

BAND EDGE COMPLIANCE - INNER CHANNELS



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

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. The spurious RF conducted emissions at the edges of the authorized bands were measured with the EUT set to low and high transmit frequencies in the available band. The channels closest to the band edges were selected. The EUT was transmitting at the data rate(s) listed in the datasheet.

The spectrum was scanned below the lower band edge and above the higher band edge.

All limits were adjusted by a factor of $[-10 \cdot \log(4)]$ dB to account for the device operation as a 4 port MIMO transmitter, as per FCC KDB 622911.

Per FCC 24.238(a) and RSS 133 6.5.1 (i). the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -19 dBm $[-13 \text{ dBm} - 10 \log(4)]$ per FCC KDB 662911D01 v02r01 because the BTS may operate as a 4 port MIMO transmitter.

Per FCC 24.238(b) and RSS 133 6.5.1 (i). emissions seen up to 1 MHz outside of authorized operating frequency range band edges shall be measured with a RBW of 1% of the measured emission bandwidth. Any emission seen to be > 1 MHz further outside the band edges shall be measured with a RBW of 1 MHz. However, a narrower RBW of at least 1% of the emission bandwidth is still allowed provided that the measured power is integrated over the full reference bandwidth of 1 MHz.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (FHFB) as the original certification test. The FHFB antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

BAND EDGE COMPLIANCE - INNER CHANNELS



TstTx 2020.09.06.0 BETA XMt 2020.03.25.0

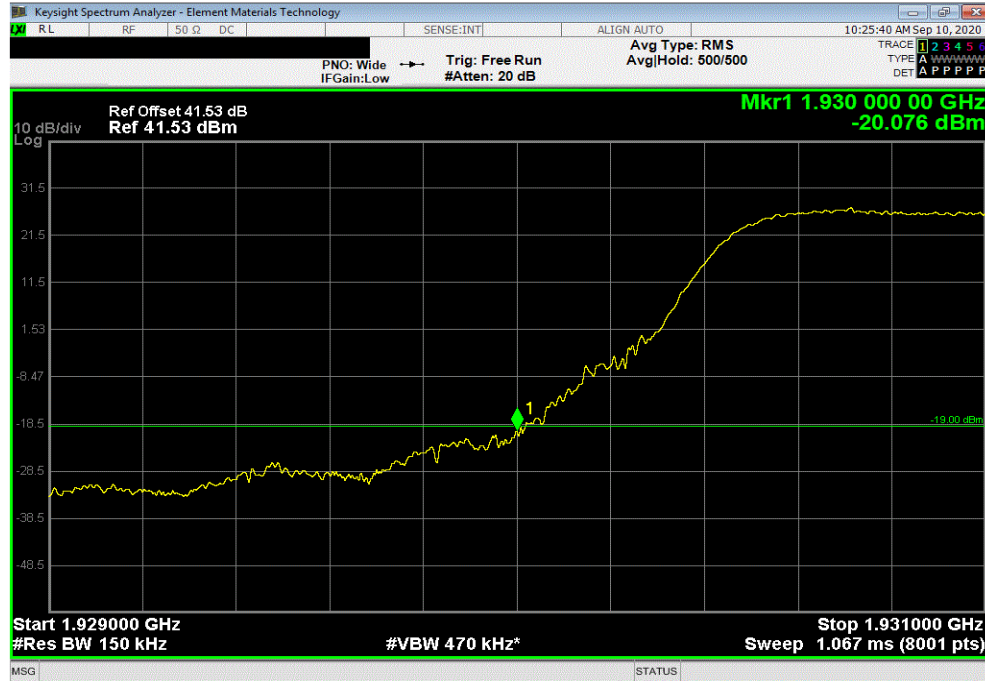
EUT: FHFB (FCC C2PC)		Work Order: NOKI0021	
Serial Number: L9144200604		Date: 10-Sep-20	
Customer: Nokia of America Corporation		Temperature: 22.8 °C	
Attendees: Mitchell Hill, John Rattanaovong		Humidity: 51.1% RH	
Project: None		Barometric Pres.: 1024 mbar	
Tested by: Brandon Hobbs	Power: 54 VDC	Job Site: TX05	
TEST SPECIFICATIONS			
FCC 24E:2020		Test Method	
RSS-133:2018		ANSI C63.26:2015	
RSS-133:2018		RSS-133:2018	
COMMENTS			
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. The carrier power was set to maximum except for the 15MHz channel bandwidth. The power was reduced by 1 dB at the 15MHz channel bandwidth "High Channel" (1987.5MHz) and "Low Channel" (1937.5MHz) and the measurement marker was offset RBW/2 from the band edge frequency as allowed by C63.26 clause 5.7.2.g. The 15MHz channel bandwidth at full power was re-measured at "High Channel - 100kHz" (1987.4MHz) and "Low Channel + 100kHz" (1937.6MHz) at the band edge frequencies.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2	Signature	
Frequency Range		Value (dBm)	Limit (dBm)
Result			
Port 1, Band n25, 1930 MHz - 1995 MHz			
15 MHz Bandwidth			
QPSK Modulation			
Low Channel +100kHz: 1937.6 MHz	1	-20.08	-19
Low Channel +100kHz: 1937.6 MHz	2	-25.41	-19
Low Channel +100kHz: 1937.6 MHz	3	-25.38	-19
High Channel -100kHz: 1987.4 MHz	1	-21.12	-19
High Channel -100kHz: 1987.4 MHz	2	-24.85	-19
High Channel -100kHz: 1987.4 MHz	3	-25.74	-19
16-QAM Modulation			
Low Channel +100kHz: 1937.6 MHz	1	-20.75	-19
Low Channel +100kHz: 1937.6 MHz	2	-24.85	-19
Low Channel +100kHz: 1937.6 MHz	3	-24.71	-19
High Channel -100kHz: 1987.4 MHz	1	-21.43	-19
High Channel -100kHz: 1987.4 MHz	2	-24.66	-19
High Channel -100kHz: 1987.4 MHz	3	-25.45	-19
64-QAM Modulation			
Low Channel +100kHz: 1937.6 MHz	1	-22.12	-19
Low Channel +100kHz: 1937.6 MHz	2	-25.61	-19
Low Channel +100kHz: 1937.6 MHz	3	-25.16	-19
High Channel -100kHz: 1987.4 MHz	1	-21.81	-19
High Channel -100kHz: 1987.4 MHz	2	-24.74	-19
High Channel -100kHz: 1987.4 MHz	3	-25.50	-19
256-QAM Modulation			
Low Channel +100kHz: 1937.6 MHz	1	-22.34	-19
Low Channel +100kHz: 1937.6 MHz	2	-25.44	-19
Low Channel +100kHz: 1937.6 MHz	3	-25.31	-19
High Channel -100kHz: 1987.4 MHz	1	-21.66	-19
High Channel -100kHz: 1987.4 MHz	2	-24.91	-19
High Channel -100kHz: 1987.4 MHz	3	-25.60	-19

BAND EDGE COMPLIANCE - INNER CHANNELS

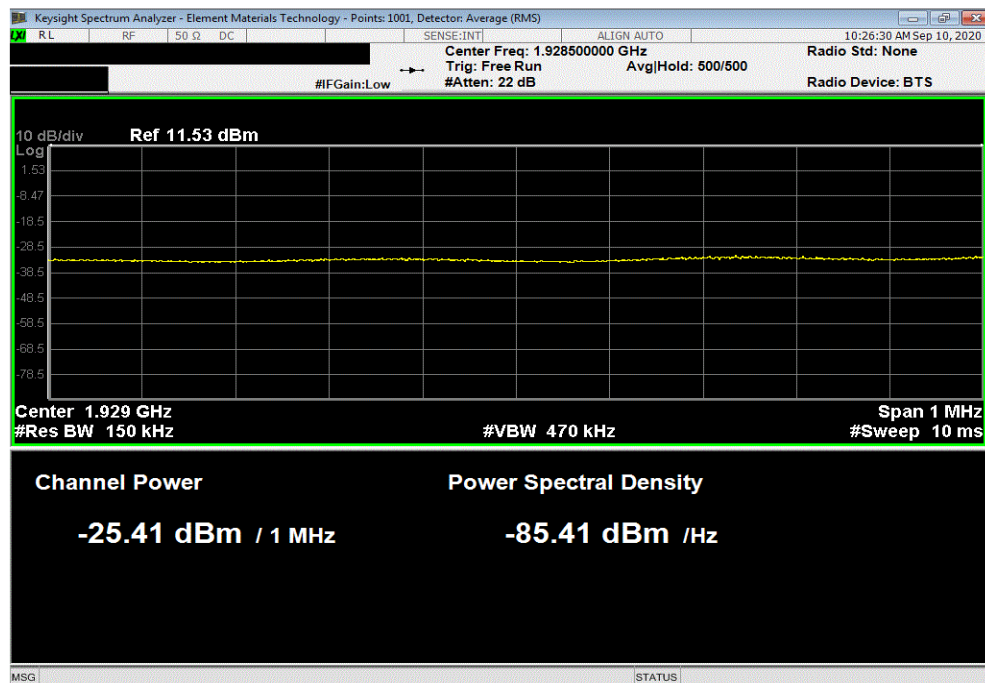


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, Low Channel +100kHz: 1937.6 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	1			-20.08	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, Low Channel +100kHz: 1937.6 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	2			-25.41	-19	Pass

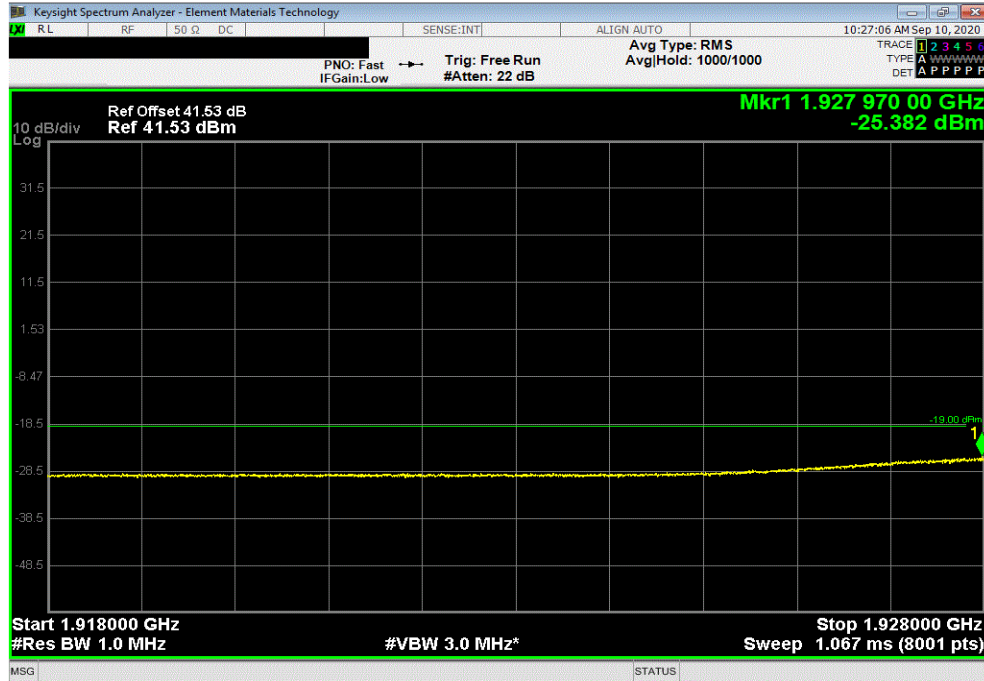


BAND EDGE COMPLIANCE - INNER CHANNELS



TMTx 2020.09.08.0 BETA XMit 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, Low Channel +100kHz: 1937.6 MHz						
Frequency				Value (dBm)	Limit (dBm)	Result
Range						
			3	-25.38	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency				Value (dBm)	Limit (dBm)	Result
Range						
			1	-21.12	-19	Pass

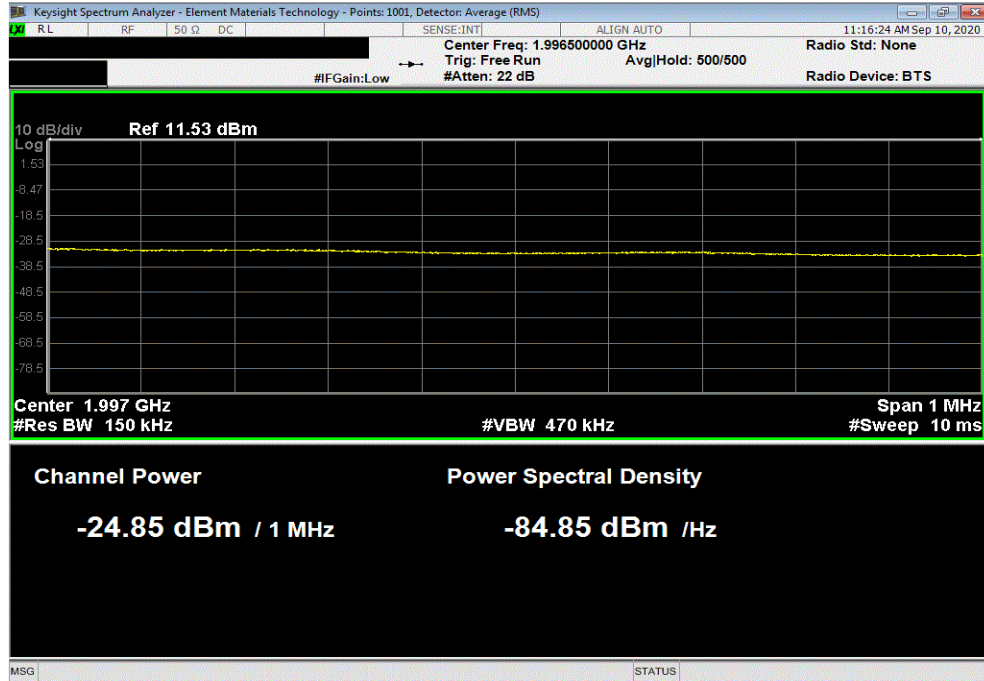


BAND EDGE COMPLIANCE - INNER CHANNELS

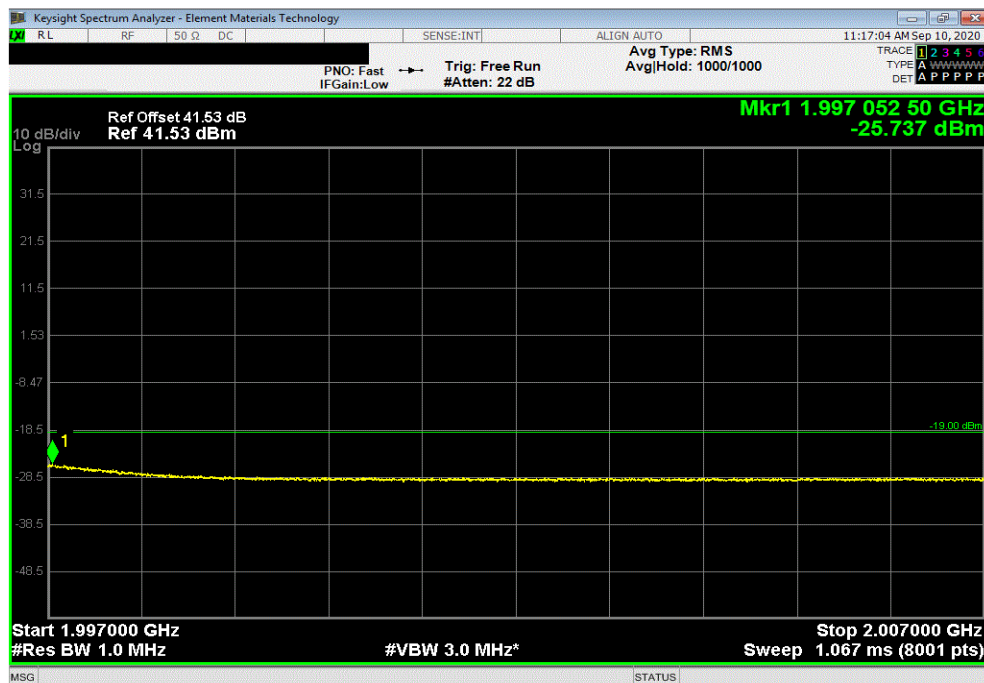


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range		Value (dBm)		Limit (dBm)	Result	
2		-24.85		-19	Pass	



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, QPSK Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range		Value (dBm)		Limit (dBm)	Result	
3		-25.74		-19	Pass	



BAND EDGE COMPLIANCE - INNER CHANNELS



TbTx 2020.09.08.0 BETA XMIT 2020.03.25.0

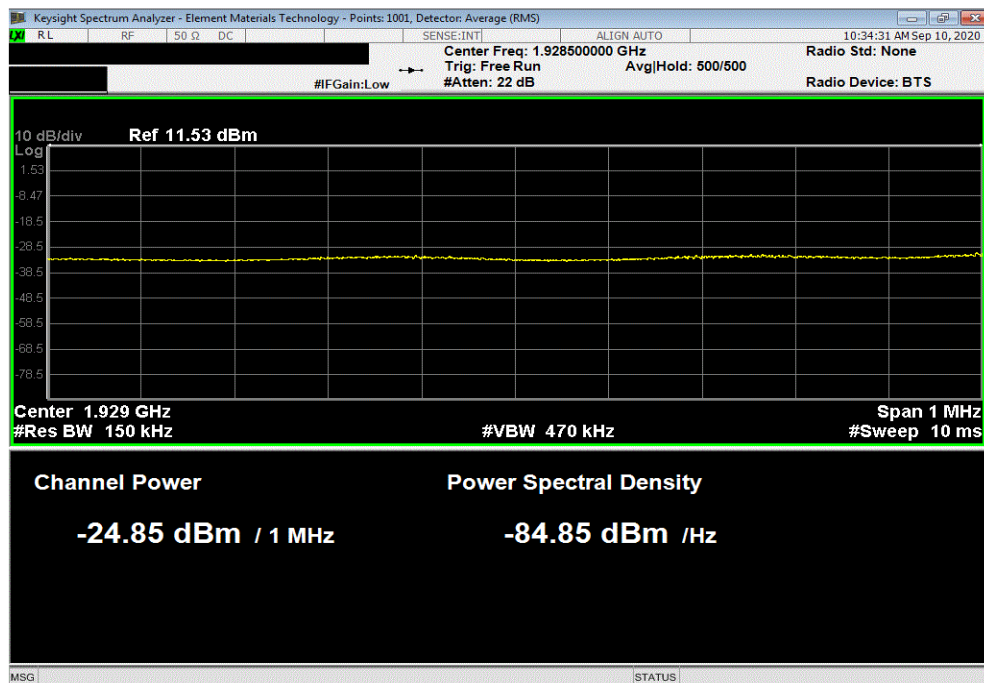
Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
1	-20.75	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
2	-24.85	-19	Pass



