

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



XMIT 2020.12.30.0

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 - 4-May-21

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	18B5W-26	RFY	2020-06-03	2021-06-03
Block - DC	Fairview Microwave	SD3379	AMZ	2020-11-04	2021-11-04
Generator - Signal	Agilent	N5183A	TIK	2019-04-30	2022-04-30
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2021-04-16	2022-04-16
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2020-09-14	2021-09-14

TEST EQUIPMENT - 17-May-21

Description	Manufacturer	Model	ID	Last Cal.	Cal. Due
Attenuator	Fairview Microwave	18B5W-26	RFY	2020-06-03	2021-06-03
Block - DC	Fairview Microwave	SD3379	AMI	2020-08-05	2021-08-05
Generator - Signal	Keysight	N5171B (EXG)	TEY	2019-12-31	2022-12-31
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	2021-03-10	2022-03-10
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNO	2021-05-21	2022-05-21

TEST DESCRIPTION

The transmit frequency was set to the required channels in each band. The transmit power was set to its default maximum. The radio was operated in the modes as shown in the following data sheets.

Prior to measuring maximum transmit power; the emission bandwidth (B) and the transmission pulse duration (T) were measured. The method of measuring the emission bandwidth and the associated data are found elsewhere in this test report. The transmission pulse duration (T) was measured using a zero span on the spectrum analyzer to see the pulses in the time domain.

The maximum conducted output power was measured using ANSI C63.10, Method SA-2 (RMS detection and trace averaging across the on and off times of the EUT transmission and use of a duty cycle correction factor).

The spectrum analyzer settings were set per the guidance as well as the following specifics:

- RMS Detector
- Trace average 100 traces in power averaging mode.
- Power was integrated across "B", by using the channel power function of the analyzer.

A duty cycle correction factor was added to the measurement using the results of the formula of $10 \cdot \log(1/D)$ where D is the duty cycle.

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TWTx 2019.08.30.0 XMR 2020.12.30.0

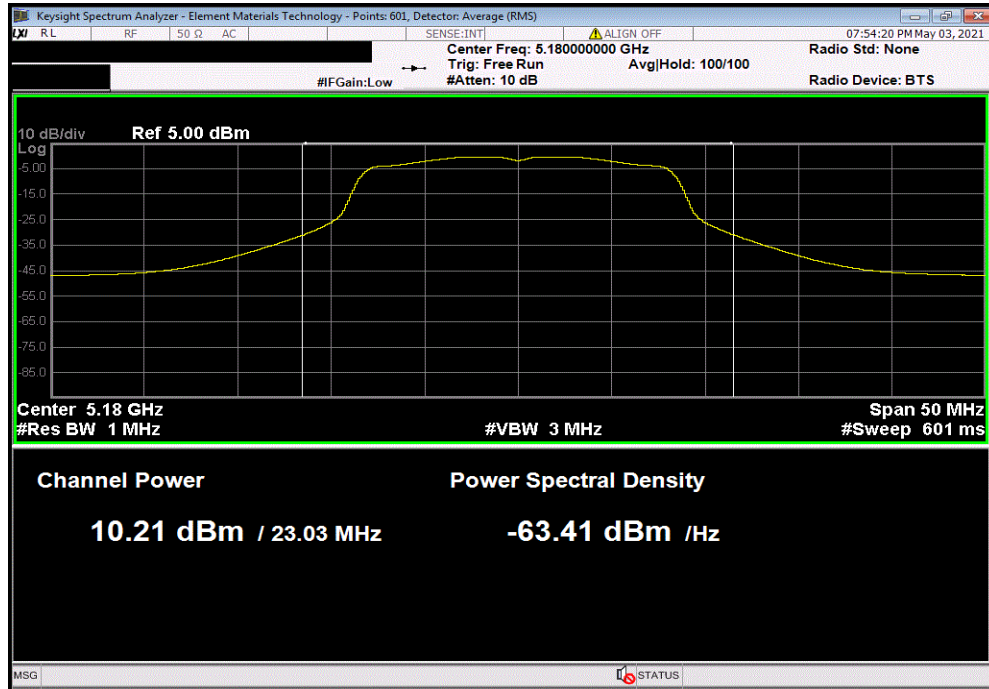
EUT: Zoll R-Series Data Comm II C2PC				Work Order: LGPD0258				
Serial Number: LB133400105				Date: 4-May-21, 17-May-21				
Customer: Logic PD, Inc.				Temperature: 22.6 °C				
Attendees: Eric Fritz				Humidity: 30.1% RH				
Project: None				Barometric Pres.: 1025 mbar				
Tested by: Andrew Rogstad, Dan Haas		Power: 3.7VDC		Job Site: MN08				
TEST SPECIFICATIONS				Test Method				
FCC 15.407:2021				ANSI C63.10:2013				
COMMENTS								
Reference level offset includes measurement cable, attenuators, and DC block. Testing on 17-May-21 used configuration LGPD0258-4 and took place with these environmental parameters: 21.7 °C, 45.9% RH, and 1021 mbar.								
DEVIATIONS FROM TEST STANDARD								
None								
Configuration #	2, 4	Signature 						
		Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
5150 - 5250 MHz Band								
Low Channel, Ch 36 - 5180 MHz								
	802.11(a) 6 Mbps	10.212	0.1	10.4	2.6	13.0	30	Pass
	802.11(a) 36 Mbps	10.264	0.7	11.0	2.6	13.6	30	Pass
	802.11(a) 54 Mbps	10.056	1.0	11.0	2.6	13.6	30	Pass
	802.11(n) MCS0	10.61	0.1	10.8	2.6	13.4	30	Pass
	802.11(n) MCS7	9.245	1.0	10.2	2.6	12.8	30	Pass
High Channel, Ch 48 - 5240 MHz								
	802.11(a) 6 Mbps	10.432	0.1	10.6	2.6	13.2	30	Pass
	802.11(a) 36 Mbps	10.098	0.1	10.2	2.6	12.8	30	Pass
	802.11(a) 54 Mbps	9.774	0.5	10.3	2.6	12.9	30	Pass
	802.11(n) MCS0	9.549	0.7	10.2	2.6	12.8	30	Pass
	802.11(n) MCS7	9.452	1.0	10.5	2.6	13.1	30	Pass
5250 - 5350 MHz Band								
Low Channel, Ch 52 - 5260 MHz								
	802.11(a) 6 Mbps	9.613	0.1	9.7	2.6	12.3	30	Pass
	802.11(a) 36 Mbps	9.168	0.7	9.8	2.6	12.4	30	Pass
	802.11(a) 54 Mbps	9.019	1.0	10.0	2.6	12.6	30	Pass
	802.11(n) MCS0	9.574	0.1	9.7	2.6	12.3	30	Pass
	802.11(n) MCS7	9.131	1.0	10.2	2.6	12.8	30	Pass
High Channel, Ch 64 - 5320 MHz								
	802.11(a) 6 Mbps	9.634	0.1	9.7	2.6	12.3	30	Pass
	802.11(a) 36 Mbps	9.144	0.7	9.8	2.6	12.4	30	Pass
	802.11(a) 54 Mbps	9.806	0.1	9.9	2.6	12.5	30	Pass
	802.11(n) MCS0	9.348	0.5	9.8	2.6	12.4	30	Pass
	802.11(n) MCS7	9.37	1.0	10.4	2.6	13.0	30	Pass
5470 - 5725 MHz Band								
Low Channel, Ch 100 - 5500 MHz								
	802.11(a) 6 Mbps	8.059	0.1	8.2	2.6	10.8	30	Pass
	802.11(a) 36 Mbps	7.642	0.7	8.3	2.6	10.9	30	Pass
	802.11(a) 54 Mbps	7.466	1.0	8.4	2.6	11.0	30	Pass
	802.11(n) MCS0	7.943	0.2	8.1	2.6	10.7	30	Pass
	802.11(n) MCS7	7.591	1.0	8.6	2.6	11.2	30	Pass
Mid Channel, Ch 116 - 5580 MHz								
	802.11(a) 6 Mbps	10.935	0.1	11.1	2.6	13.7	30	Pass
	802.11(a) 36 Mbps	10.666	0.5	11.2	2.6	13.8	30	Pass
	802.11(a) 54 Mbps	10.883	0.9	11.8	2.6	14.4	30	Pass
	802.11(n) MCS0	11.759	0.1	11.9	2.6	14.5	30	Pass
	802.11(n) MCS7	9.56	1.0	10.6	2.6	13.2	30	Pass
High Channel, Ch 140 - 5700 MHz								
	802.11(a) 6 Mbps	10.919	0.1	11.0	2.6	13.6	30	Pass
	802.11(a) 36 Mbps	11.418	0.5	11.9	2.6	14.5	30	Pass
	802.11(a) 54 Mbps	10.838	1.0	11.8	2.6	14.4	30	Pass
	802.11(n) MCS0	11.752	0.1	11.9	2.6	14.5	30	Pass
	802.11(n) MCS7	10.365	0.7	11.1	2.6	13.7	30	Pass
5725 - 5785 MHz Band								
Low Channel, Ch 149 - 5745 MHz								
	802.11(a) 6 Mbps	10.758	0.1	10.9	2.6	13.5	36	Pass
	802.11(a) 36 Mbps	14.477	0.8	15.2	2.6	17.8	36	Pass
	802.11(a) 54 Mbps	10.68	1.0	11.7	2.6	14.3	36	Pass
	802.11(n) MCS0	11.596	0.1	11.7	2.6	14.3	36	Pass
	802.11(n) MCS7	9.805	1.1	10.9	2.6	13.5	36	Pass
Mid Channel, Ch 157 - 5785 MHz								
	802.11(a) 6 Mbps	10.954	0.1	11.1	2.6	13.7	36	Pass
	802.11(a) 36 Mbps	14.641	0.7	15.4	2.6	18.0	36	Pass
	802.11(a) 54 Mbps	10.907	1.0	11.9	2.6	14.5	36	Pass
	802.11(n) MCS0	11.801	0.2	12.0	2.6	14.6	36	Pass
	802.11(n) MCS7	9.921	1.1	11.1	2.6	13.7	36	Pass
High Channel, Ch 165 - 5825 MHz								
	802.11(a) 6 Mbps	10.906	0.1	11.0	2.6	13.6	36	Pass
	802.11(a) 36 Mbps	14.509	0.7	15.2	2.6	17.8	36	Pass
	802.11(a) 54 Mbps	10.77	1.0	11.8	2.6	14.4	36	Pass
	802.11(n) MCS0	11.746	0.1	11.9	2.6	14.5	36	Pass
	802.11(n) MCS7	9.867	1.0	10.9	2.6	13.5	36	Pass

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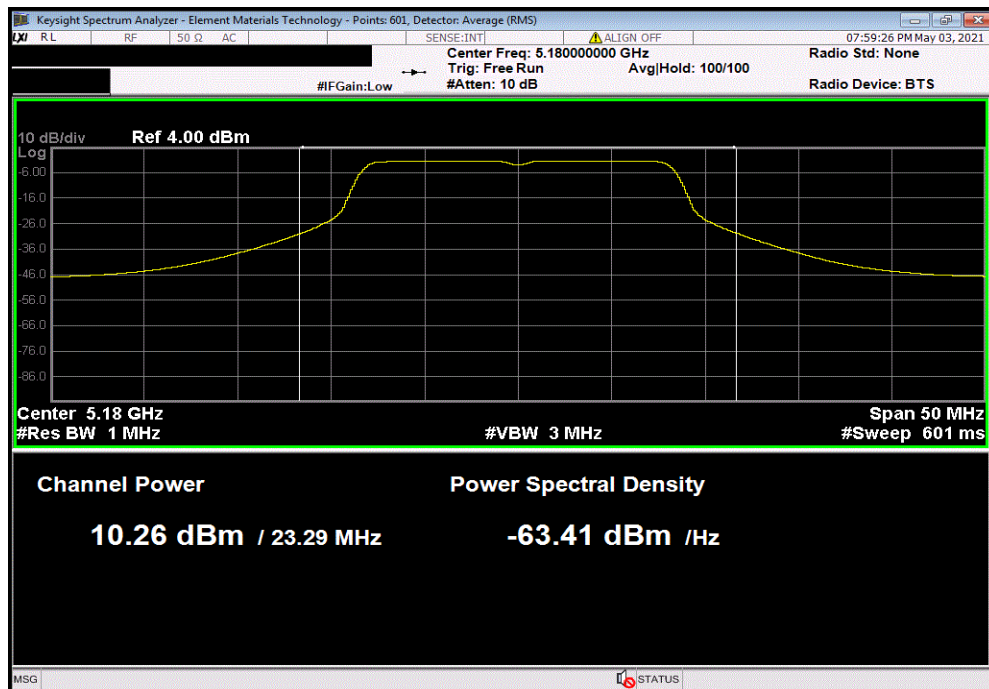


TbTx 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.212	0.1	10.4	2.6	13.0	30	Pass



5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.264	0.7	11.0	2.6	13.6	30	Pass

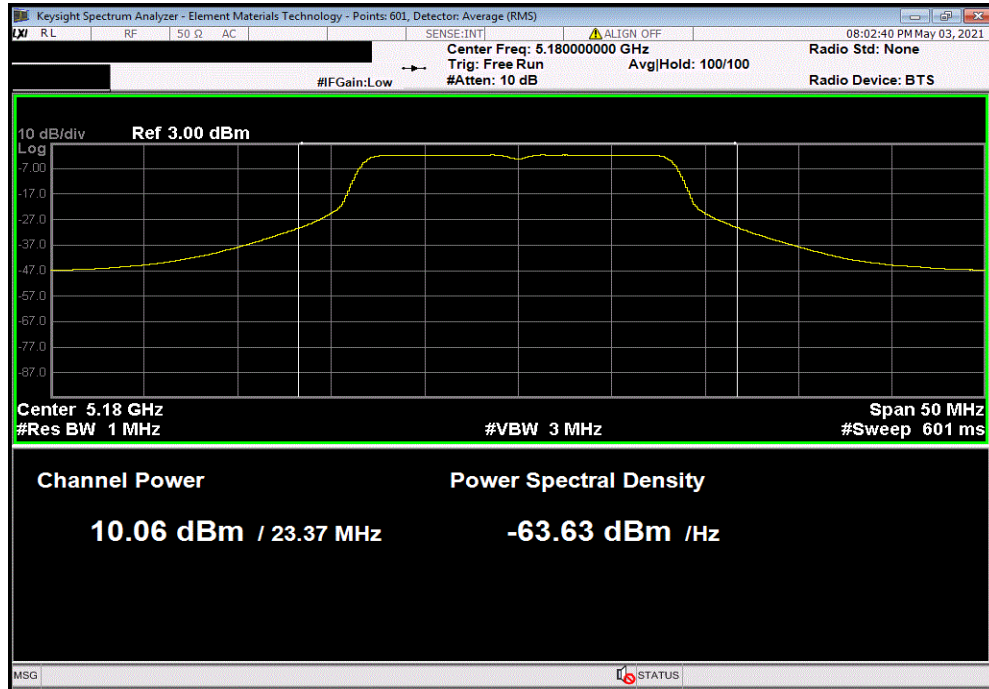


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

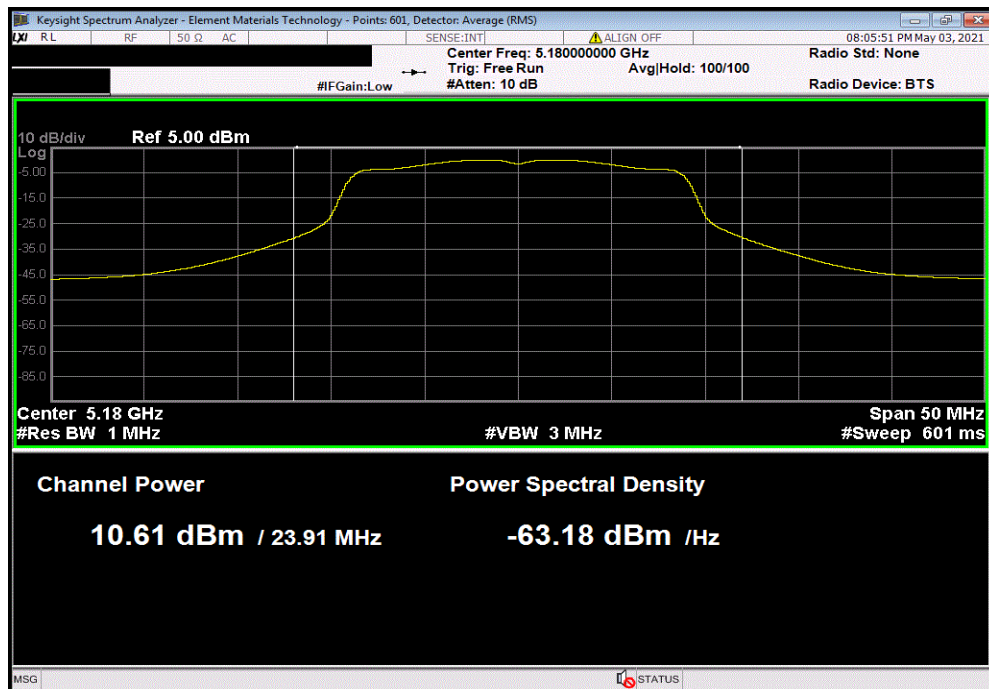


TbTx 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.056	1.0	11.0	2.6	13.6	30	Pass



5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.61	0.1	10.8	2.6	13.4	30	Pass

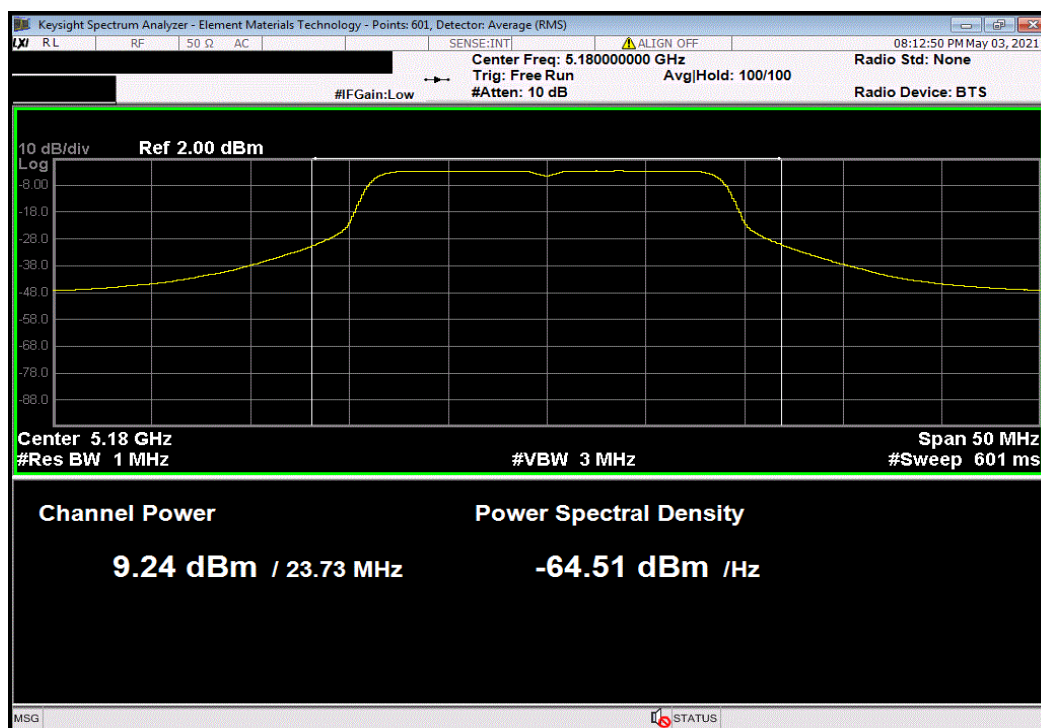


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TbTz 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.245	1.0	10.2	2.6	12.8	30	Pass

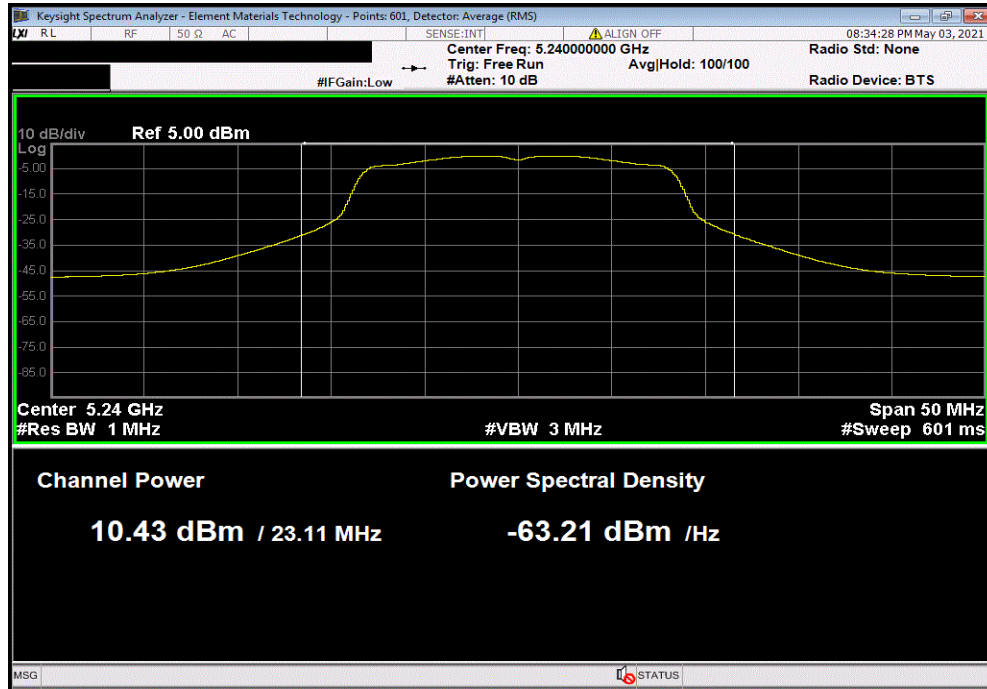


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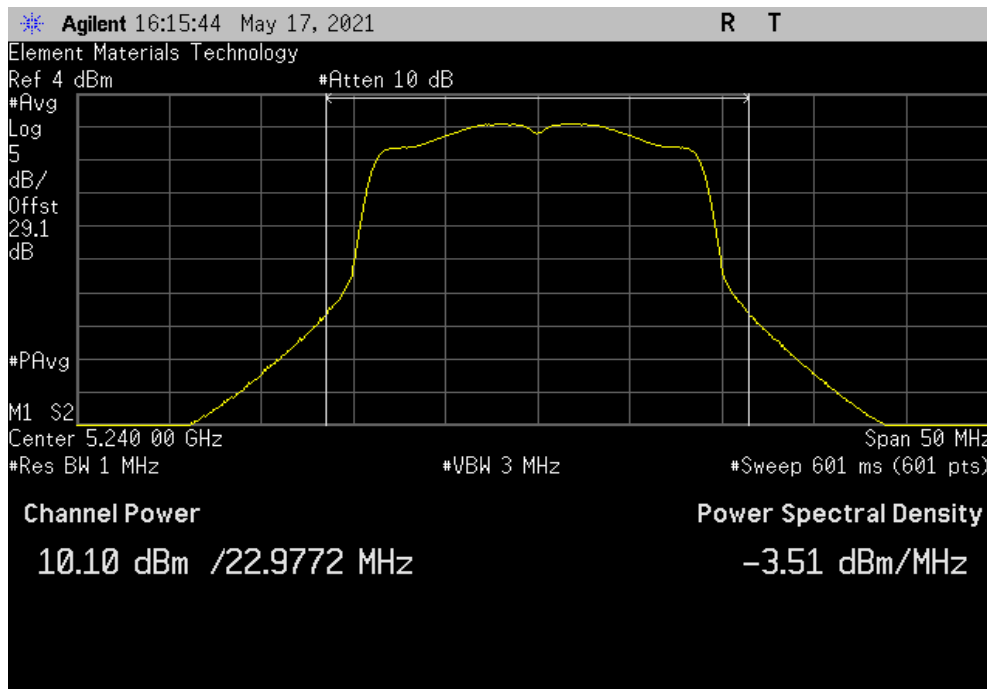


TbTtx 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.432	0.1	10.6	2.6	13.2	30	Pass



5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.098	0.1	10.2	2.6	12.8	30	Pass

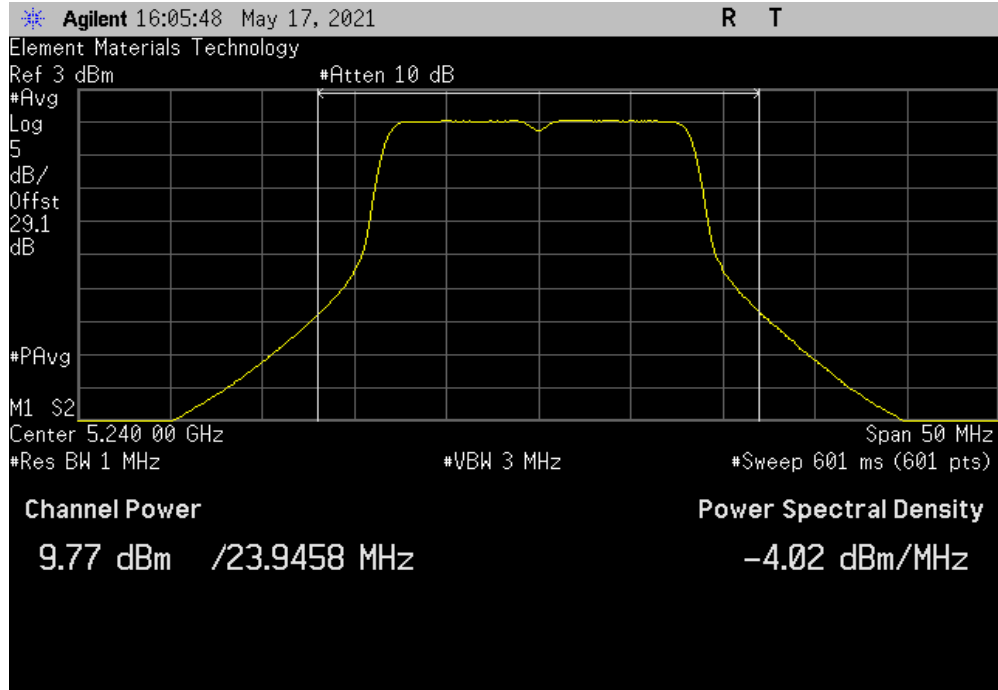


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

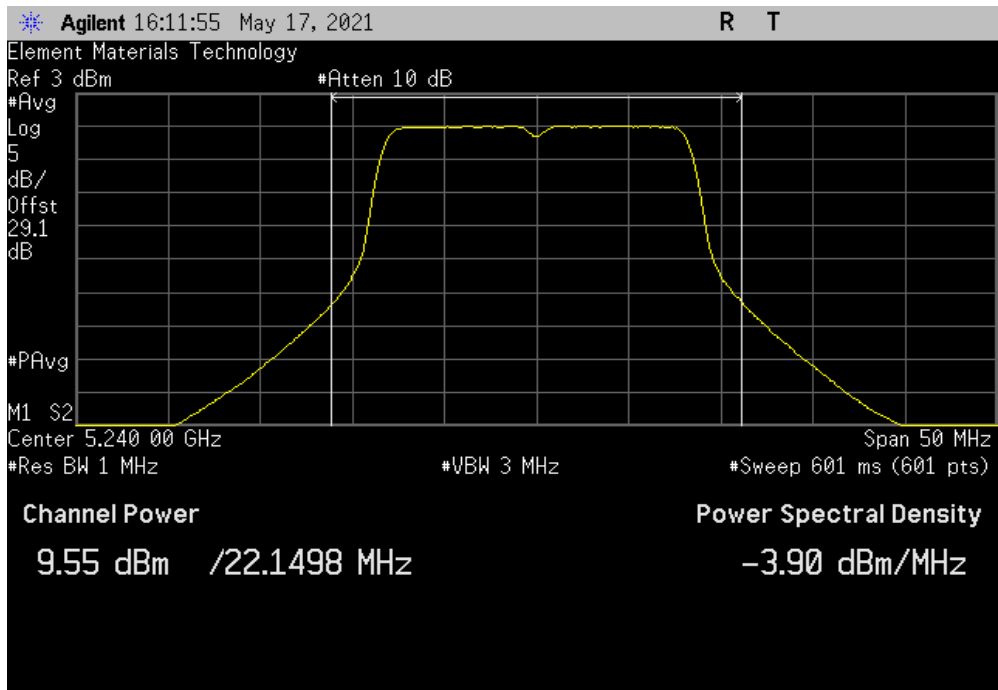


TMTx 2019.08.30.0 XMR 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.774	0.5	10.3	2.6	12.9	30	Pass



5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.549	0.7	10.2	2.6	12.8	30	Pass

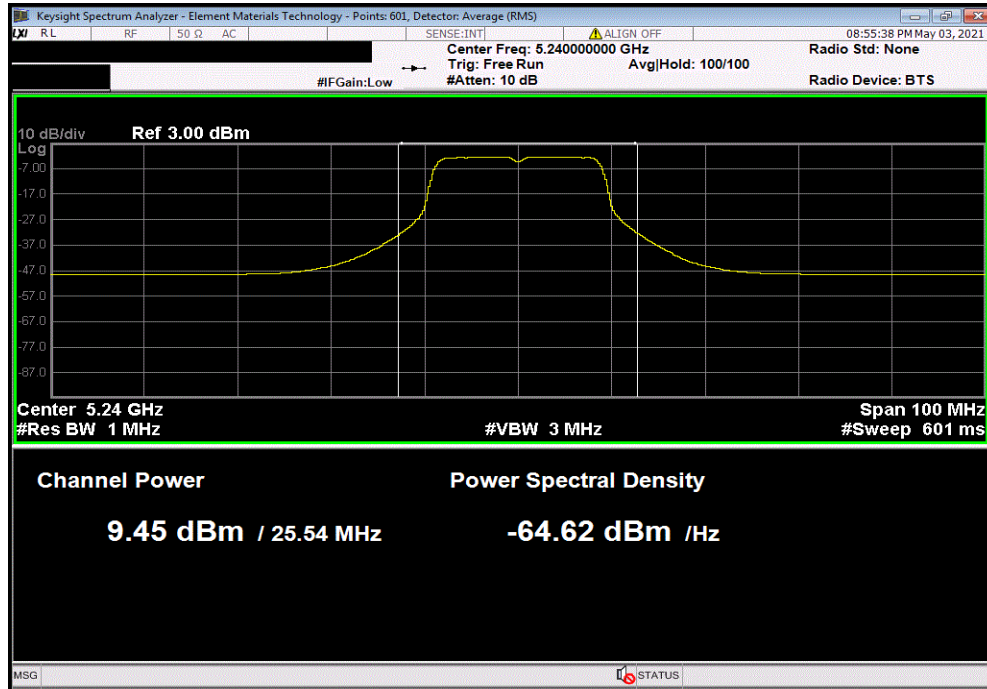


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

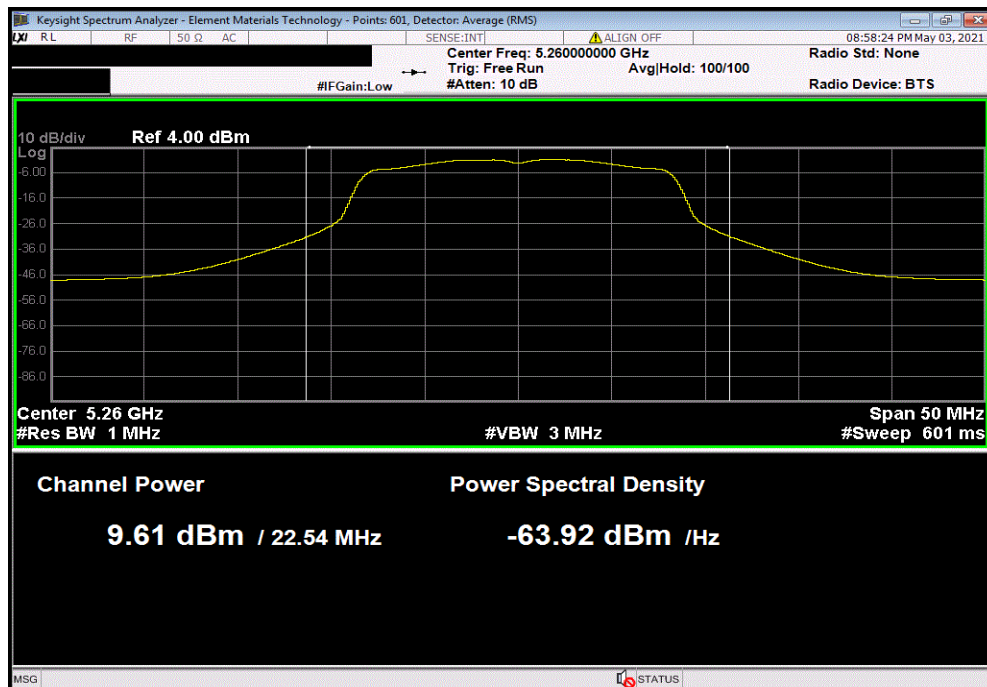


TbTx 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.452	1.0	10.5	2.6	13.1	30	Pass



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.613	0.1	9.7	2.6	12.3	30	Pass

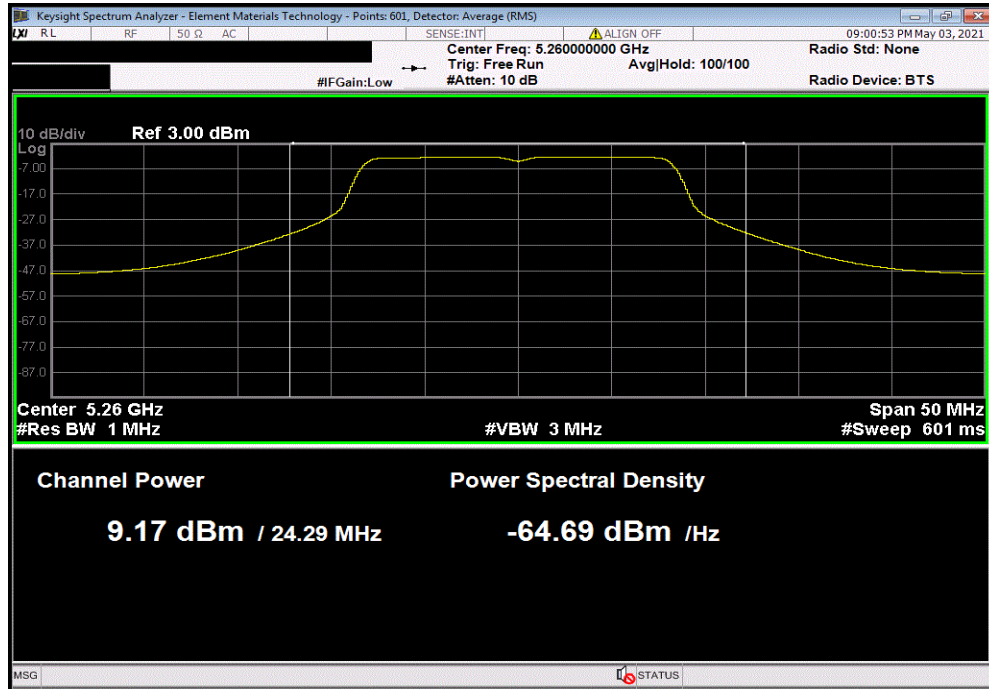


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

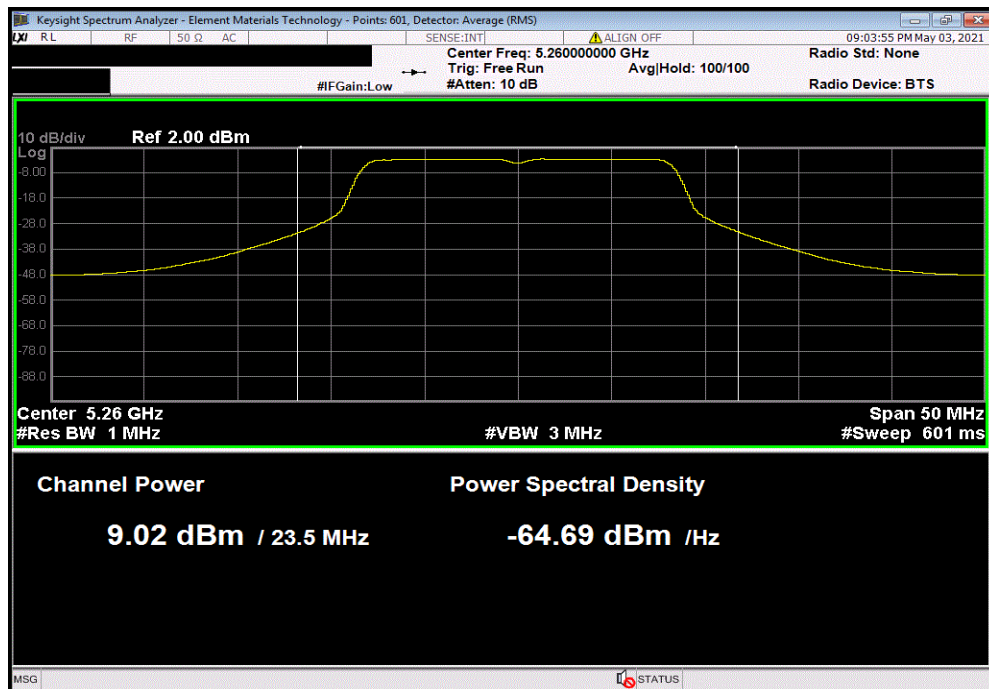


TbTx 2019.08.30.0 XMt 2020.12.30.0

5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.168	0.7	9.8	2.6	12.4	30	Pass



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.019	1.0	10.0	2.6	12.6	30	Pass

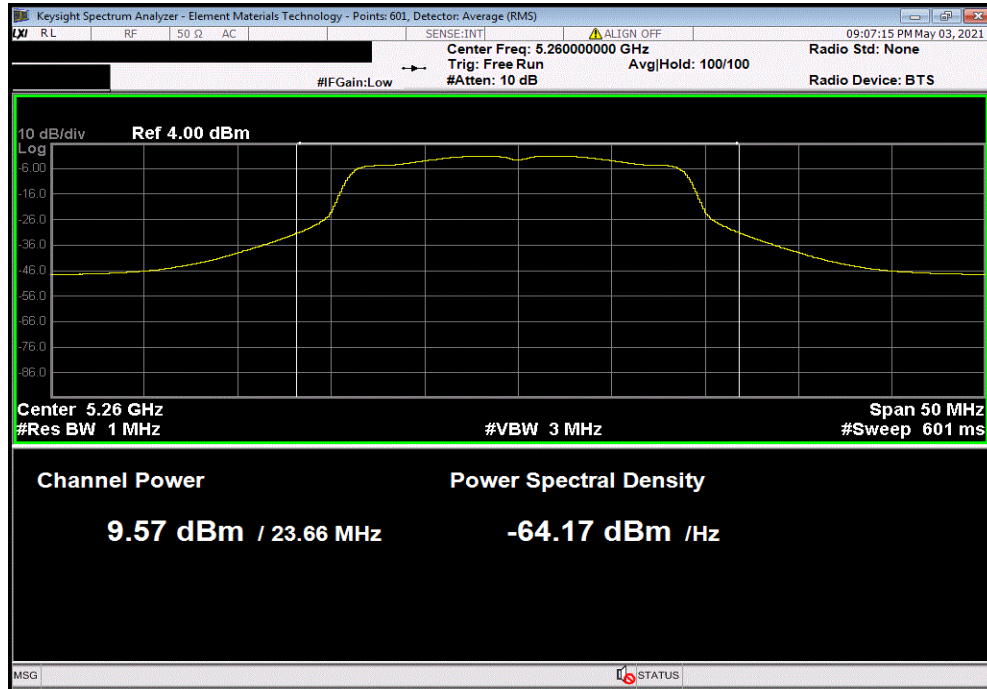


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

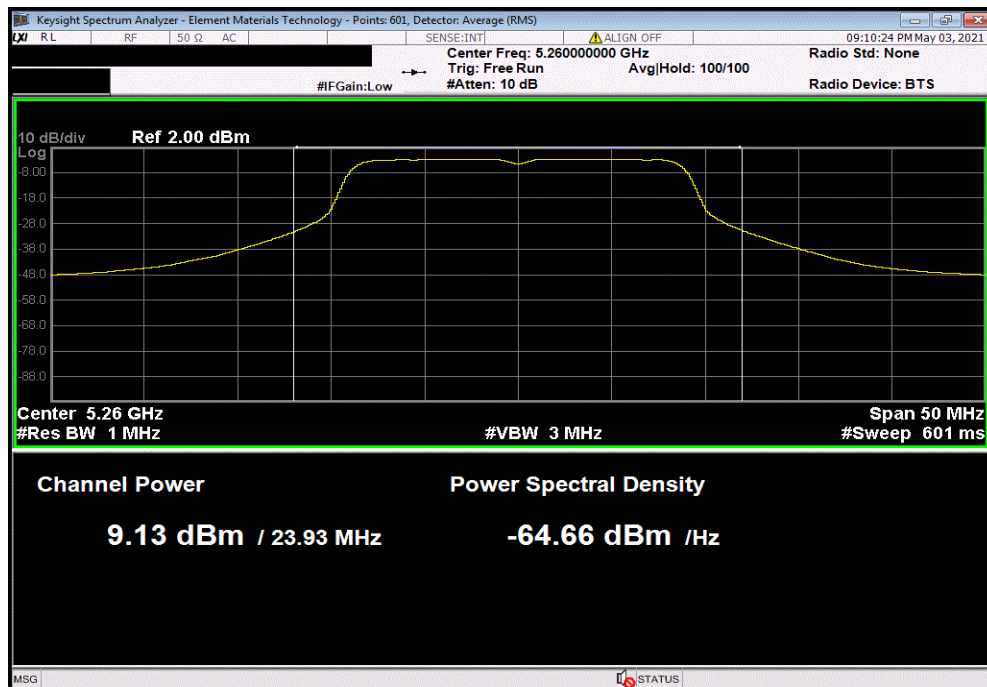


TbTx 2019.08.30.0 XMt 2020.12.30.0

5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.574	0.1	9.7	2.6	12.3	30	Pass



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.131	1.0	10.2	2.6	12.8	30	Pass

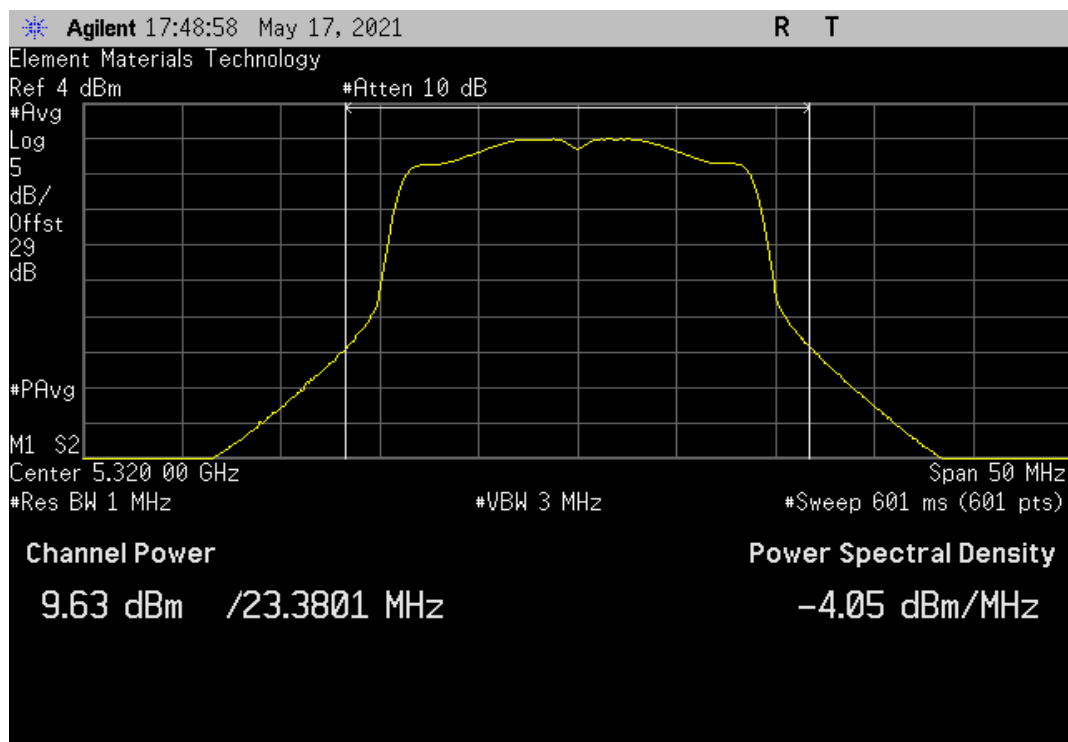


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)



TbTx 2019.08.30.0 XMe 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.634	0.1	9.7	2.6	12.3	30	Pass

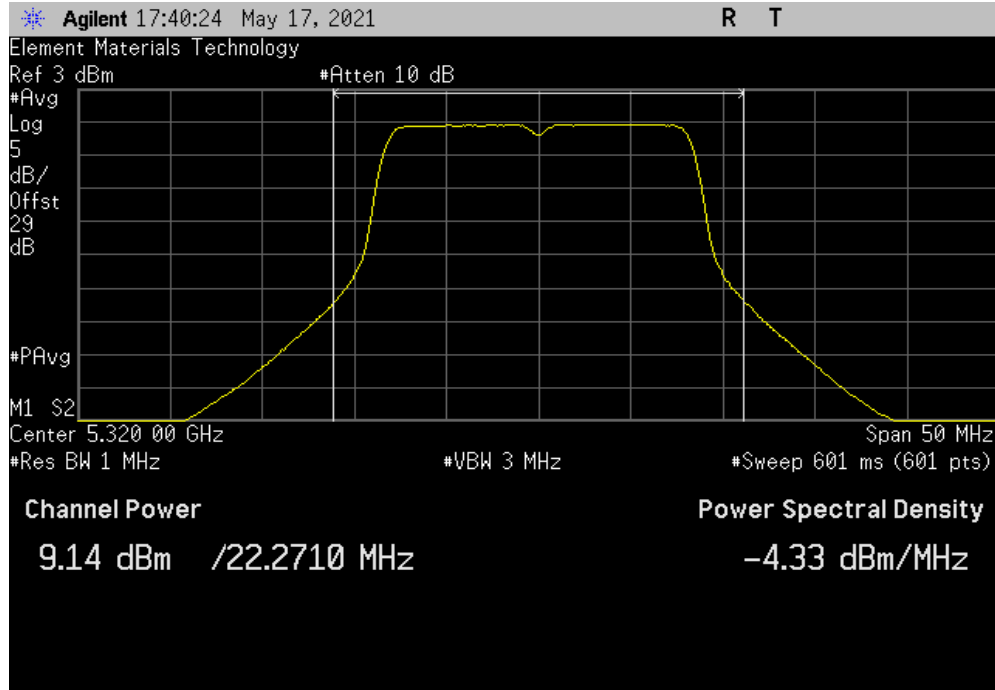


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

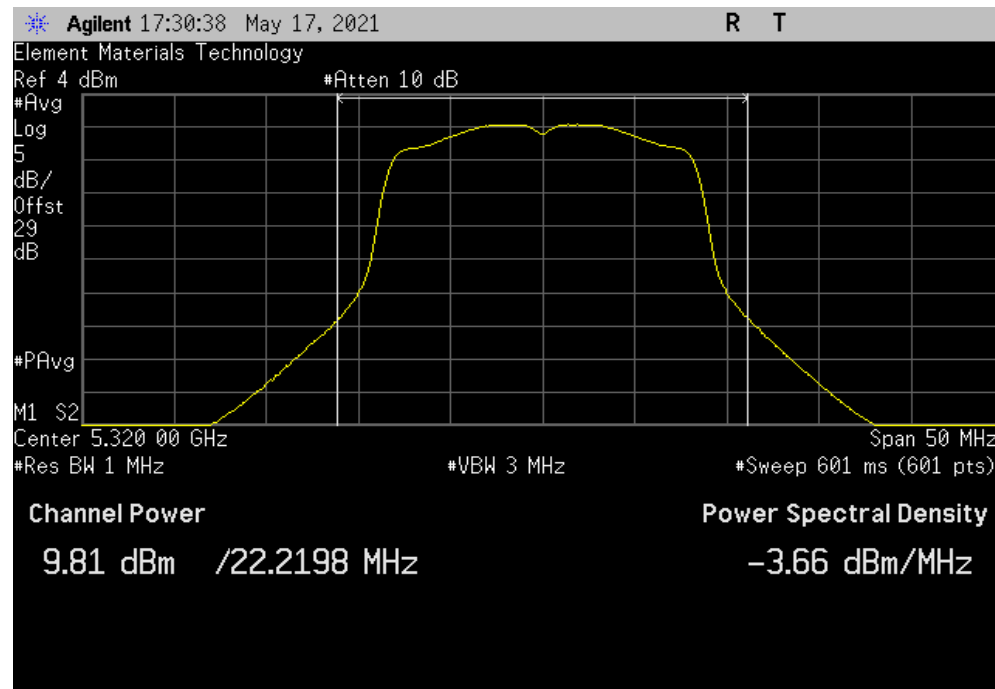


TMTx 2019.08.30.0 XMR 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.144	0.7	9.8	2.6	12.4	30	Pass



5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.806	0.1	9.9	2.6	12.5	30	Pass

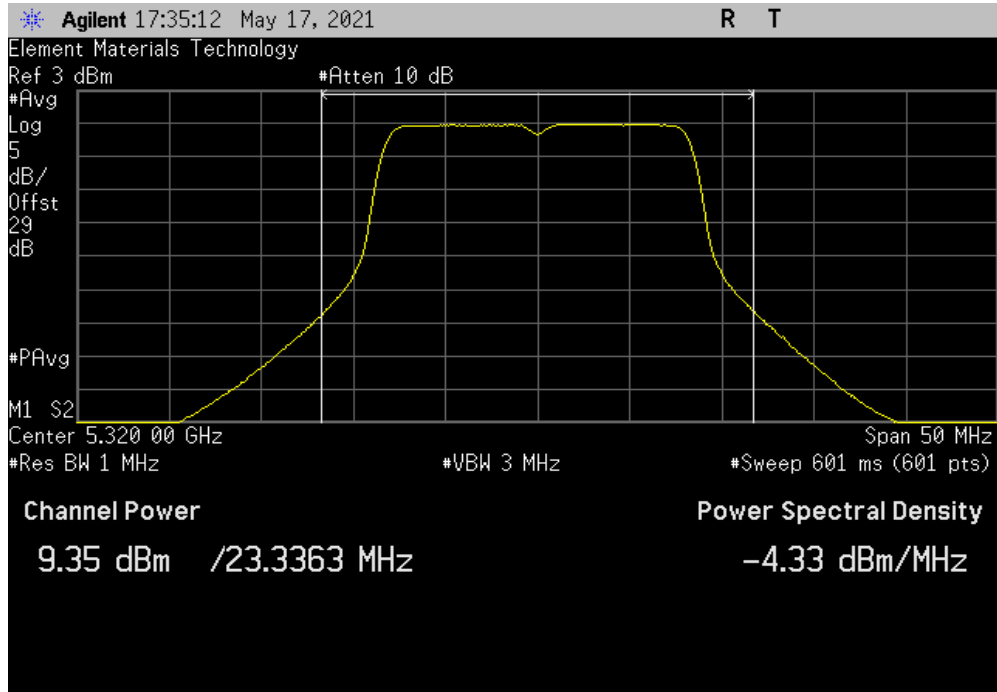


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

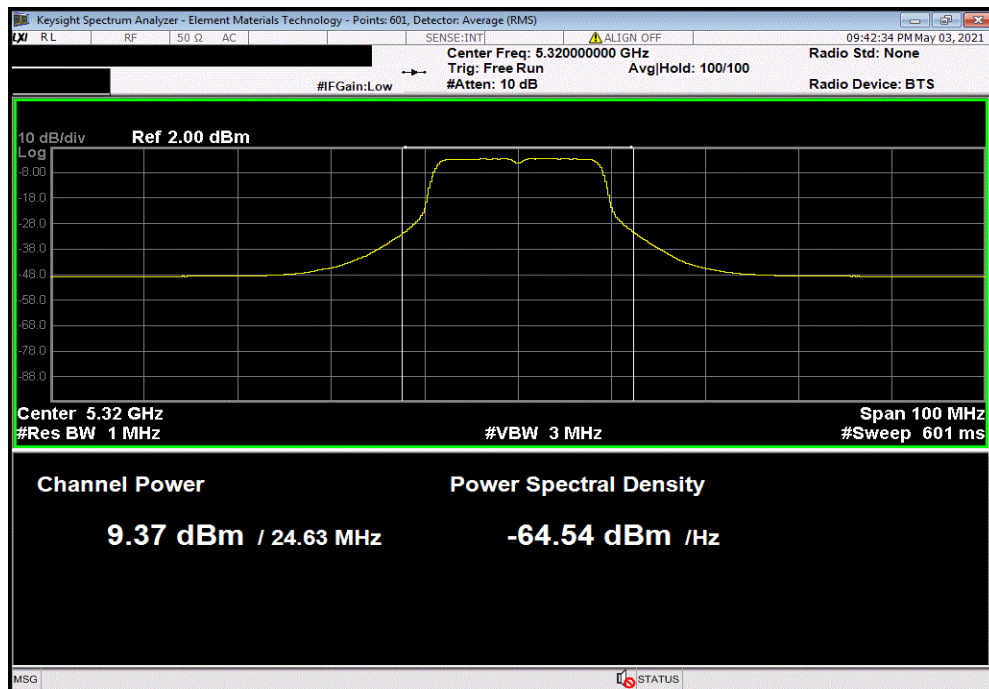


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.348	0.5	9.8	2.6	12.4	30	Pass



5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.37	1.0	10.4	2.6	13.0	30	Pass

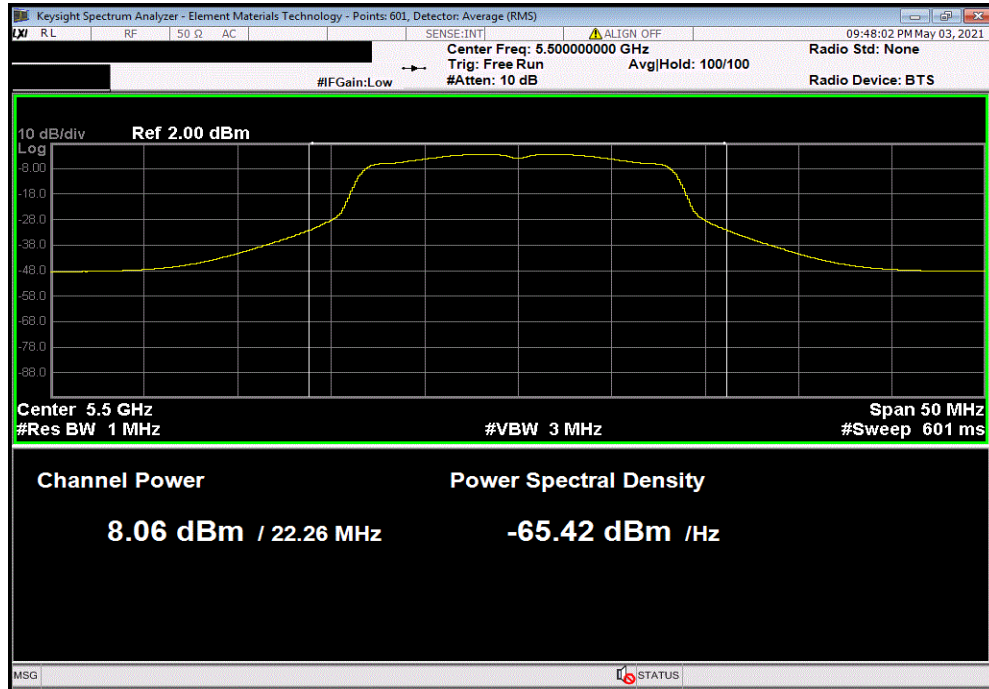


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

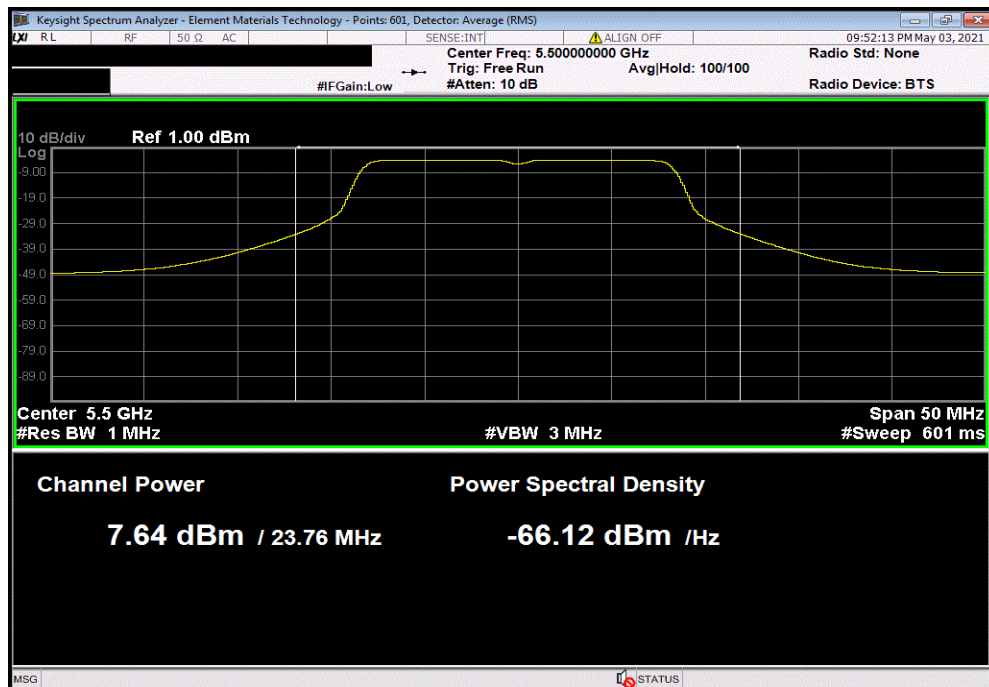


TbTx 2019.08.30.0 XMt 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
8.059	0.1	8.2	2.6	10.8	30	Pass



5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
7.642	0.7	8.3	2.6	10.9	30	Pass

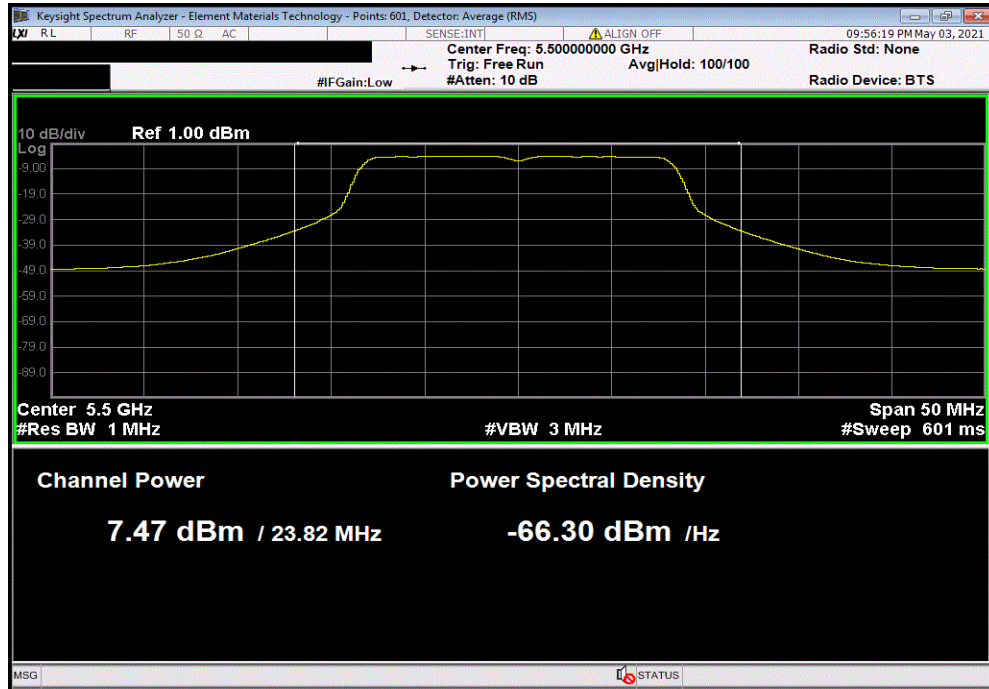


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

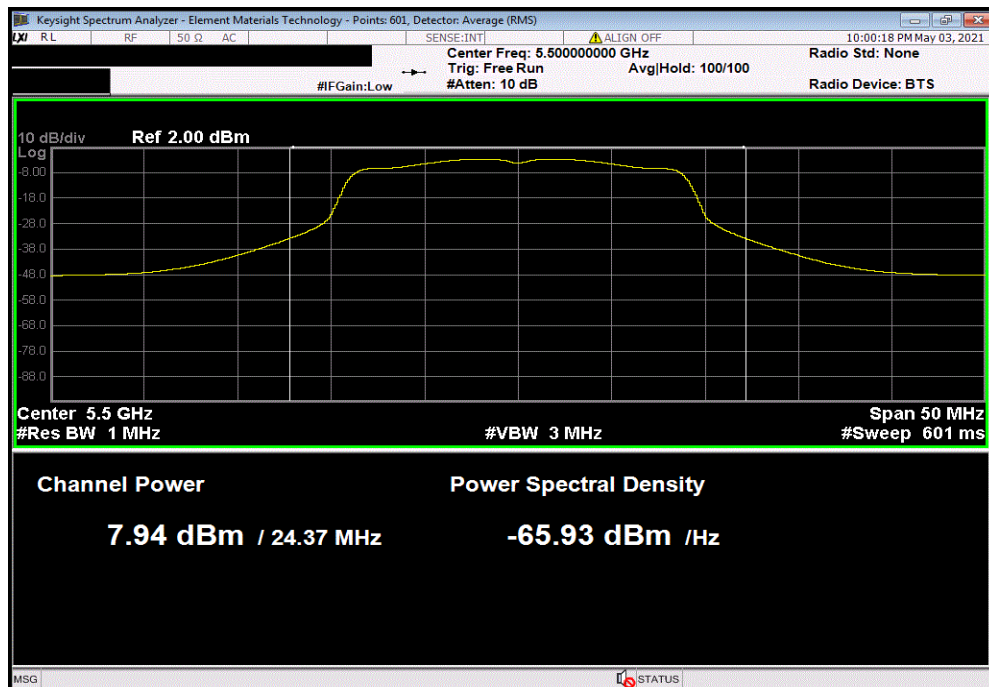


TbTx 2019.08.30.0 XMt 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
7.466	1.0	8.4	2.6	11.0	30	Pass



5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
7.943	0.2	8.1	2.6	10.7	30	Pass

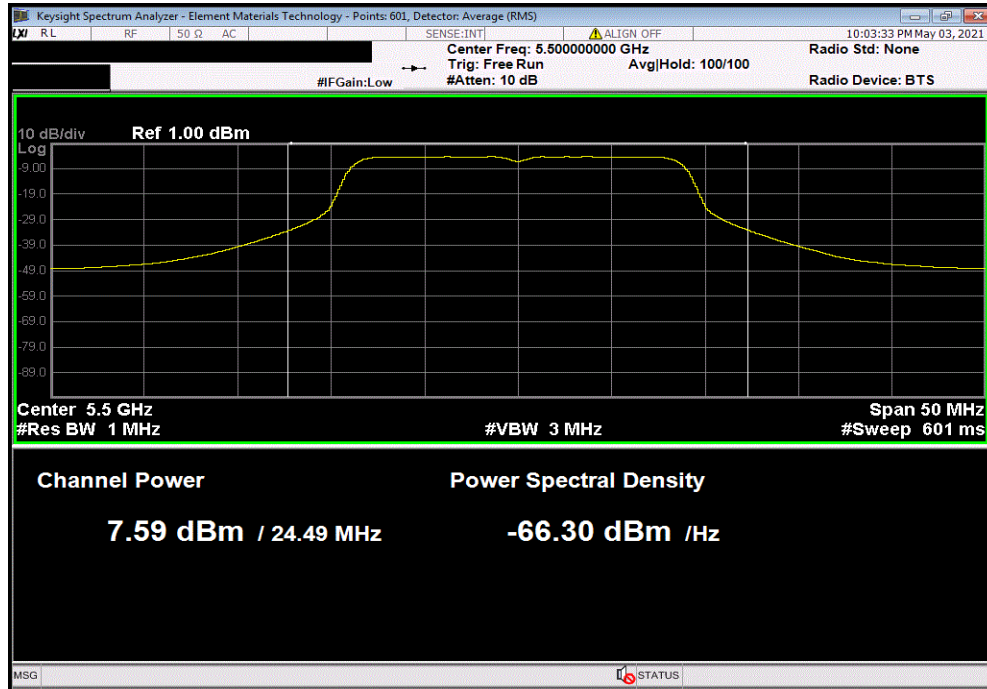


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

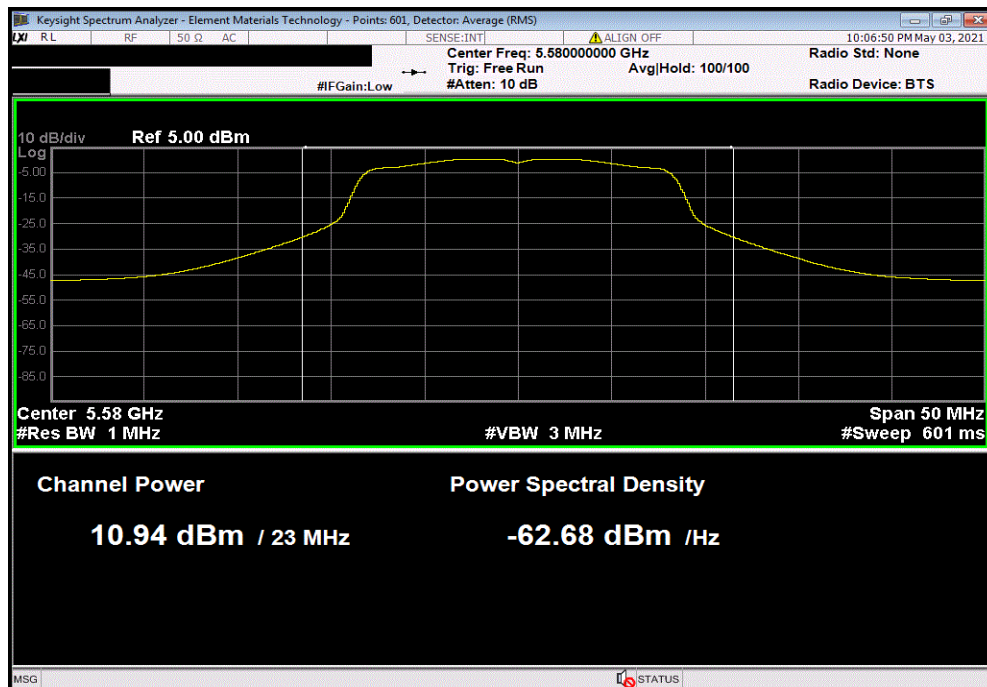


TbTx 2019.08.30.0 XMt 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
7.591	1.0	8.6	2.6	11.2	30	Pass



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.935	0.1	11.1	2.6	13.7	30	Pass

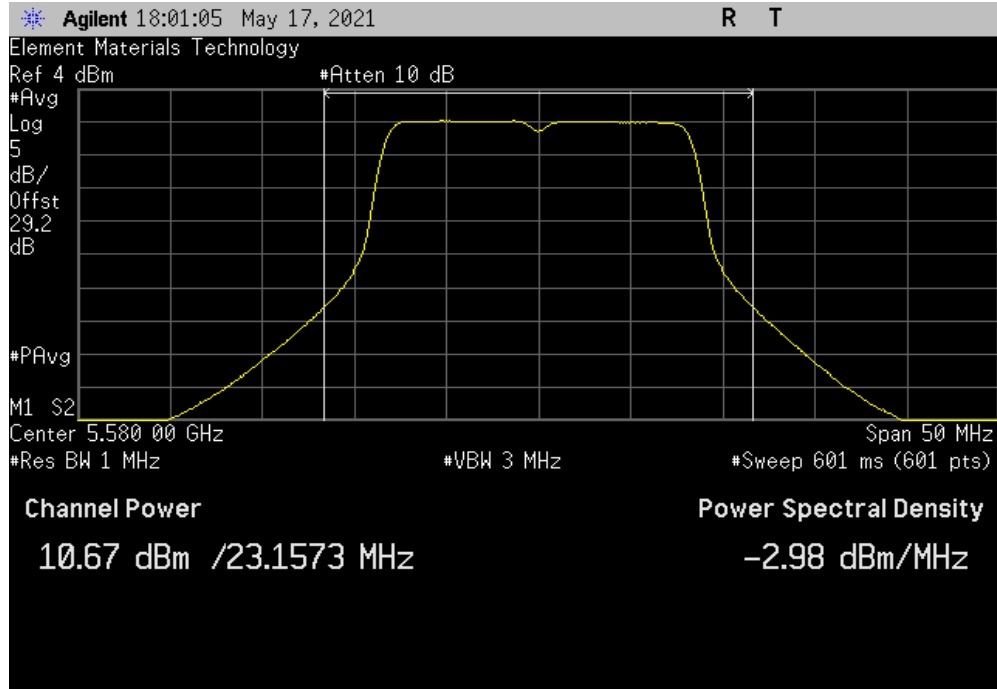


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

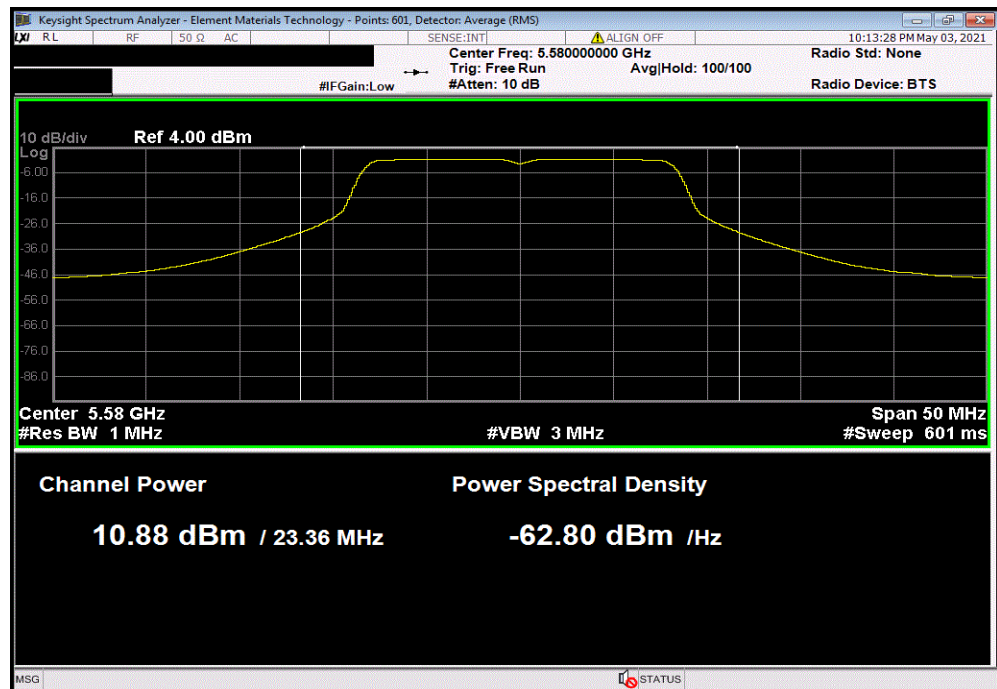


TbTx 2019.08.30.0 XMR 2020.12.30.0

5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.666	0.5	11.2	2.6	13.8	30	Pass



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.883	0.9	11.8	2.6	14.4	30	Pass

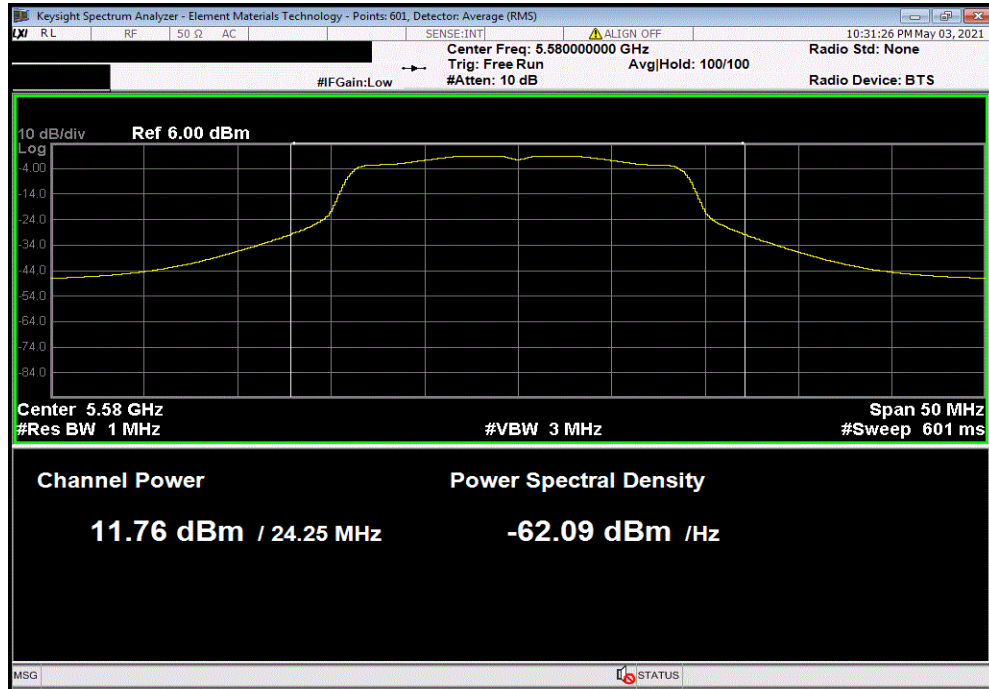


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

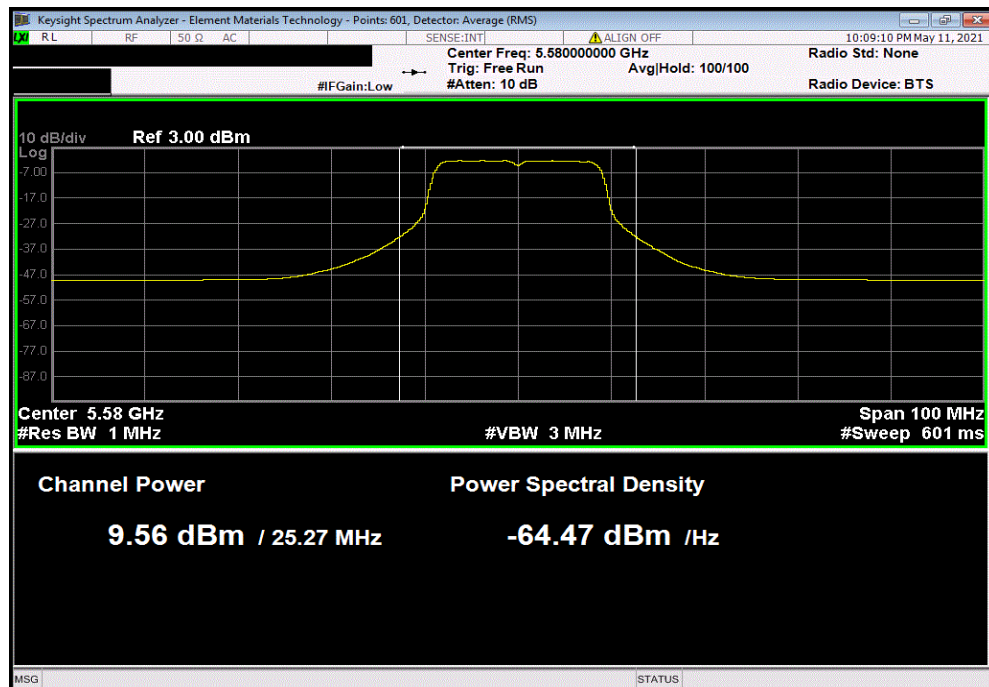


TbTx 2019.08.30.0 XMt 2020.12.30.0

5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.759	0.1	11.9	2.6	14.5	30	Pass



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.56	1.0	10.6	2.6	13.2	30	Pass

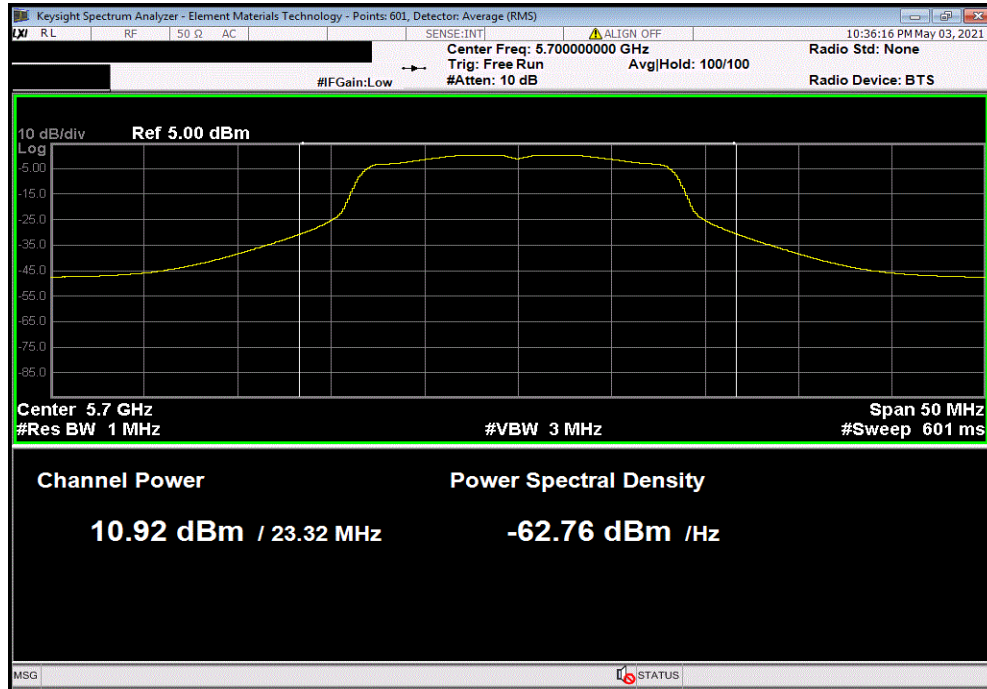


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

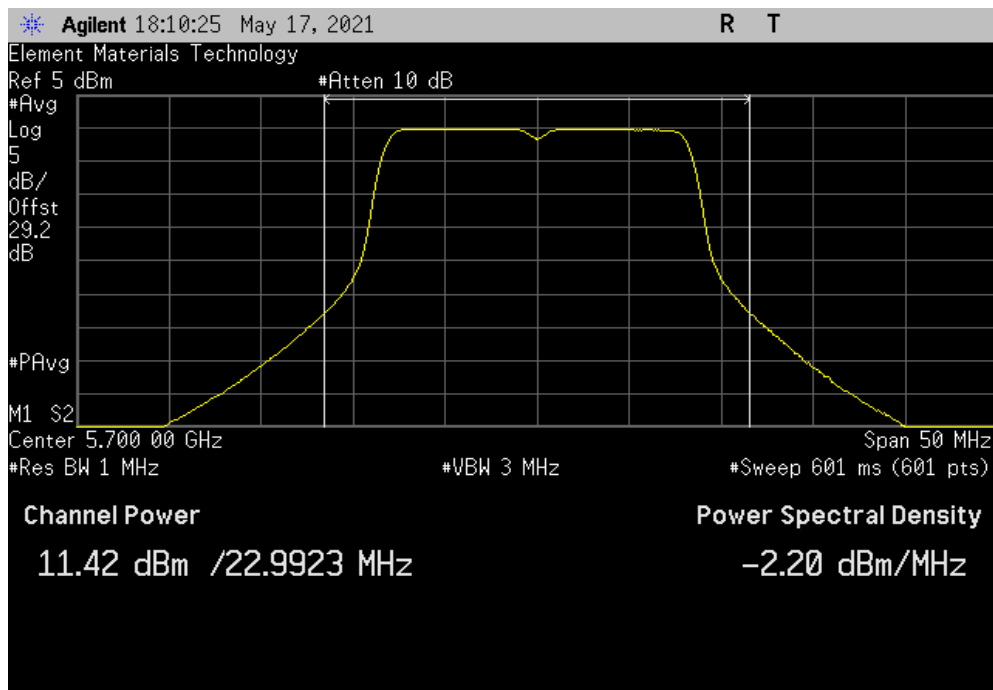


TbTx 2019.08.30.0 XMR 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.919	0.1	11.0	2.6	13.6	30	Pass



5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.418	0.5	11.9	2.6	14.5	30	Pass

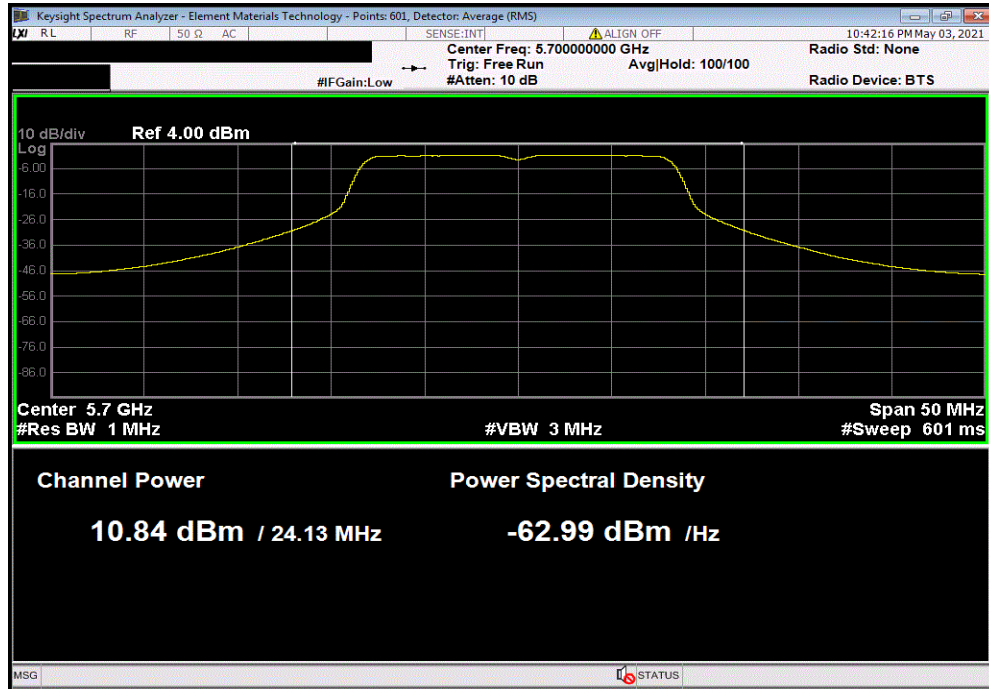


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

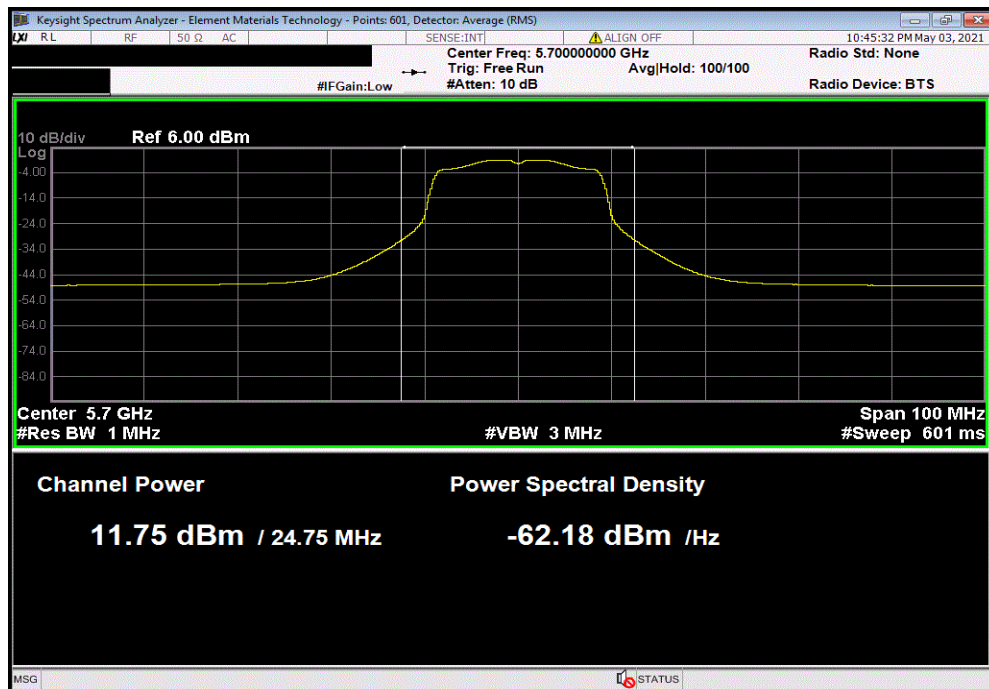


TbTx 2019.08.30.0 XMt 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.838	1.0	11.8	2.6	14.4	30	Pass



5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.752	0.1	11.9	2.6	14.5	30	Pass

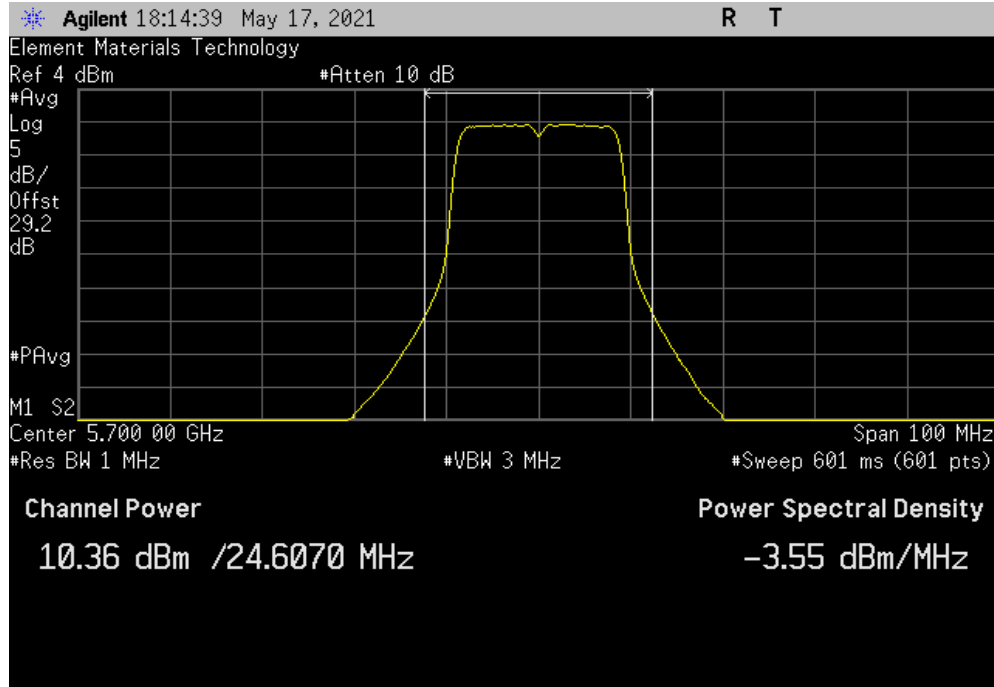


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

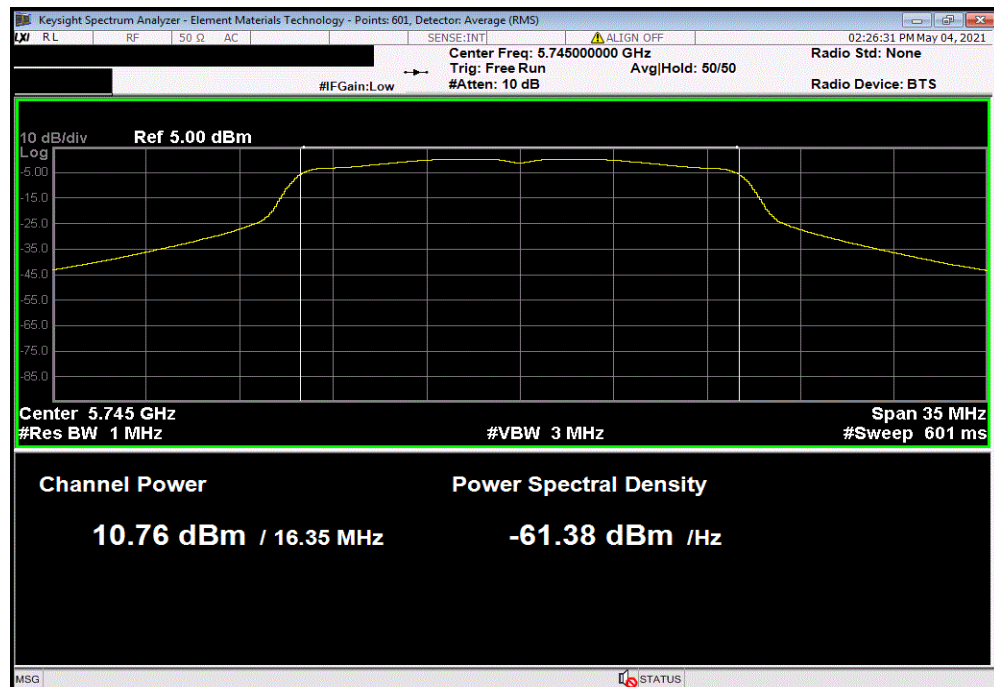


TbTx 2019.08.30.0 XMR 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.365	0.7	11.1	2.6	13.7	30	Pass



5725 - 5785 MHz Band, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.758	0.1	10.9	2.6	13.5	36	Pass

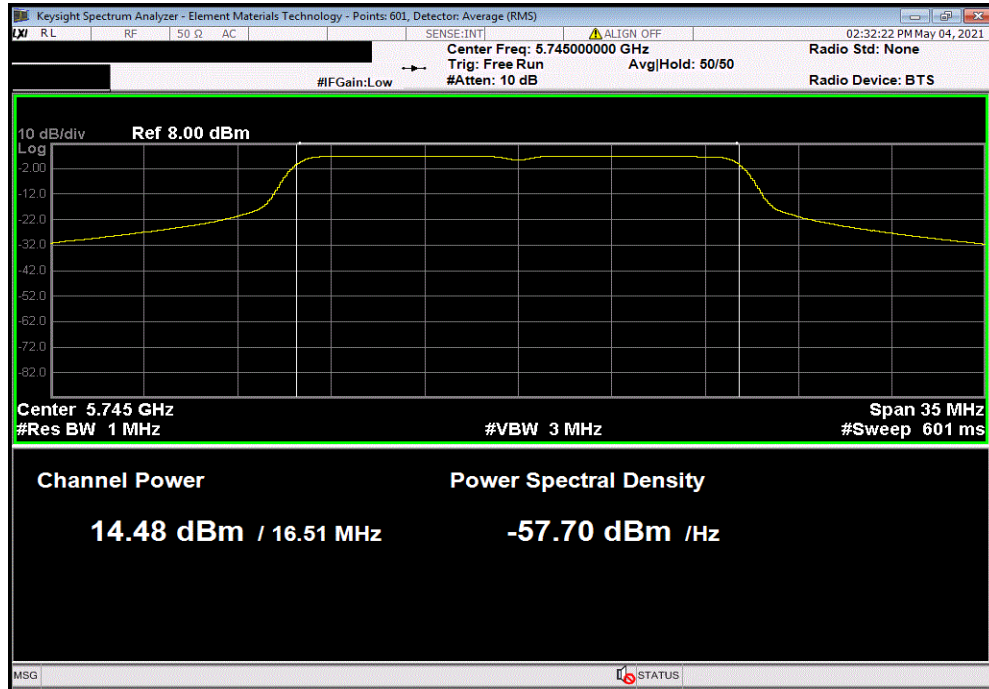


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

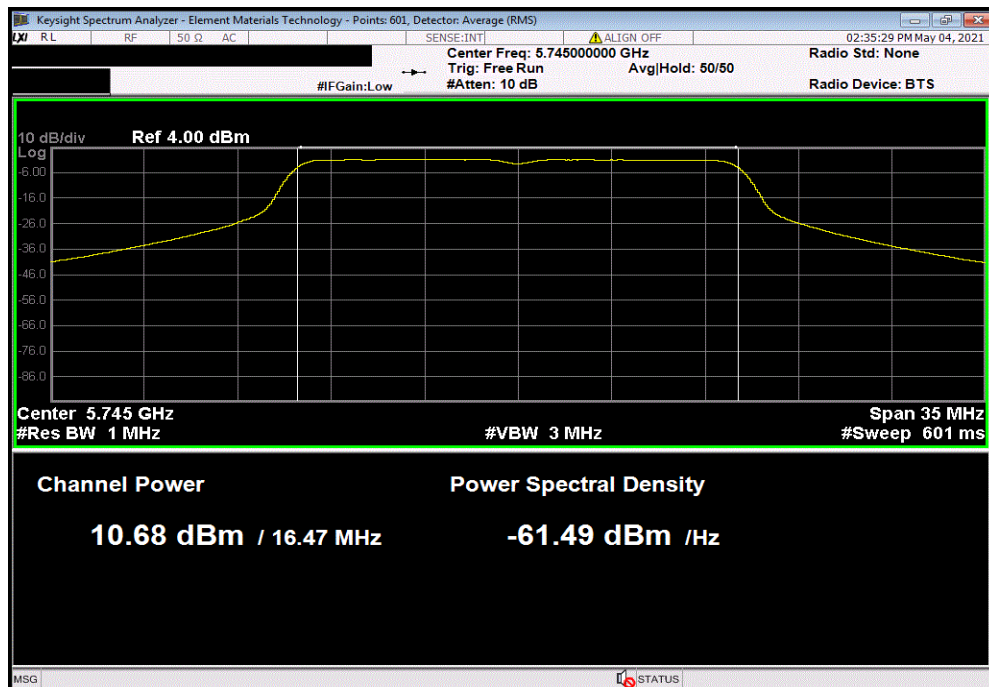


TbTx 2019.08.30.0 XMt 2020.12.30.0

5725 - 5785 MHz Band, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
14.477	0.8	15.2	2.6	17.8	36	Pass



5725 - 5785 MHz Band, Low Channel, Ch 149 - 5745 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.68	1.0	11.7	2.6	14.3	36	Pass

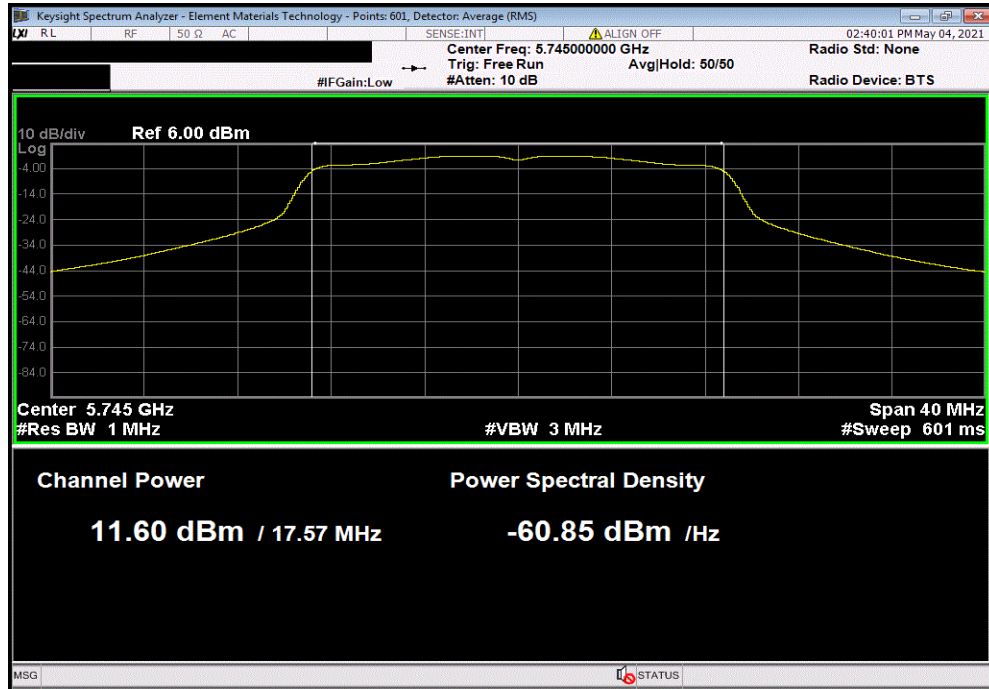


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

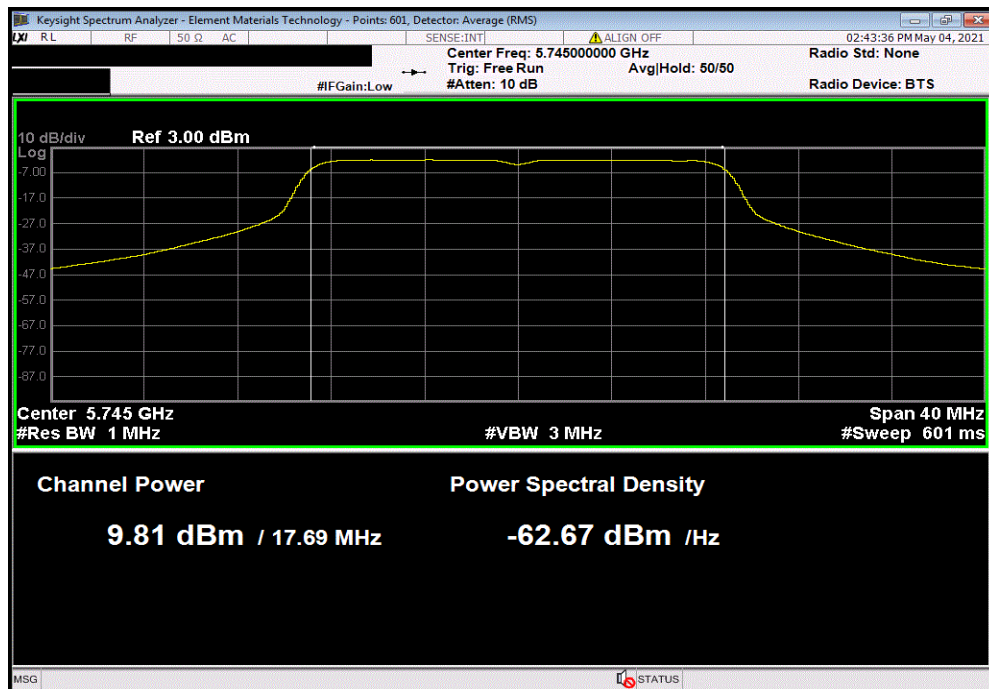


TbTx 2019.08.30.0 XMR 2020.12.30.0

5725 - 5785 MHz Band, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.596	0.1	11.7	2.6	14.3	36	Pass



5725 - 5785 MHz Band, Low Channel, Ch 149 - 5745 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.805	1.1	10.9	2.6	13.5	36	Pass

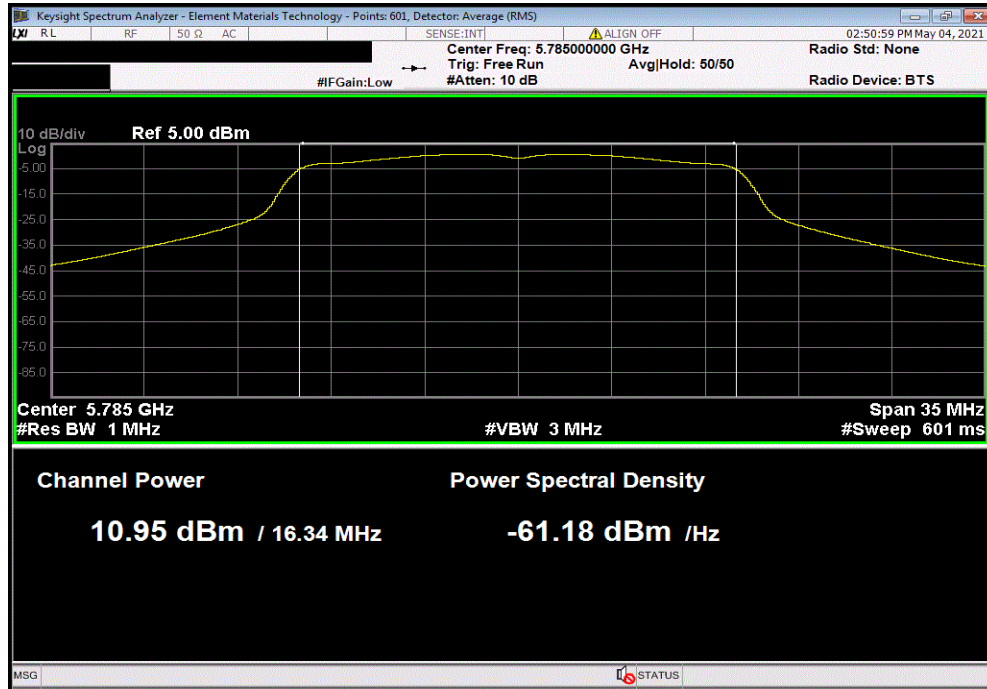


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

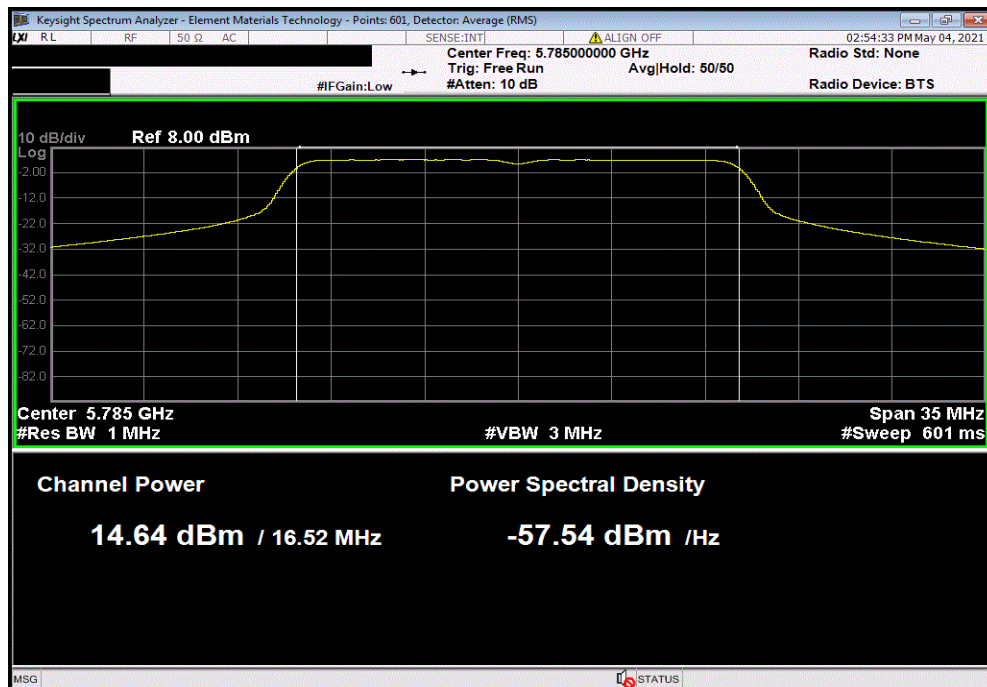


TbTx 2019.08.30.0 XMt 2020.12.30.0

5725 - 5785 MHz Band, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.954	0.1	11.1	2.6	13.7	36	Pass



5725 - 5785 MHz Band, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
14.641	0.7	15.4	2.6	18.0	36	Pass

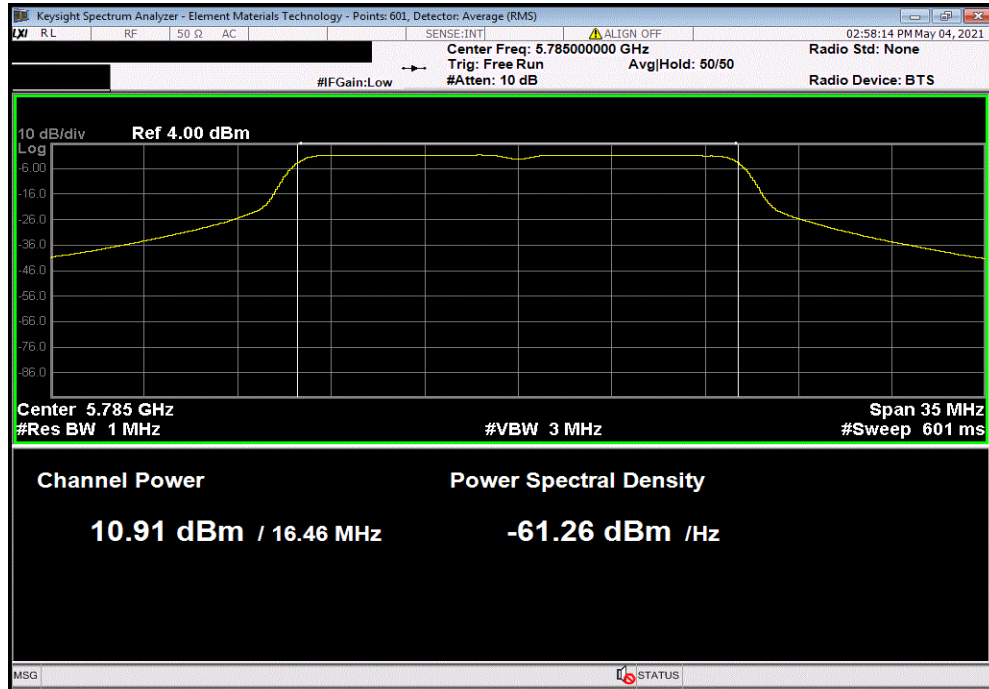


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

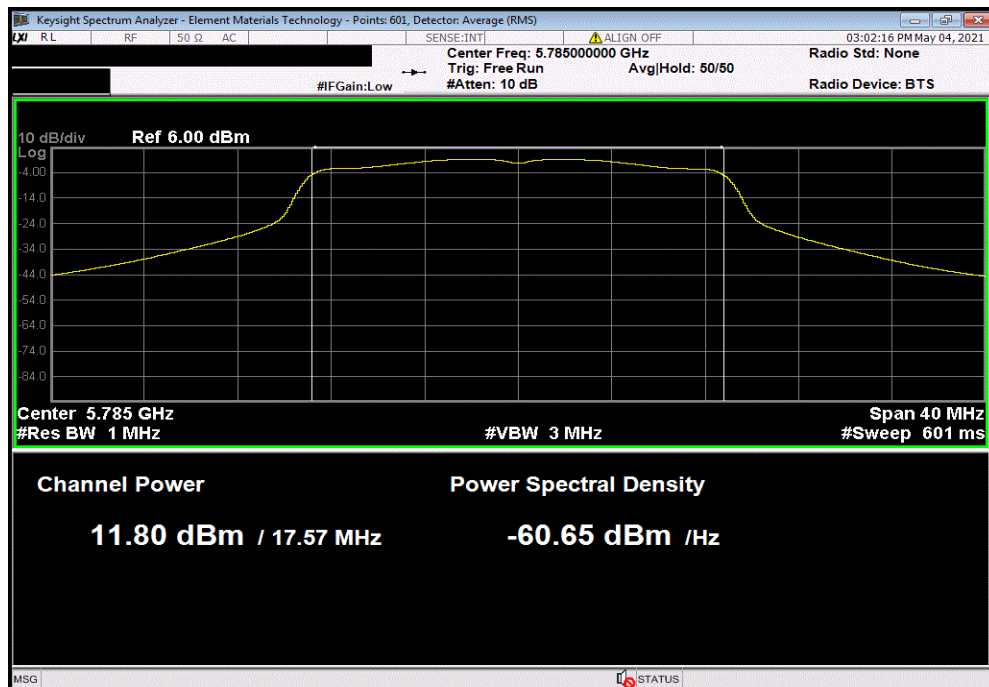


TbTx 2019.08.30.0 XMt 2020.12.30.0

5725 - 5785 MHz Band, Mid Channel, Ch 157 - 5785 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.907	1.0	11.9	2.6	14.5	36	Pass



5725 - 5785 MHz Band, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.801	0.2	12.0	2.6	14.6	36	Pass

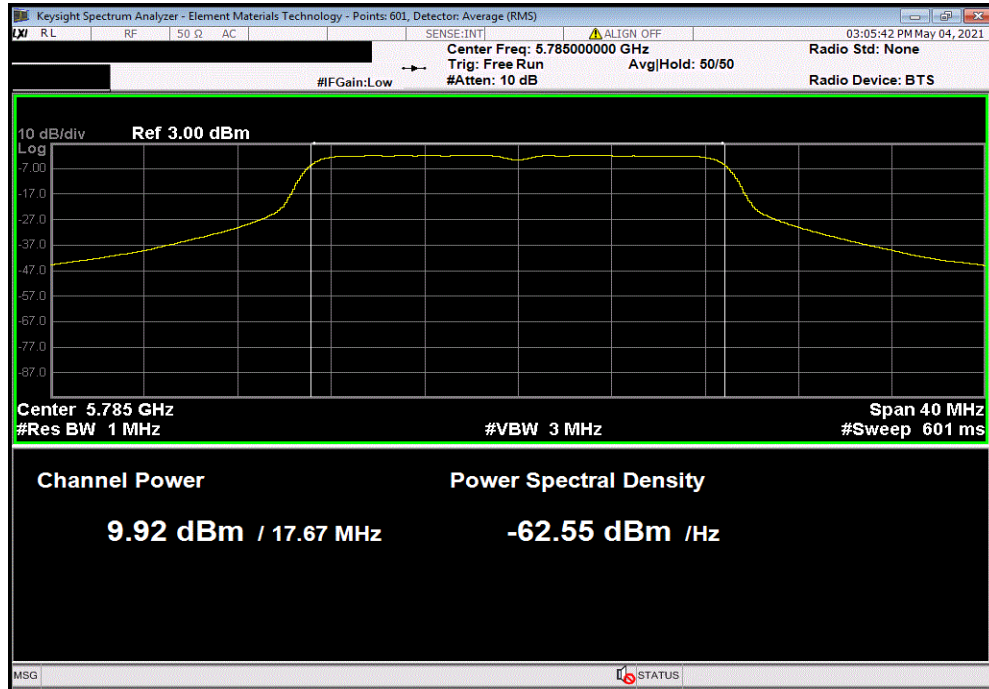


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

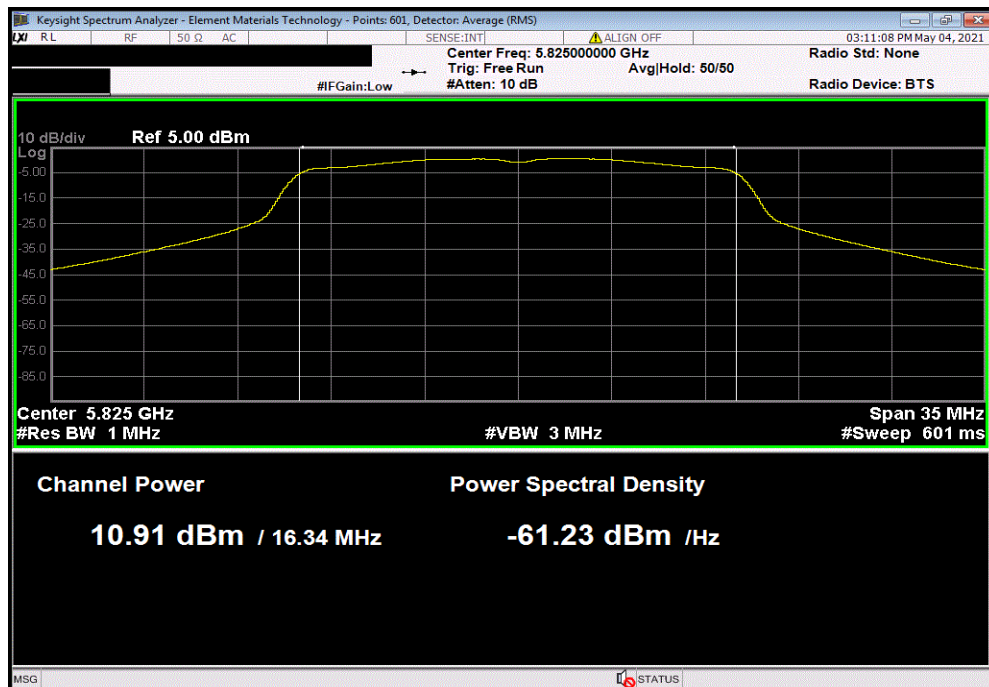


TbTx 2019.08.30.0 XMt 2020.12.30.0

5725 - 5785 MHz Band, Mid Channel, Ch 157 - 5785 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.921	1.1	11.1	2.6	13.7	36	Pass



5725 - 5785 MHz Band, High Channel, Ch 165 - 5825 MHz, 802.11(a) 6 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.906	0.1	11.0	2.6	13.6	36	Pass

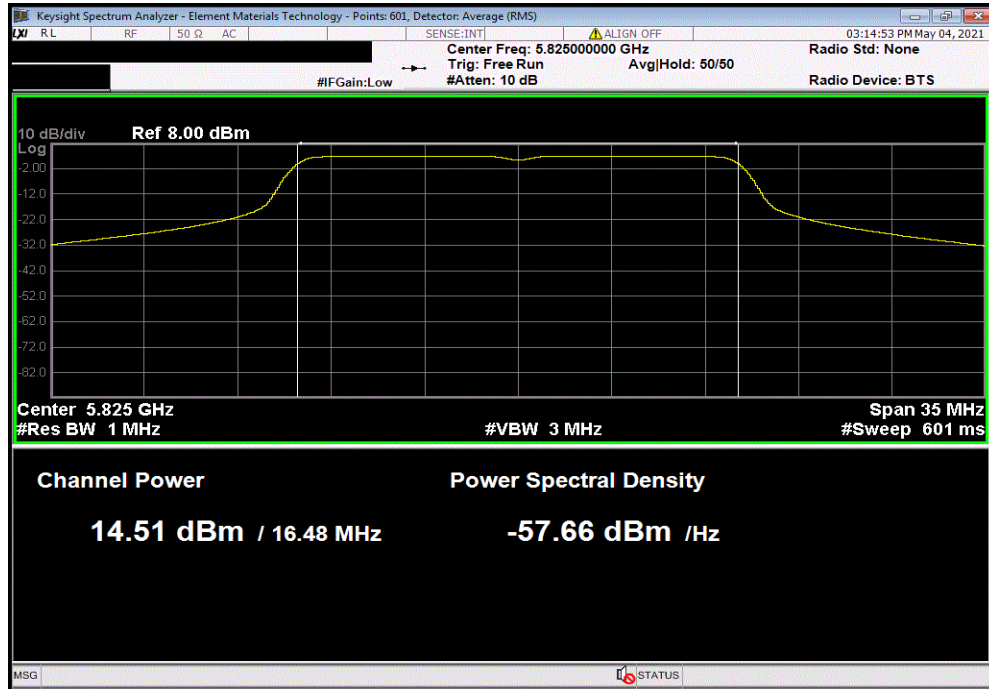


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

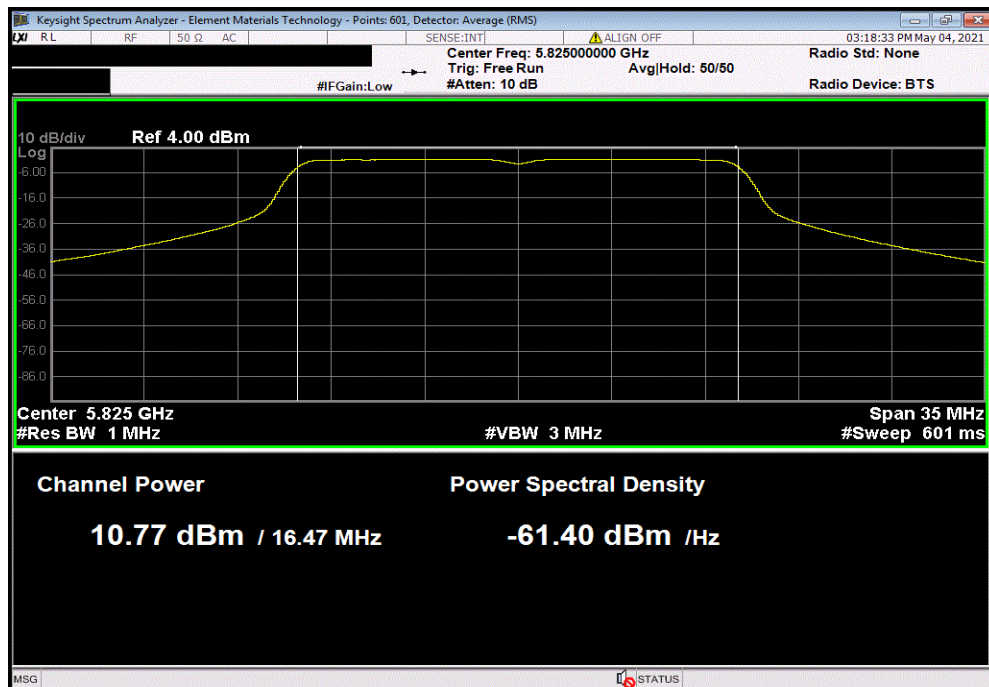


TbTx 2019.08.30.0 XMt 2020.12.30.0

5725 - 5785 MHz Band, High Channel, Ch 165 - 5825 MHz, 802.11(a) 36 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
14.509	0.7	15.2	2.6	17.8	36	Pass



5725 - 5785 MHz Band, High Channel, Ch 165 - 5825 MHz, 802.11(a) 54 Mbps						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
10.77	1.0	11.8	2.6	14.4	36	Pass

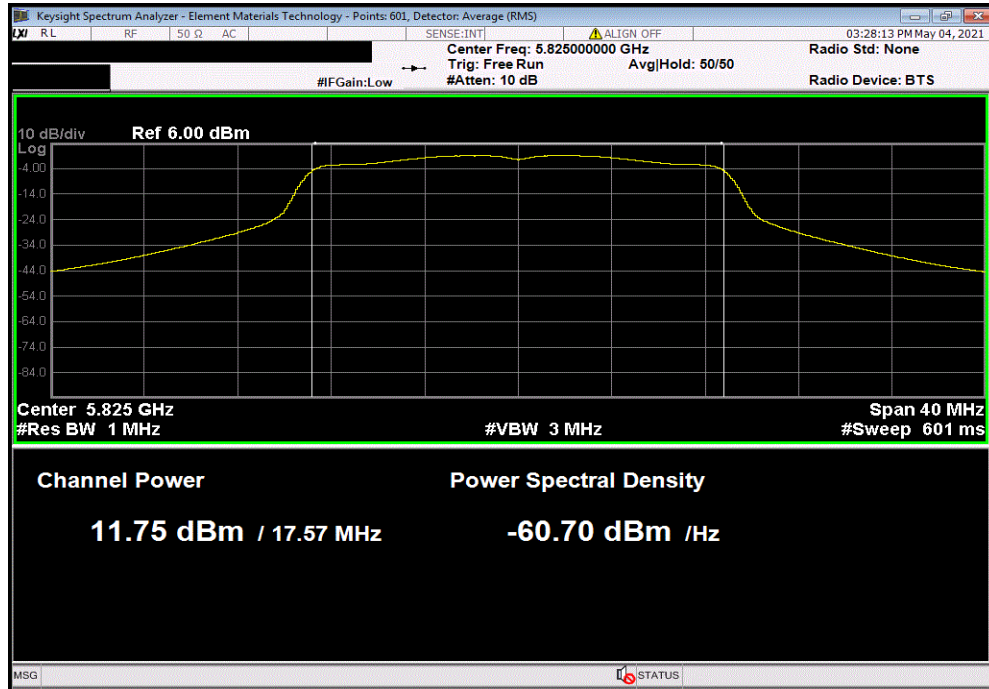


EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)

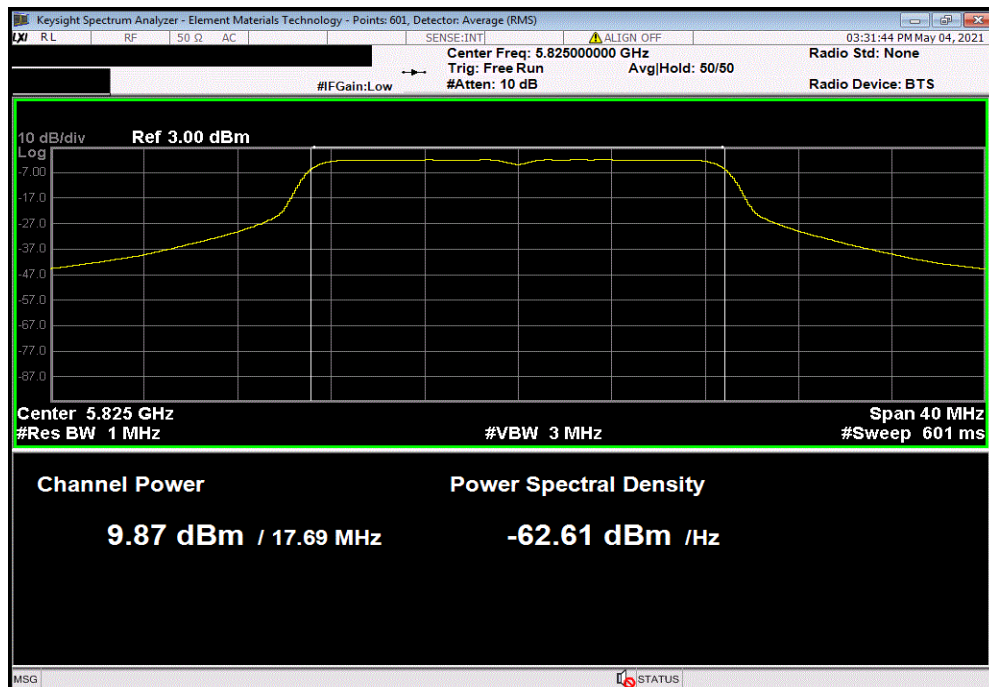


TbTx 2019.08.30.0 XMR 2020.12.30.0

5725 - 5785 MHz Band, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS0						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
11.746	0.1	11.9	2.6	14.5	36	Pass



5725 - 5785 MHz Band, High Channel, Ch 165 - 5825 MHz, 802.11(n) MCS7						
Avg Cond Pwr (dBm)	Duty Cycle Factor (dB)	Out Pwr (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Result
9.867	1.0	10.9	2.6	13.5	36	Pass



EMISSION BANDWIDTH



XMH 2020.12.30.0

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
Block - DC	Fairview Microwave	SD3379	AMZ	2020-11-04	2021-11-04
Attenuator	Fairview Microwave	18B5W-26	RFY	2020-06-03	2021-06-03
Cable	Micro-Coax	UFD150A-1-0720-200200	MNL	2020-09-14	2021-09-14
Generator - Signal	Agilent	N5183A	TIK	2019-04-30	2022-04-30
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	2021-04-16	2022-04-16

TEST DESCRIPTION

The transmit frequencies and data rates listed in the datasheet were measured in each band utilized by the radio. The transmit power was set to its default maximum.

Per ANSI C63.10, the spectrum analyzer settings were as follows:

- RBW = Approx. 1% of the emission bandwidth (B).
- VBW = > RBW
- Detector = Peak
-
- Trace mode = max hold

The spectrum analyzer occupied bandwidth measurement function was then used to measure 26 dB emission bandwidth.

There is no required limit to be met in the rule part for this test. The purpose of the test is to both report the results as required and to utilize the emission bandwidth for setting the channel power integration bandwidth during conducted output power testing.

EMISSION BANDWIDTH



TWTx 2019.08.30.0 XMR 2020.12.30.0

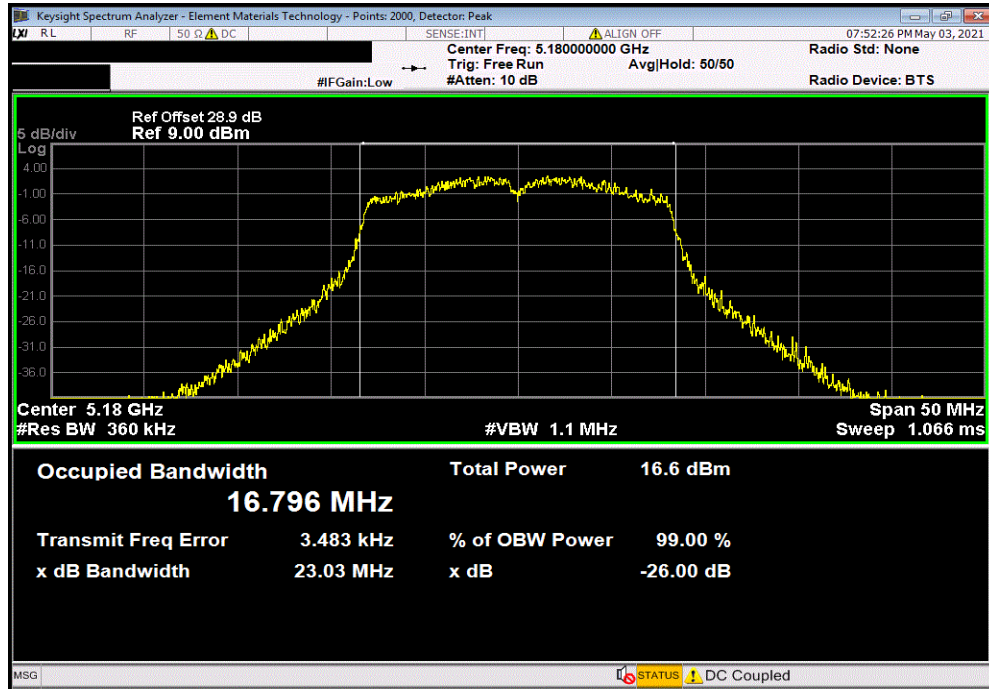
EUT: Zoll R-Series Data Comm II C2PC		Work Order: LGPD0258	
Serial Number: LB133400105		Date: 4-May-21	
Customer: Logic PD, Inc.		Temperature: 22.7 °C	
Attendees: Eric Fritz		Humidity: 30.1% RH	
Project: None		Barometric Pres.: 1025 mbar	
Tested by: Andrew Rogstad		Power: 3.7VDC	
TEST SPECIFICATIONS		Job Site: MN08	
FCC 15.407:2021		Test Method	
		ANSI C63.10:2013	
COMMENTS			
Reference level offset includes measurement cable, attenuator, and DC block.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature <i>Andrew Rogstad</i>	
		Value (dB)	Limit
5150 - 5250 MHz Band			
Low Channel, Ch 36 - 5180 MHz			
	802.11(a) 6 Mbps	23.034 MHz	N/A
	802.11(a) 36 Mbps	23.29 MHz	N/A
	802.11(a) 54 Mbps	23.365 MHz	N/A
	802.11(n) MCS0	23.91 MHz	N/A
	802.11(n) MCS7	23.73 MHz	N/A
High Channel, Ch 48 - 5240 MHz			
	802.11(a) 6 Mbps	23.112 MHz	N/A
	802.11(a) 36 Mbps	23.329 MHz	N/A
	802.11(a) 54 Mbps	24.685 MHz	N/A
	802.11(n) MCS0	24.505 MHz	N/A
	802.11(n) MCS7	25.541 MHz	N/A
5250 - 5350 MHz Band			
Low Channel, Ch 52 - 5260 MHz			
	802.11(a) 6 Mbps	22.545 MHz	N/A
	802.11(a) 36 Mbps	24.291 MHz	N/A
	802.11(a) 54 Mbps	23.502 MHz	N/A
	802.11(n) MCS0	23.662 MHz	N/A
	802.11(n) MCS7	23.927 MHz	N/A
High Channel, Ch 64 - 5320 MHz			
	802.11(a) 6 Mbps	23.272 MHz	N/A
	802.11(a) 36 Mbps	24.274 MHz	N/A
	802.11(a) 54 Mbps	23.747 MHz	N/A
	802.11(n) MCS0	23.836 MHz	N/A
	802.11(n) MCS7	24.631 MHz	N/A
5470 - 5725 MHz Band			
Low Channel, Ch 100 - 5500 MHz			
	802.11(a) 6 Mbps	22.258 MHz	N/A
	802.11(a) 36 Mbps	23.765 MHz	N/A
	802.11(a) 54 Mbps	23.818 MHz	N/A
	802.11(n) MCS0	24.371 MHz	N/A
	802.11(n) MCS7	24.493 MHz	N/A
Mid Channel, Ch 116 - 5580 MHz			
	802.11(a) 6 Mbps	23 MHz	N/A
	802.11(a) 36 Mbps	25.178 MHz	N/A
	802.11(a) 54 Mbps	23.363 MHz	N/A
	802.11(n) MCS0	24.246 MHz	N/A
	802.11(n) MCS7	23.603 MHz	N/A
High Channel, Ch 140 - 5700 MHz			
	802.11(a) 6 Mbps	23.323 MHz	N/A
	802.11(a) 36 Mbps	24.474 MHz	N/A
	802.11(a) 54 Mbps	24.13 MHz	N/A
	802.11(n) MCS0	24.752 MHz	N/A
	802.11(n) MCS7	23.925 MHz	N/A

EMISSION BANDWIDTH

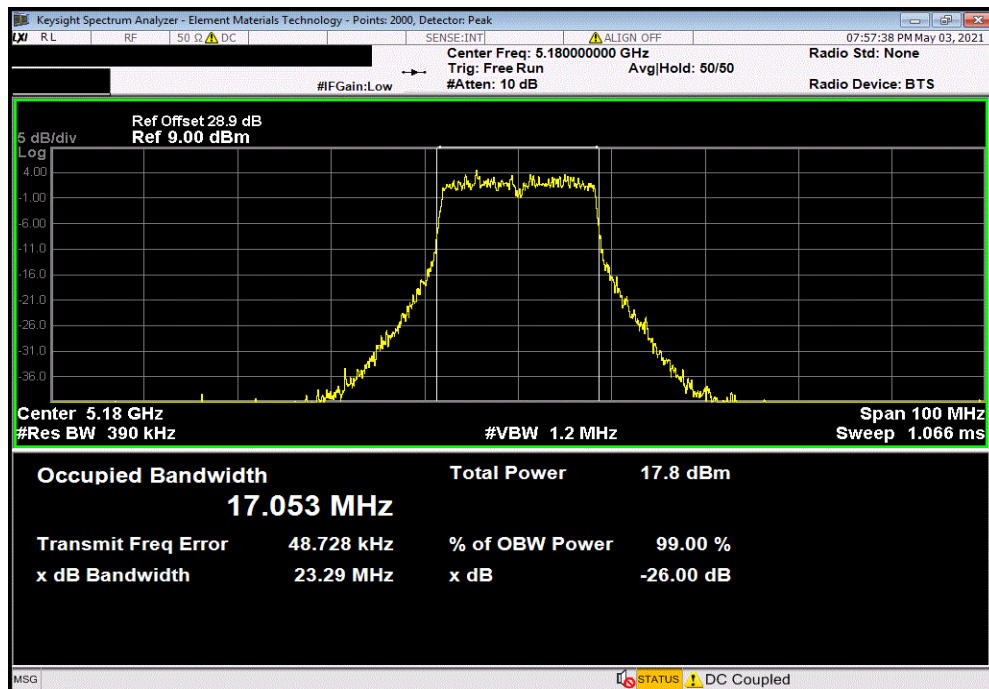


TbTx 2019.08.30.0 XMtX 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				23.034 MHz	N/A	N/A



5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				23.29 MHz	N/A	N/A

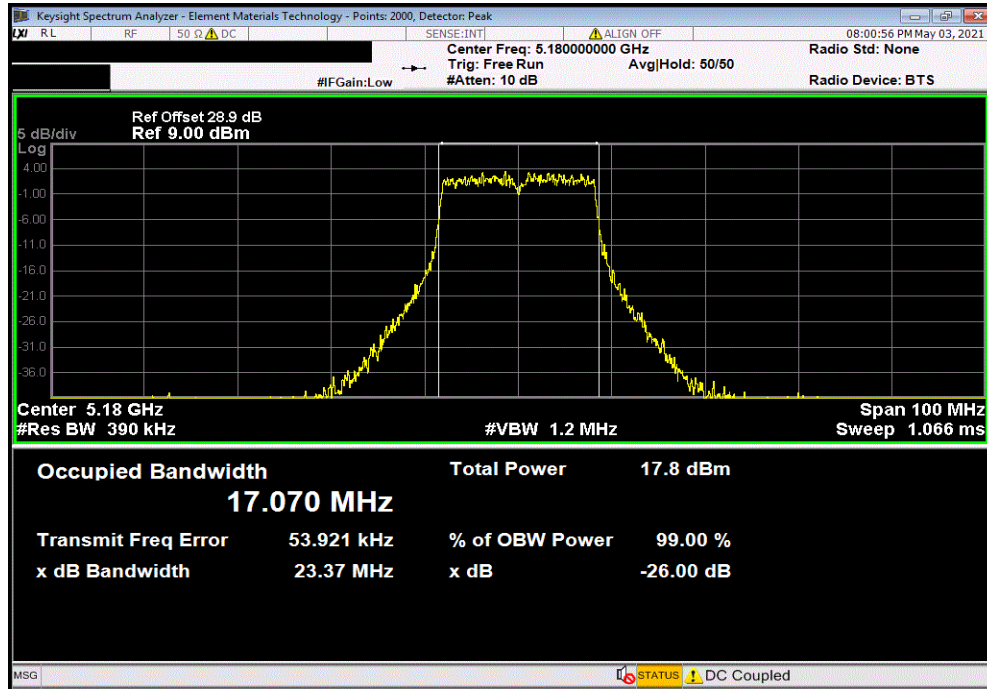


EMISSION BANDWIDTH

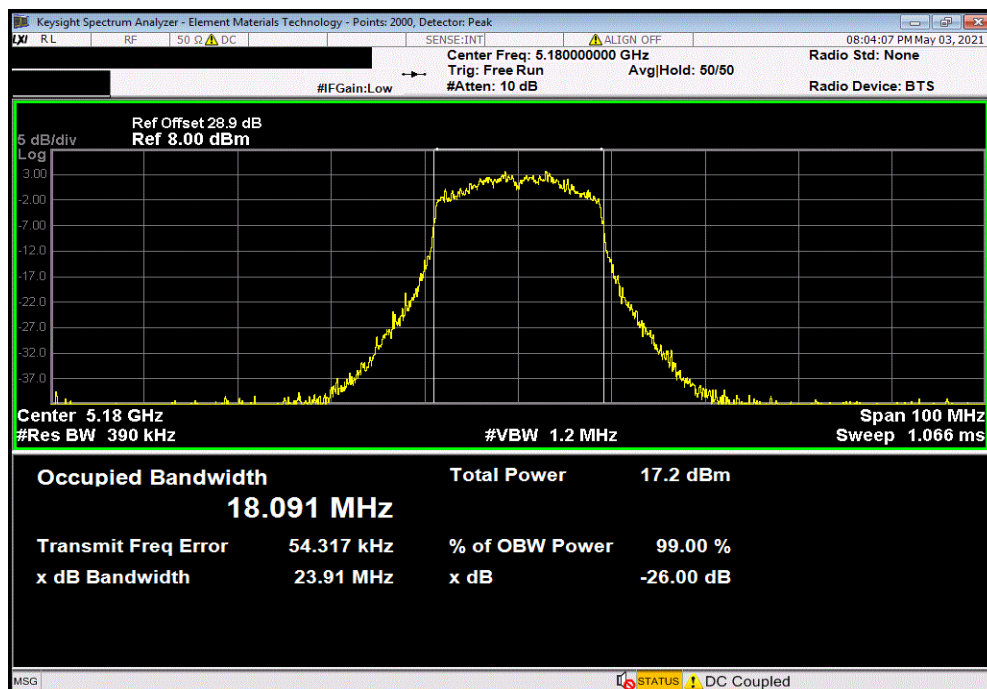


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				23.365 MHz	N/A	N/A



5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				23.91 MHz	N/A	N/A



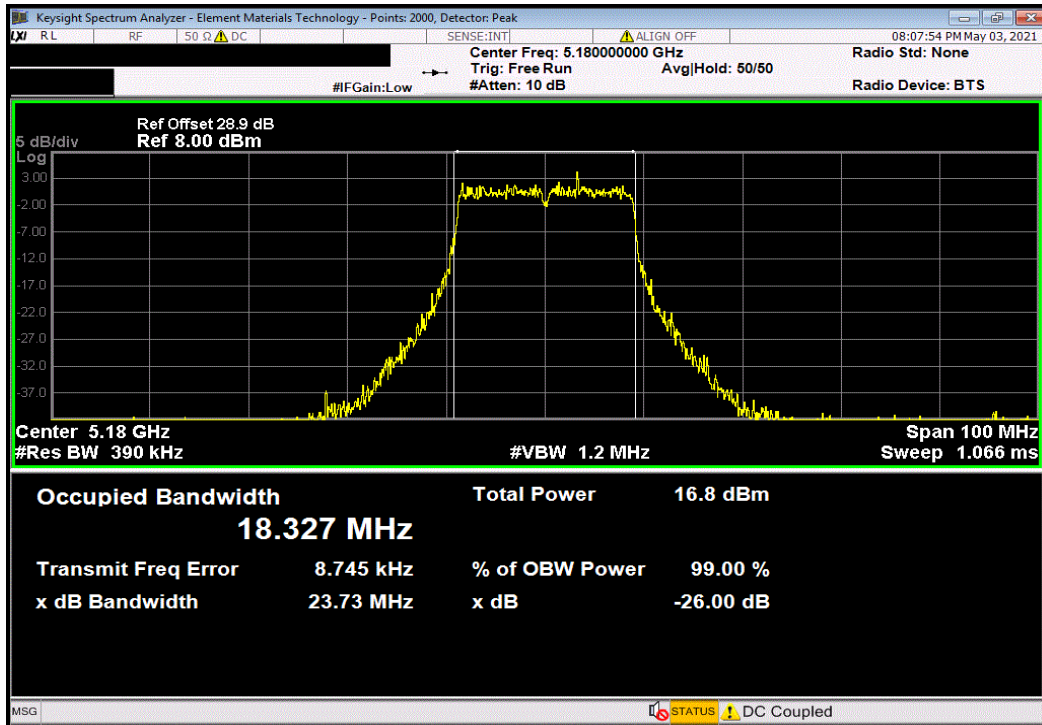
EMISSION BANDWIDTH



TbTb 2019.08.30.0 XMt 2020.12.30.0

5150 - 5250 MHz Band, Low Channel, Ch 36 - 5180 MHz, 802.11(n) MCS7

				Value (dB)	Limit	Result
				23.73 MHz	N/A	N/A

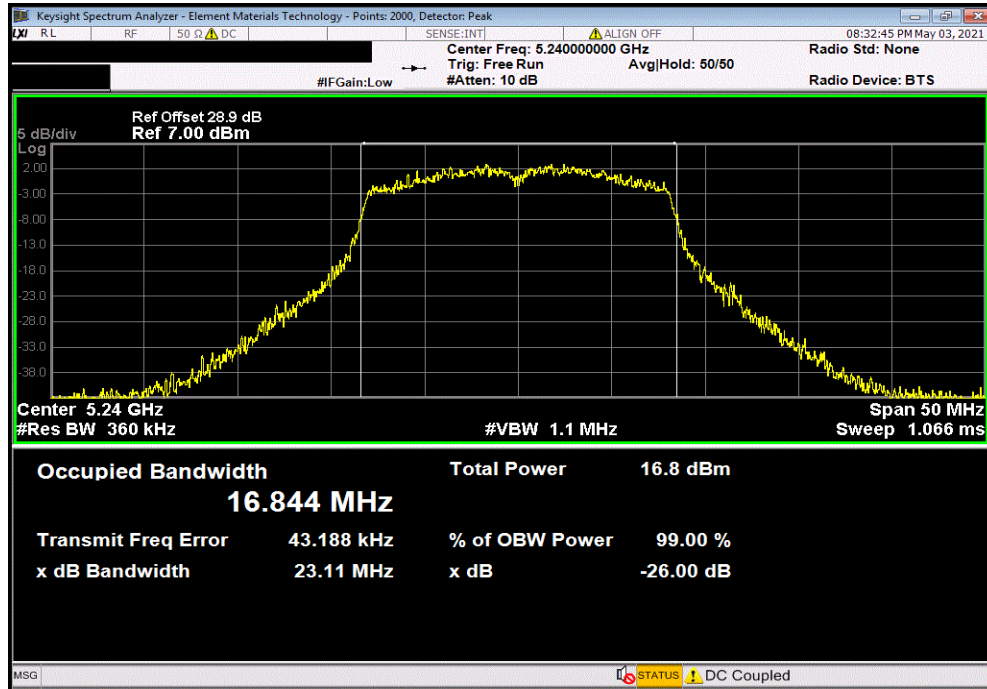


EMISSION BANDWIDTH

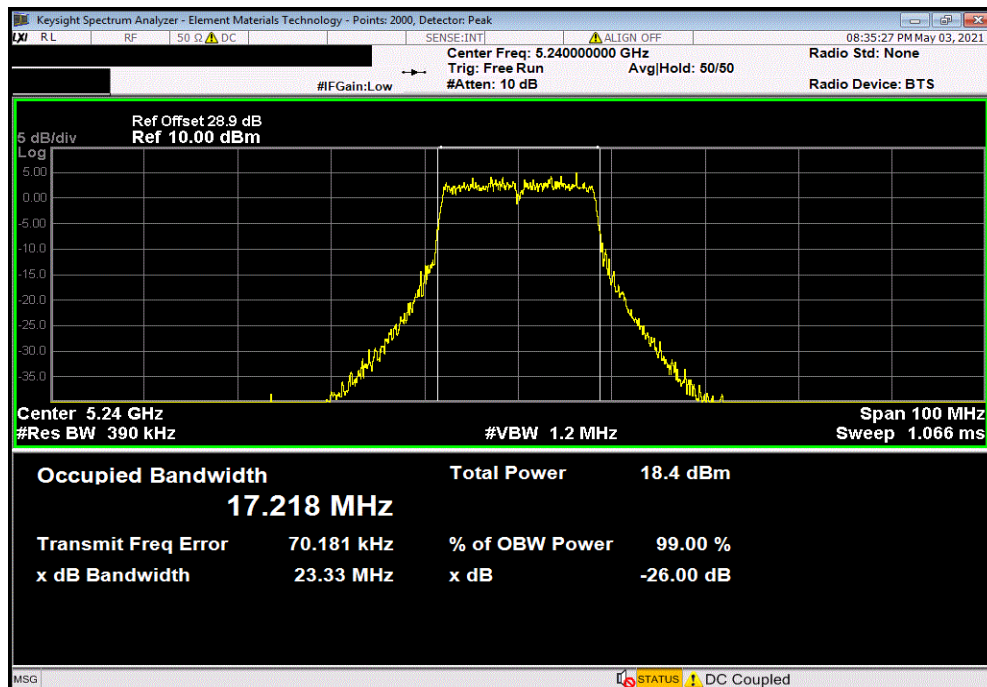


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				23.112 MHz	N/A	N/A



5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				23.329 MHz	N/A	N/A

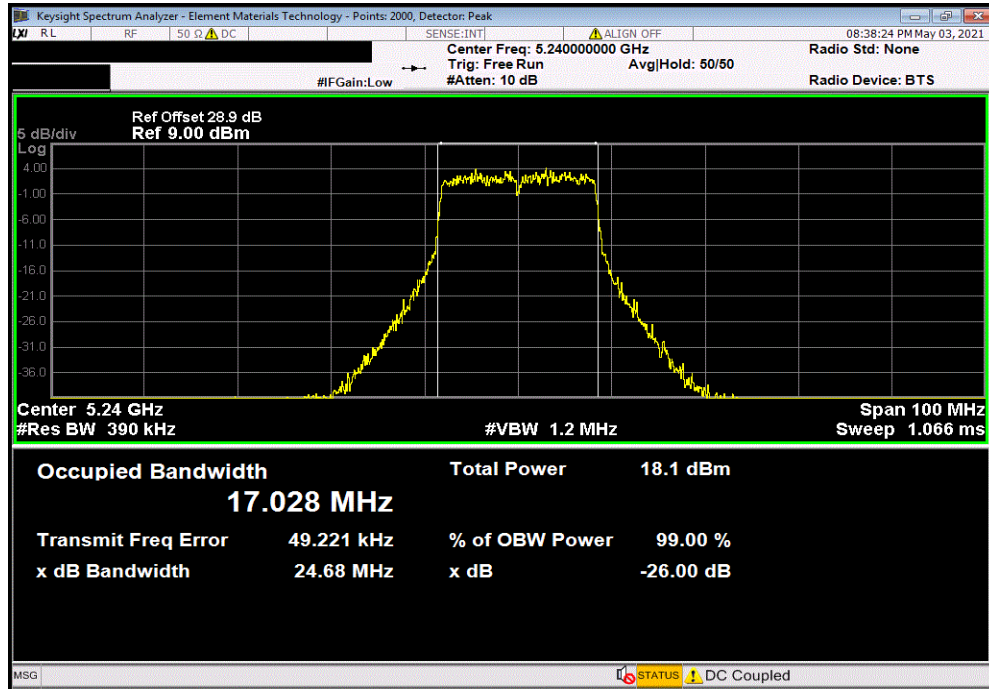


EMISSION BANDWIDTH

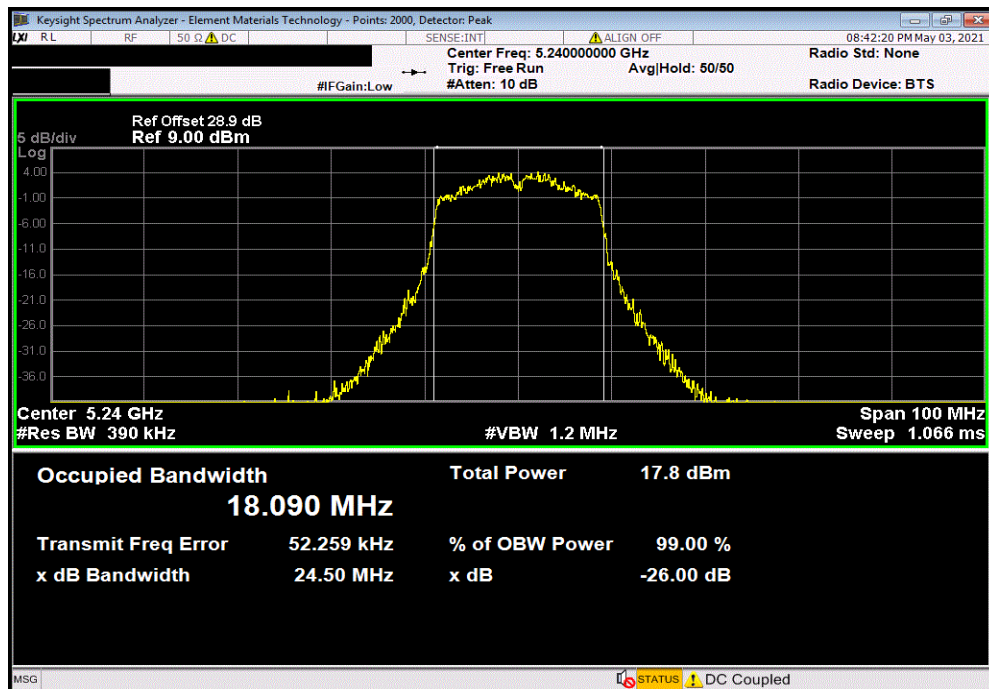


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				24.685 MHz	N/A	N/A



5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				24.505 MHz	N/A	N/A

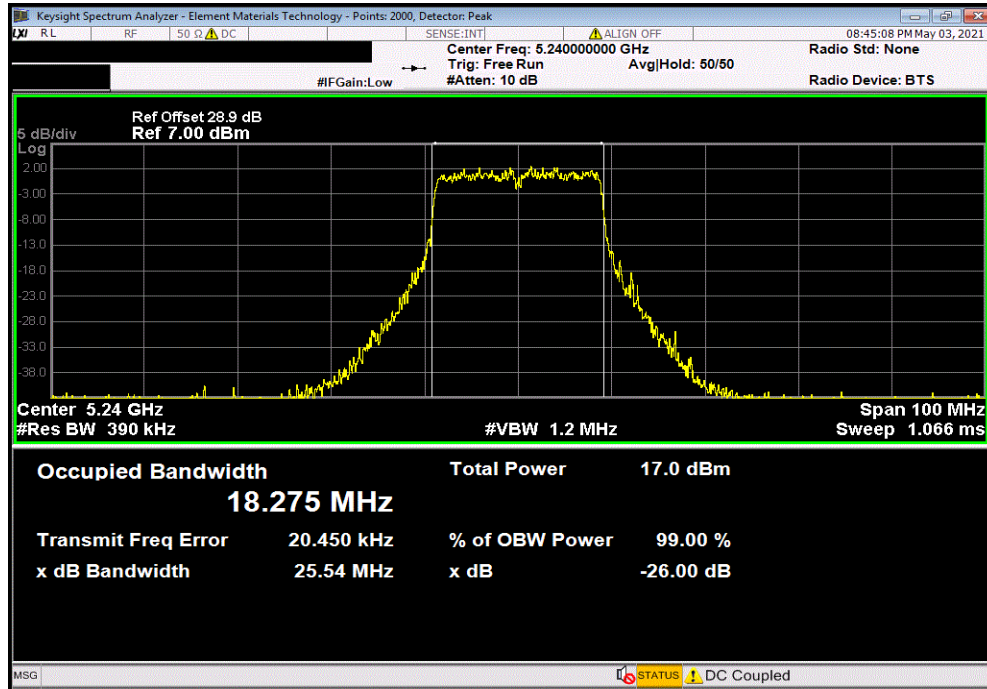


EMISSION BANDWIDTH

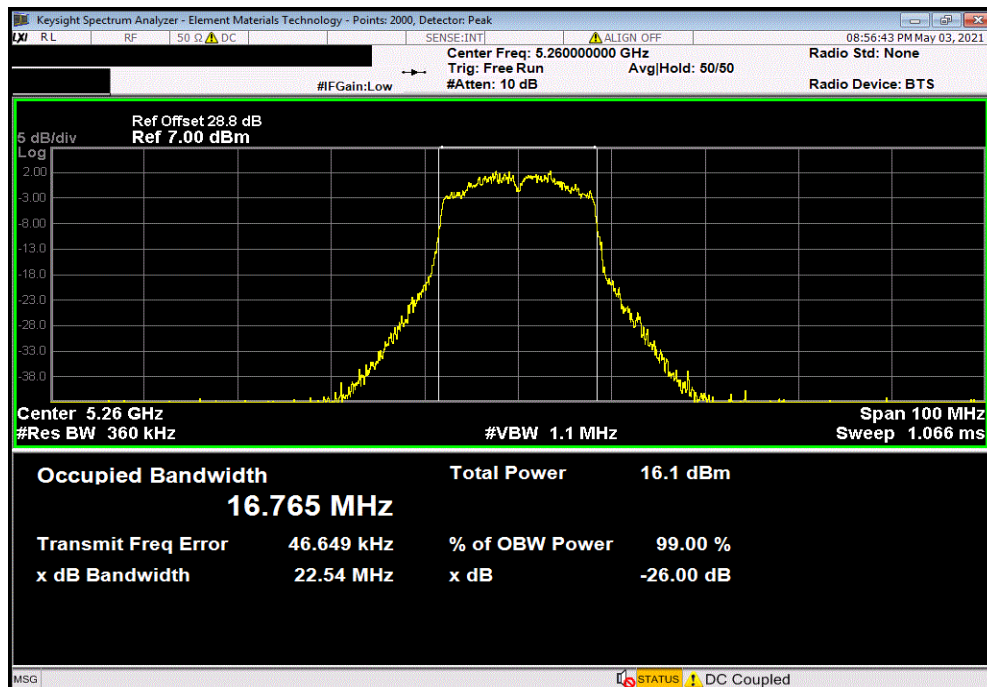


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5150 - 5250 MHz Band, High Channel, Ch 48 - 5240 MHz, 802.11(n) MCS7						
				Value (dB)	Limit	Result
				25.541 MHz	N/A	N/A



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				22.545 MHz	N/A	N/A

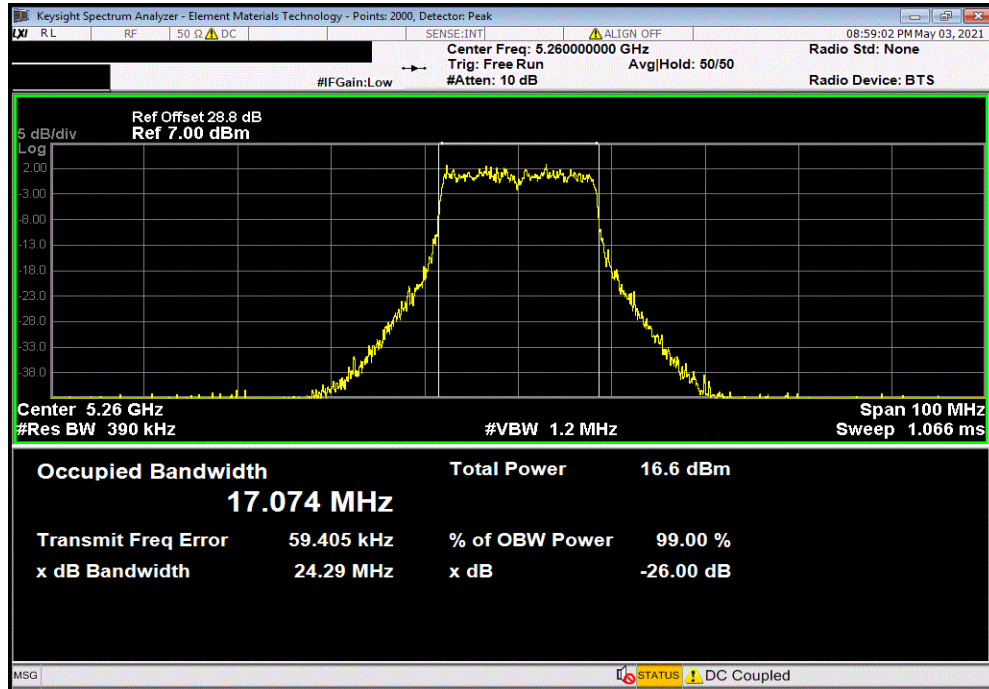


EMISSION BANDWIDTH

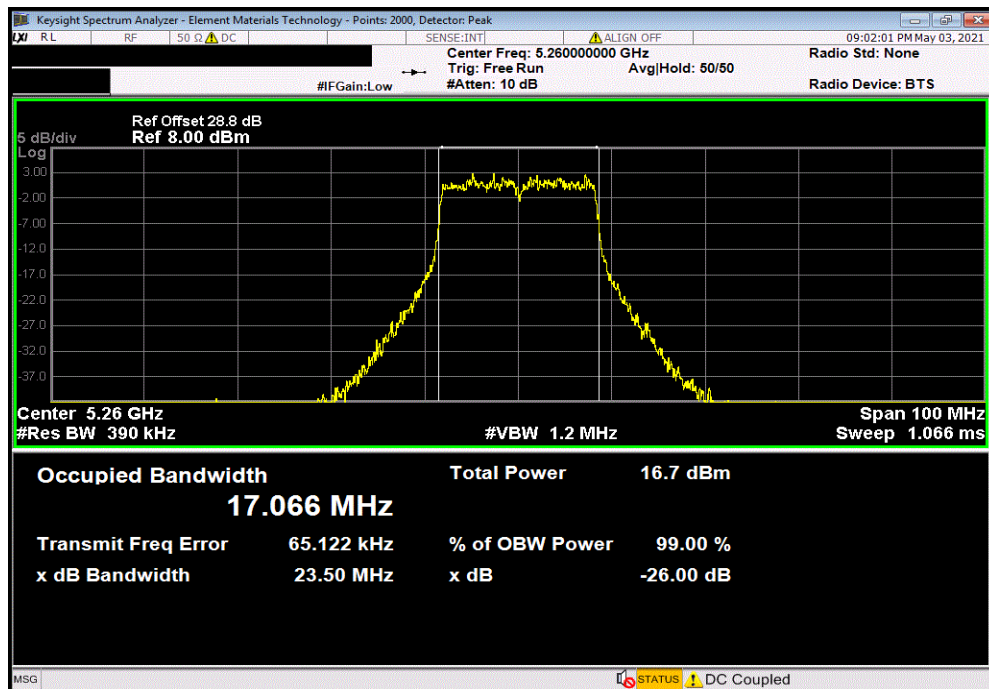


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				24.291 MHz	N/A	N/A



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				23.502 MHz	N/A	N/A

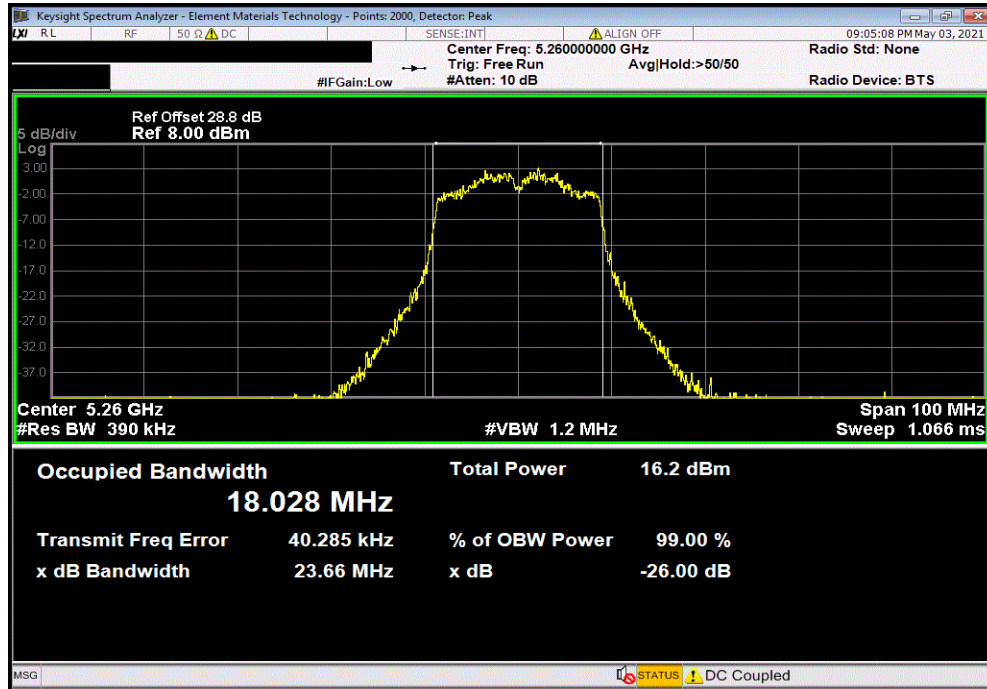


EMISSION BANDWIDTH

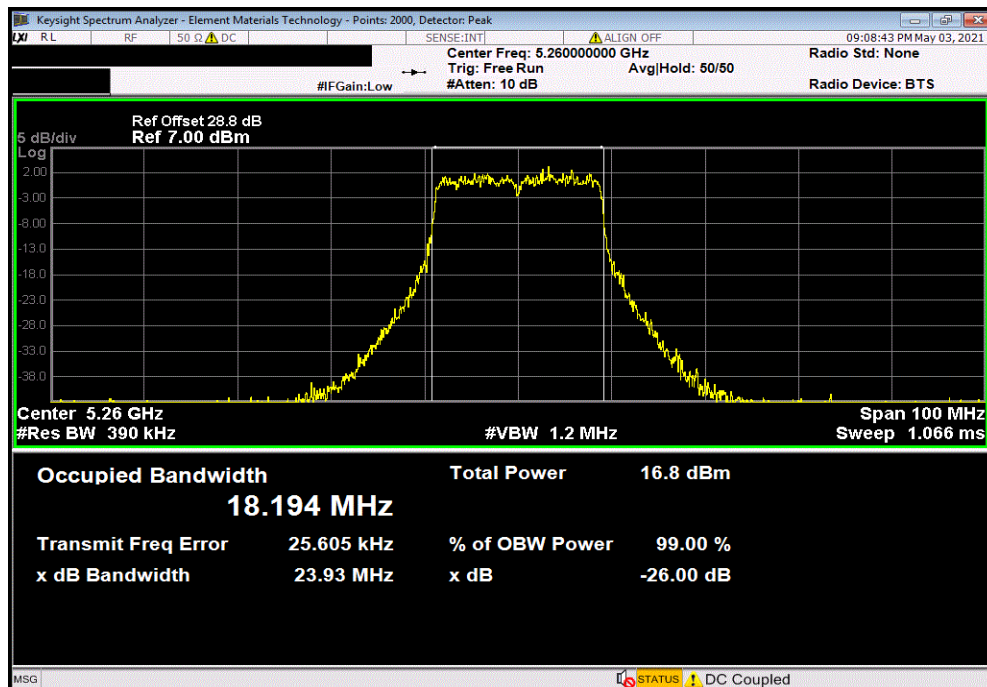


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				23.662 MHz	N/A	N/A



5250 - 5350 MHz Band, Low Channel, Ch 52 - 5260 MHz, 802.11(n) MCS7						
				Value (dB)	Limit	Result
				23.927 MHz	N/A	N/A

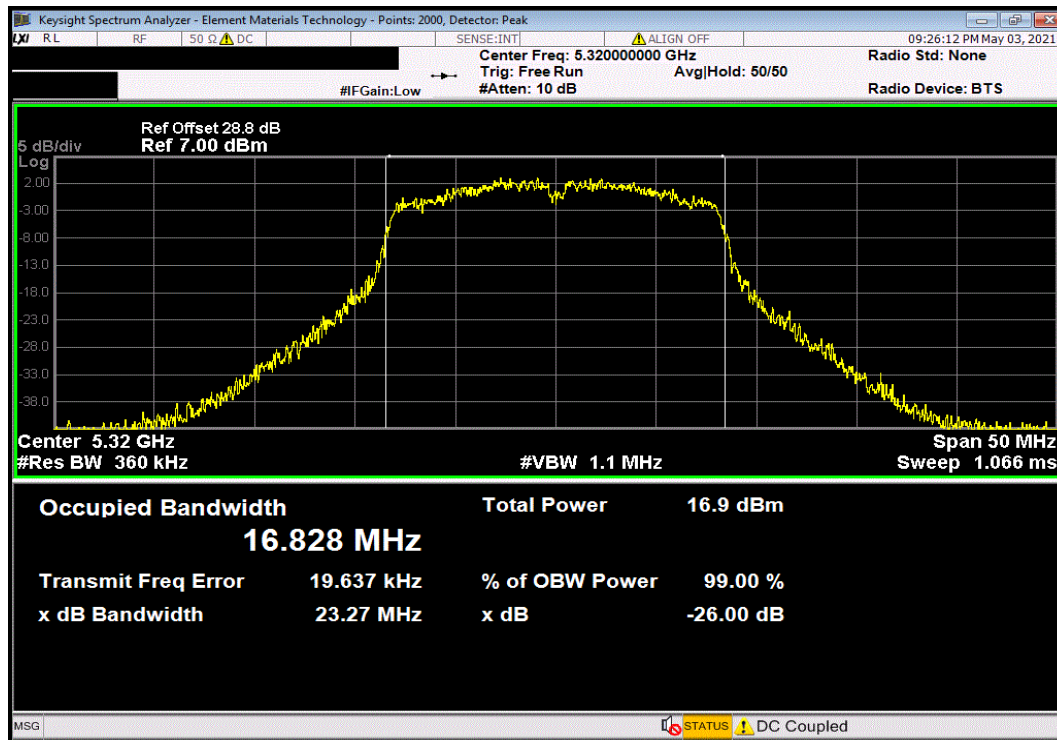


EMISSION BANDWIDTH



TbTx 2019.08.30.0 XMTx 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 6 Mbps						
Value				Limit	Result	
(dB)						
23.272 MHz				N/A	N/A	

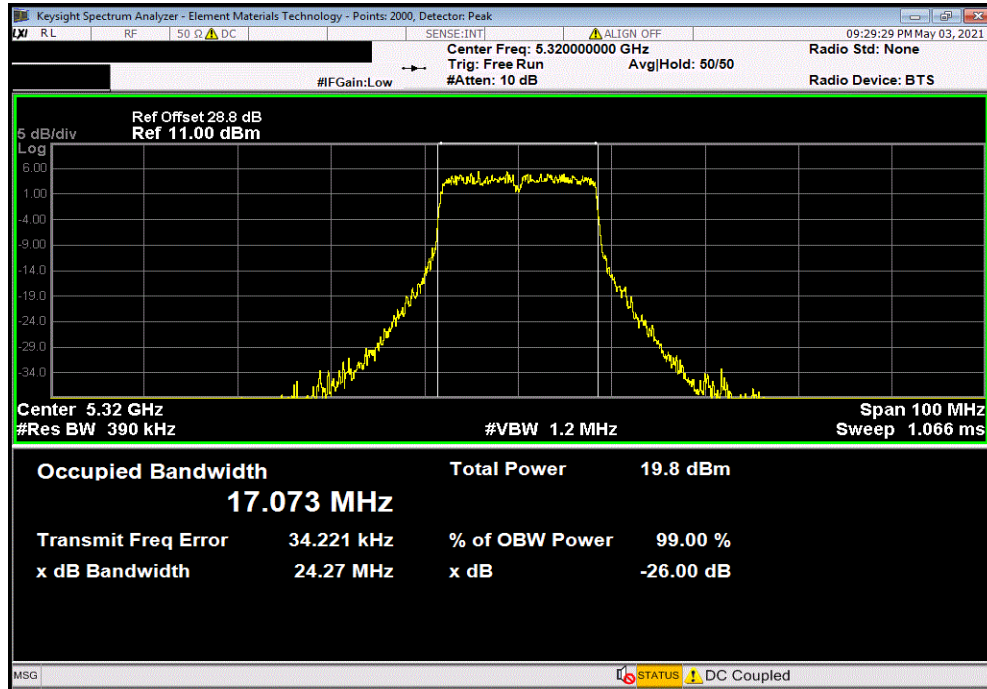


EMISSION BANDWIDTH

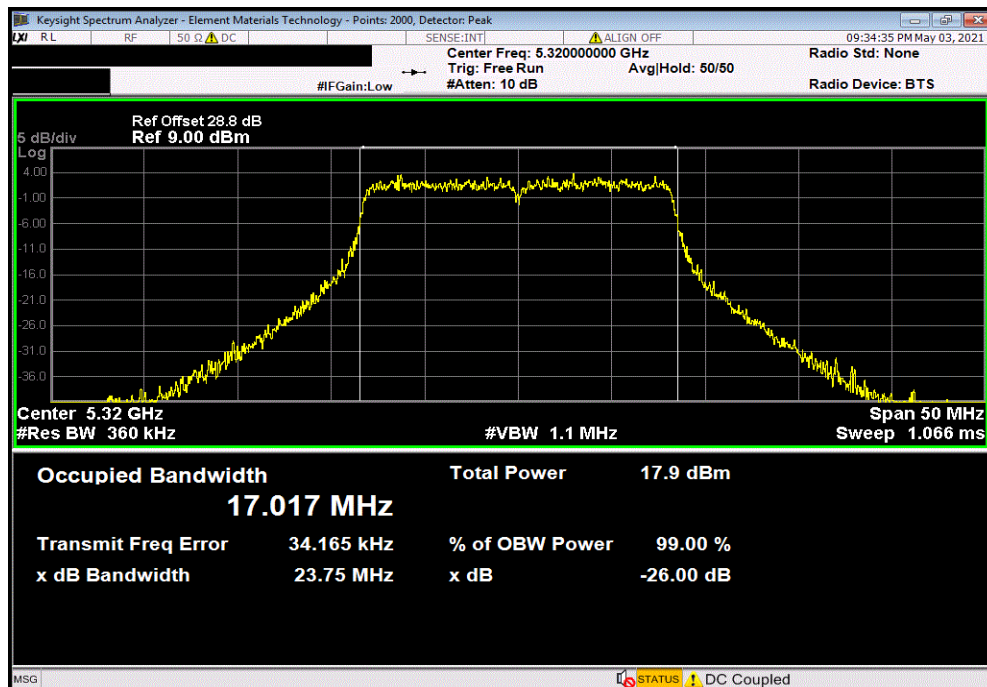


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				24.274 MHz	N/A	N/A



5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				23.747 MHz	N/A	N/A

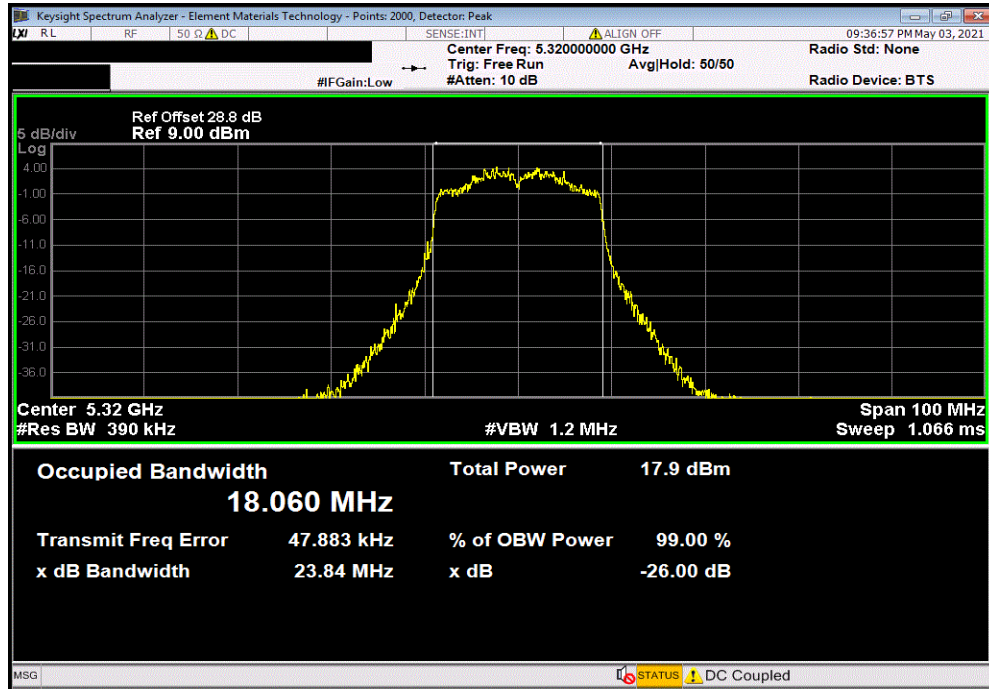


EMISSION BANDWIDTH

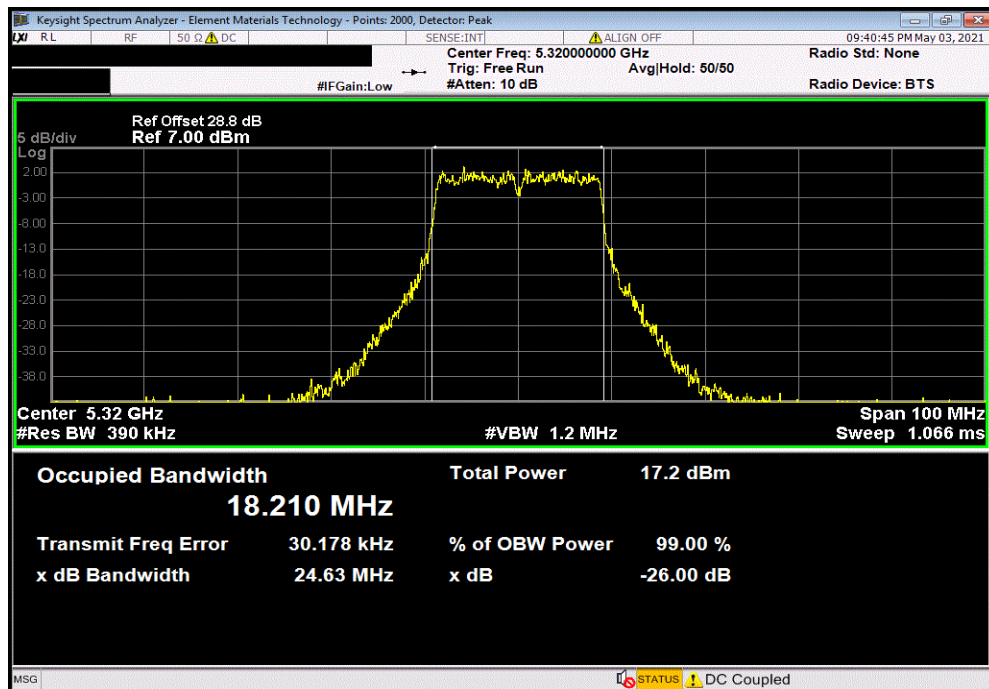


TbTx 2019.08.30.0 XMtX 2020.12.30.0

5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				23.836 MHz	N/A	N/A



5250 - 5350 MHz Band, High Channel, Ch 64 - 5320 MHz, 802.11(n) MCS7						
				Value (dB)	Limit	Result
				24.631 MHz	N/A	N/A

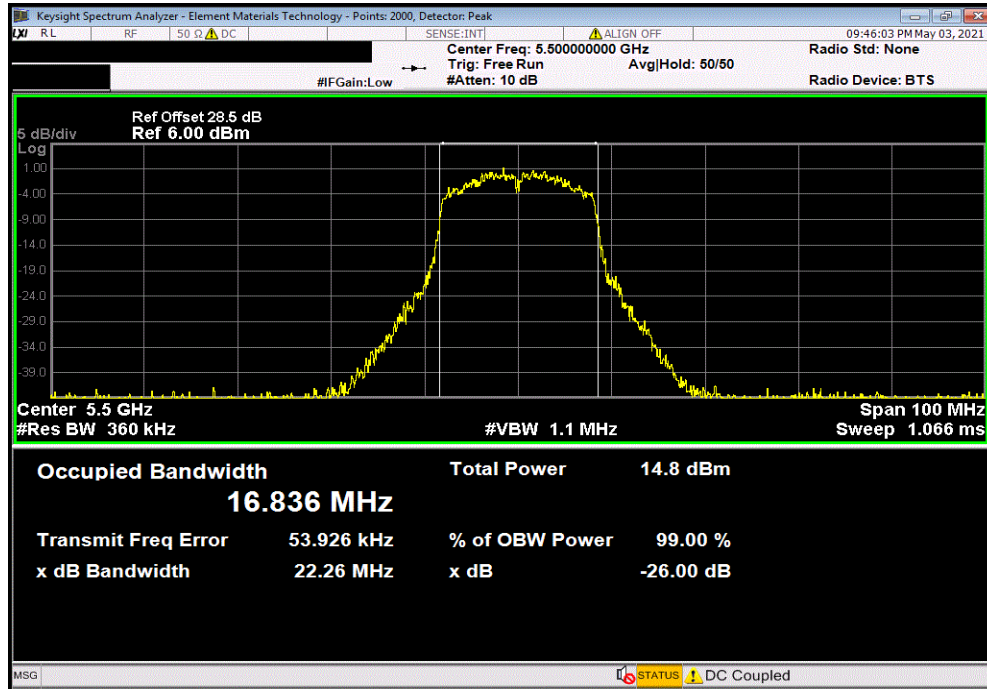


EMISSION BANDWIDTH

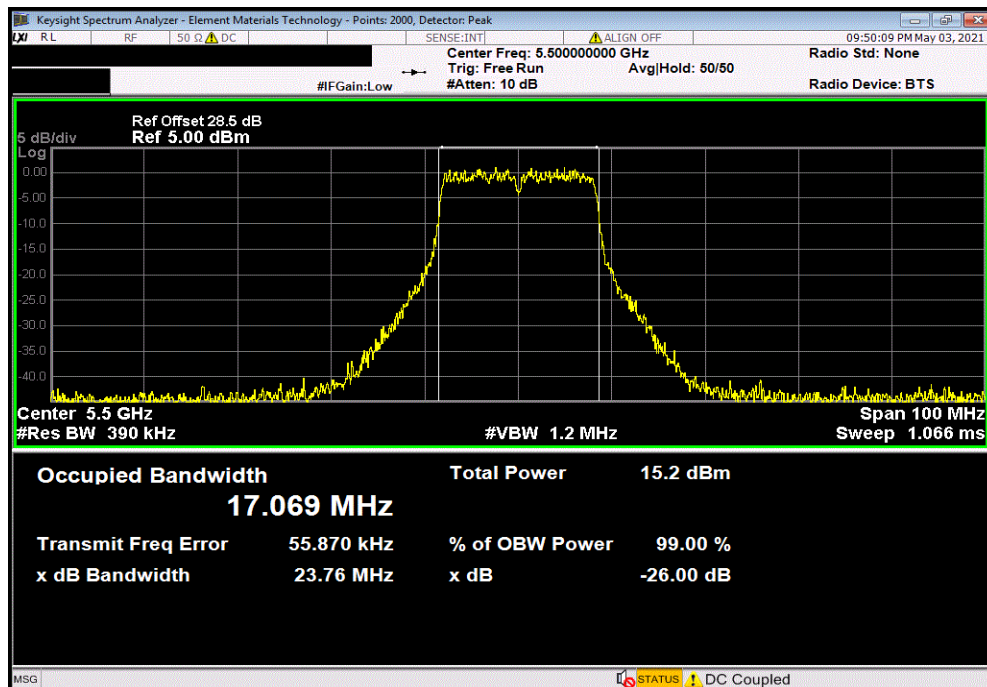


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				22.258 MHz	N/A	N/A



5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				23.765 MHz	N/A	N/A

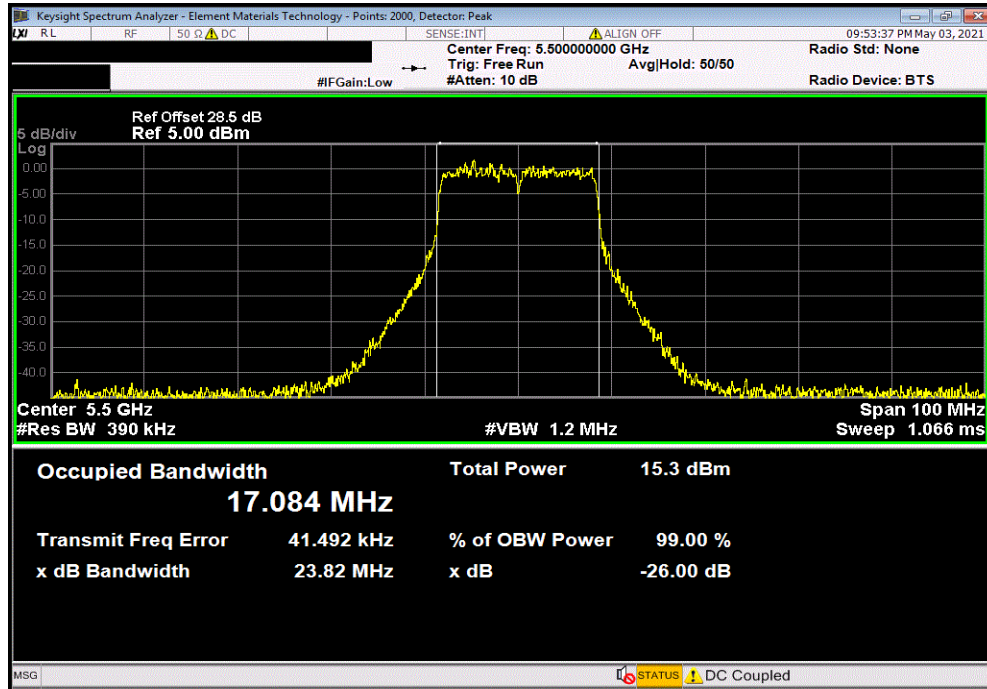


EMISSION BANDWIDTH

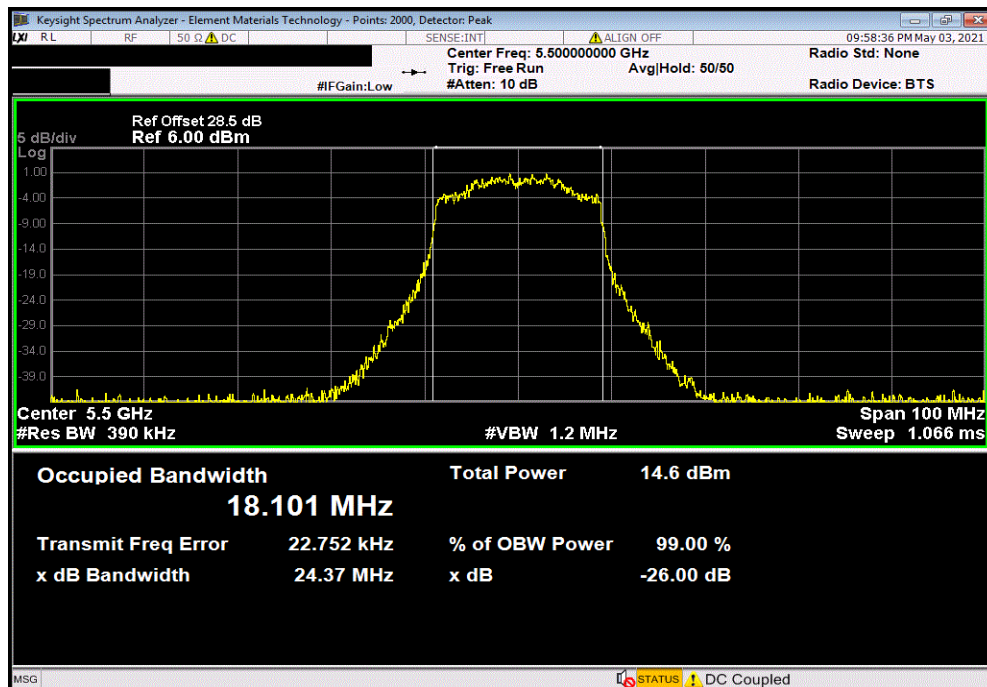


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				23.818 MHz	N/A	N/A



5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				24.371 MHz	N/A	N/A

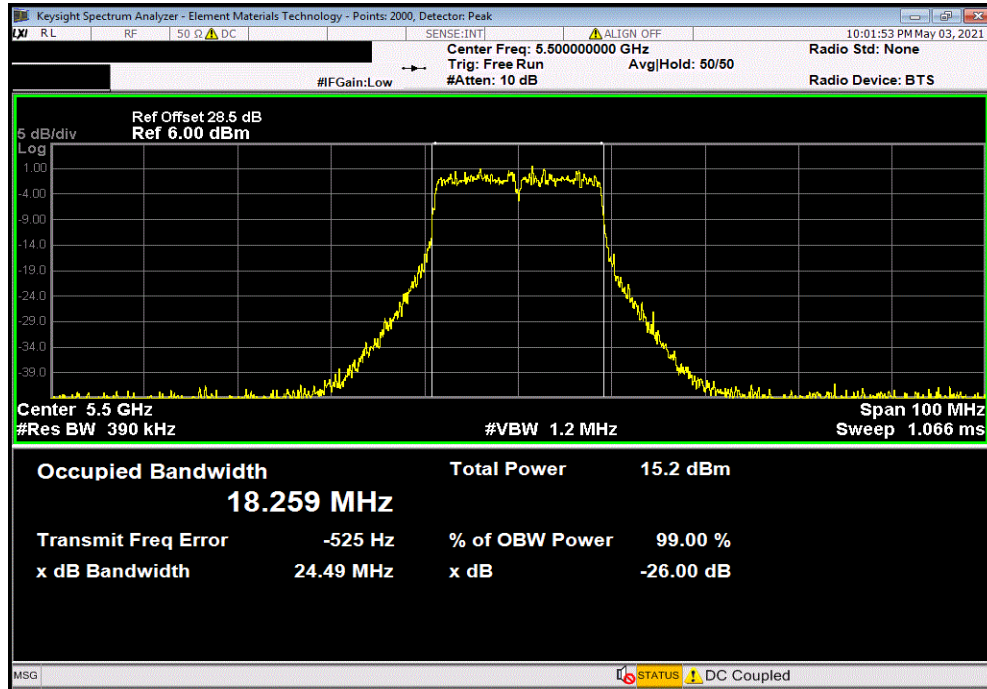


EMISSION BANDWIDTH

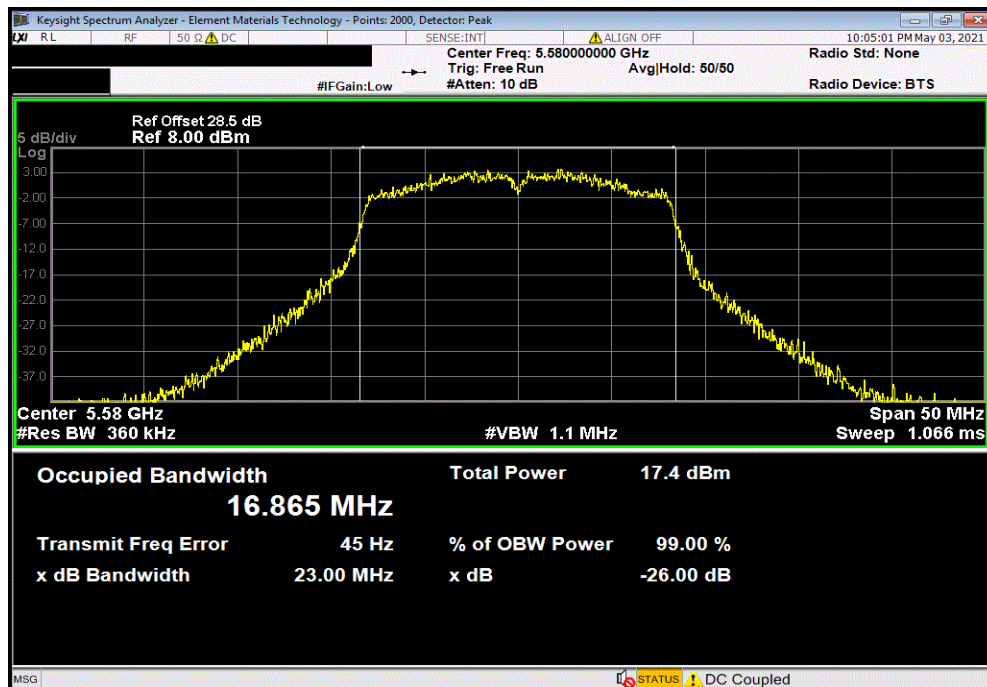


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, Low Channel, Ch 100 - 5500 MHz, 802.11(n) MCS7						
				Value (dB)	Limit	Result
				24.493 MHz	N/A	N/A



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				23 MHz	N/A	N/A

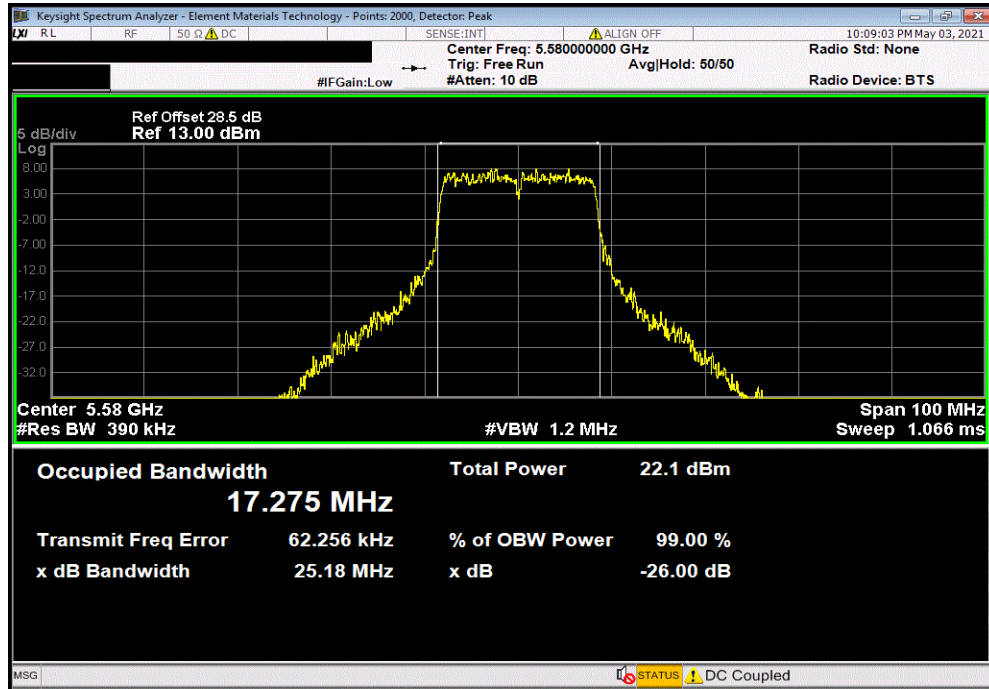


EMISSION BANDWIDTH

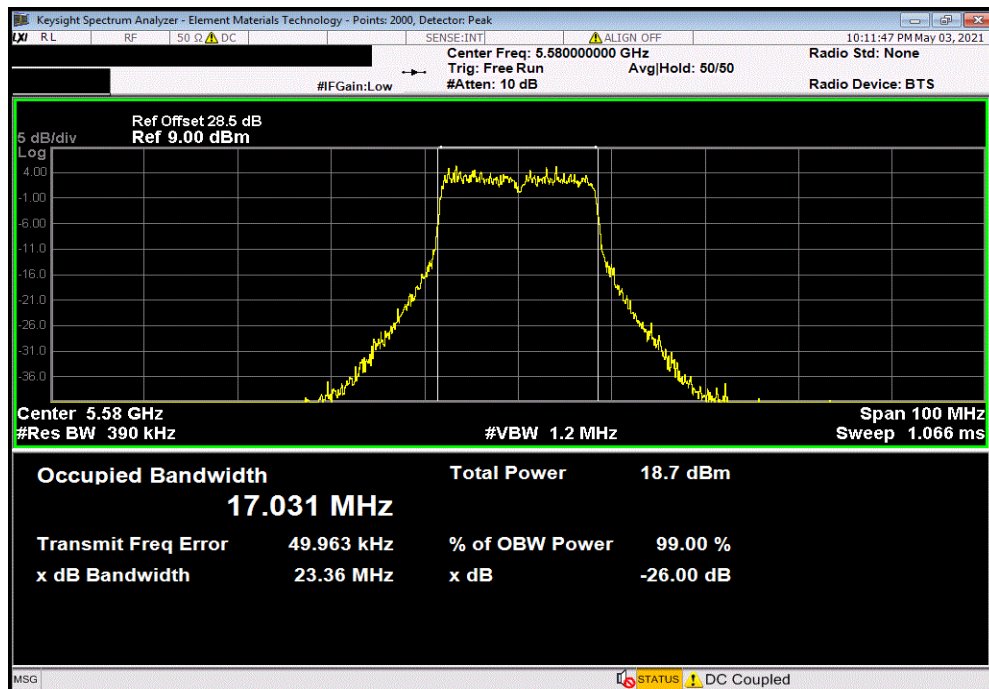


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				25.178 MHz	N/A	N/A



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				23.363 MHz	N/A	N/A

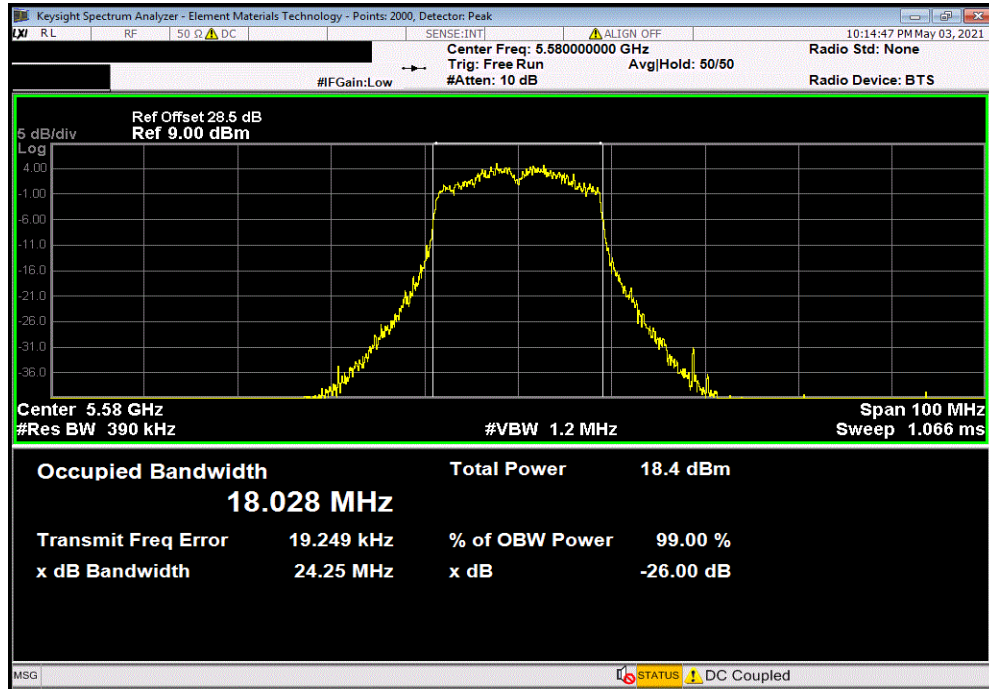


EMISSION BANDWIDTH

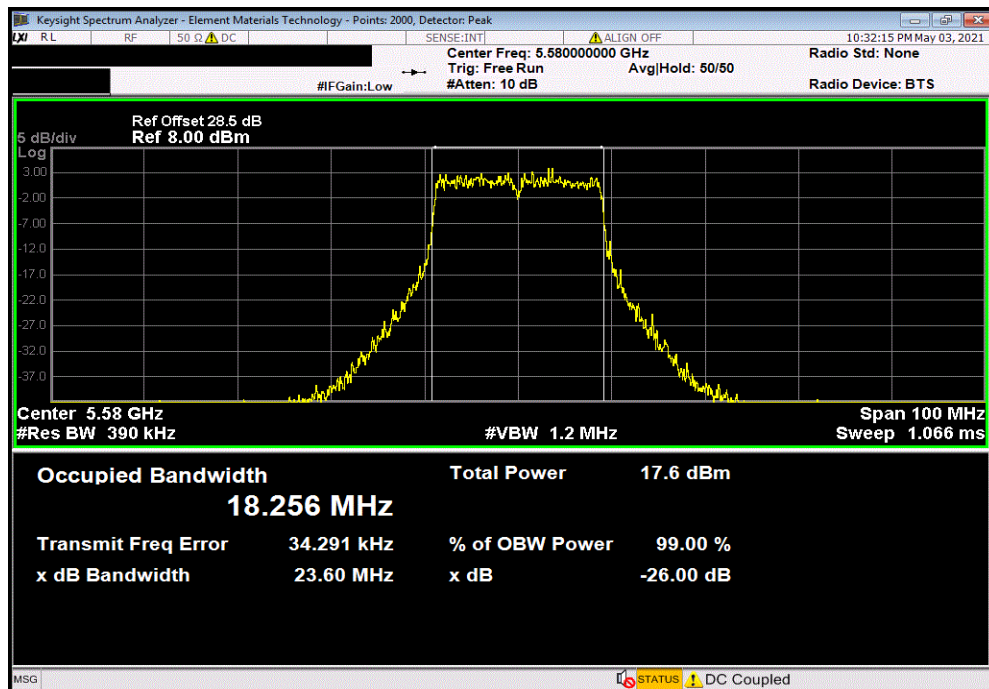


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				24.246 MHz	N/A	N/A



5470 - 5725 MHz Band, Mid Channel, Ch 116 - 5580 MHz, 802.11(n) MCS7						
				Value (dB)	Limit	Result
				23.603 MHz	N/A	N/A

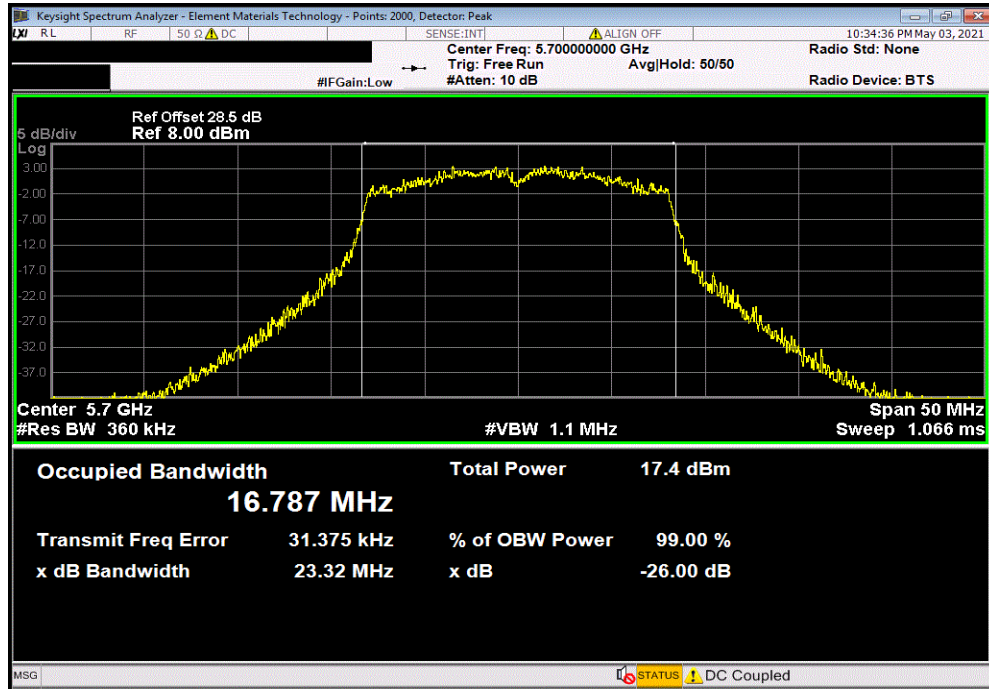


EMISSION BANDWIDTH

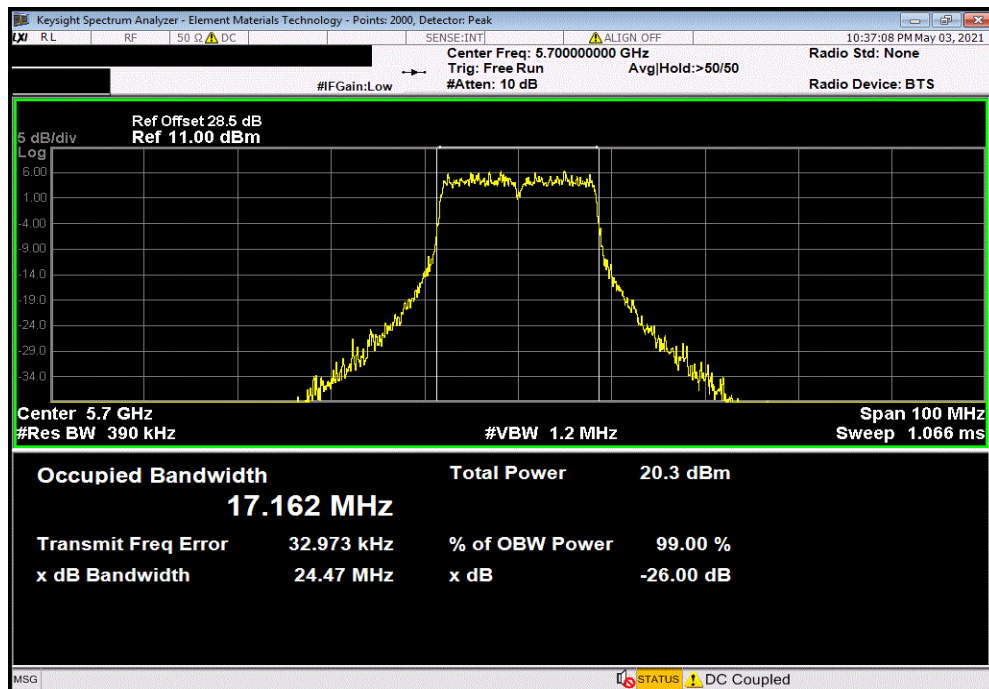


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 6 Mbps						
				Value (dB)	Limit	Result
				23.323 MHz	N/A	N/A



5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 36 Mbps						
				Value (dB)	Limit	Result
				24.474 MHz	N/A	N/A

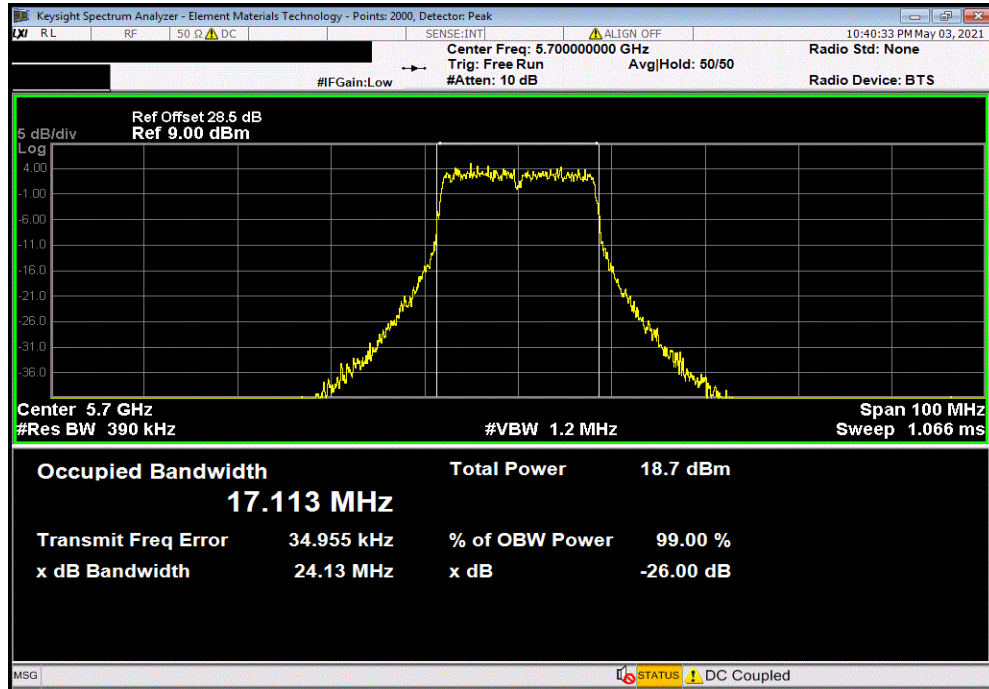


EMISSION BANDWIDTH

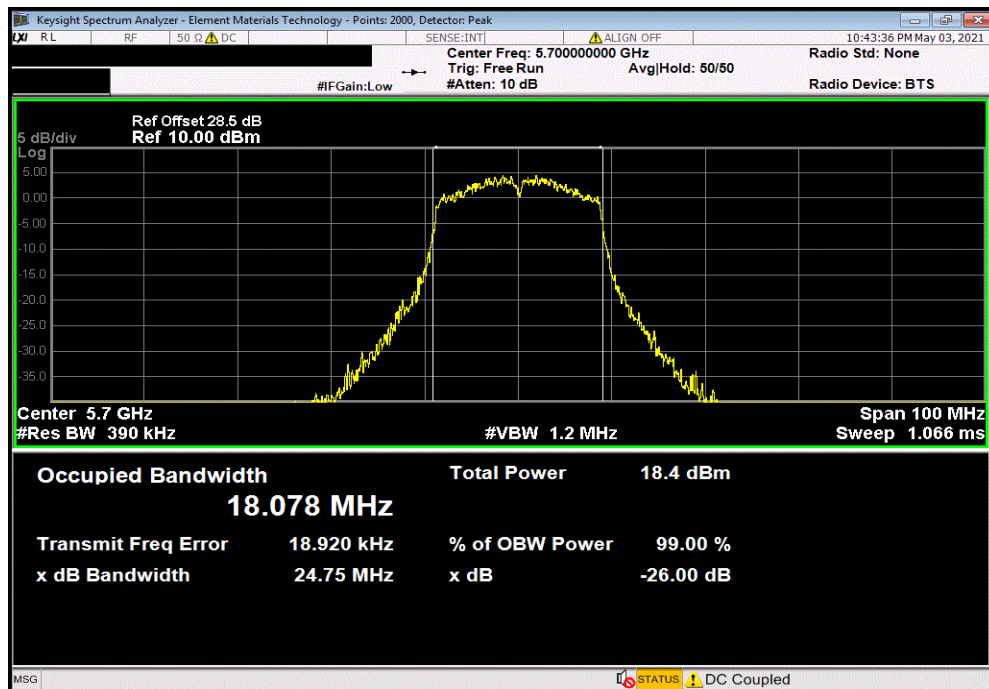


TbTx 2019.08.30.0 XbTx 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(a) 54 Mbps						
				Value (dB)	Limit	Result
				24.13 MHz	N/A	N/A



5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(n) MCS0						
				Value (dB)	Limit	Result
				24.752 MHz	N/A	N/A



EMISSION BANDWIDTH



TbTx 2019.08.30.0 XMR 2020.12.30.0

5470 - 5725 MHz Band, High Channel, Ch 140 - 5700 MHz, 802.11(n) MCS7						
Value				Limit	Result	
(dB)						
23.925 MHz				N/A	N/A	

