

OCCUPIED BANDWIDTH (99%)



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The 99% occupied bandwidth was measured with the EUT configured for continuous modulated operation.

Per ANSI C63.10:2013, 6.9.3, the spectrum analyzer was configured as follows:

The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.

The resolution bandwidth (RBW) of the spectrum analyzer was set to the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) bandwidth was set to at least 3 times the resolution bandwidth. The analyzer sweep time was set to auto to prevent video filtering or averaging. A sample detector was used unless the device was not able to be operated in a continuous transmit mode, in which case a peak detector was used.

The spectrum analyzer occupied bandwidth measurement function was used to sum the power of the transmission in linear terms to obtain the 99% bandwidth.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2023-09-05	2024-09-05
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2024-05-22	2025-05-22
Generator - Signal	Agilent	N5183A	TIK	2022-01-24	2025-01-24
Attenuator	Fairview Microwave	SA4014-20	AQI	2023-09-05	2024-09-05
Block - DC	Fairview Microwave	SD3379	ANH	2023-09-05	2024-09-05

OCCUPIED BANDWIDTH (99%)



EUT:	Fuji Thermostat	Work Order:	ADEM0044
Serial Number:	52202030005204	Date:	2024-07-22
Customer:	Ademco, Inc.	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	62.3%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Christopher Heintzleman, Arnauld Dedry	Job Site:	MN11
Power:	110VAC/60Hz	Configuration:	ADEM0044-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2024	ANSI C63.10:2013
RSS-247 Issue 3:2023	ANSI C63.10:2013

COMMENTS

Reference level offset includes attenuator, measurement cable, and DC block.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

TEST RESULTS

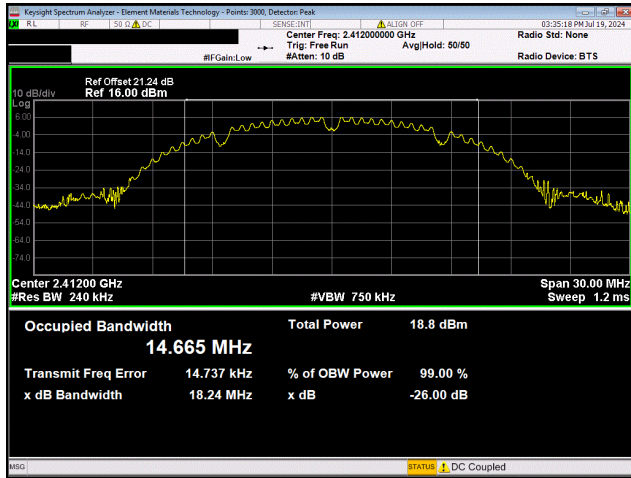
	Value	Limit	Result
20 MHz BW			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	14.665 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	14.742 MHz	N/A	N/A
High Channel 11, 2462 MHz	14.662 MHz	N/A	N/A
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	14.52 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	14.49 MHz	N/A	N/A
High Channel 11, 2462 MHz	14.583 MHz	N/A	N/A
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	16.791 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	17.093 MHz	N/A	N/A
High Channel 11, 2462 MHz	16.769 MHz	N/A	N/A
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	16.568 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	16.753 MHz	N/A	N/A
High Channel 11, 2462 MHz	16.707 MHz	N/A	N/A
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	16.634 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	16.586 MHz	N/A	N/A
High Channel 11, 2462 MHz	16.612 MHz	N/A	N/A
802.11(n) MCS0			

OCCUPIED BANDWIDTH (99%)

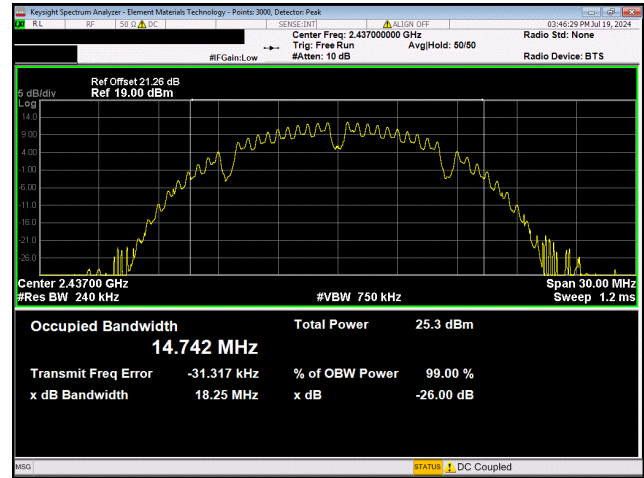


	Value	Limit	Result
Low Channel 1, 2412 MHz	17.891 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	17.818 MHz	N/A	N/A
High Channel 11, 2462 MHz	17.971 MHz	N/A	N/A
802.11(n) MCS7			
Low Channel 1, 2412 MHz	17.737 MHz	N/A	N/A
Mid Channel 6, 2437 MHz	17.731 MHz	N/A	N/A
High Channel 11, 2462 MHz	17.816 MHz	N/A	N/A

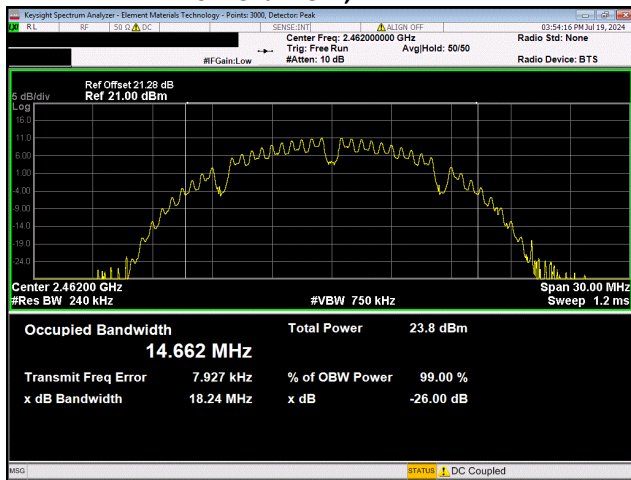
OCCUPIED BANDWIDTH (99%)



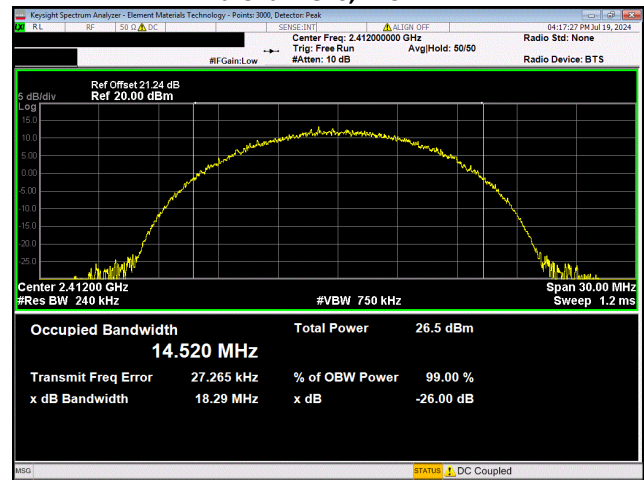
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(b) 1 Mbps
Mid Channel 6, 2437 MHz

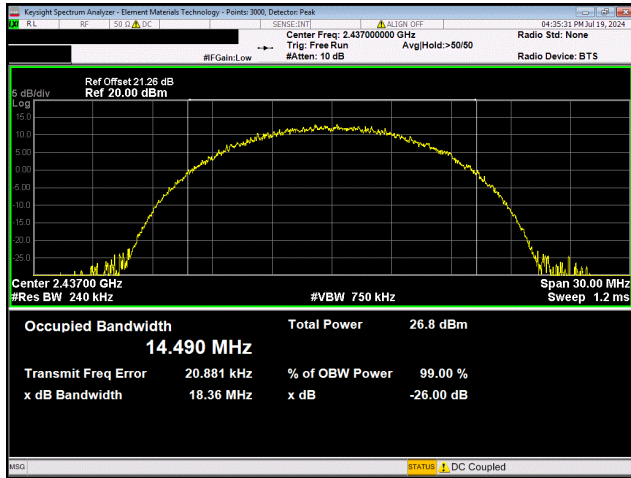


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

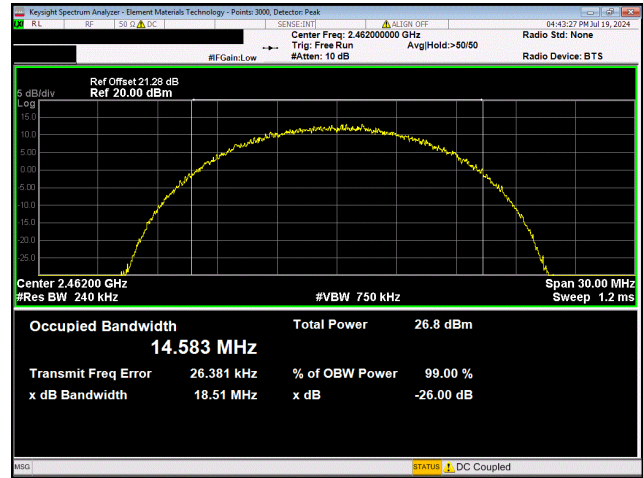


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

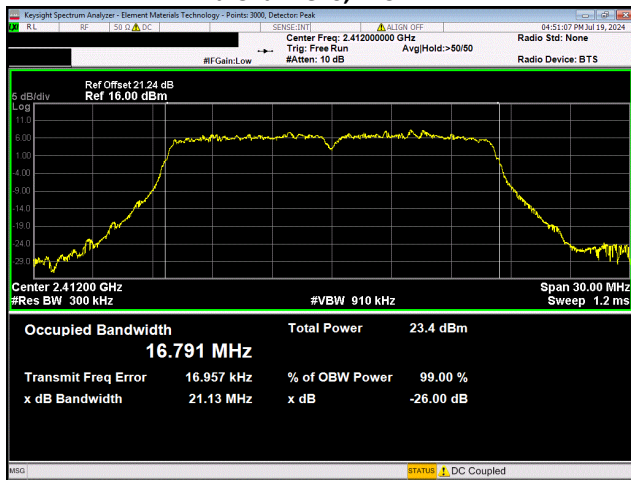
OCCUPIED BANDWIDTH (99%)



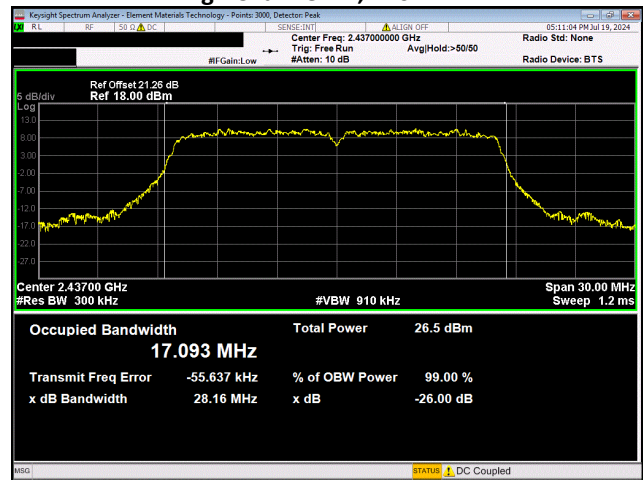
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(b) 11 Mbps
High Channel 11, 2462 MHz

