

FCC Test Report

Report No.: AGC11758240549FR03

FCC ID : 2A482-S0TV01

APPLICATION PURPOSE: Original Equipment

PRODUCT DESIGNATION: Baseus Security P1 Indoor Camera 3K

BRAND NAME : baseus

MODEL NAME : SOTV01

APPLICANT: Shenzhen Baseus Technology Co., Ltd.

DATE OF ISSUE : Jun. 05, 2024

STANDARD(S) : FCC Part 15 Subpart E §15.407

REPORT VERSION: V1.0

Attestation of Global Conclance (Shenzhen) Co., Ltd



Page 2 of 122

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes	
V1.0	/	Jun. 05, 2024	Valid	Initial Release	



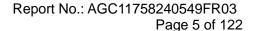
Table of Contents

1. General Information	5
2. Product Information	6
2.1 Product Technical Description	6
2.2 Table of Carrier Frequency	7
2.3 IEEE 802.11n Modulation Scheme	8
2.4 Related Submittal(S) / Grant (S)	9
2.5 Test Methodology	9
2.6 Special Accessories	9
2.7 Equipment Modifications	9
2.8 Antenna Requirement	9
2.9 Description of Test Software	10
3. Test Environment	12
3.1 Address of The Test Laboratory	12
3.2 Test Facility	12
3.3 Environmental Conditions	13
3.4 Measurement Uncertainty	13
3.5 List of Equipment Used	14
4. System Test Configuration	16
4.1 EUT Configuration	16
4.2 EUT Exercise	16
4.3 Configuration of Tested System	16
4.4 Equipment Used in Tested System	16
4.5 Summary of Test Results	17
5. Description of Test Modes	18
6. Duty Cycle Measurement	21
7. RF Output Power Measurement	26
7.1 Provisions Applicable	26
7.2 Measurement Procedure	26
7.3 Measurement Setup (Block Diagram of Configuration)	26
7.4 Measurement Result	27
8. 6dB&26dB Bandwidth Measurement	29
8.1 Provisions Applicable	29
8.2 Measurement Procedure	29
8.3 Measurement Setup (Block Diagram of Configuration)	29
8.4 Measurement Results	30





9. Power Spectral Density Measurement	59
9.1 Provisions Applicable	59
9.2 Measurement Procedure	59
9.3 Measurement Setup (Block Diagram of Configuration)	59
9.4 Measurement Result	60
10. Conducted Band Edge and Out-of-Band Emissions	80
10.1 Provisions Applicable	80
10.2 Measurement Procedure	80
10.3 Measurement Setup (Block Diagram of Configuration)	80
10.4 Measurement Results	81
11. Radiated Spurious Emission	101
11.1 Measurement Limit	101
11.2 Measurement Procedure	102
11.3 Measurement Setup (Block Diagram of Configuration)	104
11.4 Measurement Result	105
12. AC Power Line Conducted Emission Test	118
12.1 Measurement limit	118
12.2 Block Diagram of Line Conducted Emission Test	118
12.3 Preliminary Procedure of Line Conducted Emission Test	119
12.4 Final Procedure of Line Conducted Emission Test	119
12.5 Test Result of Line Conducted Emission Test	120
Appendix I: Photographs of Test Setup	122
Appendix II: Photographs of EUT	122





1. General Information

	<u></u>
Applicant	Shenzhen Baseus Technology Co., Ltd.
Address	2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China
Manufacturer	Shenzhen Baseus Technology Co., Ltd.
Address	2nd Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen, China
Factory	N/A
Address	N/A
Product Designation	Baseus Security P1 Indoor Camera 3K
Brand Name	baseus
Test Model	S0TV01
Series Model(s)	N/A
Difference Description	N/A
Date of receipt of test item	May 21, 2024
Date of Test	May 21, 2024~Jun. 05, 2024
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-5G WLAN-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Prepared By	Jouk bai	
	Jack Gui (Project Engineer)	Jun. 05, 2024
Reviewed By	Calin Lin	
	Calvin Liu (Reviewer)	Jun. 05, 2024
Approved By	Max Zhang	
	Max Zhang (Authorized Officer)	Jun. 05, 2024



Page 6 of 122

2. Product Information

2.1 Product Technical Description

Equipment Type	☐ Outdoor access points☐ Fixed P2P access points☐ Client devices				
Operation Frequency	☑ U-NII 1:5150MHz~5250MHz ☐ U-NII 2A: 5250MHz~5350MHz ☐ U-NII 2C:5470MHz~5725MHz ☒ U-NII 3: 5725MHz~5850MHz				
TPC Function	☐ Yes ☐ No				
Hardware Version	V1.0				
Software Version	V1.0				
Test Frequency Range	For 802.11a/n-HT20/ac-VHT20/ax-HE20: 5180~5240MHz/5745~5825MHz; For 802.11n-HT40/ac-VHT40/ax-HE40: 5190~5230MHz/5755~5795MHz;				
RF Output Power	802.11a:14.71dBm,802.11n(HT20):14.90dBm; 802.11n(HT40):13.56dBm; 802.11ac (VHT20):16.76dBm;802.11ac (VHT40):13.45dBm; 802.11ax (HE20):14.23dBm; 802.11ax (HE40):14.74dBm;				
Modulation	802.11a/n:(64-QAM, 16-QAM, QPSK, BPSK) OFDM 802.11ac :(256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) OFDM 802.11ax :(1024-QAM,256-QAM, 64-QAM, 16-QAM, QPSK, BPSK) OFDMA				
Data Rate	802.11a:6/9/12/18/24/36/48/54Mbps; 802.11n: up to 300Mbps; 802.11ac: up to 866.6Mbps; 802.11ax: up to 1201Mbps				
Number of channels	6 channels of U-NII-1 Band; 7 channels of U- NII 3 Band				
Antenna Designation	PCB Antenna				
Antenna Gain	1.82dBi				
Power Supply	DC 5V by adapter				



Page 7 of 122

2.2 Table of Carrier Frequency

For 5180~5240MHz:

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

Channel	Frequency	Channel	Frequency	
36	5180 MHz	44	5220 MHz	
40	5200 MHz	48	5240 MHz	

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

Channel	Frequency	Channel	Frequency	
38	5190 MHz	46	5230 MHz	

For 5745~5825MHz:

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

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz		

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

Channel	Frequency	Channel	Frequency	
151	5755 MHz	159	5795 MHz	



Page 8 of 122

2.3 IEEE 802.11n Modulation Scheme

MCS Index	Nss	Modulation	R N _{BPSC}		R N _{BPSC}		N _C	BPS	N _D	BPS	(Mb	rate ops) nsGI
					20MHz	40MHz	20MHz	40MHz	20MHz	40MHz		
0	1	BPSK	1/2	1	52	108	26	54	6.5	13.5		
1	1	QPSK	1/2	2	104	216	52	108	13.0	27.0		
2	1	QPSK	3/4	2	104	216	78	162	19.5	40.5		
3	1	16-QAM	1/2	4	208	432	104	216	26.0	54.0		
4	1	16-QAM	3/4	4	208	432	156	324	39.0	81.0		
5	1	64-QAM	2/3	6	312	648	208	432	52.0	108.0		
6	1	64-QAM	3/4	6	312	648	234	489	58.5	121.5		
7	1	64-QAM	5/6	6	312	648	260	540	65.0	135.0		

Symbol	Explanation
NSS	Number of spatial streams
R	Code rate
NBPSC	Number of coded bits per single carrier
NCBPS	Number of coded bits per symbol
NDBPS	Number of data bits per symbol
GI	Guard interval



Page 9 of 122

2.4 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for **FCC ID: 2A482-S0TV01** filing to comply with the FCC Part 15 requirements.

