

SPURIOUS CONDUCTED EMISSIONS



XMIT 2019.09.05

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	Agilent	E8257D	TGU	15-Feb-18	15-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	19-Mar-19	19-Mar-20

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to the middle channel. The EUT was transmitting at the data rate(s) and bandwidths listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

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

For Bands 12 and 14, the limit adjustment is $-10 \cdot \log(4) = -6$ dB.

For Band 29, the limit adjustment is $-10 \cdot \log(2) = -3$ dB.

Over the frequency range of 150kHz-20MHz, a RBW of 10 kHz was used; therefore, an additional limit adjustment factor of 10 dB was applied $[10 \cdot \log(10/1)]$.

The limit for the 9kHz to 150kHz frequency range was adjusted to -36dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 100kHz [i.e.: $-36\text{dBm} = -16\text{dBm} - 10\log(100\text{kHz}/1\text{kHz})$]. The limit for the 150kHz to 20MHz frequency range was adjusted to -26dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 100kHz [i.e.: $-26\text{dBm} = -16\text{dBm} - 10\log(100\text{kHz}/10\text{kHz})$].

Per FCC section 27.53(g), the power of any emission outside of the authorized operating frequency range cannot exceed -13 dBm. The limit is adjusted to -16 dBm $[-13 \text{ dBm} - 10 \log(2)]$ per FCC KDB 662911D01 v02r01 because the RRH may operate as a 2 port MIMO transmitter for Band 29. FCC 27.53(g) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

SPURIOUS CONDUCTED EMISSIONS



XMM 2019.09.05

EUT: AHLBBA RRH

Serial Number: K9193514835

Customer: Nokia Solutions and Networks

Attendees: John Rattanaavong

Project: None

Tested by: Jonathan Kiefer

Power: 54VDC

Work Order: NOKI0004

Date: 19-Nov-19

Temperature: 23 °C

Humidity: 30.7% RH

Barometric Pres.: 1017 mbar

Job Site: TX09

TEST SPECIFICATIONS

Test Method

FCC 27:2019

ANSI C63.26:2015

COMMENTS

Band 29 conducted spurious emissions for four modulation types. Tested on highest power antenna port (Port 1). EUT is operated at 100% duty cycle. Note: Although screen capture display line is -19dBm, compliance limit is -16dBm.

DEVIATIONS FROM TEST STANDARD

None

Configuration #

2,4,5

Signature

Jonathan Kiefer

Value (dBm)

Limit (dBm)

Result

Band 29

QPSK Modulation

LTE5 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

LTE10 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

16QAM Modulation

LTE5 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

LTE10 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

64QAM Modulation

LTE5 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

LTE10 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

256QAM Modulation

LTE5 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

600MHz-800MHz

800MHz-1.2GHz

1.2GHz-8GHz

LTE10 Bandwidth

9kHz-150kHz

150kHz-20MHz

20MHz-600MHz

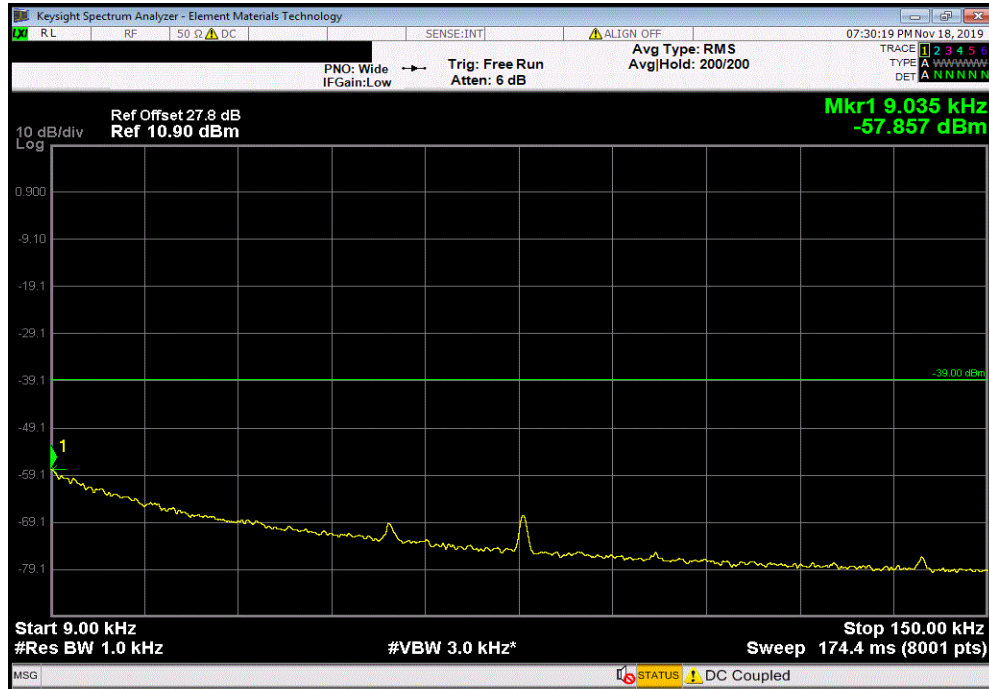
600MHz-800MHz

800MHz-1.2GHz

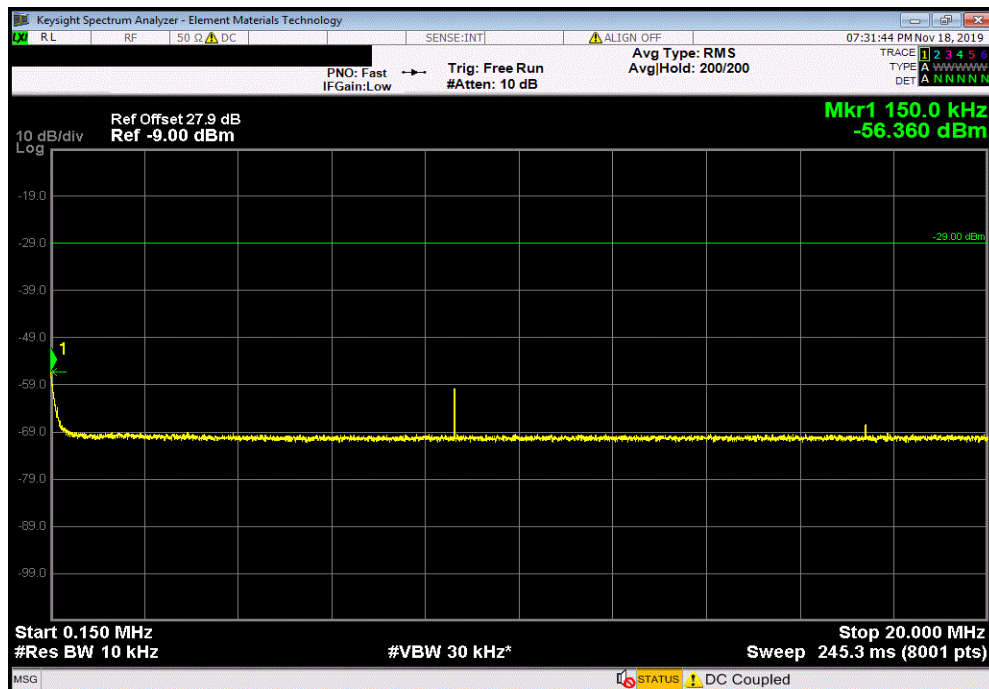
1.2GHz-8GHz

SPURIOUS CONDUCTED EMISSIONS

Band 29, QPSK Modulation, LTE5 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.857	-39	Pass

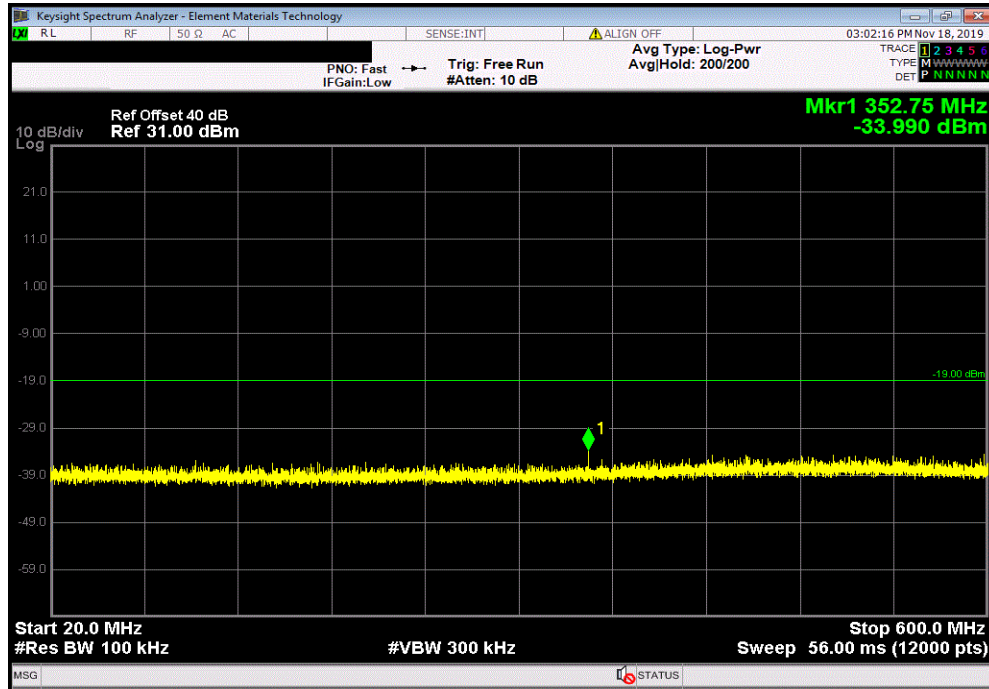


Band 29, QPSK Modulation, LTE5 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.36	-29	Pass

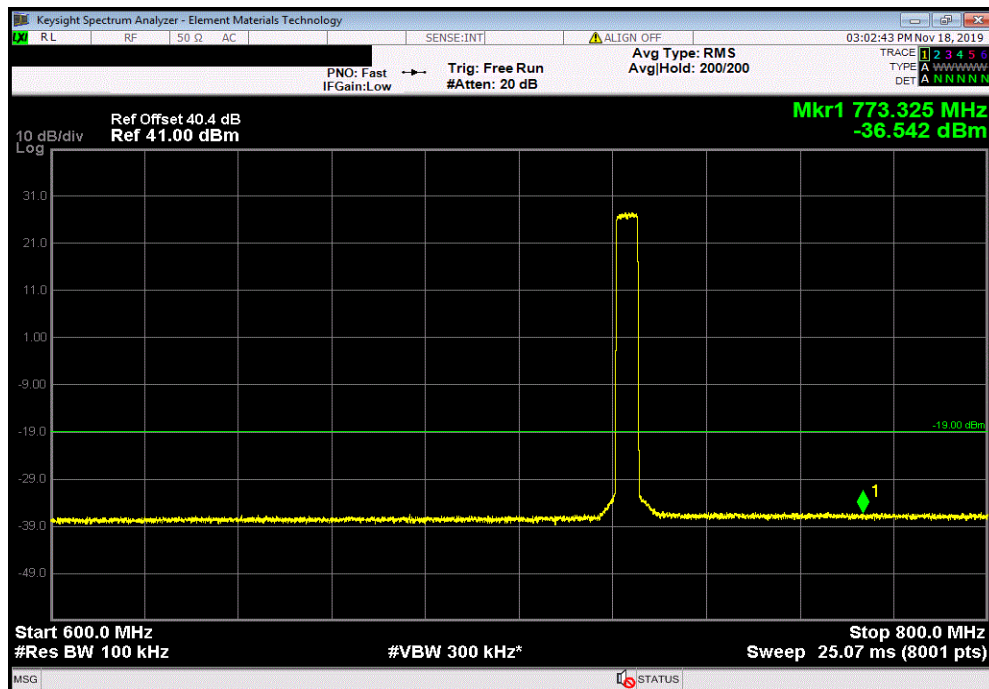


SPURIOUS CONDUCTED EMISSIONS

Band 29, QPSK Modulation, LTE5 Bandwidth, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-33.99	-16	Pass

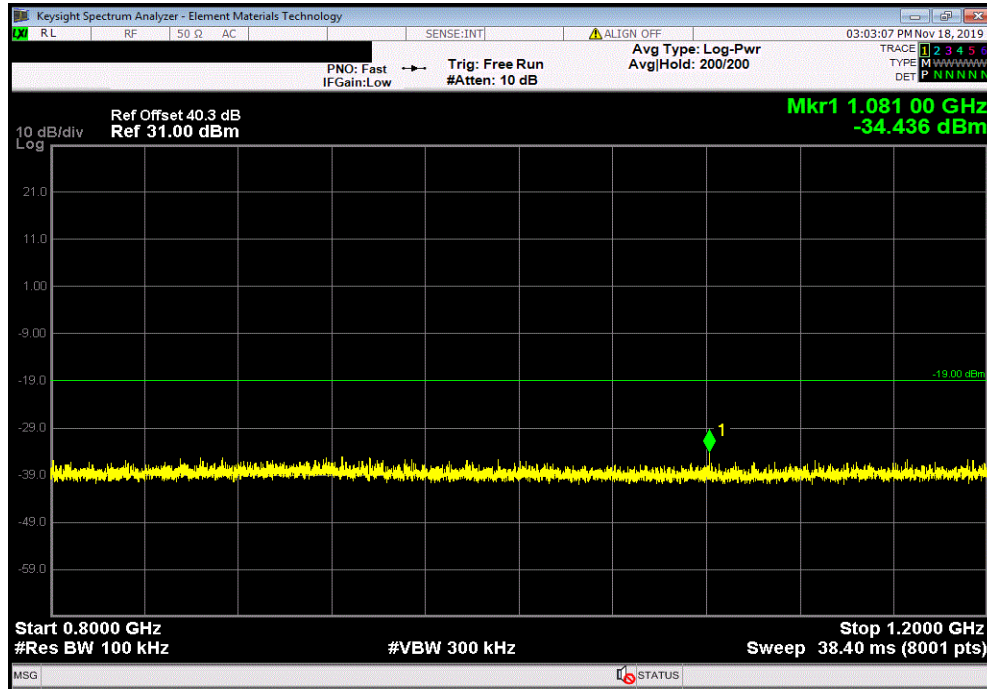


Band 29, QPSK Modulation, LTE5 Bandwidth, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.542	-16	Pass

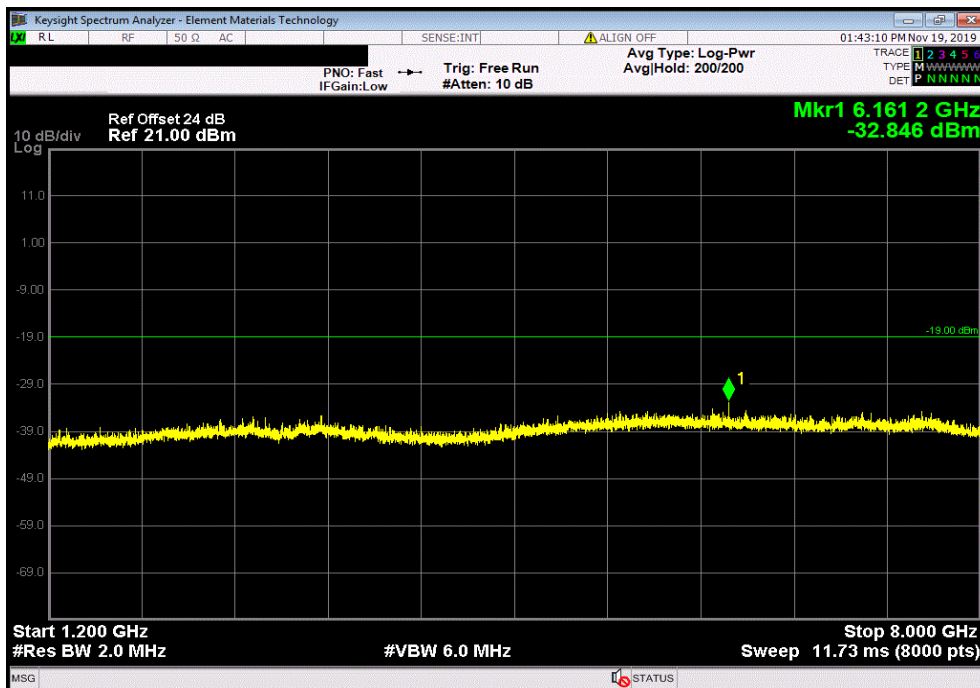


SPURIOUS CONDUCTED EMISSIONS

Band 29, QPSK Modulation, LTE5 Bandwidth, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.436	-16	Pass



Band 29, QPSK Modulation, LTE5 Bandwidth, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-32.846	-16	Pass

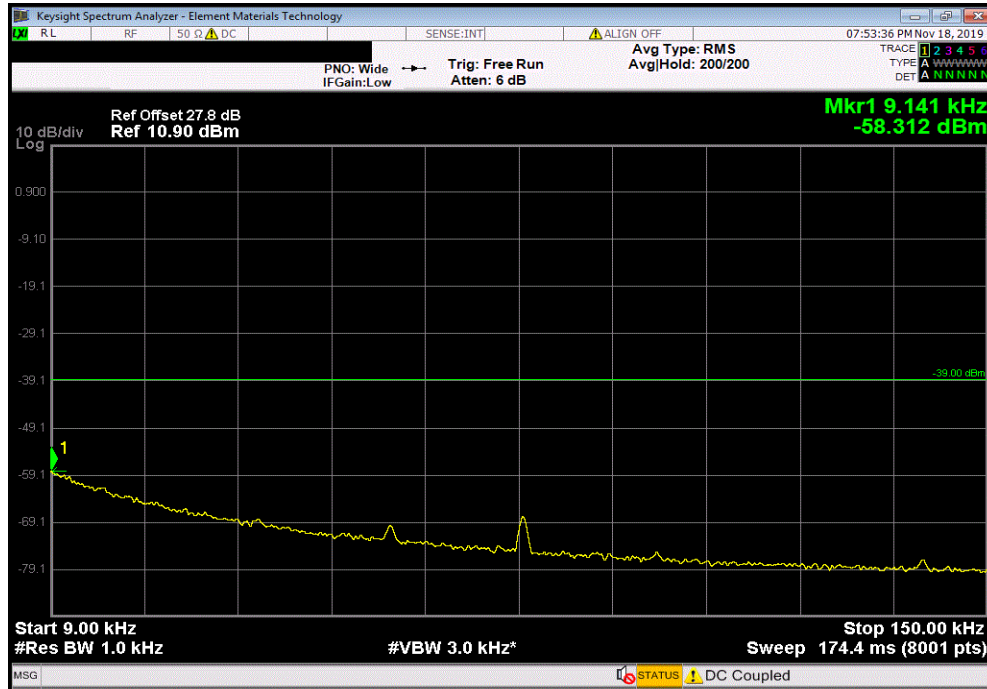


SPURIOUS CONDUCTED EMISSIONS

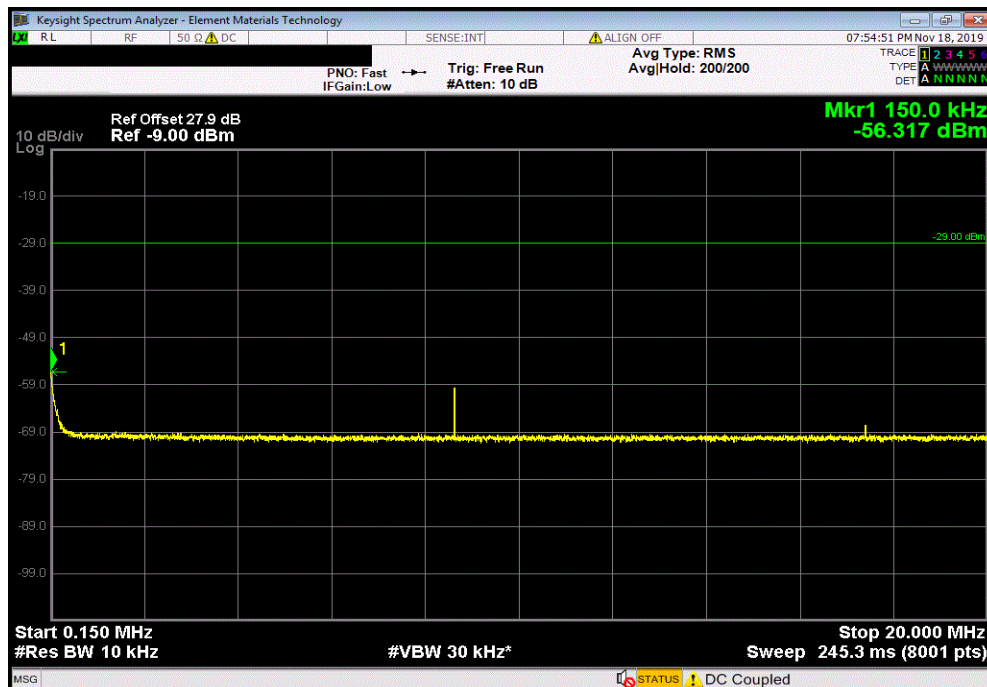


XMI 2019.09.05

Band 29, QPSK Modulation, LTE10 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.312	-39	Pass

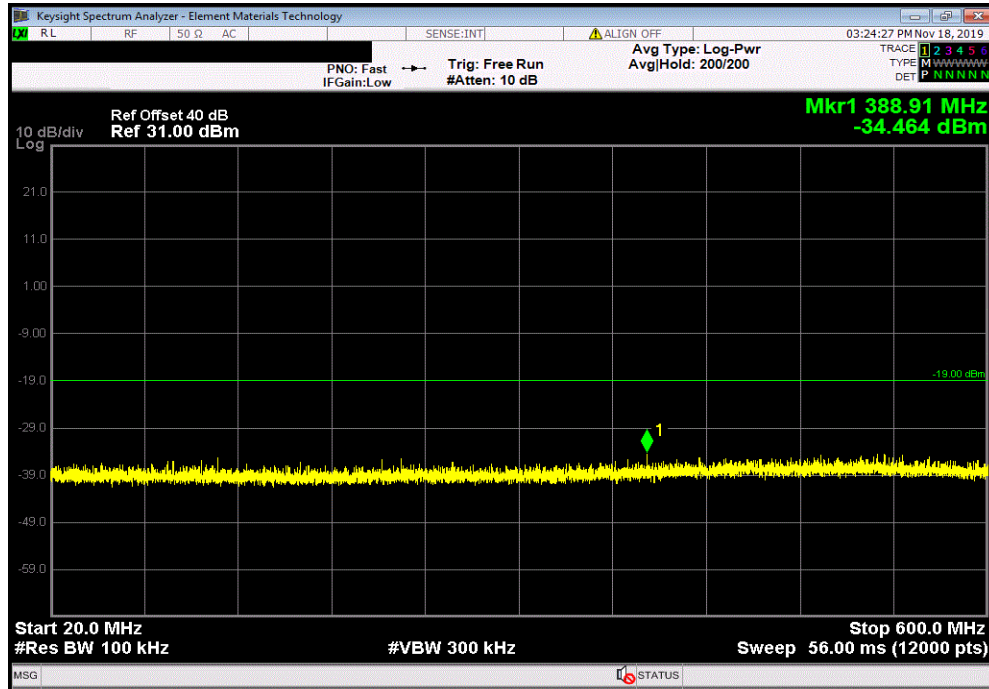


Band 29, QPSK Modulation, LTE10 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.317	-29	Pass

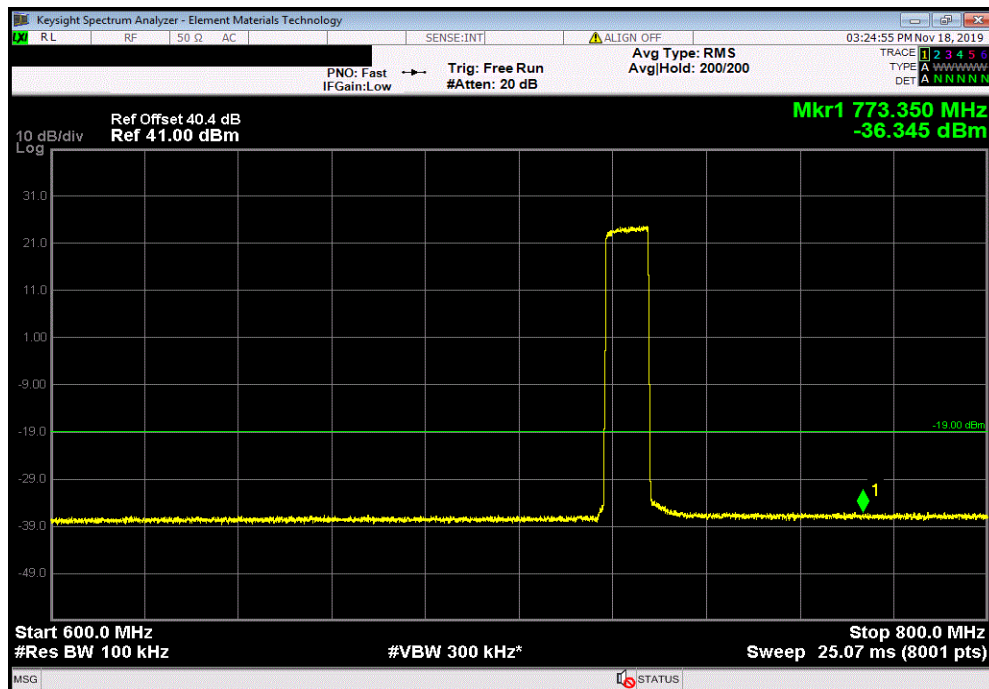


SPURIOUS CONDUCTED EMISSIONS

Band 29, QPSK Modulation, LTE10 Bandwidth, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-34.464	-16	Pass

