RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART C
INDUSTRY CANADA RSS-247

Test Standard	**FCC Part 15.247** **IC RSS-247 issue 3 and IC RSS-GEN issue 5**
Product name	**Flat Panel Sensor**
Brand Name	**FUJIFILM**
Model	**DR-ID 1284SE, DR-ID 1281SE, DR-ID 1282SE** **DR-ID 1283SE, DR-ID 1285SE**
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:

Shawn Wu
Supervisor

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	April 23, 2024	Initial Issue	ALL	Peggy Tsai

Table of contents

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	**FCC:** Fuji Film Corporation 7-3, AKASAKA 9-CHOME, MINATO-KU, Tokyo, 107-0052 Japan **IC:** FUJIFILM Corporation 9-7-3 Akasaka Minato-ku Tokyo 107-0052 Japan
Manufacturer	**FCC:** Fuji Film Corporation 7-3, AKASAKA 9-CHOME, MINATO-KU, Tokyo, 107-0052 Japan **IC:** FUJIFILM Corporation 9-7-3 Akasaka Minato-ku Tokyo 107-0052 Japan
Equipment	Flat Panel Sensor
Model	DR-ID 1284SE, DR-ID 1281SE, DR-ID 1282SE, DR-ID 1283SE, DR-ID 1285SE
Model Discrepancy	Please see remark as below.
Brand Name	FUJIFILM
Received Date	January 16, 2024
Date of Test	January 23 ~ March 11, 2024
Power Supply	1. EUT power from power box / power supply unit: 22-25VDC. 2. EUT power from battery: 11.4VDC
HW Version	v2
SW Version	v120.253
Serial number	SE-V3-01

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.
3. Disclaimer: Variant information between/among model numbers is provided by the applicant, test results of this report are applicable to the sample EUT received of main test model name.
4. Model Discrepancy:

Model	Main	Series Model			
	DR-ID 1284SE	DR-ID 1282SE	DR-ID 1283SE	DR-ID 1281SE	DR-ID 1285SE
Power Consumption	45 W	45 W	40W	40 W	40 W
PCB Layout / Circuit Diagram / Components	has 12 gate ICs	has 12 gate ICs	has 12 gate ICs	has 12 gate ICs	has 7 gate ICs
	has 12 ROICs	has 12 ROICs	has 10 ROICs	has 10 ROICs	has 8 ROICs
Size (Width(mm)* Length (mm)* Height (mm)) / Appearance	460*460*15 / 17'X17'	460*460*15 / 17'X17'	460*383*15 / 14'X17'	460*383*15 / 14'X17'	333*282*15 / 10'X12'
Scintillator	CsI	GOS	CsI	GOS	CsI
Antenna	PC143.54.0515A	PC143.54.0515A	PC143.54.0515A	PC143.54.0515A	PC143.54.0515A & PC143.54.0360A

1.2 EUT CHANNEL INFORMATION

Frequency Range	802.11b/g/n HT20 / ac VHT20 / ax HE20: 2412MHz ~ 2462MHz 802.11n HT40 / ac VHT40 / ax HE40: 2422MHz ~ 2452MHz
Modulation Type	1. IEEE 802.11b mode: CCK 2. IEEE 802.11g mode: OFDM 3. IEEE 802.11n HT 20 Mode: OFDM 4. IEEE 802.11n HT 40 MHz mode: OFDM 5. IEEE 802.11ac VHT 20 Mode: OFDM 6. IEEE 802.11ac VHT 40 MHz mode: OFDM 7. IEEE 802.11ax HE20 MHz mode: OFDMA 8. IEEE 802.11ax HE40 MHz mode: OFDMA
Number of channels	1. IEEE 802.11b mode: 11 Channels 2. IEEE 802.11g mode: 11 Channels 3. IEEE 802.11n HT 20 Mode : 11 Channels 4. IEEE 802.11n HT 40 MHz mode: 7 Channels 5. IEEE 802.11ac VHT 20 Mode: 11 Channels 6. IEEE 802.11ac VHT 40 MHz mode: 7 Channels 7. IEEE 802.11ax HE20 MHz mode: 11 Channels 8. IEEE 802.11ax HE40 MHz mode: 7 Channels

Remark:
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 and RSS-GEN Table A1 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

1.3 ANTENNA INFORMATION

Antenna Specification	☐ PIFA ☒ PCB ☐ Dipole ☐ Coils
Antenna Gain	Manufacturer:TAOGLAS (1) PC143.54.0515A Gain: -11.01 dBi (2) PC143.54.0360A Gain: -1.84 dBi
Antenna connector	IPEX MHF4L(M)

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*log { [10^(Ant1/20) + 10^(Ant2/20) + … + 10^(Ant N /20)]^2 / N ANT} dBi

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	± 2.213 dB
Channel Bandwidth	± 2.7 %
RF output power (Power Meter + Power sensor)	± 0.243 dB
Power Spectral density	± 2.739 dB
Conducted Bandedge	± 2.739 dB
Conducted Spurious Emission	± 2.742 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.

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.

☐ 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	Tony Chao	-
Radiation	Ray Li, Tony Chao	-
RF Conducted	Marco Chan	-

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

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	2023-11-16	2024-11-15
EXA Signal Analyzer	Keysight	N9010B	MY55460167	2024-01-03	2025-01-02
Attenuator	Marvelous Microwave Ine	MVE2213-10	08	2023-11-07	2024-11-06
Software	Radio Test Software Ver. 21				

966A_Radiated					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Thermo-Hygro Meter	WISEWIND	1206	D07	2023-12-08	2024-12-07
Signal Analyzer	KEYSIGHT	N9010A	MY54200716	2023-10-13	2024-10-12
Bi-Log Antenna	Sunol Sciences	JB3	A030105	2023-08-08	2024-08-07
Preamplifier	EMEC	EM330	060609	2023-02-22	2024-02-21
Cable	Huber+Suhner	104PEA	20995+21000+182330	2023-02-22	2024-02-21
Horn Antenna	ETC	MCTD 1209	DRH13M02003	2023-12-28	2024-12-27
Preamplifier	HP	8449B	3008A00965	2023-12-22	2024-12-21
Cable	EMCI	EMC101G	221213+221011+221012	2023-10-17	2024-10-16
High Pass Filters	Titan Microwave	T04H30001800070S01	22011402-4	2023-06-17	2024-06-16
Horn Antenna	SCHWARZBECK	BBHA9170	1047	2023-12-13	2024-12-12
Pre-Amplifier	EMCI	EMC184045SE	980860	2023-12-12	2024-12-11
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	2023-07-10	2024-07-09
Software	e3 V9-210616c				

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

AC Mains Conduction					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
EMI Test Receiver	R&S	ESCI	100064	2023-06-07	2024-06-06
LISN	TESEQ	LN2-16N	22012	2023-03-08	2024-03-07
Cable	EMCI	CFD300-NL	CERF	2023-06-27	2024-06-26
Software	e3 V6-110812				

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

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

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

Support Equipment						
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**	**IC**
1	NB(E)	Lenovo	T460	N/A	N/A	N/A
2	NB(D)	Lenovo	ThinkPad X260	N/A	N/A	N/A
3	Power Supply Unit	Fujifilm	DR-ID 1280 PB	PB-V3-08	N/A	N/A
4	AC Power Cable	Foxconn	2.5m	N/A	N/A	N/A
5	Power Cable	Fujifilm	10m	N/A	N/A	N/A
6	RJ45 cable	I-WIZ	20m	N/A	N/A	N/A

1.8 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 15.247, KDB 662911, KDB 558074, RSS-247 Issue 3 and RSS-GEN Issue 5.

2. TEST SUMMARY

IC Standard Section	FCC Standard Section	Report Section	Test Item	Result
-	15.203	1.3	Antenna Requirement	Pass
RSS-GEN 8.8	15.207(a)	4.1	AC Conducted Emission	Pass
RSS-247(5.2)(a)	15.247(a)(2)	4.2	6 dB Bandwidth	Pass
RSS-GEN 6.7	-	4.2	Occupied Bandwidth (99%)	Pass
RSS-247(5.4)(d)	15.247(b)	4.3	Output Power Measurement	Pass
RSS-247(5.2)(b)	15.247(e)	4.4	Power Spectral Density	Pass
RSS-247(5.5)	15.247(d)	4.5	Conducted Band Edge	Pass
RSS-247(5.5)	15.247(d)	4.5	Conducted Spurious Emission	Pass
RSS-GEN 8.9, 8.10	15.247(d) 15.205	4.6	Radiation Band Edge	Pass
RSS-GEN 8.9, 8.10	15.247(d) 15.205	4.6	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	IEEE 802.11b mode :1Mbps IEEE 802.11g mode :6Mbps IEEE 802.11n HT20 mode: MCS0 IEEE 802.11n HT40 mode: MCS0 IEEE 802.11ac VHT20 mode: MCS0 IEEE 802.11ac VHT40 mode: MCS0 IEEE 802.11ax HE20 MHz mode: MCS0 IEEE 802.11ax HE40 MHz mode: MCS0
Operation Transmitter	IEEE 802.11b mode: 2T2R IEEE 802.11g mode: 2T2R IEEE 802.11n HT20 mode: 2T2R IEEE 802.11n HT40 mode: 2T2R IEEE 802.11ac VHT20 mode: 2T2R IEEE 802.11ac VHT40 mode: 2T2R IEEE 802.11ax HE20 mode: 2T2R IEEE 802.11ax HE40 mode: 2T2R

Test Channel Frequencies	**IEEE 802.11b mode:** 1. Lowest Channel: 2412MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2462MHz **IEEE 802.11g mode:** 1. Lowest Channel: 2412MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2462MHz **IEEE 802.11n HT20 mode:** 1. Lowest Channel: 2412MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2462MHz **IEEE 802.11ac VHT20 mode:** 1. Lowest Channel: 2412MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2462MHz **IEEE 802.11 ax HE20 mode :** 1. Lowest Channel: 2412MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2462MHz **IEEE 802.11n HT40 mode:** 1. Lowest Channel: 2422MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2452MHz **IEEE 802.11ac VHT40 mode:** 1. Lowest Channel: 2422MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2452MHz **IEEE 802.11 ax HE40 mode:** 1. Lowest Channel: 2422MHz 2. Middle Channel: 2437MHz 3. Highest Channel: 2452MHz

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 802.11n HT20 and HT40 are only different in control messages with IEEE 802.11ac VHT20 and VHT40, and have same power setting. Therefore, the highest power(IEEE 802.11ac VHT20 and VHT40) were test conducted and radiated measurement and recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT Power by Power Box (1284SE+10M+1280PB)
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 Power Box (1284SE+10M+1280PB)
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 Power Box (1284SE+10M+1280PB) Mode 2: EUT Power by Power Box (1284SE+20M+1280PB) Mode 3: EUT Power by Power Supply(1284SE+10M+1280MP) Mode 4: EUT Power by Power Supply(1284SE +20M+1280MP) Mode 5: EUT Power by Power Box (1285SE+10M+1280PB) Mode 6: EUT Power by Power Box (1283SE+10M+1280PB)
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 and for below 1G radiation 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(X-Plane) were recorded in this report

3.3 EUT DUTY CYCLE

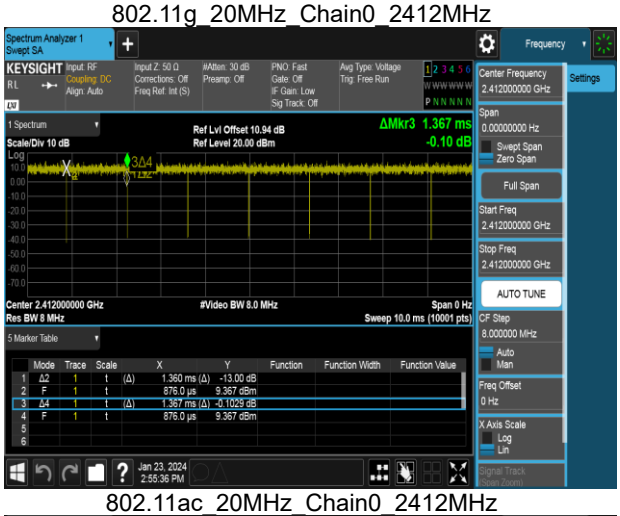
Temperature: 16.6 ~ 23.8℃ **Test date:** January 23 ~ March 11, 2024