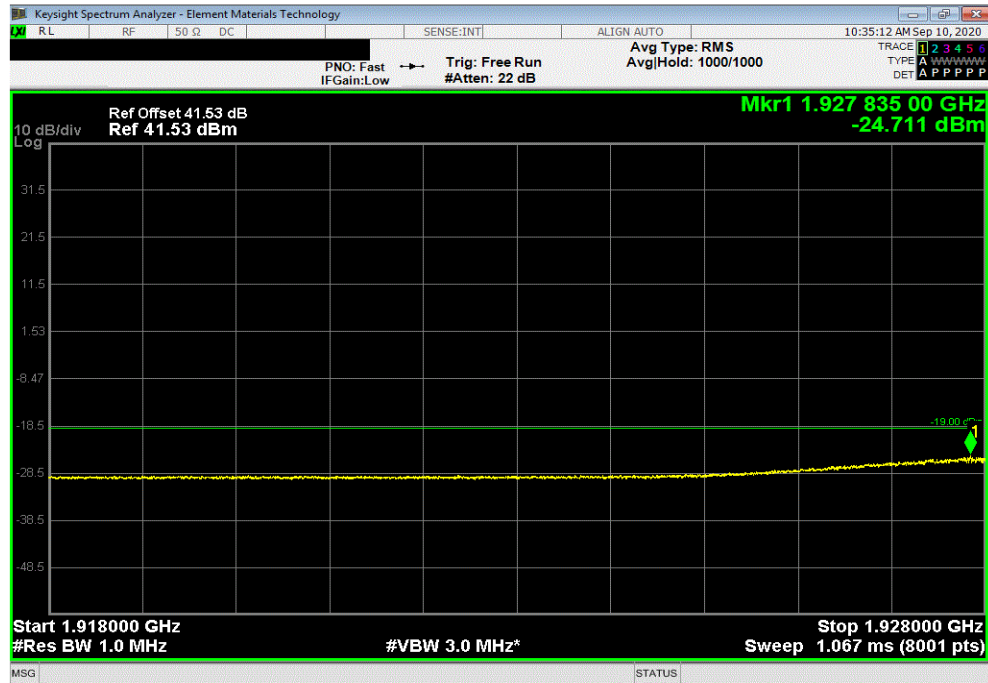
BAND EDGE COMPLIANCE - INNER CHANNELS



TbTx 2020.09.08.0 BETA XMit 2020.03.25.0

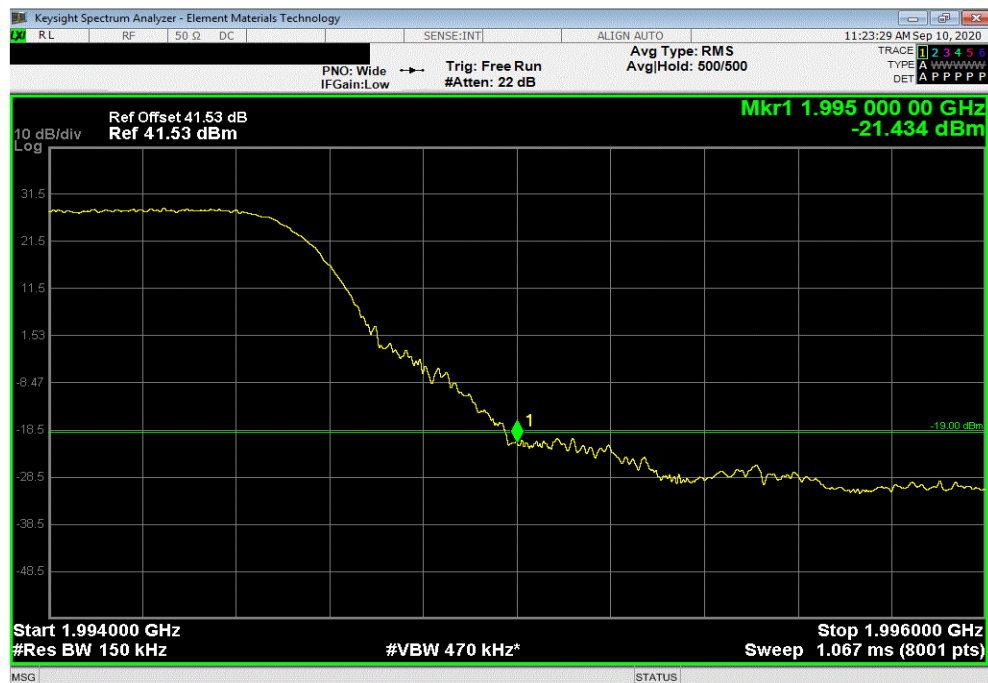
Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 16-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
3	-24.71	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 16-QAM Modulation, High Channel -100kHz: 1987.4 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
1	-21.43	-19	Pass

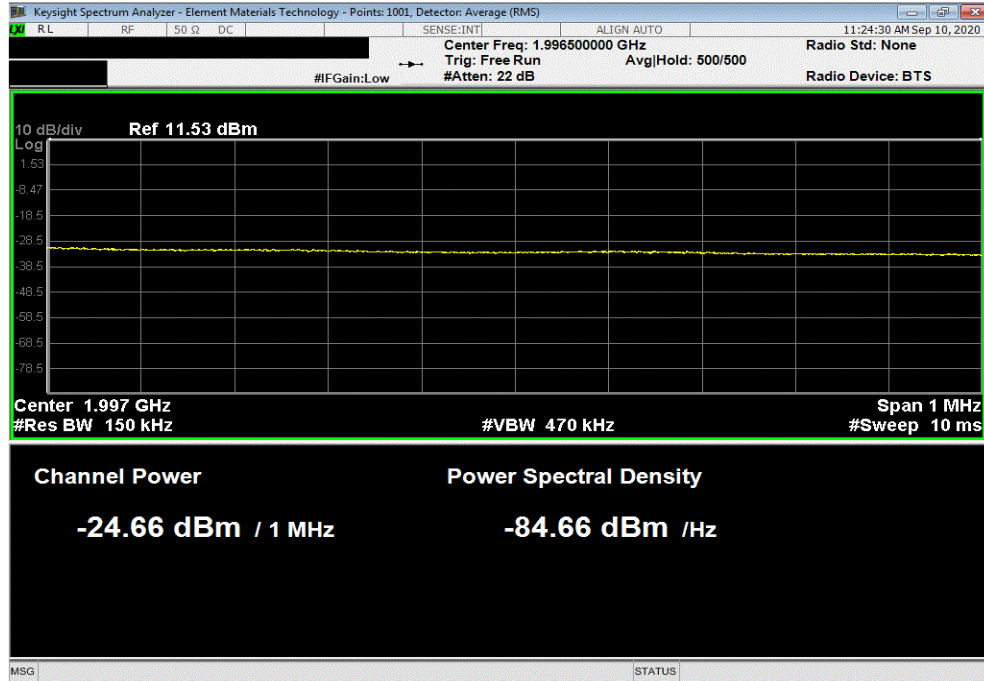


BAND EDGE COMPLIANCE - INNER CHANNELS

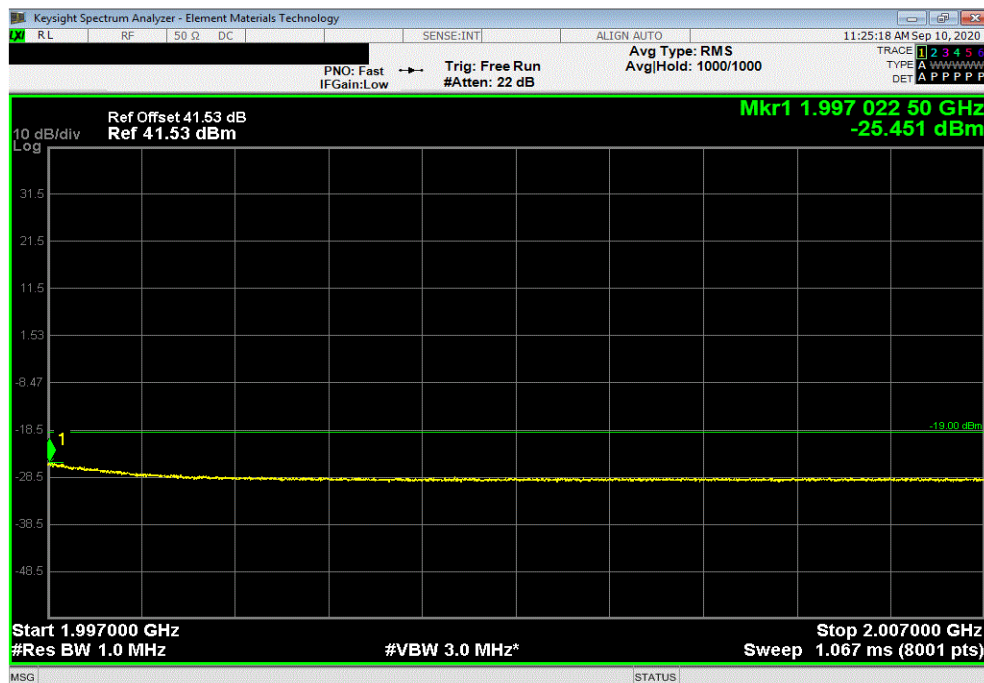


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz , 15 MHz Bandwidth, 16-QAM Modulation , High Channel -100kHz: 1987.4 MHz						
Frequency Range			Value (dBm)	Limit (dBm)	Result	
	2		-24.66	-19	Pass	



Port 1, Band n25, 1930 MHz - 1995 MHz , 15 MHz Bandwidth, 16-QAM Modulation , High Channel -100kHz: 1987.4 MHz						
Frequency Range			Value (dBm)	Limit (dBm)	Result	
	3		-25.45	-19	Pass	



BAND EDGE COMPLIANCE - INNER CHANNELS

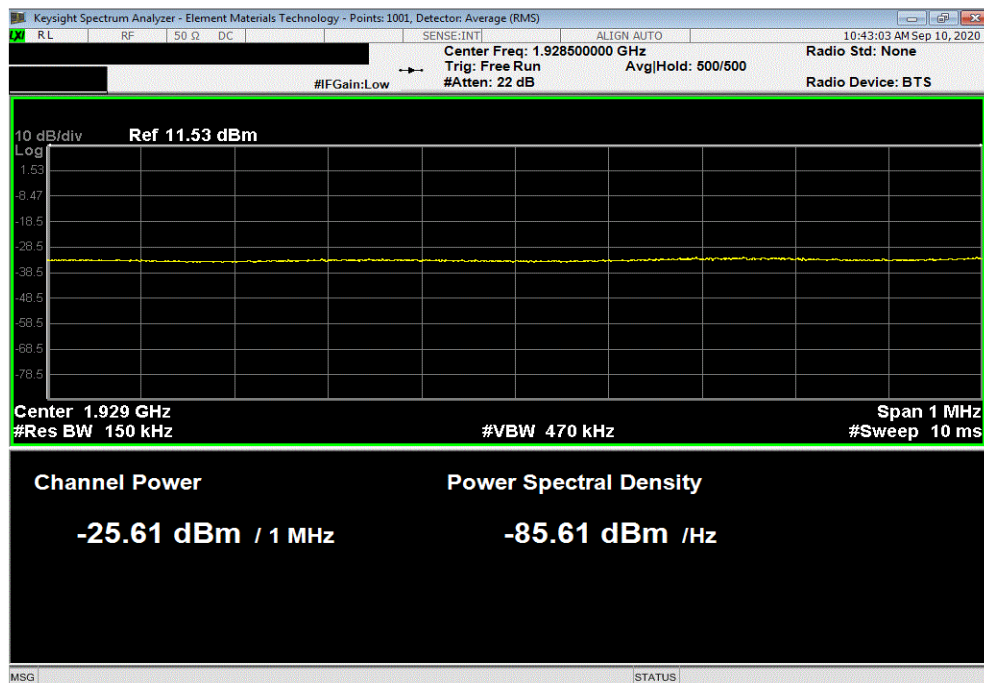


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel +100kHz: 1937.6 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	1			-22.12	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel +100kHz: 1937.6 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	2			-25.61	-19	Pass



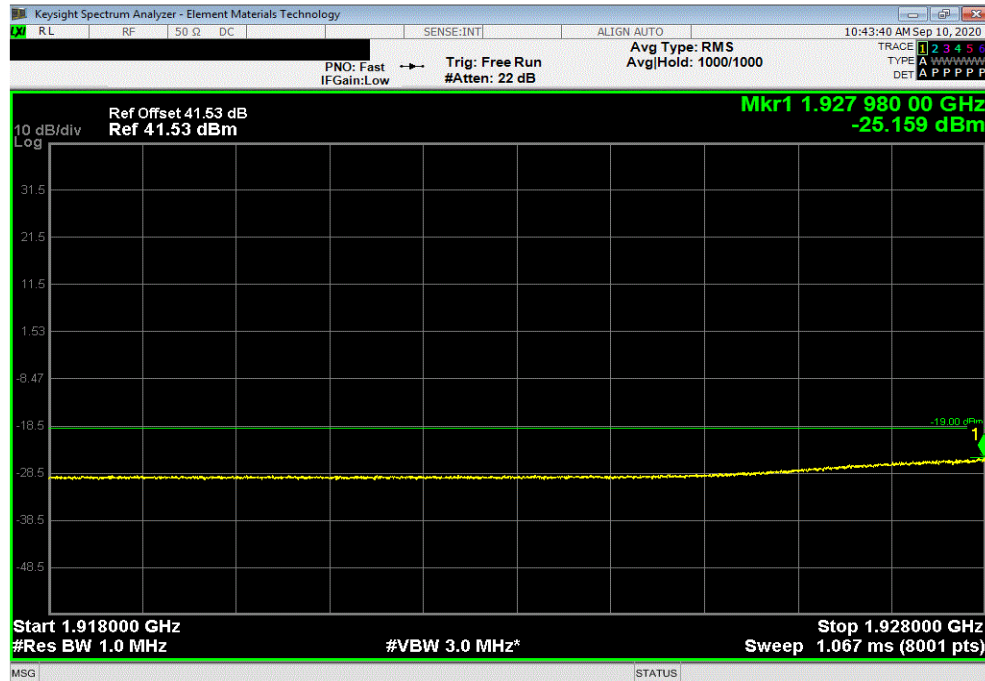
BAND EDGE COMPLIANCE - INNER CHANNELS



TbTx 2020.09.08.0 BETA XMt 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
3	-25.16	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, High Channel -100kHz: 1987.4 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
1	-21.81	-19	Pass

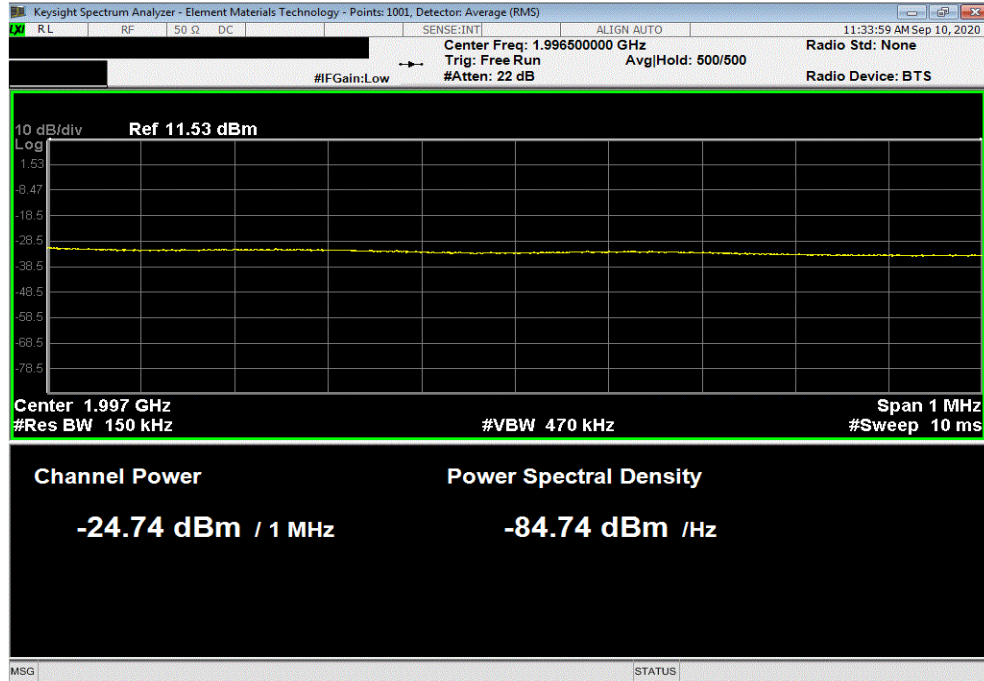


BAND EDGE COMPLIANCE - INNER CHANNELS

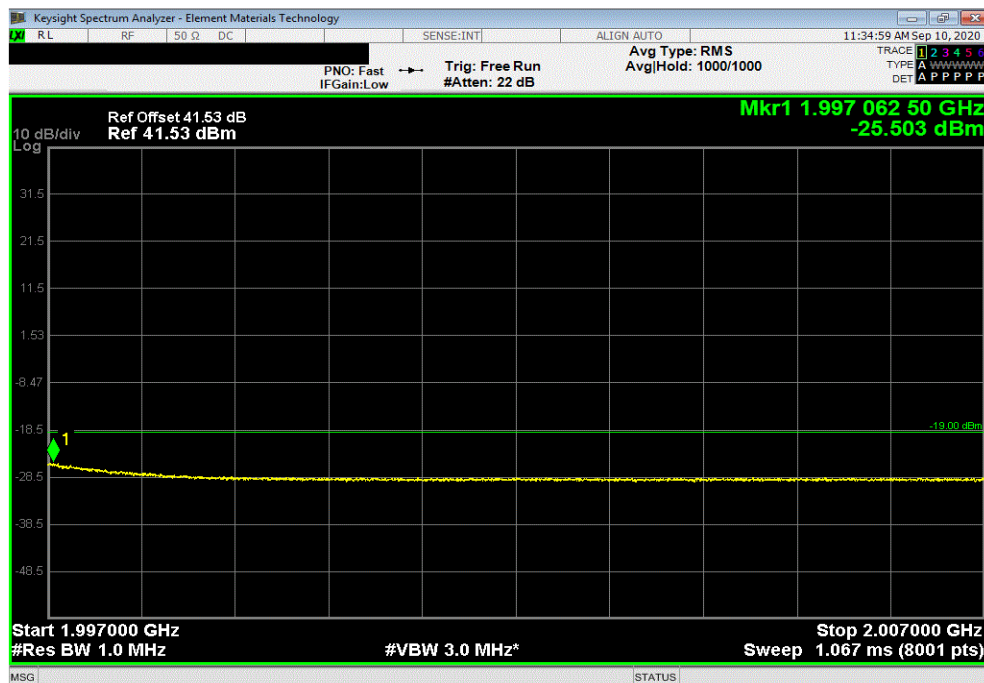


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	2			-24.74	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 64-QAM Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range				Value (dBm)	Limit (dBm)	Result
	3			-25.50	-19	Pass



