

FCC Test Report (WLAN_DFS Band)

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Test Model: EX3510-B0

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**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RF200420E01A	Original release.	June 20, 2020

1 Certificate of Conformity

Product: AX5700 WiFi6 Gigabit Ethernet Gateway

Brand: ZYXEL

Test Model: EX3510-B0

Sample Status: ENGINEERING SAMPLE

Applicant: Zyxel Communications Corporation

Test Date: May 02 to 28, 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 : Joyce Kuo, **Date:** June 20, 2020
Joyce Kuo / Specialist

Approved by : Clark Lin, **Date:** June 20, 2020
Clark Lin / Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.02dB at 0.36484MHz.
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 -0.5 dB at 5465.85 MHz, 5725.00 MHz, 5469.00 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:

1. For 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 A. Test Procedures refer to report 4.1.3.
2. 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) (±)
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	5.1 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	5.1 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 (WLAN_DFS Band)

Product	AX5700 WiFi6 Gigabit Ethernet Gateway
Brand	ZYXEL
Test Model	EX3510-B0
CPU Model No.	BCM4906
RF Chip Model No.	BCM43684
FW	V5.17(ABUP.0)b4
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax HE mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11b: up to 11 Mbps 802.11a/g: up to 54 Mbps 802.11n: up to 600 Mbps 802.11ac: up to 3466.7 Mbps 802.11ax: up to 4803.9 Mbps
Operating Frequency	5.26GHz ~ 5.32GHz, 5.5 ~ 5.72GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 16 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 8 802.11ac (VHT80), 802.11ax (HE80): 4 802.11ac (VHT160), 802.11ax (HE160): 2
Output Power	CDD Mode: 5.26 ~ 5.32 GHz: 223.137 mW 5.5 ~ 5.72 GHz: 220.594 mW Beamforming Mode: 5.26 ~ 5.32 GHz: 148.148 mW 5.5 ~ 5.72 GHz: 143.665 mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	-Adapter x1 (Brand: MNC, Model: MAUS-1202503000) -Ethernet Cable x1 (Unshielded, 1m)

Note:

1. This report is prepared for FCC class II change. The difference compared with the Report No.: RF200420E01-1 as the following:
2. Add DFS band <5.26GHz ~ 5.32GHz, 5.5 ~ 5.72GHz>
3. According to above conditions, for DFS band all of test items need to be performed and all data was verified to meet the requirements.
4. The EUT has two radios as following table:

Radio 1	Radio 2
WLAN 2.4GHz	WLAN 5GHz

5. 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.

6. The EUT must be supplied with a power adapter as following table:

Brand	Model No.	Spec.
MNC	MAUS-1202503000	AC Input: 100-240V 50/60Hz, 1.2A DC Output: 12V / 2.5A DC Cable: 1.5m, Unshielded

7. The directional antenna gain, please refer to the following table:

Frequency Range (GHz)	Directional Antenna Gain (dBi)	Antenna Type	Antenna Connector
2.4~2.4835	5.27	Dipole	None
5.15 ~ 5.25	8.09		i-pex(MHF)
5.25 ~ 5.35	7.66		
5.47 ~ 5.725	7.86		
5.725 ~ 5.85	7.98		

Note: More detailed information, please refer to antenna specification.

8. The EUT incorporates a MIMO function:

2.4GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11b	3TX	3RX
802.11g	3TX	3RX
802.11n (HT20)	3TX	3RX
802.11n (HT40)	3TX	3RX
VHT20	3TX	3RX
VHT40	3TX	3RX
802.11ax (HE20)	3TX	3RX
802.11ax (HE40)	3TX	3RX
5GHz Band		
MODULATION MODE	TX & RX CONFIGURATION	
802.11a	4TX	4TX
802.11n (HT20)	4TX	4TX
802.11n (HT40)	4TX	4TX
802.11ac (VHT20)	4TX	4TX
802.11ac (VHT40)	4TX	4TX
802.11ac (VHT80)	4TX	4TX
802.11ac (VHT160)	4TX	4TX
802.11ax (HE20)	4TX	4TX
802.11ax (HE40)	4TX	4TX
802.11ax (HE80)	4TX	4TX
802.11ax (HE160)	4TX	4TX

Note:

1. All of modulation mode support beamforming function except 802.11a/b/g 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 or more lower than it and investigated worst case to representative mode in test report. (Final test mode refer to section 3.2.1)

9. The power setting are list as below:

CDD Mode									
802.11a		802.11ac (VHT20)		802.11ac (VHT40)		802.11ac (VHT80)		802.11ac (VHT160)	
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting
5260	66	5260	64	5270	73	5290	74	5250	65
5300	66	5300	64	5310	73	5530	66	5570	68
5320	66	5320	64	5510	66	5610	69		
5500	60	5500	60	5550	68	5690	69		
5580	60	5580	60	5670	69				
5700	60	5700	60	5710	69				
5720	60	5720	60						
802.11ax (HE20)		802.11ax (HE40)		802.11ax (HE80)		802.11ax (HE160)			
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting		
5260	64	5270	73	5290	74	5250	65		
5300	64	5310	73	5530	66	5570	68		
5320	64	5510	66	5610	69				
5500	60	5550	68	5690	69				
5580	60	5670	69						
5700	60	5710	69						
5720	60								
Beamforming Mode									
802.11ac (VHT20)		802.11ac (VHT40)		802.11ac (VHT80)		802.11ac (VHT160)			
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting		
5260	62	5270	62	5290	64	5250	65		
5300	62	5310	62	5530	63	5570	60		
5320	62	5510	59	5610	63				
5500	59	5550	59	5690	63				
5580	59	5670	59						
5700	59	5710	59						
5720	59								
802.11ax (HE20)		802.11ax (HE40)		802.11ax (HE80)		802.11ax (HE160)			
Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting		
5260	62	5270	62	5290	64	5250	65		
5300	62	5310	62	5530	62	5570	60		
5320	62	5510	59	5610	62				
5500	59	5550	59	5690	62				
5580	59	5670	59						
5700	59	5710	59						
5720	59								

10. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

FOR 5260 ~ 5320MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

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

Channel	Frequency
58	5290 MHz

1 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	138	5690 MHz
122	5610 MHz		

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

Channel	Frequency
114	5570 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	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	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, 122, 138	OFDMA	BPSK	MCS0
802.11ax (HE160)		114	114	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 (HE40)	5260-5320 5500-5720	54 to 62 102 to 142	142	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 (HE40)	5260-5320 5500-5720	54 to 62 102 to 142	142	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	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6Mb/s
802.11ac (VHT20) (Output power only)		52 to 64	52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40) (Output power only)		54 to 62	54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80) (Output power only)		58	58	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6Mb/s
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, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160) (Output power only)		114	114	OFDM	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

Beamforming Mode (output power only)						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate Parameter
802.11ac (VHT20)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	MCS0
802.11ac (VHT80)		58	58	OFDM	BPSK	MCS0
802.11ac (VHT160)		50	50	OFDM	BPSK	MCS0
802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	BPSK	MCS0
802.11ax (HE40)		54 to 62	54, 62	OFDMA	BPSK	MCS0
802.11ax (HE80)		58	58	OFDMA	BPSK	MCS0
802.11ax (HE160)		50	50	OFDMA	BPSK	MCS0
802.11ac (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, 122, 138	OFDM	BPSK	MCS0
802.11ac (VHT160)		114	114	OFDM	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

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	25deg. C, 75%RH	120Vac, 60Hz	Ryan Du
RE<1G	19deg. C, 69%RH	120Vac, 60Hz	Sampson Chen
PLC	25deg. C, 75%RH	120Vac, 60Hz	Eagle Chen
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

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

802.11a: Duty cycle = 1.47 ms / 1.517 ms = 0.969, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.14$ dB

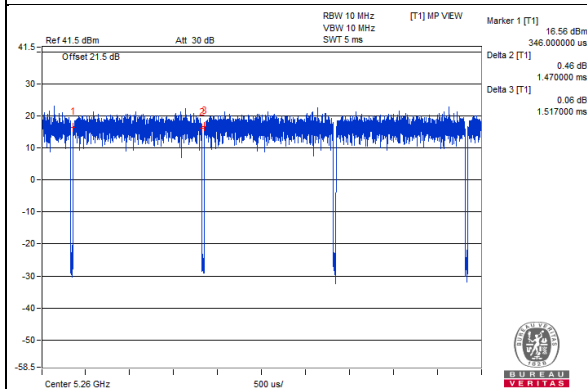
802.11ax (HE20): Duty cycle = 1.145 ms / 1.194 ms = 0.959, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.18$ dB

802.11ax (HE40): Duty cycle = 1.186 ms / 1.218 ms = 0.974, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.12$ dB

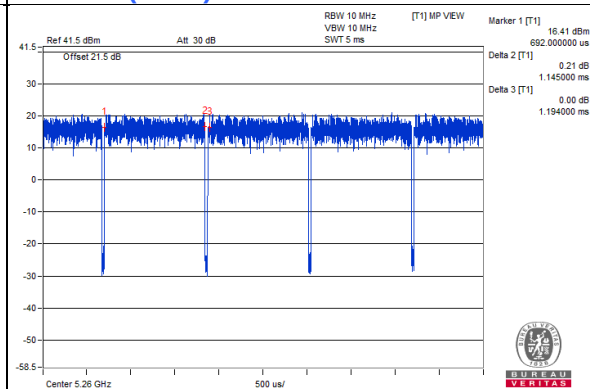
802.11ax (HE80): Duty cycle = 1.225 ms / 1.258 ms = 0.974, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.12$ dB

802.11ax (HE160): Duty cycle = 1.222 ms / 1.263 ms = 0.968, Duty factor = $10 \cdot \log(1/\text{Duty cycle}) = 0.14$ dB

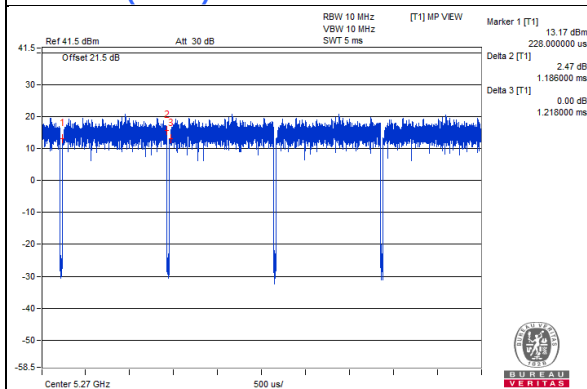
802.11a



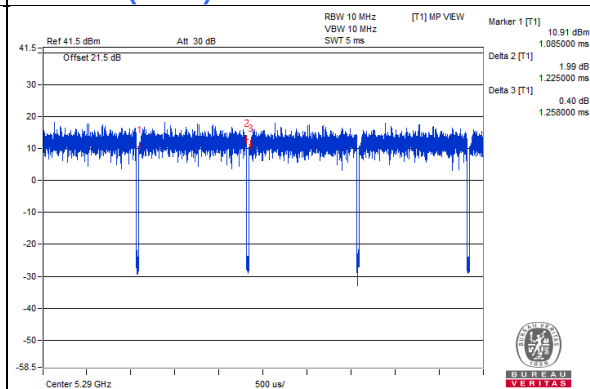
802.11ax (HE20)



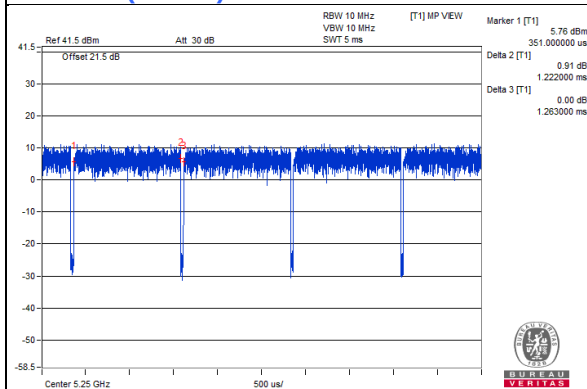
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

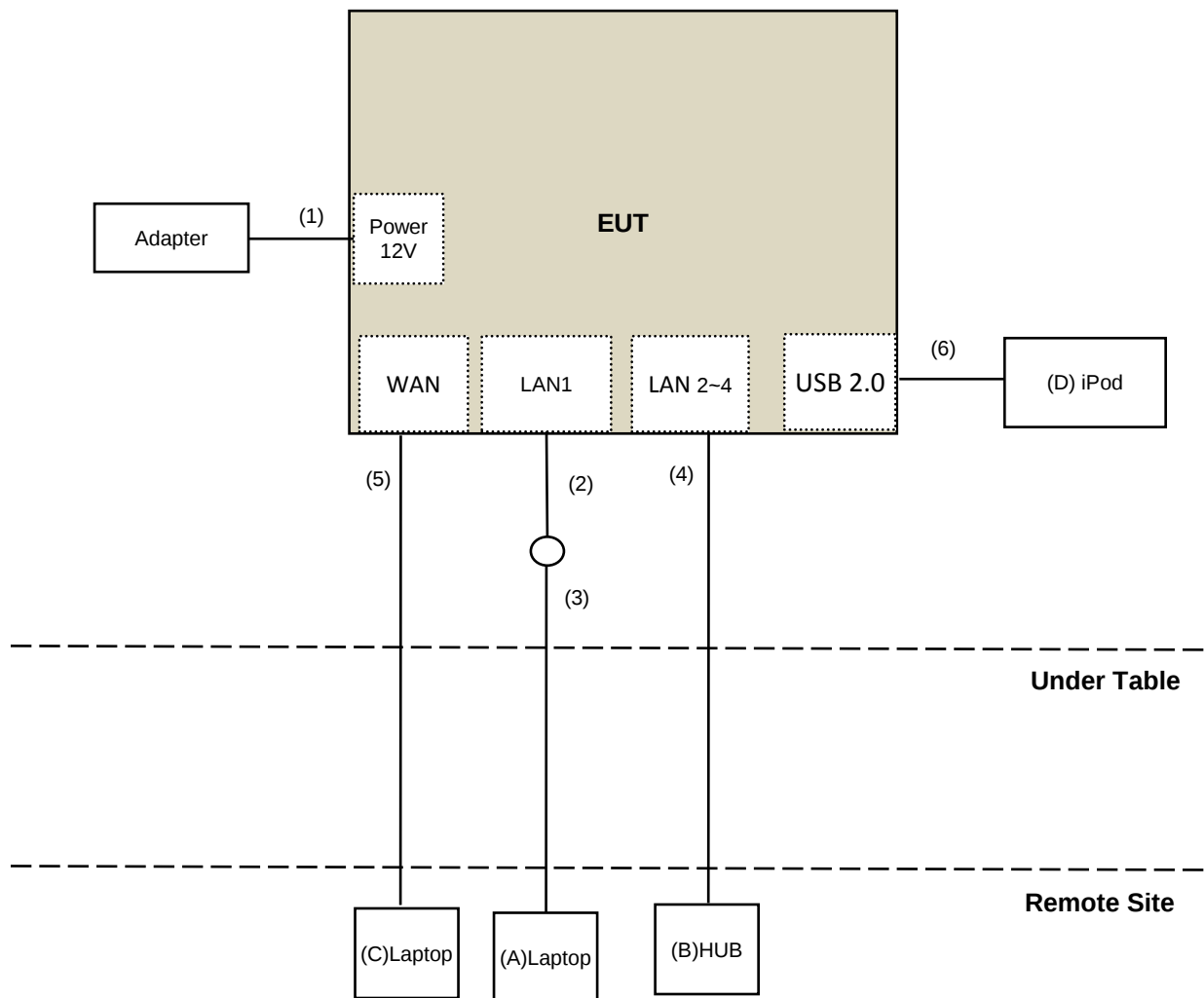
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
B.	HUB	ZyXEL	GS1100-16	S150H44000046	FCC DoC	Provided by Lab
C.	Laptop	DELL	PP27L	8SNZ12S	FCC DoC Approved	Provided by Lab
D.	iPod	Apple	MD778TA/A	CC4JMH7LF4T1	NA	Provided by Lab

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.	DC Cable	1	1.4	No	0	Supplied by client
2.	RJ-45 Cable	1	1	No	0	Supplied by client
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	3	10	No	0	Provided by Lab
5.	RJ-45 Cable	1	10	No	0	Provided by Lab
6.	USB Cable	1	0.1	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



NOTE: The test configuration was defined by the applicant requirement.

3.5 General Description of Applied Standards 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:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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) ^{*1} PK:10 (dBm/MHz) ^{*2} PK:15.6 (dBm/MHz) ^{*3} PK:27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK:105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK:122.2 (dBuV/m) ^{*4}
^{*1} beyond 75 MHz or more above of the band edge. ^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above. ^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

Note:

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

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

4.1.2 Test Instruments

For Band-Edge test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR7	102026	Apr. 22, 2020	Apr. 21, 2021
Spectrum Analyzer Keysight	N9030B	MY57141948	May 25, 2019	May 24, 2020
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMCI	EMC12630SE	980509	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-1500	180503	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-2000	180501	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMCI	EMC104-SM-SM-6000	180506	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMCI	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 5.
3. Tested Date: May 05 to 06, 2020

For Radiated emission (Above 1GHz) test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR7	102026	Apr. 22, 2020	Apr. 21, 2021
Spectrum Analyzer Keysight	N9030B	MY57141948	May 22, 2020	May 21, 2021
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-1819	Nov. 24, 2019	Nov. 23, 2020
Pre-Amplifier EMC	EMC12630SE	980509	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMC	EMC104-SM-SM-1500	180503	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMC	EMC104-SM-SM-2000	180501	Apr. 29, 2020	Apr. 28, 2021
RF Cable EMC	EMC104-SM-SM-6000	180506	Apr. 29, 2020	Apr. 28, 2021
Pre-Amplifier EMC	EMC184045SE	980387	Jan. 15, 2020	Jan. 14, 2021
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 24, 2019	Nov. 23, 2020
RF Cable	EMC102-KM-KM-1200	160924	Jan. 15, 2020	Jan. 14, 2021
RF Cable	EMC-KM-KM-4000	200214	Mar. 11, 2020	Mar. 10, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 5.
3. Tested Date: May 22, 2020

For Radiated emission (Below 1GHz) test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESR7	102026	Apr. 22, 2020	Apr. 21, 2021
Spectrum Analyzer Keysight	N9030B	MY57141948	May 25, 2019	May 24, 2020
Pre-Amplifier EMCi	EMC001340	980142	May 30, 2019	May 29, 2020
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 EMCi	EMC330N	980538	Apr. 28, 2020	Apr. 27, 2021
Trilog Broadband Antenna SCHWARZBECK	VULB9168	9168-0842	Nov. 08, 2019	Nov. 07, 2020
RF Cable	8D	966-5-1	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-2	Apr. 29, 2020	Apr. 28, 2021
RF Cable	8D	966-5-3	Apr. 29, 2020	Apr. 28, 2021
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-02	Jan. 14, 2020	Jan. 13, 2021
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 5.
3. Tested Date: May 13, 2020

For other test items:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Spectrum Analyzer R&S	FSV40	100964	June 04, 2019	June 03, 2020
Power meter Anritsu	ML2495A	1529002	July 26, 2019	July 25, 2020
Power sensor Anritsu	MA2411B	1339443	July 26, 2019	July 25, 2020
Fixed Attenuator Mini-Circuits	MDCS18N-10	MDCS18N-10-01	Apr. 14, 2020	Apr. 13, 2021
AC Power Source Extech Electronics	6205	1440452	NA	NA
DC Power Supply Topward	6603D	795558	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	179	89610322	Sep. 25, 2019	Sep. 24, 2020
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: May 28, 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:

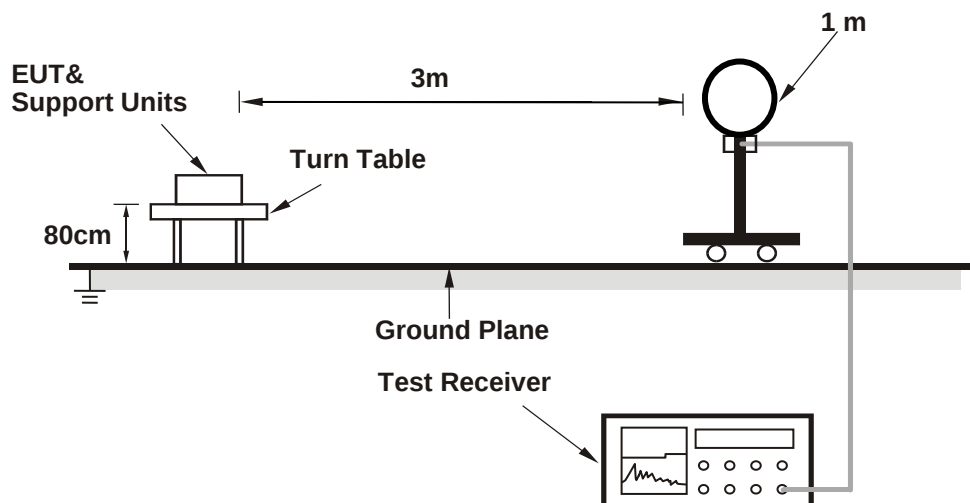
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

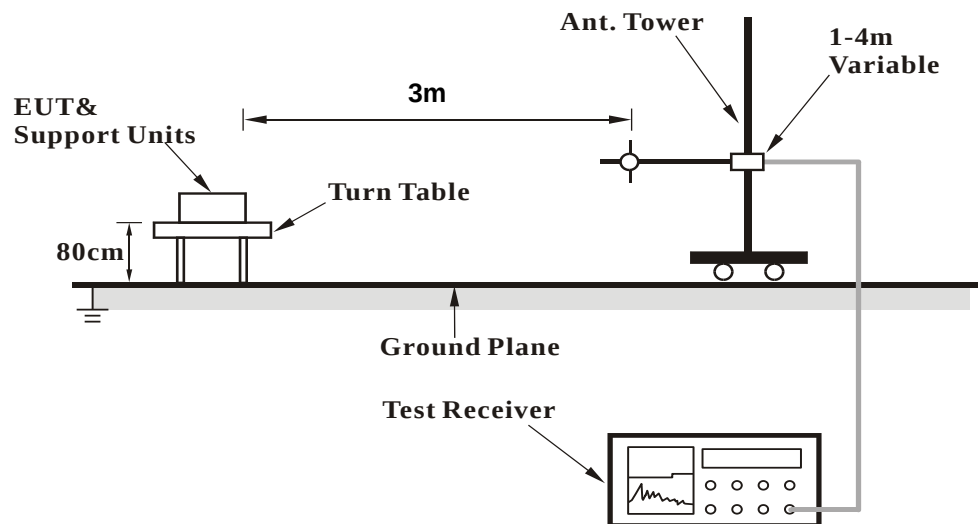
No deviation.

4.1.5 Test Setup

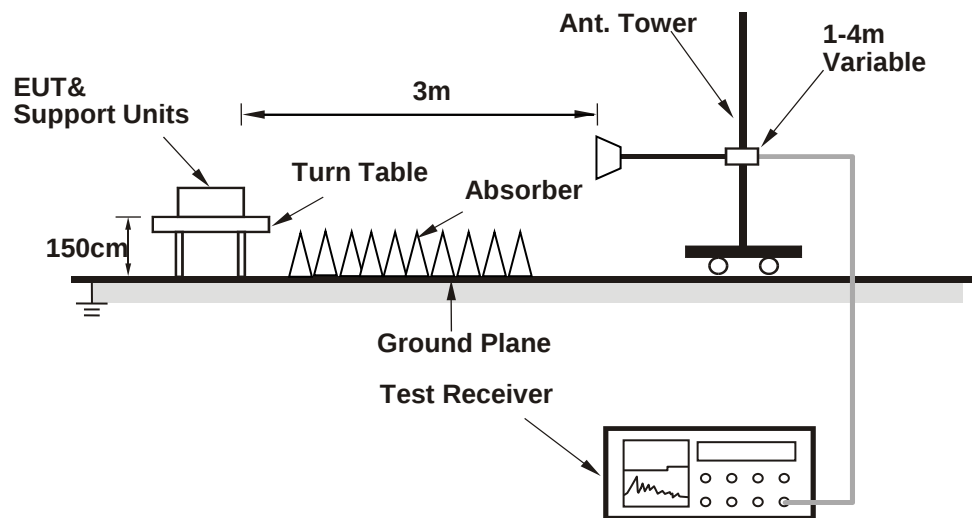
For Radiated emission below 30MHz



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

- Connected the EUT with the Laptop which is placed on remote site.
- Controlling software (accessMTool_REL_3_1_0_3) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4996.30	53.9 PK	74.0	-20.1	2.02 H	82	52.5	1.4
2	4996.30	42.5 AV	54.0	-11.5	2.02 H	82	41.1	1.4
3	*5260.00	119.8 PK			2.02 H	82	118.6	1.2
4	*5260.00	108.9 AV			2.02 H	82	107.7	1.2
5	5418.26	54.3 PK	74.0	-19.7	2.02 H	82	52.8	1.5
6	5418.26	42.6 AV	54.0	-11.4	2.02 H	82	41.1	1.5
7	#10520.00	51.7 PK	68.2	-16.5	1.52 H	325	40.3	11.4
8	15780.00	59.8 PK	74.0	-14.2	1.25 H	30	49.1	10.7
9	15780.00	46.1 AV	54.0	-7.9	1.25 H	30	35.4	10.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5016.31	55.4 PK	74.0	-18.6	1.43 V	59	53.9	1.5
2	5016.31	43.9 AV	54.0	-10.1	1.43 V	59	42.4	1.5
3	*5260.00	121.3 PK			1.43 V	59	120.1	1.2
4	*5260.00	111.2 AV			1.43 V	59	110.0	1.2
5	5352.07	55.1 PK	74.0	-18.9	1.43 V	59	53.7	1.4
6	5352.07	44.9 AV	54.0	-9.1	1.43 V	59	43.5	1.4
7	#10520.00	52.6 PK	68.2	-15.6	1.48 V	282	41.2	11.4
8	15780.00	52.7 PK	74.0	-21.3	1.82 V	148	42.0	10.7
9	15780.00	41.2 AV	54.0	-12.8	1.82 V	148	30.5	10.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5071.00	52.8 PK	74.0	-21.2	1.90 H	94	51.0	1.8
2	5071.00	42.2 AV	54.0	-11.8	1.90 H	94	40.4	1.8
3	*5300.00	117.4 PK			1.90 H	94	116.2	1.2
4	*5300.00	107.0 AV			1.90 H	94	105.8	1.2
5	5383.00	54.8 PK	74.0	-19.2	1.90 H	94	53.4	1.4
6	5383.00	44.7 AV	54.0	-9.3	1.90 H	94	43.3	1.4
7	10600.00	52.3 PK	74.0	-21.7	1.53 H	316	40.5	11.8
8	10600.00	39.7 AV	54.0	-14.3	1.53 H	316	27.9	11.8
9	15900.00	59.6 PK	74.0	-14.4	1.23 H	35	48.9	10.7
10	15900.00	46.4 AV	54.0	-7.6	1.23 H	35	35.7	10.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5145.00	54.7 PK	74.0	-19.3	1.65 V	81	53.0	1.7
2	5145.00	43.2 AV	54.0	-10.8	1.65 V	81	41.5	1.7
3	*5300.00	120.8 PK			1.65 V	81	119.6	1.2
4	*5300.00	110.9 AV			1.65 V	81	109.7	1.2
5	5387.00	58.2 PK	74.0	-15.8	1.65 V	81	56.8	1.4
6	5387.00	48.1 AV	54.0	-5.9	1.65 V	81	46.7	1.4
7	10600.00	52.7 PK	74.0	-21.3	1.51 V	285	40.9	11.8
8	10600.00	40.3 AV	54.0	-13.7	1.51 V	285	28.5	11.8
9	15900.00	53.3 PK	74.0	-20.7	1.83 V	139	42.6	10.7
10	15900.00	41.1 AV	54.0	-12.9	1.83 V	139	30.4	10.7

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	118.2 PK			1.80 H	84	116.8	1.4
2	*5320.00	108.3 AV			1.80 H	84	106.9	1.4
3	5350.00	71.9 PK	74.0	-2.1	1.80 H	84	70.5	1.4
4	5350.00	53.2 AV	54.0	-0.8	1.80 H	84	51.8	1.4
5	10640.00	52.8 PK	74.0	-21.2	1.47 H	327	40.9	11.9
6	10640.00	39.4 AV	54.0	-14.6	1.47 H	327	27.5	11.9
7	15960.00	59.7 PK	74.0	-14.3	1.25 H	26	48.8	10.9
8	15960.00	46.8 AV	54.0	-7.2	1.25 H	26	35.9	10.9

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	121.1 PK			1.71 V	80	119.7	1.4
2	*5320.00	110.9 AV			1.71 V	80	109.5	1.4
3	5350.00	69.0 PK	74.0	-5.0	1.71 V	80	67.6	1.4
4	5350.00	53.4 AV	54.0	-0.6	1.71 V	80	52.0	1.4
5	10640.00	52.8 PK	74.0	-21.2	1.56 V	293	40.9	11.9
6	10640.00	40.4 AV	54.0	-13.6	1.56 V	293	28.5	11.9
7	15960.00	53.4 PK	74.0	-20.6	1.82 V	147	42.5	10.9
8	15960.00	41.3 AV	54.0	-12.7	1.82 V	147	30.4	10.9

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.40	55.6 PK	74.0	-18.4	2.66 H	97	54.0	1.6
2	5459.40	41.3 AV	54.0	-12.7	2.66 H	97	39.7	1.6
3	#5469.18	61.4 PK	68.2	-6.8	2.66 H	97	59.8	1.6
4	*5500.00	113.1 PK			2.66 H	97	111.4	1.7
5	*5500.00	102.2 AV			2.66 H	97	100.5	1.7
6	11000.00	52.6 PK	74.0	-21.4	1.46 H	341	40.4	12.2
7	11000.00	39.8 AV	54.0	-14.2	1.46 H	341	27.6	12.2
8	#16500.00	59.8 PK	68.2	-8.4	1.31 H	33	46.4	13.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5458.29	56.9 PK	74.0	-17.1	1.65 V	85	55.3	1.6
2	5458.29	43.8 AV	54.0	-10.2	1.65 V	85	42.2	1.6
3	#5465.85	67.7 PK	68.2	-0.5	1.65 V	85	66.1	1.6
4	*5500.00	117.2 PK			1.65 V	85	115.5	1.7
5	*5500.00	107.1 AV			1.65 V	85	105.4	1.7
6	11000.00	52.6 PK	74.0	-21.4	1.61 V	282	40.4	12.2
7	11000.00	41.3 AV	54.0	-12.7	1.61 V	282	29.1	12.2
8	#16500.00	53.5 PK	68.2	-14.7	1.76 V	136	40.1	13.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	53.0 PK	74.0	-21.0	1.95 H	112	51.4	1.6
2	5460.00	42.1 AV	54.0	-11.9	1.95 H	112	40.5	1.6
3	#5470.00	55.7 PK	68.2	-12.5	1.95 H	112	54.1	1.6
4	*5580.00	117.9 PK			1.95 H	112	116.2	1.7
5	*5580.00	108.1 AV			1.95 H	112	106.4	1.7
6	#5725.00	55.3 PK	68.2	-12.9	1.95 H	112	53.4	1.9
7	11160.00	52.8 PK	74.0	-21.2	1.52 H	348	41.2	11.6
8	11160.00	39.8 AV	54.0	-14.2	1.52 H	348	28.2	11.6
9	#16740.00	59.2 PK	68.2	-9.0	1.31 H	34	44.5	14.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.7 PK	74.0	-18.3	1.50 V	84	54.1	1.6
2	5460.00	43.5 AV	54.0	-10.5	1.50 V	84	41.9	1.6
3	#5470.00	57.7 PK	68.2	-10.5	1.50 V	84	56.1	1.6
4	*5580.00	123.1 PK			1.50 V	84	121.4	1.7
5	*5580.00	112.7 AV			1.50 V	84	111.0	1.7
6	#5725.00	59.8 PK	68.2	-8.4	1.50 V	84	57.9	1.9
7	11160.00	52.7 PK	74.0	-21.3	1.58 V	284	41.1	11.6
8	11160.00	41.7 AV	54.0	-12.3	1.58 V	284	30.1	11.6
9	#16740.00	53.0 PK	68.2	-15.2	1.74 V	123	38.3	14.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	110.8 PK			1.84 H	102	109.0	1.8
2	*5700.00	102.3 AV			1.84 H	102	100.5	1.8
3	#5725.00	65.3 PK	68.2	-2.9	1.84 H	102	63.4	1.9
4	#5850.00	52.3 PK	68.2	-15.9	1.84 H	102	50.0	2.3
5	11400.00	53.2 PK	74.0	-20.8	1.50 H	333	40.4	12.8
6	11400.00	39.6 AV	54.0	-14.4	1.50 H	333	26.8	12.8
7	#17100.00	58.9 PK	68.2	-9.3	1.29 H	36	42.6	16.3

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.4 PK			1.50 V	84	114.6	1.8
2	*5700.00	106.3 AV			1.50 V	84	104.5	1.8
3	#5725.00	67.7 PK	68.2	-0.5	1.50 V	84	65.8	1.9
4	#5850.00	56.0 PK	68.2	-12.2	1.50 V	84	53.7	2.3
5	11400.00	53.0 PK	74.0	-21.0	1.52 V	269	40.2	12.8
6	11400.00	41.2 AV	54.0	-12.8	1.52 V	269	28.4	12.8
7	#17100.00	52.3 PK	68.2	-15.9	1.70 V	116	36.0	16.3

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.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5720.00	117.3 PK			1.90 H	100	115.4	1.9
2	*5720.00	108.3 AV			1.90 H	100	106.4	1.9
3	#5850.00	58.6 PK	68.2	-9.6	1.90 H	100	56.3	2.3
4	11440.00	53.6 PK	74.0	-20.4	1.50 H	328	41.0	12.6
5	11440.00	40.0 AV	54.0	-14.0	1.50 H	328	27.4	12.6
6	#17160.00	59.2 PK	68.2	-9.0	1.30 H	24	43.3	15.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5720.00	123.0 PK			1.38 V	84	121.1	1.9
2	*5720.00	112.4 AV			1.38 V	84	110.5	1.9
3	#5850.00	60.4 PK	68.2	-7.8	1.38 V	84	58.1	2.3
4	11440.00	52.3 PK	74.0	-21.7	1.49 V	275	39.7	12.6
5	11440.00	41.6 AV	54.0	-12.4	1.49 V	275	29.0	12.6
6	#17160.00	52.6 PK	68.2	-15.6	1.72 V	104	36.7	15.9

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.

