

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 C63.10:2020 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
Attenuator	Fairview Microwave	SA18H-20	UAZ	2026-03-25	2027-03-25
Block - DC	Aeroflex	INMET 8535	AMO	2025-12-04	2026-12-04
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2025-10-21	2026-10-21
Generator - Signal	Agilent	E8257D	TGU	2023-11-08	2026-11-08
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2026-03-24	2027-03-24

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



EUT:	Lantern Refresh Surgical Assistant (LSA)	Work Order:	ORTH0042
Serial Number:	2528001	Date:	2026-04-30
Customer:	OrthAlign	Temperature:	24.2°C
Attendees:	Larry Varnado, Kian Gholizadeh	Relative Humidity:	49.8%
Customer Project:	None	Bar. Pressure (PMSL):	1011 mbar
Tested By:	Kyle Fujimoto	Job Site:	OC13
Power:	4.5 Vdc via Battery	Configuration:	ORTH0042-2

COMMENTS

Reference Level Offset includes Cable Loss, Pigtail Loss, 20 dB Attenuator, and DC Block

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass

Tested By

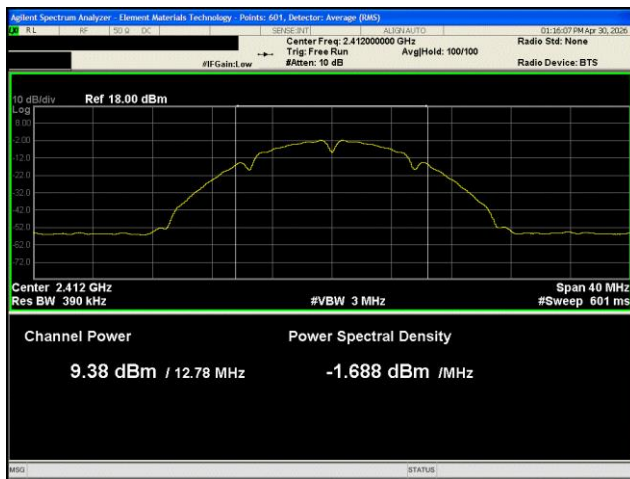
TEST RESULTS

	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	9.379	0	9.4	4	13.4	36	Pass
Mid Channel 6, 2437 MHz	11.172	0	11.2	4	15.2	36	Pass
High Channel 11, 2462 MHz	11.266	0.1	11.4	4	15.4	36	Pass
802.11(b) 11 Mbps							
Low Channel 1, 2412 MHz	9.319	0.4	9.7	4	13.7	36	Pass
Mid Channel 6, 2437 MHz	9.871	0.5	10.4	4	14.4	36	Pass
High Channel 11, 2462 MHz	9.932	0.5	10.4	4	14.4	36	Pass
802.11(g) 6 Mbps							
Low Channel 1, 2412 MHz	8.777	0.3	9.1	4	13.1	36	Pass
Mid Channel 6, 2437 MHz	8.934	0.3	9.2	4	13.2	36	Pass
High Channel 11, 2462 MHz	8.961	0.2	9.2	4	13.2	36	Pass
802.11(g) 36 Mbps							
Low Channel 1, 2412 MHz	7.456	1.1	8.6	4	12.6	36	Pass
Mid Channel 6, 2437 MHz	7.201	1.1	8.3	4	12.3	36	Pass
High Channel 11, 2462 MHz	7.498	1.5	9	4	13	36	Pass
802.11(g) 54 Mbps							
Low Channel 1, 2412 MHz	6.97	2.3	9.3	4	13.3	36	Pass
Mid Channel 6, 2437 MHz	6.562	2	8.6	4	12.6	36	Pass
High Channel 11, 2462 MHz	6.211	1.6	7.8	4	11.8	36	Pass
802.11(n) MCS0							
Low Channel 1, 2412 MHz	7.822	0.2	8	4	12	36	Pass

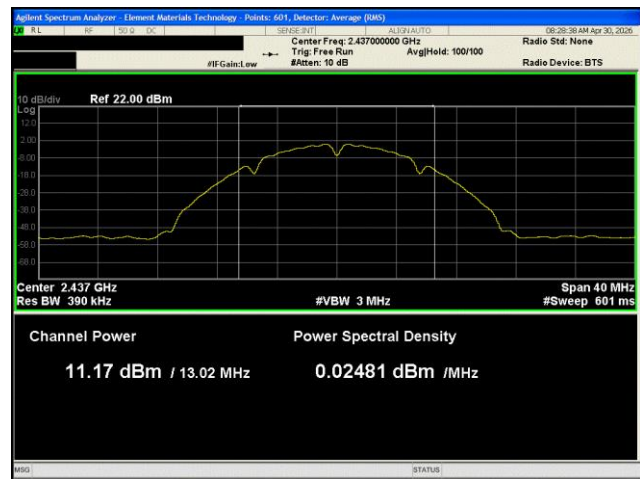
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
Mid Channel 6, 2437 MHz	6.816	0.2	7	4	11	36	Pass
High Channel 11, 2462 MHz	6.648	0.2	6.8	4	10.8	36	Pass
802.11(n) MCS7							
Low Channel 1, 2412 MHz	4.249	1.8	6	4	10	36	Pass
Mid Channel 6, 2437 MHz	5.032	2.4	7.4	4	11.4	36	Pass
High Channel 11, 2462 MHz	6.372	1.8	8.2	4	12.2	36	Pass
40 MHz BW							
802.11(n) MCS0							
Low Channel 1/5, 2422 MHz	8.394	0.7	9.1	4	13.1	36	Pass
Mid Channel 4/8, 2437 MHz	7.983	0.6	8.6	4	12.6	36	Pass
High Channel 7/11, 2452 MHz	8.023	0.6	8.6	4	12.6	36	Pass
802.11(n) MCS7							
Low Channel 1/5, 2422 MHz	5.801	2.8	8.6	4	12.6	36	Pass
Mid Channel 4/8, 2437 MHz	5.435	3.2	8.6	4	12.6	36	Pass
High Channel 7/11, 2452 MHz	5.536	2.6	8.1	4	12.1	36	Pass

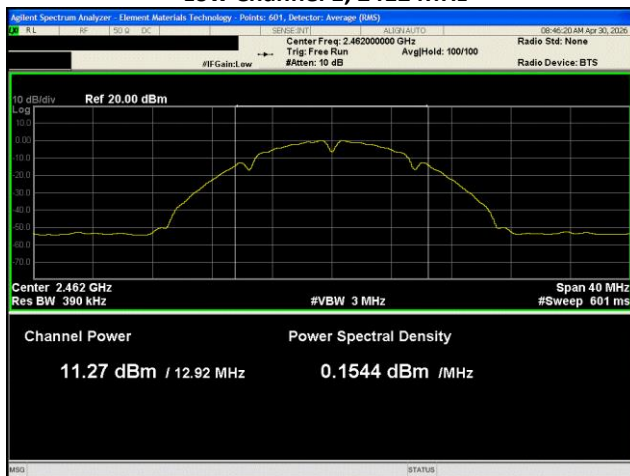
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



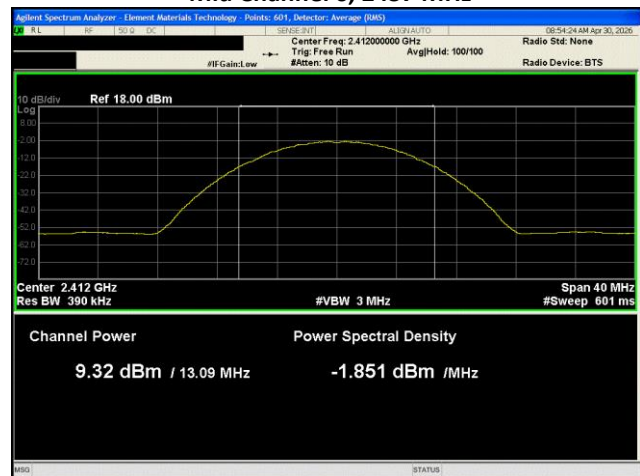
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