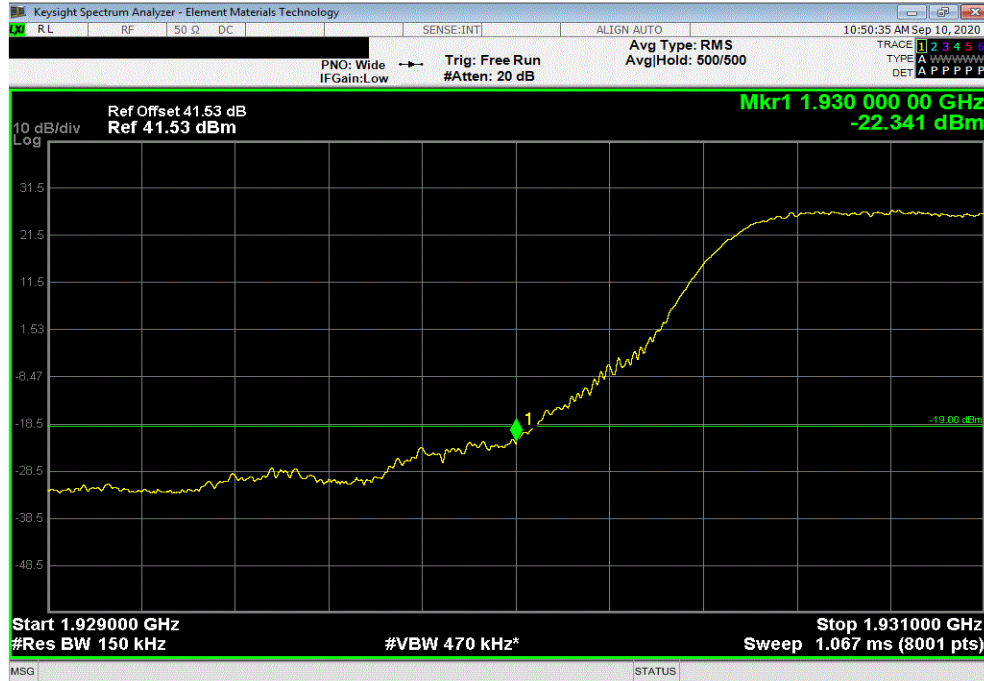
BAND EDGE COMPLIANCE - INNER CHANNELS



TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

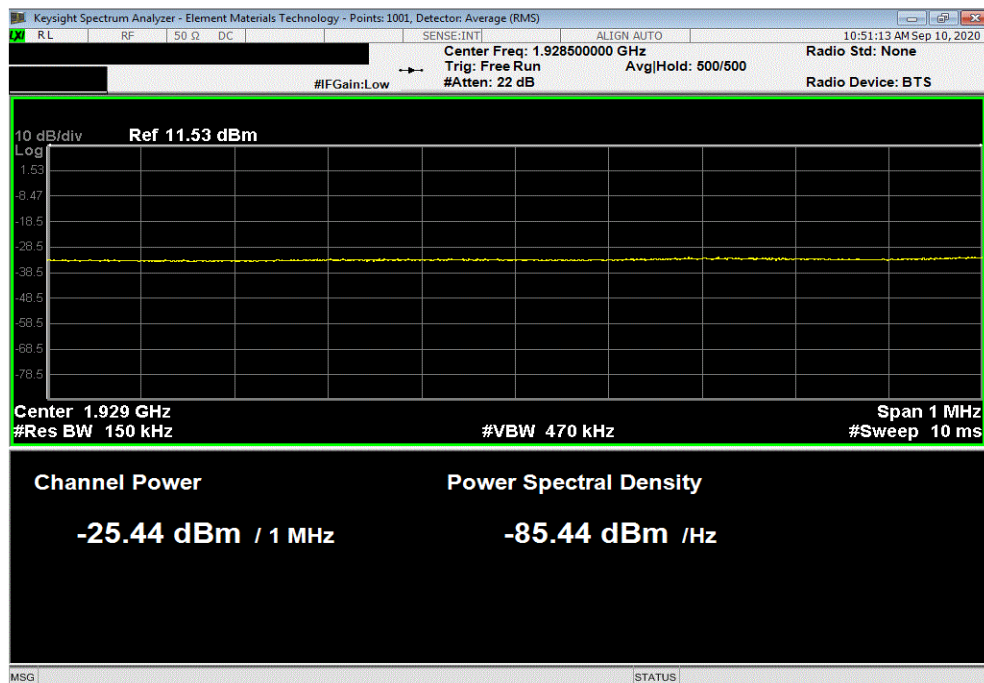
Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
1	-22.34	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
2	-25.44	-19	Pass



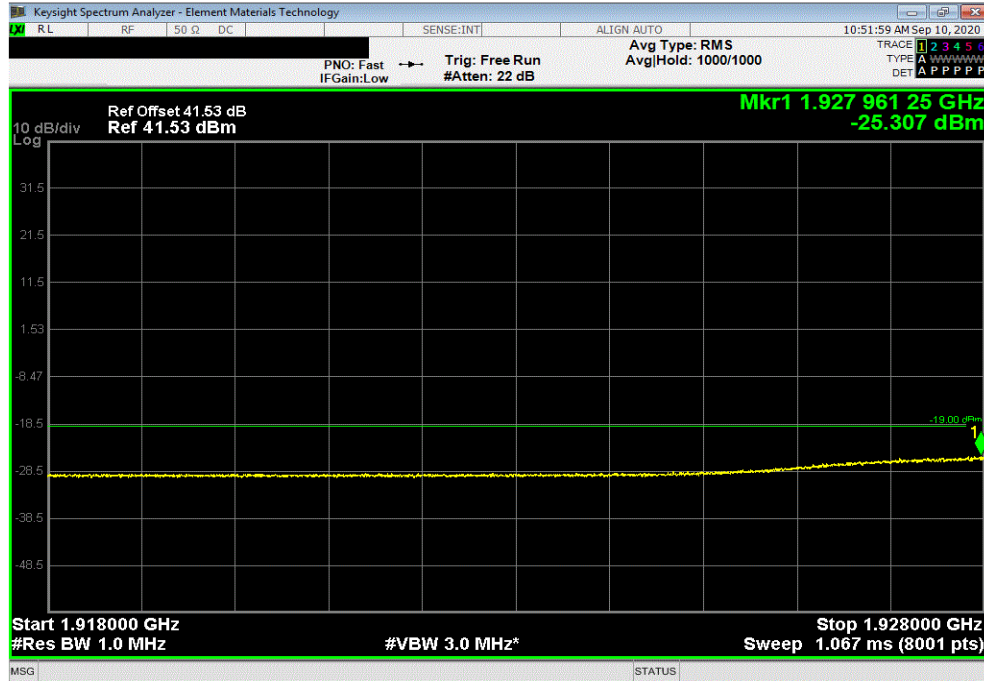
BAND EDGE COMPLIANCE - INNER CHANNELS



TbTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, Low Channel +100kHz: 1937.6 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
3	-25.31	-19	Pass



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, High Channel -100kHz: 1987.4 MHz

Frequency Range	Value (dBm)	Limit (dBm)	Result
1	-21.66	-19	Pass

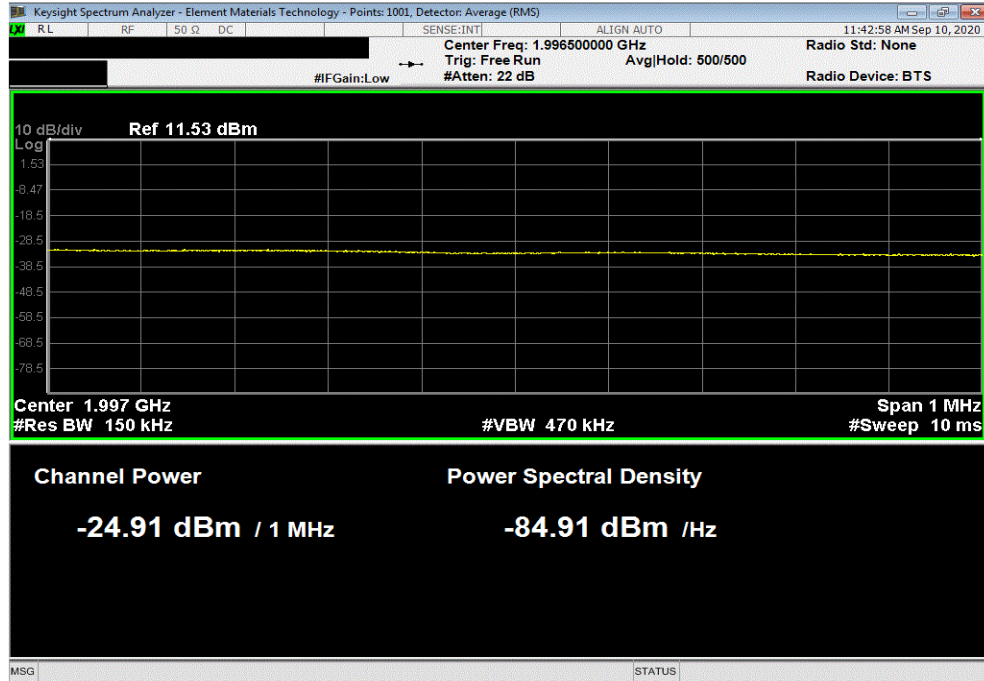


BAND EDGE COMPLIANCE - INNER CHANNELS

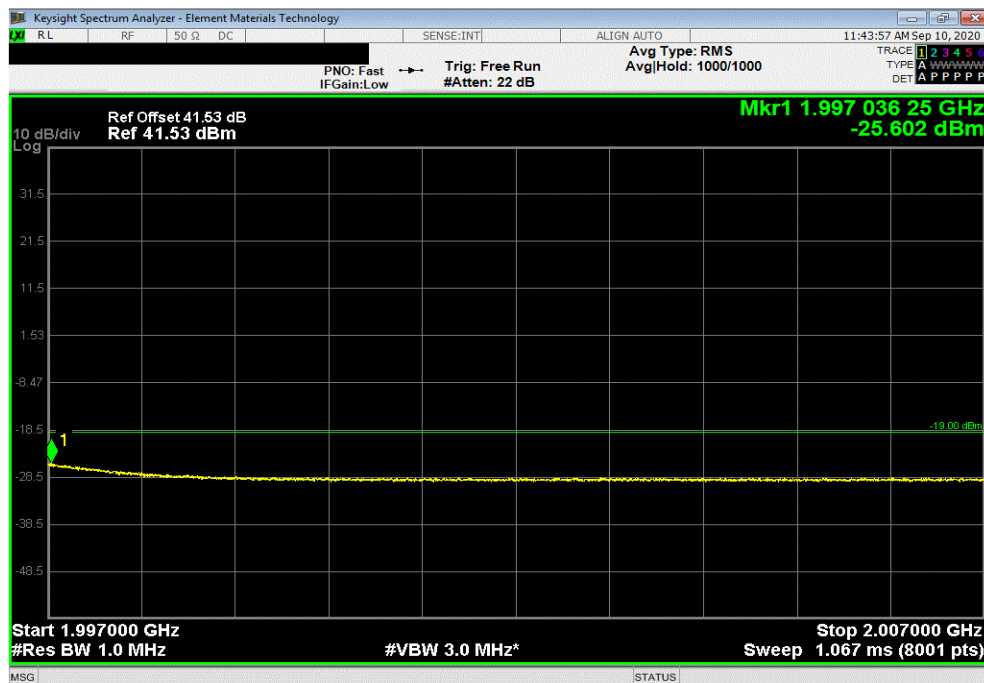


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range		Value (dBm)		Limit (dBm)	Result	
2		-24.91		-19	Pass	



Port 1, Band n25, 1930 MHz - 1995 MHz, 15 MHz Bandwidth, 256-QAM Modulation, High Channel -100kHz: 1987.4 MHz						
Frequency Range		Value (dBm)		Limit (dBm)	Result	
3		-25.60		-19	Pass	



SPURIOUS CONDUCTED EMISSIONS



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
Analyzer - Spectrum Analyzer	Agilent	N9010A	AFL	27-Feb-20	27-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Generator - Signal	Agilent	N5173B	TIW	17-Jul-20	17-Jul-23

TEST DESCRIPTION

The antenna port spurious emissions were measured at the RF output terminal of the EUT through 4 different attenuation configurations which continues through to the RF input of the spectrum analyzer. Analyzer plots utilizing a resolution bandwidth called out by the client's test plan were made for each modulation type from 9 KHz to 22 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than the limits also called out by the client's test plan shown below.

The measurement methods are detailed in KDB971168 D01v03 section 6 and ANSI C63.26-2015.

Per FCC 2.1057(a)(1) and RSS Gen 6.13, the upper level of measurement is the 10th harmonic of the highest fundamental frequency.

These measurements are for frequency band after the first 1.0 MHz bands immediately outside and adjacent to the frequency block.

Per section FCC 24.238(a) and RSS 133 6.5 (ii), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm for a 1 MHz measurement bandwidth. The limit is adjusted to -19 dBm [-13 dBm -10 log (4)] per FCC KDB 662911D01 v02r01 because the BTS may operate as a 4 port MIMO transmitter.


The limit for the 9kHz to 150kHz frequency range was adjusted to -49dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 1MHz [i.e.: -49dBm = -19dBm -10log(1MHz/1kHz)]. The limit for the 150kHz to 20MHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 1MHz [i.e.: -39dBm = -19dBm -10log(1MHz/10kHz)]. The required limit of -19dBm with a RBW of > 1MHz was used for all other frequency ranges.

RF conducted emissions testing was performed only on one port. The testing was performed on the same version of hardware (FHFB) as the original certification test. The FHFB antenna ports are essentially electrically identical (the RF power variation between antenna ports is small as shown in the original certification testing) and antenna port 1 was selected to perform the testing under this effort as allowed by ANSI C63.26-2015 paragraph 5.7.2i.

SPURIOUS CONDUCTED EMISSIONS



Thru 2020.09.08.0 BETA XMI 2020.03.25.0

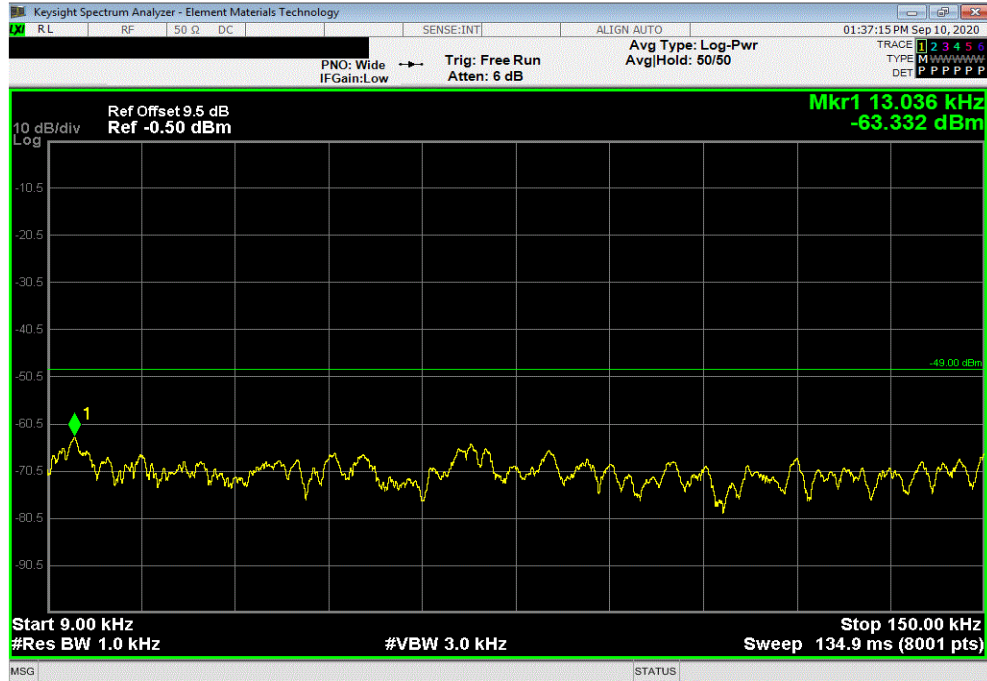
EUT: FHFB (FCC C2PC)		Work Order: NOKI0021			
Serial Number: L9144200604		Date: 10-Sep-20			
Customer: Nokia Solutions and Networks		Temperature: 22.8 °C			
Attendees: Mitchell Hill, John Rattanavong		Humidity: 48.3% RH			
Project: None		Barometric Pres.: 1022 mbar			
Tested by: Brandon Hobbs		Power: 54 VDC	Job Site: TX05		
TEST SPECIFICATIONS		Test Method			
FCC 24E:2020		ANSI C63.26:2015			
RSS-133:2018		RSS-133:2018			
COMMENTS					
All measurement path losses were accounted for in the reference level offset including any attenuators, filters and DC blocks. The carrier power was set to maximum for all testing.					
DEVIATIONS FROM TEST STANDARD					
None					
Configuration #	1,2,3	Signature 			
		Frequency Range	Max Value (dBm)	Limit < (dBm)	Result
Band 25, 1930 MHz - 1995 MHz, 5G					
Port 1					
5 MHz Bandwidth					
QPSK Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-63.33	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-53.40	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-25.53	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.02	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-35.65	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-35.68	-19	Pass
16-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-63.49	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-53.28	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-25.27	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.35	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-36.57	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-36.66	-19	Pass
64-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-64.66	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-53.47	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-24.57	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.60	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-36.48	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-36.33	-19	Pass
256-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-64.67	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-53.48	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-24.76	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.10	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-35.61	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-35.10	-19	Pass
10 MHz Bandwidth					
256-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-66.96	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-53.12	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-25.15	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.91	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-35.90	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-36.35	-19	Pass
15 MHz Bandwidth					
256-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-68.23	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-52.73	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-25.22	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-38.23	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-36.89	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-36.10	-19	Pass
20 MHz Bandwidth					
256-QAM Modulation					
	Mid Channel, 1962.5 MHz	9 kHz - 150 kHz	-66.25	-49	Pass
	Mid Channel, 1962.5 MHz	150 kHz - 20 MHz	-52.87	-39	Pass
	Mid Channel, 1962.5 MHz	20 MHz - 3 GHz	-24.52	-19	Pass
	Mid Channel, 1962.5 MHz	3 GHz - 10 GHz	-37.73	-19	Pass
	Mid Channel, 1962.5 MHz	10 GHz - 18 GHz	-36.00	-19	Pass
	Mid Channel, 1962.5 MHz	18 GHz - 22 GHz	-36.57	-19	Pass

