

Project No.: TM-2309000356P
Report No.: TMWK2309003421KR

FCC ID: Z3K-EVOLVESLS10
IC: 9930A-EVOLVESLS10

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RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART E

INDUSTRY CANADA RSS-247

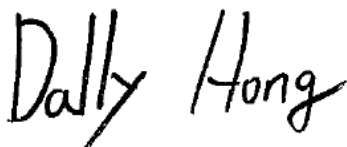
Test Standard	FCC Part 15.407 IC RSS-247 issue 3 and IC RSS-GEN issue 5
Product name	Evolve SLS 10 Monitor
Brand Name	JET OPTOELECTRONICS CO., LTD.
Model No.	620105
Test Result	Pass
Statements of Conformity	Determination of compliance is based on the results of the compliance measurement, not taking 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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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	February 16, 2024	Initial Issue	ALL	Peggy Tsai
01	February 27, 2024	See the following Note Rev. (01)	P.1, 10	Peggy Tsai

Rev. (01):

1. Modify IC Test Standard.
2. Modify Test Methodology and Applied Standards in section 1.8.



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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	JET OPTOELECTRONICS CO.,LTD. (FCC) 7F-2, No. 300, Yangguang St., Neihu Dist., Taipei City 11491,Taiwan (IC) 3F., No. 300, Yangguang St., Neihu Dist., Taipei City 11491,Taiwan
Manufacturer	JET OPTOELECTRONICS CO.,LTD. (FCC) 7F-2, No. 300, Yangguang St., Neihu Dist., Taipei City 11491,Taiwan (IC) 3F., No. 300, Yangguang St., Neihu Dist., Taipei City 11491,Taiwan
Equipment	Evolve SLS 10 Monitor
Model Name	620105
Model Discrepancy	N/A
Brand Name	JET OPTOELECTRONICS CO., LTD.
Received Date	September 21, 2023
Date of Test	October 2 ~ 12, 2023
Power Supply	Powered from Car Battery (DC 12V)
HW Version	20230607 D01
SW Version	MAINLINE-115 MCU version V1.2.16
Serial number	H230811M5000020

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.

1.2 EUT CHANNEL INFORMATION

Frequency Range	<table border="1"> <thead> <tr> <th colspan="2">UNII-1</th></tr> </thead> <tbody> <tr> <td>IEEE 802.11a</td><td>5180 ~ 5240 MHz</td></tr> <tr> <td>IEEE 802.11n HT20</td><td>5180 ~ 5240 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT20</td><td>5180 ~ 5240 MHz</td></tr> <tr> <td>IEEE 802.11n HT40</td><td>5190 ~ 5230 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT40</td><td>5190 ~ 5230 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT80</td><td>5210 MHz</td></tr> <tr> <th colspan="2">UNII-2a</th></tr> <tr> <td>IEEE 802.11a</td><td>5260 ~ 5320 MHz</td></tr> <tr> <td>IEEE 802.11n HT20</td><td>5260 ~ 5320 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT20</td><td>5260 ~ 5320 MHz</td></tr> <tr> <td>IEEE 802.11n HT40</td><td>5270 ~ 5310 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT40</td><td>5270 ~ 5310 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT80</td><td>5290 MHz</td></tr> <tr> <th colspan="2">UNII-2c</th></tr> <tr> <td>IEEE 802.11a</td><td>5500 ~ 5700 MHz</td></tr> <tr> <td>IEEE 802.11n HT20</td><td>5500 ~ 5700 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT20</td><td>5500 ~ 5700 MHz</td></tr> <tr> <td>IEEE 802.11n HT40</td><td>5510 ~ 5670 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT40</td><td>5510 ~ 5670 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT80</td><td>5530 ~ 5610 MHz</td></tr> <tr> <th colspan="2">UNII-3</th></tr> <tr> <td>IEEE 802.11a</td><td>5745 ~ 5825 MHz</td></tr> <tr> <td>IEEE 802.11n HT20</td><td>5745 ~ 5825 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT20</td><td>5745 ~ 5825 MHz</td></tr> <tr> <td>IEEE 802.11n HT40</td><td>5755 ~ 5795 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT40</td><td>5755 ~ 5795 MHz</td></tr> <tr> <td>IEEE 802.11ac VHT80</td><td>5775 MHz</td></tr> </tbody> </table>	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	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	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	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
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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																																																								

Remark:

- Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels
- For Canada the EUT Frequency Range 5600~5650MHz will be disabled.

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



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1.3 ANTENNA INFORMATION

Antenna Type	☒ PIFA ☐ PCB ☐ Dipole ☐ Coils
Antenna Specification	5150~5250 Gain: 3.8 dBi Power Directional Gain: 6.81 dBi 5250~5350: Gain: 3.8 dBi Power Directional Gain: 6.81 dBi 5470~5725: Gain: 3.8 dBi Power Directional Gain: 6.81 dBi 5725~5850 Gain: 3.8 dBi Power Directional Gain: 6.81 dBi
Antenna connector	N/A

Notes:

1. Antenna must use a unique type of connector to attach to the EUT. So the EUT complies with the requirements of §15.203 and RSS-GEN 6.8.
2. Power Directional Gain = $10 \cdot \log \{ [10^{(Ant1/20)} + 10^{(Ant2/20)} + \dots + 10^{(Ant N /20)}]^2 / N \text{ ANT} \}$ dBi



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1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.213 dB
Channel Bandwidth	± 2.7 %
RF output power (Spectrum)	± 2.440 dB
Power Spectral density	± 2.739 dB
Radiated Emission_9kHz-30MHz	± 3.115 dB
Radiated Emission_30MHz-200MHz	± 4.071 dB
Radiated Emission_200MHz-1GHz	± 4.419 dB
Radiated Emission_1GHz-6GHz	± 5.023 dB
Radiated Emission_6GHz-18GHz	± 5.068 dB
Radiated Emission_18GHz-26GHz	± 3.349 dB
Radiated Emission_26GHz-40GHz	± 3.229 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.



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1.5 FACILITIES AND TEST LOCATION

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

AC Powerline Conducted Emission and Conducted:

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

Radiated emission 9kHz to 40GHz:

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

☒ No. 12, Ln. 116, Wugong 3rd Rd., Wugu Dist., New Taipei City, Taiwan 24803

CAB identifier: TW1309

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT doesn't connect to AC Main Source direct.
Radiation	Czerny Lin	-
RF Conducted	David Li	-

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



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1.6 INSTRUMENT CALIBRATION

Conducted_FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Power Sensor	Anritsu	MA2411B	1911386	2023-07-25	2024-07-24
Power Sensor	Anritsu	MA2411B	1911387	2023-07-25	2024-07-24
Power Meter	Anritsu	ML2496A	2136002	2022-11-24	2023-11-23
EXA Signal Analyzer	Keysight	N9010B	MY60242460	2023-02-02	2024-02-01
Software	Radio Test Software Ver. 21				

Radiated Emission Test Site: 966 D					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
Antenna	SHWARZBECK	VULB 9168	1277	2023-01-13	2024-01-12
Pre-Amplifier	EMCI	EMC118A45SE	980820	2022-12-23	2023-12-22
Pre-Amplifier	EMCI	EMC330N	980853	2022-12-23	2023-12-22
Coaxial Cable	EMC	EMC101G-KM-KM-9000	220407+211228+230205	2023-03-21	2024-03-20
EXA Signal Analyzer	Agilent	N9010A	MY52220817	2023-03-09	2024-03-08
Coaxial Cable	EMC	EMCCFD400	211212+211222+211020	2023-03-21	2024-03-20
High Pass Filter	TITAN	T04H70002600050S01	211215-7-3	2023-02-02	2024-02-01
Thermo-Hygro Meter	EDSDS	EDS-A49	966D1	2023-05-11	2024-05-10
Pre-Amplifier	EMCI	EMC184045SE	980872	2023-01-03	2024-01-02
Horn Antenna	RF SPIN	DRH18-E	210301A18ES	2023-02-03	2024-02-02
Horn Antenna	SHWARZBECK	BBHA 9170	1134	2022-12-30	2023-12-29
Loop Antenna	SCHWARZBECK	FMZB 1513-60	1513-60-028	2022-12-27	2023-12-26
Software	e3 V9-210616c				

Remark:

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



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1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

Conducted_FCC/IC/NCC (All)					
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due
NB(E)	Lenovo	T460	N/A	N/A	N/A
Radiated_Sup_Units					
N0	Kind	Brand	Model	Core	Length
1	NB(E)	Lenovo	IBM7663	N/A	N/A
2	Car Battery	YUASA	70B24R	N/A	N/A
3	C to USB Cable	N/A	N/A	N/A	0.3m
A	DC Cable	N/A	N/A	N/A	0.2m

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

Test Mode

The EUT is connected to the laptop, and the test software (adb.exe) is used to set according to the test requirements (Modulation, Frequency, Power Setting...), so that the RF signal is continuously transmitted to perform the test.

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, KDB 905462 D02, RSS-247 Issue 3 and RSS-GEN Issue 5.