Humidity: 49 ~ 66% RH **Tested by:** Marco Chan

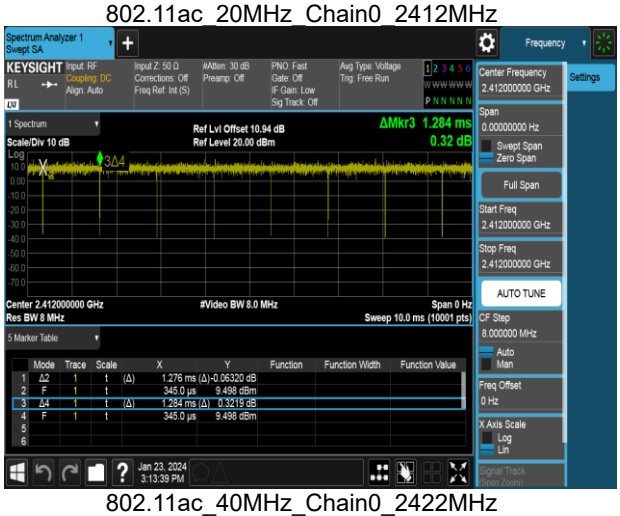
Mode		Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11b		99.90	0.00	0.12	0.01
802.11g		99.49	0.02	0.74	0.01
802.11n_20		99.38	0.03	0.78	0.01
802.11n_40		98.76	0.05	1.57	0.01
802.11ac_20		99.38	0.03	0.78	0.01
802.11ac_40		98.76	0.05	1.57	0.01
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	99.30	0.03	1.01	0.01
	26 RU	99.90	0.00	0.11	0.01
	52 RU	99.85	0.01	0.22	0.01
	106 RU	99.68	0.01	0.46	0.01
802.11ax_40	Full	98.67	0.06	1.92	0.01
	242 RU	99.20	0.03	1.01	0.01

802.11b_20MHz_Chain0_2412MHz

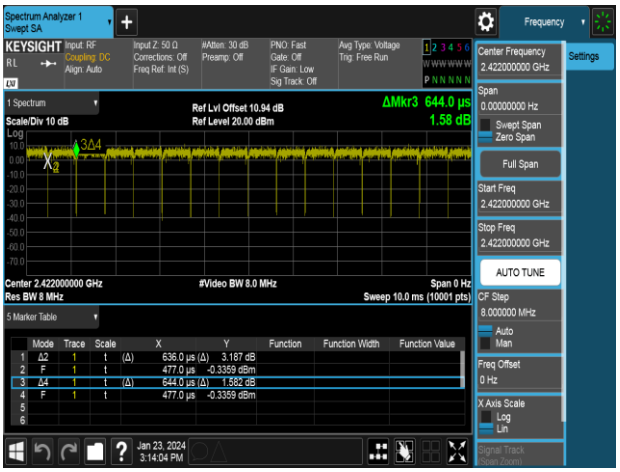
802.11g_20MHz_Chain0_2412MHz



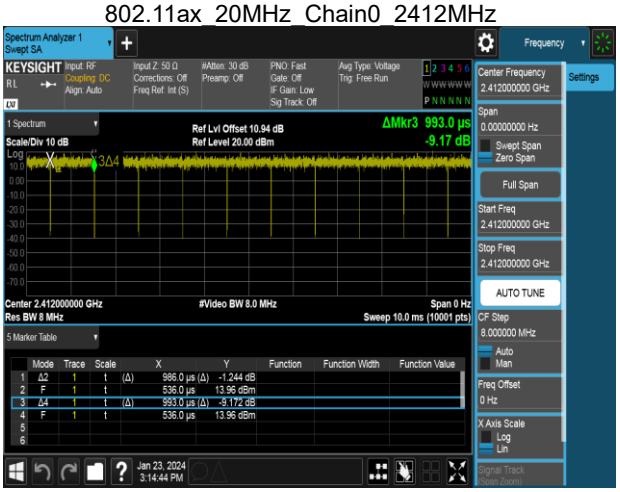
802.11ac_20MHz_Chain0_2412MHz



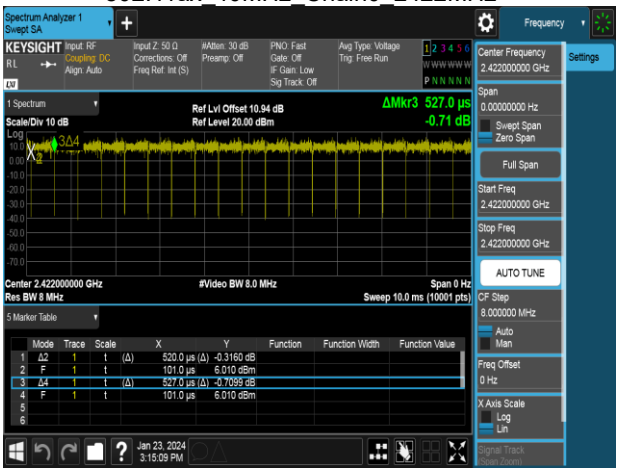
802.11ac_40MHz_Chain0_2422MHz



802.11ax_20MHz_Chain0_2412MHz



802.11ax_40MHz_Chain0_2422MHz



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a)(2) 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

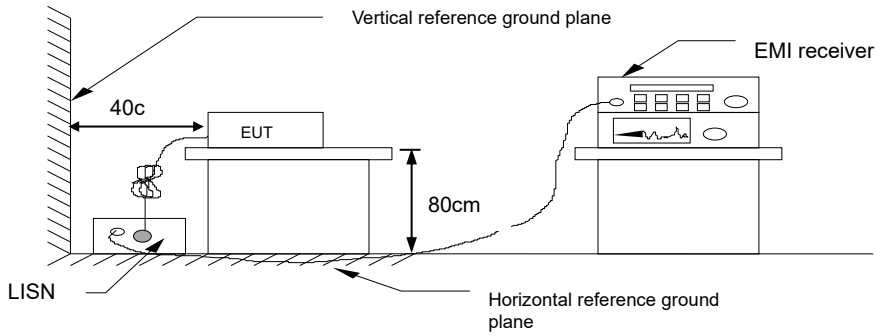
* Decreases with the logarithm of the frequency.

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

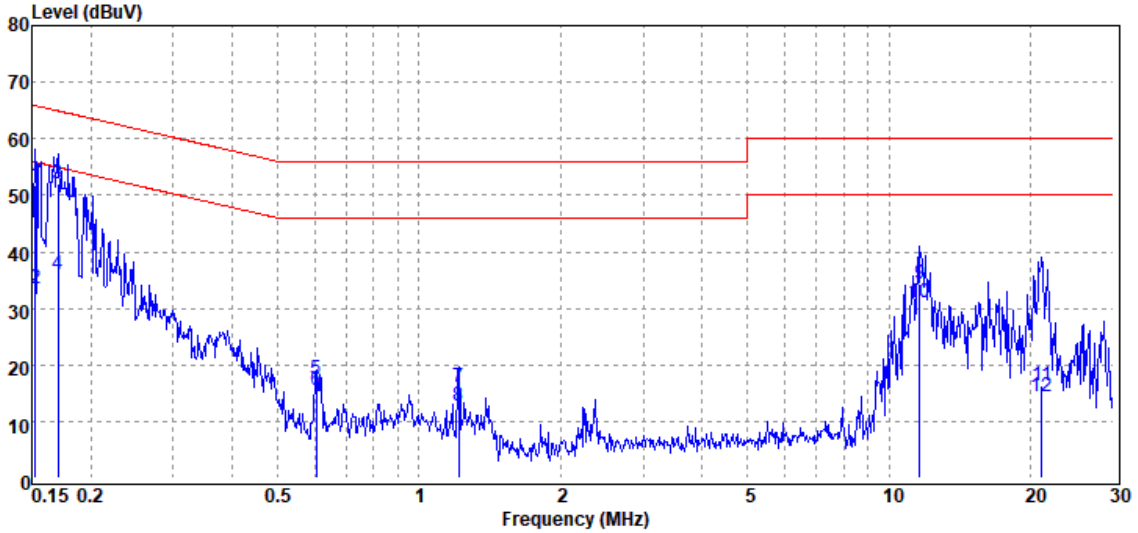


4.1.4 Test Result

Pass.

Test Data

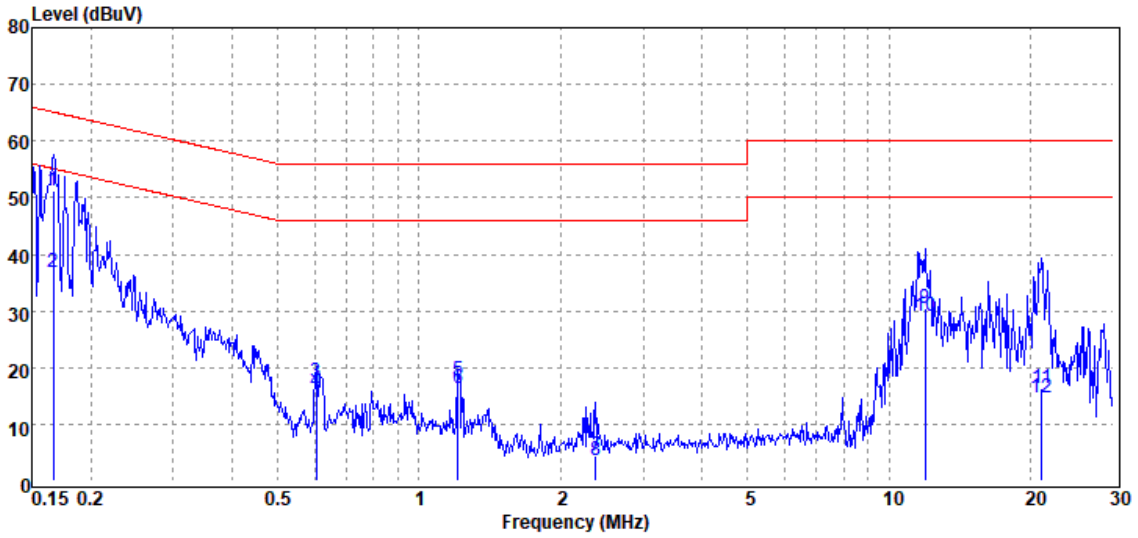
Project No	: TM-2401000273P	Test Date	: 2024-01-30
Operation Mode	: 2.4G	Temp./Humi.	: 24.4°C / 57%
Test Chamber	: Conduction	Engineer	: Tony Chao
Probe	: LINE	Test Voltage	: AC 120V/60Hz
Note	:		



Freq.	Detector Mode	Spectrum Read Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV	dBµV	dB
0.152	QP	51.69	0.15	51.84	65.87	-14.03
0.152	Average	33.41	0.15	33.56	55.87	-22.31
0.170	QP	51.76	0.15	51.91	64.94	-13.03
0.170	Average	35.95	0.15	36.10	54.94	-18.84
0.604	QP	17.19	0.15	17.34	56.00	-38.66
0.604	Average	15.46	0.15	15.61	46.00	-30.39
1.216	QP	15.94	0.18	16.12	56.00	-39.88
1.216	Average	12.60	0.18	12.78	46.00	-33.22
11.621	QP	34.07	0.39	34.46	60.00	-25.54
11.621	Average	30.57	0.39	30.96	50.00	-19.04
21.147	QP	15.72	0.53	16.25	60.00	-43.75
21.147	Average	13.94	0.53	14.47	50.00	-35.53

