



RF MEASUREMENT REPORT

FCC ID: HD5-EDA10A1
Applicant: Honeywell International Inc
Product: Tablet Computer
Model No.: EDA10A-1
Brand Name: Honeywell
FCC Classification: Unlicensed National Information Infrastructure (NII)
FCC Rule Part(s): Part 15 Subpart E (Section 15.407)
Result: Complies
Received Date: 2025-04-08
Test Date: 2025-04-30 ~ 2025-05-24

Reviewed By:

Ada Zhang

Approved By:

Robin Wu



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB789033. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

Revision History

Report No.	Version	Description	Issue Date	Note
R25S1020041-U206	V01	Initial Report	2025-05-28	Valid

CONTENTS

Description	Page
1. General Information	6
1.1. Applicant	6
1.2. Manufacturer	6
1.3. Testing Facility	6
1.4. Product Information	7
1.5. Radio Specification under Test	8
1.6. Working Frequencies	9
1.7. Antenna Details	10
2. Test Configuration	11
2.1. Test Mode	11
2.2. Test System Connection Diagram	12
2.3. Test Software	12
2.4. Applied Standards	13
2.5. Test Environment Condition	13
3. Antenna Requirements	14
4. Measuring Instrument	15
5. Decision Rules and Measurement Uncertainty	17
5.1. Decision Rules	17
5.2. Measurement Uncertainty	17
6. Test Result	18
6.1. Summary	18
6.2. 26dB & 99% Bandwidth Measurement	19
6.2.1. Test Limit	19
6.2.2. Test Procedure	19
6.2.3. Test Setting	19
6.2.4. Test Setup	19
6.2.5. Test Result	20
6.3. 6dB Bandwidth Measurement	21
6.3.1. Test Limit	21
6.3.2. Test Procedure	21
6.3.3. Test Setting	21
6.3.4. Test Setup	21
6.3.5. Test Result	21
6.4. Output Power Measurement	22
6.4.1. Test Limit	22

6.4.2.	Test Procedure	22
6.4.3.	Test Setting	22
6.4.4.	Test Setup.....	22
6.4.5.	Test Result	22
6.5.	Transmit Power Control Measurement.....	23
6.5.1.	Test Limit.....	23
6.5.2.	Test Procedure	23
6.5.3.	Test Setting	23
6.5.4.	Test Setup.....	23
6.5.5.	Test Result	23
6.6.	Power Spectral Density Measurement	24
6.6.1.	Test Limit.....	24
6.6.2.	Test Procedure	24
6.6.3.	Test Setting	24
6.6.4.	Test Setup.....	25
6.6.5.	Test Result	25
6.7.	Frequency Stability Measurement.....	26
6.7.1.	Test Limit.....	26
6.7.2.	Test Procedure	26
6.7.3.	Test Setup.....	26
6.7.4.	Test Result	27
6.8.	Radiated Spurious Emission Measurement	28
6.8.1.	Test Limit.....	28
6.8.2.	Test Procedure	28
6.8.3.	Test Setting	28
6.8.4.	Test Setup.....	30
6.8.5.	Test Result	31
6.9.	Radiated Restricted Band Edge Measurement	32
6.9.1.	Test Limit.....	32
6.9.2.	Test Procedure	34
6.9.3.	Test Setting	34
6.9.4.	Test Setup.....	35
6.9.5.	Test Result	35
6.10.	AC Conducted Emissions Measurement.....	36
6.10.1.	Test Limit.....	36
6.10.2.	Test Setup.....	36
6.10.3.	Test Result	36
Appendix A – Test Result.....		37
A.1	Duty Cycle Test Result.....	37

A.2	26dB & 99% Bandwidth Test Result	40
A.3	6dB Bandwidth Test Result	55
A.4	Output Power Test Result	60
A.5	Power Spectral Density Test Result.....	66
A.6	Frequency Stability Test Result.....	114
A.7	Radiated Spurious Emission Test Result.....	115
A.8	Radiated Restricted Band Edge Test Result.....	181
A.9	AC Conducted Emissions Test Result	415
Appendix B - Test Setup Photograph		419
Appendix C - EUT Photograph		420

1. General Information

1.1. Applicant

Honeywell International Inc

9680 Old Bailes Rd. Fort Mill, SC 29707 United States

1.2. Manufacturer

Honeywell International Inc

9680 Old Bailes Rd. Fort Mill, SC 29707 United States

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Location (Suzhou - Wujiang) Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People's Republic of China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: 3261 FCC: 291082, TW3261 ISED: TW3261

1.4. Product Information

Product Name	Tablet Computer
Model No.	EDA10A-1
Brand Name	Honeywell
EUT Identification No.	Conducted: 20250408Sample#13 Radiated: 20250408Sample#21
Bluetooth Specification	Dual mode v5.1
Wi-Fi Specification	802.11a/b/g/n/ac/ax/VHT
NFC Specification	13.56MHz
GNSS Specification	GPS, Beidou, Glonass, Galileo
3GPP Specification	GSM 850/PCS 1900 WCDMA Band: II/IV/V LTE Band: 2/4/5/7/12/13/17/25/26/66/38/41/42/43 NR SA Band: n2/5/7/25/26/38/41/66/77/78 NR NSA Band: EN_DC_XA_n41A/EN_DC_XA_n77A/EN_DC_XA_n78A
Antenna Specification	Refer to clause 1.7
Operating Temp.	-20 ~ 50 °C
Power Type	By Rechargeable Li-ion Battery
Accessory	
Rechargeable Li-ion Battery	Model: BAT-EDA10A Nominal Voltage: 3.85Vdc Rated Capacity: 8000mAh Limited Charging Voltage: 4.4Vdc Rated Energy: 30.80Wh
Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

1.5. Radio Specification under Test

Frequency Range	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5180~5240MHz, 5260~5320MHz, 5500~5700MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5230MHz, 5270~5310MHz, 5510~5670MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80: 5210MHz, 5290MHz, 5530MHz, 5610 MHz, 5775MHz		
Type of Modulation	802.11a/n/ac: OFDM 802.11ax: OFDMA		
Data Rate	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps 802.11ax: up to 1201Mbps		
Support RU	☒ Full RU	☒ Partial RU	☒ Single RU
			☐ Multi RU
			☐ Channel Puncturing

1.6. Working Frequencies

802.11a/n-HT20/ac-VHT20/ax-HE20

Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180 MHz	40	5200 MHz	44	5220 MHz
48	5240 MHz	52	5260 MHz	56	5280 MHz
60	5300 MHz	64	5320 MHz	100	5500 MHz
104	5520 MHz	108	5540 MHz	112	5560 MHz
116	5580 MHz	120	5600 MHz	124	5620 MHz
128	5640 MHz	132	5660 MHz	136	5680 MHz
140	5700 MHz	149	5745 MHz	153	5765 MHz
157	5785 MHz	161	5805 MHz	165	5825 MHz

802.11n-HT40/ac-VHT40/ax-HE40

Channel	Frequency	Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz	54	5270 MHz
62	5310 MHz	102	5510 MHz	110	5550MHz
118	5590 MHz	126	5630 MHz	134	5670 MHz
151	5755 MHz	159	5795 MHz	--	--

802.11ac-VHT80/ax-HE80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	155	5775 MHz	--	--

1.7. Antenna Details

Antenna Type	Frequency Band (MHz)	Antenna Gain (dBi)		CDD Directional Gain (dBi)		Beamforming Directional Gain (dBi)
		Ant 2	Ant 3	Uncorrelated (For Power)	Correlated (For PSD)	
Wi-Fi Antennas						
PIFA	2400 ~ 2500	1.8	4.8	4.80	7.81	7.81
	5150 ~ 5250	2.2	0.1	2.20	5.21	5.21
	5250 ~ 5350	2.2	0.1	2.20	5.21	5.21
	5470 ~ 5725	2.3	3.1	3.10	6.11	6.11
	5725 ~ 5850	2.5	3.1	3.10	6.11	6.11

Note 1: The EUT supports Cyclic Delay Diversity (CDD) mode, For CDD transmissions, directional gain is calculated as follows.

Directional gain = $G_{ANT\ Max} + \text{Array Gain}$, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,
 $\text{Array Gain} = 10 \log (N_{ANT}/ N_{SS}) \text{ dB};$
- For power measurements on IEEE 802.11 devices,
 $\text{Array Gain} = 0 \text{ dB for } N_{ANT} \leq 4;$

Note 2: The EUT supports beamforming mode for VHT, 802.11n/ac/ax, for beamforming operation, the software automatically backs power down based on CDD power.

2. Test Configuration

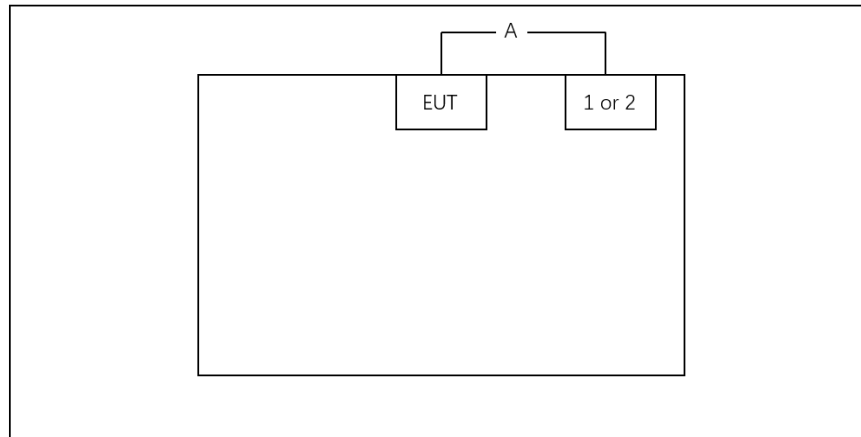
2.1. Test Mode

CDD Mode
Mode 1: Transmit by 802.11a (6Mbps)
Mode 2: Transmit by 802.11ac-VHT20_Nss=1 (MCS0)
Mode 3: Transmit by 802.11ac-VHT40_Nss=1 (MCS0)
Mode 4: Transmit by 802.11ac-VHT80_Nss=1 (MCS0)
Mode 5: Transmit by 802.11ax-HE20_Nss=1 (MCS0)
Mode 6: Transmit by 802.11ax-HE40_Nss=1 (MCS0)
Mode 7: Transmit by 802.11ax-HE80_Nss=1 (MCS0)
Notes: 1. All modes of operation and data rates were investigated, so all RF test requirements shall be executed at the worst data rate. 2. For CDD mode, this device supports $2N_{ss}$ and power level is the same of spatial multiplexing. The worst case is $N_{ss}=1$. 3. 802.11n and 802.11ac have same modulation type and same power value, so we only show 802.11ac test data in report. 4. the EUT supports 26/52/106/242/484/996-tone RU, the PSD of the partial RU has been minimized to be less than full RU. 5. For beamforming operation, manufacturer automatically backs power down based on CDD power. Therefore, only the CDD mode was evaluated in this report.

2.2. Test System Connection Diagram

The device was tested per the guidance ANSI C63.10: 2013 was used to reference the appropriate EUT setup for radiated emissions testing and AC line conducted testing.

Connection Diagram



No.	Cable Type	Cable Spec.	Length
A	USB-C Cable	Shielding	1.2m
No.	Product	Manufacturer	Model No.
1	Adapter (for AC Conducted Emissions)	Shenzhen Honor Electronic Co., Ltd	ADS-12B-06 05010E
2	Notebook (for Radiated Emissions)	Lenovo	E431

2.3. Test Software

The test utility software used during testing was “adb.exe” and commands were provided by manufacturer.

Final power setting please refer to operational description.

2.4. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.407
- KDB 789033 D02v02r01
- KDB 662911 D01v02r01
- ANSI C63.10-2013

2.5. Test Environment Condition

Ambient Temperature	15 ~ 35 °C
Relative Humidity	20 ~ 75%RH

3. Antenna Requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

“An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.”

- The antenna of the device is **permanently attached**.
- There are no provisions for connection to an external antenna.

Conclusion:

The unit complies with the requirement of §15.203.

