Parallel Wireless Inc.

CWS-3050-07

FCC 27:2017

Cellular Radio

Report # KMWC0080

NVLAP Lab Code: 200676-0

CERTIFICATE OF TEST

2017-1-25

Last Date of Test: June 19, 2017
Parallel Wireless Inc.
Model: CWS-3050-07

Radio Equipment Testing

Standards

Specification	Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

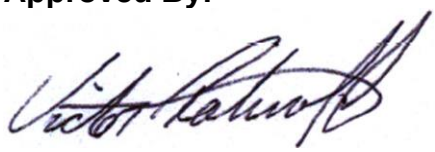
Results

Method Clause	Test Description	Applied	Results	Comments
2.2.1	Conducted Output Power	Yes	Pass	
2.2.1	Peak To Average Ratio	Yes	Pass	
2.2.2	Frequency Stability	Yes	Pass	
2.2.3	Occupied Bandwidth Emission Mask	Yes	Pass	
2.2.12	Out of Band Emissions - LTE Band 7	Yes	Pass	
2.2.13	Spurious Emissions at the Antenna Terminals	Yes	Pass	
2.2.13	Band Edge Compliance	Yes	Pass	
2.2.13	Intermodulation	Yes	Pass	
2.2.17.2	ERP of Fundamental - LTE Band 7	No	N/A	Not required for base station equipment.

Deviations From Test Standards

None

Approved By:



Victor Ratinoff, Operations Manager

Product compliance is the responsibility of the client; therefore, the tests and equipment modes of operation represented in this report were agreed upon by the client, prior to testing. The results of this test pertain only to the sample(s) tested. The specific description is noted in each of the individual sections of the test report supporting this certificate of test. This report reflects only those tests from the referenced standards shown in the certificate of test. It does not include inspection or verification of labels, identification, marking or user information.

REVISION HISTORY

Revision Number	Description	Date	Page Number
00	None		

ACCREDITATIONS AND AUTHORIZATIONS

2017.6.12

United States

FCC - Designated by the FCC as a Telecommunications Certification Body (TCB). Certification chambers, Open Area Test Sites, and conducted measurement facilities are listed with the FCC.

A2LA - Accredited by A2LA to ISO / IEC 17065 as a product certifier. This allows Element to certify transmitters to FCC and IC specifications.

NVLAP - Each laboratory is accredited by NVLAP to ISO 17025

Canada

ISED - Recognized by Innovation, Science and Economic Development Canada as a Certification Body (CB). Certification chambers and Open Area Test Sites are filed with ISED.

European Union

European Commission – Within Element, we have a EU Notified Body validated for the EMCD and RED Directives.

Australia/New Zealand

ACMA - Recognized by ACMA as a CAB for the acceptance of test data.

Korea

MSIP / RRA - Recognized by KCC's RRA as a CAB for the acceptance of test data.

Japan

VCCI - Associate Member of the VCCI. Conducted and radiated measurement facilities are registered.

Taiwan

BSMI – Recognized by BSMI as a CAB for the acceptance of test data.

NCC - Recognized by NCC as a CAB for the acceptance of test data.

Singapore

IDA – Recognized by IDA as a CAB for the acceptance of test data.

Israel

MOC – Recognized by MOC as a CAB for the acceptance of test data.

Hong Kong

OFCA – Recognized by OFCA as a CAB for the acceptance of test data.

Vietnam

MIC – Recognized by MIC as a CAB for the acceptance of test data.

SCOPE

For details on the Scopes of our Accreditations, please visit:
http://portlandcustomer.element.com/ts/scope/scope.htm
http://gsi.nist.gov/global/docs/cabs/designations.html

MEASUREMENT UNCERTAINTY

TMU.2015.07.10

Measurement Uncertainty

When a measurement is made, the result will be different from the true or theoretically correct value. The difference is the result of tolerances in the measurement system that cannot be completely eliminated. To the extent that technology allows us, it has been our aim to minimize this error. Measurement uncertainty is a statistical expression of measurement error qualified by a probability distribution.

A measurement uncertainty estimation has been performed for each test per our internal quality document QM205.4.6. The estimation is used to compare the measured result with its "true" or theoretically correct value. The expanded measurement uncertainty (K=2) can be found included as part of the applicable test description page. Our measurement data meets or exceeds the measurement uncertainty requirements of the applicable specification; therefore, the test data can be compared directly to the specification limit to determine compliance. The calculations for estimating measurement uncertainty are based upon ETSI TR 100 028 (or CISPR 16-4-2 as applicable), and are available upon request.

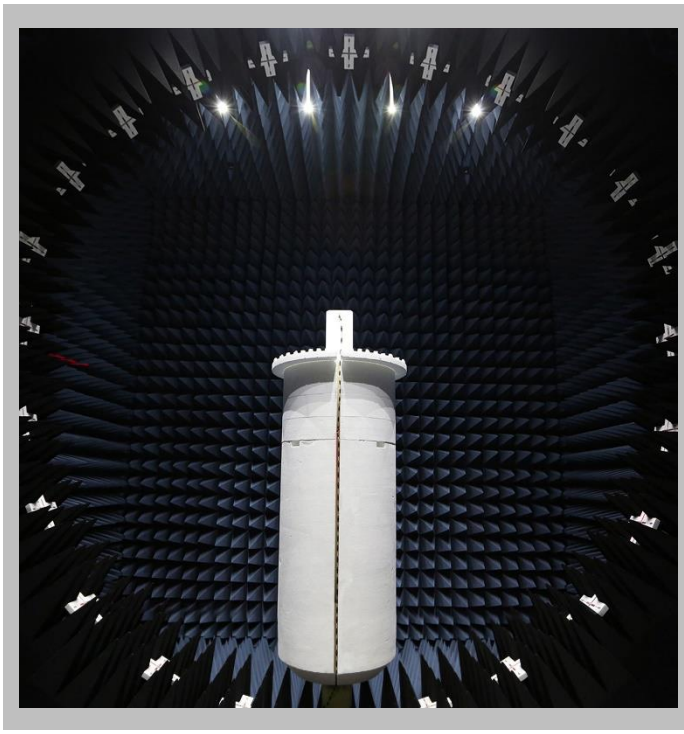
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

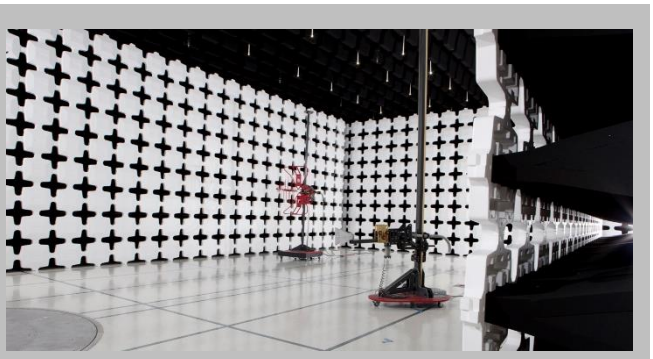
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%
Field Strength (dB)	5.2 dB	-5.2 dB
AC Powerline Conducted Emissions (dB)	2.4 dB	-2.4 dB

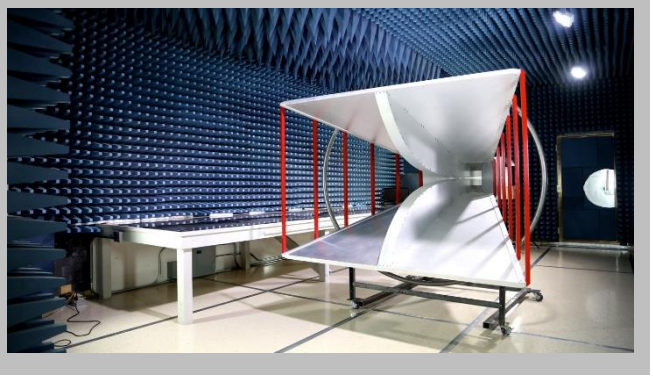
FACILITIES

2017.3.2

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-13 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-08, MN10 9349 W Broadway Ave. Brooklyn Park, MN 55445 (612)-638-5136	Labs NY01-04 4939 Jordan Rd. Elbridge, NY 13060 (315) 554-8214	Labs EV01-12 22975 NW Evergreen Pkwy Hillsboro, OR 97124 (503) 844-4066	Labs TX01-09 3801 E Plano Pkwy Plano, TX 75074 (469) 304-5255	Labs NC01-05 19201 120th Ave NE Bothell, WA 98011 (425)984-6600
NVLAP					
NVLAP Lab Code: 200676-0	NVLAP Lab Code: 200881-0	NVLAP Lab Code: 200761-0	NVLAP Lab Code: 200630-0	NVLAP Lab Code:201049-0	NVLAP Lab Code: 200629-0
Innovation, Science and Economic Development Canada					
2834B-1, 2834B-3	2834E-1	N/A	2834D-1, 2834D-*2*	2834G-1	2834F-1
BSMI					
SL2-IN-E-1154R	SL2-IN-E-1152R	N/A	SL2-IN-E-1017	SL2-IN-E-1158R	SL2-IN-E-1153R
VCCI					
A-0029	A-0109	N/A	A-0108	A-0201	A-0110
Recognized Phase I CAB for ACMA, BSMI, IDA, KCC/RRA, MIC, MOC, NCC, OFCA					
US0158	US0175	N/A	US0017	US0191	US0157

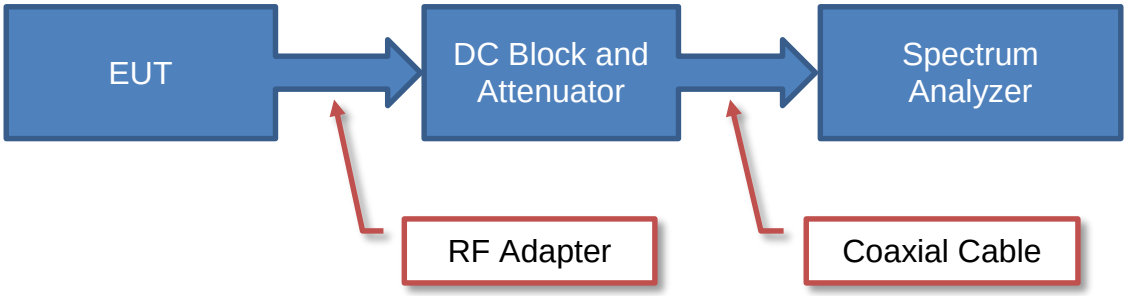




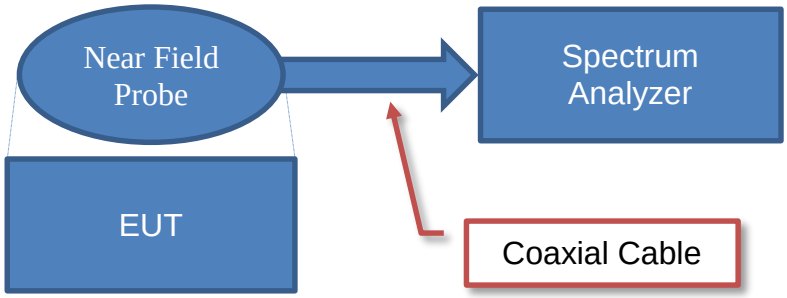


Test Setup Block Diagrams

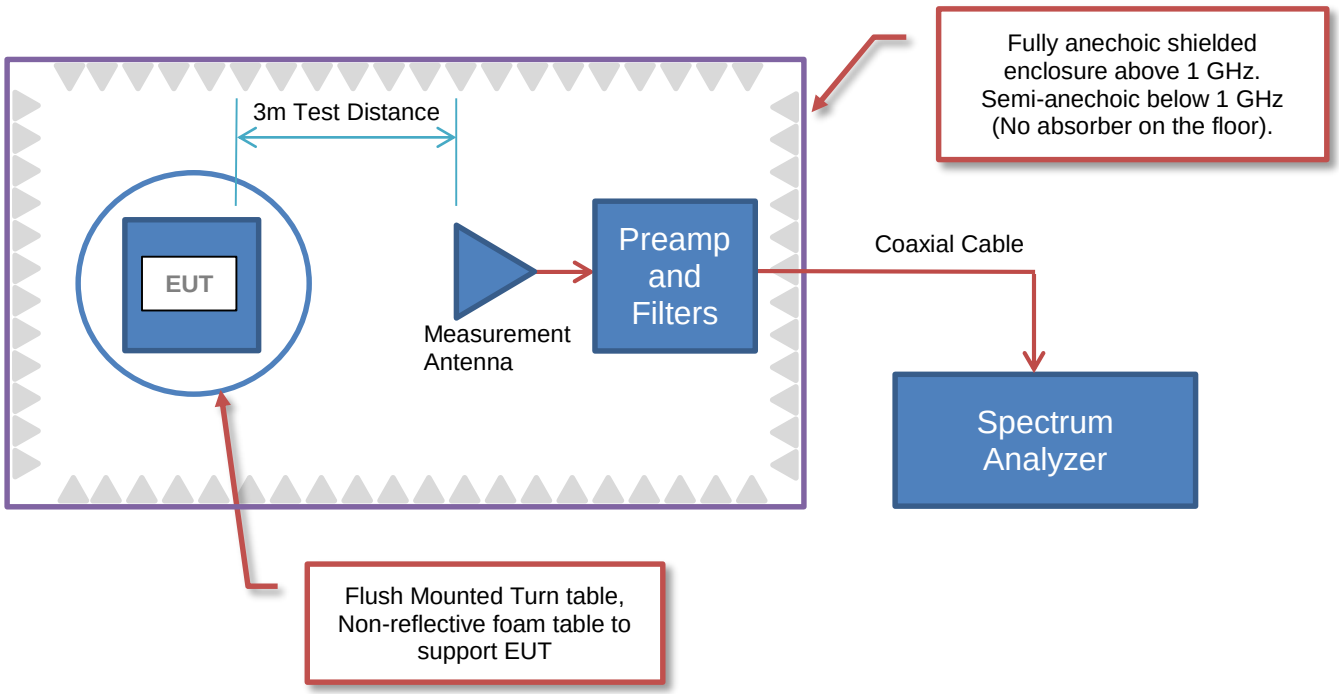
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



PRODUCT DESCRIPTION

2017-1-25

Client and Equipment Under Test (EUT) Information

Company Name:	Parallel Wireless Inc.
Address:	100 Innovative Way, Suite #3410
City, State, Zip:	Nashua, NH 03062, USA
Test Requested By:	Daniel Kim
Model:	CWS-3050-07
First Date of Test:	June 14, 2017
Last Date of Test:	June 19, 2017
Receipt Date of Samples:	June 14, 2017
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:
Tower based Converged Wireless System Base Station operating in the LTE Band 7 with 2x2, multiple channel capability, and with 5 MHz, 10 MHz, and 20 MHz channel bandwidths

Testing Objective:
To demonstrate compliance of the Cellular radio to FCC 27 requirements.

CONFIGURATIONS

Configuration KMWC0080- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Converged Wireless System Base Station	Parallel Wireless Inc.	CWS-3050-07	K162300004

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
High Power Terminator	Telcon	KTMO400800060	1111-0004
High Power Terminator	Telcon	KTMO400800060	1111-0064
Laptop Power Supply	Delta Electronics, Inc.	SADP-90FH D	CNBA4400215ABZ040C18685
Laptop	Samsung	NP300V5A	HGHS93-JBA00674K

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Cable	No	1.5m	No	AC Mains	Laptop Power Supply
DC Power Cable	No	5.0m	No	CWS-3050-07 Tower	DC Mains
Ground Braid	No	2.0m	No	CWS-3050-07 Tower	Ground
RF Output Cable x2	Yes	5.0m	No	CWS-3050-07 Tower	High Power Terminator
USB Cable	No	3.0m	No	CWS-3050-07 Tower	Laptop
Ethernet Cable	No	2.5m	No	CWS-3050-07 Tower	Laptop
DC Cable	No	2.0m	Yes	Laptop Power Supply	Laptop

MODIFICATIONS

2017-1-25

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	6/14/2017	Conducted Output Power	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
2	6/14/2017	Peak to Average Ratio	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
3	6/14/2017	Frequency Stability	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
4	6/14/2017	Occupied Bandwidth Emission Mask	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
5	6/14/2017	Spurious Emissions at the Antenna Terminals	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
6	6/14/2017	Band Edge Compliance	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
7	6/14/2017	Intermodulation	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT remained at Element following the test.
8	6/19/2017	Out of Band Emissions – LTE Band 7	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

CONDUCTED OUTPUT POWER

XMit 2017.02.08

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
Thermometer	Omega Engineering, Inc.	HH311	DUC	10/3/2014	10/3/2017
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPHS-32-3.5-SCT/AC	TBE	NCR	NCR
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Meter - Power	ETS Lindgren	7002-006	SRB	12/6/2016	12/6/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The RF output power was measured with the EUT set to the modes called out in the datasheet. The power measurement was made using a direct connection between the RF output of the EUT and an RF Power Sensor which only measures across the high time of the burst of the carrier.

The observed duty cycle was noted but not needed to calculate the EiRP.

EIRP = Max Measured Power + Antenna gain (dBi)

The measurements from Port 0 and Port 1 were summed to determine the total average power in EIRP.

CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.
Antenna Gain is assumed to be 0, per specification antenna gain will be re-evaluated during final installation taking height into account.
MIMO measurements taken separately and a linear summation was performed below.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	**1**	*Signature*

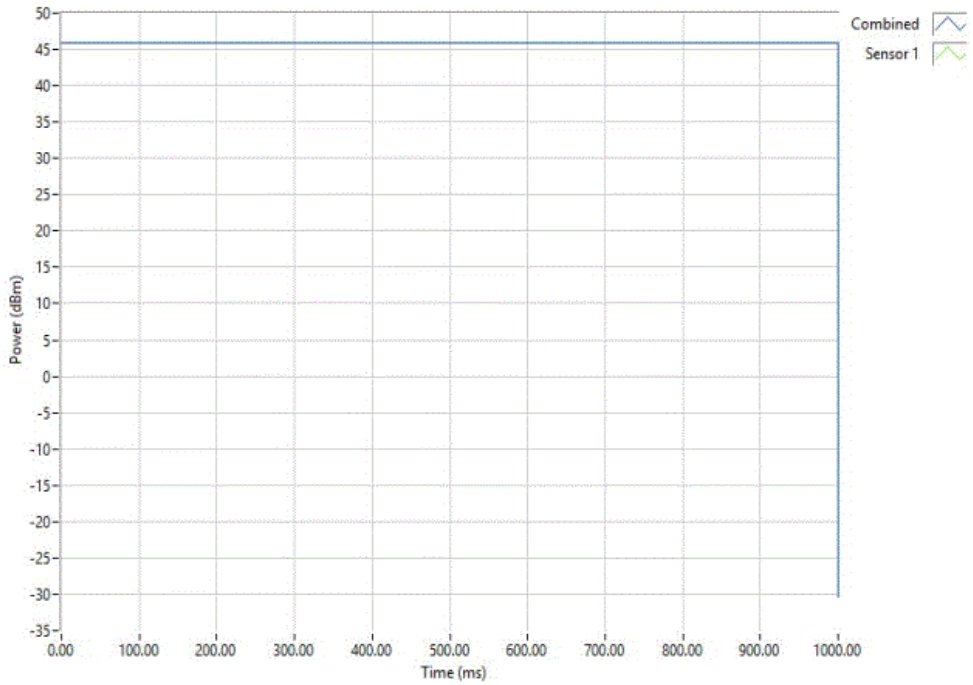
		Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
Antenna Port 1							
	Low Channel LTE5, 2622.5 MHz	45.97	100	0	46.0	60	Pass
	Mid Channel LTE5, 2655 MHz	46.00	100	0	46.0	60	Pass
	High Channel LTE5, 2687.5 MHz	45.94	100	0	45.9	60	Pass
	Low Channel LTE10, 2625 MHz	45.97	100	0	46.0	60	Pass
	Mid Channel LTE10, 2655 MHz	45.98	100	0	46.0	60	Pass
	High Channel LTE10, 2685 MHz	45.99	100	0	46.0	60	Pass
	Low Channel LTE20, 2630 MHz	45.98	100	0	46.0	60	Pass
	Mid Channel LTE20, 2655 MHz	45.93	100	0	45.9	60	Pass
	High Channel LTE20, 2680 MHz	45.94	100	0	45.9	60	Pass
Antenna Port 2							
	Low Channel LTE5, 2622.5 MHz	45.95	100	0	46.0	60	Pass
	Mid Channel LTE5, 2655 MHz	45.98	100	0	46.0	60	Pass
	High Channel LTE5, 2687.5 MHz	45.94	100	0	45.9	60	Pass
	Low Channel LTE10, 2625 MHz	45.98	100	0	46.0	60	Pass
	Mid Channel LTE10, 2655 MHz	45.98	100	0	46.0	60	Pass
	High Channel LTE10, 2685 MHz	45.98	100	0	46.0	60	Pass
	Low Channel LTE20, 2630 MHz	45.98	100	0	46.0	60	Pass
	Mid Channel LTE20, 2655 MHz	45.94	100	0	45.9	60	Pass
	High Channel LTE20, 2680 MHz	46.00	100	0	46.0	60	Pass
Antenna Port 1 MIMO							
	Low Channel LTE5, 2622.5 MHz	46.00	100	0	46.0	60	Pass
	Mid Channel LTE5, 2655 MHz	45.98	100	0	46.0	60	Pass
	High Channel LTE5, 2687.5 MHz	45.93	100	0	45.9	60	Pass
	Low Channel LTE10, 2625 MHz	45.99	100	0	46.0	60	Pass
	Mid Channel LTE10, 2655 MHz	45.98	100	0	46.0	60	Pass
	High Channel LTE10, 2685 MHz	45.96	100	0	46.0	60	Pass
	Low Channel LTE20, 2630 MHz	45.96	100	0	46.0	60	Pass
	Mid Channel LTE20, 2655 MHz	45.93	100	0	45.9	60	Pass
	High Channel LTE20, 2680 MHz	45.98	100	0	46.0	60	Pass
Antenna Port 2 MIMO							
	Low Channel LTE5, 2622.5 MHz	45.99	100	0	46.0	60	Pass
	Mid Channel LTE5, 2655 MHz	45.90	100	0	45.9	60	Pass
	High Channel LTE5, 2687.5 MHz	45.96	100	0	46.0	60	Pass
	Low Channel LTE10, 2625 MHz	45.99	100	0	46.0	60	Pass
	Mid Channel LTE10, 2655 MHz	45.99	100	0	46.0	60	Pass
	High Channel LTE10, 2685 MHz	45.93	100	0	45.9	60	Pass
	Low Channel LTE20, 2630 MHz	45.95	100	0	46.0	60	Pass
	Mid Channel LTE20, 2655 MHz	45.99	100	0	46.0	60	Pass
	High Channel LTE20, 2680 MHz	45.91	100	0	45.9	60	Pass

Linear Sum of the Power		Port 1 (mW)	Port 2 (mW)	Sum (mW)	Sum (dBm)				
	Low Channel LTE5, 2112.5 MHz	39810.7	39719.2	79529.9	49.01	0	49.0	60	Pass
	Mid Channel LTE5, 2132.5 MHz	39627.8	38904.5	78532.3	48.95	0	49.0	60	Pass
	High Channel LTE5, 2152.5 MHz	39174.2	39445.7	78619.9	48.96	0	49.0	60	Pass
	Low Channel LTE10, 2115 MHz	39719.2	39719.2	79438.3	49.00	0	49.0	60	Pass
	Mid Channel LTE10, 2132.5 MHz	39627.8	39719.2	79347.0	49.00	0	49.0	60	Pass
	High Channel LTE10, 2150 MHz	39445.7	39174.2	78619.9	48.96	0	49.0	60	Pass
	Low Channel LTE20, 2120 MHz	39445.7	39355.0	78800.7	48.97	0	49.0	60	Pass
	Mid Channel LTE20, 2132.5 MHz	39174.2	39719.2	78893.3	48.97	0	49.0	60	Pass
	High Channel LTE20, 2145 MHz	39627.8	38994.2	78622.0	48.96	0	49.0	60	Pass

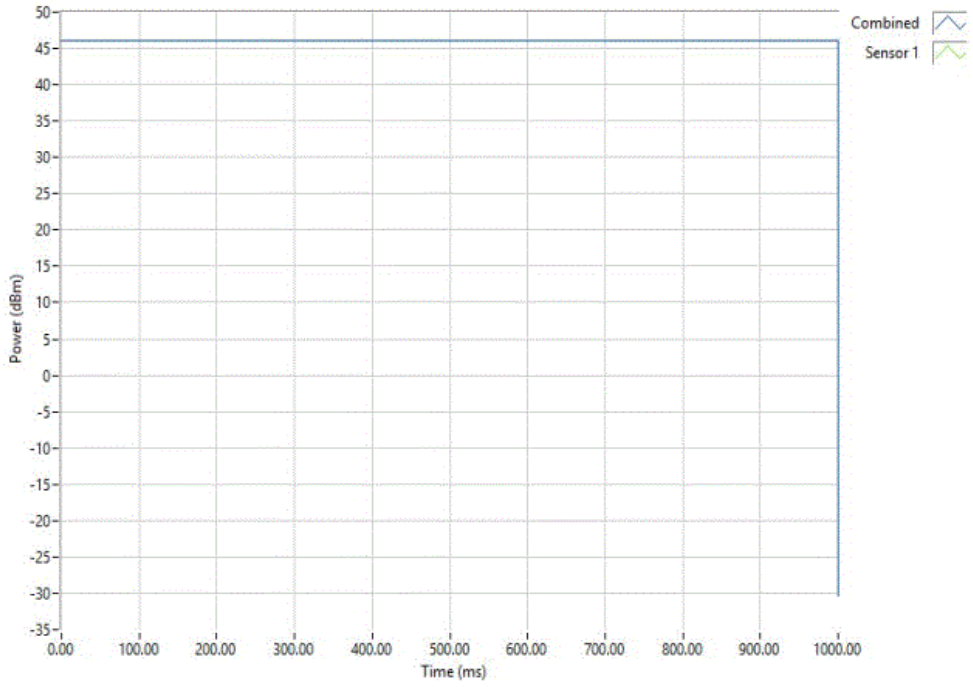
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Low Channel LTE5, 2622.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.97	100	0	46	60	Pass

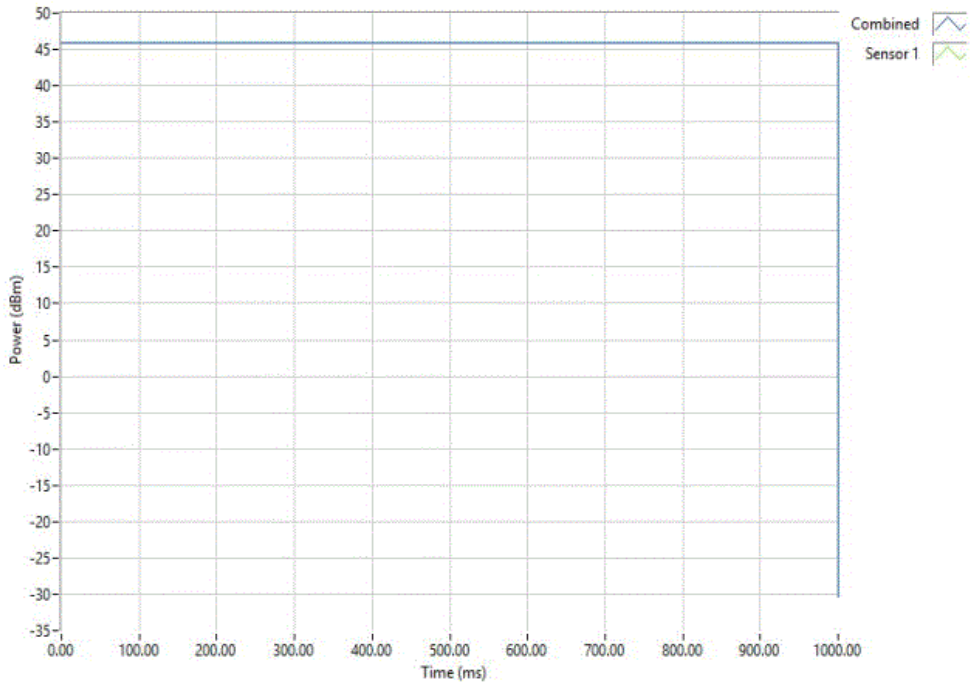


Antenna Port 1, Mid Channel LTE5, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	46	100	0	46	60	Pass

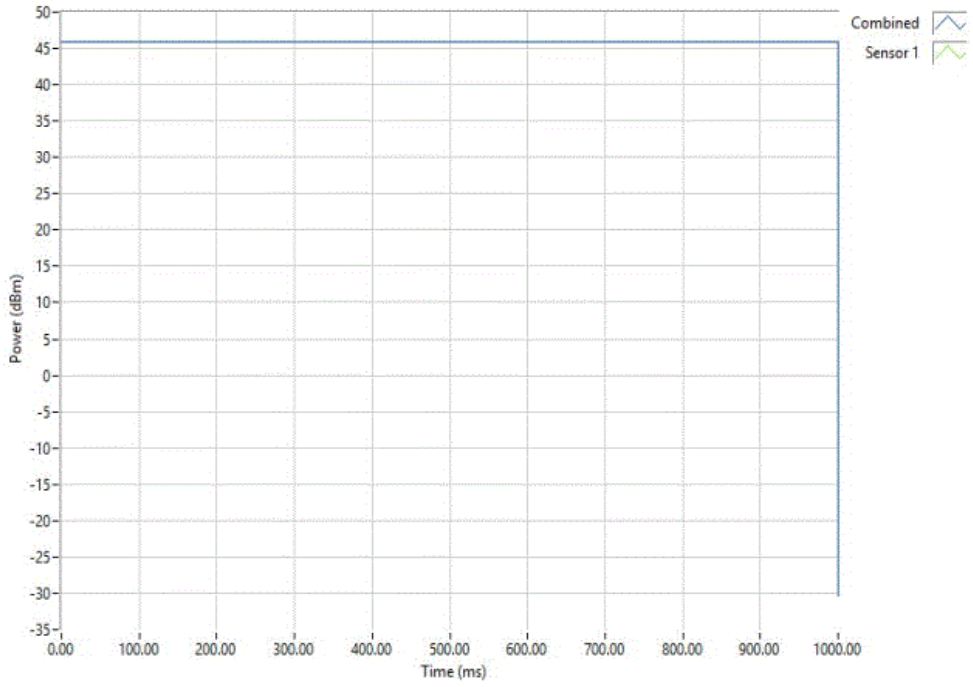


CONDUCTED OUTPUT POWER

Antenna Port 1, High Channel LTE5, 2687.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.94	100	0	45.9	60	Pass



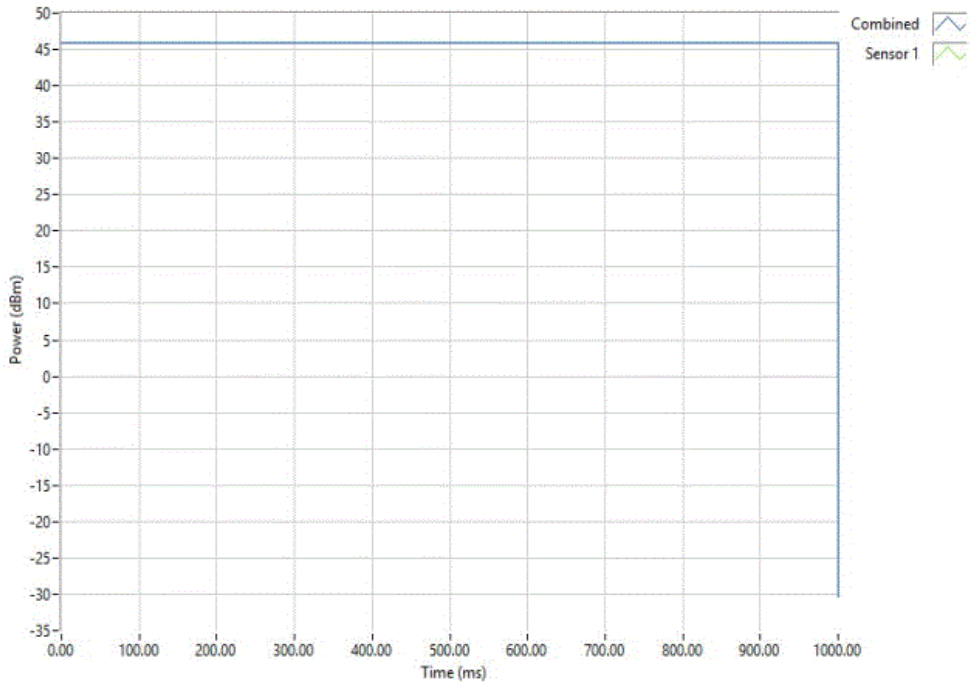
Antenna Port 1, Low Channel LTE10, 2625 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.97	100	0	46	60	Pass



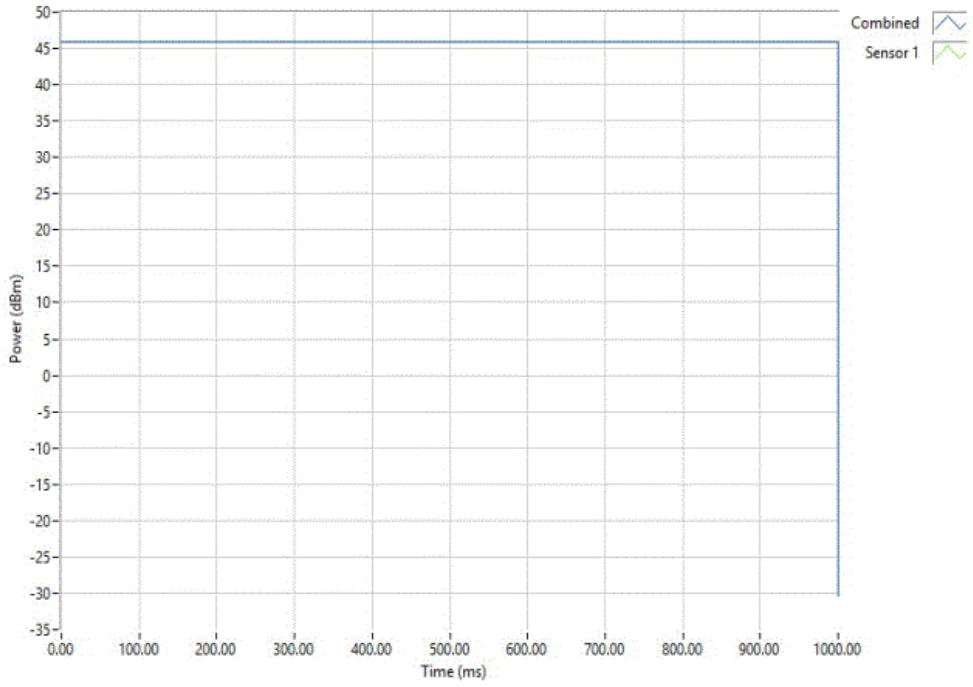
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Mid Channel LTE10, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass



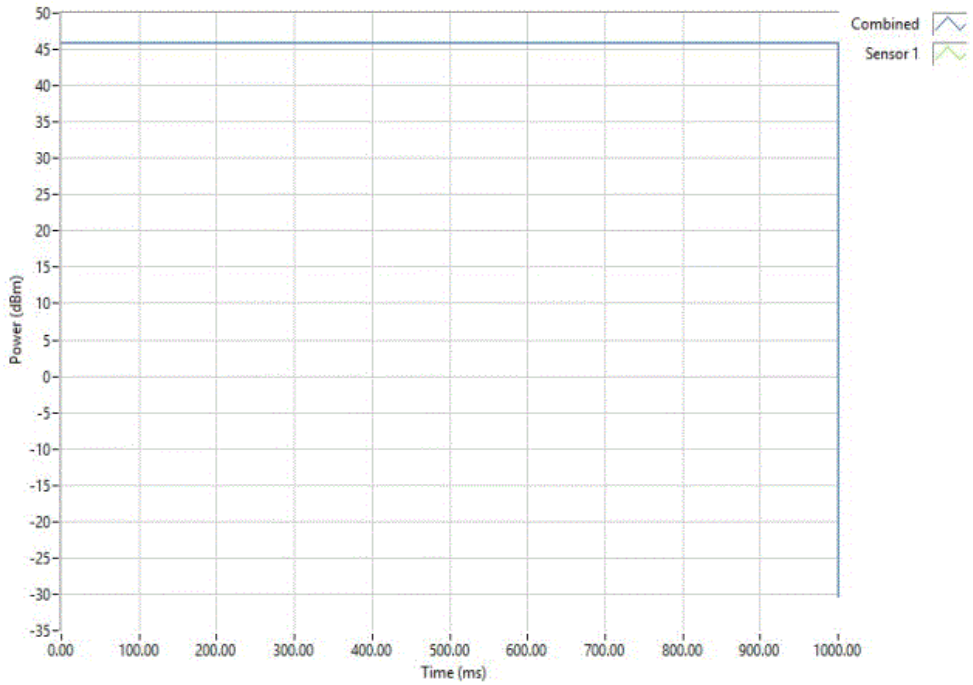
Antenna Port 1, High Channel LTE10, 2685 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass



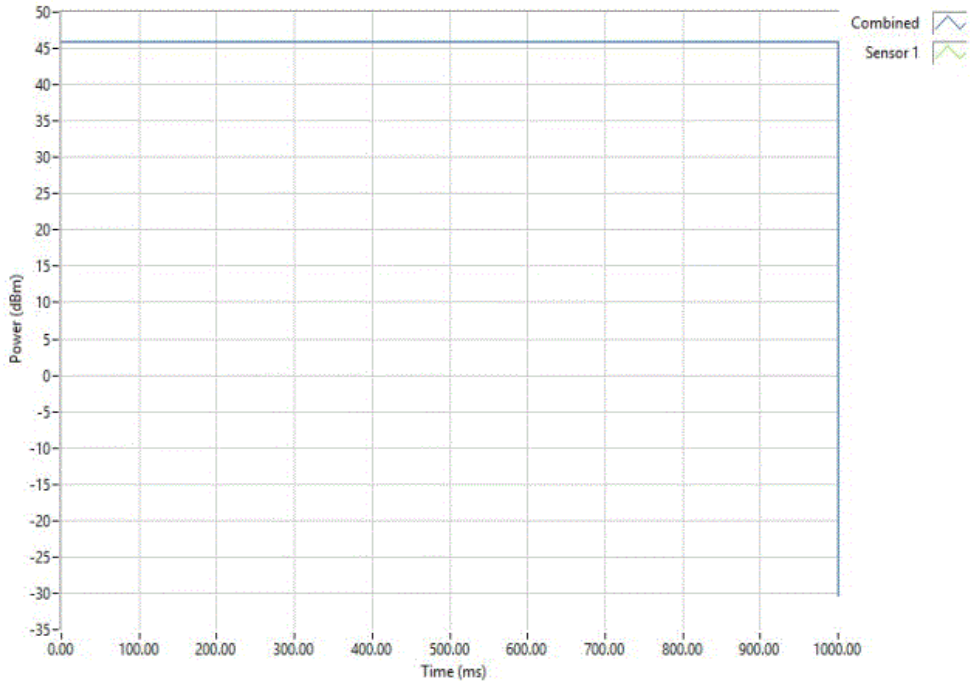
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Low Channel LTE20, 2630 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass



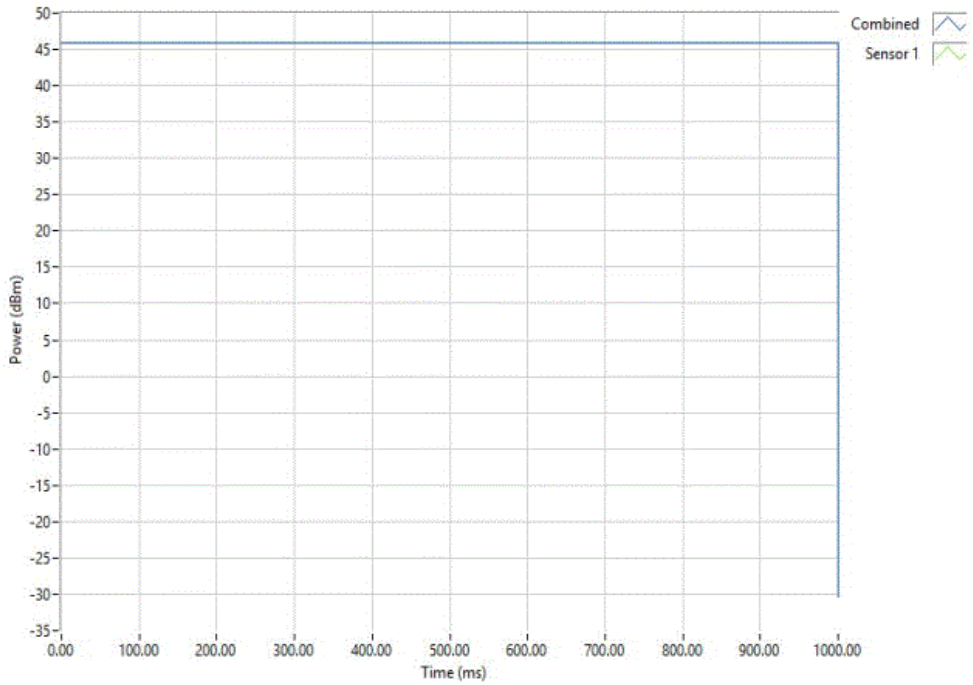
Antenna Port 1, Mid Channel LTE20, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.93	100	0	45.9	60	Pass



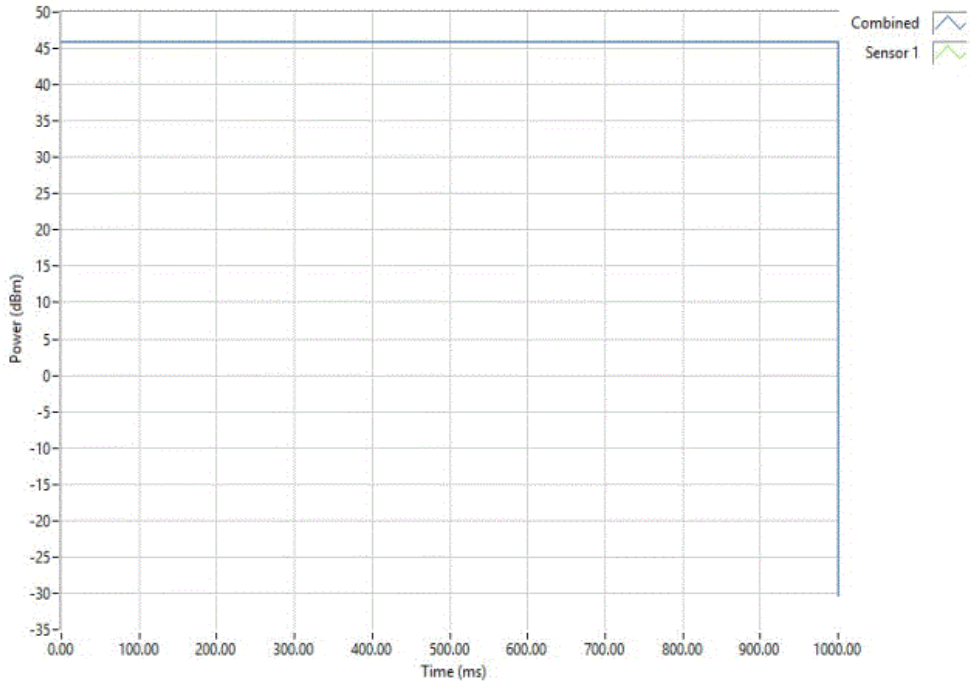
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, High Channel LTE20, 2680 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.94	100	0	45.9	60	Pass

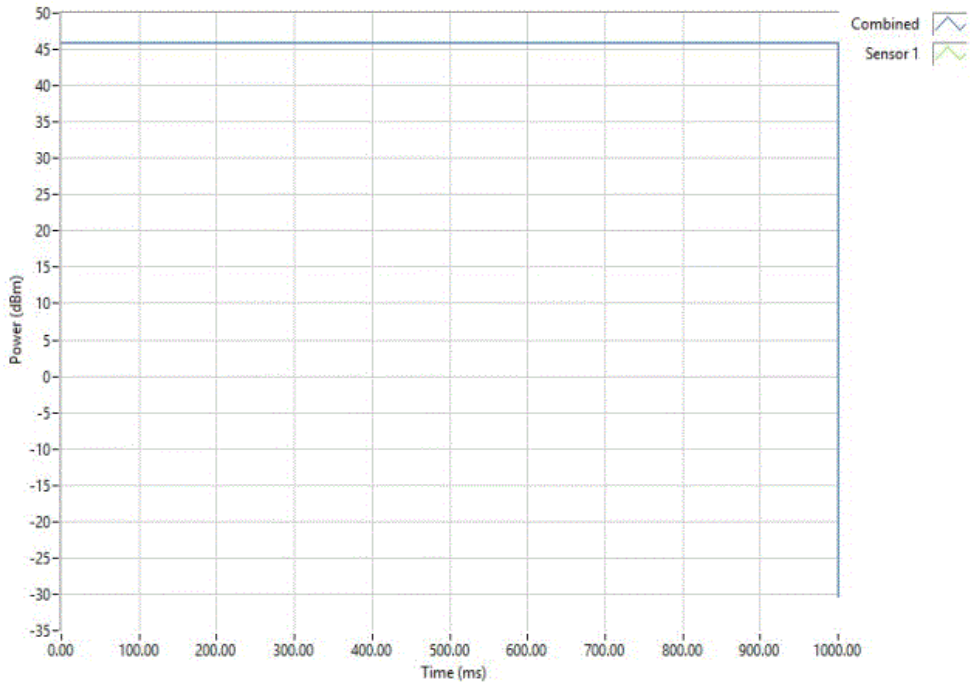


Antenna Port 2, Low Channel LTE5, 2622.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.95	100	0	46	60	Pass

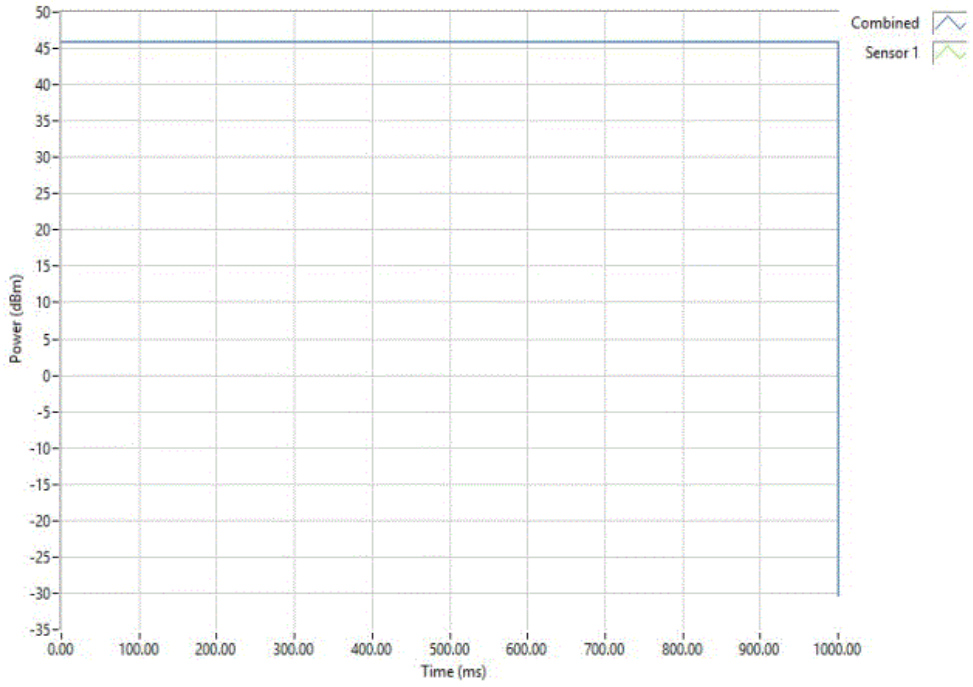


CONDUCTED OUTPUT POWER

Antenna Port 2, Mid Channel LTE5, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass

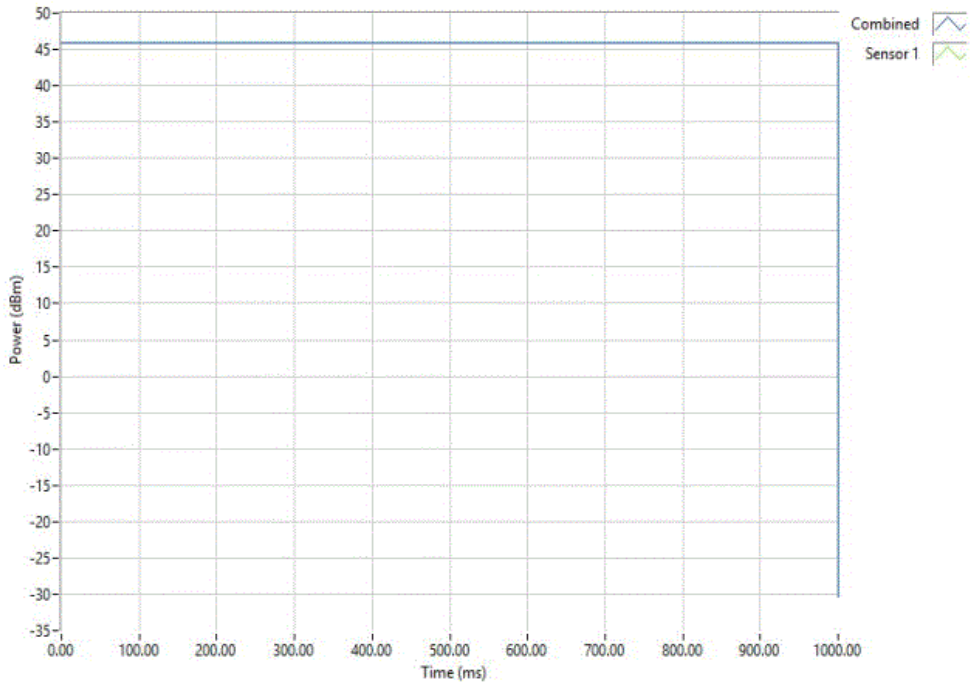


Antenna Port 2, High Channel LTE5, 2687.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.94	100	0	45.9	60	Pass

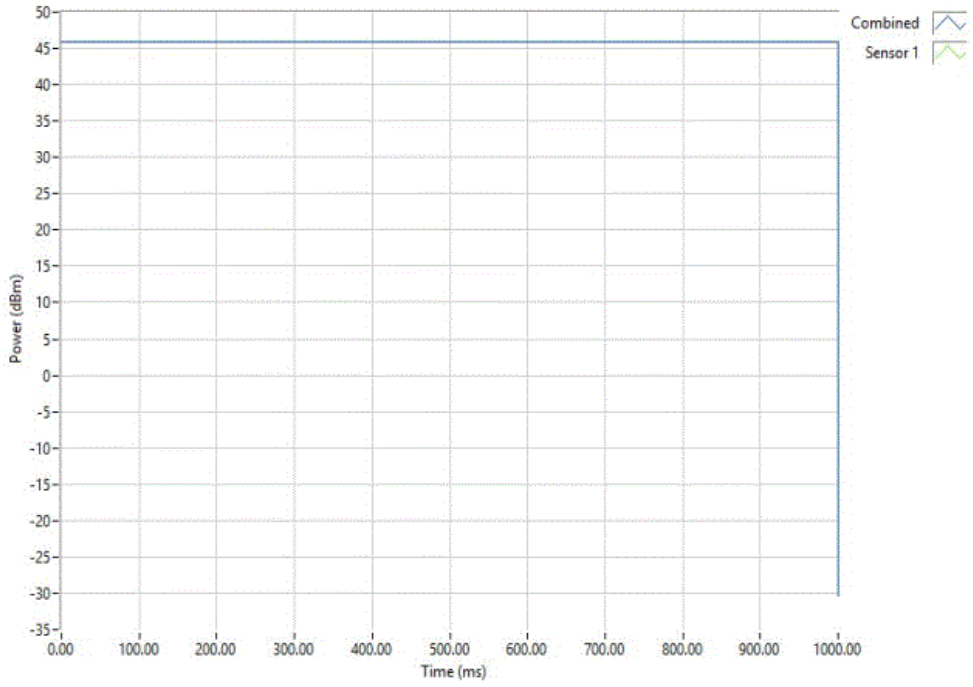


CONDUCTED OUTPUT POWER

Antenna Port 2, Low Channel LTE10, 2625 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass

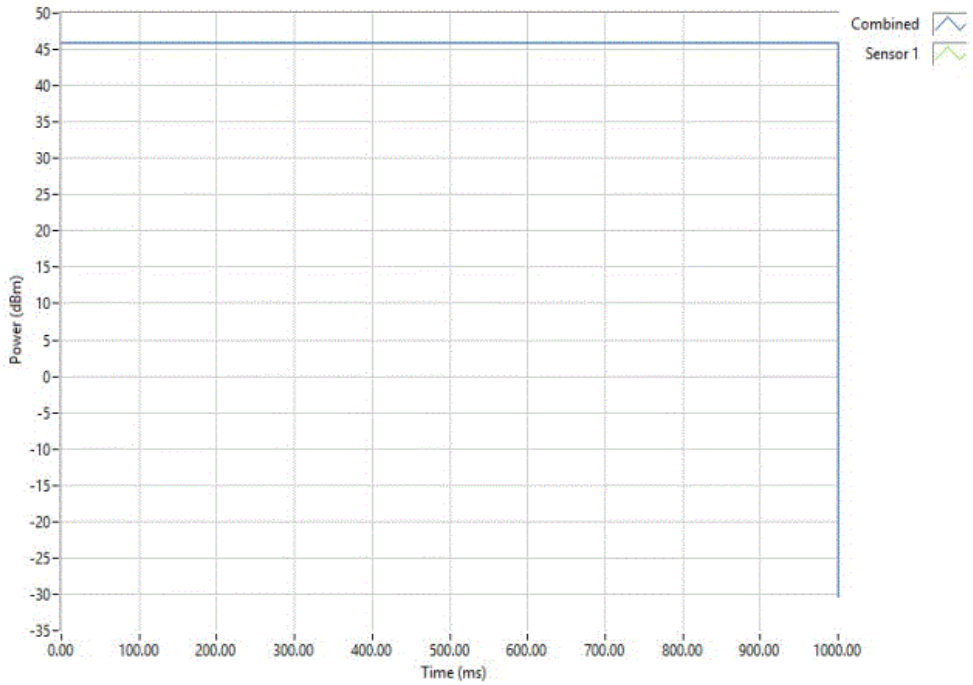


Antenna Port 2, Mid Channel LTE10, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass

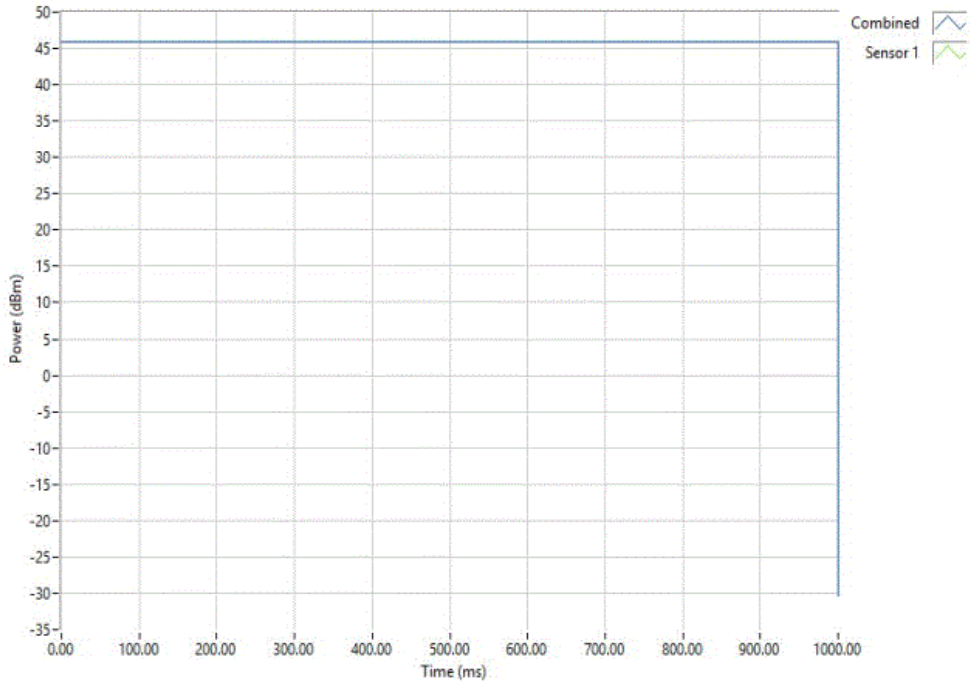


CONDUCTED OUTPUT POWER

Antenna Port 2, High Channel LTE10, 2685 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass



Antenna Port 2, Low Channel LTE20, 2630 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass



CONDUCTED OUTPUT POWER

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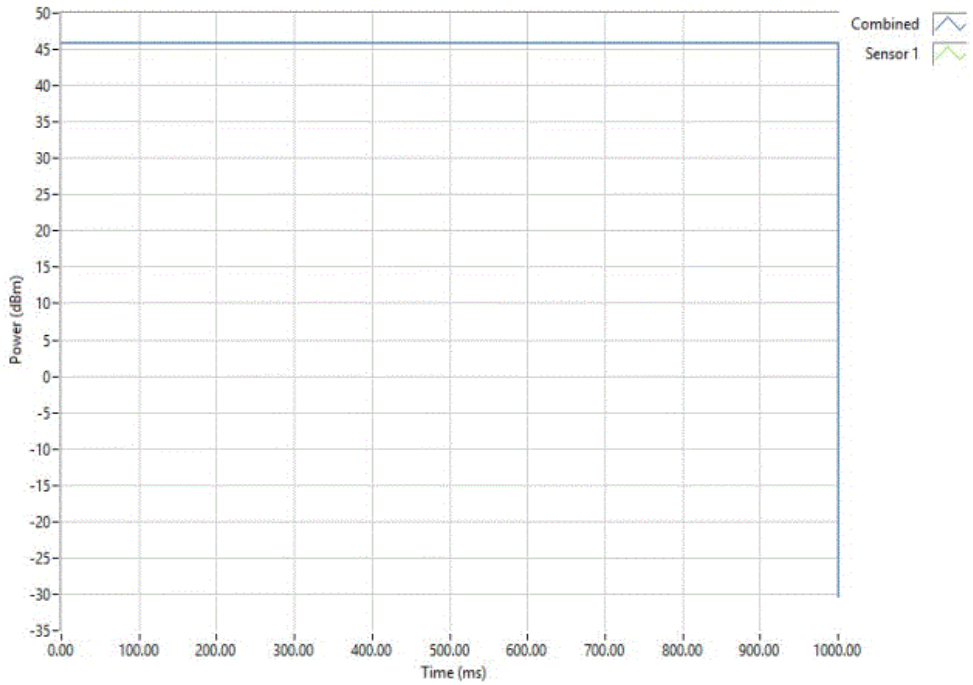
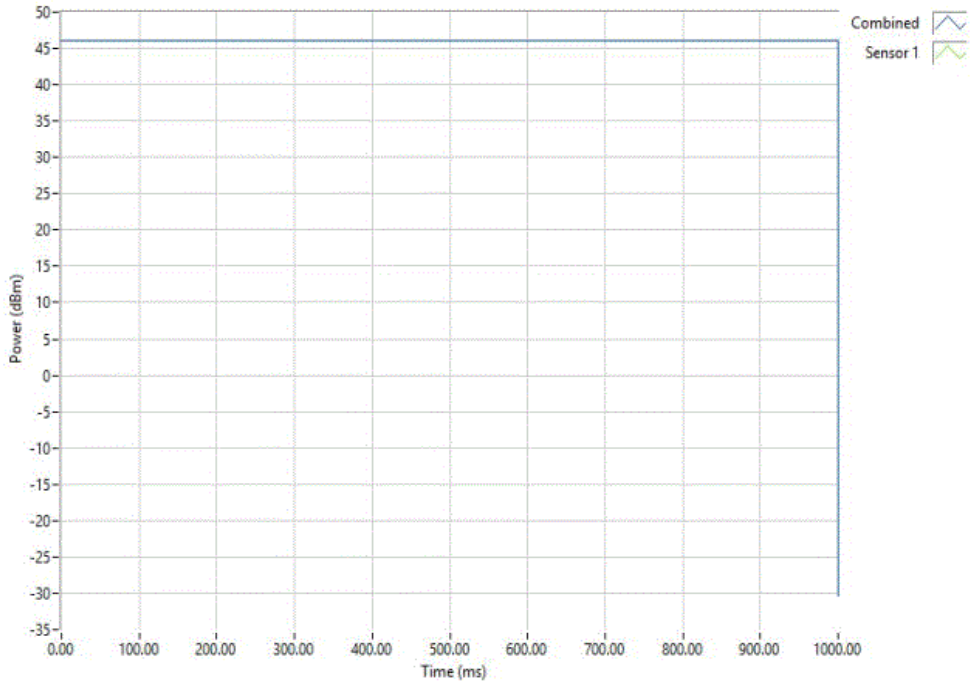
Antenna Port 2, Mid Channel LTE20, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.94	100	0	45.9	60	Pass

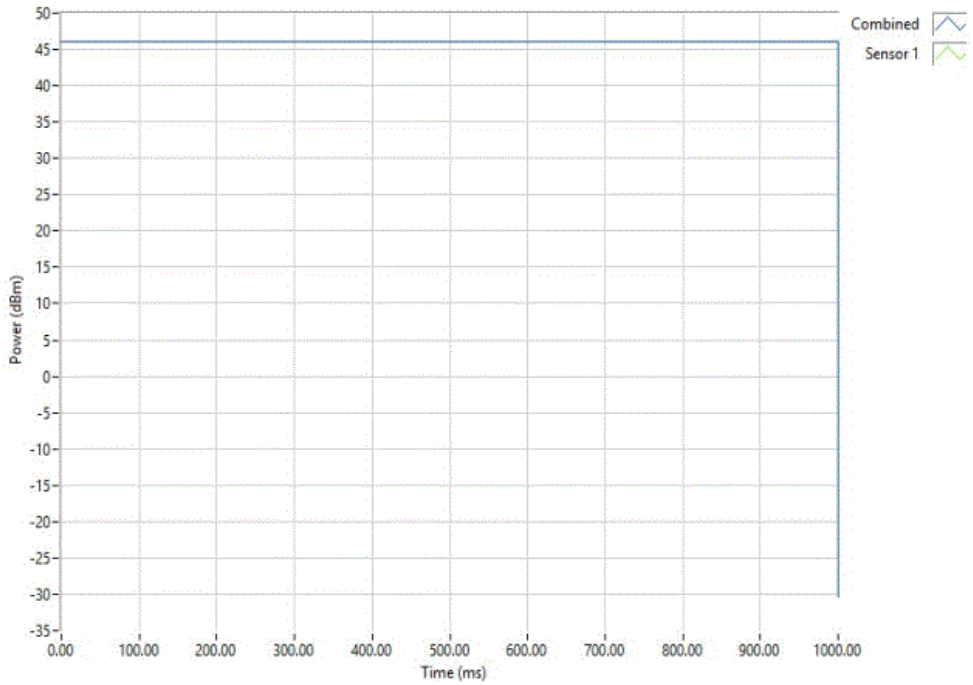


Antenna Port 2, High Channel LTE20, 2680 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	46	100	0	46	60	Pass

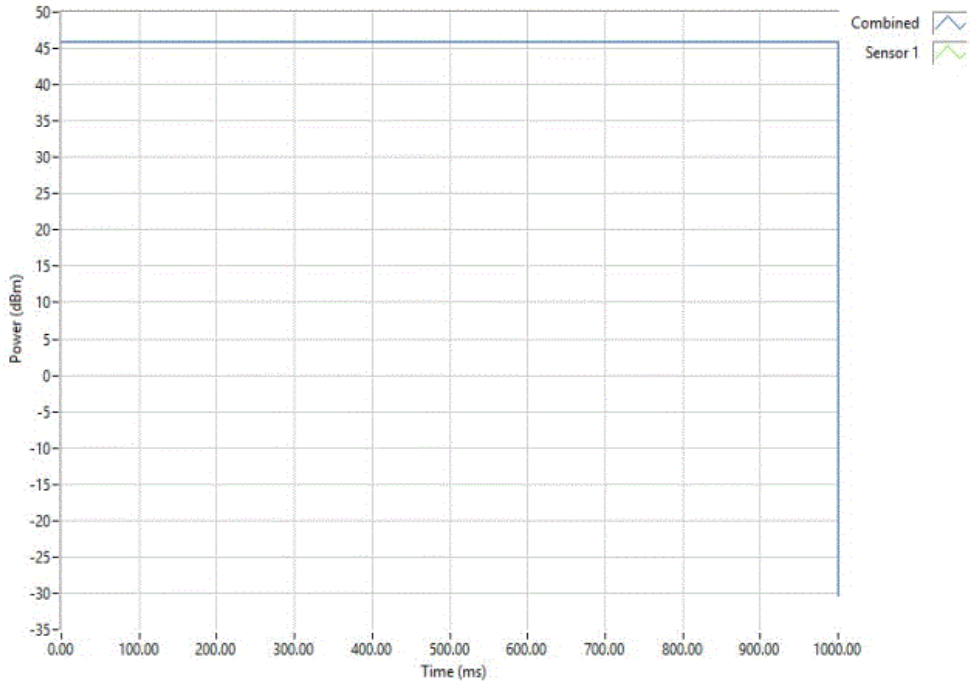


CONDUCTED OUTPUT POWER

Antenna Port 1 MIMO, Low Channel LTE5, 2622.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	46	100	0	46	60	Pass

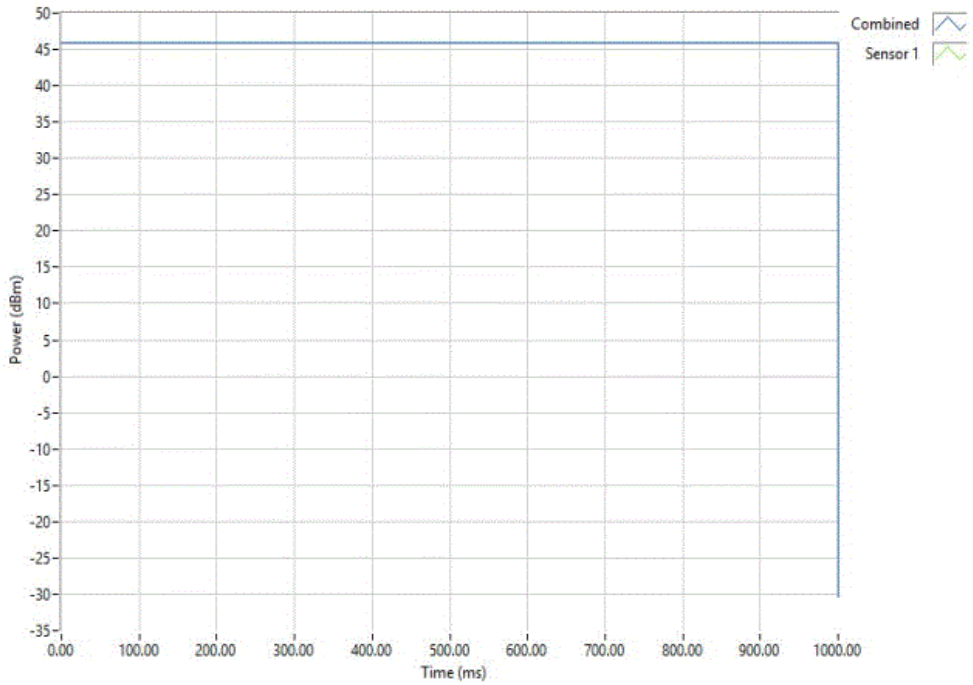


Antenna Port 1 MIMO, Mid Channel LTE5, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass

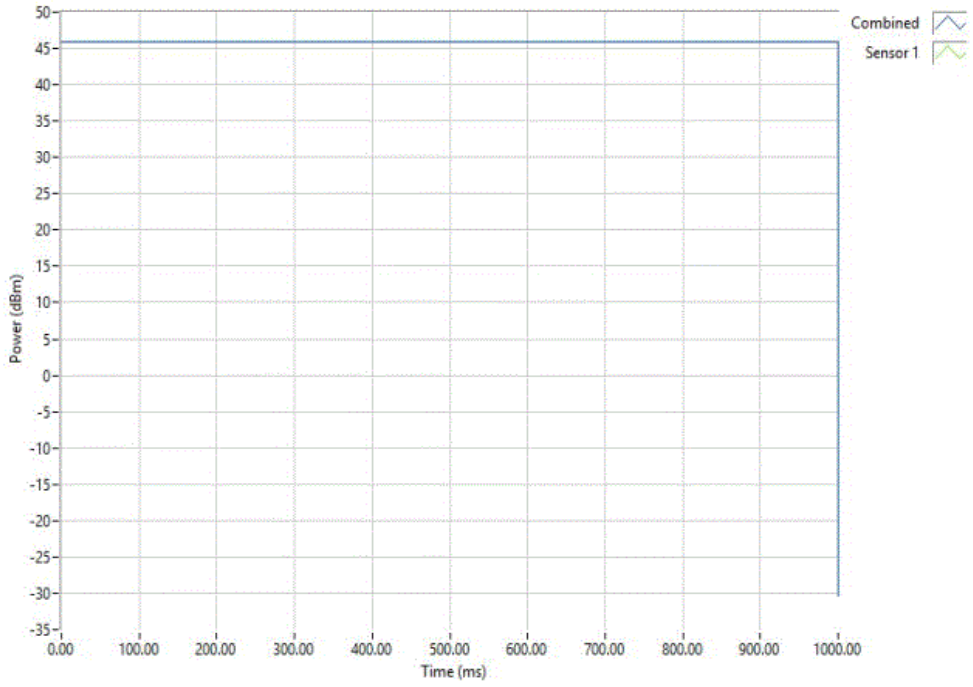


CONDUCTED OUTPUT POWER

Antenna Port 1 MIMO, High Channel LTE5, 2687.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.93	100	0	45.9	60	Pass



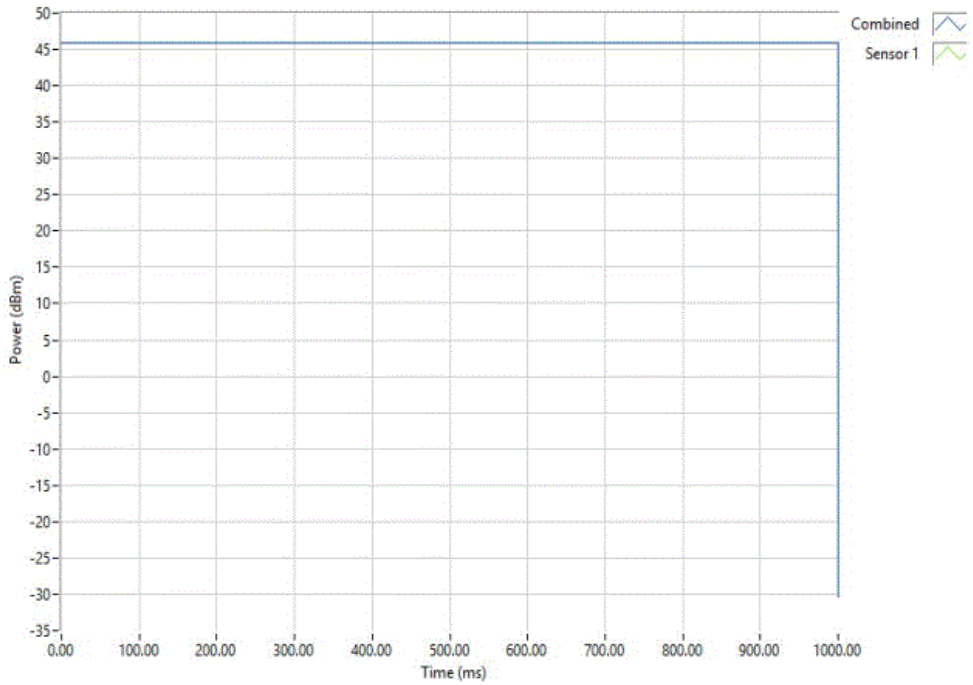
Antenna Port 1 MIMO, Low Channel LTE10, 2625 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass



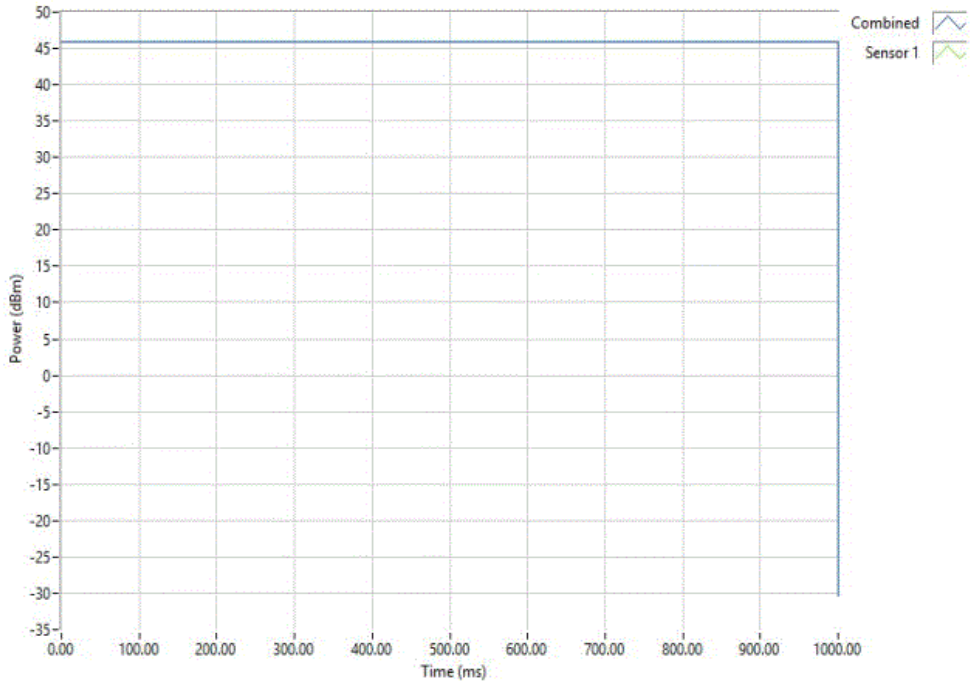
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1 MIMO, Mid Channel LTE10, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass

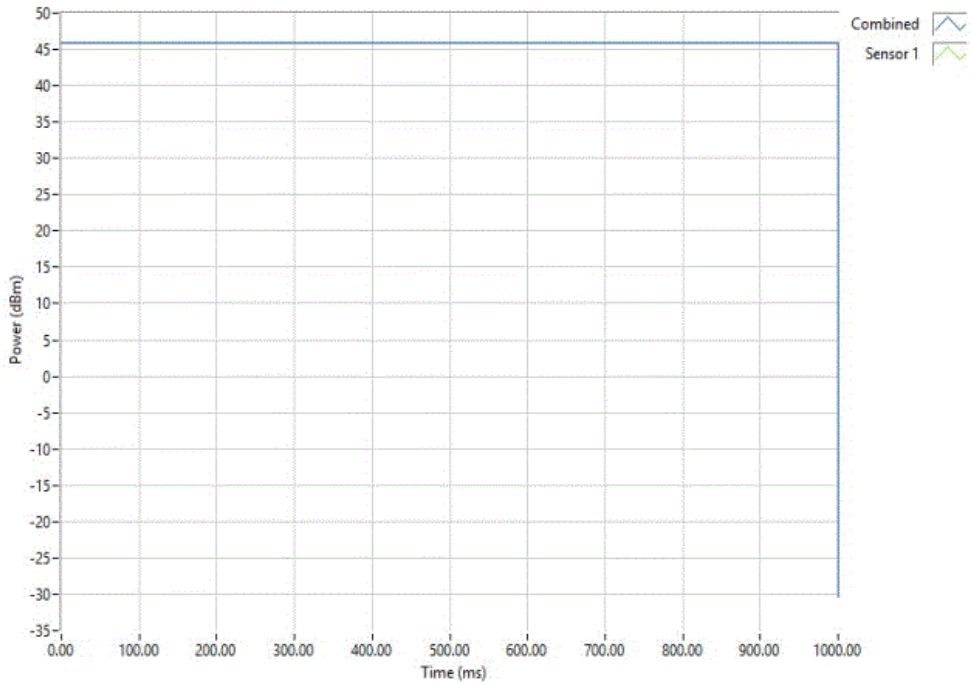


Antenna Port 1 MIMO, High Channel LTE10, 2685 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.96	100	0	46	60	Pass

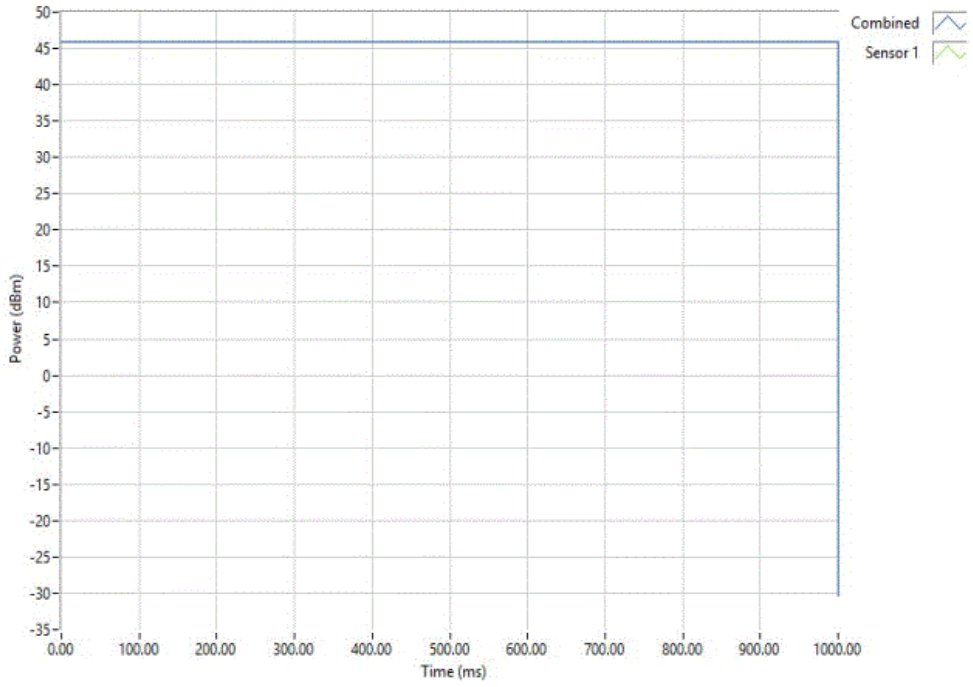


CONDUCTED OUTPUT POWER

Antenna Port 1 MIMO, Low Channel LTE20, 2630 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.96	100	0	46	60	Pass



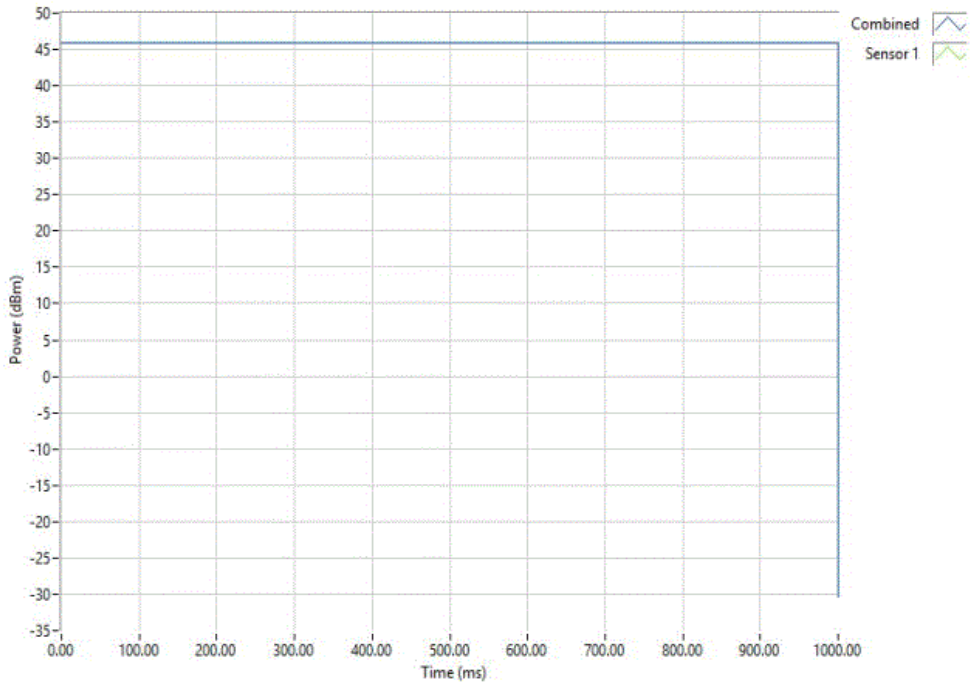
Antenna Port 1 MIMO, Mid Channel LTE20, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.93	100	0	45.9	60	Pass



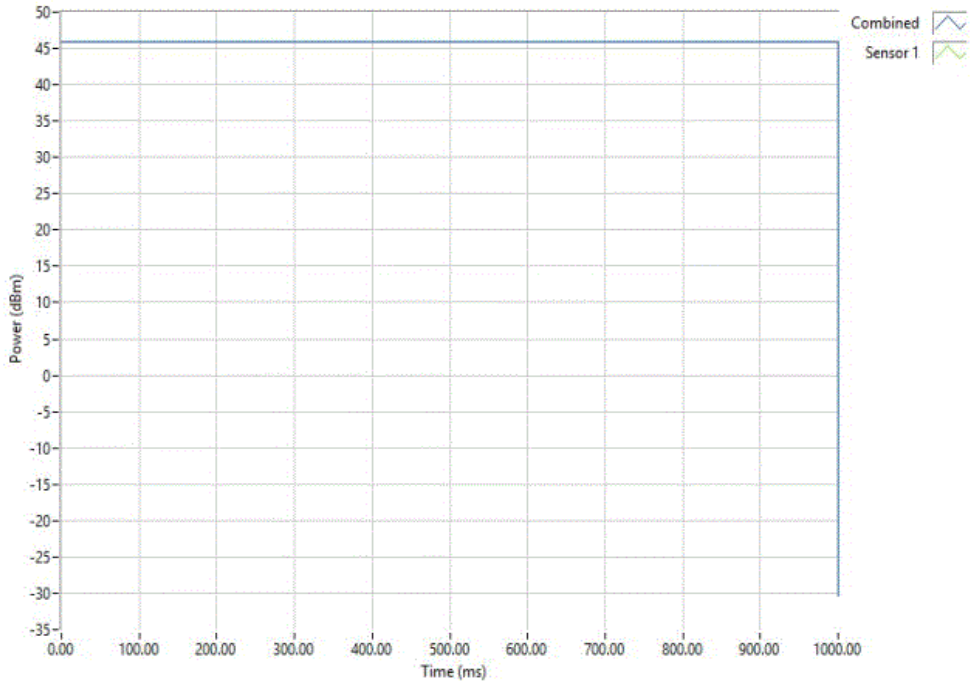
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1 MIMO, High Channel LTE20, 2680 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.98	100	0	46	60	Pass



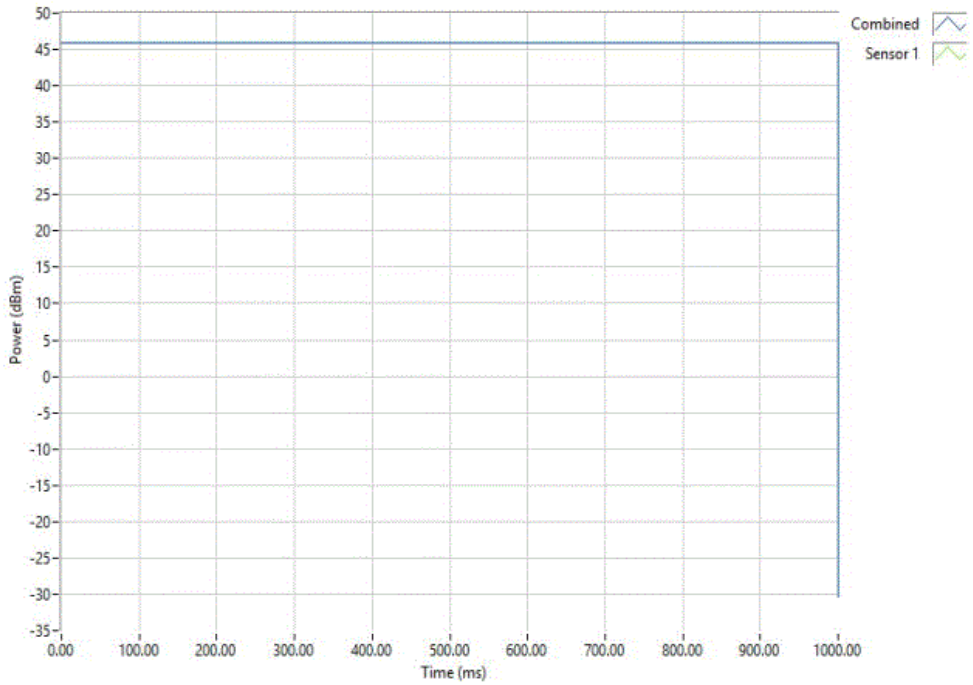
Antenna Port 2 MIMO, Low Channel LTE5, 2622.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass



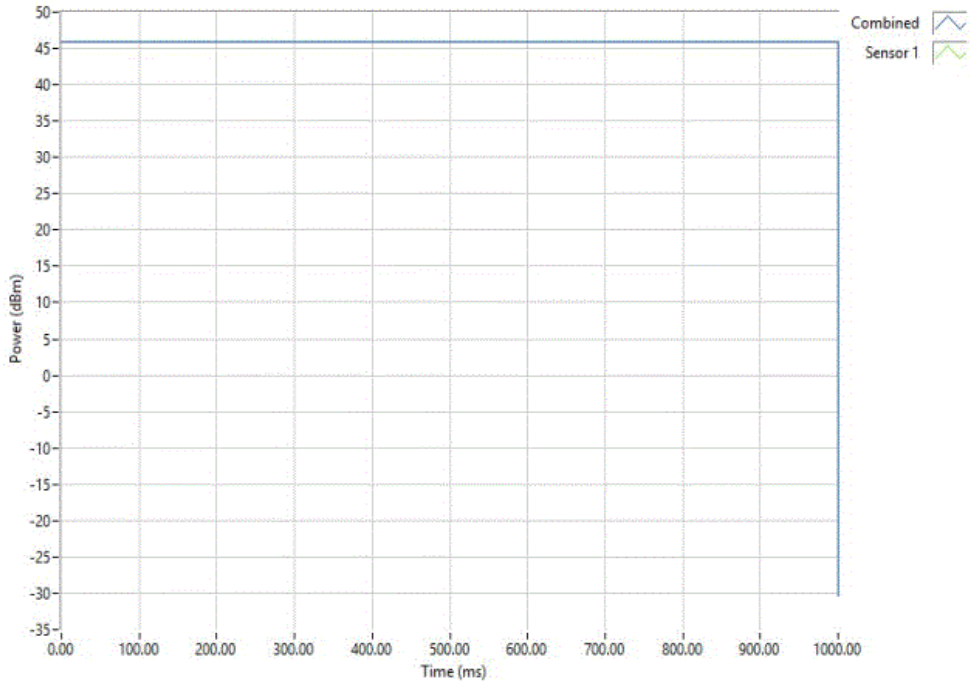
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 2 MIMO, Mid Channel LTE5, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.9	100	0	45.9	60	Pass



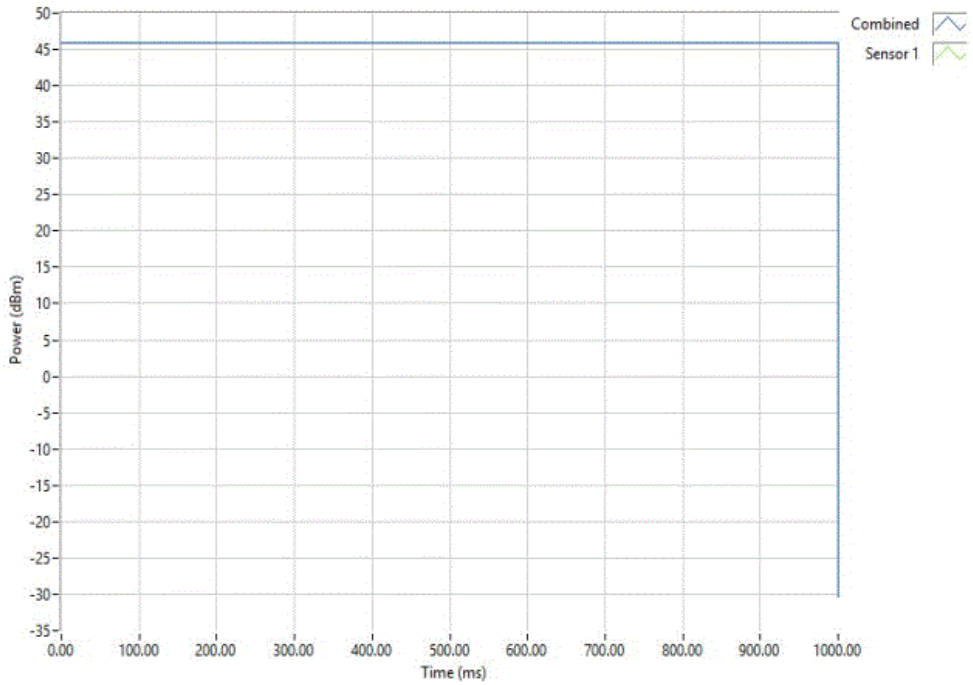
Antenna Port 2 MIMO, High Channel LTE5, 2687.5 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.96	100	0	46	60	Pass



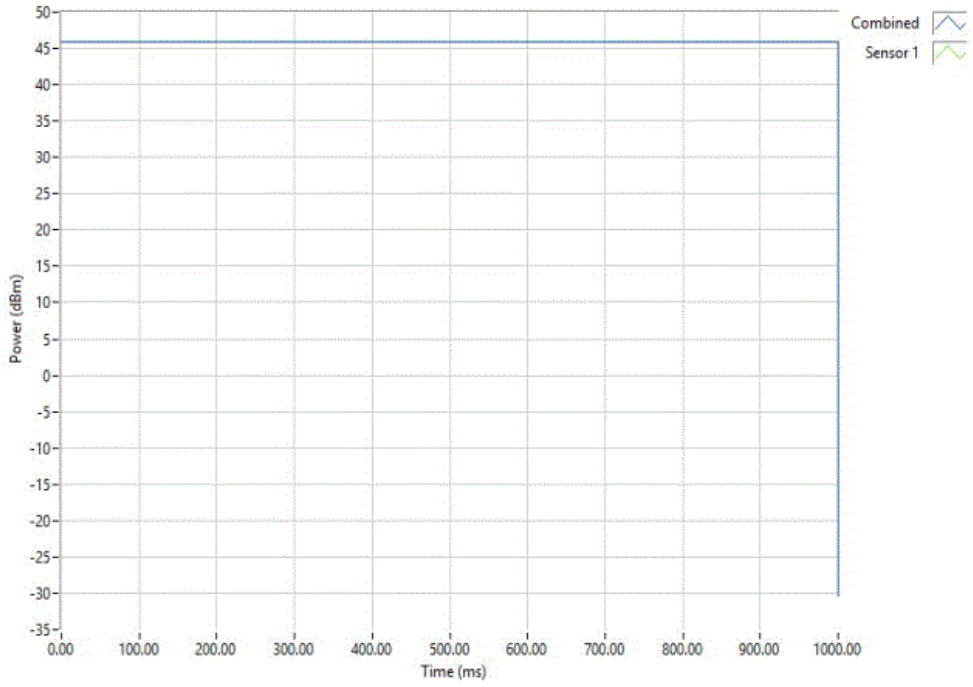
CONDUCTED OUTPUT POWER

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 2 MIMO, Low Channel LTE10, 2625 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass

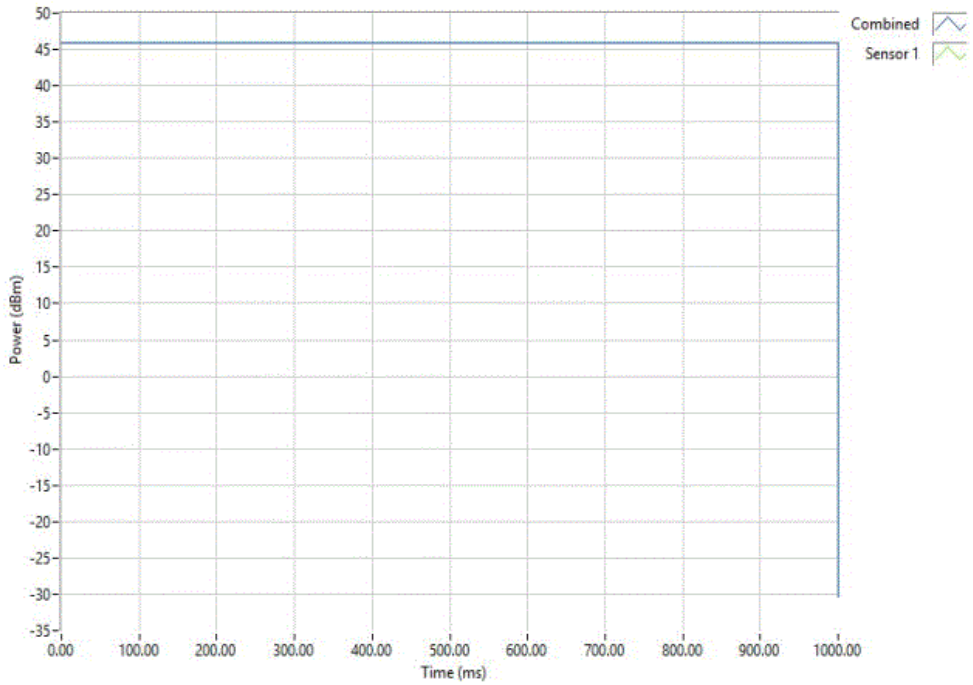


Antenna Port 2 MIMO, Mid Channel LTE10, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass

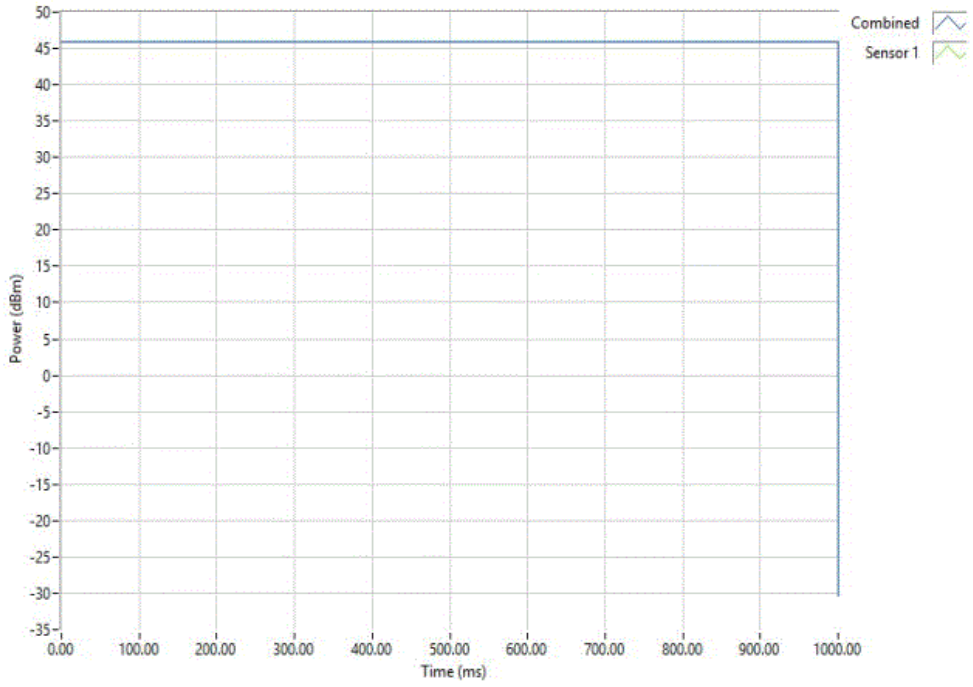


CONDUCTED OUTPUT POWER

Antenna Port 2 MIMO, High Channel LTE10, 2685 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.93	100	0	45.9	60	Pass

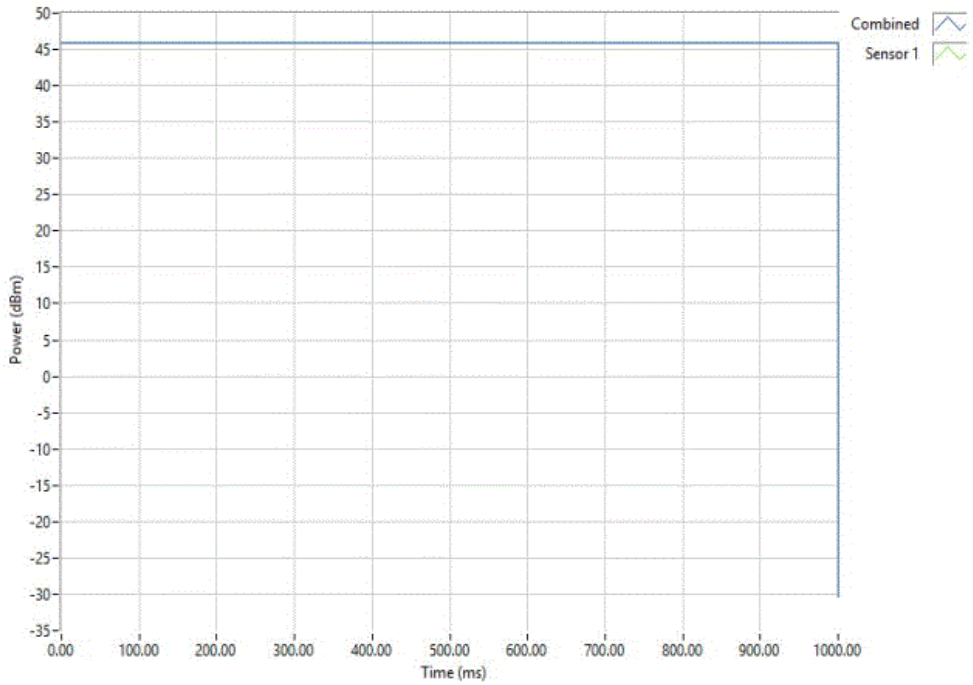


Antenna Port 2 MIMO, Low Channel LTE20, 2630 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.95	100	0	46	60	Pass

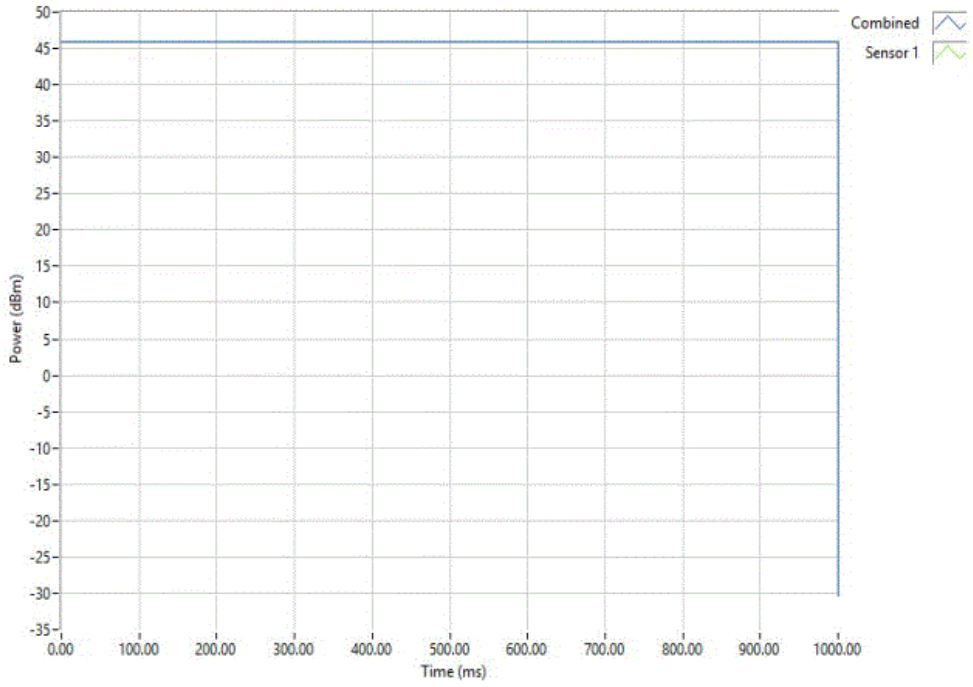


CONDUCTED OUTPUT POWER

Antenna Port 2 MIMO, Mid Channel LTE20, 2655 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.99	100	0	46	60	Pass



Antenna Port 2 MIMO, High Channel LTE20, 2680 MHz						
	Avg Cond Pwr (dBm)	Duty Cycle (%)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Results
	45.91	100	0	45.9	60	Pass



PEAK TO AVERAGE RATIO

XMit 2017.02.08

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
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

Because the conducted Output Power was measured using a RMS Average detector, the Peak to Average Ratio was measured to show that the maximum peak-max-hold spectrum to the maximum of the average spectrum does not exceed 13 dB.

