

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Report No.: RFBCMA-WTW-P23030799A-1

FCC ID: RAXTMOG4AR

Product: 5G Gateway

Brand: T-Mobile

Model No.: TMO-G4AR

Received Date: 2023/3/15

Test Date: 2023/4/12 ~ 2023/5/4

Issued Date: 2023/5/26

Applicant: Arcadyan Technology Corporation

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan

FCC Registration / 723255 / TW2022

Designation Number:

Approved by:  , **Date:** 2023/5/26

May Chen / Manager

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Prepared by : Phoebe Wang / Specialist



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Release Control Record

Issue No.	Description	Date Issued
RFBCMA-WTW-P23030799A-1	Original release.	2023/5/26

1 Certificate

Product: 5G Gateway

Brand: T-Mobile

Test Model: TMO-G4AR

Sample Status: Engineering sample

Applicant: Arcadyan Technology Corporation

Test Date: 2023/4/12 ~ 2023/5/4

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Measurement procedure: ANSI C63.10-2013
KDB 789033 D02 General UNII Test Procedure New Rules v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01

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 RF characteristics under the conditions specified in this report.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(2)	26 dB Bandwidth	Pass	For U-NII-2A U-NII-2C Band output power limitation is determined based on 26dBc bandwidth.
15.407(a)(2) 15.407(a)(3)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(2) 15.407(a)(3)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
---	Occupied Bandwidth	-	Reference only.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -4.12 dB at 0.45469 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -8.9 dB at 38.12 MHz
15.407(b) (2/10) 15.407(b) (3/10) 15.407(b) (4(i)/10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.1 dB at 5362.30 MHz
15.203	Antenna Requirement	Pass	Antenna connector is ipex(MHF1) not a standard connector.

Note: 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	Specification	Expanded Uncertainty (k=2) (±)
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5G Gateway
Brand	T-Mobile
Test Model	TMO-G4AR
Status of EUT	Engineering sample
Power Supply Rating	Refer to Note
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode 1024QAM for OFDMA in 11ax mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 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	5.26 GHz ~ 5.32 GHz 5.5 GHz ~ 5.72 GHz
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
Output Power	CDD Mode: 5.26 GHz ~ 5.32 GHz : 240.837 mW (23.82 dBm) 5.5 GHz ~ 5.72 GHz : 249.227 mW (23.97 dBm) Beamforming Mode: 5.26 GHz ~ 5.32 GHz : 195.65 mW (22.91 dBm) 5.5 GHz ~ 5.72 GHz : 176.059 mW (22.46 dBm)

Note:

- This report is prepared for FCC class II change. The difference compared with the Report No.: RFBCMA-WTW-P23030799-1 as the following:
 - ◆ Add DFS band <5260~5320 MHz & 5500~5720 MHz> by software.
- According to above condition, for DFS band all of test items need to be performed and all data was verified to meet the requirements.
- The EUT uses following accessories.

AC Adapter 1		
Brand	Model	Specification
LUCENT TRANS	1A78	AC Input: 100~240V, 1.2A, 50-60Hz DC Output: 5.0V 3.0A 15W, 9.0V 3.0A 27W, 12.0V 3.0A 36W, 15.0V 3.0A 45W, 20.0V 2.25A 45W DC Output Cable: 1.85 m, non-shielded cable, W/O ferrite core Plug: US
AC Adapter 2		
Brand	Model	Specification
MASS POWER	PD045E-C1C0AVU	AC Input: 100~240V, 1.0A, 50-60Hz DC Output: 5.0V 3.0A, 9.0V 3.0A, 12.0V 3.0A, 15.0V 3.0A, 20.0V 2.25A, 45W DC Output Cable: 1.8 m, non-shielded cable, W/O ferrite core Plug: US

- There are Bluetooth, WLAN (2.4 GHz & 5 GHz), and WWAN (LTE + 5G nR) technology used for the EUT.

5. Simultaneously transmission condition.

Condition	Technology		
1	LTE		WLAN (2.4 GHz)
2	5G nR		WLAN (2.4 GHz)
3	LTE	WLAN (5 GHz)	Bluetooth
4	5G nR	WLAN (5 GHz)	Bluetooth

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

6. 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 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency range	Antenna Type	Connector Type	Cable Length (mm)
Wi-Fi + BT	Ant. 0	PSA	RFPCA261017IMLB403_A	1.77	2.4~2.4835 GHz	Dipole	ipex(MHF1)	171
				0.68	5.15~5.25 GHz			
				0.81	5.25~5.35 GHz			
				1.25	5.47~5.725 GHz			
				2.35	5.725~5.85 GHz			
	Ant. 1	PSA	RFPCA261013IMLB402_A	1.49	2.4~2.4835 GHz	Dipole	ipex(MHF1)	130
				0.42	5.15~5.25 GHz			
				1.01	5.25~5.35 GHz			
				1.68	5.47~5.725 GHz			
				2.14	5.725~5.85 GHz			
	Ant. 2	PSA	RFPCA261007IMLB402_A	1.33	2.4~2.4835 GHz	Dipole	ipex(MHF1)	75
				0.71	5.15~5.25 GHz			
				1.12	5.25~5.35 GHz			
				1.54	5.47~5.725 GHz			
				2.13	5.725~5.85 GHz			
	Ant. 3	PSA	RFPCA261008IMLB401_A	1.25	2.4~2.4835 GHz	Dipole	ipex(MHF1)	80
				0.58	5.15~5.25 GHz			
				1.23	5.25~5.35 GHz			
				1.49	5.47~5.725 GHz			
				2.32	5.725~5.85 GHz			
	BT+DFS(RX)	PSA	RFPCA261024IMLB401_A	4.72	2.4~2.4835 GHz	Dipole	ipex(MHF1)	245
				3.90	5.15~5.25 GHz			
				4.23	5.25~5.35 GHz			
				4.43	5.47~5.725 GHz			
				4.43	5.725~5.85 GHz			

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

5 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	4TX	4RX
802.11n (HT20)	4TX	4RX
802.11n (HT40)	4TX	4RX
802.11ac (VHT20)	4TX	4RX
802.11ac (VHT40)	4TX	4RX
802.11ac (VHT80)	4TX	4RX
802.11ax (HE20)	4TX	4RX
802.11ax (HE40)	4TX	4RX
802.11ax (HE80)	4TX	4RX

Note:

1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20 MHz (40 MHz), 802.11ac mode for 20 MHz (40 MHz, 80 MHz) and 802.11ax mode for 20 MHz (40 MHz, 80 MHz), therefore the manufacturer will control the power for 802.11ac mode is the same as the 802.11ax or more lower than it and investigated worst case to representative mode in test report.

3.3 Channel List

FOR 5260 ~ 5320 MHz

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

FOR 5500 ~ 5720 MHz

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		

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. 2. The AC Adapter has the following models: LUCENT TRANS 1A78/ MASS POWER PD045E-C1C0AVU. Pre-scan these models of AC Adapters and find the worst case as a representative test condition. 3. 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).
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition:Y-axis 2. AC Adapter Worst Condition:LUCENT TRANS 1A78

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

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
26 dB Bandwidth	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
6 dB Bandwidth	802.11a	CDD	144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	144	BPSK	MCS0
	802.11ax (HE40)	CDD	142	BPSK	MCS0
	802.11ax (HE80)	CDD	138	BPSK	MCS0
RF Output Power	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ac (VHT20)	CDD & Beamforming	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ac (VHT 40)	CDD & Beamforming	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ac (VHT 80)	CDD & Beamforming	58, 106, 122, 138	BPSK	MCS0
	802.11ax (HE20)	CDD & Beamforming	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD & Beamforming	58, 106, 122, 138	BPSK	MCS0
Occupied Bandwidth / Power Spectral Density	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
Frequency Stability	802.11a	-	52	-	-
AC Power Conducted Emissions	802.11ax (HE20)	CDD	116	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE20)	CDD	116	BPSK	MCS0

Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
Unwanted Emissions above 1 GHz	802.11a	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	6Mb/s
	802.11ax (HE20)	CDD	52, 60, 64, 100, 116, 140, 144	BPSK	MCS0
	802.11ax (HE40)	CDD	54, 62, 102, 110, 134, 142	BPSK	MCS0
	802.11ax (HE80)	CDD	58, 106, 122, 138	BPSK	MCS0
Note: Partial RU (resource unit) reduction mechanisms are not supported.					

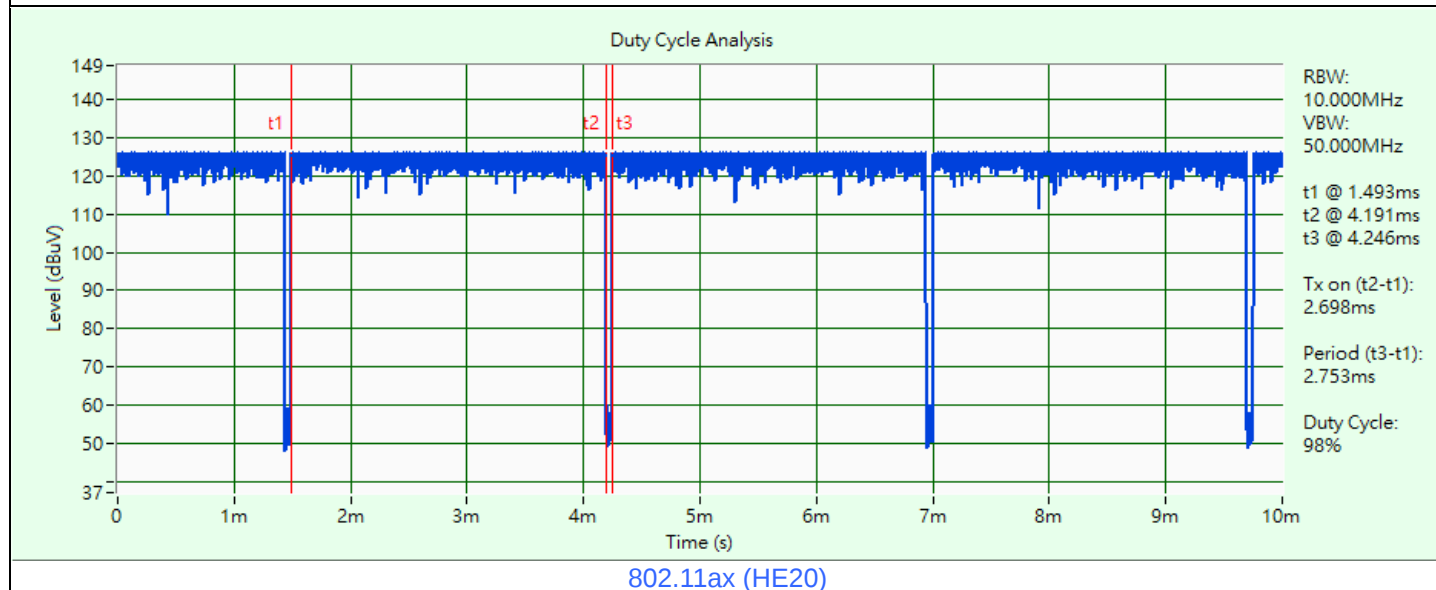
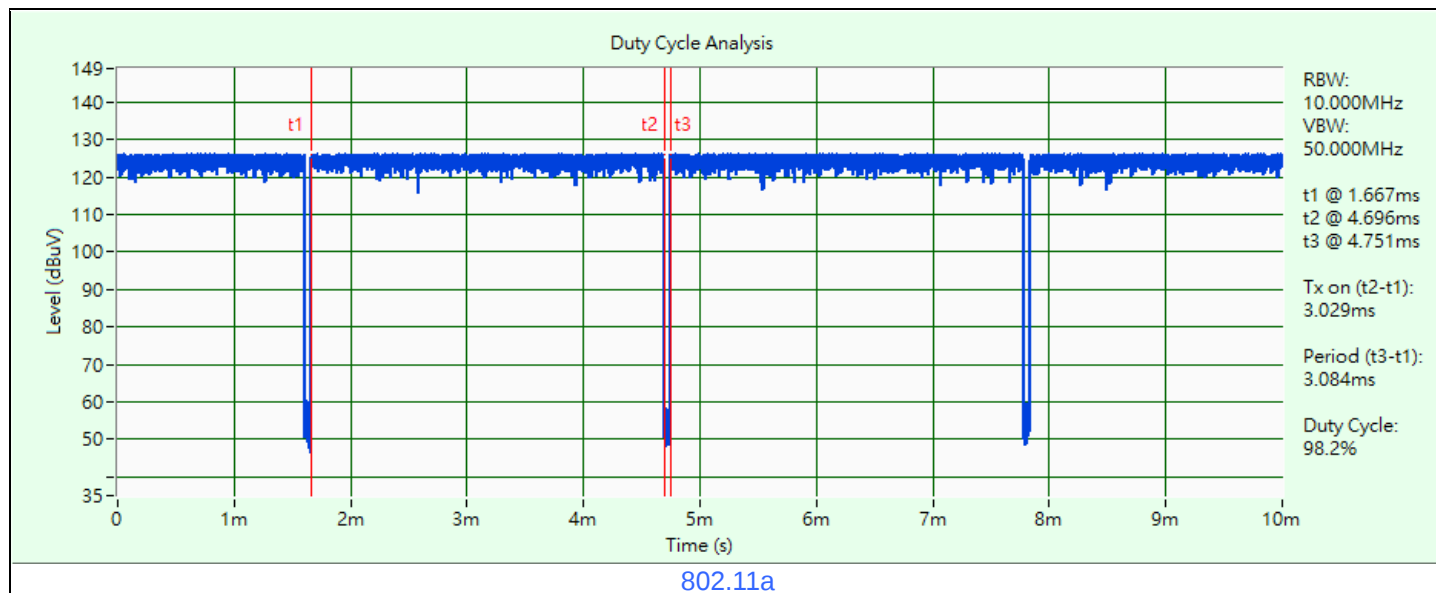
3.5 Duty Cycle of Test Signal

802.11a: Duty cycle = 3.029 ms / 3.084 ms x 100% = 98.2%

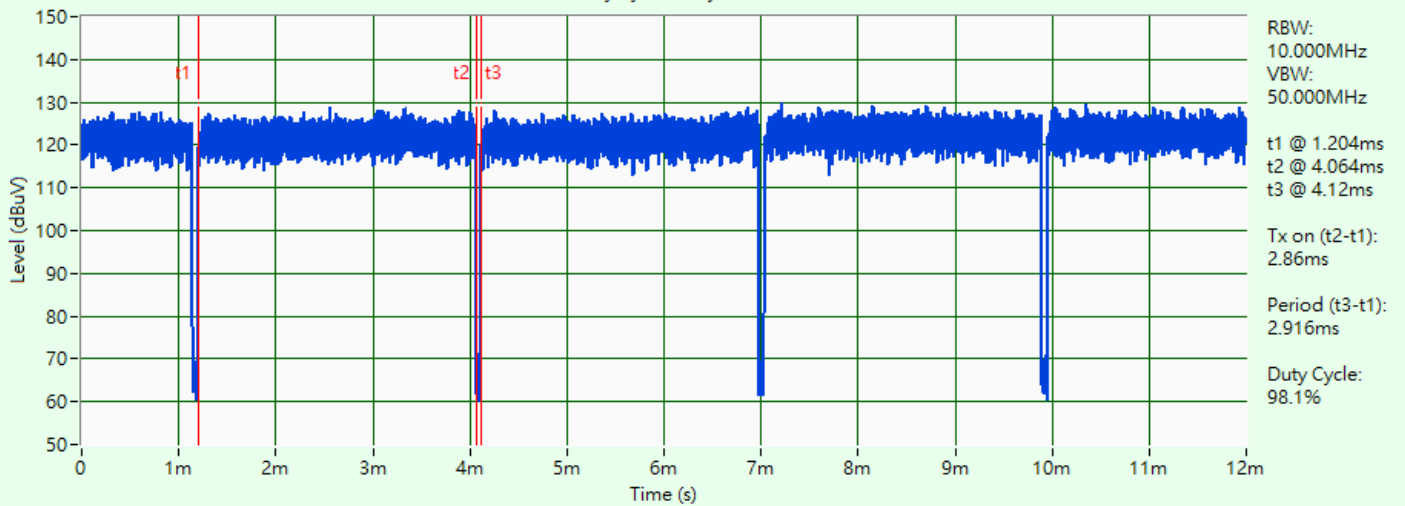
802.11ax (HE20): Duty cycle = 2.698 ms / 2.753 ms x 100% = 98.0%

802.11ax (HE40): Duty cycle = 2.86 ms / 2.916 ms x 100% = 98.1%

802.11ax (HE80): Duty cycle = 3.468 ms / 3.524 ms x 100% = 98.4%

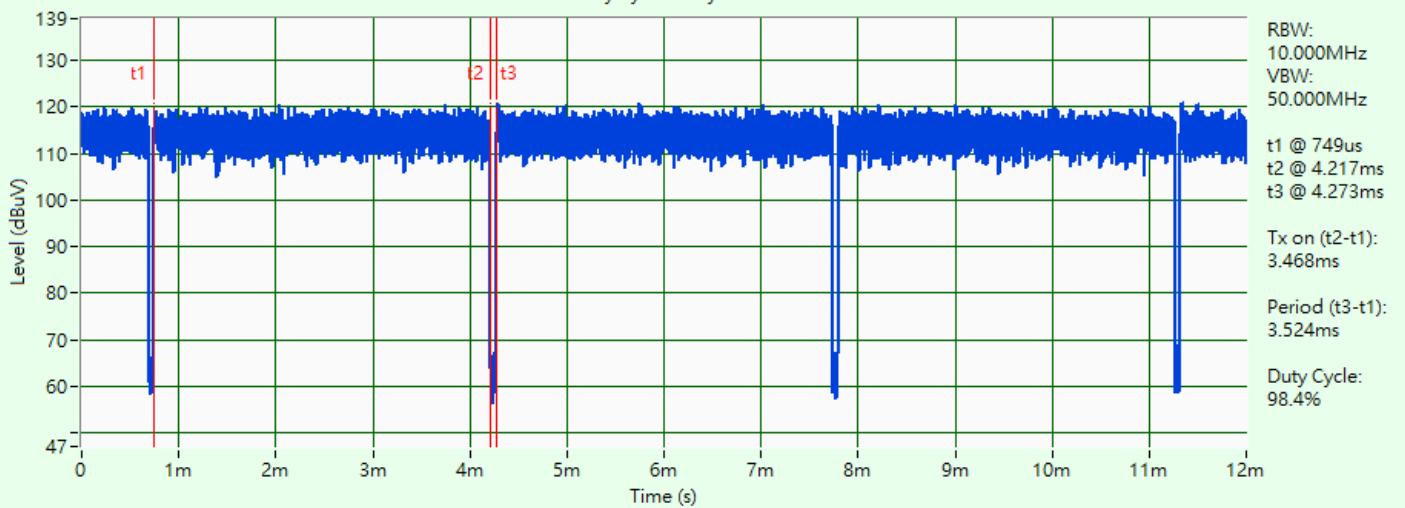


Duty Cycle Analysis



802.11ax (HE40)

Duty Cycle Analysis

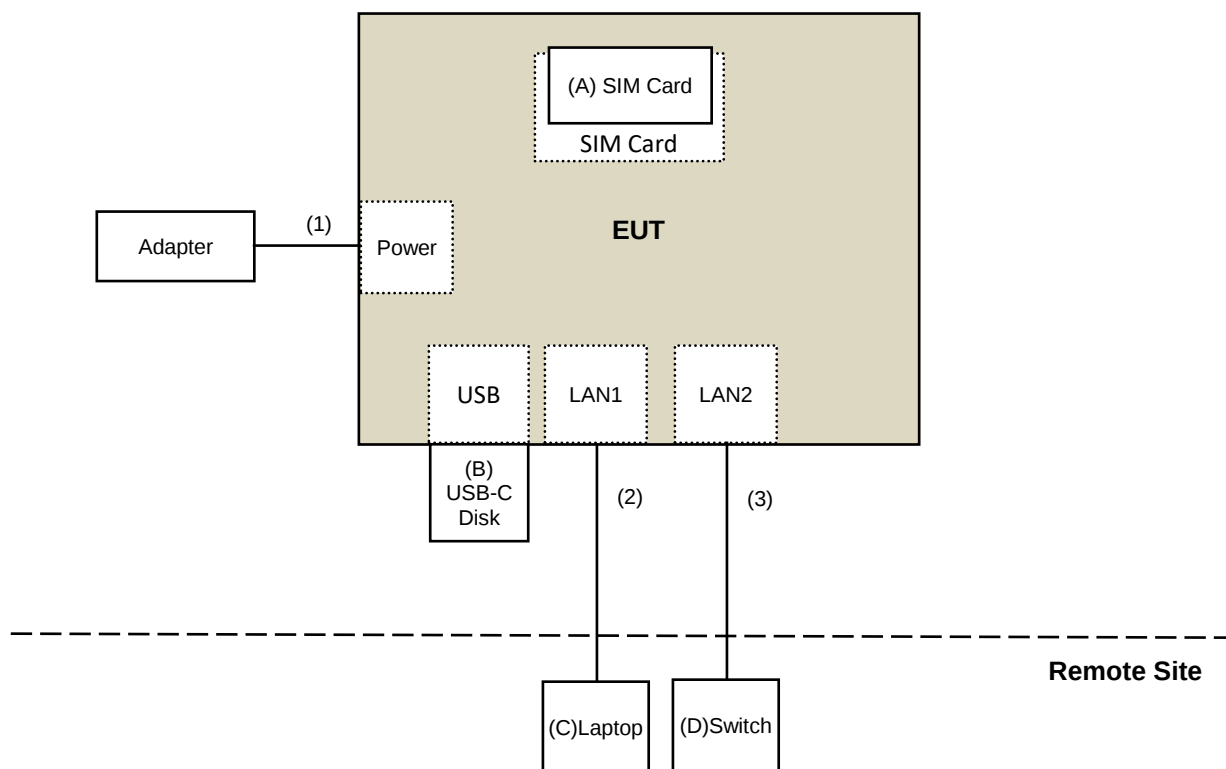


802.11ax (HE80)

3.6 Test Program Used and Operation Descriptions

Controlling software (package_Ulv2.33_DLLv6.28_ap_29.2020.07.1554_SHA.695dcd7) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	SIM Card	KeysSight	E7515-10910	N/A	N/A	Provided by Lab
B	USB-C Disk	Silicon Power	SP064GBUC3C31V1K	N/A	N/A	Provided by Lab
C	Laptop	Lenovo	20U5S01X00 L14	PF-1ANPYA	N/A	Provided by Lab
D	Switch	D-Link	DGS-1005D	DR8WC92000523	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.85	No	0	Supplied by applicant
2	RJ-45 Cable	1	10	No	0	Provided by Lab
3	RJ-45 Cable	1	10	No	0	Provided by Lab

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 26 dB Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/4/25

4.2 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
Power Meter Anritsu	ML2495A	1529002	2022/6/22	2023/6/21
Pulse Power Sensor Anritsu	MA2411B	1726434	2022/6/22	2023/6/21
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/4/25

4.3 Power Spectral Density

Refer to section 4.1 to get information of the instruments.

4.4 6 dB Bandwidth

Refer to section 4.1 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.1 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source GOOD WILL	6905S	1991551	N/A	N/A
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2023/3/27	2024/3/26
Software	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112409	2023/2/18	2024/2/17
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/12/26	2023/12/25
True RMS Clamp Meter Fluke	325	31130711WS	2022/6/9	2023/6/8

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2023/4/25

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance	N/A	EMC-01	2022/9/27	2023/9/26
Fixed attenuator STI	STI02-2200-10	005	2022/8/24	2023/8/23
LISN R&S	ESH3-Z5	848773/004	2022/10/18	2023/10/17
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2022/8/24	2023/8/23
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A
TEST RECEIVER R&S	ESCS 30	847124/029	2022/10/14	2023/10/13

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2023/4/26

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bilog Antenna Schwarzbeck	VULB 9168	9168-0942	2022/10/20	2023/10/19
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2022/12/28	2023/12/27
LOOP ANTENNA Electro-Metrics	EM-6879	264	2023/2/21	2024/2/20
Pre_Amplifier EMCI	EMC001340	980142	2022/6/2	2023/6/1
Pre_Amplifier(20M-3G) EMCI	EMC330N	980852	2023/2/20	2024/2/19
RF Coaxial Cable COMMATE/PEWC	8D	966-6-1	2023/4/6	2024/4/5
		966-6-2	2023/4/6	2024/4/5
		966-6-3	2023/4/6	2024/4/5
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/12/19	2023/12/18
		LOOPCAB-002	2022/12/19	2023/12/18
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2023/3/6	2024/3/5
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2023/4/27 ~ 2023/4/28

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-2035	2022/11/13	2023/11/12
	BBHA 9170	BBHA9170519	2022/11/13	2023/11/12
Pre_Amplifier EMCI	EMC12630SE	980385	2022/8/15	2023/8/14
	EMC184045SE	980387	2022/12/28	2023/12/27
RF Cable EMCI	EMC104-SM-SM-1300	210205	2022/5/10	2023/5/9
RF Cable-Frequency range: 1- 40GHz EMCI	EMC102-KM-KM-1200	160924	2022/12/28	2023/12/27
RF Coaxial Cable EMCI	EMC-KM-KM-4000	200214	2023/2/20	2024/2/19
	EMC101G-KM-KM-10000	210708	2022/11/4	2023/11/3
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A
Spectrum Analyzer Keysight	N9020B	MY60112410	2023/3/6	2024/3/5
Test Receiver KEYSIGHT	N9038A	MY59050100	2022/6/20	2023/6/19

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2023/4/12 ~ 2023/5/4

5 Limits of Test Items

5.1 26 dB Bandwidth

The results are for reference only.

5.2 RF Output Power

Operation Band	Limit
U-NII-2A	250 mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	250 mW (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 D01 Multiple Transmitter Output 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.

5.3 Power Spectral Density

Operation Band	Limit
U-NII-2A	11 dBm/MHz
U-NII-2C	11 dBm/MHz
U-NII-3	30 dBm/500 kHz

5.4 6 dB Bandwidth

Within the 5.725-5.850 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

5.5 Occupied Bandwidth

The results are for reference only.

5.6 Frequency Stability

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

5.7 AC Power Conducted Emissions

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

Notes:

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 0.50 MHz.

5.8 Unwanted Emissions below 1 GHz

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	$2400/F(\text{kHz})$	300
0.490 ~ 1.705	$24000/F(\text{kHz})$	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = $20 \log$ Emission level (uV/m).

5.9 Unwanted Emissions above 1 GHz

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)
Above 960	500	3

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000 MHz, 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 20 dB 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 3 m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)

For transmitters operating in the 5.25-5.35 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(2)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)

For transmitters operating in the 5.47-5.725 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(3)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)

For transmitters operating in the 5.725-5.850 GHz band:

Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2 (dBμV/m) ^{*1} PK: 105.2 (dBμV/m) ^{*2} PK: 110.8 (dBμV/m) ^{*3} PK: 122.2 (dBμV/m) ^{*4}

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

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

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

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

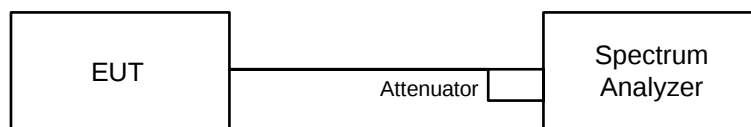
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 26 dB Bandwidth

6.1.1 Test Setup

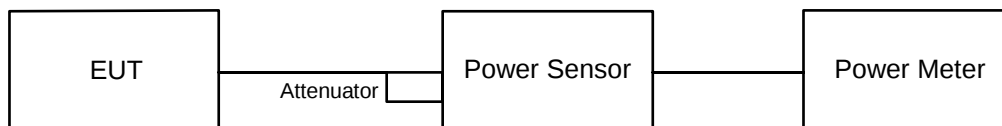


6.1.2 Test Procedure

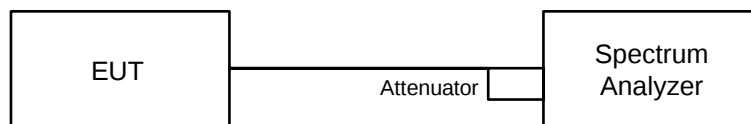
- Set RBW = approximately 1% of the emission bandwidth.
- Set the VBW > RBW.
- Detector = Peak.
- Trace mode = max hold.
- Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement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

6.2 RF Output Power

6.2.1 Test Setup



For channel straddling:



6.2.2 Test Procedure

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 and set the detector to average. Duty factor is not added to measured value.

For channel straddling:

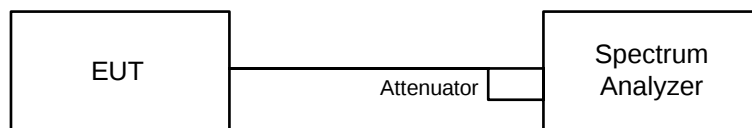
Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

Note: When measuring straddle channel power, use compute power by integrating the spectrum across the 26 dB EBW or 99% OBW of the signal using the instrument's band power measurement function, with band limits set equal to the EBW or OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in power units) at 1 MHz intervals extending across the 26 dB EBW or 99% OBW of the spectrum.

6.3 Power Spectral Density

6.3.1 Test Setup



6.3.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

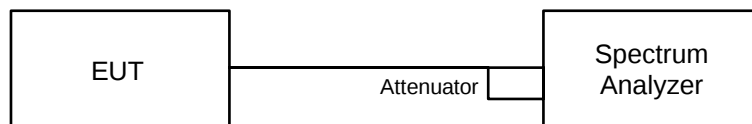
For specified measurement bandwidth 500 kHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
- Scale the observed power level to an equivalent value in 500 kHz by adjusting (increasing) the measured power by a bandwidth correction factor (BWCF) where $\text{BWCF} = 10\log(500 \text{ kHz}/300 \text{ kHz})$
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

6.4 6 dB Bandwidth

6.4.1 Test Setup

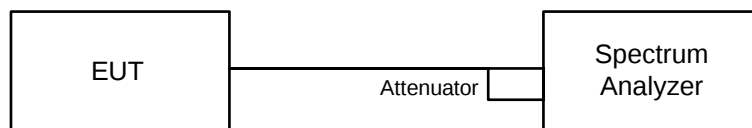


6.4.2 Test Procedure

- Set resolution bandwidth (RBW) = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$, 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.

6.5 Occupied Bandwidth

6.5.1 Test Setup

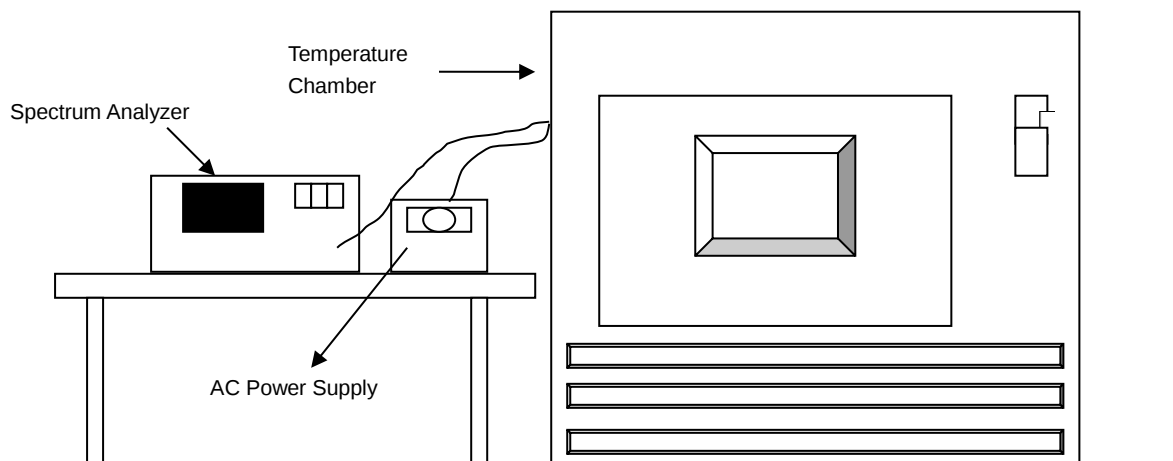


6.5.2 Test Procedure

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 Sampling. 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.

6.6 Frequency Stability

6.6.1 Test Setup

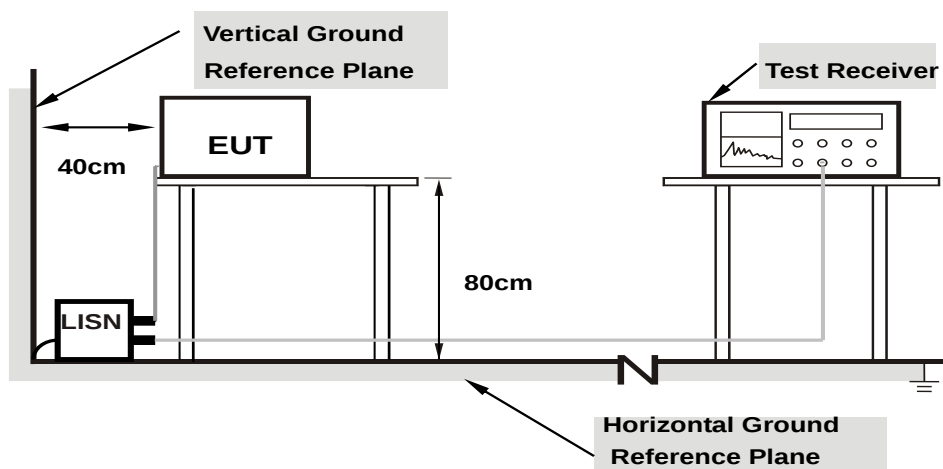


6.6.2 Test Procedure

- 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.

6.7 AC Power Conducted Emissions

6.7.1 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).

