TEST REPORT

Applicant:	Quectel Wireless Solutions Co., Ltd.
EUT Description:	Wi-Fi 7 & Bluetooth Module
Model:	FGE576Q
Brand:	Quectel
FCC ID:	XMR2024FGE576Q
Standards:	FCC 47 CFR Part 15 Subpart E
Date of Receipt:	2024/07/15
Date of Test:	2024/07/15 to 2024/11/15
Date of Issue:	2024/11/19

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 sample 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.

Huang Kun
Approved By:

Chen Chengfu
Reviewed By:

Revision History

Rev.	Issue Date	Description	Revised by
01	2024/11/19	Original	Chen Chengfu

Summary of Test Results

Clause	FCC Part	Test Items	Result
4.1	§15.203	Antenna Requirement	PASS
4.2	§15.407g	Frequency Stability	---
4.3	§15.207	AC Power Line Conducted Emission	PASS
4.4	§15.407a(8)	Maximum e.i.r.p. Output Power	PASS
4.5	§15.407a(8)	Maximum Power Spectral Density	PASS
4.5	§15.407a(10)	Emission Bandwidth	PASS
4.6	§2.1049	99% Occupied Bandwidth	Reporting purposes only
4.7	§15.407b(7)	In-Band Emissions (Channel Mask)	PASS
4.8	§15.407d(6)	Contention Based Protocol	PASS
4.9	§15.407b(6) §15.205 §15.209	Unwanted Emissions	PASS

Test Method:
ANSI C63.10:2020.
KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
KDB 987594 D01 U-NII 6GHz General Requirements v01r02.
KDB 987594 D02 U-NII 6GHz EMC Measurement v01r01.
Remark: Pass is EUT meets standard requirements.

Table of Contents

1 General Description

1.1 Lab Information

1.1.1 Testing Location

These measurements tests were conducted at the Sushi TOWE Wireless Testing(Shenzhen) Co., Ltd. facility located at F401 and F101, Building E, Hongwei Industrial Zone, Liuxian 3rd Road, Bao'an District, Shenzhen, 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. 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:	Quectel Wireless Solutions Co., Ltd.
Address:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China, 200233

1.2.2 Manufacturer

Manufacturer:	Quectel Wireless Solutions Co., Ltd.
Address:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China, 200233

1.3 Product Information

EUT Description:	Wi-Fi 7 & Bluetooth Module			
Model:	FGE576Q			
Brand:	Quectel			
Hardware Version:	R1.0			
Software Version:	/			
SN:	RF Conducted	D1Y24EB28000031		
	RSE & AC power line	D1Y24EB28000030		
Modulation Type:	802.11a:	OFDM-BPSK, QPSK, 16QAM, 64QAM		
	802.11ax:	OFDM/OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM		
	802.11be:	OFDM/OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM, 4096QAM		
Smart System:	☒SISO:	802.11a/ax/be	/	
	☒MIMO	802.11ax/be	(2)TX(2)RX	
	☒CDD	802.11a	(2)TX(2)RX	
Classification:	☒ Low power Indoor Client(6XD) ☐ Low power Indoor Access points(6ID) ☐ Subordinate device(6PP) ☐ Low power Dual Client(6CD)			
Frequency Range:	U-NII-5:	5925 ~ 6425 MHz		
	U-NII-6:	6425 ~ 6525 MHz		
	U-NII-7:	6525 ~ 6875 MHz		
	U-NII-8:	6875 ~ 7125 MHz		
Antenna Type:	Dipole Antenna			
Antenna Gain:	Frequency Range	ANT Model	ANT Port 1(dBi)	ANT Port 2(dBi)
	5925 ~ 6425 MHz:	YEBT038WFA	1.6	1.6
	6425 ~ 6525 MHz:	YEBT038WFA	1.6	1.6
	6525 ~ 6875 MHz:	YEBT038WFA	1.6	1.6
	6875 ~ 7125 MHz:	YEBT038WFA	1.6	1.6
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

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:

Frequency Channels for U-NII-5		
Modulation Type	**Test Channel**	**Test Frequency**
802.11a/ ax20/be20	The Lowest channel (CH1)	5955MHz
	The Middle channel (CH45)	6175MHz
	The Highest channel (CH93)	6415MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax40/be40	The Lowest channel (CH3)	5965MHz
	The Middle channel (CH43)	6165MHz
	The Highest channel (CH91)	6405MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax80/be80	The Lowest channel (CH7)	5985MHz
	The Middle channel (CH39)	6145MHz
	The Highest channel (CH87)	6385MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax160/be160	The Lowest channel (CH15)	6025MHz
	The Middle channel (CH47)	6185MHz
	The Highest channel (CH79)	6345MHz

Frequency Channels for U-NII-6		
Modulation Type	**Test Channel**	**Test Frequency**
802.11a/ ax20/be20	The Lowest channel (CH97)	6435MHz
	The Middle channel (CH105)	6475MHz
	The Highest channel (CH113)	6515MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax40/be40	The Lowest channel (CH99)	6445MHz
	The Middle channel (CH107)	6485MHz
	The Highest channel (CH115)	6525MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax80/be80	The Middle channel (CH103)	6465MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax160/be160	The Middle channel (CH111)	6505MHz

Frequency Channels for U-NII-7		
Modulation Type	**Test Channel**	**Test Frequency**
802.11a/ ax20/be20	The Lowest channel (CH117)	6535MHz
	The Middle channel (CH149)	6695MHz
	The Highest channel (CH185)	6875MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax40/be40	The Lowest channel (CH123)	6565MHz
	The Middle channel (CH147)	6685MHz
	The Highest channel (CH179)	6845MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax80/be80	The Lowest channel (CH119)	6545MHz
	The Middle channel (CH151)	6705MHz
	The Highest channel (CH183)	6865MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax160/be160	The Lowest channel (CH143)	6665MHz
	The Highest channel (CH175)	6825MHz

Frequency Channels for U-NII-8		
Modulation Type	**Test Channel**	**Test Frequency**
802.11a/ ax20/be20	The Lowest channel (CH189)	6895MHz
	The Middle channel (CH209)	6995MHz
	The Highest channel (CH233)	7115MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax40/be40	The Lowest channel (CH187)	6885MHz
	The Middle channel (CH203)	6965MHz
	The Highest channel (CH227)	7085MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax80/be80	The Lowest channel (CH199)	6945MHz
	The Highest channel (CH215)	7025MHz
Modulation Type	**Test Channel**	**Test Frequency**
802.11ax160/be160	The Middle channel (CH207)	6985MHz

2.2 Worst-case configuration and Mode

Modulation Type	SISO - Data Rate	CDD/MIMO(2)TX(2)RX Data Rate
802.11a	6 Mbps	12 Mbps
802.11ax20	MCS0 (8.6 Mbps)	MCS0 (17.2 Mbps)
802.11ax40	MCS0 (17.2 Mbps)	MCS0 (34.4 Mbps)
802.11ax80	MCS0 (36.0 Mbps)	MCS0 (72.1 Mbps)
802.11ax160	MCS0 (72.1 Mbps)	MCS0 (144.1 Mbps)
802.11be20	MCS0 (8.6 Mbps)	MCS0 (17.2 Mbps)
802.11be40	MCS0 (17.2 Mbps)	MCS0 (34.4 Mbps)
802.11be80	MCS0 (36.0 Mbps)	MCS0 (72.1 Mbps)
802.11be160	MCS0 (72.1 Mbps)	MCS0 (144.1 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 Test RU Types & Channel Bandwidth:

RU Types	be20	be40	be80	be160
26-tone RU	26 tone_0 26 tone_8	/	/	/
52-tone RU	52 tone_37 52 tone_40	/	/	/
106-tone RU	106 tone_53 106 tone_54	/	/	/
242-tone RU	/	242 tone 61 242 tone 62	/	/
484-tone RU	/	/	484 tone 65 484 tone 66	/
996-tone RU	/	/	/	996 tone 67 996 tone 68

2.4 Support Unit used in test

Description	Manufacturer	Model	Serial Number
Development Board*	Quectel	SG368Z-WF-EVB_V1.1	E1C24G52C000022
Development Board*	Quectel	SG368Z-WF-TE-A_V1.1	D1C24FK0F000028
Development Board*	Quectel	FGE576Q-M.2_V1.2	E1Y24EN2K000019
Development Board*	Quectel	FGE576Q-M.2_V1.2	E1Y24EN2K000025
SWITCHING POWER SUPPLY*	Sonething High Electric(Xiamen) Company Inc	P60EB120500	000026
Remark: * the information of table is provided by client.			

2.5 Test Environment

Temperature:	Normal: 15℃ ~ 35℃
Humidity:	45-56 % RH Ambient
Voltage:	DC 3.3V (Module Input) DC 12V (Adapter Output)
Remark: The testing environment is within the scope of the EUT user manual and meets the requirements of the standard testing environment.	

2.6 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.

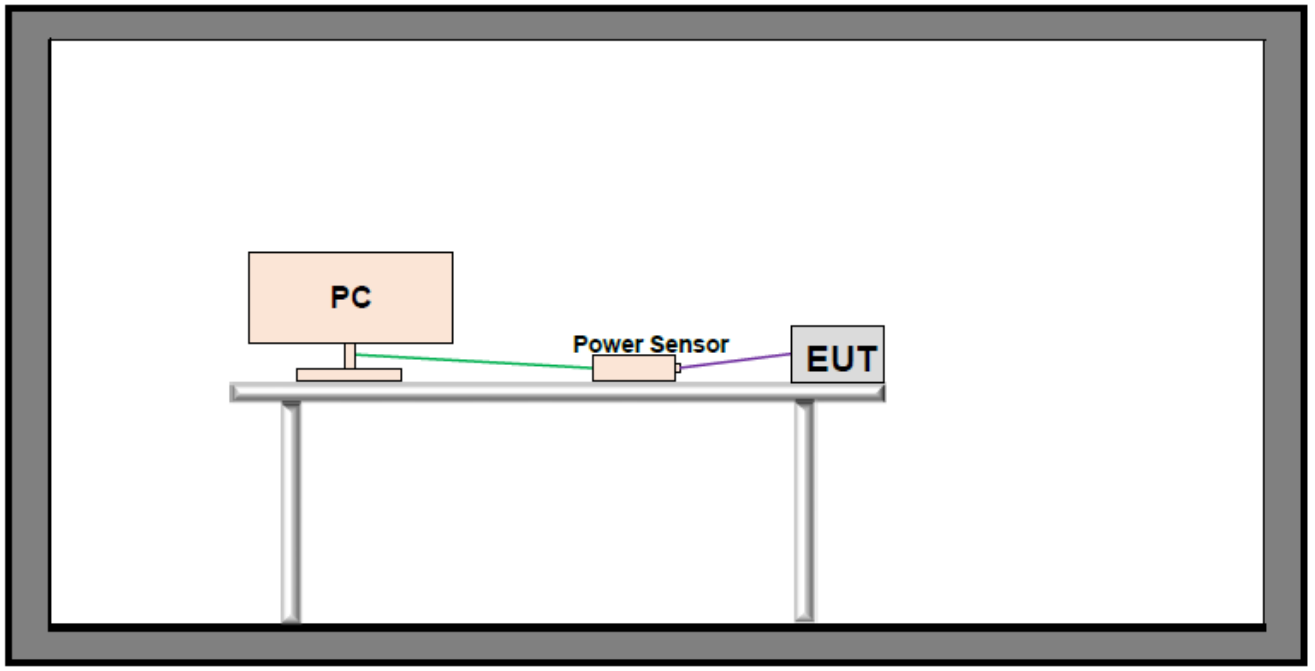
2.7 Modifications

No modifications were made during testing.

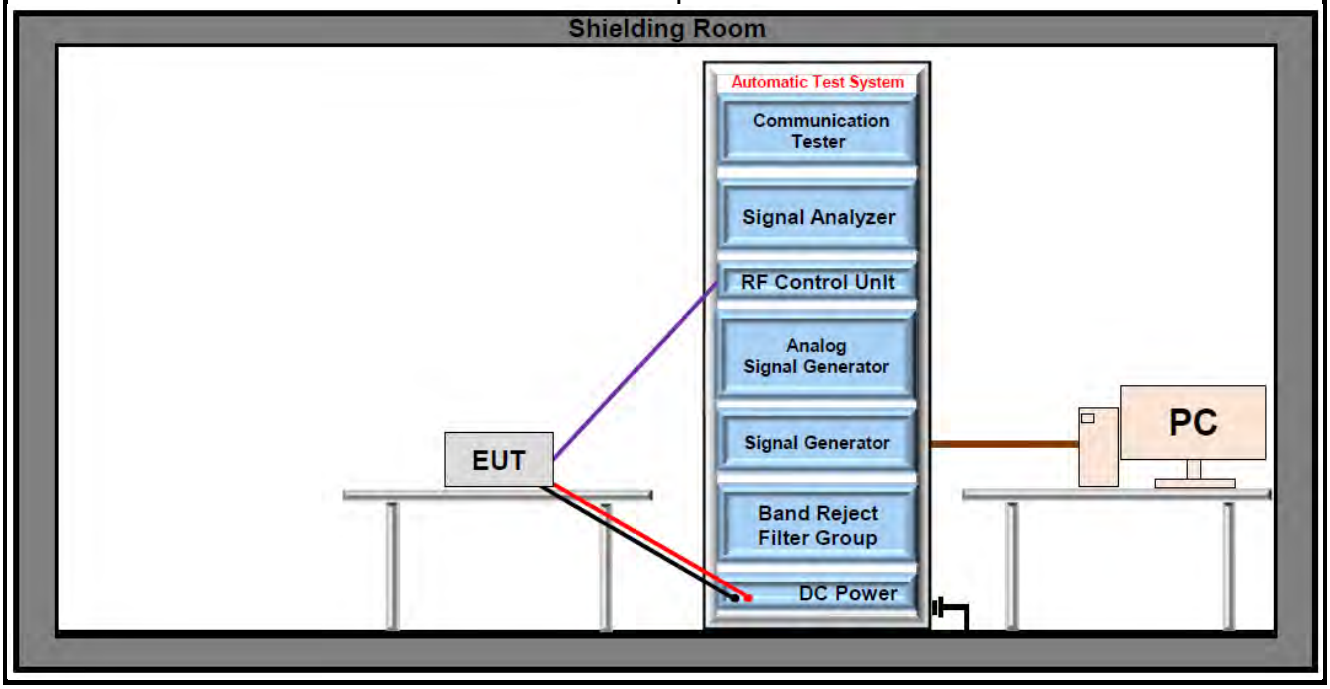
2.8 Test Setup Diagram

2.8.1 Conducted Configuration

Setup 1

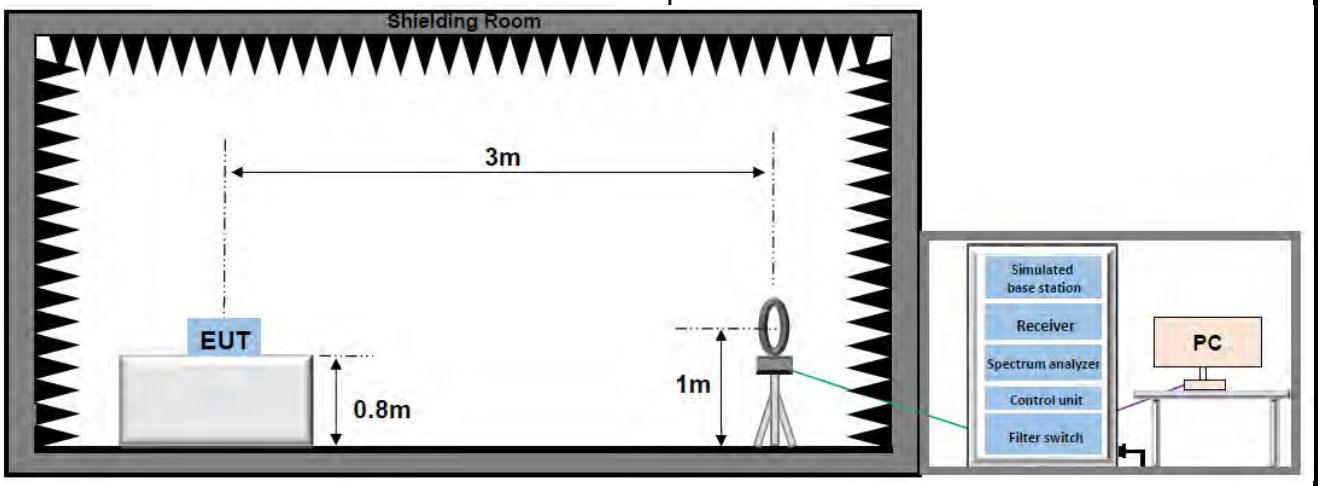


Setup 2



2.8.2 Radiated Configuration

Setup 1



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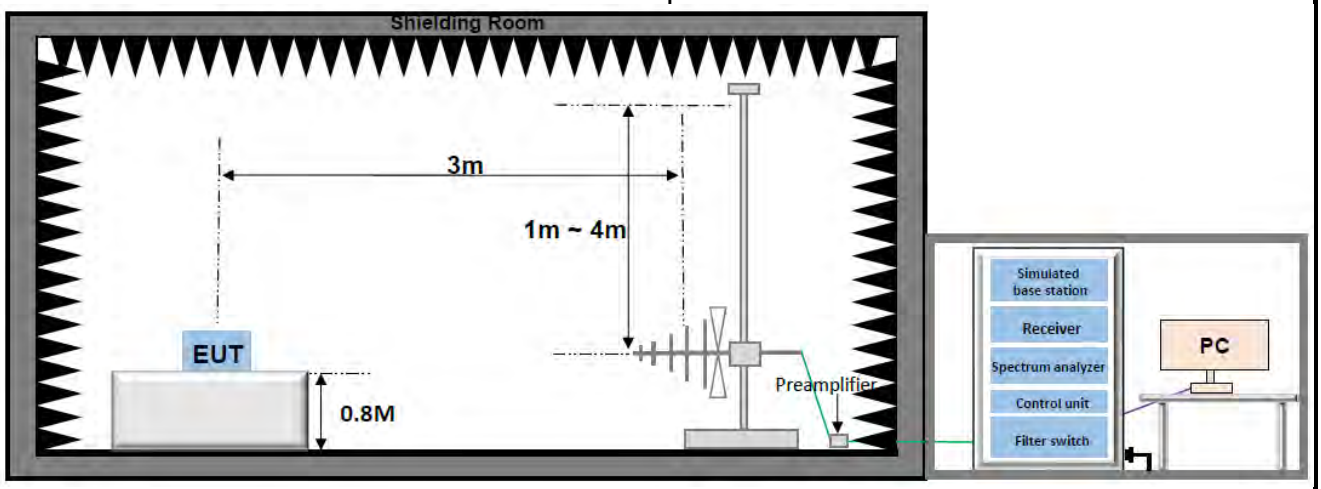
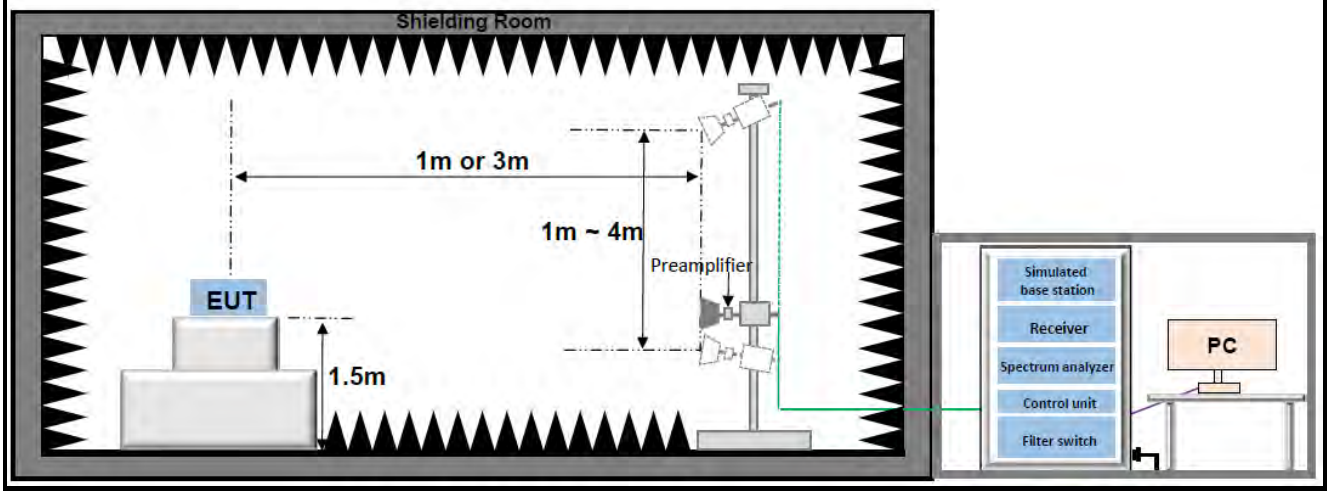


Setup 3



Directional gain calculations:

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices
  Array Gain = 10 log(N_{ANT}/N_{SS}=1) dB
- For power measurements on IEEE 802.11 devices:
  Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
  Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
  Array Gain = 5 log(N_{ANT}/N_{SS}=1) dB or 3 dB, whichever is less, for 20-MHz channel widths with $N_{ANT} \geq 5$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain.

Unequal antenna gains, with equal transmit powers. For antenna gains given by G1, G2, …, GN dBi

- If transmit signals are correlated, then
  Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2 / N_{ANT}$] dBi [Note the "20"s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]
- If all transmit signals are completely uncorrelated, then
  Directional gain = 10 log[($10^{G1/10} + 10^{G2/10} + \ldots + 10^{GN/10}$)/$N_{ANT}$] dBi

The Power and PSD limit should be modified if the directional gain of EUT is over 6dBi.