2.5 Test Methodology

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
4	KDB 662911	662911 D01 Multiple Transmitter Output v02r01
5	KDB 789033	789033 D02 General U-NII Test Procedures New Rules v02r01

2.6 Special Accessories

Refer to section 4.4.

2.7 Equipment Modifications

Not available for this EUT intended for grant.

2.8 Antenna Requirement

Standard Requirement

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antennathat uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a brokenantenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is 1.82dBi.

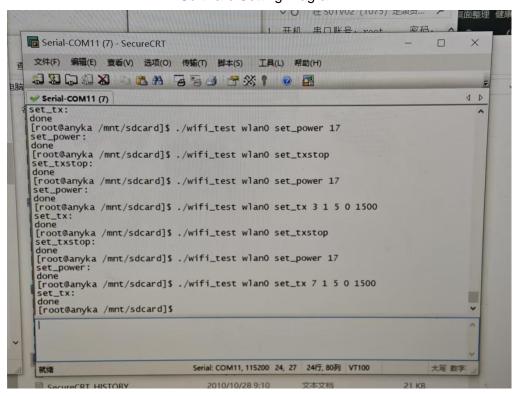


2.9 Description of Test Software

For IEEE 802.11 mode:

The test utility software used during testing was "SecureCRT".

Software Setting Diagram





Page 11 of 122

U-NII 1:5150MHz~5250MHz

Test Mode	Channel	Power Index
802.11a	L/M/H	18
802.11n(HT20)	L/M/H	18
802.11n(HT40)	L/M/H	18
802.11ac(VHT20)	L/M/H	18
802.11ac(VHT40)	L/M/H	18
802.11ax(HE20)	L/M/H	18
802.11ax(HE40)	L/M/H	18

U-NII 3: 5725MHz~5850MHz

Test Mode	Channel	Power Index
802.11a	L/M/H	16
802.11n(HT20)	L/M/H	16
802.11n(HT40)	L/M/H	16
802.11ac(VHT20)	L/M/H	16
802.11ac(VHT40)	L/M/H	16
802.11ax(HE20)	L/M/H	16
802.11ax(HE40)	L/M/H	16



Page 12 of 122

3. Test Environment

3.1 Address of The Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories.)

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



Page 13 of 122

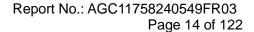
3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20% - 75%
Pressure range (kPa)	86 - 106
Power supply	DC 5V

3.4 Measurement Uncertainty

The reported uncertainty of measurement y ±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Measurement Uncertainty
Uc = ±2.9 dB
Uc = ±3.9 dB
Uc = ±4.9 dB
$U_c = \pm 0.8 \text{ dB}$
$U_c = \pm 2.6 \text{ dB}$
U _c = ±2 %
$U_c = \pm 2.7 \%$





3.5 List of Equipment Used

RF Conducted Test System								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2023-06-01	2024-05-31	
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23	
\boxtimes	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2024-02-01	2025-01-31	
\boxtimes	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2024-02-01	2025-01-31	
\boxtimes	AGC-EM-A152	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	
\boxtimes	AGC-ER-E075	Small Environmental Tester	SH-242	ESPEC	93008290	2022-08-03	2024-08-02	
	AGC-ER-E059	Signal Generator	Agilent	N5182B	MY53050647	2024-02-01	2025-01-31	
\boxtimes	AGC-ER-E060	Signal Generator	Agilent	N5171B	MY53050474	2023-06-01	2024-05-31	
\boxtimes	AGC-ER-E060	Signal Generator	Agilent	N5171B	MY53050474	2024-05-28	2025-05-27	
	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2023-06-01	2024-05-31	
	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2024-05-23	2025-05-22	
\boxtimes	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A	
\boxtimes	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A	

• F	Radiated Spurious Emission								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
\boxtimes	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2024-02-01	2025-01-31		
	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2023-06-03	2024-06-02		
	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23		
\boxtimes	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2023-06-01	2024-05-31		
\boxtimes	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27		
\boxtimes	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04		
\boxtimes	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10		
\boxtimes	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30		
\boxtimes	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23		
\boxtimes	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2022-08-04	2024-08-03		
\boxtimes	AGC-EM-A118	5GHz Filter	SongYi	BRM50716	N/A	2023-06-01	2024-05-31		
\boxtimes	AGC-EM-A118	5GHz Filter	SongYi	BRM50716	N/A	2024-05-23	2025-05-22		
\boxtimes	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08		



Page 15 of 122

	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	
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A	AC Power Line Conducted Emission								
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)		
\boxtimes	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2023-06-03	2024-06-02		
	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2024-05-28	2025-05-27		
	AGC-EM-A130	6dB Attenuator	Eeatsheep	LM-XX-6-5W	DC-6GZ	2023-06-09	2024-06-08		
	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2023-06-03	2024-06-02		
	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2024-05-28	2025-05-27		

Test Software									
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information				
\boxtimes	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71				
\boxtimes	AGC-EM-S003	RE Test System	FARA	EZ-EMC	V.RA-03A				
	AGC-EM-S004	RE Test System	Tonscend	TS ⁺ Ver2.1(JS32-RE)	4.0.0.0				
\boxtimes	AGC-ER-S012	BT/WIFI Test System	Tonscend	JS1120-2	2.6				
\boxtimes	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0				



Page 16 of 122

4. System Test Configuration

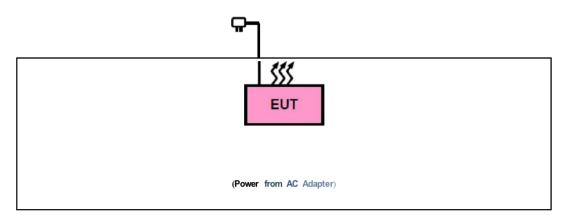
4.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System



4.4 Equipment Used in Tested System

The following peripheral devices and interface cables were connected during the measurement:

Test Accessories Come From The Laboratory

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Control Box		USB-TTL	-	

☐ Test Accessories Come From The Manufacturer

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Adapter	Zhuzhou Dachuan Electronic Technology Co., Ltd.	DCT06W050100 US-C0	Input:100-240V~50/60 200mA Output:5.0V 1.0A	



Page 17 of 122

4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.203	Antenna Equipment	Pass
2	§15.407(a/1/3)	RF Output Power	Pass
3	§15.407(e)	6 dB Bandwidth	Pass
4	§15.403(i)	99% Occupied Bandwidth	Pass
5	§15.407(a/1/3)	Power Spectral Density	Pass
6	§15.407(g)	Frequency Stability	Pass (See Note 1)
7	§15.407(c)	Transmission Discontinuation Requirement	Pass (See Note 2)
8	§15.407(b)(1/4)	Conducted Band Edge and Out-of-Band Emissions	Pass
9	§15.209,§15.407(b)(1/4)	Radiated Spurious Emission	Pass
10	§15.207	AC Power Line Conducted Emission	Pass

Note:

- 1. Refer to the manufacturer's declaration in the user manual.
- 2. The device operates without the transmission of information.



Page 18 of 122

5. Description of Test Modes

EUT Configure Mode		Applic	cable To	Description	
201 Configure Mode		PLC	APCM	Description	
Α	\boxtimes	\boxtimes	\boxtimes	\boxtimes	Powered by Adapter with WIFI(5G) Link
В					Powered by Battery with WIFI(5G) Link
С		Powered by USB with		Powered by USB with WIFI(5G) Link	

Where. RE > 1G: Radiated Emission above 1GHz PLC: Power Line Conducted Emission

NOTE 1: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane.

NOTE 2: "--"means no effect.