The spectrum analyzer settings were as follows:
Span set to encompass the entire emission bandwidth, centered on the transmit channel.

The largest difference between the following two traces was calculated:
- 1st Trace: Peak detector and trace max-hold.
- 2nd Trace: The same procedure and settings as was used for conducted Output Power.

PEAK TO AVERAGE RATIO

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	1	Signature

		Value (dB)	Limit < (dB)	Results
Antenna Port 1				
	Low Channel LTE5, 2622.5 MHz	7.39	13	Pass
	Mid Channel LTE5, 2655 MHz	7.06	13	Pass
	High Channel LTE5, 2687.5 MHz	7.29	13	Pass
	Low Channel LTE10, 2625 MHz	9.83	13	Pass
	Mid Channel LTE10, 2655 MHz	9.69	13	Pass
	High Channel LTE10, 2685 MHz	9.72	13	Pass
	Low Channel LTE20, 2630 MHz	11.31	13	Pass
	Mid Channel LTE20, 2655 MHz	11.19	13	Pass
	High Channel LTE20, 2680 MHz	11.11	13	Pass
Antenna Port 2				
	Low Channel LTE5, 2622.5 MHz	7.36	13	Pass
	Mid Channel LTE5, 2655 MHz	7.03	13	Pass
	High Channel LTE5, 2687.5 MHz	7.24	13	Pass
	Low Channel LTE10, 2625 MHz	9.75	13	Pass
	Mid Channel LTE10, 2655 MHz	9.88	13	Pass
	High Channel LTE10, 2685 MHz	9.80	13	Pass
	Low Channel LTE20, 2630 MHz	12.40	13	Pass
	Mid Channel LTE20, 2655 MHz	10.71	13	Pass
	High Channel LTE20, 2680 MHz	11.92	13	Pass

PEAK TO AVERAGE RATIO

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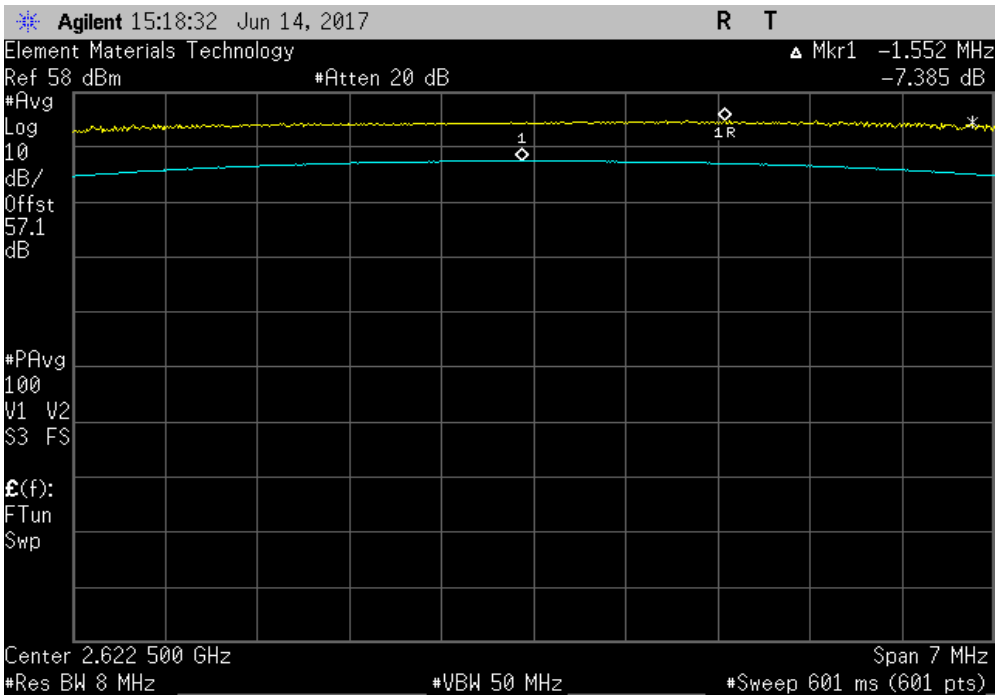
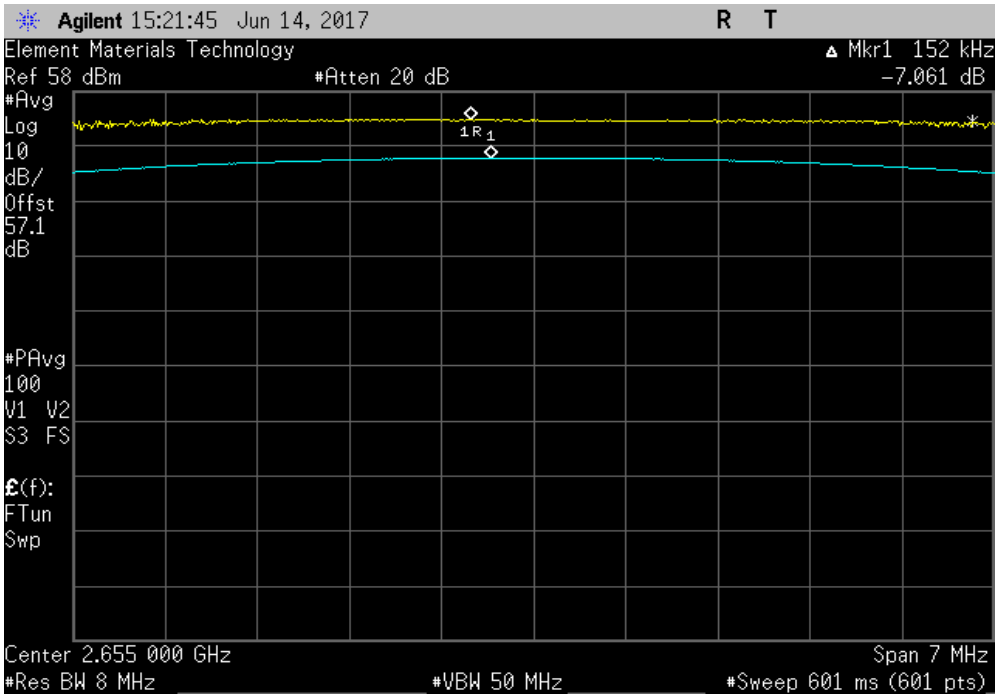
Antenna Port 1, Low Channel LTE5, 2622.5 MHz						
				Value (dB)	Limit < (dB)	Results
				7.385	13	Pass

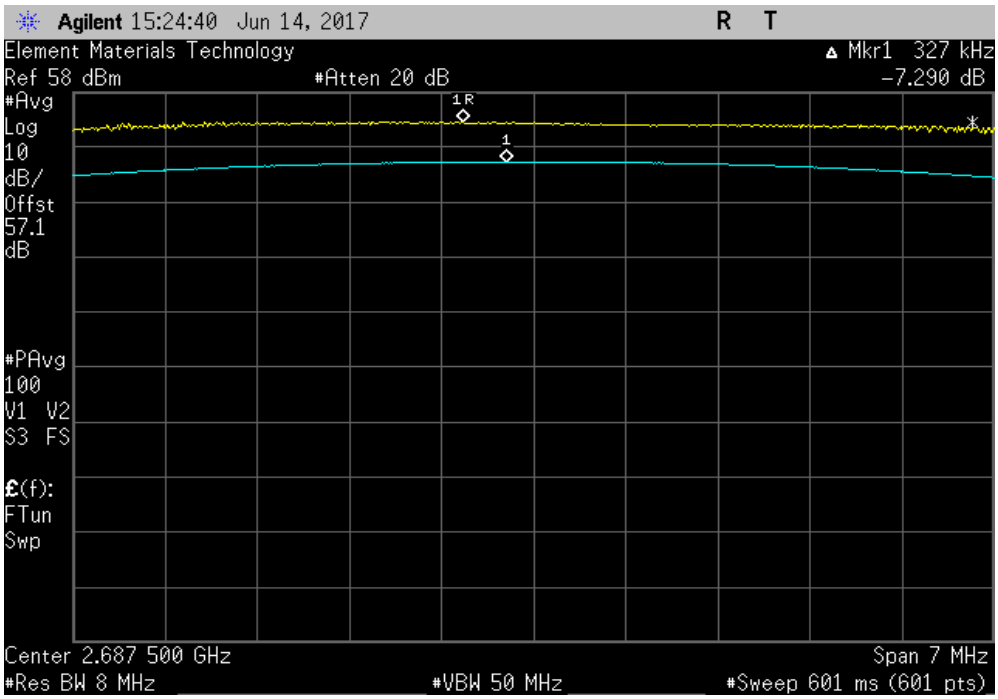


Antenna Port 1, Mid Channel LTE5, 2655 MHz						
				Value (dB)	Limit < (dB)	Results
				7.061	13	Pass

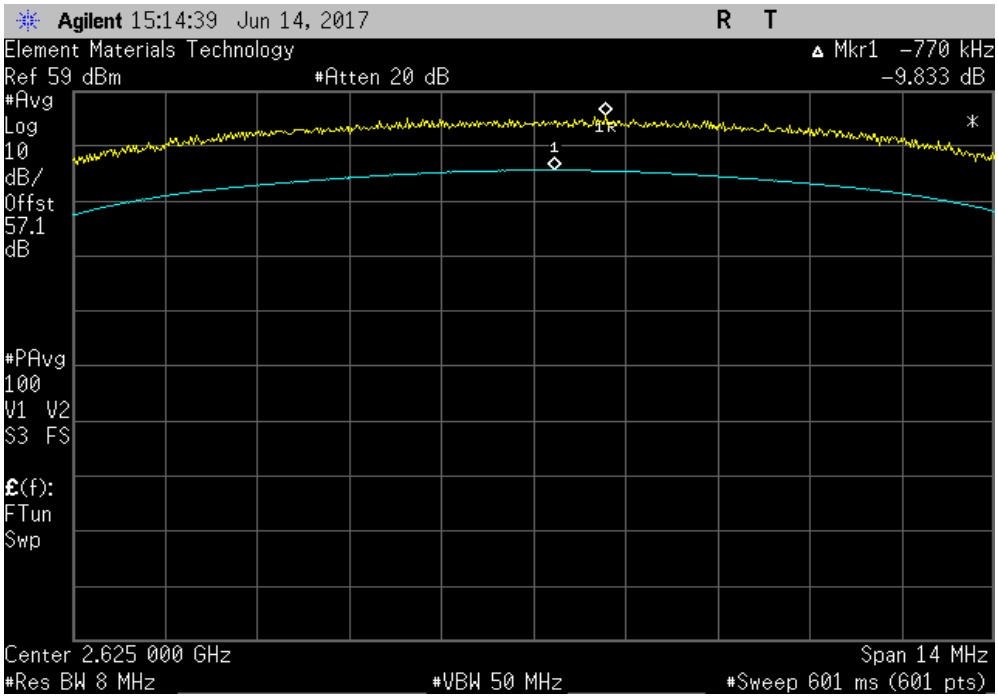


PEAK TO AVERAGE RATIO

Antenna Port 1, High Channel LTE5, 2687.5 MHz						
				Value (dB)	Limit < (dB)	Results
				7.29	13	Pass



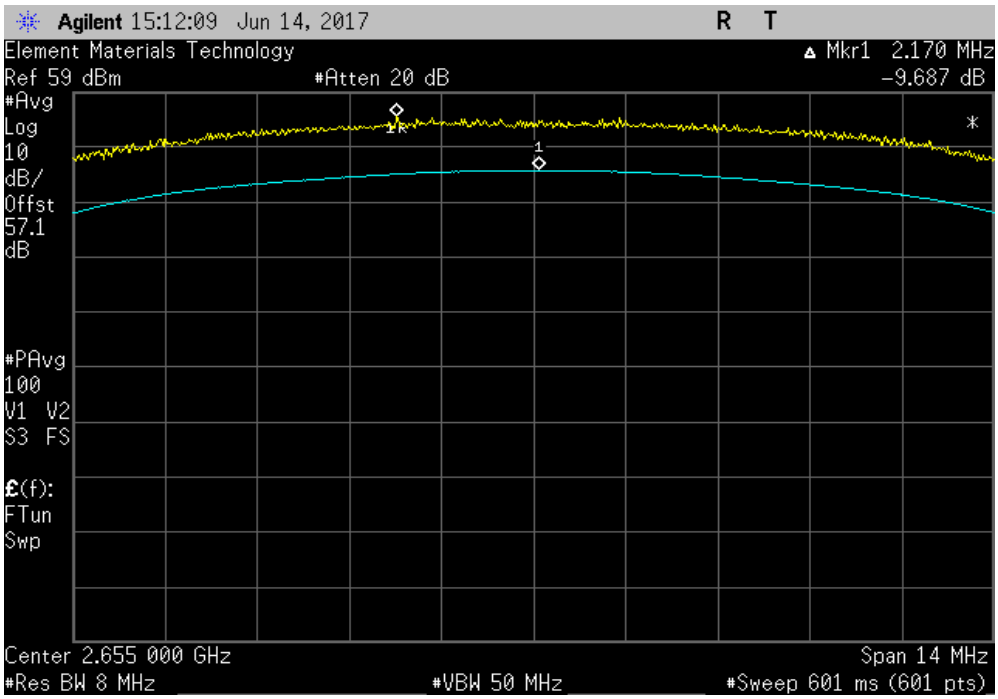
Antenna Port 1, Low Channel LTE10, 2625 MHz						
				Value (dB)	Limit < (dB)	Results
				9.833	13	Pass



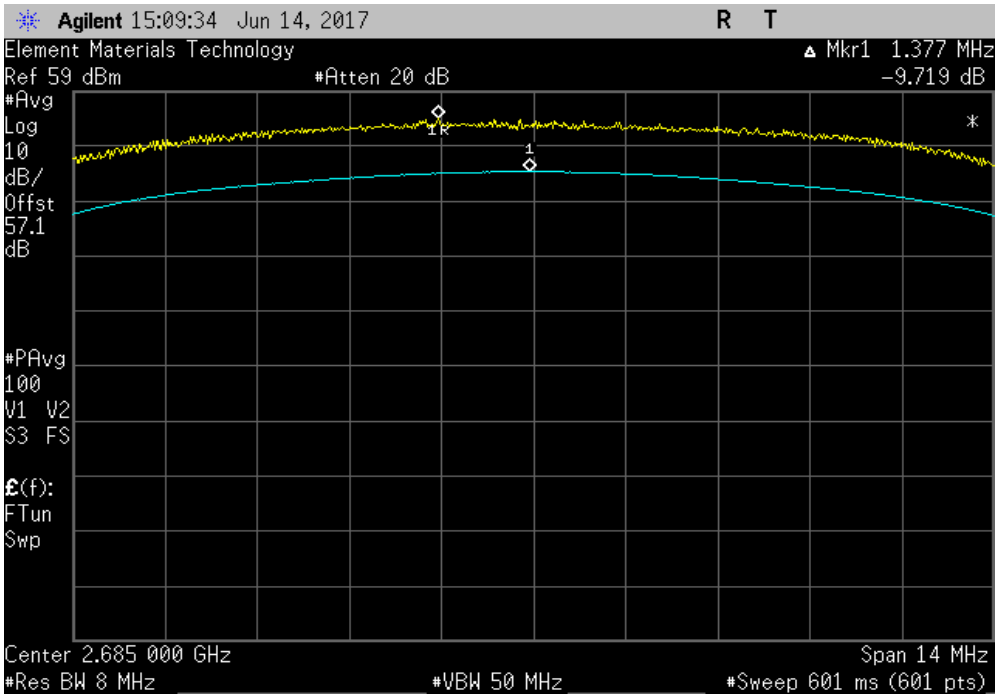
PEAK TO AVERAGE RATIO

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Mid Channel LTE10, 2655 MHz						
				Value (dB)	Limit < (dB)	Results
				9.687	13	Pass

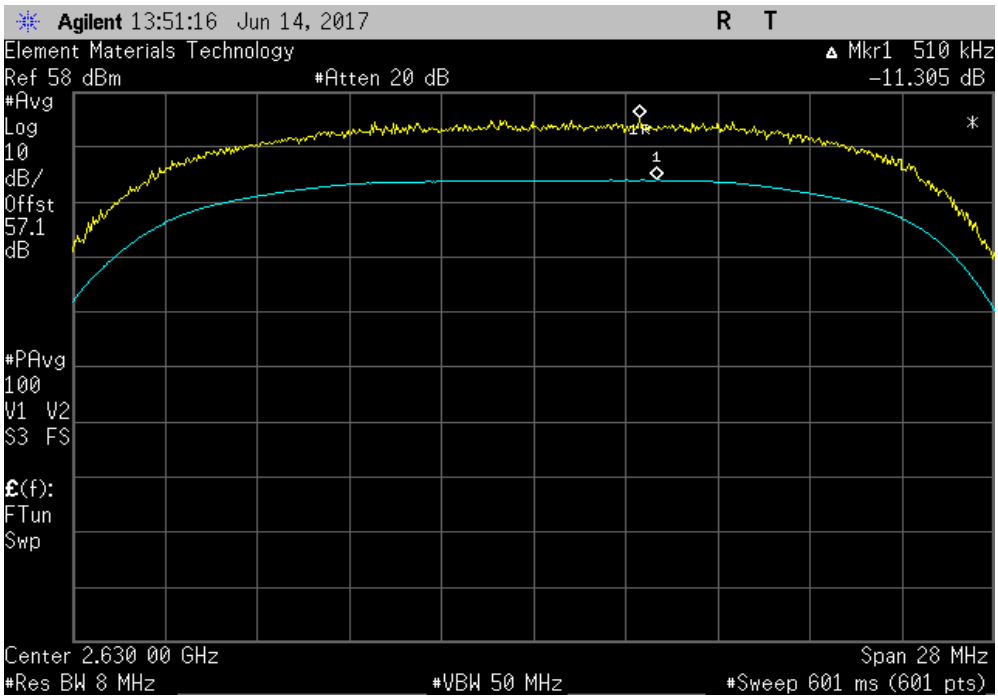


Antenna Port 1, High Channel LTE10, 2685 MHz						
				Value (dB)	Limit < (dB)	Results
				9.719	13	Pass

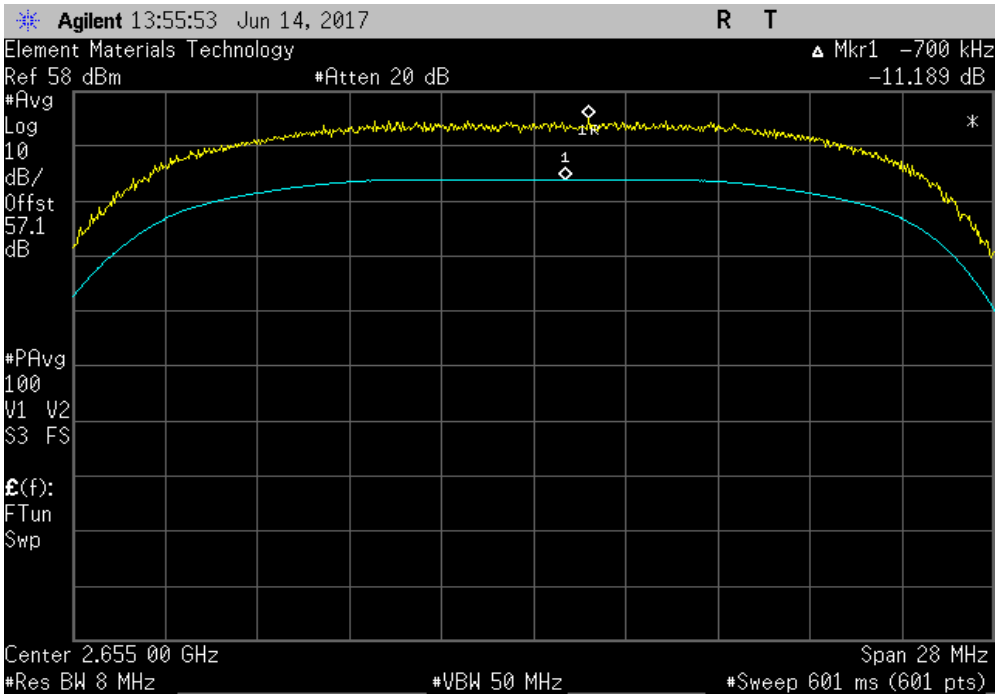


PEAK TO AVERAGE RATIO

Antenna Port 1, Low Channel LTE20, 2630 MHz						
				Value (dB)	Limit < (dB)	Results
				11.305	13	Pass

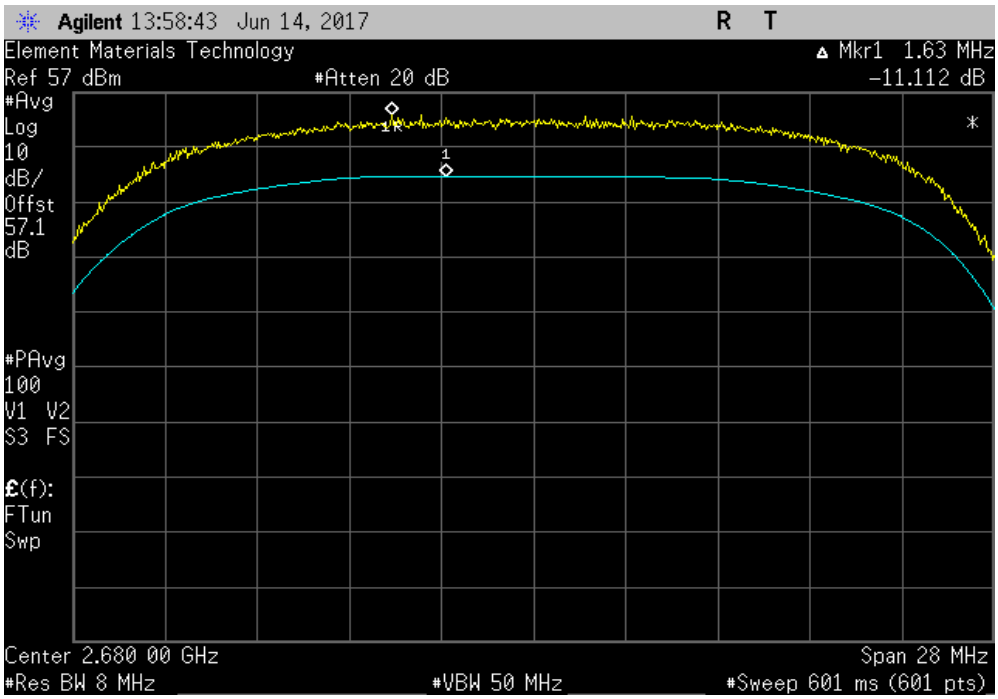


Antenna Port 1, Mid Channel LTE20, 2655 MHz						
				Value (dB)	Limit < (dB)	Results
				11.189	13	Pass

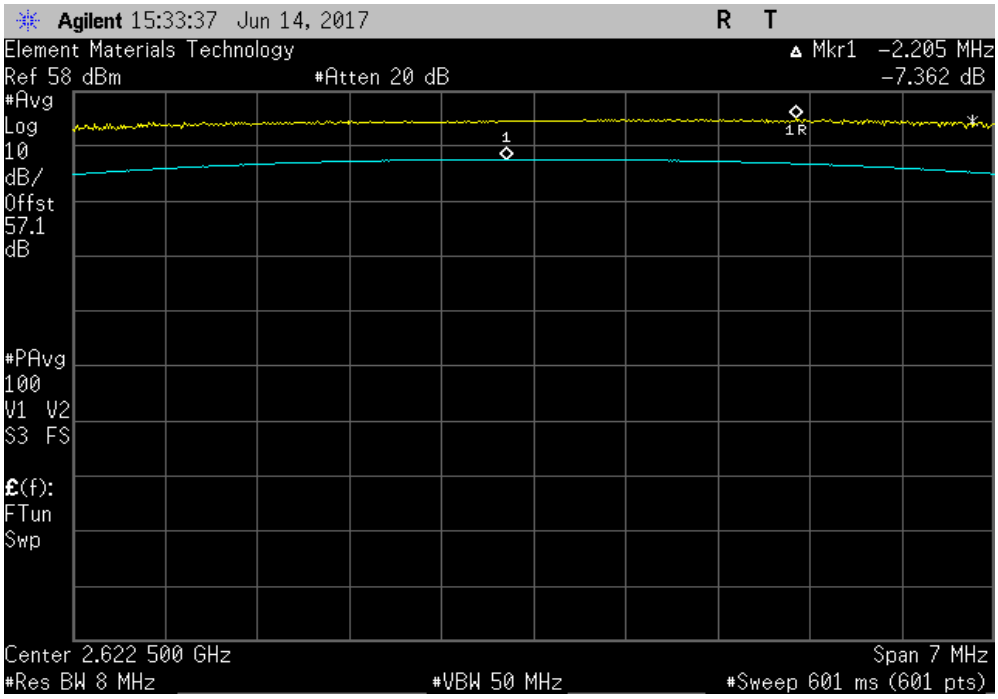


PEAK TO AVERAGE RATIO

Antenna Port 1, High Channel LTE20, 2680 MHz						
				Value (dB)	Limit < (dB)	Results
				11.112	13	Pass



Antenna Port 2, Low Channel LTE5, 2622.5 MHz						
				Value (dB)	Limit < (dB)	Results
				7.362	13	Pass



PEAK TO AVERAGE RATIO

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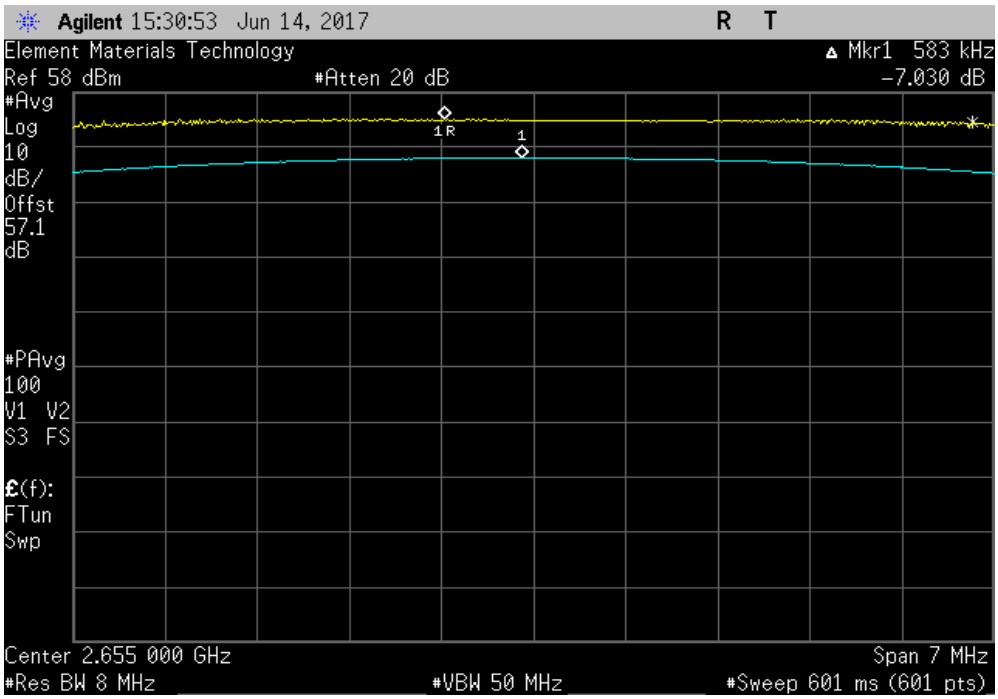
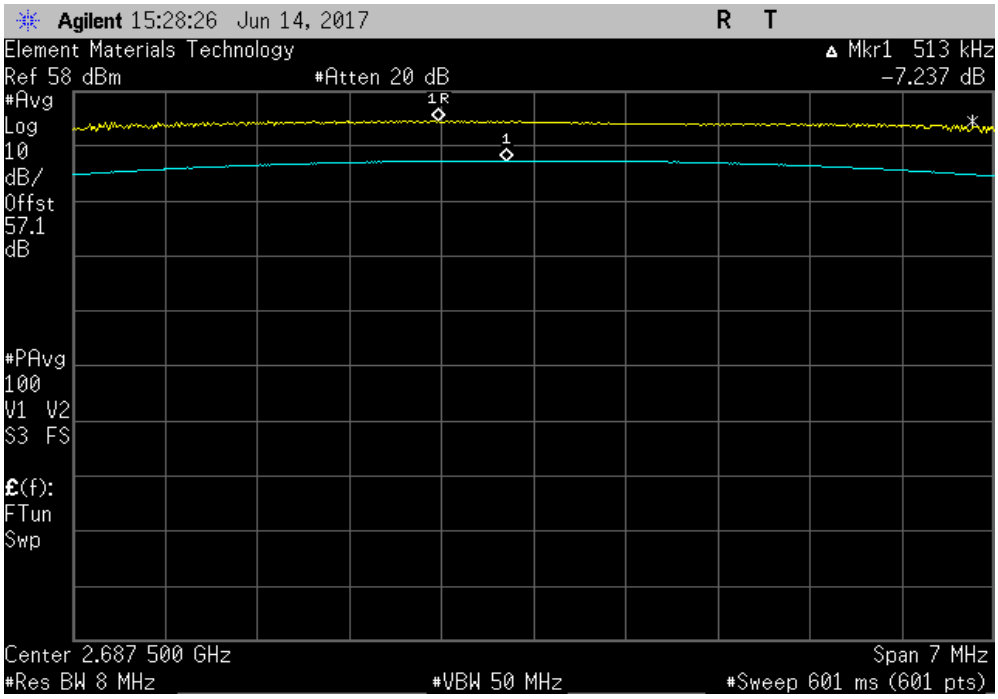
Antenna Port 2, Mid Channel LTE5, 2655 MHz							
					Value (dB)	Limit < (dB)	Results
					7.03	13	Pass

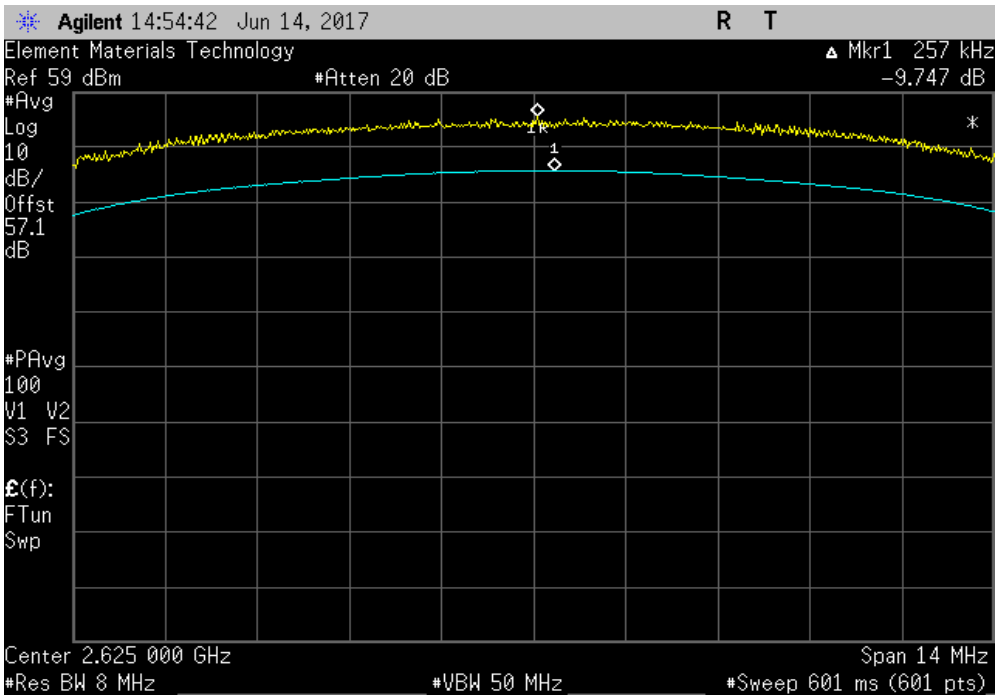


Antenna Port 2, High Channel LTE5, 2687.5 MHz							
					Value (dB)	Limit < (dB)	Results
					7.237	13	Pass

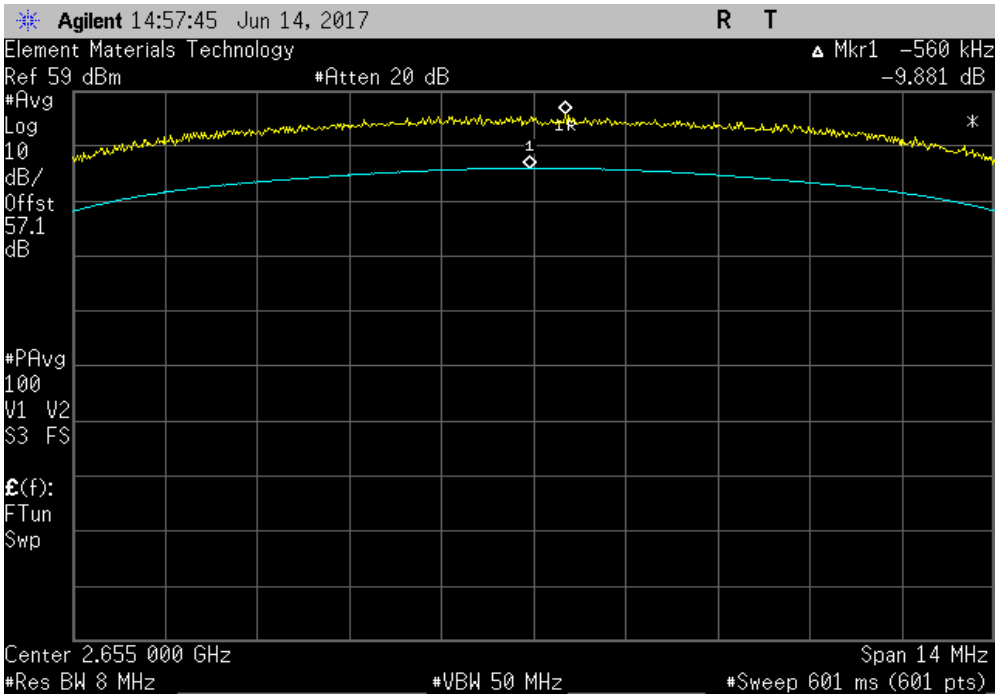


PEAK TO AVERAGE RATIO

Antenna Port 2, Low Channel LTE10, 2625 MHz						
				Value (dB)	Limit < (dB)	Results
				9.747	13	Pass

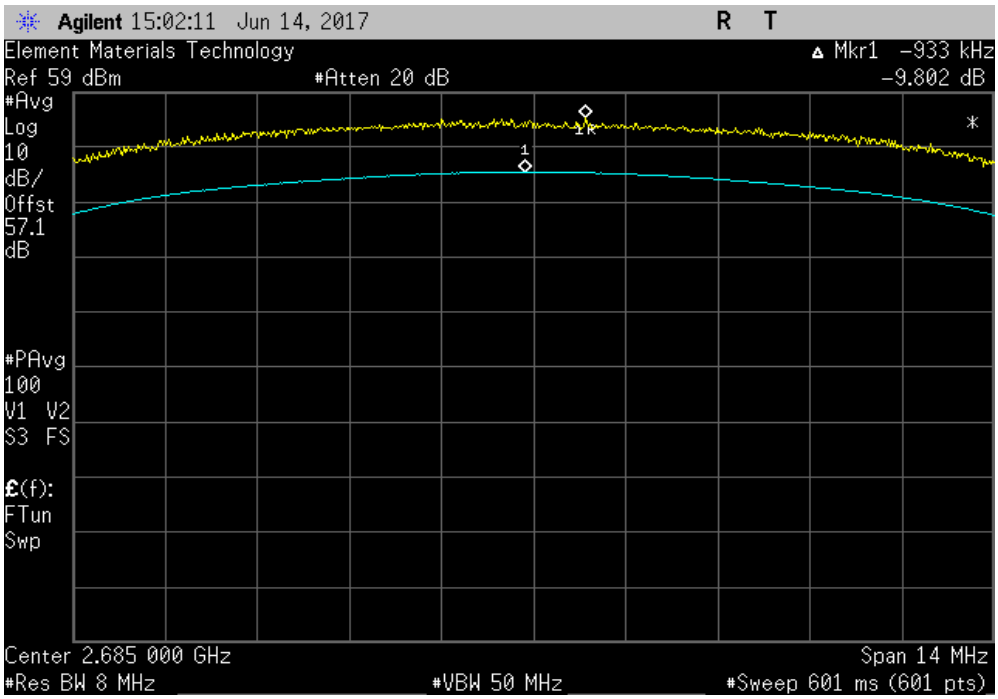


Antenna Port 2, Mid Channel LTE10, 2655 MHz						
				Value (dB)	Limit < (dB)	Results
				9.881	13	Pass

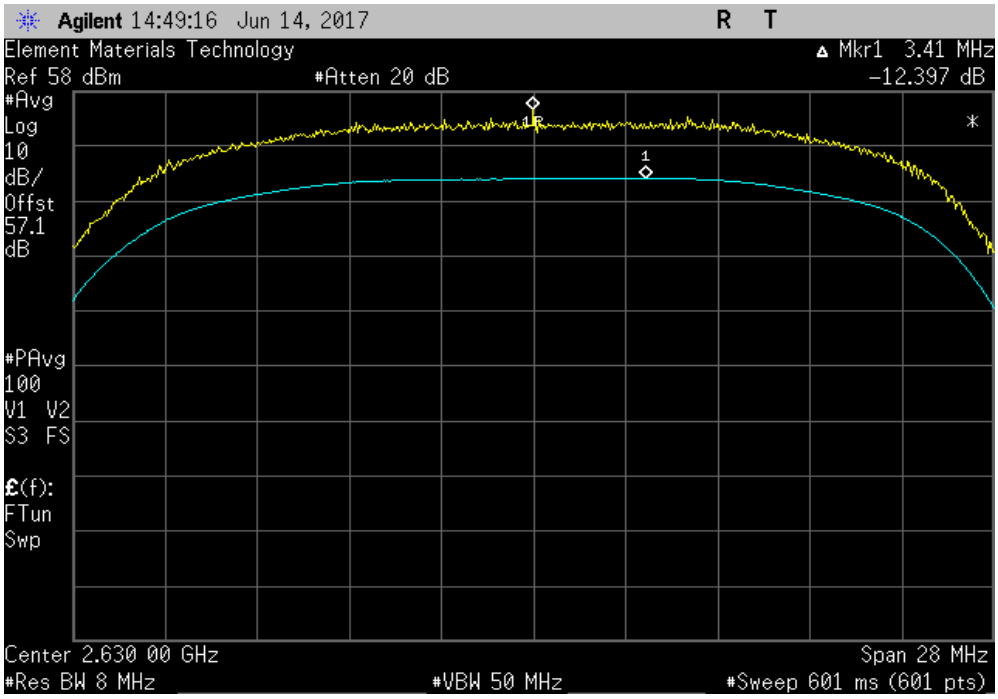


PEAK TO AVERAGE RATIO

Antenna Port 2, High Channel LTE10, 2685 MHz						
				Value (dB)	Limit < (dB)	Results
				9.802	13	Pass



Antenna Port 2, Low Channel LTE20, 2630 MHz						
				Value (dB)	Limit < (dB)	Results
				12.397	13	Pass



PEAK TO AVERAGE RATIO

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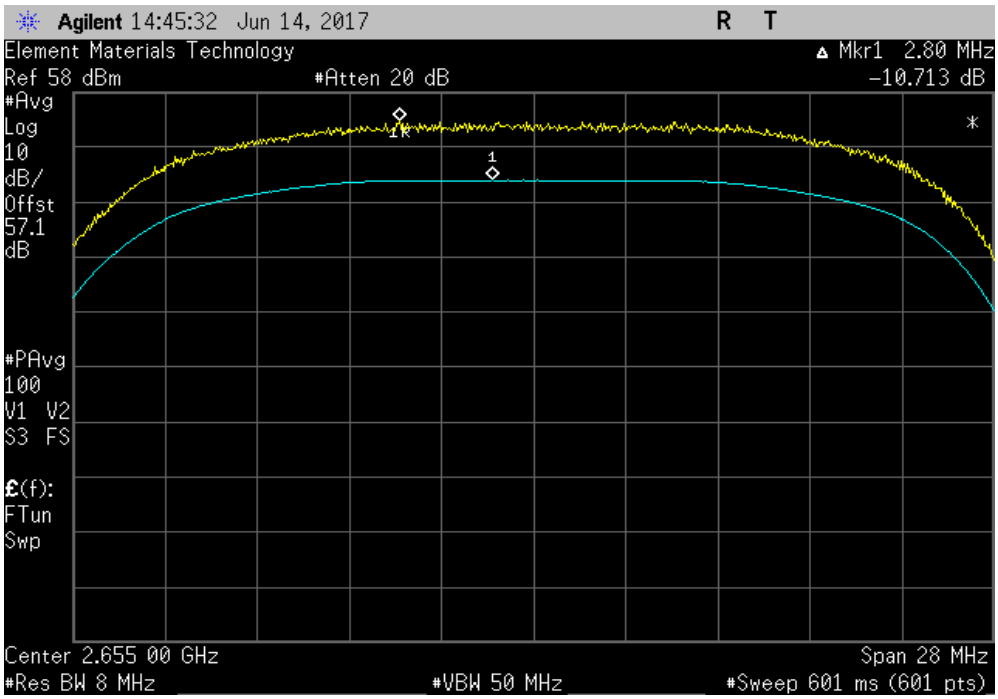
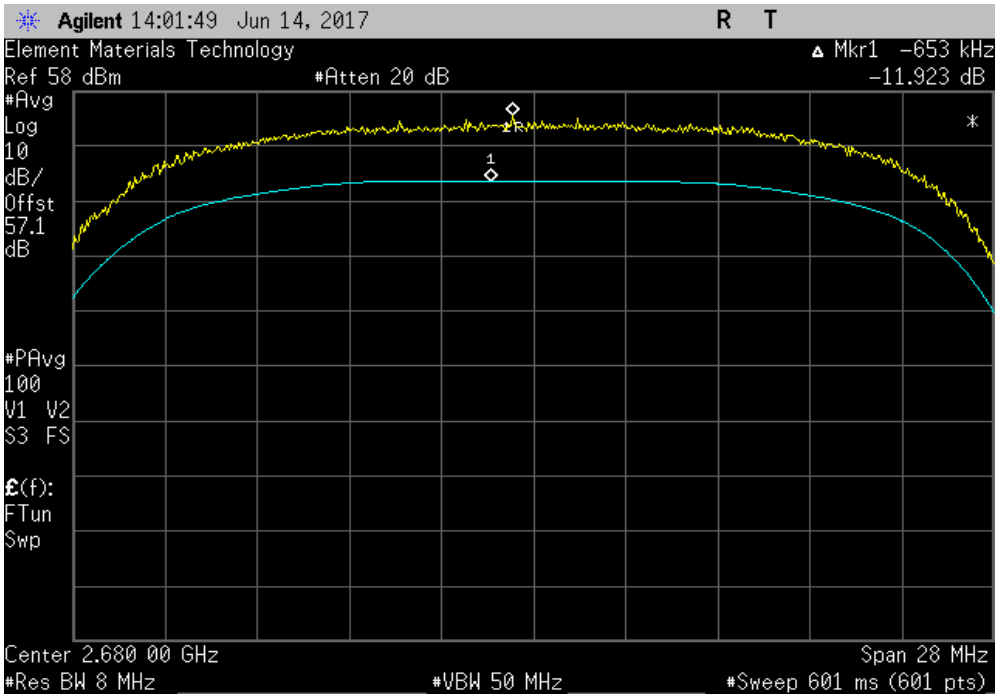
Antenna Port 2, Mid Channel LTE20, 2655 MHz						
				Value (dB)	Limit < (dB)	Results
				10.713	13	Pass



Antenna Port 2, High Channel LTE20, 2680 MHz						
				Value (dB)	Limit < (dB)	Results
				11.923	13	Pass



FREQUENCY STABILITY

XMit 2017.02.08

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
Thermometer	Omega Engineering, Inc.	HH311	DUC	10/3/2014	10/3/2017
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPHS-32-3.5-SCT/AC	TBE	NCR	NCR
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer

Measurements were made at the edges of the main transmit bands as called out on the data sheets. Testing was done with an absence of modulation in a CW mode of operation.

The primary supply voltage was varied from 85 % to 115% of the nominal voltage Using a temperature chamber, the transmit frequency was recorded at the extremes of the specified temperature range (-30 ° to +50° C) and at 10°C intervals.

Per the requirements of FCC Part 27.54:

“The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.”

No specific limits are provided in either FCC 27.54, the product specific rule part, or FCC 2.1055, the equipment authorization procedure for testing frequency stability. While there are no limits called out, any results less than 1ppm will still allow the radio to be operating within the band.

FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.

DEVIATIONS FROM TEST STANDARD

None

Configuration #	1	Signature

		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
Port 1						
	Normal Temperature and Voltage					
	High Channel , 2687.5 MHz	2687.501208	2687.5	0.5	1	Pass
	Mid Channel, 2655 MHz	2655.00027	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500256	2622.5	0.1	1	Pass
	Extreme Voltage, 55.2 VDC					
	High Channel , 2687.5 MHz	2687.500257	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.001174	2655	0.4	1	Pass
	Low Channel, 2622.5 MHz	2622.500272	2622.5	0.1	1	Pass
	Extreme Voltage, 40.8 VAC					
	High Channel , 2687.5 MHz	2687.501241	2687.5	0.5	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.501157	2622.5	0.4	1	Pass
	Extreme Temperature, -30°C					
	High Channel , 2687.5 MHz	2687.500037	2687.5	0	1	Pass
	Mid Channel, 2655 MHz	2655.000003	2655	0	1	Pass
	Low Channel, 2622.5 MHz	2622.499986	2622.5	0	1	Pass
	Extreme Temperature, -20°C					
	High Channel , 2687.5 MHz	2687.500257	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.00024	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500239	2622.5	0.1	1	Pass
	Extreme Temperature, -10°C					
	High Channel , 2687.5 MHz	2687.500541	2687.5	0.2	1	Pass
	Mid Channel, 2655 MHz	2655.000524	2655	0.2	1	Pass
	Low Channel, 2622.5 MHz	2622.500506	2622.5	0.2	1	Pass
	Extreme Temperature, 0°C					
	High Channel , 2687.5 MHz	2687.500824	2687.5	0.3	1	Pass
	Mid Channel, 2655 MHz	2655.000808	2655	0.3	1	Pass
	Low Channel, 2622.5 MHz	2622.500806	2622.5	0.3	1	Pass
	Extreme Temperature, +10°C					
	High Channel , 2687.5 MHz	2687.501021	2687.5	0.4	1	Pass
	Mid Channel, 2655 MHz	2655.001008	2655	0.4	1	Pass
	Low Channel, 2622.5 MHz	2622.500106	2622.5	0	1	Pass
	Extreme Temperature, +20°C					
	High Channel , 2687.5 MHz	2687.500288	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500036	2622.5	0	1	Pass
	Extreme Temperature, +30°C					
	High Channel , 2687.5 MHz	2687.501124	2687.5	0.4	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500256	2622.5	0.1	1	Pass
	Extreme Temperature, +40°C					
	High Channel , 2687.5 MHz	2687.500274	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000274	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.50027	2622.5	0.1	1	Pass
	Extreme Temperature, +50°C					
	High Channel , 2687.5 MHz	2687.500274	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500256	2622.5	0.1	1	Pass
Port 2						
	Normal Temperature and Voltage					
	High Channel , 2687.5 MHz	2687.500271	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500273	2622.5	0.1	1	Pass
	Extreme Voltage, 55.2 VDC					
	High Channel , 2687.5 MHz	2687.500257	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500289	2622.5	0.1	1	Pass
	Extreme Voltage, 40.8 VAC					
	High Channel , 2687.5 MHz	2687.500274	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000274	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.499922	2622.5	0	1	Pass
	Extreme Temperature, -30°C					
	High Channel , 2687.5 MHz	2687.499954	2687.5	0	1	Pass
	Mid Channel, 2655 MHz	2654.999953	2655	0	1	Pass
	Low Channel, 2622.5 MHz	2622.499953	2622.5	0	1	Pass
	Extreme Temperature, -20°C					
	High Channel , 2687.5 MHz	2687.500307	2687.5	0.1	1	Pass
	Mid Channel, 2655 MHz	2655.000257	2655	0.1	1	Pass
	Low Channel, 2622.5 MHz	2622.500256	2622.5	0.1	1	Pass
	Extreme Temperature, -10°C					
	High Channel , 2687.5 MHz	2687.500507	2687.5	0.2	1	Pass
	Mid Channel, 2655 MHz	2655.000491	2655	0.2	1	Pass
	Low Channel, 2622.5 MHz	2622.500473	2622.5	0.2	1	Pass
	Extreme Temperature, 0°C					
	High Channel , 2687.5 MHz	2687.500807	2687.5	0.3	1	Pass
	Mid Channel, 2655 MHz	2655.000791	2655	0.3	1	Pass

	Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
Low Channel, 2622.5 MHz	2622.500789	2622.5	0.3	1	Pass
Extreme Temperature, +10°C					
High Channel , 2687.5 MHz	2687.501024	2687.5	0.4	1	Pass
Mid Channel, 2655 MHz	2655.001008	2655	0.4	1	Pass
Low Channel, 2622.5 MHz	2622.501004	2622.5	0.4	1	Pass
Extreme Temperature, +20°C					
High Channel , 2687.5 MHz	2687.501091	2687.5	0.4	1	Pass
Mid Channel, 2655 MHz	2655.001074	2655	0.4	1	Pass
Low Channel, 2622.5 MHz	2622.500273	2622.5	0.1	1	Pass
Extreme Temperature, +30°C					
High Channel , 2687.5 MHz	2687.500257	2687.5	0.1	1	Pass
Mid Channel, 2655 MHz	2655.00027	2655	0.1	1	Pass
Low Channel, 2622.5 MHz	2622.500173	2622.5	0.1	1	Pass
Extreme Temperature, +40°C					
High Channel , 2687.5 MHz	2687.500257	2687.5	0.1	1	Pass
Mid Channel, 2655 MHz	2655.000274	2655	0.1	1	Pass
Low Channel, 2622.5 MHz	2622.500254	2622.5	0.1	1	Pass
Extreme Temperature, +50°C					
High Channel , 2687.5 MHz	2687.500274	2687.5	0.1	1	Pass
Mid Channel, 2655 MHz	2655.000274	2655	0.1	1	Pass
Low Channel, 2622.5 MHz	2622.500287	2622.5	0.1	1	Pass

FREQUENCY STABILITY

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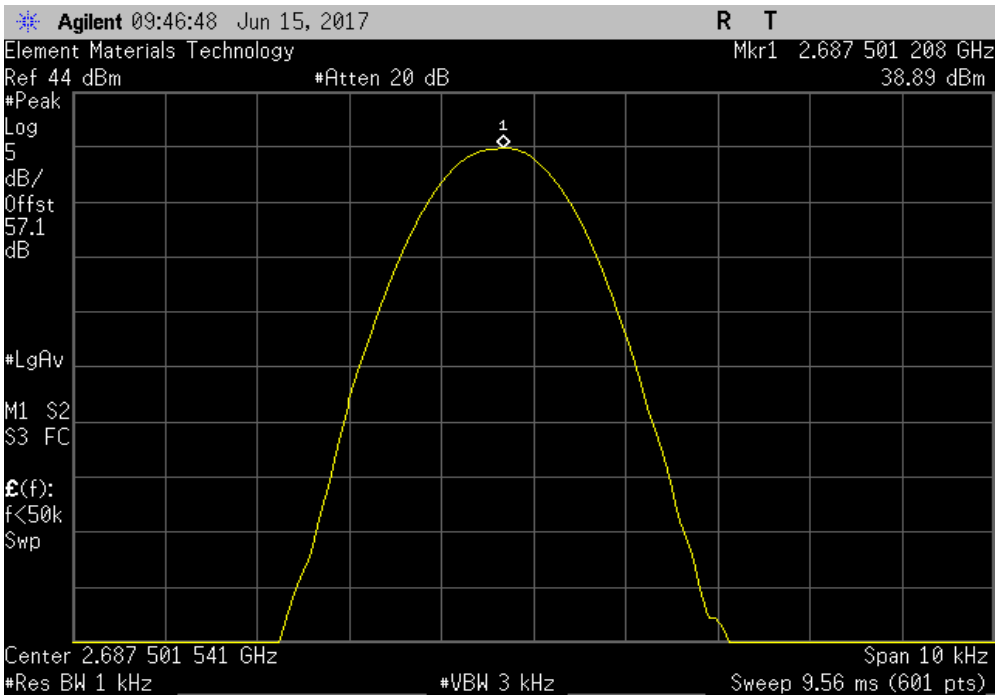
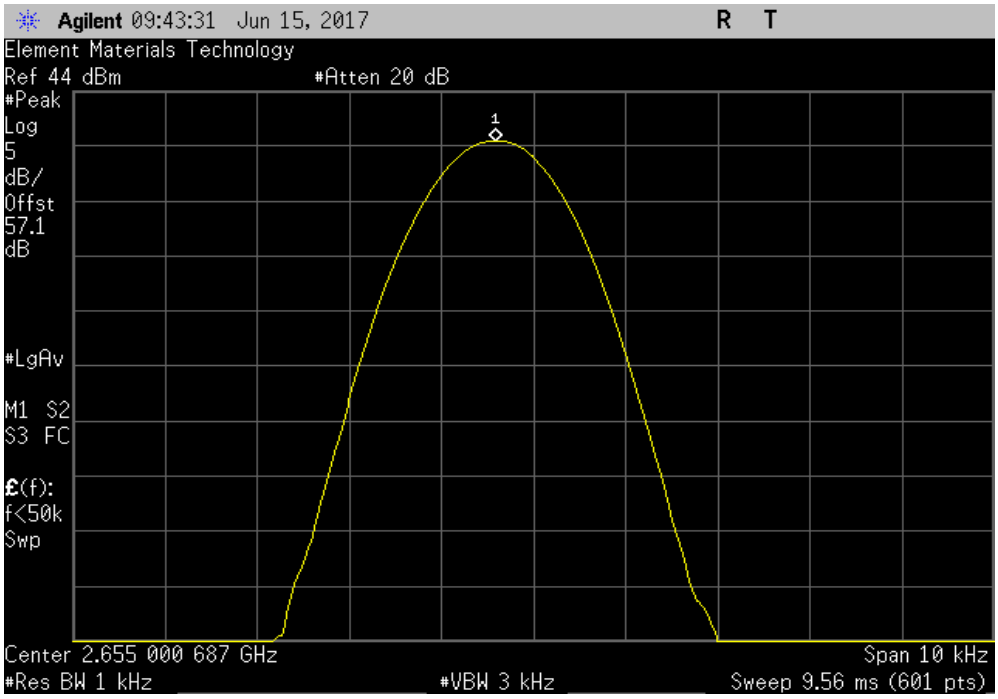
Port 1, Normal Temperature and Voltage, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501208	2687.5	0.5	1	Pass



Port 1, Normal Temperature and Voltage, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.00027	2655	0.1	1	Pass



FREQUENCY STABILITY

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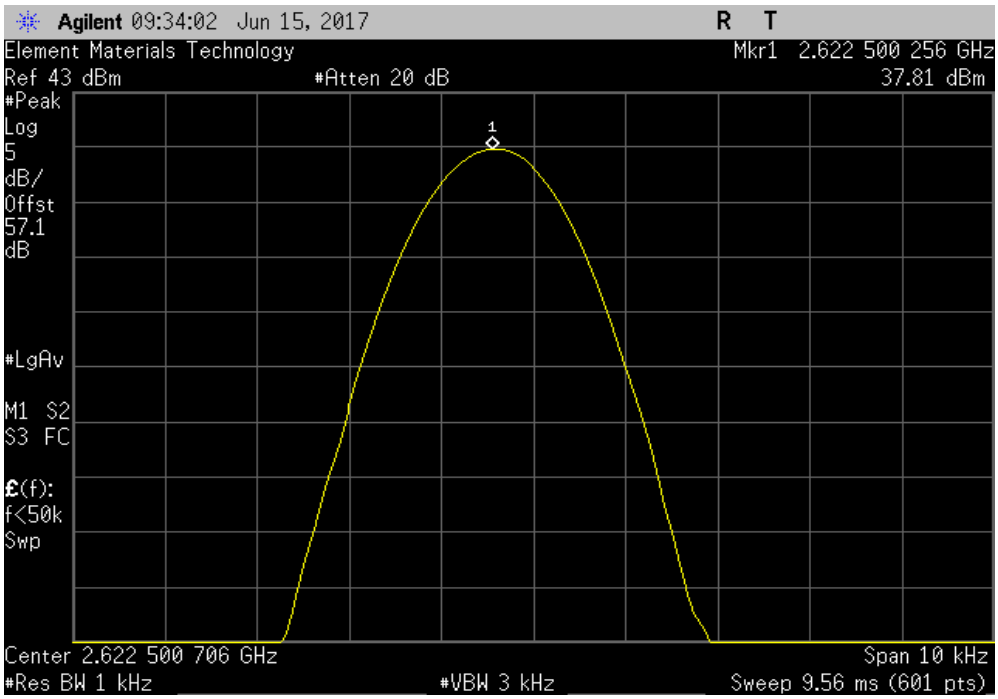
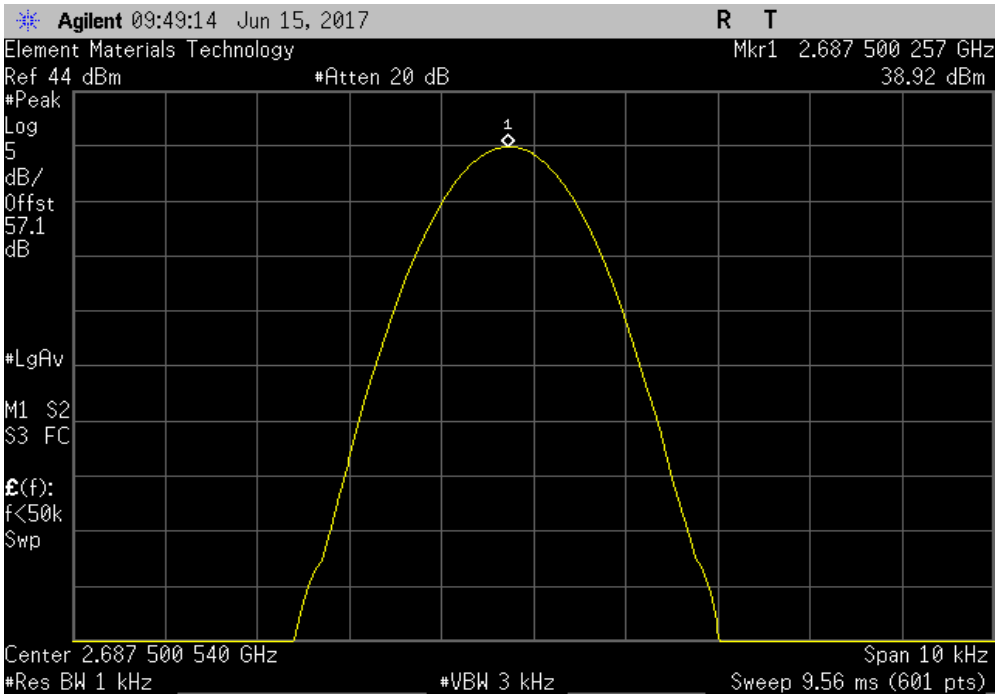
Port 1, Normal Temperature and Voltage, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500256	2622.5	0.1	1	Pass

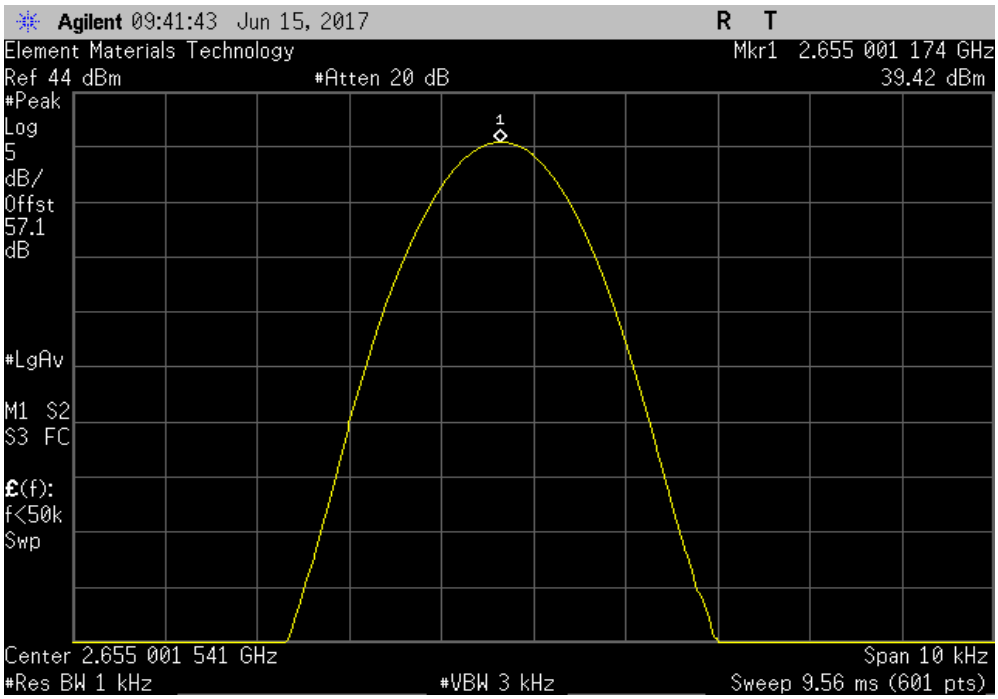


Port 1, Extreme Voltage, 55.2 VDC, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500257	2687.5	0.1	1	Pass

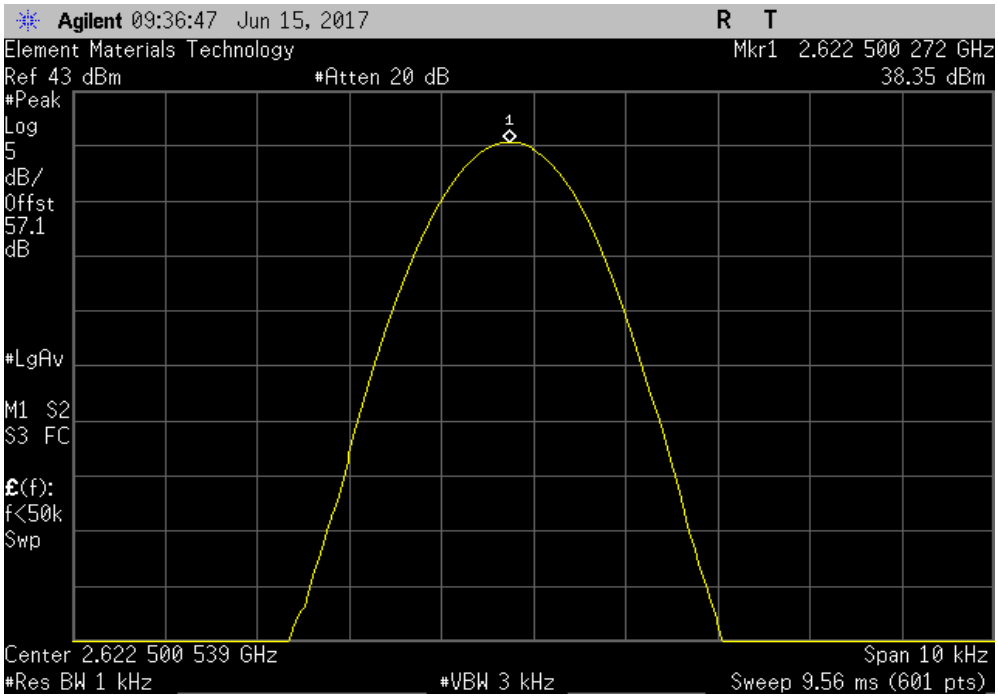


FREQUENCY STABILITY

Port 1, Extreme Voltage, 55.2 VDC, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.001174	2655	0.4	1	Pass

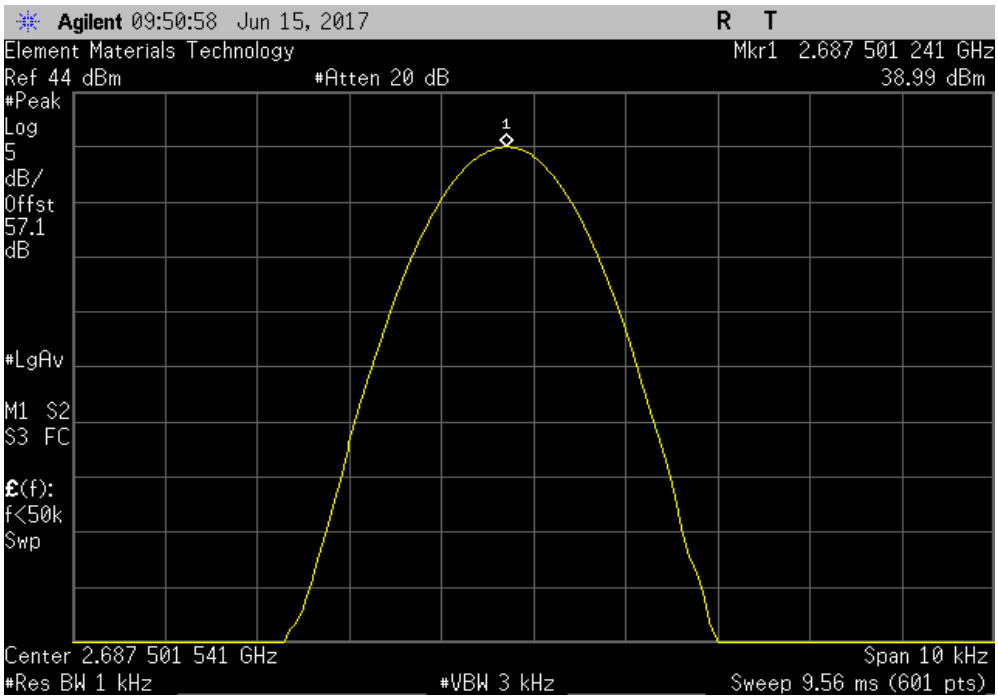


Port 1, Extreme Voltage, 55.2 VDC, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500272	2622.5	0.1	1	Pass

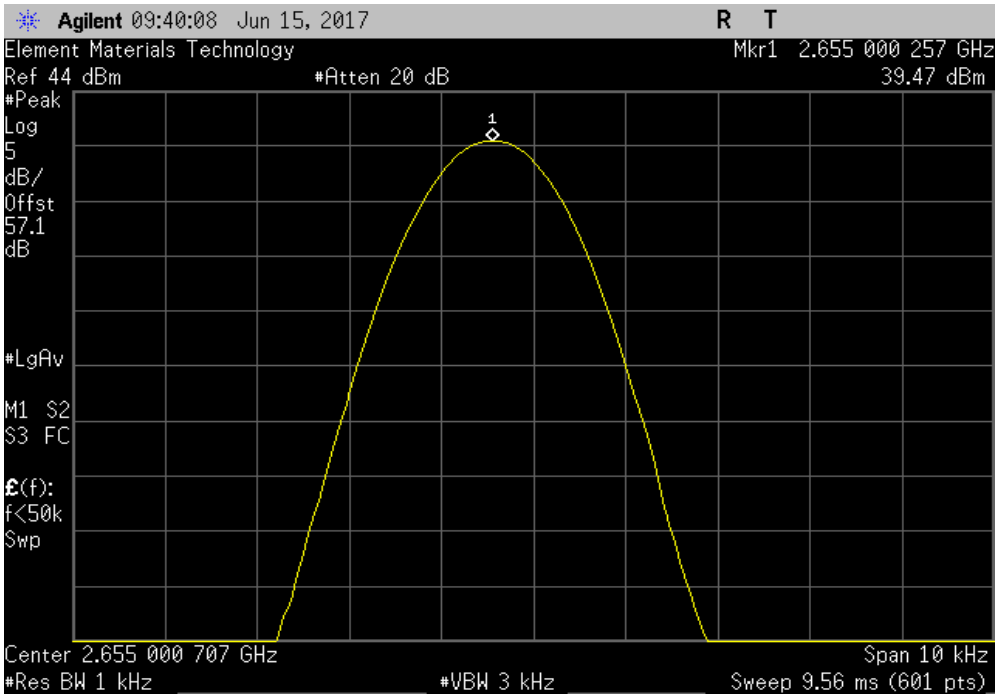


FREQUENCY STABILITY

Port 1, Extreme Voltage, 40.8 VAC, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501241	2687.5	0.5	1	Pass

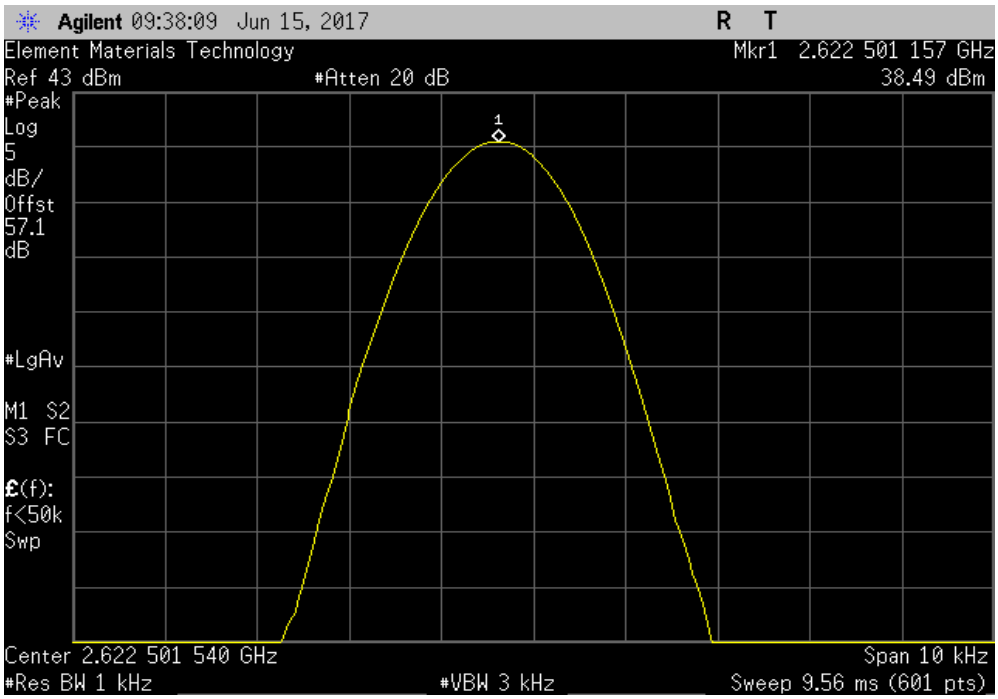


Port 1, Extreme Voltage, 40.8 VAC, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass

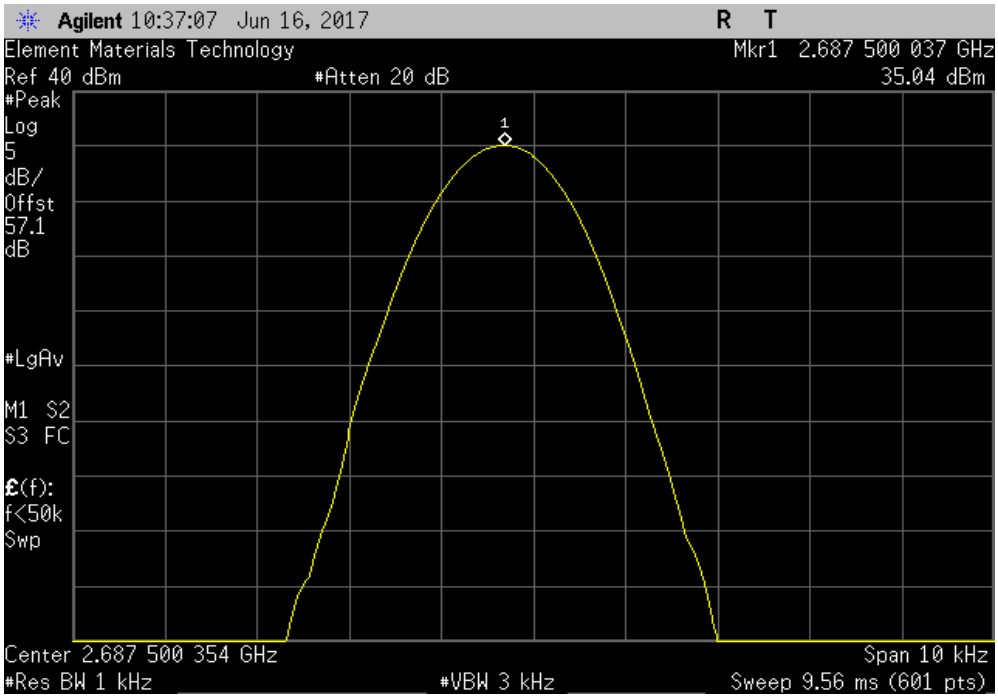


FREQUENCY STABILITY

Port 1, Extreme Voltage, 40.8 VAC, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.501157	2622.5	0.4	1	Pass



Port 1, Extreme Temperature, -30°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500037	2687.5	0	1	Pass



FREQUENCY STABILITY

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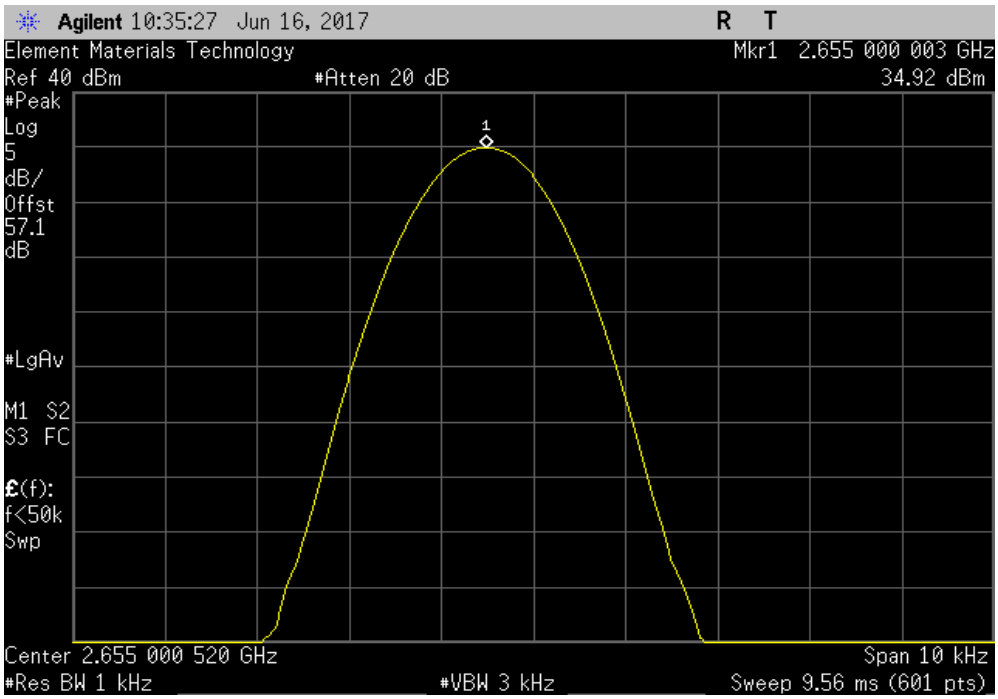
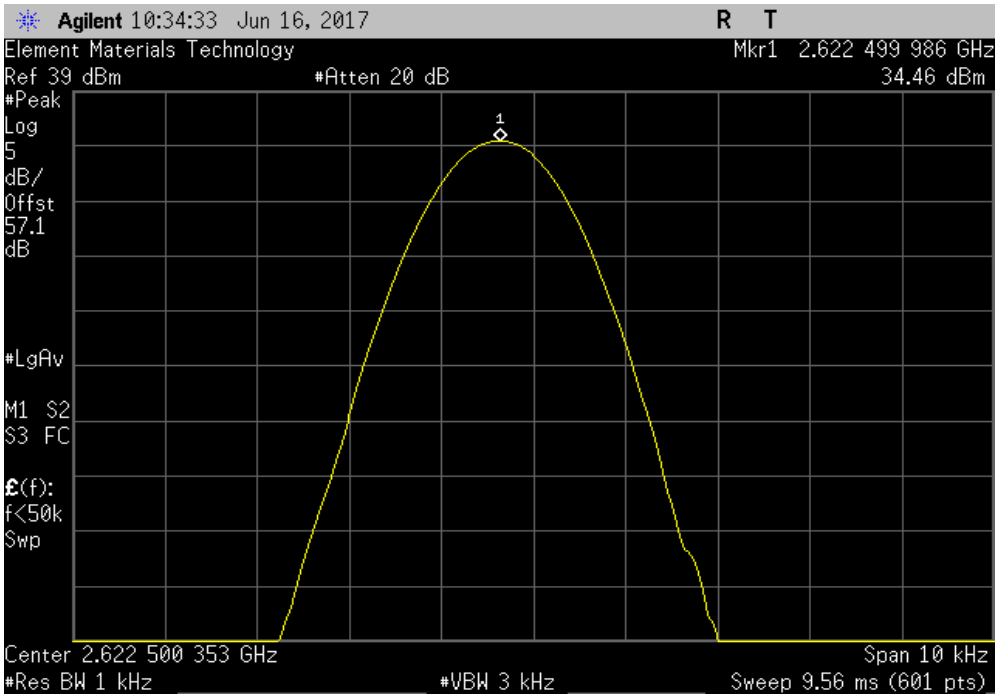
Port 1, Extreme Temperature, -30°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000003	2655	0	1	Pass



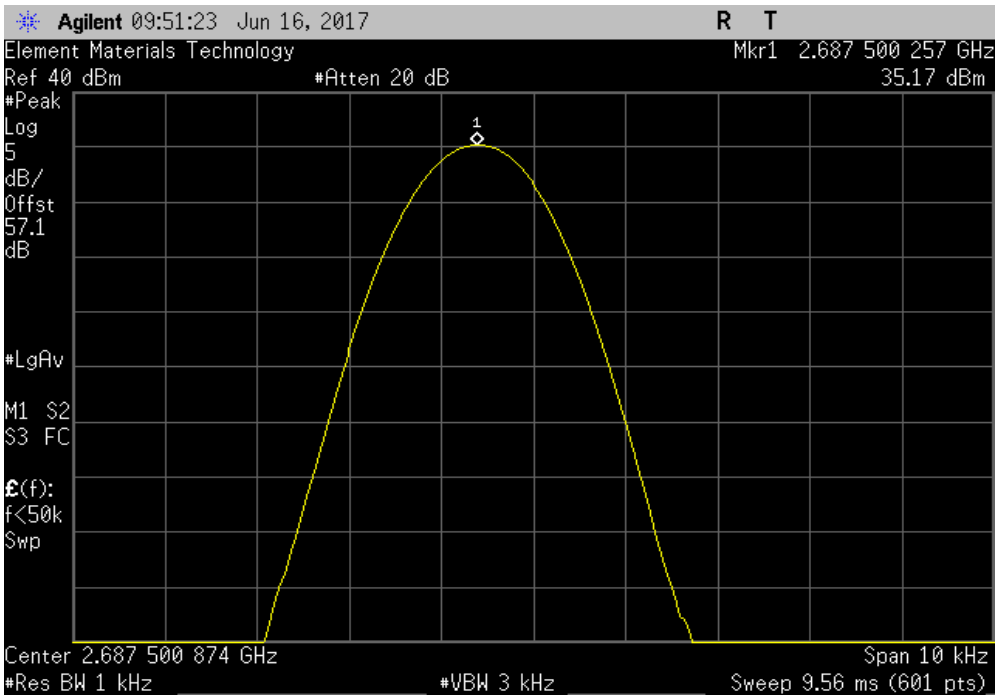
Port 1, Extreme Temperature, -30°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.499986	2622.5	0	1	Pass



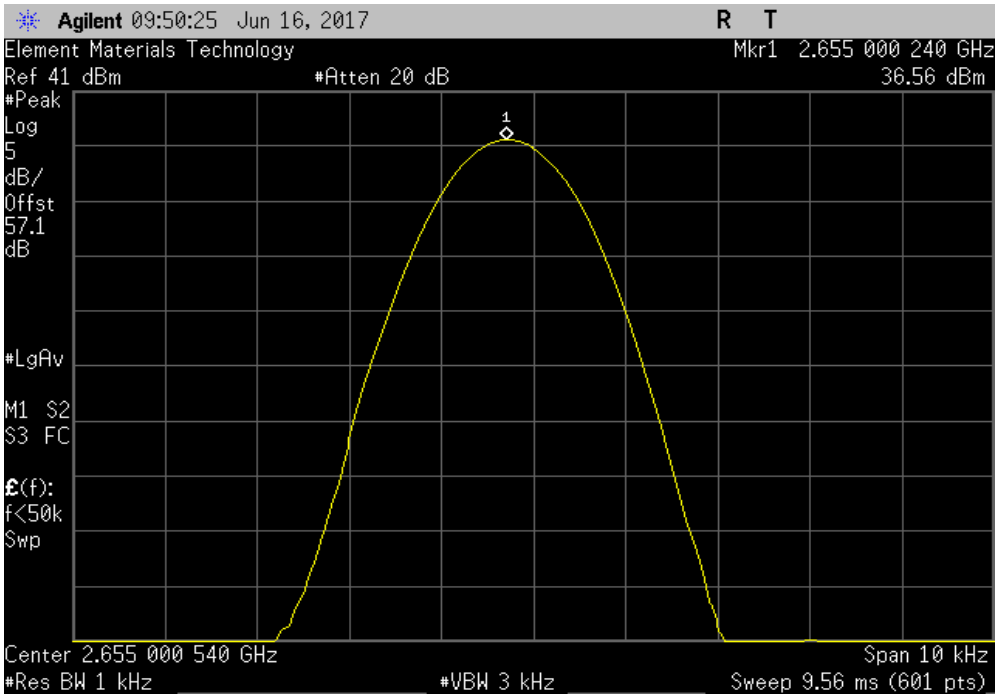
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, -20°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500257	2687.5	0.1	1	Pass



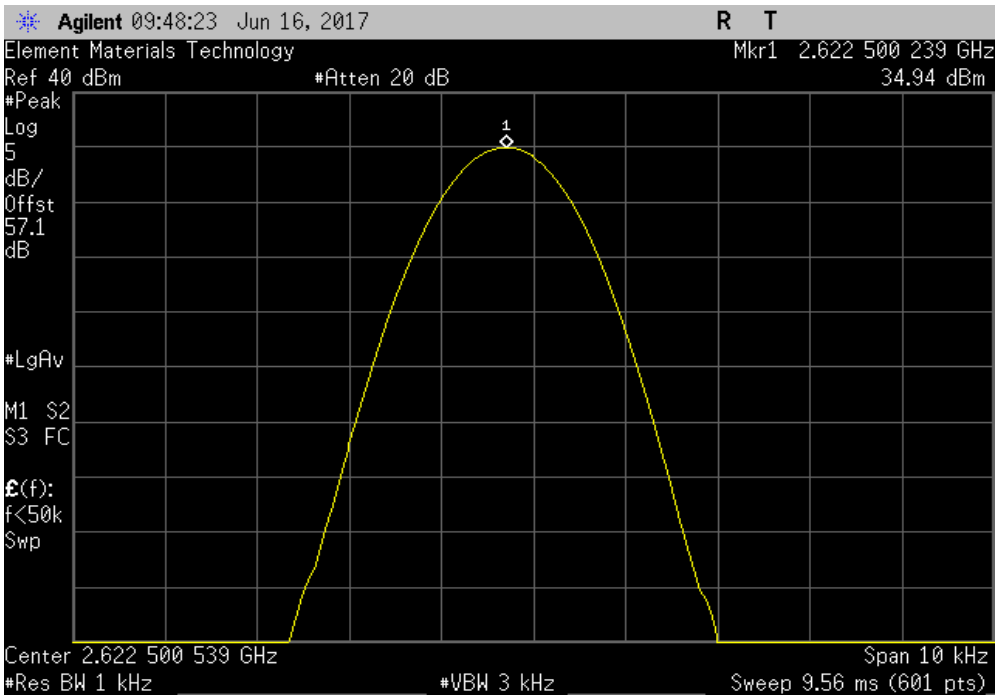
Port 1, Extreme Temperature, -20°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.00024	2655	0.1	1	Pass



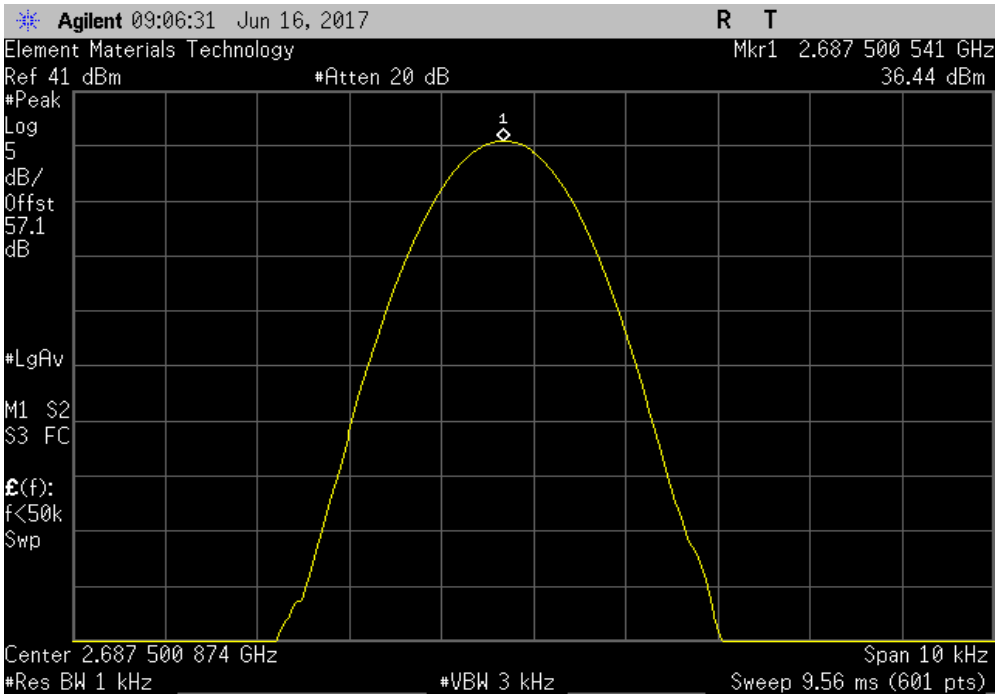
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, -20°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500239	2622.5	0.1	1	Pass



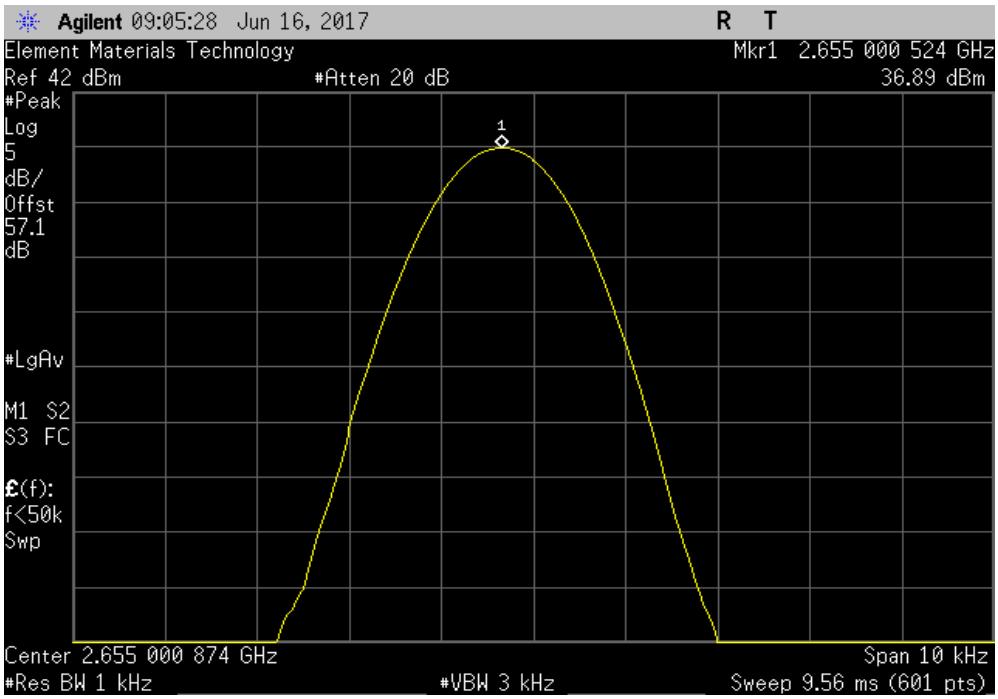
Port 1, Extreme Temperature, -10°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500541	2687.5	0.2	1	Pass



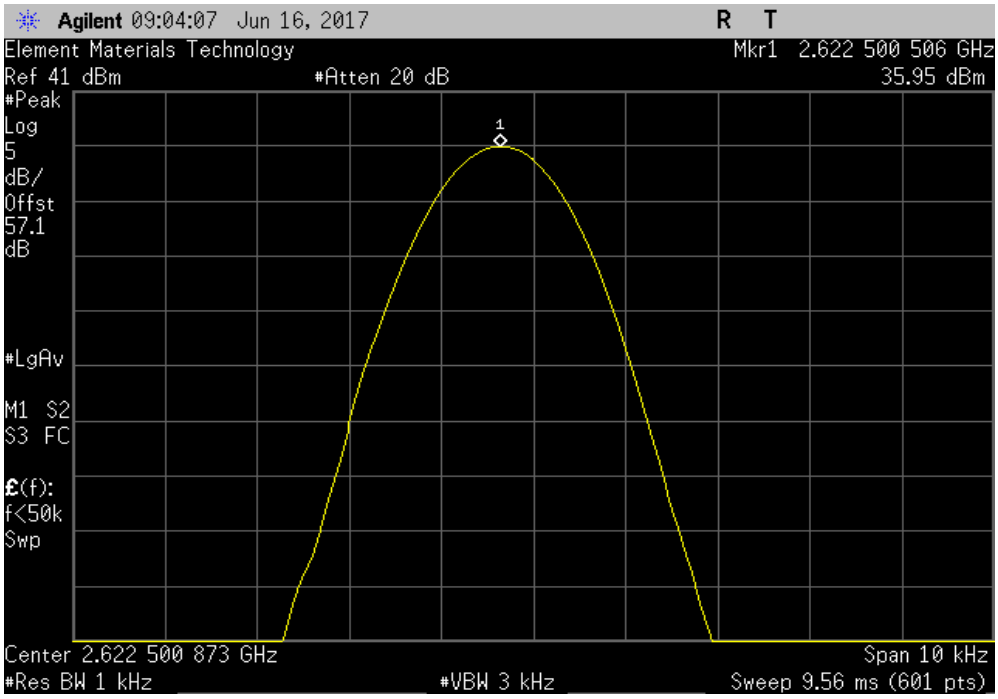
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, -10°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000524	2655	0.2	1	Pass



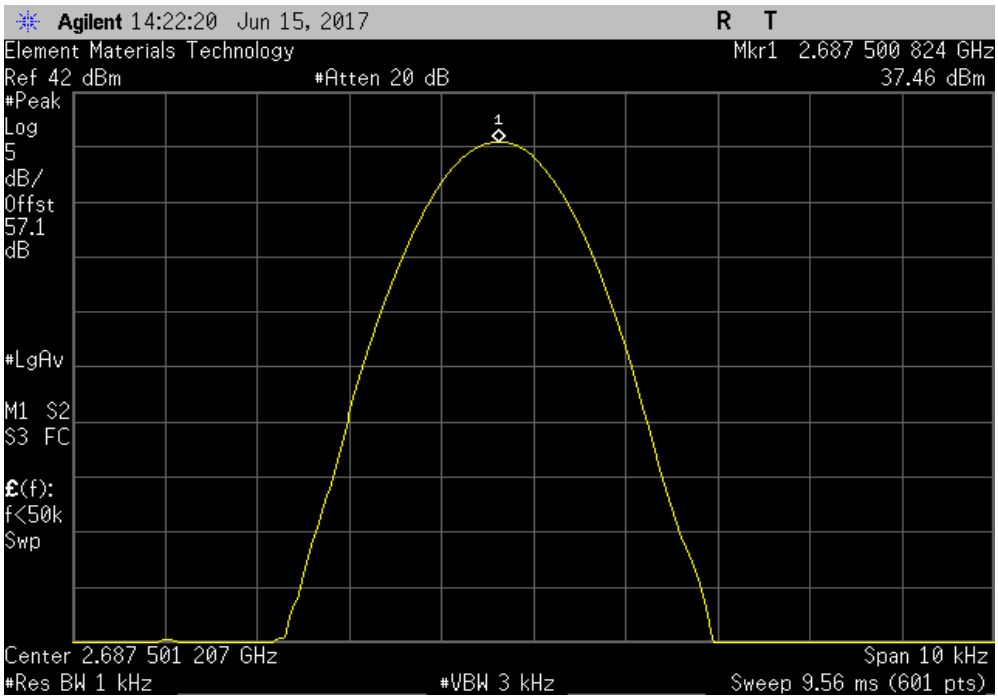
Port 1, Extreme Temperature, -10°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500506	2622.5	0.2	1	Pass



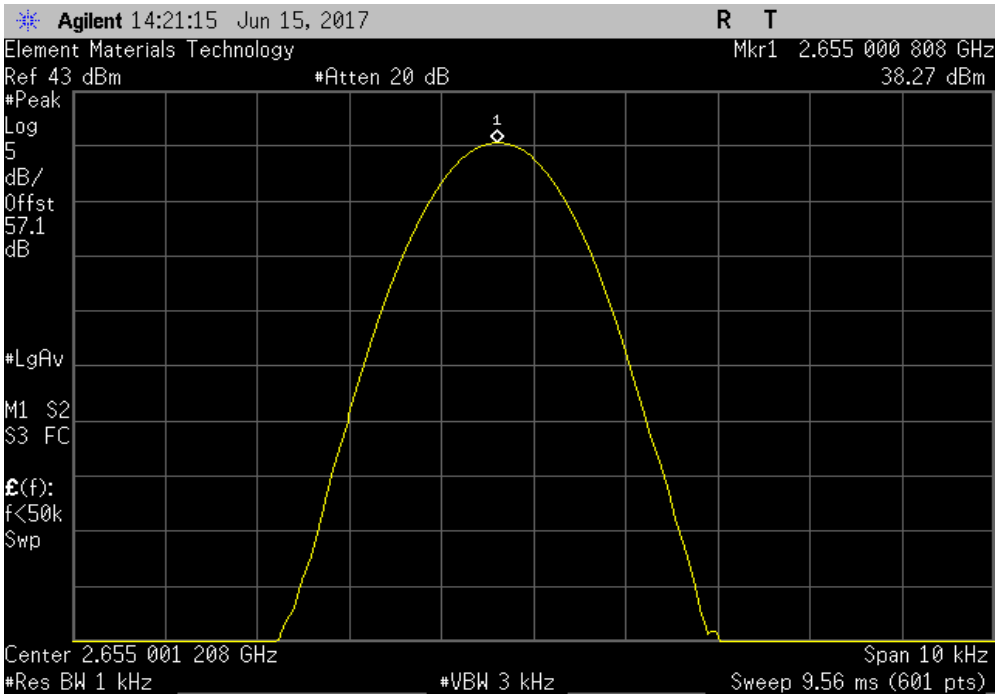
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, 0°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500824	2687.5	0.3	1	Pass

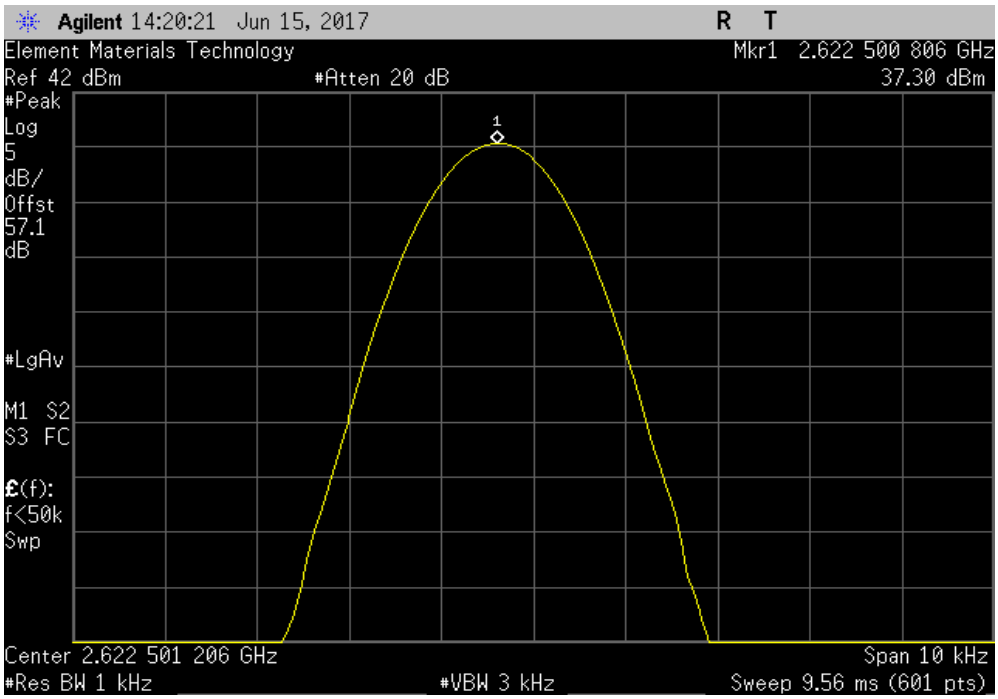


Port 1, Extreme Temperature, 0°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000808	2655	0.3	1	Pass

