MEASUREMENT REPORT

FCC ID	:	**2BH7FBE22**
Applicant	:	**TP-Link Systems Inc.**
Application Type	:	**Certification**
Product	:	**BE3600 Whole Home Mesh Wi-Fi 7 System**
Model No.	:	**Deco BE22**
Series Model	:	**Deco WB10800、Deco BE3600**
Brand Name	:	**tp-link**
FCC Classification	:	**Unlicensed National Information Infrastructure (NII)**
FCC Rule Part(s)	:	**Part15 Subpart E (Section 15.407)**
Received Date	:	**December 6, 2024**
Test Date	:	**December 10 ~ 25, 2024**

Tested By : Owen Tsai
(Owen Tsai)

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

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 KDB 789033 D02v02r01. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date	Note
2412TW0105-U4	1.0	Original Report	2025-01-13	

CONTENTS

Description Page

General Information

Applicant	TP-Link Systems Inc.
Applicant Address	10 Mauchly, Irvine, CA 92618
Manufacturer	TP-Link Systems Inc.
Manufacturer Address	10 Mauchly, Irvine, CA 92618
Test Site	MRT Technology (Taiwan) Co., Ltd
Test Site Address	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT FCC Registration No.	291082

Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

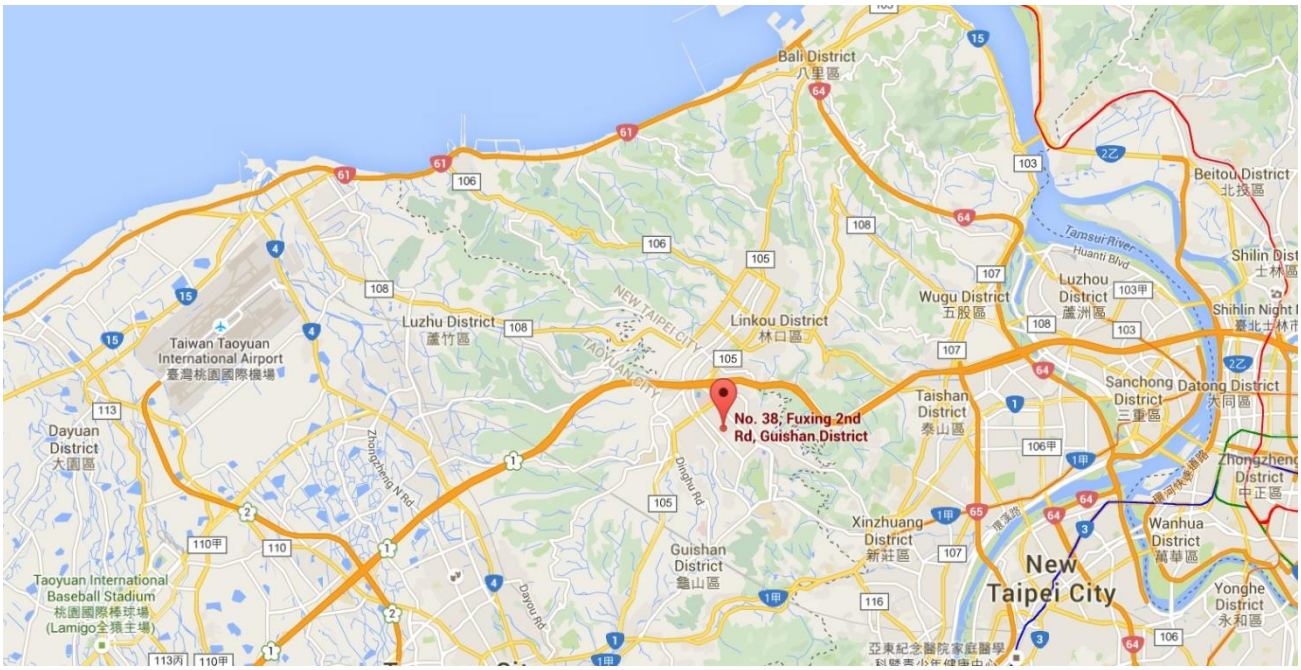
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Innovation, Science and Economic Development Canada and Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	BE3600 Whole Home Mesh Wi-Fi 7 System
Model No.:	Deco BE22
Series Model	Deco WB10800、Deco BE3600
Brand Name:	tp-link
Bluetooth Specification	Bluetooth Mode: V5.4
Wi-Fi Specification:	802.11a/b/g/n/ac/ax/be
EUT Identification No.:	#1-1 (Conducted) #1-2 (Radiated)
Accessory	
Power Adapter	Brand: tp-link Model No: T120150-2B4 Input: AC 100-240V~50/60Hz 0.6A Output: 12.0V⎓1.5A DC Cable Out: Non-Shielded, 1.5m

Note:

1.Model Difference: The difference of models only for marketing different, the other hardware was the same. (declared by the manufacturer)

2.The test was performed base on Deco BE22.

2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20/ac-VHT20/ax-HE20/be-EHT20: 5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40/ax-HE40/be-EHT40: 5190~5230MHz, 5270~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80/ax-HE80/be-EHT80: 5210MHz, 5290MHz, 5530MHz, 5610 MHz, 5690MHz, 5775MHz For 802.11ac-VHT160/ax-HE160/be-EHT160: 5250MHz, 5570MHz
Type of Modulation:	802.11a/n/ac: OFDM 802.11ax/be: OFDMA
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 1733.4Mbps 802.11ax: up to 2402Mbps 802.11be: up to 2882Mbps

Note: For other features of this EUT, test report will be issued separately.

2.3. Working Frequencies for this report

802.11a/n-HT20/ac-VHT20/ax-HE20/be-EHT20

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	144	5720 MHz	149	5745 MHz
153	5765 MHz	157	5785 MHz	161	5805 MHz
165	5825 MHz	--	--	--	--

802.11n-HT40/ac-VHT40/ax-HE40/be-EHT40

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
142	5710 MHz	151	5755 MHz	159	5795 MHz

802.11ac-VHT80/ax-HE80/be-EHT80

Channel	Frequency	Channel	Frequency	Channel	Frequency
42	5210 MHz	58	5290 MHz	106	5530 MHz
122	5610 MHz	138	5690 MHz	155	5775 MHz

802.11ac-VHT160/ax-HE160/be-EHT160

Channel	Frequency	Channel	Frequency	Channel	Frequency
50	5250MHz	114	5570 MHz	--	--

2.4. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	T_X Paths	Number of spatial streams	Max Antenna Gain (dBi)	Beamforming Directional Gain(dBi)	CDD Directional Gain (dBi)	
						For Power	For PSD
BLE & Wi-Fi Antenna							
Dipole	2402 ~ 2480	1	1	0.90	--	--	--
	2412 ~ 2462	2	1	3.17	4.72	3.17	4.72
	5150 ~ 5250	2	1	4.77	6.28	4.77	6.28
	5250 ~ 5350	2	1	5.03	5.82	5.03	5.82
	5470 ~ 5725	2	1	5.29	6.54	5.29	6.54
	5725 ~ 5850	2	1	5.28	5.85	5.28	5.85

Remark:

1. The device supports CDD Mode and Beamforming mode, details refer to the table as below.
2. CDD signals are correlated, the directional gain as follows,

   When N_{SS}=1, for power measurements: Array Gain = 0 dB for $N_{ANT} \leq 4$, the directional gain = max antenna gain + array gain

   For power spectral density (PSD) measurements: the max directional gain (each angle) = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$

   When N_{SS}=4, the Directional Gain = $G_{ANT\ MAX} + 10 \log(N_{ANT}/N_{SS})$ dBi
3. Beamforming signals are correlated, the directional gain as follows,

   the directional gain (each angle) = $10 \log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}]$
4. The information as above is from the antenna report.

