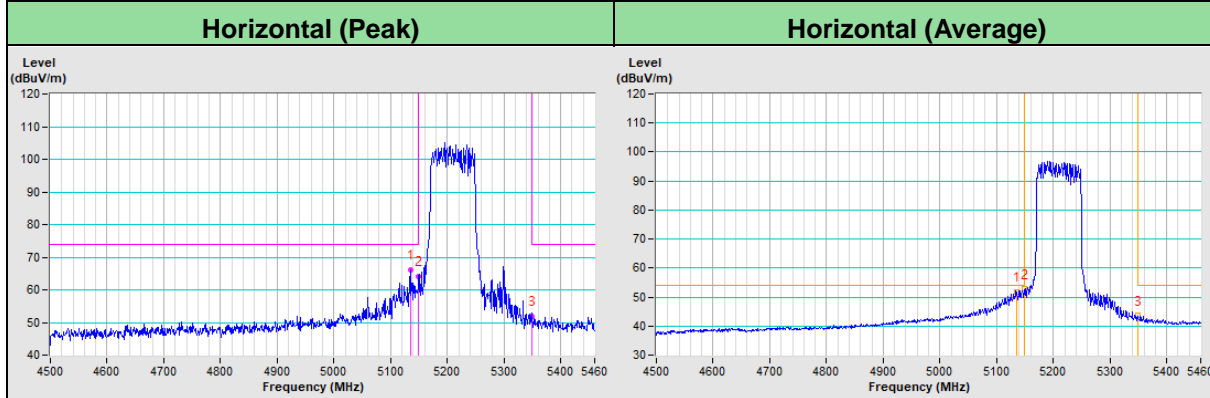


#### Vertical (Average)

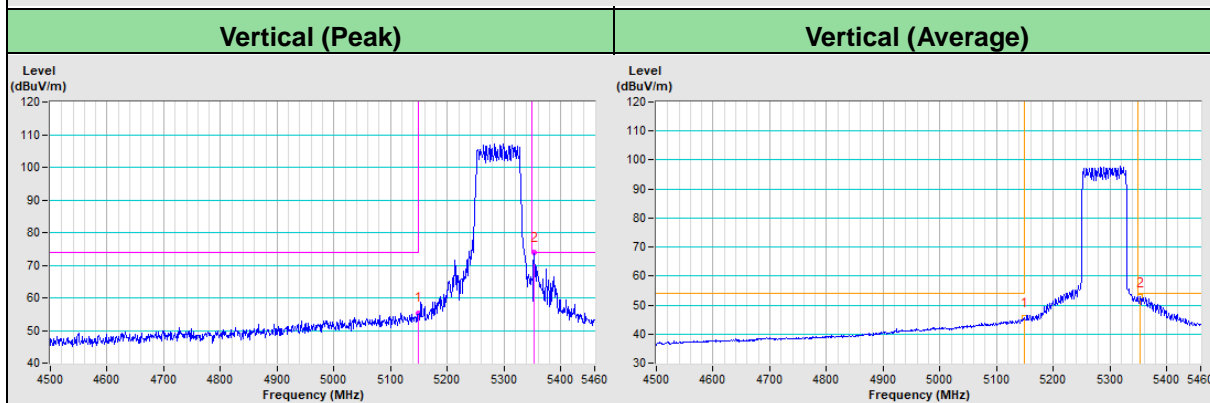
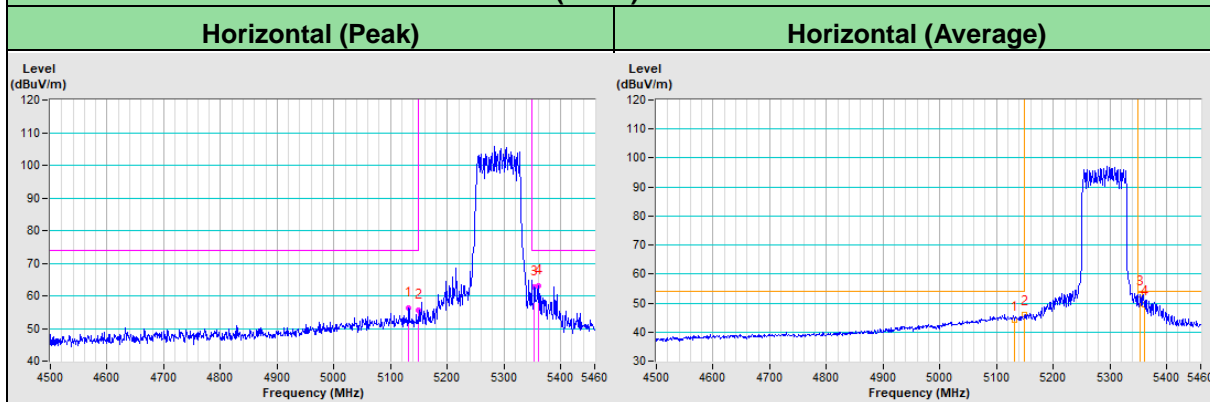