802.11ax (HE20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5049.07	53.2 PK	74.0	-20.8	2.50 H	94	51.4	1.8
2	5049.07	41.6 AV	54.0	-12.4	2.50 H	94	39.8	1.8
3	*5260.00	118.8 PK			2.50 H	94	117.6	1.2
4	*5260.00	106.8 AV			2.50 H	94	105.6	1.2
5	5370.84	54.1 PK	74.0	-19.9	2.50 H	94	52.7	1.4
6	5370.84	42.3 AV	54.0	-11.7	2.50 H	94	40.9	1.4
7	#10520.00	54.2 PK	68.2	-14.0	1.52 H	312	42.8	11.4
8	15780.00	59.4 PK	74.0	-14.6	1.32 H	12	48.7	10.7
9	15780.00	46.0 AV	54.0	-8.0	1.32 H	12	35.3	10.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5079.70	53.9 PK	74.0	-20.1	1.63 V	86	52.1	1.8
2	5079.70	44.8 AV	54.0	-9.2	1.63 V	86	43.0	1.8
3	*5260.00	121.5 PK			1.63 V	86	120.3	1.2
4	*5260.00	110.0 AV			1.63 V	86	108.8	1.2
5	5424.82	55.3 PK	74.0	-18.7	1.63 V	86	53.7	1.6
6	5424.82	44.6 AV	54.0	-9.4	1.63 V	86	43.0	1.6
7	#10520.00	51.8 PK	68.2	-16.4	1.44 V	277	40.4	11.4
8	15780.00	52.4 PK	74.0	-21.6	1.76 V	112	41.7	10.7
9	15780.00	43.3 AV	54.0	-10.7	1.76 V	112	32.6	10.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	53.0 PK	74.0	-21.0	1.98 H	104	51.3	1.7
2	5150.00	42.4 AV	54.0	-11.6	1.98 H	104	40.7	1.7
3	*5300.00	117.6 PK			1.98 H	104	116.4	1.2
4	*5300.00	107.3 AV			1.98 H	104	106.1	1.2
5	5350.00	55.1 PK	74.0	-18.9	1.98 H	104	53.7	1.4
6	5350.00	44.9 AV	54.0	-9.1	1.98 H	104	43.5	1.4
7	10600.00	54.1 PK	74.0	-19.9	1.52 H	309	42.3	11.8
8	10600.00	40.0 AV	54.0	-14.0	1.52 H	309	28.2	11.8
9	15900.00	59.0 PK	74.0	-15.0	1.36 H	27	48.3	10.7
10	15900.00	45.8 AV	54.0	-8.2	1.36 H	27	35.1	10.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.8 PK	74.0	-18.2	1.78 V	86	54.1	1.7
2	5150.00	45.1 AV	54.0	-8.9	1.78 V	86	43.4	1.7
3	*5300.00	121.9 PK			1.78 V	86	120.7	1.2
4	*5300.00	109.5 AV			1.78 V	86	108.3	1.2
5	5350.00	60.8 PK	74.0	-13.2	1.78 V	86	59.4	1.4
6	5350.00	47.8 AV	54.0	-6.2	1.78 V	86	46.4	1.4
7	10600.00	51.6 PK	74.0	-22.4	1.48 V	273	39.8	11.8
8	10600.00	41.2 AV	54.0	-12.8	1.48 V	273	29.4	11.8
9	15900.00	52.2 PK	74.0	-21.8	1.72 V	114	41.5	10.7
10	15900.00	43.5 AV	54.0	-10.5	1.72 V	114	32.8	10.7

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	118.7 PK			1.80 H	112	117.3	1.4
2	*5320.00	105.6 AV			1.80 H	112	104.2	1.4
3	5354.00	66.5 PK	74.0	-7.5	1.80 H	112	65.1	1.4
4	5354.00	49.9 AV	54.0	-4.1	1.80 H	112	48.5	1.4
5	10640.00	53.6 PK	74.0	-20.4	1.48 H	307	41.7	11.9
6	10640.00	40.5 AV	54.0	-13.5	1.48 H	307	28.6	11.9
7	15960.00	59.4 PK	74.0	-14.6	1.38 H	29	48.5	10.9
8	15960.00	46.0 AV	54.0	-8.0	1.38 H	29	35.1	10.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	120.3 PK			1.50 V	86	118.9	1.4
2	*5320.00	107.9 AV			1.50 V	86	106.5	1.4
3	5350.00	72.7 PK	74.0	-1.3	1.50 V	86	71.3	1.4
4	5350.00	53.2 AV	54.0	-0.8	1.50 V	86	51.8	1.4
5	10640.00	51.4 PK	74.0	-22.6	1.48 V	282	39.5	11.9
6	10640.00	40.5 AV	54.0	-13.5	1.48 V	282	28.6	11.9
7	15960.00	52.3 PK	74.0	-21.7	1.69 V	110	41.4	10.9
8	15960.00	43.4 AV	54.0	-10.6	1.69 V	110	32.5	10.9

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5423.00	52.3 PK	74.0	-21.7	1.74 H	111	50.7	1.6
2	5423.00	41.4 AV	54.0	-12.6	1.74 H	111	39.8	1.6
3	#5468.00	59.4 PK	68.2	-8.8	1.74 H	111	57.8	1.6
4	*5500.00	114.7 PK			1.74 H	111	113.0	1.7
5	*5500.00	102.3 AV			1.74 H	111	100.6	1.7
6	11000.00	53.8 PK	74.0	-20.2	1.51 H	320	41.6	12.2
7	11000.00	40.3 AV	54.0	-13.7	1.51 H	320	28.1	12.2
8	#16500.00	59.3 PK	68.2	-8.9	1.35 H	28	45.9	13.4

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.00	57.9 PK	74.0	-16.1	1.50 V	86	56.3	1.6
2	5459.00	44.0 AV	54.0	-10.0	1.50 V	86	42.4	1.6
3	#5468.00	66.0 PK	68.2	-2.2	1.50 V	86	64.4	1.6
4	*5500.00	122.4 PK			1.50 V	86	120.7	1.7
5	*5500.00	110.8 AV			1.50 V	86	109.1	1.7
6	11000.00	51.0 PK	74.0	-23.0	1.51 V	290	38.8	12.2
7	11000.00	40.9 AV	54.0	-13.1	1.51 V	290	28.7	12.2
8	#16500.00	52.2 PK	68.2	-16.0	1.69 V	99	38.8	13.4

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	53.5 PK	74.0	-20.5	1.78 H	106	51.9	1.6
2	5460.00	42.4 AV	54.0	-11.6	1.78 H	106	40.8	1.6
3	#5470.00	56.1 PK	68.2	-12.1	1.78 H	106	54.5	1.6
4	*5580.00	118.1 PK			1.78 H	106	116.4	1.7
5	*5580.00	108.3 AV			1.78 H	106	106.6	1.7
6	#5725.00	55.6 PK	68.2	-12.6	1.78 H	106	53.7	1.9
7	11160.00	53.4 PK	74.0	-20.6	1.47 H	309	41.8	11.6
8	11160.00	39.9 AV	54.0	-14.1	1.47 H	309	28.3	11.6
9	#16740.00	59.0 PK	68.2	-9.2	1.30 H	26	44.3	14.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.4 PK	74.0	-18.6	1.50 V	86	53.8	1.6
2	5460.00	43.4 AV	54.0	-10.6	1.50 V	86	41.8	1.6
3	#5470.00	57.2 PK	68.2	-11.0	1.50 V	86	55.6	1.6
4	*5580.00	123.5 PK			1.50 V	86	121.8	1.7
5	*5580.00	111.1 AV			1.50 V	86	109.4	1.7
6	#5725.00	59.5 PK	68.2	-8.7	1.50 V	86	57.6	1.9
7	11160.00	50.6 PK	74.0	-23.4	1.46 V	279	39.0	11.6
8	11160.00	41.1 AV	54.0	-12.9	1.46 V	279	29.5	11.6
9	#16740.00	51.9 PK	68.2	-16.3	1.66 V	88	37.2	14.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	114.8 PK			1.83 H	121	113.0	1.8
2	*5700.00	101.6 AV			1.83 H	121	99.8	1.8
3	#5725.00	64.6 PK	68.2	-3.6	1.83 H	121	62.7	1.9
4	11400.00	53.7 PK	74.0	-20.3	1.52 H	319	40.9	12.8
5	11400.00	40.3 AV	54.0	-13.7	1.52 H	319	27.5	12.8
6	#17100.00	59.0 PK	68.2	-9.2	1.35 H	31	42.7	16.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	119.0 PK			1.38 V	96	117.2	1.8
2	*5700.00	105.5 AV			1.38 V	96	103.7	1.8
3	#5725.00	67.7 PK	68.2	-0.5	1.38 V	96	65.8	1.9
4	11400.00	50.2 PK	74.0	-23.8	1.49 V	286	37.4	12.8
5	11400.00	41.0 AV	54.0	-13.0	1.49 V	286	28.2	12.8
6	#17100.00	51.7 PK	68.2	-16.5	1.62 V	97	35.4	16.3

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.

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	52.4 PK	74.0	-21.6	1.74 H	126	50.8	1.6
2	5460.00	41.3 AV	54.0	-12.7	1.74 H	126	39.7	1.6
3	#5470.00	55.4 PK	68.2	-12.8	1.74 H	126	53.8	1.6
4	*5720.00	118.9 PK			1.74 H	126	117.0	1.9
5	*5720.00	108.9 AV			1.74 H	126	107.0	1.9
6	#5850.00	57.3 PK	68.2	-10.9	1.74 H	126	55.0	2.3
7	11440.00	53.8 PK	74.0	-20.2	1.48 H	329	41.2	12.6
8	11440.00	40.5 AV	54.0	-13.5	1.48 H	329	27.9	12.6
9	#17160.00	59.6 PK	68.2	-8.6	1.41 H	22	43.7	15.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.8 PK	74.0	-18.2	1.50 V	96	54.2	1.6
2	5460.00	42.4 AV	54.0	-11.6	1.50 V	96	40.8	1.6
3	#5470.00	56.0 PK	68.2	-12.2	1.50 V	96	54.4	1.6
4	*5720.00	124.4 PK			1.50 V	96	122.5	1.9
5	*5720.00	111.7 AV			1.50 V	96	109.8	1.9
6	#5850.00	58.7 PK	68.2	-9.5	1.50 V	96	56.4	2.3
7	11440.00	50.1 PK	74.0	-23.9	1.49 V	284	37.5	12.6
8	11440.00	40.2 AV	54.0	-13.8	1.49 V	284	27.6	12.6
9	#17160.00	51.8 PK	68.2	-16.4	1.66 V	81	35.9	15.9

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.

802.11ax (HE40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	116.2 PK			2.65 H	94	115.0	1.2
2	*5270.00	103.7 AV			2.65 H	94	102.5	1.2
3	5350.00	64.3 PK	74.0	-9.7	2.65 H	94	62.9	1.4
4	5350.00	50.7 AV	54.0	-3.3	2.65 H	94	49.3	1.4
5	#10540.00	53.5 PK	68.2	-14.7	1.53 H	332	42.0	11.5
6	15810.00	59.9 PK	74.0	-14.1	1.44 H	22	49.3	10.6
7	15810.00	46.3 AV	54.0	-7.7	1.44 H	22	35.7	10.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	120.5 PK			1.50 V	85	119.3	1.2
2	*5270.00	106.7 AV			1.50 V	85	105.5	1.2
3	5353.00	65.8 PK	74.0	-8.2	1.50 V	85	64.4	1.4
4	5353.00	51.2 AV	54.0	-2.8	1.50 V	85	49.8	1.4
5	#10540.00	52.1 PK	68.2	-16.1	1.49 V	269	40.6	11.5
6	15810.00	53.2 PK	74.0	-20.8	1.71 V	77	42.6	10.6
7	15810.00	43.3 AV	54.0	-10.7	1.71 V	77	32.7	10.6

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	110.8 PK			3.36 H	73	109.5	1.3
2	*5310.00	99.0 AV			3.36 H	73	97.7	1.3
3	5351.00	67.9 PK	74.0	-6.1	3.36 H	73	66.5	1.4
4	5351.00	49.3 AV	54.0	-4.7	3.36 H	73	47.9	1.4
5	10620.00	53.6 PK	74.0	-20.4	1.51 H	324	41.8	11.8
6	10620.00	40.3 AV	54.0	-13.7	1.51 H	324	28.5	11.8
7	15930.00	59.2 PK	74.0	-14.8	1.43 H	14	48.4	10.8
8	15930.00	46.5 AV	54.0	-7.5	1.43 H	14	35.7	10.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	115.9 PK			1.75 V	85	114.6	1.3
2	*5310.00	102.9 AV			1.75 V	85	101.6	1.3
3	5353.00	70.7 PK	74.0	-3.3	1.75 V	85	69.3	1.4
4	5353.00	53.1 AV	54.0	-0.9	1.75 V	85	51.7	1.4
5	10620.00	51.6 PK	74.0	-22.4	1.43 V	299	39.8	11.8
6	10620.00	41.8 AV	54.0	-12.2	1.43 V	299	30.0	11.8
7	15930.00	53.4 PK	74.0	-20.6	1.67 V	86	42.6	10.8
8	15930.00	43.2 AV	54.0	-10.8	1.67 V	86	32.4	10.8

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5458.00	58.0 PK	74.0	-16.0	1.72 H	114	56.4	1.6
2	5458.00	43.0 AV	54.0	-11.0	1.72 H	114	41.4	1.6
3	#5467.00	60.6 PK	68.2	-7.6	1.72 H	114	59.0	1.6
4	*5510.00	109.2 PK			1.72 H	114	107.5	1.7
5	*5510.00	97.2 AV			1.72 H	114	95.5	1.7
6	11020.00	53.6 PK	74.0	-20.4	1.49 H	328	41.5	12.1
7	11020.00	40.2 AV	54.0	-13.8	1.49 H	328	28.1	12.1
8	#16530.00	59.2 PK	68.2	-9.0	1.42 H	2	45.6	13.6

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.00	59.1 PK	74.0	-14.9	1.50 V	85	57.5	1.6
2	5459.00	46.6 AV	54.0	-7.4	1.50 V	85	45.0	1.6
3	#5468.51	65.9 PK	68.2	-2.3	1.50 V	85	64.3	1.6
4	*5510.00	112.8 PK			1.50 V	85	111.1	1.7
5	*5510.00	101.1 AV			1.50 V	85	99.4	1.7
6	11020.00	52.0 PK	74.0	-22.0	1.37 V	313	39.9	12.1
7	11020.00	42.0 AV	54.0	-12.0	1.37 V	313	29.9	12.1
8	#16530.00	53.5 PK	68.2	-14.7	1.62 V	80	39.9	13.6

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.4 PK	74.0	-18.6	1.76 H	89	53.8	1.6
2	5460.00	42.3 AV	54.0	-11.7	1.76 H	89	40.7	1.6
3	#5470.00	61.9 PK	68.2	-6.3	1.76 H	89	60.3	1.6
4	*5550.00	117.3 PK			1.76 H	89	115.6	1.7
5	*5550.00	104.0 AV			1.76 H	89	102.3	1.7
6	#5725.00	58.1 PK	68.2	-10.1	1.76 H	89	56.2	1.9
7	11100.00	53.1 PK	74.0	-20.9	1.52 H	335	41.5	11.6
8	11100.00	39.8 AV	54.0	-14.2	1.52 H	335	28.2	11.6
9	#16650.00	59.7 PK	68.2	-8.5	1.38 H	37	45.2	14.5

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.7 PK	74.0	-15.3	1.50 V	86	57.1	1.6
2	5460.00	45.6 AV	54.0	-8.4	1.50 V	86	44.0	1.6
3	#5470.00	67.2 PK	68.2	-1.0	1.50 V	86	65.6	1.6
4	*5550.00	119.6 PK			1.50 V	86	117.9	1.7
5	*5550.00	107.0 AV			1.50 V	86	105.3	1.7
6	#5725.00	59.3 PK	68.2	-8.9	1.50 V	86	57.4	1.9
7	11100.00	51.5 PK	74.0	-22.5	1.34 V	325	39.9	11.6
8	11100.00	41.7 AV	54.0	-12.3	1.34 V	325	30.1	11.6
9	#16650.00	53.5 PK	68.2	-14.7	1.64 V	75	39.0	14.5

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	116.7 PK			1.70 H	101	114.9	1.8
2	*5670.00	103.5 AV			1.70 H	101	101.7	1.8
3	#5725.00	63.6 PK	68.2	-4.6	1.70 H	101	61.7	1.9
4	11340.00	53.1 PK	74.0	-20.9	1.53 H	334	40.6	12.5
5	11340.00	40.4 AV	54.0	-13.6	1.53 H	334	27.9	12.5
6	#17010.00	58.6 PK	68.2	-9.6	1.39 H	33	42.4	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	117.8 PK			1.50 V	95	116.0	1.8
2	*5670.00	104.9 AV			1.50 V	95	103.1	1.8
3	#5725.00	67.4 PK	68.2	-0.8	1.50 V	95	65.5	1.9
4	11340.00	51.8 PK	74.0	-22.2	1.28 V	334	39.3	12.5
5	11340.00	42.0 AV	54.0	-12.0	1.28 V	334	29.5	12.5
6	#17010.00	52.8 PK	68.2	-15.4	1.69 V	77	36.6	16.2

REMARKS:

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

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.9 PK	74.0	-18.1	1.71 H	105	54.3	1.6
2	5460.00	42.6 AV	54.0	-11.4	1.71 H	105	41.0	1.6
3	#5470.00	54.3 PK	68.2	-13.9	1.71 H	105	52.7	1.6
4	*5710.00	118.3 PK			1.71 H	105	116.5	1.8
5	*5710.00	106.3 AV			1.71 H	105	104.5	1.8
6	#5850.00	61.3 PK	68.2	-6.9	1.71 H	105	59.0	2.3
7	11420.00	52.7 PK	74.0	-21.3	1.54 H	346	40.0	12.7
8	11420.00	40.6 AV	54.0	-13.4	1.54 H	346	27.9	12.7
9	#17130.00	58.5 PK	68.2	-9.7	1.38 H	38	42.4	16.1

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.3 PK	74.0	-17.7	1.50 V	96	54.7	1.6
2	5460.00	43.0 AV	54.0	-11.0	1.50 V	96	41.4	1.6
3	#5470.00	56.4 PK	68.2	-11.8	1.50 V	96	54.8	1.6
4	*5710.00	120.2 PK			1.50 V	96	118.4	1.8
5	*5710.00	108.9 AV			1.50 V	96	107.1	1.8
6	#5850.00	63.0 PK	68.2	-5.2	1.50 V	96	60.7	2.3
7	11420.00	51.9 PK	74.0	-22.1	1.23 V	346	39.2	12.7
8	11420.00	42.0 AV	54.0	-12.0	1.23 V	346	29.3	12.7
9	#17130.00	53.3 PK	68.2	-14.9	1.70 V	82	37.2	16.1

REMARKS:

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

802.11ax (HE80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	107.8 PK			1.97 H	111	106.6	1.2
2	*5290.00	96.2 AV			1.97 H	111	95.0	1.2
3	5358.00	67.7 PK	74.0	-6.3	1.97 H	111	66.3	1.4
4	5358.00	50.2 AV	54.0	-3.8	1.97 H	111	48.8	1.4
5	#10580.00	52.5 PK	68.2	-15.7	1.58 H	337	40.8	11.7
6	15870.00	58.6 PK	74.0	-15.4	1.40 H	22	48.0	10.6
7	15870.00	46.4 AV	54.0	-7.6	1.40 H	22	35.8	10.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	111.7 PK			1.51 V	84	110.5	1.2
2	*5290.00	99.4 AV			1.51 V	84	98.2	1.2
3	5353.00	68.1 PK	74.0	-5.9	1.51 V	84	66.7	1.4
4	5353.00	53.3 AV	54.0	-0.7	1.51 V	84	51.9	1.4
5	#10580.00	51.8 PK	68.2	-16.4	1.23 V	334	40.1	11.7
6	15870.00	53.9 PK	74.0	-20.1	1.76 V	72	43.3	10.6
7	15870.00	42.8 AV	54.0	-11.2	1.76 V	72	32.2	10.6

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5459.00	61.0 PK	74.0	-13.0	1.62 H	113	59.4	1.6
2	5459.00	44.6 AV	54.0	-9.4	1.62 H	113	43.0	1.6
3	#5469.34	60.5 PK	68.2	-7.7	1.62 H	113	58.9	1.6
4	*5530.00	107.3 PK			1.62 H	113	105.6	1.7
5	*5530.00	95.1 AV			1.62 H	113	93.4	1.7
6	#5814.57	54.2 PK	68.2	-14.0	1.62 H	113	52.0	2.2
7	11060.00	52.1 PK	74.0	-21.9	1.61 H	328	40.3	11.8
8	11060.00	40.5 AV	54.0	-13.5	1.61 H	328	28.7	11.8
9	#16590.00	58.9 PK	68.2	-9.3	1.34 H	17	44.7	14.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5458.00	65.6 PK	74.0	-8.4	1.49 V	84	64.0	1.6
2	5458.00	48.0 AV	54.0	-6.0	1.49 V	84	46.4	1.6
3	#5468.12	67.2 PK	68.2	-1.0	1.49 V	84	65.6	1.6
4	*5530.00	110.4 PK			1.49 V	84	108.7	1.7
5	*5530.00	99.1 AV			1.49 V	84	97.4	1.7
6	#5804.80	57.1 PK	68.2	-11.1	1.49 V	84	55.0	2.1
7	11060.00	52.3 PK	74.0	-21.7	1.20 V	339	40.5	11.8
8	11060.00	42.2 AV	54.0	-11.8	1.20 V	339	30.4	11.8
9	#16590.00	54.3 PK	68.2	-13.9	1.85 V	73	40.1	14.2

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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	114.3 PK			1.59 H	126	112.7	1.6
2	*5610.00	101.3 AV			1.59 H	126	99.7	1.6
3	#5725.00	63.6 PK	68.2	-4.6	1.59 H	126	61.7	1.9
4	11220.00	52.3 PK	74.0	-21.7	1.64 H	340	40.6	11.7
5	11220.00	40.9 AV	54.0	-13.1	1.64 H	340	29.2	11.7
6	#16830.00	58.5 PK	68.2	-9.7	1.36 H	31	43.4	15.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5610.00	117.7 PK			1.50 V	84	116.1	1.6
2	*5610.00	105.4 AV			1.50 V	84	103.8	1.6
3	#5725.00	67.2 PK	68.2	-1.0	1.50 V	84	65.3	1.9
4	11220.00	51.9 PK	74.0	-22.1	1.23 V	331	40.2	11.7
5	11220.00	42.6 AV	54.0	-11.4	1.23 V	331	30.9	11.7
6	#16830.00	54.2 PK	68.2	-14.0	1.80 V	77	39.1	15.1

REMARKS:

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

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	54.4 PK	74.0	-19.6	1.68 H	128	52.8	1.6
2	5460.00	41.2 AV	54.0	-12.8	1.68 H	128	39.6	1.6
3	#5470.00	63.5 PK	68.2	-4.7	1.68 H	128	61.9	1.6
4	*5690.00	113.3 PK			1.68 H	128	111.6	1.7
5	*5690.00	100.2 AV			1.68 H	128	98.5	1.7
6	#5850.00	63.8 PK	68.2	-4.4	1.68 H	128	61.5	2.3
7	11380.00	51.9 PK	74.0	-22.1	1.69 H	349	39.3	12.6
8	11380.00	40.8 AV	54.0	-13.2	1.69 H	349	28.2	12.6
9	#17070.00	59.4 PK	68.2	-8.8	1.39 H	29	43.2	16.2

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.6 PK	74.0	-18.4	1.50 V	83	54.0	1.6
2	5460.00	42.5 AV	54.0	-11.5	1.50 V	83	40.9	1.6
3	#5470.00	67.3 PK	68.2	-0.9	1.50 V	83	65.7	1.6
4	*5690.00	116.0 PK			1.50 V	83	114.3	1.7
5	*5690.00	104.7 AV			1.50 V	83	103.0	1.7
6	#5850.00	67.4 PK	68.2	-0.8	1.50 V	83	65.1	2.3
7	11380.00	51.9 PK	74.0	-22.1	1.25 V	335	39.3	12.6
8	11380.00	42.4 AV	54.0	-11.6	1.25 V	335	29.8	12.6
9	#17070.00	53.6 PK	68.2	-14.6	1.77 V	79	37.4	16.2

REMARKS:

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

802.11ax (HE160)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5146.37	62.3 PK	74.0	-11.7	1.90 H	72	60.6	1.7
2	5146.37	51.8 AV	54.0	-2.2	1.90 H	72	50.1	1.7
3	*5250.00	103.6 PK			1.90 H	72	102.4	1.2
4	*5250.00	91.6 AV			1.90 H	72	90.4	1.2
5	5351.57	59.7 PK	74.0	-14.3	1.90 H	72	58.3	1.4
6	5351.57	44.5 AV	54.0	-9.5	1.90 H	72	43.1	1.4
7	#5750.00	59.3 PK	68.2	-8.9	1.37 H	32	57.4	1.9
8	#5750.00	46.5 AV	54.0	-7.5	1.37 H	32	44.6	1.9
9	#10500.00	51.7 PK	68.2	-16.5	1.66 H	360	40.3	11.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5148.86	64.7 PK	74.0	-9.3	1.86 V	85	63.0	1.7
2	5148.86	53.2 AV	54.0	-0.8	1.86 V	85	51.5	1.7
3	*5250.00	107.2 PK			1.86 V	85	106.0	1.2
4	*5250.00	94.9 AV			1.86 V	85	93.7	1.2
5	5359.08	62.7 PK	74.0	-11.3	1.86 V	85	61.3	1.4
6	5359.08	48.0 AV	54.0	-6.0	1.86 V	85	46.6	1.4
7	#10500.00	52.1 PK	68.2	-16.1	1.26 V	322	40.7	11.4
8	15750.00	54.1 PK	74.0	-19.9	1.72 V	81	43.3	10.8
9	15750.00	43.4 AV	54.0	-10.6	1.72 V	81	32.6	10.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5458.34	60.3 PK	74.0	-13.7	1.58 H	110	58.7	1.6
2	5458.34	46.2 AV	54.0	-7.8	1.58 H	110	44.6	1.6
3	#5468.06	62.0 PK	68.2	-6.2	1.58 H	110	60.4	1.6
4	*5570.00	105.1 PK			1.58 H	110	103.4	1.7
5	*5570.00	93.3 AV			1.58 H	110	91.6	1.7
6	#5746.93	57.3 PK	68.2	-10.9	1.58 H	110	55.4	1.9
7	11140.00	51.9 PK	74.0	-22.1	1.89 H	294	40.4	11.5
8	11140.00	41.3 AV	54.0	-12.7	1.89 H	294	29.8	11.5
9	#16710.00	58.9 PK	68.2	-9.3	1.59 H	78	44.2	14.7

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5458.10	65.3 PK	74.0	-8.7	1.50 V	86	63.7	1.6
2	5458.10	49.7 AV	54.0	-4.3	1.50 V	86	48.1	1.6
3	#5469.00	67.7 PK	68.2	-0.5	1.50 V	86	66.1	1.6
4	*5570.00	109.5 PK			1.50 V	86	107.8	1.7
5	*5570.00	97.2 AV			1.50 V	86	95.5	1.7
6	#5731.70	62.0 PK	68.2	-6.2	1.50 V	86	60.1	1.9
7	11140.00	52.1 PK	74.0	-21.9	1.33 V	312	40.6	11.5
8	11140.00	41.9 AV	54.0	-12.1	1.33 V	312	30.4	11.5
9	#16710.00	54.4 PK	68.2	-13.8	1.63 V	70	39.7	14.7

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.