Test Mode	T_X Paths	CDD Mode	Beamforming Mode
802.11b/g/n (DTS)	2	√	X
802.11ax/be (DTS)	2	√	√
802.11a/n (NII)	2	√	X
802.11ac/ax/be (NII)	2	√	√

2.5. Test Mode

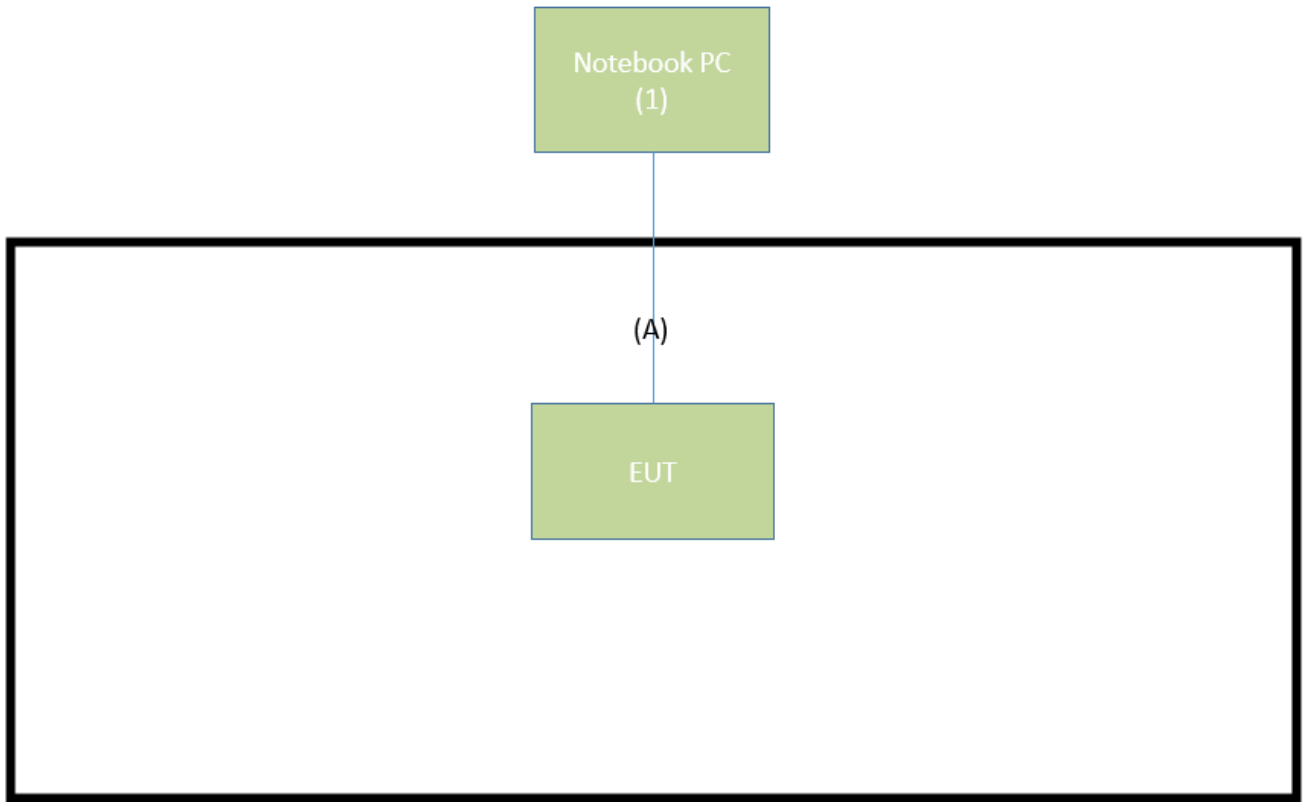
CDD Mode
Mode 1: Transmit by 802.11a_Nss=1 (6Mbps)
Mode 2: Transmit by 802.11ac-VHT20_Nss=1 (MCS0)
Mode 3: Transmit by 802.11ac-VHT40_Nss=1 (MCS0)
Mode 4: Transmit by 802.11ac-VHT80_Nss=1 (MCS0)
Mode 5: Transmit by 802.11ac-VHT160_Nss=1 (MCS0)
Mode 6: Transmit by 802.11ax-HE20_Nss=1 (MCS0)
Mode 7: Transmit by 802.11ax-HE40_Nss=1 (MCS0)
Mode 8: Transmit by 802.11ax-HE80_Nss=1 (MCS0)
Mode 9: Transmit by 802.11ax-HE160_Nss=1 (MCS0)
Mode 10: Transmit by 802.11be-EHT20_N_{SS}=1 (MCS0)
Mode 11: Transmit by 802.11be-EHT40_N_{SS}=1 (MCS0)
Mode 12: Transmit by 802.11be-EHT80_N_{SS}=1 (MCS0)
Mode 13: Transmit by 802.11be-EHT160_N_{SS}=1 (MCS0)
Beamforming Mode
Mode 14: Transmit by 802.11ac-VHT20_N_{SS}=1 (MCS0)
Mode 15: Transmit by 802.11ac-VHT40_N_{SS}=1 (MCS0)
Mode 16: Transmit by 802.11ac-VHT80_N_{SS}=1 (MCS0)
Mode 17: Transmit by 802.11ac-VHT160_N_{SS}=1 (MCS0)
Mode 18: Transmit by 802.11ax-HE20_N_{SS}=1 (MCS0)
Mode 19: Transmit by 802.11ax-HE40_N_{SS}=1 (MCS0)
Mode 20: Transmit by 802.11ax-HE80_N_{SS}=1 (MCS0)
Mode 21: Transmit by 802.11ax-HE160_N_{SS}=1 (MCS0)
Mode 22: Transmit by 802.11be-EHT20_N_{SS}=1 (MCS0)
Mode 23: Transmit by 802.11be-EHT40_N_{SS}=1 (MCS0)
Mode 24: Transmit by 802.11be-EHT80_N_{SS}=1 (MCS0)
Mode 25: Transmit by 802.11be-EHT160_N_{SS}=1 (MCS0)
Remark: 1. For Radiated emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. 2. This device supports 2 N_{SS} and power level of 2 N_{SS} is less than or equal to the power of 1 N_{SS}. 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. Due to CDD mode was the worst mode, so all test items were evaluated in this report. The beamforming mode only evaluated the RF output power.

5. EUT supports one configuration only in 802.11ax/be full RU mode.
6. As Designated by manufacturer, the lowest data rate was the worst condition, so all the tests were done with lowest data rate.

2.6. Configuration of Test System

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



Signal Cable Type		Signal Cable Description
A	Lan Cable	Non-Shielded, 2.4m

2.7. Test System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

No.	Product	Brand	Model No.	Serial No.	Power Cord
1	Notebook PC	Lenovo	V14 G3 ABA	N/A	Non-shielded, 0.8m

2.8. Description of Test Software

The test utility software used during testing was “QSPR”, the version is ver5.0-00202.

Note: Final power setting please refer to operational description.

2.9. Applied Standards

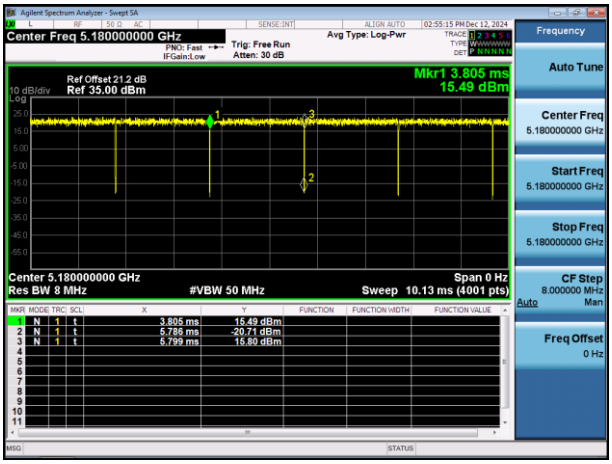
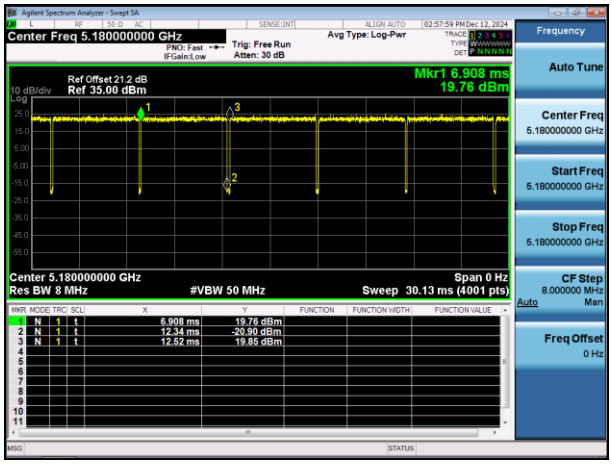
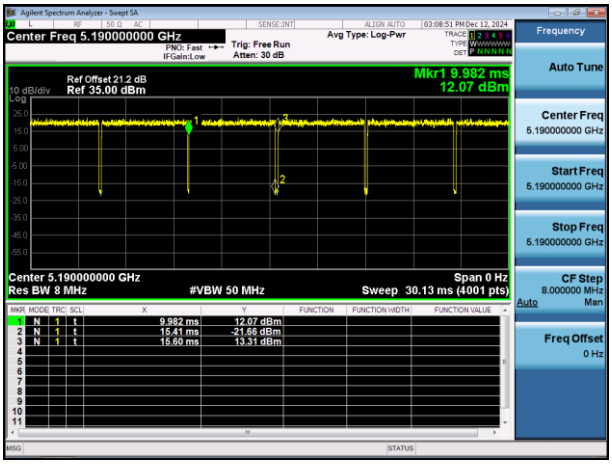
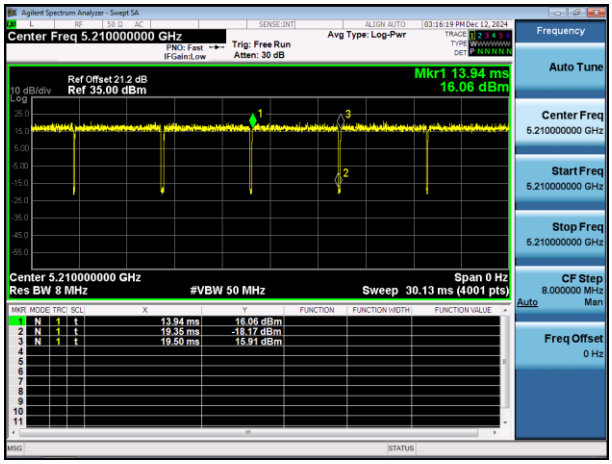
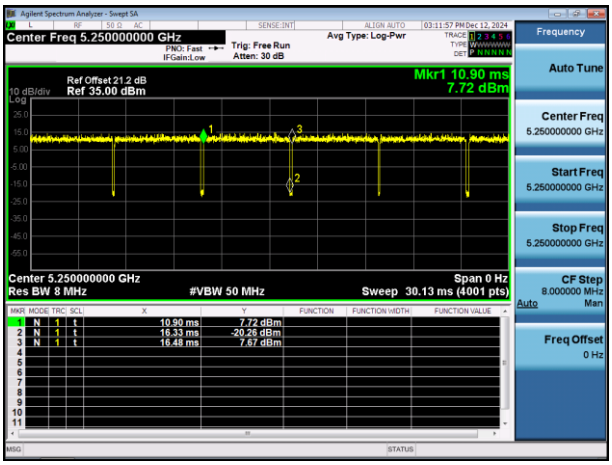
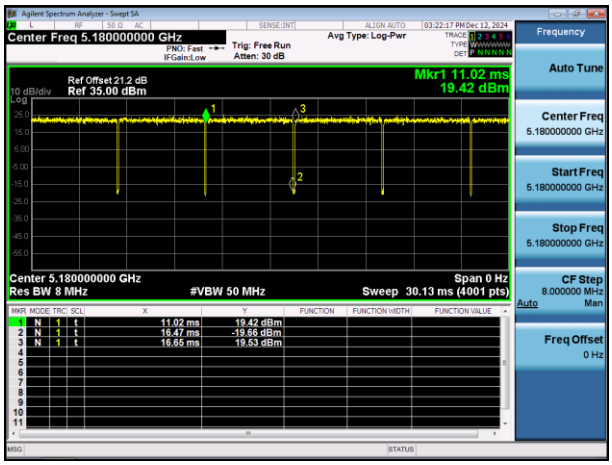
According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