• Radiated Emission Test (Above 1GHz):

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations be Meen available modulations, data rates and antenna ports (IF EUT with antenna diversity architecture).

Support 802.11ax, device debugging is tested in Full RU state

The device under test has multiple antennas. The mode that supports MIMO technology records the worst data, and the mode that does not support MIMO technology records antenna 1 as the worst data.

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

	EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation	Data Rate (Mbps)
ĺ	Α	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	Α	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0



Page 19 of 122

 Radiated Emission Test (Below 1GHz):
--	----

\boxtimes	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations be Me	en
	available modulations, data rates and antenna ports (If EUT with antenna diversity architecture).	

The device under test has multiple antennas. The mode that supports MIMO technology records the worst data, and the mode that does not support MIMO technology records antenna 1 as the worst data.

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

EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation	Data Rate (Mbps)
Α	802.11a	5180-5240	36 to 48	36	OFDM	6.0

Power Line Conducted Emission Test:

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations be Meen available modulations, data rates and antenna ports (If EUT with antenna diversity architecture).

☐ The device under test has multiple antennas. The mode that supports MIMO technology records the worst data, and the mode that does not support MIMO technology records antenna 1 as the worst data.

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

EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation	Data Rate (Mbps)
Α	802.11a	5180-5240	36 to 48	36	OFDM	6.0

Band edge Measurement:

\boxtimes	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations be Mee	n
	available modulations, data rates and antenna ports (If EUT with antenna diversity architecture).	

Support 802.11ax, device debugging is tested in Full RU state

The device under test has multiple antennas. The mode that supports MIMO technology records the worst
data, and the mode that does not support MIMO technology records antenna 1 as the worst data.

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

EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation	Data Rate (Mbps)
Α	802.11a	5180-5240	36 to 48	36	OFDM	6.0
Α	802.11n (40MHz)		38 to 46	38, 46	OFDM	MCS0



Page 20 of 122

• Antenna Port Conducted Measurement:

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations be Meen available modulations, data rates and antenna ports (If EUT with antenna diversity architecture).

- Support 802.11ax, device debugging is tested in Full RU state
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation	Data Rate (Mbps)
A	802.11a		36 to 48	36, 40, 48	OFDM	6.0
A	802.11n (20MHz)		36 to 48	36, 40, 48	OFDM	MCS0
A	802.11n (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ac (20MHz)	5180-5240	36 to 48	36, 40, 48	OFDM	MCS0
A	802.11ac (40MHz)		38 to 46	38, 46	OFDM	MCS0
A	802.11ax (20MHz)		36 to 48	36, 40, 48	OFDMA	MCS0
A	802.11ax (40MHz)		38 to 46	38, 46	OFDMA	MCS0
A	802.11a		149 to 165	149, 157, 165	OFDM	6.0
A	802.11n (20MHz)		149 to 165	149, 157, 165	OFDM	MCS0
A	802.11n (40MHz)		151 to 159	151, 159	OFDM	MCS0
A	802.11ac (20MHz)	5745-5825	149 to 165	149, 157, 165	OFDM	MCS0
A	802.11ac (40MHz)		151 to 159	151, 159	OFDM	MCS0
A	802.11ax (20MHz)		149 to 165	149, 157, 165	OFDMA	MCS0
А	802.11ax (40MHz)		151 to 159	151, 159	OFDMA	MCS0



Page 21 of 122

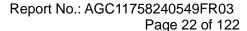
6. Duty Cycle Measurement

5GHz WLAN (NII) operation is possible in 20MHz and 40MHz 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, and detector = Average. 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:

Operating mode	Data rates (Mbps)	Duty Cycle (%)	Duty Cycle Factor (dB)	
	Band U-NII1:5150M	1Hz-5250MHz		
802.11a	6	16.83	7.74	
802.11n_HT20	MCS0	15.87	7.99	
802.11n_HT40	MCS0	8.51	10.70	
802.11ac_VHT20	MCS0	12.72	8.96	
802.11ac_VHT40	MCS0	8.53	10.69	
802.11ax_HE20	MCS0	15.96	7.97	
802.11ax_HE40	MCS0	7.01	11.54	
	Band U-NII 3: 5725N	MHz-5850MHz		
802.11a	6	16.85	7.73	
802.11n_HT20	MCS0	15.86	8.00	
802.11n_HT40	MCS0	8.51	10.70	
802.11ac_VHT20	MCS0	15.93	7.98	
802.11ac_VHT40	MCS0	8.54	10.69	
802.11ax_HE20	MCS0	12.67	8.97	
802.11ax_HE40	MCS0	7.05	11.52	

Remark:

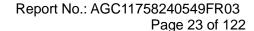
- Duty Cycle factor = 10 * log (1/ Duty cycle)
- 2. The duty cycle of each frequency band mode reflects the determination requirements of the low channel measurement value.
- 3. Involving the test items of duty cycle compensation coefficient, the final results have been added and calculated by the software and presented.



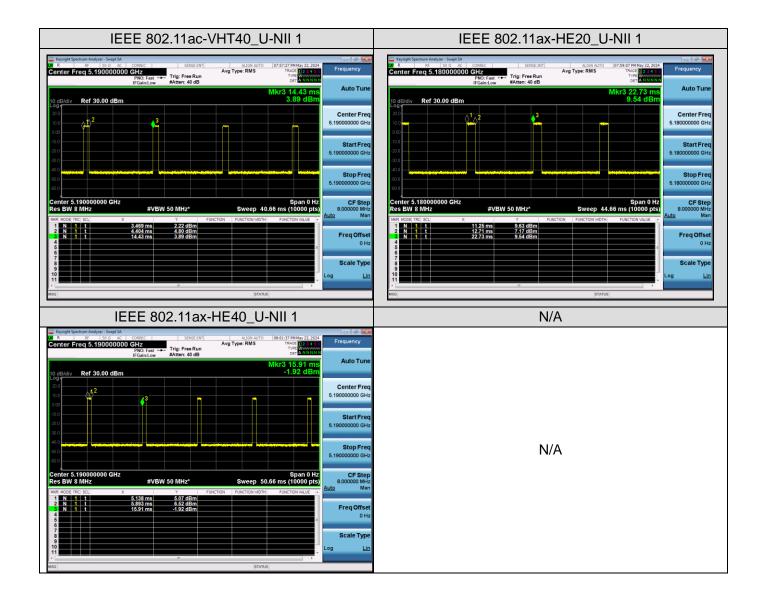


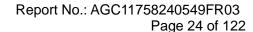
The test plots as follows:





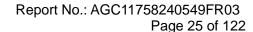




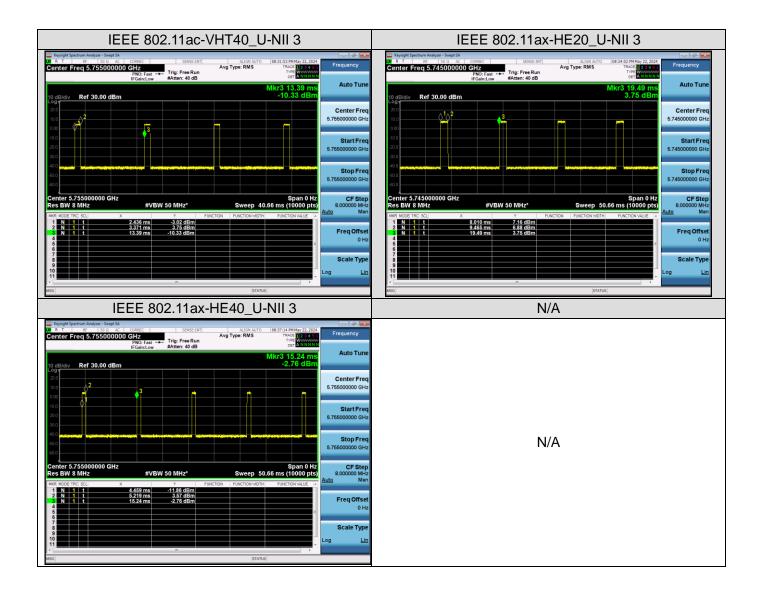














Page 26 of 122

7. RF Output Power Measurement

7.1 Provisions Applicable

Operation Band	EUT Category		LIMIT	
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p < 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)	
		Fixed point-to-point Access Point	1 Watt (30 dBm)	
		Indoor Access Point	1 Watt (30 dBm)	
	\boxtimes	Client devices	250mW (23.98 dBm)	
U-NII-2A		/	250mW (23.98 dBm) or 11 dBm+10 log B*	
U-NII-2C	/		250mW (23.98 dBm) or 11 dBm+10 log B*	
U-NII-3	/		1 Watt (30 dBm)	