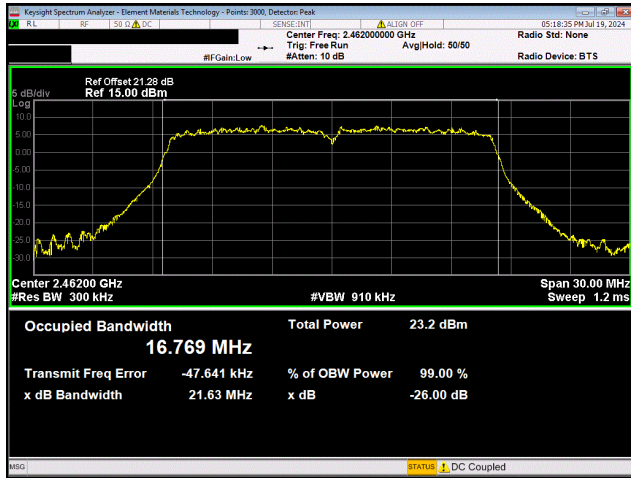


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz

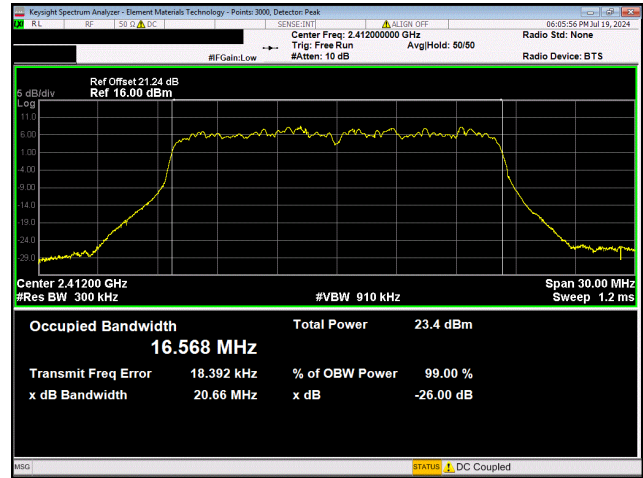


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

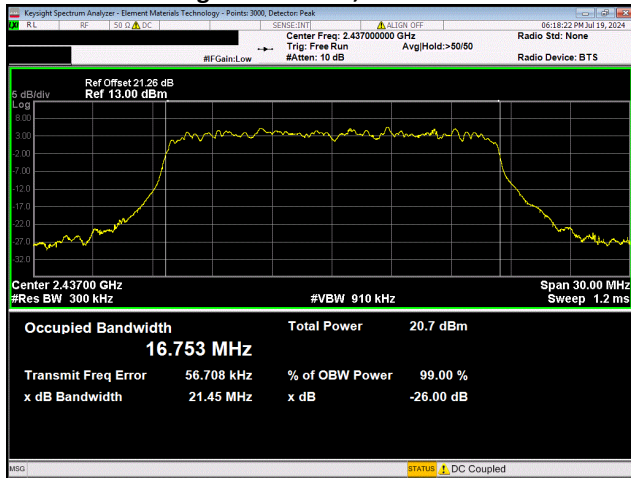
OCCUPIED BANDWIDTH (99%)



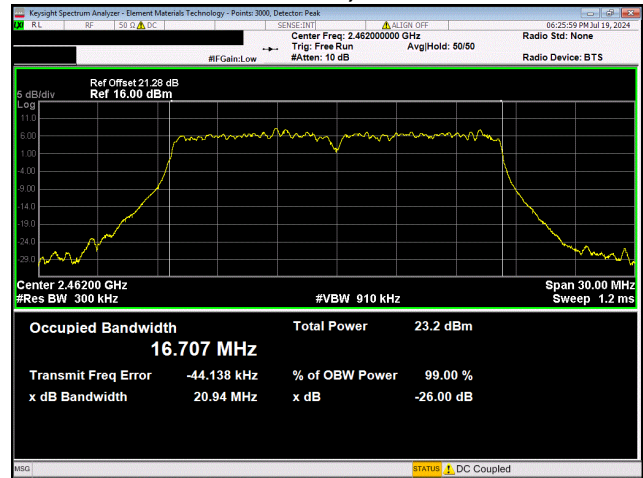
20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



20 MHz BW
802.11(g) 36 Mbps
Low Channel 1, 2412 MHz

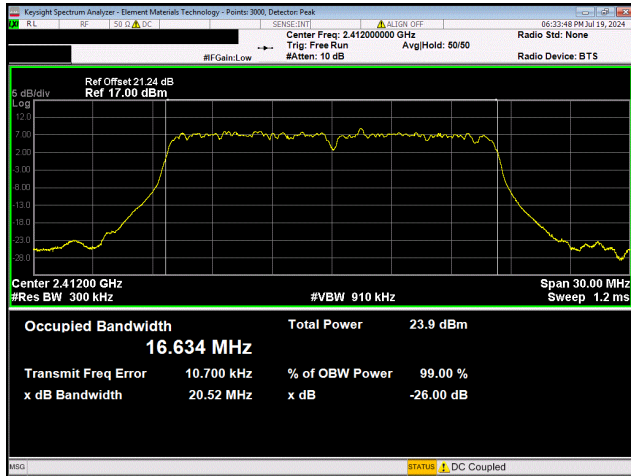


20 MHz BW
802.11(g) 36 Mbps
Mid Channel 6, 2437 MHz

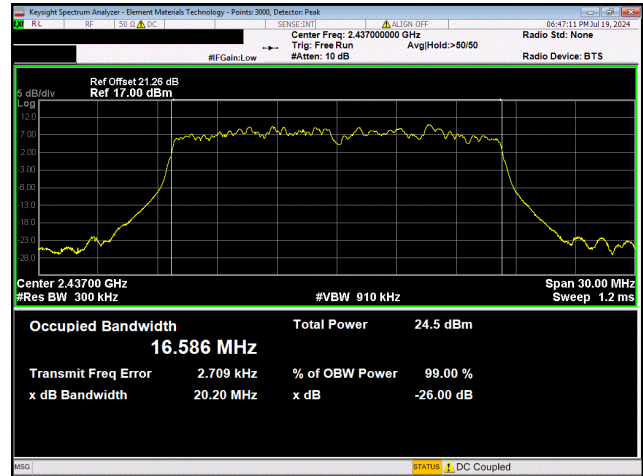


20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz

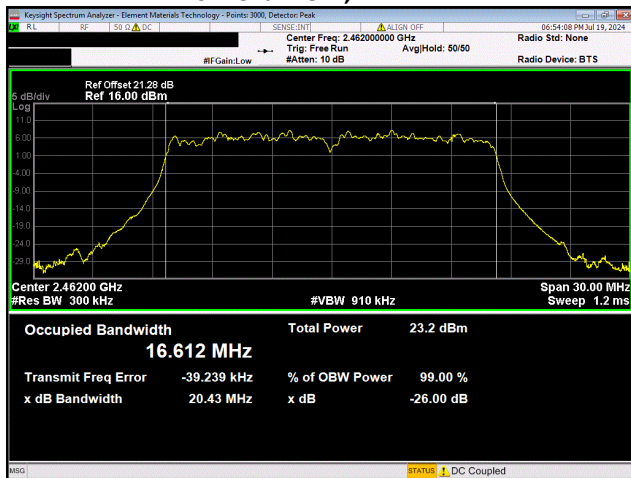
OCCUPIED BANDWIDTH (99%)



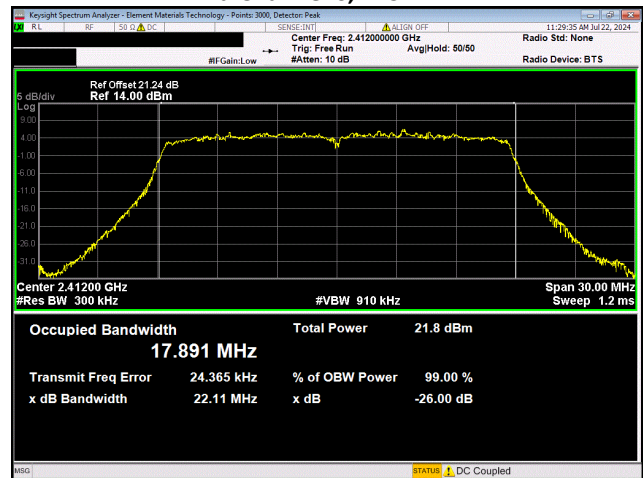
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(g) 54 Mbps
Mid Channel 6, 2437 MHz

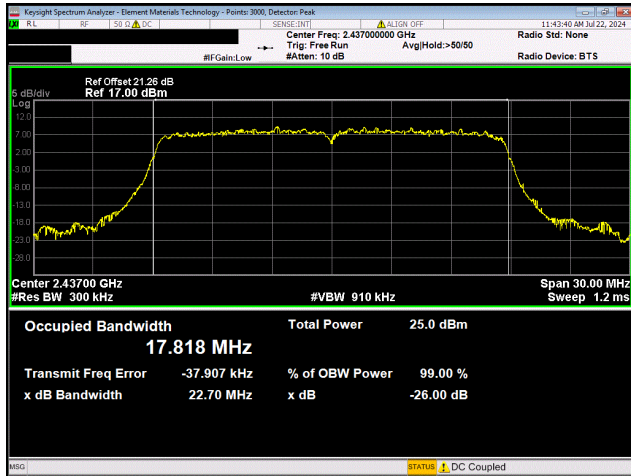


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

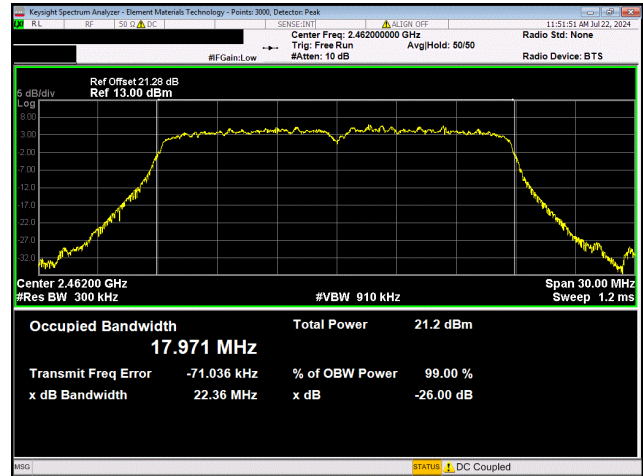


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

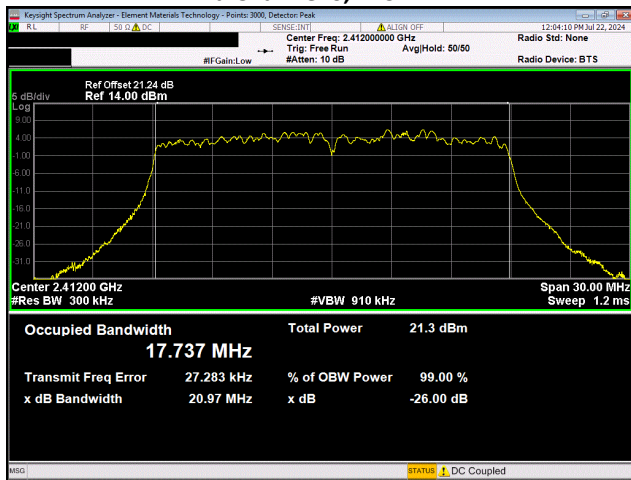
OCCUPIED BANDWIDTH (99%)



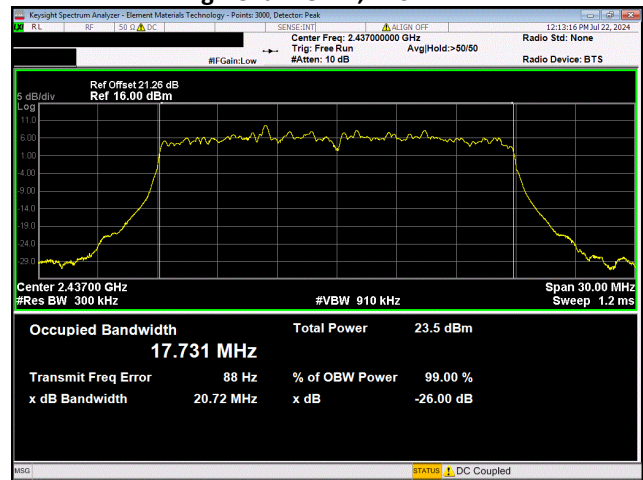
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(n) MCS0
High Channel 11, 2462 MHz