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2. TEST SUMMERY

IC Standard Sec.	FCC Standard Sec.	Chapter	Test Item	Result
RSS-Gen (6.8)	15.203	1.3	Antenna Requirement	Pass
RSS-Gen (8.8)	15.207	4.1	AC Conducted Emission	N/A
-	15.407(a)	4.2	26dB Bandwidth	Pass
RSS- 247(6.2.4.1)	15.407(e)	4.2	6dB Bandwidth	Pass
RSS-Gen (6.7)	2.1049	4.2	Occupied Bandwidth (99%)	Pass
RSS- 247(6.2.1.1)	15.407(a)	4.3	Output Power Measurement	Pass
RSS- 247(6.2.2.1)	15.407(a)	4.4	Power Spectral Density	Pass
RSS- 247(6.2.3.1) RSS-GEN Clause 8.10	15.407(b) 15.205	4.5	Radiation Band Edge	Pass
RSS- 247(6.2.4.1) RSS-GEN Clause 8.10	15.407(b) 15.205	4.5	Radiation Spurious Emission	Pass
RSS-247(6.3)	15.407(h)	5	Dynamic Frequency Selection	Pass

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 HT 20 MHz mode: MCS0 3. IEEE 802.11n HT 40 MHz mode: MCS0 4. IEEE 802.11ac VHT 20 MHz mode: MCS0 5. IEEE 802.11ac VHT 40 MHz mode: MCS0 5. IEEE 802.11ac VHT 80 MHz mode: MCS0		
Operating Frequency Range & Number of Channels		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
	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
	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
	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

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n 20 MHz and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n 20 MHz and HT40) were test conducted and radiated measurement and recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	Radiated Emission Above 1G
Power supply Mode	Mode 1: EUT Power by Car Battery
Worst Mode	☒ Mode 1
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 Car Battery
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:

1. The worst mode was record in this test report.
2. 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



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3.3 EUT DUTY CYCLE

Temperature: 23.4 ~ 26.6°C

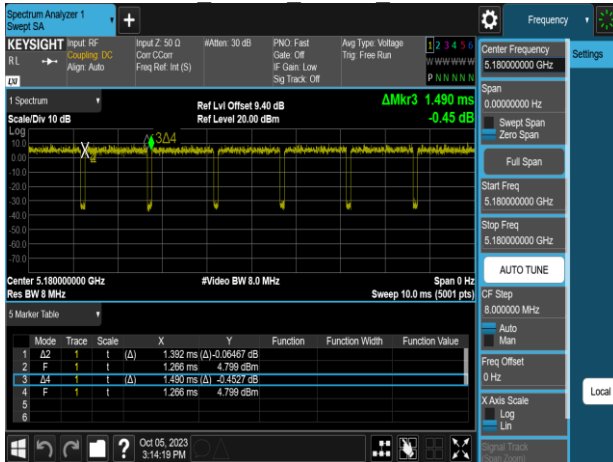
Test date: October 2 ~ 5, 2023

Humidity: 53 ~ 58% RH

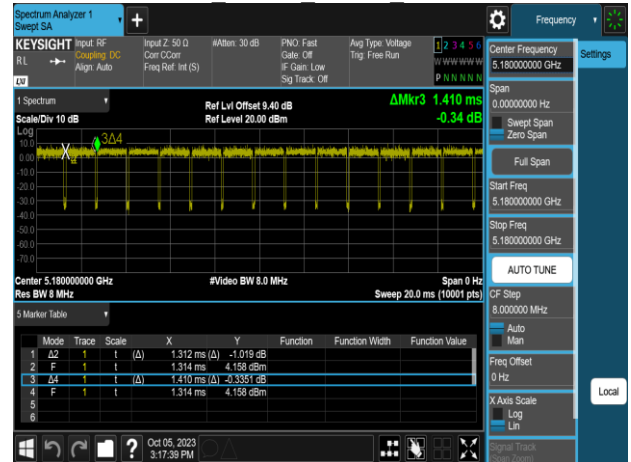
Tested by: David Li

Mode	Duty Cycle (%) =Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11a	93.42	0.30	0.72	1.00
802.11n_20	92.86	0.32	0.77	1.00
802.11ac_20	93.05	0.31	0.76	1.00
802.11n_40	86.86	0.61	1.54	2.00
802.11ac_40	86.93	0.61	1.53	2.00
802.11ac_80	76.78	1.15	3.09	4.00

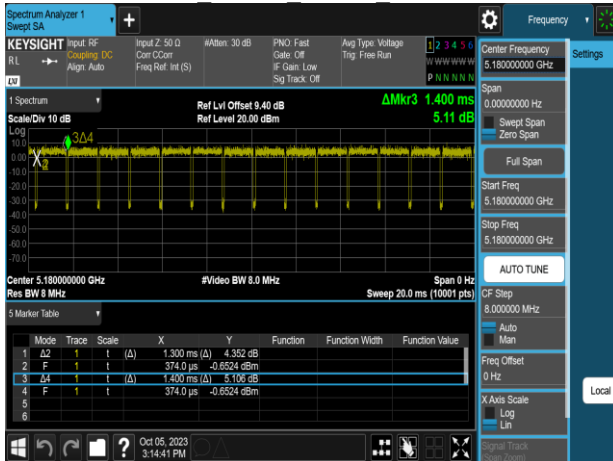
802.11a 20MHz Chain0 5180MHz



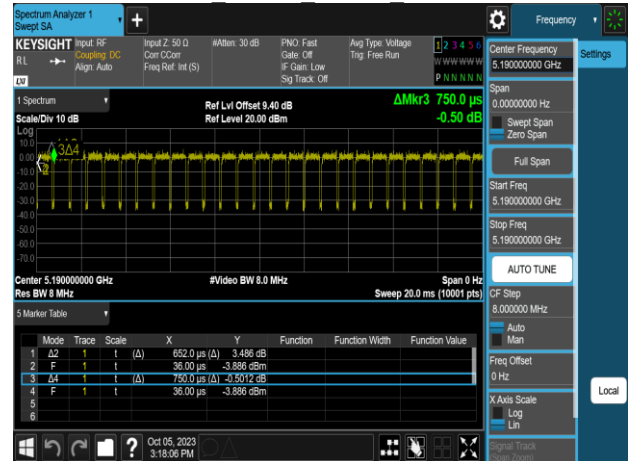
802.11ac 20MHz Chain0 5180MHz



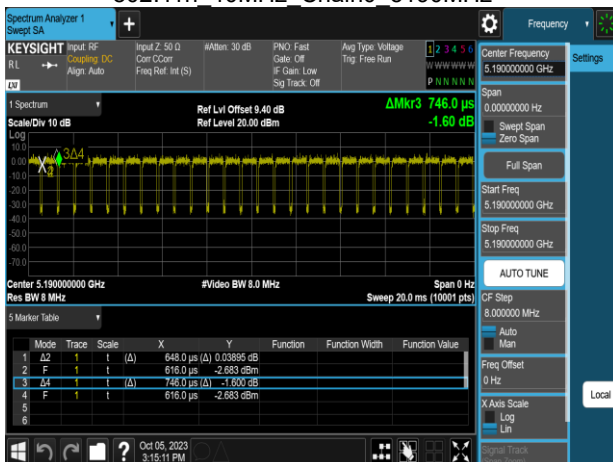
802.11n 20MHz Chain0 5180MHz



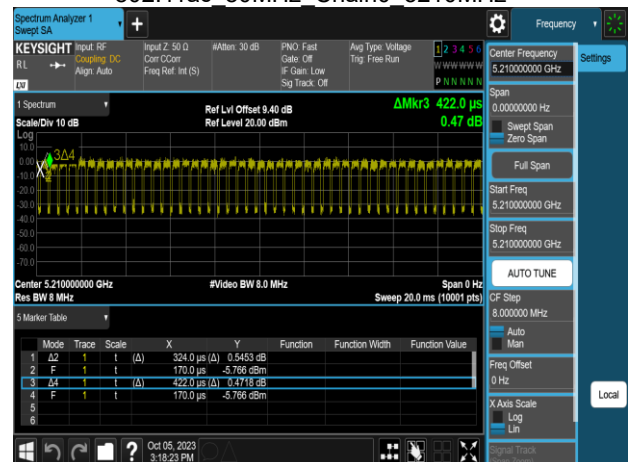
802.11ac 40MHz Chain0 5190MHz



802.11n 40MHz Chain0 5190MHz



802.11ac 80MHz Chain0 5210MHz



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a) and RSS-GEN section 8.8,

Frequency Range (MHz)	Limits(dBμV)	
	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

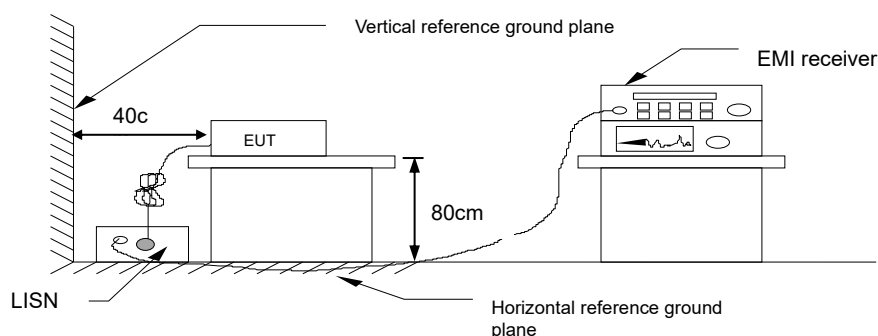
* Decreases with the logarithm of the frequency.

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

Not applicable, because EUT not connect to AC Main Source direct.

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. Detector = 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%.