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

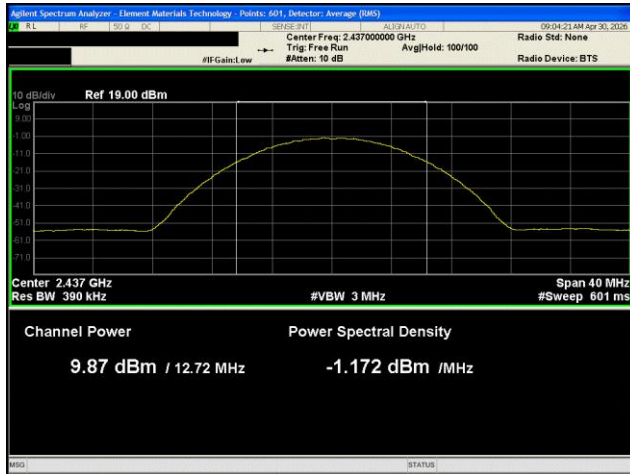


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

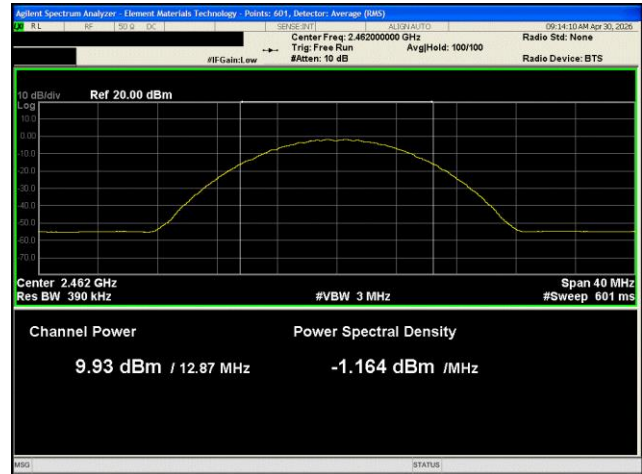


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

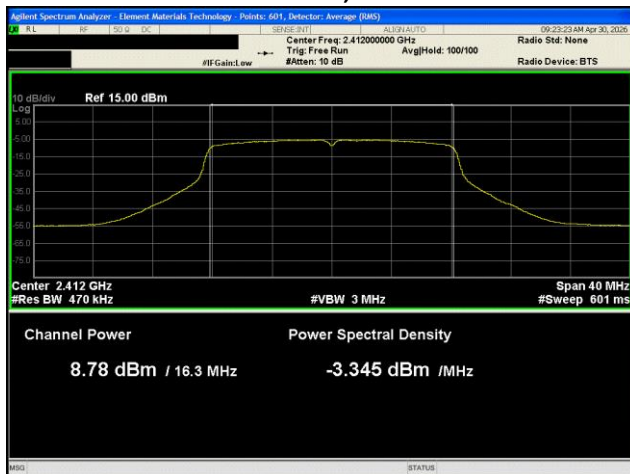
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



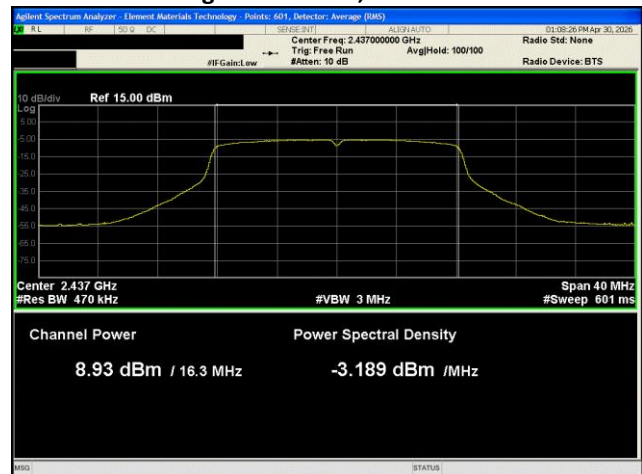
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



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

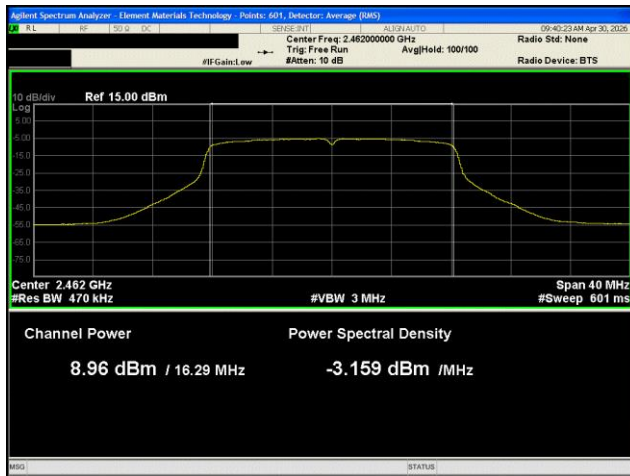


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz

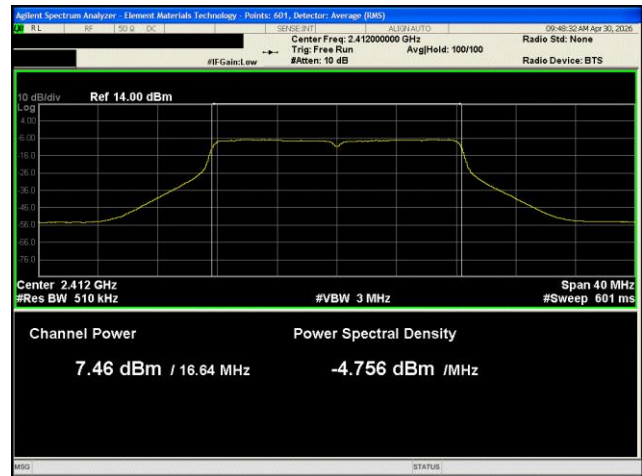


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

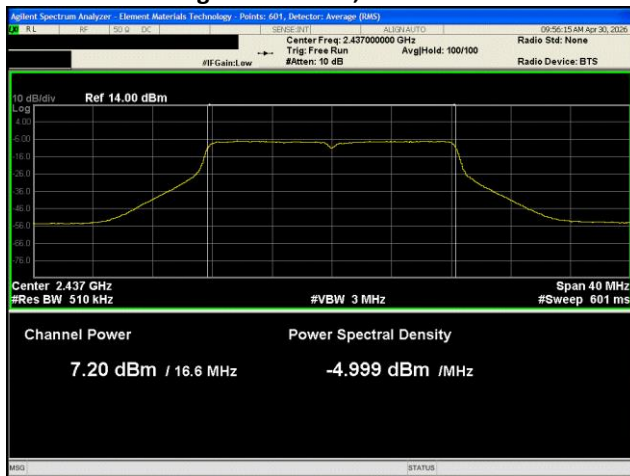
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



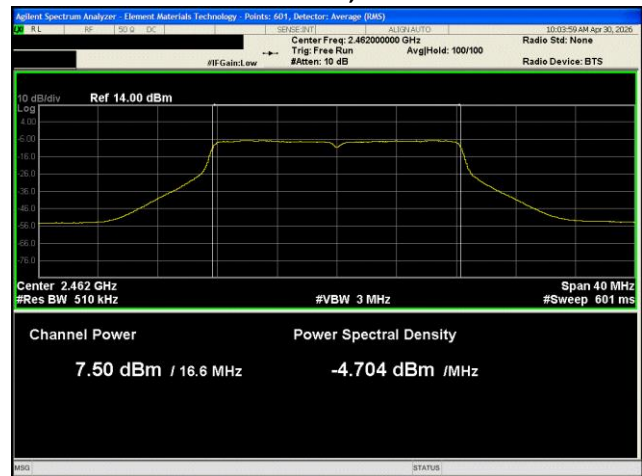
20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