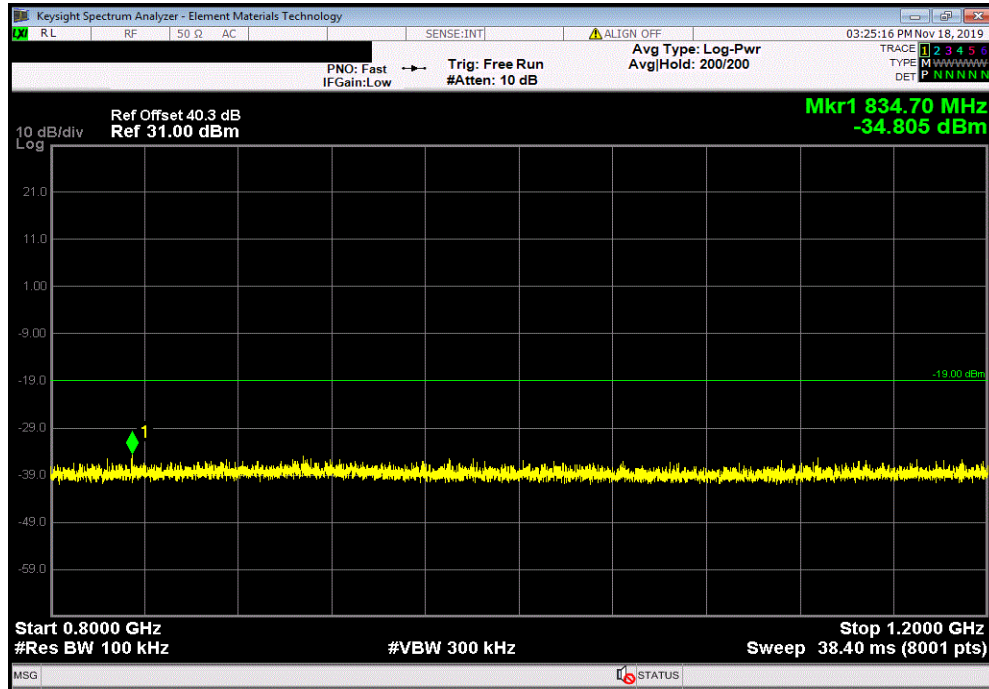


Band 29, QPSK Modulation, LTE10 Bandwidth, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.345	-16	Pass

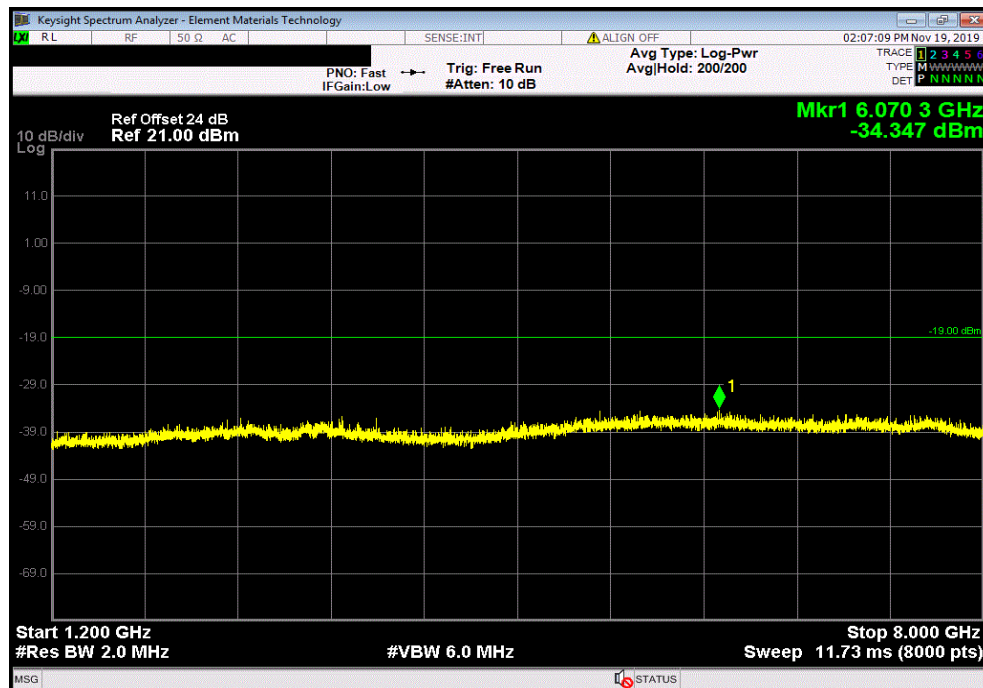


SPURIOUS CONDUCTED EMISSIONS

Band 29, QPSK Modulation, LTE10 Bandwidth, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.805	-16	Pass



Band 29, QPSK Modulation, LTE10 Bandwidth, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.347	-16	Pass

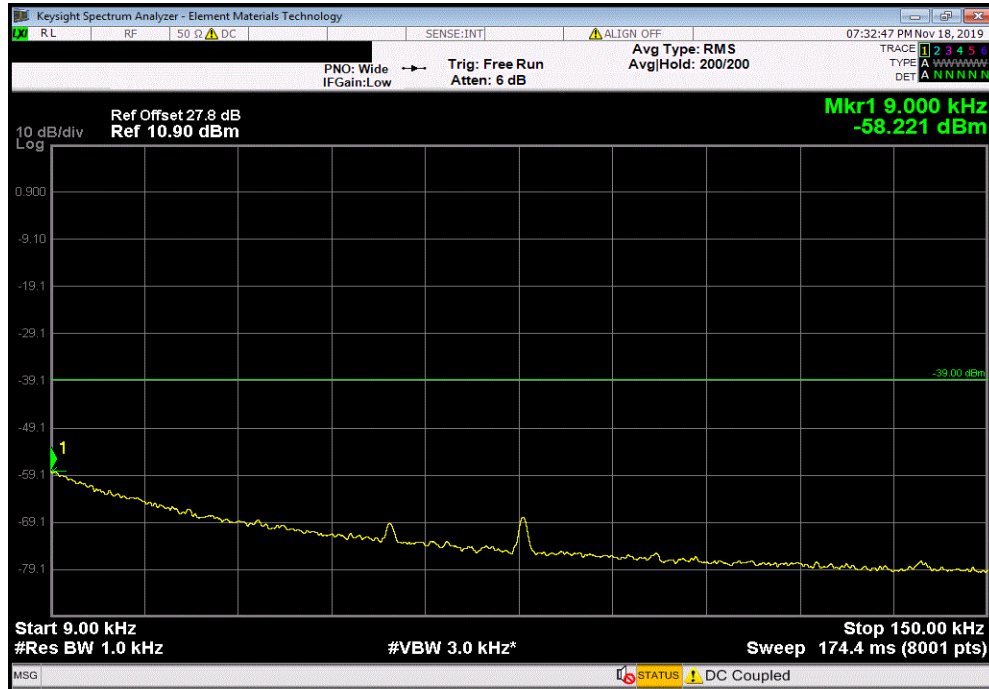


SPURIOUS CONDUCTED EMISSIONS

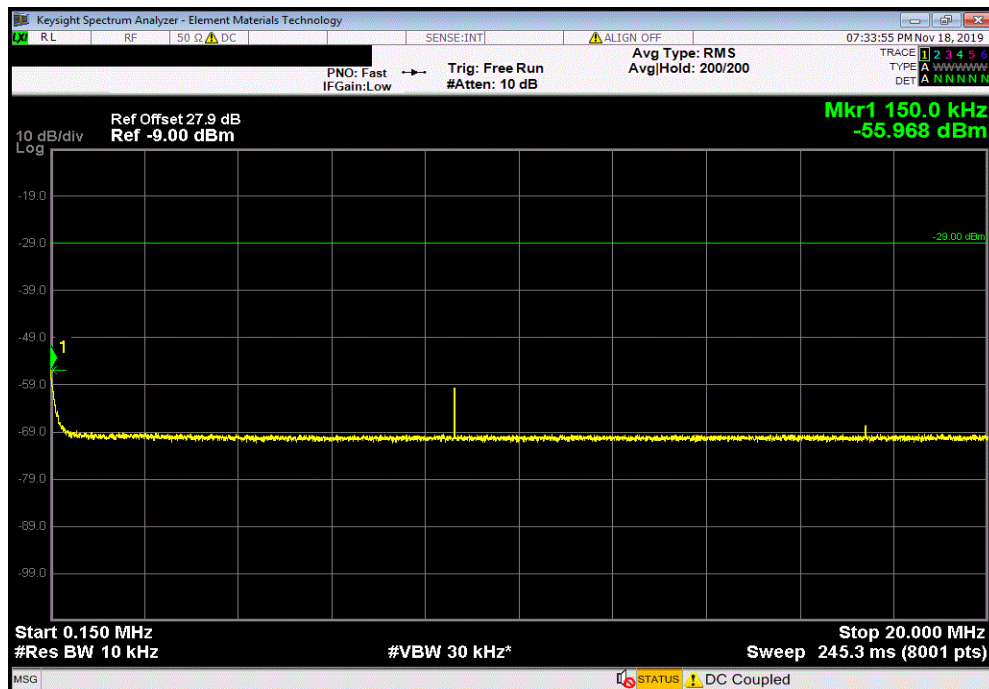


XMI 2019.09.05

Band 29, 16QAM Modulation, LTE5 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.221	-39	Pass



Band 29, 16QAM Modulation, LTE5 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-55.968	-29	Pass

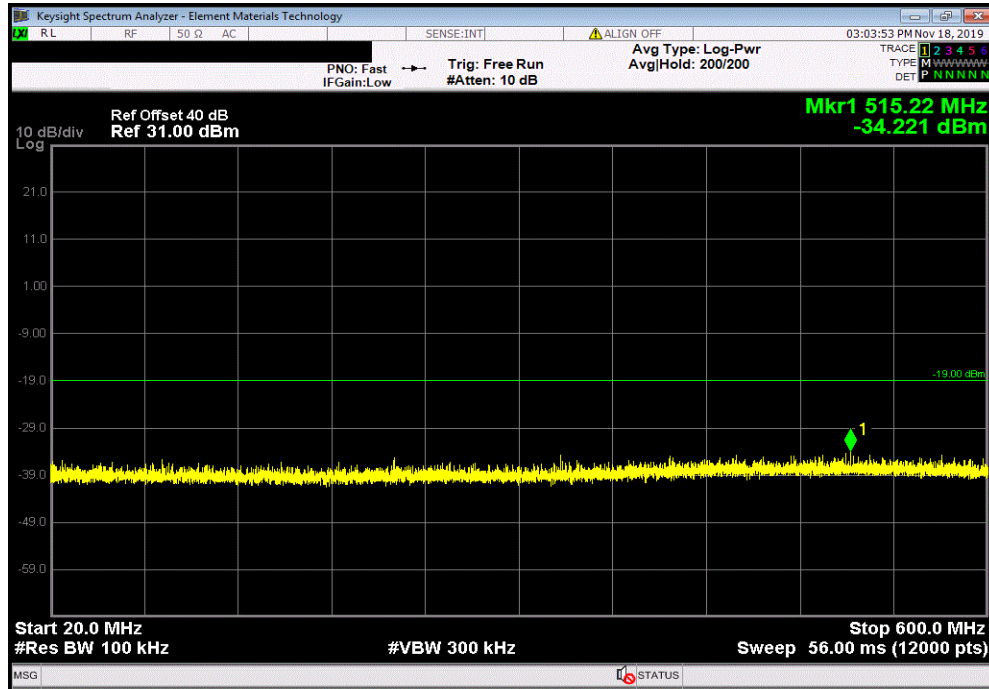


SPURIOUS CONDUCTED EMISSIONS

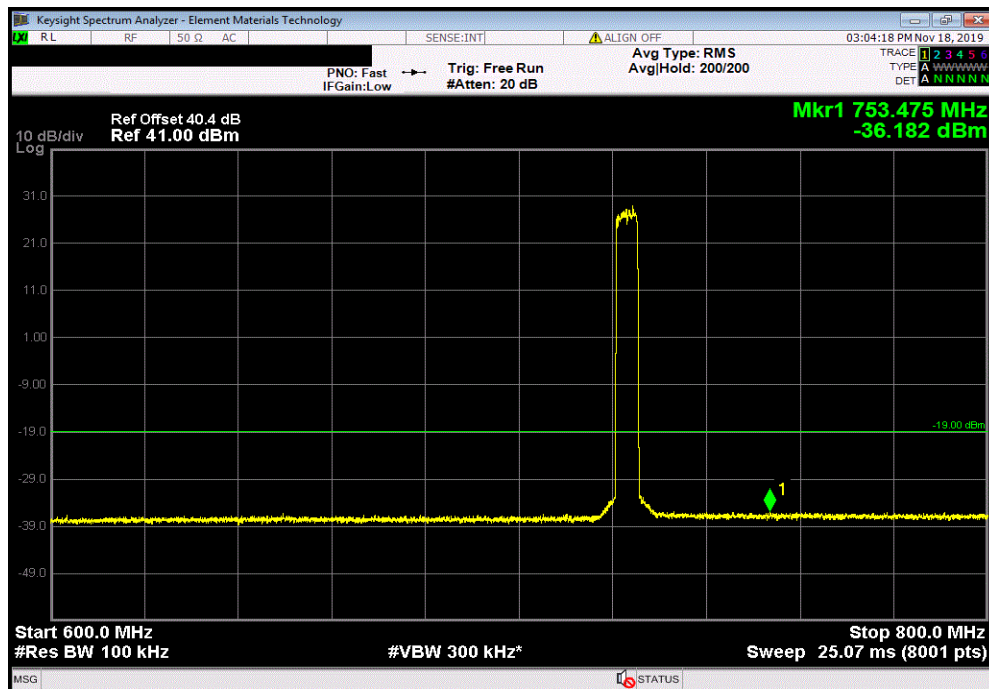


XMI 2019.09.05

Band 29, 16QAM Modulation, LTE5 Bandwidth, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-34.221	-16	Pass



Band 29, 16QAM Modulation, LTE5 Bandwidth, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.182	-16	Pass

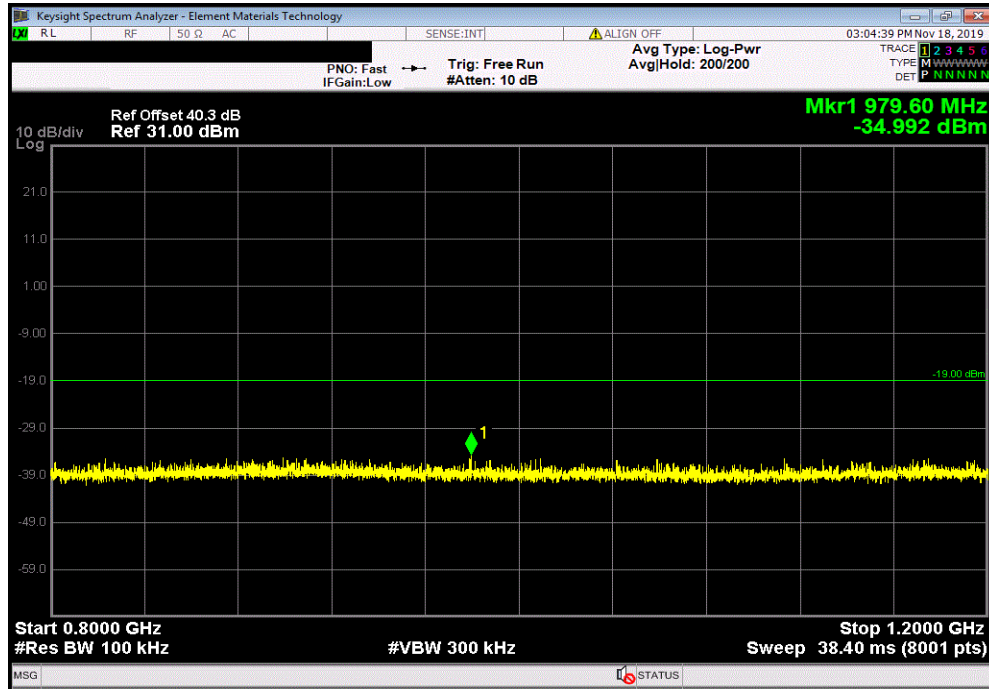


SPURIOUS CONDUCTED EMISSIONS

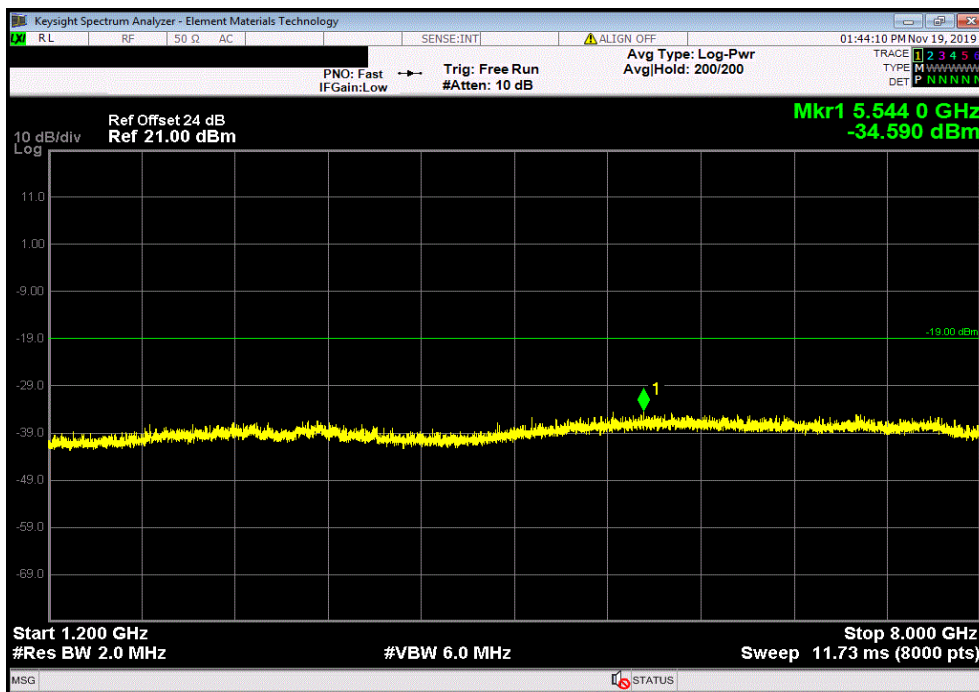


XMI 2019.09.05

Band 29, 16QAM Modulation, LTE5 Bandwidth, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.992	-16	Pass

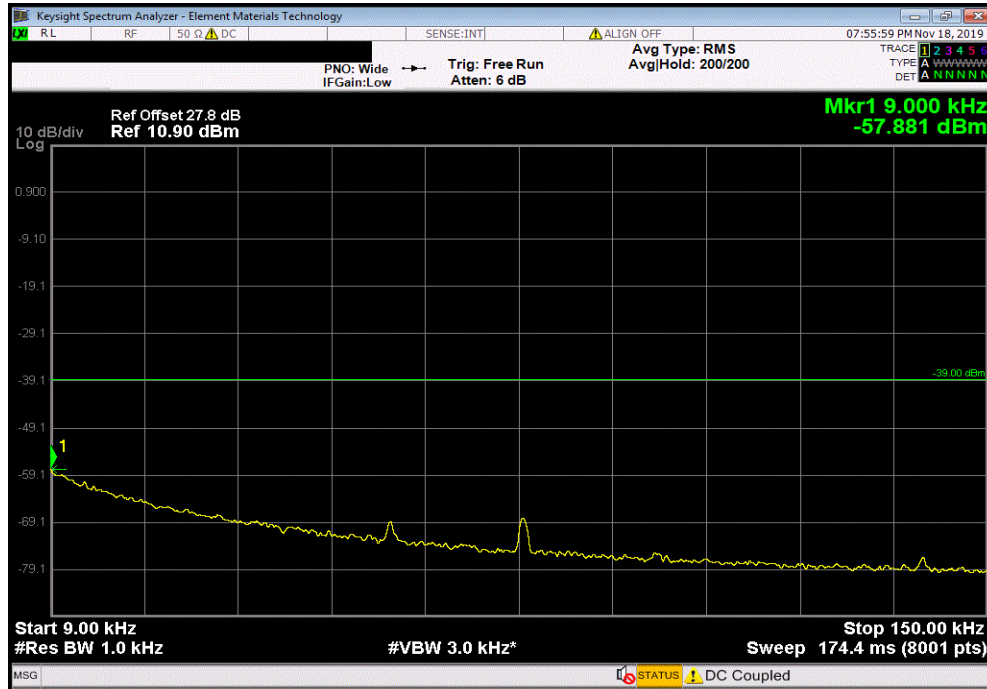


Band 29, 16QAM Modulation, LTE5 Bandwidth, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.59	-16	Pass

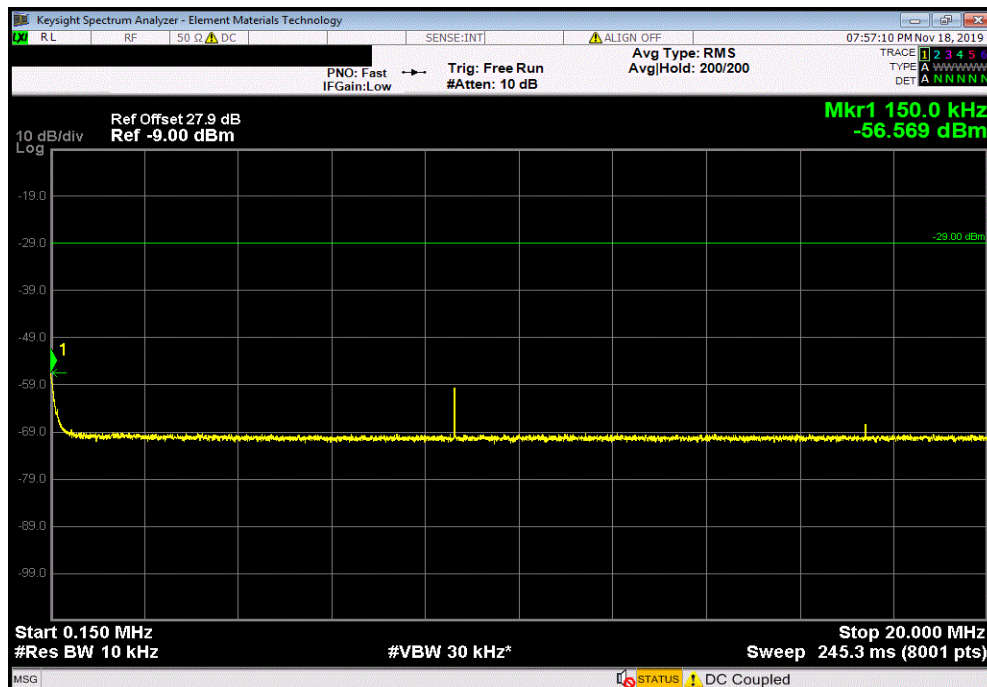


SPURIOUS CONDUCTED EMISSIONS

Band 29, 16QAM Modulation, LTE10 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.881	-39	Pass



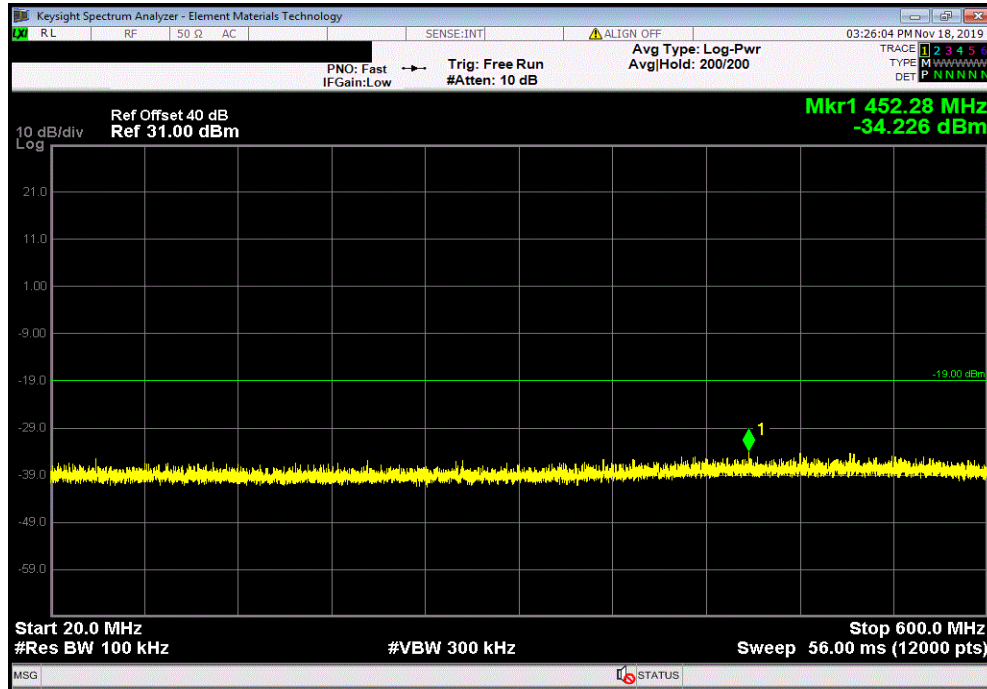
Band 29, 16QAM Modulation, LTE10 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.569	-29	Pass



