TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBICM-WTW-P22110528-7
FCC ID:	S9E-125500
Product:	Rugged Handheld Computer
Brand:	Trimble SPECTRA
Model No.:	125500
Received Date:	2022/11/18
Test Date:	2023/2/1 ~ 2023/7/25
Issued Date:	2023/10/27
Applicant:	Trimble Inc.
Address:	5475 Kellenburger Road, Dayton, Ohio, 45424
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
FCC Registration / Designation Number:	788550 / TW0003

Approved by: Jeremy Lin , **Date:** **2023/10/27**

Jeremy Lin / Project Engineer

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Prepared by : Gina Liu / Specialist

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RFBICM-WTW-P22110528-7	Original release.	2023/10/27

1 Certificate

Product:	Rugged Handheld Computer
Brand:	Trimble SPECTRA
Test Model:	125500
Sample Status:	Engineering sample
Applicant:	Trimble Inc.
Test Date:	2023/2/1 ~ 2023/7/25
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01 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)(8)	Maximum RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(8)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
15.407(a)(10)	Emission Bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth	-	Reference only.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -14.28 dB at 0.65763 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.5 dB at 99.84 MHz
15.407(b)(6) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -1.5 dB at 7125.00 MHz
15.407(b)(7)	In-Band Emission Mask	Pass	Meet the requirement of limit.
15.407(d)(6)	Contention-based Protocol	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(d)	Operational restrictions for 6 GHz U-NII devices	Pass	Declaration by applicant
15.203	Antenna Requirement	Pass	Antenna connector is shrapnel 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) (±)
Occupied Bandwidth	-	491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.99 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	2.29 dB
	18 GHz ~ 40 GHz	2.29 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	Rugged Handheld Computer
Brand	Trimble SPECTRA
Test Model	125500
Status of EUT	Engineering sample
Power Supply Rating	Refer to note
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	up to 2402Mbps
Operating Frequency	5.955 GHz ~ 6.415 GHz 6.435 GHz ~ 6.525 GHz 6.535 GHz ~ 6.865 GHz 6.875 GHz ~ 7.115 GHz
Number of Channel	802.11ax (HE20), 802.11be (EHT20):59 802.11ax (HE40), 802.11be (EHT40):29 802.11ax (HE80), 802.11be (EHT80):14 802.11ax (HE160), 802.11be (EHT160):7
Output Power	5.955 GHz ~ 6.415 GHz : EIRP: 14.784 mW (11.7 dBm) 6.435 GHz ~ 6.525 GHz : EIRP: 10.58 mW (10.24 dBm) 6.535 GHz ~ 6.865 GHz : EIRP: 9.711 mW (9.87 dBm) 6.875 GHz ~ 7.115 GHz : EIRP: 5.862 mW (7.68 dBm)
Equipment Class	6XD: 15E 6 GHz Low-power Indoor client

Note:

1. The EUT uses following accessories.

Battery		
Brand	Model	Specification
N/A	1400-900069G	Manufacturer : LIFUN TECHNOLOGY CO.,LTD. Power Rating : 3.85 Vdc 4950mAh
USB Cable		
Brand	Model	Specification
Trimble	121920	Signal Line : 2 meters, shielded cable. w/o ferrite core

2. 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.		Gain (dBi)				Antenna Type	Connector Type
		5.925~6.425GHz	6.425~6.525GHz	6.525~6.875GHz	6.875~7.125GHz		
2 (chain 1)	Maximum	-1.6	-5.44	-6.71	-7.04	LDS	shrapnel
	Minimum	-5.44	-7.53	-8.64	-8.48		
3 (chain 0)	Maximum	-1.0	-7.03	-3.34	-3.21	LDS	shrapnel
	Minimum	-7.74	-7.87	-6.27	-4.58		

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

2. The EUT incorporates a MIMO function:

6 GHz Band		
Modulation Mode	**TX & RX Configuration**	
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX

Note:
1. 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.
2. Partial RU (resource units) and channel puncturing/bandwidth reduction configurations are not supported.

3.3 Channel List

U-NII-5:

24 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz	13	6015 MHz
17	6035 MHz	21	6055 MHz	25	6075 MHz	29	6095 MHz
33	6115 MHz	37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz	61	6255 MHz
65	6275 MHz	69	6295 MHz	73	6315 MHz	77	6335 MHz
81	6355 MHz	85	6375 MHz	89	6395 MHz	93	6415 MHz

12 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz	27	6085 MHz
35	6125 MHz	43	6165 MHz	51	6205 MHz	59	6245 MHz
67	6285 MHz	75	6325 MHz	83	6365 MHz	91	6405 MHz

6 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz	55	6225 MHz
71	6305 MHz	87	6385 MHz				

3 channels are provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz

U-NII-6:

5 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
97	6435 MHz	101	6455 MHz	105	6475 MHz	109	6495 MHz
113	6515 MHz						

3 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency
99	6445 MHz	107	6485 MHz	*115	6525 MHz

1 channel is provided for 802.11ax (HE80):

Channel	Frequency
103	6465 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
*111	6505 MHz

U-NII-7:

17 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
117	6535 MHz	121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz	145	6675 MHz
149	6695 MHz	153	6715 MHz	157	6735 MHz	161	6755 MHz
165	6775 MHz	169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz						

8 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
123	6565 MHz	131	6605 MHz	139	6645 MHz	147	6685 MHz
155	6725 MHz	163	6765 MHz	171	6805 MHz	179	6845 MHz

5 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
*119	6545 MHz	135	6625 MHz	151	6705 MHz	167	6785 MHz
*183	6865 MHz						

2 channels are provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency
143	6665 MHz	175	*6825 MHz

U-NII-8:

13 channels are provided for 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
185	6875 MHz	189	6895 MHz	193	6915 MHz	197	6935 MHz
201	6955 MHz	205	6975 MHz	209	6995 MHz	213	7015 MHz
217	7035 MHz	221	7055 MHz	225	7075 MHz	229	7095 MHz
233	7115 MHz						

6 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
187	6885 MHz	195	6925 MHz	203	6965 MHz	211	7005 MHz
219	7045 MHz	227	7085 MHz				

2 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
199	6945 MHz	215	7025 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
207	6985 MHz

Note: * mean these are straddle channels.

3.4 Test Mode Applicability and Tested Channel Detail

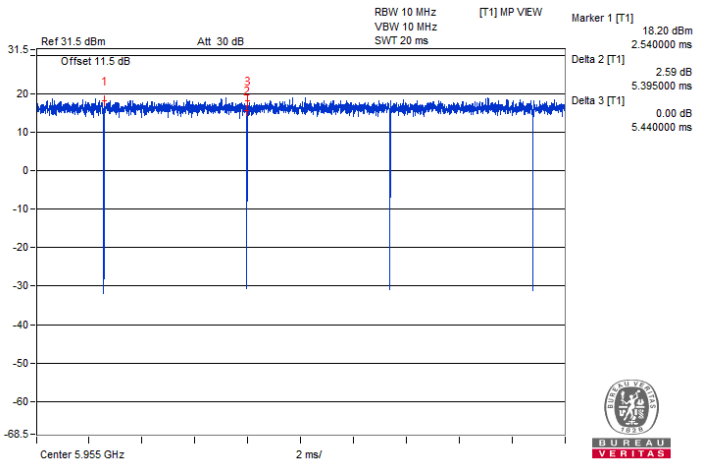
Pre-Scan:	1. EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	1. X-axis/ Y-axis/ Z-axis Worst Condition: Y-axis

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

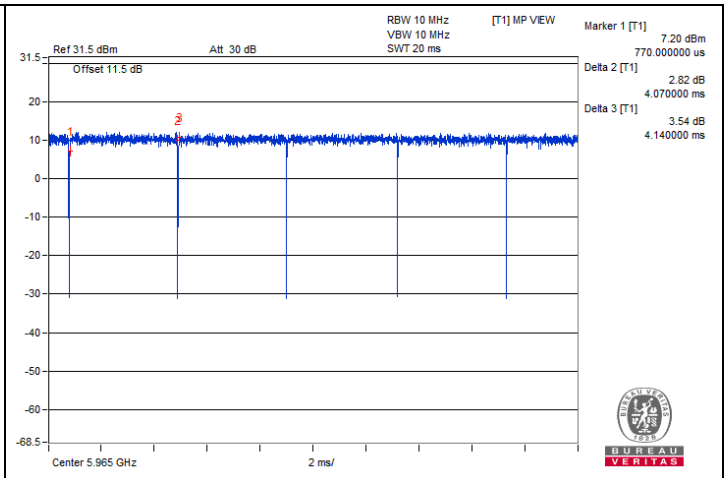
Test Item	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
Maximum RF Output Power	802.11ax (HE20)	CDD & Beamforming	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
	802.11ax (HE40)	CDD & Beamforming	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
	802.11ax (HE80)	CDD & Beamforming	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
	802.11ax (HE160)	CDD & Beamforming	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
Emission Bandwidth / Maximum Power Spectral Density	802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
	802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
	802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
In-Band Emission Mask	802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
	802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
	802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
Occupied Bandwidth	802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
	802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
	802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
Frequency Stability	802.11ax (HE20)	-	1	unmodulated	-
Contention-based Protocol	802.11ax (HE20)	CDD	45, 105, 149, 209	BPSK	MCS0
	802.11ax (HE160)	CDD	47, 111, 143, 207	BPSK	MCS0
AC Power Conducted Emissions	802.11ax (HE80)	CDD	7	BPSK	MCS0
Unwanted Emissions below 1 GHz	802.11ax (HE80)	CDD	7	BPSK	MCS0
Unwanted Emissions above 1 GHz	802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
	802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
	802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
	802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0

3.5 Duty Cycle of Test Signal

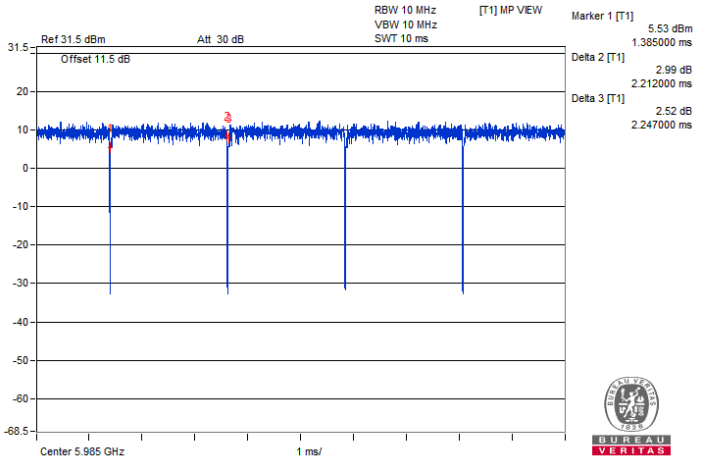
802.11ax (HE20): Duty cycle = 5.395 ms / 5.44 ms x 100% = 99.2%
802.11ax (HE40): Duty cycle = 4.07 ms / 4.14 ms x 100% = 98.3%
802.11ax (HE80): Duty cycle = 2.212 ms / 2.247 ms x 100% = 98.4%
802.11ax (HE160): Duty cycle = 2.151 ms / 2.175 ms x 100% = 98.9%



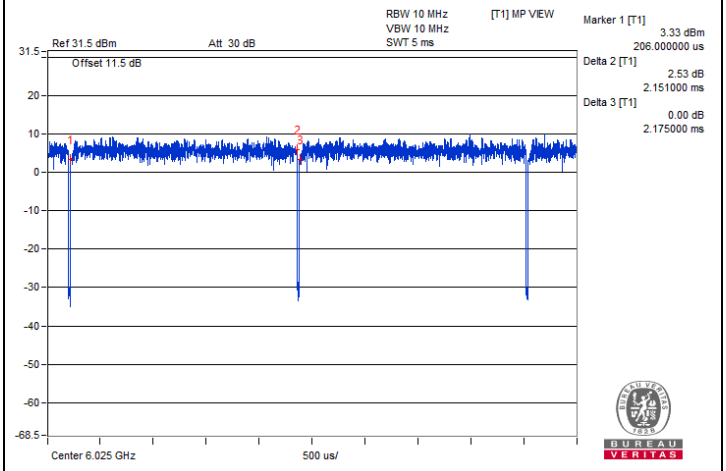
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

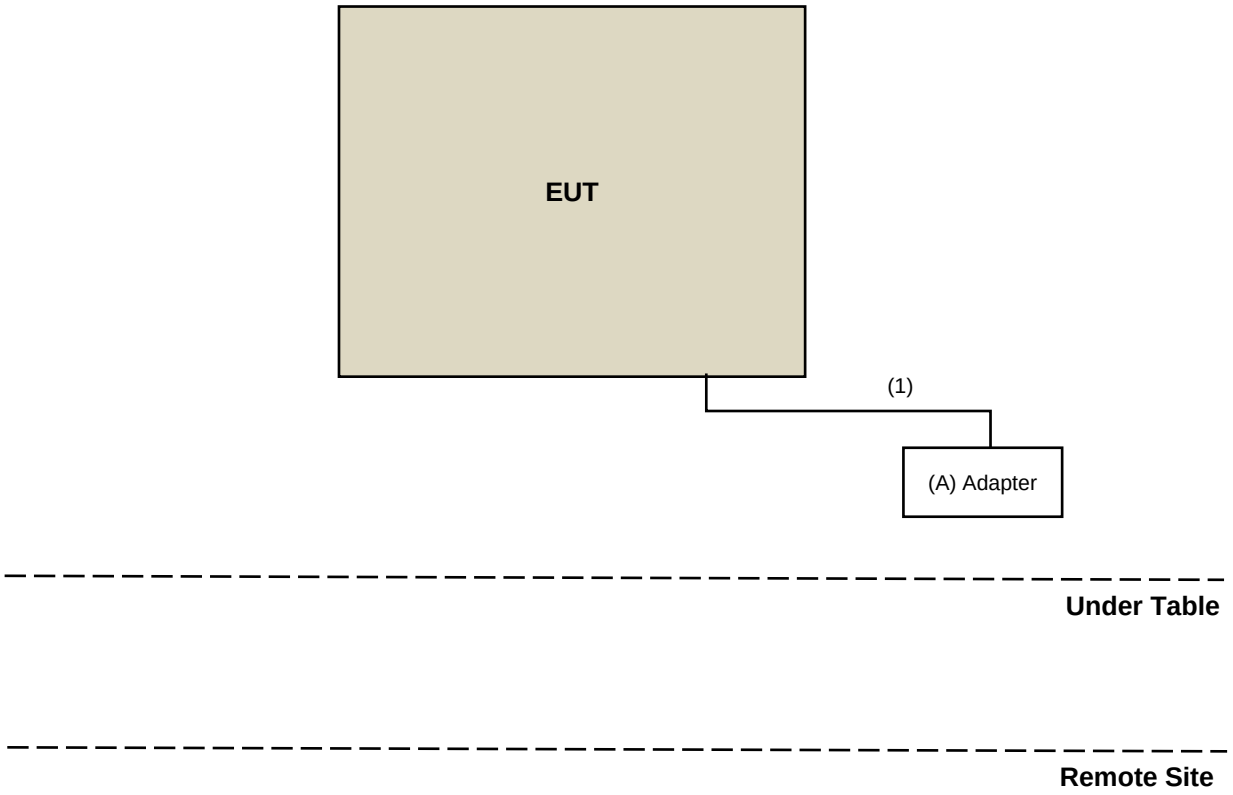


802.11ax (HE160)

3.6 Test Program Used and Operation Descriptions

Controlling software QRCT 4.0 Version 4.0.00166.0 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	Adapter	FULLPOWER	TYPE-C45IC	N/A	N/A	Supplied by applicant

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	Type-C Cable	1	2	Yes	0	Supplied by applicant

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 Maximum RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer Keysight	8990B	MY51000485	2023/1/19	2024/1/18
Wideband Power Sensor Keysight	N1923A	MY58020002	2023/1/18	2024/1/17
		MY58140009	2023/1/18	2024/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/7/14 ~ 2023/7/18

4.2 Maximum Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030B	MY57140488	2023/3/6	2024/3/5
Signal & Spectrum Analyzer R&S	FSV3044	101105	2023/2/22	2024/2/21
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/7/14 ~ 2023/7/18

4.3 Emission Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSV3044	101105	2023/2/22	2024/2/21
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/7/14 ~ 2023/7/18

4.4 In-Band Emission Mask

Refer to section 4.3 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.3 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
3-channel DC power supply JIN YIH Technology	ODP3033	ODP30332128138	N/A	N/A
Digital Multimeter Fluke	8050A	4660081	2023/6/19	2024/6/18
Signal & Spectrum Analyzer R&S	FSV3044	101105	2023/2/22	2024/2/21
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber Terchy	HRM-120RF	931022	2022/12/27	2023/12/26

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/7/14 ~ 2023/7/18

4.7 Contention-based Protocol

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/1/3	2024/1/2
MXG Vector signal generator Keysight	N5182B	MY53052282	2023/1/6	2024/1/5
Power Splitter/Combiner Mini-Circuits	ZN2PD-9G	ZN2PD-9G	2023/6/2	2024/6/1
PXA Signal Analyzer Keysight	N9030B	MY57140488	2023/3/6	2024/3/5

Notes:

1. The test was performed in Adaptivity room.
2. Tested Date: 2023/7/25

4.8 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
LISN R&S	ESH3-Z5	100311	2022/9/12	2023/9/11
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
Receiver R&S	ESCI	100412	2022/8/22	2023/8/21
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2023/1/7	2024/1/6
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2023/2/3

4.9 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower &Turn BV ADT	AT100	AT93021705	N/A	N/A
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101867	2022/12/30	2023/12/29
Test Receiver KEYSIGHT	N9038A	MY55420137	2022/4/27	2023/4/26
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2023/2/2

4.10 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower &Turn BV ADT	AT100	AT93021705	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	5	N/A	N/A
Horn Antenna Schwarzbeck	9120D	9120D-1169	2022/11/13	2023/11/12
	BBHA 9170	9170-480	2022/11/13	2023/11/12
		BBHA9170243	2022/11/13	2023/11/12
Pre-Ammlifier EMCI	EMC 184045	980116	2022/10/1	2023/9/30
Preamplifier Agilent	8449B	3008A02367	2022/2/16	2023/2/15
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	2022/7/9	2023/7/8
	EMC102-KM-KM-3000	150929	2022/7/9	2023/7/8
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2023/1/7	2024/1/6
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2023/1/7	2024/1/6
RF FLITER MICRO-TRONICS	BRM17690	004	2023/1/11	2024/1/10
	BRM50716	060	2023/1/11	2024/1/10
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer R&S	FSW43	101867	2022/12/30	2023/12/29
Test Receiver KEYSIGHT	N9038A	MY55420137	2022/4/27	2023/4/26
Turn Table BV ADT	TT100	TT93021705	N/A	N/A
Turn Table Controller BV ADT	SC100	SC93021705	N/A	N/A

Notes:

1. The test was performed in HY - 966 chamber 4.
2. Tested Date: 2023/2/1 ~ 2023/2/2

5 Limits of Test Items

5.1 Maximum RF Output Power

Operation Band	Equipment Class	Limit
		Maximum Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	6XD: 15E 6 GHz Low-power Indoor client	EIRP 24 dBm

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

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

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

5.2 Maximum Power Spectral Density

Operation Band	Equipment Class	Limit
		Maximum Power Density
U-NII-5 U-NII-6 U-NII-7 U-NII-8	6XD: 15E 6 GHz Low-power Indoor client	EIRP -1 dBm/MHz

5.3 Emission Bandwidth

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 MHz.

5.4 In-Band Emission Mask

Test Item	Frequencies (MHz)	(X) dBc*1
Emission Mask	At 1 MHz outside of channel edge	20
	At one channel bandwidth from the channel center*2	28
	At one- and one-half times the channel bandwidth away from channel center*3	40
	More than one- and one-half times the channel bandwidth	40

*1 : The power spectral density must be suppressed by “x” dB

*2 : At frequencies between one megahertz outside an unlicensed device’s channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression,

*3 : At frequencies between one and one- and one-half times an unlicensed device’s channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression.

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 Contention-based Protocol

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm (The threshold is referenced to a 0 dBi antenna gain.) or lower. Additionally, indoor low-power devices must detect co-channel energy with 90% or greater certainty.

5.8 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.

5.9 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(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Notes:

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

5.10 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

Frequencies (MHz)	EIRP Limit	Equivalent Field Strength at 3 m
5925 MHz > F > 7125 MHz	Peak: -7 (dBm/MHz)	88.2 (dBuV/m)
	Average: -27 (dBm/MHz)	68.2 (dBuV/m)

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

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

6 Test Arrangements

6.1 Maximum RF Output Power

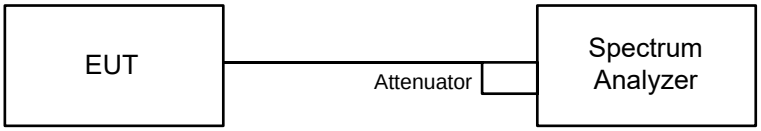
6.1.1 Test Setup

6.1.2 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.

6.2 Maximum Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

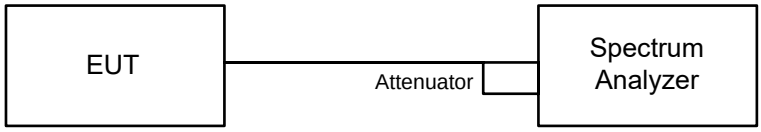
For specified measurement bandwidth 1 MHz:

Method SA-1

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ RBW / 2, so that narrowband signals are not lost between frequency bins.)
d. Sweep time = auto, trigger set to “free run”.
e. Trace average at least 100 traces in power averaging mode.
f. Record the max value

6.3 Emission Bandwidth

6.3.1 Test Setup

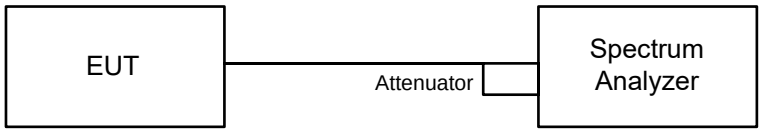


6.3.2 Test Procedure

a. Set RBW = approximately 1% of the emission bandwidth.
b. Set the VBW > RBW.
c. Detector = Peak.
d. Trace mode = max hold.
e. 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%.

6.4 In-Band Emission Mask

6.4.1 Test Setup

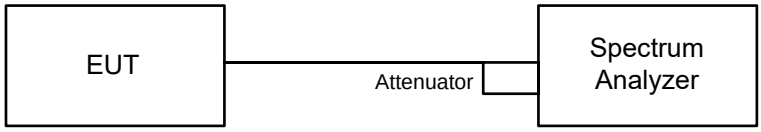


6.4.2 Test Procedure

a. Connect output of the antenna port to a spectrum analyzer and adjust appropriate attenuation.
b. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2013. (Determine the channel edge.)
c. Measure the power spectral density (for emissions mask reference) using the following procedure:
    a) Set the span to encompass the entire 26 dB EBW of the signal.
    b) Set RBW = same RBW used for 26 dB EBW measurement.
    c) Set VBW ≥ [3 X RBW].
    d) Number of points in sweep ≥ [2 X span / RBW].
    e) Sweep time = auto.
    f) Detector = RMS (i.e., power averaging).
    g) Trace average at least 100 traces in power averaging (rms) mode.
    h) Use the peak search function on the instrument to find the peak of the spectrum.
a. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
    a) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
    b) Suppressed by 28 dB at one channel bandwidth from the channel center.
    c) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
a. Adjust the span to encompass the entire mask as necessary and clear trace.
b. Trace average at least 100 traces in power averaging (rms) mode.
c. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

6.5 Occupied Bandwidth

6.5.1 Test Setup

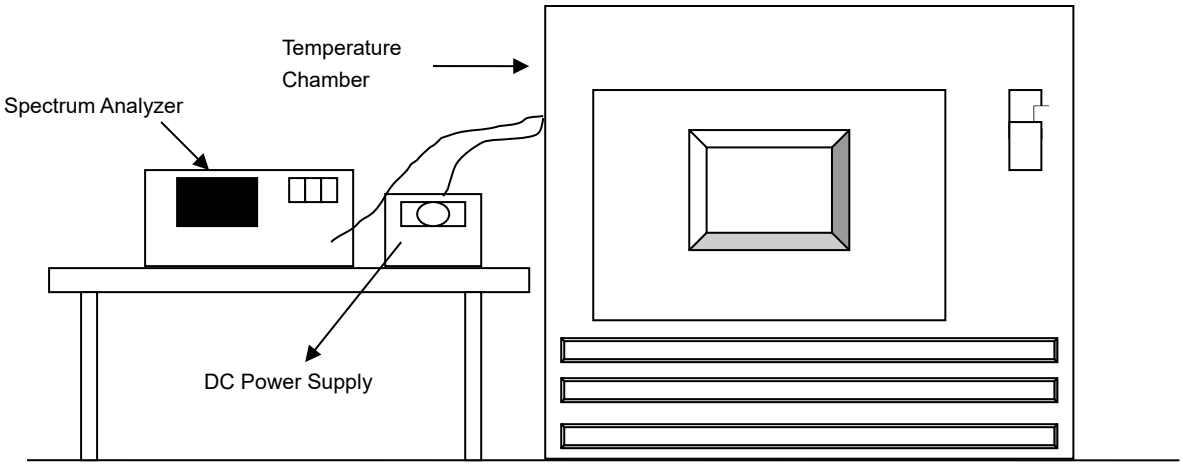


6.5.2 Test Procedure

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

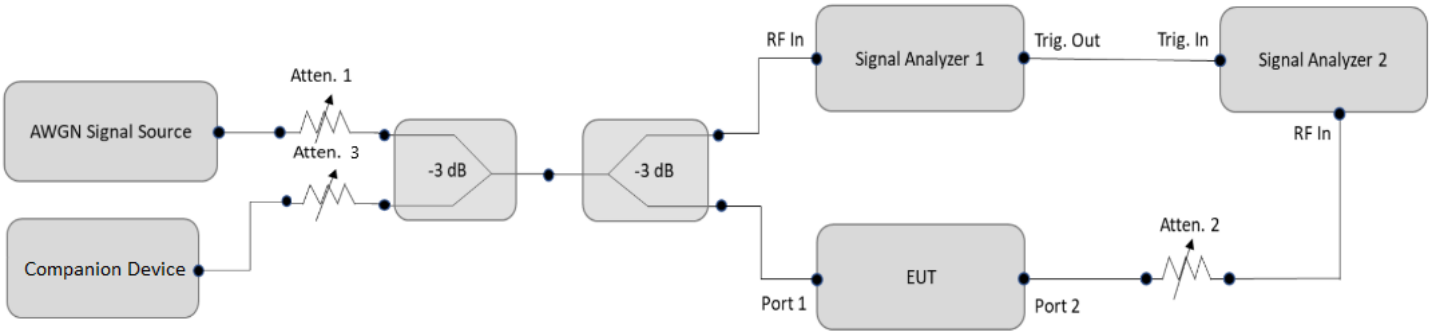


6.6.2 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

6.7 Contention-based Protocol

6.7.1 Test Setup



6.7.2 Test Procedure

a. Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.

b. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters (set as following section 4.7.5 EUT operating condition).

c. Determine number of times detection threshold test as following table,

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leqq BW_{Inc}$	Once	Same as EUT transmission
$BW_{Inc} < BW_{EUT} \leqq 2xBW_{Inc}$	Once	Contained within BW_{EUT}
$2xBW_{Inc} < BW_{EUT} \leqq 4xBW_{Inc}$	Twice. (Incumbent transmission is contained within BW_{EUT})	Closely to the lower edge and upper edge of the EUT Channel
$BW_{EUT} > 4xBW_{Inc}$	Three times	Closely to the lower edge ,in the middle and upper edge of the EUT Channel

d. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step c table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.

e. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT.

f. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.

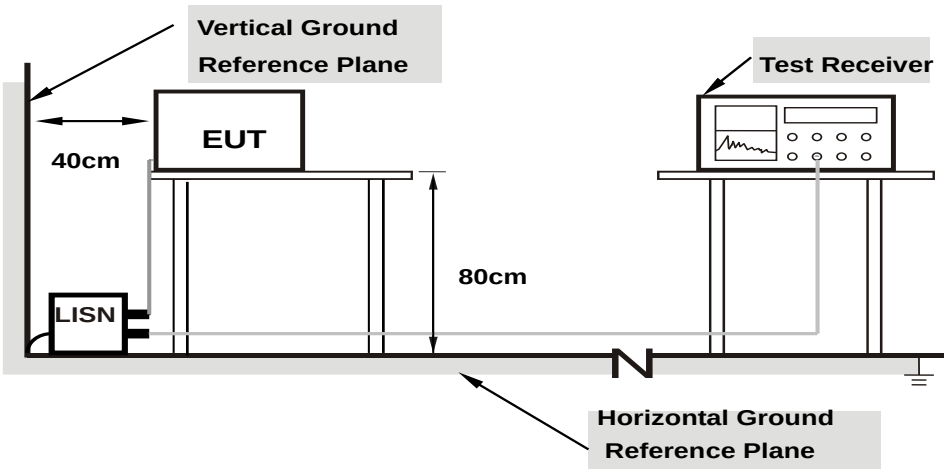
g. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.

h. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.

i. Refer to step c table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step d, choose a different center frequency for the AWGN signal and repeat the process.

6.8 AC Power Conducted Emissions

6.8.1 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).

6.8.2 Test Procedure

a. 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.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

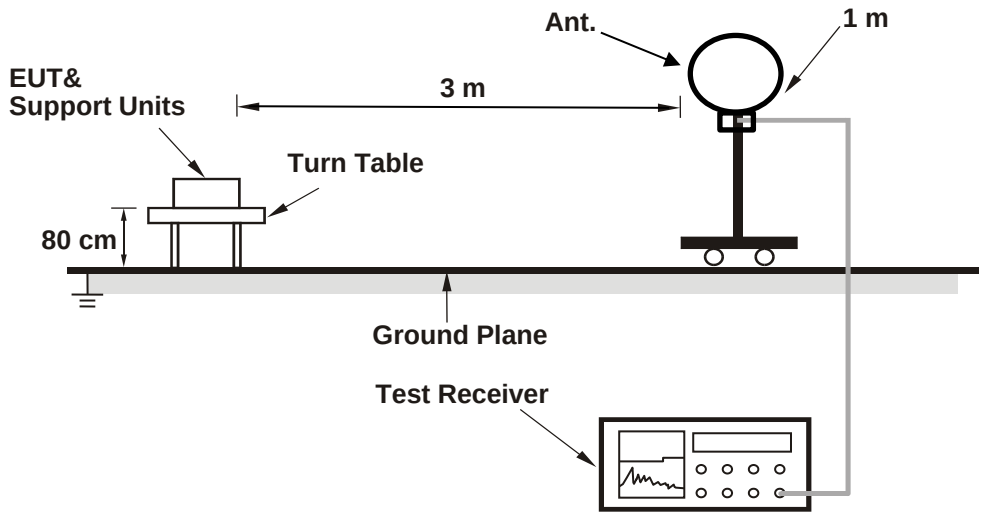
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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.