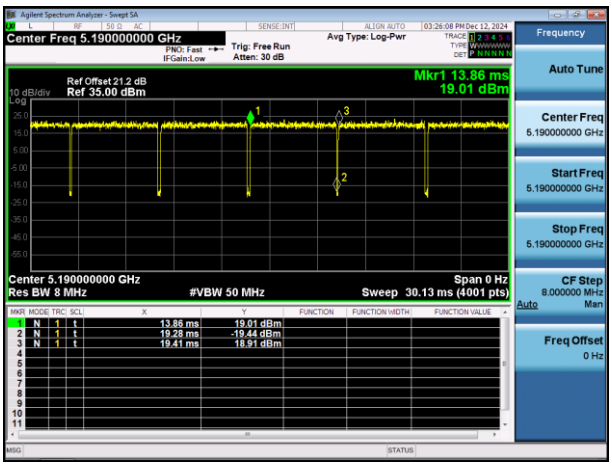
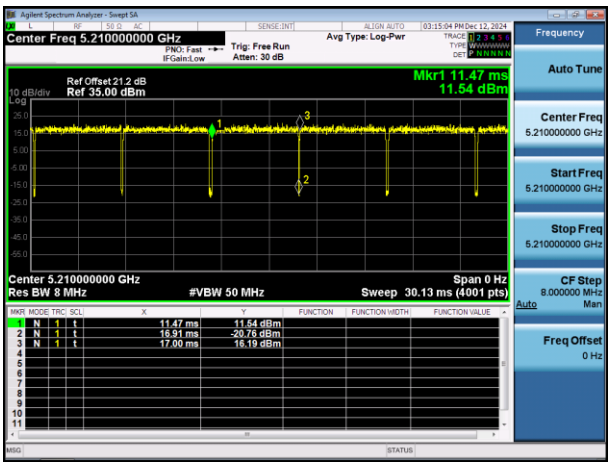
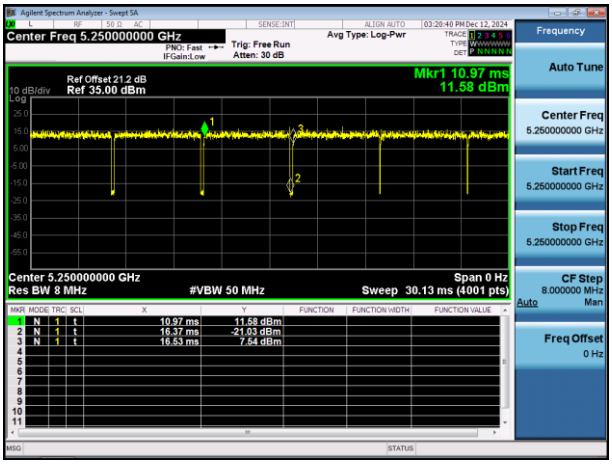
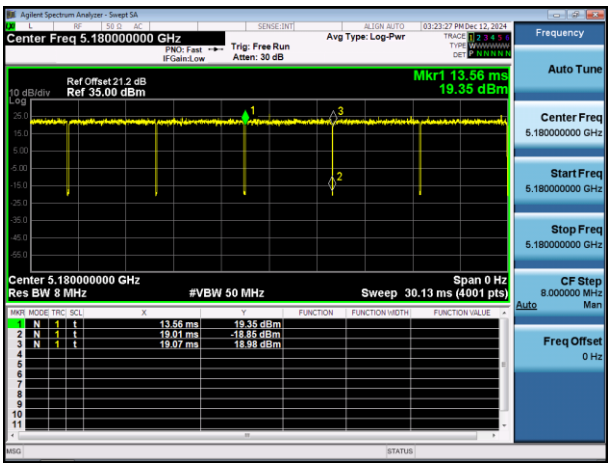
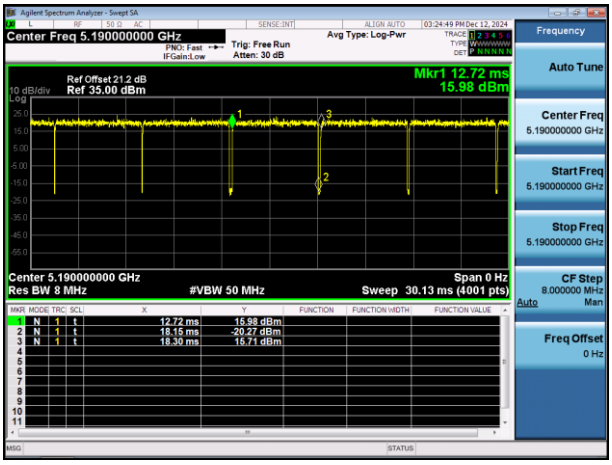
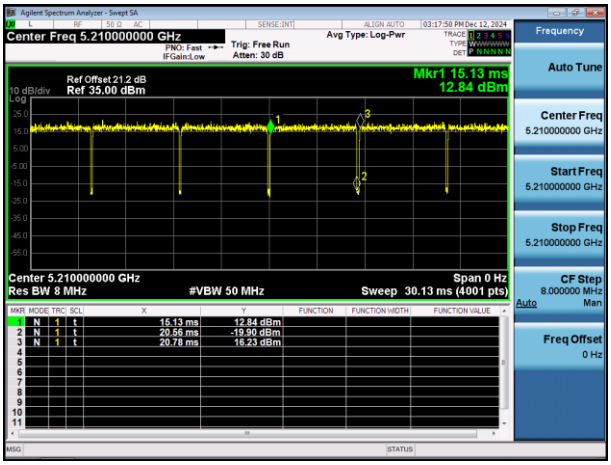
- FCC Part 15.407
- KDB 789033 D02v02r01,
- KDB 662911 D01v02r01
- ANSI C63.10-2013