Below 1GHz Data:

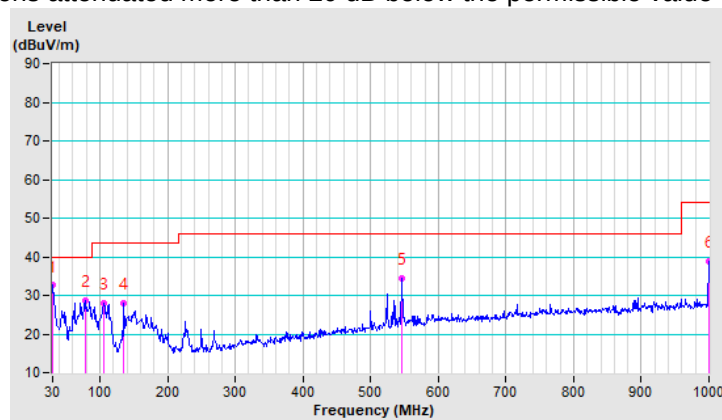
802.11ax (HE40)

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.92	32.6 QP	40.0	-7.4	1.50 H	360	46.9	-14.3
2	78.36	28.6 QP	40.0	-11.4	3.00 H	288	45.7	-17.1
3	105.52	28.0 QP	43.5	-15.5	3.00 H	262	44.4	-16.4
4	135.44	28.0 QP	43.5	-15.5	3.00 H	81	41.4	-13.4
5	546.02	34.4 QP	46.0	-11.6	1.50 H	218	41.1	-6.7
6	999.78	38.9 QP	54.0	-15.1	1.50 H	76	38.9	0.0

REMARKS:

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

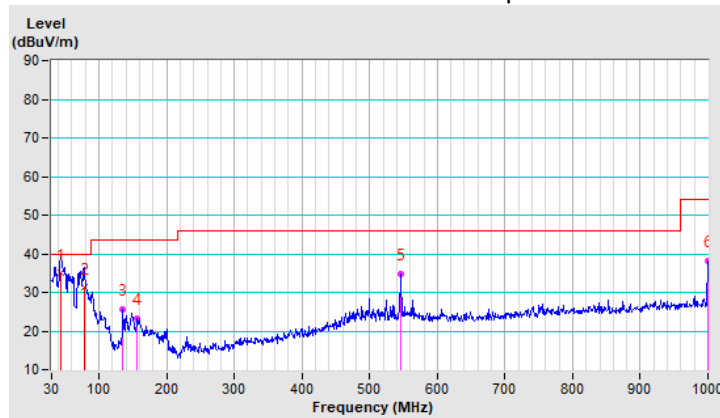


CHANNEL	TX Channel 142	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	43.48	35.0 QP	40.0	-5.0	1.00 V	360	47.9	-12.9
2	77.77	31.2 QP	40.0	-8.8	1.00 V	360	48.1	-16.9
3	135.44	25.6 QP	43.5	-17.9	1.50 V	143	39.0	-13.4
4	156.74	23.3 QP	43.5	-20.2	1.50 V	158	35.9	-12.6
5	545.87	34.8 QP	46.0	-11.2	2.00 V	178	41.5	-6.7
6	999.78	38.2 QP	54.0	-15.8	3.00 V	174	38.2	0.0

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. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 23, 2019	Oct. 22, 2020
Line-Impedance Stabilization Network (for Peripheral) R&S	ESH3-Z5	835239/001	Mar. 19, 2020	Mar. 18, 2021
50 ohms Terminator	50	3	Oct. 23, 2019	Oct. 22, 2020
RF Cable	5D-FB	COCCAB-001	Sep. 27, 2019	Sep. 26, 2020
Fixed attenuator EMCI	STI02-2200-10	005	Aug. 30, 2019	Aug. 29, 2020
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: May 11, 2020

4.2.3 Test Procedure

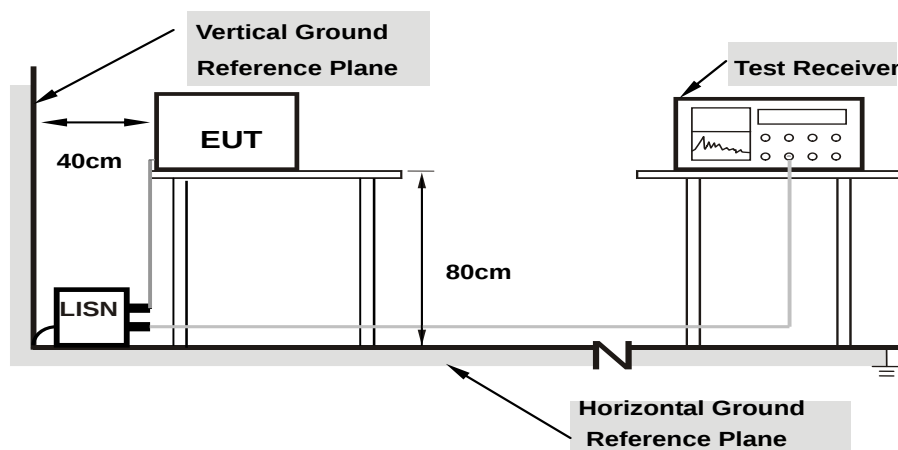
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance 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.

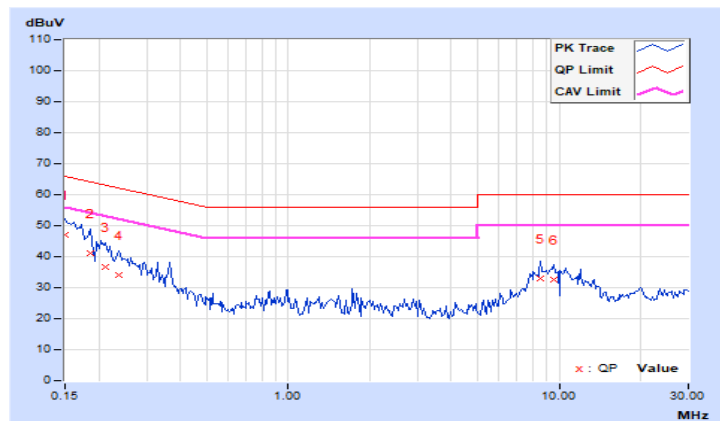
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15039	9.96	36.94	23.70	46.90	33.66	65.98	55.98	-19.08	-22.32
2	0.18516	9.97	31.15	16.87	41.12	26.84	64.25	54.25	-23.13	-27.41
3	0.21250	9.98	26.83	13.17	36.81	23.15	63.11	53.11	-26.30	-29.96
4	0.23594	9.98	24.14	7.26	34.12	17.24	62.24	52.24	-28.12	-35.00
5	8.57031	10.30	22.60	15.35	32.90	25.65	60.00	50.00	-27.10	-24.35
6	9.55078	10.34	22.41	15.17	32.75	25.51	60.00	50.00	-27.25	-24.49

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

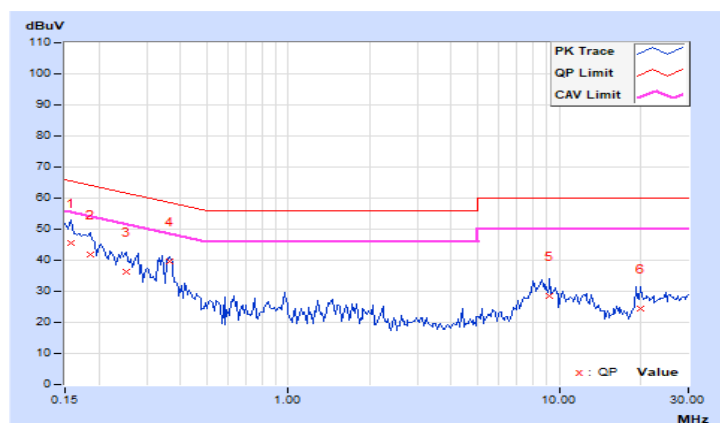


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15781	9.98	35.50	23.80	45.48	33.78	65.58	55.58	-20.10	-21.80
2	0.18516	9.99	32.04	19.19	42.03	29.18	64.25	54.25	-22.22	-25.07
3	0.25156	10.00	26.45	14.97	36.45	24.97	61.71	51.71	-25.26	-26.74
4	0.36484	10.01	29.48	25.59	39.49	35.60	58.62	48.62	-19.13	-13.02
5	9.23828	10.31	18.16	11.14	28.47	21.45	60.00	50.00	-31.53	-28.55
6	20.06641	10.57	14.04	7.73	24.61	18.30	60.00	50.00	-35.39	-31.70

Remarks:

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



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

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

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

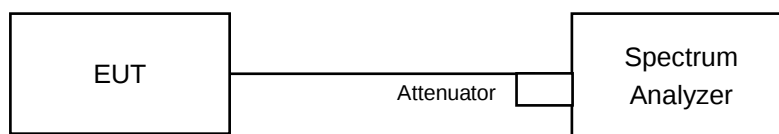
Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

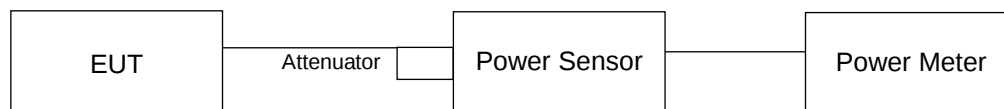
4.3.2 Test Setup

FOR POWER OUTPUT MEASUREMENT

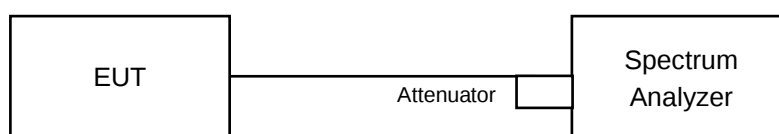
For channel straddling 5250MHz and 5725MHz:



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 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 channel straddling 5725MHz or 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 $\geq 2 \times$ 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 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

CDD Mode

POWER OUTPUT

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	15.53	15.78	16.08	15.72	151.447	21.80	24.00	PASS
60	5300	15.47	15.69	16.11	15.64	149.781	21.75	24.00	PASS
64	5320	15.45	15.72	16.16	15.57	149.763	21.75	24.00	PASS
100	5500	15.52	15.63	15.14	15.26	138.437	21.41	24.00	PASS
116	5580	15.47	15.78	15.23	15.21	139.613	21.45	24.00	PASS
140	5700	15.38	15.65	15.02	15.29	136.818	21.36	24.00	PASS
*144 (U-NII-2C Band)	5720	12.01	12.12	11.56	11.96	62.204	17.94	22.94	PASS
*144 (U-NII-3 Band)	5720	6.18	6.30	5.79	5.79	16.002	12.04	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1	Chain 2	Chain 3		
144	5720	78.206	18.93	15.58	15.75	15.29	15.31	141.494	21.51

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.73	24.37 > 24
60	5300	21.55	24.33 > 24
64	5320	21.72	24.36 > 24
100	5500	21.47	24.31 > 24
116	5580	21.59	24.34 > 24
140	5700	21.67	24.35 > 24
144 (U-NII-2C Band)	5720	15.64	22.94 < 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	Chain 2	Chain 3				
52	5260	15.97	15.86	16.08	15.96	158.081	21.99	24.00	PASS
60	5300	15.86	16.01	16.08	15.87	157.638	21.98	24.00	PASS
64	5320	16.03	16.05	15.98	15.78	157.83	21.98	24.00	PASS
100	5500	15.49	15.96	15.35	15.54	144.932	21.61	24.00	PASS
116	5580	15.63	15.99	15.46	15.65	148.163	21.71	24.00	PASS
140	5700	15.75	15.99	15.34	15.48	146.819	21.67	24.00	PASS
*144 (U-NII-2C Band)	5720	11.90	12.03	11.49	11.23	58.814	17.69	22.97	PASS
*144 (U-NII-3 Band)	5720	6.19	6.29	5.86	5.69	15.977	12.03	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
144	5720	74.791	18.74	15.81	15.87	15.54	15.62	149.028	21.73

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.67	24.35 > 24
64	5320	21.6	24.34 > 24
100	5500	21.55	24.33 > 24
116	5580	21.63	24.35 > 24
140	5700	21.45	24.31 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 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	Chain 2	Chain 3				
54	5270	17.11	17.18	17.31	17.43	212.806	23.28	24.00	PASS
62	5310	16.92	17.21	17.36	17.37	210.832	23.24	24.00	PASS
102	5510	16.69	16.67	16.50	16.94	187.217	22.72	24.00	PASS
110	5550	16.93	17.14	17.03	17.25	204.633	23.11	24.00	PASS
134	5670	17.12	17.17	17.20	17.34	210.323	23.23	24.00	PASS
*142 (U-NII-2C Band)	5710	14.14	14.44	14.25	14.39	107.825	20.33	24.00	PASS
*142 (U-NII-3 Band)	5710	4.30	4.29	4.12	4.47	10.758	10.32	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	118.583	20.74	17.08	17.35	17.21	17.44	213.44	23.29

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.62	27.19 > 24
62	5310	41.58	27.18 > 24
102	5510	41.59	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.64	27.19 > 24
142 (U-NII-2C Band)	5710	35.66	26.52 > 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	Chain 2	Chain 3				
58	5290	17.25	17.22	17.28	17.31	213.095	23.29	24.00	PASS
106	5530	16.87	16.43	16.77	16.67	186.58	22.71	24.00	PASS
122	5610	17.13	17.21	17.24	17.29	210.789	23.24	24.00	PASS
*138 (U-NII-2C Band)	5690	14.07	14.63	14.42	14.41	109.842	20.41	24.00	PASS
*138 (U-NII-3 Band)	5690	1.22	1.46	1.14	1.23	5.351	7.28	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
138	5690	115.193	20.61	16.97	17.35	17.21	17.35	211.026	23.24

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	82.37	30.15 > 24
106	5530	82.25	30.15 > 24
122	5610	82.48	30.16 > 24
138 (U-NII-2C Band)	5690	76.03	29.8 > 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	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	9.31	9.80	10.06	9.86	37.903	15.79	30.00	PASS
*50 (U-NII-2A Band)	5250	9.78	9.92	9.78	9.54	37.825	15.78	24.00	PASS
114	5570	16.83	16.68	17.07	17.24	198.653	22.98	24.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
50	5250	75.728	18.79	15.15	15.34	15.72	15.47	139.494	21.45

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)
50 (U-NII-2A Band)	5250	82.87	30.18 > 24
114	5570	162.49	33.1 > 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	Chain 2	Chain 3				
52	5260	16.11	16.02	16.23	16.03	162.889	22.12	24.00	PASS
60	5300	15.98	16.15	16.21	15.97	162.157	22.10	24.00	PASS
64	5320	16.17	16.22	16.12	15.89	163.02	22.12	24.00	PASS
100	5500	15.63	16.09	15.46	15.65	149.088	21.73	24.00	PASS
116	5580	15.78	16.11	15.55	15.78	152.413	21.83	24.00	PASS
140	5700	15.89	16.15	15.47	15.55	151.154	21.79	24.00	PASS
*144 (U-NII-2C Band)	5720	12.00	12.25	11.59	11.68	61.781	17.91	22.97	PASS
*144 (U-NII-3 Band)	5720	6.99	7.26	6.43	6.56	19.246	12.84	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
144	5720	81.027	19.09	15.91	16.02	15.67	15.74	153.384	21.86

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.67	24.35 > 24
64	5320	21.6	24.34 > 24
100	5500	21.55	24.33 > 24
116	5580	21.63	24.35 > 24
140	5700	21.45	24.31 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 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	Chain 2	Chain 3				
54	5270	17.29	17.38	17.51	17.63	222.588	23.48	24.00	PASS
62	5310	17.11	17.42	17.54	17.57	220.514	23.43	24.00	PASS
102	5510	16.88	16.86	16.71	17.13	195.805	22.92	24.00	PASS
110	5550	17.14	17.35	17.24	17.45	214.642	23.32	24.00	PASS
134	5670	17.31	17.38	17.39	17.53	219.98	23.42	24.00	PASS
*142 (U-NII-2C Band)	5710	14.23	14.62	14.57	14.56	112.676	20.52	24.00	PASS
*142 (U-NII-3 Band)	5710	4.88	5.28	5.06	5.17	12.944	11.12	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	125.62	20.99	17.28	17.54	17.42	17.62	223.228	23.49

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.62	27.19 > 24
62	5310	41.58	27.18 > 24
102	5510	41.59	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.64	27.19 > 24
142 (U-NII-2C Band)	5710	35.66	26.52 > 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	Chain 2	Chain 3				
58	5290	17.46	17.42	17.47	17.51	223.137	23.49	24.00	PASS
106	5530	17.06	16.62	16.97	16.87	195.15	22.90	24.00	PASS
122	5610	17.33	17.42	17.43	17.48	220.594	23.44	24.00	PASS
*138 (U-NII-2C Band)	5690	14.42	14.76	14.65	14.84	117.245	20.69	24.00	PASS
*138 (U-NII-3 Band)	5690	1.91	2.16	1.81	2.17	6.362	8.04	30.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
138	5690	123.607	20.92	17.16	17.53	17.42	17.53	220.455	23.43

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	82.37	30.15 > 24
106	5530	82.25	30.15 > 24
122	5610	82.48	30.16 > 24
138 (U-NII-2C Band)	5690	76.03	29.8 > 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	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	9.39	9.91	10.33	9.92	39.091	15.92	30.00	PASS
*50 (U-NII-2A Band)	5250	9.85	10.07	10.19	9.71	39.624	15.98	24.00	PASS
114	5570	17.03	16.87	17.26	17.45	207.908	23.18	24.00	PASS

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

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
50	5250	78.715	18.96	15.34	15.53	15.92	15.67	145.907	21.64

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)
50 (U-NII-2A Band)	5250	81.91	30.13 > 24
114	5570	163.33	33.13 > 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	Chain 2	Chain 3				
52	5260	15.57	15.43	15.61	15.48	142.682	21.54	22.34	PASS
60	5300	15.42	15.64	15.70	15.31	142.594	21.54	22.34	PASS
64	5320	15.53	15.71	15.67	15.39	144.458	21.60	22.34	PASS
100	5500	15.29	15.78	15.06	15.27	137.365	21.38	22.14	PASS
116	5580	15.38	15.72	15.16	15.39	139.243	21.44	22.14	PASS
140	5700	15.59	15.79	15.08	15.18	139.327	21.44	22.14	PASS
*144 (U-NII-2C Band)	5720	11.41	11.41	11.08	11.21	53.708	17.30	21.11	PASS
*144 (U-NII-3 Band)	5720	6.00	5.79	5.33	5.70	14.902	11.73	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
144	5720	68.61	18.36	15.61	15.58	15.21	15.37	140.157	21.47

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.67	24.35 > 24
64	5320	21.6	24.34 > 24
100	5500	21.55	24.33 > 24
116	5580	21.63	24.35 > 24
140	5700	21.45	24.31 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 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	Chain 2	Chain 3				
54	5270	15.08	15.31	15.72	15.59	139.723	21.45	22.34	PASS
62	5310	15.03	15.17	15.85	15.51	138.749	21.42	22.34	PASS
102	5510	15.29	15.61	15.27	15.34	138.047	21.40	22.14	PASS
110	5550	15.26	15.69	15.29	15.26	138.022	21.40	22.14	PASS
134	5670	15.24	15.68	15.26	15.21	137.166	21.37	22.14	PASS
*142 (U-NII-2C Band)	5710	11.71	12.00	12.05	12.15	63.112	18.00	22.14	PASS
*142 (U-NII-3 Band)	5710	1.80	1.99	1.81	2.02	6.204	7.93	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	69.316	18.41	15.18	15.54	15.18	15.48	137.05	21.37

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.62	27.19 > 24
62	5310	41.58	27.18 > 24
102	5510	41.59	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.64	27.19 > 24
142 (U-NII-2C Band)	5710	35.66	26.52 > 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	Chain 2	Chain 3				
58	5290	15.18	15.52	15.68	15.39	140.183	21.47	22.34	PASS
106	5530	15.08	15.32	15.43	15.21	134.355	21.28	22.14	PASS
122	5610	15.11	15.26	15.58	15.35	136.425	21.35	22.14	PASS
*138 (U-NII-2C Band)	5690	12.62	12.50	12.24	12.39	70.151	18.46	22.14	PASS
*138 (U-NII-3 Band)	5690	-0.73	-0.82	-1.05	-0.79	3.2921	5.17	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
138	5690	73.4431	18.66	15.12	15.23	15.59	15.42	136.909	21.36

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	82.37	30.15 > 24
106	5530	82.25	30.15 > 24
122	5610	82.48	30.16 > 24
138 (U-NII-2C Band)	5690	76.03	29.8 > 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	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	9.31	9.80	10.06	9.86	37.903	15.79	27.91	PASS
*50 (U-NII-2A Band)	5250	9.78	9.92	9.78	9.54	37.825	15.78	22.34	PASS
114	5570	15.11	15.35	15.53	15.24	135.858	21.33	22.14	PASS

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

1. For U-NII-1: The directional gain = 8.09dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (8.09-6)".
2. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
3. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30- (7.86-6) = 22.14dBm.

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
50	5250	75.728	18.79	15.15	15.34	15.72	15.47	139.494	21.45

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)
50 (U-NII-2A Band)	5250	81.91	30.13 > 24
114	5570	163.33	33.13 > 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	Chain 2	Chain 3				
52	5260	15.71	15.58	15.74	15.62	147.353	21.68	22.34	PASS
60	5300	15.52	15.78	15.82	15.46	146.84	21.67	22.34	PASS
64	5320	15.67	15.82	15.73	15.52	148.148	21.71	22.34	PASS
100	5500	15.41	15.92	15.22	15.41	141.857	21.52	22.14	PASS
116	5580	15.52	15.87	15.26	15.54	143.665	21.57	22.14	PASS
140	5700	15.71	15.93	15.21	15.29	143.409	21.57	22.14	PASS
*144 (U-NII-2C Band)	5720	11.90	11.62	11.40	11.52	58.004	17.63	21.11	PASS
*144 (U-NII-3 Band)	5720	6.77	6.55	6.22	6.43	17.855	12.52	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
144	5720	75.859	18.80	15.72	15.76	15.39	15.48	144.908	21.61

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.67	24.35 > 24
64	5320	21.6	24.34 > 24
100	5500	21.55	24.33 > 24
116	5580	21.63	24.35 > 24
140	5700	21.45	24.31 > 24
144 (U-NII-2C Band)	5720	15.75	22.97 < 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	Chain 2	Chain 3				
54	5270	15.15	15.42	15.88	15.68	143.276	21.56	22.34	PASS
62	5310	15.19	15.30	15.96	15.62	142.842	21.55	22.34	PASS
102	5510	15.42	15.73	15.36	15.42	141.434	21.51	22.14	PASS
110	5550	15.39	15.81	15.42	15.45	142.609	21.54	22.14	PASS
134	5670	15.35	15.75	15.37	15.32	140.336	21.47	22.14	PASS
*142 (U-NII-2C Band)	5710	12.37	12.12	12.17	12.08	66.177	18.21	22.14	PASS
*142 (U-NII-3 Band)	5710	3.03	2.58	2.50	2.69	7.457	8.73	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain 0	Chain 1	Chain 2	Chain 3		
142	5710	73.634	18.67	15.31	15.67	15.29	15.57	140.725	21.48

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.62	27.19 > 24
62	5310	41.58	27.18 > 24
102	5510	41.59	27.18 > 24
110	5550	41.71	27.2 > 24
134	5670	41.64	27.19 > 24
142 (U-NII-2C Band)	5710	35.66	26.52 > 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	Chain 2	Chain 3				
58	5290	15.46	15.64	15.81	15.52	145.551	21.63	22.34	PASS
106	5530	15.22	15.45	15.57	15.29	138.205	21.41	22.14	PASS
122	5610	15.18	15.39	15.67	15.42	139.286	21.44	22.14	PASS
*138 (U-NII-2C Band)	5690	13.17	12.68	12.67	12.72	76.484	18.84	22.14	PASS
*138 (U-NII-3 Band)	5690	0.60	0.03	-0.26	0.15	4.1321	6.16	28.02	PASS

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

1. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
2. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30-(7.86-6) = 22.14dBm".
3. For U-NII-3: the directional gain = 7.98 dBi > 6 dBi, so the power limit shall be reduced to 30-(7.98-6)= 28.02 dBm

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
138	5690	80.6161	19.06	15.23	15.34	15.72	15.53	140.593	21.48

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

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.37	30.15 > 24
106	5530	82.25	30.15 > 24
122	5610	82.48	30.16 > 24
138 (U-NII-2C Band)	5690	76.03	29.8 > 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	Chain 2	Chain 3				
*50 (U-NII-1 Band)	5250	9.39	9.91	10.33	9.92	39.091	15.92	27.91	PASS
*50 (U-NII-2A Band)	5250	9.85	10.07	10.19	9.71	39.624	15.98	22.34	PASS
114	5570	15.23	15.48	15.67	15.37	139.994	21.46	22.14	PASS

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

1. For U-NII-1: The directional gain = 8.09dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (8.09-6)".
2. For U-NII-2A: The directional gain = 7.66dBi > 6dBi, so the power limit shall be reduced to "Determined Conducted Limit- (7.66-6)".
3. For U-NII-2C: The directional gain = 7.86dBi > 6dBi, so the power limit shall be reduced to 30- (7.86-6) = 22.14dBm.

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

Chan.	Chan. Freq. (MHz)	Total Power (mW)	Total Power (dBm)	Average Power (dBm)				Total Average Power (mW)	Total Average Power (dBm)
				Chain0	Chain1	Chain 2	Chain 3		
50	5250	78.715	18.96	15.34	15.53	15.92	15.67	145.907	21.64

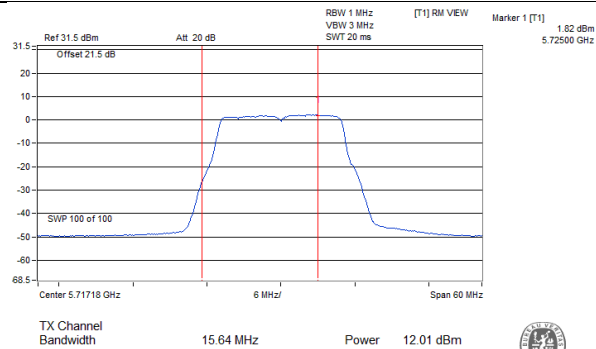
Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.