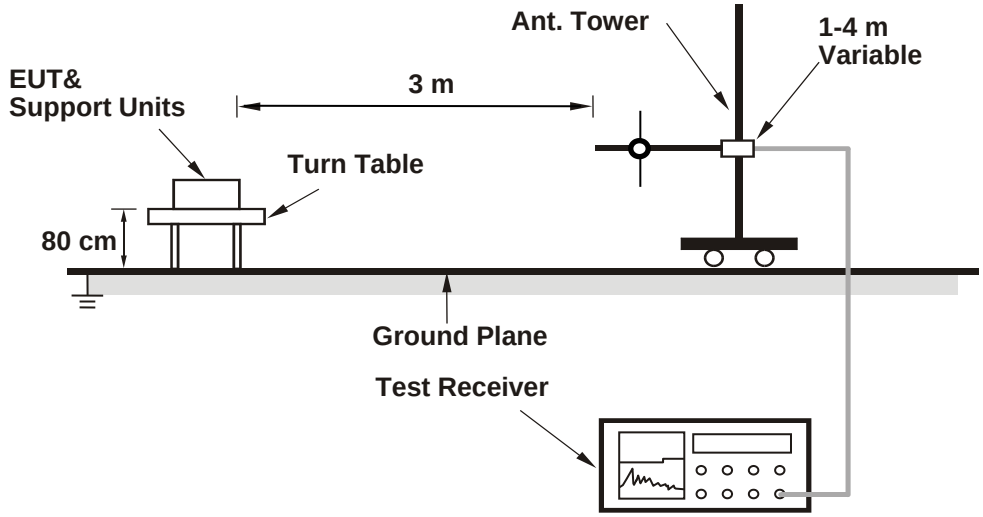
6.9 Unwanted Emissions below 1 GHz

6.9.1 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).

6.9.2 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.

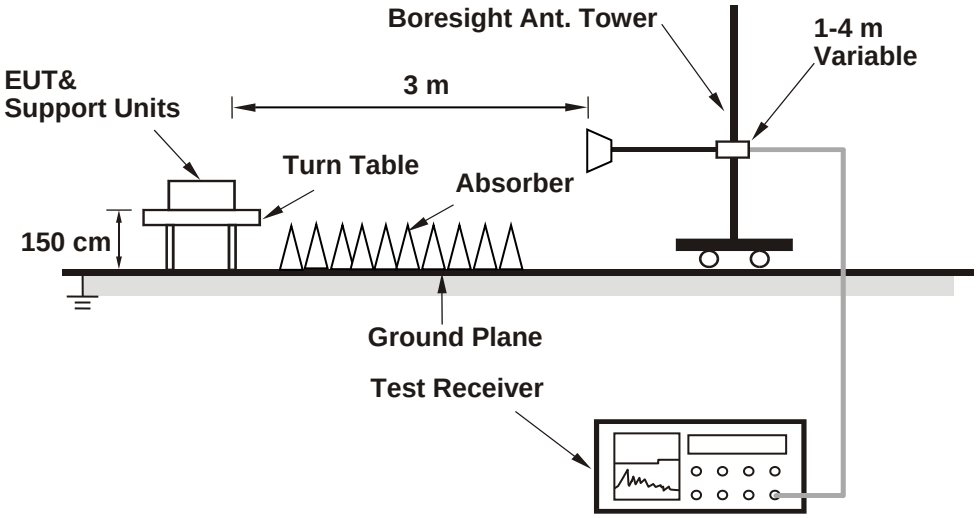
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

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.

6.10 Unwanted Emissions above 1 GHz

6.10.1 Test Setup



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

6.10.2 Test Procedure

a. 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.

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 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:

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

7 Test Results of Test Item

7.1 Maximum RF Output Power

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	7.43	4.53	8.371	9.23	-1.00	6.649	8.23	24	Pass
45	6175	7.94	3.64	8.535	9.31	-1.00	6.78	8.31	24	Pass
93	6415	5.17	7.03	8.335	9.21	-1.00	6.621	8.21	24	Pass
97	6435	9.33	12.27	25.436	14.05	-5.44	7.269	8.61	24	Pass
105	6475	9.40	12.69	27.288	14.36	-5.44	7.798	8.92	24	Pass
113	6515	8.15	13.34	28.109	14.49	-5.44	8.032	9.05	24	Pass
117	6535	6.60	11.79	19.672	12.94	-3.34	9.117	9.6	24	Pass
149	6695	9.73	9.63	18.581	12.69	-3.34	8.611	9.35	24	Pass
181	6855	6.86	5.20	8.164	9.12	-3.34	3.784	5.78	24	Pass
185	6875	6.85	5.10	8.078	9.07	-3.21	3.857	5.86	24	Pass
209	6995	9.59	5.02	12.276	10.89	-3.21	5.862	7.68	24	Pass
233	7115	8.36	6.89	11.741	10.70	-3.21	5.607	7.49	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is -1 dBi
3. For U-NII-6, The maximum gain is -5.44 dBi
4. For U-NII-7, The maximum gain is -3.34 dBi
5. For U-NII-8, The maximum gain is -3.21 dBi

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
3	5965	10.06	7.21	15.399	11.87	-1.00	12.232	10.87	24	Pass
43	6165	9.52	5.83	12.782	11.07	-1.00	10.153	10.07	24	Pass
91	6405	8.32	9.73	16.189	12.09	-1.00	12.859	11.09	24	Pass
99	6445	8.37	11.87	22.252	13.47	-5.44	6.359	8.03	24	Pass
107	6485	7.56	12.23	22.413	13.50	-5.44	6.405	8.07	24	Pass
115	6525	7.55	12.34	22.828	13.58	-3.34	10.58	10.24	24	Pass
123	6565	7.29	11.93	20.953	13.21	-3.34	9.711	9.87	24	Pass
155	6725	8.70	7.25	12.722	11.05	-3.34	5.896	7.71	24	Pass
179	6845	6.27	4.40	6.991	8.45	-3.34	3.24	5.11	24	Pass
187	6885	6.29	4.26	6.923	8.40	-3.21	3.306	5.19	24	Pass
211	7005	8.21	4.29	9.308	9.69	-3.21	4.445	6.48	24	Pass
227	7085	7.83	5.56	9.665	9.85	-3.21	4.615	6.64	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is -1 dBi
3. For U-NII-6, The maximum gain is -5.44 dBi
4. For U-NII-7, The maximum gain is -3.34 dBi
5. For U-NII-8, The maximum gain is -3.21 dBi

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	10.97	7.86	18.612	12.70	-1.00	14.784	11.7	24	Pass
39	6145	8.38	4.75	9.872	9.94	-1.00	7.842	8.94	24	Pass
87	6385	8.30	8.33	13.569	11.33	-1.00	10.778	10.33	24	Pass
103	6465	7.33	10.99	17.968	12.54	-5.44	5.135	7.11	24	Pass
119	6545	6.34	10.81	16.356	12.14	-3.34	7.58	8.8	24	Pass
151	6705	8.03	6.77	11.107	10.46	-3.34	5.148	7.12	24	Pass
183	6865	4.98	2.75	5.031	7.02	-3.34	2.332	3.68	24	Pass
199	6945	6.12	2.09	5.711	7.57	-3.21	2.727	4.36	24	Pass
215	7025	6.68	3.49	6.889	8.38	-3.21	3.29	5.17	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is -1 dBi
3. For U-NII-6, The maximum gain is -5.44 dBi
4. For U-NII-7, The maximum gain is -3.34 dBi
5. For U-NII-8, The maximum gain is -3.21 dBi

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	10.18	7.00	15.435	11.89	-1.00	12.26	10.88	24	Pass
47	6185	8.98	5.01	11.076	10.44	-1.00	8.798	9.44	24	Pass
79	6345	9.82	8.45	16.592	12.20	-1.00	13.179	11.2	24	Pass
111	6505	7.06	11.39	18.854	12.75	-5.44	5.388	7.31	24	Pass
143	6665	7.35	8.30	12.193	10.86	-3.34	5.651	7.52	24	Pass
175	6825	5.91	4.12	6.482	8.12	-3.34	3.004	4.78	24	Pass
207	6985	6.99	3.24	7.109	8.52	-3.21	3.395	5.31	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is -1 dBi
3. For U-NII-6, The maximum gain is -5.44 dBi
4. For U-NII-7, The maximum gain is -3.34 dBi
5. For U-NII-8, The maximum gain is -3.21 dBi

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	4.52	1.62	4.284	6.32	1.72	6.366	8.04	24	Pass
45	6175	5.09	0.76	4.42	6.45	1.72	6.568	8.17	24	Pass
93	6415	2.30	4.11	4.275	6.31	1.72	6.352	8.03	24	Pass
97	6435	6.87	9.83	14.48	11.61	-3.19	6.947	8.42	24	Pass
105	6475	6.91	10.24	15.477	11.90	-3.19	7.425	8.71	24	Pass
113	6515	5.75	10.94	16.175	12.09	-3.19	7.76	8.9	24	Pass
117	6535	5.07	10.24	13.782	11.39	-1.85	9.001	9.54	24	Pass
149	6695	8.16	8.04	12.914	11.11	-1.85	8.435	9.26	24	Pass
181	6855	5.27	3.64	5.677	7.54	-1.85	3.708	5.69	24	Pass
185	6875	5.32	3.58	5.684	7.55	-1.85	3.712	5.7	24	Pass
209	6995	8.05	3.49	8.616	9.35	-1.91	5.55	7.44	24	Pass
233	7115	6.80	5.36	8.222	9.15	-1.91	5.296	7.24	24	Pass

Notes:

1. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
2. For U-NII-5, The directional gain is 1.72 dBi
3. For U-NII-6, The directional gain is -3.19 dBi
4. For U-NII-7, The directional gain is -1.85 dBi
5. For U-NII-8, The directional gain is -1.91 dBi

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
3	5965	7.16	4.31	7.898	8.98	1.72	11.736	10.7	24	Pass
43	6165	6.62	2.91	6.546	8.16	1.72	9.727	9.88	24	Pass
91	6405	5.42	6.83	8.303	9.19	1.72	12.338	10.91	24	Pass
99	6445	5.67	9.15	11.912	10.76	-3.19	5.715	7.57	24	Pass
107	6485	4.89	9.59	12.182	10.86	-3.19	5.844	7.67	24	Pass
115	6525	5.95	10.71	15.712	11.96	-1.85	10.262	10.11	24	Pass
123	6565	5.69	10.33	14.496	11.61	-1.85	9.468	9.76	24	Pass
155	6725	7.10	5.62	8.776	9.43	-1.85	5.732	7.58	24	Pass
179	6845	4.67	2.74	4.81	6.82	-1.85	3.142	4.97	24	Pass
187	6885	4.69	2.62	4.773	6.79	-1.91	3.075	4.88	24	Pass
211	7005	6.61	2.60	6.401	8.06	-1.91	4.123	6.15	24	Pass
227	7085	6.23	3.94	6.675	8.24	-1.91	4.3	6.33	24	Pass

Notes:

1. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
2. For U-NII-5, The directional gain is 1.72 dBi
3. For U-NII-6, The directional gain is -3.19 dBi
4. For U-NII-7, The directional gain is -1.85 dBi
5. For U-NII-8, The directional gain is -1.91 dBi

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	7.92	4.81	9.221	9.65	1.72	13.702	11.37	24	Pass
39	6145	5.33	1.70	4.891	6.89	1.72	7.268	8.61	24	Pass
87	6385	5.25	5.28	6.723	8.28	1.72	9.99	10	24	Pass
103	6465	4.48	8.14	9.322	9.70	-3.19	4.472	6.51	24	Pass
119	6545	4.40	9.21	11.091	10.45	-1.85	7.244	8.6	24	Pass
151	6705	6.34	5.08	7.526	8.77	-1.85	4.915	6.92	24	Pass
183	6865	3.29	1.06	3.409	5.33	-1.85	2.227	3.48	24	Pass
199	6945	4.52	0.49	3.951	5.97	-1.91	2.545	4.06	24	Pass
215	7025	4.99	1.99	4.736	6.75	-1.91	3.051	4.84	24	Pass

Notes:

1. Directional gain = 10 log[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
2. For U-NII-5, The directional gain is 1.72 dBi
3. For U-NII-6, The directional gain is -3.19 dBi
4. For U-NII-7, The directional gain is -1.85 dBi
5. For U-NII-8, The directional gain is -1.91 dBi

802.11ax (HE160) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	7.16	3.98	7.7	8.86	1.72	11.442	10.59	24	Pass
47	6185	5.96	1.99	5.526	7.42	1.72	8.211	9.14	24	Pass
79	6345	6.80	5.43	8.278	9.18	1.72	12.301	10.9	24	Pass
111	6505	4.53	8.83	10.476	10.20	-3.19	5.026	7.01	24	Pass
143	6665	5.75	6.70	8.436	9.26	-1.85	5.51	7.41	24	Pass
175	6825	4.30	2.50	4.47	6.50	-1.85	2.919	4.65	24	Pass
207	6985	5.31	1.60	4.842	6.85	-1.91	3.119	4.94	24	Pass

Notes:

1. Directional gain = 10 log[($10^{Chain0/20}$ + $10^{Chain1/20}$)^2 / 2]
2. For U-NII-5, The directional gain is 1.72 dBi
3. For U-NII-6, The directional gain is -3.19 dBi
4. For U-NII-7, The directional gain is -1.85 dBi
5. For U-NII-8, The directional gain is -1.91 dBi

7.2 Maximum Power Spectral Density

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
1	5955	-5.34	-7.83	-3.40	1.72	-1.68	-1	Pass
45	6175	-4.99	-8.81	-3.48	1.72	-1.76	-1	Pass
93	6415	-7.03	-5.99	-3.47	1.72	-1.75	-1	Pass
97	6435	-3.69	-0.45	1.24	-3.19	-1.95	-1	Pass
105	6475	-4.31	0.10	1.44	-3.19	-1.75	-1	Pass
113	6515	-3.97	0.74	2.00	-3.19	-1.19	-1	Pass
117	6535	-5.79	-1.06	0.20	-1.85	-1.65	-1	Pass
149	6695	-2.79	-3.62	-0.17	-1.85	-2.02	-1	Pass
181	6855	-5.94	-7.72	-3.73	-1.85	-5.58	-1	Pass
185	6875	-5.88	-7.76	-3.71	-1.85	-5.56	-1	Pass
209	6995	-2.77	-7.42	-1.49	-1.91	-3.4	-1	Pass
233	7115	-4.36	-5.68	-1.96	-1.91	-3.87	-1	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[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-5, The directional gain is 1.72 dBi
4. For U-NII-6, The directional gain is -3.19 dBi
5. For U-NII-7, The directional gain is -1.85 dBi
6. For U-NII-8, The directional gain is -1.91 dBi

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
3	5965	-5.27	-7.98	-3.41	1.72	-1.69	-1	Pass
43	6165	-5.67	-9.83	-4.26	1.72	-2.54	-1	Pass
91	6405	-6.75	-5.72	-3.19	1.72	-1.47	-1	Pass
99	6445	-6.64	-3.50	-1.78	-3.19	-4.97	-1	Pass
107	6485	-7.56	-3.08	-1.76	-3.19	-4.95	-1	Pass
115	6525	-7.38	-3.00	-1.65	-1.85	-3.5	-1	Pass
123	6565	-8.48	-3.08	-1.98	-1.85	-3.83	-1	Pass
155	6725	-6.74	-8.37	-4.47	-1.85	-6.32	-1	Pass
179	6845	-9.40	-11.36	-7.26	-1.85	-9.11	-1	Pass
187	6885	-9.33	-11.50	-7.27	-1.91	-9.18	-1	Pass
211	7005	-7.03	-11.30	-5.65	-1.91	-7.56	-1	Pass
227	7085	-7.65	-9.77	-5.57	-1.91	-7.48	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 1.72 dBi
4. For U-NII-6, The directional gain is -3.19 dBi
5. For U-NII-7, The directional gain is -1.85 dBi
6. For U-NII-8, The directional gain is -1.91 dBi

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
7	5985	-7.34	-9.83	-5.40	1.72	-3.68	-1	Pass
39	6145	-9.53	-13.60	-8.09	1.72	-6.37	-1	Pass
87	6385	-9.19	-8.61	-5.88	1.72	-4.16	-1	Pass
103	6465	-10.49	-6.93	-5.34	-3.19	-8.53	-1	Pass
119	6545	-12.10	-6.96	-5.80	-1.85	-7.65	-1	Pass
151	6705	-9.84	-11.92	-7.75	-1.85	-9.6	-1	Pass
183	6865	-13.26	-15.74	-11.32	-1.85	-13.17	-1	Pass
199	6945	-11.79	-16.13	-10.43	-1.91	-12.34	-1	Pass
215	7025	-10.84	-14.60	-9.31	-1.91	-11.22	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 1.72 dBi
4. For U-NII-6, The directional gain is -3.19 dBi
5. For U-NII-7, The directional gain is -1.85 dBi
6. For U-NII-8, The directional gain is -1.91 dBi

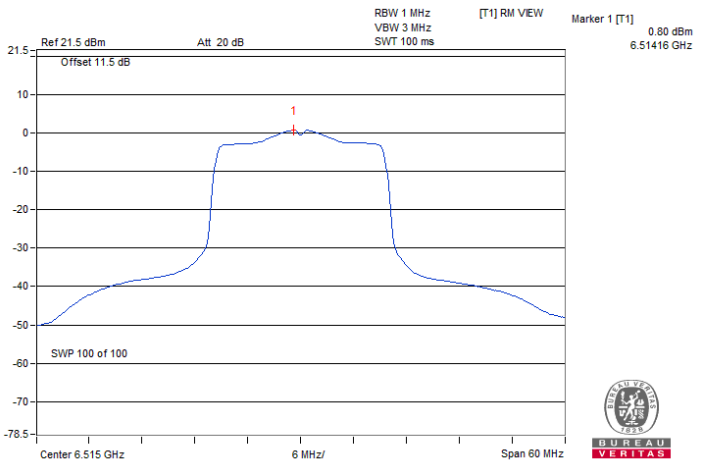
802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
15	6025	-10.05	-13.60	-8.46	1.72	-6.74	-1	Pass
47	6185	-11.53	-16.29	-10.28	1.72	-8.56	-1	Pass
79	6345	-10.36	-12.56	-8.31	1.72	-6.59	-1	Pass
111	6505	-13.62	-9.52	-8.09	-3.19	-11.28	-1	Pass
143	6665	-13.16	-12.61	-9.87	-1.85	-11.72	-1	Pass
175	6825	-14.99	-17.60	-13.09	-1.85	-14.94	-1	Pass
207	6985	-13.51	-18.19	-12.24	-1.91	-14.15	-1	Pass

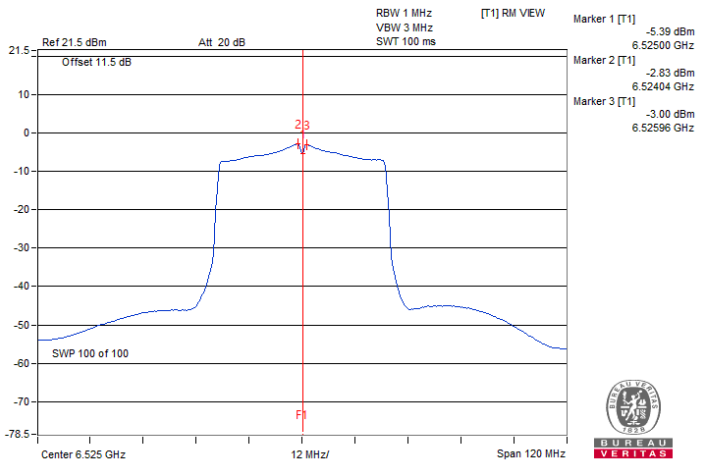
Notes:

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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 1.72 dBi
4. For U-NII-6, The directional gain is -3.19 dBi
5. For U-NII-7, The directional gain is -1.85 dBi
6. For U-NII-8, The directional gain is -1.91 dBi

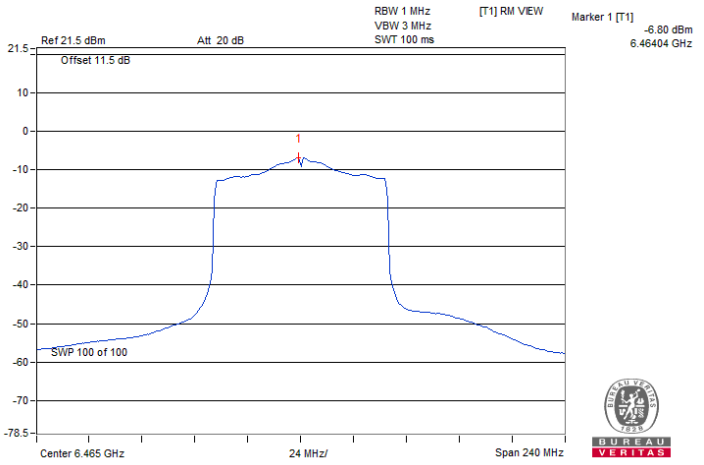
Spectrum Plot of Maximum Value



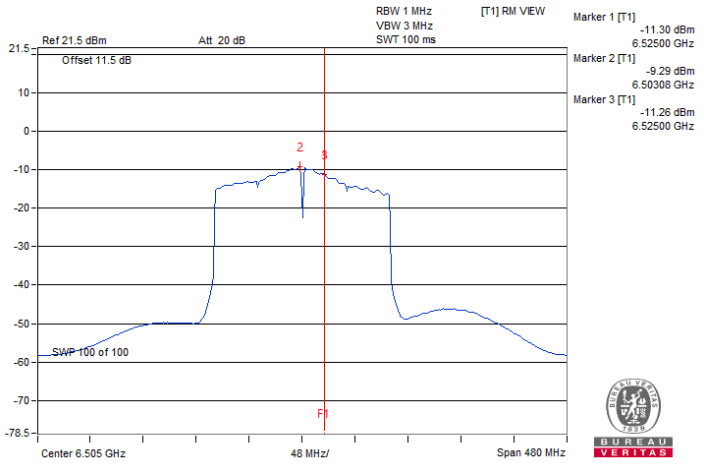
802.11ax (HE20) / Chain 1 : CH 113



802.11ax (HE40) / Chain 1 : CH 115



802.11ax (HE80) / Chain 1 : CH 103



802.11ax (HE160) / Chain 1 : CH 111

7.3 Emission Bandwidth

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	21.35	21.43	320	Pass
45	6175	21.10	21.12	320	Pass
93	6415	21.20	21.56	320	Pass
97	6435	21.14	24.48	320	Pass
105	6475	21.16	22.22	320	Pass
113	6515	21.22	21.16	320	Pass
117	6535	21.03	21.12	320	Pass
149	6695	21.09	21.24	320	Pass
181	6855	21.19	21.17	320	Pass
185	6875	21.16	21.30	320	Pass
209	6995	21.37	21.31	320	Pass
233	7115	21.01	21.17	320	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	5965	40.60	40.23	320	Pass
43	6165	40.53	40.65	320	Pass
91	6405	40.78	40.63	320	Pass
99	6445	40.70	40.71	320	Pass
107	6485	40.70	40.91	320	Pass
115	6525	40.89	40.67	320	Pass
123	6565	40.81	40.98	320	Pass
155	6725	40.72	40.86	320	Pass
179	6845	40.86	40.96	320	Pass
187	6885	40.77	40.70	320	Pass
211	7005	40.55	40.75	320	Pass
227	7085	40.66	40.90	320	Pass

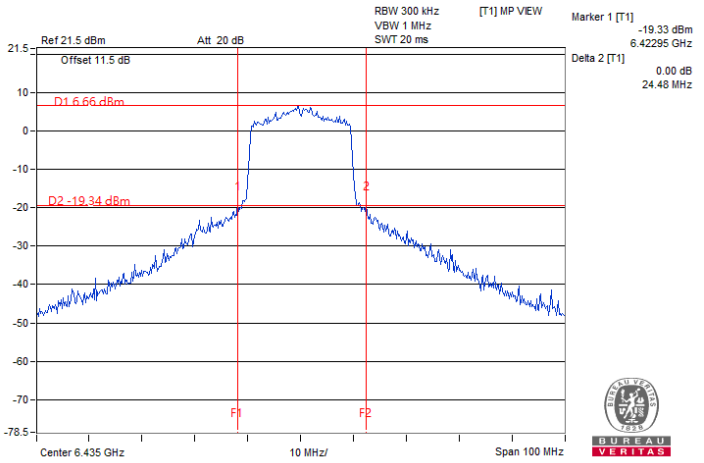
802.11ax (HE80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
7	5985	83.22	82.59	320	Pass
39	6145	82.55	82.66	320	Pass
87	6385	82.57	82.73	320	Pass
103	6465	82.31	82.31	320	Pass
119	6545	82.34	82.44	320	Pass
151	6705	81.82	82.47	320	Pass
183	6865	82.54	82.36	320	Pass
199	6945	82.72	82.69	320	Pass
215	7025	82.26	82.87	320	Pass

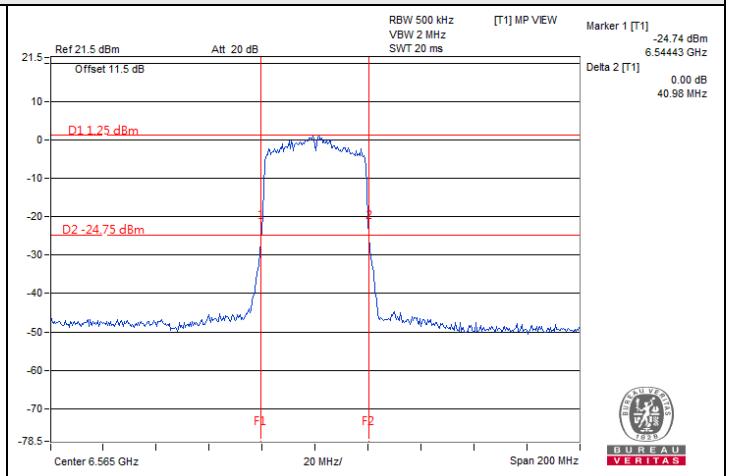
802.11ax (HE160)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	165.45	165.96	320	Pass
47	6185	165.90	168.11	320	Pass
79	6345	167.43	166.11	320	Pass
111	6505	166.19	165.51	320	Pass
143	6665	166.59	166.25	320	Pass
175	6825	166.26	166.60	320	Pass
207	6985	166.81	166.62	320	Pass

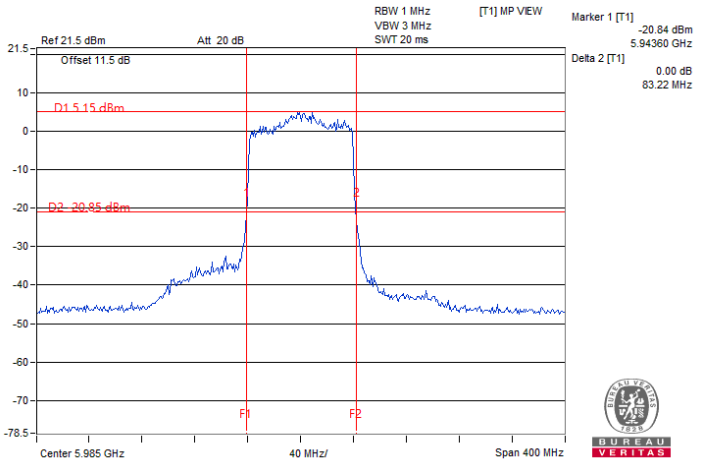
Spectrum Plot of Maximum Value



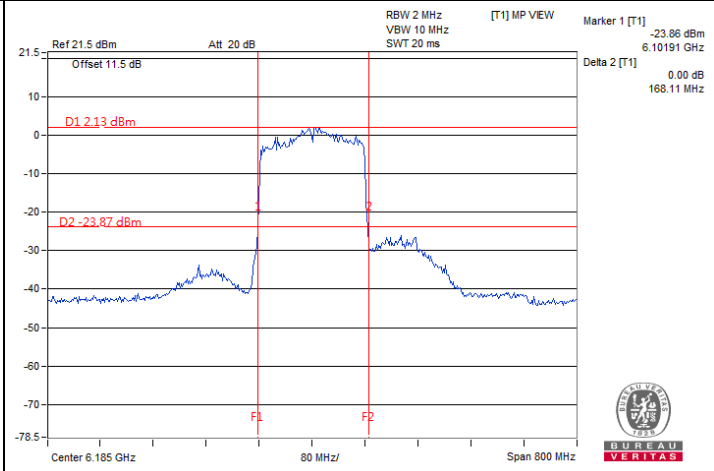
802.11ax (HE20) / Chain 1 : CH 97



802.11ax (HE40) / Chain 1 : CH 123



802.11ax (HE80) / Chain 0 : CH 7

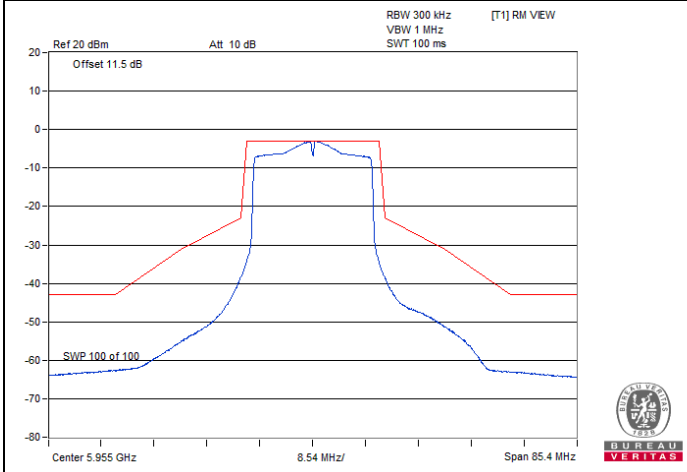
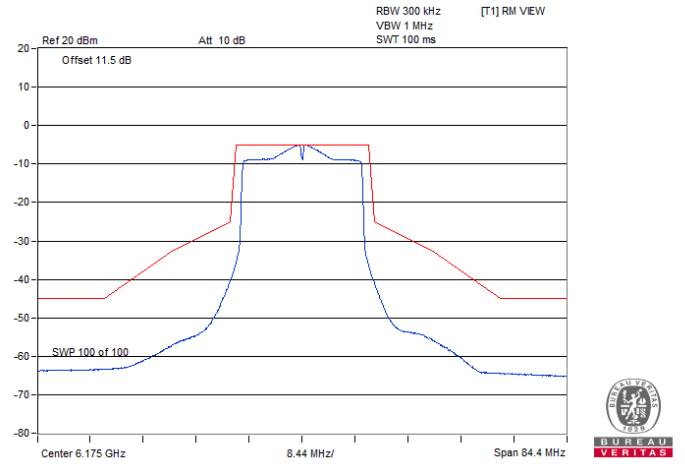
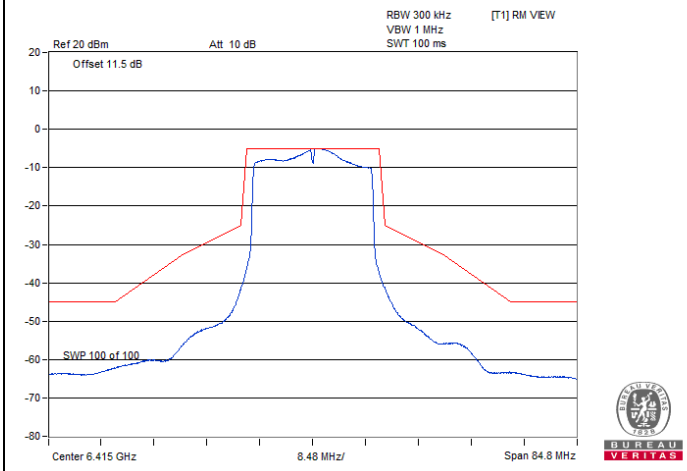
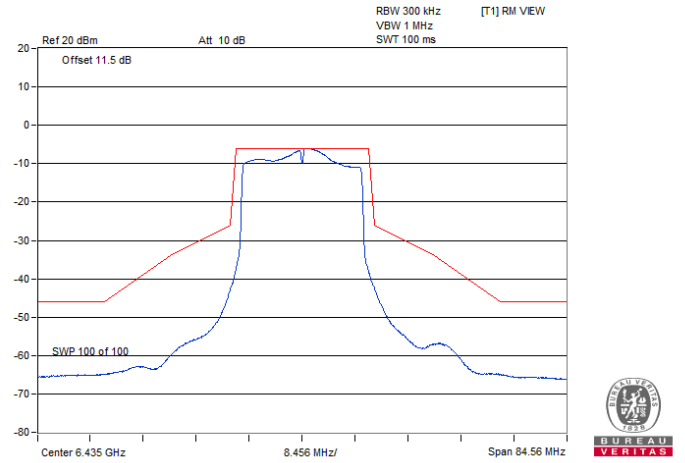
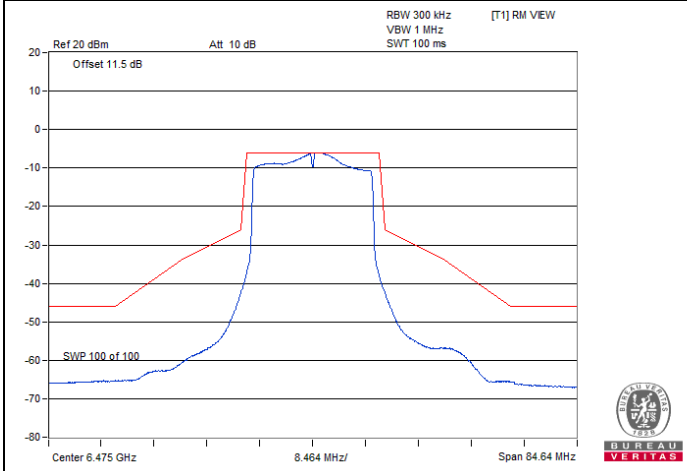
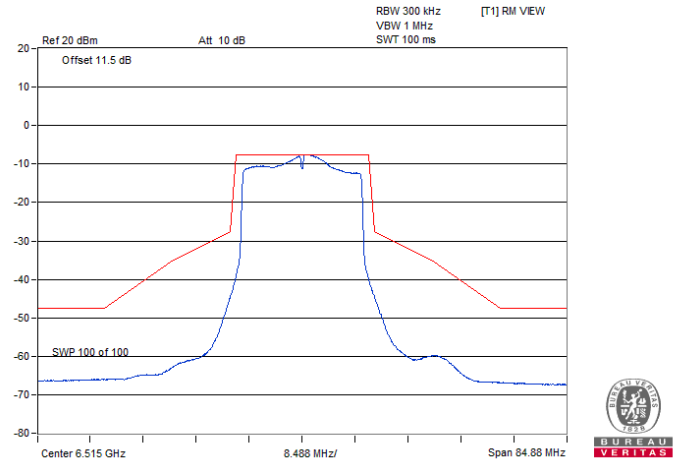