### 802.11ax (HE80) Channel 42

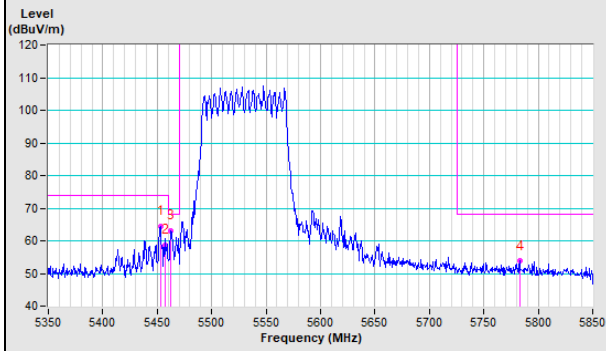


### 802.11ax (HE80) Channel 58

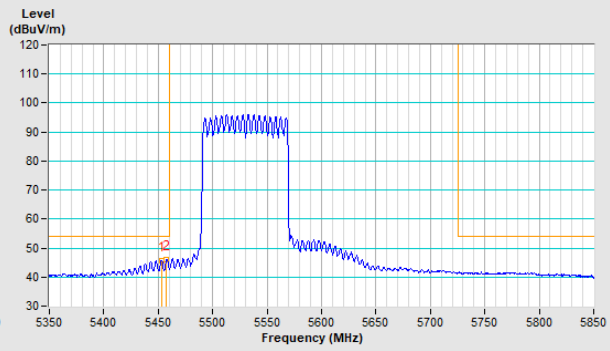


### 802.11ax (HE80) Channel 106

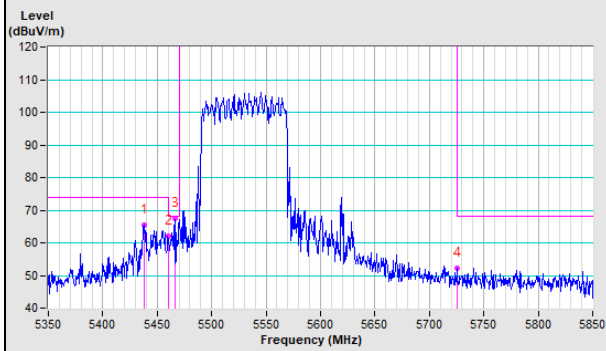
#### Horizontal (Peak)



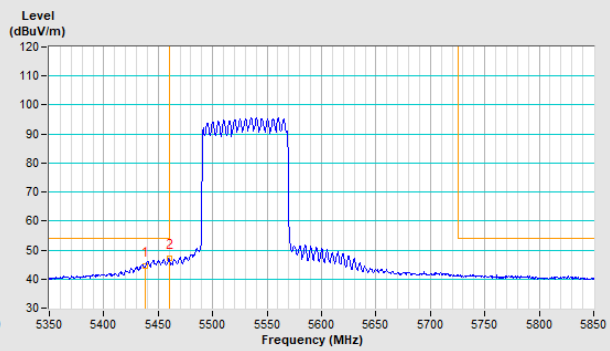
#### Horizontal (Average)