Power Limit = 11dBm + 10logB < U-NII-2A, U-NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
50 (U-NII-2A Band)	5250	81.91	30.13 > 24
114	5570	163.33	33.13 > 24

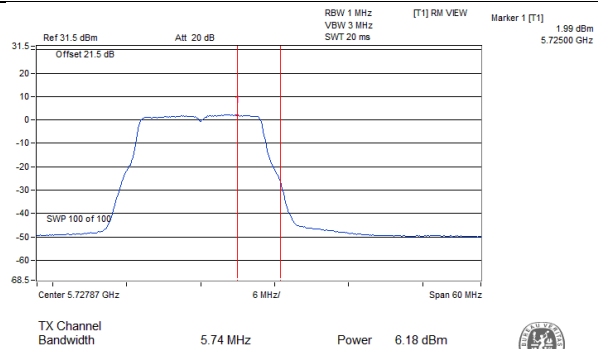
For channel straddling 5725MHz of Power
CDD / Beamforming Mode

Spectrum Plot Value of Power

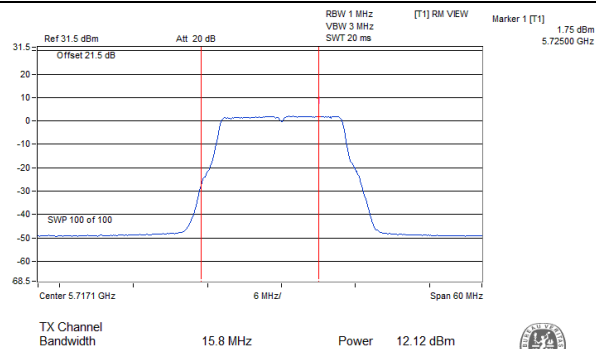
802.11a_Chain 0 / CH144 (U-NII-2C Band)



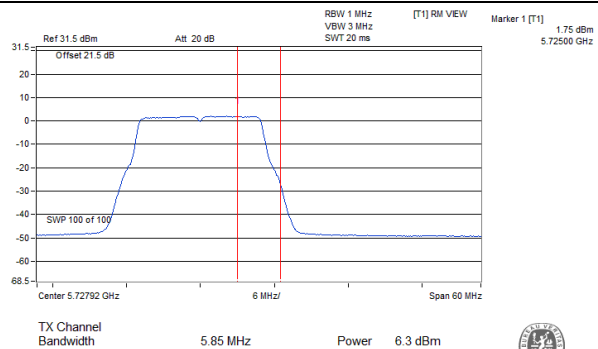
802.11a_Chain 0 / CH144 (U-NII-3 Band)



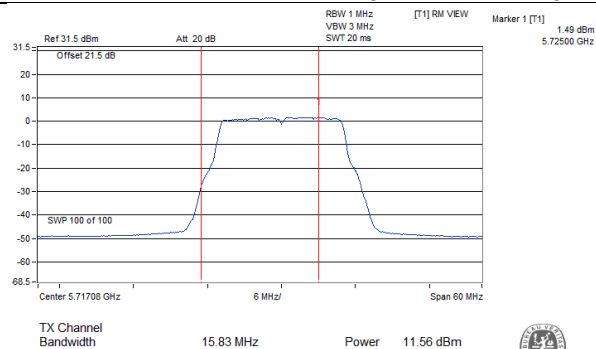
802.11a_Chain 1 / CH144 (U-NII-2C Band)



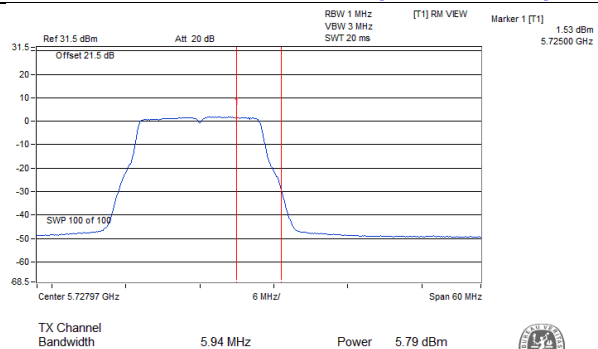
802.11a_Chain 1 / CH144 (U-NII-3 Band)



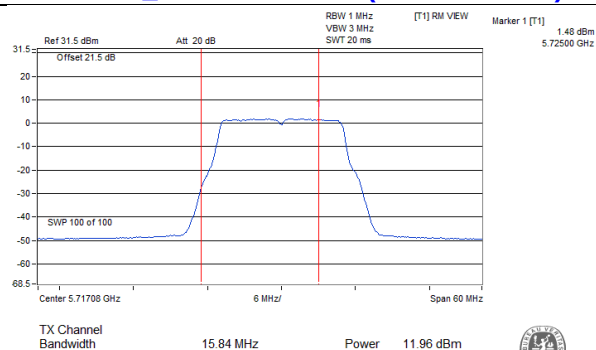
802.11a_Chain 2 / CH144 (U-NII-2C Band)



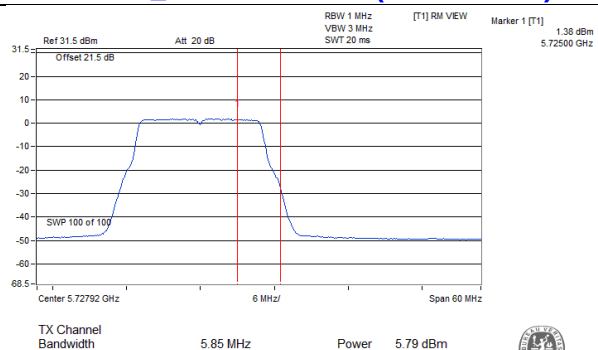
802.11a_Chain 2 / CH144 (U-NII-3 Band)



802.11a_Chain 3 / CH144 (U-NII-2C Band)

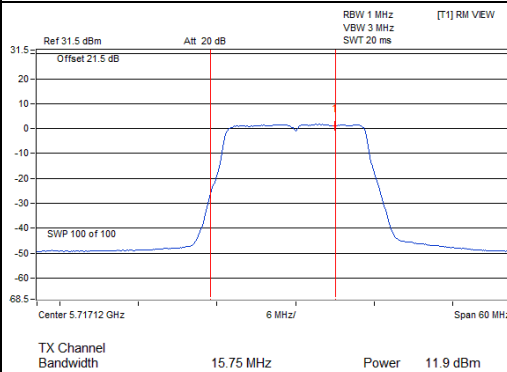


802.11a_Chain 3 / CH144 (U-NII-3 Band)

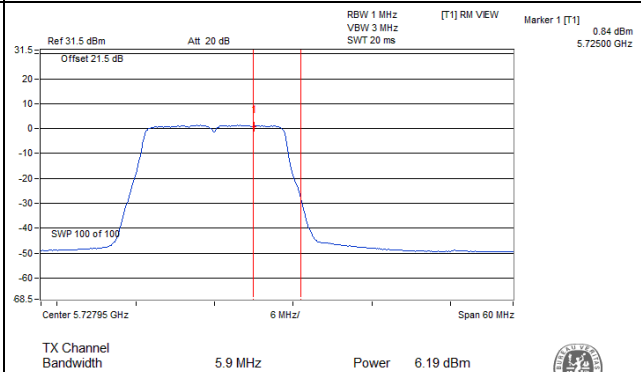


Spectrum Plot Value of Power

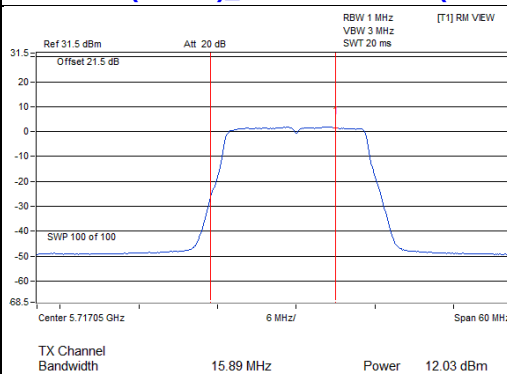
802.11ac (VHT20)_Chain 0 / CH144 (U-NII-2C Band)



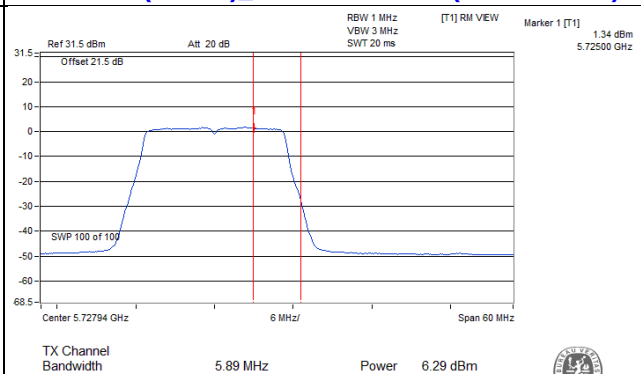
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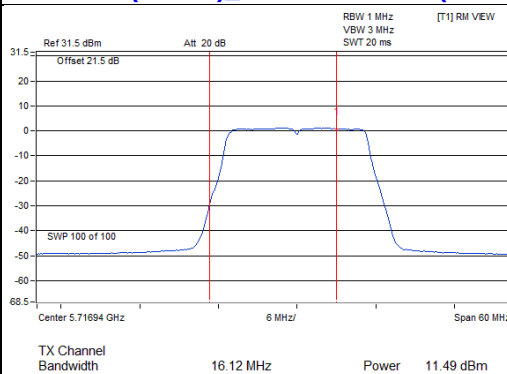
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-2C Band)



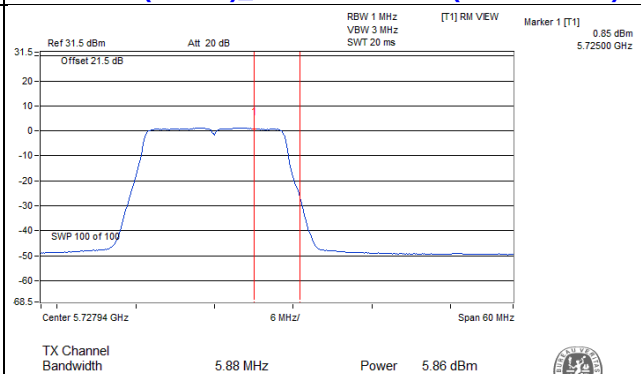
802.11ac (VHT20)_Chain 1 / CH144 (U-NII-3 Band)



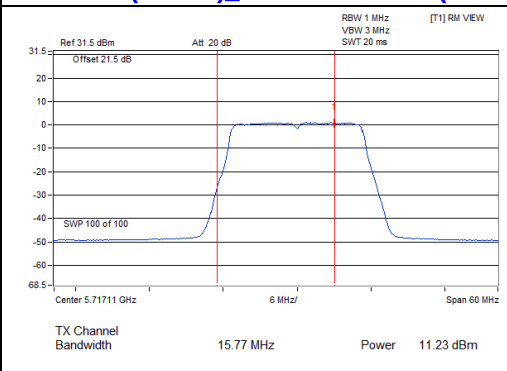
802.11ac (VHT20)_Chain 2 / CH144 (U-NII-2C Band)



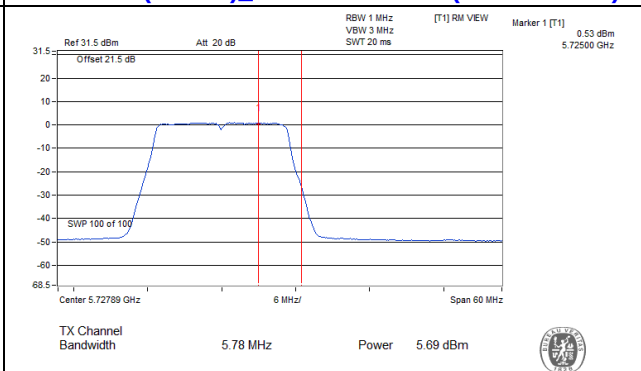
802.11ac (VHT20)_Chain 2 / CH144 (U-NII-3 Band)



802.11ac (VHT20)_Chain 3 / CH144 (U-NII-2C Band)

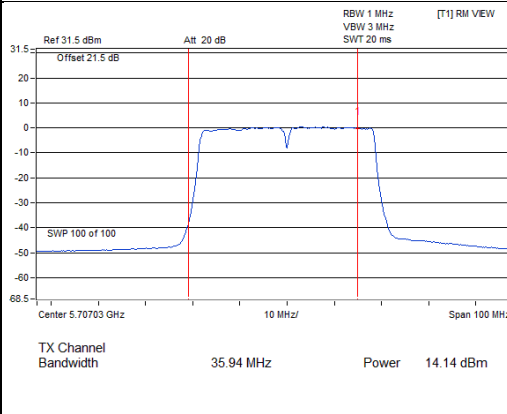


802.11ac (VHT20)_Chain 3 / CH144 (U-NII-3 Band)

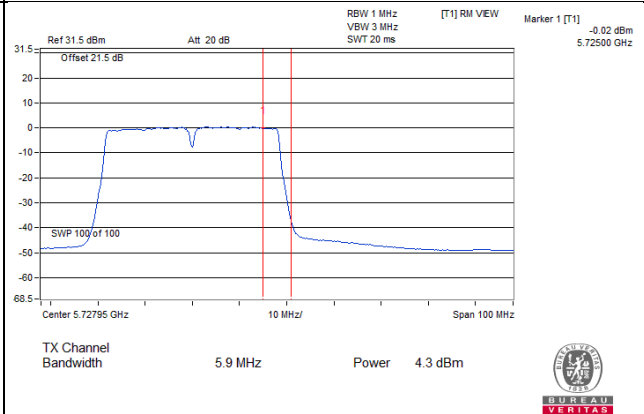


Spectrum Plot Value of Power

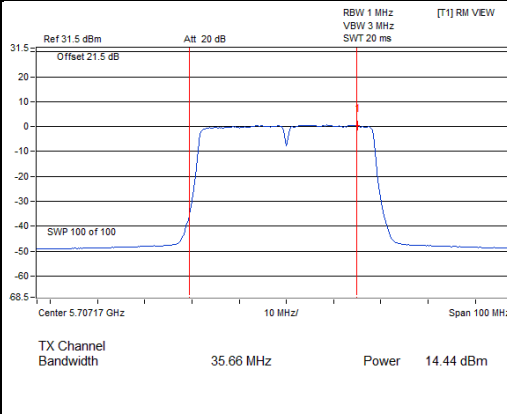
802.11ac (VHT40)_Chain 0 / CH142 (U-NII-2C Band)



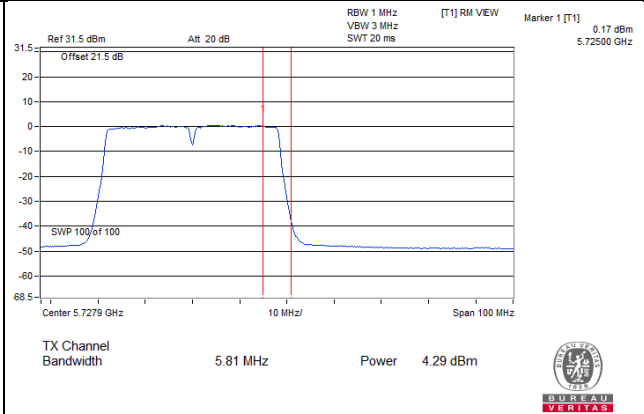
802.11ac (VHT40)_Chain 0 / CH142 (U-NII-3 Band)



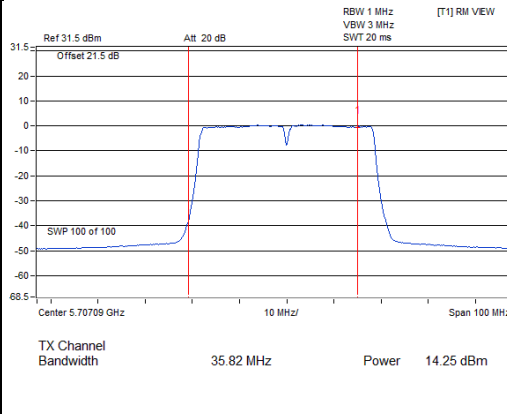
802.11ac (VHT40)_Chain 1 / CH142 (U-NII-2C Band)



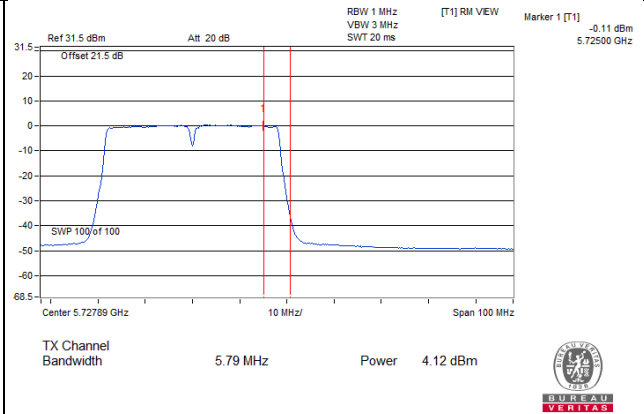
802.11ac (VHT40)_Chain 1 / CH142 (U-NII-3 Band)



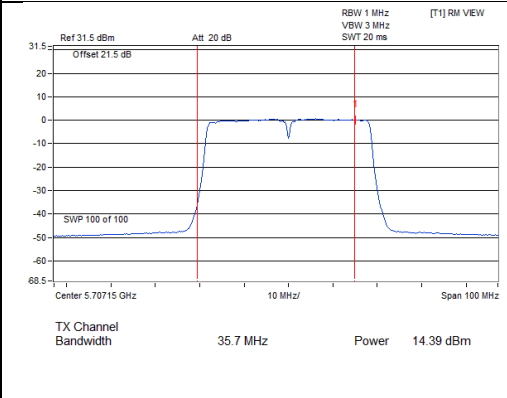
802.11ac (VHT40)_Chain 2 / CH142 (U-NII-2C Band)



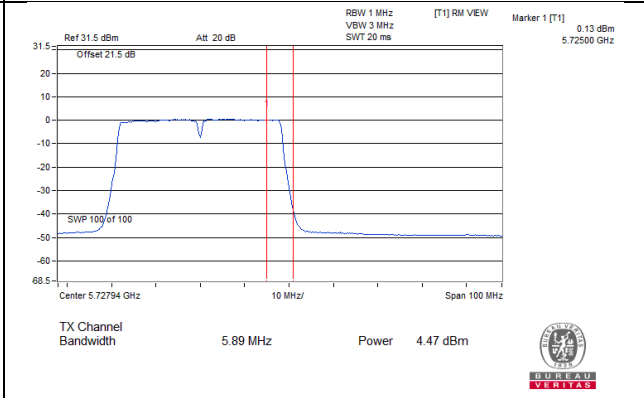
802.11ac (VHT40)_Chain 2 / CH142 (U-NII-3 Band)



802.11ac (VHT40)_Chain 3 / CH142 (U-NII-2C Band)

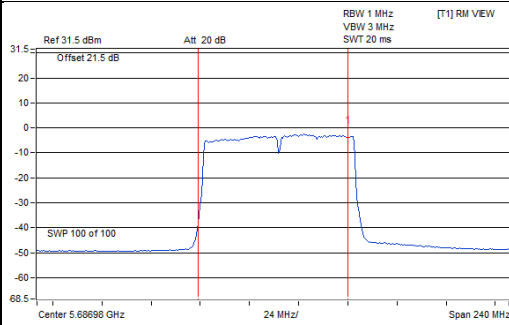


802.11ac (VHT40)_Chain 3 / CH142 (U-NII-3 Band)



Spectrum Plot Value of Power

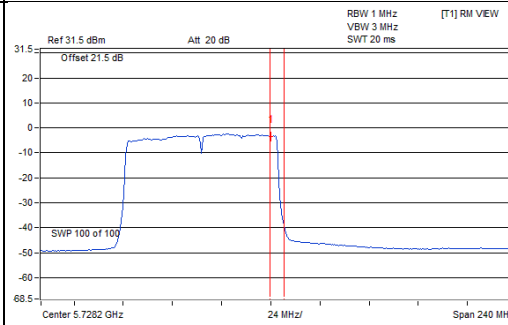
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-2C Band)



TX Channel Bandwidth 76.03 MHz Power 14.07 dBm



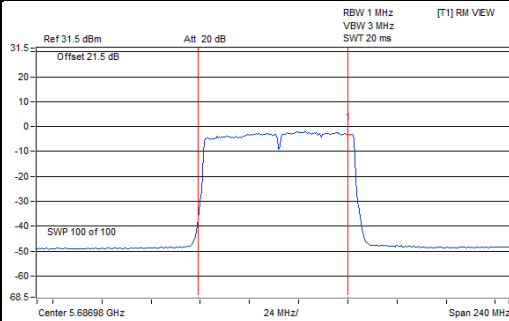
802.11ac (VHT80)_Chain 0 / CH138 (U-NII-3 Band)



TX Channel Bandwidth 6.4 MHz Power 1.22 dBm



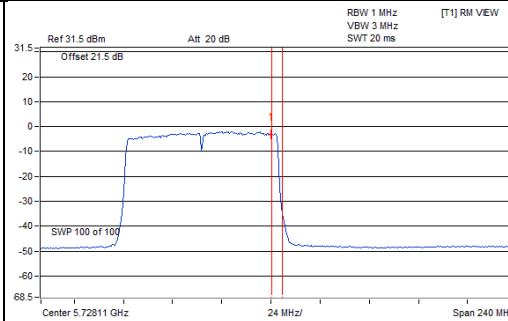
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-2C Band)



TX Channel Bandwidth 76.03 MHz Power 14.63 dBm



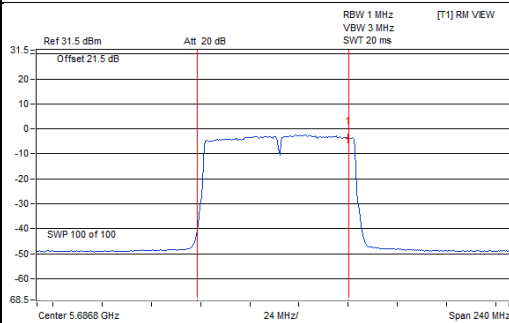
802.11ac (VHT80)_Chain 1 / CH138 (U-NII-3 Band)



TX Channel Bandwidth 6.22 MHz Power 1.46 dBm



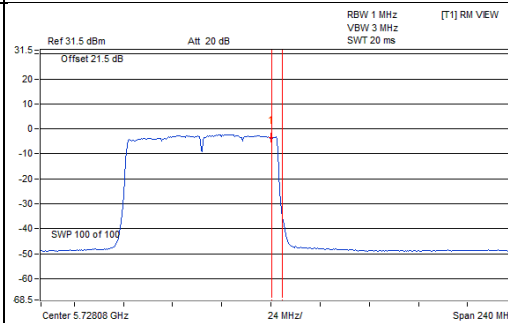
802.11ac (VHT80)_Chain 2 / CH138 (U-NII-2C Band)



TX Channel Bandwidth 76.39 MHz Power 14.42 dBm



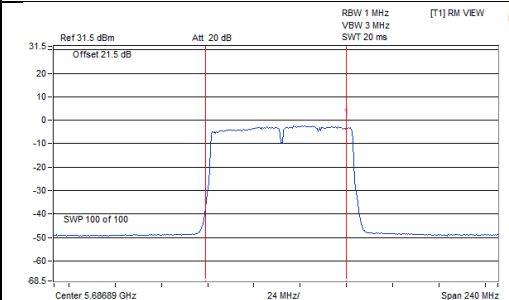
802.11ac (VHT80)_Chain 2 / CH138 (U-NII-3 Band)



TX Channel Bandwidth 6.16 MHz Power 1.14 dBm



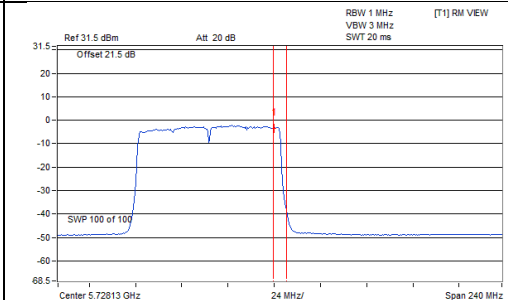
802.11ac (VHT80)_Chain 3 / CH138 (U-NII-2C Band)



TX Channel Bandwidth 76.22 MHz Power 14.41 dBm



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

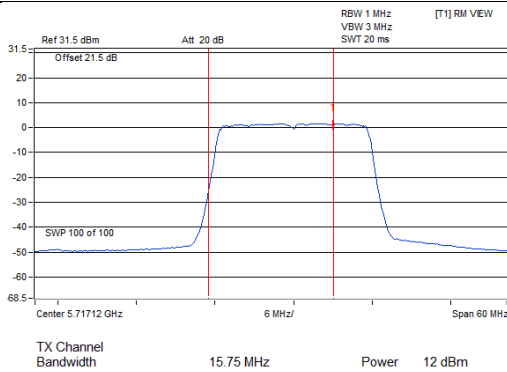


TX Channel Bandwidth 6.26 MHz Power 1.23 dBm

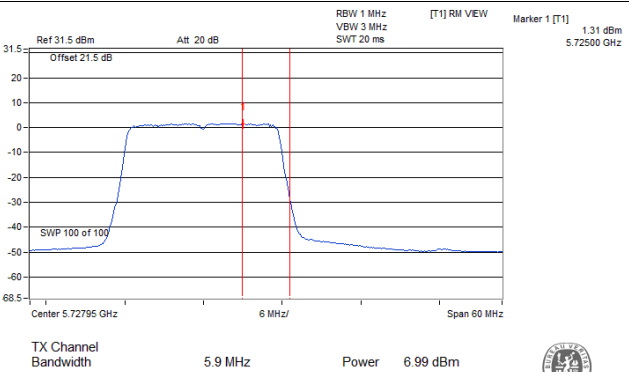


Spectrum Plot Value of Power

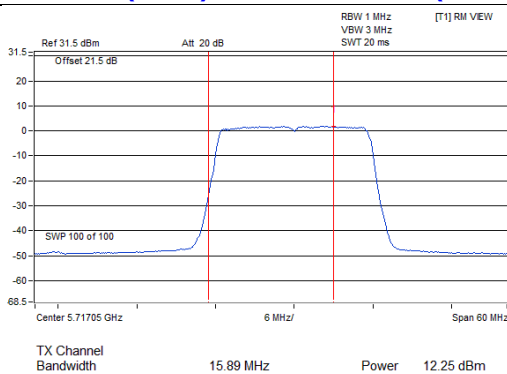
802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C Band)



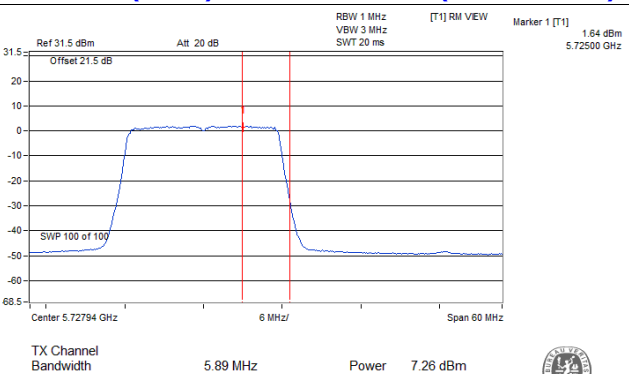
802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)



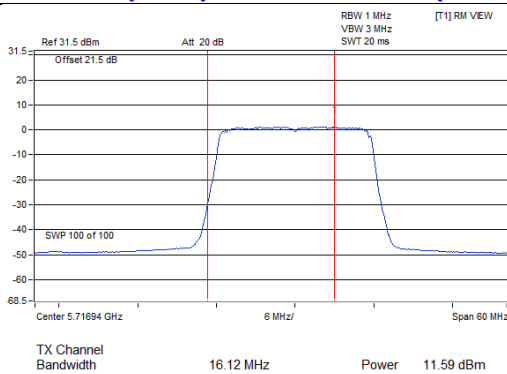
802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C Band)



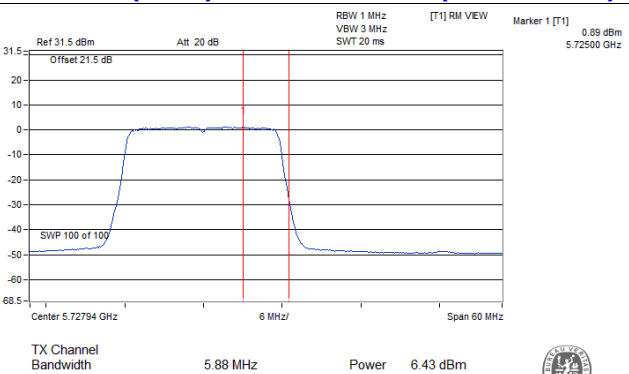
802.11ax (HE20)_Chain 1 / CH144 (U-NII-3 Band)



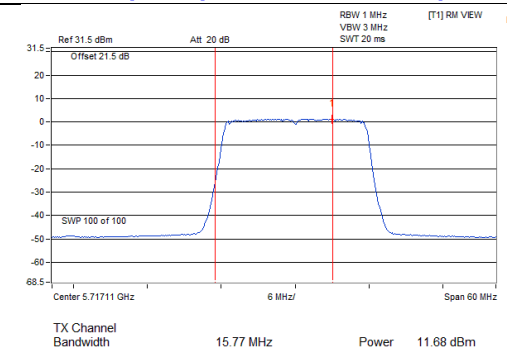
802.11ax (HE20)_Chain 2 / CH144 (U-NII-2C Band)



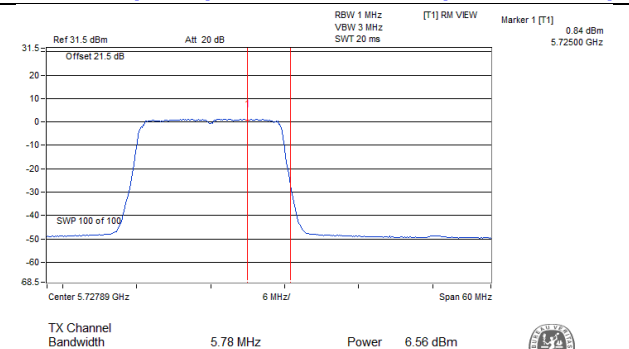
802.11ax (HE20)_Chain 2 / CH144 (U-NII-3 Band)



802.11ax (HE20)_Chain 3 / CH144 (U-NII-2C Band)

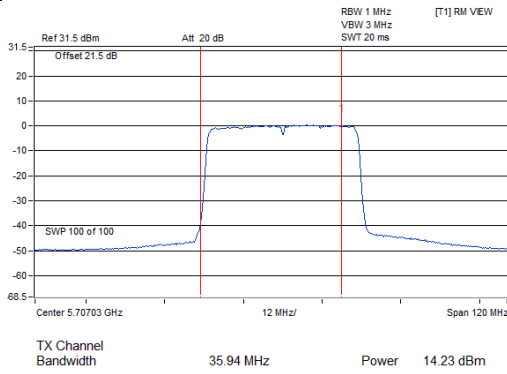


802.11ax (HE20)_Chain 3 / CH144 (U-NII-3 Band)

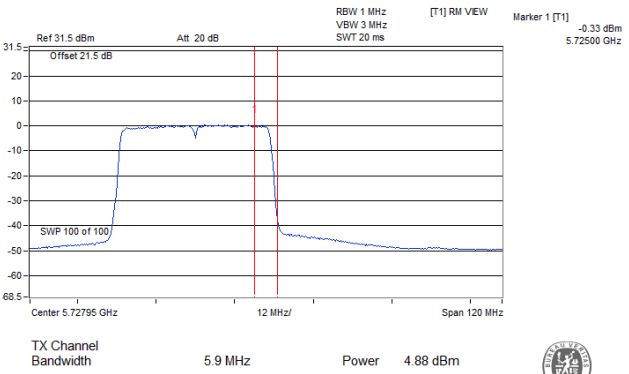


Spectrum Plot Value of Power

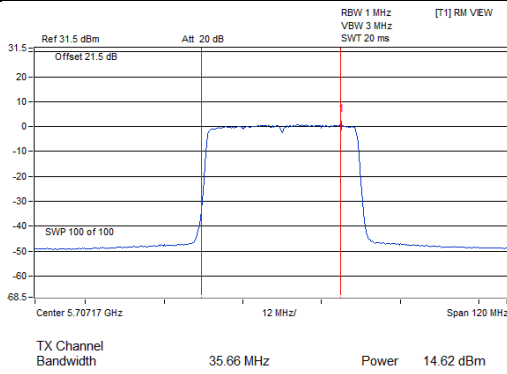
802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)



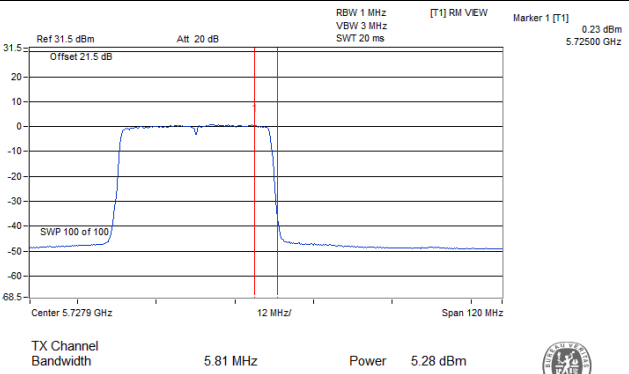
802.11ax (HE40)_Chain 0 / CH142 (U-NII-3 Band)



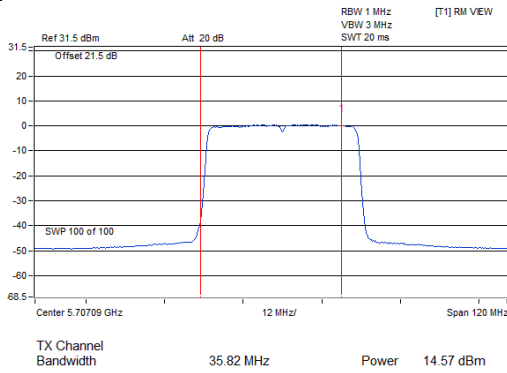
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)