The EUT supports CDD System.

Transmit signals are completely uncorrelated				
Operation Band	ANT Gain1 (dBi)	ANT Gain2 (dBi)	Directional gain For Power (dBi)	Directional gain For PSD (dBi)
5925 ~ 6425 MHz	1.6	1.6	1.6	4.61
6425 ~ 6525 MHz	1.6	1.6	1.6	4.61
6525 ~ 6875 MHz	1.6	1.6	1.6	4.61
6875 ~ 7125 MHz	1.6	1.6	1.6	4.61

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					
Description	**Manufacturer**	**Model**	**SN**	**Last Due**	**Cal Due**
Signal Analyzer	Keysight	N9020A	US46470429	2024/03/25	2025/03/24
Signal Generator	R&S	SMR20	101027	2024/03/25	2025/03/24
Vector Signal Generator	R&S	SMM100A	549353	2024/05/30	2025/05/29
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2024/05/30	2025/05/29
Power Sensor	Anritsu	MA24408A	12520	2024/05/30	2025/05/29
RF Control Unit	Tonscend	JS0806-2	23C80620671	2024/05/30	2025/05/29
Measurement Software	Tonscend	JS1120-3	10659	N/A	N/A

Radiated Emission					
Description	**Manufacturer**	**Model**	**SN**	**Last Due**	**Cal Due**
Biconic Logarithmic Periodic Antennas	Schwarzbeck	VULB9163	1643	2023/06/25	2025/06/24
Double-Ridged Horn Antennas	Schwarzbeck	BBHA 9120D	2809	2023/06/25	2025/06/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	1290	2023/06/25	2025/06/24
Loop Antenna	Schwarzbeck	FMZB 1519C	1519C-028	2023/06/29	2025/06/28
Signal Analyzer	Keysight	N9020A	MY49100252	2024/03/25	2025/03/24
EXA Signal Analyzer, Multi-touch	Keysight	N9010B	MY63440541	2024/05/30	2025/05/29
Wideband Radio Communication Tester	R&S	CMW500	150645	2024/03/25	2025/03/24
Low Noise Amplifier	Tonscend	TAP9K3G40	AP23A8060273	2023/04/08	2025/04/07
Low Noise Amplifier	Tonscend	TAP01018050	AP22G806258	2023/04/08	2025/04/07
Low Noise Amplifier	Tonscend	TAP18040048	AP22G806247	2023/04/08	2025/04/07
Hygrometer	BINGYU	HTC-1	N/A	2023/06/01	2025/05/31
Test Software	Tonscend	TS+ V5.0.0	N/A	N/A	N/A

Conducted Emission					
Description	**Manufacturer**	**Model**	**S.N.**	**Last Due**	**Cal Due**
EMI Tester Receiver	Rohde & Schwarz	ESR3	103108	2024/05/31	2025/05/30
LISN	Rohde & Schwarz	ENV 216	102836	2024/01/10	2025/01/09
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 15C 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 Dipole. With Antenna gain is 5925 ~ 6425 MHz: 1.6dBi(Ant1); 1.6dBi(Ant2); 6425 ~ 6525 MHz: 1.6dBi(Ant1); 1.6dBi(Ant2); 6525 ~ 6875 MHz: 1.6dBi(Ant1); 1.6dBi(Ant2); 6875 ~ 7125 MHz: 1.6dBi(Ant1); 1.6dBi(Ant2); 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 (dBμV)	
	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.		

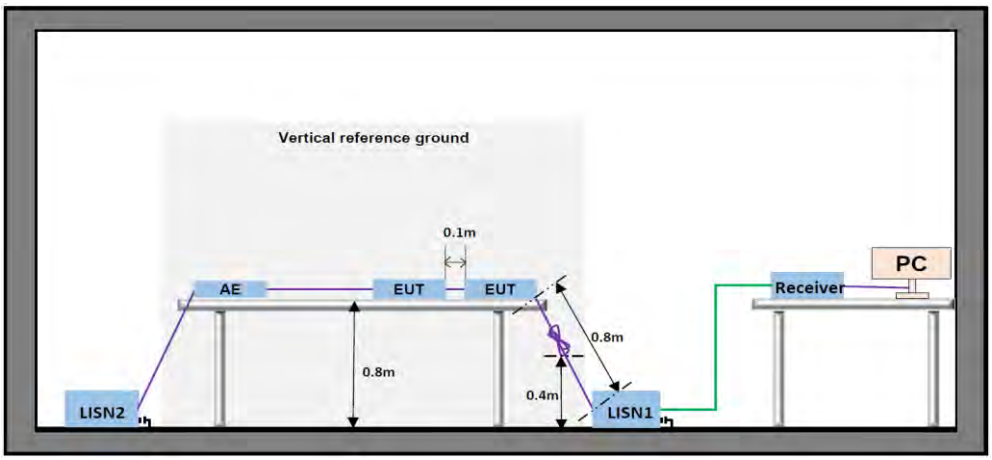
Test Procedure

ANSI C63.10:2020, 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 50Ω/50μH + 5Ω 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 hod 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

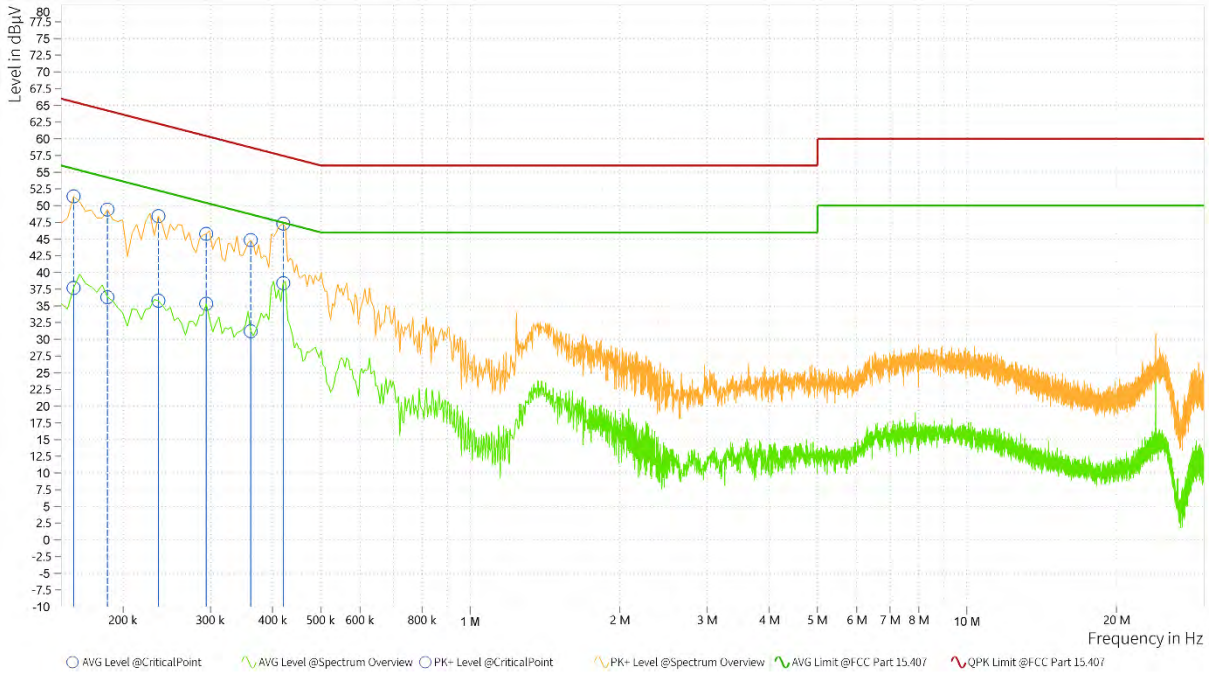


Measuring Instruments

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

Test Result:

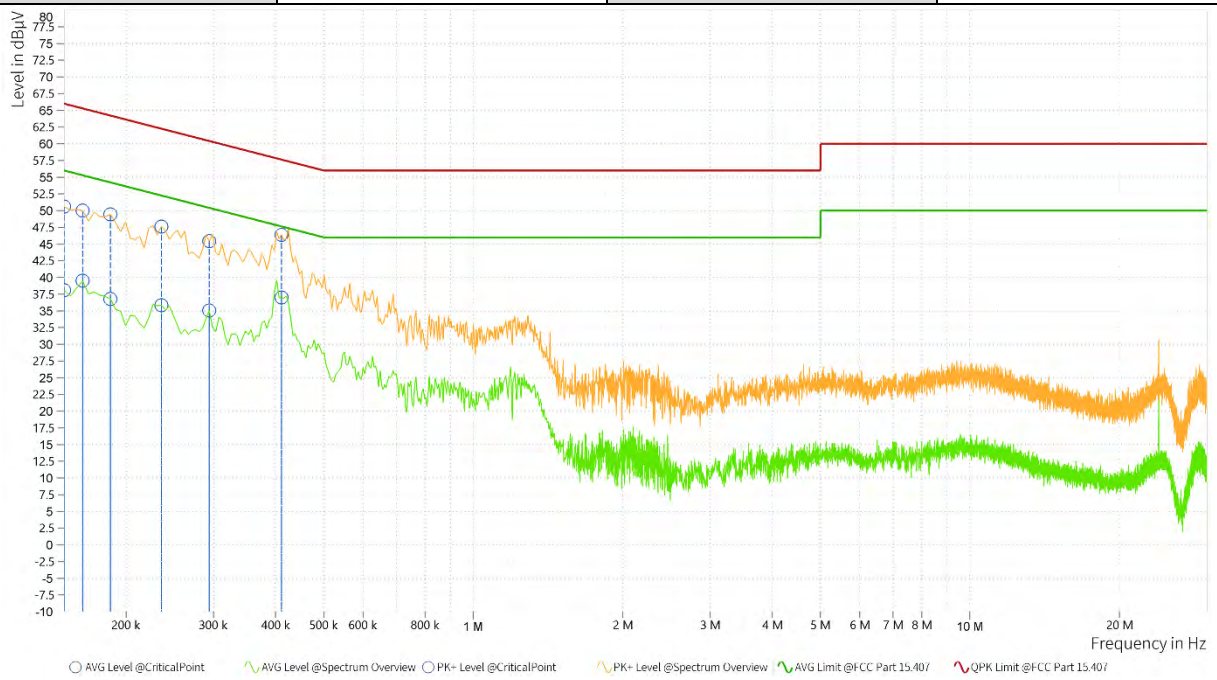
Test mode:	WIFI 6E		
Test Voltage:	AC 120V/60Hz	Phase:	Line



Rg	Frequency [MHz]	PK+ Level [dBµV]	PK+: QPK Limit [dBµV]	PK+ Margin [dB]	AVG Level [dBµV]	AVG Limit [dBµV]	AVG Margin [dB]	Correction [dB]	Line
1	0.159	51.38	65.52	14.13	37.69	55.52	17.82	9.33	L1
1	0.186	49.39	64.21	14.82	36.31	54.21	17.90	9.53	L1
1	0.236	48.43	62.25	13.82	35.77	52.25	16.48	9.69	L1
1	0.294	45.78	60.41	14.63	35.31	50.41	15.10	9.80	L1
1	0.362	44.83	58.69	13.87	31.21	48.69	17.48	9.82	L1
1	0.420	47.30	57.45	10.15	38.40	47.45	9.05	9.75	L1

Note:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Margin[dB] = Limit[dBµV] - Level[dBµV]

Test mode:	WIFI 6E		
Test Voltage:	AC 120V/60Hz	Phase:	Neutral



Rg	Frequency [MHz]	PK+ Level [dBµV]	PK+: QPK Limit [dBµV]	PK+ Margin [dB]	AVG Level [dBµV]	AVG Limit [dBµV]	AVG Margin [dB]	Correction [dB]	Line
1	0.150	50.58	66.00	15.42	38.08	56.00	17.92	9.48	N
1	0.164	50.00	65.28	15.29	39.51	55.28	15.77	9.50	N
1	0.186	49.43	64.21	14.79	36.76	54.21	17.45	9.53	N
1	0.236	47.59	62.25	14.67	35.85	52.25	16.40	9.55	N
1	0.294	45.42	60.41	14.99	35.07	50.41	15.34	9.58	N
1	0.411	46.38	57.63	11.25	36.99	47.63	10.64	9.59	N

Note:
1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Margin[dB] = Limit[dBµV] - Level[dBµV]

4.4 Maximum e.i.r.p. Output Power

Limits

For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

Test Procedure

ANSI C63.10:2020 Section 12.3.2(Straddle Channel) &12.3.3.2(Other 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 attenuator connected to a power meter via wideband power sensor. Peak output power was read directly from power meter.
   Measure and record the results in the test report.
2. SA:
   RBW = 1MHz
   VBW ≥ 3MHz
   Span = Encompass the EBW (or, alternatively, the entire 99% occupied bandwidth)
   Sweep = Auto
   Detector = power averaging (rms)

Test Setup

Refer to section 2.8.1- 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 B- 6EWi-Fi(U-NII-5&U-NII-6) & Appendix B- 6EWi-Fi(U-NII-7&U-NII-8).**

4.5 Maximum Power Spectral Density

Limits

For client devices operating under the control of an indoor access point in the 5.925-7.125 GHz bands, the maximum power spectral density must not exceed −1 dBm e.i.r.p. in any 1-megahertz band, and the maximum e.i.r.p. over the frequency band of operation must not exceed 24 dBm.

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 ≥ 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 2.8.1- 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 B- 6EWi-Fi(U-NII-5&U-NII-6) & Appendix B- 6EWi-Fi(U-NII-7&U-NII-8).**

4.6 Emission Bandwidth

Limits

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

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 2.8.1- 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 B- 6EWi-Fi(U-NII-5&U-NII-6) & Appendix B- 6EWi-Fi(U-NII-7&U-NII-8).**

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 2.8.1- 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 B- 6EWi-Fi(U-NII-5&U-NII-6) & Appendix B- 6EWi-Fi(U-NII-7&U-NII-8).**

4.8 In-Band Emissions (Channel Mask)

Limits

For transmitters operating within the 5.925-7.125 GHz bands: Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.

Test Procedure

KDB 987594 D02 U-NII 6GHz EMC Measurement v01r01 Section J.

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. Span = To encompass the entire 26 dB EBW of the signal.
4. RBW = Same RBW used for 26 dB EBW measurement.
5. VBW ≥ 3 times RBW.
6. Detector = RMS.
7. Sweep = Auto.
8. Point sweep ≥ 2 Span / RBW.
9. Trace = Max hold.
10. Trace average at least 100 traces in power averaging (rms) mode.
11. Use the peak search function on the instrument to find the peak of the spectrum.
12. Measure and record the results in the test report.

Test Setup

Refer to section 2.8.1- 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 B- 6EWi-Fi(U-NII-5&U-NII-6) & Appendix B- 6EWi-Fi(U-NII-7&U-NII-8).**

4.9 Contention Based Protocol

Limits

Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band must employ a contention-based protocol.
Indoor access points, subordinate devices and client devices operating in the 5.925-7.125 GHz band (herein referred to as unlicensed devices) are required to use technologies that include a contention-based protocol to avoid co-channel interference with incumbent devices sharing the band. To ensure incumbent co-channel operations are detected in a technology-agnostic manner, unlicensed devices are required to detect co-channel radio frequency energy (energy detect) and avoid simultaneous transmission.
Unlicensed low-power indoor devices must detect co-channel radio frequency power that is at least -62 dBm or lower. Upon detection of energy in the band, unlicensed low power indoor devices must vacate the channel (in which incumbent signal is transmitted) and stay off the incumbent channel as long as detected radio frequency power is equal to or greater than the threshold (-62 dBm)1. The -62 dBm (or lower) threshold is referenced to a 0 dBi antenna gain.
To ensure incumbent operations are reliably detected in the band, low power indoor devices must detect RF energy throughout their intended operating channel. For example, an 802.11 device that plans to transmit a 40 MHz- wide signal (on a primary 20 MHz channel and a secondary 20 MHz channel) must detect energy throughout the entire 40 MHz channel. Additionally, low-power indoor devices must detect co-channel energy with 90% or greater certainty.

Criteria to determine number of times detection threshold test may be performed

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Tune incumbent and EUT transmissions ($f_{c1} = f_{c2}$)
$BW_{Inc} < BW_{EUT} \leq 2BW_{Inc}$	Once	Incumbent transmission is contained within BW_{EUT}
$2BW_{Inc} < BW_{EUT} \leq 4BW_{Inc}$	Twice. Incumbent transmission is contained within BW_{EUT}	Incumbent transmission is located as closely as possible to the lower edge and upper edge, respectively, of the EUT channel
$BW_{EUT} > 4BW_{Inc}$	Three times	Incumbent transmission is located as closely as possible to the lower edge of the EUT channel, in the middle of EUT channel, and as closely as possible to the upper edge of the EUT channel

BW_{EUT}: Transmission bandwidth of EUT signal.
BW_{Inc} : Transmission bandwidth of the simulated incumbent signal (10 MHz wide AWGN signal).
f_{c1}: Center frequency of EUT transmission.
f_{c2}: Center frequency of simulated incumbent signal.

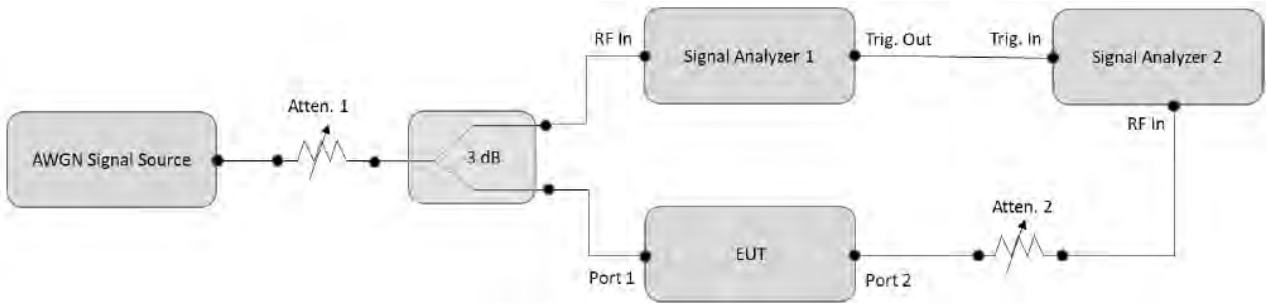
Test Procedure

KDB 987594 D02 U-NII 6GHz EMC Measurement v01r01 Section I.

Test Settings

1. Configure the EUT to transmit with a constant duty cycle.
2. Set the operating parameters of the EUT including power level, operating frequency, modulation and bandwidth.
3. Set the signal analyzer center frequency to the nominal EEUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2, as shown in Figure 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
4. Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters set at step two.
5. Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use Table 1 to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
6. Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT as shown in Figure 2.
7. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
8. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
9. (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
10. Refer to Table 1 to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step 5, choose a different center frequency for the AWGN signal and repeat the process.

Test Setup



Measuring Instruments

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

Test Result

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

4.10 Unwanted Emissions

Limits

For transmitters operating within the 5.925-7.125 GHz band: Any emissions outside of the 5.925-7.125 GHz band must not exceed an e.i.r.p. of −27 dBm/MHz.

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 - 1252025	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 (μV/m)	Limit (dBμV/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	

Measurement methods

ANSI C63.10:2020 Section 6.4 & 6.5 & 6.6.
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. Set to the maximum power setting and enable the EUT transmit continuously.
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 ≥ 1/T, with peak detector for average measurements.
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) + AF(dB/m) + Factor(dB):
   AF = Antenna Factor(dB/m)
   Factor = Cable Factor(dB) - Preamplifier gain(dB)
   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, 30MHz-1GHz 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. The "-" shown in the following RSE tables are used to denote a noise floor measurement.