SPURIOUS CONDUCTED EMISSIONS

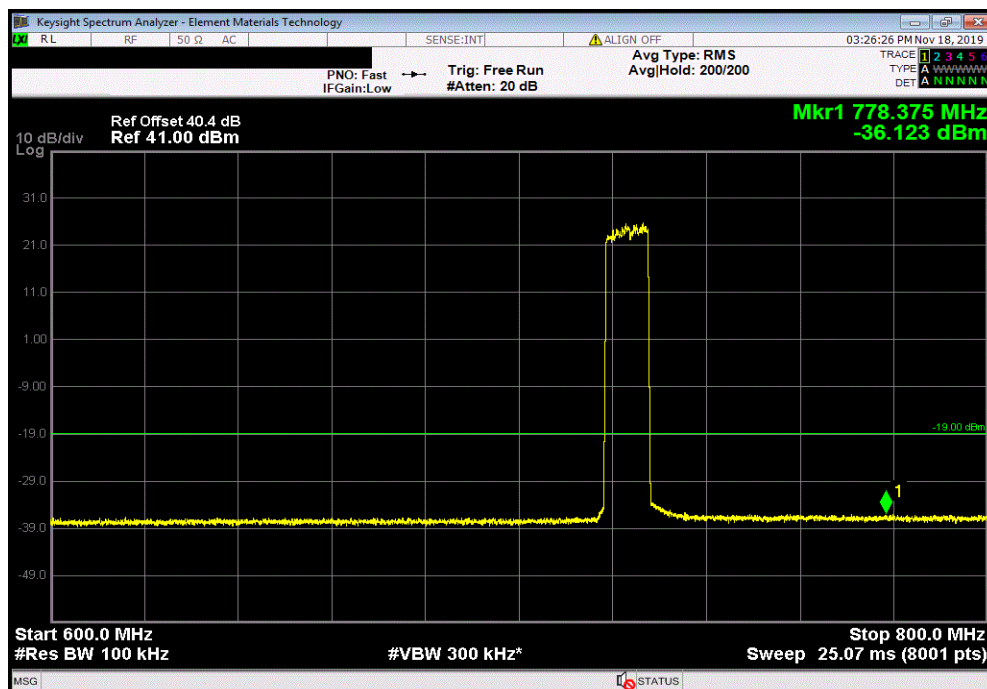
Band 29, 16QAM Modulation, LTE10 Bandwidth, 20MHz-600MHz

	Value (dBm)	Limit (dBm)	Result
	-34.226	-16	Pass



Band 29, 16QAM Modulation, LTE10 Bandwidth, 600MHz-800MHz

	Value (dBm)	Limit (dBm)	Result
	-36.123	-16	Pass

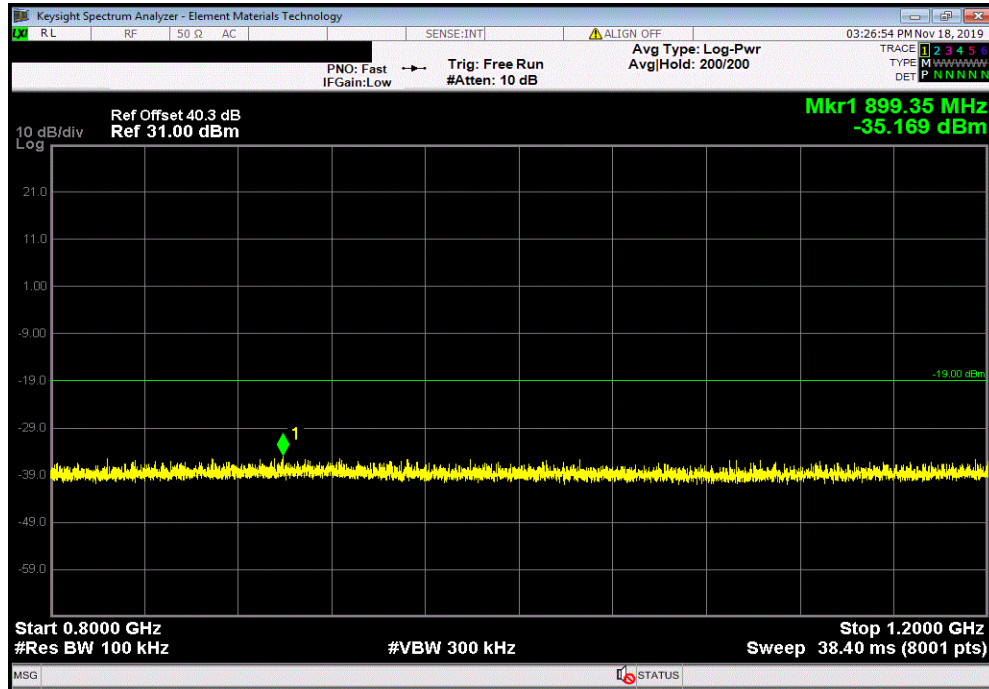


SPURIOUS CONDUCTED EMISSIONS

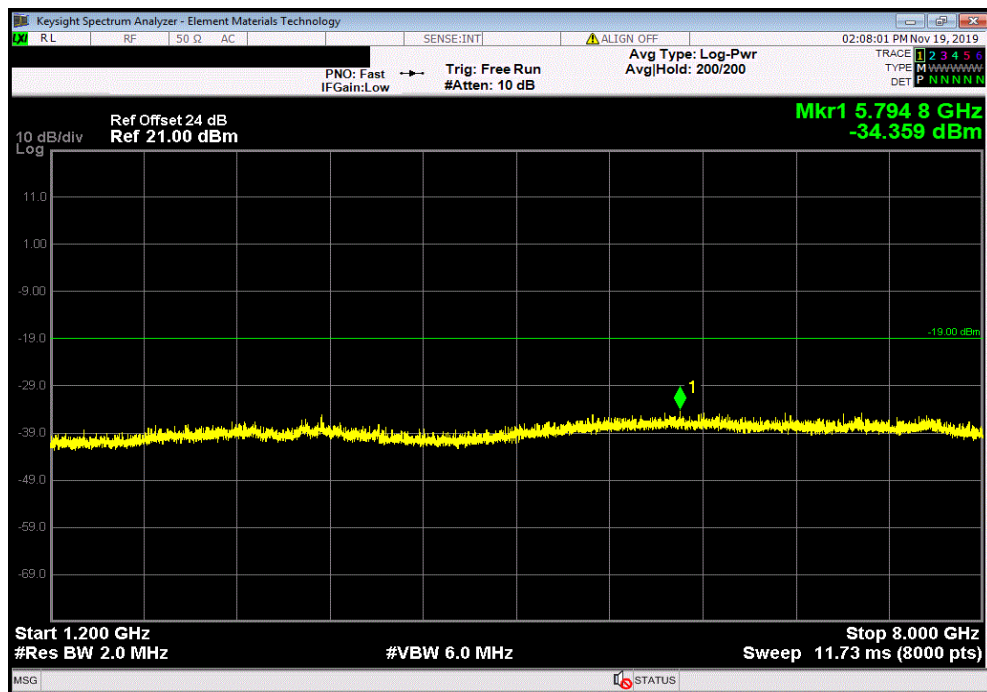


XMI 2019.09.05

Band 29, 16QAM Modulation, LTE10 Bandwidth, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-35.169	-16	Pass



Band 29, 16QAM Modulation, LTE10 Bandwidth, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.359	-16	Pass

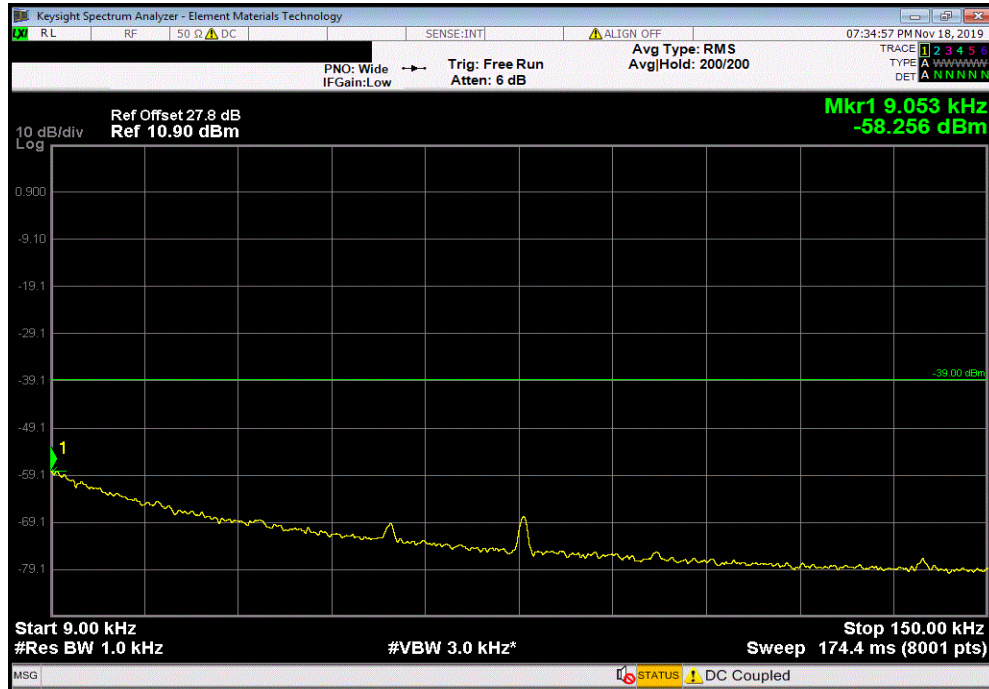


SPURIOUS CONDUCTED EMISSIONS

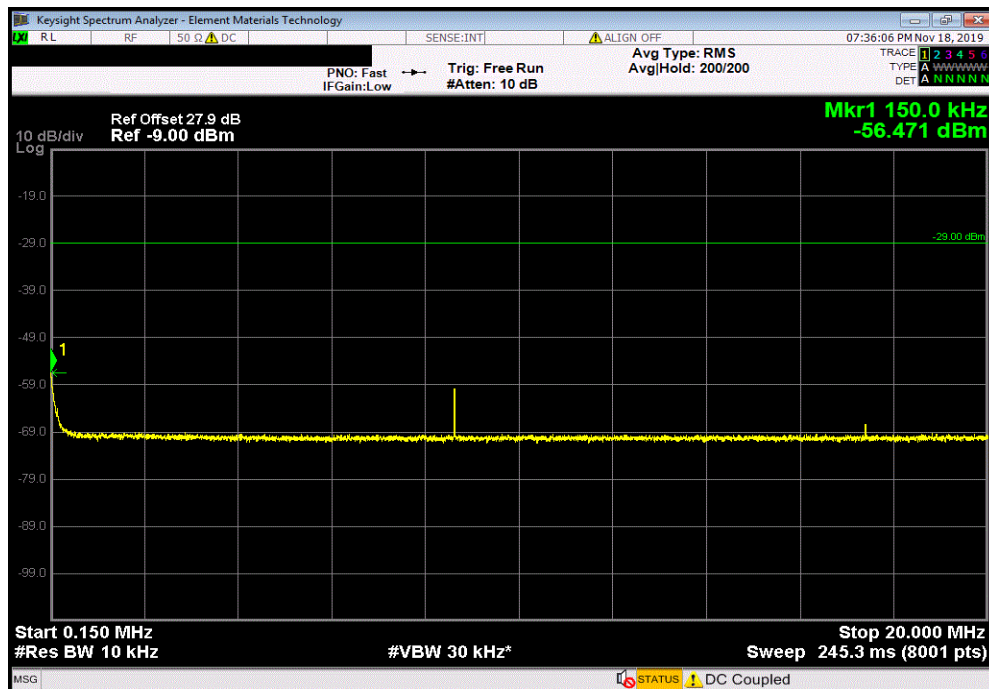


XMI 2019.09.05

Band 29, 64QAM Modulation, LTE5 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.256	-39	Pass

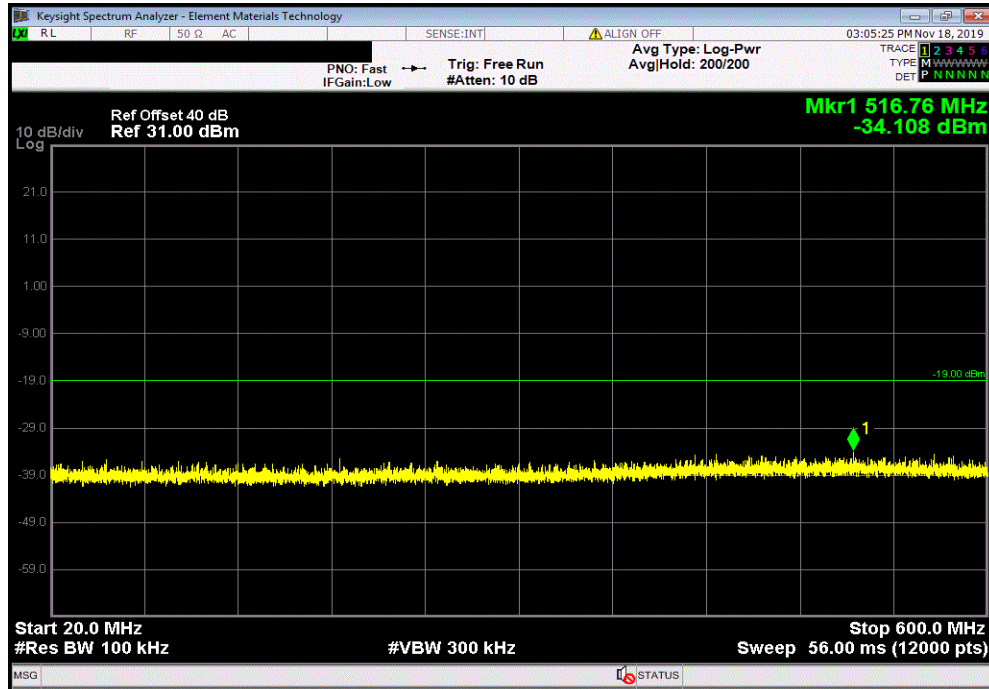


Band 29, 64QAM Modulation, LTE5 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.471	-29	Pass

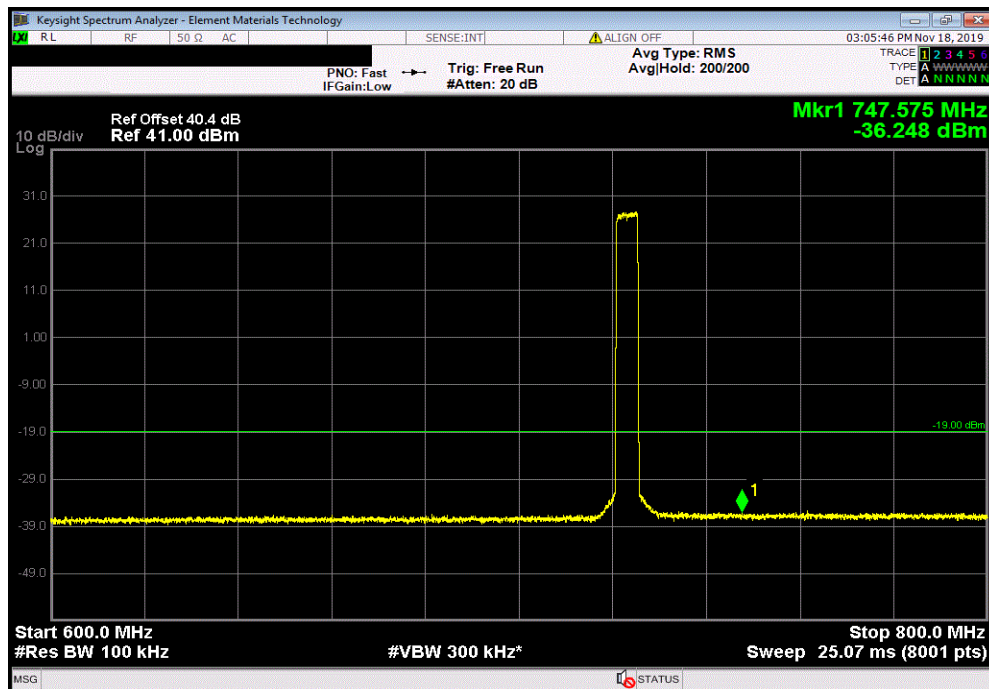


SPURIOUS CONDUCTED EMISSIONS

Band 29, 64QAM Modulation, LTE5 Bandwidth, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-34.108	-16	Pass



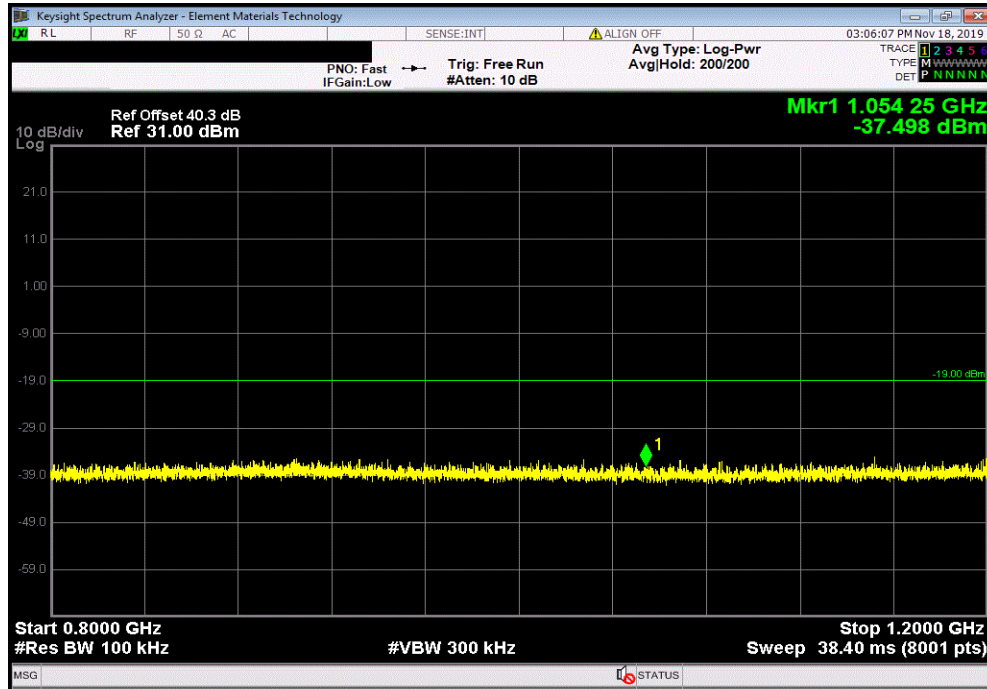
Band 29, 64QAM Modulation, LTE5 Bandwidth, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.248	-16	Pass



SPURIOUS CONDUCTED EMISSIONS

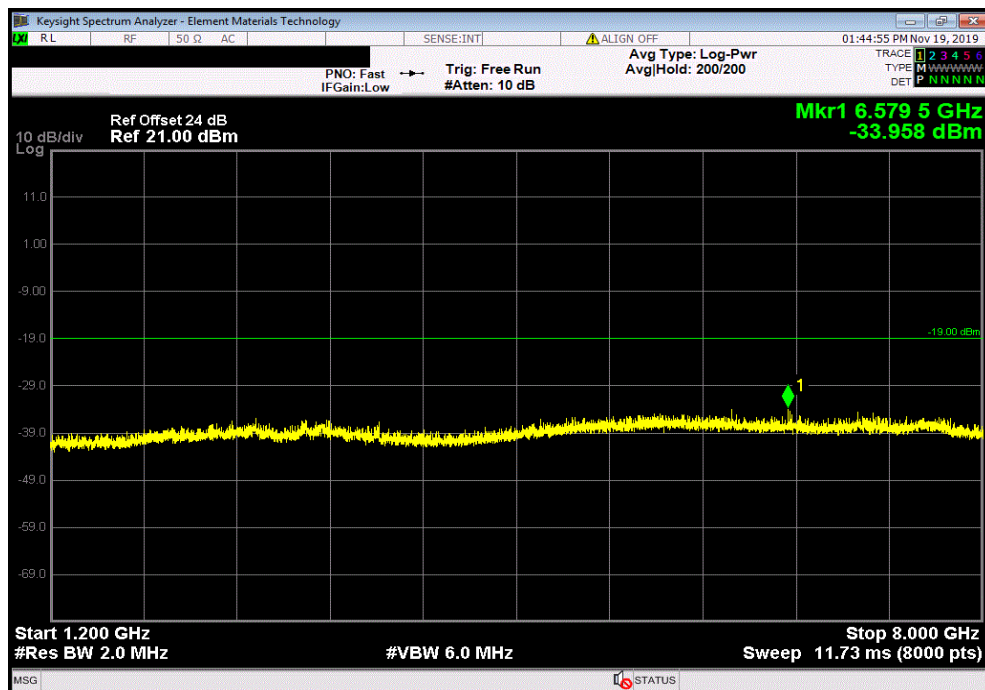
Band 29, 64QAM Modulation, LTE5 Bandwidth, 800MHz-1.2GHz

				Value (dBm)	Limit (dBm)	Result
				-37.498	-16	Pass



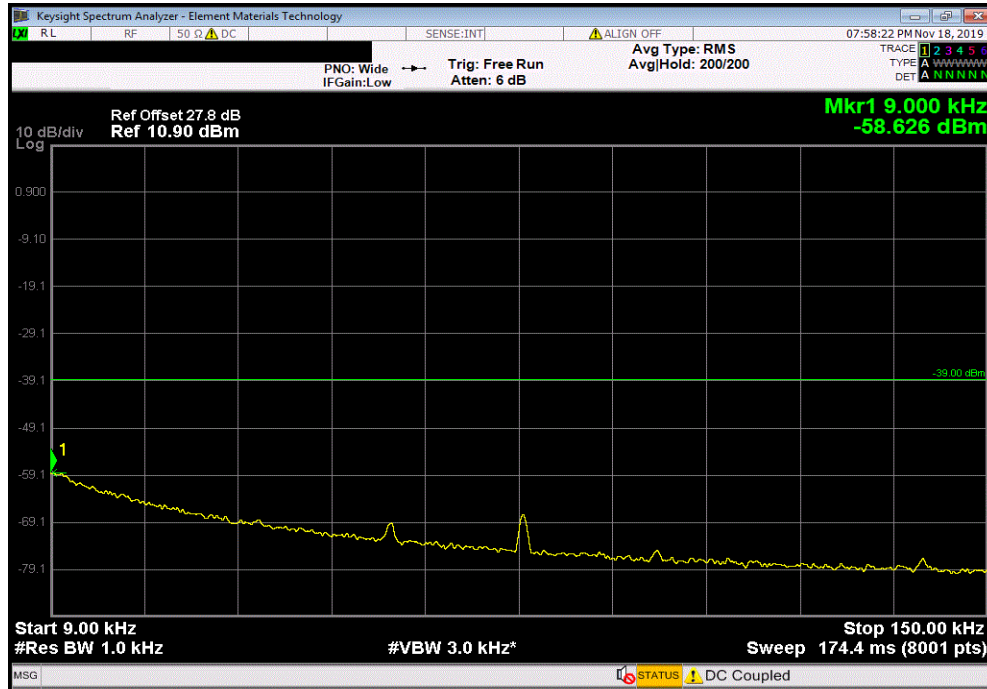
Band 29, 64QAM Modulation, LTE5 Bandwidth, 1.2GHz-8GHz

				Value (dBm)	Limit (dBm)	Result
				-33.958	-16	Pass

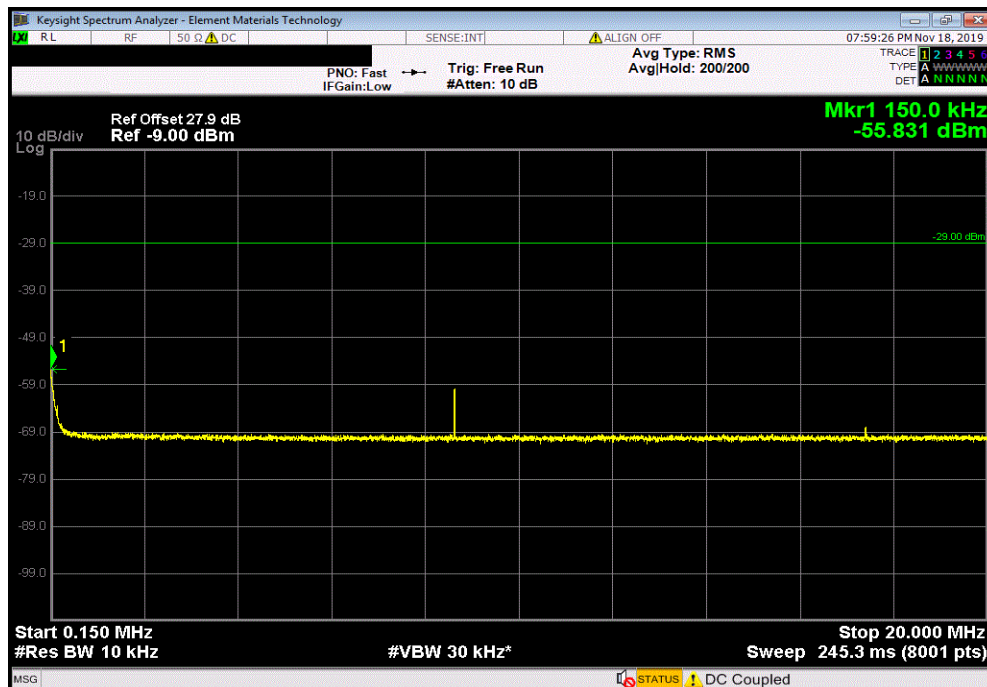


SPURIOUS CONDUCTED EMISSIONS

Band 29, 64QAM Modulation, LTE10 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.626	-39	Pass



Band 29, 64QAM Modulation, LTE10 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-55.831	-29	Pass