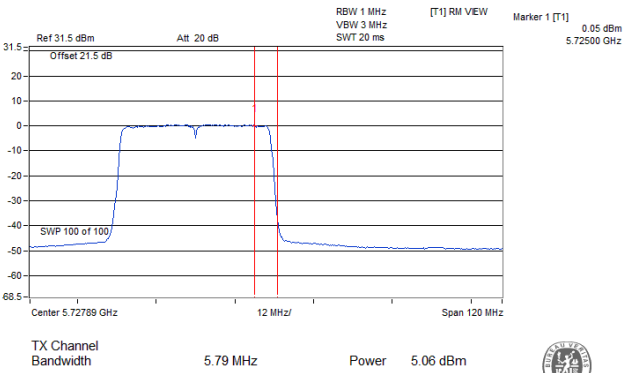
802.11ax (HE40)_Chain 1 / CH142 (U-NII-3 Band)



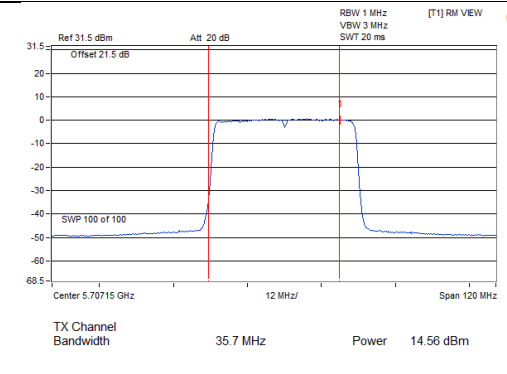
802.11ax (HE40)_Chain 2 / CH142 (U-NII-2C Band)



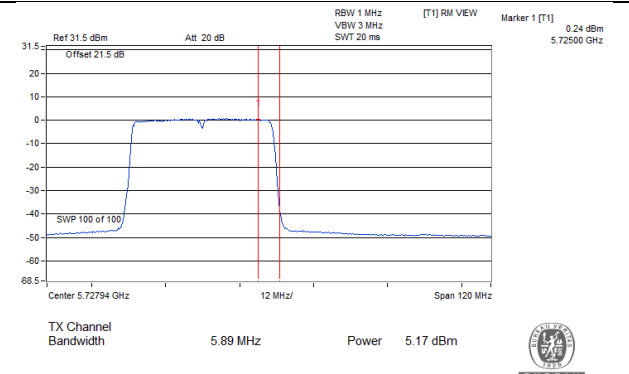
802.11ax (HE40)_Chain 2 / CH142 (U-NII-3 Band)



802.11ax (HE40)_Chain 3 / CH142 (U-NII-2C Band)

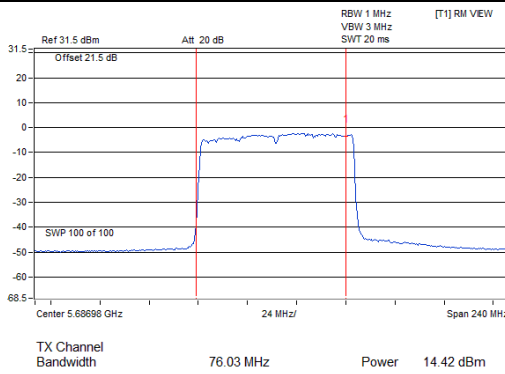


802.11ax (HE40)_Chain 3 / CH142 (U-NII-3 Band)

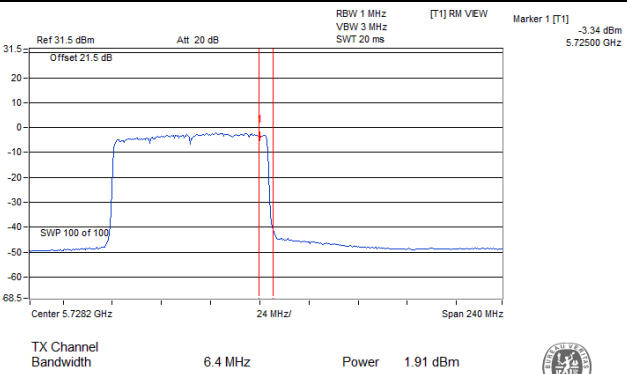


Spectrum Plot Value of Power

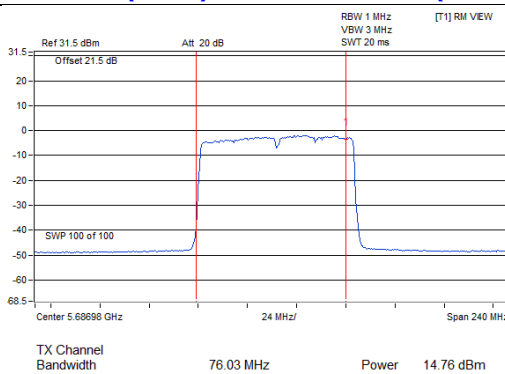
802.11ax (HE80)_Chain 0 / CH138 (U-NII-2C Band)



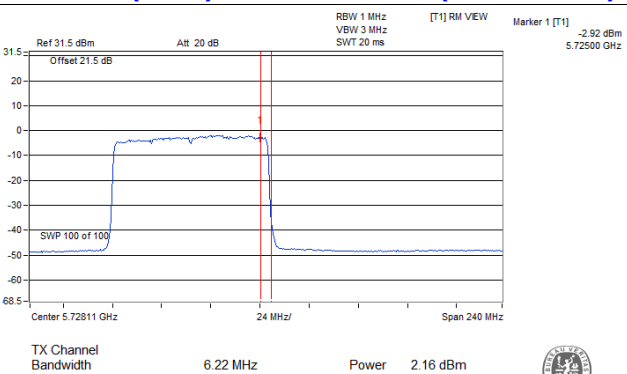
802.11ax (HE80)_Chain 0 / CH138 (U-NII-3 Band)



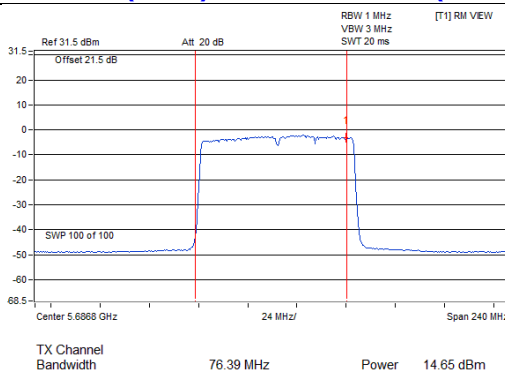
802.11ax (HE80)_Chain 1 / CH138 (U-NII-2C Band)



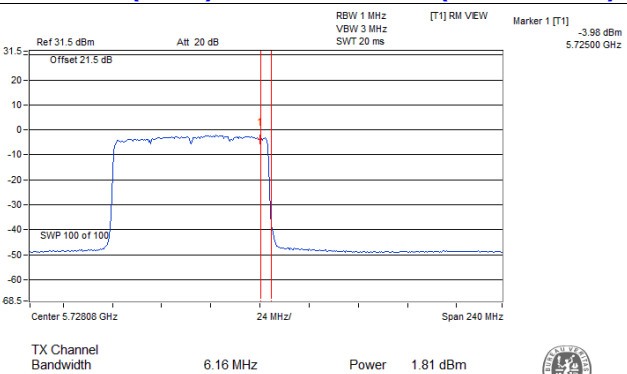
802.11ax (HE80)_Chain 1 / CH138 (U-NII-3 Band)



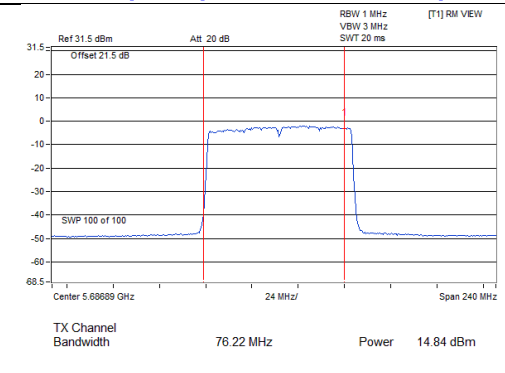
802.11ax (HE80)_Chain 2 / CH138 (U-NII-2C Band)



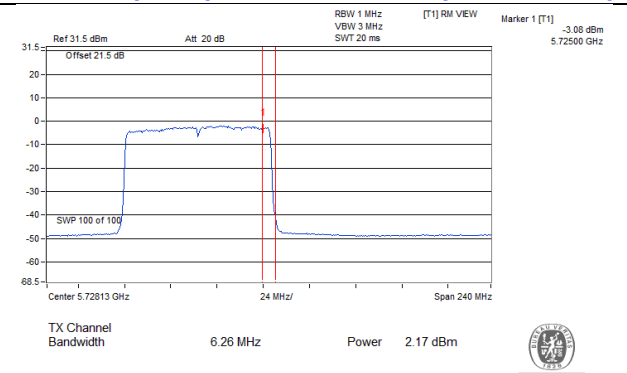
802.11ax (HE80)_Chain 2 / CH138 (U-NII-3 Band)



802.11ax (HE80)_Chain 3 / CH138 (U-NII-2C Band)



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

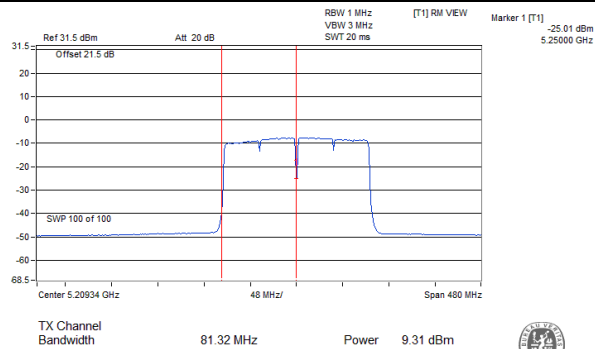


For channel straddling 5250MHz of Power

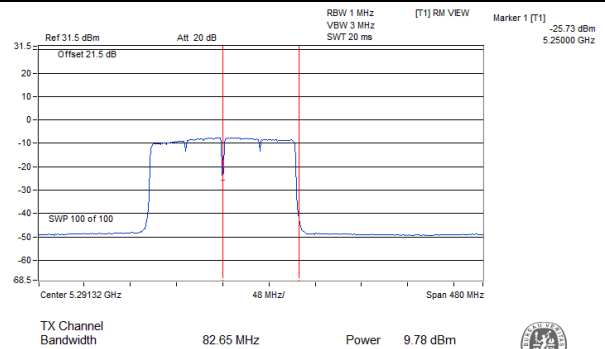
CDD Mode

Spectrum Plot Value of Power

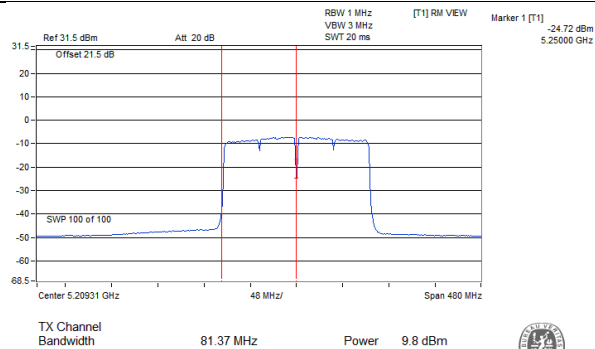
802.11ac (VHT160)_Chain 0 / CH50 (U-NII-1 Band)



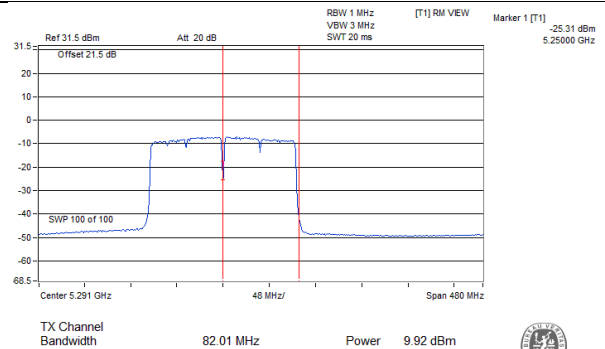
802.11ac (VHT160)_Chain 0 / CH50 (U-NII-2A Band)



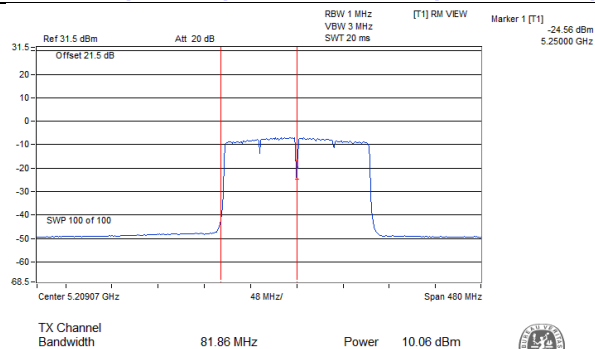
802.11ac (VHT160)_Chain 1 / CH50 (U-NII-1 Band)



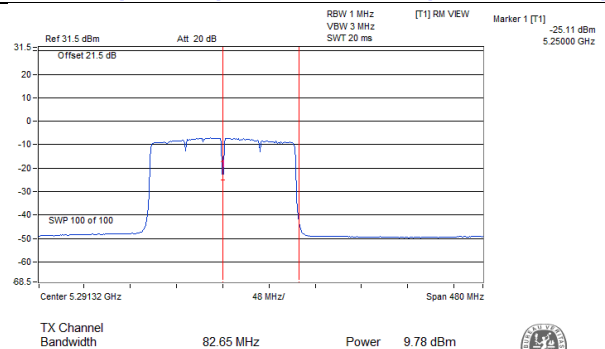
802.11ac (VHT160)_Chain 1 / CH50 (U-NII-2A Band)



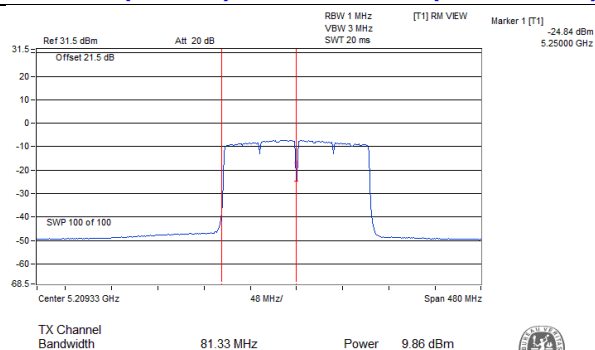
802.11ac (VHT160)_Chain 2 / CH50 (U-NII-1 Band)



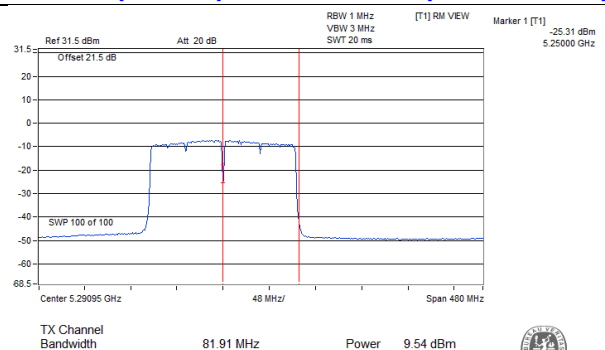
802.11ac (VHT160)_Chain 2 / CH50 (U-NII-2A Band)



802.11ac (VHT160)_Chain 3 / CH50 (U-NII-1 Band)

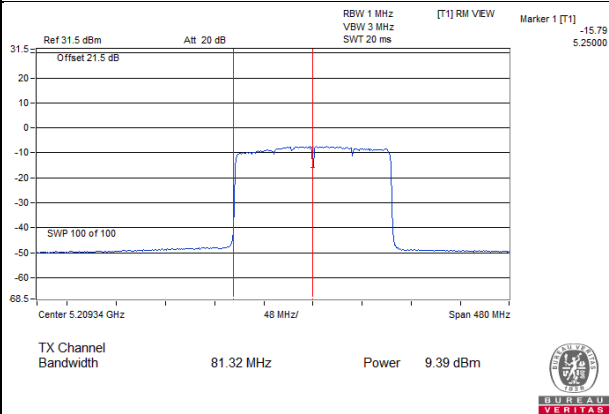


802.11ac (VHT160)_Chain 3 / CH50 (U-NII-2A Band)

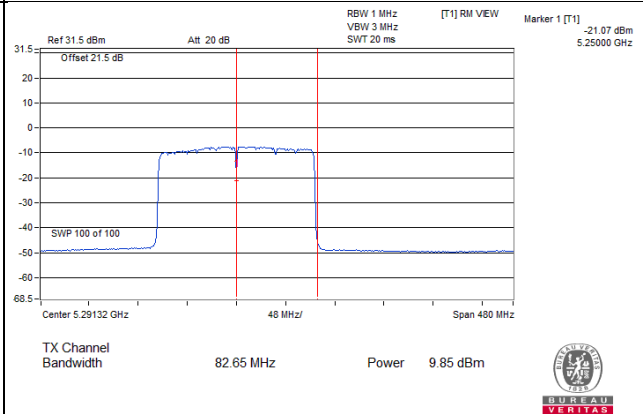


Spectrum Plot Value of Power

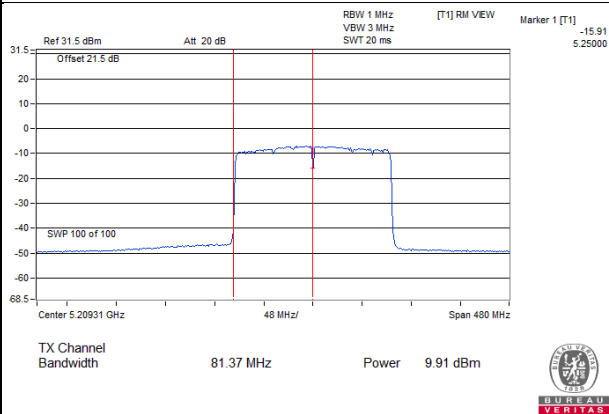
802.11ax (HE160)_Chain 0 / CH50 (U-NII-1 Band)



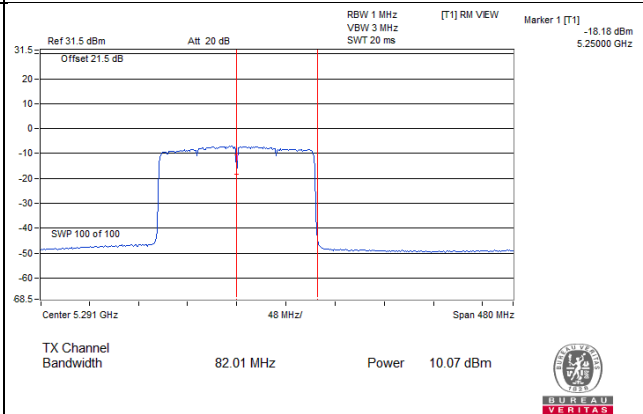
802.11ax (HE160)_Chain 0 / CH50 (U-NII-2A Band)



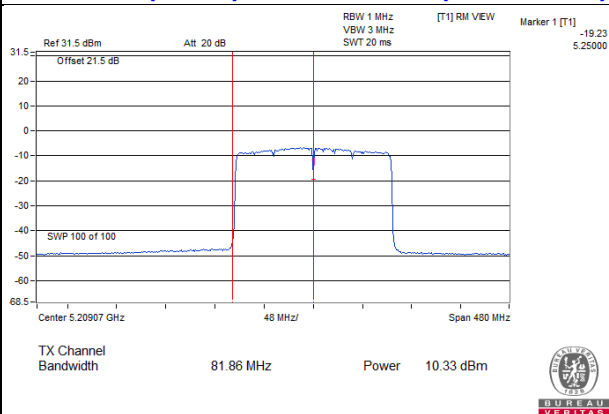
802.11ax (HE160)_Chain 1 / CH50 (U-NII-1 Band)



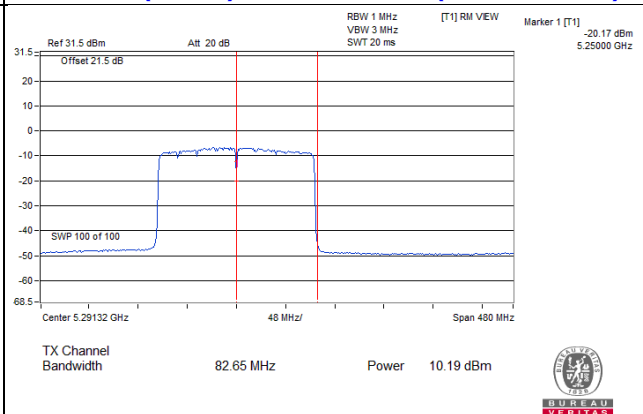
802.11ax (HE160)_Chain 1 / CH50 (U-NII-2A Band)



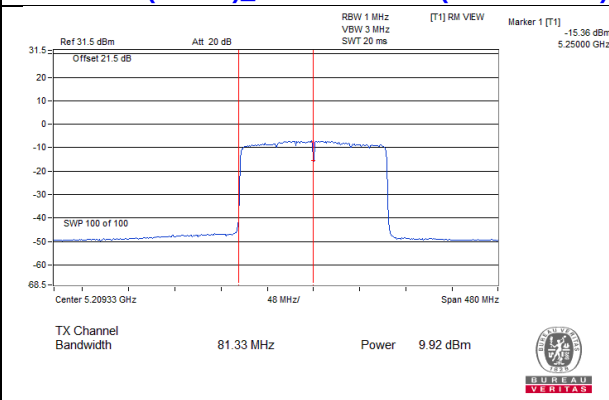
802.11ax (HE160)_Chain 2 / CH50 (U-NII-1 Band)



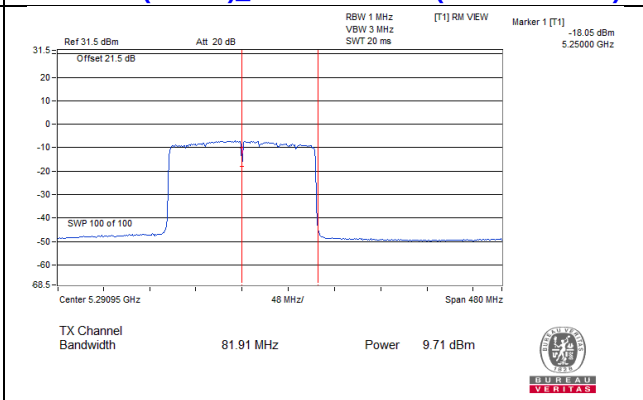
802.11ax (HE160)_Chain 2 / CH50 (U-NII-2A Band)



802.11ax (HE160)_Chain 3 / CH50 (U-NII-1 Band)



802.11ax (HE160)_Chain 3 / CH50 (U-NII-2A Band)



CDD Mode

26dB OCCUPIED BANDWIDTH

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Chain0	Chain1	Chain2	Chain3
52	5260	21.73	21.94	21.88	21.74
60	5300	21.55	21.75	21.95	21.74
64	5320	21.72	21.92	21.88	21.8
100	5500	21.47	21.85	21.94	21.67
116	5580	21.59	21.89	21.87	21.7
140	5700	21.67	21.76	21.73	21.71
144 (U-NII-2C Band)	5720	15.64	15.8	15.83	15.84

802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Chain0	Chain1	Chain2	Chain3
52	5260	21.91	21.83	22.07	21.65
60	5300	21.84	21.8	22.07	21.67
64	5320	21.93	21.82	21.86	21.6
100	5500	21.78	21.91	22.11	21.55
116	5580	21.76	21.91	22.04	21.63
140	5700	21.79	21.93	22.1	21.45
144 (U-NII-2C Band)	5720	15.75	15.89	16.12	15.77

802.11ax (HE40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Chain0	Chain1	Chain2	Chain3
54	5270	41.96	41.9	41.62	41.79
62	5310	41.76	42.05	41.58	41.68
102	5510	41.94	41.78	41.59	41.65
110	5550	41.8	42.03	41.71	41.76
134	5670	41.77	41.78	41.64	41.83
142 (U-NII-2C Band)	5710	35.94	35.66	35.82	35.7

802.11ax (HE80)

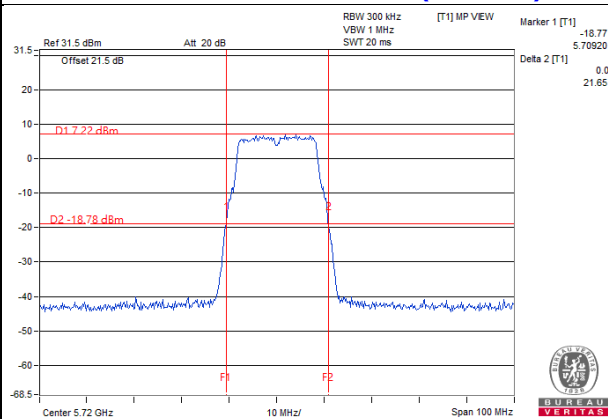
Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Chain0	Chain1	Chain2	Chain3
58	5290	82.42	82.51	82.44	82.37
106	5530	82.49	82.74	82.7	82.25
122	5610	82.5	82.56	82.84	82.48
138 (U-NII-2C Band)	5690	76.03	76.03	76.39	76.22

802.11ax (HE160)

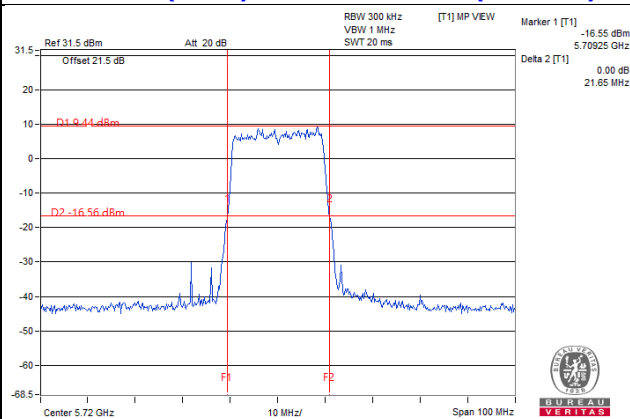
Channel	Frequency (MHz)	26dB Bandwidth (MHz)			
		Chain0	Chain1	Chain2	Chain3
50 (U-NII-2A Band)	5250	82.65	82.01	82.65	81.91
114	5570	163.69	163.33	163.44	163.64

Spectrum Plot of Worst Value

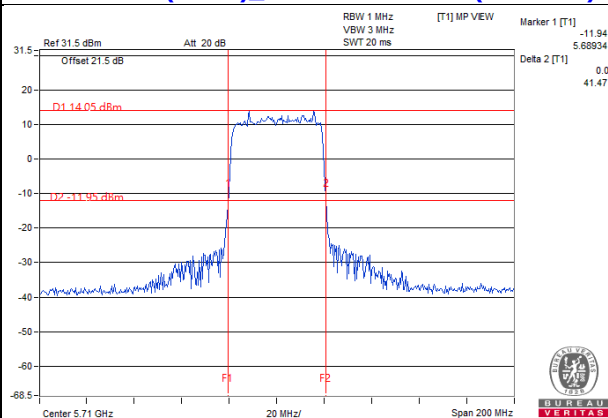
802.11a_Chain 1 / CH144 (U-NII-2C)



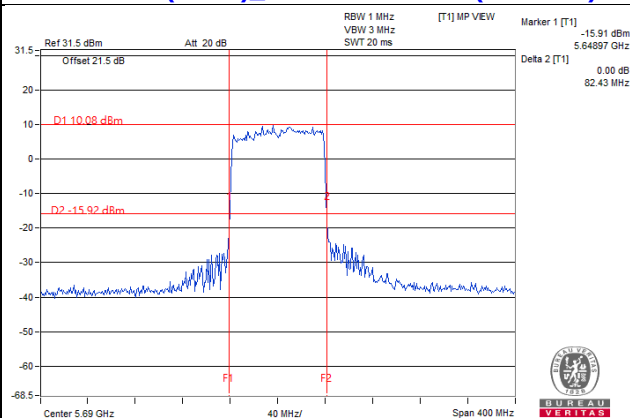
802.11ax (HE20)_Chain 0 / CH144 (U-NII-2C)



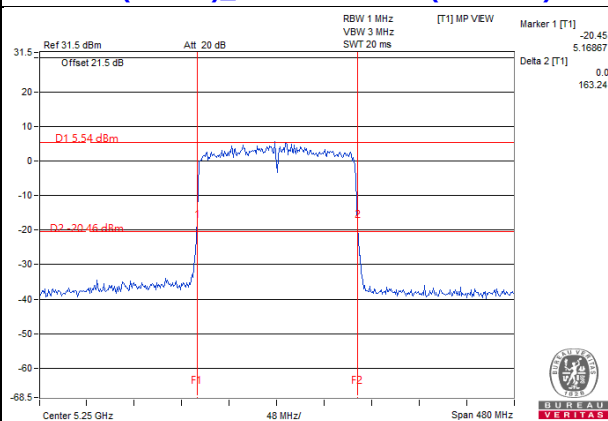
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C)



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



802.11ax (HE160)_Chain 3 / CH50 (U-NII-2A)



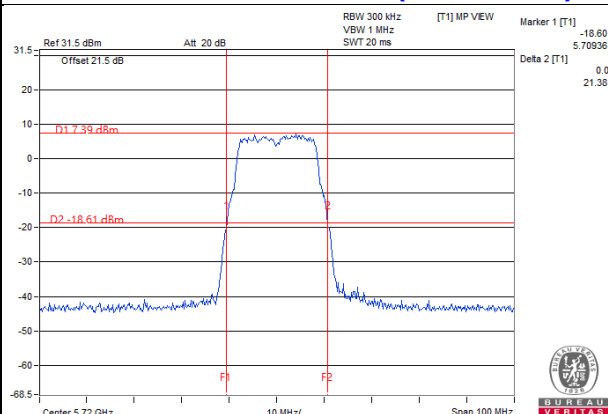
Note:

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

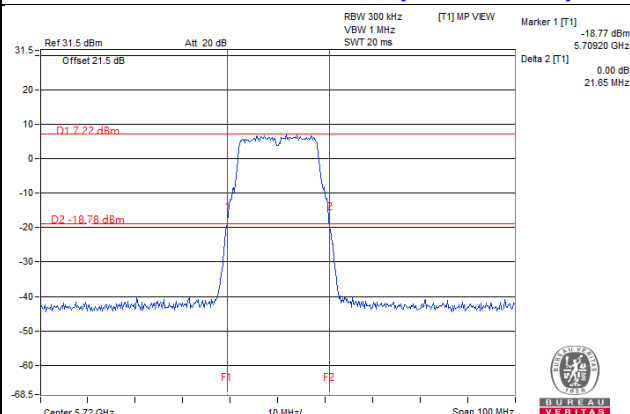
For channel straddling 5725MHz of 26dB BW