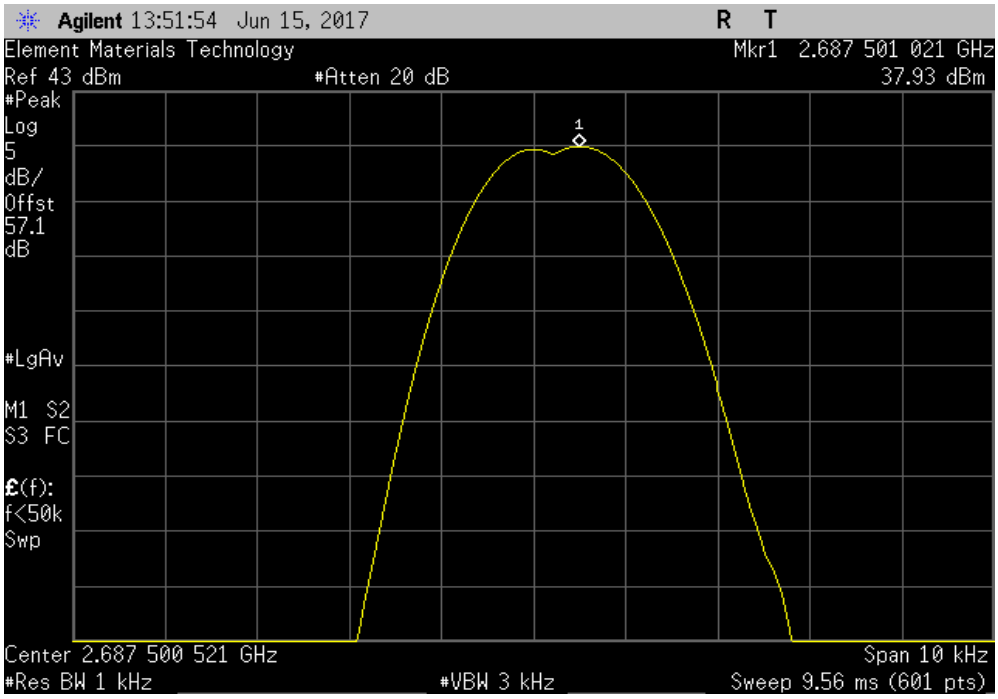


FREQUENCY STABILITY

Port 1, Extreme Temperature, 0°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500806	2622.5	0.3	1	Pass



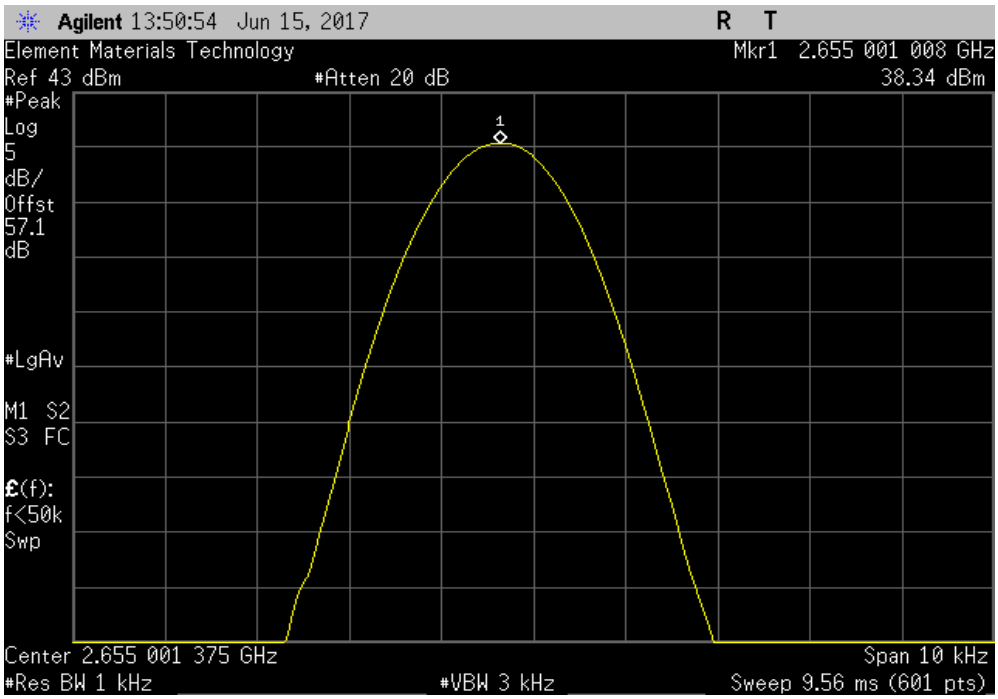
Port 1, Extreme Temperature, +10°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501021	2687.5	0.4	1	Pass



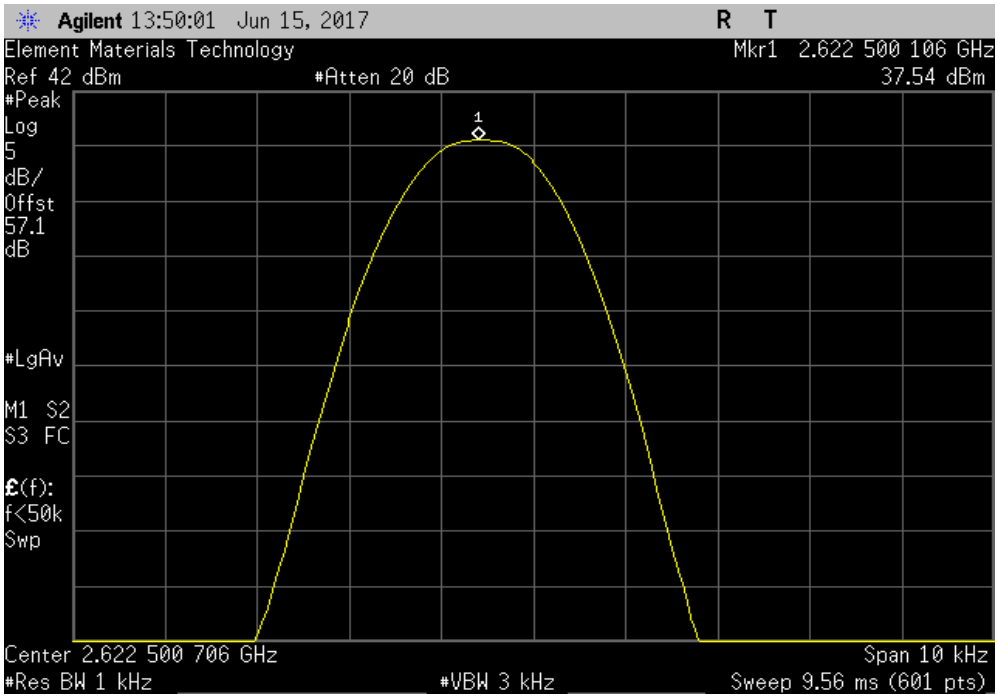
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +10°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.001008	2655	0.4	1	Pass



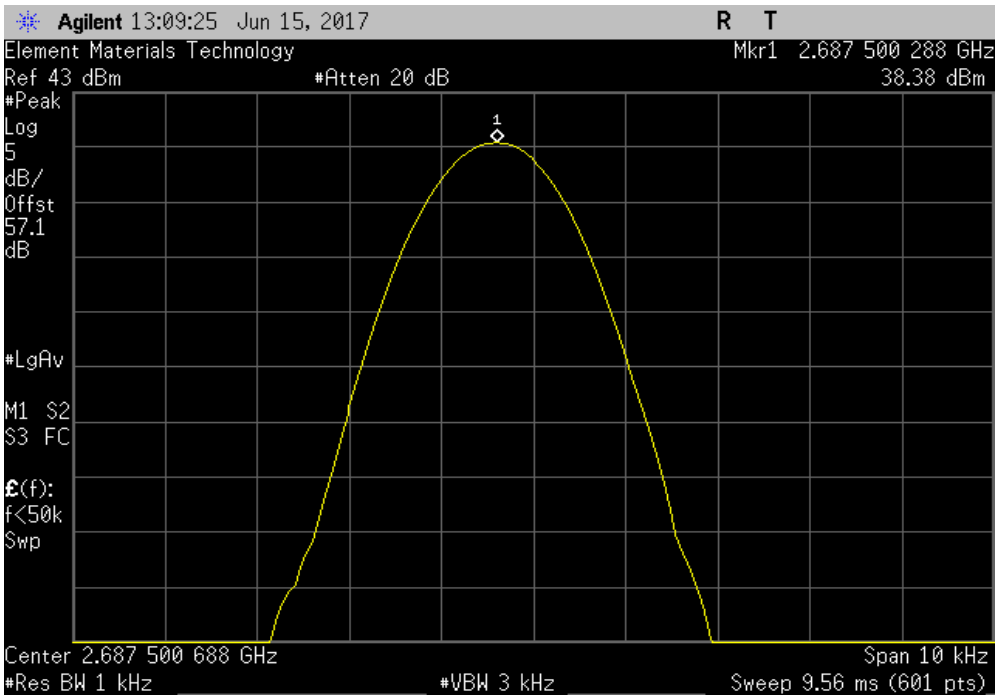
Port 1, Extreme Temperature, +10°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500106	2622.5	0	1	Pass



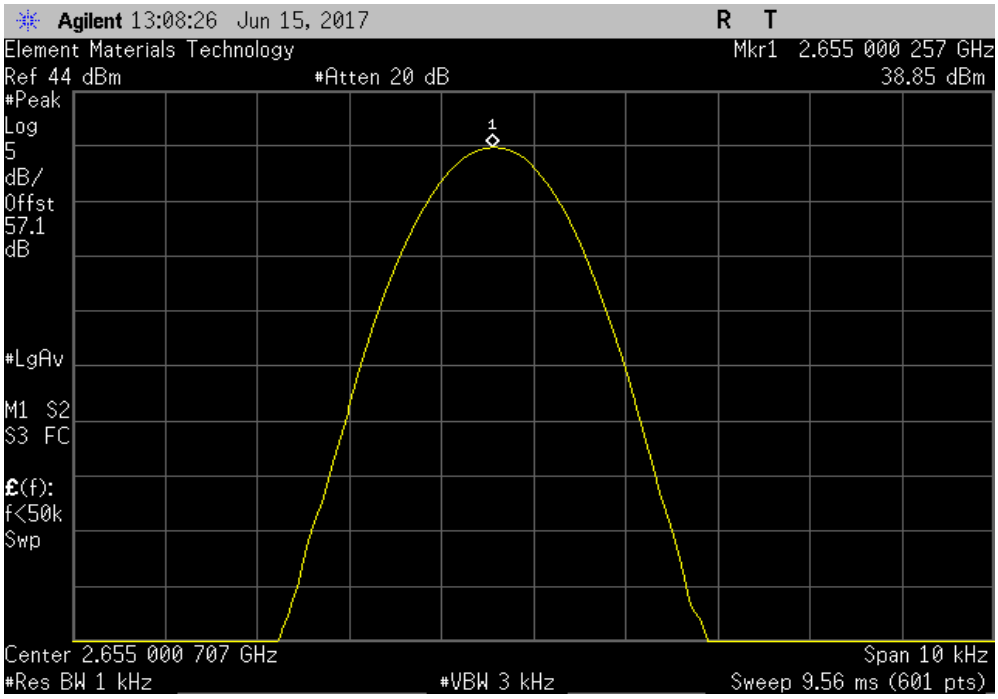
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +20°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500288	2687.5	0.1	1	Pass



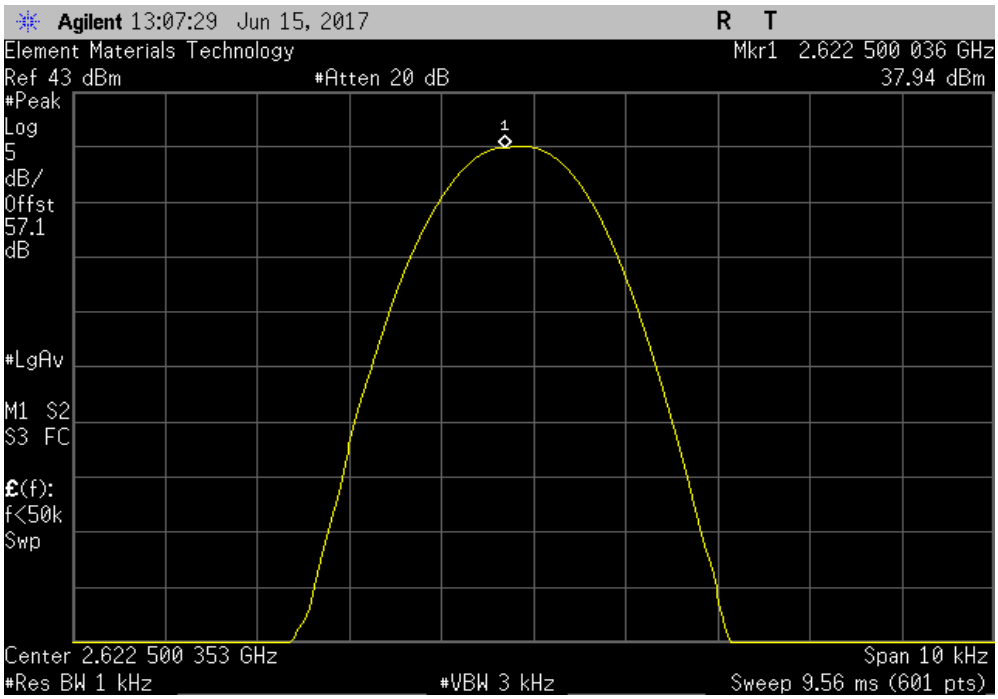
Port 1, Extreme Temperature, +20°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



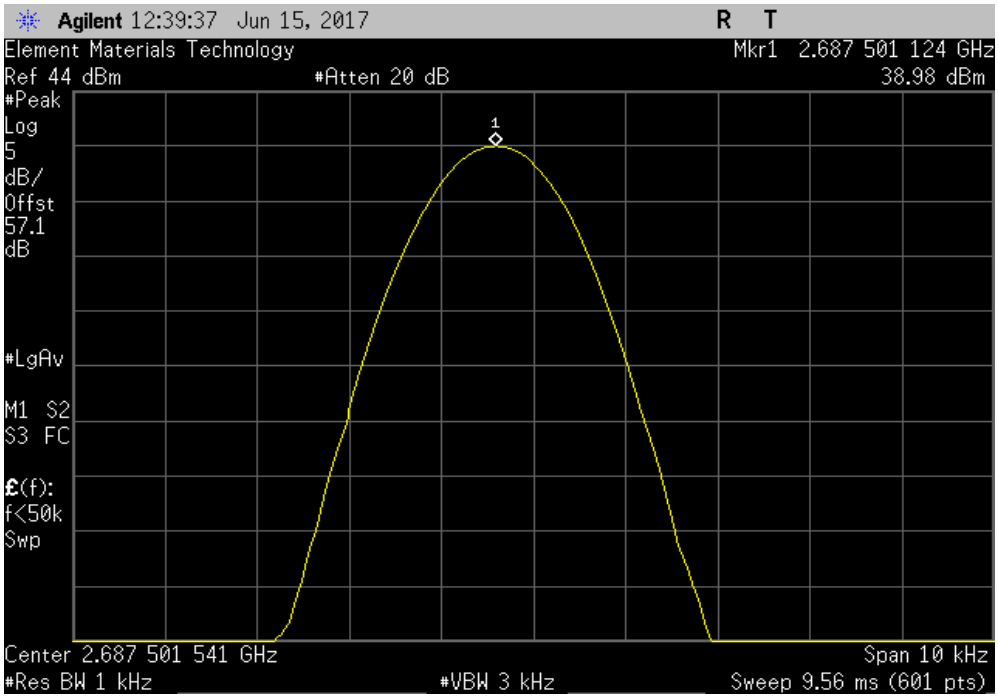
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +20°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500036	2622.5	0	1	Pass



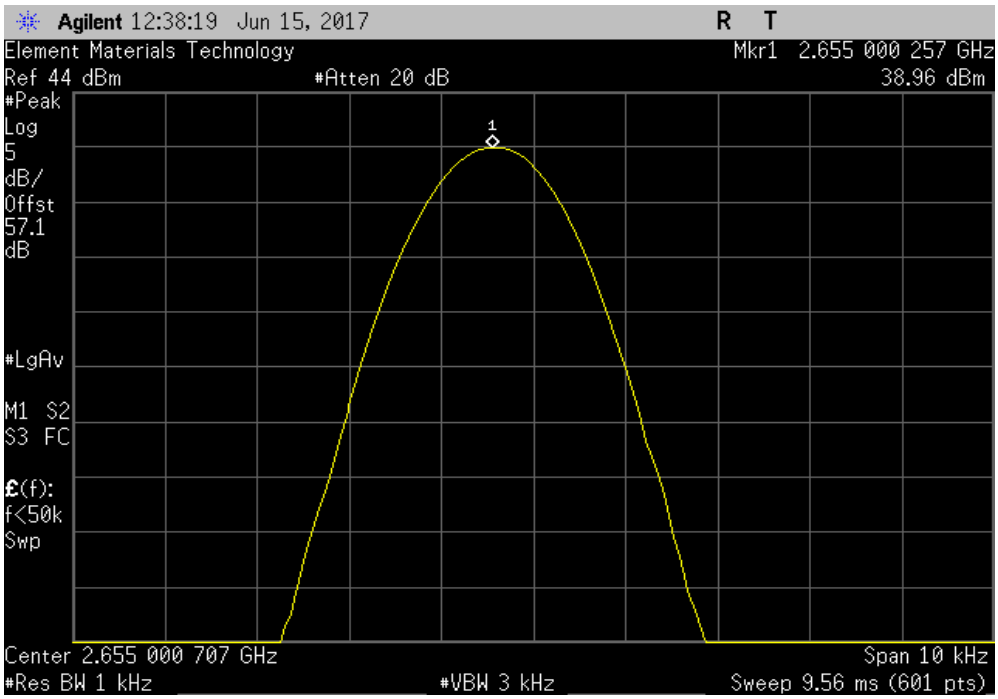
Port 1, Extreme Temperature, +30°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501124	2687.5	0.4	1	Pass



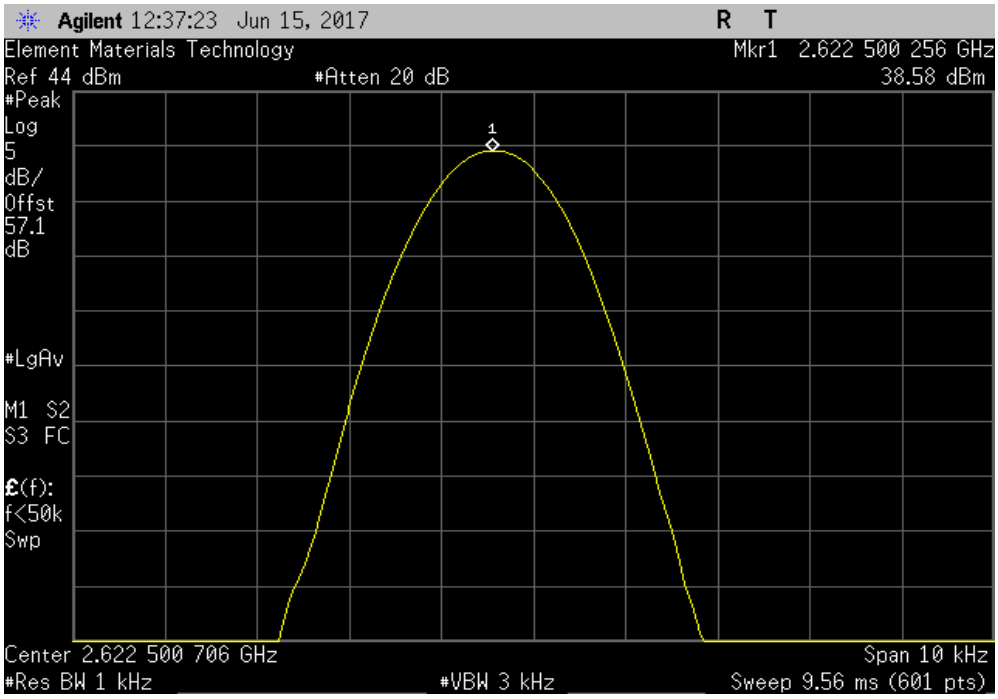
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +30°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



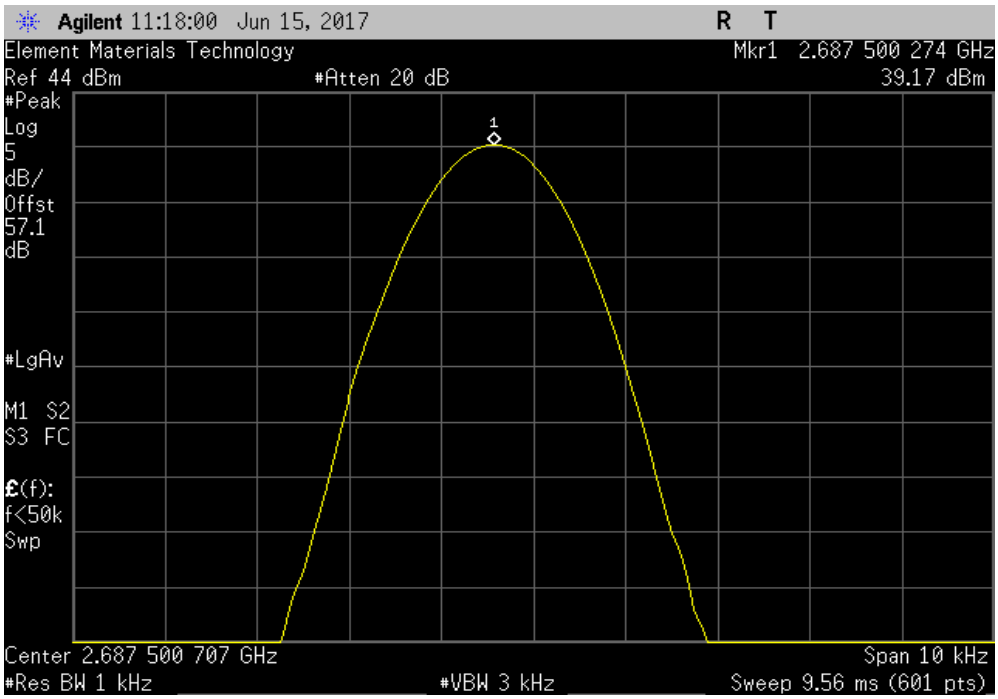
Port 1, Extreme Temperature, +30°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500256	2622.5	0.1	1	Pass



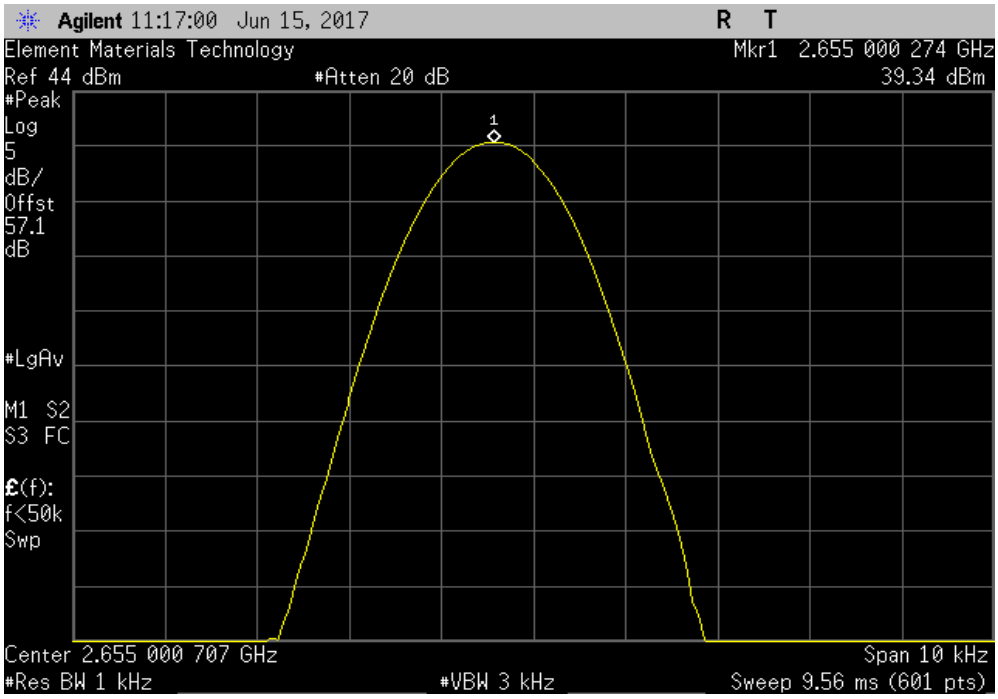
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +40°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500274	2687.5	0.1	1	Pass



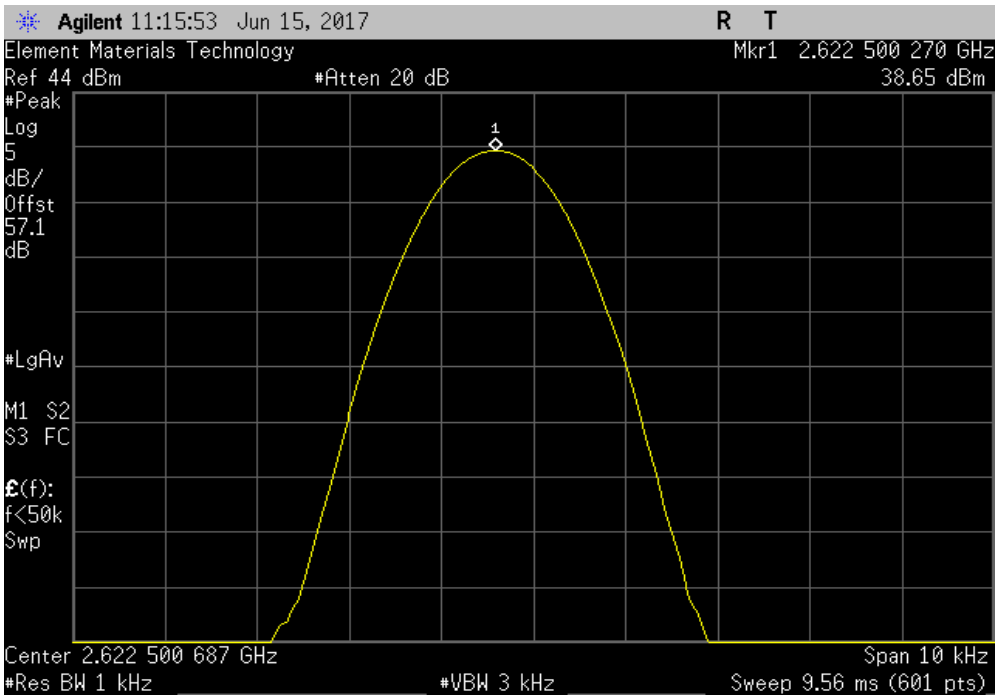
Port 1, Extreme Temperature, +40°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000274	2655	0.1	1	Pass



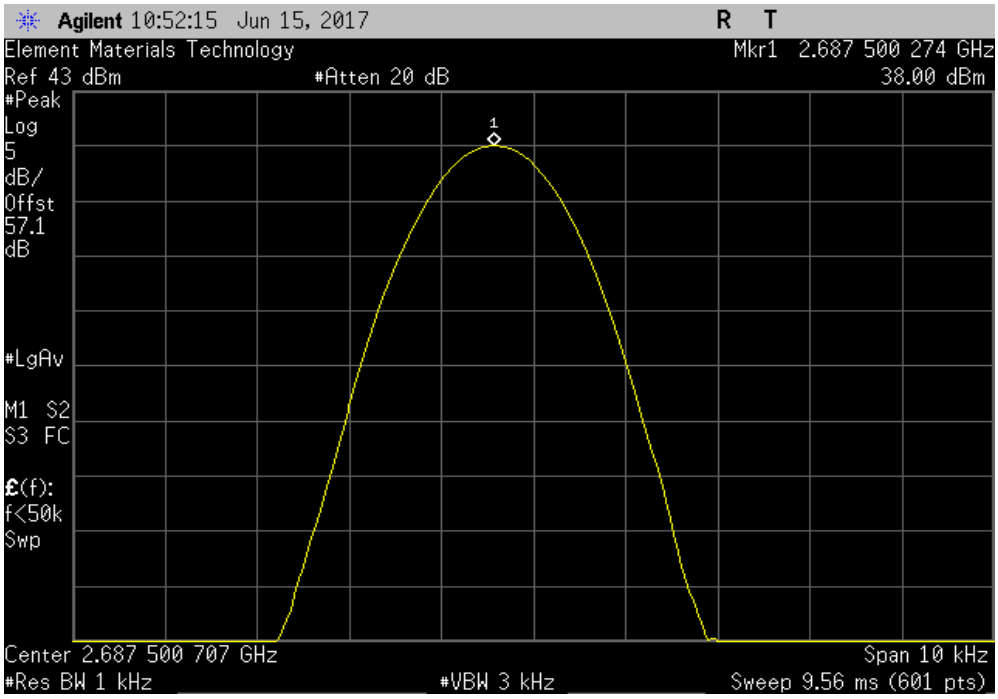
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +40°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.50027	2622.5	0.1	1	Pass



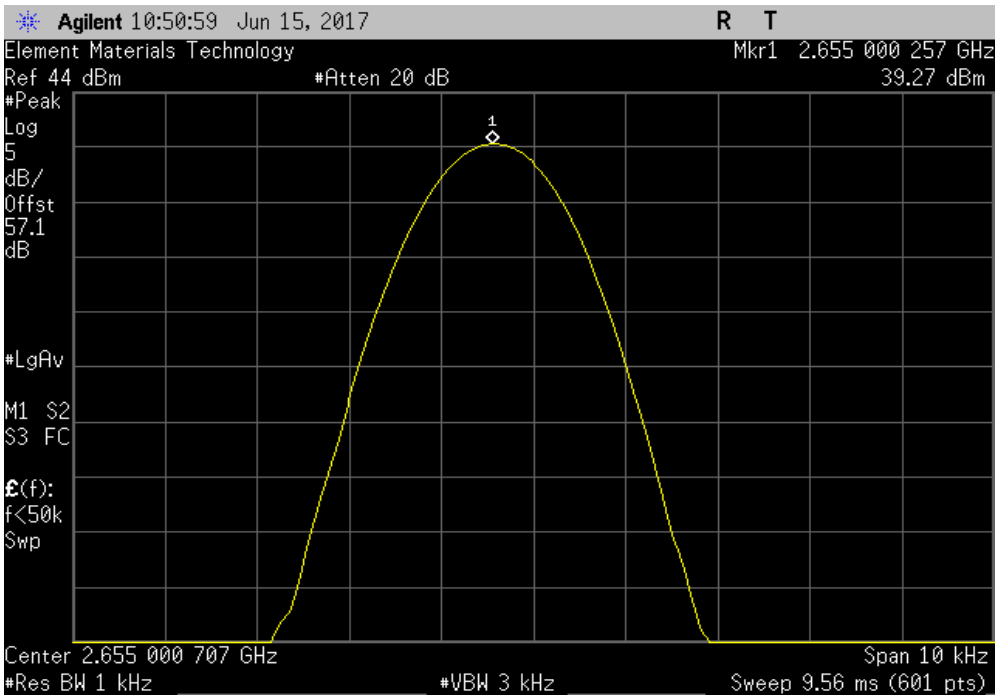
Port 1, Extreme Temperature, +50°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500274	2687.5	0.1	1	Pass



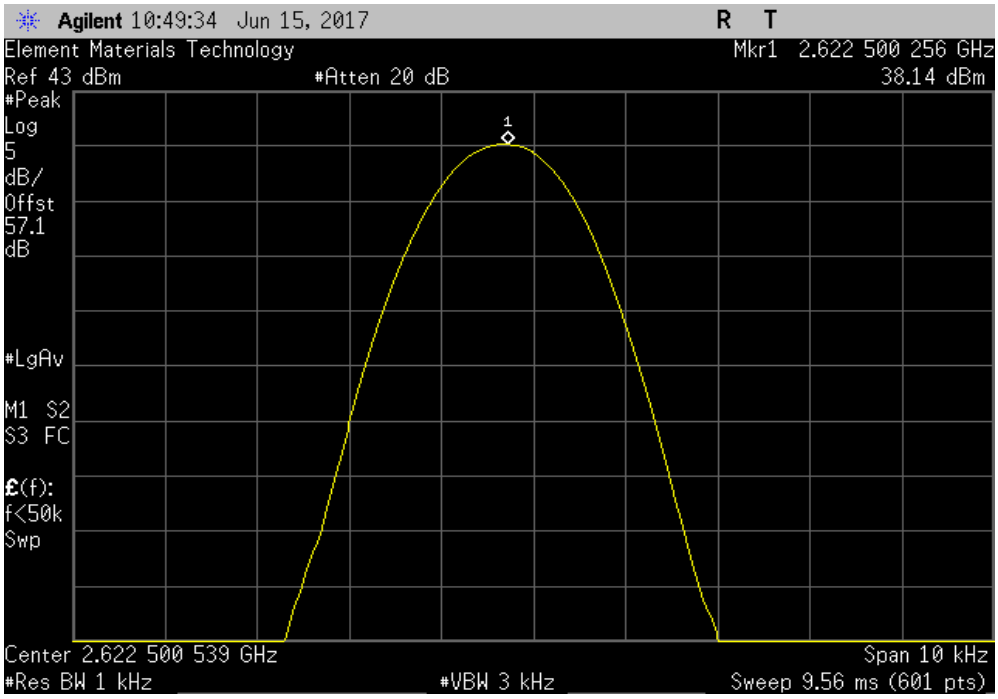
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 1, Extreme Temperature, +50°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



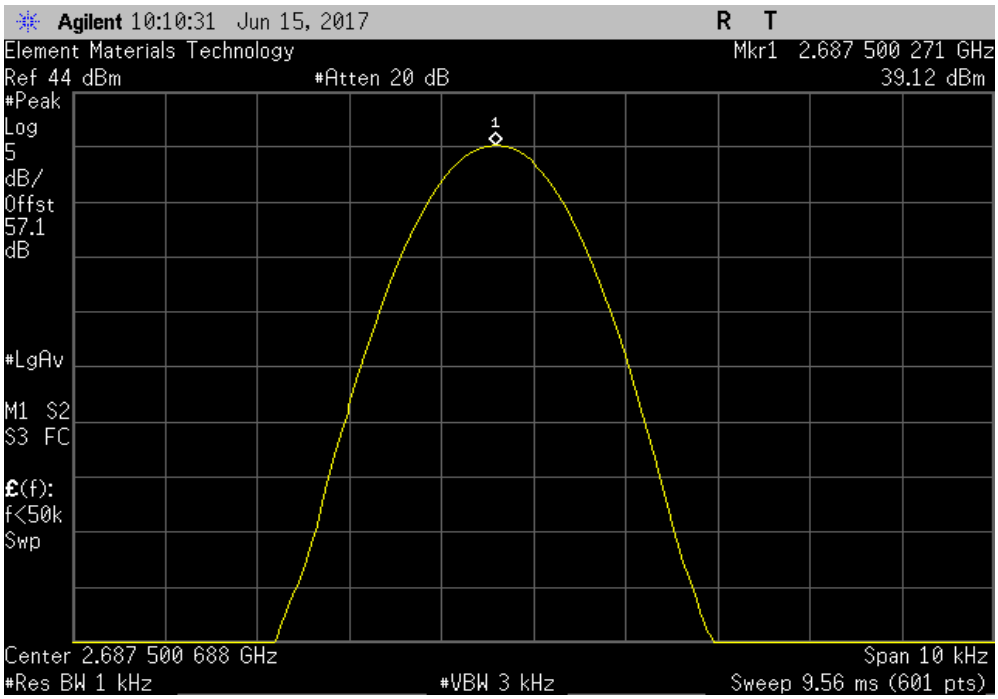
Port 1, Extreme Temperature, +50°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500256	2622.5	0.1	1	Pass



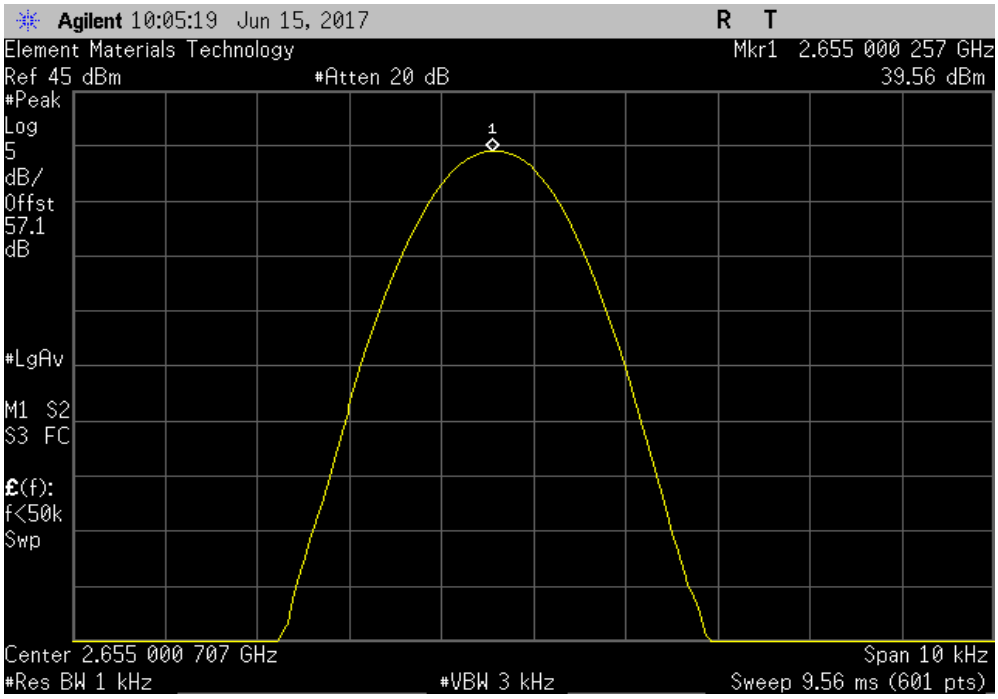
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Normal Temperature and Voltage, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500271	2687.5	0.1	1	Pass



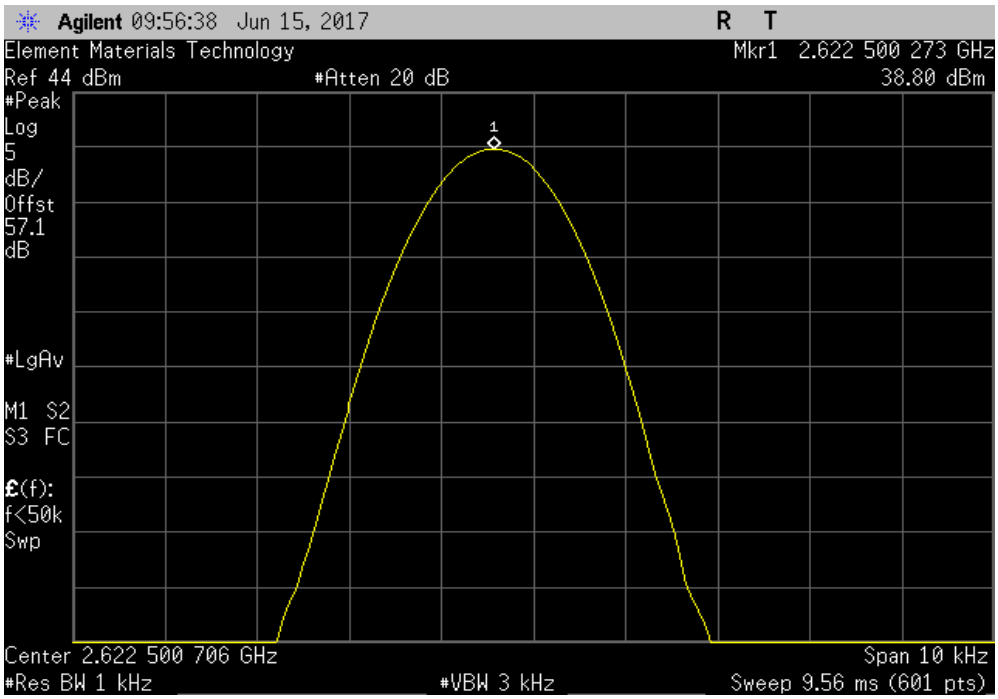
Port 2, Normal Temperature and Voltage, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



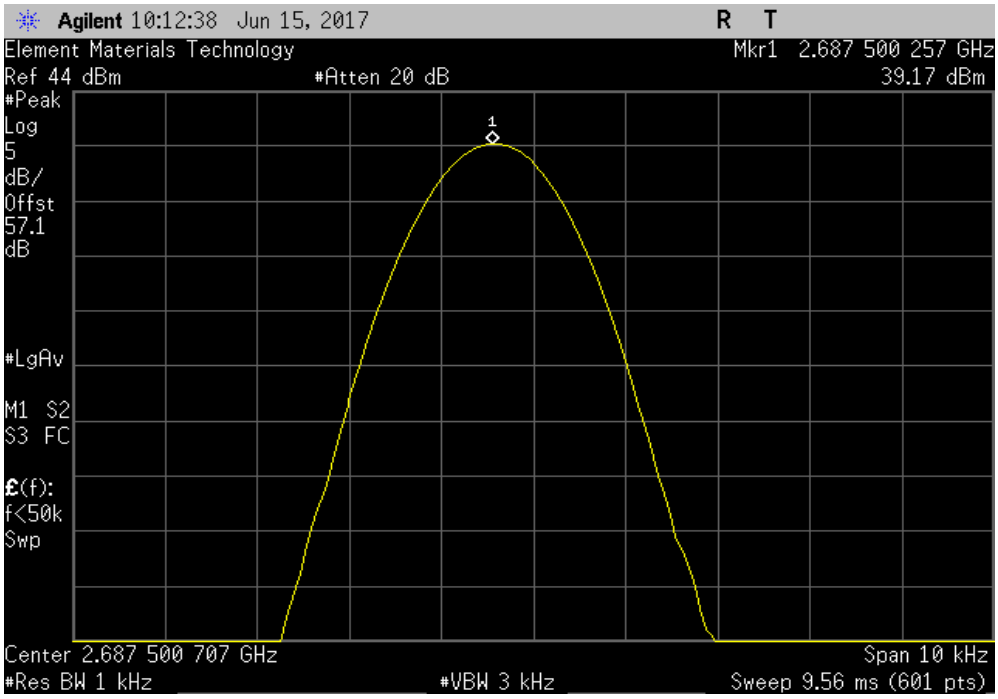
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Normal Temperature and Voltage, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500273	2622.5	0.1	1	Pass



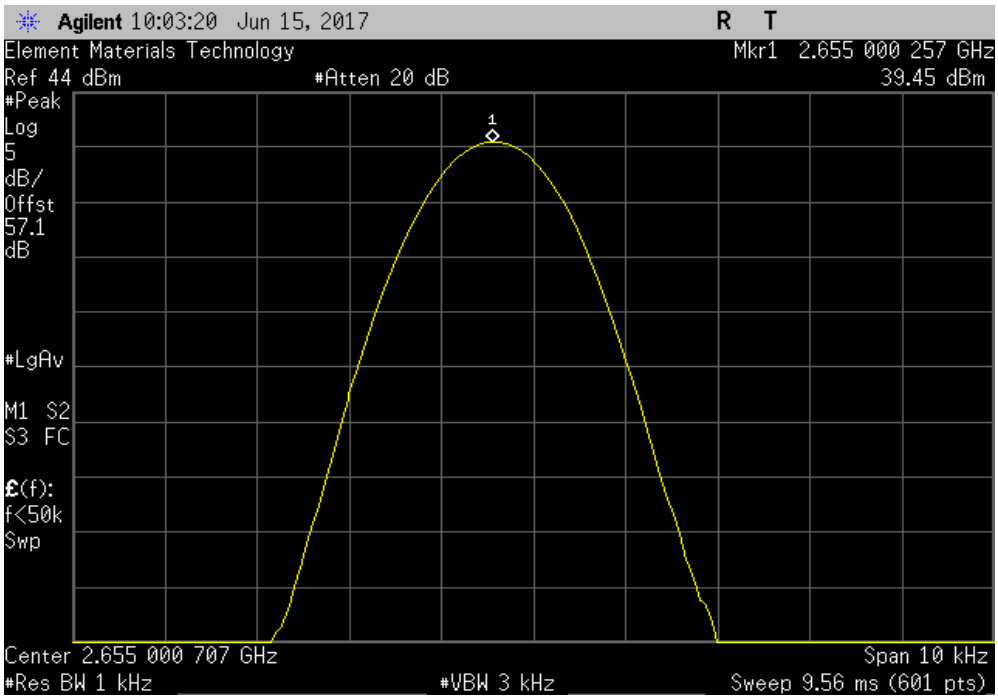
Port 2, Extreme Voltage, 55.2 VDC, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500257	2687.5	0.1	1	Pass



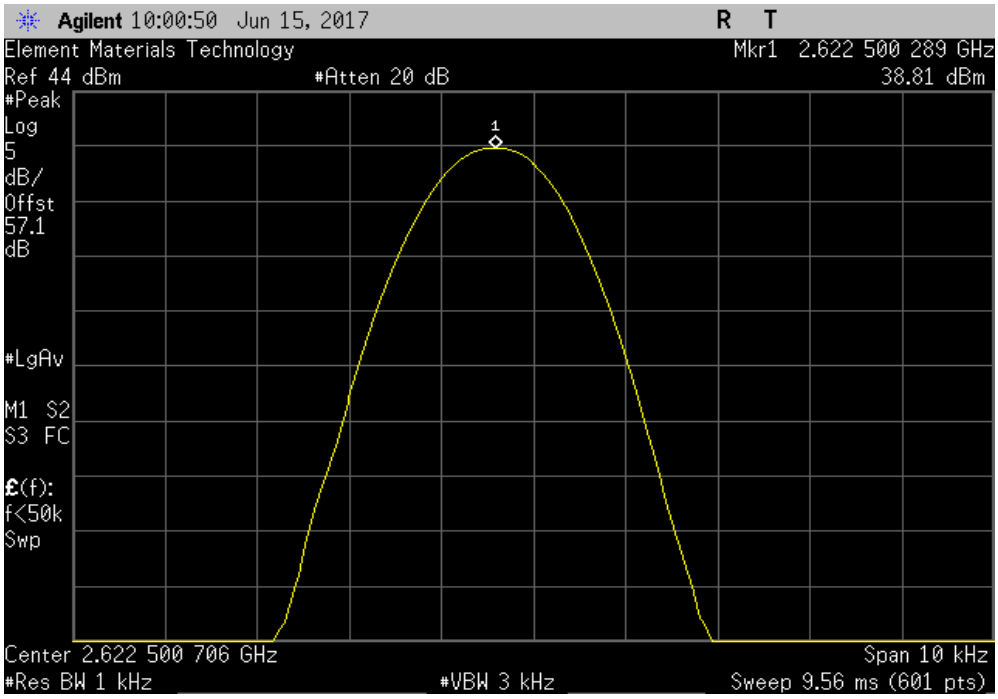
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

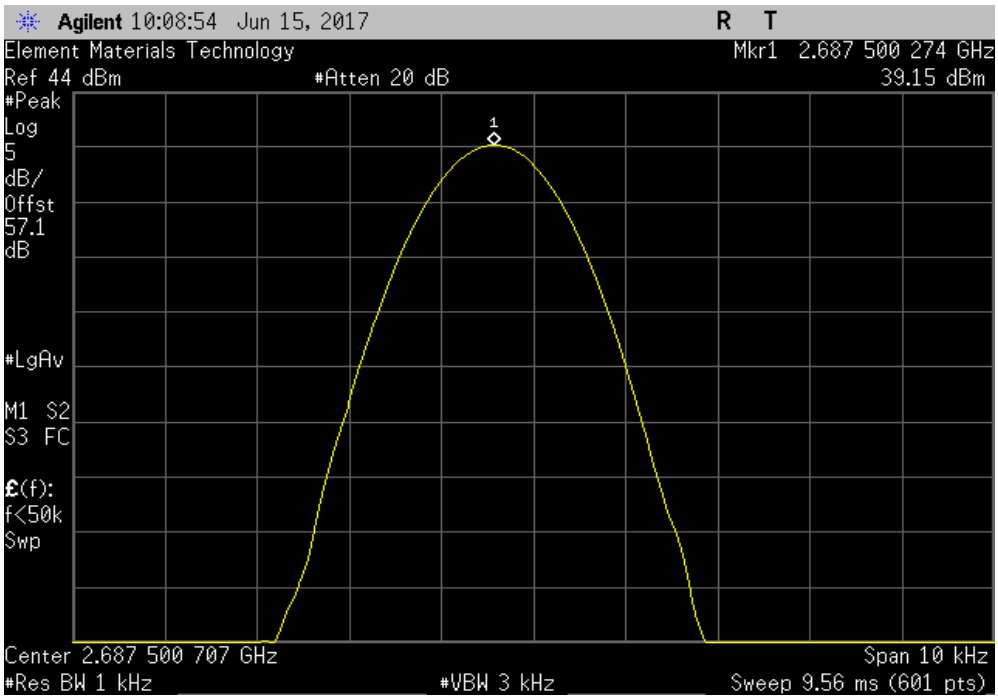
Port 2, Extreme Voltage, 55.2 VDC, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



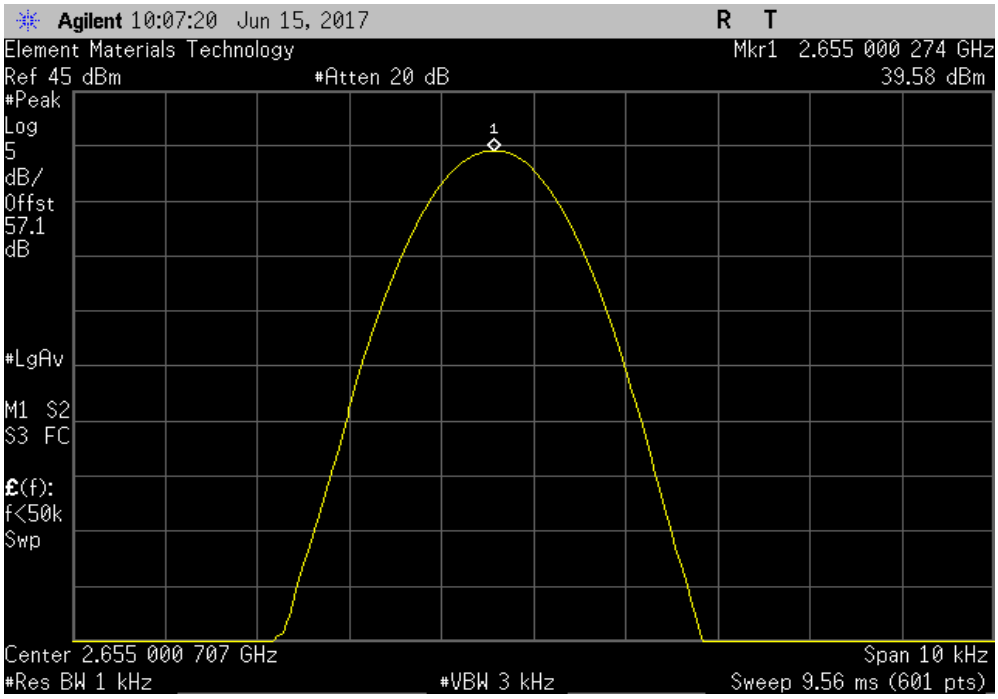
Port 2, Extreme Voltage, 55.2 VDC, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500289	2622.5	0.1	1	Pass



Port 2, Extreme Voltage, 40.8 VAC, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500274	2687.5	0.1	1	Pass

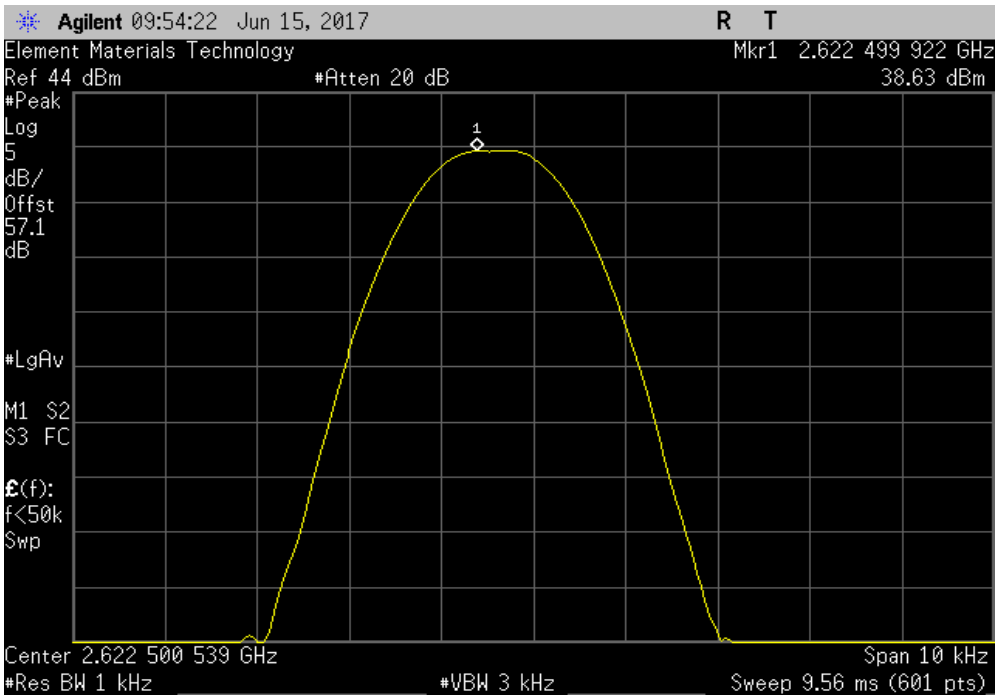


Port 2, Extreme Voltage, 40.8 VAC, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000274	2655	0.1	1	Pass

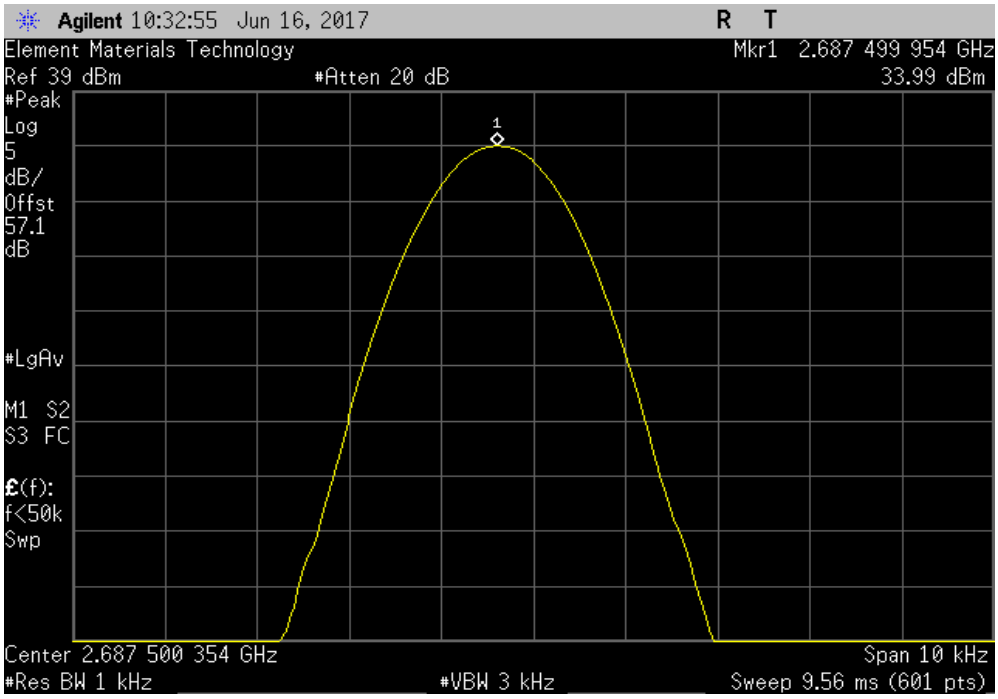


FREQUENCY STABILITY

Port 2, Extreme Voltage, 40.8 VAC, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.499922	2622.5	0	1	Pass



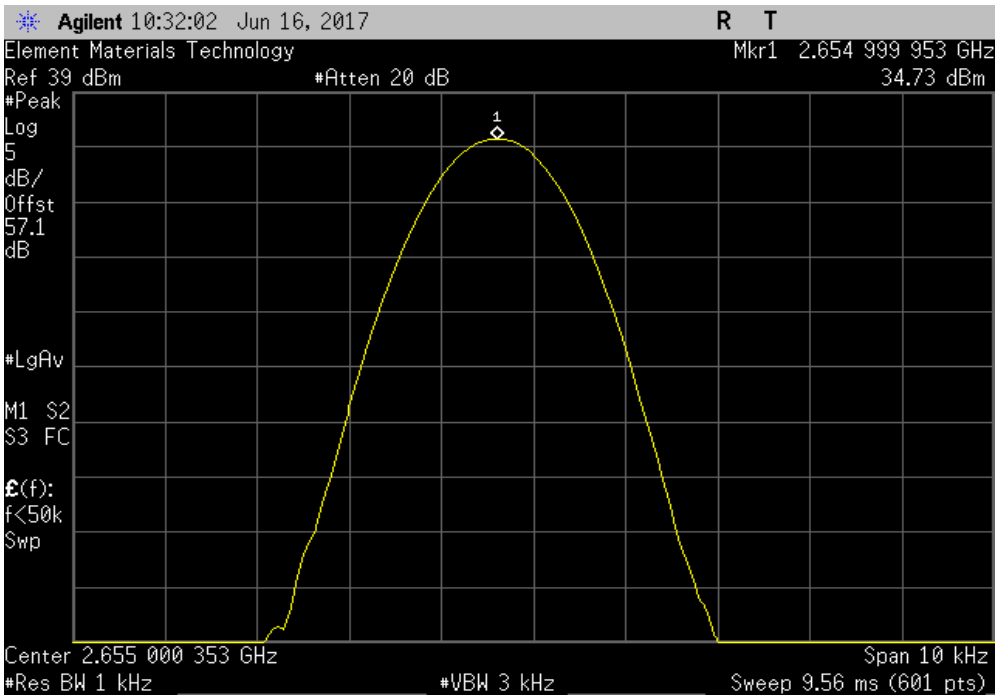
Port 2, Extreme Temperature, -30°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.499954	2687.5	0	1	Pass



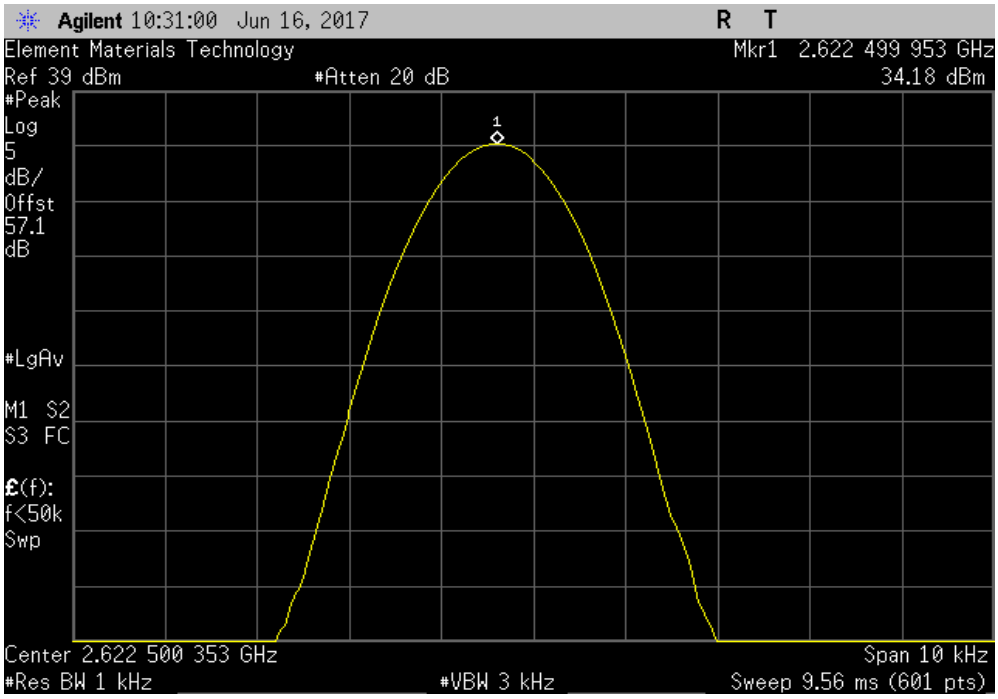
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, -30°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2654.999953	2655	0	1	Pass



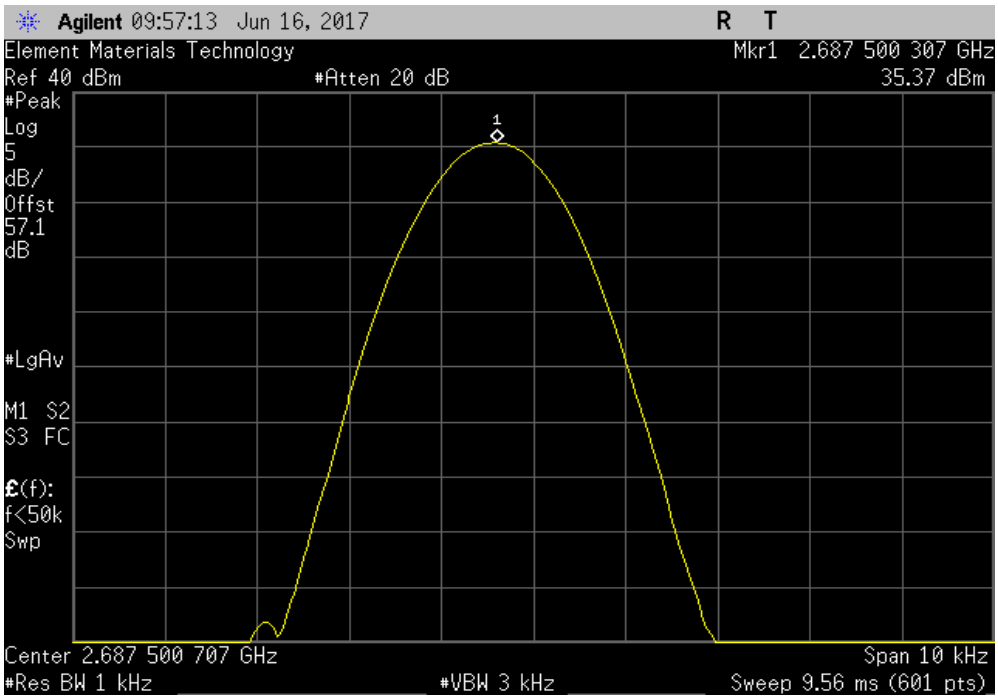
Port 2, Extreme Temperature, -30°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.499953	2622.5	0	1	Pass



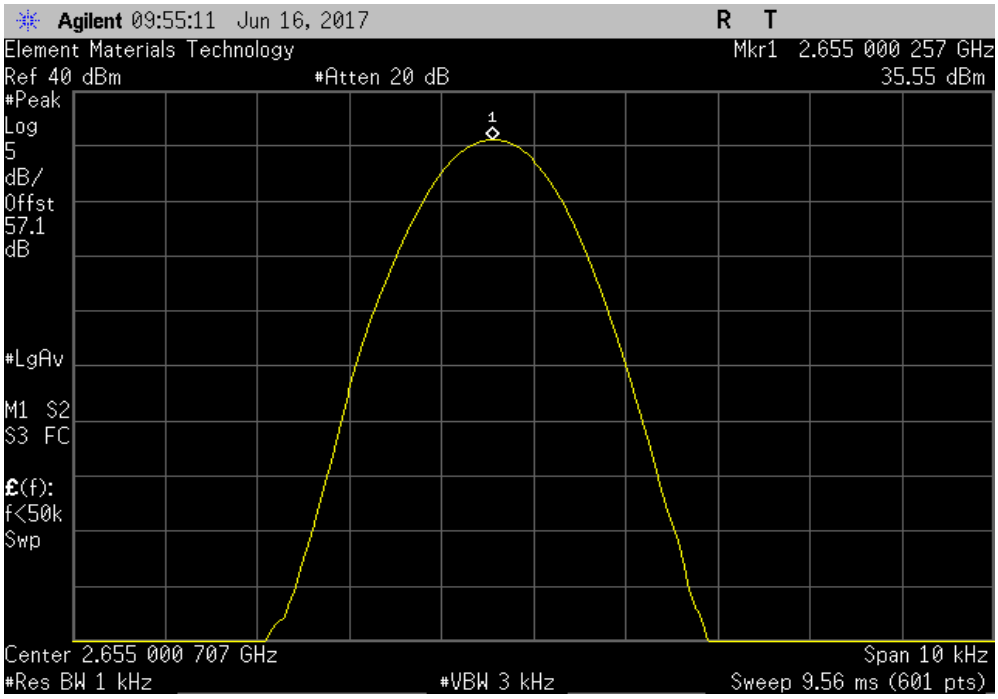
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, -20°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500307	2687.5	0.1	1	Pass



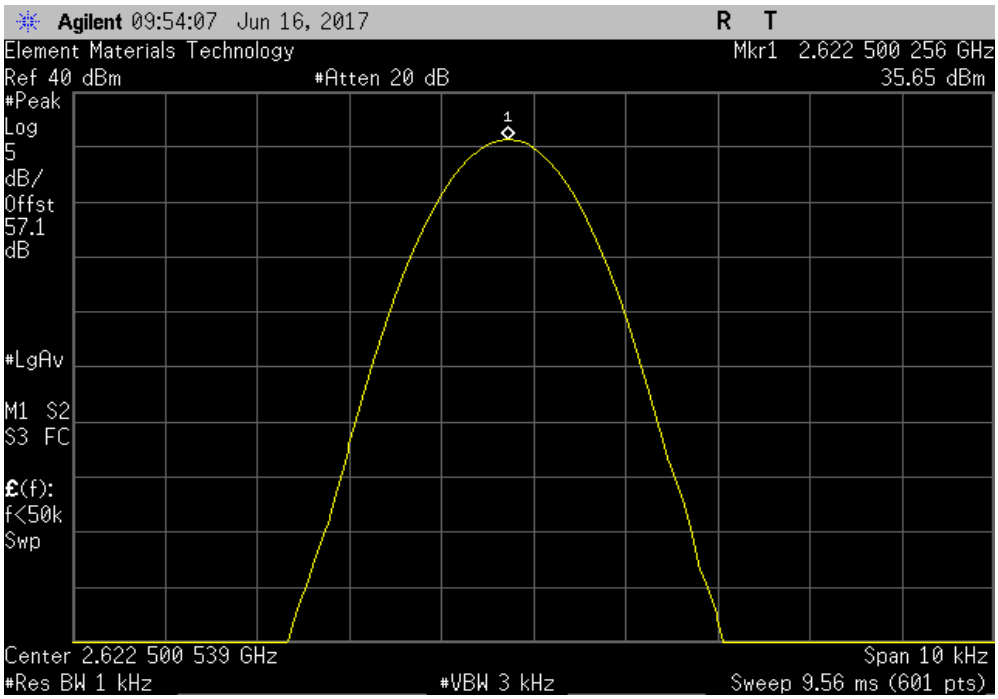
Port 2, Extreme Temperature, -20°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000257	2655	0.1	1	Pass



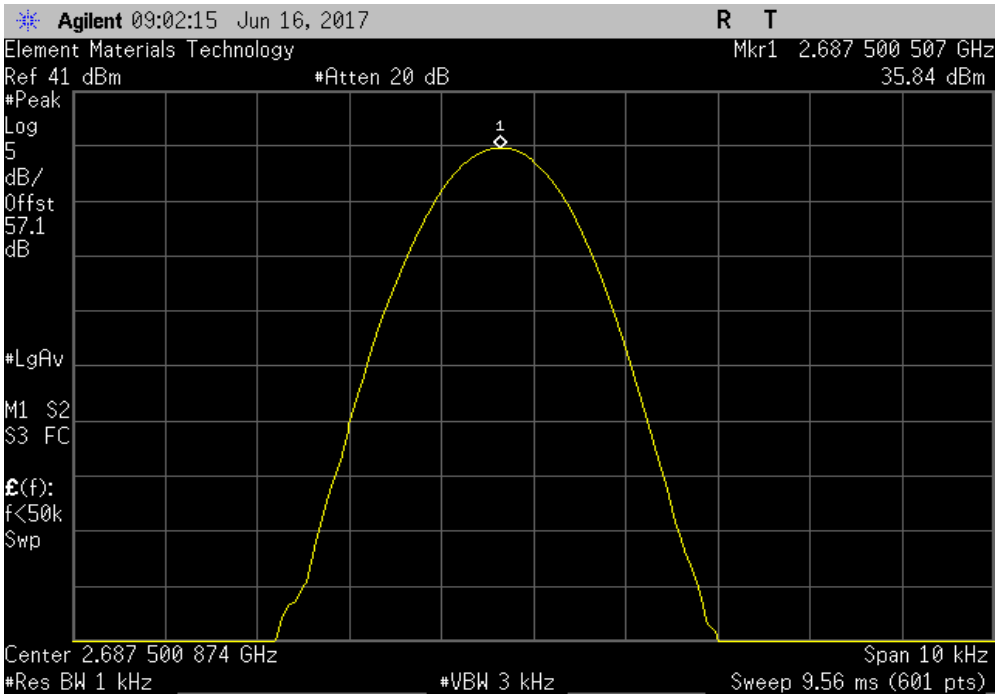
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, -20°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500256	2622.5	0.1	1	Pass



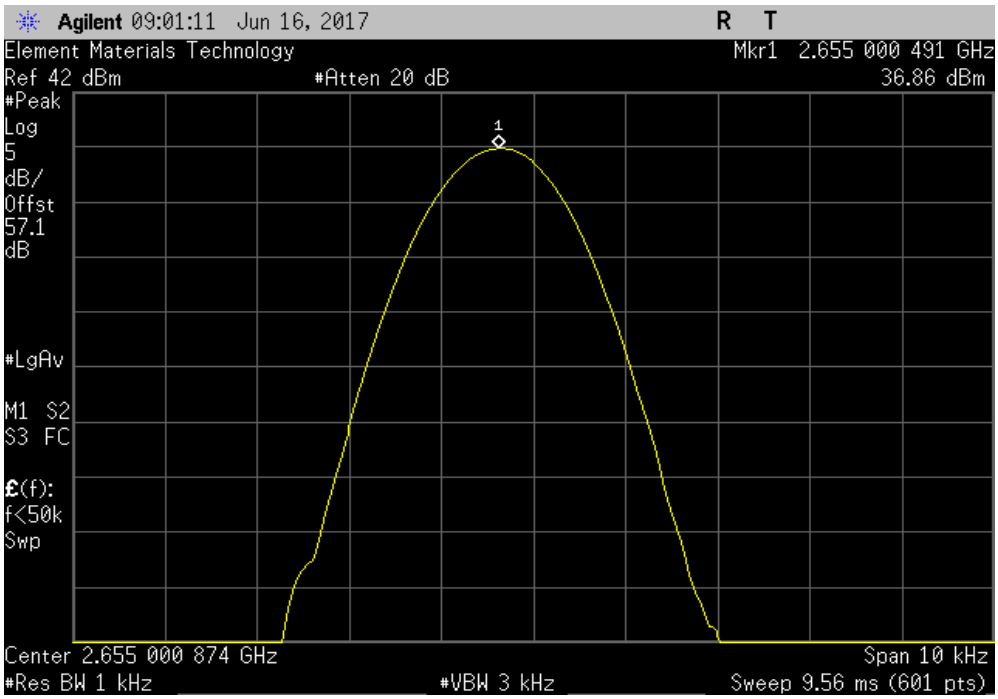
Port 2, Extreme Temperature, -10°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500507	2687.5	0.2	1	Pass



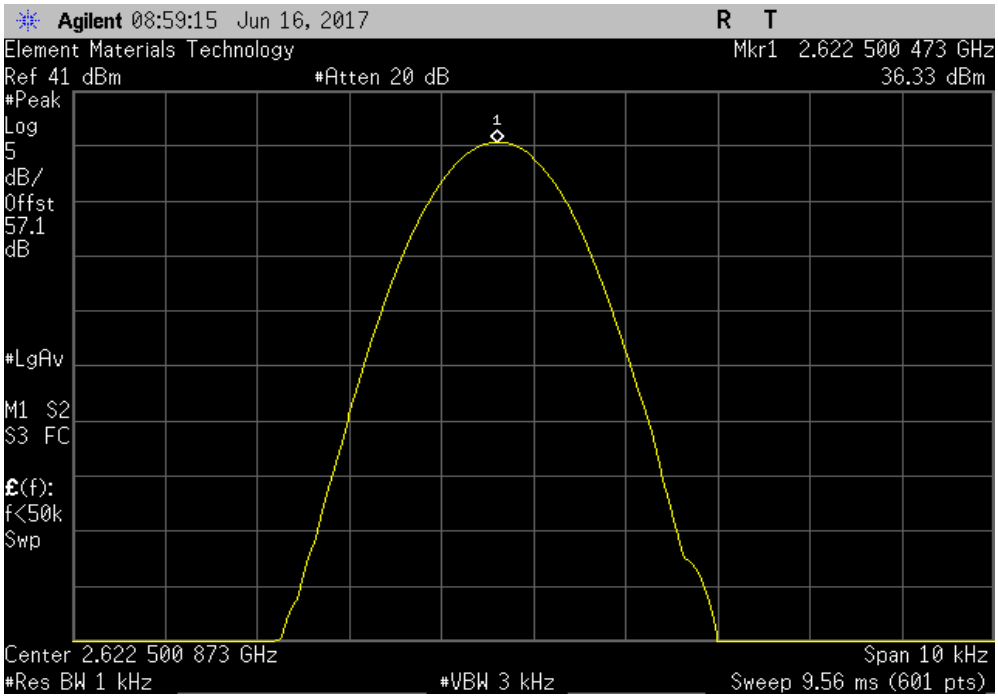
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, -10°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000491	2655	0.2	1	Pass



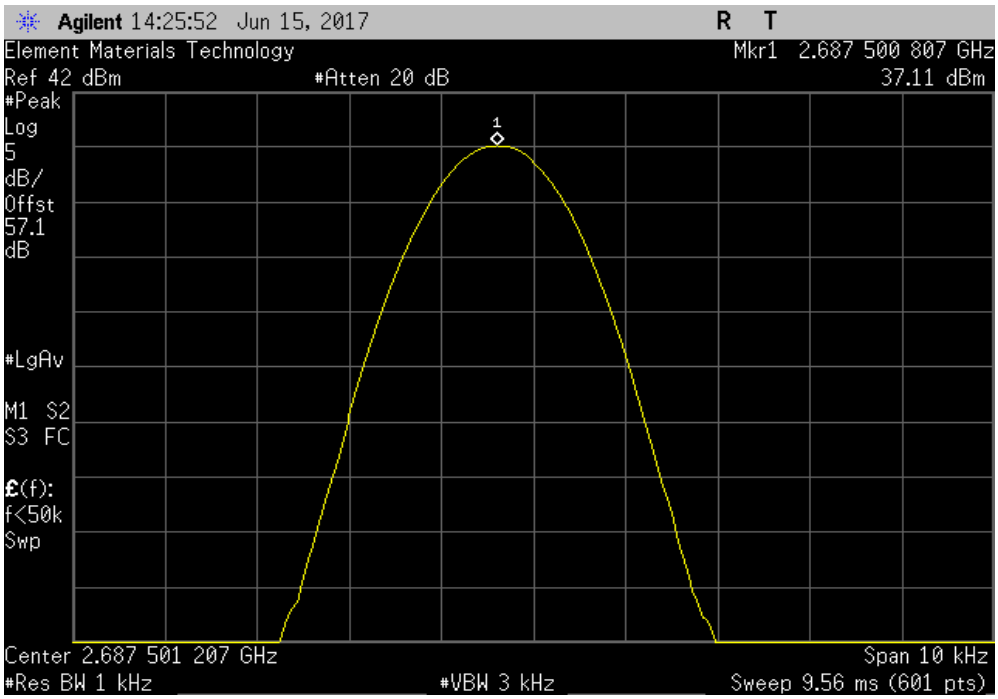
Port 2, Extreme Temperature, -10°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500473	2622.5	0.2	1	Pass



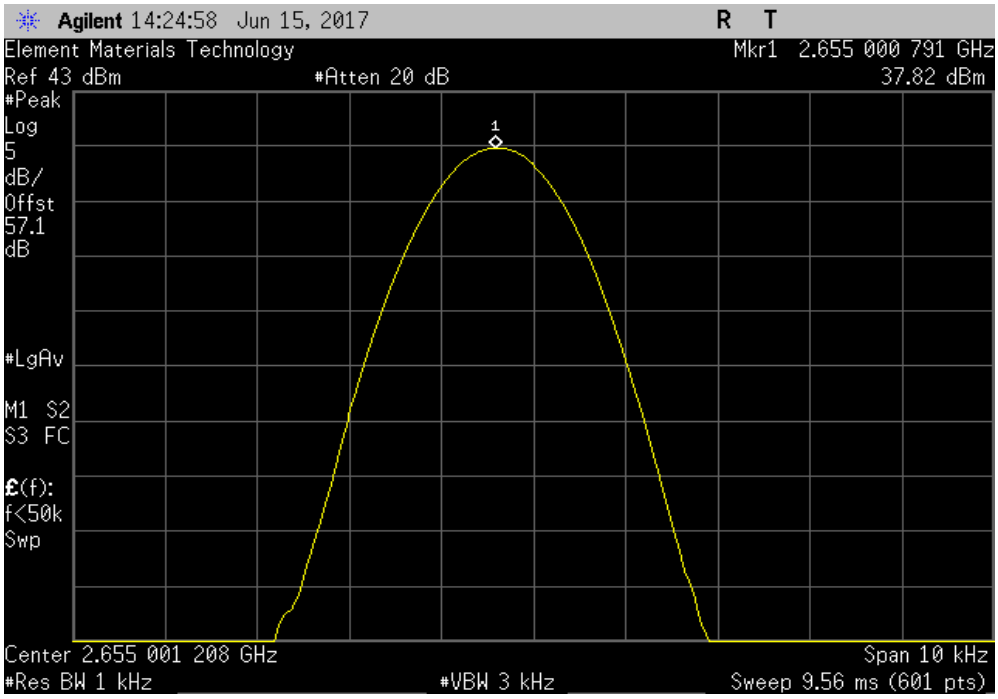
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, 0°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500807	2687.5	0.3	1	Pass



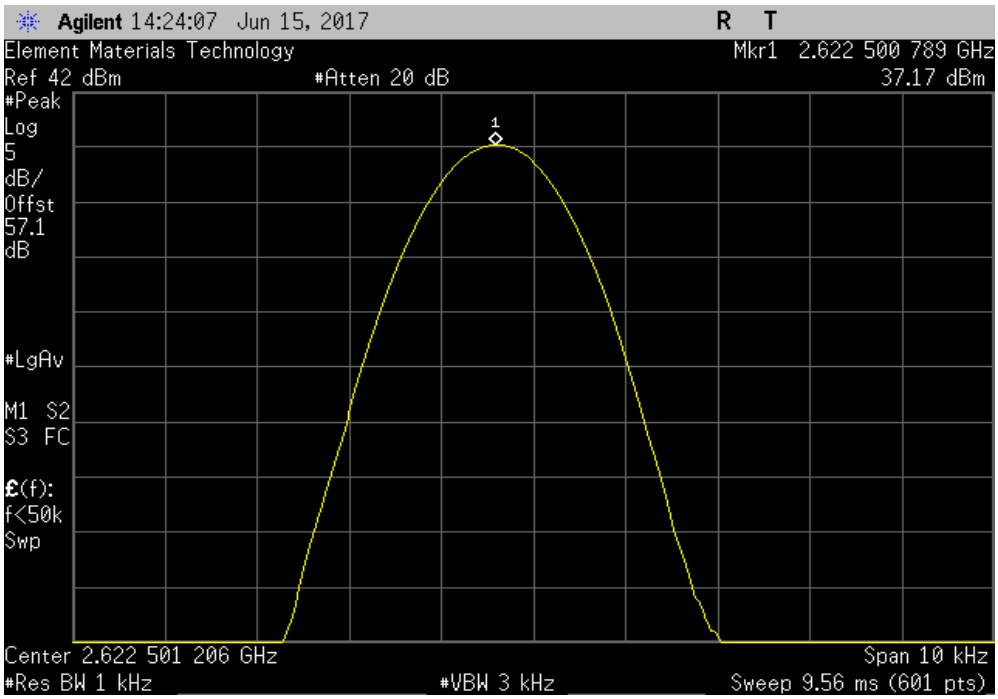
Port 2, Extreme Temperature, 0°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000791	2655	0.3	1	Pass



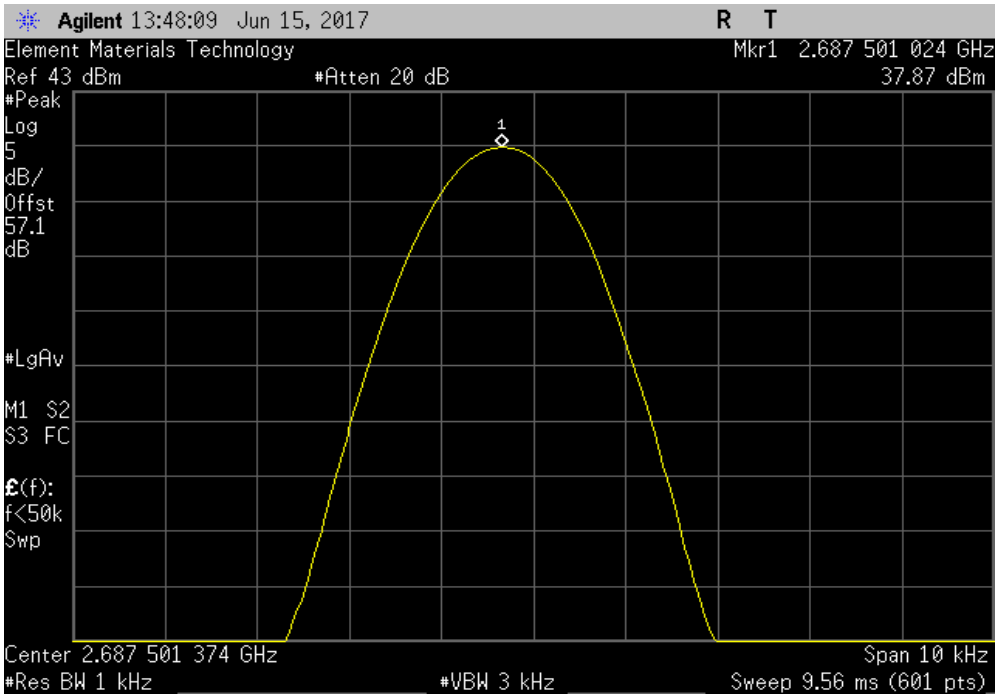
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, 0°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500789	2622.5	0.3	1	Pass

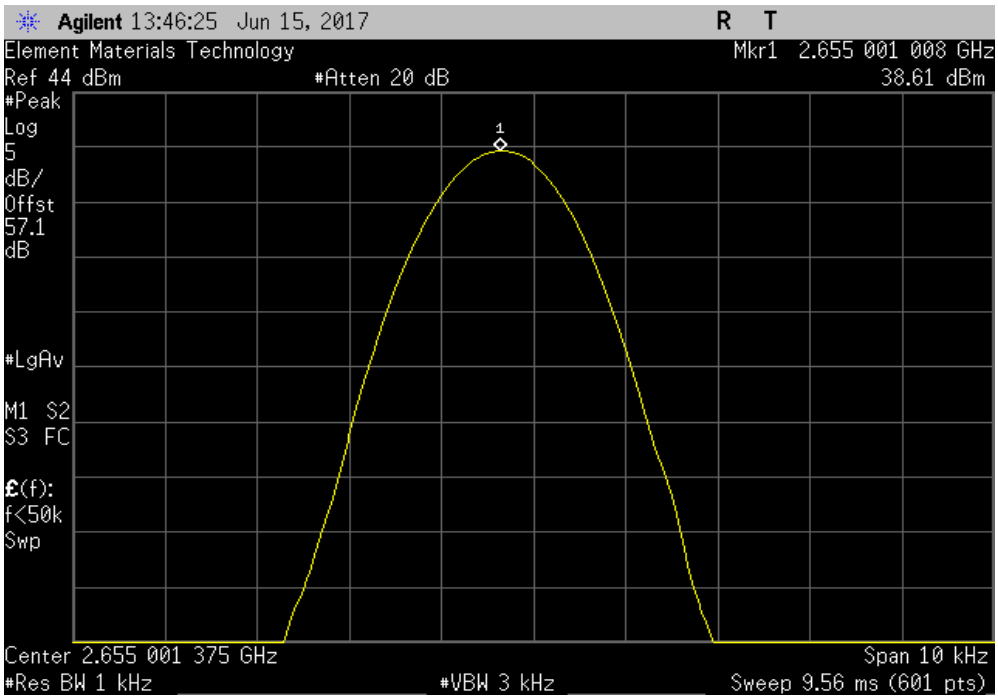


Port 2, Extreme Temperature, +10°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501024	2687.5	0.4	1	Pass

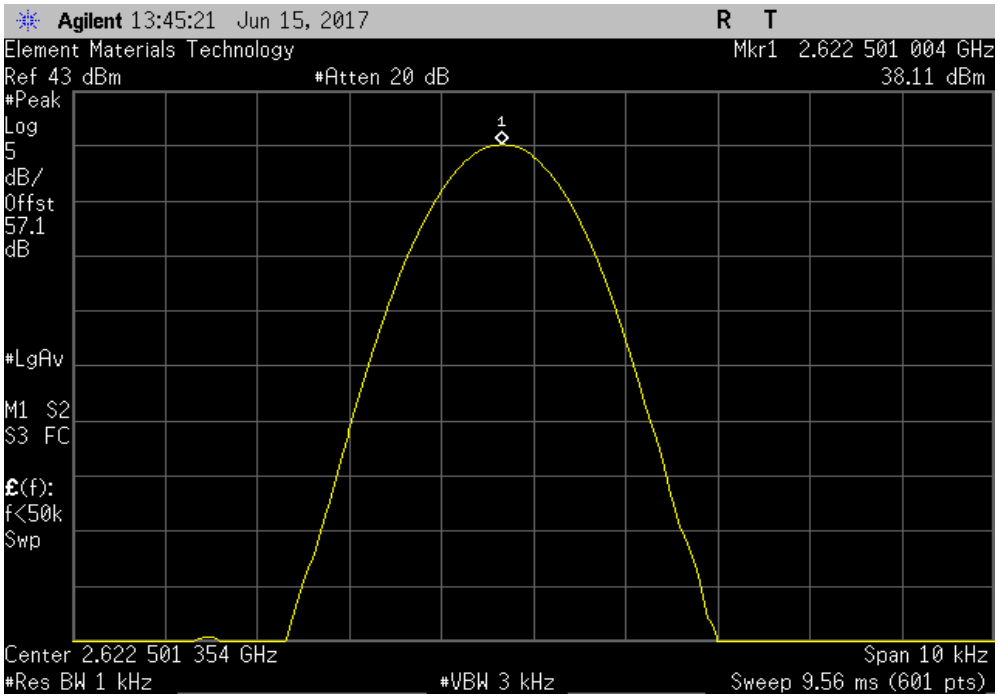


FREQUENCY STABILITY

Port 2, Extreme Temperature, +10°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.001008	2655	0.4	1	Pass



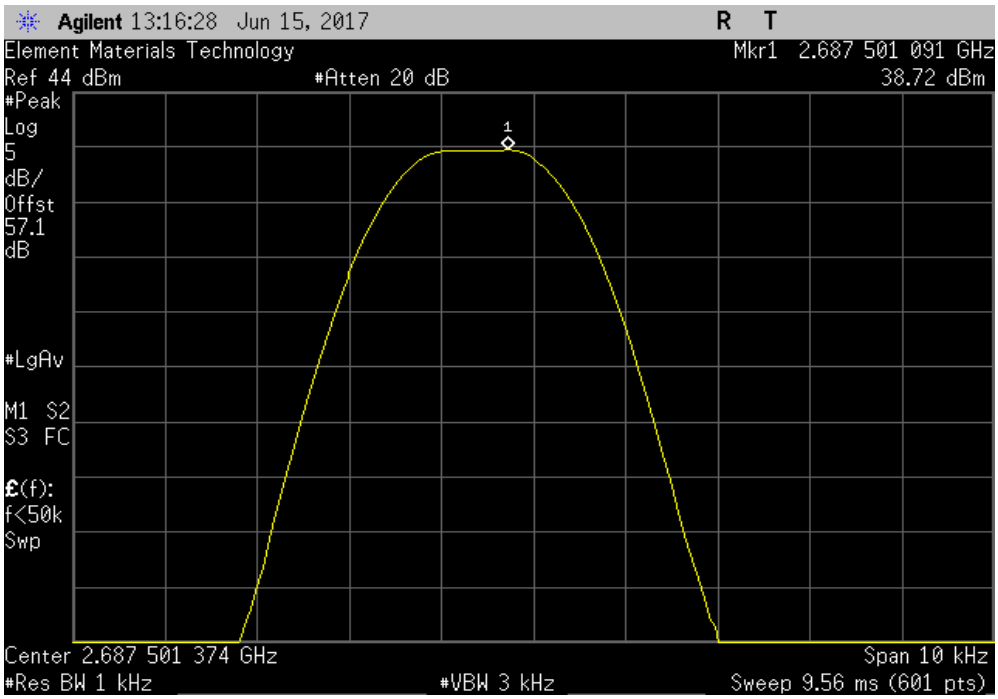
Port 2, Extreme Temperature, +10°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.501004	2622.5	0.4	1	Pass



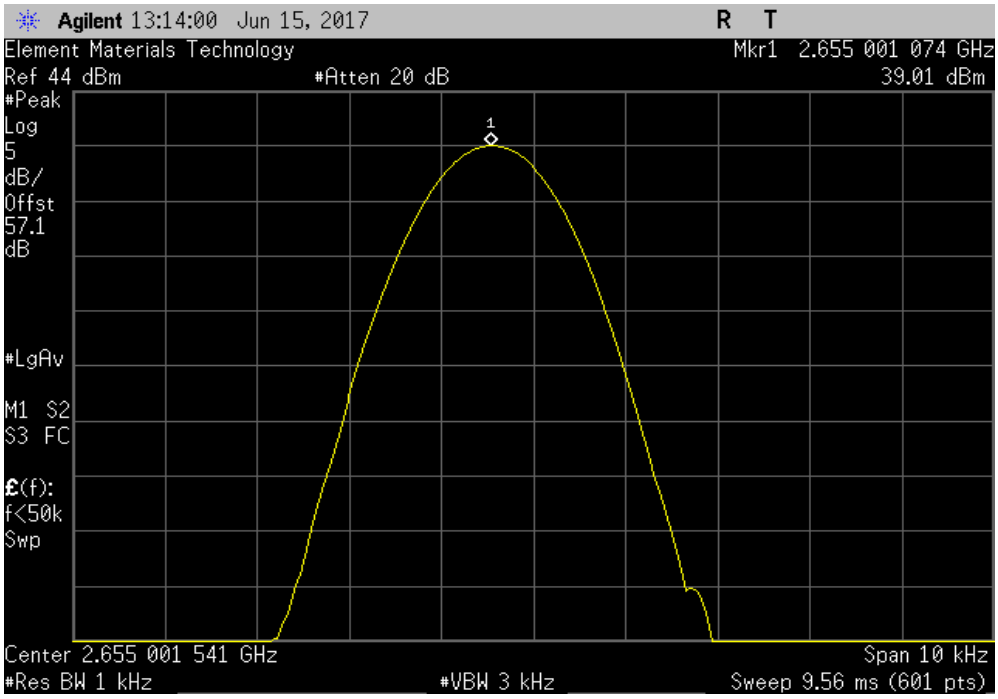
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, +20°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.501091	2687.5	0.4	1	Pass



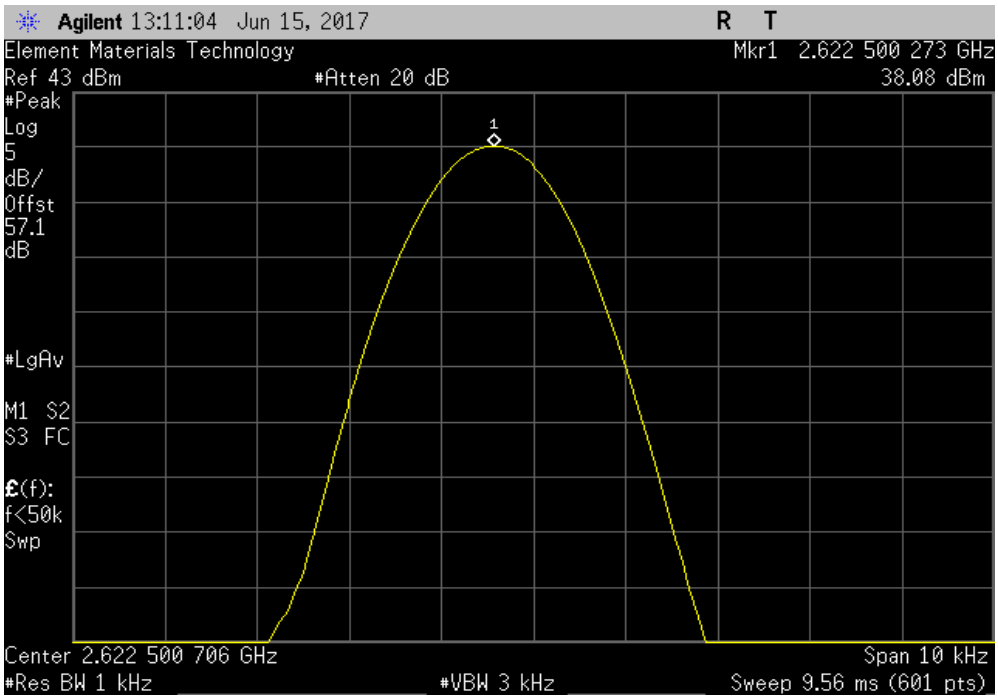
Port 2, Extreme Temperature, +20°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.001074	2655	0.4	1	Pass



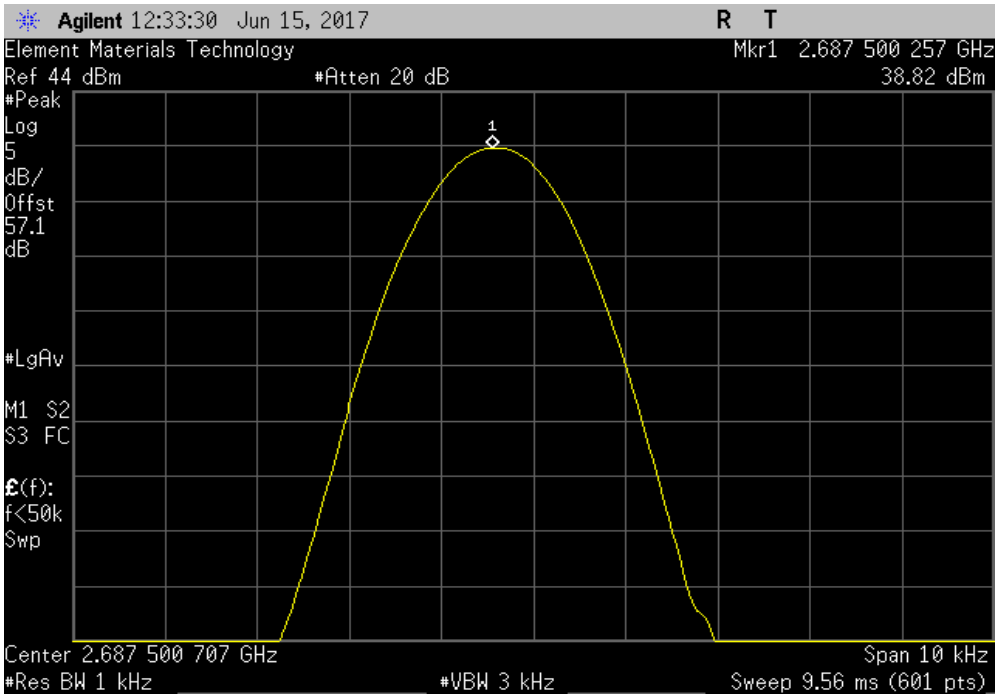
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, +20°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500273	2622.5	0.1	1	Pass



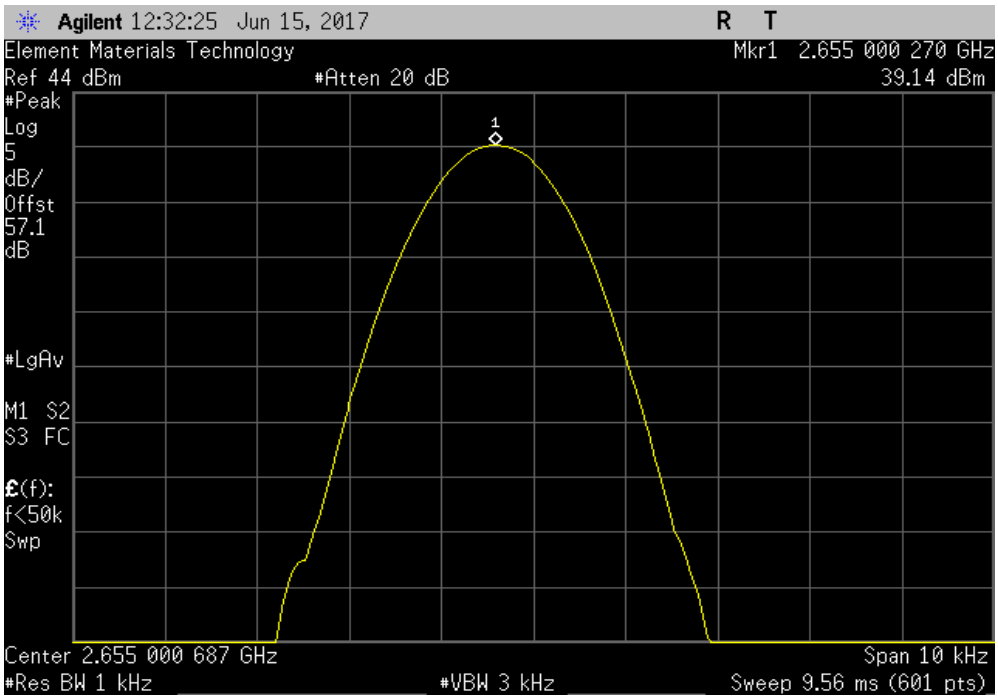
Port 2, Extreme Temperature, +30°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500257	2687.5	0.1	1	Pass



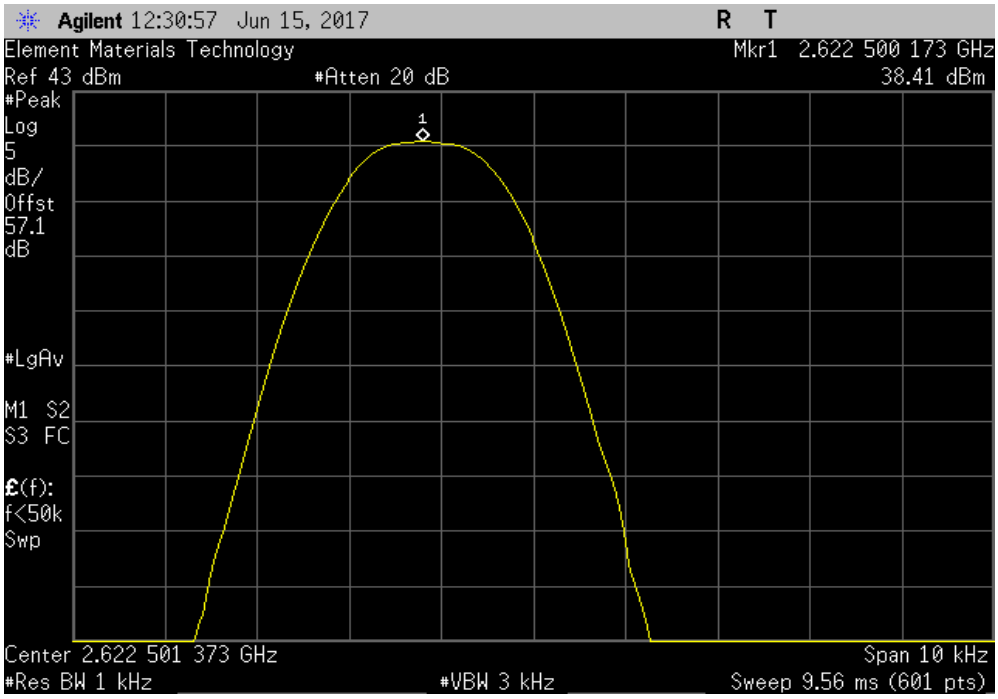
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, +30°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.00027	2655	0.1	1	Pass



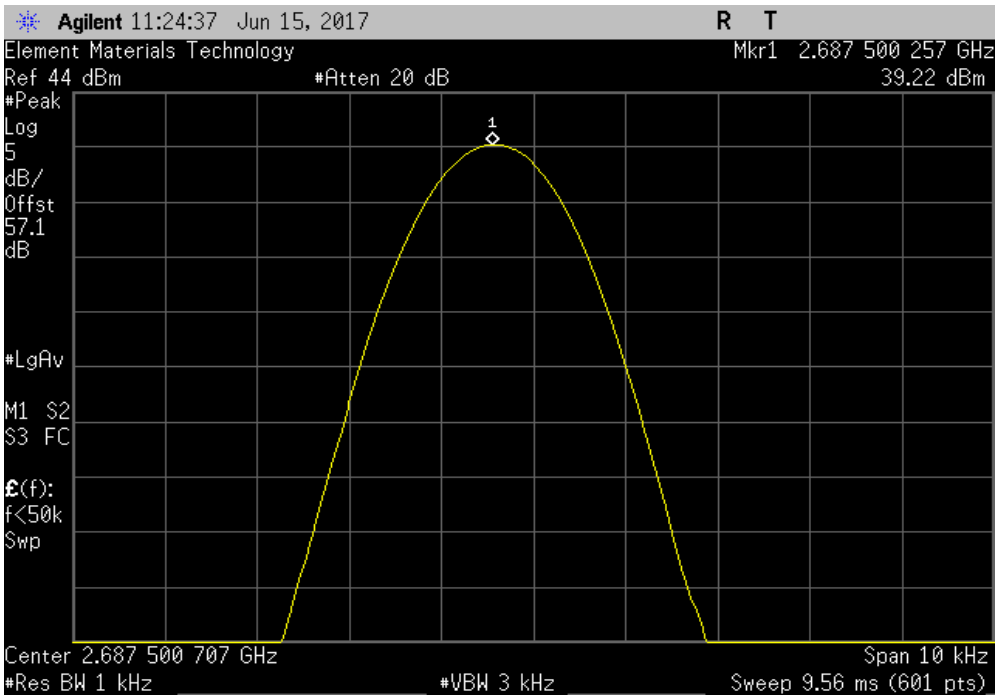
Port 2, Extreme Temperature, +30°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500173	2622.5	0.1	1	Pass



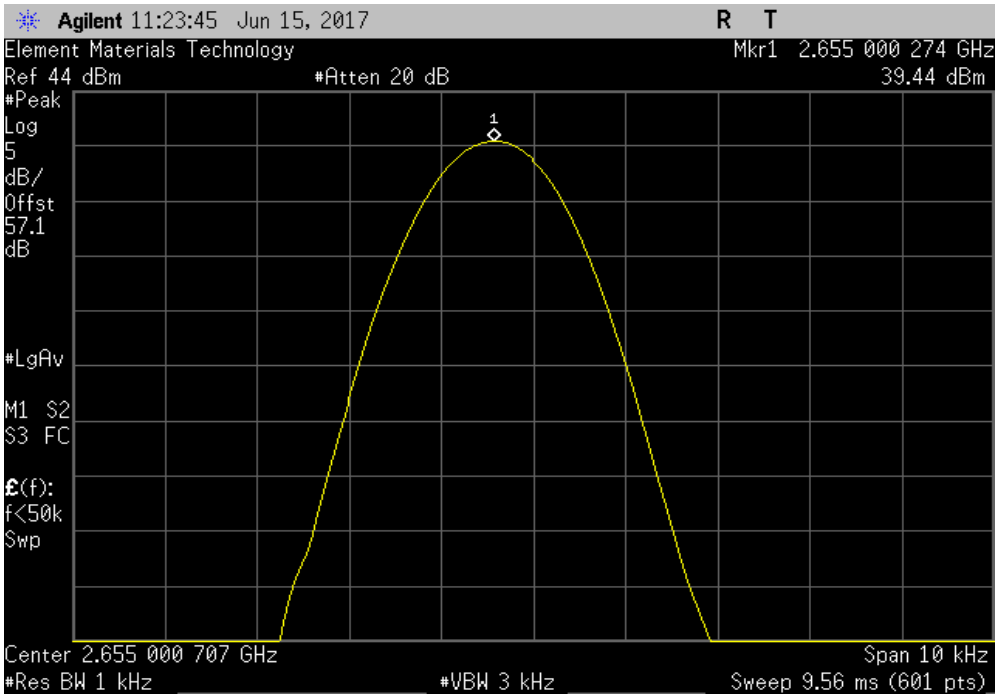
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

Port 2, Extreme Temperature, +40°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500257	2687.5	0.1	1	Pass



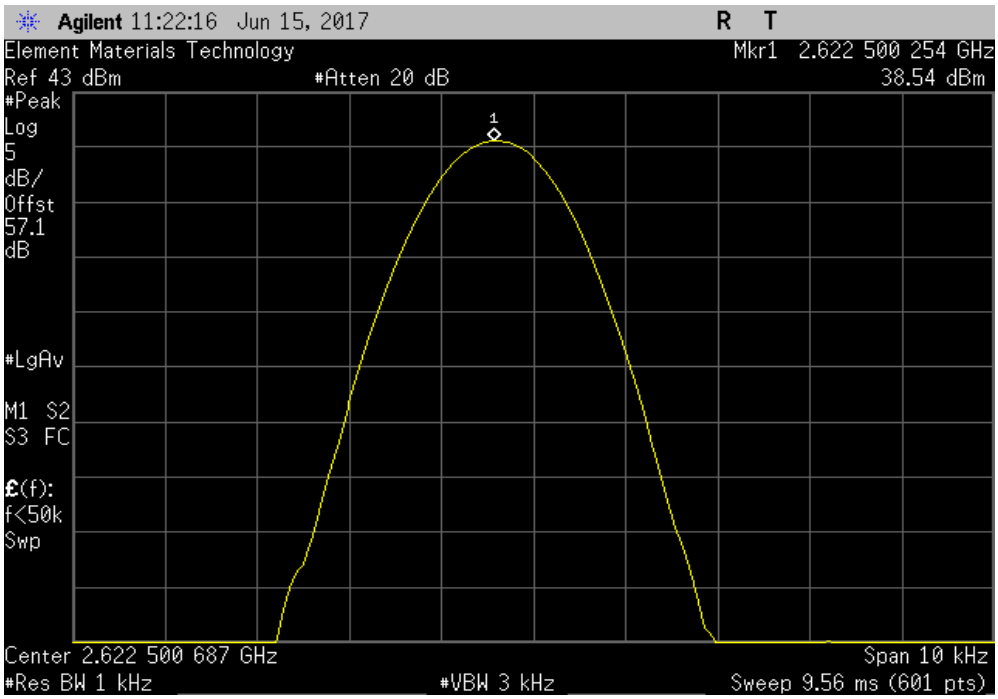
Port 2, Extreme Temperature, +40°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000274	2655	0.1	1	Pass



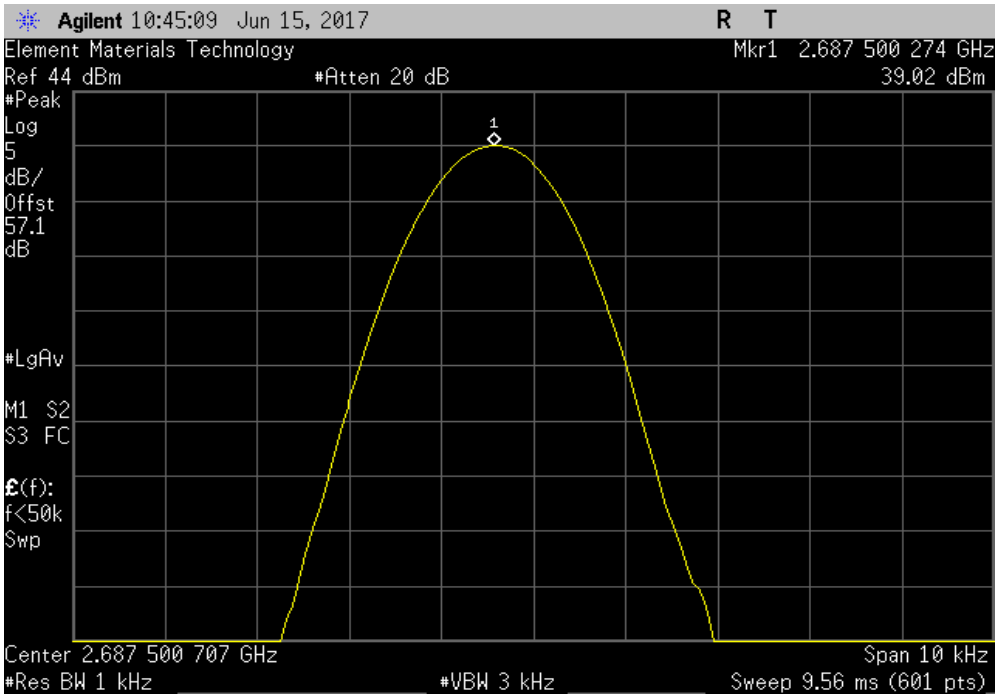
FREQUENCY STABILITY

TbtTx 2017.04.18 XMit 2017.02.08

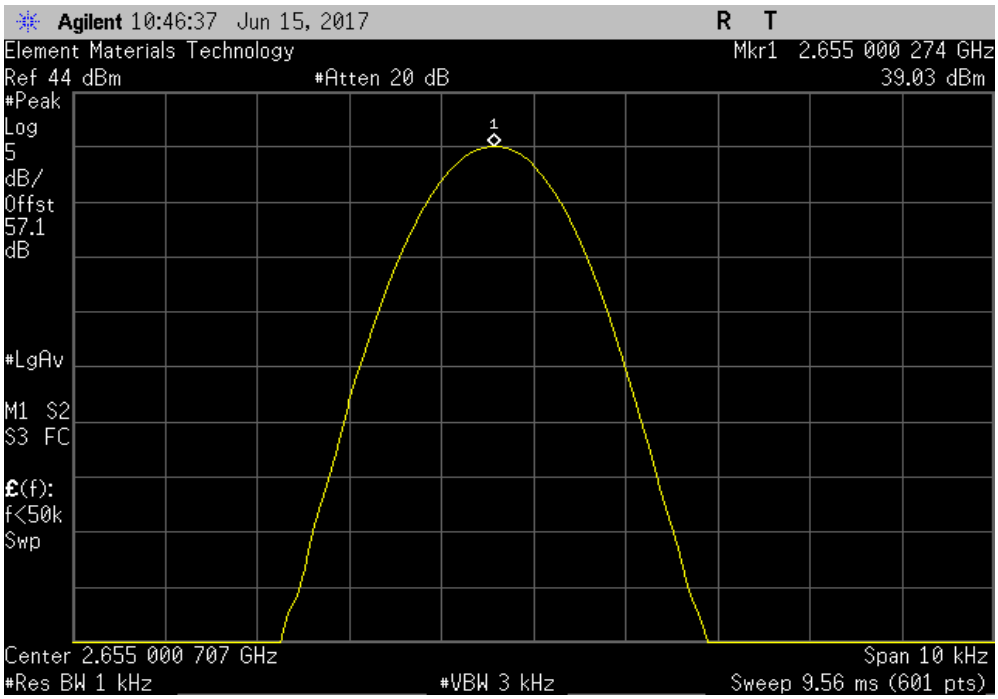
Port 2, Extreme Temperature, +40°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500254	2622.5	0.1	1	Pass



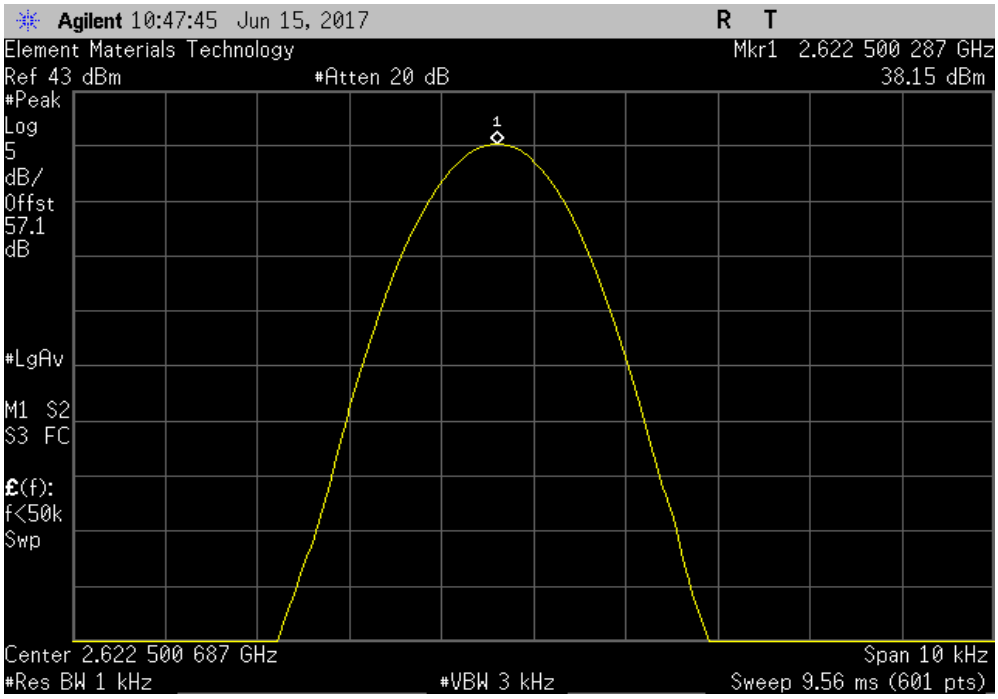
Port 2, Extreme Temperature, +50°C, High Channel , 2687.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2687.500274	2687.5	0.1	1	Pass



Port 2, Extreme Temperature, +50°C, Mid Channel, 2655 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2655.000274	2655	0.1	1	Pass



Port 2, Extreme Temperature, +50°C, Low Channel, 2622.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2622.500287	2622.5	0.1	1	Pass



OCCUPIED BANDWIDTH EMISSION MASK

XMit 2017.02.08

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
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer.