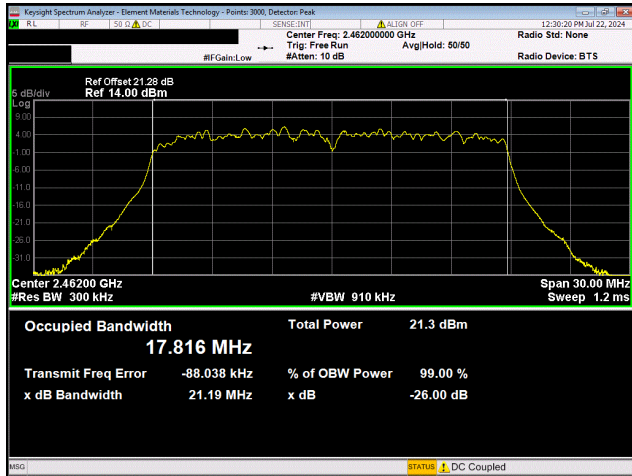


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

OCCUPIED BANDWIDTH (99%)



20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz

OUTPUT POWER

TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

Prior to measuring output power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2023-09-05	2024-09-05
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2024-05-22	2025-05-22
Generator - Signal	Agilent	N5183A	TIK	2022-01-24	2025-01-24
Attenuator	Fairview Microwave	SA4014-20	AQI	2023-09-05	2024-09-05
Block - DC	Fairview Microwave	SD3379	ANH	2023-09-05	2024-09-05

OUTPUT POWER



EUT:	Fuji Thermostat	Work Order:	ADEM0044
Serial Number:	52202030005204	Date:	2024-07-22
Customer:	Ademco, Inc.	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	62%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Christopher Heintzelman, Arnauld Dedry	Job Site:	MN11
Power:	110VAC/60Hz	Configuration:	ADEM0044-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2024	ANSI C63.10:2013
RSS-247 Issue 3:2023	ANSI C63.10:2013

COMMENTS

Reference level offset includes attenuator, measurement cable, and DC block.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

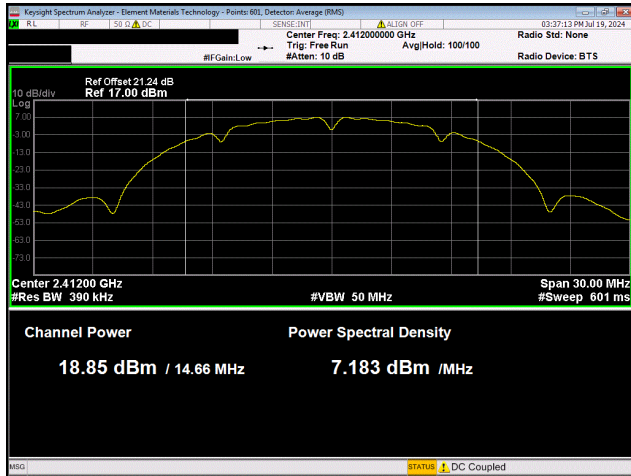
TEST RESULTS

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
20 MHz BW					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	18.845	0	18.8	30	Pass
Mid Channel 6, 2437 MHz	20.828	0	20.8	30	Pass
High Channel 11, 2462 MHz	19.372	0	19.4	30	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	18.068	0.4	18.5	30	Pass
Mid Channel 6, 2437 MHz	18.394	0.4	18.8	30	Pass
High Channel 11, 2462 MHz	18.415	0.4	18.8	30	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	16.255	0.3	16.6	30	Pass
Mid Channel 6, 2437 MHz	19.269	0.3	19.6	30	Pass
High Channel 11, 2462 MHz	16.013	0.3	16.3	30	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	15.191	1.3	16.5	30	Pass
Mid Channel 6, 2437 MHz	17.185	1.3	18.5	30	Pass
High Channel 11, 2462 MHz	15.192	1.3	16.5	30	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	15.607	1.8	17.4	30	Pass
Mid Channel 6, 2437 MHz	15.697	1.8	17.5	30	Pass
High Channel 11, 2462 MHz	14.675	1.8	16.5	30	Pass
802.11(n) MCS0					

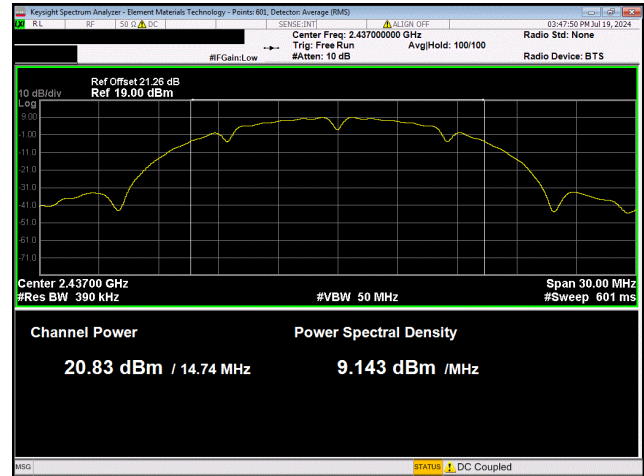
OUTPUT POWER

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
Low Channel 1, 2412 MHz	14.56	0.3	14.9	30	Pass
Mid Channel 6, 2437 MHz	17.792	0.3	18.1	30	Pass
High Channel 11, 2462 MHz	14.092	0.3	14.4	30	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	12.68	2	14.7	30	Pass
Mid Channel 6, 2437 MHz	14.775	2	16.8	30	Pass
High Channel 11, 2462 MHz	12.579	2	14.6	30	Pass

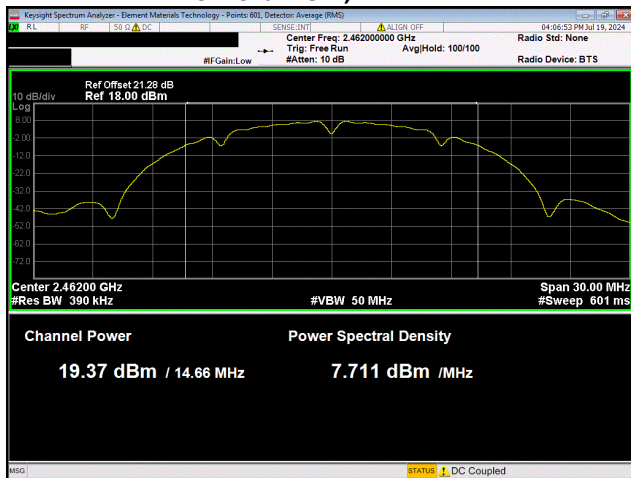
OUTPUT POWER



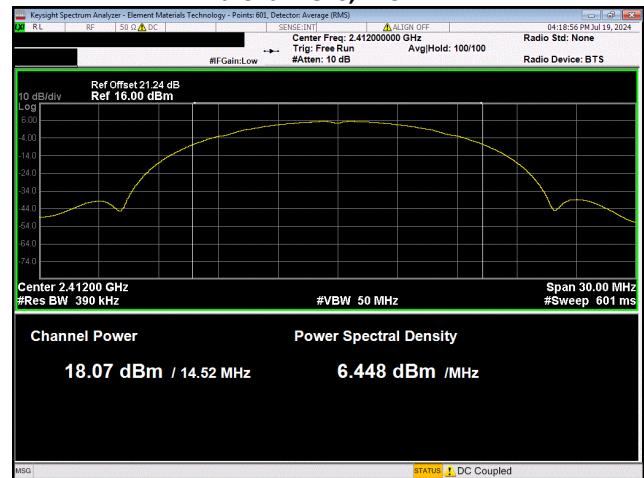
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(b) 1 Mbps
Mid Channel 6, 2437 MHz

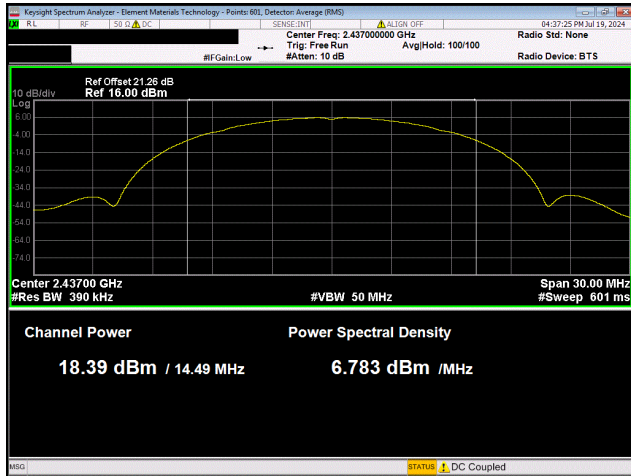


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

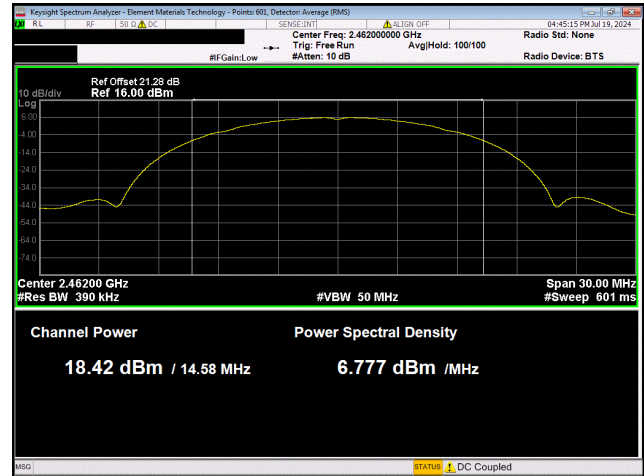


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

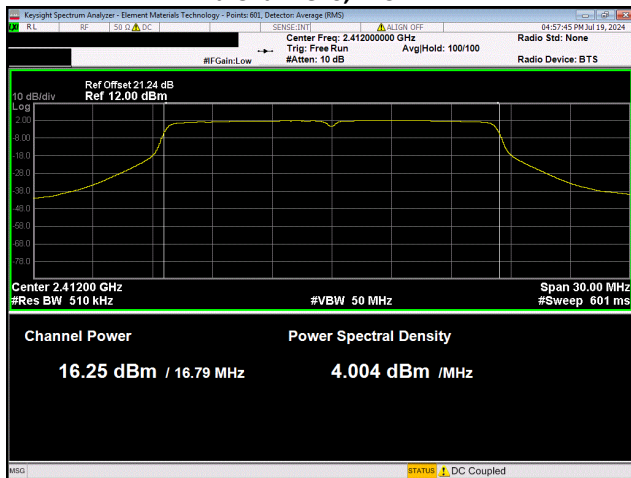
OUTPUT POWER



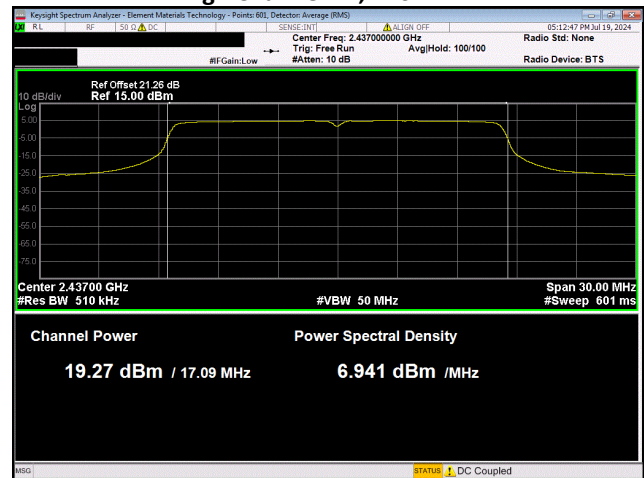
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(b) 11 Mbps
High Channel 11, 2462 MHz