802.11ax (HE160) / Chain 1 : CH 47

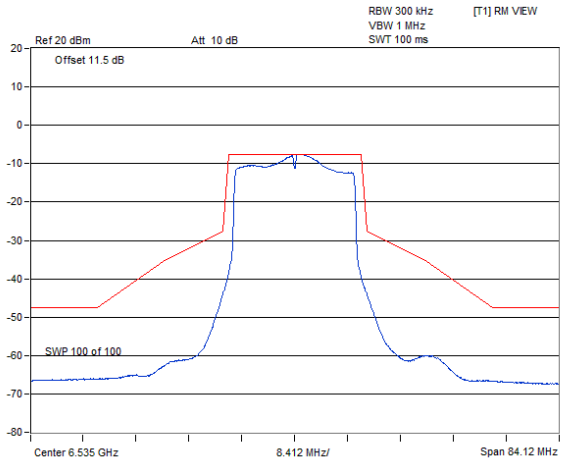
7.4 In-Band Emission Mask

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

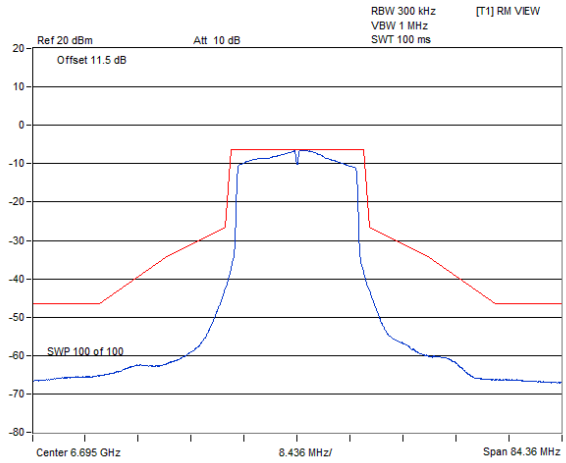
802.11ax (HE20)

Spectrum Plot	
	
802.11ax (HE20) / Chain 0 : CH 1	802.11ax (HE20) / Chain 0 : CH 45
	
802.11ax (HE20) / Chain 0 : CH 93	802.11ax (HE20) / Chain 0 : CH 97
	
802.11ax (HE20) / Chain 0 : CH 105	802.11ax (HE20) / Chain 0 : CH 113

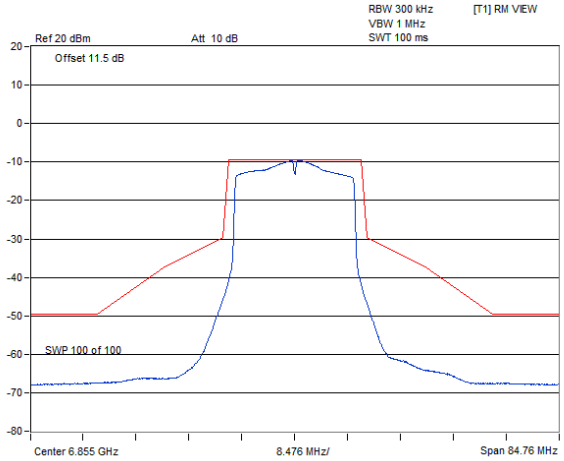
Spectrum Plot



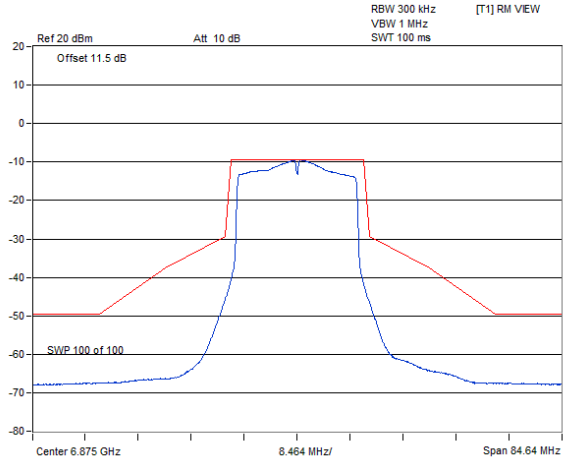
802.11ax (HE20) / Chain 0 : CH 117



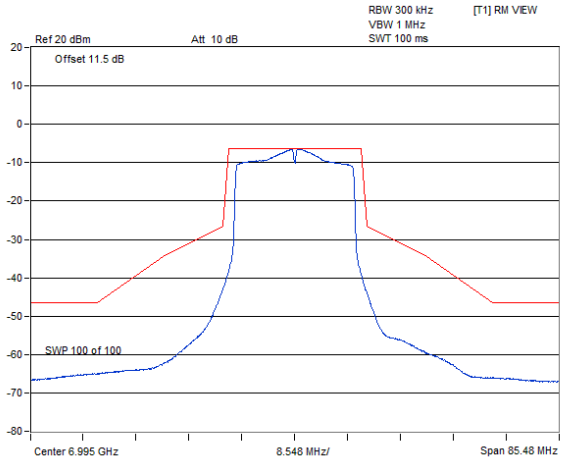
802.11ax (HE20) / Chain 0 : CH 149



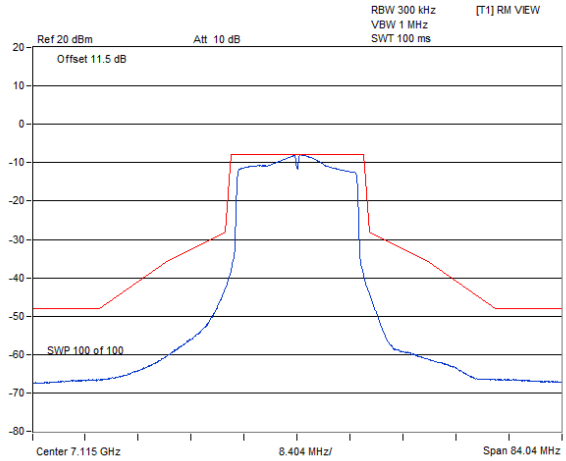
802.11ax (HE20) / Chain 0 : CH 181



802.11ax (HE20) / Chain 0 : CH 185

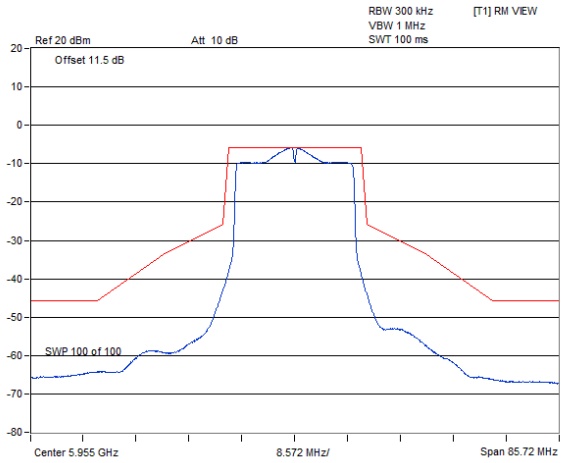


802.11ax (HE20) / Chain 0 : CH 209

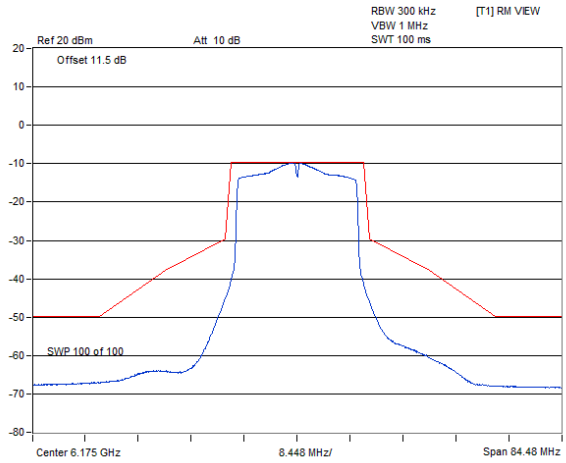


802.11ax (HE20) / Chain 0 : CH 233

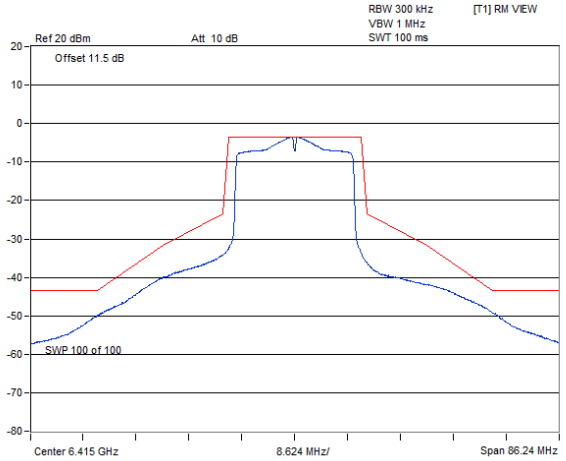
Spectrum Plot



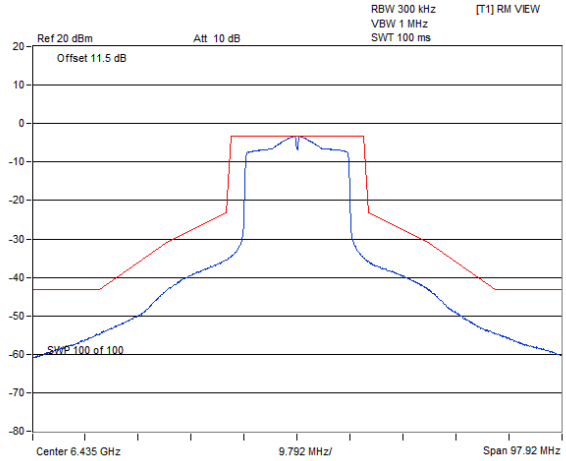
802.11ax (HE20) / Chain 1 : CH 1



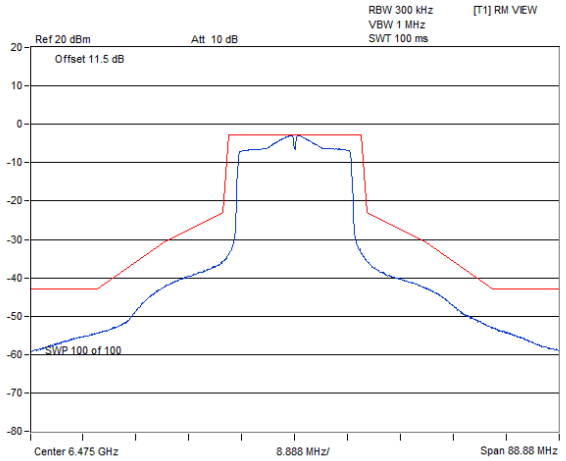
802.11ax (HE20) / Chain 1 : CH 45



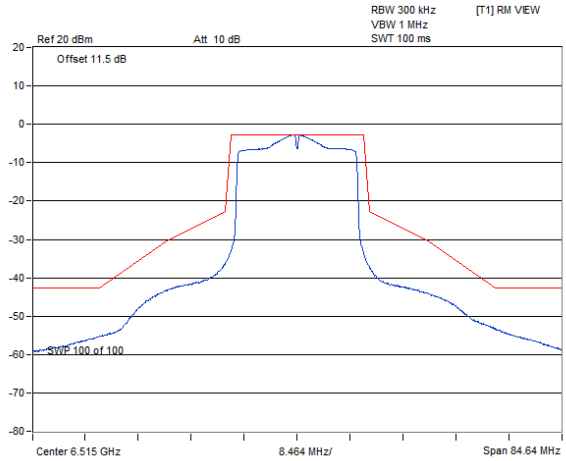
802.11ax (HE20) / Chain 1 : CH 93



802.11ax (HE20) / Chain 1 : CH 97

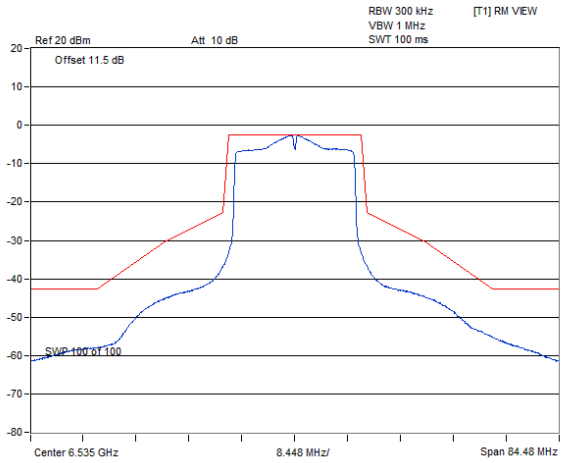


802.11ax (HE20) / Chain 1 : CH 105

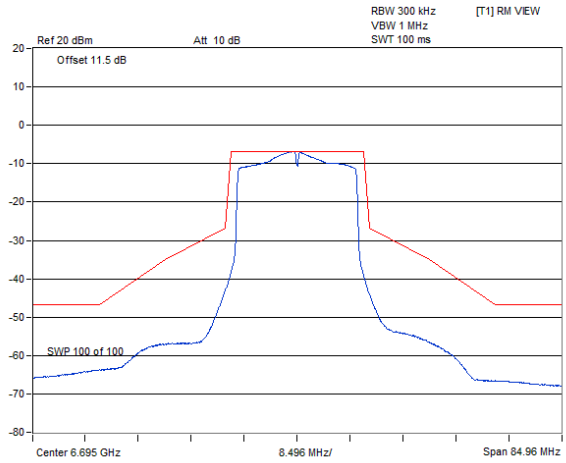


802.11ax (HE20) / Chain 1 : CH 113

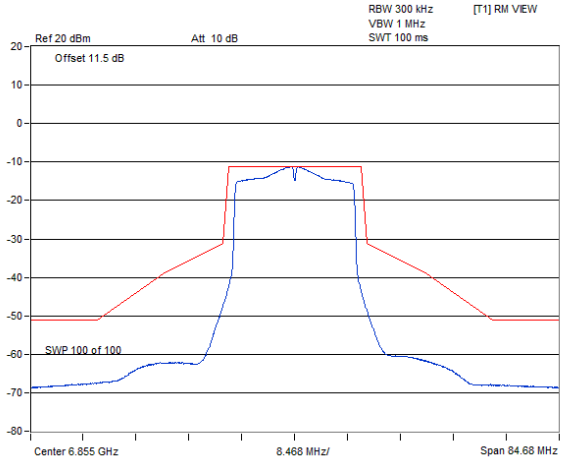
Spectrum Plot



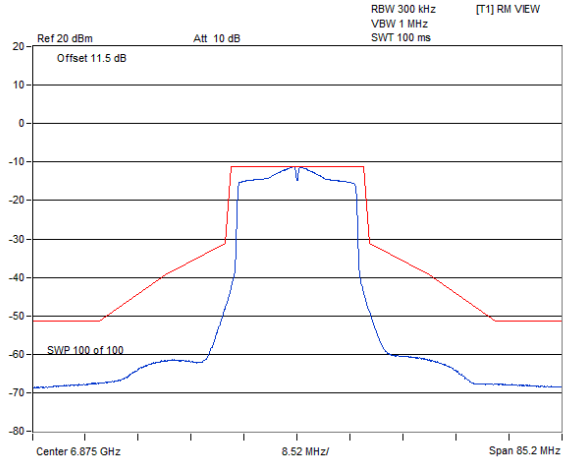
802.11ax (HE20) / Chain 1 : CH 117



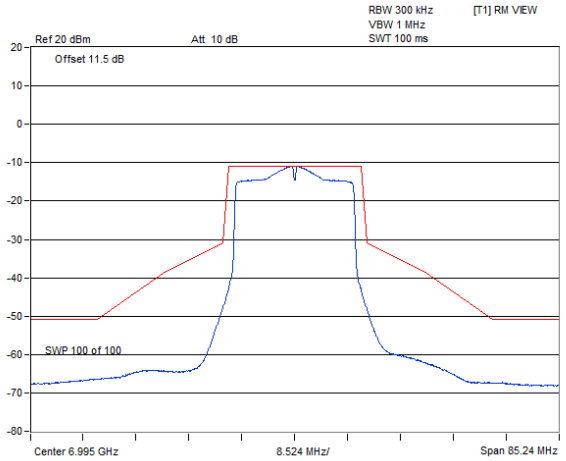
802.11ax (HE20) / Chain 1 : CH 149



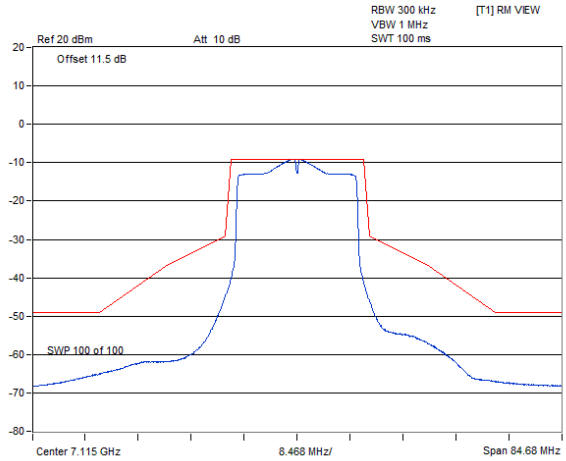
802.11ax (HE20) / Chain 1 : CH 181



802.11ax (HE20) / Chain 1 : CH 185

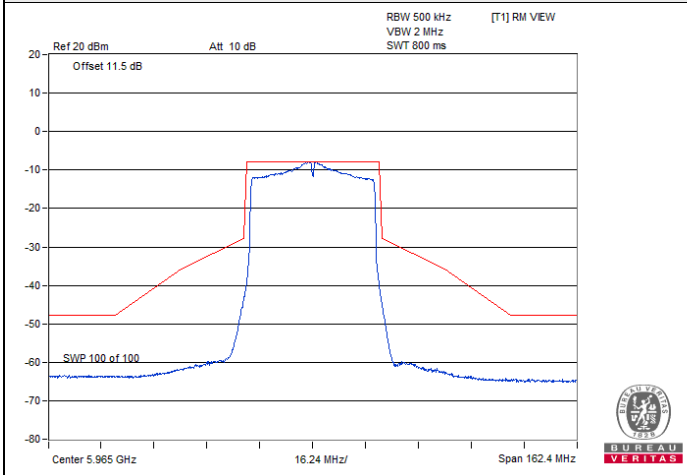
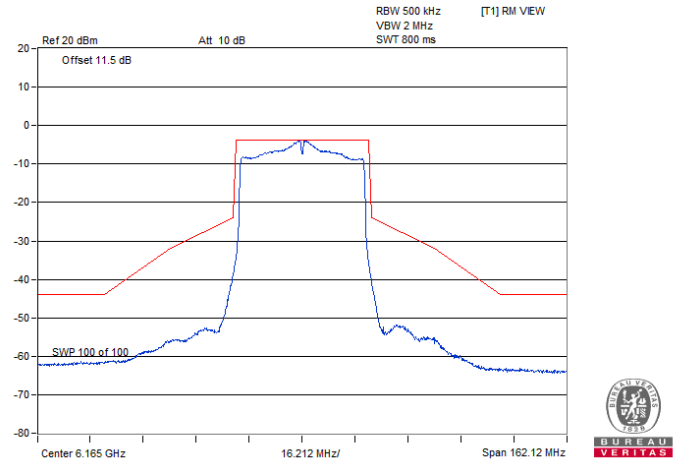
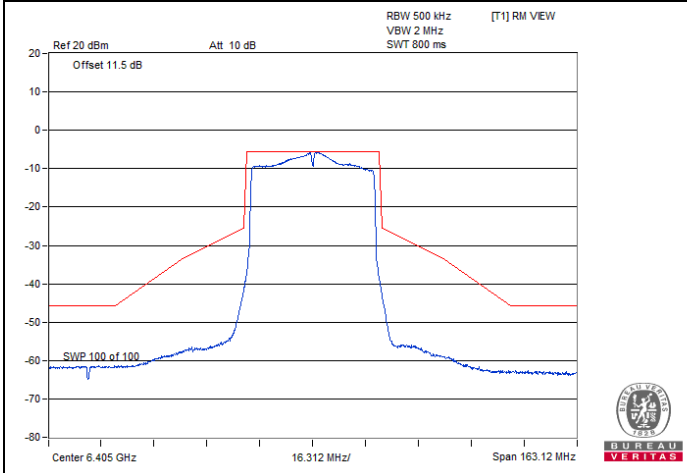
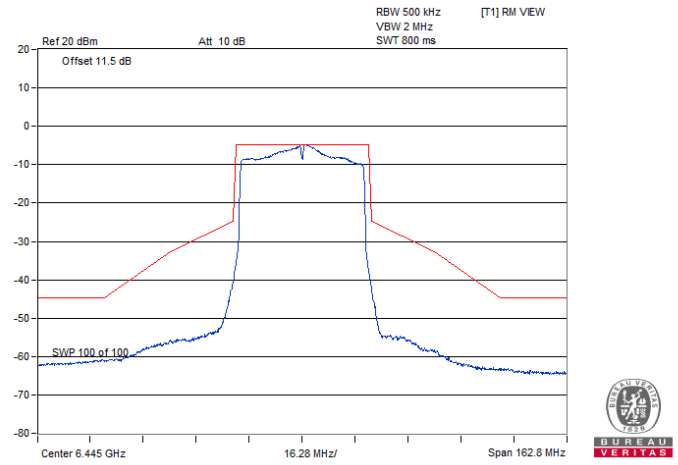
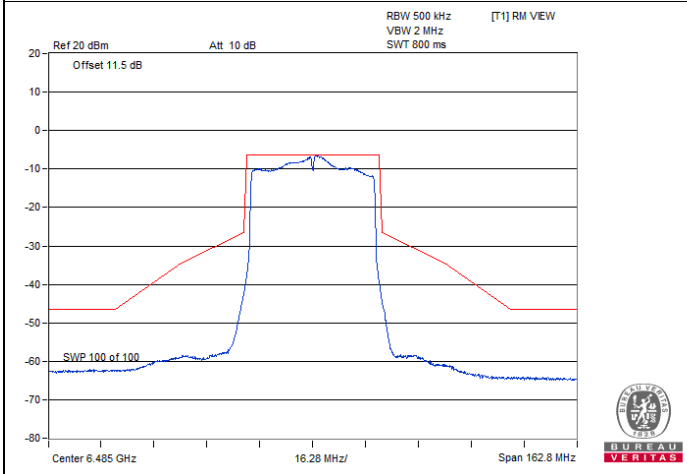
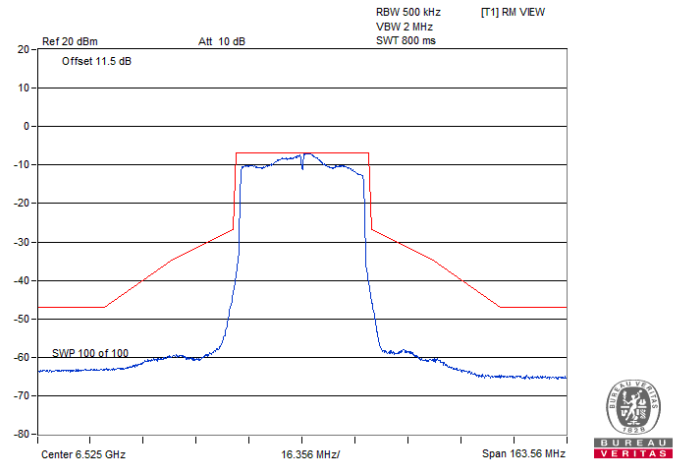


802.11ax (HE20) / Chain 1 : CH 209

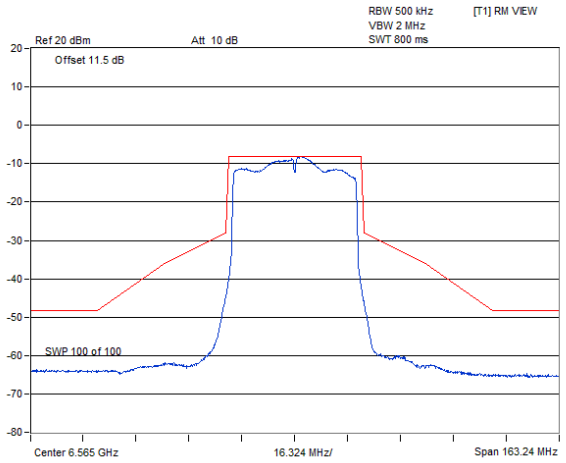


802.11ax (HE20) / Chain 1 : CH 233

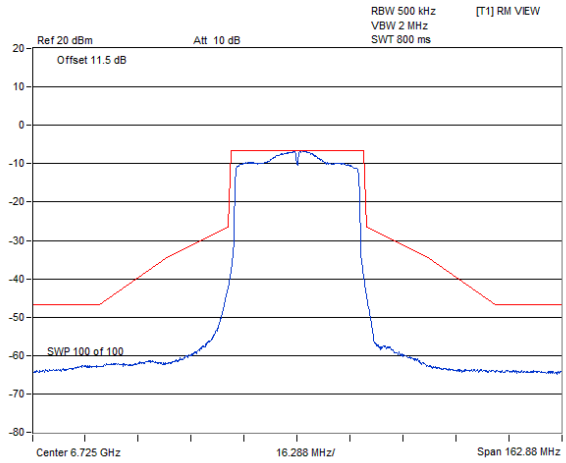
802.11ax (HE40)