The spectrum analyzer settings were as follows:
- RBW = Approx. 1% of the emission bandwidth (B). This was an iterative process to determine the RBW based on the emissions bandwidth (B).
- VBW= > RBW
- A peak detector was used
- Trace max hold.

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

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

OCCUPIED BANDWIDTH EMISSION MASK

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.

DEVIATIONS FROM TEST STANDARD

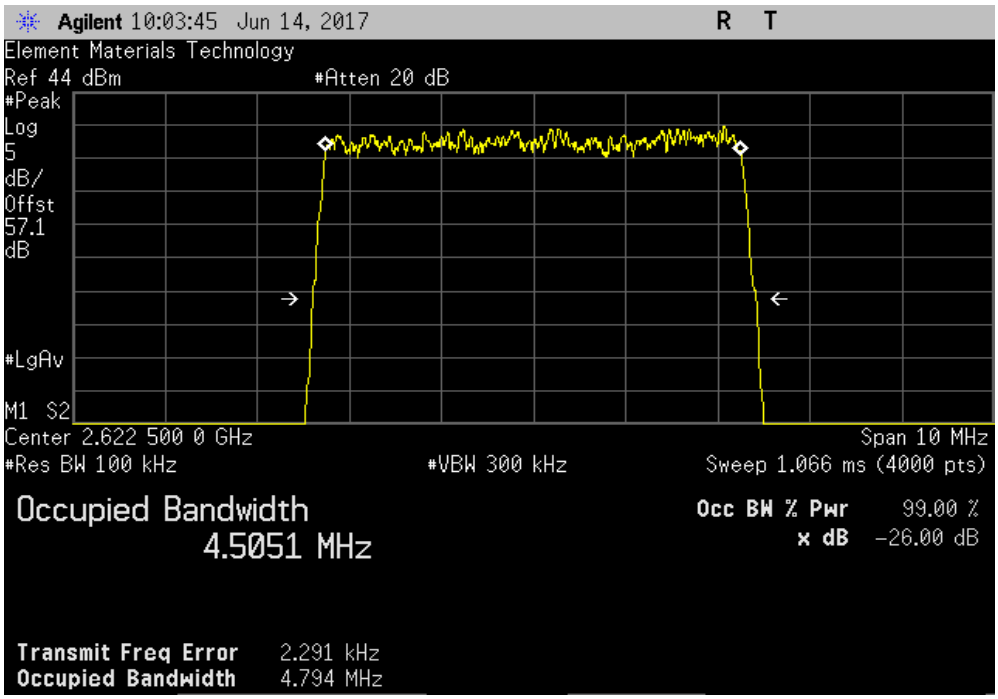
None

Configuration #	1	Signature

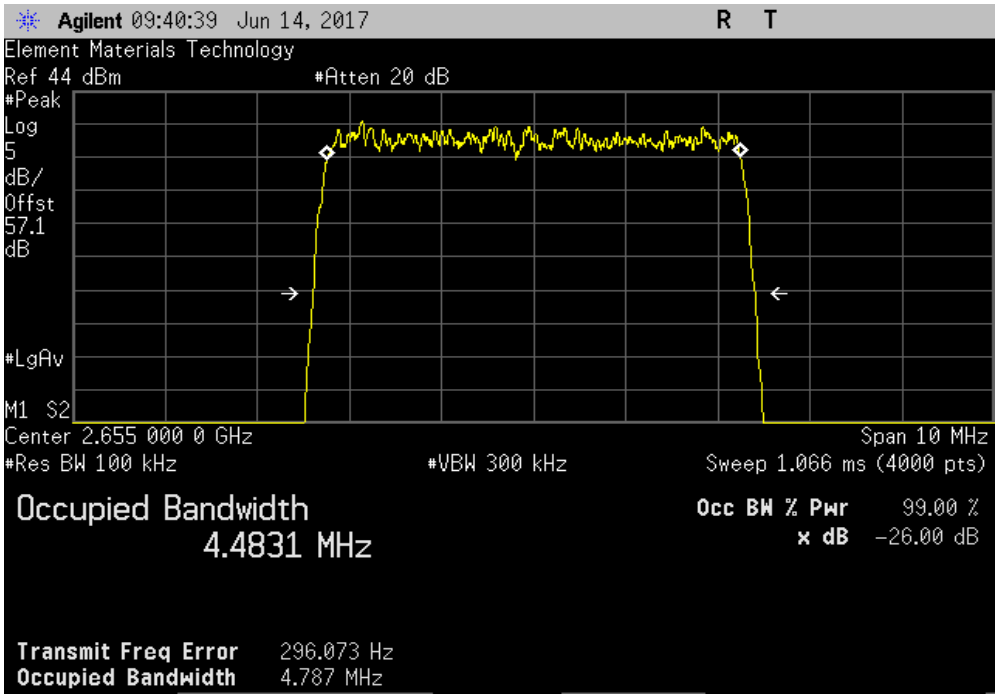
		Value	Limit	Result
Antenna Port 1				
	Low Channel LTE5, 2622.5 MHz	4.794 MHz	N/A	N/A
	Mid Channel LTE5, 2655 MHz	4.787 MHz	N/A	N/A
	High Channel LTE5, 2687.5 MHz	4.797 MHz	N/A	N/A
	Low Channel LTE10, 2625 MHz	9.549 MHz	N/A	N/A
	Mid Channel LTE10, 2655 MHz	9.436 MHz	N/A	N/A
	High Channel LTE10, 2685 MHz	9.565 MHz	N/A	N/A
	Low Channel LTE20, 2630 MHz	18.850 MHz	N/A	N/A
	Mid Channel LTE20, 2655 MHz	18.723 MHz	N/A	N/A
	High Channel LTE20, 2680 MHz	18.876 MHz	N/A	N/A
Antenna Port 2				
	Low Channel LTE5, 2622.5 MHz	4.790 MHz	N/A	N/A
	Mid Channel LTE5, 2655 MHz	4.777 MHz	N/A	N/A
	High Channel LTE5, 2687.5 MHz	4.777 MHz	N/A	N/A
	Low Channel LTE10, 2625 MHz	9.553 MHz	N/A	N/A
	Mid Channel LTE10, 2655 MHz	9.511 MHz	N/A	N/A
	High Channel LTE10, 2685 MHz	9.495 MHz	N/A	N/A
	Low Channel LTE20, 2630 MHz	18.875 MHz	N/A	N/A
	Mid Channel LTE20, 2655 MHz	18.836 MHz	N/A	N/A
	High Channel LTE20, 2680 MHz	18.840 MHz	N/A	N/A

OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 1, Low Channel LTE5, 2622.5 MHz						
				Value	Limit	Result
				4.794 MHz	N/A	N/A

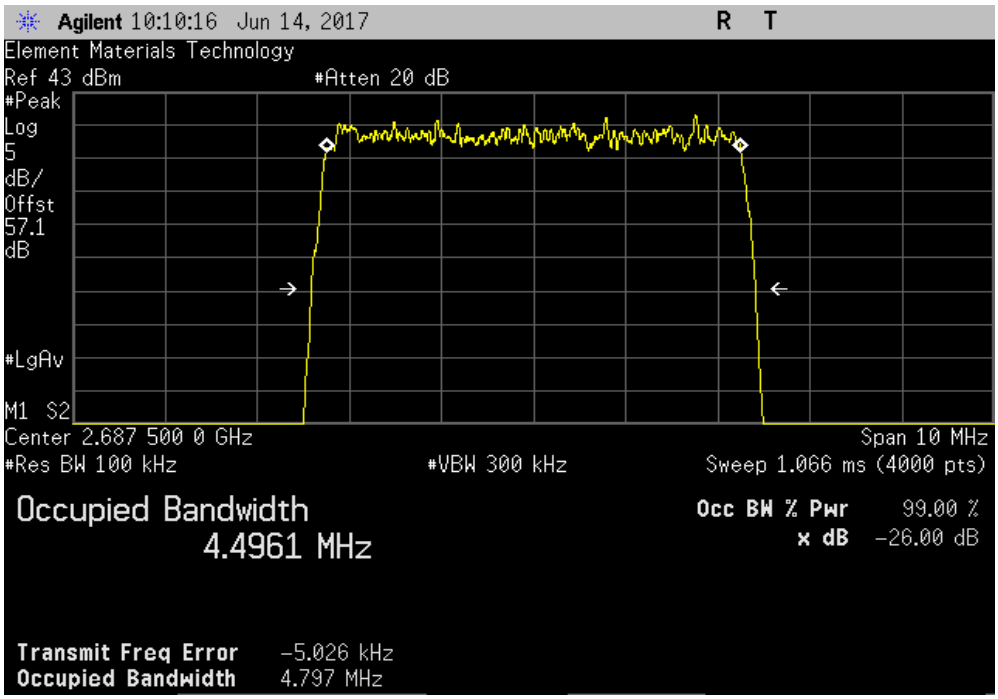


Antenna Port 1, Mid Channel LTE5, 2655 MHz						
				Value	Limit	Result
				4.787 MHz	N/A	N/A

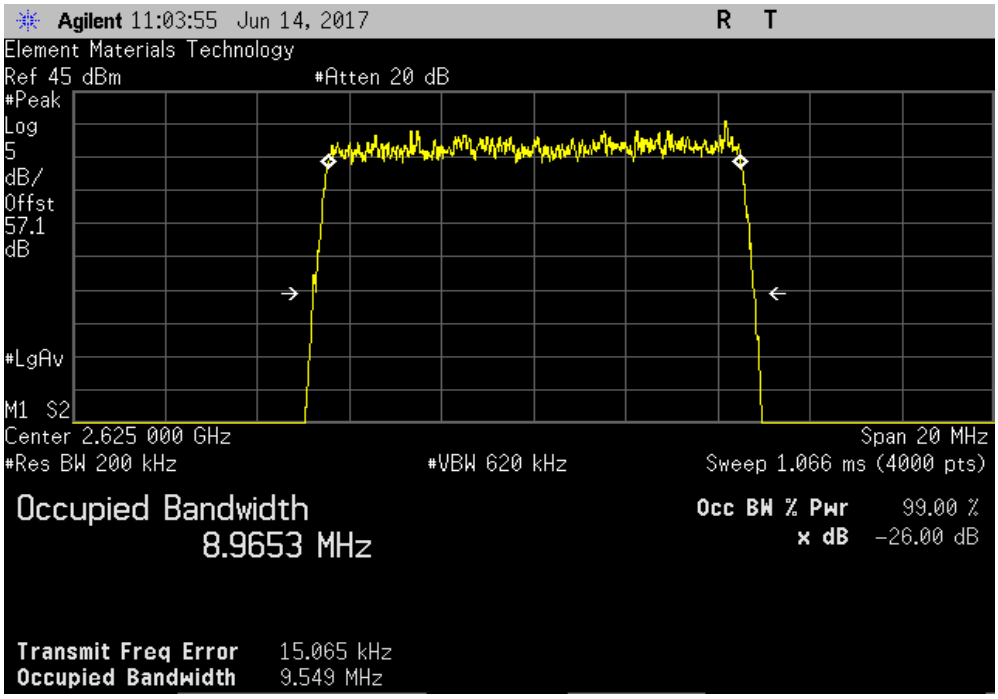


OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 1, High Channel LTE5, 2687.5 MHz						
				Value	Limit	Result
				4.797 MHz	N/A	N/A



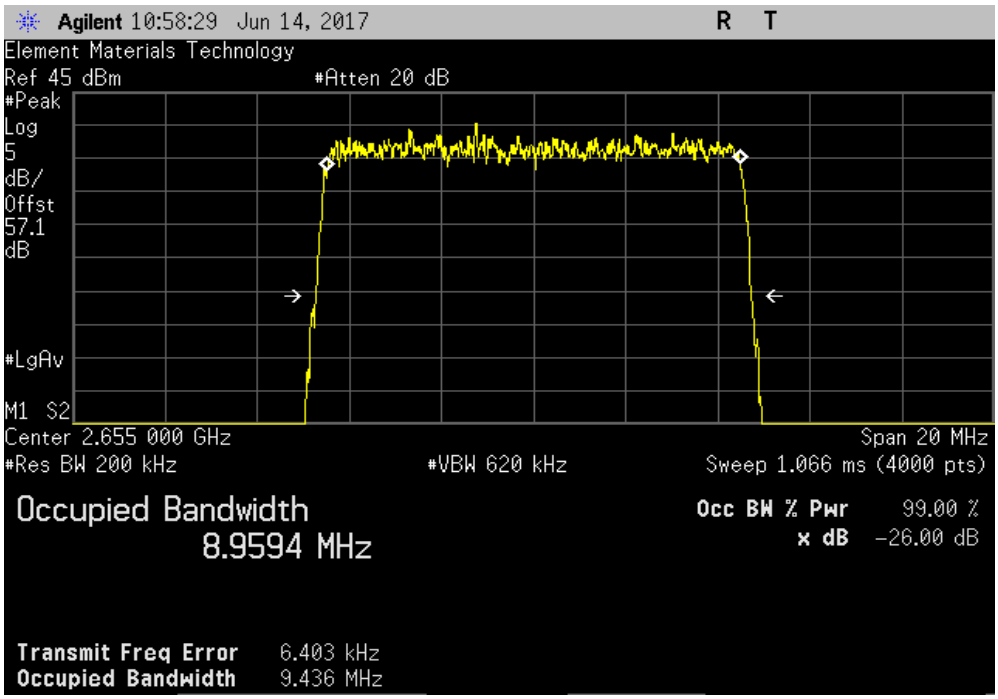
Antenna Port 1, Low Channel LTE10, 2625 MHz						
				Value	Limit	Result
				9.549 MHz	N/A	N/A



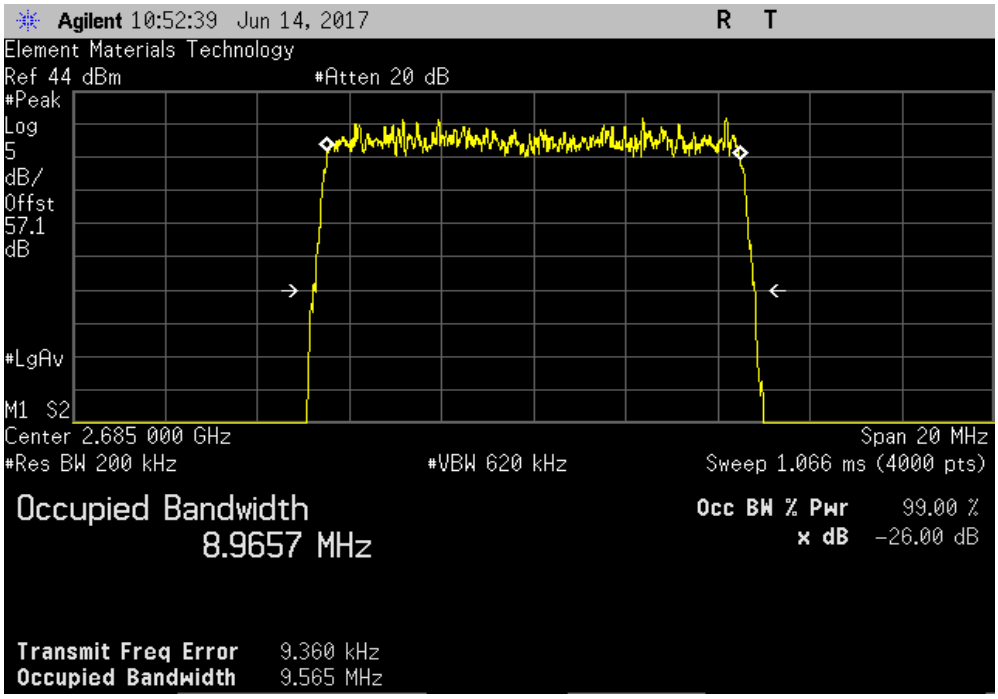
OCCUPIED BANDWIDTH EMISSION MASK

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Mid Channel LTE10, 2655 MHz						
				Value	Limit	Result
				9.436 MHz	N/A	N/A

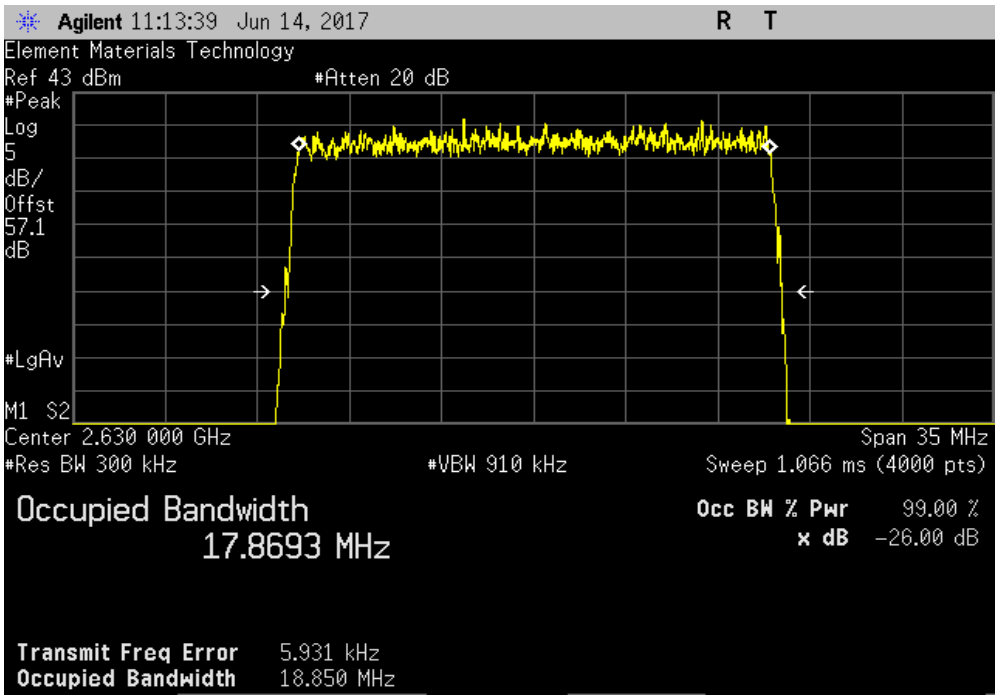


Antenna Port 1, High Channel LTE10, 2685 MHz						
				Value	Limit	Result
				9.565 MHz	N/A	N/A

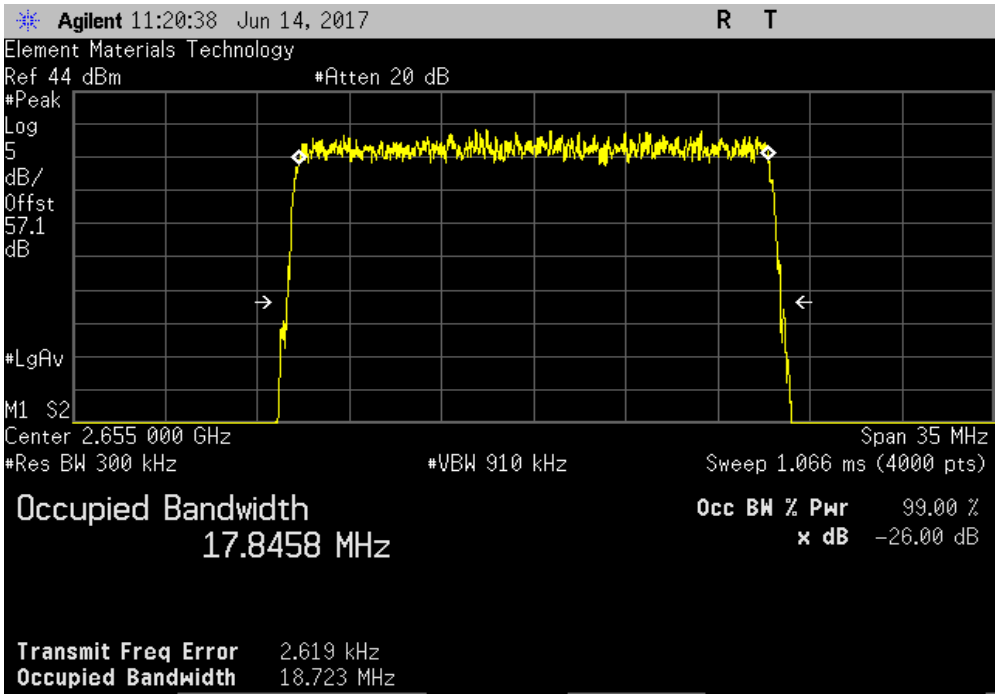


OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 1, Low Channel LTE20, 2630 MHz						
				Value	Limit	Result
				18.850 MHz	N/A	N/A

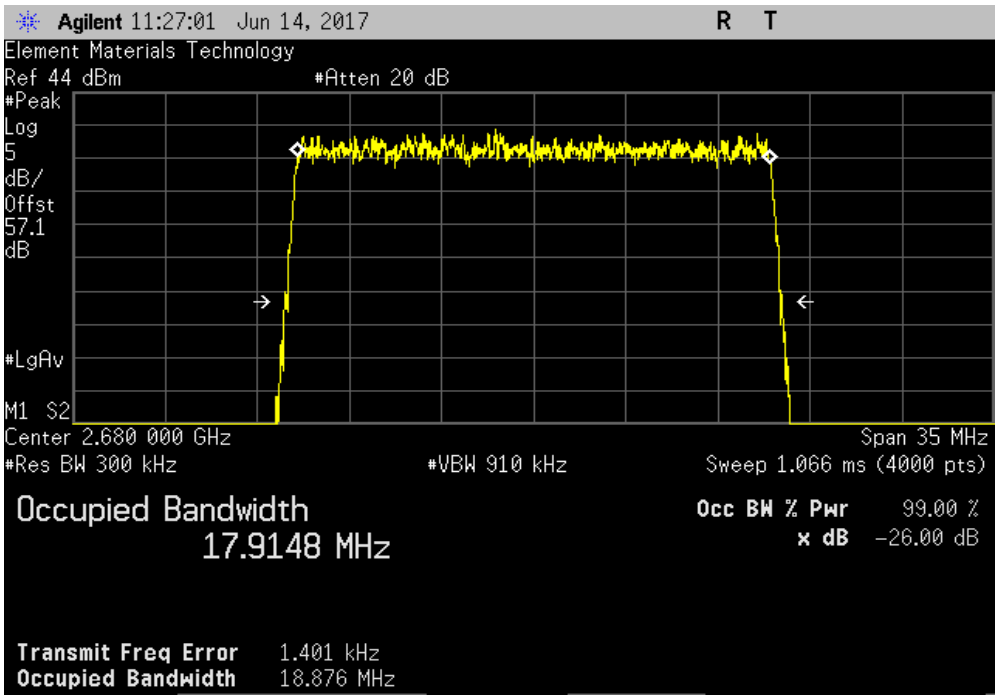


Antenna Port 1, Mid Channel LTE20, 2655 MHz						
				Value	Limit	Result
				18.723 MHz	N/A	N/A

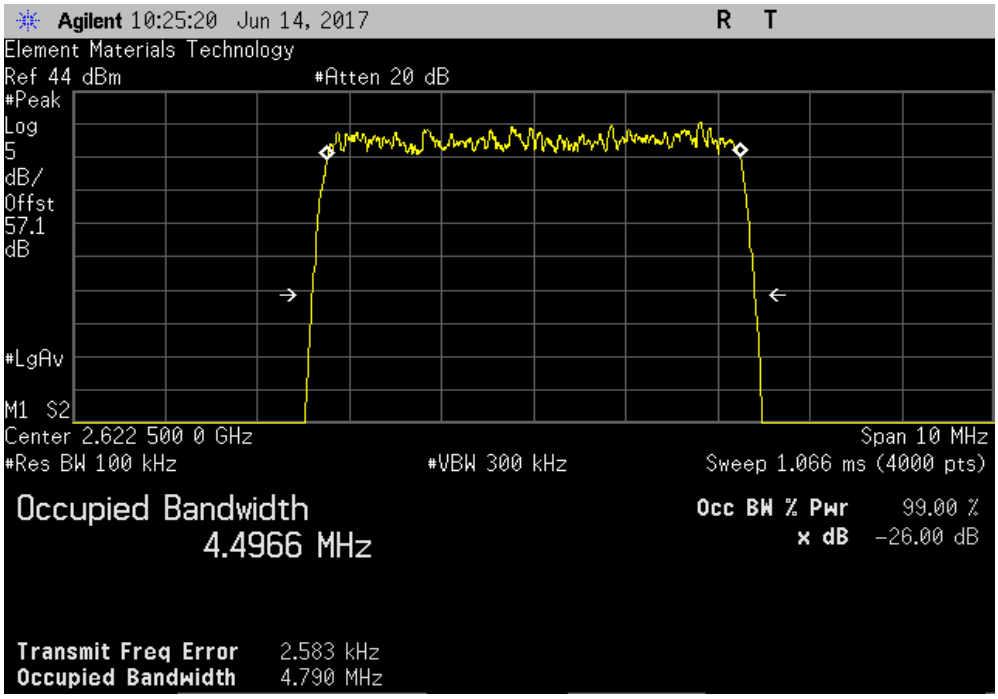


OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 1, High Channel LTE20, 2680 MHz						
				Value	Limit	Result
				18.876 MHz	N/A	N/A

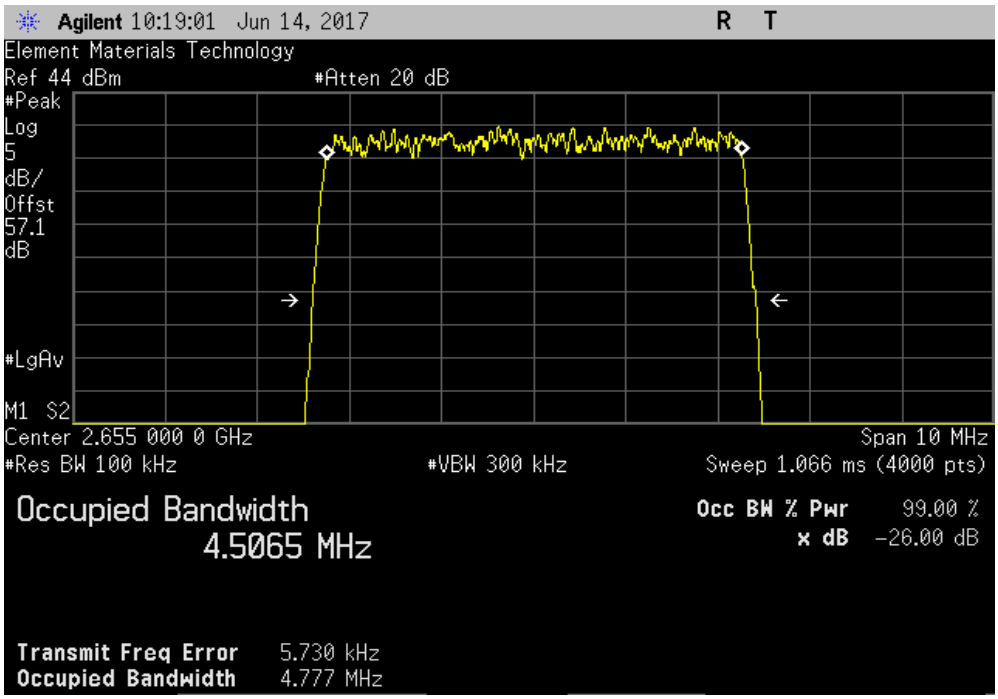


Antenna Port 2, Low Channel LTE5, 2622.5 MHz						
				Value	Limit	Result
				4.790 MHz	N/A	N/A

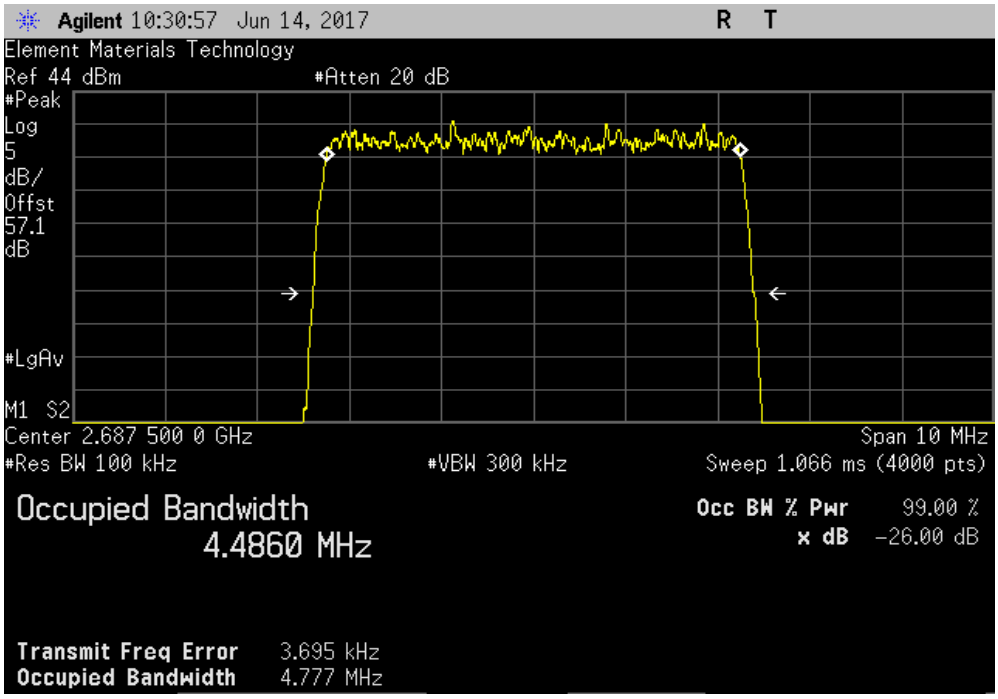


OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 2, Mid Channel LTE5, 2655 MHz						
				Value	Limit	Result
				4.777 MHz	N/A	N/A

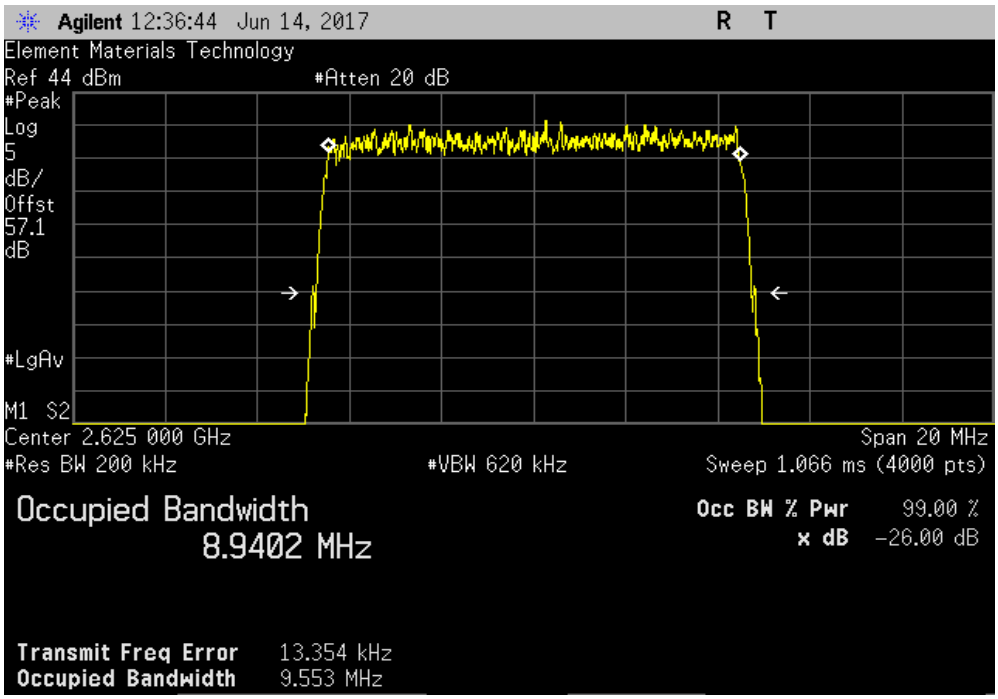


Antenna Port 2, High Channel LTE5, 2687.5 MHz						
				Value	Limit	Result
				4.777 MHz	N/A	N/A

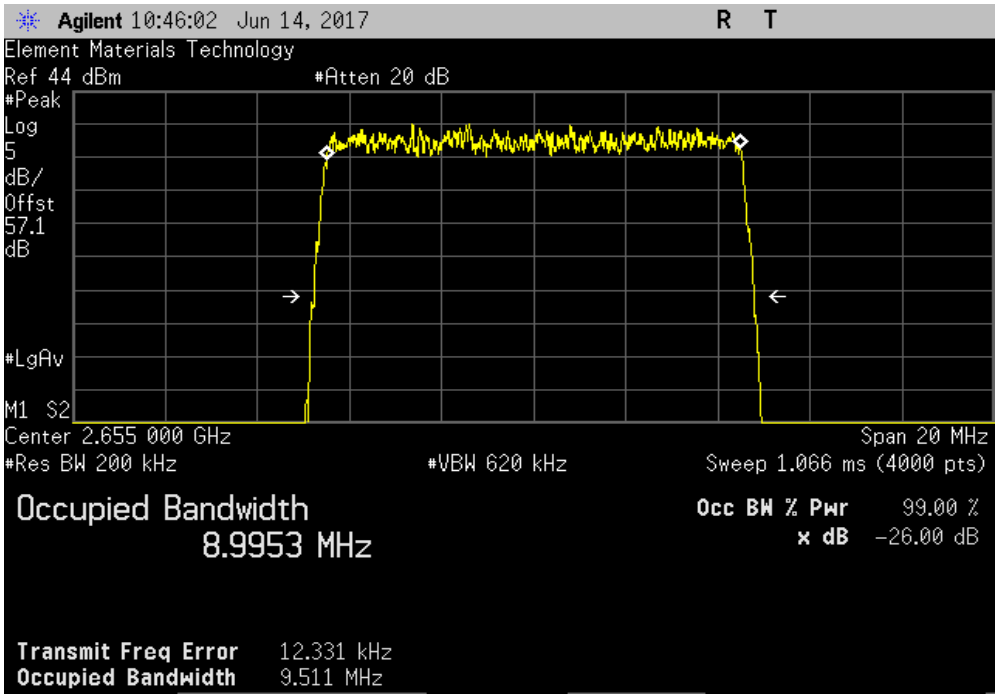


OCCUPIED BANDWIDTH EMISSION MASK

Antenna Port 2, Low Channel LTE10, 2625 MHz						
				Value	Limit	Result
				9.553 MHz	N/A	N/A

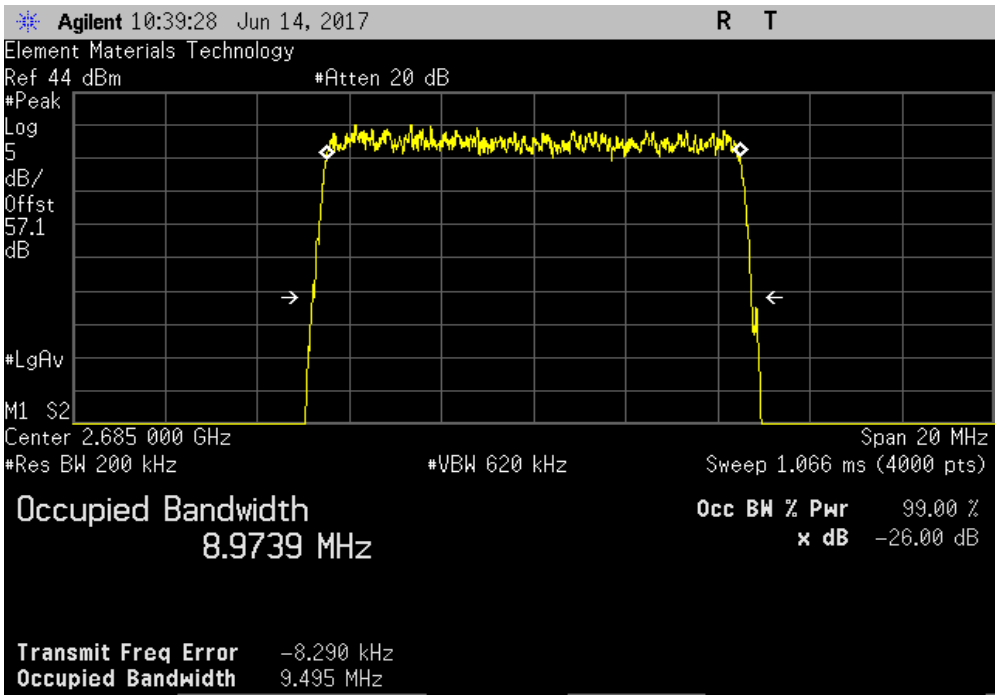


Antenna Port 2, Mid Channel LTE10, 2655 MHz						
				Value	Limit	Result
				9.511 MHz	N/A	N/A

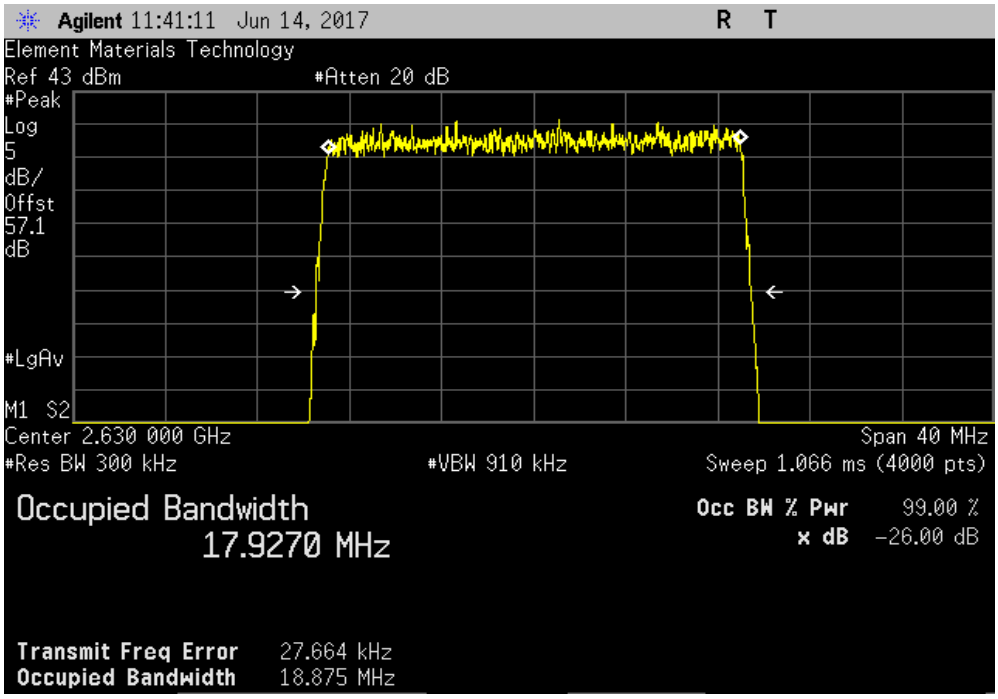


OCCUPIED BANDWIDTH EMISSION MASK

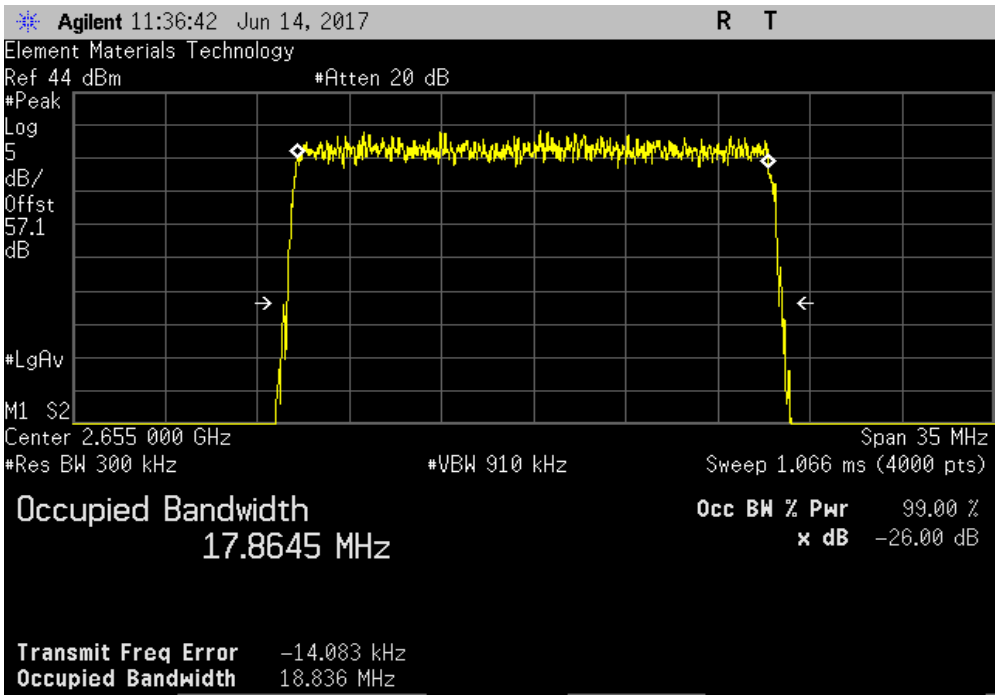
Antenna Port 2, High Channel LTE10, 2685 MHz						
				Value	Limit	Result
				9.495 MHz	N/A	N/A



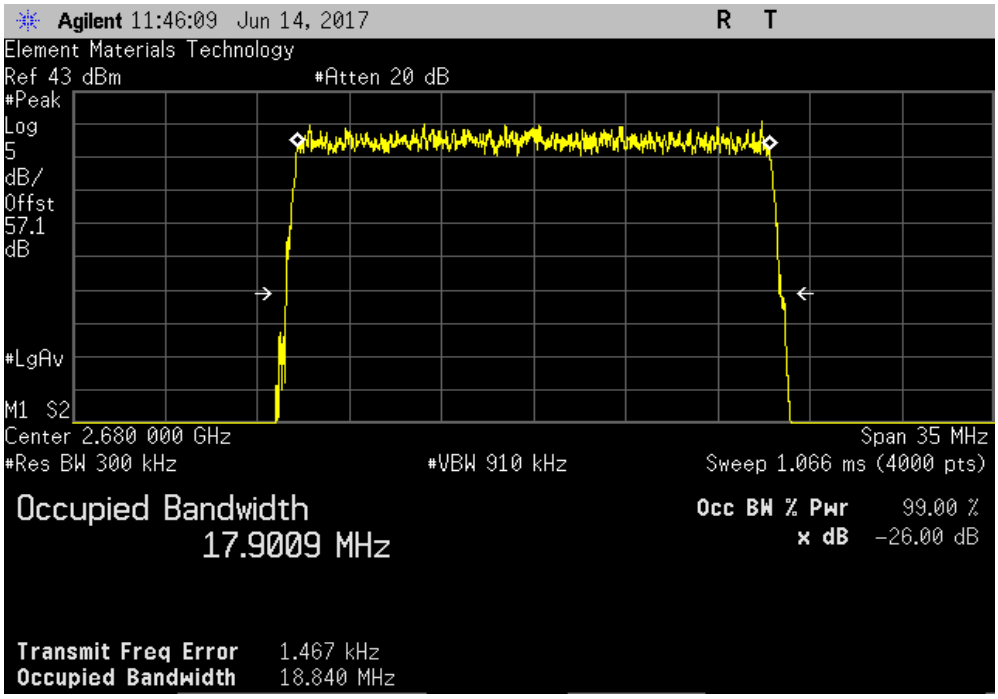
Antenna Port 2, Low Channel LTE20, 2630 MHz						
				Value	Limit	Result
				18.875 MHz	N/A	N/A



Antenna Port 2, Mid Channel LTE20, 2655 MHz						
				Value	Limit	Result
				18.836 MHz	N/A	N/A



Antenna Port 2, High Channel LTE20, 2680 MHz						
				Value	Limit	Result
				18.840 MHz	N/A	N/A



OUT OF BAND EMISSIONS - LTE BAND 7

PSA-ESCI 2017.01.26

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. The test data represents the configuration / operating mode/ model that produced the highest emission levels as compared to the specification limit.

MODES OF OPERATION

Transmitting at Low Ch 2622.5 MHz, Mid Ch 2655 MHz, & High Ch 2687.5 MHz

POWER SETTINGS INVESTIGATED

48 VDC

CONFIGURATIONS INVESTIGATED

KMWC0080 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	27000 MHz

SAMPLE CALCULATIONS

Radiated Emissions: Field Strength = Measured Level + Antenna Factor + Cable Factor - Amplifier Gain + Distance Adjustment Factor + External Attenuation

TEST EQUIPMENT

Description	Manufacturer	Model	ID	Last Cal.	Interval
Generator - Signal	Keysight	N5182B	TFX	4/16/2015	36 mo
Antenna - Double Ridge	EMCO	3115	AHB	3/21/2016	24 mo
Filter - Low Pass	Micro-Tronics	LPM50003	LFA	10/17/2016	12 mo
Antenna - Biconilog	EMCO	3142	AXB	11/6/2015	24 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AHR	NCR	NCR
Antenna - Standard Gain	ETS Lindgren	3160-08	AHT	NCR	NCR
Antenna - Standard Gain	ETS Lindgren	3160-09	AHN	NCR	NCR
Amplifier - Pre-Amplifier	Miteq	AMF-4D-010120-30-10P-1	AOP	7/13/2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AOE	8/10/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AOF	8/10/2016	12 mo
Cable	Northwest EMC	8-18GHz RE Cables	OCO	8/10/2016	12 mo
Cable	Northwest EMC	18-26GHz RE Cables	OCK	1/3/2017	12 mo
Power Sensor	Agilent	E4412A	SQE	1/26/2017	12 mo
Filter - Band Pass/Notch	K&L Microwave	3TNF-500/1000-N/N	HFR	3/3/2016	12 mo
Antenna - Double Ridge	ETS Lindgren	3117	AHQ	9/24/2015	24 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-118002650-25-10P	AOI	1/3/2017	12 mo
Filter - Low Pass	Micro-Tronics	LPM50003	HGO	3/28/2016	12 mo
Filter - High Pass	Micro-Tronics	HPM50108	HHW	8/10/2016	12 mo
Amplifier - Pre-Amplifier	Miteq	AM-1402	AOZ	8/10/2016	12 mo
Cable	Northwest EMC	10kHz-1GHz RE Cables	OCH	8/9/2016	12 mo
Cable	Northwest EMC	1-8GHz RE Cables	OCJ	7/13/2017	12 mo
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	12 mo

TEST DESCRIPTION

The EUT was tested with shielded terminators on the RF output ports instead of antennas.

For licensed transmitters, the FCC references TIA/EIA-603 as the measurement procedure standard. TIA/EIA-603 Section 2.2.12 describes a method for measuring radiated spurious emissions that utilizes an antenna substitution method:

At an approved test site, the transmitter is place on a remotely controlled turntable, and the measurement antenna is placed 3 meters from the transmitter. The turntable azimuth is varied to maximize the level of spurious emissions. The height of the measurement antenna is also varied from 1 to 4 meters. The amplitude and frequency of the highest emissions are noted. The transmitter is then replaced with a ½ wave dipole that is successively tuned to each of the highest spurious emissions for emissions below 1 GHz, and a horn antenna for emissions above 1 GHz. A signal generator is connected to the dipole (horn antenna for frequencies above 1 GHz), and its output is adjusted to match the level previously noted for each frequency. The output of the signal generator is recorded, and by factoring in the cable loss to the antenna and its gain; the power (dBm) into an ideal ½ wave dipole antenna is determined for each radiated spurious emission.

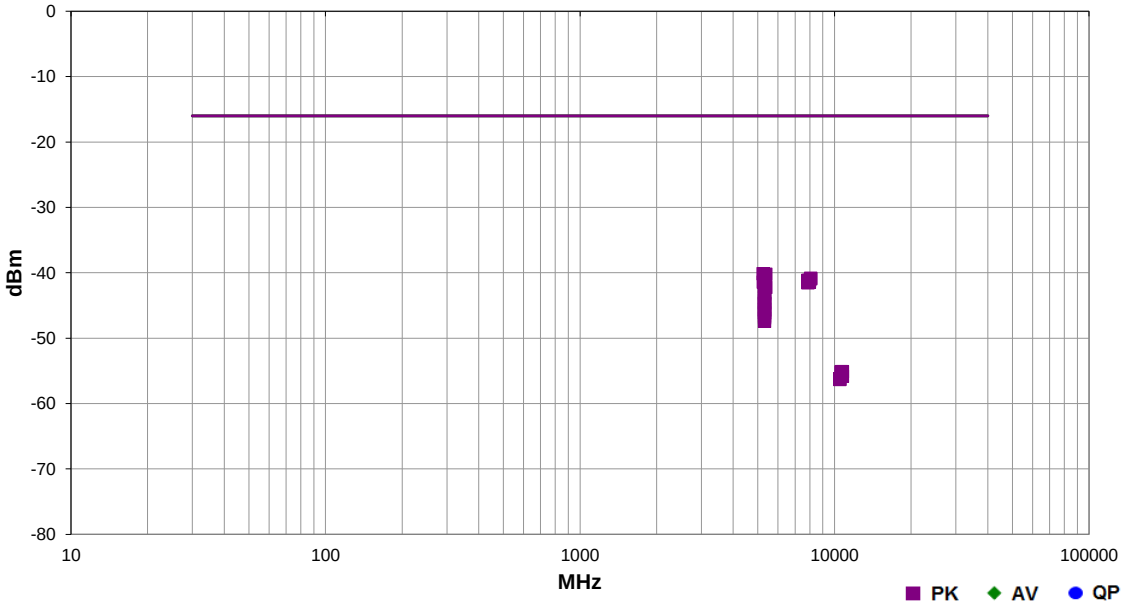
OUT OF BAND EMISSIONS - LTE BAND 7

EmiR5 2017.01.25 PSA-ESCI 2017.01.26

Work Order:	KMWC0080	**Date:**	06/19/17		
Project:	None	**Temperature:**	22 °C		
Job Site:	OC07	**Humidity:**	45.8% RH		
Serial Number:	See Configuration	**Barometric Pres.:**	1013 mbar	**Tested by:**	Salvador Solorzano and Johnny Candelas
EUT:	CWS-3050-07				
Configuration:	1				
Customer:	Parallel Wireless Inc.				
Attendees:	Daniel Kim				
EUT Power:	48 VDC				
Operating Mode:	Transmitting at Low Ch 2622.5 MHz, Mid Ch 2655 MHz, & High Ch 2687.5 MHz				
Deviations:	None				
Comments:	2x40W The -13dBm specification limit has been lowered by 3dB to account for the 2 port MIMO configuration. Correction factor based upon the formula of 10*log(# of antennas) Using -16dBm				

Test Specifications	**Test Method**
FCC 27.53:2017	ANSI/TIA/EIA-603-D-2010

Run #	12	**Test Distance (m)**	3	**Antenna Height(s)**	1 to 4(m)	**Results**	Pass



	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	5244.145	1.0	0.0	Vert	PK	9.71E-08	-40.1	-16.0	-24.1	Low Ch, EUT Horz, LTE5
	5375.205	1.0	90.0	Vert	PK	9.49E-08	-40.2	-16.0	-24.2	High CH, EUT Horz, LTE5
	5309.508	1.0	97.0	Vert	PK	8.46E-08	-40.7	-16.0	-24.7	Mid Ch, EUT Horz, LTE5
	8063.540	1.0	141.0	Vert	PK	8.26E-08	-40.8	-16.0	-24.8	High CH, EUT Horz, LTE5
	8062.110	3.1	177.0	Horz	PK	8.07E-08	-40.9	-16.0	-24.9	High CH, EUT Horz, LTE5
	7966.480	1.9	170.0	Vert	PK	7.71E-08	-41.1	-16.0	-25.1	Mid Ch, EUT Horz, LTE5
	7869.120	1.0	182.0	Vert	PK	7.71E-08	-41.1	-16.0	-25.1	Low Ch, EUT Horz, LTE5
	5309.183	1.0	227.0	Vert	PK	7.54E-08	-41.2	-16.0	-25.2	Mid Ch, EUT on Side, LTE5
	5309.075	1.0	94.0	Vert	PK	7.36E-08	-41.3	-16.0	-25.3	Mid Ch, EUT Horz, LTE10
	7965.995	1.0	153.0	Horz	PK	7.20E-08	-41.4	-16.0	-25.4	Mid Ch, EUT Horz, LTE5
	5246.390	1.7	249.0	Horz	PK	7.20E-08	-41.4	-16.0	-25.4	Low Ch, EUT Horz, LTE5
	5312.017	1.0	278.0	Horz	PK	7.03E-08	-41.5	-16.0	-25.5	Mid Ch, EUT Horz, LTE5
	7867.885	1.0	293.0	Horz	PK	7.03E-08	-41.5	-16.0	-25.5	Low Ch, EUT Horz, LTE5
	5310.500	1.0	346.0	Vert	PK	6.41E-08	-41.9	-16.0	-25.9	Mid Ch, EUT Vert LTE5
	5309.108	1.0	246.0	Horz	PK	6.13E-08	-42.1	-16.0	-26.1	Mid Ch, EUT on Side, LTE5
	5375.200	1.0	355.0	Horz	PK	5.99E-08	-42.2	-16.0	-26.2	High CH, EUT Horz, LTE5
	5310.442	1.0	339.0	Horz	PK	4.98E-08	-43.0	-16.0	-27.0	Mid Ch, EUT Vert LTE5
	5310.480	2.7	315.0	Vert	PK	4.75E-08	-43.2	-16.0	-27.2	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE10 2655-2662.5
	5308.540	1.0	128.0	Vert	PK	4.14E-08	-43.8	-16.0	-27.8	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE5 2655 -2660
	5309.210	1.0	127.0	Vert	PK	4.14E-08	-43.8	-16.0	-27.8	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE5 2655 -2622.5
	5308.725	1.0	33.0	Horz	PK	3.78E-08	-44.2	-16.0	-28.2	Mid Ch, EUT Horz, LTE10
	5309.395	3.5	321.0	Vert	PK	3.44E-08	-44.6	-16.0	-28.6	Mid Ch, EUT Horz, LTE20
	5309.305	1.0	240.0	Horz	PK	3.44E-08	-44.6	-16.0	-28.6	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE10 2655-2662.5

	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	5309.975	1.1	334.0	Vert	PK	3.37E-08	-44.7	-16.0	-28.7	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE20 2655 -2622.5
	5309.760	1.0	312.0	Vert	PK	2.80E-08	-45.5	-16.0	-29.5	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE10 2655 -2622.5
	5309.530	1.0	240.0	Horz	PK	2.67E-08	-45.7	-16.0	-29.7	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE20 2655-2677.5
	5310.305	1.0	333.0	Vert	PK	2.67E-08	-45.7	-16.0	-29.7	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE20 2655-2677.5
	5309.200	1.0	358.0	Horz	PK	2.44E-08	-46.1	-16.0	-30.1	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE5 2655 -2622.5
	5309.880	3.3	269.0	Horz	PK	2.44E-08	-46.1	-16.0	-30.1	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE10 2655 -2622.5
	5308.740	1.0	249.0	Horz	PK	2.17E-08	-46.6	-16.0	-30.6	Mid Ch, EUT Horz, Dual Carriers Adjacent LTE5-LTE5 2655 -2660
	5310.495	1.0	344.0	Horz	PK	2.03E-08	-46.9	-16.0	-30.9	Mid Ch, EUT Horz, LTE20
	5309.775	1.0	106.0	Horz	PK	1.81E-08	-47.4	-16.0	-31.4	Mid Ch, EUT Horz, Dual Carriers Edge to Edge LTE5-LTE20 2655 -2622.5
	10621.280	1.0	91.0	Vert	PK	3.07E-09	-55.1	-16.0	-39.1	Mid Ch, EUT Horz, LTE5
	10748.730	1.0	233.0	Horz	PK	3.07E-09	-55.1	-16.0	-39.1	High CH, EUT Horz, LTE5
	10620.240	1.0	0.0	Horz	PK	3.00E-09	-55.2	-16.0	-39.2	Mid Ch, EUT Horz, LTE5
	10750.470	1.0	315.0	Vert	PK	2.61E-09	-55.8	-16.0	-39.8	High CH, EUT Horz, LTE5
	10491.260	2.6	291.0	Vert	PK	2.38E-09	-56.2	-16.0	-40.2	Low Ch, EUT Horz, LTE5
	10491.270	1.0	194.0	Horz	PK	2.33E-09	-56.3	-16.0	-40.3	Low Ch, EUT Horz, LTE5

SPURIOUS EMISSIONS AT THE ANTENNA TERMINALS

XMit 2017.02.08

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
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Analyzer plots utilizing a 1 MHz resolution bandwidth and no video filtering were made for each mode listed in the datasheet.

The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to the limit. Emissions close to the limit were re-measured using an RMS Average detector to match the method used during output power measurements.

SPURIOUS EMISSIONS AT THE ANTENNA TERMINALS

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.
The -13dBm specification limit has been lowered by 3dB to account for the 2 port MIMO configuration. Correction factor based upon the formula of 10*log(# of antennas) Using -16dBm

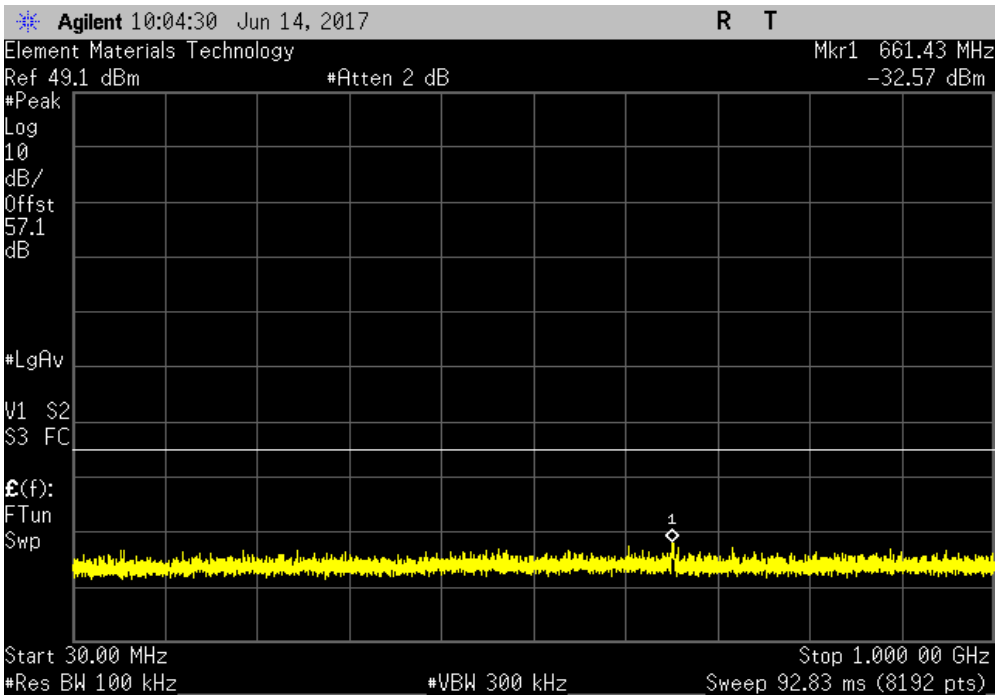
DEVIATIONS FROM TEST STANDARD

None

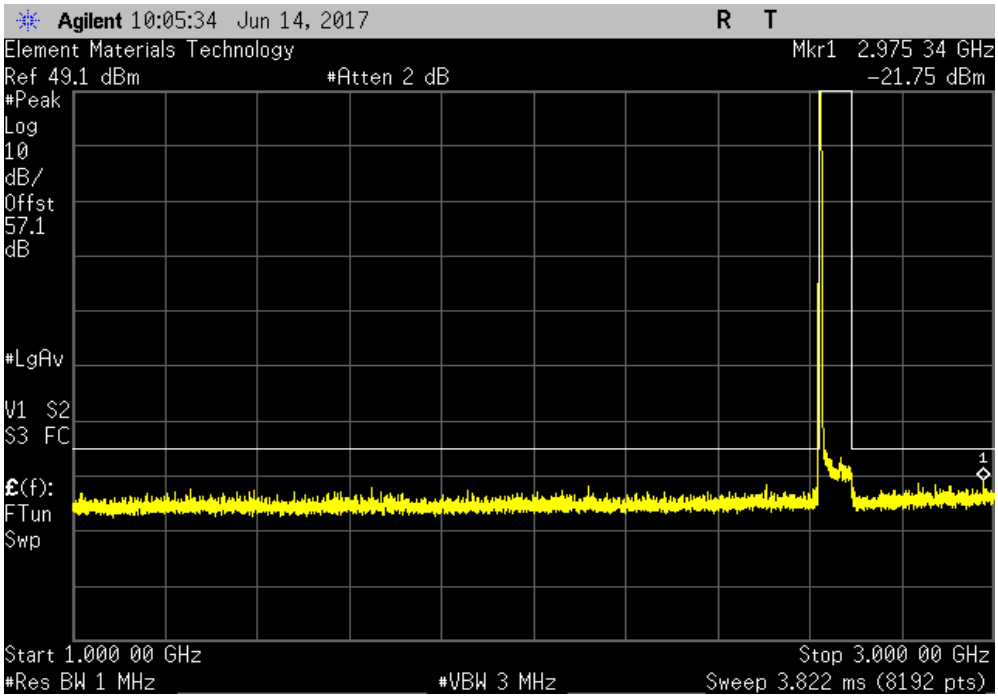
Configuration #	**1**	*Signature*

		Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
Antenna Port 1					
	Low Channel LTE5, 2622.5 MHz	30 MHz - 1 GHz	-32.57	-16	Pass
	Low Channel LTE5, 2622.5 MHz	1 GHz - 3 GHz	-21.75	-16	Pass
	Low Channel LTE5, 2622.5 MHz	3 GHz - 15 GHz	-19.47	-16	Pass
	Low Channel LTE5, 2622.5 MHz	15 GHz - 27 GHz	-17.74	-16	Pass
	Mid Channel LTE5, 2655 MHz	30 MHz - 1 GHz	-32.81	-16	Pass
	Mid Channel LTE5, 2655 MHz	1 GHz - 3 GHz	-22.53	-16	Pass
	Mid Channel LTE5, 2655 MHz	3 GHz - 15 GHz	-19.66	-16	Pass
	Mid Channel LTE5, 2655 MHz	15 GHz - 27 GHz	-17.10	-16	Pass
	High Channel LTE5, 2687.5 MHz	30 MHz - 1 GHz	-33.20	-16	Pass
	High Channel LTE5, 2687.5 MHz	1 GHz - 3 GHz	-22.56	-16	Pass
	High Channel LTE5, 2687.5 MHz	3 GHz - 15 GHz	-20.41	-16	Pass
	High Channel LTE5, 2687.5 MHz	15 GHz - 27 GHz	-16.20	-16	Pass
	Low Channel LTE10, 2625 MHz	30 MHz - 1 GHz	-32.65	-16	Pass
	Low Channel LTE10, 2625 MHz	1 GHz - 3 GHz	-22.70	-16	Pass
	Low Channel LTE10, 2625 MHz	3 GHz - 15 GHz	-19.44	-16	Pass
	Low Channel LTE10, 2625 MHz	15 GHz - 27 GHz	-16.90	-16	Pass
	Mid Channel LTE10, 2655 MHz	30 MHz - 1 GHz	-32.76	-16	Pass
	Mid Channel LTE10, 2655 MHz	1 GHz - 3 GHz	-22.51	-16	Pass
	Mid Channel LTE10, 2655 MHz	3 GHz - 15 GHz	-19.21	-16	Pass
	Mid Channel LTE10, 2655 MHz	15 GHz - 27 GHz	-16.57	-16	Pass
	High Channel LTE10, 2685 MHz	30 MHz - 1 GHz	-33.17	-16	Pass
	High Channel LTE10, 2685 MHz	1 GHz - 3 GHz	-22.75	-16	Pass
	High Channel LTE10, 2685 MHz	3 GHz - 15 GHz	-19.22	-16	Pass
	High Channel LTE10, 2685 MHz	15 GHz - 27 GHz	-16.44	-16	Pass
	Low Channel LTE20, 2630 MHz	30 MHz - 1 GHz	-33.64	-16	Pass
	Low Channel LTE20, 2630 MHz	1 GHz - 3 GHz	-21.95	-16	Pass
	Low Channel LTE20, 2630 MHz	3 GHz - 15 GHz	-19.02	-16	Pass
	Low Channel LTE20, 2630 MHz	15 GHz - 27 GHz	-16.53	-16	Pass
	Mid Channel LTE20, 2655 MHz	30 MHz - 1 GHz	-33.39	-16	Pass
	Mid Channel LTE20, 2655 MHz	1 GHz - 3 GHz	-23.61	-16	Pass
	Mid Channel LTE20, 2655 MHz	3 GHz - 15 GHz	-19.86	-16	Pass
	Mid Channel LTE20, 2655 MHz	15 GHz - 27 GHz	-16.61	-16	Pass
	High Channel LTE20, 2680 MHz	30 MHz - 1 GHz	-32.51	-16	Pass
	High Channel LTE20, 2680 MHz	1 GHz - 3 GHz	-21.87	-16	Pass
	High Channel LTE20, 2680 MHz	3 GHz - 15 GHz	-19.03	-16	Pass
	High Channel LTE20, 2680 MHz	15 GHz - 27 GHz	-16.19	-16	Pass
Antenna Port 2					
	Low Channel LTE5, 2622.5 MHz	30 MHz - 1 GHz	-31.77	-16	Pass
	Low Channel LTE5, 2622.5 MHz	1 GHz - 3 GHz	-23.28	-16	Pass
	Low Channel LTE5, 2622.5 MHz	3 GHz - 15 GHz	-19.37	-16	Pass
	Low Channel LTE5, 2622.5 MHz	15 GHz - 27 GHz	-16.51	-16	Pass
	Mid Channel LTE5, 2655 MHz	30 MHz - 1 GHz	-33.41	-16	Pass
	Mid Channel LTE5, 2655 MHz	1 GHz - 3 GHz	-23.14	-16	Pass
	Mid Channel LTE5, 2655 MHz	3 GHz - 15 GHz	-19.91	-16	Pass
	Mid Channel LTE5, 2655 MHz	15 GHz - 27 GHz	-16.32	-16	Pass
	High Channel LTE5, 2687.5 MHz	30 MHz - 1 GHz	-33.60	-16	Pass
	High Channel LTE5, 2687.5 MHz	1 GHz - 3 GHz	-21.72	-16	Pass
	High Channel LTE5, 2687.5 MHz	3 GHz - 15 GHz	-19.17	-16	Pass
	High Channel LTE5, 2687.5 MHz	15 GHz - 27 GHz	-16.44	-16	Pass
	Low Channel LTE10, 2625 MHz	30 MHz - 1 GHz	-33.21	-16	Pass
	Low Channel LTE10, 2625 MHz	1 GHz - 3 GHz	-23.23	-16	Pass
	Low Channel LTE10, 2625 MHz	3 GHz - 15 GHz	-19.57	-16	Pass
	Low Channel LTE10, 2625 MHz	15 GHz - 27 GHz	-16.68	-16	Pass
	Mid Channel LTE10, 2655 MHz	30 MHz - 1 GHz	-33.68	-16	Pass
	Mid Channel LTE10, 2655 MHz	1 GHz - 3 GHz	-17.37	-16	Pass
	Mid Channel LTE10, 2655 MHz	3 GHz - 15 GHz	-19.20	-16	Pass
	Mid Channel LTE10, 2655 MHz	15 GHz - 27 GHz	-16.69	-16	Pass
	High Channel LTE10, 2685 MHz	30 MHz - 1 GHz	-33.42	-16	Pass
	High Channel LTE10, 2685 MHz	1 GHz - 3 GHz	-21.43	-16	Pass
	High Channel LTE10, 2685 MHz	3 GHz - 15 GHz	-18.38	-16	Pass
	High Channel LTE10, 2685 MHz	15 GHz - 27 GHz	-16.37	-16	Pass
	Low Channel LTE20, 2630 MHz	30 MHz - 1 GHz	-32.97	-16	Pass
	Low Channel LTE20, 2630 MHz	1 GHz - 3 GHz	-22.75	-16	Pass
	Low Channel LTE20, 2630 MHz	3 GHz - 15 GHz	-19.79	-16	Pass
	Low Channel LTE20, 2630 MHz	15 GHz - 27 GHz	-16.91	-16	Pass
	Mid Channel LTE20, 2655 MHz	30 MHz - 1 GHz	-33.08	-16	Pass
	Mid Channel LTE20, 2655 MHz	1 GHz - 3 GHz	-22.42	-16	Pass
	Mid Channel LTE20, 2655 MHz	3 GHz - 15 GHz	-19.43	-16	Pass
	Mid Channel LTE20, 2655 MHz	15 GHz - 27 GHz	-16.36	-16	Pass
	High Channel LTE20, 2680 MHz	30 MHz - 1 GHz	-33.18	-16	Pass
	High Channel LTE20, 2680 MHz	1 GHz - 3 GHz	-22.26	-16	Pass
	High Channel LTE20, 2680 MHz	3 GHz - 15 GHz	-17.86	-16	Pass
	High Channel LTE20, 2680 MHz	15 GHz - 27 GHz	-16.41	-16	Pass

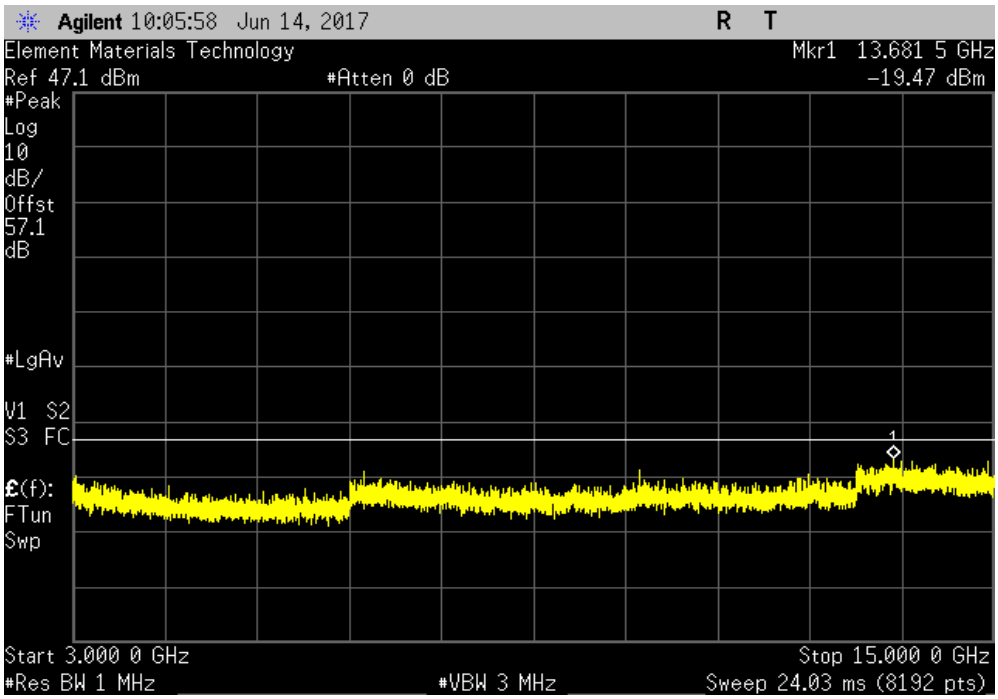
Antenna Port 1, Low Channel LTE5, 2622.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.57	-16	Pass



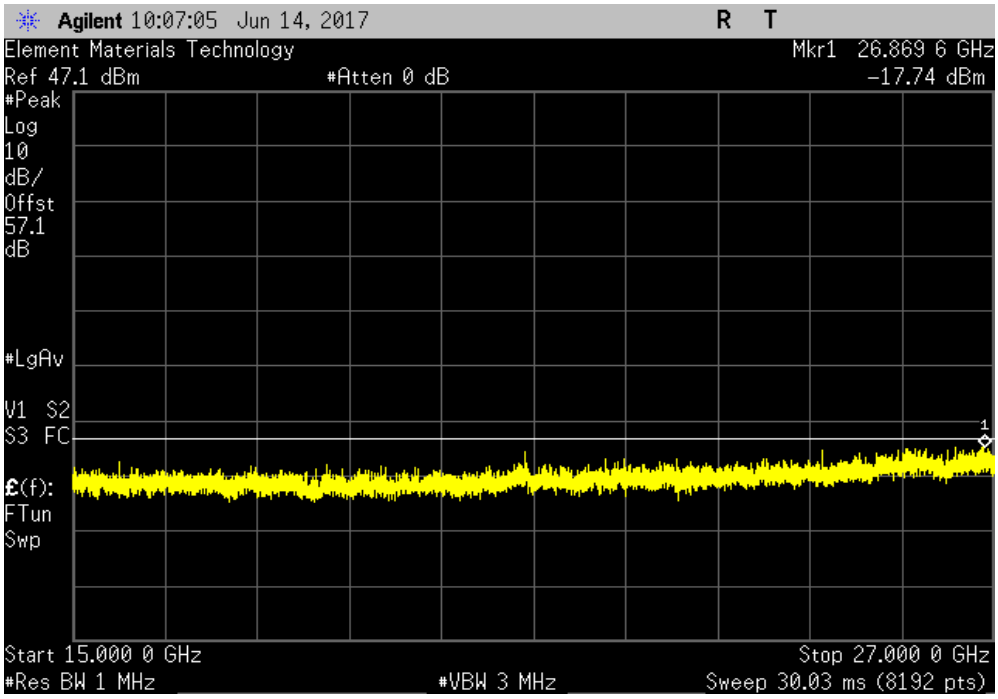
Antenna Port 1, Low Channel LTE5, 2622.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.75	-16	Pass



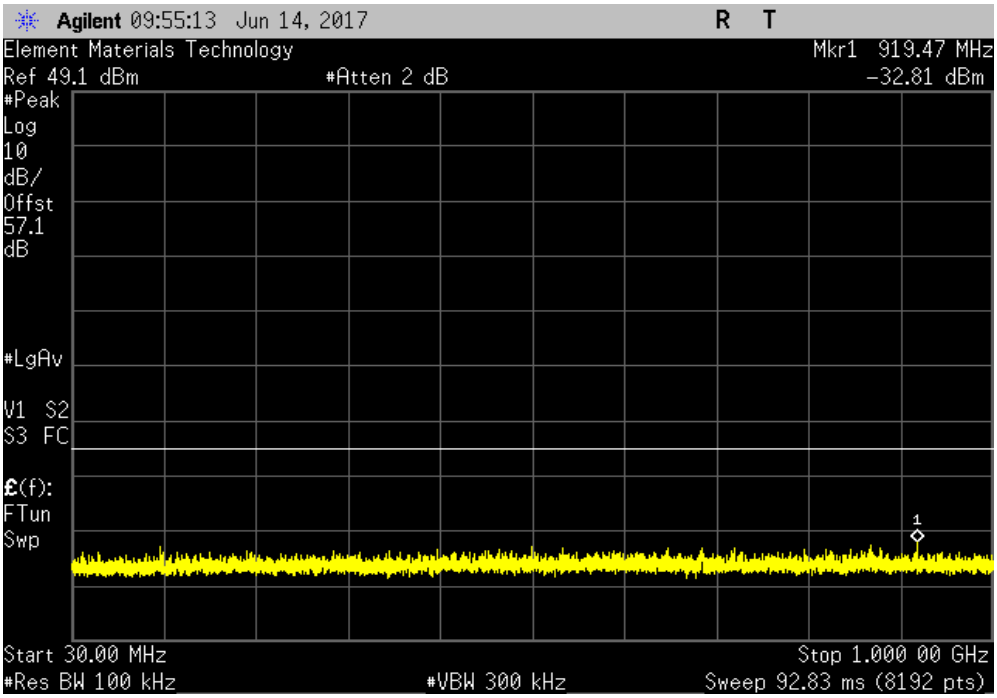
Antenna Port 1, Low Channel LTE5, 2622.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.47	-16	Pass



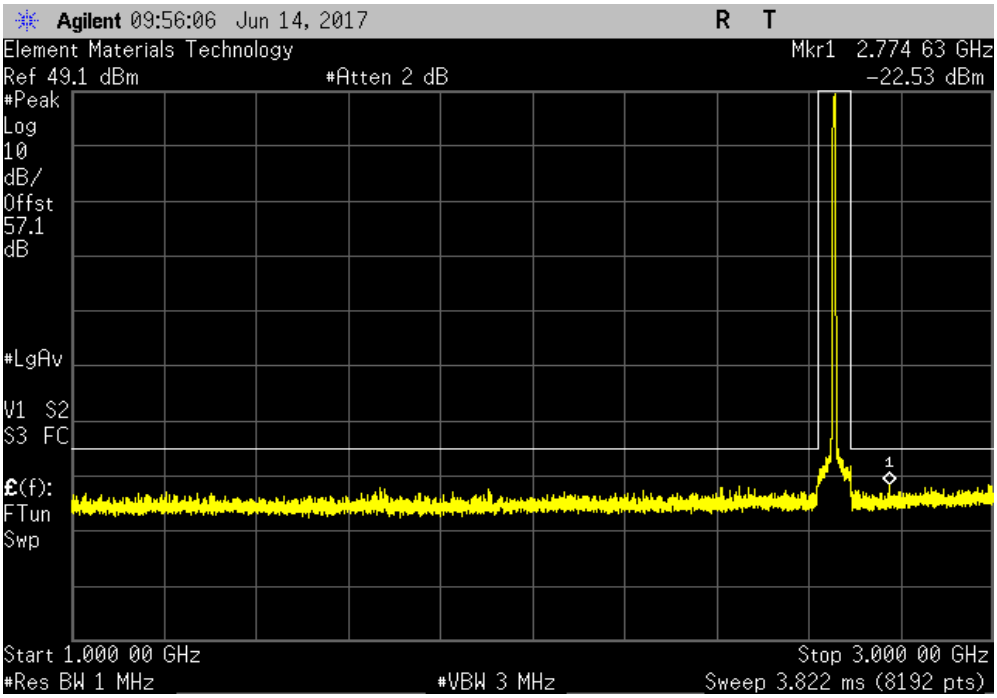
Antenna Port 1, Low Channel LTE5, 2622.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-17.74	-16	Pass



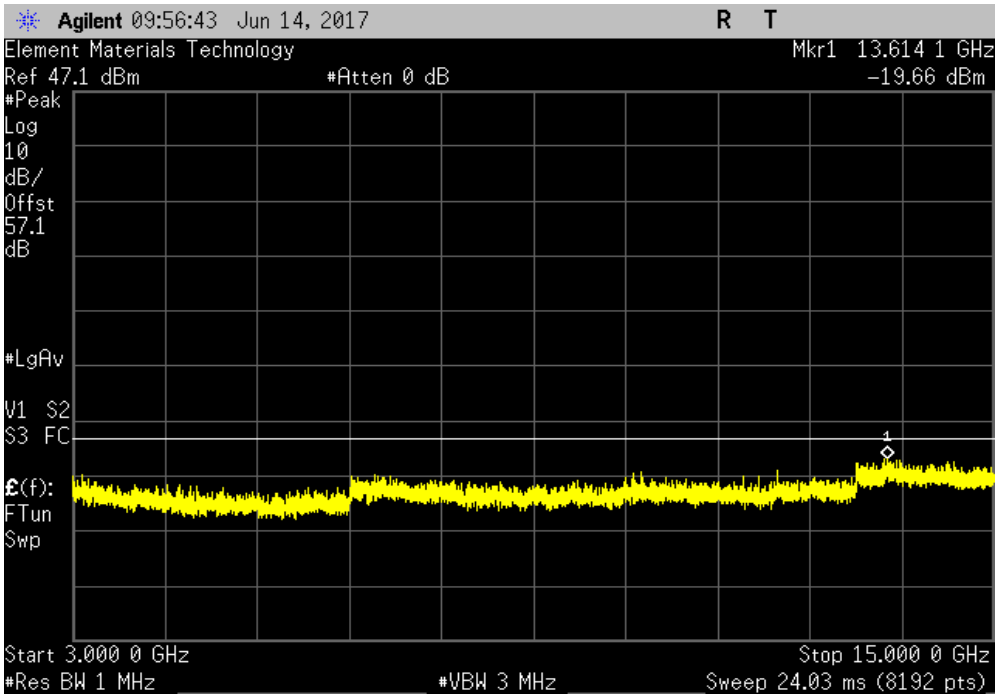
Antenna Port 1, Mid Channel LTE5, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.81	-16	Pass



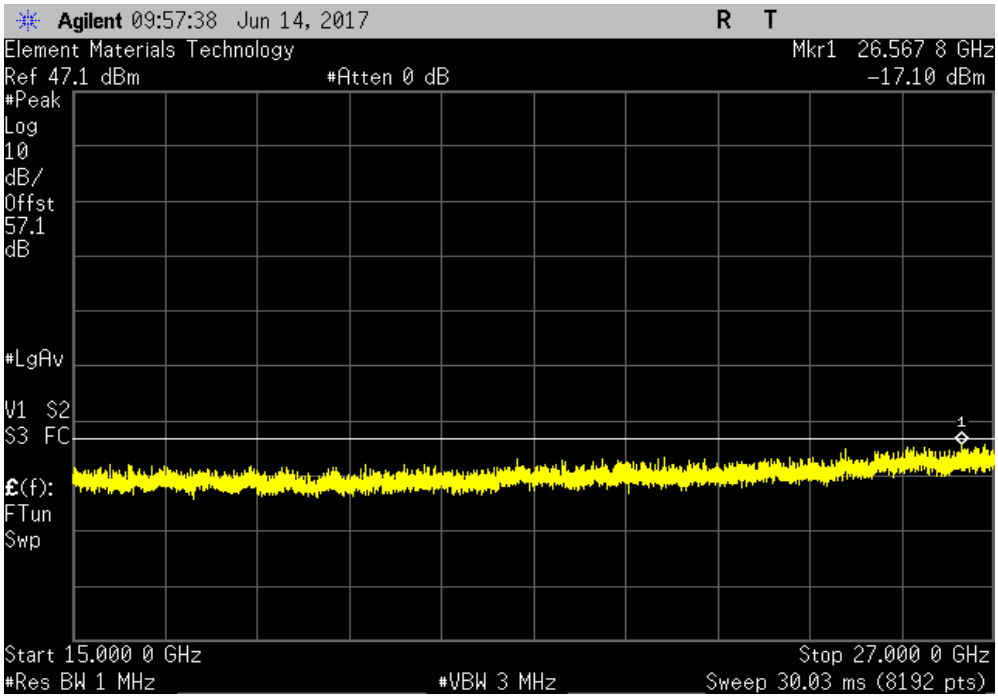
Antenna Port 1, Mid Channel LTE5, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.53	-16	Pass



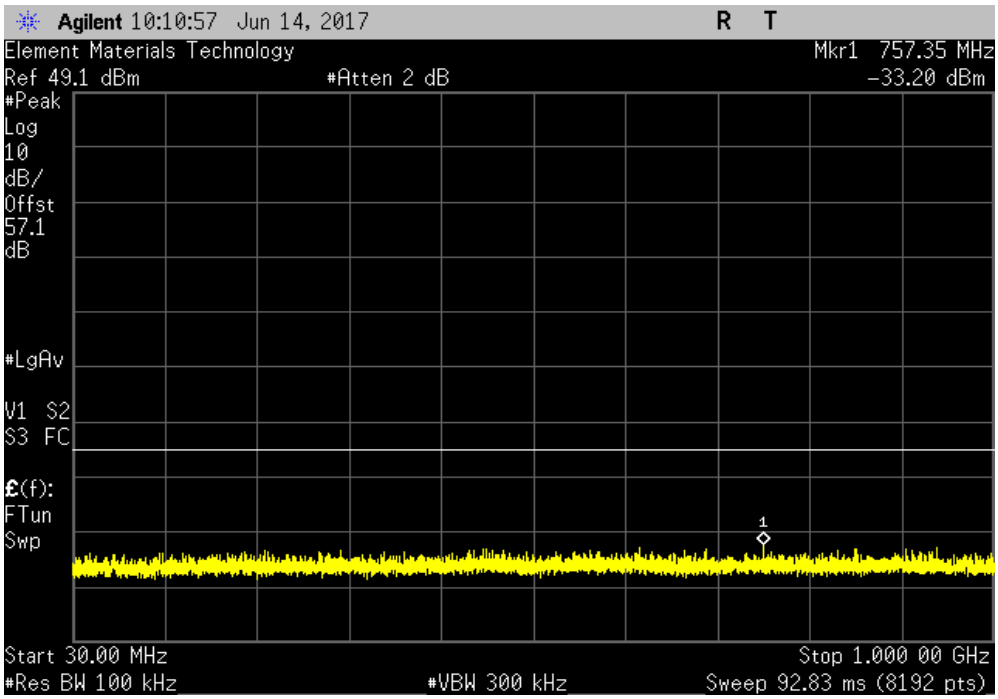
Antenna Port 1, Mid Channel LTE5, 2655 MHz					
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result	
3 GHz - 15 GHz		-19.66	-16	Pass	



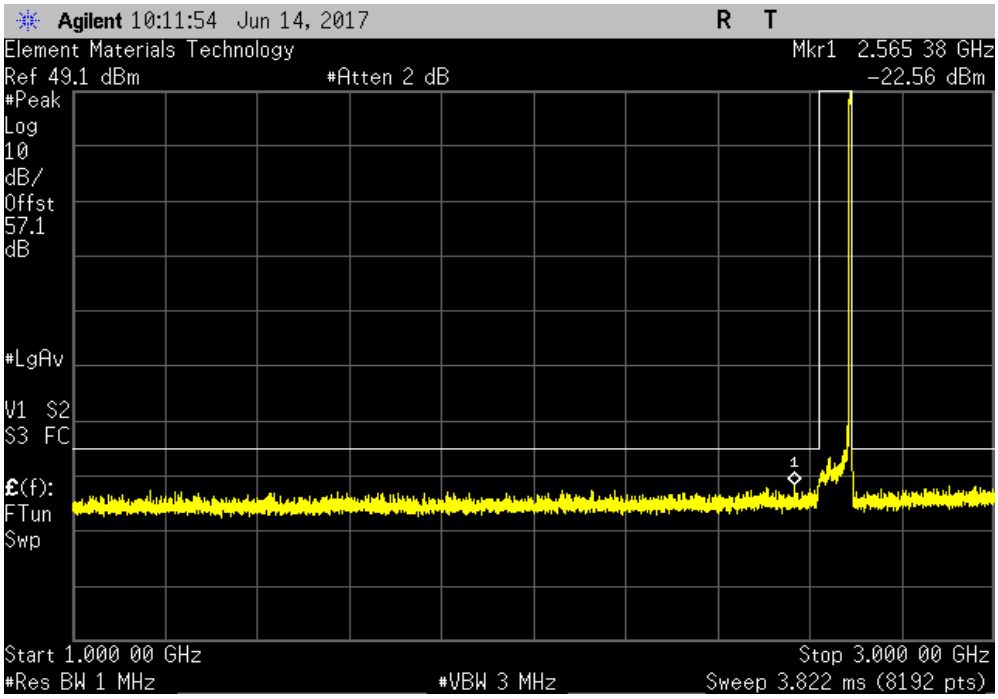
Antenna Port 1, Mid Channel LTE5, 2655 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-17.1	-16	Pass