Test Setup

Refer to section 2.8.2 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

The detailed test data see: **Appendix C- BT&WIFI Setup Photos**

Appendix

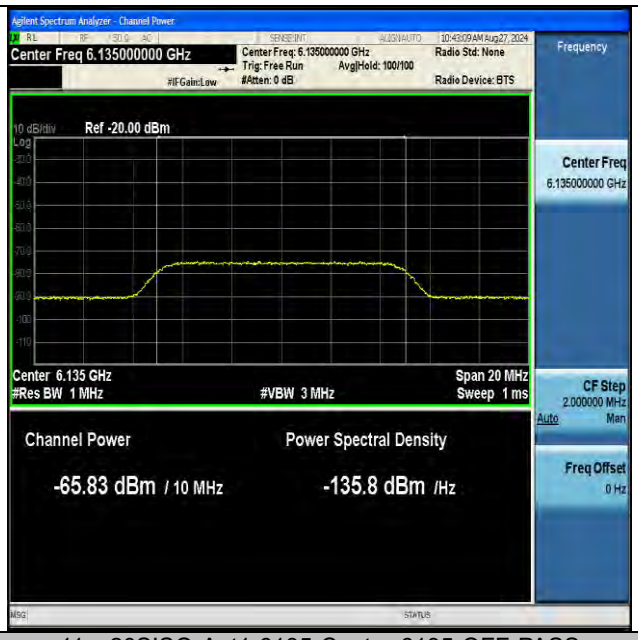
Contention Based Protocol

Test Result

Test Mode	Antenna	Channel	Interference Frequency [MHz]		Status	Awgn Power [dBm]	Gain [dB]	Path Loss [dB]	Adjusted Power [dBm]	Limit [dBm]	Detection Rate		Verdict
											Result [%]	Limit [%]	
11ax20SISO	Ant1	6135	Center	6135	OFF	-65.83	1.60	0	-67.43	-62	90	90	PASS
11ax20SISO	Ant1	6135	Center	6135	Minimal	-66.76	1.60	0	-68.36	-62	50	---	---
11ax20SISO	Ant1	6135	Center	6135	ON	-87	1.60	0	-78.60	-62	---	---	---
11ax20SISO	Ant1	6455	Center	6455	OFF	-65.88	1.60	0	-67.48	-62	100	90	PASS
11ax20SISO	Ant1	6455	Center	6455	Minimal	-66.86	1.60	0	-68.46	-62	40	---	---
11ax20SISO	Ant1	6455	Center	6455	ON	-87	1.60	0	-78.60	-62	---	---	---
11ax20SISO	Ant1	6695	Center	6695	OFF	-68.7	1.60	0	-70.30	-62	100	90	PASS
11ax20SISO	Ant1	6695	Center	6695	Minimal	-69.66	1.60	0	-71.26	-62	60	---	---
11ax20SISO	Ant1	6695	Center	6695	ON	-87	1.60	0	-78.60	-62	---	---	---
11ax20SISO	Ant1	7015	Center	7015	OFF	-62.05	1.60	0	-63.65	-62	100	90	PASS
11ax20SISO	Ant1	7015	Center	7015	Minimal	-62.99	1.60	0	-64.59	-62	70	---	---
11ax20SISO	Ant1	7015	Center	7015	ON	-87	1.60	0	-78.60	-62	---	---	---
11ax160SISO	Ant1	6185	Low	6110	OFF	-75.73	1.60	0	-77.33	-62	100	90	PASS
11ax160SISO	Ant1	6185	Center	6185	OFF	-68.85	1.60	0	-70.45	-62	90	90	PASS
11ax160SISO	Ant1	6185	High	6260	OFF	-73.21	1.60	0	-74.81	-62	100	90	PASS
11ax160SISO	Ant1	6185	Low	6110	Minimal	-76.4	1.60	0	-78.00	-62	0	---	---
11ax160SISO	Ant1	6185	Center	6185	Minimal	-69.87	1.60	0	-71.47	-62	80	---	---
11ax160SISO	Ant1	6185	High	6260	Minimal	-74.04	1.60	0	-75.64	-62	50	---	---
11ax160SISO	Ant1	6185	Low	6110	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6185	Center	6185	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6185	High	6260	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6505	Low	6430	OFF	-76.34	1.60	0	-77.94	-62	100	90	PASS
11ax160SISO	Ant1	6505	Center	6505	OFF	-64.99	1.60	0	-66.59	-62	90	90	PASS
11ax160SISO	Ant1	6505	High	6580	OFF	-77.05	1.60	0	-78.65	-62	90	90	PASS
11ax160SISO	Ant1	6505	Low	6430	Minimal	-76.93	1.60	0	-78.53	-62	0	---	---
11ax160SISO	Ant1	6505	Center	6505	Minimal	-66.03	1.60	0	-67.63	-62	20	---	---
11ax160SISO	Ant1	6505	High	6580	Minimal	-77.6	1.60	0	-79.20	-62	50	---	---
11ax160SISO	Ant1	6505	Low	6430	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6505	Center	6505	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6505	High	6580	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6825	Low	6750	OFF	-76.4	1.60	0	-78.00	-62	100	90	PASS
11ax160SISO	Ant1	6825	Center	6825	OFF	-67.67	1.60	0	-69.27	-62	90	90	PASS
11ax160SISO	Ant1	6825	High	6900	OFF	-74.59	1.60	0	-76.19	-62	90	90	PASS
11ax160SISO	Ant1	6825	Low	6750	Minimal	-77.03	1.60	0	-78.63	-62	10	---	---
11ax160SISO	Ant1	6825	Center	6825	Minimal	-68.65	1.60	0	-70.25	-62	0	---	---
11ax160SISO	Ant1	6825	High	6900	Minimal	-75.34	1.60	0	-76.94	-62	0	---	---
11ax160SISO	Ant1	6825	Low	6750	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6825	Center	6825	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6825	High	6900	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6985	Low	6910	OFF	-74.11	1.60	0	-75.71	-62	90	90	PASS
11ax160SISO	Ant1	6985	Center	6985	OFF	-63.86	1.60	0	-65.46	-62	90	90	PASS
11ax160SISO	Ant1	6985	High	7060	OFF	-76.1	1.60	0	-77.70	-62	90	90	PASS
11ax160SISO	Ant1	6985	Low	6910	Minimal	-74.89	1.60	0	-76.49	-62	60	---	---
11ax160SISO	Ant1	6985	Center	6985	Minimal	-64.93	1.60	0	-66.53	-62	40	---	---
11ax160SISO	Ant1	6985	High	7060	Minimal	-76.72	1.60	0	-78.32	-62	20	---	---
11ax160SISO	Ant1	6985	Low	6910	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6985	Center	6985	ON	-87	1.60	0	-88.60	-62	---	---	---
11ax160SISO	Ant1	6985	High	7060	ON	-87	1.60	0	-88.60	-62	---	---	---

Note：Adjusted Power= Injected AWGN Power - Antenna Gain + Path Loss

Test Graphs



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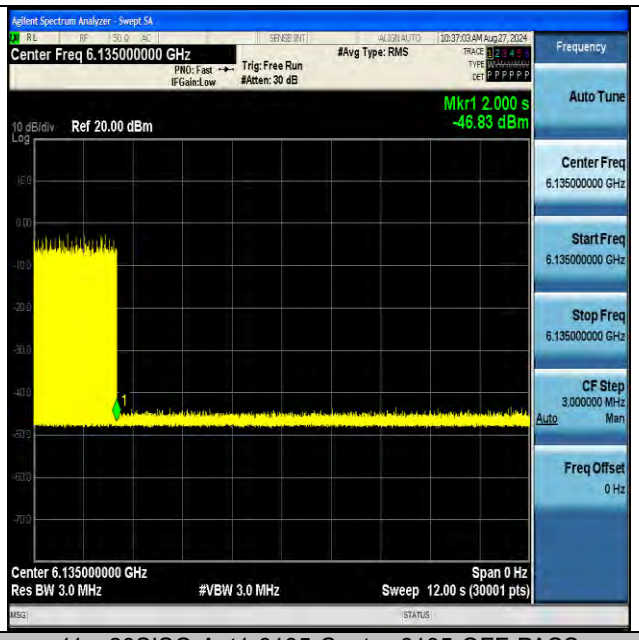

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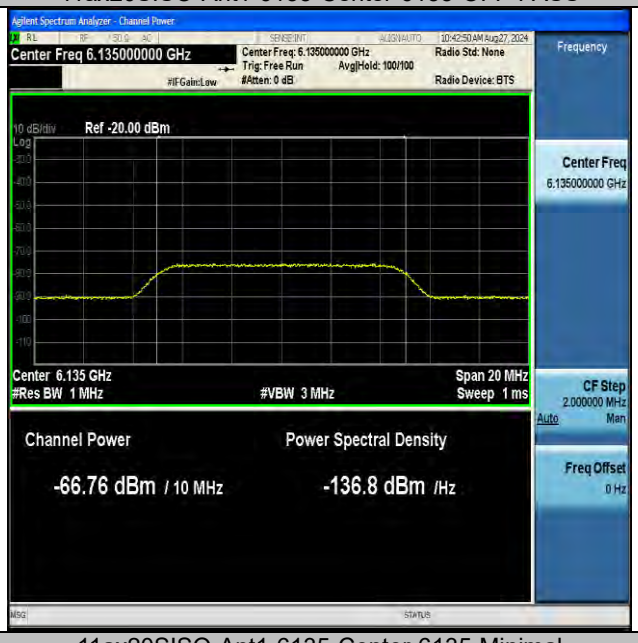

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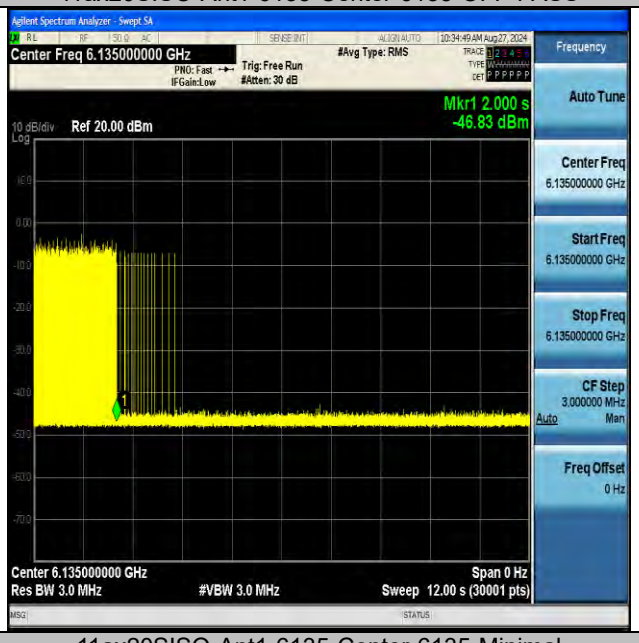

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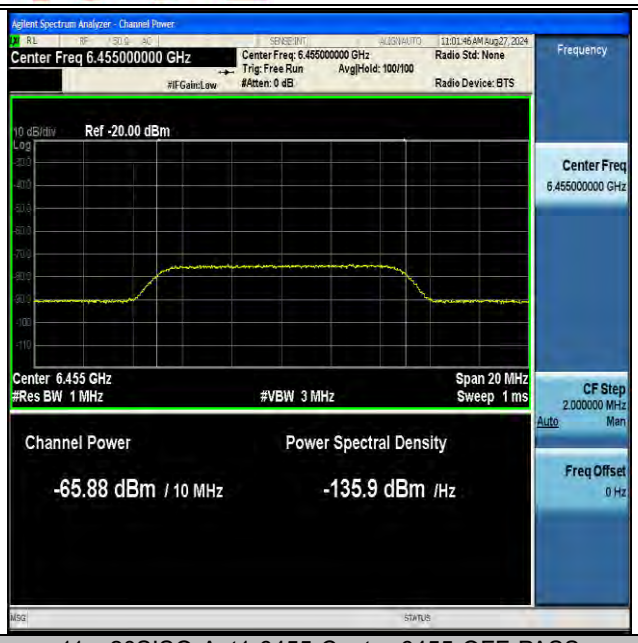

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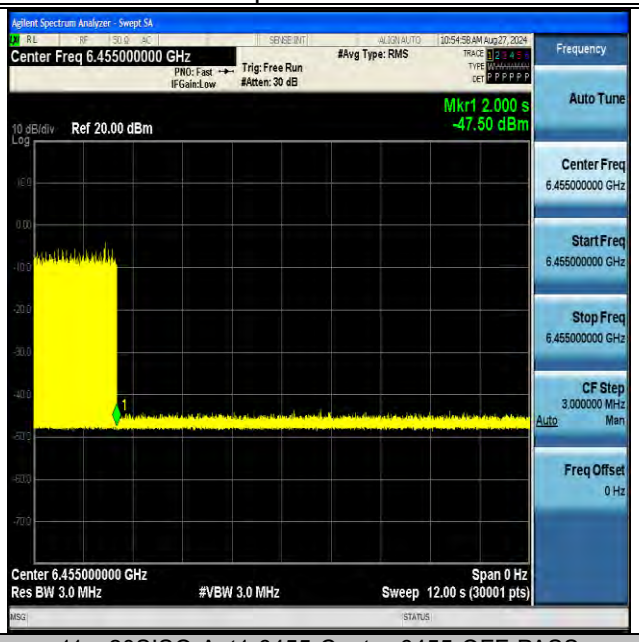

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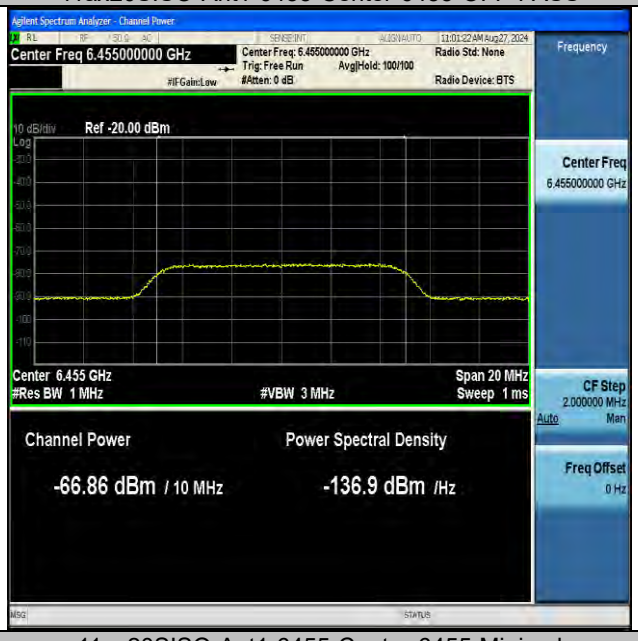
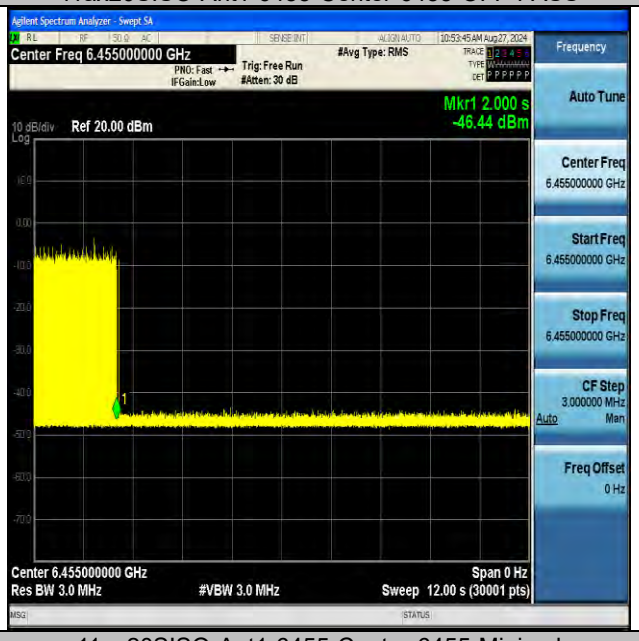
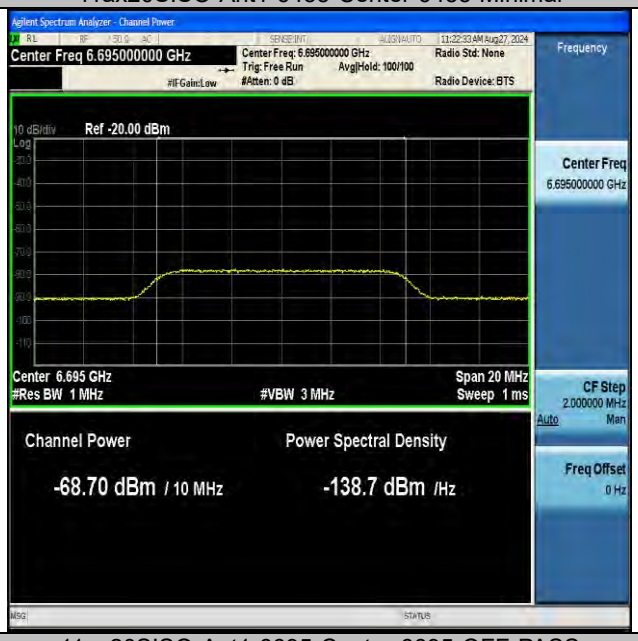


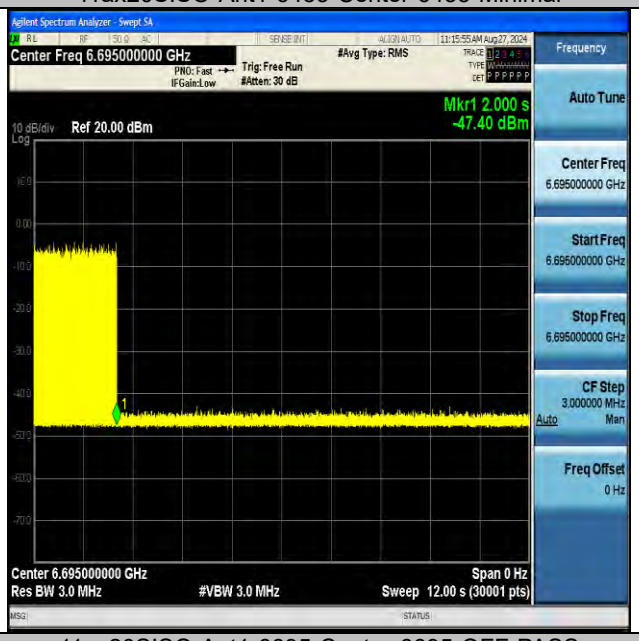
11ax20SISO-Ant1-6455-Center-6455-Minimal



11ax20SISO-Ant1-6455-Center-6455-Minimal



11ax20SISO-Ant1-6695-Center-6695-OFF-PASS



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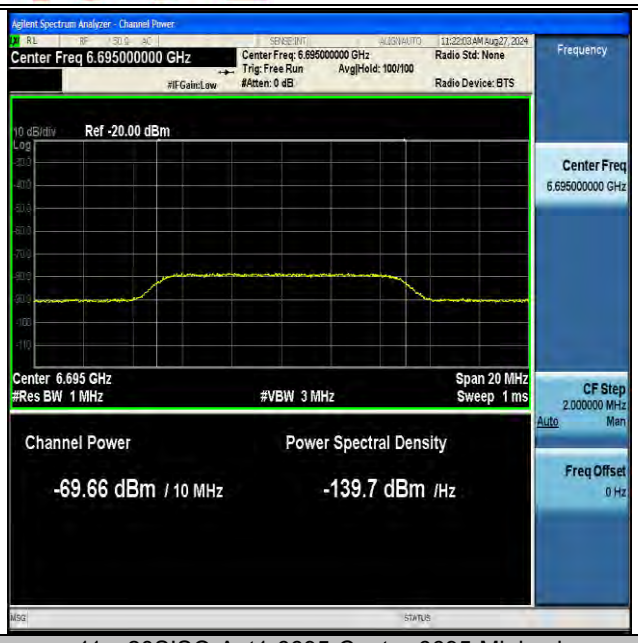
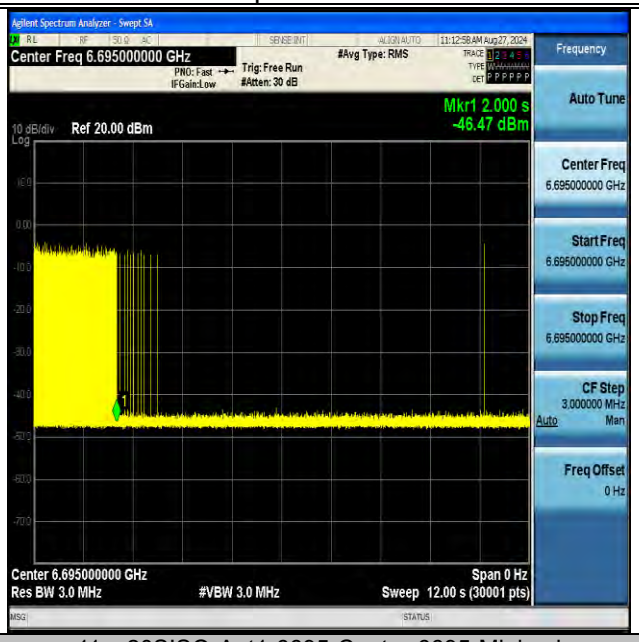
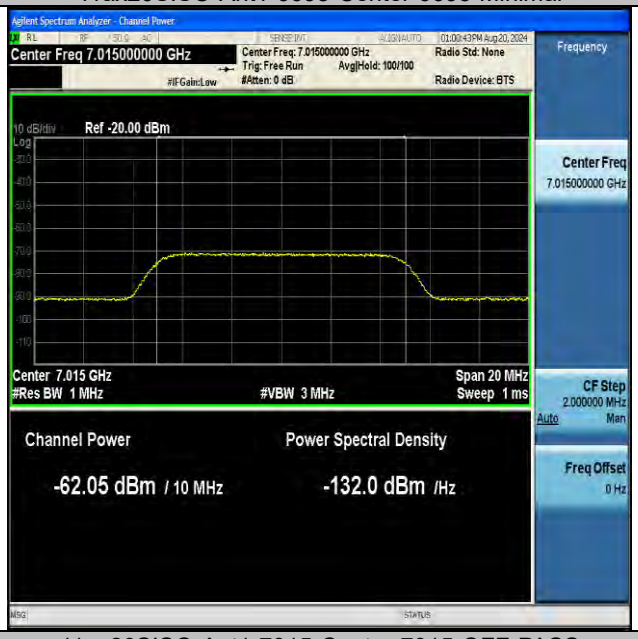


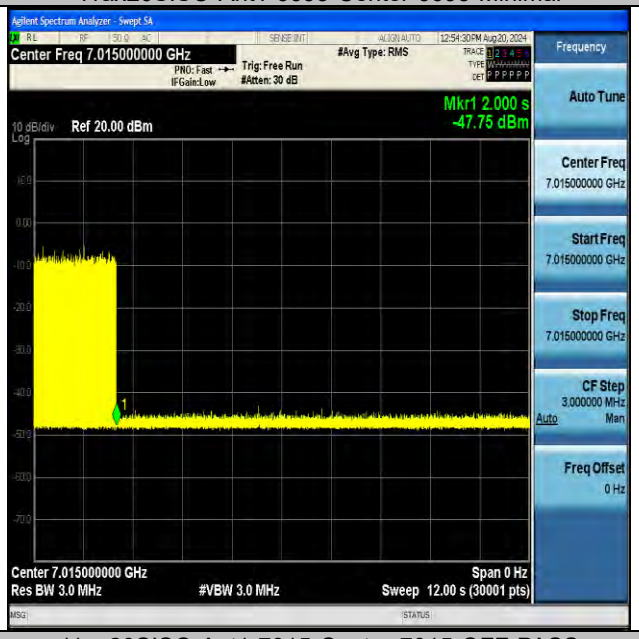
11ax20SISO-Ant1-6695-Center-6695-Minimal



