

Project No: TM-2412000356P
Report No.: TMWK2412004718KR

FCC ID: QPKMBJWCAM5A

Page: 1 / 345
Rev.: 00

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

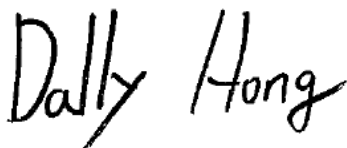
Test Standard	FCC Part 15.407
Product name	SAPPHIRE PULSE(mother board)
Brand Name	Sapphire
Model No.	B650M
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.

The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:



Dally Hong
Sr. Engineer

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
除非另有說明，此報告結果僅對測試之樣品負責，同時此樣品僅保留90天。本報告未經本公司書面許可，不可部份複製。

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Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 2 / 345
Rev.: 00

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	April 17, 2025	Initial Issue	ALL	Peggy Tsai



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 3 / 345
Rev.: 00

Table of contents

1. GENERAL INFORMATION	4
1.1 EUT INFORMATION	4
1.2 EUT CHANNEL INFORMATION	5
1.3 ANTENNA INFORMATION	7
1.4 MEASUREMENT UNCERTAINTY	8
1.5 FACILITIES AND TEST LOCATION	8
1.6 INSTRUMENT CALIBRATION.....	9
1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT	12
1.8 TEST SET UP DIAGRAM	12
1.9 TEST PROGRAM.....	13
1.10 TEST METHODOLOGY AND APPLIED STANDARDS	13
2. TEST SUMMERY	14
3. DESCRIPTION OF TEST MODES	15
3.1 THE WORST MODE OF OPERATING CONDITION.....	15
3.2 THE WORST MODE OF MEASUREMENT	17
3.3 EUT DUTY CYCLE	18
4. TEST RESULT	21
4.1 AC POWER LINE CONDUCTED EMISSION	21
4.2 26DB BANDWIDTH, 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)	24
4.3 OUTPUT POWER MEASUREMENT.....	78
4.4 POWER SPECTRAL DENSITY	84
4.5 RADIATION BANDEDGE AND SPURIOUS EMISSION	109
4.6 DYNAMIC FREQUENCY SELECTION	329
APPENDIX 1 - PHOTOGRAPHS OF EUT	



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 4 / 345
Rev.: 00

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Sapphire Technology Limited Unit 1910-1919, 19/F., Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., HK.
Manufacturer	Sapphire Technology Limited Unit 1910-1919, 19/F., Tower 2, Grand Central Plaza, 138 Shatin Rural Committee Road, Shatin, N.T., HK.
Equipment	SAPPHIRE PULSE(mother board)
Model No.	B650M
Model Discrepancy	N/A
Trade Name	Sapphire
Received Date	December 27, 2024
Date of Test	January 23 ~ February 19, 2025
Power Operation	Powered from AC 120V
HW Version	JAM5MC05 V1.0
FW Version	BIOS AM50D101R3

Remark:

1. For more details, please refer to the User's manual of the EUT.
2. Disclaimer: Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 5 / 345
Rev.: 00

1.2 EUT CHANNEL INFORMATION

Frequency Range	UNII-1	
	IEEE 802.11a	5180 ~ 5240 MHz
	IEEE 802.11n HT20	5180 ~ 5240 MHz
	IEEE 802.11ac VHT20	5180 ~ 5240 MHz
	IEEE 802.11n HT40	5190 ~ 5230 MHz
	IEEE 802.11ac VHT40	5190 ~ 5230 MHz
	IEEE 802.11ac VHT80	5210 MHz
	IEEE 802.11ax HE20	5180 ~ 5240 MHz
	IEEE 802.11ax HE40	5190 ~ 5230 MHz
	IEEE 802.11ax HE80	5210 MHz
	UNII-2a	
	IEEE 802.11a	5260 ~ 5320 MHz
	IEEE 802.11n HT20	5260 ~ 5320 MHz
	IEEE 802.11ac VHT20	5260 ~ 5320 MHz
	IEEE 802.11n HT40	5270 ~ 5310 MHz
	IEEE 802.11ac VHT40	5270 ~ 5310 MHz
	IEEE 802.11ac VHT80	5290 MHz
	IEEE 802.11ax HE20	5260 ~ 5320 MHz
	IEEE 802.11ax HE40	5270 ~ 5310 MHz
	IEEE 802.11ax HE80	5290 MHz
	UNII-2c	
	IEEE 802.11a	5500 ~ 5700 MHz
	IEEE 802.11n HT20	5500 ~ 5700 MHz
	IEEE 802.11ac VHT20	5500 ~ 5700 MHz
	IEEE 802.11n HT40	5510 ~ 5670 MHz
	IEEE 802.11ac VHT40	5510 ~ 5670 MHz
	IEEE 802.11ac VHT80	5530 ~ 5610 MHz
	IEEE 802.11ax HE20	5500 ~ 5700 MHz
	IEEE 802.11ax HE40	5510 ~ 5670 MHz
	IEEE 802.11ax HE80	5530 ~ 5610 MHz
	UNII-3	
	IEEE 802.11a	5745 ~ 5825 MHz
	IEEE 802.11n HT20	5745 ~ 5825 MHz
	IEEE 802.11ac VHT20	5745 ~ 5825 MHz
	IEEE 802.11n HT40	5755 ~ 5795 MHz
	IEEE 802.11ac VHT40	5755 ~ 5795 MHz
	IEEE 802.11ac VHT80	5775 MHz
	IEEE 802.11ax HE20	5745 ~ 5825 MHz
	IEEE 802.11ax HE40	5755 ~ 5795 MHz
	IEEE 802.11ax HE80	5775 MHz



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 6 / 345
Rev.: 00

Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 20 MHz mode: OFDM 5. IEEE 802.11ac VHT 40 MHz mode: OFDM 6. IEEE 802.11ac VHT 80 MHz mode: OFDM 7. IEEE 802.11ax HE 20 MHz mode: OFDMA 8. IEEE 802.11ax HE 40 MHz mode: OFDMA 9. IEEE 802.11ax HE 80 MHz mode: OFDMA
-----------------	--

Remark:

1. Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 7 / 345
Rev.: 00

1.3 ANTENNA INFORMATION

Antenna Type	☐ PIFA ☐ PCB ☒ Dipole ☐ Coils
Antenna Brand / Model Name	South star / 301800008709
Antenna Gain	Band I (5150-5250 MHz): Chain 0: Gain: 3.31 dBi Chain 1: Gain: 3.31 dBi Band II (5250~5350 MHz): Chain 0: Gain: 3.24 dBi Chain 1: Gain: 3.24 dBi Band III (5470-5725 MHz): Chain 0: Gain: 3.53 dBi Chain 1: Gain: 3.53 dBi Band IV (5725-5850MHz): Chain 0: Gain: 3.99 dBi Chain 1: Gain: 3.99 dBi
Antenna Connector	SMA

Note:

1.The antenna(s) of the EUT are permanently attached and there are no provisions for connection to an external antenna. So the EUT complies with the requirements of §15.203.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 8 / 345
Rev.: 00

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.21 dB
Channel Bandwidth	± 2.79 dB
RF output power (Spectrum)	± 2.74 dB
Power Spectral density	± 2.74 dB
Radiated Emission_9kHz-30MHz	± 3.492 dB
Radiated Emission_30MHz-200MHz	± 3.62 dB
Radiated Emission_200MHz-1GHz	± 3.899 dB
Radiated Emission_1GHz-6GHz	± 5.063 dB
Radiated Emission_6GHz-18GHz	± 5.122 dB
Radiated Emission_18GHz-26GHz	± 3.032 dB
Radiated Emission_26GHz-40GHz	± 3.271 dB

Remark:

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

☒ No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan.

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	Ben Yang	-
Radiation	Tony Chao 、 Ben Yang	-
RF Conducted	Jerry Chang	-
DFS Test	KW Huang	-

Remark: The lab has been recognized as the FCC accredited lab. under the KDB 974614 D01 and is listed in the FCC public Access Link (PAL) database, FCC Registration No. :444940, the FCC Designation No.:TW1309



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 9 / 345
Rev.: 00

1.6 INSTRUMENT CALIBRATION

Conducted FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Cable	Woken	WC12	CC003	2024-06-26	2025-06-25
Cable	Woken	WC12	CC001	2024-06-26	2025-06-25
PXA Signal Analyzer	Keysight	N9030B	MY62291089	2024-10-04	2025-10-03
Power Sensor	Anritsu	MA2411B	1911387	2024-08-30	2025-08-29
Power Sensor	Anritsu	MA2411B	1911386	2024-07-19	2025-07-18
Power Meter	Anritsu	ML2496A	2136002	2024-07-19	2025-07-18
DC Blocks	Marvelous Microwave	MVE6411	MVE-001	2024-08-08	2025-08-07
Attenuator	Marvelous Microwave Inc	MVE2213-10	08	2024-11-07	2025-11-06
Software	Radio Test Software Ver. 21				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 10 / 345
Rev.: 00

966A_Radiated					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Signal Analyzer	KEYSIGHT	N9010A	MY52220817	2024-03-15	2025-03-14
Active Loop Antenna	SCHWARZBEC K	FMZB 1513-60	1513-60-028	2024-12-11	2025-12-10
Thermo-Hygro Meter	WISEWIND	1206	D07	2024-11-26	2025-11-25
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2024-07-12	2025-07-11
Preamplifier	EMEC	EM330	060609	2024-02-21	2025-02-20
Cable	Huber+Suhner	104PEA	20995+21000+182330	2024-08-07	2025-08-06
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2024-12-20	2025-12-19
Preamplifier	HP	8449B	3008A00965	2024-12-18	2025-12-17
Cable	EMCI	EMC101G	221011+221012+221213	2024-10-11	2025-10-10
Attenuator	Mini-Circuits	BW-S9W5	BWS9W5-09-966A-01	2024-02-07 2025-02-06	2025-02-06 2026-02-05
High Pass Filters	Titan Microwave	T04H70002600050S01	211215-7-3	2025-01-15	2026-01-14
Pre-Amplifier	EMCI	EMC184045SE	980860	2024-12-02	2025-12-01
Horn Antenna	SCHWARZBEC K	BBHA9170	1047	2024-12-06	2025-12-05
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Site Validation	CCS	966A	N/A	2024-08-03	2025-08-02
Software	e3 V9-210616c				

AC Mains Conduction					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI	100064	2024-06-14	2025-06-13
LISN	TESEQ	LN2-16N	22012	2024-02-29	2025-02-27
Cable	Woken	SFL402	185A	2024-07-08	2025-07-07
Software	e3 V6-110812				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 11 / 345
Rev.: 00

DFS Test					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
EXA Signal Analyzer	Keysight	N9010A	MY53400256	2024-11-19	2025-11-18
Vector Signal Generator	KEYSIGHT	N5182B/ N5182BX07	MY61252828/ MY59362552	2025-01-07	2026-01-06
Attenuator	E-INSTRUMENT	EPA-600H	EC1400050	2024-06-19	2025-06-18
Power Divider	Solvang Technology	STI08-0015	008	2024-07-03	2025-07-02
Power Divider	Marvelous Microwave	MVE8586	16011201	2024-06-19	2025-06-18
Power Divider	Marvelous Microwave	MVE8586	16011202	2024-06-19	2025-06-18
Power Divider	Marvelous Microwave	MVE8586	16011205	2024-06-19	2025-06-18
Cable	Woken	SUMITOMO	1	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	2	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	3	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	4	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	5	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	6	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	8	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	9	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	10	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	12	2024-03-02	2025-03-01
Cable	Woken	SUMITOMO	14	2024-06-26	2025-06-25
Software	Dynamic Frequency Selection Test version 24.11.13				

Remark:

1. Each piece of equipment is scheduled for calibration once a year.
2. N.C.R. = No Calibration Required.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 12 / 345
Rev.: 00

