

**ELECTROMAGNETIC EMISSIONS
COMPLIANCE REPORT**

EUT Description: SX-SDMAX6E
Applicant: Silex Technology, Inc.
2-3-1 Hikaridai, Seika-cho, Soraku-gun, Kyoto 619-0237,
Japan
Manufacturer: Silex Technology, Inc.
2-3-1 Hikaridai, Seika-cho, Soraku-gun, Kyoto 619-0237,
Japan
Brand Name: Silex Technology
Model No./ISED HVIN: SX-SDMAX6E
ISED PMN: Embedded wireless module
Report Number: TERF2509002842ER
FCC ID N6C-SDMAX6E
IC: 4908A-SDMAX6E
Date of EUT Received: September 05, 2025
Date of Test: September 05, 2025 ~ December 18, 2025
Issue Date: March 12, 2026

CHUN-CHIEH, CHEN

Approved By _____

Chun Chieh Chen

We hereby certify that:

The above equipment was tested by SGS Taiwan Ltd. Central RF Lab. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 and the energy emitted by the sample EUT comply with FCC rule part §15.247, ISED RSS-247.

The results of this report relate only to the sample identified in this report.

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Revision History

Report Number	Revision	Description	Issue Date	Revised By	Remark
TERF2509002842ER	00	Original	March 12, 2026	Yuri Tsai	

Note:

- 1、The remark "*" indicates modification of the report upon requests from certification body.

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Table of Contents

1	GENERAL INFORMATION	4
1.1	Product Description	4
1.2	RF Specification	4
1.3	Antenna Designation	5
1.4	Operating Frequencies	6
1.5	EUT Availability and The Worst Test Modes	6
2	SUMMARY OF TEST RESULTS	8
2.1	Test Methodology of Applied Standards	8
2.2	Measurement Uncertainty	9
2.3	Test Facility	10
3	Control Unit(s) and peripheral(s)	11
3.1	EUT Exercise	11
3.2	Diagrams	11
3.3	List	12
4	TEST INSTRUMENT	13
4.1	Conducted Measurement	13
4.2	Radiated Measurement	13
4.3	Emission from AC power line	14
5	REGULATORY REQUIREMENTS	15
5.1	Emission Bandwidth	15
5.2	Duty Cycle	15
5.3	Maximum Output Power	15
5.4	Maximum Power Spectral Density	15
5.5	Out of Band Emission	16
5.6	Unwanted Emissions	16
5.7	AC Power Line Conducted Emission	17
5.8	Antenna Requirement	17
6	TEST CONFIGURATION	18
6.1	Emission Bandwidth	18
6.2	Maximum Output Power	19
6.3	Maximum Power Spectral Density	21
6.4	Out of Band Emission	22
6.5	Unwanted Emissions	23
6.6	AC Power Line Conducted Emission	28
7	TEST RESULTS	29
7.1	Emission Bandwidth	29
7.2	Duty Cycle	38
7.3	Maximum Output Power	40
7.4	Maximum Power Spectral Density	45
7.5	Out of Band Emission	53
7.6	Unwanted Emissions	72
7.7	AC Power Line Conducted Emission	174

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1 GENERAL INFORMATION

1.1 Product Description

EUT Description	SX-SDMAX6E
Brand Name	Silex Technology
Model No./ISED HVIN	SX-SDMAX6E
Hardware Version	PW105790
Firmware Version	HY105790
Power Supply	3.3 Vdc
Test Software (Name/Version)	Tera Term Version 5.2

1.2 RF Specification

WLAN 2.4GHz

Mode	Frequency Range	Channels	Rated Power (dBm)		Modulation Technology
			Peak	Avg.	
802.11b	2412~2462	4	20.18	17.13	DSSS
802.11g	2412~2462	5	26.47	20.23	OFDM
802.11n_HT20	2412~2462	8	27.88	20.37	OFDM
802.11n_HT40	2422~2452	7	23.57	15.13	OFDM
802.11ax_HE20_SU	2412~2462	6	27.82	20.46	OFDM
802.11ax_HE40_SU	2422~2452	7	25.05	16.21	OFDM
Modulation type:		CCK,DQPSK, DBPSK for DSSS in 802.11b			
		64QAM, 16QAM, QPSK, BPSK for OFDM in 802.11g,11n			
		1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA in 802.11ax			
Data Rate:		802.11b: 1/2/5.5/11 Mbps			
		802.11g: 6/9/12/18/24/36/48/54 Mbps			
		802.11n_HT20:up to 144.4Mbps			
		802.11n_HT40:up to 300Mbps			
		802.11ax_HE20:up to 286.8Mbps			
		802.11ax_HE40:up to 573.6Mbps			

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WLAN 2.4GHz for IC

Mode	Frequency Range	Channels	Rated Power (dBm)		Rated Power in dBm (EIRP)	Modulation Technology
			Peak	Avg.		
802.11b	2412~2462	4	20.18	17.13	20.30	DSSS
802.11g	2412~2462	5	26.47	20.23	23.41	OFDM
802.11n_HT20	2412~2462	8	27.88	20.37	23.55	OFDM
802.11n_HT40	2422~2452	7	23.57	15.13	18.30	OFDM
802.11ax_HE20_SU	2412~2462	6	27.82	20.46	23.64	OFDMA
802.11ax_HE40_SU	2422~2452	7	25.05	16.21	19.38	OFDMA
Modulation type:		CCK,DQPSK, DBPSK for DSSS in 802.11b				
		64QAM, 16QAM, QPSK, BPSK for OFDM in 802.11g,11n				
		1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA in 802.11ax				
Data Rate:		802.11b: 1/2/5.5/11 Mbps				
		802.11g: 6/9/12/18/24/36/48/54 Mbps				
		802.11n_HT20:up to 144.4Mbps				
		802.11n_HT40:up to 300Mbps				
		802.11ax_HE20:up to 286.8Mbps				
		802.11ax_HE40:up to 573.6Mbps				

1.3 Antenna Designation

Ant. Type	Brand	Model No.	Freq. (MHz)	Peak Gain(dBi)
Dipole	Molex	146153	2400~2500	3.175
Dipole	Unictron Technologies Corporation	AA258	2400~2484	2.67

Note:

1. Pre-scanned was done on the above antennas, measurements were demonstrated by using the antenna with the highest gain as the worst case scenarios.
2. The antenna information is provided by the applicant. The laboratory does not verify the accuracy of this information, and all test results related to antenna characteristics are based solely on the data supplied. Responsibility for the authenticity and accuracy of these specifications rests entirely with the party who provided the information.
3. The antenna complies with part 15.203 requirement and no consideration of replacement. Please see EUT photo for details.
4. The directional gain is calculated according to section F. 2). e). (ii) of FCC KDB 662911 D01.

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1.4 Operating Frequencies

2400~2483.5 MHz, Bandwidth: 20MHz							
CH	Freq.	CH	Freq.	CH	Freq.	CH	Freq.
1	2412 MHz	2	2417 MHz	3	2422 MHz	4	2427 MHz
5	2432 MHz	6	2437 MHz	7	2442 MHz	8	2447 MHz
9	2452 MHz	10	2457 MHz	11	2462 MHz	-	-
2400~2483.5 MHz, Bandwidth: 40MHz							
CH	Freq.	CH	Freq.	CH	Freq.	CH	Freq.
3	2422 MHz	4	2427 MHz	5	2432 MHz	6	2437 MHz
7	2442 MHz	8	2447 MHz	9	2452 MHz	-	-

1.5 EUT Availability and The Worst Test Modes

1. The EUT has been tested under operating condition.
2. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.
3. The field strength of radiated emission was measured as the EUT positioned in different orthogonal planes (E1/E2/H) based on actual usage of the EUT to pre-scan the emissions for determining the worst case scenario.
4. Investigation has been done on all the possible configurations for searching the worst case.

Mode		Transmission Chain								Single Transmission Spatial		Multi Transmission Spatial	
V	802.11 b	V	Ch0	V	Ch1		Ch2		Ch3		1TX	V	2TX
V	802.11 g	V	Ch0	V	Ch1		Ch2		Ch3		1TX	V	2TX
V	802.11 n	V	Ch0	V	Ch1		Ch2		Ch3		1TX	V	2TX
V	802.11 ax	V	Ch0	V	Ch1		Ch2		Ch3		1TX	V	2TX

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5. Therefore, below summary is the modes of test configuration that yield the highest reading and generate the highest emission chosen to carry out the relevantly mandatory test items.

CONDUCTED TEST					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11b	1 to 11	1,6,10,11	DSSS	1	2TX
802.11g	1 to 11	1,6,9,10,11	OFDM	6	2TX
802.11n_HT20	1 to 11	1,2,3,4,6,9,10,11	OFDM	MCS0	2TX
802.11n_HT40	3 to 9	3,4,5,6,7,8,9	OFDM	MCS0	2TX

TRANSMIT RADIATED EMISSION TEST (BELOW 1 GHz)					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11g	1 to 11	6	OFDM	6	2TX

TRANSMIT RADIATED EMISSION TEST (ABOVE 1 GHz)					
MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION	DATA RATE (Mbps)	ANTENNA PORT
802.11b	1 to 11	1,6,11	DSSS	1	2TX
802.11g	1 to 11	1,6,11	OFDM	6	2TX
802.11n_HT20	1 to 11	1,6,11	OFDM	MCS0	2TX
802.11n_HT40	3 to 9	3,6,9	OFDM	MCS0	2TX
802.11ax_HE20	1 to 11	1,6,11	OFDM	MCS0	2TX
802.11ax_HE40	3 to 9	3,6,9	OFDM	MCS0	2TX

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2 SUMMARY OF TEST RESULTS

FCC Rules	ISED Rules	Description Of Test	Result
§15.207(a)	RSS-Gen §8.8	AC Power Line Conducted Emission	Compliant
§15.247(b) (3)	RSS-247 §6.3.2	Peak Output Power	Compliant
§15.247(a)(2)	RSS-247 §6.3.1.a RSS-Gen §6.7	Emission Bandwidth	Compliant
§15.205 §15.209 §15.247(d)	RSS-247 §6.6 RSS-Gen §8.9 RSS-Gen §8.10	Out of Band Emission	Compliant
§15.205 §15.209 §15.247(d)	RSS-247 §6.6 RSS-Gen §8.9 RSS-Gen §8.10	Unwanted Emission	Compliant
§15.247(e)	RSS-247 §6.3.1.b	Power Spectral Density	Compliant
§15.203	N/A	Antenna Requirement	Compliant

2.1 Test Methodology of Applied Standards

1. ANSI C63.10:2020
2. FCC Part 15, Subpart C §15.247
3. FCC KDB 558074 D01 15.247 Meas Guidance v05r02
4. FCC KDB 662911 D01 Multiple Transmitter Output v02r01
5. ISED RSS-247 issue 4 July 2025
6. ISED RSS-Gen, Issue 5 April 2018, Amendment 2 (February 2021)
7. ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024

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2.2 Measurement Uncertainty

Test Items	Uncertainty
AC Power Line Conducted Emission	+/- 1.61 dB
Output Power measurement	+/- 0.97 dB
Emission Bandwidth	+/- 1.38 Hz
Conducted emission measurement	+/- 0.77 dB
Peak Power Density	+/- 0.61 dB
Temperature	+/- 0.60 °C
Humidity	+/- 3.00 %
DC / AC Power Source	+/- 1.00 %

Radiated Spurious Emission Measurement Uncertainty		
Polarization: Vertical	+/- 1.89 dB	9kHz - 30MHz
	+/- 4.10 dB	30MHz - 1000MHz
	+/- 3.41 dB	1GHz - 18GHz
	+/- 3.89 dB	18GHz - 40GHz
Polarization: Horizontal	+/- 1.89 dB	9kHz - 30MHz
	+/- 4.10 dB	30MHz - 1000MHz
	+/- 3.41 dB	1GHz - 18GHz
	+/- 3.89 dB	18GHz - 40GHz
Radiated Spurious Emission	+/- 2.00 dB	33GHz - 50GHz
	+/- 1.59 dB	50GHz - 60GHz
	+/- 1.71 dB	60GHz - 90GHz
	+/- 1.64 dB	90GHz - 140GHz
	+/- 3.84 dB	140GHz - 220GHz

Note

1. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.
2. The conformity assessment statement in this report is based solely on the test results, measurement uncertainty is excluded.

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2.3 Test Facility

Laboratory	Test Site Address	Test Site Name	FCC Designation number / Registration Number	IC CAB identifier / Company Number
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	No.134, Wu Kung Road, New Taipei Industrial Park, Wuku District, New Taipei City, Taiwan 24803	SAC 1 / SAC 2 / SAC 3 Conduction 1 / Conducted 1 Conducted 2 / Conducted 3 Conducted 4 / Conducted 5 Conducted 6	TW0027 / 891563	TW3702 / 4620A
SGS Taiwan Ltd. Central RF Lab. (TAF code 3702)	No.2, Keji 1st Rd, Guishan District, Taoyuan City, Taiwan 333	SAC C / SAC D / SAC G Conduction C/ Conducted A Conducted B / Conducted C Conducted D / Conducted E Conducted F / Conducted G	TW0028 / 200037	TW3702 / 4620E

Measurement	Test Site Name	Test Engineer	EUT S/N	Test Environment	Test Date
Conducted	Conducted 1	Chris Ye	SX09755	22-26°C / 55-60%	2025/09/17 ~ 2025/12/12
Radiated	SAC 1	WJ Lin	SX09801	18~25°C / 48~61%	2025/12/09 ~ 2025/12/18
Conduction	Conduction 1	WJ Lin	SX09801	21~25°C / 52~58%	2025/12/18 ~ 2025/12/18

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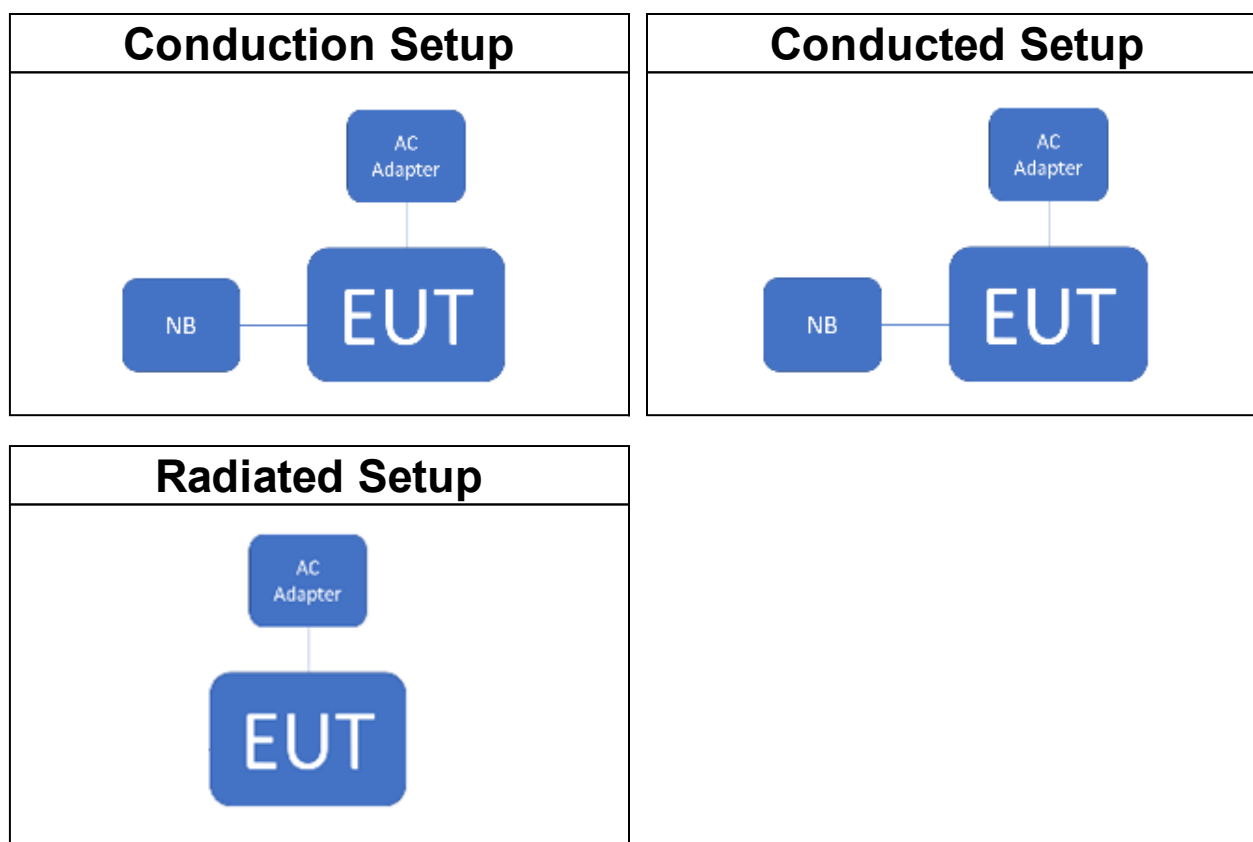
3 CONTROL UNIT(S) AND PERIPHERAL(S)

3.1 EUT Exercise

An engineering test mode (software/firmware) that applicant provided was utilized to manipulate the EUT into transmit, selection of the test channel, and modulation scheme.

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuation factor between EUT conducted port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly EUT RF output level.

3.2 Diagrams



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3.3 List

3.3.1 Conduction Setup

AC Power-Line Conducted Emission Test Site: Conduction 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
AC Adapter	Sandic Japan	AM20C04	N/A	N/A	N/A
Notebook	Lenovo	T440P	PC-089AH5 15/10	N/A	N/A

3.3.2 Conducted Setup

Conducted Emission Test Site: Conducted 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
AC Adapter	Sandic Japan	AM20C04	N/A	N/A	N/A
Notebook	Lenovo	T440P	PB-03ECDS 14/08	N/A	N/A

3.3.3 Radiated Setup

Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
AC Adapter	Shenzhen Putuo	PT-WC-13	N/A	N/A	N/A

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4 TEST INSTRUMENT

4.1 Conducted Measurement

Conducted Emission Test Site: Conducted 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
DC Block	Mini-Circuits	BLK-18-S+	14	12/11/2024	12/10/2025
DC Block	Mini-Circuits	BLK-18-S+	14	12/07/2025	12/06/2026
Attenuator	Mini-Circuits	BW-S10W2+	1	12/11/2024	12/10/2025
Attenuator	Mini-Circuits	BW-S10W2+	1	12/07/2025	12/06/2026
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY59071571	06/24/2025	06/23/2026
Power Meter	Anritsu	ML2496A	1804001	04/18/2025	04/17/2026
Power Sensor	Anritsu	MA2411B	1726104	04/18/2025	04/17/2026
Power Sensor	Anritsu	MA2411B	1726107	04/18/2025	04/17/2026
Test Software	SGS	Radio Test Software	Ver. 21	N.C.R	N.C.R

4.2 Radiated Measurement

Radiated Emission Test Site: SAC 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
4G High Pass Filter	WI	WHKX4.0	24	12/07/2025	12/06/2026
Band Reject Filter 2400-2483.5	Titan	T04N2400248350S01	23040703-10	12/07/2025	12/06/2026
Bi-log Antenna	SCHWARZBECK	VULB9168	443	07/22/2025	07/21/2026
Coaxial Cable	EMCI	EMC104-SM-SM-8000+EMC106-SM-SM-7600	RX Cable 9K-18G(160125+150817)	07/14/2025	07/13/2026
Coaxial Cables	Huber Suhner	SUCOFLEX 102	RX Cable 18G-40G MY2630/2+805062/2	07/14/2025	07/13/2026
EMI Test Receiver	R&S	ESR 7	102525	02/08/2025	02/07/2026
EXA Spectrum Analyzer	KEYSIGHT	N9010B	MY60242081	10/29/2025	10/28/2026
Horn Antenna	RF SPIN	DRH0844	LE2D05A0844	08/07/2025	08/06/2026
Horn Antenna	SCHWARZBECK	BBHA9120D	D803	01/09/2025	01/08/2026
Loop Antenna	COM-POWER	AL-130R	10160104	12/19/2024	12/18/2025
Pre-Amplifier	EMCI	EMC118A45SEE	980933	07/14/2025	07/13/2026
Pre-Amplifier	EMCI	EMC184045SEE	980939	07/14/2025	07/13/2026
Pre-Amplifier	HP	8447D	2944A09469	07/14/2025	07/13/2026
Site Cal	SGS	SAC 1	N/A	07/14/2025	07/13/2026
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

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4.3 Emission from AC power line

AC Power-Line Conducted Emission Test Site: Conduction 1					
EQUIPMENT TYPE	MFR	MODEL NUMBER	SERIAL NUMBER	LAST CAL. (mm/dd/yyyy)	CAL DUE. (mm/dd/yyyy)
Coaxial Cables	EMC Instruments Corp.	EMCCFD300-BM-BM-3000	161207	06/22/2025	06/21/2026
EMI Test Receiver	R&S	ESCI 7	100759	09/02/2025	09/01/2026
LISN	SCHWARZBECK	NSLK 8127	1040	09/13/2025	09/12/2026
Pulse Limiter	SCHWARZBECK	VTSD 9561F-N	793	06/22/2025	06/21/2026
Test Software	Audix	e3	Ver. 9.210616	N.C.R	N.C.R

NOTE: N.C.R refers to Not Calibrated Required.