6.7.2 Test Procedure

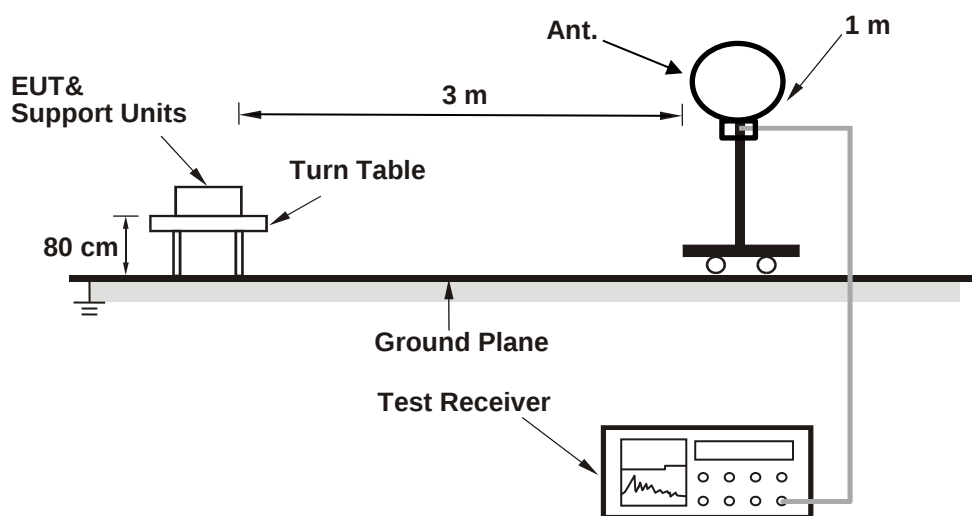
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH 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 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz-30 MHz.

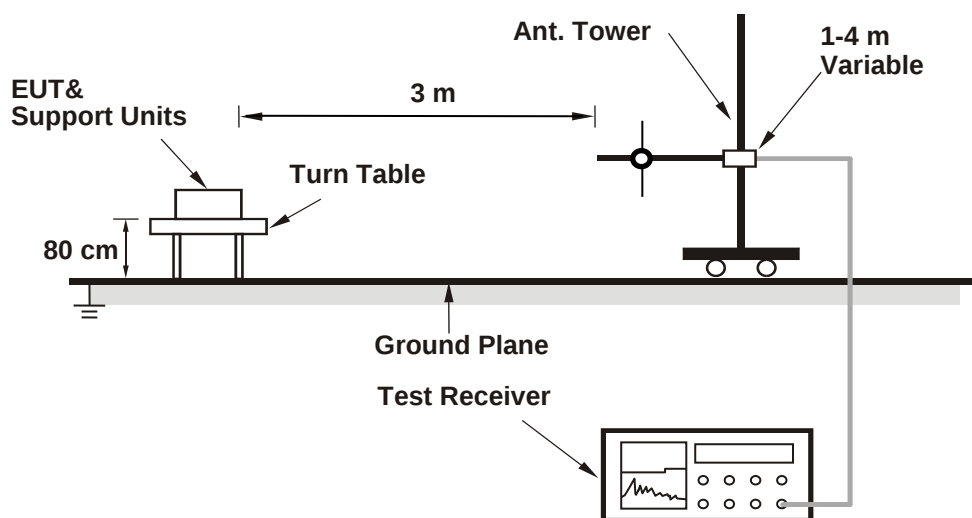
6.8 Unwanted Emissions below 1 GHz

6.8.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.8.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters 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. 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, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

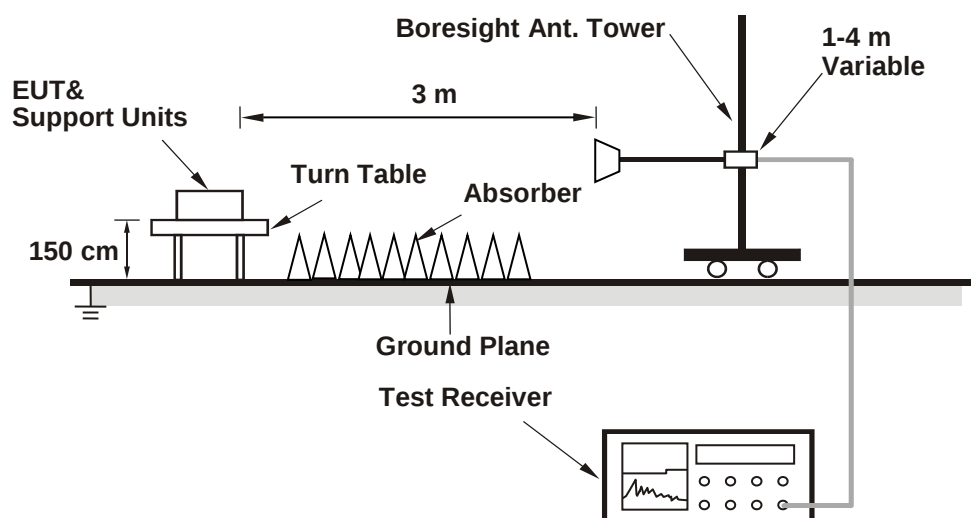
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup



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

6.9.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- 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.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 26 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	20.18	20.28	20.20	20.05
60	5300	20.34	20.32	20.10	20.25
64	5320	20.23	20.26	20.06	20.13
100	5500	20.30	20.33	20.30	20.10
116	5580	20.32	20.17	20.20	20.21
140	5700	20.25	20.30	20.39	20.24
144 (U-NII-2C)	5720	15.14	15.13	14.99	15.31
144 (U-NII-3)	5720	5.09	5.10	5.11	5.07

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
52	5260	20.05	24.02 > 24
60	5300	20.10	24.03 > 24
64	5320	20.06	24.02 > 24
100	5500	20.10	24.03 > 24
116	5580	20.17	24.04 > 24
140	5700	20.24	24.06 > 24
144 (U-NII-2C)	5720	14.99	22.75 < 24

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

802.11ax (HE20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	24.25	24.65	24.72	24.46
60	5300	36.39	24.27	23.70	25.28
64	5320	27.59	26.66	22.66	24.10
100	5500	28.11	24.70	29.41	24.35
116	5580	26.23	24.61	27.26	37.00
140	5700	27.35	23.55	26.45	25.89
144 (U-NII-2C)	5720	17.61	17.09	17.38	18.72
144 (U-NII-3)	5720	8.53	6.40	10.30	8.51

Determined Output Power Limit				
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)	
52	5260	24.25	24.84	> 24
60	5300	23.70	24.74	> 24
64	5320	22.66	24.55	> 24
100	5500	24.35	24.86	> 24
116	5580	24.61	24.91	> 24
140	5700	23.55	24.71	> 24
144 (U-NII-2C)	5720	17.09	23.32	< 24

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

802.11ax (HE40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	40.73	40.76	40.67	40.62
62	5310	40.69	40.30	40.59	40.59
102	5510	40.51	40.61	40.74	40.58
110	5550	40.83	40.61	40.83	40.82
134	5670	40.86	40.57	40.60	40.60
142 (U-NII-2C)	5710	35.43	35.32	35.29	35.34
142 (U-NII-3)	5710	5.37	5.28	5.33	5.25

Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
54	5270	40.62	27.08 > 24
62	5310	40.30	27.05 > 24
102	5510	40.51	27.07 > 24
110	5550	40.61	27.08 > 24
134	5670	40.57	27.08 > 24
142 (U-NII-2C)	5710	35.29	26.47 > 24

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

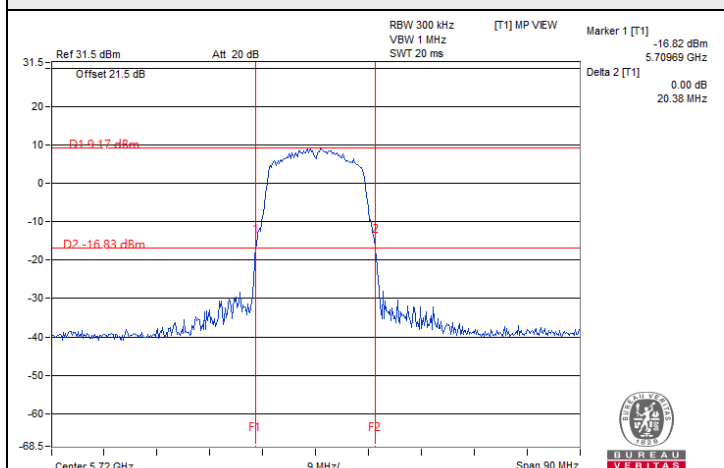
802.11ax (HE80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	81.03	81.04	80.93	81.12
106	5530	81.03	81.03	81.04	81.07
122	5610	80.97	81.12	81.01	81.03
138 (U-NII-2C)	5690	75.47	75.42	75.50	75.65
138 (U-NII-3)	5690	5.42	5.50	5.54	5.63

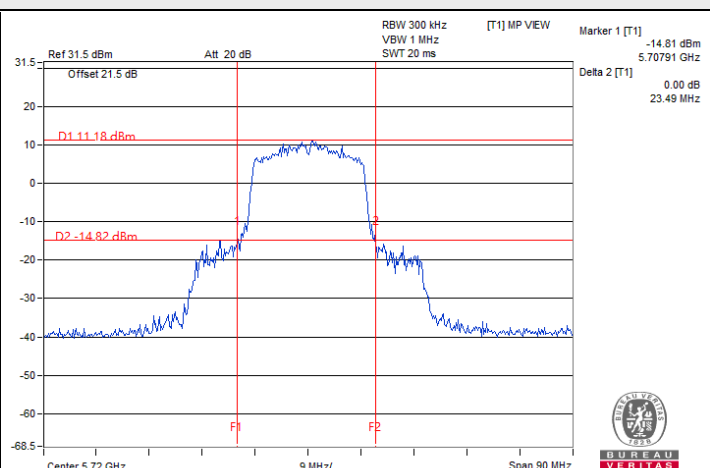
Determined Output Power Limit			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Power Limit (dBm)
58	5290	80.93	30.08 > 24
106	5530	81.03	30.08 > 24
122	5610	80.97	30.08 > 24
138 (U-NII-2C)	5690	75.42	29.77 > 24

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

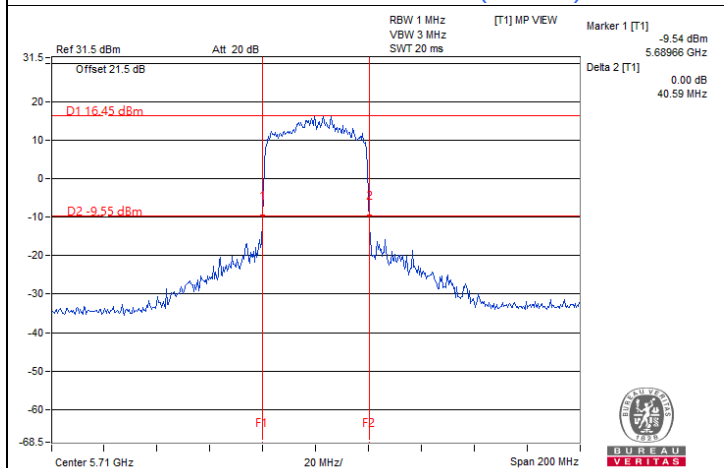
Spectrum Plot of Minimum Value



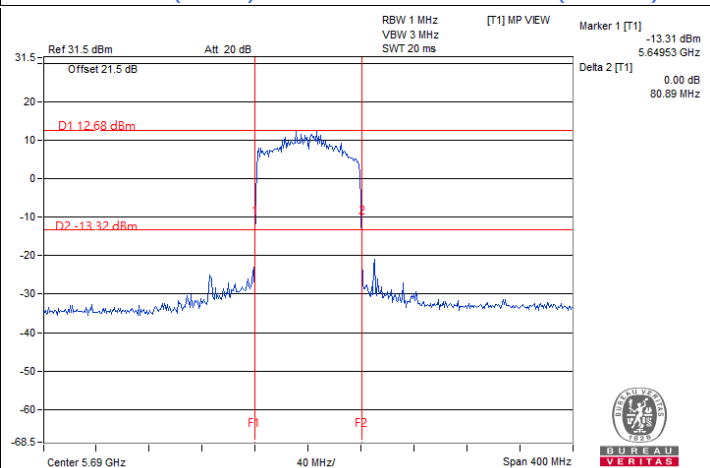
802.11a / Chain 3 : CH 144 (U-NII-3)



802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-3)



802.11ax (HE40) CDD / Chain 3 : CH 142 (U-NII-3)



802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-3)

Notes:

1. For U-NII-2C straddle channel = 5725 MHz - Marker 1
2. For U-NII-3 straddle channel = Marker 1 + Delta 2 - 5725 MHz

7.2 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	16.81	17.10	16.83	16.90	196.432	22.93	24	Pass
60	5300	16.38	17.18	16.74	16.92	192.101	22.84	24	Pass
64	5320	16.12	16.75	16.55	16.86	181.956	22.60	24	Pass
100	5500	16.18	15.79	16.54	16.18	166.004	22.20	24	Pass
116	5580	16.24	15.94	16.21	16.41	166.872	22.22	24	Pass
140	5700	16.13	16.37	16.14	16.38	168.937	22.28	24	Pass
*144 (U-NII-2C)	5720	14.31	15.21	14.34	15.57	123.389	20.91	22.75	Pass
*144 (U-NII-3)	5720	6.13	7.07	6.22	7.54	19.059	12.80	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the directional gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	16.53	16.60	16.54	16.89	184.634	22.66	24	Pass
60	5300	16.40	16.81	16.21	16.93	182.725	22.62	24	Pass
64	5320	16.43	16.98	16.55	16.83	187.223	22.72	24	Pass
100	5500	16.04	15.92	16.68	16.14	166.937	22.23	24	Pass
116	5580	15.94	15.98	16.32	16.43	165.701	22.19	24	Pass
140	5700	15.78	16.38	15.97	16.26	163.099	22.12	24	Pass
*144 (U-NII-2C)	5720	12.95	13.55	12.68	13.97	85.852	19.34	23.32	Pass
*144 (U-NII-3)	5720	5.94	6.66	5.89	6.96	17.408	12.41	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the directional gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.43	17.69	17.43	17.64	227.495	23.57	24	Pass
62	5310	15.91	16.83	16.14	16.57	173.698	22.40	24	Pass
102	5510	17.67	17.61	17.96	17.57	235.821	23.73	24	Pass
110	5550	17.54	17.60	17.76	17.94	236.232	23.73	24	Pass
134	5670	17.23	17.69	17.50	17.57	224.975	23.52	24	Pass
*142 (U-NII-2C)	5710	13.64	14.29	13.51	14.69	101.857	20.08	24	Pass
*142 (U-NII-3)	5710	1.95	3.01	1.94	3.05	7.148	8.54	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	16.92	16.95	16.86	16.72	194.267	22.88	24	Pass
106	5530	15.86	15.57	15.91	15.48	148.918	21.73	24	Pass
122	5610	17.60	17.60	17.54	17.62	229.652	23.61	24	Pass
*138 (U-NII-2C)	5690	12.80	12.85	12.98	13.32	79.669	19.01	24	Pass
*138 (U-NII-3)	5690	-3.16	-2.55	-2.05	-2.59	2.2135	3.45	30	Pass

Notes:

1. * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
2. Directional gain is the maximum gain of antennas.
3. For U-NII-2A, the maximum gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
4. For U-NII-2C, the maximum gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
5. For U-NII-3, the maximum gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE20) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	16.80	16.85	16.82	17.10	195.65	22.91	24	Pass
60	5300	16.65	17.07	16.50	17.17	193.959	22.88	24	Pass
64	5320	16.60	17.18	16.73	17.00	195.165	22.90	24	Pass
100	5500	16.30	16.10	16.90	16.39	175.925	22.45	24	Pass
116	5580	16.15	16.28	16.56	16.73	176.059	22.46	24	Pass
140	5700	16.05	16.62	16.19	16.51	172.554	22.37	24	Pass
*144 (U-NII-2C)	5720	12.95	13.55	12.68	13.97	85.852	19.34	23.32	Pass
*144 (U-NII-3)	5720	5.94	6.66	5.89	6.96	17.408	12.41	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the directional gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the directional gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the directional gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE40) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	17.71	17.94	17.65	17.88	240.837	23.82	24	Pass
62	5310	16.18	17.04	16.40	16.87	184.37	22.66	24	Pass
102	5510	17.93	17.85	18.20	17.79	249.227	23.97	24	Pass
110	5550	17.76	17.83	17.96	18.21	249.116	23.96	24	Pass
134	5670	17.46	17.92	17.77	17.79	237.621	23.76	24	Pass
*142 (U-NII-2C)	5710	13.64	14.29	13.51	14.69	101.857	20.08	24	Pass
*142 (U-NII-3)	5710	1.95	3.01	1.94	3.05	7.148	8.54	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ax (HE80) CDD

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	17.14	17.18	17.11	16.95	204.95	23.12	24	Pass
106	5530	16.10	15.82	16.14	15.72	157.372	21.97	24	Pass
122	5610	17.85	17.82	17.81	17.90	243.542	23.87	24	Pass
*138 (U-NII-2C)	5690	12.80	12.85	12.98	13.32	79.669	19.01	24	Pass
*138 (U-NII-3)	5690	-3.16	-2.55	-2.05	-2.59	2.2135	3.45	30	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain is the maximum gain of antennas.
- For U-NII-2A, the maximum gain is 1.23 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-2C, the maximum gain is 1.68 dBi < 6 dBi, so the output power limit shall not be reduced.
- For U-NII-3, the maximum gain is 2.35 dBi < 6 dBi, so the output power limit shall not be reduced.

802.11ac (VHT20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	16.53	16.60	16.54	16.89	184.634	22.66	22.94	Pass
60	5300	16.40	16.81	16.21	16.93	182.725	22.62	22.94	Pass
64	5320	16.43	16.98	16.55	16.83	187.223	22.72	22.94	Pass
100	5500	16.04	15.92	16.68	16.14	166.937	22.23	22.49	Pass
116	5580	15.94	15.98	16.32	16.43	165.701	22.19	22.49	Pass
140	5700	15.78	16.38	15.97	16.26	163.099	22.12	22.49	Pass
*144 (U-NII-2C)	5720	12.95	13.55	12.68	13.97	85.852	19.34	21.81	Pass
*144 (U-NII-3)	5720	5.94	6.66	5.89	6.96	17.408	12.41	27.74	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0/20}} + 10^{\text{Chain1/20}} + 10^{\text{Chain2/20}} + 10^{\text{Chain3/20}})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to 30-(8.26-6) = 27.74 dBm.

802.11ac (VHT40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	16.45	16.67	16.35	16.56	179.05	22.53	22.94	Pass
62	5310	15.91	16.83	16.14	16.57	173.698	22.40	22.94	Pass
102	5510	16.02	15.77	16.40	15.83	159.686	22.03	22.49	Pass
110	5550	15.87	15.99	16.21	16.37	163.49	22.13	22.49	Pass
134	5670	15.62	15.99	15.84	15.99	154.284	21.88	22.49	Pass
*142 (U-NII-2C)	5710	13.64	14.29	13.51	14.69	101.857	20.08	22.49	Pass
*142 (U-NII-3)	5710	1.95	3.01	1.94	3.05	7.148	8.54	27.74	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to $30-(8.26-6) = 27.74$ dBm.

802.11ac (VHT80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	16.53	16.64	16.44	16.44	179.221	22.53	22.94	Pass
106	5530	15.86	15.57	15.91	15.48	148.918	21.73	22.49	Pass
122	5610	15.97	15.78	15.92	16.12	157.391	21.97	22.49	Pass
*138 (U-NII-2C)	5690	12.80	12.85	12.98	13.32	79.669	19.01	22.49	Pass
*138 (U-NII-3)	5690	-3.16	-2.55	-2.05	-2.59	2.2135	3.45	27.74	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to $30-(8.26-6) = 27.74$ dBm.

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	16.80	16.85	16.82	17.10	195.65	22.91	22.94	Pass
60	5300	16.65	17.07	16.50	17.17	193.959	22.88	22.94	Pass
64	5320	16.60	17.18	16.73	17.00	195.165	22.90	22.94	Pass
100	5500	16.30	16.10	16.90	16.39	175.925	22.45	22.49	Pass
116	5580	16.15	16.28	16.56	16.73	176.059	22.46	22.49	Pass
140	5700	16.05	16.62	16.19	16.51	172.554	22.37	22.49	Pass
*144 (U-NII-2C)	5720	12.95	13.55	12.68	13.97	85.852	19.34	21.81	Pass
*144 (U-NII-3)	5720	5.94	6.66	5.89	6.96	17.408	12.41	27.74	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0/20}} + 10^{\text{Chain1/20}} + 10^{\text{Chain2/20}} + 10^{\text{Chain3/20}})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to $30-(8.26-6) = 27.74$ dBm.

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	16.65	16.91	16.65	16.80	189.43	22.77	22.94	Pass
62	5310	16.18	17.04	16.40	16.87	184.37	22.66	22.94	Pass
102	5510	16.23	16.06	16.65	16.06	168.943	22.28	22.49	Pass
110	5550	16.13	16.25	16.45	16.59	172.951	22.38	22.49	Pass
134	5670	15.86	16.24	16.06	16.28	163.447	22.13	22.49	Pass
*142 (U-NII-2C)	5710	13.64	14.29	13.51	14.69	101.857	20.08	22.49	Pass
*142 (U-NII-3)	5710	1.95	3.01	1.94	3.05	7.148	8.54	27.74	Pass

Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0/20}} + 10^{\text{Chain1/20}} + 10^{\text{Chain2/20}} + 10^{\text{Chain3/20}})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to $30-(8.26-6) = 27.74$ dBm.

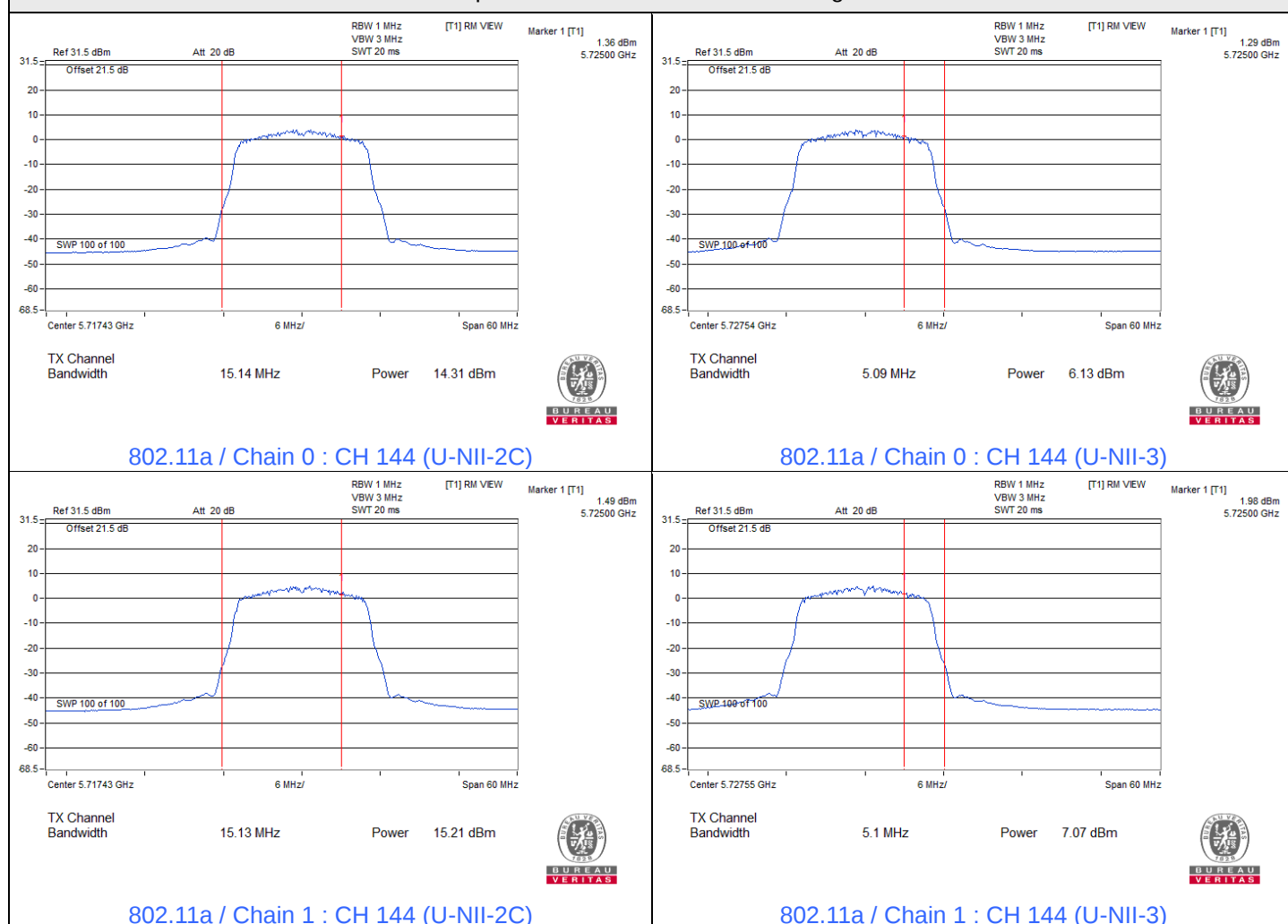
802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	16.81	16.85	16.72	16.64	189.512	22.78	22.94	Pass
106	5530	16.10	15.82	16.14	15.72	157.372	21.97	22.49	Pass
122	5610	16.25	16.07	16.15	16.34	166.89	22.22	22.49	Pass
*138 (U-NII-2C)	5690	12.80	12.85	12.98	13.32	79.669	19.01	22.49	Pass
*138 (U-NII-3)	5690	-3.16	-2.55	-2.05	-2.59	2.2135	3.45	27.74	Pass

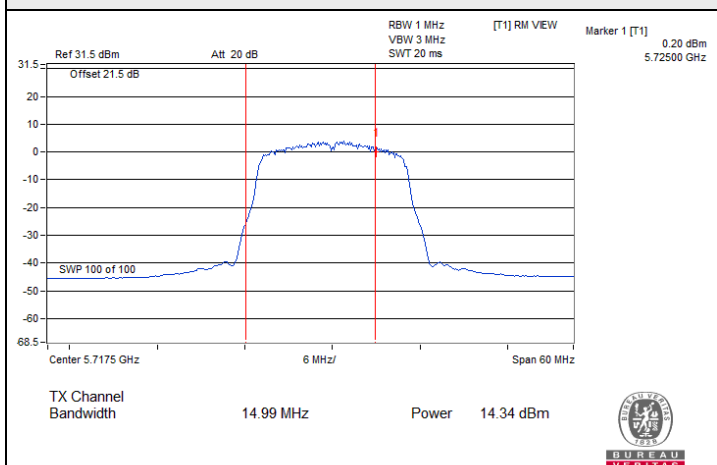
Notes:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-1 and use spectrum analyzer test.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.06-6)].
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the output power limit shall be reduced to [Determined Conducted Power Limit-(7.51-6)].
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the output power limit shall be reduced to $30-(8.26-6) = 27.74$ dBm.

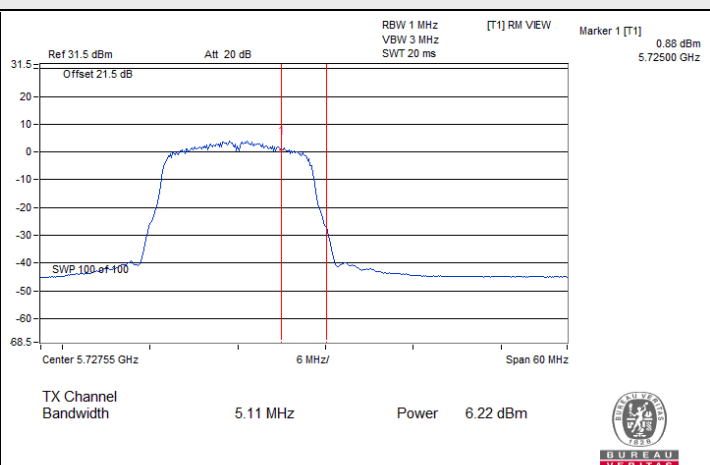
Spectrum Plot for channel straddling



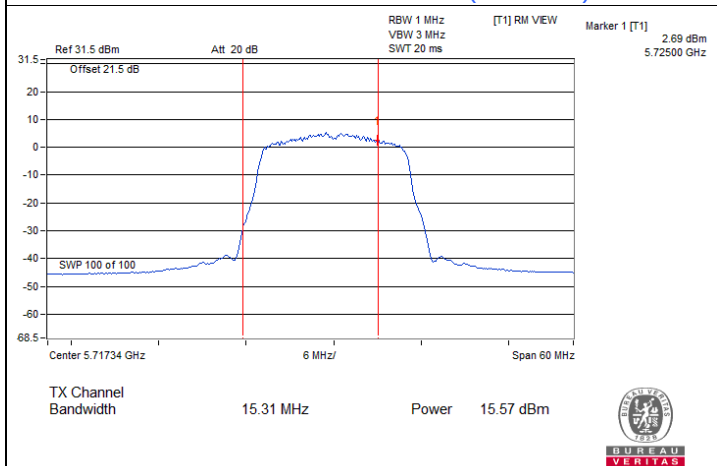
Spectrum Plot for channel straddling



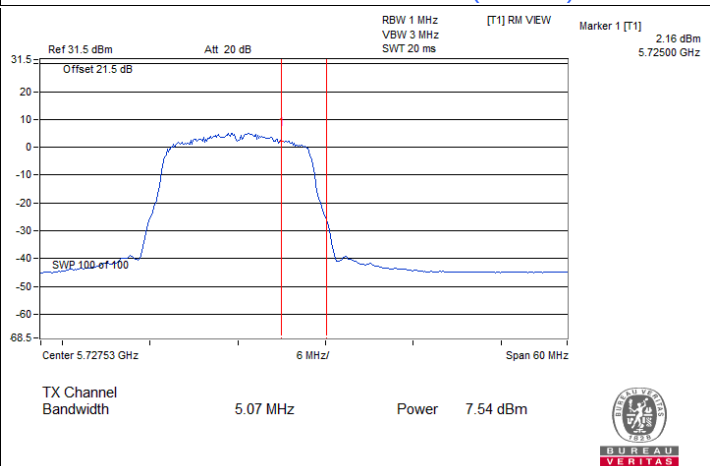
802.11a / Chain 2 : CH 144 (U-NII-2C)



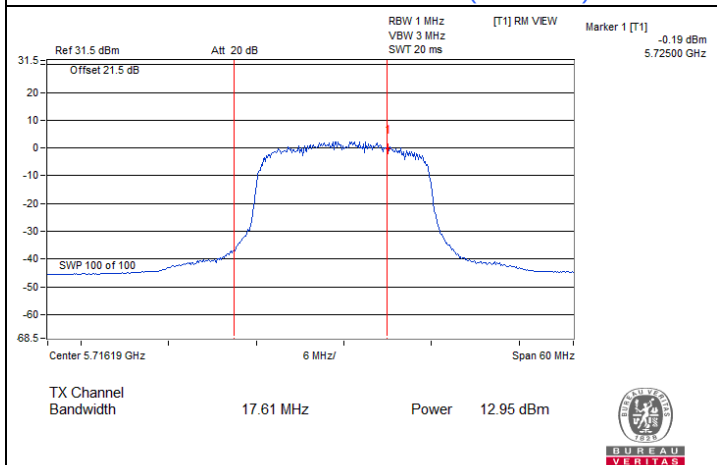
802.11a / Chain 2 : CH 144 (U-NII-3)



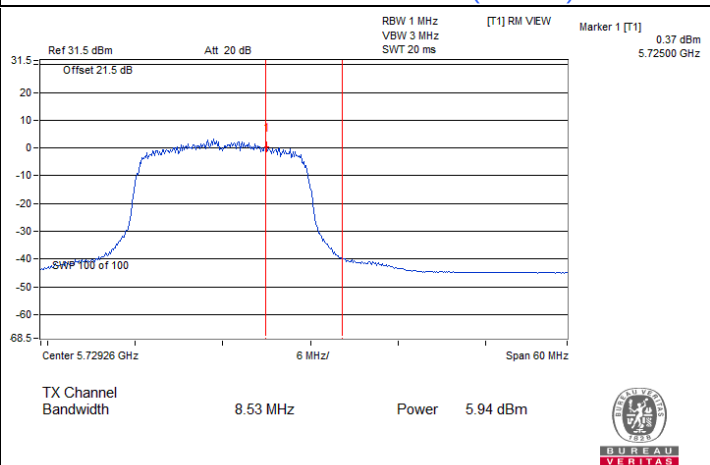
802.11a / Chain 3 : CH 144 (U-NII-2C)



802.11a / Chain 3 : CH 144 (U-NII-3)