Spectrum Plot Value of 26dB BW

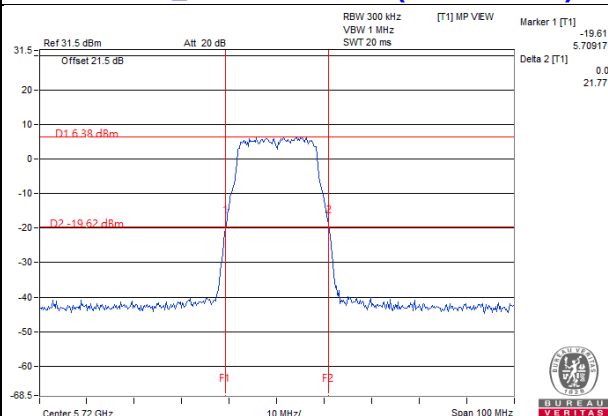
802.11a_Chain 0 / CH144 (U-NII-3 Band)



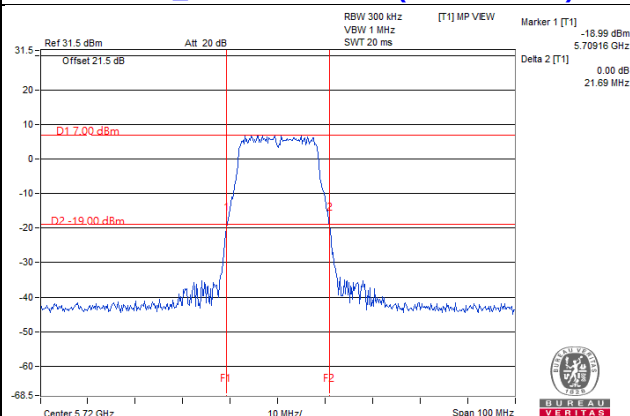
802.11a_Chain 1 / CH144 (U-NII-3 Band)



802.11a_Chain 2 / CH144 (U-NII-3 Band)

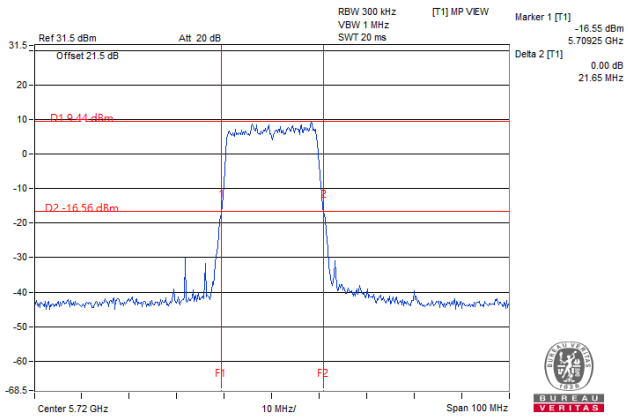


802.11a_Chain 3 / CH144 (U-NII-3 Band)

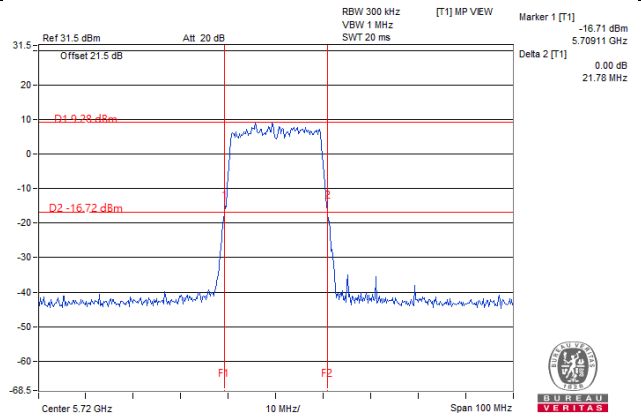


Spectrum Plot Value of 26dB BW

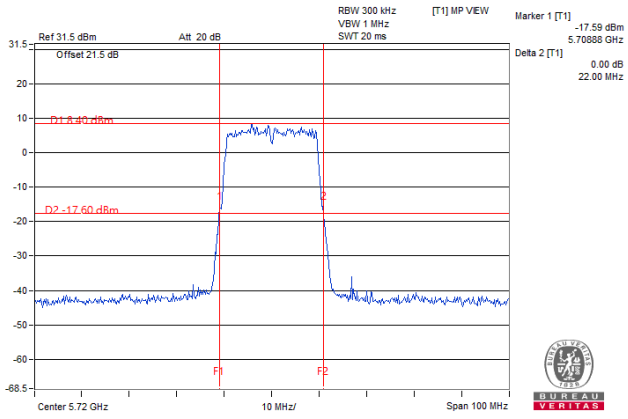
802.11ax (HE20)_Chain 0/ CH144 (U-NII-2C Band)



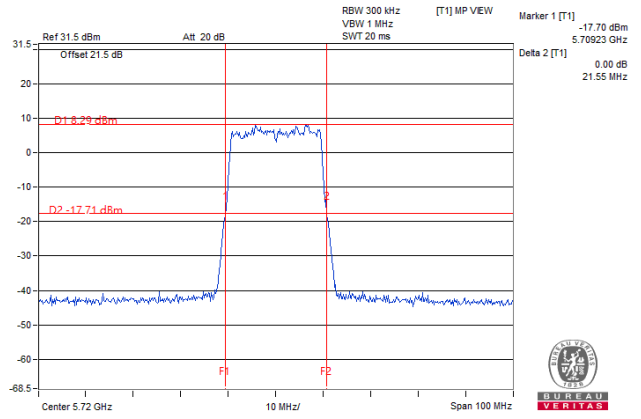
802.11ax (HE20)_Chain 1/ CH144 (U-NII-2C Band)



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

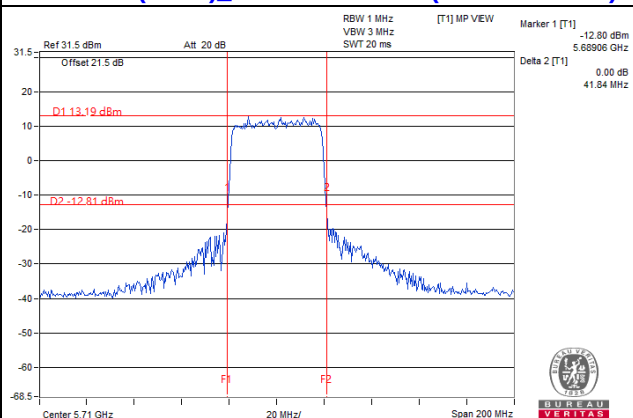


802.11ax (HE20)_Chain 3/ CH144 (U-NII-2C Band)

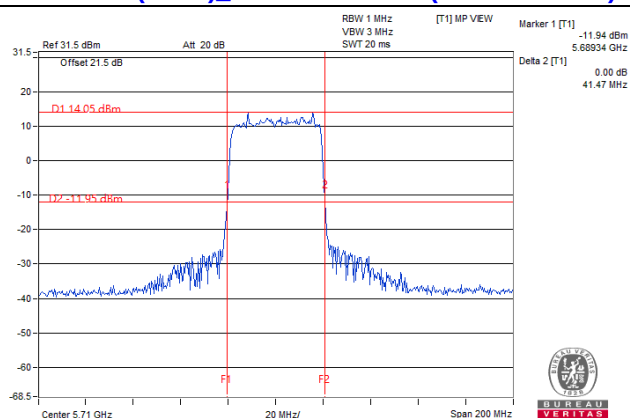


Spectrum Plot Value of 26dB BW

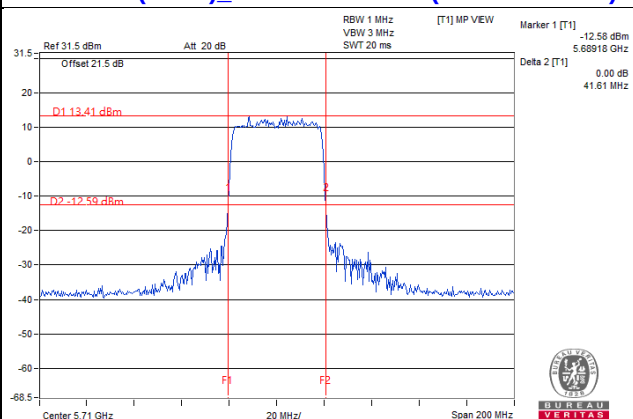
802.11ax (HE40)_Chain 0 / CH142 (U-NII-2C Band)



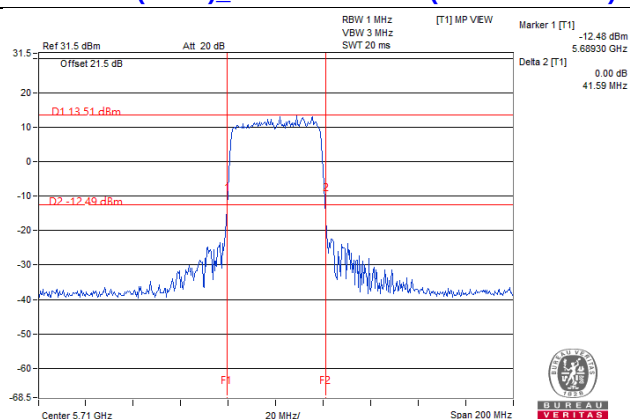
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C Band)



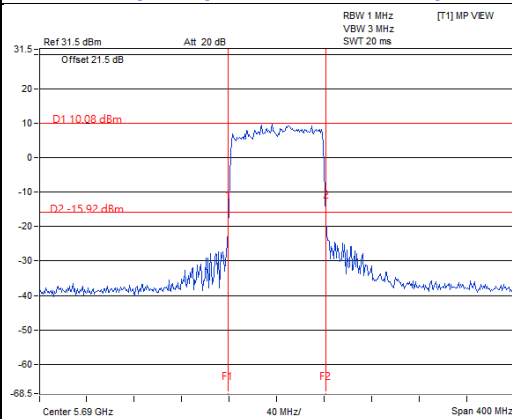
802.11ax (HE40)_Chain 2 / CH142 (U-NII-2C Band)



802.11ax (HE40)_Chain 3 / CH142 (U-NII-2C Band)

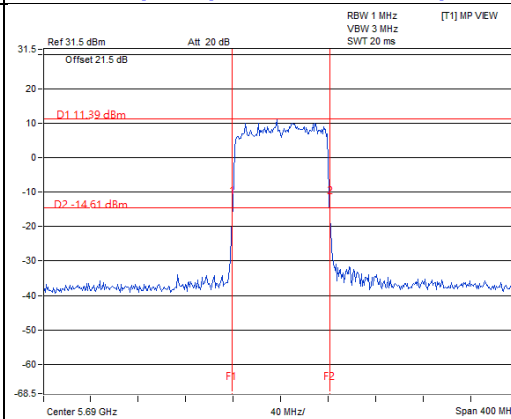


802.11ax (HE80)_Chain 0/ CH138 (U-NII-2C Band)



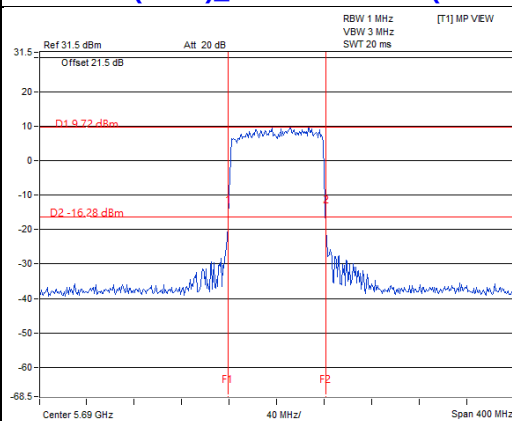
Marker 1 [T1]
-15.91 dBm
5.64897 GHz
Delta 2 [T1]
0.00 dB
82.43 MHz

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



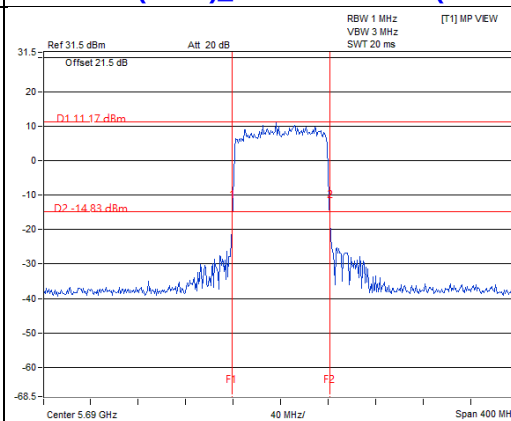
Marker 1 [T1]
-14.00 dBm
5.64897 GHz
Delta 2 [T1]
0.00 dB
82.25 MHz

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



Marker 1 [T1]
-16.27 dBm
5.64861 GHz
Delta 2 [T1]
0.00 dB
82.55 MHz

802.11ax (HE80)_Chain 3/ CH138 (U-NII-2C Band)



Marker 1 [T1]
-14.82 dBm
5.64878 GHz
Delta 2 [T1]
0.00 dB
82.48 MHz

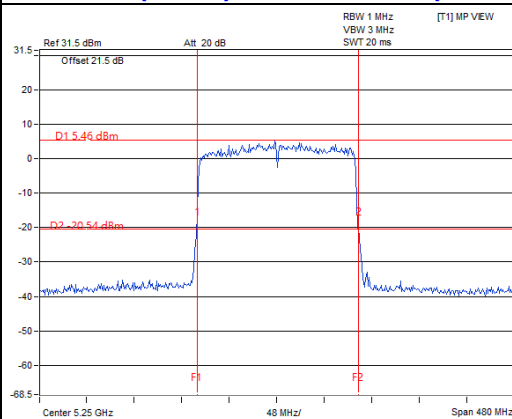
Note:

- For CH144 (U-NII-2C Band) = 5725MHz - Marker 1
- For CH142 (U-NII-2C Band) = 5725MHz - Marker 1
- For CH138 (U-NII-2C Band) = 5725MHz - Marker 1

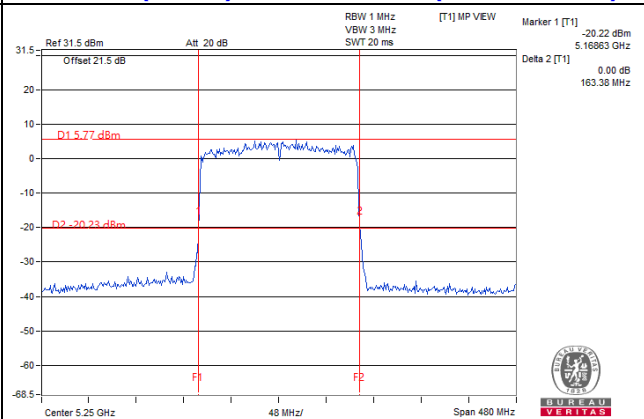
For channel straddling 5250MHz of 26dB BW

Spectrum Plot Value of 26dB BW

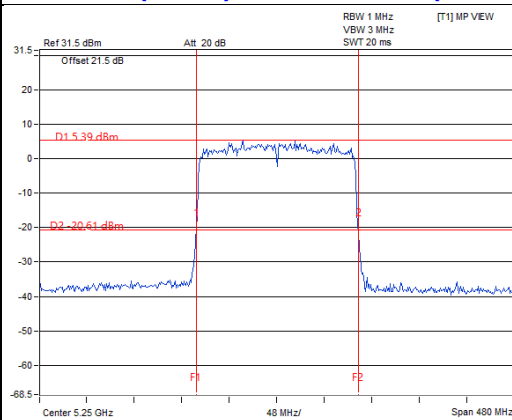
802.11ax (HE160)_Chain 0 / CH50 (U-NII-2A Band)



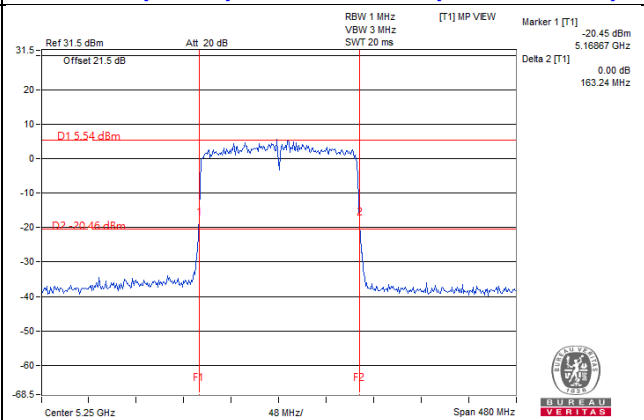
802.11ax (HE160)_Chain 1 / CH50 (U-NII-2A Band)



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



802.11ax (HE160)_Chain 3 / CH50 (U-NII-2A Band)



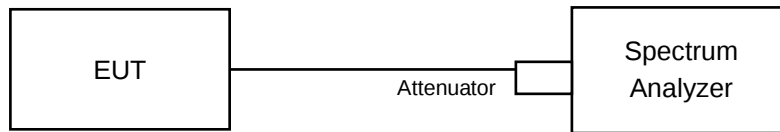
Note:

For CH50 (U-NII-1) = 5250MHz - Marker 1

For CH50 (U-NII-2A) = Marker 1 + Delta 2 - 5250MHz

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	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	16.92	17.04	16.92	16.8
60	5300	16.8	16.8	16.8	16.8
64	5320	16.8	17.04	16.92	16.92
100	5500	16.92	16.92	17.04	16.92
116	5580	17.16	16.92	16.92	16.92
140	5700	16.92	16.92	16.92	16.92
144 (U-NII-2C Band)	5720	13.52	13.4	13.64	13.52
144 (U-NII-3 Band)	5720	3.4	3.4	3.4	3.4

802.11ax (HE20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	19.08	19.08	19.2	19.08
60	5300	19.08	19.2	19.2	19.08
64	5320	19.08	19.08	19.08	19.08
100	5500	19.08	19.2	19.08	19.08
116	5580	19.08	19.08	19.08	19.08
140	5700	19.08	19.08	19.08	19.08
144 (U-NII-2C Band)	5720	14.6	14.6	14.72	14.6
144 (U-NII-3 Band)	5720	4.48	4.48	4.48	4.48

802.11ax (HE40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	37.68	38.16	37.68	37.92
62	5310	37.92	37.68	38.16	38.16
102	5510	37.68	37.68	37.92	37.92
110	5550	37.92	38.16	37.92	37.92
134	5670	37.92	37.92	37.92	37.92
142 (U-NII-2C Band)	5710	33.96	33.96	33.96	33.96
142 (U-NII-3 Band)	5710	3.72	3.72	3.96	3.96

802.11ax (HE80)

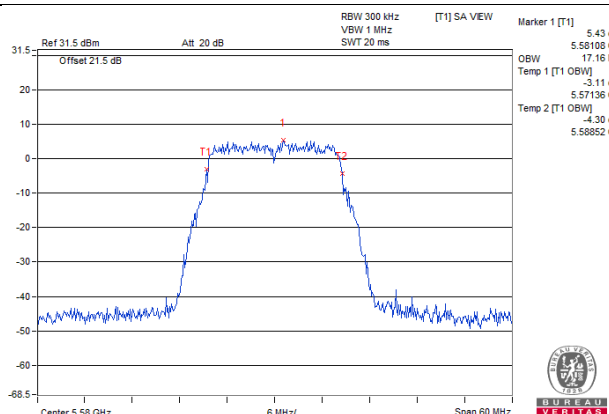
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	76.8	77.28	77.28	77.28
106	5530	77.28	77.28	77.28	77.28
122	5610	77.28	77.28	77.28	77.28
138 (U-NII-2C Band)	5690	73.88	73.4	73.4	73.88
138 (U-NII-3 Band)	5690	3.4	3.4	3.4	3.4

802.11ax (HE160)

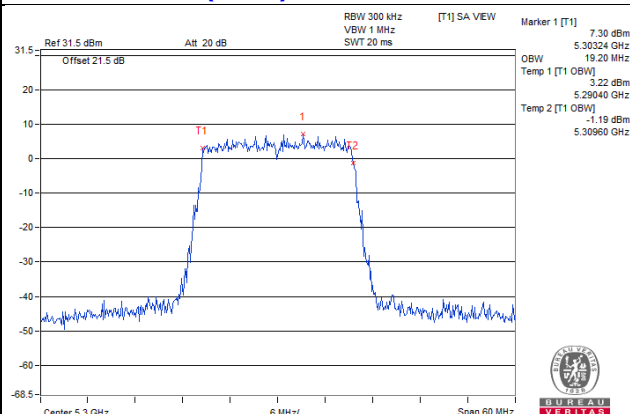
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
50 (U-NII-1 Band)	5250	77.76	77.76	77.76	78.72
50 (U-NII-2A Band)	5250	77.76	76.8	76.8	76.8
114	5570	155.52	155.52	155.52	154.56

Spectrum Plot of Max. Value

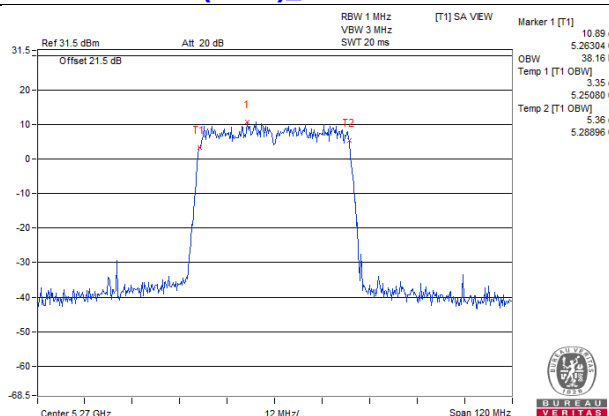
802.11a_Chain 0 / CH116 5580



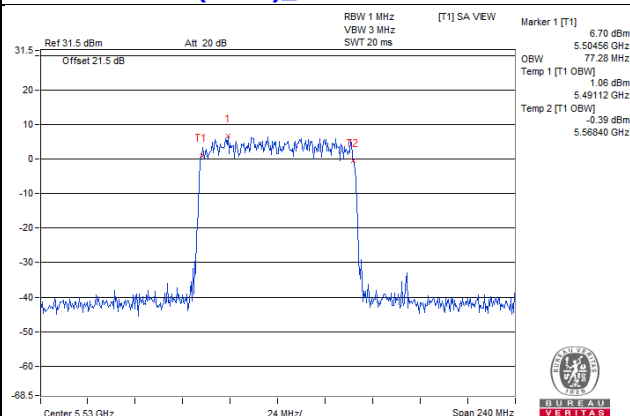
802.11ax (HE20)_Chain 1 / CH60 5300



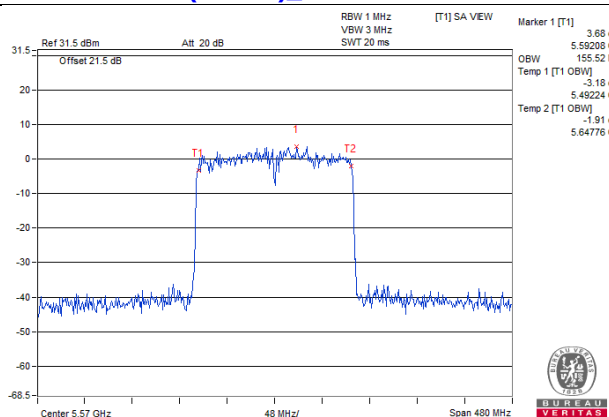
802.11ax (HE40)_Chain 1 / CH54 5270



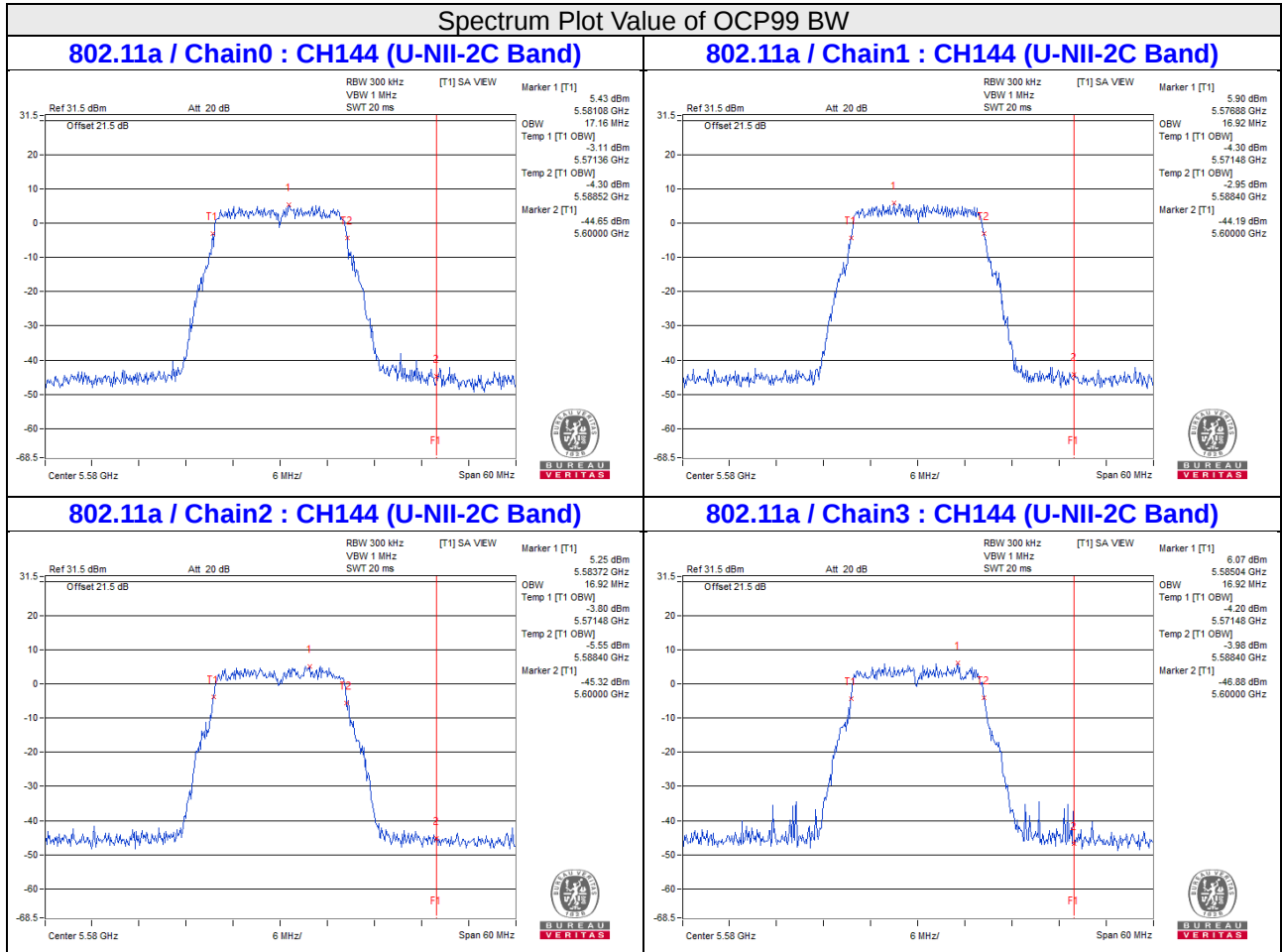
802.11ax (HE80)_Chain 0 / CH106 5530



802.11ax (HE160)_Chain 0 / CH114 5570

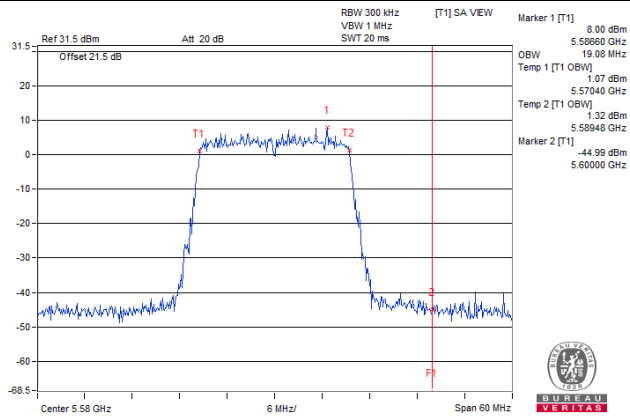


For channel straddling 5725MHz of OCP99 BW

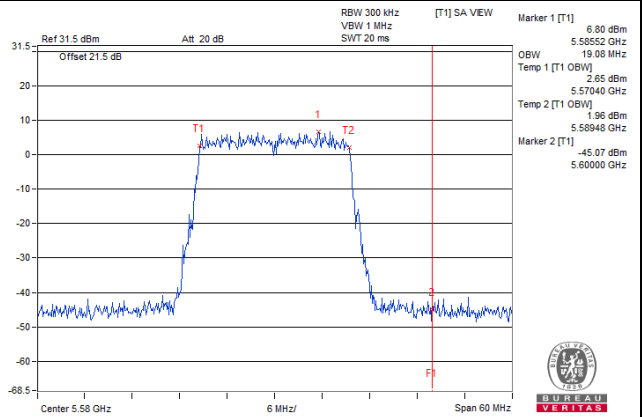


Spectrum Plot Value of OCP99 BW

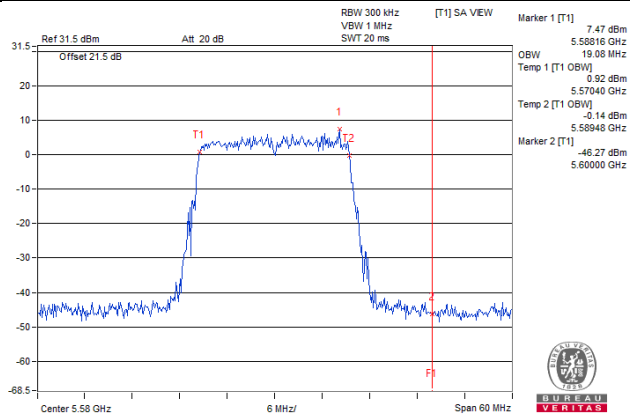
802.11ax (HE20) / Chain0 : CH144 (U-NII-2C Band)



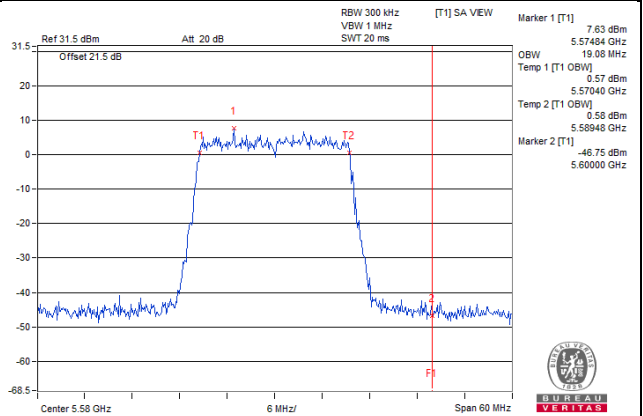
802.11ax (HE20) / Chain1 : CH144 (U-NII-2C Band)