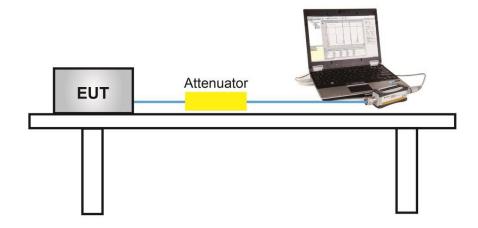
Note: Where B is the 26dB emission bandwidth in MHz.

7.2 Measurement Procedure

Method PM is Measurement using an RF average power meter. The procedure for this method is as follows:

- 1. The testing follows the ANSI C63.10 Section 12.3.3.1
- Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the following conditions are satisfied:
- 3. The EUT is configured to transmit continuously, or to transmit with a constant duty cycle.
- 4. At all times when the EUT is transmitting, it shall be transmitting at its maximum power control level.
- 5. The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
- 6. Determine according to the duty cycle of the equipment: when it is less than 98%, follow the steps below.
- Measure the average power of the transmitter. This measurement is an average over both the ON and OFF periods of the transmitter.
- 8. Adjust the measurement in dBm by adding [10 log (1 / D)], where D is the duty cycle {e.g., [10 log (1 / 0.25)], if the duty cycle is 25%}.
- Record the test results in the report.

7.3 Measurement Setup (Block Diagram of Configuration)





Page 27 of 122

7.4 Measurement Result

Test Data of Conducted Output Power for band 5.15-5.25 GHz				
Test Mode	Test Channel (MHz)			Pass or Fail
	5180	11.55	23.98	Pass
802.11a	5200	13.05	23.98	Pass
	5240	14.71	23.98	Pass
	5180	12.64	23.98	Pass
802.11n20	5200	14.90	23.98	Pass
	5240	12.83	23.98	Pass
802.11n40	5190	13.34	23.98	Pass
002.111140	5230	13.56	23.98	Pass
	5180	15.66	23.98	Pass
802.11ac20	5200	14.08	23.98	Pass
	5240	16.76	23.98	Pass
802.11ac40	5190	13.45	23.98	Pass
002.11a040	5230	13.03	23.98	Pass
	5180	14.23	23.98	Pass
802.11ax20	5200	14.23	23.98	Pass
	5240	12.57	23.98	Pass
802.11ax40	5190	14.29	23.98	Pass
	5230	14.74	23.98	Pass



Page 28 of 122

Test Data of Conducted Output Power for band 5.725-5.850 GHz				
Test Mode	Test Channel Average Power (MHz) (dBm)		Limits (dBm)	Pass or Fail
	5745	11.04	30	Pass
802.11a	5785	12.40	30	Pass
	5825	11.31	30	Pass
	5745	10.61	30	Pass
802.11n20	5785	12.71	30	Pass
	5825	14.73	30	Pass
000 44 = 40	5755	10.97	30	Pass
802.11n40	5795	11.32	30	Pass
	5745	12.22	30	Pass
802.11ac20	5785	12.47	30	Pass
	5825	12.24	30	Pass
000 11 10	5755	10.83	30	Pass
802.11ac40	5795	11.83	30	Pass
802.11ax20	5745	12.16	30	Pass
	5785	12.04	30	Pass
	5825	11.19	30	Pass
802.11ax40	5755	12.69	30	Pass
	5795	13.34	30	Pass



Page 29 of 122

8. 6dB&26dB Bandwidth Measurement

8.1 Provisions Applicable

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

8.2 Measurement Procedure

-6dB bandwidth (DTS bandwidth) Test setting:

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on operation frequency individually.
- 3. Set RBW = 100kHz.
- 4. Set the VBW $\geq 3*RBW$. Detector = Peak. Trace mode = max hold.
- 5. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.

♦ 99% occupied bandwidth test setting:

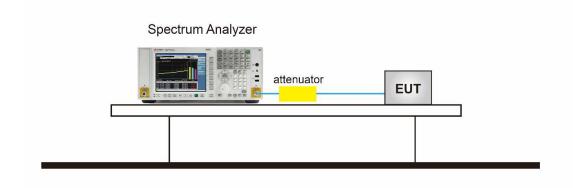
- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set Span = approximately 1.5 to 5 times the OBW, centered on a nominal channel
 The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video
 bandwidth (VBW) shall be approximately three times RBW; Sweep = auto; Detector function = peak
- 4. Set SPA Trace 1 Max hold, then View.

◆ -26dB Bandwidth test setting:

- 1. Set RBW = approximately 1% of the emission bandwidth.
- 2. Set the VBW > RBW.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Measure the maximum width of the emission that is 26 dB down from the 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%.

Note: The EUT was tested according to KDB 789033 for compliance to FCC 47CFR 15.407 requirements.

8.3 Measurement Setup (Block Diagram of Configuration)

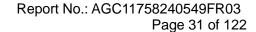




Page 30 of 122

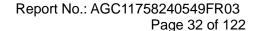
8.4 Measurement Results

Test	Test Data of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz				
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	-26dB Bandwidth (MHz)	Limits (MHz)	Pass or Fail
	5180	16.596	22.567	N/A	Pass
802.11a	5200	16.484	21.853	N/A	Pass
	5240	16.608	23.819	N/A	Pass
	5180	17.786	24.284	N/A	Pass
802.11n20	5200	17.773	24.288	N/A	Pass
	5240	17.793	24.069	N/A	Pass
802.11n40	5190	36.223	43.417	N/A	Pass
	5230	36.295	44.750	N/A	Pass
	5180	17.827	22.448	N/A	Pass
802.11ac20	5200	17.701	22.994	N/A	Pass
	5240	17.801	23.869	N/A	Pass
802.11ac40	5190	36.347	47.065	N/A	Pass
	5230	36.199	43.940	N/A	Pass
802.11ax20	5180	18.896	22.633	N/A	Pass
	5200	18.987	23.164	N/A	Pass
	5240	19.016	23.363	N/A	Pass
802.11ax40	5190	37.817	41.428	N/A	Pass
	5230	37.754	42.889	N/A	Pass