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

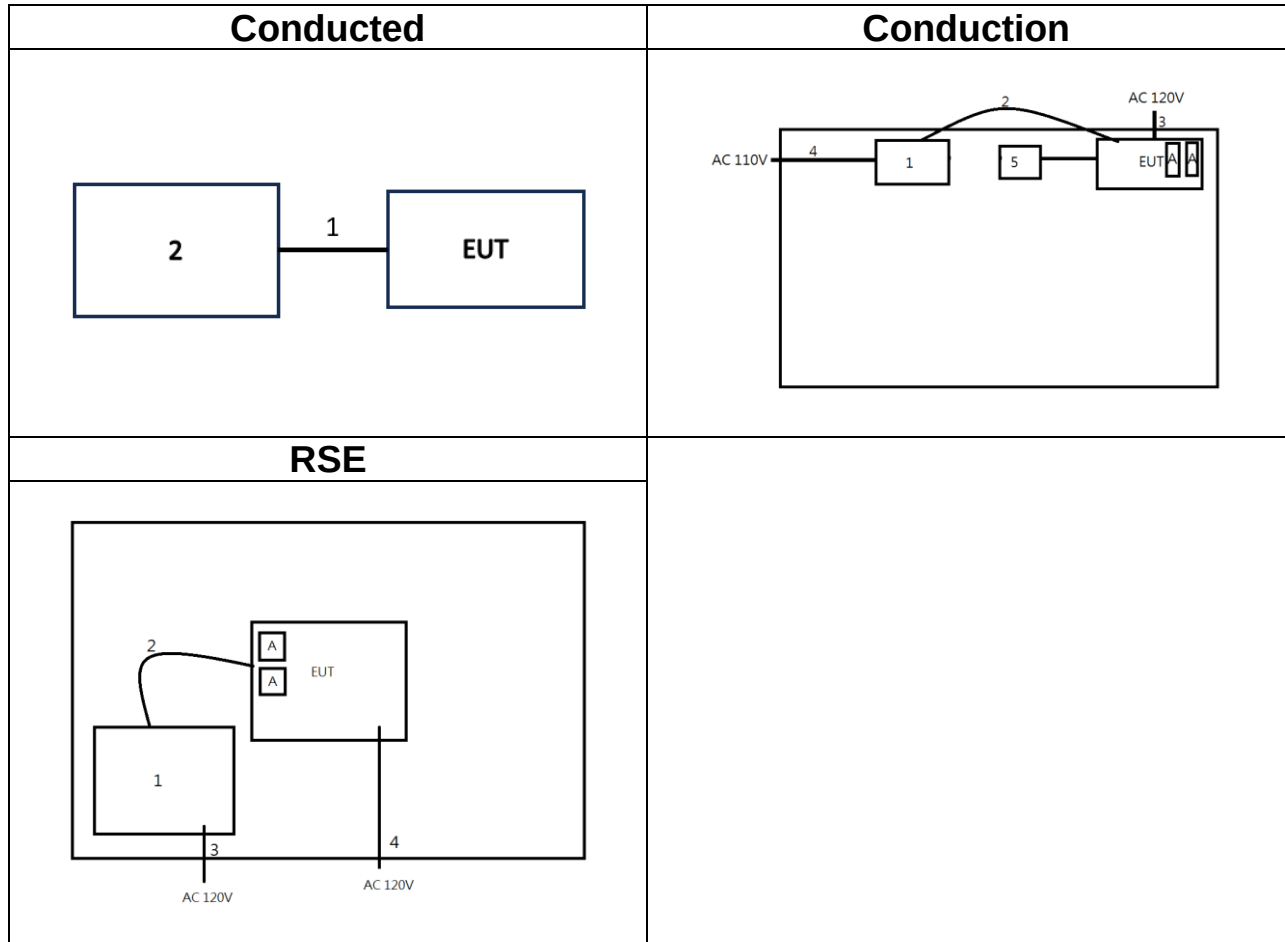
EUT Accessories Equipment						
No.	Equipment	Brand	Model	Series No.	FCC ID	IC
	N/A					

Support Equipment (Conducted)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	HDMI Cable	High Speed	E342987	N/A	N/A
2	LCD Monitor	Lenovo	A20238FT0	N/A	N/A

Support Equipment (Conduction)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	Monitor	Lenovo	A20238FT0	VKPN2606	N/A
2	HDMI Cable	High Speed	E342987	N/A	N/A
3	Power Cable	N/A	N/A	N/A	N/A
4	Power Cable	N/A	N/A	N/A	N/A
5	Mouse	Lenovo	MO32BOA	4460028	N/A
A	Dipole Antenna	South star	301800008709	N/A	N/A

Support Equipment (RSE)					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	Monitor	Lenovo	A20238FT0	VKPN2606	N/A
2	HDMI Cable	High Speed	E342987	N/A	N/A
3	Power Cable	StarTech	5214-PXT101_3-ND	PXT101_3	N/A
4	Power Cable	StarTech	5214-PXT101_3-ND	PXT101_3	N/A
A	Dipole Antenna	South star	301800008709	N/A	N/A

1.8 TEST SET UP DIAGRAM



1.9 TEST PROGRAM

The EUT connection corresponds to the surrounding fixture control board.
This EUT uses MP tool to set the frequency, modulation, and power to allow the sample to continuously transmit.

1.10 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02 v02r01, KDB 905462 D02 v02, KDB 662911.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 14 / 345
Rev.: 00

2. TEST SUMMERY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	Pass
15.407(a)	4.2	26dB Bandwidth	Pass
15.407(e)	4.2	6dB Bandwidth	Pass
2.1049	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass
15.407(h)	5	Dynamic Frequency Selection	Pass



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 15 / 345
Rev.: 00

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT20 mode: MCS0 3. IEEE 802.11n HT40 mode: MCS0 4. IEEE 802.11ac VHT20 mode: MCS0 5. IEEE 802.11ac VHT40 mode: MCS0 6. IEEE 802.11ac VHT80 mode: MCS0 7. IEEE 802.11ax HE20 mode: MCS0 8. IEEE 802.11ax HE40 mode: MCS0 9. IEEE 802.11ax HE80 mode: MCS0																																																																																		
Operating Frequency	<table><tr><td></td><td>Mode</td><td>Frequency Range (MHz)</td></tr><tr><td rowspan="9">U-NII-1</td><td>IEEE 802.11a</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11n HT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5210</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5180, 5220, 5240</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5190, 5230</td></tr><tr><td>IEEE 802.11ax HE80</td><td>5210</td></tr><tr><td rowspan="9">U-NII-2a</td><td>IEEE 802.11a</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11n HT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5290</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5260, 5300, 5320</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5270, 5310</td></tr><tr><td>IEEE 802.11ax HE80</td><td>5290</td></tr><tr><td rowspan="9">U-NII-2c</td><td>IEEE 802.11a</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT20</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11n HT40</td><td>5510, 5550, 5670</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5510, 5550, 5670</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5530, 5610</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5500, 5580, 5700</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5510, 5550, 5670</td></tr><tr><td>IEEE 802.11ax HE80</td><td>5530, 5610</td></tr><tr><td rowspan="8">U-NII-3</td><td>IEEE 802.11a</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT20</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11n HT40</td><td>5755, 5795</td></tr><tr><td>IEEE 802.11ac VHT20</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11ac VHT40</td><td>5755, 5795</td></tr><tr><td>IEEE 802.11ac VHT80</td><td>5775</td></tr><tr><td>IEEE 802.11ax HE20</td><td>5745, 5785, 5825</td></tr><tr><td>IEEE 802.11ax HE40</td><td>5755, 5795</td></tr><tr><td></td><td>IEEE 802.11ax HE80</td><td>5775</td></tr></table>				Mode	Frequency Range (MHz)	U-NII-1	IEEE 802.11a	5180, 5220, 5240	IEEE 802.11n HT20	5180, 5220, 5240	IEEE 802.11n HT40	5190, 5230	IEEE 802.11ac VHT20	5180, 5220, 5240	IEEE 802.11ac VHT40	5190, 5230	IEEE 802.11ac VHT80	5210	IEEE 802.11ax HE20	5180, 5220, 5240	IEEE 802.11ax HE40	5190, 5230	IEEE 802.11ax HE80	5210	U-NII-2a	IEEE 802.11a	5260, 5300, 5320	IEEE 802.11n HT20	5260, 5300, 5320	IEEE 802.11n HT40	5270, 5310	IEEE 802.11ac VHT20	5260, 5300, 5320	IEEE 802.11ac VHT40	5270, 5310	IEEE 802.11ac VHT80	5290	IEEE 802.11ax HE20	5260, 5300, 5320	IEEE 802.11ax HE40	5270, 5310	IEEE 802.11ax HE80	5290	U-NII-2c	IEEE 802.11a	5500, 5580, 5700	IEEE 802.11n HT20	5500, 5580, 5700	IEEE 802.11n HT40	5510, 5550, 5670	IEEE 802.11ac VHT20	5500, 5580, 5700	IEEE 802.11ac VHT40	5510, 5550, 5670	IEEE 802.11ac VHT80	5530, 5610	IEEE 802.11ax HE20	5500, 5580, 5700	IEEE 802.11ax HE40	5510, 5550, 5670	IEEE 802.11ax HE80	5530, 5610	U-NII-3	IEEE 802.11a	5745, 5785, 5825	IEEE 802.11n HT20	5745, 5785, 5825	IEEE 802.11n HT40	5755, 5795	IEEE 802.11ac VHT20	5745, 5785, 5825	IEEE 802.11ac VHT40	5755, 5795	IEEE 802.11ac VHT80	5775	IEEE 802.11ax HE20	5745, 5785, 5825	IEEE 802.11ax HE40	5755, 5795		IEEE 802.11ax HE80	5775
	Mode	Frequency Range (MHz)																																																																																	
U-NII-1	IEEE 802.11a	5180, 5220, 5240																																																																																	
	IEEE 802.11n HT20	5180, 5220, 5240																																																																																	
	IEEE 802.11n HT40	5190, 5230																																																																																	
	IEEE 802.11ac VHT20	5180, 5220, 5240																																																																																	
	IEEE 802.11ac VHT40	5190, 5230																																																																																	
	IEEE 802.11ac VHT80	5210																																																																																	
	IEEE 802.11ax HE20	5180, 5220, 5240																																																																																	
	IEEE 802.11ax HE40	5190, 5230																																																																																	
	IEEE 802.11ax HE80	5210																																																																																	
U-NII-2a	IEEE 802.11a	5260, 5300, 5320																																																																																	
	IEEE 802.11n HT20	5260, 5300, 5320																																																																																	
	IEEE 802.11n HT40	5270, 5310																																																																																	
	IEEE 802.11ac VHT20	5260, 5300, 5320																																																																																	
	IEEE 802.11ac VHT40	5270, 5310																																																																																	
	IEEE 802.11ac VHT80	5290																																																																																	
	IEEE 802.11ax HE20	5260, 5300, 5320																																																																																	
	IEEE 802.11ax HE40	5270, 5310																																																																																	
	IEEE 802.11ax HE80	5290																																																																																	
U-NII-2c	IEEE 802.11a	5500, 5580, 5700																																																																																	
	IEEE 802.11n HT20	5500, 5580, 5700																																																																																	
	IEEE 802.11n HT40	5510, 5550, 5670																																																																																	
	IEEE 802.11ac VHT20	5500, 5580, 5700																																																																																	
	IEEE 802.11ac VHT40	5510, 5550, 5670																																																																																	
	IEEE 802.11ac VHT80	5530, 5610																																																																																	
	IEEE 802.11ax HE20	5500, 5580, 5700																																																																																	
	IEEE 802.11ax HE40	5510, 5550, 5670																																																																																	
	IEEE 802.11ax HE80	5530, 5610																																																																																	
U-NII-3	IEEE 802.11a	5745, 5785, 5825																																																																																	
	IEEE 802.11n HT20	5745, 5785, 5825																																																																																	
	IEEE 802.11n HT40	5755, 5795																																																																																	
	IEEE 802.11ac VHT20	5745, 5785, 5825																																																																																	
	IEEE 802.11ac VHT40	5755, 5795																																																																																	
	IEEE 802.11ac VHT80	5775																																																																																	
	IEEE 802.11ax HE20	5745, 5785, 5825																																																																																	
	IEEE 802.11ax HE40	5755, 5795																																																																																	
	IEEE 802.11ax HE80	5775																																																																																	



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 16 / 345
Rev.: 00

Operation Transmitter	1. IEEE 802.11a mode: 1T1R(SISO) 2. IEEE 802.11n HT20 mode: 2T2R(MIMO) 3. IEEE 802.11n HT40 mode: 2T2R(MIMO) 4. IEEE 802.11ac VHT20 mode: 2T2R(MIMO) 5. IEEE 802.11ac VHT40 mode: 2T2R(MIMO) 6. IEEE 802.11ac VHT80 mode: 2T2R(MIMO) 7. IEEE 802.11ax HE20 mode: 2T2R(MIMO) 8. IEEE 802.11ax HE40 mode: 2T2R(MIMO) 9. IEEE 802.11ax HE80 mode: 2T2R(MIMO)
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Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 17 / 345
Rev.: 00

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conduction Emission	
Test Condition	AC Power line conduction emission for line and neutral
Power supply Mode	Mode 1: EUT Power by AC 120V
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT power by AC(120V)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☒ Placed in fixed position at Z-Plane (H-Plane)