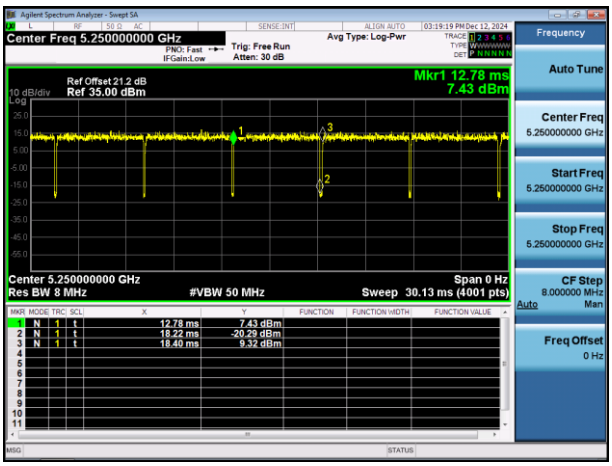
2.10. Duty Cycle

5GHz (NII) operation is possible in 20MHz, 40MHz, 80MHz and 160MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Test Mode	Duty Cycle
802.11a	99.35%
802.11ac-VHT20	96.79%
802.11ac-VHT40	99.62%
802.11ac-VHT80	97.30%
802.11ac-VHT160	97.31%
802.11ax-HE20	96.80%
802.11ax-HE40	97.66%
802.11ax-HE80	98.37%
802.11ax-HE160	97.12%
802.11be-EHT20	98.91%
802.11be-EHT 40	97.31%
802.11be-EHT 80	96.11%
802.11be-EHT 160	96.80%

Duty Cycle (T = Transmission Duration)	
802.11a	802.11ac-VHT20
	
802.11ac-VHT40	802.11ac-VHT80
	
802.11ac-VHT160	802.11ax-HE20
	

802.11ax-HE40	802.11ax-HE80
	
802.11ax-HE160	**802.11be-EHT20**
	
802.11be-EHT40	**802.11be-EHT80**
	

802.11be-EHT160	
	

2.11. Test Configuration

The device was tested per the guidance of KDB 789033 D02v02r01.ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testingand AC line conducted testing.

2.12. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.13. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices (ANSI C63.10-2013), and the guidance provided in KDB 789033 D02v02r01 were used in the measurement.

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.
The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.
Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions are used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.
An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2013.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote-controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An80cm high PVC support structure is placed on top of the turntable.
For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.
Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. 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.

5. TEST EQUIPMENT CALIBRATION DATE

Conducted Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Two-Line V-Network	R&S	ENV216	MRTTWA00020	1 year	2025/4/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2025/3/5
Cable	Rosnol	N1C50-RG400-B 1C50-500CM	MRTTWE00013	1 year	2025/6/14

Radiated Emissions

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Acitve Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	1 year	2025/5/7
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00086	1 year	2025/11/5
Broadband Hornantenna	RFSPIN	DRH18-E	MRTTWA00087	1 year	2025/5/20
Broadband Preamplifier	EMC Instruments corporation	EMC118A45SE	MRTTWA00088	1 year	2025/5/14
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	1 year	2025/3/26
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	1 year	2025/3/21
EMI Test Receiver	R&S	ESR3	MRTTWA00009	1 year	2025/3/5
Signal Analyzer	R&S	FSVA3044	MRTTWA00092	1 year	2025/6/20
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00034	1 year	2025/6/25
Cable	HUBERSUHNER	EMC105-NM-NM -3000	MRTTWE00035	1 year	2025/6/25
Temperature/Humidity Meter	TFA	35.1083	MRTTWA00050	1 year	2025/6/2

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2025/9/24
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2025/8/12
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2025/3/12

Test Software

Software	Version	Function
e3	9.160520a	EMI Test Software

6. 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
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: ± 2.53dB
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: ± 4.25dB 1GHz ~ 40GHz: ± 4.45dB
Conducted Power (Carrier Power / Power Density)
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 0.84dB
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 2.65 dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ± 3.3%
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±0.82°C/ ±3%
Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): ±78.4Hz

7. TEST RESULT

7.1. Summary

FCC Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.407(a)	26dB Bandwidth	N/A	Conducted	Pass	Section7.2
15.407(e)	6dB Bandwidth	≥ 500kHz		Pass	Section 7.3
15.407(a)(1)(ii), (2), (3)	Maximum Conducted Output Power	Refer to section 7.4		Pass	Section 7.4
15.407(h)(1)	Transmit Power Control	≤ 24 dBm		Pass	Section 7.5
15.407(a)(1)(ii), (2), (3), (12)	Peak Power Spectral Density	Refer to section 7.6		Pass	Section 7.6
15.407(g)	Frequency Stability	N/A		Pass	Section 7.7
15.407(b)(1), (2), (3), (4)(i)	Undesirable Emissions	Refer to Section 7.8	Radiated	Pass	Section 7.8 & 7.9
15.205, 15.209 15.407(b)(8), (9), (10)	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in15.209		Pass	
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.10

Notes:

1) Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.
2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
3) 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.

7.2. 26dB Bandwidth Measurement

7.2.1.Test Limit

N/A

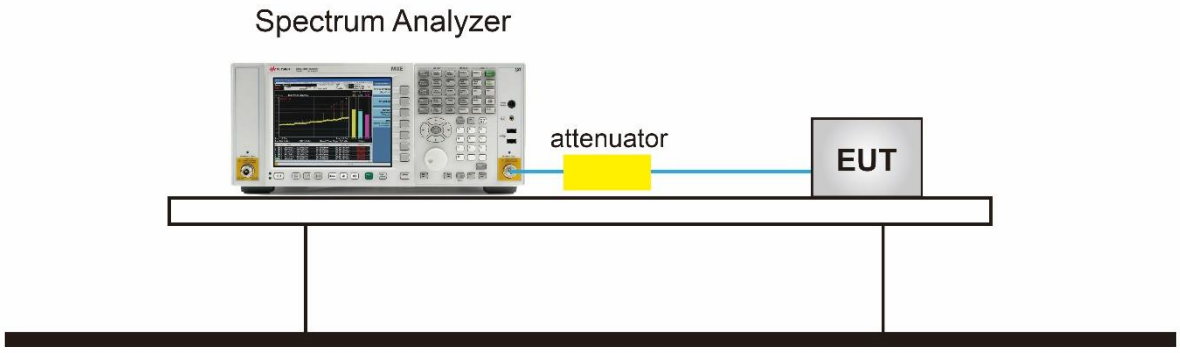
7.2.2.Test Procedure used

KDB 789033 D02v02r01- Section II) C.1) (26dB Bandwidth)
KDB 789033 D02v02r01- Section II) D) (99% Bandwidth)

7.2.3.Test Setting

1. The analyzers' automatic bandwidth measurement capability was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 26. The automatic bandwidth measurement function also has the capability of simultaneously measuring the 99% occupied bandwidth. The bandwidth measurement was not influenced by any intermediated power nulls in the fundamental emission.
2. RBW = approximately 1% of the emission bandwidth.
3. VBW ≥ 3×RBW.
4. Detector = Peak.
5. Trace mode = max hold.

7.2.4.Test Setup



7.2.5.Test Result

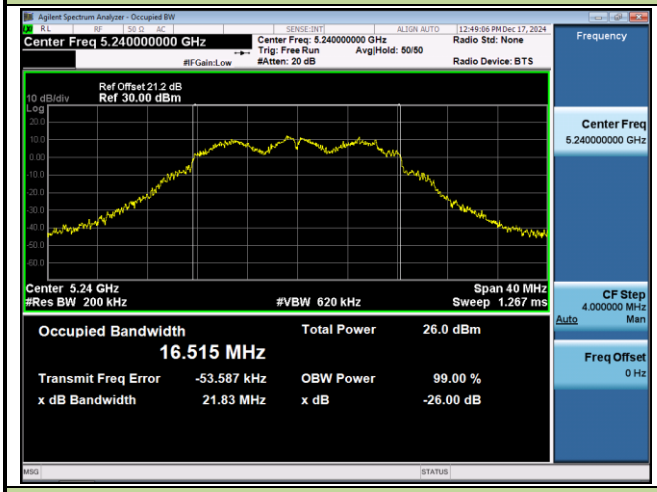
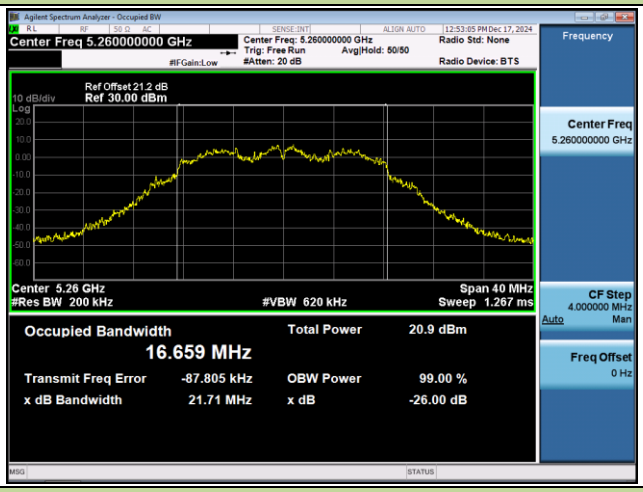
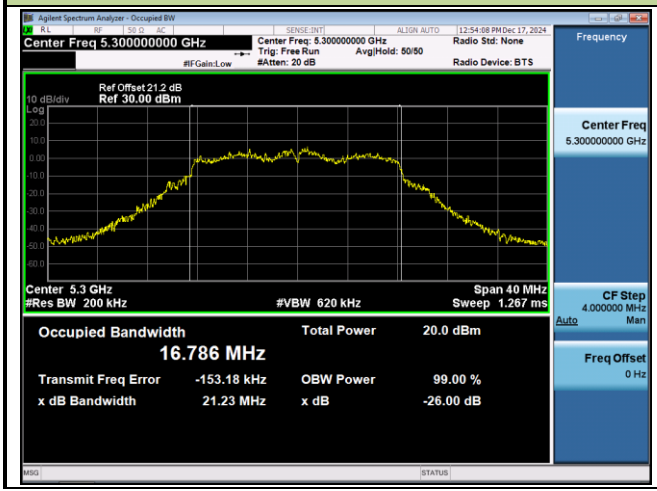
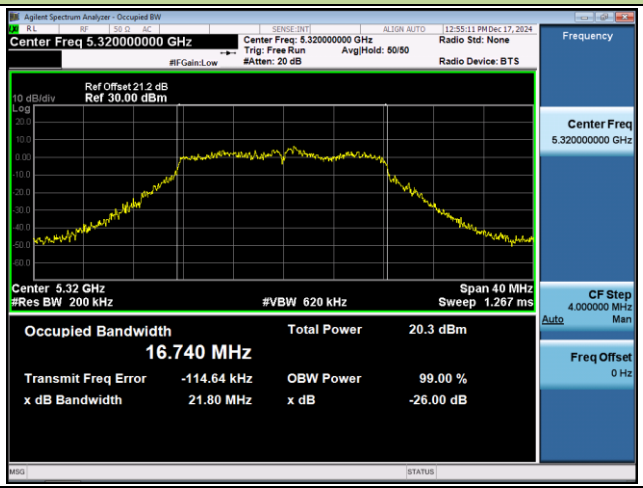
Product	BE3600 Whole Home Mesh Wi-Fi 7 System	Temperature	20°C
Test Engineer	Peter	Relative Humidity	54%
Test Site	SR6	Test Date	2024/12/17