Spectrum Plot	
	
802.11ax (HE40) / Chain 0 : CH 3	802.11ax (HE40) / Chain 0 : CH 43
	
802.11ax (HE40) / Chain 0 : CH 91	802.11ax (HE40) / Chain 0 : CH 99
	
802.11ax (HE40) / Chain 0 : CH 107	802.11ax (HE40) / Chain 0 : CH 115

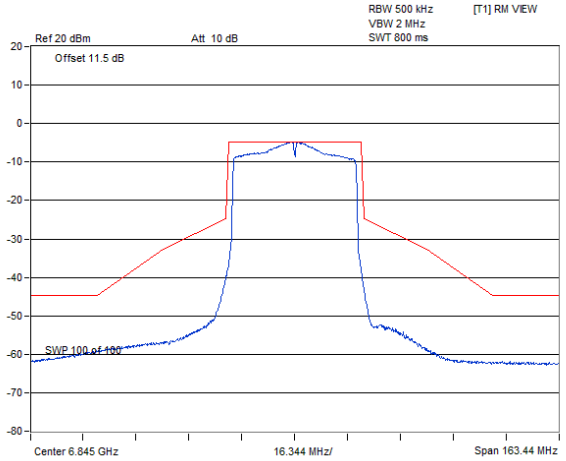
Spectrum Plot



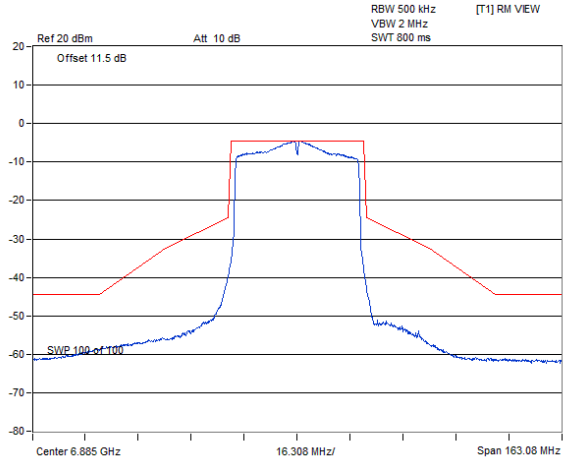
802.11ax (HE40) / Chain 0 : CH 123



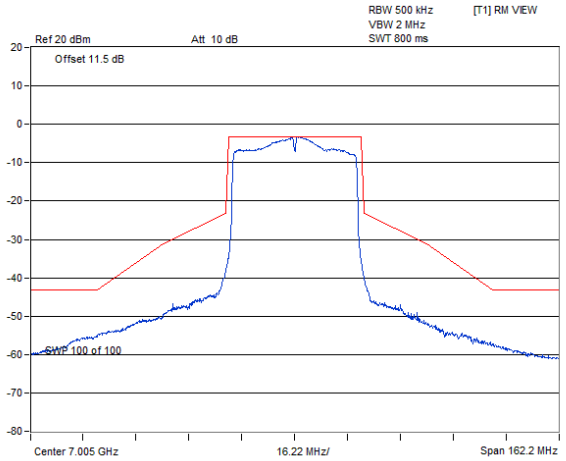
802.11ax (HE40) / Chain 0 : CH 155



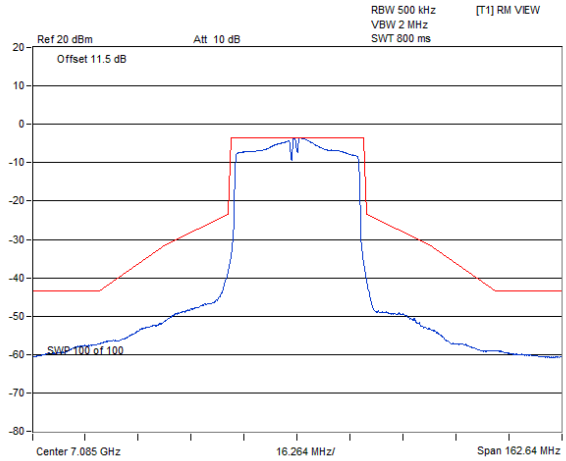
802.11ax (HE40) / Chain 0 : CH 179



802.11ax (HE40) / Chain 0 : CH 187

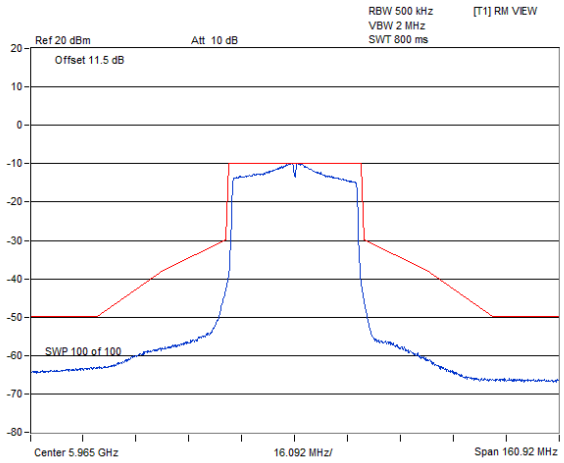


802.11ax (HE40) / Chain 0 : CH 211

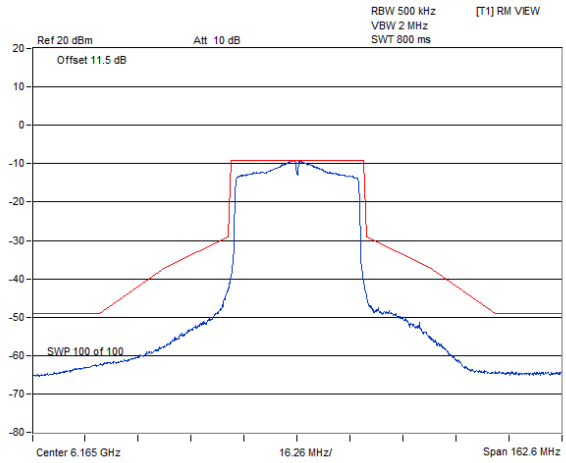


802.11ax (HE40) / Chain 0 : CH 227

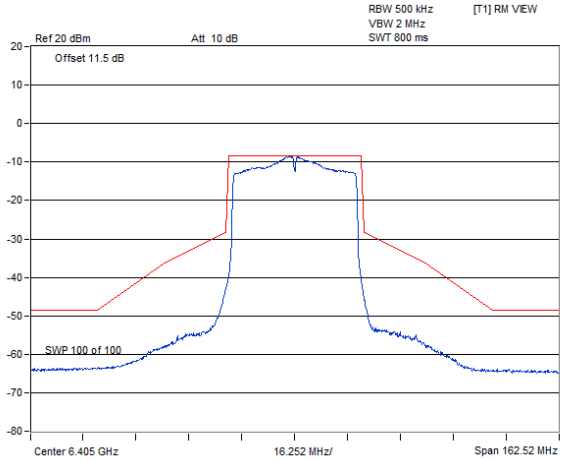
Spectrum Plot



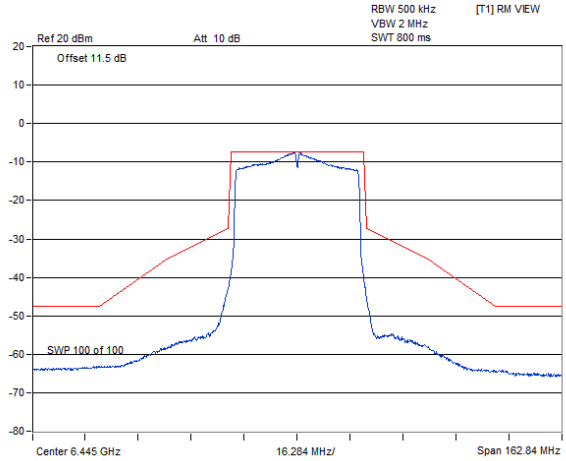
802.11ax (HE40) / Chain 1 : CH 3



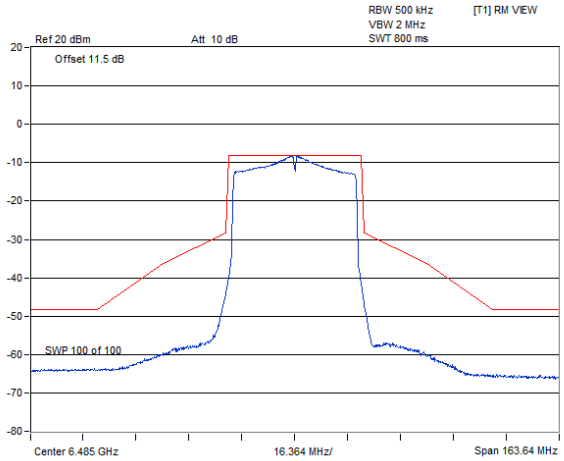
802.11ax (HE40) / Chain 1 : CH 43



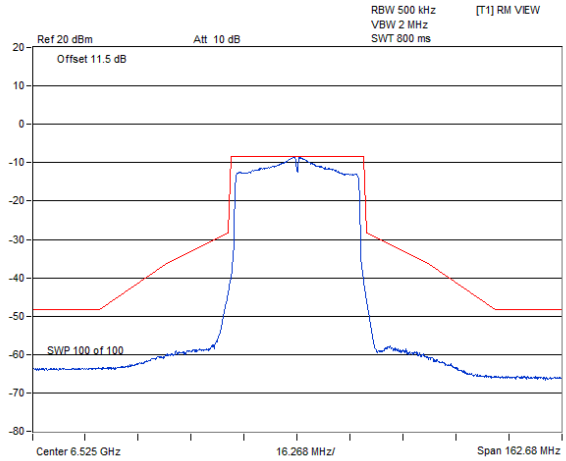
802.11ax (HE40) / Chain 1 : CH 91



802.11ax (HE40) / Chain 1 : CH 99

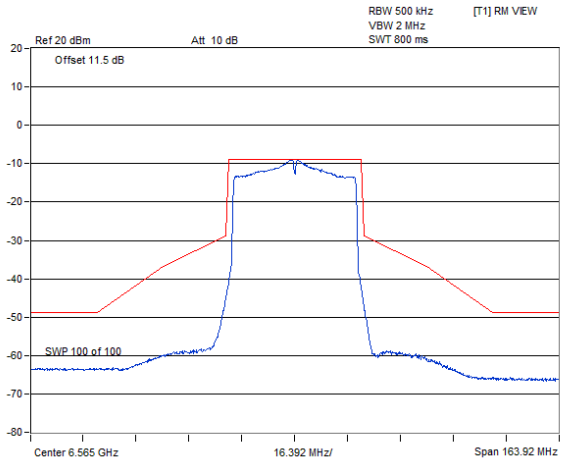


802.11ax (HE40) / Chain 1 : CH 107

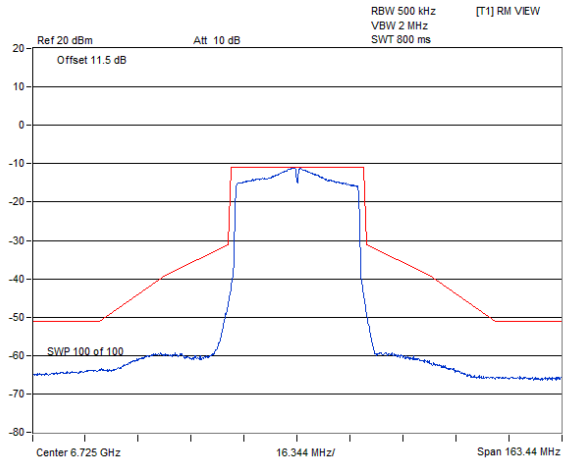


802.11ax (HE40) / Chain 1 : CH 115

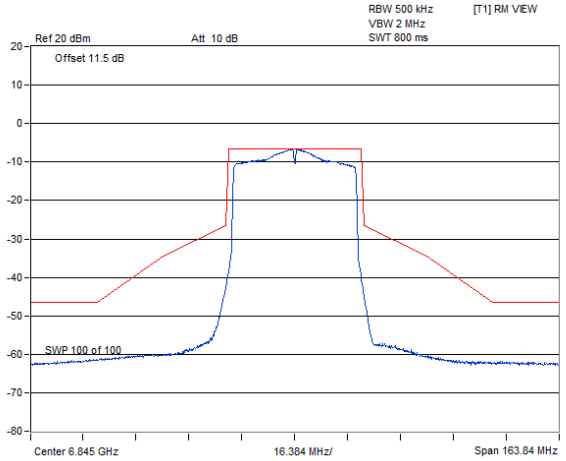
Spectrum Plot



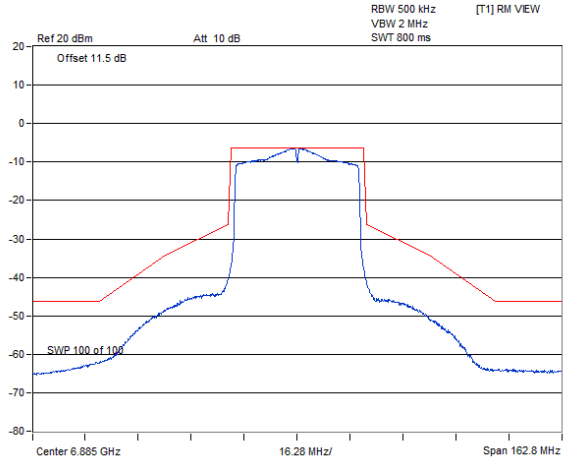
802.11ax (HE40) / Chain 1 : CH 123



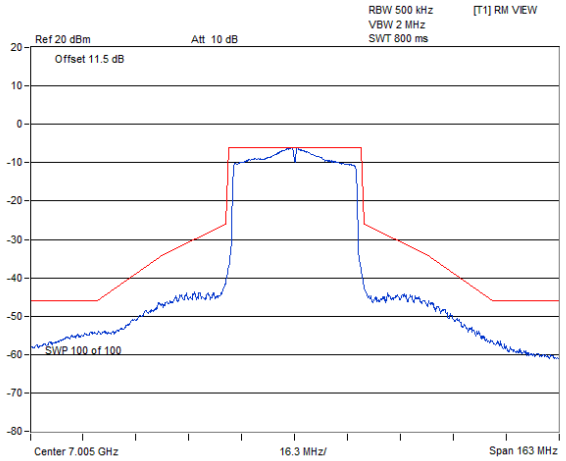
802.11ax (HE40) / Chain 1 : CH 155



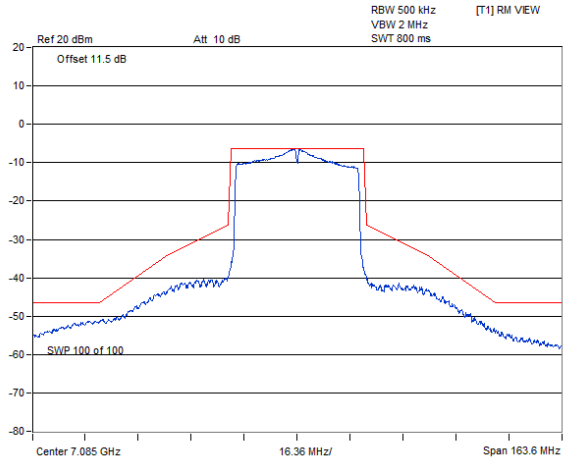
802.11ax (HE40) / Chain 1 : CH 179



802.11ax (HE40) / Chain 1 : CH 187

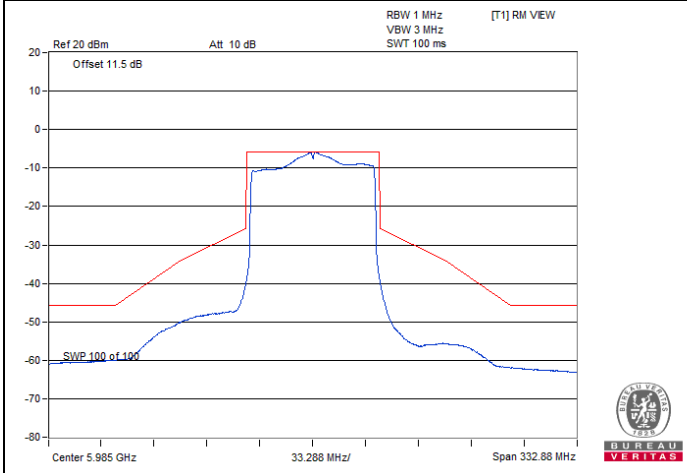
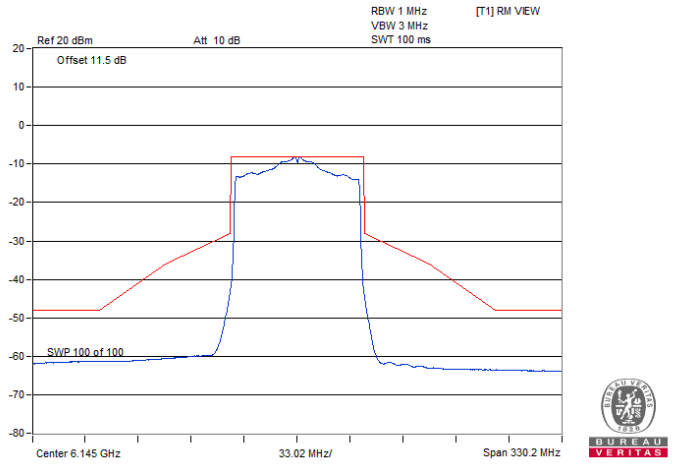
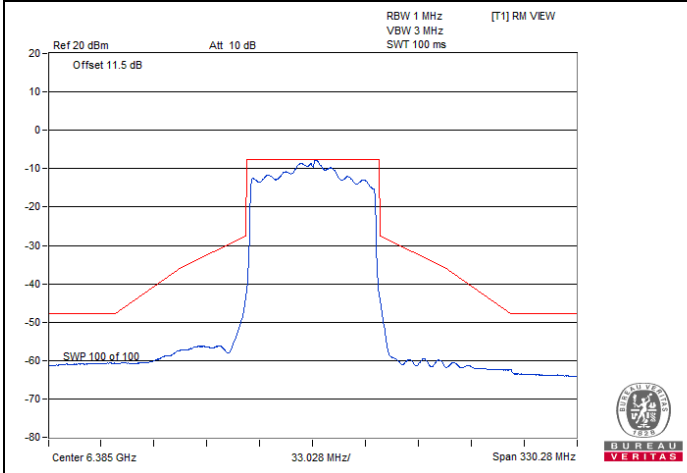
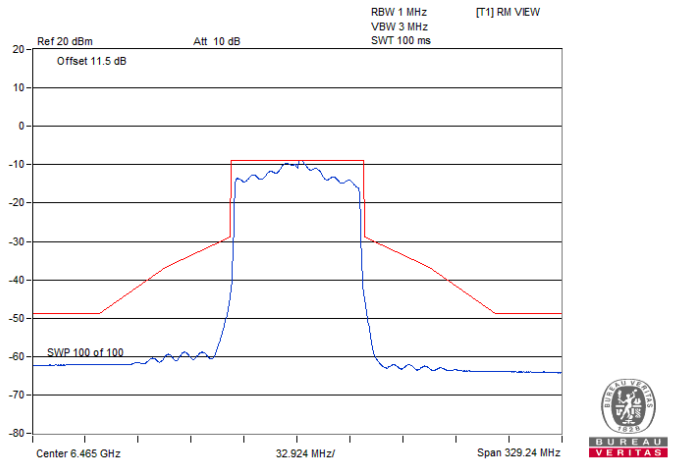
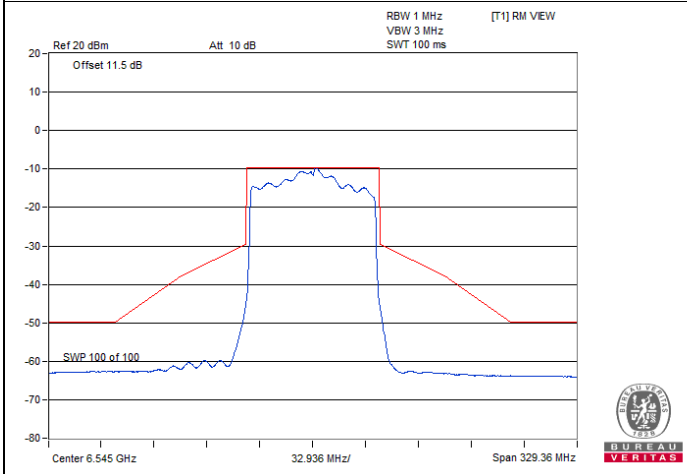
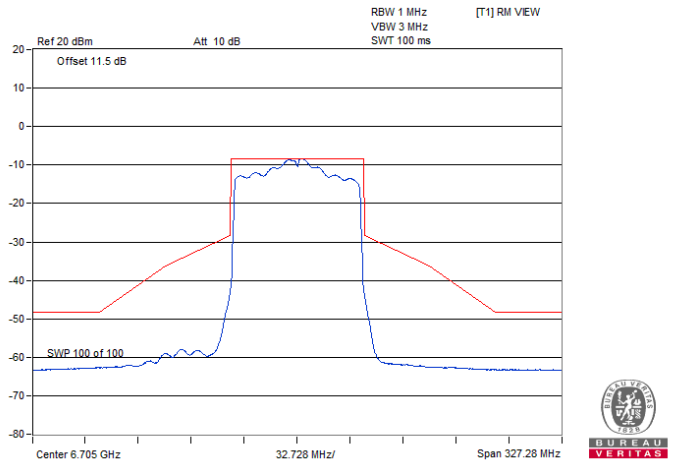


802.11ax (HE40) / Chain 1 : CH 211

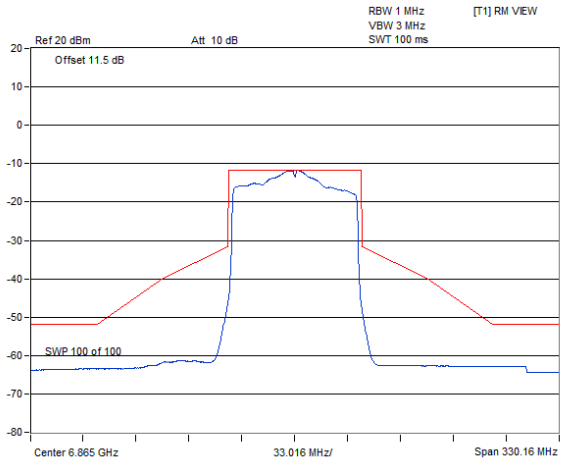


802.11ax (HE40) / Chain 1 : CH 227

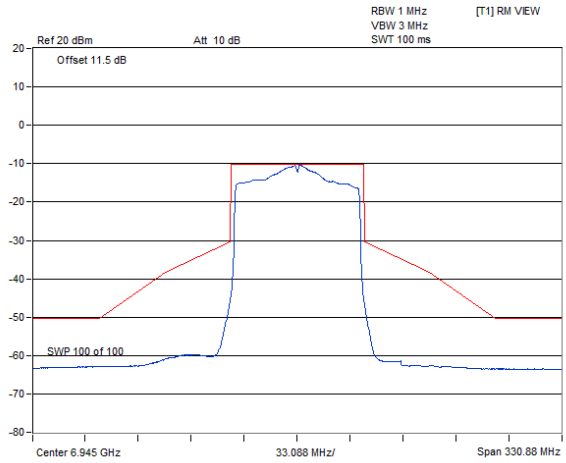
802.11ax (HE80)