SPURIOUS CONDUCTED EMISSIONS

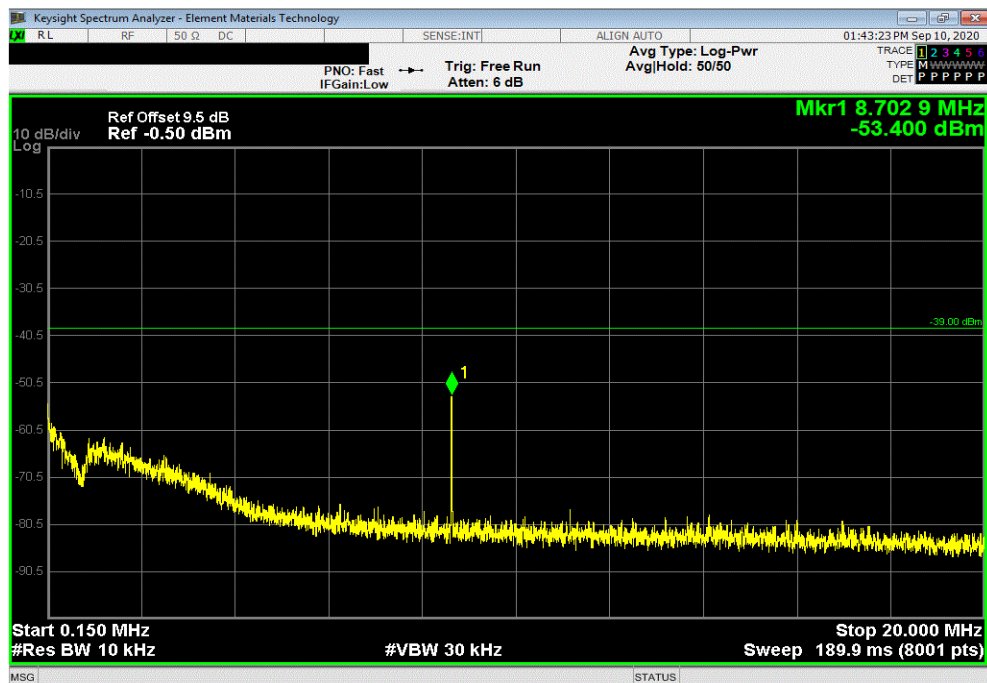


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
9 kHz - 150 kHz	-63.33	-49	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
150 kHz - 20 MHz	-53.4	-39	Pass		

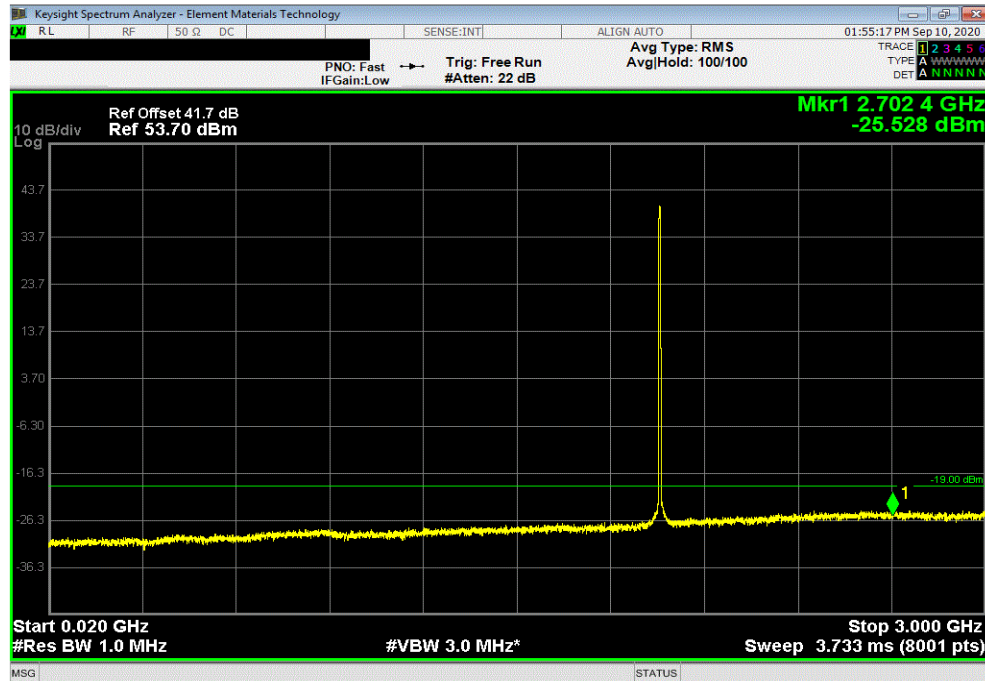


SPURIOUS CONDUCTED EMISSIONS

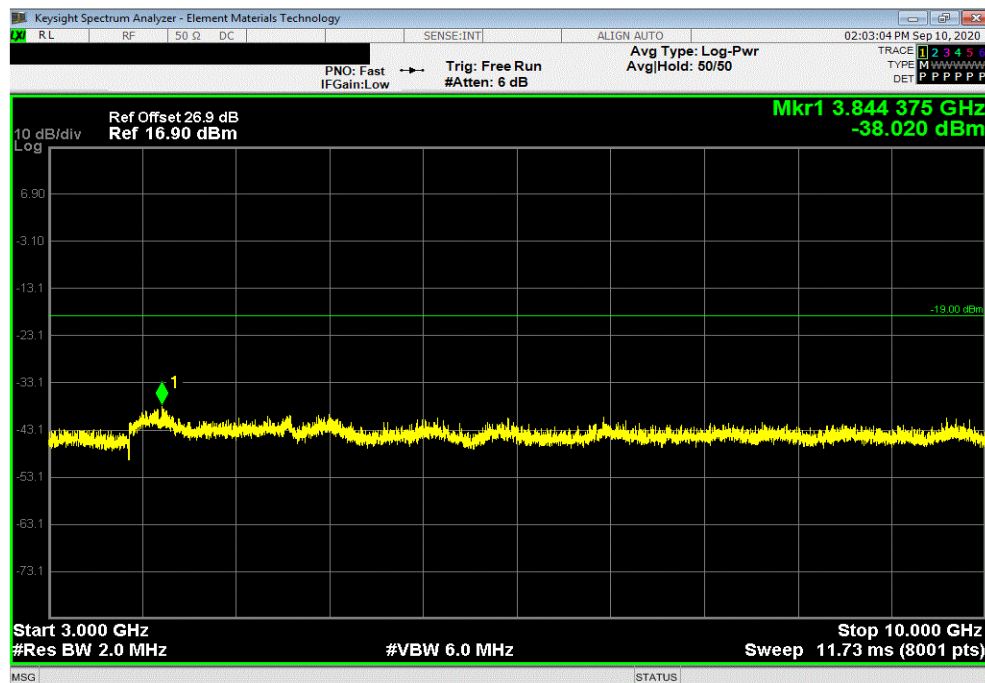


TMTx 2020.09.08.0 BETA XMit 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
20 MHz - 3 GHz	-25.53	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
3 GHz - 10 GHz	-38.02	-19	Pass		

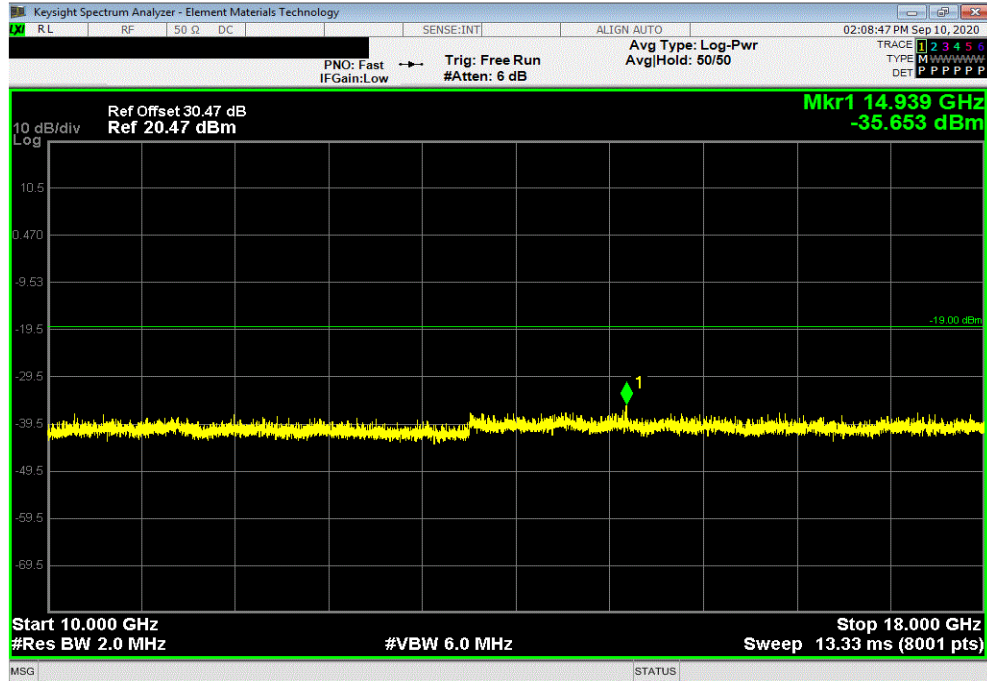


SPURIOUS CONDUCTED EMISSIONS

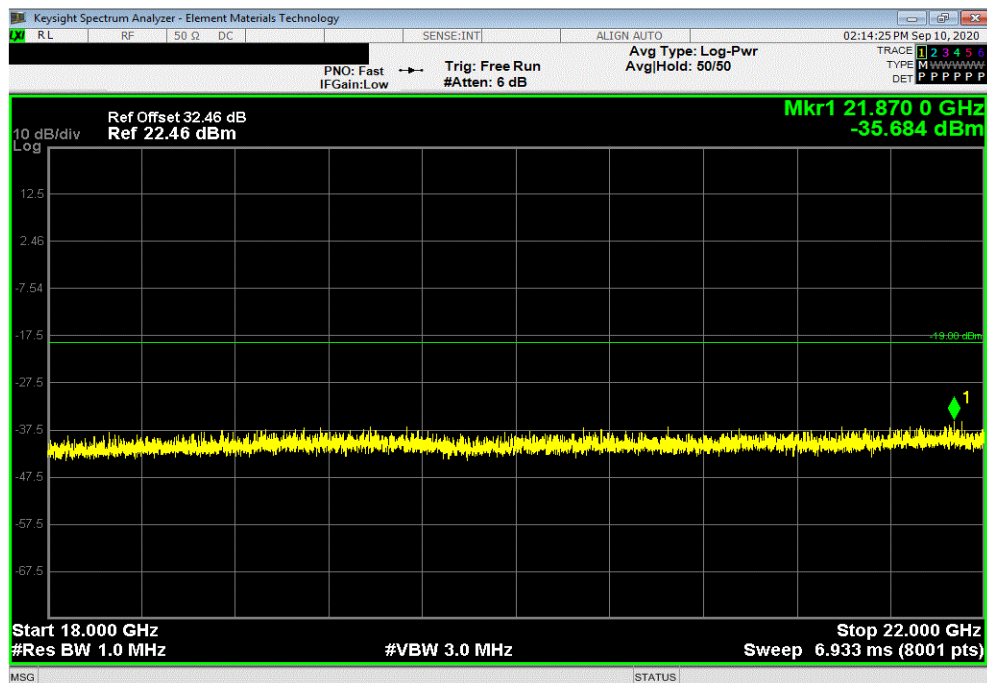


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-35.65	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, QPSK Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-35.68	-19	Pass		

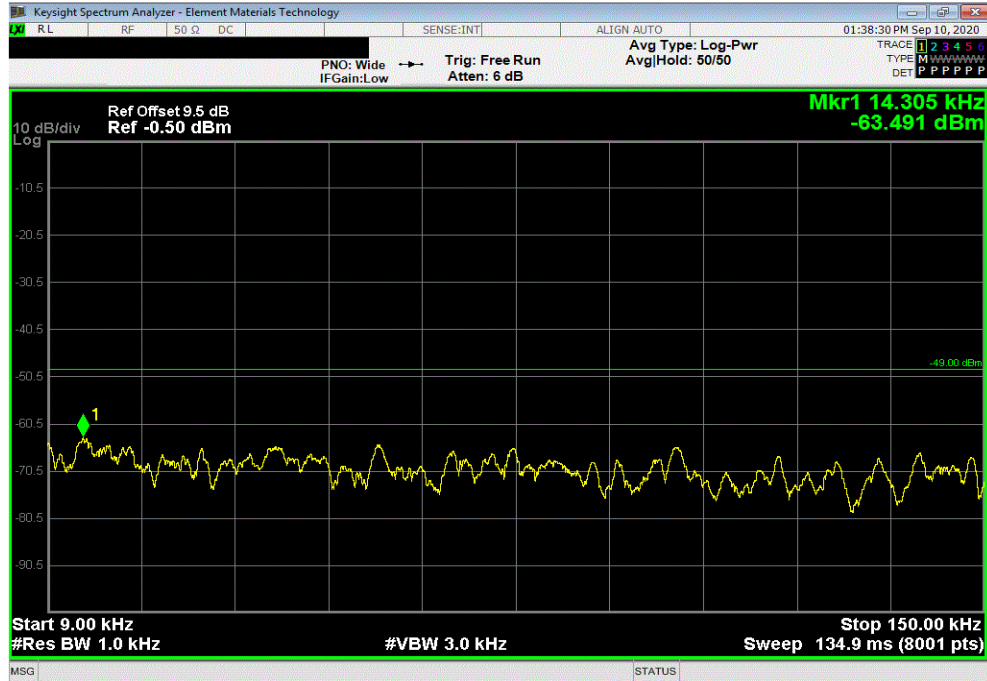


SPURIOUS CONDUCTED EMISSIONS

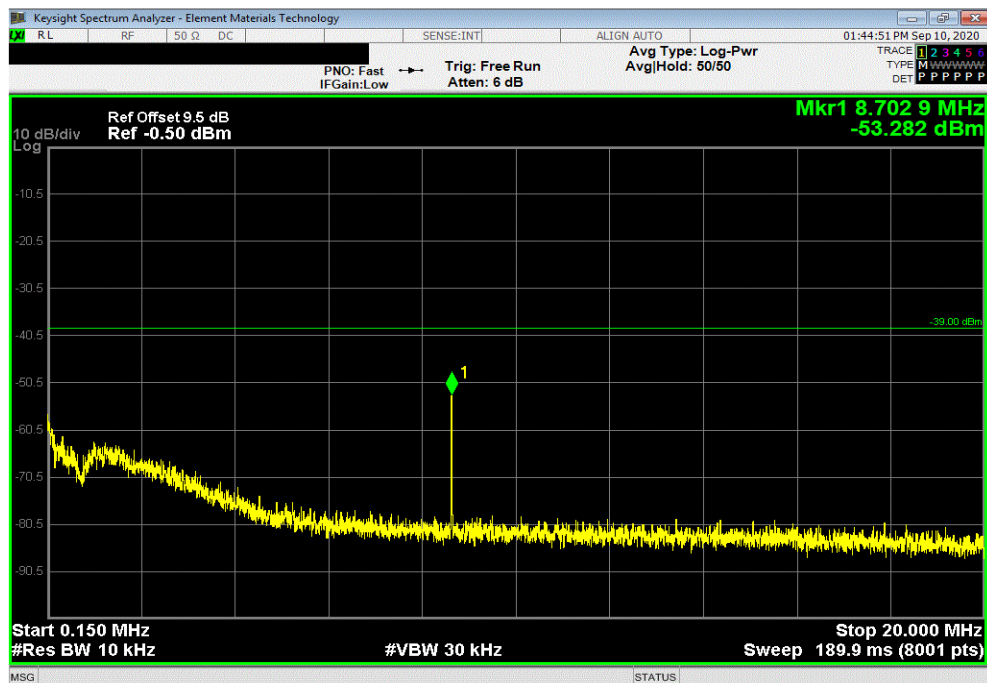


TMTx 2020.09.08.0 BETA XMI 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-63.49	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-53.28	-39	Pass	