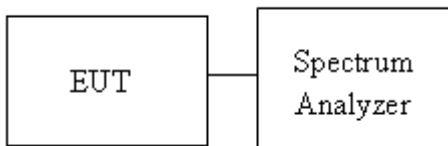
6dB

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. Detector = 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.

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 xRBW

4.2.3 Test Setup





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4.2.4 Test Result

Temperature: 23.4 ~ 26.6°C

Test date: October 2 ~ 5, 2023

Humidity: 53 ~ 58% RH

Tested by: David Li

Occupied Bandwidth(99%)

802.11a_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.402	12.150
5220	16.400	12.150
5240	16.416	12.150
5260	16.468	12.170
5300	16.472	12.170
5320	16.457	12.160
5500	16.616	12.210
5580	16.583	12.200
5700	16.522	12.180

802.11a_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	16.476	15.72
5785	16.506	15.83
5825	16.510	16.11



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802.11a_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	16.353	12.140
5220	16.349	12.130
5240	16.349	12.130
5260	16.342	12.130
5300	16.363	12.140
5320	16.368	12.140
5500	16.421	12.150
5580	16.464	12.170
5700	16.448	12.160

802.11a_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	16.535	15.17
5785	16.578	15.99
5825	16.521	15.80



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802.11n_HT20_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.556	12.440
5220	17.574	12.450
5240	17.584	12.450
5260	17.605	12.460
5300	17.614	12.460
5320	17.609	12.460
5500	17.655	12.470
5580	17.658	12.470
5700	17.602	12.460

802.11n_HT20_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.646	16.86
5785	17.639	17.14
5825	17.600	17.17



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802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5180	17.506	12.430
5220	17.523	12.440
5240	17.535	12.440
5260	17.545	12.440
5300	17.538	12.440
5320	17.537	12.440
5500	17.586	12.450
5580	17.602	12.460
5700	17.645	12.470

802.11n_HT20_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5745	17.646	17.01
5785	17.679	16.94
5825	17.722	16.54

802.11n_HT40_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.167	15.580
5230	36.106	15.580
5270	36.178	15.580
5310	36.143	15.580
5510	36.253	15.590
5550	36.341	15.600
5670	36.194	15.590

802.11n_HT40_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.230	36.14
5795	36.169	35.84

802.11n_HT40_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5190	36.076	15.570
5230	36.054	15.570
5270	36.068	15.570
5310	36.221	15.590
5510	36.123	15.580
5550	36.112	15.580
5670	36.254	15.590

802.11n_HT40_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5755	36.230	36.14
5795	36.316	34.20

802.11ac_VHT80_Ch0

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.896	18.800
5290	75.794	18.800
5530	76.229	18.820
5610	76.155	18.820

802.11ac_VHT80_Ch0

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5775	75.996	76.50

802.11ac_VHT80_Ch1

Frequency (MHz)	99% BW (MHz)	10 Log (B) (dB)
5210	75.629	18.790
5290	75.503	18.780
5530	75.742	18.790
5610	76.069	18.810

802.11ac_VHT80_Ch1

Frequency (MHz)	99% BW (MHz)	6dB BW (MHz)
5775	76.056	76.27



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26 dB Bandwidth & 6 dB Bandwidth

802.11a_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	19.52	12.900
5220	19.84	12.980
5240	19.64	12.930
5260	20.37	13.090
5300	20.79	13.180
5320	19.65	12.930
5500	27.43	14.380
5580	24.03	13.810
5700	21.51	13.330

802.11a_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	13.91	11.430
5785	14.46	11.600
5825	14.46	11.600

802.11a_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.171845	< 5250
5745	5736.713111	> 5725

802.11a_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	19.20	12.830
5220	19.18	12.830
5240	19.47	12.890
5260	19.35	12.870
5300	19.94	13.000
5320	19.72	12.950
5500	20.32	13.080
5580	21.14	13.250
5700	24.77	13.940

802.11a_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	14.67	11.660
5785	15.04	11.770
5825	13.22	11.210

802.11a_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.134197	< 5250
5745	5736.707242	> 5725

802.11n_HT20_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	20.30	13.070
5220	20.03	13.020
5240	20.07	13.030
5260	21.38	13.300
5300	20.78	13.180
5320	20.06	13.020
5500	23.85	13.770
5580	24.77	13.940
5700	22.81	13.580

802.11n_HT20_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	11.45	10.590
5785	17.52	12.440
5825	15.02	11.770

802.11n_HT20_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.743845	< 5250
5745	5736.133043	> 5725

 802.11n_HT20_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5180	19.63	12.930
5220	19.89	12.990
5240	19.94	13.000
5260	20.66	13.150
5300	20.27	13.070
5320	20.48	13.110
5500	20.72	13.160
5580	26.85	14.290
5700	24.16	13.830

 802.11n_HT20_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5745	13.82	11.410
5785	15.11	11.790
5825	14.80	11.700

 802.11n_HT20_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5240	5248.713932	< 5250
5745	5736.108416	> 5725

802.11n_HT40_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	46.96	16.720
5230	40.22	16.040
5270	40.84	16.110
5310	48.27	16.840
5510	56.94	17.550
5550	59.10	17.720
5670	55.38	17.430

802.11n_HT40_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	33.92	15.300
5795	35.16	15.460

802.11n_HT40_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5248.067771	< 5250
5755	5736.871892	> 5725

 802.11n_HT40_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5190	39.81	16.000
5230	40.06	16.030
5270	39.57	15.970
5310	39.80	16.000
5510	39.71	15.990
5550	41.59	16.190
5670	45.71	16.600

 802.11n_HT40_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5755	35.07	15.450
5795	35.13	15.460

 802.11n_HT40_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5230	5248.084862	< 5250
5755	5736.819158	> 5725

802.11ac_VHT80_Ch0

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	87.31	19.410
5290	84.34	19.260
5530	113.8	20.560
5610	116.2	20.650

802.11ac_VHT80_Ch0

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.30	18.770

802.11ac_VHT80_Ch0

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5247.972355	< 5250
5775	5736.957610	> 5725

802.11ac_VHT80_Ch1

Freq. (MHz)	26dB BW (MHz)	10 Log (B) (dB)
5210	79.75	19.020
5290	79.68	19.010
5530	98.95	19.950
5610	113.2	20.540

802.11ac_VHT80_Ch1

Freq. (MHz)	6dB BW (MHz)	10 Log (B) (dB)
5775	75.37	18.770

802.11ac_VHT80_Ch1

Freq. (MHz)	Measured Freq. (MHz)	Limit (MHz)
5210	5247.889045	< 5250
5775	5736.805790	> 5725

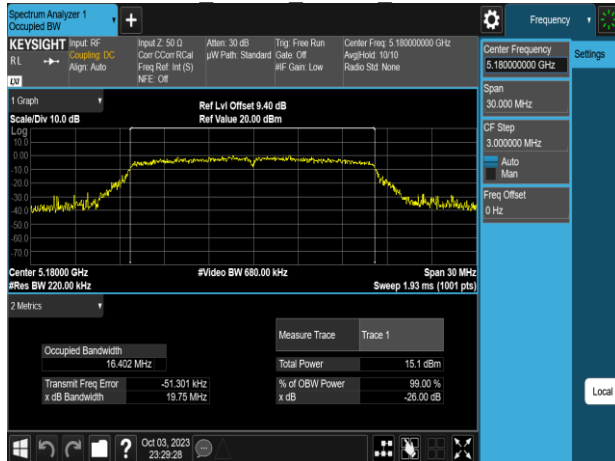


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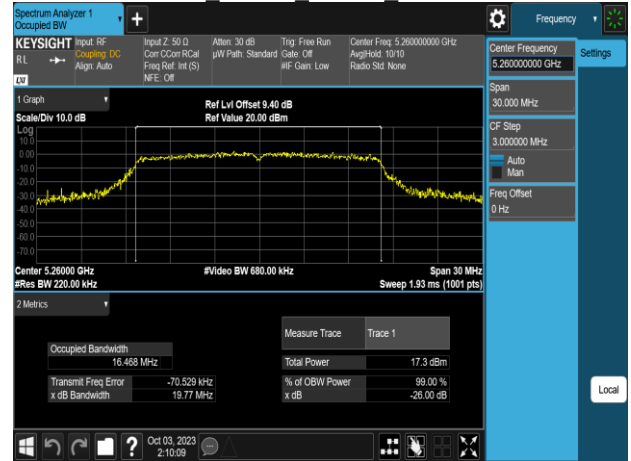
Test Data

Occupied Bandwidth(99%)