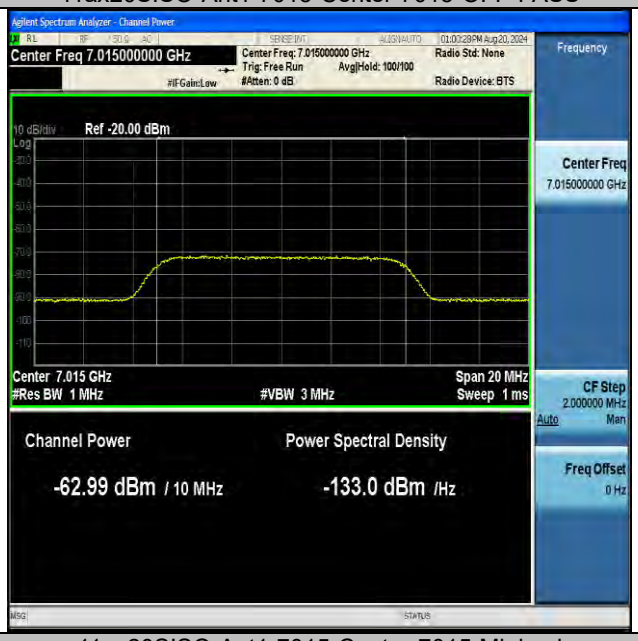
11ax20SISO-Ant1-6695-Center-6695-Minimal



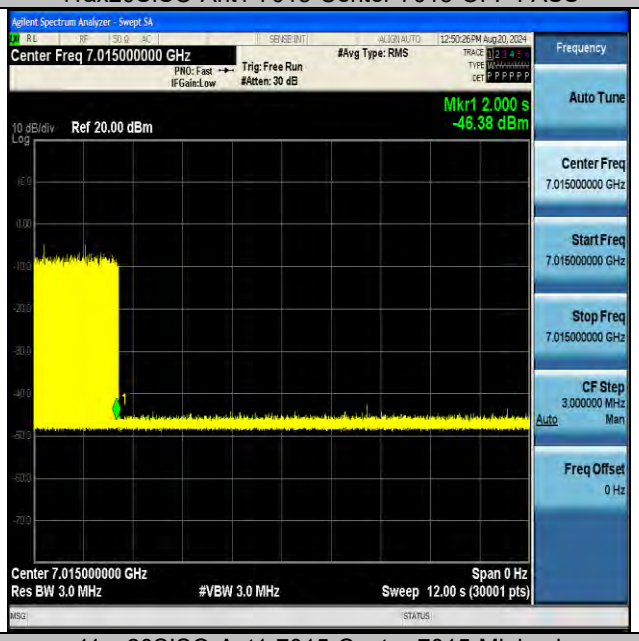
11ax20SISO-Ant1-7015-Center-7015-OFF-PASS



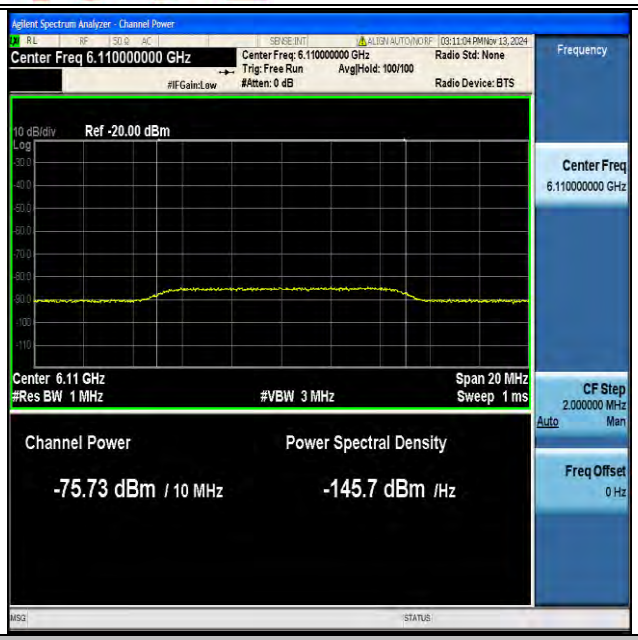
11ax20SISO-Ant1-7015-Center-7015-OFF-PASS



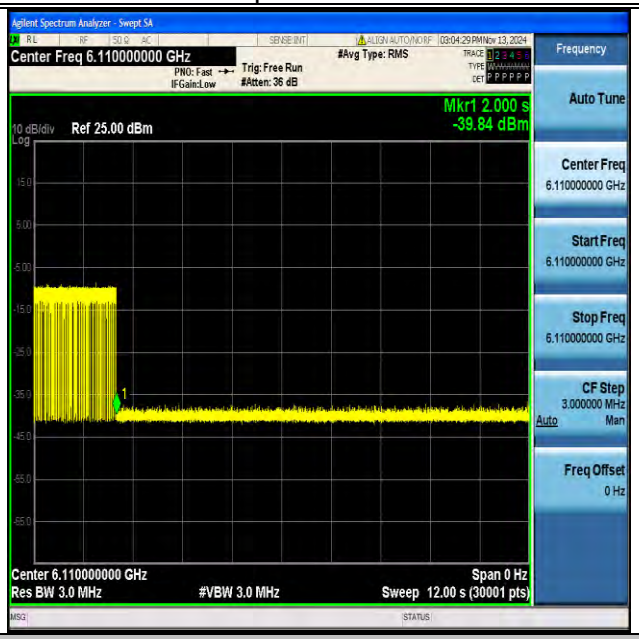
11ax20SISO-Ant1-7015-Center-7015-Minimal



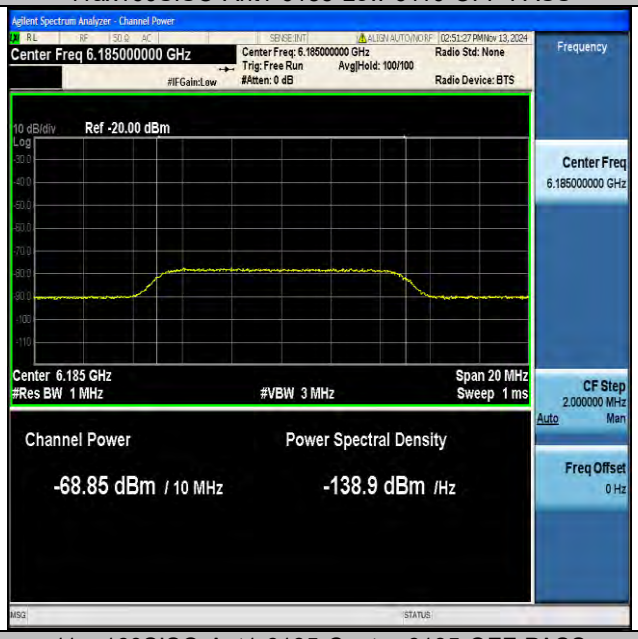
11ax20SISO-Ant1-7015-Center-7015-Minimal



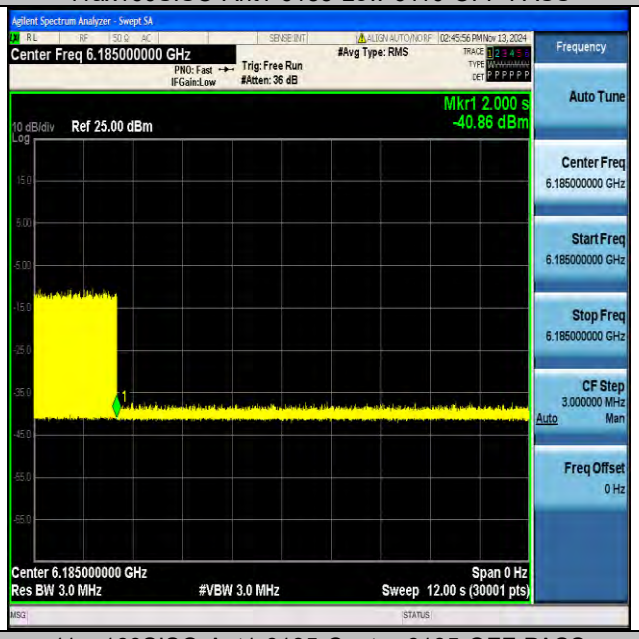
11ax160SISO-Ant1-6185-Low-6110-OFF-PASS



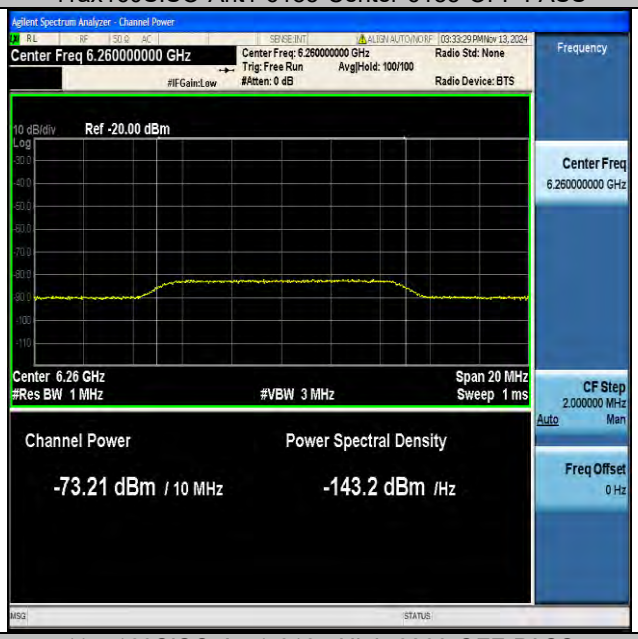
11ax160SISO-Ant1-6185-Low-6110-OFF-PASS



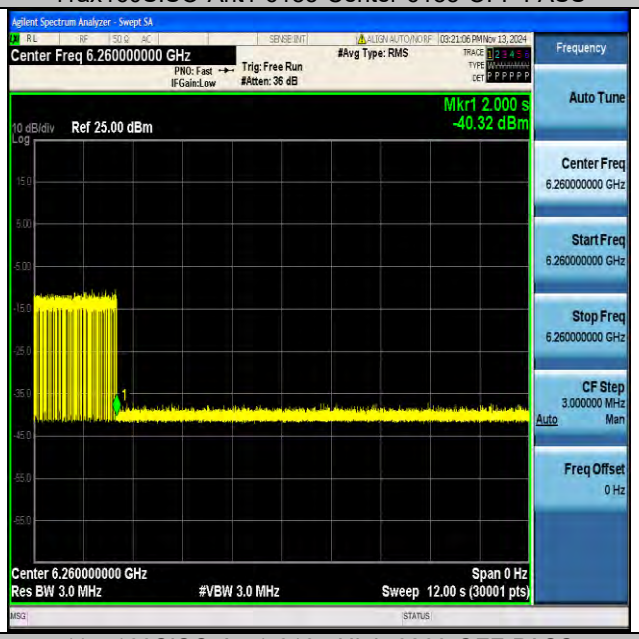
11ax160SISO-Ant1-6185-Center-6185-OFF-PASS



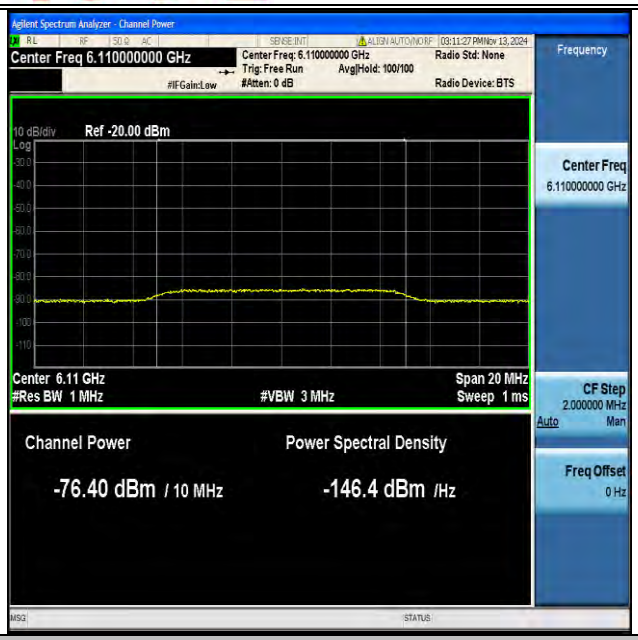
11ax160SISO-Ant1-6185-Center-6185-OFF-PASS



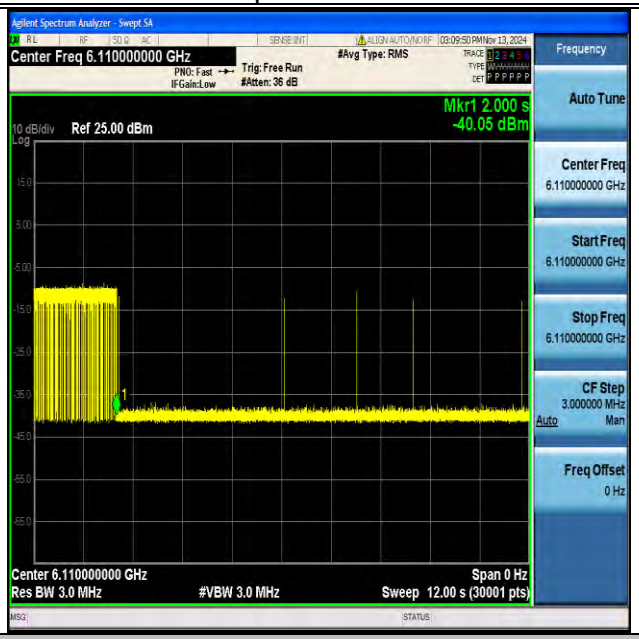
11ax160SISO-Ant1-6185-High-6260-OFF-PASS



11ax160SISO-Ant1-6185-High-6260-OFF-PASS



11ax160SISO-Ant1-6185-Low-6110-Minimal



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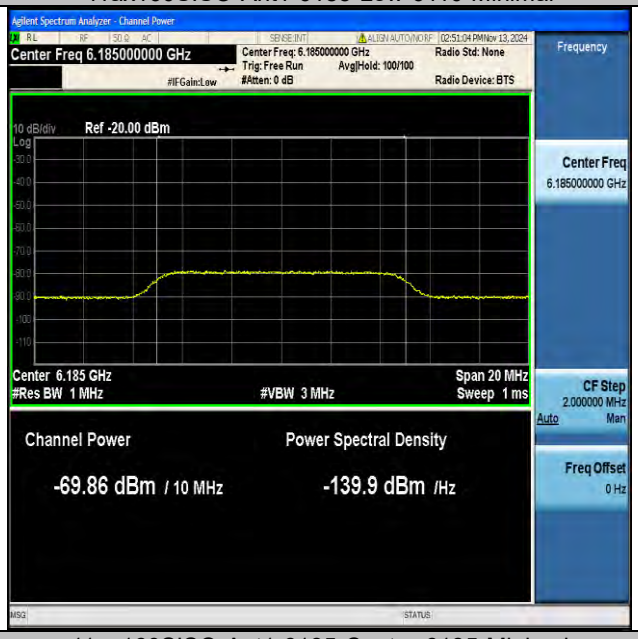

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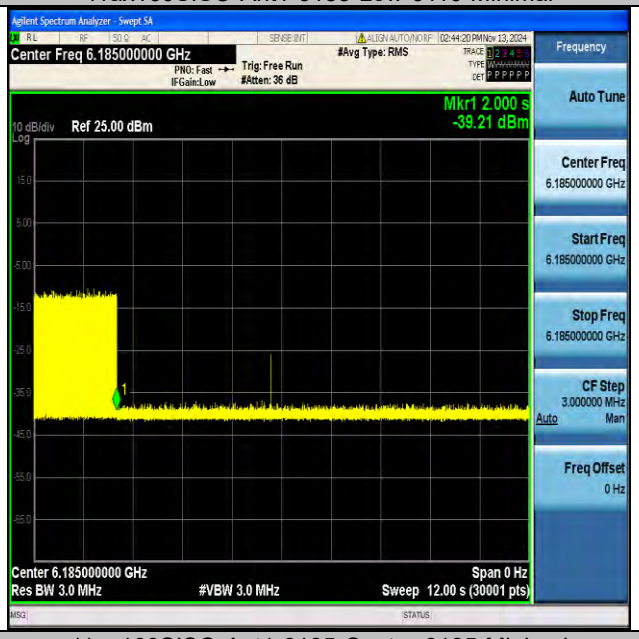

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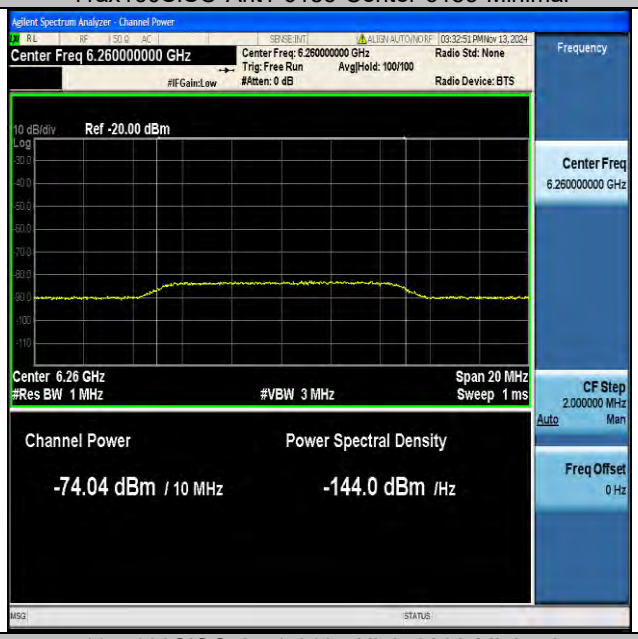
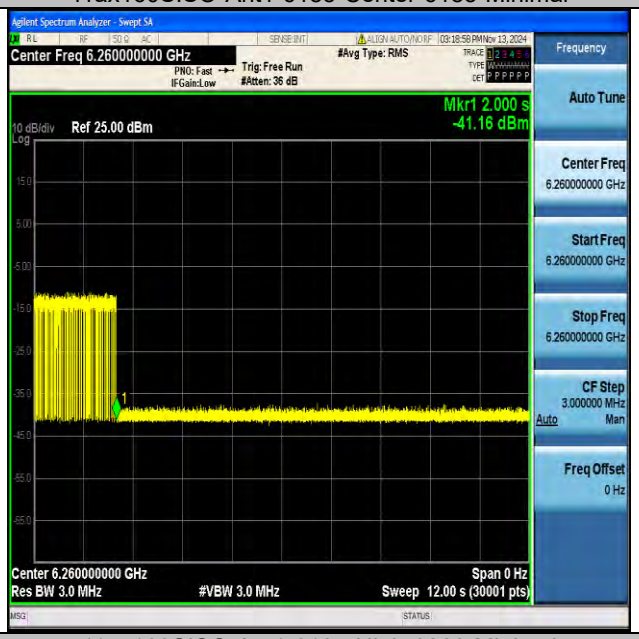
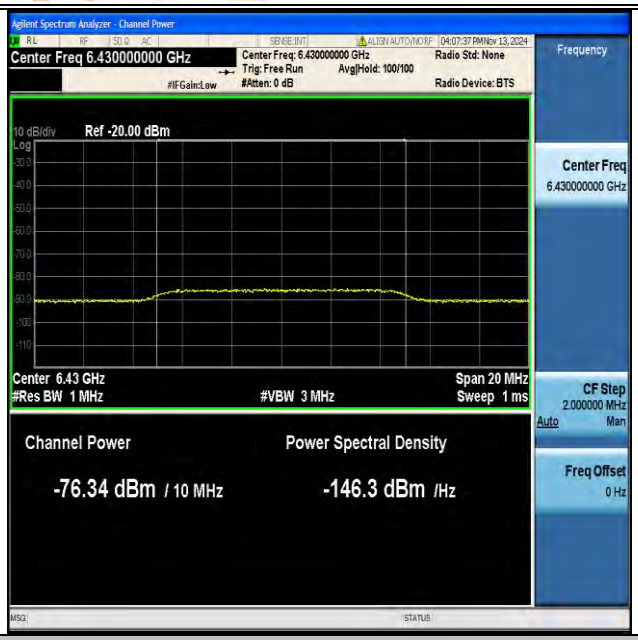