4. Measuring Instrument

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2025-05-12	WZ-SR5
				1 year	2026-04-24	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2025-05-20	WZ-SR5
				1 year	2026-05-17	WZ-SR5
USB Power Sensor	Keysight	U2021XA	MRTSUE06446	1 year	2026-04-26	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11091	1 year	2025-06-05	WZ-SR5
Two-Line V-Network	R&S	ENV216	MRTSUE06002	1 year	2026-04-26	WZ-SR2
Shielding Room	MIX-BEP	WZ-SR2	MRTSUE06215	5 years	2026-12-20	WZ-SR2
Thermohygrometer	testo	608-H1	MRTSUE06404	1 year	2026-04-24	WZ-SR2
EMI Test Receiver	R&S	ESR3	MRTSUE06909	1 year	2025-09-05	WZ-SR2
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2026-03-22	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2026-04-26	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2025-09-23	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2026-03-18	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2026-04-17	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2025-10-16	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9170	MRTSUE06597	1 year	2025-11-03	WZ-AC2
Preamplifier	EMCI	EMC184045SE	MRTSUE06640	1 year	2026-01-09	WZ-AC2
Horn Antenna	ETS	3117	MRTSUE06257	1 year	2025-09-08	WJ-AC1
Microwave Broadband Preamplifier	Schwarzbeck	BBV 9718 D	MRTSUE07084	1 year	2025-12-22	WJ-AC1
TRILOG Broad Band Antenna	Schwarzbeck	VULB 9163	MRTSUE07096	1 year	2026-04-16	WJ-AC1
EMI Test Receiver	R&S	ESR3	MRTSUE07110	1 year	2026-04-19	WJ-AC1
Anechoic Chamber	TDK	WJ-AC1	MRTSUE07115	1 year	2025-05-17	WJ-AC1
				1 year	2026-05-16	WJ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11333	1 year	2025-06-24	WJ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11402	1 year	2025-12-01	WJ-AC1
Active Loop Antenna	Schwarzbeck	FMZB 1519-60 D	MRTSUE07076	1 year	2025-11-19	WJ-AC1
EXA Signal Analyzer	Keysight	N9010B	MRTSUE07147	1 year	2025-11-06	WJ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2025-07-26	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2026-04-17	WZ-AC1

Instrument	Manufacturer	Model No.	Asset No.	Cali. Interval	Cali. Due Date	Test Site
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2025-09-02	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2025-12-10	WZ-TR3
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2026-04-26	WZ-TR3

Software	Version	Function
e3	230711	RE & CE
CONTROLLER CO3000	v 1.03.02	RE Antenna & Turntable
Controller_MF 7802	1.02	RE Antenna & Turntable
Controller_MF 7802	2.03C	RE Antenna & Turntable
BenchVue Power Meter	2018.1	Power

5. Decision Rules and Measurement Uncertainty

5.1. Decision Rules

The Decision Rule is based on Simple Acceptance in accordance with ISO Guide 98-4: 2012 Clause 8.2.
(Measurement uncertainty is not taken into account when stating conformity with a specified requirement.)

5.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.58dB 150kHz~30MHz: 3.20dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.35dB Coplanar: 9kHz~30MHz: 2.37dB Horizontal: 30MHz~200MHz: 3.47dB 200MHz~1GHz: 4.17dB 1GHz~40GHz: 4.97dB Vertical: 30MHz~200MHz: 4.07dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.84dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.5dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 1.5dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 2.5dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ($U=2U_c(y)$): 3.2%

6. Test Result

6.1. Summary

FCC Section(s)	Test Description	Test Condition	Verdict
15.407(a)	26dB Bandwidth	Conducted	Pass
15.407(e)	6dB Bandwidth		Pass
15.407(a)(1)(iv), (2), (3)(i)	Maximum Conducted Output Power		Pass
15.407(h)(1)	Transmit Power Control		Pass
15.407(g)	Frequency Stability		Pass
15.407(a)(1)(iv), (2), (3)(i), (13)	Peak Power Spectral Density		Pass
15.407(h)(2)	Dynamic Frequency Selection (DFS)		Pass Remark 3
15.407(b)(1), (2), (3), (4)(i)	Undesirable Emissions	Radiated	Pass
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)		Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	Pass

Remarks:

- The analyzer plots shown in this section were captured using a correction table to account for cable and attenuator losses in the system connecting the EUT to the analyzer across relevant frequencies.
- For radiated emission test, every axis (X, Y, Z) was also verified. The test results shown in the following sections represent the worst-case emissions.
- DFS report refer to R25S1020041-U204.
- The full RU has higher power levels than partial RU, therefore full test was performed for full RU. For partial RU, we do some spot check testing on partial items "Maximum Conducted Output Power", "Peak Power Spectral Density" and "General Field Strength Limits (Restricted Bands and Radiated Emission Limits)".

6.2. 26dB & 99% Bandwidth Measurement

6.2.1. Test Limit

N/A

6.2.2. Test Procedure

KDB 789033 D02v02r01- Section II)C)1) (26dB Bandwidth)

KDB 789033 D02v02r01- Section II)D) (99% Bandwidth)

6.2.3. Test Setting

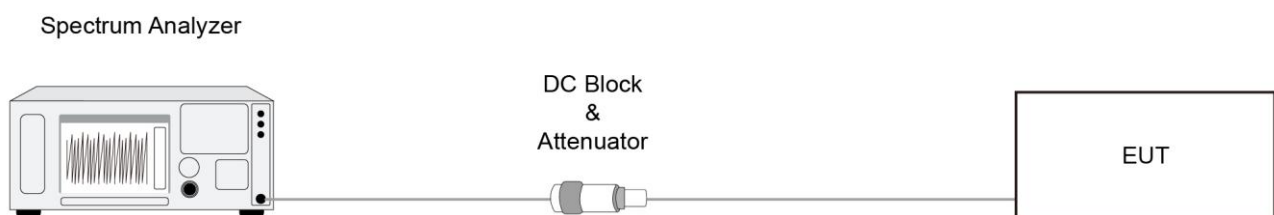
26dB Bandwidth

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth
2. RBW = approximately 1% of the emission bandwidth.
3. VBW > RBW
4. Detector = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26 dB down from the maximum 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%.

99% Bandwidth

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 1% to 5% of the OBW
3. $VBW \geq 3 \times RBW$
4. Span = 1.5 times to 5 times the OBW
5. Detector = peak
6. Trace mode = max hold
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument.

6.2.4. Test Setup



6.2.5. Test Result

Refer to Appendix A.2.

6.3. 6dB Bandwidth Measurement

6.3.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

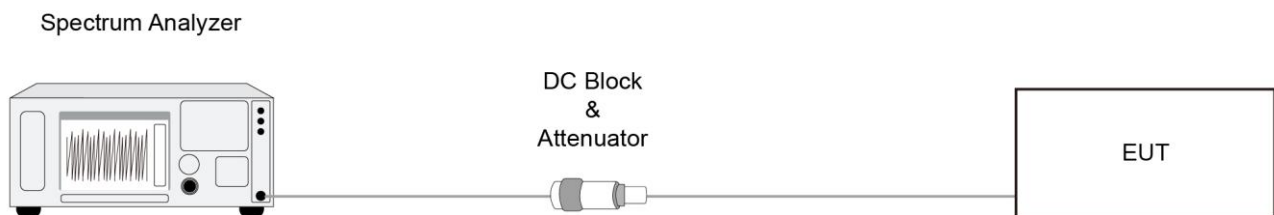
6.3.2. Test Procedure

KDB 789033 D02v02r01- Section II)C)2)

6.3.3. Test Setting

1. Set center frequency to the nominal EUT channel center frequency.
2. RBW = 100 kHz.
3. VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3.4. Test Setup



6.3.5. Test Result

Refer to Appendix A.3.

6.4. Output Power Measurement

6.4.1. Test Limit

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm).

If transmitting antennas of directional gain greater than 6dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

6.4.2. Test Procedure

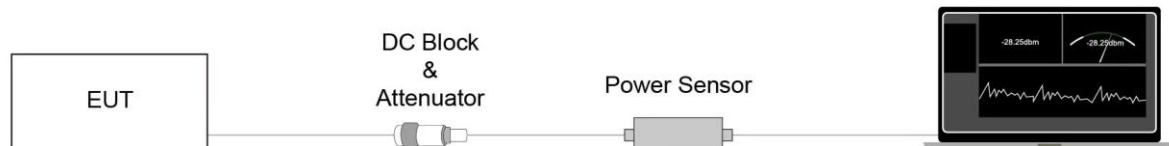
KDB 789033D02v02r01- Section II(E)3)b) Method PM-G

6.4.3. Test Setting

Average Power Measurement

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

6.4.4. Test Setup



6.4.5. Test Result

Refer to Appendix A.4.

6.5. Transmit Power Control Measurement

6.5.1. Test Limit

The U-NII device is required to have the capability to operate at least 6 dB below the mean EIRP value of 30 dBm.

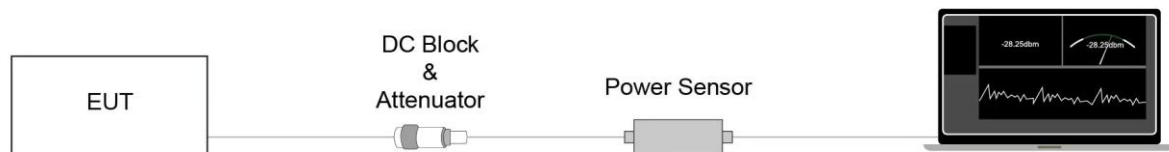
6.5.2. Test Procedure

KDB 789033 D02v02r01- Section II)E)3)b) Method PM-G

6.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

6.5.4. Test Setup



6.5.5. Test Result

The EIRP is less than 500mW, so it's unnecessary to support TPC function.

6.6. Power Spectral Density Measurement

6.6.1. Test Limit

For client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

If transmitting antennas of directional gain greater than 6dBi are used, the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

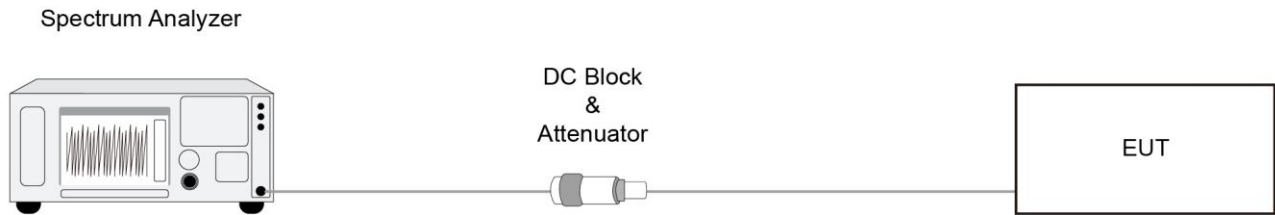
6.6.2. Test Procedure

KDB 789033 D02v02r01-Section II)F)

6.6.3. Test Setting

1. Analyzer was set to the center frequency of the UNII channel under investigation
2. Span was set to encompass the entire 26dB EBW of the signal.
3. RBW = 1MHz (510kHz, if measurement bandwidth of Maximum PSD is specified in 500 kHz)
4. VBW = $3 \times \text{RBW}$
5. Number of sweep points $\geq 2 \times (\text{span} / \text{RBW})$
6. Detector = power averaging (Average)
7. Sweep time = auto
8. Trigger = free run
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
11. Add $10 \cdot \log(1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add $10 \cdot \log(1/0.25) = 6 \text{ dB}$ if the duty cycle is 25 percent.

6.6.4. Test Setup



6.6.5. Test Result

Refer to Appendix A.5.

6.7. Frequency Stability Measurement

6.7.1. Test Limit

Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

6.7.2. Test Procedure

Frequency Stability Under Temperature Variations:

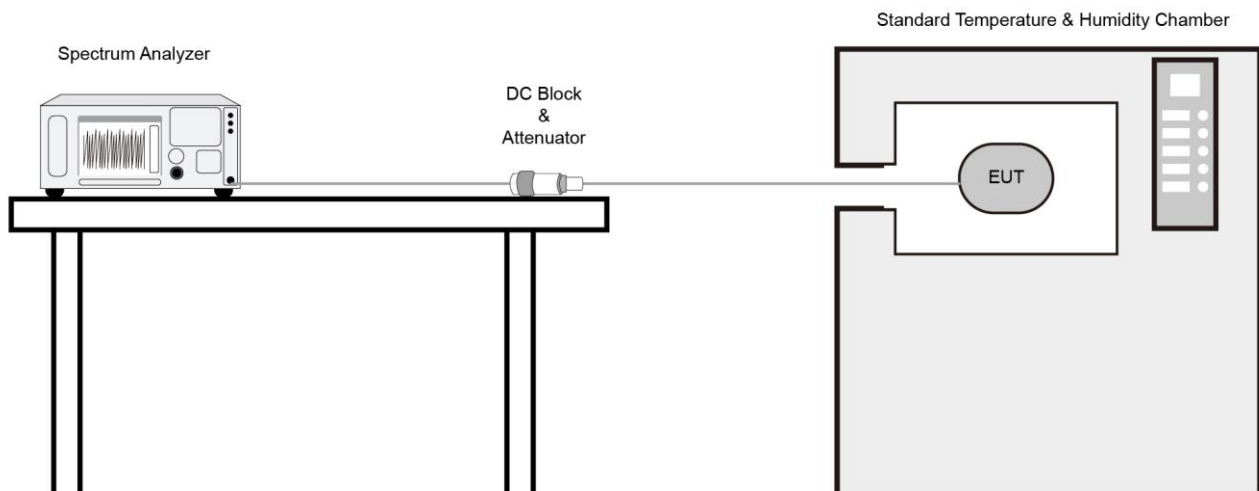
The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to highest. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 15\%$) and endpoint, record the maximum frequency change.