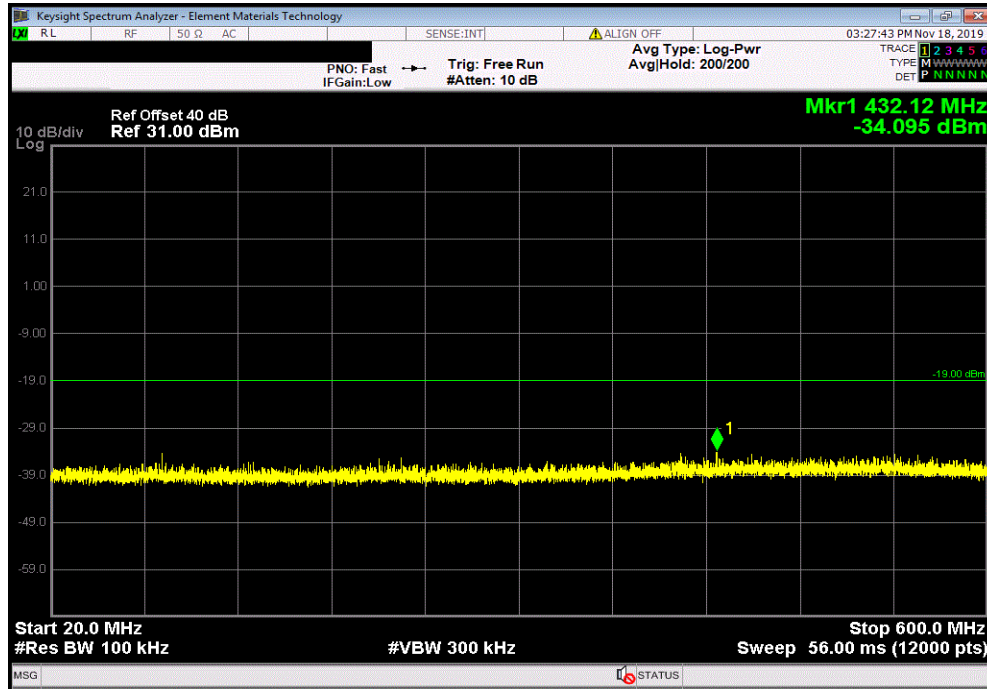
SPURIOUS CONDUCTED EMISSIONS



XMI 2019.09.05

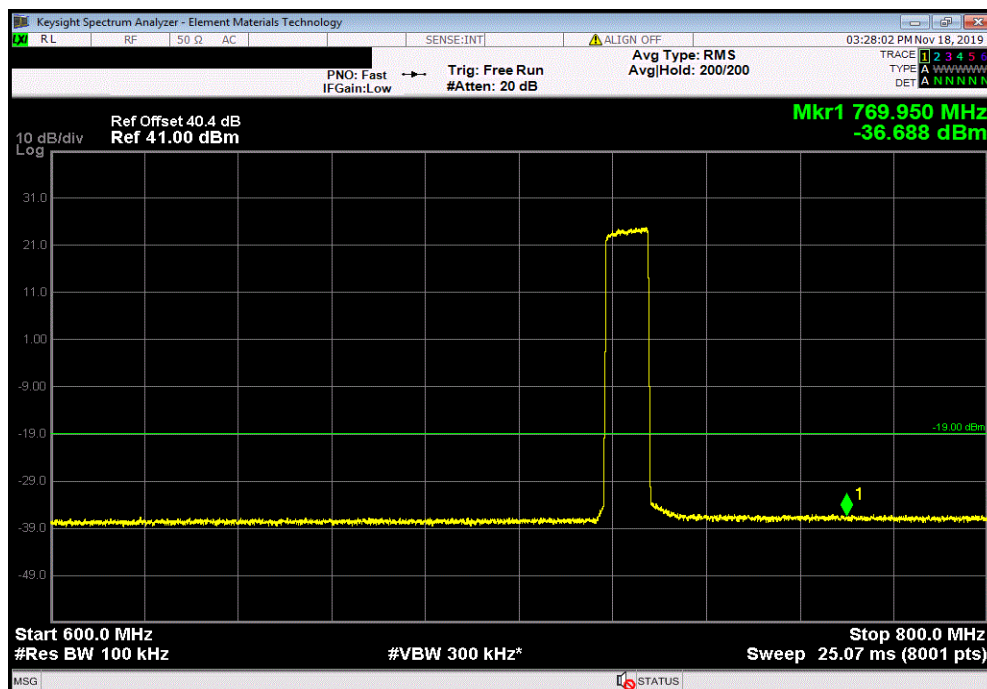
Band 29, 64QAM Modulation, LTE10 Bandwidth, 20MHz-600MHz

	Value (dBm)	Limit (dBm)	Result
	-34.095	-16	Pass



Band 29, 64QAM Modulation, LTE10 Bandwidth, 600MHz-800MHz

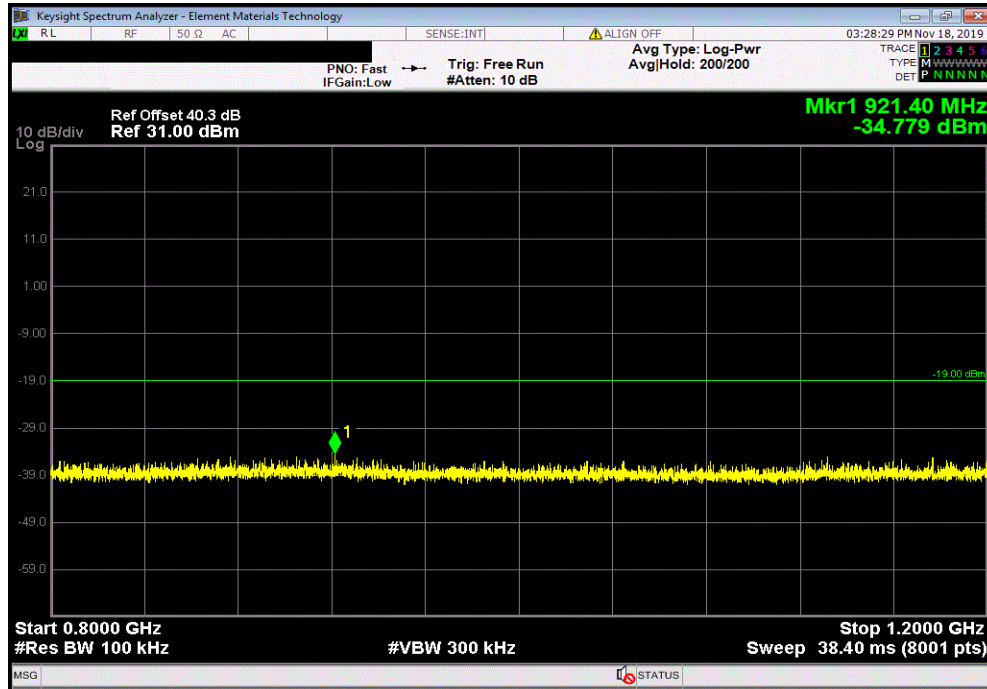
	Value (dBm)	Limit (dBm)	Result
	-36.688	-16	Pass



SPURIOUS CONDUCTED EMISSIONS

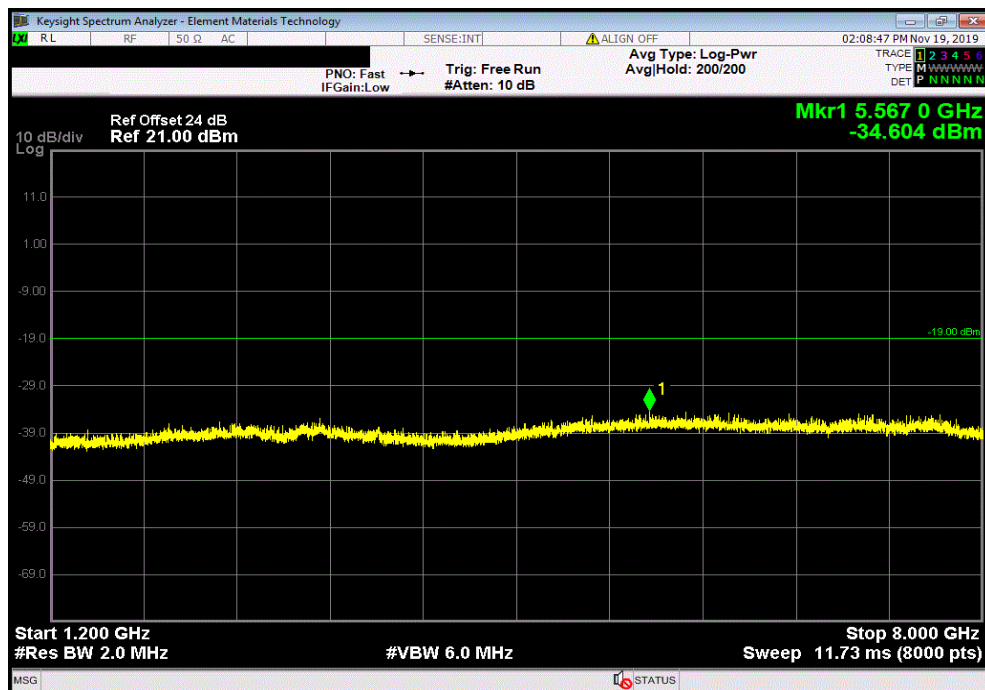
Band 29, 64QAM Modulation, LTE10 Bandwidth, 800MHz-1.2GHz

				Value (dBm)	Limit (dBm)	Result
				-34.779	-16	Pass



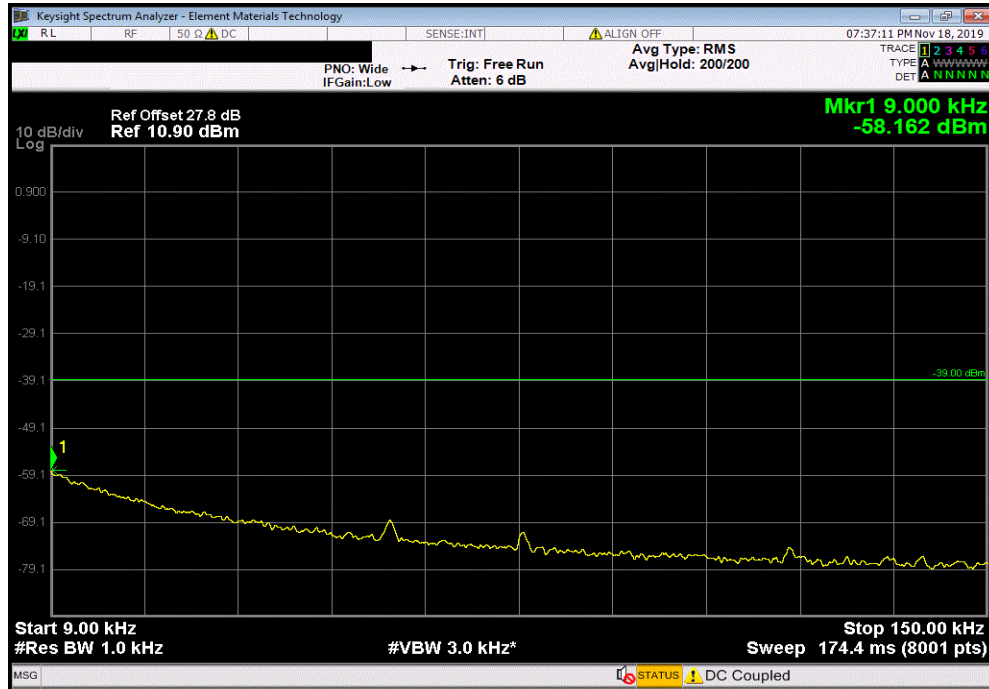
Band 29, 64QAM Modulation, LTE10 Bandwidth, 1.2GHz-8GHz

				Value (dBm)	Limit (dBm)	Result
				-34.604	-16	Pass

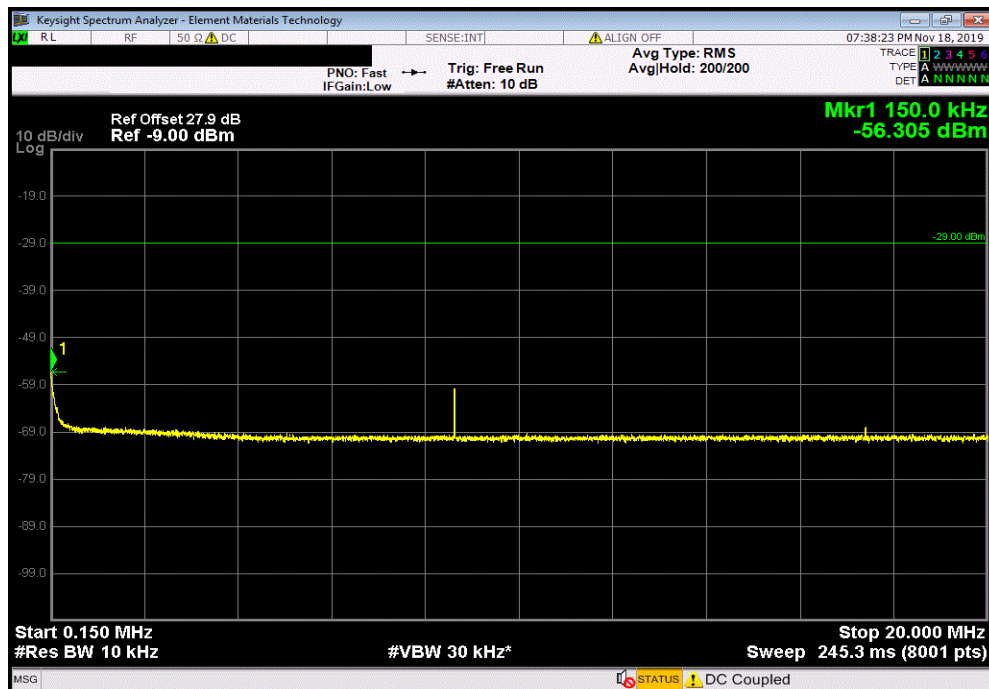


SPURIOUS CONDUCTED EMISSIONS

Band 29, 256QAM Modulation, LTE5 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.162	-39	Pass



Band 29, 256QAM Modulation, LTE5 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.305	-29	Pass



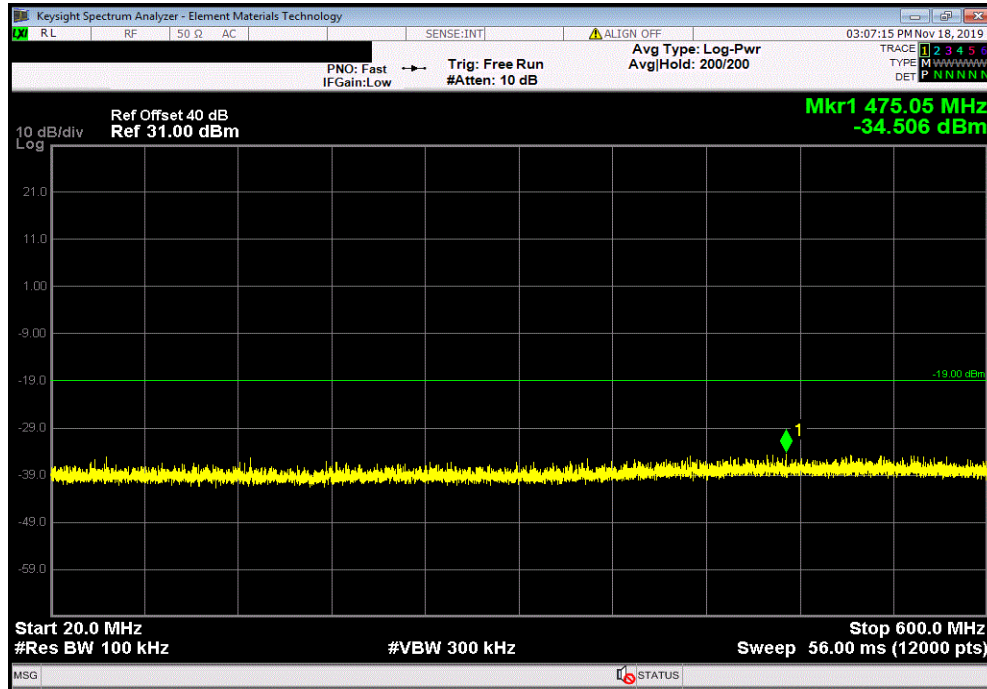
SPURIOUS CONDUCTED EMISSIONS



XMI 2019.09.05

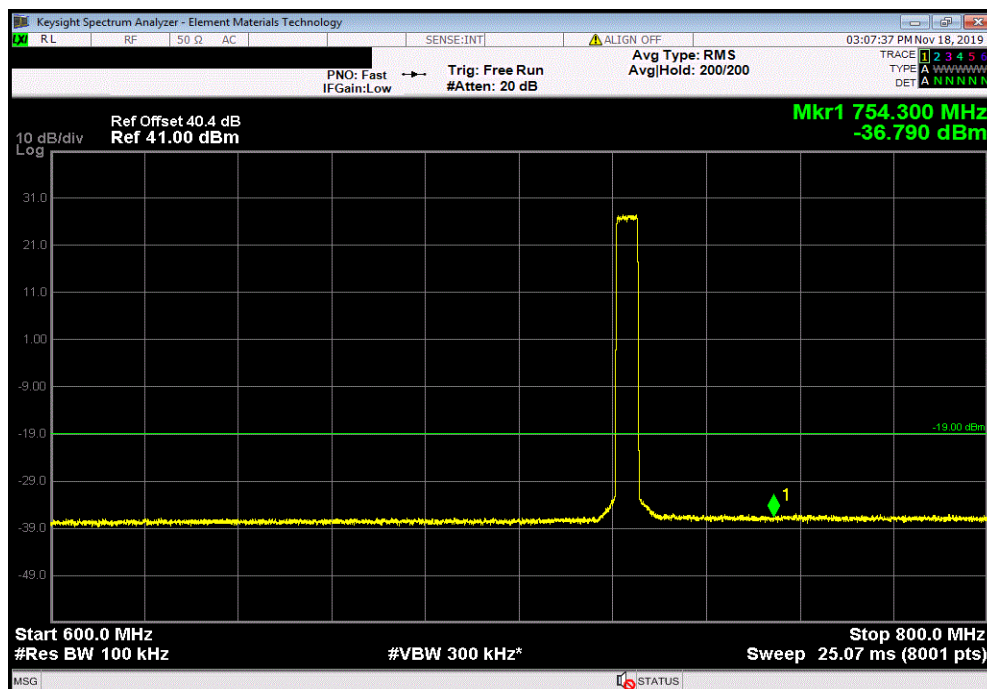
Band 29, 256QAM Modulation, LTE5 Bandwidth, 20MHz-600MHz

	Value (dBm)	Limit (dBm)	Result
	-34.506	-16	Pass



Band 29, 256QAM Modulation, LTE5 Bandwidth, 600MHz-800MHz

	Value (dBm)	Limit (dBm)	Result
	-36.79	-16	Pass



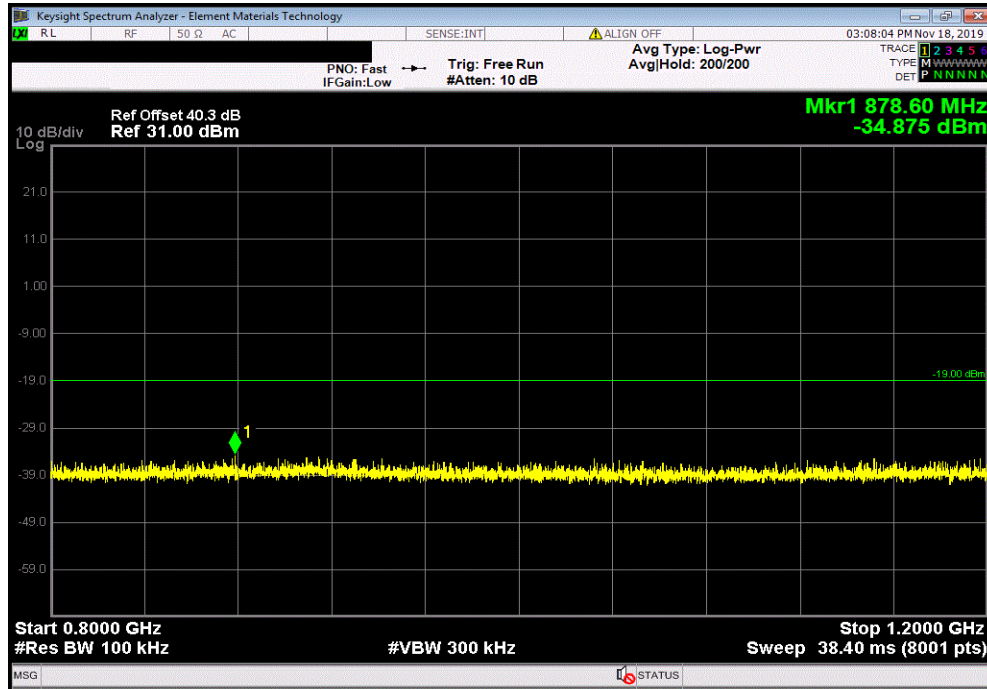
SPURIOUS CONDUCTED EMISSIONS



XMI 2019.09.05

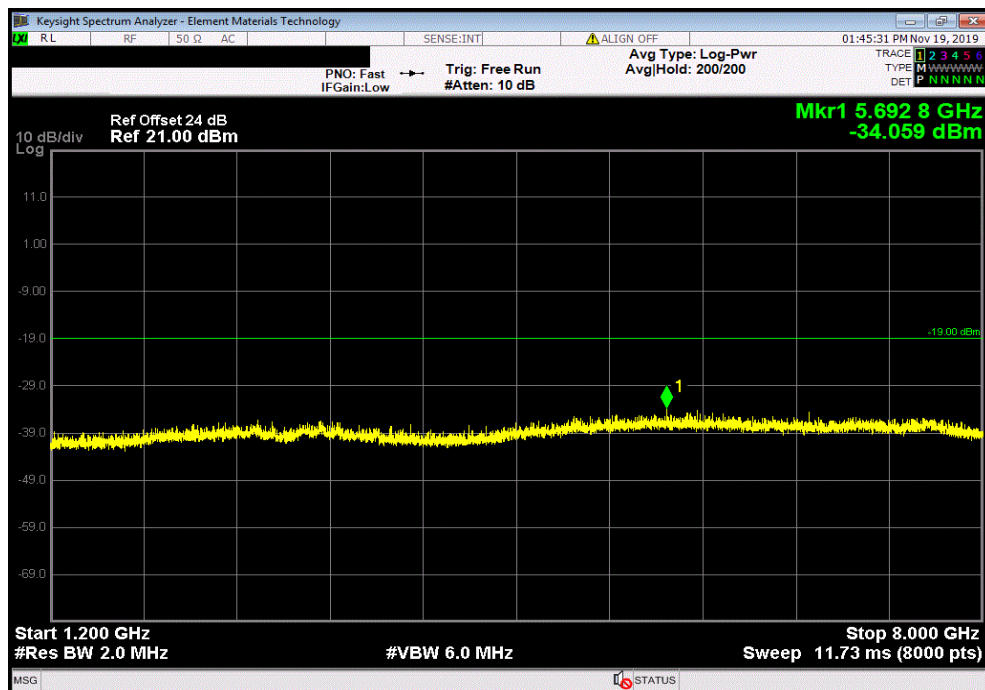
Band 29, 256QAM Modulation, LTE5 Bandwidth, 800MHz-1.2GHz

	Value (dBm)	Limit (dBm)	Result
	-34.875	-16	Pass



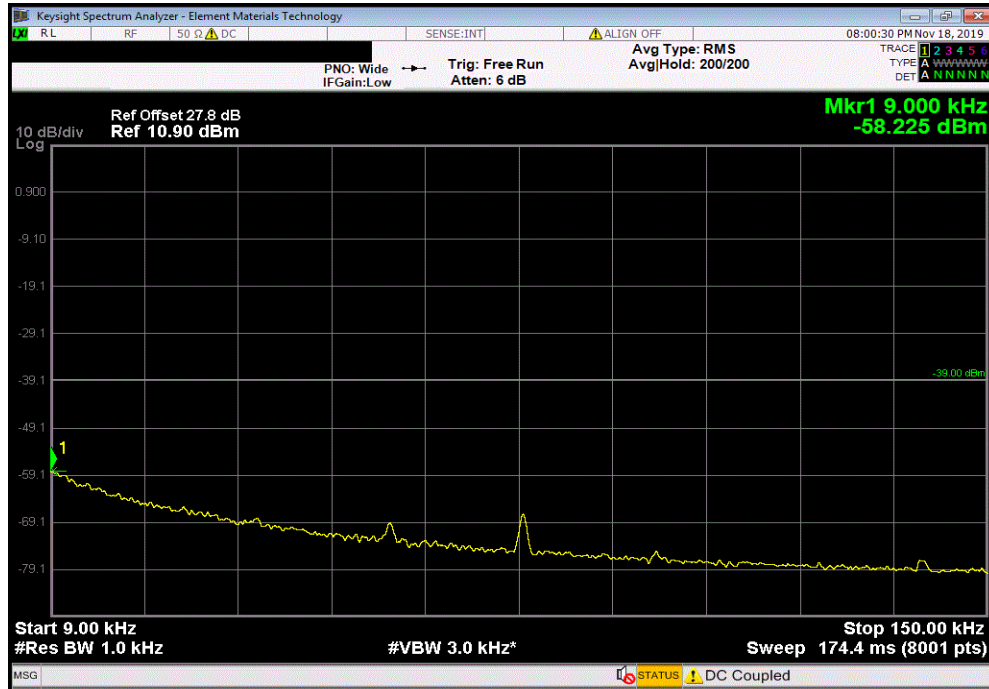
Band 29, 256QAM Modulation, LTE5 Bandwidth, 1.2GHz-8GHz