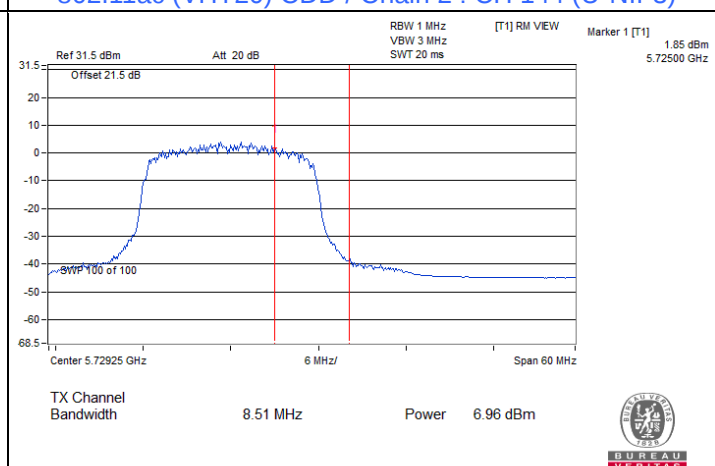
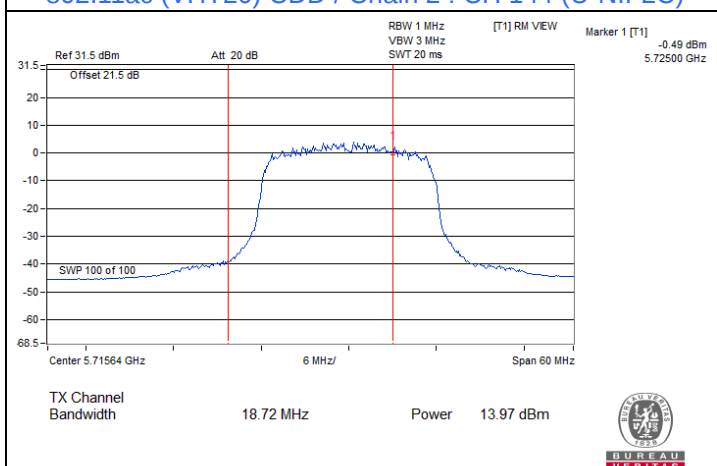
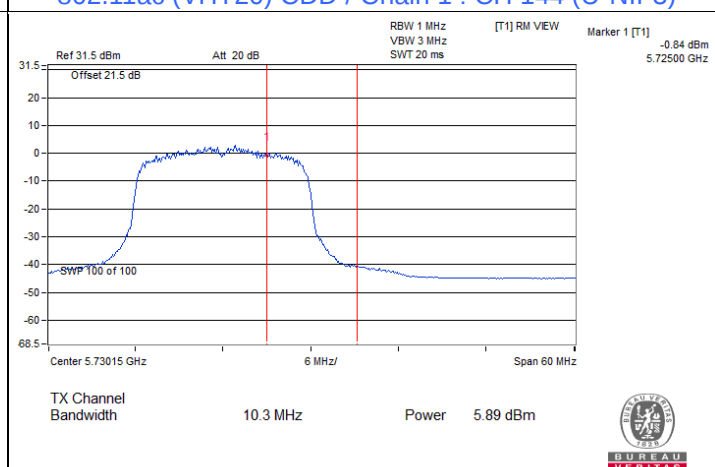
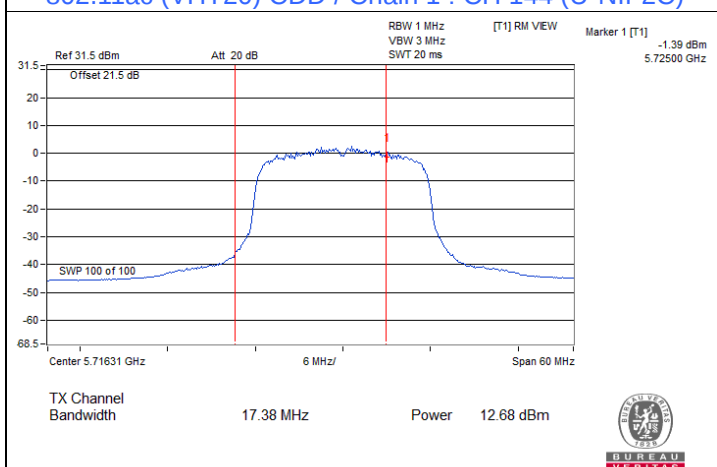
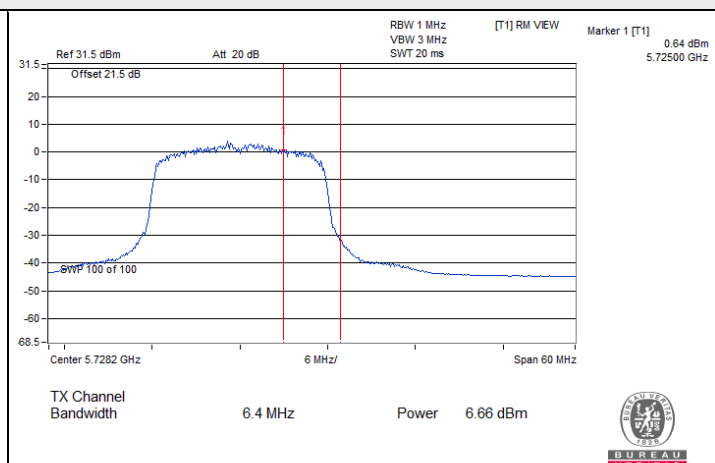
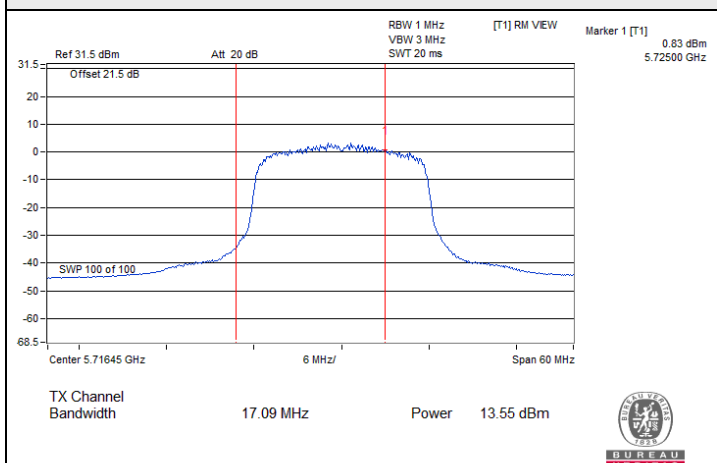


802.11ac (VHT20) CDD / Chain 0 : CH 144 (U-NII-2C)

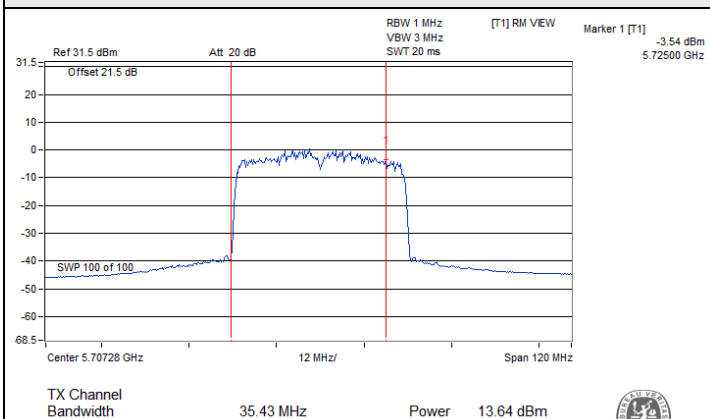


802.11ac (VHT20) CDD / Chain 0 : CH 144 (U-NII-3)

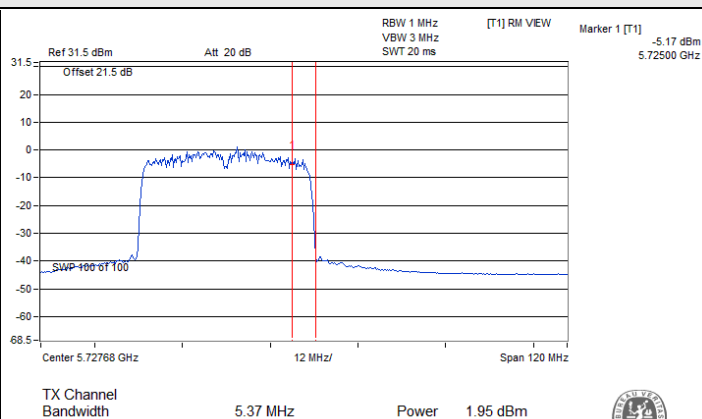
Spectrum Plot for channel straddling



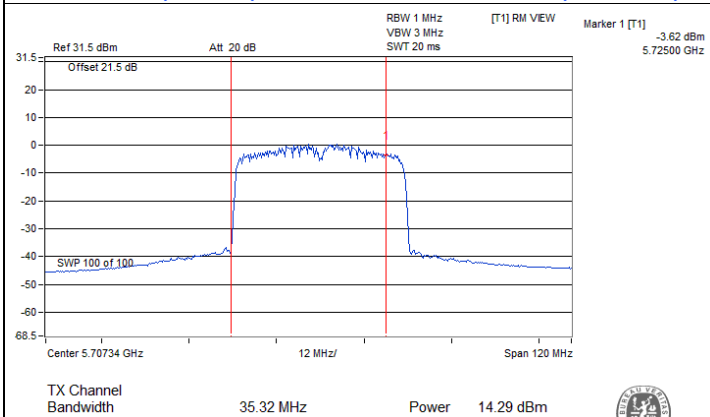
Spectrum Plot for channel straddling



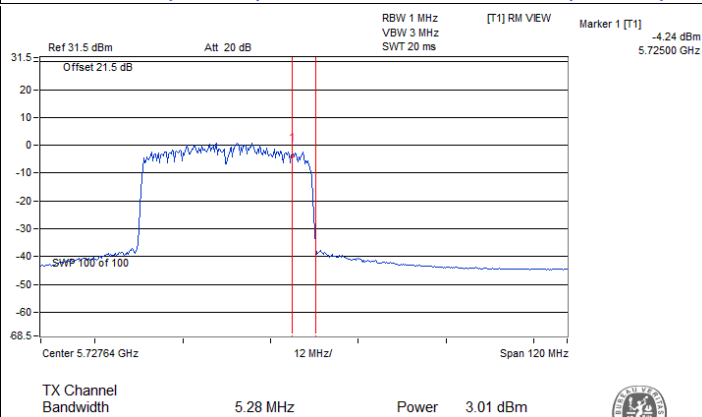
802.11ac (VHT40) CDD / Chain 0 : CH 142 (U-NII-2C)



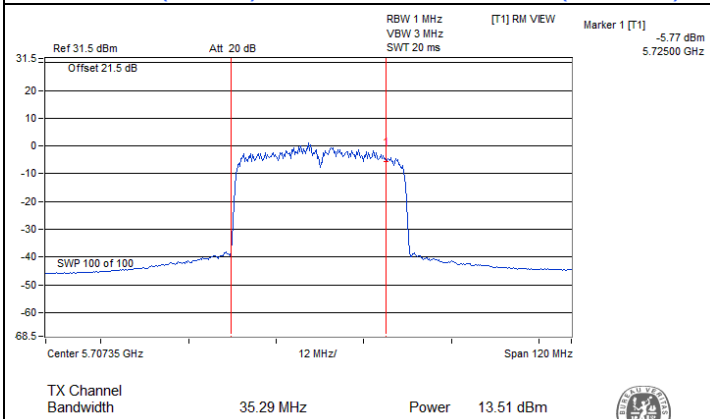
802.11ac (VHT40) CDD / Chain 0 : CH 142 (U-NII-3)



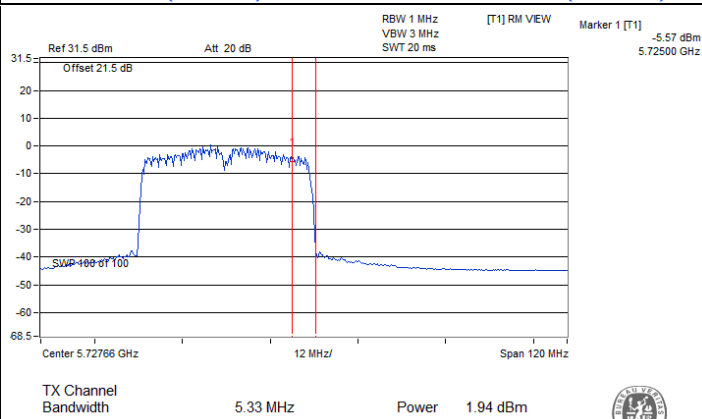
802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-2C)



802.11ac (VHT40) CDD / Chain 1 : CH 142 (U-NII-3)

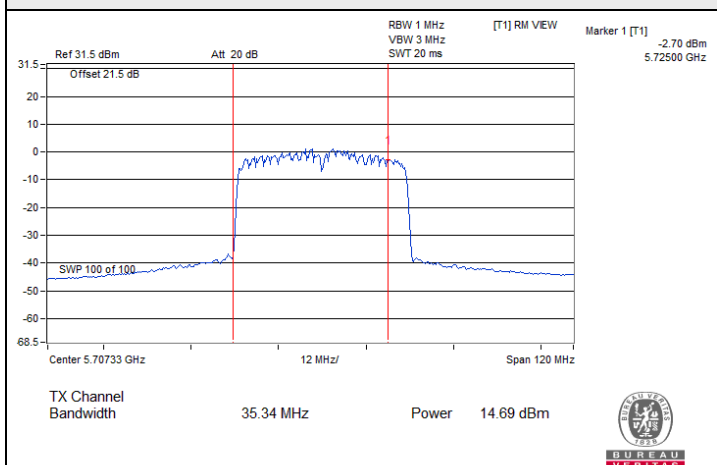


802.11ac (VHT40) CDD / Chain 2 : CH 142 (U-NII-2C)

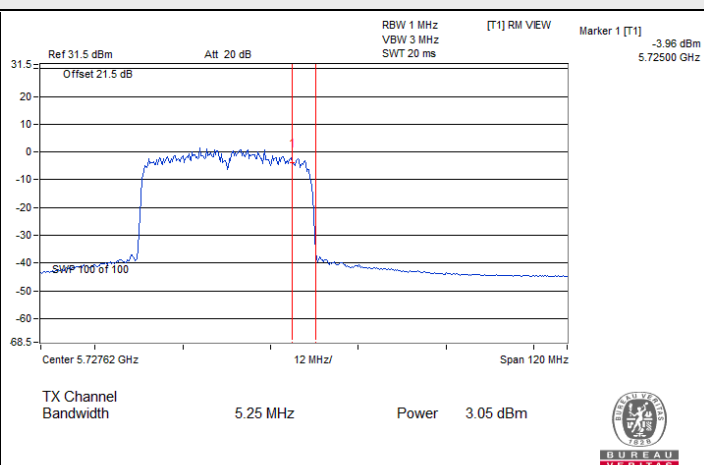


802.11ac (VHT40) CDD / Chain 2 : CH 142 (U-NII-3)

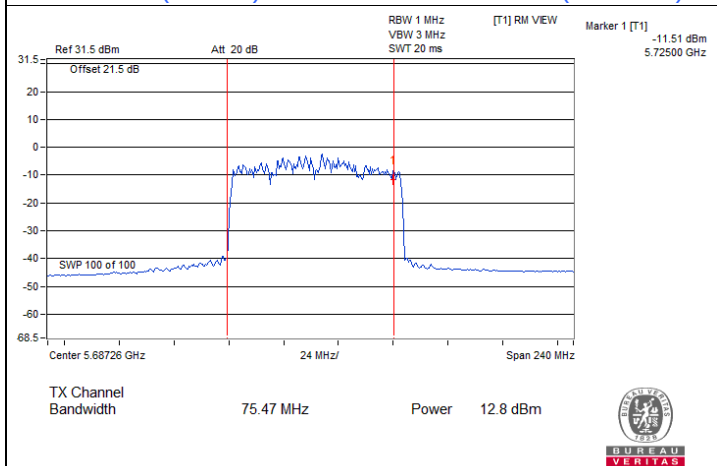
Spectrum Plot for channel straddling



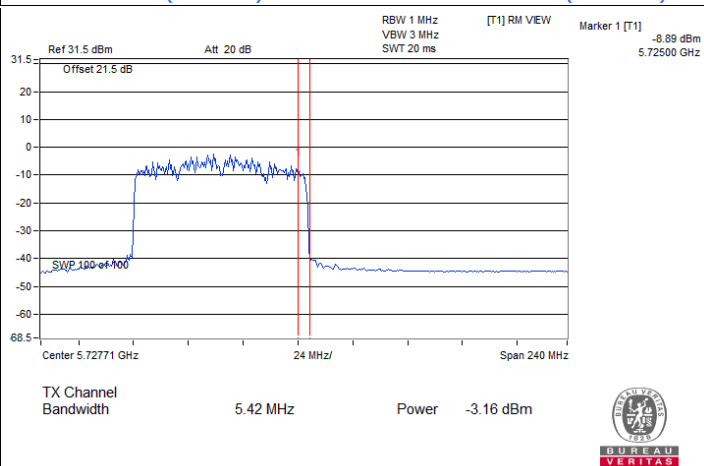
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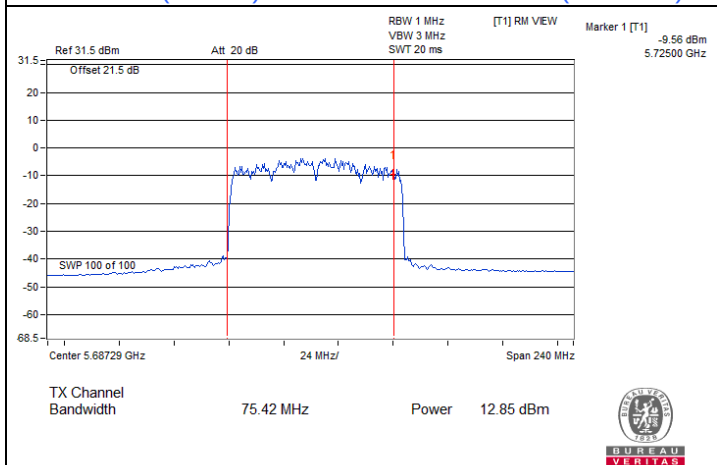
802.11ac (VHT40) CDD / Chain 3 : CH 142 (U-NII-3)



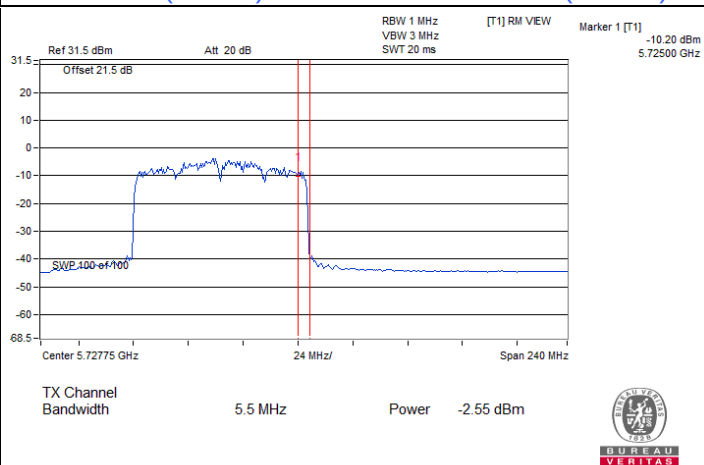
802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-2C)



802.11ac (VHT80) CDD / Chain 0 : CH 138 (U-NII-3)

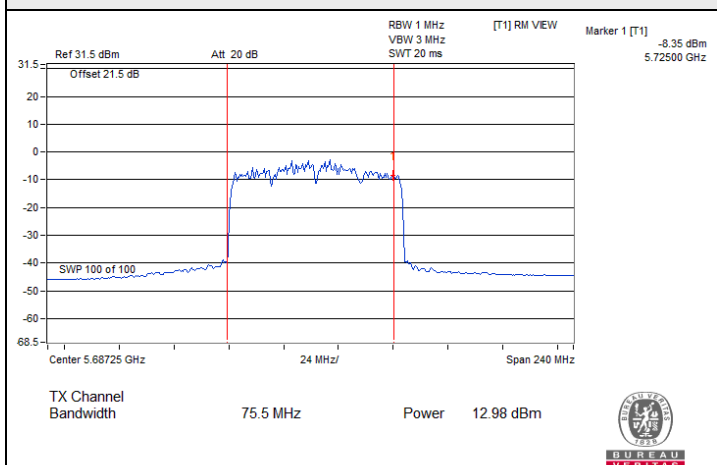


802.11ac (VHT80) CDD / Chain 1 : CH 138 (U-NII-2C)

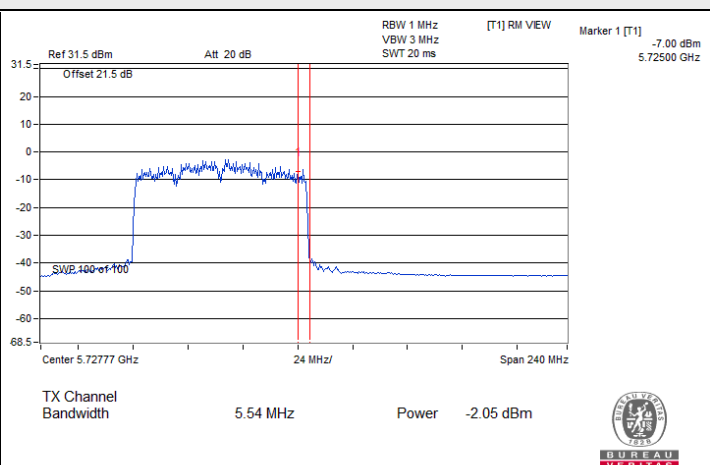


802.11ac (VHT80) CDD / Chain 1 : CH 138 (U-NII-3)

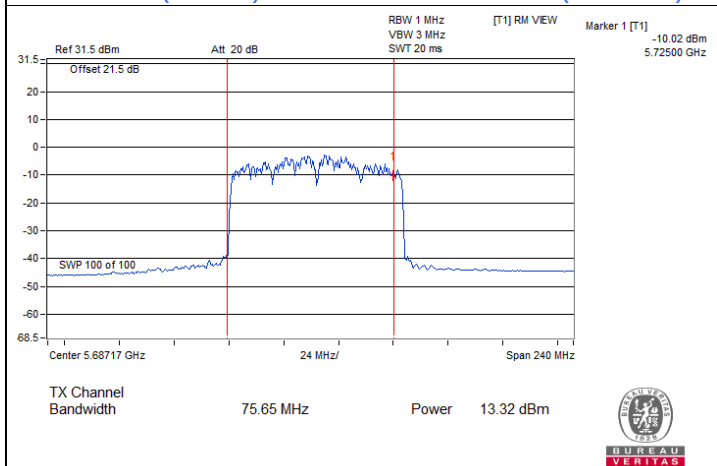
Spectrum Plot for channel straddling



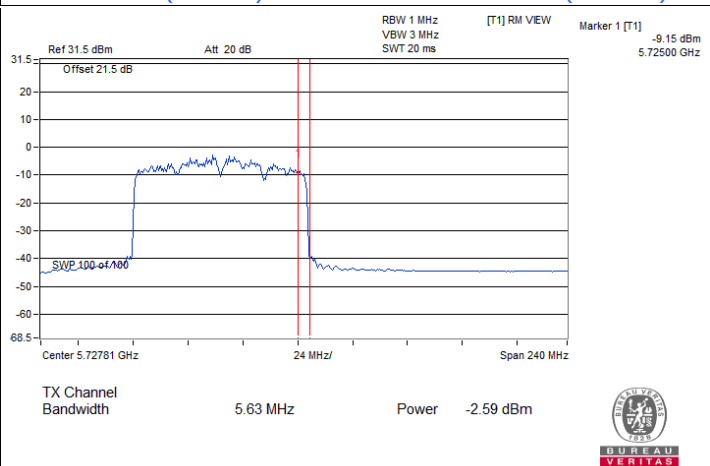
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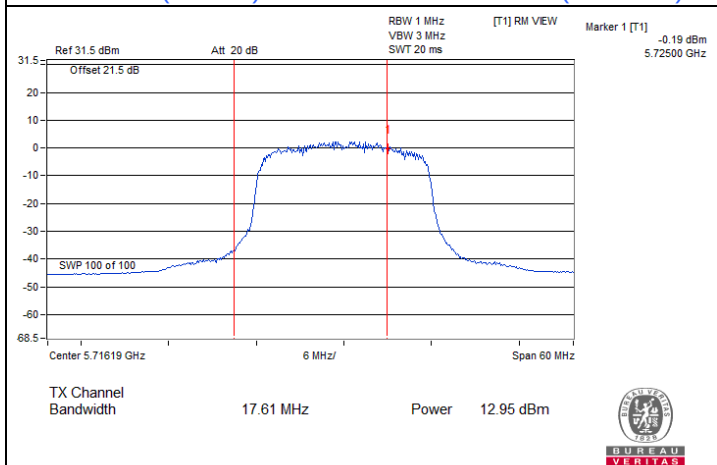
802.11ac (VHT80) CDD / Chain 2 : CH 138 (U-NII-3)



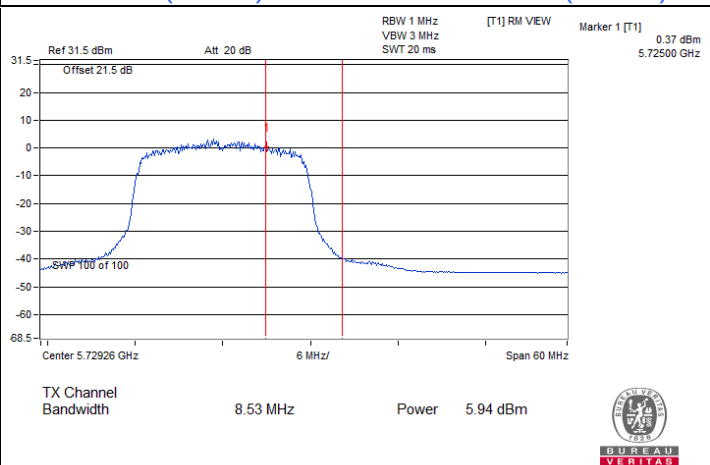
802.11ac (VHT80) CDD / Chain 3 : CH 138 (U-NII-2C)



802.11ac (VHT80) CDD / Chain 3 : CH 138 (U-NII-3)

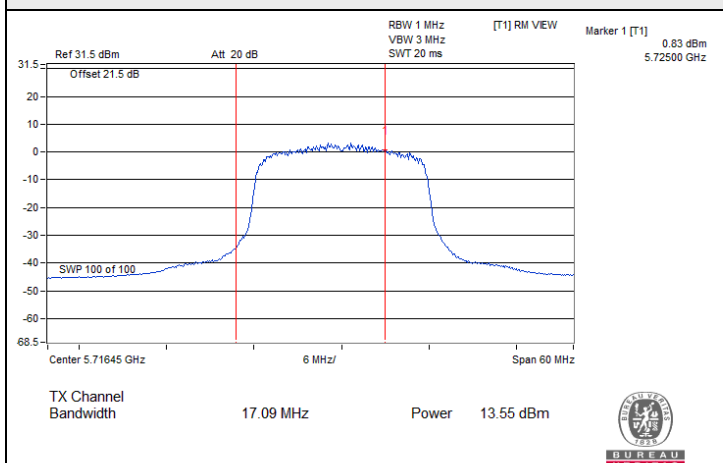


802.11ax (HE20) CDD / Chain 0 : CH 144 (U-NII-2C)

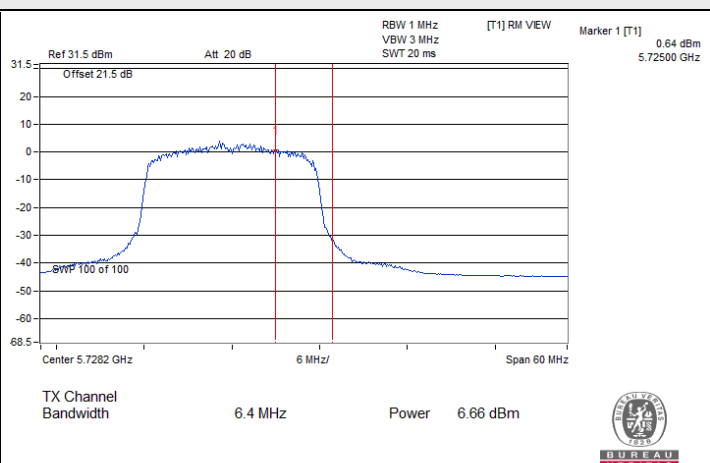


802.11ax (HE20) CDD / Chain 0 : CH 144 (U-NII-3)

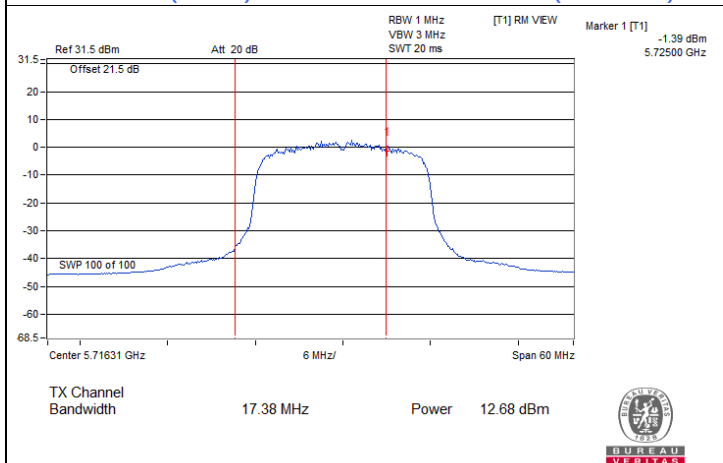
Spectrum Plot for channel straddling



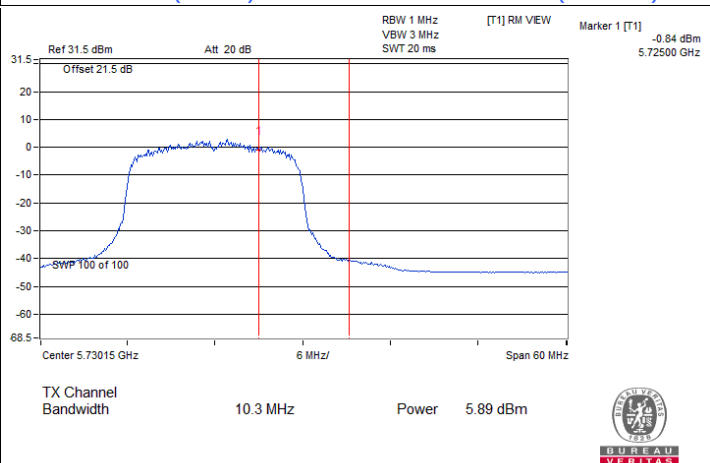
802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-2C)



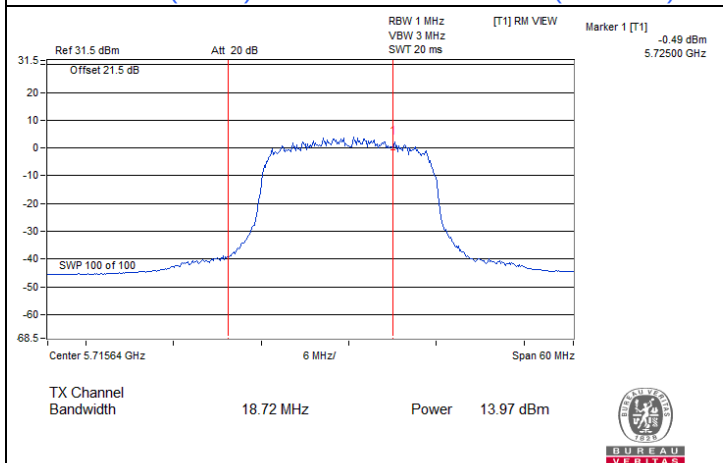
802.11ax (HE20) CDD / Chain 1 : CH 144 (U-NII-3)



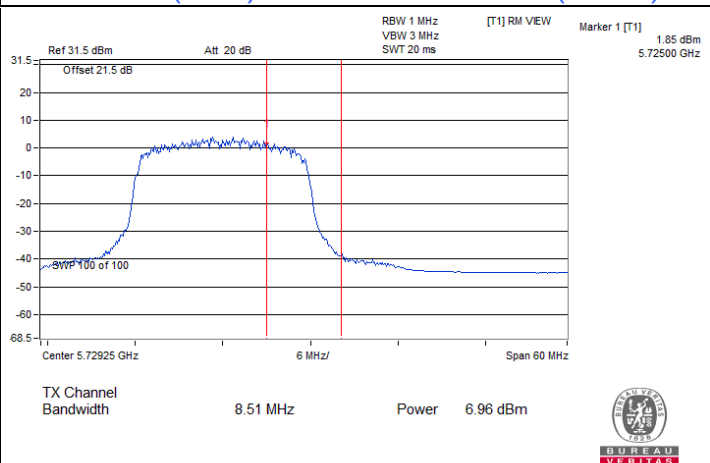
802.11ax (HE20) CDD / Chain 2 : CH 144 (U-NII-2C)



802.11ax (HE20) CDD / Chain 2 : CH 144 (U-NII-3)

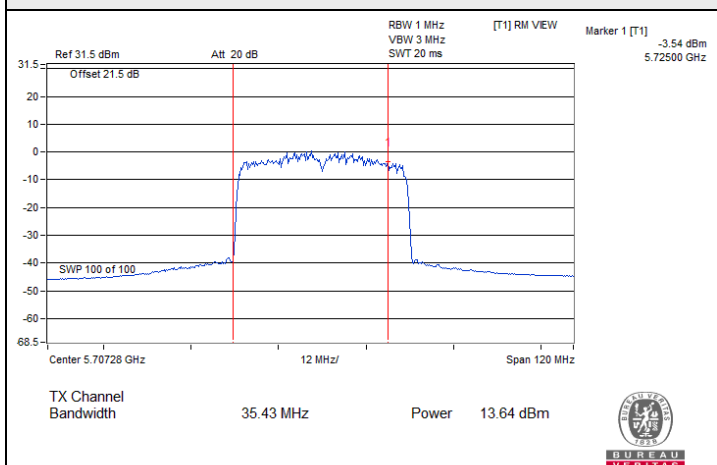


802.11ax (HE20) CDD / Chain 3 : CH 144 (U-NII-2C)

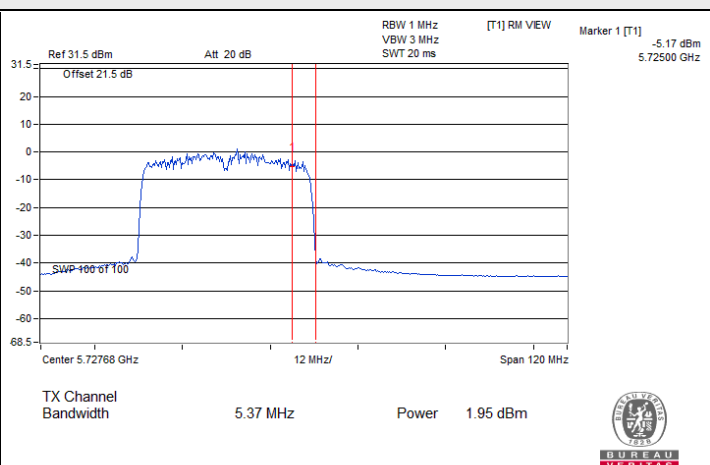


802.11ax (HE20) CDD / Chain 3 : CH 144 (U-NII-3)