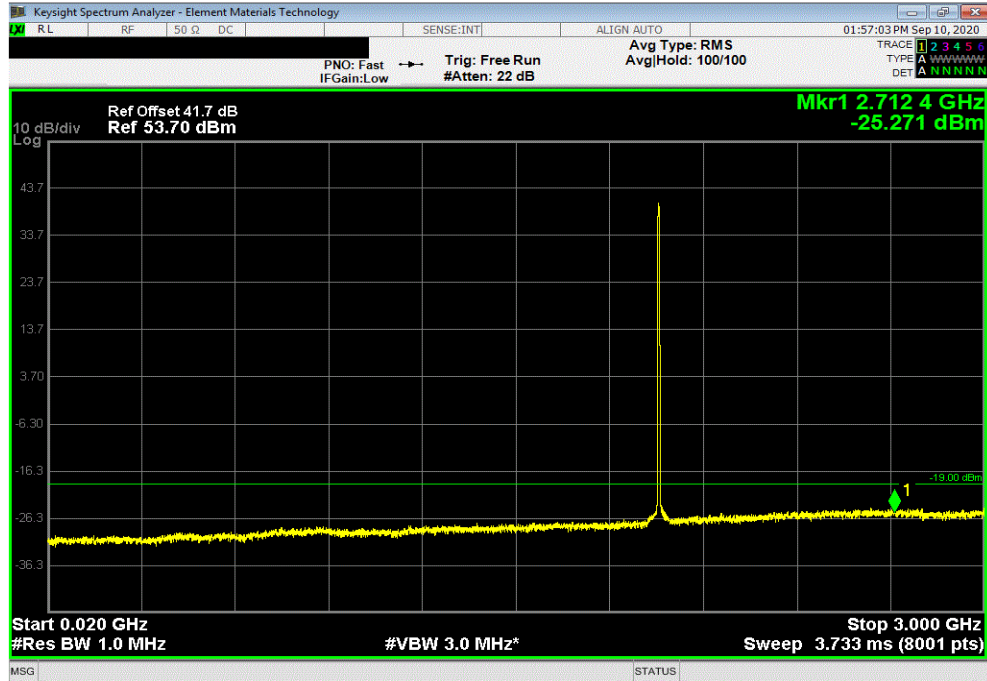


SPURIOUS CONDUCTED EMISSIONS

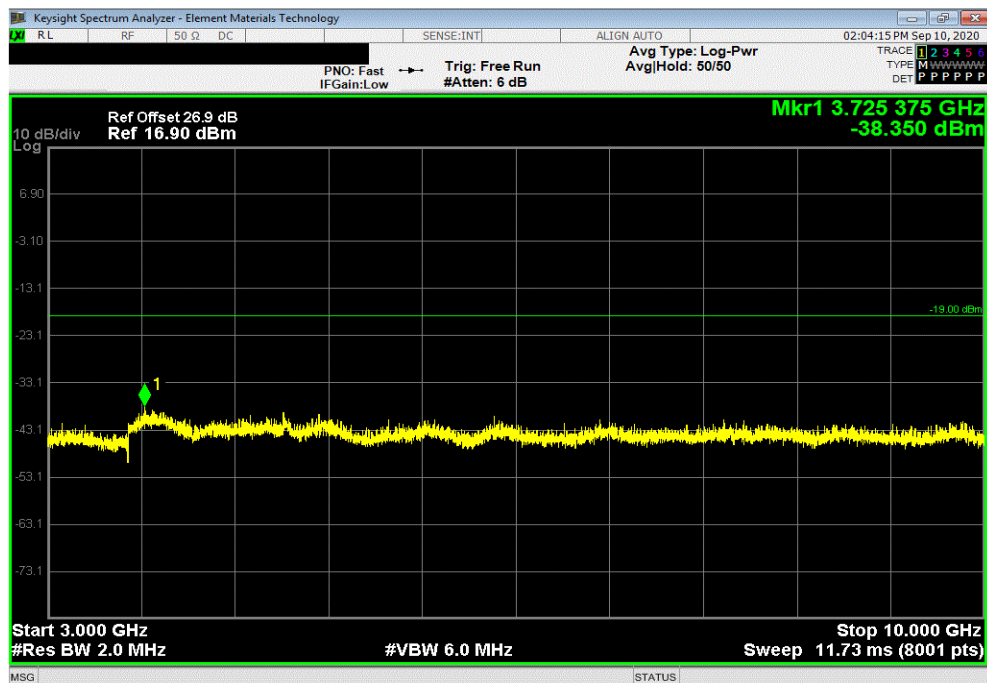


TbTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
20 MHz - 3 GHz	-25.27	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
3 GHz - 10 GHz	-38.35	-19	Pass		

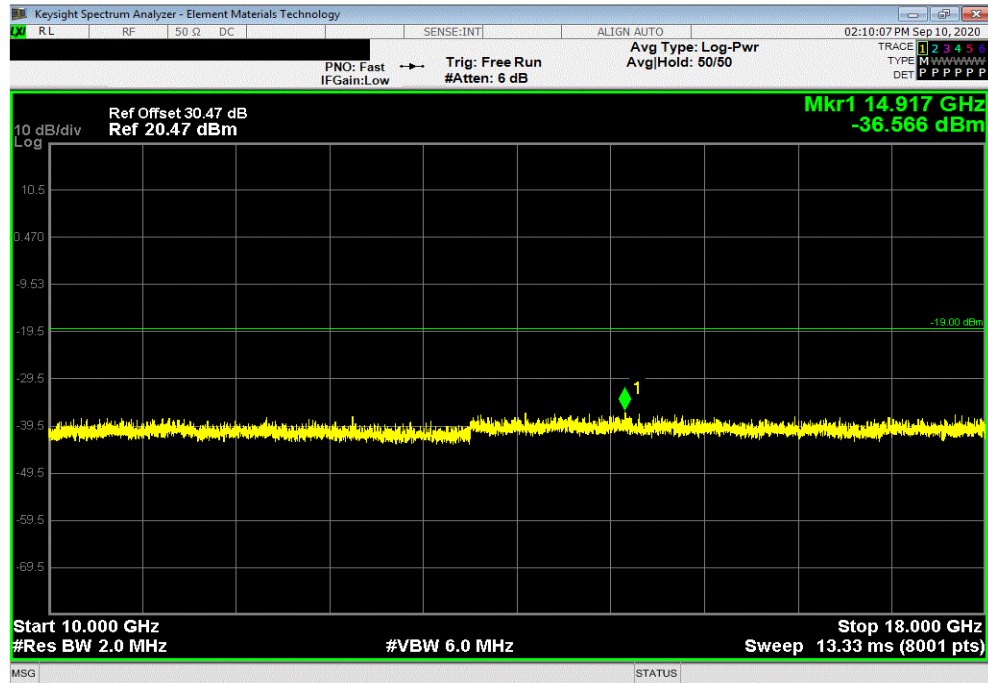


SPURIOUS CONDUCTED EMISSIONS

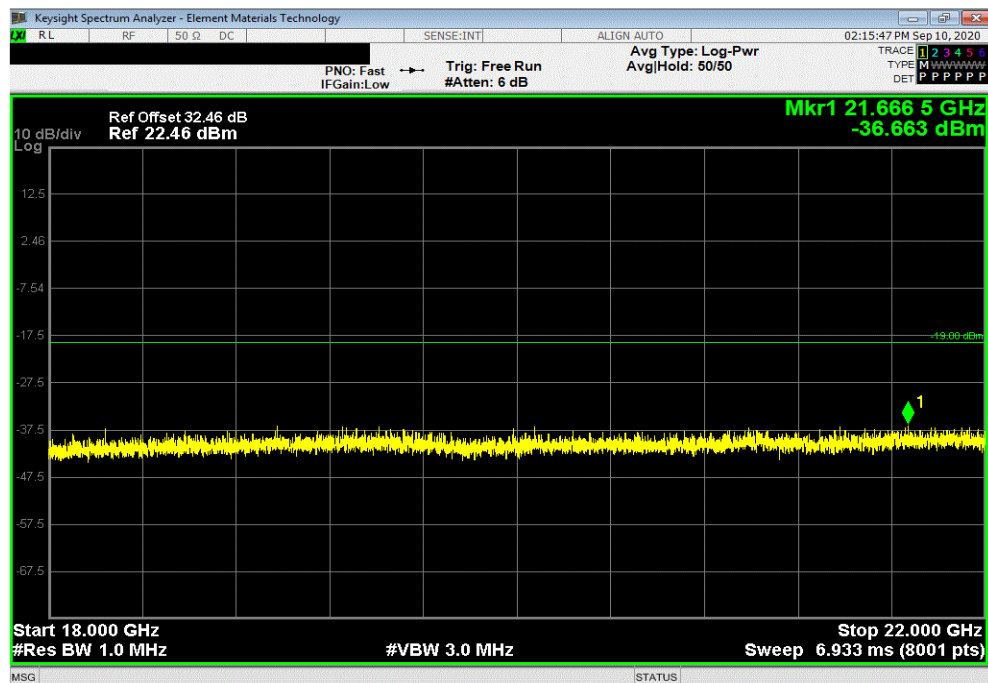


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-36.57	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 16-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-36.66	-19	Pass		

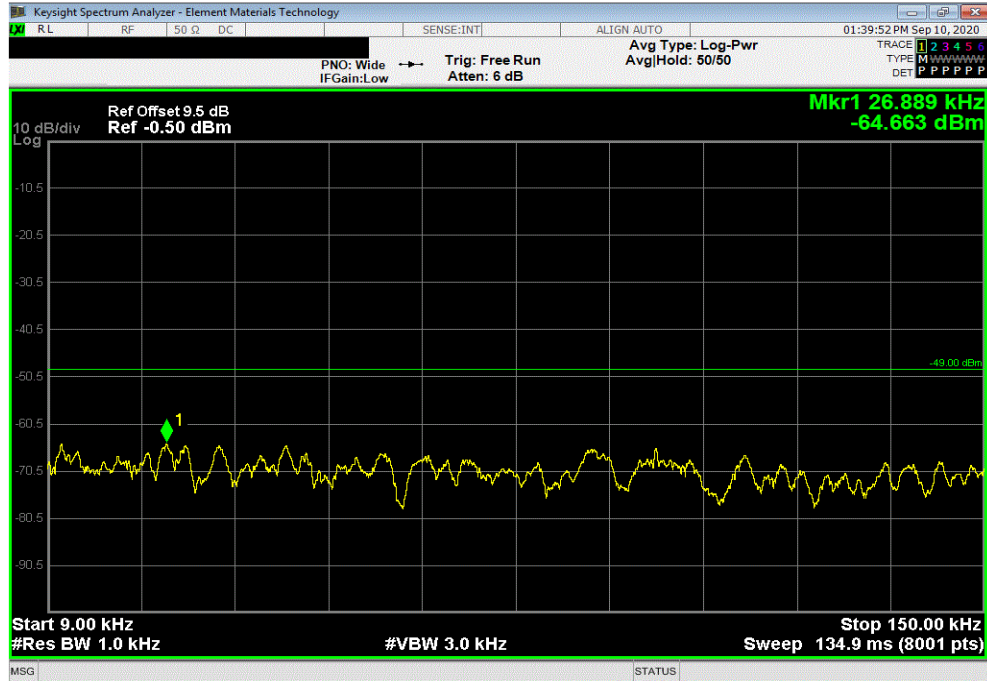


SPURIOUS CONDUCTED EMISSIONS

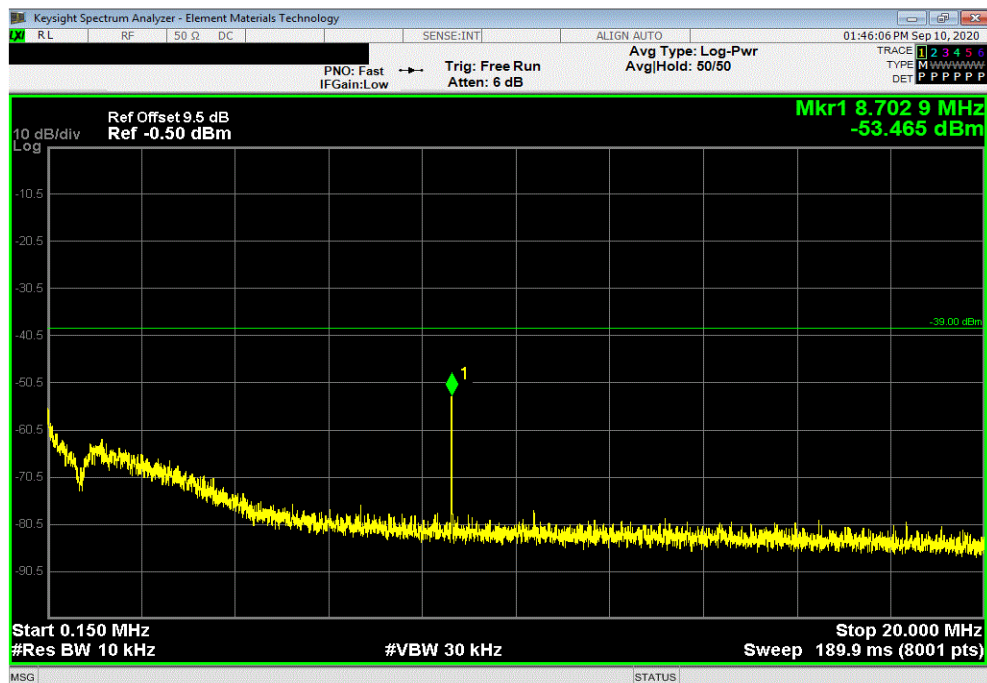


TMTx 2020.09.08.0 BETA XMI 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-64.66	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-53.47	-39	Pass	

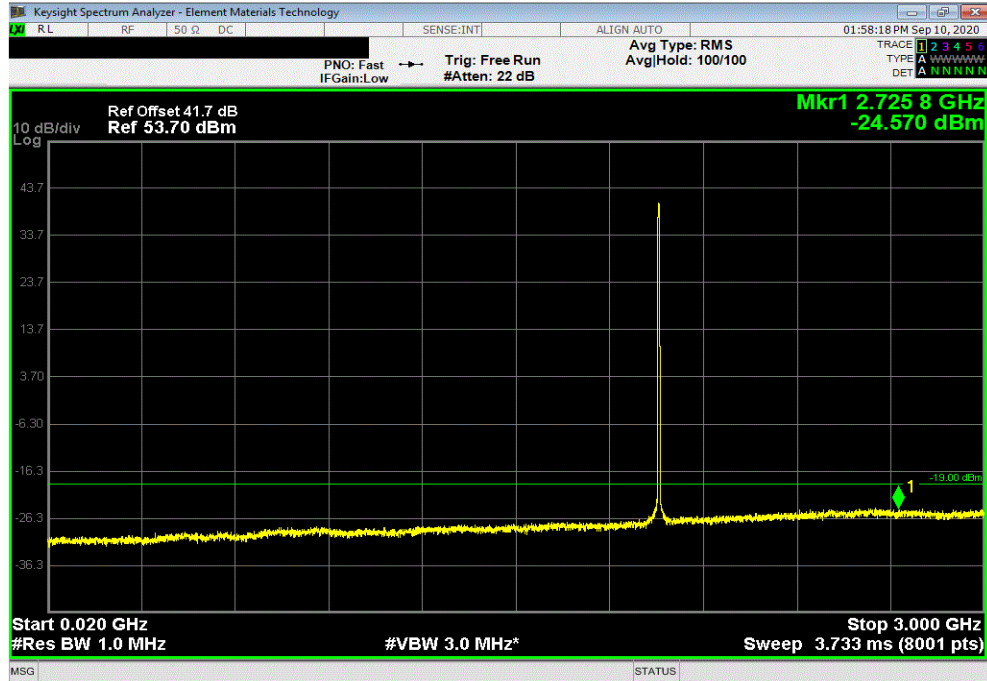


SPURIOUS CONDUCTED EMISSIONS

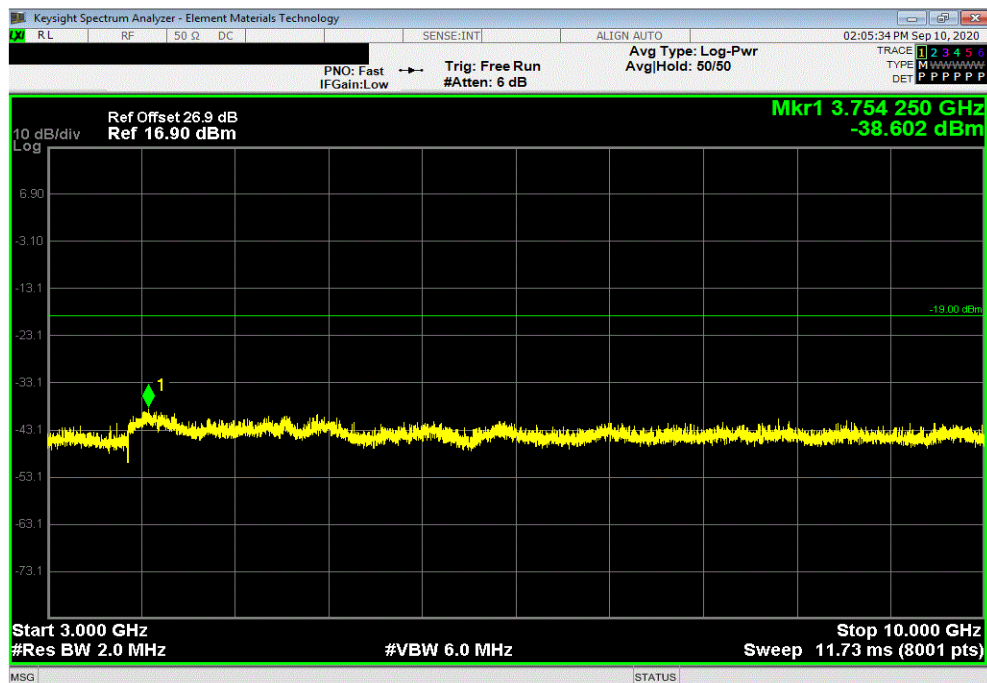


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
20 MHz - 3 GHz	-24.57	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
3 GHz - 10 GHz	-38.6	-19	Pass		

