

TEST REPORT

Applicant: Patrol 6, LLC
EUT Description: 4G Badage Camera
Model: BC1
Brand: PATROL 6
FCC ID: 2BVFCP6-MBC-V1
Standards: FCC 47 CFR Part 15 Subpart E
Date of Receipt: 2026/06/11
Date of Test: 2026/06/11 to 2026/07/22
Date of Issue: 2026/07/23

TOWE tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. It is the manufacturer's responsibility to assure that additional production units of the model are manufactured with identical electrical and mechanical components. All samples tested were in good operating condition throughout the entire test program. Measurement Uncertainties are published for informational purposes only and were not taken into account unless noted otherwise. Without written approval of TOWE, the test report shall not be reproduced except in full.



Jim Huang
Approved By:



Carey Chen
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2026/07/23	Original	Carey Chen

Summary of Test Results

Clause	FCC Part	Test Items	Test Bands	Result
4.1	§15.203	Antenna Requirement	---	PASS
4.2	§15.407(g)	Frequency Stability	---	---
4.3	§15.207	AC Power Line Conducted Emission	Section 2.2	PASS
4.4	§15.407(a)(1)(iv) §15.407(a)(2) §15.407(a)(3)(i)	Maximum Conducted Output Power	U-NII-1 U-NII-2A U-NII-2C U-NII-3	PASS
4.5	§KDB 789033 II.C.1	Emission Bandwidth	U-NII-1 U-NII-2A U-NII-2C	Reporting purposes only
4.6	§15.407(e)	Minimum Emission Bandwidth	U-NII-3	PASS
4.7	§KDB 789033 II.D	Occupied Bandwidth	U-NII-1 U-NII-2A U-NII-2C U-NII-3	Reporting purposes only
4.8	§15.407(a)(1)(iv) §15.407(a)(2) §15.407(a)(3)(i)	Maximum Power Spectral Density	U-NII-1 U-NII-2A U-NII-2C U-NII-3	PASS
4.9	§15.407(b) §15.209(d)	Unwanted Emissions	U-NII-1 U-NII-2A U-NII-2C U-NII-3	PASS
Test Method: ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Remark: Pass is EUT meets standard requirements.				

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1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurement tests were conducted at the Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. facility located at F 401 and F 101, Building E, Hongwei Industrial Zone, No. 6, Liuxian 3rd Road, Zone 70, Xingdong Community, Xin'an Street, Bao'an District, Shenzhen, People's Republic of China. The measurement facility is compliant with the test site requirements specified in ANSI C63.4-2014

Tel.: +86-755-27212361

Contact Email: info@towewireless.com

1.1.2 Test Facility / Accreditations

A2LA (Certificate Number: 7088.01)

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

FCC Designation No.: CN1353

Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. has been recognized as an accredited testing laboratory.

Test Firm Registration Number: 684095

Designation Number: CN1353.

ISED CAB identifier: CN0152

Sushi TOWE Wireless Testing (Shenzhen) Co., Ltd. has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0152

Company Number: 31000

1.2 Client Information

1.2.1 Applicant

Applicant:	Patrol 6, LLC
Address:	2843E. Robin Lane Phoenix, AZ 85050 USA

1.2.2 Manufacturer

Manufacturer:	Shenzhen Dachengwei Electronic Technology Co.,Ltd
Address:	No.201 (2nd Floor), Building No.407, East Village, Hengkeng River, Guancheng Community, anhu Sub-district, Longhua District, Shenzhen City

1.3 Product Information

EUT Description:	4G Badage Camera			
Model:	BC1			
Brand:	PATROL 6			
Hardware Version:	X920_MB_V1.1			
Software Version:	X920_DEMO_20260528_modem_0528_1			
SN:	RF Conducted	MTK0002606271738010		
	RSE & AC power line	MTK0002605091500420		
Modulation Type:	802.11a/n:	OFDM-BPSK, QPSK, 16QAM, 64QAM		
	802.11ac:	OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM		
Smart System:	☒ SISO	802.11a/n/ac		
Frequency Range:	U-NII-1:	5150 ~ 5250MHz		
	U-NII-3:	5725 ~ 5850MHz		
Channel Frequency:	20M BWch.:	U-NII-1:	5180 ~ 5240MHz	4 Channels
		U-NII-3:	5745 ~ 5825MHz	5 Channels
	40M BWch.:	U-NII-1:	5190 ~ 5230MHz	2 Channels
		U-NII-3:	5755 ~ 5795MHz	2 Channels
	80M BWch.:	U-NII-1:	5210MHz	1 Channel
		U-NII-3:	5775MHz	1 Channel
Antenna Type:	☐ External, ☒ Integrated			
Antenna Gain:	Frequency Range	Ant (dBi)		
	5150 ~ 5250MHz	1.03		
	5725 ~ 5850MHz	2.11		
Remark: The above EUT's information was declared by applicant, please refer to the specifications or user's manual for more detailed description.				

2 Test Configuration

2.1 Test Channel

Frequency Channels for U-NII-1							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	40	5200MHz	44	5220MHz	48	5240MHz
38	5190MHz	42	5210MHz	46	5230MHz	/	
Remark: In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:							
Modulation Type		Test Channel		Test Frequency			
802.11a/n20 /ac20		The Lowest channel (CH36)		5180MHz			
		The Middle channel (CH40)		5200MHz			
		The Highest channel (CH48)		5240MHz			
Modulation Type		Test Channel		Test Frequency			
802.11n40 /ac40		The Lowest channel (CH38)		5190MHz			
		The Highest channel (CH46)		5230MHz			
Modulation Type		Test Channel		Test Frequency			
802.11ac80		The Middle channel (CH42)		5210MHz			

Frequency Channels for U-NII-3							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
149	5745MHz	153	5765MHz	157	5785MHz	161	5805MHz
151	5755MHz	155	5775MHz	159	5795MHz	165	5825MHz
Remark: In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:							
Modulation Type	Test Channel		Test Frequency				
802.11a/n20 /ac20	The Lowest channel (CH149)		5745MHz				
	The Middle channel (CH157)		5785MHz				
	The Highest channel (CH165)		5825MHz				
Modulation Type	Test Channel		Test Frequency				
802.11n40 /ac40	The Lowest channel (CH151)		5755MHz				
	The Highest channel (CH159)		5795MHz				
Modulation Type	Test Channel		Test Frequency				
802.11ac80	The Middle channel (CH155)		5775MHz				

2.2 Worst-case configuration and Mode

Modulation Type	SISO - Data Rate
802.11a	6 Mbps
802.11n20	MCS0 (6.5 Mbps)
802.11n40	MCS0 (13.5 Mbps)
802.11ac20	MCS0 (6.5 Mbps)
802.11ac40	MCS0 (13.5 Mbps)
802.11ac80	MCS0 (29.3 Mbps)
Transmitting mode:	Keep the EUT was programmed to be in continuously transmitting mode.
Normal Link:	Keep the EUT operation to normal function.

2.3 Support Unit used in test

The EUT has been tested as an independent unit.

2.4 Test Environment

Temperature:	Normal: 15°C ~ 35°C
Humidity:	45 ~ 56 % RH Ambient
Voltage:	DC 3.8V
AC Voltage:	AC 120V/60Hz for Conducted Emissions
Remark: The testing environment is within the scope of the EUT user manual and meets the requirements of the standard testing environment.	

2.5 Test RF Cable

For all conducted test items: The offset level is set spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

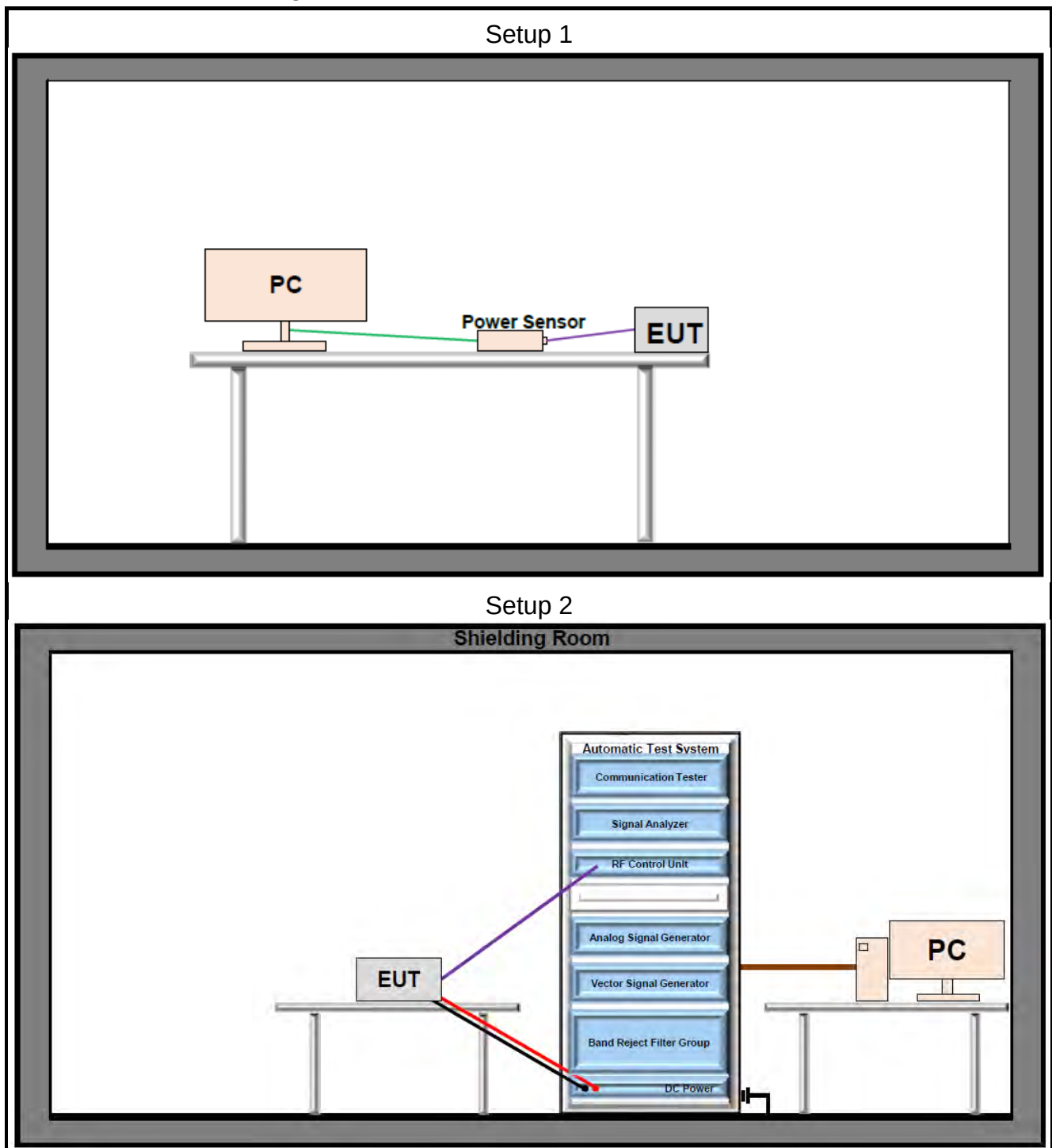
Offset = RF cable loss + attenuator factor.