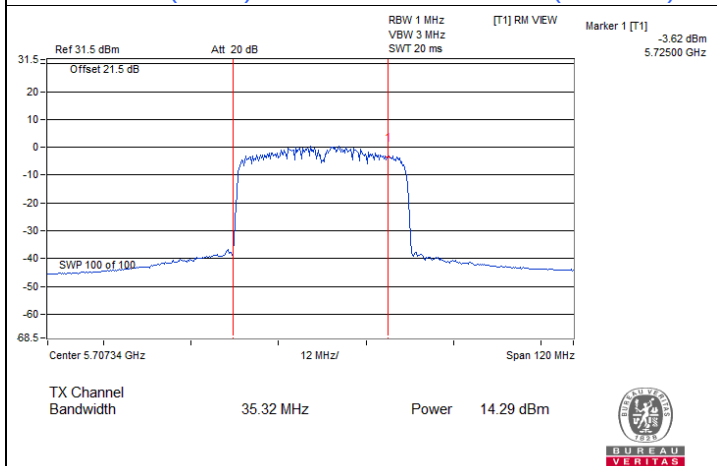
Spectrum Plot for channel straddling



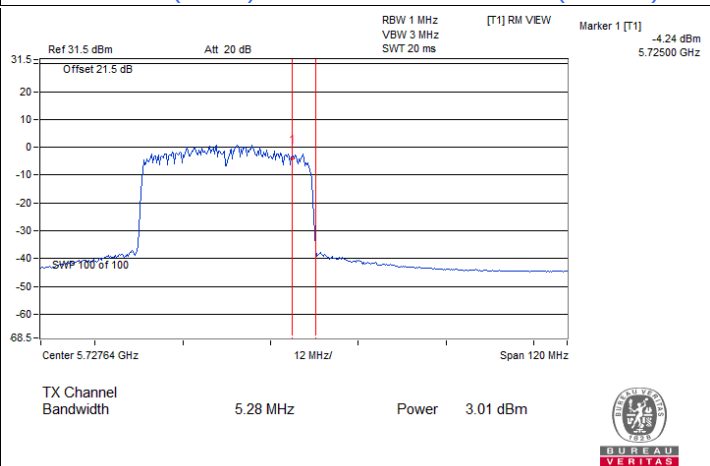
802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-2C)



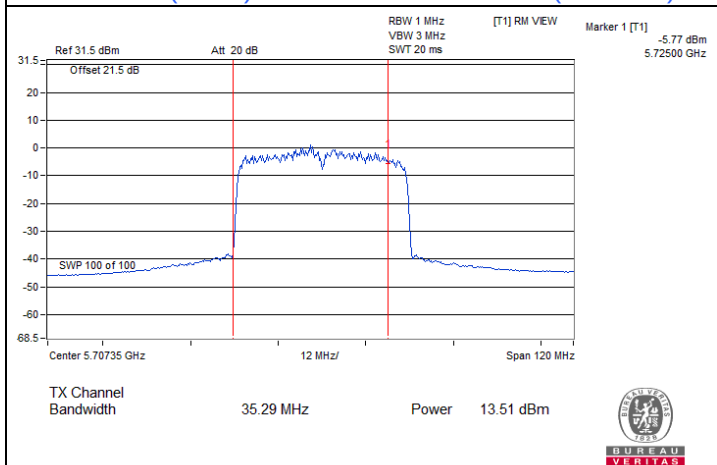
802.11ax (HE40) CDD / Chain 0 : CH 142 (U-NII-3)



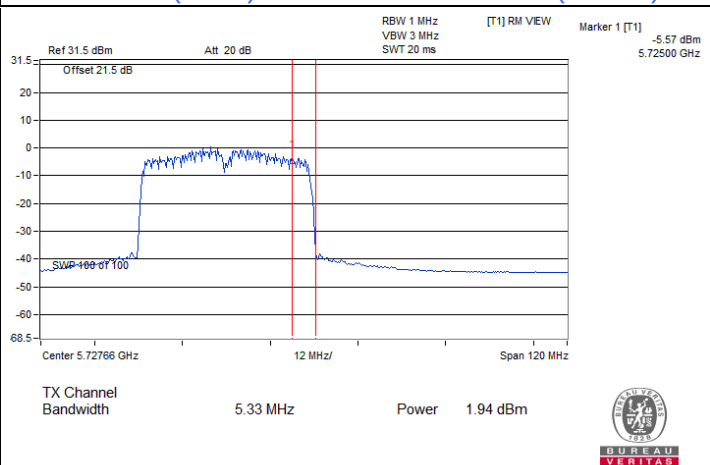
802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-2C)



802.11ax (HE40) CDD / Chain 1 : CH 142 (U-NII-3)

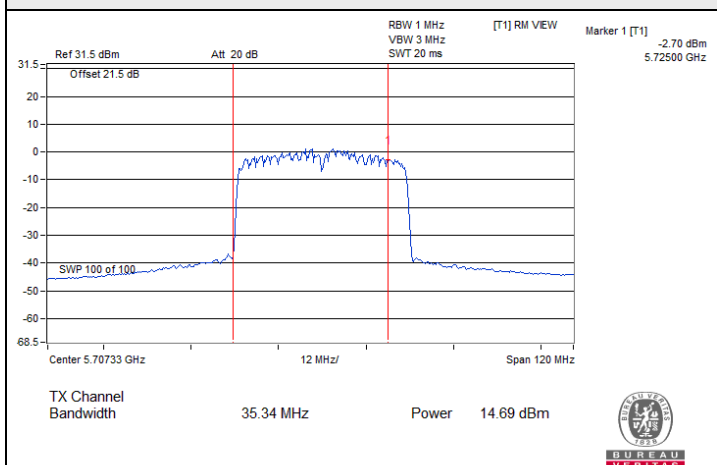


802.11ax (HE40) CDD / Chain 2 : CH 142 (U-NII-2C)

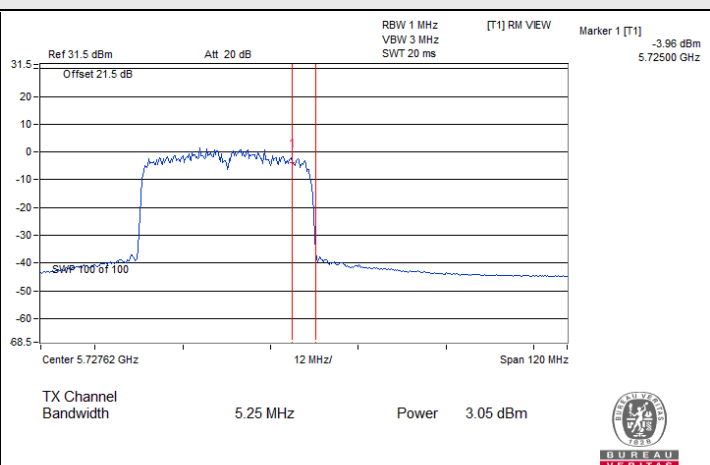


802.11ax (HE40) CDD / Chain 2 : CH 142 (U-NII-3)

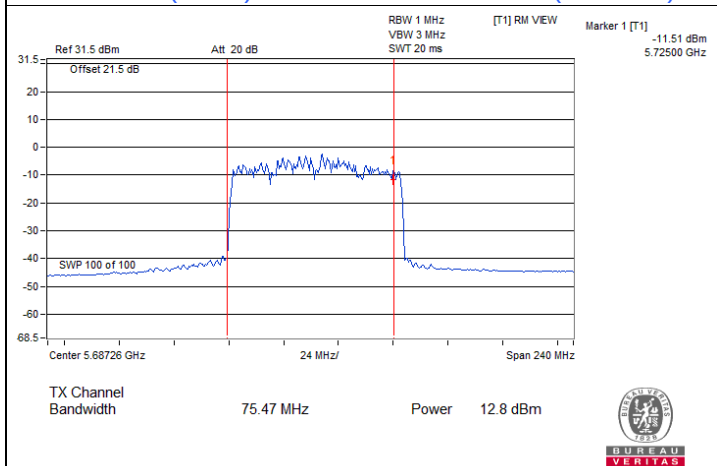
Spectrum Plot for channel straddling



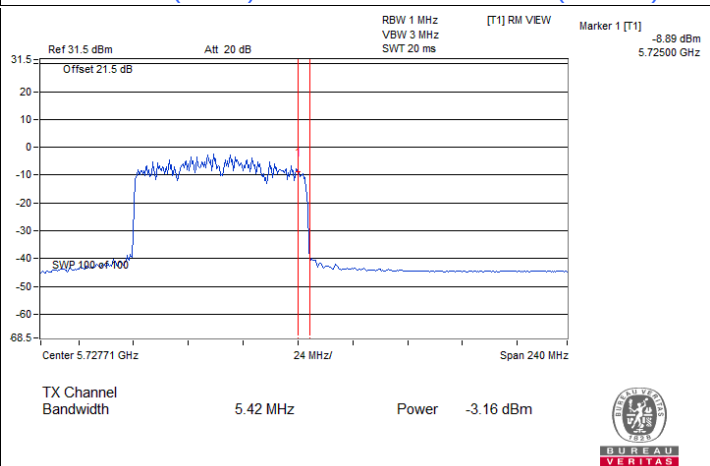
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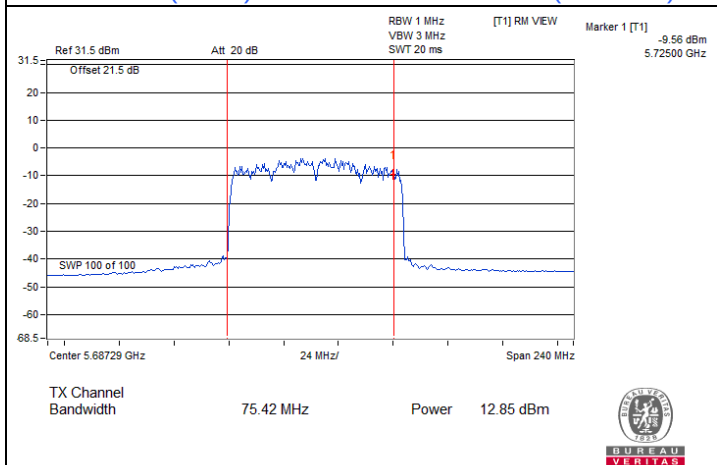
802.11ax (HE40) CDD / Chain 3 : CH 142 (U-NII-3)



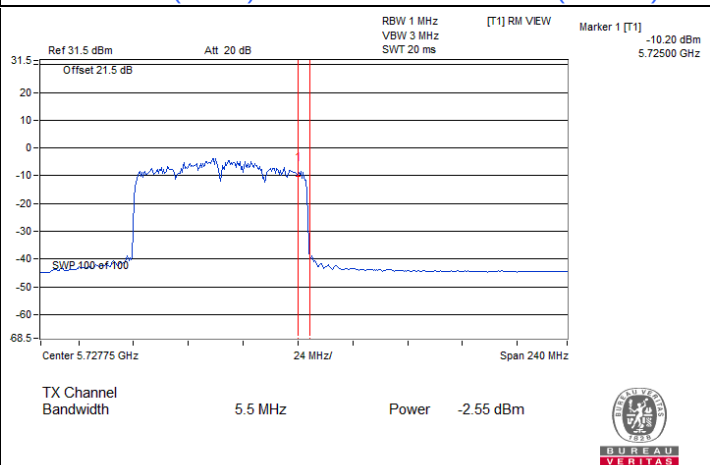
802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-3)

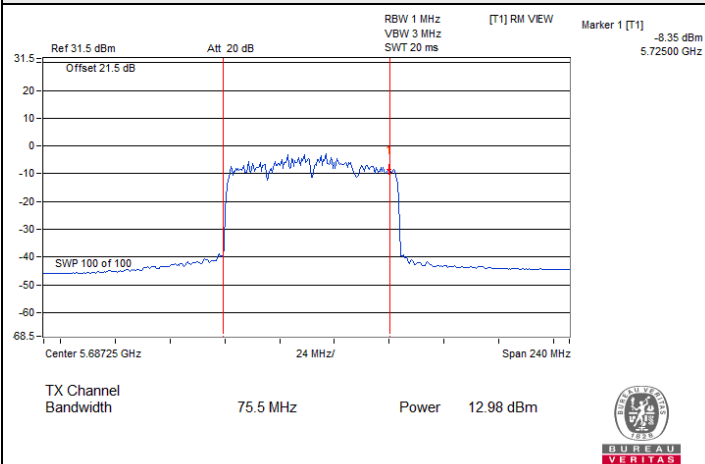


802.11ax (HE80) CDD / Chain 1 : CH 138 (U-NII-2C)

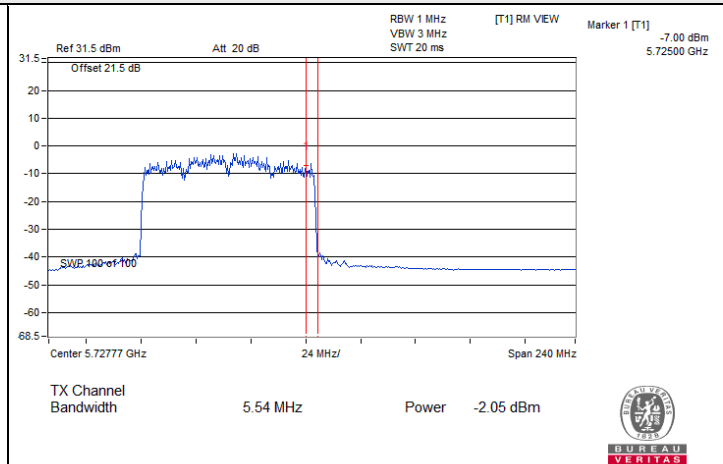


802.11ax (HE80) CDD / Chain 1 : CH 138 (U-NII-3)

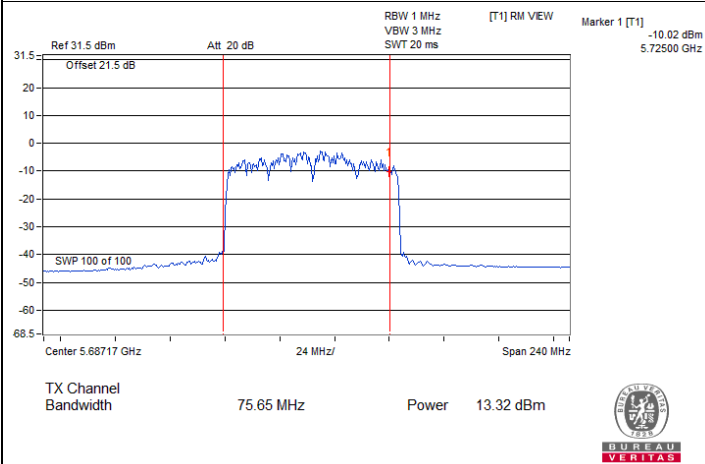
Spectrum Plot for channel straddling



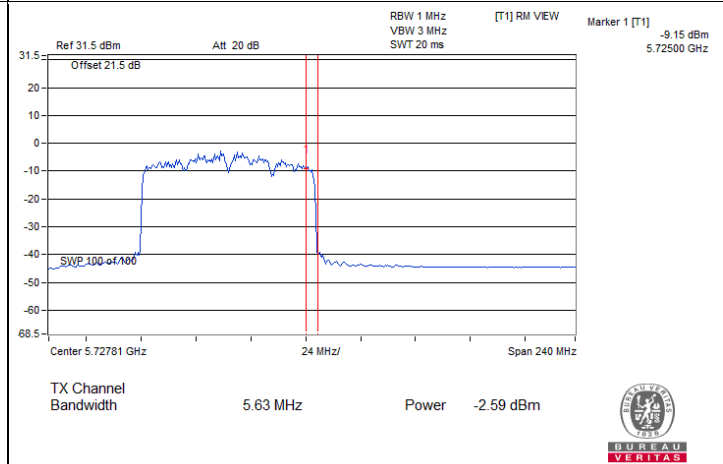
802.11ax (HE80) CDD / Chain 2 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 2 : CH 138 (U-NII-3)



802.11ax (HE80) CDD / Chain 3 : CH 138 (U-NII-2C)



802.11ax (HE80) CDD / Chain 3 : CH 138 (U-NII-3)

7.3 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
52	5260	3.42	3.89	4.11	3.27	9.71	9.94	Pass
60	5300	3.61	3.37	4.08	3.55	9.68	9.94	Pass
64	5320	3.38	3.15	3.84	3.23	9.43	9.94	Pass
100	5500	3.03	3.34	3.92	3.40	9.46	9.49	Pass
116	5580	3.32	3.46	3.23	3.15	9.31	9.49	Pass
140	5700	2.88	3.97	2.92	3.50	9.36	9.49	Pass
144 (U-NII-2C)	5720	2.65	3.85	2.52	3.22	9.11	9.49	Pass

Notes:

- Method E) 2) 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.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.06-6) = 9.94 dBm/MHz.
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.51-6) = 9.49 dBm/MHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
52	5260	3.51	4.01	3.64	3.14	9.61	9.94	Pass
60	5300	3.57	3.45	3.55	3.46	9.53	9.94	Pass
64	5320	3.30	3.21	3.34	3.18	9.28	9.94	Pass
100	5500	3.25	3.46	3.55	3.52	9.47	9.49	Pass
116	5580	3.51	3.44	3.27	3.49	9.45	9.49	Pass
140	5700	3.28	3.72	2.82	3.85	9.46	9.49	Pass
144 (U-NII-2C)	5720	2.93	3.65	2.68	3.72	9.29	9.49	Pass

Notes:

- Method E) 2) 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.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.06-6) = 9.94 dBm/MHz.
- For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.51-6) = 9.49 dBm/MHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
54	5270	1.23	1.89	1.64	1.61	7.62	9.94	Pass
62	5310	0.17	0.27	0.79	0.74	6.52	9.94	Pass
102	5510	1.13	1.99	2.10	1.90	7.82	9.49	Pass
110	5550	2.05	1.81	2.23	1.74	7.98	9.49	Pass
134	5670	0.79	0.91	1.17	1.34	7.08	9.49	Pass
142 (U-NII-2C)	5710	1.17	2.10	1.34	2.44	7.81	9.49	Pass

Notes:

1. Method E) 2) 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. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
3. For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.06-6) = 9.94 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.51-6) = 9.49 dBm/MHz.

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3			
58	5290	-2.66	-2.18	-2.07	-2.74	3.62	9.94	Pass
106	5530	-3.65	-3.21	-3.09	-3.31	2.71	9.49	Pass
122	5610	-1.47	-1.58	-1.36	-1.29	4.60	9.49	Pass
138 (U-NII-2C)	5690	-1.71	-1.77	-1.45	-1.19	4.50	9.49	Pass

Notes:

1. Method E) 2) 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. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
3. For U-NII-2A, the directional gain is 7.06 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.06-6) = 9.94 dBm/MHz.
4. For U-NII-2C, the directional gain is 7.51 dBi > 6 dBi, so the power density limit shall be reduced to 11-(7.51-6) = 9.49 dBm/MHz.

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
144 (U-NII-3)	5720	-8.01	-6.57	-7.85	-7.34	-1.38	0.84	27.74	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
3. For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (8.26 - 6) = 27.74$ dBm/500kHz.

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
144 (U-NII-3)	5720	-7.72	-7.00	-7.87	-6.99	-1.36	0.86	27.74	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
3. For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (8.26 - 6) = 27.74$ dBm/500kHz.

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
142 (U-NII-3)	5710	-11.28	-10.44	-11.13	-10.03	-4.67	-2.45	27.74	Pass

Notes:

1. Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
2. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
3. For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (8.26 - 6) = 27.74$ dBm/500kHz.

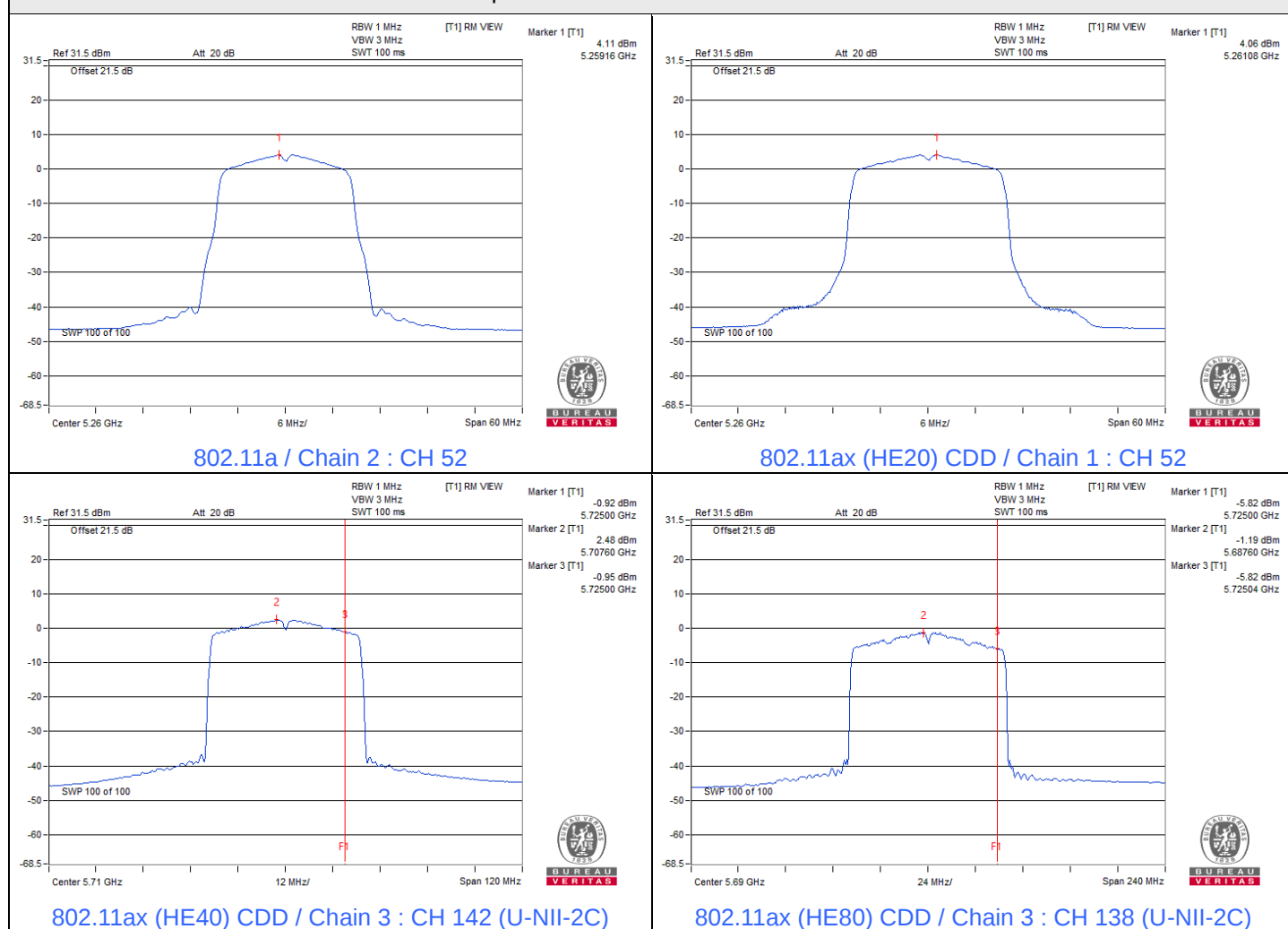
802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/300kHz)				Total PSD (dBm/300kHz)	Total PSD (dBm/500kHz)	PSD Limit (dBm/500kHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3				
138 (U-NII-3)	5690	-15.50	-15.27	-14.98	-14.75	-9.1	-6.88	27.74	Pass

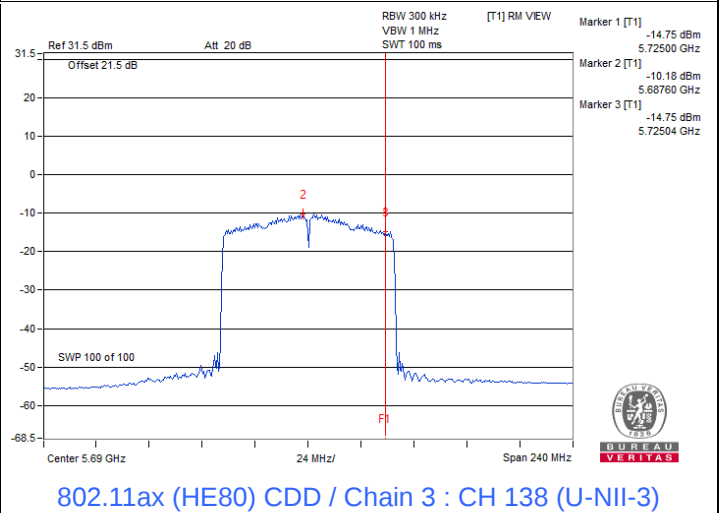
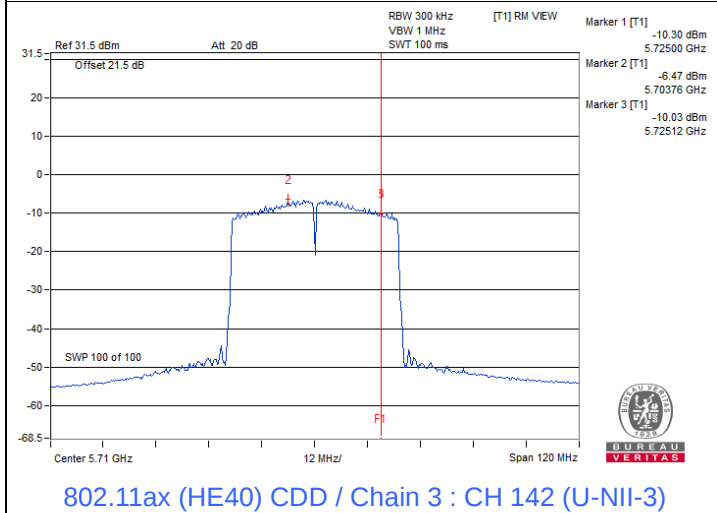
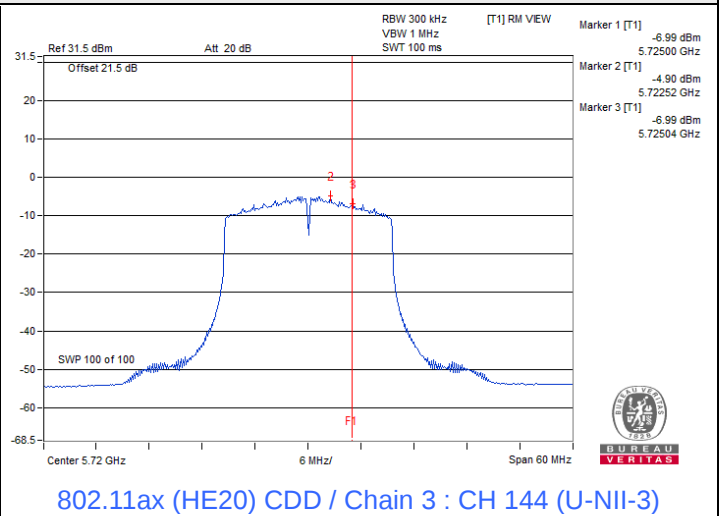
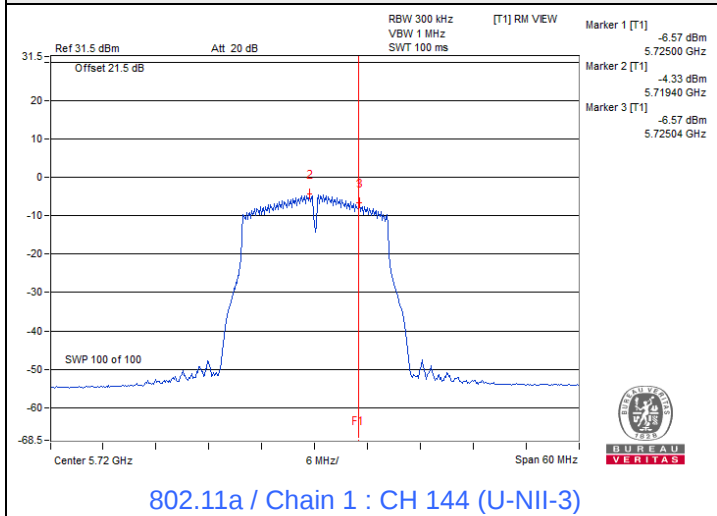
Notes:

- Method E) 2) b) Measure and sum spectral maxima across the outputs of KDB 662911 is using for calculating total power density.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-3, the directional gain is 8.26 dBi > 6 dBi, so the power density limit shall be reduced to $30 - (8.26 - 6) = 27.74$ dBm/500kHz.

Spectrum Plot of Maximum Value



Spectrum Plot of Maximum Value



7.4 6 dB Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	2.60	2.59	2.58	2.60	0.5	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (U-NII-3)	5720	4.31	4.05	3.82	4.05	0.5	Pass

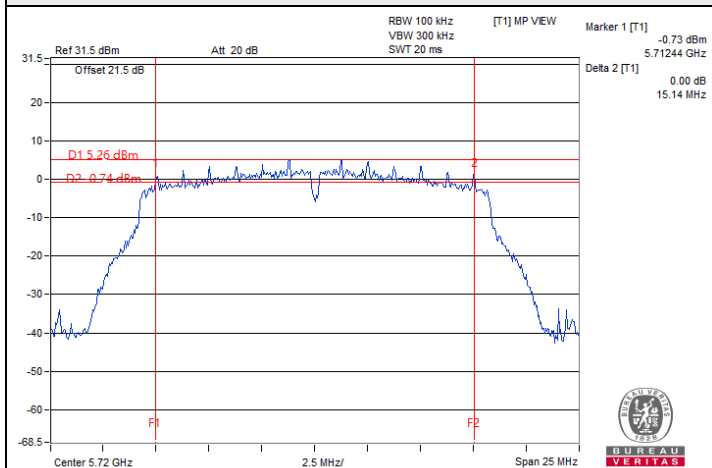
802.11ax (HE40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
142 (U-NII-3)	5710	2.65	3.32	2.63	2.64	0.5	Pass

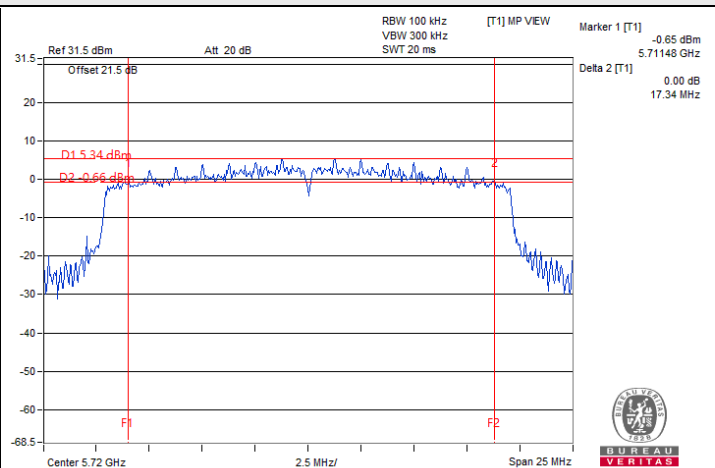
802.11ax (HE80)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)				Minimum Limit (MHz)	Test Result
		Chain 0	Chain 1	Chain 2	Chain 3		
138 (U-NII-3)	5690	2.63	2.65	2.65	2.66	0.5	Pass

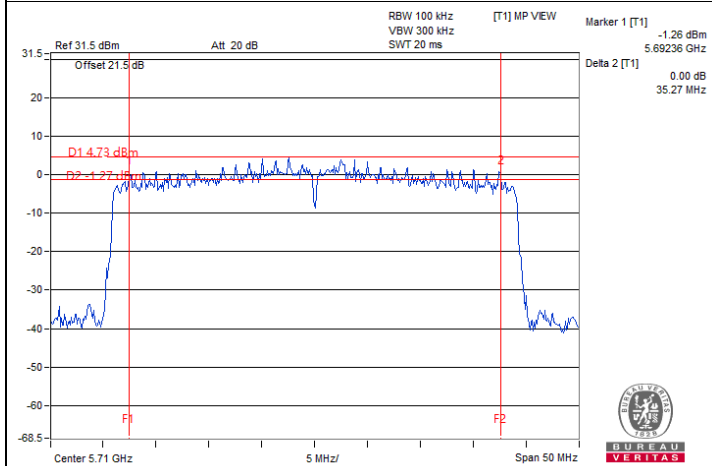
Spectrum Plot of Minimum Value



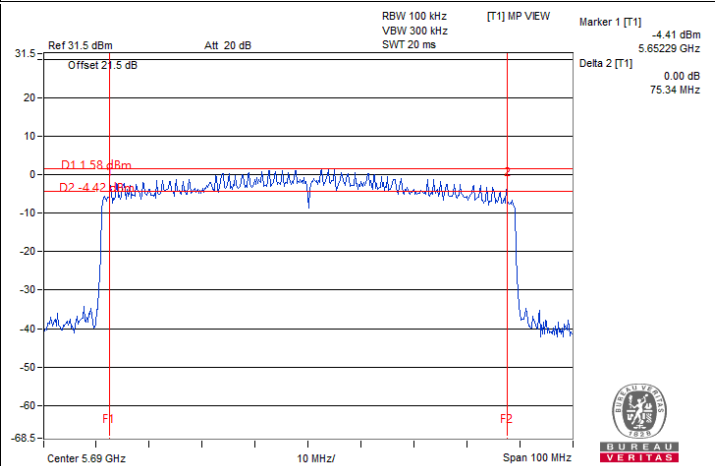
802.11a / Chain 2 : CH 144 (U-NII-3)



802.11ax (HE20) CDD / Chain 2 : CH 144 (U-NII-3)