Spectrum Plot	
	
802.11ax (HE80) / Chain 0 : CH 7	802.11ax (HE80) / Chain 0 : CH 39
	
802.11ax (HE80) / Chain 0 : CH 87	802.11ax (HE80) / Chain 0 : CH 103
	
802.11ax (HE80) / Chain 0 : CH 119	802.11ax (HE80) / Chain 0 : CH 151

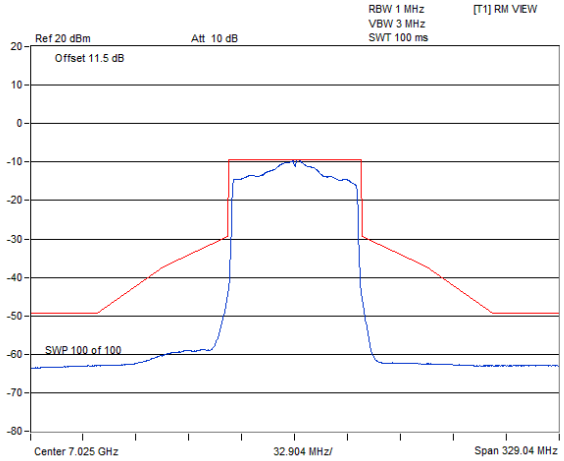
Spectrum Plot



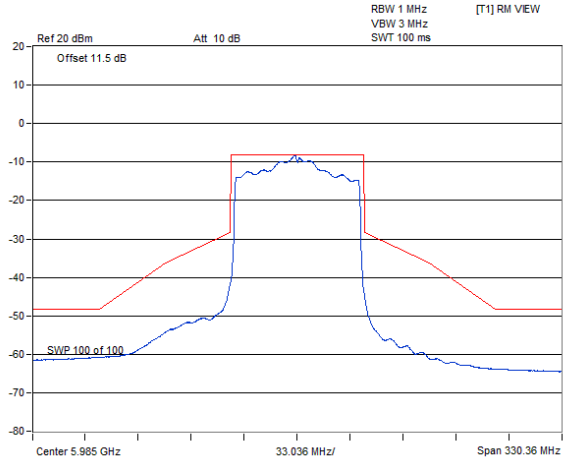
802.11ax (HE80) / Chain 0 : CH 183



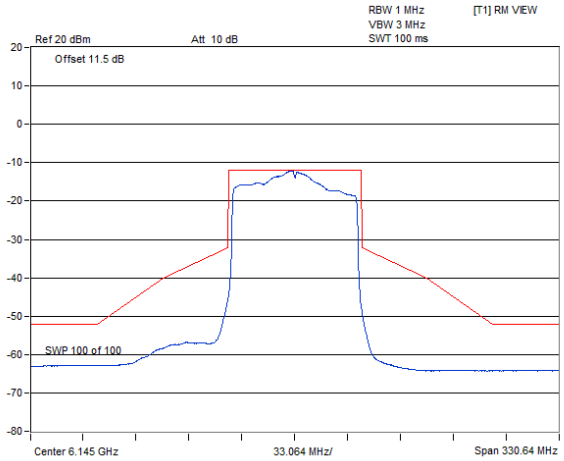
802.11ax (HE80) / Chain 0 : CH 199



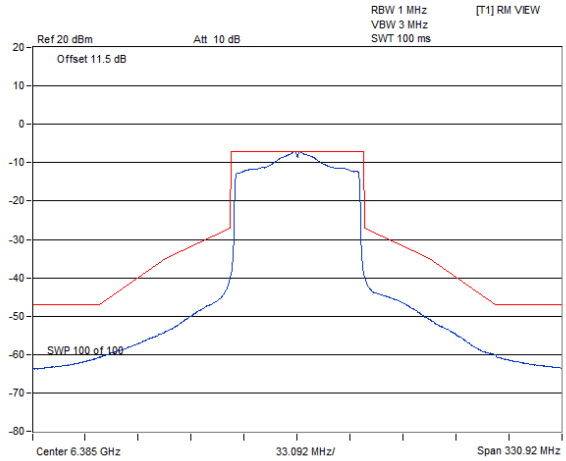
802.11ax (HE80) / Chain 0 : CH 215



802.11ax (HE80) / Chain 1 : CH 7

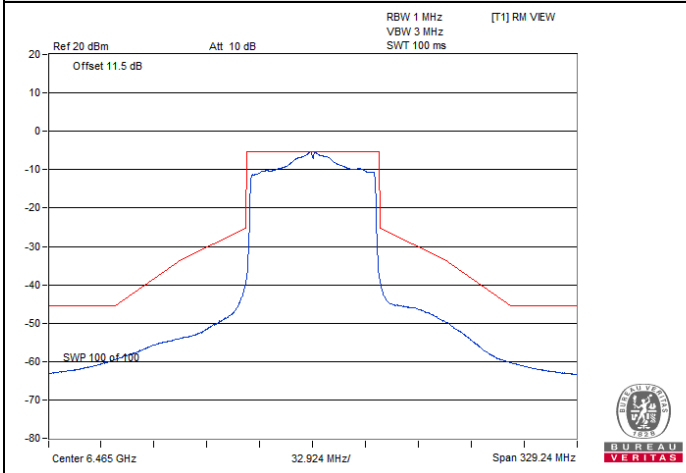


802.11ax (HE80) / Chain 1 : CH 39

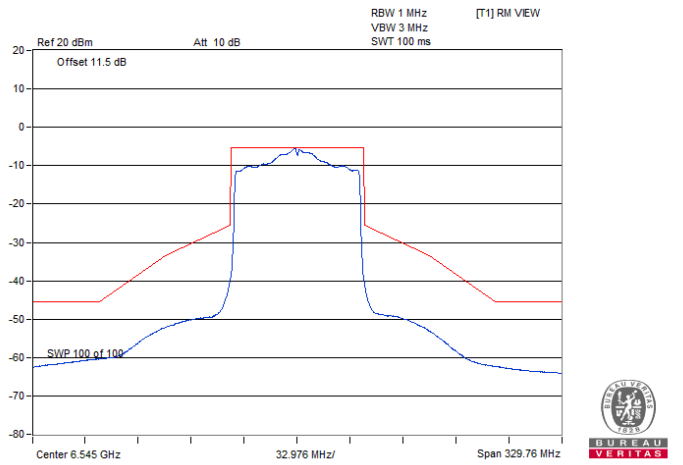


802.11ax (HE80) / Chain 1 : CH 87

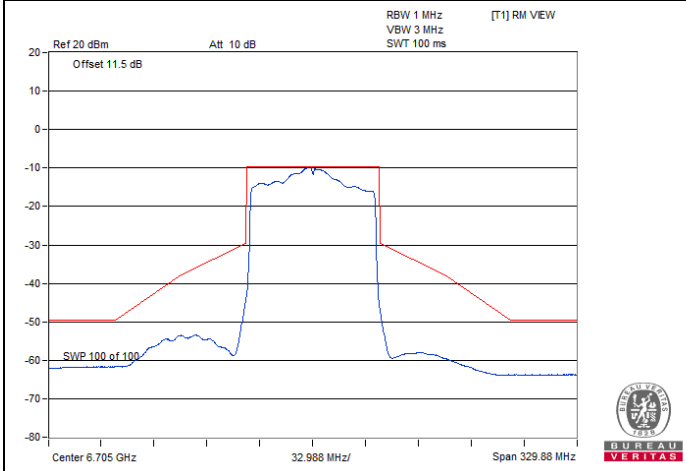
Spectrum Plot



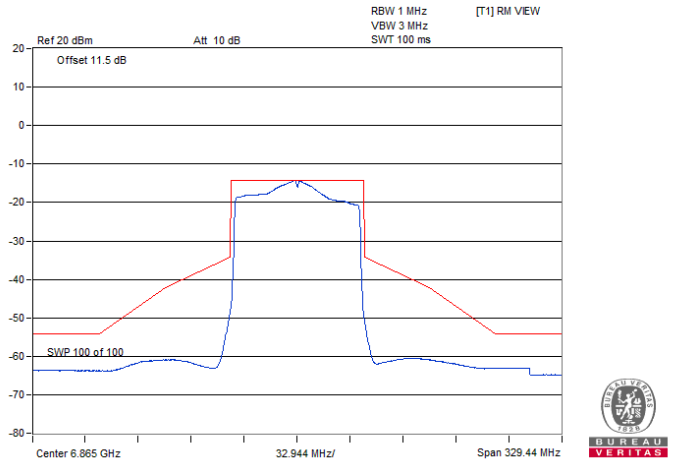
802.11ax (HE80) / Chain 1 : CH 103



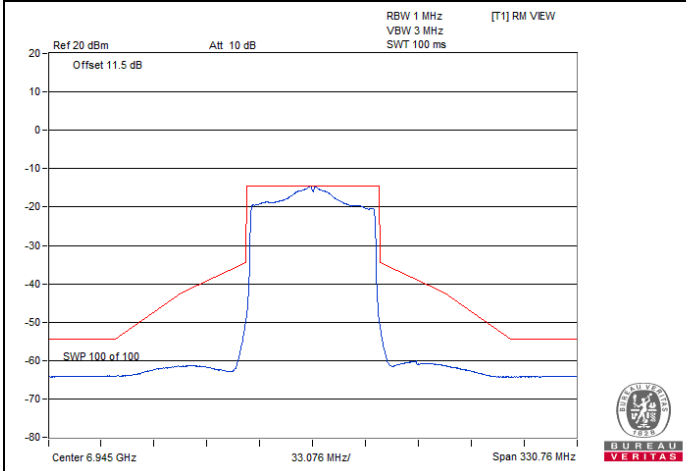
802.11ax (HE80) / Chain 1 : CH 119



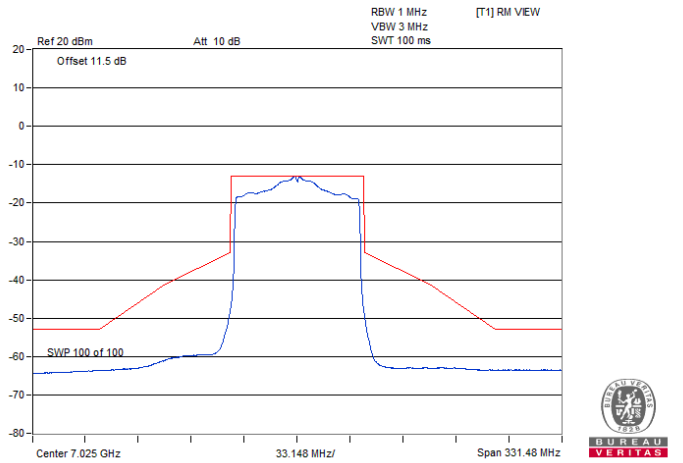
802.11ax (HE80) / Chain 1 : CH 151



802.11ax (HE80) / Chain 1 : CH 183

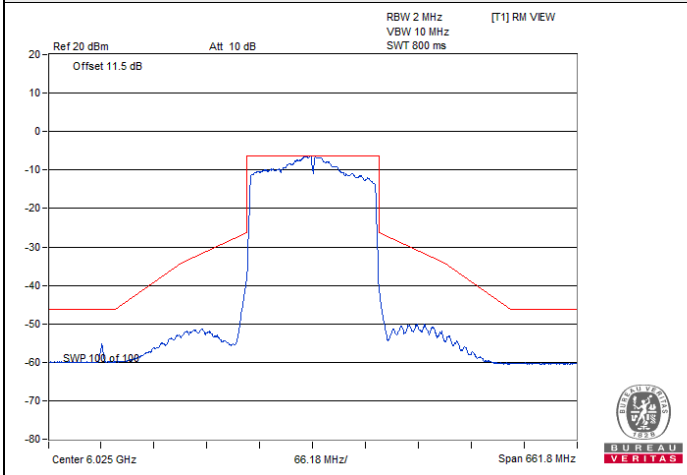
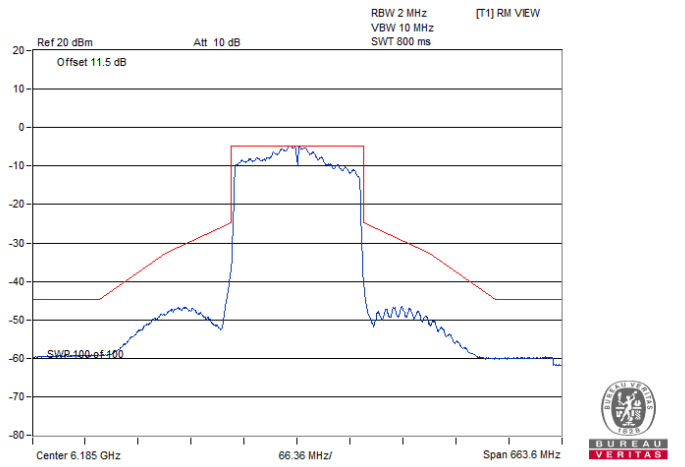
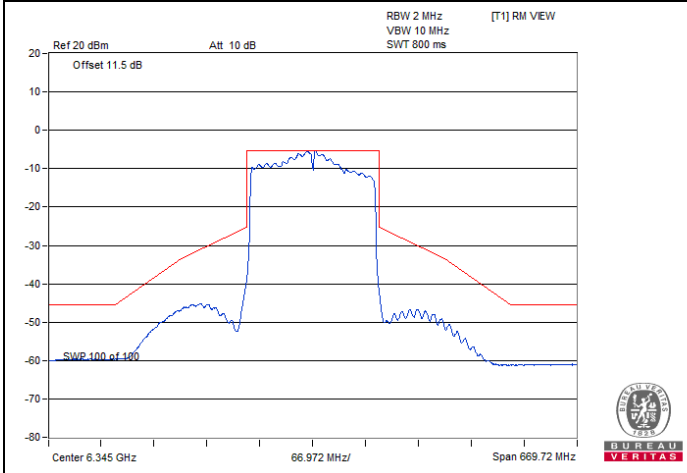
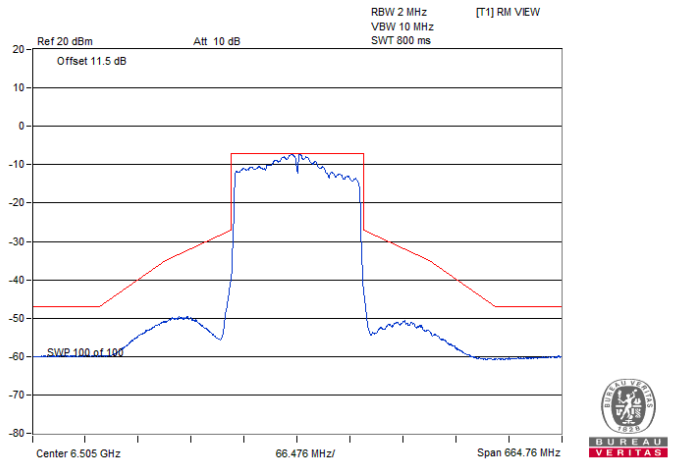
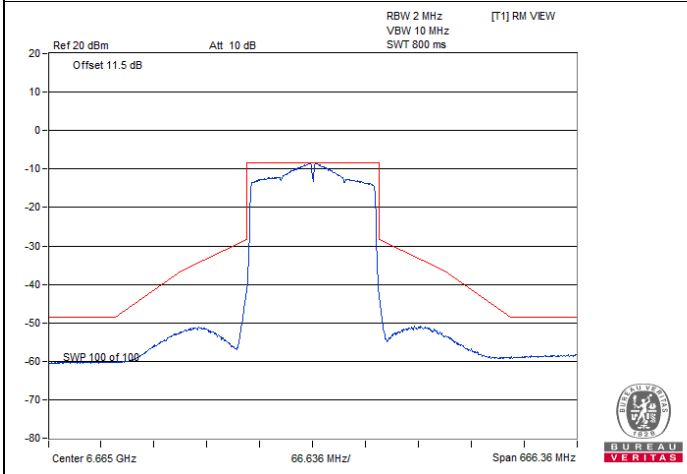
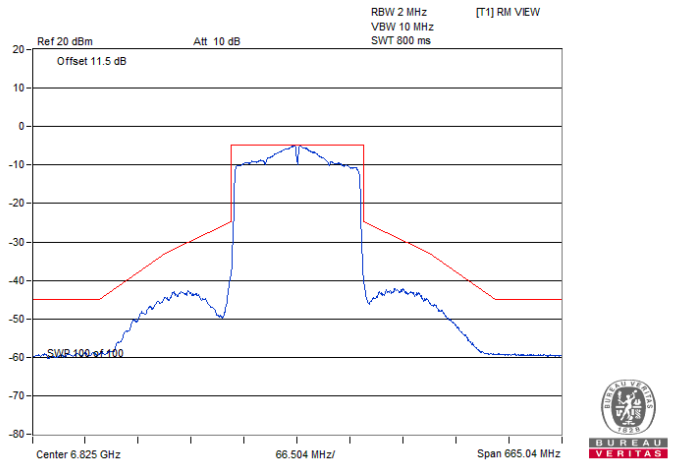


802.11ax (HE80) / Chain 1 : CH 199

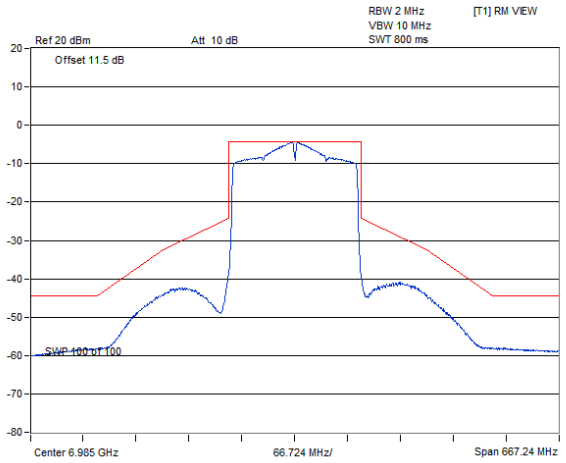


802.11ax (HE80) / Chain 1 : CH 215

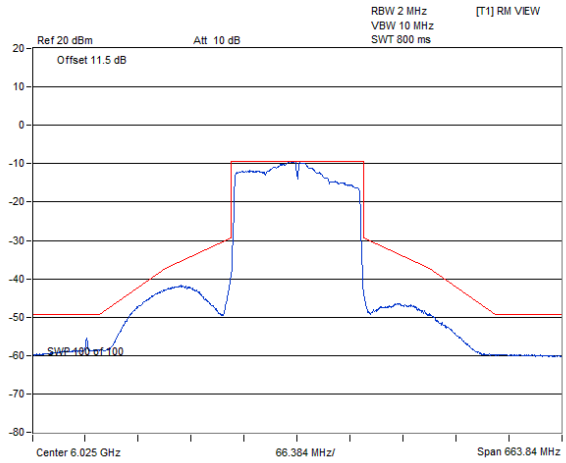
802.11ax (HE160)

Spectrum Plot	
	
802.11ax (HE160) / Chain 0 : CH 15	802.11ax (HE160) / Chain 0 : CH 47
	
802.11ax (HE160) / Chain 0 : CH 79	802.11ax (HE160) / Chain 0 : CH 111
	
802.11ax (HE160) / Chain 0 : CH 143	802.11ax (HE160) / Chain 0 : CH 175

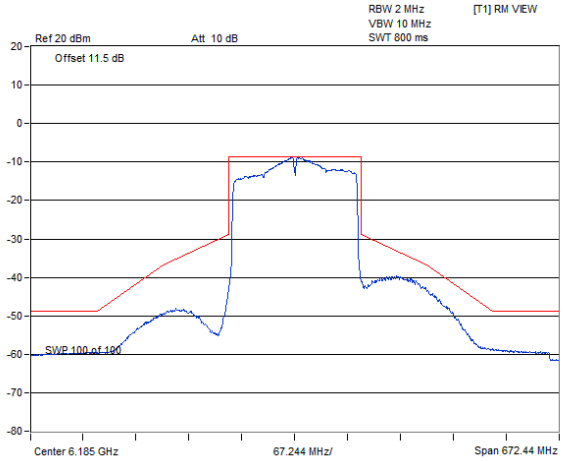
Spectrum Plot



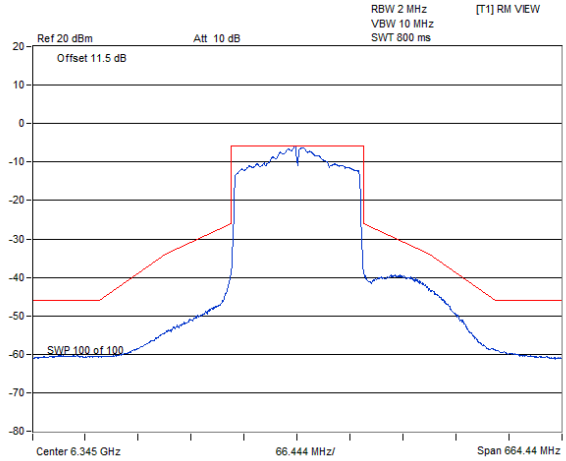
802.11ax (HE160) / Chain 0 : CH 207



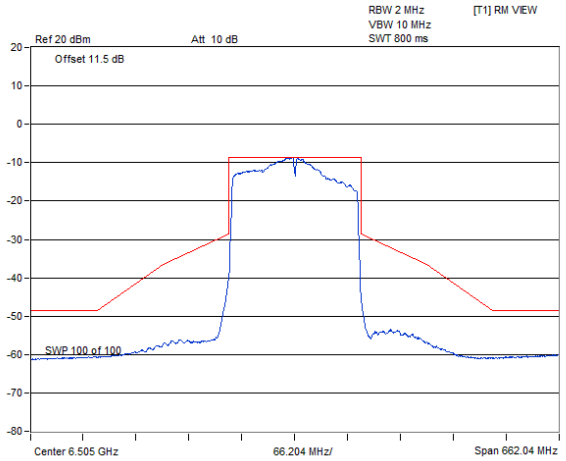
802.11ax (HE160) / Chain 1 : CH 15



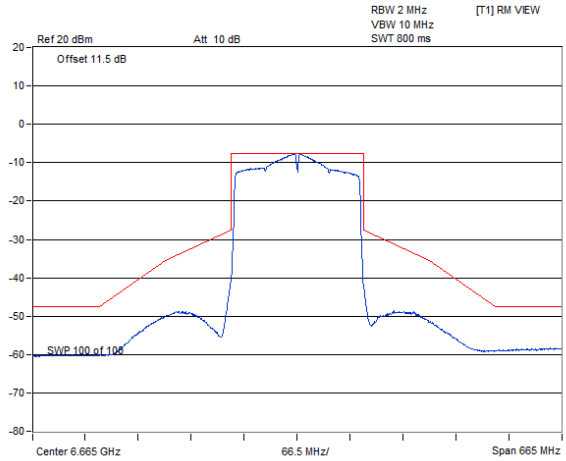
802.11ax (HE160) / Chain 1 : CH 47



802.11ax (HE160) / Chain 1 : CH 79

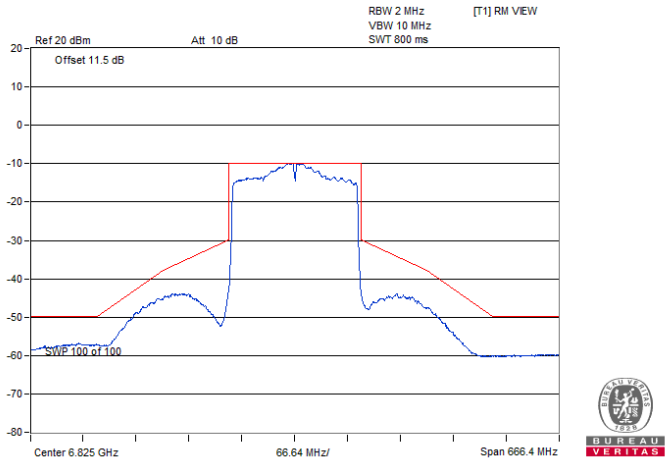


802.11ax (HE160) / Chain 1 : CH 111

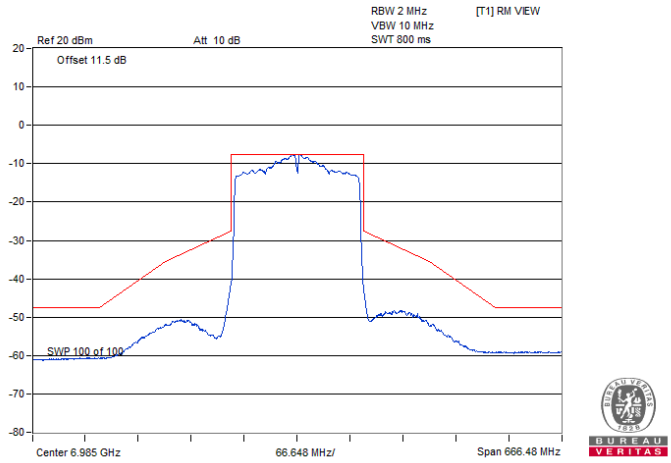


802.11ax (HE160) / Chain 1 : CH 143

Spectrum Plot



802.11ax (HE160) / Chain 1 : CH 175



802.11ax (HE160) / Chain 1 : CH 207

7.5 Occupied Bandwidth

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.84	18.96
45	6175	18.84	18.96
93	6415	18.96	18.96
97	6435	18.96	18.96
105	6475	18.96	18.96
113	6515	18.96	18.96
117	6535	18.96	18.96
149	6695	18.84	18.84
181	6855	18.96	18.96
185	6875	18.84	18.96
209	6995	18.84	18.84
233	7115	18.96	18.96

802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
3	5965	37.68	37.92
43	6165	37.68	37.68
91	6405	37.68	37.80
99	6445	37.92	38.16
107	6485	37.92	37.68
115	6525	37.92	37.92
123	6565	37.92	37.68
155	6725	37.68	37.92
179	6845	37.92	37.68
187	6885	37.92	37.92
211	7005	37.68	38.16
227	7085	37.92	37.92

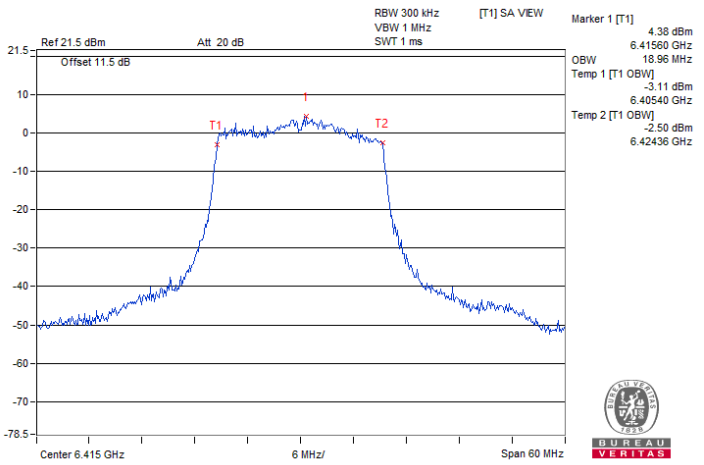
802.11ax (HE80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
7	5985	77.28	76.80
39	6145	77.28	76.80
87	6385	76.80	76.80
103	6465	76.80	77.28
119	6545	76.80	77.28
151	6705	77.28	77.28
183	6865	76.80	76.80
199	6945	76.80	77.28
215	7025	76.80	76.80

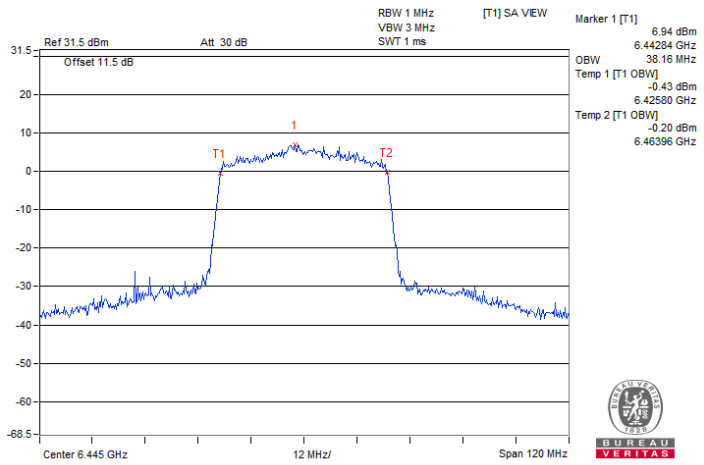
802.11ax (HE160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
15	6025	155.52	154.56
47	6185	155.52	156.48
79	6345	155.52	156.48
111	6505	155.52	155.52
143	6665	155.52	154.56
175	6825	155.52	155.52
207	6985	155.52	155.52

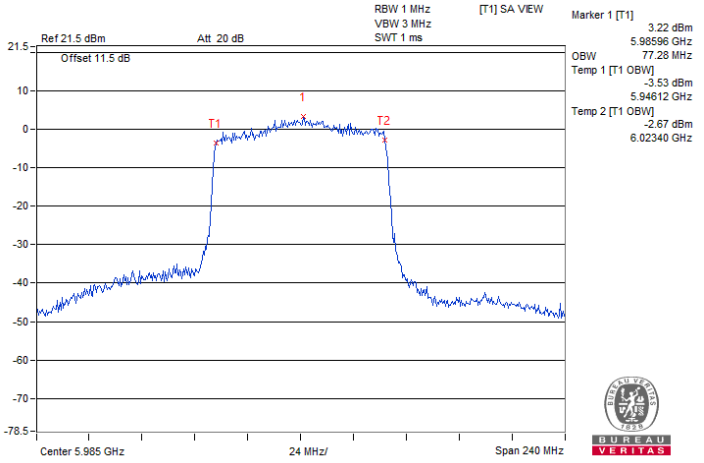
Spectrum Plot of Maximum Value



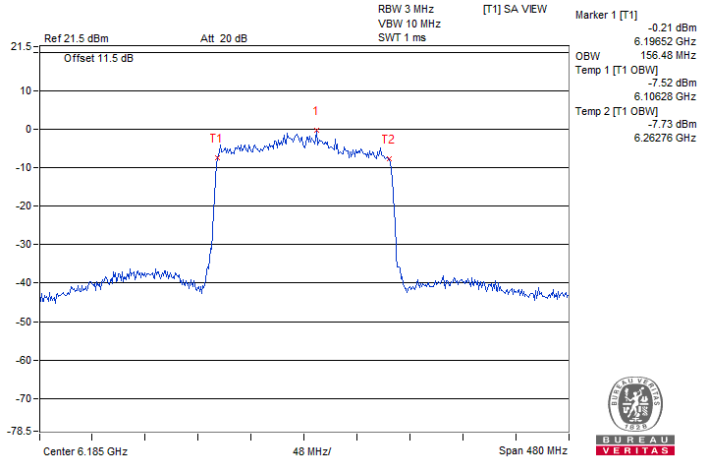
802.11ax (HE20) / Chain 0 : CH 93



802.11ax (HE40) / Chain 1 : CH 99



802.11ax (HE80) / Chain 0 : CH 7



802.11ax (HE160) / Chain 1 : CH 47

7.6 Frequency Stability

Input Power:	3.85 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Chris Lin

802.11ax (HE20)

Frequency Stability Versus Temperature									
Operating Frequency: 5955 MHz									
Temp. (℃)	Power Supply (Vdc)	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
50	3.85	5955.0106	Pass	5955.0093	Pass	5955.0117	Pass	5955.0105	Pass
40	3.85	5954.9949	Pass	5954.9961	Pass	5954.9941	Pass	5954.9941	Pass
30	3.85	5954.984	Pass	5954.9871	Pass	5954.9897	Pass	5954.9852	Pass
20	3.85	5954.9971	Pass	5954.9991	Pass	5954.9975	Pass	5954.998	Pass
10	3.85	5955.0165	Pass	5955.0162	Pass	5955.0155	Pass	5955.0176	Pass
0	3.85	5955.0079	Pass	5955.0104	Pass	5955.0072	Pass	5955.0079	Pass
-10	3.85	5954.9713	Pass	5954.9717	Pass	5954.9734	Pass	5954.9699	Pass
-20	3.85	5954.9717	Pass	5954.9728	Pass	5954.9722	Pass	5954.9756	Pass
-30	3.85	5954.9819	Pass	5954.9842	Pass	5954.9805	Pass	5954.9798	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5955 MHz									
Temp. (℃)	Power Supply (Vdc)	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	4.4	5955.0095	Pass	5955.0106	Pass	5955.0106	Pass	5955.0104	Pass
	3.85	5954.9971	Pass	5954.9991	Pass	5954.9975	Pass	5954.998	Pass
	3.4	5955.0059	Pass	5955.0051	Pass	5955.0059	Pass	5955.0034	Pass

7.7 Contention-based Protocol

Environmental Conditions:	25°C, 60% RH	Tested By:	Stan Shih

For U-NII-5

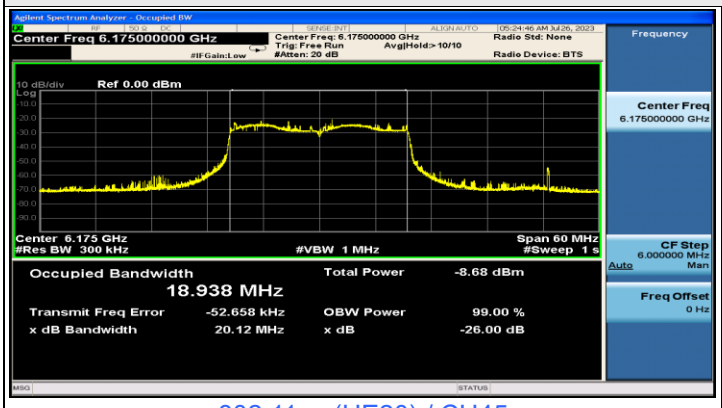
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	45	6175	6175	-77.8	-8.64	0	-69.16	-62	OFF
					-80.8	-8.64	0	-72.16	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
	160	47	6185	6110	-72.8	-8.64	0	-64.16	-62	OFF
					-76.8	-8.64	0	-68.16	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6185	-71.8	-8.64	0	-63.16	-62	OFF
					-76.8	-8.64	0	-68.16	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6260	-70.8	-8.64	0	-62.16	-62	OFF
					-76.8	-8.64	0	-68.16	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON

Notes:

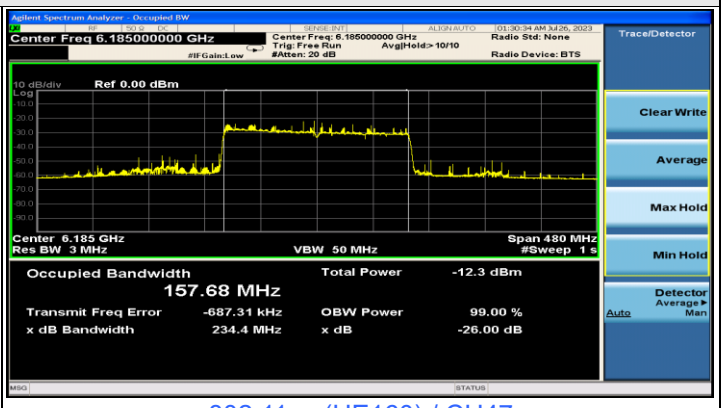
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.

Contention Based Protocol Detection Probability														
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6175	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6110	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6185	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6260	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

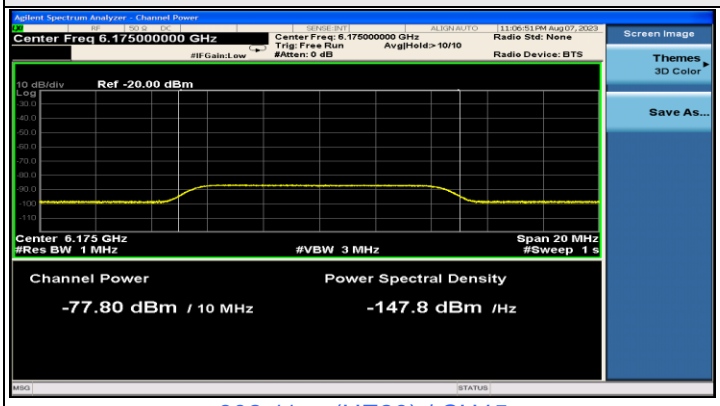


802.11ax (HE20) / CH45

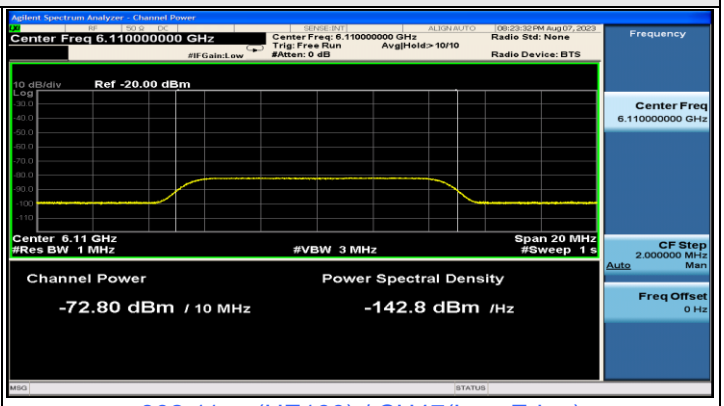


802.11ax (HE160) / CH47

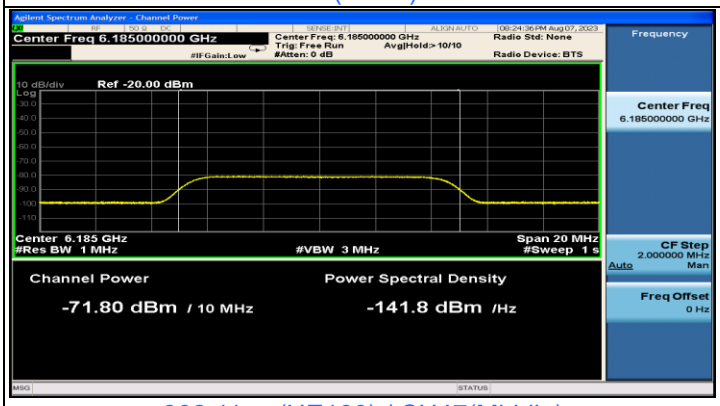
Plots of Injected signal (AWGN) level



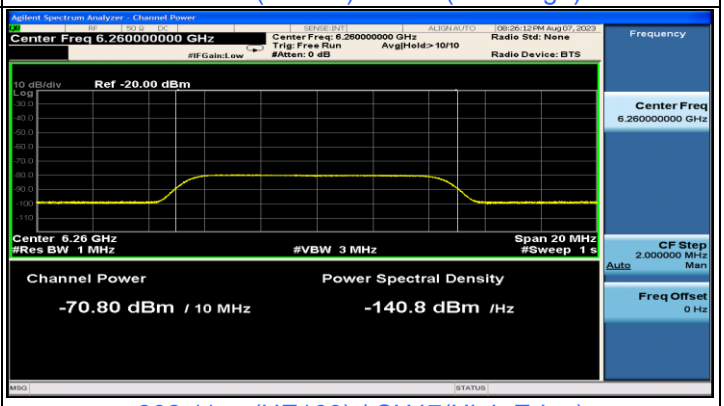
802.11ax (HE20) / CH45



802.11ax (HE160) / CH47(Low Edge)



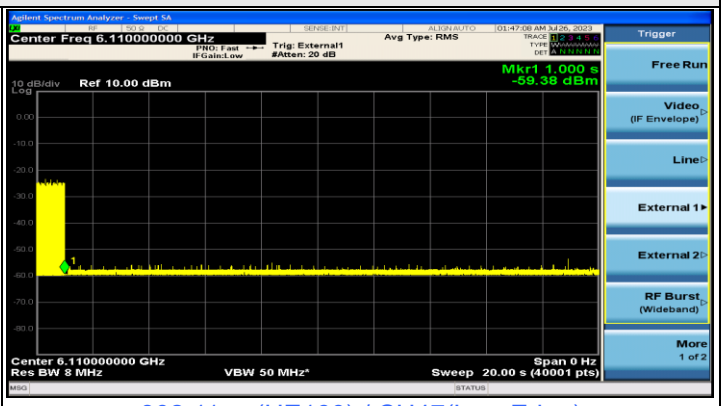
802.11ax (HE160) / CH47(Middle)



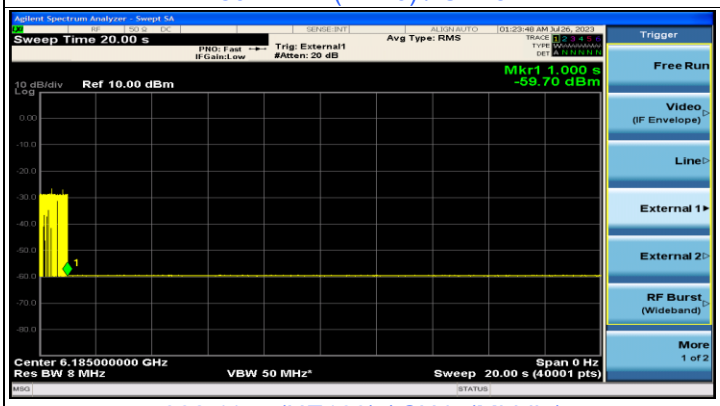
802.11ax (HE160) / CH47(High Edge)

Plots of EUT ceased transmission in the time domain

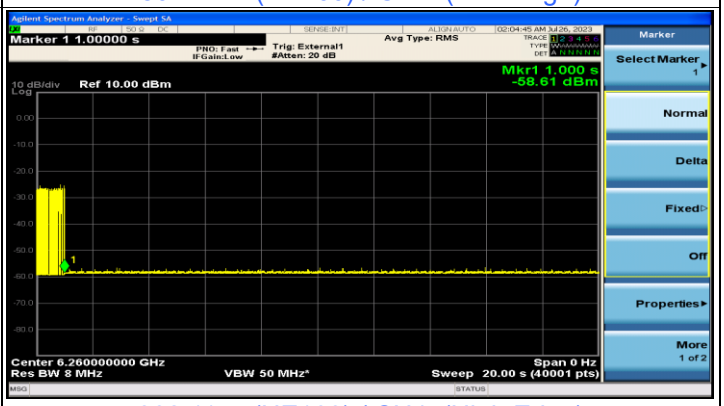
802.11ax (HE20) / CH45



802.11ax (HE160) / CH47(Low Edge)



802.11ax (HE160) / CH47(Middle)



802.11ax (HE160) / CH47(High Edge)

For U-NII-6

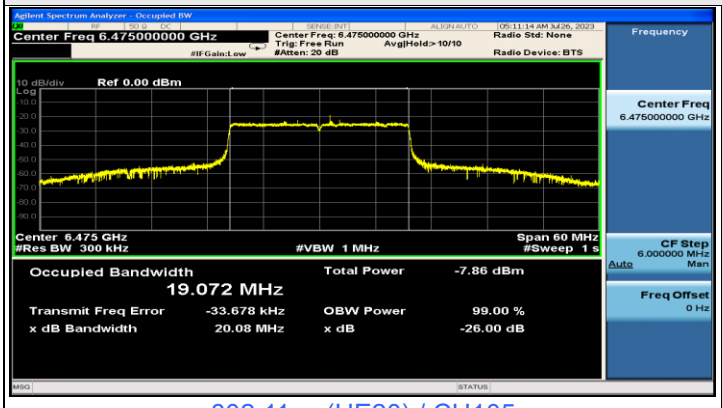
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	105	6475	6475	-81.9	-8.64	0	-73.26	-62	OFF
					-83.9	-8.64	0	-75.26	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
	160	111	6505	6430	-73.9	-8.64	0	-65.26	-62	OFF
					-78.9	-8.64	0	-70.26	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6505	-72.9	-8.64	0	-64.26	-62	OFF
					-78.9	-8.64	0	-70.26	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6580	-73.9	-8.64	0	-65.26	-62	OFF
					-78.9	-8.64	0	-70.26	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON

Notes:

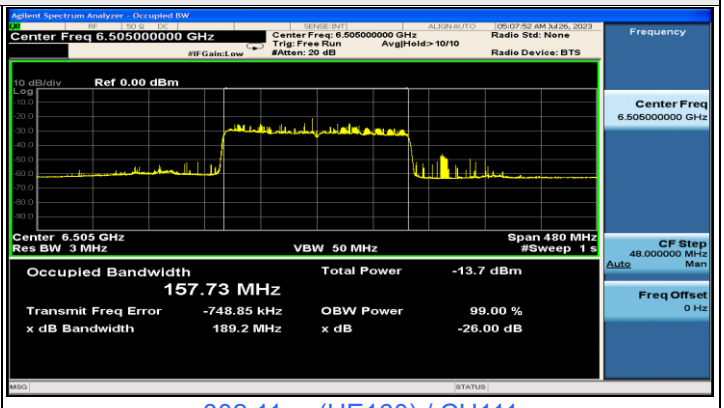
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.

