OCCUPIED BANDWIDTH

XMit 2020.03.25.0

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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFX	28-Apr-20	28-Apr-23
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	15-Sep-19	15-Sep-20
Attenuator	S.M. Electronics	SA26B-20	RFW	10-Feb-20	10-Feb-21
Block - DC	Fairview Microwave	SD3379	AMI	5-Aug-20	5-Aug-21
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	21-Dec-19	21-Dec-20

TEST DESCRIPTION

The EUT was set to the channels and modes listed in the datasheet.

The 6dB occupied bandwidth was measured using 100 kHz resolution bandwidth and 300 kHz video bandwidth. The 99.0% occupied bandwidth was also measured at the same time which can be needed during Output Power depending on the applicable method.

OCCUPIED BANDWIDTH

TbtTx 2019.08.30.0 XMit 2020.03.25.0

EUT:	USB to WiFi Adapter	Work Order:	TRNE0022
Serial Number:	0022A301FF5D	Date:	24-Aug-20
Customer:	Trane	Temperature:	21.9 °C
Attendees:	Chris Vanderkoy	Humidity:	57% RH
Project:	None	Barometric Pres.:	1017 mbar
Tested by:	Dustin Sparks	Power: 5VDC via USB	Job Site: MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2020	ANSI C63.10:2013

COMMENTS

Measurement cable, DC block, and 20 dB attenuator included in reference level offset.

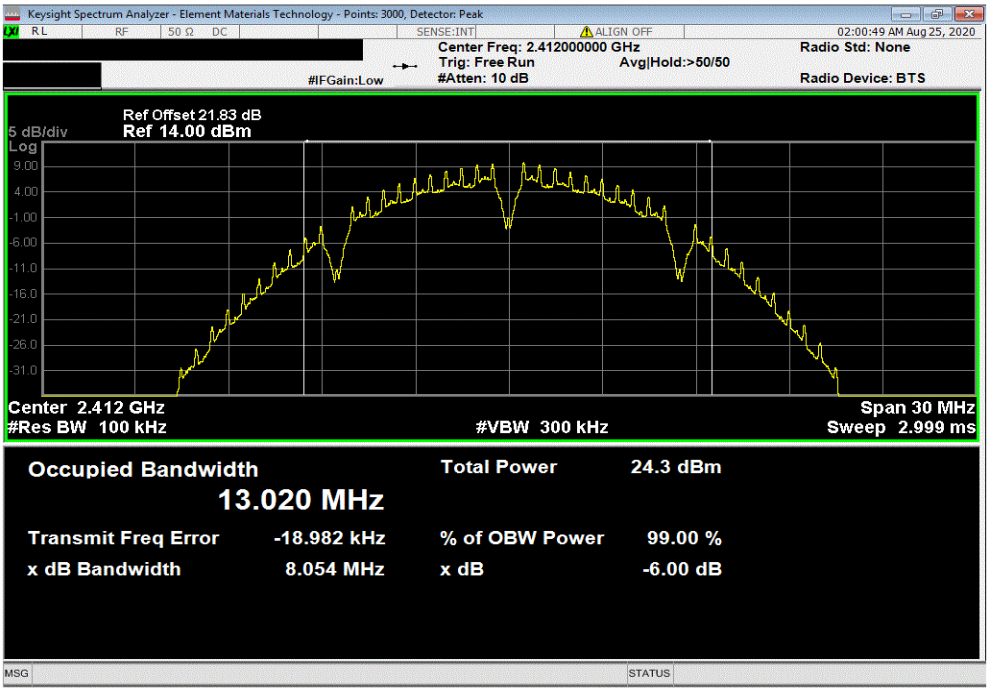
DEVIATIONS FROM TEST STANDARD

None

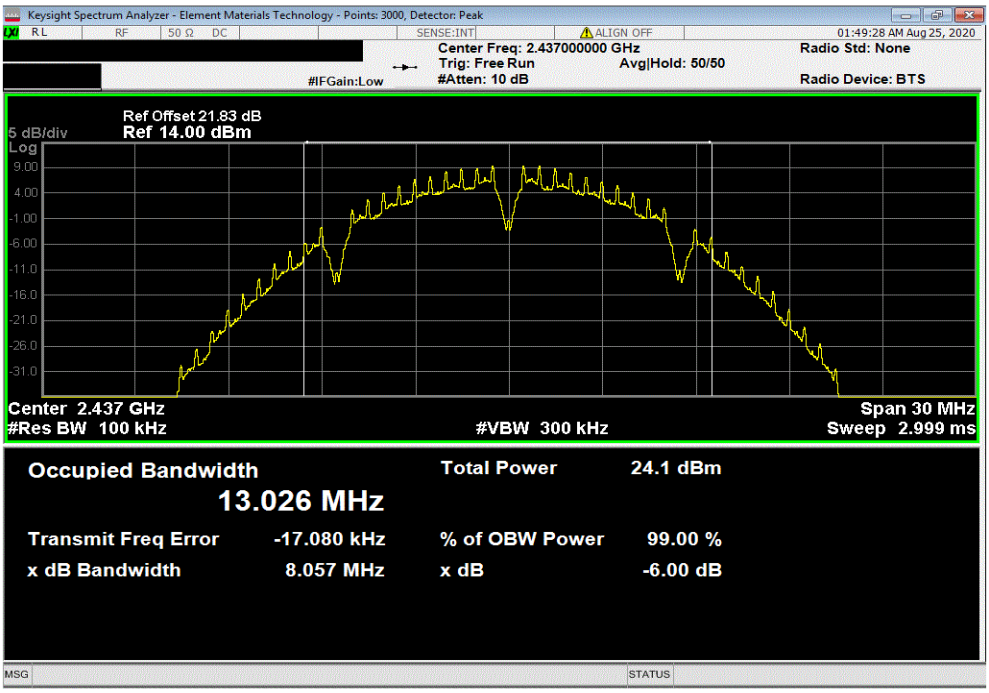
Configuration #	3	Signature

	Value	Limit (>)	Result
2400 MHz - 2483.5 MHz Band			
802.11(b) 1 Mbps			
Low Channel 1, 2412 MHz	8.054 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	8.057 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	8.051 MHz	500 kHz	Pass
802.11(b) 11 Mbps			
Low Channel 1, 2412 MHz	8.177 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	8.656 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	7.869 MHz	500 kHz	Pass
802.11(g) 6 Mbps			
Low Channel 1, 2412 MHz	15.139 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.134 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.124 MHz	500 kHz	Pass
802.11(g) 36 Mbps			
Low Channel 1, 2412 MHz	16.467 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	16.493 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	16.497 MHz	500 kHz	Pass
802.11(g) 54 Mbps			
Low Channel 1, 2412 MHz	16.5 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	16.501 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	16.499 MHz	500 kHz	Pass
802.11(n) MCS0			
Low Channel 1, 2412 MHz	15.111 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	15.143 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	15.142 MHz	500 kHz	Pass
802.11(n) MCS7			
Low Channel 1, 2412 MHz	17.728 MHz	500 kHz	Pass
Mid Channel 6, 2437 MHz	17.679 MHz	500 kHz	Pass
High Channel 11, 2462 MHz	17.723 MHz	500 kHz	Pass

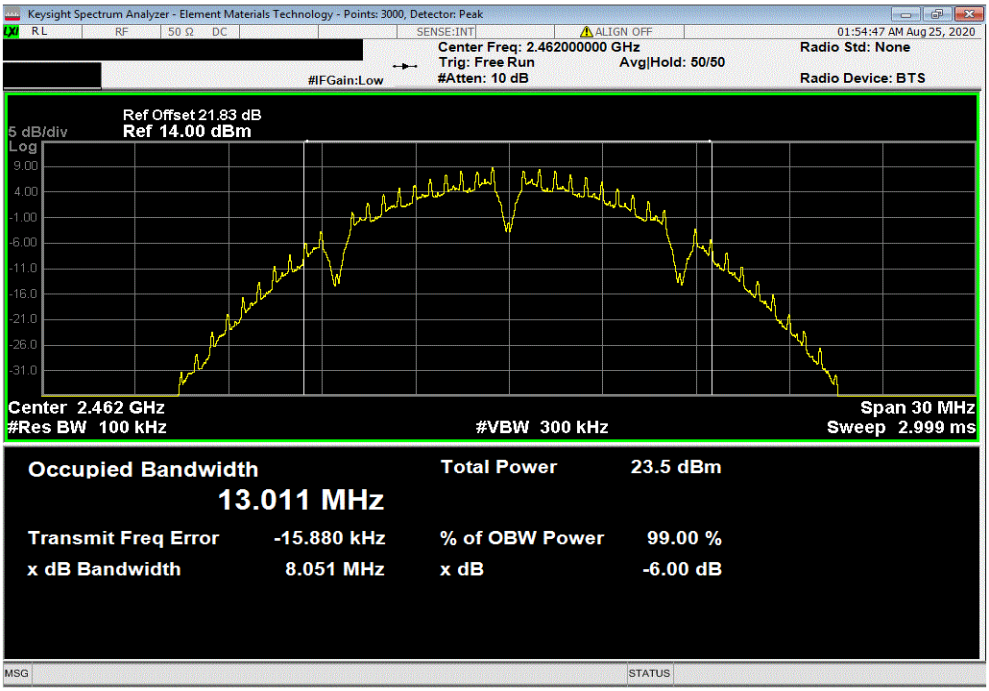
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				8.054 MHz	500 kHz	Pass



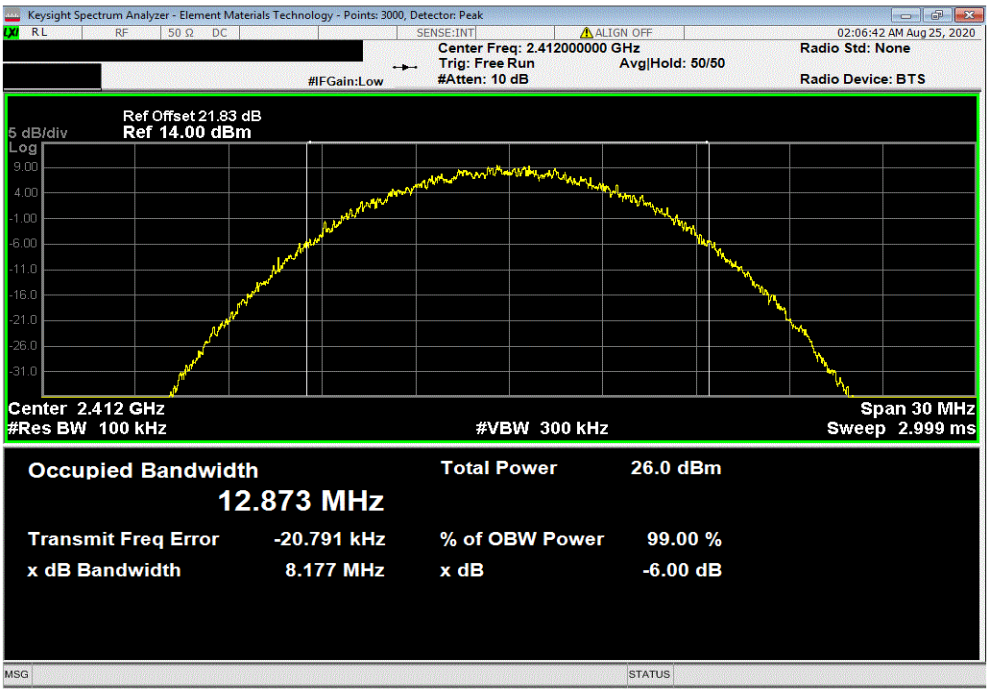
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				8.057 MHz	500 kHz	Pass



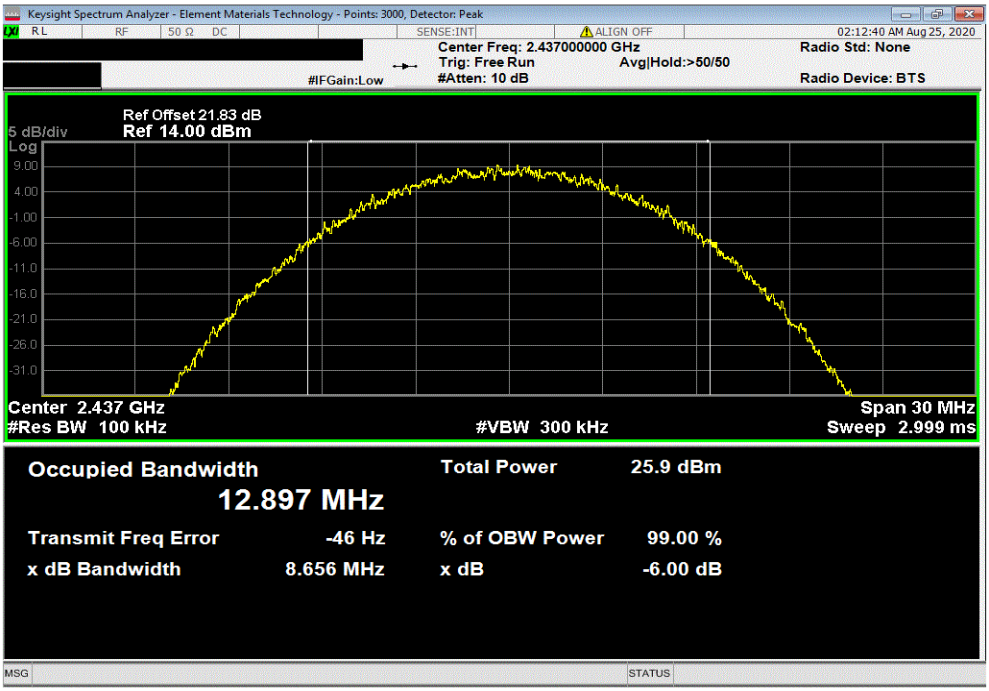
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				8.051 MHz	500 kHz	Pass



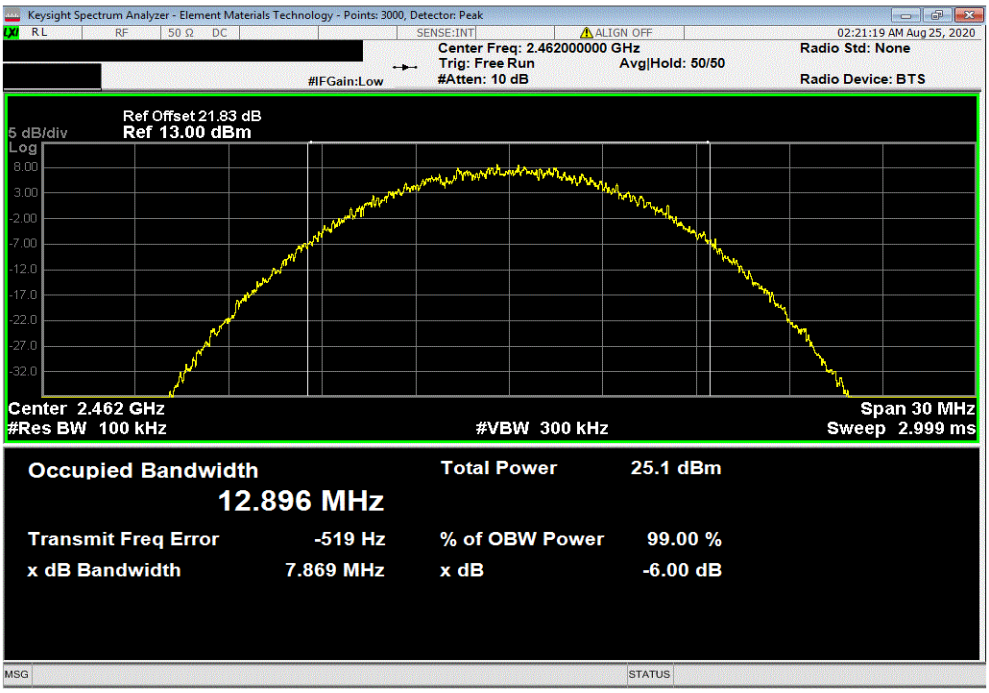
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				8.177 MHz	500 kHz	Pass



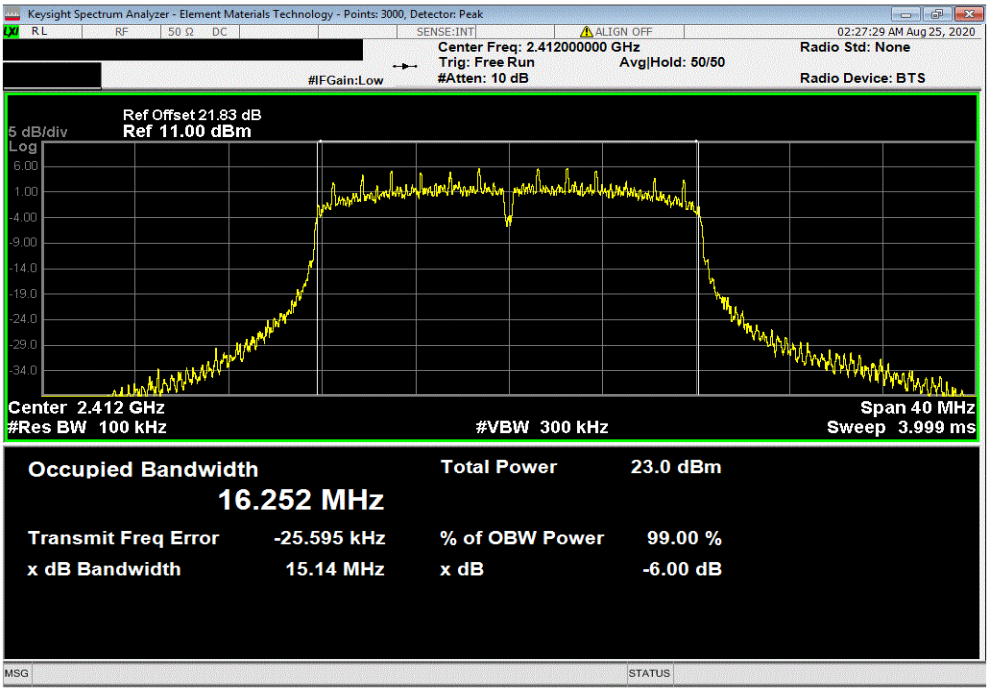
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				8.656 MHz	500 kHz	Pass