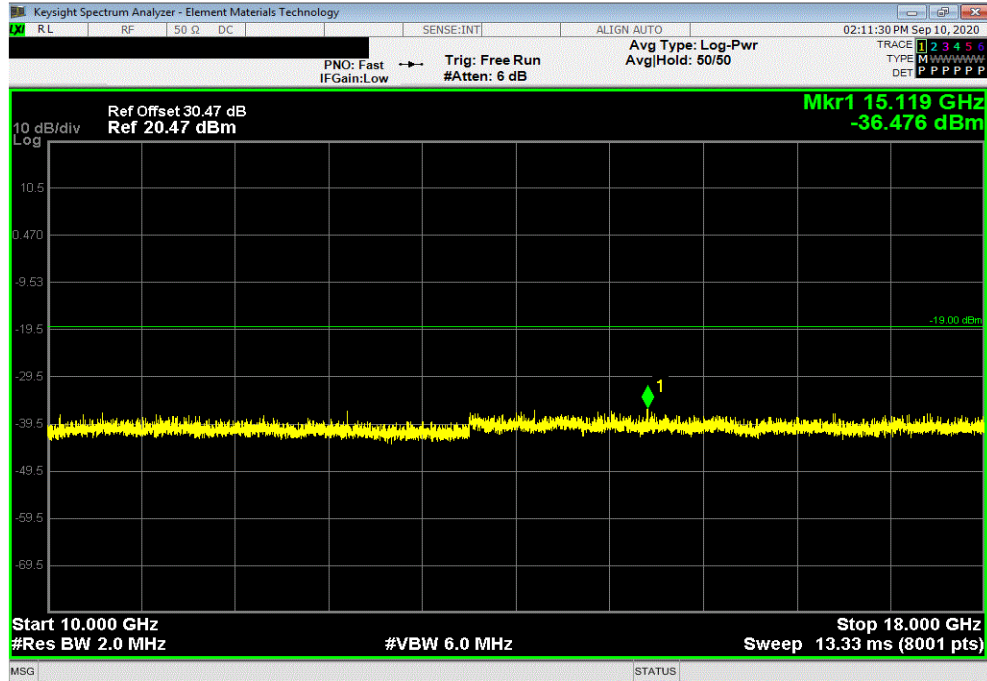


SPURIOUS CONDUCTED EMISSIONS

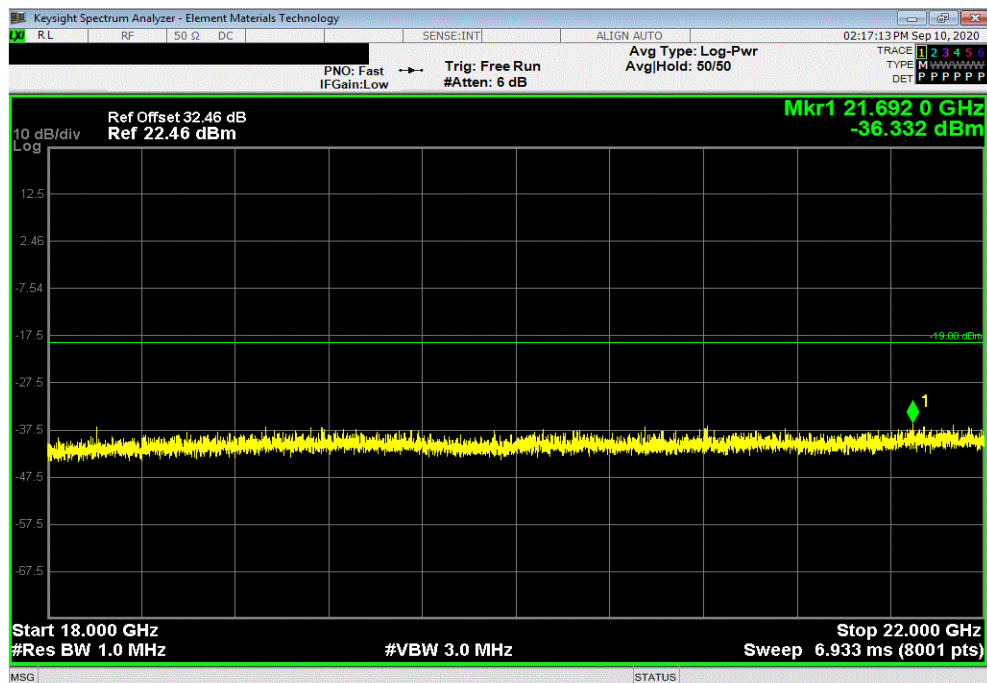


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-36.48	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 64-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-36.33	-19	Pass		

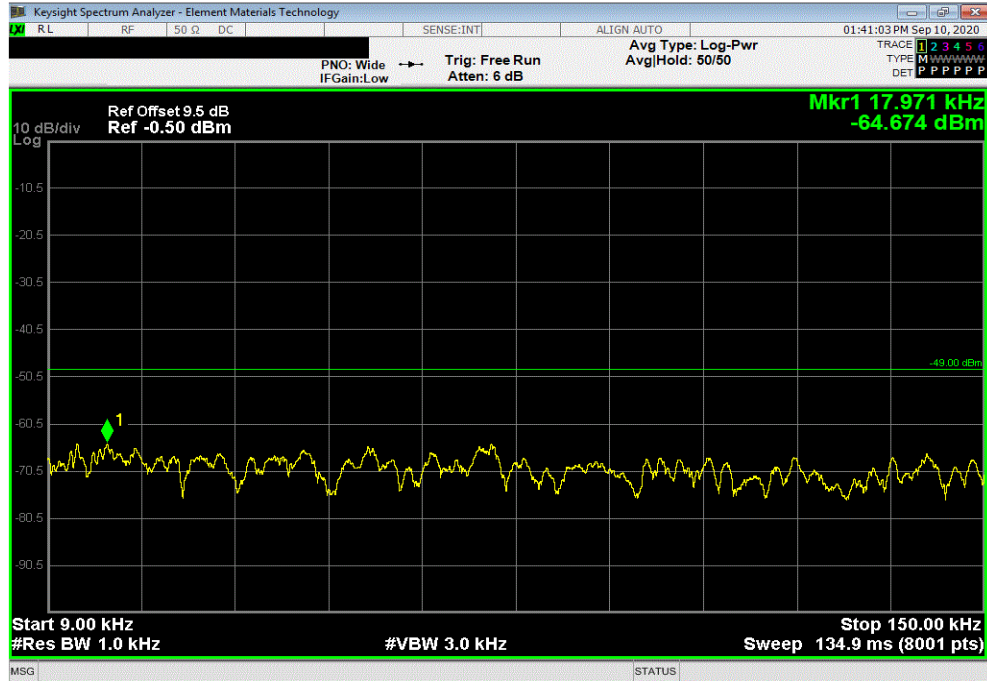


SPURIOUS CONDUCTED EMISSIONS

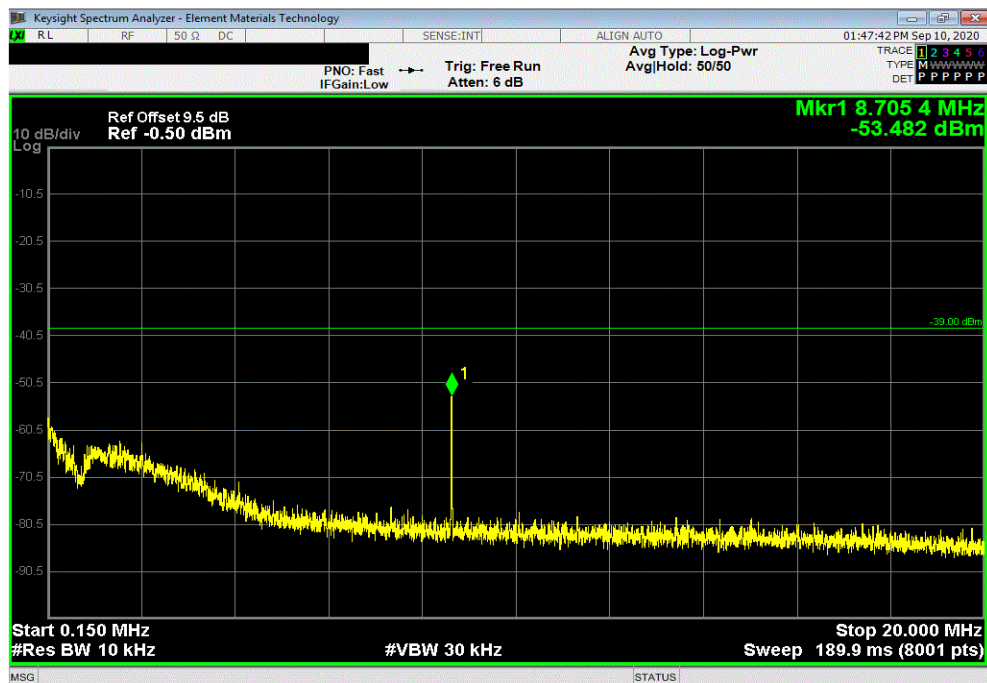


TbTx 2020.09.08.0 BETA XMI 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-64.67	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-53.48	-39	Pass	

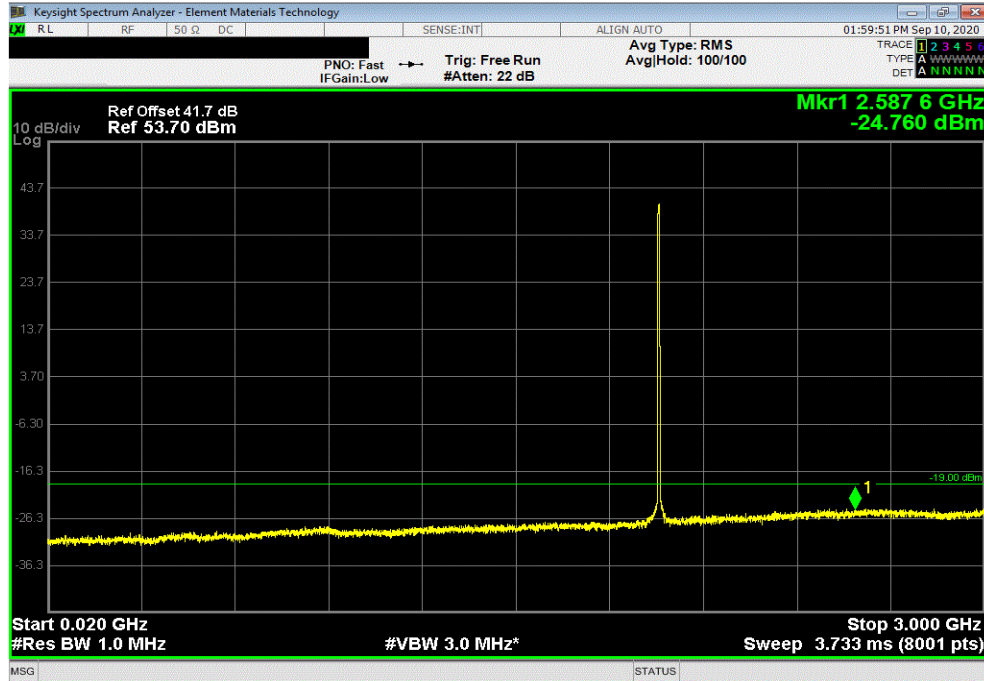


SPURIOUS CONDUCTED EMISSIONS

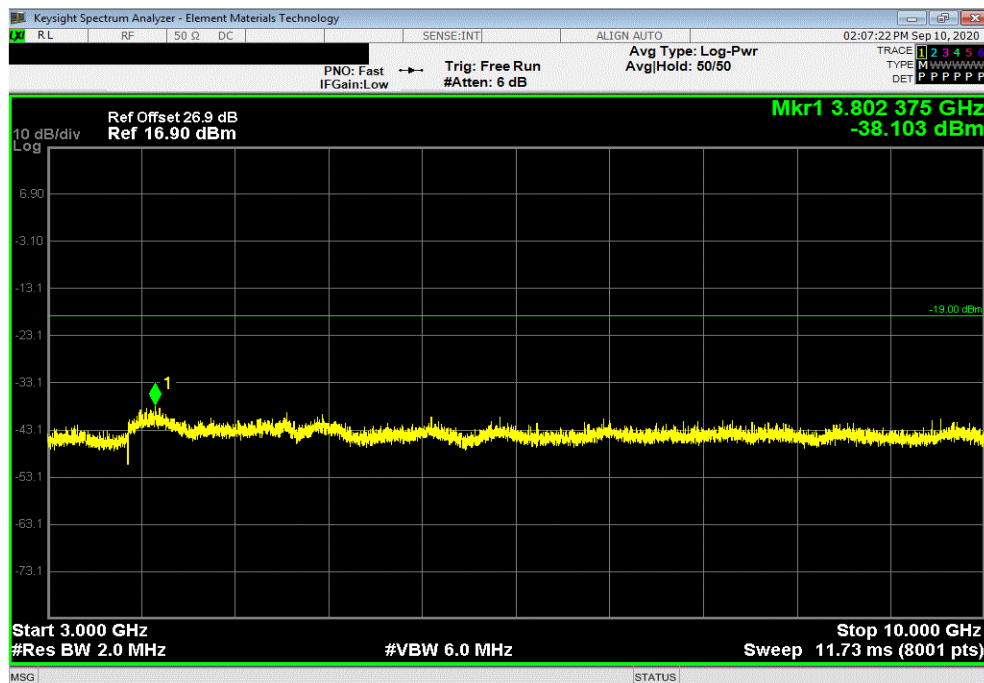


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
20 MHz - 3 GHz		-24.76	-19	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
3 GHz - 10 GHz		-38.1	-19	Pass	

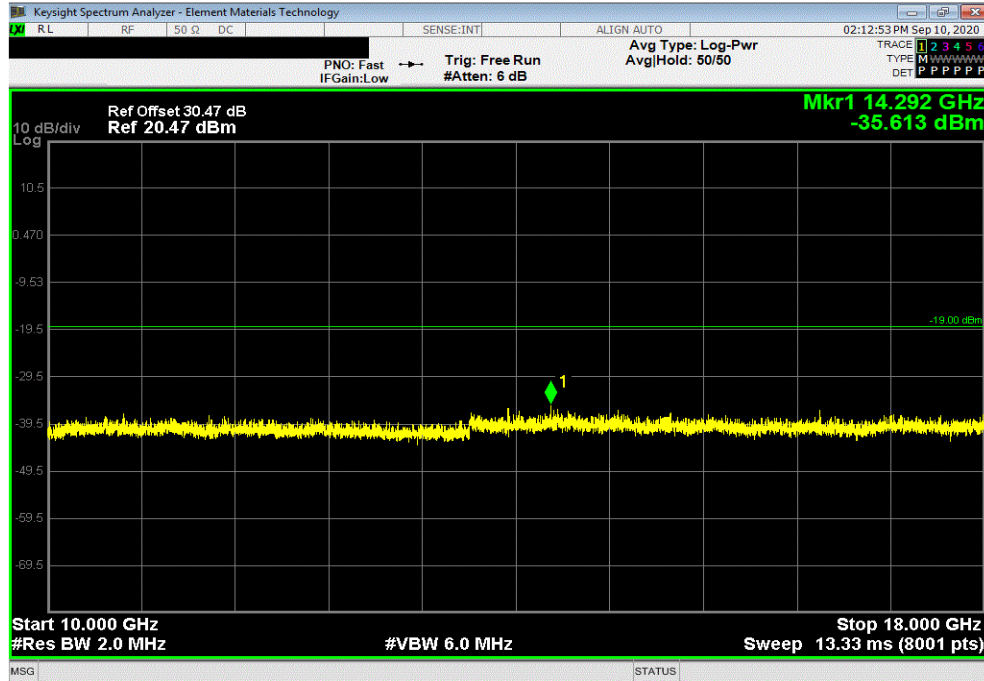


SPURIOUS CONDUCTED EMISSIONS

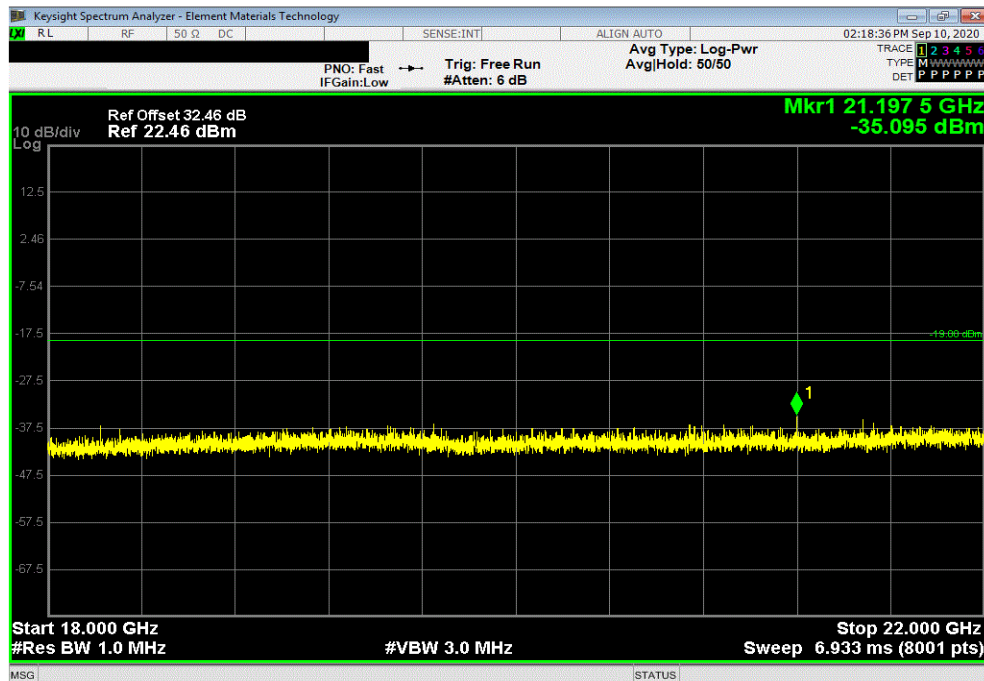


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz				
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result	
10 GHz - 18 GHz	-35.61	-19	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 5 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz				
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result	
18 GHz - 22 GHz	-35.1	-19	Pass	

