

DTS (6 DB) AND 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 C63.10:2020, 6.9.3, the spectrum analyzer was configured as follows:

Sweep time: Auto

Resolution Bandwidth: 1% to 5% of the OBW

Video Bandwidth: $\geq 3 \times \text{RBW}$

Trace: Max Hold

Span: Large enough to capture all products of the modulation process, including the emission skirts.

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
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

DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



EUT:	Lantern Refresh Surgical Assistant (LSA)	Work Order:	ORTH0042
Serial Number:	2528001	Date:	2026-04-30
Customer:	OrthAlign	Temperature:	24.1°C
Attendees:	Larry Varnado, Kian Gholizadeh	Relative Humidity:	50.4%
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

Kyle Fujimoto

Tested By

TEST RESULTS

	Value (99%)	Value (6 dB)	Limit	Result
20 MHz BW				
802.11(b) 1 Mbps				
Low Channel 1, 2412 MHz	12.785 MHz	7.488 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	13.024 MHz	7.953 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	12.917 MHz	8.588 MHz	> 500 kHz	Pass
802.11(b) 11 Mbps				
Low Channel 1, 2412 MHz	13.094 MHz	8.879 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	12.715 MHz	7.214 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	12.87 MHz	7.562 MHz	> 500 kHz	Pass
802.11(g) 6 Mbps				
Low Channel 1, 2412 MHz	16.303 MHz	16.306 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	16.302 MHz	16.269 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	16.294 MHz	16.185 MHz	> 500 kHz	Pass
802.11(g) 36 Mbps				
Low Channel 1, 2412 MHz	16.644 MHz	16.384 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	16.596 MHz	16.452 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	16.602 MHz	16.618 MHz	> 500 kHz	Pass
802.11(g) 54 Mbps				
Low Channel 1, 2412 MHz	16.485 MHz	16.396 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	16.581 MHz	16.563 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	16.574 MHz	16.387 MHz	> 500 kHz	Pass
802.11(n) MCS0				
Low Channel 1, 2412 MHz	17.494 MHz	17.538 MHz	> 500 kHz	Pass

DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)

	Value (99%)	Value (6 dB)	Limit	Result
Mid Channel 6, 2437 MHz	17.474 MHz	17.026 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	17.437 MHz	17.298 MHz	> 500 kHz	Pass
802.11(n) MCS7				
Low Channel 1, 2412 MHz	17.688 MHz	16.875 MHz	> 500 kHz	Pass
Mid Channel 6, 2437 MHz	17.629 MHz	17.416 MHz	> 500 kHz	Pass
High Channel 11, 2462 MHz	17.608 MHz	17.541 MHz	> 500 kHz	Pass
40 MHz BW				
802.11(n) MCS0				
Low Channel 1/5, 2422 MHz	35.664 MHz	34.682 MHz	> 500 kHz	Pass
Mid Channel 4/8, 2437 MHz	35.641 MHz	34.725 MHz	> 500 kHz	Pass
High Channel 7/11, 2452 MHz	35.786 MHz	35.597 MHz	> 500 kHz	Pass
802.11(n) MCS7				
Low Channel 1/5, 2422 MHz	36.333 MHz	36.411 MHz	> 500 kHz	Pass
Mid Channel 4/8, 2437 MHz	35.921 MHz	35.687 MHz	> 500 kHz	Pass
High Channel 7/11, 2452 MHz	36.232 MHz	36.112 MHz	> 500 kHz	Pass

DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



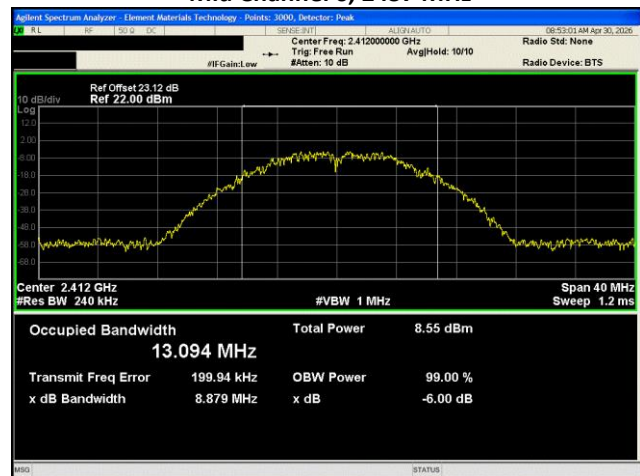
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



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

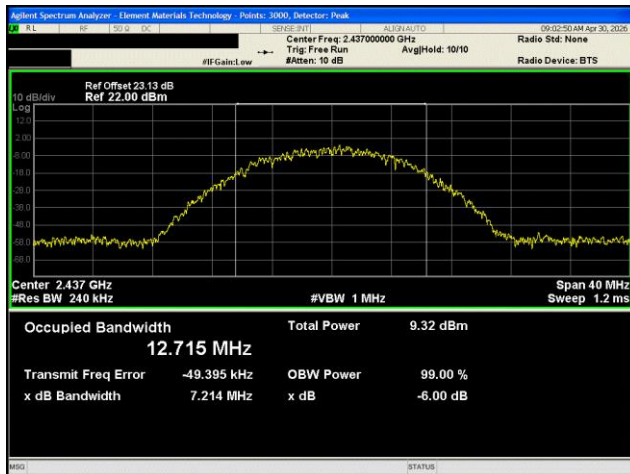


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

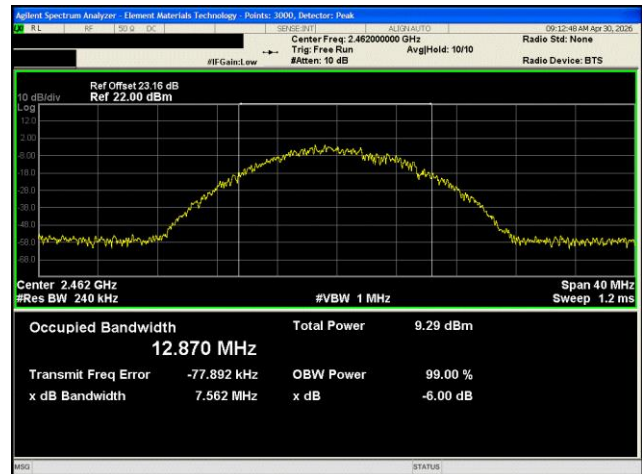


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



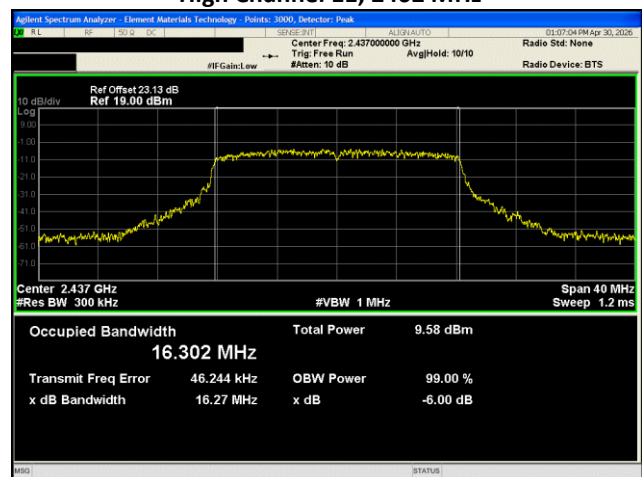
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