6.7.3. Test Setup



6.7.4. Test Result

Refer to Appendix A.6.

6.8. Radiated Spurious Emission Measurement

6.8.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [$\mu\text{V/m}$]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.8.2. Test Procedure

KDB 789033 D02v02r01- Section II)G)

6.8.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000MHz	1MHz

Quasi-Peak Measurements below 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. Span was set greater than 1MHz
3. RBW = as specified in Table 1
4. Detector = CISPR quasi-peak
5. Sweep time = auto couple
6. Trace was allowed to stabilize

Peak Measurements above 1GHz

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max hold
7. Trace was allowed to stabilize

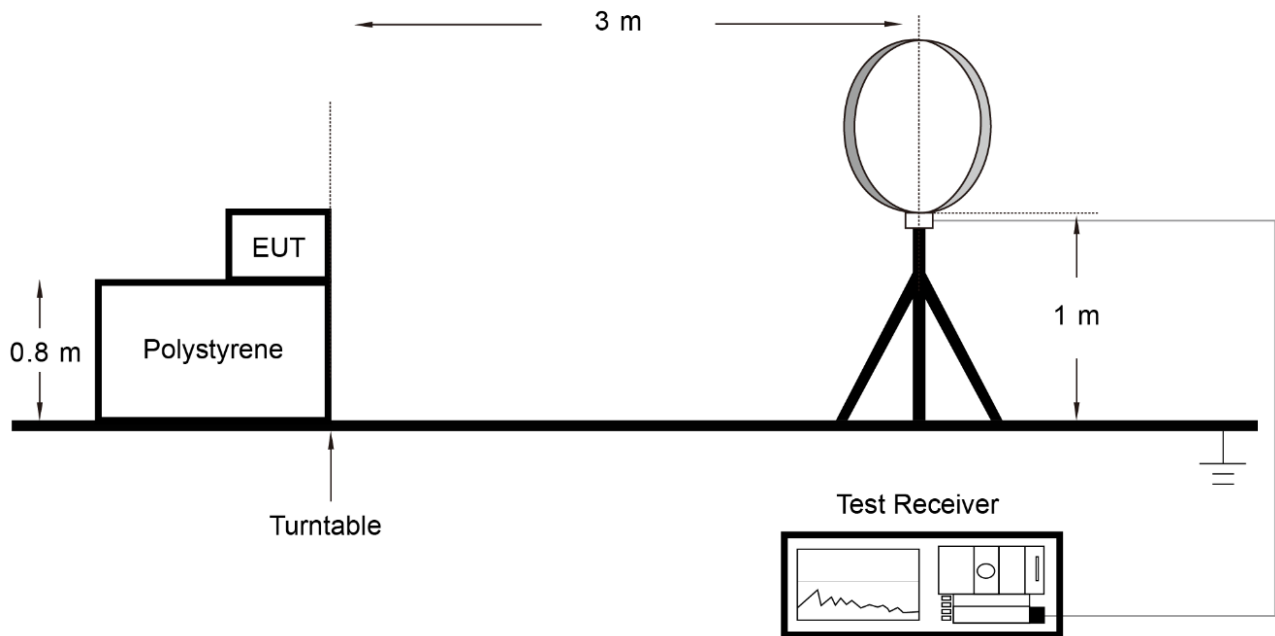
Average Measurements above 1GHz (Method VB)

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10Hz

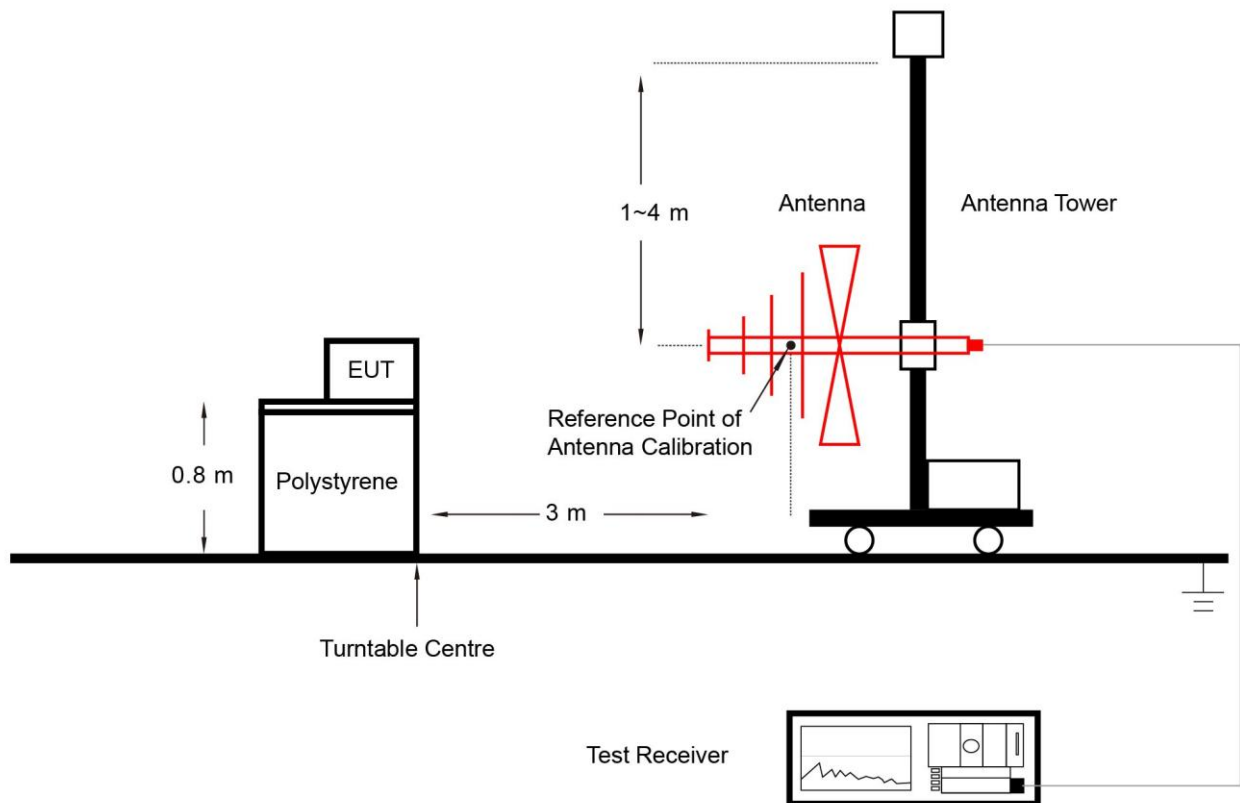
If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = Auto
7. Trace mode = Max hold
8. Trace was allowed to stabilize

6.8.4. Test Setup

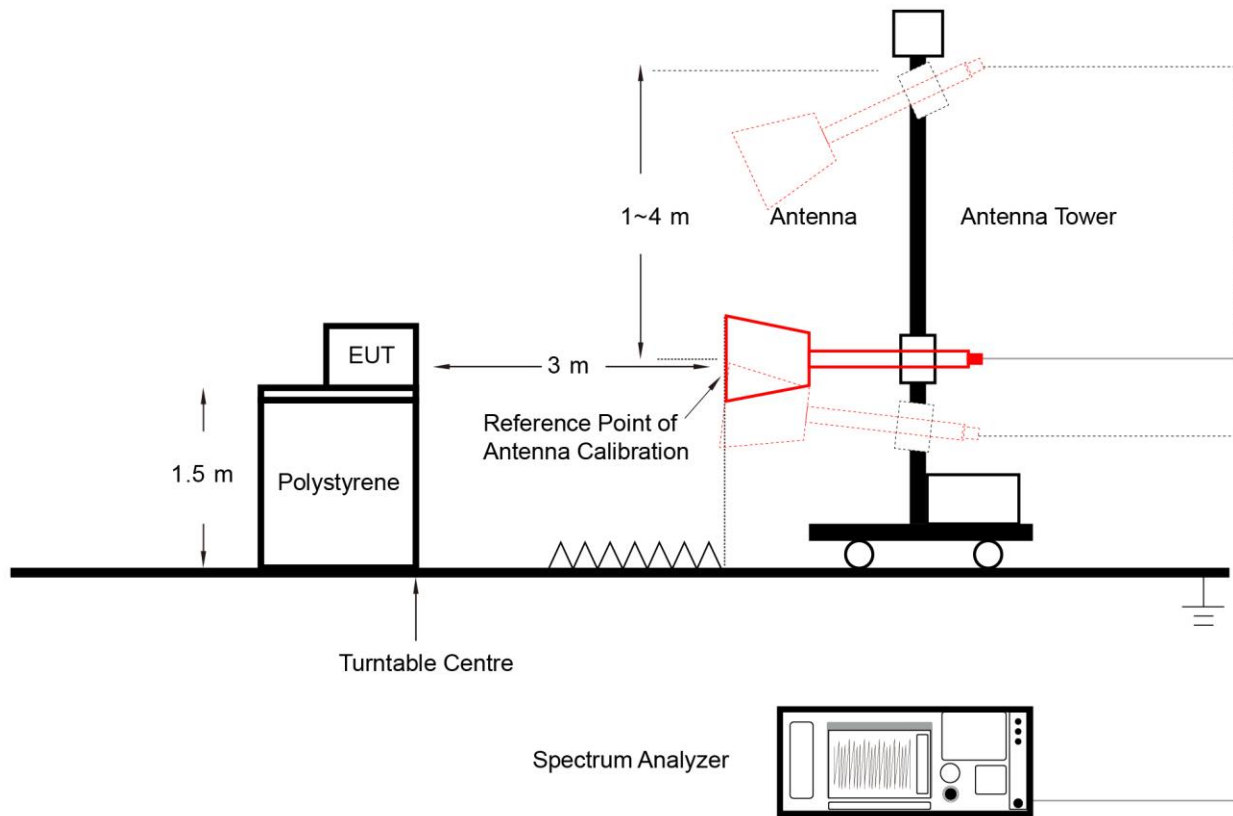
Below 30MHz Test Setup:



Below 1GHz Test Setup:



Above 1GHz Test Setup:



6.8.5. Test Result

Refer to Appendix A.7.

6.9. Radiated Restricted Band Edge Measurement

6.9.1. Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41	--	--	--

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Refer to KDB 789033 D02v02r01 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209		
Frequency [MHz]	Field Strength [μV/m]	Measured Distance [Meters]
0.009 - 0.490	2400/F (kHz)	300
0.490 - 1.705	24000/F (kHz)	30
1.705 - 30	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

6.9.2. Test Procedure

KDB 789033 D02v02r01- Section II)G)

6.9.3. Test Setting

Peak Field Strength Measurements

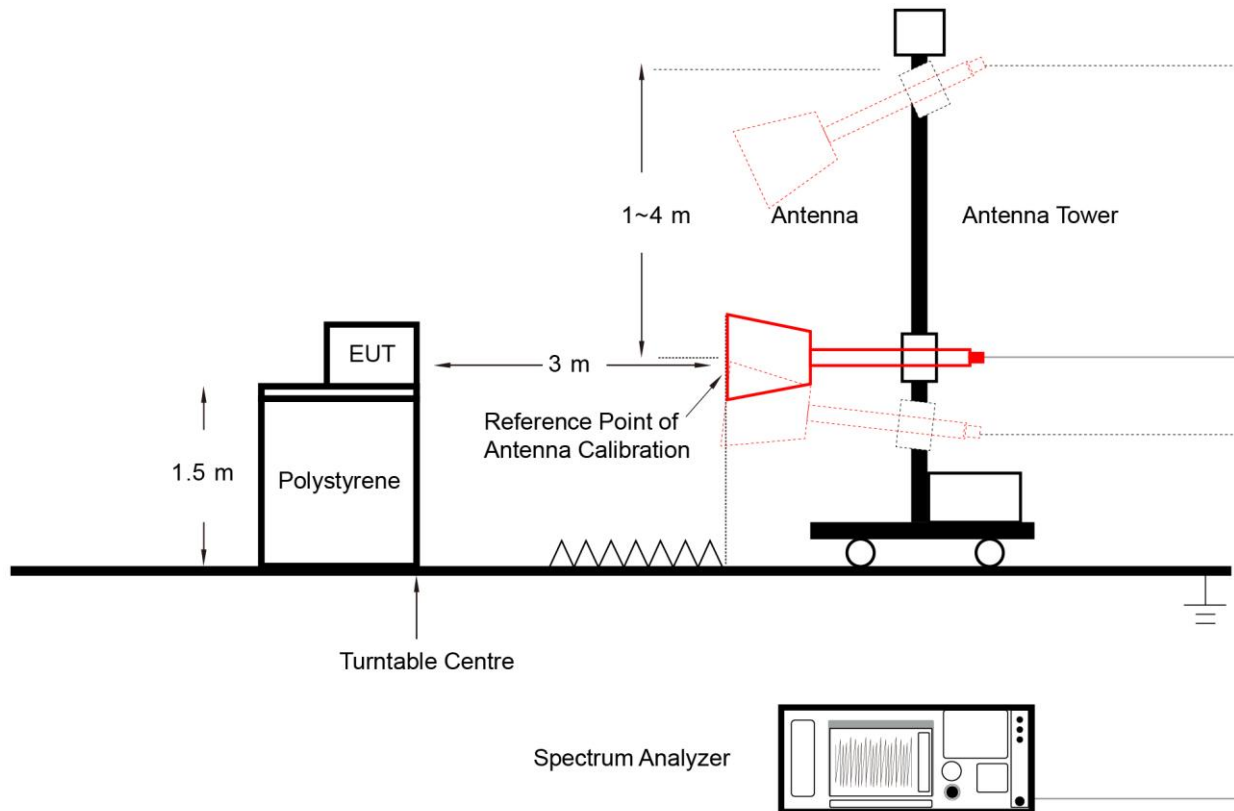
1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW = 3MHz
4. Detector = peak
5. Sweep time = auto couple
6. Trace mode = max hold
7. Trace was allowed to stabilize

Average Field Strength Measurements

1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
2. RBW = 1MHz
3. VBW; If the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW = 10 Hz.