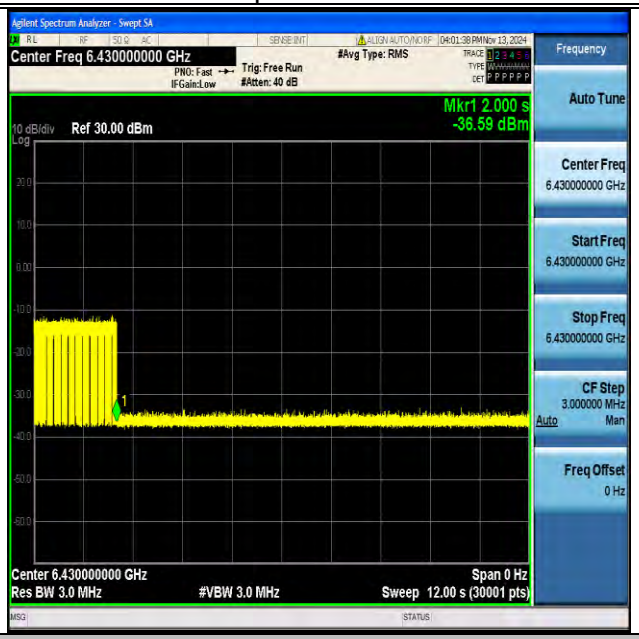
11ax160SISO-Ant1-6185-High-6260-Minimal



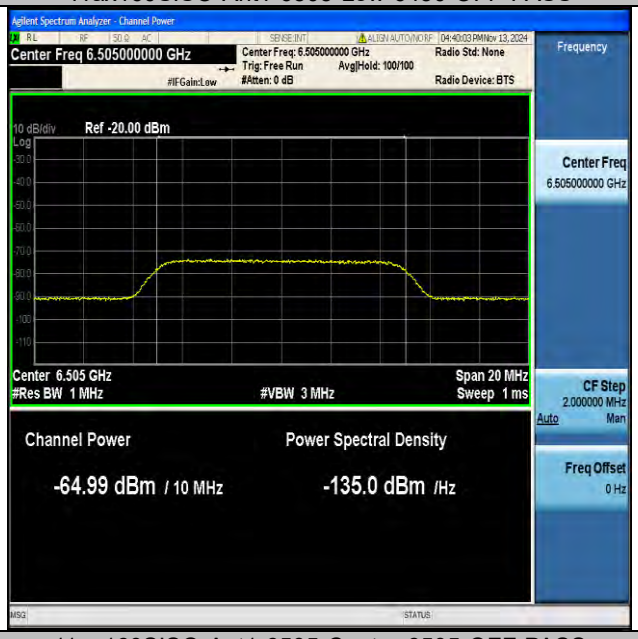
11ax160SISO-Ant1-6185-High-6260-Minimal



11ax160SISO-Ant1-6505-Low-6430-OFF-PASS



11ax160SISO-Ant1-6505-Low-6430-OFF-PASS



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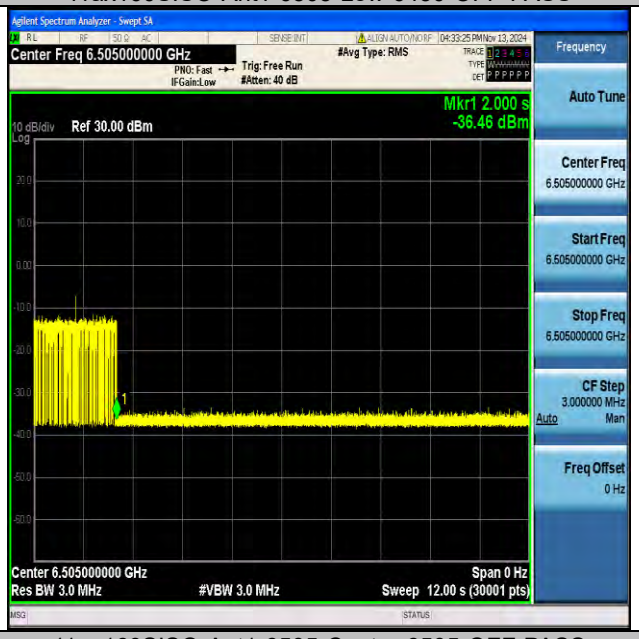

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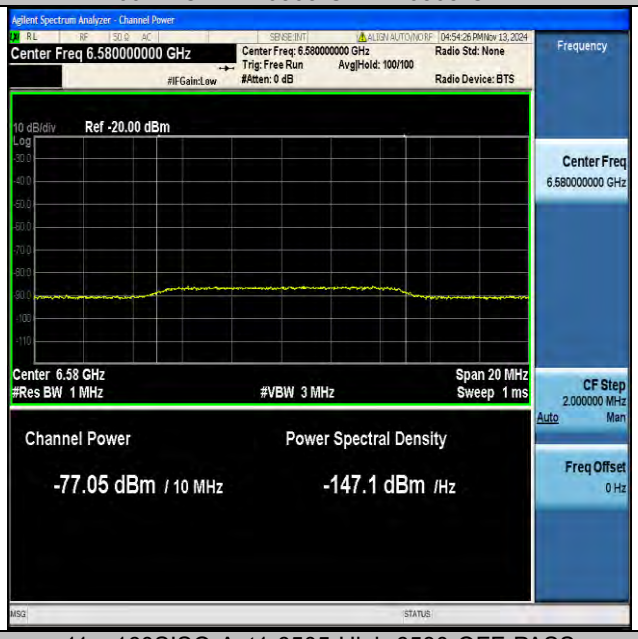
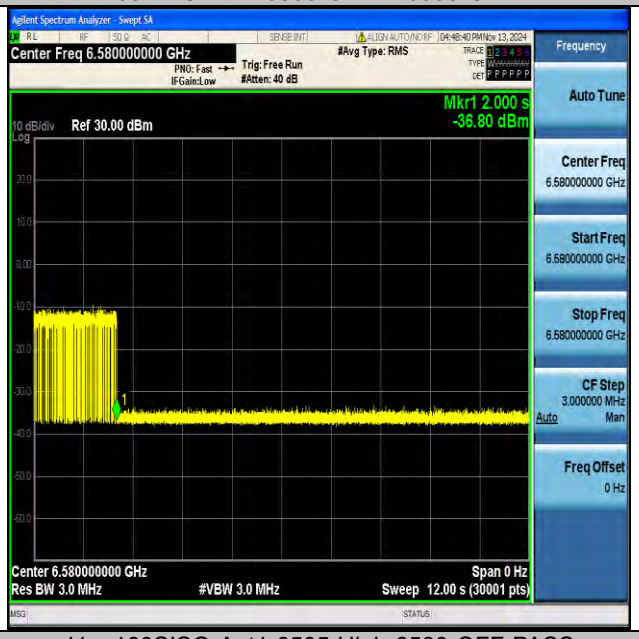
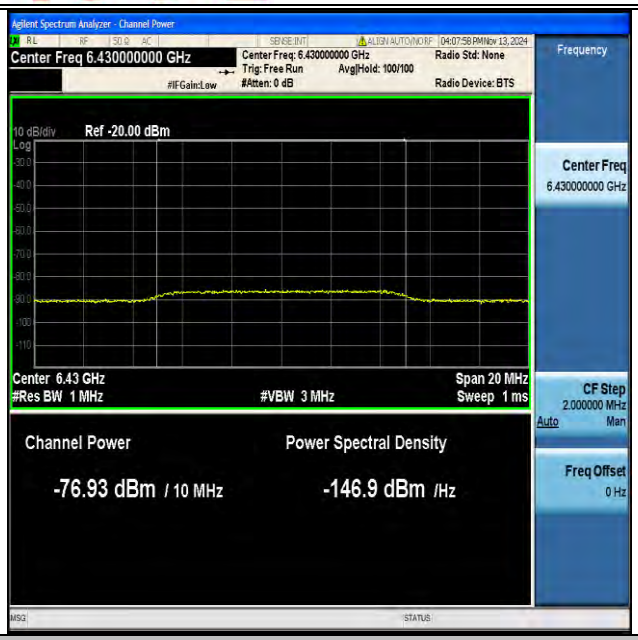


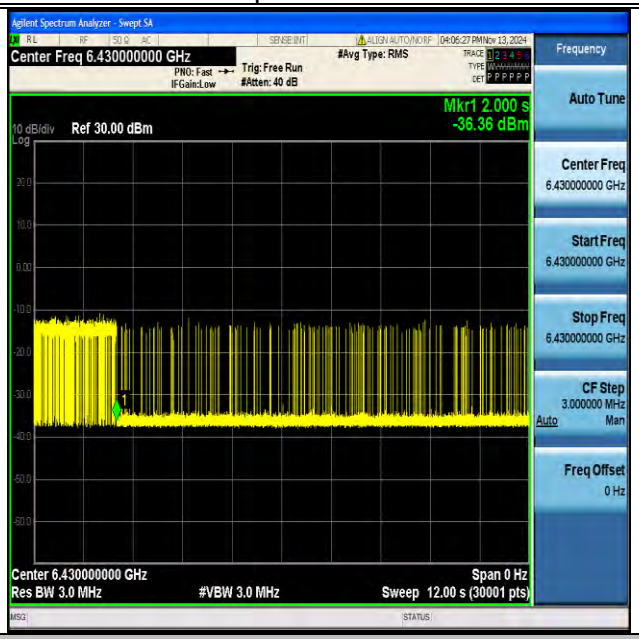
11ax160SISO-Ant1-6505-High-6580-OFF-PASS



11ax160SISO-Ant1-6505-High-6580-OFF-PASS



11ax160SISO-Ant1-6505-Low-6430-Minimal



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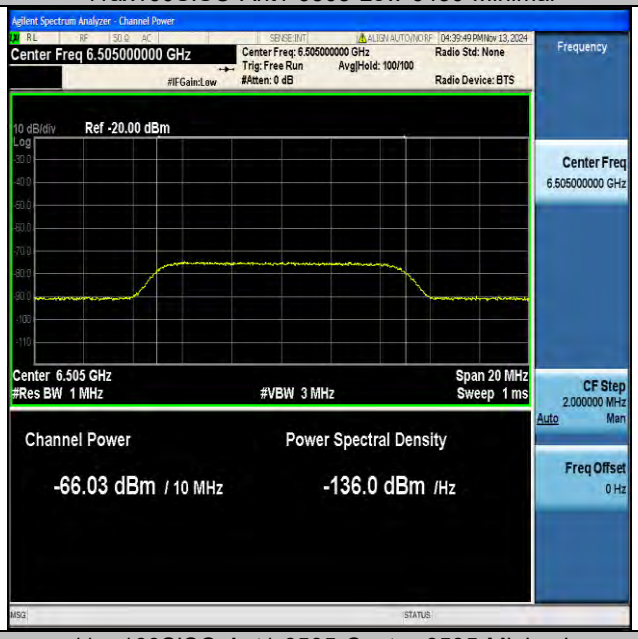
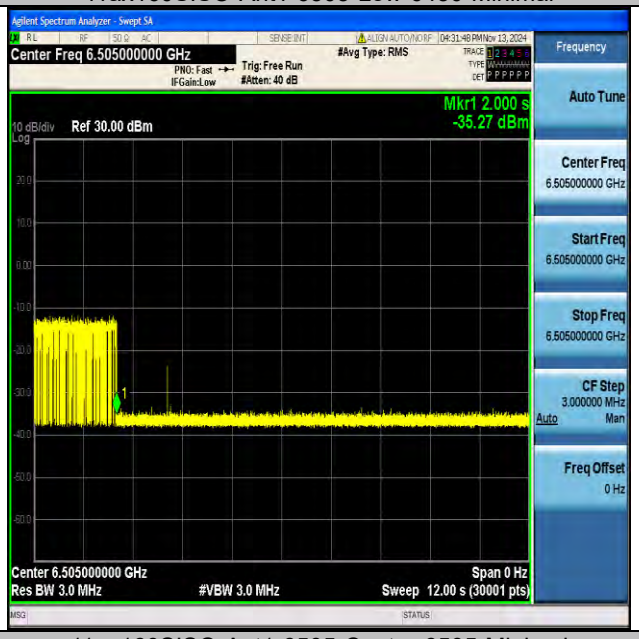
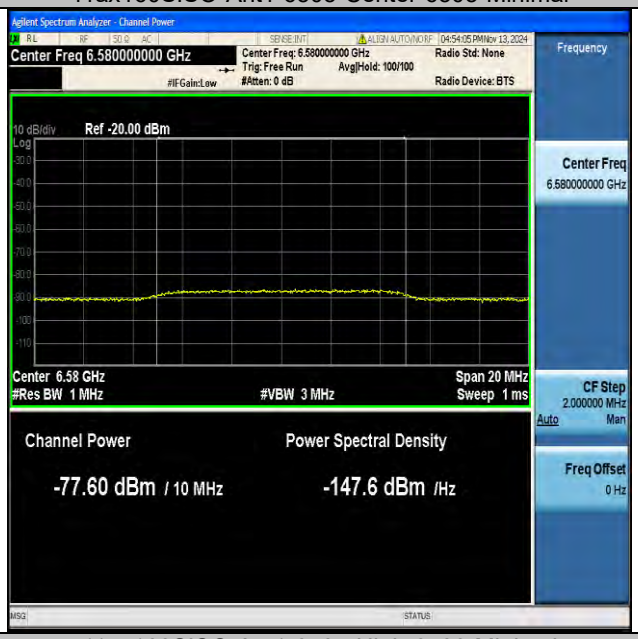


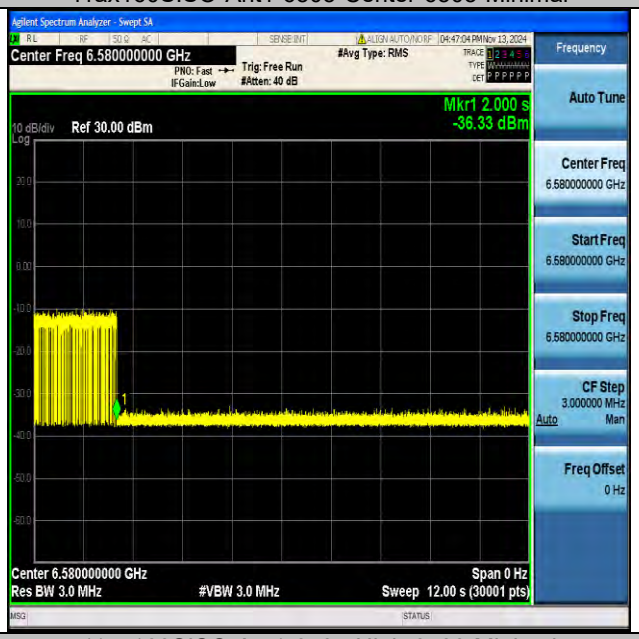
11ax160SISO-Ant1-6505-Center-6505-Minimal



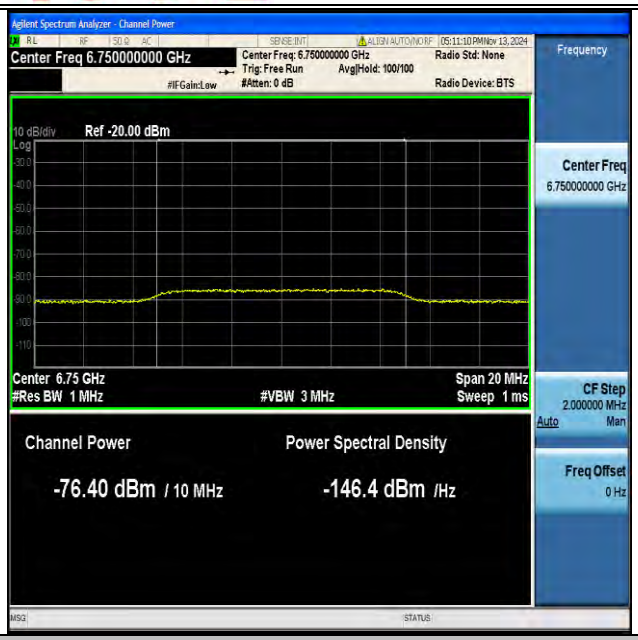
11ax160SISO-Ant1-6505-Center-6505-Minimal



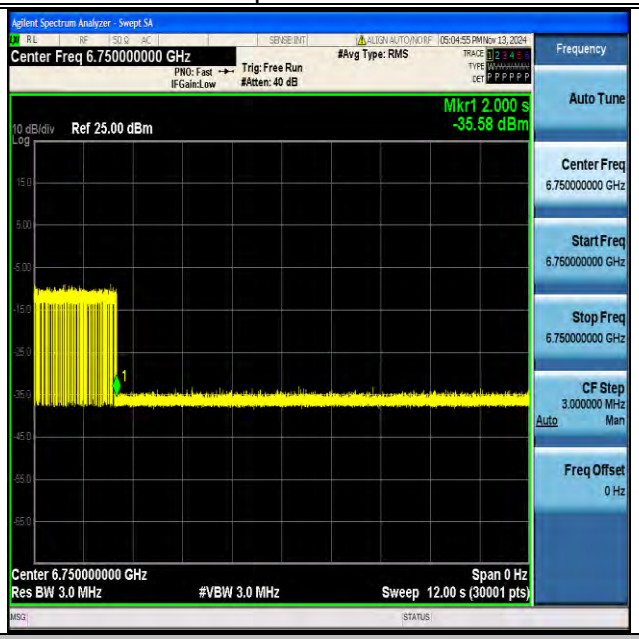
11ax160SISO-Ant1-6505-High-6580-Minimal



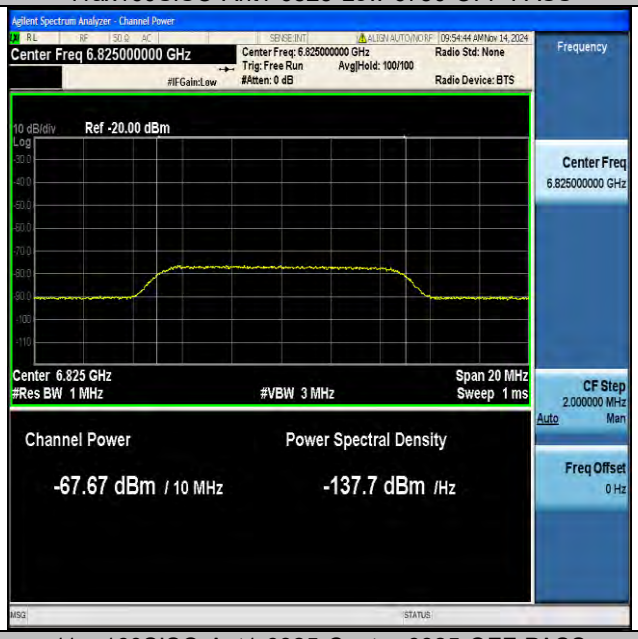
11ax160SISO-Ant1-6505-High-6580-Minimal



11ax160SISO-Ant1-6825-Low-6750-OFF-PASS



11ax160SISO-Ant1-6825-Low-6750-OFF-PASS



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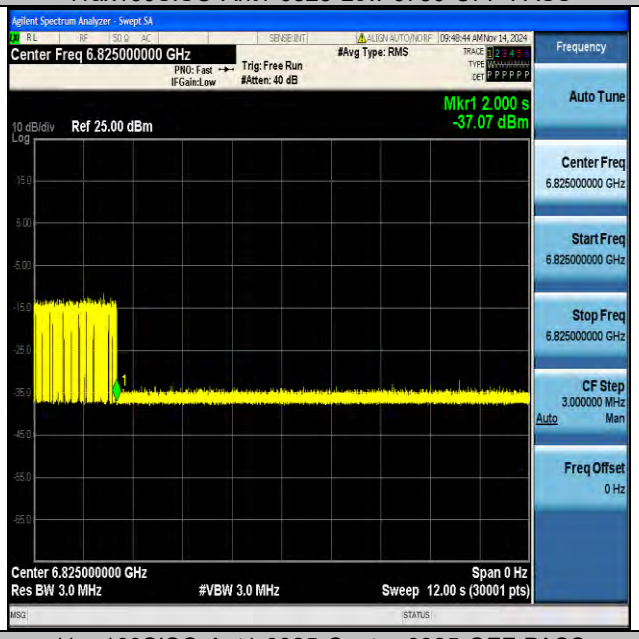

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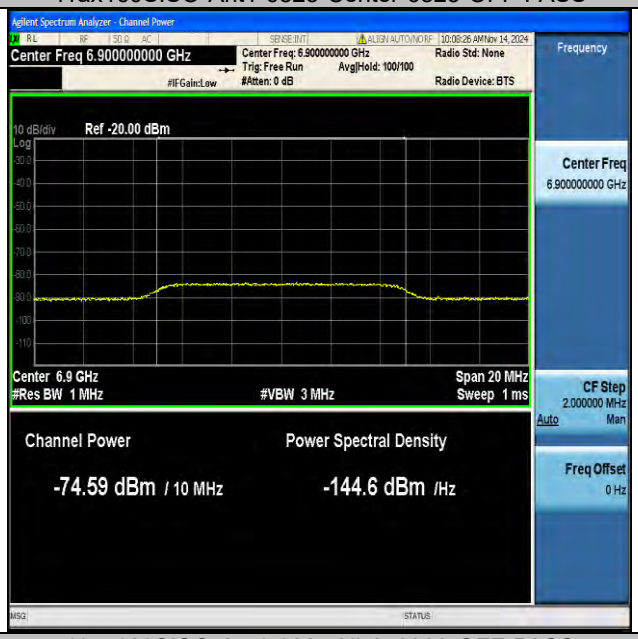
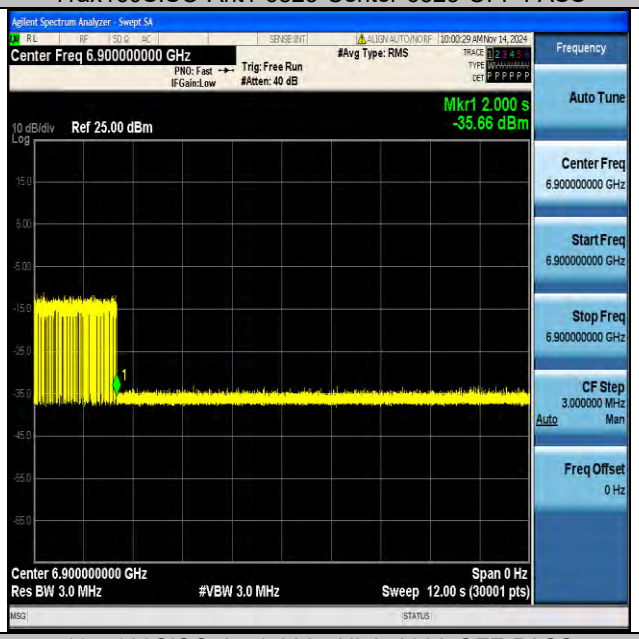
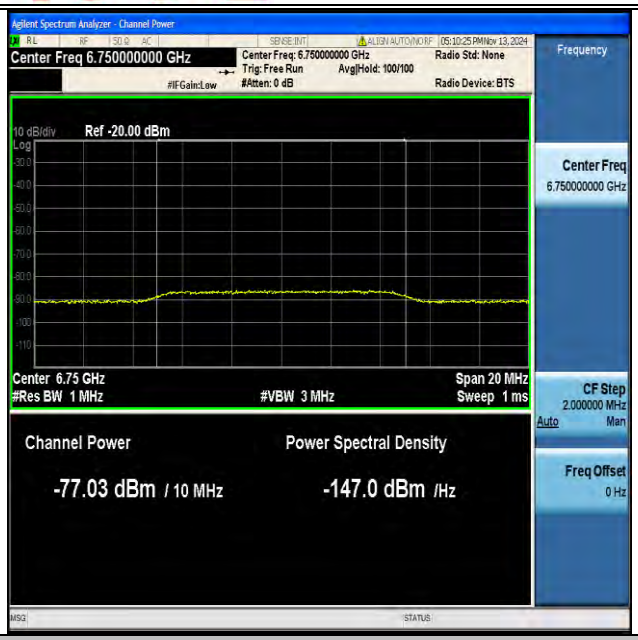