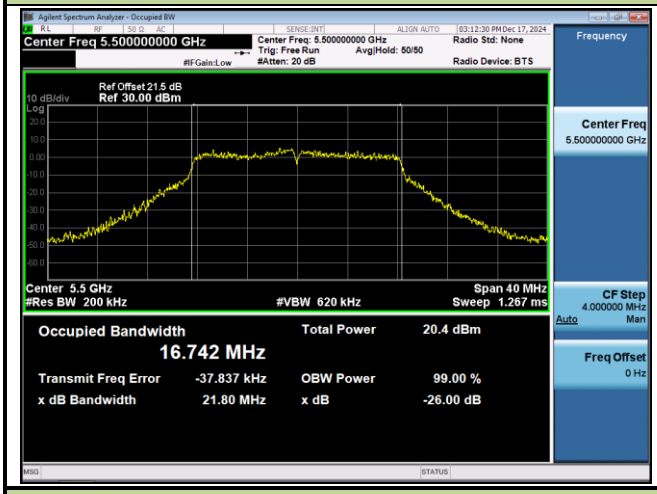
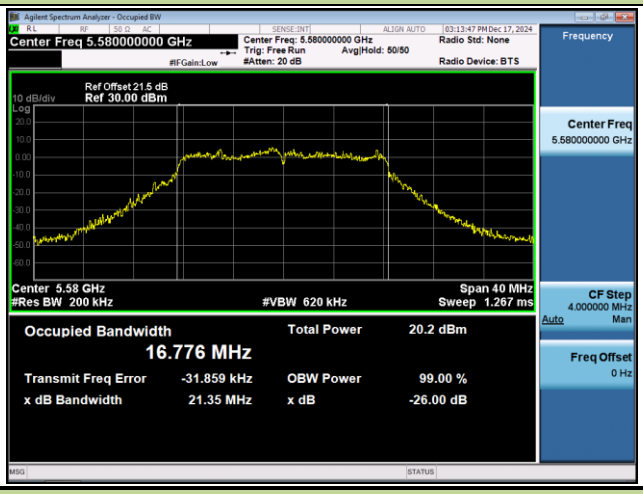
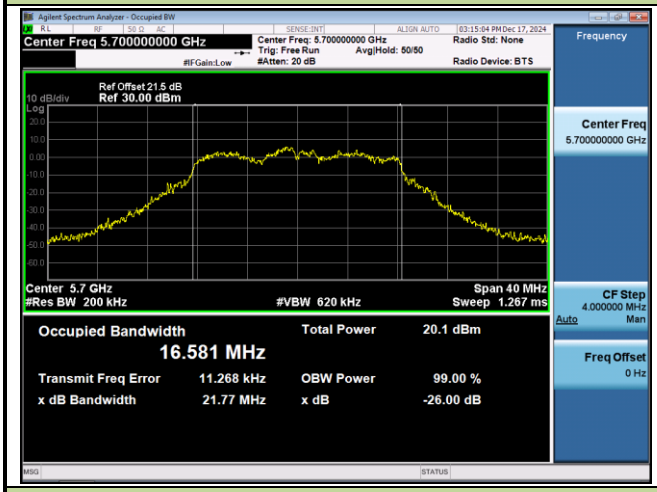
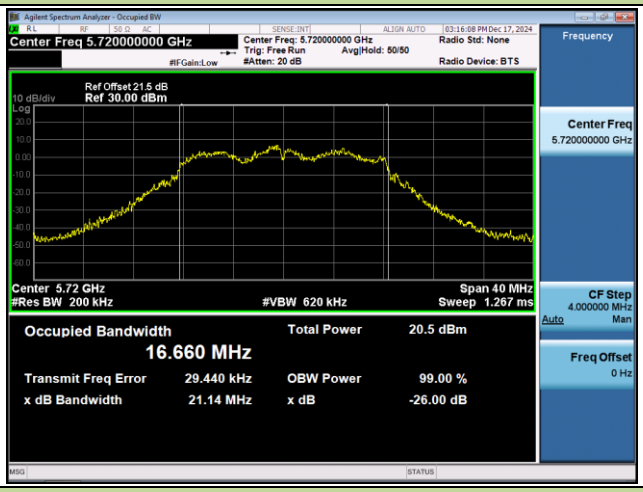
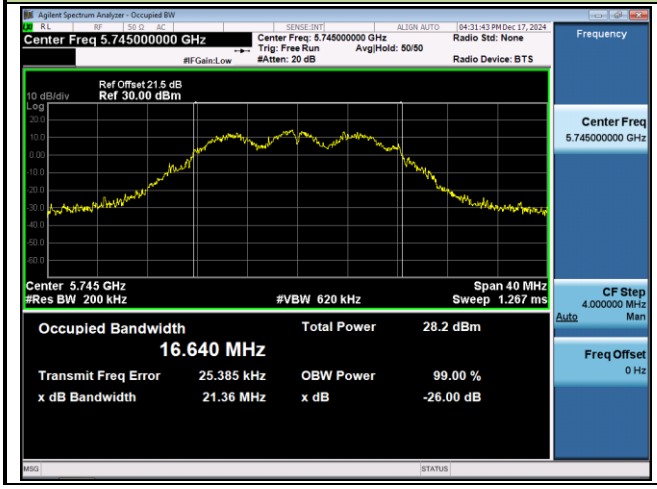
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11a	6Mbps	36	5180	21.360	16.730
802.11a	6Mbps	40	5200	21.470	16.616
802.11a	6Mbps	48	5240	21.830	16.515
802.11a	6Mbps	52	5260	21.710	16.659
802.11a	6Mbps	60	5300	21.230	16.786
802.11a	6Mbps	64	5320	21.800	16.740
802.11a	6Mbps	100	5500	21.800	16.742
802.11a	6Mbps	116	5580	21.350	16.776
802.11a	6Mbps	140	5700	21.770	16.581
802.11a	6Mbps	144	5720	21.140	16.660
802.11a	6Mbps	149	5745	21.360	16.640
802.11a	6Mbps	157	5785	21.720	16.558
802.11a	6Mbps	165	5825	22.250	16.960
802.11ac-VHT20	MCS0	36	5180	20.630	17.163
802.11ac-VHT20	MCS0	40	5200	20.810	17.176
802.11ac-VHT20	MCS0	48	5240	20.870	17.320
802.11ac-VHT20	MCS0	52	5260	20.700	17.408
802.11ac-VHT20	MCS0	60	5300	22.140	17.611
802.11ac-VHT20	MCS0	64	5320	22.270	17.723
802.11ac-VHT20	MCS0	100	5500	22.280	17.832
802.11ac-VHT20	MCS0	116	5580	22.020	17.806
802.11ac-VHT20	MCS0	140	5700	21.560	17.582
802.11ac-VHT20	MCS0	144	5720	21.340	17.525
802.11ac-VHT20	MCS0	149	5745	19.950	17.213
802.11ac-VHT20	MCS0	157	5785	20.060	17.113
802.11ac-VHT20	MCS0	165	5825	19.760	16.982