2.6 Modifications

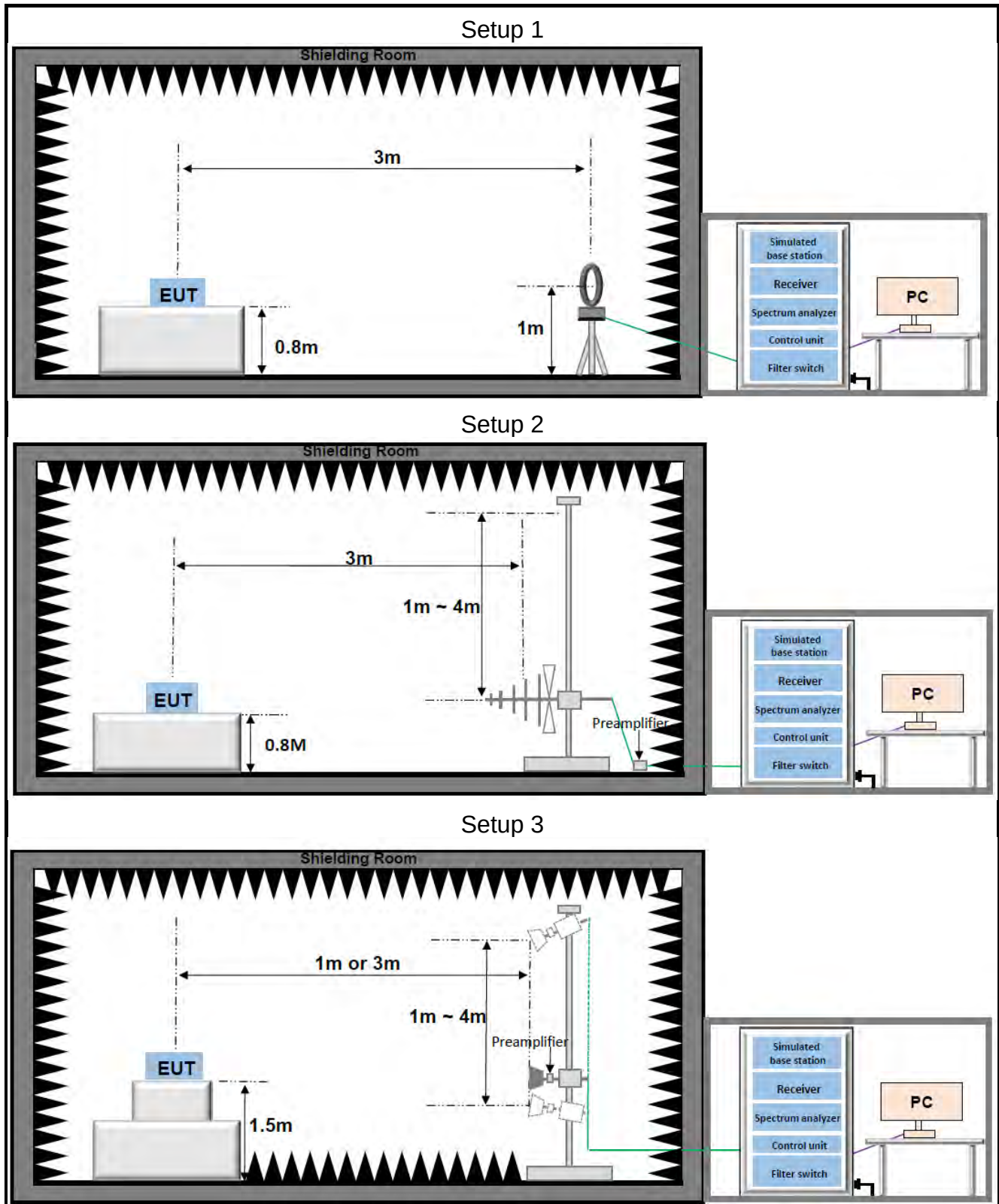
No modifications were made during testing.

2.7 Test Setup Diagram

2.7.1 Conducted Configuration



2.7.2 Radiated Configuration



3 Equipment and Measurement Uncertainty

All test and measuring equipment utilized to perform the tests documented in this report are calibrated on a regular basis, whichever is less, and where applicable is traceable to recognized national standards.

3.1 Test Equipment List

RF Conducted					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
Signal Analyzer	Keysight	N9020A	US46470429	2026/03/05	2027/03/04
Signal Generator	R&S	SMR20	101027	2026/03/05	2027/03/04
Vector Signal Generator	R&S	SMM100A	549353	2026/05/29	2027/05/28
Power Sensor	Anritsu	MA24408A	12520	2026/05/29	2027/05/28
RF Control Unit	Tonscend	JS0806-2	23C80620671	2026/05/29	2027/05/28
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2026/05/29	2027/05/28
Attenuator	Yin Saige	SMA-10dBm	N/A	N/A	N/A
Measurement Software	Tonscend	TS1120-3	10659	N/A	N/A

Radiated Emission					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
Double-Ridged Horn Antennas	Tonscend	HA32-18	806HA003608251015	2025/12/13	2028/12/12
Biconic Logarithmic Periodic Antennas	Tonscend	BLA32-30	80SBLA001011251010	2025/12/13	2028/12/12
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	1290	2023/06/25	2026/06/24
				2026/06/18	2029/06/17
Loop Antenna	Schwarzbeck	FMZB 1519C	1519C-028	2023/06/29	2026/06/28
				2026/06/13	2029/06/12
Signal Analyzer	Keysight	N9020A	MY57120015	2026/01/19	2028/01/18
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2026/05/29	2027/05/28
EMI Tester Receiver	Rohde & Schwarz	ESR7	102719	2026/05/28	2027/05/27
Low Noise Amplifier	Tonscend	TAP9K3G40	806JSAP044710251054	2026/01/19	2028/01/18
Low Noise Amplifier	Tonscend	TAP01018050	806JSAP044509251052	2026/01/19	2028/01/18
Low Noise Amplifier	Tonscend	TAP18040048	AP22G806247	2025/03/11	2027/03/10
Hygrometer	BINGYU	HTC-1	N/A	2025/07/25	2026/07/24
Radio Frequency Switch	Townshend	JS0806s	806JSSX019811251028	N/A	N/A
Test Software	Tonscend	TS+	Version: 5.0.0	N/A	N/A

Conducted Emission					
Description	Manufacturer	Model	S.N.	Last Due	Cal Due
EMI Tester Receiver	Rohde & Schwarz	ESR3	103108	2026/05/28	2027/05/27
LISN	Rohde & Schwarz	ENV 216	102836	2026/01/19	2027/01/18
Test software	Rohde & Schwarz	ELEKTRA V4.61	N/A	N/A	N/A

3.2 Measurement Uncertainty

Parameter	U _{lab}
Frequency Error	679.98Hz
Output Power	0.76dB
Conducted Spurious Emissions	2.22dB
Conducted Emissions(150kHz~30MHz)	2.43dB
Radiated Emissions(9kHz~30MHz)	2.40dB
Radiated Emissions(30MHz~1000MHz)	4.66dB
Radiated Emissions(1GHz~18GHz)	5.42dB
Radiated Emissions(18GHz~40GHz)	5.46dB

Uncertainty figures are valid to a confidence level of 95%

4 Test Results

4.1 Antenna Requirement

Standard Applicable:	47 CFR Part 15E Section 15.203
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 antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.	
The antenna gain and type as provided by the manufacturer are as follows: The antenna Type is Integrated. With Antenna gain is 5150 ~ 5250MHz: 1.03dBi; 5725 ~ 5850MHz: 2.11dBi; Antenna Anti-Replacement Construction: An embedded-in antenna design is used.	

4.2 Frequency Stability

Standard Applicable:	47 CFR Part 15E Section 15.407(g)
Manufacturers 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.	

4.3 AC Power Line Conducted Emissions

Limits

Frequency range (MHz)	Limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

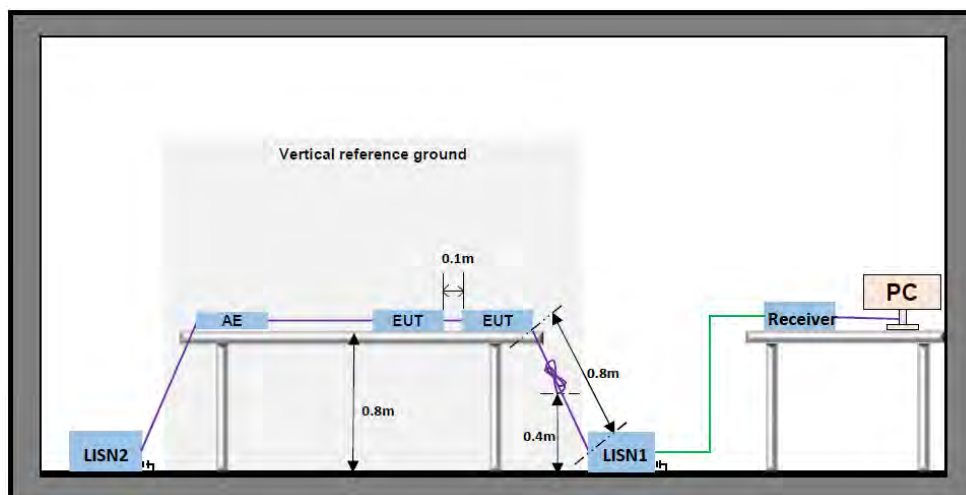
Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, Section 6.2.

Test Settings

1. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50 Ω /50 μ H + 5 Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
2. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane.
3. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
4. Set the test-receiver system to Peak detect function and specified bandwidth (if bandwidth =9kHz) with maximum hold mode. Then measurement is also conducted by average detector and Quasi-Peak detector function respectively
5. Both sides of AC line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