If the EUT duty cycle is $< 98\%$, set $\text{VBW} \geq 1/T$. T is the minimum transmission duration.
4. As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
5. Detector = Peak
6. Sweep time = auto
7. Trace mode = max hold
8. Allow max hold to run for at least 50 times (1/duty cycle) traces

6.9.4. Test Setup



6.9.5. Test Result

Refer to Appendix A.8.

6.10. AC Conducted Emissions Measurement

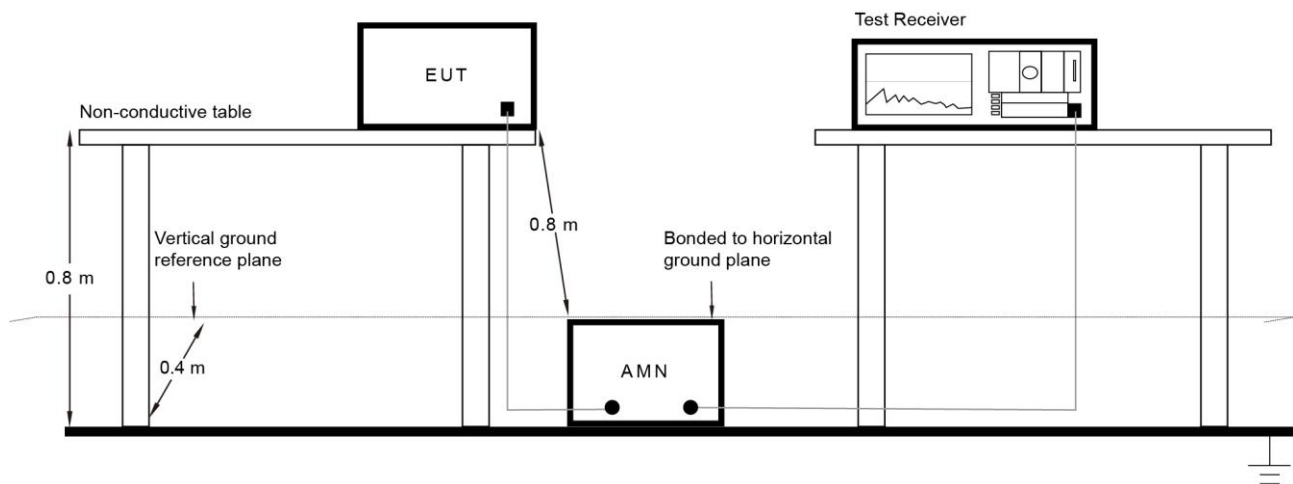
6.10.1. Test Limit

FCC Part 15.207 Limits		
Frequency (MHz)	QP (dB μ V)	AV (dB μ V)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50

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

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.10.2. Test Setup



6.10.3. Test Result

Refer to Appendix A.9.

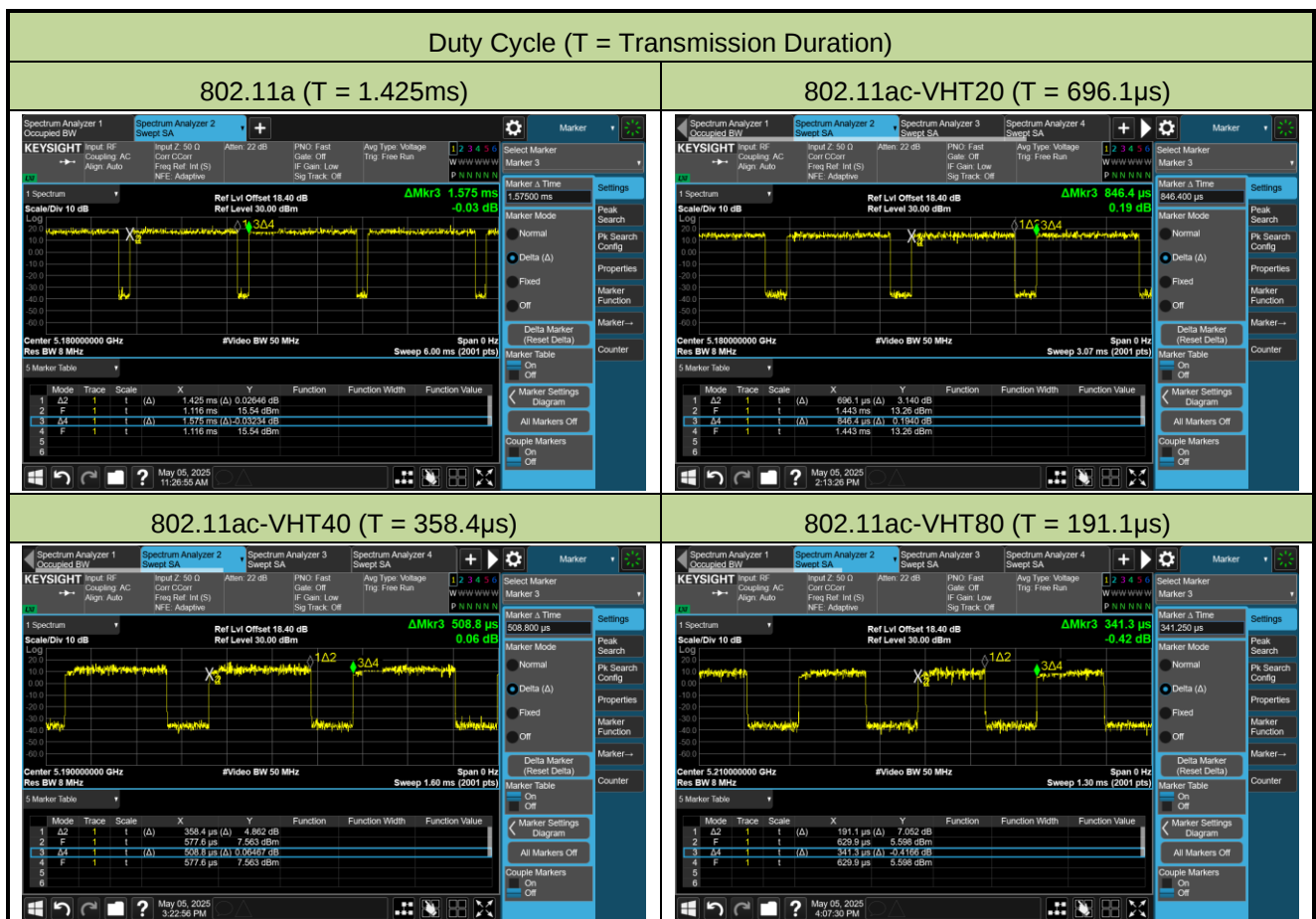
Appendix A – Test Result

A.1 Duty Cycle Test Result

Full RU

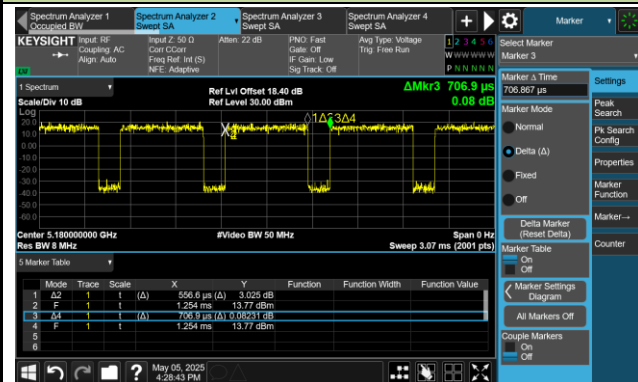
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-05		

Test Mode	Duty Cycle
802.11a	90.48%
802.11ac-VHT20	82.24%
802.11ac-VHT40	70.44%
802.11ac-VHT80	55.99%
802.11ax-HE20	78.74%
802.11ax-HE40	67.65%
802.11ax-HE80	55.10%

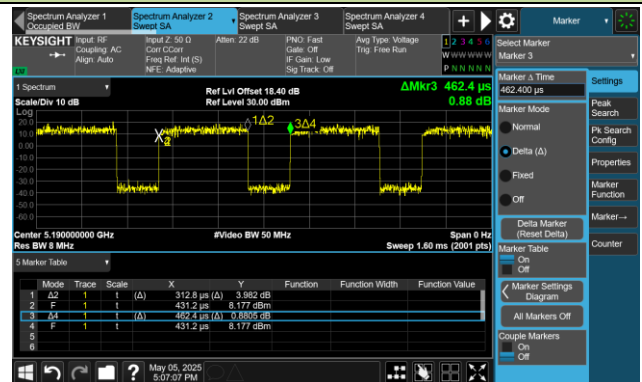


Duty Cycle (T = Transmission Duration)

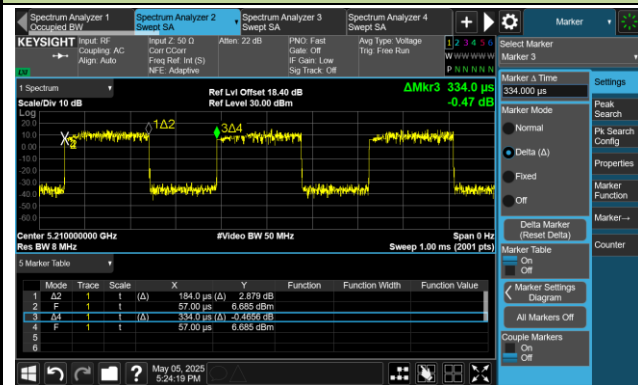
802.11ax-HE20 (T = 556.6µs)



802.11ax-HE40 (T = 312.8µs)



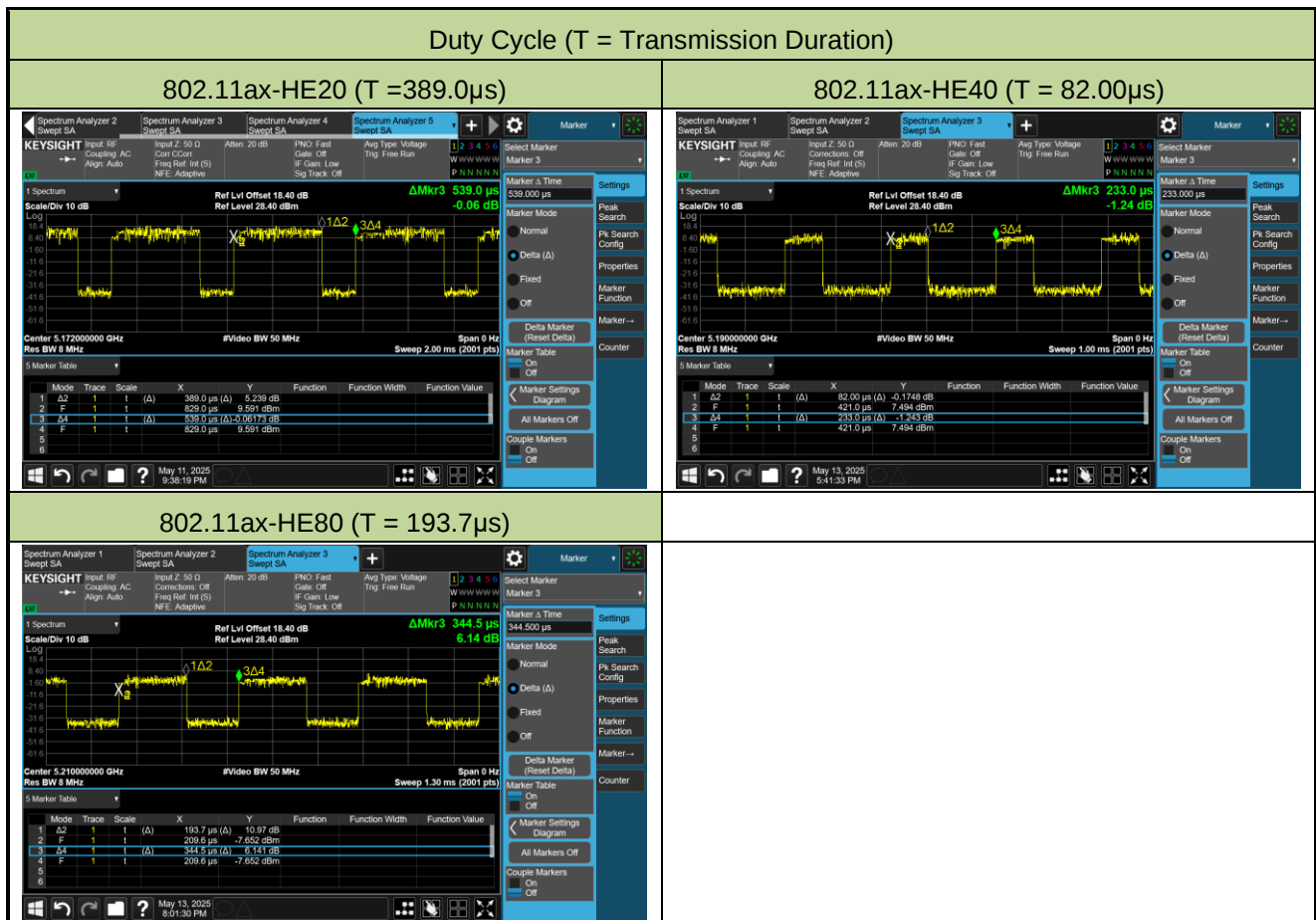
802.11ax-HE80 (T = 184.0µs)