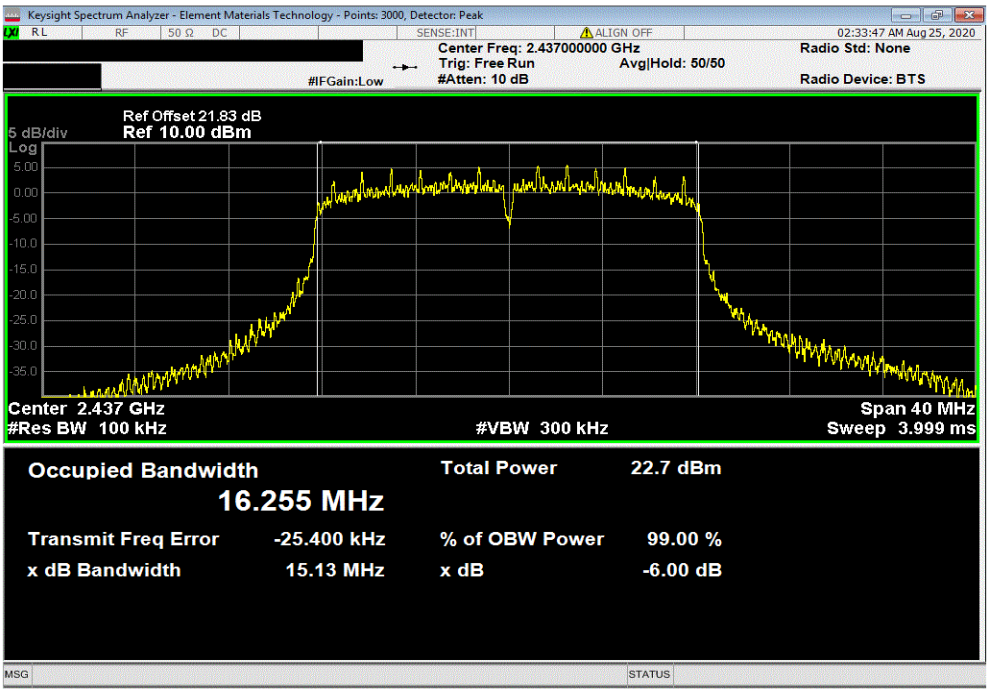
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				7.869 MHz	500 kHz	Pass



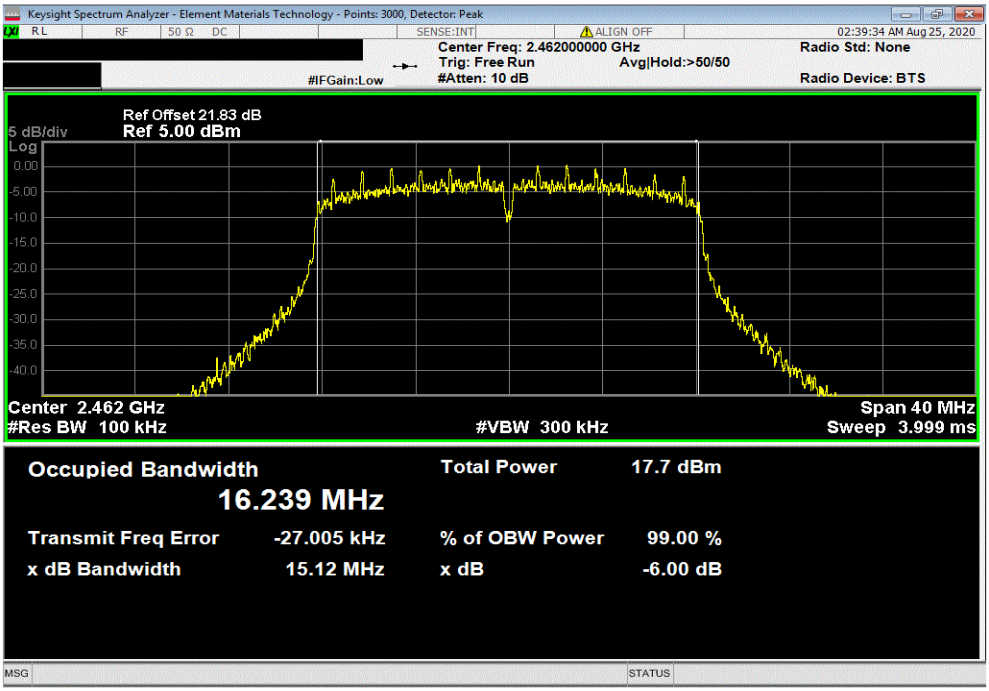
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.139 MHz	500 kHz	Pass



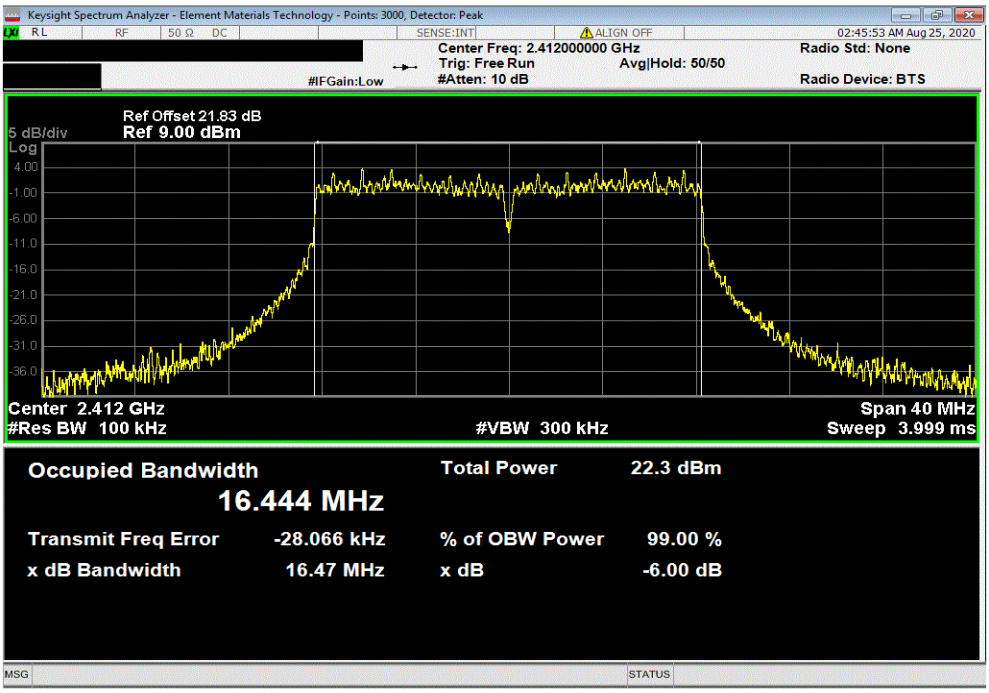
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.134 MHz	500 kHz	Pass



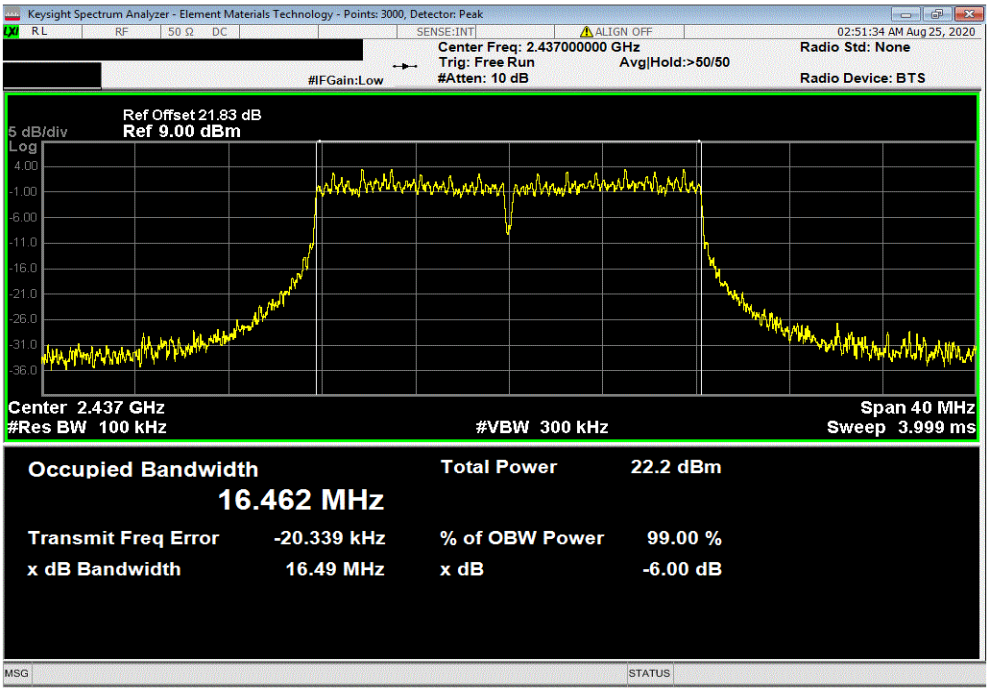
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.124 MHz	500 kHz	Pass



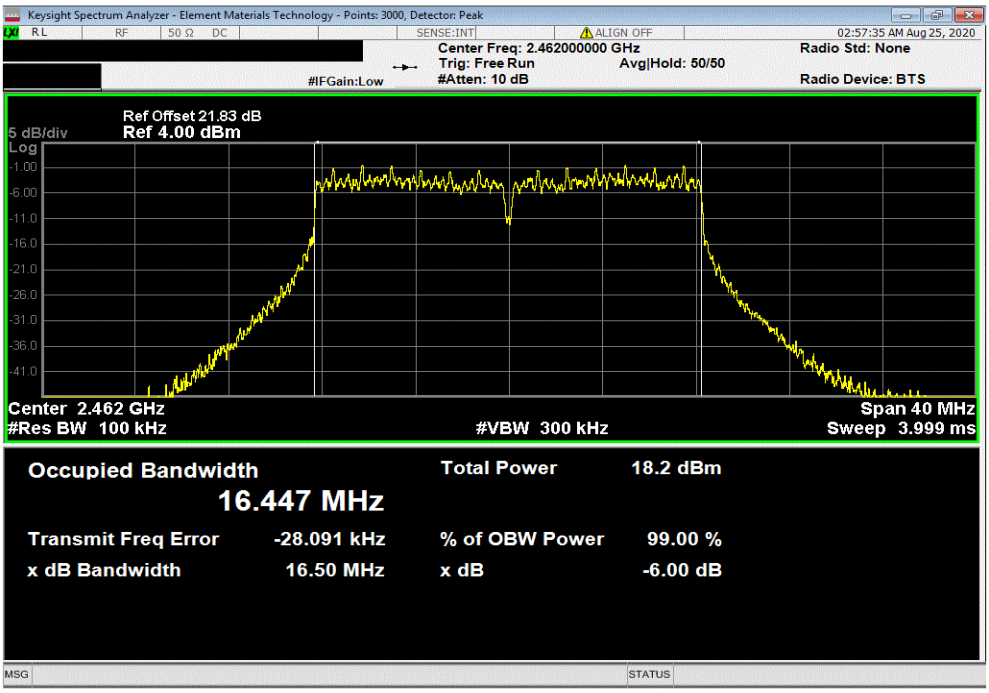
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				16.467 MHz	500 kHz	Pass



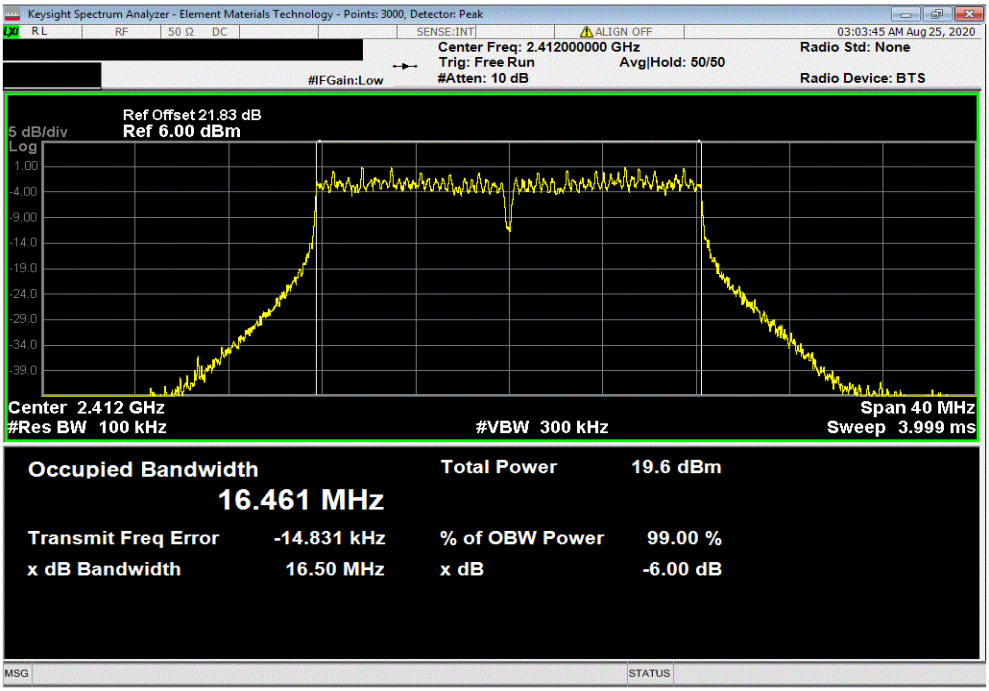
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				16.493 MHz	500 kHz	Pass



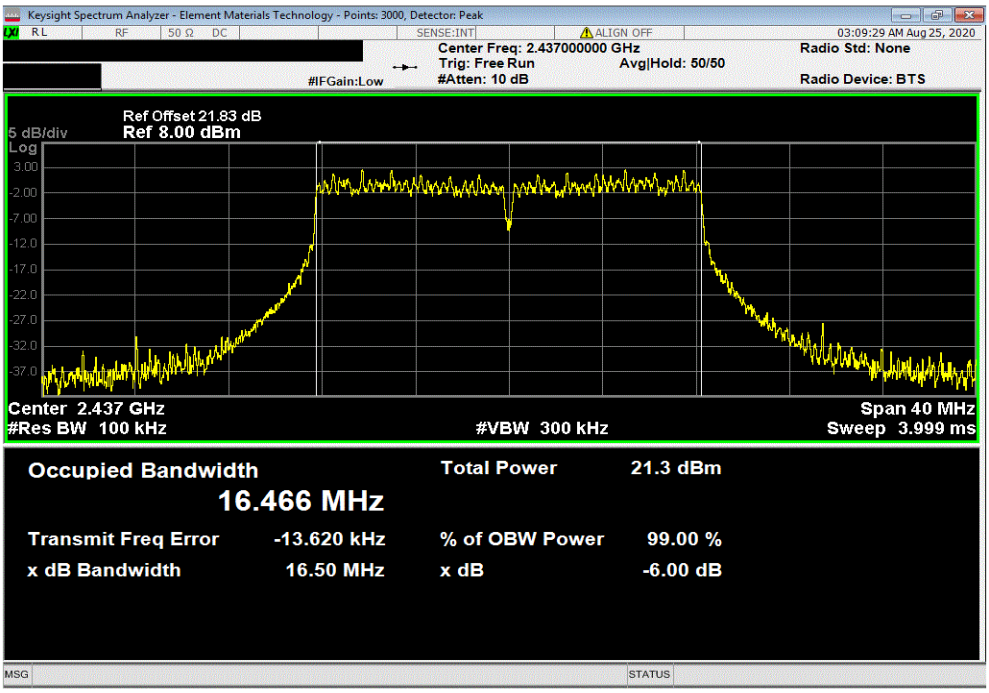
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				16.497 MHz	500 kHz	Pass



2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				16.5 MHz	500 kHz	Pass



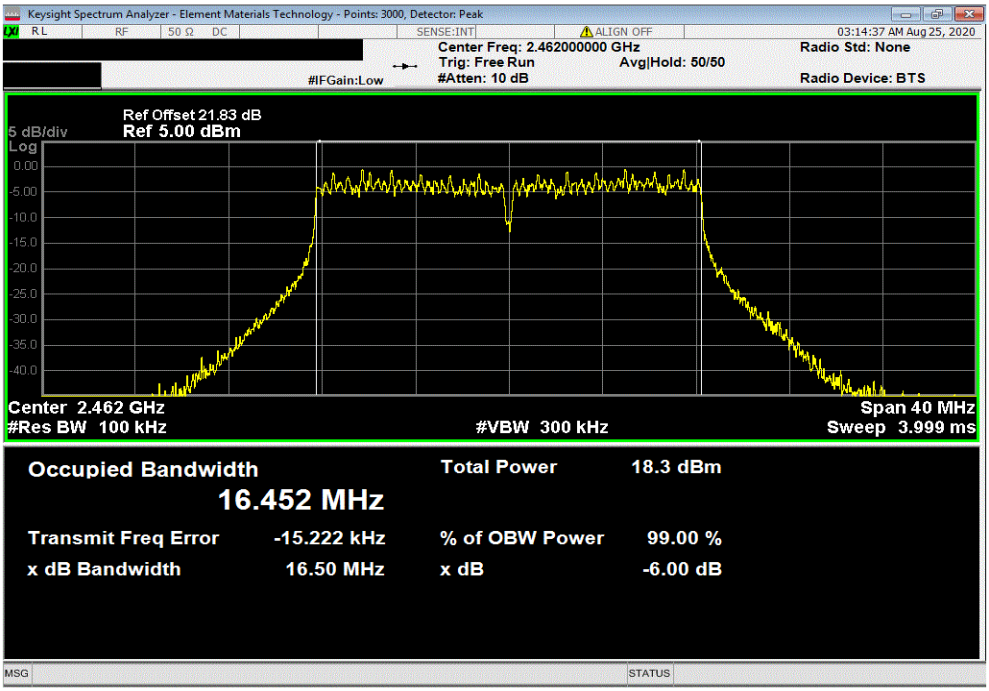
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				16.501 MHz	500 kHz	Pass