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by AC(120V)
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. AC power line conducted emission were performed the EUT transmit at the highest output power channel as worse case.
3. EUT pre-scanned in three axis ,X,Y, Z and two polarity, for radiated measurement. The worst case(Z-Plane) were recorded in this report



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 18 / 345
Rev.: 00

3.3 EUT DUTY CYCLE

Temperature: 19.5 ~ 23.7°C **Test date:** January 23 ~ February 14, 2025
Humidity: 48 ~ 59% RH **Tested by:** Jerry Chang

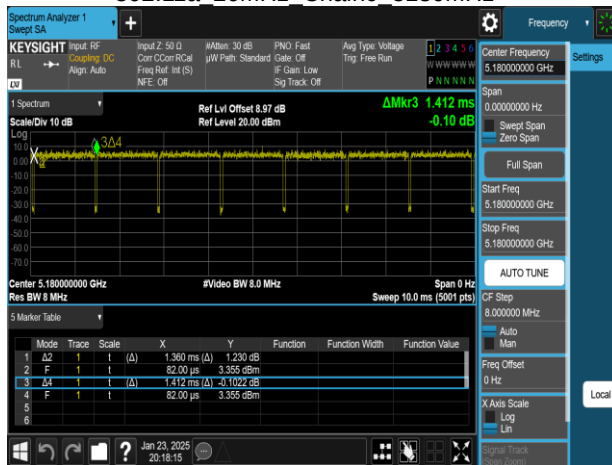
Mode		Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a		96.32	0.16	0.74	1.00
802.11n_20		95.67	0.19	0.87	1.00
802.11ac_20		95.68	0.19	0.87	1.00
802.11n_40		91.67	0.38	1.75	2.00
802.11ac_40		91.72	0.38	1.74	2.00
802.11ac_80		84.71	0.72	3.47	4.00
Mode	RU Config	Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11ax_20	Full	95.00	0.22	1.01	2.00
802.11ax_40	Full	90.91	0.41	1.92	2.00
802.11ax_80	Full	84.34	0.74	3.57	4.00



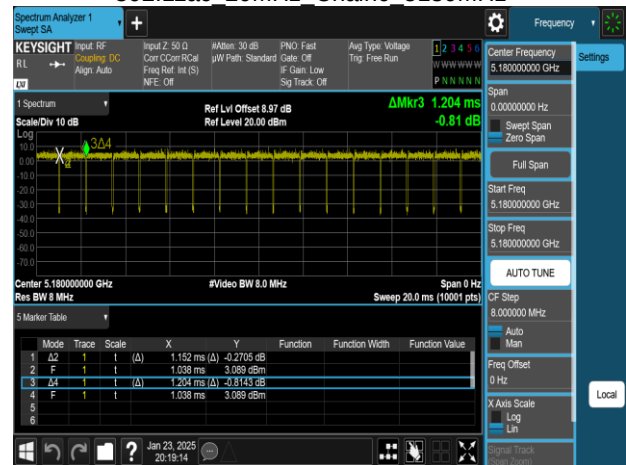
Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 19 / 345
Rev.: 00

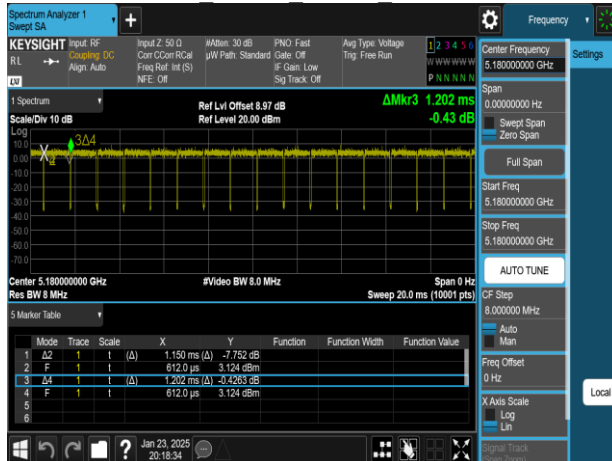
802.11a 20MHz Chain0 5180MHz



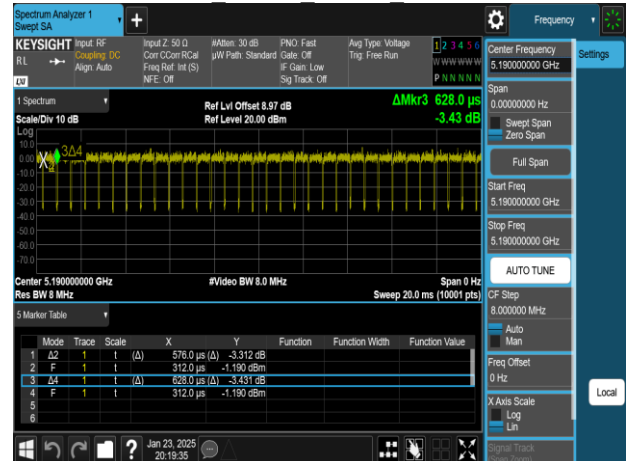
802.11ac 20MHz Chain0 5180MHz



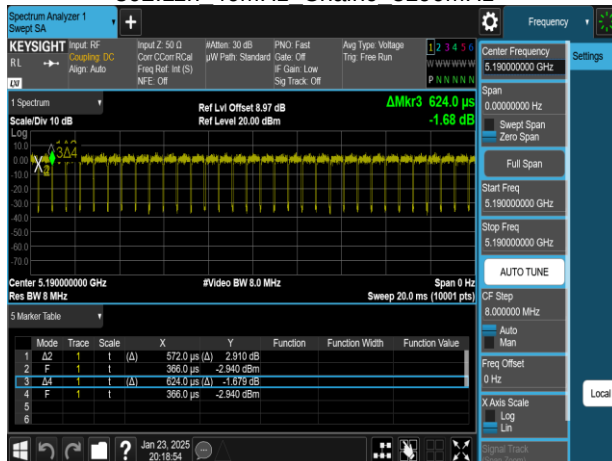
802.11n 20MHz Chain0 5180MHz



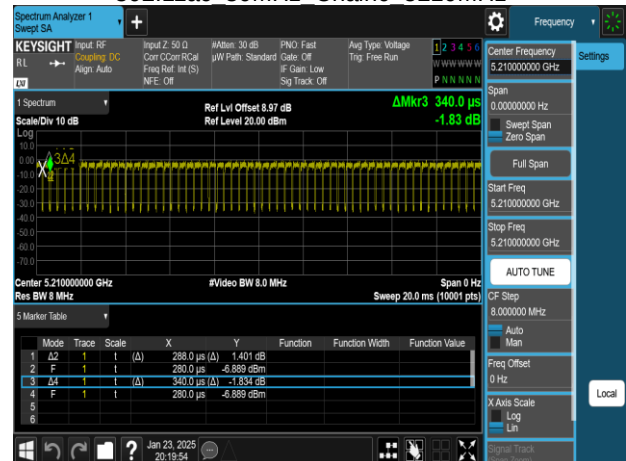
802.11ac 40MHz Chain0 5190MHz



802.11n 40MHz Chain0 5190MHz



802.11ac 80MHz Chain0 5210MHz

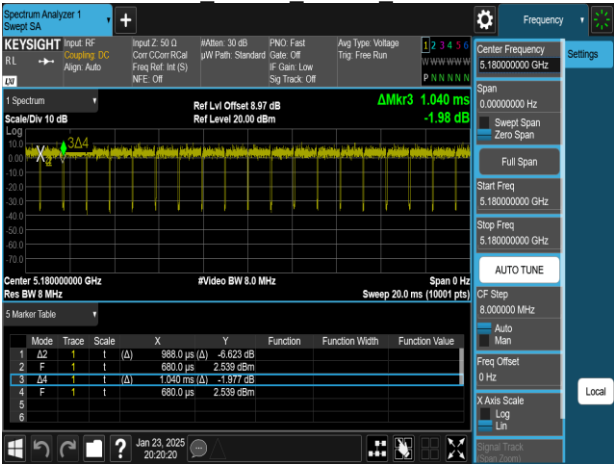




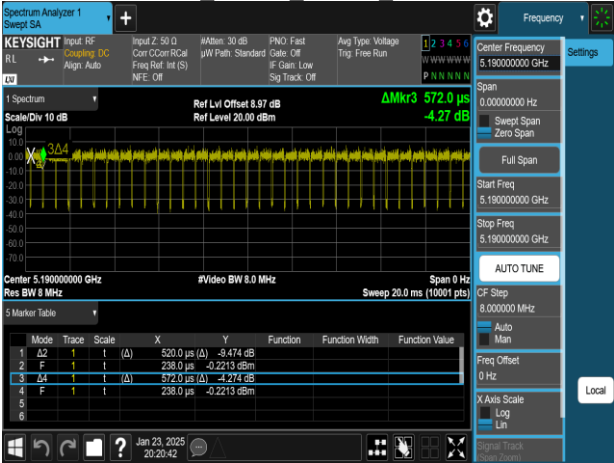
Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 20 / 345
Rev.: 00

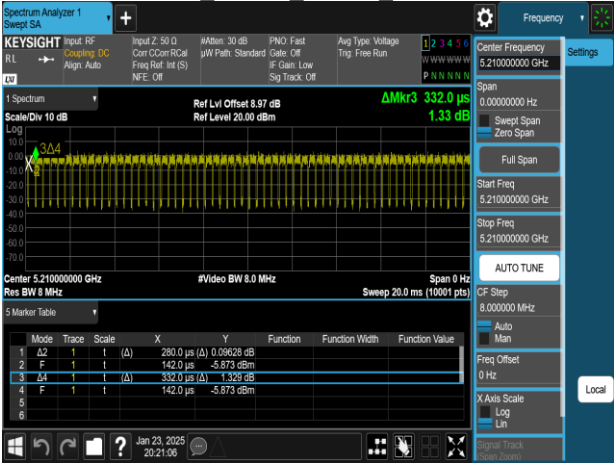
802.11ax 20MHz Chain0 5180MHz



802.11ax 40MHz Chain0 5190MHz



802.11ax 80MHz Chain0 5210MHz



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dB μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

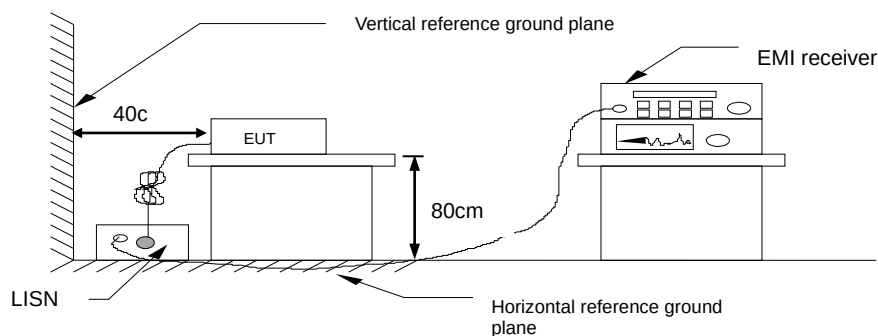
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

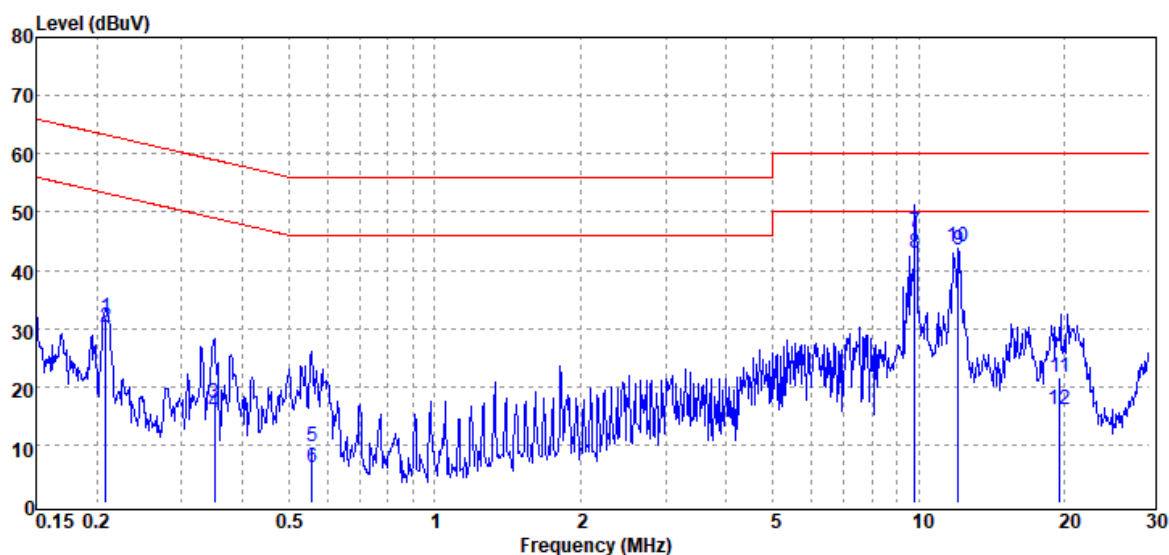
4.1.3 Test Setup



4.1.4 Test Result

Project No : TM-2412000356P
Operation Mode : 5G
Test Chamber : Conduction
Probe : LINE
Note :