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

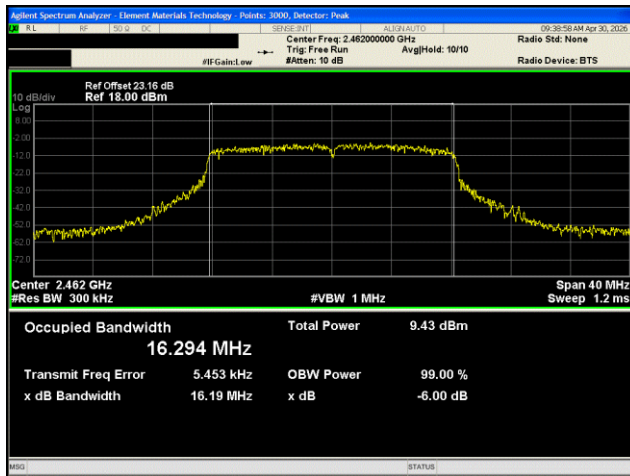


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz



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

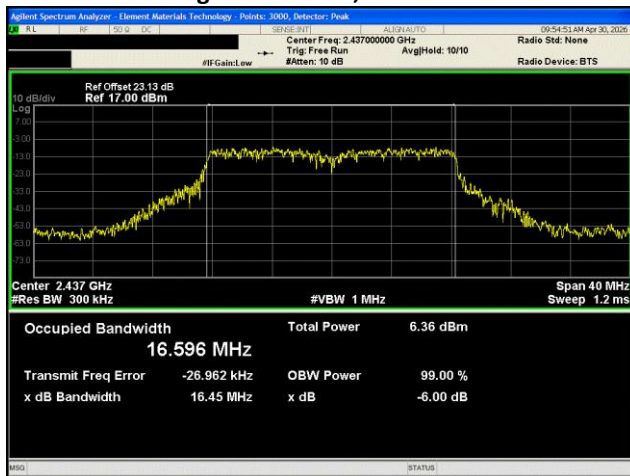
DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



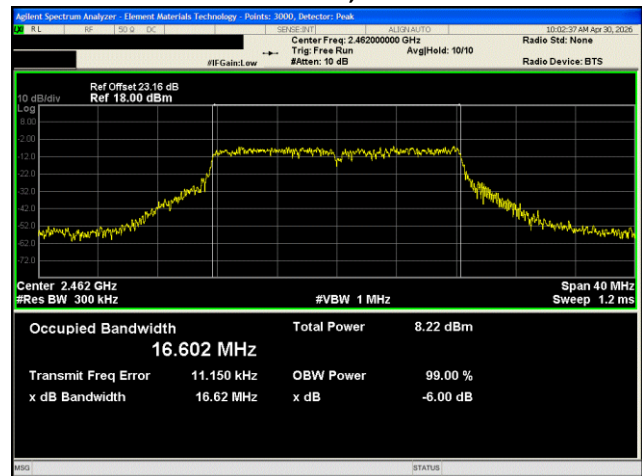
20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



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

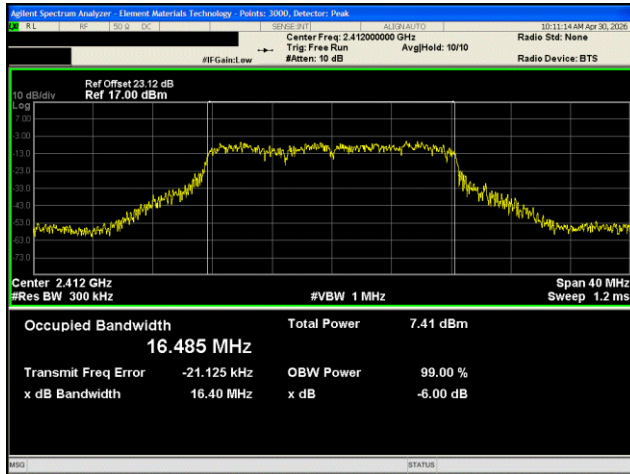


20 MHz BW
802.11(g) 36 Mbps
Mid Channel 6, 2437 MHz

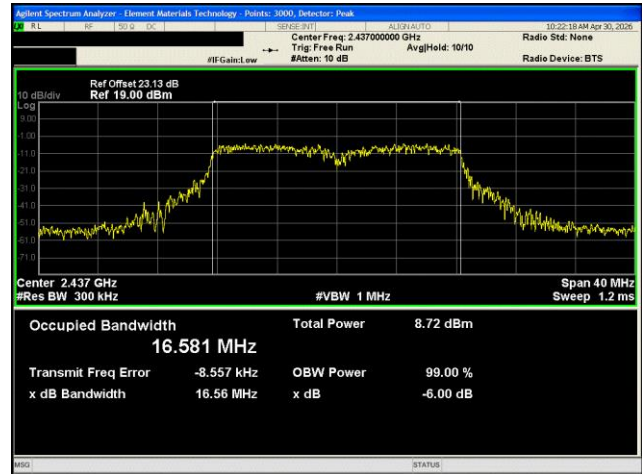


20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz

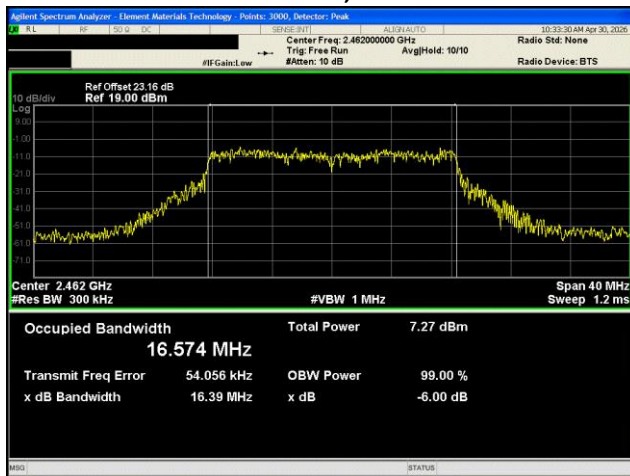
DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