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS - Limit

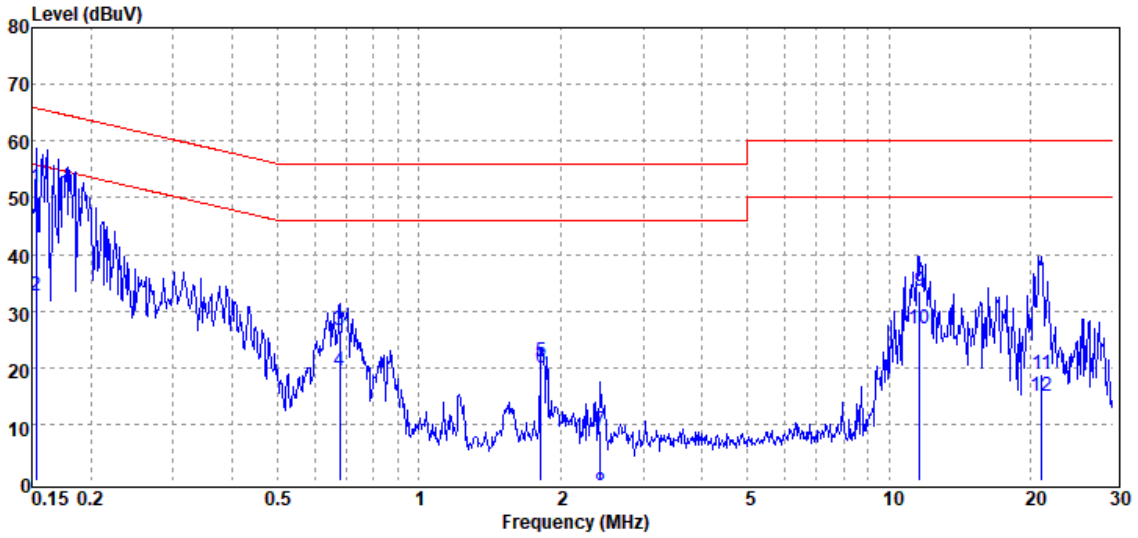
Project No	: TM-2401000273P	Test Date	: 2024-01-30
Operation Mode	: 2.4G	Temp./Humi.	: 24.4°C / 57%
Test Chamber	: Conduction	Engineer	: Tony Chao
Probe	: NEUTRAL	Test Voltage	: AC 120V/60Hz
Note	:		



Freq.	Detector Mode	Spectrum Read Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV	dBµV	dB
0.167	QP	50.93	0.19	51.12	65.12	-14.00
0.167	Average	36.75	0.19	36.94	55.12	-18.18
0.604	QP	17.18	0.19	17.37	56.00	-38.63
0.604	Average	15.68	0.19	15.87	46.00	-30.13
1.210	QP	17.57	0.22	17.79	56.00	-38.21
1.210	Average	16.23	0.22	16.45	46.00	-29.55
2.371	QP	4.16	0.27	4.43	56.00	-51.57
2.371	Average	3.37	0.27	3.64	46.00	-42.36
11.933	QP	30.13	0.42	30.55	60.00	-29.45
11.933	Average	28.70	0.42	29.12	50.00	-20.88
21.147	QP	15.89	0.53	16.42	60.00	-43.58
21.147	Average	14.04	0.53	14.57	50.00	-35.43

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS - Limit

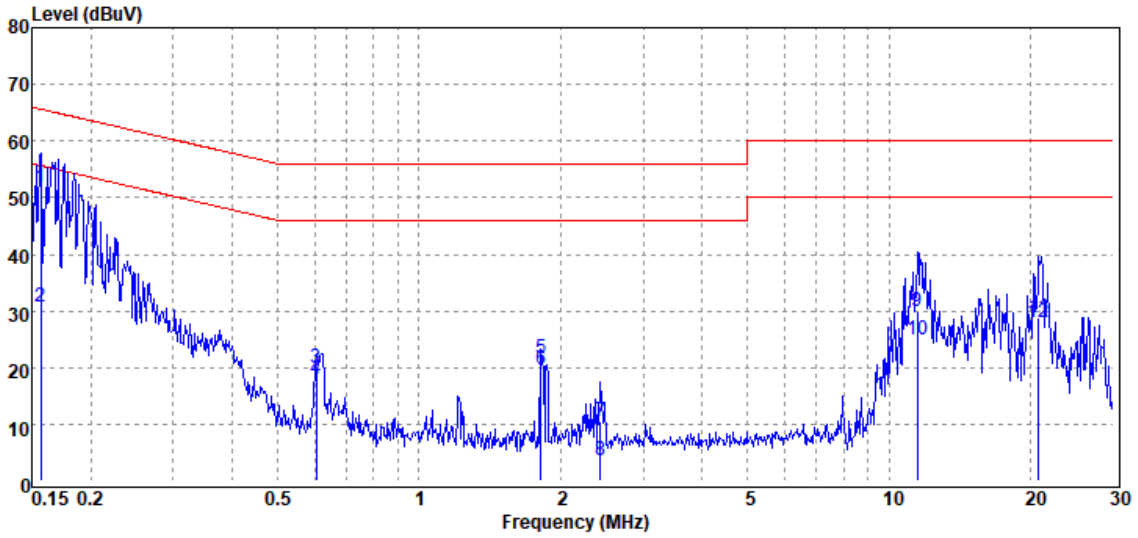
Project No	: TM-2401000273P	Test Date	: 2024-01-30
Operation Mode	: 2.4G	Temp./Humi.	: 24.4°C / 57%
Test Chamber	: Conduction	Engineer	: Tony Chao
Probe	: LINE	Test Voltage	: AC 230V/50Hz
Note	:		



Freq.	Detector Mode	Spectrum Read Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV	dBµV	dB
0.153	QP	51.70	0.15	51.85	65.82	-13.97
0.153	Average	32.63	0.15	32.78	55.82	-23.04
0.679	QP	26.36	0.16	26.52	56.00	-29.48
0.679	Average	19.30	0.16	19.46	46.00	-26.54
1.819	QP	20.84	0.21	21.05	56.00	-34.95
1.819	Average	19.69	0.21	19.90	46.00	-26.10
2.435	QP	8.66	0.24	8.90	56.00	-47.10
2.435	Average	-2.06	0.24	-1.82	46.00	-47.82
11.621	QP	33.10	0.39	33.49	60.00	-26.51
11.621	Average	26.52	0.39	26.91	50.00	-23.09
21.147	QP	18.39	0.53	18.92	60.00	-41.08
21.147	Average	14.54	0.53	15.07	50.00	-34.93

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS - Limit

Project No	: TM-2401000273P	Test Date	: 2024-01-30
Operation Mode	: 2.4G	Temp./Humi.	: 24.4°C / 57%
Test Chamber	: Conduction	Engineer	: Tony Chao
Probe	: NEUTRAL	Test Voltage	: AC 230V/50Hz
Note	:		



Freq.	Detector Mode	Spectrum Read Level	Factor	Actual FS	Limit	Margin
MHz	PK/QP/AV	dBµV	dB	dBµV	dBµV	dB
0.156	QP	51.60	0.20	51.80	65.65	-13.85
0.156	Average	30.58	0.20	30.78	55.65	-24.87
0.604	QP	19.63	0.19	19.82	56.00	-36.18
0.604	Average	17.70	0.19	17.89	46.00	-28.11
1.819	QP	21.30	0.25	21.55	56.00	-34.45
1.819	Average	19.51	0.25	19.76	46.00	-26.24
2.435	QP	10.18	0.28	10.46	56.00	-45.54
2.435	Average	3.44	0.28	3.72	46.00	-42.28
11.498	QP	29.50	0.42	29.92	60.00	-30.08
11.498	Average	24.47	0.42	24.89	50.00	-25.11
20.814	QP	28.32	0.53	28.85	60.00	-31.15
20.814	Average	27.49	0.53	28.02	50.00	-21.98

Note: 1. Actual FS= Spectrum Read Level + Factor
Note: 2. Margin= Actual FS - Limit

4.2 6DB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

4.2.1 Test Limit

According to §15.247(a)(2) and RSS-247 section 5.2(a)

6 dB Bandwidth ：

Limit	Shall be at least 500kHz

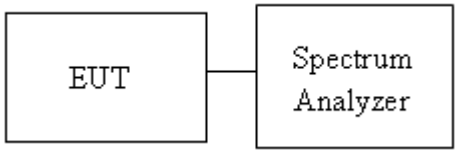
Occupied Bandwidth(99%) ： For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as ANSI C63.10: 2013,

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 6 dB Bandwidth.
4. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup



4.2.4 Test Result

Temperature:	16.6 ~ 23.8℃	**Test date:**	January 23 ~ March 11, 2024
Humidity:	49 ~ 66% RH	**Tested by:**	Marco Chan

6dB BANDWIDTH

802.11b Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	**10170.00**	≧500	PASS
2437	10160.00	≧500	PASS
2462	**10170.00**	≧500	PASS

802.11b Ch1

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	11110.00	≧500	PASS
2437	11110.00	≧500	PASS
2462	11110.00	≧500	PASS

802.11g Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	15980.00	≧500	PASS
2437	15980.00	≧500	PASS
2462	16370.00	≧500	PASS

802.11g Ch1

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	16320.00	≧500	PASS
2437	16310.00	≧500	PASS
2462	**16330.00**	≧500	PASS

802.11ac_VHT_20M Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	16590.00	≧500	PASS
2437	16590.00	≧500	PASS
2462	**17340.00**	≧500	PASS

802.11ac_VHT_20M Ch1

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2412	**17300.00**	≧500	PASS
2437	17050.00	≧500	PASS
2462	17190.00	≧500	PASS

802.11ac_VHT_40M Ch0

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2422	35770.00	≧500	PASS
2437	35770.00	≧500	PASS
2452	35800.00	≧500	PASS

802.11ac_VHT_40M Ch1

Freq. (MHz)	6dB BW (kHz)	Limit (kHz)	Result
2422	36130.00	≧500	PASS
2437	**36370.00**	≧500	PASS
2452	36090.00	≧500	PASS

802.11ax_HE_20M Ch0

Freq. (MHz)	RU Config	6dB BW (kHz)	Limit (kHz)	Result
2412	full	18270.00	≧500	PASS
2437	full	17810.00	≧500	PASS
2462	full	18550.00	≧500	PASS

802.11ax_HE_20M Ch1

Freq. (MHz)	RU Config	6dB BW (kHz)	Limit (kHz)	Result
2412	full	18170.00	≧500	PASS
2437	full	18640.00	≧500	PASS
2462	full	18710.00	≧500	PASS

802.11ax_HE_40M Ch0

Freq. (MHz)	RU Config	6dB BW (kHz)	Limit (kHz)	Result
2422	full	36570.00	≧500	PASS
2437	full	36670.00	≧500	PASS
2452	full	36690.00	≧500	PASS

802.11ax_HE_40M Ch1

Freq. (MHz)	RU Config	6dB BW (kHz)	Limit (kHz)	Result
2422	full	38040.00	≧500	PASS
2437	full	**38050.00**	≧500	PASS
2452	full	37960.00	≧500	PASS

BANDWIDTH 99%

802.11b Ch0

Freq. (MHz)	99% BW (MHz)
2412	14.858
2437	14.885
2462	14.879

802.11b Ch1

Freq. (MHz)	99% BW (MHz)
2412	14.804
2437	14.830
2462	14.835

802.11g Ch0

Freq. (MHz)	99% BW (MHz)
2412	16.318
2437	16.339
2462	**16.377**

802.11g Ch1

Freq. (MHz)	99% BW (MHz)
2412	16.397
2437	16.394
2462	**16.408**

802.11ac_VHT20M Ch0

Freq. (MHz)	99% BW (MHz)
2412	17.474
2437	17.493
2462	**17.556**

802.11ac_VHT20M Ch1

Freq. (MHz)	99% BW (MHz)
2412	17.494
2437	17.504
2462	17.517

802.11ac_VHT_40M Ch0

Freq. (MHz)	99% BW (MHz)
2422	36.004
2437	36.080
2452	36.205

802.11ac_VHT_40M Ch1

Freq. (MHz)	99% BW (MHz)
2422	36.189
2437	36.198
2452	36.191

802.11ax_HE20M Ch0

Freq. (MHz)	RU Config	99% BW (MHz)
2412	full	18.885
2437	full	18.907
2462	full	**18.939**

802.11ax_HE20M Ch1

Freq. (MHz)	RU Config	99% BW (MHz)
2412	full	18.899
2437	full	18.904
2462	full	18.900

802.11ax_HE40M Ch0

Freq. (MHz)	RU Config	99% BW (MHz)
2422	full	37.516
2437	full	37.585
2452	full	37.732