	Value (dBm)	Limit (dBm)	Result
	-34.059	-16	Pass

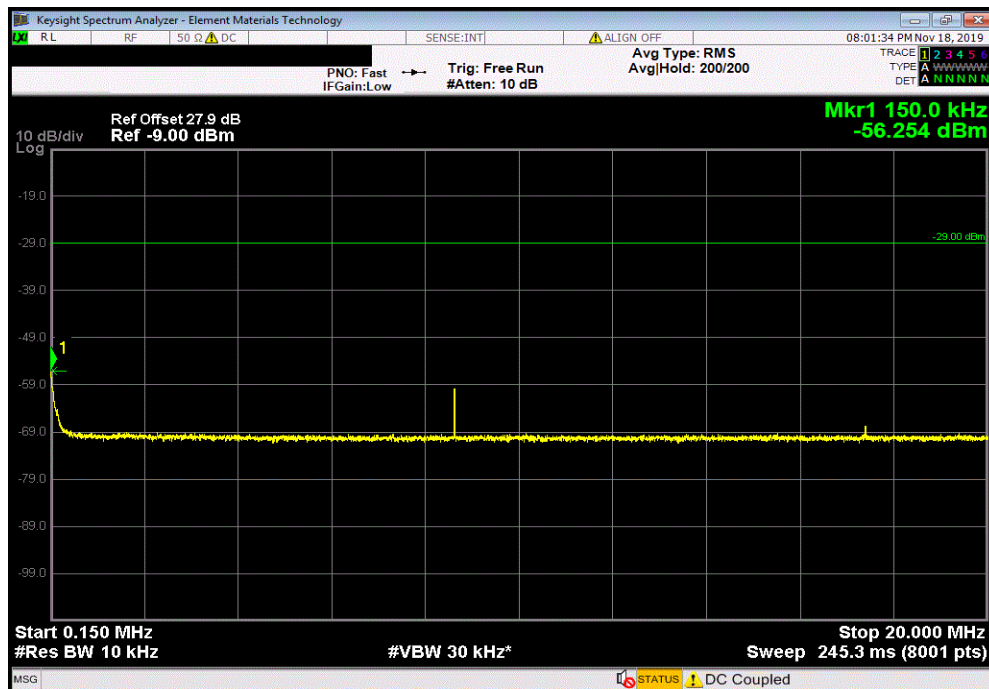


SPURIOUS CONDUCTED EMISSIONS

Band 29, 256QAM Modulation, LTE10 Bandwidth, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.225	-39	Pass

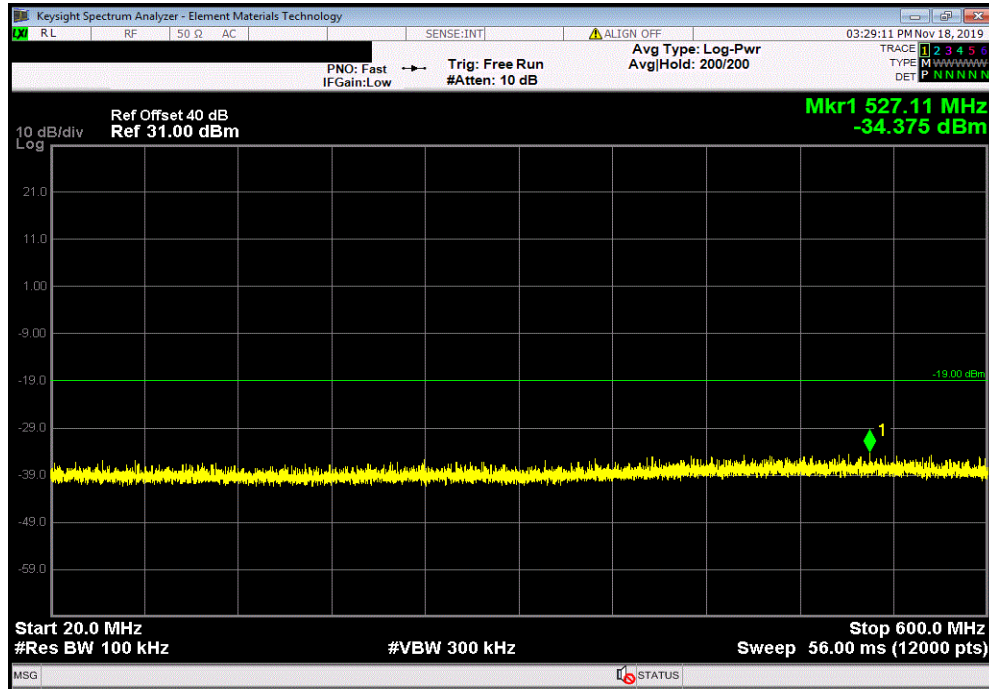


Band 29, 256QAM Modulation, LTE10 Bandwidth, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.254	-29	Pass

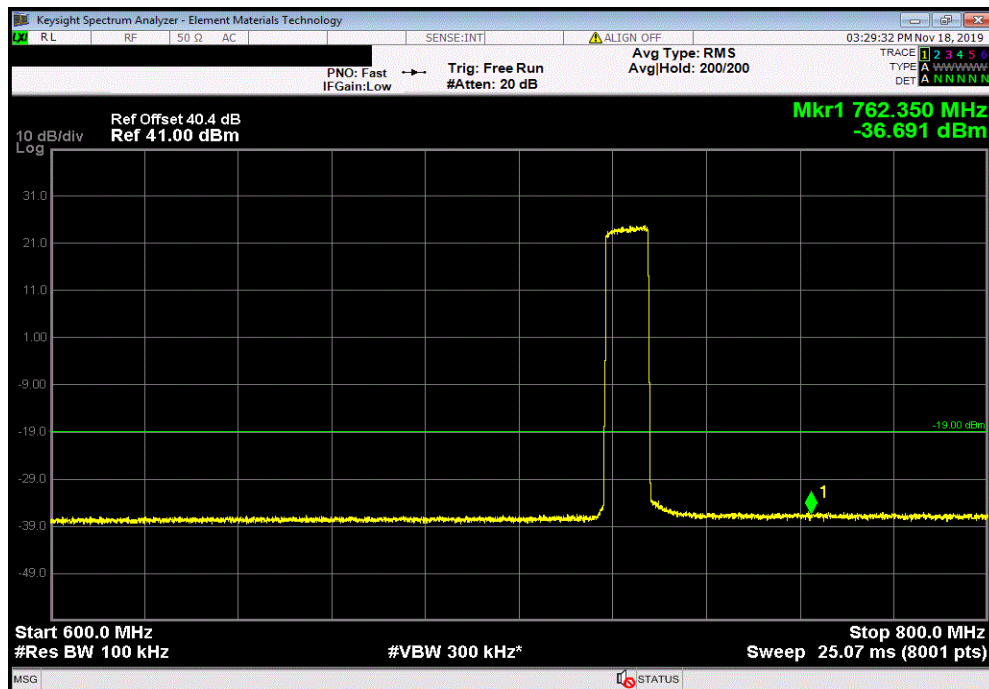


SPURIOUS CONDUCTED EMISSIONS

Band 29, 256QAM Modulation, LTE10 Bandwidth, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-34.375	-16	Pass



Band 29, 256QAM Modulation, LTE10 Bandwidth, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.691	-16	Pass

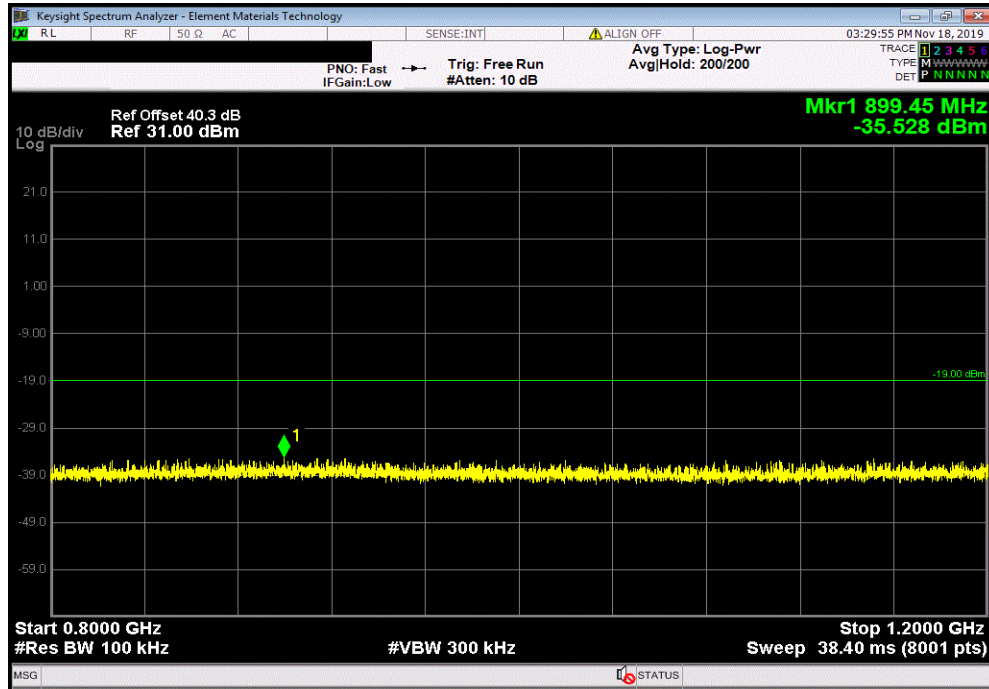


SPURIOUS CONDUCTED EMISSIONS

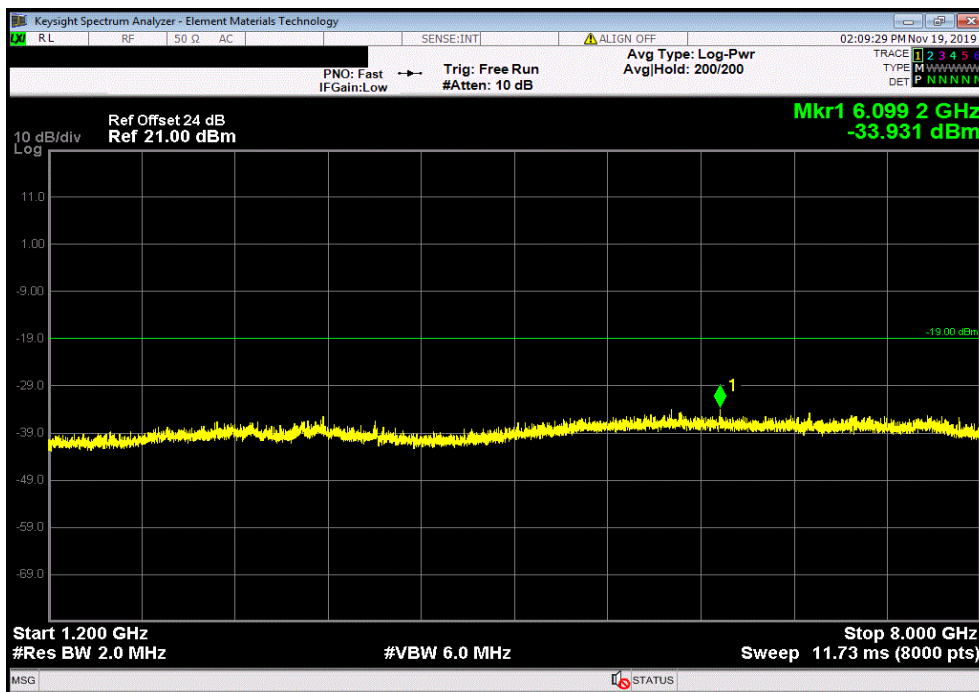


XMI 2019.09.05

Band 29, 256QAM Modulation, LTE10 Bandwidth, 800MHz-1.2GHz						
	Value	Limit	Result			
	(dBm)	(dBm)				
	-35.528	-16	Pass			



Band 29, 256QAM Modulation, LTE10 Bandwidth, 1.2GHz-8GHz						
	Value	Limit	Result			
	(dBm)	(dBm)				
	-33.931	-16	Pass			



SPURIOUS CONDUCTED EMISSIONS



XMIT 2019.09.05

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	Agilent	E8257D	TGU	15-Feb-18	15-Feb-21
Generator - Signal	Keysight	N5171B-506	TEW	2-May-18	2-May-21
Analyzer - Spectrum Analyzer	Keysight	N9010A	AFM	19-Mar-19	19-Mar-20

TEST DESCRIPTION

The spurious RF conducted emissions were measured with the EUT set to the middle channel. The EUT was transmitting at the data rate(s) and bandwidths listed in the datasheet. For each transmit frequency, the spectrum was scanned throughout the specified frequency range.

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

For Bands 12 and 14, the limit adjustment is $-10 \cdot \log(4) = -6$ dB.

For Band 29, the limit adjustment is $-10 \cdot \log(2) = -3$ dB.

Over the frequency range of 150kHz-20MHz, a RBW of 10 kHz was used; therefore, an additional limit adjustment factor of 10 dB was applied $[10 \cdot \log(10/1)]$.

The limit for the 9kHz to 150kHz frequency range was adjusted to -39dBm to correct for a spectrum analyzer RBW of 1kHz versus required RBW of 100kHz [i.e.: $-39\text{dBm} = -19\text{dBm} - 10\log(100\text{kHz}/1\text{kHz})$]. The limit for the 150kHz to 20MHz frequency range was adjusted to -29dBm to correct for a spectrum analyzer RBW of 10kHz versus required RBW of 100kHz [i.e.: $-29\text{dBm} = -19\text{dBm} - 10\log(100\text{kHz}/10\text{kHz})$].

Per FCC section 27.53(g), 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 RRH may operate as a 4 port MIMO transmitter for Band 12. The limit is adjusted to -16 dBm $[-13 \text{ dBm} - 10 \log(2)]$ per FCC KDB 662911D01 v02r01 because the RRH may operate as a 2 port MIMO transmitter for Band 29. FCC 27.53(g) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

Per section 90.543(e)(3), 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 RRH may operate as a 4 port MIMO transmitter for Band 14. FCC 90.543(e)(5) requires a >100 kHz measurement bandwidth for emissions 100 kHz outside of the RRH operating frequency range.

Per section 90.543(f), for the frequency range 1559-1610 MHz the EIRP limit is -70dBW/MHz for wideband signals and -80dBW for discrete emissions of bandwidths less than 700Hz. This equates to an EIRP of -40dBm/MHz for wideband emissions and -50dBm/MHz for discrete emissions. The limit is adjusted to -46 dBm $[-40 \text{ dBm} - 10 \log(4)]$ for wideband signals and -56dBm $[-50 \text{ dBm} - 10 \log(4)]$ for discrete emissions per FCC KDB 662911D01 v02r01 because the RRH may operate as a 4 port MIMO transmitter.

SPURIOUS CONDUCTED EMISSIONS



XMI 2019.09.05

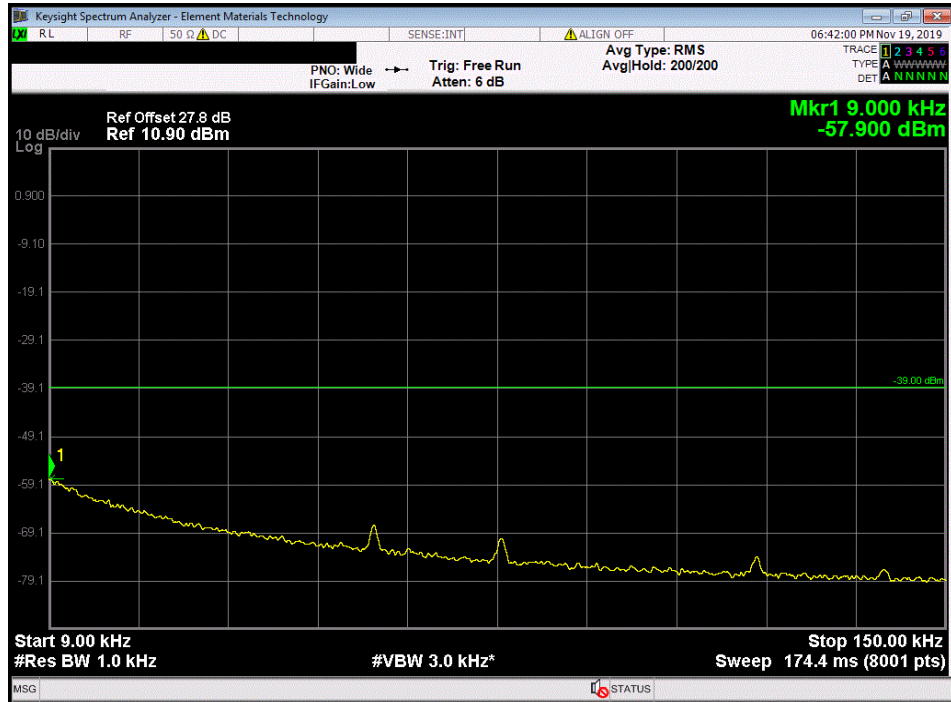
EUT: AHLBBA RRH		Work Order: NOKI0004	
Serial Number: K9193514835		Date: 20-Nov-19	
Customer: Nokia Solutions and Networks		Temperature: 23.4 °C	
Attendees: John Rattanaovong		Humidity: 34.5% RH	
Project: None		Barometric Pres.: 1017 mbar	
Tested by: Jonathan Kiefer		Power: 54VDC	
		Job Site: TX09	
TEST SPECIFICATIONS			
FCC 27:2019		Test Method	
FCC 90i:2019		ANSI C63.26:2015	
COMMENTS			
Multicarrier conducted spurious emissions for Band 12, Band 14, and Band 29. 256QAM modulation, LTE5 Bandwidth. Tested on highest power antenna port (Port 1). EUT is operated at 100% duty cycle.			
DEVIATIONS FROM TEST STANDARD			
None			
Configuration #	2,4,5	Signature <i>Jonathan Kiefer</i>	
		Value (dBm)	Limit (dBm) Result
Band 12 Multicarrier			
	9kHz-150kHz	-57.9	-39 Pass
	150kHz-20MHz	-56.198	-29 Pass
	20MHz-600MHz	-29.988	-19 Pass
	600MHz-800MHz	-36.553	-19 Pass
	800MHz-1.2GHz	-30.324	-19 Pass
	1.2GHz-8GHz	-34.566	-19 Pass
Band 14 Multicarrier			
	9kHz-150kHz	-57.892	-39 Pass
	150kHz-20MHz	-56.272	-29 Pass
	20MHz-600MHz	-30.447	-19 Pass
	600MHz-800MHz	-36.501	-19 Pass
	800MHz-1.2GHz	-30.895	-19 Pass
	1.2GHz-8GHz	-33.311	-19 Pass
	1559MHz-1610MHz	-58.627	-46 Pass
Band 29 Multicarrier			
	9kHz-150kHz	-57.819	-39 Pass
	150kHz-20MHz	-56.133	-29 Pass
	20MHz-600MHz	-30.715	-19 Pass
	600MHz-800MHz	-36.815	-19 Pass
	800MHz-1.2GHz	-31.168	-19 Pass
	1.2GHz-8GHz	-34.66	-19 Pass
Band 12-14 Multicarrier			
	9kHz-150kHz	-57.911	-39 Pass
	150kHz-20MHz	-55.491	-29 Pass
	20MHz-600MHz	-29.414	-19 Pass
	600MHz-800MHz	-36.73	-19 Pass
	800MHz-1.2GHz	-30.33	-19 Pass
	1.2GHz-8GHz	-34.907	-19 Pass
	1559MHz-1610MHz	-58.81	-46 Pass
Band 12-29 Multicarrier			
	9kHz-150kHz	-58.156	-39 Pass
	150kHz-20MHz	-56.169	-29 Pass
	20MHz-600MHz	-27.998	-19 Pass
	600MHz-800MHz	-36.464	-19 Pass
	800MHz-1.2GHz	-30.211	-19 Pass
	1.2GHz-8GHz	-33.43	-19 Pass
Band 14-29 Multicarrier			
	9kHz-150kHz	-57.947	-39 Pass
	150kHz-20MHz	-55.697	-29 Pass
	20MHz-600MHz	-29.871	-19 Pass
	600MHz-800MHz	-33.033	-19 Pass
	800MHz-1.2GHz	-29.101	-19 Pass
	1.2GHz-8GHz	-34.266	-19 Pass
	1559MHz-1610MHz	-58.917	-46 Pass