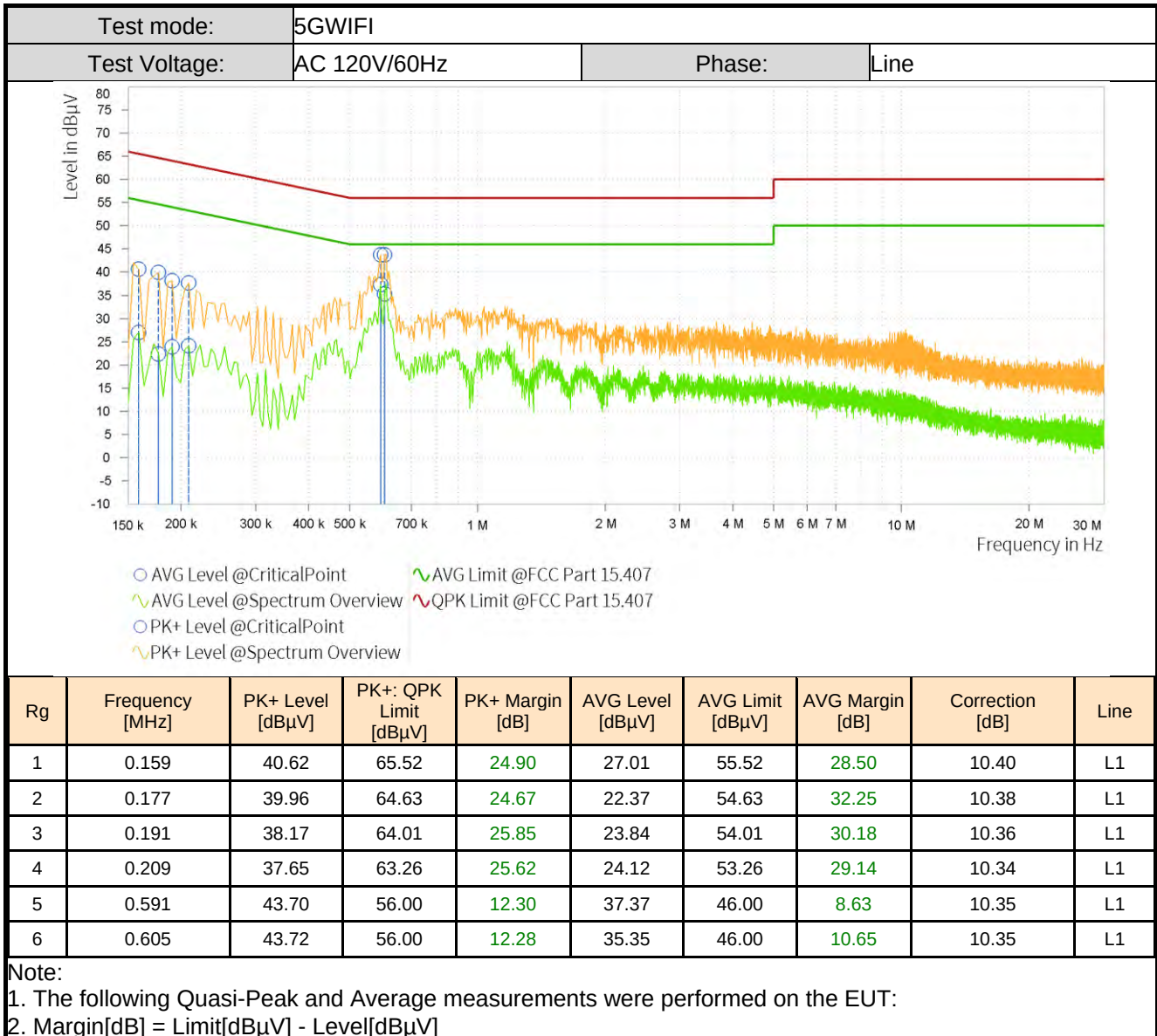
Test Setup

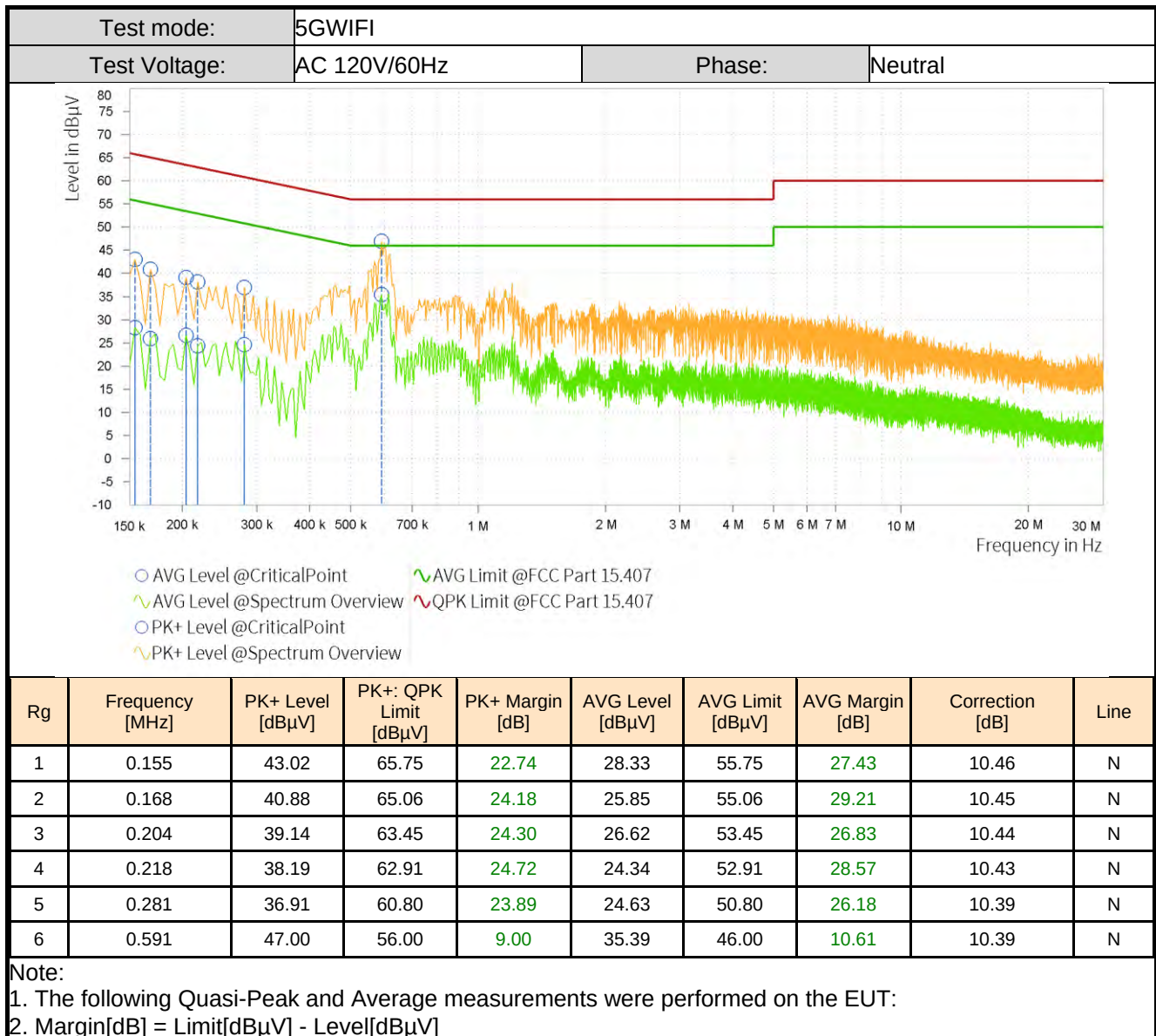


Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result:





4.4 Maximum Conducted Output Power

Limits

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 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

Test Procedure

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.E.3.b (Other Channel)

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.E.2.b(Straddle Channel)

Test Settings

1. PM-G:
Set to the maximum power setting and enable the EUT transmit continuously.
The power output was measured on the EUT antenna port using RF Cable with an attenuator connected to a power sensor. Output power was read directly from the power sensor.
Measure and record the results in the test report.
2. SA:
RBW = 1MHz
VBW $\geq$ 3MHz
Span = Encompass the EBW (or, alternatively, the entire 99% occupied bandwidth)
Sweep = Auto
Detector = power averaging (rms)

Test Setup

Refer to section 2.7.1 Setup 1 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.5 Emission Bandwidth

Limits

None, for reporting purposes only.

Test Procedure

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.C.1.

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. The transmitter output is connected to a spectrum analyzer:
3. RBW = 1% - 5%(99%BW)
4. VBW = 3 times the RBW
5. Sweep = Auto
6. Detector = Peak
7. Trace = Max hold
8. The trace was allowed to stabilize
9. Measure and record the results in the test report.

Test Notes

The signal analyzers' automatic bandwidth measurement capability of the spectrum analyzer was used to perform the 26dB bandwidth measurement. The "X" dB bandwidth parameter was set to X= 26. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.

Test Setup

Refer to section 2.7.1 Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.6 Minimum Emission Bandwidth

Limits

Within the 5.725-5.850 GHz and 5.850-5.895 GHz bands, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.C.2.

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. The transmitter output is connected to a spectrum analyzer:
3. RBW = 100kHz(DTS)
4. VBW = 3 times the RBW
5. Sweep = Auto
6. Detector = Peak
7. Trace = Max hold
8. The trace was allowed to stabilize
9. Measure and record the results in the test report.

Test Notes

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.

Test Setup

Refer to section 2.7.1- Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.7 Occupied Bandwidth

Limits

None, for reporting purposes only.

Test Procedure

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.D.

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously.
2. The transmitter output is connected to a spectrum analyzer:
3. RBW = 1% - 5%(99%BW)
4. VBW = 3 times the RBW
5. Sweep = Auto
6. Detector = Peak
7. Trace = Max hold
8. The trace was allowed to stabilize
9. Measure and record the results in the test report.

Test Setup

Refer to section 2.7.1- Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.8 Maximum Power Spectral Density

Limits

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.

Test Procedure

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.F

Test Settings

1. Set to the maximum power setting and enable the EUT transmit continuously
2. The transmitter output is connected to a spectrum analyzer
3. RBW = 1MHz (for 5.15–5.25 GHz, 5.25–5.35 GHz, and 5.47–5.725 GHz)
4. RBW = 500kHz (for 5.725–5.85 GHz)
5. VBW $\geq$ 3 times RBW
6. Sweep = Auto
7. Detector = Peak
8. Trace = Max hold
9. The trace was allowed to stabilize
10. Measure and record the results in the test report.

Test Setup

Refer to section 2.7.1- Setup 2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

4.9 Unwanted Emissions

Limits

Spurious emissions are permitted in an of the frequency bands:

MHz	MHz	MHz	MHz	GHz	GHz
0.090 - 0.110	12.29 - 12.293	149.9 - 150.05	1660 - 1710	4.5 - 5.15	14.47 - 14.5
0.495 - 0.505	12.51975 - 12.52025	156.52475 - 156.52525	1718.8 - 1722.2	5.35 - 5.46	15.35 - 16.2
2.1735 - 2.1905	12.5767 - 12.57725	156.7 - 156.9	2200 - 2300	7.25 - 7.75	17.7 - 21.4
4.125 - 128	13.36 - 13.41	162.0125 - 167.17	2310 - 2390	8.025 - 8.5	22.01 - 23.12
4.17725 - 4.17775	16.42 - 16.423	167.72 - 173.2	2483.5 - 2500	9.0 - 9.2	23.6 - 24.0
4.20725 - 4.20775	16.69475 - 16.69525	240 - 285	2655 - 2900	9.3 - 9.5	31.2 - 31.8
6.215 - 6.218	1680425 - 1680475	322 - 335.4	3260 - 3267	10.6 - 12.7	36.43 - 36.5
6.26775 - 6.26825	25.5 - 25.67	399.9 - 410	3332 - 3339	13.25 - 13.4	
6.31175 - 6.31225	37.5 - 38.25	608 - 614	3345.8 - 3358		
8.291 - 8.294	73 - 74.6	960 - 1240	3600 - 4400		
8.362 - 8.366	74.8 - 75.2	1300 - 1427			
8.37625 - 8.38675	108 - 121.94	1435 - 1626.5			
8.41425 - 8.41475	123 - 138	1645.5 - 1646.5			

Radiated disturbance of an intentional radiator:

Frequency	Field strength ($\mu\text{V/m}$)	Limit (dB $\mu\text{V/m}$)	Remark	Measurement distance (m)
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30
1.705MHz-30MHz	30	-	-	30
30MHz-88MHz	100	40.0	Quasi-peak	3
88MHz-216MHz	150	43.5	Quasi-peak	3
216MHz-960MHz	200	46.0	Quasi-peak	3
960MHz-1GHz	500	54.0	Quasi-peak	3
Above 1GHz	500	74.0	Peak	3
		54.0	Average	

Un-restricted band emissions above 1GHz limit:

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 solely in the 5.725-5.850 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.

Test Procedure

ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 Section 6.4 & 6.5 & 6.6 & 12.7.

KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II.G.3 ~ 6.

Test Settings

1. For radiated emissions measurements performed at frequencies less than or equal to 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the reference ground plane.
2. For radiated emissions measurements performed at frequencies above 1GHz, the EUT shall be placed on a RF-transparent table or support at a nominal height of 80cm above the ground plane.
3. Radiated measurements shall be made with the measurement antenna positioned in both horizontal and vertical polarization. The measurement antenna shall be varied from 1m to 4m in height above the reference ground in a search for the relative positioning that produces the maximum radiated signal level (i.e, field strength or received power), when orienting the measurement antenna in vertical polarization, the minimum height of the lowest element of the antenna shall clear the site reference ground plane by at least 25cm.
4. For each suspected emission, the EUT was ranged its worst case and then tune the antenna tower(from 1~4m) and turntable(from 0~360°) find the maximum reading. Preamplifier and a high pass filter are used for the test in order get better signal level comply with the guidelines.
5. The simulated base station was set to force the EUT to its maximum transmitting power.
6. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
7. spectrum analyzer setting:
Measurements Below 1000MHz: RBW = 120 kHz; VBW ≥ 300 kHz; Detector = Peak
Measurements Above 1000MHz: RBW = 1 MHz; VBW ≥ 3 MHz; Detector = Peak
Average Measurements Above 1000MHz:
RBW = 1 MHz; VBW ≥ 3 MHz; Detector = RMS; Trace (RMS) averaging was performed over at least 100 traces.
8. The field strength is calculated by adding the Antenna Factor, Cable Factor. The basic equation with a sample calculation is as follows:
Level = Reading(dBμV) + Factor(dB):
Factor = Cable Factor(dB) + AF(dB/m) - Preamplifier gain(dB)
AF = Antenna Factor(dB/m)
Margin = Limit(dBμV/m) – Level(dBμV/m)
9. Repeat above procedures until all frequencies measured was complete.
10. Measure and record the results in the test report.

Test Notes

1. Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
2. Radiated spurious emissions were investigated from 9kHz to 30MHz, 30MHz-1GHz and above 1GHz. the disturbance between 9kHz to 30MHz and 18GHz to 40GHz was very low. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be recorded, so only the harmonics had been displayed.
3. These frequencies which near "-" should be ignored because they are Fundamental frequency.

Test Setup

Refer to section 2.7.2 for details.

Measuring Instruments

The measuring equipment is listed in the section 3.1 of this test report.

Test Result

The detailed test data see: **Appendix**.