802.11ax (HE40) CDD / Chain 2 : CH 142 (U-NII-3)



802.11ax (HE80) CDD / Chain 0 : CH 138 (U-NII-3)

Note: For U-NII-3 straddle channel = Marker 1 + Delta 2 - 5725 MHz

7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	16.70	16.52	16.52	16.43
60	5300	16.56	16.56	16.56	16.56
64	5320	16.56	16.56	16.52	16.56
100	5500	16.56	16.56	16.44	16.44
116	5580	16.56	16.56	16.56	16.56
140	5700	16.56	16.68	16.44	16.44
144 (U-NII-2C)	5720	13.28	13.28	13.28	13.28
144 (U-NII-3)	5720	3.28	3.28	3.28	3.28

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	19.08	18.96	18.96	18.96
60	5300	19.14	19.08	19.08	19.08
64	5320	19.08	19.08	19.08	19.08
100	5500	19.32	19.08	19.08	18.96
116	5580	18.96	19.08	19.08	19.20
140	5700	19.08	19.08	19.08	19.08
144 (U-NII-2C)	5720	14.60	14.60	14.60	14.60
144 (U-NII-3)	5720	4.48	4.48	4.48	4.48

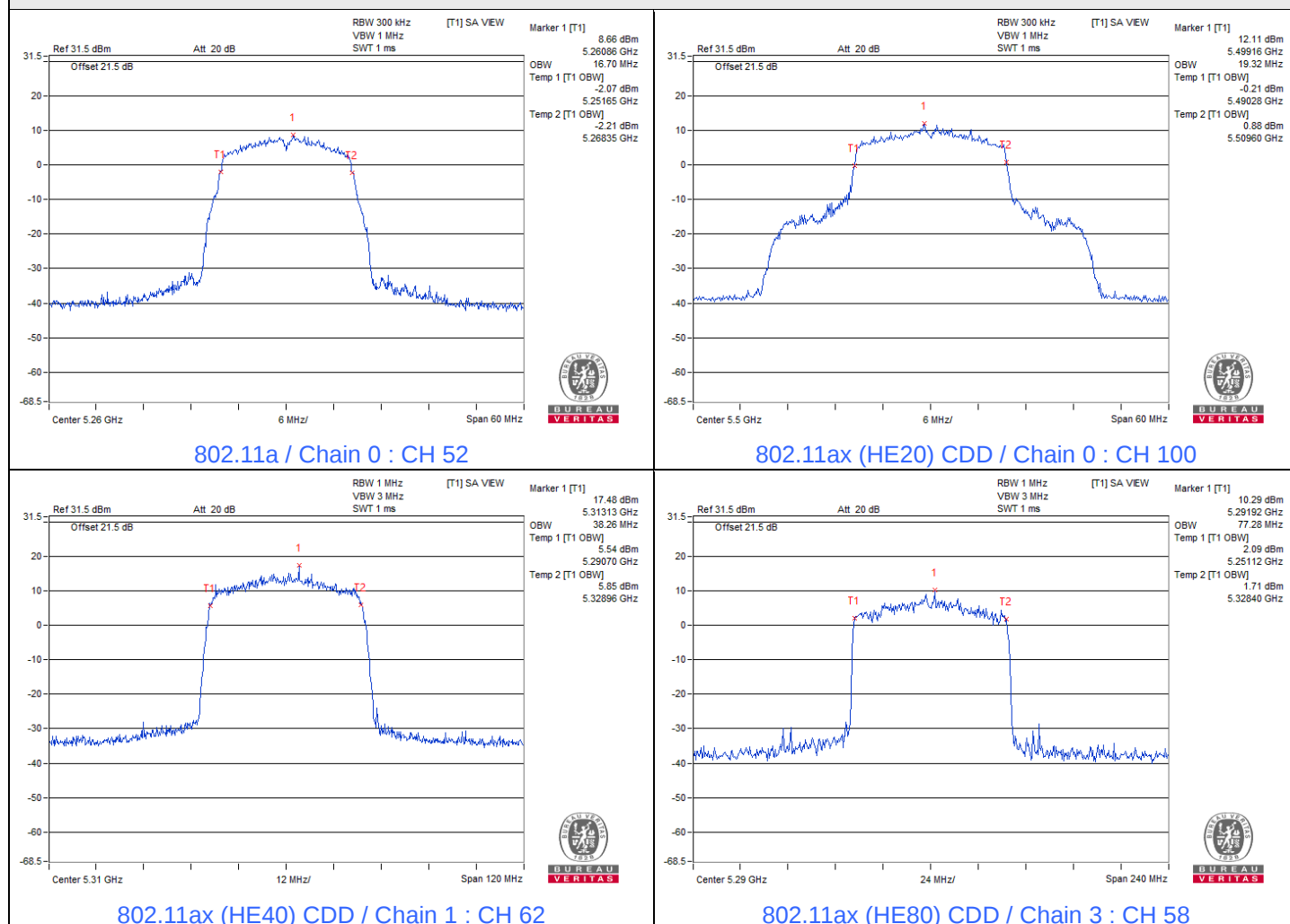
802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	37.68	37.92	37.68	37.68
62	5310	37.68	38.26	38.26	38.26
102	5510	37.68	37.68	37.44	37.68
110	5550	37.68	37.68	37.68	37.68
134	5670	37.68	37.68	37.68	37.68
142 (U-NII-2C)	5710	33.96	33.96	33.72	33.96
142 (U-NII-3)	5710	3.72	3.72	3.72	3.72

802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	76.80	76.80	76.80	77.28
106	5530	76.80	76.80	76.80	76.32
122	5610	76.80	76.80	76.32	76.80
138 (U-NII-2C)	5690	73.40	73.40	73.40	73.40
138 (U-NII-3)	5690	3.40	3.40	3.40	3.40

Spectrum Plot of Maximum Value



7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	22°C, 63% RH	Tested By:	Katina Lu
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802.11a

Frequency Stability Versus Temperature									
Operating Frequency: 5260 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	5260.0185	Pass	5260.0173	Pass	5260.0194	Pass	5260.0184	Pass
30	120	5260.0077	Pass	5260.0035	Pass	5260.007	Pass	5260.0069	Pass
20	120	5259.9981	Pass	5260.0008	Pass	5259.9978	Pass	5259.9991	Pass
10	120	5260.0096	Pass	5260.0113	Pass	5260.0099	Pass	5260.0103	Pass
0	120	5260.0266	Pass	5260.0264	Pass	5260.0258	Pass	5260.0276	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)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5260.0192	Pass	5260.0201	Pass	5260.0201	Pass	5260.02	Pass
	120	5260.0096	Pass	5260.0113	Pass	5260.0099	Pass	5260.0103	Pass
	102	5260.0159	Pass	5260.0152	Pass	5260.016	Pass	5260.0138	Pass

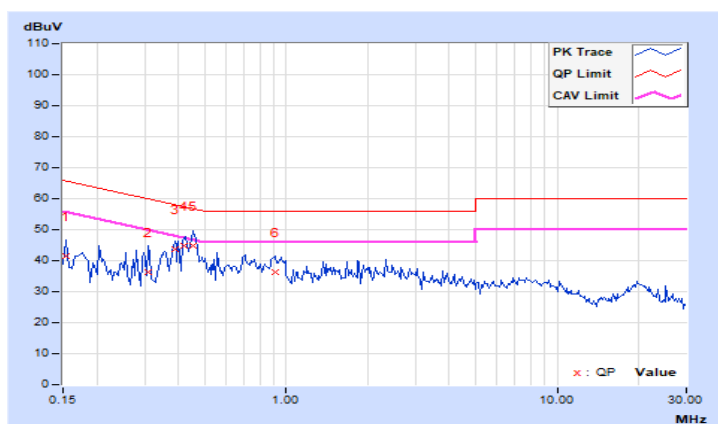
7.7 AC Power Conducted Emissions

RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 66% RH
Tested By	Sampson Chen		

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.98	31.54	15.95	41.52	25.93	65.79	55.79	-24.27	-29.86
2	0.31016	9.99	26.20	12.70	36.19	22.69	59.97	49.97	-23.78	-27.28
3	0.38828	9.99	33.87	32.30	43.86	42.29	58.10	48.10	-14.24	-5.81
4	0.41953	9.99	34.82	31.91	44.81	41.90	57.46	47.46	-12.65	-5.56
5	0.45078	9.99	34.98	28.96	44.97	38.95	56.86	46.86	-11.89	-7.91
6	0.91172	10.02	26.45	21.32	36.47	31.34	56.00	46.00	-19.53	-14.66

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

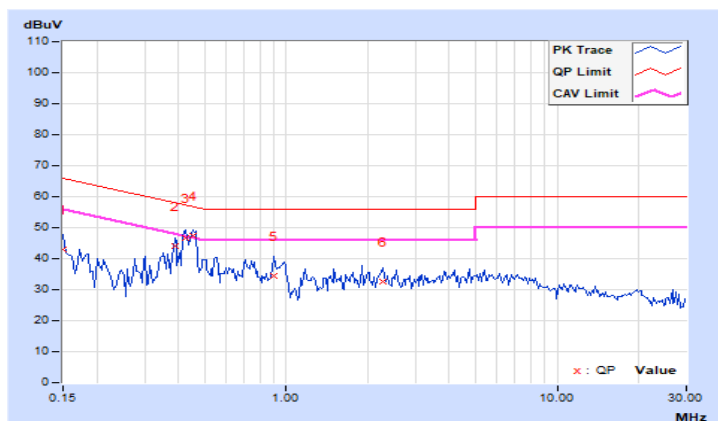


RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	24°C, 66% RH
Tested By	Sampson Chen		

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.02	33.04	17.25	43.06	27.27	66.00	56.00	-22.94	-28.73
2	0.38828	10.04	33.88	32.23	43.92	42.27	58.10	48.10	-14.18	-5.83
3	0.42344	10.04	36.58	31.03	46.62	41.07	57.38	47.38	-10.76	-6.31
4	0.45469	10.04	37.22	32.63	47.26	42.67	56.79	46.79	-9.53	-4.12
5	0.90391	10.07	24.31	16.71	34.38	26.78	56.00	46.00	-21.62	-19.22
6	2.27344	10.17	22.51	16.83	32.68	27.00	56.00	46.00	-23.32	-19.00

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



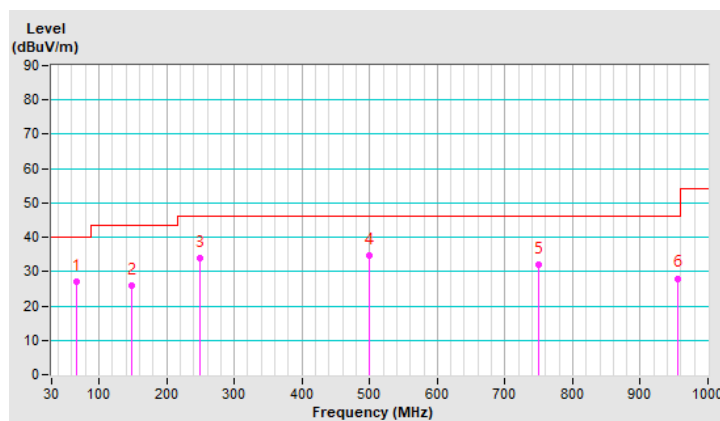
7.8 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	65.91	27.0 QP	40.0	-13.0	1.00 H	318	40.9	-13.9
2	148.78	26.0 QP	43.5	-17.5	1.00 H	317	38.5	-12.5
3	249.97	34.0 QP	46.0	-12.0	1.00 H	259	48.0	-14.0
4	499.96	34.8 QP	46.0	-11.2	1.00 H	260	42.2	-7.4
5	749.98	32.0 QP	46.0	-14.0	1.00 H	175	34.8	-2.8
6	954.58	28.0 QP	46.0	-18.0	1.00 H	284	28.0	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 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

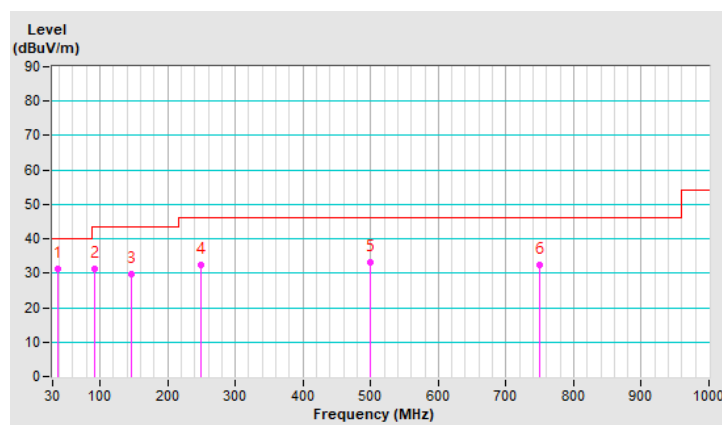


RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	30 MHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 67% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	38.12	31.1 QP	40.0	-8.9	3.00 V	45	44.3	-13.2
2	91.38	31.3 QP	43.5	-12.2	3.00 V	229	49.6	-18.3
3	147.10	29.7 QP	43.5	-13.8	1.00 V	96	42.2	-12.5
4	249.97	32.5 QP	46.0	-13.5	1.00 V	252	46.5	-14.0
5	499.99	33.2 QP	46.0	-12.8	1.50 V	212	40.6	-7.4
6	749.98	32.5 QP	46.0	-13.5	1.00 V	153	35.3	-2.8

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



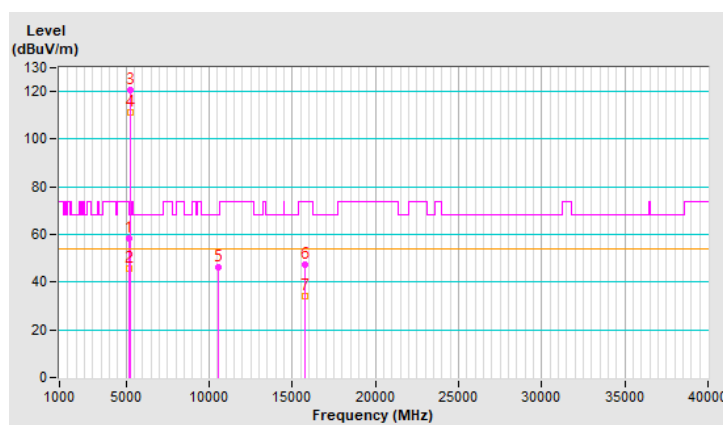
7.9 Unwanted Emissions above 1 GHz

RF Mode	802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.4 PK	74.0	-15.6	1.41 H	2	54.8	3.6
2	5150.00	45.7 AV	54.0	-8.3	1.41 H	2	42.1	3.6
3	*5260.00	120.5 PK			1.41 H	2	117.4	3.1
4	*5260.00	111.5 AV			1.41 H	2	108.4	3.1
5	#10520.00	46.5 PK	68.2	-21.7	1.96 H	214	32.4	14.1
6	15780.00	47.3 PK	74.0	-26.7	2.90 H	145	33.2	14.1
7	15780.00	34.2 AV	54.0	-19.8	2.90 H	145	20.1	14.1

Remarks:

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

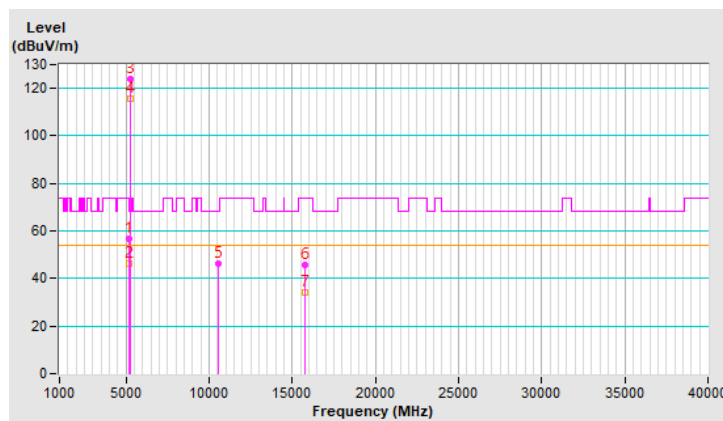


RF Mode	802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.7 PK	74.0	-17.3	1.99 V	26	53.1	3.6
2	5150.00	46.4 AV	54.0	-7.6	1.99 V	26	42.8	3.6
3	*5260.00	124.1 PK			1.99 V	26	121.0	3.1
4	*5260.00	115.6 AV			1.99 V	26	112.5	3.1
5	#10520.00	46.1 PK	68.2	-22.1	2.41 V	245	32.0	14.1
6	15780.00	45.6 PK	74.0	-28.4	1.90 V	247	31.5	14.1
7	15780.00	34.2 AV	54.0	-19.8	1.90 V	247	20.1	14.1

Remarks:

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

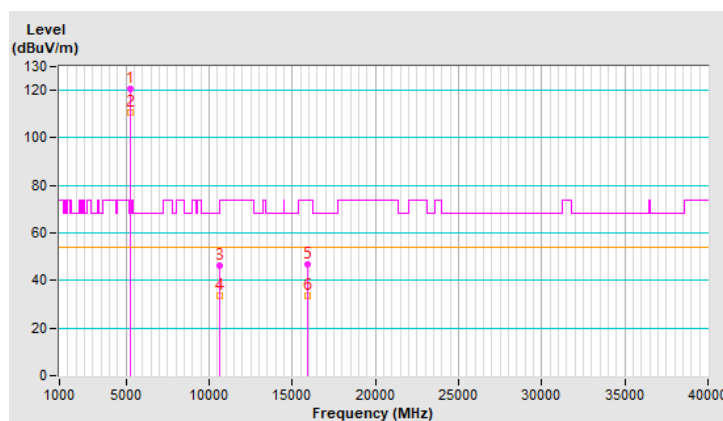


RF Mode	802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	120.7 PK			1.07 H	351	117.6	3.1
2	*5300.00	110.9 AV			1.07 H	351	107.8	3.1
3	10600.00	46.5 PK	74.0	-27.5	1.96 H	230	32.8	13.7
4	10600.00	33.7 AV	54.0	-20.3	1.96 H	230	20.0	13.7
5	15900.00	47.0 PK	74.0	-27.0	2.91 H	162	32.9	14.1
6	15900.00	33.7 AV	54.0	-20.3	2.91 H	162	19.6	14.1

Remarks:

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

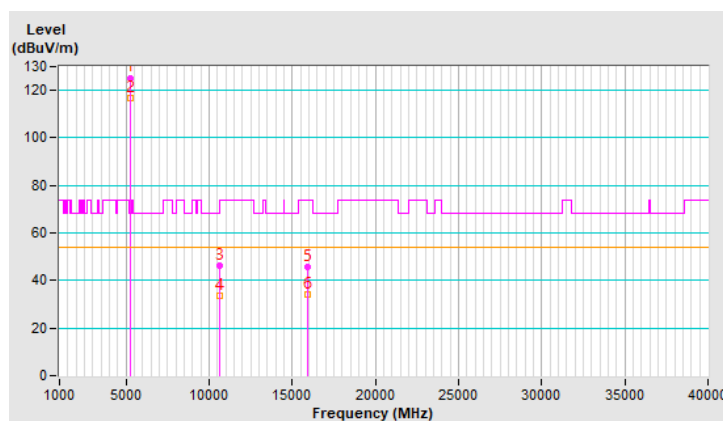


RF Mode	802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	125.3 PK			1.99 V	12	122.2	3.1
2	*5300.00	117.0 AV			1.99 V	12	113.9	3.1
3	10600.00	46.1 PK	74.0	-27.9	2.37 V	229	32.4	13.7
4	10600.00	33.6 AV	54.0	-20.4	2.37 V	229	19.9	13.7
5	15900.00	45.8 PK	74.0	-28.2	1.92 V	225	31.7	14.1
6	15900.00	34.2 AV	54.0	-19.8	1.92 V	225	20.1	14.1

Remarks:

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

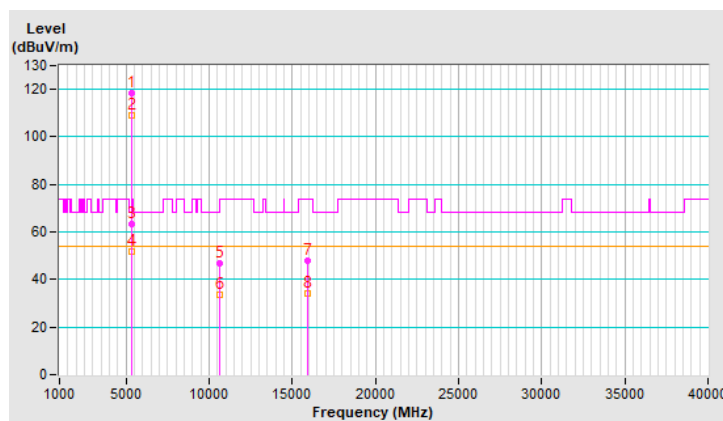


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	118.5 PK			1.17 H	360	115.3	3.2
2	*5320.00	108.9 AV			1.17 H	360	105.7	3.2
3	5350.00	63.4 PK	74.0	-10.6	1.17 H	360	60.1	3.3
4	5350.00	51.6 AV	54.0	-2.4	1.17 H	360	48.3	3.3
5	10640.00	46.9 PK	74.0	-27.1	1.95 H	222	33.2	13.7
6	10640.00	33.8 AV	54.0	-20.2	1.95 H	222	20.1	13.7
7	15960.00	47.8 PK	74.0	-26.2	2.93 H	167	33.3	14.5
8	15960.00	34.2 AV	54.0	-19.8	2.93 H	167	19.7	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, the limit was restricted at the RF Output Power.

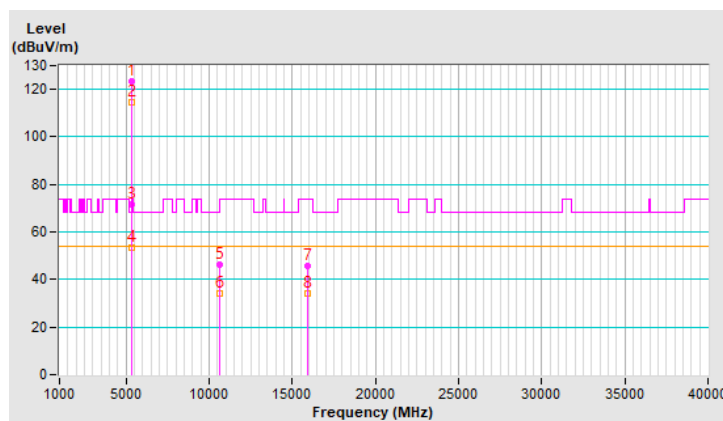


RF Mode	802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	123.3 PK			1.77 V	332	120.1	3.2
2	*5320.00	114.6 AV			1.77 V	332	111.4	3.2
3	5350.00	71.8 PK	74.0	-2.2	1.77 V	332	68.5	3.3
4	5350.00	53.2 AV	54.0	-0.8	1.77 V	332	49.9	3.3
5	10640.00	46.5 PK	74.0	-27.5	2.39 V	235	32.8	13.7
6	10640.00	33.9 AV	54.0	-20.1	2.39 V	235	20.2	13.7
7	15960.00	45.9 PK	74.0	-28.1	1.89 V	220	31.4	14.5
8	15960.00	34.3 AV	54.0	-19.7	1.89 V	220	19.8	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, the limit was restricted at the RF Output Power.

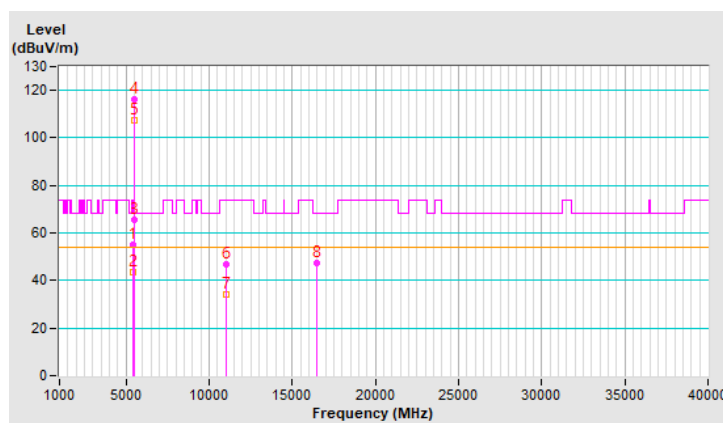


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	54.9 PK	74.0	-19.1	1.05 H	360	51.4	3.5
2	5460.00	43.4 AV	54.0	-10.6	1.05 H	360	39.9	3.5
3	#5470.00	65.4 PK	68.2	-2.8	1.05 H	360	61.9	3.5
4	*5500.00	116.4 PK			1.05 H	360	112.9	3.5
5	*5500.00	107.3 AV			1.05 H	360	103.8	3.5
6	11000.00	46.8 PK	74.0	-27.2	1.95 H	221	32.6	14.2
7	11000.00	34.0 AV	54.0	-20.0	1.95 H	221	19.8	14.2
8	#16500.00	47.6 PK	68.2	-20.6	2.95 H	157	31.6	16.0

Remarks:

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

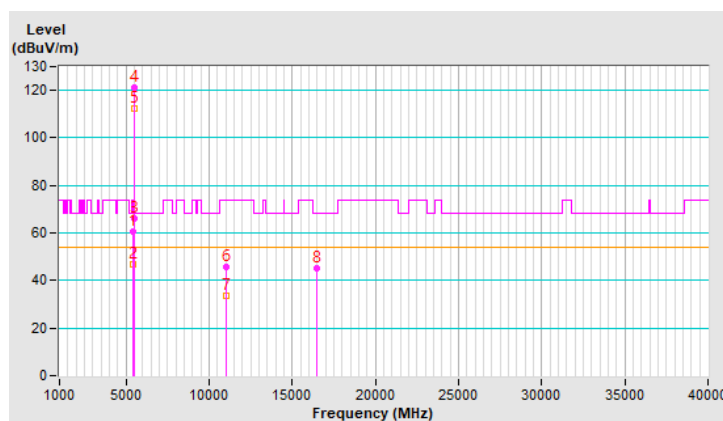


RF Mode	802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	60.7 PK	74.0	-13.3	1.71 V	338	57.2	3.5
2	5460.00	46.9 AV	54.0	-7.1	1.71 V	338	43.4	3.5
3	#5470.00	66.3 PK	68.2	-1.9	1.71 V	338	62.8	3.5
4	*5500.00	121.3 PK			1.71 V	338	117.8	3.5
5	*5500.00	112.3 AV			1.71 V	338	108.8	3.5
6	11000.00	45.7 PK	74.0	-28.3	2.46 V	243	31.5	14.2
7	11000.00	33.4 AV	54.0	-20.6	2.46 V	243	19.2	14.2
8	#16500.00	45.4 PK	68.2	-22.8	1.93 V	229	29.4	16.0

Remarks:

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

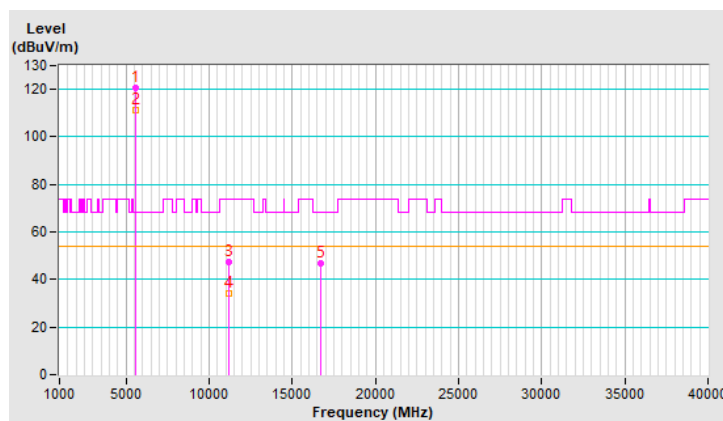


RF Mode	802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	120.7 PK			3.70 H	360	116.9	3.8
2	*5580.00	111.2 AV			3.70 H	360	107.4	3.8
3	11160.00	47.1 PK	74.0	-26.9	1.99 H	230	32.7	14.4
4	11160.00	34.3 AV	54.0	-19.7	1.99 H	230	19.9	14.4
5	#16740.00	46.6 PK	68.2	-21.6	2.90 H	151	29.0	17.6

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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

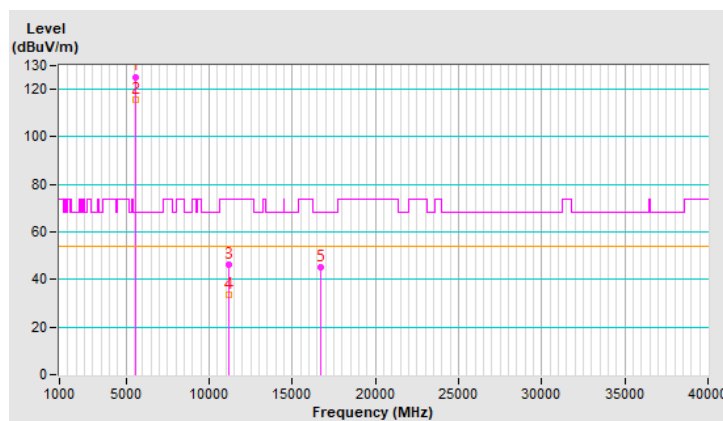


RF Mode	802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	125.3 PK			1.58 V	335	121.5	3.8
2	*5580.00	115.8 AV			1.58 V	335	112.0	3.8
3	11160.00	46.3 PK	74.0	-27.7	2.38 V	243	31.9	14.4
4	11160.00	33.6 AV	54.0	-20.4	2.38 V	243	19.2	14.4
5	#16740.00	44.9 PK	68.2	-23.3	1.84 V	239	27.3	17.6

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, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

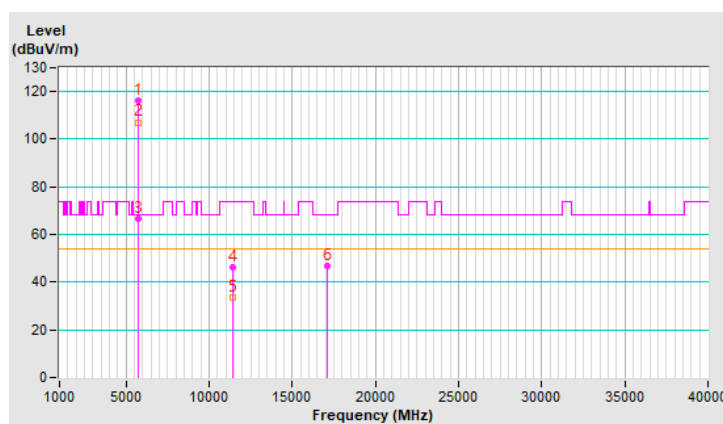


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	116.3 PK			2.12 H	351	112.4	3.9
2	*5700.00	107.1 AV			2.12 H	351	103.2	3.9
3	#5725.00	66.8 PK	68.2	-1.4	2.12 H	351	62.8	4.0
4	11400.00	46.5 PK	74.0	-27.5	1.95 H	242	31.5	15.0
5	11400.00	33.7 AV	54.0	-20.3	1.95 H	242	18.7	15.0
6	#17100.00	46.8 PK	68.2	-21.4	2.88 H	170	29.0	17.8

Remarks:

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

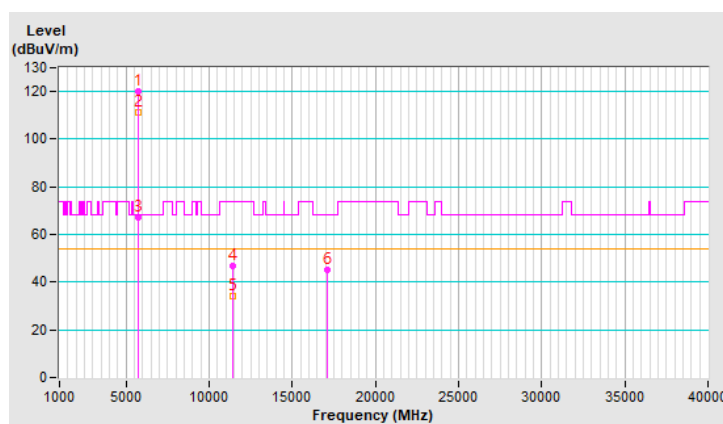


RF Mode	802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	120.0 PK			1.65 V	336	116.1	3.9
2	*5700.00	111.2 AV			1.65 V	336	107.3	3.9
3	#5725.00	67.1 PK	68.2	-1.1	1.65 V	336	63.1	4.0
4	11400.00	47.0 PK	74.0	-27.0	2.42 V	245	32.0	15.0
5	11400.00	34.3 AV	54.0	-19.7	2.42 V	245	19.3	15.0
6	#17100.00	45.1 PK	68.2	-23.1	1.84 V	249	27.3	17.8

Remarks:

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

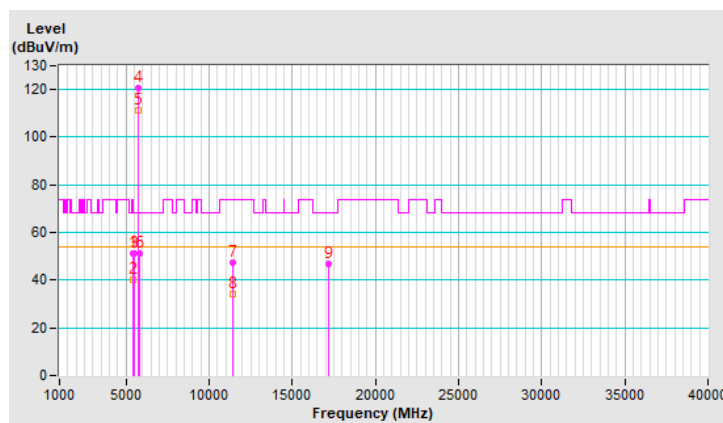


RF Mode	802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.4 PK	74.0	-22.6	2.28 H	354	47.9	3.5
2	5460.00	40.0 AV	54.0	-14.0	2.28 H	354	36.5	3.5
3	#5470.00	51.4 PK	68.2	-16.8	2.28 H	354	47.9	3.5
4	*5720.00	120.5 PK			2.28 H	354	116.5	4.0
5	*5720.00	111.3 AV			2.28 H	354	107.3	4.0
6	#5850.00	51.0 PK	68.2	-17.2	2.28 H	354	46.7	4.3
7	11440.00	47.1 PK	74.0	-26.9	1.94 H	215	32.1	15.0
8	11440.00	34.1 AV	54.0	-19.9	1.94 H	215	19.1	15.0
9	#17160.00	47.0 PK	68.2	-21.2	2.84 H	171	29.5	17.5