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5 REGULATORY REQUIREMENTS

5.1 Emission Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

5.2 Duty Cycle

Pre-analysis Check: While conducting average power measurement, duty cycle of each mode shall be checked to ensure its duty cycle in order to compensate for the loss due to insufficient ratio of duty cycle.

All duty cycle is pre-scanned, and result as obtained below shows only the most representative ones where duty cycle is conducted as the given transmission with given virtual operation that expresses the percentage.

5.3 Maximum Output Power

FCC

For systems using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1Watt.

If the transmitting antenna of directional gain greater than 6dBi are used the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the Antenna exceeds 6dBi.

ISED

For systems using digital modulation in the 2400-2483.5 MHz bands, the limit for peak output power is 1Watt and the e.i.r.p. shall not exceed 4 W.

5.4 Maximum Power Spectral Density

The power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3 kHz band during any time interval of continuous transmission.

The power spectral density shall be determined using the same method as is used to determine the maximum conducted output power.

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5.5 Out of Band Emission

For emissions in non-restricted frequency bands, in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS aver-aging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

5.6 Unwanted Emissions

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS aver-aging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

In addition, radiated emissions which fall in the restricted bands must also comply with the applicable radiated emission limits as defined in the general emission limit tables.

Moreover, for an intentional radiator operating below 10 GHz, the frequency range of measurements shall extend up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Frequency (MHz)	Field strength (microvolts/meter)	Distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Note: The lower limit shall apply at the transition frequencies.

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5.7 AC Power Line Conducted Emission

Frequency range within 150kHz to 30MHz shall not exceed the Limit table as below.

Frequency range MHz	Limits (dBuV)	
	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
Note 1.The lower limit shall apply at the transition frequencies 2.The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz		

5.8 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

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6 TEST CONFIGURATION

6.1 Emission Bandwidth



1. Place the EUT on the table and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. 6dB BW measurements
The testing is performed in accordance with the applicable regulatory measurement procedure.
Set the spectrum analyzer as
RBW= 1% to 5% of the OBW but not less than 100 kHz,
VBW $\geq 3 \times$ RBW,
Span= 2 to 5 times of the OBW,
Sweep=Auto, Detector = Peak, and Trace mode = Max Hold.
Use the X dB bandwidth mode function of the spectrum analyzer and set to 6dB.
Repeat above procedures until all test default channel is completed.
4. 99% BW measurements
The testing is performed in accordance with the applicable regulatory measurement procedure.
Set the spectrum analyzer as
RBW= 1 % to 5% of 99% without going below 10kHz,
VBW $\geq 3 \times$ RBW,
Span= 1.5 to 5 times of the OBW,
Sweep=Auto, Detector = Peak, and Trace mode = Max Hold.
Use the 99% power bandwidth function of the spectrum analyzer.
Repeat above procedures until all test default channel is completed.

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6.2 Maximum Output Power

6.2.1 Duty Cycle



Place the EUT on the table and set it in transmitting mode.

Set the spectrum analyzer as

Center Frequency = fundamental frequency

Span = Zero,

RBW = 8 MHz,

VBW = 8 MHz,

Detector = Peak,

Allow trace to fully stabilize.

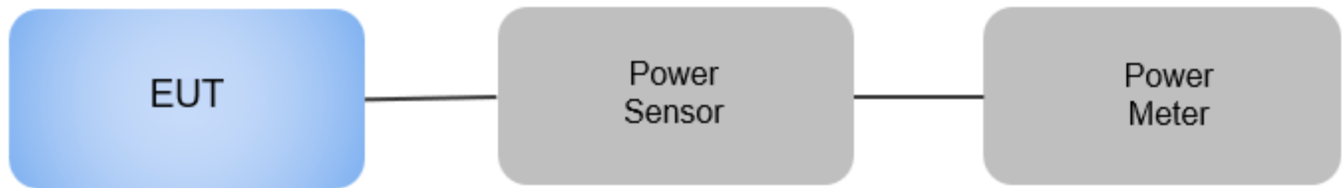
Use the delta marker function to determine the ON and OFF times.

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6.2.2 Maximum Output Power



1. The testing is performed in accordance with the applicable output power measurement procedure.
2. Place the EUT on the table and set it to transmit mode.
3. Remove the antenna from the EUT and connect a low-loss RF cable from the antenna port to the power meter.
4. The power meter is used as auxiliary test equipment to conduct the output power measurement. Record the maximum reading as observed from the spectrum analyzer or power meter.

When testing for multiple output ports in simultaneous transmission mode, the measured values of each individual output port are tested separately and then linearly summed.

The directional gain is calculated using the formula

$$\text{Directional Gain} = 10 \times \log_{10} \left[\frac{\left(10^{\frac{G_1}{20}} + 10^{\frac{G_2}{20}} + \dots + 10^{\frac{G_n}{20}} \right)^2}{N_{\{ant\}}} \right]$$

Note: The duty cycle factor is compensated to obtain the maximum value of measurement in average.

Note: When the antenna gain is greater than 6 dBi, the power limit attenuated accordingly.

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6.3 Maximum Power Spectral Density



The test is conducted in accordance with the applicable regulatory measurement procedure.

Set spectrum analyzer center frequency to DTS channel center frequency.

Set the span > 1.5 times the DTS channel bandwidth.

Set the RBW = 3 kHz and VBW = 10 kHz.

Detector = Peak

Sweep time = Auto Couple.

Trace mode = Max Hold.

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

When testing for multiple output ports in simultaneous transmission mode, the measured values of each individual output port are tested separately and then linearly summed.

The directional gain is calculated using the formula

$$\text{Directional Gain} = 10 \times \log_{10} \left[\frac{\left(10^{\frac{G_1}{20}} + 10^{\frac{G_2}{20}} + \dots + 10^{\frac{G_n}{20}} \right)^2}{N_{\{ant\}}} \right]$$

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6.4 Out of Band Emission



6.4.1 Reference Level of Emission Limit

The testing is performed in accordance with the applicable measurement procedure.

Set the analyzer center frequency to the DTS channel center frequency.

Set the span to 1.5 times the DTS channel bandwidth.

Set RBW = 100 kHz and VBW = 300 kHz.

Detector = peak

Sweep time = Auto Couple.

Trace mode = Max Hold.

Allow the trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level.

6.4.2 Conducted Band Edge

1. The testing is performed in accordance with the applicable measurement procedure.
2. Connect the antenna port of the EUT to the spectrum analyzer.
3. Remove the antenna from the EUT and connect a low-loss RF cable from the antenna port to the spectrum analyzer.
4. Set the start frequency and stop frequency of the spectrum analyzer to encompass the spectrum to be examined.
5. Configure the spectrum analyzer as follows:
 - RBW = 100 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Sweep = Auto
 - Mark the highest reading of the emission as the reference level.
 - Set the display limit as: reference level marker reading -20 dBm.
 - Mark the highest emissions observed outside of the 2400 MHz to 2483.5 MHz band.
6. Repeat the above procedure for each default test channel (low, middle, and high).

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6.4.3 Conducted Spurious Emission

1. The testing is performed in accordance with the applicable measurement procedure.
2. Connect the antenna port of the EUT to the spectrum analyzer.
3. Configure the spectrum analyzer as follows:
RBW = 100 kHz
VBW = 300 kHz
Detector = Peak
Sweep = Auto.
Allow the trace to fully stabilize.
Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental emission bandwidth (EBW).
4. Repeat the above procedures until all default test channels (low, middle, and high) have been measured.

6.5 Unwanted Emissions

6.5.1 Band edge & Emission



1. The testing is performed in accordance with the applicable measurement procedure.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.
3. Configure the spectrum analyzer as follows:
RBW = 1 MHz
VBW = 3 MHz
Detector = Peak for Maximum Emission Measurements at frequency above 1 GHz
Sweep = No faster than coupled (auto) time.
Trace mode = max-hold
Allow sweeps to continue until the trace stabilizes. (Note that the required measurement time and number of sweep points may be lengthened for low duty cycle applications.)
4. Configure the spectrum analyzer as follows:
RBW = 1 MHz
VBW = 3 MHz
Detector = RMS for Maximum Emission Measurements at frequency above 1 GHz
Averaging Type = power (i.e., RMS)
Sweep = Auto

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Perform a trace average of at least 100 traces if the transmission is continuous.

5. A correction factor shall be added to the measurement results prior to comparing with the emission limit to compute the emission level that would have been measured had the test been performed at 100% duty cycle.
6. Measurements are completed at peak and average level, the mark of average is the highest emission in restricted bands.

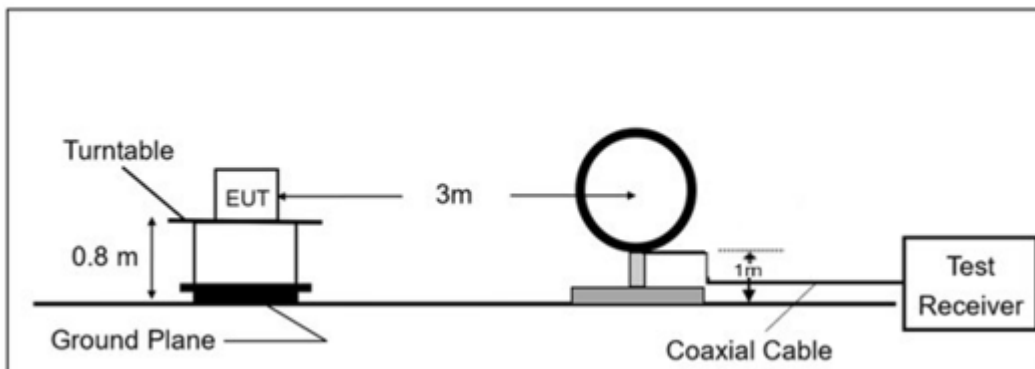
6.5.2 Spurious Emission

For Measurements From 9 kHz To 30 MHz

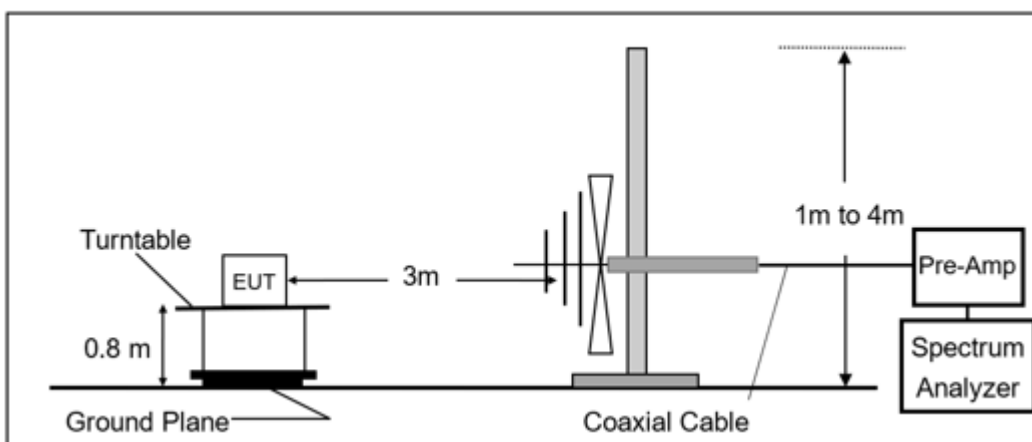
Radiated emission below 30MHz is measured in a 9m*6m*6m semi-anechoic chamber, the measurements correspond to those obtained at an open-field test site.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

Radiated Emission Test Set-Up, Frequency Below 30MHz.