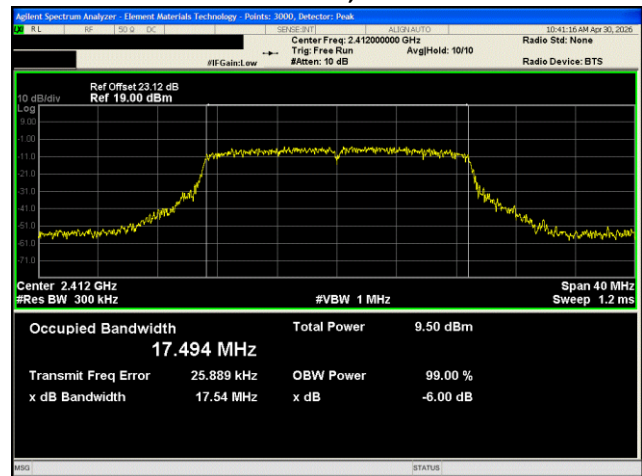
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



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

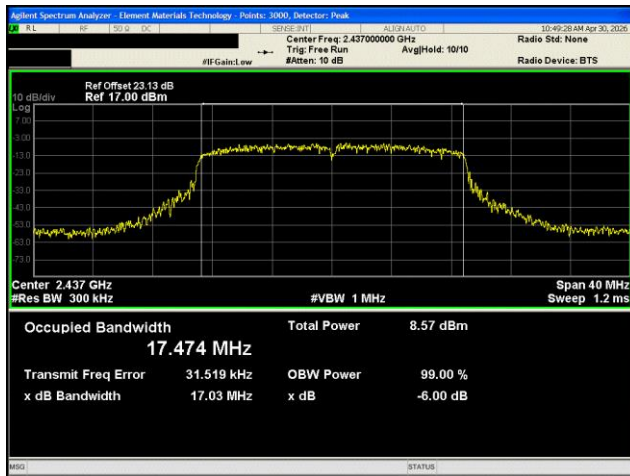


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

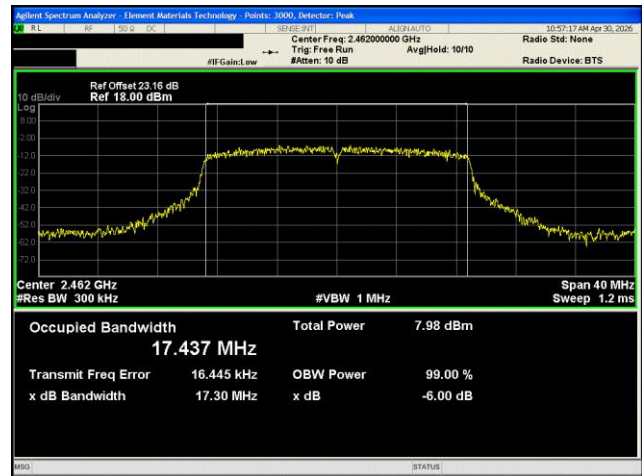


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

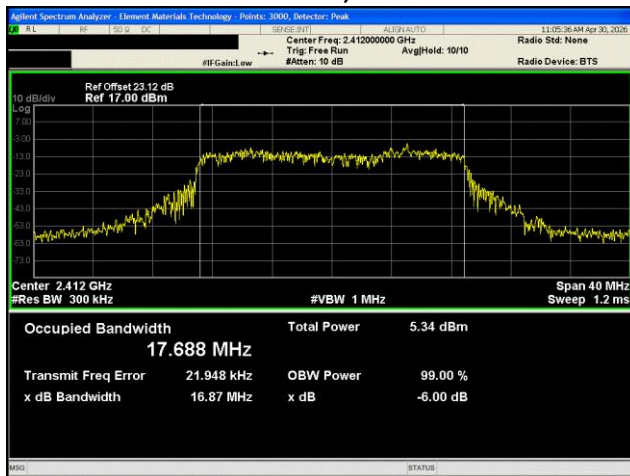
DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



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



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

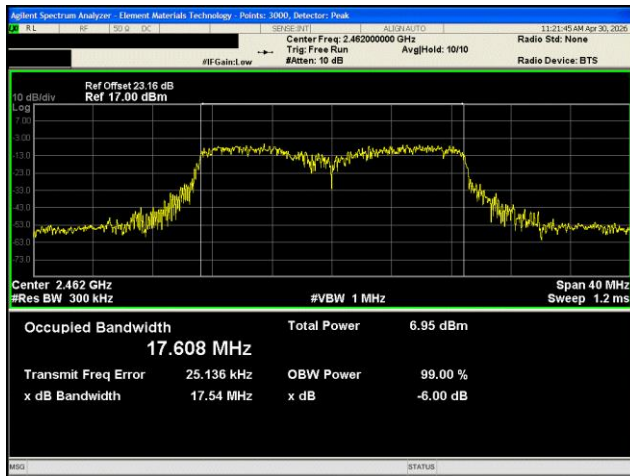


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz

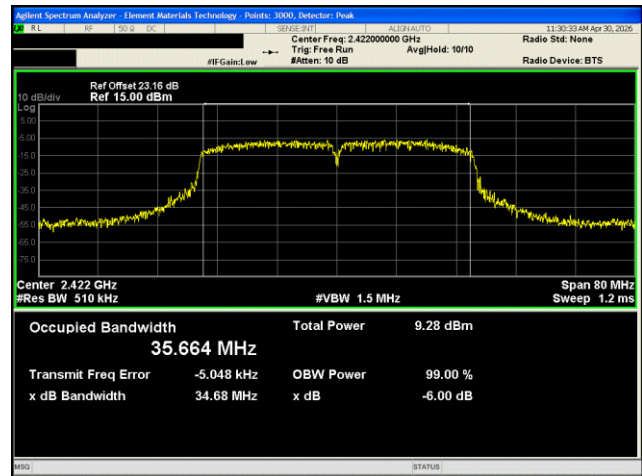


20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

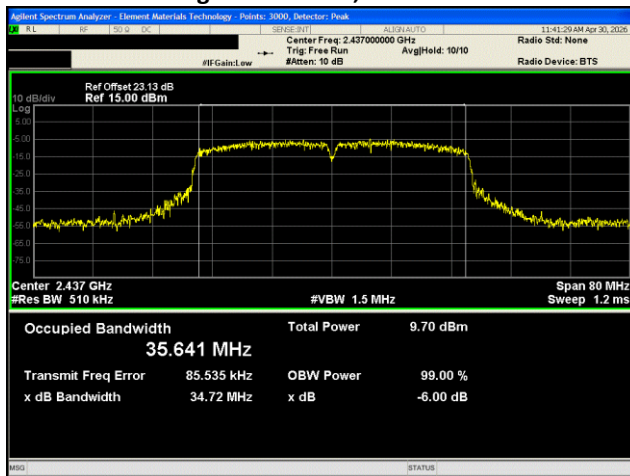
DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