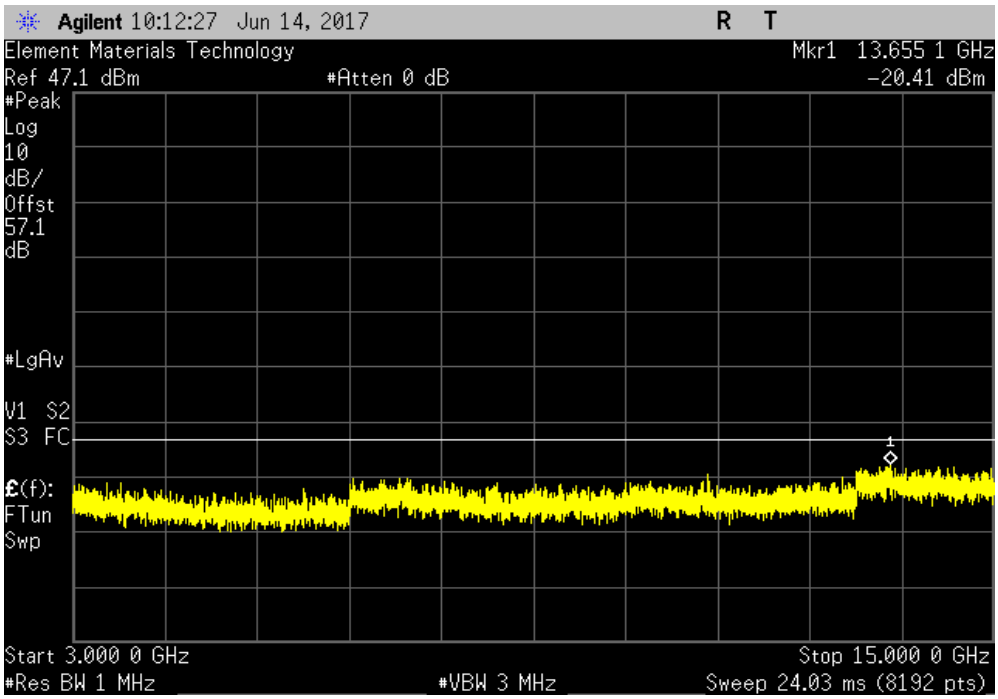
Antenna Port 1, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.2	-16	Pass



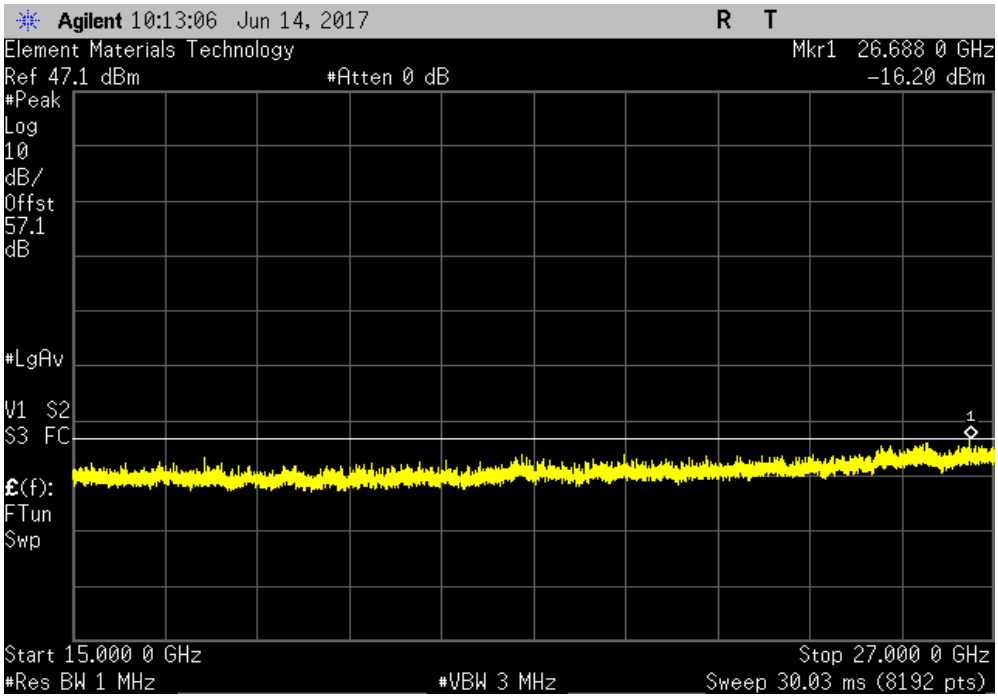
Antenna Port 1, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.56	-16	Pass



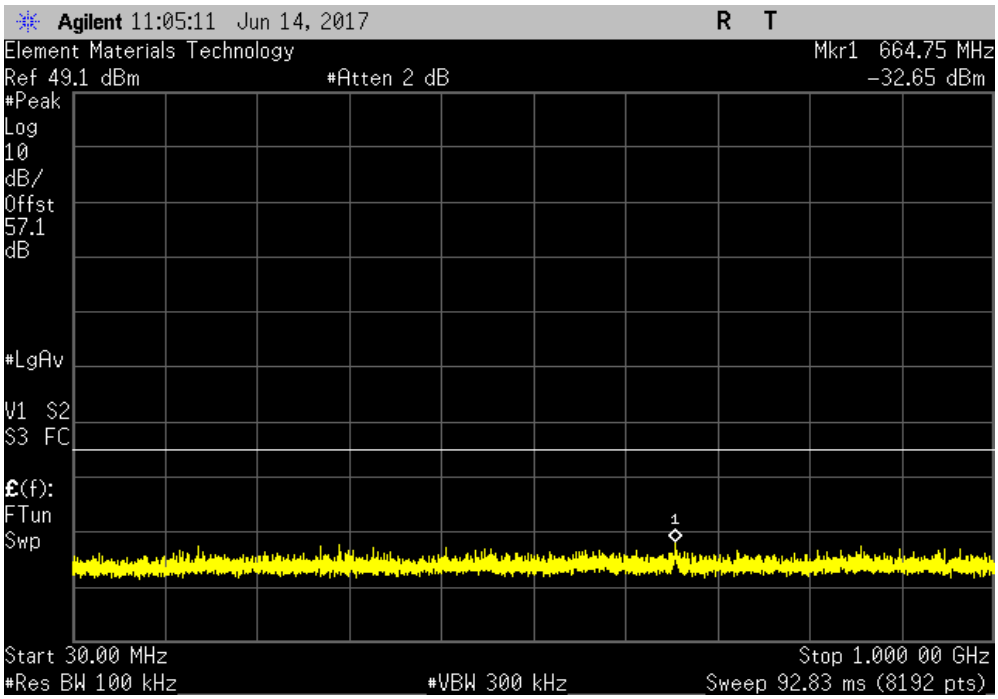
Antenna Port 1, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-20.41	-16	Pass



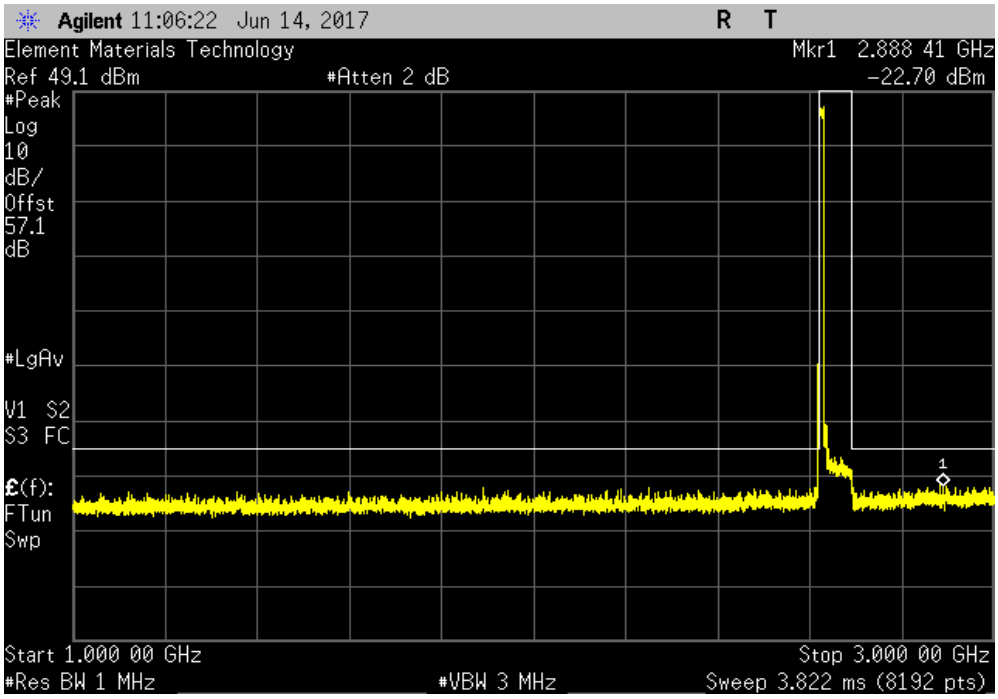
Antenna Port 1, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	15 GHz - 27 GHz			-16.2	-16	Pass



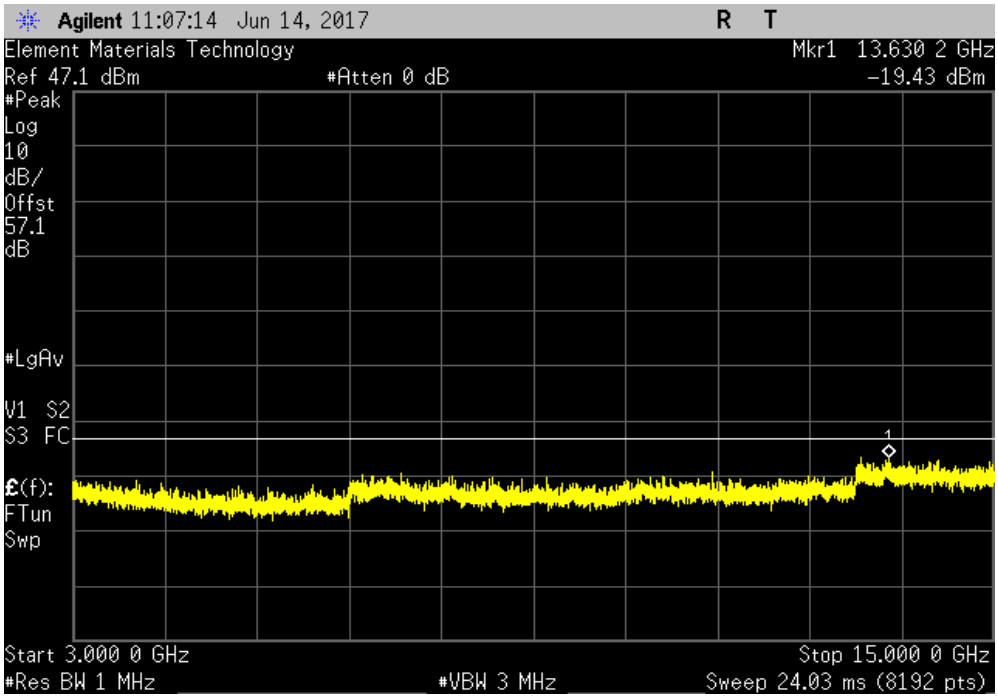
Antenna Port 1, Low Channel LTE10, 2625 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.65	-16	Pass



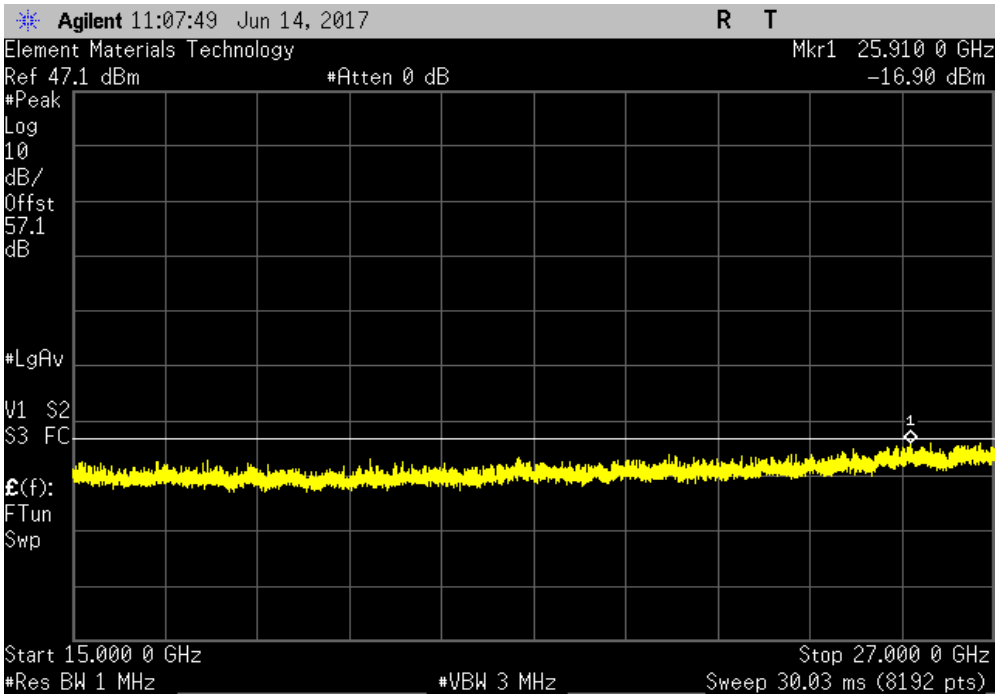
Antenna Port 1, Low Channel LTE10, 2625 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.7	-16	Pass



Antenna Port 1, Low Channel LTE10, 2625 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.44	-16	Pass

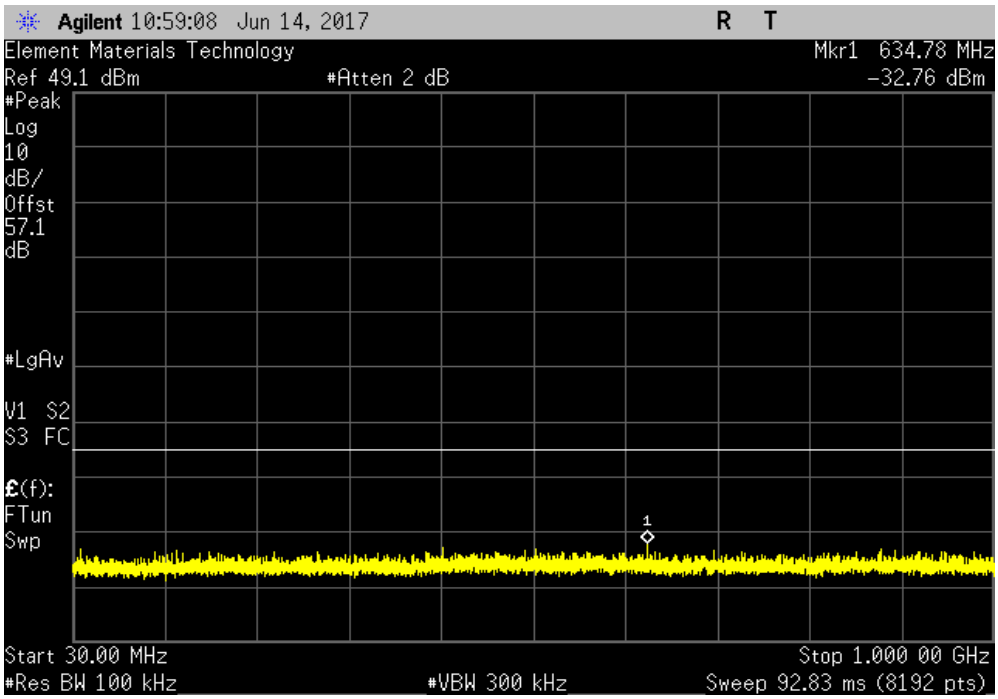


Antenna Port 1, Low Channel LTE10, 2625 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.9	-16	Pass

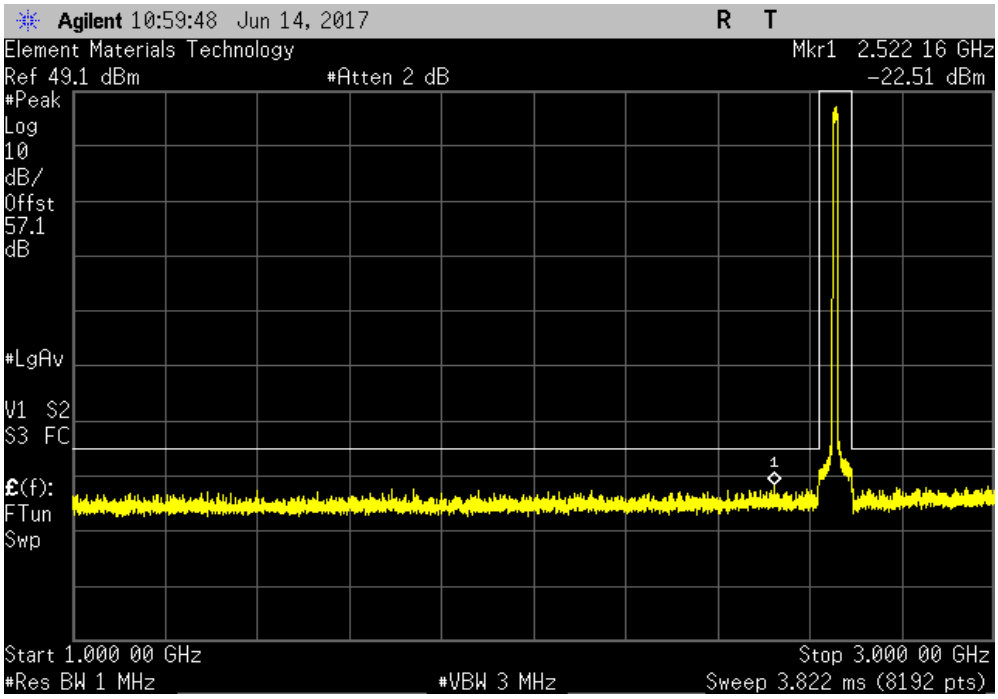


SPURIOUS EMISSIONS AT THE ANTENNA TERMINALS

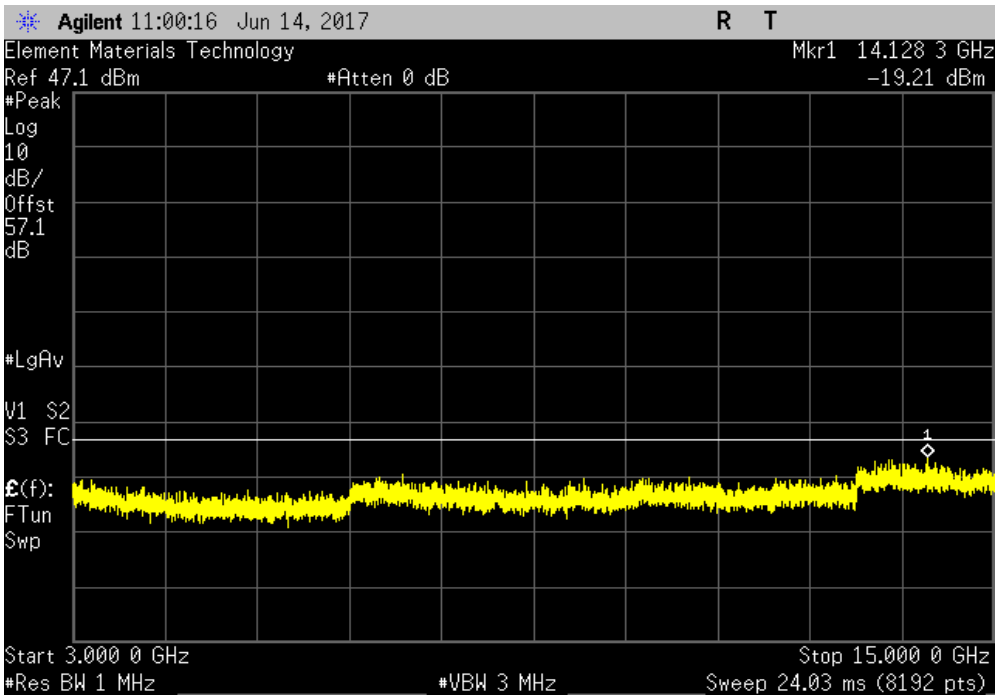
Antenna Port 1, Mid Channel LTE10, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.76	-16	Pass



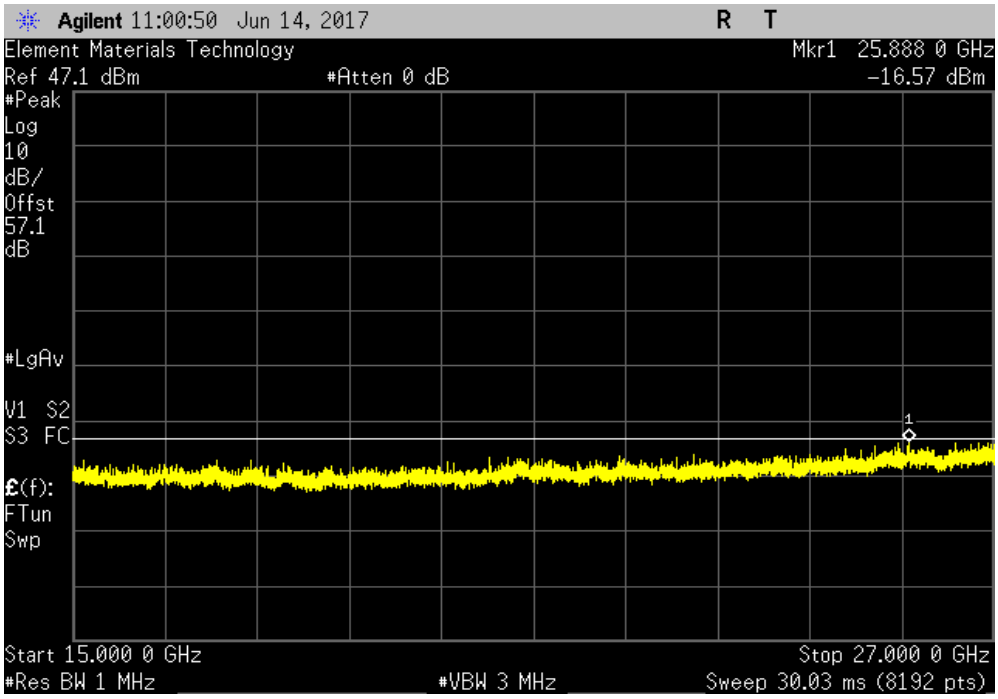
Antenna Port 1, Mid Channel LTE10, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.51	-16	Pass



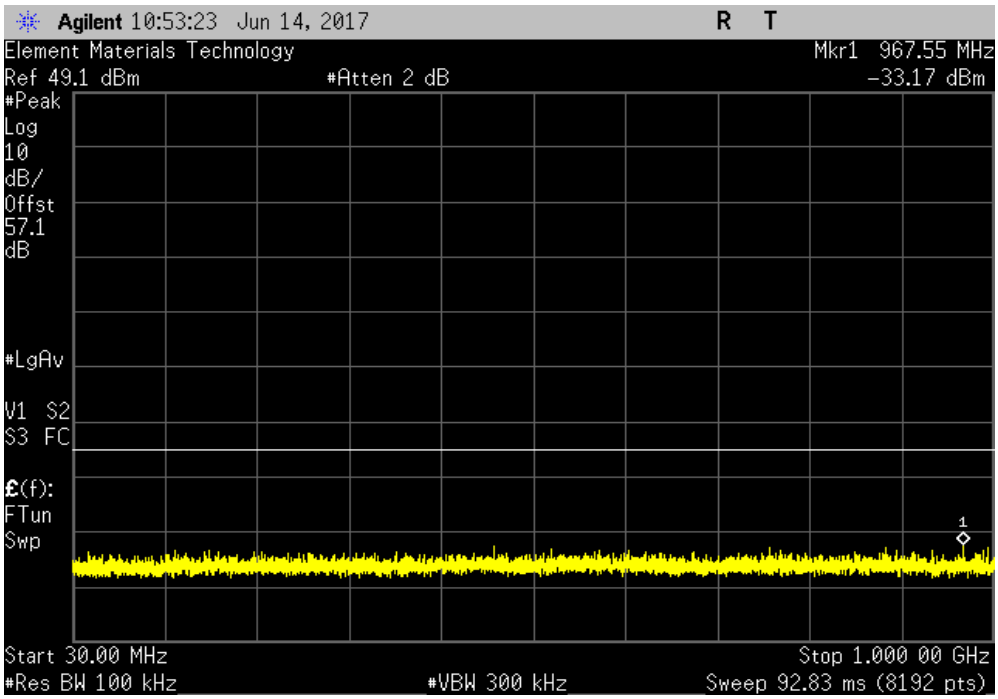
Antenna Port 1, Mid Channel LTE10, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.21	-16	Pass



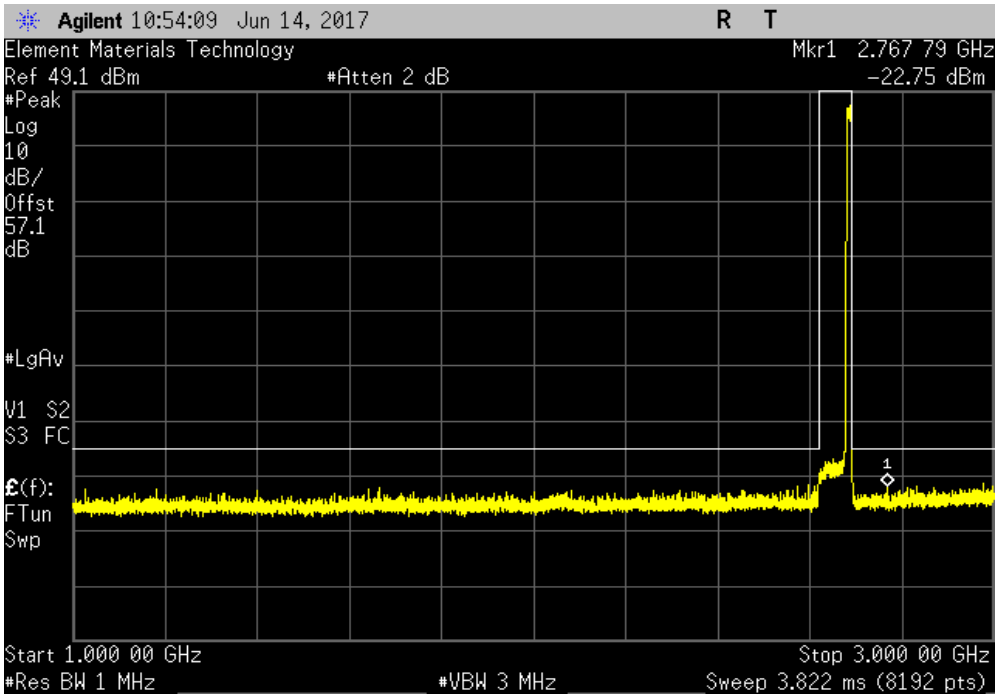
Antenna Port 1, Mid Channel LTE10, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.57	-16	Pass



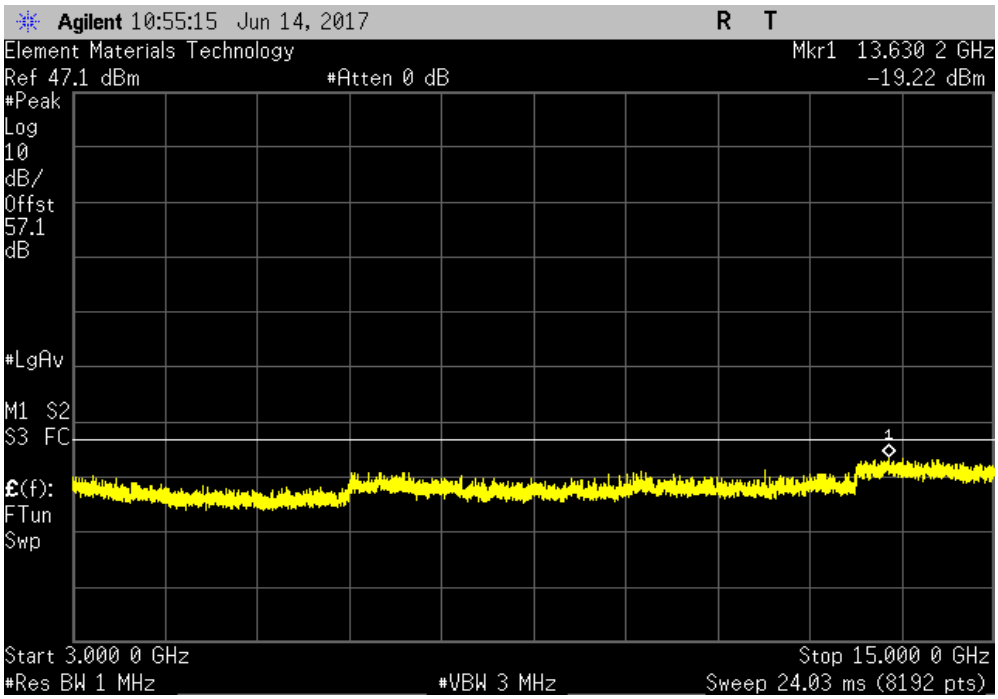
Antenna Port 1, High Channel LTE10, 2685 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.17	-16	Pass



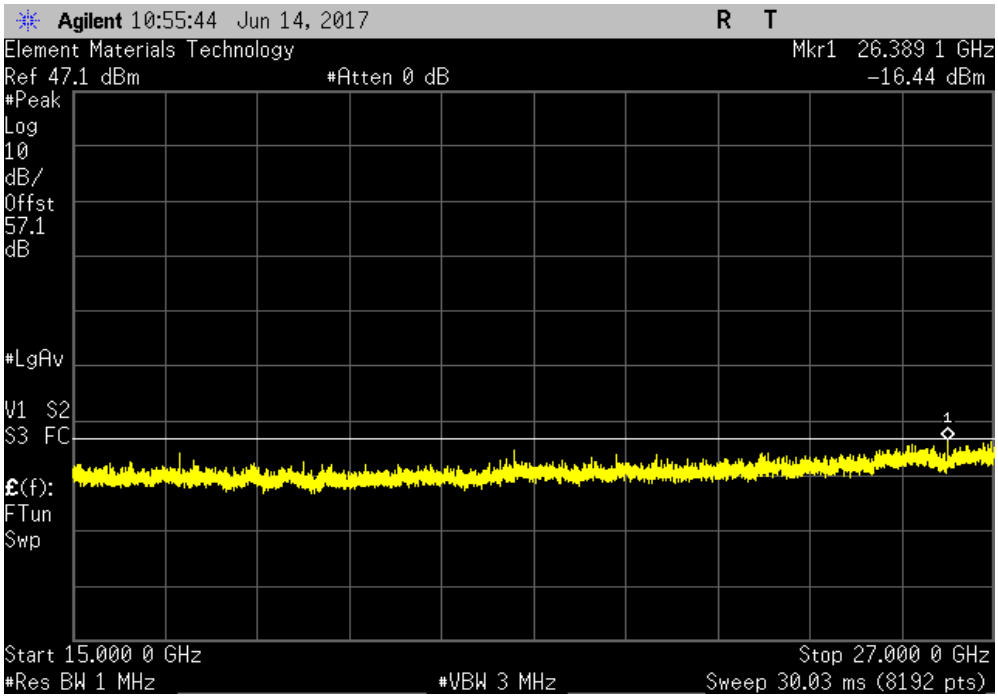
Antenna Port 1, High Channel LTE10, 2685 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.75	-16	Pass



Antenna Port 1, High Channel LTE10, 2685 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.22	-16	Pass

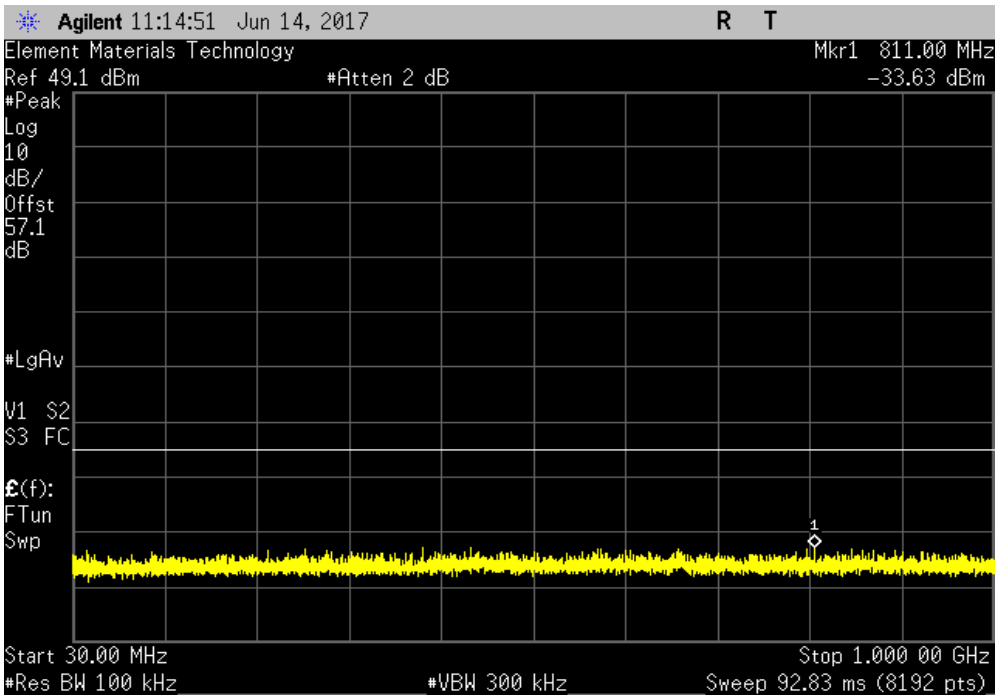


Antenna Port 1, High Channel LTE10, 2685 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.44	-16	Pass

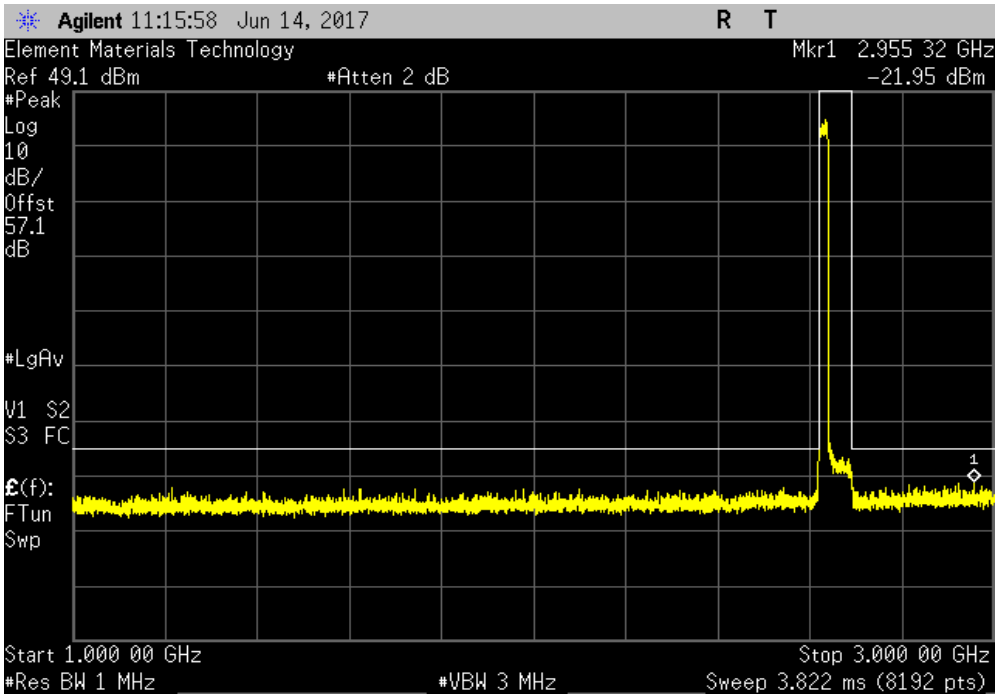


SPURIOUS EMISSIONS AT THE ANTENNA TERMINALS

Antenna Port 1, Low Channel LTE20, 2630 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.64	-16	Pass

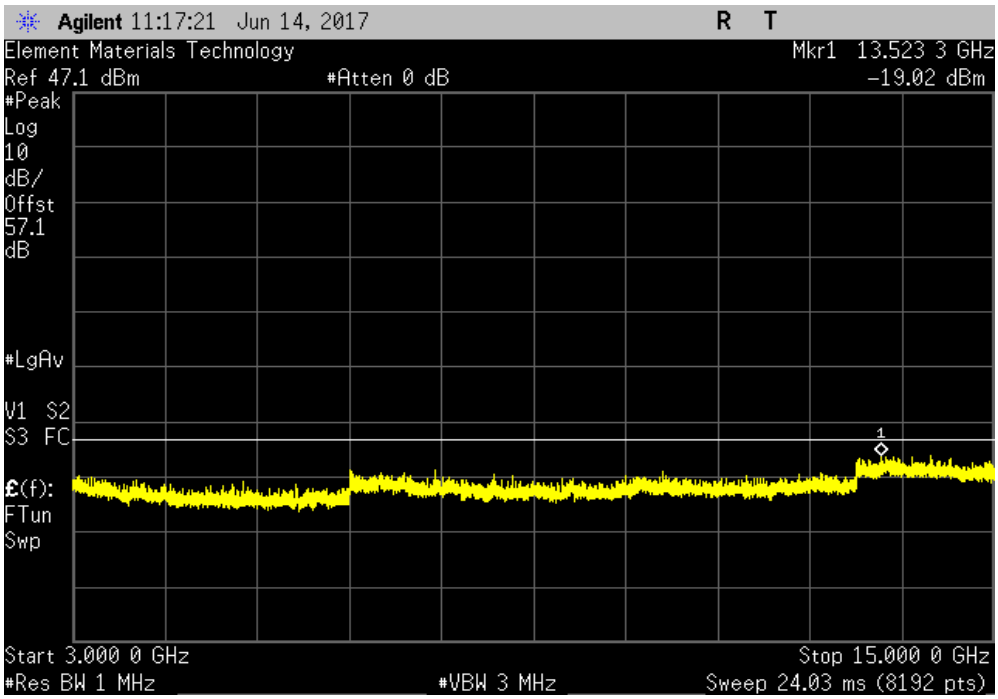


Antenna Port 1, Low Channel LTE20, 2630 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.95	-16	Pass

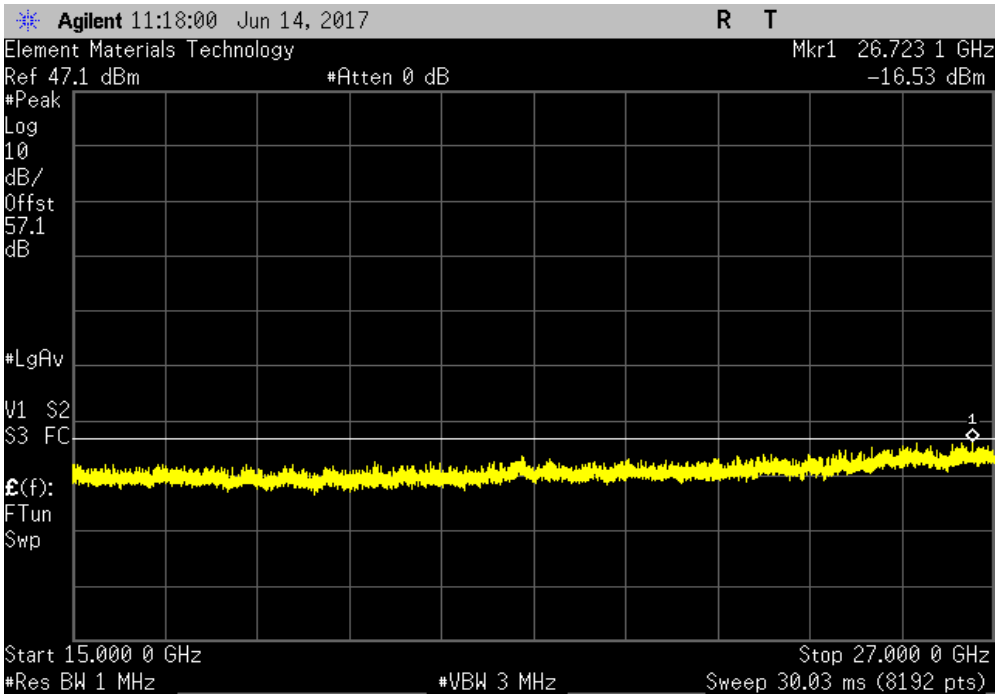


SPURIOUS EMISSIONS AT THE ANTENNA TERMINALS

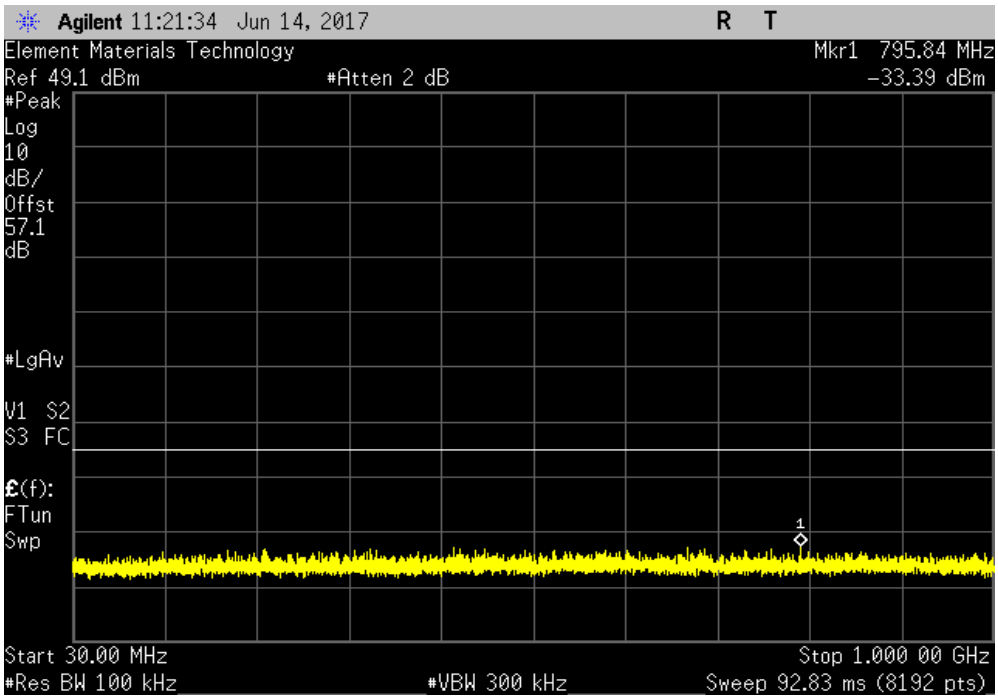
Antenna Port 1, Low Channel LTE20, 2630 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.02	-16	Pass



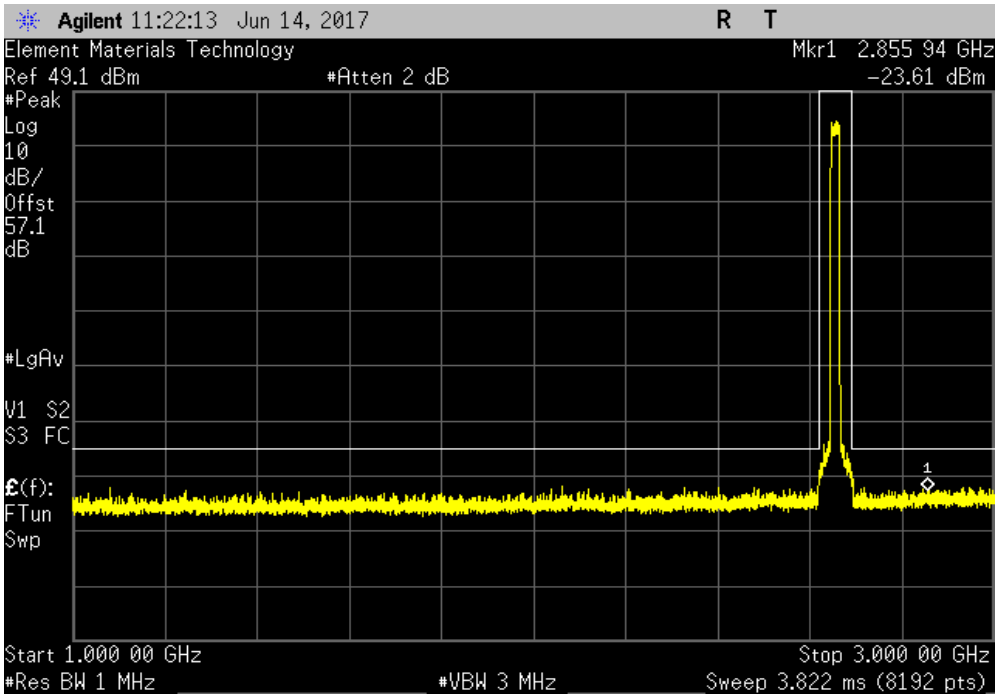
Antenna Port 1, Low Channel LTE20, 2630 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.53	-16	Pass



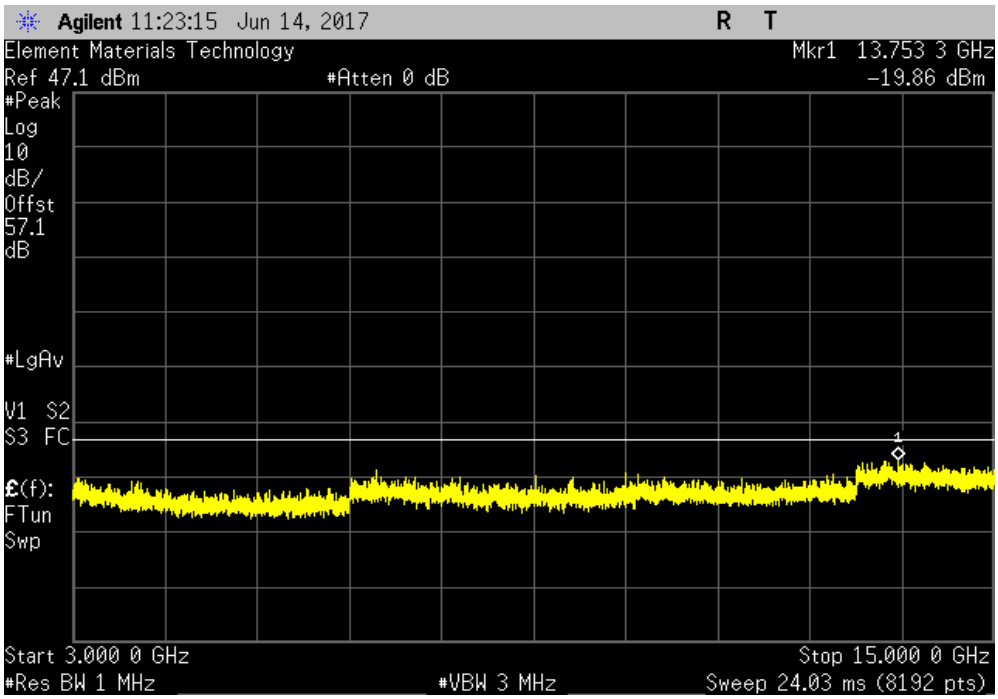
Antenna Port 1, Mid Channel LTE20, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.39	-16	Pass



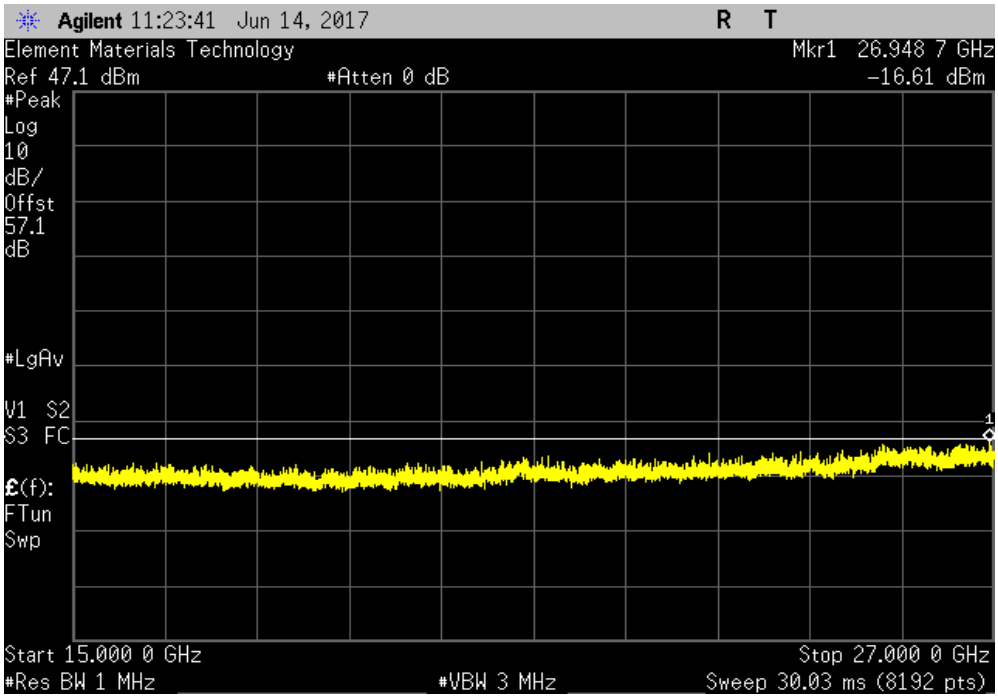
Antenna Port 1, Mid Channel LTE20, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.61	-16	Pass



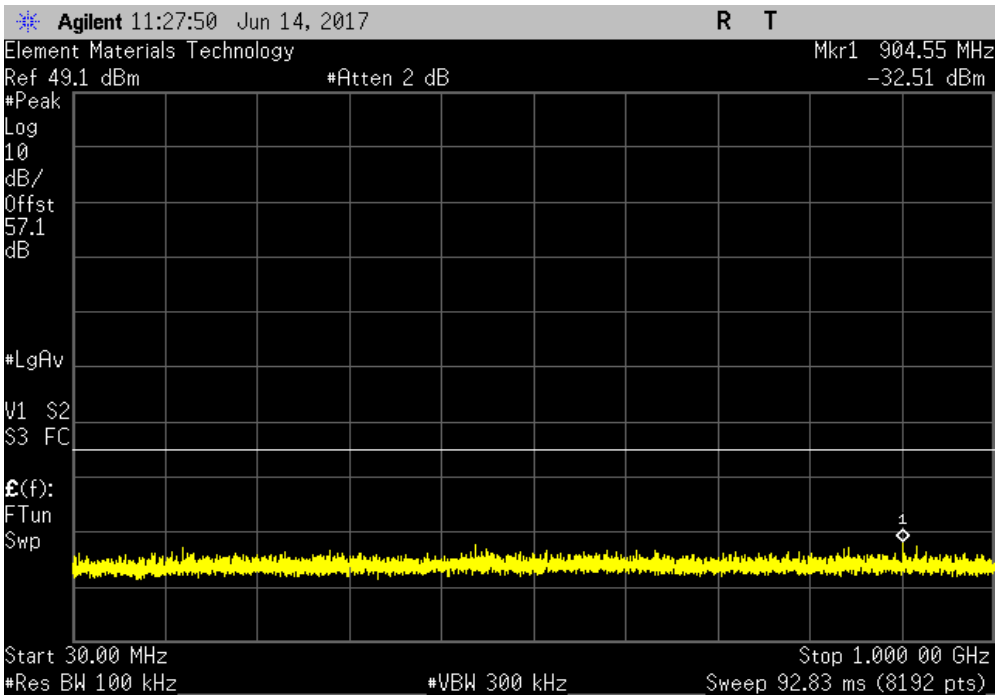
Antenna Port 1, Mid Channel LTE20, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.86	-16	Pass



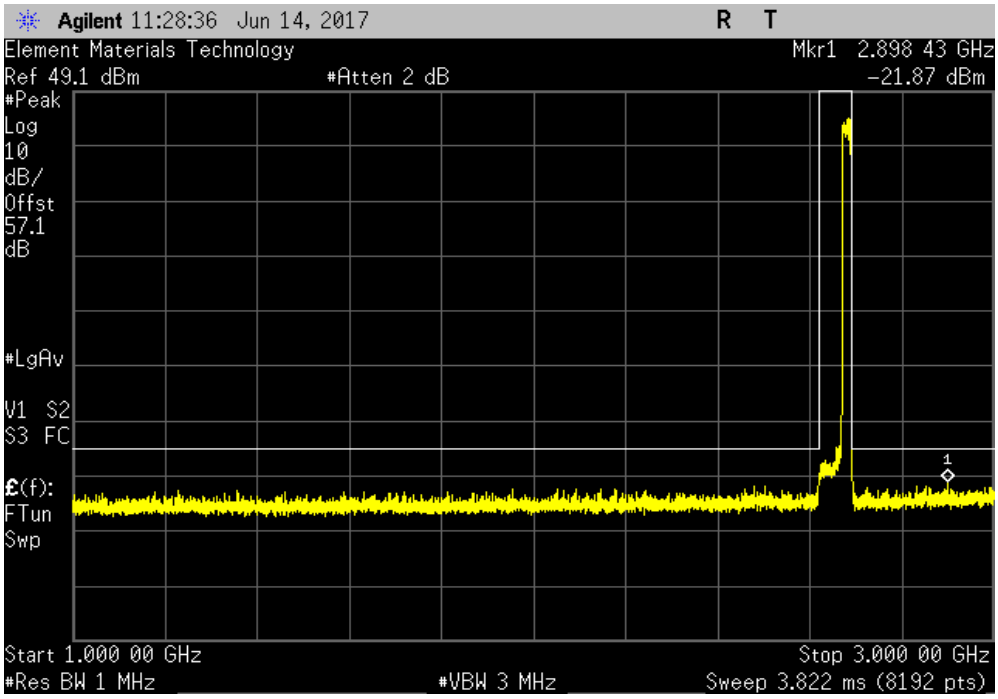
Antenna Port 1, Mid Channel LTE20, 2655 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.61	-16	Pass



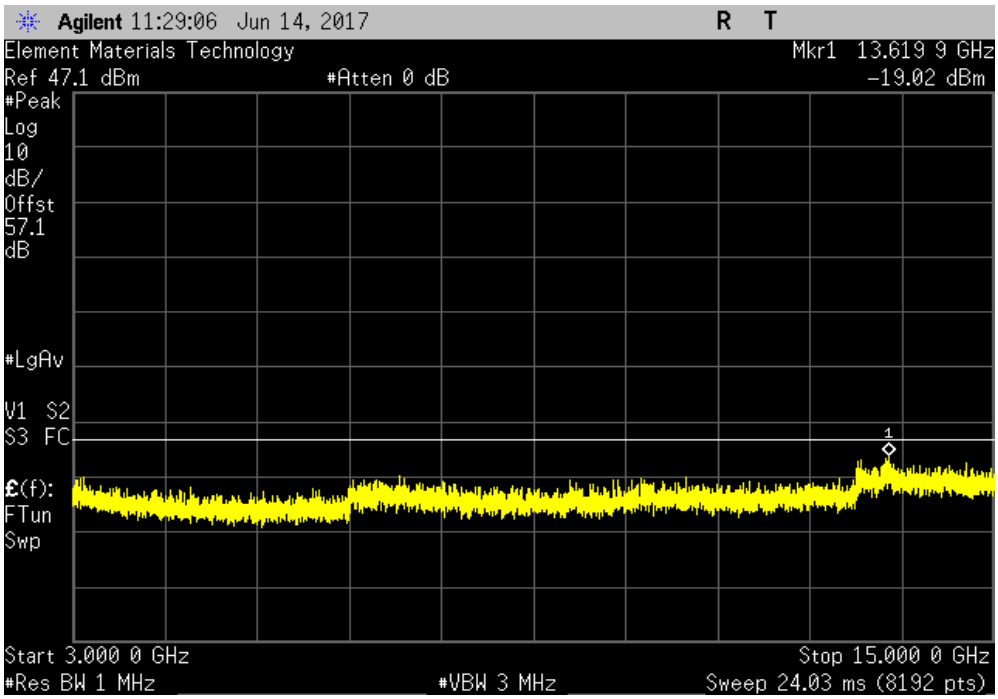
Antenna Port 1, High Channel LTE20, 2680 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.51	-16	Pass



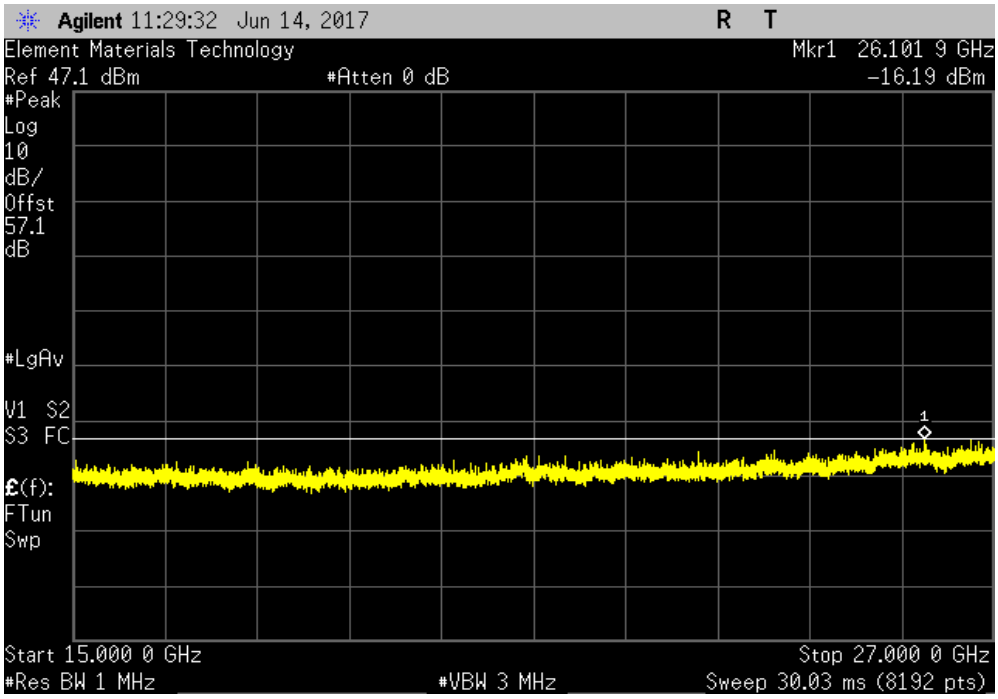
Antenna Port 1, High Channel LTE20, 2680 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.87	-16	Pass



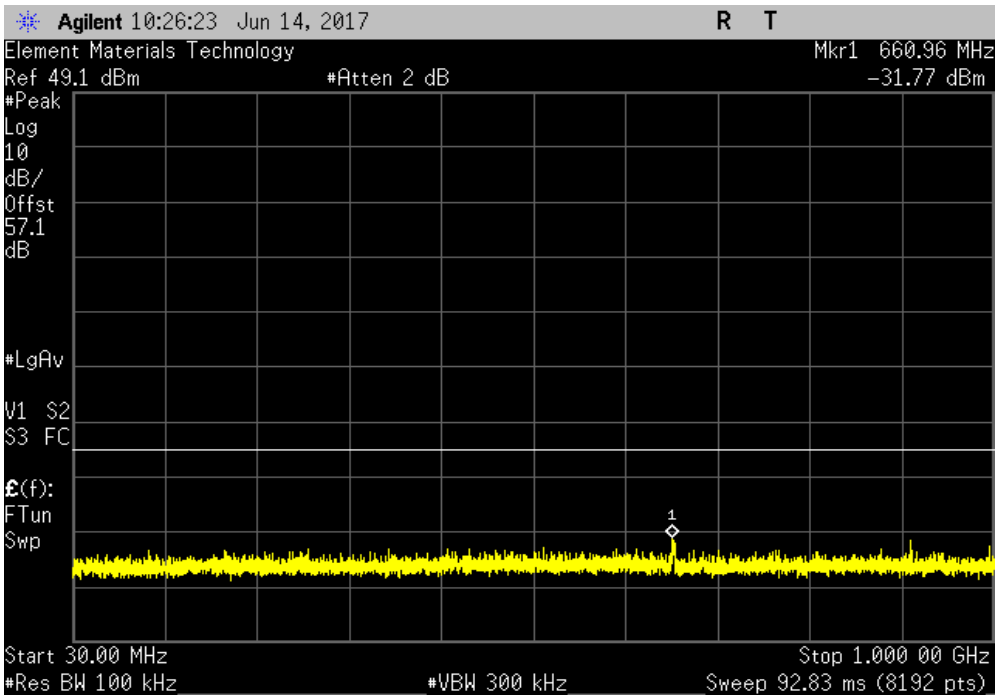
Antenna Port 1, High Channel LTE20, 2680 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.03	-16	Pass



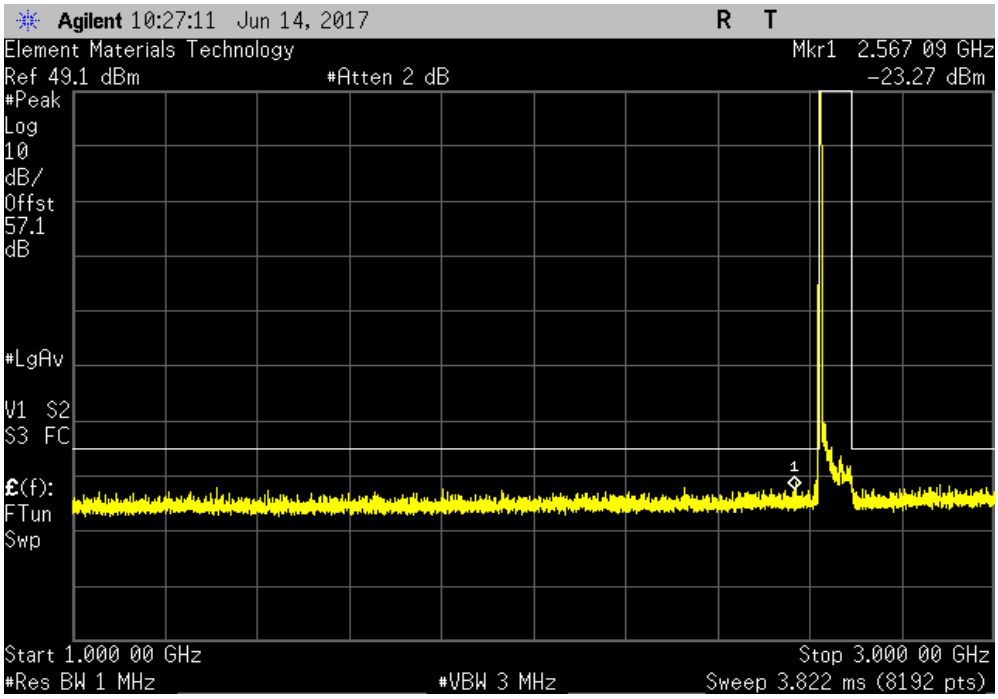
Antenna Port 1, High Channel LTE20, 2680 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.19	-16	Pass



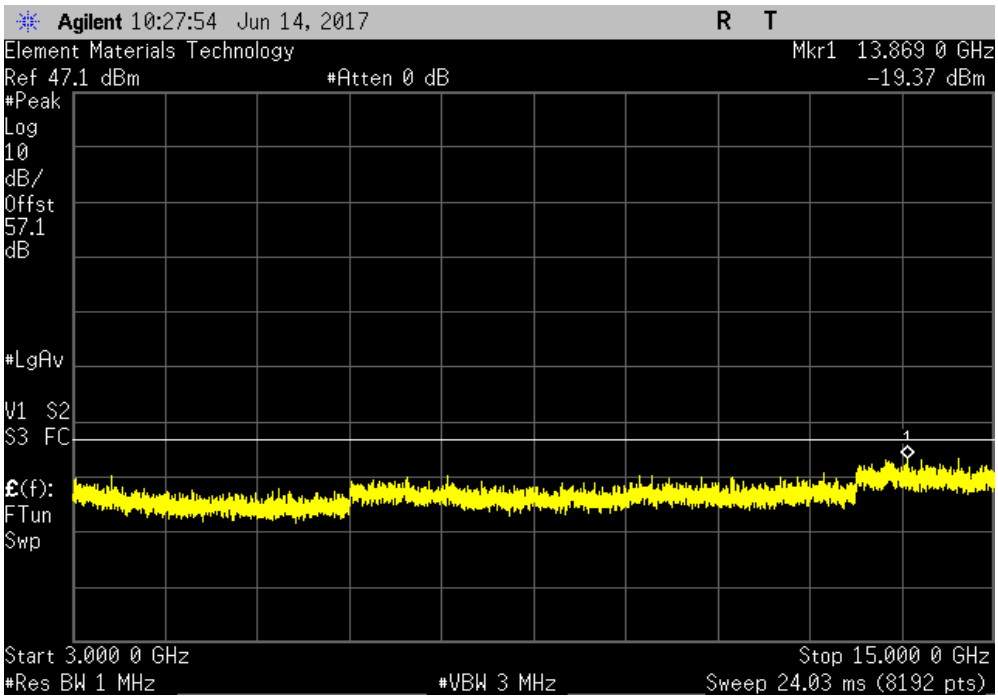
Antenna Port 2, Low Channel LTE5, 2622.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-31.77	-16	Pass



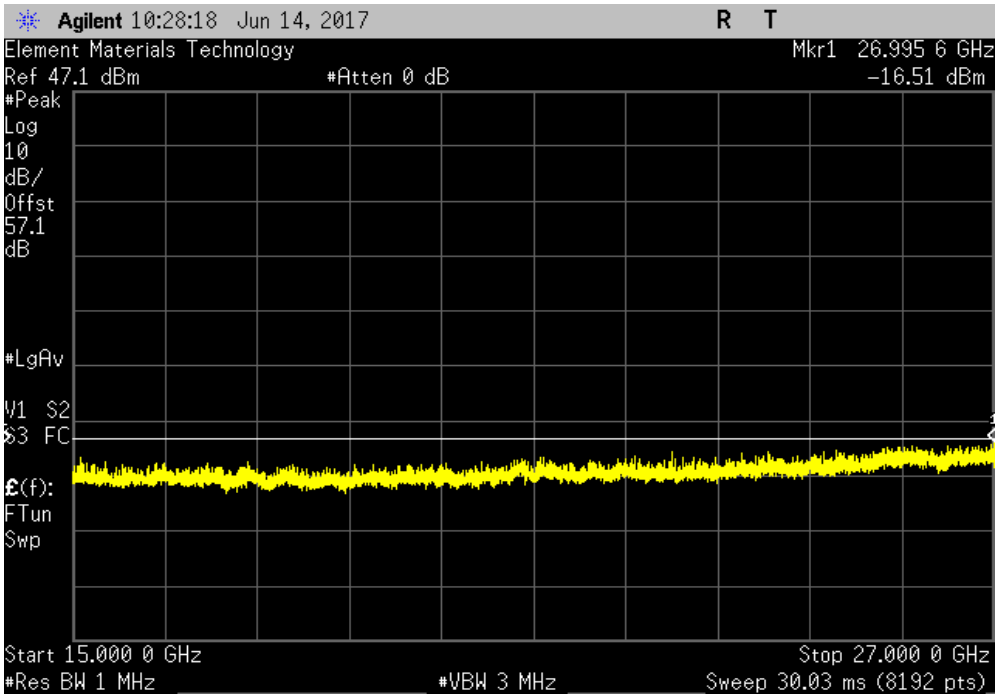
Antenna Port 2, Low Channel LTE5, 2622.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.28	-16	Pass



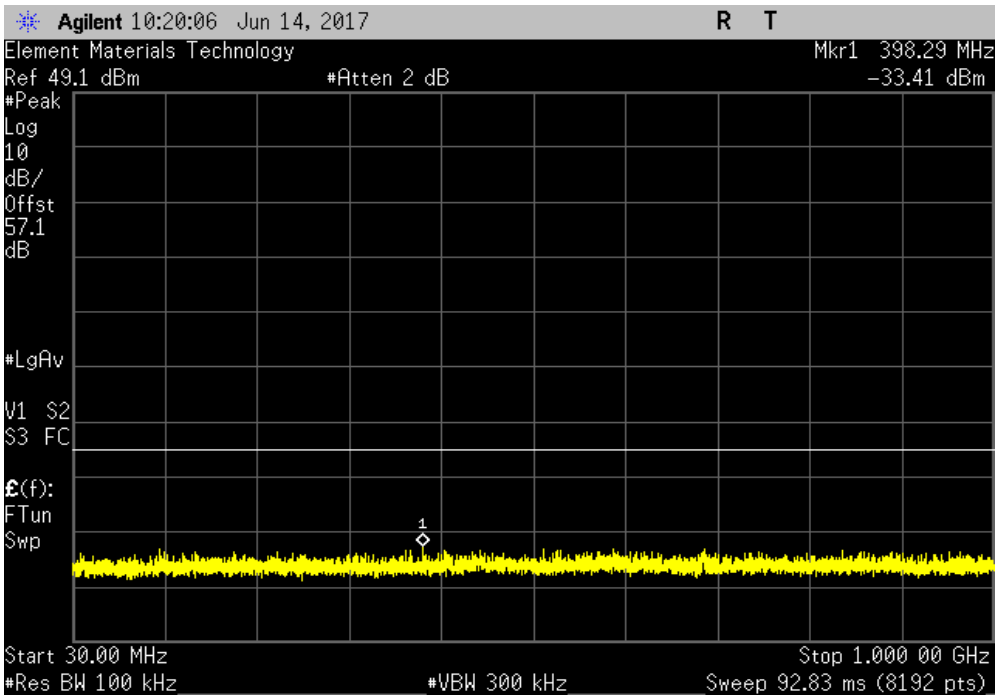
Antenna Port 2, Low Channel LTE5, 2622.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.37	-16	Pass



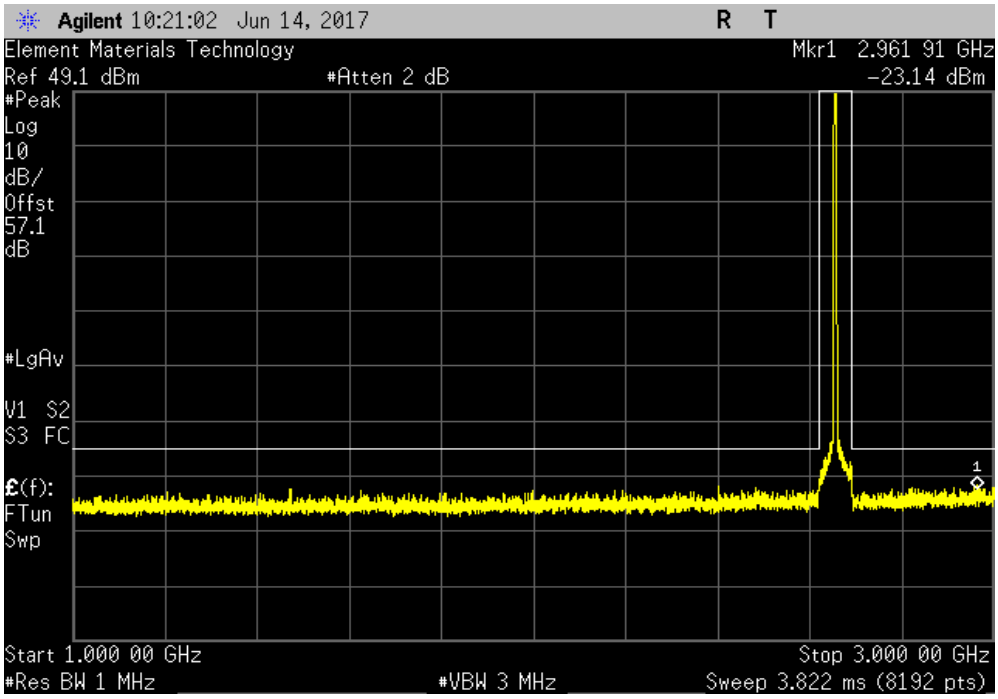
Antenna Port 2, Low Channel LTE5, 2622.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.51	-16	Pass



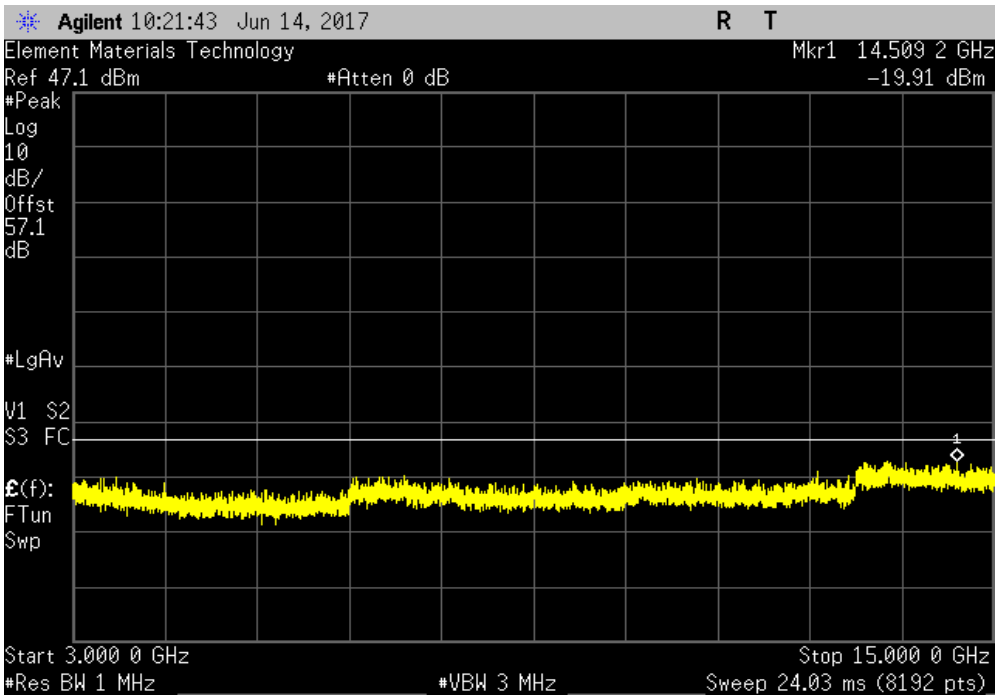
Antenna Port 2, Mid Channel LTE5, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.41	-16	Pass



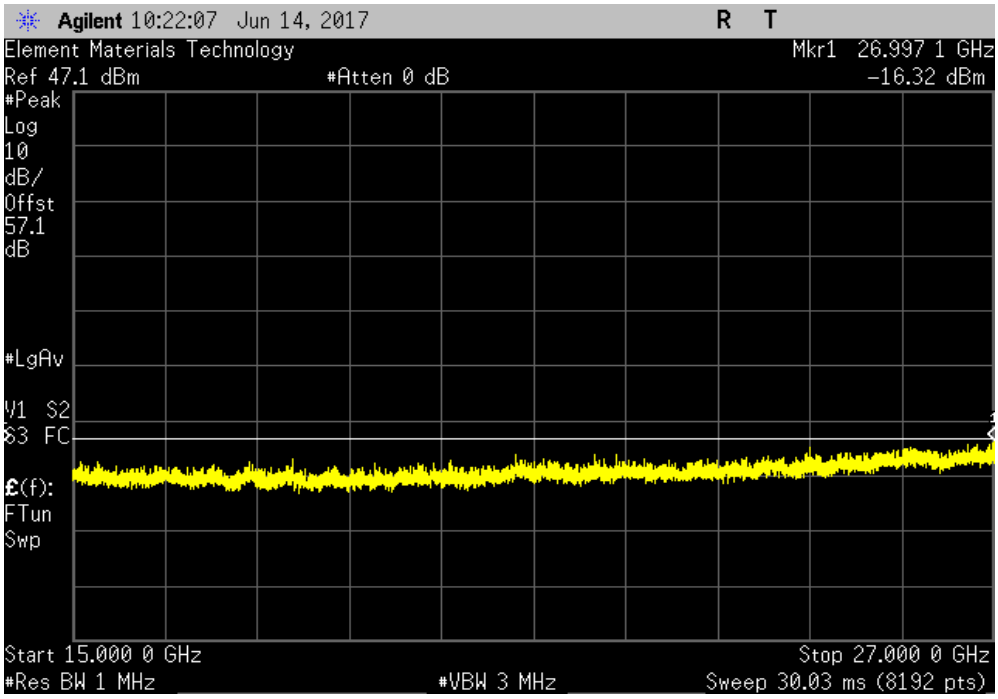
Antenna Port 2, Mid Channel LTE5, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.14	-16	Pass



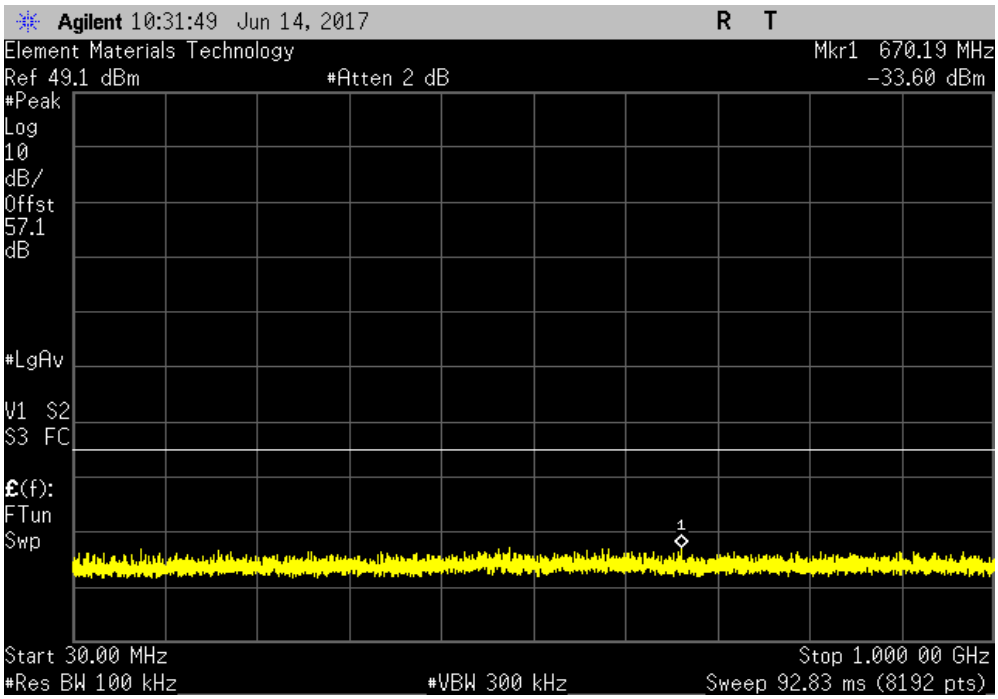
Antenna Port 2, Mid Channel LTE5, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.91	-16	Pass



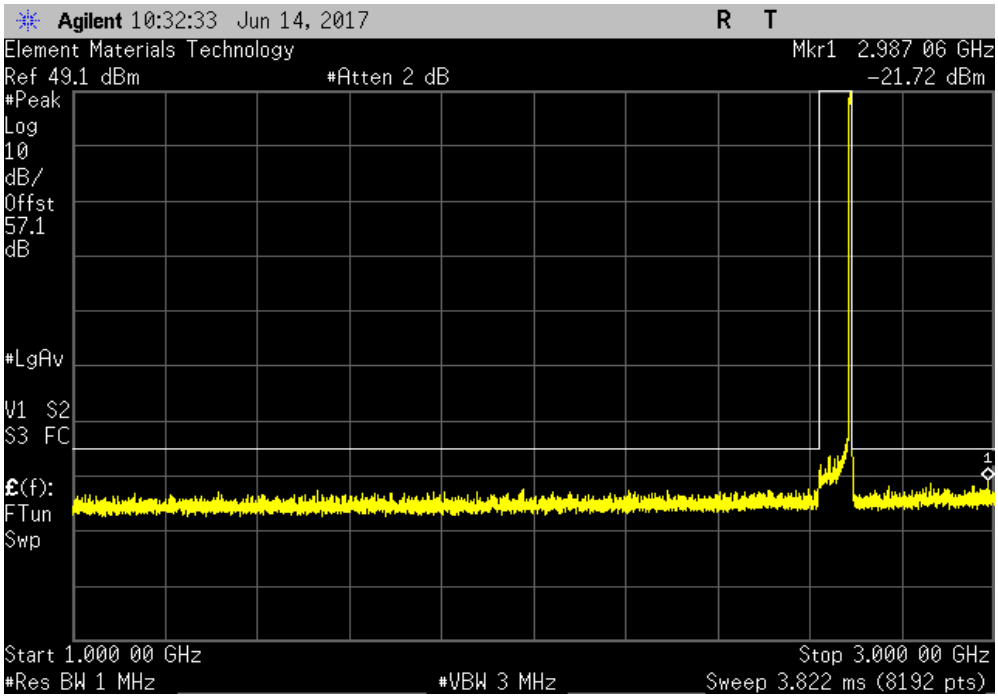
Antenna Port 2, Mid Channel LTE5, 2655 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.32	-16	Pass



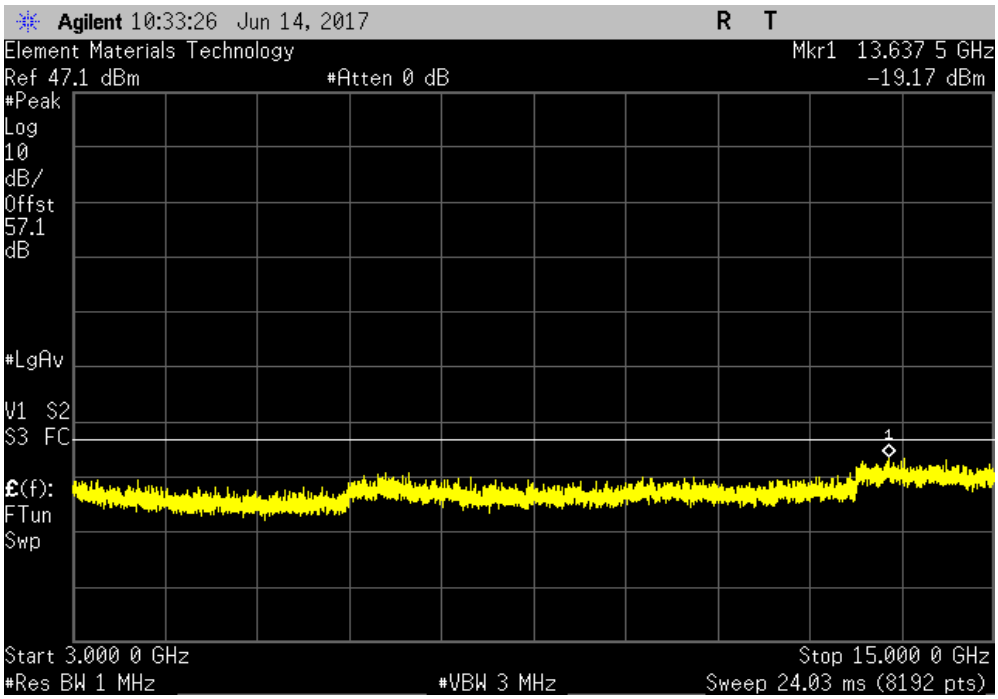
Antenna Port 2, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.6	-16	Pass



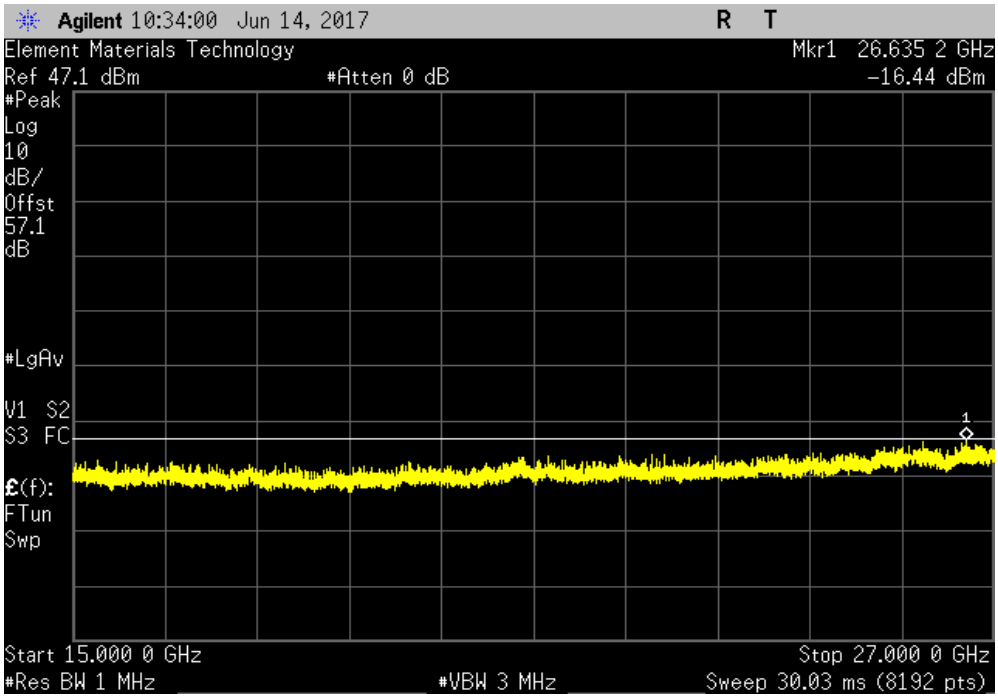
Antenna Port 2, High Channel LTE5, 2687.5 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.72	-16	Pass



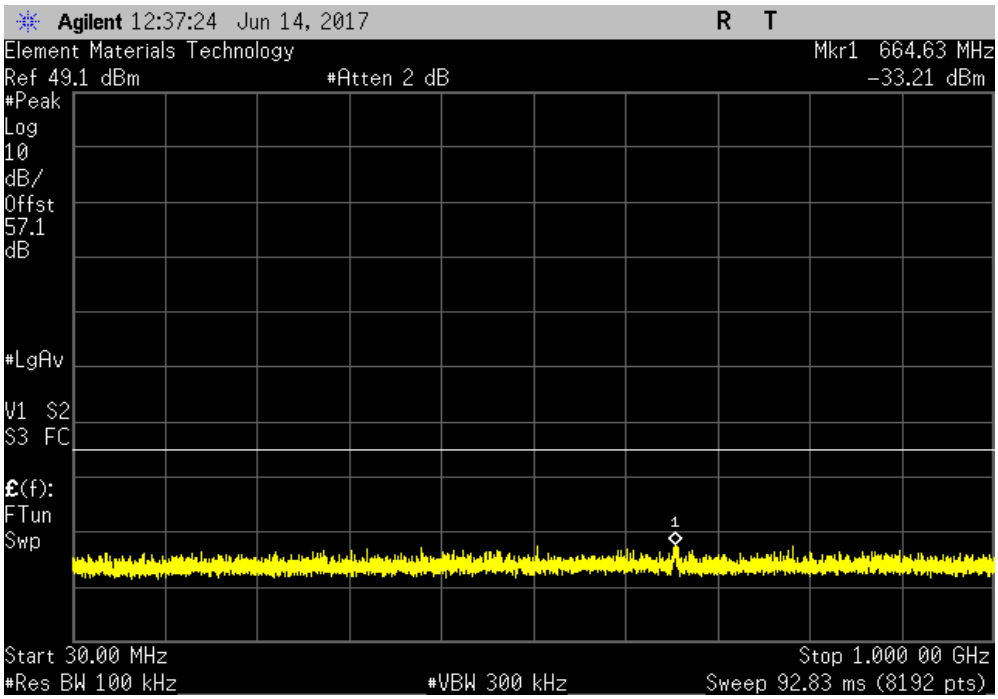
Antenna Port 2, High Channel LTE5, 2687.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.17	-16	Pass



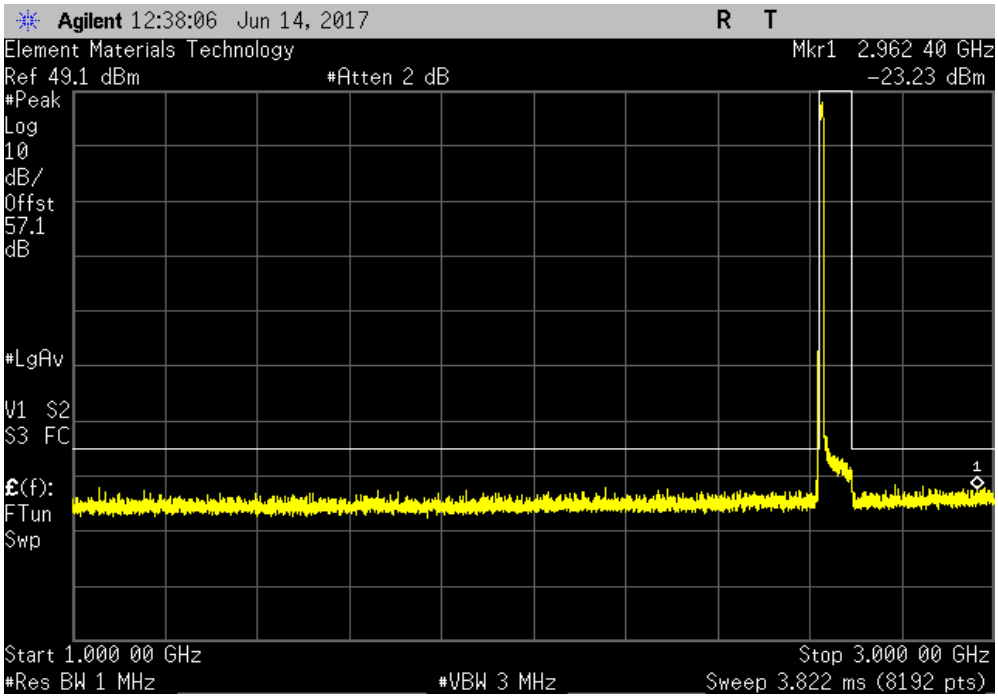
Antenna Port 2, High Channel LTE5, 2687.5 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.44	-16	Pass



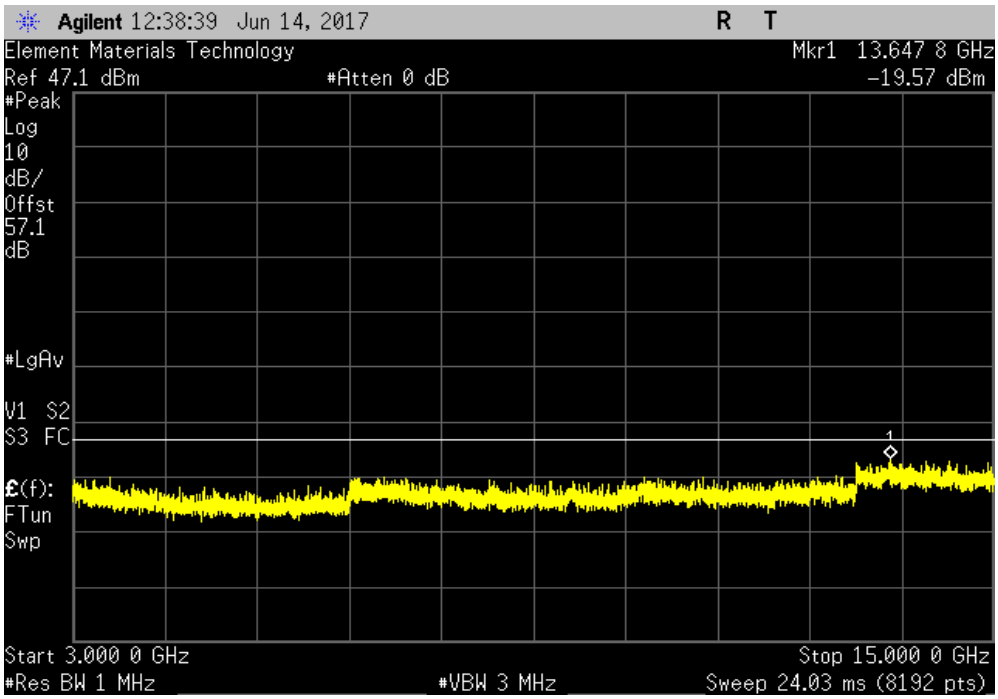
Antenna Port 2, Low Channel LTE10, 2625 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.21	-16	Pass



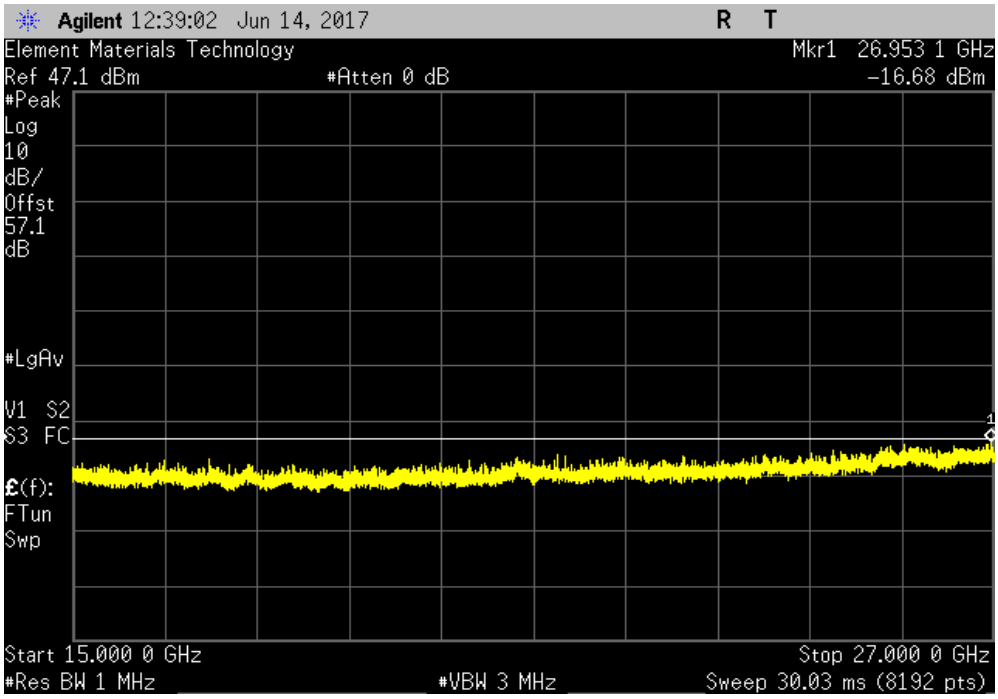
Antenna Port 2, Low Channel LTE10, 2625 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.23	-16	Pass



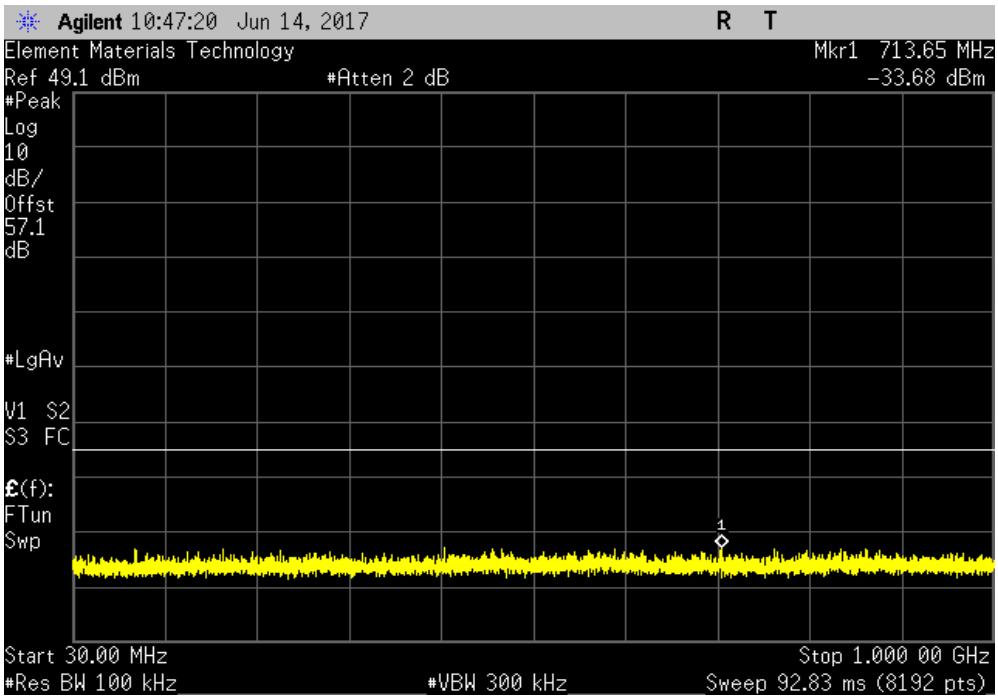
Antenna Port 2, Low Channel LTE10, 2625 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.57	-16	Pass



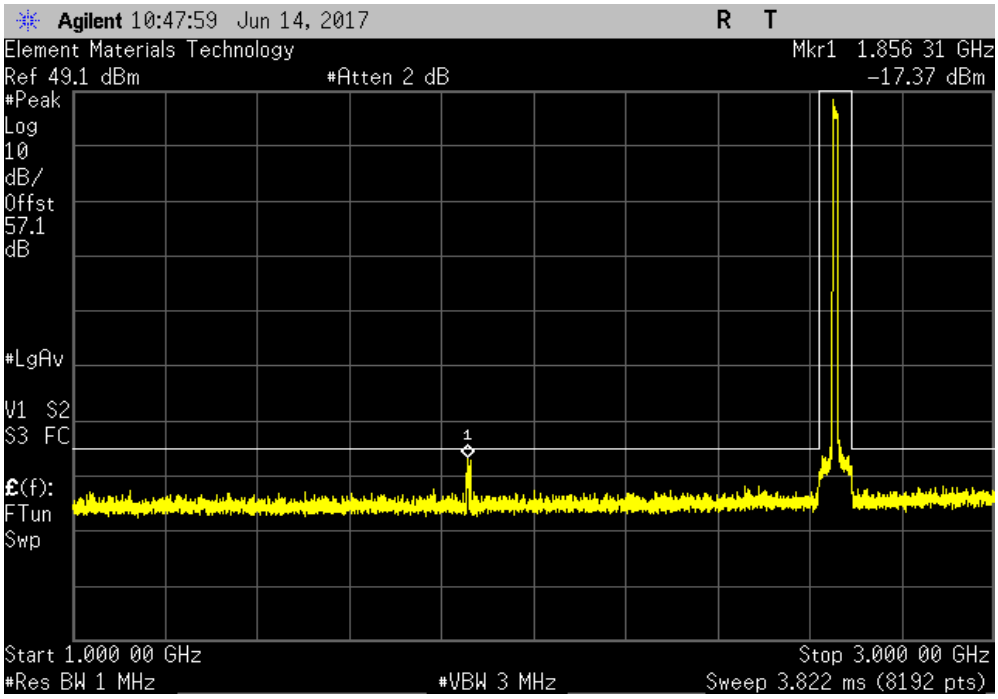
Antenna Port 2, Low Channel LTE10, 2625 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.68	-16	Pass