SPURIOUS CONDUCTED EMISSIONS

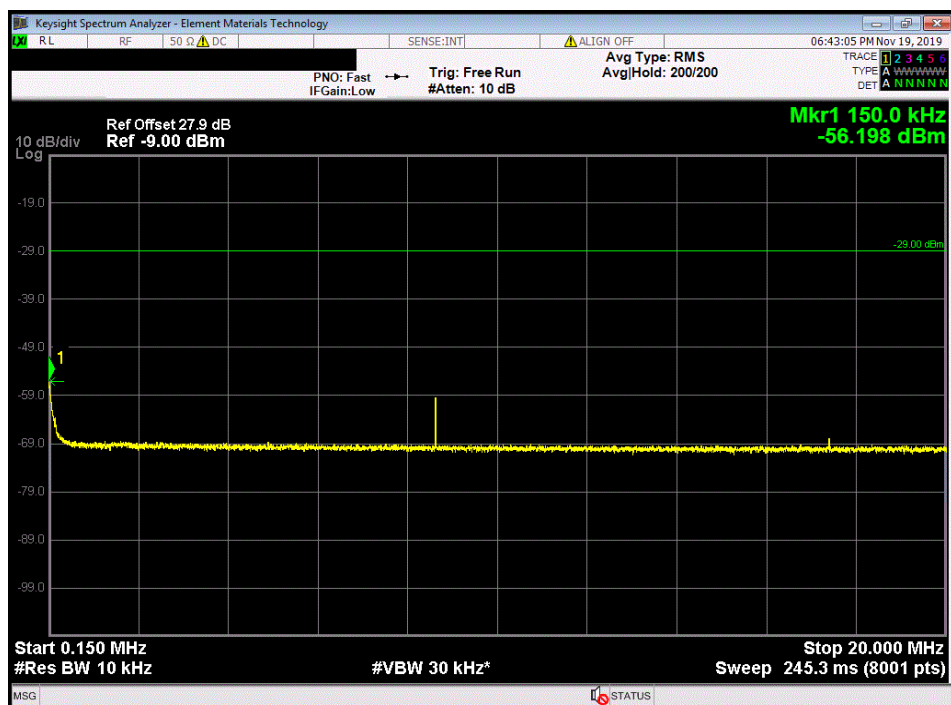


XMM 2019.09.05

Band 12 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.9	-39	Pass



Band 12 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.198	-29	Pass

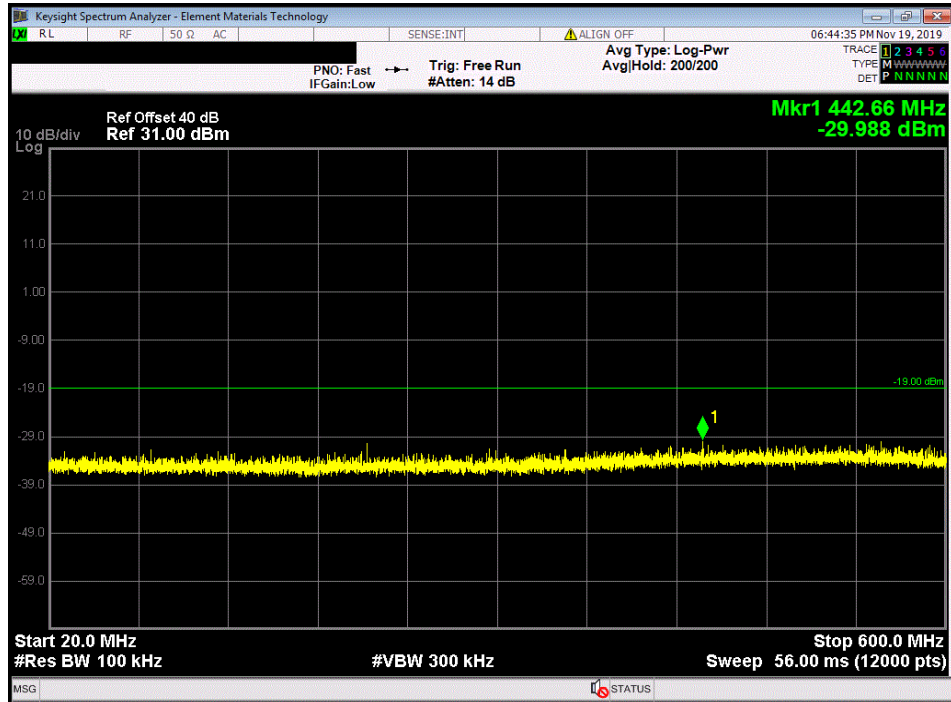


SPURIOUS CONDUCTED EMISSIONS

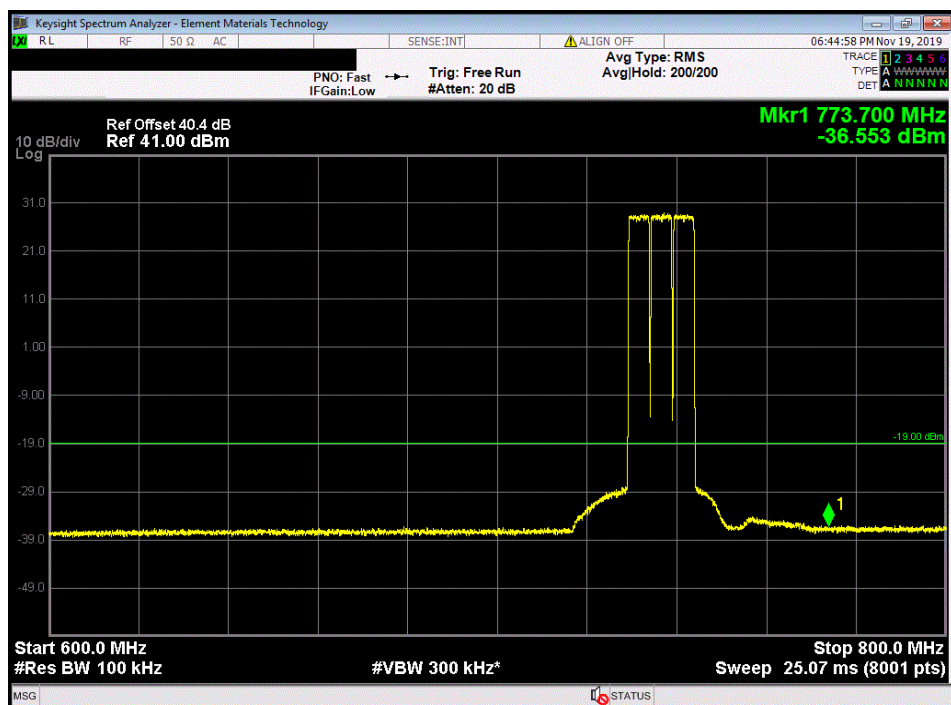


XMM 2019.09.05

Band 12 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-29.988	-19	Pass



Band 12 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.553	-19	Pass

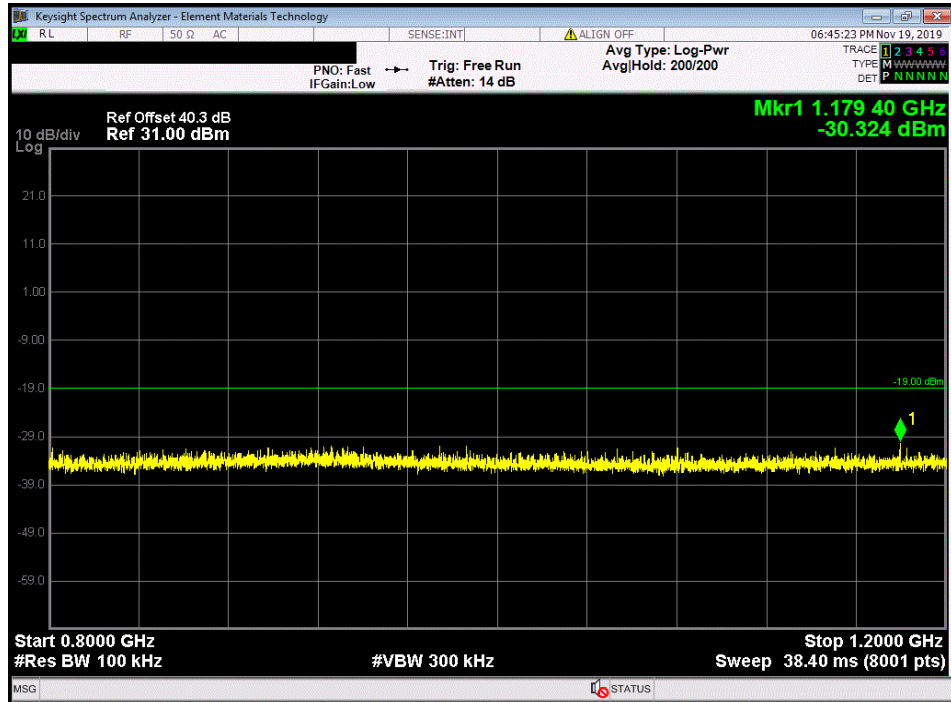


SPURIOUS CONDUCTED EMISSIONS

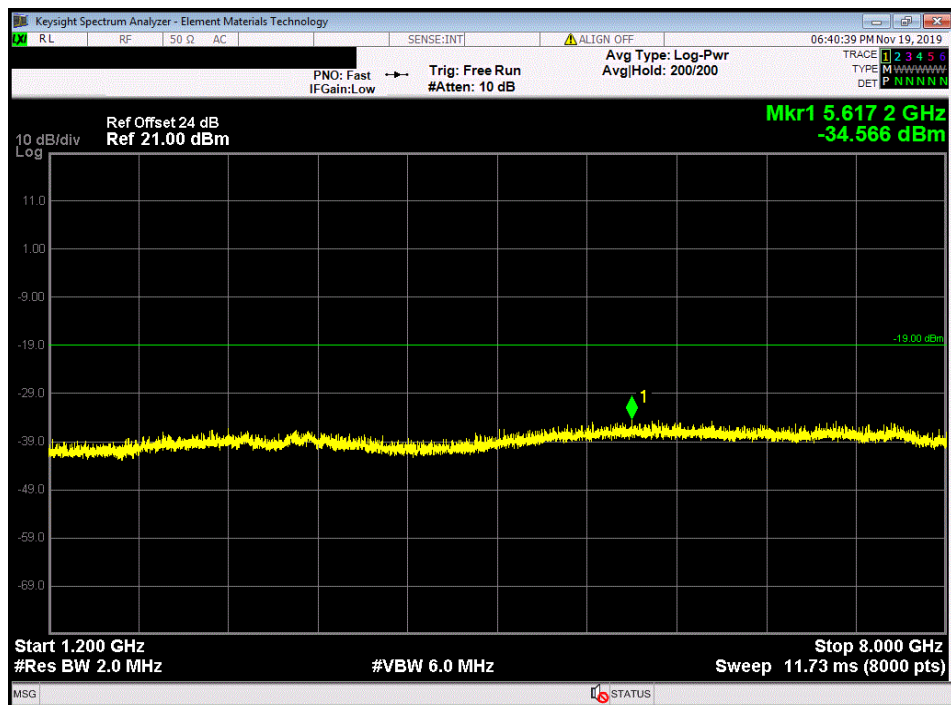


XMM 2019.09.05

Band 12 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-30.324	-19	Pass



Band 12 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.566	-19	Pass

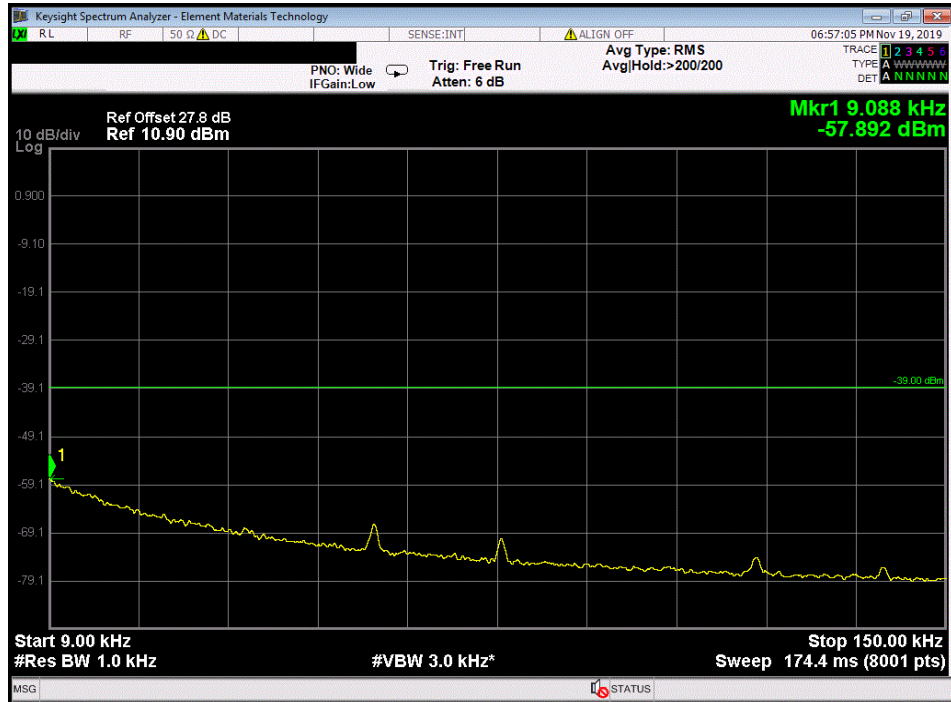


SPURIOUS CONDUCTED EMISSIONS

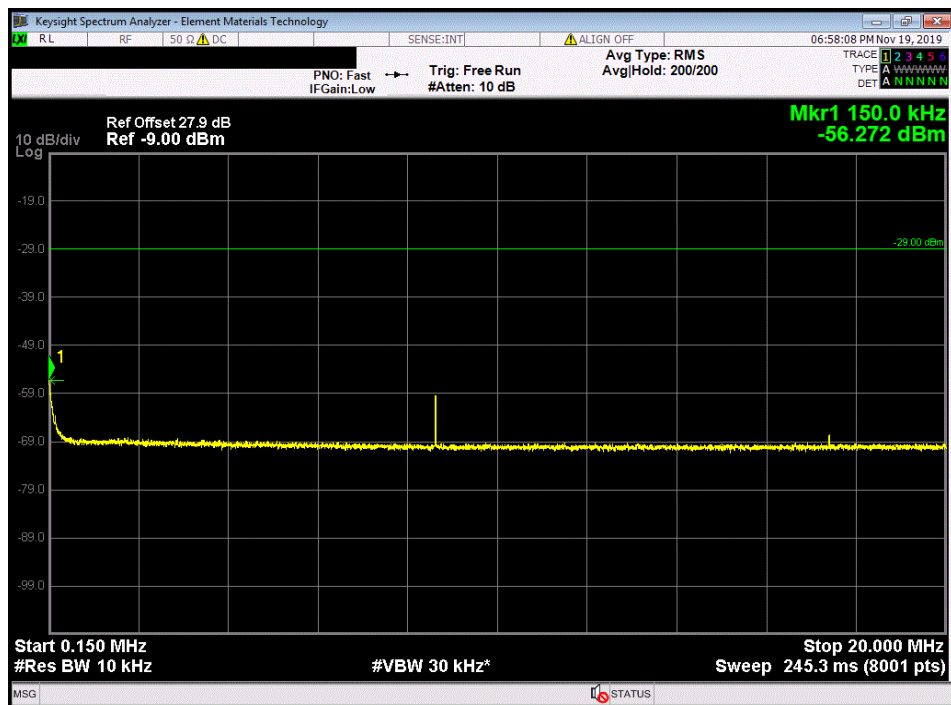


XMM 2019.09.05

Band 14 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.892	-39	Pass



Band 14 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.272	-29	Pass

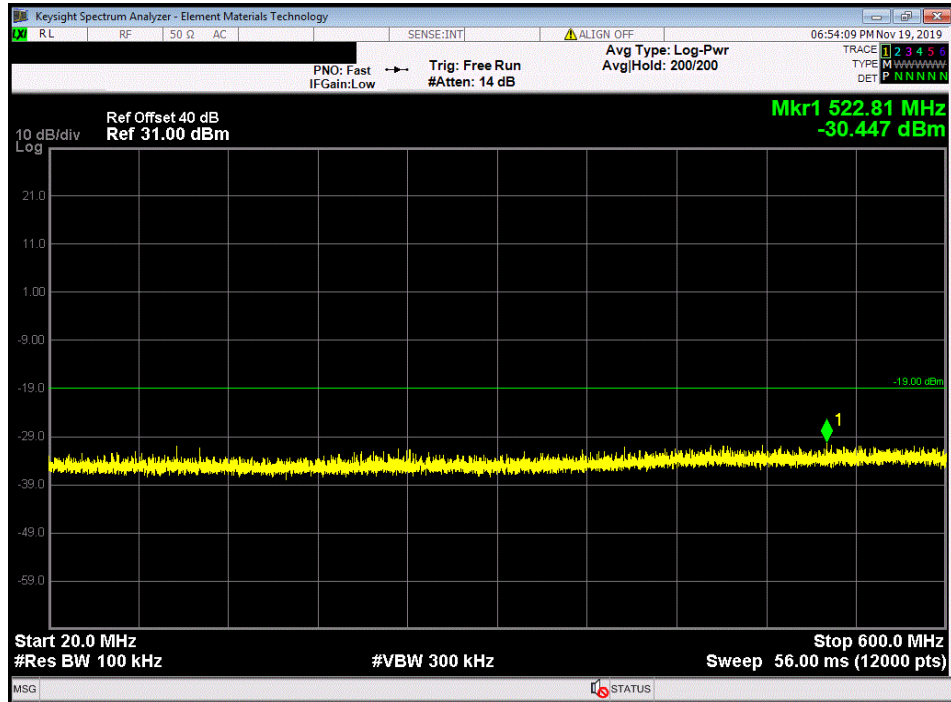


SPURIOUS CONDUCTED EMISSIONS

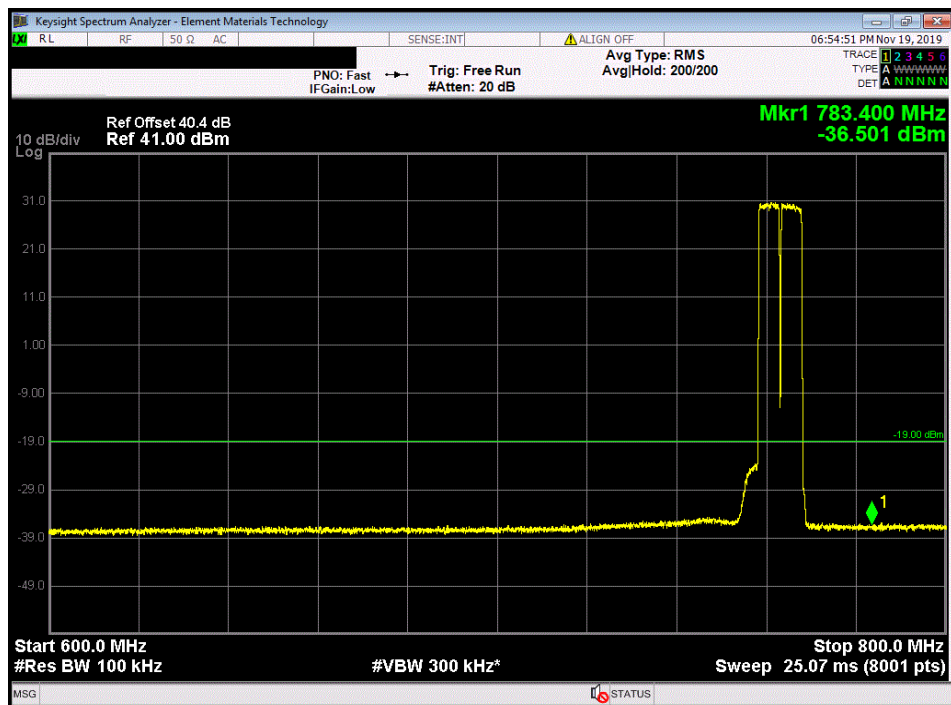


XMM 2019.09.05

Band 14 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-30.447	-19	Pass



Band 14 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.501	-19	Pass

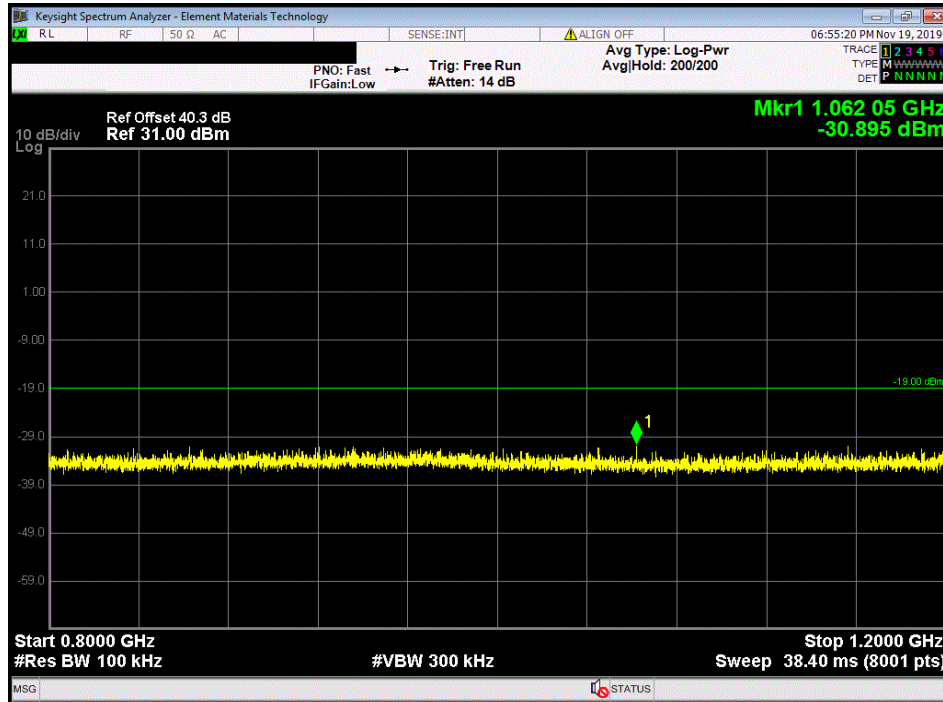


SPURIOUS CONDUCTED EMISSIONS

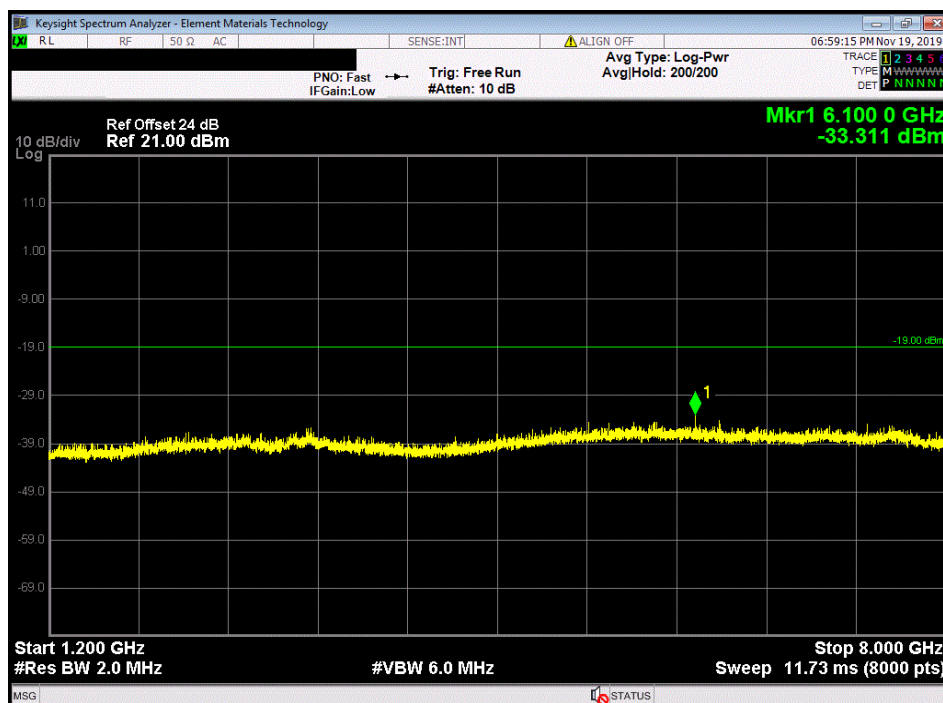


XMM 2019.09.05

Band 14 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-30.895	-19	Pass



Band 14 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-33.311	-19	Pass

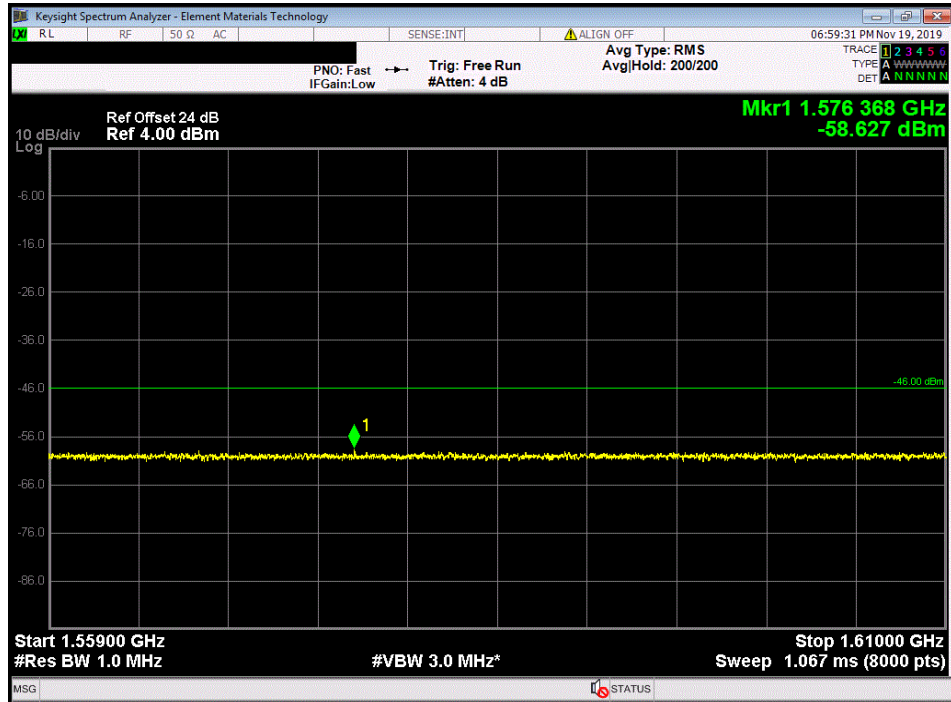


SPURIOUS CONDUCTED EMISSIONS

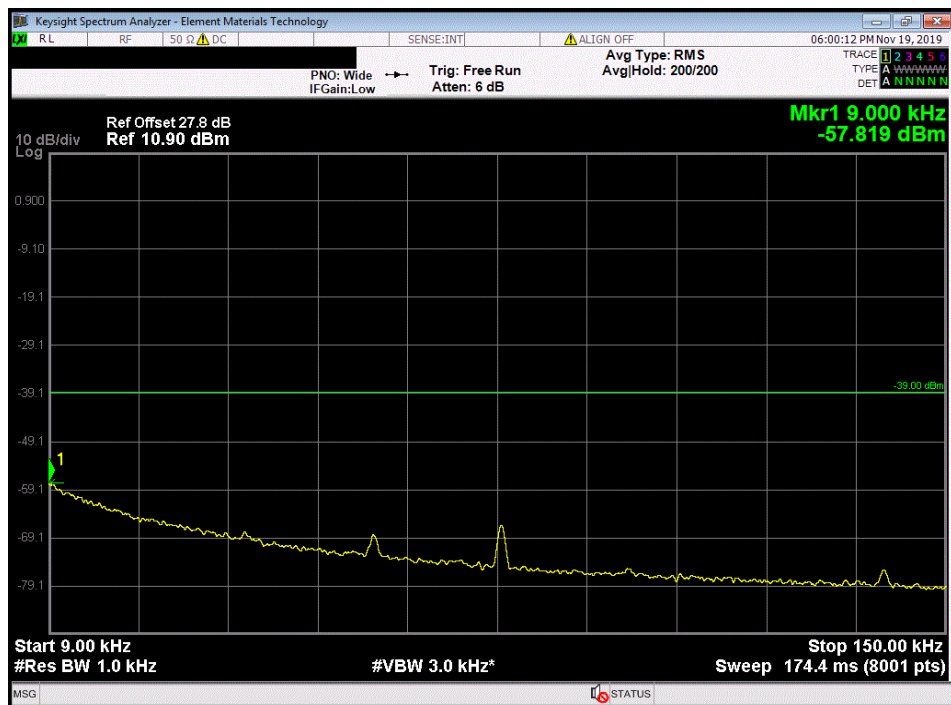


XMM 2019.09.05

Band 14 Multicarrier, 1559MHz-1610MHz						
				Value (dBm)	Limit (dBm)	Result
				-58.627	-46	Pass