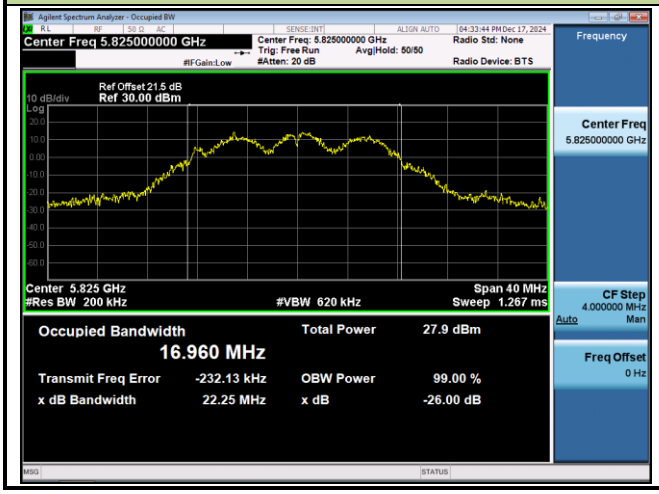
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11ac-VHT40	MCS0	38	5190	42.920	36.571
802.11ac-VHT40	MCS0	46	5230	43.390	36.723
802.11ac-VHT40	MCS0	54	5270	43.260	36.588
802.11ac-VHT40	MCS0	62	5310	43.140	36.542
802.11ac-VHT40	MCS0	102	5510	42.920	36.371
802.11ac-VHT40	MCS0	110	5550	43.020	36.419
802.11ac-VHT40	MCS0	134	5670	42.790	36.550
802.11ac-VHT40	MCS0	142	5710	42.580	36.530
802.11ac-VHT40	MCS0	151	5755	43.310	36.675
802.11ac-VHT40	MCS0	159	5795	44.090	36.796
802.11ac-VHT80	MCS0	42	5210	84.630	76.240
802.11ac-VHT80	MCS0	58	5290	83.160	75.984
802.11ac-VHT80	MCS0	106	5530	87.430	76.164
802.11ac-VHT80	MCS0	122	5610	84.950	76.098
802.11ac-VHT80	MCS0	138	5690	85.540	76.112
802.11ac-VHT80	MCS0	155	5775	86.100	76.262
802.11ac-VHT160	MCS0	50	5250	170.000	154.720
802.11ac-VHT160	MCS0	114	5570	173.500	155.790
802.11ax-HE20	MCS0	36	5180	20.820	18.502
802.11ax-HE20	MCS0	40	5200	20.880	18.657
802.11ax-HE20	MCS0	48	5240	20.560	18.520
802.11ax-HE20	MCS0	52	5260	20.520	18.675
802.11ax-HE20	MCS0	60	5300	21.270	18.854
802.11ax-HE20	MCS0	64	5320	21.410	18.897
802.11ax-HE20	MCS0	100	5500	22.390	19.010
802.11ax-HE20	MCS0	116	5580	21.790	18.983
802.11ax-HE20	MCS0	140	5700	21.680	18.835
802.11ax-HE20	MCS0	144	5720	21.070	18.735
802.11ax-HE20	MCS0	149	5745	19.850	18.459
802.11ax-HE20	MCS0	157	5785	19.870	18.254
802.11ax-HE20	MCS0	165	5825	19.980	18.127

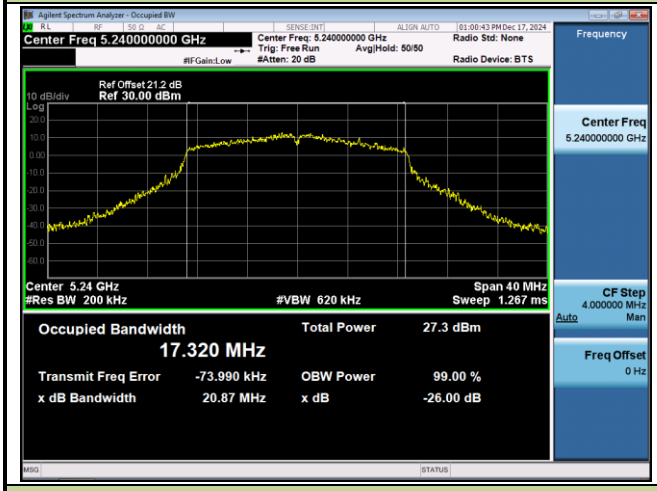
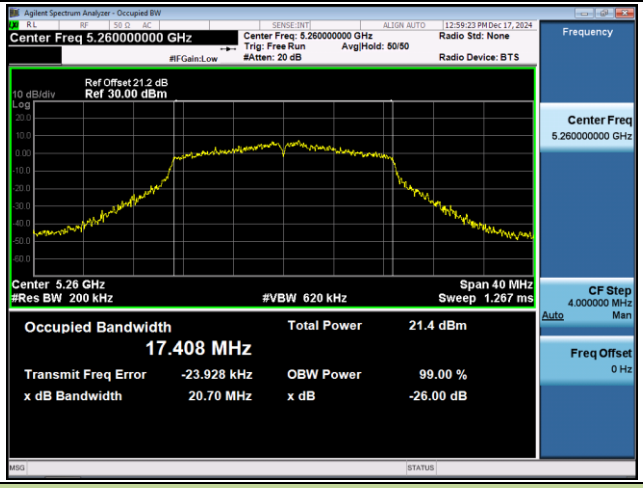
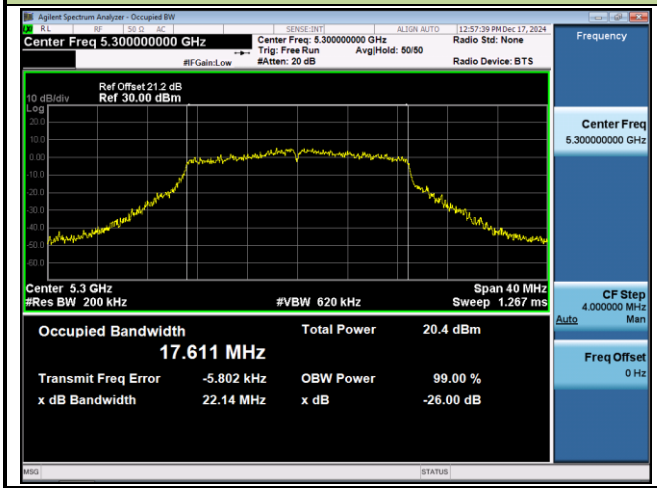
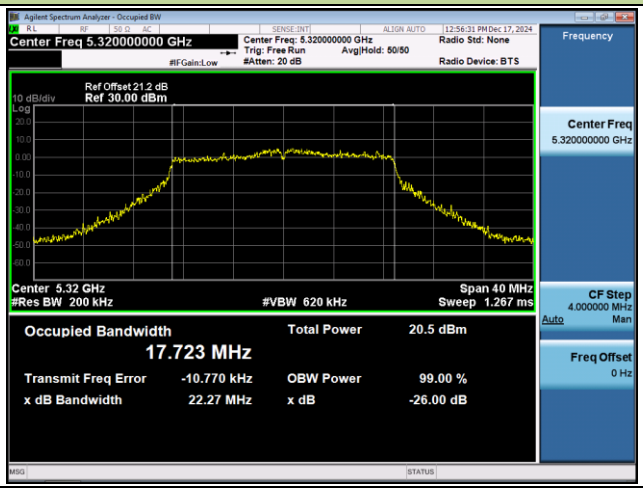
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11ax-HE40	MCS0	38	5190	42.270	38.099
802.11ax-HE40	MCS0	46	5230	41.820	38.140
802.11ax-HE40	MCS0	54	5270	42.240	38.057
802.11ax-HE40	MCS0	62	5310	42.340	37.969
802.11ax-HE40	MCS0	102	5510	42.230	37.964
802.11ax-HE40	MCS0	110	5550	41.660	37.985
802.11ax-HE40	MCS0	134	5670	41.680	38.058
802.11ax-HE40	MCS0	142	5710	42.160	37.987
802.11ax-HE40	MCS0	151	5755	41.600	38.210
802.11ax-HE40	MCS0	159	5795	41.460	38.185
802.11ax-HE80	MCS0	42	5210	82.520	77.834
802.11ax-HE80	MCS0	58	5290	82.620	77.632
802.11ax-HE80	MCS0	106	5530	83.800	77.647
802.11ax-HE80	MCS0	122	5610	82.710	77.794
802.11ax-HE80	MCS0	138	5690	86.230	77.861
802.11ax-HE80	MCS0	155	5775	83.940	77.998
802.11ax-HE160	MCS0	50	5250	165.900	156.580
802.11ax-HE160	MCS0	114	5570	171.600	157.460
802.11be-EHT20	MCS0	36	5180	20.760	18.480
802.11be-EHT20	MCS0	40	5200	20.230	18.424
802.11be-EHT20	MCS0	48	5240	19.780	18.487
802.11be-EHT20	MCS0	52	5260	20.950	18.595
802.11be-EHT20	MCS0	60	5300	21.330	18.859
802.11be-EHT20	MCS0	64	5320	21.480	18.909
802.11be-EHT20	MCS0	100	5500	22.390	19.026
802.11be-EHT20	MCS0	116	5580	22.190	18.967
802.11be-EHT20	MCS0	140	5700	21.030	18.865
802.11be-EHT20	MCS0	144	5720	21.080	18.744
802.11be-EHT20	MCS0	149	5745	20.350	18.417
802.11be-EHT20	MCS0	157	5785	20.070	18.185
802.11be-EHT20	MCS0	165	5825	20.330	18.158