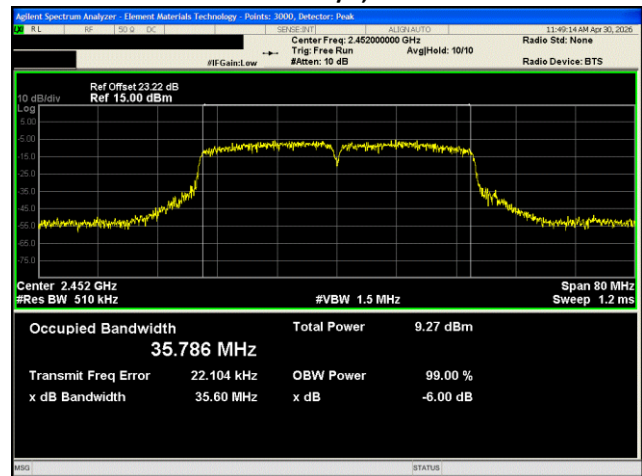
20 MHz BW
802.11(n) MCS7
High Channel 11, 2462 MHz



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

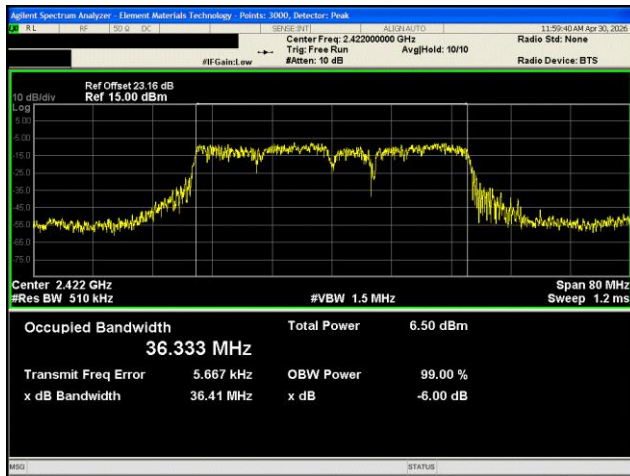


40 MHz BW
802.11(n) MCS0
Mid Channel 4/8, 2437 MHz

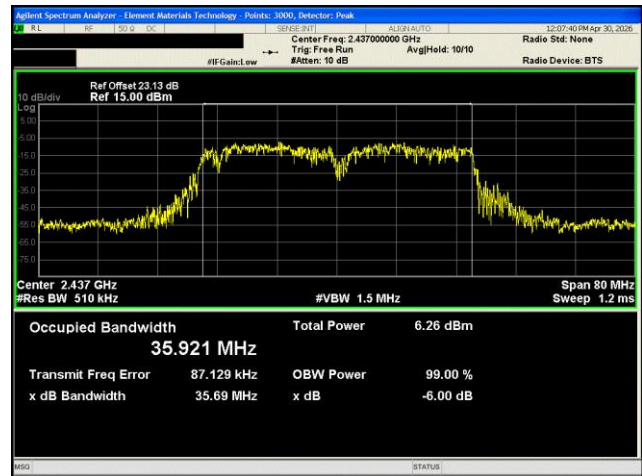


40 MHz BW
802.11(n) MCS0
High Channel 7/11, 2452 MHz

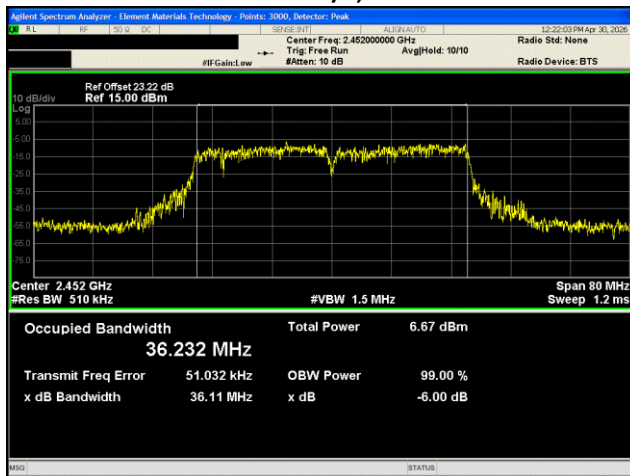
DTS (6 DB) AND OCCUPIED BANDWIDTH (99%)



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

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 C63.10:2020 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.

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

OUTPUT POWER



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:	50.5%
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

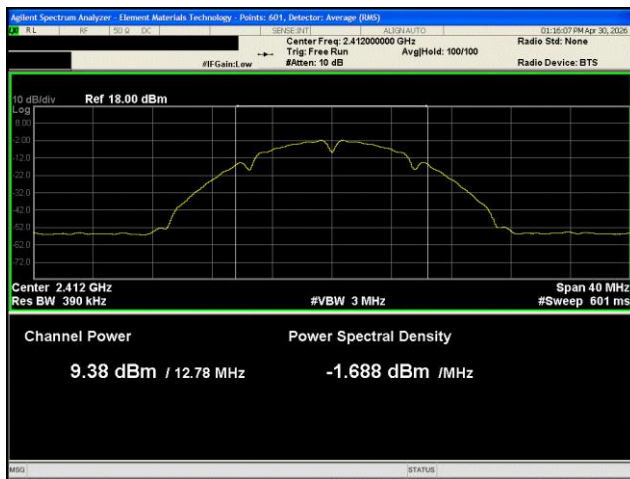
TEST RESULTS

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
20 MHz BW					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	9.379	0	9.4	30	Pass
Mid Channel 6, 2437 MHz	11.172	0	11.2	30	Pass
High Channel 11, 2462 MHz	11.266	0.1	11.4	30	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	9.319	0.4	9.7	30	Pass
Mid Channel 6, 2437 MHz	9.871	0.5	10.4	30	Pass
High Channel 11, 2462 MHz	9.932	0.5	10.4	30	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	8.777	0.3	9.1	30	Pass
Mid Channel 6, 2437 MHz	8.934	0.3	9.2	30	Pass
High Channel 11, 2462 MHz	8.961	0.2	9.2	30	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	7.456	1.1	8.6	30	Pass
Mid Channel 6, 2437 MHz	7.201	1.1	8.3	30	Pass
High Channel 11, 2462 MHz	7.498	1.5	9	30	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	6.97	2.3	9.3	30	Pass
Mid Channel 6, 2437 MHz	6.562	2	8.6	30	Pass
High Channel 11, 2462 MHz	6.211	1.6	7.8	30	Pass
802.11(n) MCS0					
Low Channel 1, 2412 MHz	7.822	0.2	8	30	Pass