Band 29 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.819	-39	Pass

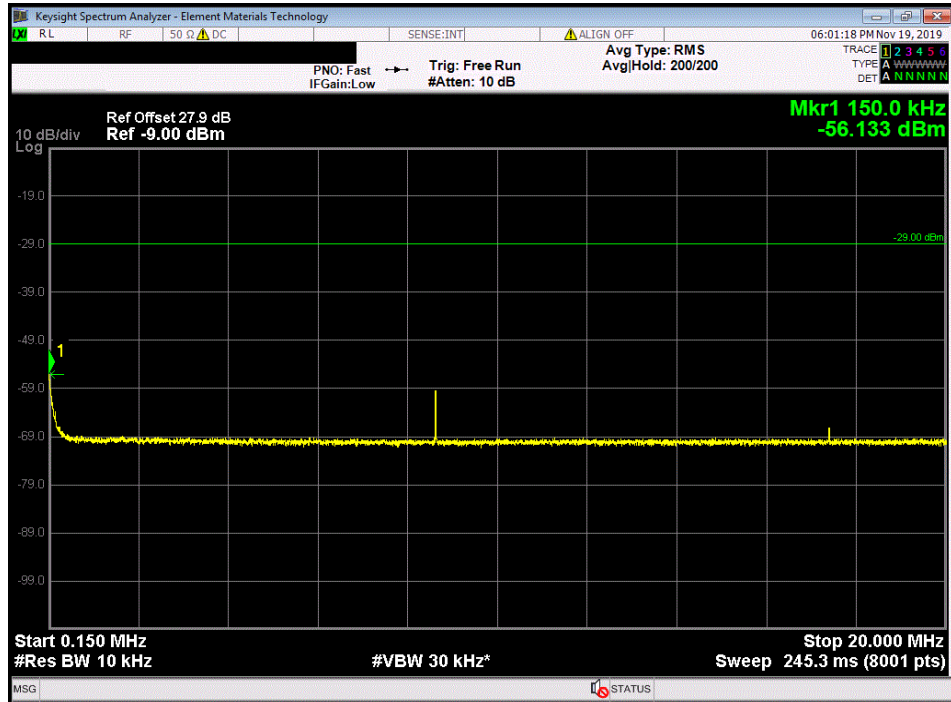


SPURIOUS CONDUCTED EMISSIONS

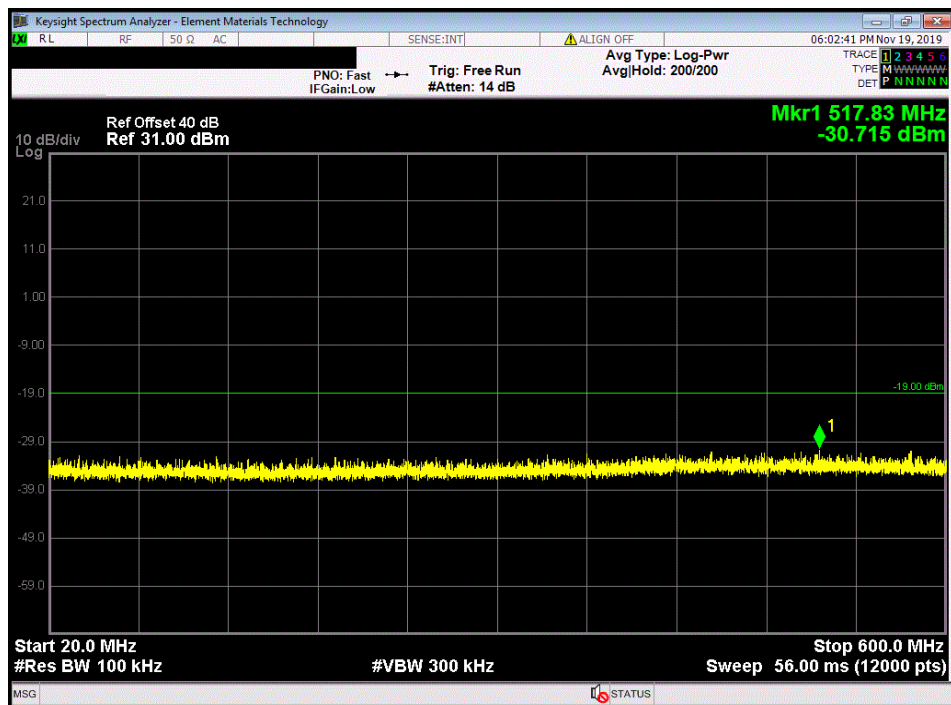


XMM 2019.09.05

Band 29 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.133	-29	Pass



Band 29 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-30.715	-19	Pass

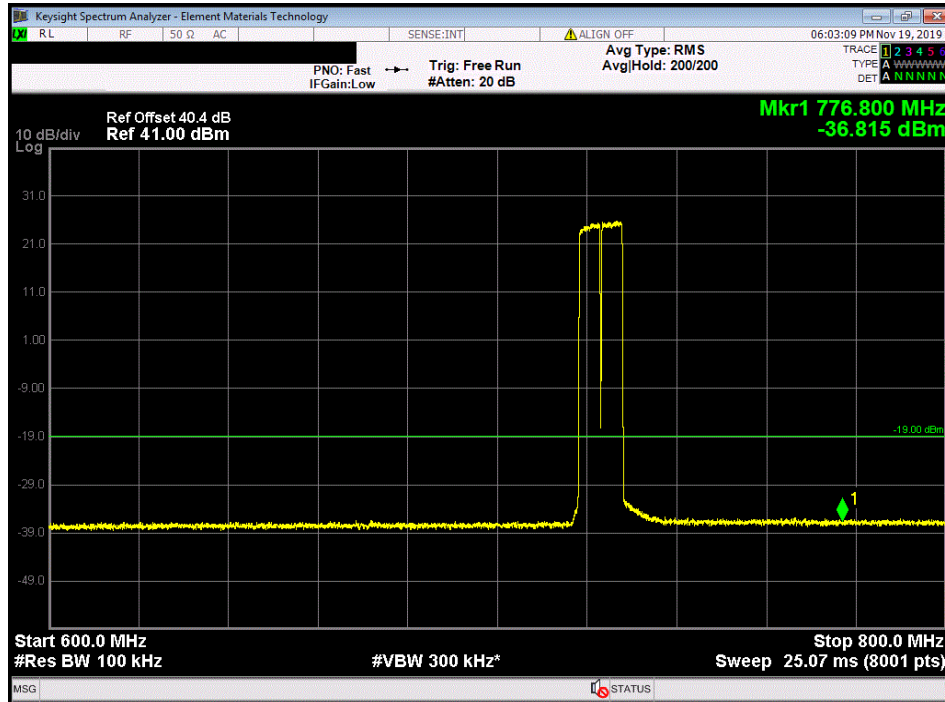


SPURIOUS CONDUCTED EMISSIONS

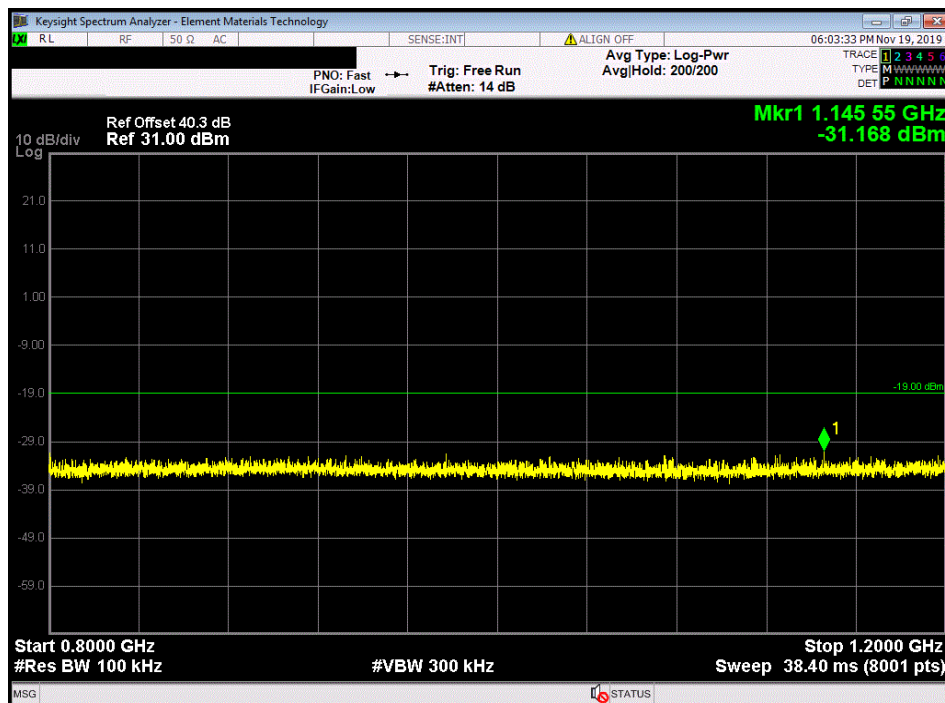


XMM 2019.09.05

Band 29 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.815	-19	Pass



Band 29 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-31.168	-19	Pass

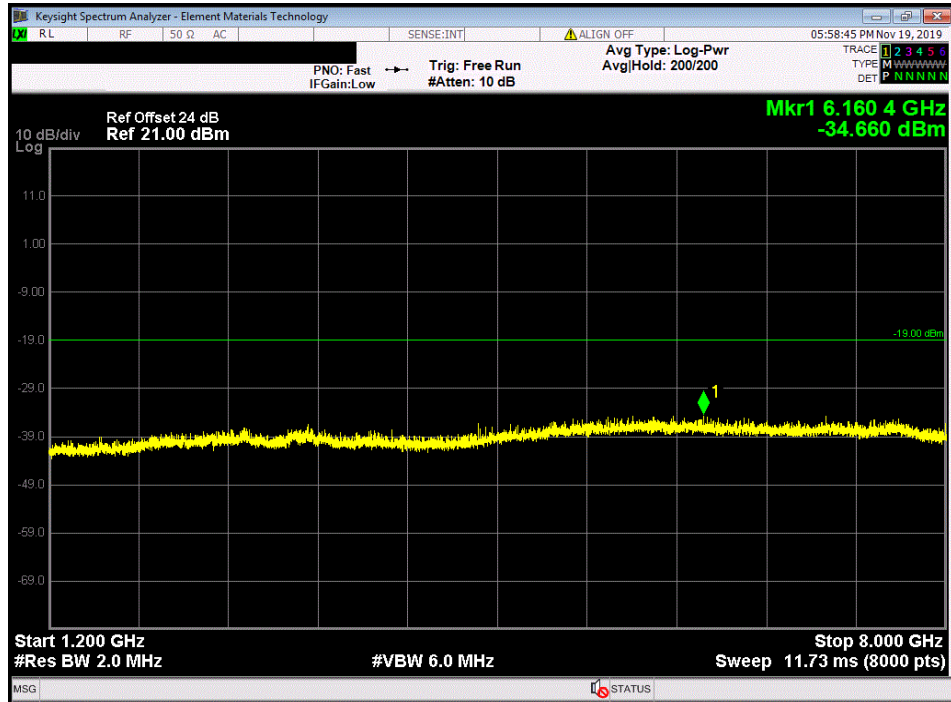


SPURIOUS CONDUCTED EMISSIONS

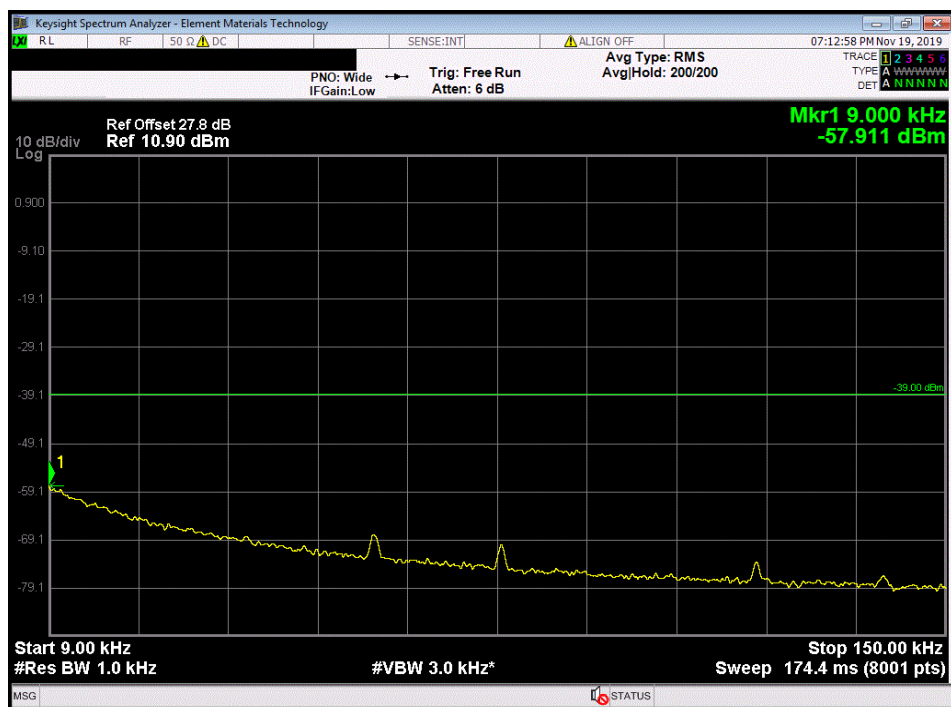


XMM 2019.09.05

Band 29 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.66	-19	Pass



Band 12-14 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.911	-39	Pass

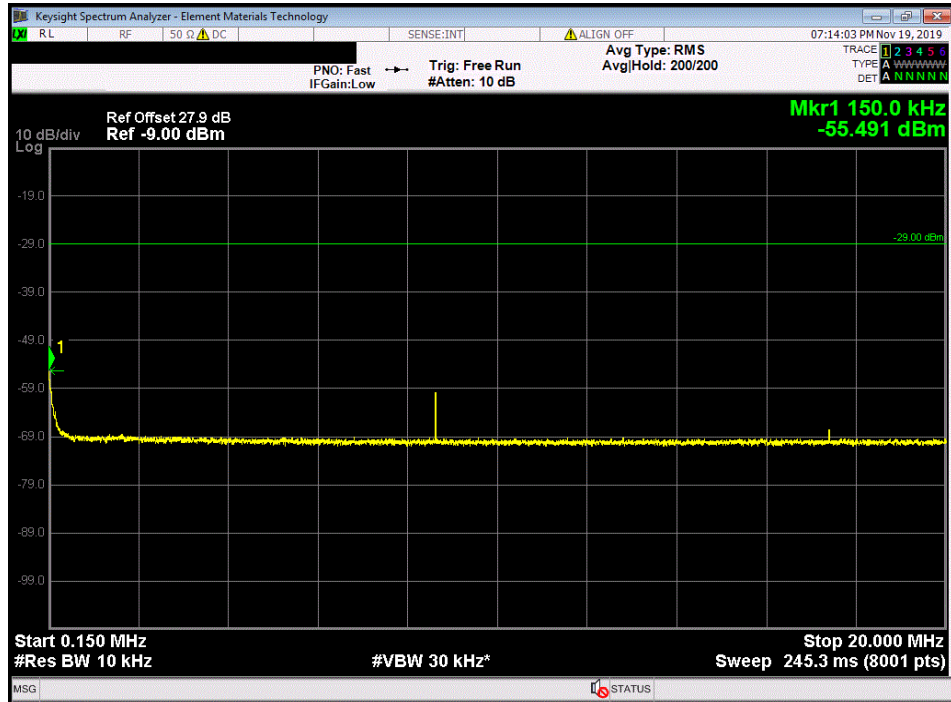


SPURIOUS CONDUCTED EMISSIONS

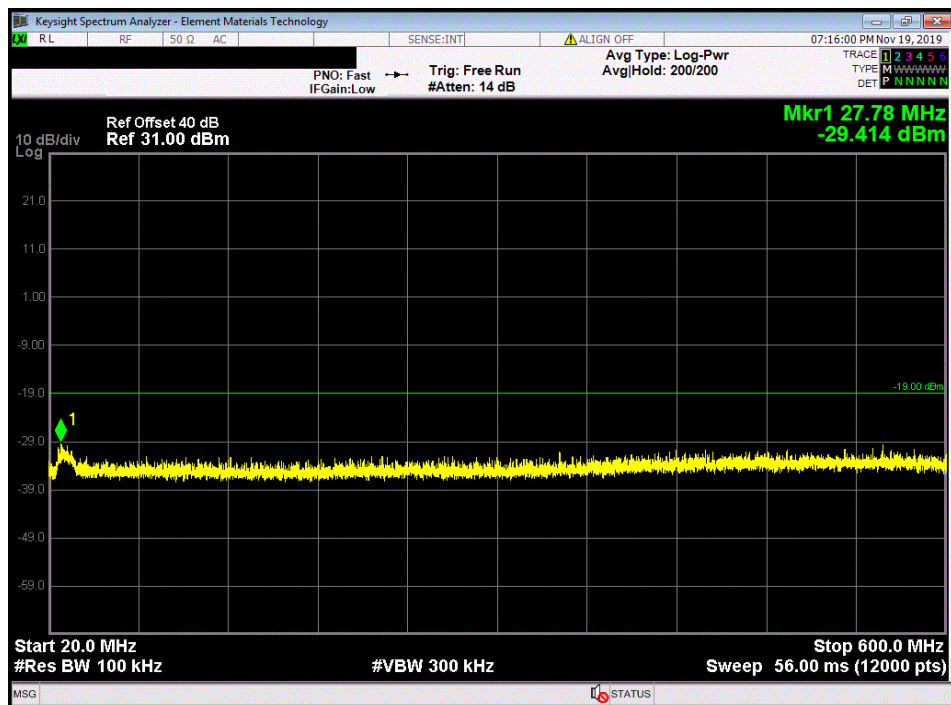


XMM 2019.09.05

Band 12-14 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-55.491	-29	Pass



Band 12-14 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-29.414	-19	Pass

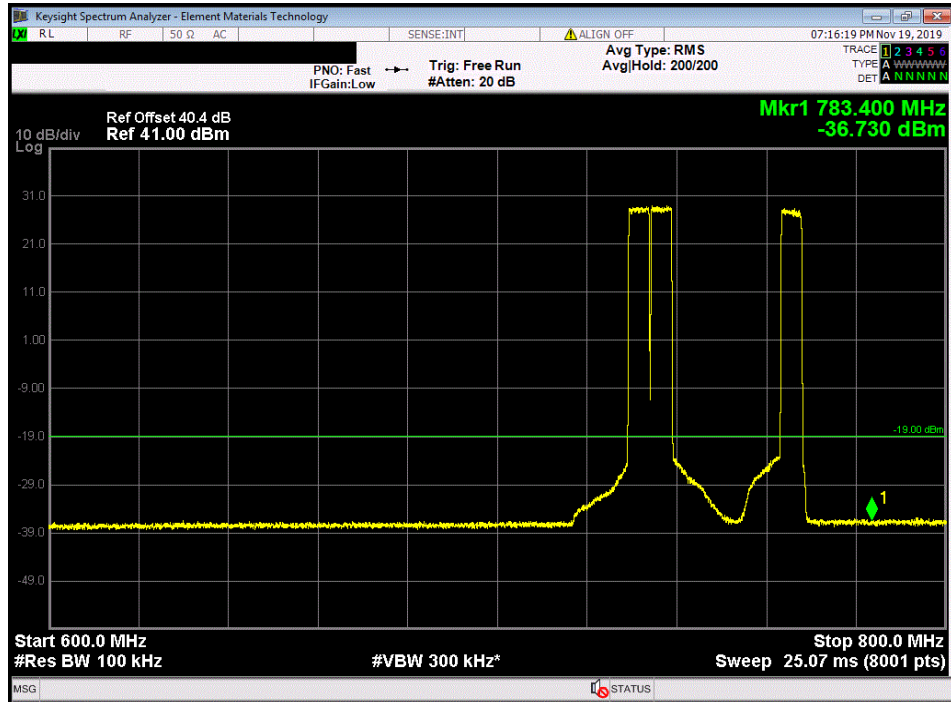


SPURIOUS CONDUCTED EMISSIONS

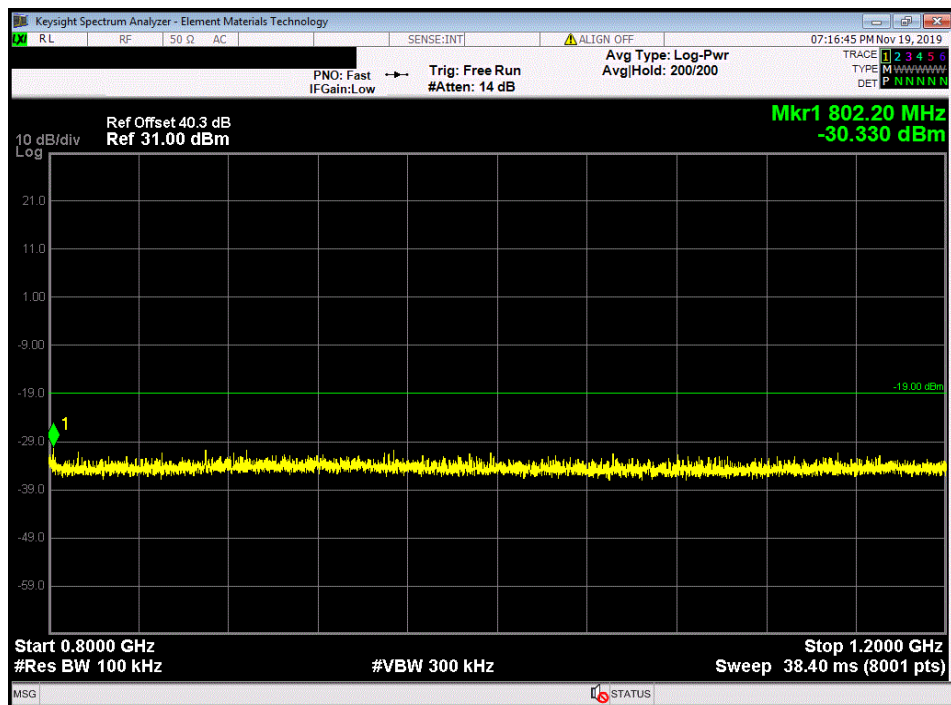


XMM 2019.09.05

Band 12-14 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.73	-19	Pass



Band 12-14 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-30.33	-19	Pass

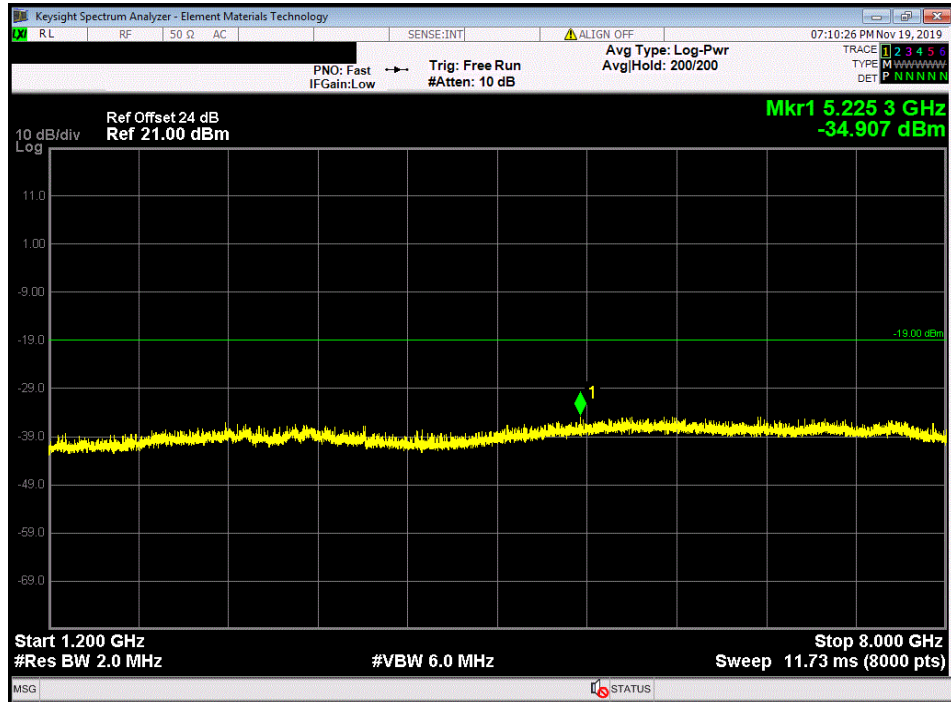


SPURIOUS CONDUCTED EMISSIONS

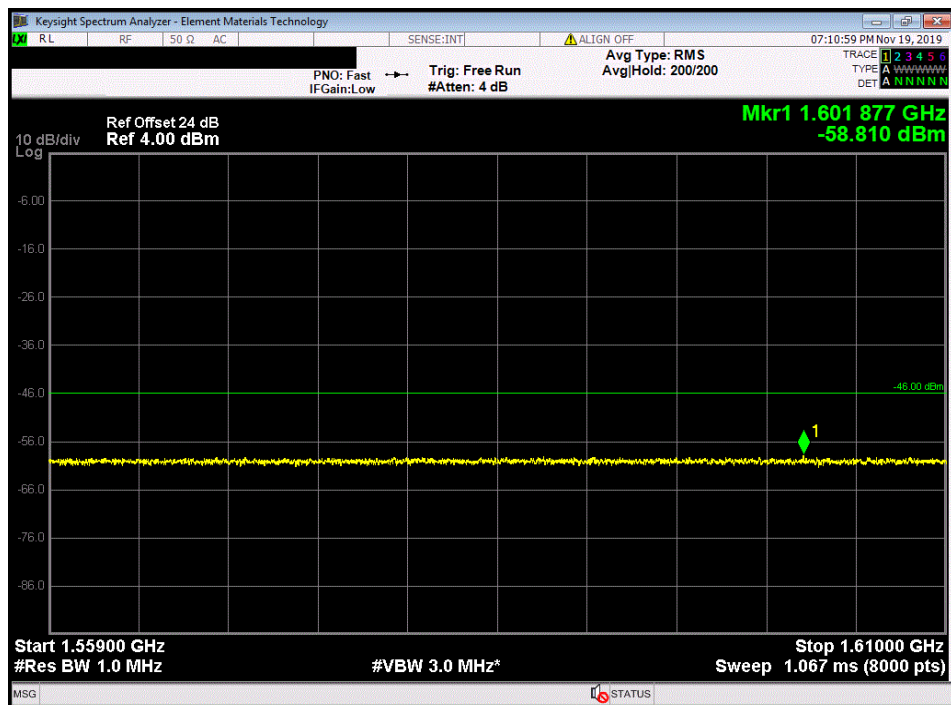


XMM 2019.09.05

Band 12-14 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.907	-19	Pass



Band 12-14 Multicarrier, 1559MHz-1610MHz						
				Value (dBm)	Limit (dBm)	Result
				-58.81	-46	Pass