Partial RU

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-11 ~ 2025-05-13		

Test Mode	Duty Cycle
802.11ax-HE20	72.17%
802.11ax-HE40	35.19%
802.11ax-HE80	56.23%



A.2 26dB & 99% Bandwidth Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2025-05-05 ~ 2025-05-24		

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11a	6Mbps	36	5180	21.17	16.629
11a	6Mbps	44	5220	21.14	16.590
11a	6Mbps	48	5240	20.63	16.507
11a	6Mbps	52	5260	21.37	16.785
11a	6Mbps	60	5300	21.05	16.598
11a	6Mbps	64	5320	21.05	16.525
11a	6Mbps	100	5500	22.18	16.869
11a	6Mbps	116	5580	20.62	16.600
11a	6Mbps	140	5700	21.71	16.653
11a	6Mbps	149	5745	20.97	16.552
11a	6Mbps	157	5785	20.86	16.571
11a	6Mbps	165	5825	21.65	16.838
11ac-VHT20	MCS0	36	5180	21.20	17.776
11ac-VHT20	MCS0	44	5220	21.14	17.731
11ac-VHT20	MCS0	48	5240	21.09	17.727
11ac-VHT20	MCS0	52	5260	20.82	17.696
11ac-VHT20	MCS0	60	5300	20.95	17.760
11ac-VHT20	MCS0	64	5320	21.86	18.015
11ac-VHT20	MCS0	100	5500	21.98	18.129
11ac-VHT20	MCS0	116	5580	21.08	17.712
11ac-VHT20	MCS0	140	5700	21.32	17.721
11ac-VHT20	MCS0	149	5745	22.90	18.092
11ac-VHT20	MCS0	157	5785	22.88	17.866
11ac-VHT20	MCS0	165	5825	21.72	17.905

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ac-VHT40	MCS0	38	5190	39.17	36.166
11ac-VHT40	MCS0	46	5230	39.13	36.188
11ac-VHT40	MCS0	54	5270	38.95	36.115
11ac-VHT40	MCS0	62	5310	39.47	36.125
11ac-VHT40	MCS0	102	5510	39.33	36.205
11ac-VHT40	MCS0	110	5550	39.27	36.146
11ac-VHT40	MCS0	134	5670	39.49	36.133
11ac-VHT40	MCS0	151	5755	39.51	36.286
11ac-VHT40	MCS0	159	5795	39.74	36.167
11ac-VHT80	MCS0	42	5210	80.64	75.583
11ac-VHT80	MCS0	58	5290	80.31	75.458
11ac-VHT80	MCS0	106	5530	80.55	75.458
11ac-VHT80	MCS0	122	5610	81.96	75.680
11ac-VHT80	MCS0	155	5775	80.80	75.497
11ax-HE20	MCS0	36	5180	21.28	18.915
11ax-HE20	MCS0	44	5220	21.04	18.878
11ax-HE20	MCS0	48	5240	21.25	18.945
11ax-HE20	MCS0	52	5260	21.49	19.053
11ax-HE20	MCS0	60	5300	21.34	18.946
11ax-HE20	MCS0	64	5320	21.68	18.935
11ax-HE20	MCS0	100	5500	21.23	18.908
11ax-HE20	MCS0	116	5580	21.37	18.963
11ax-HE20	MCS0	140	5700	21.04	18.914
11ax-HE20	MCS0	149	5745	21.03	18.923
11ax-HE20	MCS0	157	5785	21.60	18.954
11ax-HE20	MCS0	165	5825	21.21	18.931

Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
11ax-HE40	MCS0	38	5190	40.38	37.676
11ax-HE40	MCS0	46	5230	39.82	37.632
11ax-HE40	MCS0	54	5270	39.86	37.611
11ax-HE40	MCS0	62	5310	39.52	37.591
11ax-HE40	MCS0	102	5510	39.73	37.636
11ax-HE40	MCS0	110	5550	39.76	37.662
11ax-HE40	MCS0	134	5670	39.60	37.642
11ax-HE40	MCS0	151	5755	39.77	37.556
11ax-HE40	MCS0	159	5795	39.79	37.645
11ax-HE80	MCS0	42	5210	80.90	77.261
11ax-HE80	MCS0	58	5290	80.97	77.091
11ax-HE80	MCS0	106	5530	80.52	77.222
11ax-HE80	MCS0	122	5610	81.08	77.259
11ax-HE80	MCS0	155	5775	81.02	77.271

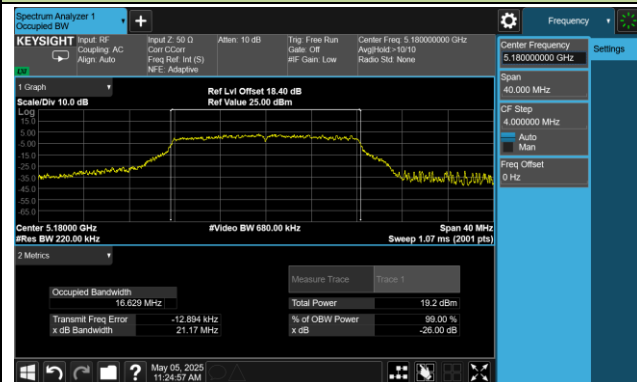
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	F _H (MHz)	Limit (MHz)
802.11a	6Mbps	48	5240	5248.25	< 5250
802.11ac-VHT20	MCS0	48	5240	5248.86	< 5250
802.11ac-VHT40	MCS0	46	5230	5248.09	< 5250
802.11ac-VHT80	MCS0	42	5210	5247.79	< 5250
802.11ax-HE20	MCS0	48	5240	5249.47	< 5250
802.11ax-HE40	MCS0	46	5230	5248.82	< 5250
802.11ax-HE80	MCS0	42	5210	5248.63	< 5250

Note: F_H = Centre frequency + 99% OBW / 2.

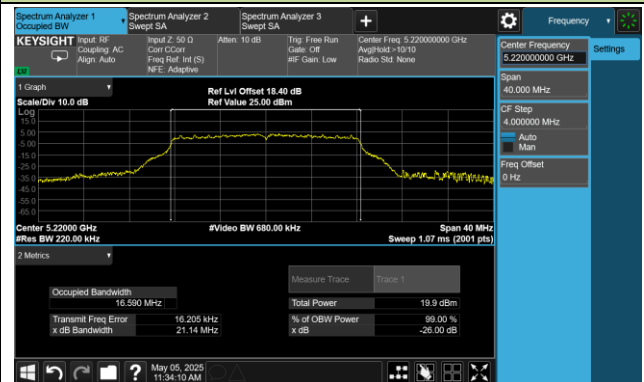
For example, 802.11a 5240MHz, F_H = 5240 MHz + 16.507 MHz / 2 = 5248.25 MHz.

802.11a 26dB Bandwidth & 99% Bandwidth

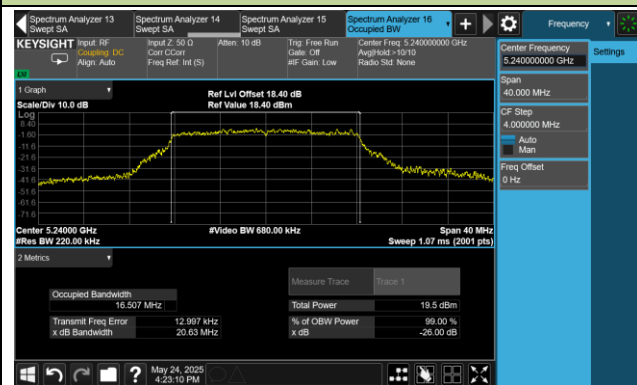
Channel 36 (5180MHz)



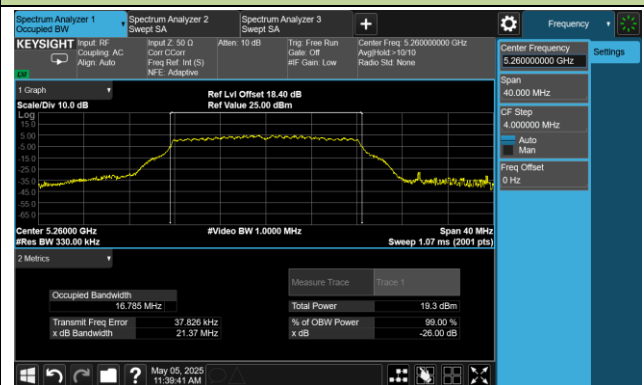
Channel 44 (5220MHz)



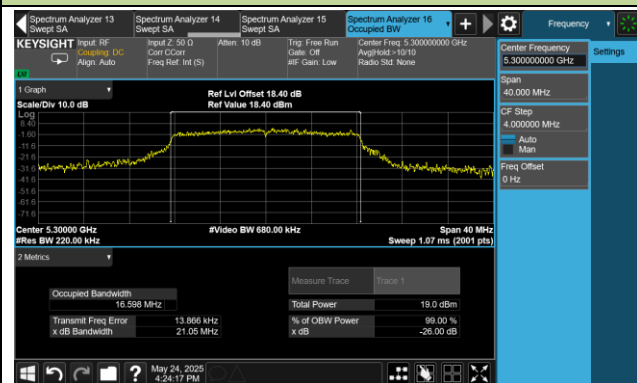
Channel 48 (5240MHz)



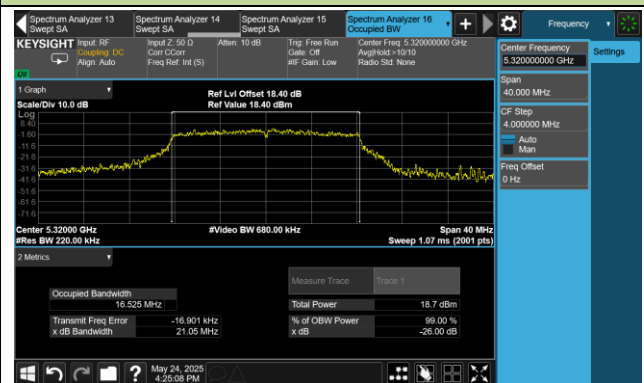
Channel 52 (5260MHz)



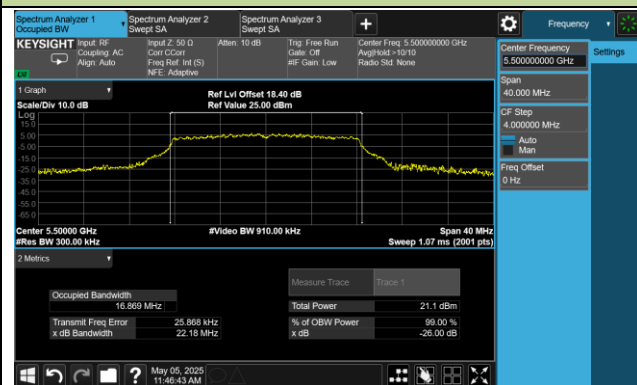
Channel 60 (5300MHz)