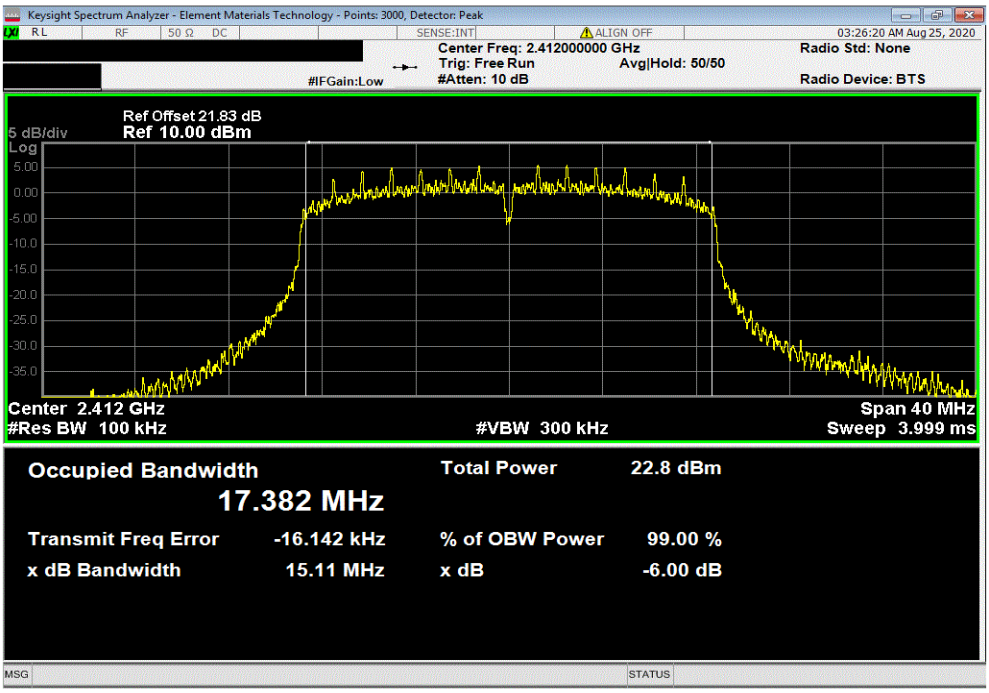
OCCUPIED BANDWIDTH

TbtTx 2019.08.30.0 XMit 2020.03.25.0

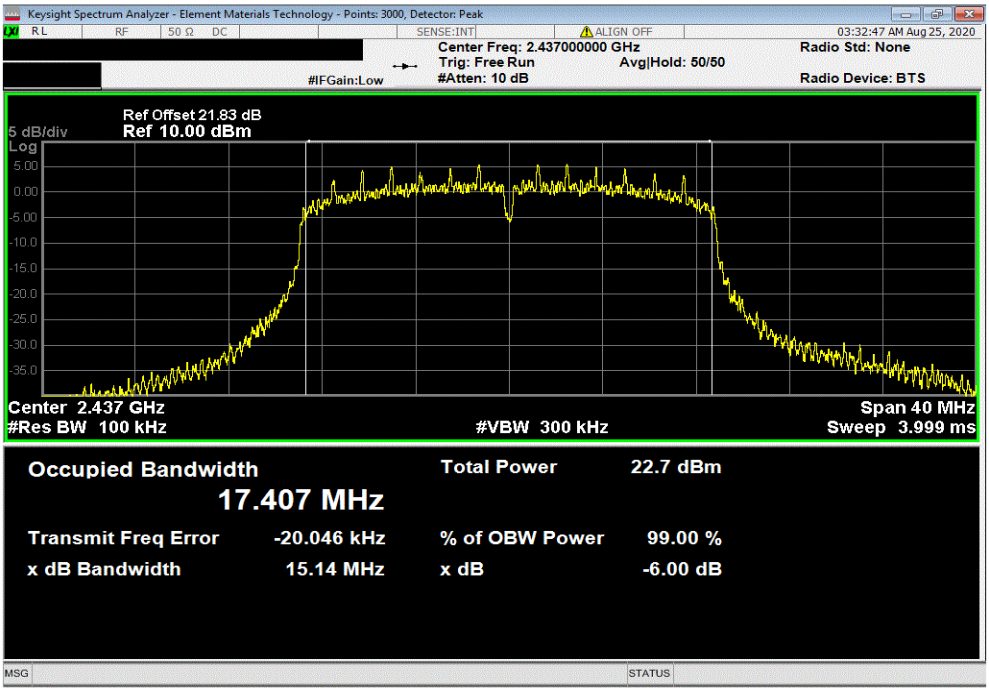
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				16.499 MHz	500 kHz	Pass



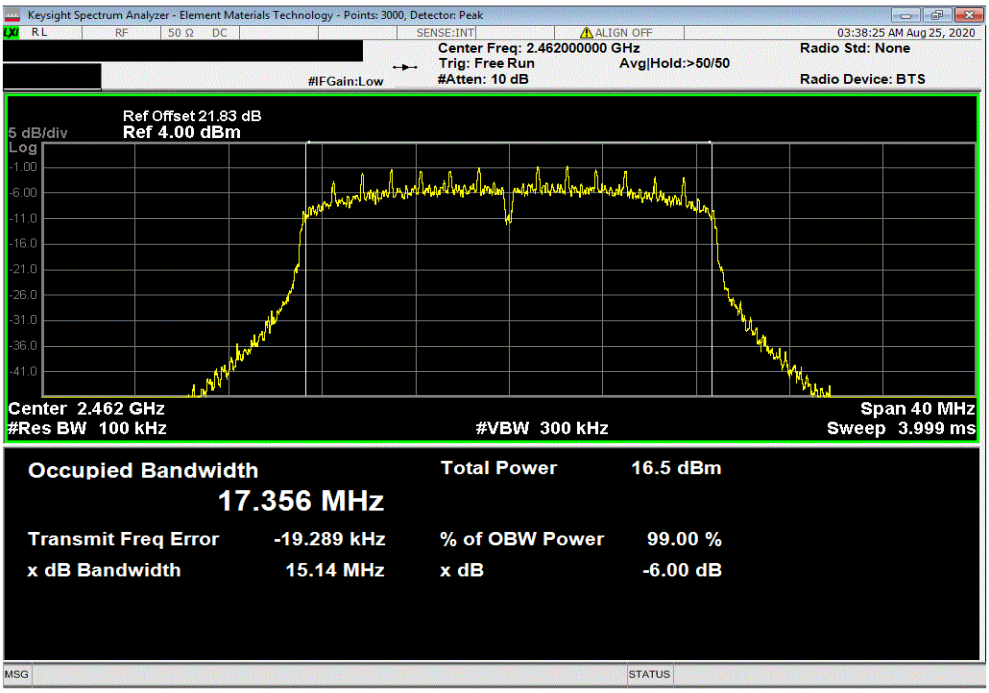
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				15.111 MHz	500 kHz	Pass



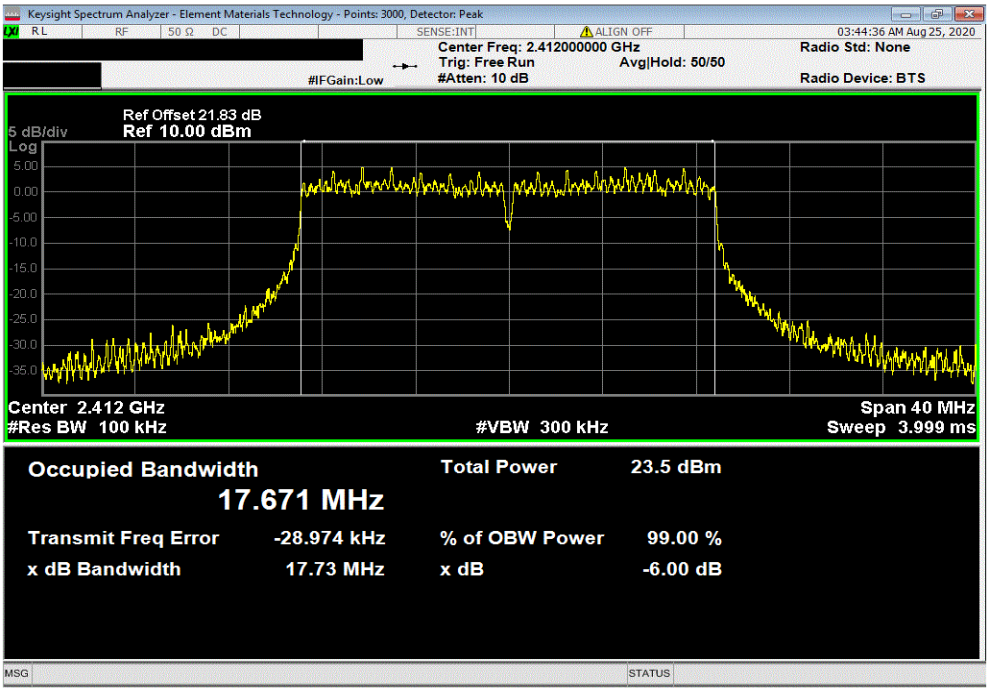
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				15.143 MHz	500 kHz	Pass



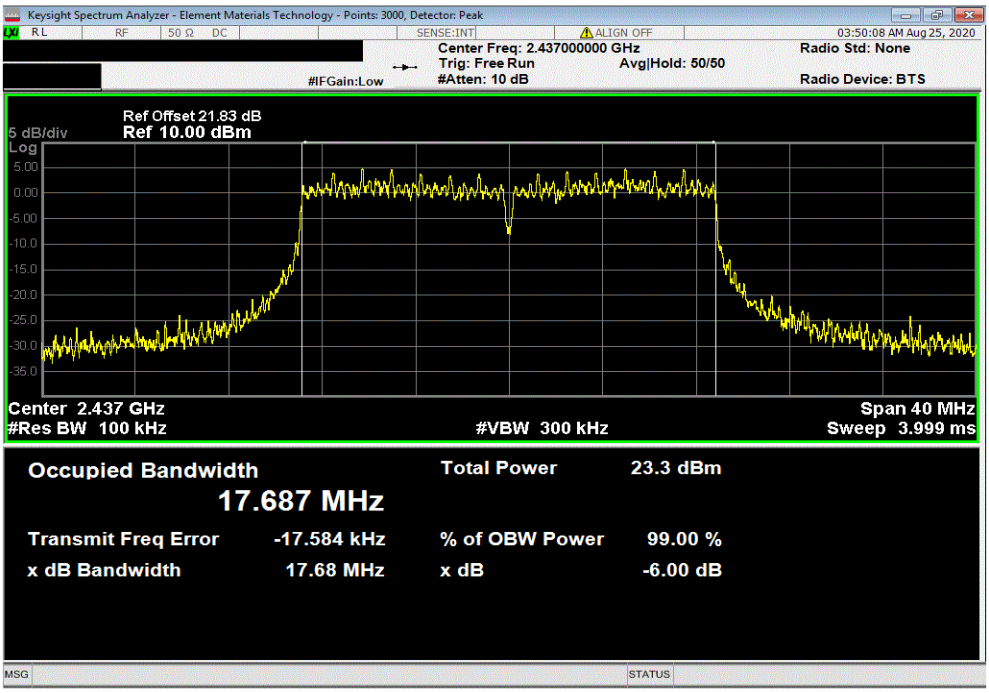
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				15.142 MHz	500 kHz	Pass



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
				Value	Limit (>)	Result
				17.728 MHz	500 kHz	Pass



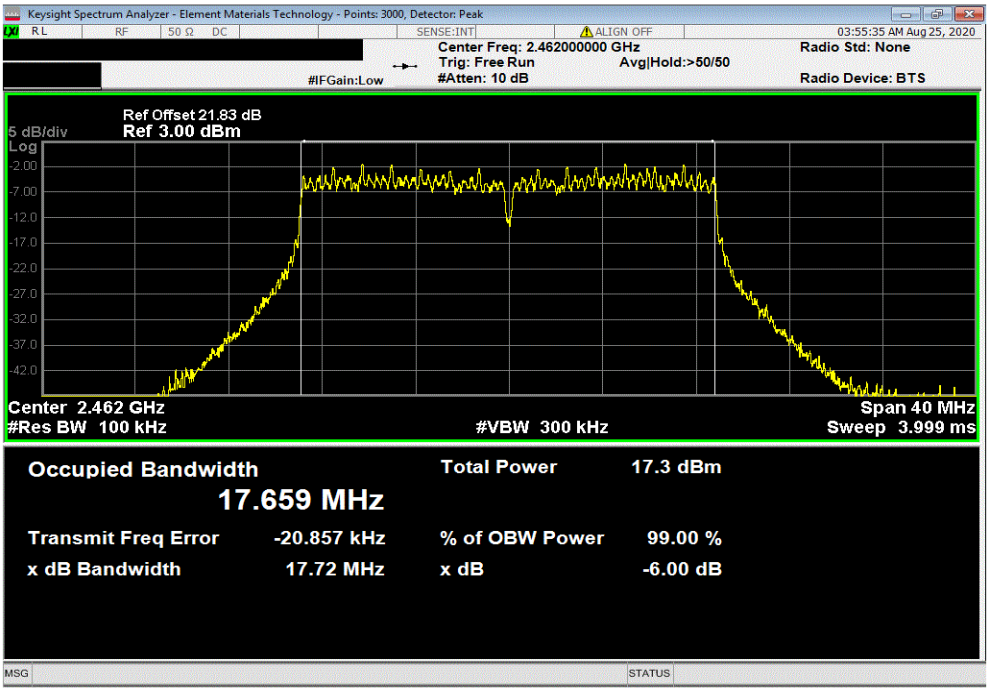
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
				Value	Limit (>)	Result
				17.679 MHz	500 kHz	Pass



OCCUPIED BANDWIDTH

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
				Value	Limit (>)	Result
				17.723 MHz	500 kHz	Pass



OUTPUT POWER

XMit 2020.03.25.0

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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFX	28-Apr-20	28-Apr-23
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	15-Sep-19	15-Sep-20
Attenuator	S.M. Electronics	SA26B-20	RFW	10-Feb-20	10-Feb-21
Block - DC	Fairview Microwave	SD3379	AMI	5-Aug-20	5-Aug-21
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	21-Dec-19	21-Dec-20

TEST DESCRIPTION

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.

OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

EUT:	USB to WiFi Adapter	Work Order:	TRNE0022
Serial Number:	0022A301FF5D	Date:	24-Aug-20
Customer:	Trane	Temperature:	21.9 °C
Attendees:	Chris Vanderkoy	Humidity:	57.4% RH
Project:	None	Barometric Pres.:	1017 mbar
Tested by:	Dustin Sparks	Power: 5VDC via USB	Job Site: MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2020	ANSI C63.10:2013

COMMENTS

Measurement cable, DC block, and 20 dB attenuator included in reference level offset.

DEVIATIONS FROM TEST STANDARD

None

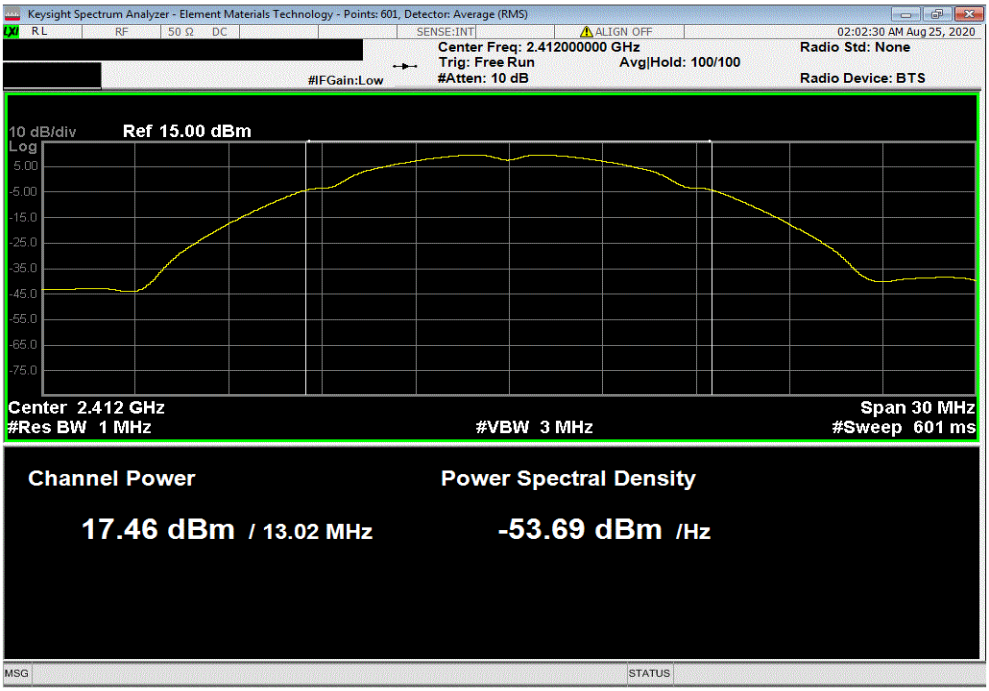
Configuration #	3	Signature

	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
2400 MHz - 2483.5 MHz Band					
802.11(b) 1 Mbps					
Low Channel 1, 2412 MHz	17.459	0	17.5	30	Pass
Mid Channel 6, 2437 MHz	17.259	0	17.3	30	Pass
High Channel 11, 2462 MHz	16.582	0	16.6	30	Pass
802.11(b) 11 Mbps					
Low Channel 1, 2412 MHz	17.229	0.3	17.5	30	Pass
Mid Channel 6, 2437 MHz	17.044	0.3	17.4	30	Pass
High Channel 11, 2462 MHz	16.367	0.3	16.7	30	Pass
802.11(g) 6 Mbps					
Low Channel 1, 2412 MHz	15.903	0.2	16.1	30	Pass
Mid Channel 6, 2437 MHz	15.687	0.2	15.9	30	Pass
High Channel 11, 2462 MHz	10.681	0.2	10.9	30	Pass
802.11(g) 36 Mbps					
Low Channel 1, 2412 MHz	13.786	1.2	15	30	Pass
Mid Channel 6, 2437 MHz	13.627	1	14.7	30	Pass
High Channel 11, 2462 MHz	9.731	1	10.7	30	Pass
802.11(g) 54 Mbps					
Low Channel 1, 2412 MHz	10.525	1.4	11.9	30	Pass
Mid Channel 6, 2437 MHz	12.265	1.4	13.7	30	Pass
High Channel 11, 2462 MHz	9.344	1.4	10.7	30	Pass
802.11(n) MCS0					
Low Channel 1, 2412 MHz	15.64	0.2	15.9	30	Pass
Mid Channel 6, 2437 MHz	15.478	0.2	15.7	30	Pass
High Channel 11, 2462 MHz	9.336	0.2	9.5	30	Pass
802.11(n) MCS7					
Low Channel 1, 2412 MHz	12.475	1.5	14	30	Pass
Mid Channel 6, 2437 MHz	12.128	1.5	13.7	30	Pass
High Channel 11, 2462 MHz	8.246	1.5	9.7	30	Pass

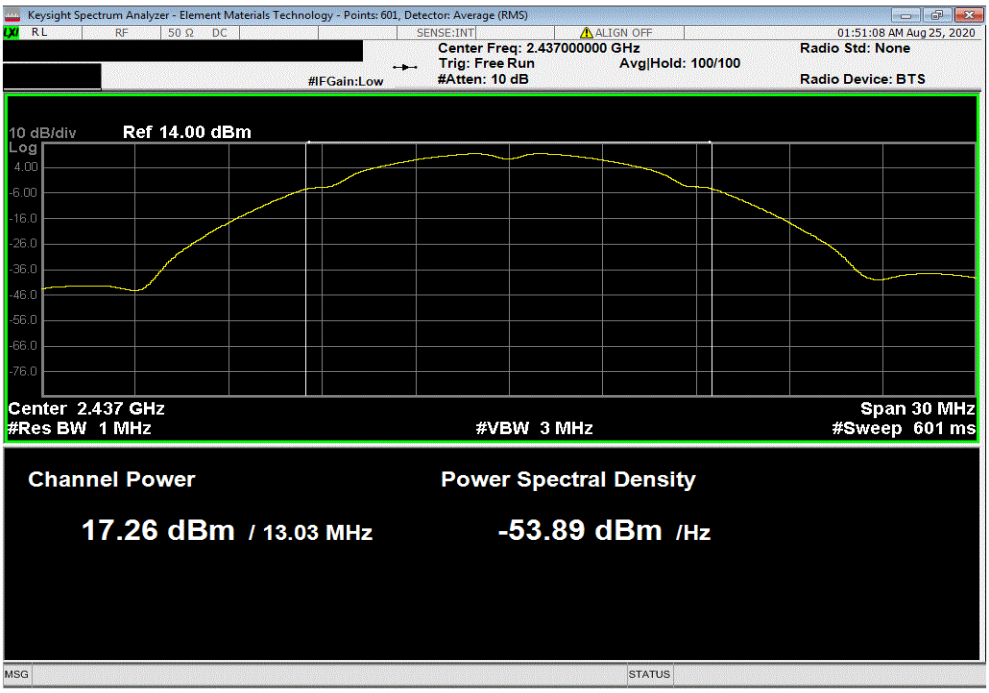
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