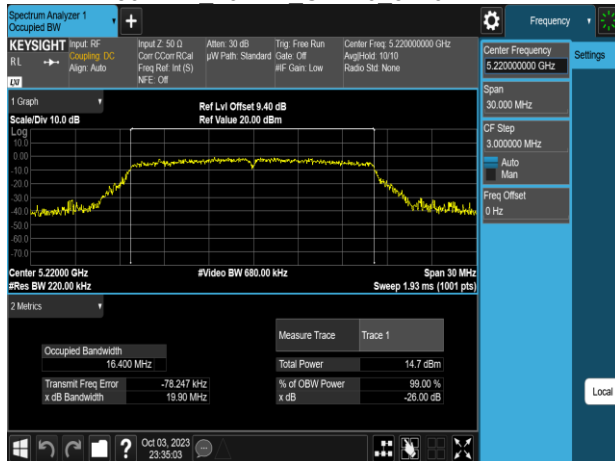
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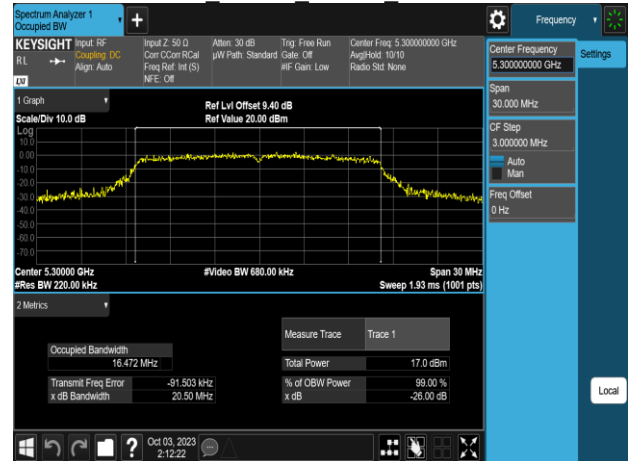
802.11a 20MHz Chain0 5260MHz



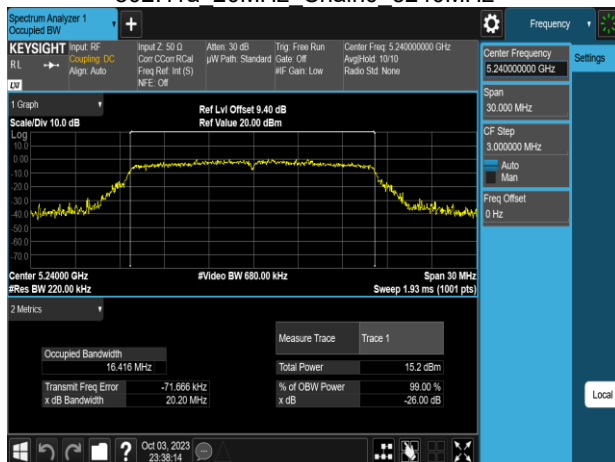
802.11a 20MHz Chain0 5220MHz



802.11a 20MHz Chain0 5300MHz



802.11a 20MHz Chain0 5240MHz



802.11a 20MHz Chain0 5320MHz

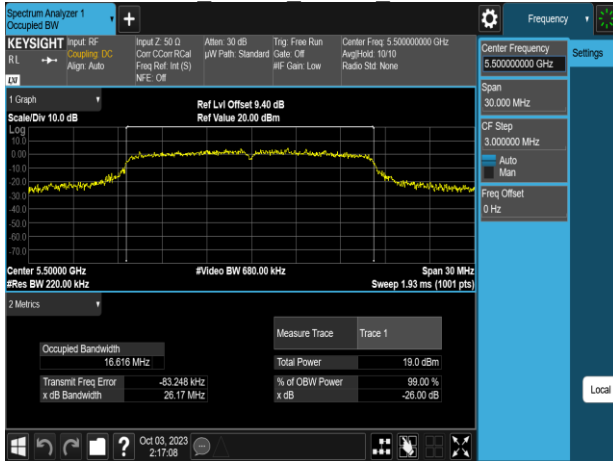




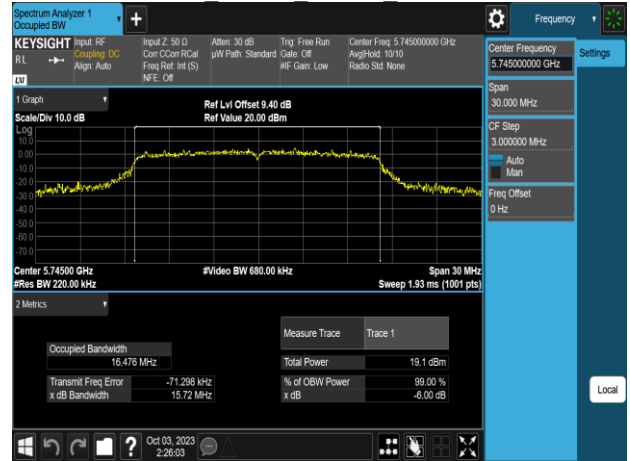
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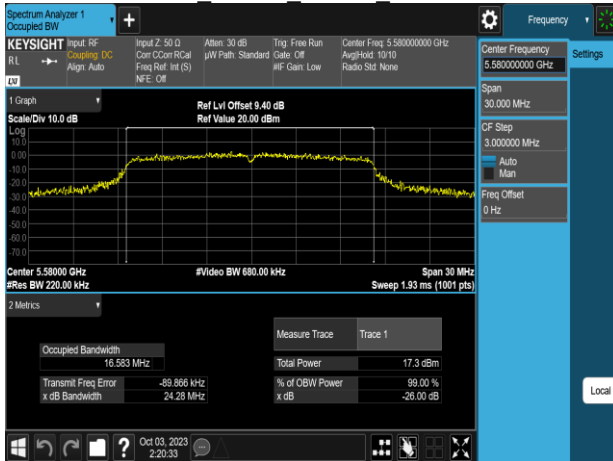
802.11a 20MHz Chain0 5500MHz



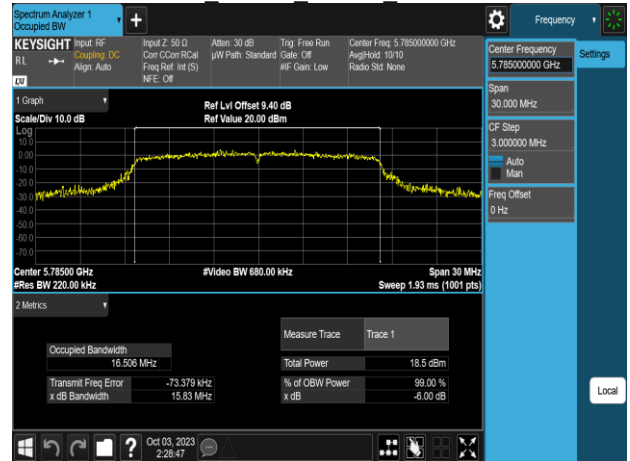
802.11a 20MHz Chain0 5745MHz



802.11a 20MHz Chain0 5580MHz



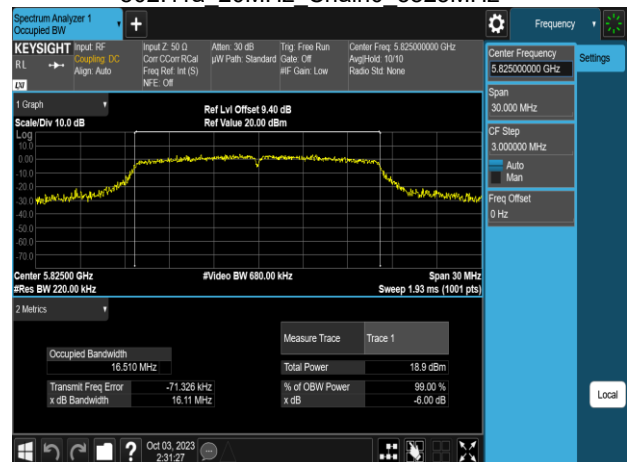
802.11a 20MHz Chain0 5785MHz



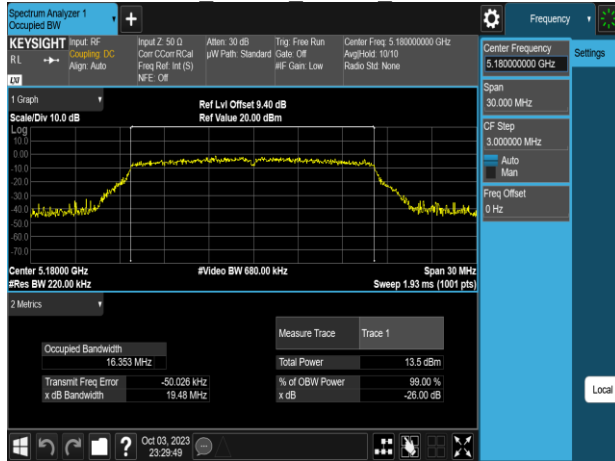
802.11a 20MHz Chain0 5700MHz



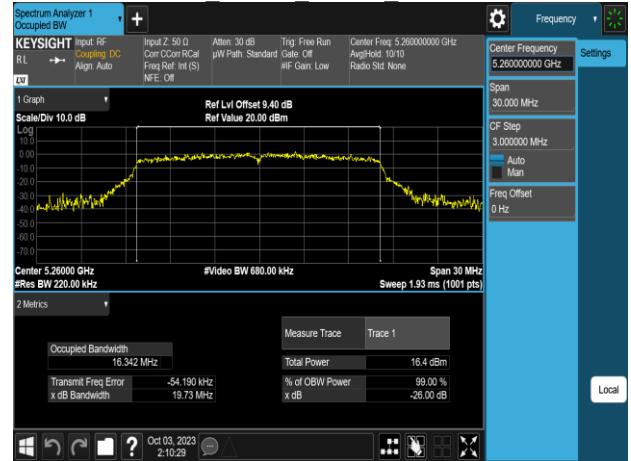
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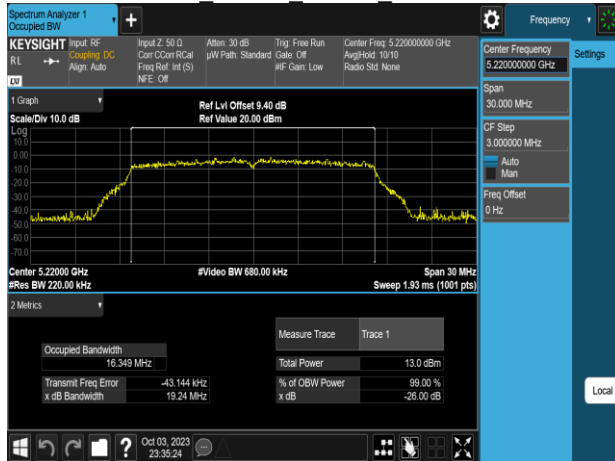
802.11a 20MHz Chain1 5180MHz