Contention Based Protocol Detection Probability														
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6475	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6430	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6505	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6580	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

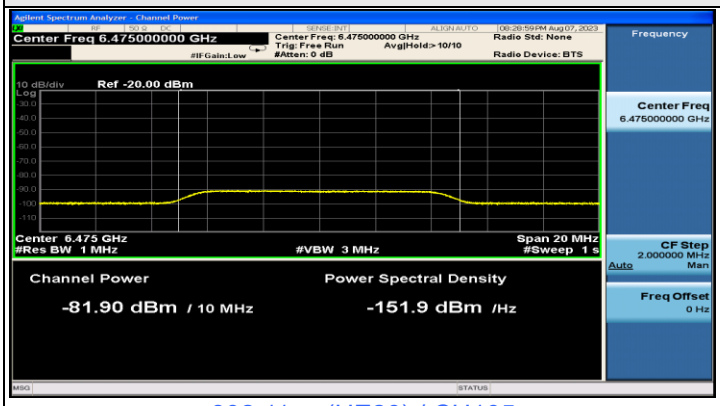


802.11ax (HE20) / CH105

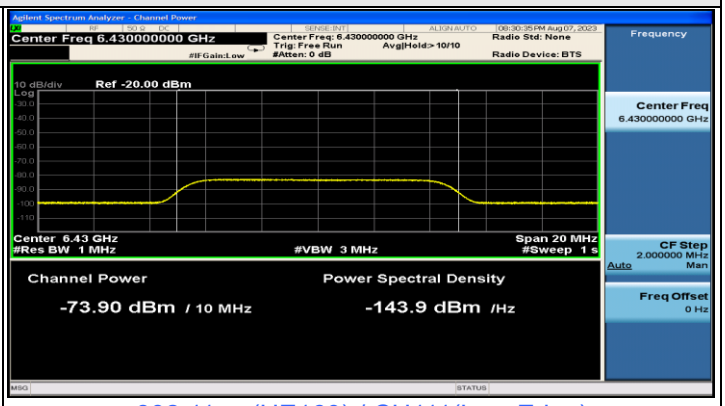


802.11ax (HE160) / CH111

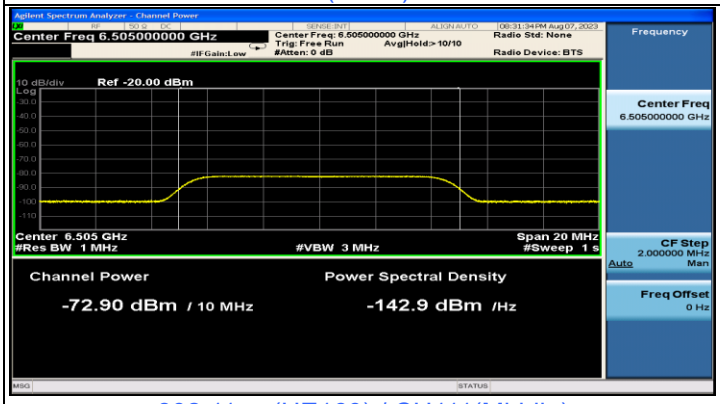
Plots of Injected signal (AWGN) level



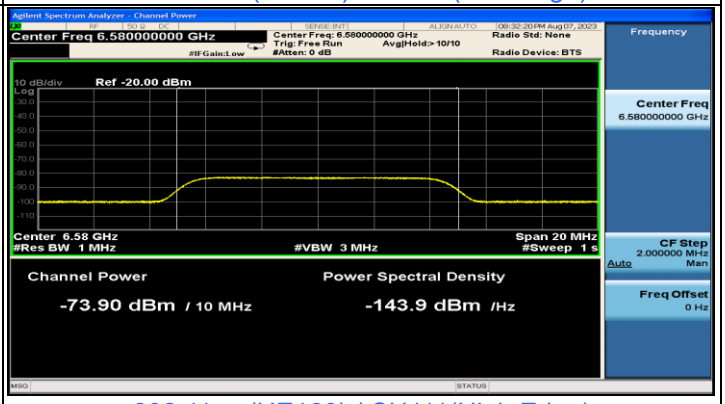
802.11ax (HE20) / CH105



802.11ax (HE160) / CH111(Low Edge)

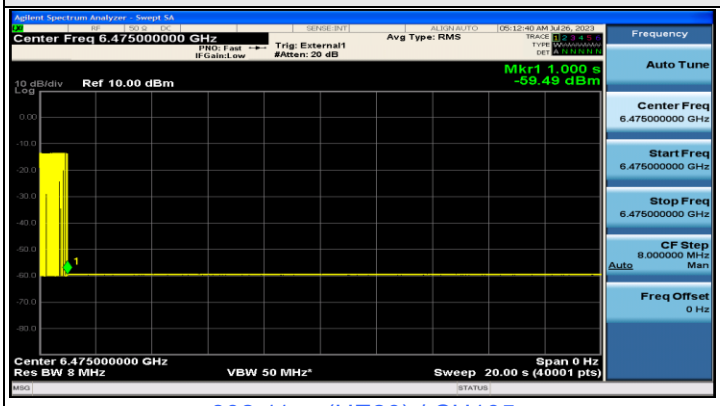


802.11ax (HE160) / CH111(Middle)

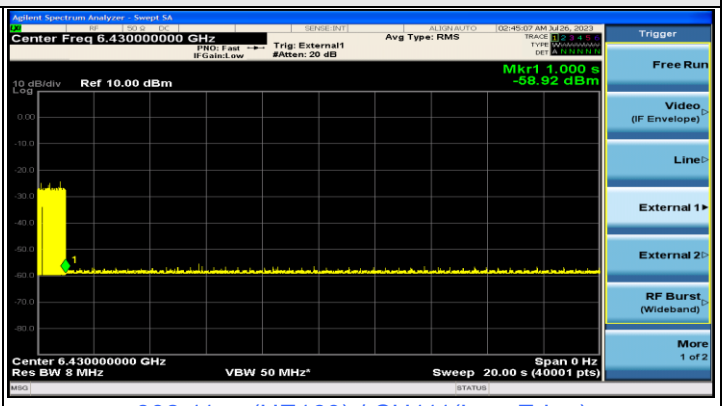


802.11ax (HE160) / CH111(High Edge)

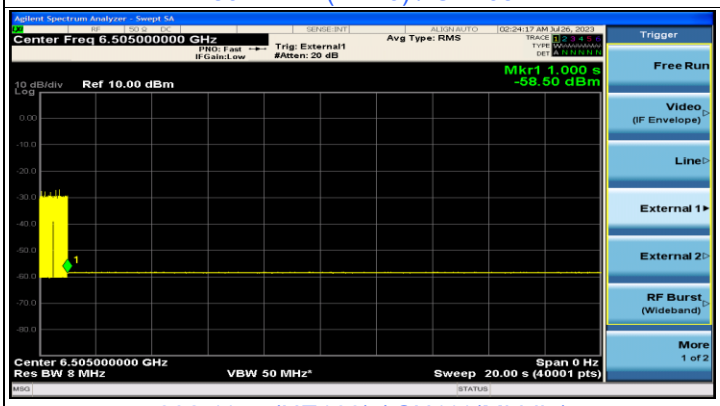
Plots of EUT ceased transmission in the time domain



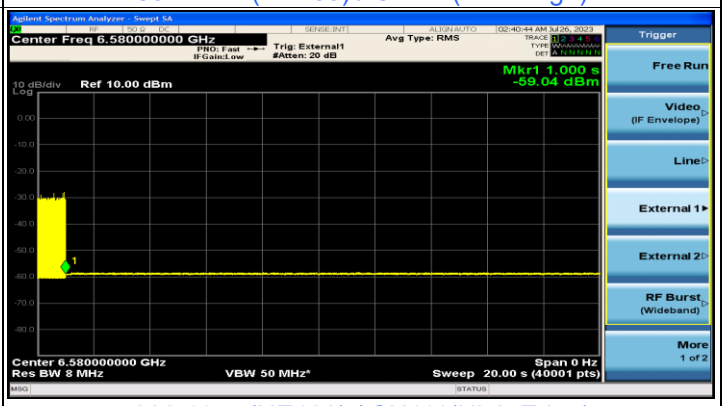
802.11ax (HE20) / CH105



802.11ax (HE160) / CH111(Low Edge)



802.11ax (HE160) / CH111(Middle)



802.11ax (HE160) / CH111(High Edge)

For U-NII-7

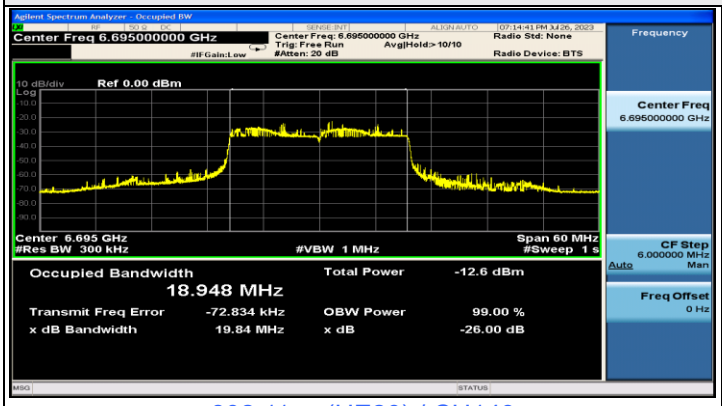
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	149	6695	6695	-79.6	-8.64	0	-70.96	-62	OFF
					-81.6	-8.64	0	-72.96	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
	160	143	6665	6590	-78.6	-8.64	0	-69.96	-62	OFF
					-80.6	-8.64	0	-71.96	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6665	-74.6	-8.64	0	-65.96	-62	OFF
					-80.6	-8.64	0	-71.96	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6740	-76.6	-8.64	0	-67.96	-62	OFF
					-80.6	-8.64	0	-71.96	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON

Notes:

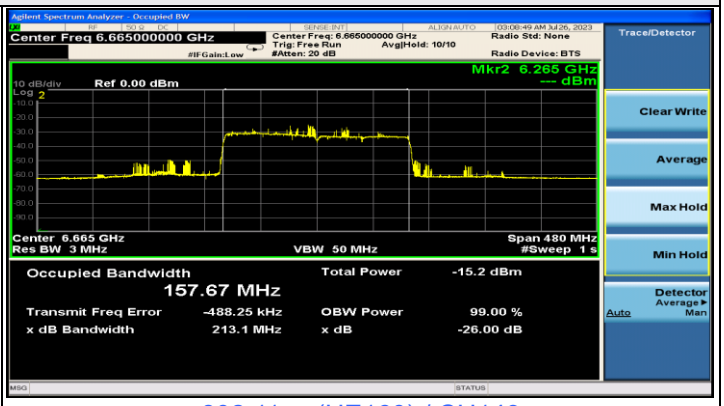
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.

Contention Based Protocol Detection Probability														
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6695	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6590	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6665	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6740	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

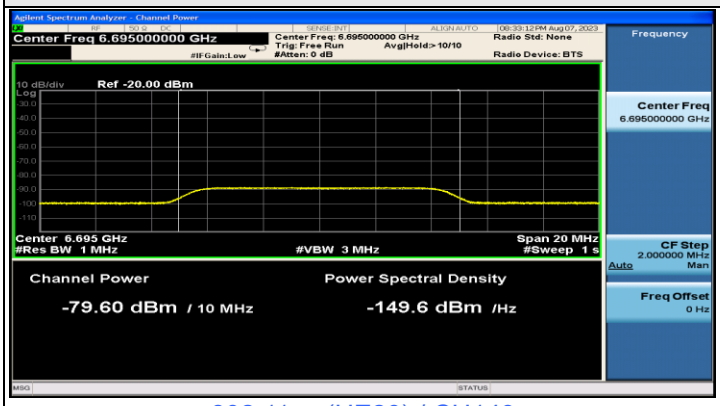


802.11ax (HE20) / CH149

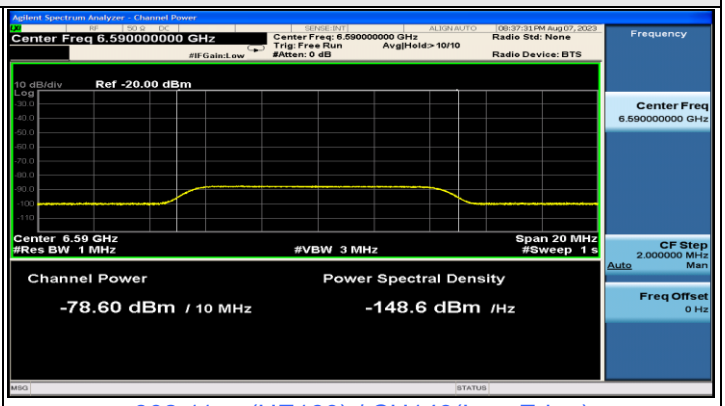


802.11ax (HE160) / CH143

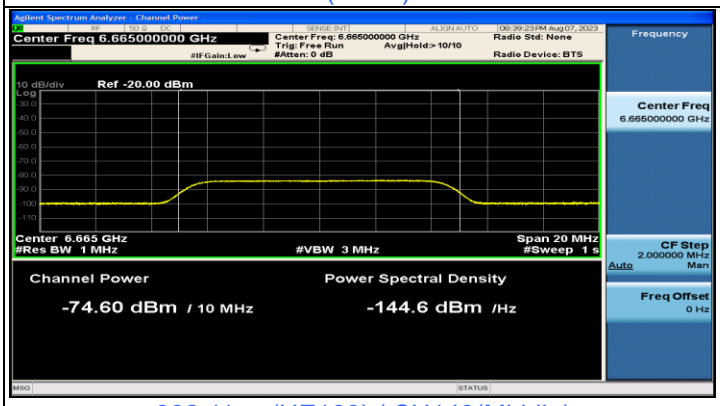
Plots of Injected signal (AWGN) level



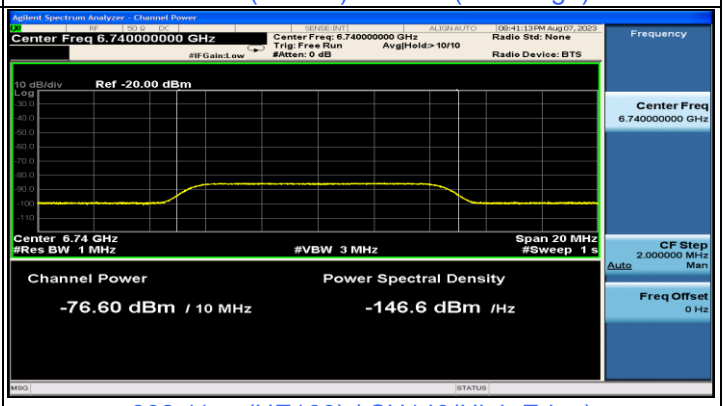
802.11ax (HE20) / CH149



802.11ax (HE160) / CH143(Low Edge)



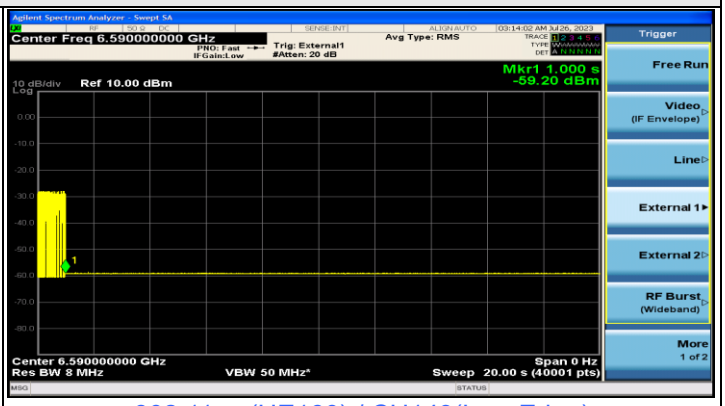
802.11ax (HE160) / CH143(Middle)



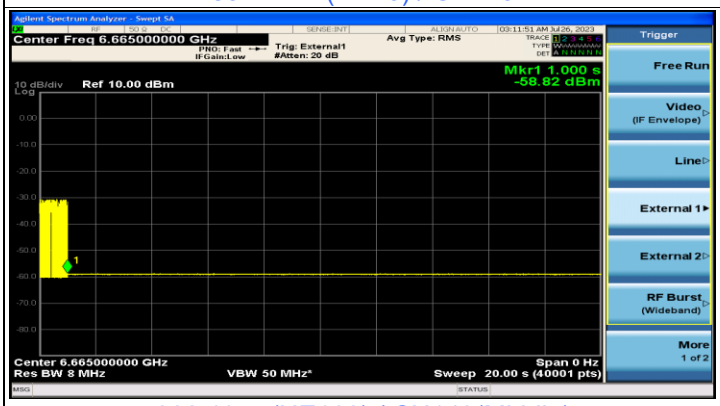
802.11ax (HE160) / CH143(High Edge)

Plots of EUT ceased transmission in the time domain

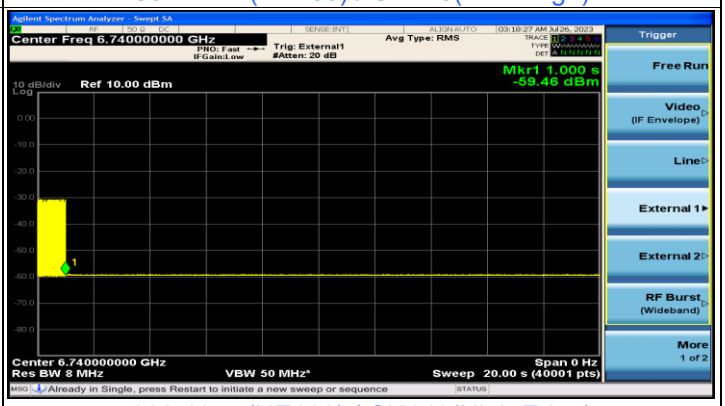
802.11ax (HE20) / CH149



802.11ax (HE160) / CH143(Low Edge)



802.11ax (HE160) / CH143(Middle)



802.11ax (HE160) / CH143(High Edge)

For U-NII-8

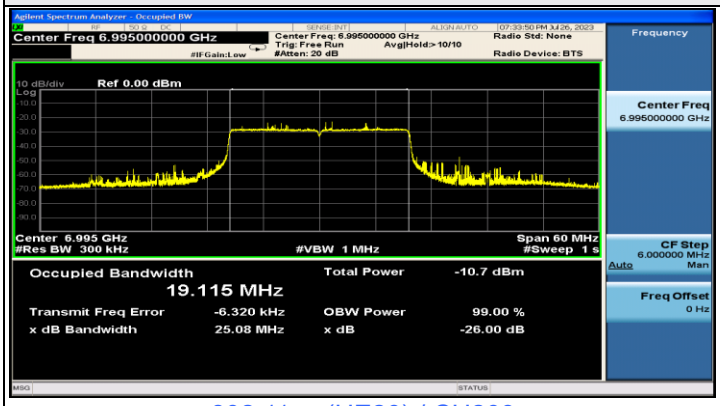
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	209	6995	6995	-78.5	-8.64	0	-69.86	-62	OFF
					-80.5	-8.64	0	-71.86	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
	160	207	6985	6910	-72.5	-8.64	0	-63.86	-62	OFF
					-76.5	-8.64	0	-67.86	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				6985	-70.64	-8.64	0	-62	-62	OFF
					-76.5	-8.64	0	-67.86	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON
				7060	-72.5	-8.64	0	-63.86	-62	OFF
					-76.5	-8.64	0	-67.86	-62	Minimal
					-90.64	-8.64	0	-82	-62	ON

Notes:

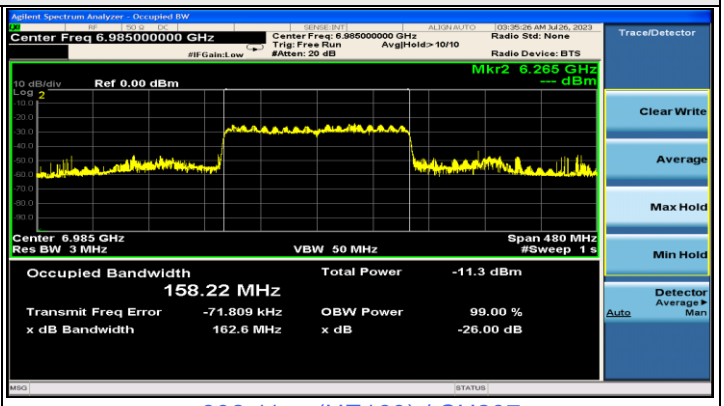
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.

Contention Based Protocol Detection Probability														
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6995	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6910	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6985	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		7060	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

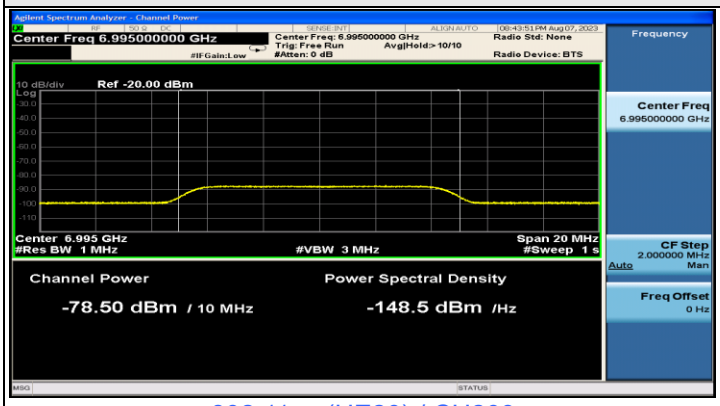


802.11ax (HE20) / CH209

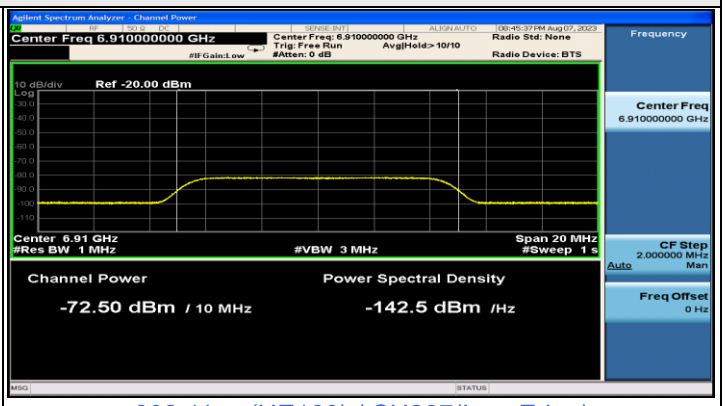


802.11ax (HE160) / CH207

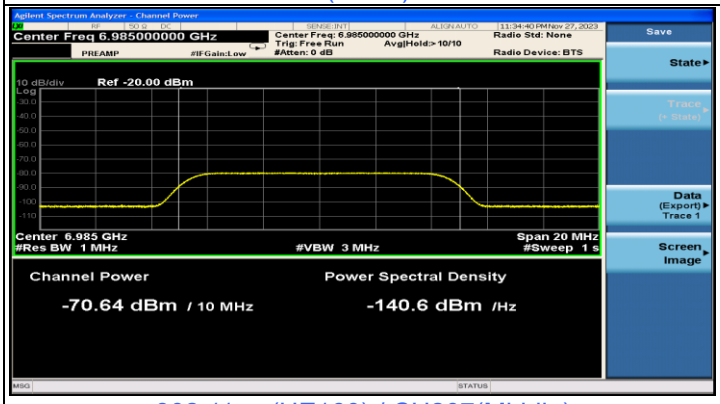
Plots of Injected signal (AWGN) level



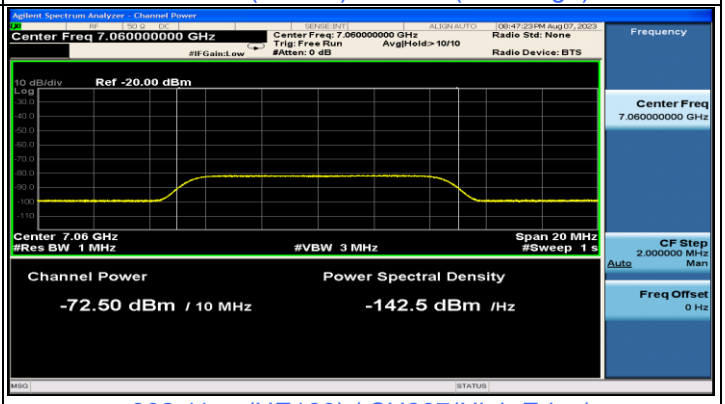
802.11ax (HE20) / CH209



802.11ax (HE160) / CH207(Low Edge)

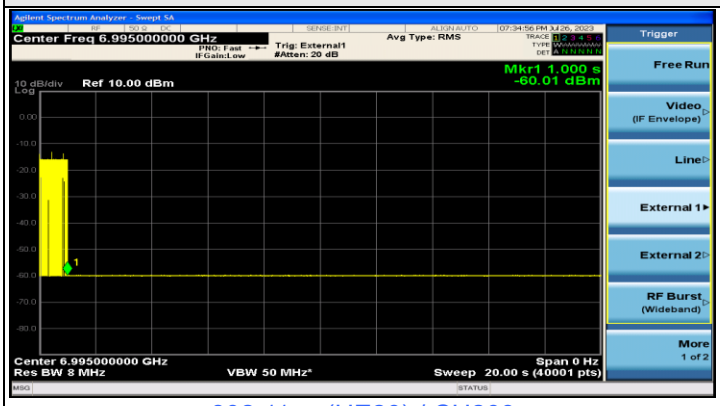


802.11ax (HE160) / CH207(Middle)

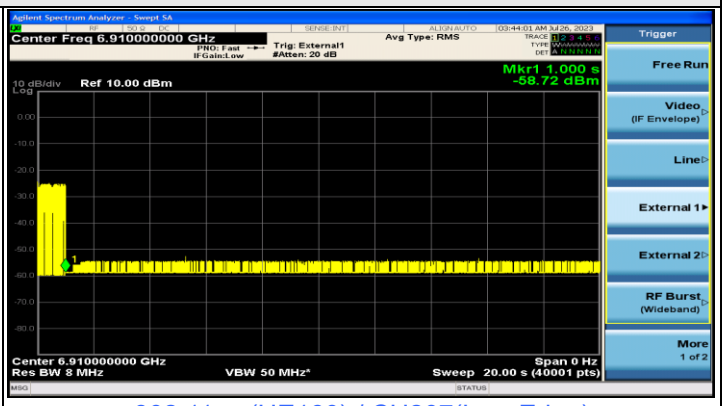


802.11ax (HE160) / CH207(High Edge)

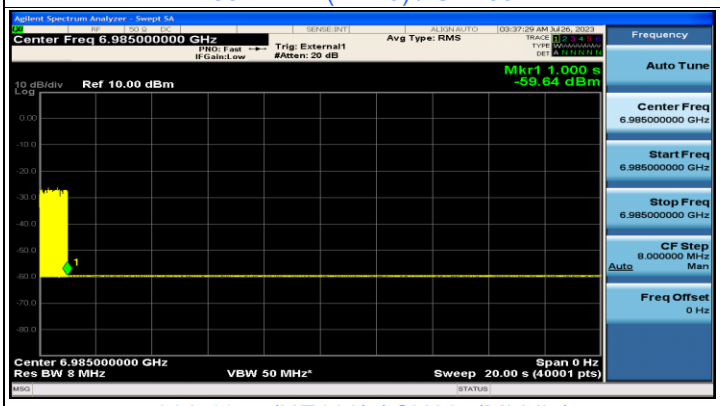
Plots of EUT ceased transmission in the time domain



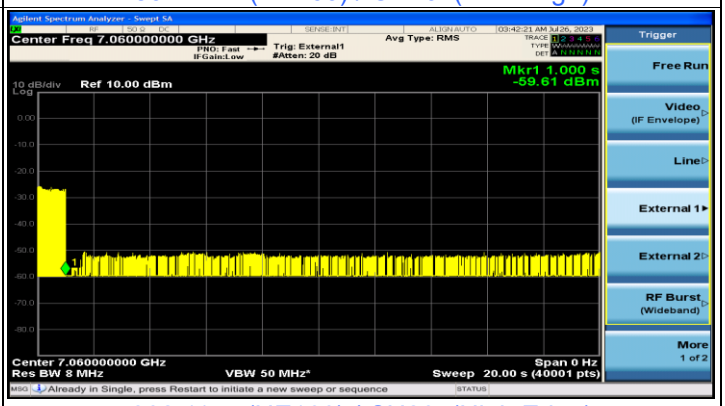
802.11ax (HE20) / CH209



802.11ax (HE160) / CH207(Low Edge)



802.11ax (HE160) / CH207(Middle)



802.11ax (HE160) / CH207(High Edge)

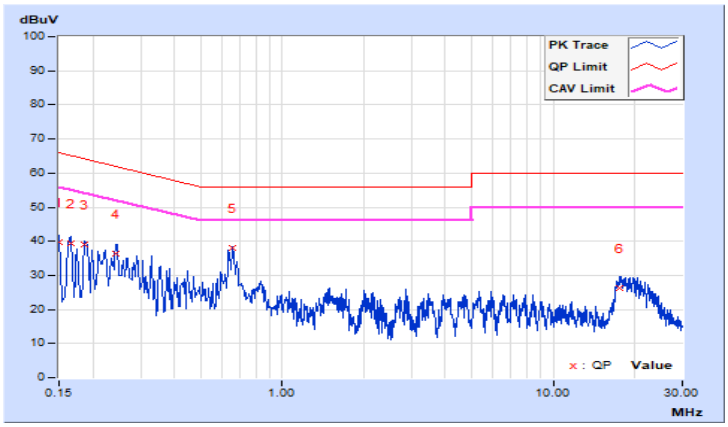
7.8 AC Power Conducted Emissions

RF Mode	802.11ax (HE80)	**Channel**	CH 7：5985 MHz
Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 67% RH
Tested By	Adair Peng		