Test Date : 2025-02-12
Temp./Humi. : 23.4°C / 54%
Engineer : Ben.Yang
Test Voltage : AC 120V/60Hz



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV	Limit dBμV	Margin dB
0.209	QP	31.52	0.39	31.91	63.24	-31.33
0.209	Average	29.82	0.39	30.21	53.24	-23.03
0.351	QP	16.75	0.38	17.13	58.94	-41.81
0.351	Average	15.16	0.38	15.54	48.94	-33.40
0.557	QP	9.32	0.38	9.70	56.00	-46.30
0.557	Average	5.77	0.38	6.15	46.00	-39.85
9.811	QP	46.05	0.36	46.41	60.00	-13.59
9.811	Average	42.54	0.36	42.90	50.00	-7.10
12.080	QP	43.52	0.39	43.91	60.00	-16.09
12.080	Average	42.97	0.39	43.36	50.00	-6.64
19.544	QP	21.04	0.48	21.52	60.00	-38.48
19.544	Average	15.50	0.48	15.98	50.00	-34.02

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS - Limit

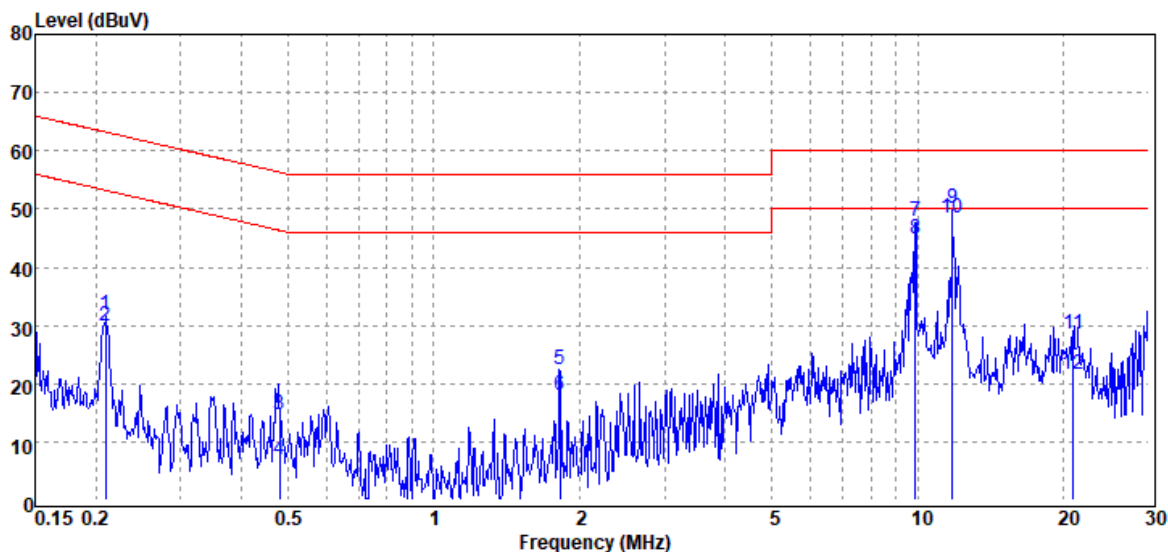


Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 23 / 345
Rev.: 00

Project No : TM-2412000356P
Operation Mode : 5G
Test Chamber : Conduction
Probe : NEUTRAL
Note :

Test Date : 2025-02-12
Temp./Humi. : 23.4°C / 54%
Engineer : Ben.Yang
Test Voltage : AC 120V/60Hz



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Read Level dBμV	Factor dB	Actual FS dBμV	Limit dBμV	Margin dB
0.210	QP	31.37	0.36	31.73	63.22	-31.49
0.210	Average	29.43	0.36	29.79	53.22	-23.43
0.480	QP	14.31	0.35	14.66	56.34	-41.68
0.480	Average	6.59	0.35	6.94	46.34	-39.40
1.820	QP	22.29	0.16	22.45	56.00	-33.55
1.820	Average	17.90	0.16	18.06	46.00	-27.94
9.885	QP	47.42	0.34	47.76	60.00	-12.24
9.885	Average	44.42	0.34	44.76	50.00	-5.24
11.815	QP	49.71	0.36	50.07	60.00	-9.93
11.815	Average	48.00	0.36	48.36	50.00	-1.64
20.947	QP	28.12	0.46	28.58	60.00	-31.42
20.947	Average	21.08	0.46	21.54	50.00	-28.46

Note: 1. Actual FS= Spectrum Read Level + Factor

Note: 2. Margin= Actual FS - Limit



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 24 / 345
Rev.: 00

4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth : For reporting purposes only.

6 dB Bandwidth : Least 500kHz.

Occupied Bandwidth(99%) : For reporting purposes only.

4.2.2 Test Procedure

26dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW: approximately 1% of the emission bandwidth.
3. Set the VBW>RBW.
4. Detoctor = Peak.
5. Trace mode = max hold.
6. Measure the maximum width of the emission that is 26dB down from the peak of the emission. Compare this with the RBW setting of the analyser. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

6dB

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
4. Detoctor = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 25 / 345
Rev.: 00

99%

1. This measurement setting are specified in section D of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set center frequency to the nominal EUT channel center frequency.
3. Set span = 1.5 times to 5.0 times the OBW.
4. Set RBW = 1 % to 5% of the OBW.
5. Set VBW $\geq 3 \times \text{RBW}$

4.2.3 Test Setup

Refer to section 1.8.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 26 / 345
Rev.: 00

4.2.4 Test Result

Temperature: 19.5 ~ 23.7°C

Test date:

January 23 ~
February 14, 2025

Humidity: 48 ~ 59% RH

Tested by:

Jerry Chang

Occupied Bandwidth(99%)

802.11a_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.365	12.140
5220	16.357	12.140
5240	16.369	12.140
5260	16.354	12.140
5300	16.360	12.140
5320	16.349	12.130
5500	16.338	12.130
5580	16.377	12.140
5700	16.355	12.140

802.11a_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	16.601	16.33
5785	16.543	16.17
5825	16.513	16.22



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 27 / 345
Rev.: 00

802.11n_HT20_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.534	12.440
5220	17.539	12.440
5240	17.537	12.440
5260	17.562	12.450
5300	17.537	12.440
5320	17.529	12.440
5500	17.527	12.440
5580	17.577	12.450
5700	17.523	12.440

802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.543	12.440
5220	17.536	12.440
5240	17.537	12.440
5260	17.529	12.440
5300	17.521	12.440
5320	17.532	12.440
5500	17.540	12.440
5580	17.547	12.440
5700	17.541	12.440

802.11n_HT20_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.542	17.47
5785	17.587	17.51
5825	17.528	17.41

802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.534	17.48
5785	17.555	17.32
5825	17.543	17.47

802.11ac_VHT20_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.534	12.440
5220	17.539	12.440
5240	17.537	12.440
5260	17.562	12.450
5300	17.537	12.440
5320	17.529	12.440
5500	17.527	12.440
5580	17.577	12.450
5700	17.523	12.440

802.11ac_VHT20_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.543	12.440
5220	17.536	12.440
5240	17.537	12.440
5260	17.529	12.440
5300	17.521	12.440
5320	17.532	12.440
5500	17.540	12.440
5580	17.547	12.440
5700	17.541	12.440

802.11ac_VHT20_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.542	17.47
5785	17.587	17.51
5825	17.528	17.41

802.11ac_VHT20_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.534	17.48
5785	17.555	17.32
5825	17.543	17.47



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 28 / 345
Rev.: 00

802.11n_HT40_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	35.976	15.560
5230	36.003	15.560
5270	36.005	15.560
5310	36.037	15.570
5510	35.993	15.560
5550	36.076	15.570
5670	35.998	15.560

802.11n_HT40_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.020	15.570
5230	36.002	15.560
5270	36.014	15.560
5310	35.994	15.560
5510	35.988	15.560
5550	36.040	15.570
5670	36.011	15.560

802.11n_HT40_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.057	36.13
5795	36.066	36.05

802.11n_HT40_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.008	35.99
5795	35.996	36.04

802.11ac_VHT40_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	35.976	15.560
5230	36.003	15.560
5270	36.005	15.560
5310	36.037	15.570
5510	35.993	15.560
5550	36.076	15.570
5670	35.998	15.560

802.11ac_VHT40_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.020	15.570
5230	36.002	15.560
5270	36.014	15.560
5310	35.994	15.560
5510	35.988	15.560
5550	36.040	15.570
5670	36.011	15.560

802.11ac_VHT40_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.057	36.13
5795	36.066	36.05

802.11ac_VHT40_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.008	35.99
5795	35.996	36.04



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 29 / 345
Rev.: 00

802.11ac_VHT80_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.480	18.780
5290	76.395	18.830
5530	76.432	18.830
5610	75.716	18.790

802.11ac_VHT80_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	76.113	18.810
5290	76.048	18.810
5530	76.085	18.810
5610	76.113	18.810

802.11ac_VHT80_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5775	76.142	75.71

802.11ac_VHT80_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5775	76.157	76.41

802.11ax_HE20_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5180	full	18.902	12.770
5220	full	18.869	12.760
5240	full	18.867	12.760
5260	full	18.873	12.760
5300	full	18.896	12.760
5320	full	18.879	12.760
5500	full	18.899	12.760
5580	full	18.892	12.760
5700	full	18.872	12.760

802.11ax_HE20_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5180	full	18.892	12.760
5220	full	18.874	12.760
5240	full	18.892	12.760
5260	full	18.906	12.770
5300	full	18.873	12.760
5320	full	18.881	12.760
5500	full	18.900	12.760
5580	full	18.899	12.760
5700	full	18.882	12.760

802.11ax_HE20_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5745	full	18.887	18.94
5785	full	18.884	19.00
5825	full	18.874	18.95

802.11ax_HE20_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5745	full	18.884	18.96
5785	full	18.873	18.96
5825	full	18.865	18.98



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 30 / 345
Rev.: 00

802.11ax_HE40_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5190	full	37.635	15.760
5230	full	37.688	15.760
5270	full	37.662	15.760
5310	full	37.645	15.760
5510	full	37.623	15.750
5550	full	37.704	15.760
5670	full	37.634	15.760

802.11ax_HE40_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5190	full	37.675	15.760
5230	full	37.661	15.760
5270	full	37.646	15.760
5310	full	37.631	15.760
5510	full	37.617	15.750
5550	full	37.636	15.760
5670	full	37.670	15.760

802.11ax_HE40_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5755	full	37.666	37.16
5795	full	37.699	37.69

802.11ax_HE40_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5755	full	37.676	37.46
5795	full	37.633	37.57

802.11ax_HE80_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5210	full	76.672	18.850
5290	full	77.484	18.890
5530	full	77.447	18.890
5610	full	76.823	18.850

802.11ax_HE80_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	10 Log (B) (dB)
5210	full	77.315	18.880
5290	full	77.276	18.880
5530	full	77.330	18.880
5610	full	77.278	18.880

802.11ax_HE80_Ch0

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5775	full	77.215	74.20

802.11ax_HE80_Ch1

Frequency (MHz)	RU config	99% BW (MHz)	6dB BW (MHz)
5775	full	77.269	77.99

6 dB Bandwidth & 26 dB Bandwidth

802.11a_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	18.46	12.660
5220	18.37	12.640
5240	18.21	12.600
5260	18.38	12.640
5300	18.22	12.610
5320	18.23	12.610
5500	18.41	12.650
5580	18.35	12.640
5700	18.22	12.610

802.11a_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.29	12.120
5785	16.03	12.050
5825	16.35	12.140

802.11a_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.11	< 5250
5745	5736.73	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.