5 Test Setup Photos

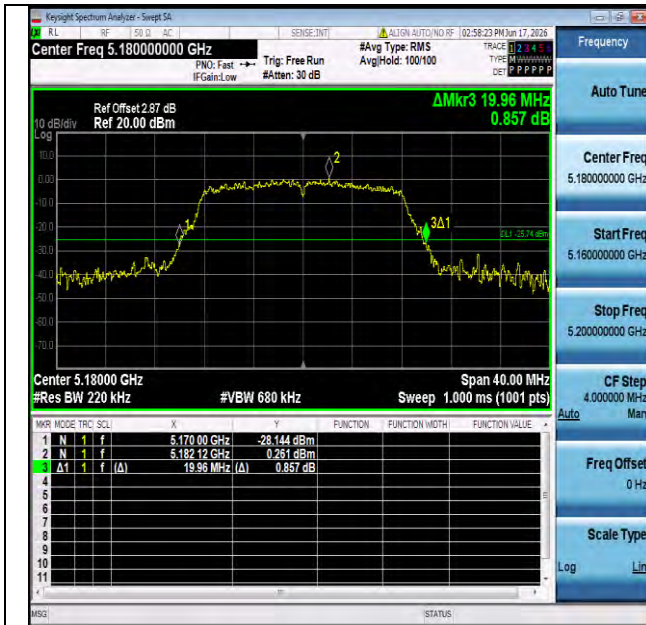
For detailed test setup photos, see **Appendix-C BTWIFI Setup Photos**

Appendix

Emission Bandwidth Test Result

TestMode	Antenna	Frequency[MHz]	26dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11a	Ant1	5180	19.960	5170.000	5189.960	---	---
11a	Ant1	5200	20.080	5189.760	5209.840	---	---
11a	Ant1	5240	19.520	5230.280	5249.800	---	---
11a	Ant1	5745	20.000	5735.000	5755.000	---	---
11a	Ant1	5785	19.720	5775.040	5794.760	---	---
11a	Ant1	5825	19.480	5815.240	5834.720	---	---
11n20SISO	Ant1	5180	20.080	5170.000	5190.080	---	---
11n20SISO	Ant1	5200	19.960	5189.960	5209.920	---	---
11n20SISO	Ant1	5240	20.560	5229.760	5250.320	---	---
11n20SISO	Ant1	5745	20.120	5735.000	5755.120	---	---
11n20SISO	Ant1	5785	20.120	5774.880	5795.000	---	---
11n20SISO	Ant1	5825	20.280	5814.920	5835.200	---	---
11n40SISO	Ant1	5190	40.160	5170.000	5210.160	---	---
11n40SISO	Ant1	5230	40.160	5209.840	5250.000	---	---
11n40SISO	Ant1	5755	40.160	5734.920	5775.080	---	---
11n40SISO	Ant1	5795	40.240	5775.000	5815.240	---	---
11ac20SISO	Ant1	5180	20.280	5169.760	5190.040	---	---
11ac20SISO	Ant1	5200	20.120	5189.960	5210.080	---	---
11ac20SISO	Ant1	5240	20.000	5229.960	5249.960	---	---
11ac20SISO	Ant1	5745	20.160	5734.920	5755.080	---	---
11ac20SISO	Ant1	5785	20.240	5774.800	5795.040	---	---
11ac20SISO	Ant1	5825	20.080	5815.040	5835.120	---	---
11ac40SISO	Ant1	5190	40.240	5170.000	5210.240	---	---
11ac40SISO	Ant1	5230	40.000	5209.920	5249.920	---	---
11ac40SISO	Ant1	5755	39.840	5734.920	5774.760	---	---
11ac40SISO	Ant1	5795	39.760	5775.080	5814.840	---	---
11ac80SISO	Ant1	5210	80.800	5169.360	5250.160	---	---
11ac80SISO	Ant1	5775	80.640	5734.520	5815.160	---	---

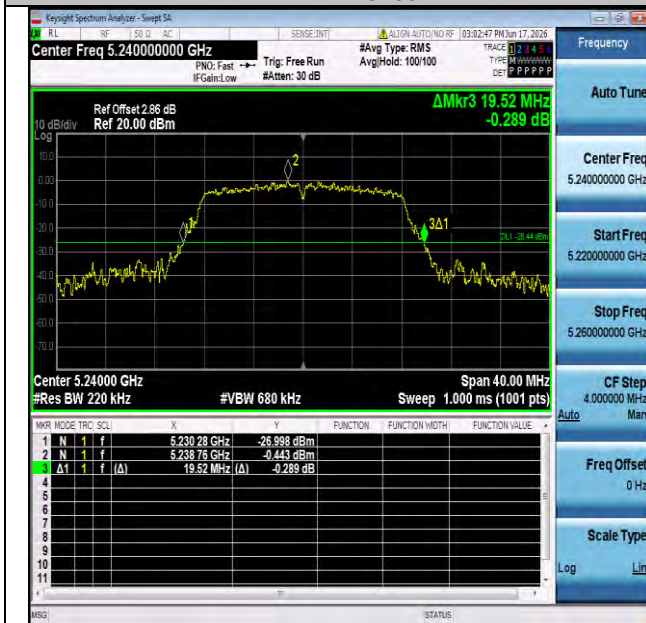
Test Graphs



11a-Ant1-5180



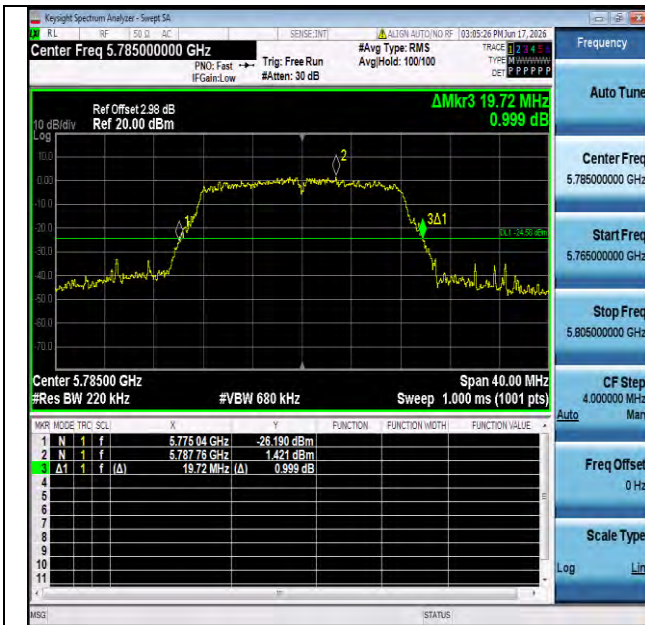
11a-Ant1-5200



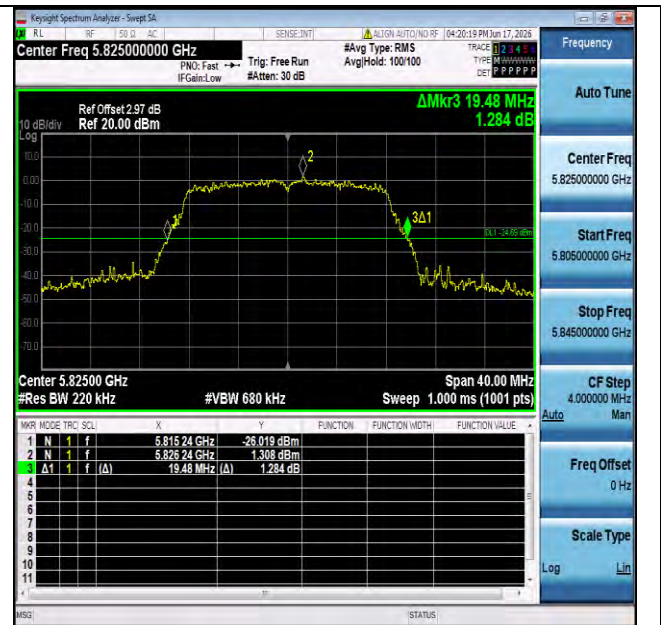
11a-Ant1-5240



11a-Ant1-5745



11a-Ant1-5785



11a-Ant1-5825



11n20SISO-Ant1-5180



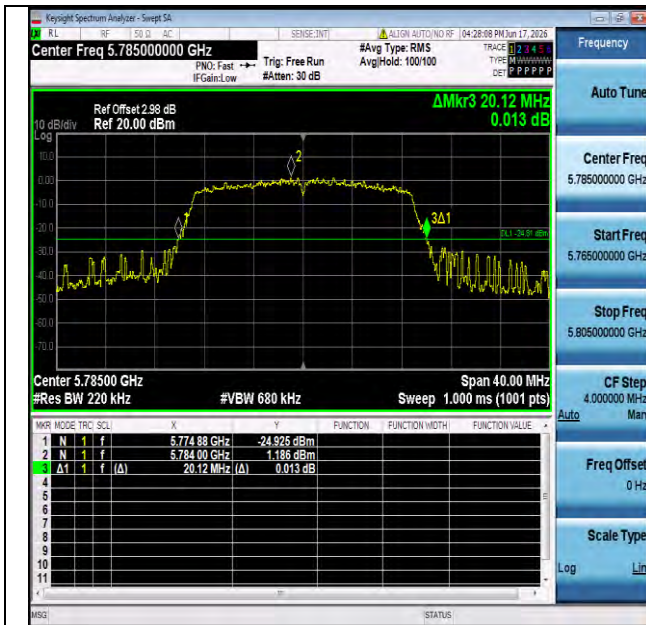
11n20SISO-Ant1-5200



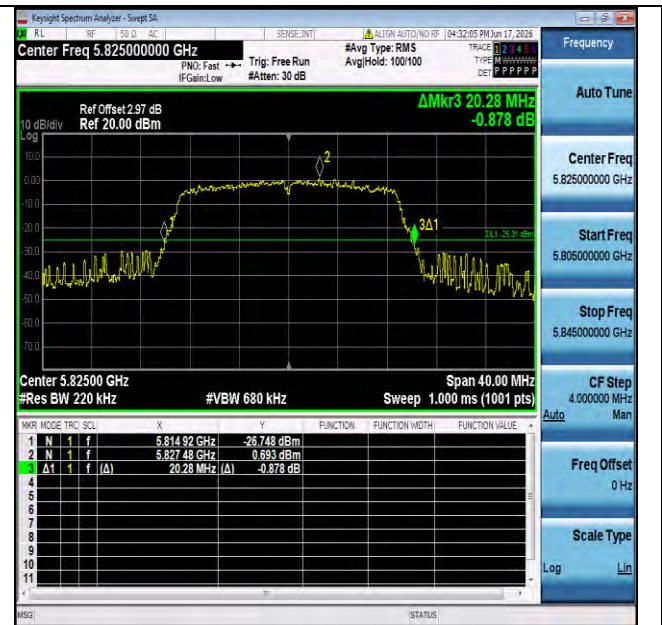
11n20SISO-Ant1-5240



11n20SISO-Ant1-5745



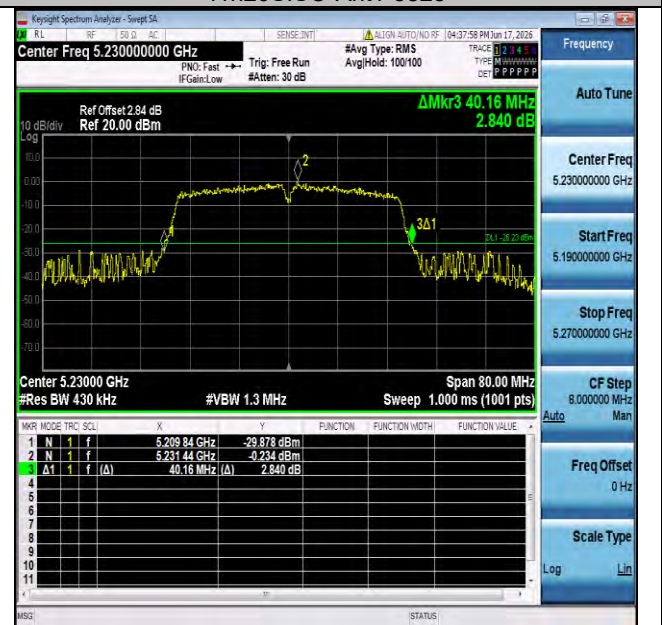
11n20SISO-Ant1-5785



11n20SISO-Ant1-5825



11n40SISO-Ant1-5190



11n40SISO-Ant1-5230



11n40SISO-Ant1-5755



11n40SISO-Ant1-5795



11ac20SISO-Ant1-5180



11ac20SISO-Ant1-5200



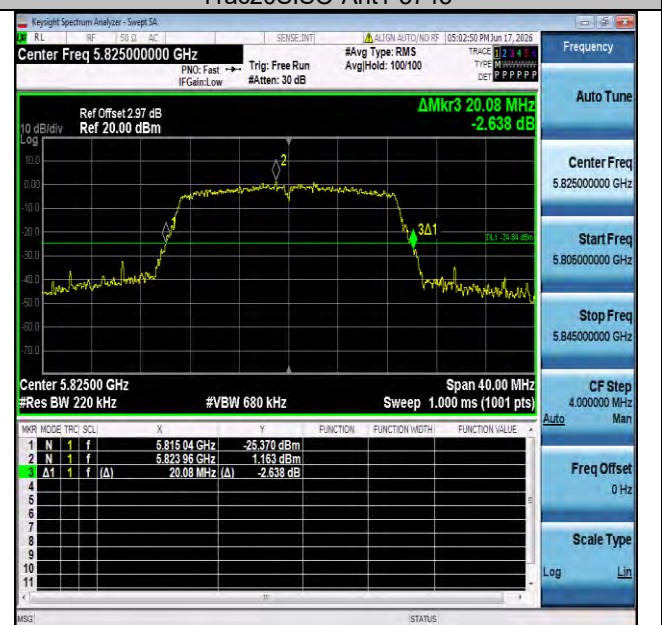
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11ac20SISO-Ant1-5240