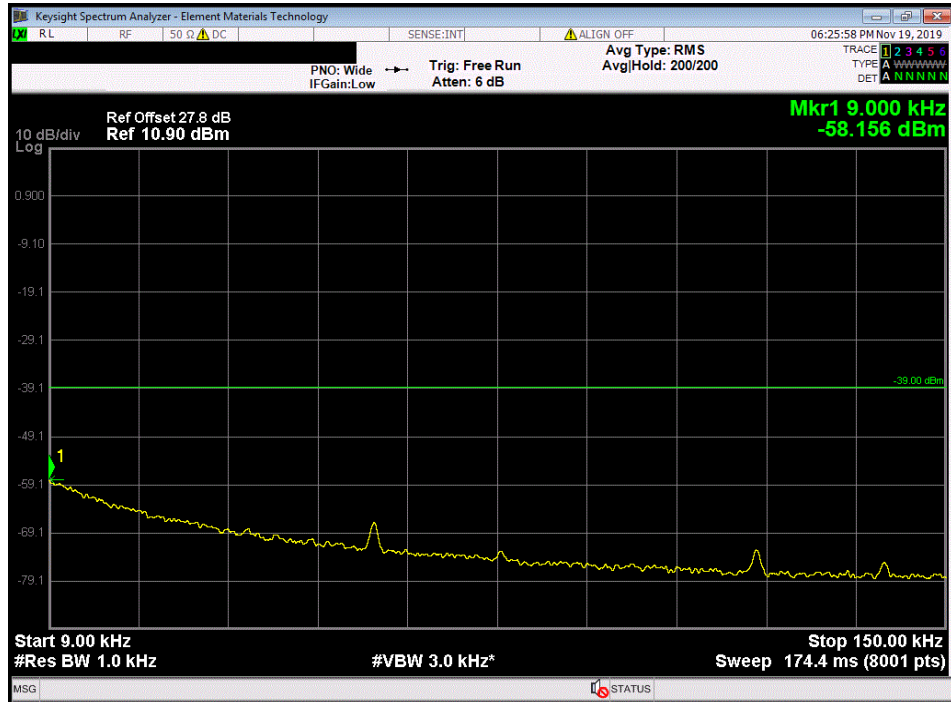


SPURIOUS CONDUCTED EMISSIONS

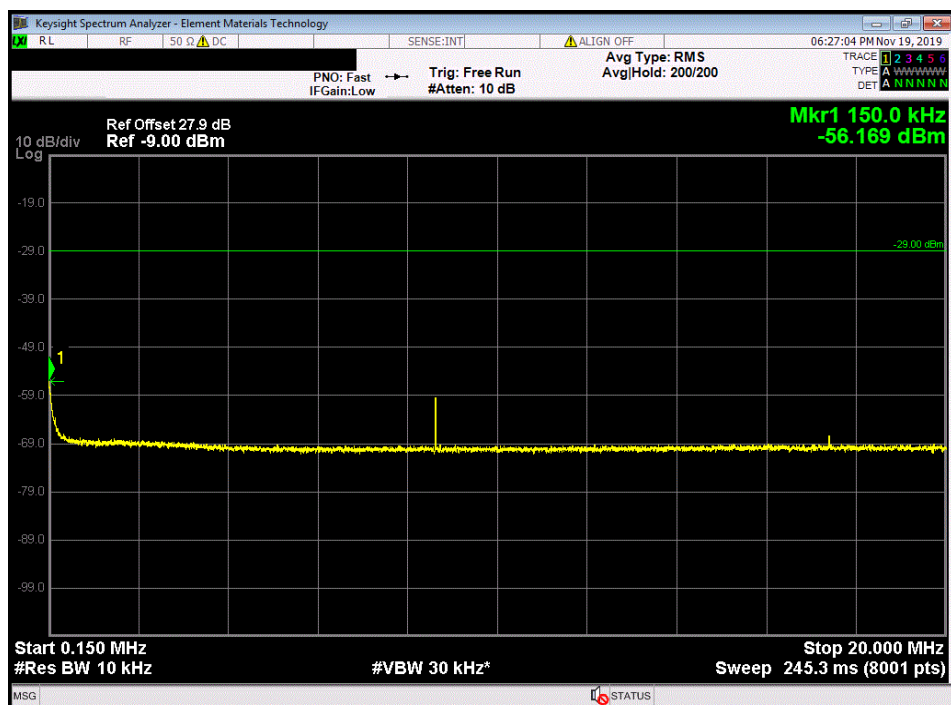


XMM 2019.09.05

Band 12-29 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-58.156	-39	Pass



Band 12-29 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-56.169	-29	Pass

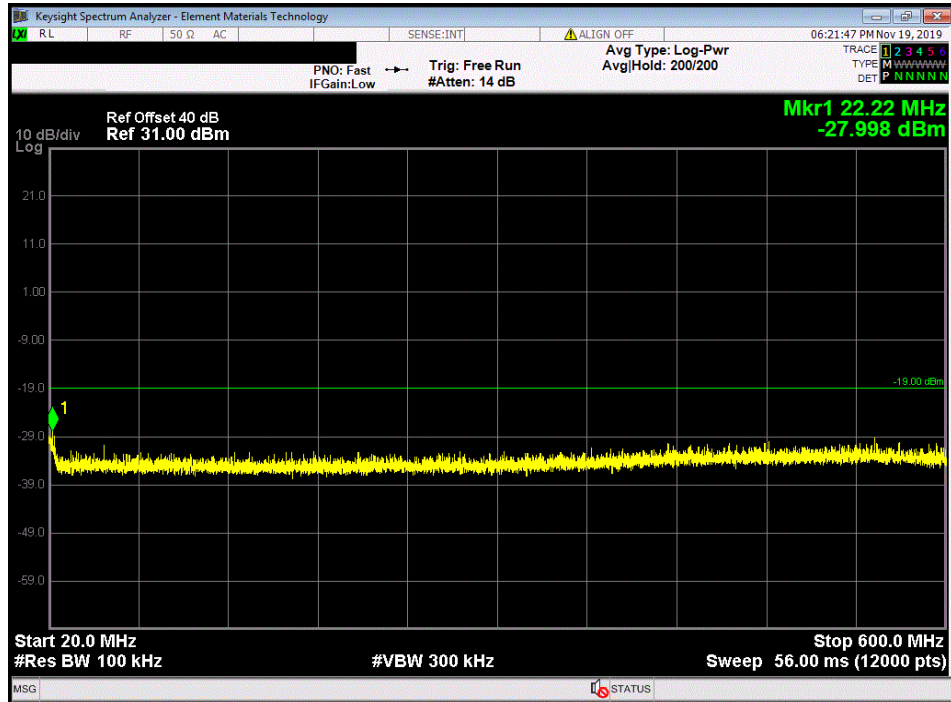


SPURIOUS CONDUCTED EMISSIONS

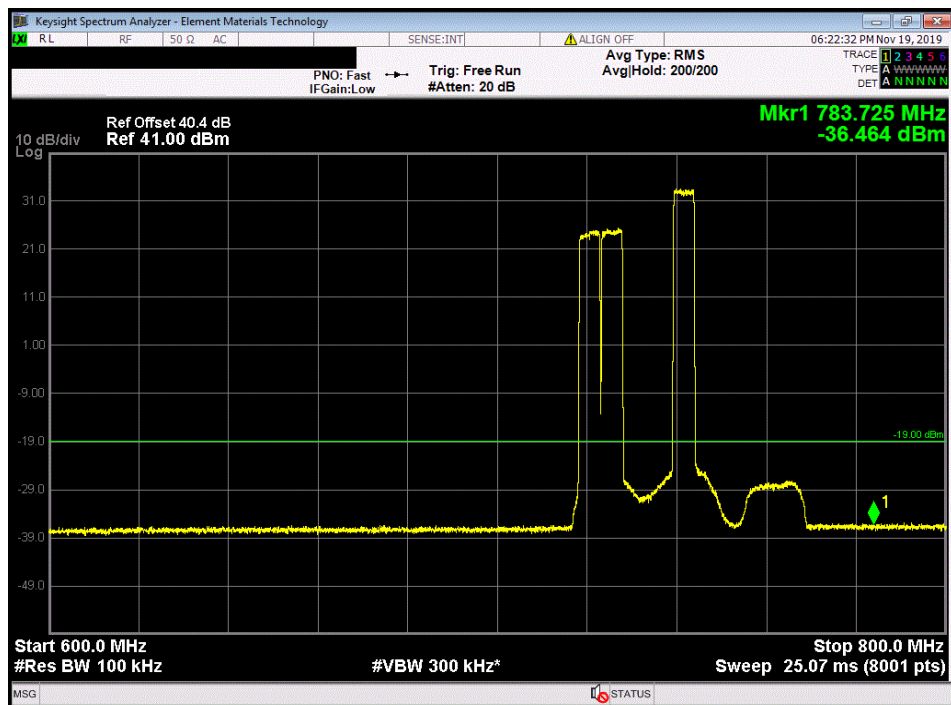


XMM 2019.09.05

Band 12-29 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-27.998	-19	Pass



Band 12-29 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-36.464	-19	Pass

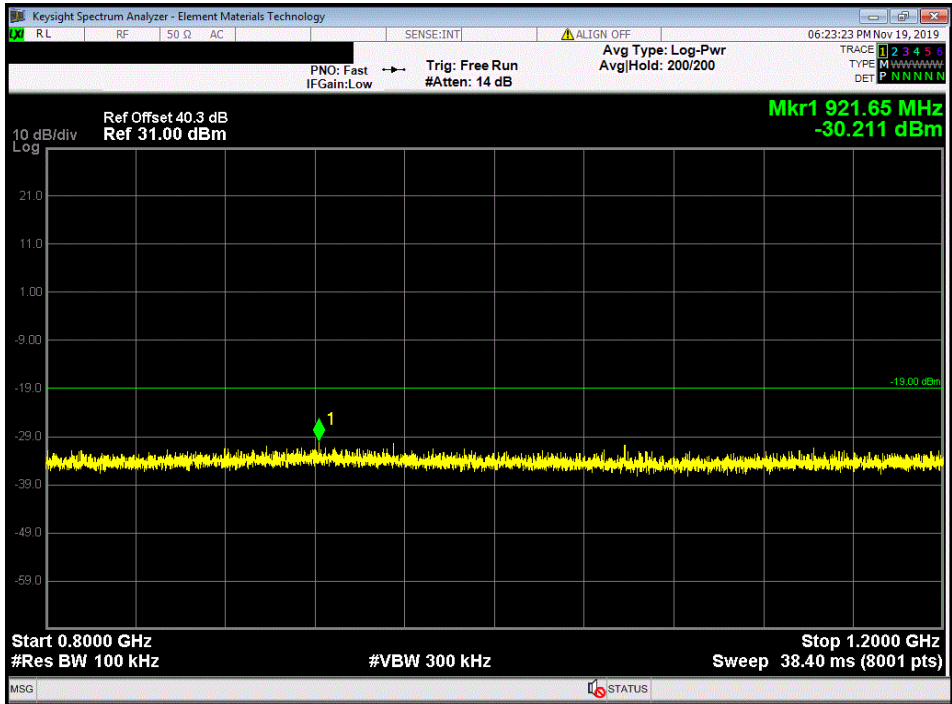


SPURIOUS CONDUCTED EMISSIONS

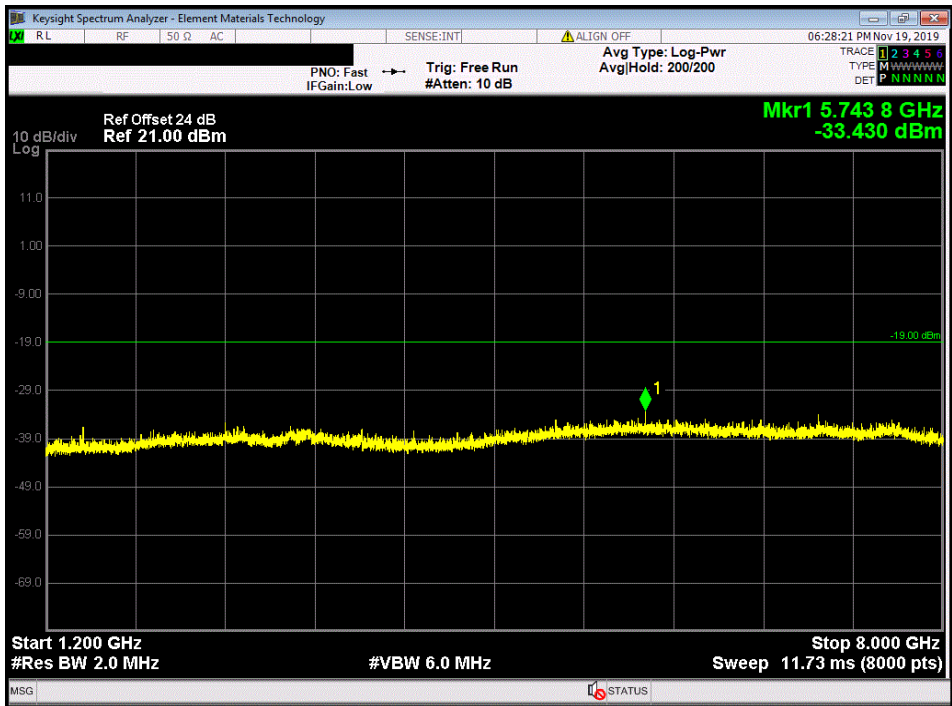


XMM 2019.09.05

Band 12-29 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-30.211	-19	Pass



Band 12-29 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-33.43	-19	Pass

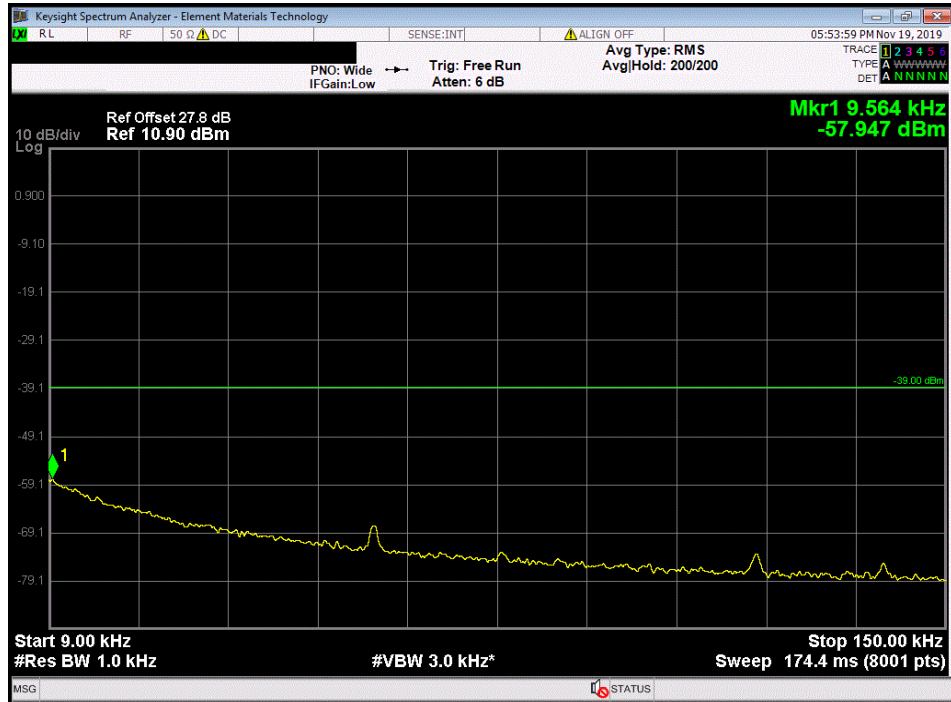


SPURIOUS CONDUCTED EMISSIONS

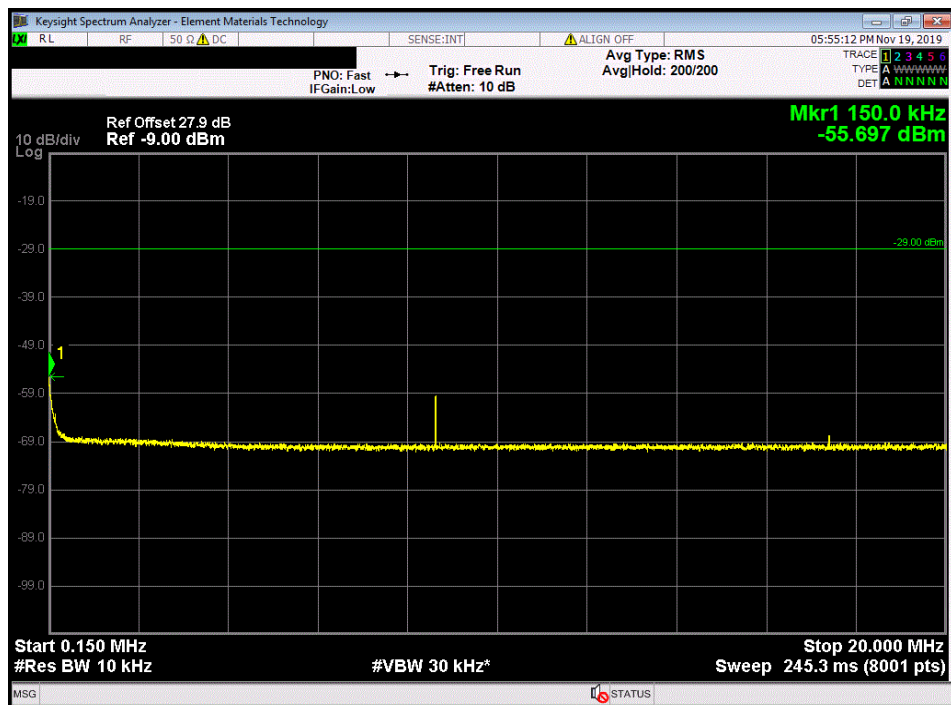


XMM 2019.09.05

Band 14-29 Multicarrier, 9kHz-150kHz						
				Value (dBm)	Limit (dBm)	Result
				-57.947	-39	Pass



Band 14-29 Multicarrier, 150kHz-20MHz						
				Value (dBm)	Limit (dBm)	Result
				-55.697	-29	Pass

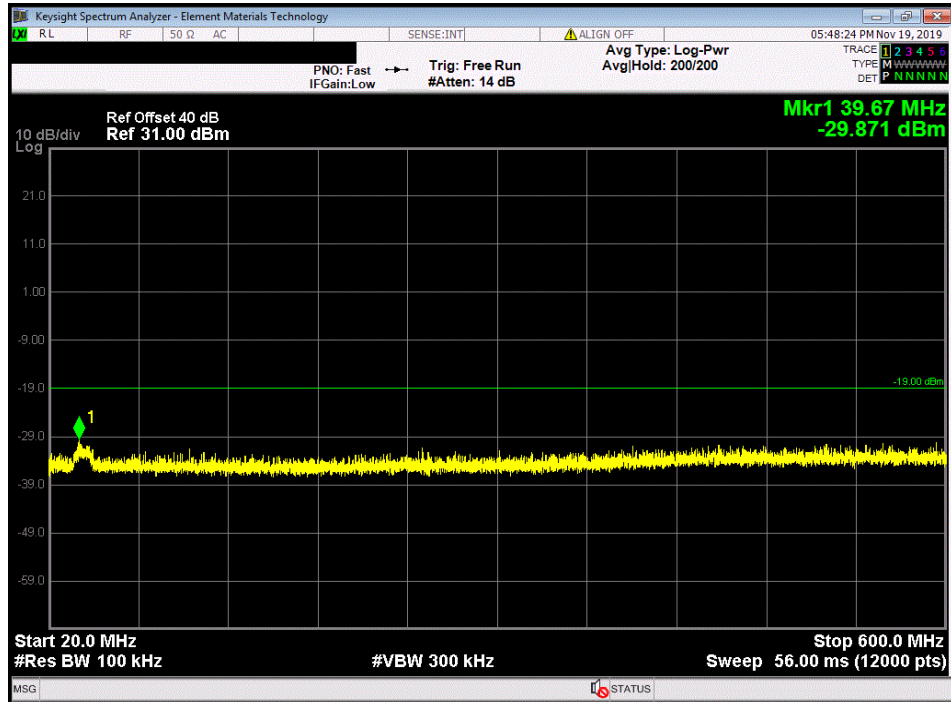


SPURIOUS CONDUCTED EMISSIONS

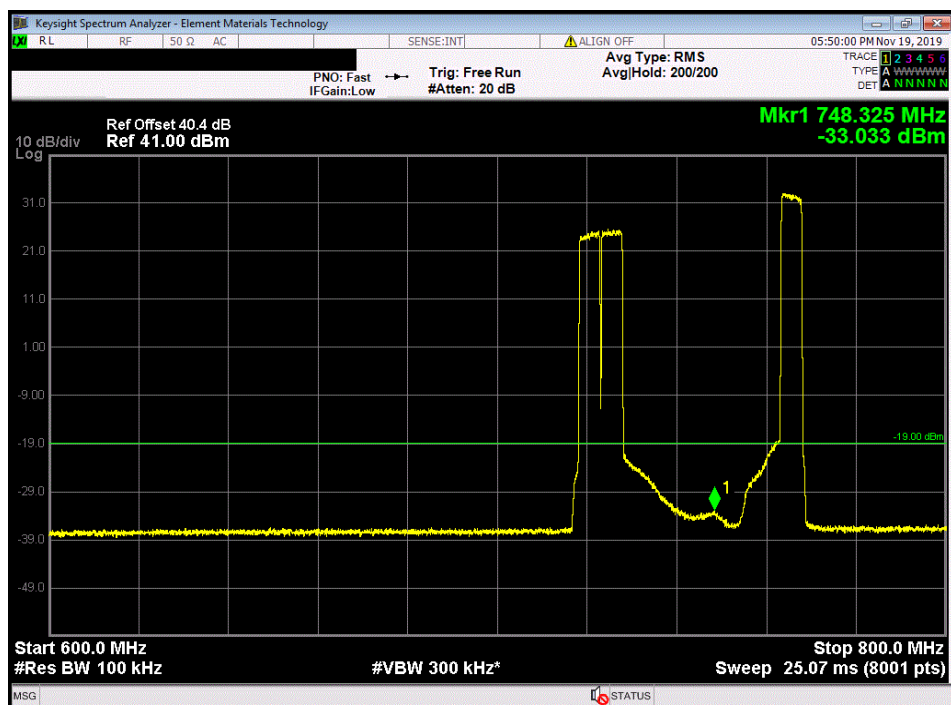


XMM 2019.09.05

Band 14-29 Multicarrier, 20MHz-600MHz						
				Value (dBm)	Limit (dBm)	Result
				-29.871	-19	Pass



Band 14-29 Multicarrier, 600MHz-800MHz						
				Value (dBm)	Limit (dBm)	Result
				-33.033	-19	Pass

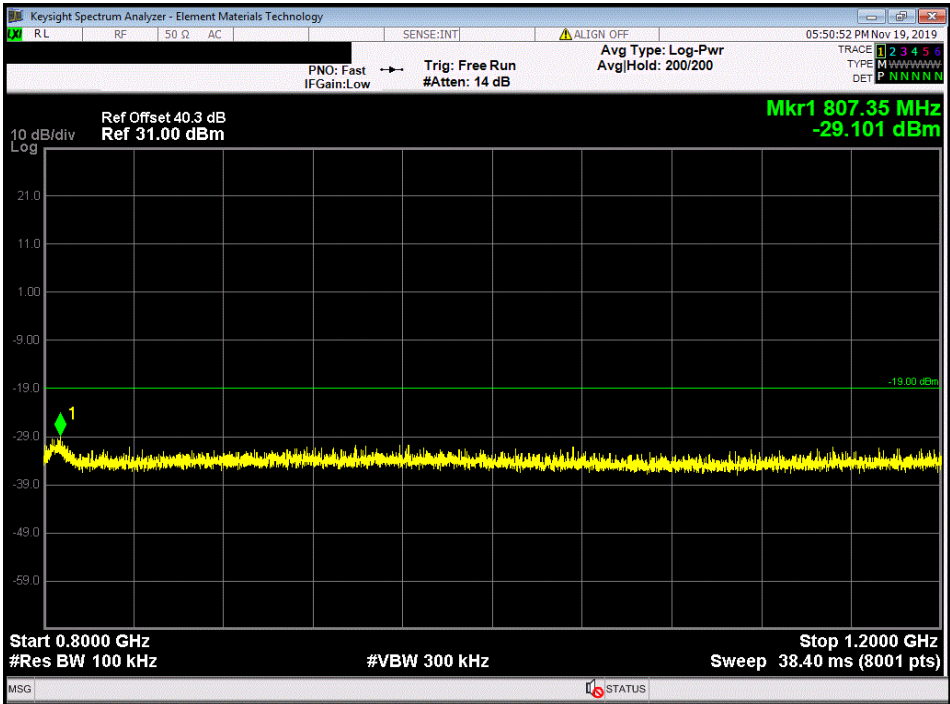


SPURIOUS CONDUCTED EMISSIONS

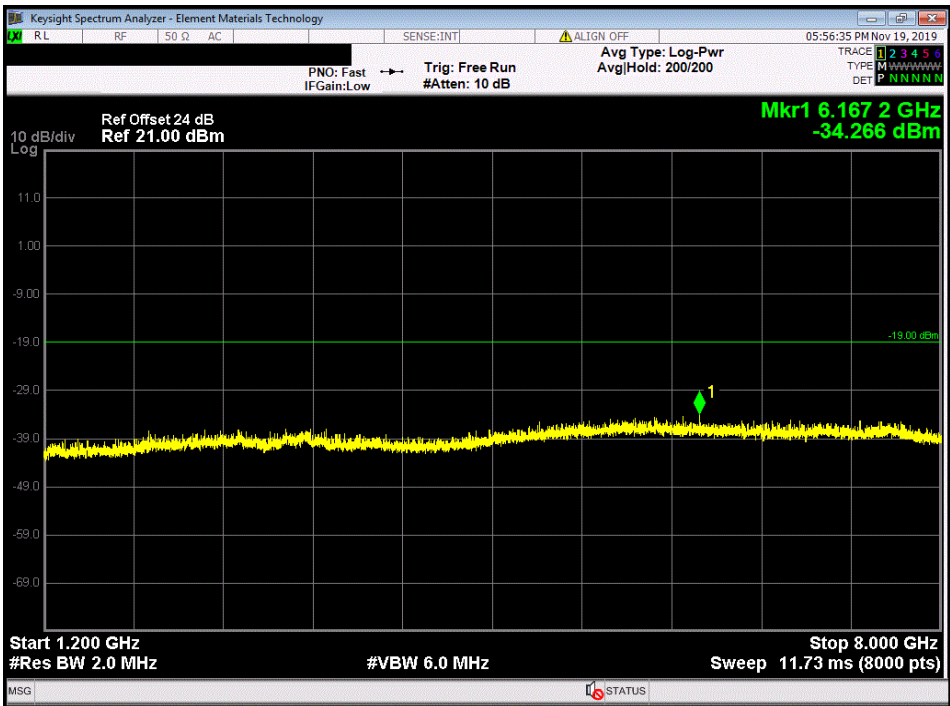


XMM 2019.09.05

Band 14-29 Multicarrier, 800MHz-1.2GHz						
				Value (dBm)	Limit (dBm)	Result
				-29.101	-19	Pass



Band 14-29 Multicarrier, 1.2GHz-8GHz						
				Value (dBm)	Limit (dBm)	Result
				-34.266	-19	Pass



SPURIOUS CONDUCTED EMISSIONS



XMM 2019.09.05

Band 14-29 Multicarrier, 1559MHz-1610MHz						
				Value (dBm)	Limit (dBm)	Result
				-58.917	-46	Pass