802.11n_HT20_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	19.40	12.880
5220	19.27	12.850
5240	19.48	12.900
5260	19.12	12.810
5300	19.48	12.900
5320	19.21	12.840
5500	19.32	12.860
5580	19.41	12.880
5700	19.33	12.860

802.11n_HT20_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	19.27	12.850
5220	19.25	12.840
5240	19.39	12.880
5260	19.41	12.880
5300	19.22	12.840
5320	19.36	12.870
5500	19.17	12.830
5580	19.28	12.850
5700	19.34	12.860

802.11n_HT20_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.90	12.280
5785	17.57	12.450
5825	16.71	12.230

802.11n_HT20_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	16.98	12.300
5785	16.88	12.270
5825	17.29	12.380

802.11n_HT20_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.75	< 5250
5745	5736.21	> 5725

802.11n_HT20_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.74	< 5250
5745	5736.21	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 33 / 345
Rev.: 00

802.11n_HT40_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	38.81	15.890
5230	38.77	15.880
5270	46.19	16.650
5310	38.65	15.870
5510	38.81	15.890
5550	52.60	17.210
5670	38.83	15.890

802.11n_HT40_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	38.33	15.840
5230	38.69	15.880
5270	38.70	15.880
5310	38.64	15.870
5510	38.66	15.870
5550	38.70	15.880
5670	38.45	15.850

802.11n_HT40_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	35.23	15.470
5795	35.19	15.460

802.11n_HT40_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	35.25	15.470
5795	35.05	15.450

802.11n_HT40_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5247.96	< 5250
5755	5736.99	> 5725

802.11n_HT40_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5248.03	< 5250
5755	5737.02	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 34 / 345
Rev.: 00

802.11ac_VHT80_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	84.03	19.240
5290	86.09	19.350
5530	86.79	19.380
5610	84.55	19.270

802.11ac_VHT80_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	85.55	19.320
5290	86.39	19.360
5530	86.62	19.380
5610	85.97	19.340

802.11ac_VHT80_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	74.48	18.720

802.11ac_VHT80_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	76.46	18.830

802.11ac_VHT80_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5247.79	< 5250
5775	5736.86	> 5725

802.11ac_VHT80_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5248.14	< 5250
5775	5737.00	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.

802.11ax_HE20_Ch0

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5180	full	20.11	13.030
5220	full	20.20	13.050
5240	full	20.06	13.020
5260	full	20.02	13.010
5300	full	20.29	13.070
5320	full	20.23	13.060
5500	full	20.14	13.040
5580	full	20.21	13.060
5700	full	20.23	13.060

802.11ax_HE20_Ch1

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5180	full	20.34	13.080
5220	full	20.29	13.070
5240	full	20.17	13.050
5260	full	20.34	13.080
5300	full	20.14	13.040
5320	full	20.27	13.070
5500	full	20.30	13.070
5580	full	20.39	13.090
5700	full	20.18	13.050

802.11ax_HE20_Ch0

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5745	full	17.46	12.420
5785	full	17.95	12.540
5825	full	18.24	12.610

802.11ax_HE20_Ch1

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5745	full	17.68	12.470
5785	full	18.59	12.690
5825	full	17.01	12.310

802.11ax_HE20_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5249.43	< 5250
5745	5735.57	> 5725

802.11ax_HE20_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5249.39	< 5250
5745	5735.56	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.

802.11ax_HE40_Ch0

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5190	full	39.65	15.980
5230	full	39.59	15.980
5270	full	39.63	15.980
5310	full	39.57	15.970
5510	full	39.72	15.990
5550	full	39.66	15.980
5670	full	39.63	15.980

802.11ax_HE40_Ch0

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5755	full	36.44	15.620
5795	full	36.33	15.600

802.11ax_HE40_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5248.76	< 5250
5755	5736.18	> 5725

802.11ax_HE40_Ch1

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5190	full	39.59	15.980
5230	full	39.70	15.990
5270	full	39.88	16.010
5310	full	39.65	15.980
5510	full	39.55	15.970
5550	full	39.50	15.970
5670	full	39.52	15.970

802.11ax_HE40_Ch1

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5755	full	36.58	15.630
5795	full	37.69	15.760

802.11ax_HE40_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5248.78	< 5250
5755	5736.17	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.



Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 37 / 345
Rev.: 00

802.11ax_HE80_Ch0

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5210	full	80.47	19.060
5290	full	80.93	19.080
5530	full	80.44	19.050
5610	full	80.51	19.060

802.11ax_HE80_Ch0

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5775	full	76.52	18.840

802.11ax_HE80_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5248.37	< 5250
5775	5736.14	> 5725

802.11ax_HE80_Ch1

Freq. (MHz)	RU config	26dB BW (MHz)	10 Log (B) (dB)
5210	full	80.84	19.080
5290	full	80.67	19.070
5530	full	81.08	19.090
5610	full	80.79	19.070

802.11ax_HE80_Ch1

Freq. (MHz)	RU config	6dB BW (MHz)	10 Log (B) (dB)
5775	full	77.58	18.900

802.11ax_HE80_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5248.68	< 5250
5775	5736.30	> 5725

Note: The measurement results of all 6dBc test channels are greater than 500kHz.

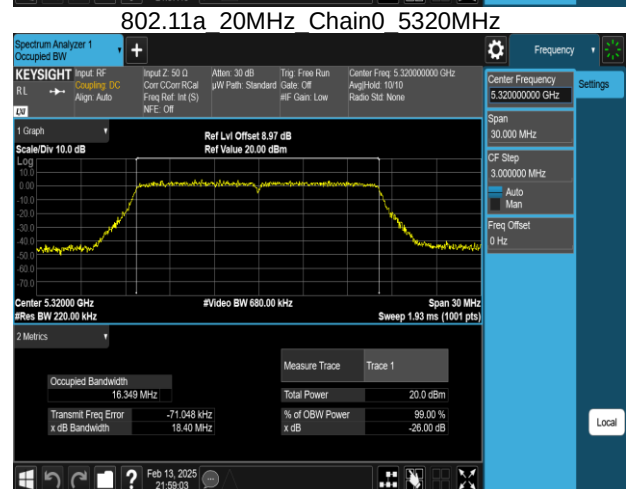
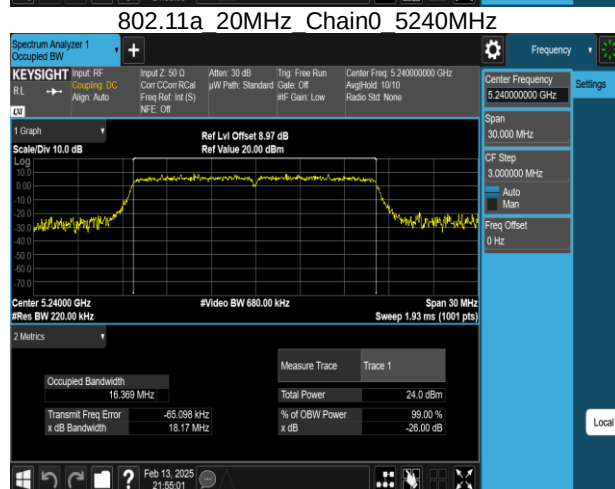
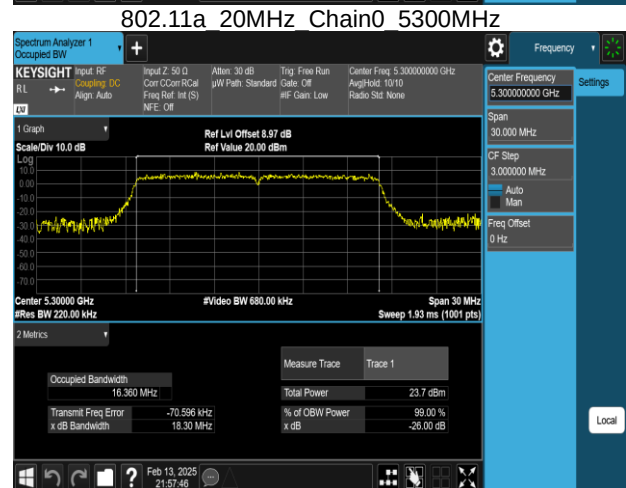
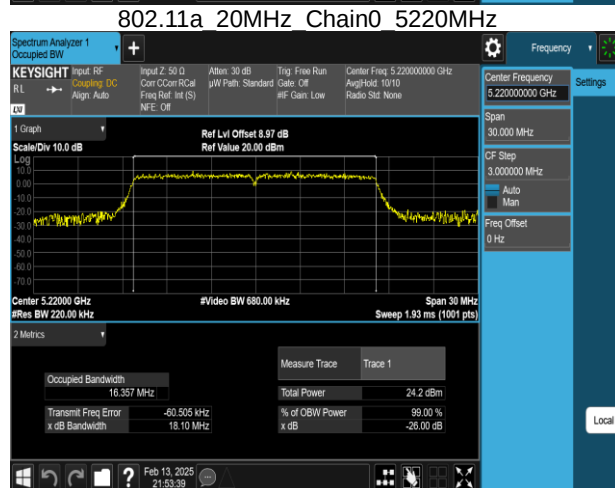
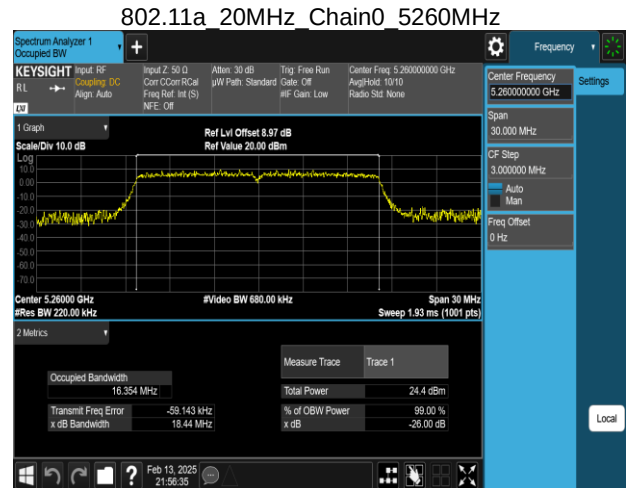
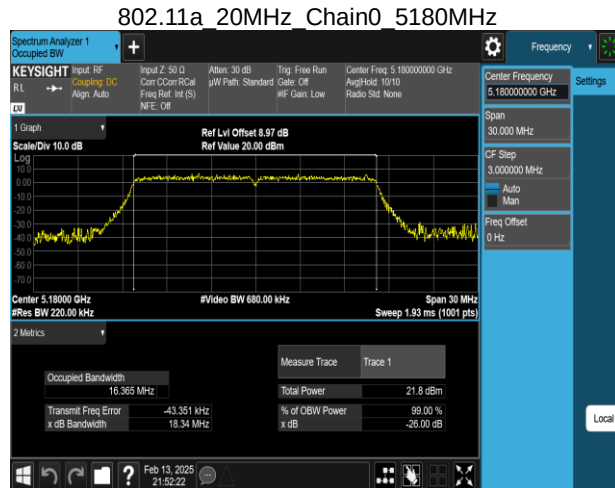


Project No: TM-2412000356P
Report No.: TMWK2412004718KR

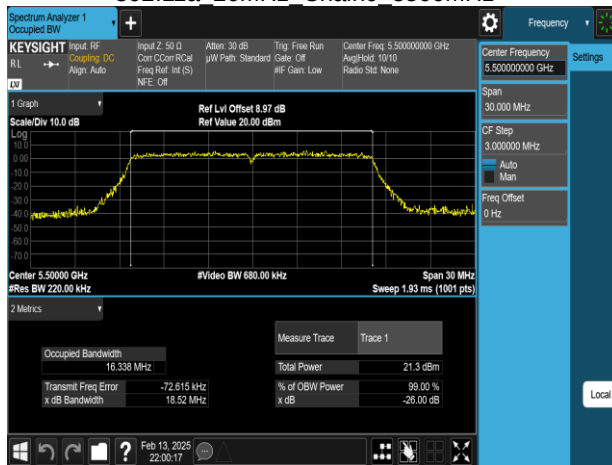
Page: 38 / 345
Rev.: 00

Test Data

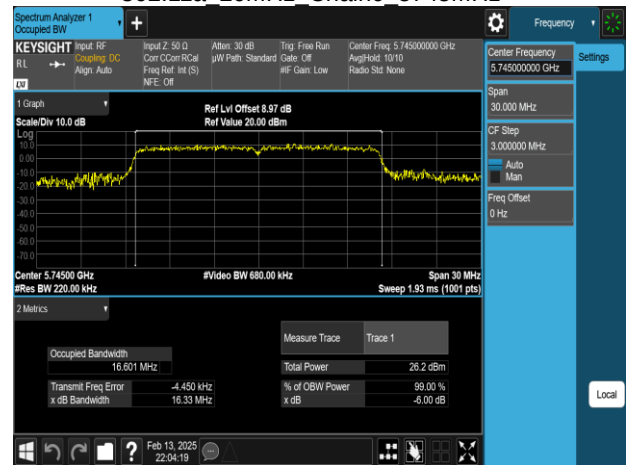
Occupied Bandwidth(99%)