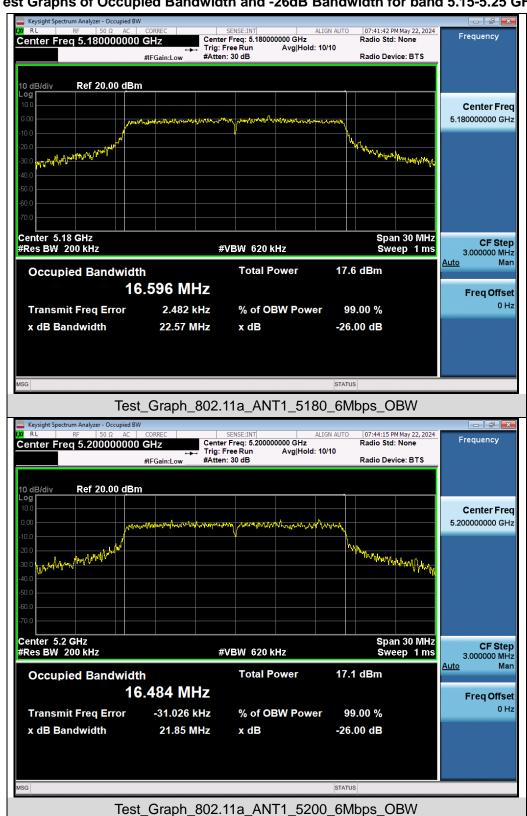


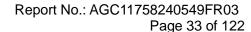
Tes	Test Data of Occupied Bandwidth and DTS Bandwidth for band 5.725-5.85 GHz				
Test Mode	Test Channel (MHz)	99% Occupied Bandwidth (MHz)	DTS Bandwidth (MHz)	Limits (MHz)	Pass or Fail
	5745	16.726	16.457	0.5	Pass
802.11a	5785	16.653	16.354	0.5	Pass
	5825	16.745	16.377	0.5	Pass
	5745	17.930	17.735	0.5	Pass
802.11n20	5785	17.823	17.597	0.5	Pass
	5825	17.871	17.618	0.5	Pass
802.11n40	5755	36.414	36.388	0.5	Pass
602.111140	5795	36.520	36.360	0.5	Pass
	5745	17.848	17.813	0.5	Pass
802.11ac20	5785	17.828	17.797	0.5	Pass
	5825	17.866	17.663	0.5	Pass
902 11 2210	5755	36.373	36.281	0.5	Pass
802.11ac40	5795	36.472	36.308	0.5	Pass
	5180	19.101	18.775	0.5	Pass
802.11ax20	5200	19.158	18.695	0.5	Pass
	5240	19.042	19.092	0.5	Pass
802.11ax40	5190	38.012	38.090	0.5	Pass
	5230	37.990	37.466	0.5	Pass



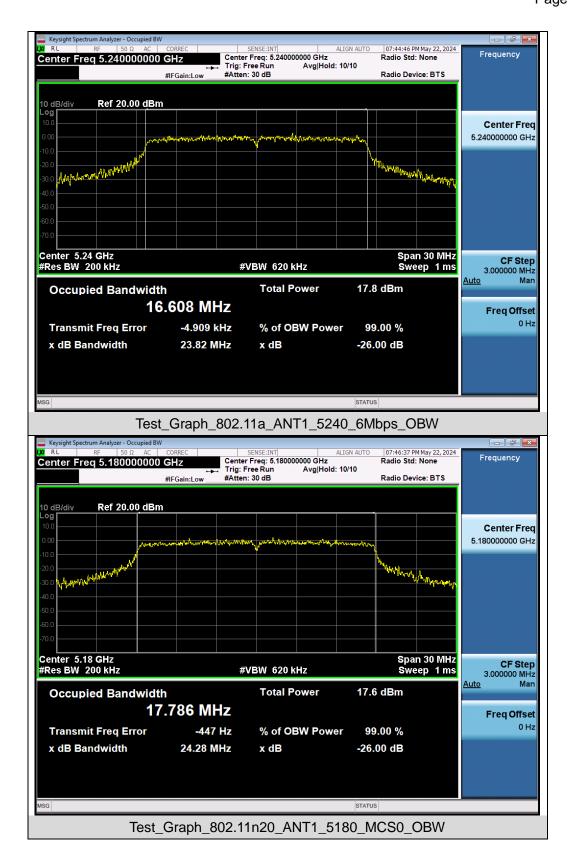


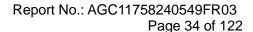
Test Graphs of Occupied Bandwidth and -26dB Bandwidth for band 5.15-5.25 GHz