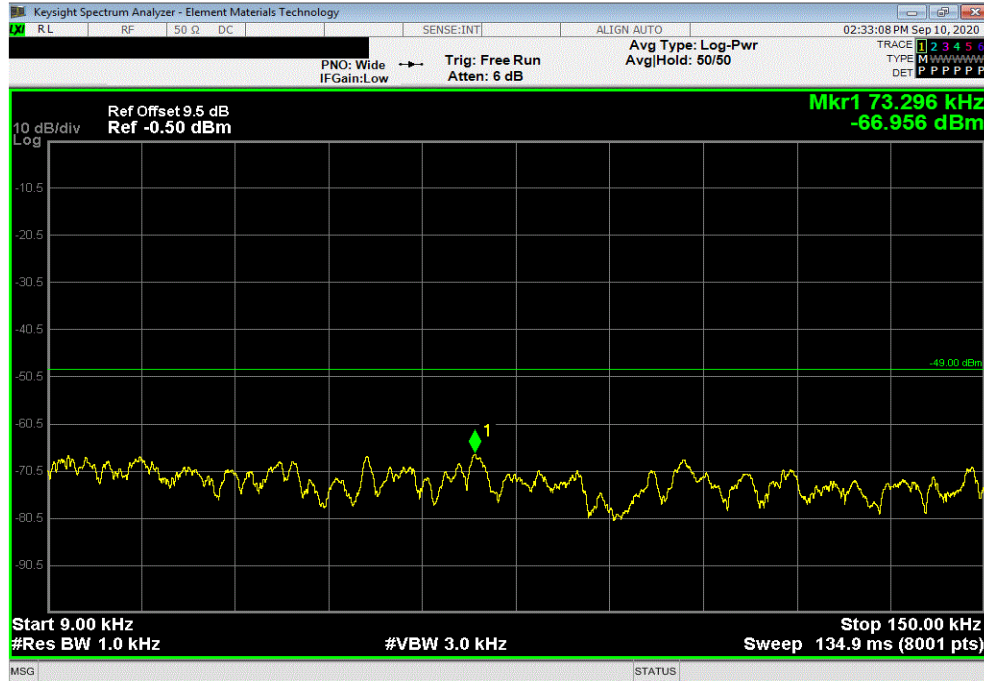


SPURIOUS CONDUCTED EMISSIONS

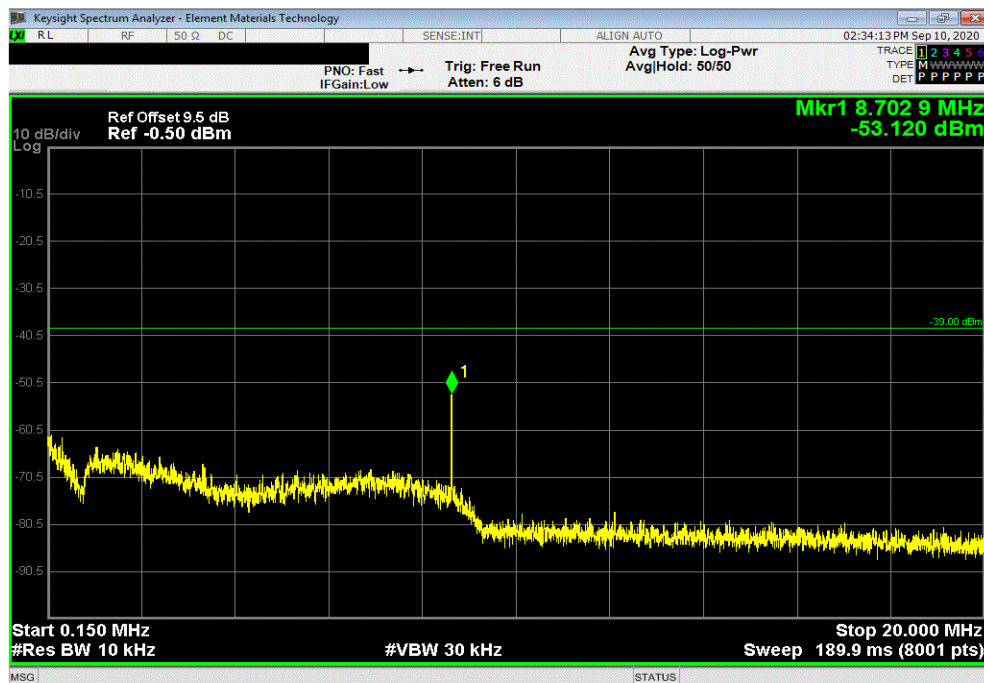


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-66.96	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-53.12	-39	Pass	

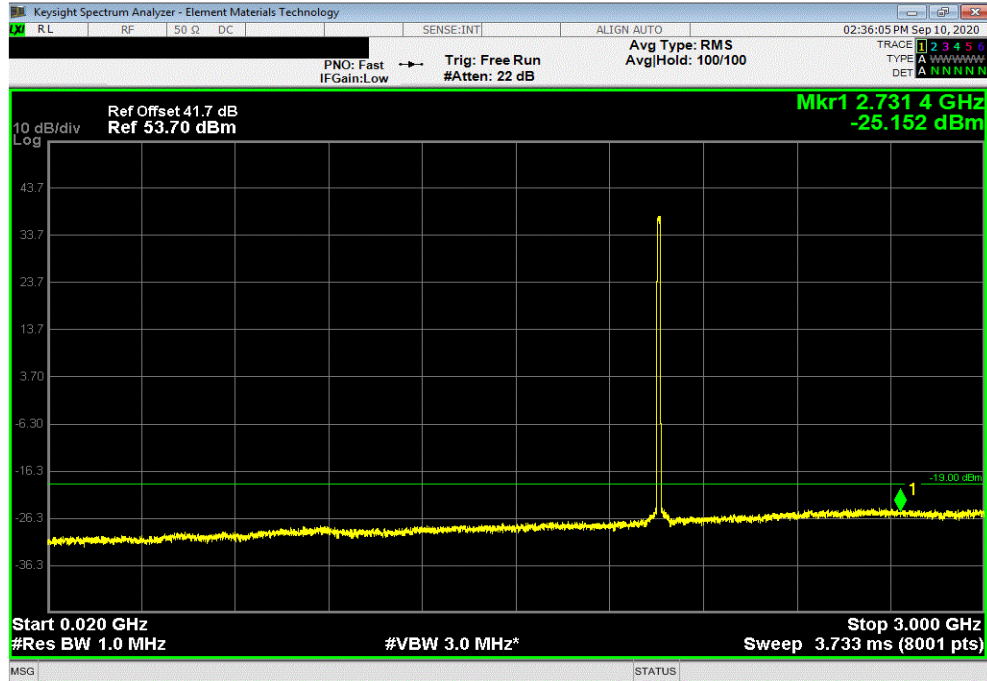


SPURIOUS CONDUCTED EMISSIONS

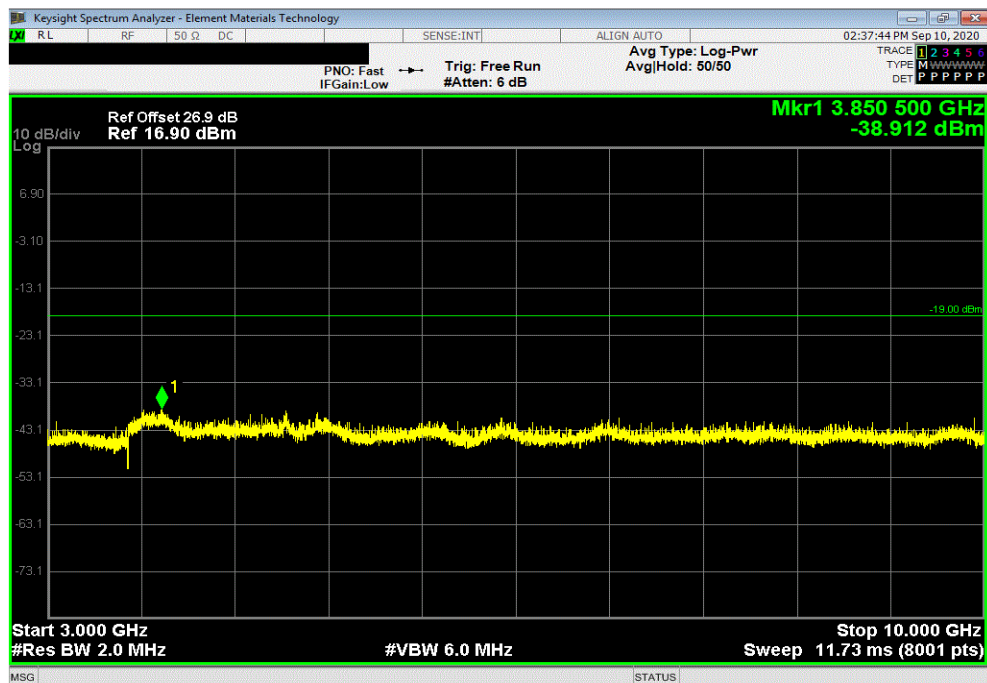


TMTx 2020.09.08.0 BETA XMI 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
20 MHz - 3 GHz	-25.15	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
3 GHz - 10 GHz	-38.91	-19	Pass		

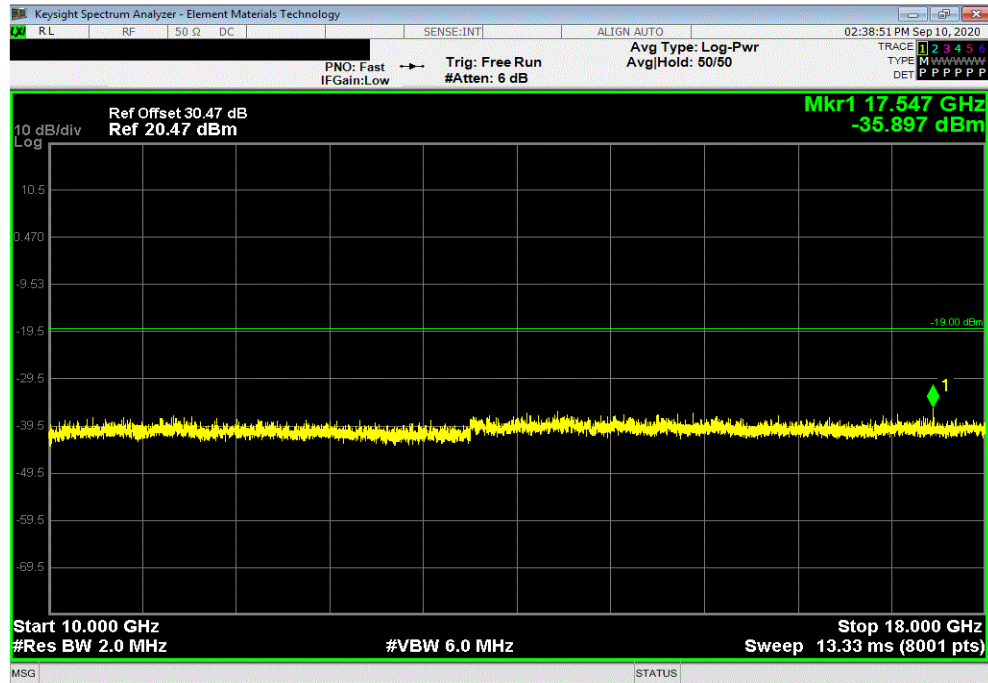


SPURIOUS CONDUCTED EMISSIONS

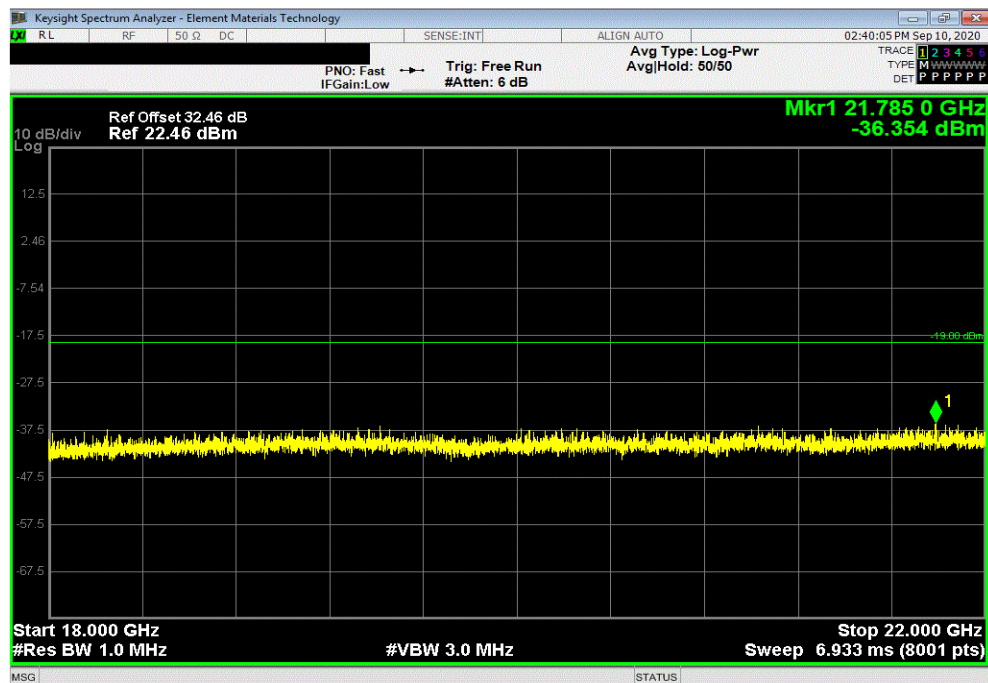


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-35.9	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 10 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-36.35	-19	Pass		

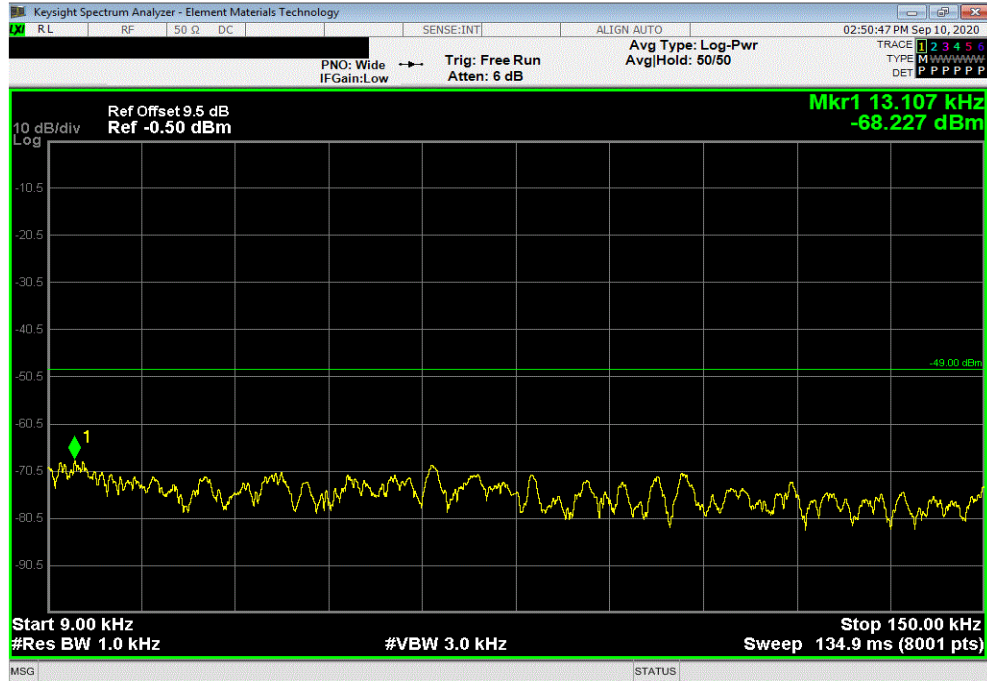


SPURIOUS CONDUCTED EMISSIONS

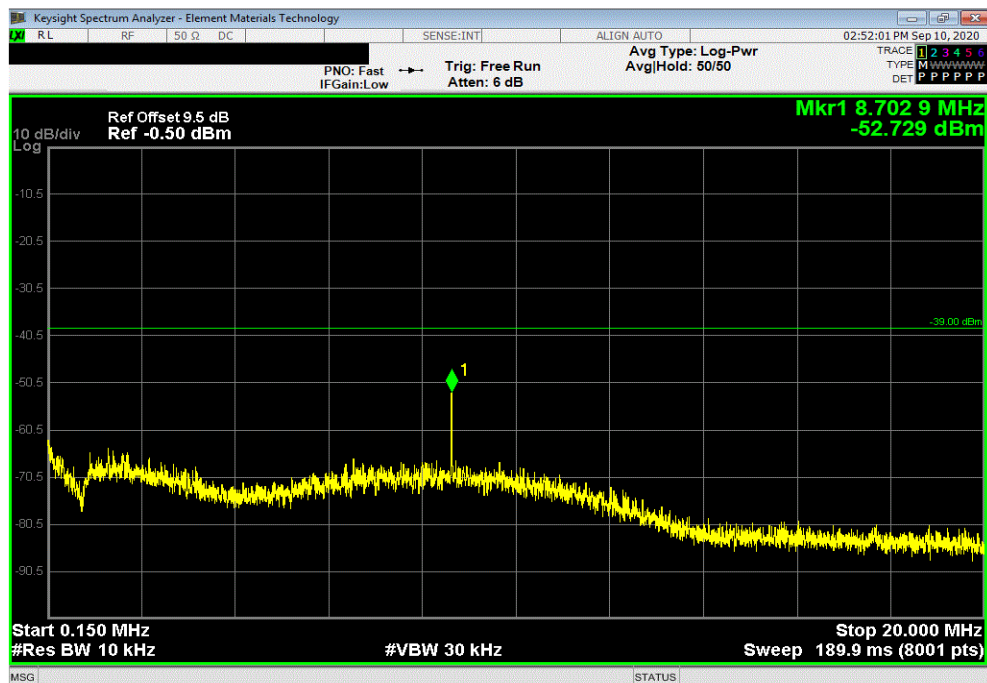


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-68.23	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-52.73	-39	Pass	

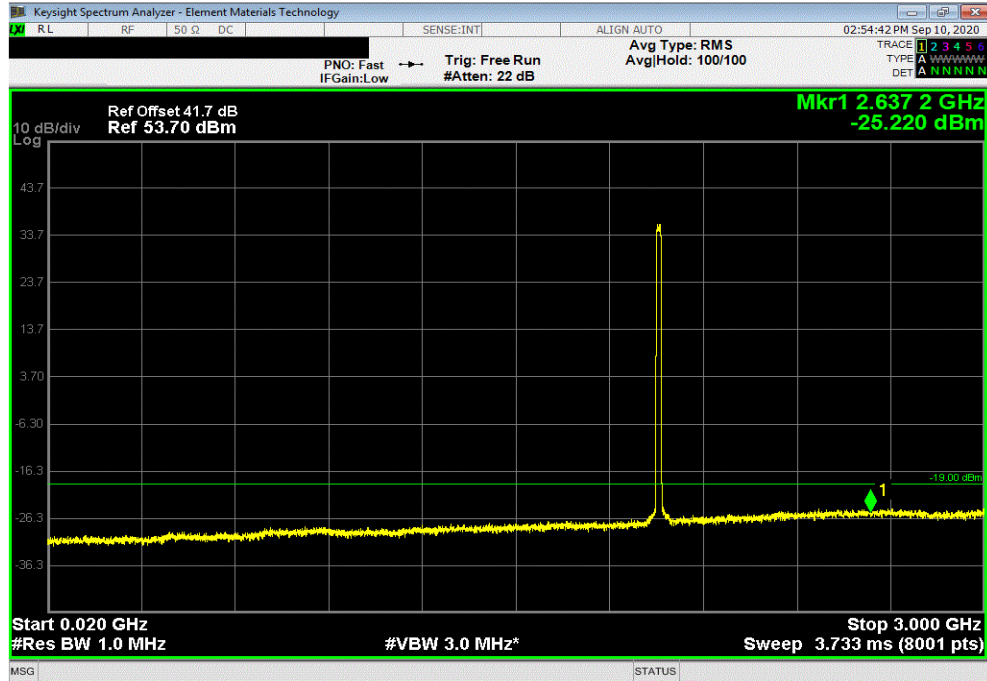


SPURIOUS CONDUCTED EMISSIONS

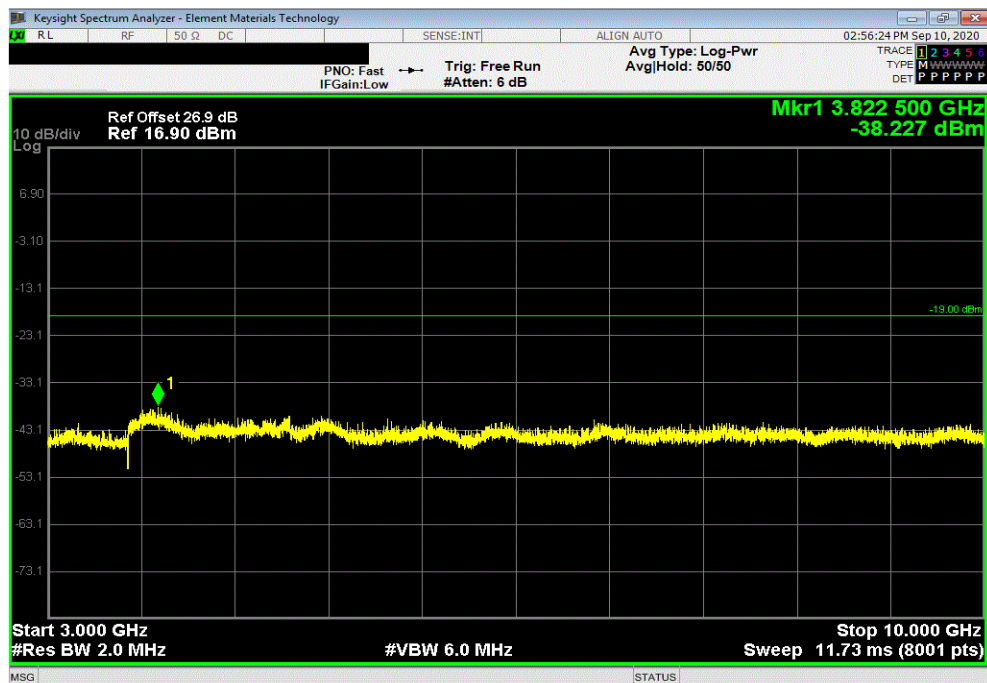


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
20 MHz - 3 GHz		-25.22	-19	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
3 GHz - 10 GHz		-38.23	-19	Pass	