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

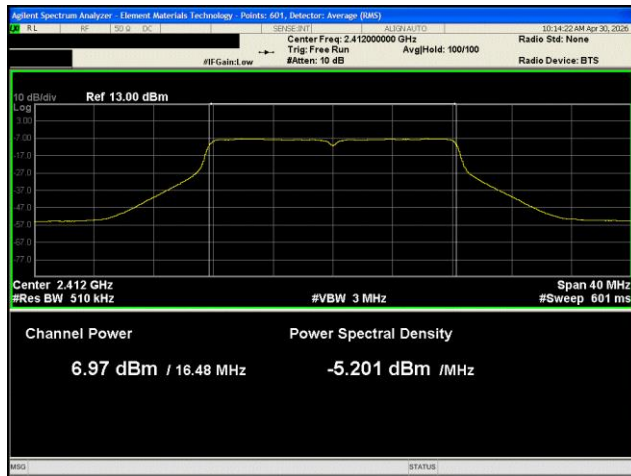


20 MHz BW
802.11(g) 36 Mbps
Mid Channel 6, 2437 MHz

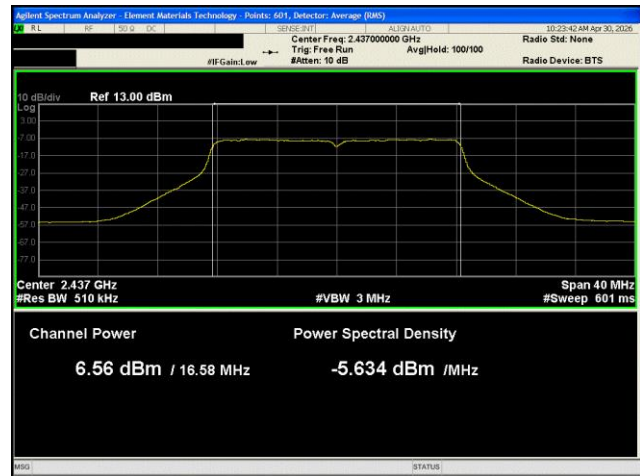


20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz

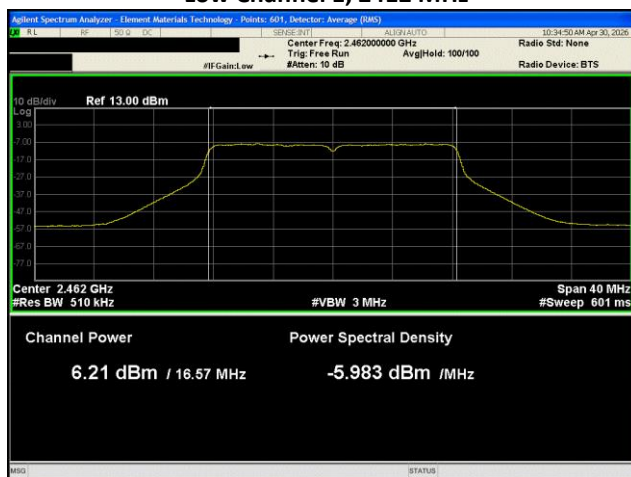
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



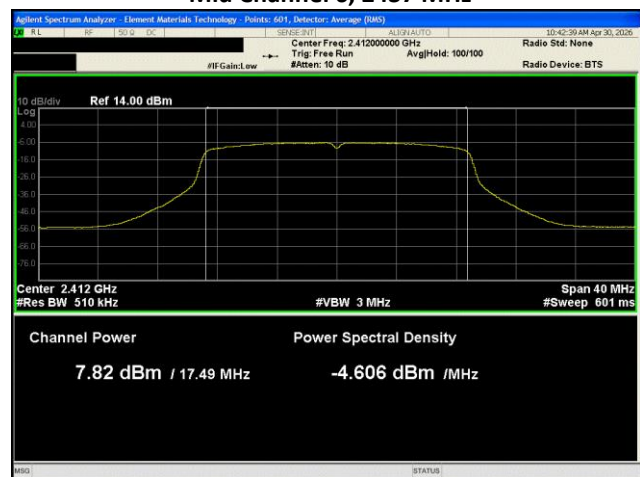
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



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

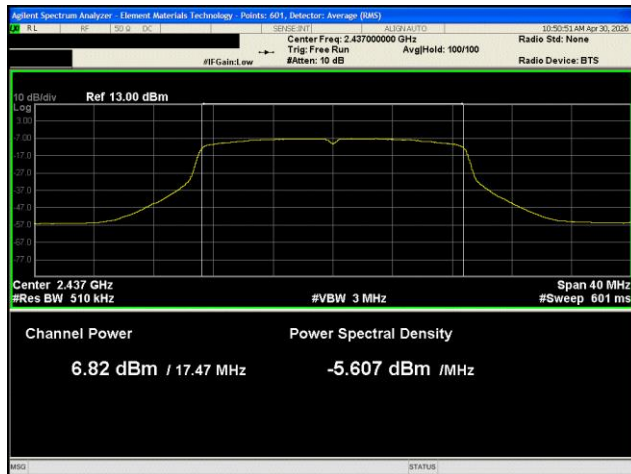


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

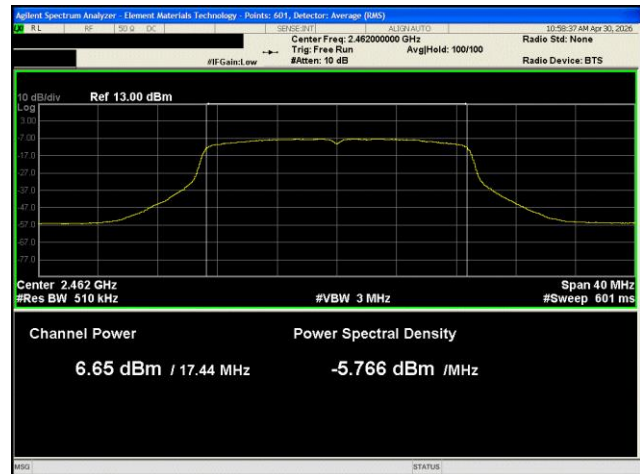


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

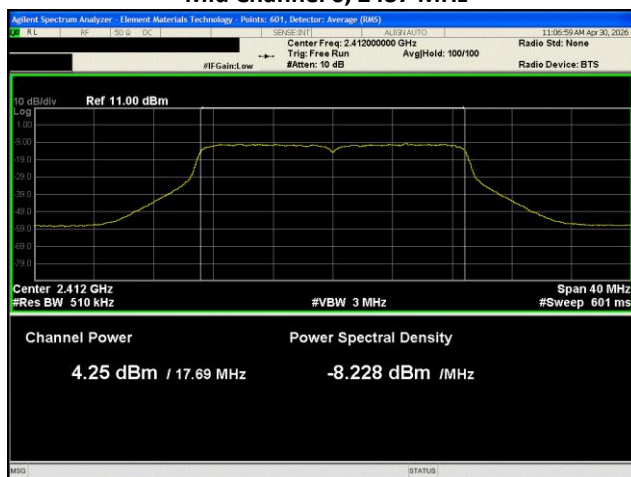
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