11ac20SISO-Ant1-5240



11ac20SISO-Ant1-5240



11ac40SISO-Ant1-5190



11ac40SISO-Ant1-5230



11ac40SISO-Ant1-5755



11ac40SISO-Ant1-5795



11ac80SISO-Ant1-5210



11ac80SISO-Ant1-5775

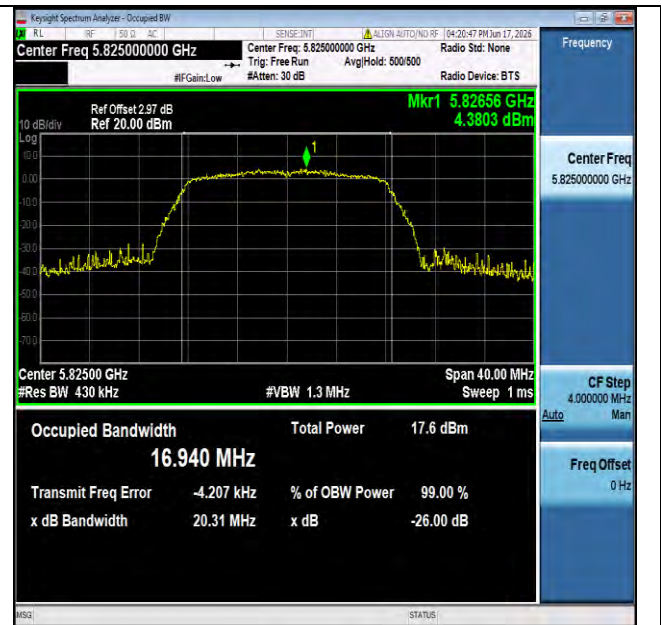
Occupied channel bandwidth

Test Result

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11a	Ant1	5180	16.935	5171.5112	5188.4462	---	---
11a	Ant1	5200	16.967	5191.5073	5208.4743	---	---
11a	Ant1	5240	16.971	5231.4980	5248.4690	---	---
11a	Ant1	5745	16.905	5736.5429	5753.4479	---	---
11a	Ant1	5785	16.895	5776.5794	5793.4744	---	---
11a	Ant1	5825	16.940	5816.5258	5833.4658	---	---
11n20SISO	Ant1	5180	17.938	5171.0027	5188.9407	---	---
11n20SISO	Ant1	5200	17.945	5191.0075	5208.9525	---	---
11n20SISO	Ant1	5240	17.941	5230.9963	5248.9373	---	---
11n20SISO	Ant1	5745	17.880	5736.0320	5753.9120	---	---
11n20SISO	Ant1	5785	17.887	5776.0499	5793.9369	---	---
11n20SISO	Ant1	5825	17.885	5816.0470	5833.9320	---	---
11n40SISO	Ant1	5190	36.439	5171.7230	5208.1620	---	---
11n40SISO	Ant1	5230	36.481	5211.7262	5248.2072	---	---
11n40SISO	Ant1	5755	36.439	5736.7919	5773.2309	---	---
11n40SISO	Ant1	5795	36.276	5776.8582	5813.1342	---	---
11ac20SISO	Ant1	5180	17.835	5171.0807	5188.9157	---	---
11ac20SISO	Ant1	5200	17.837	5191.0437	5208.8807	---	---
11ac20SISO	Ant1	5240	17.903	5231.0296	5248.9326	---	---
11ac20SISO	Ant1	5745	17.807	5736.0882	5753.8952	---	---
11ac20SISO	Ant1	5785	17.838	5776.0731	5793.9111	---	---
11ac20SISO	Ant1	5825	17.792	5816.1184	5833.9104	---	---
11ac40SISO	Ant1	5190	36.291	5171.8091	5208.1001	---	---
11ac40SISO	Ant1	5230	36.337	5211.8039	5248.1409	---	---
11ac40SISO	Ant1	5755	36.267	5736.8855	5773.1525	---	---
11ac40SISO	Ant1	5795	36.157	5776.9574	5813.1144	---	---
11ac80SISO	Ant1	5210	75.275	5172.2626	5247.5376	---	---
11ac80SISO	Ant1	5775	75.253	5737.3938	5812.6468	---	---