Remarks:

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

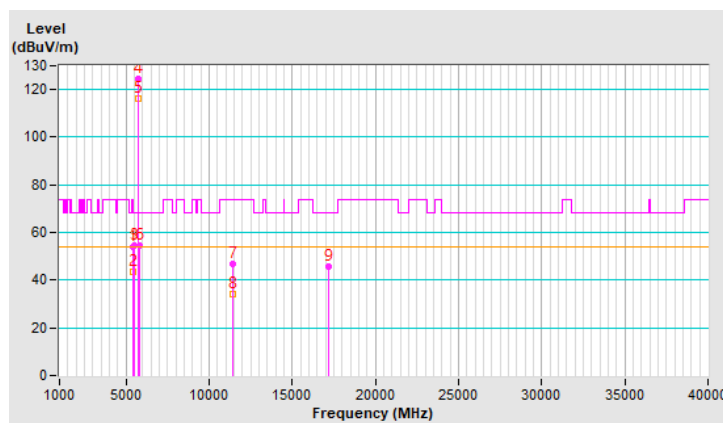


RF Mode	802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	54.2 PK	74.0	-19.8	1.62 V	338	50.7	3.5
2	5460.00	43.5 AV	54.0	-10.5	1.62 V	338	40.0	3.5
3	#5470.00	54.3 PK	68.2	-13.9	1.62 V	338	50.8	3.5
4	*5720.00	124.7 PK			1.62 V	338	120.7	4.0
5	*5720.00	116.2 AV			1.62 V	338	112.2	4.0
6	#5850.00	54.3 PK	68.2	-13.9	1.62 V	338	50.0	4.3
7	11440.00	46.8 PK	74.0	-27.2	2.44 V	233	31.8	15.0
8	11440.00	34.1 AV	54.0	-19.9	2.44 V	233	19.1	15.0
9	#17160.00	45.6 PK	68.2	-22.6	1.85 V	249	28.1	17.5

Remarks:

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

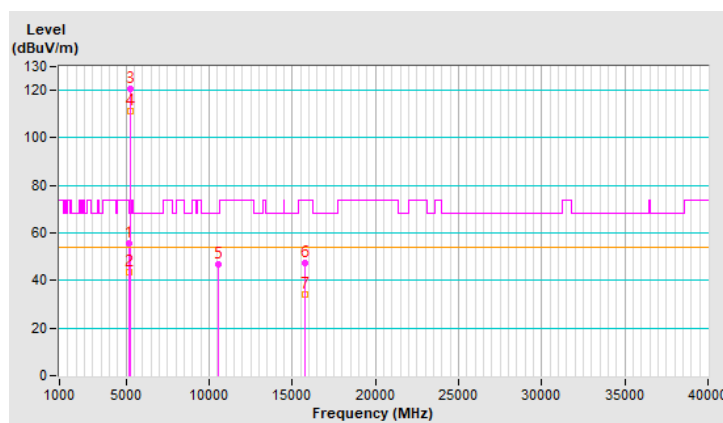


RF Mode	802.11ax (HE20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	55.5 PK	74.0	-18.5	1.00 H	0	51.9	3.6
2	5150.00	43.5 AV	54.0	-10.5	1.00 H	0	39.9	3.6
3	*5260.00	120.7 PK			2.21 H	320	117.6	3.1
4	*5260.00	111.0 AV			2.21 H	320	107.9	3.1
5	#10520.00	46.7 PK	68.2	-21.5	1.94 H	227	32.6	14.1
6	15780.00	47.2 PK	74.0	-26.8	2.89 H	160	33.1	14.1
7	15780.00	33.9 AV	54.0	-20.1	2.89 H	160	19.8	14.1

Remarks:

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

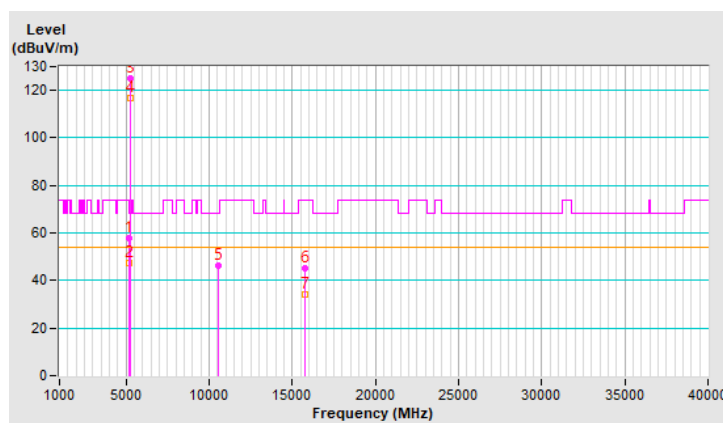


RF Mode	802.11ax (HE20)	Channel	CH 52 : 5260 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	58.0 PK	74.0	-16.0	1.00 V	0	54.4	3.6
2	5150.00	47.5 AV	54.0	-6.5	1.00 V	0	43.9	3.6
3	*5260.00	124.9 PK			1.77 V	336	121.8	3.1
4	*5260.00	116.6 AV			1.77 V	336	113.5	3.1
5	#10520.00	46.3 PK	68.2	-21.9	2.42 V	239	32.2	14.1
6	15780.00	45.3 PK	74.0	-28.7	1.87 V	233	31.2	14.1
7	15780.00	34.0 AV	54.0	-20.0	1.87 V	233	19.9	14.1

Remarks:

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

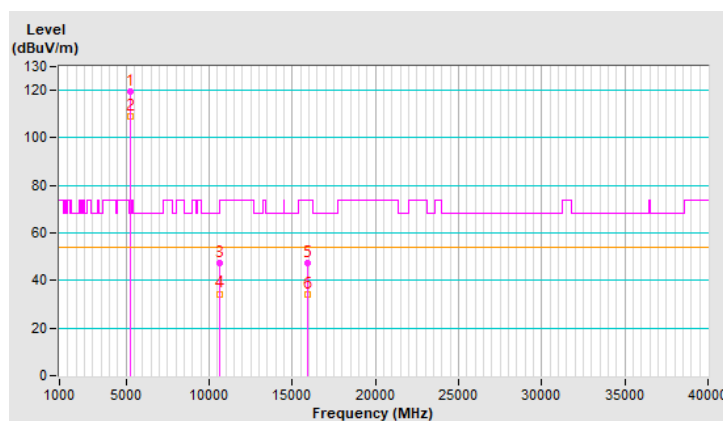


RF Mode	802.11ax (HE20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	119.6 PK			2.01 H	324	116.5	3.1
2	*5300.00	109.1 AV			2.01 H	324	106.0	3.1
3	10600.00	47.2 PK	74.0	-26.8	1.92 H	237	33.5	13.7
4	10600.00	34.4 AV	54.0	-19.6	1.92 H	237	20.7	13.7
5	15900.00	47.3 PK	74.0	-26.7	2.87 H	165	33.2	14.1
6	15900.00	34.2 AV	54.0	-19.8	2.87 H	165	20.1	14.1

Remarks:

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

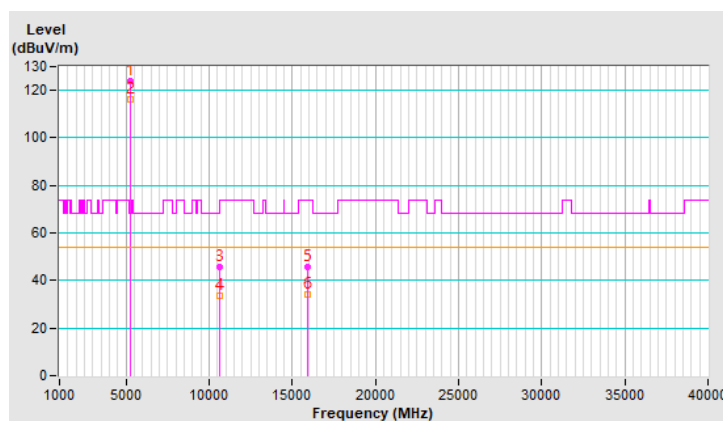


RF Mode	802.11ax (HE20)	Channel	CH 60 : 5300 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	123.8 PK			1.50 V	21	120.7	3.1
2	*5300.00	116.1 AV			1.50 V	21	113.0	3.1
3	10600.00	45.7 PK	74.0	-28.3	2.46 V	233	32.0	13.7
4	10600.00	33.5 AV	54.0	-20.5	2.46 V	233	19.8	13.7
5	15900.00	45.7 PK	74.0	-28.3	1.83 V	238	31.6	14.1
6	15900.00	34.1 AV	54.0	-19.9	1.83 V	238	20.0	14.1

Remarks:

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

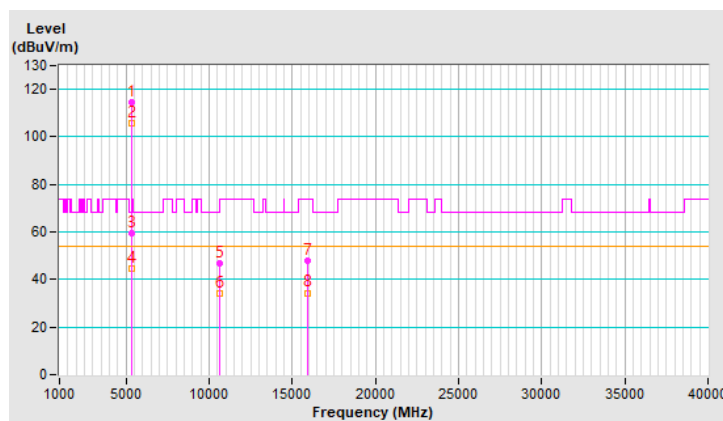


RF Mode	802.11ax (HE20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	114.7 PK			2.04 H	323	111.5	3.2
2	*5320.00	105.8 AV			2.04 H	323	102.6	3.2
3	5350.00	59.6 PK	74.0	-14.4	2.04 H	323	56.3	3.3
4	5350.00	44.5 AV	54.0	-9.5	2.04 H	323	41.2	3.3
5	10640.00	47.0 PK	74.0	-27.0	1.96 H	232	33.3	13.7
6	10640.00	34.2 AV	54.0	-19.8	1.96 H	232	20.5	13.7
7	15960.00	47.7 PK	74.0	-26.3	2.84 H	171	33.2	14.5
8	15960.00	34.4 AV	54.0	-19.6	2.84 H	171	19.9	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, the limit was restricted at the RF Output Power.

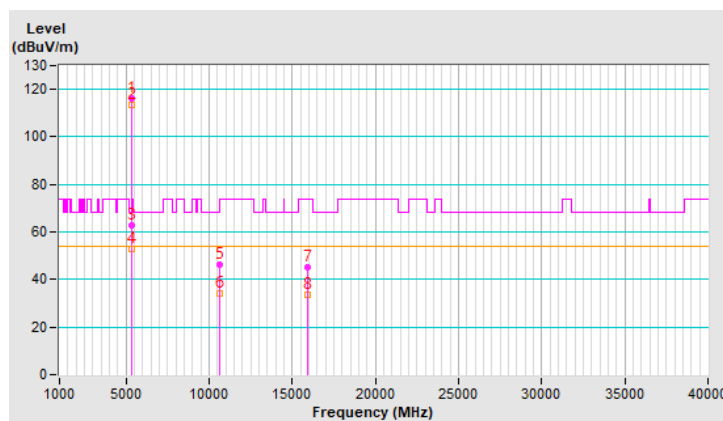


RF Mode	802.11ax (HE20)	Channel	CH 64 : 5320 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	116.4 PK			1.56 V	40	113.2	3.2
2	*5320.00	113.3 AV			1.56 V	40	110.1	3.2
3	5350.00	62.6 PK	74.0	-11.4	1.56 V	40	59.3	3.3
4	5350.00	53.0 AV	54.0	-1.0	1.56 V	40	49.7	3.3
5	10640.00	46.4 PK	74.0	-27.6	2.37 V	254	32.7	13.7
6	10640.00	34.2 AV	54.0	-19.8	2.37 V	254	20.5	13.7
7	15960.00	45.1 PK	74.0	-28.9	1.92 V	240	30.6	14.5
8	15960.00	33.7 AV	54.0	-20.3	1.92 V	240	19.2	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, the limit was restricted at the RF Output Power.

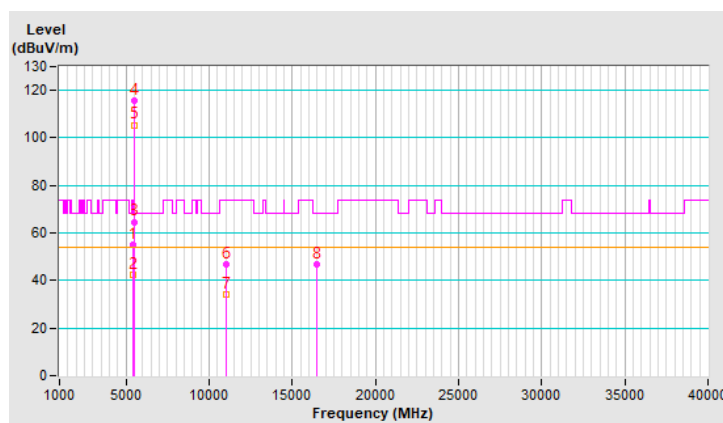


RF Mode	802.11ax (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.3 PK	74.0	-18.7	2.02 H	360	51.8	3.5
2	5460.00	42.5 AV	54.0	-11.5	2.02 H	360	39.0	3.5
3	#5470.00	64.7 PK	68.2	-3.5	2.02 H	360	61.2	3.5
4	*5500.00	115.5 PK			2.02 H	360	112.0	3.5
5	*5500.00	105.5 AV			2.02 H	360	102.0	3.5
6	11000.00	46.7 PK	74.0	-27.3	1.95 H	238	32.5	14.2
7	11000.00	34.2 AV	54.0	-19.8	1.95 H	238	20.0	14.2
8	#16500.00	46.8 PK	68.2	-21.4	2.94 H	150	30.8	16.0

Remarks:

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

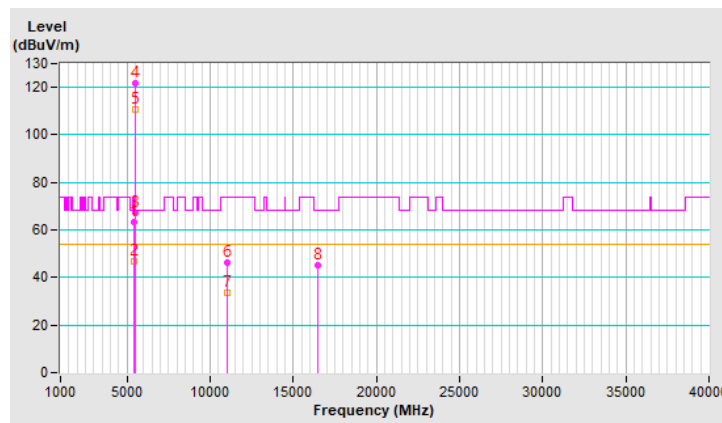


RF Mode	802.11ax (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	63.2 PK	74.0	-10.8	1.50 V	334	59.7	3.5
2	5460.00	46.9 AV	54.0	-7.1	1.50 V	334	43.4	3.5
3	#5470.00	67.4 PK	68.2	-0.8	1.50 V	334	63.9	3.5
4	*5500.00	121.6 PK			1.50 V	334	118.1	3.5
5	*5500.00	110.5 AV			1.50 V	334	107.0	3.5
6	11000.00	46.4 PK	74.0	-27.6	2.42 V	254	32.2	14.2
7	11000.00	33.6 AV	54.0	-20.4	2.42 V	254	19.4	14.2
8	#16500.00	45.3 PK	68.2	-22.9	1.86 V	236	29.3	16.0

Remarks:

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

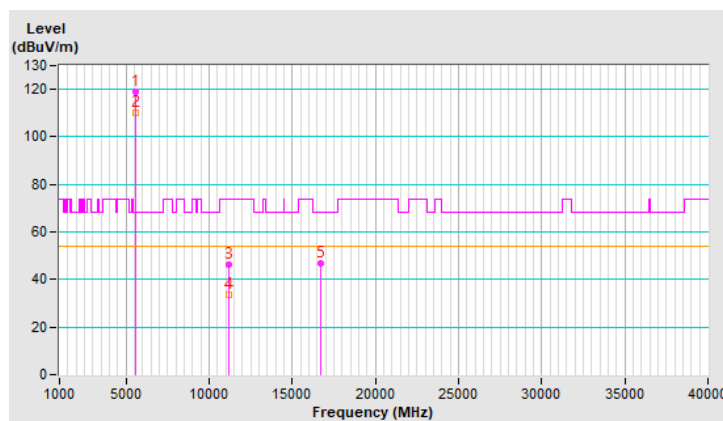


RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	119.2 PK			1.80 H	333	115.4	3.8
2	*5580.00	110.1 AV			1.80 H	333	106.3	3.8
3	11160.00	46.1 PK	74.0	-27.9	1.97 H	211	31.7	14.4
4	11160.00	33.4 AV	54.0	-20.6	1.97 H	211	19.0	14.4
5	#16740.00	46.7 PK	68.2	-21.5	2.83 H	163	29.1	17.6

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, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

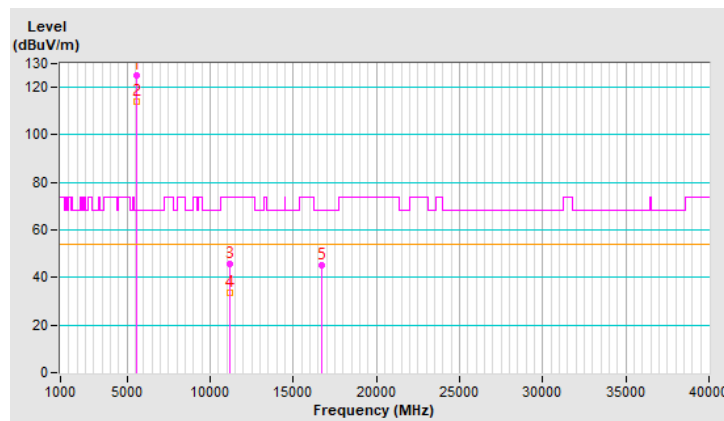


RF Mode	802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	124.8 PK			1.02 V	24	121.0	3.8
2	*5580.00	114.0 AV			1.02 V	24	110.2	3.8
3	11160.00	45.9 PK	74.0	-28.1	2.41 V	245	31.5	14.4
4	11160.00	33.4 AV	54.0	-20.6	2.41 V	245	19.0	14.4
5	#16740.00	45.3 PK	68.2	-22.9	1.85 V	228	27.7	17.6

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, the limit was restricted at the RF Output Power.
6. " # ": The radiated frequency is out of the restricted band.

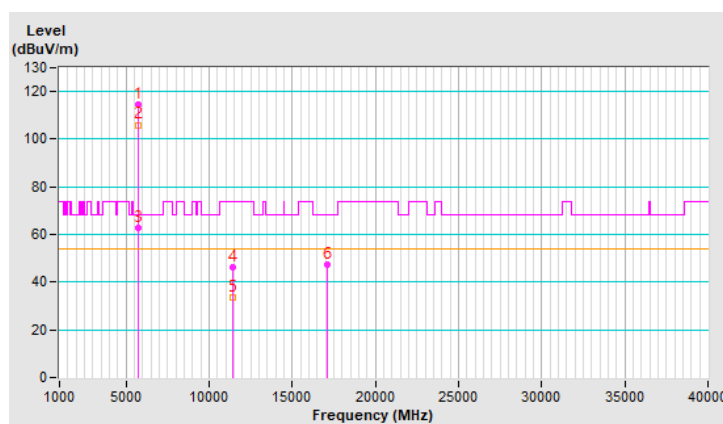


RF Mode	802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	114.5 PK			1.49 H	338	110.6	3.9
2	*5700.00	106.0 AV			1.49 H	338	102.1	3.9
3	#5725.00	62.7 PK	68.2	-5.5	1.00 H	0	58.7	4.0
4	11400.00	46.5 PK	74.0	-27.5	1.92 H	213	31.5	15.0
5	11400.00	33.8 AV	54.0	-20.2	1.92 H	213	18.8	15.0
6	#17100.00	47.4 PK	68.2	-20.8	2.93 H	161	29.6	17.8

Remarks:

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

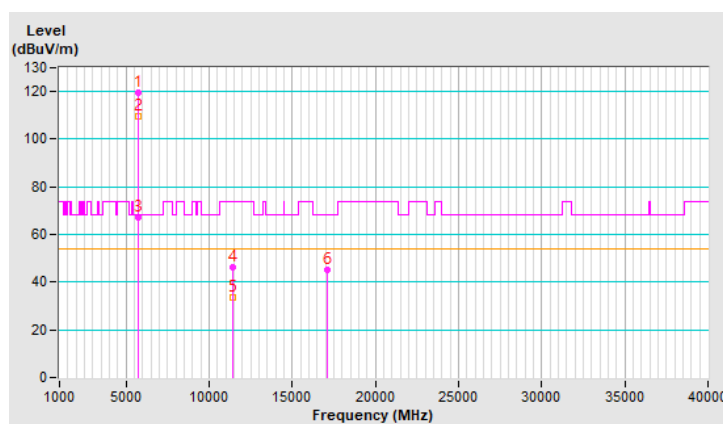


RF Mode	802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	119.6 PK			1.90 V	14	115.7	3.9
2	*5700.00	109.4 AV			1.90 V	14	105.5	3.9
3	#5725.00	67.4 PK	68.2	-0.8	1.90 V	14	63.4	4.0
4	11400.00	46.3 PK	74.0	-27.7	2.43 V	237	31.3	15.0
5	11400.00	33.7 AV	54.0	-20.3	2.43 V	237	18.7	15.0
6	#17100.00	45.4 PK	68.2	-22.8	1.87 V	242	27.6	17.8

Remarks:

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

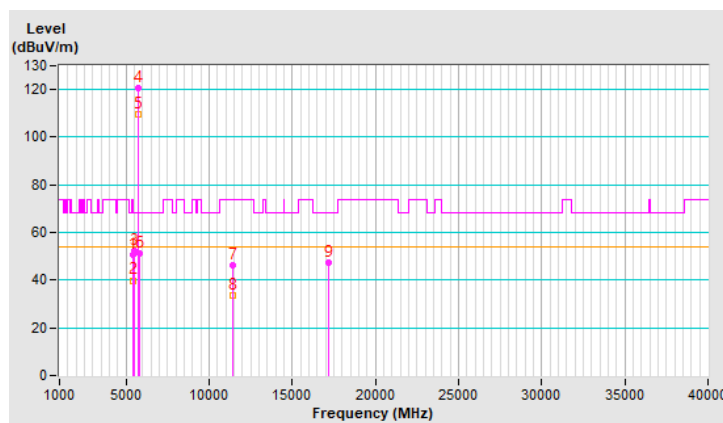


RF Mode	802.11ax (HE20)	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	50.5 PK	74.0	-23.5	1.53 H	336	47.0	3.5
2	5460.00	39.9 AV	54.0	-14.1	1.53 H	336	36.4	3.5
3	#5470.00	52.4 PK	68.2	-15.8	1.53 H	336	48.9	3.5
4	*5720.00	120.8 PK			1.53 H	336	116.8	4.0
5	*5720.00	109.5 AV			1.53 H	336	105.5	4.0
6	#5850.00	51.3 PK	68.2	-16.9	1.53 H	336	47.0	4.3
7	11440.00	46.3 PK	74.0	-27.7	1.91 H	223	31.3	15.0
8	11440.00	33.6 AV	54.0	-20.4	1.91 H	223	18.6	15.0
9	#17160.00	47.2 PK	68.2	-21.0	2.92 H	160	29.7	17.5

Remarks:

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

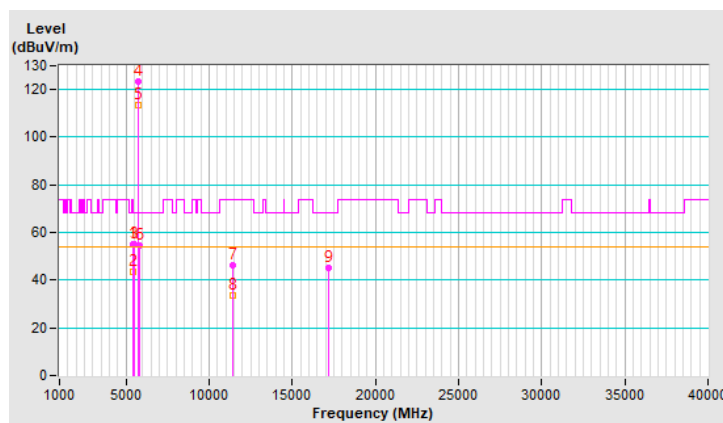


RF Mode	802.11ax (HE20)	Channel	CH 144 : 5720 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.0 PK	74.0	-19.0	1.42 V	23	51.5	3.5
2	5460.00	43.3 AV	54.0	-10.7	1.42 V	23	39.8	3.5
3	#5470.00	55.2 PK	68.2	-13.0	1.42 V	23	51.7	3.5
4	*5720.00	123.4 PK			1.42 V	23	119.4	4.0
5	*5720.00	113.6 AV			1.42 V	23	109.6	4.0
6	#5850.00	54.4 PK	68.2	-13.8	1.42 V	23	50.1	4.3
7	11440.00	46.0 PK	74.0	-28.0	2.45 V	243	31.0	15.0
8	11440.00	33.6 AV	54.0	-20.4	2.45 V	243	18.6	15.0
9	#17160.00	45.2 PK	68.2	-23.0	1.83 V	235	27.7	17.5

Remarks:

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

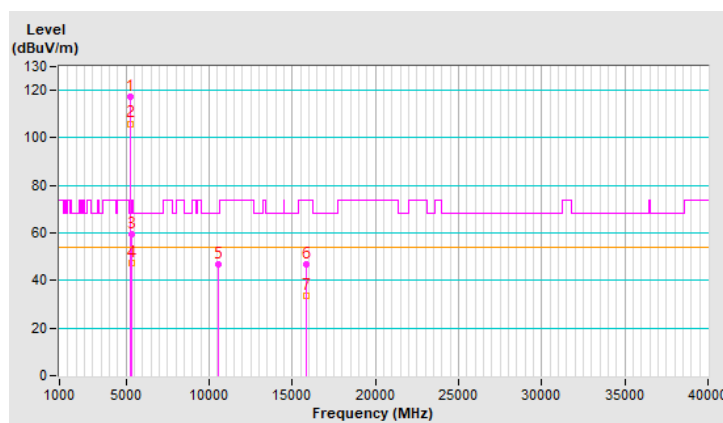


RF Mode	802.11ax (HE40)	Channel	CH 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	117.2 PK			1.12 H	352	114.1	3.1
2	*5270.00	106.0 AV			1.12 H	352	102.9	3.1
3	5354.00	59.6 PK	74.0	-14.4	1.00 H	0	56.3	3.3
4	5354.00	47.1 AV	54.0	-6.9	1.00 H	0	43.8	3.3
5	#10540.00	46.6 PK	68.2	-21.6	1.92 H	216	32.6	14.0
6	15810.00	46.7 PK	74.0	-27.3	2.88 H	168	32.6	14.1
7	15810.00	33.5 AV	54.0	-20.5	2.88 H	168	19.4	14.1

Remarks:

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

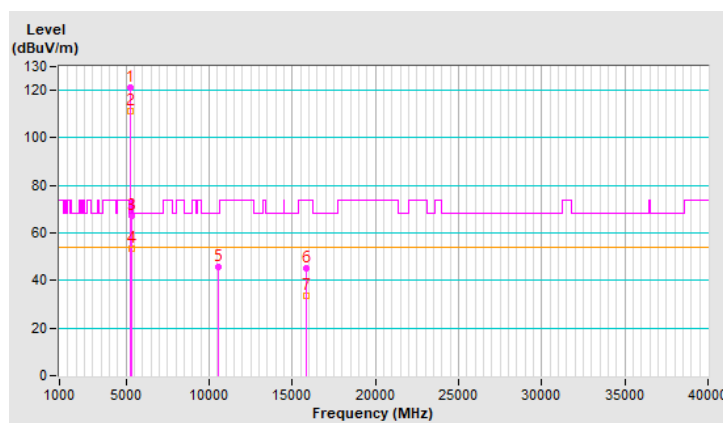


RF Mode	802.11ax (HE40)	Channel	CH 54 : 5270 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5270.00	121.2 PK			1.62 V	22	118.1	3.1
2	*5270.00	111.2 AV			1.62 V	22	108.1	3.1
3	5354.00	67.2 PK	74.0	-6.8	1.62 V	22	63.9	3.3
4	5354.00	53.3 AV	54.0	-0.7	1.62 V	22	50.0	3.3
5	#10540.00	45.9 PK	68.2	-22.3	2.49 V	236	31.9	14.0
6	15810.00	45.1 PK	74.0	-28.9	1.79 V	245	31.0	14.1
7	15810.00	33.4 AV	54.0	-20.6	1.79 V	245	19.3	14.1

Remarks:

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

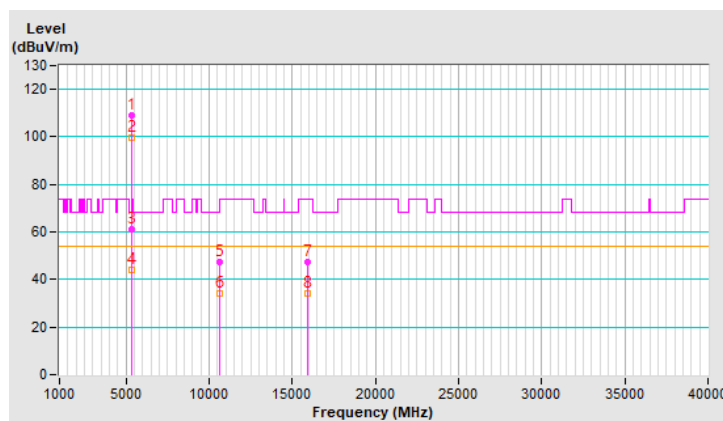


RF Mode	802.11ax (HE40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	109.2 PK			1.46 H	356	106.1	3.1
2	*5310.00	99.5 AV			1.46 H	356	96.4	3.1
3	5350.00	61.1 PK	74.0	-12.9	1.00 H	0	57.8	3.3
4	5350.00	44.3 AV	54.0	-9.7	1.00 H	0	41.0	3.3
5	10620.00	47.1 PK	74.0	-26.9	1.98 H	223	33.4	13.7
6	10620.00	34.1 AV	54.0	-19.9	1.98 H	223	20.4	13.7
7	15930.00	47.5 PK	74.0	-26.5	2.91 H	172	33.2	14.3
8	15930.00	34.2 AV	54.0	-19.8	2.91 H	172	19.9	14.3

Remarks:

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

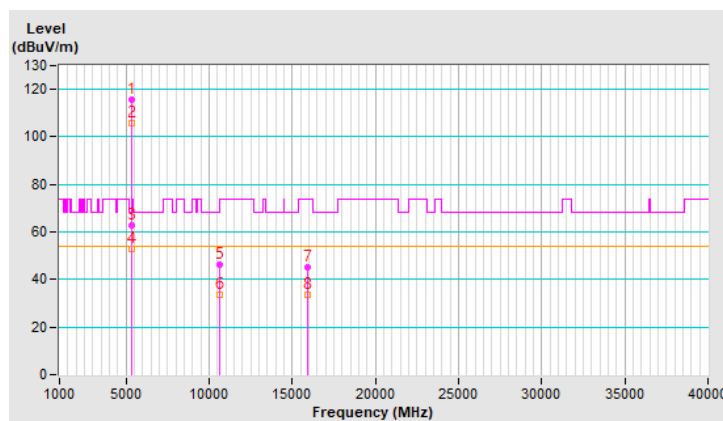


RF Mode	802.11ax (HE40)	Channel	CH 62 : 5310 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5310.00	115.9 PK			1.80 V	30	112.8	3.1
2	*5310.00	105.9 AV			1.80 V	30	102.8	3.1
3	5350.00	62.7 PK	74.0	-11.3	1.80 V	30	59.4	3.3
4	5350.00	53.0 AV	54.0	-1.0	1.80 V	30	49.7	3.3
5	10620.00	46.4 PK	74.0	-27.6	2.41 V	252	32.7	13.7
6	10620.00	33.8 AV	54.0	-20.2	2.41 V	252	20.1	13.7
7	15930.00	45.4 PK	74.0	-28.6	1.88 V	241	31.1	14.3
8	15930.00	33.7 AV	54.0	-20.3	1.88 V	241	19.4	14.3

Remarks:

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

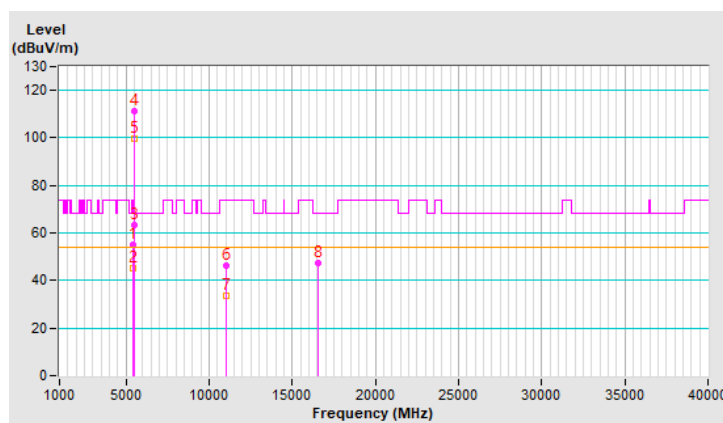


RF Mode	802.11ax (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.1 PK	74.0	-18.9	1.72 H	337	51.6	3.5
2	5460.00	45.1 AV	54.0	-8.9	1.72 H	337	41.6	3.5
3	#5465.20	63.4 PK	68.2	-4.8	1.72 H	337	59.9	3.5
4	*5510.00	111.0 PK			1.72 H	337	107.4	3.6
5	*5510.00	99.8 AV			1.72 H	337	96.2	3.6
6	11020.00	46.4 PK	74.0	-27.6	2.00 H	224	32.1	14.3
7	11020.00	33.6 AV	54.0	-20.4	2.00 H	224	19.3	14.3
8	#16530.00	47.2 PK	68.2	-21.0	2.85 H	153	30.9	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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

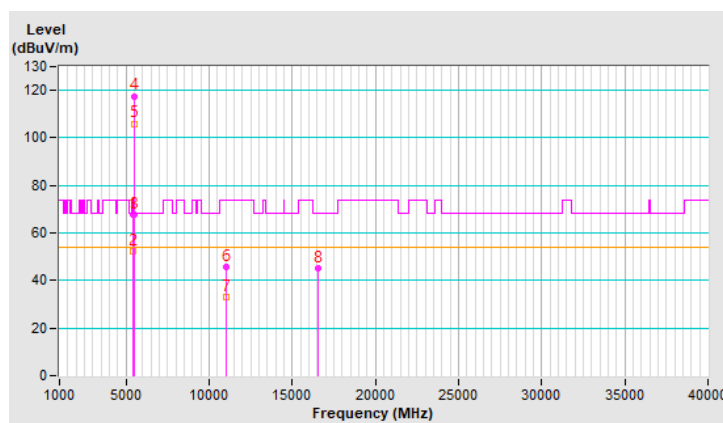


RF Mode	802.11ax (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	67.5 PK	74.0	-6.5	1.62 V	31	64.0	3.5
2	5460.00	52.2 AV	54.0	-1.8	1.62 V	31	48.7	3.5
3	#5465.20	67.8 PK	68.2	-0.4	1.62 V	31	64.3	3.5
4	*5510.00	117.6 PK			1.62 V	31	114.0	3.6
5	*5510.00	106.0 AV			1.62 V	31	102.4	3.6
6	11020.00	45.8 PK	74.0	-28.2	2.44 V	228	31.5	14.3
7	11020.00	33.2 AV	54.0	-20.8	2.44 V	228	18.9	14.3
8	#16530.00	45.4 PK	68.2	-22.8	1.82 V	249	29.1	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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

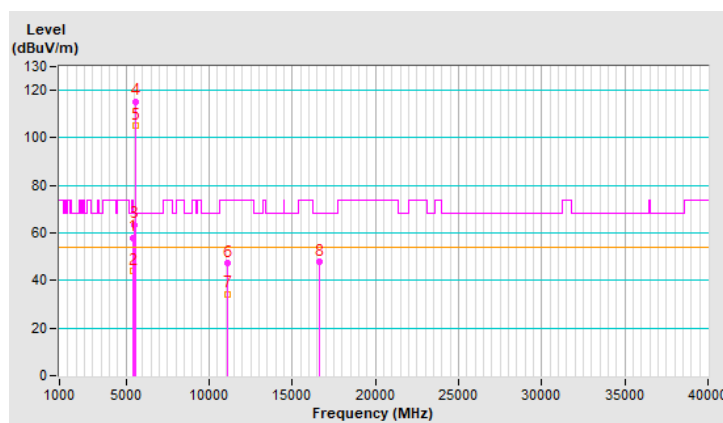


RF Mode	802.11ax (HE40)	Channel	CH 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	1.00 H	0	54.6	3.5
2	5460.00	44.3 AV	54.0	-9.7	1.00 H	0	40.8	3.5
3	#5470.00	63.6 PK	68.2	-4.6	1.00 H	0	60.1	3.5
4	*5550.00	115.4 PK			1.70 H	333	111.8	3.6
5	*5550.00	105.3 AV			1.70 H	333	101.7	3.6
6	11100.00	47.5 PK	74.0	-26.5	1.97 H	235	33.0	14.5
7	11100.00	34.4 AV	54.0	-19.6	1.97 H	235	19.9	14.5
8	#16650.00	47.9 PK	68.2	-20.3	2.90 H	174	30.5	17.4

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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

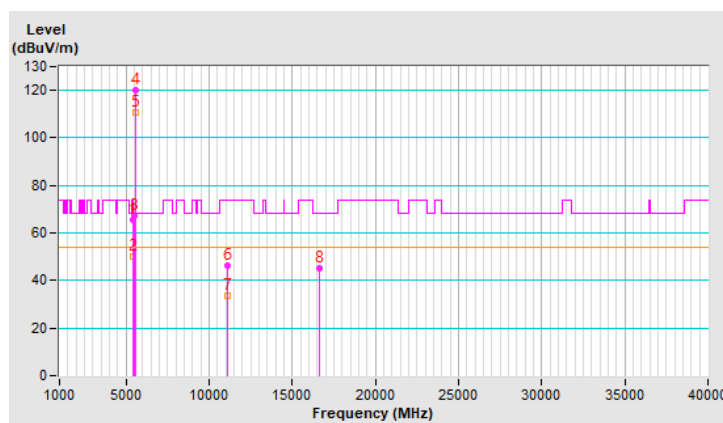


RF Mode	802.11ax (HE40)	Channel	CH 110 : 5550 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	65.4 PK	74.0	-8.6	1.67 V	32	61.9	3.5
2	5460.00	50.3 AV	54.0	-3.7	1.67 V	32	46.8	3.5
3	#5470.00	67.1 PK	68.2	-1.1	1.67 V	32	63.6	3.5
4	*5550.00	120.2 PK			1.67 V	32	116.6	3.6
5	*5550.00	110.9 AV			1.67 V	32	107.3	3.6
6	11100.00	46.0 PK	74.0	-28.0	2.44 V	248	31.5	14.5
7	11100.00	33.4 AV	54.0	-20.6	2.44 V	248	18.9	14.5
8	#16650.00	45.2 PK	68.2	-23.0	1.84 V	225	27.8	17.4

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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

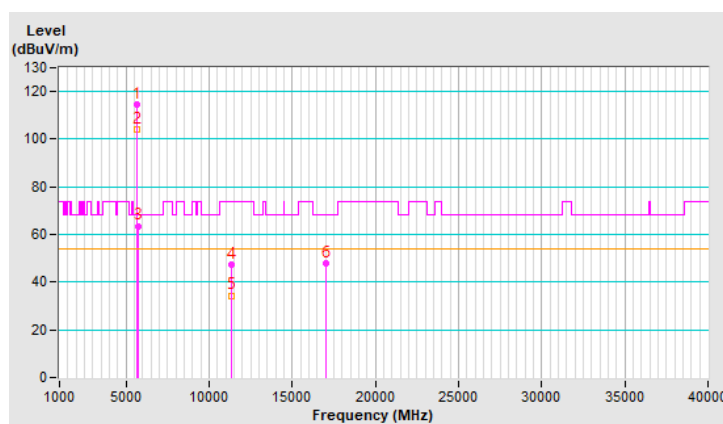


RF Mode	802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	114.6 PK			1.60 H	337	110.7	3.9
2	*5670.00	104.2 AV			1.60 H	337	100.3	3.9
3	#5725.00	63.6 PK	68.2	-4.6	1.60 H	337	59.6	4.0
4	11340.00	47.2 PK	74.0	-26.8	2.00 H	219	32.5	14.7
5	11340.00	34.4 AV	54.0	-19.6	2.00 H	219	19.7	14.7
6	#17010.00	47.7 PK	68.2	-20.5	2.95 H	168	29.4	18.3

Remarks:

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

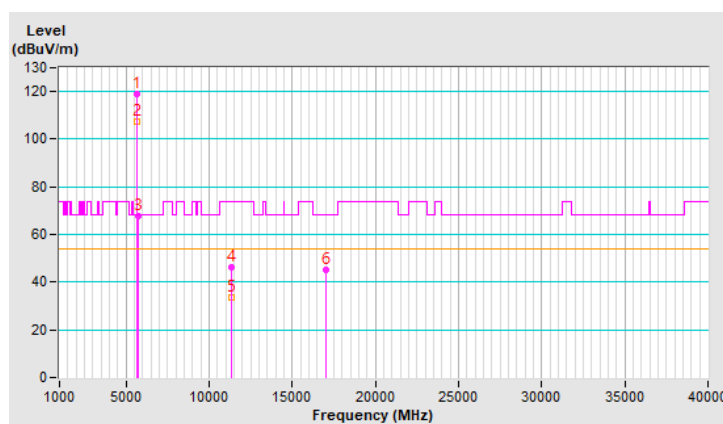


RF Mode	802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5670.00	118.8 PK			1.54 V	19	114.9	3.9
2	*5670.00	107.2 AV			1.54 V	19	103.3	3.9
3	#5725.00	67.7 PK	68.2	-0.5	1.54 V	19	63.7	4.0
4	11340.00	46.3 PK	74.0	-27.7	2.44 V	241	31.6	14.7
5	11340.00	33.8 AV	54.0	-20.2	2.44 V	241	19.1	14.7
6	#17010.00	45.0 PK	68.2	-23.2	1.84 V	230	26.7	18.3

Remarks:

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

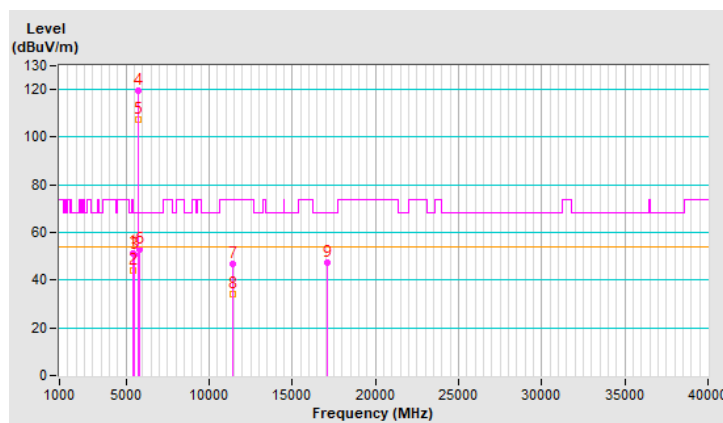


RF Mode	802.11ax (HE40)	Channel	CH 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.5 PK	74.0	-22.5	1.62 H	334	48.0	3.5
2	5460.00	43.9 AV	54.0	-10.1	1.62 H	334	40.4	3.5
3	#5470.00	50.5 PK	68.2	-17.7	1.62 H	334	47.0	3.5
4	*5710.00	119.5 PK			1.62 H	334	115.5	4.0
5	*5710.00	107.3 AV			1.62 H	334	103.3	4.0
6	#5850.00	52.8 PK	68.2	-15.4	1.62 H	334	48.5	4.3
7	11420.00	46.7 PK	74.0	-27.3	1.89 H	222	31.7	15.0
8	11420.00	34.1 AV	54.0	-19.9	1.89 H	222	19.1	15.0
9	#17130.00	47.1 PK	68.2	-21.1	2.89 H	167	29.4	17.7

Remarks:

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

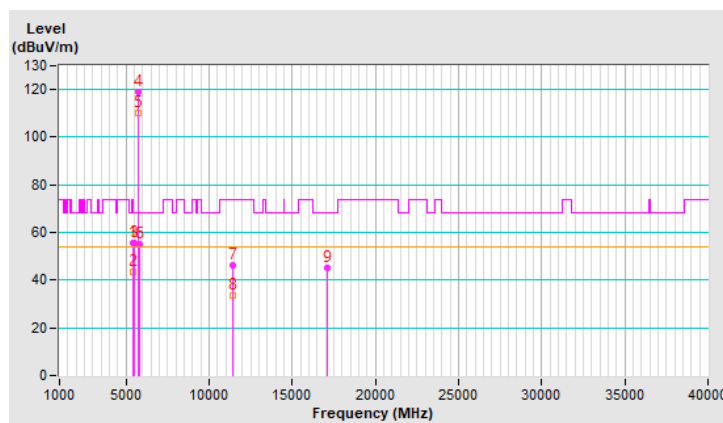


RF Mode	802.11ax (HE40)	Channel	CH 142 : 5710 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	55.5 PK	74.0	-18.5	1.53 V	18	52.0	3.5
2	5460.00	43.7 AV	54.0	-10.3	1.53 V	18	40.2	3.5
3	#5470.00	55.4 PK	68.2	-12.8	1.53 V	18	51.9	3.5
4	*5710.00	119.0 PK			1.53 V	18	115.0	4.0
5	*5710.00	110.0 AV			1.53 V	18	106.0	4.0
6	#5850.00	54.9 PK	68.2	-13.3	1.53 V	18	50.6	4.3
7	11420.00	46.1 PK	74.0	-27.9	2.43 V	248	31.1	15.0
8	11420.00	33.8 AV	54.0	-20.2	2.43 V	248	18.8	15.0
9	#17130.00	45.1 PK	68.2	-23.1	1.88 V	245	27.4	17.7

Remarks:

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

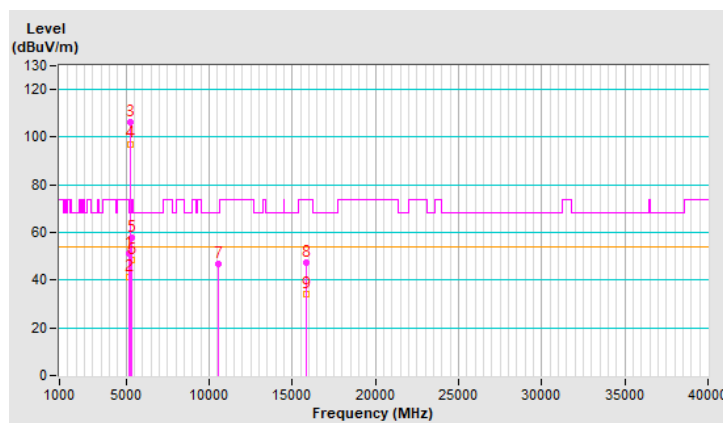


RF Mode	802.11ax (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	51.3 PK	74.0	-22.7	2.64 H	334	47.7	3.6
2	5150.00	41.5 AV	54.0	-12.5	2.64 H	334	37.9	3.6
3	*5290.00	106.4 PK			2.64 H	334	103.3	3.1
4	*5290.00	97.2 AV			2.64 H	334	94.1	3.1
5	5353.60	57.8 PK	74.0	-16.2	2.64 H	334	54.5	3.3
6	5353.60	48.3 AV	54.0	-5.7	2.64 H	334	45.0	3.3
7	#10580.00	47.0 PK	68.2	-21.2	1.97 H	222	33.1	13.9
8	15870.00	47.2 PK	74.0	-26.8	2.85 H	152	33.1	14.1
9	15870.00	34.2 AV	54.0	-19.8	2.85 H	152	20.1	14.1

Remarks:

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

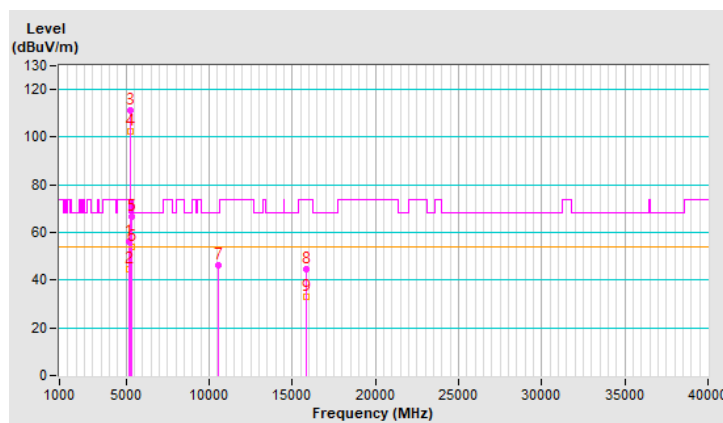


RF Mode	802.11ax (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	56.1 PK	74.0	-17.9	1.48 V	336	52.5	3.6
2	5150.00	44.6 AV	54.0	-9.4	1.48 V	336	41.0	3.6
3	*5290.00	111.2 PK			1.48 V	336	108.1	3.1
4	*5290.00	102.4 AV			1.48 V	336	99.3	3.1
5	5362.30	66.5 PK	74.0	-7.5	1.48 V	336	63.2	3.3
6	5362.30	53.9 AV	54.0	-0.1	1.48 V	336	50.6	3.3
7	#10580.00	46.1 PK	68.2	-22.1	2.41 V	238	32.2	13.9
8	15870.00	44.6 PK	74.0	-29.4	1.88 V	246	30.5	14.1
9	15870.00	33.0 AV	54.0	-21.0	1.88 V	246	18.9	14.1

Remarks:

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

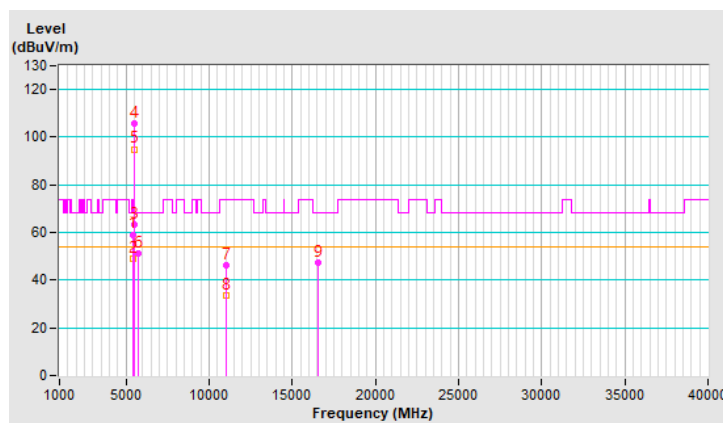


RF Mode	802.11ax (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5456.00	59.2 PK	74.0	-14.8	2.62 H	332	55.7	3.5
2	5456.00	49.1 AV	54.0	-4.9	2.62 H	332	45.6	3.5
3	#5466.00	63.1 PK	68.2	-5.1	2.62 H	332	59.6	3.5
4	*5530.00	105.7 PK			2.62 H	332	102.1	3.6
5	*5530.00	95.0 AV			2.62 H	332	91.4	3.6
6	#5725.00	51.3 PK	68.2	-16.9	2.62 H	332	47.3	4.0
7	11060.00	46.5 PK	74.0	-27.5	1.93 H	218	32.1	14.4
8	11060.00	33.8 AV	54.0	-20.2	1.93 H	218	19.4	14.4
9	#16590.00	47.5 PK	68.2	-20.7	2.94 H	149	30.6	16.9

Remarks:

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

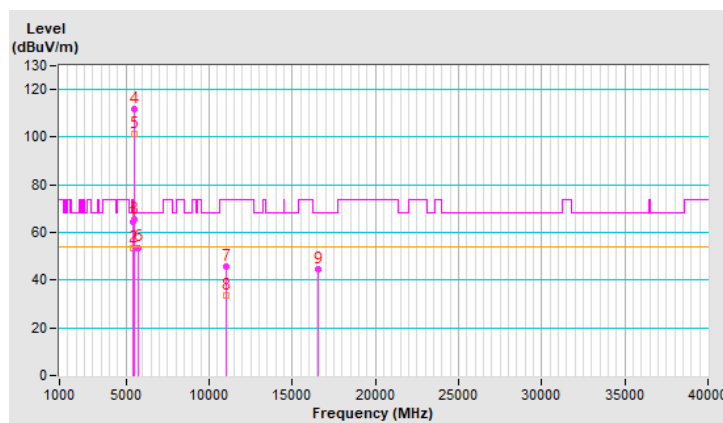


RF Mode	802.11ax (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5456.00	64.3 PK	74.0	-9.7	1.86 V	20	60.8	3.5
2	5456.00	53.4 AV	54.0	-0.6	1.86 V	20	49.9	3.5
3	#5466.00	65.7 PK	68.2	-2.5	1.86 V	20	62.2	3.5
4	*5530.00	111.8 PK			1.86 V	20	108.2	3.6
5	*5530.00	101.3 AV			1.86 V	20	97.7	3.6
6	#5725.00	53.7 PK	68.2	-14.5	1.86 V	20	49.7	4.0
7	11060.00	45.7 PK	74.0	-28.3	2.41 V	256	31.3	14.4
8	11060.00	33.4 AV	54.0	-20.6	2.41 V	256	19.0	14.4
9	#16590.00	44.7 PK	68.2	-23.5	1.90 V	258	27.8	16.9

Remarks:

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

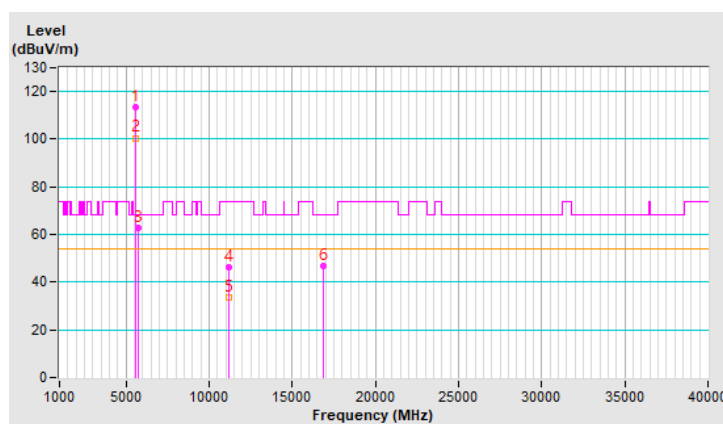


RF Mode	802.11ax (HE80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	113.4 PK			2.45 H	335	109.5	3.9
2	*5610.00	100.5 AV			2.45 H	335	96.6	3.9
3	#5725.00	62.6 PK	68.2	-5.6	2.45 H	335	58.6	4.0
4	11220.00	46.1 PK	74.0	-27.9	1.91 H	235	31.8	14.3
5	11220.00	33.4 AV	54.0	-20.6	1.91 H	235	19.1	14.3
6	#16830.00	46.6 PK	68.2	-21.6	2.94 H	151	29.2	17.4

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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

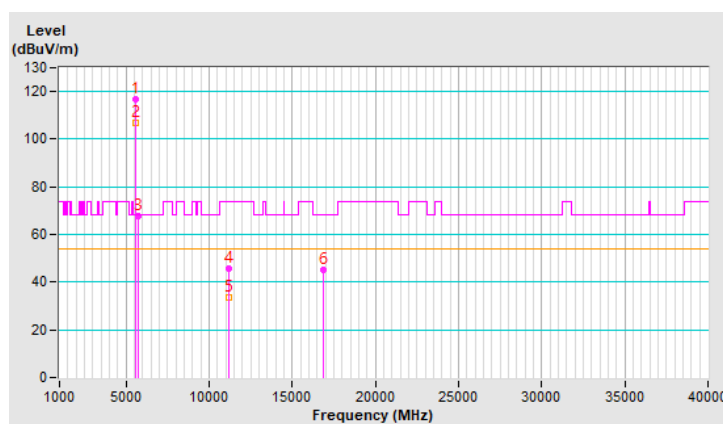


RF Mode	802.11ax (HE80)	Channel	CH 122 : 5610 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5610.00	116.6 PK			1.86 V	21	112.7	3.9
2	*5610.00	106.7 AV			1.86 V	21	102.8	3.9
3	#5725.00	67.6 PK	68.2	-0.6	1.86 V	21	63.6	4.0
4	11220.00	45.7 PK	74.0	-28.3	2.41 V	236	31.4	14.3
5	11220.00	33.6 AV	54.0	-20.4	2.41 V	236	19.3	14.3
6	#16830.00	44.9 PK	68.2	-23.3	1.88 V	232	27.5	17.4

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, the limit was restricted at the RF Output Power.
6. " # " : The radiated frequency is out of the restricted band.

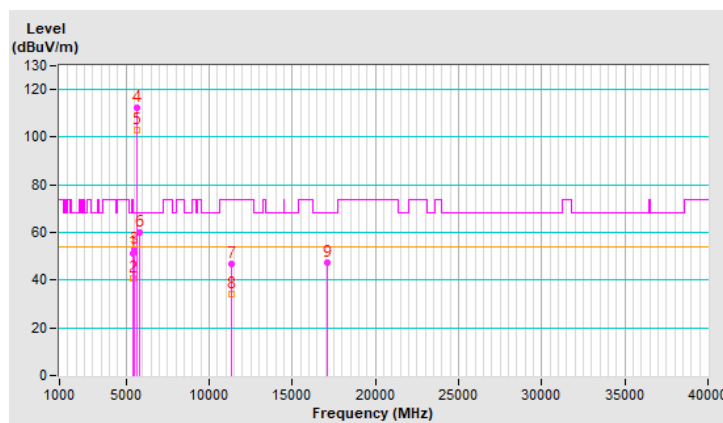


RF Mode	802.11ax (HE80)	Channel	CH 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	51.5 PK	74.0	-22.5	1.54 H	331	48.0	3.5
2	5460.00	40.6 AV	54.0	-13.4	1.54 H	331	37.1	3.5
3	#5470.00	52.8 PK	68.2	-15.4	1.54 H	331	49.3	3.5
4	*5690.00	112.4 PK			1.54 H	331	108.5	3.9
5	*5690.00	102.9 AV			1.54 H	331	99.0	3.9
6	#5850.00	60.1 PK	68.2	-8.1	1.54 H	331	55.8	4.3
7	11380.00	46.8 PK	74.0	-27.2	2.00 H	225	31.9	14.9
8	11380.00	34.2 AV	54.0	-19.8	2.00 H	225	19.3	14.9
9	#17070.00	47.2 PK	68.2	-21.0	2.89 H	152	29.3	17.9

Remarks:

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

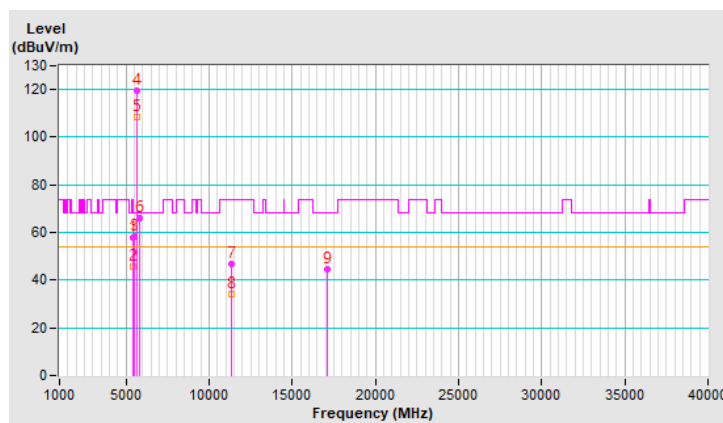


RF Mode	802.11ax (HE80)	Channel	CH 138 : 5690 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 75% RH
Tested By	Nick Tsou		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	57.6 PK	74.0	-16.4	1.74 V	24	54.1	3.5
2	5460.00	45.6 AV	54.0	-8.4	1.74 V	24	42.1	3.5
3	#5470.00	58.2 PK	68.2	-10.0	1.74 V	24	54.7	3.5
4	*5690.00	119.7 PK			1.74 V	24	115.8	3.9
5	*5690.00	108.4 AV			1.74 V	24	104.5	3.9
6	#5850.00	65.9 PK	68.2	-2.3	1.74 V	24	61.6	4.3
7	11380.00	46.7 PK	74.0	-27.3	2.41 V	262	31.8	14.9
8	11380.00	34.2 AV	54.0	-19.8	2.41 V	262	19.3	14.9
9	#17070.00	44.8 PK	68.2	-23.4	1.86 V	236	26.9	17.9

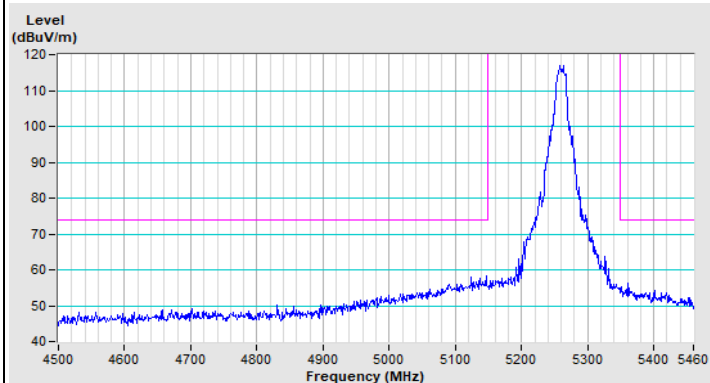
Remarks:

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

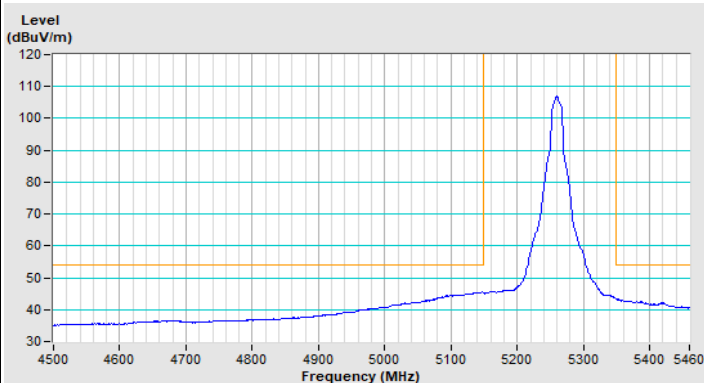


Plot of Band Edge

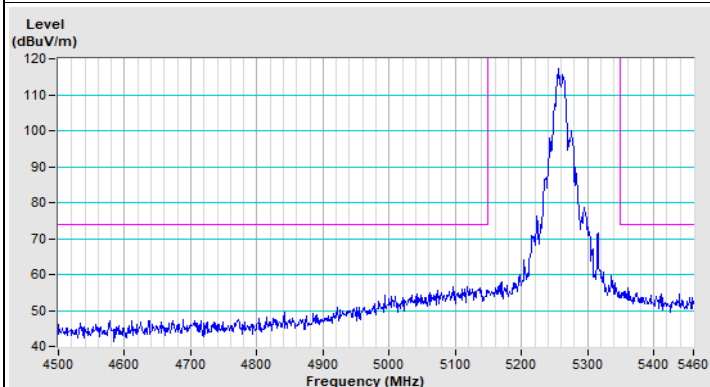
802.11a Channel 52



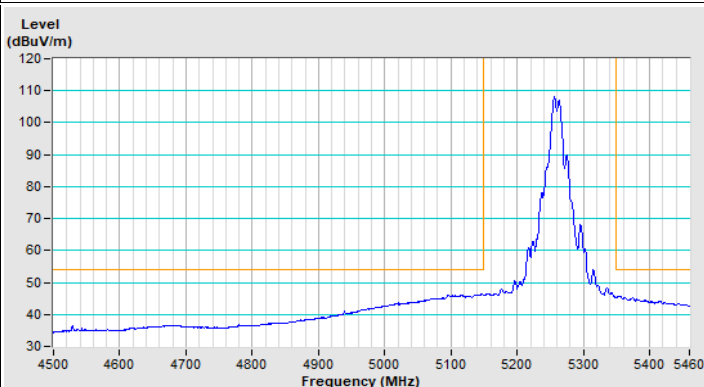
Horizontal (Peak)



Horizontal (Average)

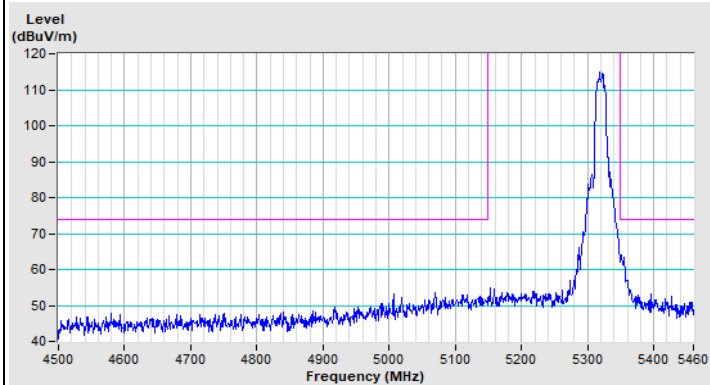


Vertical (Peak)

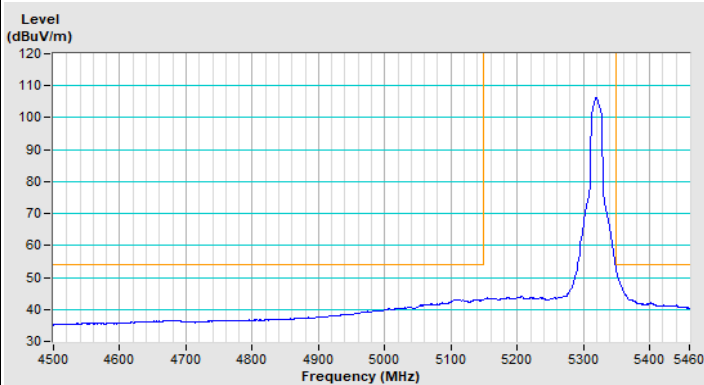


Vertical (Average)