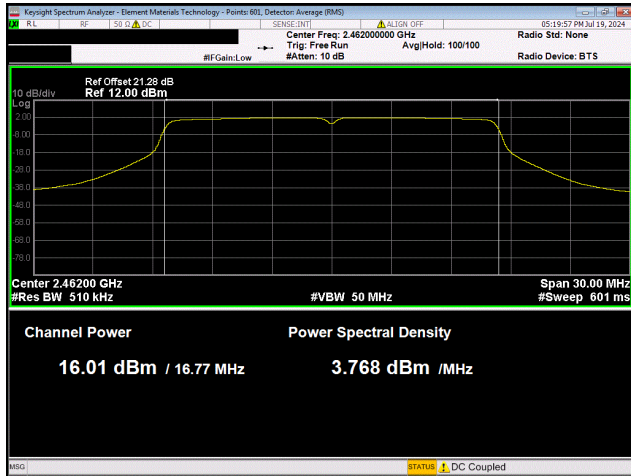


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz

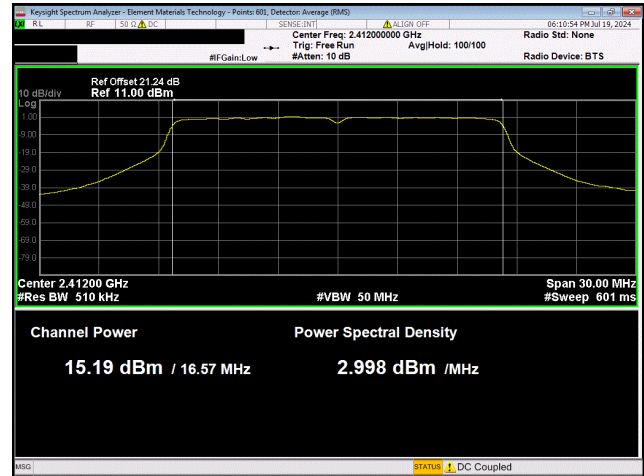


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

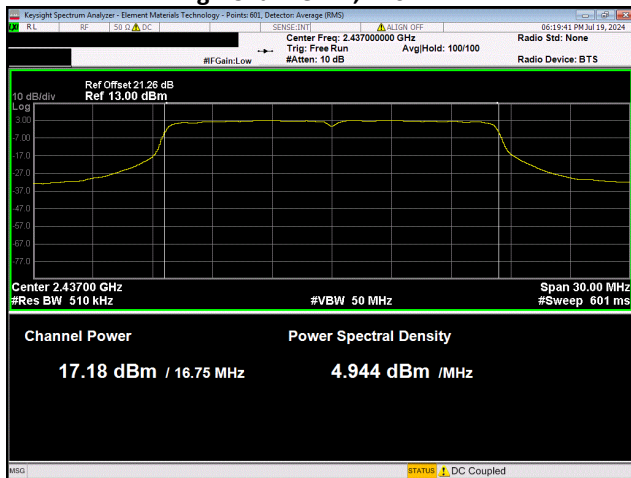
OUTPUT POWER



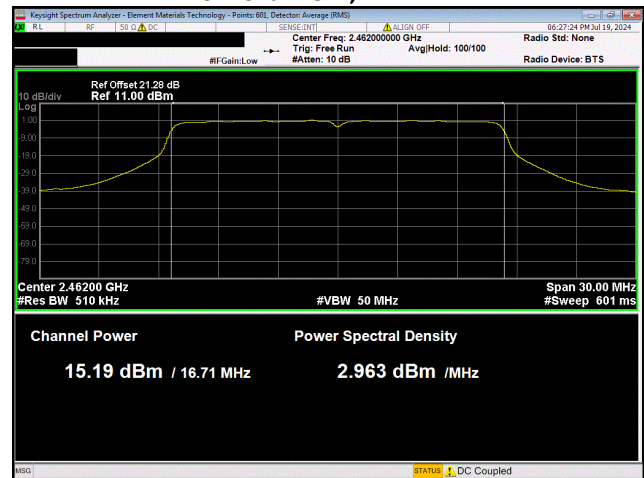
20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



20 MHz BW
802.11(g) 36 Mbps
Low Channel 1, 2412 MHz

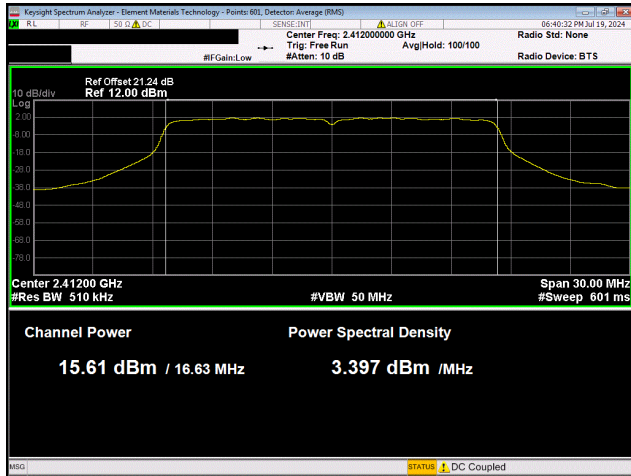


20 MHz BW
802.11(g) 36 Mbps
Mid Channel 6, 2437 MHz

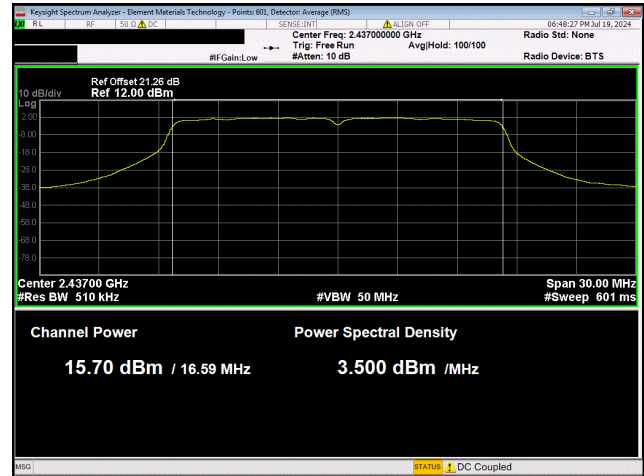


20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz

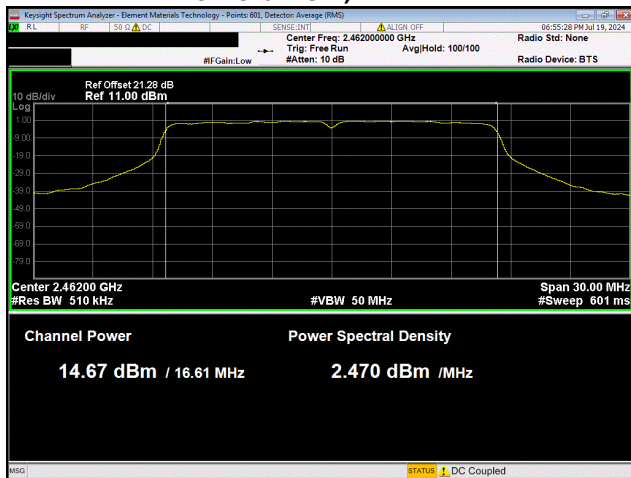
OUTPUT POWER



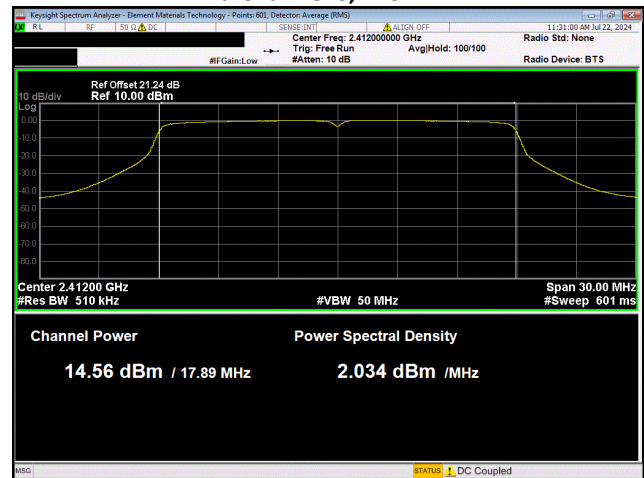
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(g) 54 Mbps
Mid Channel 6, 2437 MHz

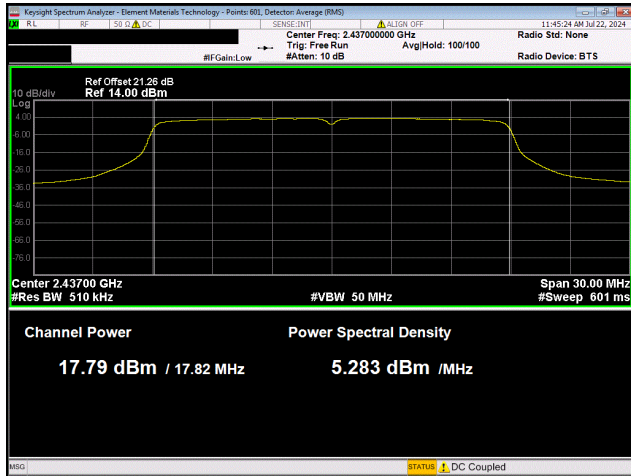


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

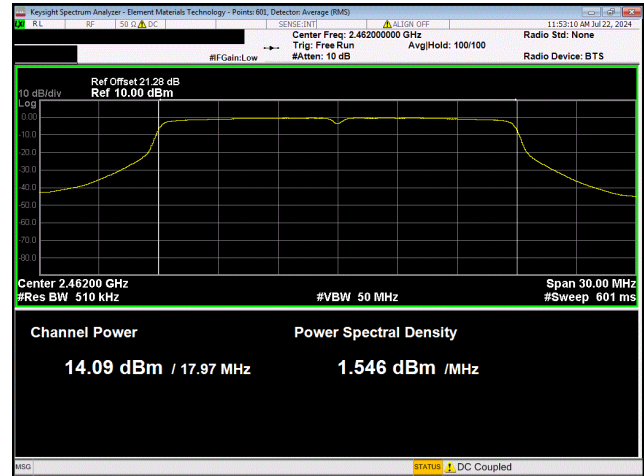


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

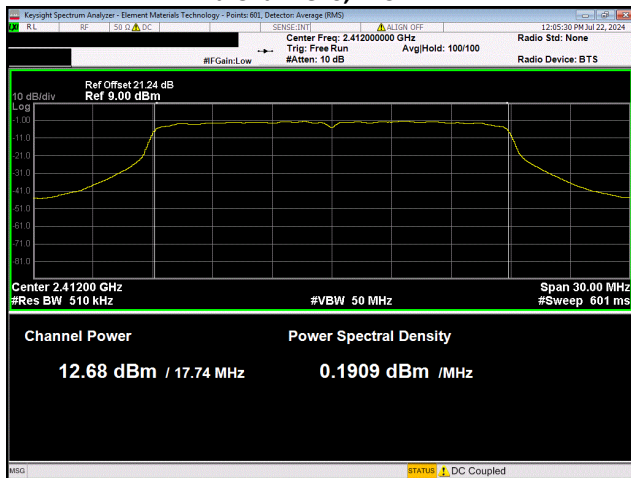
OUTPUT POWER



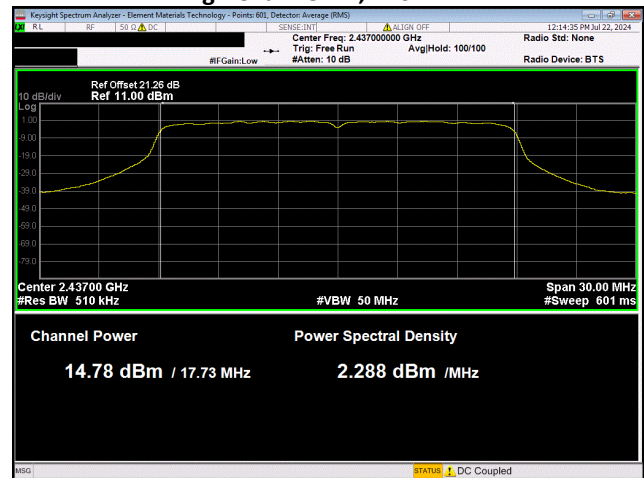
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(n) MCS0
High Channel 11, 2462 MHz

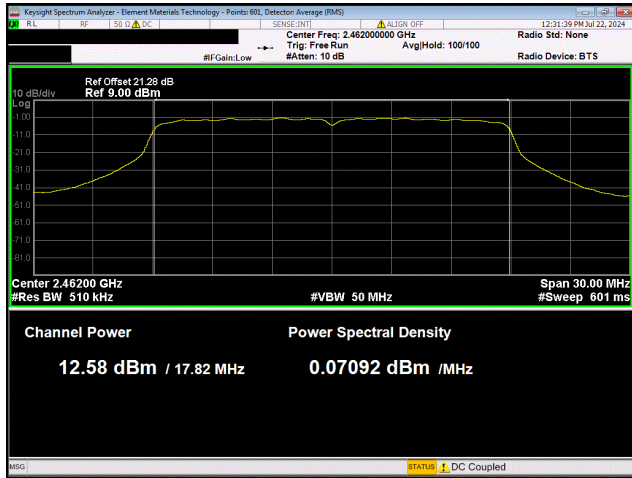


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

OUTPUT POWER



20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The fundamental emission output power (maximum average conducted output power) was measured using the channels and modes as called out on the following data sheets. The transmit power was set to its default maximum.