#### Vertical (Peak)

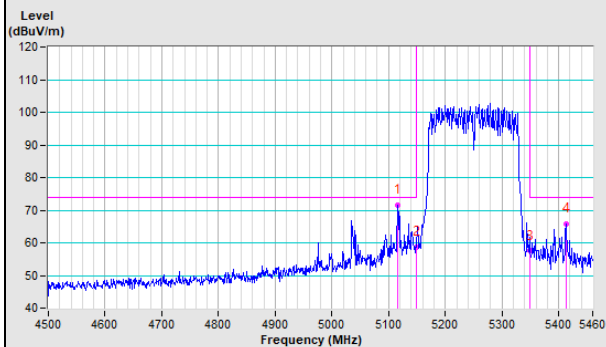


#### Vertical (Average)

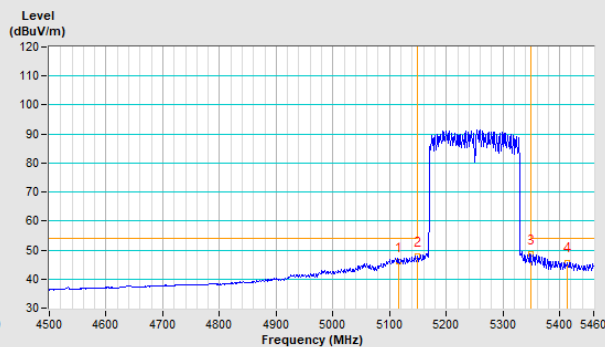


### 802.11ax (HE160) Channel 50

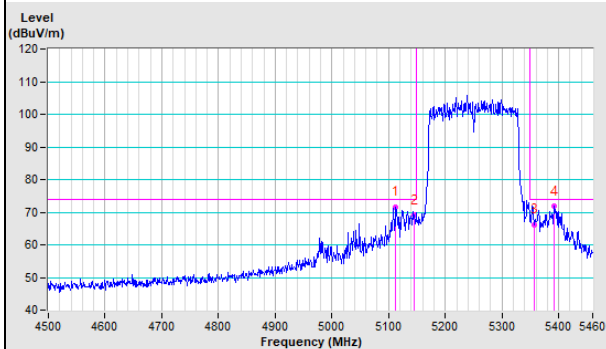
#### Horizontal (Peak)



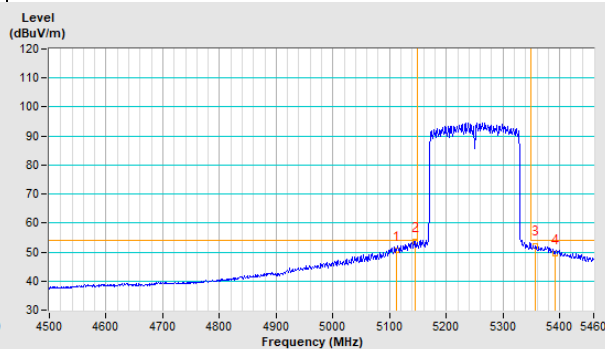
#### Horizontal (Average)



#### Vertical (Peak)

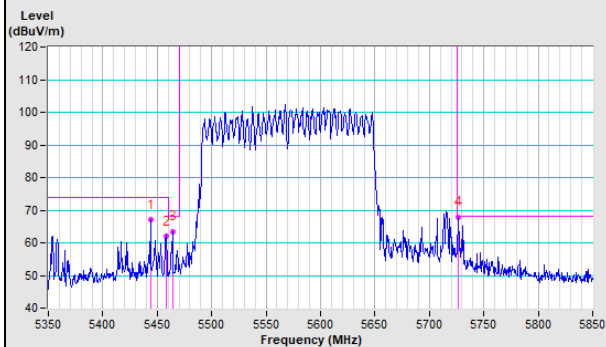


#### Vertical (Average)

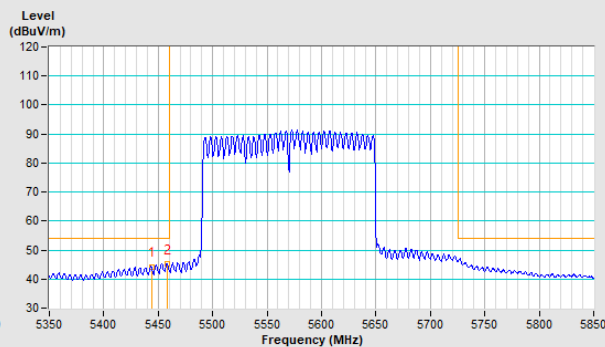


### 802.11ax (HE160) Channel 114

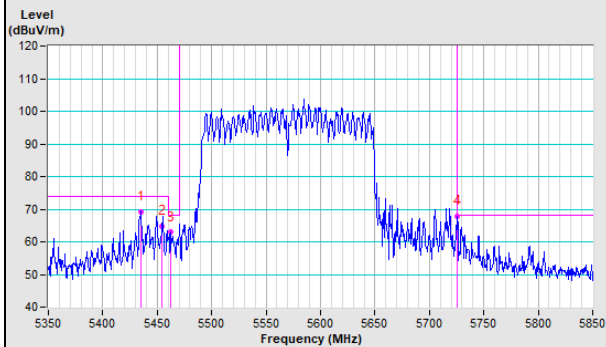
#### Horizontal (Peak)



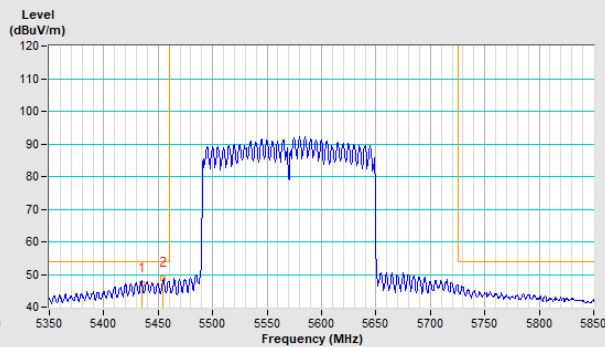
#### Horizontal (Average)



#### Vertical (Peak)



#### Vertical (Average)



## Appendix – Information of the Testing Laboratories

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

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

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