802.11ax (HE20) / Chain2 : CH144 (U-NII-2C Band)

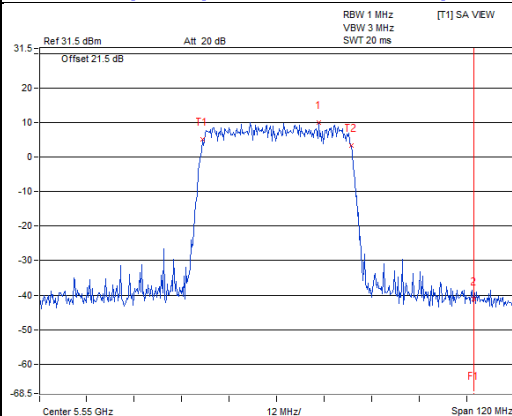


802.11ax (HE20) / Chain3 : CH144 (U-NII-2C Band)

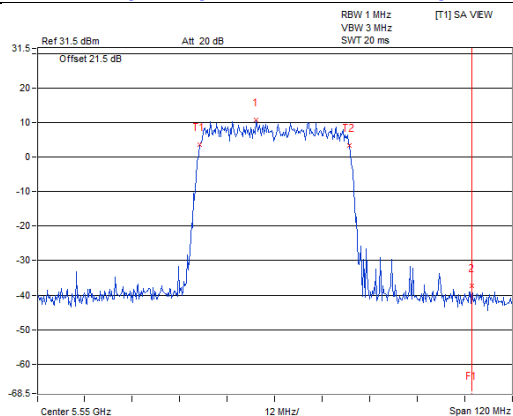


Spectrum Plot Value of OCP99 BW

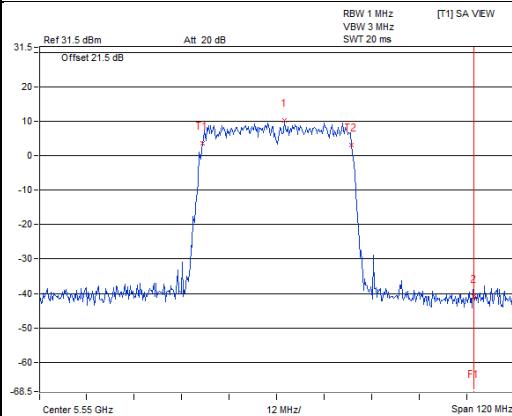
802.11ax (HE40) / Chain0 : CH142 (U-NII-2C Band)



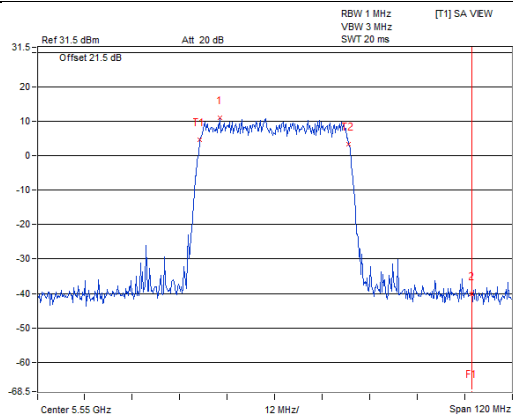
802.11ax (HE40) / Chain1 : CH142 (U-NII-2C Band)



802.11ax (HE40) / Chain2 : CH142 (U-NII-2C Band)

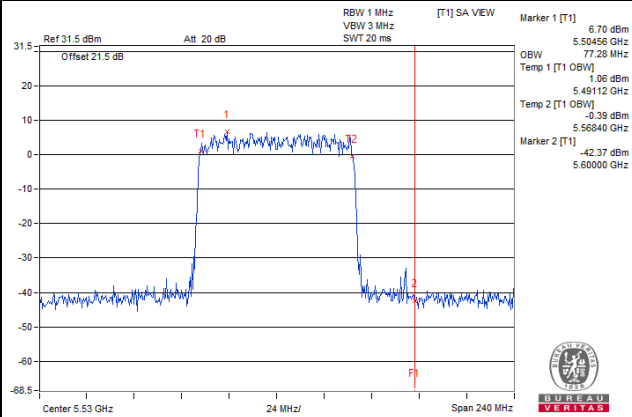


802.11ax (HE40) / Chain3 : CH142 (U-NII-2C Band)

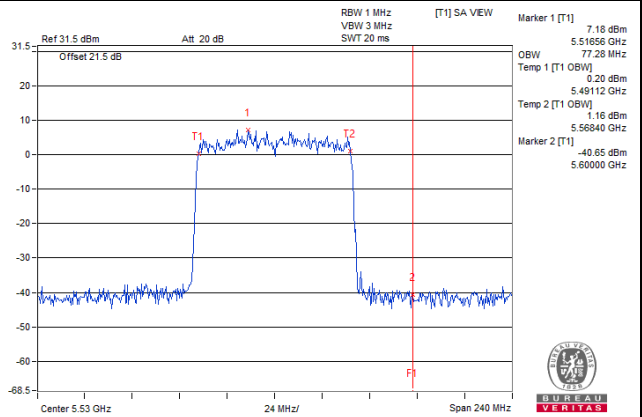


Spectrum Plot Value of OCP99 BW

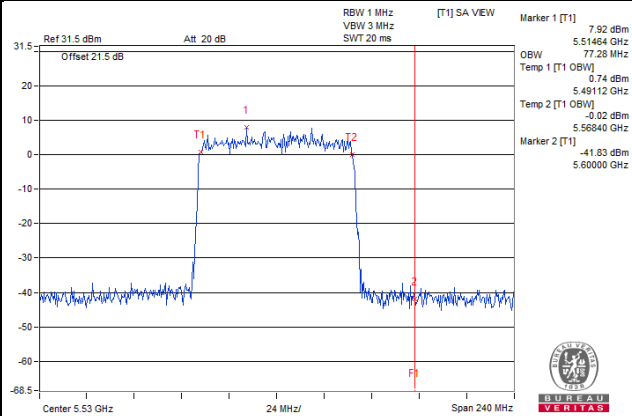
802.11ax (HE80) / Chain0 : CH138 (U-NII-2C Band)



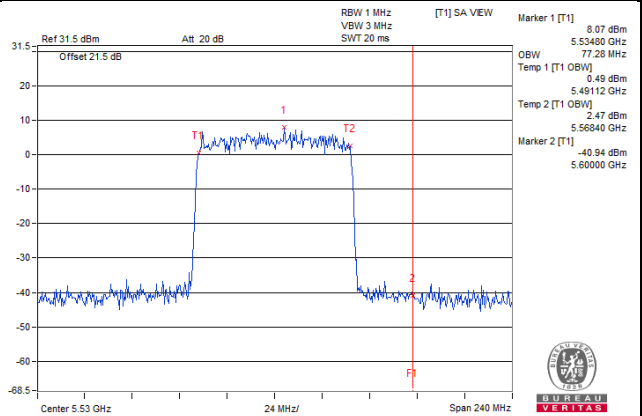
802.11ax (HE80) / Chain1 : CH138 (U-NII-2C Band)



802.11ax (HE80) / Chain2 : CH138 (U-NII-2C Band)



802.11ax (HE80) / Chain3 : CH138 (U-NII-2C Band)



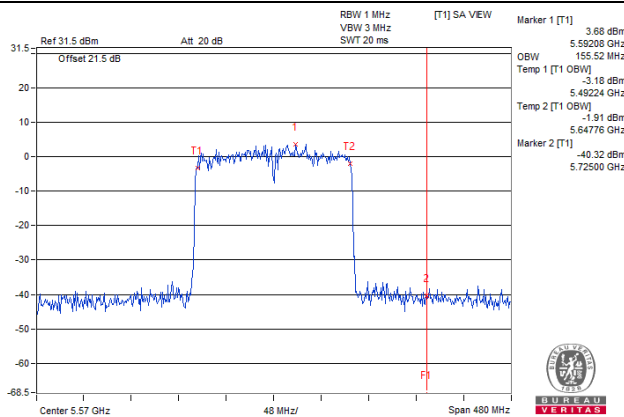
Note:

- For CH144 (U-NII-2C) = 5725MHz - Temp 1
- For CH142 (U-NII-2C) = 5725MHz - Temp 1
- For CH138 (U-NII-2C) = 5725MHz - Temp 1
- For CH144 (U-NII-3) = Temp 2 - 5725MHz
- For CH142 (U-NII-3) = Temp 2 - 5725MHz
- For CH138 (U-NII-3) = Temp 2 - 5725MHz

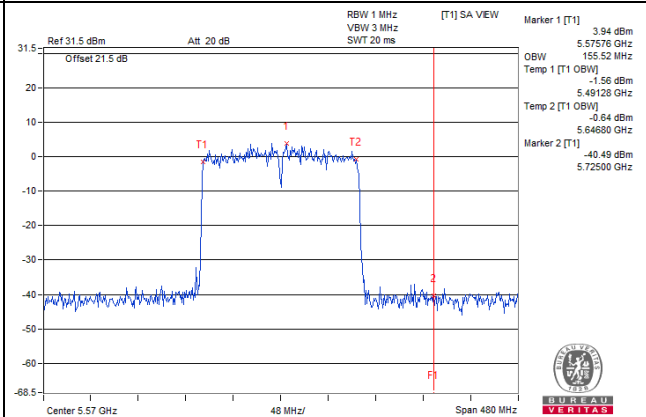
For channel straddling 5250MHz of OCP99 BW

Spectrum Plot Value of OCP99 BW

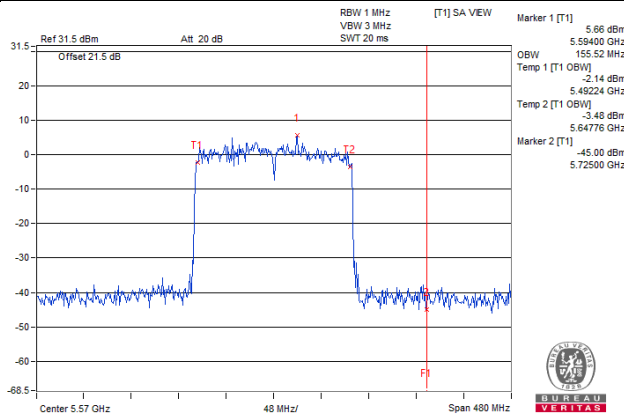
802.11ax (HE160)_Chain 0 / CH50



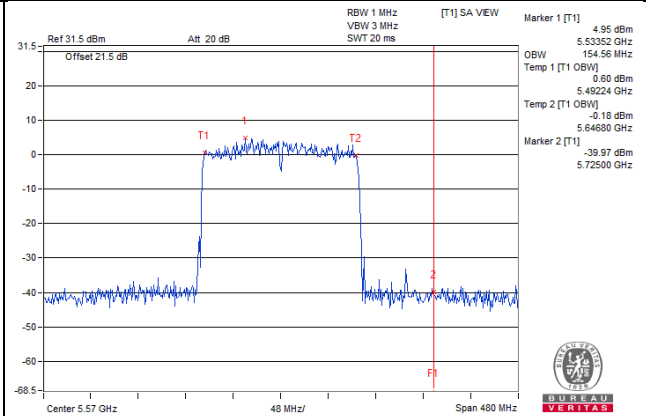
802.11ax (HE160)_Chain 1 / CH50



802.11ax (HE160)_Chain 2 / CH50



802.11ax (HE160)_Chain 3 / CH50



Note:

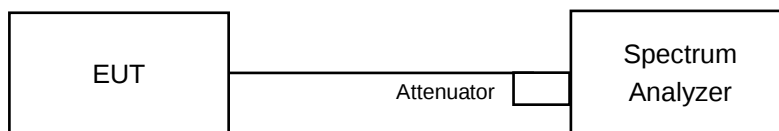
For CH50 (U-NII-1) = 5250MHz - Temp 1
For CH50 (U-NII-2A) = Temp 2 - 5250MHz

4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

Using method SA-2

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

For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500\text{ kHz}/300\text{ kHz})$
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 and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

CDD Mode

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

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	1.70	2.21	2.37	1.77	0.14	8.18	9.34	PASS
60	5300	2.28	2.10	2.59	1.96	0.14	8.40	9.34	PASS
64	5320	2.64	2.25	2.79	2.10	0.14	8.61	9.34	PASS
100	5500	1.73	1.72	1.43	1.75	0.14	7.82	9.14	PASS
116	5580	1.37	1.75	1.46	1.50	0.14	7.68	9.14	PASS
140	5700	2.41	2.86	2.15	1.97	0.14	8.52	9.14	PASS
144 (U-NII-2C Band)	5720	2.25	2.09	2.04	1.75	0.14	8.20	9.14	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 U-NII-2A: The directional gain = 7.66 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.66-6) = 9.34$ dBm.
3. For U-NII-2C: The directional gain= 7.86 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.86-6) = 9.14$ dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

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	Chain 2	Chain 3				
52	5260	1.53	1.60	1.45	1.58	0.18	7.74	9.34	PASS
60	5300	1.45	1.71	1.70	1.62	0.18	7.82	9.34	PASS
64	5320	1.76	1.86	1.74	1.36	0.18	7.88	9.34	PASS
100	5500	1.21	1.27	1.37	1.29	0.18	7.49	9.14	PASS
116	5580	1.25	1.30	1.11	1.10	0.18	7.39	9.14	PASS
140	5700	1.64	1.67	1.21	1.38	0.18	7.68	9.14	PASS
144 (U-NII-2C Band)	5720	1.53	1.92	1.25	0.88	0.18	7.61	9.14	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 U-NII-2A: The directional gain = 7.66 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.66-6) = 9.34$ dBm.
3. For U-NII-2C: The directional gain= 7.86 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.86-6) = 9.14$ dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

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	Chain 2	Chain 3				
54	5270	0.00	0.37	0.16	0.29	0.12	6.35	9.34	PASS
62	5310	0.33	0.55	0.36	0.56	0.12	6.59	9.34	PASS
102	5510	-0.96	-0.60	-0.43	-0.16	0.12	5.61	9.14	PASS
110	5550	-0.33	0.06	-0.13	0.49	0.12	6.17	9.14	PASS
134	5670	0.13	-0.01	0.26	0.43	0.12	6.35	9.14	PASS
142 (U-NII-2C Band)	5710	0.23	0.63	0.58	0.63	0.12	6.66	9.14	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 U-NII-2A: The directional gain = 7.66 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.66-6) = 9.34 dBm.
3. For U-NII-2C: The directional gain= 7.86 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.86-6) =9.14 dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-2.68	-2.73	-2.69	-2.41	0.12	3.51	9.34	PASS
106	5530	-3.20	-3.60	-3.42	-2.79	0.12	2.90	9.14	PASS
122	5610	-3.01	-3.03	-2.52	-2.72	0.12	3.33	9.14	PASS
138 (U-NII-2C Band)	5690	-2.51	-2.06	-2.21	-1.95	0.12	3.96	9.14	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 U-NII-2A: The directional gain = 7.66 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.66-6) = 9.34 dBm.
3. For U-NII-2C: The directional gain= 7.86 dBi > 6dBi, so the power density limit shall be reduced to 11-(7.86-6) =9.14 dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

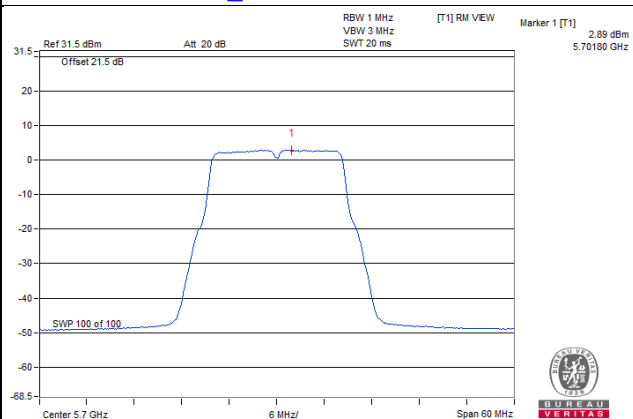
802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50 (U-NII-1 Band)	5250	-7.62	-7.25	-6.82	-7.07	0.14	-1.02	14.91	PASS
50 (U-NII-2A Band)	5250	-7.67	-7.14	-6.94	-7.26	0.14	-1.08	9.34	PASS
114	5570	-6.14	-6.30	-5.42	-5.18	0.14	0.43	9.14	PASS

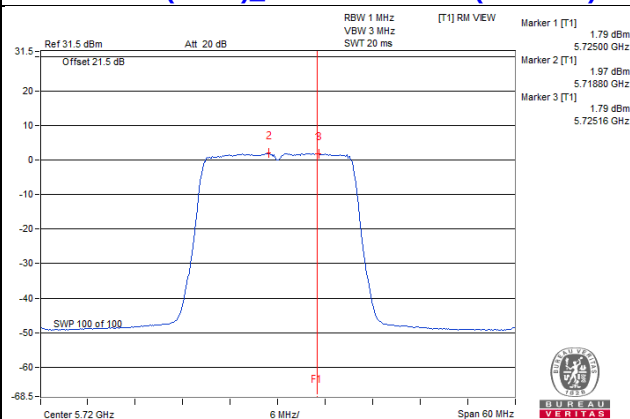
- Note:**
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
 2. For U-NII-1: The directional gain = 8.09dBi > 6dBi, so the power density limit shall be reduced to $17-(8.09-6) = 14.91\text{dBm}$.
 2. For U-NII-2A: The directional gain = 7.66 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.66-6) = 9.34\text{ dBm}$.
 3. For U-NII-2C: The directional gain = 7.86 dBi > 6dBi, so the power density limit shall be reduced to $11-(7.86-6) = 9.14\text{ dBm}$.
 5. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

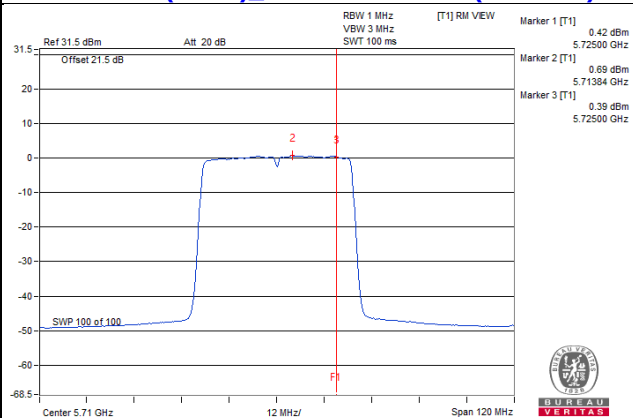
802.11a_Chain 1 / CH140 5700



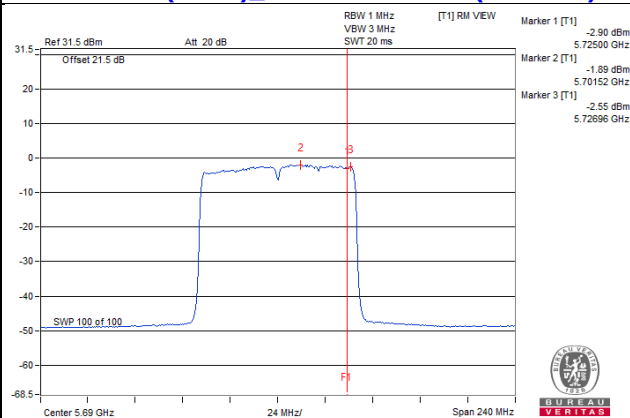
802.11ax (HE20)_Chain 1 / CH144 (U-NII-2C)



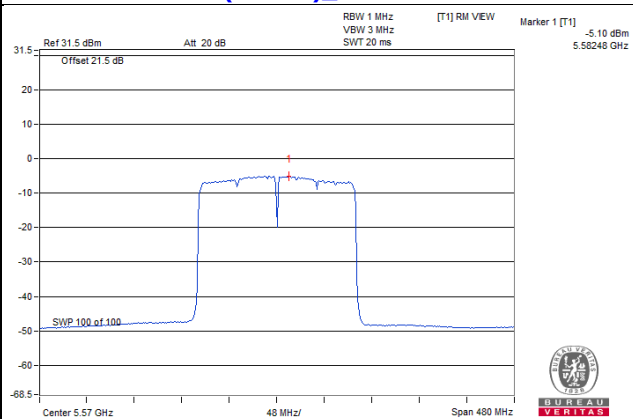
802.11ax (HE40)_Chain 1 / CH142 (U-NII-2C)



802.11ax (HE80)_Chain 3 / CH138 (U-NII-2C)



802.11ax (HE160)_Chain 3 / CH114



For U-NII-3:

802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3						
144 (U-NII-3 Band)	5720	-5.79	-5.77	-6.46	-6.38	0.14	1.0162	0.07	2.29	28.02	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 = 7.98 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.98-6) = 28.02 dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3						
144 (U-NII-3 Band)	5720	-6.92	-7.04	-7.30	-7.39	0.18	0.8017	-0.96	1.26	28.02	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 = 7.98 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.98-6) = 28.02 dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3						
142 (U-NII-3 Band)	5710	-8.32	-8.23	-8.41	-8.28	0.12	0.6067	-2.17	0.05	28.02	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 = 7.98 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.98-6) = 28.02 dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

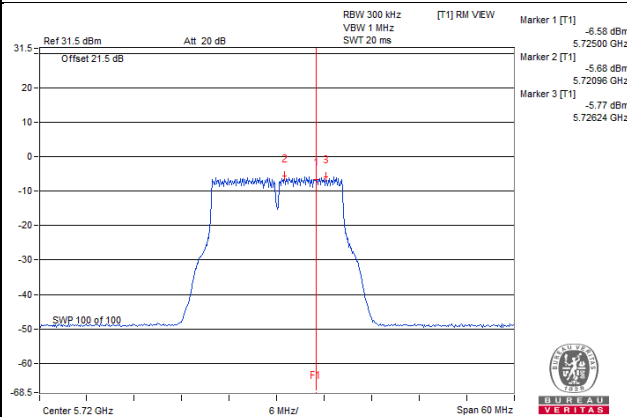
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/300kHz)				Duty Factor (dB)	Total PSD (mW/300kHz)	Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3						
138 (U-NII-3 Band)	5690	-11.53	-11.47	-11.73	-11.31	0.12	0.2904	-5.37	-3.15	28.02	PASS

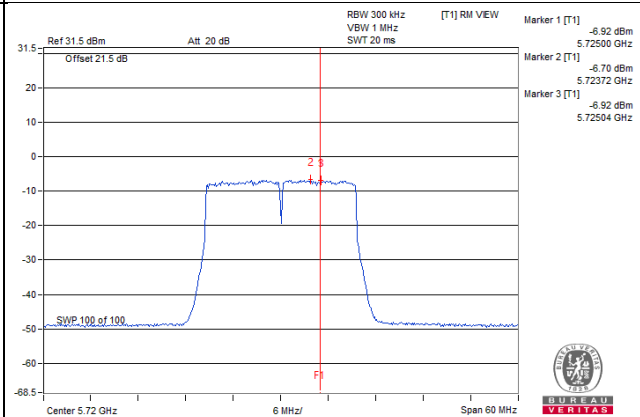
- Note: 1. Method b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
 2. The directional gain = 7.98 dBi > 6dBi, so the power density limit shall be reduced to 30-(7.98-6) = 28.02 dBm.
 3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

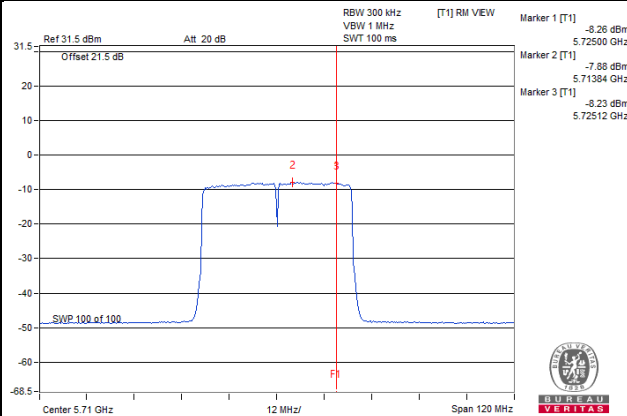
802.11a_Chain 1 / CH144 (U-NII-3 Band)



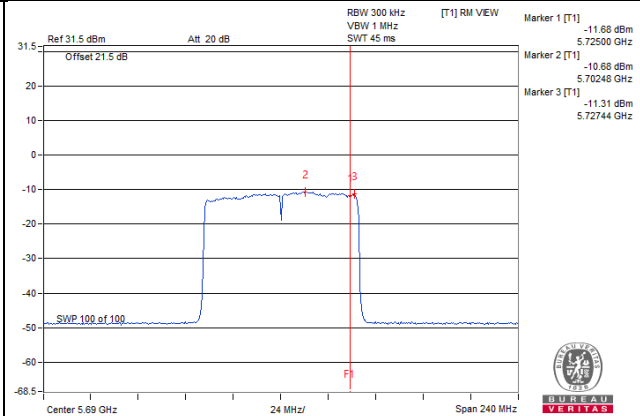
802.11ax (HE20)_Chain 0 / CH144 (U-NII-3 Band)



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



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

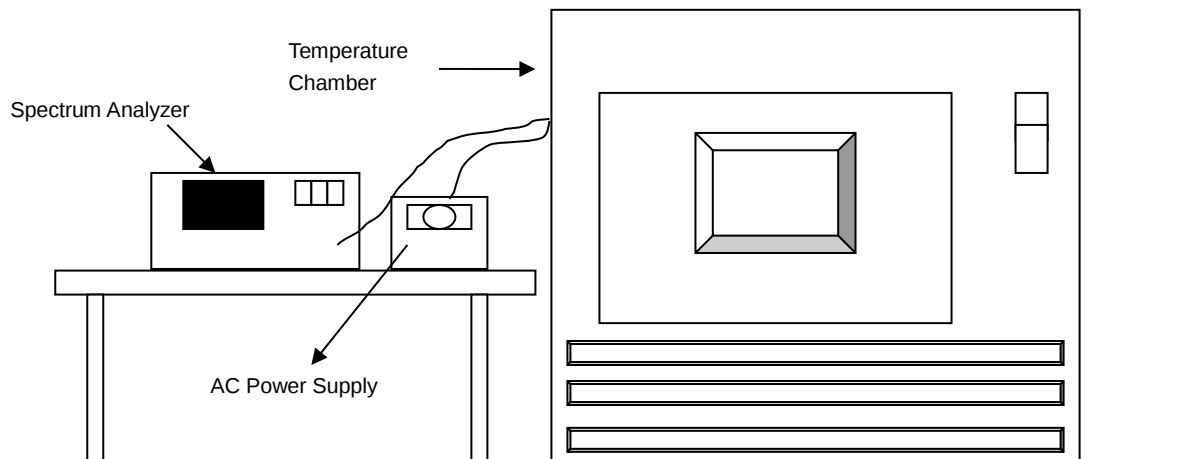


4.6 Frequency Stability Measurement

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: 5260 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	5260.0123	PASS	5260.0132	PASS	5260.0155	PASS	5260.0136	PASS
30	120	5260.0092	PASS	5260.0092	PASS	5260.0098	PASS	5260.011	PASS
20	120	5259.9863	PASS	5259.9863	PASS	5259.9856	PASS	5259.9861	PASS
10	120	5260.0145	PASS	5260.0141	PASS	5260.0141	PASS	5260.0097	PASS
0	120	5260.0125	PASS	5260.0104	PASS	5260.0085	PASS	5260.0106	PASS

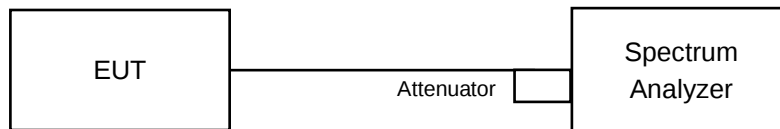
Frequency Stability Versus Voltage									
Operating Frequency: 5260 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5259.986	PASS	5259.9872	PASS	5259.9866	PASS	5259.9855	PASS
	120	5259.9863	PASS	5259.9863	PASS	5259.9856	PASS	5259.9861	PASS
	102	5259.9855	PASS	5259.9854	PASS	5259.985	PASS	5259.9868	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)				Minimum Limit (MHz)	Pass / Fail
		Chain0	Chain1	Chain2	Chain3		
144 (U-NII-3 Band)	5720	3.19	3.21	3.22	3.2	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain0	Chain1	Chain2	Chain3		
144 (U-NII-3 Band)	5720	4.5	4.52	4.46	4.51	0.5	Pass

802.11ax (HE40)

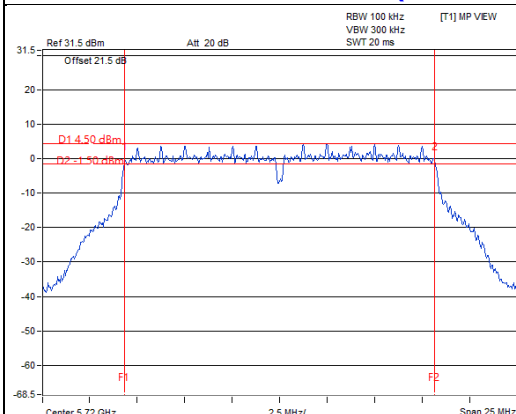
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain0	Chain1	Chain2	Chain3		
142 (U-NII-3 Band)	5710	4	3.74	3.9	3.71	0.5	Pass

802.11ax (HE80)

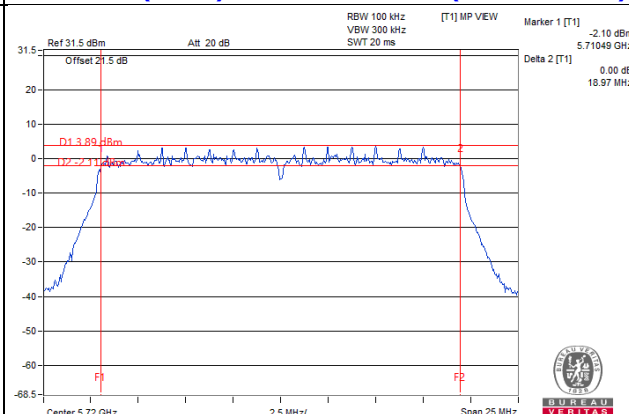
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain0	Chain1	Chain2	Chain3		
138 (U-NII-3 Band)	5690	4.01	4	3.73	3.19	0.5	Pass