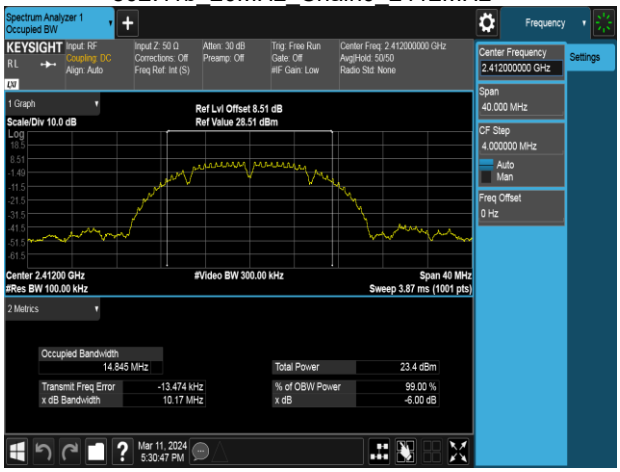
802.11ax_HE40M Ch1

Freq. (MHz)	RU Config	99% BW (MHz)
2422	full	37.707
2437	full	37.742
2452	full	37.733

Test Data

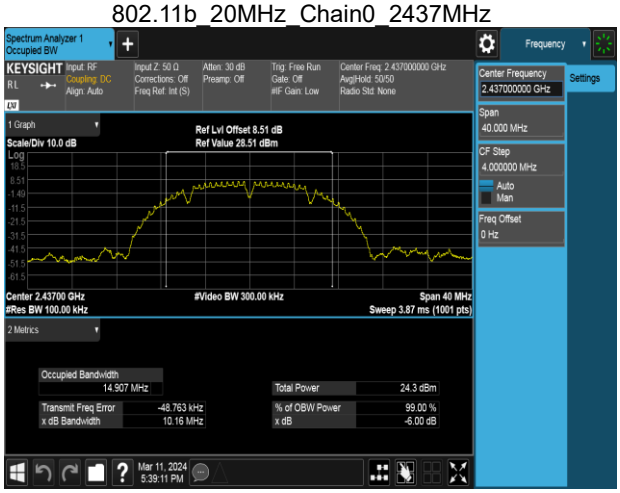
6dB BANDWIDTH

802.11b_20MHz_Chain0_2412MHz

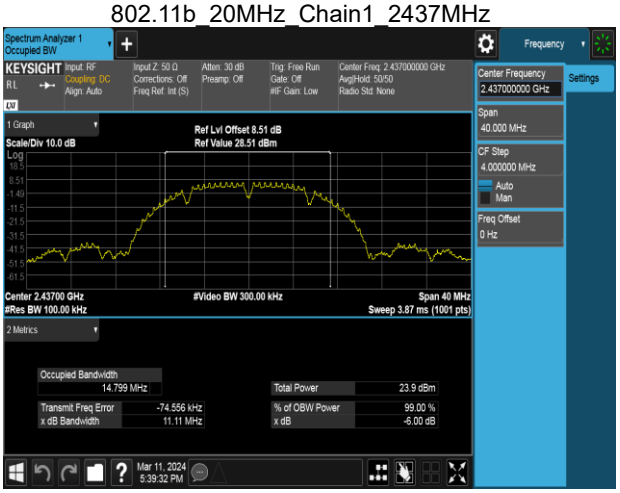


802.11b_20MHz_Chain1_2412MHz

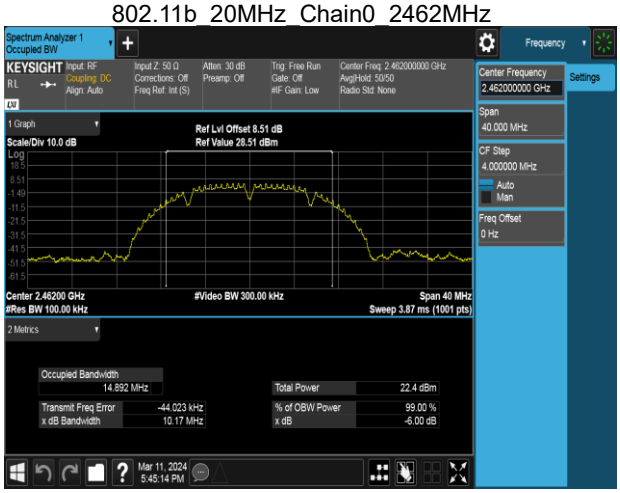
802.11b_20MHz_Chain0_2437MHz



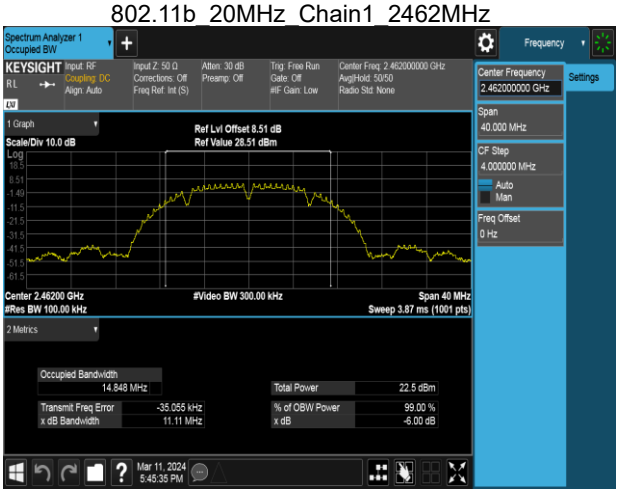
802.11b_20MHz_Chain1_2437MHz



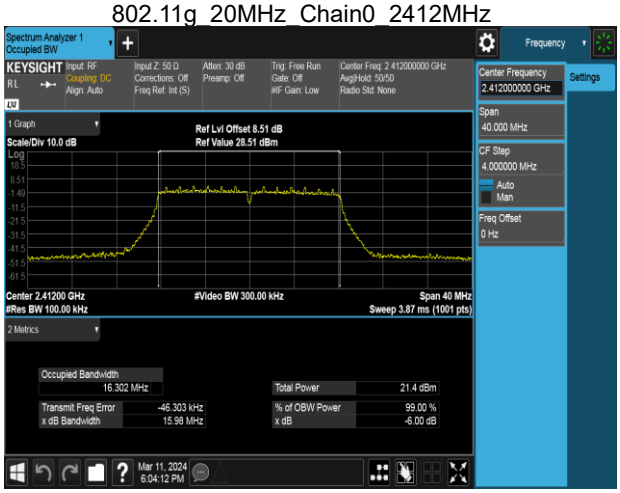
802.11b_20MHz_Chain0_2462MHz



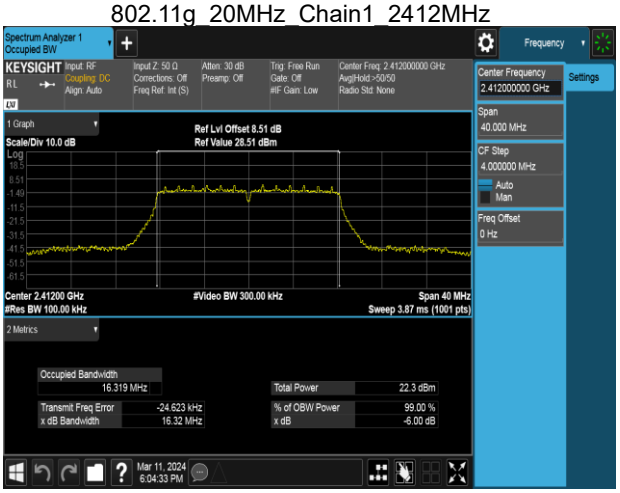
802.11b_20MHz_Chain1_2462MHz



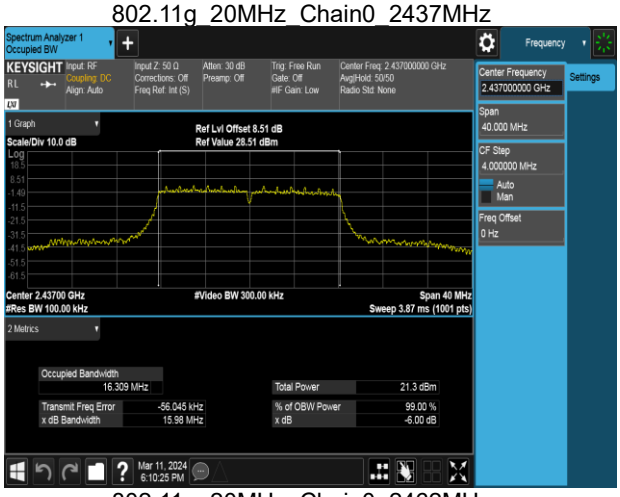
802.11g_20MHz_Chain0_2412MHz



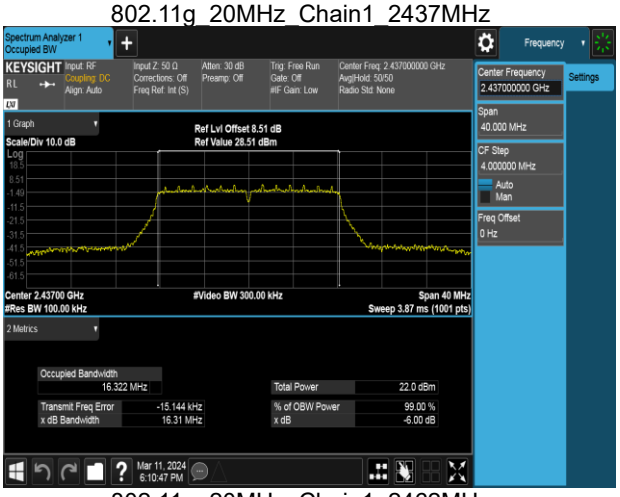
802.11g_20MHz_Chain1_2412MHz



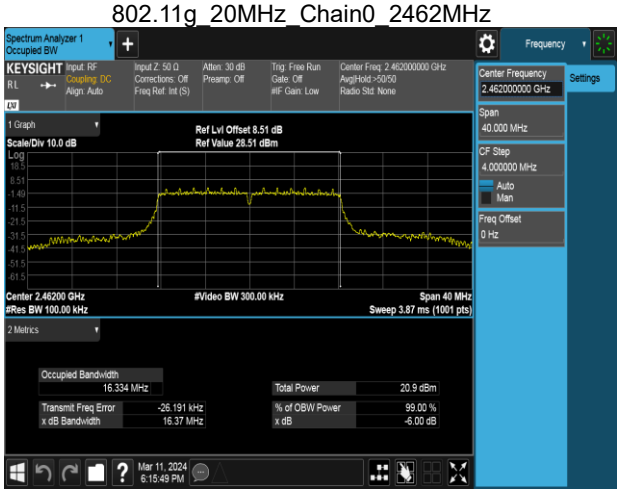
802.11g_20MHz_Chain0_2437MHz



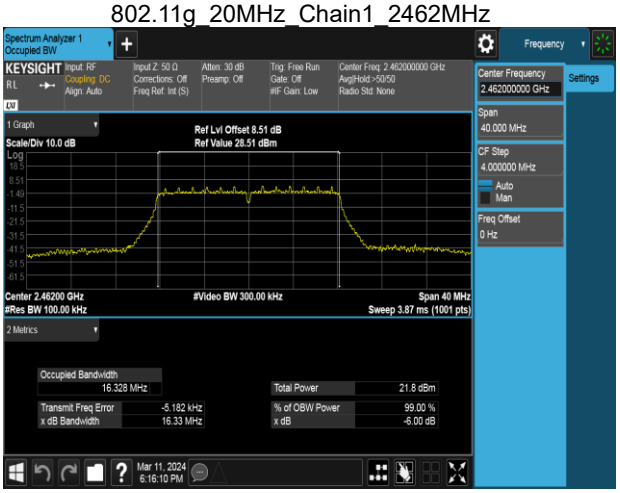
802.11g_20MHz_Chain1_2437MHz