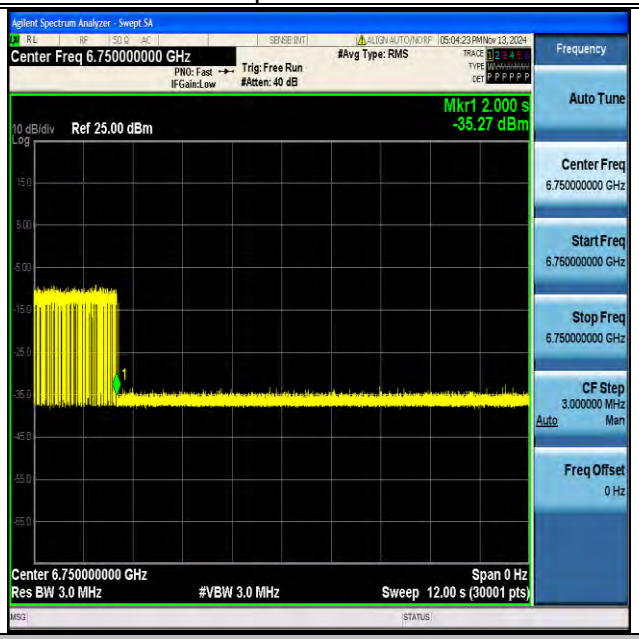
11ax160SISO-Ant1-6825-High-6900-OFF-PASS



11ax160SISO-Ant1-6825-High-6900-OFF-PASS



11ax160SISO-Ant1-6825-Low-6750-Minimal



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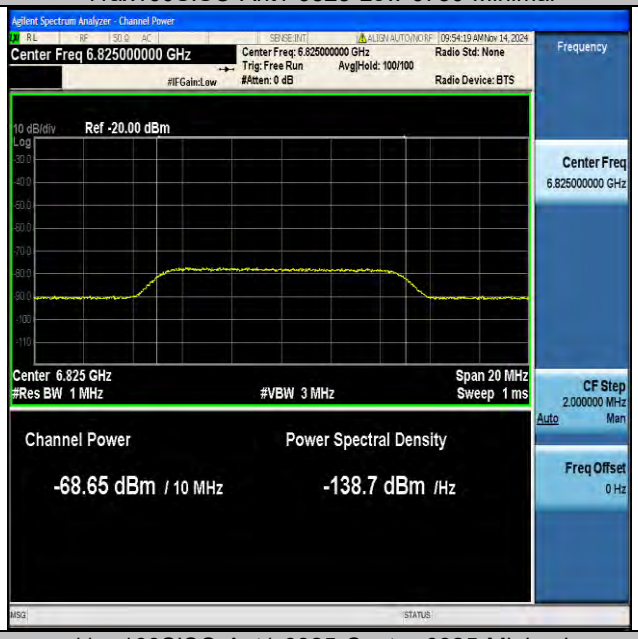

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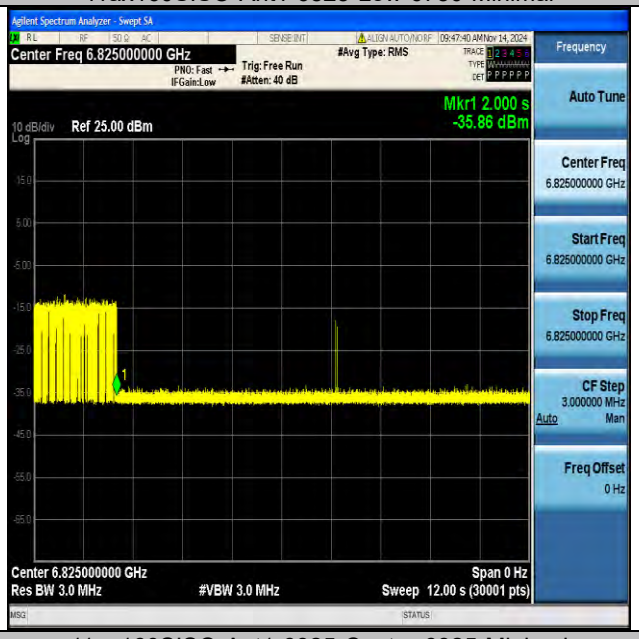
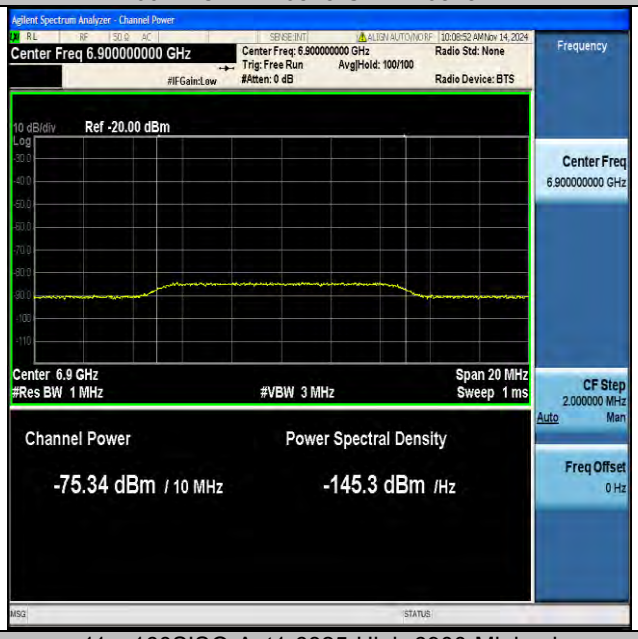
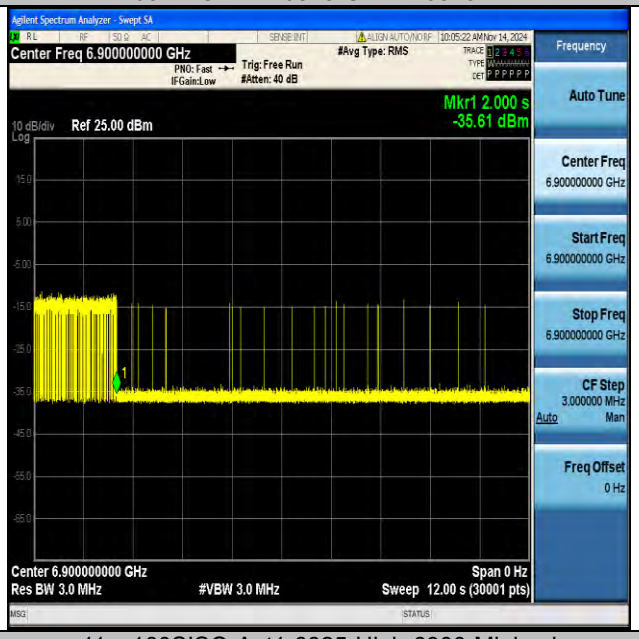


11ax160SISO-Ant1-6825-Center-6825-Minimal



11ax160SISO-Ant1-6825-High-6900-Minimal



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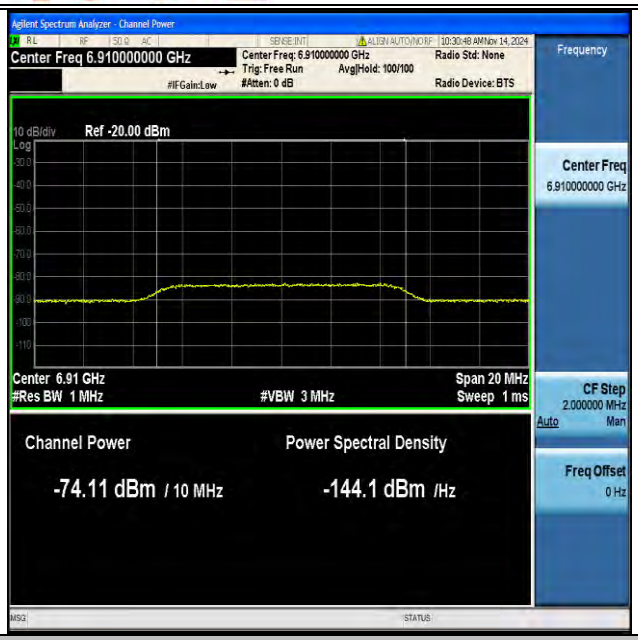
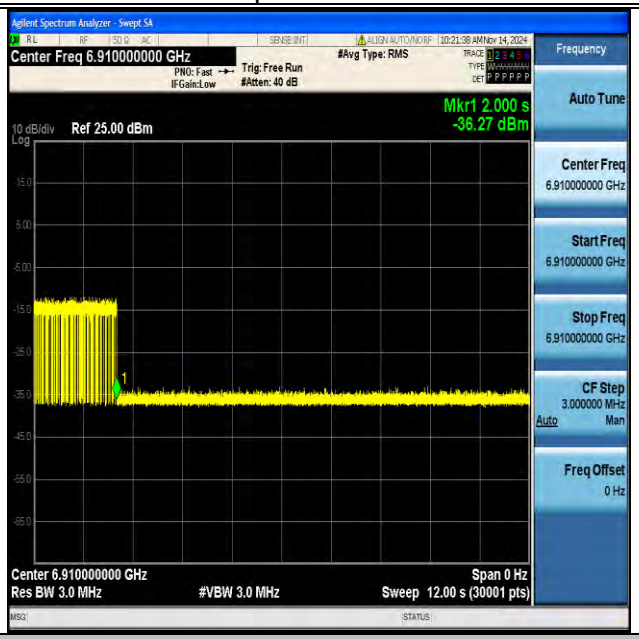
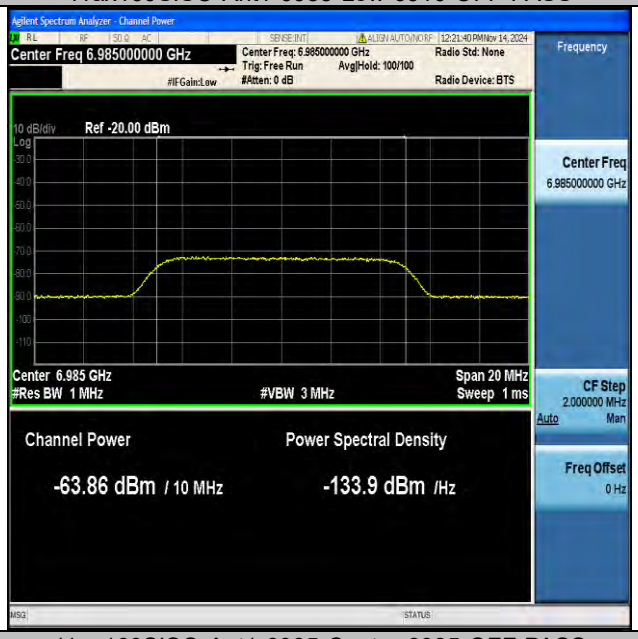


11ax160SISO-Ant1-6985-Low-6910-OFF-PASS



11ax160SISO-Ant1-6985-Low-6910-OFF-PASS



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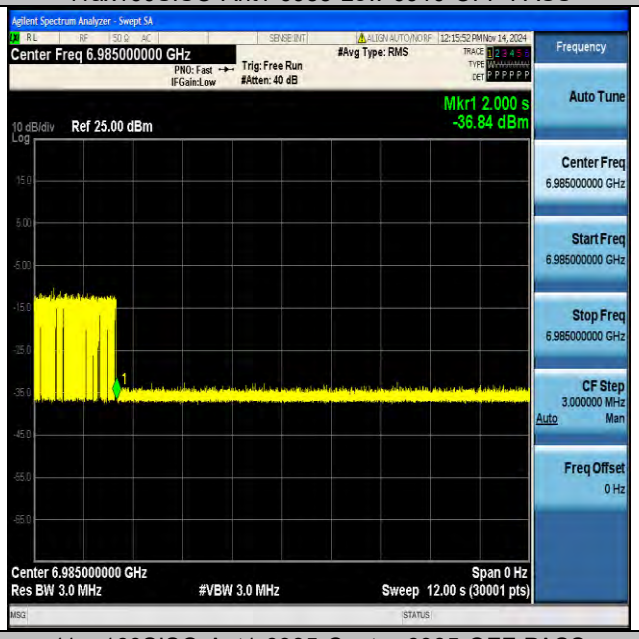

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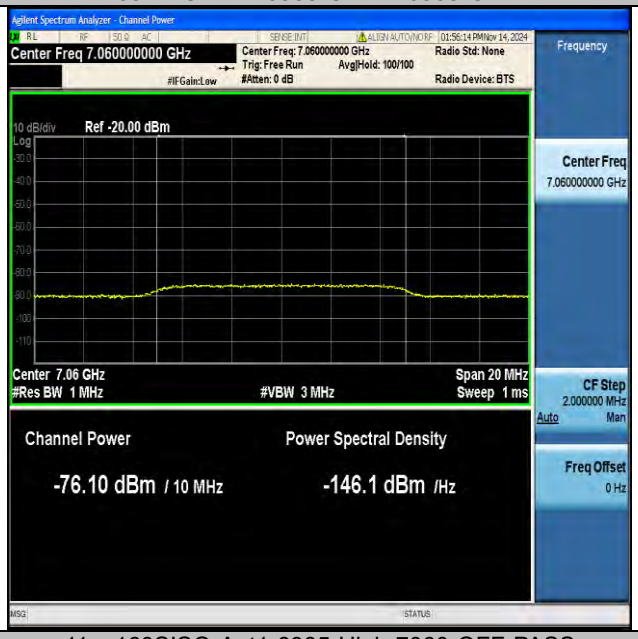
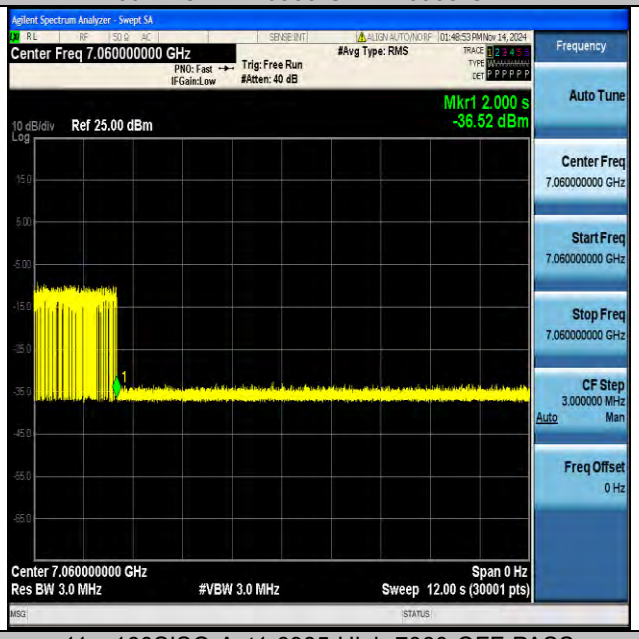


11ax160SISO-Ant1-6985-High-7060-OFF-PASS



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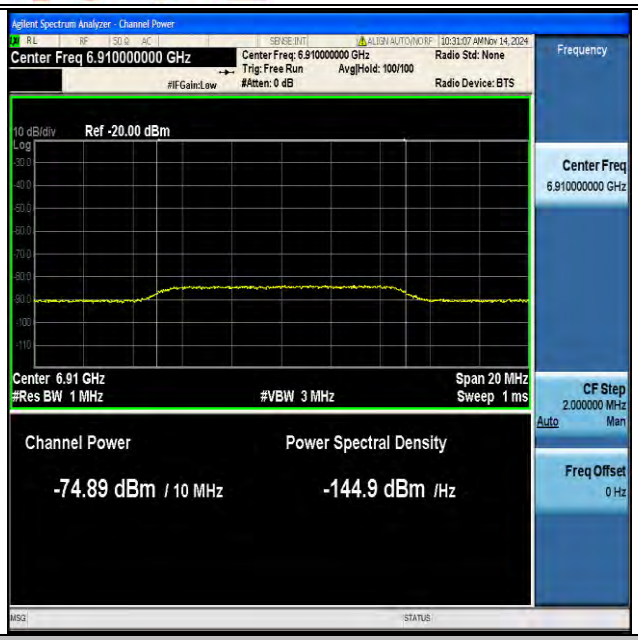

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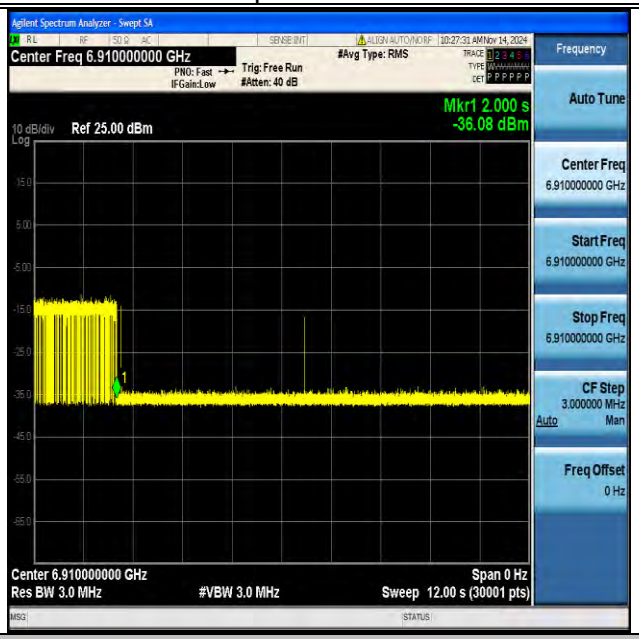
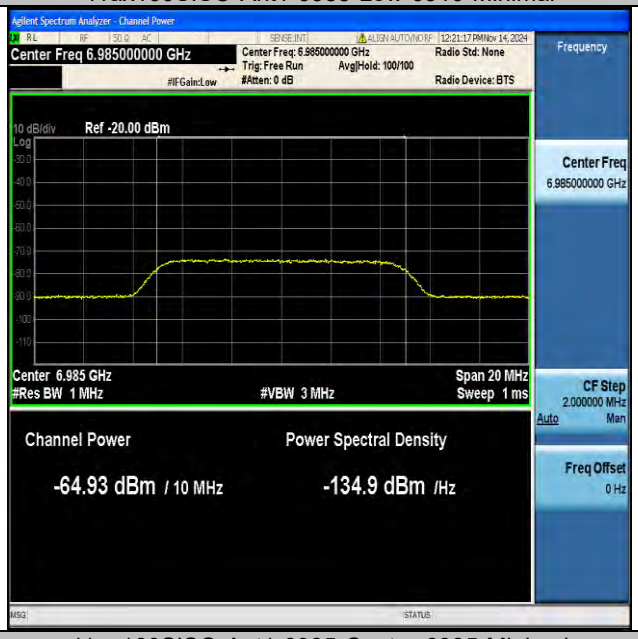
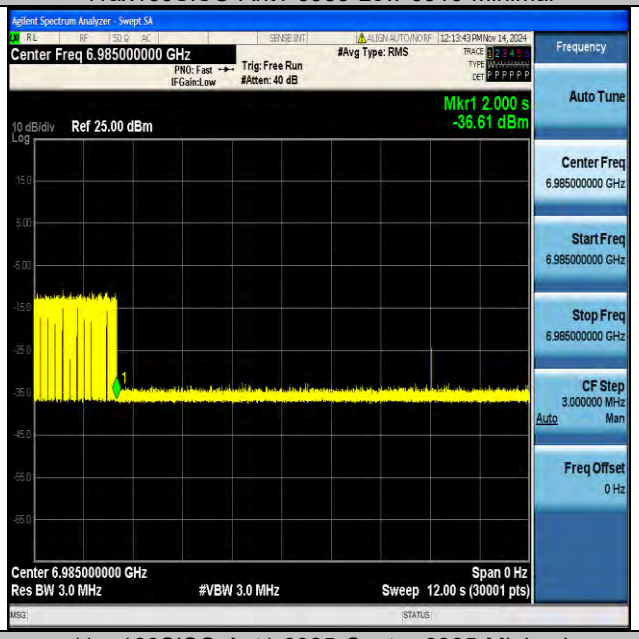