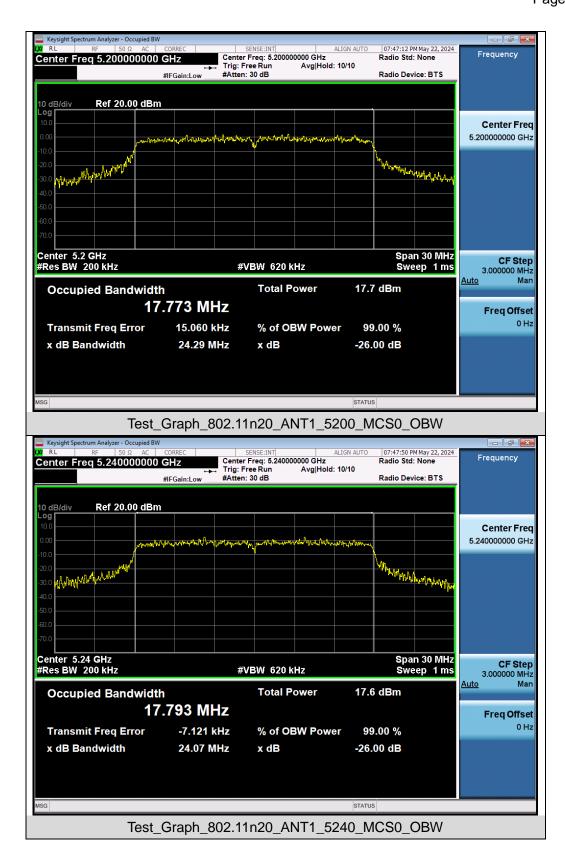




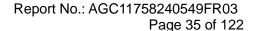




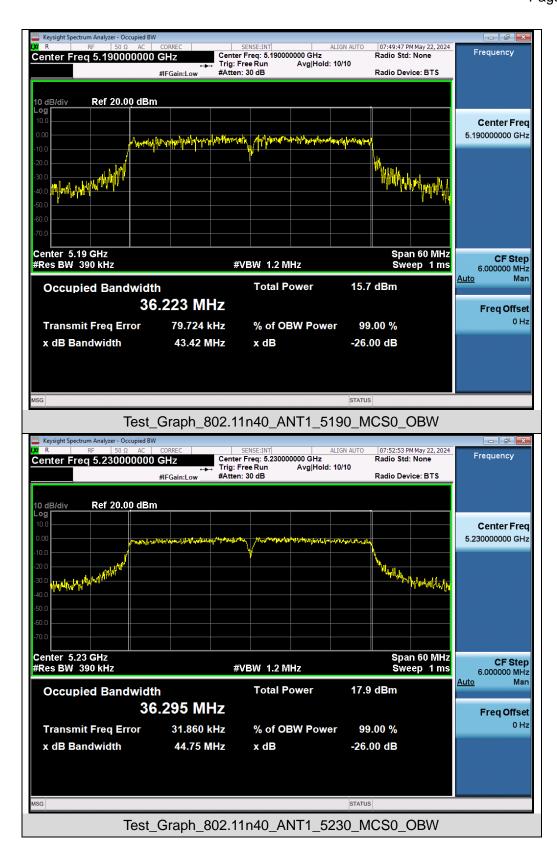




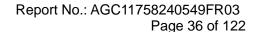
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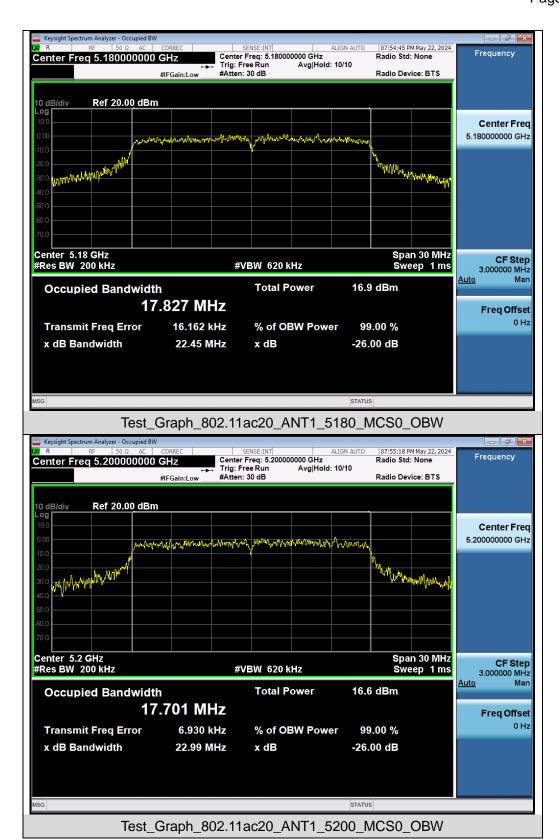




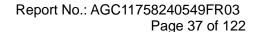
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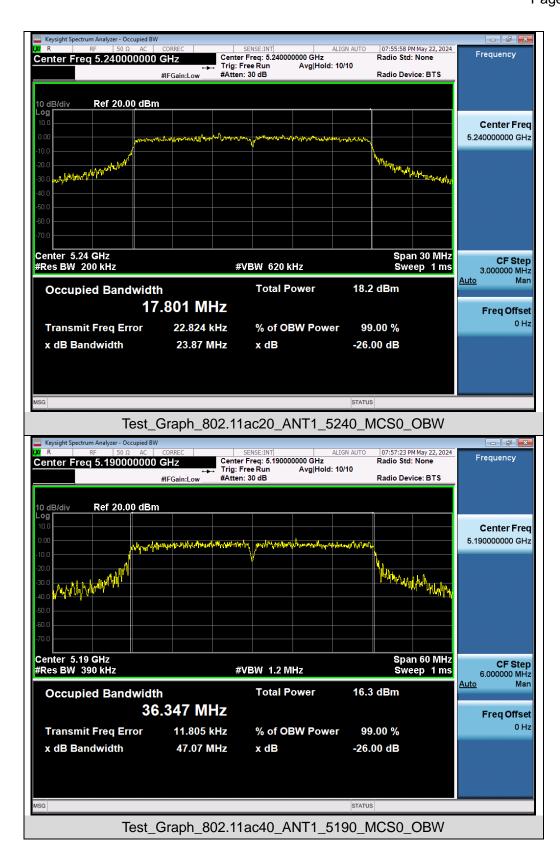


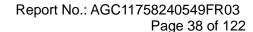


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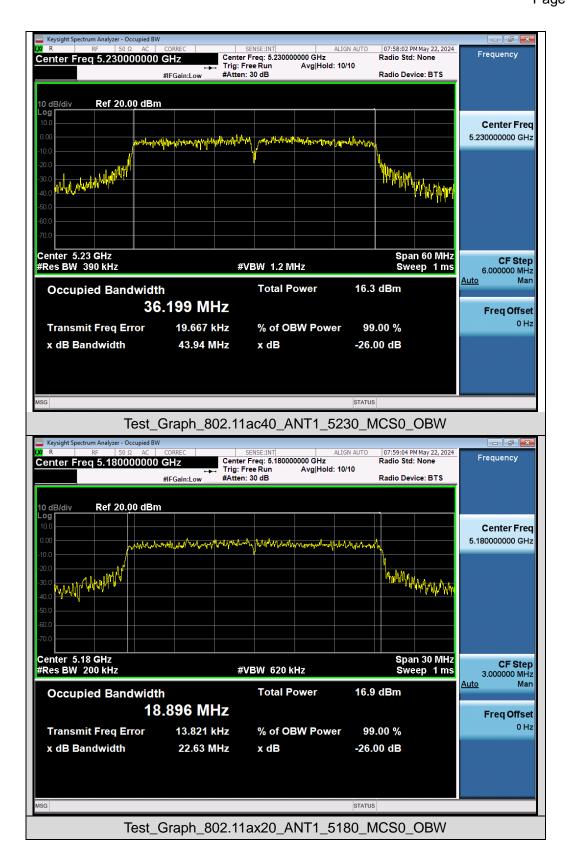