Phase Of Power : Line (L)										
No	**Frequency (MHz)**	**Correction Factor (dB)**	**Reading Value (dBuV)**		**Emission Level (dBuV)**		**Limit (dBuV)**		**Margin (dB)**	
			Q.P.	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**	**Q.P.**	**AV.**
1	0.15000	9.68	30.19	17.55	39.87	27.23	66.00	56.00	-26.13	-28.77
2	0.16579	9.69	29.85	17.84	39.54	27.53	65.17	55.17	-25.63	-27.64
3	0.18600	9.71	29.18	15.03	38.89	24.74	64.21	54.21	-25.32	-29.47
4	0.24356	9.74	26.55	14.61	36.29	24.35	61.97	51.97	-25.68	-27.62
5	**0.65763**	**9.84**	**28.10**	**21.88**	**37.94**	**31.72**	**56.00**	**46.00**	**-18.06**	**-14.28**
6	17.64600	10.15	16.00	10.50	26.15	20.65	60.00	50.00	-33.85	-29.35

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

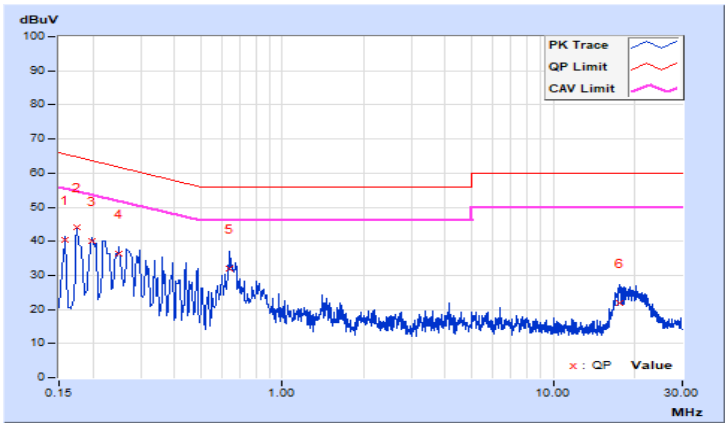


RF Mode	802.11ax (HE80)	**Channel**	CH 7：5985 MHz
Frequency Range	150kHz ~ 30MHz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	23°C, 67% RH
Tested By	Adair Peng		

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	0.15800	9.69	30.59	13.91	40.28	23.60	65.57	55.57	-25.29	-31.97
2	0.17400	9.70	34.27	18.78	43.97	28.48	64.77	54.77	-20.80	-26.29
3	0.19800	9.72	30.43	15.61	40.15	25.33	63.69	53.69	-23.54	-28.36
4	0.25000	9.74	26.53	15.52	36.27	25.26	61.76	51.76	-25.49	-26.50
5	0.64200	9.81	22.27	14.09	32.08	23.90	56.00	46.00	-23.92	-22.10
6	17.50200	10.16	11.86	4.31	22.02	14.47	60.00	50.00	-37.98	-35.53

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



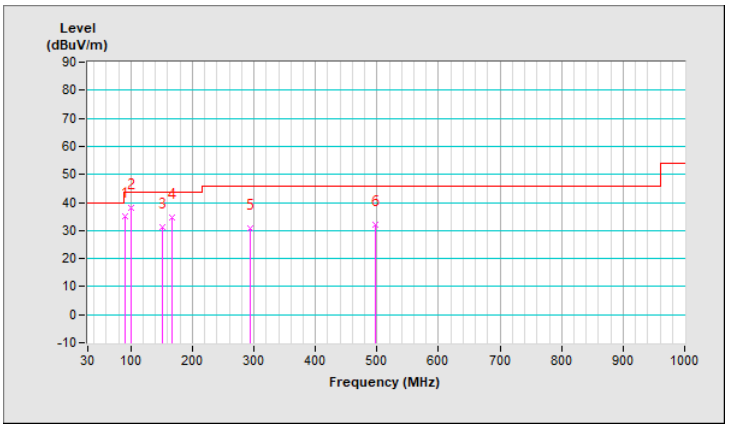
7.9 Unwanted Emissions below 1 GHz

RF Mode	802.11ax (HE80)	**Channel**	CH 7：5985 MHz
Frequency Range	30 MHz ~1000 MHz	**Detector Function & Bandwidth**	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	**Environmental Conditions**	20.6°C, 78.3% RH
Tested By	Rex Wang		

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	91.11	34.9 QP	43.5	-8.6	1.49 H	55	49.5	-14.6
2	**99.84**	**38.0 QP**	**43.5**	**-5.5**	**1.49 H**	**83**	**51.4**	**-13.4**
3	151.25	31.2 QP	43.5	-12.3	1.49 H	87	39.9	-8.7
4	167.74	34.5 QP	43.5	-9.0	1.00 H	312	43.4	-8.9
5	293.84	30.8 QP	46.0	-15.2	1.00 H	198	37.8	-7.0
6	496.57	32.1 QP	46.0	-13.9	1.49 H	296	34.7	-2.6

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 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.

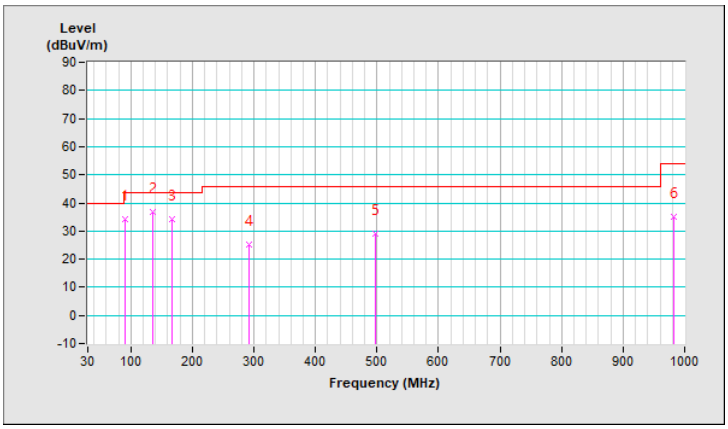


RF Mode	802.11ax (HE80)	Channel	CH 7：5985 MHz
Frequency Range	30 MHz ~1000 MHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	20.6°C, 78.3% RH
Tested By	Rex Wang		

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	91.11	34.4 QP	43.5	-9.1	1.49 V	115	49.0	-14.6
2	135.73	36.7 QP	43.5	-6.8	1.00 V	287	46.2	-9.5
3	167.74	34.3 QP	43.5	-9.2	1.00 V	6	43.2	-8.9
4	291.90	25.3 QP	46.0	-20.7	1.99 V	65	32.3	-7.0
5	496.57	29.1 QP	46.0	-16.9	1.99 V	353	31.7	-2.6
6	981.57	35.2 QP	54.0	-18.8	1.99 V	342	28.6	6.6

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 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.



7.10 Unwanted Emissions above 1 GHz

RF Mode	802.11ax (HE20)	Channel	CH 1：5955 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	22°C, 76% RH
Tested By	Rex Wang		

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	#5925.00	57.5 PK	88.2	-30.7	2.02 H	175	50.8	6.7
2	#5925.00	44.2 AV	68.2	-24.0	2.02 H	175	37.5	6.7
3	*5955.00	109.9 PK			2.02 H	175	69.0	40.9
4	*5955.00	97.7 AV			2.02 H	175	56.8	40.9
5	11910.00	57.7 PK	74.0	-16.3	2.26 H	155	41.7	16.0
6	11910.00	43.0 AV	54.0	-11.0	2.26 H	155	27.0	16.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	57.4 PK	88.2	-30.8	2.88 V	199	50.7	6.7
2	#5925.00	44.1 AV	68.2	-24.1	2.88 V	199	37.4	6.7
3	*5955.00	102.6 PK			2.88 V	199	61.7	40.9
4	*5955.00	90.8 AV			2.88 V	199	49.9	40.9
5	11910.00	57.6 PK	74.0	-16.4	2.46 V	168	41.6	16.0
6	11910.00	42.8 AV	54.0	-11.2	2.46 V	168	26.8	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 45：6175 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6175.00	105.7 PK			1.38 H	176	64.3	41.4
2	*6175.00	92.9 AV			1.38 H	176	51.5	41.4
3	12350.00	57.3 PK	74.0	-16.7	2.21 H	159	41.2	16.1
4	12350.00	42.9 AV	54.0	-11.1	2.21 H	159	26.8	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6175.00	101.0 PK			2.02 V	150	59.6	41.4
2	*6175.00	88.8 AV			2.02 V	150	47.4	41.4
3	12350.00	56.9 PK	74.0	-17.1	2.35 V	158	40.8	16.1
4	12350.00	42.7 AV	54.0	-11.3	2.35 V	158	26.6	16.1

Remarks:

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

RF Mode	802.11ax (HE20)	Channel	CH 93：6415 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6415.00	111.0 PK			1.32 H	172	68.5	42.5
2	*6415.00	98.7 AV			1.32 H	172	56.2	42.5
3	#12830.00	58.8 PK	88.2	-29.4	2.15 H	164	41.4	17.4
4	#12830.00	44.3 AV	68.2	-23.9	2.15 H	164	26.9	17.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6415.00	103.2 PK			2.05 V	149	60.7	42.5
2	*6415.00	90.8 AV			2.05 V	149	48.3	42.5
3	#12830.00	58.5 PK	88.2	-29.7	2.41 V	170	41.1	17.4
4	#12830.00	44.1 AV	68.2	-24.1	2.41 V	170	26.7	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 (HE20)	Channel	CH 97：6435 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6435.00	103.4 PK			1.18 H	172	60.8	42.6
2	*6435.00	91.2 AV			1.18 H	172	48.6	42.6
3	#12870.00	58.3 PK	88.2	-29.9	2.25 H	156	40.9	17.4
4	#12870.00	44.4 AV	68.2	-23.8	2.25 H	156	27.0	17.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6435.00	102.4 PK			1.91 V	141	59.8	42.6
2	*6435.00	89.8 AV			1.91 V	141	47.2	42.6
3	#12870.00	58.1 PK	88.2	-30.1	2.39 V	168	40.7	17.4
4	#12870.00	44.2 AV	68.2	-24.0	2.39 V	168	26.8	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 (HE20)	Channel	CH 105：6475 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6475.00	104.1 PK			1.32 H	173	61.3	42.8
2	*6475.00	91.6 AV			1.32 H	173	48.8	42.8
3	#12950.00	59.2 PK	88.2	-29.0	2.06 H	158	41.5	17.7
4	#12950.00	44.5 AV	68.2	-23.7	2.06 H	158	26.8	17.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6475.00	102.3 PK			2.00 V	149	59.5	42.8
2	*6475.00	89.6 AV			2.00 V	149	46.8	42.8
3	#12950.00	58.5 PK	88.2	-29.7	2.36 V	172	40.8	17.7
4	#12950.00	44.3 AV	68.2	-23.9	2.36 V	172	26.6	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 (HE20)	Channel	CH 113：6515 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6515.00	103.1 PK			2.35 H	247	60.2	42.9
2	*6515.00	89.9 AV			2.35 H	247	47.0	42.9
3	#13030.00	59.1 PK	88.2	-29.1	2.14 H	160	41.3	17.8
4	#13030.00	44.7 AV	68.2	-23.5	2.14 H	160	26.9	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6515.00	101.8 PK			1.91 V	142	58.9	42.9
2	*6515.00	88.8 AV			1.91 V	142	45.9	42.9
3	#13030.00	58.7 PK	88.2	-29.5	2.47 V	165	40.9	17.8
4	#13030.00	44.5 AV	68.2	-23.7	2.47 V	165	26.7	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 117：6535 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6535.00	102.5 PK			2.24 H	252	59.5	43.0
2	*6535.00	90.3 AV			2.24 H	252	47.3	43.0
3	#13070.00	58.5 PK	88.2	-29.7	2.10 H	155	40.8	17.7
4	#13070.00	44.5 AV	68.2	-23.7	2.10 H	155	26.8	17.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6535.00	101.9 PK			2.01 V	149	58.9	43.0
2	*6535.00	89.4 AV			2.01 V	149	46.4	43.0
3	#13070.00	58.3 PK	88.2	-29.9	2.27 V	174	40.6	17.7
4	#13070.00	44.4 AV	68.2	-23.8	2.27 V	174	26.7	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 (HE20)	Channel	CH 149：6695 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6695.00	101.6 PK			2.47 H	247	58.3	43.3
2	*6695.00	90.5 AV			2.47 H	247	47.2	43.3
3	13390.00	59.7 PK	74.0	-14.3	1.96 H	154	40.8	18.9
4	13390.00	45.7 AV	54.0	-8.3	1.96 H	154	26.8	18.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6695.00	100.1 PK			2.00 V	149	56.8	43.3
2	*6695.00	88.9 AV			2.00 V	149	45.6	43.3
3	13390.00	59.5 PK	74.0	-14.5	2.34 V	163	40.6	18.9
4	13390.00	45.5 AV	54.0	-8.5	2.34 V	163	26.6	18.9

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.

RF Mode	802.11ax (HE20)	Channel	CH 181：6855 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6855.00	95.9 PK			2.79 H	247	52.4	43.5
2	*6855.00	83.5 AV			2.79 H	247	40.0	43.5
3	#13710.00	60.8 PK	88.2	-27.4	2.29 H	158	41.3	19.5
4	#13710.00	46.4 AV	68.2	-21.8	2.29 H	158	26.9	19.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6855.00	95.6 PK			1.90 V	142	52.1	43.5
2	*6855.00	82.6 AV			1.90 V	142	39.1	43.5
3	#13710.00	60.4 PK	88.2	-27.8	2.28 V	165	40.9	19.5
4	#13710.00	46.3 AV	68.2	-21.9	2.28 V	165	26.8	19.5

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 185：6875 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6875.00	97.0 PK			2.43 H	243	53.6	43.4
2	*6875.00	84.3 AV			2.43 H	243	40.9	43.4
3	#13750.00	60.8 PK	88.2	-27.4	2.28 H	168	41.2	19.6
4	#13750.00	46.6 AV	68.2	-21.6	2.28 H	168	27.0	19.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6875.00	95.9 PK			1.88 V	140	52.5	43.4
2	*6875.00	82.5 AV			1.88 V	140	39.1	43.4
3	#13750.00	60.6 PK	88.2	-27.6	2.38 V	169	41.0	19.6
4	#13750.00	46.3 AV	68.2	-21.9	2.38 V	169	26.7	19.6

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 209：6995 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6995.00	98.6 PK			1.05 H	240	54.2	44.4
2	*6995.00	86.7 AV			1.05 H	240	42.3	44.4
3	#13990.00	61.7 PK	88.2	-26.5	2.46 H	172	41.3	20.4
4	#13990.00	47.5 AV	68.2	-20.7	2.46 H	172	27.1	20.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6995.00	96.9 PK			1.91 V	142	52.5	44.4
2	*6995.00	85.2 AV			1.91 V	142	40.8	44.4
3	#13990.00	61.2 PK	88.2	-27.0	2.45 V	166	40.8	20.4
4	#13990.00	47.1 AV	68.2	-21.1	2.45 V	166	26.7	20.4

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 (HE20)	Channel	CH 233：7115 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	22°C, 76% RH
Tested By	Rex Wang		

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	*7115.00	100.2 PK			1.02 H	237	55.2	45.0
2	*7115.00	87.7 AV			1.02 H	237	42.7	45.0
3	#7125.00	74.8 PK	88.2	-13.4	1.02 H	237	64.5	10.3
4	**#7125.00**	**66.7 AV**	**68.2**	**-1.5**	**1.02 H**	**237**	**56.4**	**10.3**
5	#14230.00	62.3 PK	88.2	-25.9	2.42 H	158	41.3	21.0
6	#14230.00	48.3 AV	68.2	-19.9	2.42 H	158	27.3	21.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7115.00	98.8 PK			1.90 V	141	53.8	45.0
2	*7115.00	86.0 AV			1.90 V	141	41.0	45.0
3	#7125.00	74.7 PK	88.2	-13.5	1.90 V	141	64.4	10.3
4	#7125.00	66.5 AV	68.2	-1.7	1.90 V	141	56.2	10.3
5	#14230.00	62.2 PK	88.2	-26.0	2.45 V	170	41.2	21.0
6	#14230.00	48.0 AV	68.2	-20.2	2.45 V	170	27.0	21.0

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 (HE40)	Channel	CH 3：5965 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	22°C, 76% RH
Tested By	Rex Wang		

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	#5925.00	62.3 PK	88.2	-25.9	1.99 H	175	55.6	6.7
2	#5925.00	49.1 AV	68.2	-19.1	1.99 H	175	42.4	6.7
3	*5965.00	106.7 PK			1.99 H	175	65.8	40.9
4	*5965.00	94.2 AV			1.99 H	175	53.3	40.9
5	11930.00	55.8 PK	74.0	-18.2	2.35 H	151	39.9	15.9
6	11930.00	42.5 AV	54.0	-11.5	2.35 H	151	26.6	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	59.3 PK	88.2	-28.9	3.14 V	184	52.6	6.7
2	#5925.00	45.2 AV	68.2	-23.0	3.14 V	184	38.5	6.7
3	*5965.00	101.8 PK			3.14 V	184	60.9	40.9
4	*5965.00	88.4 AV			3.14 V	184	47.5	40.9
5	11930.00	55.6 PK	74.0	-18.4	2.85 V	171	39.7	15.9
6	11930.00	42.3 AV	54.0	-11.7	2.85 V	171	26.4	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 43：6165 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6165.00	104.7 PK			2.03 H	177	63.3	41.4
2	*6165.00	92.1 AV			2.03 H	177	50.7	41.4
3	12330.00	56.2 PK	74.0	-17.8	2.42 H	157	40.1	16.1
4	12330.00	42.8 AV	54.0	-11.2	2.42 H	157	26.7	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6165.00	98.8 PK			3.09 V	190	57.4	41.4
2	*6165.00	86.1 AV			3.09 V	190	44.7	41.4
3	12330.00	56.1 PK	74.0	-17.9	2.93 V	169	40.0	16.1
4	12330.00	42.6 AV	54.0	-11.4	2.93 V	169	26.5	16.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 91：6405 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6405.00	107.2 PK			1.97 H	175	64.8	42.4
2	*6405.00	94.6 AV			1.97 H	175	52.2	42.4
3	#12810.00	58.3 PK	88.2	-29.9	2.39 H	153	41.0	17.3
4	#12810.00	44.3 AV	68.2	-23.9	2.39 H	153	27.0	17.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6405.00	101.0 PK			3.13 V	187	58.6	42.4
2	*6405.00	88.7 AV			3.13 V	187	46.3	42.4
3	#12810.00	58.1 PK	88.2	-30.1	2.91 V	173	40.8	17.3
4	#12810.00	44.1 AV	68.2	-24.1	2.91 V	173	26.8	17.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 99：6445 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6445.00	107.0 PK			2.05 H	176	64.3	42.7
2	*6445.00	94.5 AV			2.05 H	176	51.8	42.7
3	#12890.00	58.3 PK	88.2	-29.9	2.47 H	150	40.9	17.4
4	#12890.00	44.3 AV	68.2	-23.9	2.47 H	150	26.9	17.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6445.00	101.2 PK			3.09 V	187	58.5	42.7
2	*6445.00	88.6 AV			3.09 V	187	45.9	42.7
3	#12890.00	58.2 PK	88.2	-30.0	2.90 V	165	40.8	17.4
4	#12890.00	44.1 AV	68.2	-24.1	2.90 V	165	26.7	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 107：6485 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6485.00	107.3 PK			2.13 H	175	64.5	42.8
2	*6485.00	94.8 AV			2.13 H	175	52.0	42.8
3	#12970.00	58.9 PK	88.2	-29.3	2.52 H	153	41.2	17.7
4	#12970.00	44.9 AV	68.2	-23.3	2.52 H	153	27.2	17.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6485.00	101.7 PK			3.00 V	191	58.9	42.8
2	*6485.00	89.0 AV			3.00 V	191	46.2	42.8
3	#12970.00	58.6 PK	88.2	-29.6	2.91 V	163	40.9	17.7
4	#12970.00	44.7 AV	68.2	-23.5	2.91 V	163	27.0	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 115：6525 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6525.00	107.6 PK			2.02 H	177	64.7	42.9
2	*6525.00	95.2 AV			2.02 H	177	52.3	42.9
3	#13050.00	58.6 PK	88.2	-29.6	2.47 H	157	40.9	17.7
4	#13050.00	44.7 AV	68.2	-23.5	2.47 H	157	27.0	17.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6525.00	101.9 PK			3.16 V	185	59.0	42.9
2	*6525.00	89.4 AV			3.16 V	185	46.5	42.9
3	#13050.00	58.5 PK	88.2	-29.7	2.90 V	173	40.8	17.7
4	#13050.00	44.4 AV	68.2	-23.8	2.90 V	173	26.7	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 123：6565 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6565.00	107.2 PK			2.16 H	179	64.2	43.0
2	*6565.00	94.8 AV			2.16 H	179	51.8	43.0
3	#13130.00	59.0 PK	88.2	-29.2	2.51 H	155	41.2	17.8
4	#13130.00	45.0 AV	68.2	-23.2	2.51 H	155	27.2	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6565.00	101.4 PK			3.19 V	193	58.4	43.0
2	*6565.00	89.0 AV			3.19 V	193	46.0	43.0
3	#13130.00	58.7 PK	88.2	-29.5	2.82 V	167	40.9	17.8
4	#13130.00	44.7 AV	68.2	-23.5	2.82 V	167	26.9	17.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 155：6725 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6725.00	105.5 PK			2.05 H	181	62.0	43.5
2	*6725.00	93.1 AV			2.05 H	181	49.6	43.5
3	#13450.00	60.1 PK	88.2	-28.1	2.63 H	159	40.9	19.2
4	#13450.00	46.1 AV	68.2	-22.1	2.63 H	159	26.9	19.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6725.00	99.8 PK			2.97 V	183	56.3	43.5
2	*6725.00	87.5 AV			2.97 V	183	44.0	43.5
3	#13450.00	60.0 PK	88.2	-28.2	2.95 V	173	40.8	19.2
4	#13450.00	45.9 AV	68.2	-22.3	2.95 V	173	26.7	19.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 179：6845 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6845.00	103.1 PK			2.11 H	174	59.5	43.6
2	*6845.00	90.7 AV			2.11 H	174	47.1	43.6
3	#13690.00	60.6 PK	88.2	-27.6	2.72 H	162	41.2	19.4
4	#13690.00	46.2 AV	68.2	-22.0	2.72 H	162	26.8	19.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6845.00	97.3 PK			3.09 V	188	53.7	43.6
2	*6845.00	84.9 AV			3.09 V	188	41.3	43.6
3	#13690.00	60.2 PK	88.2	-28.0	2.82 V	177	40.8	19.4
4	#13690.00	45.9 AV	68.2	-22.3	2.82 V	177	26.5	19.4

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 187：6885 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6885.00	98.3 PK			2.04 H	176	55.0	43.3
2	*6885.00	86.2 AV			2.04 H	176	42.9	43.3
3	#13770.00	60.6 PK	88.2	-27.6	2.67 H	159	41.0	19.6
4	#13770.00	46.6 AV	68.2	-21.6	2.67 H	159	27.0	19.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6885.00	93.0 PK			3.15 V	182	49.7	43.3
2	*6885.00	80.5 AV			3.15 V	182	37.2	43.3
3	#13770.00	60.4 PK	88.2	-27.8	2.85 V	172	40.8	19.6
4	#13770.00	46.4 AV	68.2	-21.8	2.85 V	172	26.8	19.6

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 (HE40)	Channel	CH 211：7005 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	22°C, 76% RH
Tested By	Rex Wang		

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	*7005.00	100.7 PK			2.12 H	173	56.2	44.5
2	*7005.00	87.3 AV			2.12 H	173	42.8	44.5
3	#14010.00	61.7 PK	88.2	-26.5	2.71 H	154	41.3	20.4
4	#14010.00	47.6 AV	68.2	-20.6	2.71 H	154	27.2	20.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7005.00	94.6 PK			3.17 V	182	50.1	44.5
2	*7005.00	82.0 AV			3.17 V	182	37.5	44.5
3	#14010.00	61.4 PK	88.2	-26.8	2.87 V	173	41.0	20.4
4	#14010.00	47.3 AV	68.2	-20.9	2.87 V	173	26.9	20.4

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 227：7085 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	22°C, 76% RH
Tested By	Rex Wang		

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	*7085.00	100.6 PK			2.22 H	175	55.6	45.0
2	*7085.00	87.4 AV			2.22 H	175	42.4	45.0
3	#7125.00	61.5 PK	88.2	-26.7	2.22 H	175	51.2	10.3
4	#7125.00	48.7 AV	68.2	-19.5	2.22 H	175	38.4	10.3
5	#14170.00	61.9 PK	88.2	-26.3	2.69 H	159	41.2	20.7
6	#14170.00	47.7 AV	68.2	-20.5	2.69 H	159	27.0	20.7
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7085.00	94.6 PK			3.23 V	184	49.6	45.0
2	*7085.00	81.7 AV			3.23 V	184	36.7	45.0
3	#7125.00	65.3 PK	88.2	-22.9	3.23 V	184	55.0	10.3
4	#7125.00	52.0 AV	68.2	-16.2	3.23 V	184	41.7	10.3
5	#14170.00	61.6 PK	88.2	-26.6	2.83 V	165	40.9	20.7
6	#14170.00	47.5 AV	68.2	-20.7	2.83 V	165	26.8	20.7

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 7：5985 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	22°C, 76% RH
Tested By	Rex Wang		

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	#5925.00	61.2 PK	88.2	-27.0	1.80 H	173	54.5	6.7
2	#5925.00	47.8 AV	68.2	-20.4	1.80 H	173	41.1	6.7
3	*5985.00	102.0 PK			1.80 H	173	61.1	40.9
4	*5985.00	90.2 AV			1.80 H	173	49.3	40.9
5	11970.00	56.8 PK	74.0	-17.2	2.62 H	152	40.9	15.9
6	11970.00	42.6 AV	54.0	-11.4	2.62 H	152	26.7	15.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	57.9 PK	88.2	-30.3	2.86 V	171	51.2	6.7
2	#5925.00	44.7 AV	68.2	-23.5	2.86 V	171	38.0	6.7
3	*5985.00	96.2 PK			2.86 V	171	55.3	40.9
4	*5985.00	84.1 AV			2.86 V	171	43.2	40.9
5	11970.00	56.7 PK	74.0	-17.3	2.90 V	161	40.8	15.9
6	11970.00	42.4 AV	54.0	-11.6	2.90 V	161	26.5	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 39：6145 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6145.00	100.2 PK			3.15 H	176	58.8	41.4
2	*6145.00	86.6 AV			3.15 H	176	45.2	41.4
3	12290.00	56.9 PK	74.0	-17.1	2.67 H	150	40.7	16.2
4	12290.00	42.7 AV	54.0	-11.3	2.67 H	150	26.5	16.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6145.00	94.4 PK			3.03 V	170	53.0	41.4
2	*6145.00	80.9 AV			3.03 V	170	39.5	41.4
3	12290.00	56.7 PK	74.0	-17.3	2.92 V	165	40.5	16.2
4	12290.00	42.6 AV	54.0	-11.4	2.92 V	165	26.4	16.2

Remarks:

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

RF Mode	802.11ax (HE80)	Channel	CH 87：6385 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6385.00	101.0 PK			1.97 H	179	58.7	42.3
2	*6385.00	89.2 AV			1.97 H	179	46.9	42.3
3	#12770.00	58.4 PK	88.2	-29.8	2.69 H	148	41.2	17.2
4	#12770.00	44.0 AV	68.2	-24.2	2.69 H	148	26.8	17.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6385.00	95.3 PK			2.99 V	177	53.0	42.3
2	*6385.00	82.5 AV			2.99 V	177	40.2	42.3
3	#12770.00	58.1 PK	88.2	-30.1	2.89 V	163	40.9	17.2
4	#12770.00	43.9 AV	68.2	-24.3	2.89 V	163	26.7	17.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 103：6465 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6465.00	100.9 PK			2.21 H	187	58.2	42.7
2	*6465.00	89.0 AV			2.21 H	187	46.3	42.7
3	#12930.00	58.3 PK	88.2	-29.9	2.63 H	151	40.8	17.5
4	#12930.00	44.3 AV	68.2	-23.9	2.63 H	151	26.8	17.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6465.00	95.2 PK			3.05 V	176	52.5	42.7
2	*6465.00	83.2 AV			3.05 V	176	40.5	42.7
3	#12930.00	58.1 PK	88.2	-30.1	2.85 V	163	40.6	17.5
4	#12930.00	44.1 AV	68.2	-24.1	2.85 V	163	26.6	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 (HE80)	Channel	CH 119：6545 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6545.00	100.4 PK			2.09 H	188	57.4	43.0
2	*6545.00	88.5 AV			2.09 H	188	45.5	43.0
3	#13090.00	58.7 PK	88.2	-29.5	2.70 H	156	40.9	17.8
4	#13090.00	44.5 AV	68.2	-23.7	2.70 H	156	26.7	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6545.00	94.6 PK			3.09 V	174	51.6	43.0
2	*6545.00	82.8 AV			3.09 V	174	39.8	43.0
3	#13090.00	58.6 PK	88.2	-29.6	2.95 V	167	40.8	17.8
4	#13090.00	44.3 AV	68.2	-23.9	2.95 V	167	26.5	17.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency, 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 151：6705 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6705.00	98.4 PK			2.12 H	184	55.0	43.4
2	*6705.00	86.5 AV			2.12 H	184	43.1	43.4
3	#13410.00	59.8 PK	88.2	-28.4	2.67 H	155	40.7	19.1
4	#13410.00	45.6 AV	68.2	-22.6	2.67 H	155	26.5	19.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6705.00	92.7 PK			2.97 V	170	49.3	43.4
2	*6705.00	80.8 AV			2.97 V	170	37.4	43.4
3	#13410.00	59.5 PK	88.2	-28.7	2.88 V	167	40.4	19.1
4	#13410.00	45.4 AV	68.2	-22.8	2.88 V	167	26.3	19.1

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 183：6865 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6865.00	96.0 PK			2.26 H	245	52.5	43.5
2	*6865.00	83.0 AV			2.26 H	245	39.5	43.5
3	#13730.00	59.9 PK	88.2	-28.3	2.62 H	153	40.4	19.5
4	#13730.00	45.7 AV	68.2	-22.5	2.62 H	153	26.2	19.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	90.7 PK			3.13 V	185	47.2	43.5
2	*6865.00	77.6 AV			3.13 V	185	34.1	43.5
3	#13730.00	59.8 PK	88.2	-28.4	2.87 V	163	40.3	19.5
4	#13730.00	45.5 AV	68.2	-22.7	2.87 V	163	26.0	19.5

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 (HE80)	Channel	CH 199：6945 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6945.00	96.1 PK			3.05 H	212	52.2	43.9
2	*6945.00	83.0 AV			3.05 H	212	39.1	43.9
3	#13890.00	60.7 PK	88.2	-27.5	2.57 H	152	40.7	20.0
4	#13890.00	46.5 AV	68.2	-21.7	2.57 H	152	26.5	20.0
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6945.00	90.7 PK			2.93 V	187	46.8	43.9
2	*6945.00	77.6 AV			2.93 V	187	33.7	43.9
3	#13890.00	60.5 PK	88.2	-27.7	2.77 V	163	40.5	20.0
4	#13890.00	46.4 AV	68.2	-21.8	2.77 V	163	26.4	20.0

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 (HE80)	Channel	CH 215：7025 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	22°C, 76% RH
Tested By	Rex Wang		

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	*7025.00	97.0 PK			3.27 H	226	52.3	44.7
2	*7025.00	83.9 AV			3.27 H	226	39.2	44.7
3	#7125.00	62.5 PK	88.2	-25.7	3.27 H	226	52.2	10.3
4	#7125.00	48.4 AV	68.2	-19.8	3.27 H	226	38.1	10.3
5	#14050.00	61.2 PK	88.2	-27.0	2.69 H	157	40.6	20.6
6	#14050.00	47.0 AV	68.2	-21.2	2.69 H	157	26.4	20.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7025.00	91.4 PK			2.97 V	179	46.7	44.7
2	*7025.00	77.3 AV			2.97 V	179	32.6	44.7
3	#7125.00	61.9 PK	88.2	-26.3	2.97 V	179	51.6	10.3
4	#7125.00	48.3 AV	68.2	-19.9	2.97 V	179	38.0	10.3
5	#14050.00	61.1 PK	88.2	-27.1	2.85 V	167	40.5	20.6
6	#14050.00	46.8 AV	68.2	-21.4	2.85 V	167	26.2	20.6

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 (HE160)	Channel	CH 15：6025 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	22°C, 76% RH
Tested By	Rex Wang		

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	#5873.00	59.4 PK	88.2	-28.8	1.64 H	167	52.6	6.8
2	#5873.00	45.9 AV	68.2	-22.3	1.64 H	167	39.1	6.8
3	*6025.00	98.7 PK			1.64 H	167	57.8	40.9
4	*6025.00	86.5 AV			1.64 H	167	45.6	40.9
5	12050.00	57.1 PK	74.0	-16.9	2.66 H	151	40.9	16.2
6	12050.00	42.9 AV	54.0	-11.1	2.66 H	151	26.7	16.2
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	58.2 PK	88.2	-30.0	3.10 V	156	51.5	6.7
2	#5925.00	44.5 AV	68.2	-23.7	3.10 V	156	37.8	6.7
3	*6025.00	93.0 PK			3.10 V	156	52.1	40.9
4	*6025.00	81.2 AV			3.10 V	156	40.3	40.9
5	12050.00	56.9 PK	74.0	-17.1	2.74 V	155	40.7	16.2
6	12050.00	42.7 AV	54.0	-11.3	2.74 V	155	26.5	16.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 (HE160)	Channel	CH 47：6185 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6185.00	95.9 PK			2.24 H	240	54.5	41.4
2	*6185.00	82.6 AV			2.24 H	240	41.2	41.4
3	12370.00	56.9 PK	74.0	-17.1	2.55 H	156	40.8	16.1
4	12370.00	42.7 AV	54.0	-11.3	2.55 H	156	26.6	16.1
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6185.00	93.0 PK			3.08 V	157	51.6	41.4
2	*6185.00	79.7 AV			3.08 V	157	38.3	41.4
3	12370.00	56.7 PK	74.0	-17.3	2.78 V	164	40.6	16.1
4	12370.00	42.5 AV	54.0	-11.5	2.78 V	164	26.4	16.1

Remarks:

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

RF Mode	802.11ax (HE160)	Channel	CH 79：6345 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6345.00	96.5 PK			2.42 H	237	54.5	42.0
2	*6345.00	83.8 AV			2.42 H	237	41.8	42.0
3	12690.00	57.7 PK	74.0	-16.3	2.65 H	159	40.8	16.9
4	12690.00	43.5 AV	54.0	-10.5	2.65 H	159	26.6	16.9
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6345.00	93.8 PK			3.14 V	167	51.8	42.0
2	*6345.00	81.6 AV			3.14 V	167	39.6	42.0
3	12690.00	57.3 PK	74.0	-16.7	2.80 V	154	40.4	16.9
4	12690.00	43.2 AV	54.0	-10.8	2.80 V	154	26.3	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.