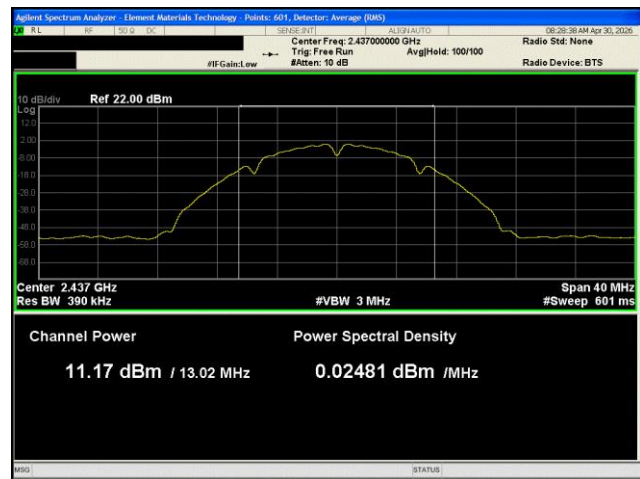
OUTPUT POWER

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
Mid Channel 6, 2437 MHz	6.816	0.2	7	30	Pass
High Channel 11, 2462 MHz	6.648	0.2	6.8	30	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	4.249	1.8	6	30	Pass
Mid Channel 6, 2437 MHz	5.032	2.4	7.4	30	Pass
High Channel 11, 2462 MHz	6.372	1.8	8.2	30	Pass
40 MHz BW					
802.11(n) MCS0					
Low Channel 1/5, 2422 MHz	8.394	0.7	9.1	30	Pass
Mid Channel 4/8, 2437 MHz	7.983	0.6	8.6	30	Pass
High Channel 7/11, 2452 MHz	8.023	0.6	8.6	30	Pass
802.11(n) MCS7					
Low Channel 1/5, 2422 MHz	5.801	2.8	8.6	30	Pass
Mid Channel 4/8, 2437 MHz	5.435	3.2	8.6	30	Pass
High Channel 7/11, 2452 MHz	5.536	2.6	8.1	30	Pass

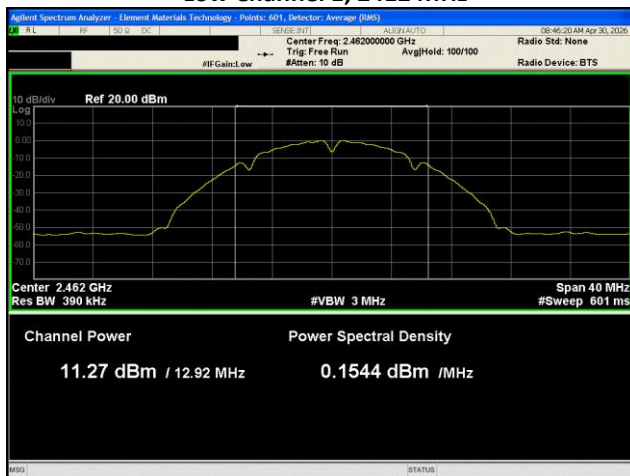
OUTPUT POWER



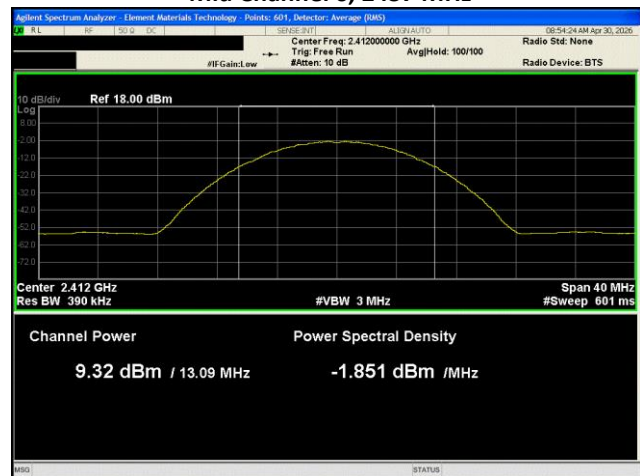
20 MHz BW
802.11(b) 1 Mbps
Low Channel 1, 2412 MHz



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

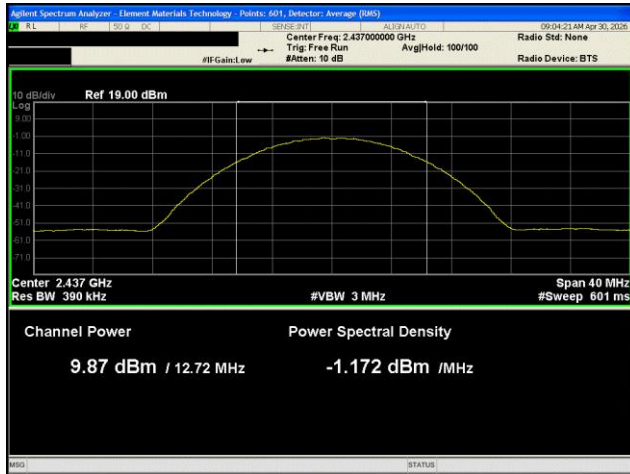


20 MHz BW
802.11(b) 1 Mbps
High Channel 11, 2462 MHz

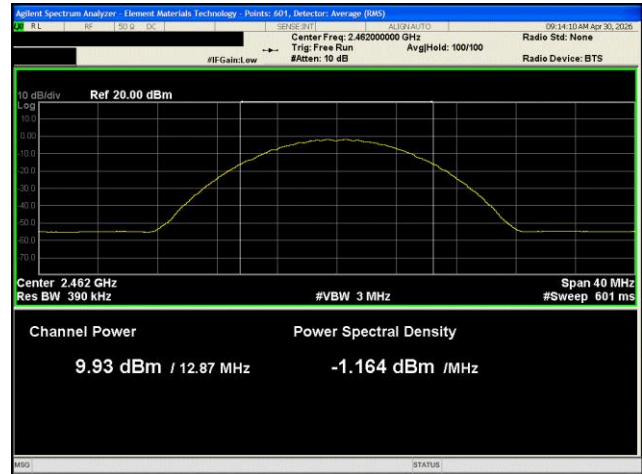


20 MHz BW
802.11(b) 11 Mbps
Low Channel 1, 2412 MHz

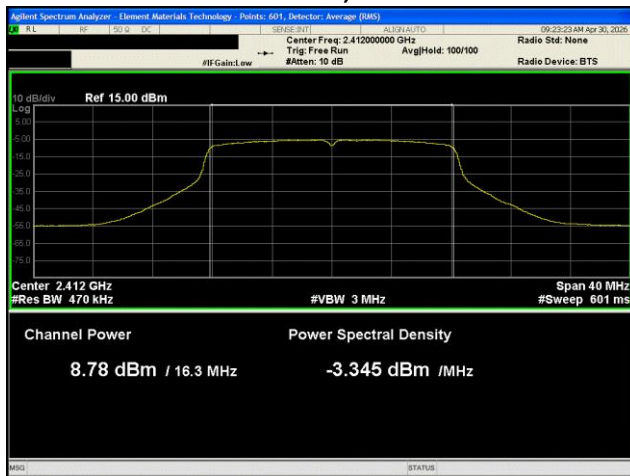
OUTPUT POWER



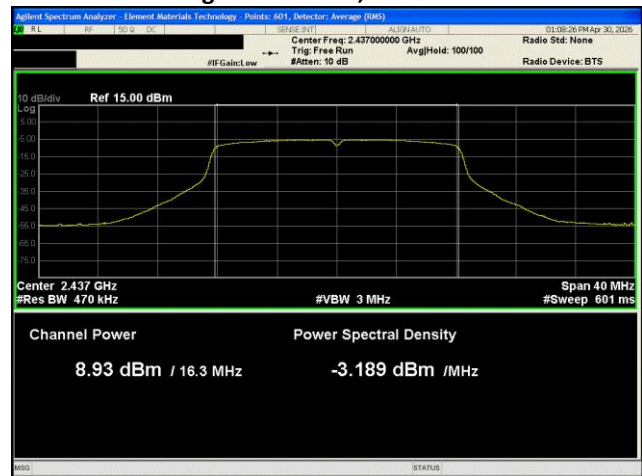
20 MHz BW
802.11(b) 11 Mbps
Mid Channel 6, 2437 MHz