Prior to measuring output power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. Both are required to determine the method of measuring Maximum Conducted Output Power. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The method AVGSA-2 in section 11.9.2.2.4 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging across ON and OFF times of the EUT transmissions in the spectrum analyzer channel power function using an RMS detector. Following the measurement a duty cycle correction was applied by adding $[10 \log (1 / D)]$, where D is the duty cycle, to the measured power to compute the average power during the actual transmission times.

Equivalent Isotropic Radiated Power (EIRP) = Max Measured Power + Antenna gain (dBi)

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2023-09-05	2024-09-05
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2024-05-22	2025-05-22
Generator - Signal	Agilent	N5183A	TIK	2022-01-24	2025-01-24
Attenuator	Fairview Microwave	SA4014-20	AQI	2023-09-05	2024-09-05
Block - DC	Fairview Microwave	SD3379	ANH	2023-09-05	2024-09-05

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



EUT:	Fuji Thermostat	Work Order:	ADEM0044
Serial Number:	52202030005204	Date:	2024-07-22
Customer:	Ademco, Inc.	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	62.1%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Christopher Heintzelman, Arnauld Dedry	Job Site:	MN11
Power:	110VAC/60Hz	Configuration:	ADEM0044-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2024	ANSI C63.10:2013
RSS-247 Issue 3:2023	ANSI C63.10:2013

COMMENTS

Reference level offset includes attenuator, measurement cable, and DC block.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

TEST RESULTS

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
20 MHz BW							
802.11(b) 1 Mbps							
Low Channel 1, 2412 MHz	18.845	0	18.8	2.43	21.3	36	Pass
Mid Channel 6, 2437 MHz	20.828	0	20.8	2.43	23.3	36	Pass
High Channel 11, 2462 MHz	19.372	0	19.4	2.43	21.8	36	Pass
802.11(b) 11 Mbps							
Low Channel 1, 2412 MHz	18.068	0.4	18.5	2.43	20.9	36	Pass
Mid Channel 6, 2437 MHz	18.394	0.4	18.8	2.43	21.2	36	Pass
High Channel 11, 2462 MHz	18.415	0.4	18.8	2.43	21.2	36	Pass
802.11(g) 6 Mbps							
Low Channel 1, 2412 MHz	16.255	0.3	16.6	2.43	19	36	Pass
Mid Channel 6, 2437 MHz	19.269	0.3	19.6	2.43	22	36	Pass
High Channel 11, 2462 MHz	16.013	0.3	16.3	2.43	18.7	36	Pass
802.11(g) 36 Mbps							
Low Channel 1, 2412 MHz	15.191	1.3	16.5	2.43	18.9	36	Pass
Mid Channel 6, 2437 MHz	17.185	1.3	18.5	2.43	20.9	36	Pass
High Channel 11, 2462 MHz	15.192	1.3	16.5	2.43	18.9	36	Pass
802.11(g) 54 Mbps							
Low Channel 1, 2412 MHz	15.607	1.8	17.4	2.43	19.8	36	Pass
Mid Channel 6, 2437 MHz	15.697	1.8	17.5	2.43	19.9	36	Pass
High Channel 11, 2462 MHz	14.675	1.8	16.5	2.43	18.9	36	Pass
802.11(n) MCS0							

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
Low Channel 1, 2412 MHz	14.56	0.3	14.9	2.43	17.3	36	Pass
Mid Channel 6, 2437 MHz	17.792	0.3	18.1	2.43	20.5	36	Pass
High Channel 11, 2462 MHz	14.092	0.3	14.4	2.43	16.8	36	Pass
802.11(n) MCS7							
Low Channel 1, 2412 MHz	12.68	2	14.7	2.43	17.1	36	Pass
Mid Channel 6, 2437 MHz	14.775	2	16.8	2.43	19.2	36	Pass
High Channel 11, 2462 MHz	12.579	2	14.6	2.43	17	36	Pass

POWER SPECTRAL DENSITY



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The power spectral density was measured using the channels and modes as called out in the following data sheets.

The method AVGPSD-2 in clause 11.10.5 of ANSI C63.10:2013 was used to make the measurement. This method uses trace averaging and RMS detection across the ON and OFF times of the transmission. The analyzer was configured to the following settings:

- Span = at least 1.5 * OBW
- RBW = 100 kHz
- VBW = 300 kHz
- Detector = RMS
- Sweep = 601 mS
- Points = 601

The peak marker function was used to determine the maximum amplitude level. An additional $[10 \cdot \log(1 / D)]$, where D is the duty cycle was added to the peak marker to compute the average PSD during the actual transmission time. Per AVGPSD-2, if the measured value does not exceed the limit with a 100 kHz resolution bandwidth, the test is considered a pass.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2023-09-05	2024-09-05
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2024-05-22	2025-05-22
Generator - Signal	Agilent	N5183A	TIK	2022-01-24	2025-01-24
Attenuator	Fairview Microwave	SA4014-20	AQI	2023-09-05	2024-09-05
Block - DC	Fairview Microwave	SD3379	ANH	2023-09-05	2024-09-05

POWER SPECTRAL DENSITY



EUT:	Fuji Thermostat	Work Order:	ADEM0044
Serial Number:	52202030005204	Date:	2024-07-22
Customer:	Ademco, Inc.	Temperature:	21.7°C
Attendees:	None	Relative Humidity:	62.7%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Christopher Heintzelman, Arnauld Dedry	Job Site:	MN11
Power:	110VAC/60Hz	Configuration:	ADEM0044-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2024	ANSI C63.10:2013
RSS-247 Issue 3:2023	ANSI C63.10:2013

COMMENTS

Reference level offset includes attenuator, measurement cable, and DC block.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

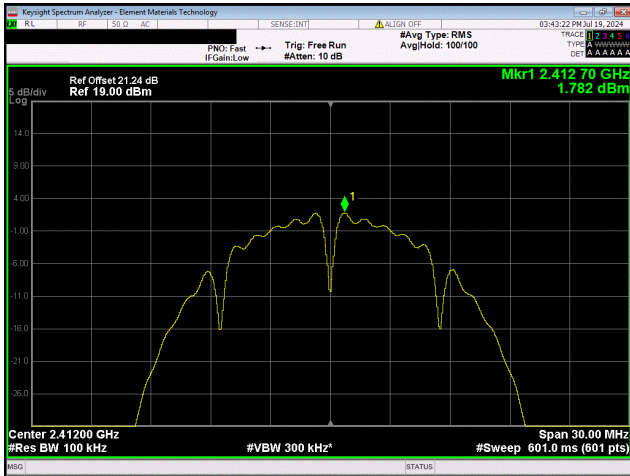
TEST RESULTS

	Value dBm/100kHz	Duty Cycle Factor (dB)	Value dBm/100kHz	Limit ≤ (dBm/3kHz)	Results
20 MHz BW					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	1.782	0	1.8	8	Pass
Mid Channel 6, 2437 MHz	3.313	0	3.3	8	Pass
High Channel 11, 2462 MHz	1.877	0	1.9	8	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	-0.137	0.4	0.3	8	Pass
Mid Channel 6, 2437 MHz	0.063	0.4	0.5	8	Pass
High Channel 11, 2462 MHz	0.16	0.4	0.6	8	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	-3.744	0.3	-3.4	8	Pass
Mid Channel 6, 2437 MHz	-0.62	0.3	-0.3	8	Pass
High Channel 11, 2462 MHz	-3.709	0.3	-3.4	8	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	-3.976	1.3	-2.7	8	Pass
Mid Channel 6, 2437 MHz	-2.266	1.3	-1.0	8	Pass
High Channel 11, 2462 MHz	-4.048	1.3	-2.7	8	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	-3.376	1.8	-1.6	8	Pass
Mid Channel 6, 2437 MHz	-3.41	1.8	-1.6	8	Pass
High Channel 11, 2462 MHz	-4.368	1.8	-2.6	8	Pass
802.11(n) MCS0					

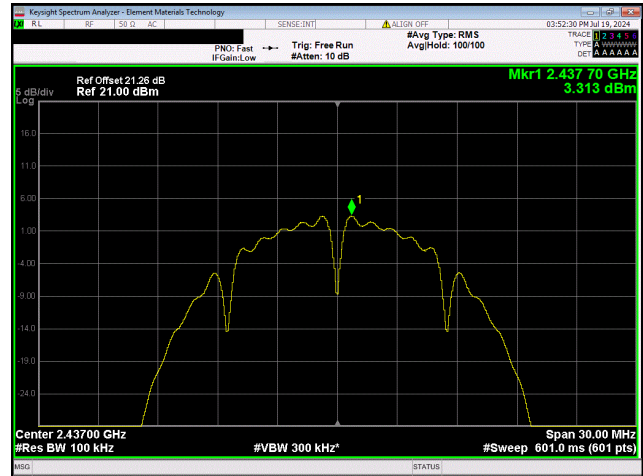
POWER SPECTRAL DENSITY

	Value dBm/100kHz		Duty Cycle Factor (dB)	Value dBm/100kHz	Limit ≤ (dBm/3kHz)	Results
Low Channel 1, 2412 MHz	-5.901		0.3	-5.6	8	Pass
Mid Channel 6, 2437 MHz	-2.466		0.3	-2.2	8	Pass
High Channel 11, 2462 MHz	-6.329		0.3	-6.0	8	Pass
802.11(n) MCS7						
Low Channel 1, 2412 MHz	-6.249		2	-4.2	8	Pass
Mid Channel 6, 2437 MHz	-4.483		2	-2.5	8	Pass
High Channel 11, 2462 MHz	-6.306		2	-4.3	8	Pass

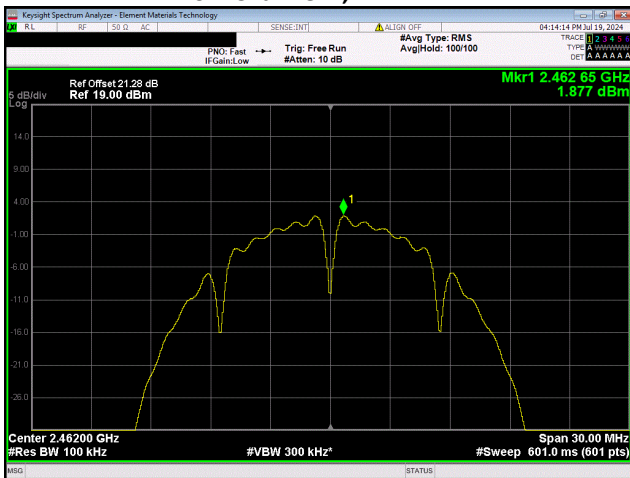
POWER SPECTRAL DENSITY



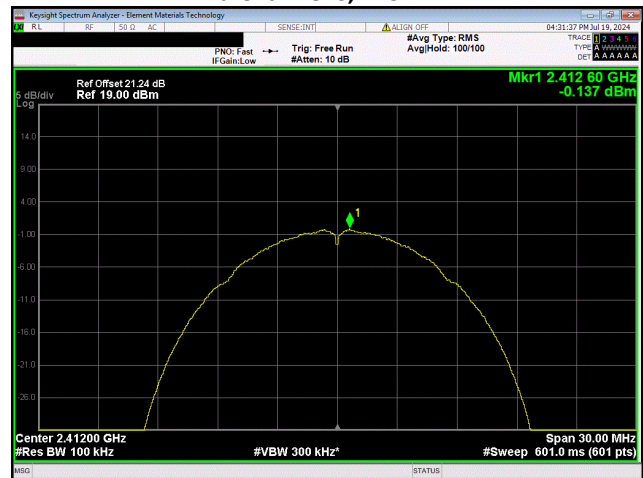
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(b) 1 Mbps
Mid Channel 6, 2437 MHz