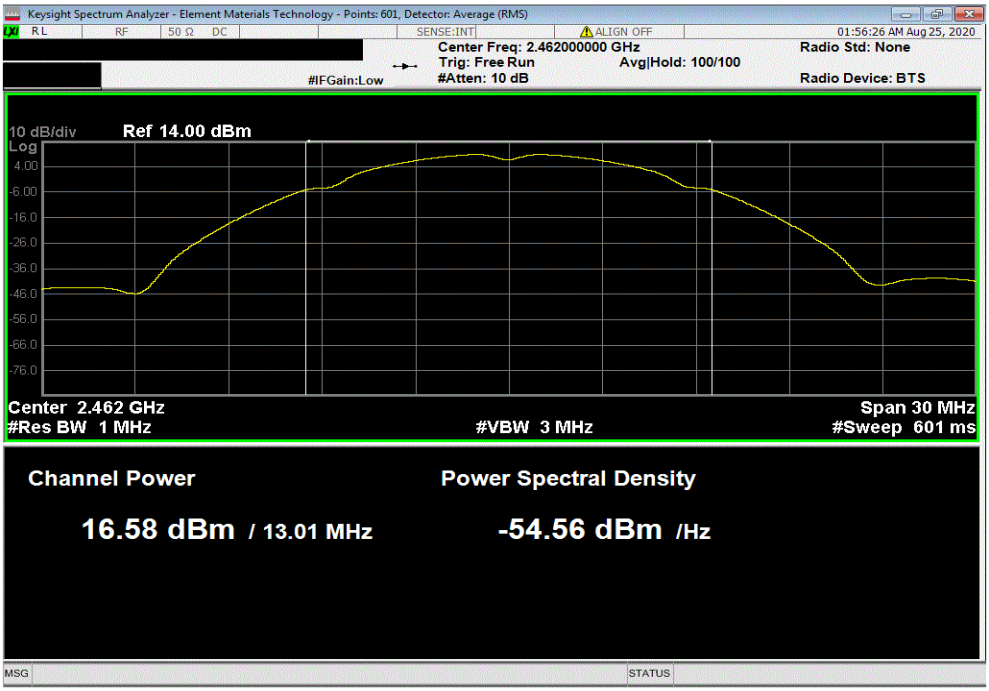
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		17.459	0	17.5	30	Pass



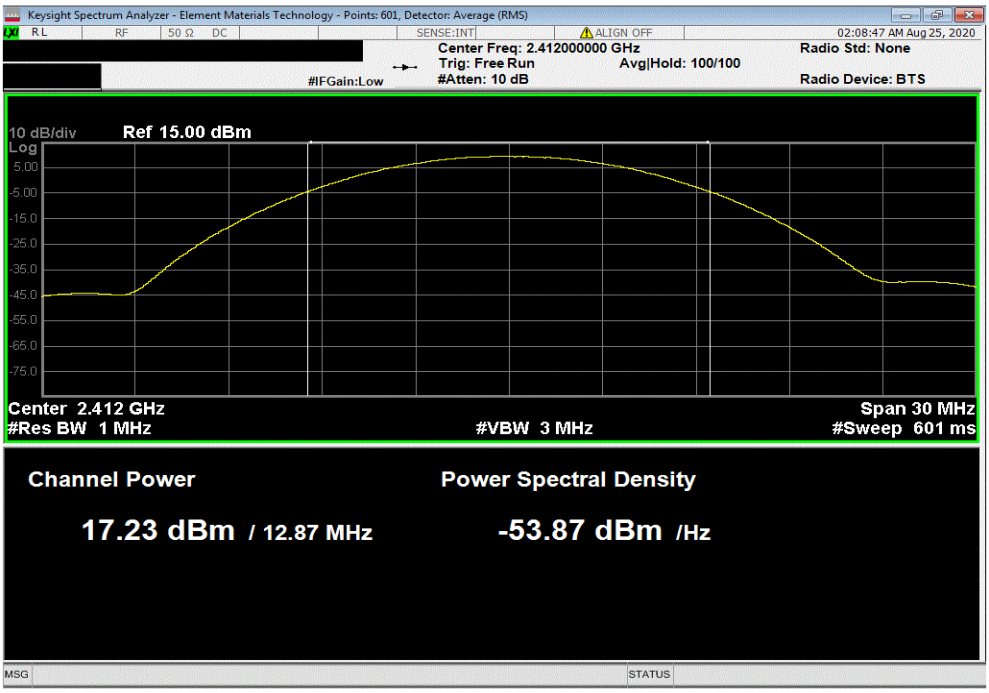
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		17.259	0	17.3	30	Pass



2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		16.582	0	16.6	30	Pass



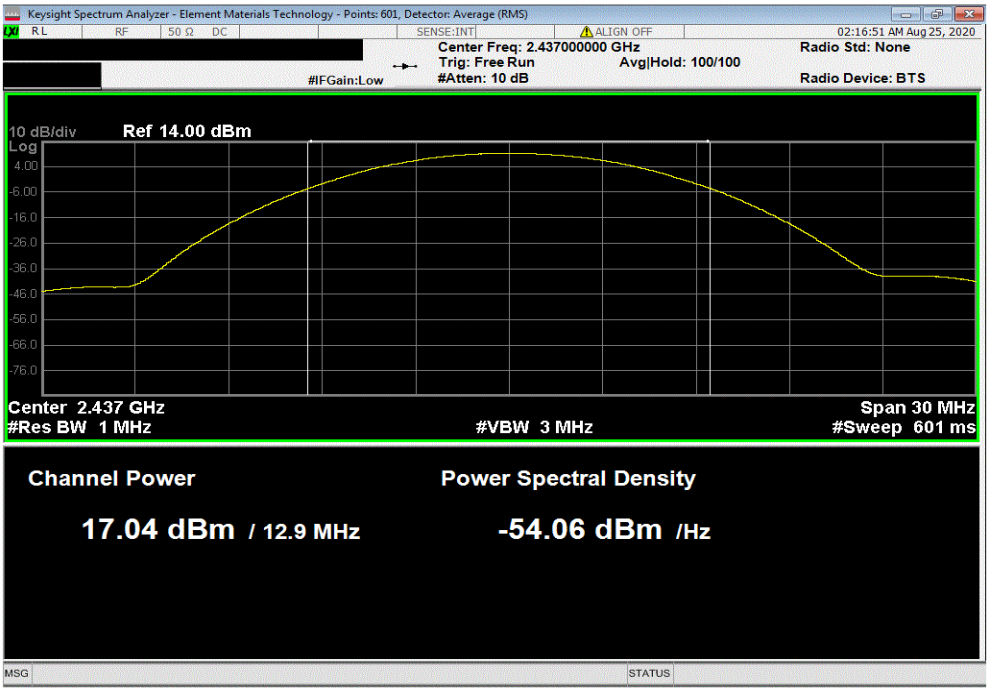
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		17.229	0.3	17.5	30	Pass



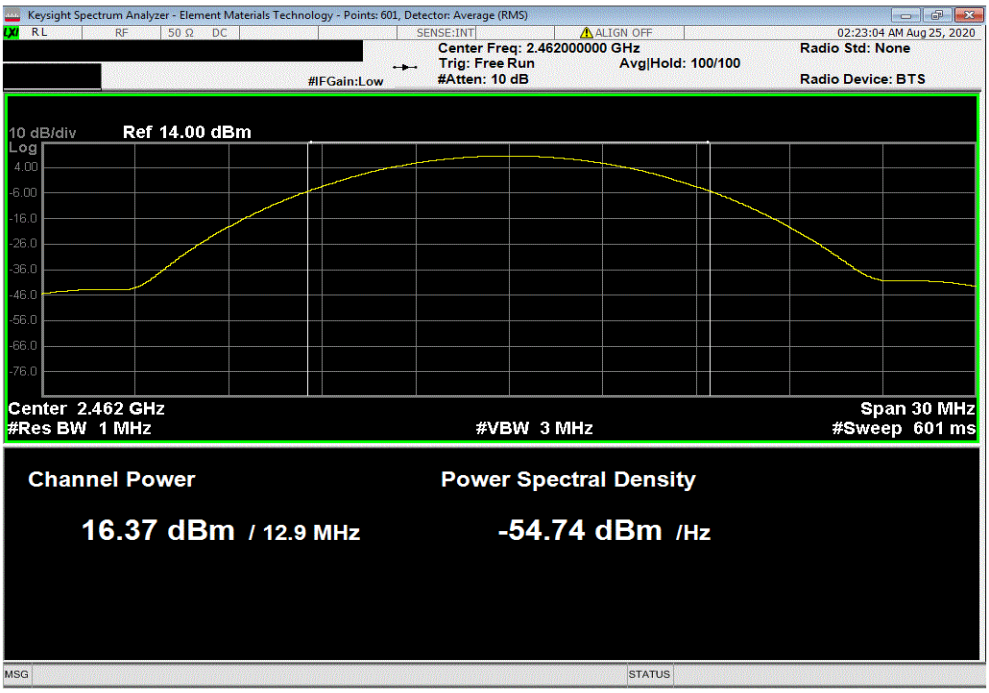
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		17.044	0.3	17.4	30	Pass



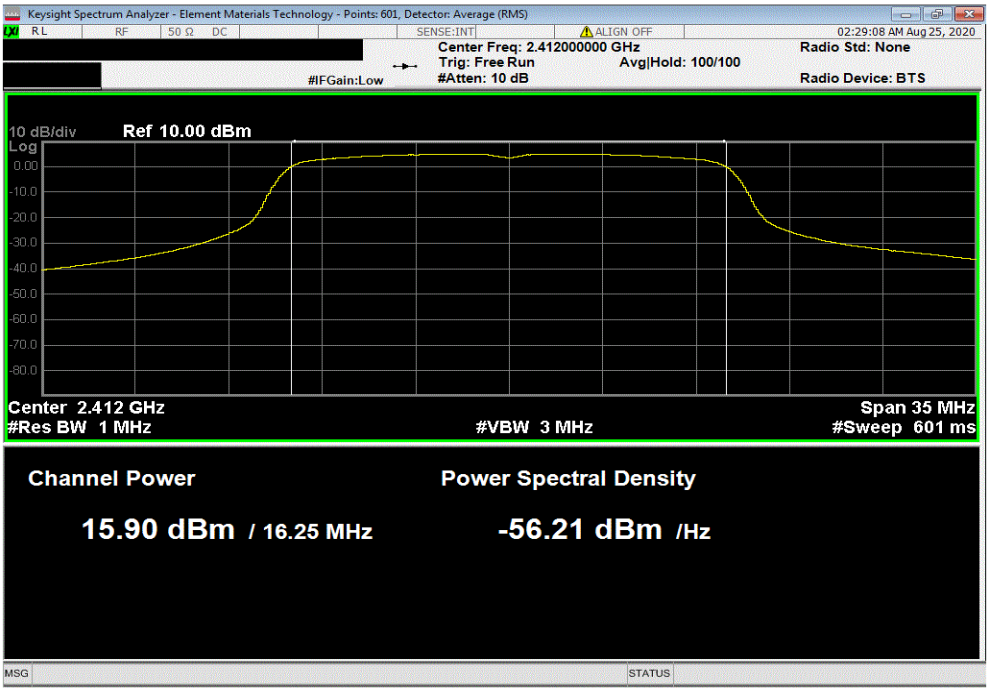
2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		16.367	0.3	16.7	30	Pass



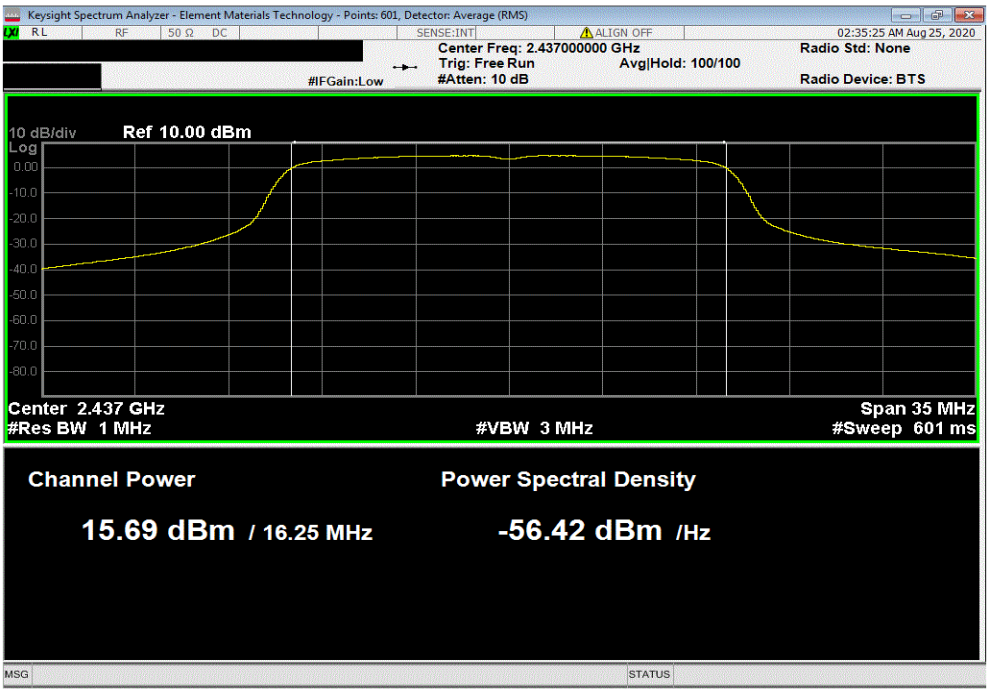
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		15.903	0.2	16.1	30	Pass



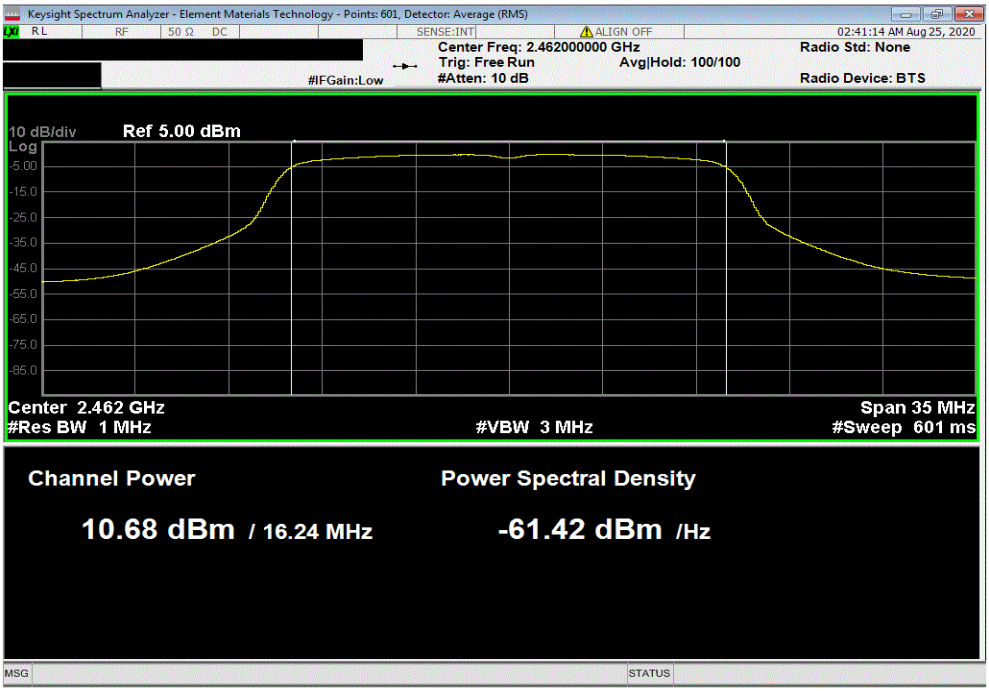
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		15.687	0.2	15.9	30	Pass



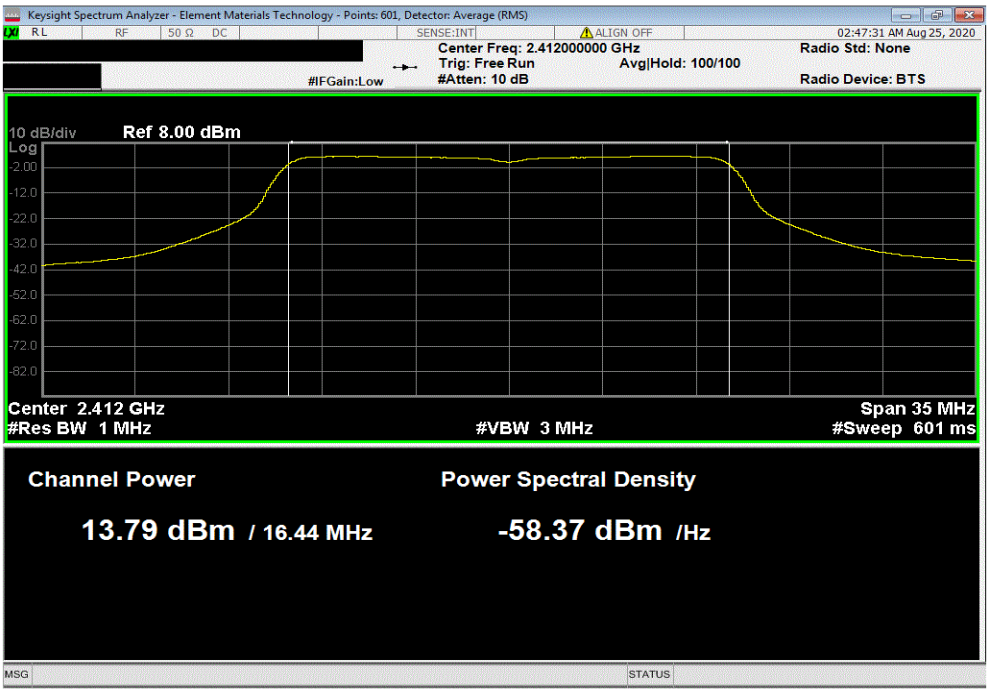
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		10.681	0.2	10.9	30	Pass



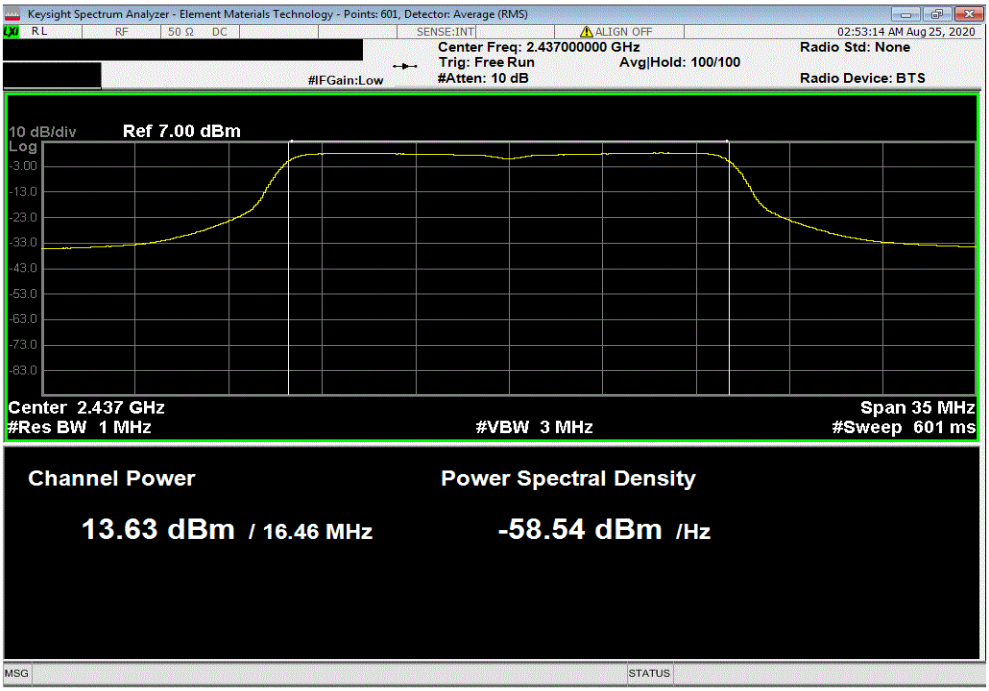
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		13.786	1.2	15	30	Pass



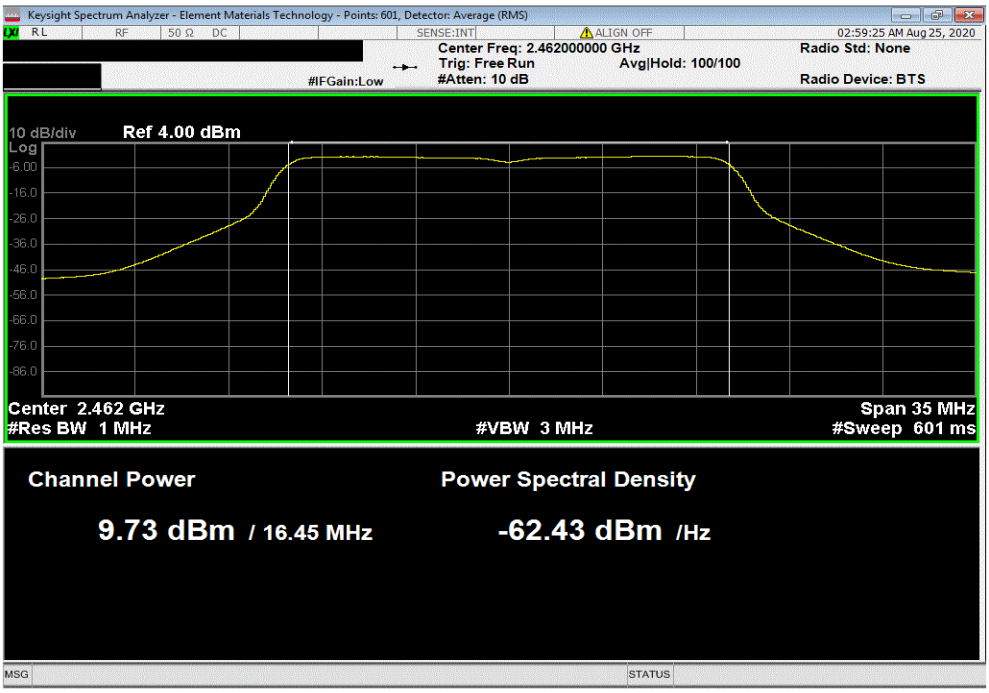
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		13.627	1	14.7	30	Pass

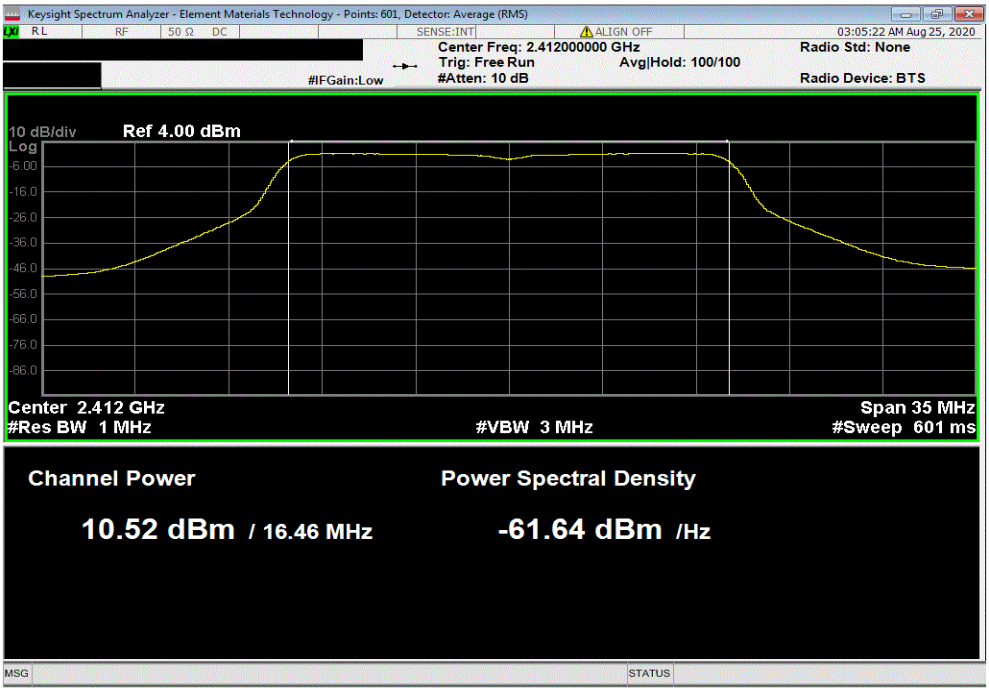


2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		9.731	1	10.7	30	Pass

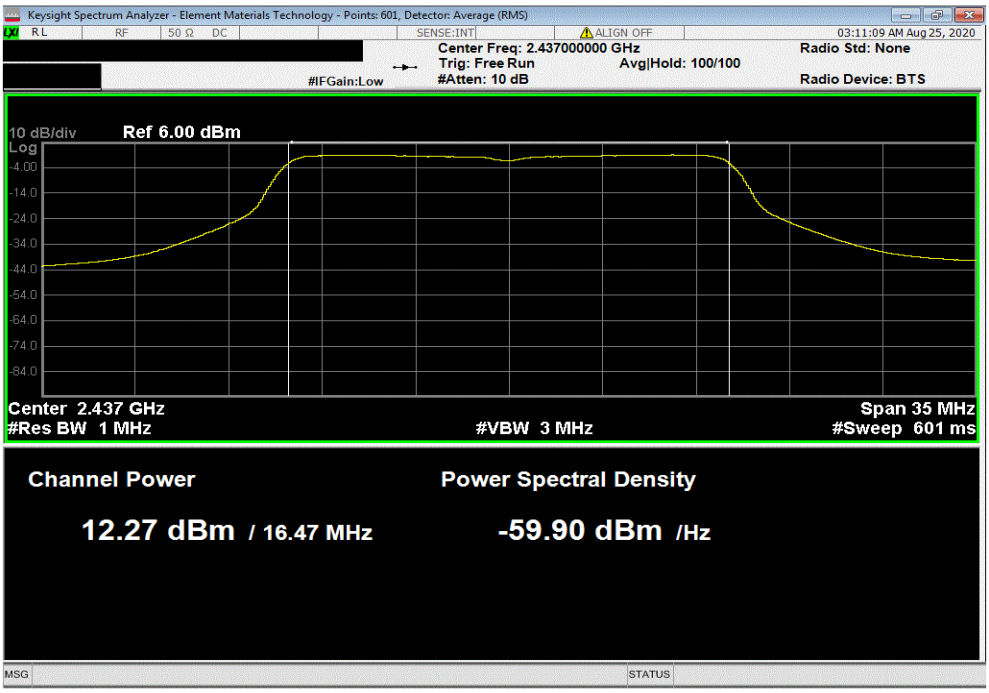


OUTPUT POWER

2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		10.525	1.4	11.9	30	Pass



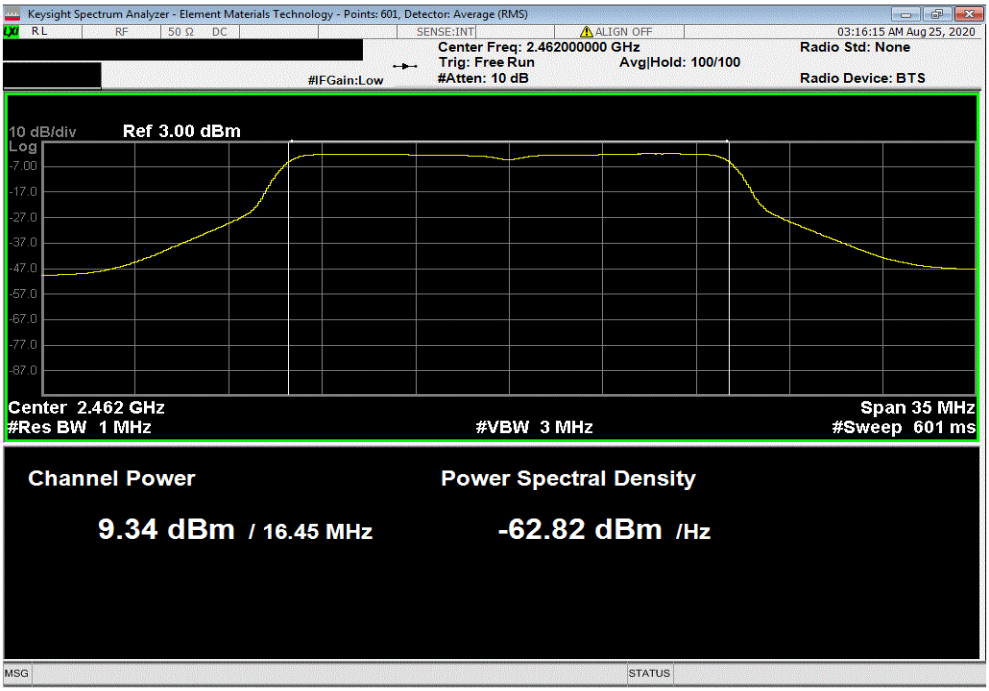
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		12.265	1.4	13.7	30	Pass



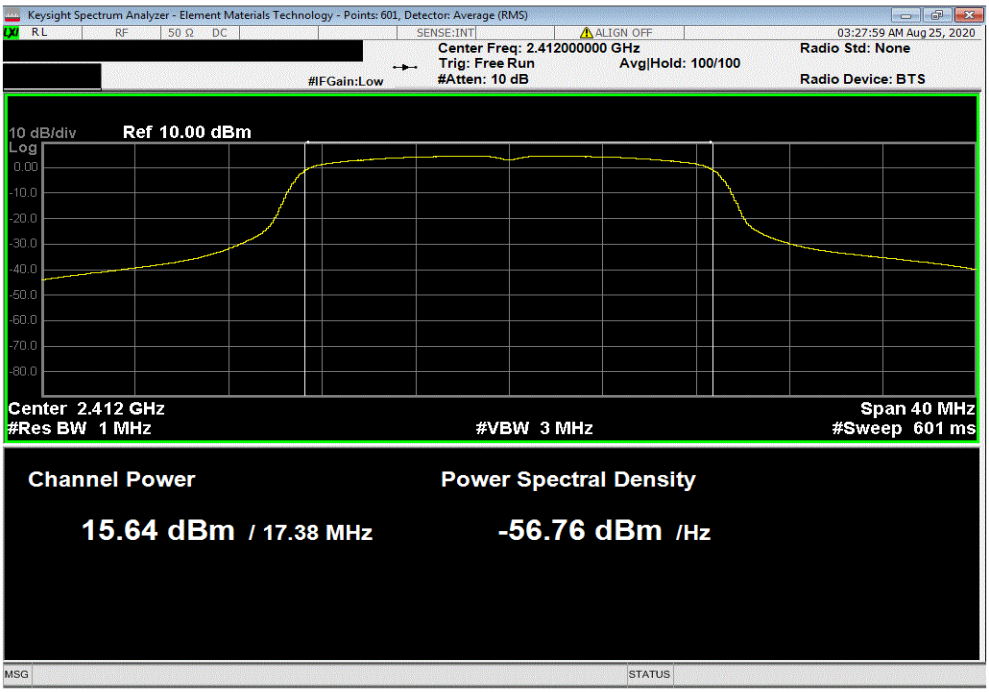
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

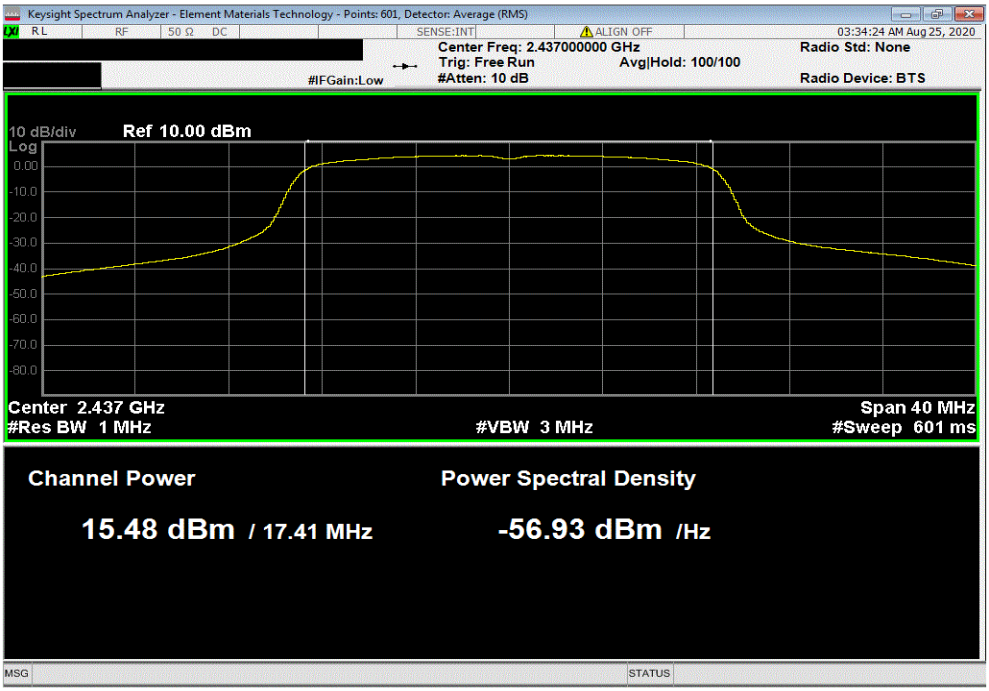
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		9.344	1.4	10.7	30	Pass



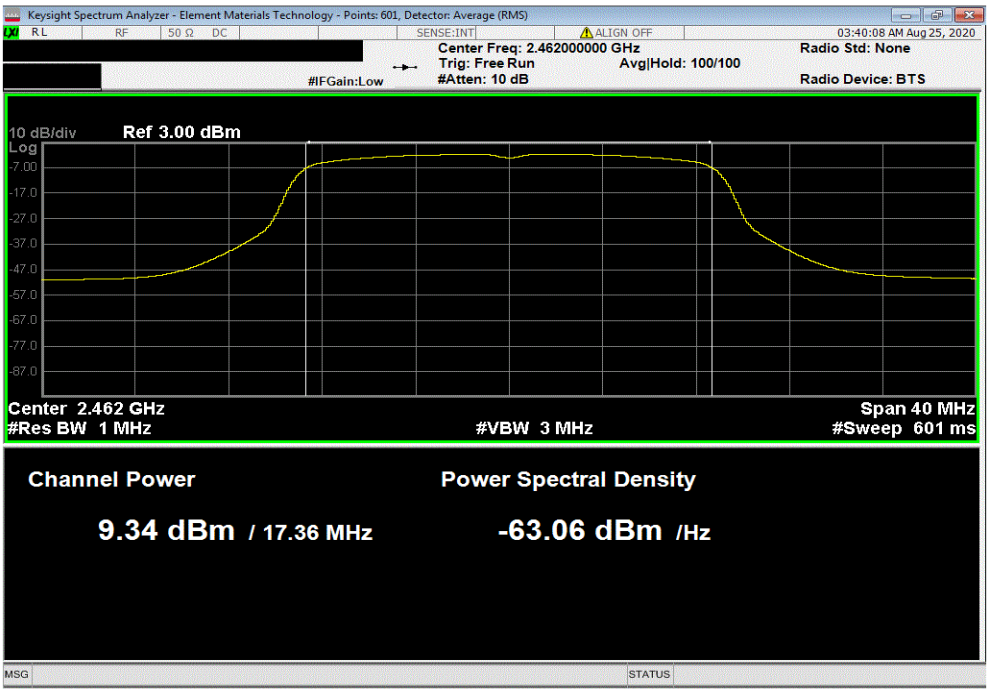
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		15.64	0.2	15.9	30	Pass



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		15.478	0.2	15.7	30	Pass



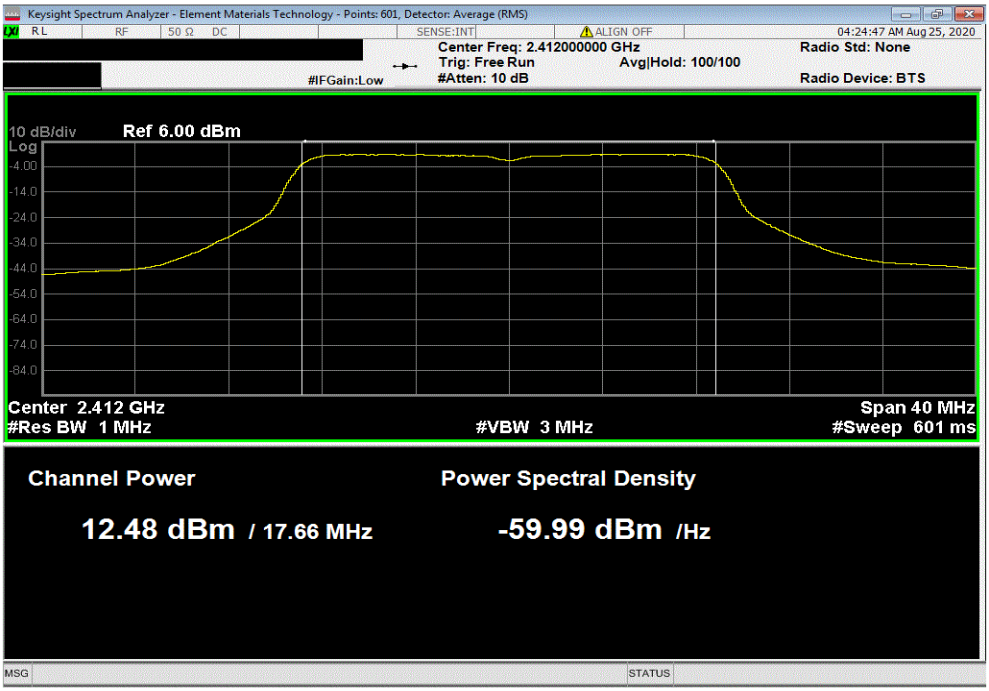
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		9.336	0.2	9.5	30	Pass



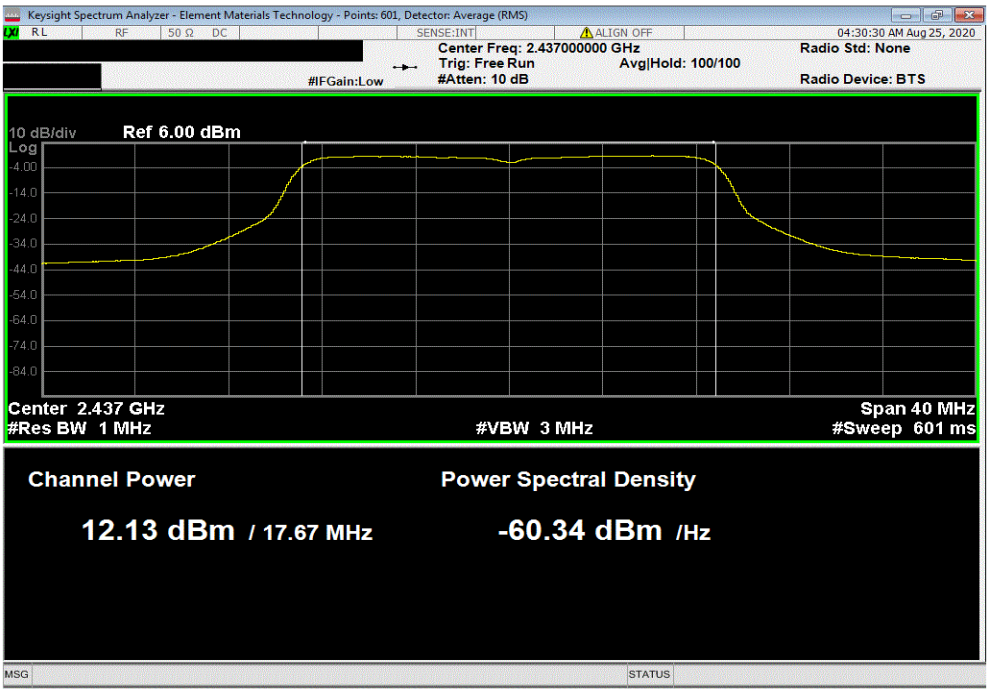
OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		12.475	1.5	14	30	Pass



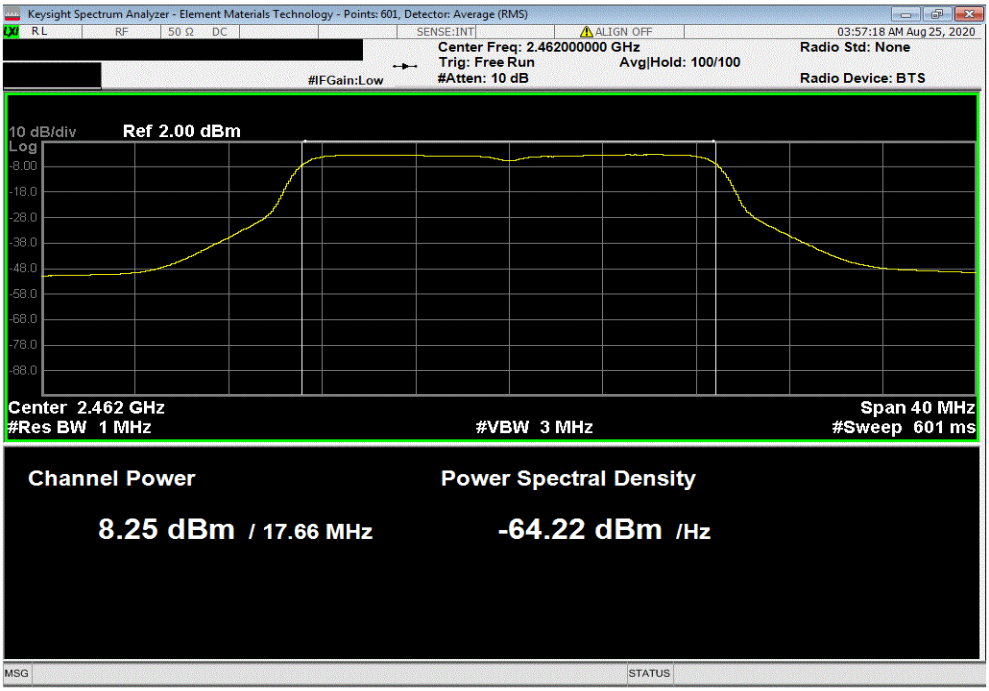
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		12.128	1.5	13.7	30	Pass



OUTPUT POWER

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Limit (dBm)	Result
		8.246	1.5	9.7	30	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

XMit 2020.03.25.0

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.

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Generator - Signal	Keysight	N5182B	TFX	28-Apr-20	28-Apr-23
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	15-Sep-19	15-Sep-20
Attenuator	S.M. Electronics	SA26B-20	RFW	10-Feb-20	10-Feb-21
Block - DC	Fairview Microwave	SD3379	AMI	5-Aug-20	5-Aug-21
Analyzer - Spectrum Analyzer	Keysight	N9010A (EXA)	AFQ	21-Dec-19	21-Dec-20

TEST DESCRIPTION

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)

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

TbtTx 2019.08.30.0 XMit 2020.03.25.0

EUT:	USB to WiFi Adapter	**Work Order:**	TRNE0022
Serial Number:	0022A301FF5D	**Date:**	24-Aug-20
Customer:	Trane	**Temperature:**	21.9 °C
Attendees:	Chris Vanderkoy	**Humidity:**	57.3% RH
Project:	None	**Barometric Pres.:**	1017 mbar
Tested by:	Dustin Sparks	**Power:** 5VDC via USB	**Job Site:** MN08

TEST SPECIFICATIONS	Test Method
FCC 15.247:2020	ANSI C63.10:2013

COMMENTS

Measurement cable, DC block, and 20 dB attenuator included in reference level offset.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	3	Signature

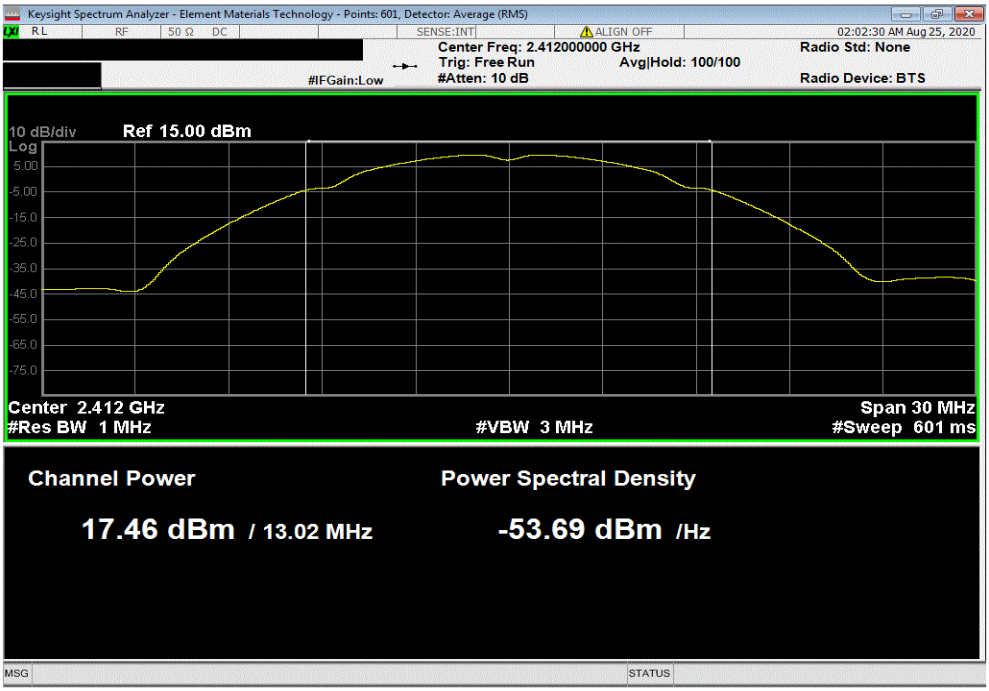
	Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
2400 MHz - 2483.5 MHz Band							
802.11(b) 1 Mbps							
Low Channel 1, 2412 MHz	17.459	0	17.5	3	20.5	36	Pass
Mid Channel 6, 2437 MHz	17.259	0	17.3	3	20.3	36	Pass
High Channel 11, 2462 MHz	16.582	0	16.6	3	19.6	36	Pass
802.11(b) 11 Mbps							
Low Channel 1, 2412 MHz	17.229	0.3	17.5	3	20.5	36	Pass
Mid Channel 6, 2437 MHz	17.044	0.3	17.4	3	20.4	36	Pass
High Channel 11, 2462 MHz	16.367	0.3	16.7	3	19.7	36	Pass
802.11(g) 6 Mbps							
Low Channel 1, 2412 MHz	15.903	0.2	16.1	3	19.1	36	Pass
Mid Channel 6, 2437 MHz	15.687	0.2	15.9	3	18.9	36	Pass
High Channel 11, 2462 MHz	10.681	0.2	10.9	3	13.9	36	Pass
802.11(g) 36 Mbps							
Low Channel 1, 2412 MHz	13.786	1.2	15	3	18	36	Pass
Mid Channel 6, 2437 MHz	13.627	1	14.7	3	17.7	36	Pass
High Channel 11, 2462 MHz	9.731	1	10.7	3	13.7	36	Pass
802.11(g) 54 Mbps							
Low Channel 1, 2412 MHz	10.525	1.4	11.9	3	14.9	36	Pass
Mid Channel 6, 2437 MHz	12.265	1.4	13.7	3	16.7	36	Pass
High Channel 11, 2462 MHz	9.344	1.4	10.7	3	13.7	36	Pass
802.11(n) MCS0							
Low Channel 1, 2412 MHz	15.64	0.2	15.9	3	18.9	36	Pass
Mid Channel 6, 2437 MHz	15.478	0.2	15.7	3	18.7	36	Pass
High Channel 11, 2462 MHz	9.336	0.2	9.5	3	12.5	36	Pass
802.11(n) MCS7							
Low Channel 1, 2412 MHz	12.475	1.5	14	3	17	36	Pass
Mid Channel 6, 2437 MHz	12.128	1.5	13.7	3	16.7	36	Pass
High Channel 11, 2462 MHz	8.246	1.5	9.7	3	12.7	36	Pass

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

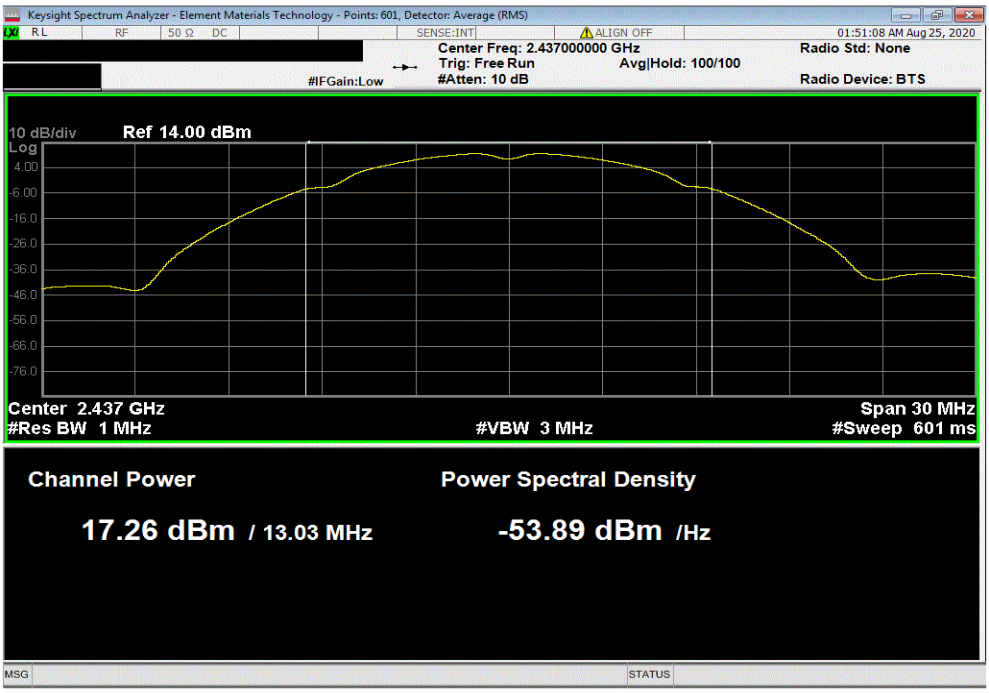
element

TbtTx 2019.08.30.0 XMit 2020.03.25.0

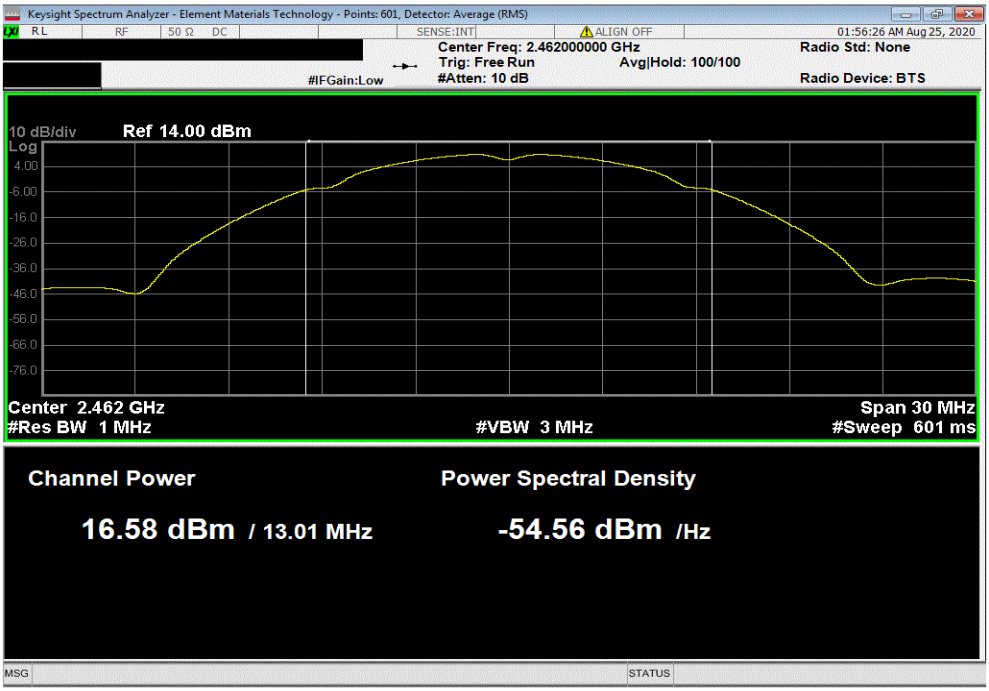
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
17.459	0	17.5	3	20.5	36	Pass



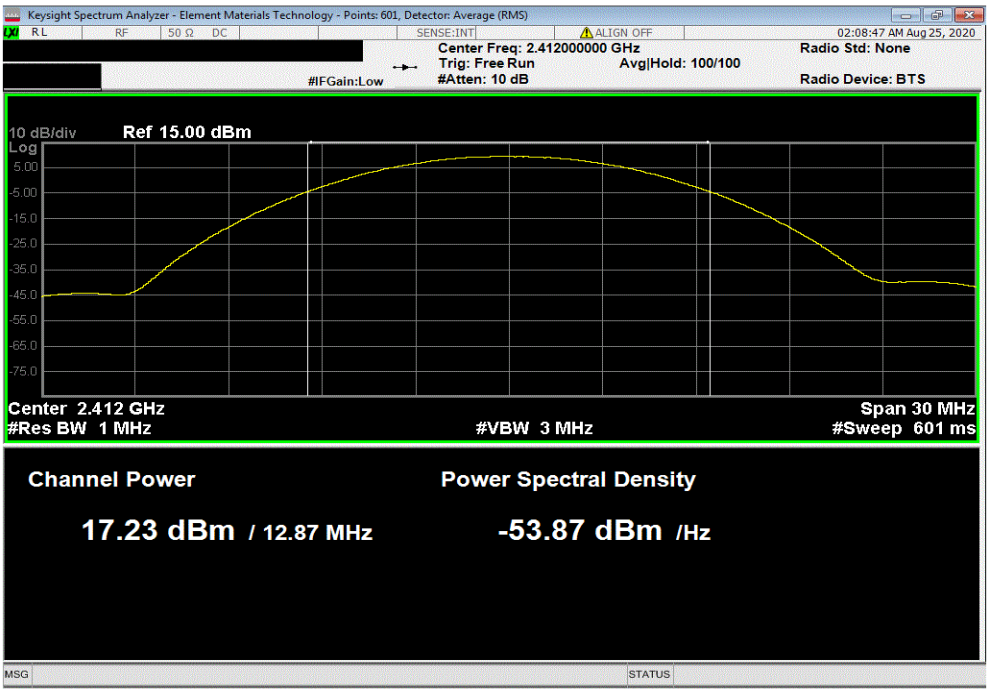
2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
17.259	0	17.3	3	20.3	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(b) 1 Mbps, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
16.582	0	16.6	3	19.6	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
17.229	0.3	17.5	3	20.5	36	Pass

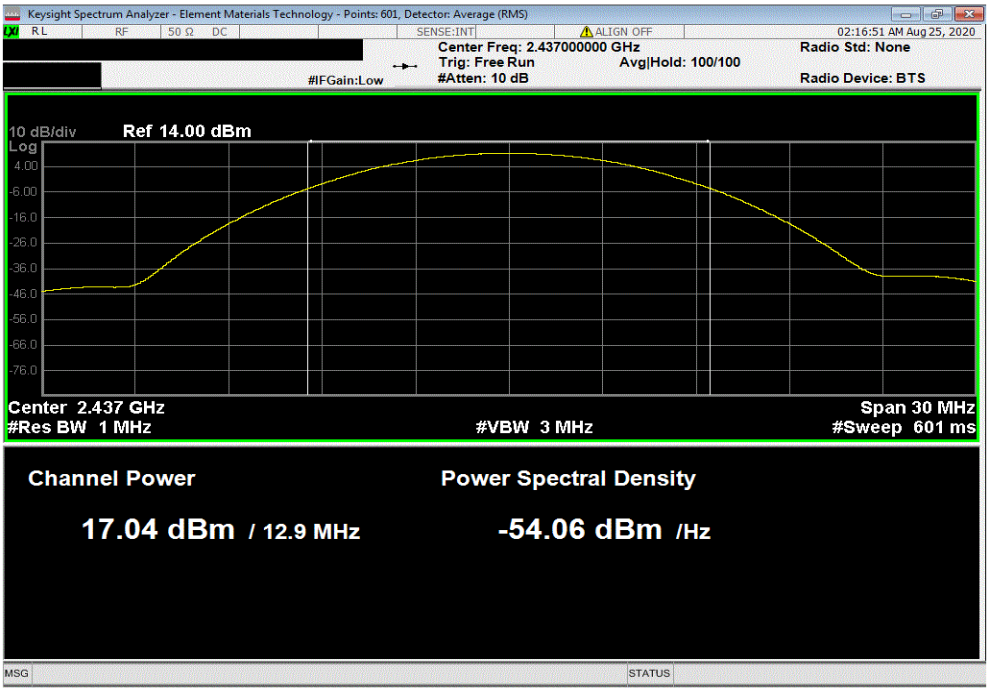


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

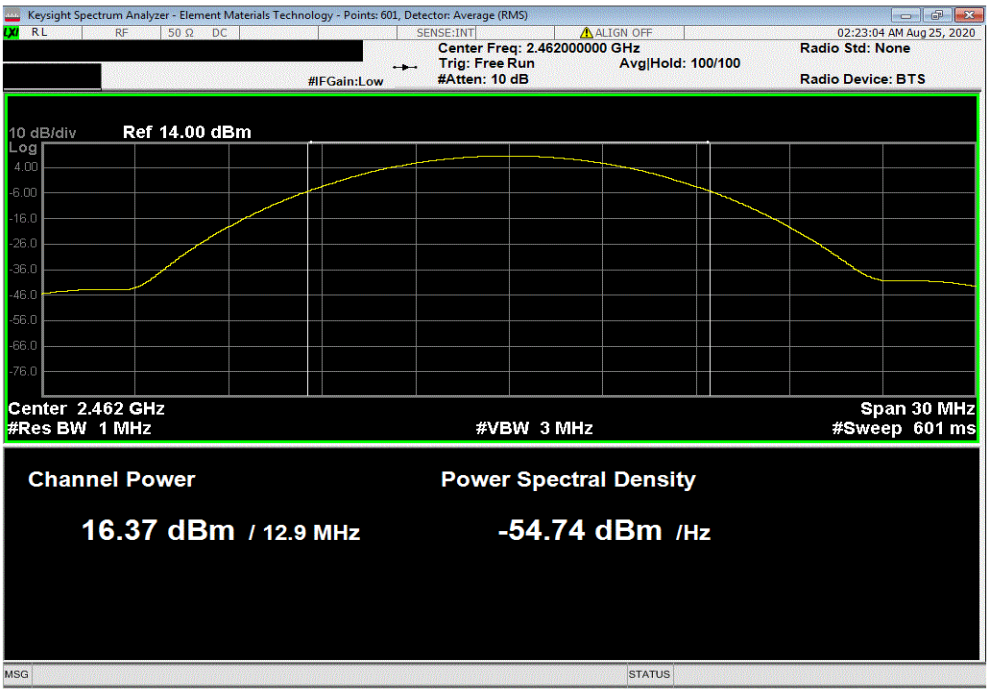
element

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
17.044	0.3	17.4	3	20.4	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(b) 11 Mbps, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
16.367	0.3	16.7	3	19.7	36	Pass

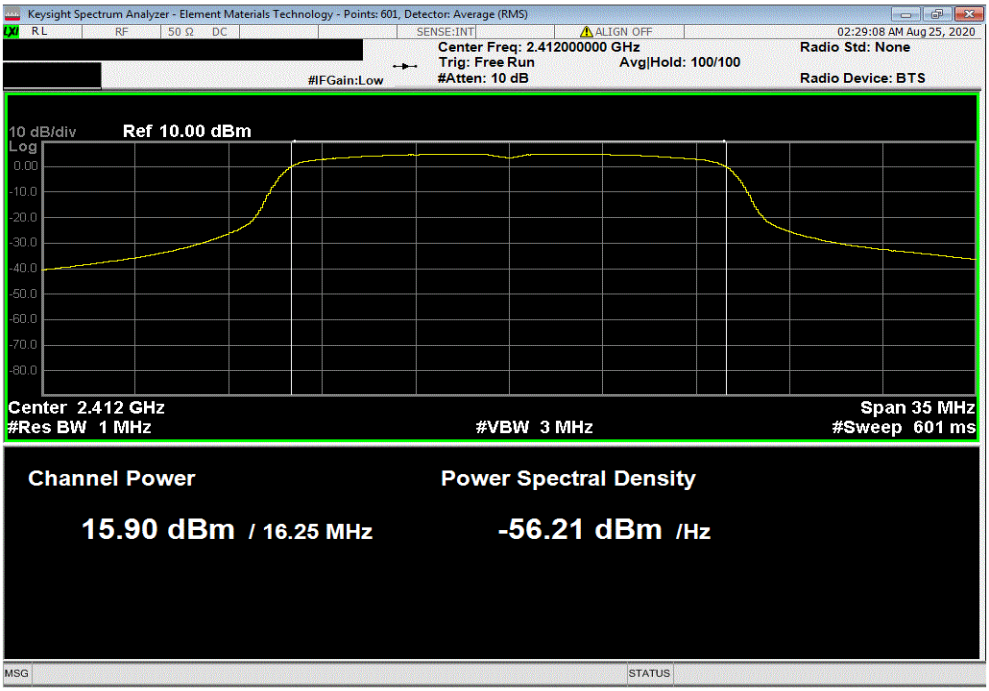


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

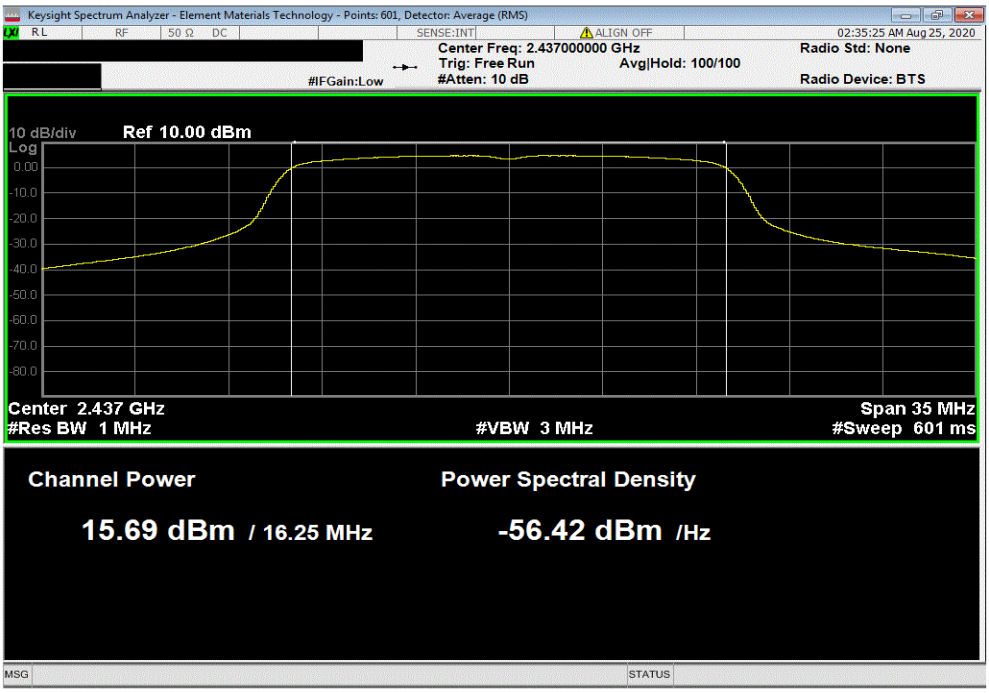
element

TbtTx 2019.08.30.0 XMit 2020.03.25.0

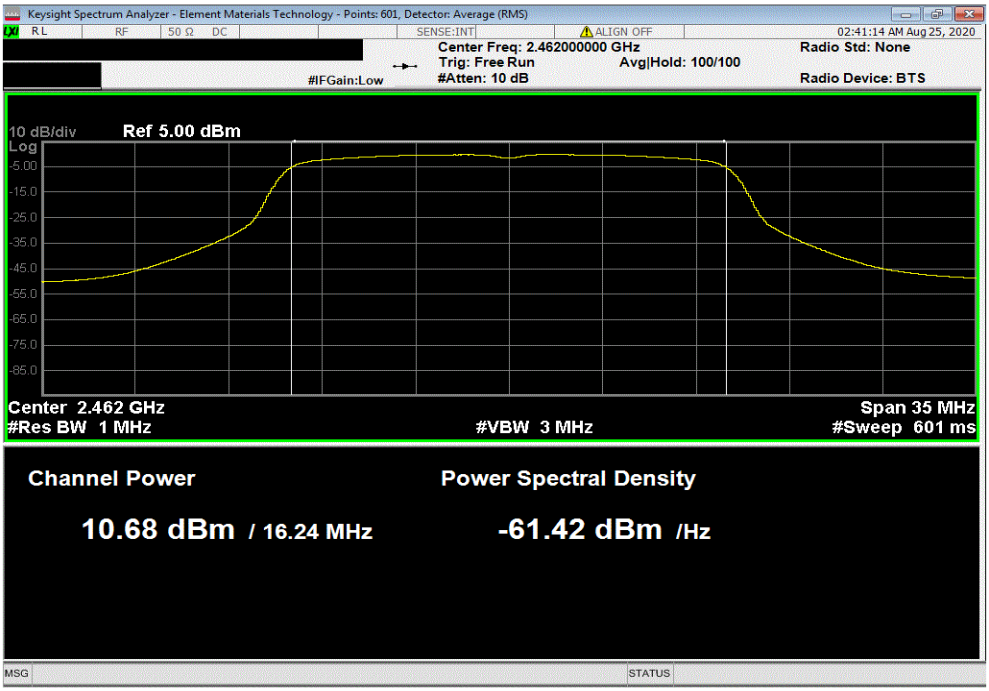
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
15.903	0.2	16.1	3	19.1	36	Pass



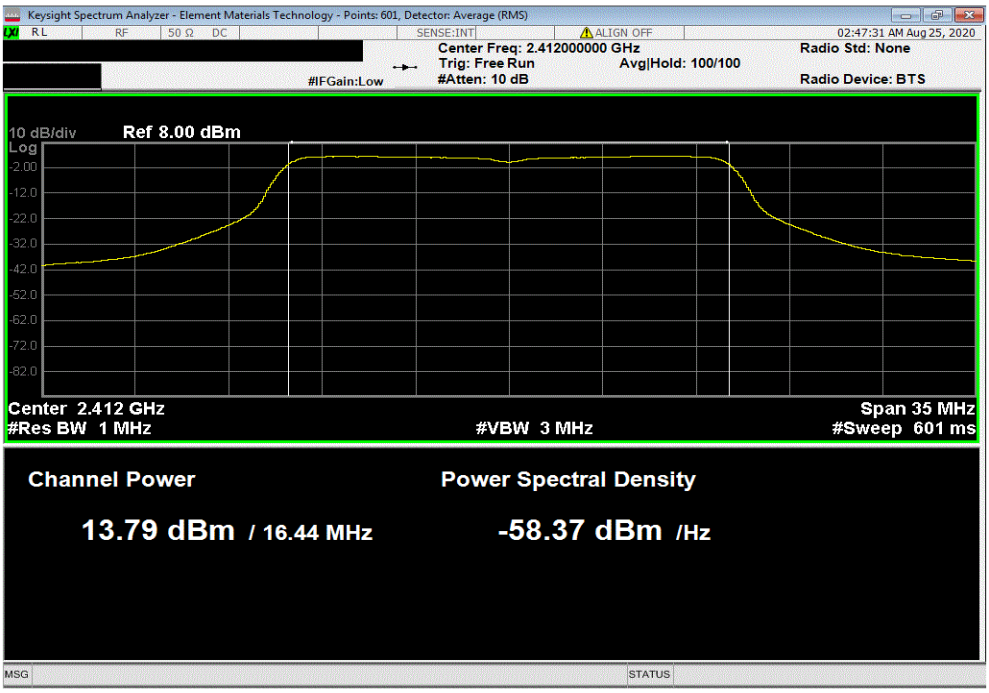
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
15.687	0.2	15.9	3	18.9	36	Pass



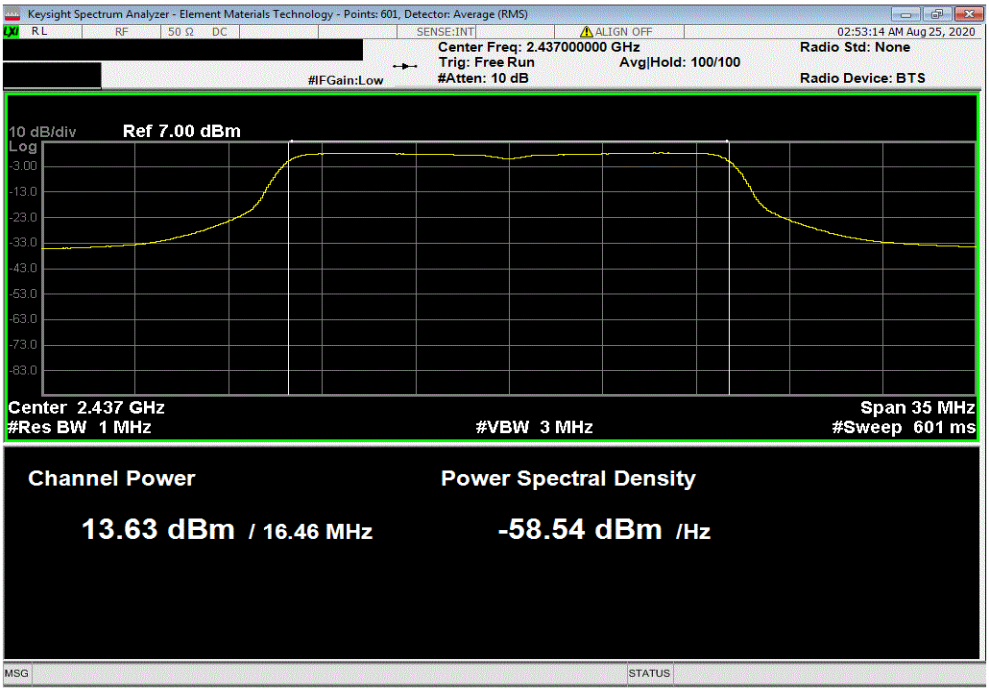
2400 MHz - 2483.5 MHz Band, 802.11(g) 6 Mbps, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.681	0.2	10.9	3	13.9	36	Pass



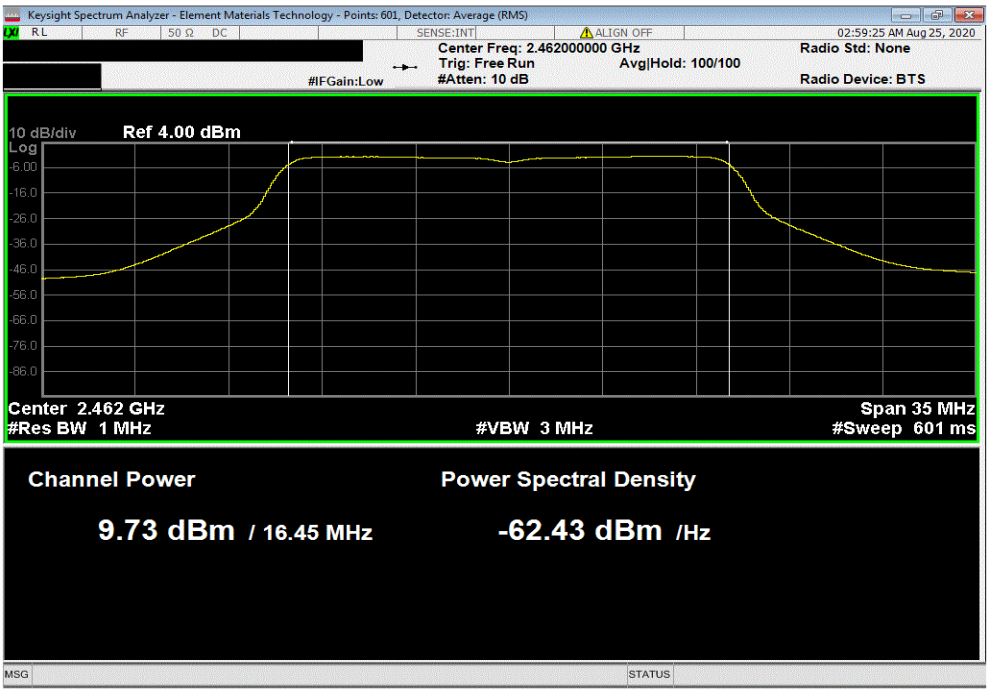
2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
13.786	1.2	15	3	18	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
13.627	1	14.7	3	17.7	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(g) 36 Mbps, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.731	1	10.7	3	13.7	36	Pass

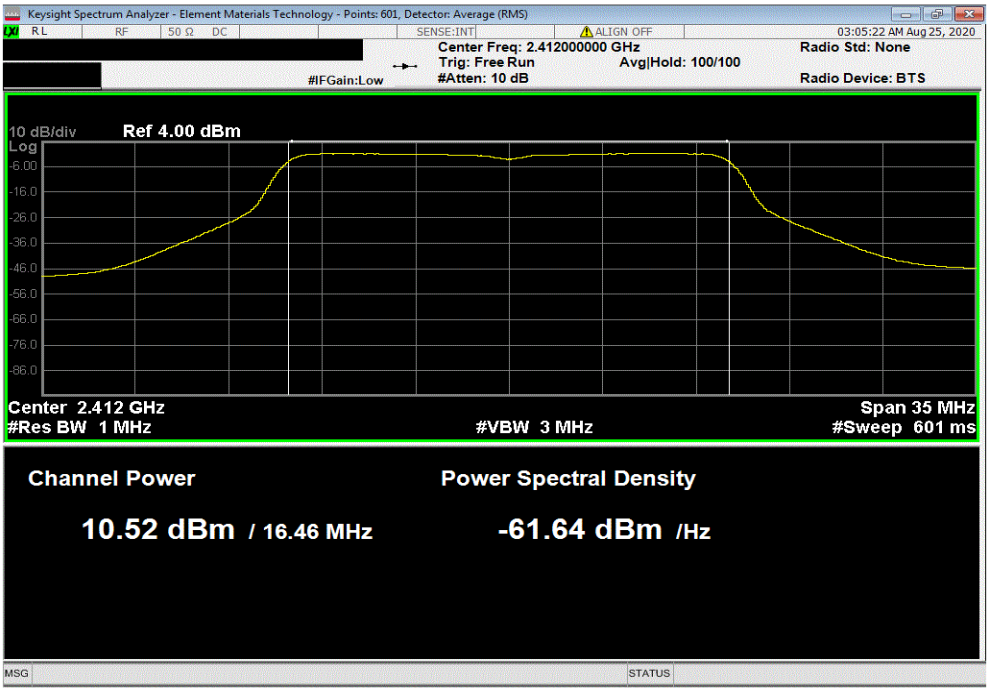


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

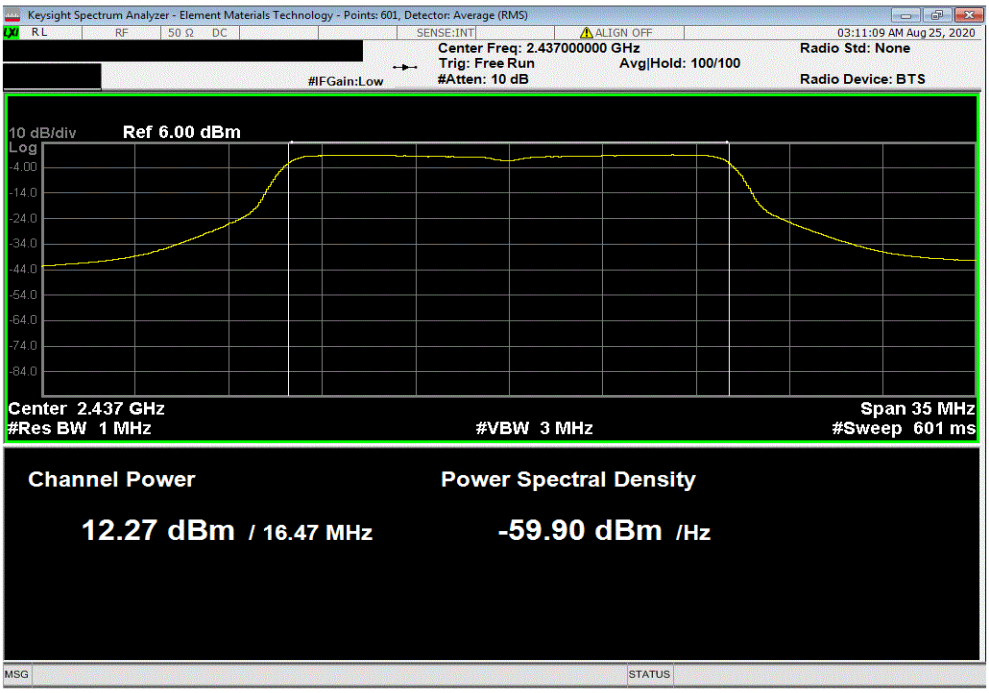
element

TbtTx 2019.08.30.0 XMit 2020.03.25.0

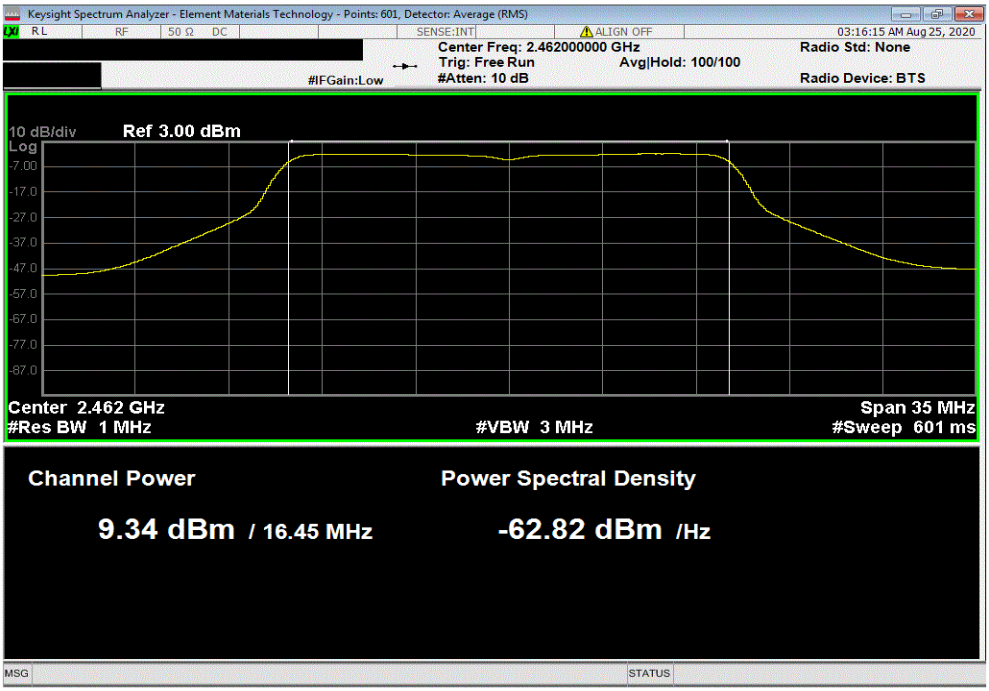
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.525	1.4	11.9	3	14.9	36	Pass



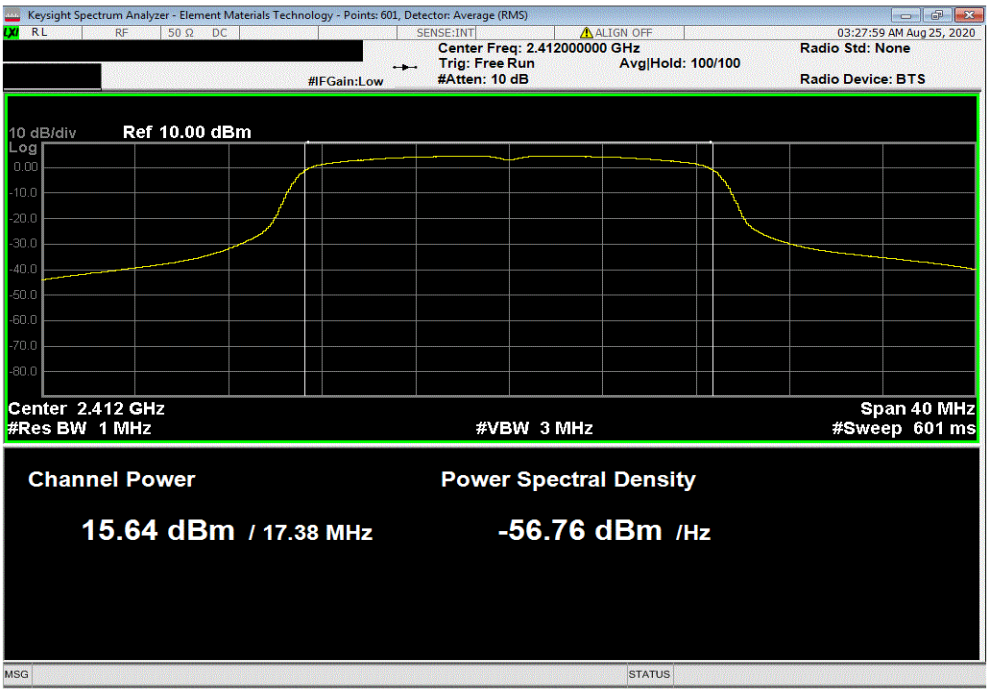
2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
12.265	1.4	13.7	3	16.7	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(g) 54 Mbps, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.344	1.4	10.7	3	13.7	36	Pass



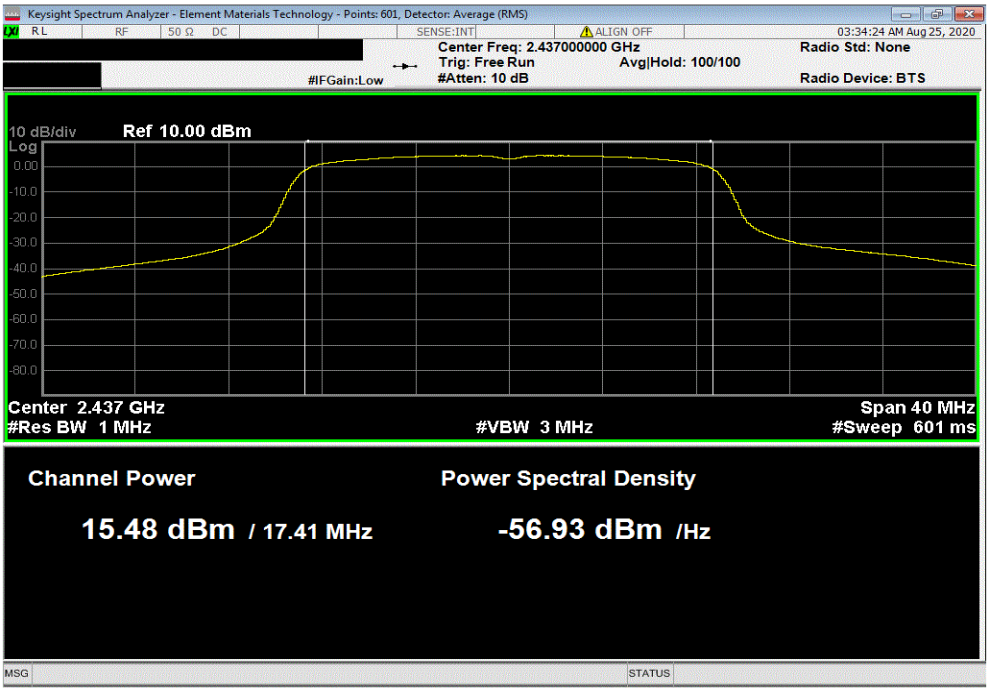
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
15.64	0.2	15.9	3	18.9	36	Pass



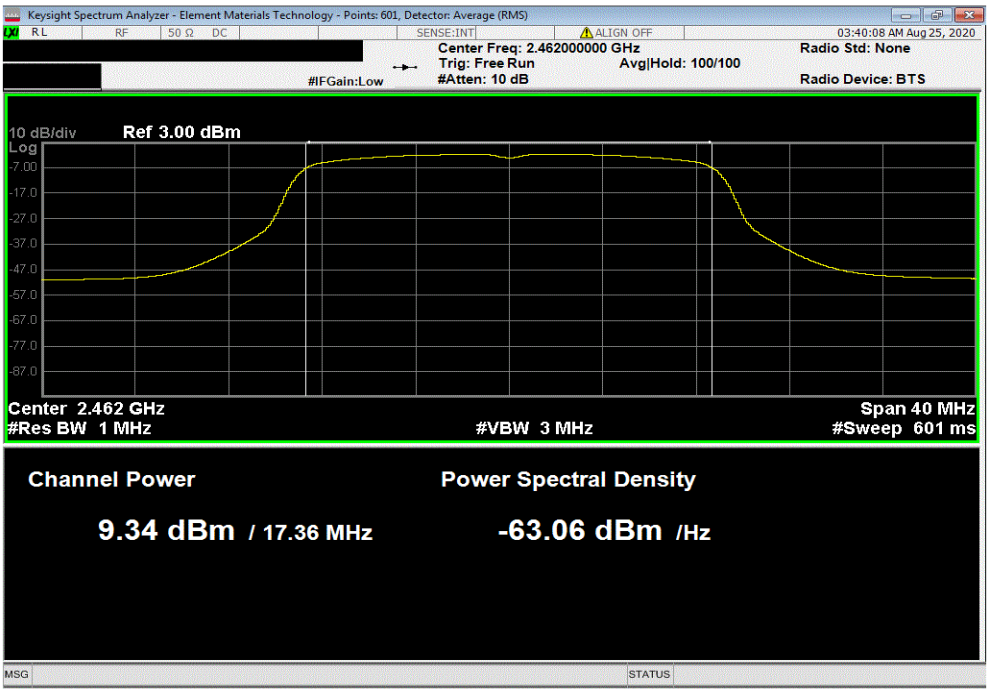
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
15.478	0.2	15.7	3	18.7	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS0, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.336	0.2	9.5	3	12.5	36	Pass

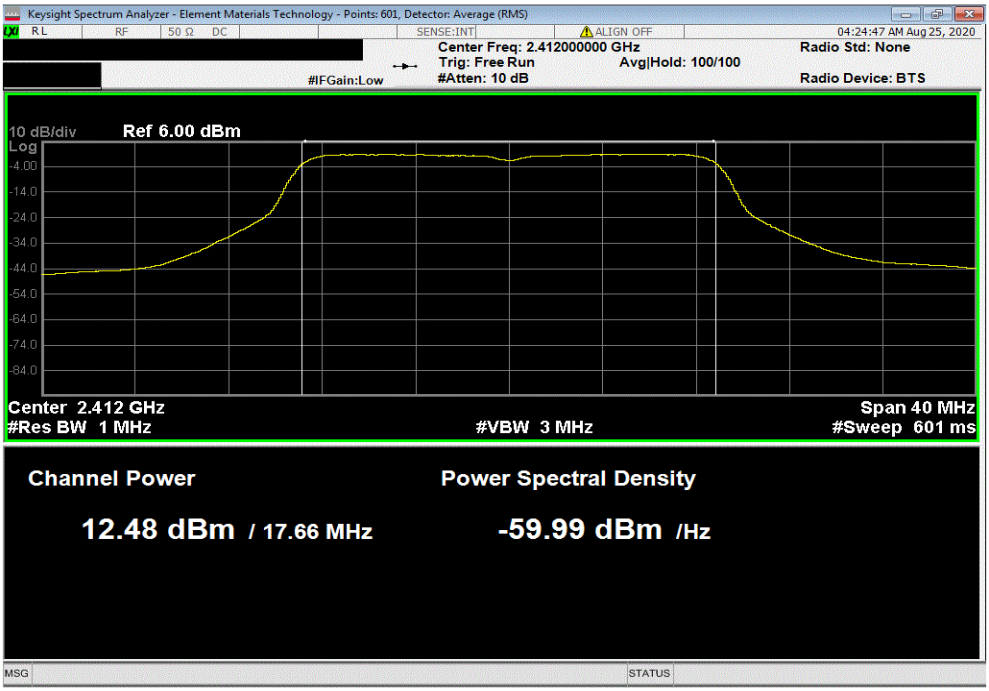


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

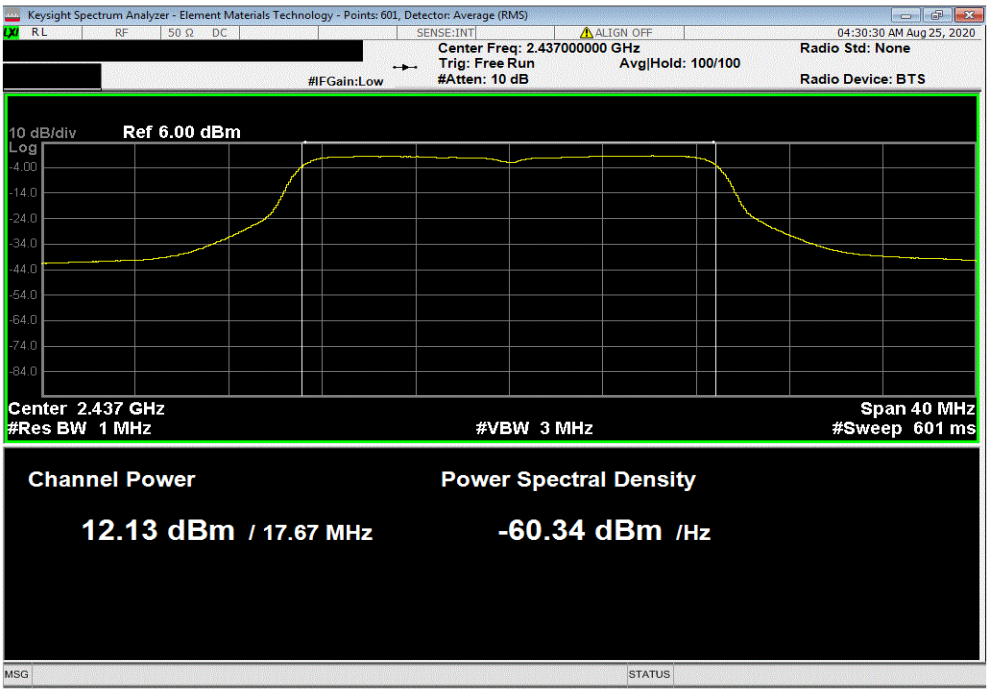
element

TbtTx 2019.08.30.0 XMit 2020.03.25.0

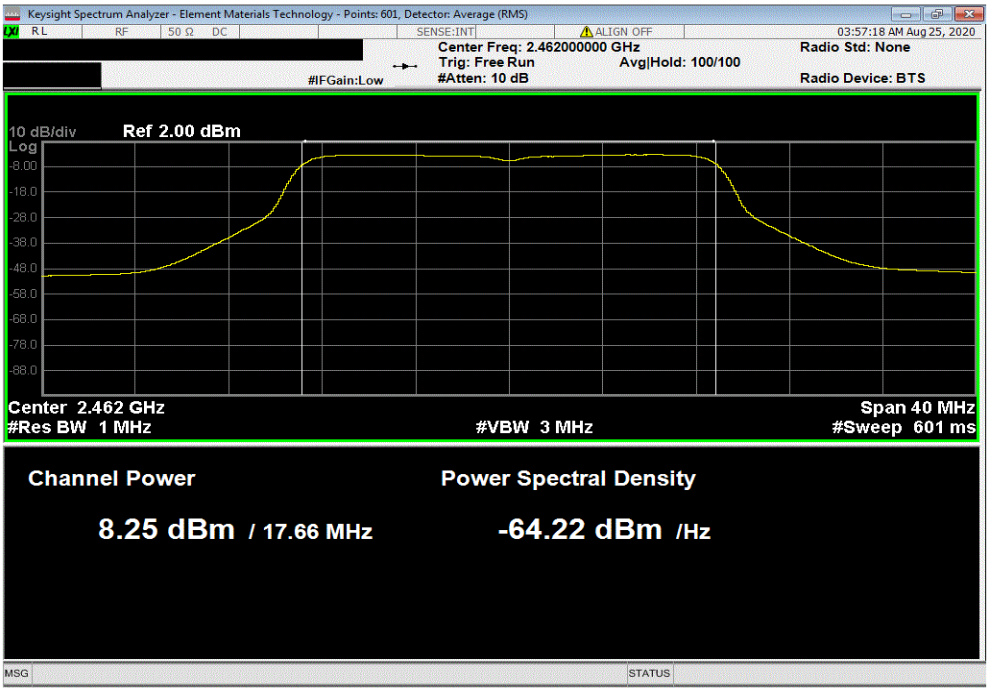
2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Low Channel 1, 2412 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
12.475	1.5	14	3	17	36	Pass



2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, Mid Channel 6, 2437 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
12.128	1.5	13.7	3	16.7	36	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

TbtTx 2019.08.30.0 XMit 2020.03.25.0

2400 MHz - 2483.5 MHz Band, 802.11(n) MCS7, High Channel 11, 2462 MHz						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
8.246	1.5	9.7	3	12.7	36	Pass