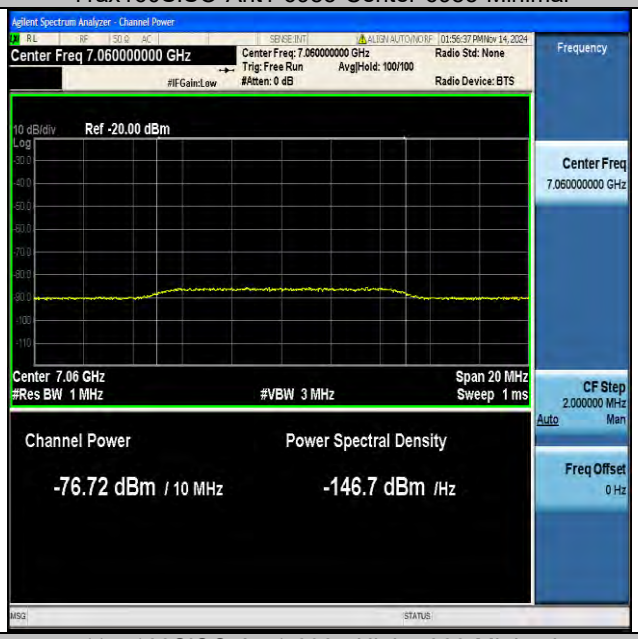
11ax160SISO-Ant1-6985-Low-6910-Minimal



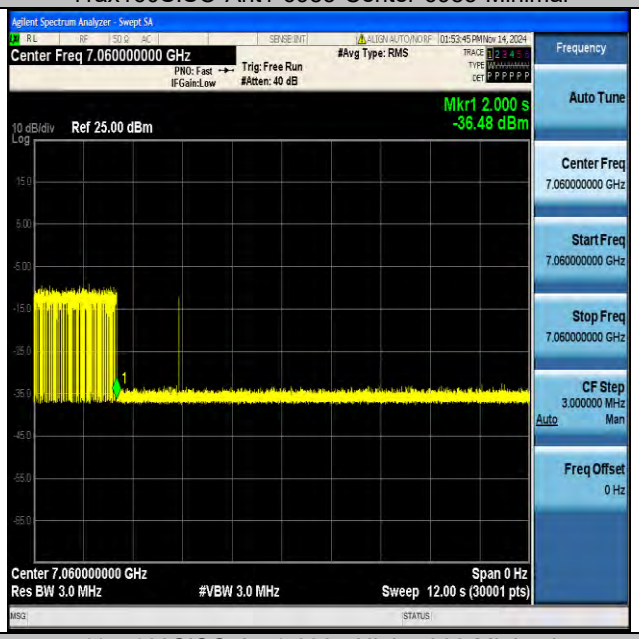
11ax160SISO-Ant1-6985-Center-6985-Minimal



11ax160SISO-Ant1-6985-Center-6985-Minimal



11ax160SISO-Ant1-6985-High-7060-Minimal



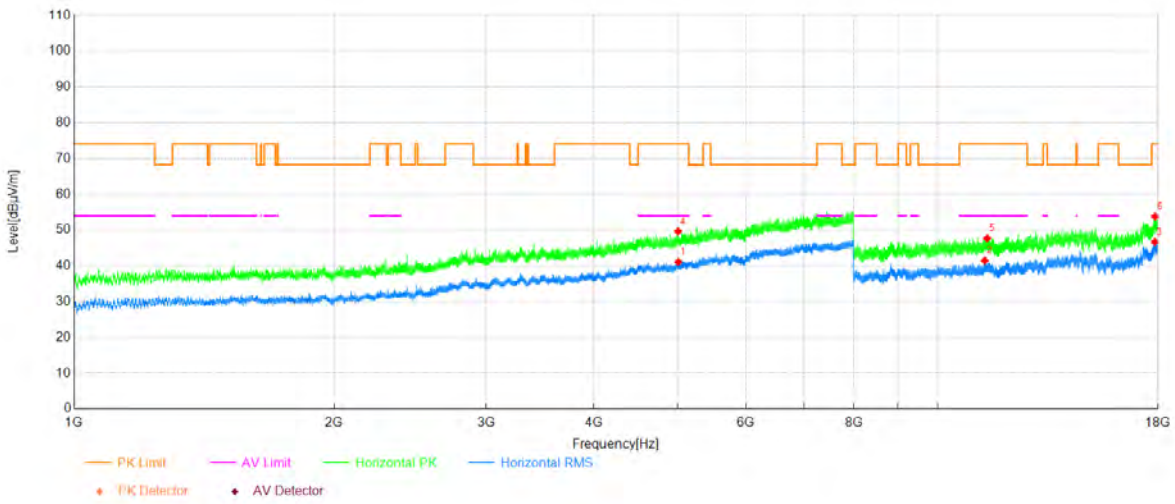
11ax160SISO-Ant1-6985-High-7060-Minimal

Radiated Spurious Emissions

Test Result

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	5955
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

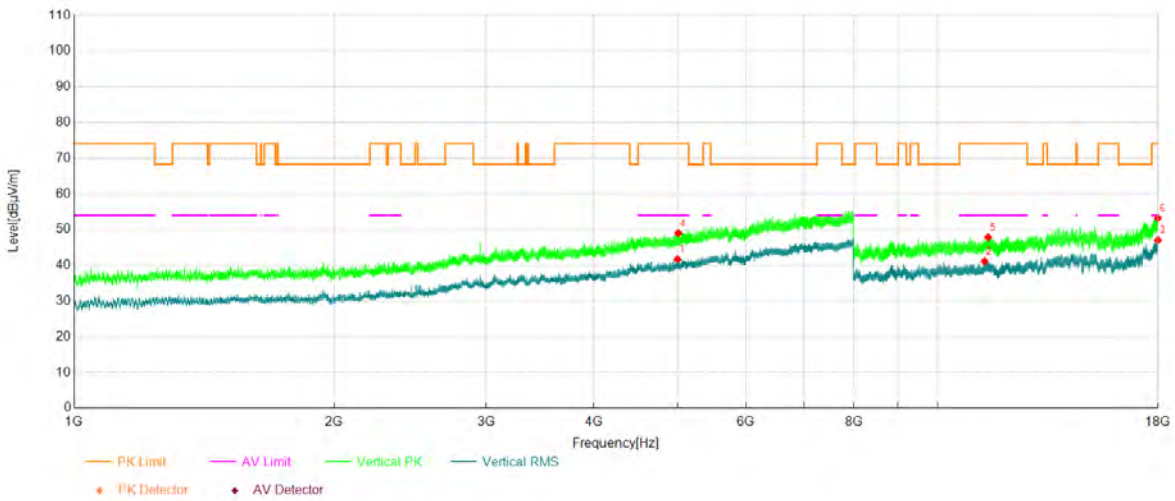


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5008.90	27.50	13.54	41.04	54.00	12.96	Horizontal	PASS
2	11340.00	36.22	5.21	41.43	54.00	12.57	Horizontal	PASS
3	17847.33	32.71	13.94	46.65	54.00	7.35	Horizontal	PASS
4	5005.05	36.09	13.53	49.62	74.00	24.38	Horizontal	PASS
5	11412.33	42.33	5.36	47.69	74.00	26.31	Horizontal	PASS
6	17859.33	39.88	13.86	53.74	74.00	20.26	Horizontal	PASS

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	5955
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

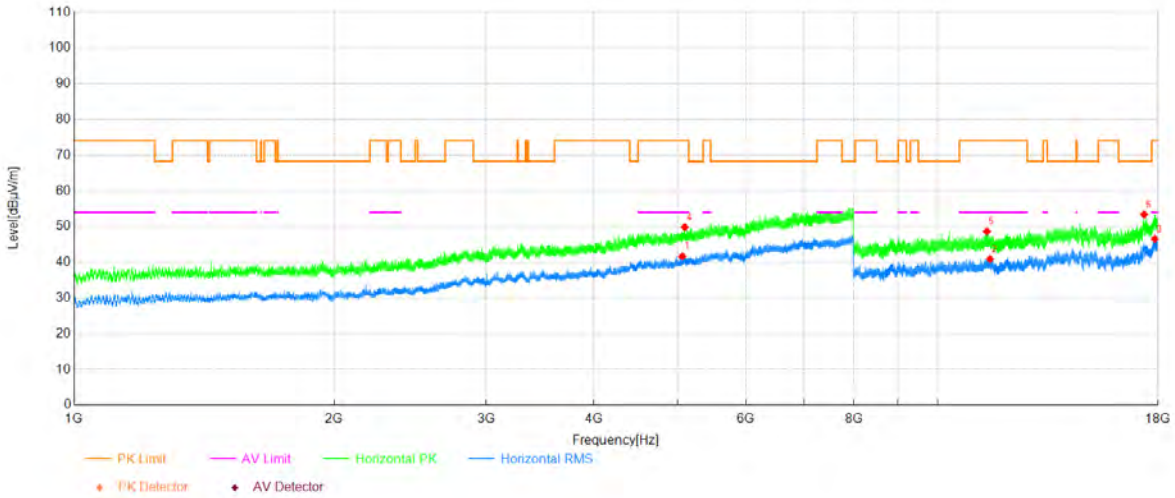


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4997.00	28.16	13.50	41.66	54.00	12.34	Vertical	PASS
2	11333.33	35.98	5.10	41.08	54.00	12.92	Vertical	PASS
3	17994.67	33.01	14.00	47.01	54.00	6.99	Vertical	PASS
4	5008.55	35.45	13.54	48.99	74.00	25.01	Vertical	PASS
5	11442.67	42.77	5.07	47.84	74.00	26.16	Vertical	PASS
6	17994.67	39.19	14.00	53.19	74.00	20.81	Vertical	PASS

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	6175
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

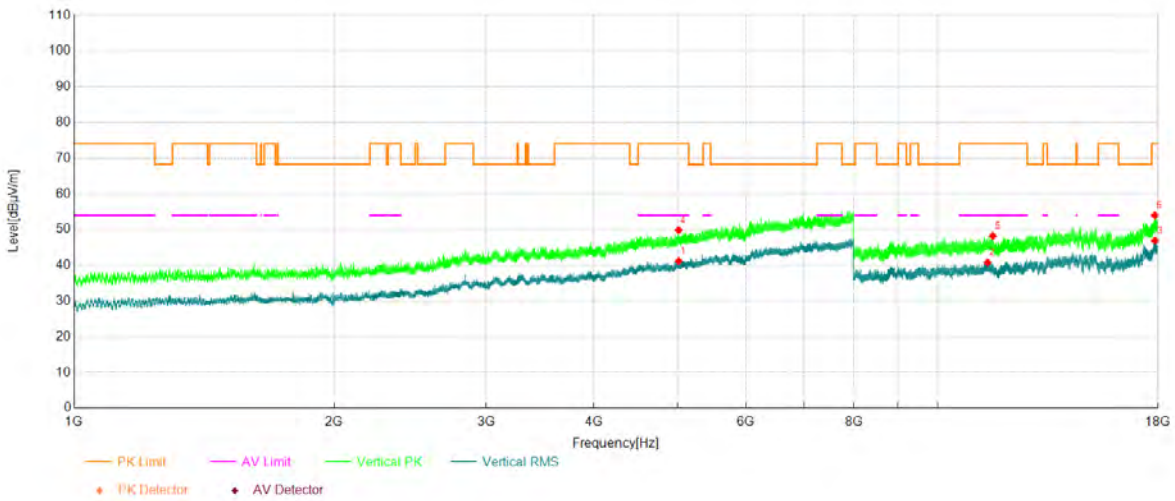


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5062.45	27.86	13.80	41.66	54.00	12.34	Horizontal	PASS
2	11498.67	35.85	5.06	40.91	54.00	13.09	Horizontal	PASS
3	17848.67	32.53	13.99	46.52	54.00	7.48	Horizontal	PASS
4	5095.70	35.59	14.24	49.83	74.00	24.17	Horizontal	PASS
5	11404.00	43.18	5.44	48.62	74.00	25.38	Horizontal	PASS
6	17347.33	41.38	11.99	53.37	68.20	14.83	Horizontal	PASS

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	6175
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

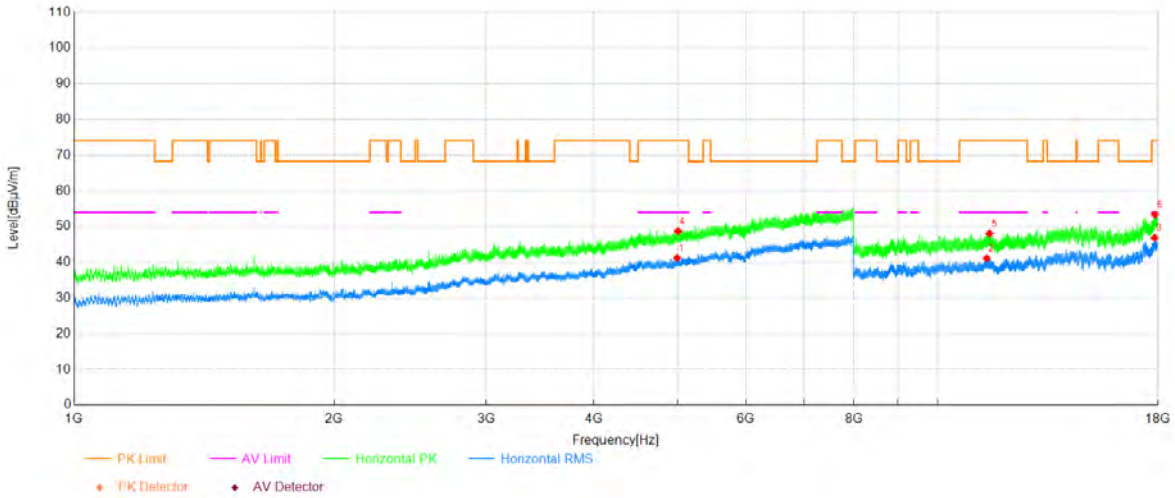


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5013.45	27.59	13.55	41.14	54.00	12.86	Vertical	PASS
2	11424.33	35.53	5.25	40.78	54.00	13.22	Vertical	PASS
3	17856.33	32.96	13.91	46.87	54.00	7.13	Vertical	PASS
4	5013.10	36.29	13.55	49.84	74.00	24.16	Vertical	PASS
5	11584.33	42.79	5.41	48.20	74.00	25.80	Vertical	PASS
6	17848.00	39.96	13.97	53.93	74.00	20.07	Vertical	PASS

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	6415
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

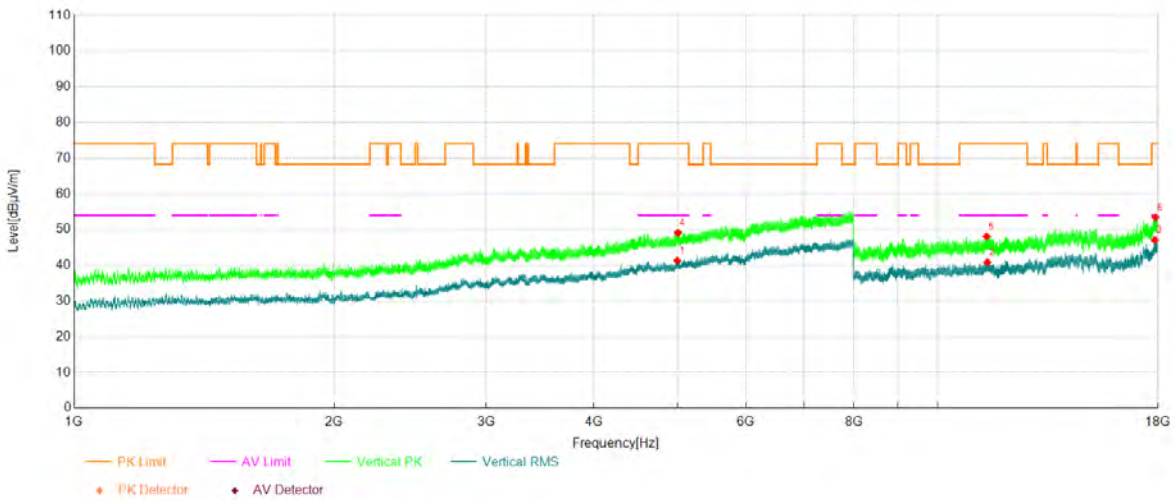


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4993.15	27.70	13.48	41.18	54.00	12.82	Horizontal	PASS
2	11398.33	35.62	5.47	41.09	54.00	12.91	Horizontal	PASS
3	17840.67	33.07	13.76	46.83	54.00	7.17	Horizontal	PASS
4	5004.35	35.16	13.53	48.69	74.00	25.31	Horizontal	PASS
5	11486.00	43.01	5.04	48.05	74.00	25.95	Horizontal	PASS
6	17858.33	39.46	13.88	53.34	74.00	20.66	Horizontal	PASS

Project Information			
Mode:	802.11a	Band:	/
Bandwidth	20MHz	Channel	6415
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

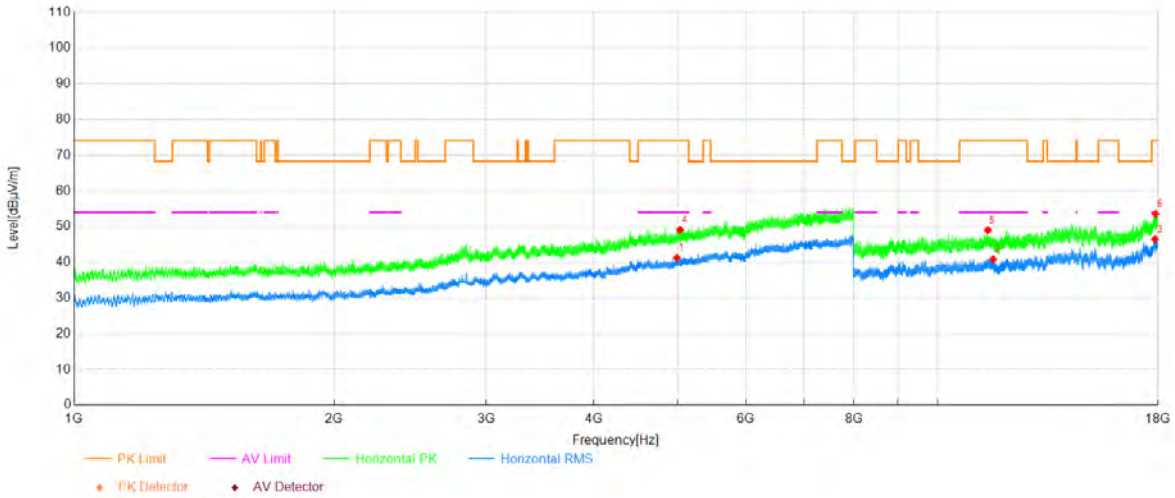


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4994.90	27.77	13.49	41.26	54.00	12.74	Vertical	PASS
2	11418.67	35.54	5.29	40.83	54.00	13.17	Vertical	PASS
3	17851.00	33.07	14.00	47.07	54.00	6.93	Vertical	PASS
4	5003.65	35.56	13.53	49.09	74.00	24.91	Vertical	PASS
5	11396.33	42.61	5.46	48.07	74.00	25.93	Vertical	PASS
6	17884.33	39.92	13.44	53.36	74.00	20.64	Vertical	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	5955
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

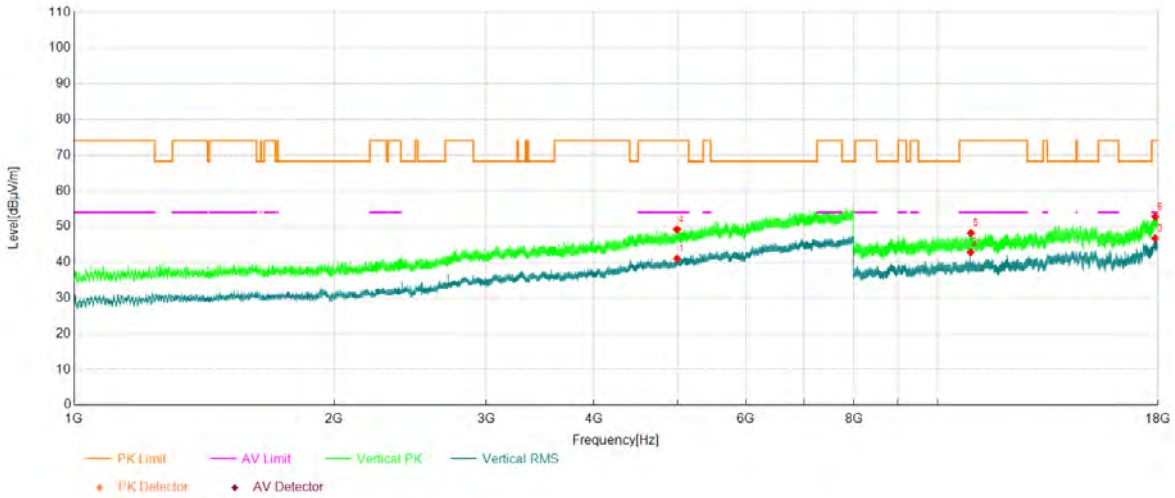


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4990.70	27.75	13.46	41.21	54.00	12.79	Horizontal	PASS
2	11592.67	35.37	5.49	40.86	54.00	13.14	Horizontal	PASS
3	17859.00	32.61	13.87	46.48	54.00	7.52	Horizontal	PASS
4	5030.60	35.46	13.59	49.05	74.00	24.95	Horizontal	PASS
5	11432.33	43.82	5.17	48.99	74.00	25.01	Horizontal	PASS
6	17889.00	40.15	13.36	53.51	74.00	20.49	Horizontal	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	5955
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