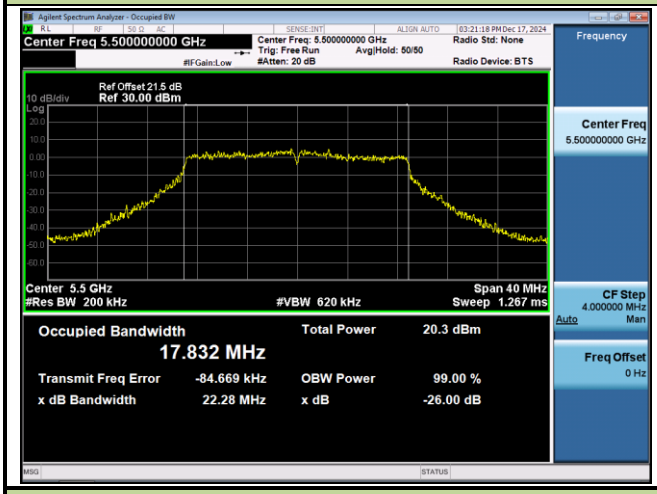
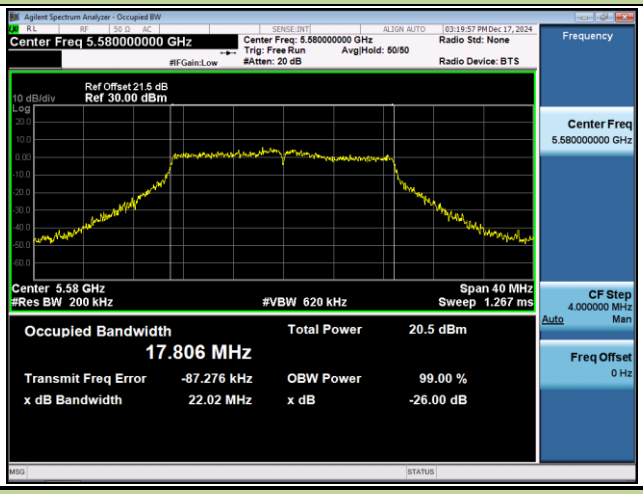
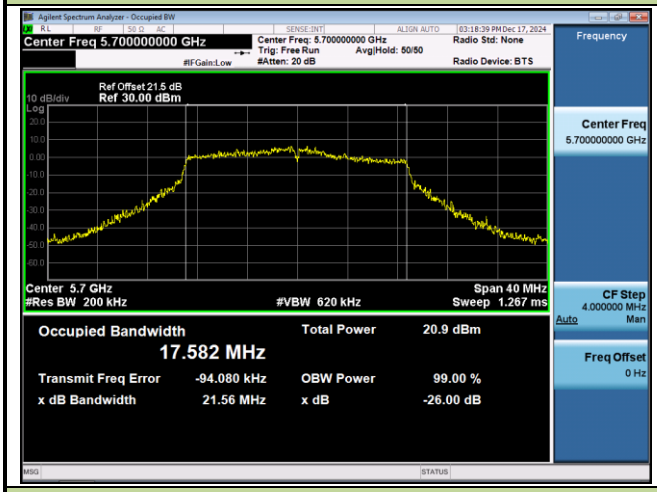
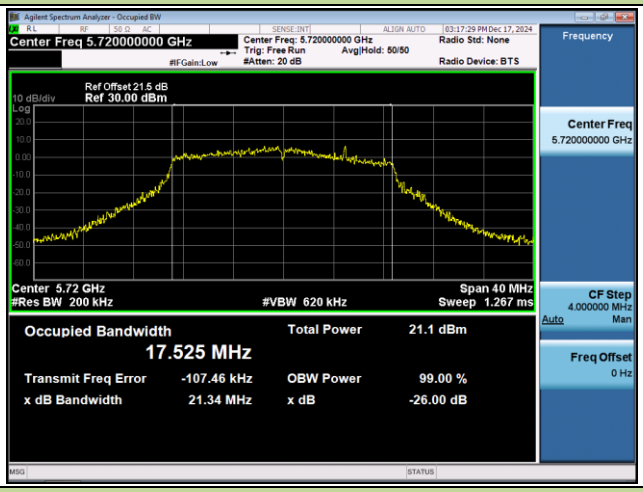
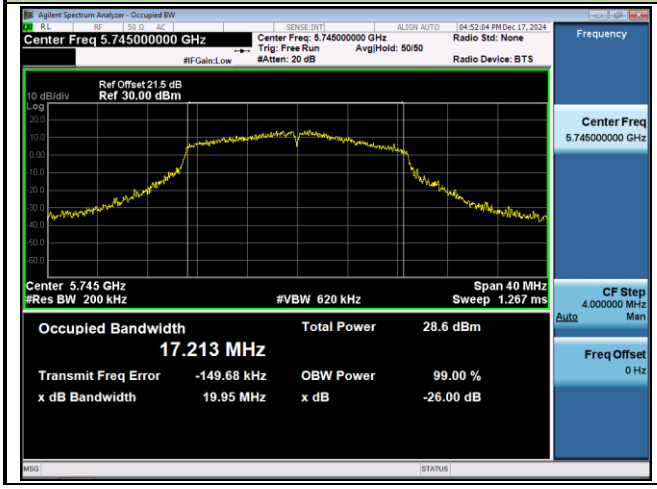
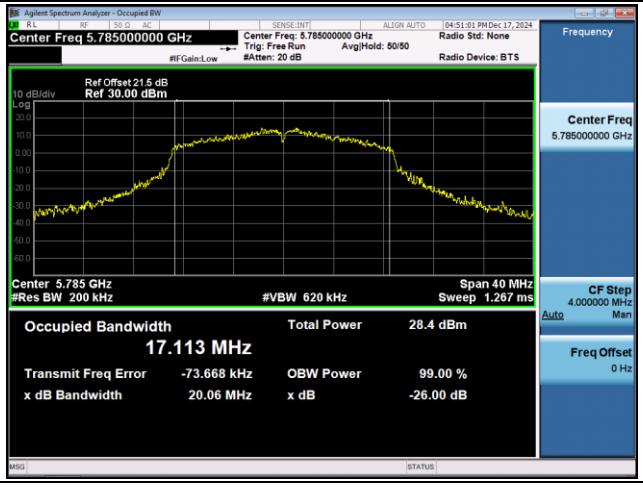
Test Mode	Data Rate/ MCS	Channel No.	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
Ant 0					
802.11be-EHT40	MCS0	38	5190	40.870	38.258
802.11be-EHT40	MCS0	46	5230	42.900	38.145
802.11be-EHT40	MCS0	54	5270	41.050	38.040
802.11be-EHT40	MCS0	62	5310	42.390	37.916
802.11be-EHT40	MCS0	102	5510	41.510	37.989
802.11be-EHT40	MCS0	110	5550	42.300	37.938
802.11be-EHT40	MCS0	134	5670	41.680	38.013
802.11be-EHT40	MCS0	142	5710	42.270	38.055
802.11be-EHT40	MCS0	151	5755	42.790	38.178
802.11be-EHT40	MCS0	159	5795	42.720	38.196
802.11be-EHT80	MCS0	42	5210	82.270	77.855
802.11be-EHT80	MCS0	58	5290	82.470	77.515
802.11be-EHT80	MCS0	106	5530	85.090	77.702
802.11be-EHT80	MCS0	122	5610	84.140	77.678
802.11be-EHT80	MCS0	138	5690	83.040	77.864
802.11be-EHT80	MCS0	155	5775	86.210	77.923
802.11be-EHT160	MCS0	50	5250	167.900	156.530
802.11be-EHT160	MCS0	114	5570	169.500	157.240