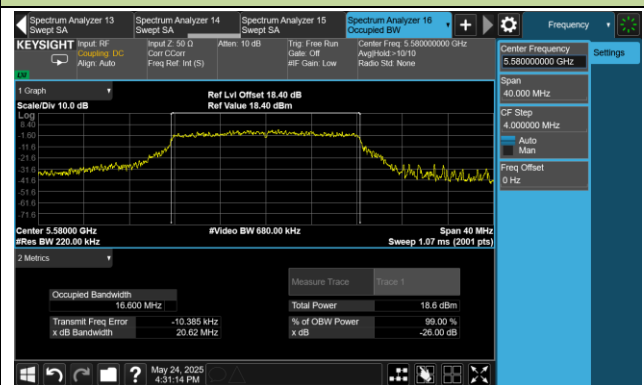
Channel 64 (5320MHz)



Channel 100 (5500MHz)



Channel 116 (5580MHz)

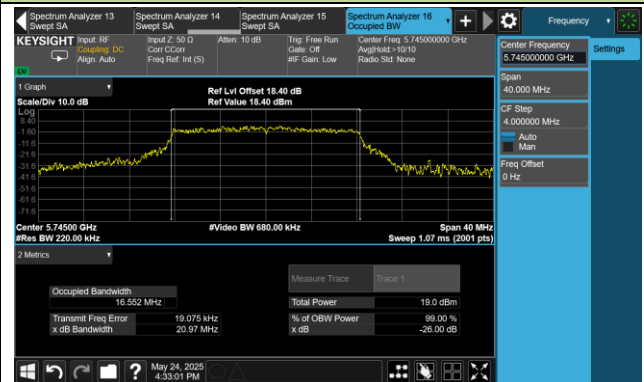


802.11a 26dB Bandwidth & 99% Bandwidth

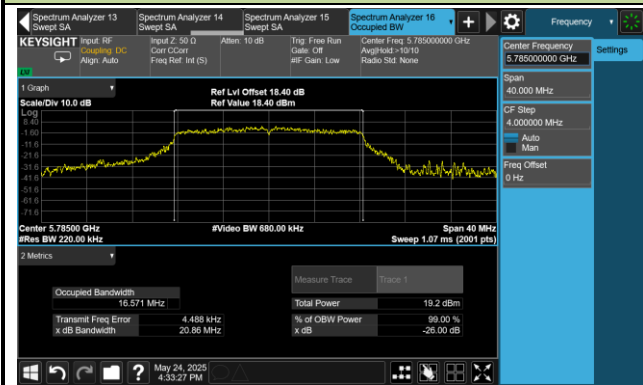
Channel 140 (5700MHz)



Channel 149 (5745MHz)



Channel 157 (5785MHz)



Channel 165 (5825MHz)

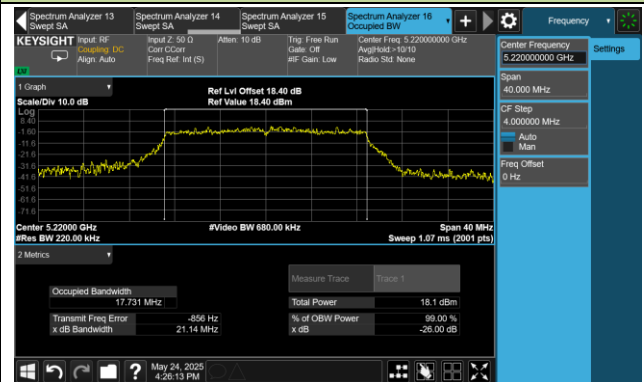


802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

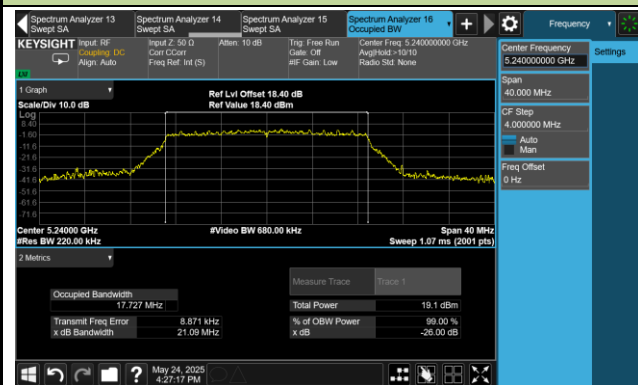
Channel 36 (5180MHz)



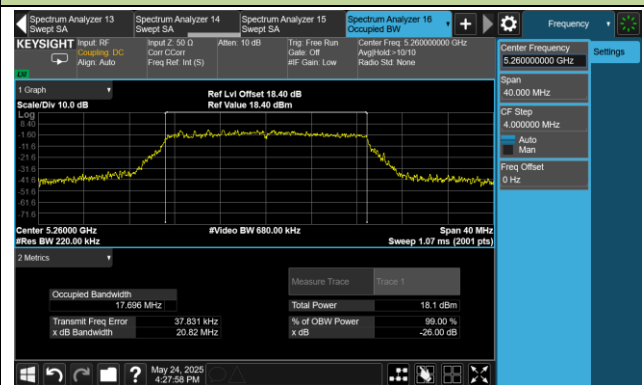
Channel 44 (5220MHz)



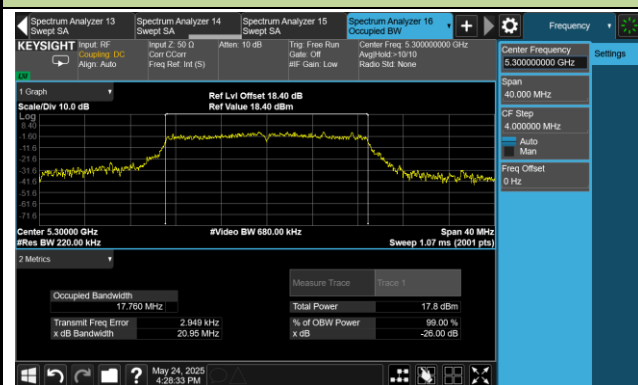
Channel 48 (5240MHz)



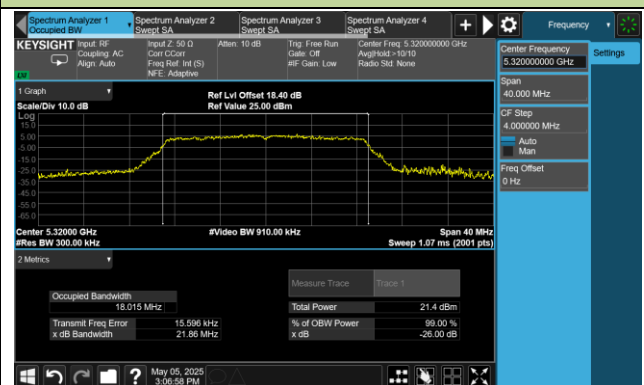
Channel 52 (5260MHz)



Channel 60 (5300MHz)



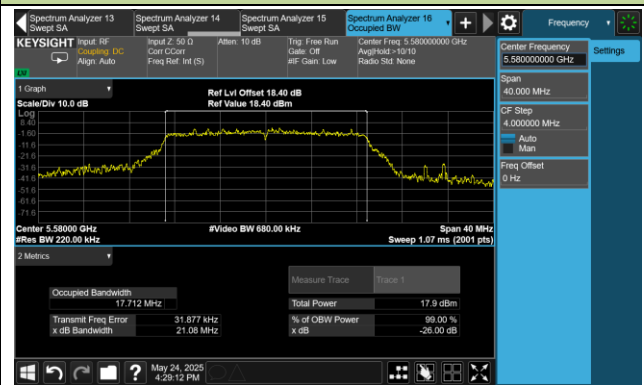
Channel 64 (5320MHz)



Channel 100 (5500MHz)

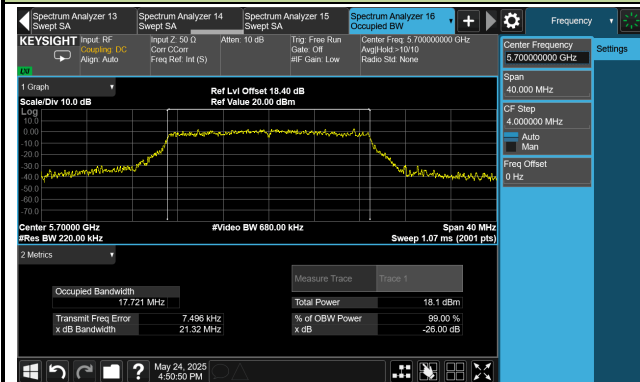


Channel 116 (5580MHz)



802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth

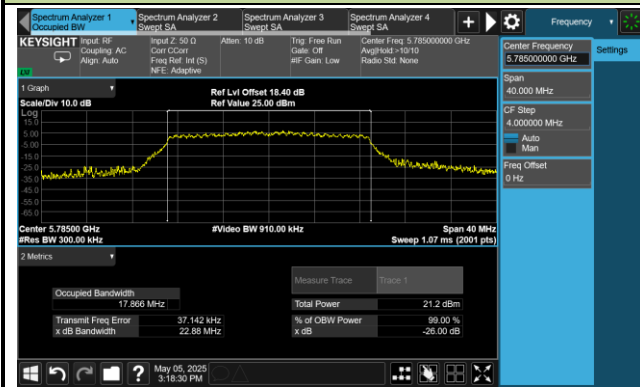
Channel 140 (5700MHz)



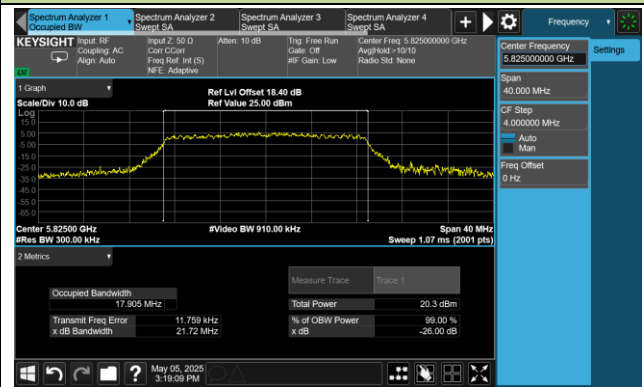
Channel 149 (5745MHz)



Channel 157 (5785MHz)

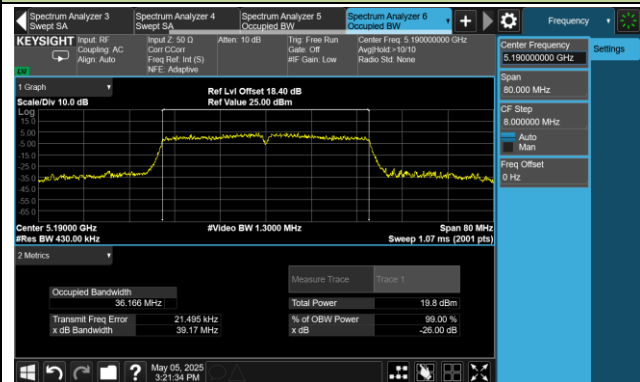


Channel 165 (5825MHz)

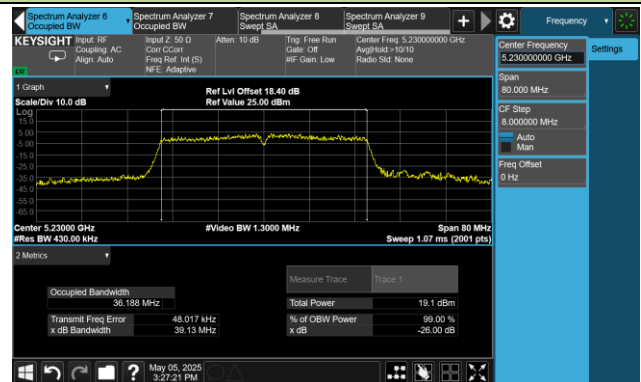


802.11ac-VHT40 26dB Bandwidth & 99% Bandwidth

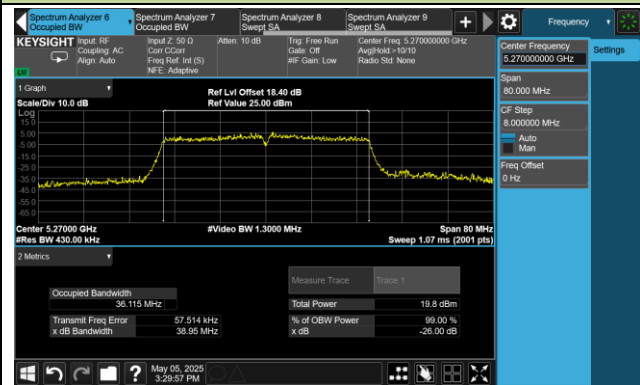
Channel 38 (5190MHz)