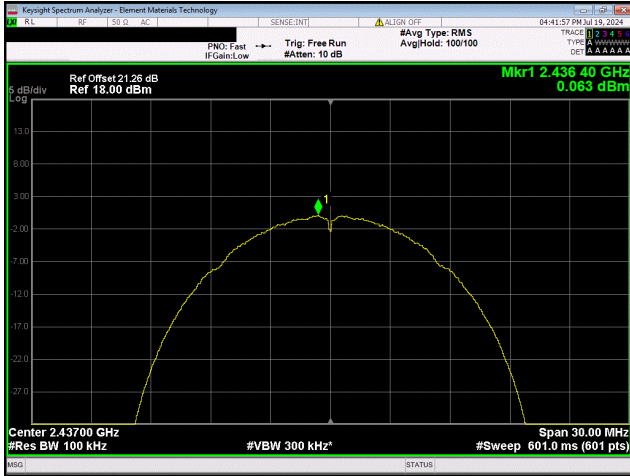


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

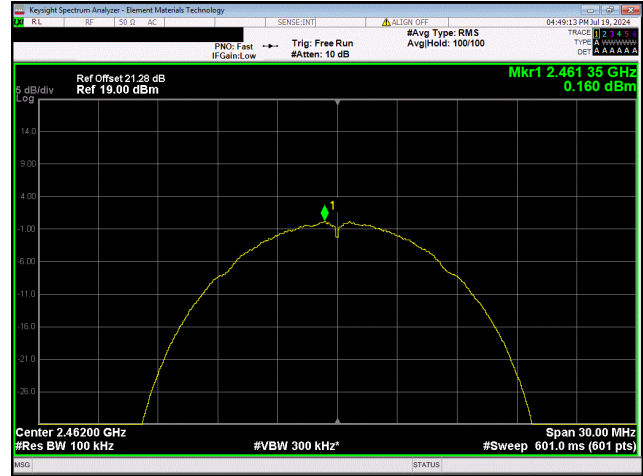


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

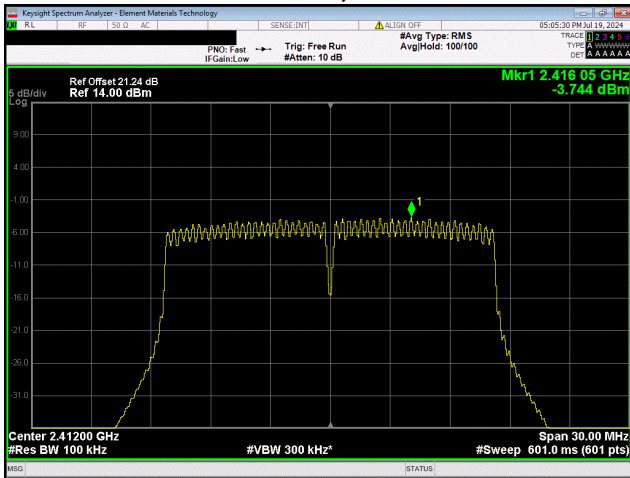
POWER SPECTRAL DENSITY



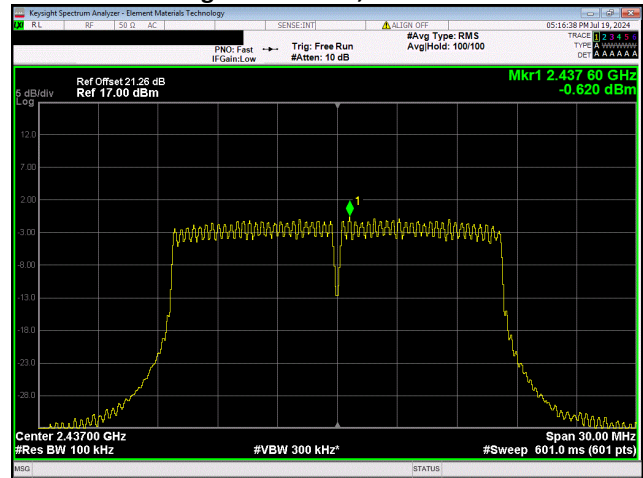
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(b) 11 Mbps
High Channel 11, 2462 MHz

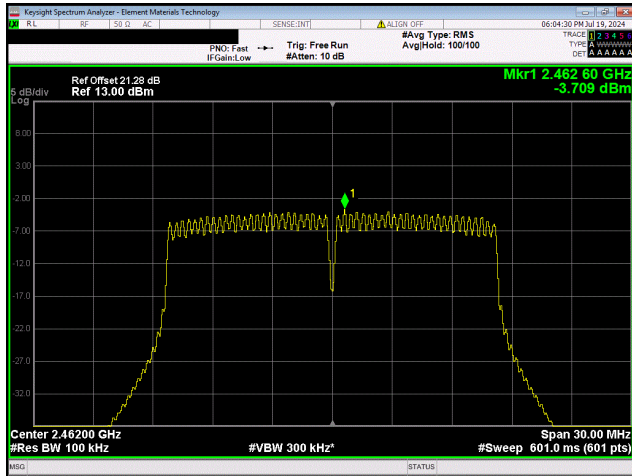


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz

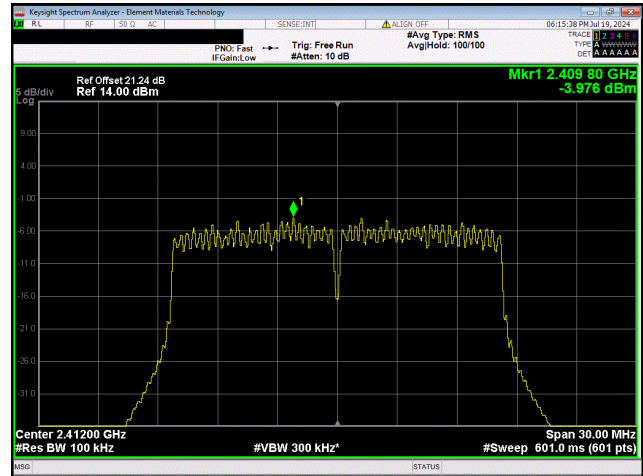


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

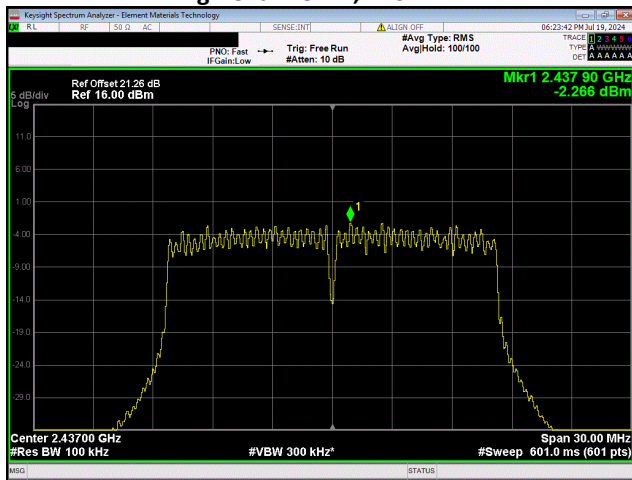
POWER SPECTRAL DENSITY



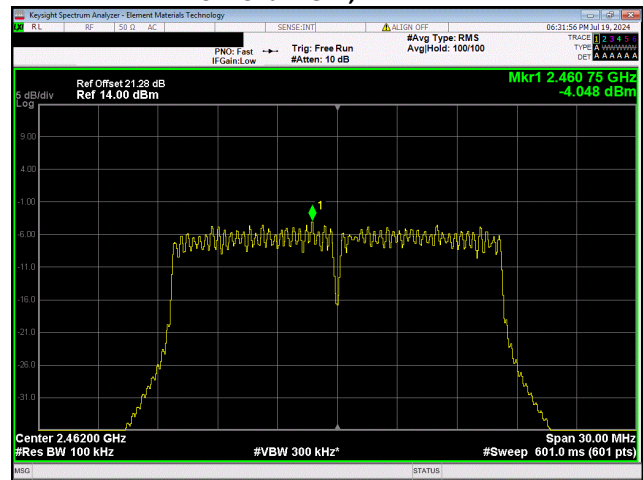
20 MHz BW
 802.11(g) 6 Mbps
 High Channel 11, 2462 MHz



20 MHz BW
 802.11(g) 36 Mbps
 Low Channel 1, 2412 MHz

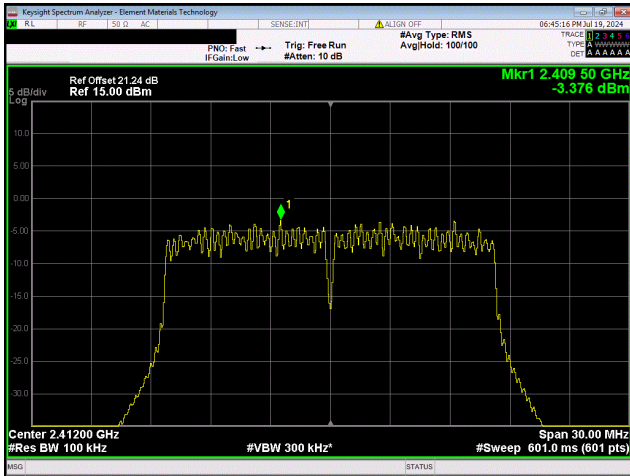


20 MHz BW
 802.11(g) 36 Mbps
 Mid Channel 6, 2437 MHz

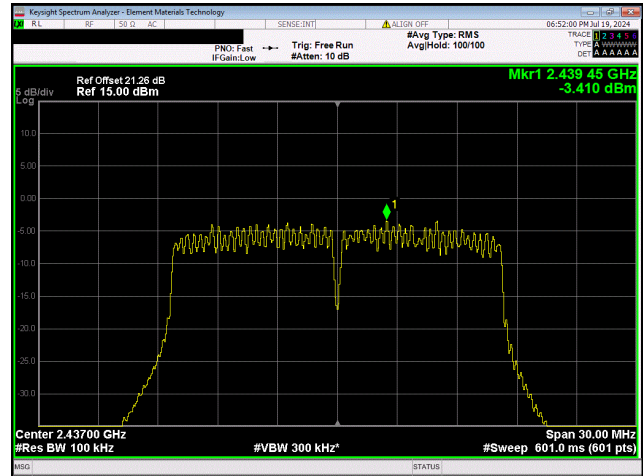


20 MHz BW
 802.11(g) 36 Mbps
 High Channel 11, 2462 MHz

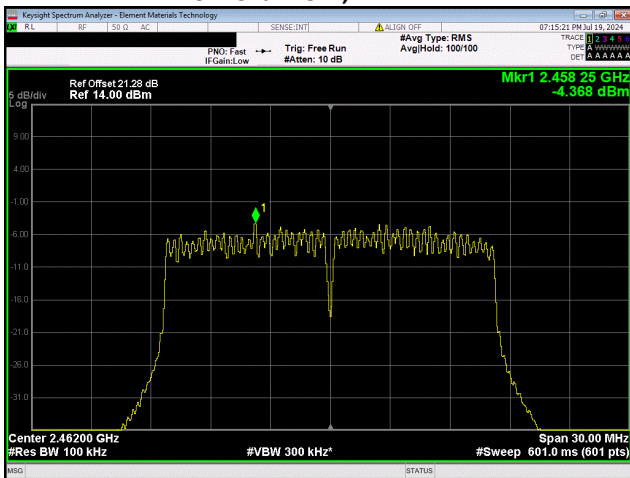
POWER SPECTRAL DENSITY



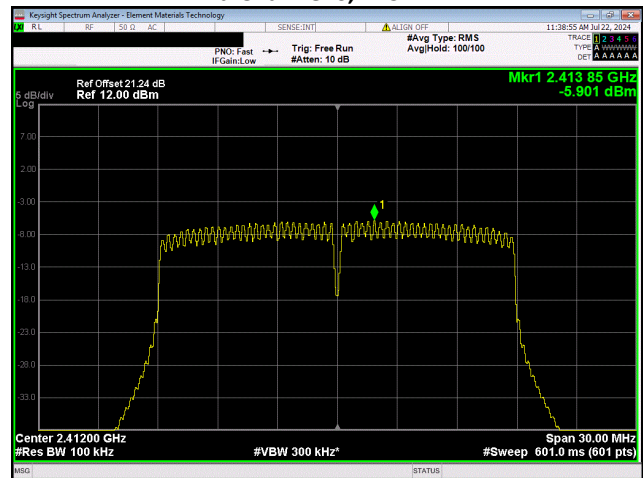
20 MHz BW
 802.11(g) 54 Mbps
 Low Channel 1, 2412 MHz