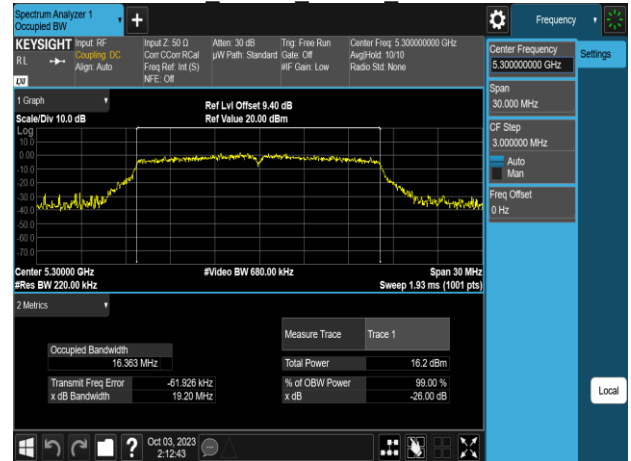
802.11a 20MHz Chain1 5260MHz



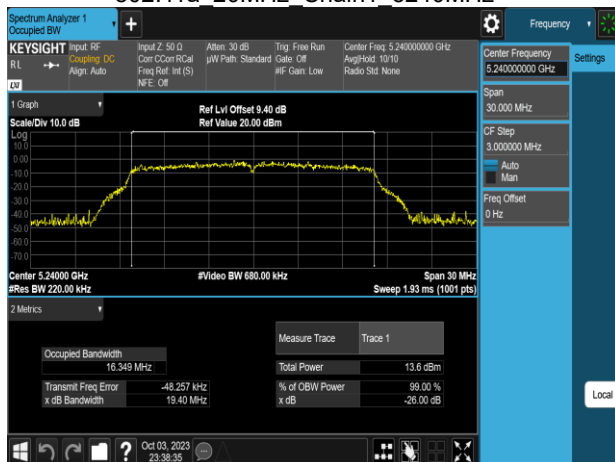
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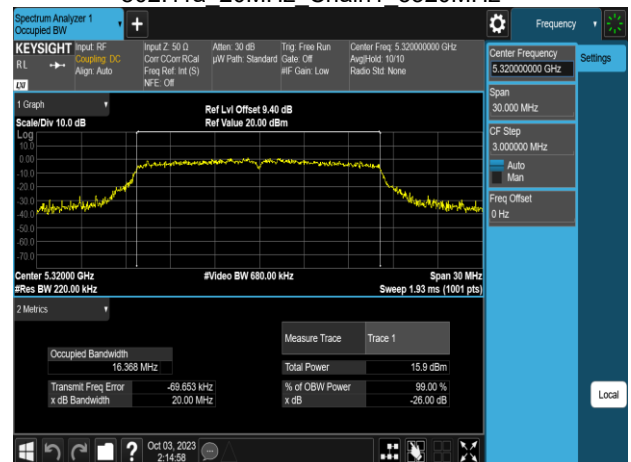
802.11a 20MHz Chain1 5300MHz