RF Mode	802.11ax (HE160)	Channel	CH 111：6505 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6505.00	95.8 PK			2.28 H	240	53.0	42.8
2	*6505.00	83.8 AV			2.28 H	240	41.0	42.8
3	#13010.00	58.3 PK	88.2	-29.9	2.58 H	164	40.5	17.8
4	#13010.00	44.3 AV	68.2	-23.9	2.58 H	164	26.5	17.8
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6505.00	95.1 PK			2.97 V	244	52.3	42.8
2	*6505.00	83.3 AV			2.97 V	244	40.5	42.8
3	#13010.00	58.0 PK	88.2	-30.2	2.68 V	165	40.2	17.8
4	#13010.00	44.2 AV	68.2	-24.0	2.68 V	165	26.4	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 (HE160)	Channel	CH 143：6665 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6665.00	96.7 PK			2.37 H	242	53.4	43.3
2	*6665.00	85.0 AV			2.37 H	242	41.7	43.3
3	13330.00	58.9 PK	74.0	-15.1	2.47 H	155	40.6	18.3
4	13330.00	45.0 AV	54.0	-9.0	2.47 H	155	26.7	18.3
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6665.00	95.5 PK			3.10 V	233	52.2	43.3
2	*6665.00	83.7 AV			3.10 V	233	40.4	43.3
3	13330.00	58.6 PK	74.0	-15.4	2.67 V	174	40.3	18.3
4	13330.00	44.6 AV	54.0	-9.4	2.67 V	174	26.3	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.

RF Mode	802.11ax (HE160)	Channel	CH 175：6825 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	22°C, 76% RH
Tested By	Rex Wang		

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	*6825.00	92.0 PK			2.21 H	237	48.4	43.6
2	*6825.00	79.9 AV			2.21 H	237	36.3	43.6
3	#13650.00	60.2 PK	88.2	-28.0	2.66 H	153	40.7	19.5
4	#13650.00	46.1 AV	68.2	-22.1	2.66 H	153	26.6	19.5
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6825.00	90.9 PK			3.02 V	240	47.3	43.6
2	*6825.00	79.1 AV			3.02 V	240	35.5	43.6
3	#13650.00	60.0 PK	88.2	-28.2	2.77 V	158	40.5	19.5
4	#13650.00	45.9 AV	68.2	-22.3	2.77 V	158	26.4	19.5

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.

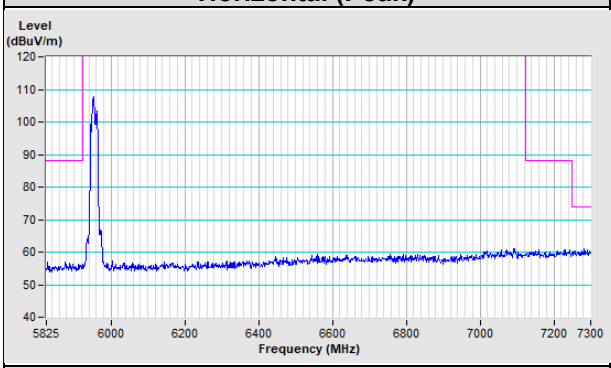
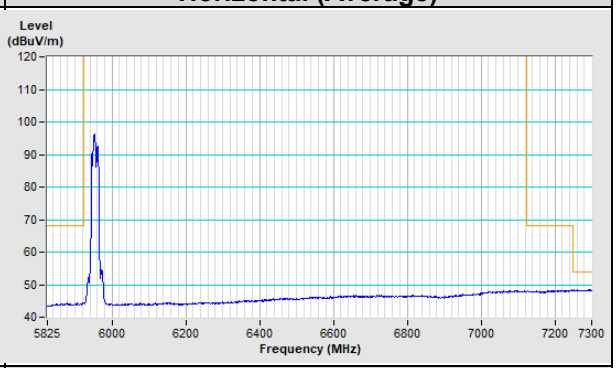
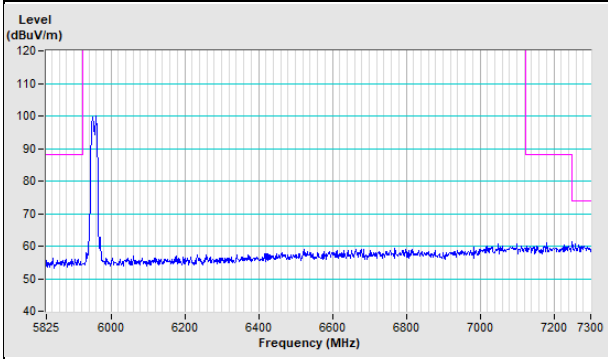
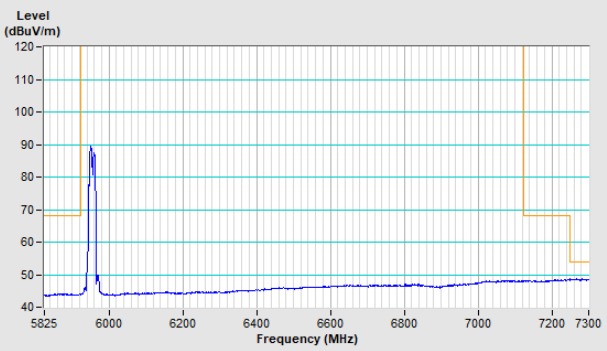
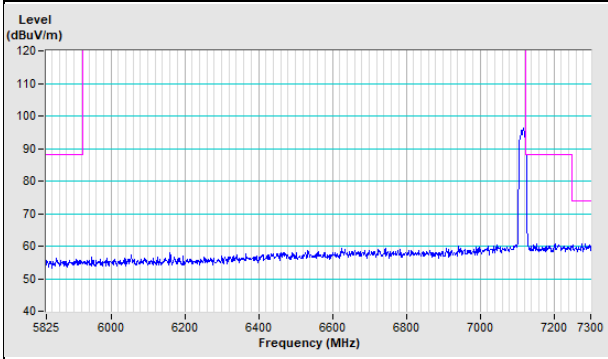
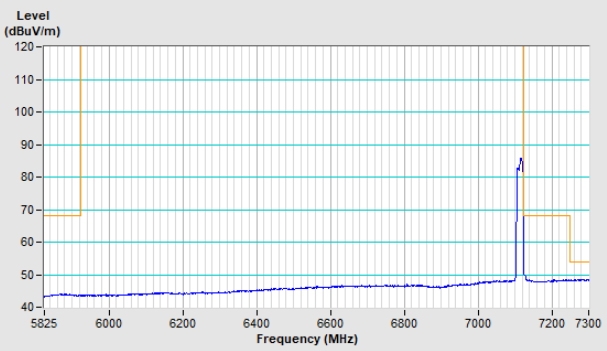
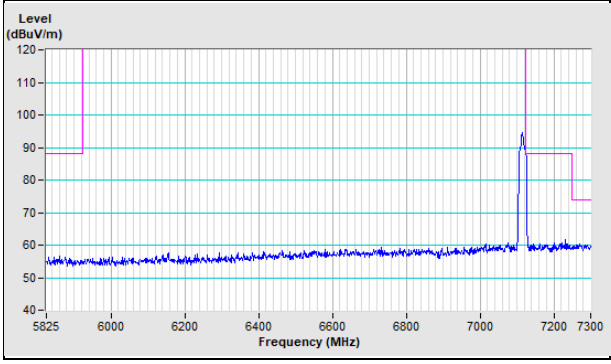
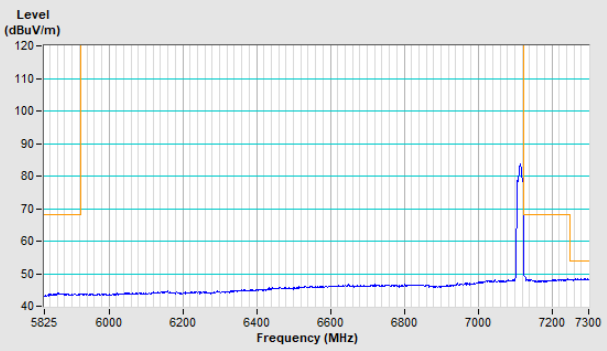
RF Mode	802.11ax (HE160)	Channel	CH 207：6985 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 10 Hz
Input Power	120 Vac, 60 Hz	Environmental Conditions	22°C, 76% RH
Tested By	Rex Wang		

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	*6985.00	91.9 PK			2.17 H	240	47.6	44.3
2	*6985.00	79.9 AV			2.17 H	240	35.6	44.3
3	#7125.00	61.7 PK	88.2	-26.5	2.17 H	240	51.4	10.3
4	#7125.00	48.1 AV	68.2	-20.1	2.17 H	240	37.8	10.3
5	#13970.00	61.0 PK	88.2	-27.2	2.67 H	163	40.6	20.4
6	#13970.00	47.0 AV	68.2	-21.2	2.67 H	163	26.6	20.4
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6985.00	91.1 PK			2.99 V	241	46.8	44.3
2	*6985.00	79.0 AV			2.99 V	241	34.7	44.3
3	#7125.00	61.3 PK	88.2	-26.9	2.99 V	241	51.0	10.3
4	#7125.00	48.0 AV	68.2	-20.2	2.99 V	241	37.7	10.3
5	#13970.00	60.8 PK	88.2	-27.4	2.74 V	158	40.4	20.4
6	#13970.00	46.7 AV	68.2	-21.5	2.74 V	158	26.3	20.4

Remarks:

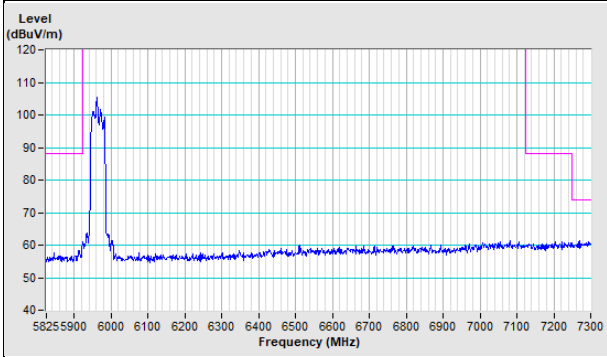
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency,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

Plot of Band Edge

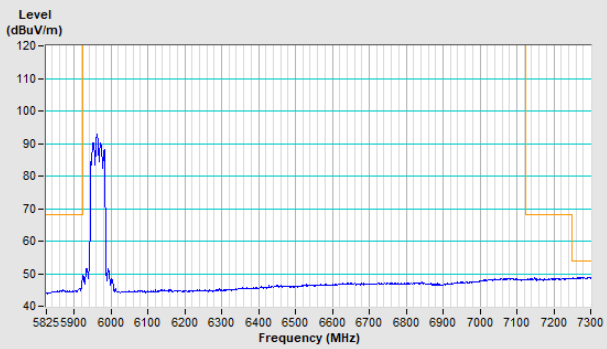
802.11ax (HE20) Channel 1	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	
802.11ax (HE20) Channel 233	
Horizontal (Peak)	Horizontal (Average)
	
Vertical (Peak)	Vertical (Average)
	

802.11ax (HE40) Channel 3

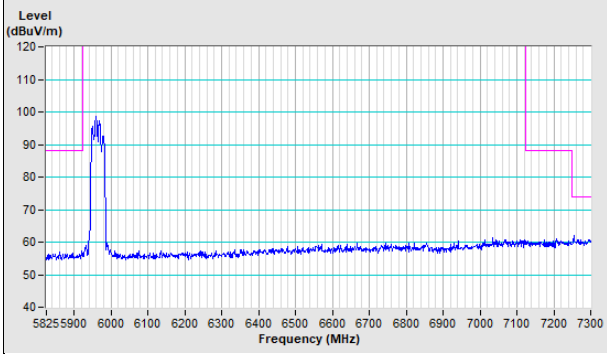
Horizontal (Peak)



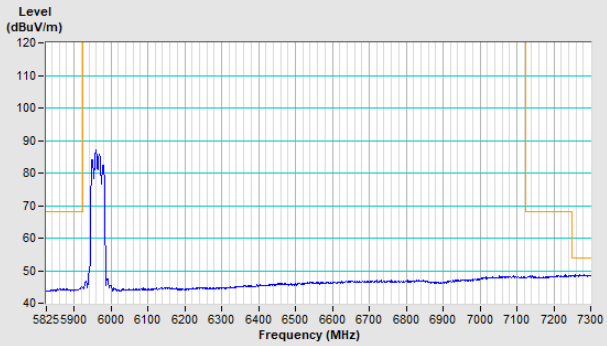
Horizontal (Average)



Vertical (Peak)

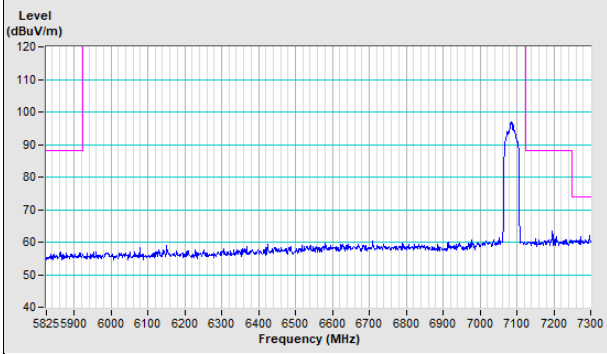


Vertical (Average)

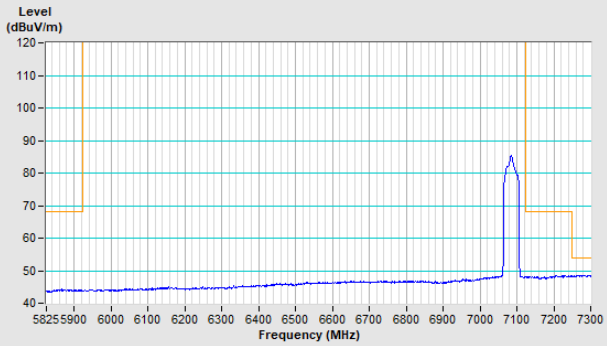


802.11ax (HE40) Channel 227

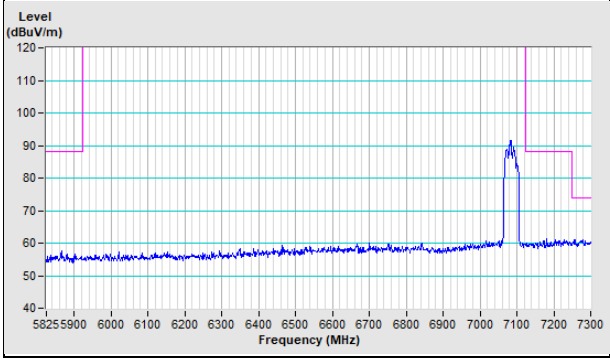
Horizontal (Peak)



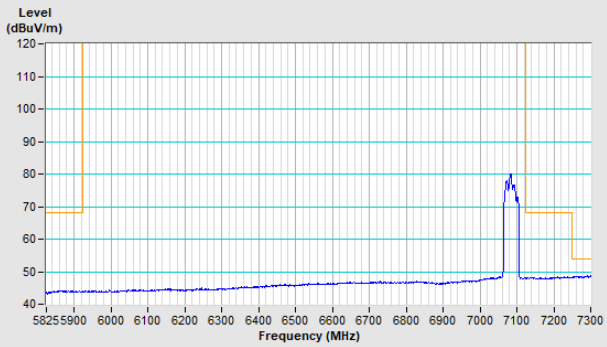
Horizontal (Average)



Vertical (Peak)

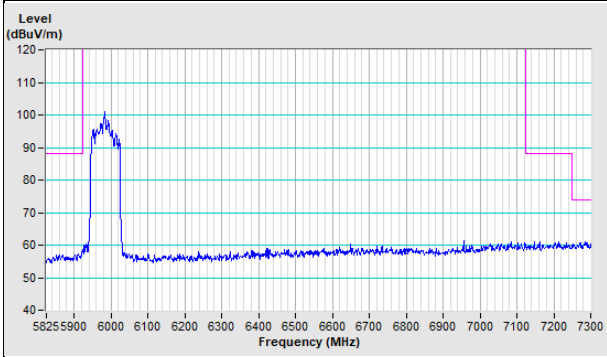


Vertical (Average)

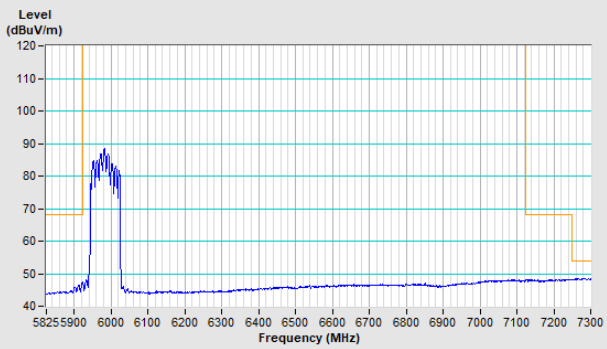


802.11ax (HE80) Channel 7

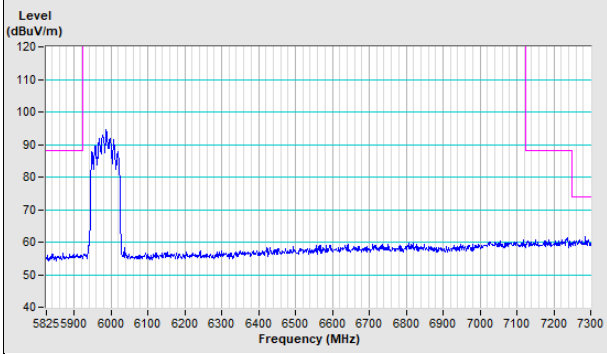
Horizontal (Peak)



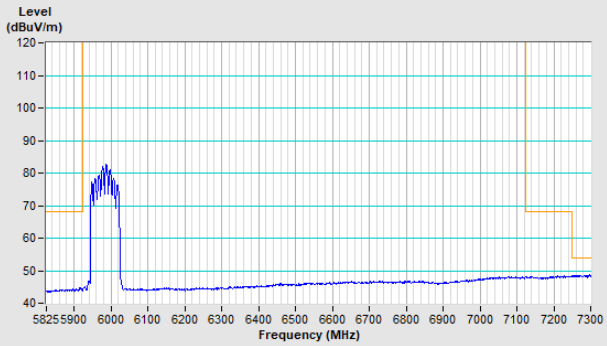
Horizontal (Average)



Vertical (Peak)

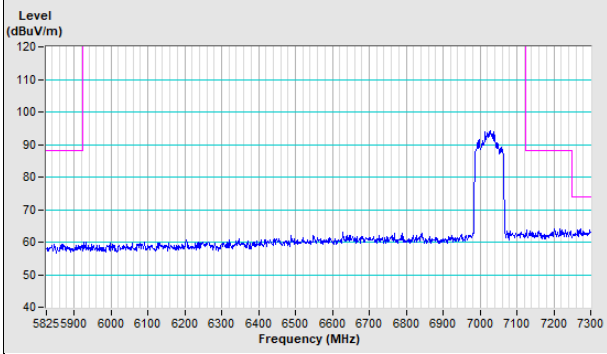


Vertical (Average)

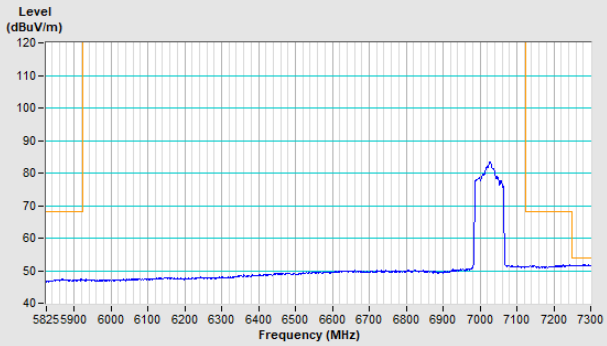


802.11ax (HE80) Channel 215

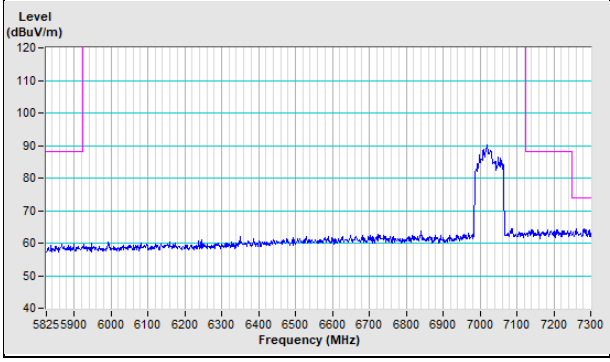
Horizontal (Peak)



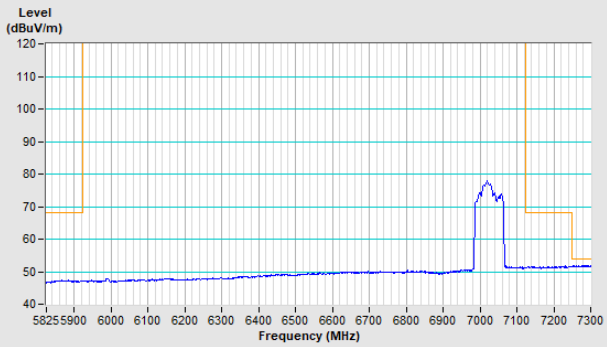
Horizontal (Average)



Vertical (Peak)

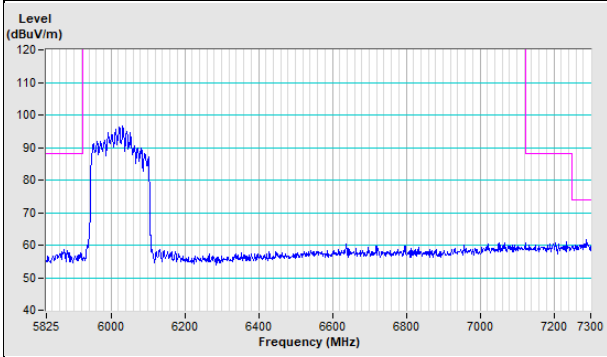


Vertical (Average)

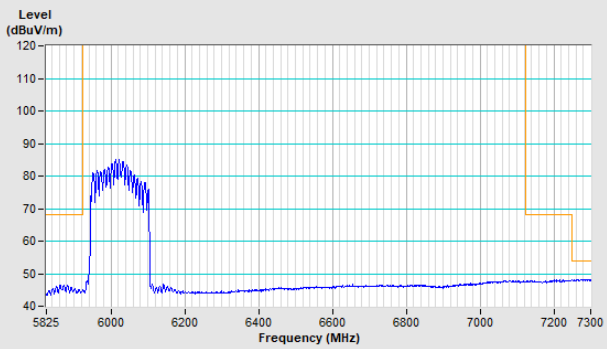


802.11ax (HE160) Channel 15

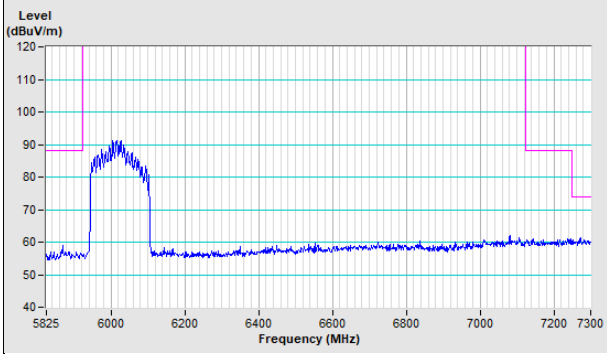
Horizontal (Peak)



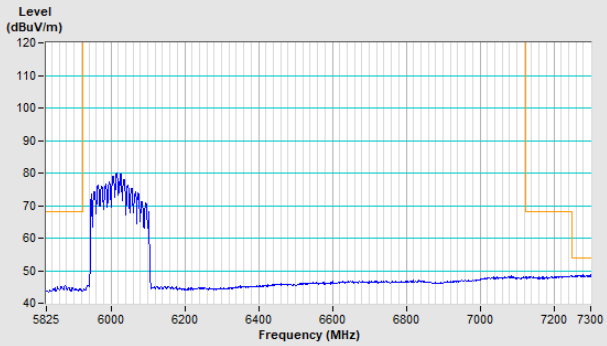
Horizontal (Average)



Vertical (Peak)

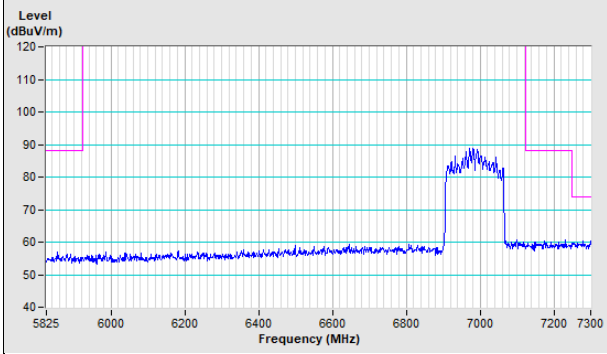


Vertical (Average)

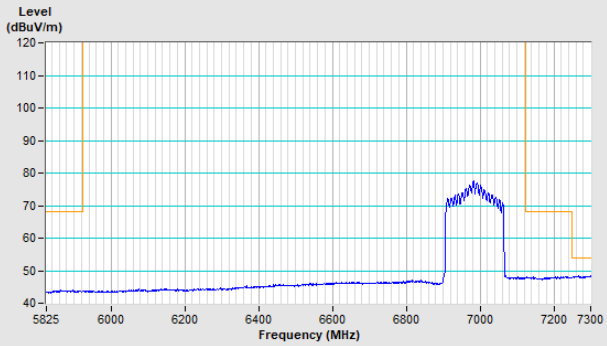


802.11ax (HE160) Channel 207

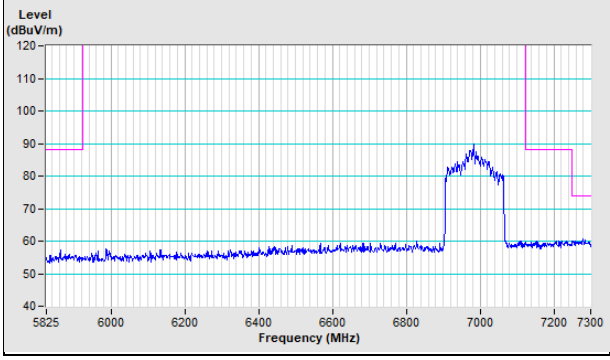
Horizontal (Peak)



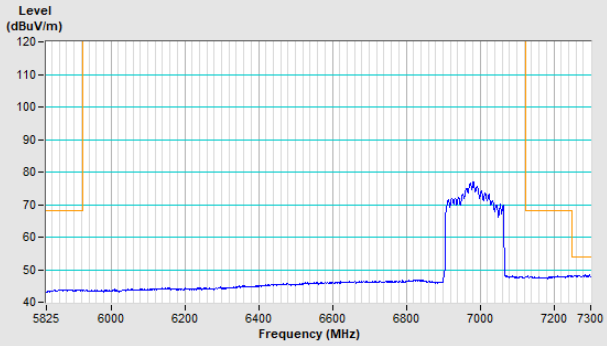
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



8 Operational Restrictions for 6 GHz U-NII Devices

(1) Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.

(2) Transmitters operating under indoor client are limited to indoor locations.

(3) In the 5.925-7.125 GHz band, client devices must operate under the control of an indoor access point or subordinate devices; In all cases, an exception exists for transmitting brief messages to an access point when attempting to join its network after detecting a signal that confirms that an access point is operating on a particular channel. Client devices are prohibited from connecting directly to another client device.

(4) Client devices operating in the 5.925-7.125 GHz band must employ a contention-based protocol.

Device is a Low-power Indoor client, all restrictions are meet the §15.407 (d) requirements. Please refer to the Attestation letter exhibit supplied within this application.

9 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

10 Information of the Testing Laboratories

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

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

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