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

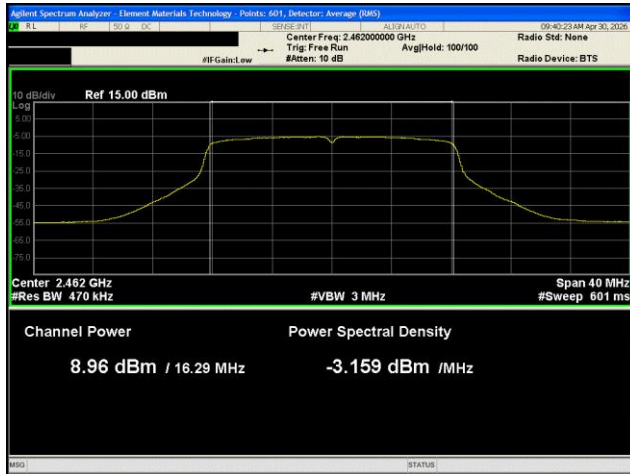


20 MHz BW
802.11(g) 6 Mbps
Low Channel 1, 2412 MHz

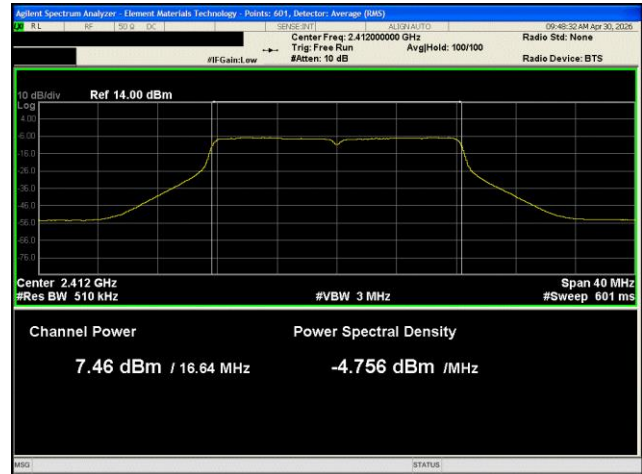


20 MHz BW
802.11(g) 6 Mbps
Mid Channel 6, 2437 MHz

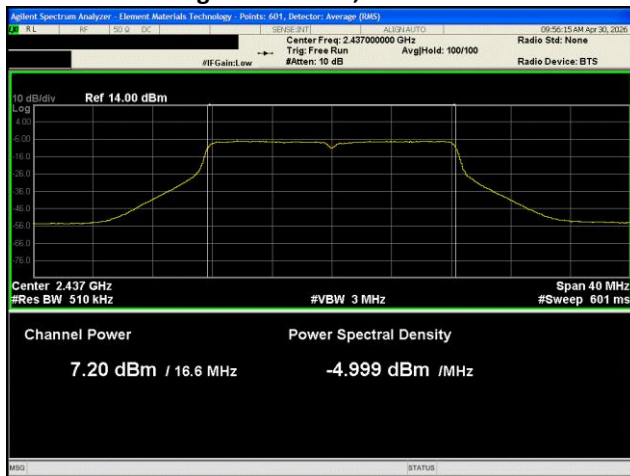
OUTPUT POWER



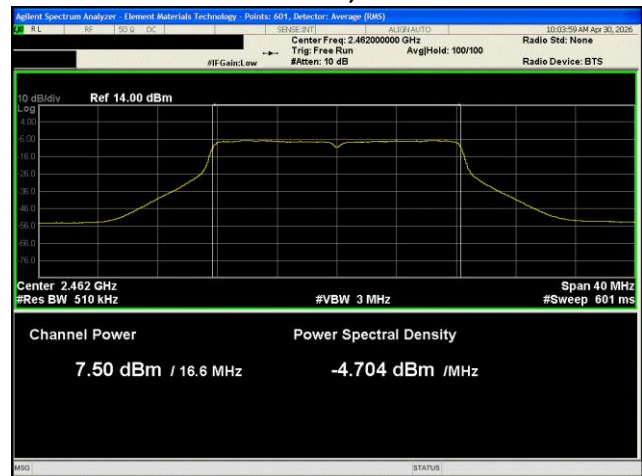
20 MHz BW
802.11(g) 6 Mbps
High Channel 11, 2462 MHz