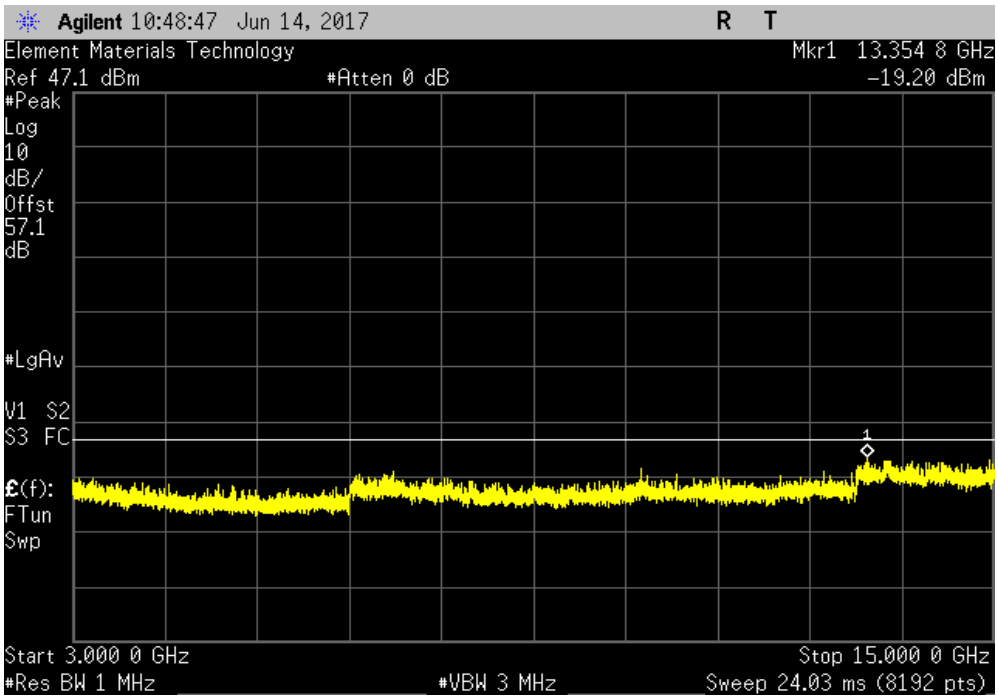
Antenna Port 2, Mid Channel LTE10, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.68	-16	Pass



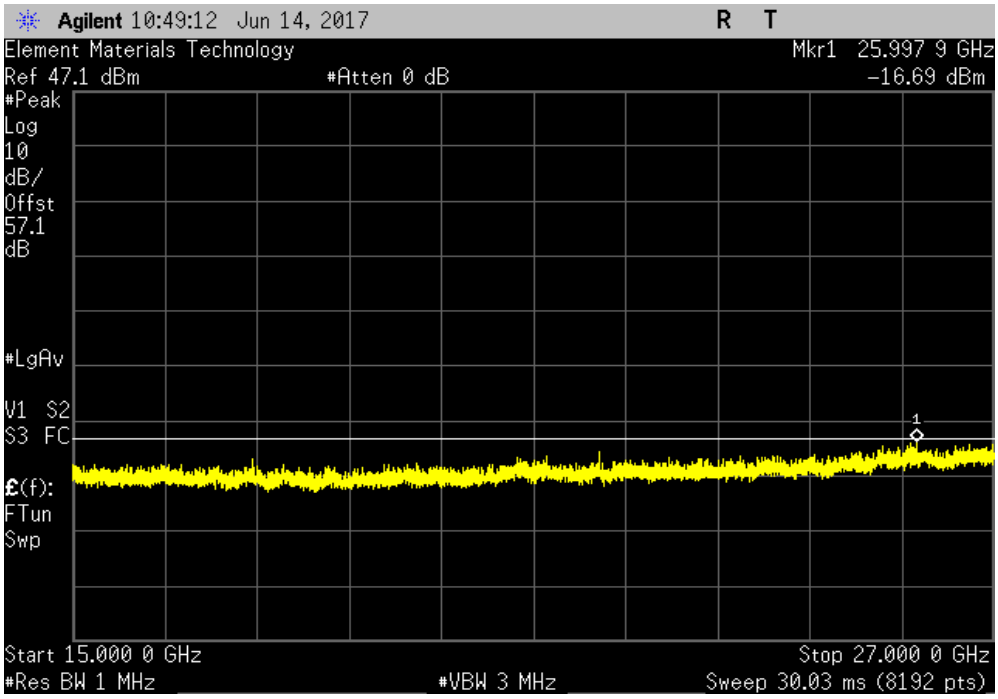
Antenna Port 2, Mid Channel LTE10, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-17.37	-16	Pass



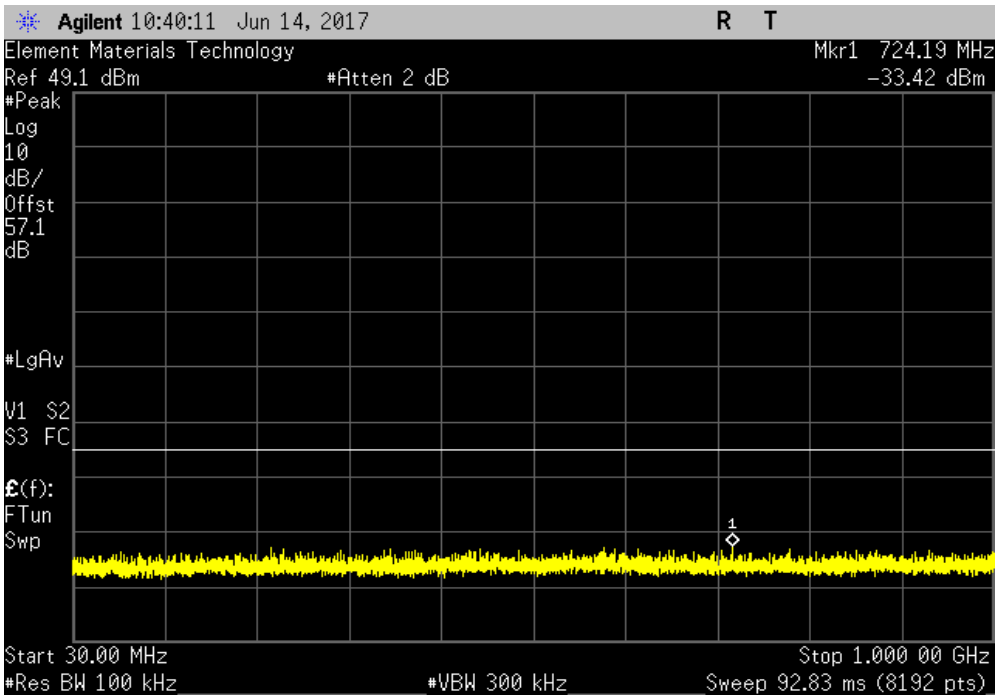
Antenna Port 2, Mid Channel LTE10, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.2	-16	Pass



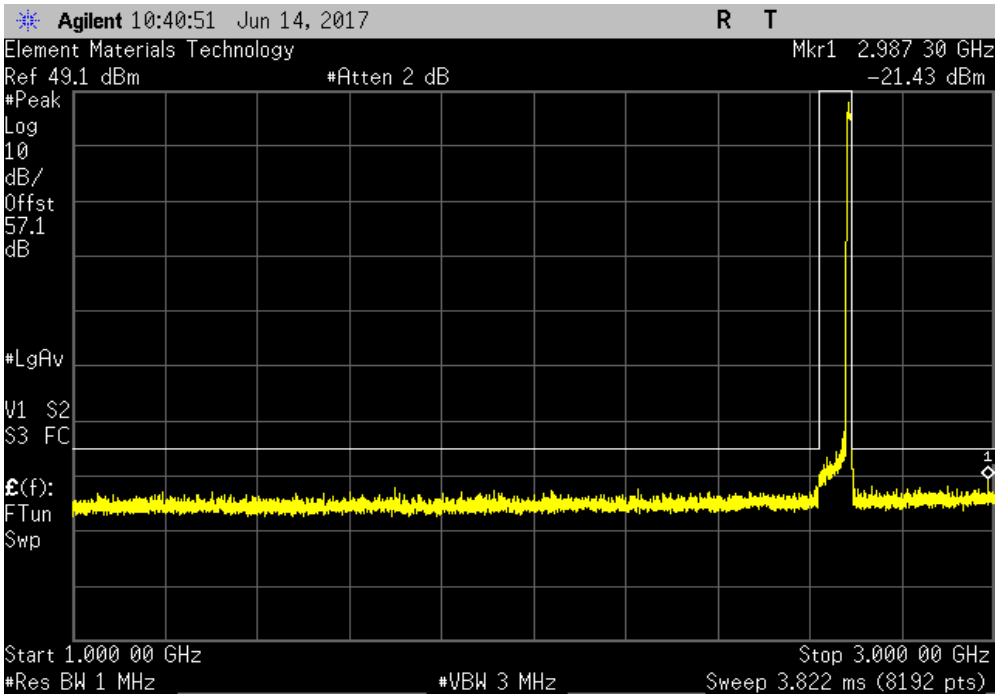
Antenna Port 2, Mid Channel LTE10, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.69	-16	Pass



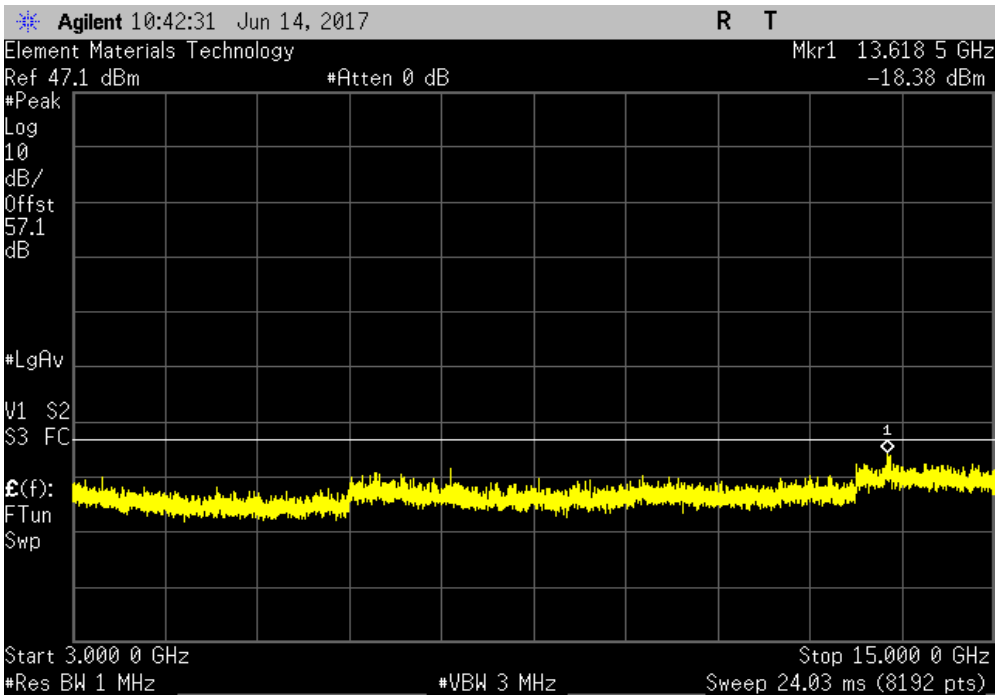
Antenna Port 2, High Channel LTE10, 2685 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.42	-16	Pass



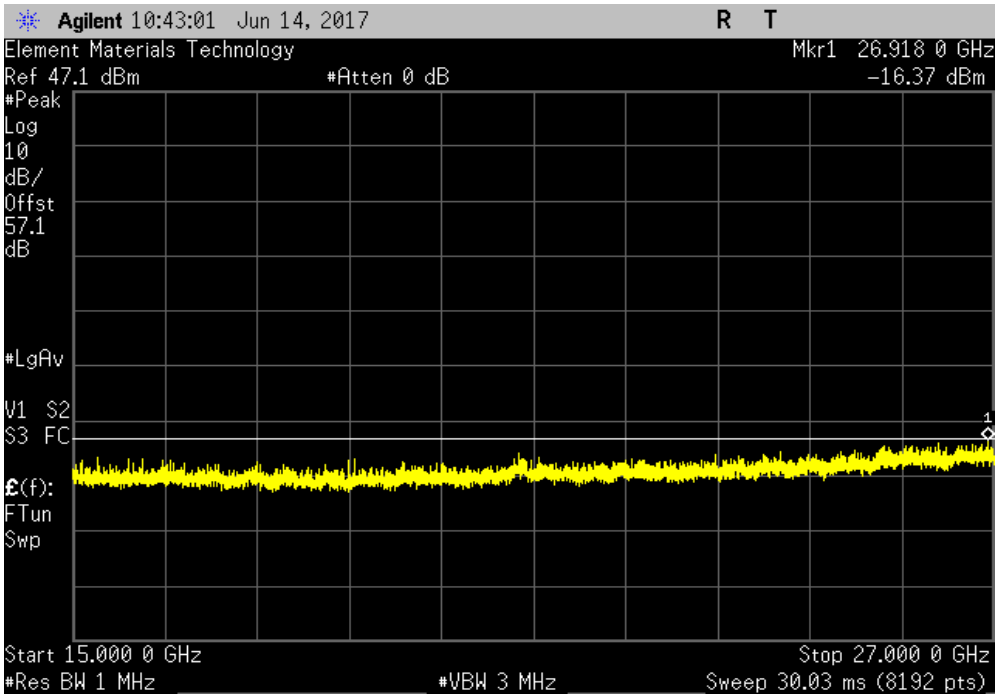
Antenna Port 2, High Channel LTE10, 2685 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.43	-16	Pass



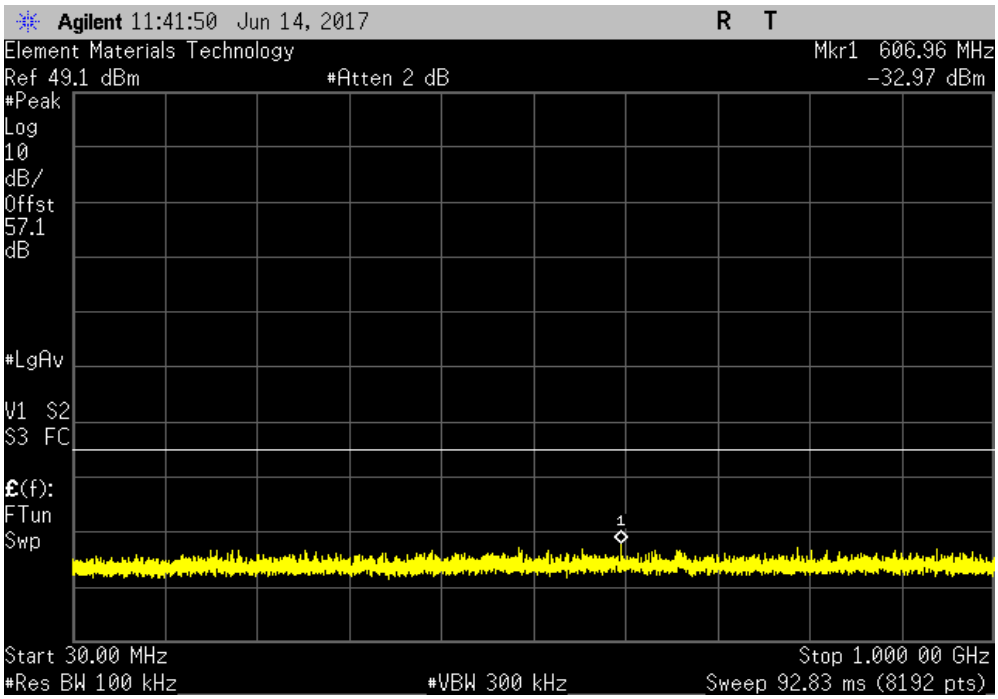
Antenna Port 2, High Channel LTE10, 2685 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-18.38	-16	Pass



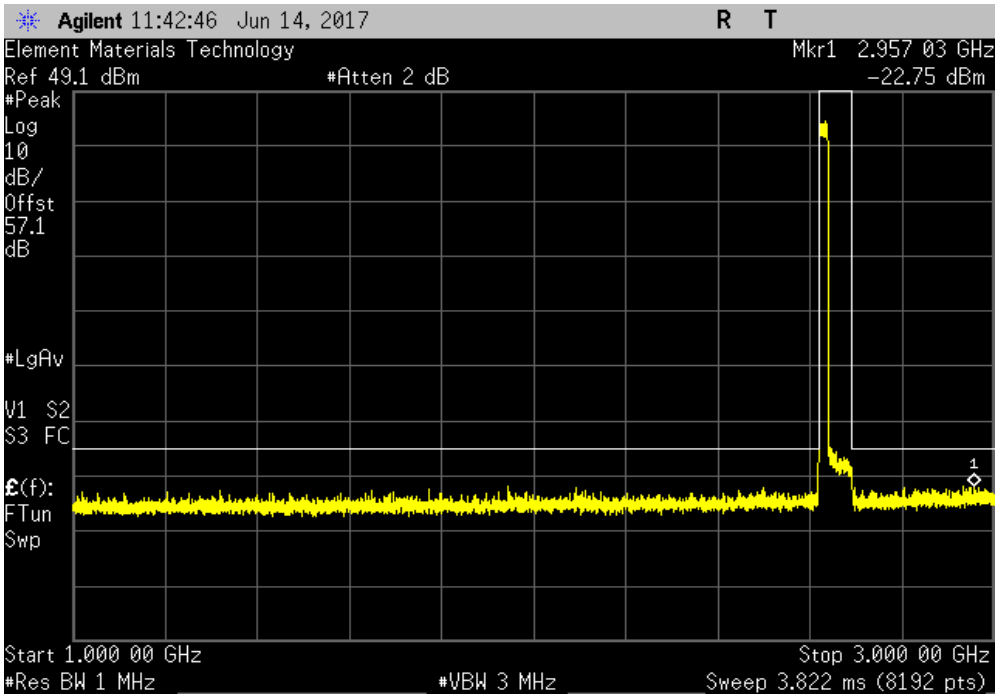
Antenna Port 2, High Channel LTE10, 2685 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.37	-16	Pass



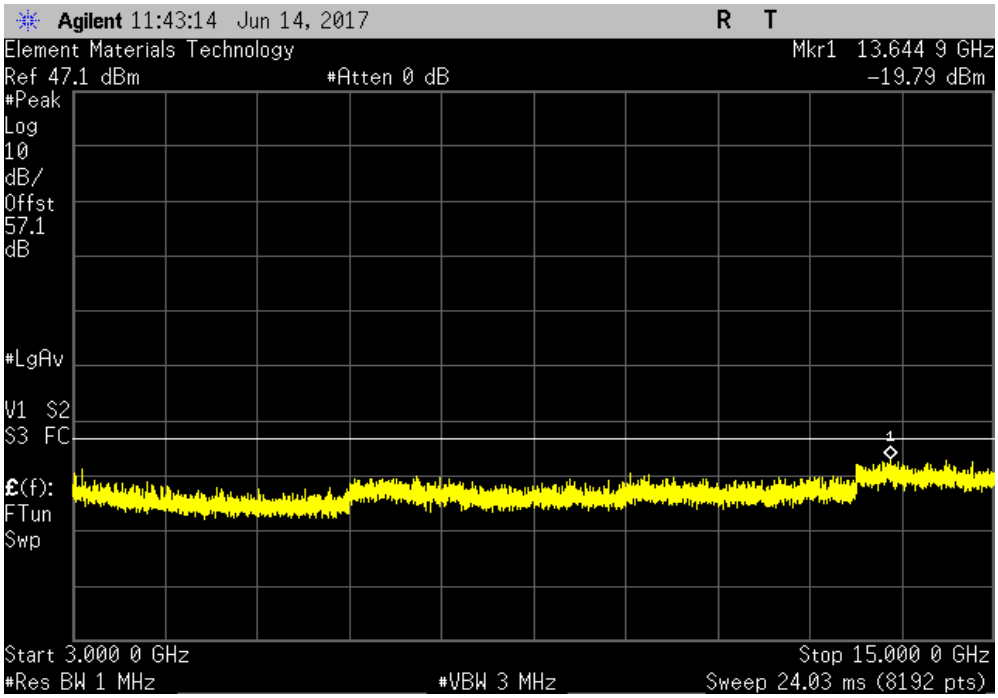
Antenna Port 2, Low Channel LTE20, 2630 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.97	-16	Pass



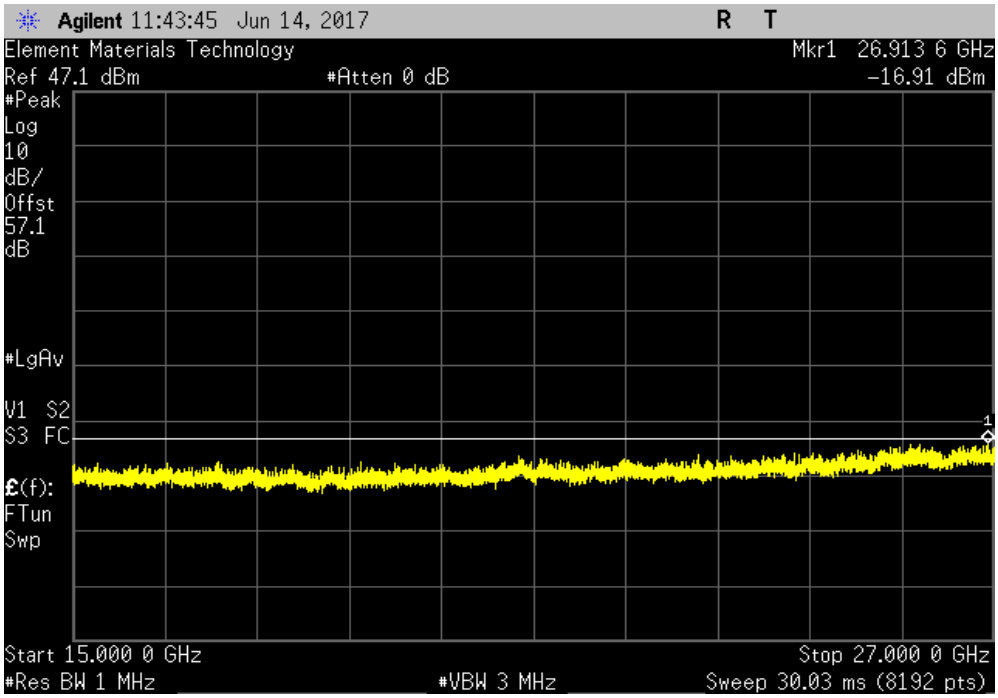
Antenna Port 2, Low Channel LTE20, 2630 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.75	-16	Pass



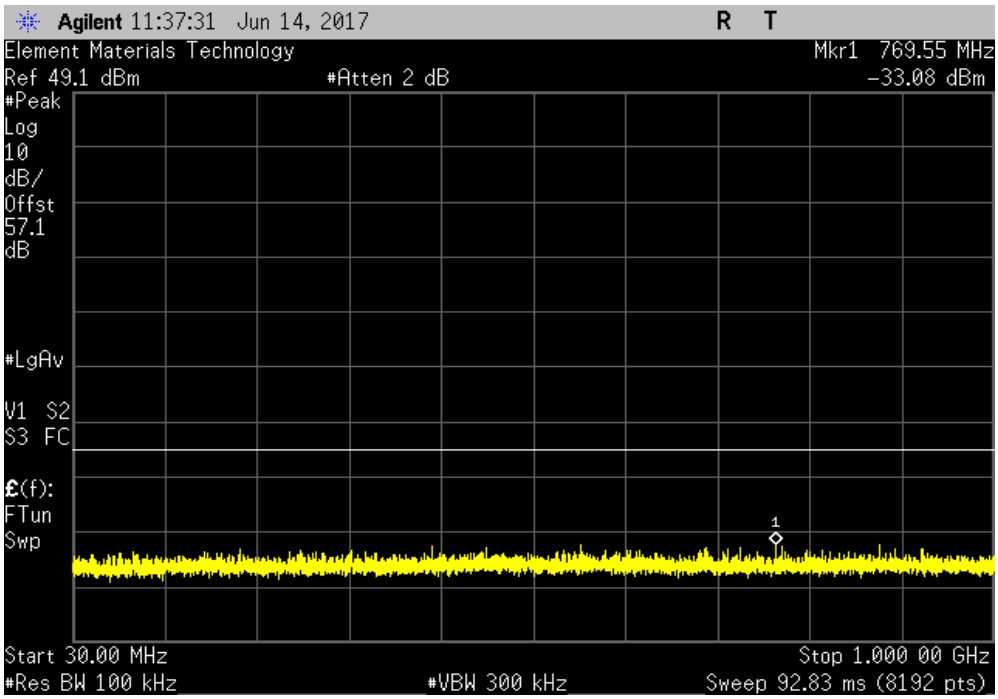
Antenna Port 2, Low Channel LTE20, 2630 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.79	-16	Pass



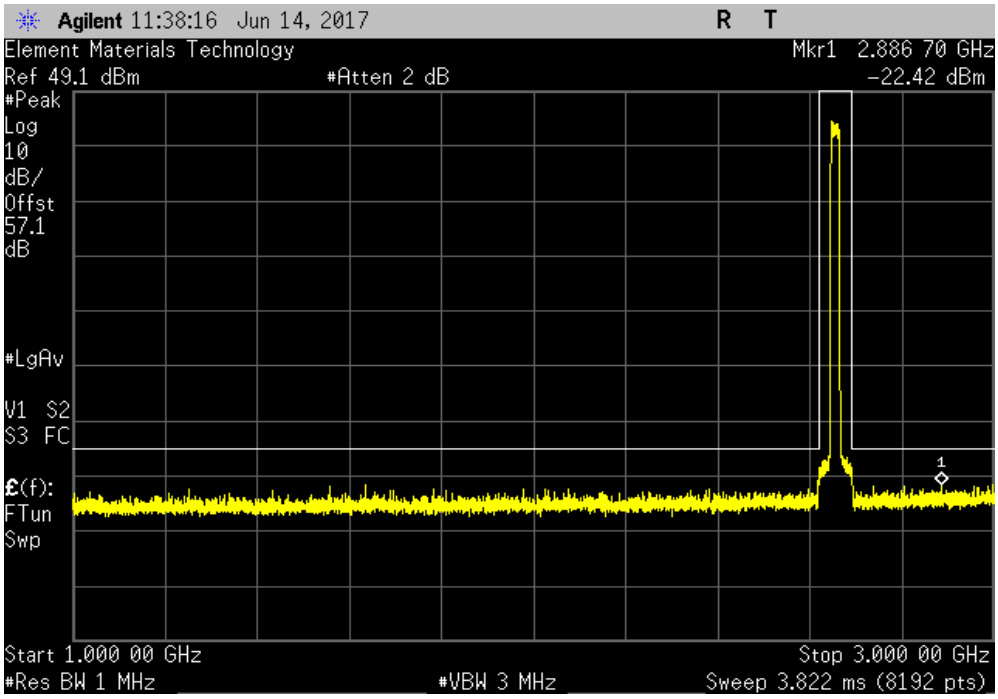
Antenna Port 2, Low Channel LTE20, 2630 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.91	-16	Pass



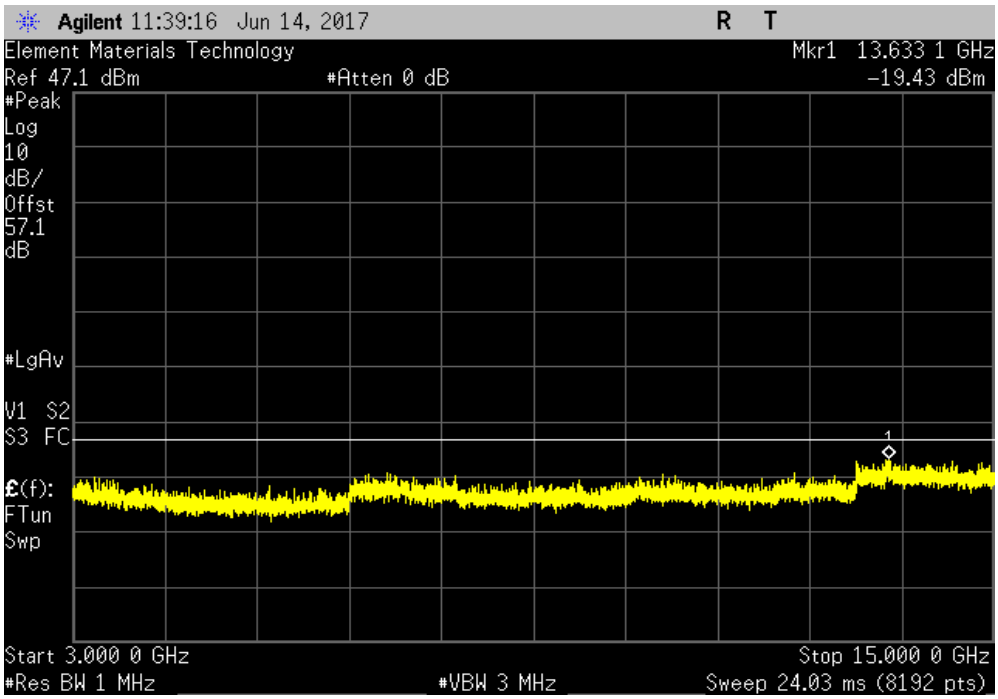
Antenna Port 2, Mid Channel LTE20, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.08	-16	Pass



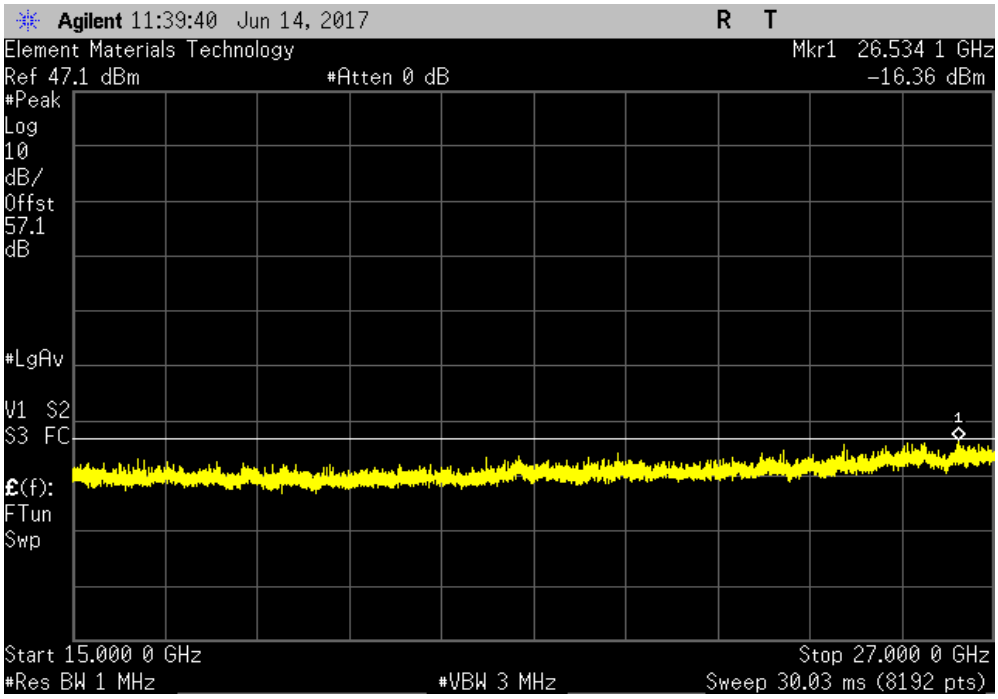
Antenna Port 2, Mid Channel LTE20, 2655 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.42	-16	Pass



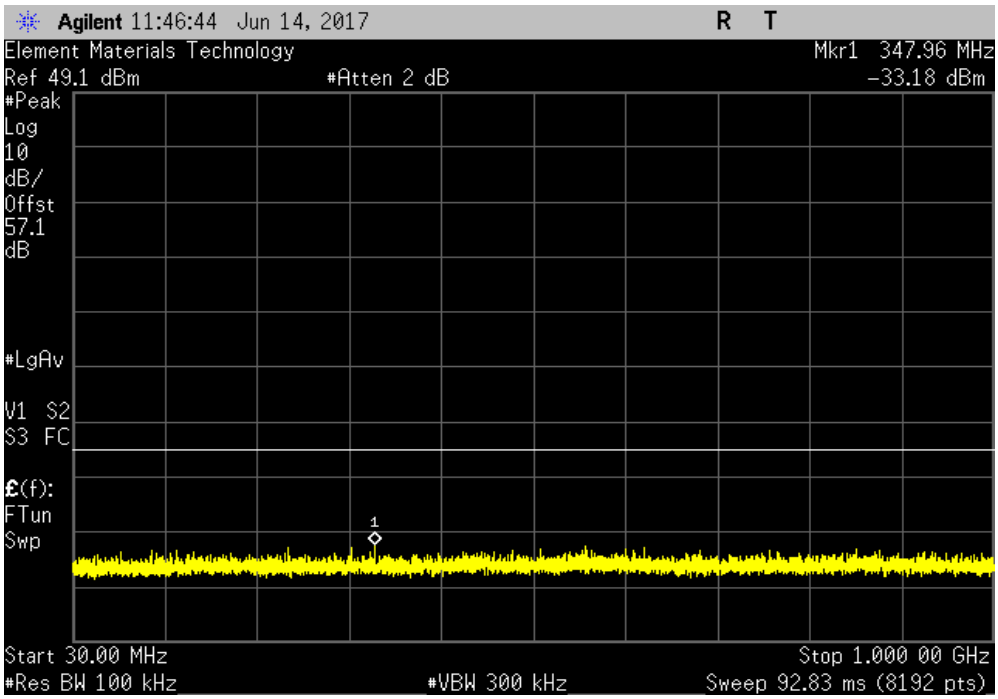
Antenna Port 2, Mid Channel LTE20, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.43	-16	Pass



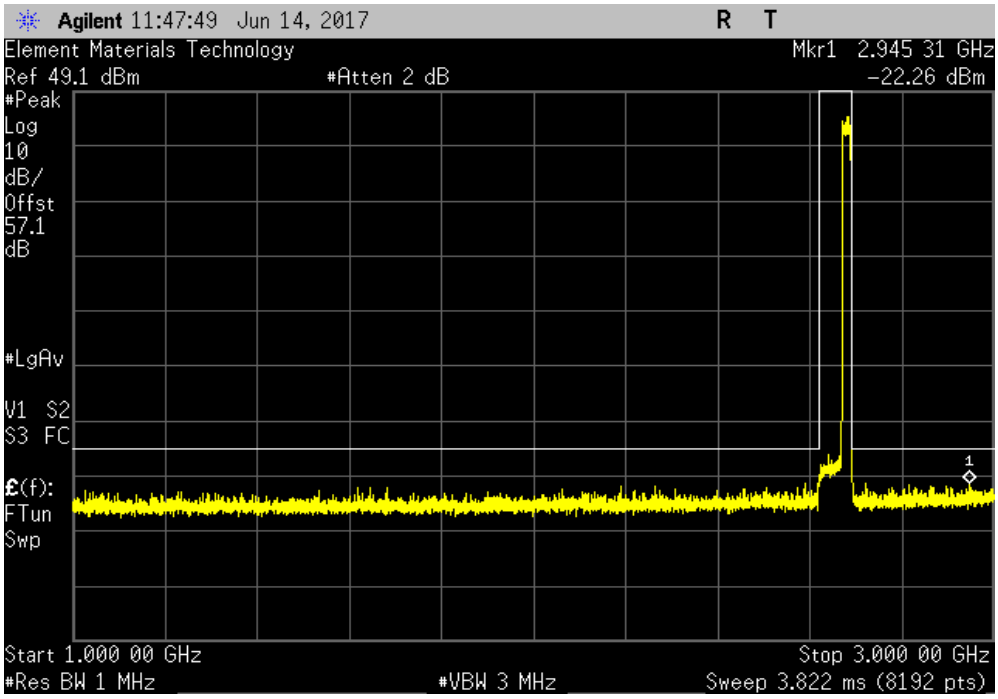
Antenna Port 2, Mid Channel LTE20, 2655 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.36	-16	Pass



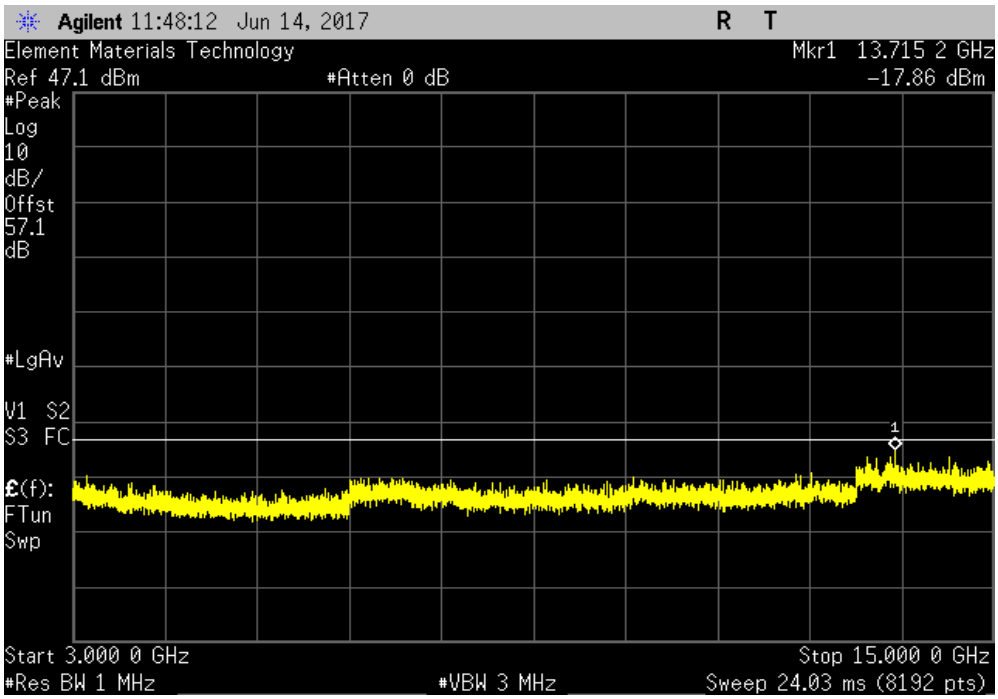
Antenna Port 2, High Channel LTE20, 2680 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.18	-16	Pass



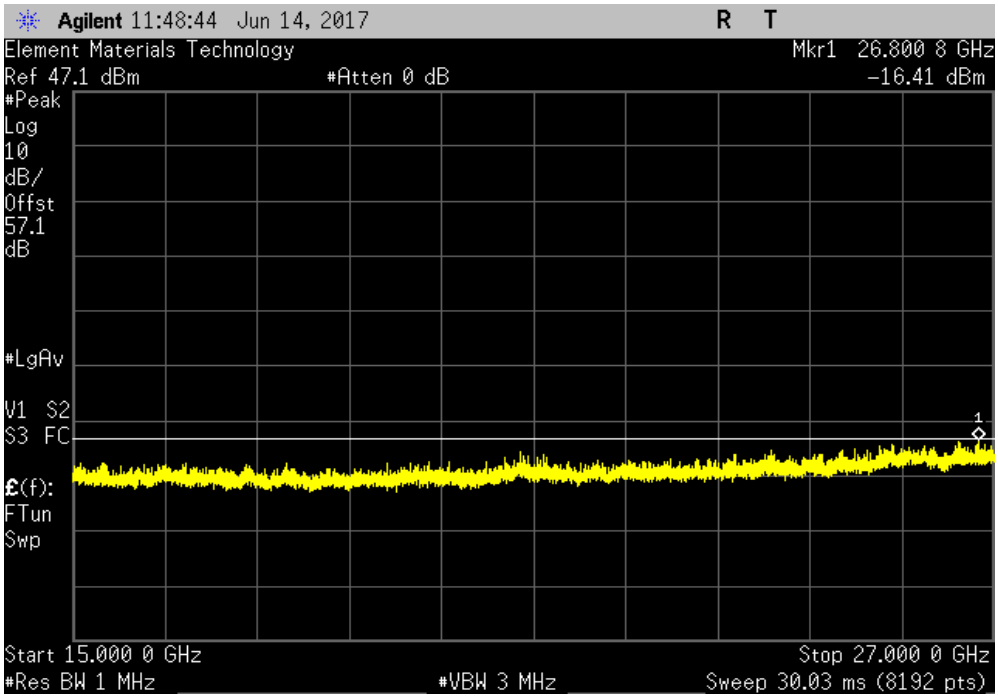
Antenna Port 2, High Channel LTE20, 2680 MHz						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.26	-16	Pass



Antenna Port 2, High Channel LTE20, 2680 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-17.86	-16	Pass



Antenna Port 2, High Channel LTE20, 2680 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.41	-16	Pass



BAND EDGE COMPLIANCE

XMit 2017.02.08

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
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

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. The resolution bandwidth was set to approximately 1% of the measured emissions bandwidth within the first 1 MHz block adjacent to the transmit band. An average RMS detector was used to match the method used during Output Power. The screen capture shows the margin between the measured value and the limit at the band edge.

BAND EDGE COMPLIANCE

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	CWS-3050-07			**Work Order:**	KMWC0080
Serial Number:	See Configuration			**Date:**	06/14/17
Customer:	Parallel Wireless Inc.			**Temperature:**	22.9 °C
Attendees:	Daniel Kim			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1014 mbar
Tested by:	Salvador Solorzano and Johnny Candelas	**Power:**	48VDC	**Job Site:**	OC13

TEST SPECIFICATIONS	Test Method
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.
The -13dBm specification limit has been lowered by 3dB to account for the 2 port MIMO configuration. Correction factor based upon the formula of 10*log(# of antennas) Using -16dBm

DEVIATIONS FROM TEST STANDARD

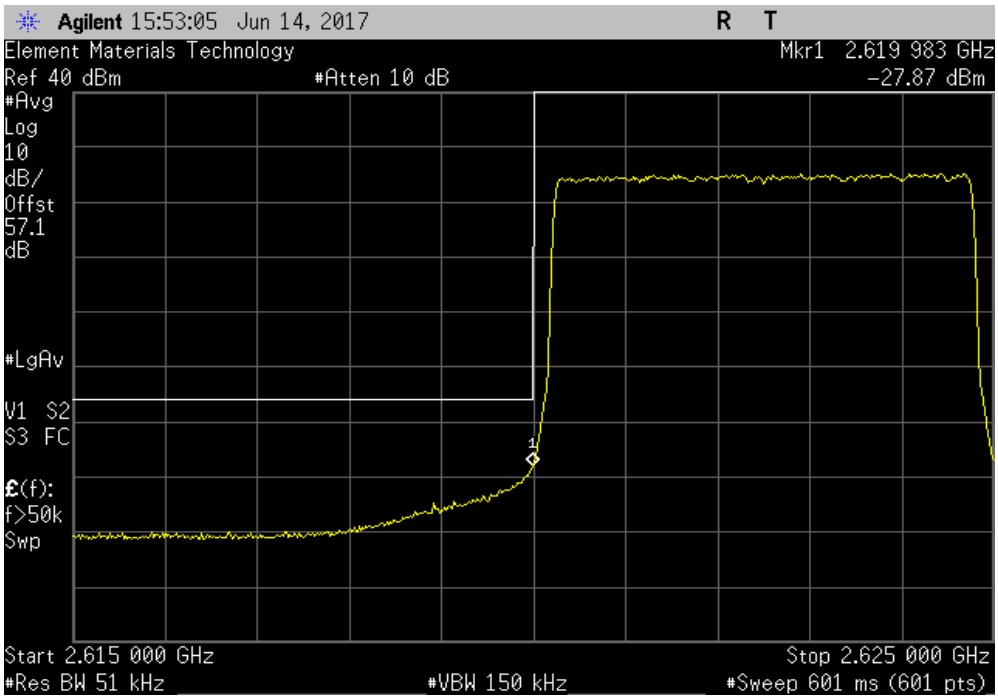
None

Configuration #	**1**	*Signature*

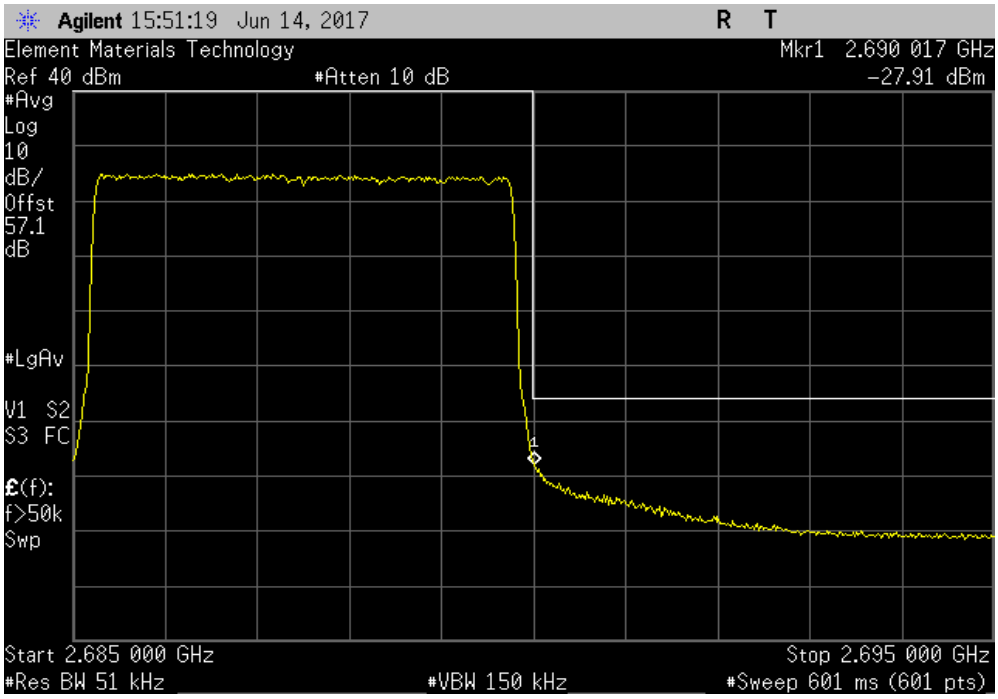
		Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
Antenna Port 1					
	Low Channel LTE5, 2622.5 MHz	2.615 GHz - 2.625 GHz	-27.87	-16	Pass
	High Channel LTE5, 2687.5 MHz	2.685 GHz - 2.695 GHz	-27.91	-16	Pass
	Low Channel LTE10, 2625 MHz	2.61 GHz - 2.63 GHz	-30.78	-16	Pass
	High Channel LTE10, 2685 MHz	2.68 GHz - 2.7 GHz	-31.29	-16	Pass
	Low Channel LTE20, 2630 MHz	2.6 GHz - 2.64 GHz	-31.81	-16	Pass
	High Channel LTE20, 2680 MHz	2.67 GHz - 2.71 GHz	-31.32	-16	Pass
Antenna Port 2					
	Low Channel LTE5, 2622.5 MHz	2.615 GHz - 2.625 GHz	-28.81	-16	Pass
	High Channel LTE5, 2687.5 MHz	2.685 GHz - 2.695 GHz	-28.36	-16	Pass
	Low Channel LTE10, 2625 MHz	2.61 GHz - 2.63 GHz	-30.91	-16	Pass
	High Channel LTE10, 2685 MHz	2.68 GHz - 2.7 GHz	-31.64	-16	Pass
	Low Channel LTE20, 2630 MHz	2.6 GHz - 2.64 GHz	-31.99	-16	Pass
	High Channel LTE20, 2680 MHz	2.67 GHz - 2.71 GHz	-31.00	-16	Pass

BAND EDGE COMPLIANCE

Antenna Port 1, Low Channel LTE5, 2622.5 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.615 GHz - 2.625 GHz		-27.87	-16	Pass

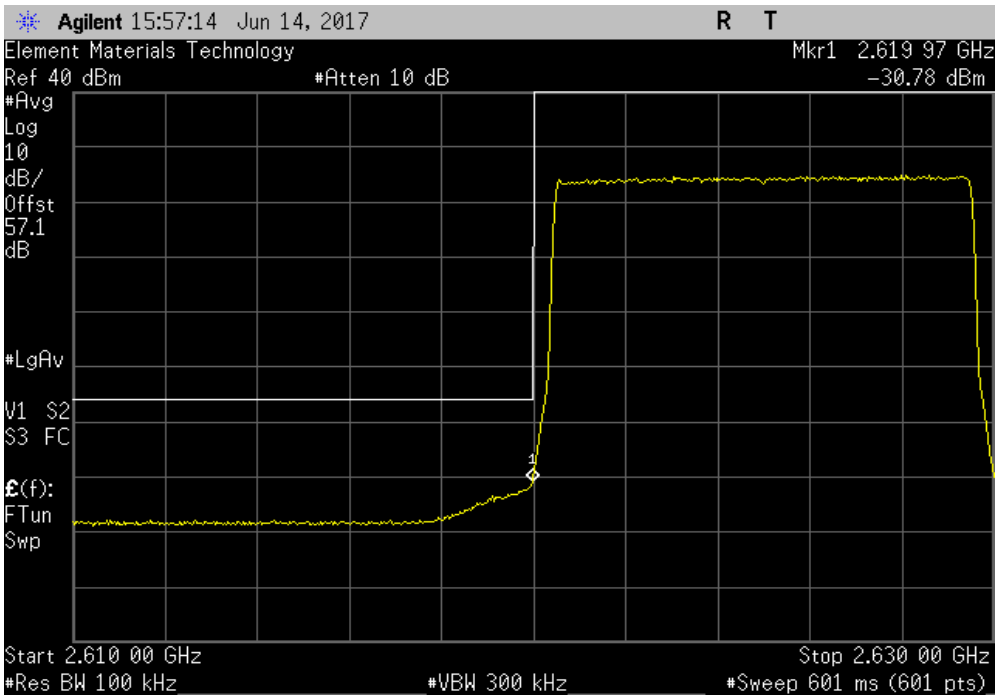


Antenna Port 1, High Channel LTE5, 2687.5 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.685 GHz - 2.695 GHz		-27.91	-16	Pass

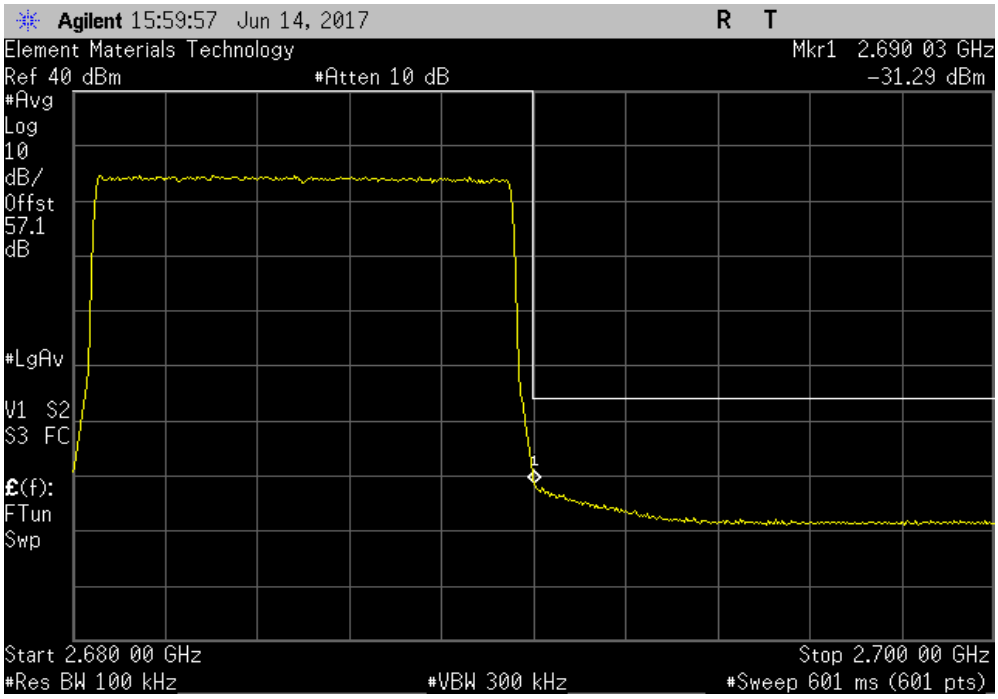


BAND EDGE COMPLIANCE

Antenna Port 1, Low Channel LTE10, 2625 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.61 GHz - 2.63 GHz		-30.78	-16	Pass



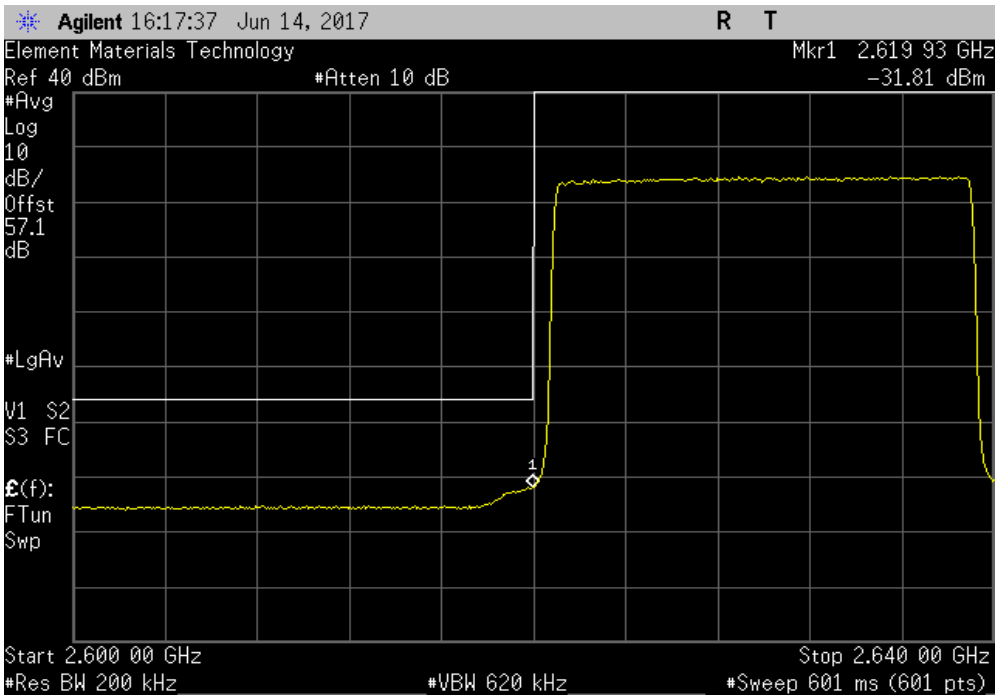
Antenna Port 1, High Channel LTE10, 2685 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.68 GHz - 2.7 GHz		-31.29	-16	Pass



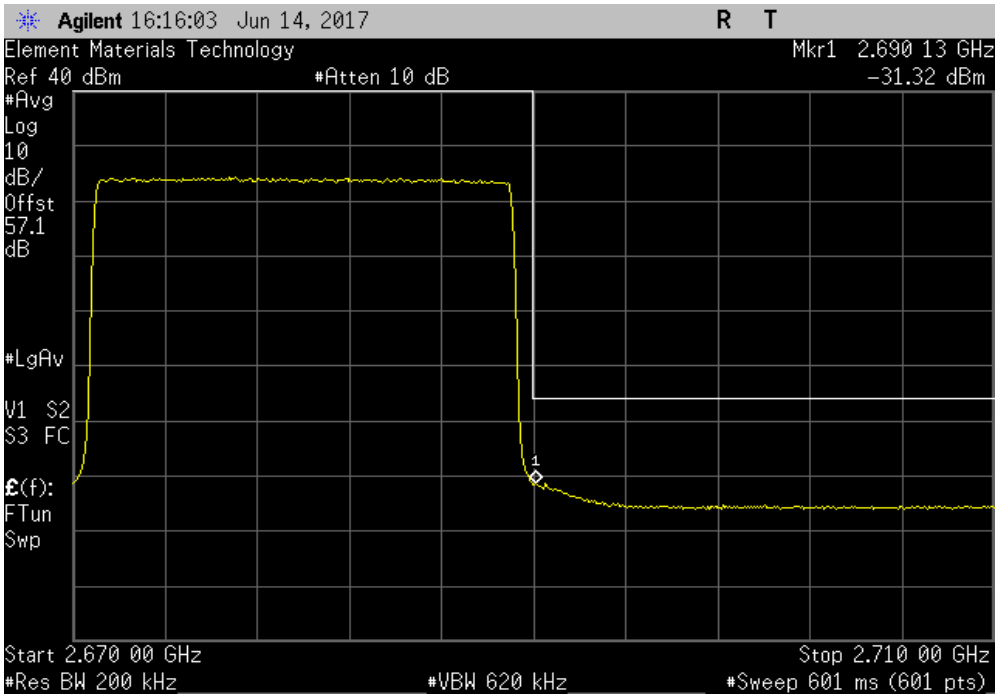
BAND EDGE COMPLIANCE

TbtTx 2017.04.18 XMit 2017.02.08

Antenna Port 1, Low Channel LTE20, 2630 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.6 GHz - 2.64 GHz		-31.81	-16	Pass

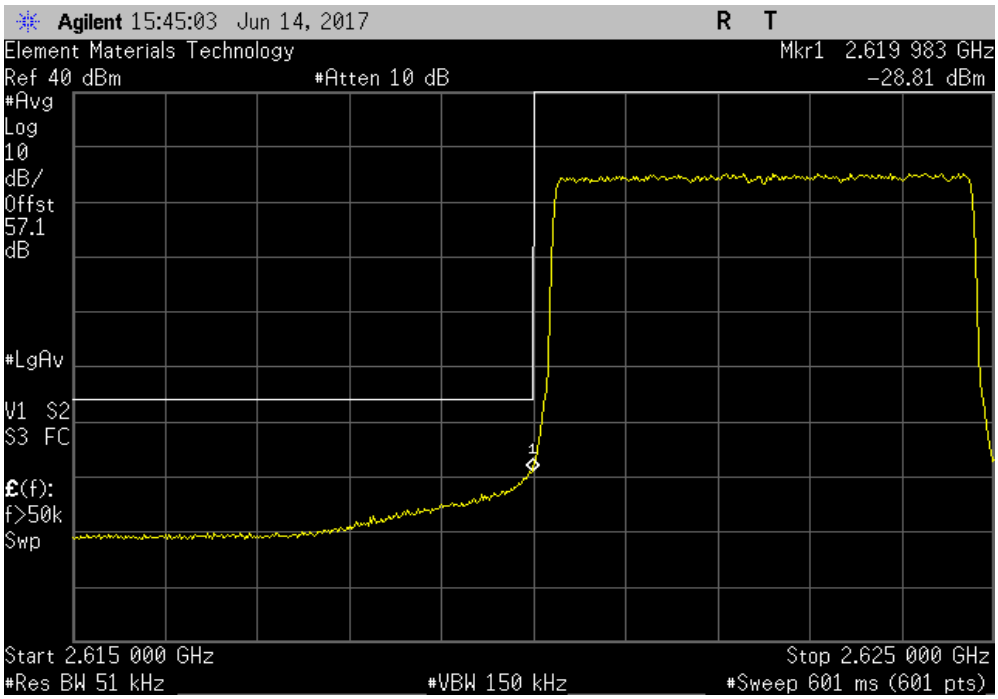


Antenna Port 1, High Channel LTE20, 2680 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.67 GHz - 2.71 GHz		-31.32	-16	Pass

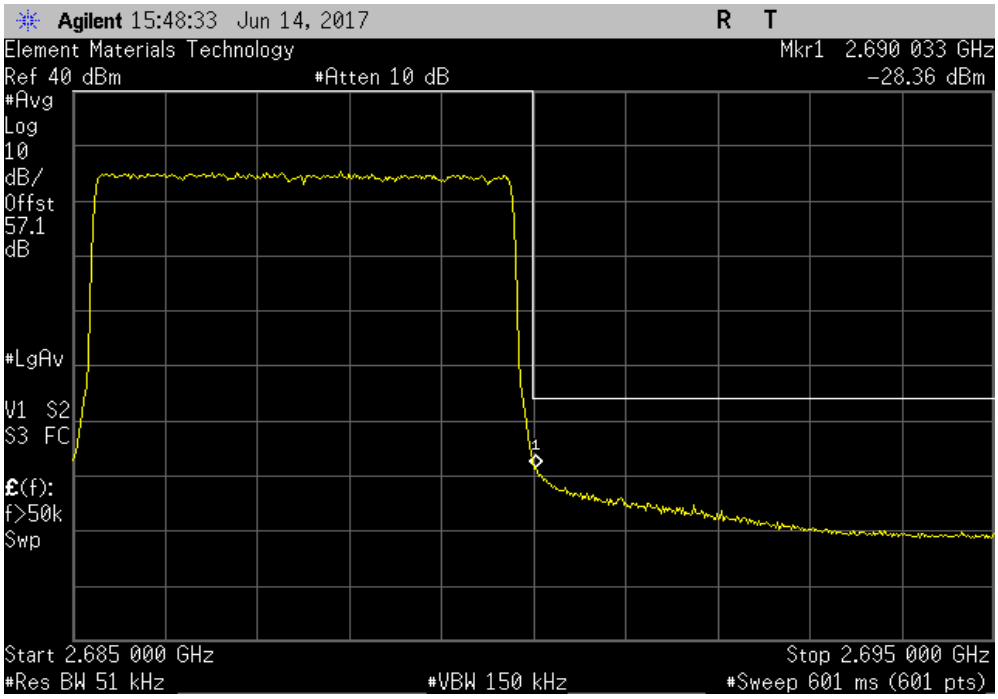


BAND EDGE COMPLIANCE

Antenna Port 2, Low Channel LTE5, 2622.5 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.615 GHz - 2.625 GHz		-28.81	-16	Pass

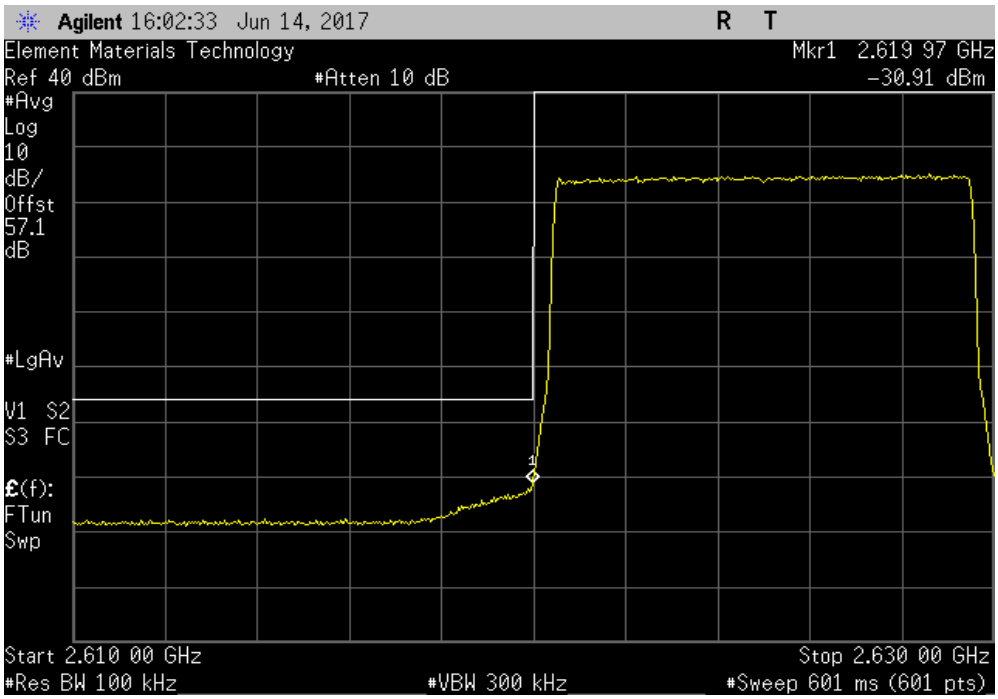


Antenna Port 2, High Channel LTE5, 2687.5 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.685 GHz - 2.695 GHz		-28.36	-16	Pass

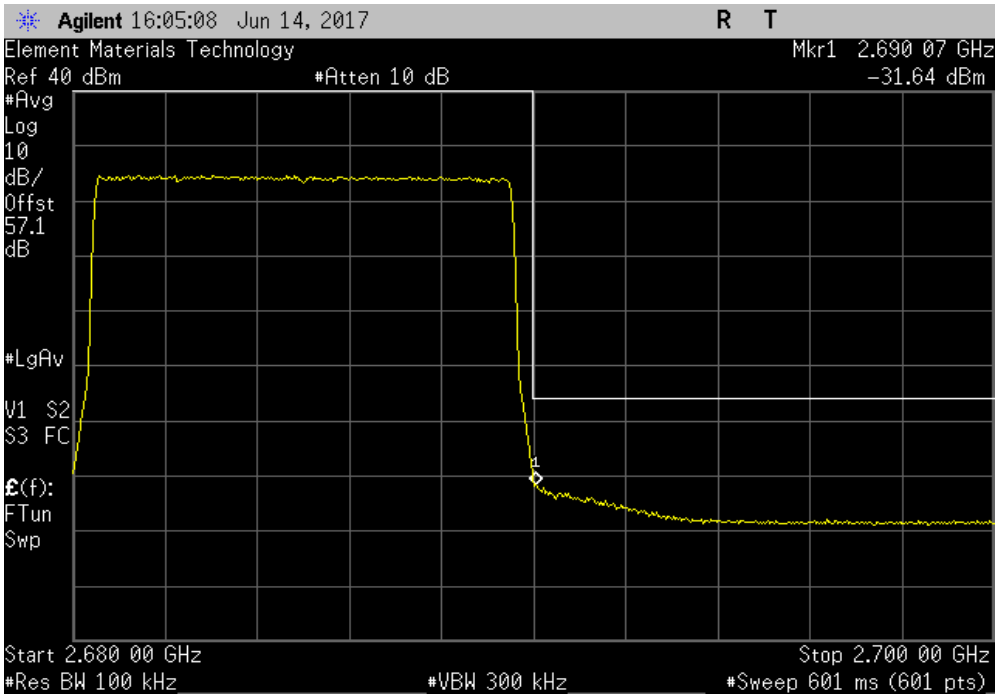


BAND EDGE COMPLIANCE

Antenna Port 2, Low Channel LTE10, 2625 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.61 GHz - 2.63 GHz		-30.91	-16	Pass

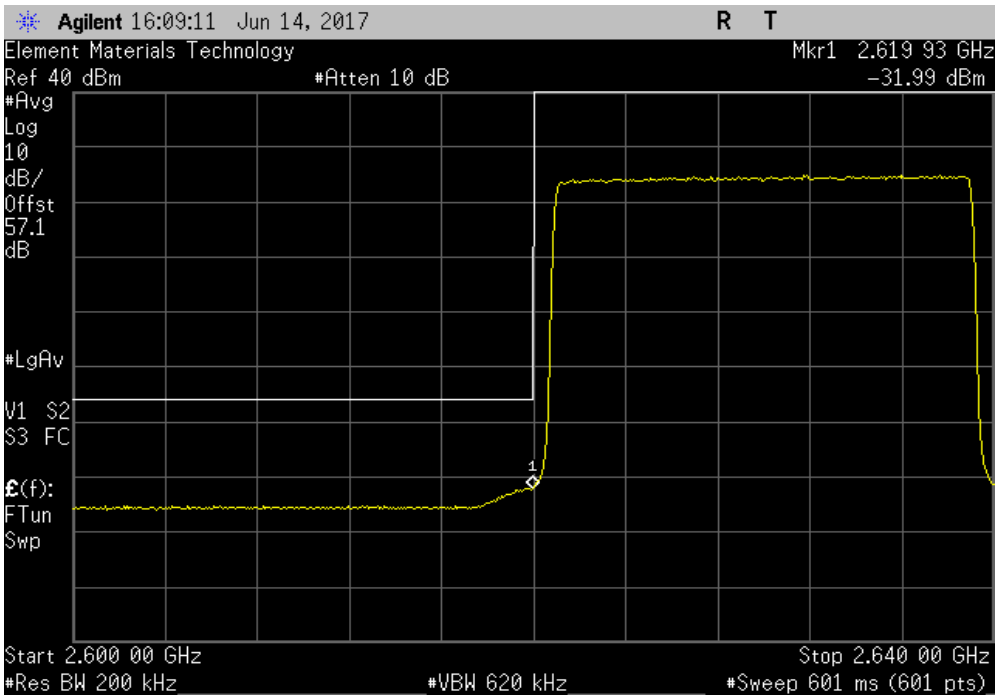


Antenna Port 2, High Channel LTE10, 2685 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.68 GHz - 2.7 GHz		-31.64	-16	Pass

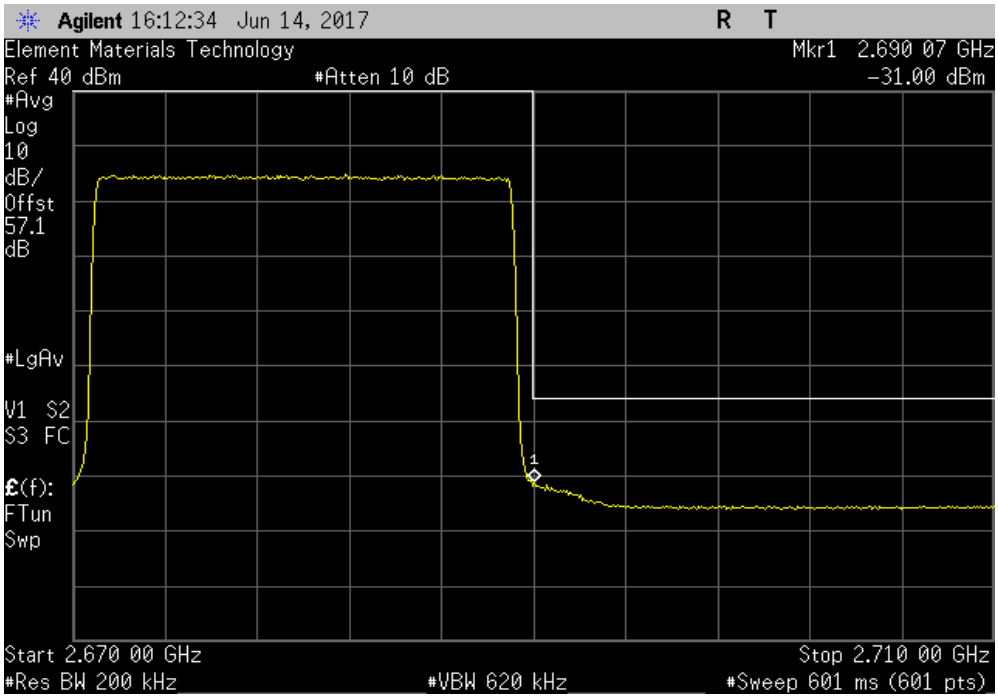


BAND EDGE COMPLIANCE

Antenna Port 2, Low Channel LTE20, 2630 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.6 GHz - 2.64 GHz		-31.99	-16	Pass



Antenna Port 2, High Channel LTE20, 2680 MHz				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
2.67 GHz - 2.71 GHz		-31	-16	Pass



INTERMODULATION

XMit 2017.02.08

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
Power Supply - DC	Hewlett Packard	6574A	TPX	NCR	NCR
Generator - Signal	Agilent	E8257D	TGU	2/5/2015	2/5/2018
Cable	Fairview Microwave	SCA1814-0101-120	OCZ	NCR	NCR
Block - DC	Fairview Microwave	SD3379	AMV	1/11/2017	1/11/2018
Analyzer - Spectrum Analyzer	Agilent	E4440A	AFA	11/2/2016	11/2/2017

CLIENT PROVIDED EQUIPMENT

Description	Manufacturer	Model	Last Cal.	Cal. Due
High Power Attenuator - 30dB	Aeroflex/Weinschel	53-30-43	NCR	NCR
Attenuator - 20dB	N/A	N/A	NCR	NCR
Power Divider	Fairview Microwave	MP8748-2	NCR	NCR
50Ohm Terminator	Aeroflex/Weinschel	1455-4	NCR	NCR
High Power Terminator	Telcon	KTMO400800060	NCR	NCR

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Analyzer plots utilizing a 1MHz resolution bandwidth and no video filtering were made for each modulation type.

The EUT was configured with an input of two CW pulses at the edges of the band and a modulated pulse in the band. The purpose of the test is to insure that no additional signals are creating by having multiple carriers in the passband of the EUT.

Analyzer plots utilizing a 1MHz resolution bandwidth and no video filtering were made for each modulation type.

The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to the spurious conducted emissions limits.

INTERMODULATION

TbtTx 2017.04.18 XMit 2017.02.08

EUT:	**CWS-3050-07**			**Work Order:**	**KMWC0080**
Serial Number:	**See Configuration**			**Date:**	**06/14/17**
Customer:	**Parallel Wireless Inc.**			**Temperature:**	**22.9 °C**
Attendees:	**Daniel Kim**			**Humidity:**	**46.4% RH**
Project:	**None**			**Barometric Pres.:**	**1014 mbar**
Tested by:	**Salvador Solorzano and Johnny Candelas**	**Power:**	**48VDC**	**Job Site:**	**OC13**

TEST SPECIFICATIONS	**Test Method**
FCC 27:2017	ANSI/TIA/EIA-603-D-2010

COMMENTS

Power Level Setting 40W. Reference Level Offset: DC Block + 30dB Attenuator + 20dB Attenuator + Power Divider + Cable Loss = 57.1dB total.
The -13dBm specification limit has been lowered by 3dB to account for the 2 port MIMO configuration. Correction factor based upon the formula of 10*log(# of antennas) Using -16dBm

DEVIATIONS FROM TEST STANDARD

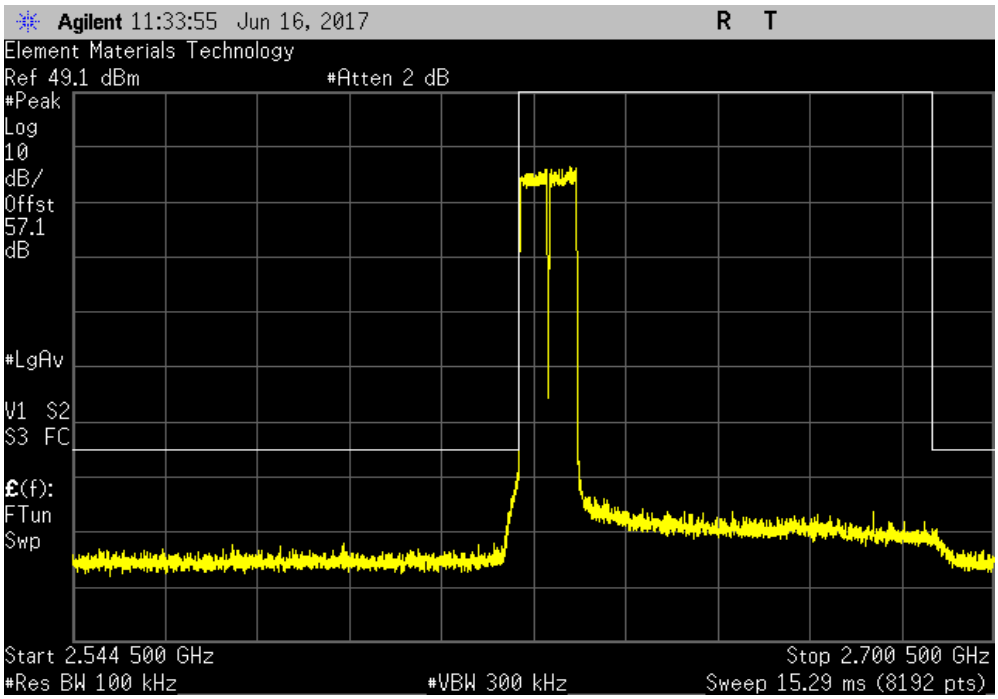
None

Configuration #	**1**	*Signature* 

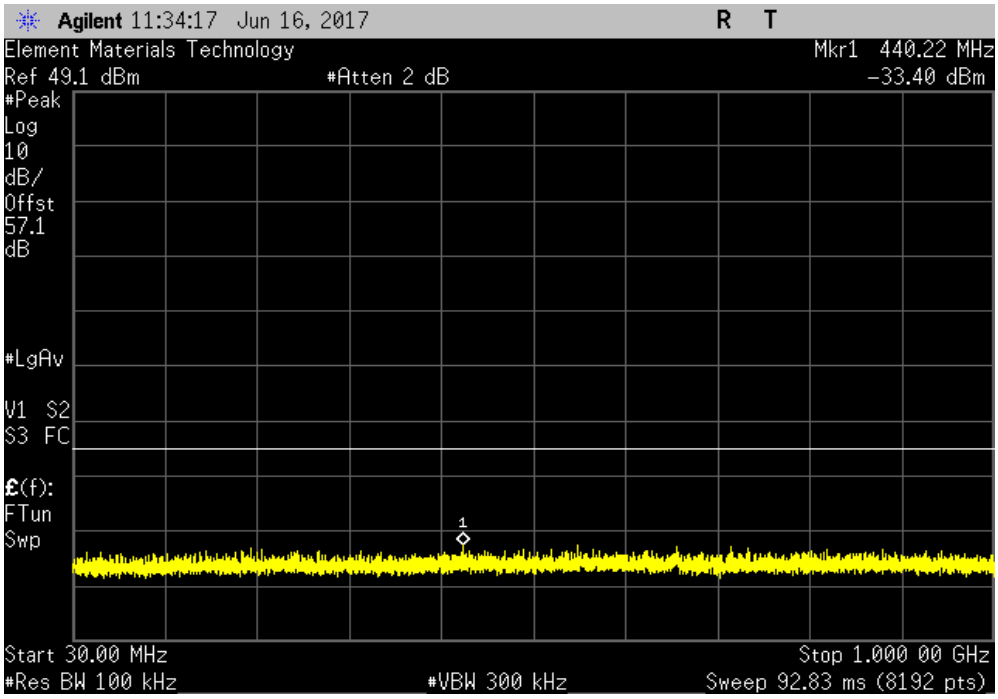
		Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
Antenna Port 1					
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.4	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23.76	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-18.94	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.48	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.1	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-22.71	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.78	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.69	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-32.85	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.34	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.22	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.42	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-23.65	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-18.67	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.97	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.33	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23.12	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-18.4	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.94	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.53	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-21.88	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-18.96	-16	Pass
	LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.5	-16	Pass
	LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-32.94	-16	Pass
	LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-22.14	-16	Pass
	LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.77	-16	Pass
	LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.6	-16	Pass
	LTE10, 2685 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE10, 2685 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.42	-16	Pass
	LTE10, 2685 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-21.75	-16	Pass
	LTE10, 2685 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.79	-16	Pass
	LTE10, 2685 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.84	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.38	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-22.87	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.35	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.68	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.3	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-24.39	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.05	-16	Pass
	LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.59	-16	Pass
	LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.23	-16	Pass
	LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-22.44	-16	Pass
	LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.18	-16	Pass
	LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.65	-16	Pass
	LTE20, 2680 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE20, 2680 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.25	-16	Pass
	LTE20, 2680 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-22.56	-16	Pass
	LTE20, 2680 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.62	-16	Pass
	LTE20, 2680 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.69	-16	Pass
Antenna Port 2					
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.48	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-24.98	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.9	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.62	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-23.17	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.66	-16	Pass
	LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.59	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.16	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-22.19	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.51	-16	Pass
	LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.45	-16	Pass

	Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.58	-16	Pass
LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-23.52	-16	Pass
LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.44	-16	Pass
LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.37	-16	Pass
LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-32.9	-16	Pass
LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23.39	-16	Pass
LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.39	-16	Pass
LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.67	-16	Pass
LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.04	-16	Pass
LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-23.74	-16	Pass
LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.18	-16	Pass
LTE10, 2625 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.29	-16	Pass
LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.4	-16	Pass
LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23.93	-16	Pass
LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.62	-16	Pass
LTE10, 2685 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.89	-16	Pass
LTE10, 2685 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
LTE10, 2685 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.31	-16	Pass
LTE10, 2685 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-22.33	-16	Pass
LTE10, 2685 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-18.51	-16	Pass
LTE10, 2685 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.73	-16	Pass
LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.05	-16	Pass
LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-24.65	-16	Pass
LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-18.39	-16	Pass
LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.06	-16	Pass
LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	30 MHz - 1 GHz	-32.69	-16	Pass
LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	1 GHz - 3 GHz	-22.52	-16	Pass
LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	3 GHz - 15 GHz	-18.73	-16	Pass
LTE20, 2630 MHz, Low Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.05	-16	Pass
LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	Fundamental	N/A	N/A	N/A
LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	30 MHz - 1 GHz	-33.42	-16	Pass
LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	1 GHz - 3 GHz	-23.67	-16	Pass
LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	3 GHz - 15 GHz	-19.18	-16	Pass
LTE20, 2680 MHz, High Band Edge, adjacent secondary channel	15 GHz - 27 GHz	-16.58	-16	Pass
LTE20, 2680 MHz, High Band Edge, max offset secondary channel	Fundamental	N/A	N/A	N/A
LTE20, 2680 MHz, High Band Edge, max offset secondary channel	30 MHz - 1 GHz	-33.53	-16	Pass
LTE20, 2680 MHz, High Band Edge, max offset secondary channel	1 GHz - 3 GHz	-23.7	-16	Pass
LTE20, 2680 MHz, High Band Edge, max offset secondary channel	3 GHz - 15 GHz	-19.31	-16	Pass
LTE20, 2680 MHz, High Band Edge, max offset secondary channel	15 GHz - 27 GHz	-16.91	-16	Pass

Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A

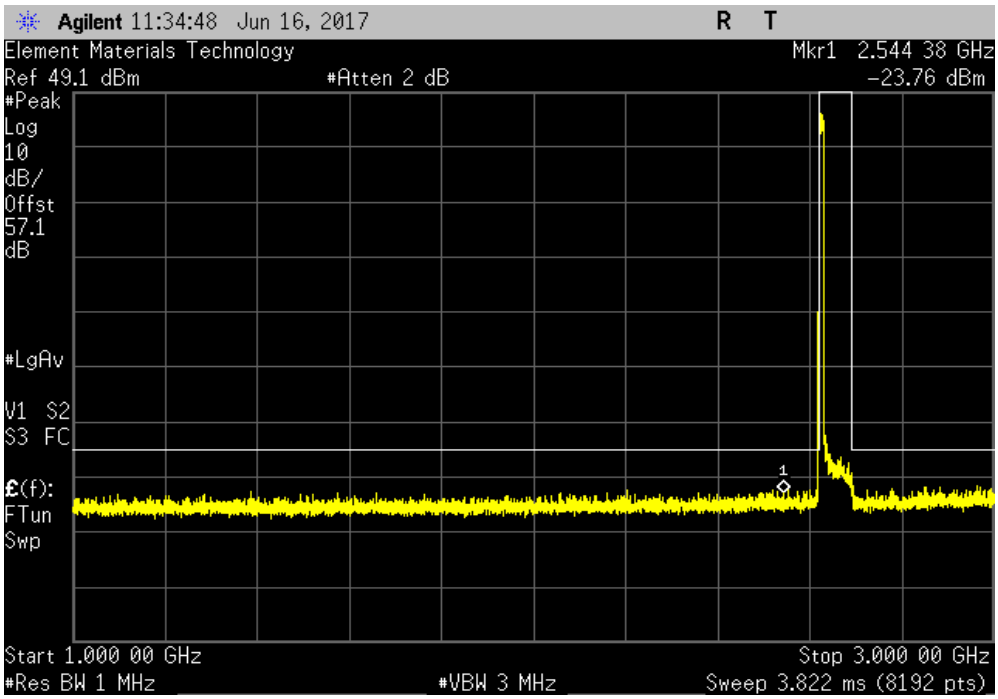


Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.4	-16	Pass

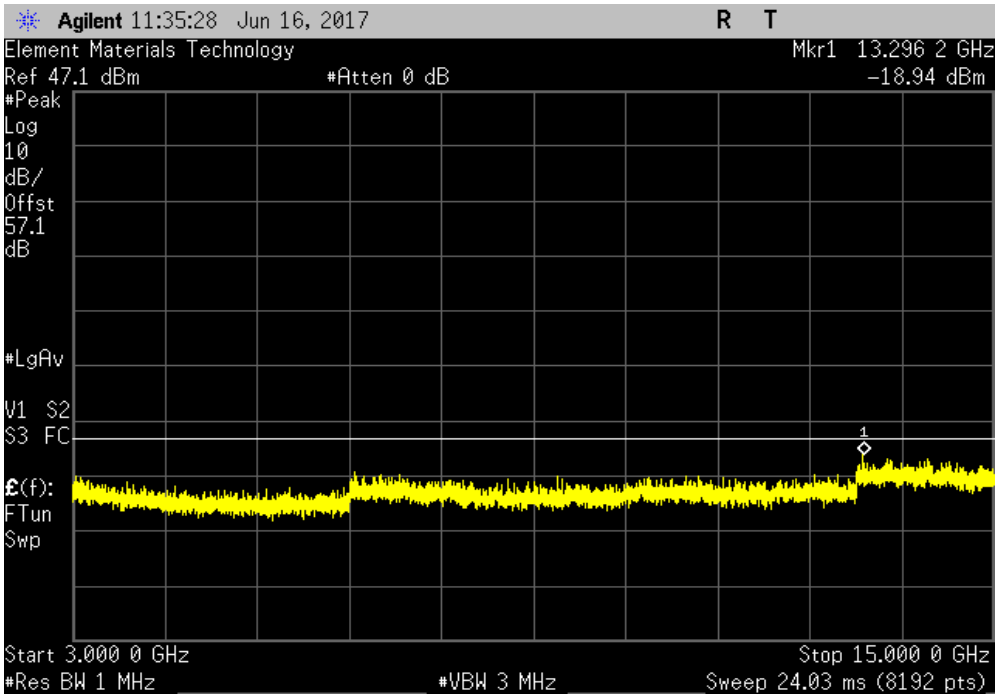


INTERMODULATION

Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.76	-16	Pass

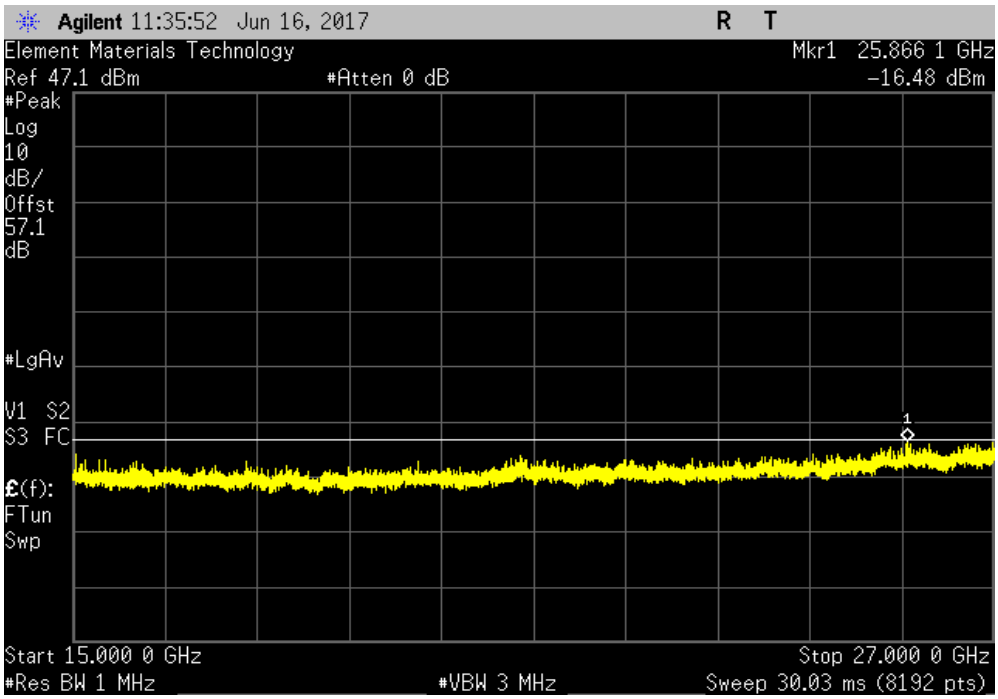


Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-18.94	-16	Pass

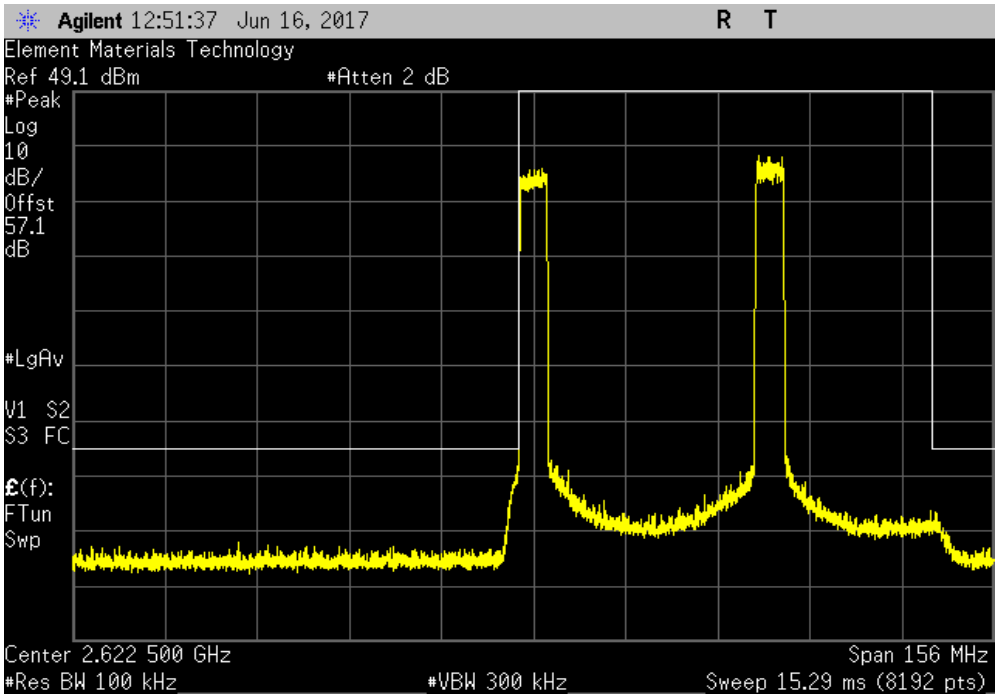


INTERMODULATION

Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.48	-16	Pass

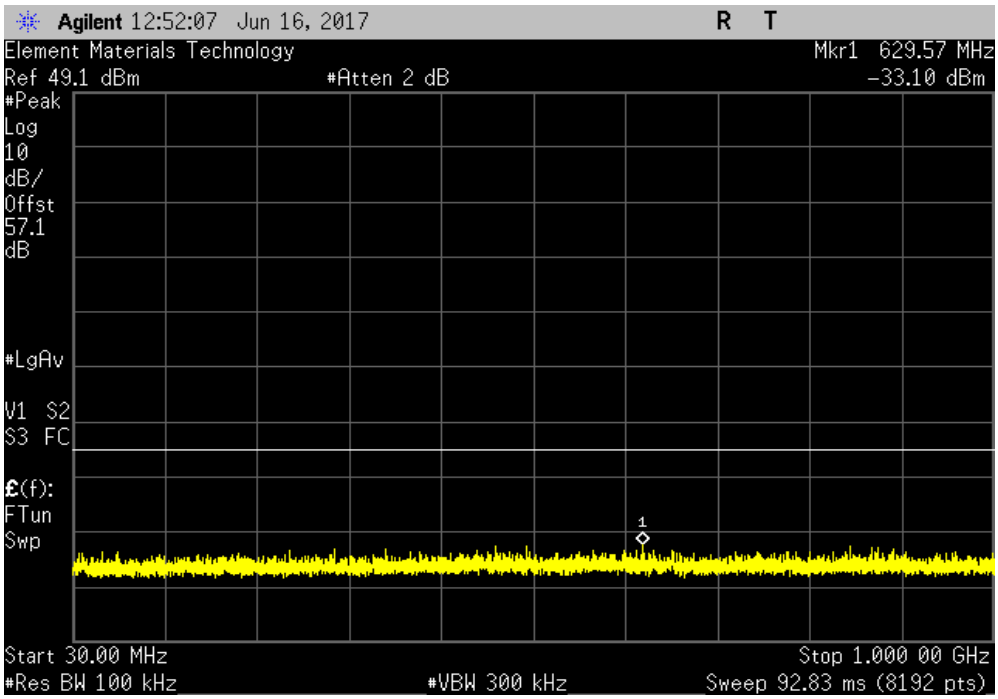


Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

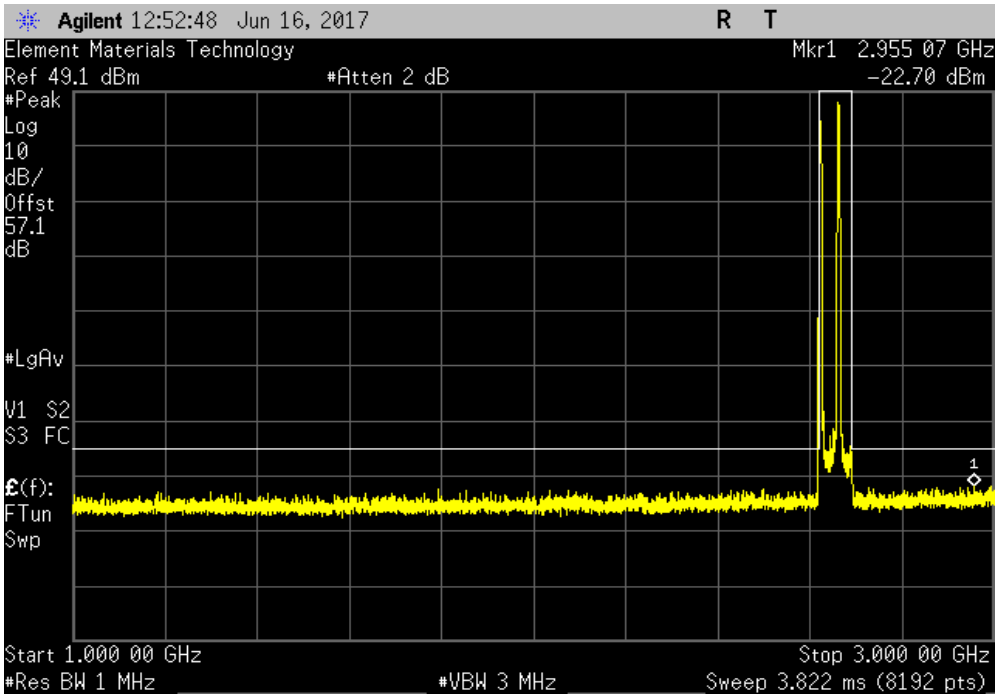


INTERMODULATION

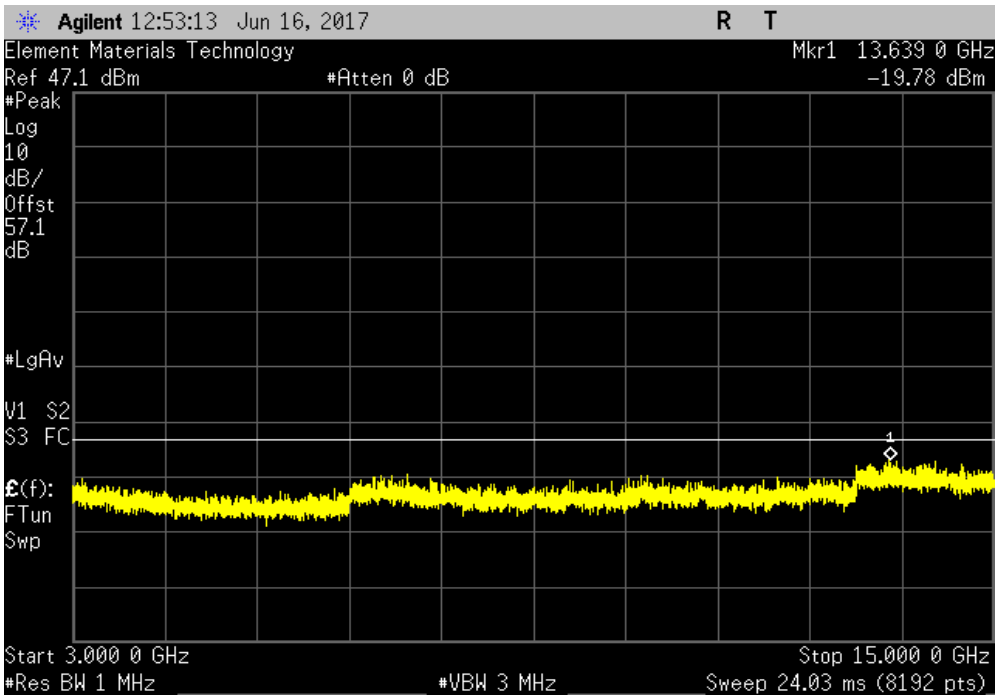
Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.1	-16	Pass



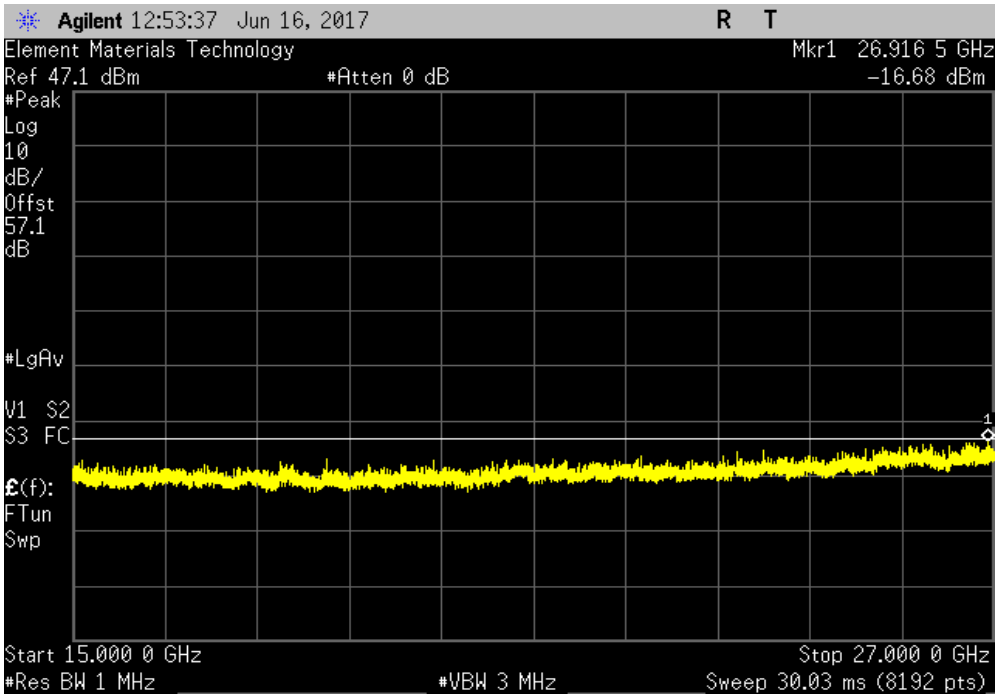
Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.71	-16	Pass



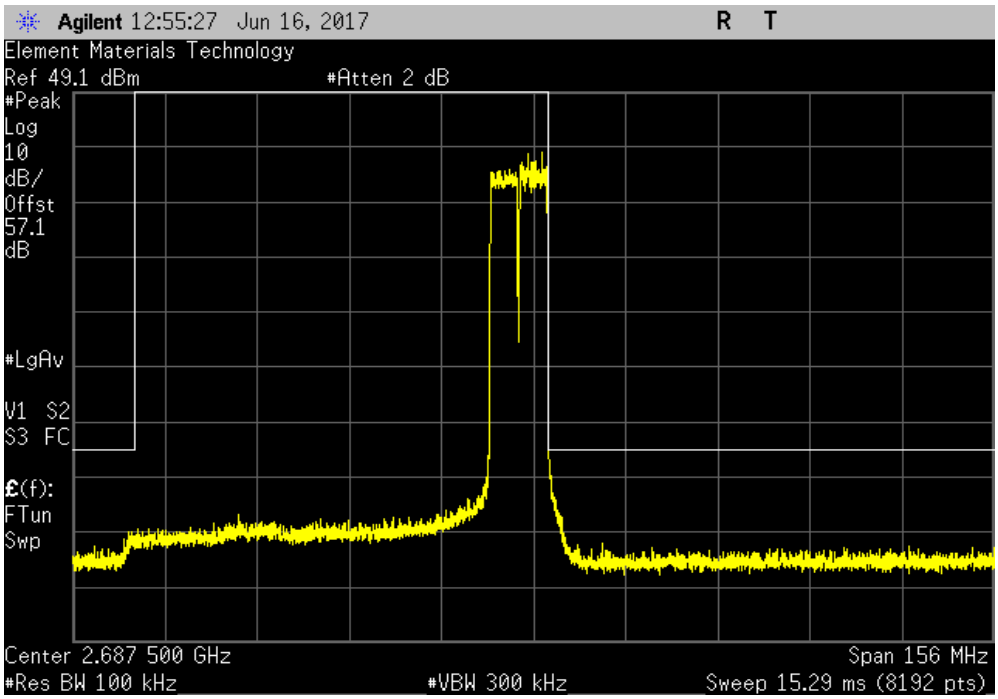
Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.78	-16	Pass