20 MHz BW
 802.11(g) 54 Mbps
 Mid Channel 6, 2437 MHz

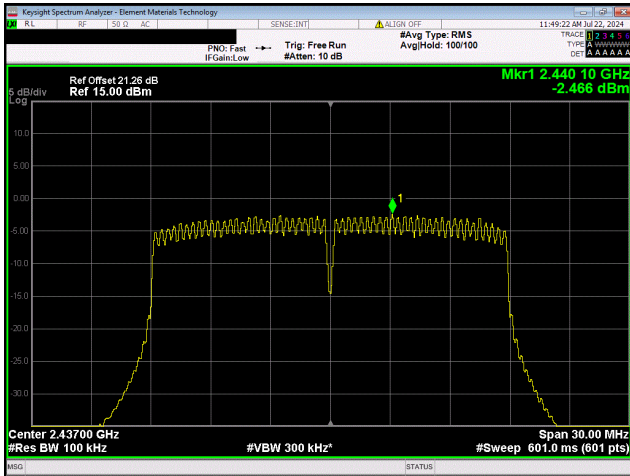


20 MHz BW
 802.11(g) 54 Mbps
 High Channel 11, 2462 MHz

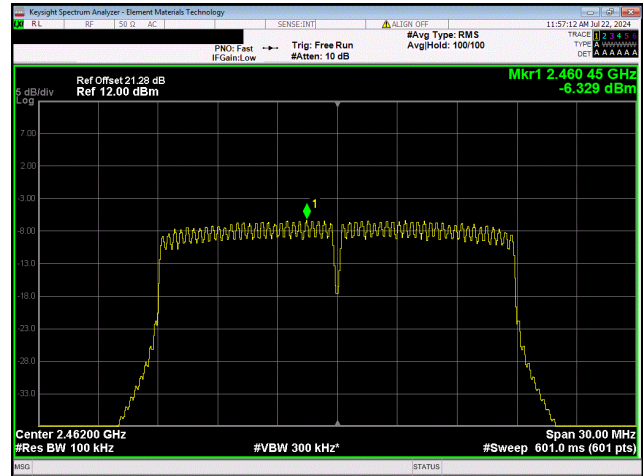


20 MHz BW
 802.11(n) MCS0
 Low Channel 1, 2412 MHz

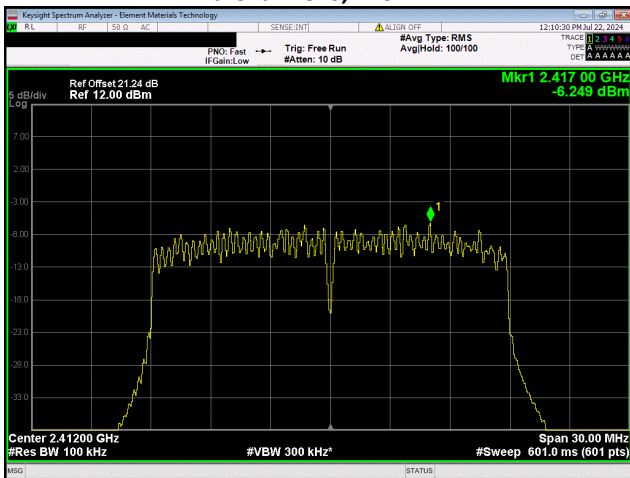
POWER SPECTRAL DENSITY



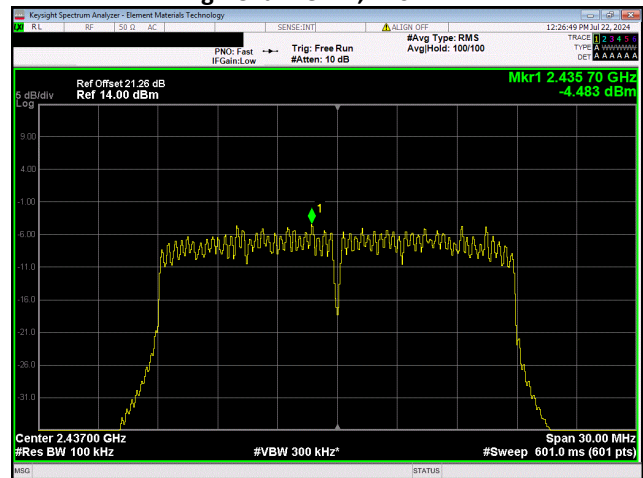
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



20 MHz BW
802.11(n) MCS0
High Channel 11, 2462 MHz

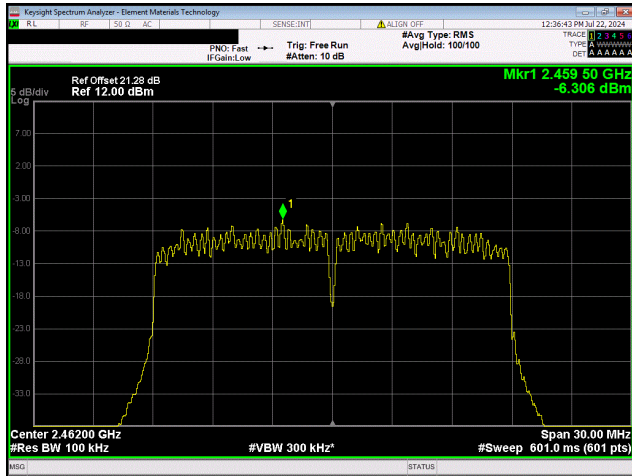


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

POWER SPECTRAL DENSITY



20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz

BAND EDGE COMPLIANCE



TEST DESCRIPTION

Testing was performed using the mode(s) of operation and configuration(s) noted within the report. The individuals and/or the organization requesting the test provided the modes, configurations and settings used to complete the evaluation. The actual test parameters are specified in the test data, this includes items such as investigated frequency range (scanned) and test levels. The testing methods and performance specifications, as well as the test site used for the evaluation are indicated in the test data.

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in each available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge. The analyzer screen captures for this test show an example of the emission mask for the test mode also used during the radiated spurious emissions at the restricted band edges test.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2023-09-05	2024-09-05
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2024-05-22	2025-05-22
Generator - Signal	Agilent	N5183A	TIK	2022-01-24	2025-01-24
Attenuator	Fairview Microwave	SA4014-20	AQI	2023-09-05	2024-09-05
Block - DC	Fairview Microwave	SD3379	ANH	2023-09-05	2024-09-05

BAND EDGE COMPLIANCE



EUT:	Fuji Thermostat	Work Order:	ADEM0044
Serial Number:	52202030005204	Date:	2024-07-22
Customer:	Ademco, Inc.	Temperature:	21.8°C
Attendees:	None	Relative Humidity:	62.7%
Customer Project:	None	Bar. Pressure (PMSL):	1016 mbar
Tested By:	Christopher Heintzelman, Arnaud Dedry	Job Site:	MN11
Power:	110VAC/60Hz	Configuration:	ADEM0044-1

TEST SPECIFICATIONS

Specification:	Method:
FCC 15.247:2024	ANSI C63.10:2013
RSS-247 Issue 3:2023	ANSI C63.10:2013

COMMENTS

Reference level offset includes attenuator, measurement cable, and DC block.

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

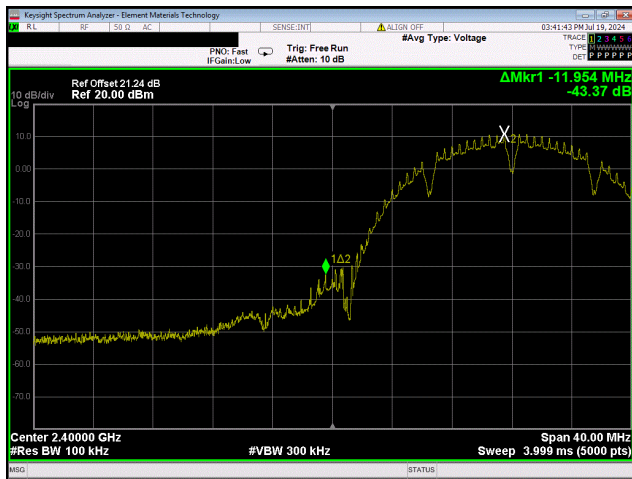
Pass

Tested By

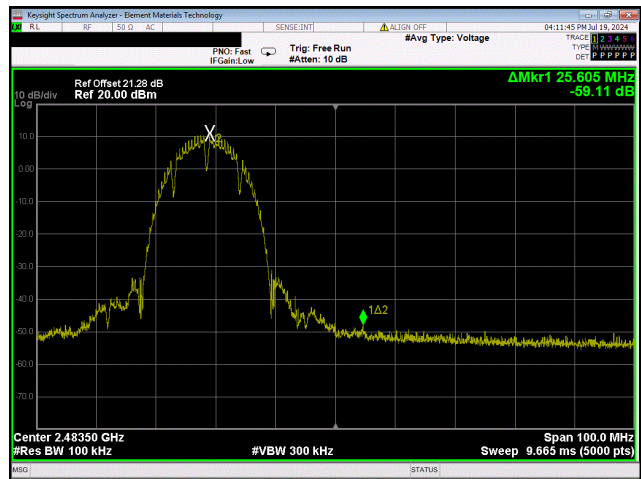
TEST RESULTS

	Value (dBc)	Limit ≤ (dBc)	Result
20 MHz BW			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	-43.37	-30	Pass
High Channel 11, 2462 MHz	-59.11	-30	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	-44.04	-30	Pass
High Channel 11, 2462 MHz	-59.02	-30	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	-35.12	-30	Pass
High Channel 11, 2462 MHz	-43.55	-30	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	-36.9	-30	Pass
High Channel 11, 2462 MHz	-44.8	-30	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	-34.38	-30	Pass
High Channel 11, 2462 MHz	-46.17	-30	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	-36.45	-30	Pass
High Channel 11, 2462 MHz	-47.34	-30	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	-38.63	-30	Pass
High Channel 11, 2462 MHz	-48.92	-30	Pass