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

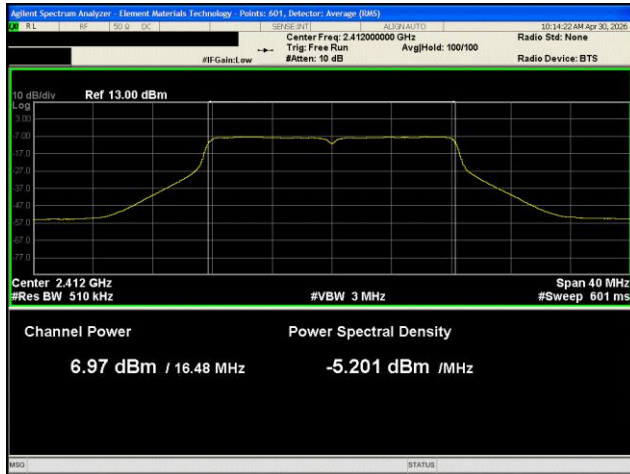


20 MHz BW
802.11(g) 36 Mbps
Mid Channel 6, 2437 MHz

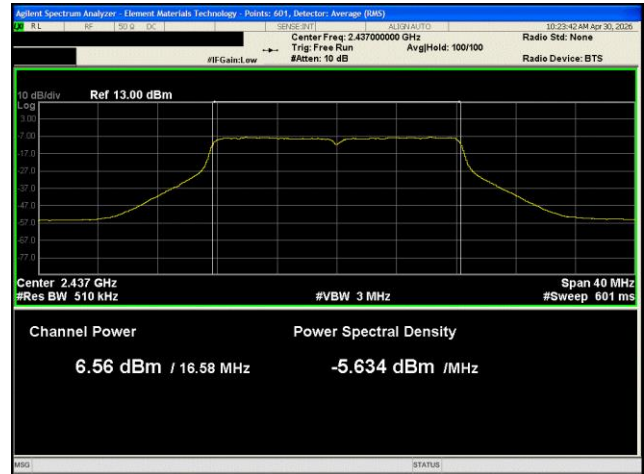


20 MHz BW
802.11(g) 36 Mbps
High Channel 11, 2462 MHz

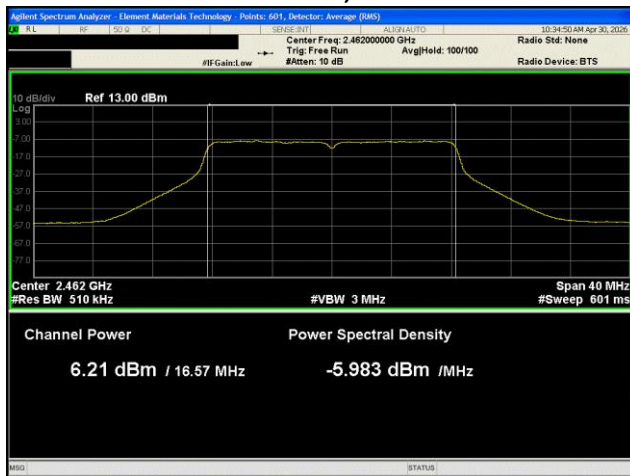
OUTPUT POWER



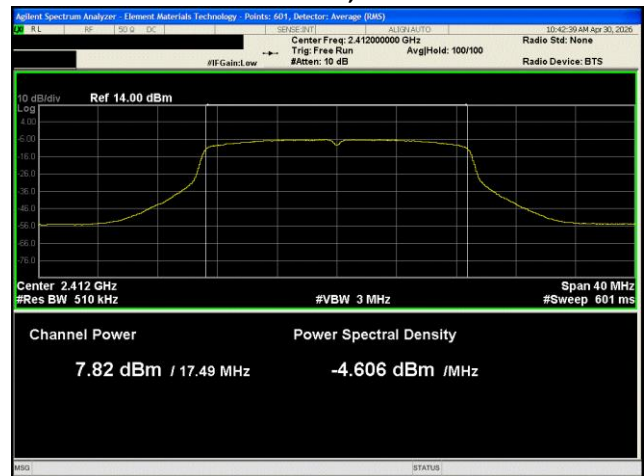
20 MHz BW
802.11(g) 54 Mbps
Low Channel 1, 2412 MHz



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

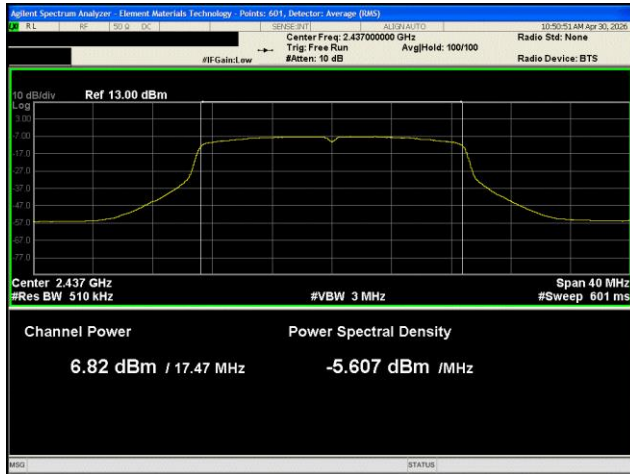


20 MHz BW
802.11(g) 54 Mbps
High Channel 11, 2462 MHz

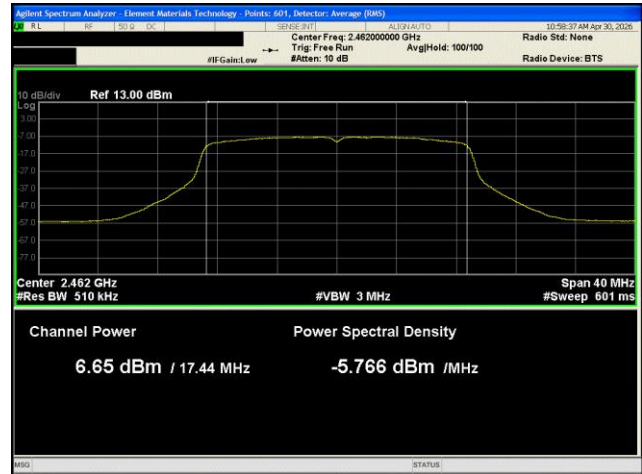


20 MHz BW
802.11(n) MCS0
Low Channel 1, 2412 MHz

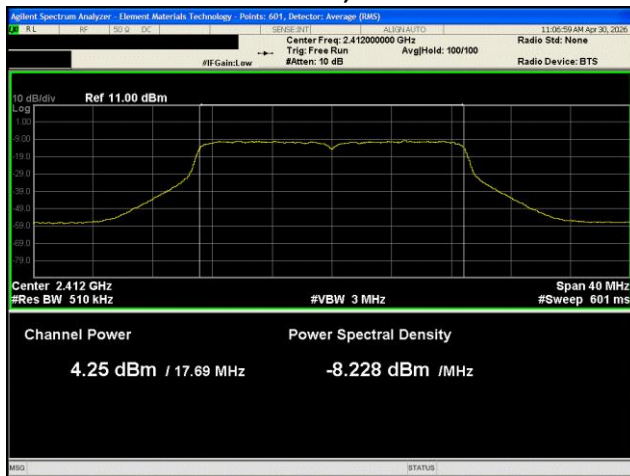
OUTPUT POWER



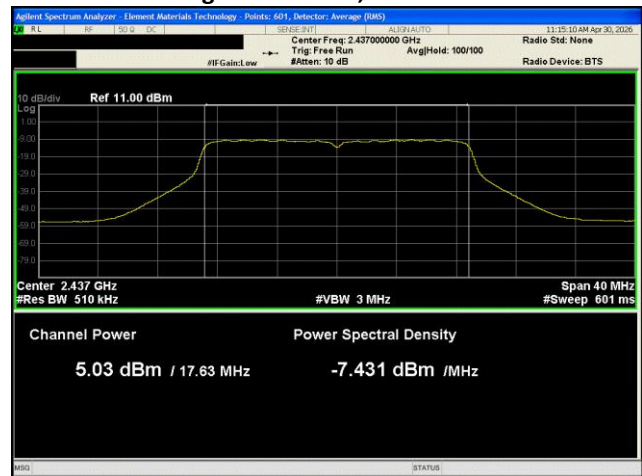
20 MHz BW
802.11(n) MCS0
Mid Channel 6, 2437 MHz