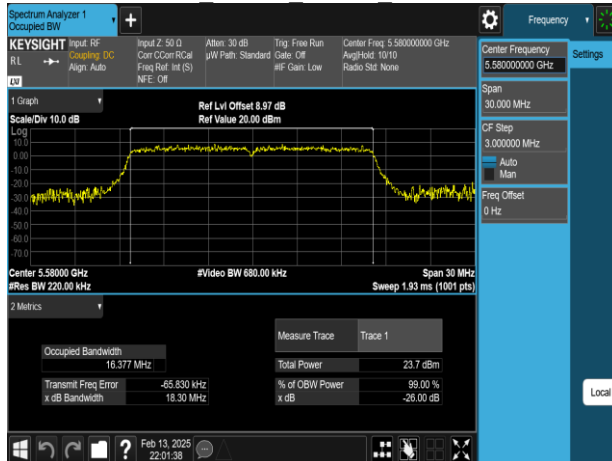
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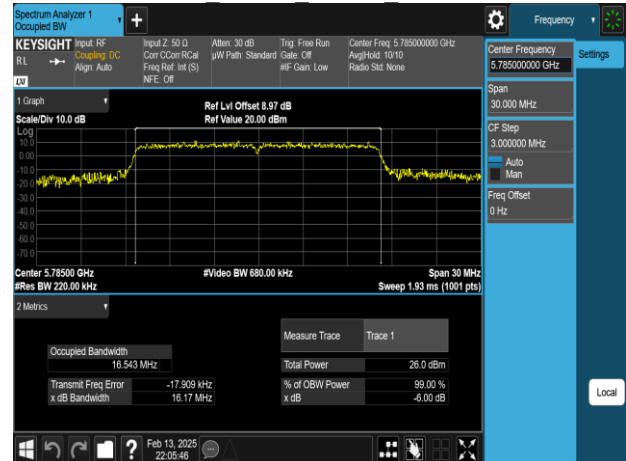
802.11a 20MHz Chain0 5745MHz



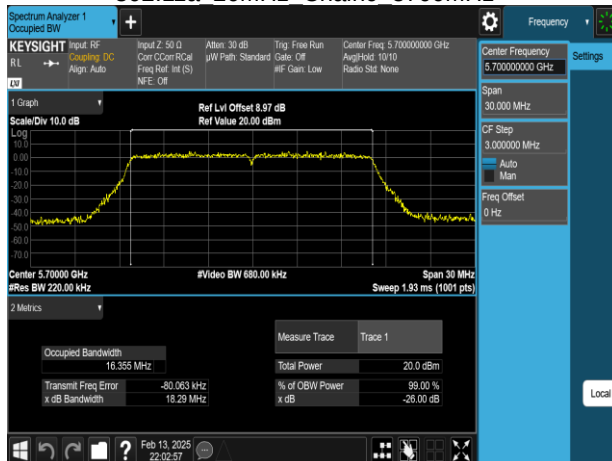
802.11a 20MHz Chain0 5580MHz



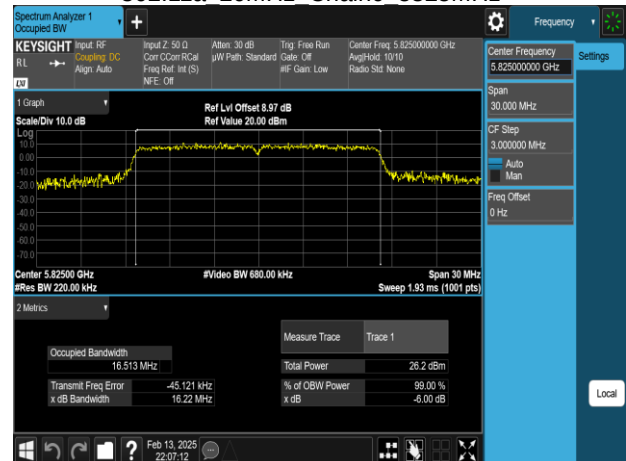
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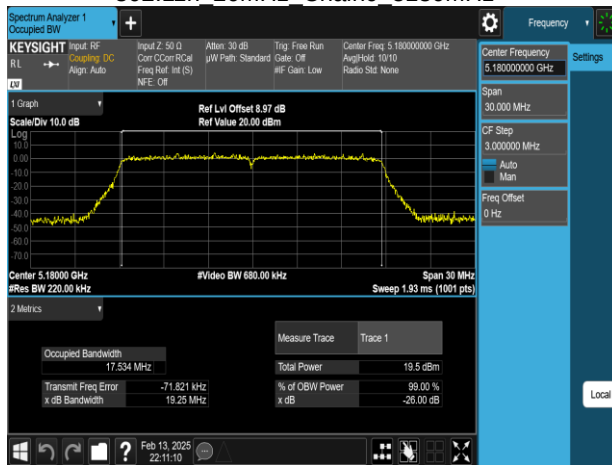
802.11a 20MHz Chain0 5700MHz



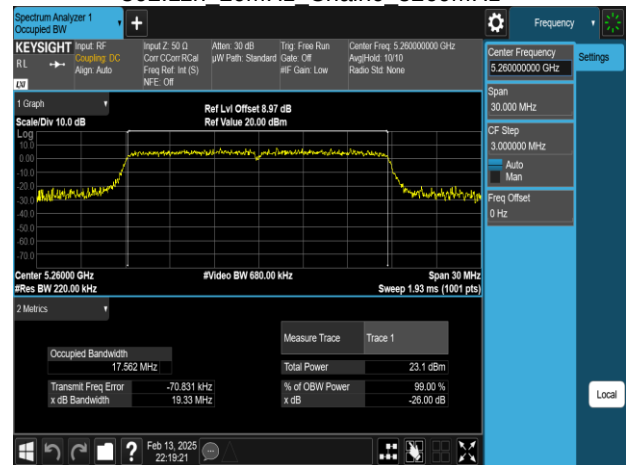
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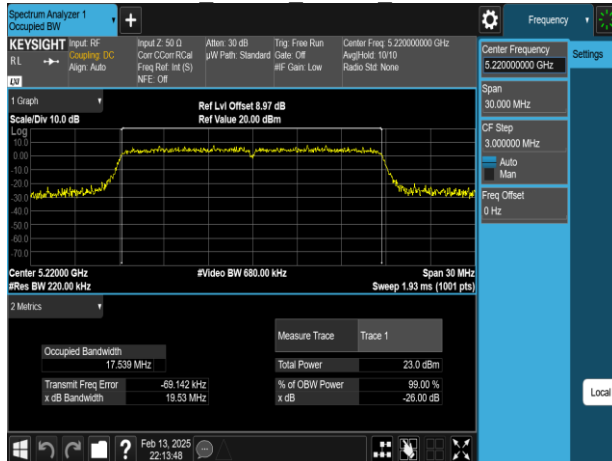
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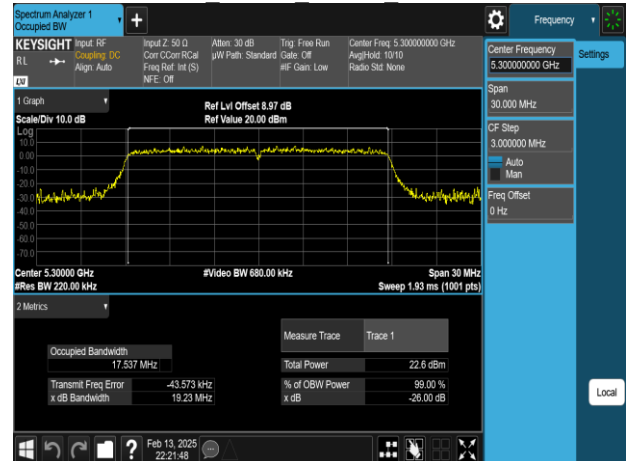
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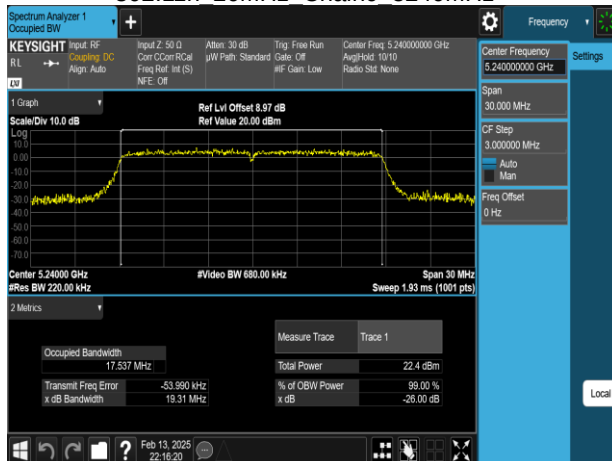
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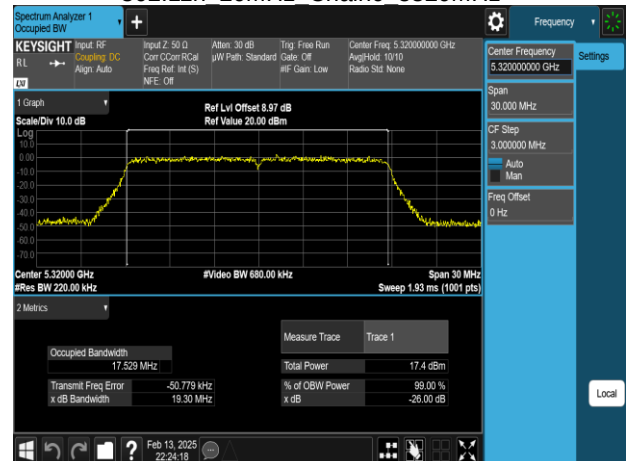
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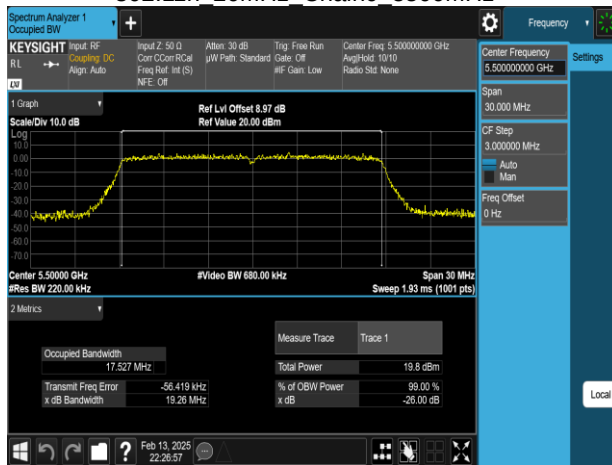
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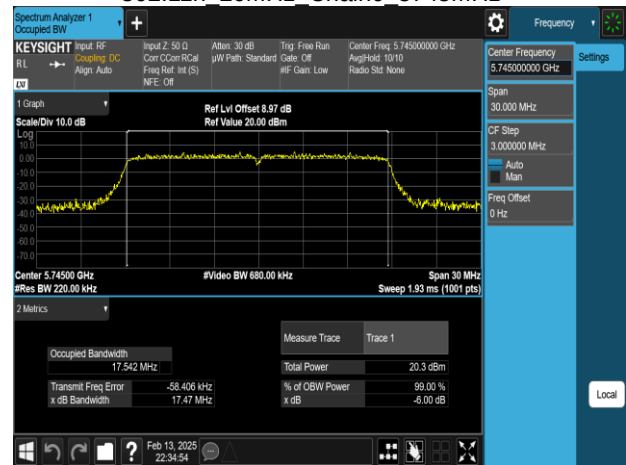
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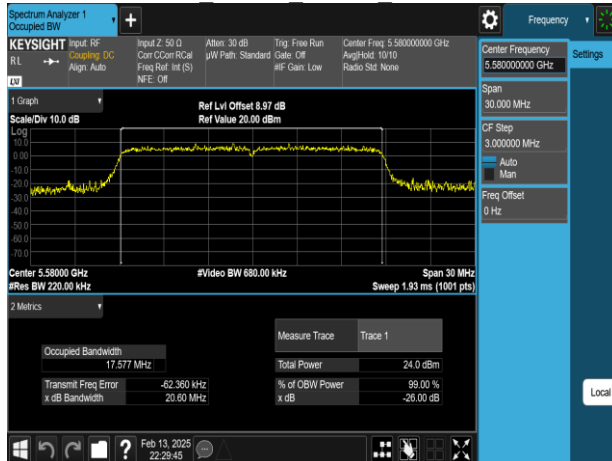
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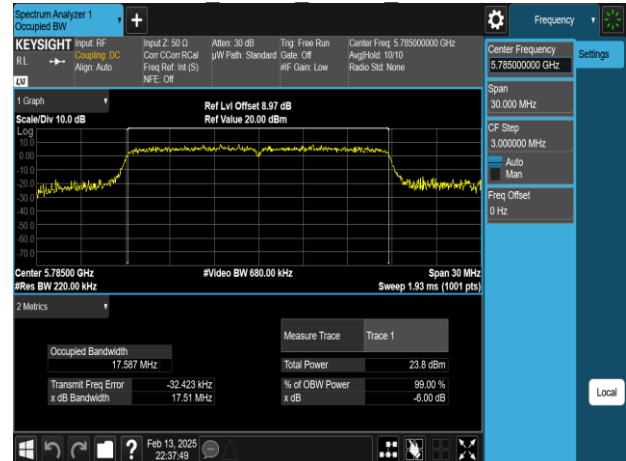
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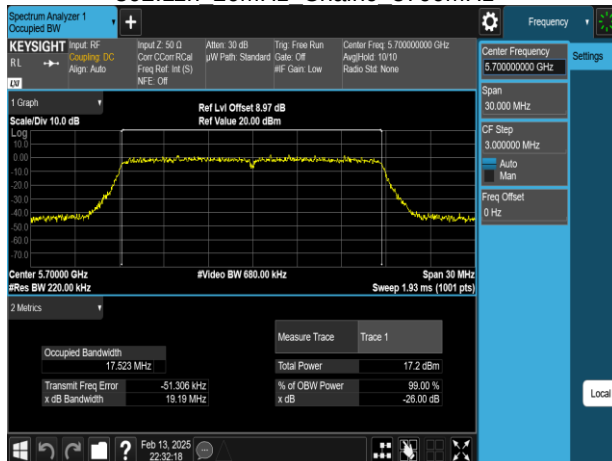
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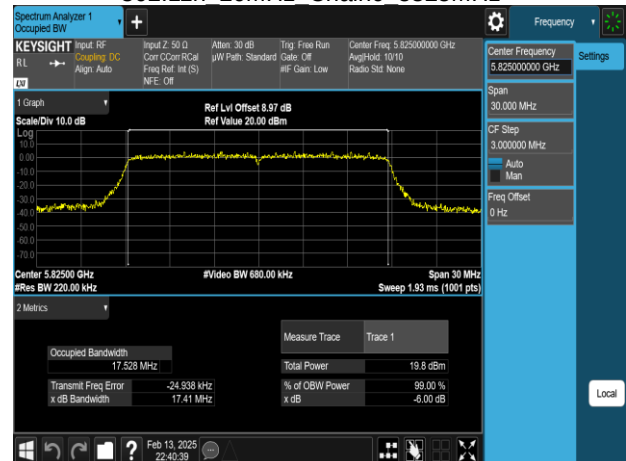
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802.11n 20MHz Chain0 5700MHz