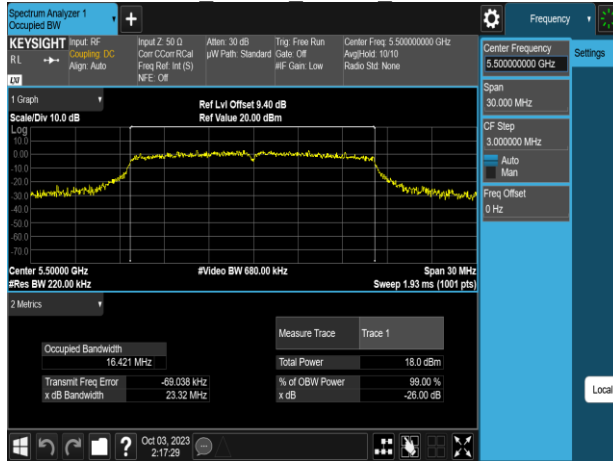
802.11a 20MHz Chain1 5240MHz



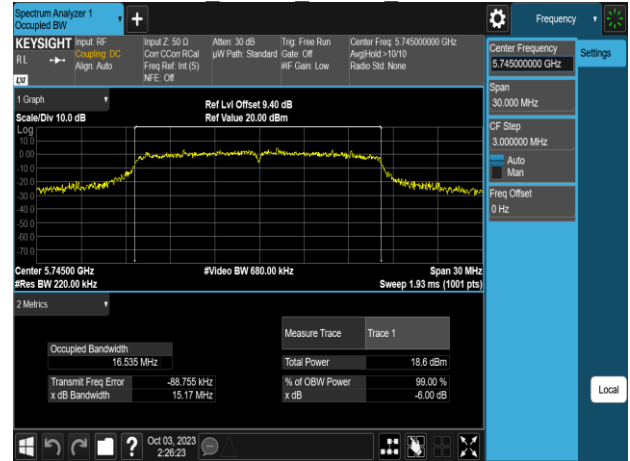
802.11a 20MHz Chain1 5320MHz



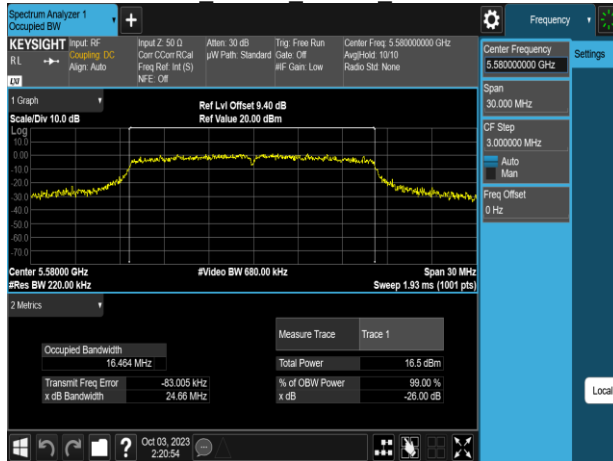
802.11a 20MHz Chain1 5500MHz



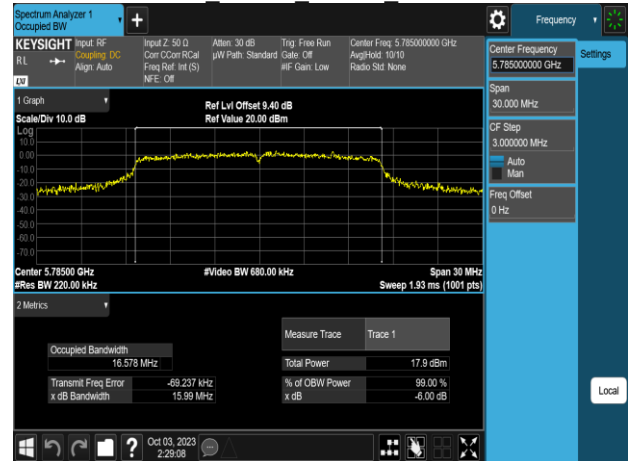
802.11a 20MHz Chain1 5745MHz



802.11a 20MHz Chain1 5580MHz



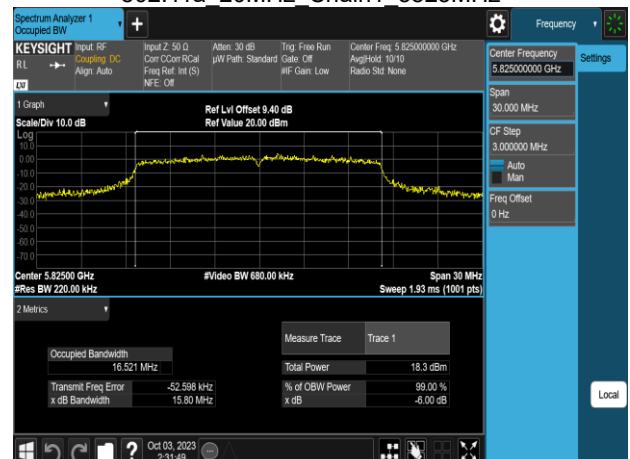
802.11a 20MHz Chain1 5785MHz



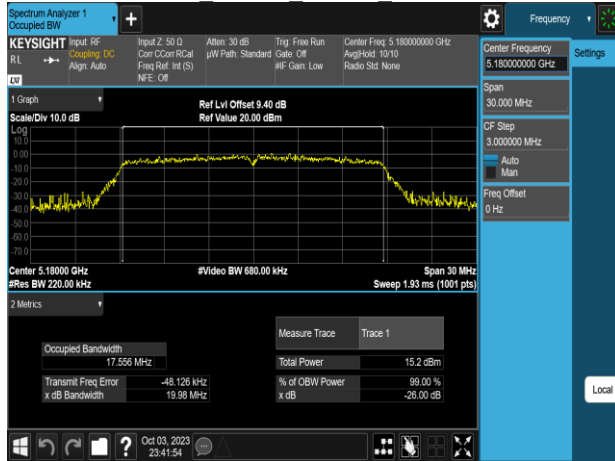
802.11a 20MHz Chain1 5700MHz



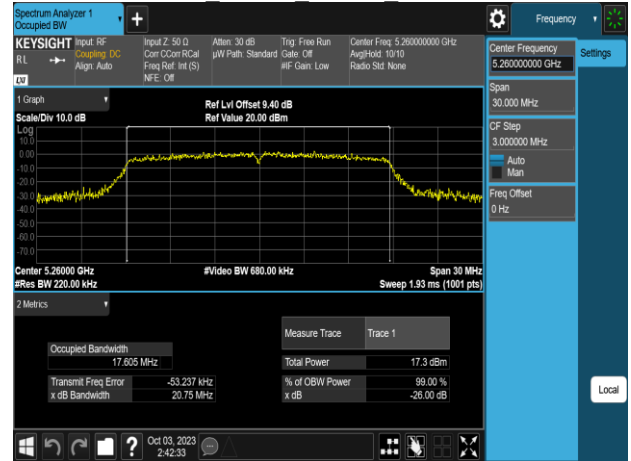
802.11a 20MHz Chain1 5825MHz



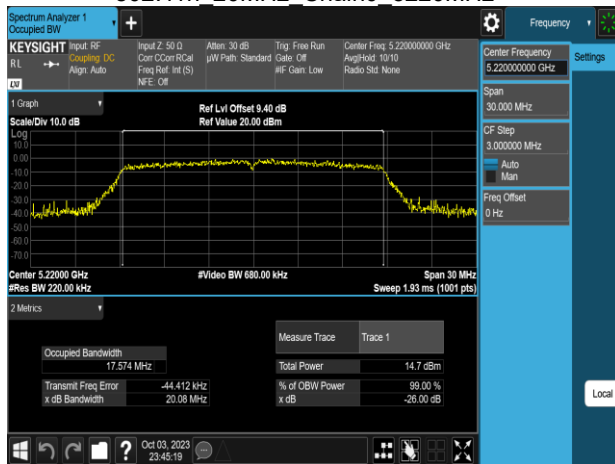
802.11n 20MHz Chain0 5180MHz



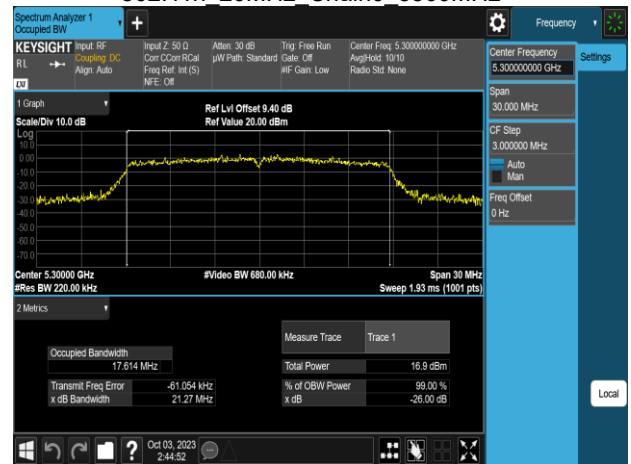
802.11n 20MHz Chain0 5260MHz



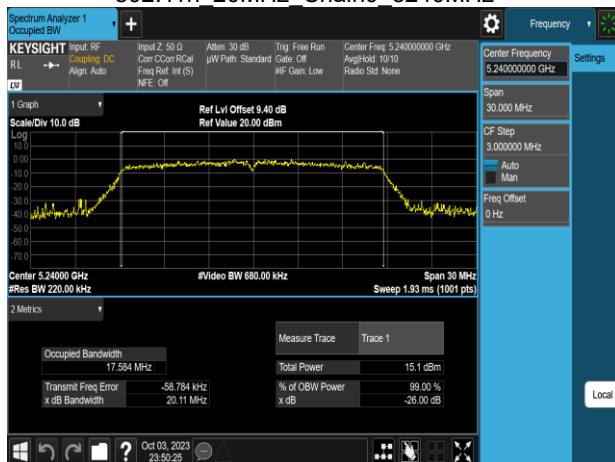
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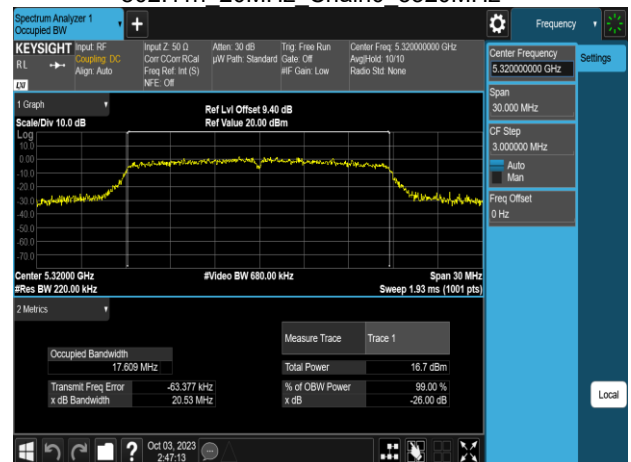
802.11n 20MHz Chain0 5300MHz



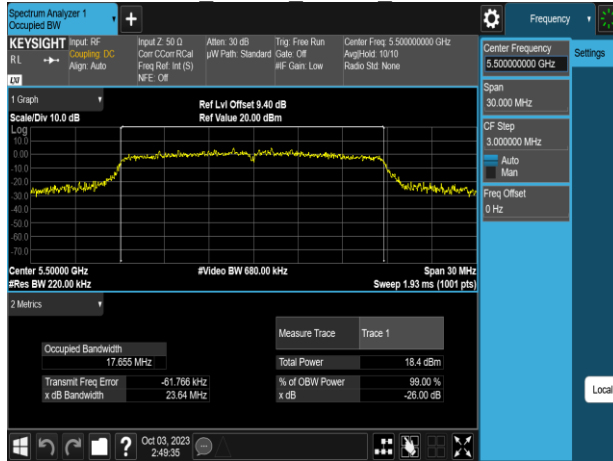
802.11n 20MHz Chain0 5240MHz



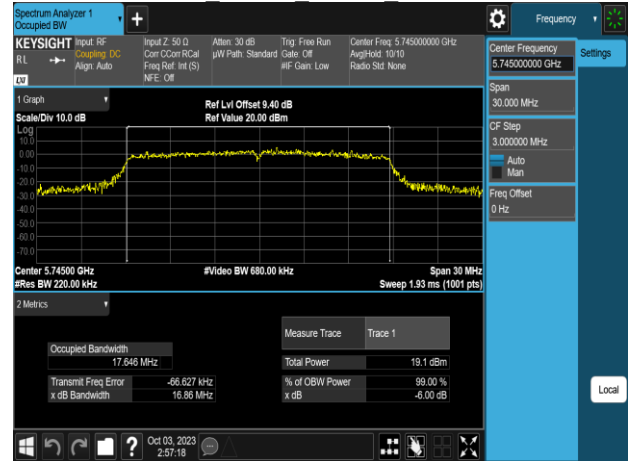
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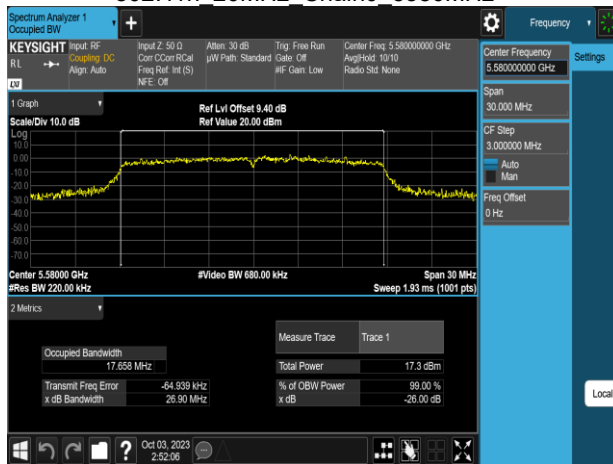
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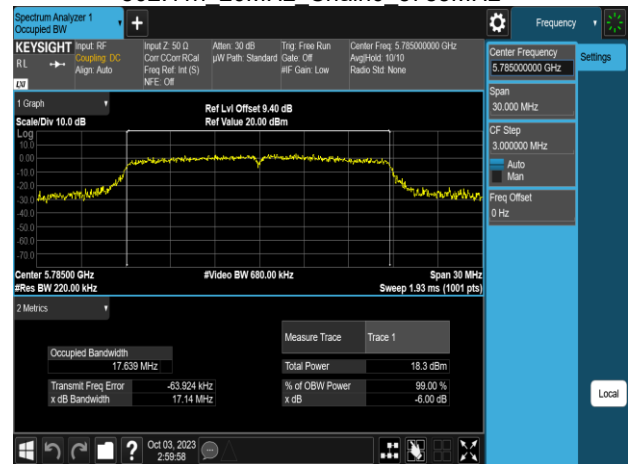
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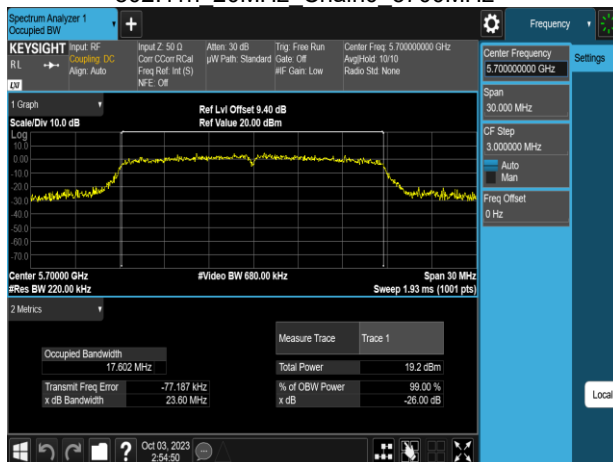
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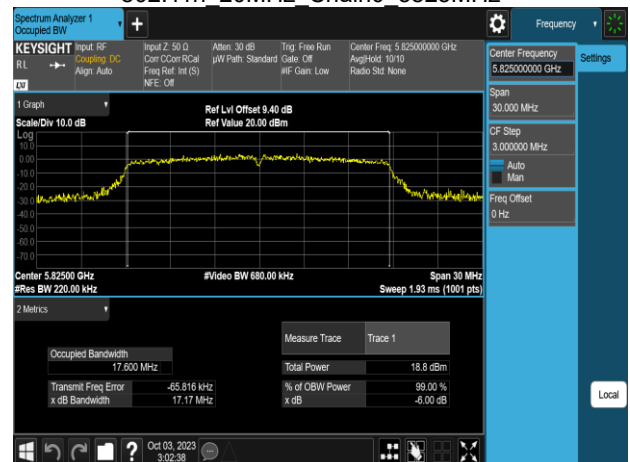
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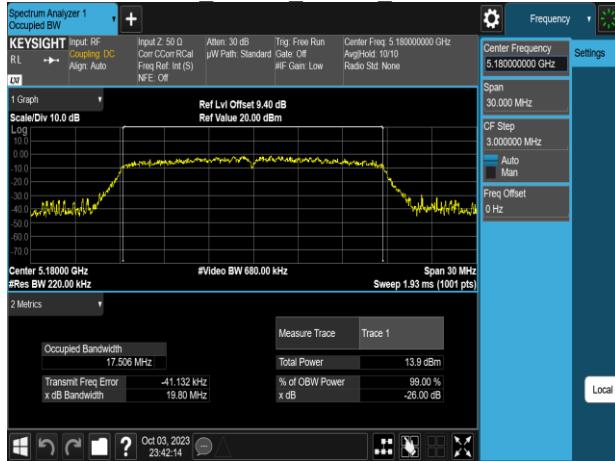
802.11n 20MHz Chain0 5700MHz