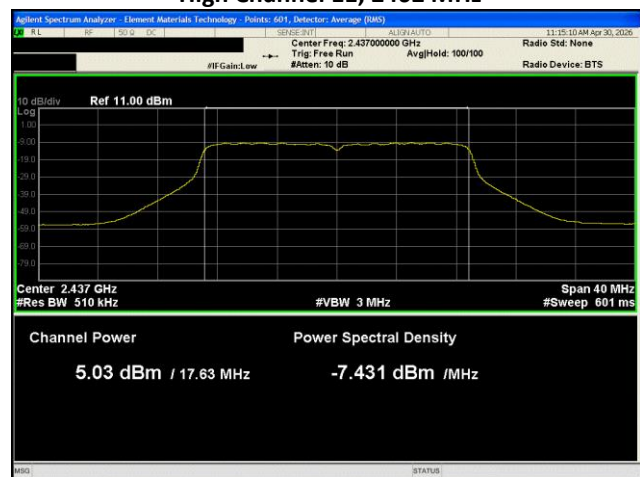
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



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

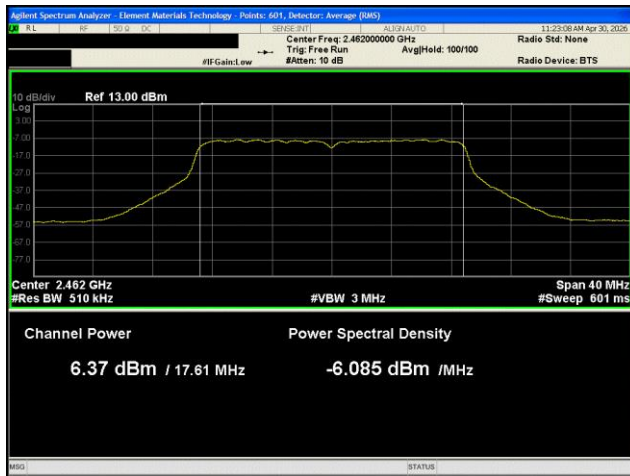


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz

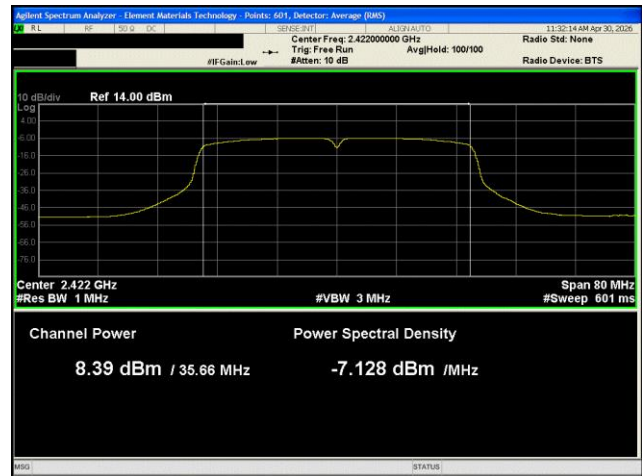


20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

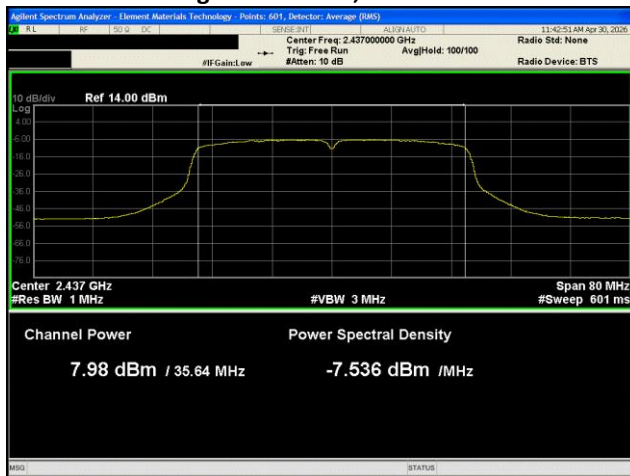
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



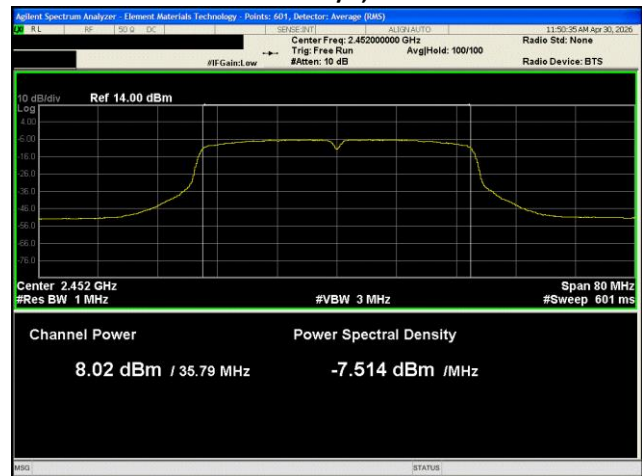
20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz



40 MHz BW
802.11(n) MCS0
Low Channel 1/5, 2422 MHz

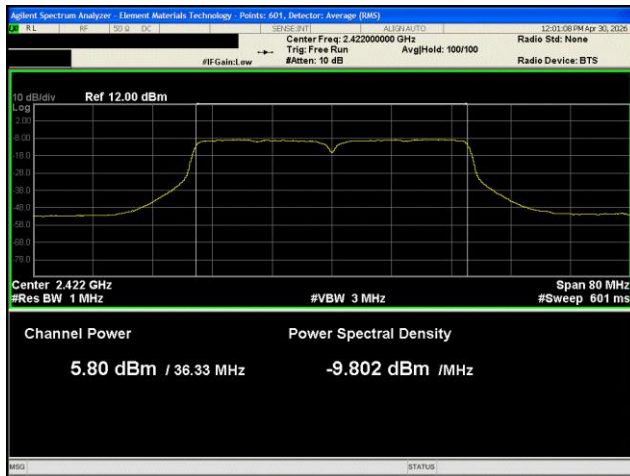


40 MHz BW
802.11(n) MCS0
Mid Channel 4/8, 2437 MHz

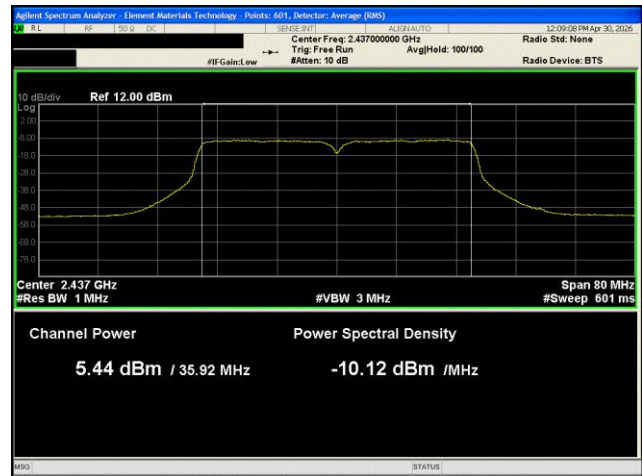


40 MHz BW
802.11(n) MCS0
High Channel 7/11, 2452 MHz

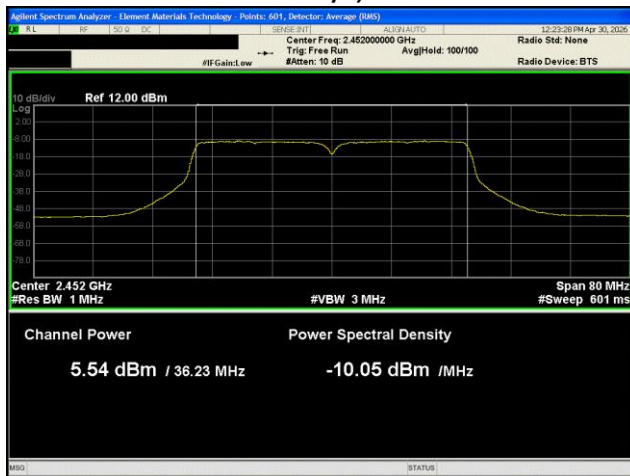
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



40 MHz BW
802.11(n) MCS7
Low Channel 1/5, 2422 MHz



40 MHz BW
802.11(n) MCS7
Mid Channel 4/8, 2437 MHz



40 MHz BW
802.11(n) MCS7
High Channel 7/11, 2452 MHz

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 AVGPDS-2 in clause 11.10.5 of ANSI C63.10:2020 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.