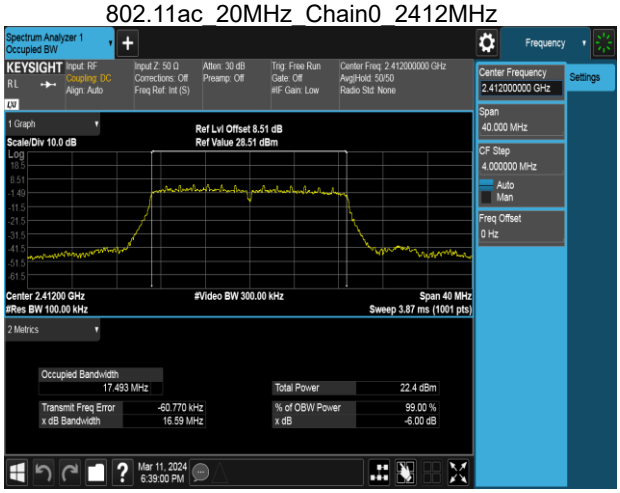
802.11g_20MHz_Chain0_2462MHz



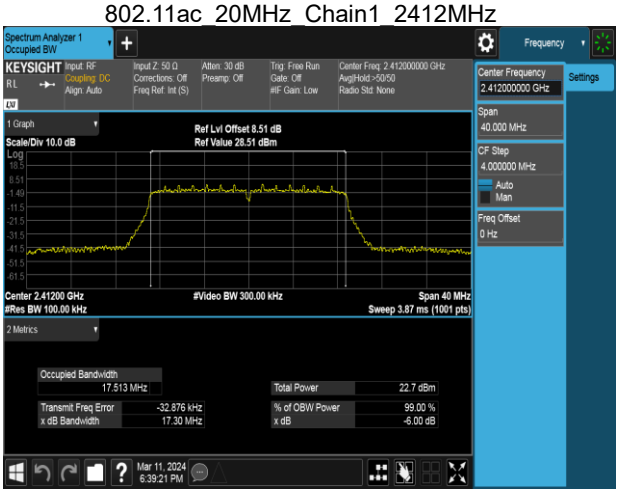
802.11g_20MHz_Chain1_2462MHz



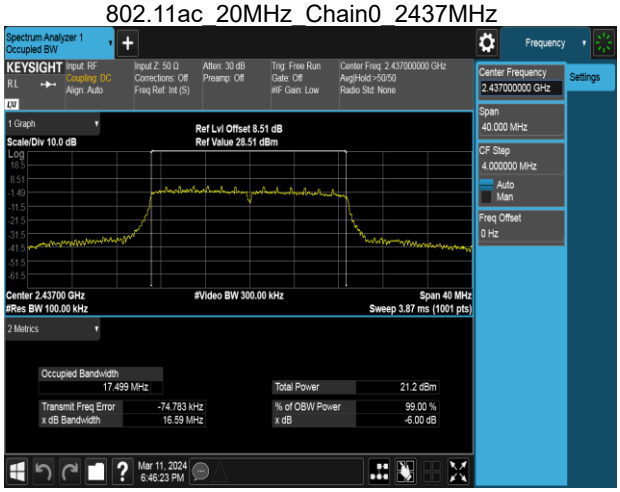
802.11ac_20MHz_Chain0_2412MHz



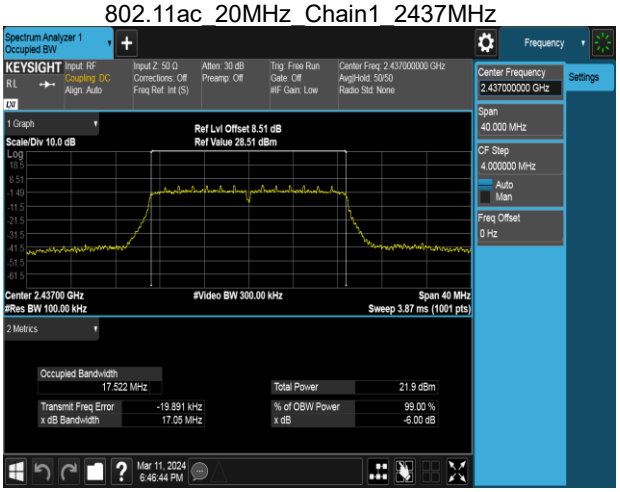
802.11ac_20MHz_Chain1_2412MHz



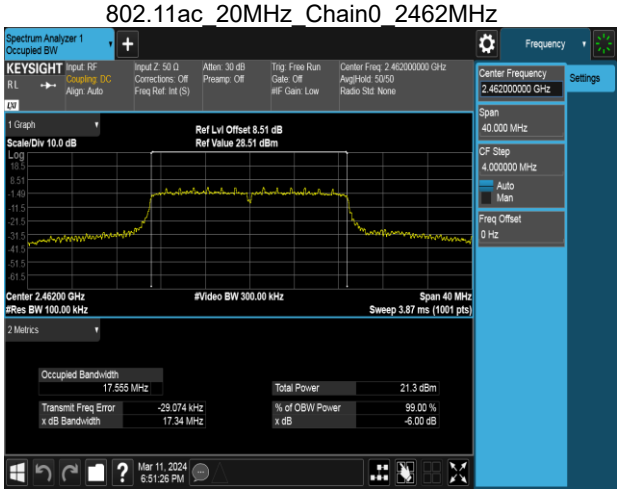
802.11ac_20MHz_Chain0_2437MHz



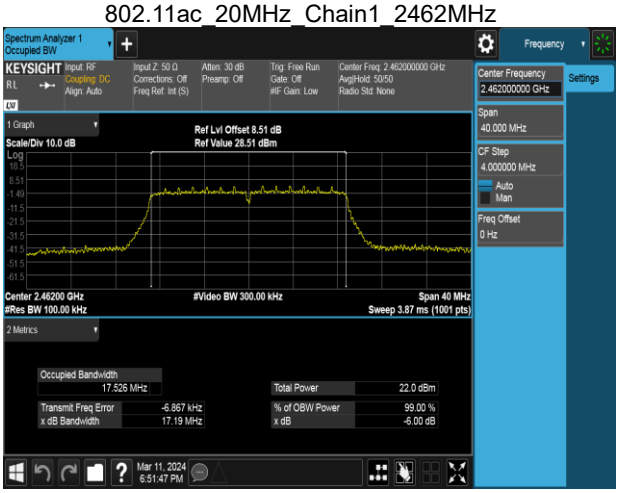
802.11ac_20MHz_Chain1_2437MHz



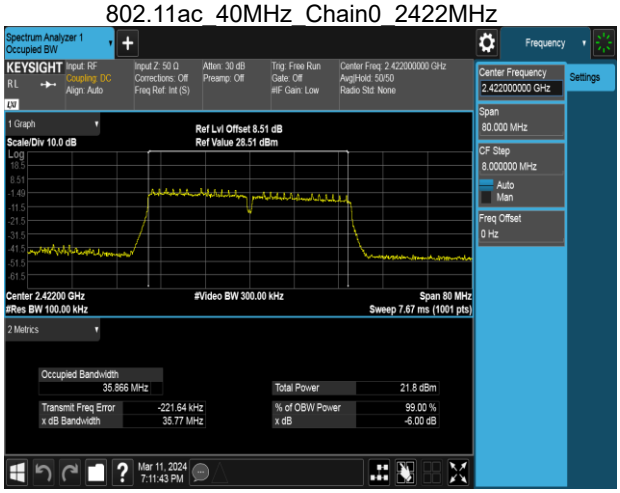
802.11ac_20MHz_Chain0_2462MHz



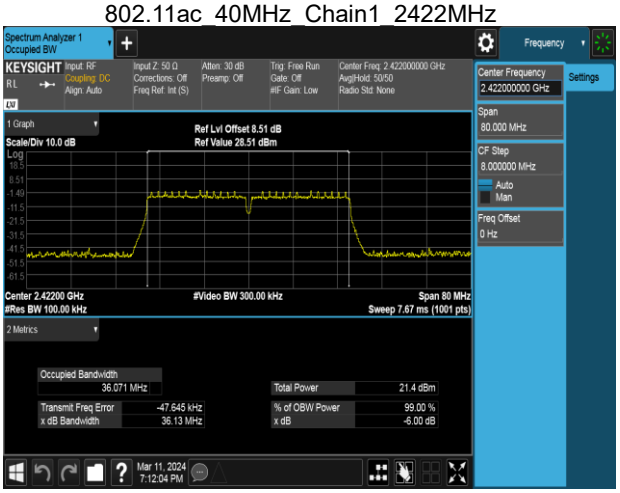
802.11ac_20MHz_Chain1_2462MHz



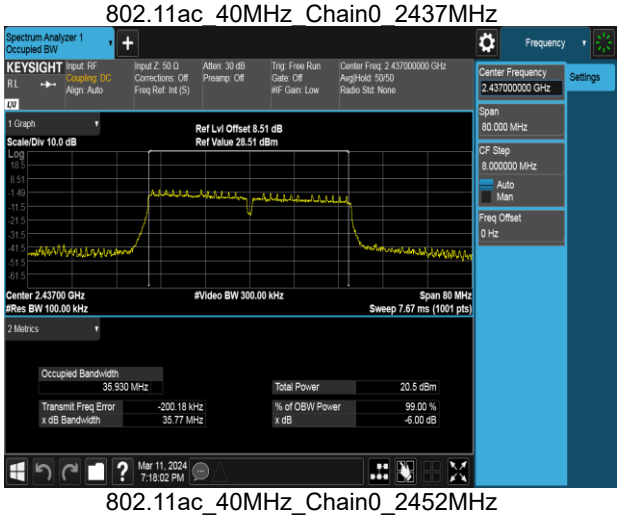
802.11ac_40MHz_Chain0_2422MHz



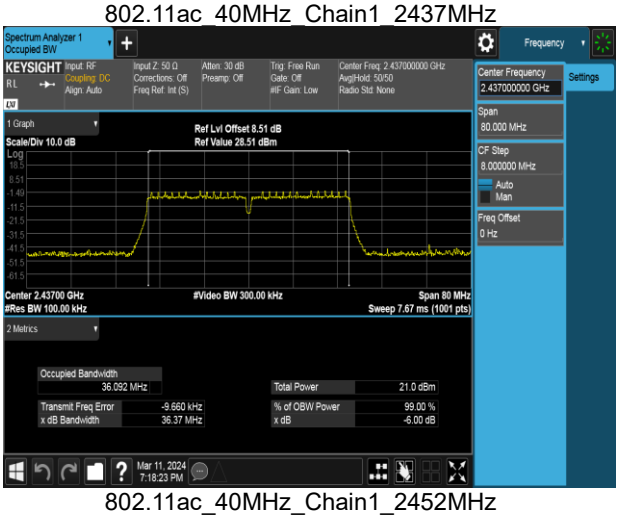
802.11ac_40MHz_Chain1_2422MHz



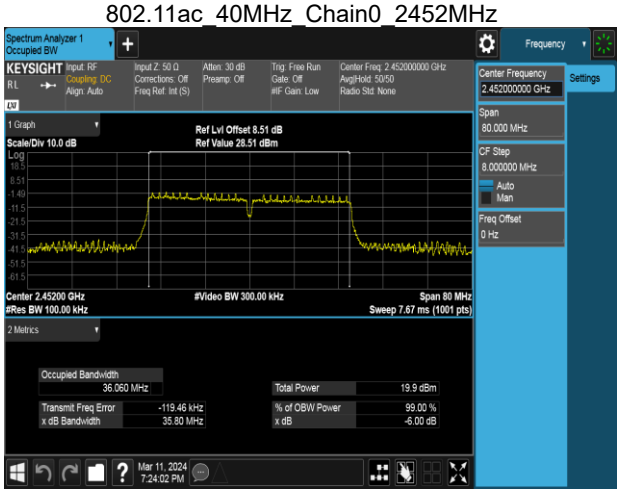
802.11ac_40MHz_Chain0_2437MHz



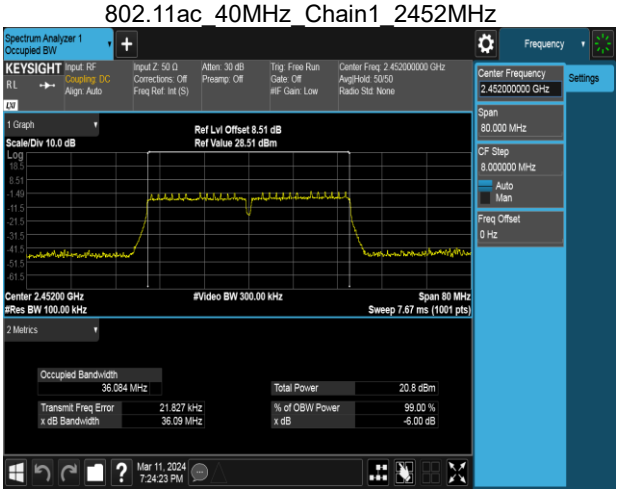
802.11ac_40MHz_Chain1_2437MHz