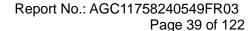




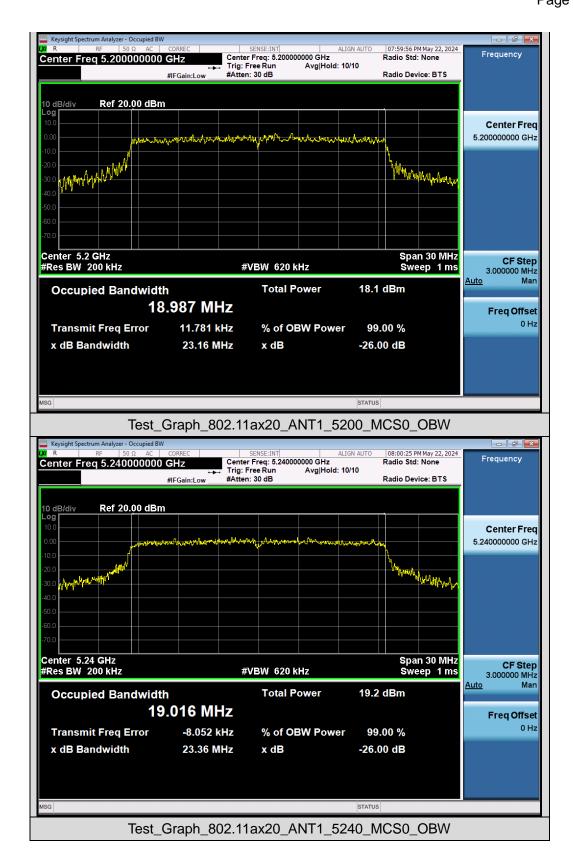


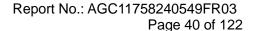




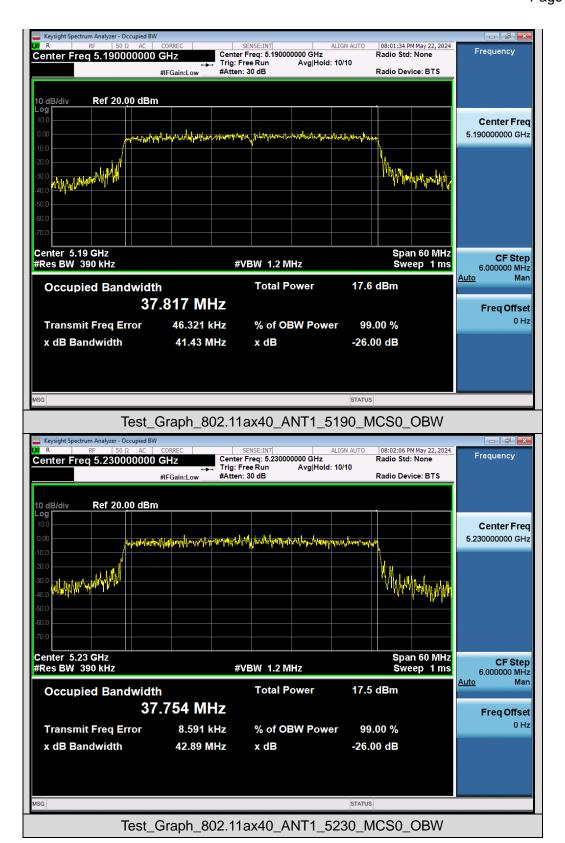


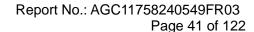






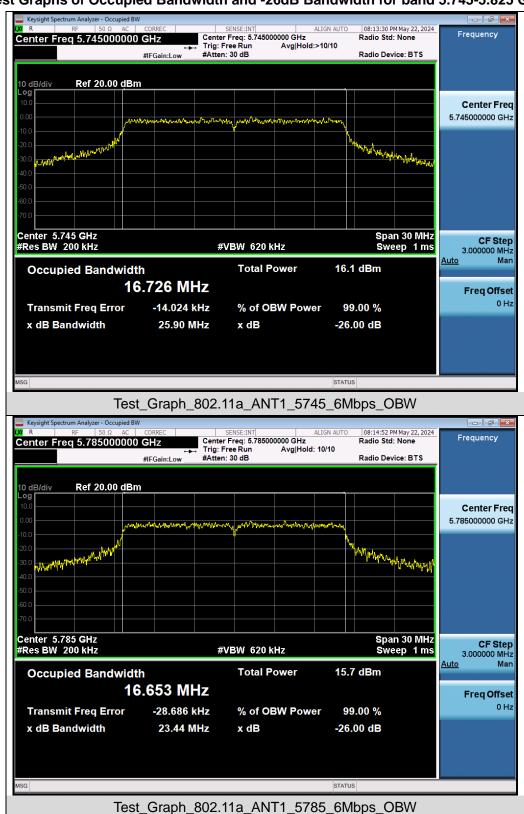


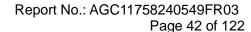




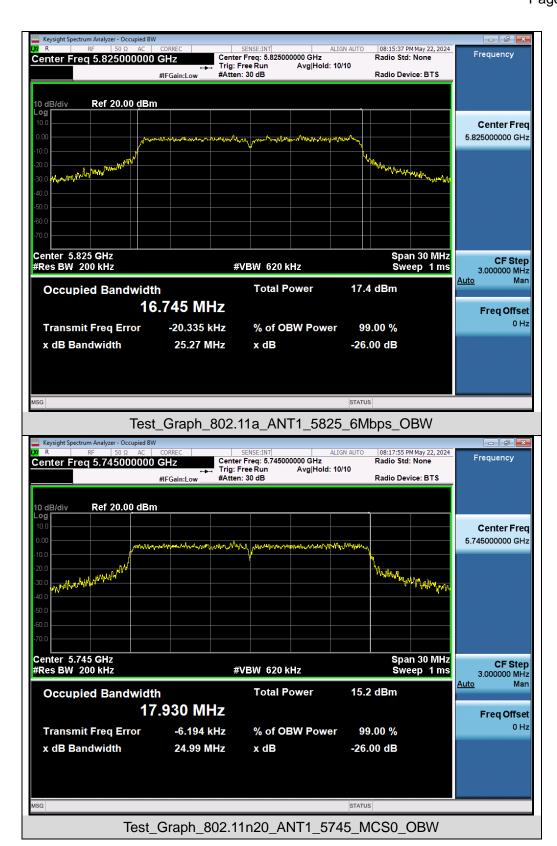


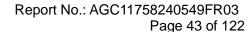
Test Graphs of Occupied Bandwidth and -26dB Bandwidth for band 5.745-5.825 GHz