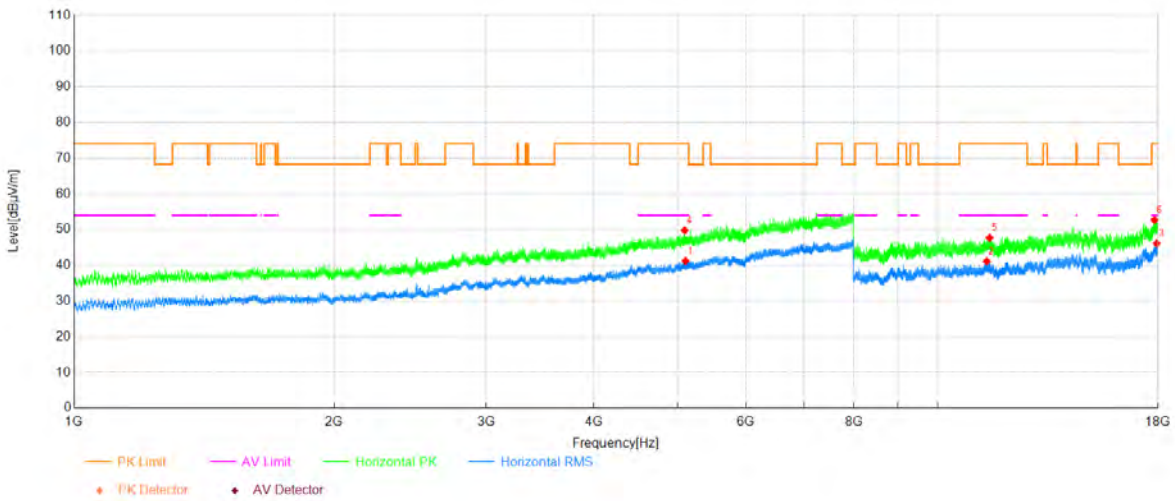


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4991.40	27.56	13.46	41.02	54.00	12.98	Vertical	PASS
2	10920.00	37.98	4.81	42.79	54.00	11.21	Vertical	PASS
3	17863.33	32.91	13.80	46.71	54.00	7.29	Vertical	PASS
4	4991.05	35.73	13.46	49.19	74.00	24.81	Vertical	PASS
5	10927.33	43.38	4.78	48.16	74.00	25.84	Vertical	PASS
6	17872.33	39.14	13.64	52.78	74.00	21.22	Vertical	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	6175
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

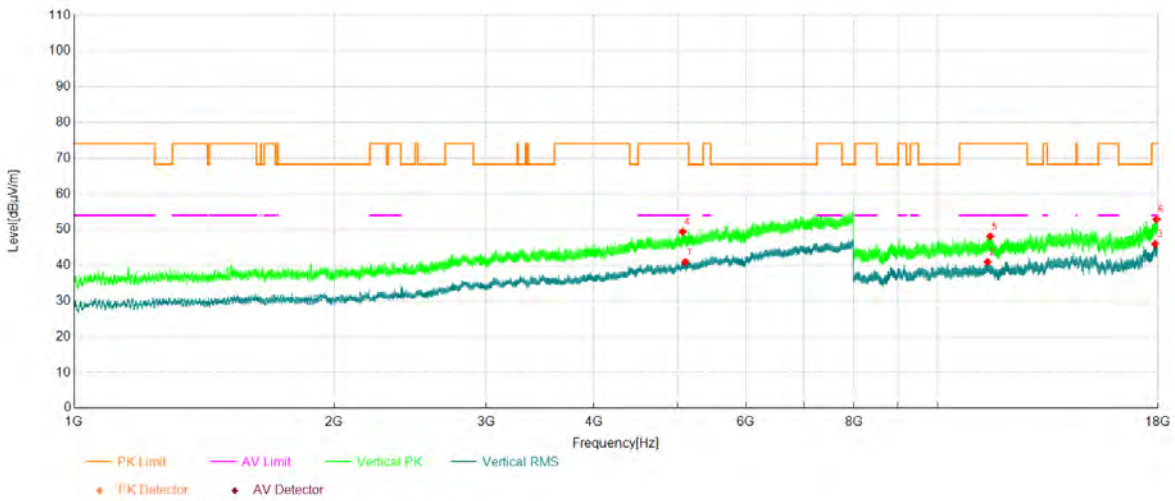


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5104.45	26.89	14.30	41.19	54.00	12.81	Horizontal	PASS
2	11400.67	35.63	5.46	41.09	54.00	12.91	Horizontal	PASS
3	17939.00	32.57	13.55	46.12	54.00	7.88	Horizontal	PASS
4	5092.90	35.55	14.21	49.76	74.00	24.24	Horizontal	PASS
5	11488.67	42.65	5.05	47.70	74.00	26.30	Horizontal	PASS
6	17837.00	39.00	13.66	52.66	74.00	21.34	Horizontal	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	6175
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

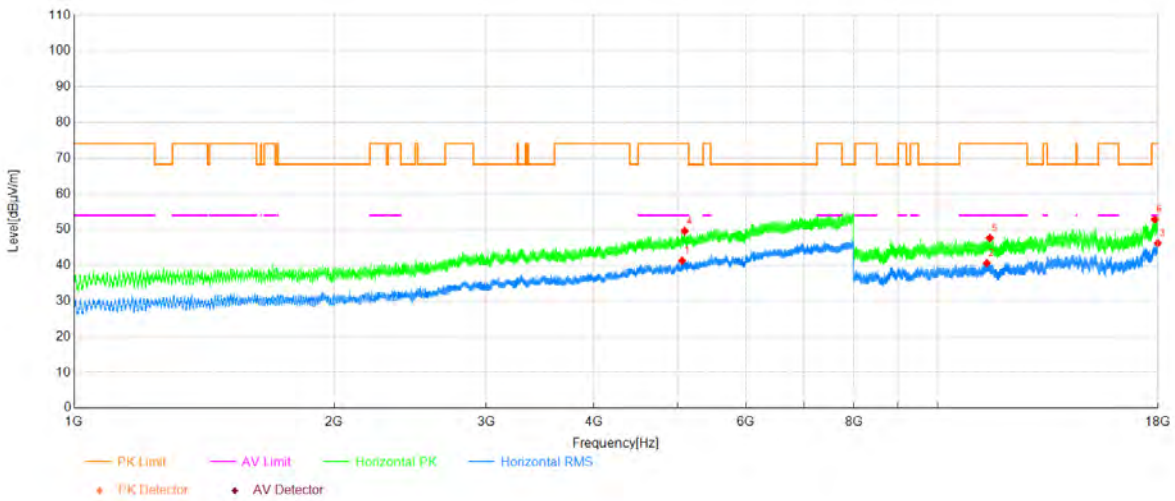


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5100.95	26.60	14.30	40.90	54.00	13.10	Vertical	PASS
2	11423.33	35.67	5.25	40.92	54.00	13.08	Vertical	PASS
3	17862.67	32.19	13.81	46.00	54.00	8.00	Vertical	PASS
4	5066.30	35.58	13.85	49.43	74.00	24.57	Vertical	PASS
5	11505.67	43.02	5.06	48.08	74.00	25.92	Vertical	PASS
6	17928.00	39.39	13.44	52.83	74.00	21.17	Vertical	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	6415
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

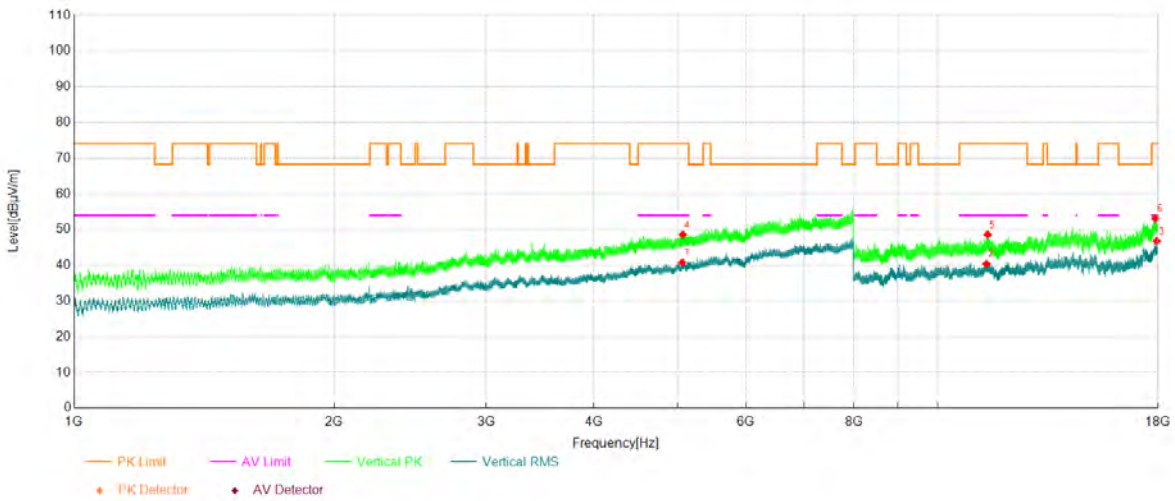


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5060.00	27.49	13.77	41.26	54.00	12.74	Horizontal	PASS
2	11401.67	35.18	5.46	40.64	54.00	13.36	Horizontal	PASS
3	17987.33	32.23	13.94	46.17	54.00	7.83	Horizontal	PASS
4	5093.60	35.37	14.22	49.59	74.00	24.41	Horizontal	PASS
5	11494.33	42.59	5.06	47.65	74.00	26.35	Horizontal	PASS
6	17849.33	38.82	14.00	52.82	74.00	21.18	Horizontal	PASS

Project Information			
Mode:	802.11be20	Band:	/
Bandwidth	20MHz	Channel	6415
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

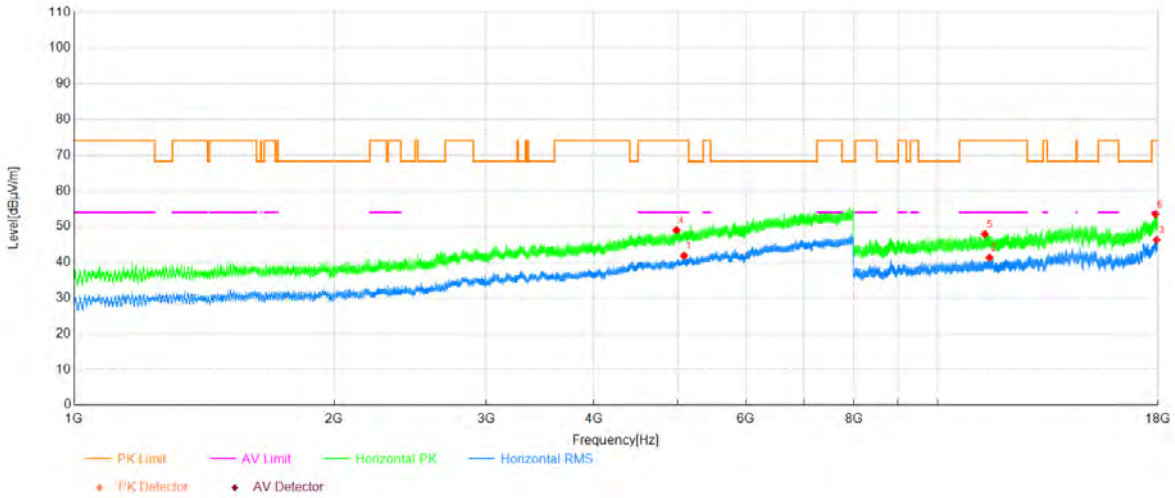


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5060.70	27.00	13.78	40.78	54.00	13.22	Vertical	PASS
2	11392.00	34.94	5.46	40.40	54.00	13.60	Vertical	PASS
3	17938.67	33.24	13.54	46.78	54.00	7.22	Vertical	PASS
4	5067.35	34.71	13.86	48.57	74.00	25.43	Vertical	PASS
5	11428.00	43.37	5.20	48.57	74.00	25.43	Vertical	PASS
6	17876.00	39.53	13.58	53.11	74.00	20.89	Vertical	PASS

Project Information			
Mode:	802.11be40	Band:	/
Bandwidth	40MHz	Channel	5965
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

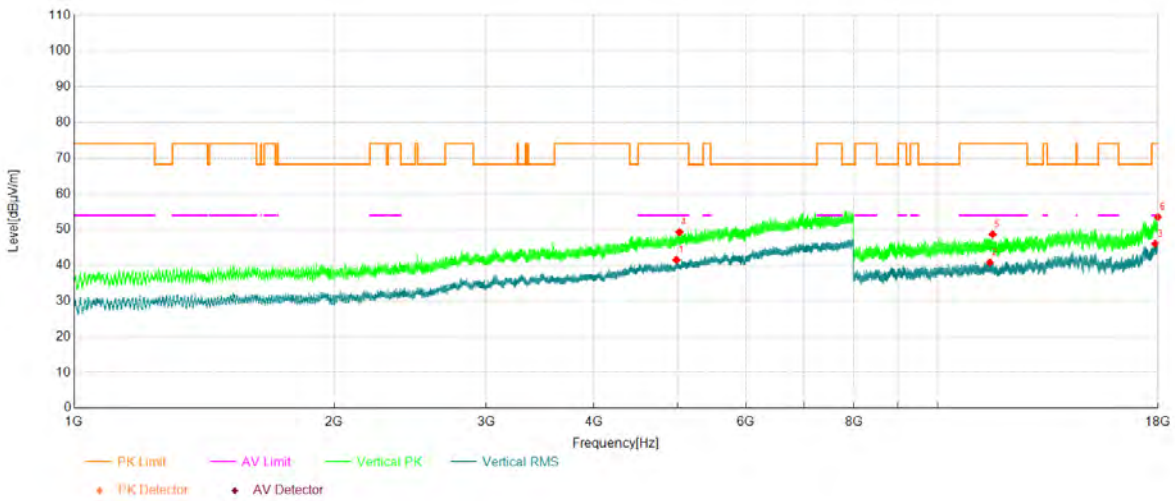


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5085.90	27.72	14.11	41.83	54.00	12.17	Horizontal	PASS
2	11482.67	36.24	5.04	41.28	54.00	12.72	Horizontal	PASS
3	17936.00	32.76	13.51	46.27	54.00	7.73	Horizontal	PASS
4	4984.75	35.54	13.42	48.96	74.00	25.04	Horizontal	PASS
5	11343.00	42.63	5.26	47.89	74.00	26.11	Horizontal	PASS
6	17882.33	39.97	13.47	53.44	74.00	20.56	Horizontal	PASS

Project Information			
Mode:	802.11be40	Band:	/
Bandwidth	40MHz	Channel	5965
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

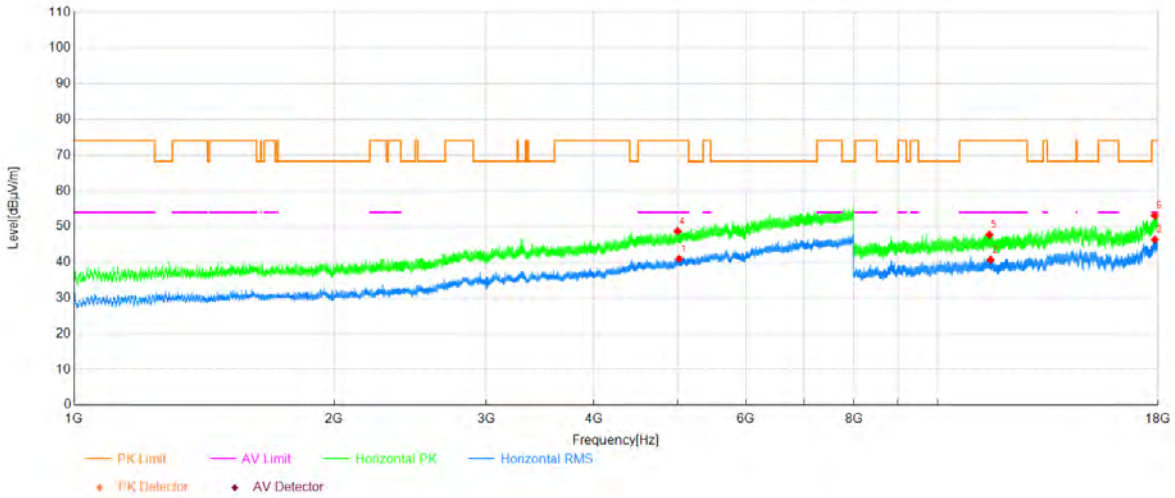


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4984.05	28.08	13.42	41.50	54.00	12.50	Vertical	PASS
2	11495.67	35.74	5.05	40.79	54.00	13.21	Vertical	PASS
3	17862.33	32.24	13.81	46.05	54.00	7.95	Vertical	PASS
4	5022.90	35.72	13.57	49.29	74.00	24.71	Vertical	PASS
5	11580.33	43.28	5.37	48.65	74.00	25.35	Vertical	PASS
6	17994.00	39.50	14.00	53.50	74.00	20.50	Vertical	PASS

Project Information			
Mode:	802.11be40	Band:	/
Bandwidth	40MHz	Channel	6165
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

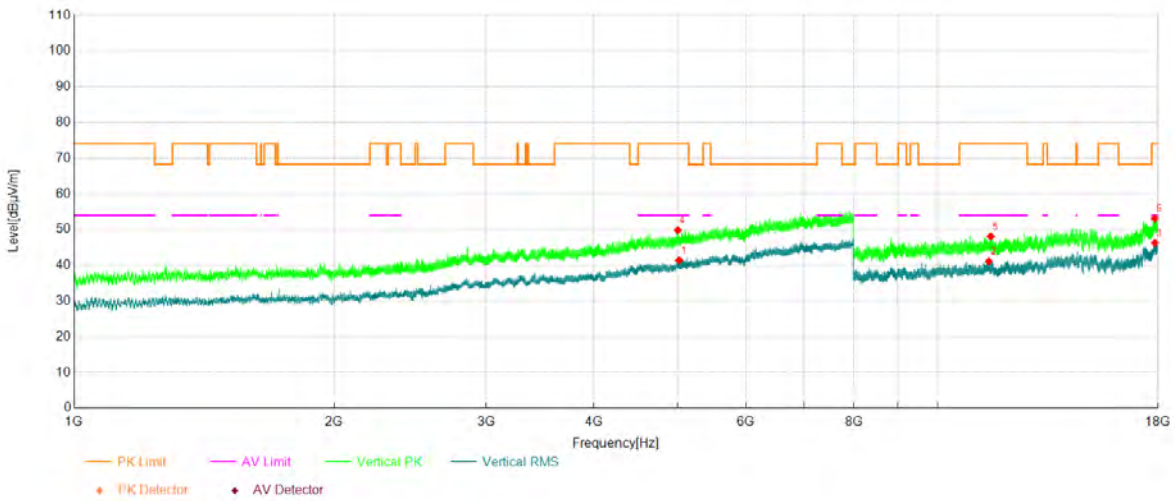


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5018.70	27.39	13.56	40.95	54.00	13.05	Horizontal	PASS
2	11518.33	35.62	5.07	40.69	54.00	13.31	Horizontal	PASS
3	17851.33	32.36	13.99	46.35	54.00	7.65	Horizontal	PASS
4	4998.40	35.18	13.51	48.69	74.00	25.31	Horizontal	PASS
5	11483.00	42.65	5.04	47.69	74.00	26.31	Horizontal	PASS
6	17855.00	39.12	13.93	53.05	74.00	20.95	Horizontal	PASS

Project Information			
Mode:	802.11be40	Band:	/
Bandwidth	40MHz	Channel	6165
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph

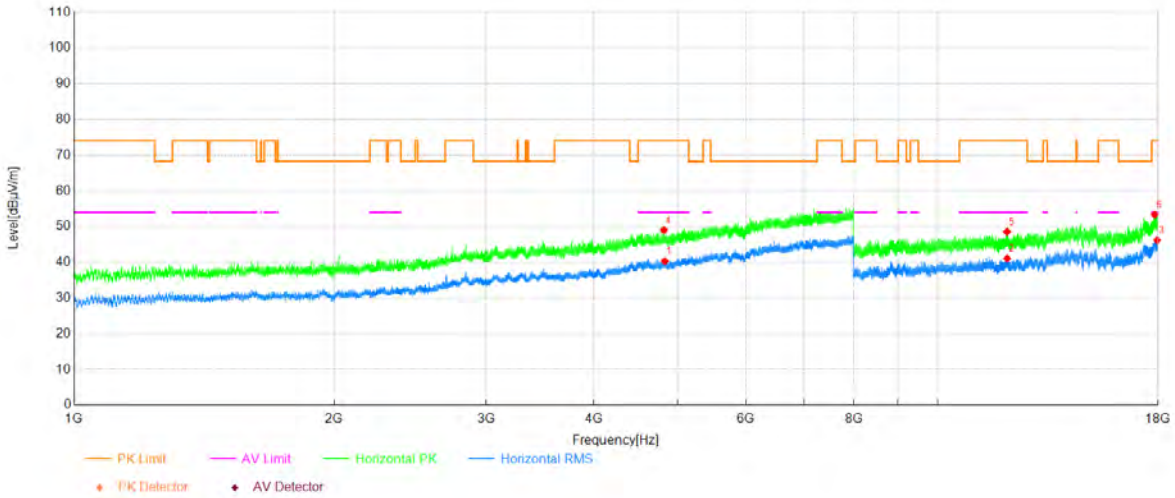


Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	5018.35	27.80	13.56	41.36	54.00	12.64	Vertical	PASS
2	11463.00	36.06	5.02	41.08	54.00	12.92	Vertical	PASS
3	17854.67	32.33	13.94	46.27	54.00	7.73	Vertical	PASS
4	5002.25	36.29	13.53	49.82	74.00	24.18	Vertical	PASS
5	11522.67	43.00	5.07	48.07	74.00	25.93	Vertical	PASS
6	17848.00	39.15	13.97	53.12	74.00	20.88	Vertical	PASS

Project Information			
Mode:	802.11be40	Band:	/
Bandwidth	40MHz	Channel	6405
SN:	D1Y24EB28000030	Engineer:	申状
Remark:	Polarity: X		

Test Graph



Data List

NO.	Freq. [MHz]	Reading [dBuV]	Factor [dB]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	4830.75	27.15	13.16	40.31	54.00	13.69	Horizontal	PASS
2	12037.00	35.41	5.63	41.04	54.00	12.96	Horizontal	PASS
3	17958.00	32.47	13.71	46.18	54.00	7.82	Horizontal	PASS
4	4820.60	35.82	13.17	48.99	74.00	25.01	Horizontal	PASS
5	12032.33	42.95	5.59	48.54	74.00	25.46	Horizontal	PASS
6	17838.67	39.58	13.71	53.29	74.00	20.71	Horizontal	PASS