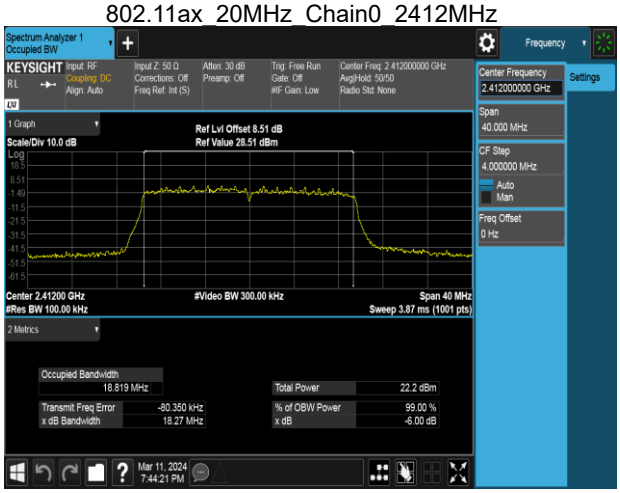
802.11ac_40MHz_Chain0_2452MHz



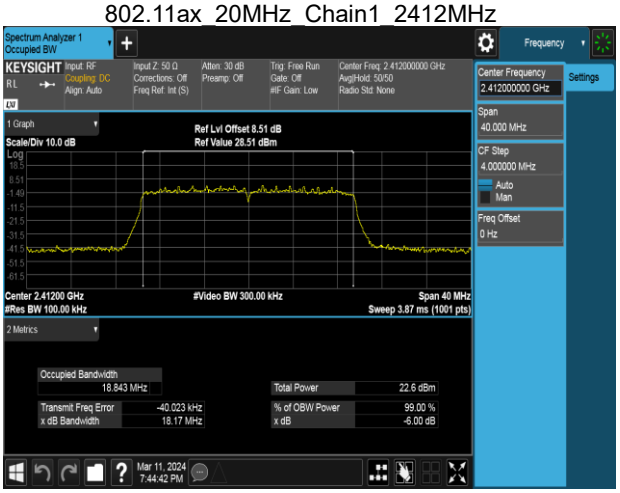
802.11ac_40MHz_Chain1_2452MHz



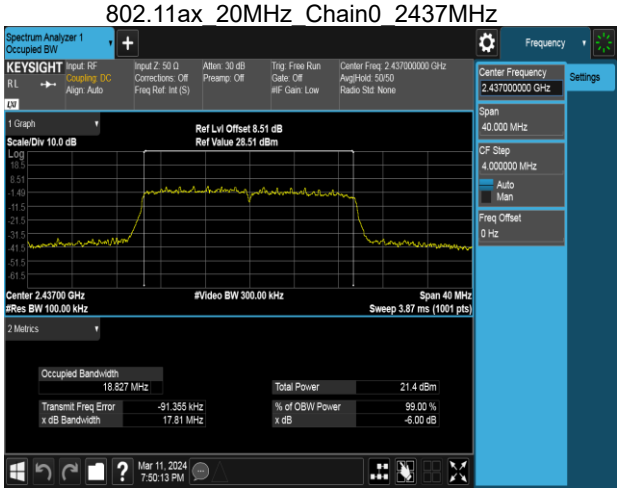
802.11ax_20MHz_Chain0_2412MHz



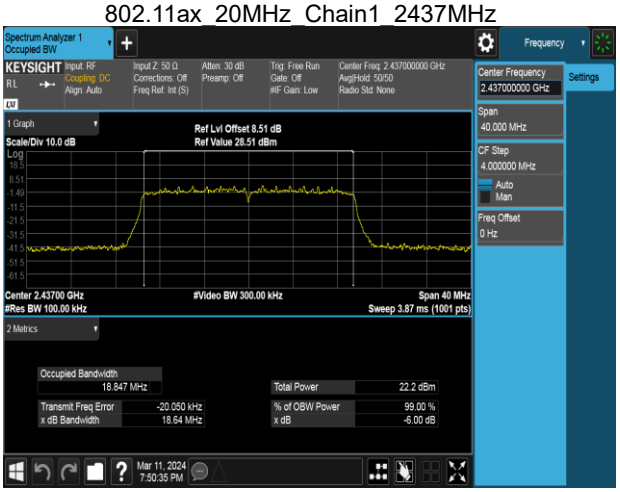
802.11ax_20MHz_Chain1_2412MHz



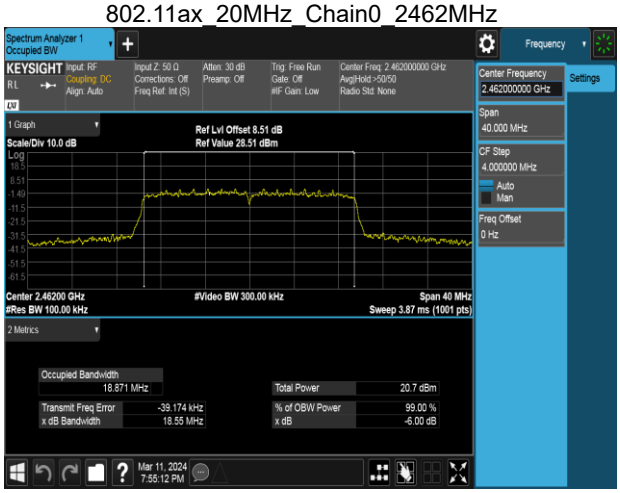
802.11ax_20MHz_Chain0_2437MHz



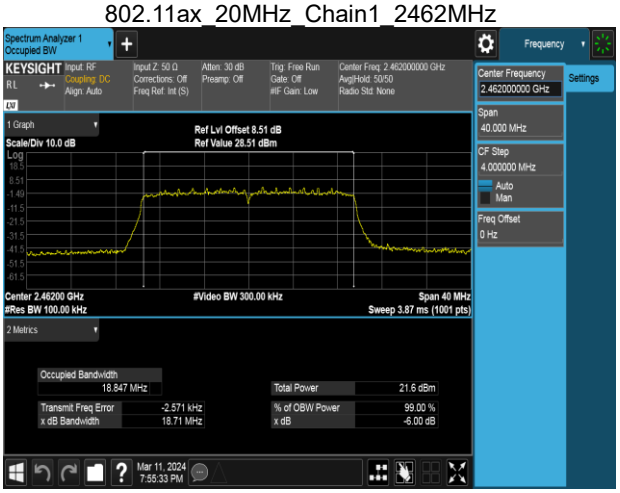
802.11ax_20MHz_Chain1_2437MHz



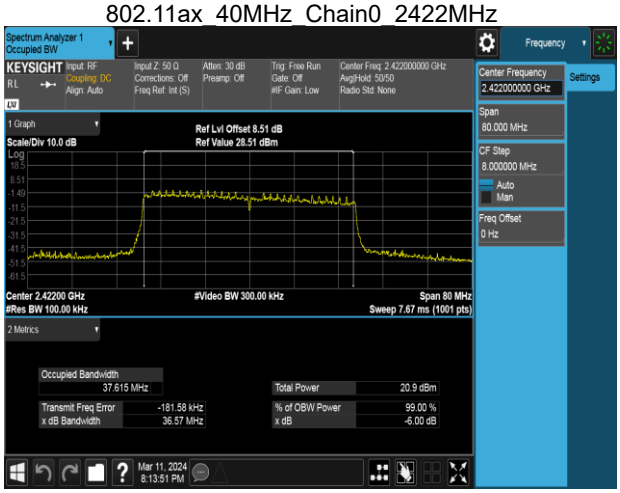
802.11ax_20MHz_Chain0_2462MHz



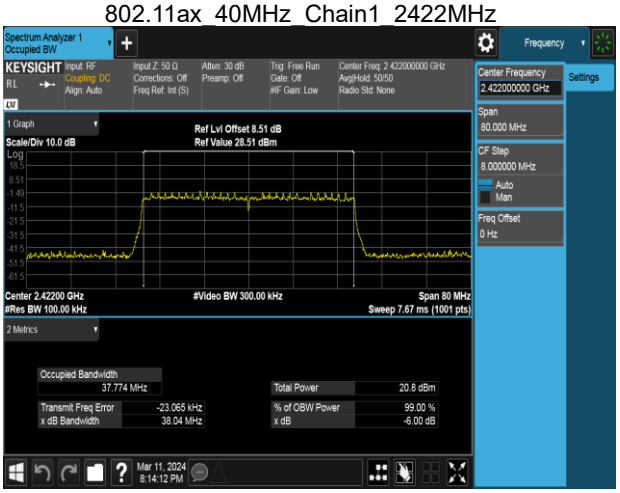
802.11ax_20MHz_Chain1_2462MHz



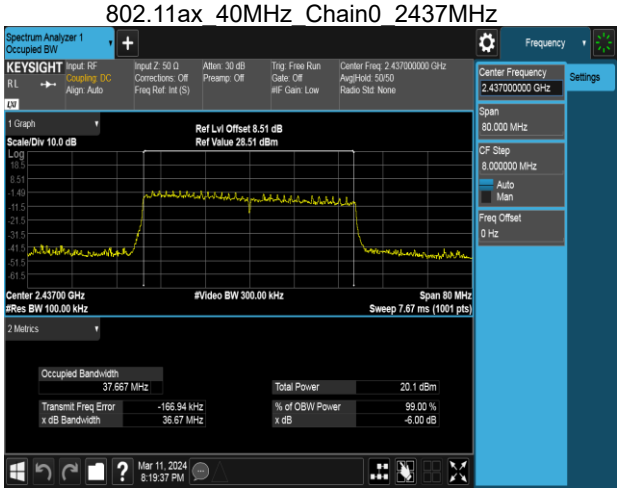
802.11ax_40MHz_Chain0_2422MHz



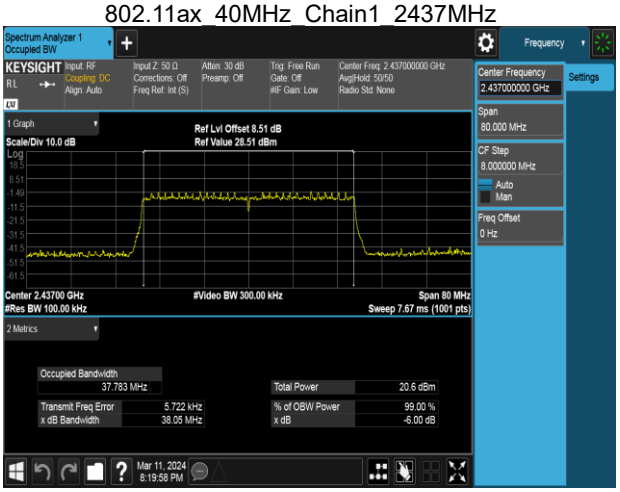
802.11ax_40MHz_Chain1_2422MHz



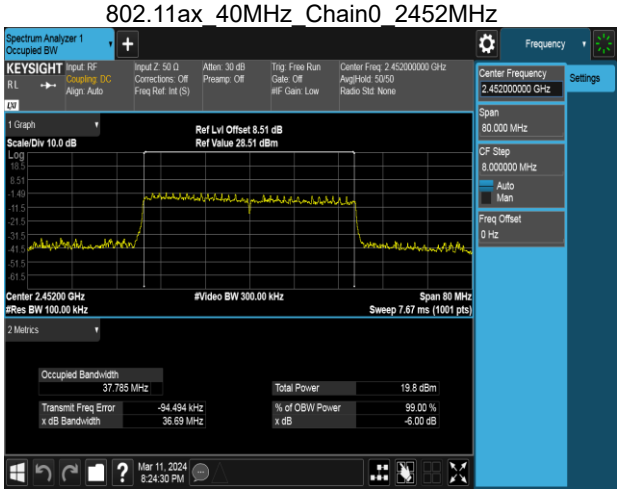
802.11ax_40MHz_Chain0_2437MHz



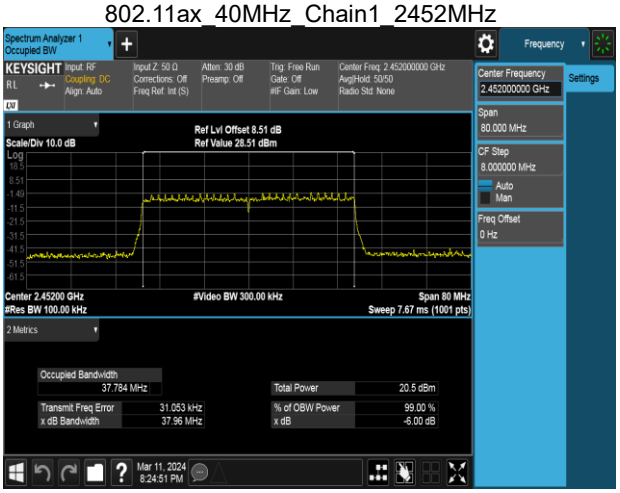
802.11ax_40MHz_Chain1_2437MHz