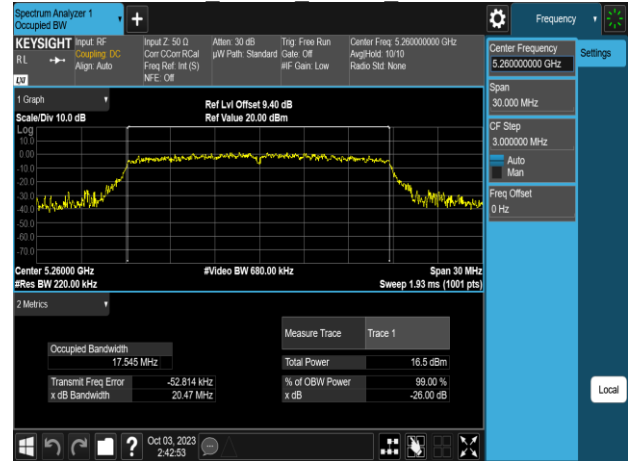
802.11n 20MHz Chain0 5825MHz



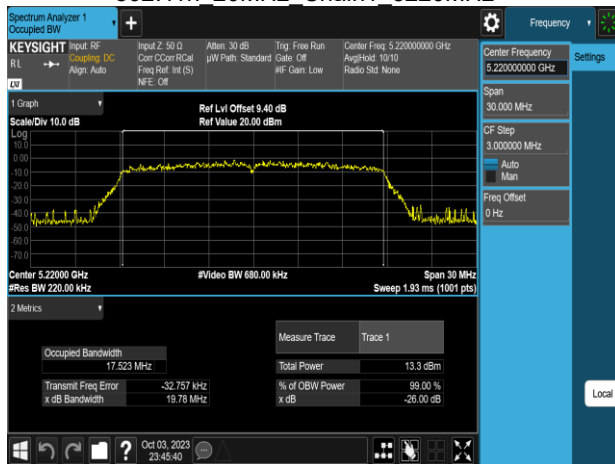
802.11n 20MHz Chain1 5180MHz



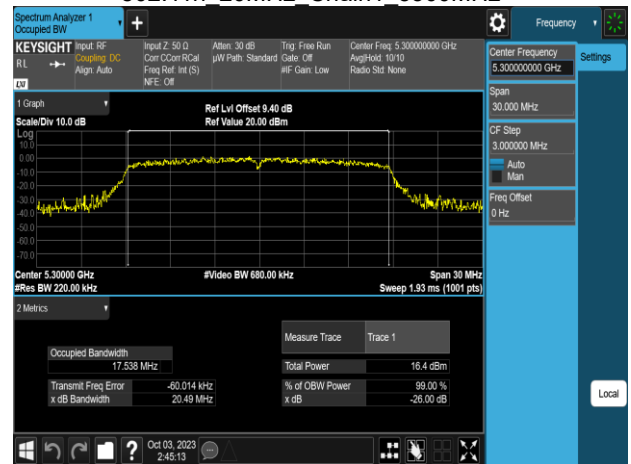
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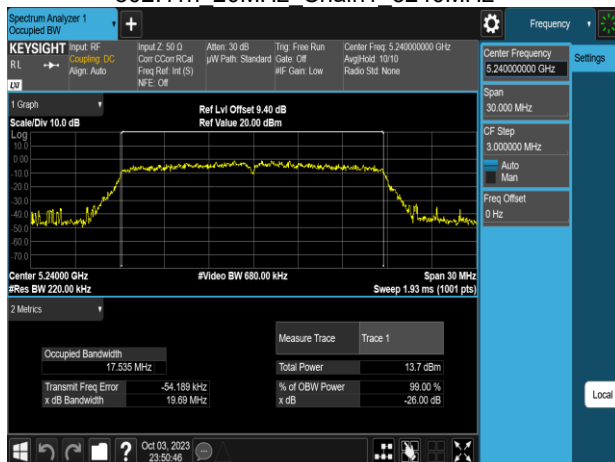
802.11n 20MHz Chain1 5220MHz