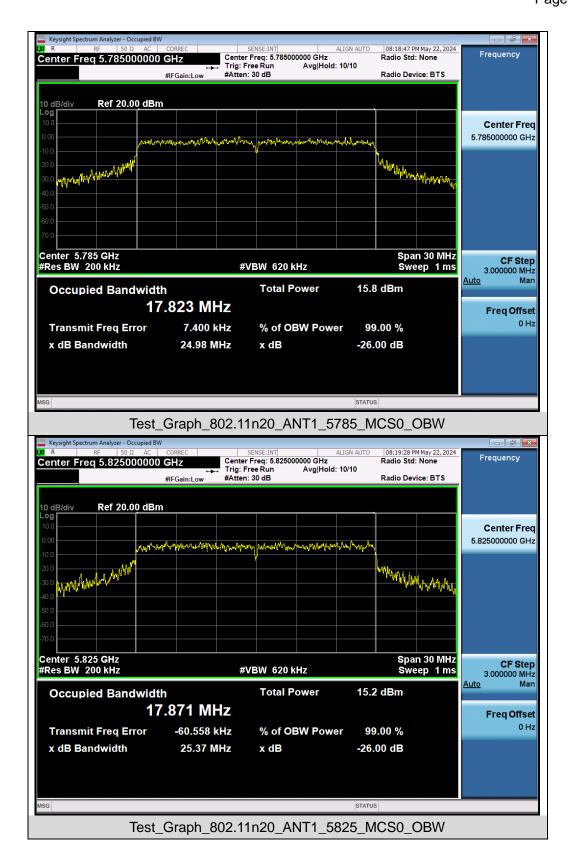


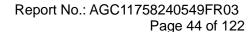




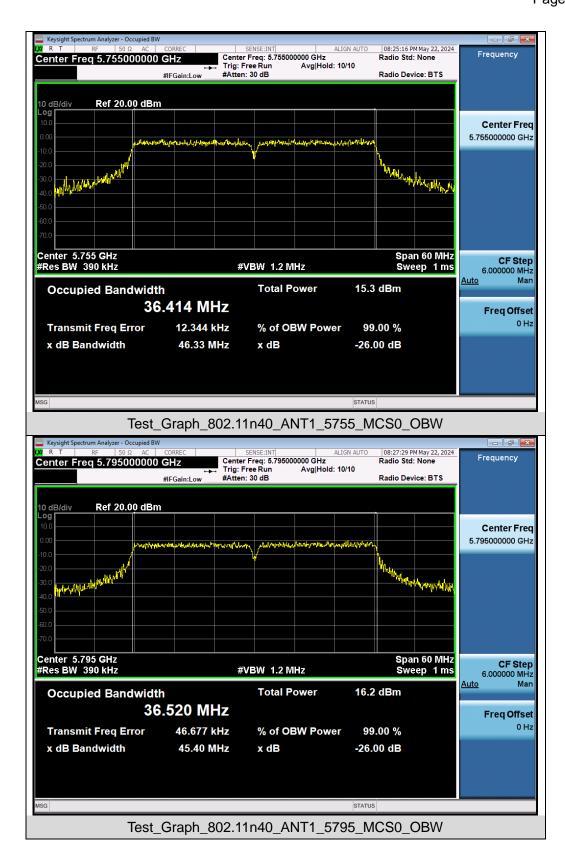


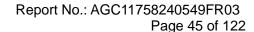




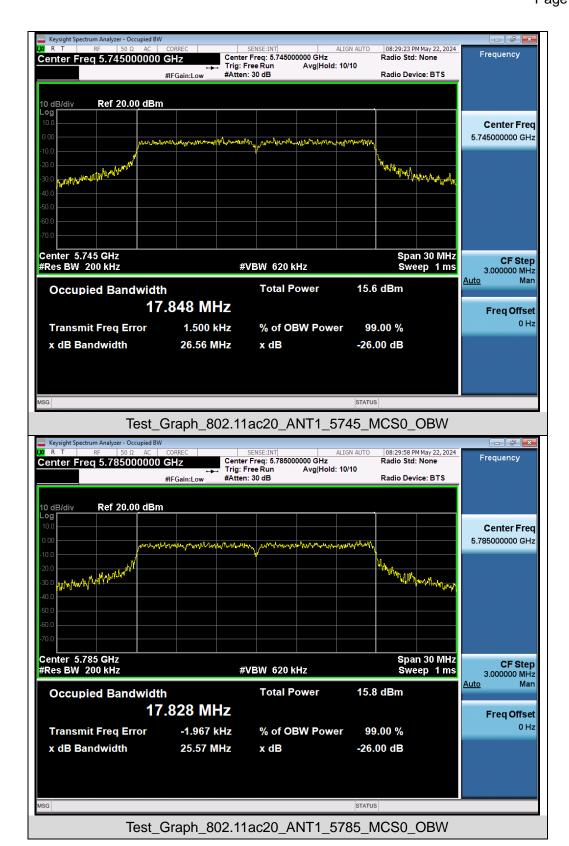


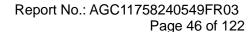




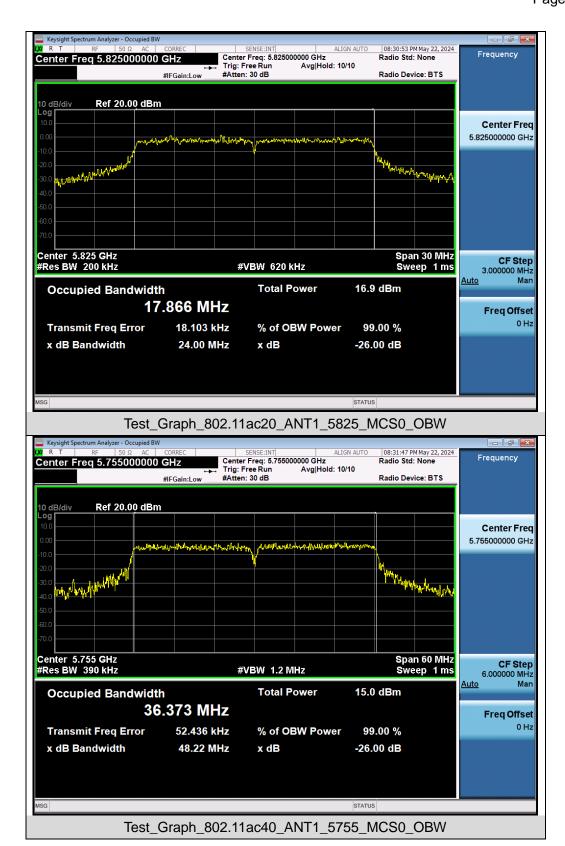


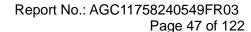




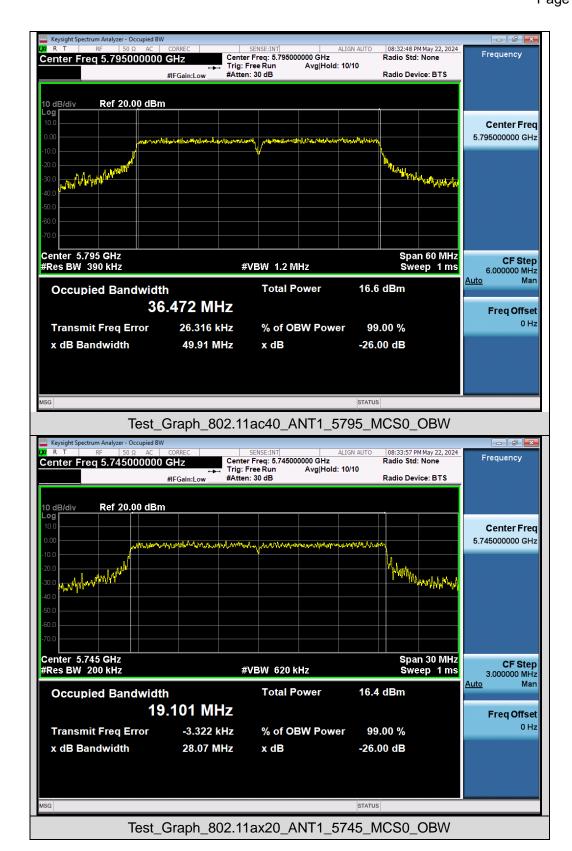


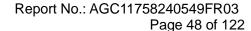




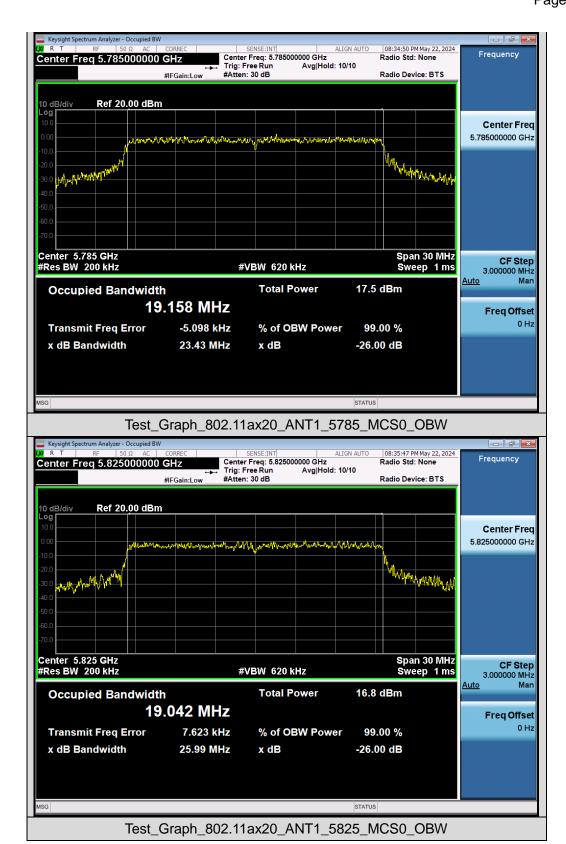


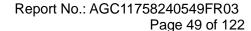




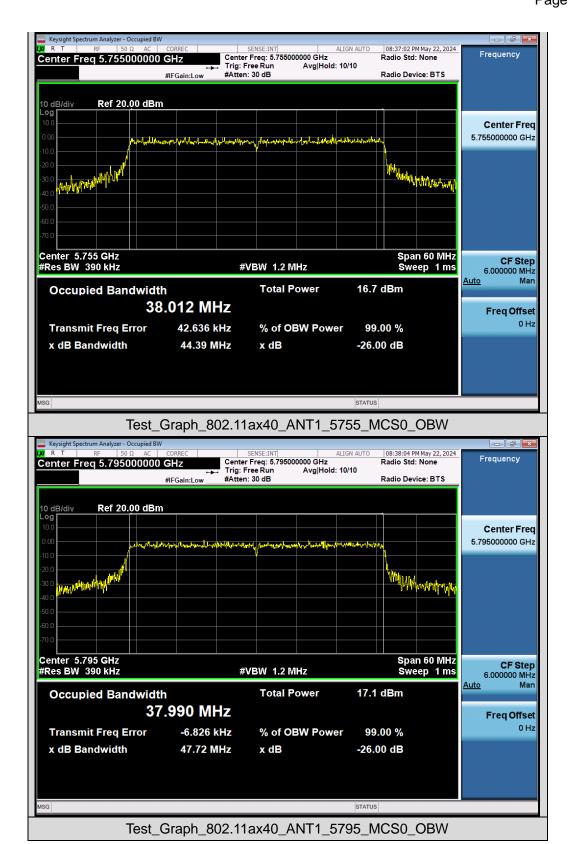


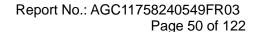














Test Graphs of DTS Bandwidth for band 5.725-5.85 GHz