802.11n 20MHz Chain0 5825MHz

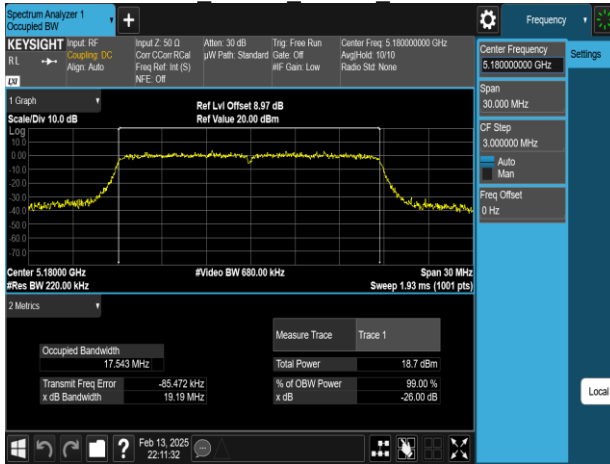




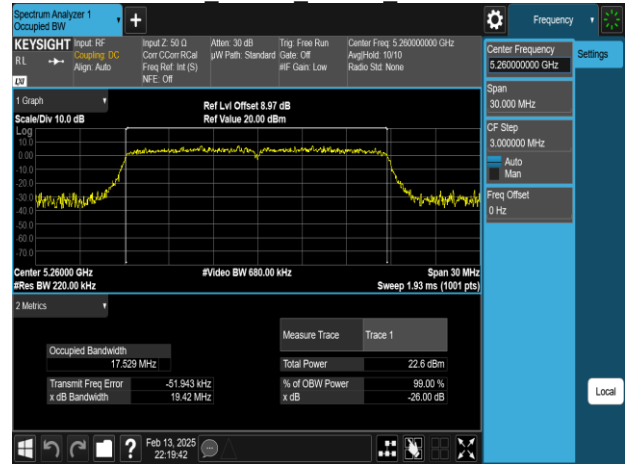
Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 42 / 345
Rev.: 00

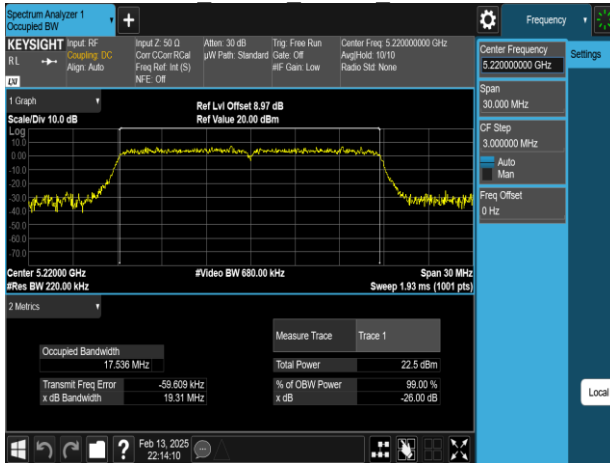
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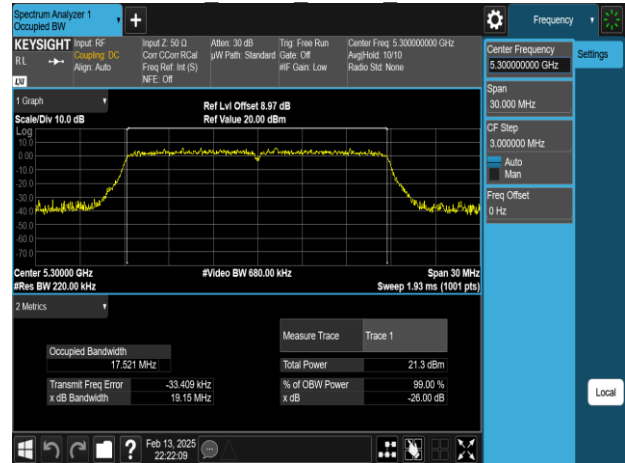
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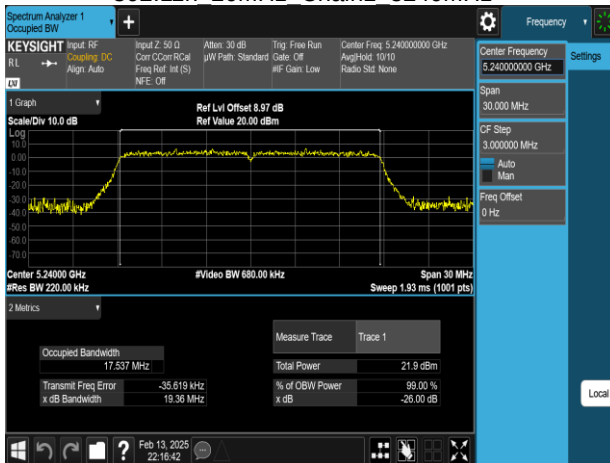
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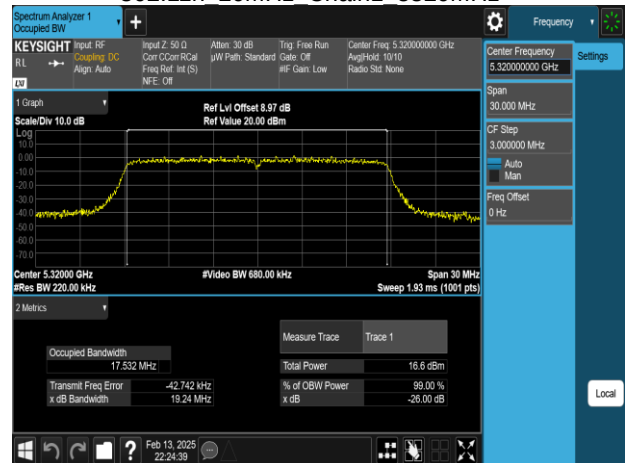
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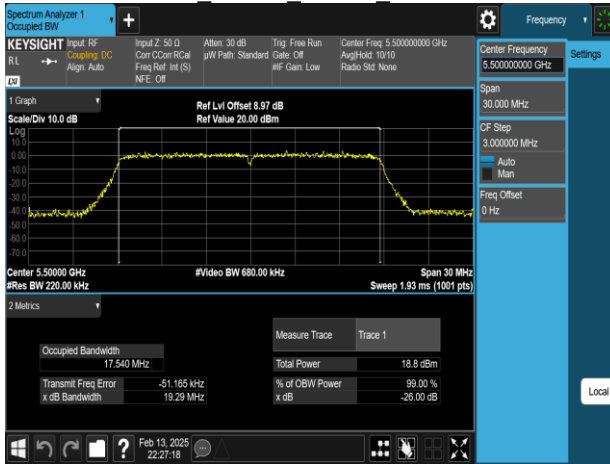
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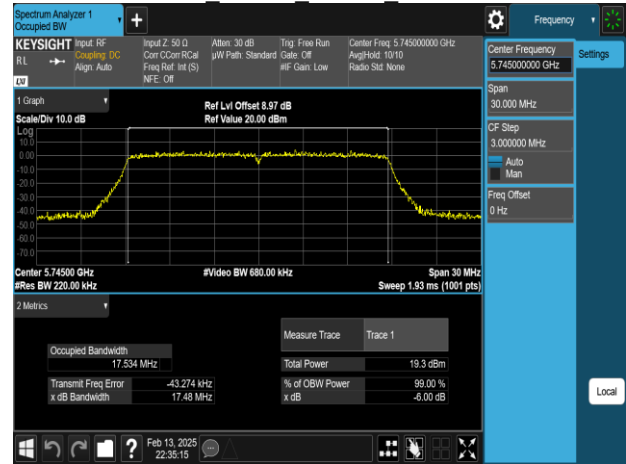
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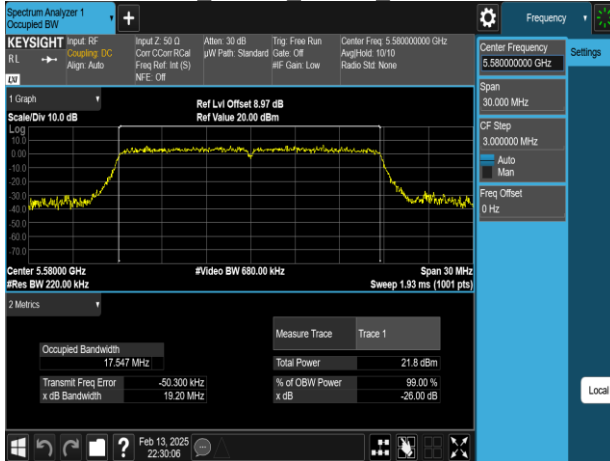
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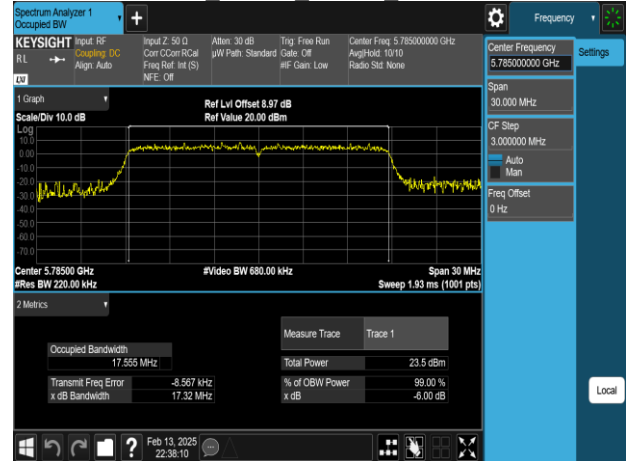
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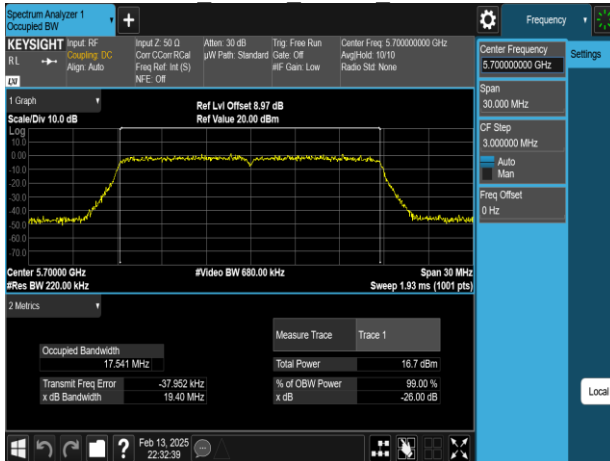
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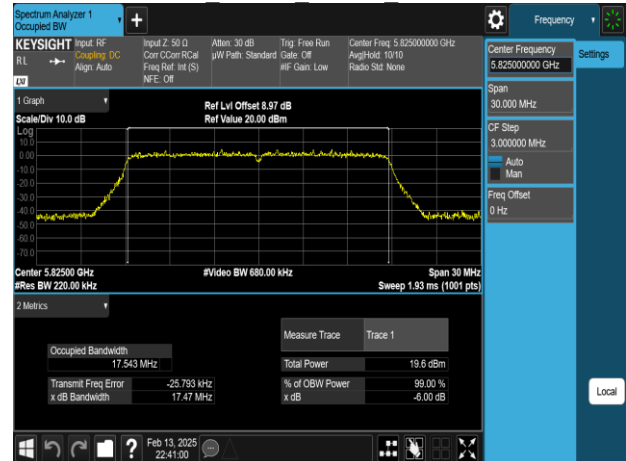
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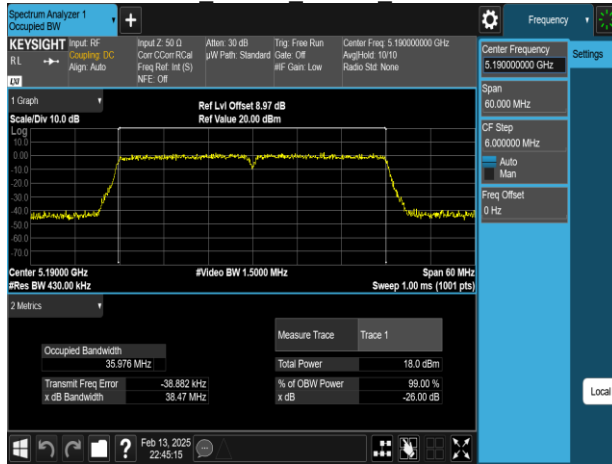
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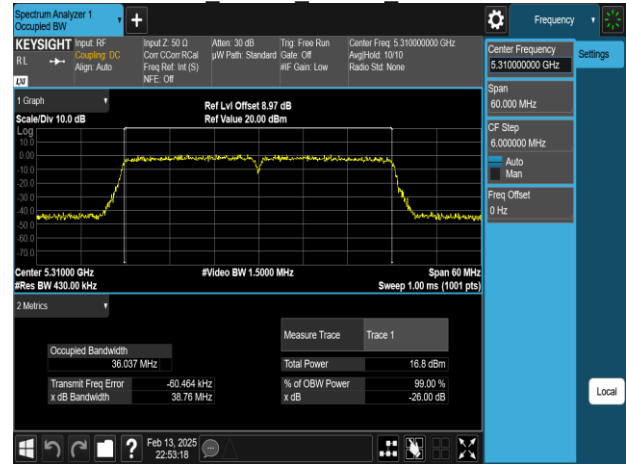
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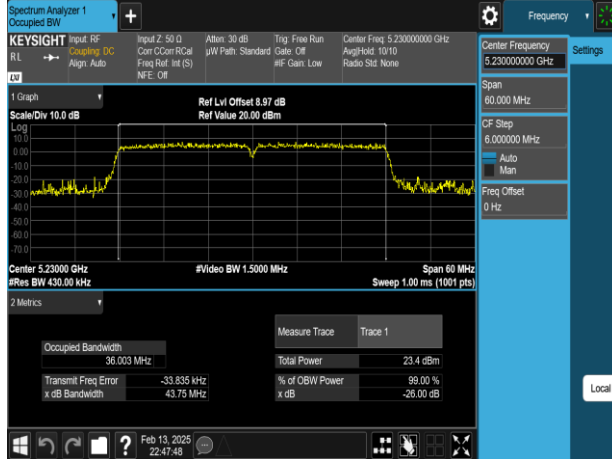
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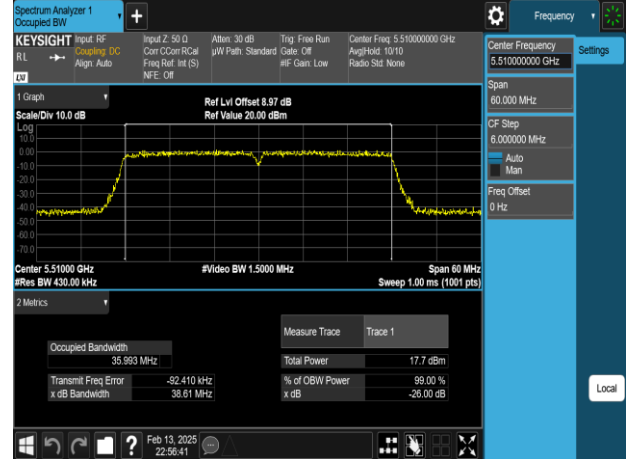
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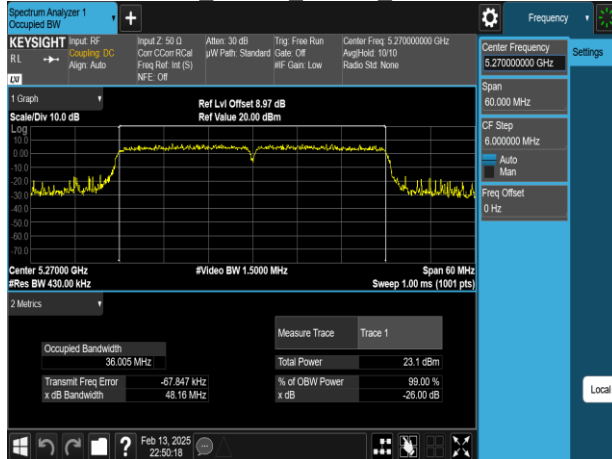
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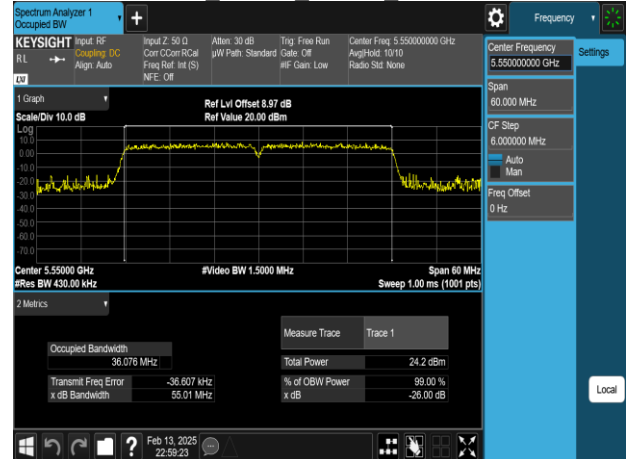
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802.11n 40MHz Chain0 5270MHz