802.11ax_40MHz_Chain0_2452MHz



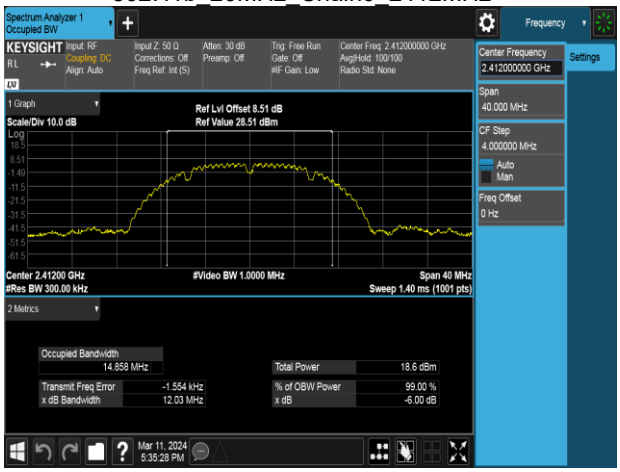
802.11ax_40MHz_Chain1_2452MHz



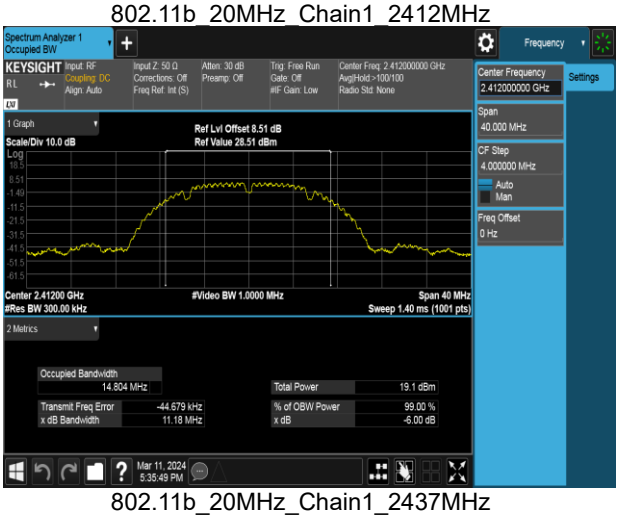
Test Data

BANDWIDTH 99%

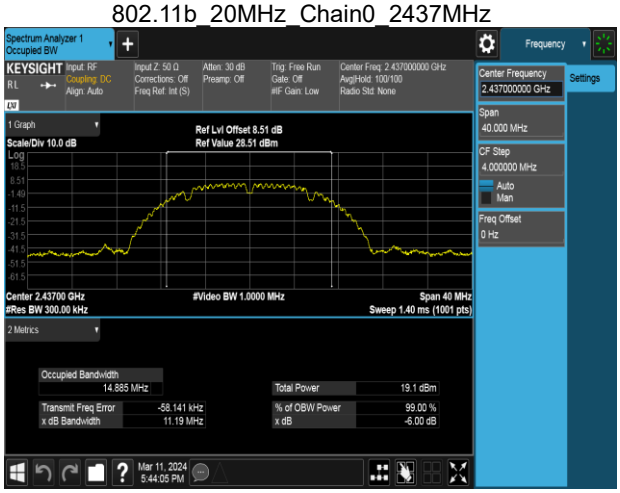
802.11b_20MHz_Chain0_2412MHz



802.11b_20MHz_Chain1_2412MHz

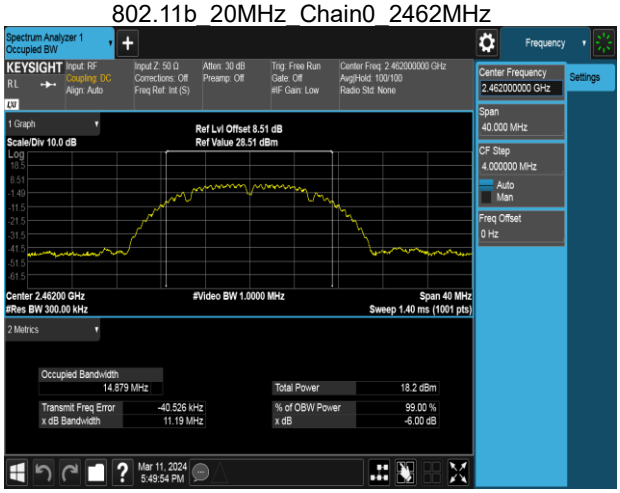


802.11b_20MHz_Chain0_2437MHz

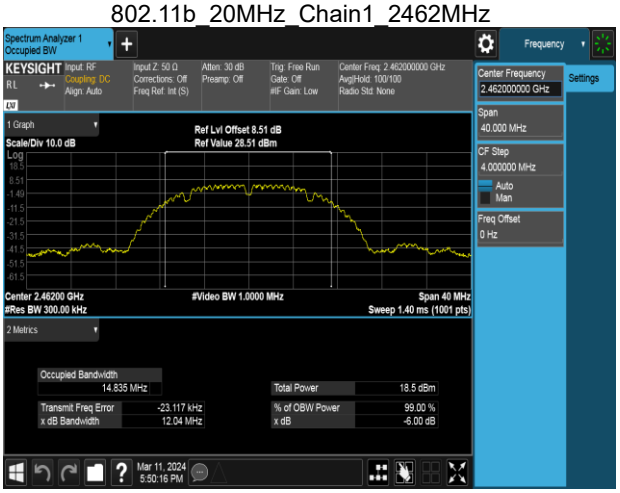


802.11b_20MHz_Chain1_2437MHz

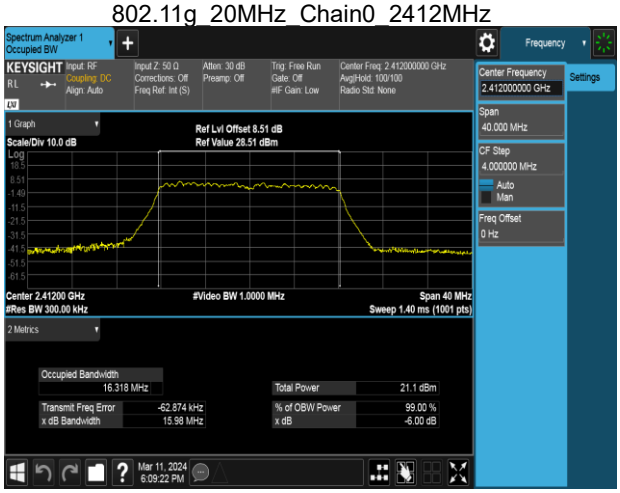
802.11b_20MHz_Chain0_2462MHz



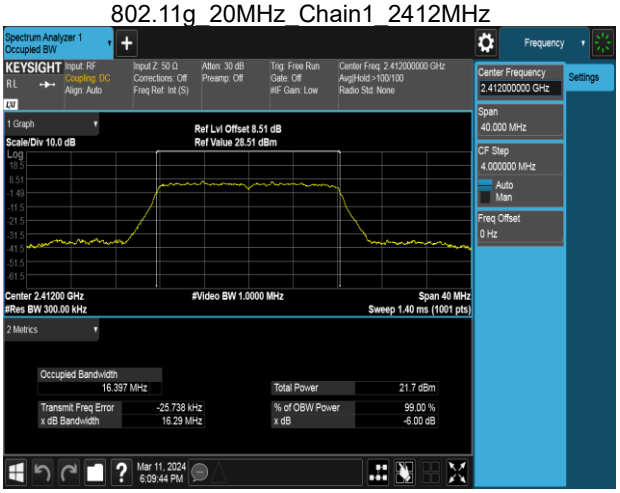
802.11b_20MHz_Chain1_2462MHz



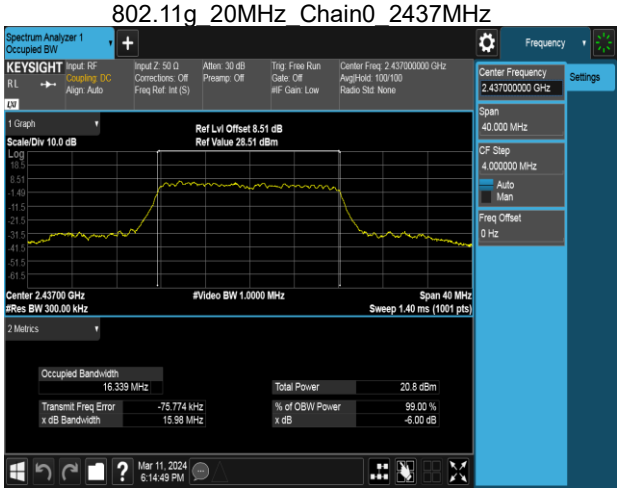
802.11g_20MHz_Chain0_2412MHz



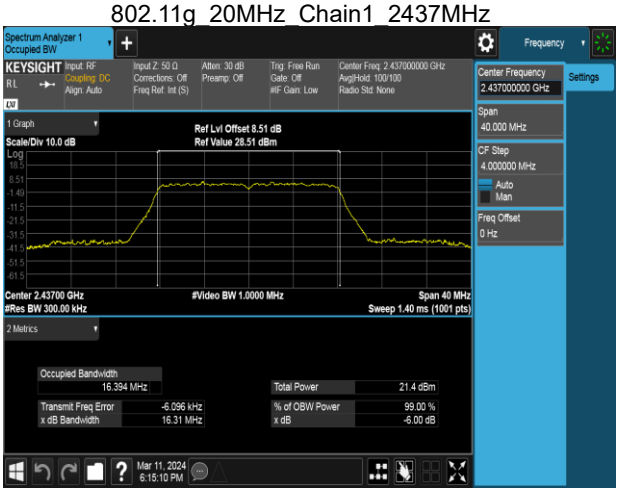
802.11g_20MHz_Chain1_2412MHz



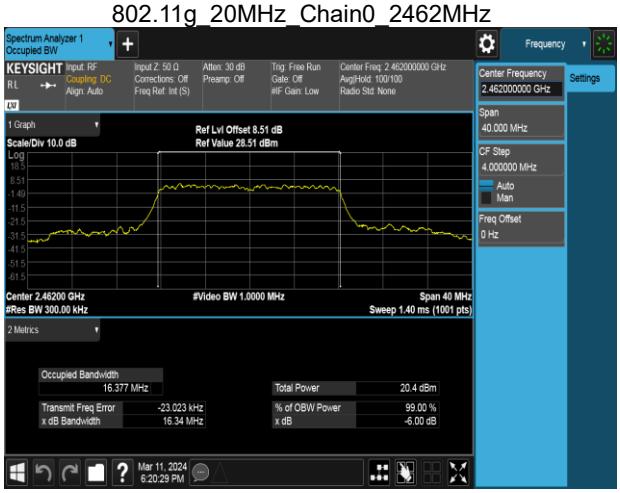
802.11g_20MHz_Chain0_2437MHz



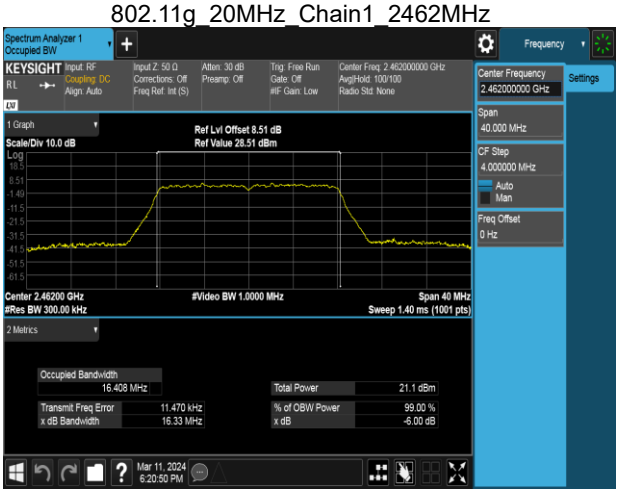
802.11g_20MHz_Chain1_2437MHz