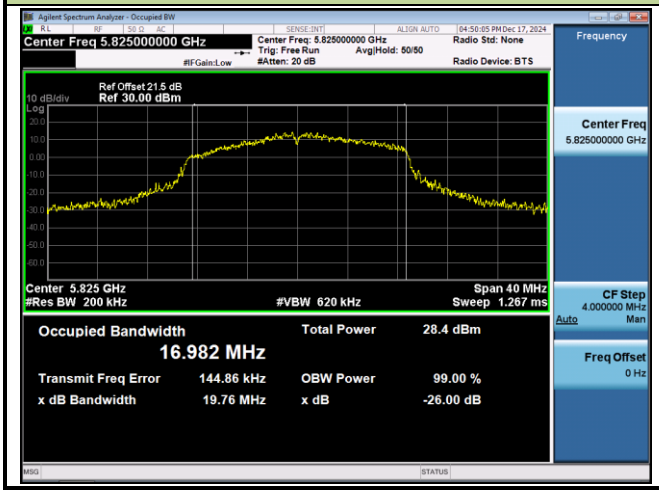
802.11a 26dB Bandwidth & 99% Bandwidth	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

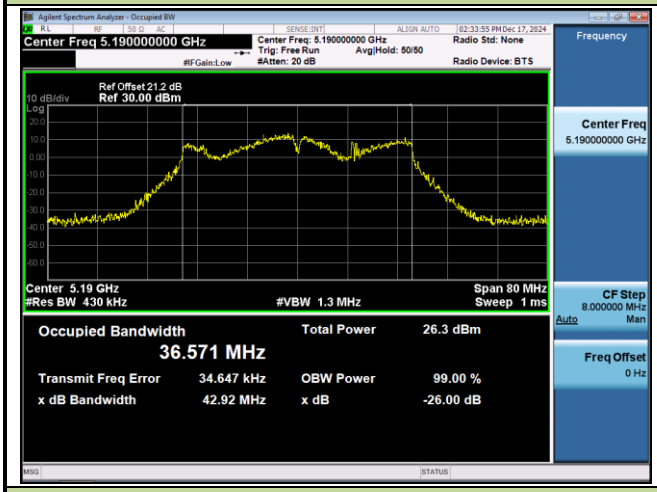
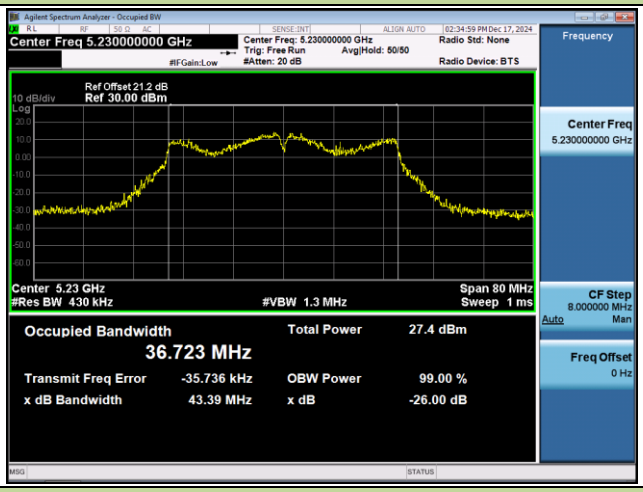
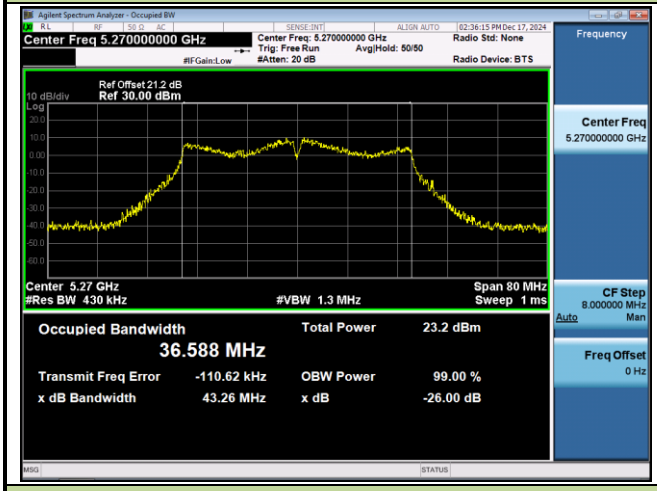
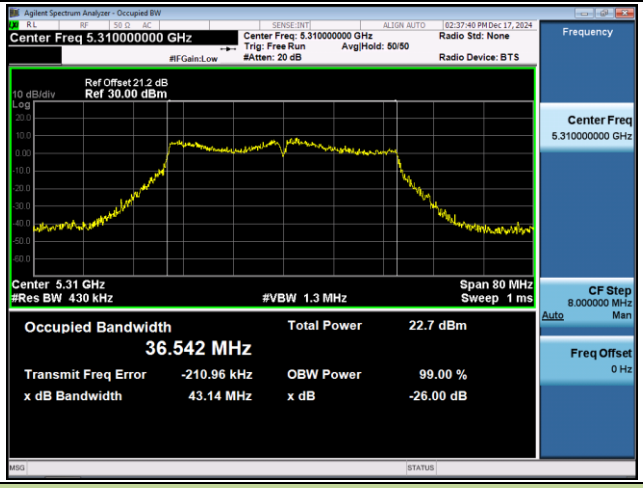
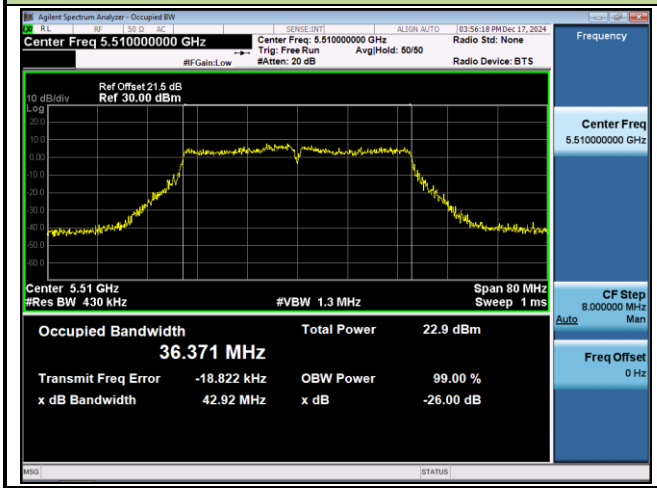
Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	**Channel 144 (5720MHz)**
	
Channel 149 (5745MHz)	**Channel 157 (5785MHz)**
	

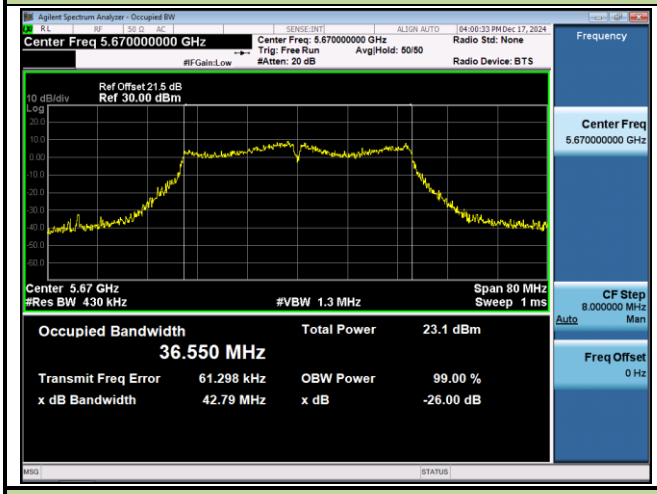
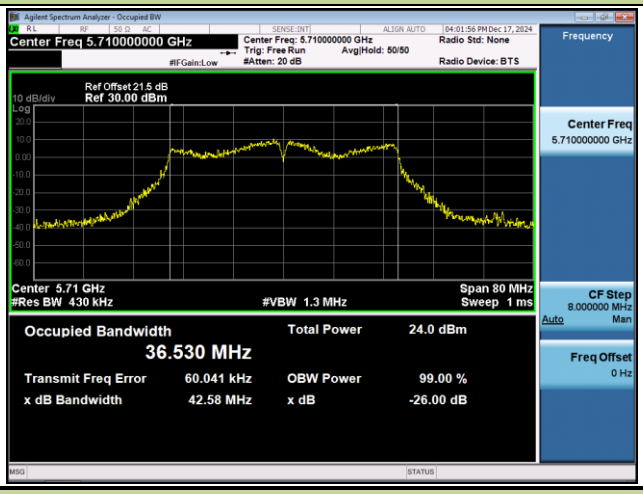
Channel 165 (5825MHz)	
	

802.11ac-VHT20 26dB Bandwidth & 99% Bandwidth	
Channel 36 (5180MHz)	Channel 40 (5200MHz)
	
Channel 48 (5240MHz)	Channel 52 (5260MHz)
	
Channel 60 (5300MHz)	Channel 64 (5320MHz)
	

Channel 100 (5500MHz)	Channel 116 (5580MHz)
	
Channel 140 (5700MHz)	**Channel 144 (5720MHz)**
	
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 142 (5710MHz)
	
Channel 151 (5755MHz)	**Channel 159 (5795MHz)**