If the measured value exceeds the requirement, the RBW was reduced (no less than 3 kHz) and the measurement was repeated.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	SA18H-20	UAZ	2026-03-25	2027-03-25
Block - DC	Aeroflex	INMET 8535	AMO	2025-12-04	2026-12-04
Cable	Micro-Coax	UFD150A-1-0720-200200	OCA	2025-10-21	2026-10-21
Generator - Signal	Agilent	E8257D	TGU	2023-11-08	2026-11-08
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFJ	2026-03-24	2027-03-24

POWER SPECTRAL DENSITY

EUT:	Lantern Refresh Surgical Assistant (LSA)	Work Order:	ORTH0042
Serial Number:	2528001	Date:	2026-04-30
Customer:	OrthAlign	Temperature:	24.2°C
Attendees:	Larry Varnado, Kian Gholizadeh	Relative Humidity:	51%
Customer Project:	None	Bar. Pressure (PMSL):	1011 mbar
Tested By:	Kyle Fujimoto	Job Site:	OC13
Power:	4.5 Vdc via Battery	Configuration:	ORTH0042-2

COMMENTS

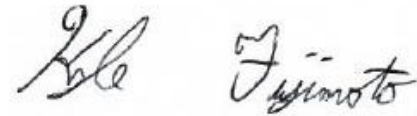
Reference Level Offset includes Cable Loss, Pigtail Loss, 20 dB Attenuator, and DC Block

DEVIATIONS FROM TEST STANDARD

None

CONCLUSION

Pass



Tested By

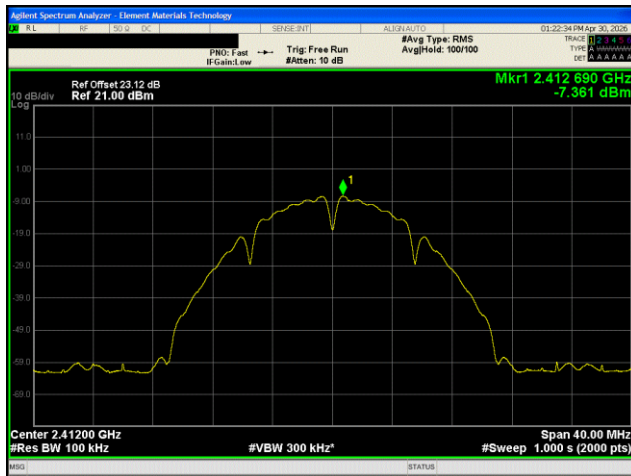
TEST RESULTS

	Value dBm/100kHz	Duty Cycle Factor (dB)	Value dBm/3kHz	Limit ≤ (dBm/3kHz)	Results
20 MHz BW					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	-7.361	0	-7.4	8	Pass
Mid Channel 6, 2437 MHz	-5.518	0	-5.5	8	Pass
High Channel 11, 2462 MHz	-6.64	0.1	-6.5	8	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	-7.561	0.4	-7.2	8	Pass
Mid Channel 6, 2437 MHz	-7.113	0.5	-6.6	8	Pass
High Channel 11, 2462 MHz	-6.966	0.5	-6.5	8	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	-10.704	0.3	-10.4	8	Pass
Mid Channel 6, 2437 MHz	-11.059	0.3	-10.8	8	Pass
High Channel 11, 2462 MHz	-10.424	0.2	-10.2	8	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	-12.007	1.1	-10.9	8	Pass
Mid Channel 6, 2437 MHz	-12.125	1.1	-11	8	Pass
High Channel 11, 2462 MHz	-12.306	1.5	-10.8	8	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	-11.569	2.3	-9.3	8	Pass
Mid Channel 6, 2437 MHz	-11.44	2	-9.4	8	Pass
High Channel 11, 2462 MHz	-11.767	1.6	-10.2	8	Pass
802.11(n) MCS0					

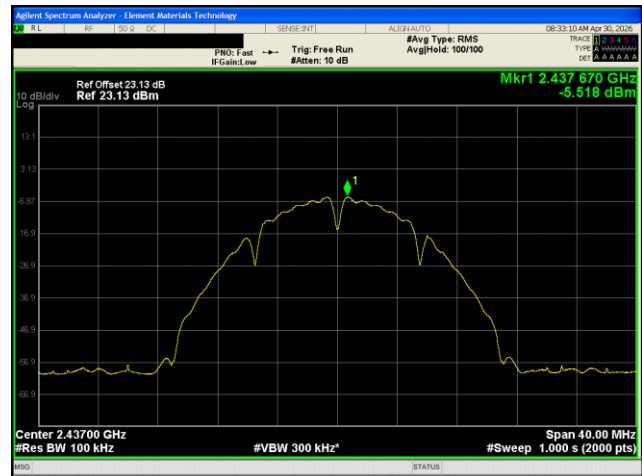
POWER SPECTRAL DENSITY

	Value dBm/100kHz	Duty Cycle Factor (dB)	Value dBm/3kHz	Limit ≤ (dBm/3kHz)	Results
Low Channel 1, 2412 MHz	-11.22	0.2	-11	8	Pass
Mid Channel 6, 2437 MHz	-11.323	0.2	-11.1	8	Pass
High Channel 11, 2462 MHz	-11.789	0.2	-11.6	8	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	-12.885	1.8	-11.1	8	Pass
Mid Channel 6, 2437 MHz	-12.435	2.4	-10	8	Pass
High Channel 11, 2462 MHz	-12.242	1.8	-10.4	8	Pass
40 MHz BW					
802.11(n) MCS0					
Low Channel 1/5, 2422 MHz	-14.452	0.7	-13.8	8	Pass
Mid Channel 4/8, 2437 MHz	-15.166	0.6	-14.6	8	Pass
High Channel 7/11, 2452 MHz	-14.671	0.6	-14.1	8	Pass
802.11(n) MCS7					
Low Channel 1/5, 2422 MHz	-15.237	2.8	-12.4	8	Pass
Mid Channel 4/8, 2437 MHz	-15.455	3.2	-12.3	8	Pass
High Channel 7/11, 2452 MHz	-15.152	2.6	-12.6	8	Pass

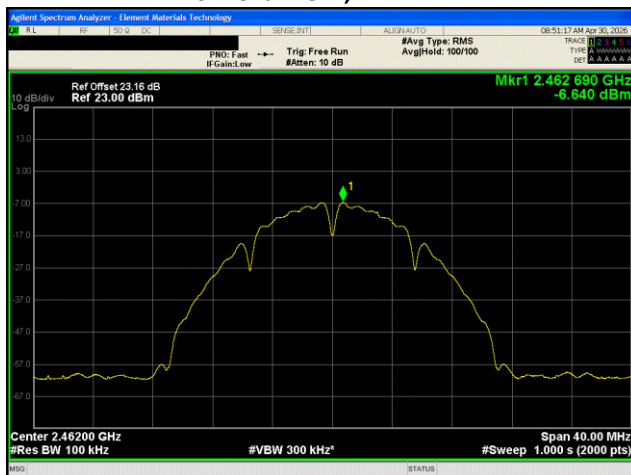
POWER SPECTRAL DENSITY



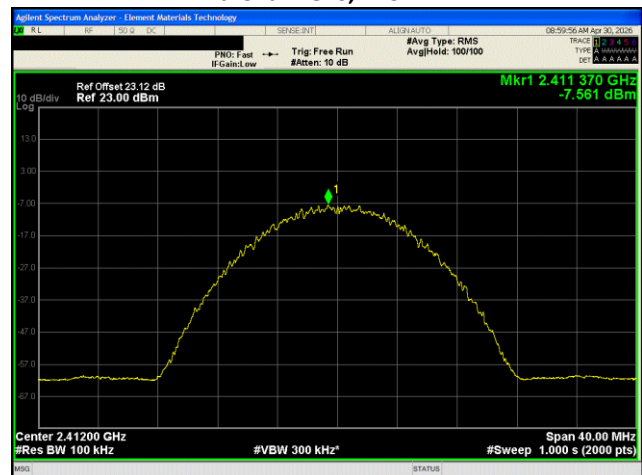
20 MHz BW
 802.11(b) 1 Mbps
 Low Channel 1, 2412 MHz