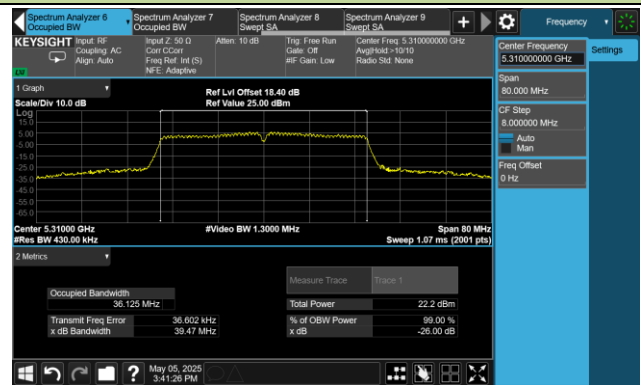
Channel 46 (5230MHz)



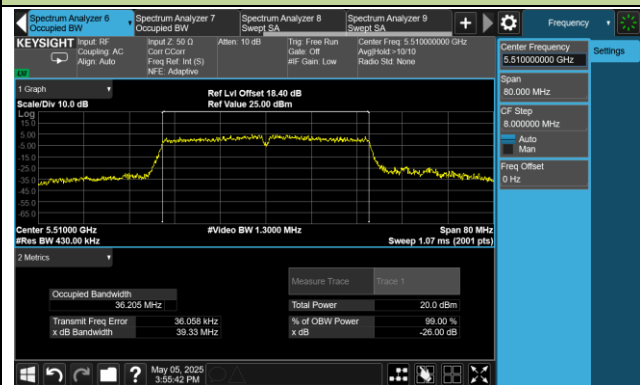
Channel 54 (5270MHz)



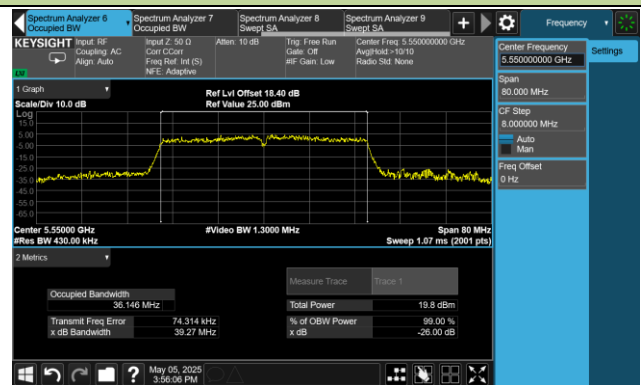
Channel 62 (5310MHz)



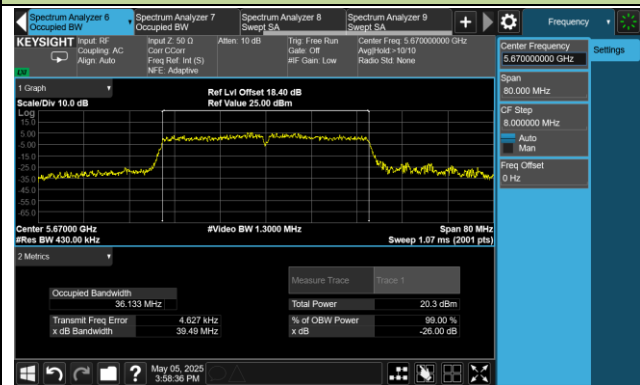
Channel 102 (5510MHz)



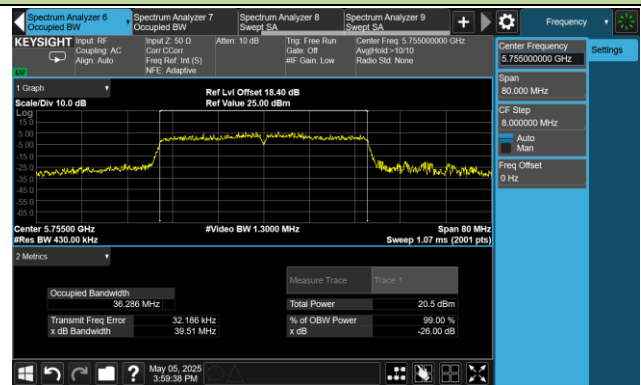
Channel 110 (5550MHz)

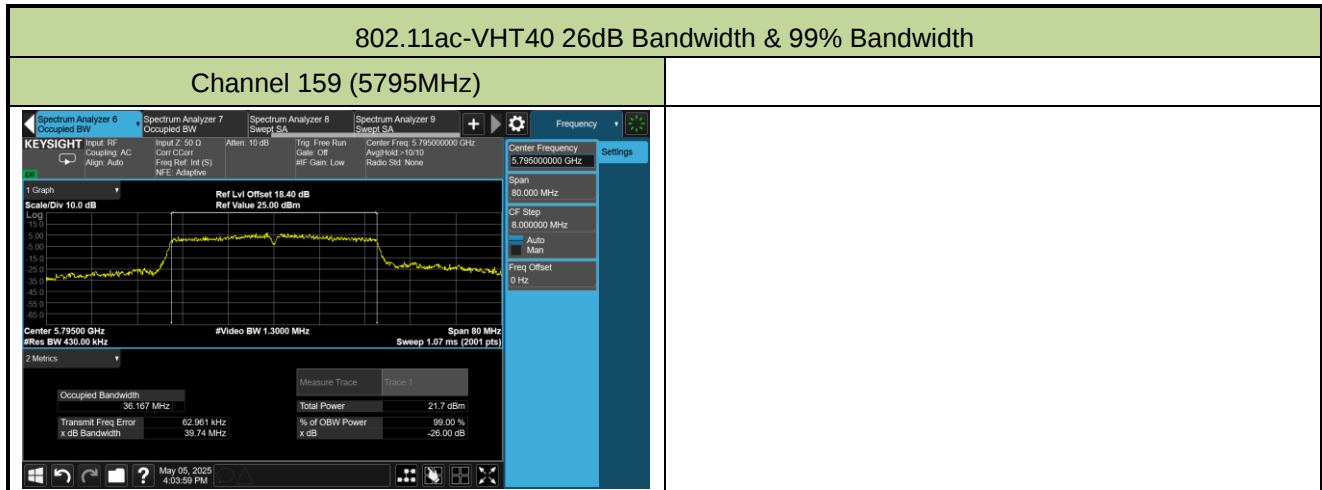


Channel 134 (5670MHz)



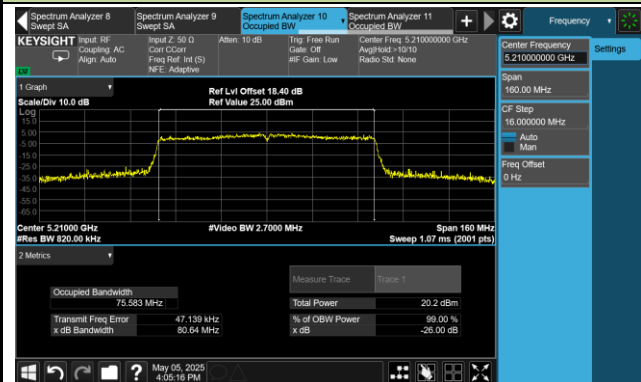
Channel 151 (5755MHz)



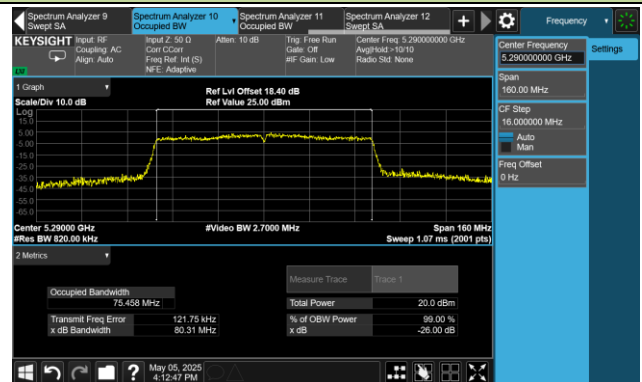


802.11ac-VHT80 26dB Bandwidth & 99% Bandwidth

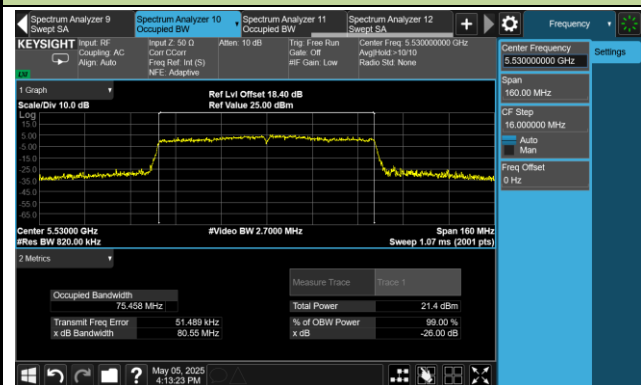
Channel 42 (5210MHz)



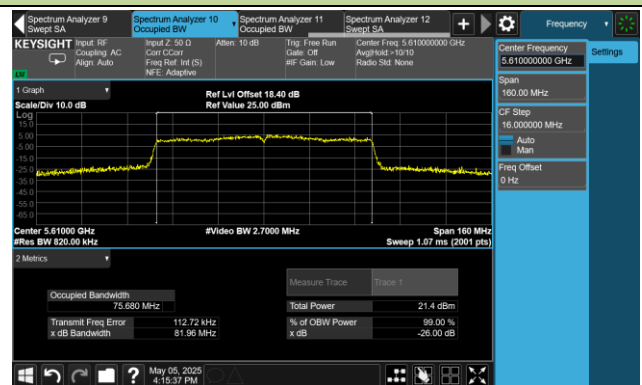
Channel 58 (5290MHz)



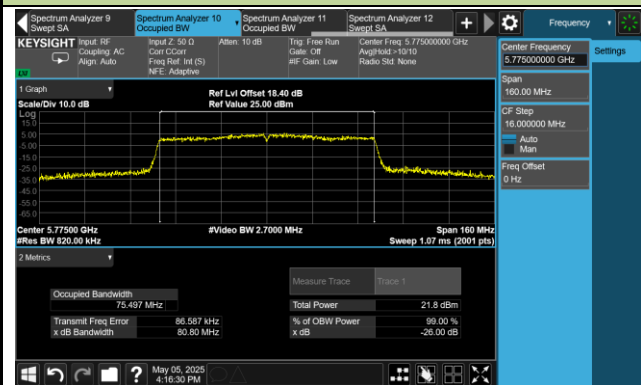
Channel 106 (5530MHz)



Channel 122 (5610MHz)

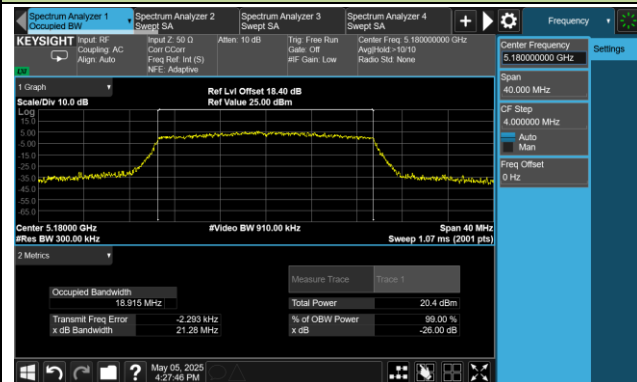


Channel 155 (5775MHz)

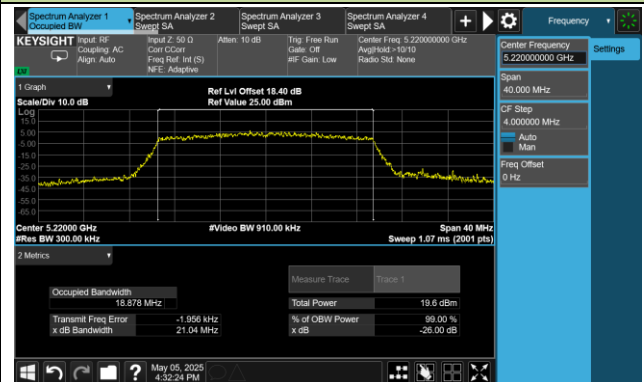


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

Channel 36 (5180MHz)



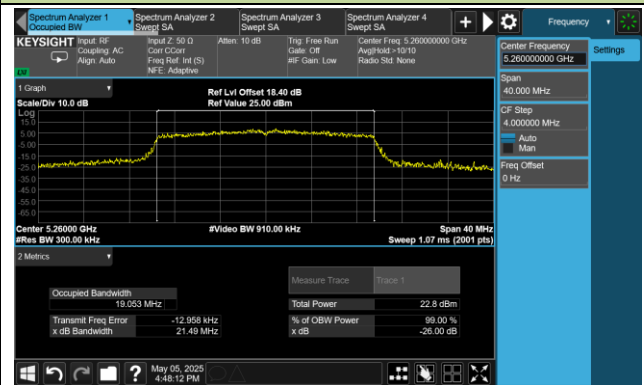
Channel 44 (5220MHz)