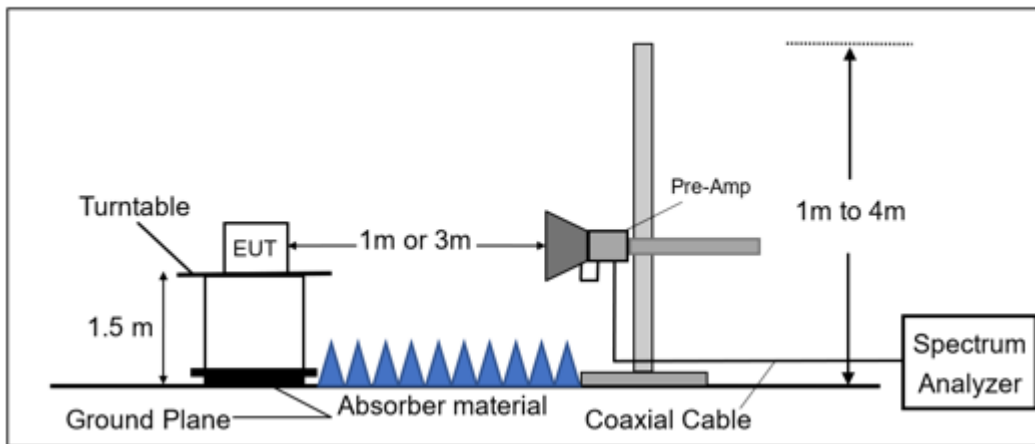
Radiated Emission Test Set-Up, Frequency From 30MHz to 1000MHz.



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Radiated Emission Test Set-Up, Frequency Above 1GHz.



1. The testing was performed in accordance with the applicable radiated emission measurement procedure.
2. The EUT was placed on a turntable at a height of 0.8 m for frequencies below 1 GHz and 1.5 m for frequencies above 1 GHz.
3. The turntable was rotated 360 degrees to determine the position of the maximum emission level.
4. The EUT was positioned 3 meters away from the receiving antenna, which was varied in height from 1 m to 4 m to locate the highest emissions.
5. For measurements below 30MHz, set the spectrum analyzer as
 - ☒ For Peak measurement
 - RBW=10 kHz
 - VBW=30 kHz
 - Detector = peak
 - Trace mode = max-hold
 - ☒ For Quasi-peak measurement in receiver mode
 - RBW=10 kHz
 - Detector = Quasi-Peak
 - Peak detection is used unless otherwise noted as quasi-peak.
6. For measurements in 30MHz to 1GHz, set the spectrum analyzer as
 - ☒ For Peak measurement
 - RBW=100 kHz
 - VBW=300 kHz
 - Detector = peak
 - Trace mode = max-hold
 - ☒ For Quasi-peak measurement in receiver mode
 - RBW=120 kHz
 - Detector = Quasi-Peak
 - Peak detection is used unless otherwise noted as quasi-peak.

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7. For measurements above 1GHz, set the spectrum analyzer as
 - ☒ For Peak measurement:
 - RBW=1 MHz
 - VBW=3 MHz
 - Detector = peak
 - Trace mode = max-hold
 - ☒ For Average measurement:
 - ☒ Duty cycle $\geq 98\%$:
 - RBW=1 MHz
 - VBW=3 MHz
 - Detector = Power averaging (rms)
 - trace average was performed over at least 100 traces
 - ☒ Duty cycle $< 98\%$
 - RBW=1 MHz
 - VBW $\geq 1/T$
 - Detector = peak
 - Trace mode = max-hold
 - ☐ Duty cycle $< 98\%$
 - RBW=1 MHz
 - VBW ≥ 3 MHz
 - Detector = Power averaging (rms)
 - trace average was performed over at least 100 traces
 - add Duty cycle factor(dB)
 - ☐ Duty cycle factor (DCF)
 - the average value of pulsed emissions with duty cycle correction factor $20 \log (T_{on}/100ms)$ from the peak measurement
8. When measuring radiated emissions above 1 GHz, the receiving antenna was maintained within the "cone of radiation" and pointed at the emission source in both azimuth and elevation, with polarization oriented for maximum response, ensuring it remained within the 3 dB illumination beamwidth of the measurement antenna.
9. The six highest emissions were fully maximized using the above procedures to ensure EUT compliance.
10. Each emission was further maximized by changing the receiving antenna polarization between horizontal and vertical.
11. Repeat the above procedures until all default test channels (low, middle, and high) are measured.

Note: Emissions from 9 kHz to 30 MHz were pre-scanned and found to be at least 20 dB below the applicable limits, and are therefore not reported.

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6.5.3 Field Strength Calculation

The field strength is calculated by adding the antenna factor and cable loss, then subtracting the amplifier gain and any applicable duty cycle correction factor from the measured reading. The basic equation and an example calculation are as follows:

$$FS = RA + AF + CL - AG$$

Where:

FS = Field Strength (dB μ V/m)

RA = Reading Amplitude (dB μ V)

AF = Antenna Factor (dB/m)

CL = Cable Loss (dB)

AG = Amplifier Gain (dB)

The emission limit is expressed in dB μ V/m, which corresponds to the logarithmic conversion of $20 \times \log_{10} (\mu\text{V/m})$.

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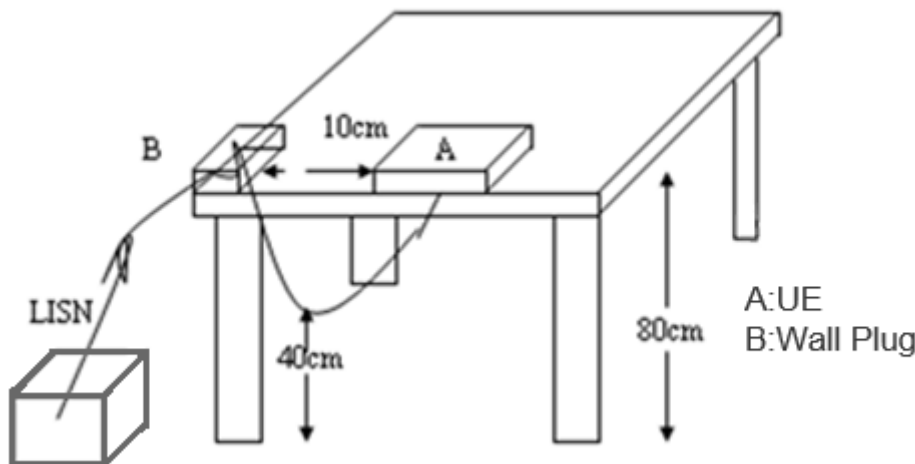
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6.6 AC Power Line Conducted Emission



1. The conducted emission tests were performed at the designated test site using a setup in accordance with ANSI_C63.10
2. The EUT was placed on a non-conductive table that is 0.8 meters above the ground plane. Conducted emissions were measured in the frequency range from 0.15 MHz to 30 MHz using CISPR Quasi-Peak and Average detector modes. The two LISNs provided 50 μ H / 50 ohm coupling impedance for the measuring instrument. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
3. The AC/DC power adaptor of the EUT was connected to the LISN. The EUT was positioned flush with the rear edge of the table, with a minimum 0.4-meter distance from the shielding wall.
4. The LISNs were connected to the power source and configured according to the test requirements.
5. The maximum emission levels were investigated for each mode of operation. The six highest emissions were further maximized to ensure compliance.
6. The above procedures were repeated for all power supply configurations of the EUT.

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7 TEST RESULTS

7.1 Emission Bandwidth

802.11b_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	12.074	9102	≥ 500	PASS
2437	12.163	9104	≥ 500	PASS
2462	12.034	9085	≥ 500	PASS

802.11b_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	10.619	8611	≥ 500	PASS
2437	11.887	9087	≥ 500	PASS
2462	12.064	9108	≥ 500	PASS

802.11g_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	16.762	16380	≥ 500	PASS
2437	18.194	16400	≥ 500	PASS
2462	16.879	16380	≥ 500	PASS

802.11g_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	16.511	16400	≥ 500	PASS
2437	16.565	16410	≥ 500	PASS
2462	16.800	16390	≥ 500	PASS

802.11n_HT20_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	17.695	17340	≥ 500	PASS
2437	18.498	17590	≥ 500	PASS
2462	17.700	17240	≥ 500	PASS

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802.11n_HT20_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	17.620	17320	≥ 500	PASS
2437	17.646	17580	≥ 500	PASS
2462	17.683	17180	≥ 500	PASS

802.11n_HT40_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2422	36.088	35460	≥ 500	PASS
2437	36.093	35250	≥ 500	PASS
2452	36.074	35570	≥ 500	PASS

802.11n_HT40_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2422	36.029	35620	≥ 500	PASS
2437	36.033	35360	≥ 500	PASS
2452	35.980	35490	≥ 500	PASS

802.11ax_HE20_SU_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	18.740	18250	≥ 500	PASS
2437	19.044	18220	≥ 500	PASS
2462	18.787	18280	≥ 500	PASS

802.11ax_HE20_SU_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2412	18.727	18180	≥ 500	PASS
2437	18.771	17940	≥ 500	PASS
2462	18.797	17840	≥ 500	PASS

802.11ax_HE40_SU_Ch0

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2422	37.477	36680	≥ 500	PASS
2437	37.532	36820	≥ 500	PASS
2452	37.473	36280	≥ 500	PASS

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802.11ax_HE40_SU_Ch1

Freq. (MHz)	99% BW (MHz)	6dB BW (kHz)	6dB BW Limit (kHz)	Result
2422	37.442	36190	≥ 500	PASS
2437	37.414	36180	≥ 500	PASS
2452	37.372	36080	≥ 500	PASS

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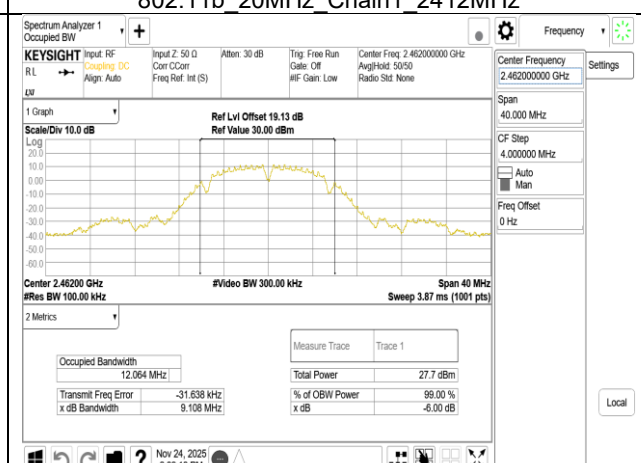
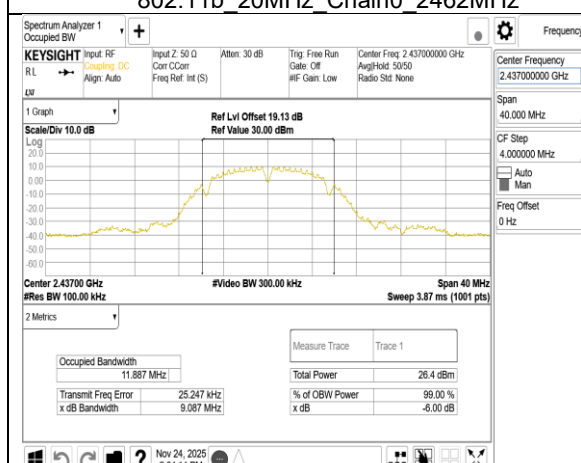
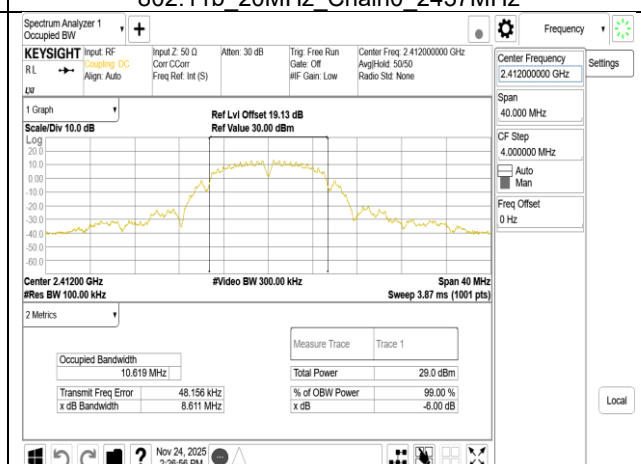
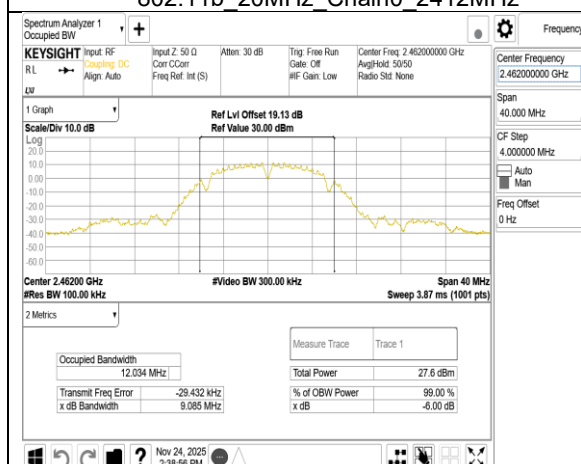
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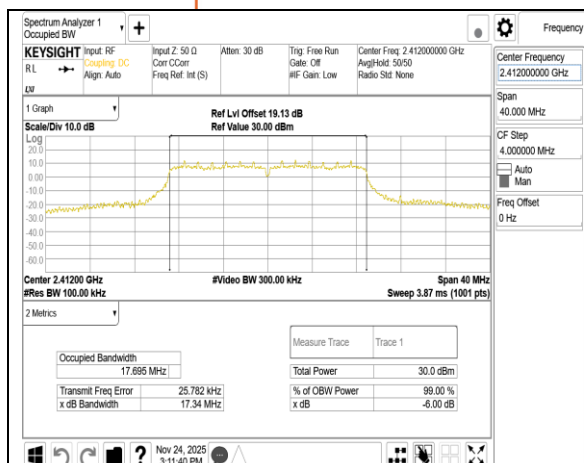
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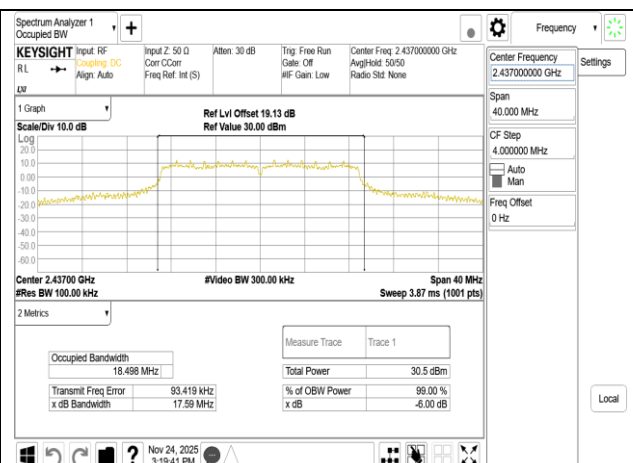
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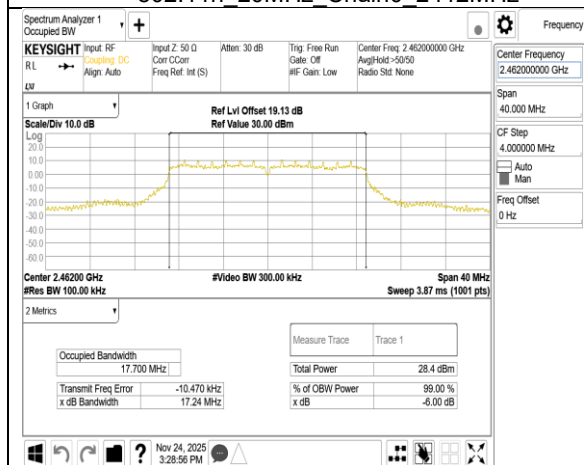
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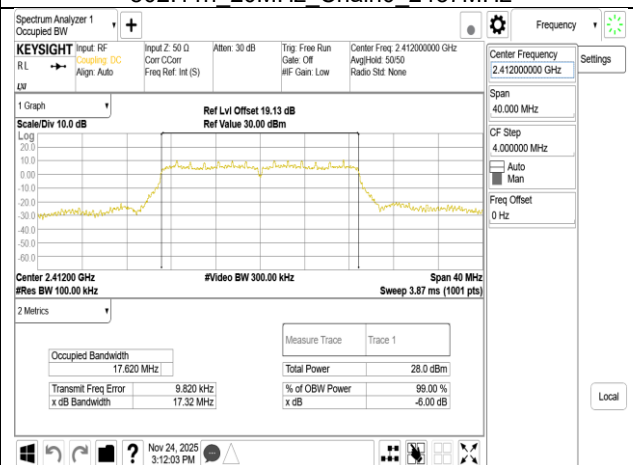
802.11n 20MHz Chain0 2412MHz



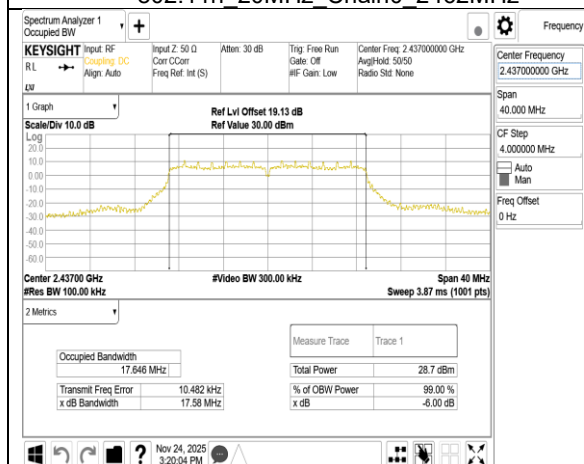
802.11n 20MHz Chain0 2437MHz



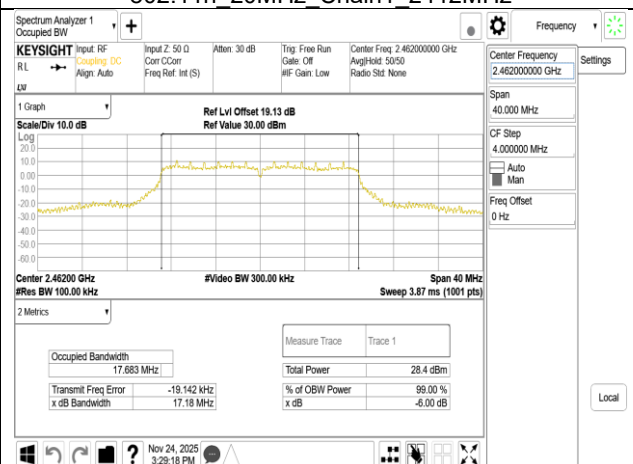
802.11n 20MHz Chain0 2462MHz



802.11n 20MHz Chain1 2412MHz



802.11n 20MHz Chain1 2437MHz



802.11n 20MHz Chain1 2462MHz

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7.2 Duty Cycle

Mode	Duty Cycle (%) = Ton / (Ton+Toff)	Duty Factor (dB) =10*log (1/Duty Cycle)	1/T (kHz)	VBW setting (kHz)
802.11b	100.00	0.00	0.00	0.01
802.11g	99.38	0.03	0.70	0.01
802.11n_20	99.41	0.03	0.75	0.01
802.11n_40	98.81	0.05	1.51	0.01
802.11ax_20_SU	98.58	0.06	1.80	0.01
802.11ax_40_SU	97.45	0.11	3.27	4.00

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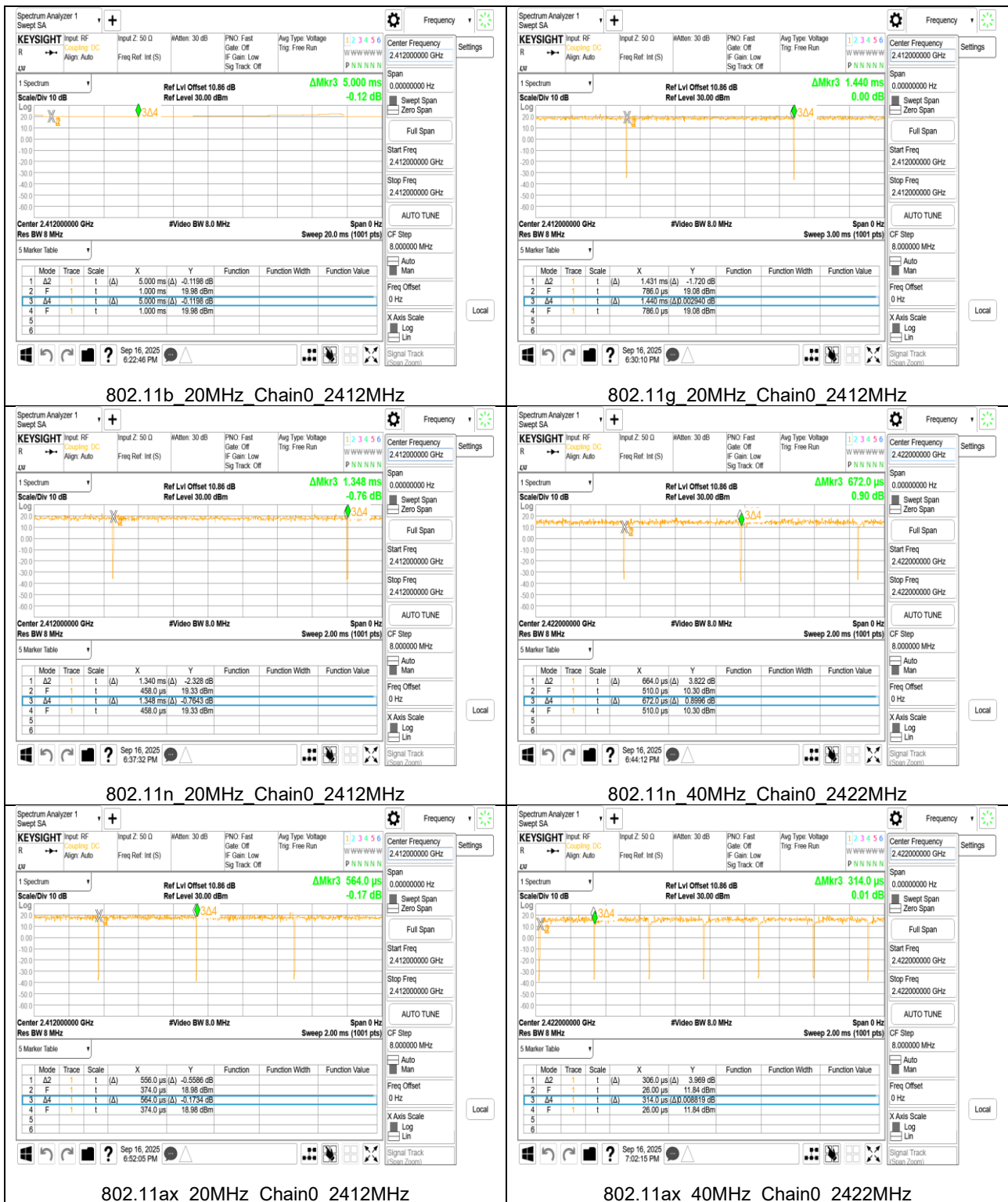
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7.2.1 Duty Cycle test plots



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7.3 Maximum Output Power

802.11b_2TX									
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	1	13	16.80	17.51	104.23	20.18	30.00	PASS
6	2437	1	13.5	16.92	17.40	104.16	20.18	30.00	PASS
10	2457	1	13.5	17.07	17.22	103.66	20.16	30.00	PASS
11	2462	1	13.5	17.06	17.17	102.94	20.13	30.00	PASS
802.11b_2TX									
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	1	13	13.60	14.52	51.22	17.09	30.00	PASS
6	2437	1	13.5	13.66	14.43	50.96	17.07	30.00	PASS
10	2457	1	13.5	13.93	14.30	51.63	17.13	30.00	PASS
11	2462	1	13.5	13.84	14.28	51.00	17.08	30.00	PASS
802.11g_2TX									
CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	6	16.5	23.12	23.77	443.35	26.47	30.00	PASS
6	2437	6	17	23.22	23.64	441.10	26.45	30.00	PASS
9	2452	6	17	23.04	23.46	423.19	26.27	30.00	PASS
10	2457	6	15.5	22.04	22.19	325.53	25.13	30.00	PASS
11	2462	6	15.5	21.99	22.06	318.82	25.04	30.00	PASS
802.11g_2TX									
CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	6	16.5	16.83	17.59	105.53	20.23	30.00	PASS
6	2437	6	17	16.99	17.41	105.01	20.21	30.00	PASS
9	2452	6	17	16.75	17.25	100.33	20.01	30.00	PASS
10	2457	6	15.5	15.79	16.14	78.99	18.98	30.00	PASS
11	2462	6	15.5	15.68	16.02	76.92	18.86	30.00	PASS

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802.11n_HT20_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	MCS0	11.5	20.14	20.60	218.09	23.39	30.00	PASS
2	2417	MCS0	16	24.14	24.58	546.50	27.38	30.00	PASS
3	2422	MCS0	16.5	24.51	24.96	595.82	27.75	30.00	PASS
4	2427	MCS0	17	24.73	25.00	613.39	27.88	30.00	PASS
6	2437	MCS0	17	24.68	24.95	606.37	27.83	30.00	PASS
9	2452	MCS0	17	24.54	24.88	592.06	27.72	30.00	PASS
10	2457	MCS0	15	23.03	23.11	405.55	26.08	30.00	PASS
11	2462	MCS0	14.5	22.59	22.74	369.48	25.68	30.00	PASS

802.11n_HT20_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	MCS0	11.5	12.14	12.72	35.04	15.45	30.00	PASS
2	2417	MCS0	16	16.28	17.07	93.30	19.70	30.00	PASS
3	2422	MCS0	16.5	16.65	17.42	101.35	20.06	30.00	PASS
4	2427	MCS0	17	16.88	17.80	108.90	20.37	30.00	PASS
6	2437	MCS0	17	16.91	17.27	102.32	20.10	30.00	PASS
9	2452	MCS0	17	16.79	17.27	100.99	20.04	30.00	PASS
10	2457	MCS0	15	15.26	15.63	70.06	18.45	30.00	PASS
11	2462	MCS0	14.5	14.70	15.05	61.44	17.88	30.00	PASS

802.11n_HT40M_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
3	2422	MCS0	10	19.30	19.58	175.90	22.45	30.00	PASS
4	2427	MCS0	11.5	20.36	20.74	227.22	23.56	30.00	PASS
5	2432	MCS0	11.5	20.43	20.68	227.36	23.57	30.00	PASS
6	2437	MCS0	11.5	20.35	20.53	221.37	23.45	30.00	PASS
7	2442	MCS0	11.5	20.13	20.60	217.85	23.38	30.00	PASS
8	2447	MCS0	10.5	19.30	19.54	175.06	22.43	30.00	PASS
9	2452	MCS0	9.5	18.18	18.48	136.24	21.34	30.00	PASS

802.11n_HT40M_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
3	2422	MCS0	10	10.33	11.15	23.83	13.77	30.00	PASS
4	2427	MCS0	11.5	11.82	12.37	32.48	15.12	30.00	PASS
5	2432	MCS0	11.5	11.86	12.36	32.58	15.13	30.00	PASS
6	2437	MCS0	11.5	11.68	12.23	31.45	14.98	30.00	PASS
7	2442	MCS0	11.5	11.52	12.01	30.09	14.78	30.00	PASS
8	2447	MCS0	10.5	10.50	11.07	24.03	13.81	30.00	PASS
9	2452	MCS0	9.5	9.37	9.92	18.48	12.67	30.00	PASS

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802.11ax_HE20_SU_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	MCS0	11.5	19.89	20.16	201.25	23.04	30.00	PASS
2	2417	MCS0	17	24.71	24.90	604.83	27.82	30.00	PASS
6	2437	MCS0	17	24.46	24.66	571.67	27.57	30.00	PASS
9	2452	MCS0	17	24.35	24.47	552.17	27.42	30.00	PASS
10	2457	MCS0	16.5	24.23	24.34	536.49	27.30	30.00	PASS
11	2462	MCS0	11.5	19.20	19.56	173.54	22.39	30.00	PASS

802.11ax_HE20_SU_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
1	2412	MCS0	11.5	12.14	12.76	35.27	15.47	30.00	PASS
2	2417	MCS0	17	17.20	17.69	111.28	20.46	30.00	PASS
6	2437	MCS0	17	16.95	17.40	104.55	20.19	30.00	PASS
9	2452	MCS0	17	16.95	17.23	102.44	20.10	30.00	PASS
10	2457	MCS0	16.5	16.83	17.18	100.48	20.02	30.00	PASS
11	2462	MCS0	11.5	11.65	11.82	29.84	14.75	30.00	PASS

802.11ax_HE40_SU_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Peak Output Power (dBm)		Total Peak Output Power (mW)	Total Peak Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
3	2422	MCS0	10	19.36	19.68	179.19	22.53	30.00	PASS
4	2427	MCS0	12	20.89	21.01	248.93	23.96	30.00	PASS
5	2432	MCS0	13	21.96	22.12	319.97	25.05	30.00	PASS
6	2437	MCS0	13	21.78	22.03	310.25	24.92	30.00	PASS
7	2442	MCS0	12	20.62	20.95	239.80	23.80	30.00	PASS
8	2447	MCS0	11	19.47	19.77	183.35	22.63	30.00	PASS
9	2452	MCS0	9.5	18.07	18.34	132.35	21.22	30.00	PASS

802.11ax_HE40_SU_2TX

CH	Freq. (MHz)	Data Rate	Power Setting	Avg. Output Power (dBm)		Total Avg. Output Power (mW)	Total Avg. Output Power (dBm)	Limit (dBm)	RESULT
				Ch0	Ch1				
3	2422	MCS0	10	10.49	11.28	24.63	13.92	30.00	PASS
4	2427	MCS0	12	12.24	13.06	37.00	15.68	30.00	PASS
5	2432	MCS0	13	13.06	13.33	41.78	16.21	30.00	PASS
6	2437	MCS0	13	13.07	13.29	41.63	16.19	30.00	PASS
7	2442	MCS0	12	11.88	12.60	33.63	15.27	30.00	PASS
8	2447	MCS0	11	11.13	11.67	27.67	14.42	30.00	PASS
9	2452	MCS0	9.5	9.50	10.04	19.01	12.79	30.00	PASS

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7.3.1 EIRP

802.11b_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
1	2412	1	13.60	14.52	17.09	51.22	3.175	20.27	36	PASS
6	2437	1	13.66	14.43	17.07	50.96	3.175	20.25	36	PASS
10	2457	1	13.93	14.30	17.13	51.63	3.175	20.30	36	PASS
11	2462	1	13.84	14.28	17.08	51.00	3.175	20.25	36	PASS

802.11g_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
1	2412	6	16.83	17.59	20.23	105.53	3.175	23.41	36	PASS
6	2437	6	16.99	17.41	20.21	105.01	3.175	23.39	36	PASS
9	2452	6	16.75	17.25	20.01	100.33	3.175	23.19	36	PASS
10	2457	6	15.79	16.14	18.98	78.99	3.175	22.15	36	PASS
11	2462	6	15.68	16.02	18.86	76.92	3.175	22.04	36	PASS

802.11n_HT20_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
1	2412	MCS0	12.14	12.72	15.45	35.04	3.175	18.62	36	PASS
2	2417	MCS0	16.28	17.07	19.70	93.30	3.175	22.87	36	PASS
3	2422	MCS0	16.65	17.42	20.06	101.35	3.175	23.23	36	PASS
4	2427	MCS0	16.88	17.80	20.37	108.90	3.175	23.55	36	PASS
6	2437	MCS0	16.91	17.27	20.10	102.32	3.175	23.27	36	PASS
9	2452	MCS0	16.79	17.27	20.04	100.99	3.175	23.22	36	PASS
10	2457	MCS0	15.26	15.63	18.45	70.06	3.175	21.63	36	PASS
11	2462	MCS0	14.70	15.05	17.88	61.44	3.175	21.06	36	PASS

802.11n_HT40M_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
3	2422	MCS0	10.33	11.15	13.77	23.83	3.175	16.95	36	PASS
4	2427	MCS0	11.82	12.37	15.12	32.48	3.175	18.29	36	PASS
5	2432	MCS0	11.86	12.36	15.13	32.58	3.175	18.30	36	PASS
6	2437	MCS0	11.68	12.23	14.98	31.45	3.175	18.15	36	PASS
7	2442	MCS0	11.52	12.01	14.78	30.09	3.175	17.96	36	PASS
8	2447	MCS0	10.50	11.07	13.81	24.03	3.175	16.98	36	PASS
9	2452	MCS0	9.37	9.92	12.67	18.48	3.175	15.84	36	PASS

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802.11ax_HE20_SU_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
1	2412	MCS0	12.14	12.76	15.47	35.27	3.175	18.65	36	PASS
2	2417	MCS0	17.20	17.69	20.46	111.28	3.175	23.64	36	PASS
6	2437	MCS0	16.95	17.40	20.19	104.55	3.175	23.37	36	PASS
9	2452	MCS0	16.95	17.23	20.10	102.44	3.175	23.28	36	PASS
10	2457	MCS0	16.83	17.18	20.02	100.48	3.175	23.20	36	PASS
11	2462	MCS0	11.65	11.82	14.75	29.84	3.175	17.92	36	PASS

802.11ax_HE40_SU_2TX

CH	Freq. (MHz)	Data Rate	Avg. Output Power (dBm)		Total Avg. Output Power (dBm)	Total Avg. Output Power (mW)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	RESULT
			Ch0	Ch1						
3	2422	MCS0	10.49	11.28	13.92	24.63	3.175	17.09	36	PASS
4	2427	MCS0	12.24	13.06	15.68	37.00	3.175	18.86	36	PASS
5	2432	MCS0	13.06	13.33	16.21	41.78	3.175	19.38	36	PASS
6	2437	MCS0	13.07	13.29	16.19	41.63	3.175	19.37	36	PASS
7	2442	MCS0	11.88	12.60	15.27	33.63	3.175	18.44	36	PASS
8	2447	MCS0	11.13	11.67	14.42	27.67	3.175	17.60	36	PASS
9	2452	MCS0	9.50	10.04	12.79	19.01	3.175	15.97	36	PASS

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7.4 Maximum Power Spectral Density

POWER DENSITY 802.11b MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	2.95	1.88	5.46	7.81	PASS
2437	2.57	-2.95	3.64	7.81	PASS
2462	-1	0.06	2.57	7.81	PASS

POWER DENSITY 802.11g MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	-1.65	-5.55	-0.17	7.81	PASS
2437	-2.39	-5.02	-0.50	7.81	PASS
2462	-4.6	-4.65	-1.61	7.81	PASS

POWER DENSITY 802.11n HT20 MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	-2.15	-5.46	-0.49	7.81	PASS
2437	-3.69	-4.11	-0.88	7.81	PASS
2462	-4.96	-4.49	-1.71	7.81	PASS

POWER DENSITY 802.11n HT40 MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422	-9.01	-10.76	-6.79	7.81	PASS
2437	-10.76	-13.4	-8.87	7.81	PASS
2452	-10.68	-12.15	-8.34	7.81	PASS

POWER DENSITY 802.11ax HE20 SU MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2412	-8.22	-9.73	-5.90	7.81	PASS
2437	-3.42	-4.54	-0.93	7.81	PASS
2462	-5.14	-5.23	-2.17	7.81	PASS

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POWER DENSITY 802.11ax HE40 SU MODE					
Freq. (MHz)	Ch0 PSD	Ch1 PSD	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
2422	-11.89	-14.02	-9.82	7.81	PASS
2437	-10.51	-12.26	-8.29	7.81	PASS
2452	-12.02	-14.89	-10.21	7.81	PASS

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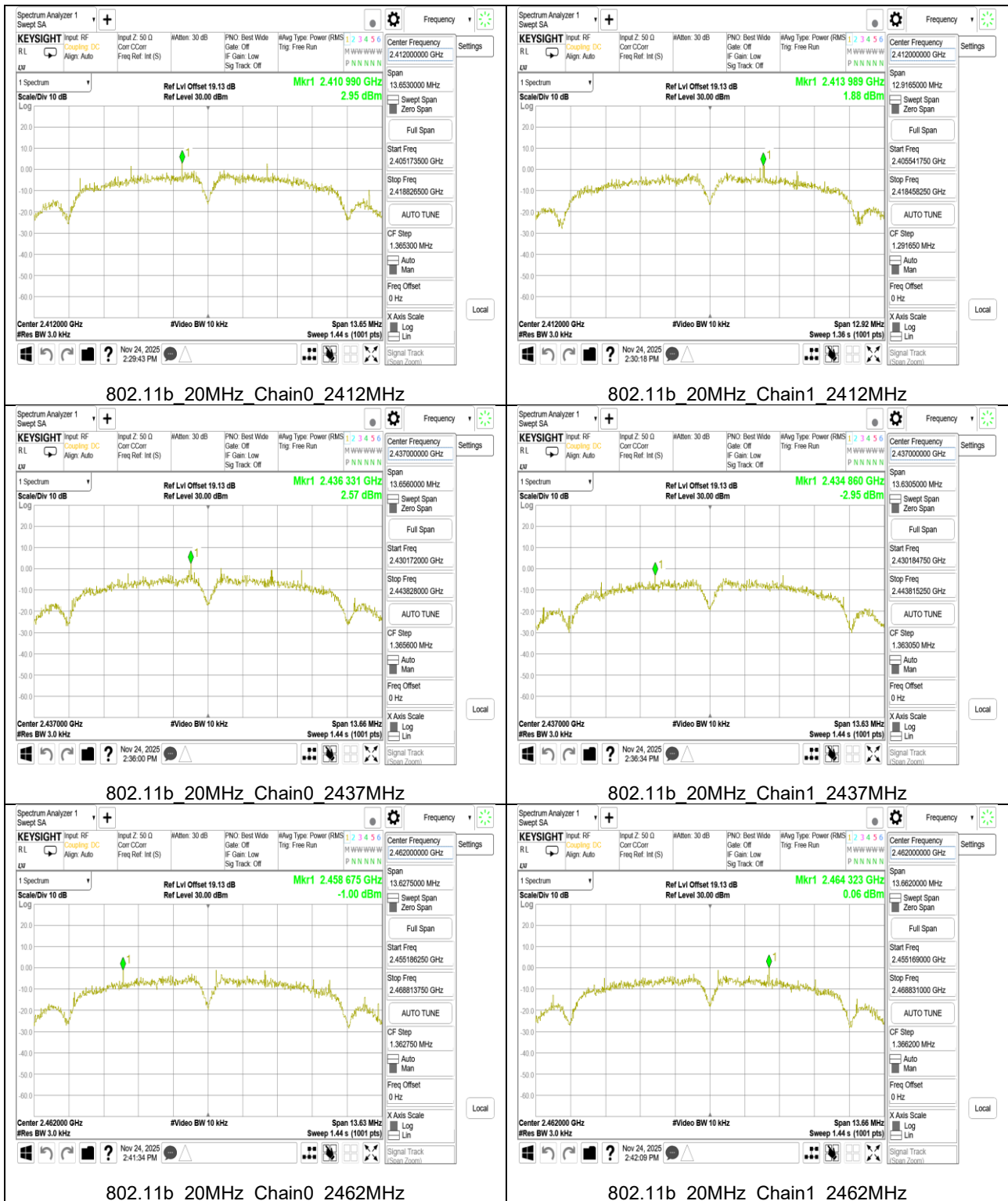
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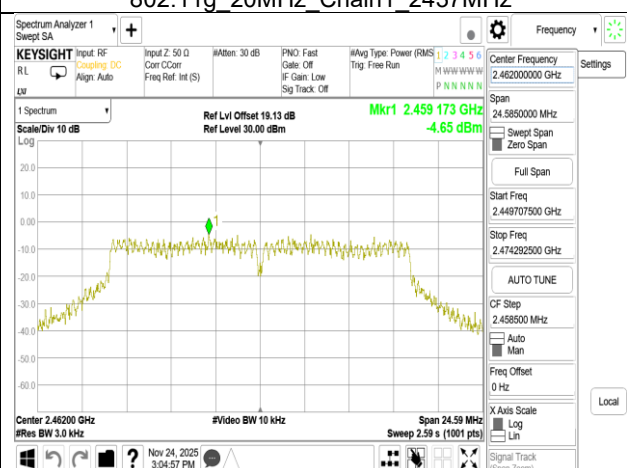
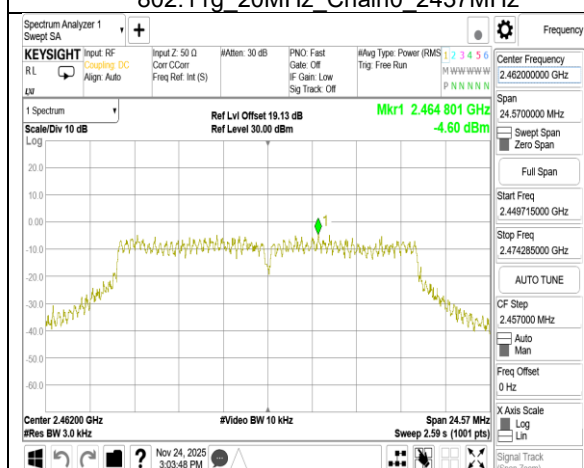
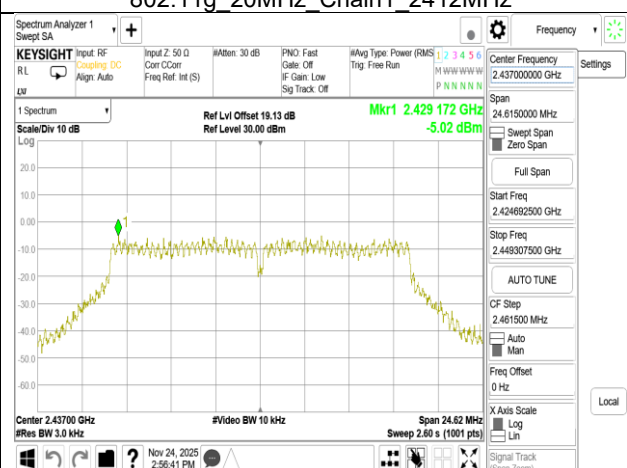
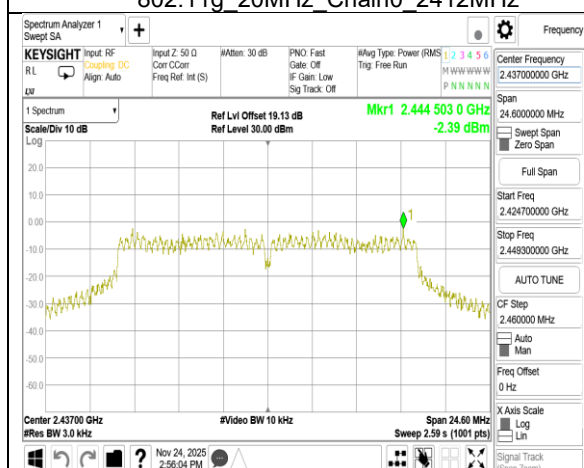
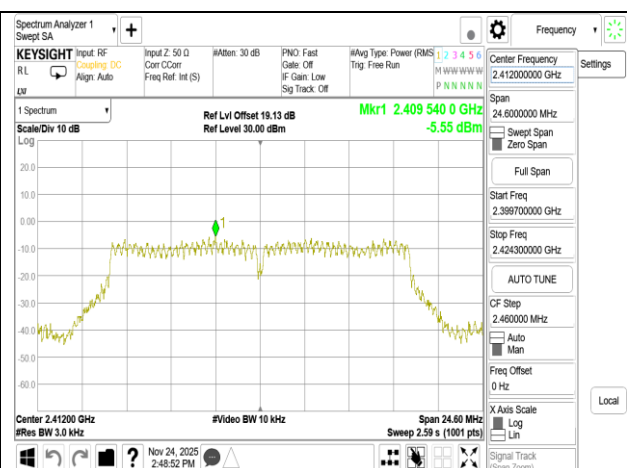
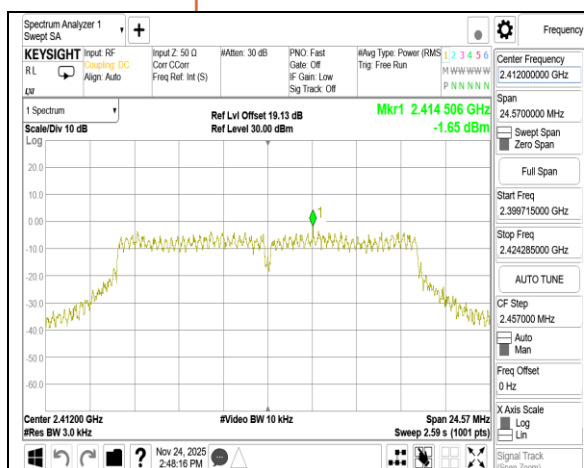
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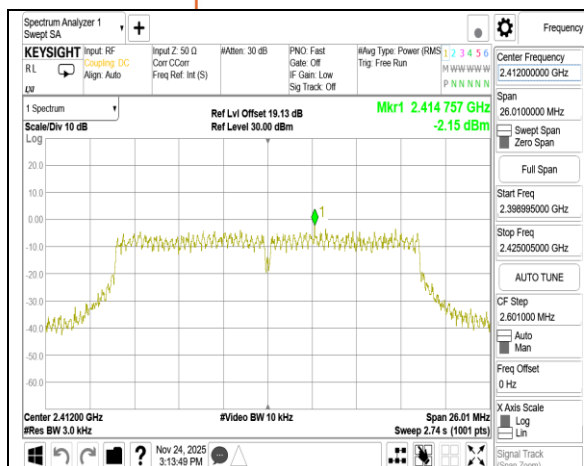
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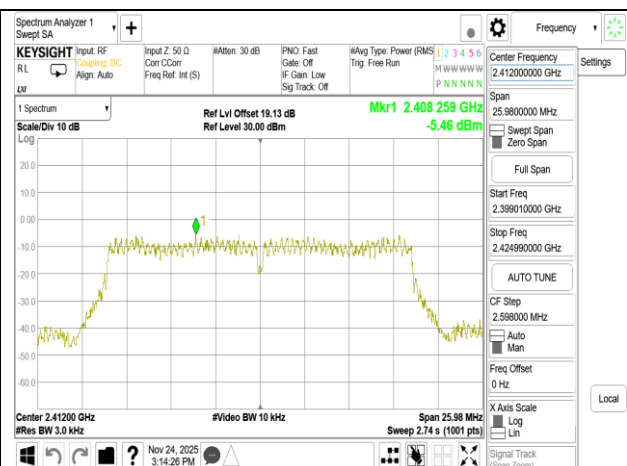
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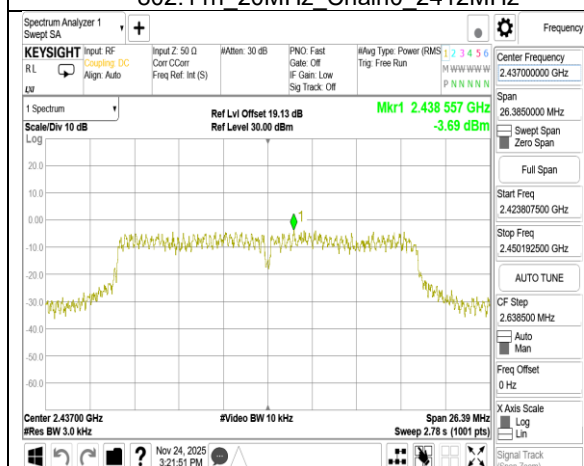
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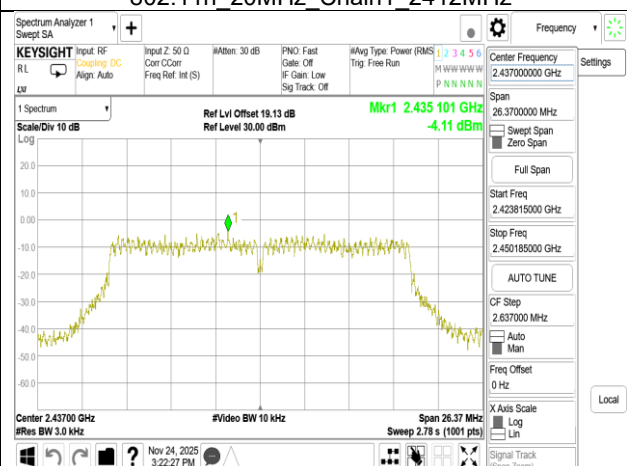
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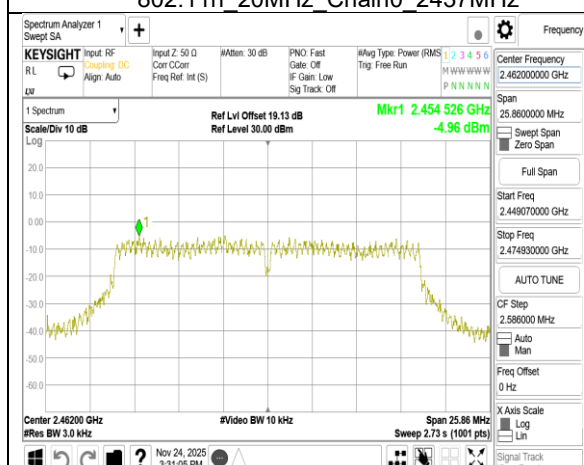
802.11n 20MHz Chain1 2412MHz



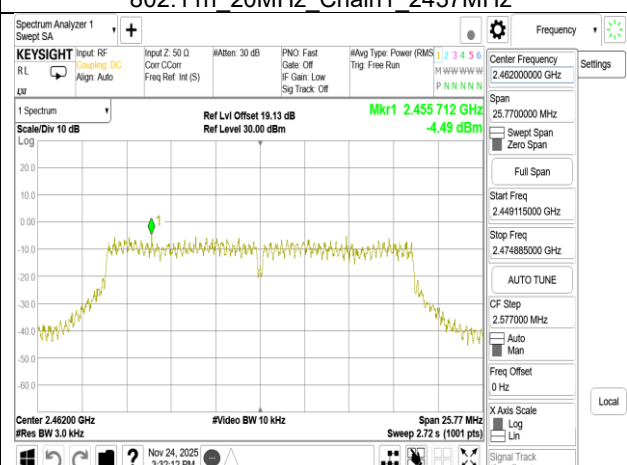
802.11n 20MHz Chain0 2437MHz



802.11n 20MHz Chain1 2437MHz



802.11n 20MHz Chain0 2462MHz



802.11n 20MHz Chain1 2462MHz

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