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

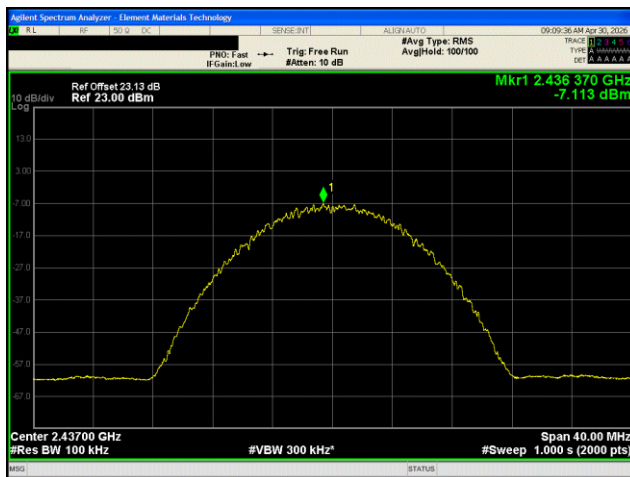


20 MHz BW
 802.11(b) 1 Mbps
 High Channel 11, 2462 MHz

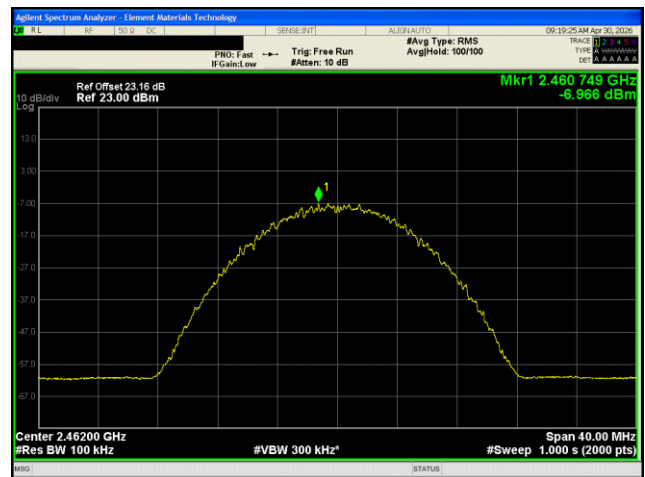


20 MHz BW
 802.11(b) 11 Mbps
 Low Channel 1, 2412 MHz

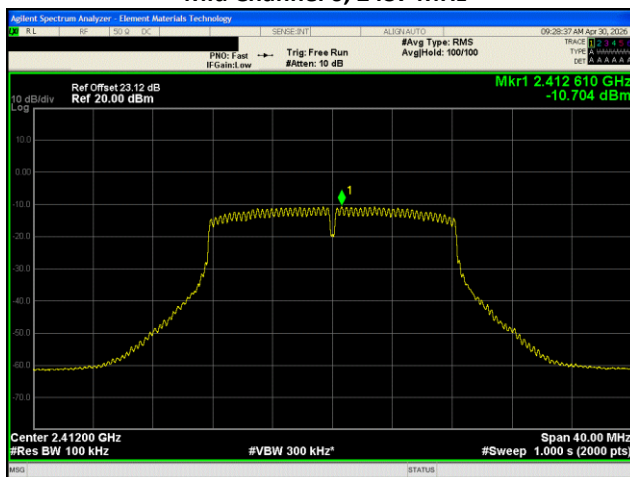
POWER SPECTRAL DENSITY



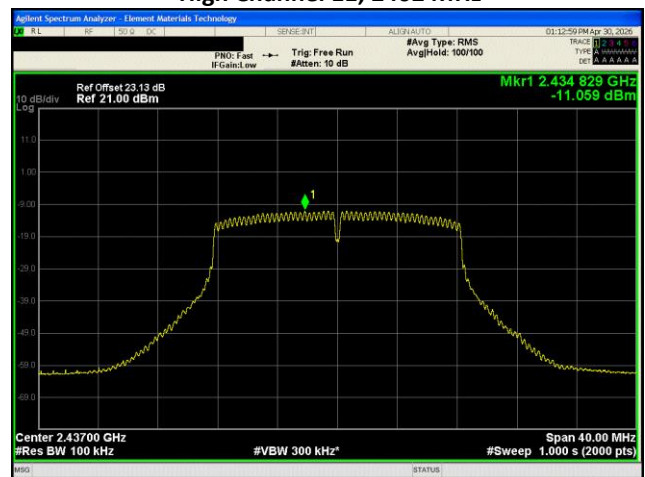
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



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

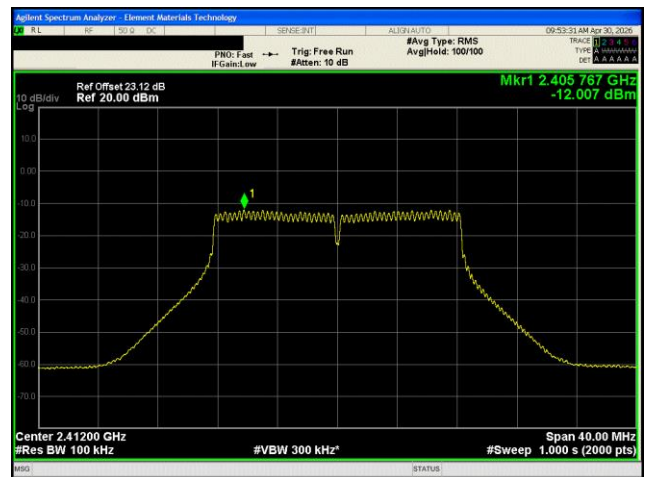


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

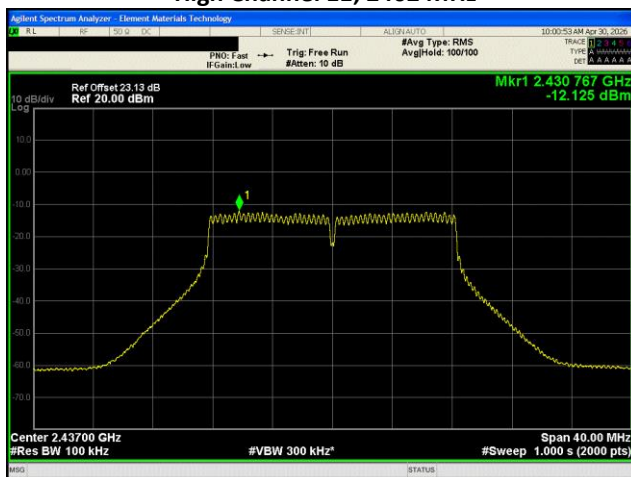
POWER SPECTRAL DENSITY



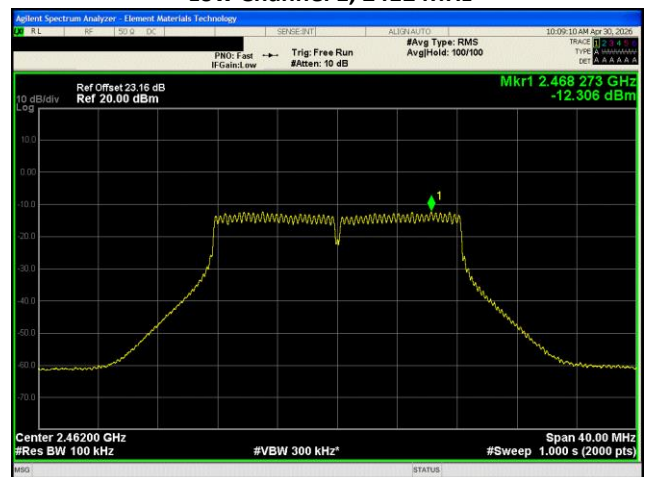
20 MHz BW
 802.11(g) 6 Mbps
 High Channel 11, 2462 MHz