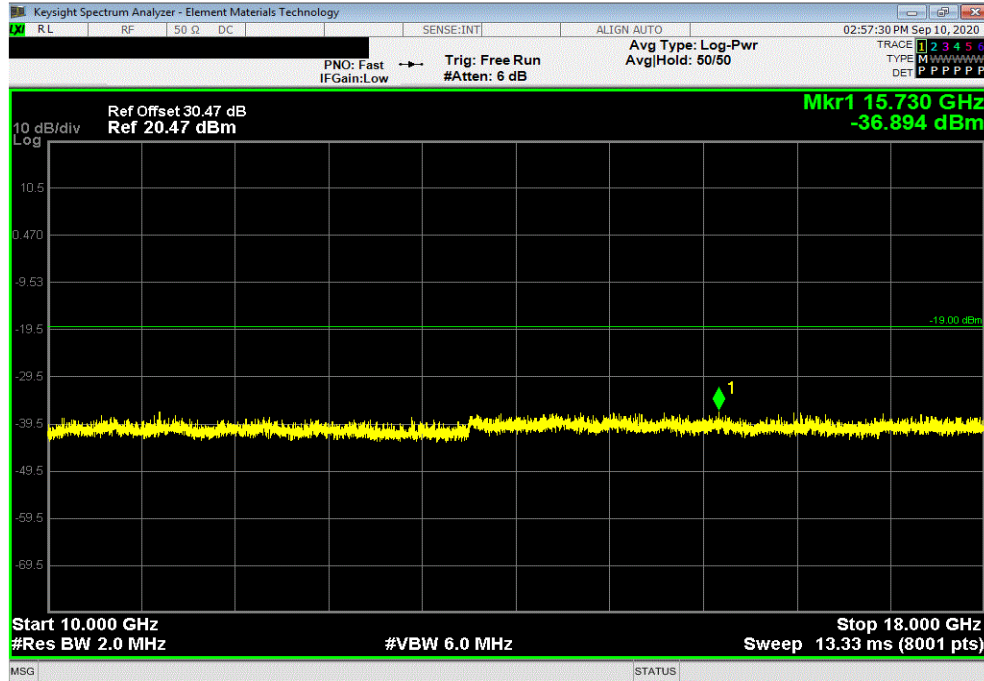


SPURIOUS CONDUCTED EMISSIONS

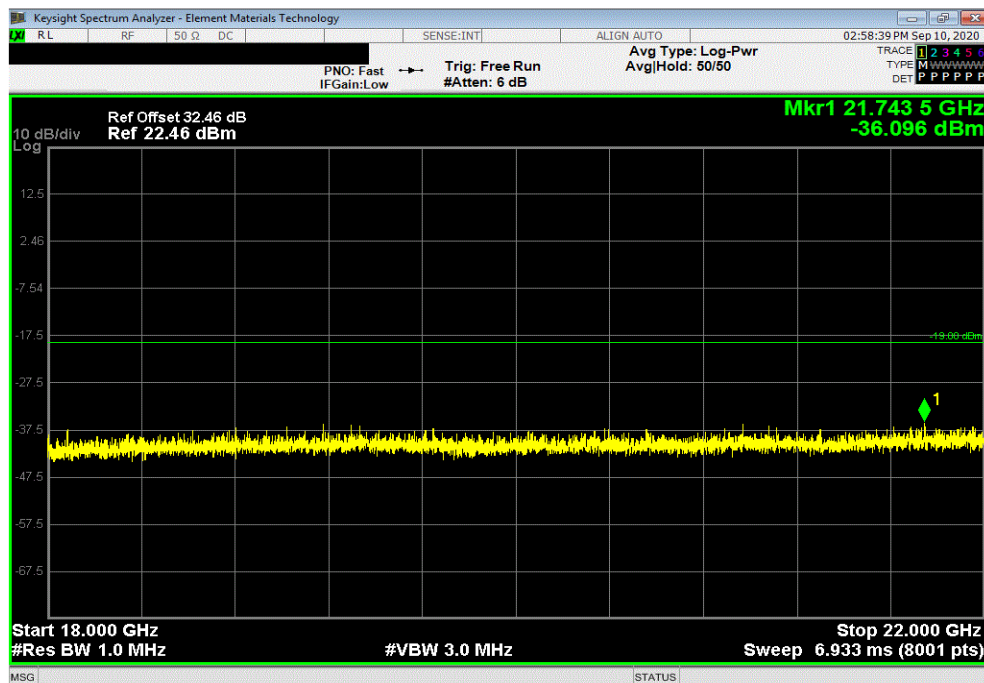


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-36.89	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 15 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-36.1	-19	Pass		

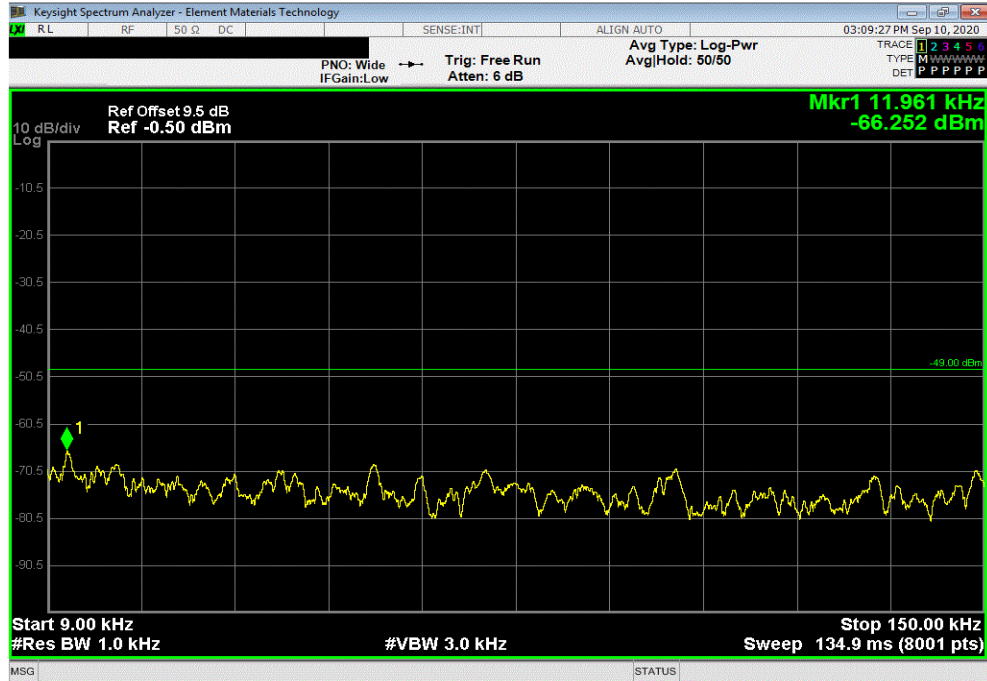


SPURIOUS CONDUCTED EMISSIONS

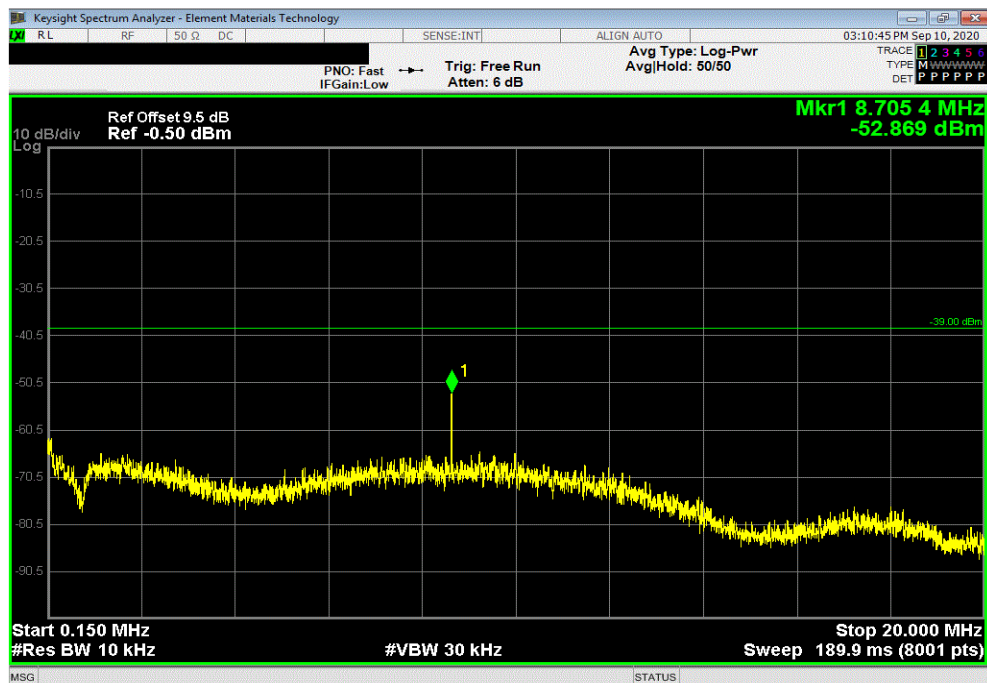


TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
9 kHz - 150 kHz		-66.25	-49	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
150 kHz - 20 MHz		-52.87	-39	Pass	

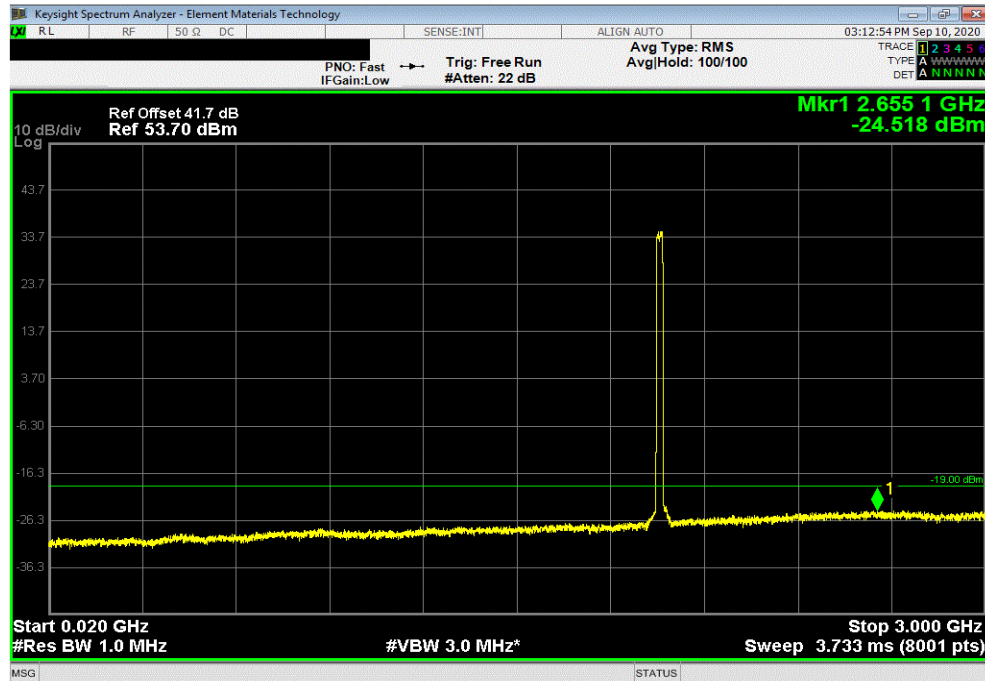


SPURIOUS CONDUCTED EMISSIONS

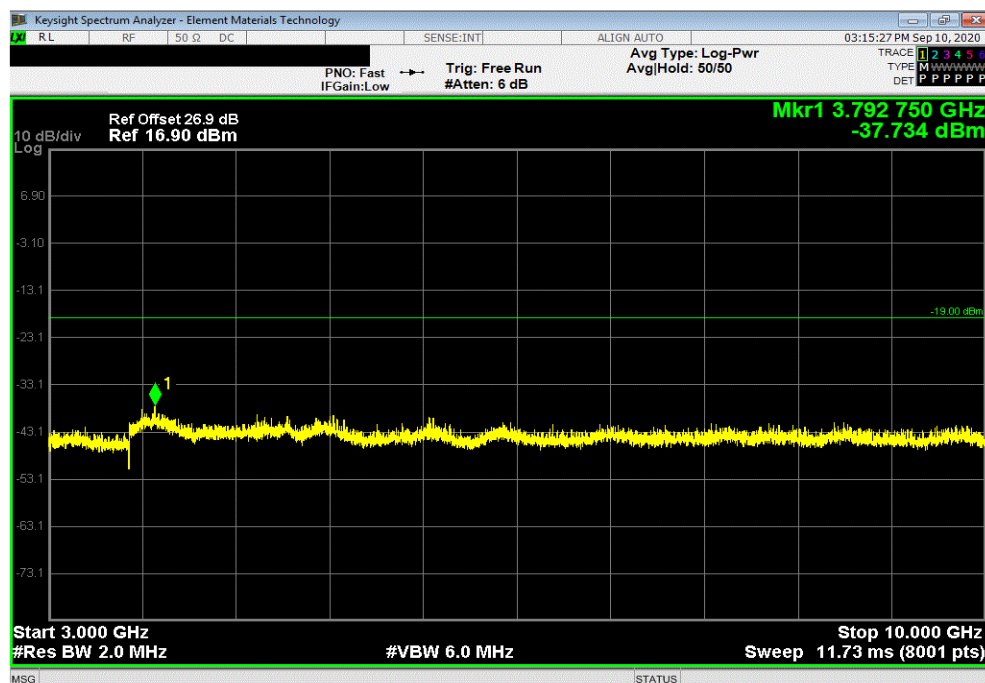


TMTx 2020.09.08.0 BETA XMt 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
20 MHz - 3 GHz		-24.52	-19	Pass	



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range		Max Value (dBm)	Limit < (dBm)	Result	
3 GHz - 10 GHz		-37.73	-19	Pass	

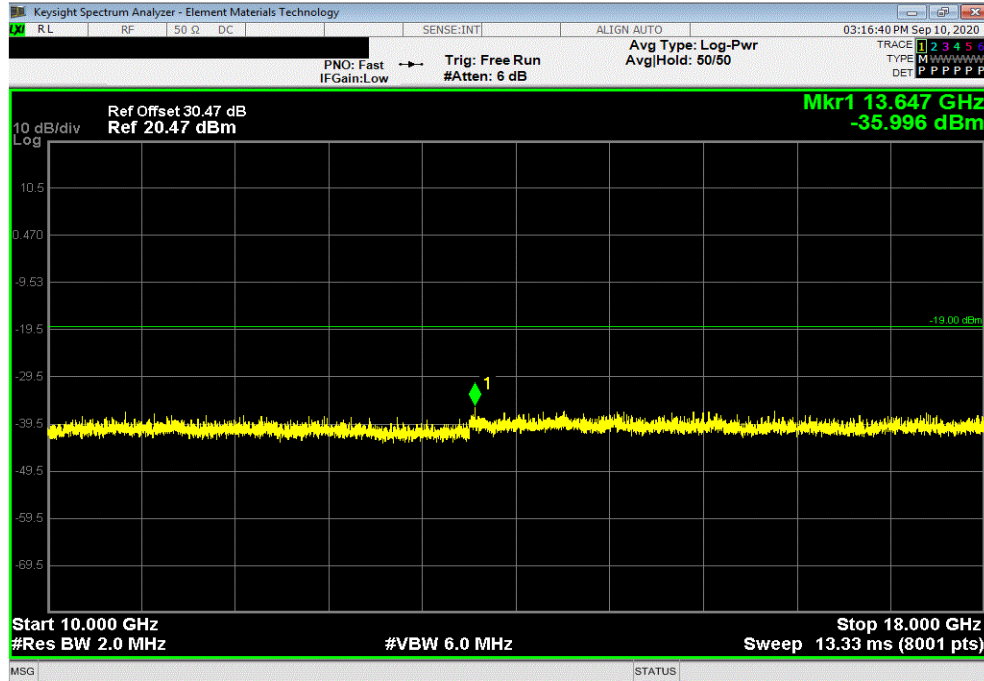


SPURIOUS CONDUCTED EMISSIONS



TMTx 2020.09.08.0 BETA XMIT 2020.03.25.0

Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
10 GHz - 18 GHz	-36	-19	Pass		



Band 25, 1930 MHz - 1995 MHz, 5G, Port 1, 20 MHz Bandwidth, 256-QAM Modulation, Mid Channel, 1962.5 MHz					
Frequency Range	Max Value (dBm)	Limit < (dBm)	Result		
18 GHz - 22 GHz	-36.57	-19	Pass		