802.11n 40MHz Chain0 5550MHz

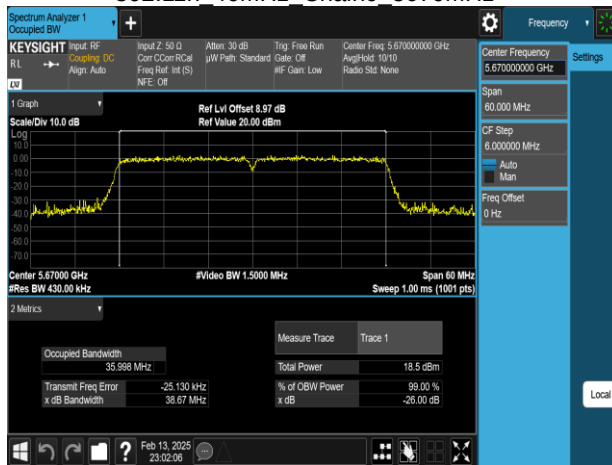




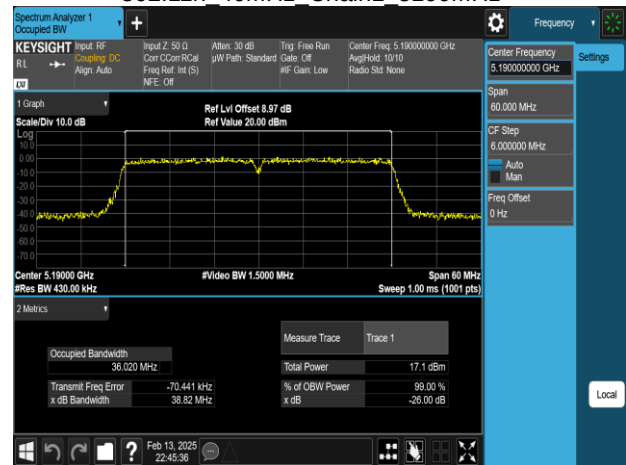
Project No: TM-2412000356P
Report No.: TMWK2412004718KR

Page: 45 / 345
Rev.: 00

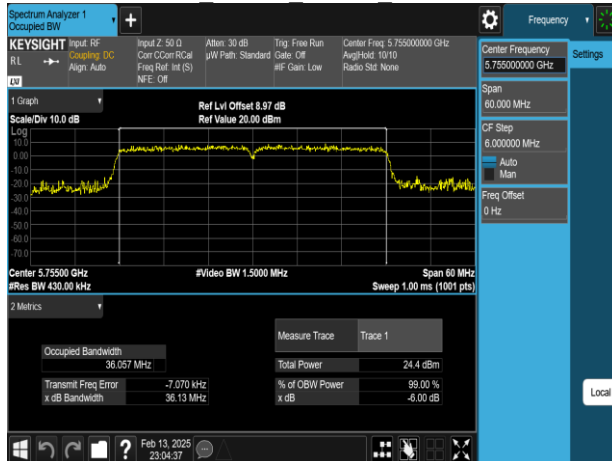
802.11n 40MHz Chain0 5670MHz



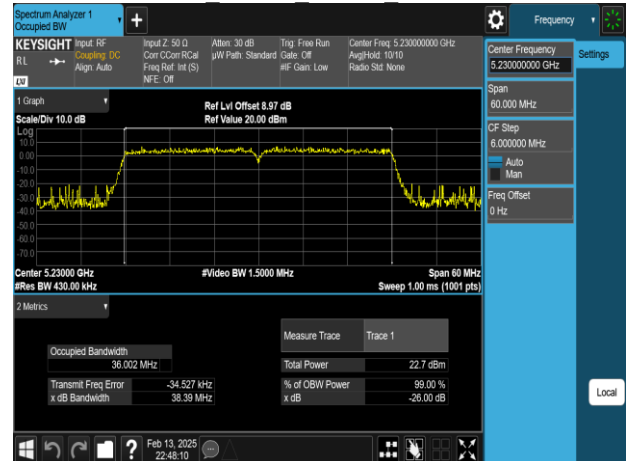
802.11n 40MHz Chain1 5190MHz



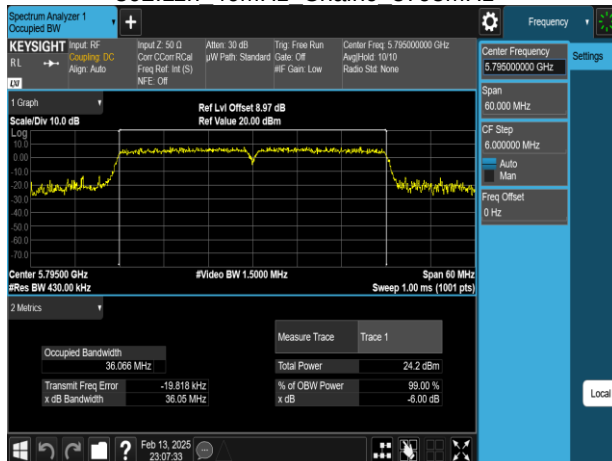
802.11n 40MHz Chain0 5755MHz



802.11n 40MHz Chain1 5230MHz



802.11n 40MHz Chain0 5795MHz



802.11n 40MHz Chain1 5270MHz