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

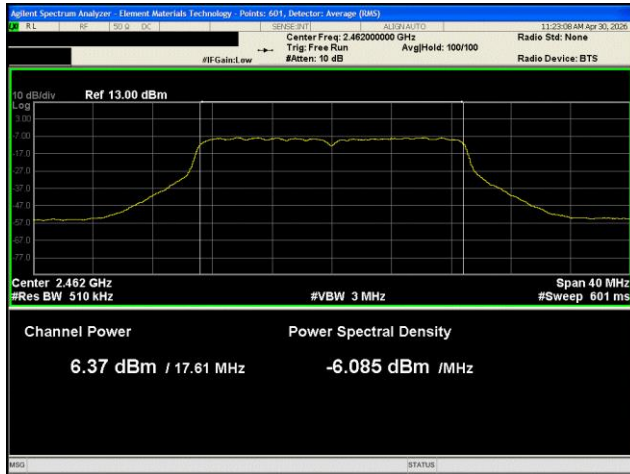


20 MHz BW
802.11(n) MCS7
Low Channel 1, 2412 MHz



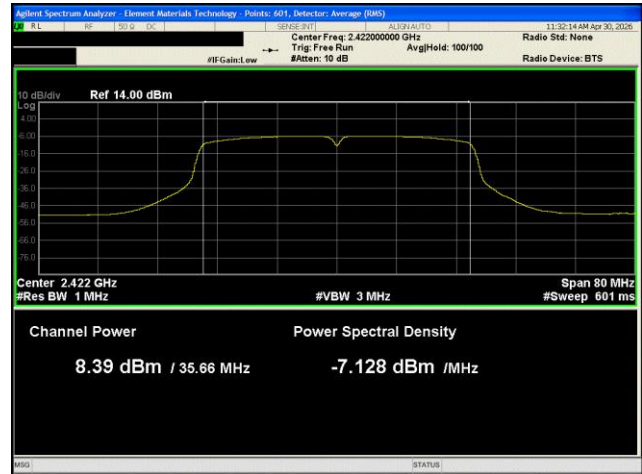
20 MHz BW
802.11(n) MCS7
Mid Channel 6, 2437 MHz

OUTPUT POWER

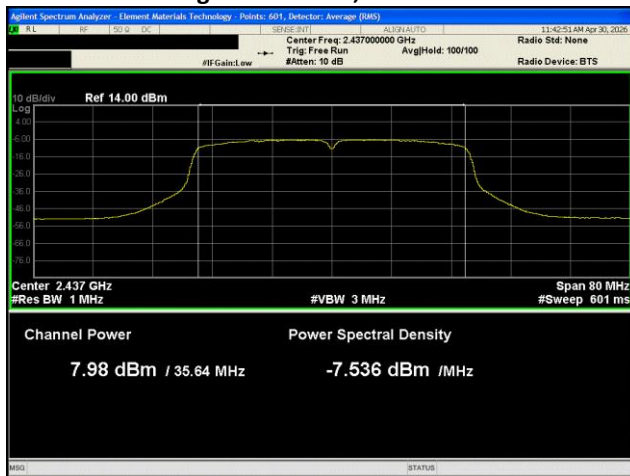


20 MHz BW
802.11(n) MCS7

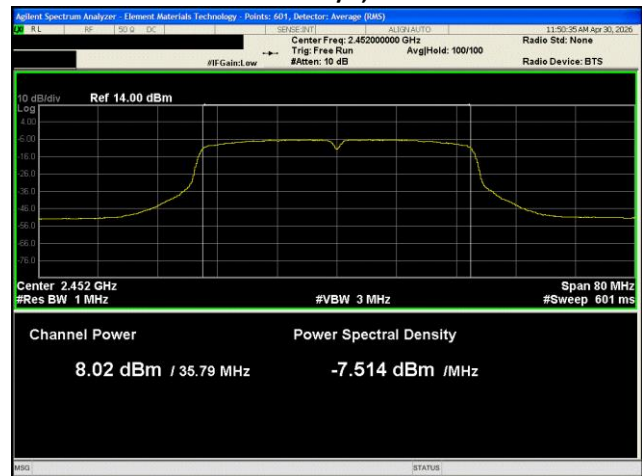
High Channel 11, 2462 MHz



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

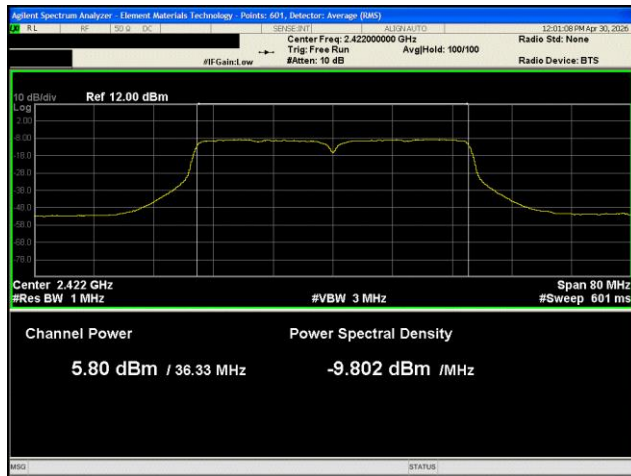


40 MHz BW
802.11(n) MCS0
Mid Channel 4/8, 2437 MHz

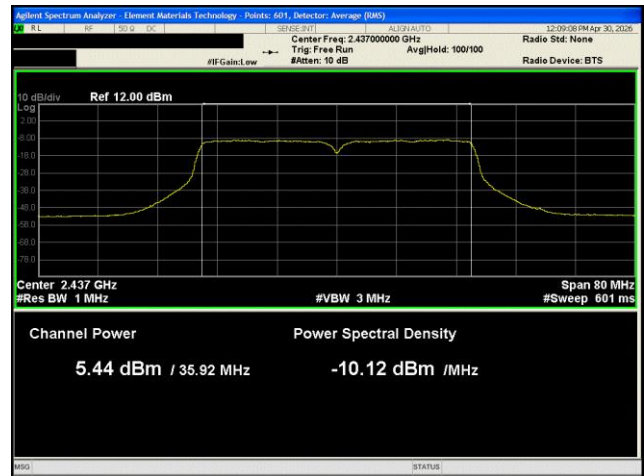


40 MHz BW
802.11(n) MCS0
High Channel 7/11, 2452 MHz

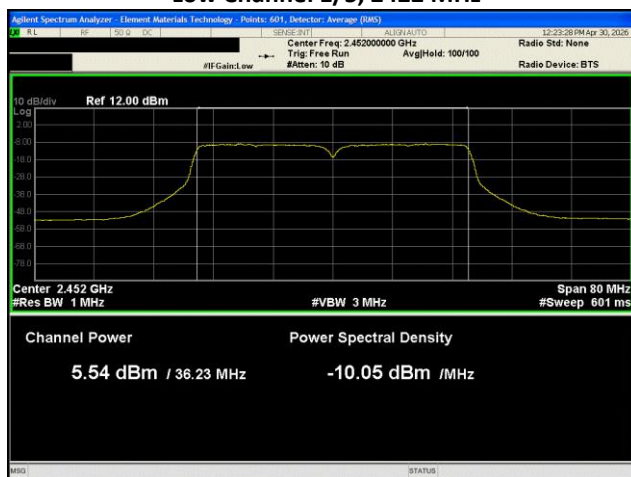
OUTPUT POWER



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