Spectrum Plot of Worst Value

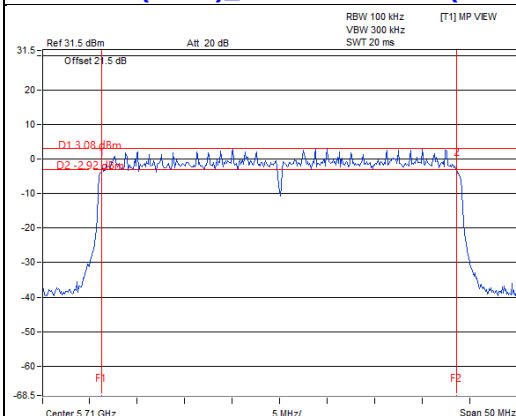
802.11a_Chain 0 / CH144 (U-NII-3 Band)



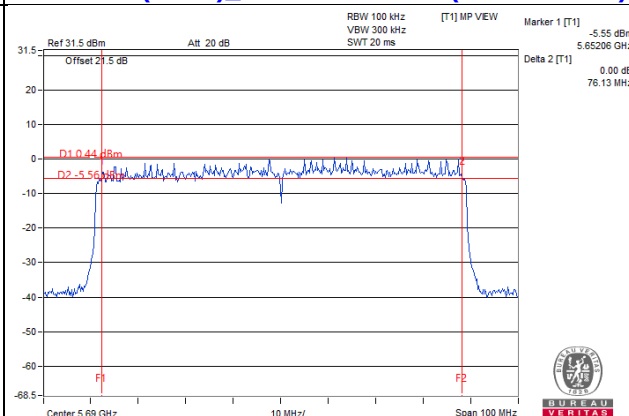
802.11ax (HE20)_Chain 2 / CH144 (U-NII-3 Band)



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



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



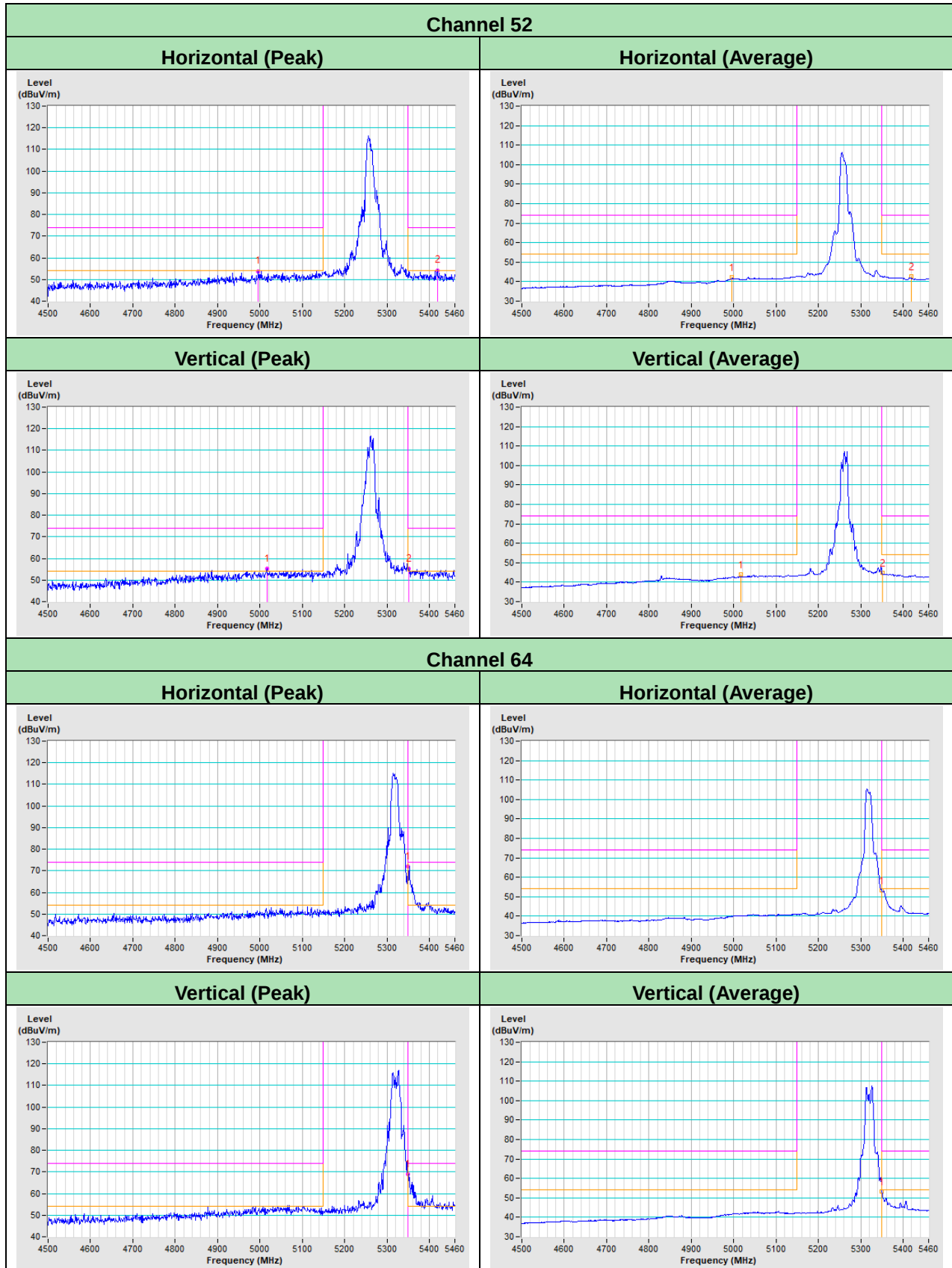
Note: The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

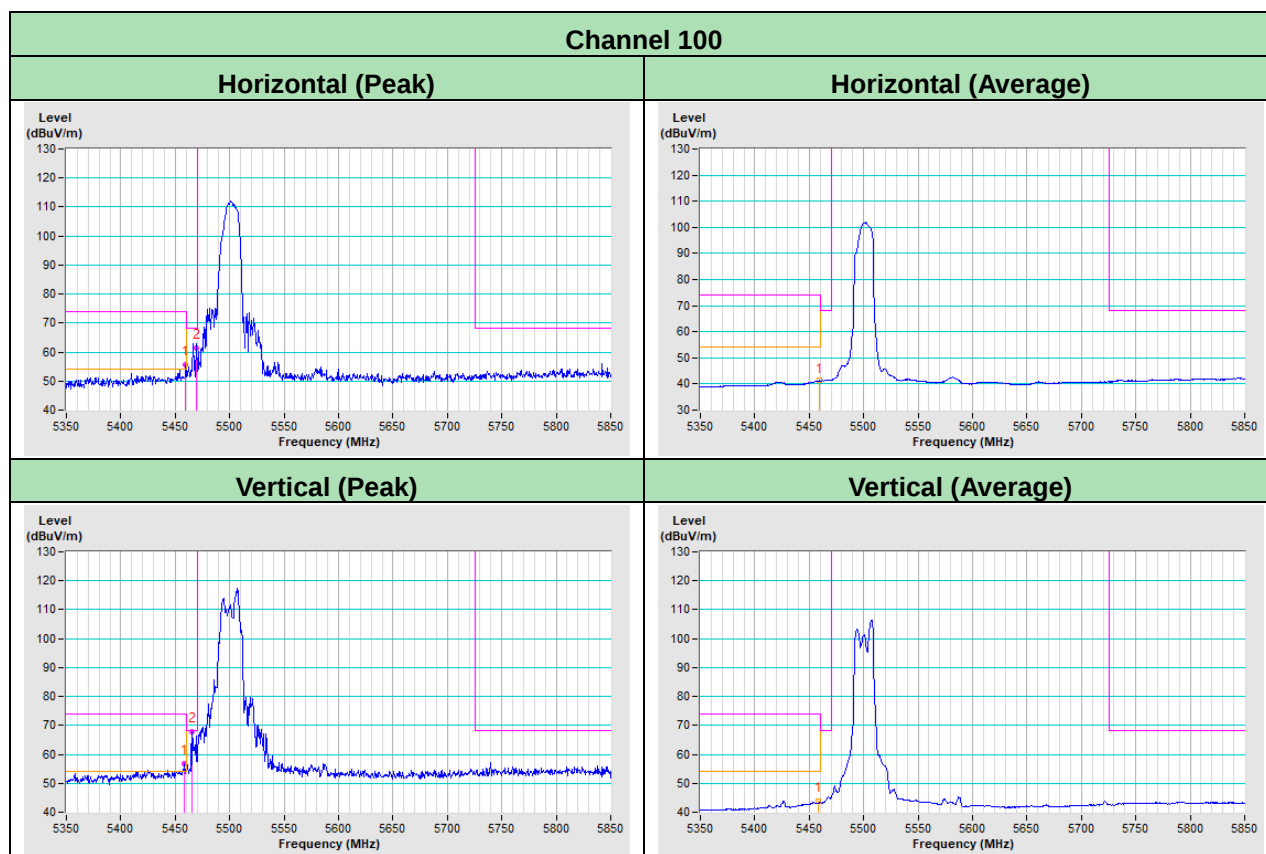
5 Pictures of Test Arrangements

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

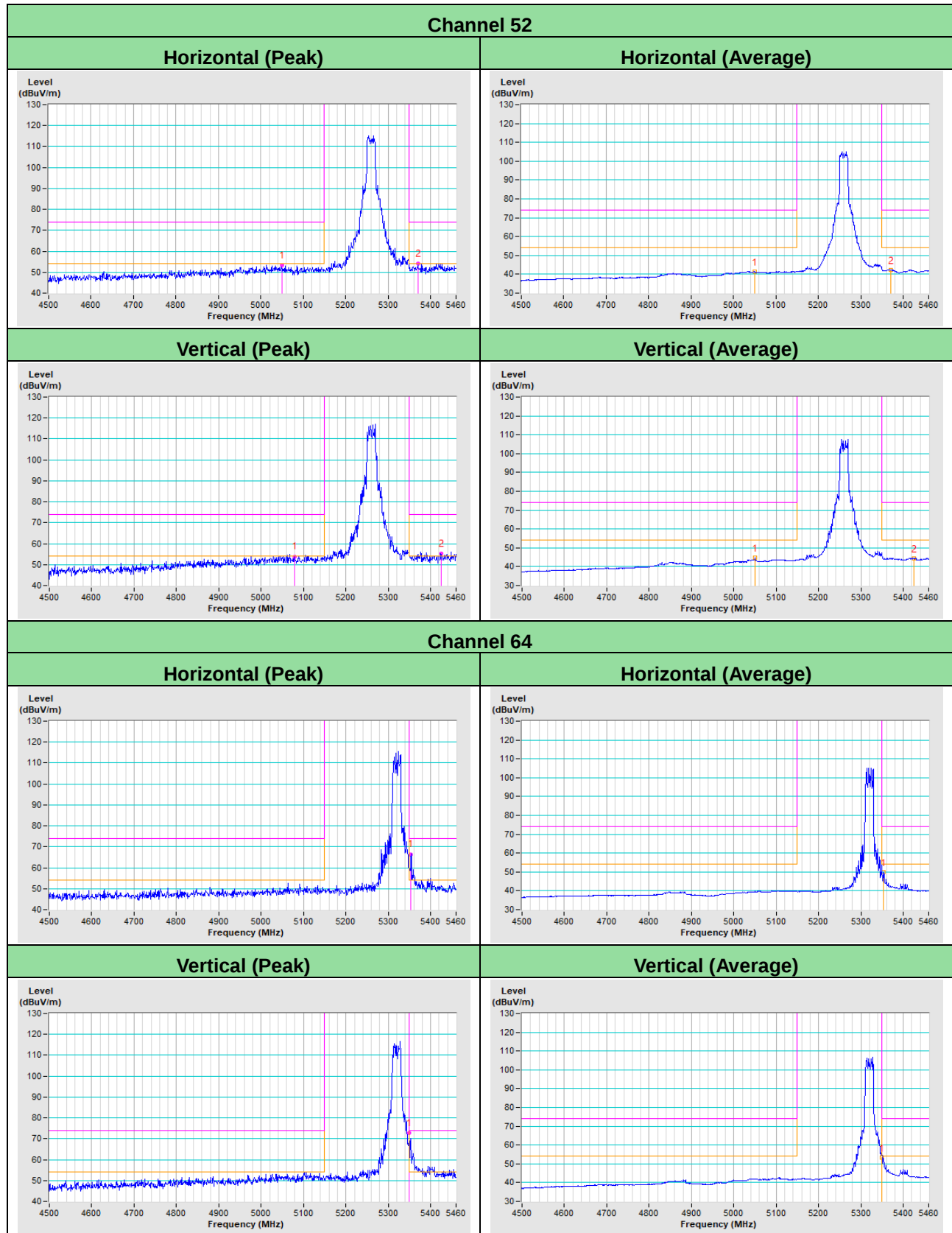
Annex A - Band-Edge Measurement (For U-NII-2A, U-NII-2C band)

802.11a



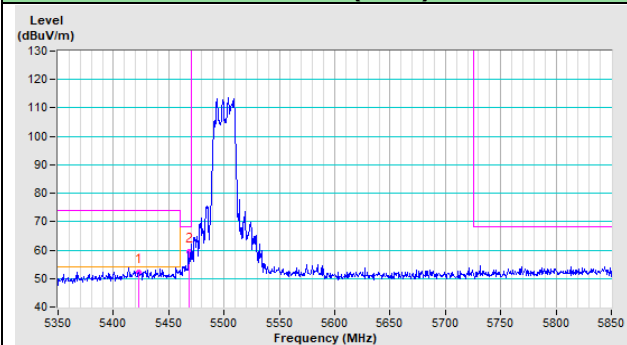


802.11ax (HE20)

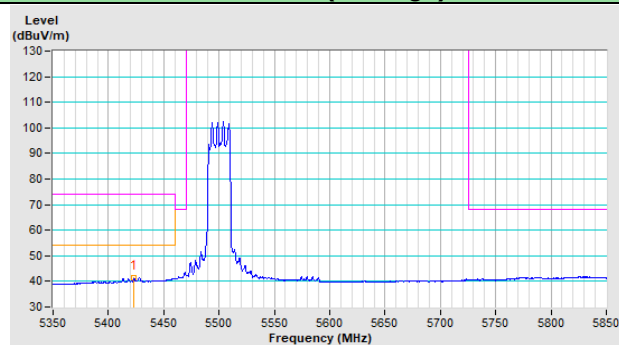


Channel 100

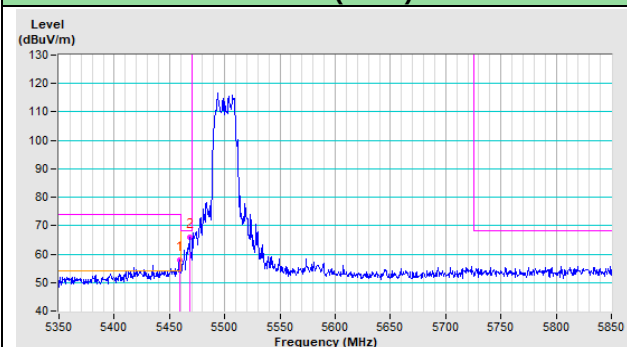
Horizontal (Peak)



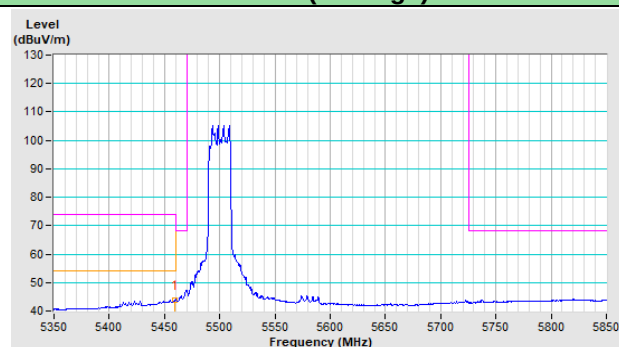
Horizontal (Average)



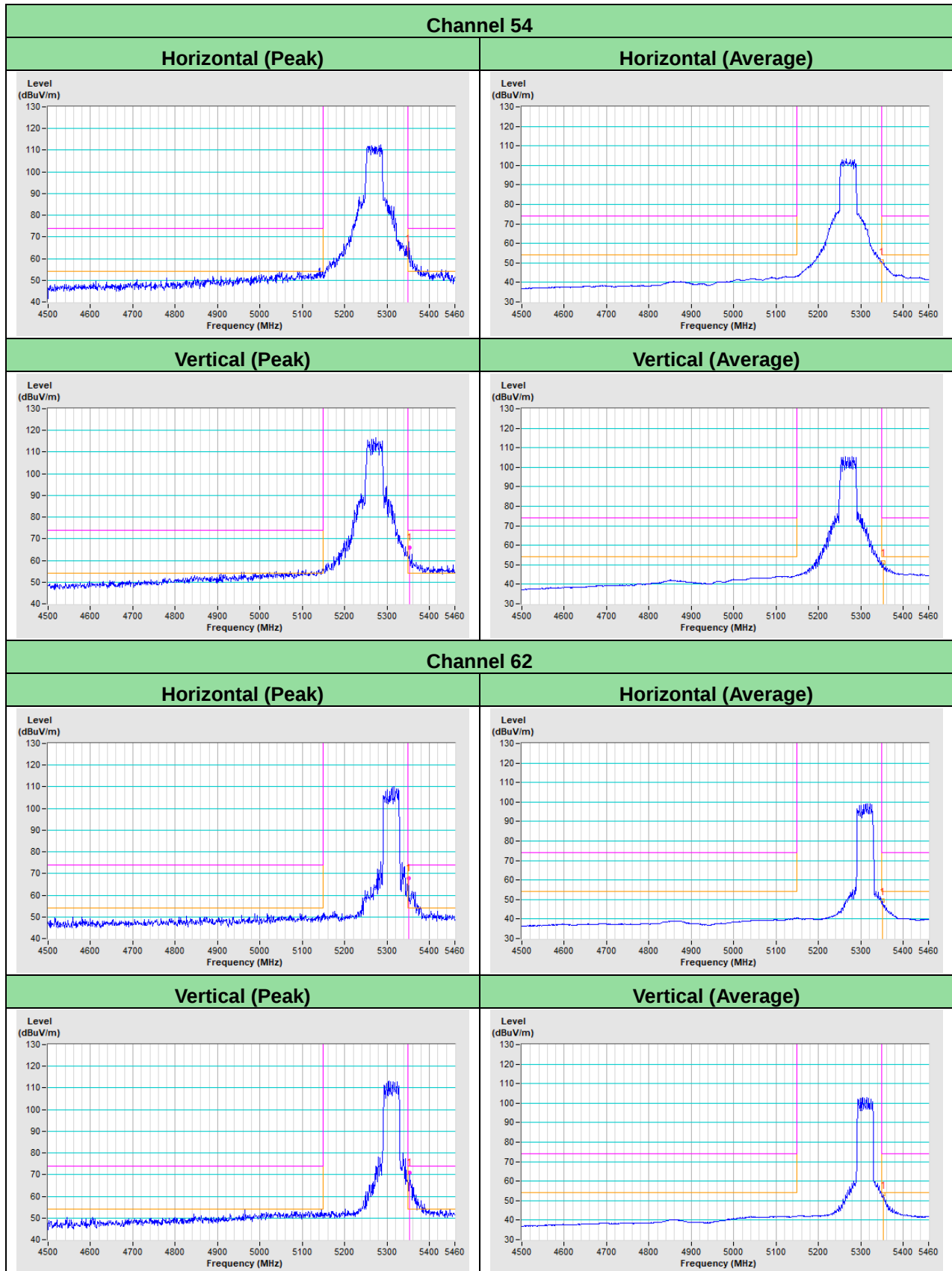
Vertical (Peak)

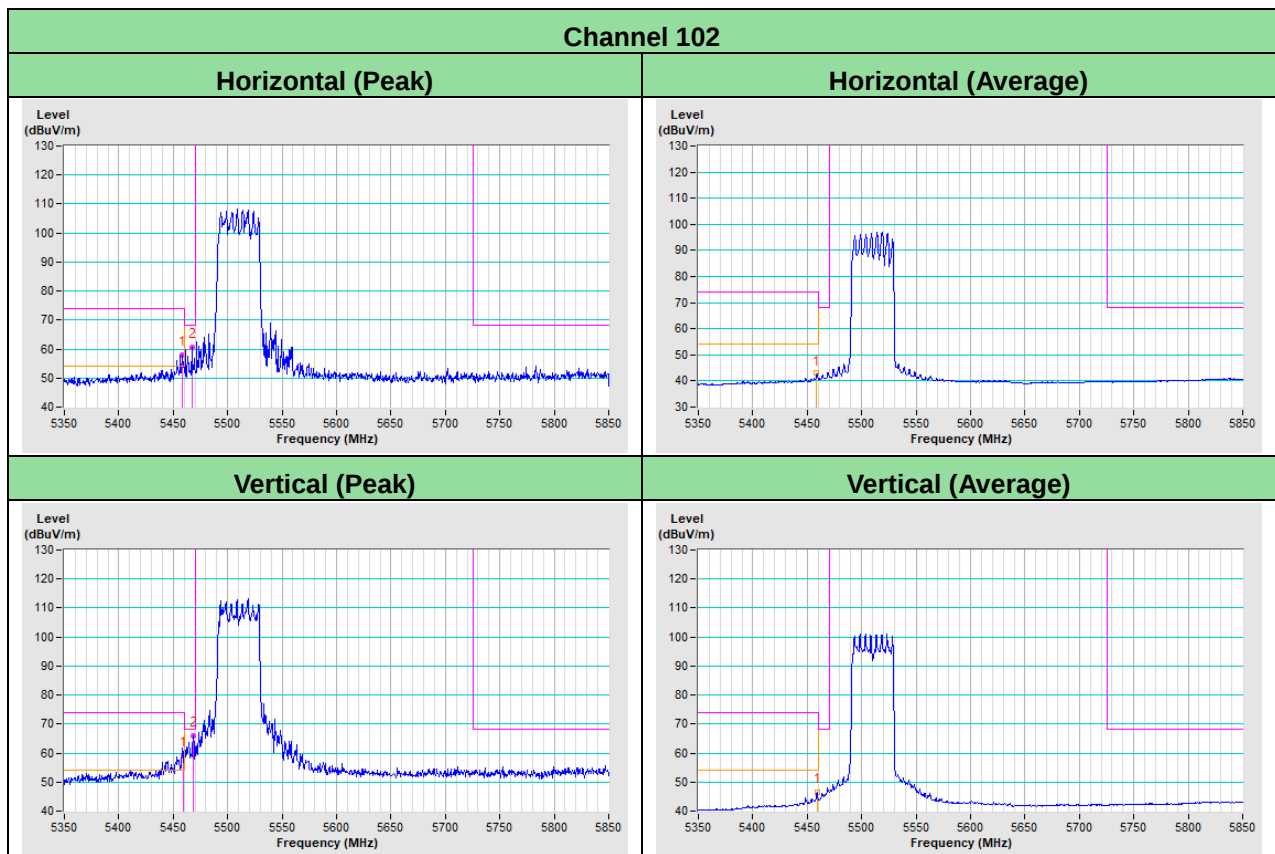


Vertical (Average)

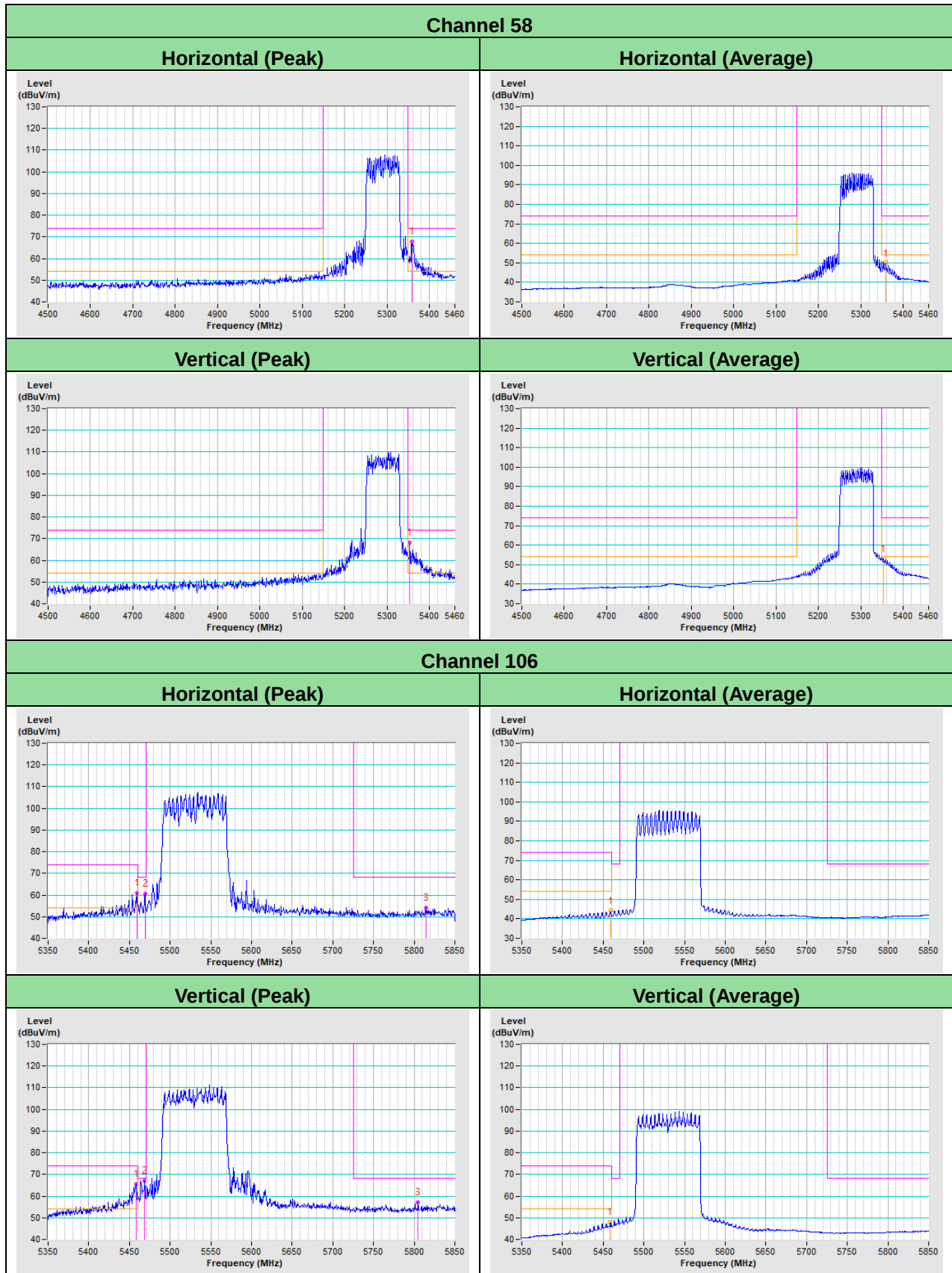


802.11ax (HE40)

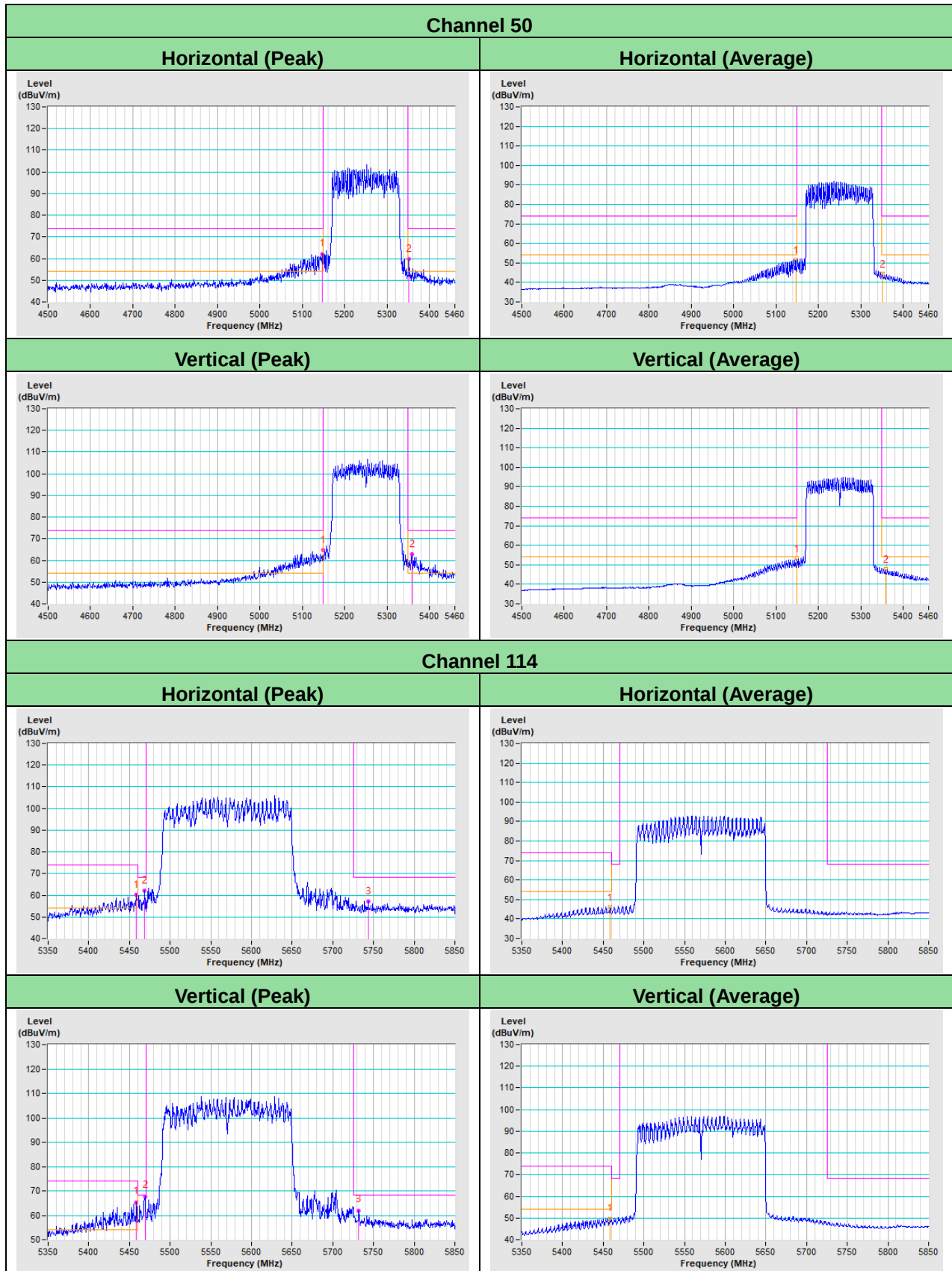




802.11ax (HE80)



802.11ax (HE160)



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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Web Site: www.bureauveritas-adt.com

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

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