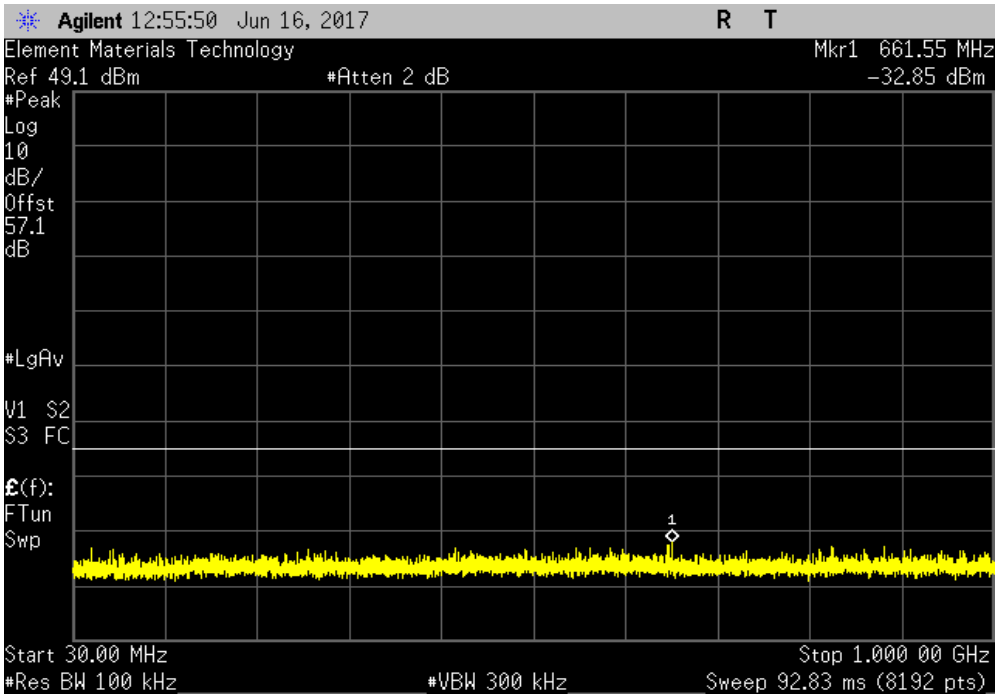
Antenna Port 1, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.69	-16	Pass



Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A

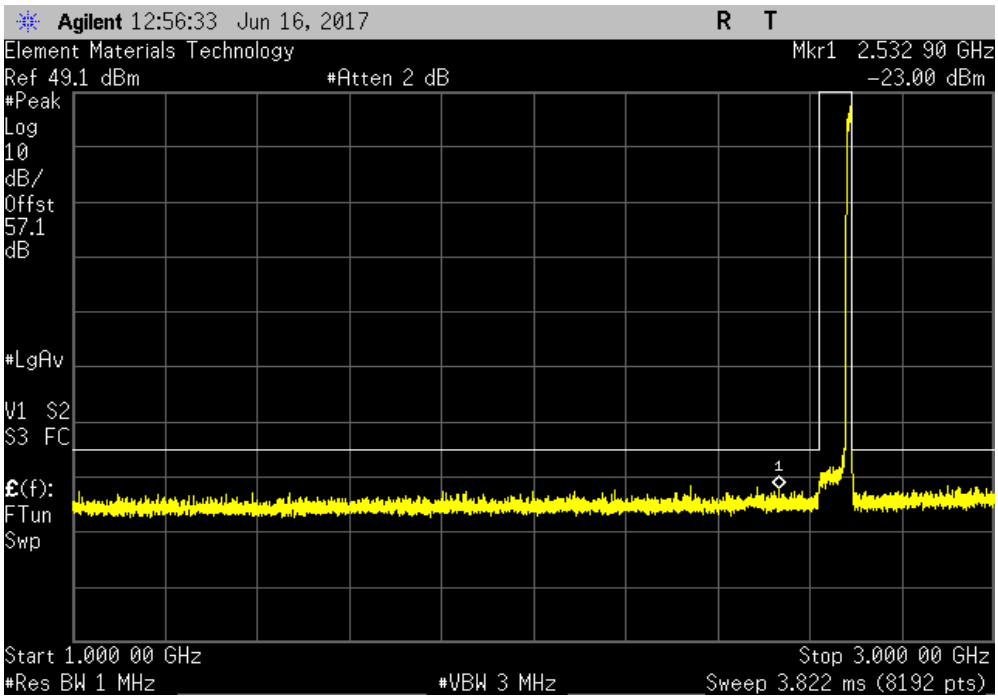


Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.85	-16	Pass

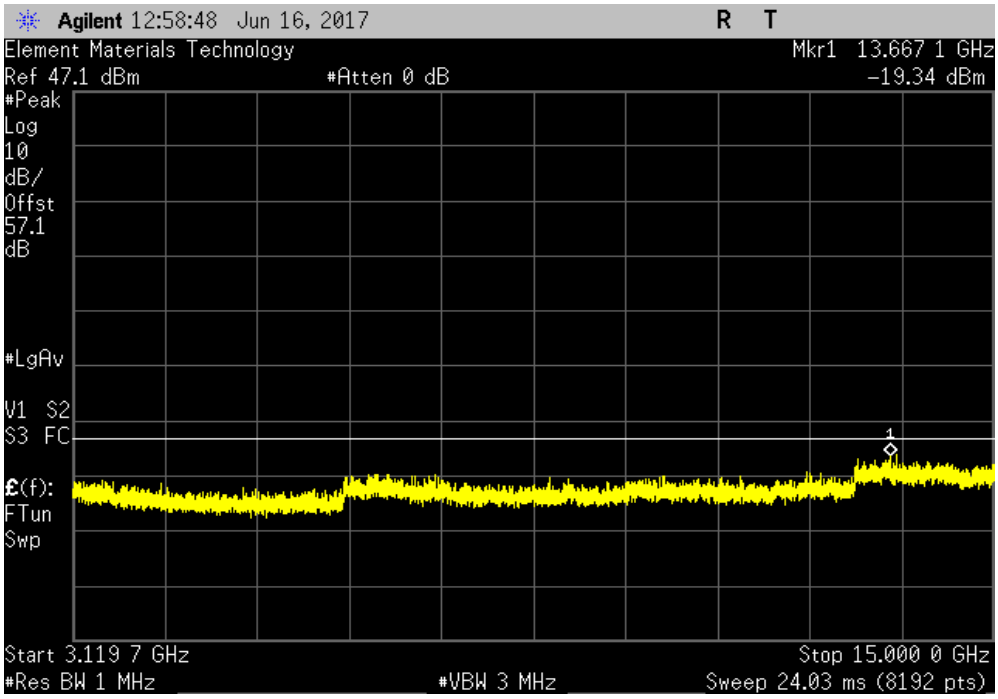


INTERMODULATION

Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23	-16	Pass

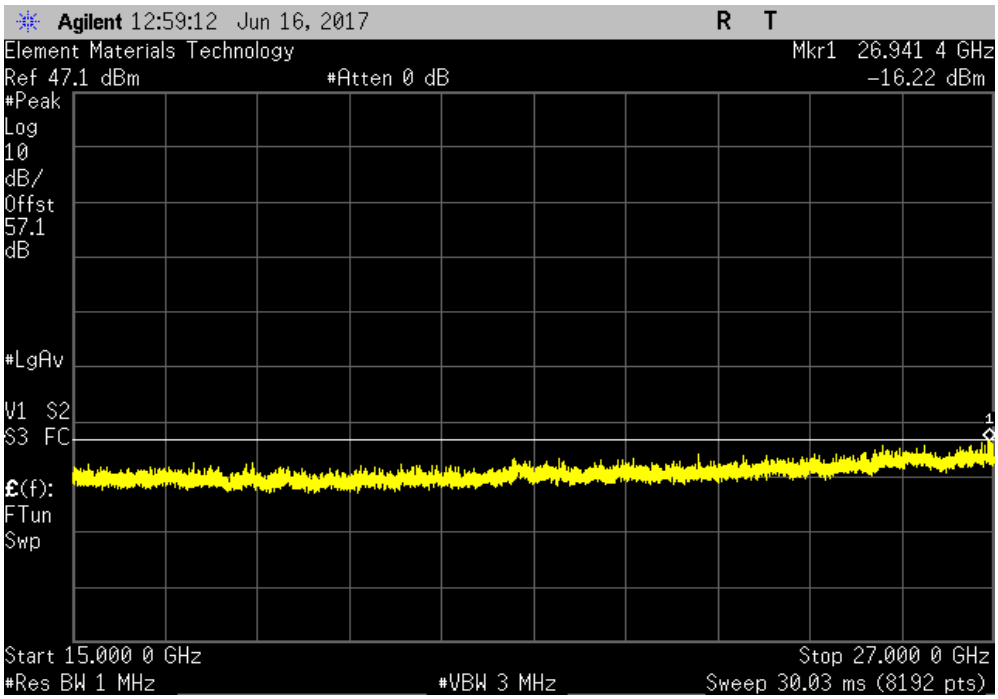


Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19.34	-16	Pass

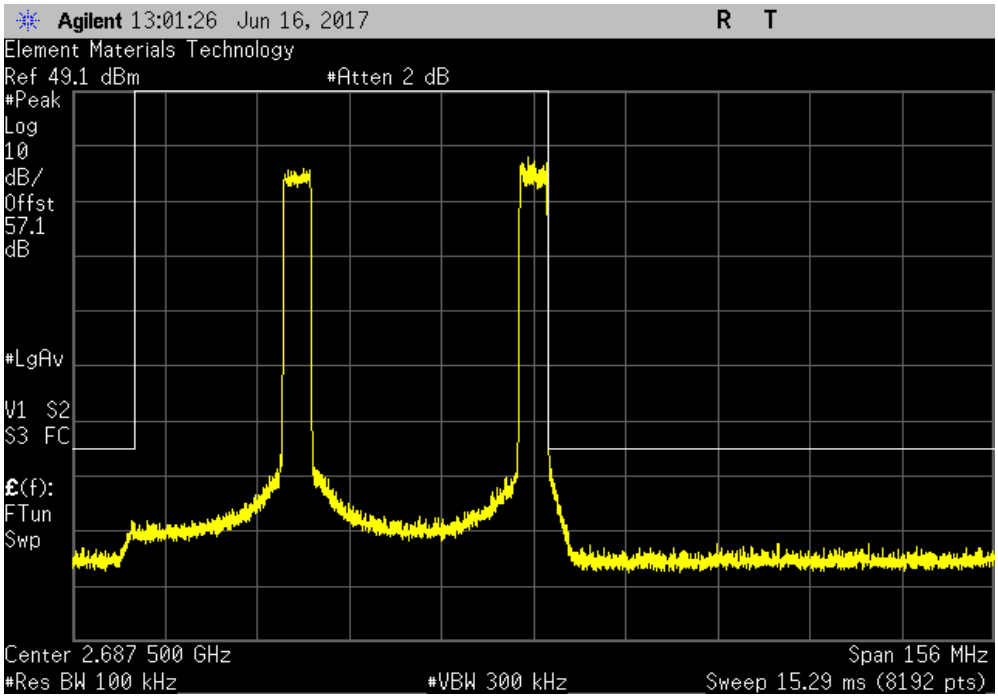


INTERMODULATION

Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.22	-16	Pass

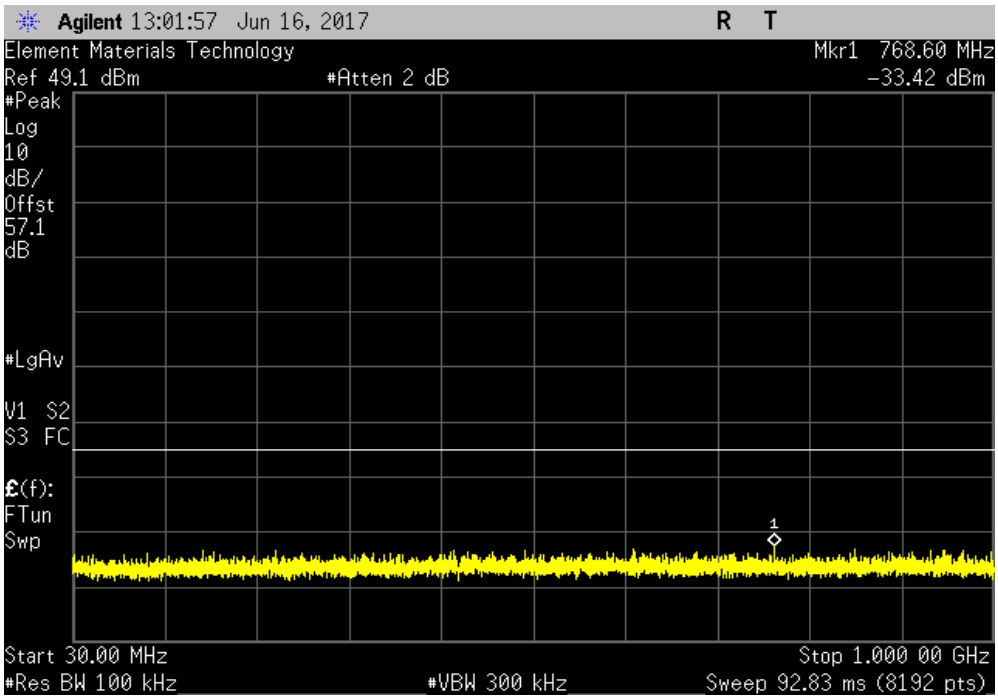


Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

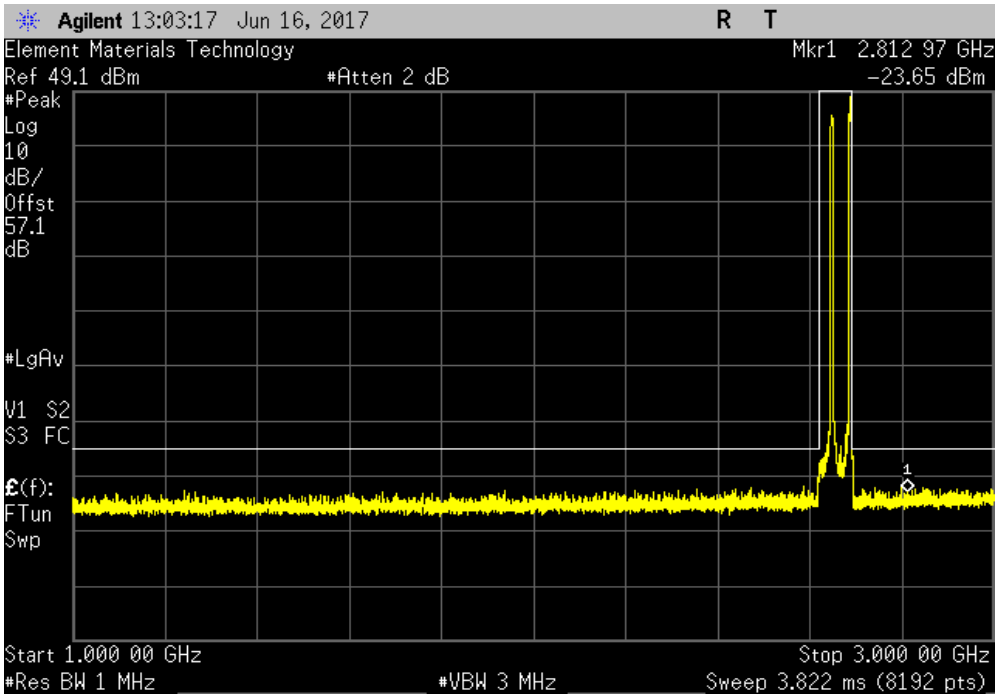


INTERMODULATION

Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.42	-16	Pass

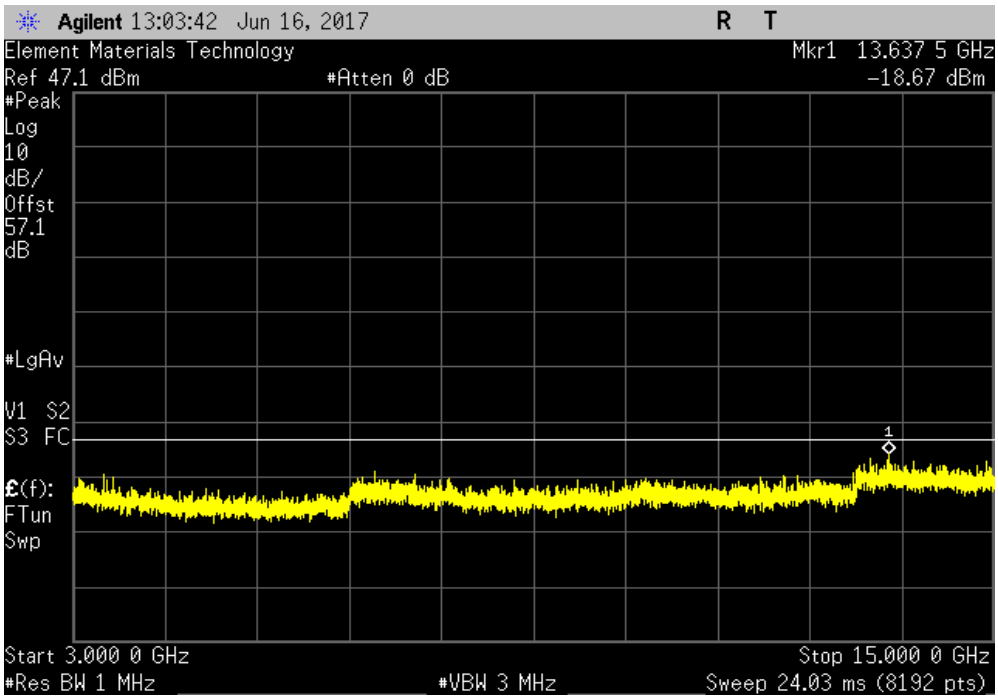


Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.65	-16	Pass

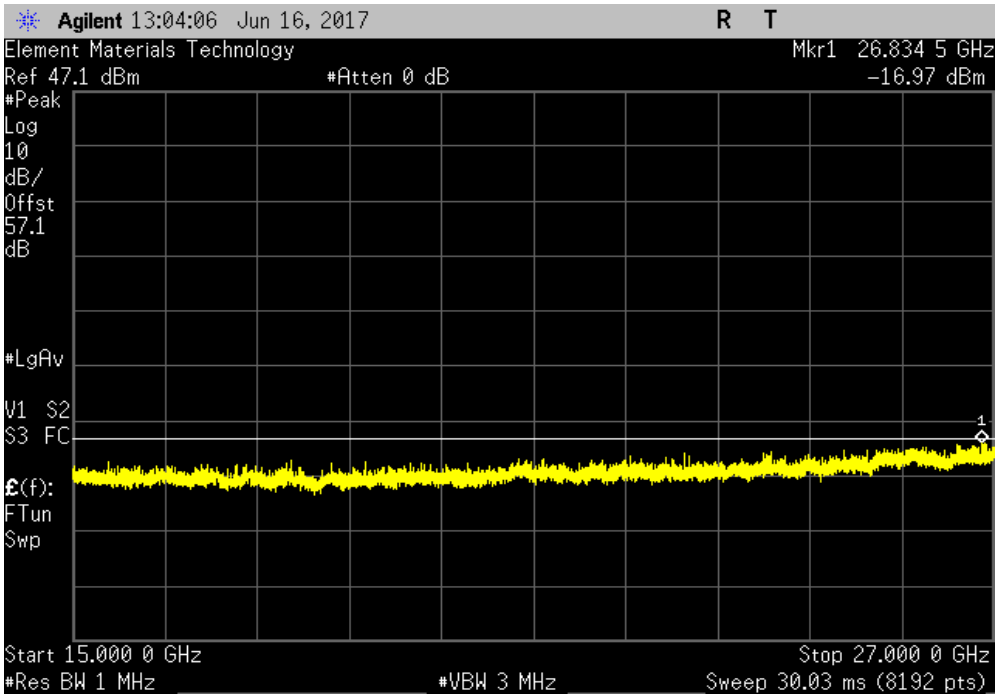


INTERMODULATION

Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-18.67	-16	Pass

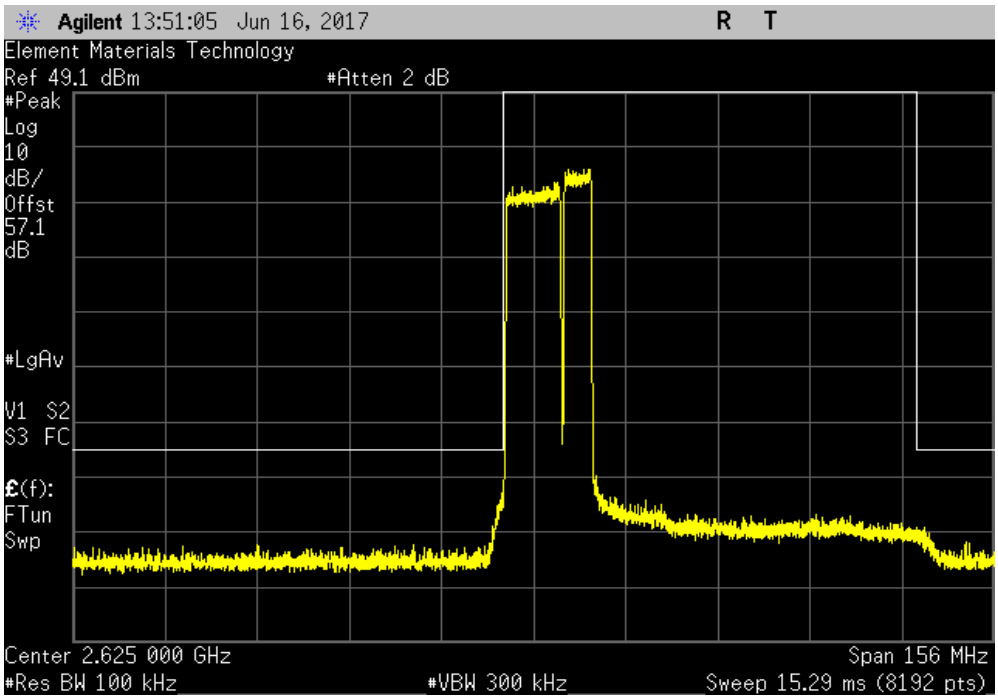


Antenna Port 1, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	15 GHz - 27 GHz			-16.97	-16	Pass

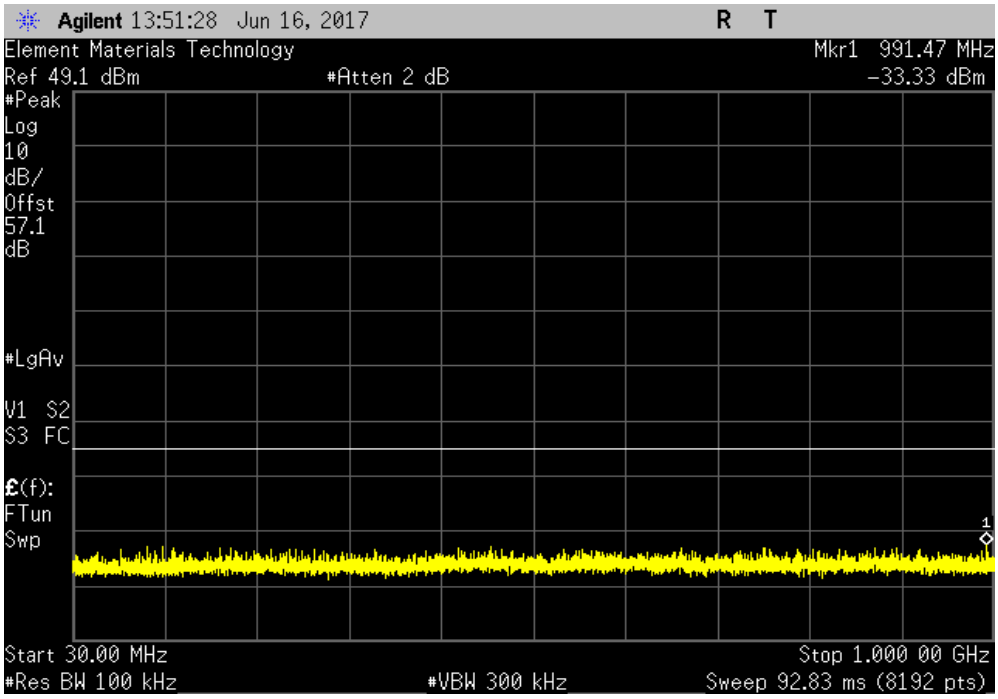


INTERMODULATION

Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A

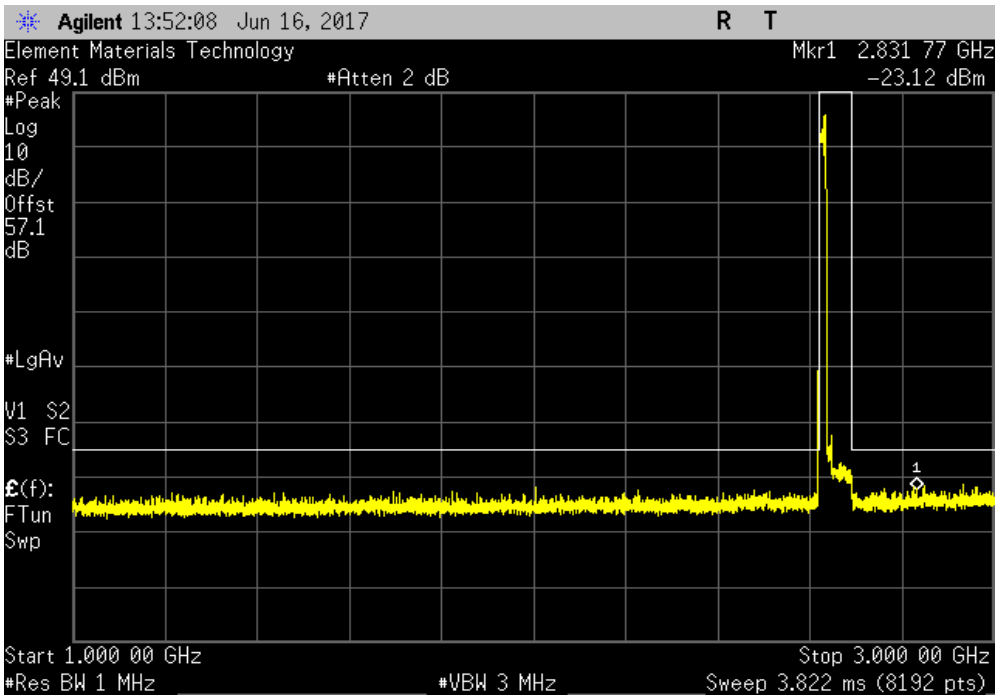


Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.33	-16	Pass

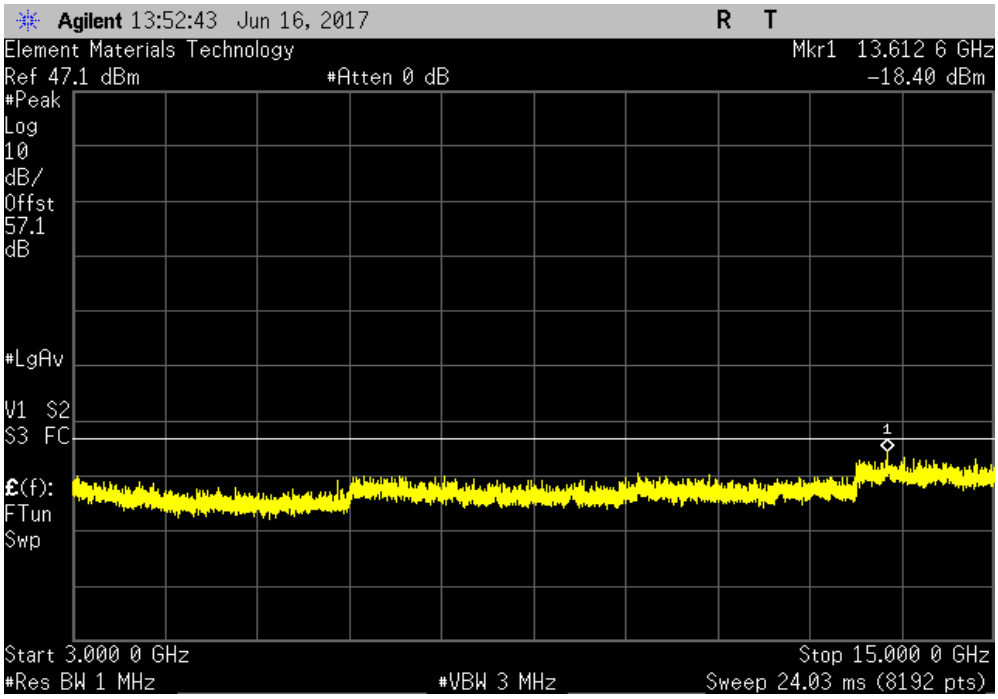


INTERMODULATION

Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.12	-16	Pass

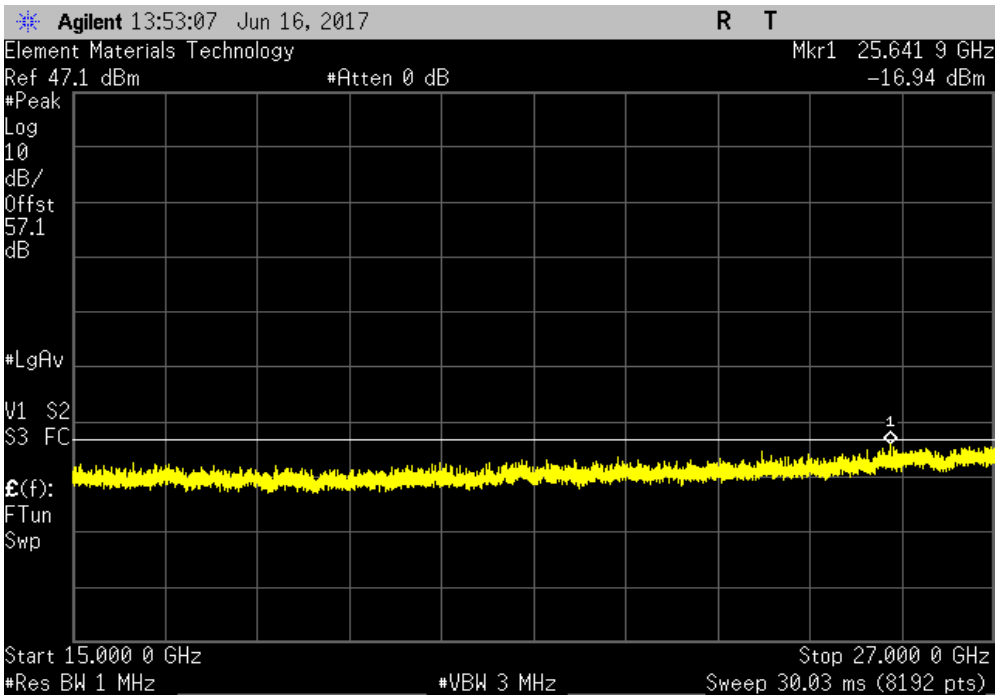


Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-18.4	-16	Pass

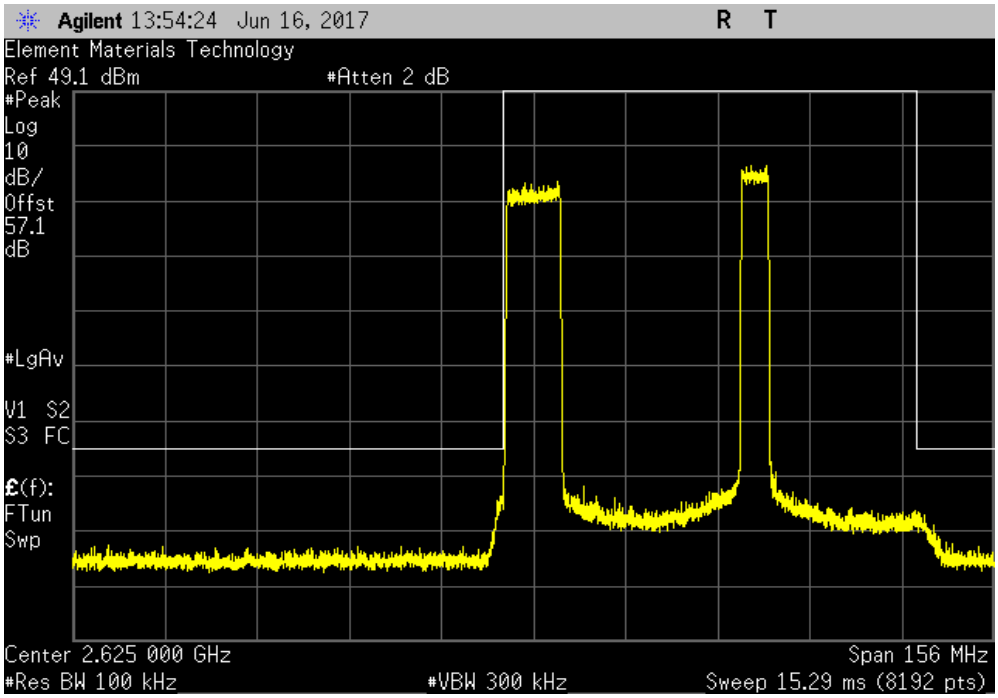


INTERMODULATION

Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.94	-16	Pass

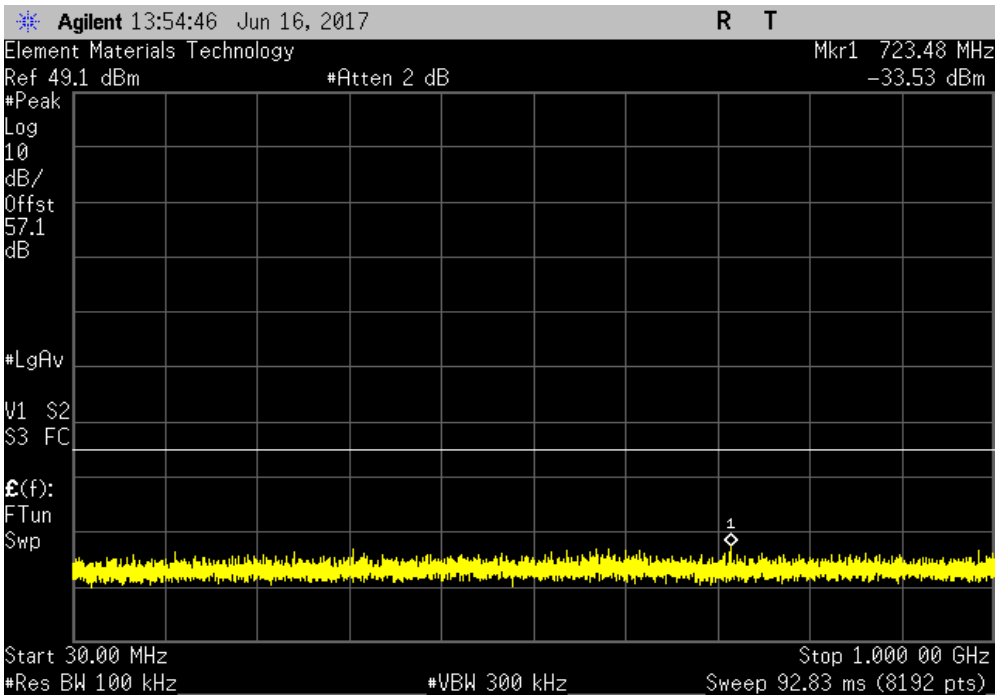


Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

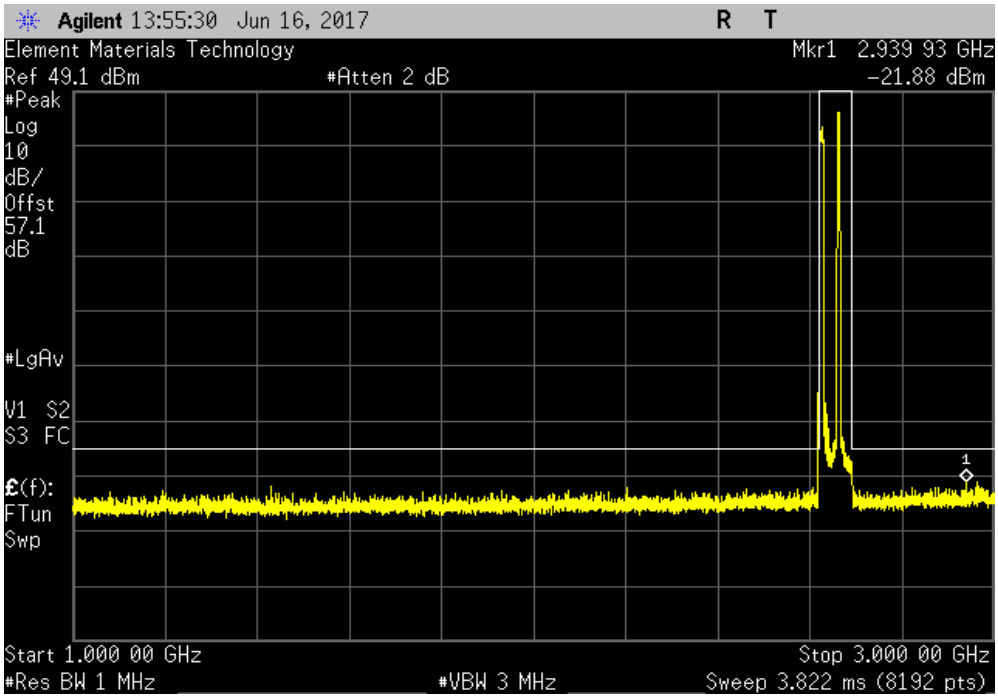


INTERMODULATION

Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.53	-16	Pass

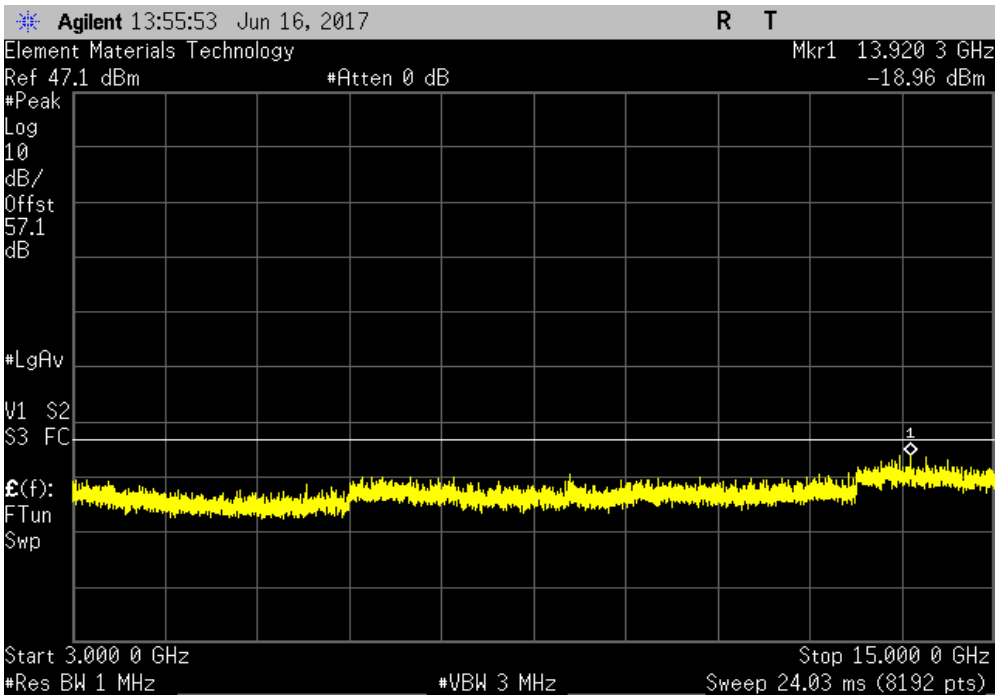


Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-21.88	-16	Pass

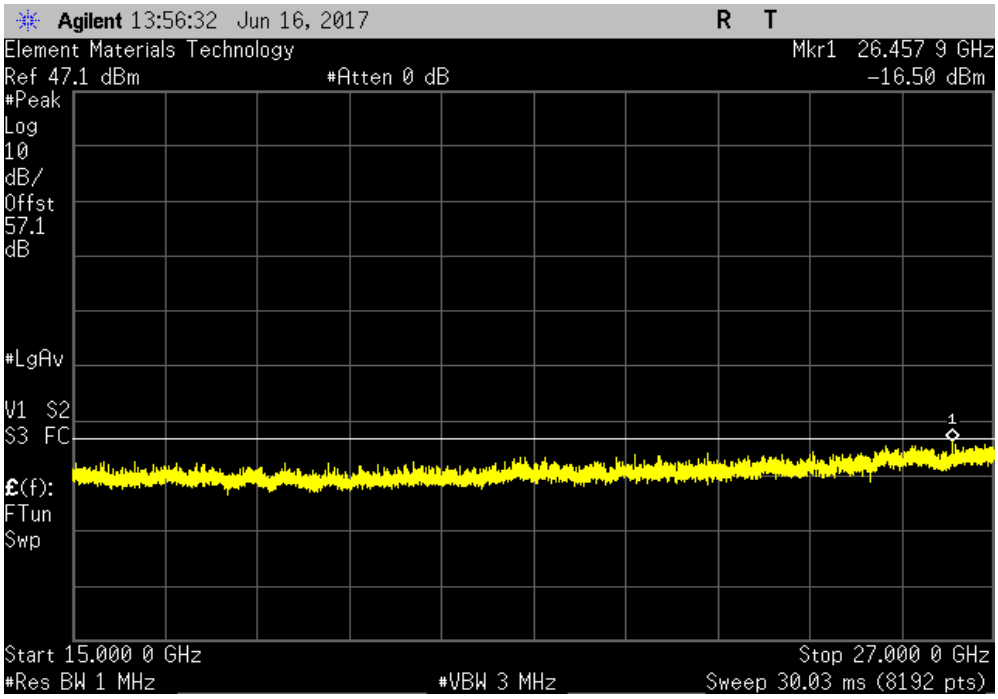


INTERMODULATION

Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-18.96	-16	Pass



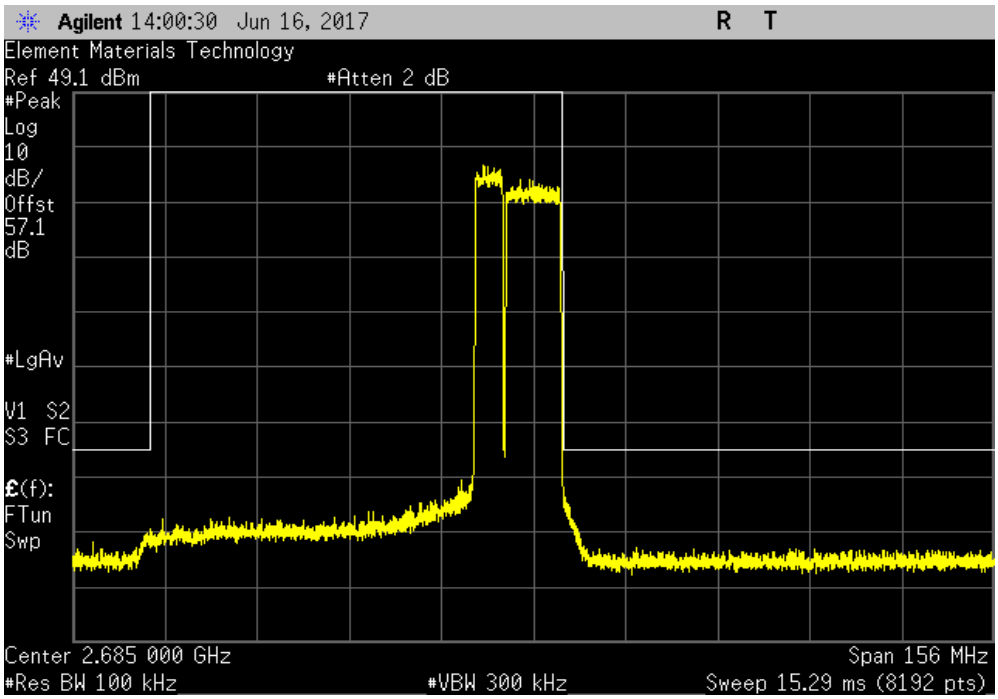
Antenna Port 1, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.5	-16	Pass



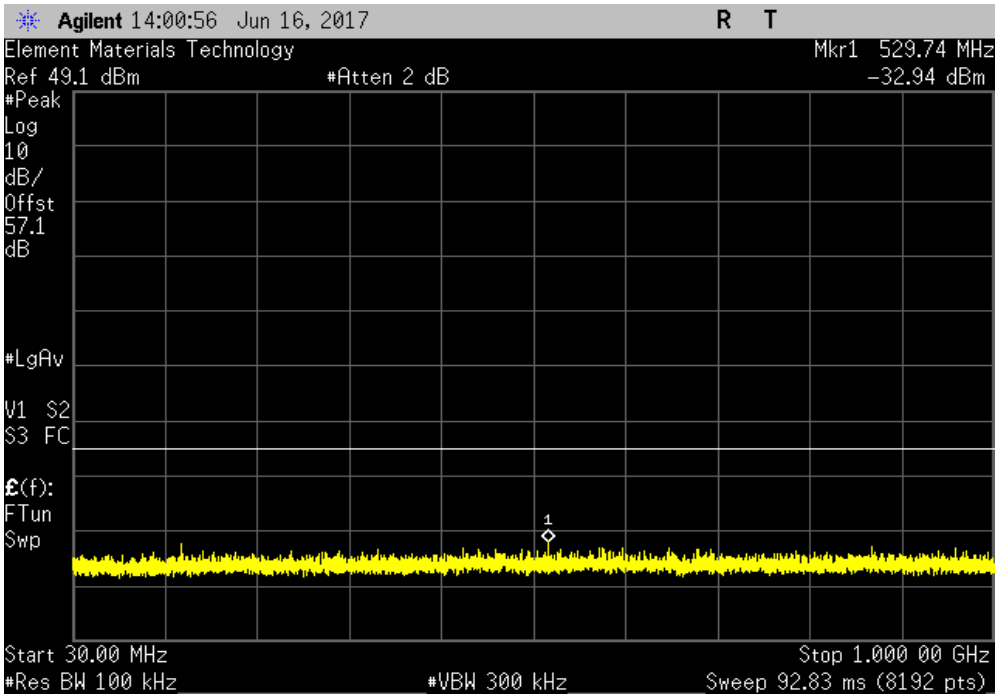
INTERMODULATION

TbtTx 2017.04.18 XMit 2017.02.08

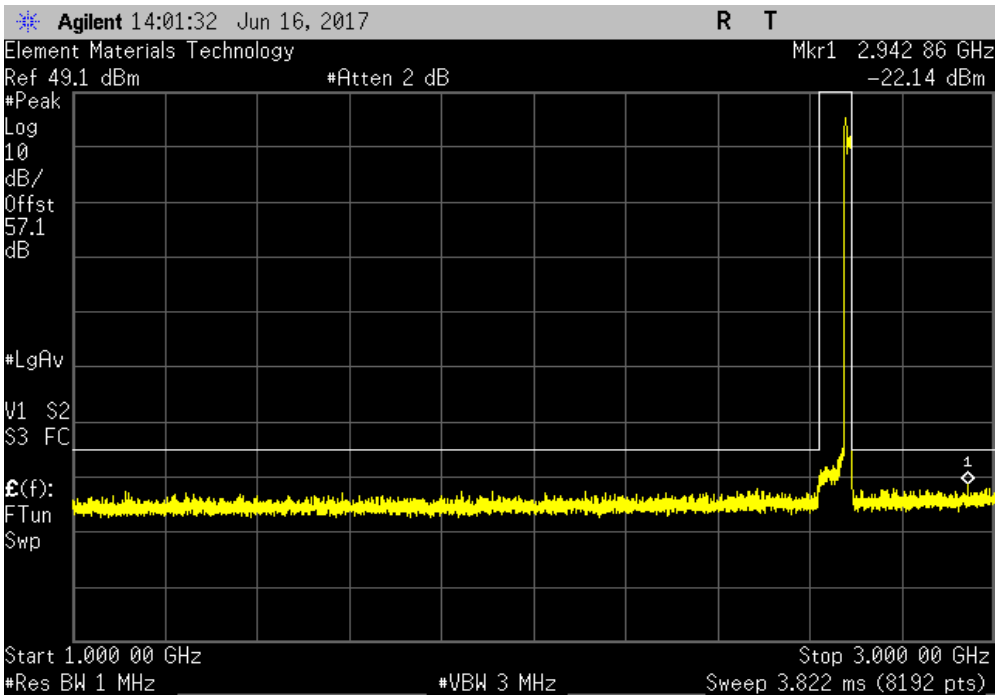
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A



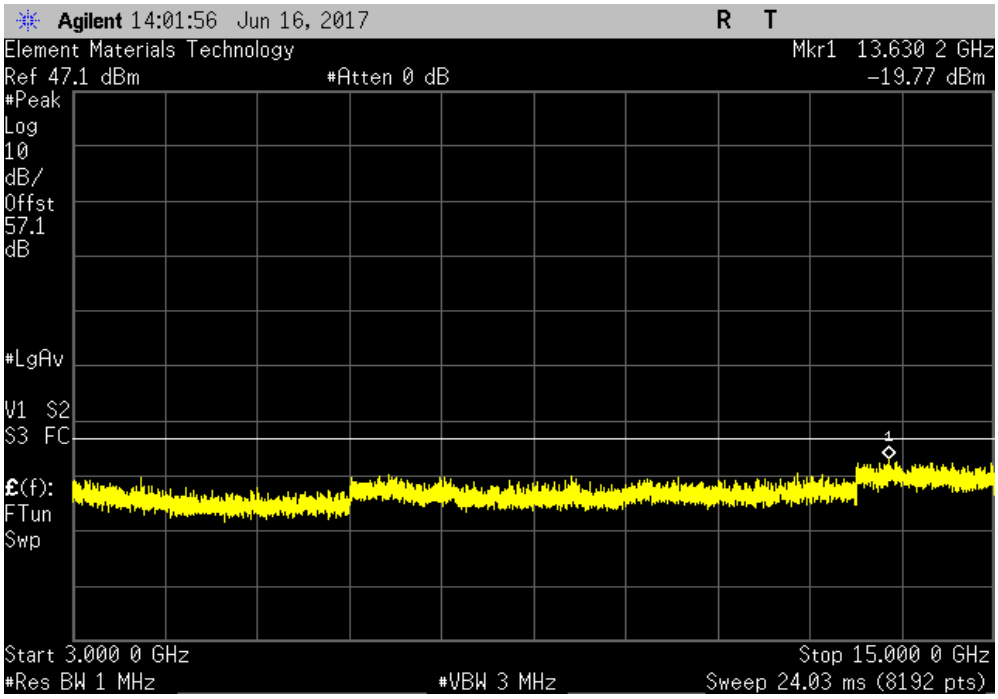
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.94	-16	Pass



Antenna Port 1, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.14	-16	Pass

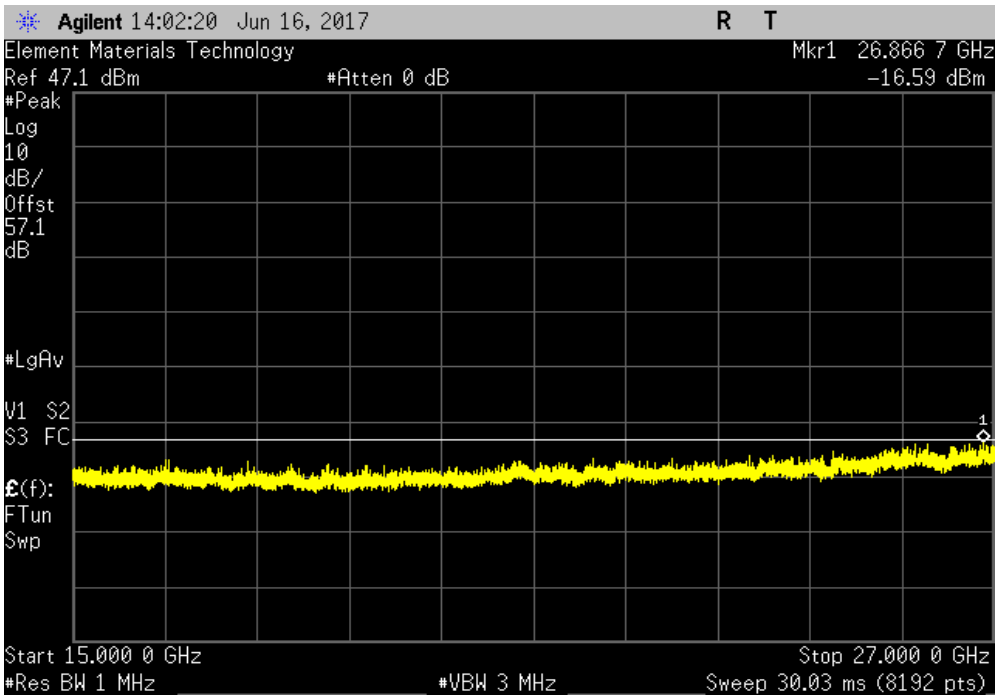


Antenna Port 1, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19.77	-16	Pass

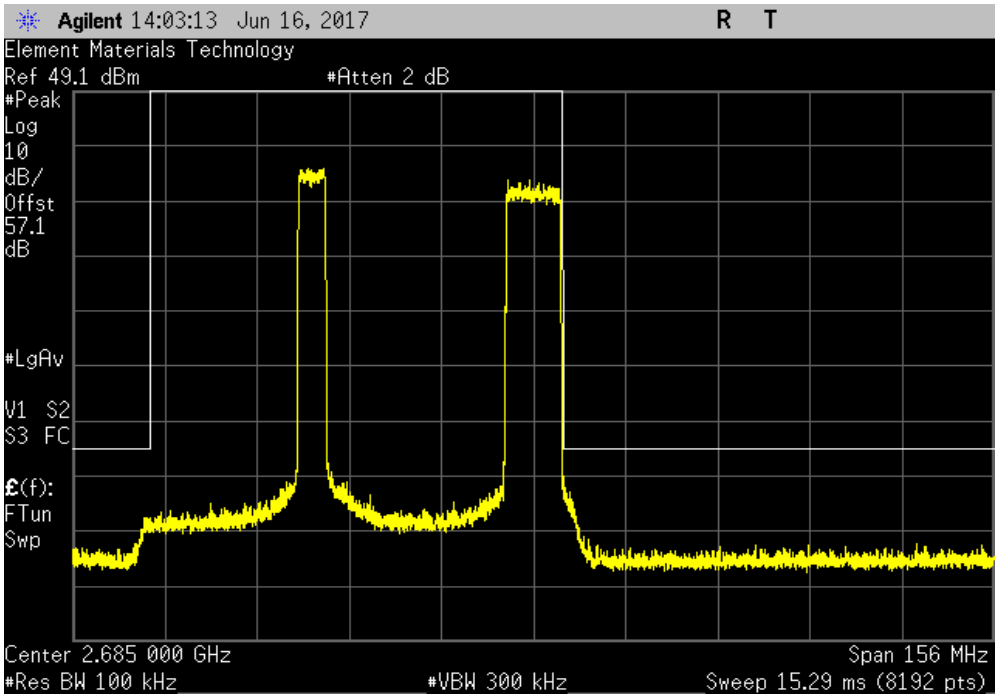


INTERMODULATION

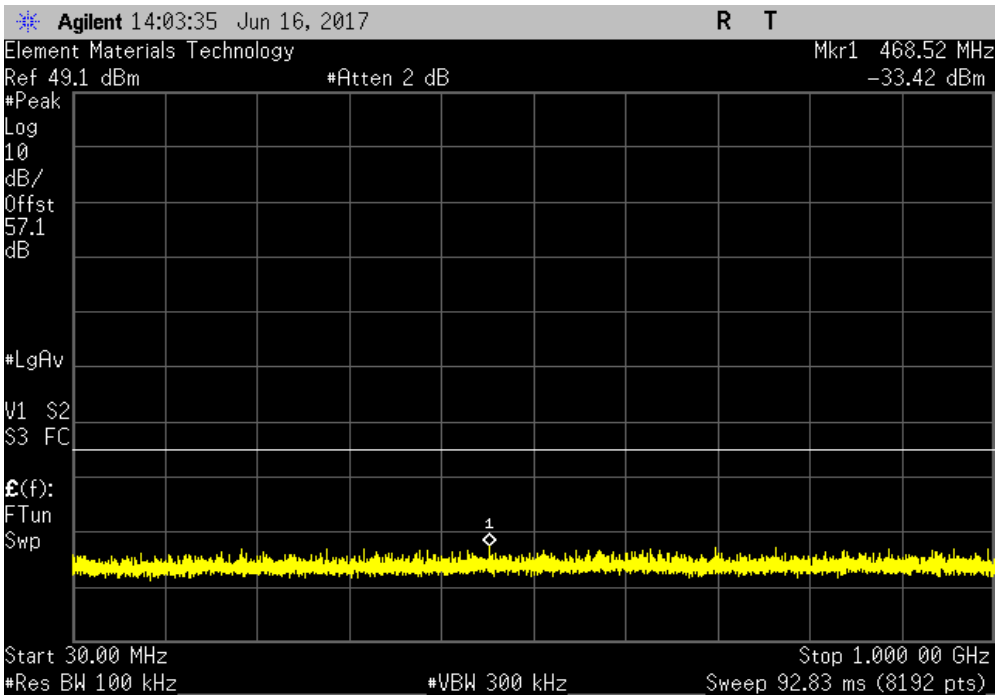
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.6	-16	Pass



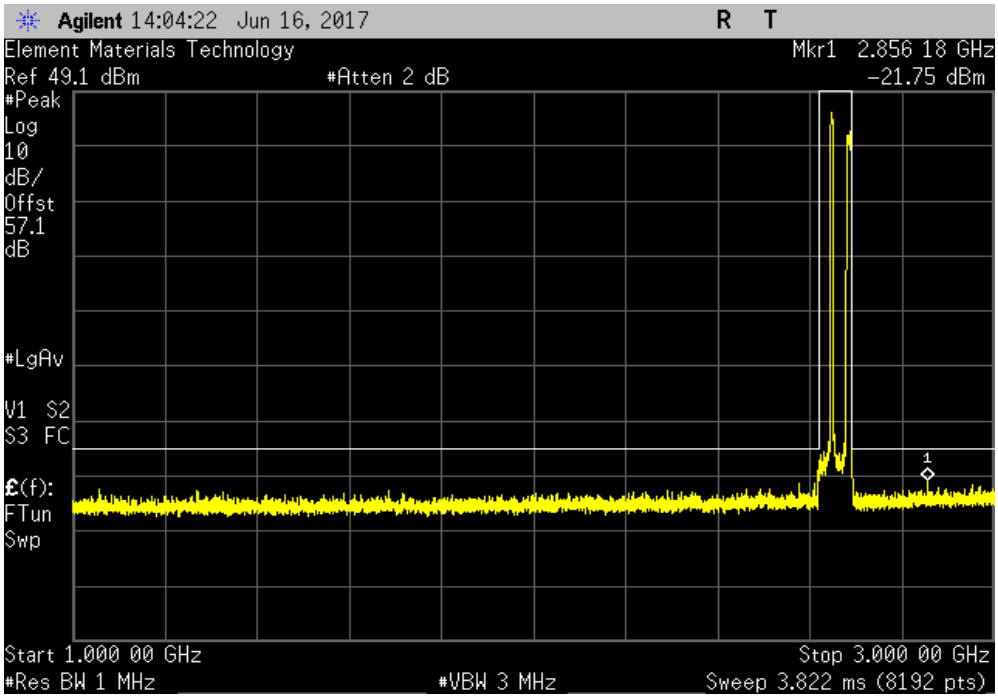
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



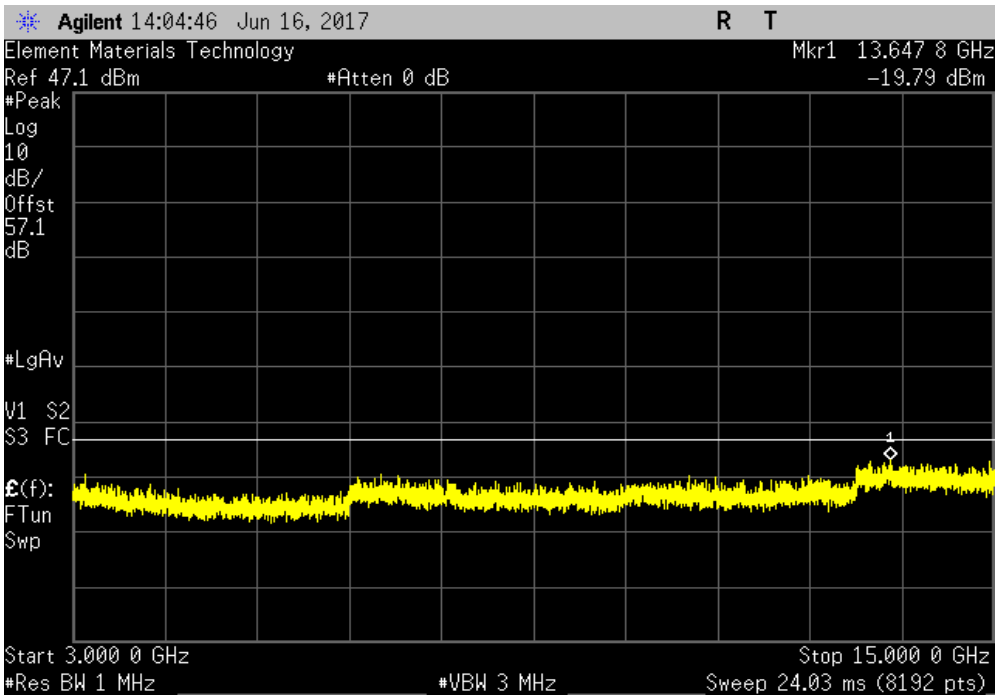
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.42	-16	Pass



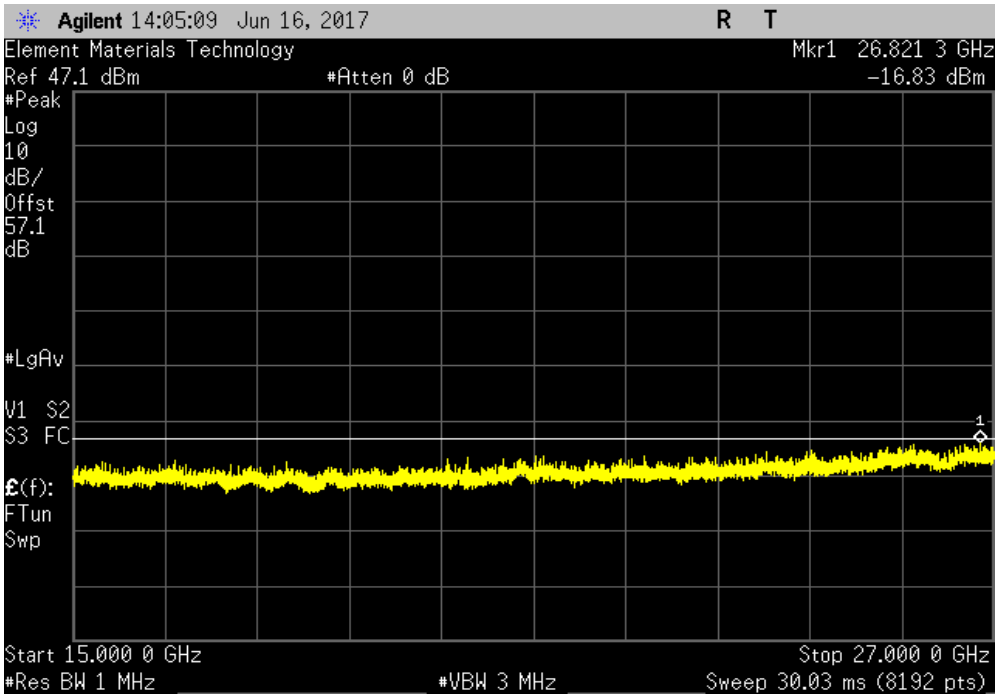
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-21.75	-16	Pass



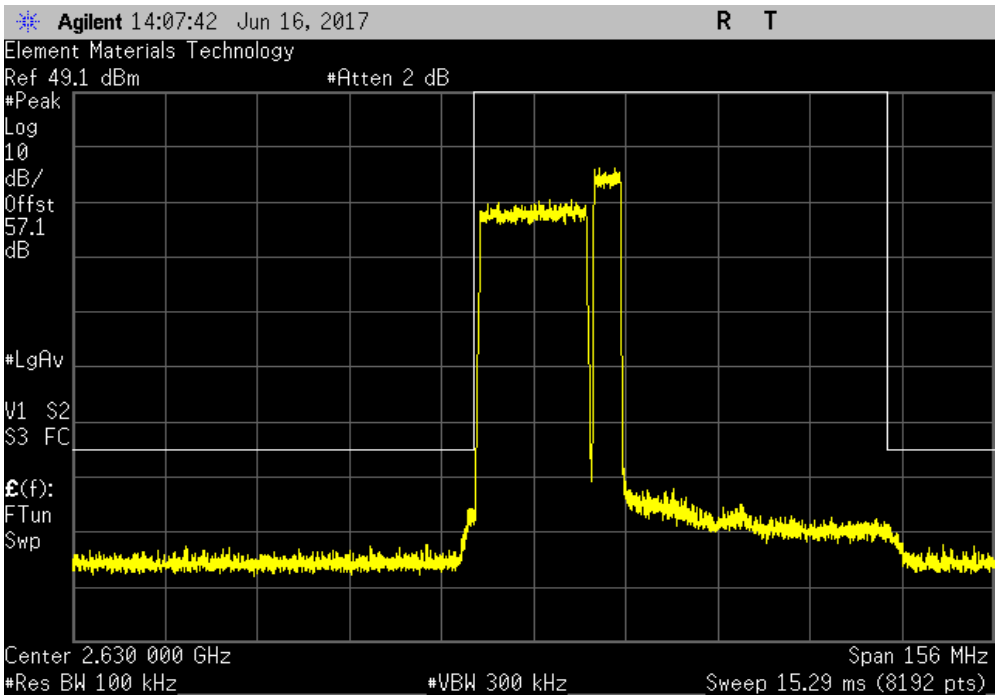
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	3 GHz - 15 GHz			-19.79	-16	Pass



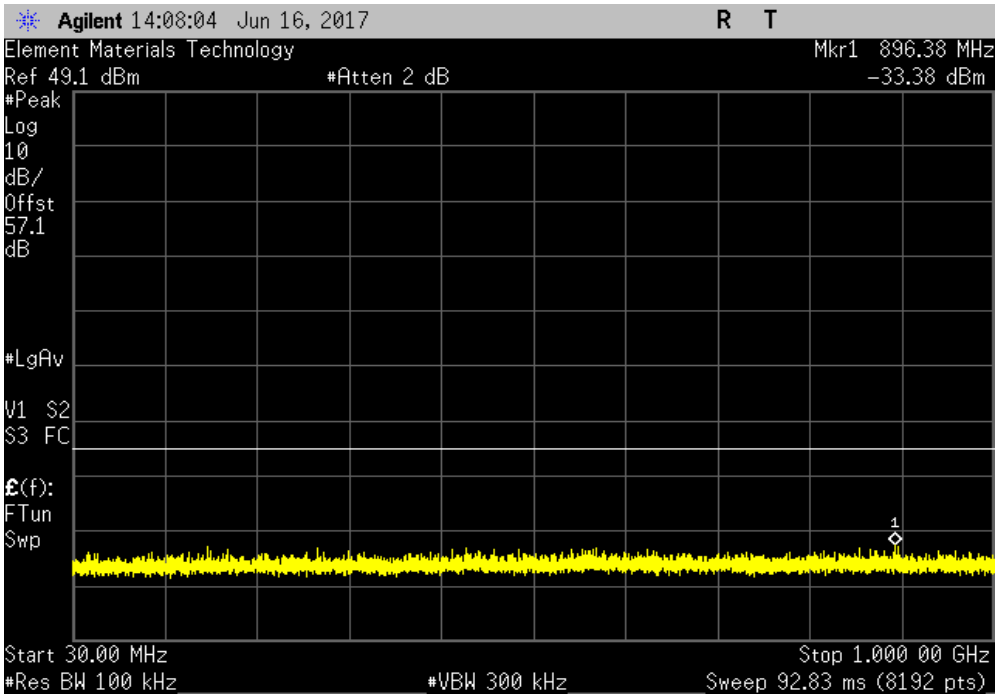
Antenna Port 1, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	15 GHz - 27 GHz			-16.84	-16	Pass



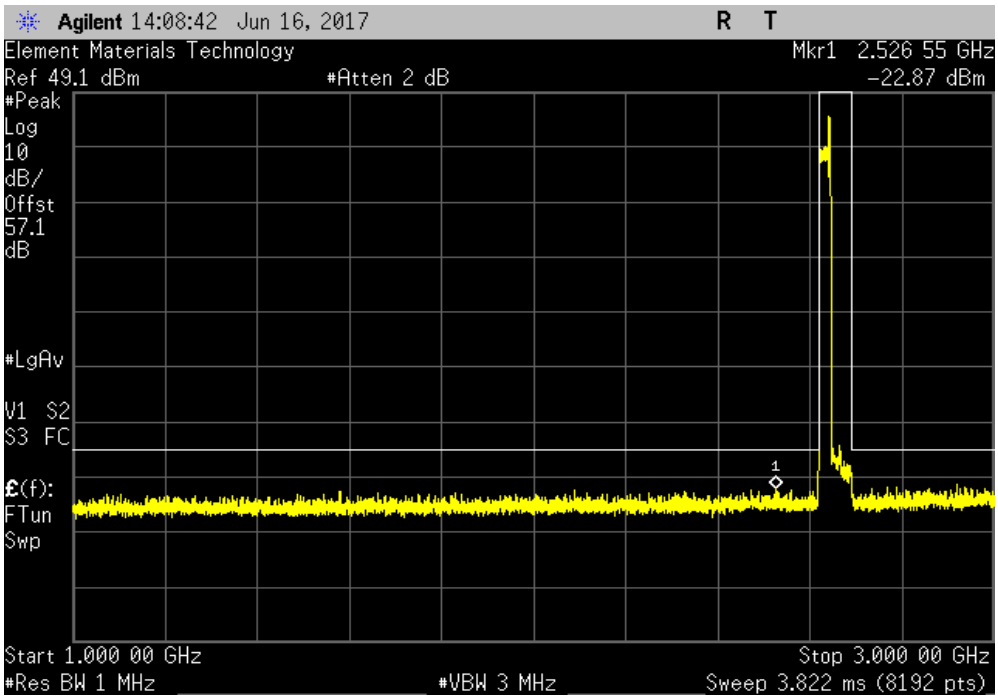
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



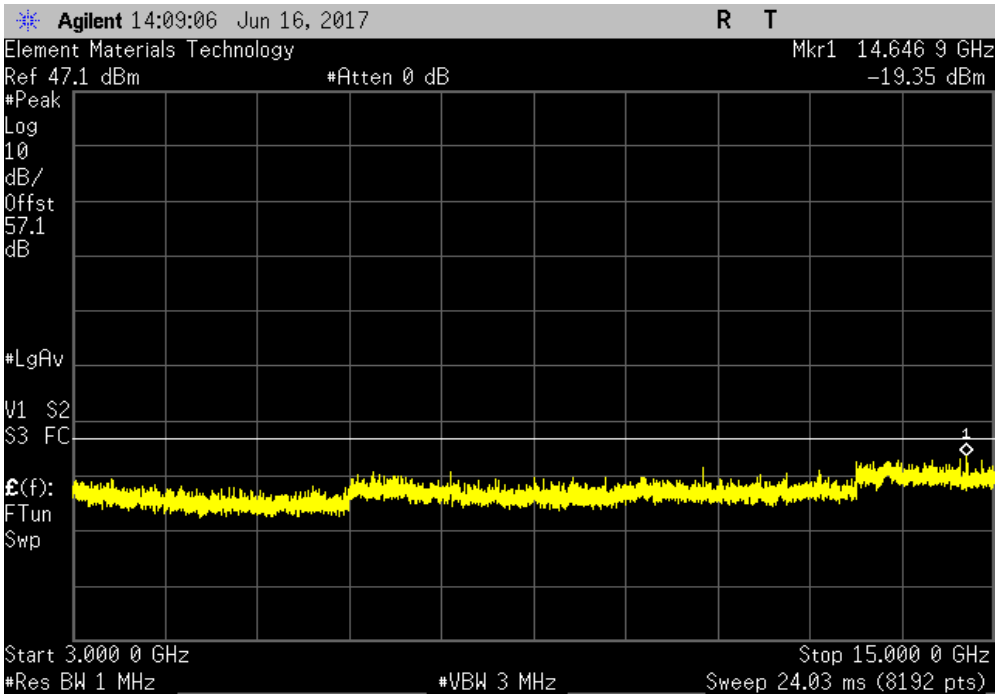
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.38	-16	Pass



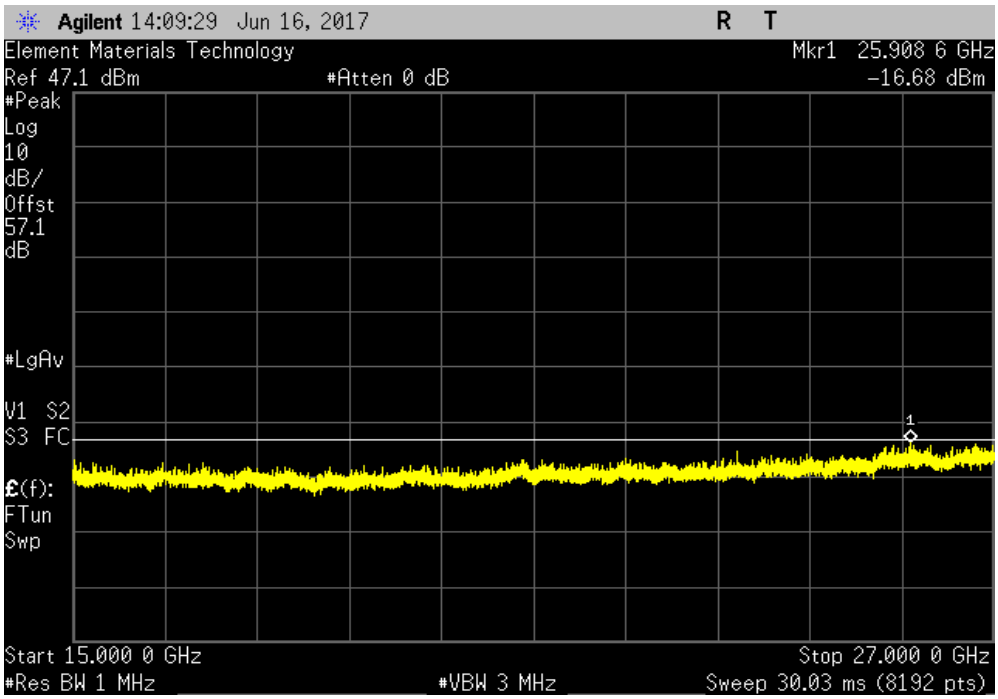
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.87	-16	Pass



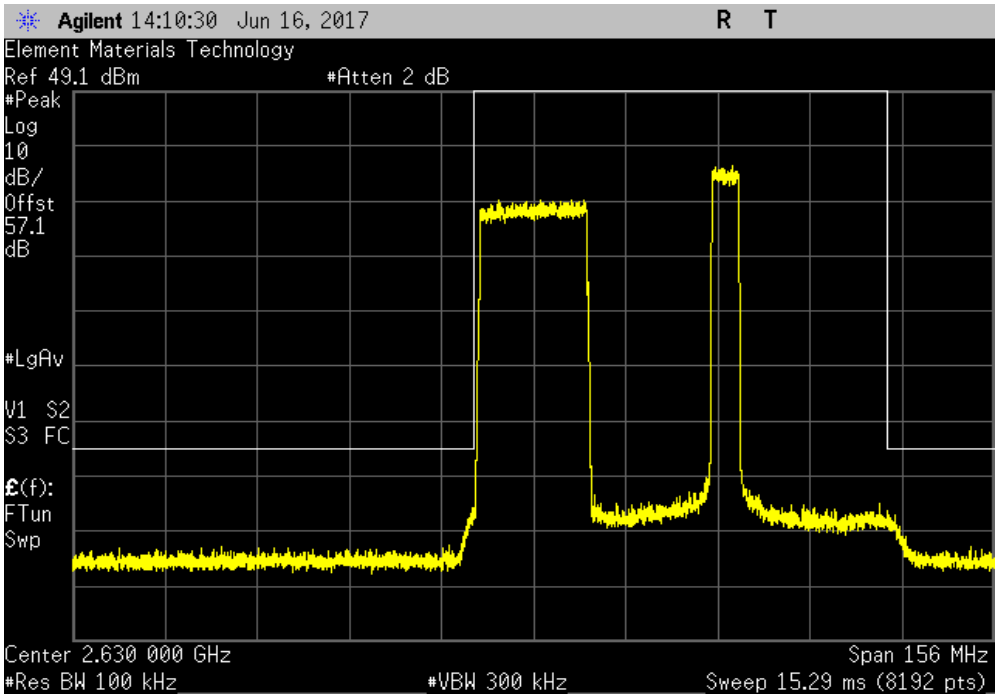
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19.35	-16	Pass



Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.68	-16	Pass

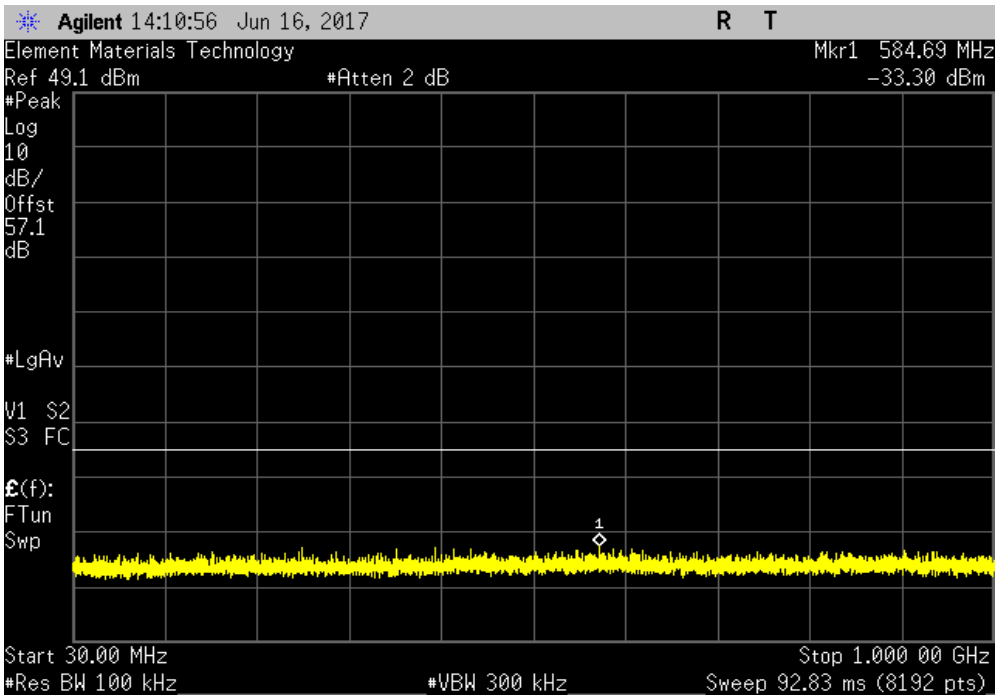


Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

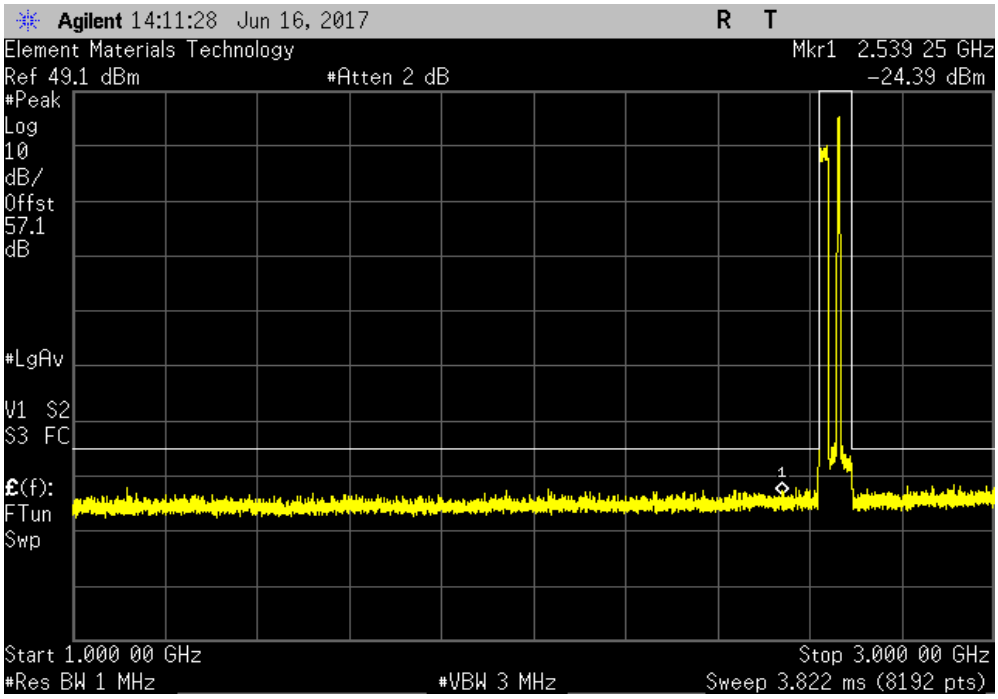


INTERMODULATION

Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.3	-16	Pass

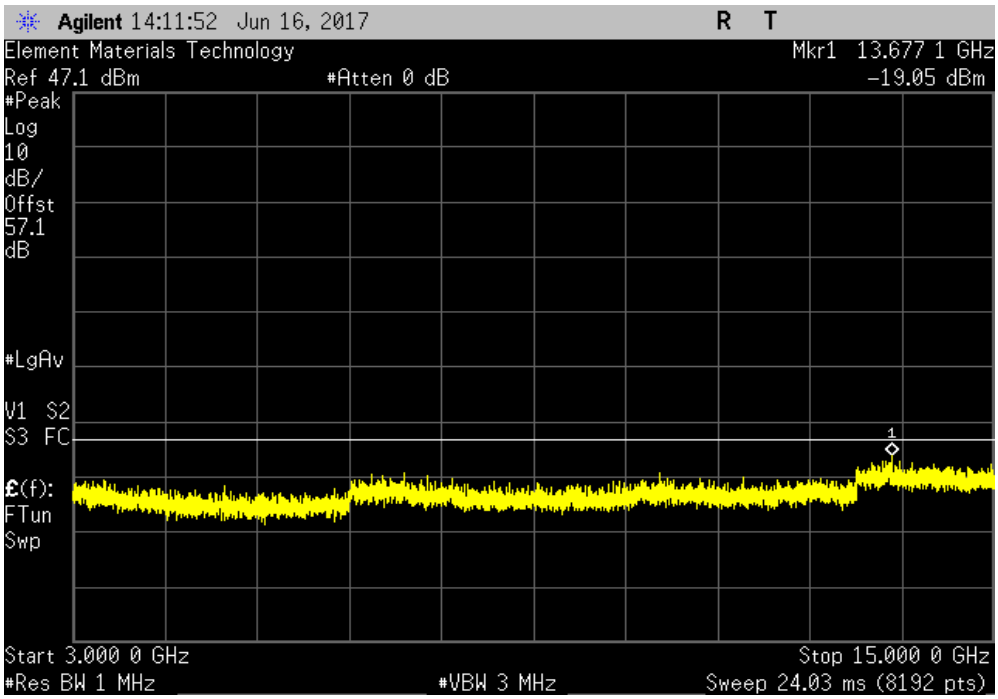


Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-24.39	-16	Pass

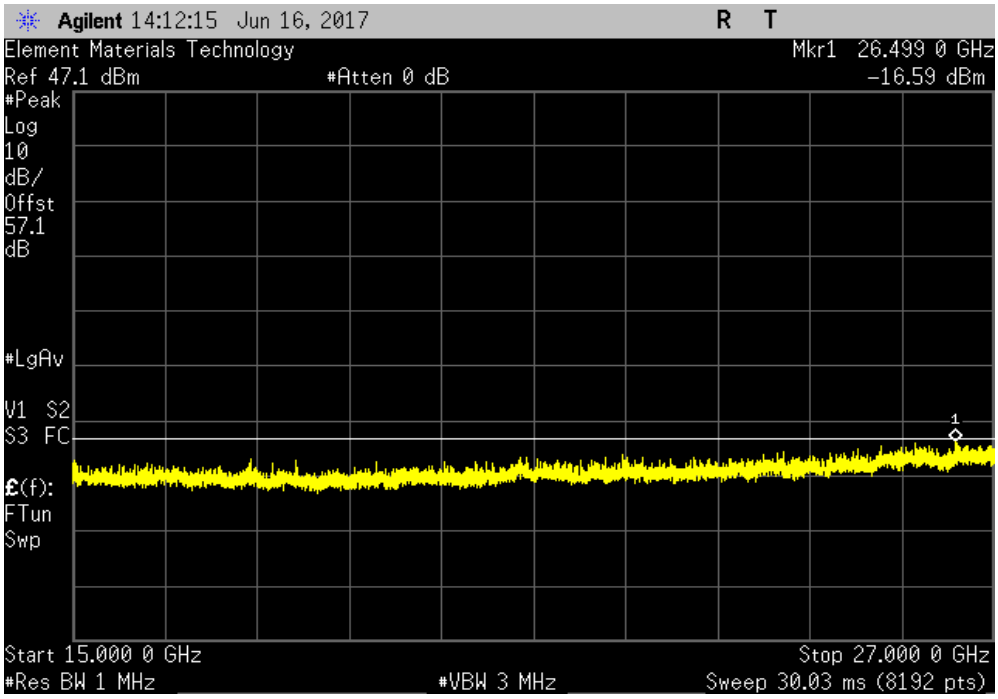


INTERMODULATION

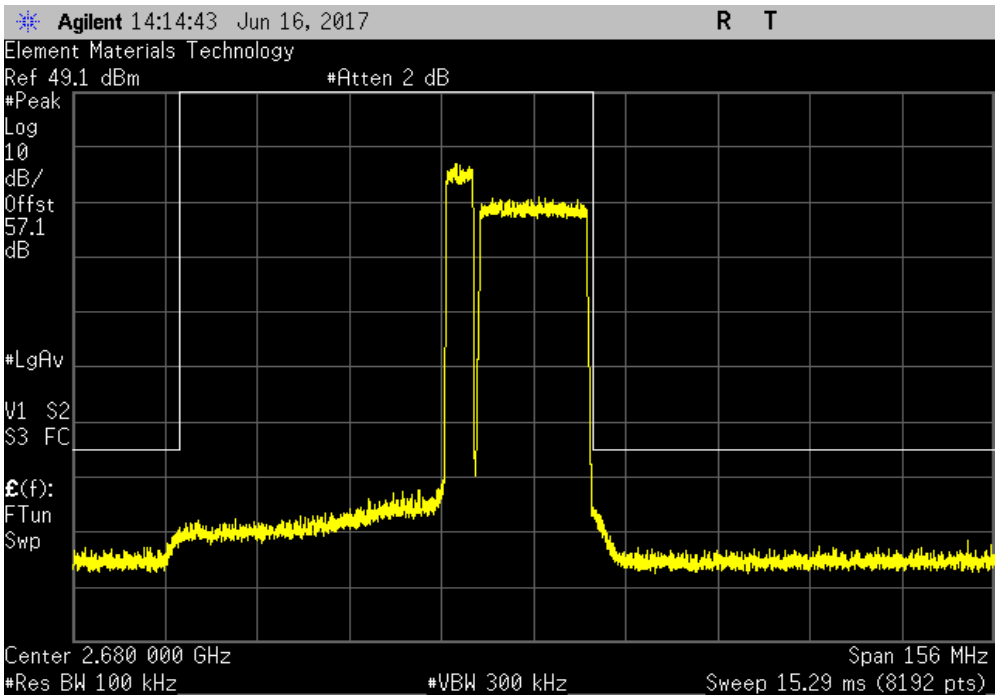
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.05	-16	Pass



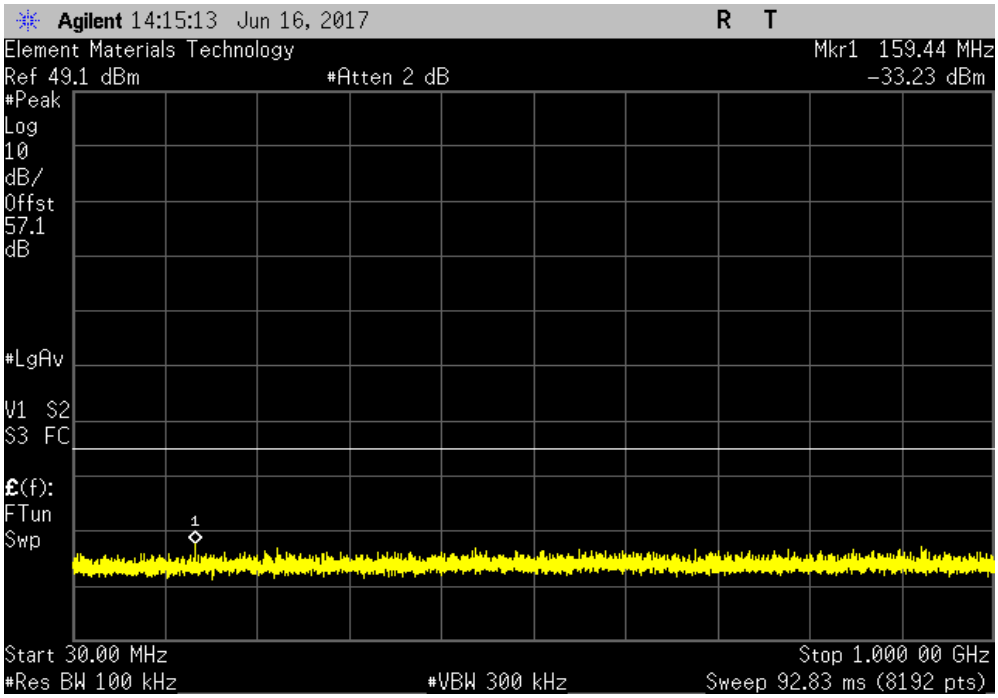
Antenna Port 1, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.59	-16	Pass



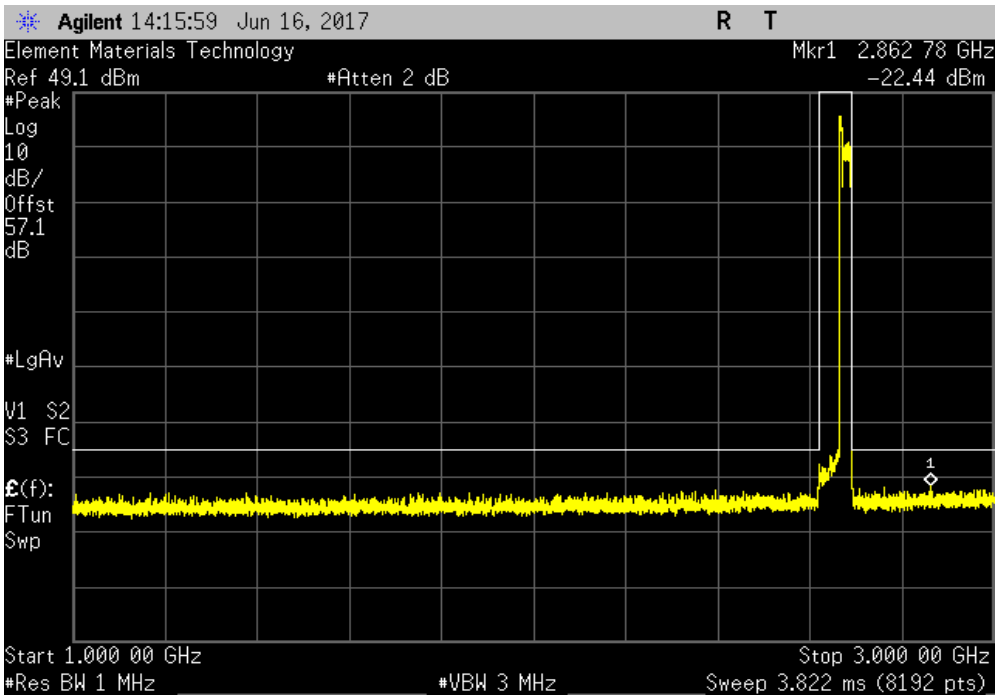
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



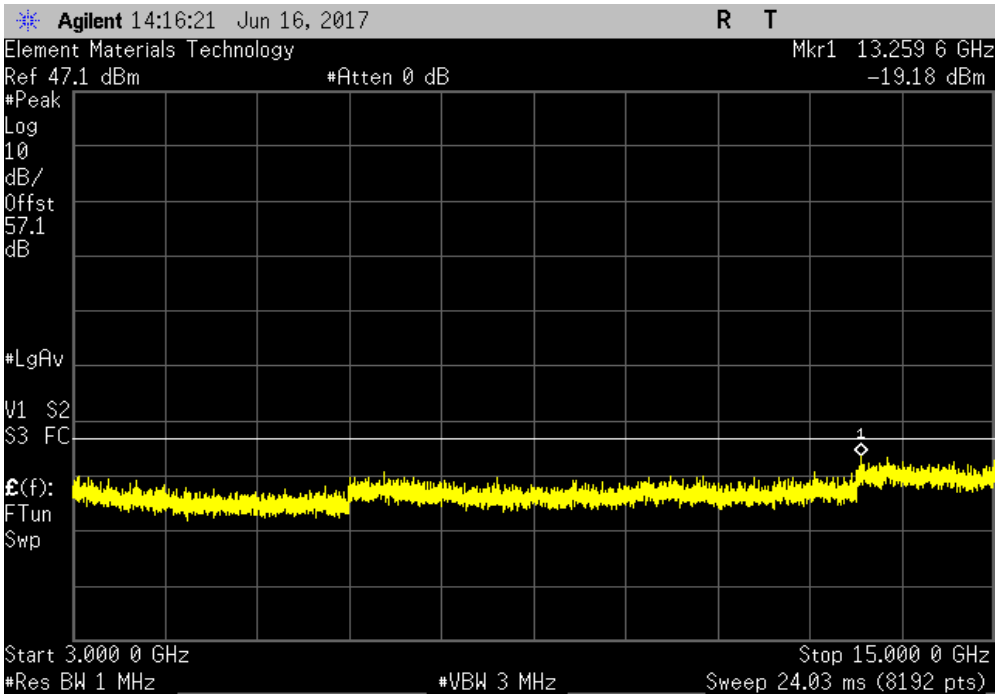
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.23	-16	Pass



Antenna Port 1, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-22.44	-16	Pass

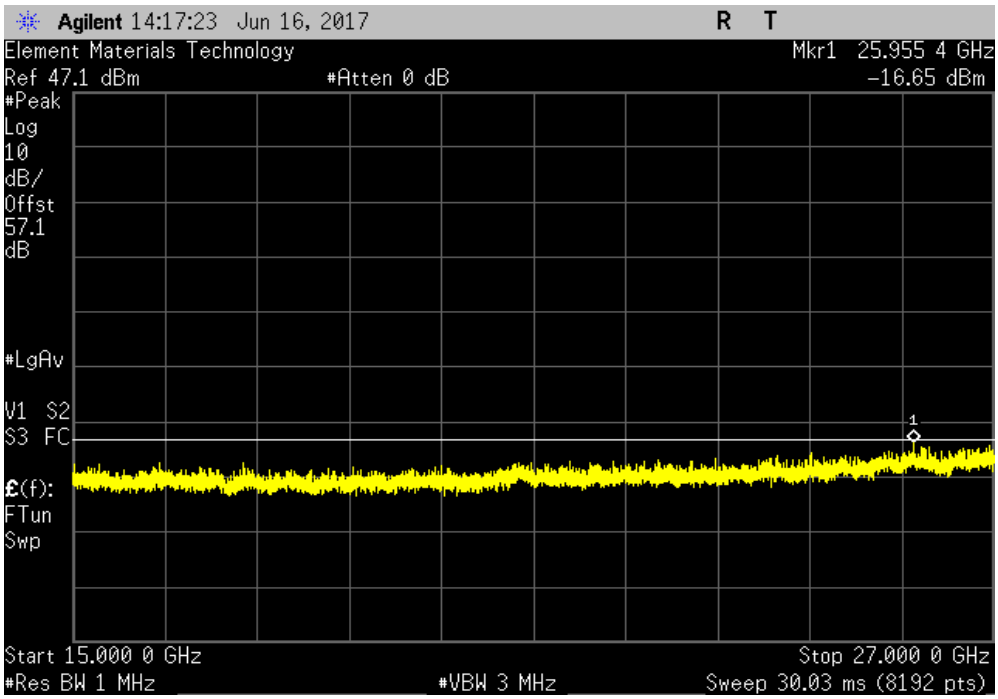


Antenna Port 1, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	3 GHz - 15 GHz			-19.18	-16	Pass