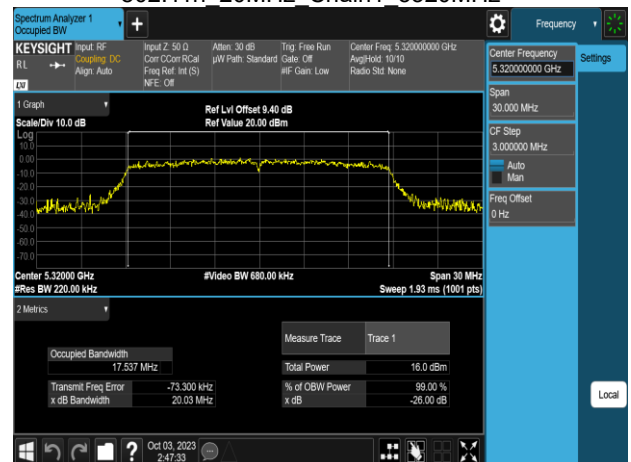
802.11n 20MHz Chain1 5300MHz



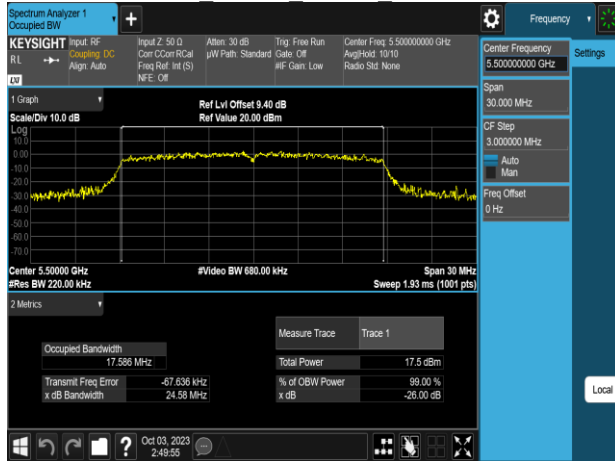
802.11n 20MHz Chain1 5240MHz



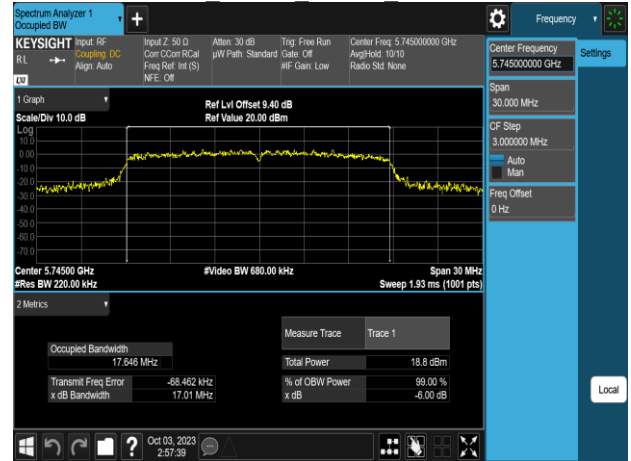
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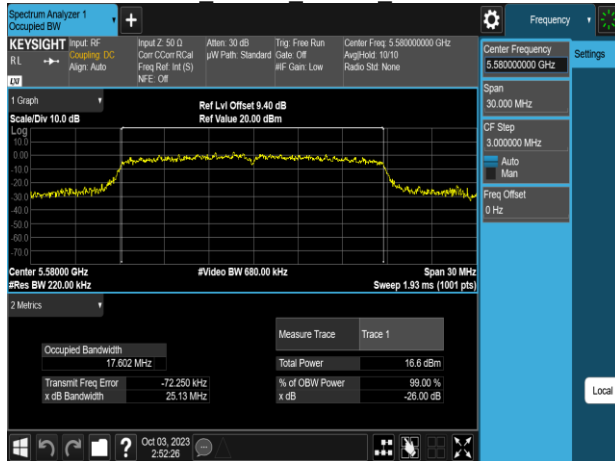
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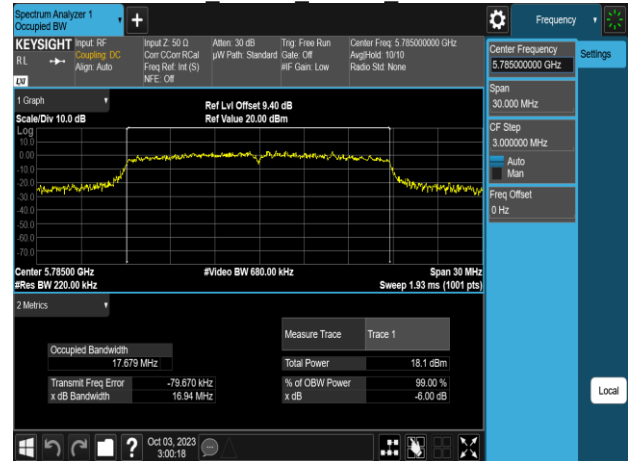
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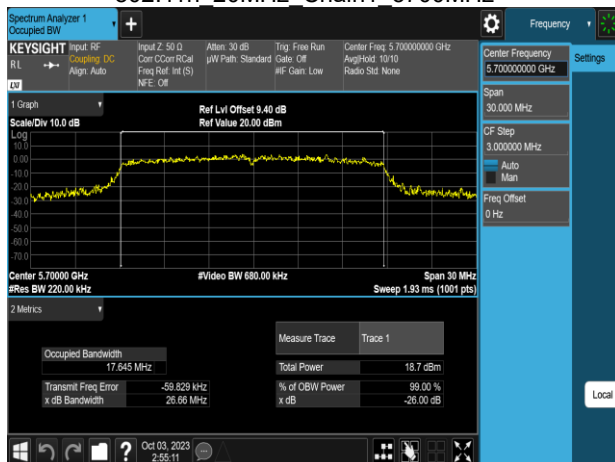
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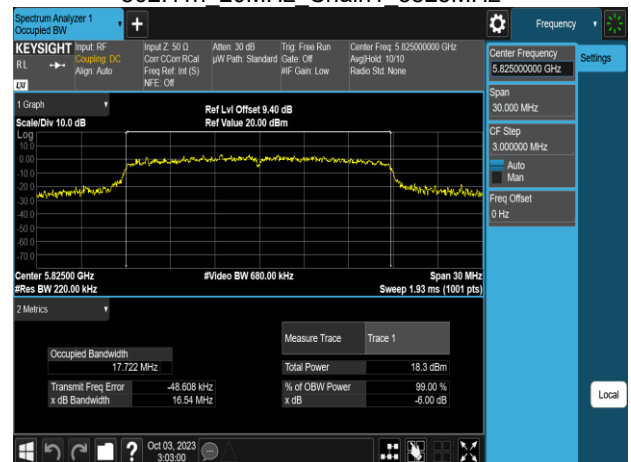
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802.11n 20MHz Chain1 5700MHz



802.11n 20MHz Chain1 5825MHz

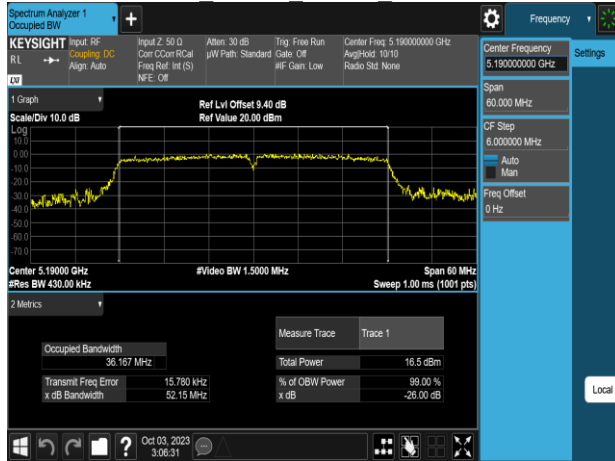




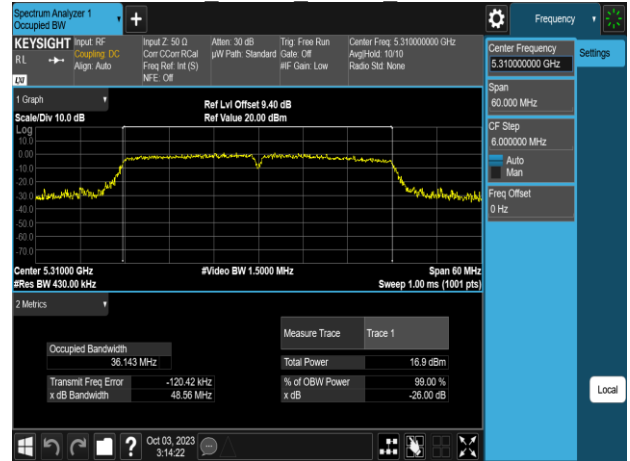
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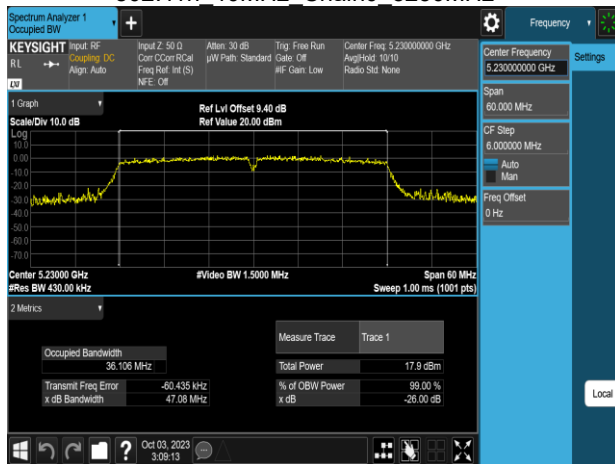
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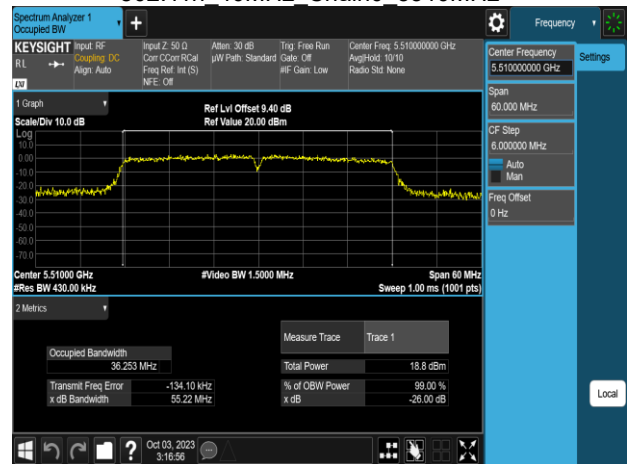
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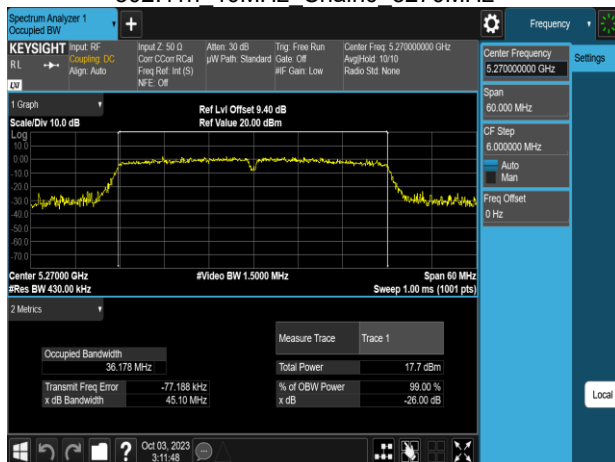
802.11n 40MHz Chain0 5230MHz



802.11n 40MHz Chain0 5510MHz



802.11n 40MHz Chain0 5270MHz



802.11n 40MHz Chain0 5550MHz