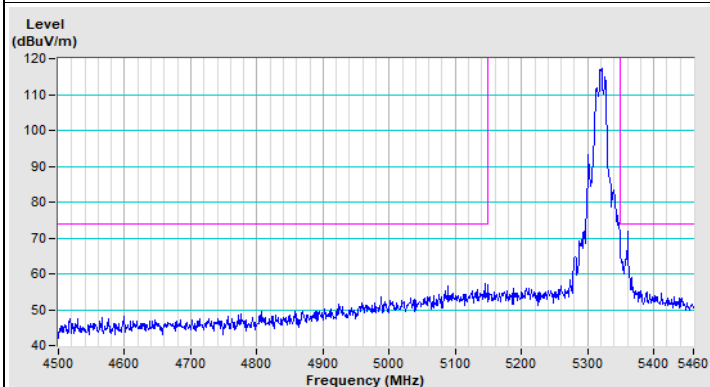
802.11a Channel 64



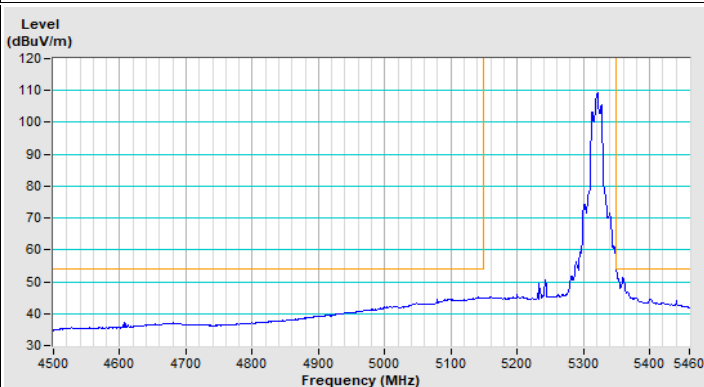
Horizontal (Peak)



Horizontal (Average)

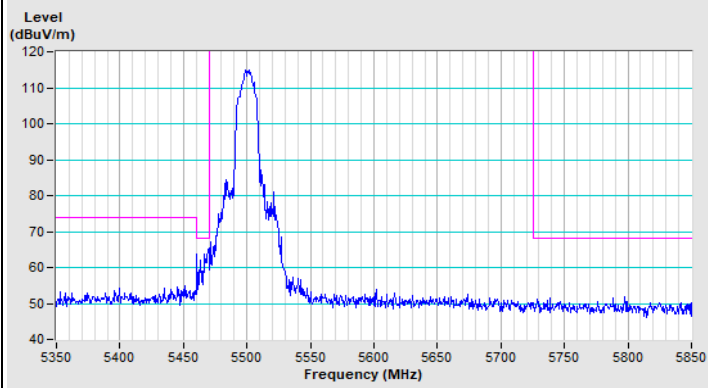


Vertical (Peak)

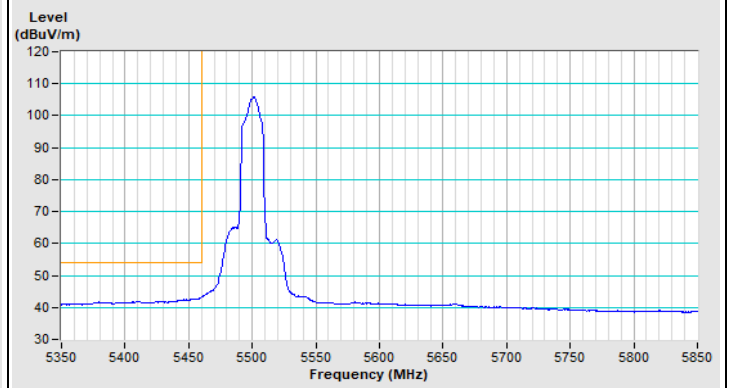


Vertical (Average)

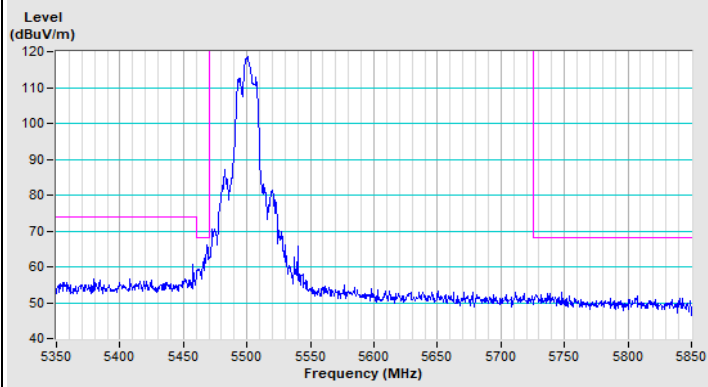
802.11a Channel 100



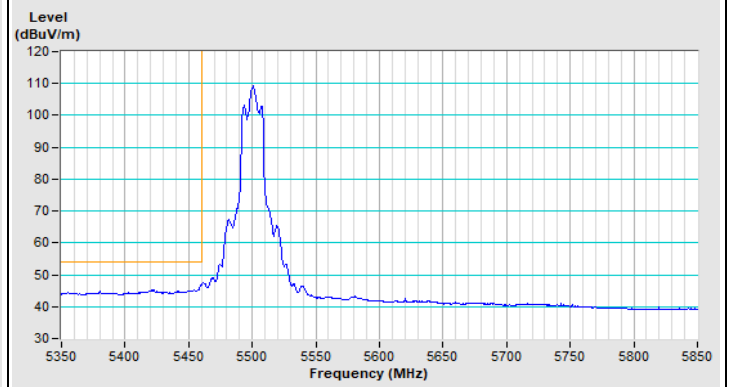
Horizontal (Peak)



Horizontal (Average)

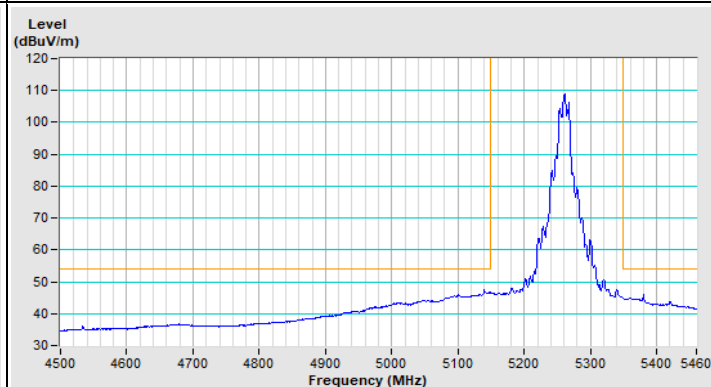
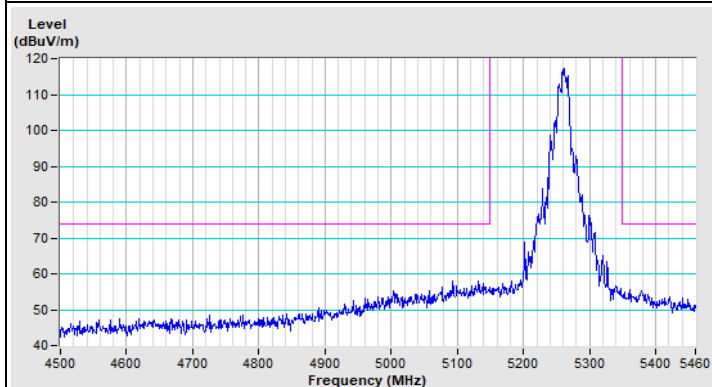
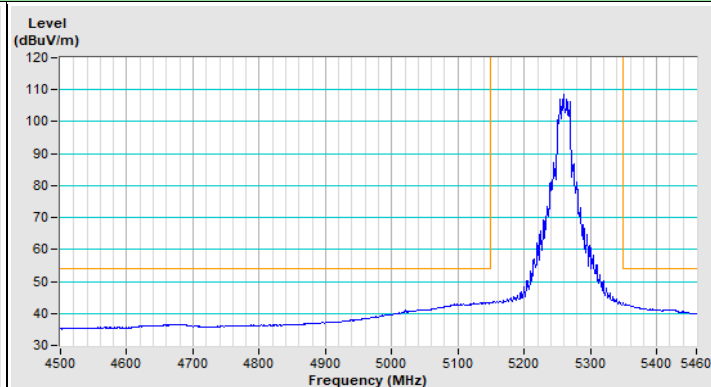
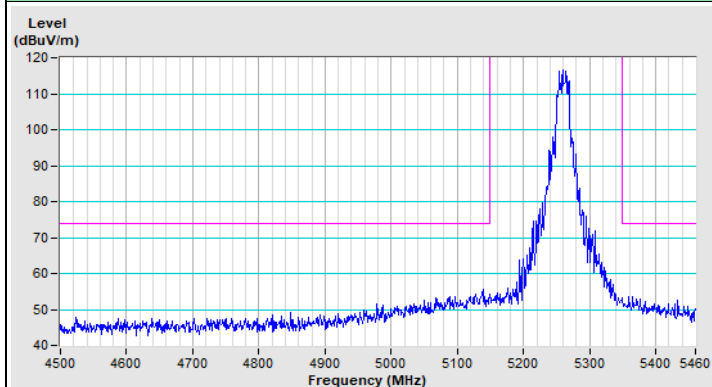


Vertical (Peak)

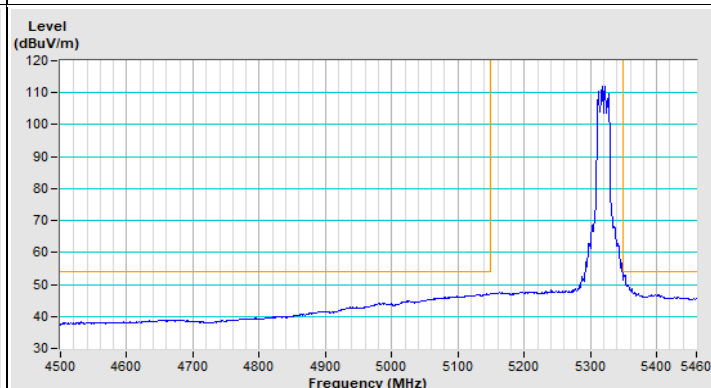
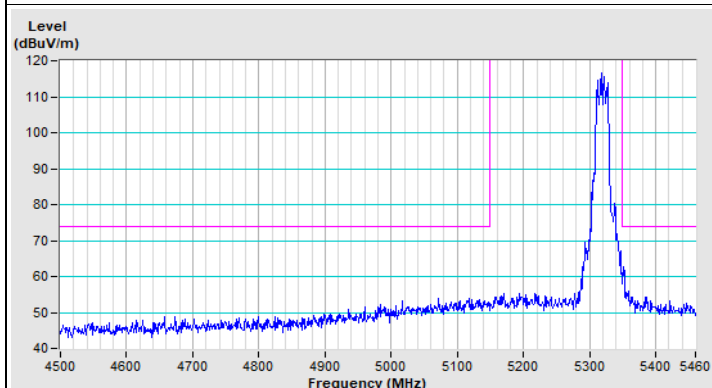
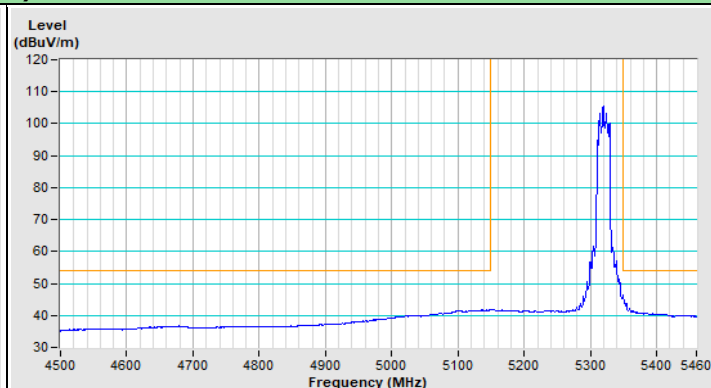
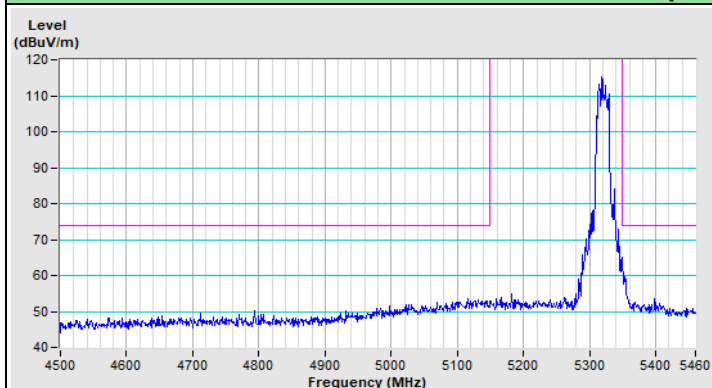


Vertical (Average)

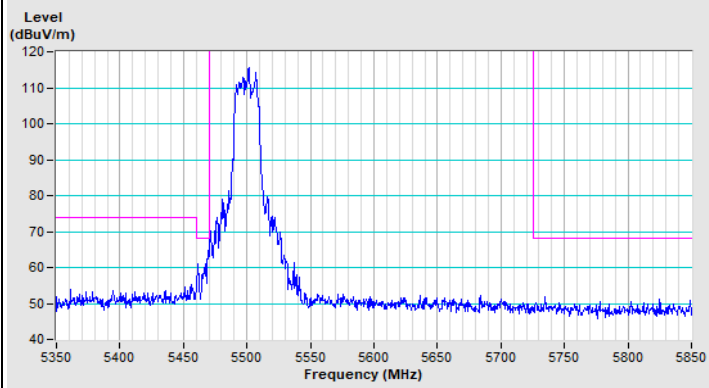
802.11ax (HE20) Channel 52



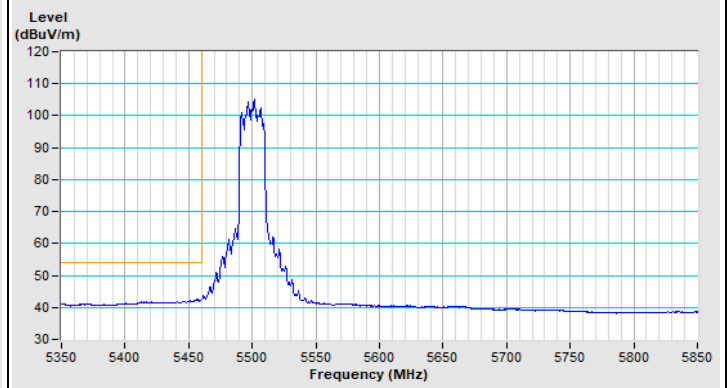
802.11ax (HE20) Channel 64



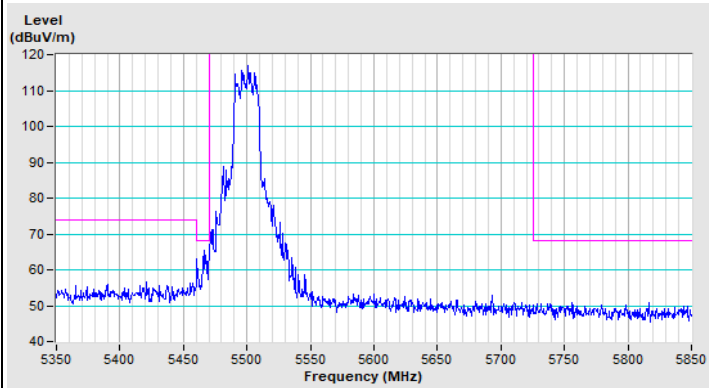
802.11ax (HE20) Channel 100



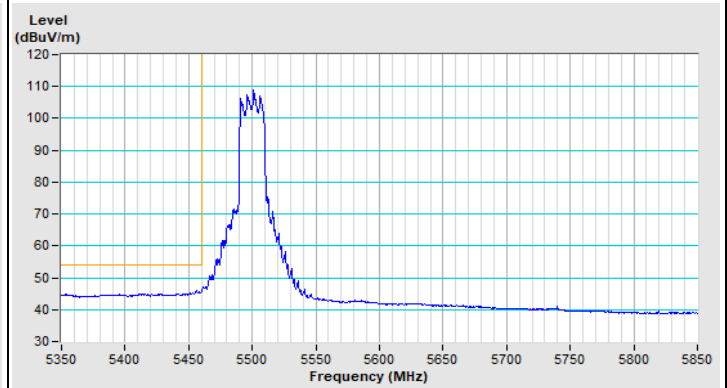
Horizontal (Peak)



Horizontal (Average)

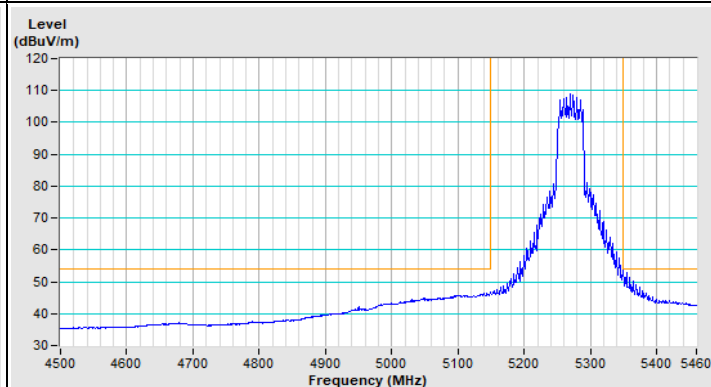
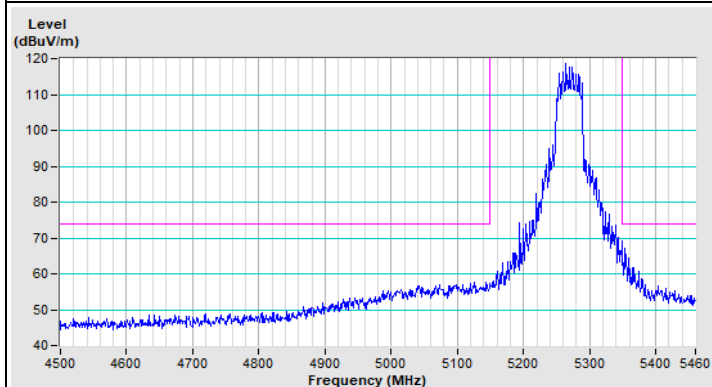
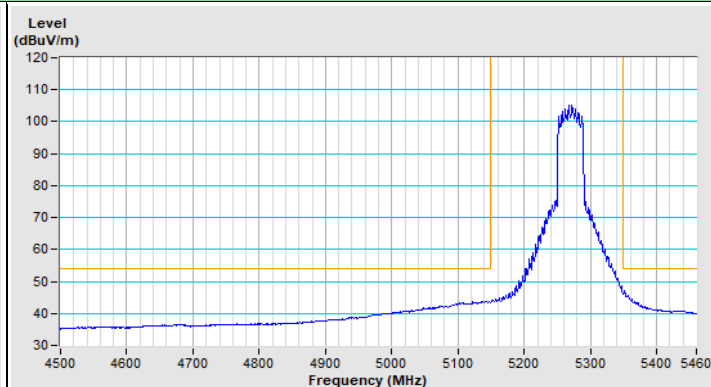
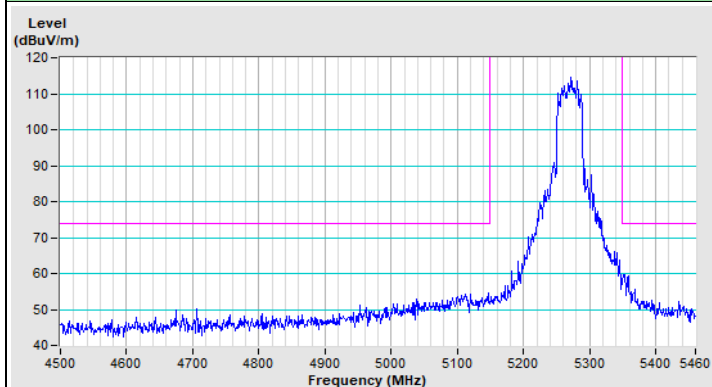


Vertical (Peak)

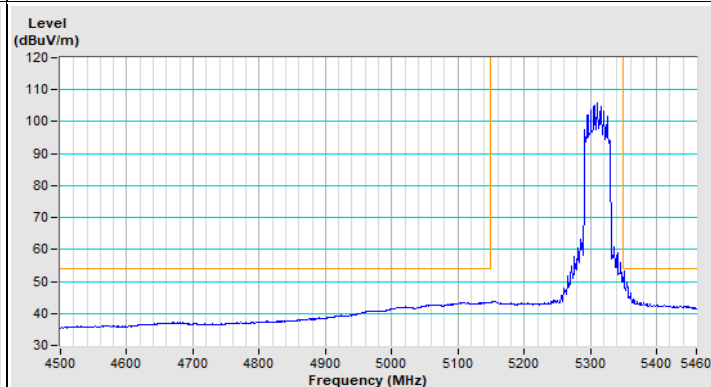
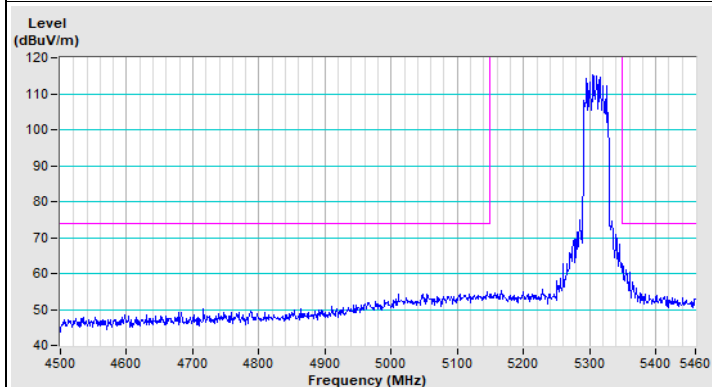
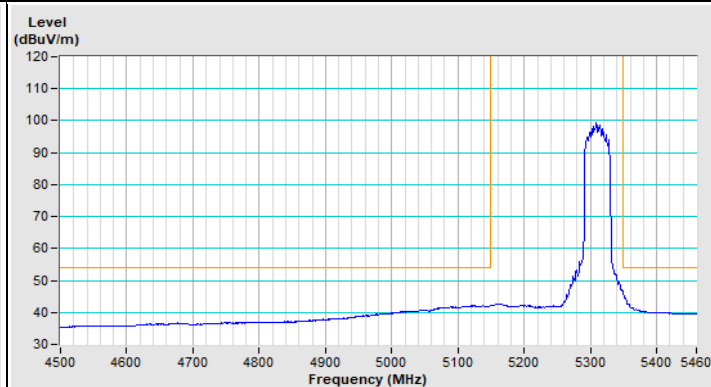
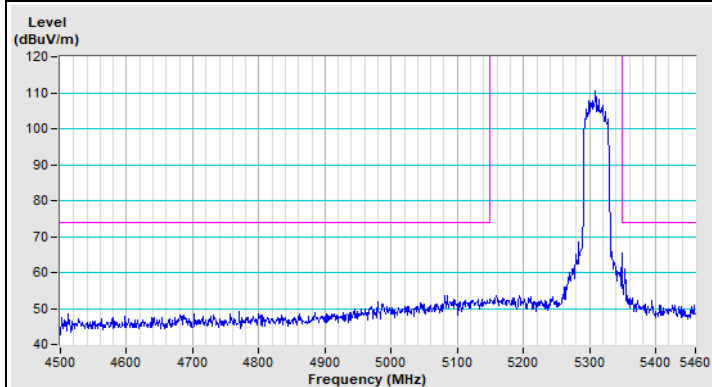


Vertical (Average)

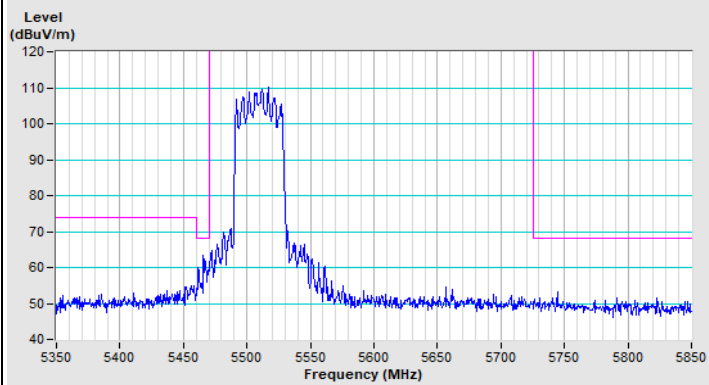
802.11ax (HE40) Channel 54



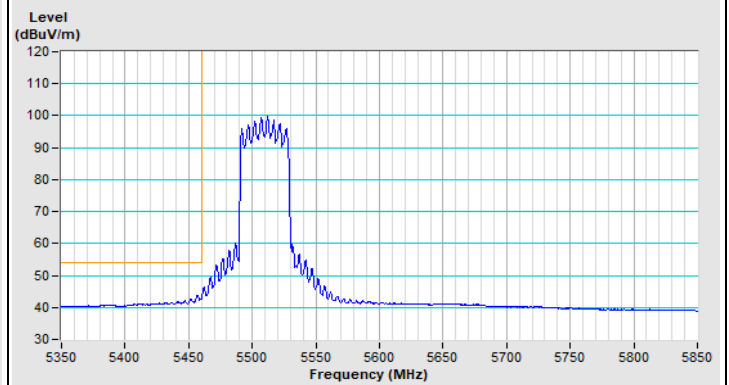
802.11ax (HE40) Channel 62



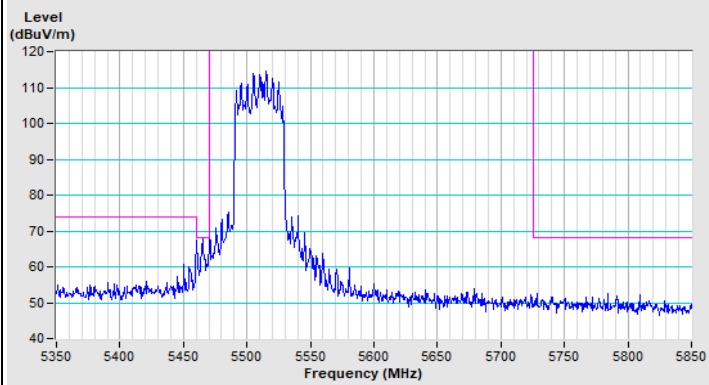
802.11ax (HE40) Channel 102



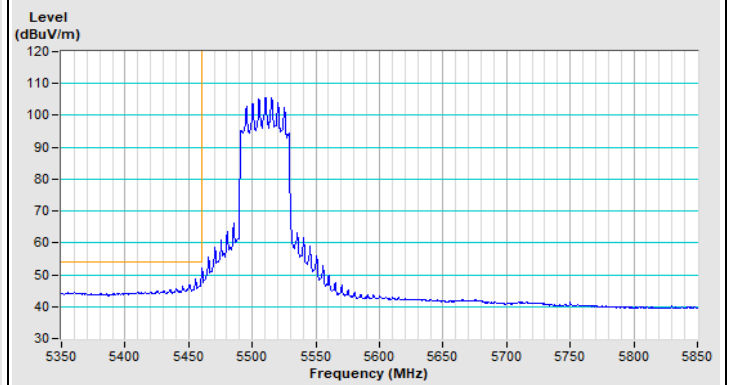
Horizontal (Peak)



Horizontal (Average)

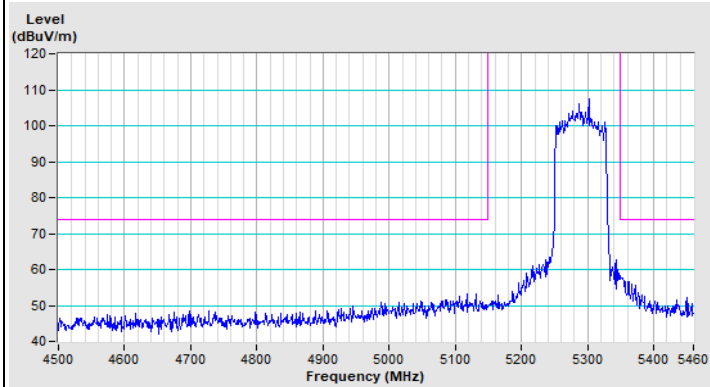


Vertical (Peak)

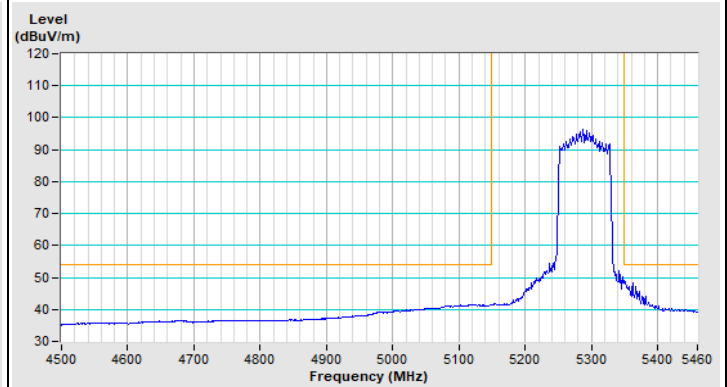


Vertical (Average)

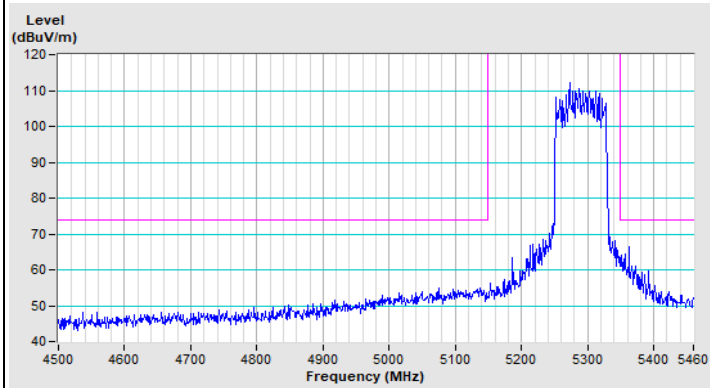
802.11ax (HE80) Channel 58



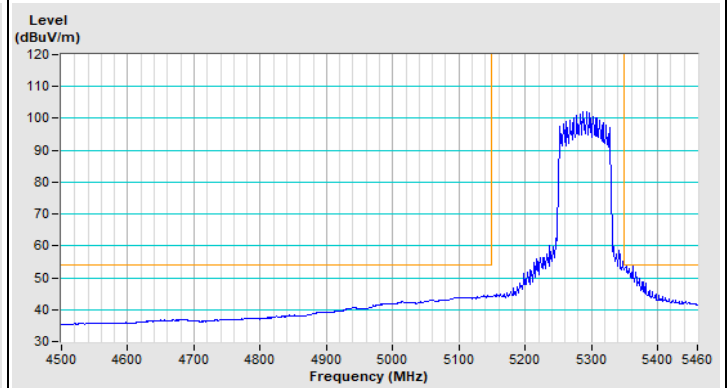
Horizontal (Peak)



Horizontal (Average)

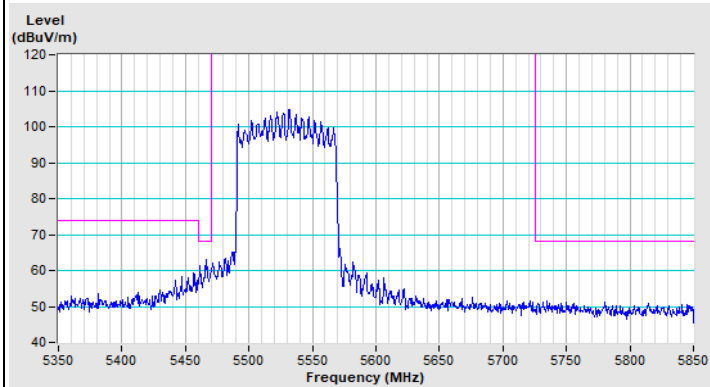


Vertical (Peak)

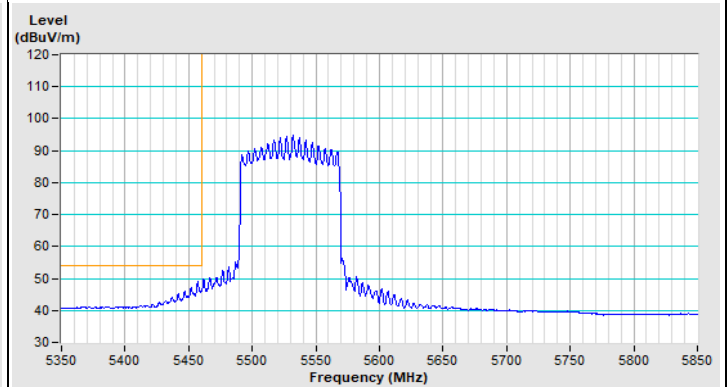


Vertical (Average)

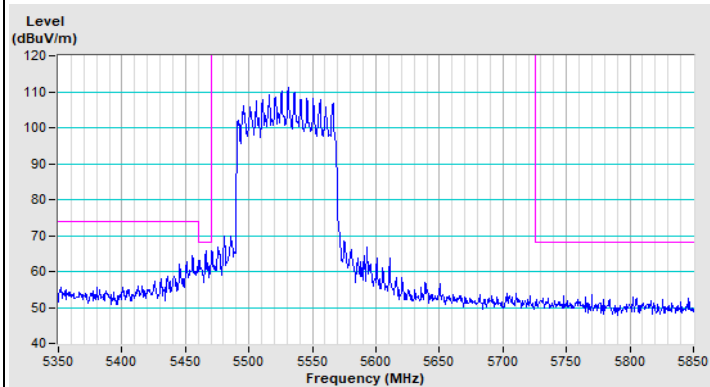
802.11ax (HE80) Channel 106



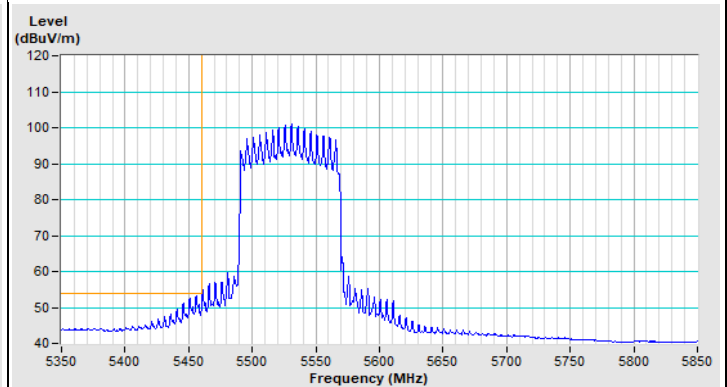
Horizontal (Peak)



Horizontal (Average)



Vertical (Peak)



Vertical (Average)

8 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

9 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.

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

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

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