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

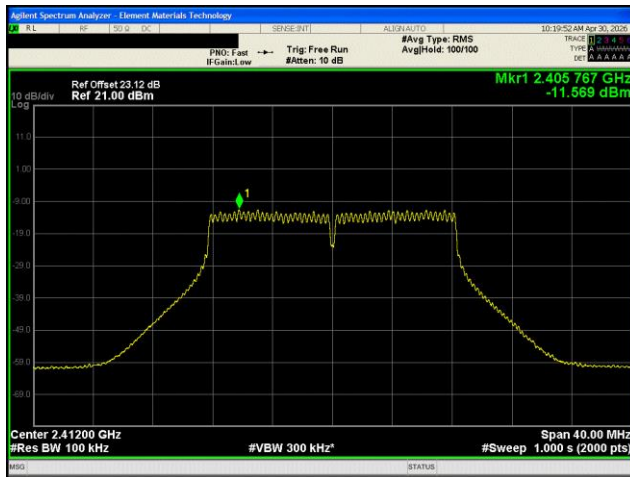


20 MHz BW
 802.11(g) 36 Mbps
 Mid Channel 6, 2437 MHz

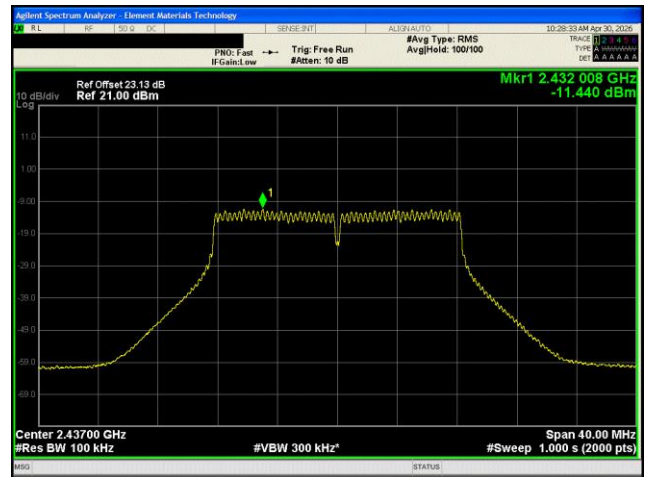


20 MHz BW
 802.11(g) 36 Mbps
 High Channel 11, 2462 MHz

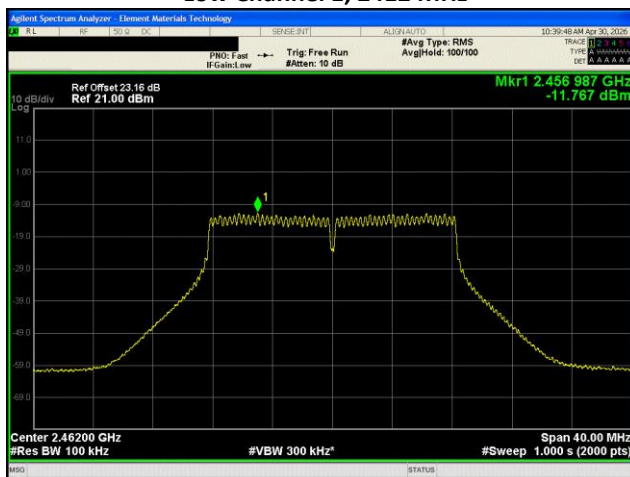
POWER SPECTRAL DENSITY



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

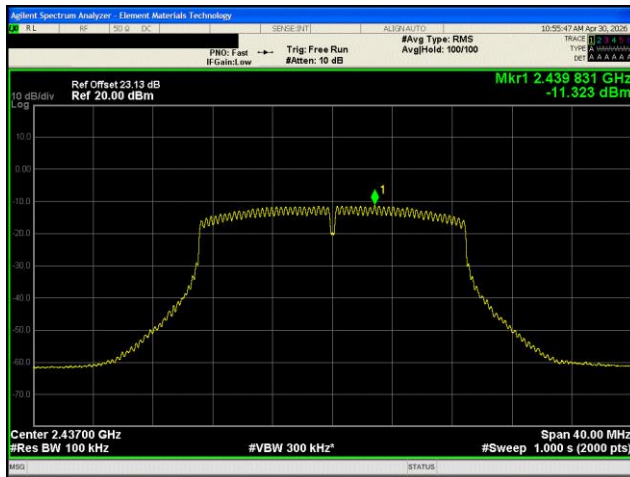


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz



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

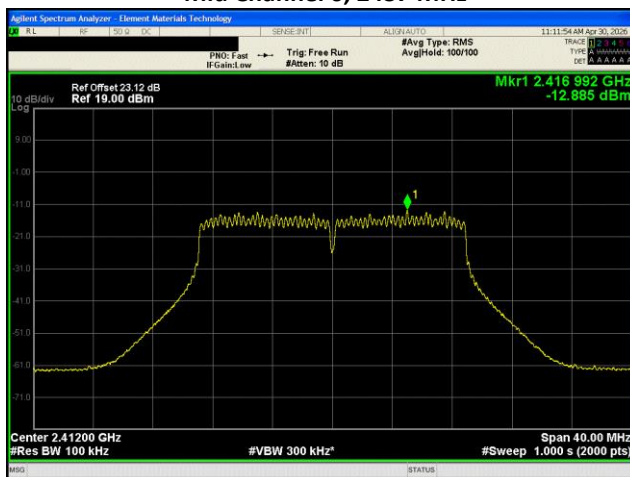
POWER SPECTRAL DENSITY



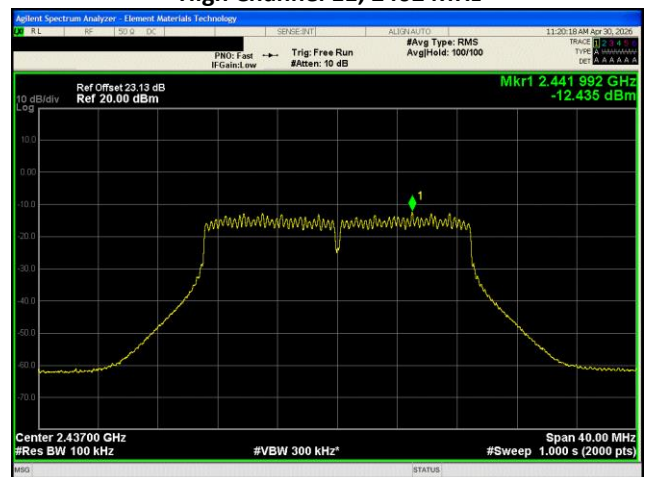
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