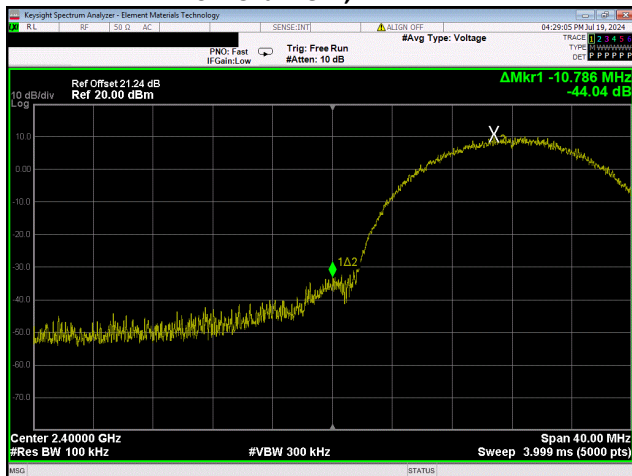
BAND EDGE COMPLIANCE



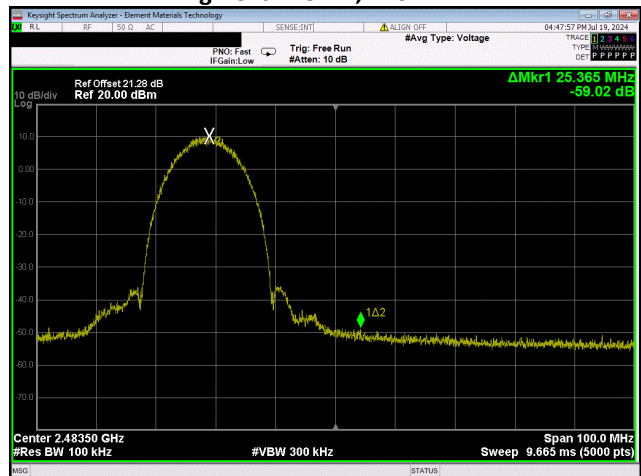
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

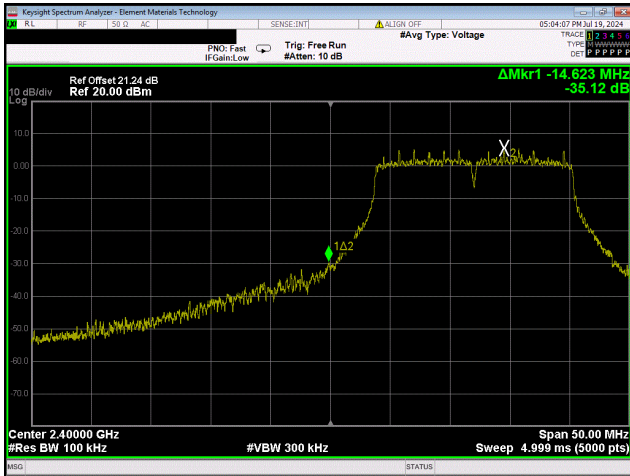


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

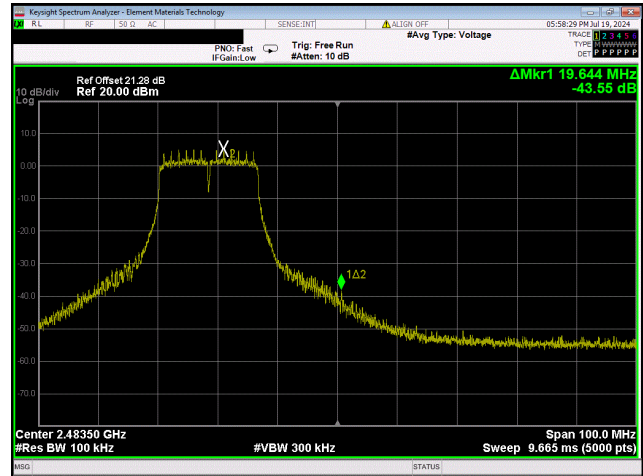


20 MHz BW
802.11(b) 11 Mbps
High Channel 11, 2462 MHz

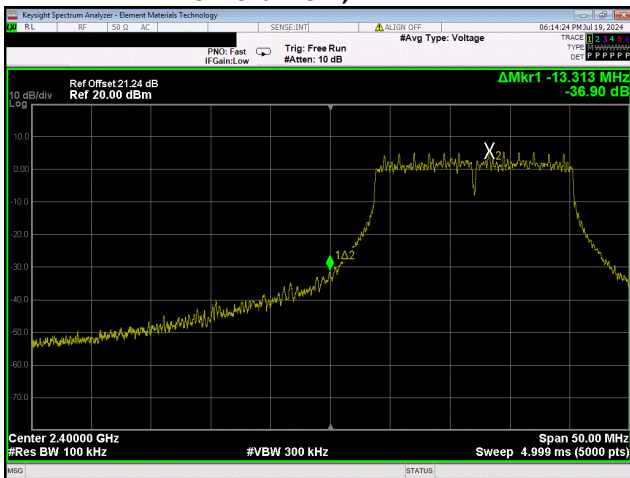
BAND EDGE COMPLIANCE



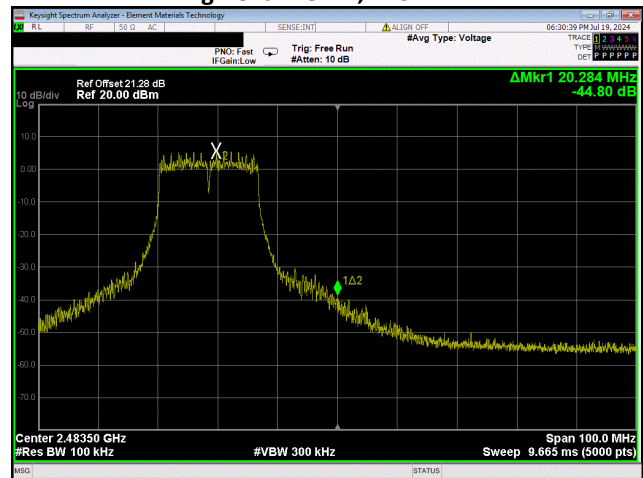
20 MHz BW
 802.11(g) 6 Mbps
 Low Channel 1, 2412 MHz



20 MHz BW
 802.11(g) 6 Mbps
 High Channel 11, 2462 MHz

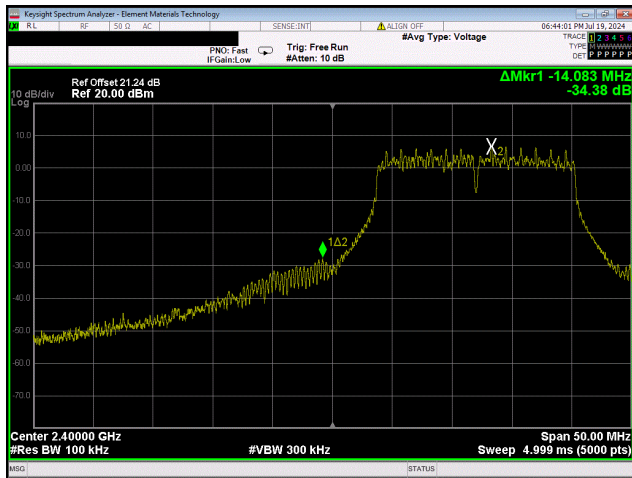


20 MHz BW
 802.11(g) 36 Mbps
 Low Channel 1, 2412 MHz

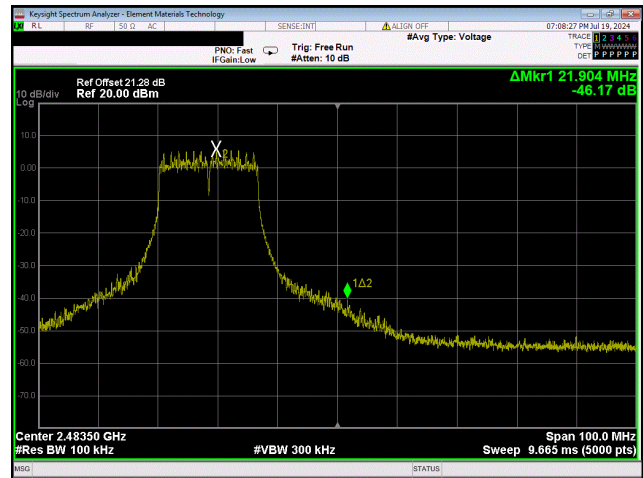


20 MHz BW
 802.11(g) 36 Mbps
 High Channel 11, 2462 MHz

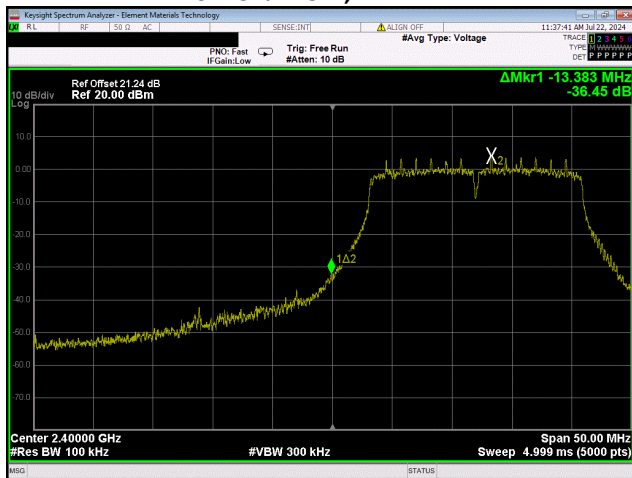
BAND EDGE COMPLIANCE



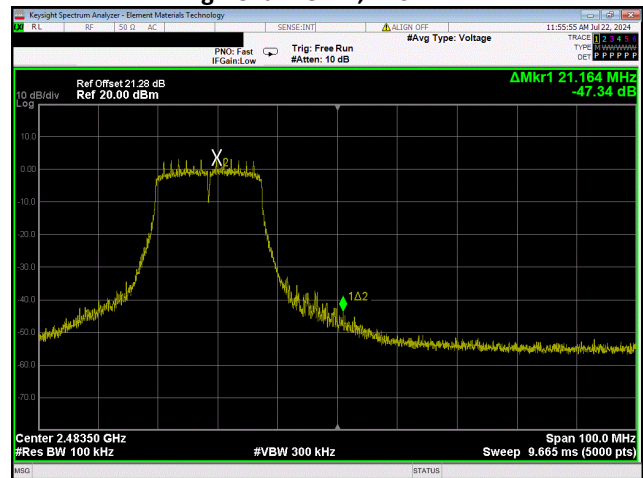
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

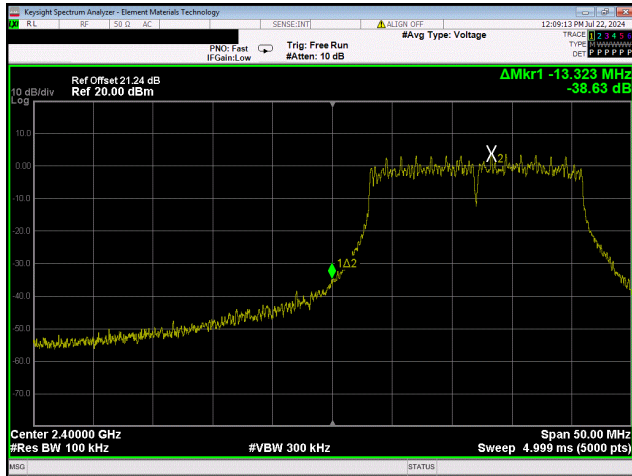


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

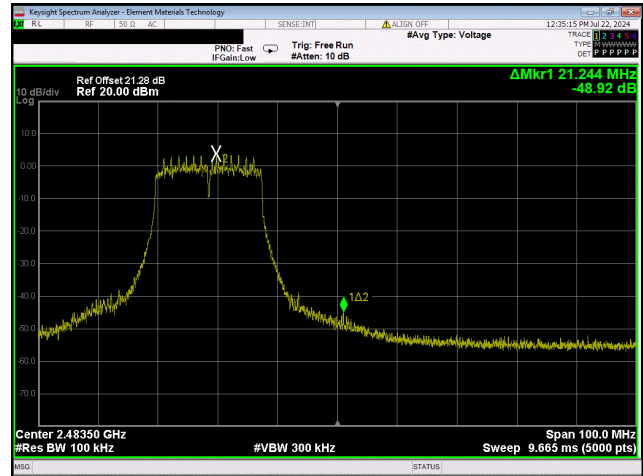


20 MHz BW
802.11(n) MCS0
High Channel 11, 2462 MHz

BAND EDGE COMPLIANCE



20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz