

OCCUPIED BANDWIDTH EMISSION MASK

BAND 2



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	N5171B-506	TEW	2-May-18	2-May-21
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. The method in section 5.4 of ANSI C63.26 was used to make this measurement. The spectrum analyzer settings were as follows:

- RBW is 1% - 5% of the occupied bandwidth
- VBW is $\geq 3 \times$ the RBW
- Peak Detector was used
- Trace max hold was used

The occupied bandwidth was measured with the EUT configured in the modes called out in the data sheets.

FCC 24.238(b) defines the 26dB emission bandwidth requirement.

RSS GEN Section 6.7 defines the 99% emission bandwidth requirement

Band 2 Emissions Designators:

Band 2 (1930MHz to 1990MHz) Emission Designators									
Channel Bandwidth	Radio Channel	5G-NR: QPSK		5G-NR: 16-QAM		5G-NR: 64-QAM		5G-NR: 256-QAM	
		FCC	IC	FCC	IC	FCC	IC	FCC	IC
5 MHz	Low	4M85G7W	4M49G7W	4M80G7W	4M50G7W	4M85G7W	4M48G7W	4M83G7W	4M49G7W
	Mid	4M85G7W	4M49G7W	4M80G7W	4M50G7W	4M84G7W	4M48G7W	4M83G7W	4M49G7W
	High	4M85G7W	4M49G7W	4M80G7W	4M50G7W	4M84G7W	4M48G7W	4M83G7W	4M49G7W
10 MHz	Low	9M90G7W	9M32G7W	9M84G7W	9M27G7W	9M89G7W	9M31G7W	9M90G7W	9M32G7W
	Mid	9M90G7W	9M32G7W	9M84G7W	9M27G7W	9M90G7W	9M31G7W	9M90G7W	9M32G7W
	High	9M86G7W	9M32G7W	9M84G7W	9M25G7W	9M89G7W	9M30G7W	9M90G7W	9M32G7W
15 MHz	Low	14M83G7W	14M9G7W	14M83G7W	14M13G7W	14M84G7W	14M17G7W	14M86G7W	14M12G7W
	Mid	14M83G7W	14M9G7W	14M82G7W	14M13G7W	14M83G7W	14M18G7W	14M84G7W	14M11G7W
	High	14M83G7W	14M9G7W	14M80G7W	14M14G7W	14M83G7W	14M18G7W	14M86G7W	14M11G7W
20 MHz	Low	19M91G7W	18M92G7W	19M84G7W	18M97G7W	19M94G7W	18M94G7W	19M91G7W	18M94G7W
	Mid	19M97G7W	18M93G7W	19M85G7W	18M99G7W	19M92G7W	18M94G7W	19M91G7W	18M95G7W
	High	19M95G7W	18M93G7W	19M86G7W	18M97G7W	19M95G7W	18M95G7W	19M91G7W	18M97G7W

Note: FCC based on 26db emission bandwidth; IC based on 99% emission bandwidth

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TbTx 2019.08.30.0 XMI 2020.03.25.0

EUT: AHFIC		Work Order: NOKI0007	
Serial Number: K9180317594		Date: 8-Apr-20	
Customer: Nokia Solutions and Networks		Temperature: 23 °C	
Attendees: Mitch Hill, John Rattanavong		Humidity: 41.9% RH	
Project: None		Barometric Pres.: 1022 mbar	
Tested by: Brandon Hobbs		Power: 54 VDC	
Job Site: TX03			
TEST SPECIFICATIONS		Test Method	
FCC 24E:2020		ANSI C63.26:2015	
RSS-Gen:2019		RSS-Gen:2019	
COMMENTS			
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. The hottest port was used for testing. The worst case port was determined in the original client test report. The carrier power was set to maximum for all testing.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	6	Signature	
		Value 99% (MHz)	Value 26dB (MHz)
		Limit	Result

Band 2, 1930 MHz - 1990 MHz, 5G

Port 7

5 MHz Bandwidth

QPSK Modulation

Low Channel, 1932.5 MHz	4.49	4.85	Within Band	Pass
Mid Channel, 1960 MHz	4.49	4.85	Within Band	Pass
High Channel, 1987.5 MHz	4.49	4.85	Within Band	Pass

16-QAM Modulation

Low Channel, 1932.5 MHz	4.50	4.80	Within Band	Pass
Mid Channel, 1960 MHz	4.50	4.80	Within Band	Pass
High Channel, 1987.5 MHz	4.50	4.80	Within Band	Pass

64-QAM Modulation

Low Channel, 1932.5 MHz	4.48	4.85	Within Band	Pass
Mid Channel, 1960 MHz	4.48	4.84	Within Band	Pass
High Channel, 1987.5 MHz	4.48	4.84	Within Band	Pass

256-QAM Modulation

Low Channel, 1932.5 MHz	4.49	4.83	Within Band	Pass
Mid Channel, 1960 MHz	4.49	4.83	Within Band	Pass
High Channel, 1987.5 MHz	4.49	4.83	Within Band	Pass

10 MHz Bandwidth

QPSK Modulation

Low Channel, 1935.0 MHz	9.32	9.90	Within Band	Pass
Mid Channel, 1960 MHz	9.32	9.90	Within Band	Pass
High Channel, 1985 MHz	9.32	9.86	Within Band	Pass

16-QAM Modulation

Low Channel, 1935.0 MHz	9.27	9.84	Within Band	Pass
Mid Channel, 1960 MHz	9.27	9.84	Within Band	Pass
High Channel, 1985 MHz	9.25	9.84	Within Band	Pass

64-QAM Modulation

Low Channel, 1935.0 MHz	9.31	9.89	Within Band	Pass
Mid Channel, 1960 MHz	9.31	9.90	Within Band	Pass
High Channel, 1985 MHz	9.30	9.89	Within Band	Pass

256-QAM Modulation

Low Channel, 1935.0 MHz	9.32	9.90	Within Band	Pass
Mid Channel, 1960 MHz	9.32	9.90	Within Band	Pass
High Channel, 1985 MHz	9.32	9.90	Within Band	Pass

15 MHz Bandwidth

QPSK Modulation

Low Channel, 1937.5 MHz	14.09	14.83	Within Band	Pass
Mid Channel, 1960 MHz	14.09	14.83	Within Band	Pass
High Channel, 1982.5 MHz	14.09	14.83	Within Band	Pass

16-QAM Modulation

Low Channel, 1937.5 MHz	14.13	14.83	Within Band	Pass
Mid Channel, 1960 MHz	14.13	14.82	Within Band	Pass
High Channel, 1982.5 MHz	14.14	14.80	Within Band	Pass

64-QAM Modulation

Low Channel, 1937.5 MHz	14.17	14.84	Within Band	Pass
Mid Channel, 1960 MHz	14.18	14.83	Within Band	Pass
High Channel, 1982.5 MHz	14.18	14.83	Within Band	Pass

256-QAM Modulation

Low Channel, 1937.5 MHz	14.12	14.86	Within Band	Pass
Mid Channel, 1960 MHz	14.11	14.84	Within Band	Pass
High Channel, 1982.5 MHz	14.11	14.86	Within Band	Pass

20 MHz Bandwidth

QPSK Modulation

Low Channel, 1940 MHz	18.92	19.91	Within Band	Pass
Mid Channel, 1960 MHz	18.93	19.97	Within Band	Pass
High Channel, 1980 MHz	18.93	19.95	Within Band	Pass

16-QAM Modulation

Low Channel, 1940 MHz	18.97	19.84	Within Band	Pass
Mid Channel, 1960 MHz	18.99	19.85	Within Band	Pass
High Channel, 1980 MHz	18.97	19.86	Within Band	Pass

64-QAM Modulation

Low Channel, 1940 MHz	18.94	19.94	Within Band	Pass
Mid Channel, 1960 MHz	18.94	19.92	Within Band	Pass
High Channel, 1980 MHz	18.95	19.95	Within Band	Pass

256-QAM Modulation

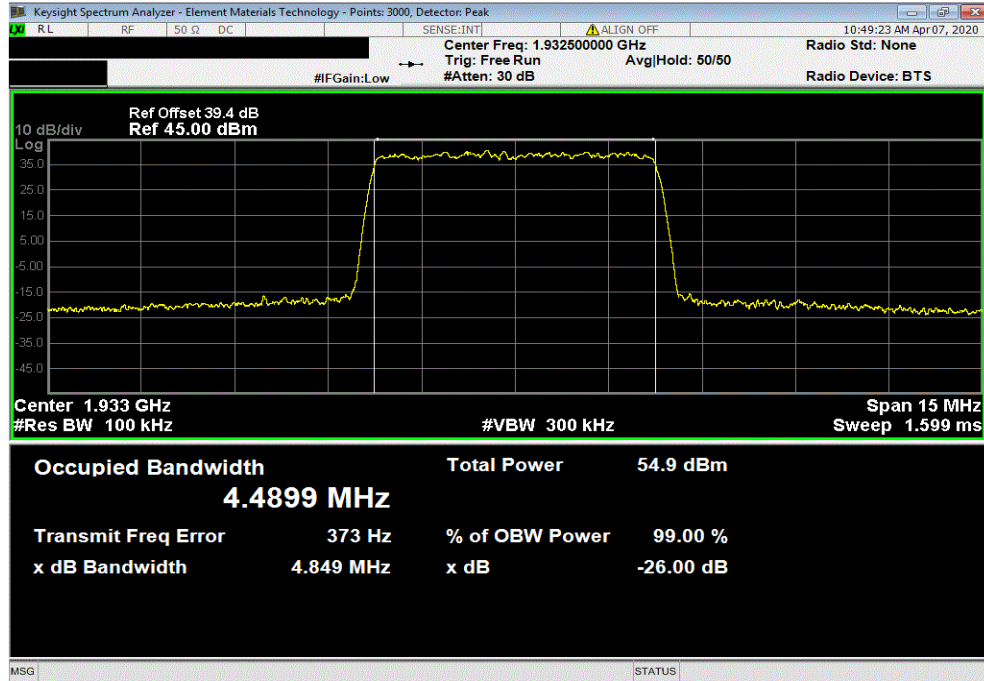
Low Channel, 1940 MHz	18.94	19.91	Within Band	Pass
Mid Channel, 1960 MHz	18.95	19.91	Within Band	Pass
High Channel, 1980 MHz	18.97	19.91	Within Band	Pass

OCCUPIED BANDWIDTH EMISSION MASK BAND 2

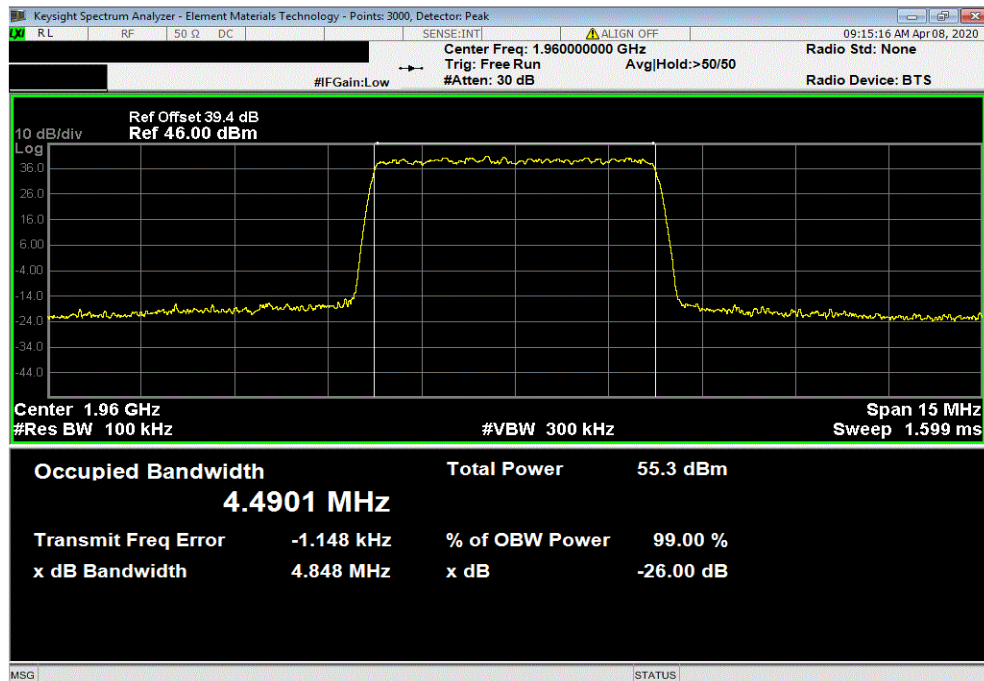


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, QPSK Modulation, Low Channel, 1932.5 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			4.49	4.849	Within Band	Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1960 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			4.49	4.848	Within Band	Pass	

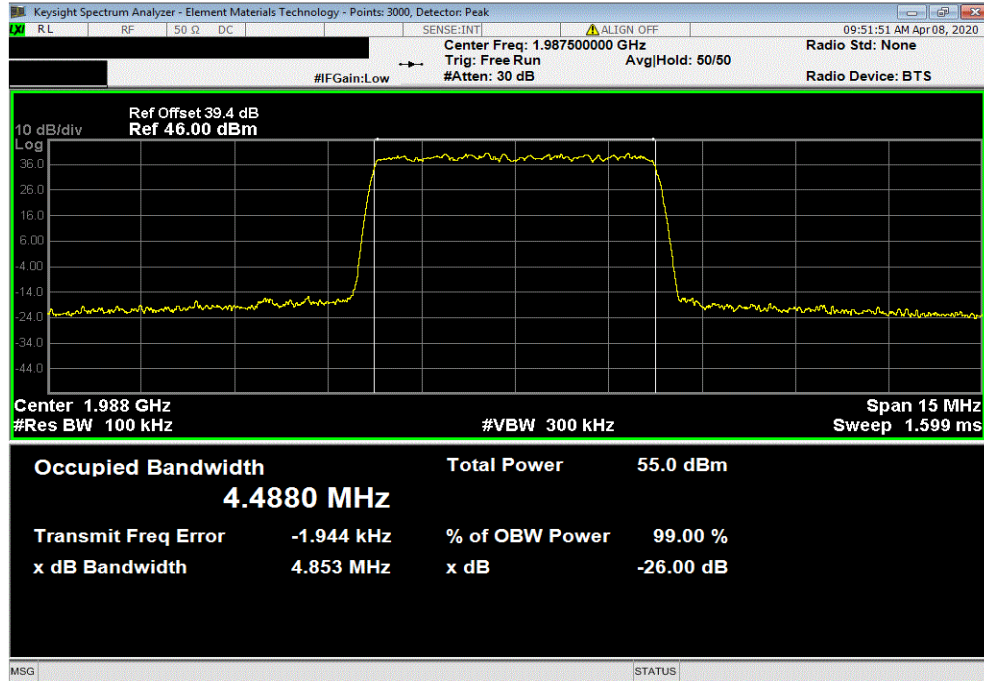


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

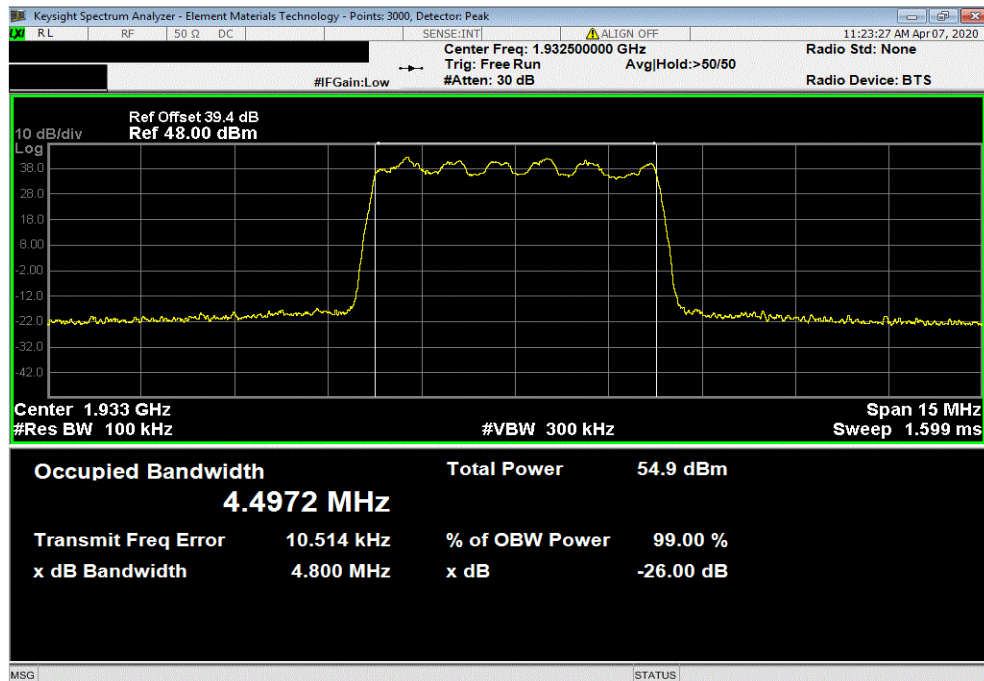


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, QPSK Modulation , High Channel, 1987.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.488	4.853	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1932.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.497	4.8	Within Band		Pass

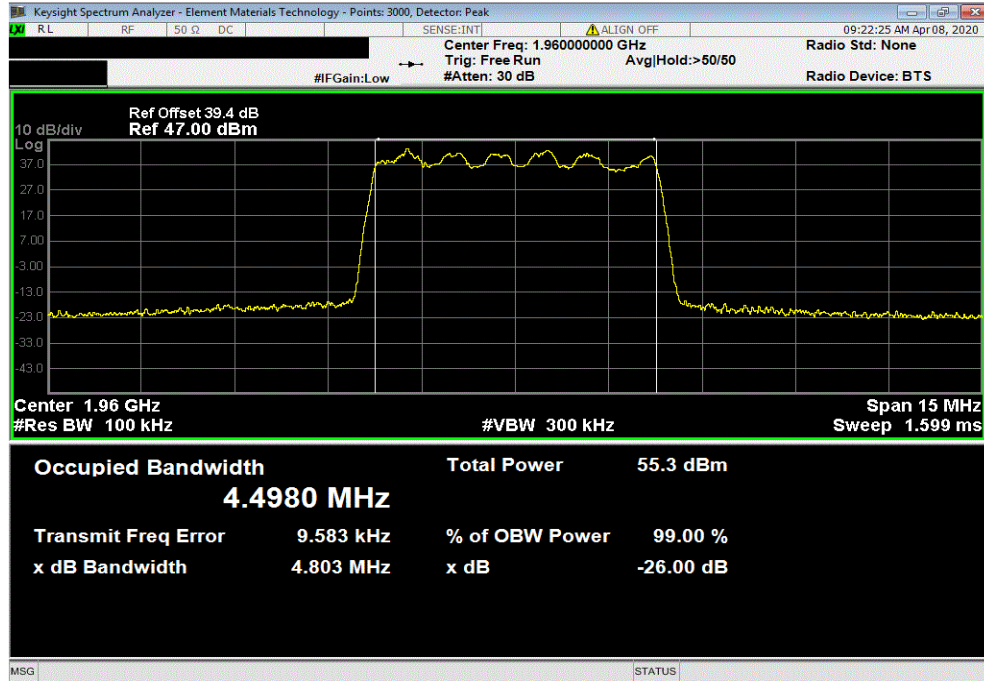


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

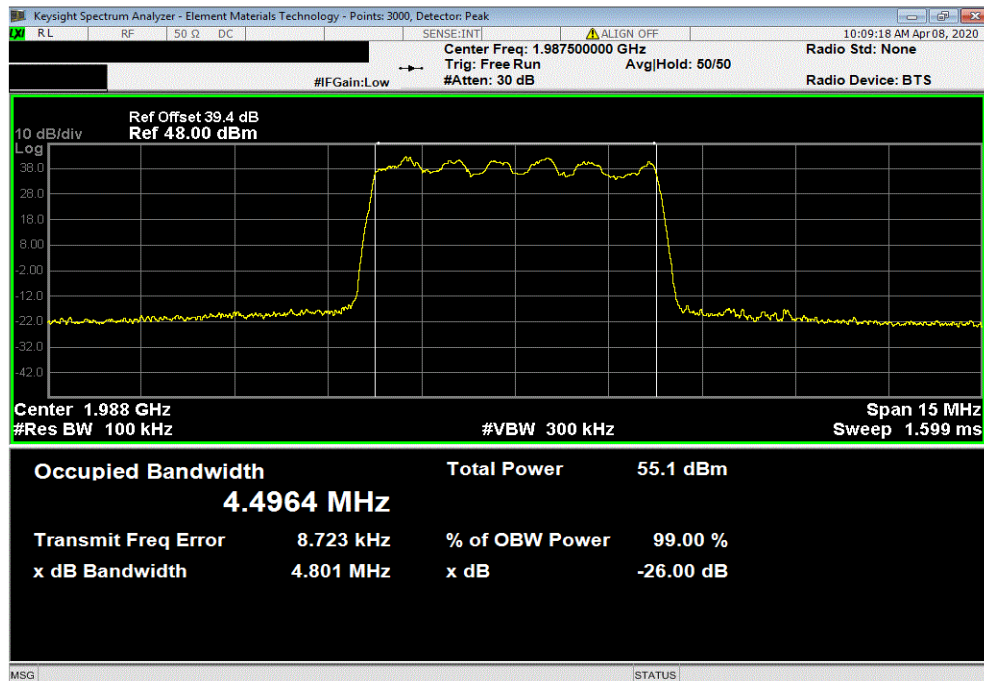


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.498	4.803	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 16-QAM Modulation, High Channel, 1987.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.496	4.801	Within Band		Pass

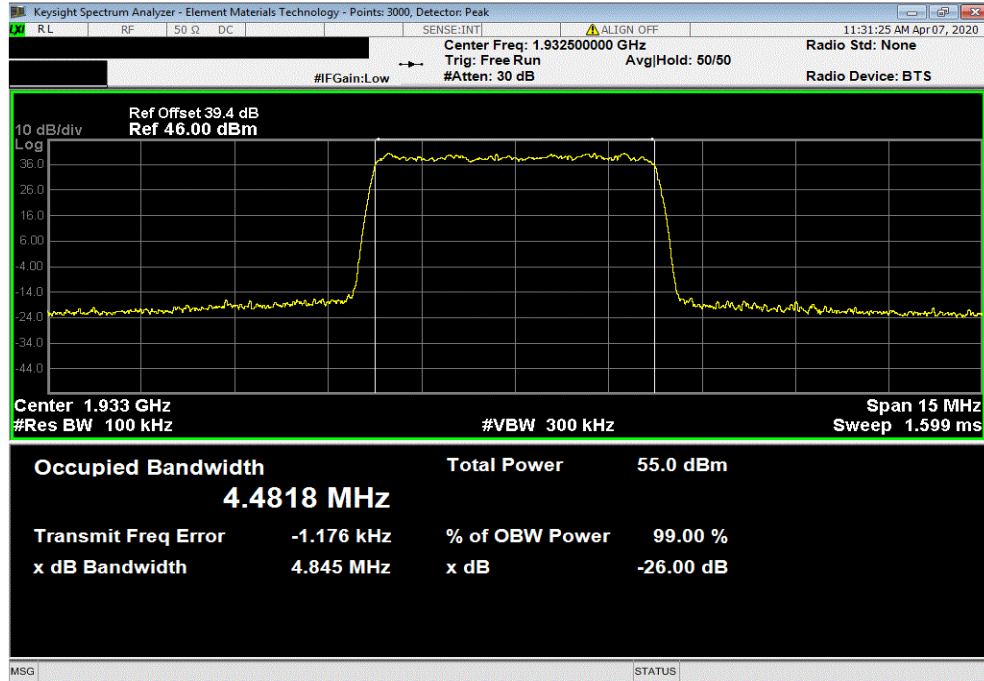


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

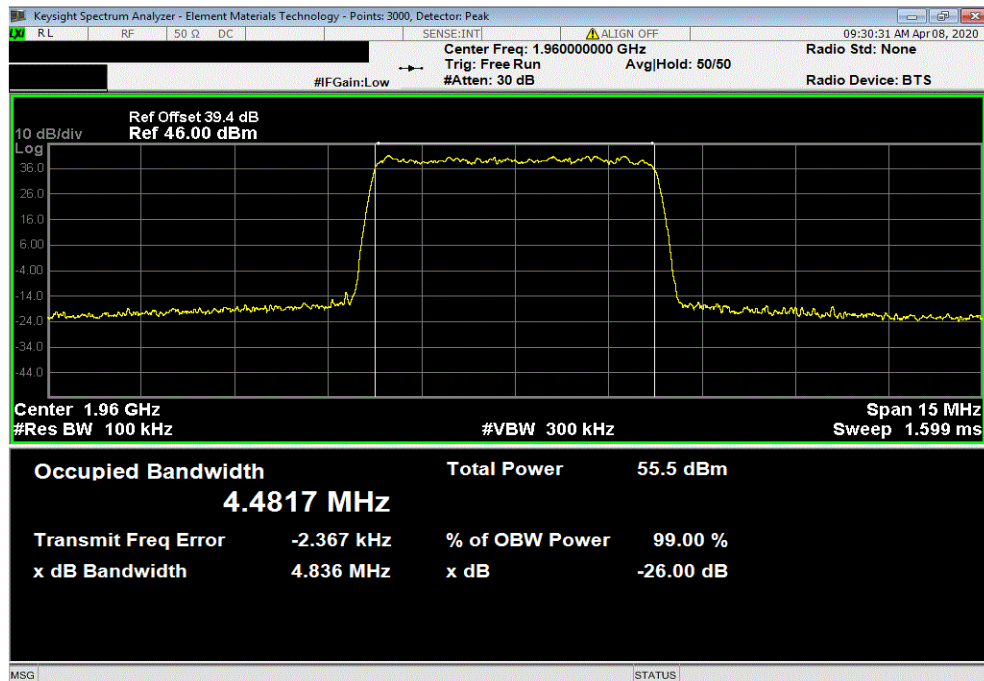


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1932.5 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			4.482	4.845	Within Band	Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			4.482	4.836	Within Band	Pass	

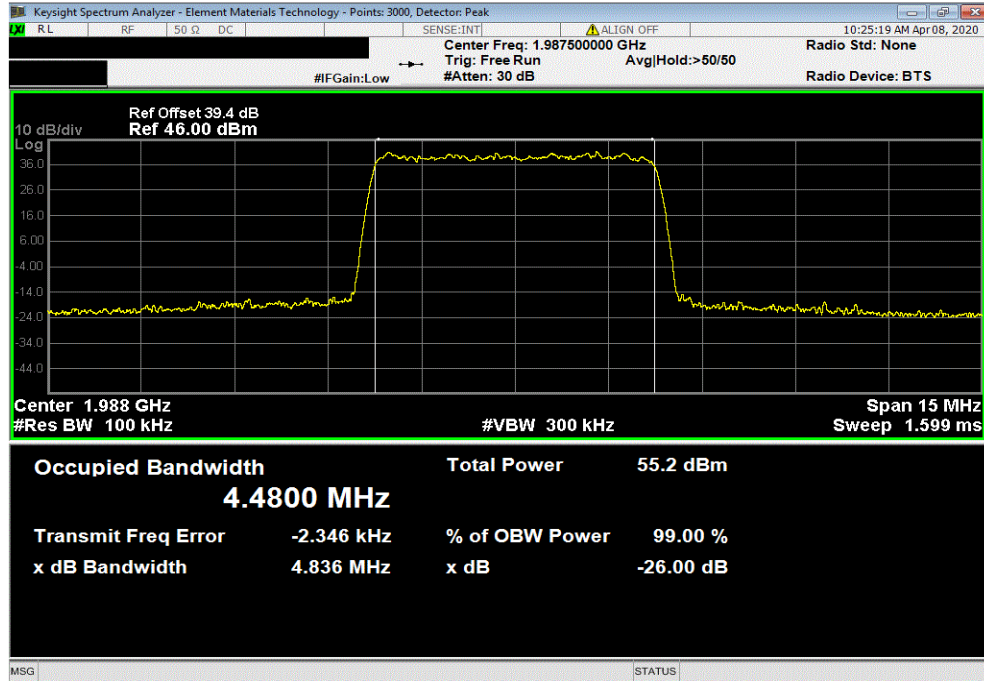


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

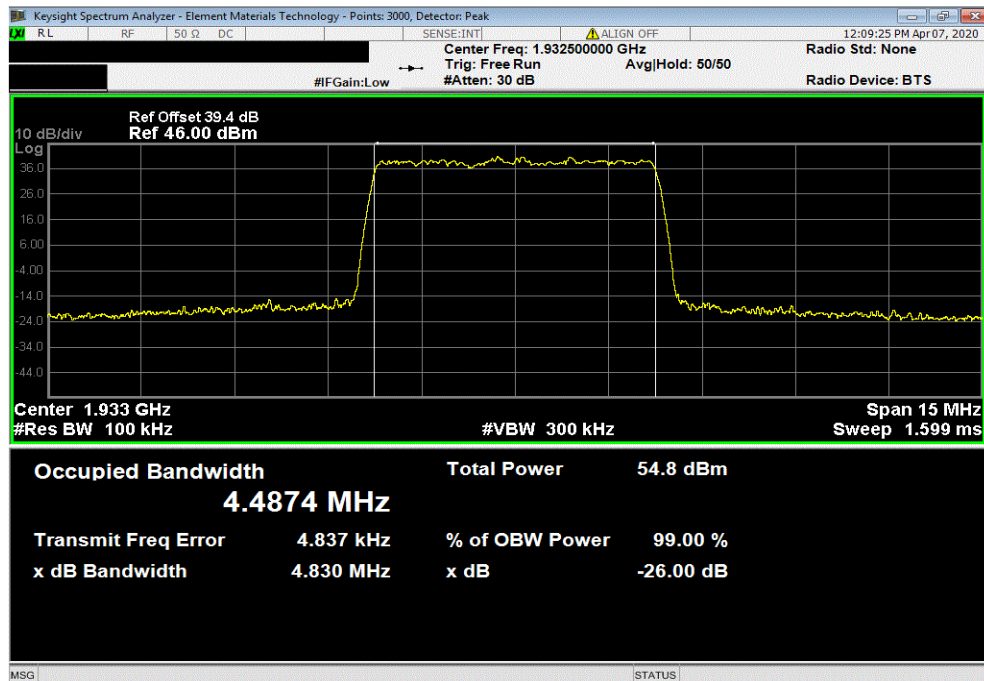


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 64-QAM Modulation, High Channel, 1987.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.48	4.836	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1932.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.487	4.83	Within Band		Pass

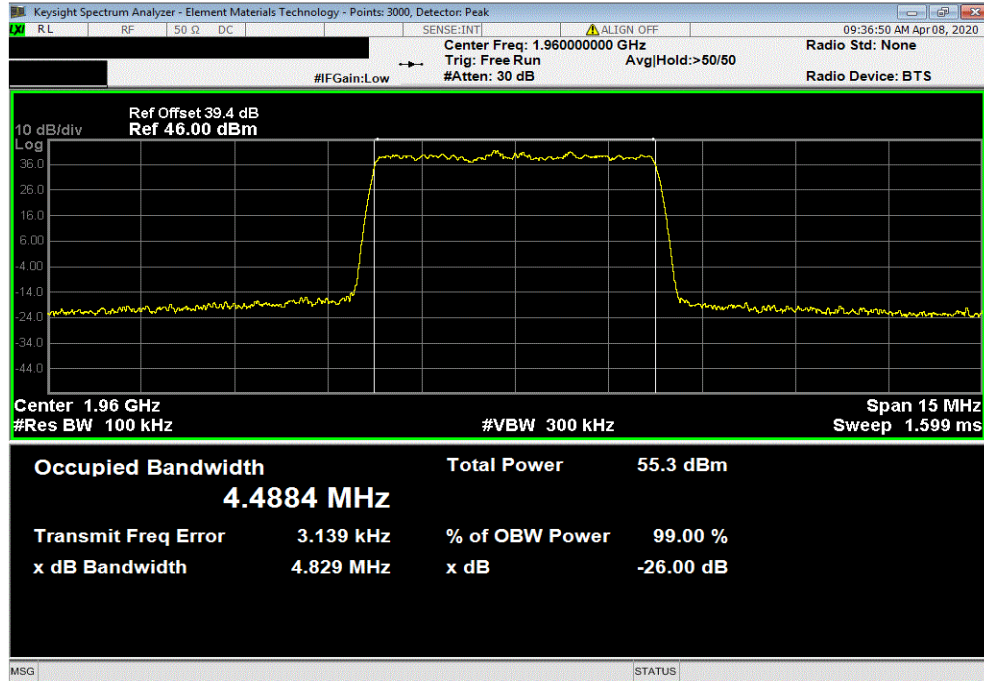


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

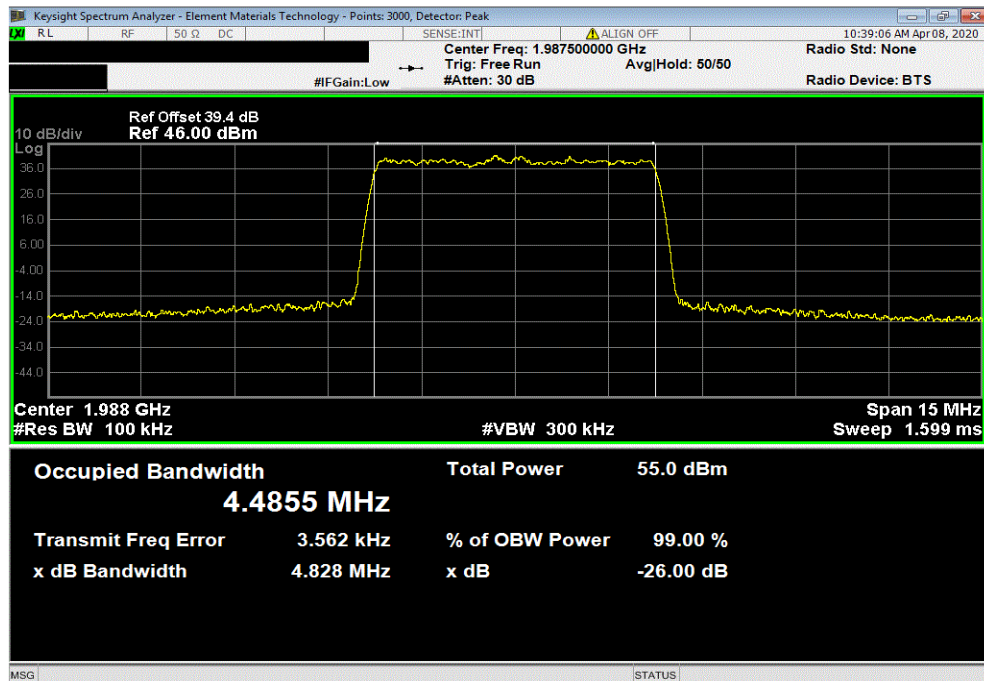


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.488	4.829	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 5 MHz Bandwidth, 256-QAM Modulation, High Channel, 1987.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			4.485	4.828	Within Band		Pass

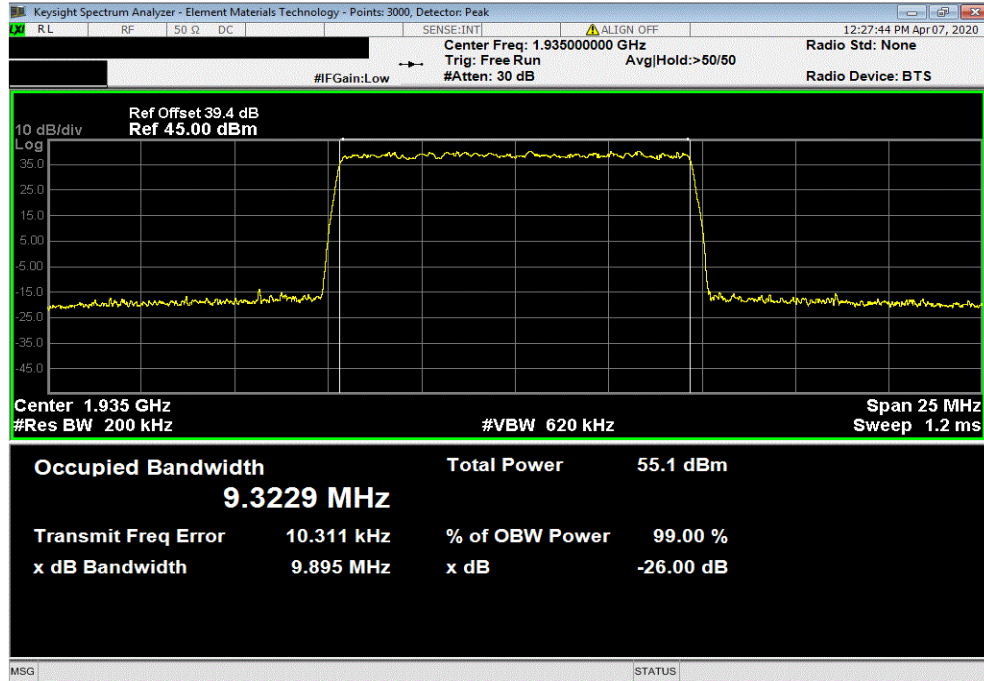


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

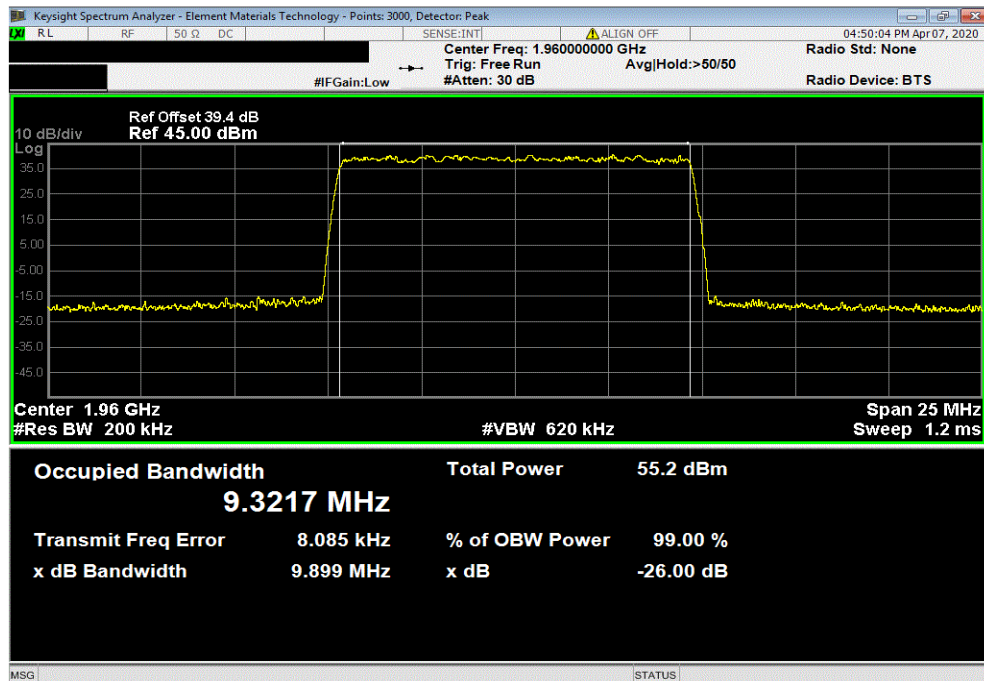


TMTx 2019.08.30.0 XMI 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, QPSK Modulation, Low Channel, 1935.0 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.323	9.895	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, QPSK Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.322	9.899	Within Band		Pass

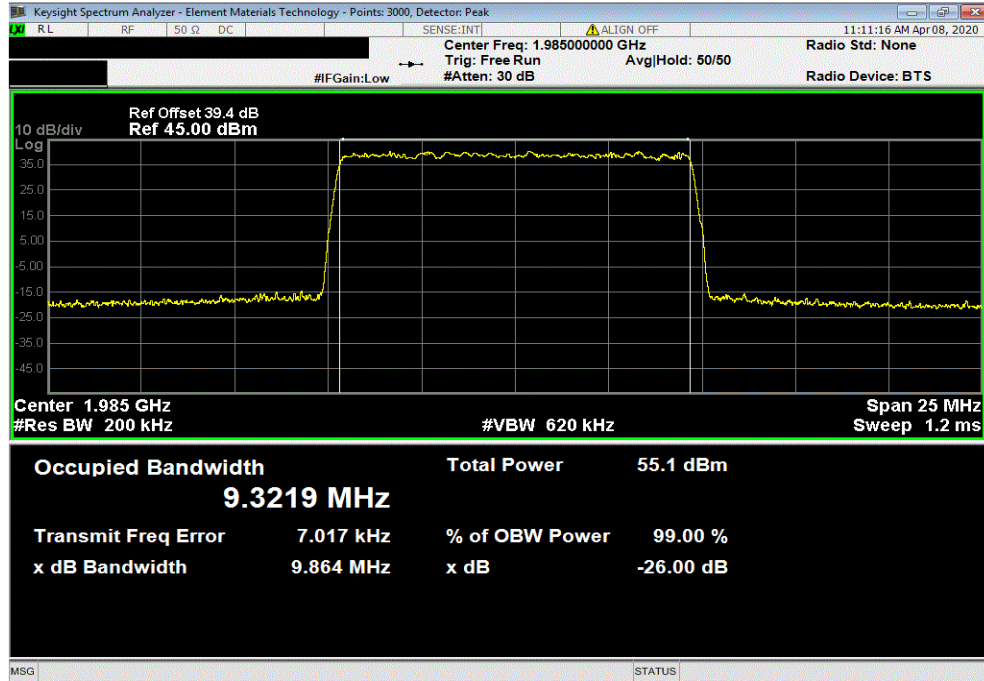


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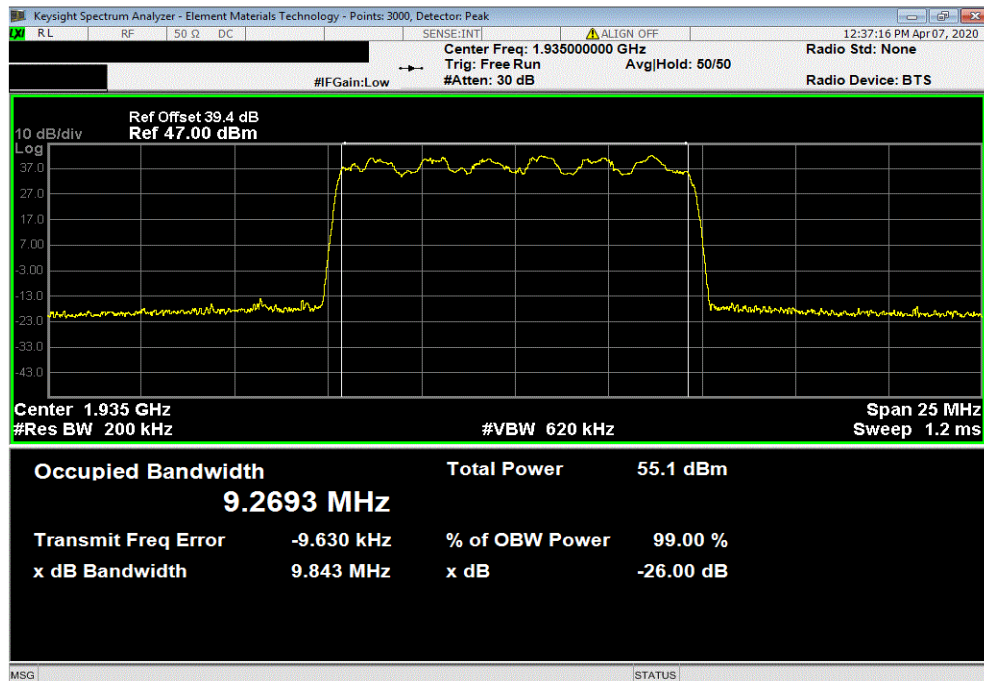


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, QPSK Modulation , High Channel, 1985 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.322	9.864	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1935.0 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.269	9.843	Within Band		Pass

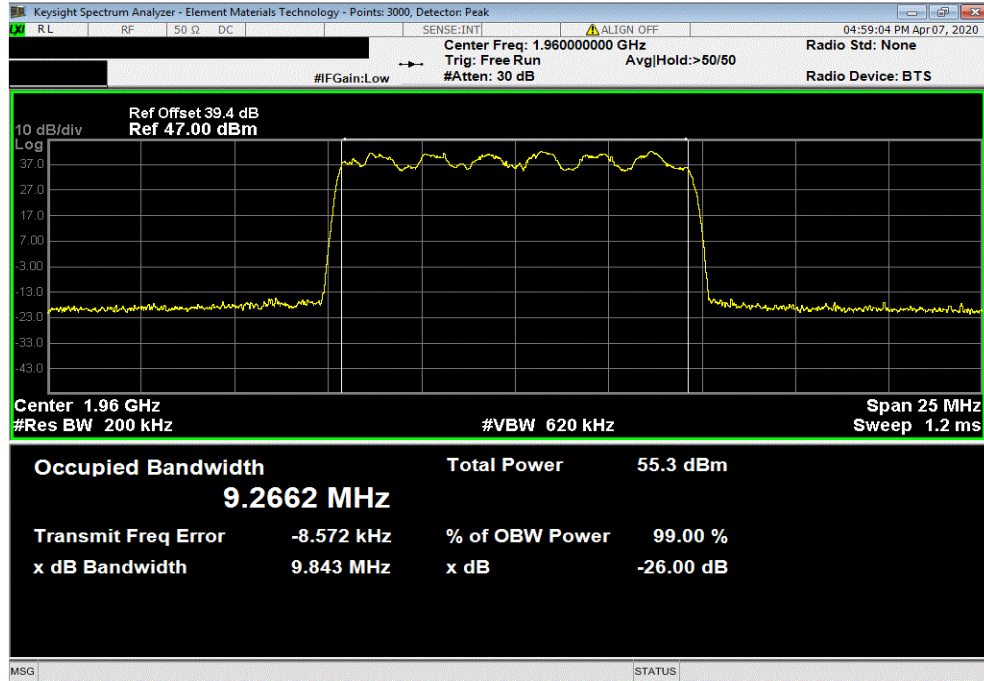


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

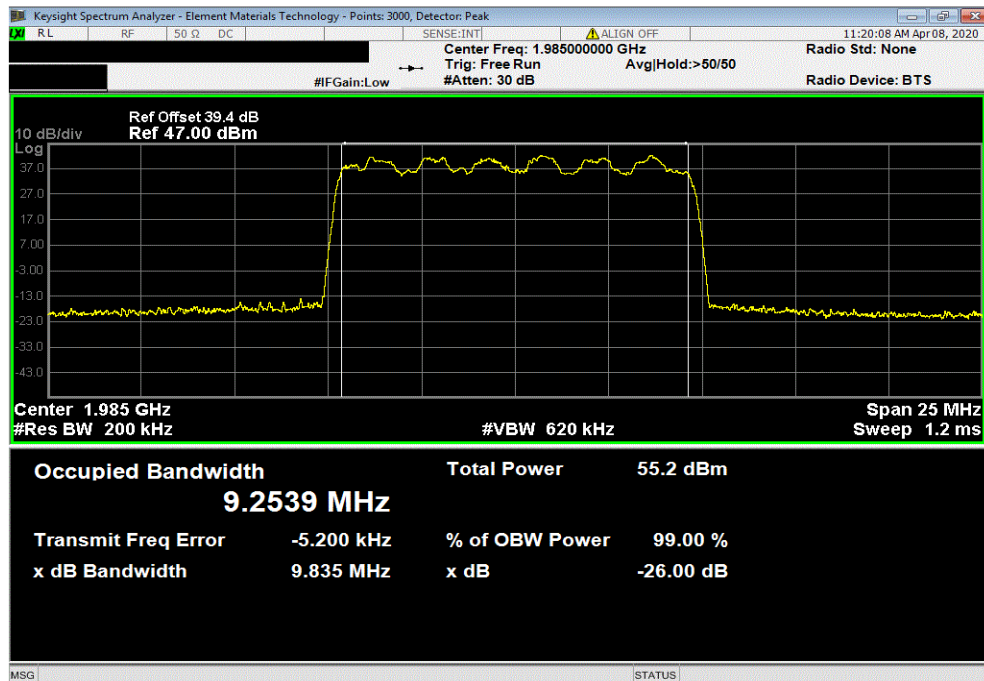


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.266	9.843	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 16-QAM Modulation, High Channel, 1985 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.254	9.835	Within Band		Pass

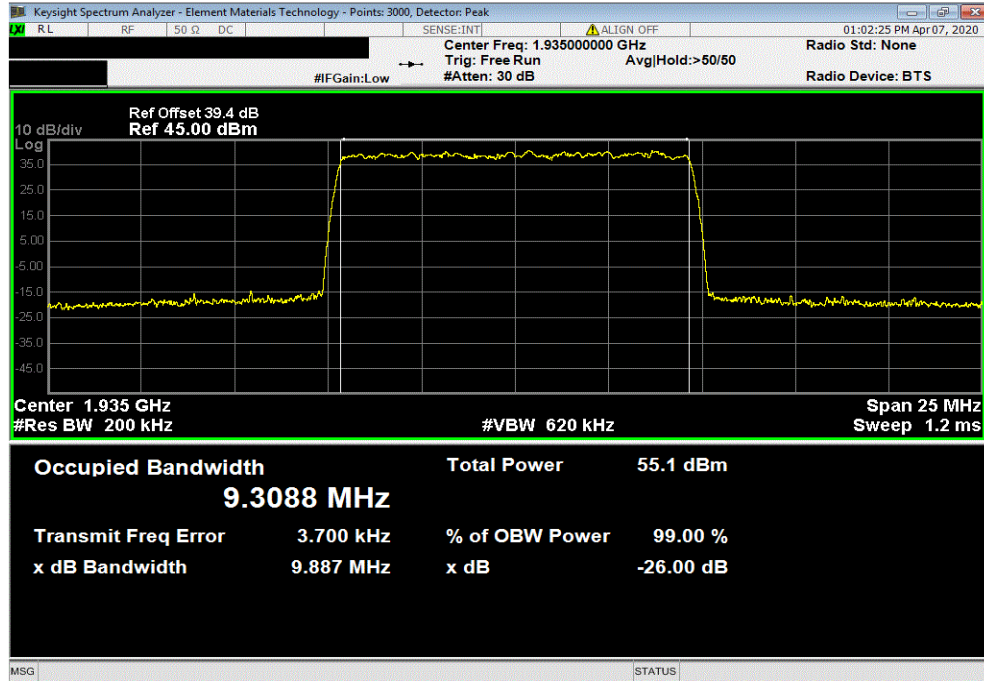


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

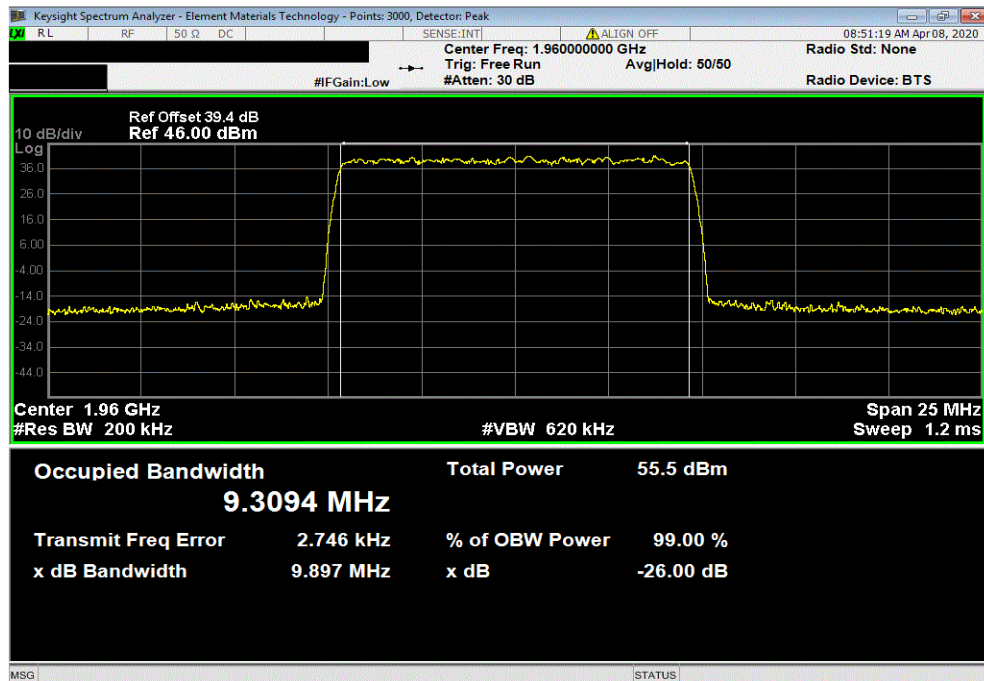


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1935.0 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.309	9.887	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			9.309	9.897	Within Band		Pass

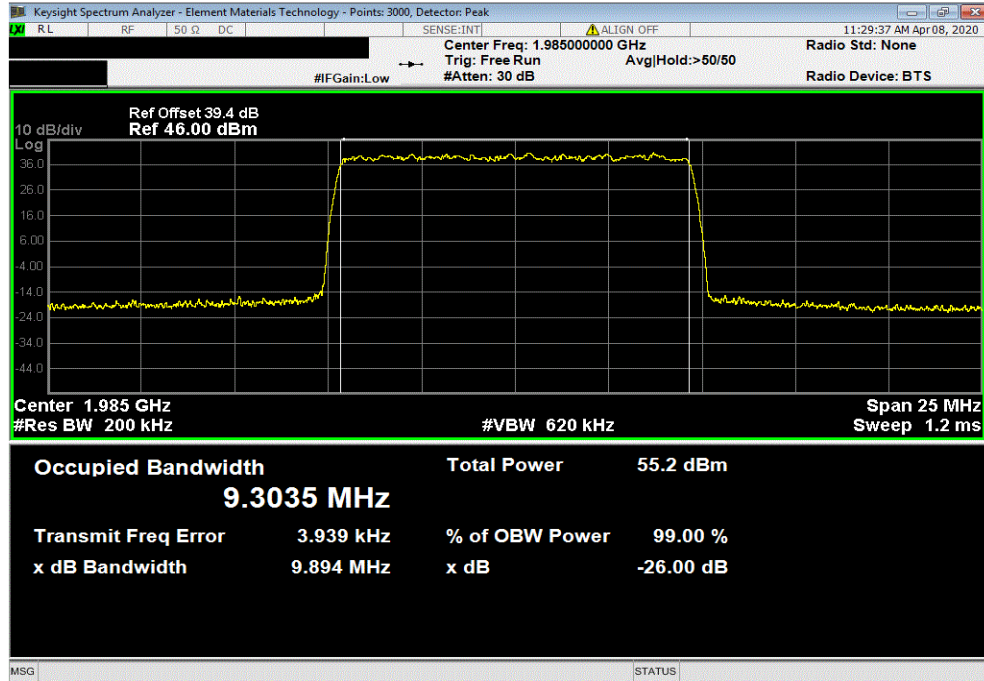


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

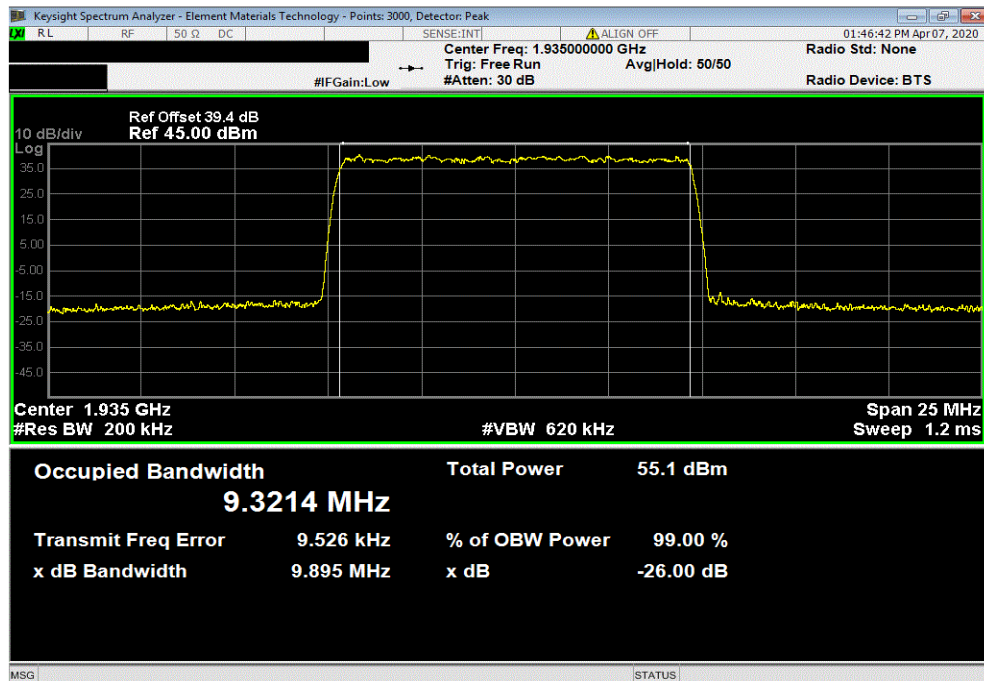


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 64-QAM Modulation, High Channel, 1985 MHz							
		Value		Value		Limit	
		99% (MHz)		26dB (MHz)			
		9.303		9.894		Within Band	
						Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1935.0 MHz							
		Value		Value		Limit	
		99% (MHz)		26dB (MHz)			
		9.321		9.895		Within Band	
						Pass	

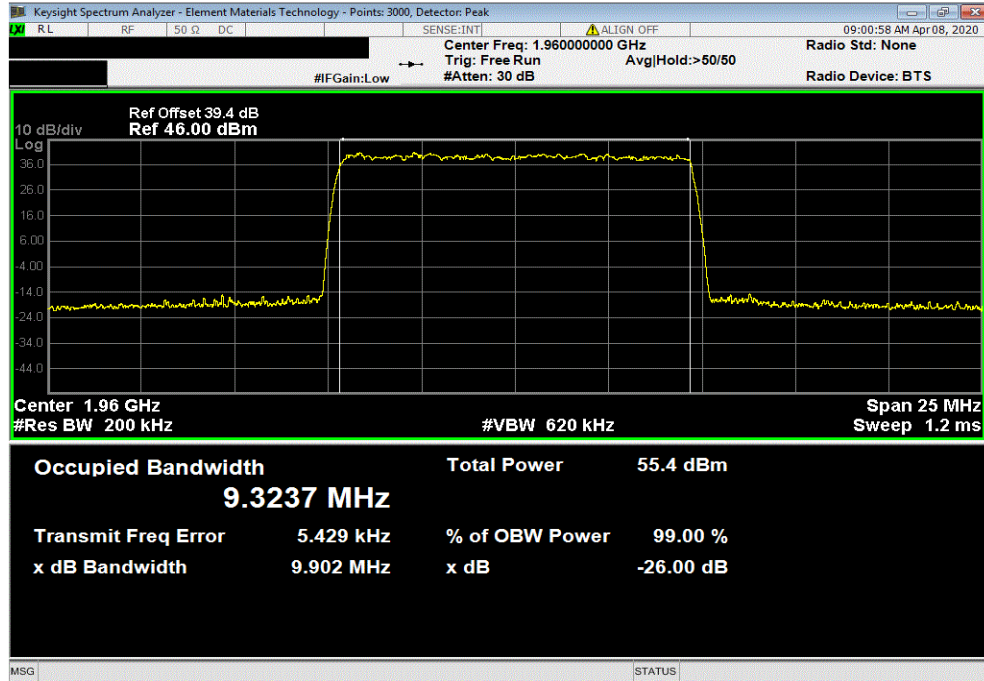


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

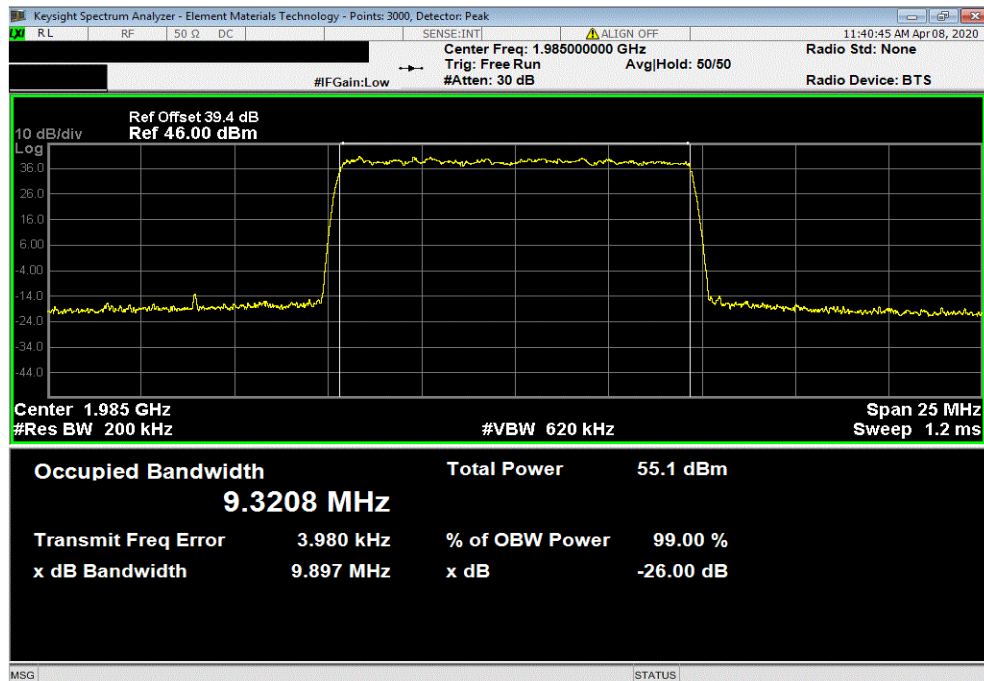


TbTx 2019.08.30.0 XbTx 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz							
		Value	Value				
		99% (MHz)	26dB (MHz)	Limit		Result	
		9.324	9.902	Within Band		Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 10 MHz Bandwidth, 256-QAM Modulation, High Channel, 1985 MHz							
		Value	Value				
		99% (MHz)	26dB (MHz)	Limit		Result	
		9.321	9.897	Within Band		Pass	

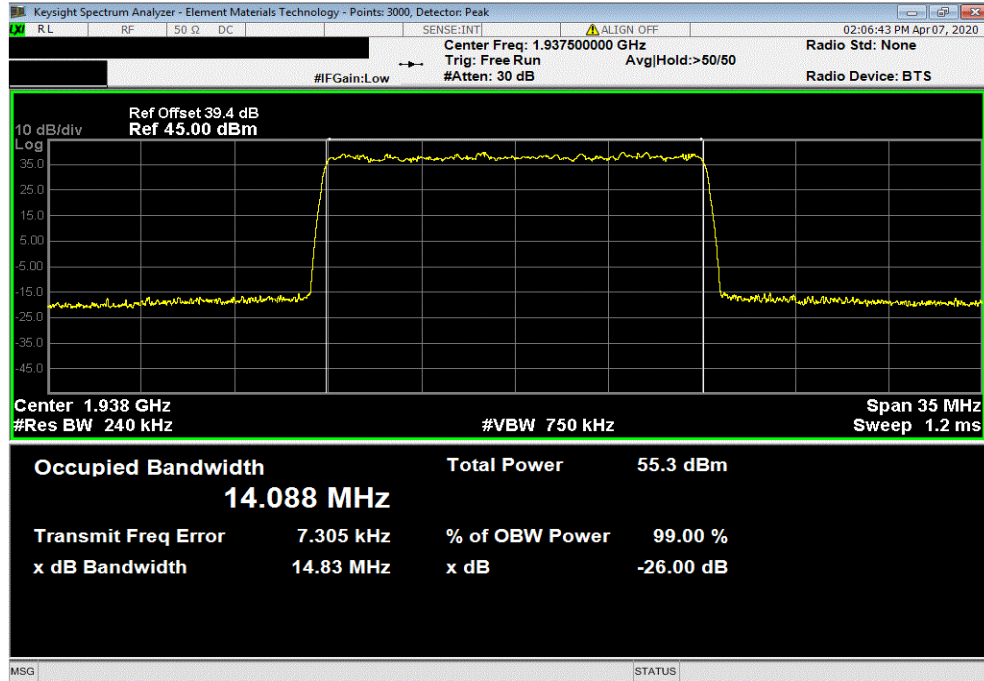


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

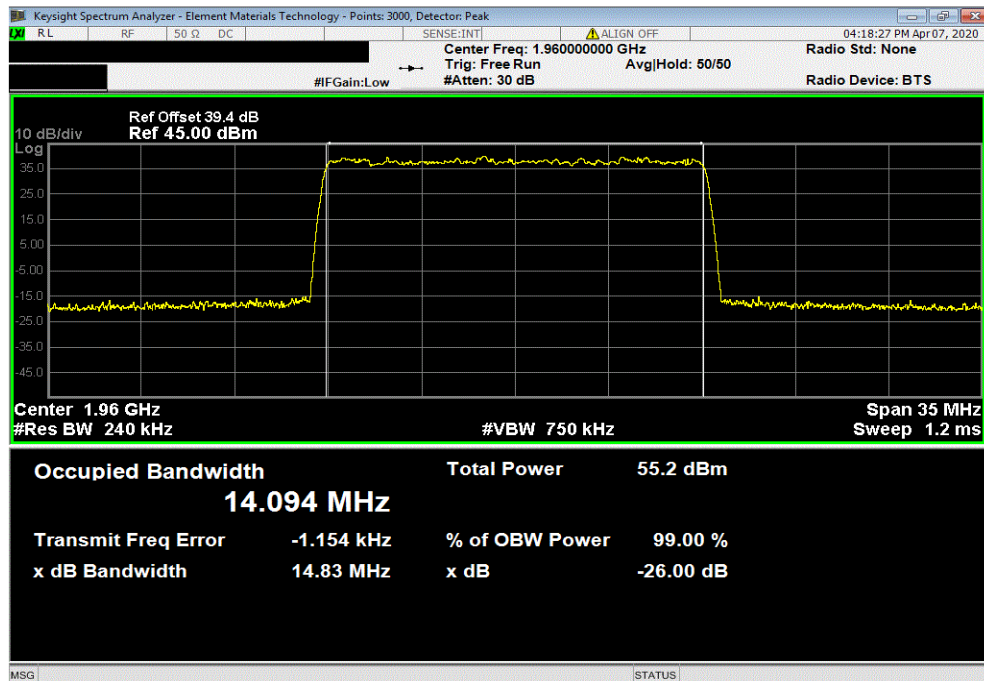


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, QPSK Modulation, Low Channel, 1937.5 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			14.088	14.829	Within Band	Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, QPSK Modulation, Mid Channel, 1960 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			14.094	14.833	Within Band	Pass	

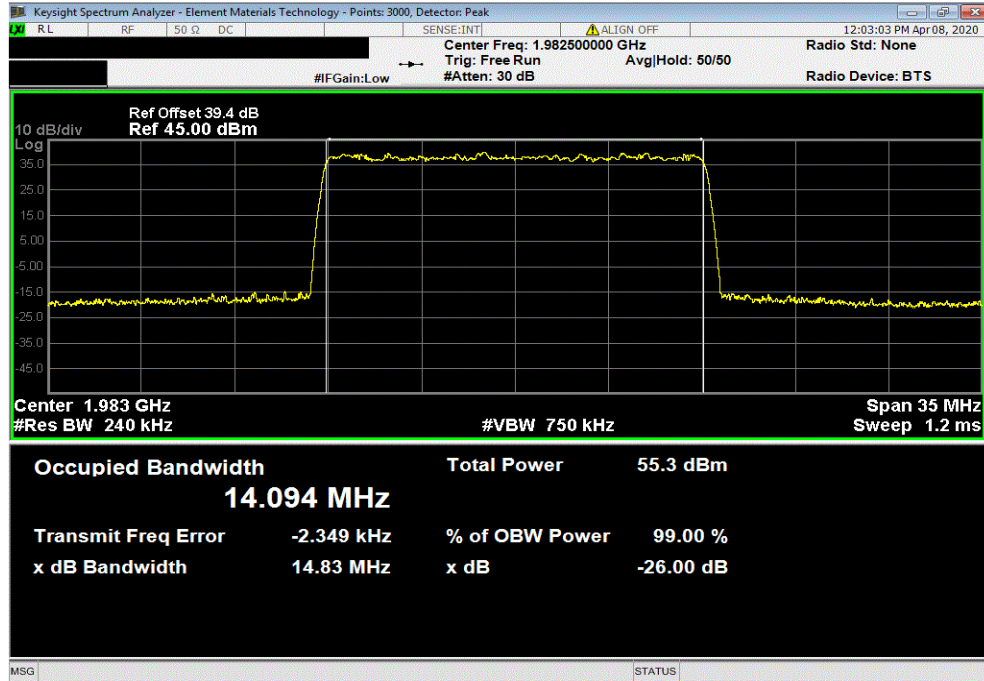


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

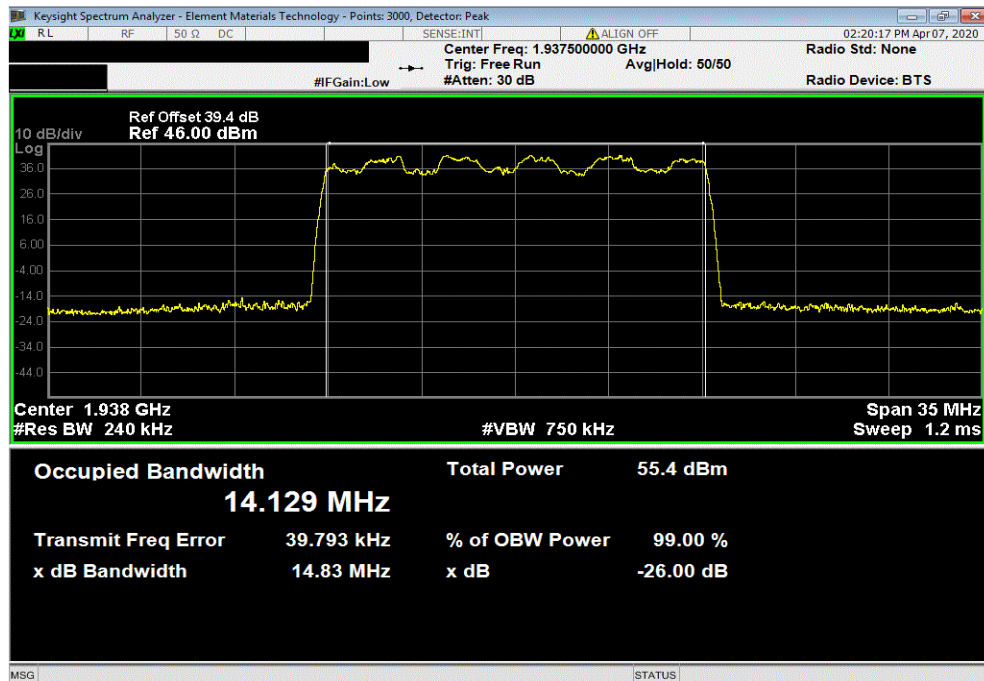


TbTx 2019.08.30.0 XbTx 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, QPSK Modulation , High Channel, 1982.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.094	14.833	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1937.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.129	14.827	Within Band		Pass

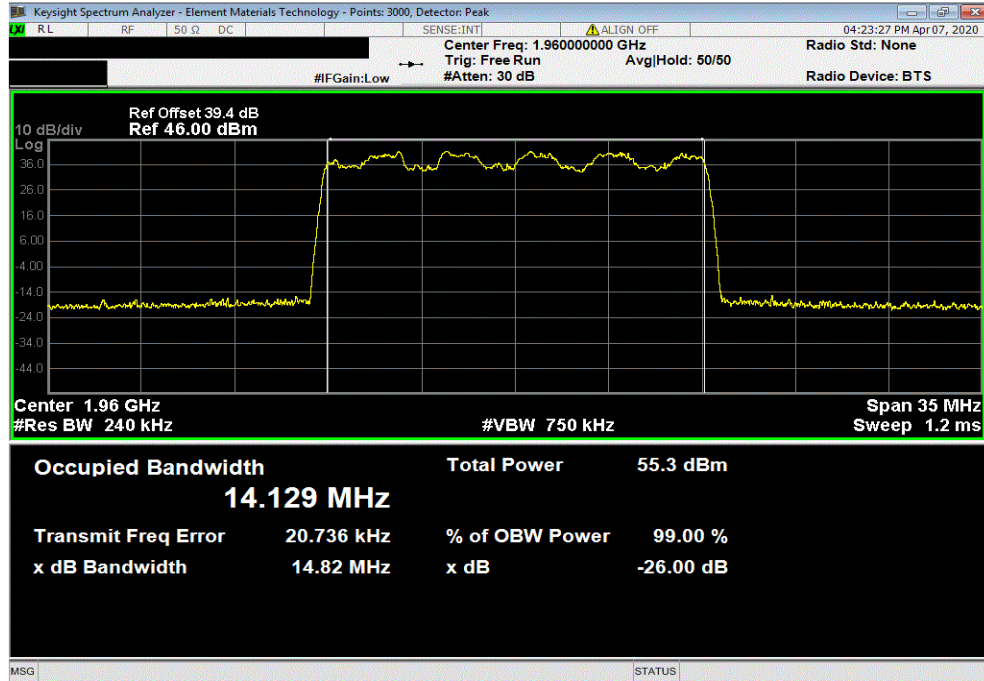


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

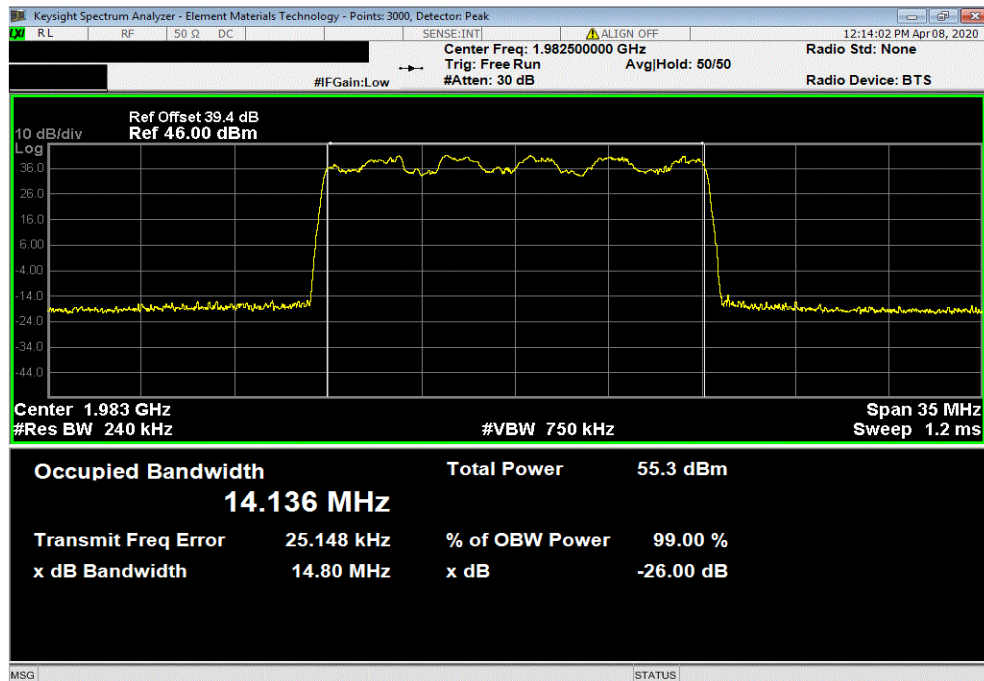


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz							
		Value		Value		Limit	
		99% (MHz)		26dB (MHz)			
		14.129		14.821		Within Band	
						Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 16-QAM Modulation, High Channel, 1982.5 MHz							
		Value		Value		Limit	
		99% (MHz)		26dB (MHz)			
		14.136		14.795		Within Band	
						Pass	

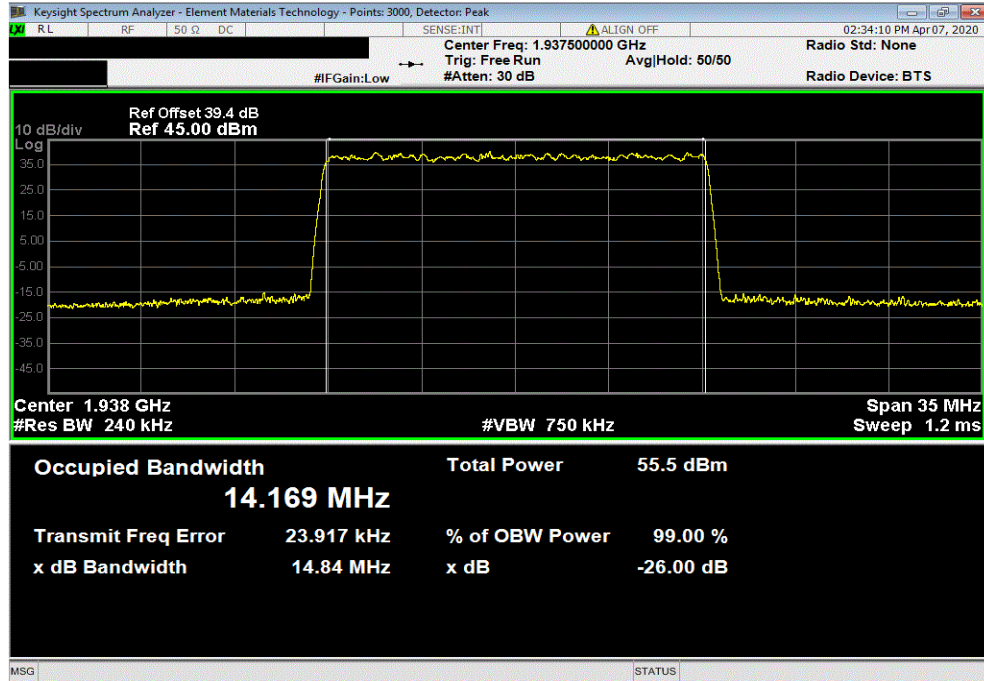


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

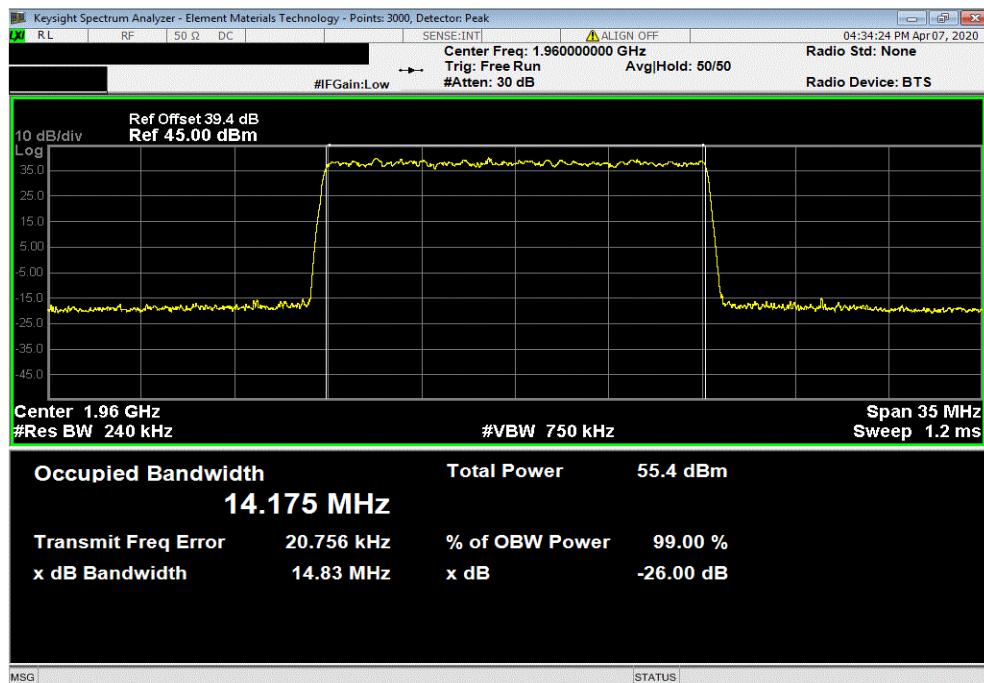


TbTtX 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1937.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.169	14.837	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.175	14.826	Within Band		Pass

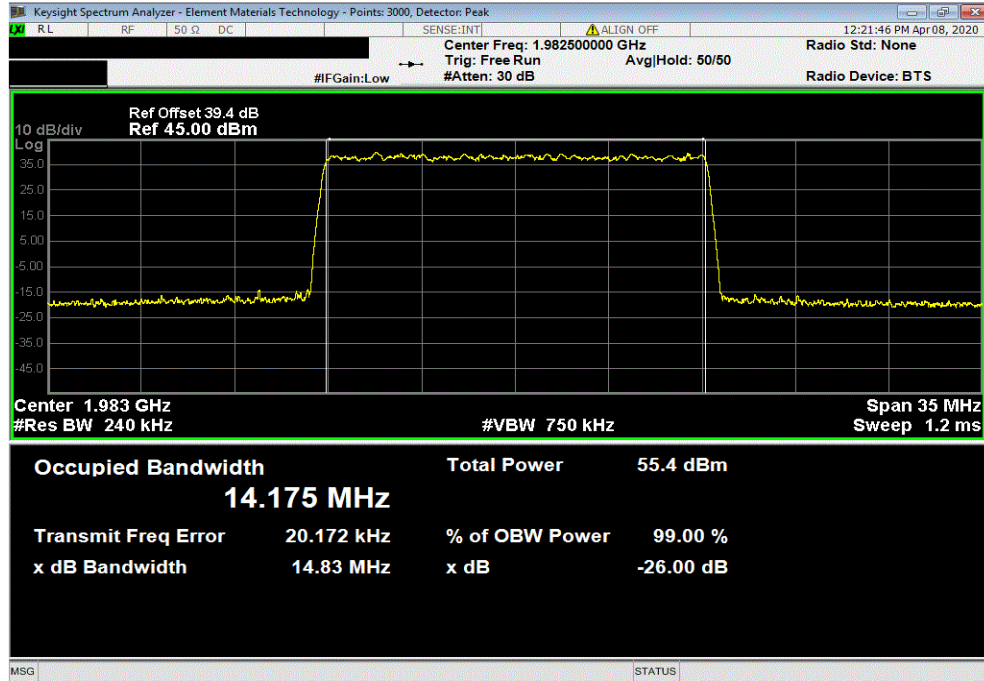


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

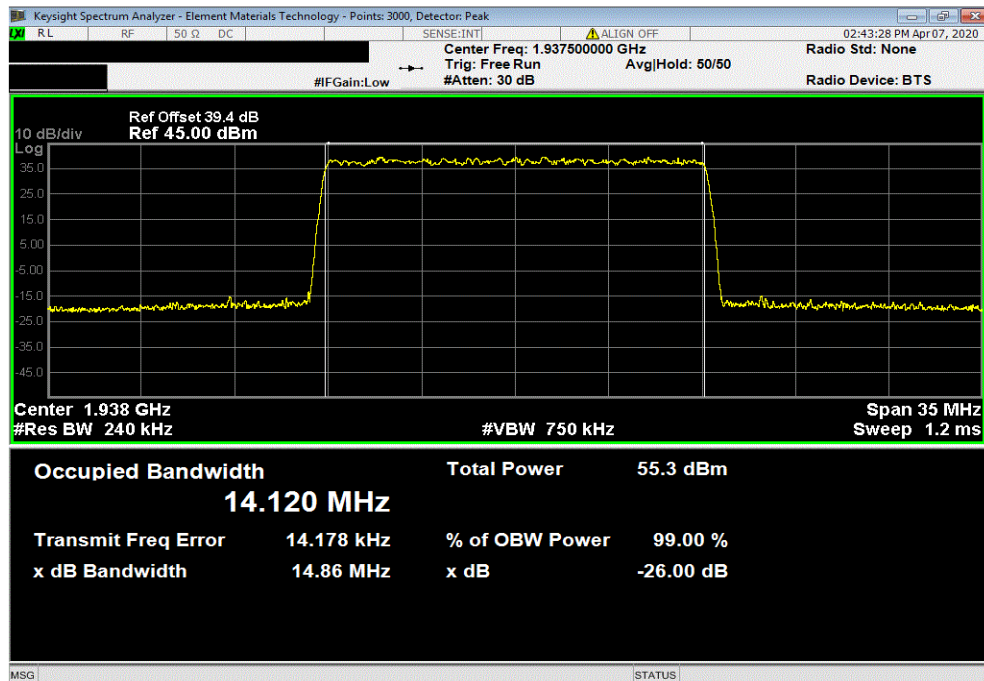


TbTx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 64-QAM Modulation, High Channel, 1982.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.175	14.832	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1937.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.12	14.857	Within Band		Pass

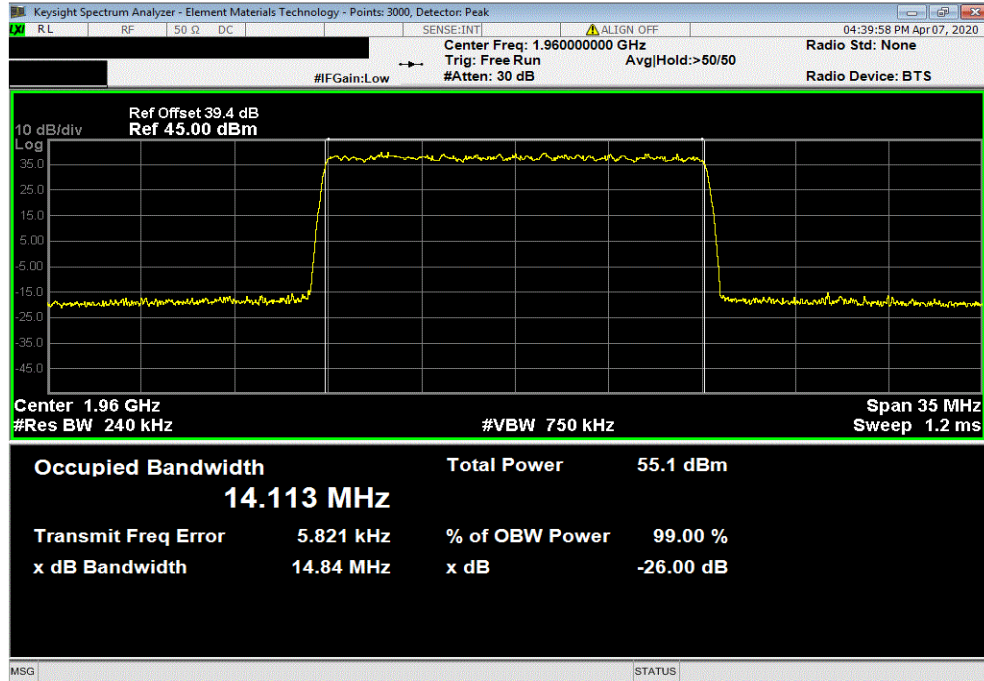


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

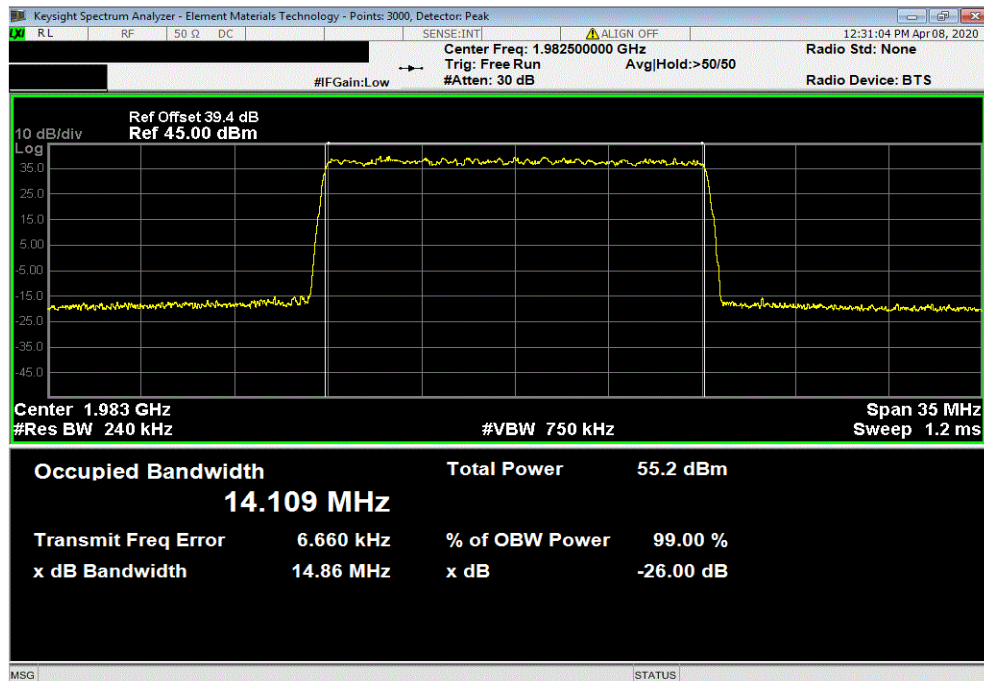


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.113	14.843	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 15 MHz Bandwidth, 256-QAM Modulation, High Channel, 1982.5 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			14.109	14.86	Within Band		Pass

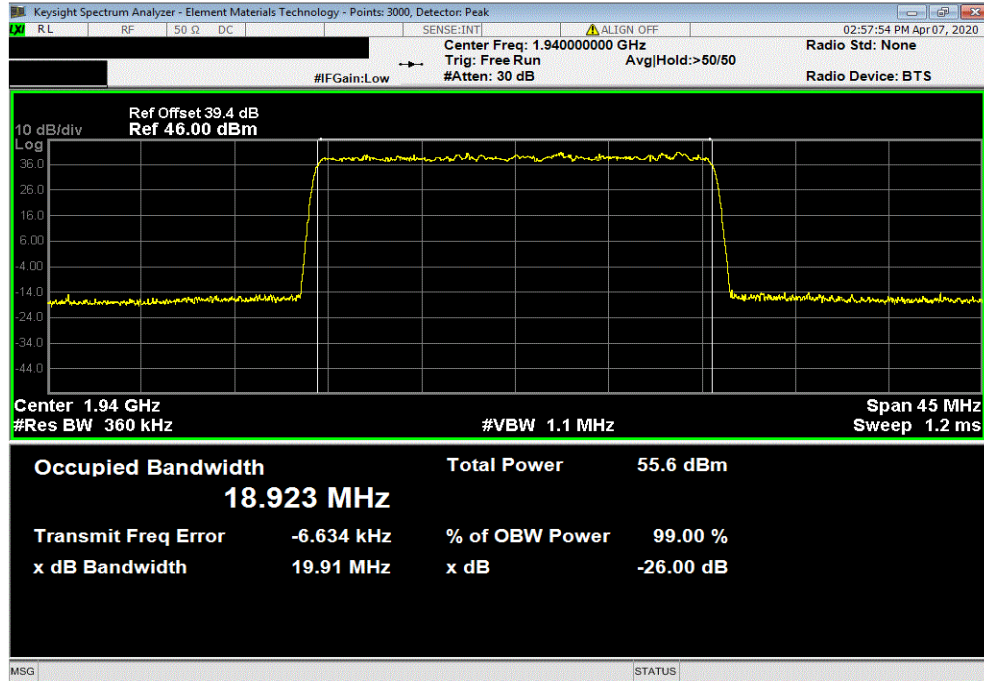


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

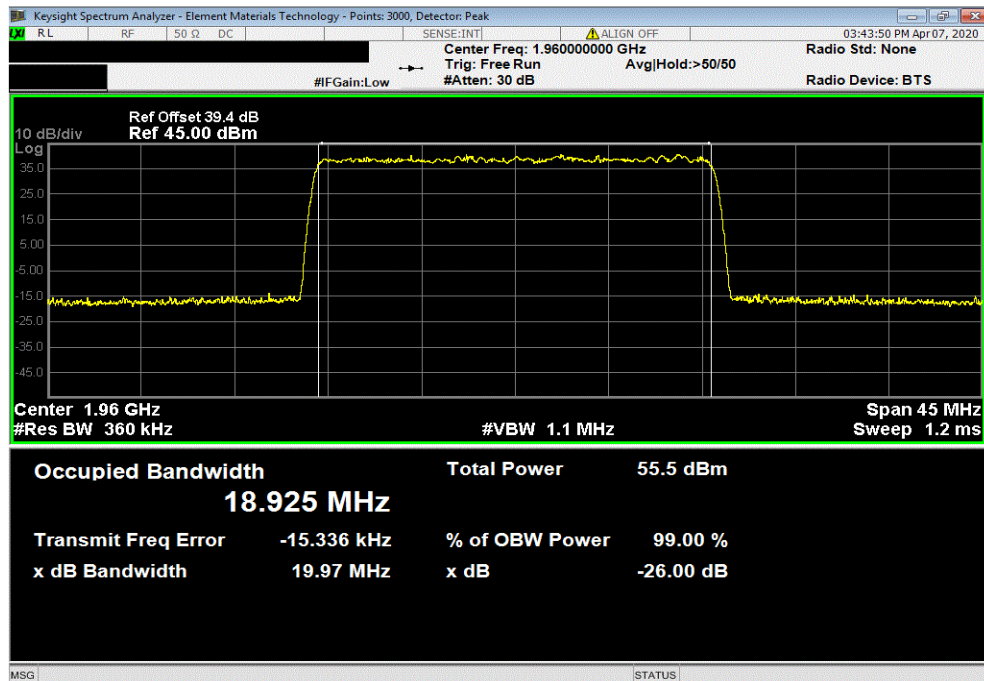


TbTtX 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, QPSK Modulation , Low Channel, 1940 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.923	19.909	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, QPSK Modulation , Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.925	19.967	Within Band		Pass

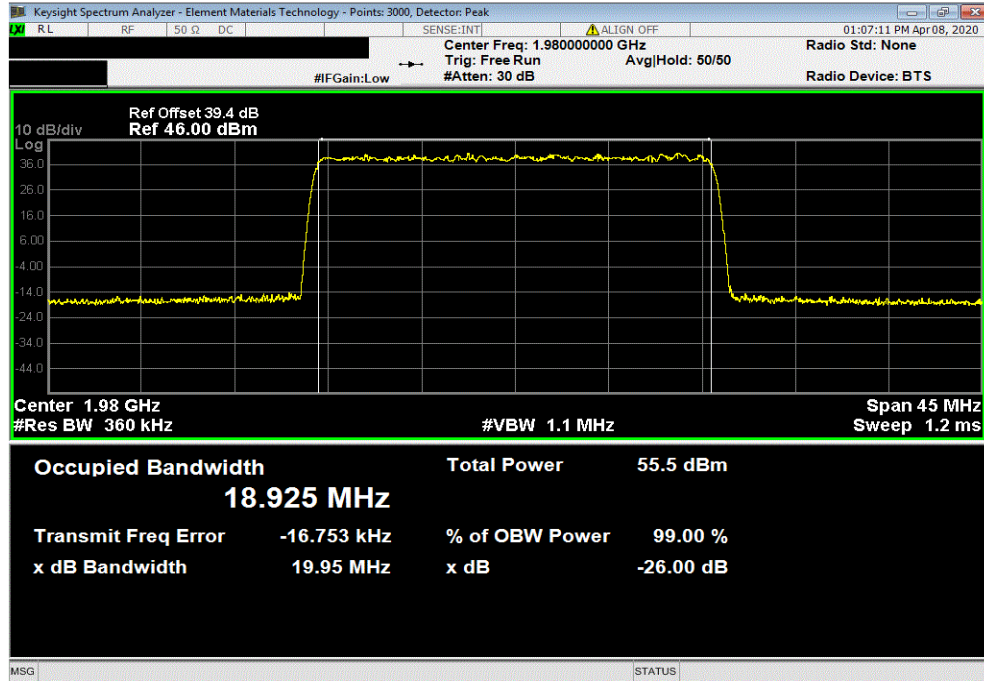


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

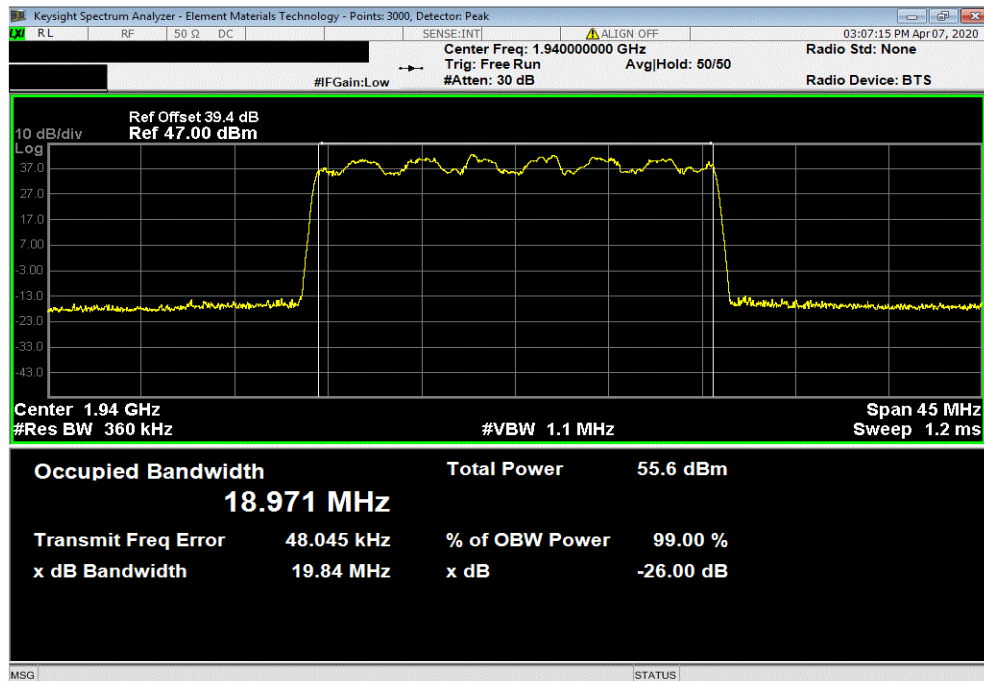


TbTtx 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, QPSK Modulation , High Channel, 1980 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.925	19.949	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 16-QAM Modulation, Low Channel, 1940 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.971	19.835	Within Band		Pass

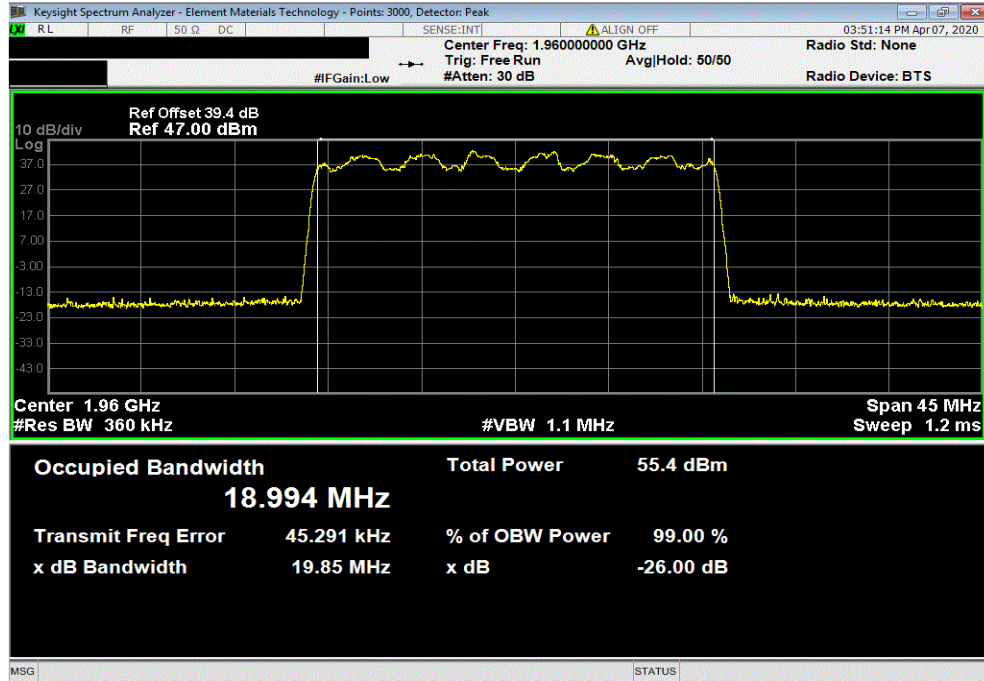


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

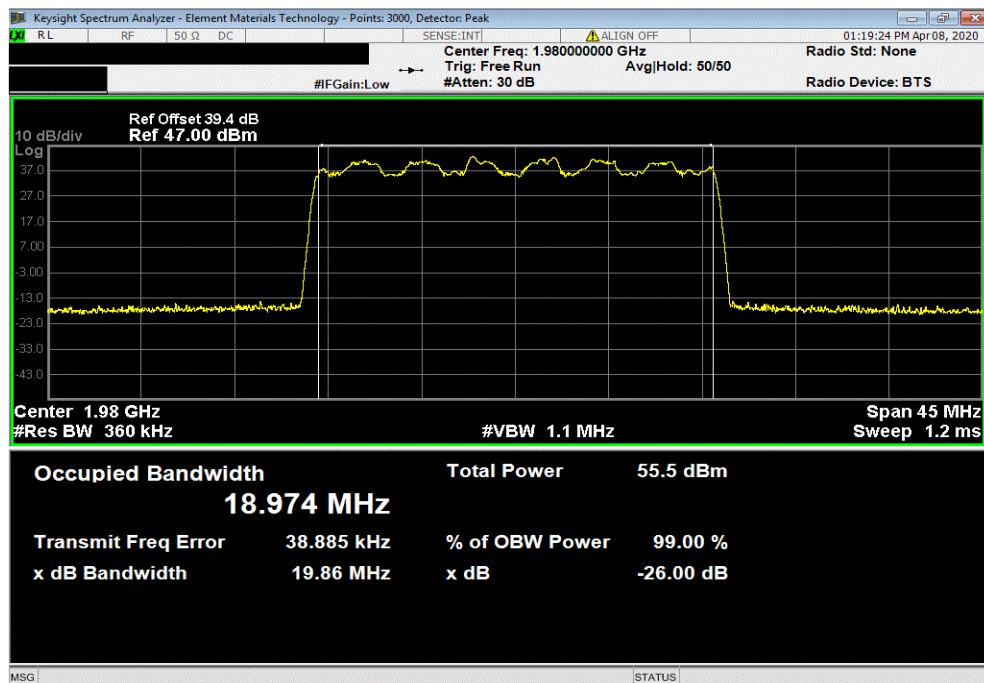


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.994	19.853	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 16-QAM Modulation, High Channel, 1980 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.974	19.856	Within Band		Pass

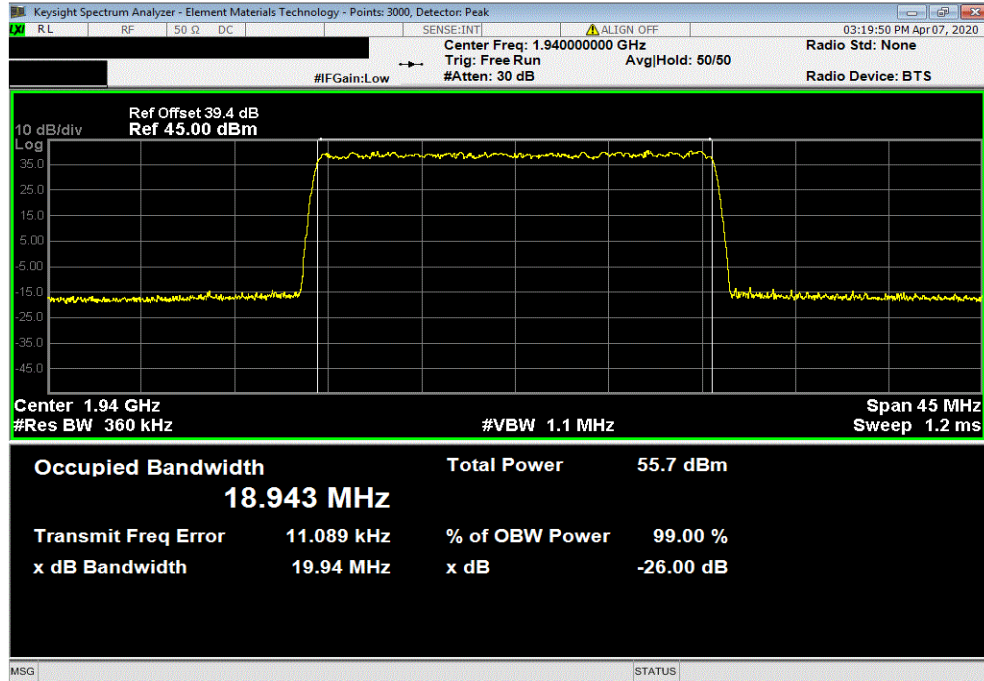


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

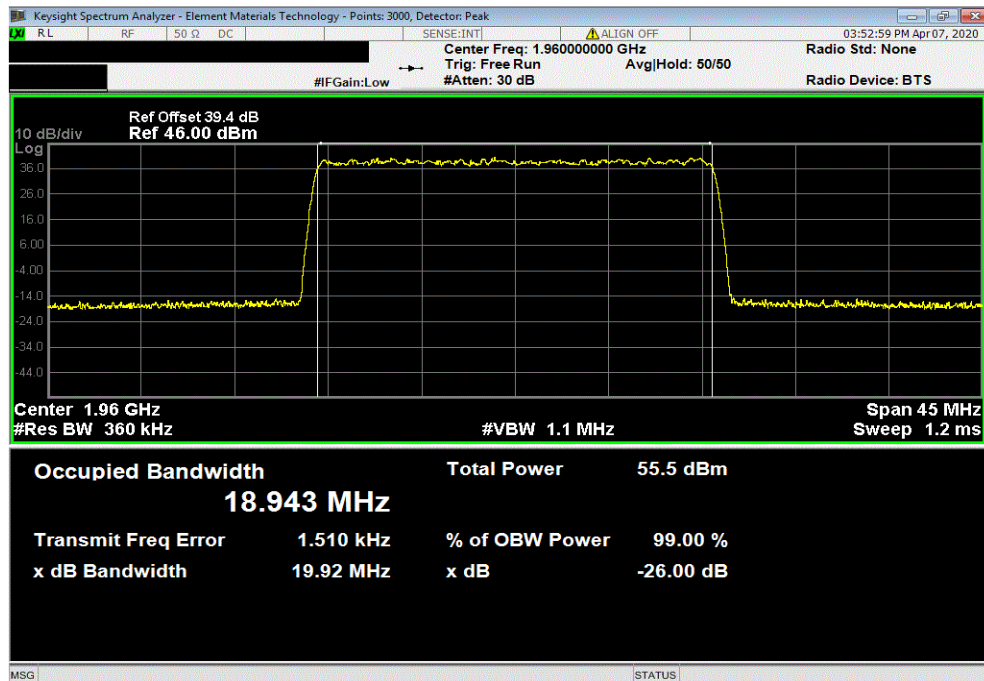


TMTx 2019.08.30.0 XMR 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 64-QAM Modulation, Low Channel, 1940 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			18.943	19.94	Within Band	Pass	



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value	Limit	Result	
			99% (MHz)	26dB (MHz)			
			18.943	19.924	Within Band	Pass	

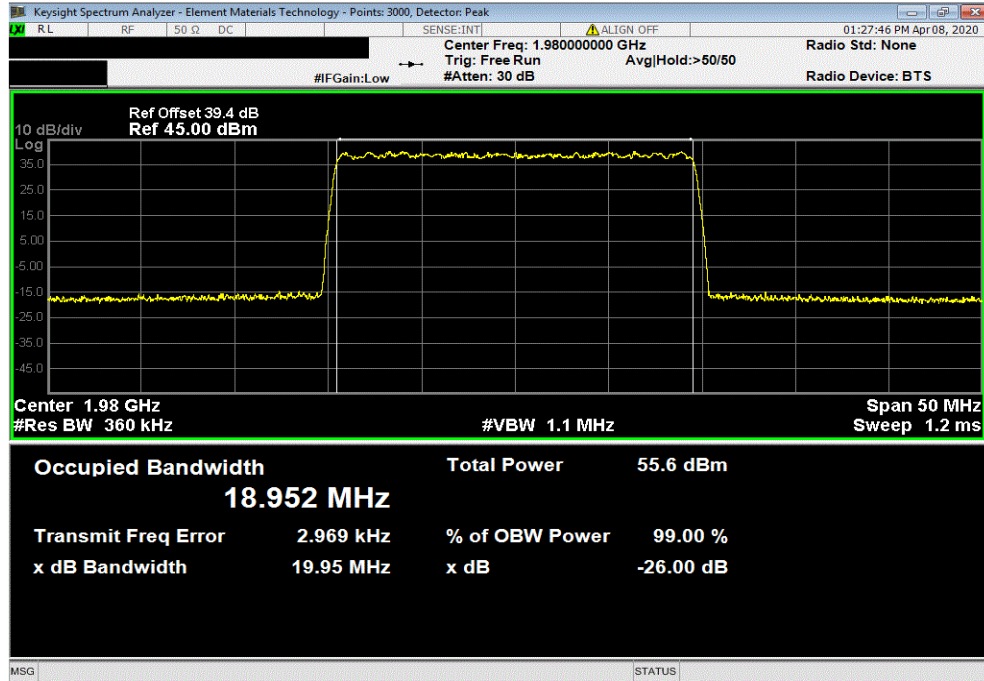


OCCUPIED BANDWIDTH EMISSION MASK BAND 2

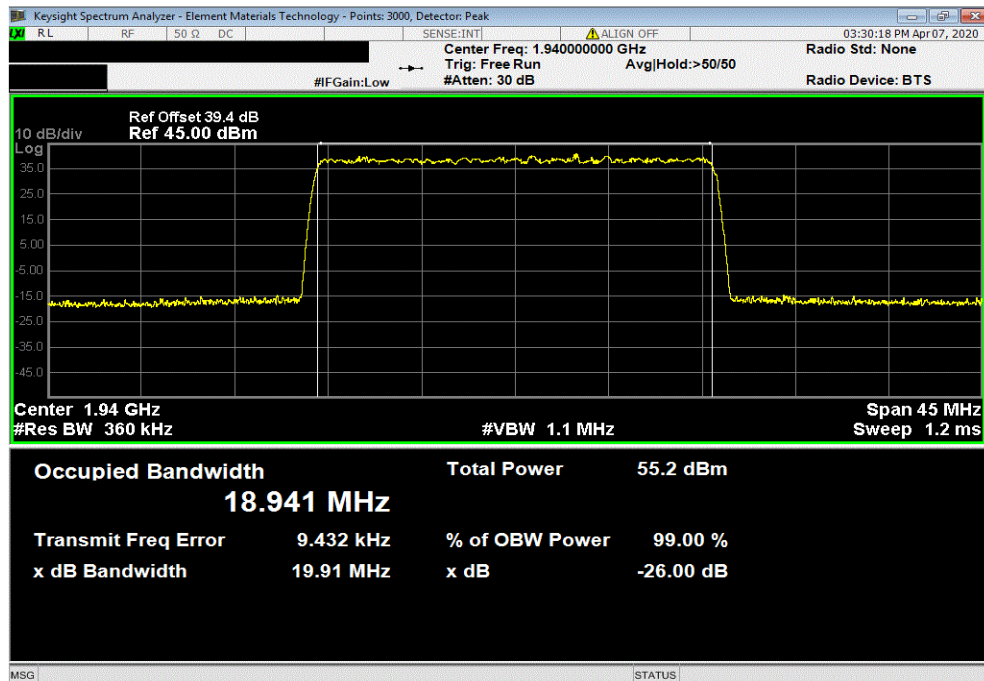


TbTx 2019.08.30.0 XMt 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 64-QAM Modulation, High Channel, 1980 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.952	19.945	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 256-QAM Modulation, Low Channel, 1940 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.941	19.911	Within Band		Pass

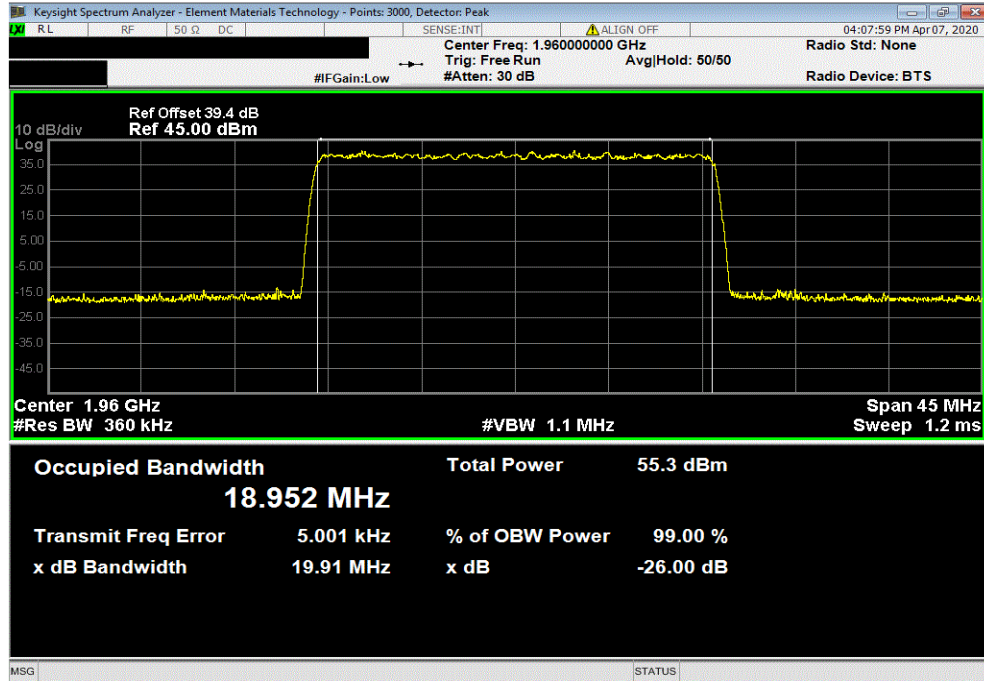


OCCUPIED BANDWIDTH EMISSION MASK BAND 2



TbTtX 2019.08.30.0 XMtX 2020.03.25.0

Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1960 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.952	19.908	Within Band		Pass



Band 2, 1930 MHz - 1990 MHz, 5G, Port 7, 20 MHz Bandwidth, 256-QAM Modulation, High Channel, 1980 MHz							
			Value	Value			
			99% (MHz)	26dB (MHz)	Limit		Result
			18.968	19.913	Within Band		Pass