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

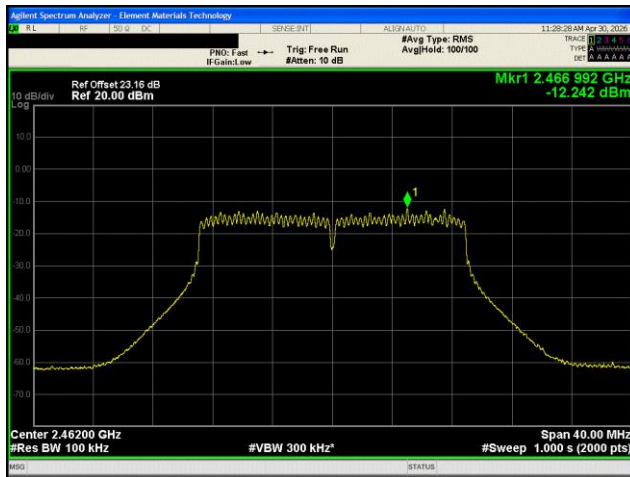


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz

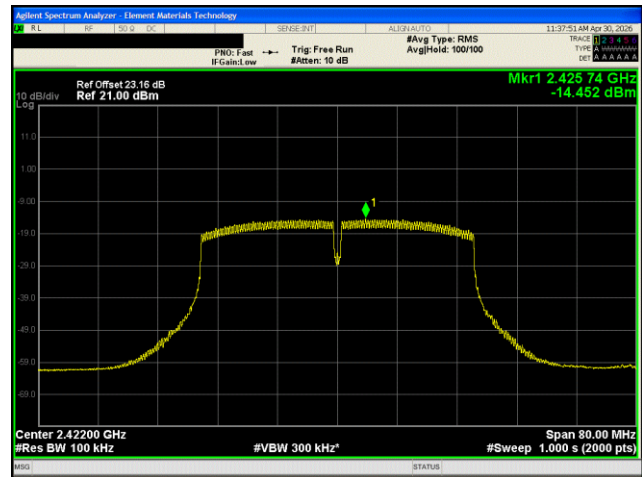


20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

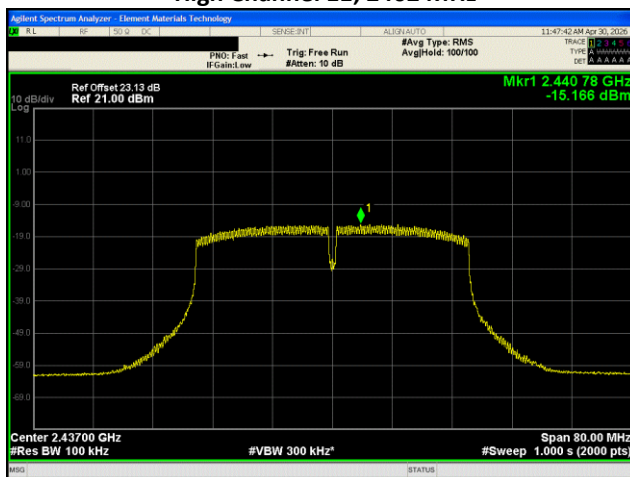
POWER SPECTRAL DENSITY



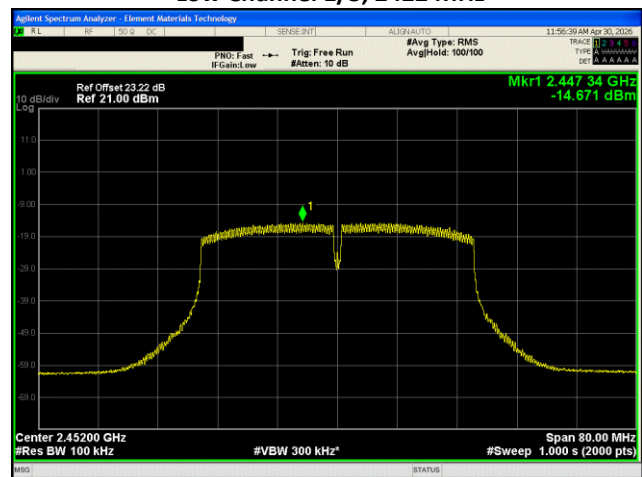
20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz



40 MHz BW
802.11(n) MCS0
Low Channel 1/5, 2422 MHz

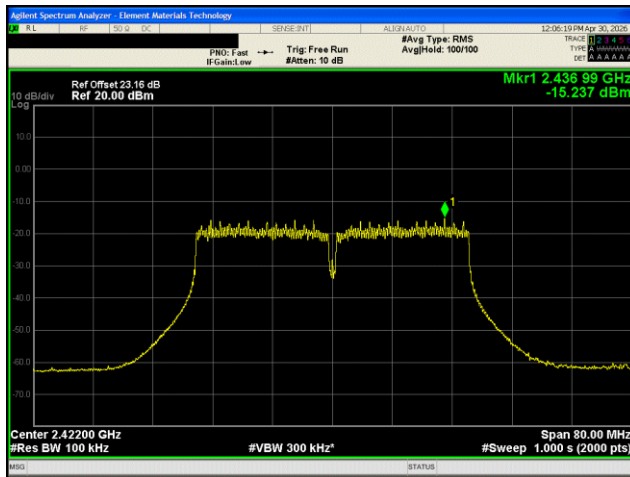


40 MHz BW
802.11(n) MCS0
Mid Channel 4/8, 2437 MHz

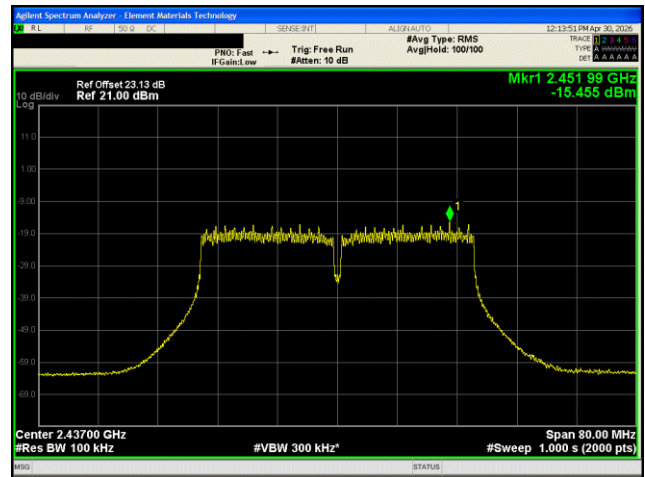


40 MHz BW
802.11(n) MCS0
High Channel 7/11, 2452 MHz

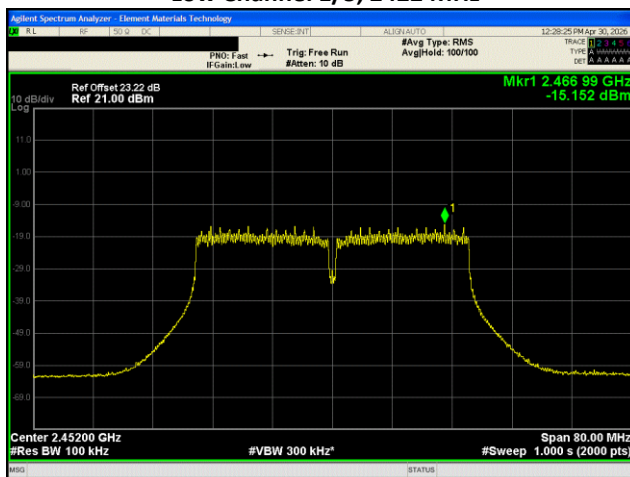
POWER SPECTRAL DENSITY



40 MHz BW
802.11(n) MCS7
Low Channel 1/5, 2422 MHz



40 MHz BW
802.11(n) MCS7
Mid Channel 4/8, 2437 MHz



40 MHz BW
802.11(n) MCS7
High Channel 7/11, 2452 MHz