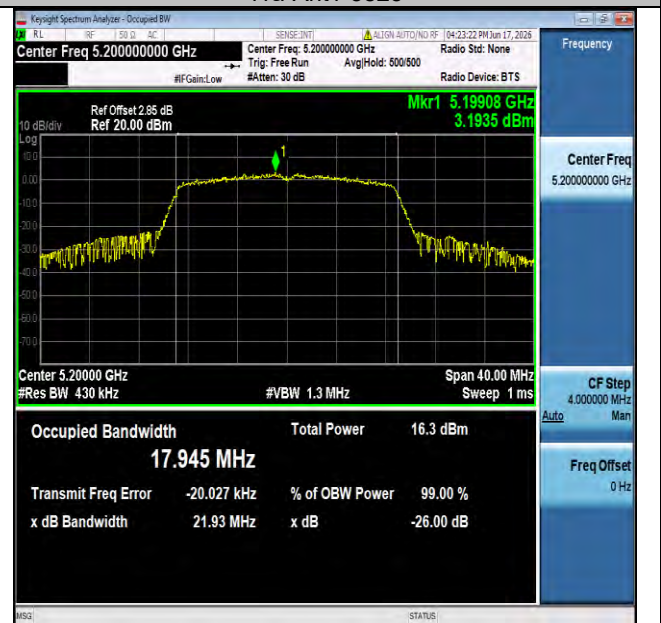
11a-Ant1-5785



11a-Ant1-5825



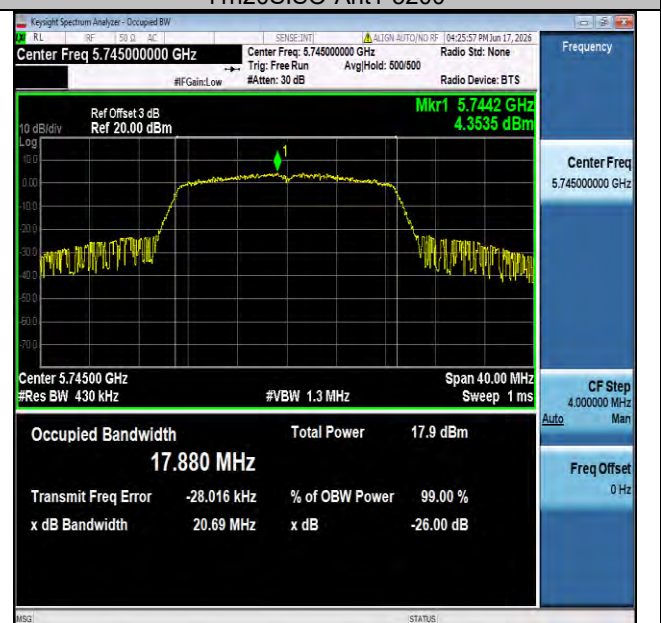
11n20SISO-Ant1-5180



11n20SISO-Ant1-5200



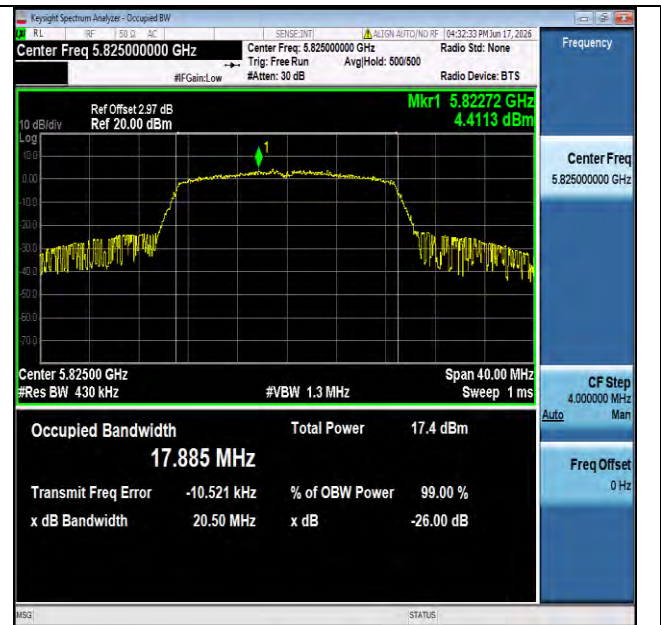
11n20SISO-Ant1-5240



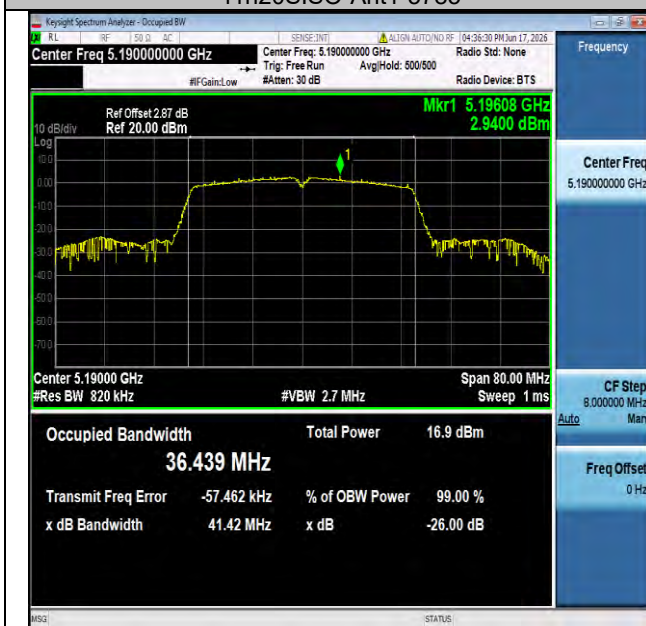
11n20SISO-Ant1-5745



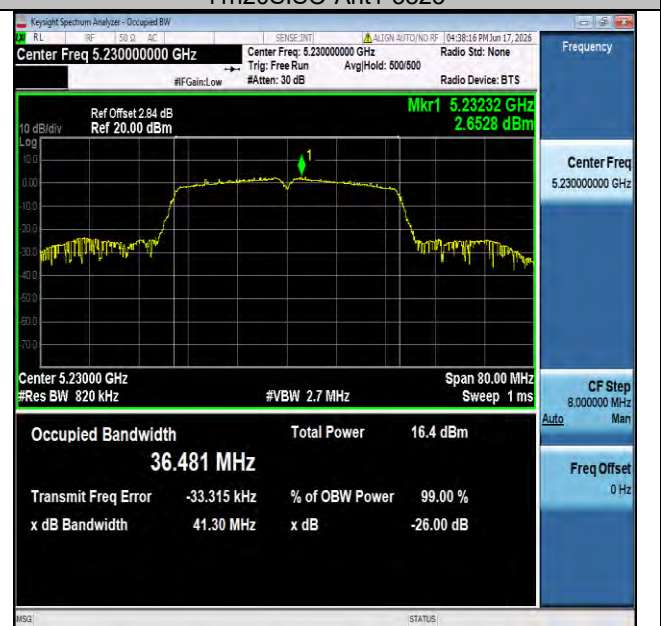
11n20SISO-Ant1-5785



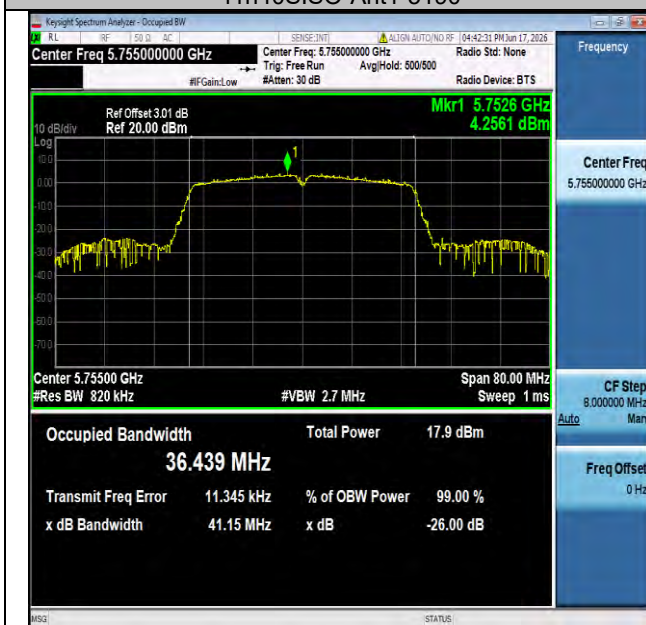
11n20SISO-Ant1-5825



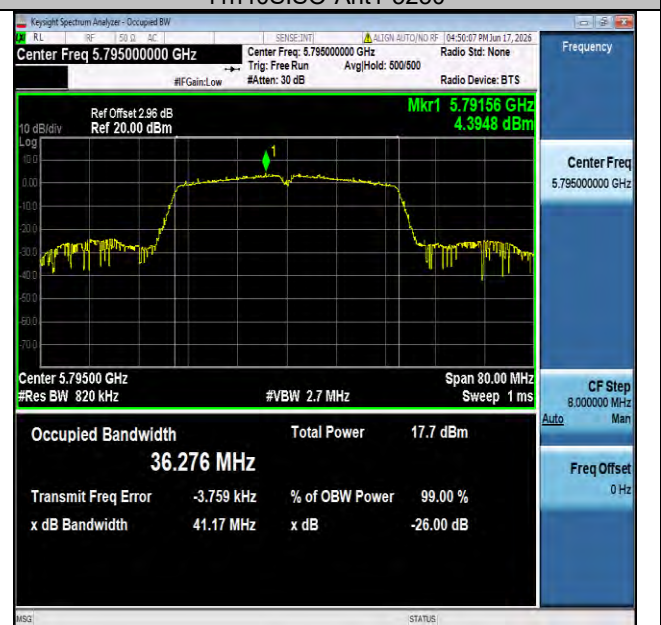
11n40SISO-Ant1-5190



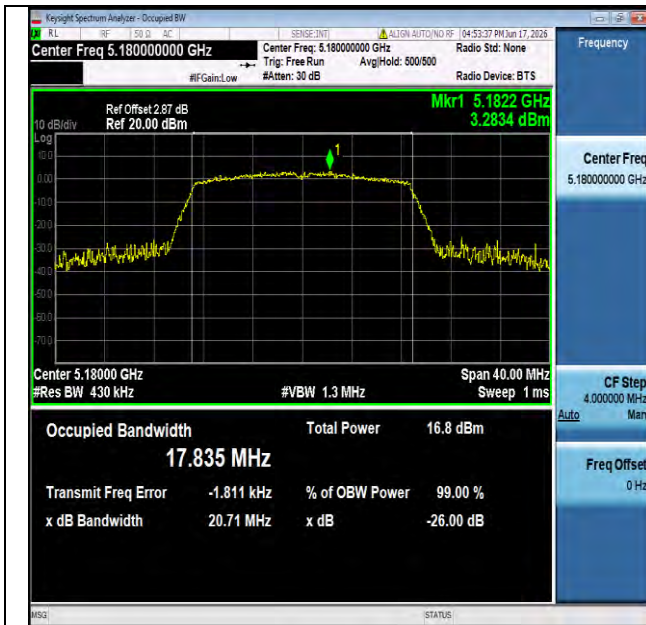
11n40SISO-Ant1-5230



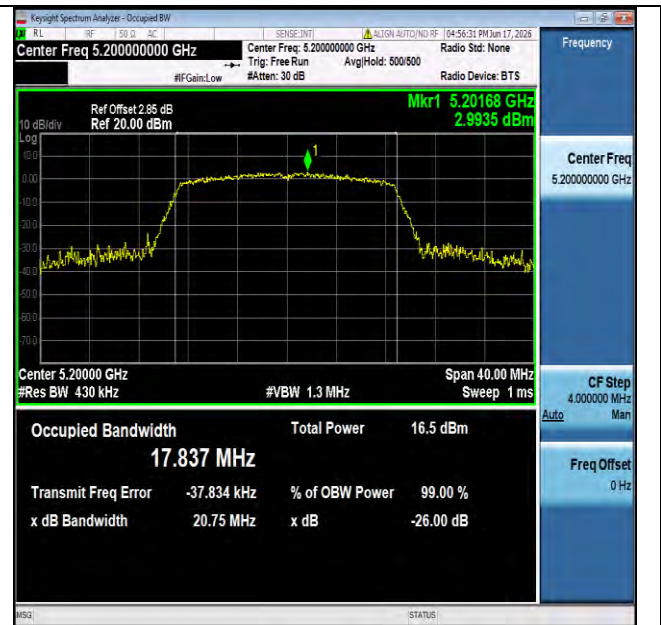
11n40SISO-Ant1-5755



11n40SISO-Ant1-5795



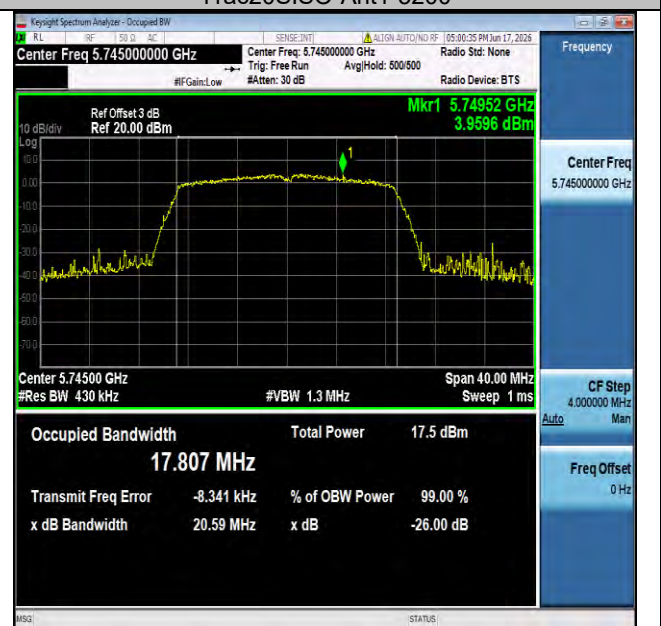
11ac20SISO-Ant1-5180



11ac20SISO-Ant1-5200



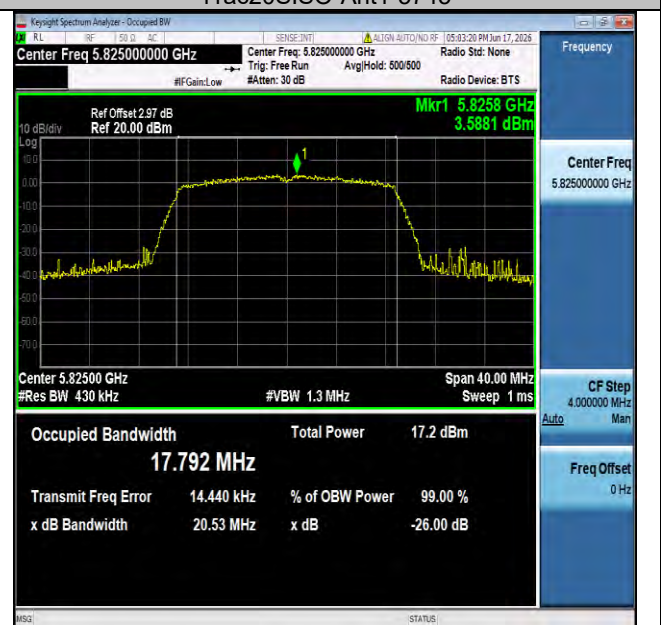
11ac20SISO-Ant1-5240



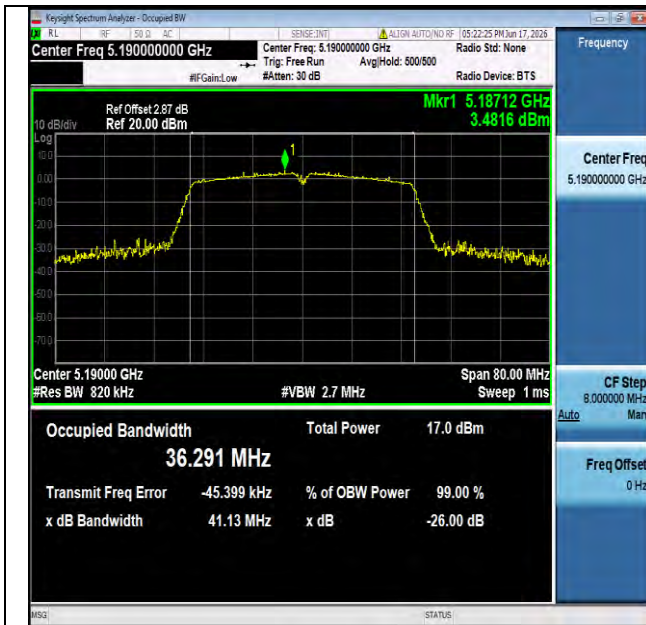
11ac20SISO-Ant1-5240



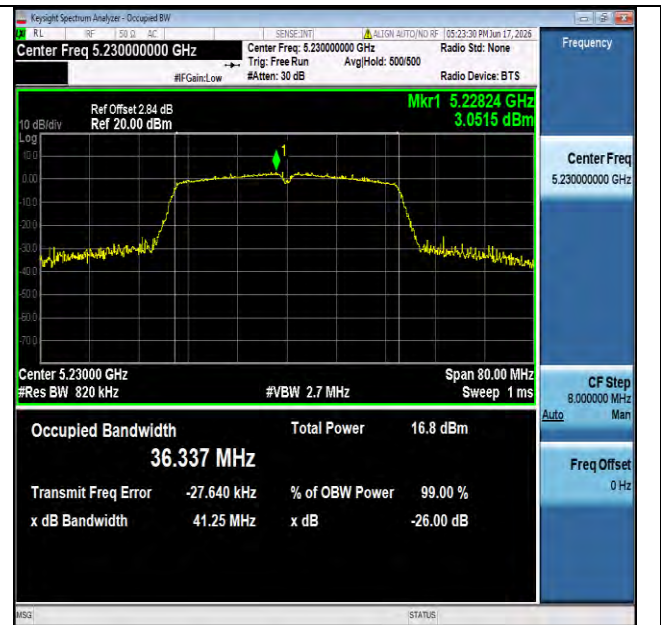
11ac20SISO-Ant1-5240



11ac20SISO-Ant1-5240



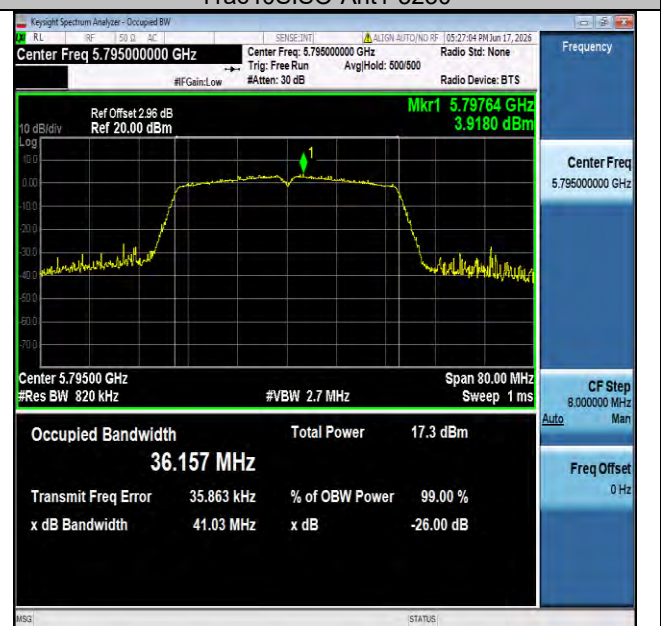
11ac40SISO-Ant1-5190



11ac40SISO-Ant1-5230



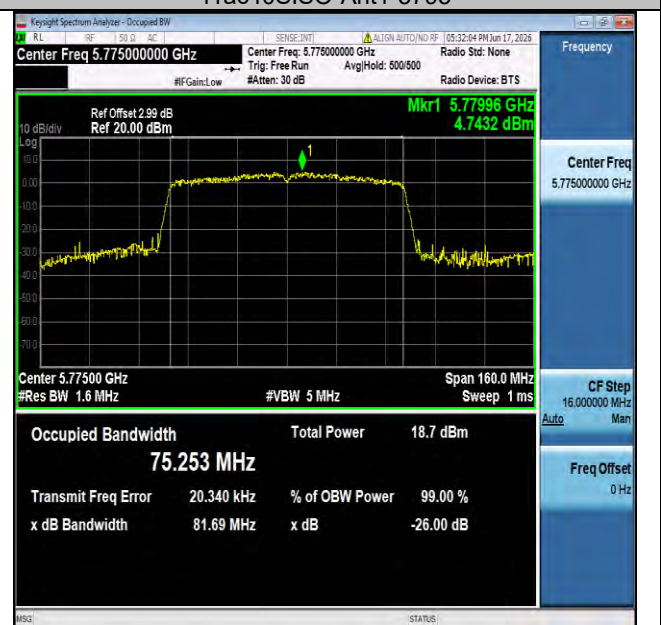
11ac40SISO-Ant1-5755



11ac40SISO-Ant1-5795



11ac80SISO-Ant1-5210



11ac80SISO-Ant1-5775

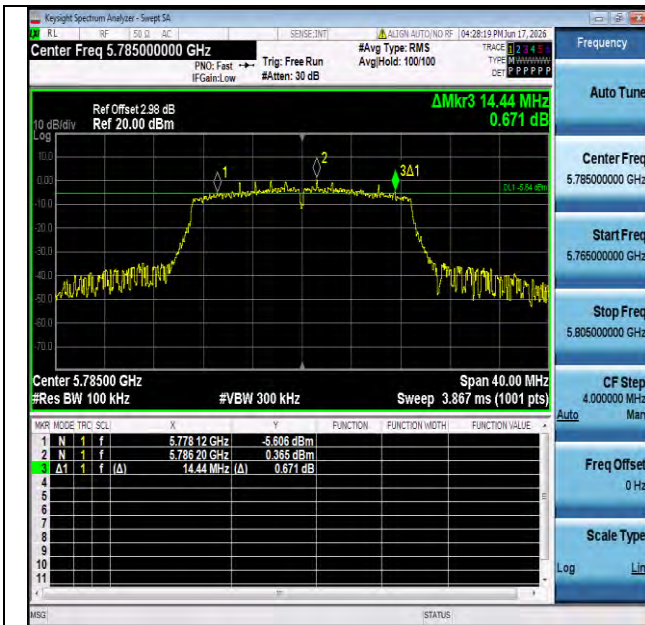
Min emission bandwidth

Test Result B4

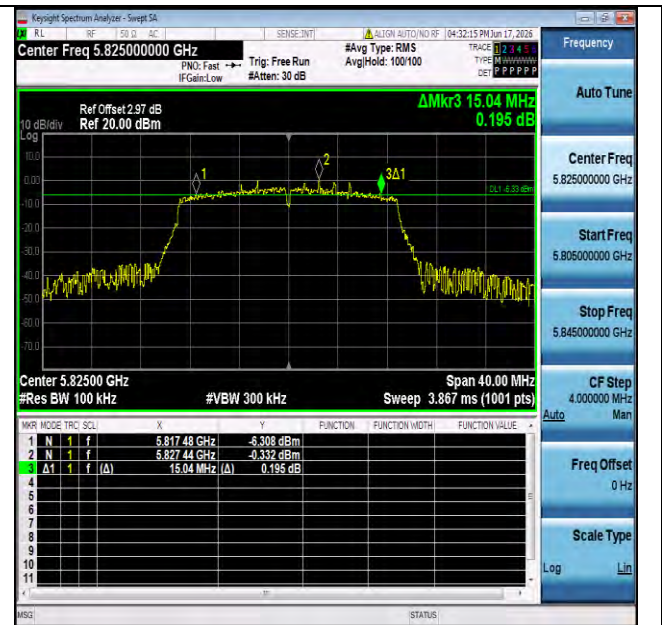
TestMode	Antenna	Frequency[MHz]	6dB EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11a	Ant1	5745	15.000	5737.440	5752.440	0.5	PASS
11a	Ant1	5785	14.120	5777.480	5791.600	0.5	PASS
11a	Ant1	5825	15.920	5817.200	5833.120	0.5	PASS
11n20SISO	Ant1	5745	13.880	5738.640	5752.520	0.5	PASS
11n20SISO	Ant1	5785	14.440	5778.120	5792.560	0.5	PASS
11n20SISO	Ant1	5825	15.040	5817.480	5832.520	0.5	PASS
11n40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
11n40SISO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
11ac20SISO	Ant1	5745	15.640	5737.080	5752.720	0.5	PASS
11ac20SISO	Ant1	5785	14.480	5777.760	5792.240	0.5	PASS
11ac20SISO	Ant1	5825	15.560	5817.200	5832.760	0.5	PASS
11ac40SISO	Ant1	5755	33.920	5737.400	5771.320	0.5	PASS
11ac40SISO	Ant1	5795	35.120	5777.400	5812.520	0.5	PASS
11ac80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS

Test Graphs B4

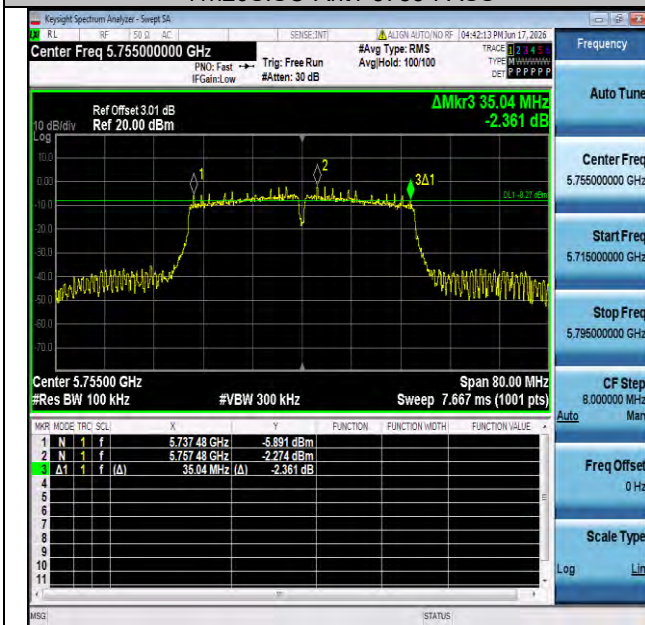




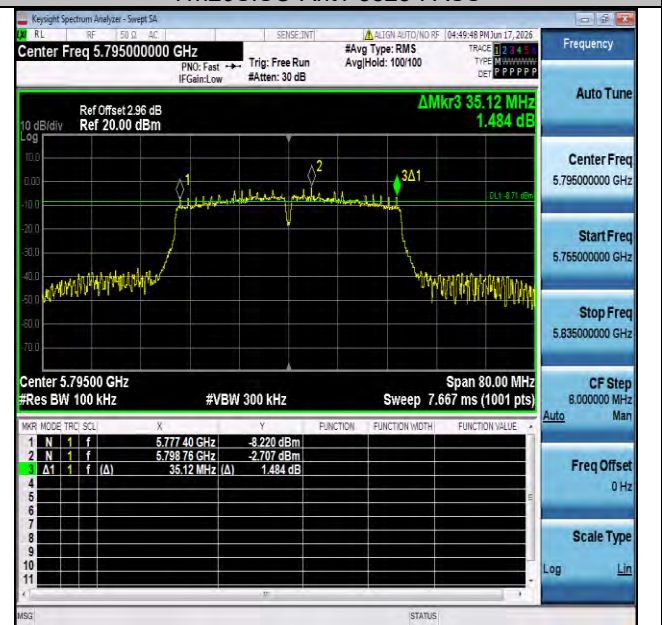
11n20SISO-Ant1-5785-PASS



11n20SISO-Ant1-5825-PASS



11n40SISO-Ant1-5755-PASS



11n40SISO-Ant1-5795-PASS



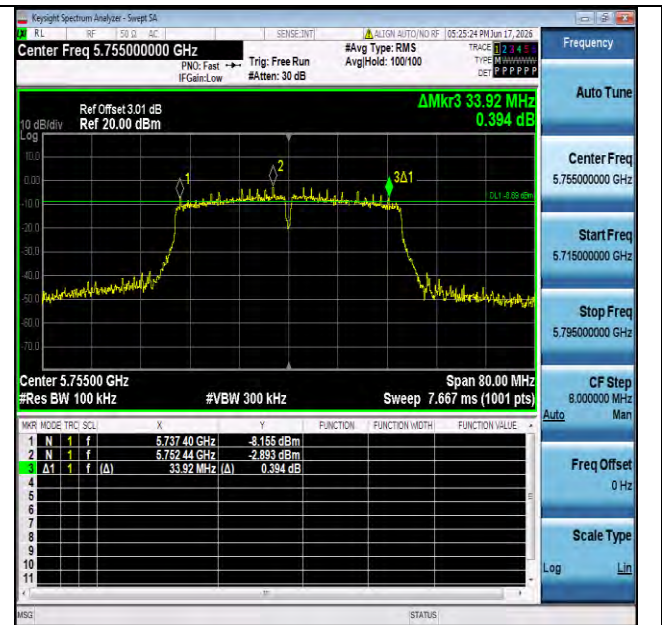
11ac20SISO-Ant1-5745-PASS



11ac20SISO-Ant1-5785-PASS



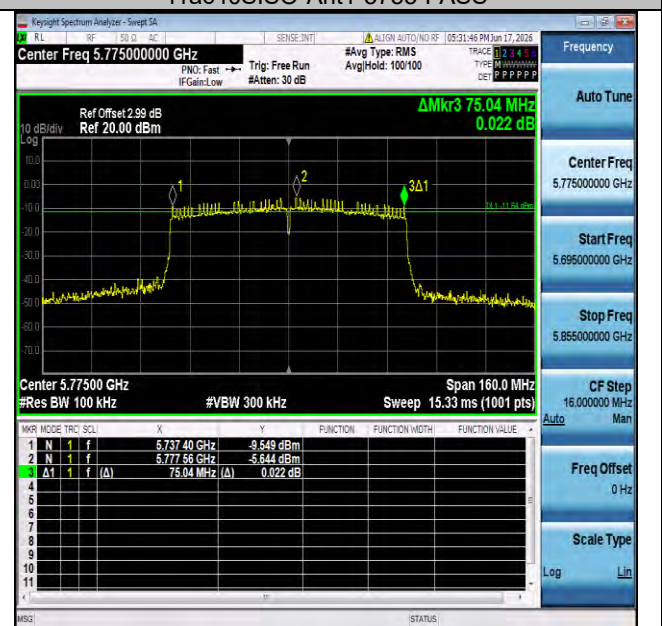
11ac20SISO-Ant1-5825-PASS



11ac40SISO-Ant1-5755-PASS



11ac40SISO-Ant1-5795-PASS

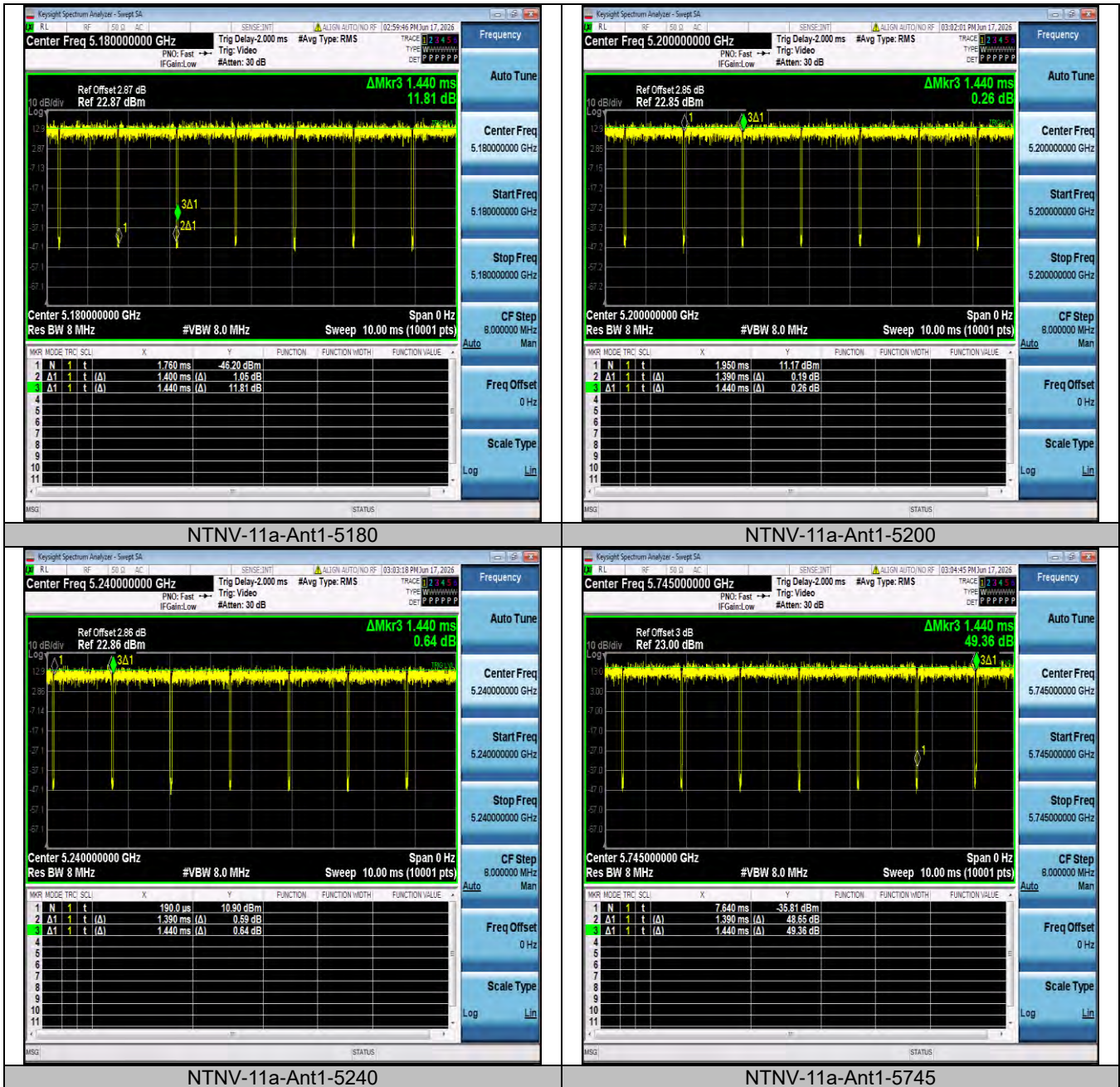


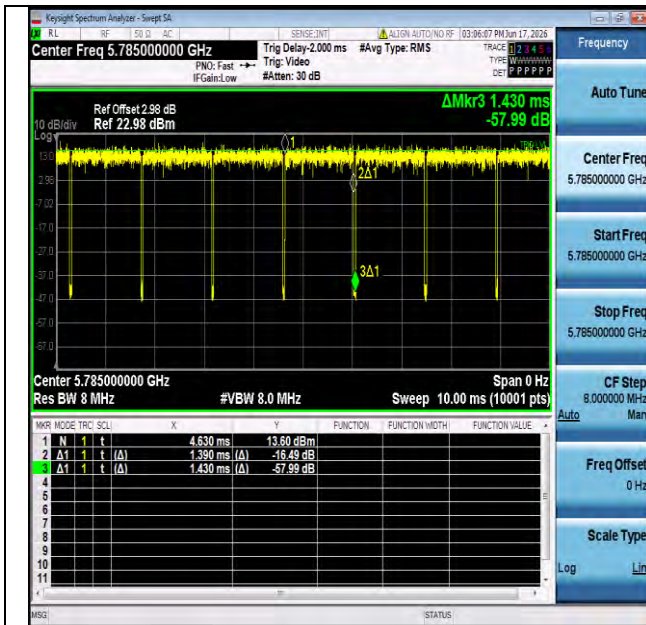
11ac80SISO-Ant1-5775-PASS

**Duty Cycle
Test Result**

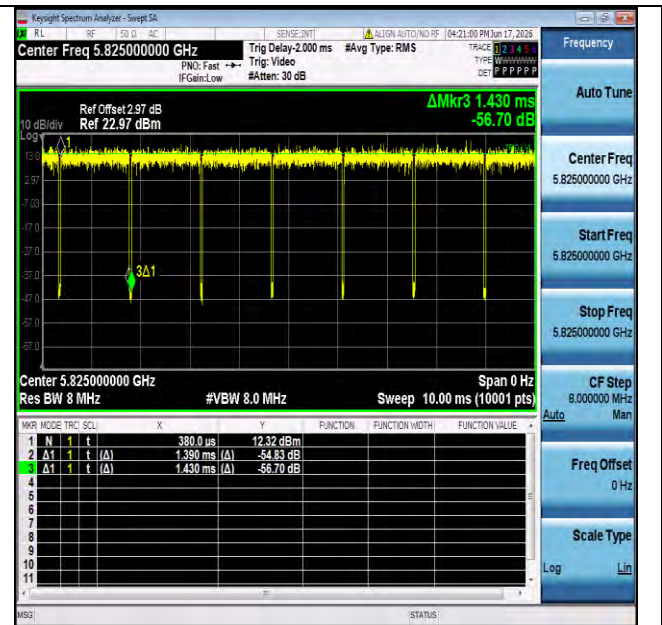
TestMode	Antenna	Frequency[MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11a	Ant1	5180	1.40	1.44	97.22
11a	Ant1	5200	1.39	1.44	96.53
11a	Ant1	5240	1.39	1.44	96.53
11a	Ant1	5745	1.39	1.44	96.53
11a	Ant1	5785	1.39	1.43	97.20
11a	Ant1	5825	1.39	1.43	97.20
11n20SISO	Ant1	5180	1.29	1.34	96.27
11n20SISO	Ant1	5200	1.30	1.35	96.30
11n20SISO	Ant1	5240	1.30	1.35	96.30
11n20SISO	Ant1	5745	1.30	1.34	97.01
11n20SISO	Ant1	5785	1.30	1.35	96.30
11n20SISO	Ant1	5825	1.30	1.34	97.01
11n40SISO	Ant1	5190	0.65	0.69	94.20
11n40SISO	Ant1	5230	0.65	0.70	92.86
11n40SISO	Ant1	5755	0.65	0.69	94.20
11n40SISO	Ant1	5795	0.65	0.69	94.20
11ac20SISO	Ant1	5180	1.31	1.36	96.32
11ac20SISO	Ant1	5200	1.31	1.35	97.04
11ac20SISO	Ant1	5240	1.31	1.36	96.32
11ac20SISO	Ant1	5745	1.31	1.35	97.04
11ac20SISO	Ant1	5785	1.31	1.35	97.04
11ac20SISO	Ant1	5825	1.31	1.35	97.04
11ac40SISO	Ant1	5190	0.65	0.69	94.20
11ac40SISO	Ant1	5230	0.65	0.69	94.20
11ac40SISO	Ant1	5755	0.65	0.69	94.20
11ac40SISO	Ant1	5795	0.65	0.69	94.20
11ac80SISO	Ant1	5210	0.33	0.37	89.19
11ac80SISO	Ant1	5775	0.32	0.37	86.49

Test Graphs

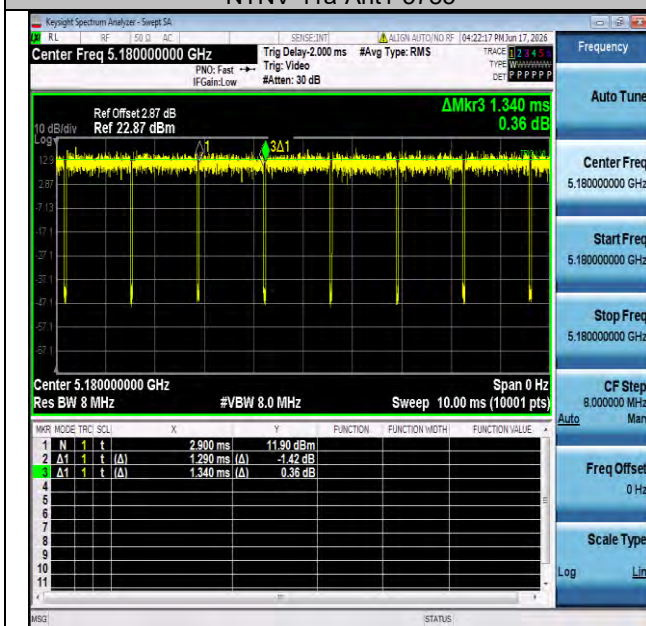




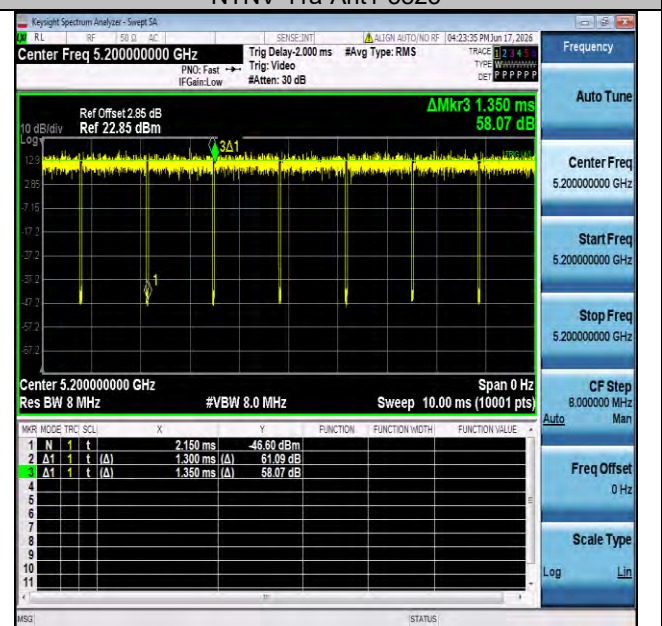
NTNV-11a-Ant1-5785



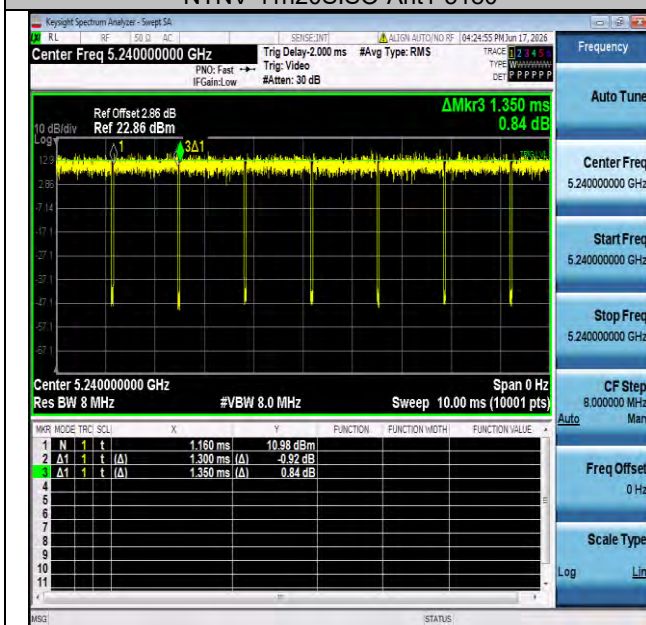
NTNV-11a-Ant1-5825



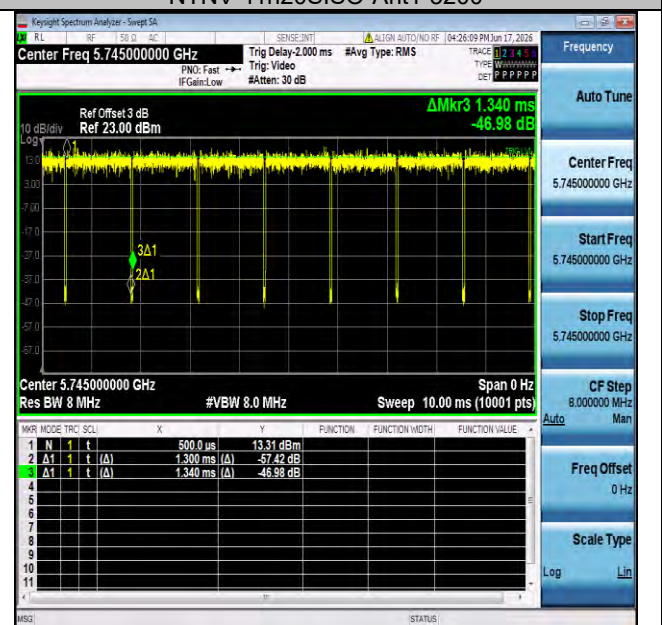
NTNV-11n20SISO-Ant1-5180



NTNV-11n20SISO-Ant1-5200



NTNV-11n20SISO-Ant1-5240



NTNV-11n20SISO-Ant1-5745