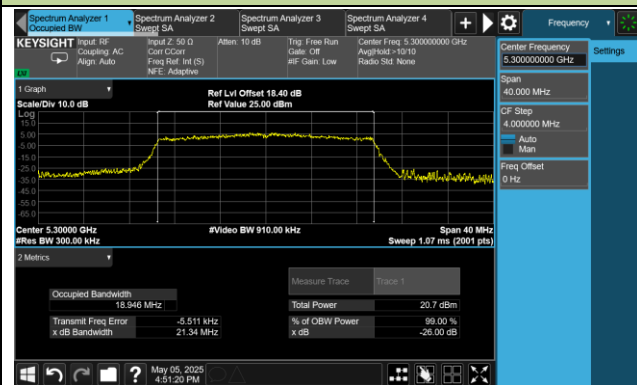
Channel 48 (5240MHz)



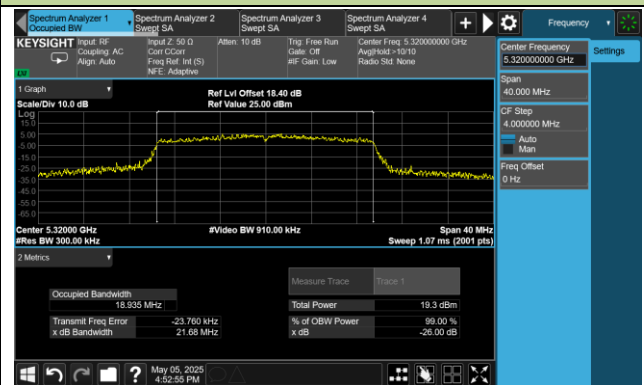
Channel 52 (5260MHz)



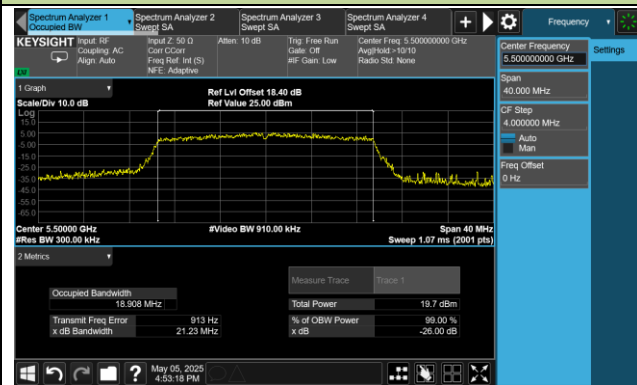
Channel 60 (5300MHz)



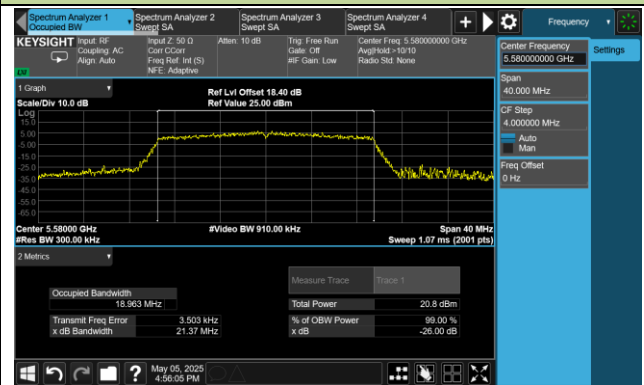
Channel 64 (5320MHz)



Channel 100 (5500MHz)

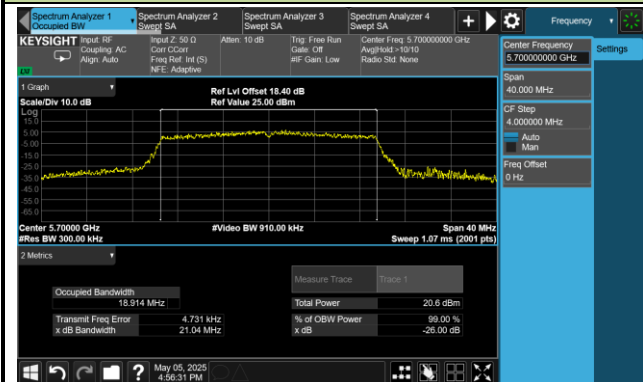


Channel 116 (5580MHz)

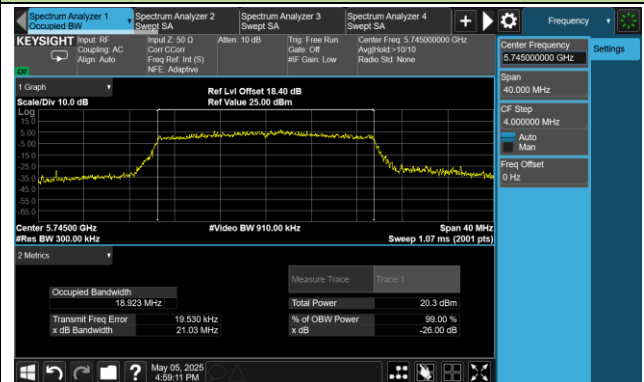


802.11ax-HE20 26dB Bandwidth & 99% Bandwidth

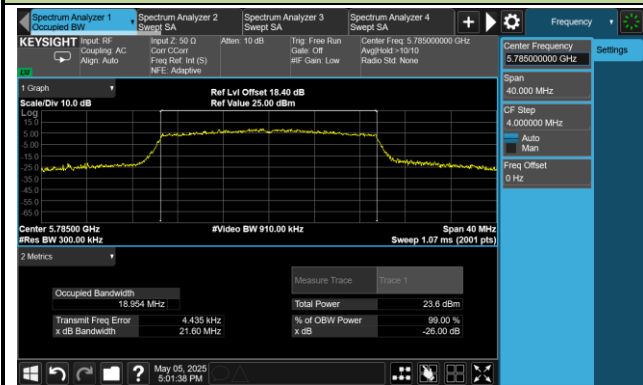
Channel 140 (5700MHz)



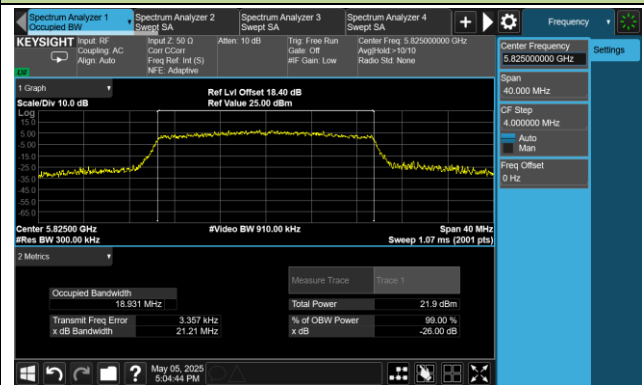
Channel 149 (5745MHz)



Channel 157 (5785MHz)

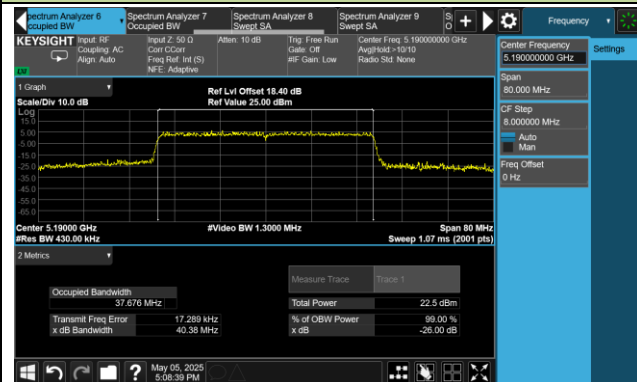


Channel 165 (5825MHz)

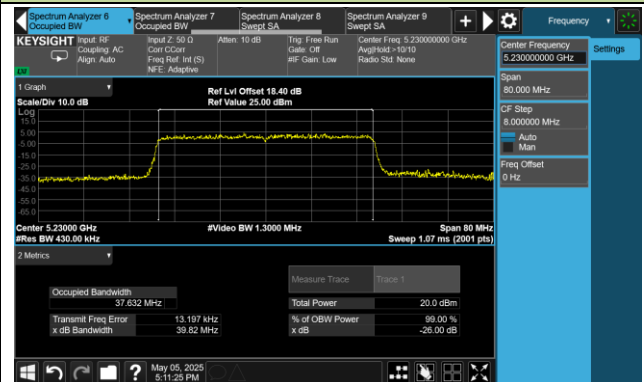


802.11ax-HE40 26dB Bandwidth & 99% Bandwidth

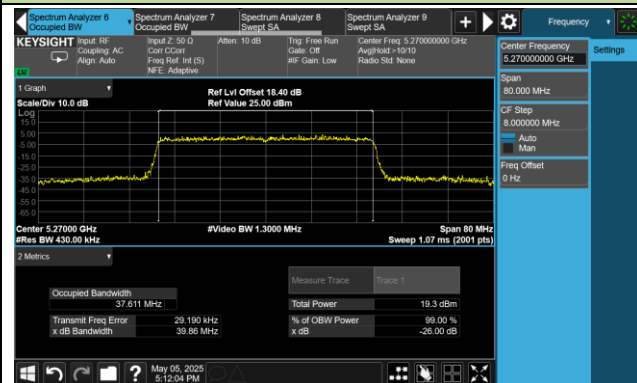
Channel 38 (5190MHz)



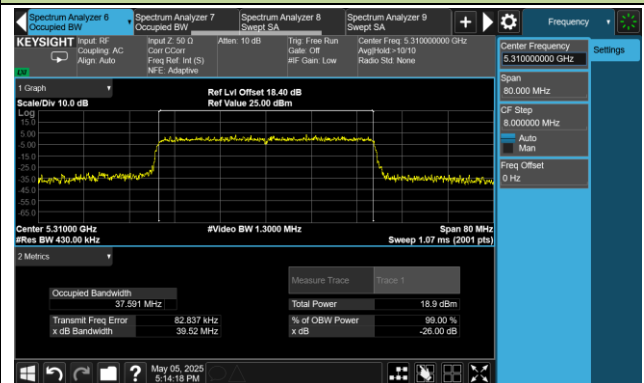
Channel 46 (5230MHz)



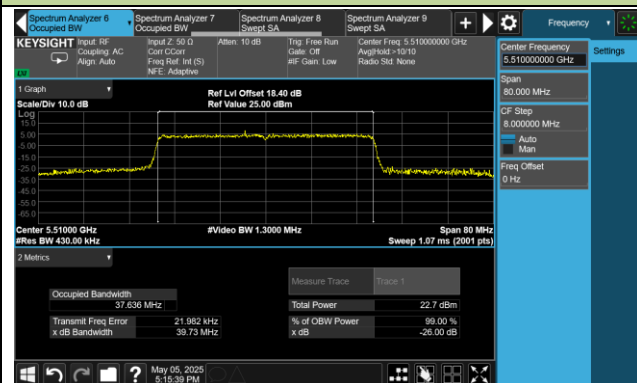
Channel 54 (5270MHz)



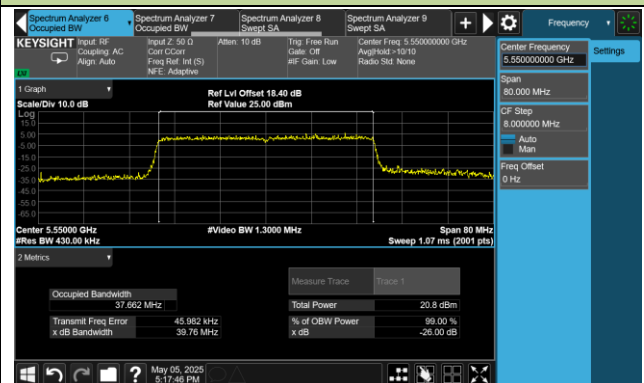
Channel 62 (5310MHz)



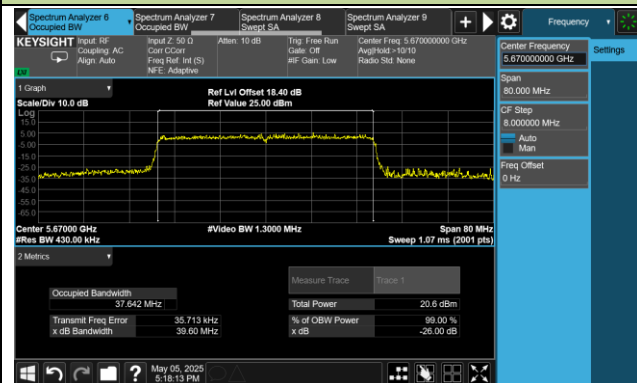
Channel 102 (5510MHz)



Channel 110 (5550MHz)



Channel 134 (5670MHz)



Channel 151 (5755MHz)