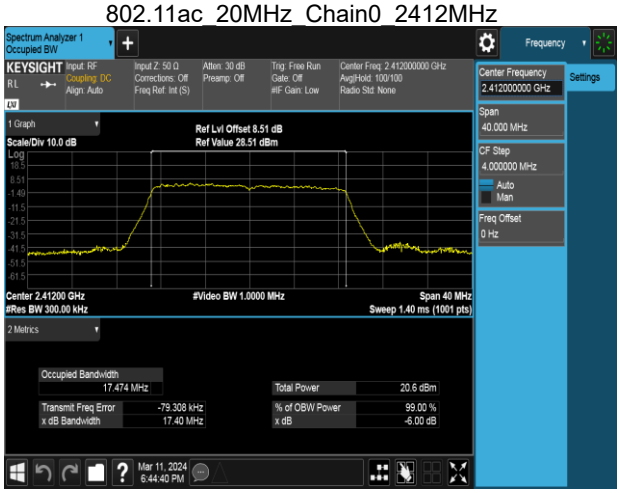
802.11g_20MHz_Chain0_2462MHz



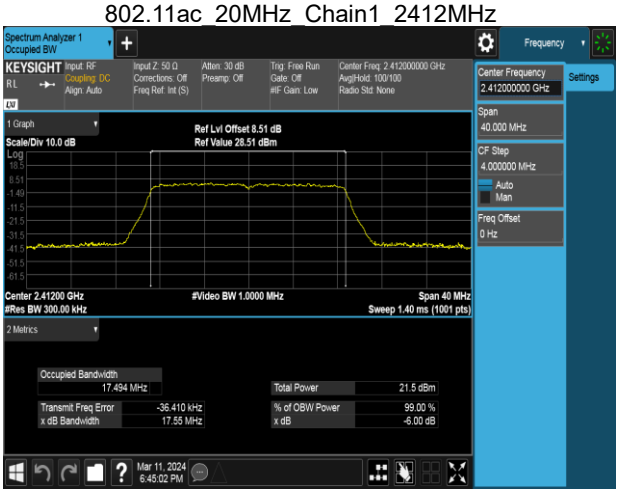
802.11g_20MHz_Chain1_2462MHz



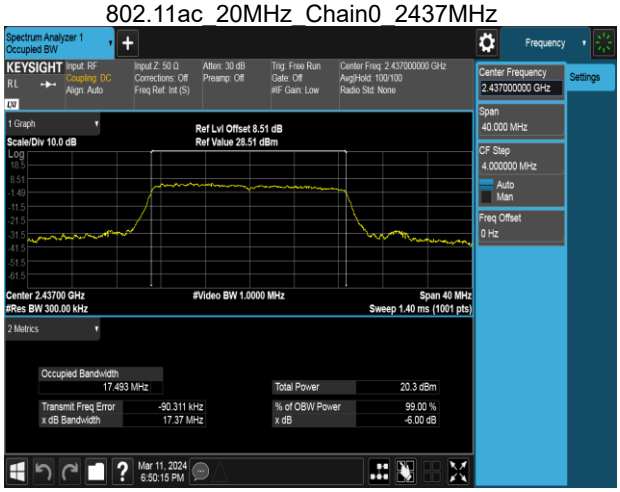
802.11ac_20MHz_Chain0_2412MHz



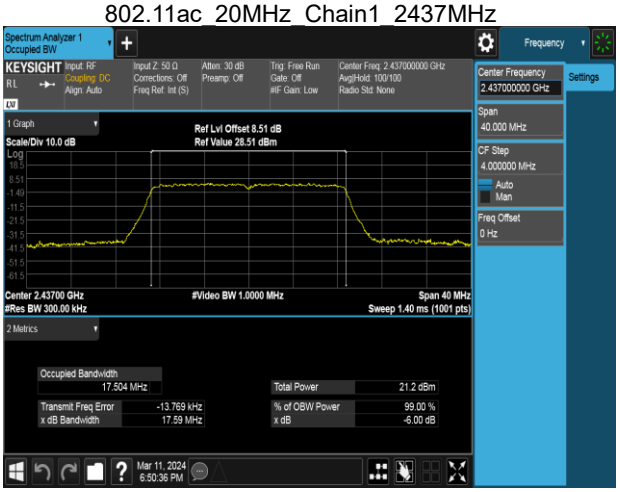
802.11ac_20MHz_Chain1_2412MHz



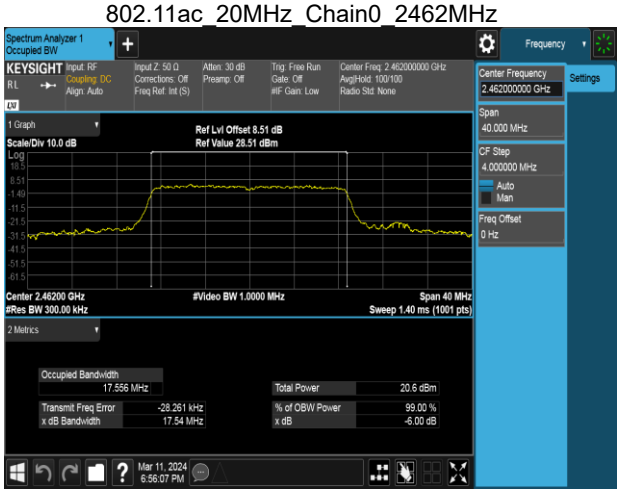
802.11ac_20MHz_Chain0_2437MHz



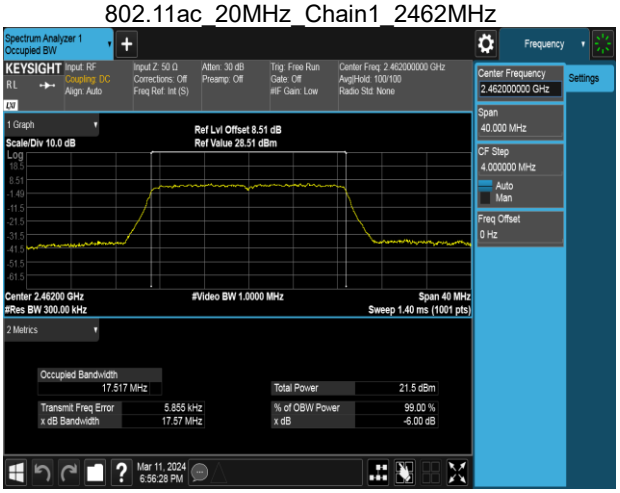
802.11ac_20MHz_Chain1_2437MHz



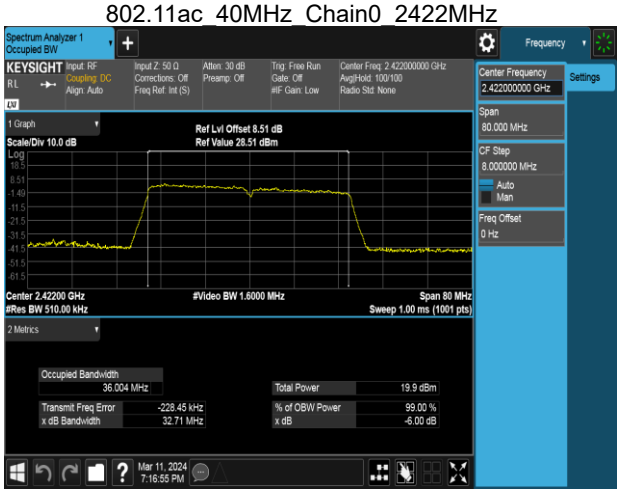
802.11ac_20MHz_Chain0_2462MHz



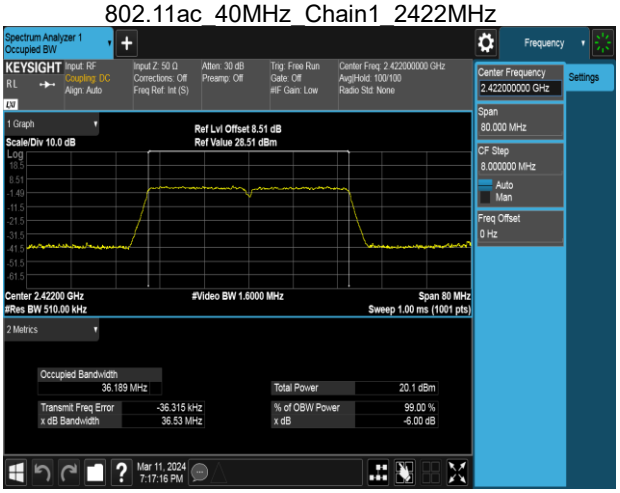
802.11ac_20MHz_Chain1_2462MHz



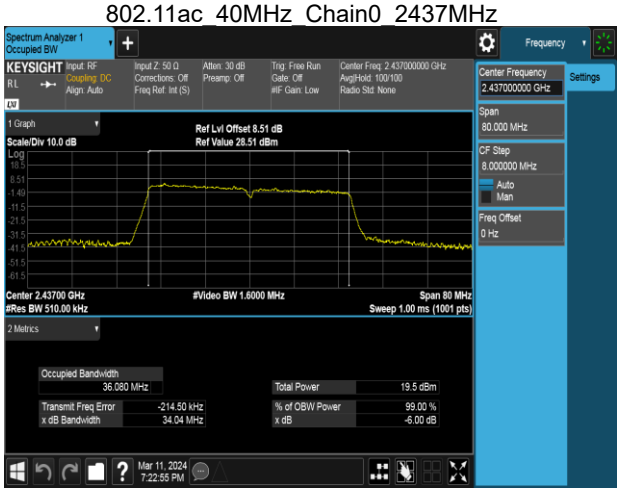
802.11ac_40MHz_Chain0_2422MHz



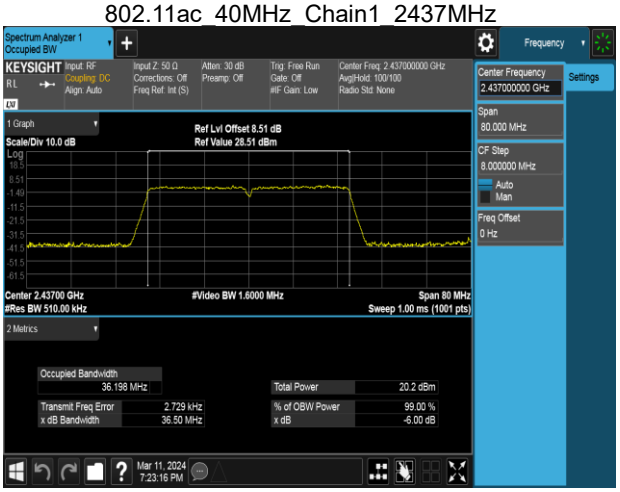
802.11ac_40MHz_Chain1_2422MHz



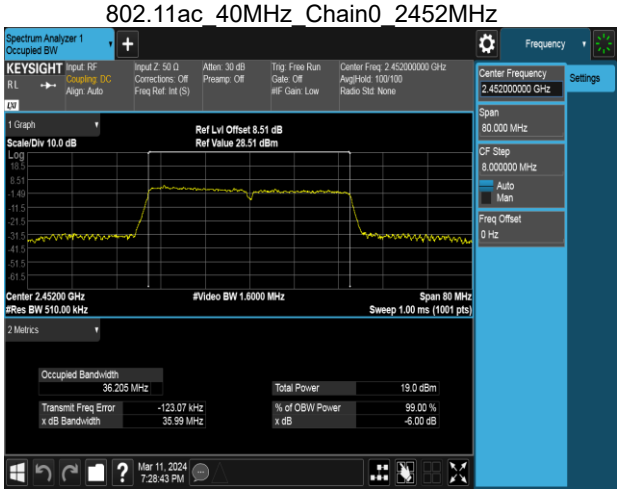
802.11ac_40MHz_Chain0_2437MHz



802.11ac_40MHz_Chain1_2437MHz



802.11ac_40MHz_Chain0_2452MHz



802.11ac_40MHz_Chain1_2452MHz