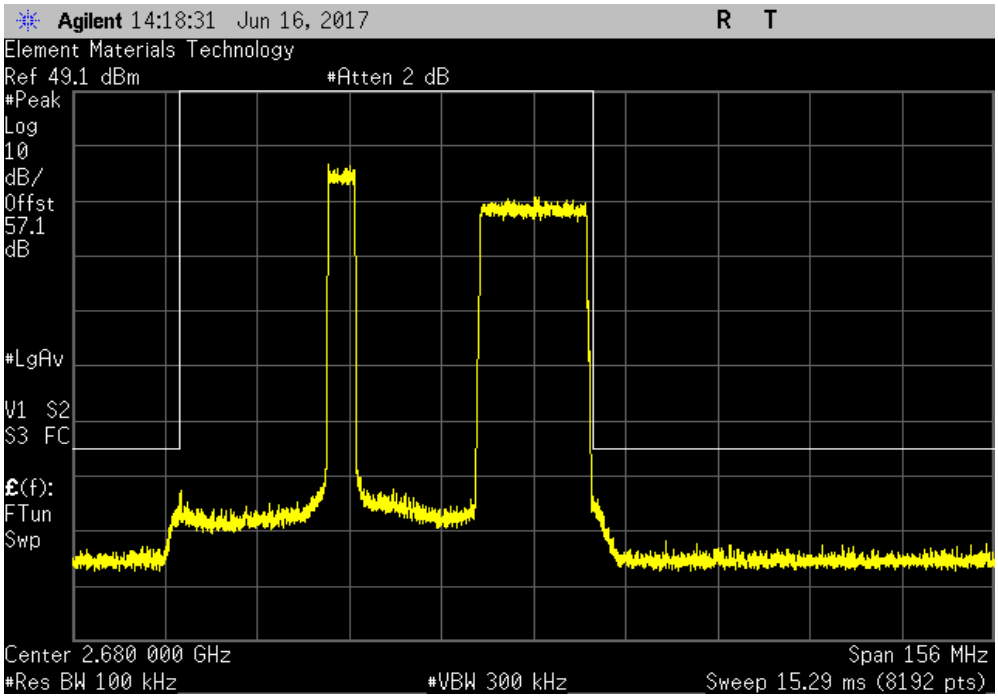


INTERMODULATION

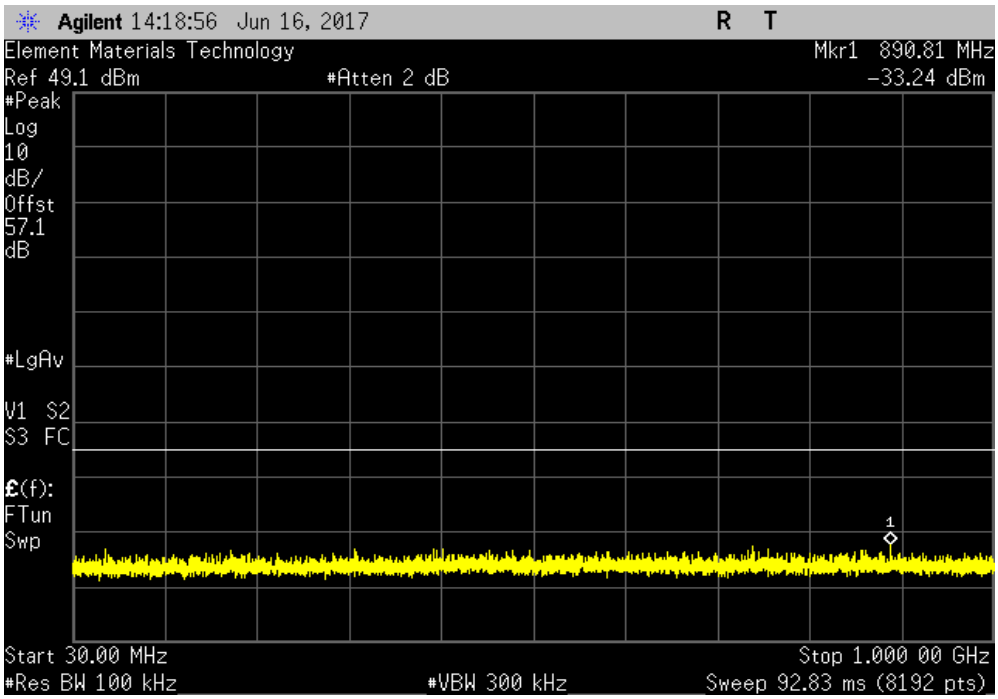
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.65	-16	Pass



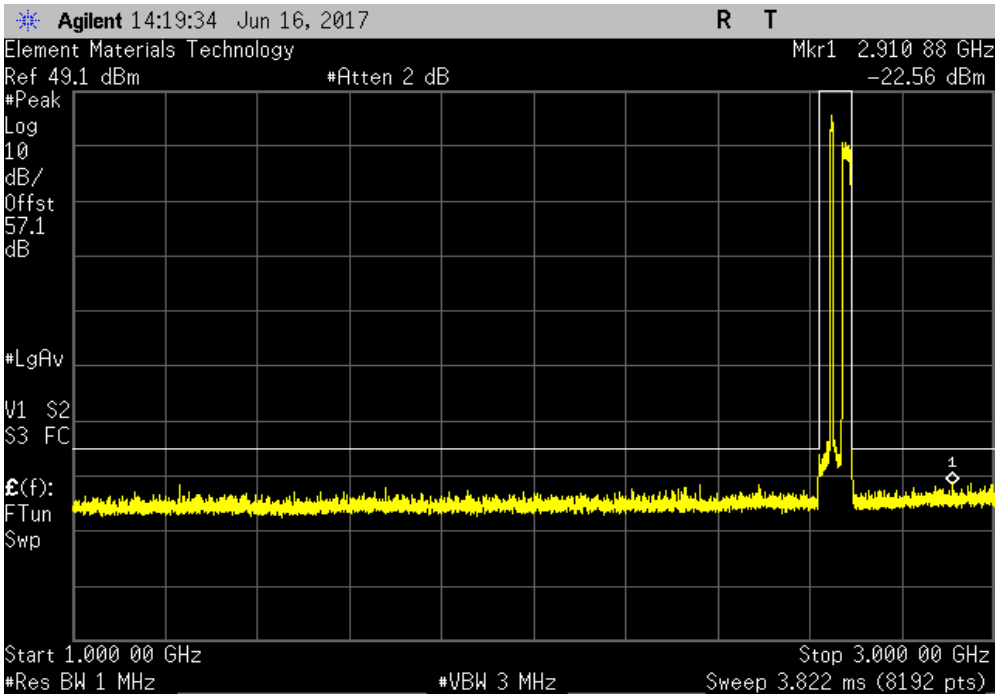
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



Antenna Port 1, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.25	-16	Pass

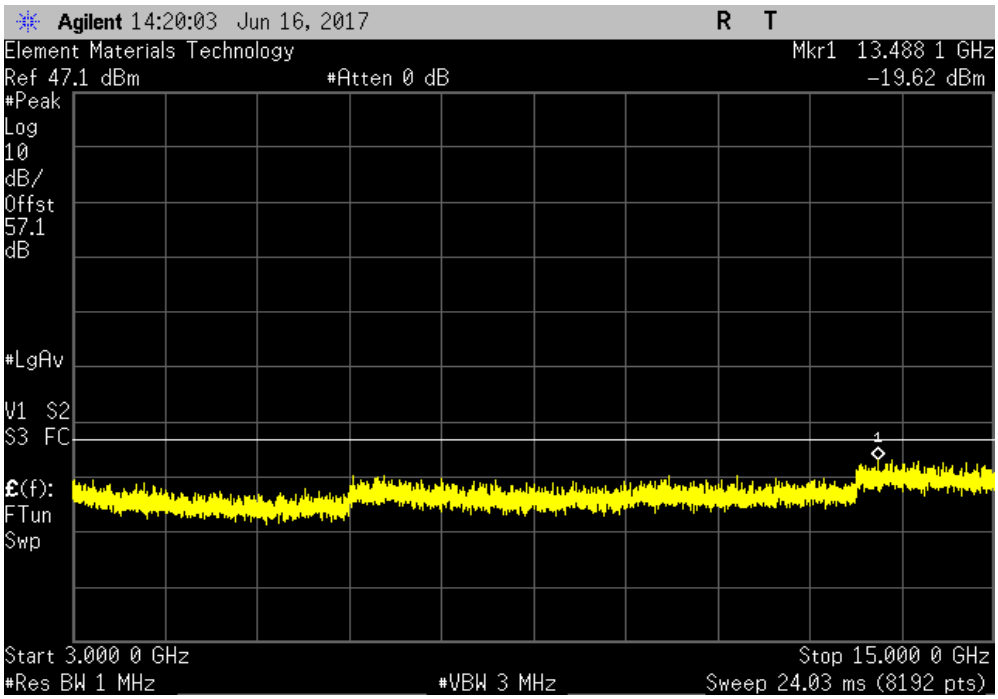


Antenna Port 1, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-22.56	-16	Pass

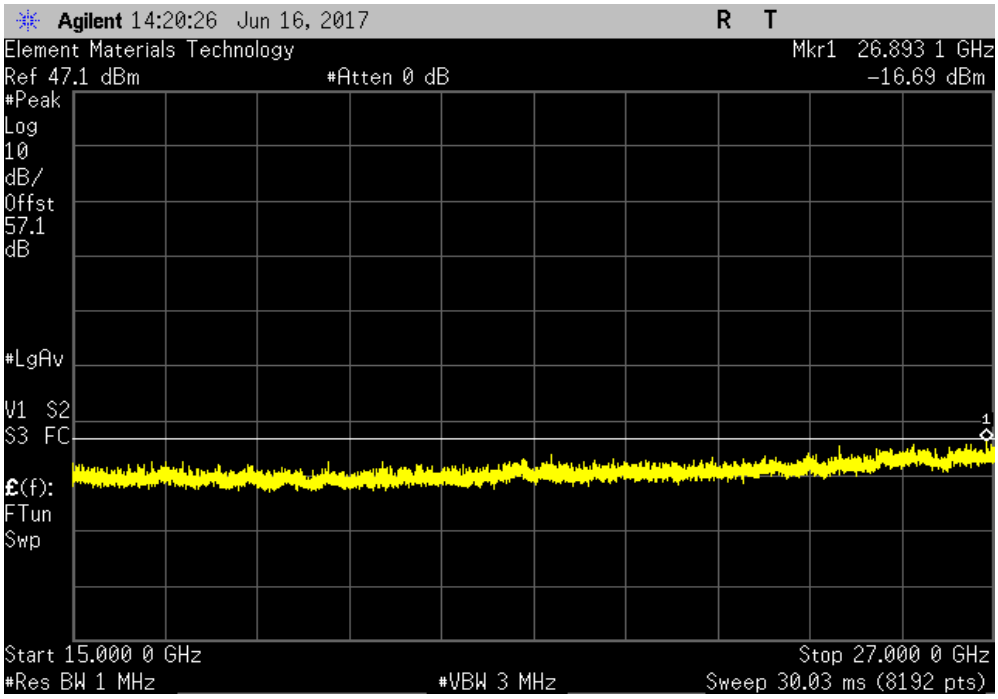


INTERMODULATION

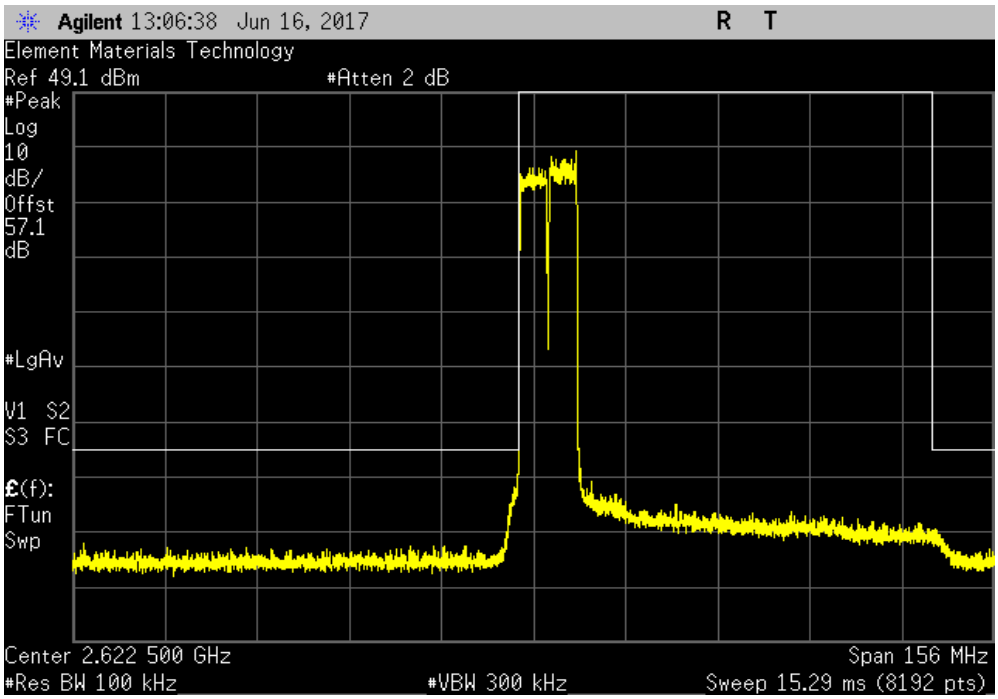
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.62	-16	Pass



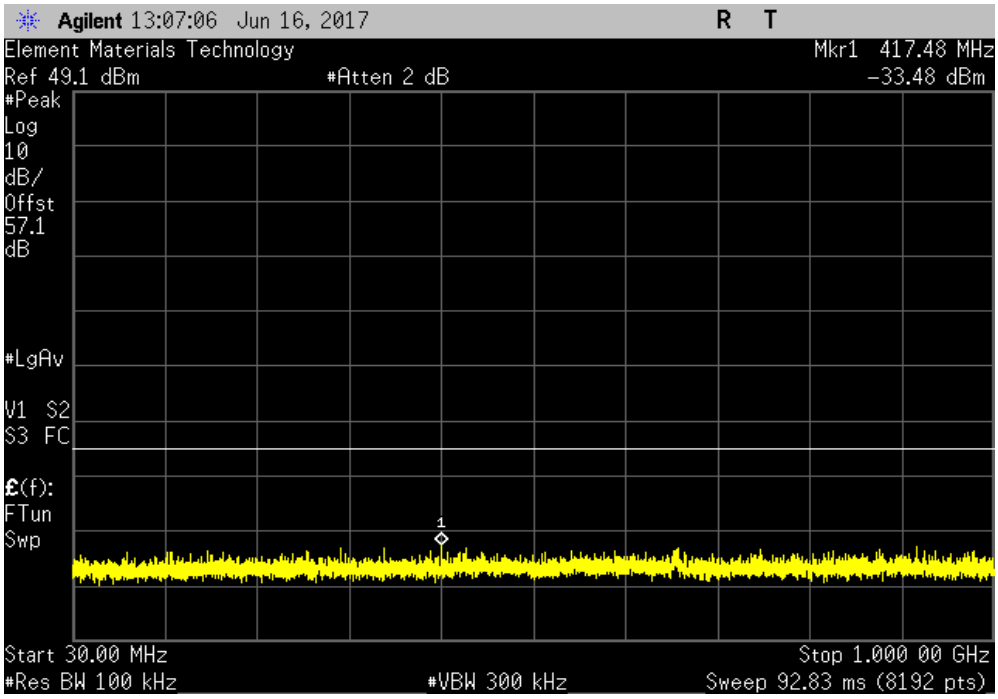
Antenna Port 1, LTE20, 2680 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.69	-16	Pass



Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A

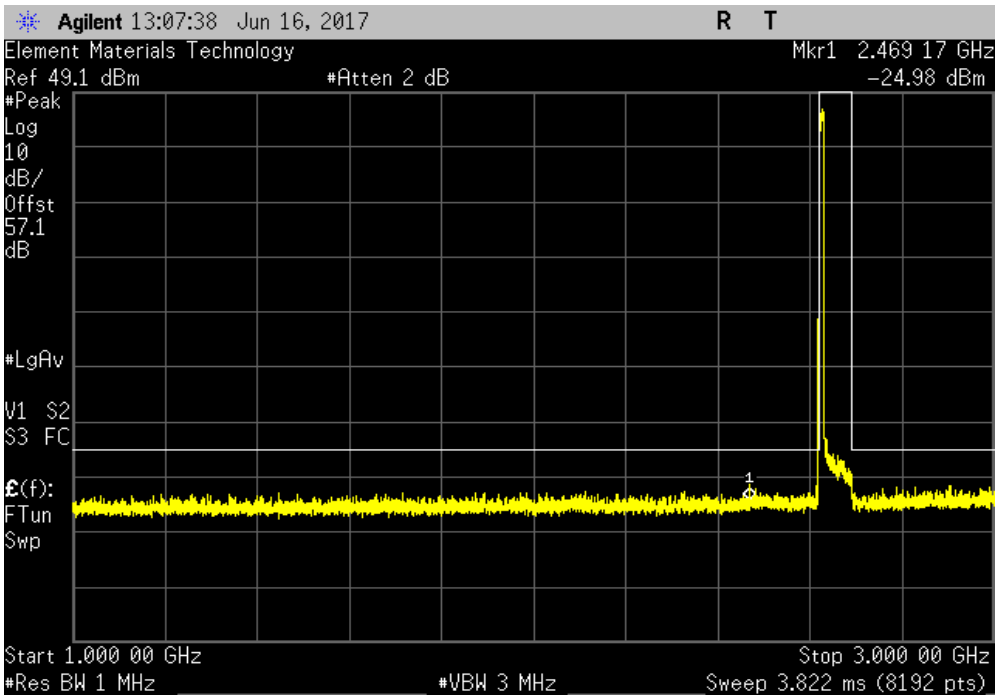


Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.48	-16	Pass

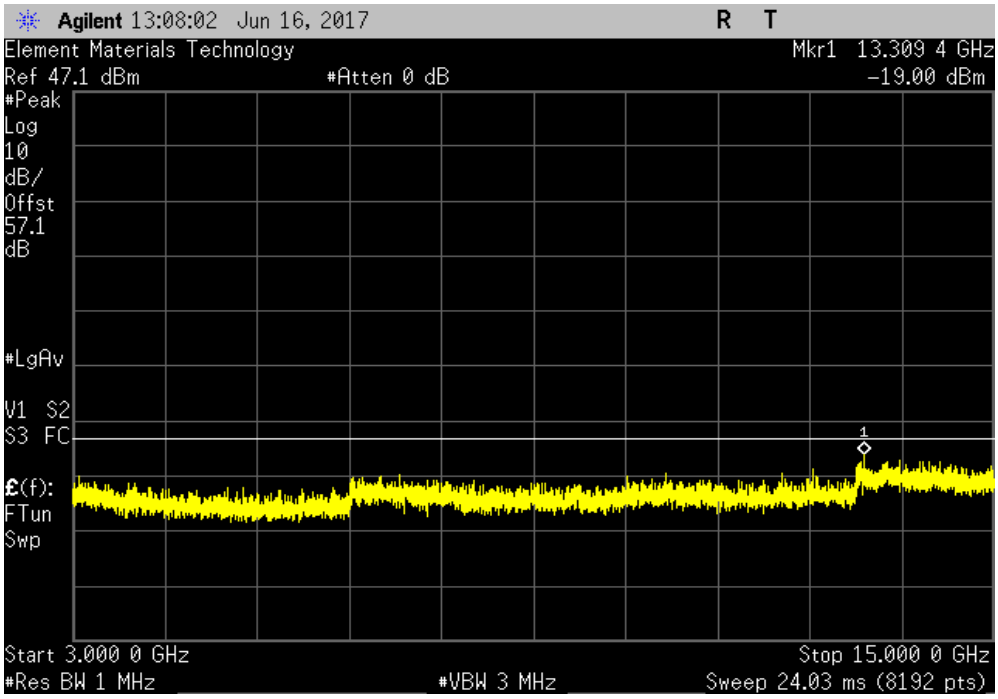


INTERMODULATION

Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-24.98	-16	Pass

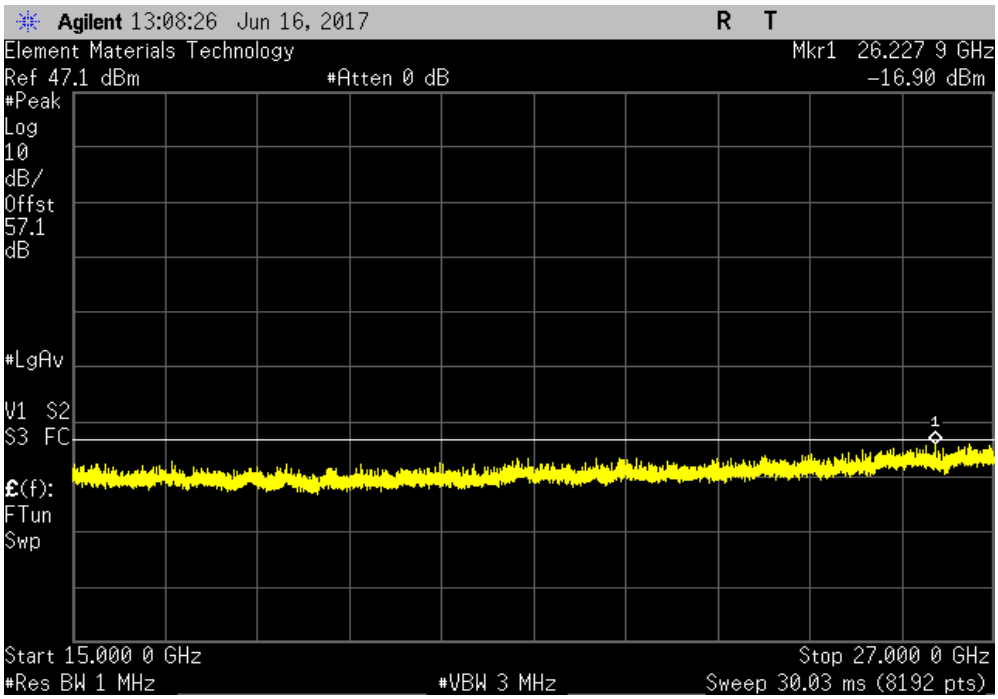


Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19	-16	Pass

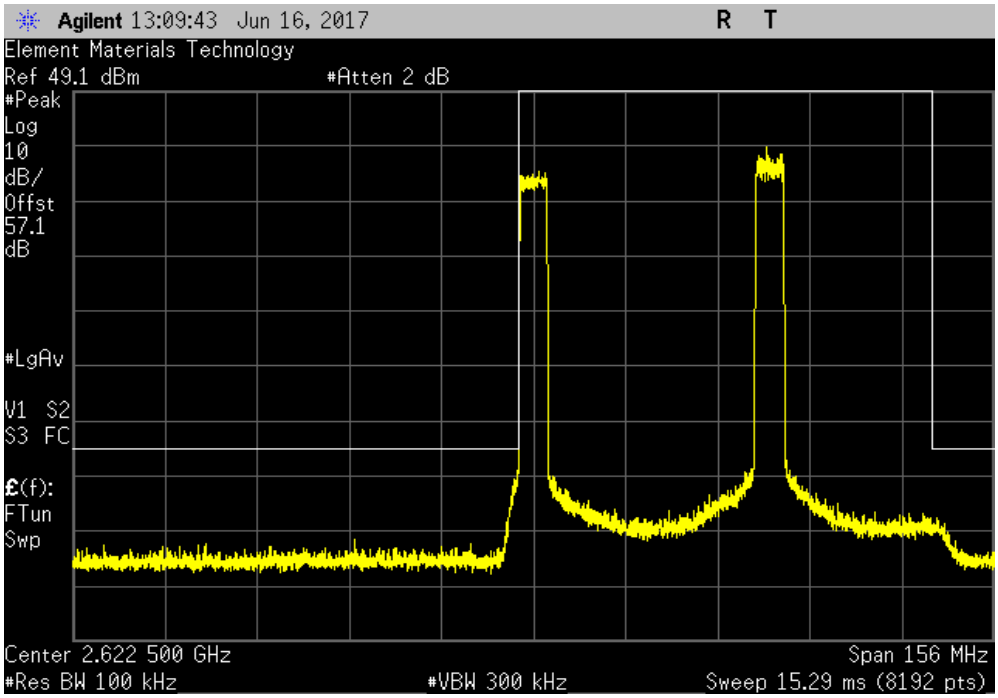


INTERMODULATION

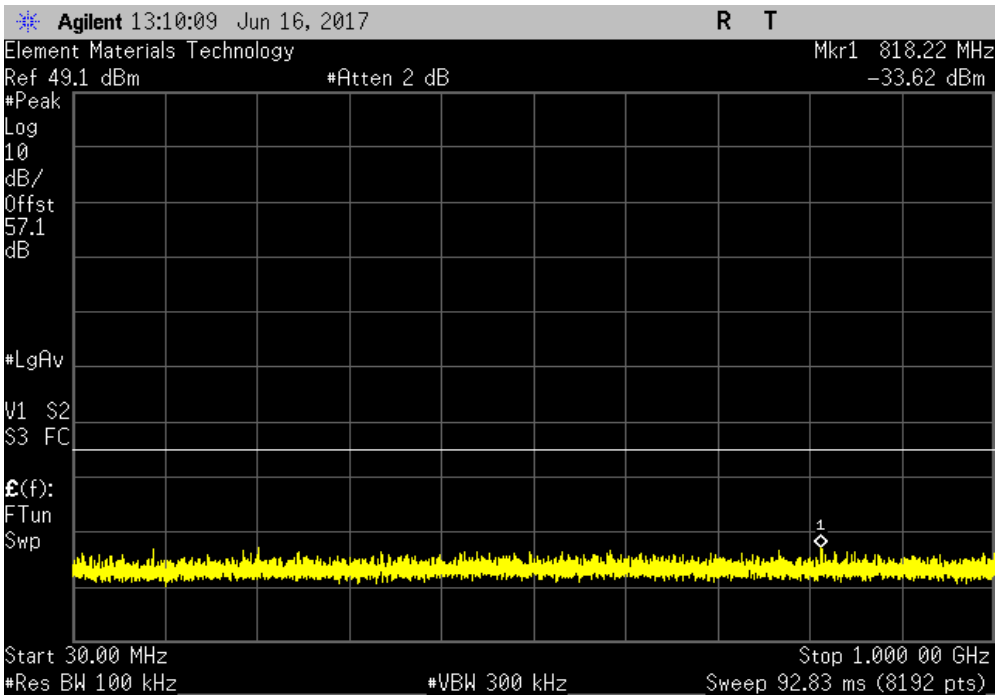
Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.9	-16	Pass



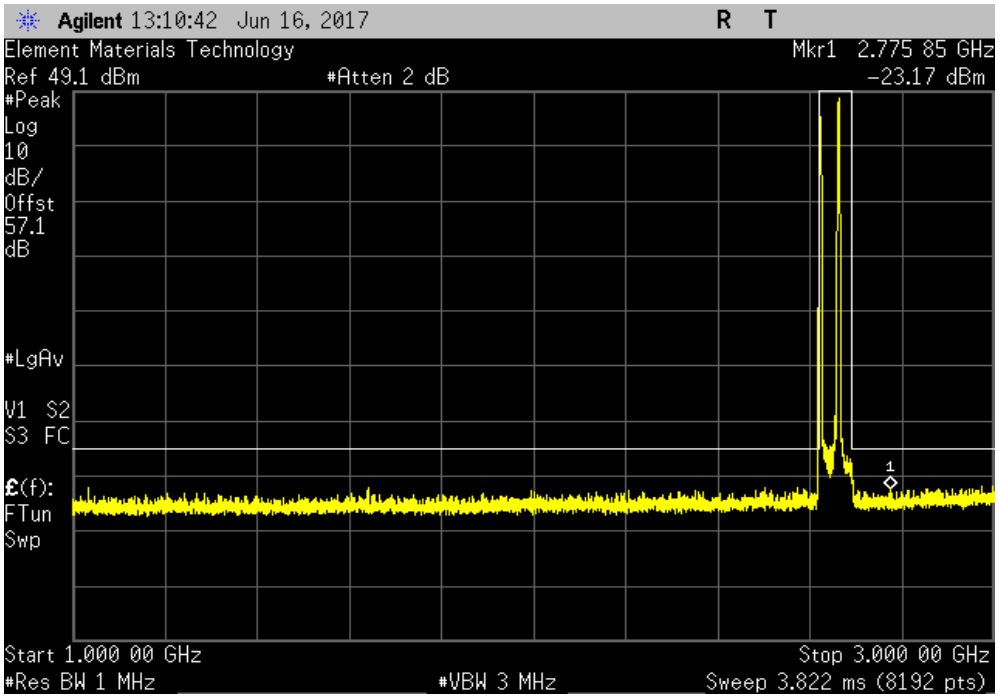
Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



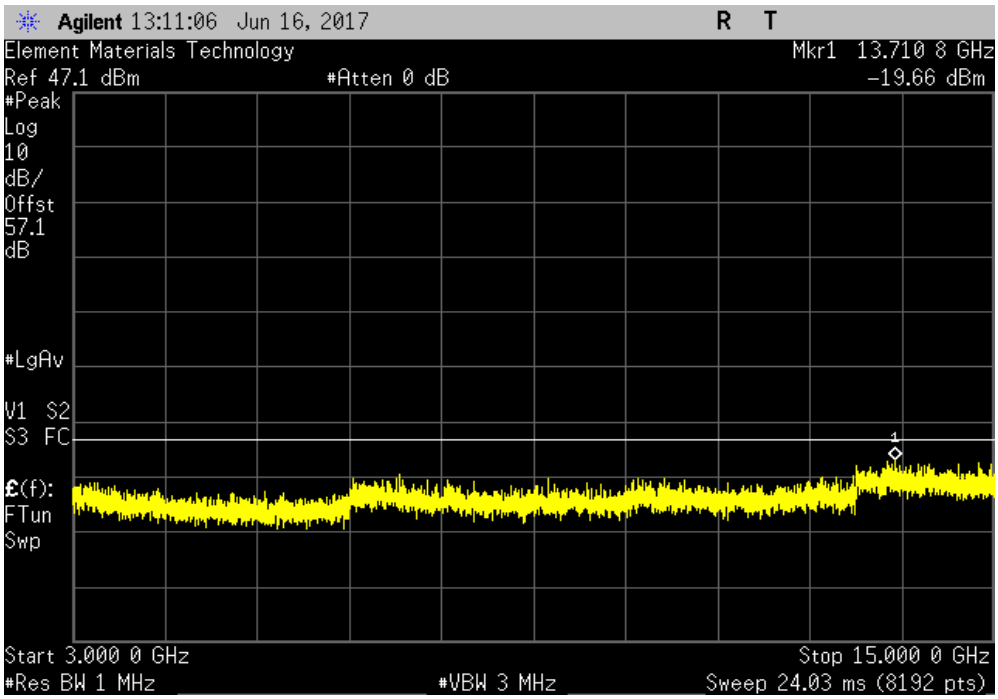
Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.62	-16	Pass



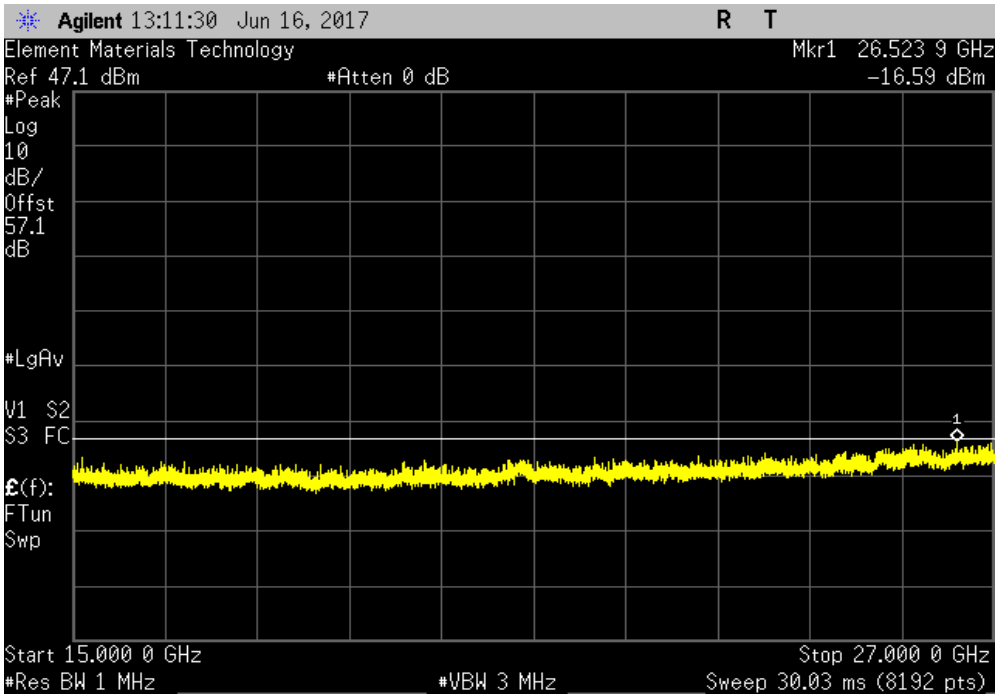
Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-23.17	-16	Pass



Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.66	-16	Pass

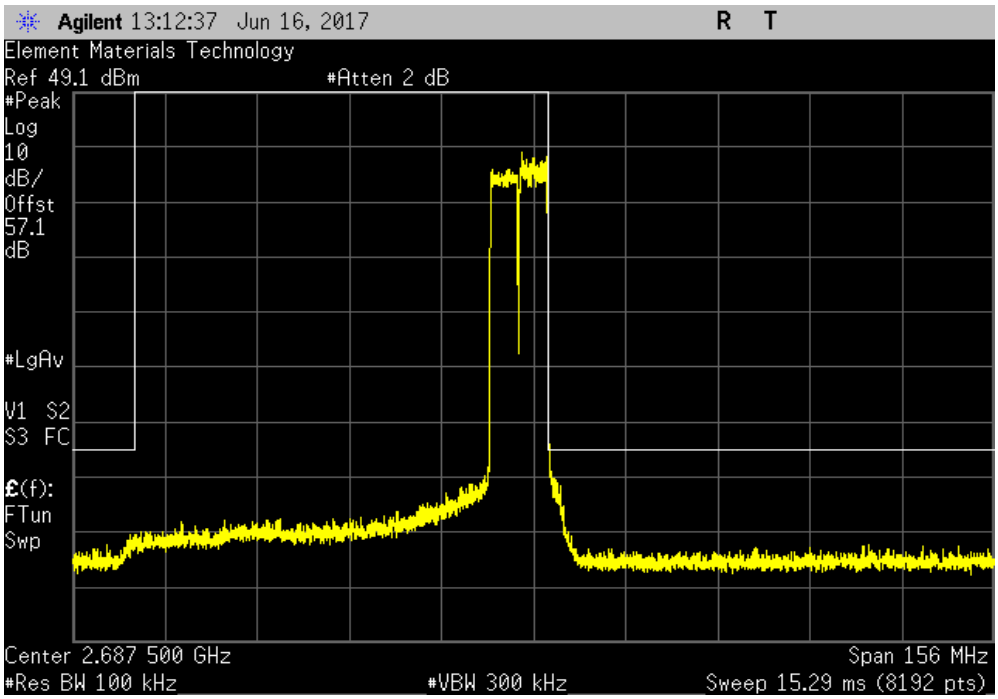


Antenna Port 2, LTE5, 2622.5 MHz, Low Band Edge, max offset secondary channel				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.59	-16	Pass

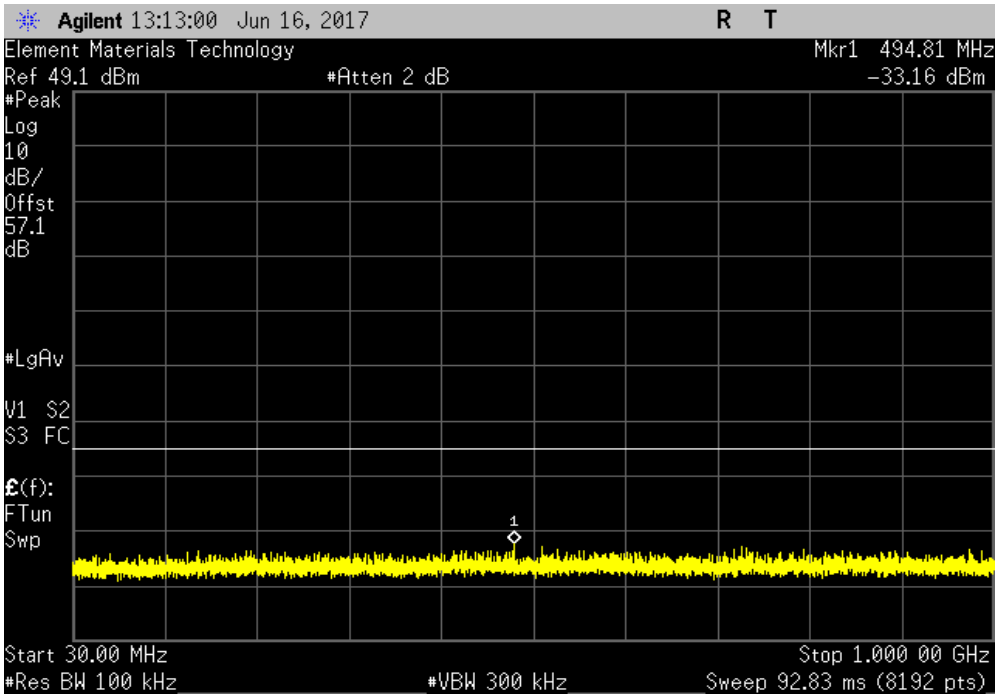


INTERMODULATION

Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A

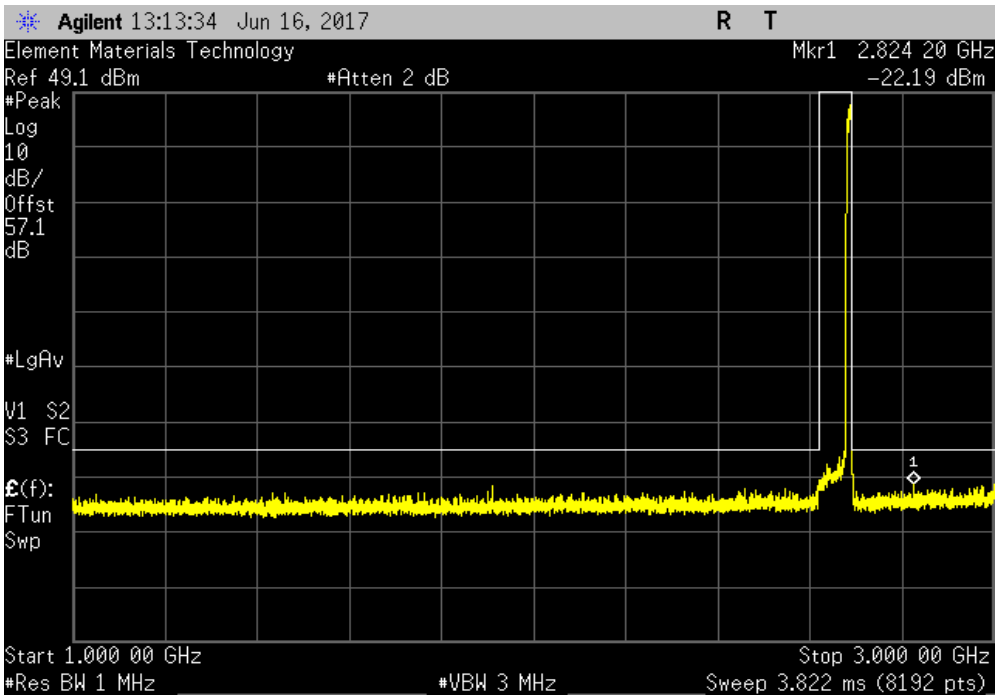


Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.16	-16	Pass

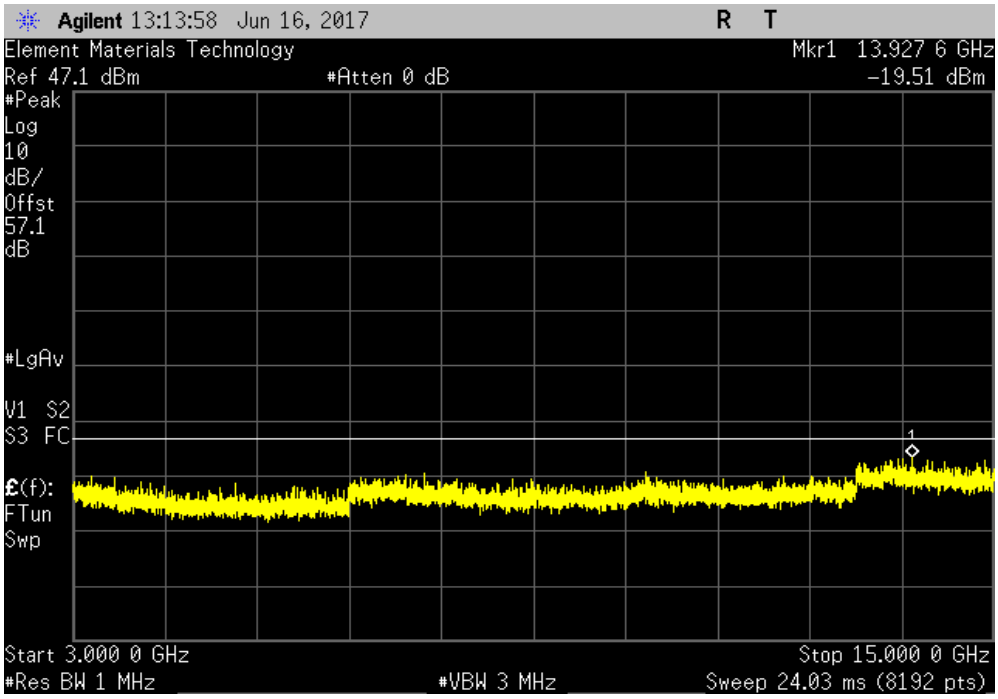


INTERMODULATION

Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.19	-16	Pass

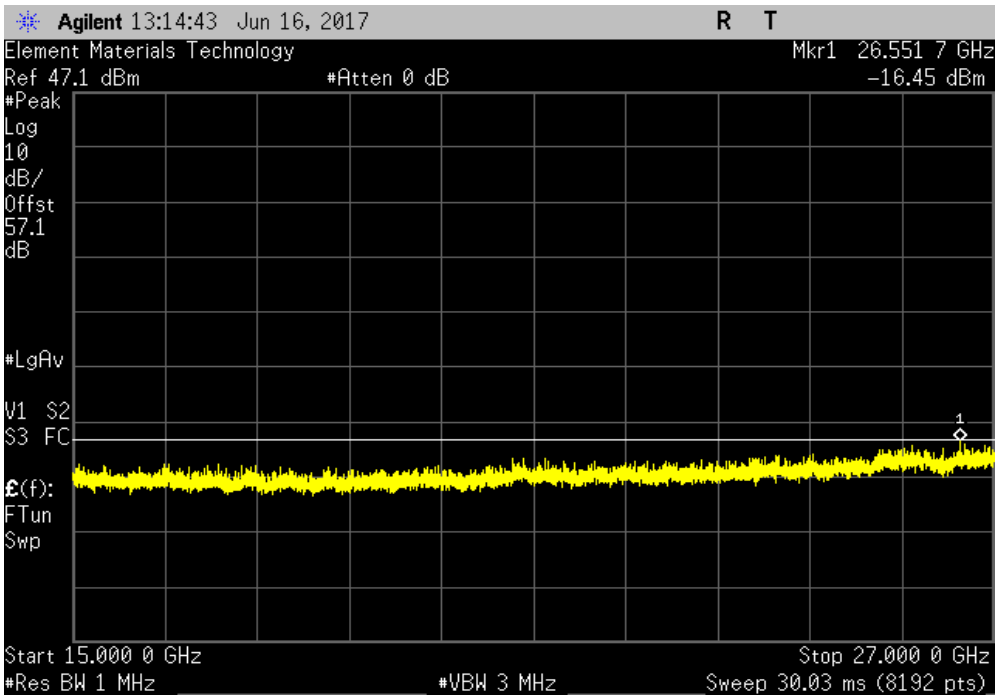


Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19.51	-16	Pass

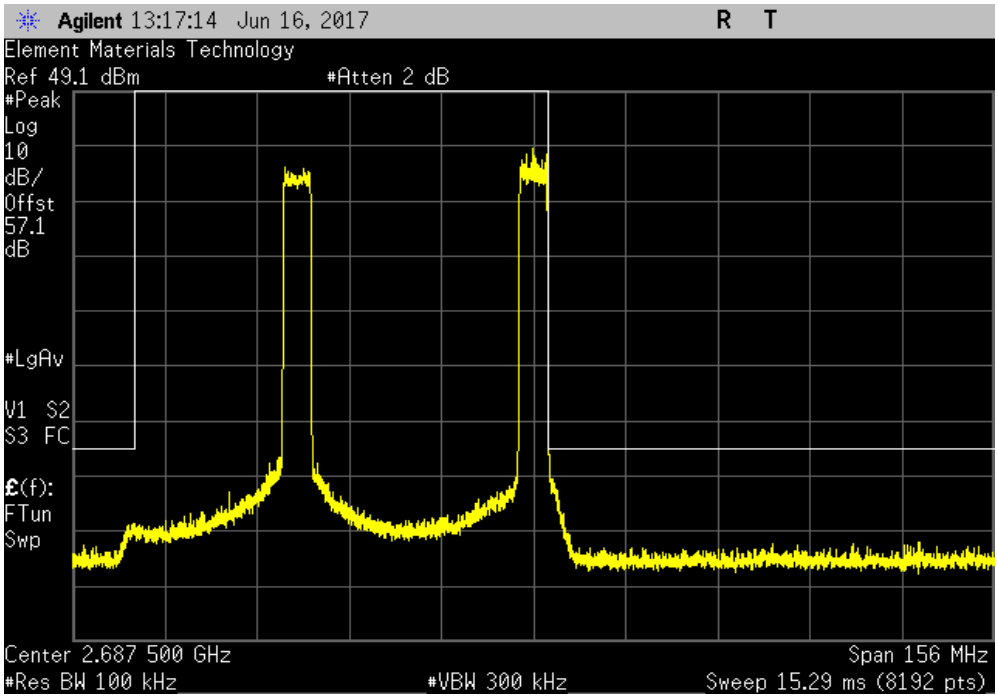


INTERMODULATION

Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.45	-16	Pass

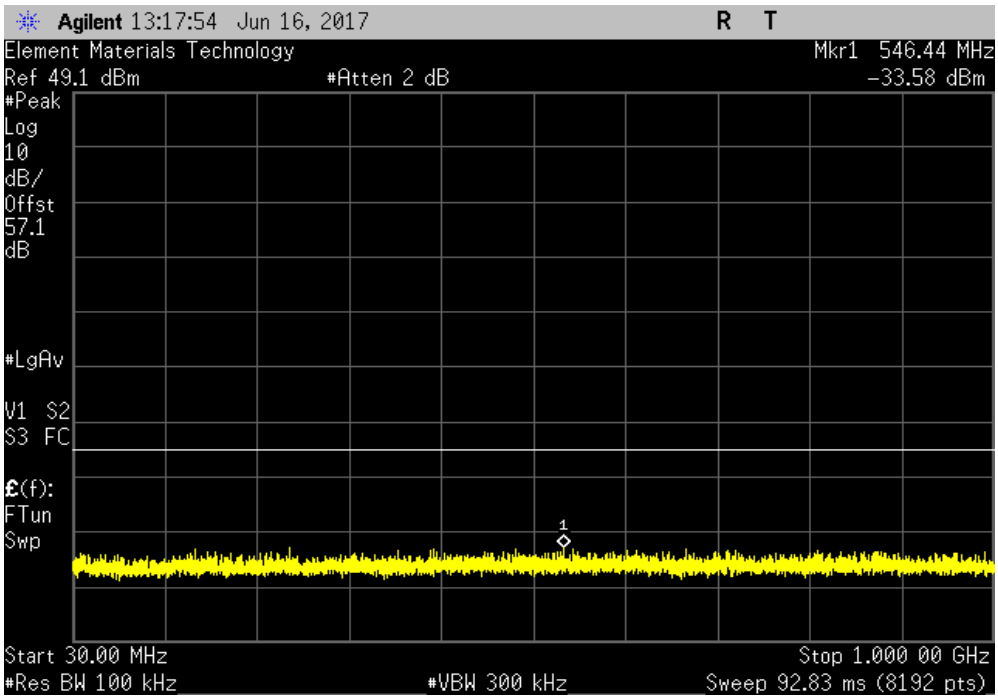


Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

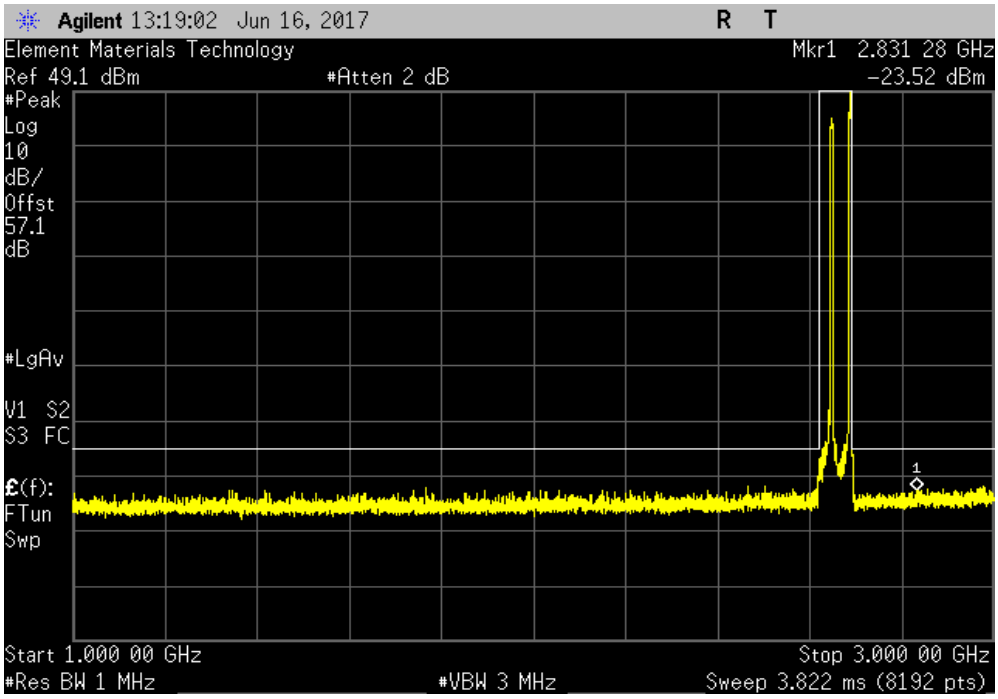


INTERMODULATION

Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.58	-16	Pass

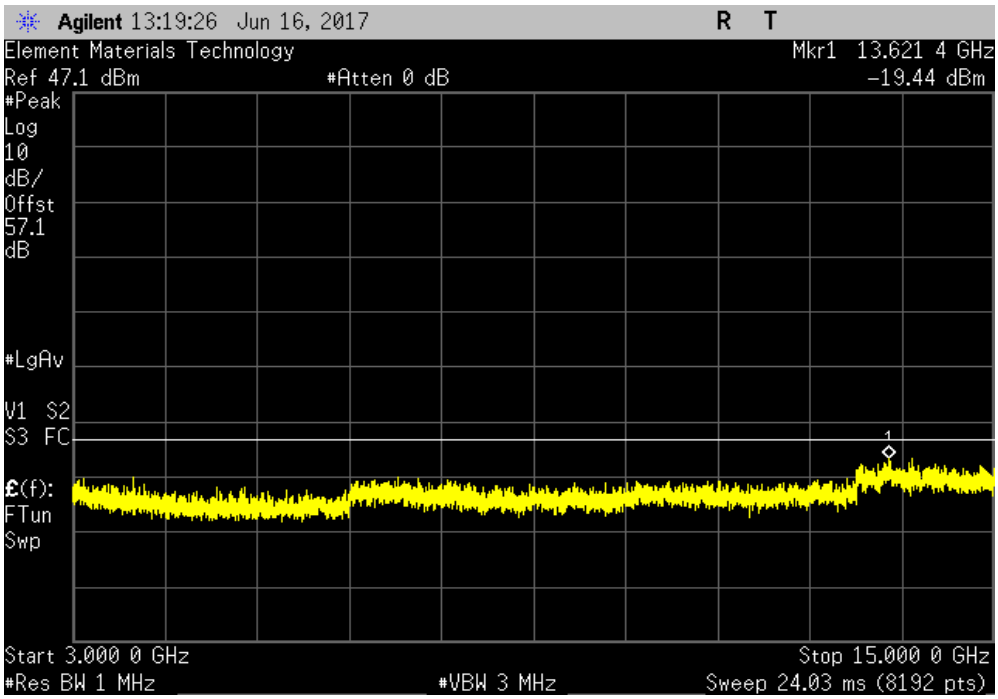


Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.52	-16	Pass

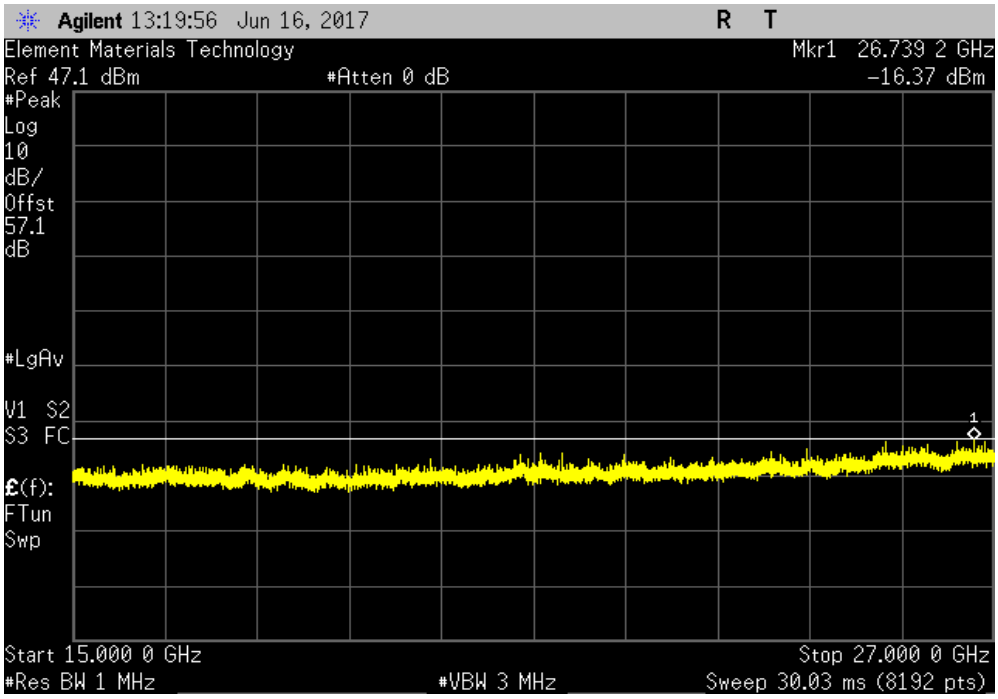


INTERMODULATION

Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.44	-16	Pass



Antenna Port 2, LTE5, 2687.5 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.37	-16	Pass



INTERMODULATION

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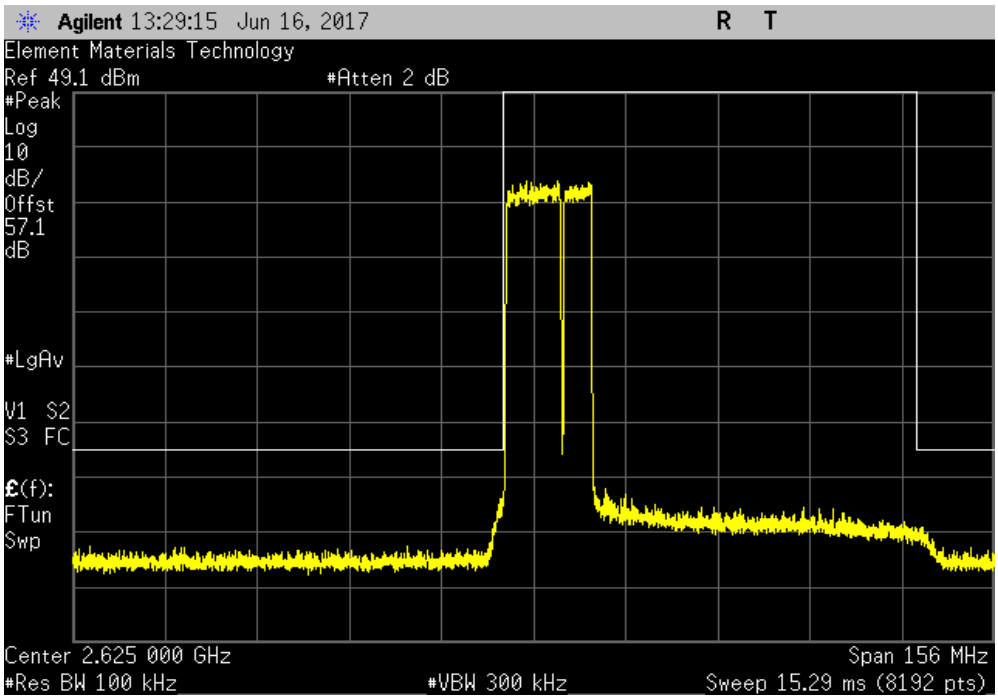
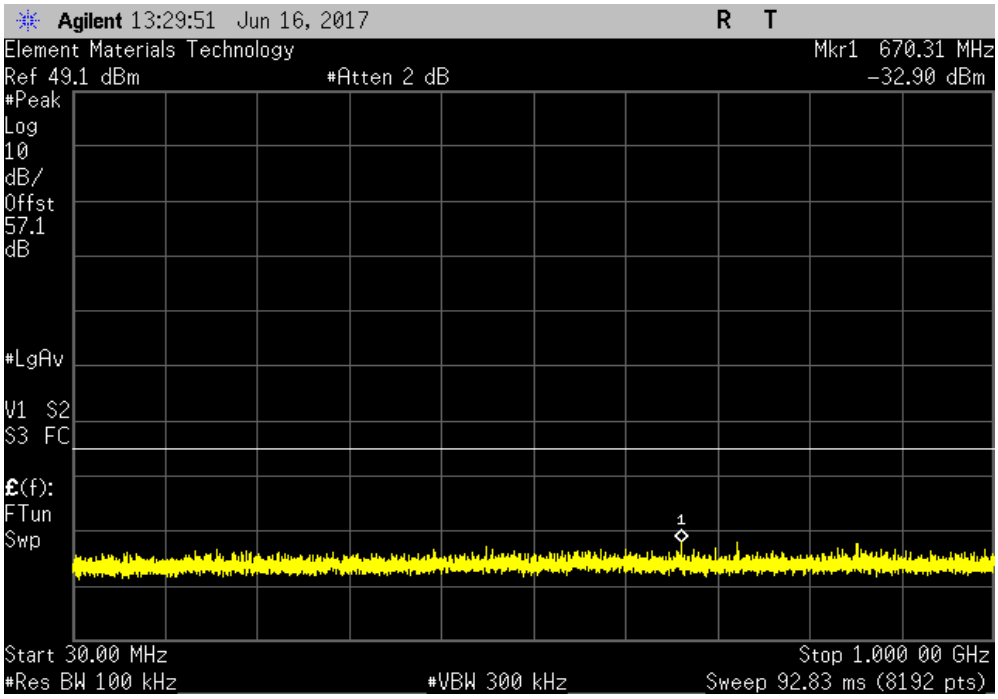
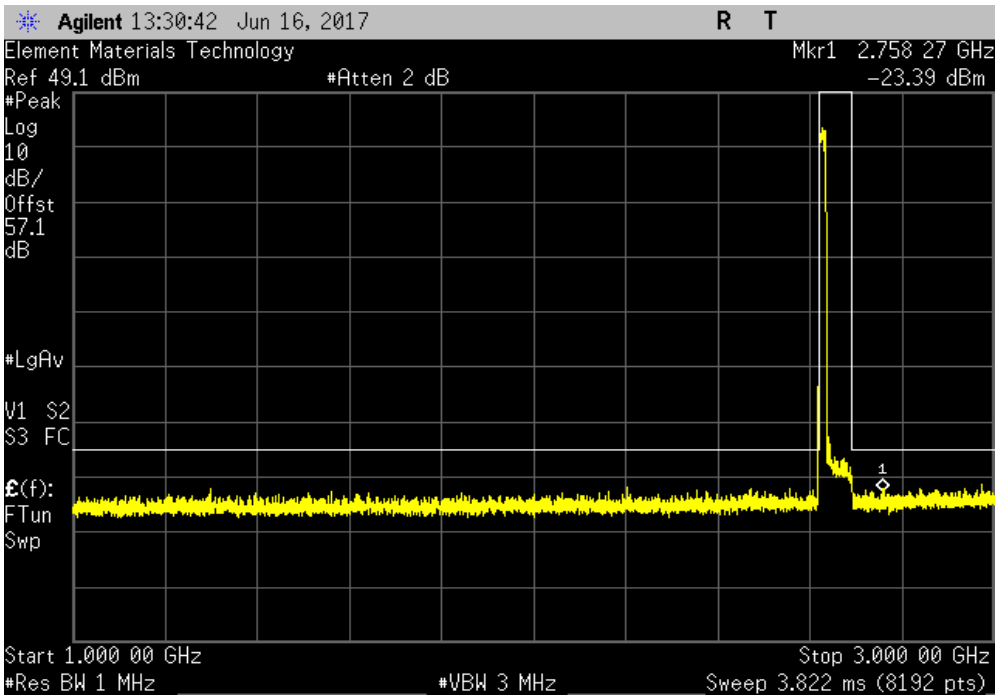
Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A



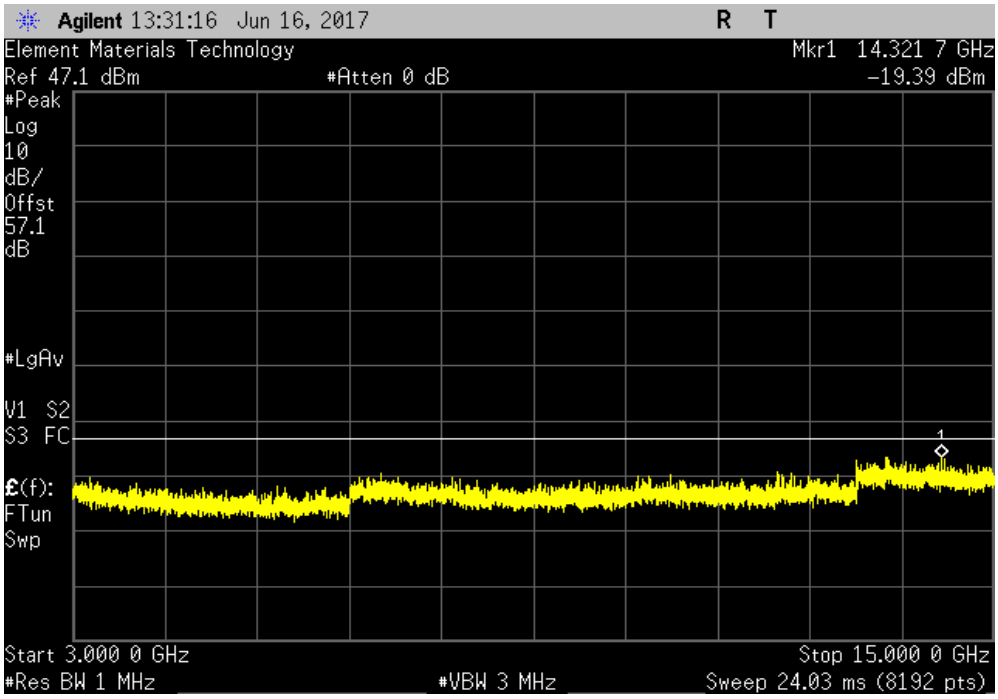
Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-32.9	-16	Pass



Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.39	-16	Pass



Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-19.39	-16	Pass



INTERMODULATION

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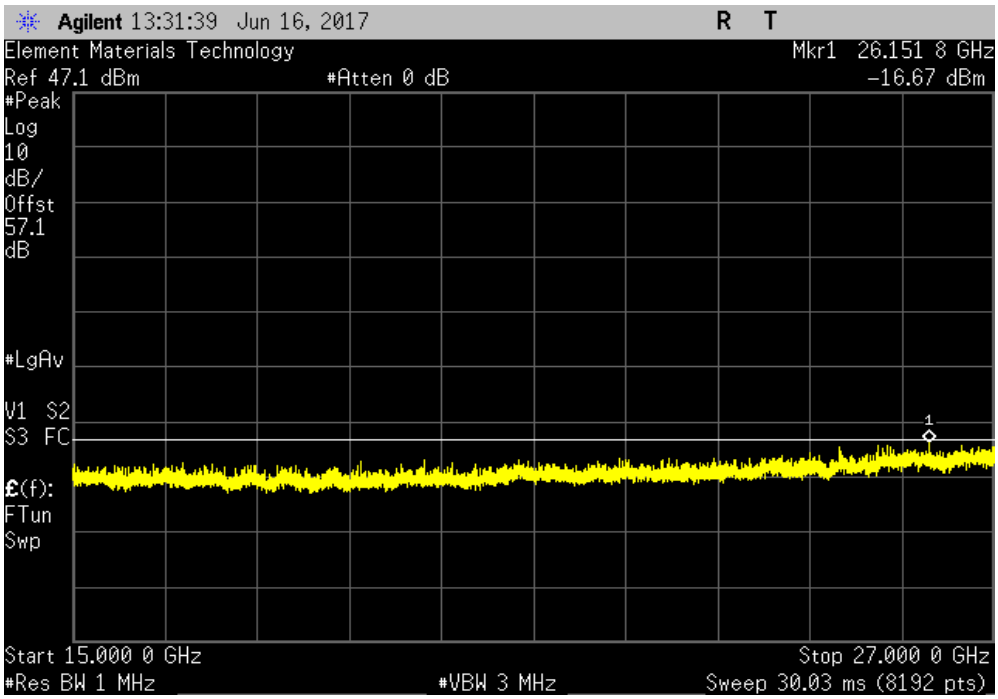
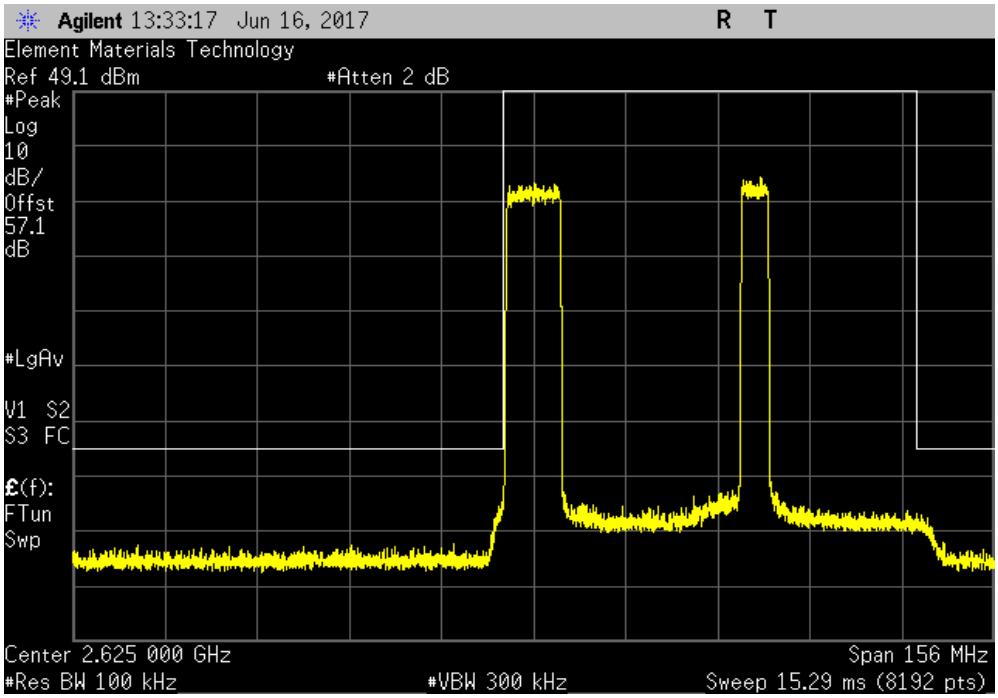
Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.67	-16	Pass

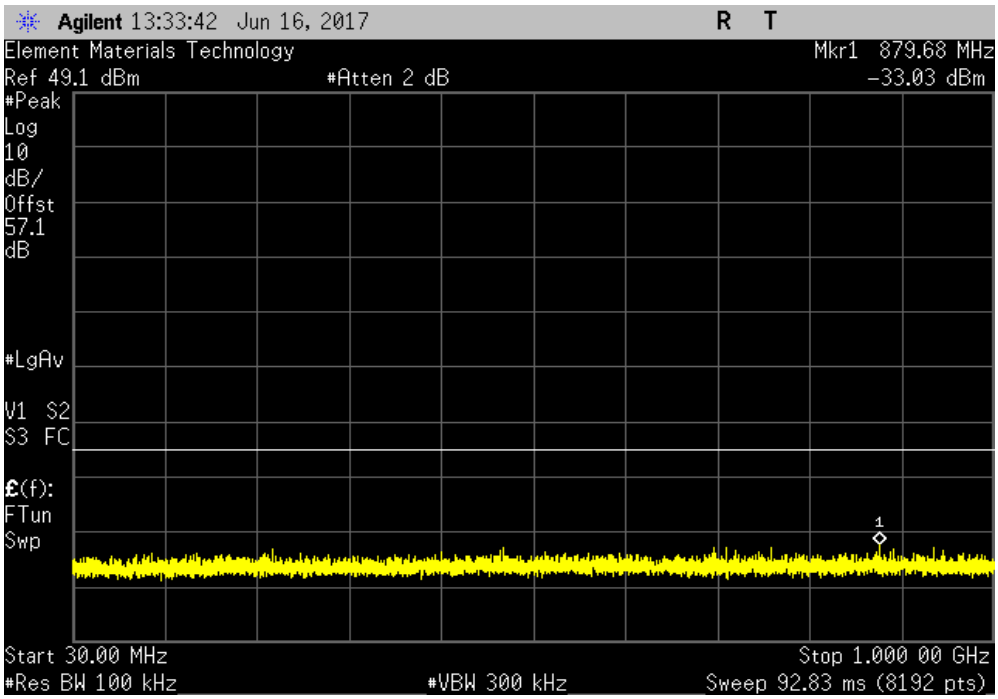


Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

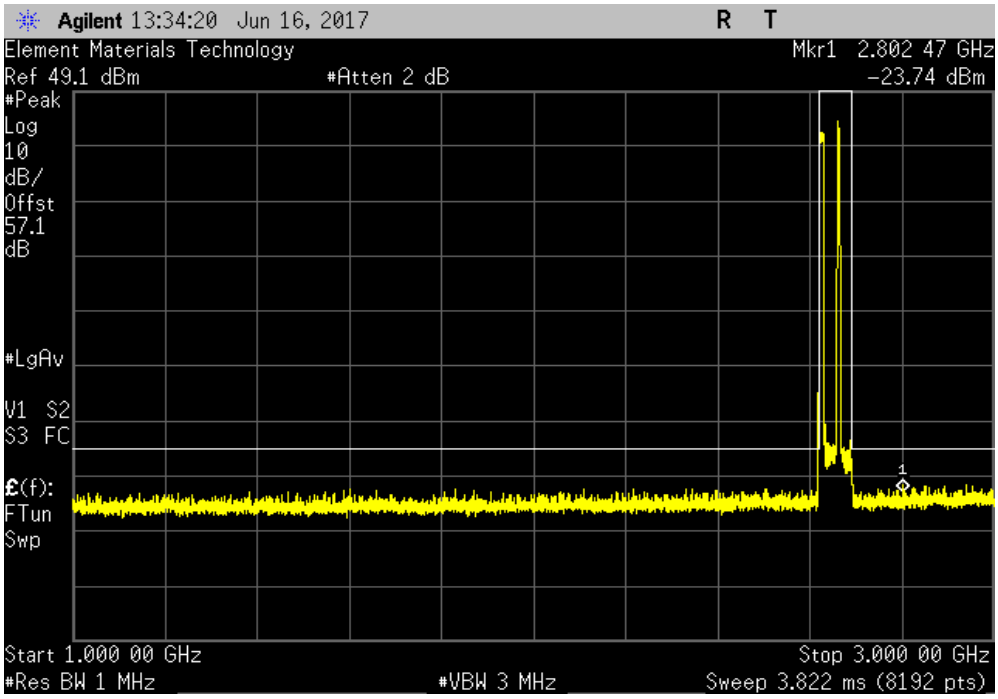


INTERMODULATION

Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.04	-16	Pass

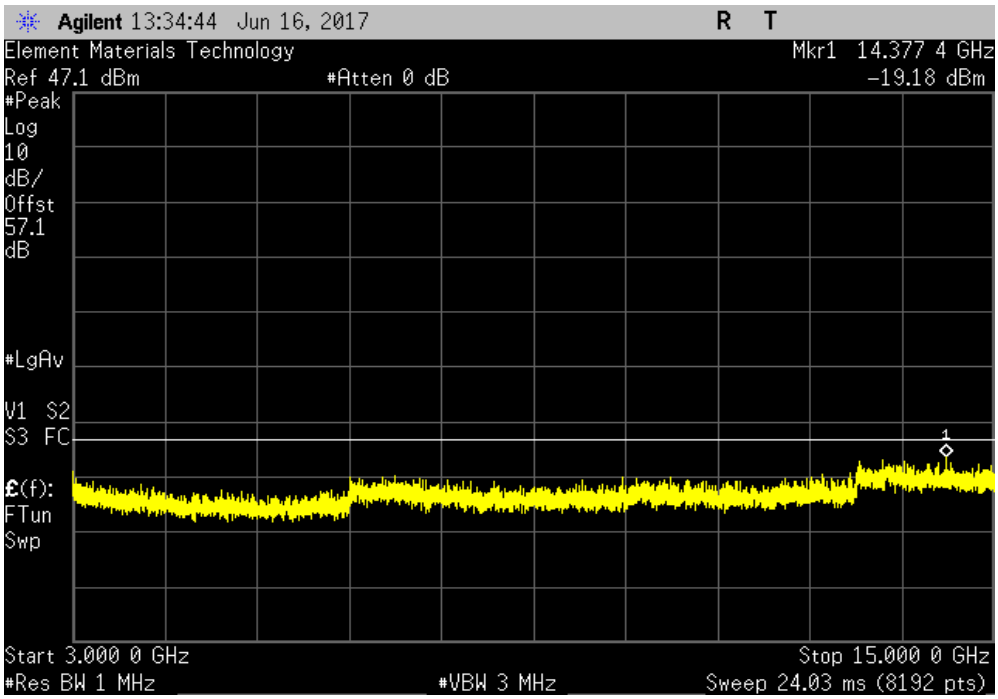


Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.74	-16	Pass

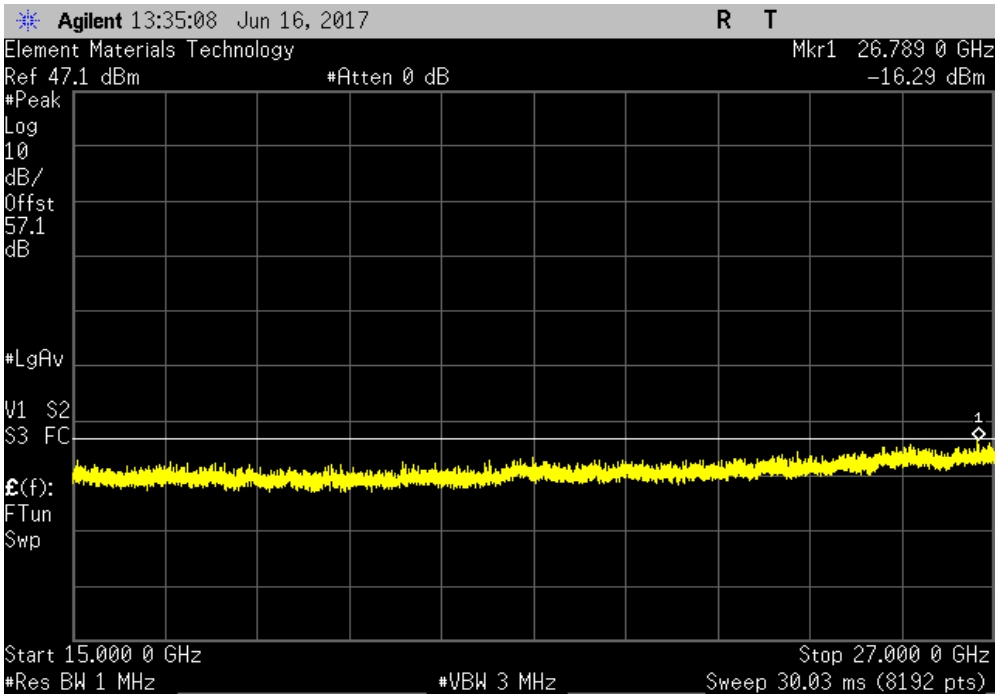


INTERMODULATION

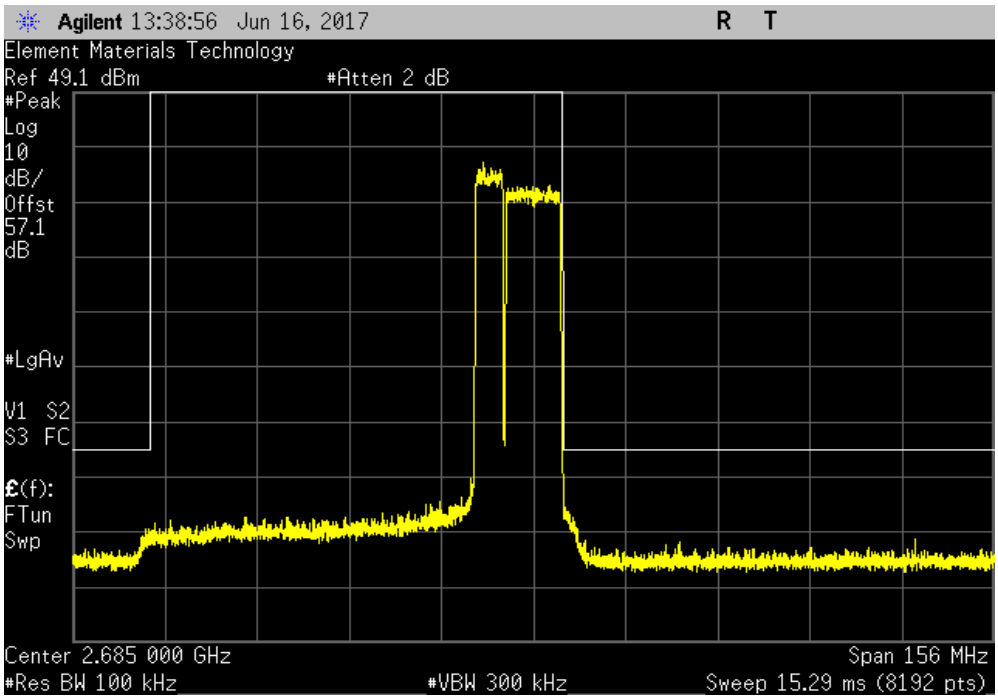
Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-19.18	-16	Pass



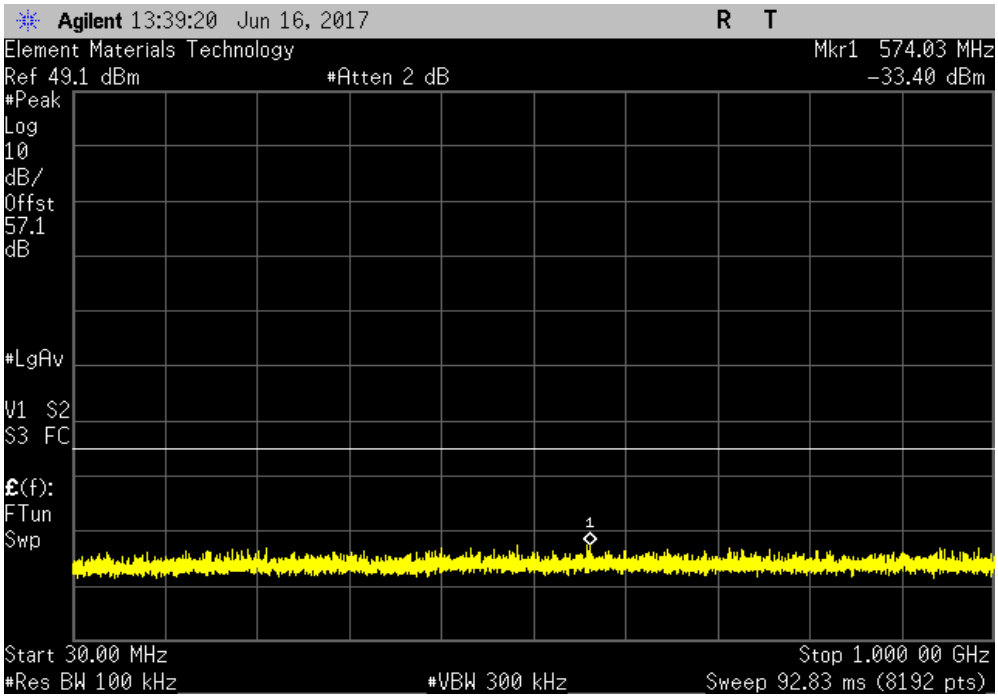
Antenna Port 2, LTE10, 2625 MHz, Low Band Edge, max offset secondary channel				
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz		-16.29	-16	Pass



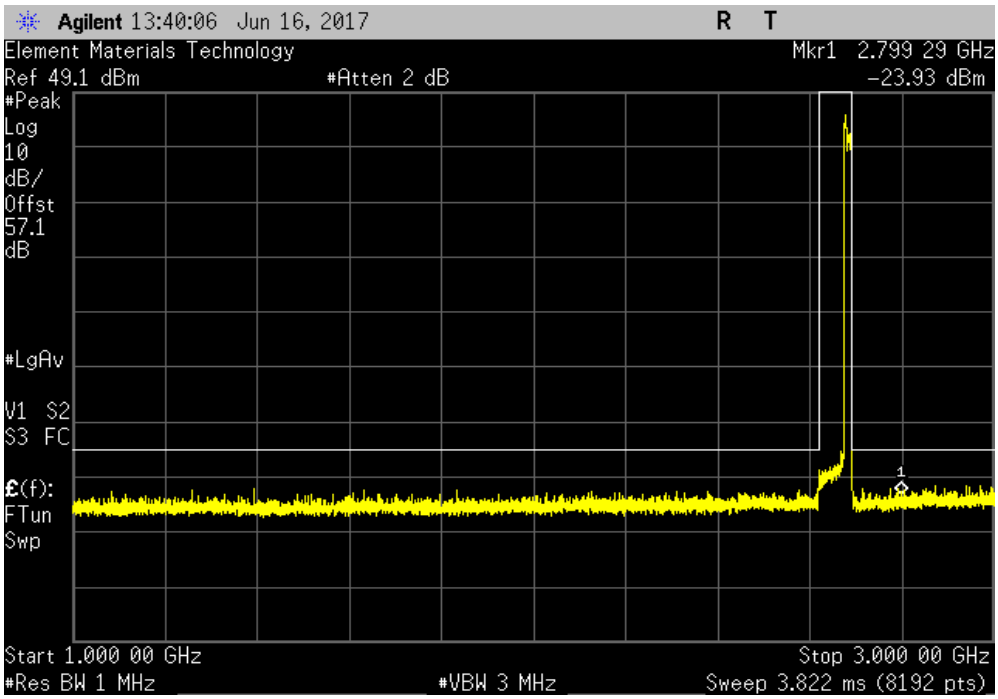
Antenna Port 2, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



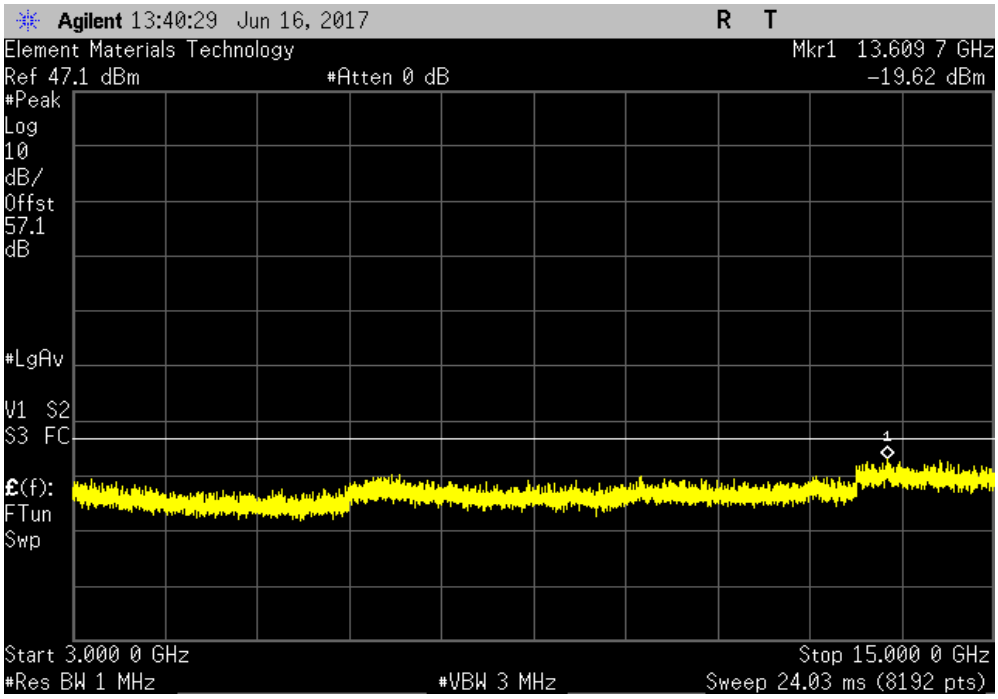
Antenna Port 2, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.4	-16	Pass



Antenna Port 2, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-23.93	-16	Pass

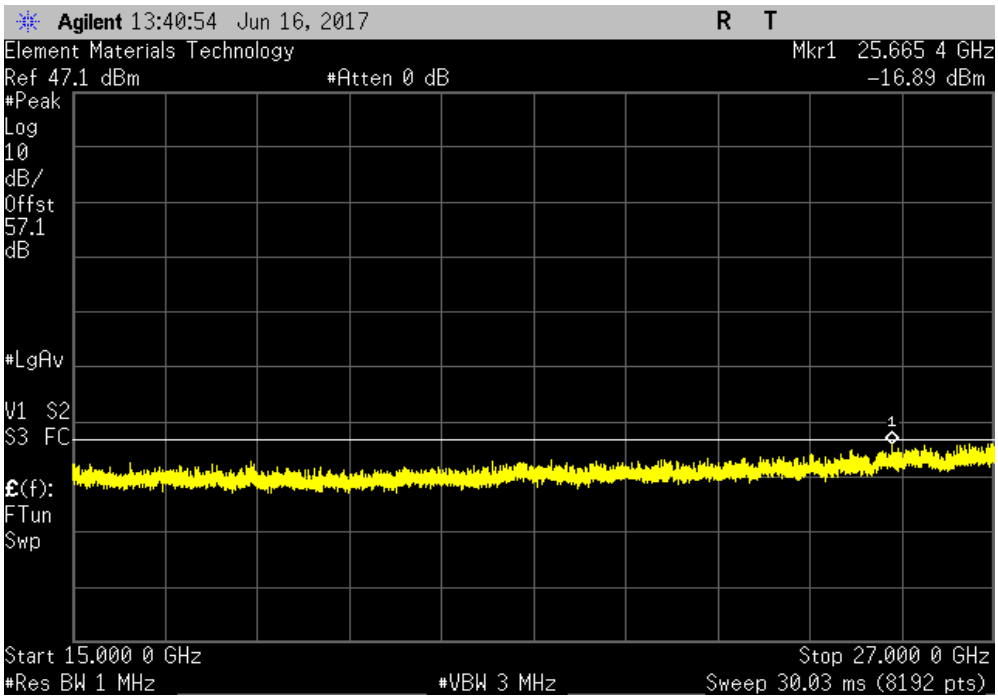


Antenna Port 2, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	3 GHz - 15 GHz			-19.62	-16	Pass

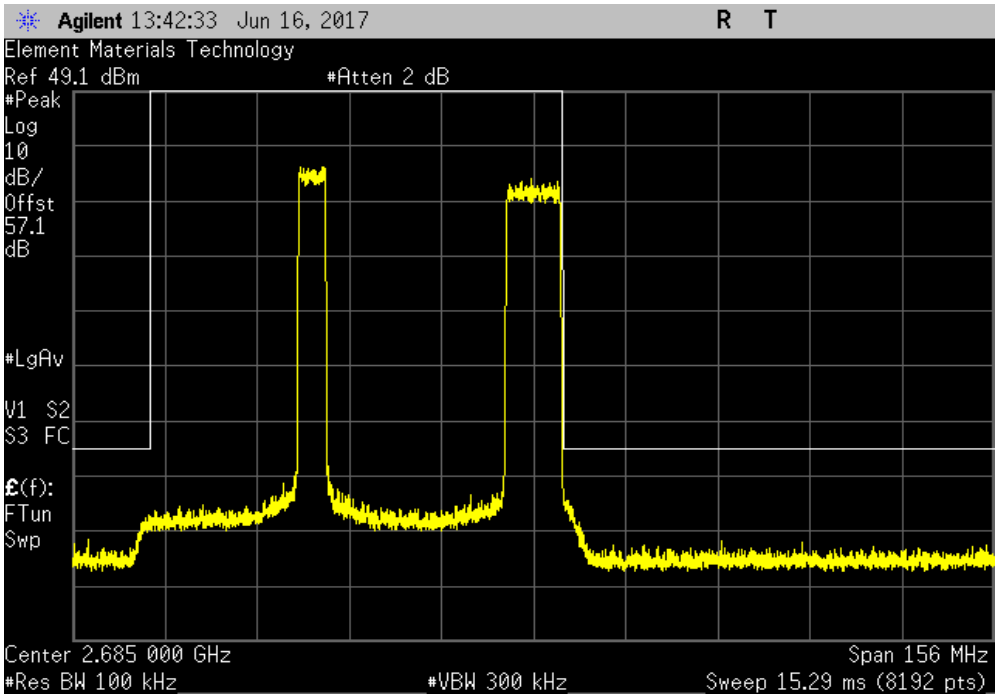


INTERMODULATION

Antenna Port 2, LTE10, 2685 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.89	-16	Pass

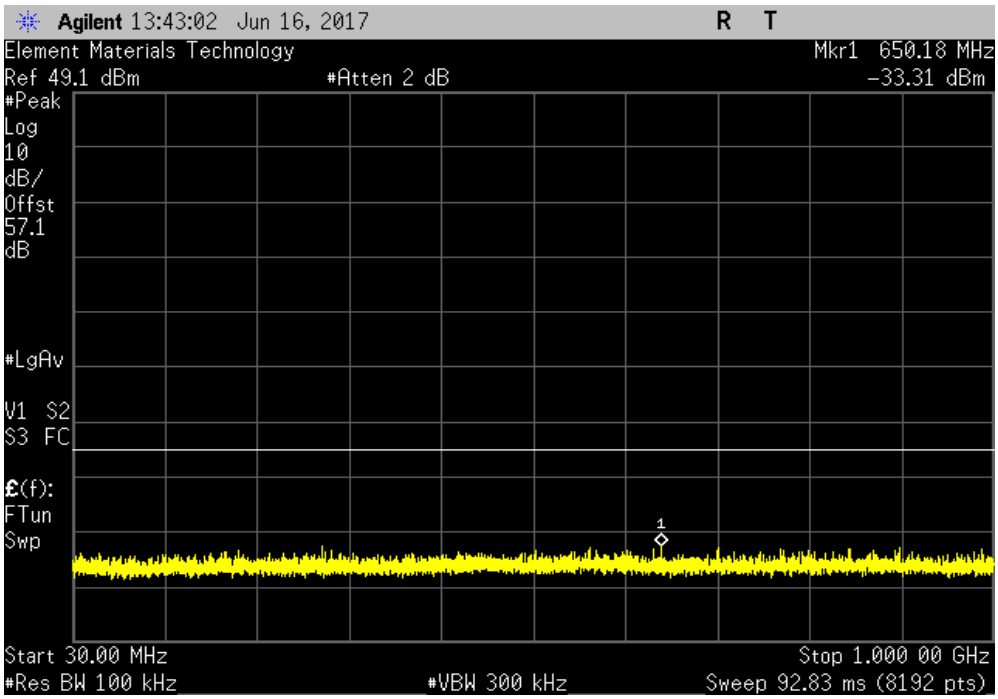


Antenna Port 2, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

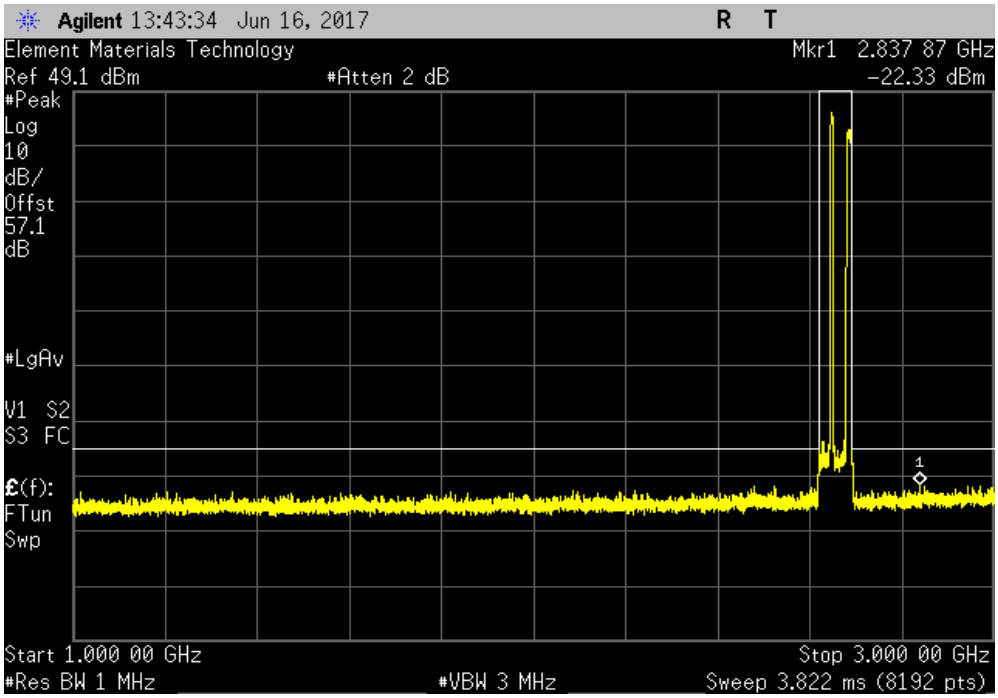


INTERMODULATION

Antenna Port 2, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.31	-16	Pass

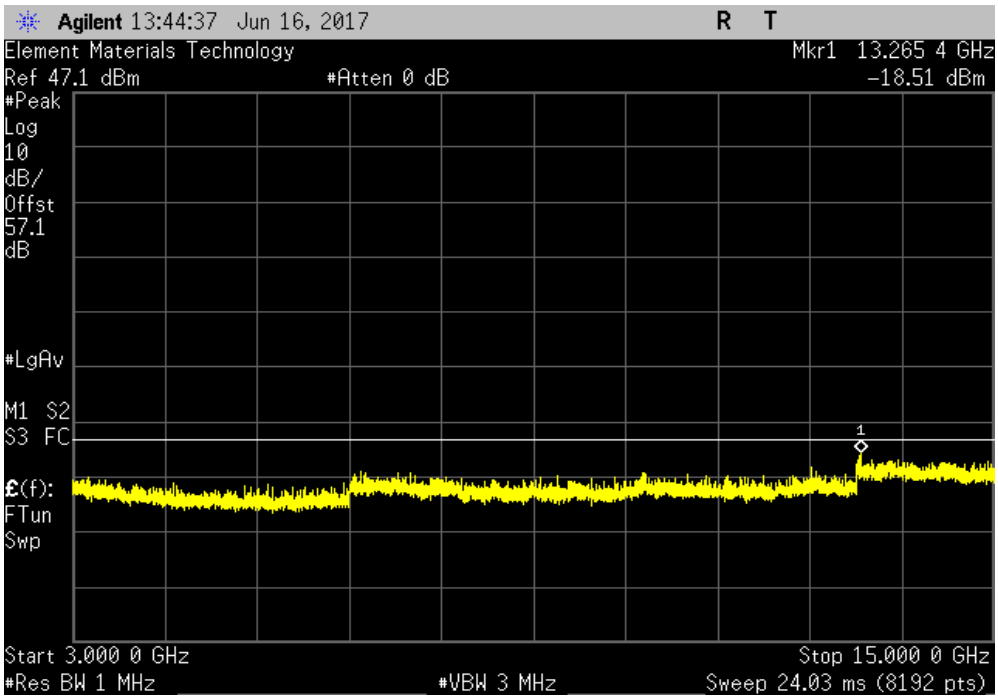


Antenna Port 2, LTE10, 2685 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-22.33	-16	Pass

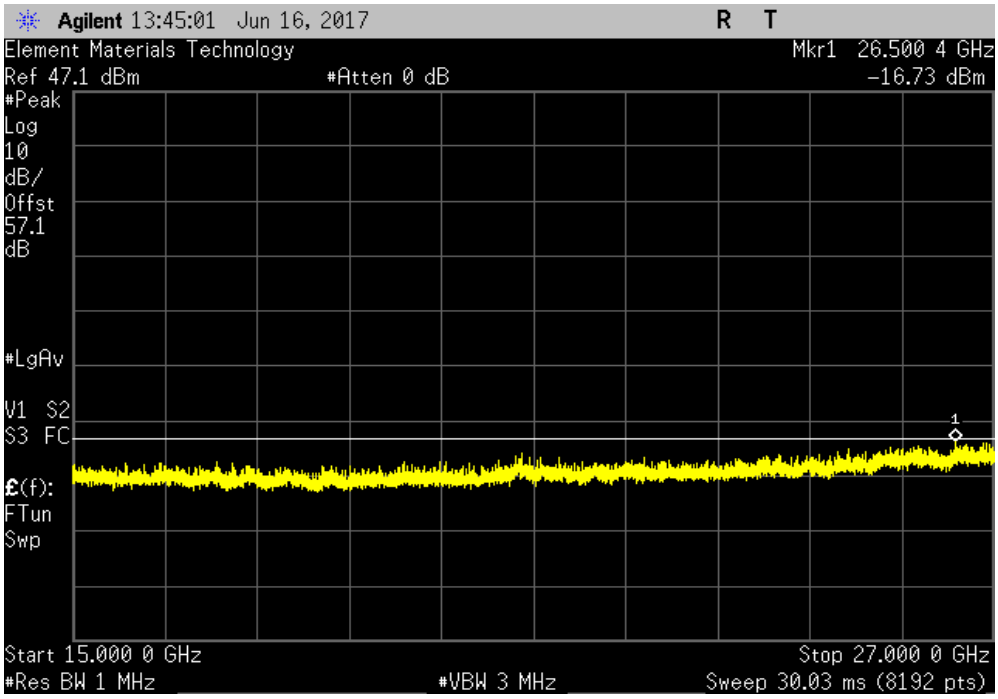


INTERMODULATION

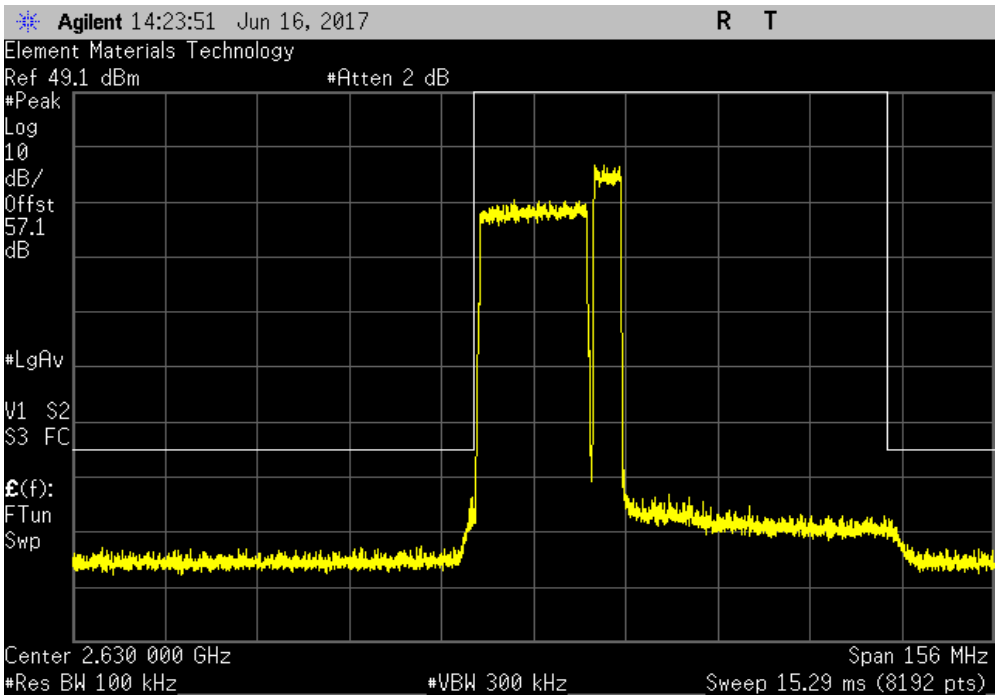
Antenna Port 2, LTE10, 2685 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
3 GHz - 15 GHz			-18.51	-16	Pass



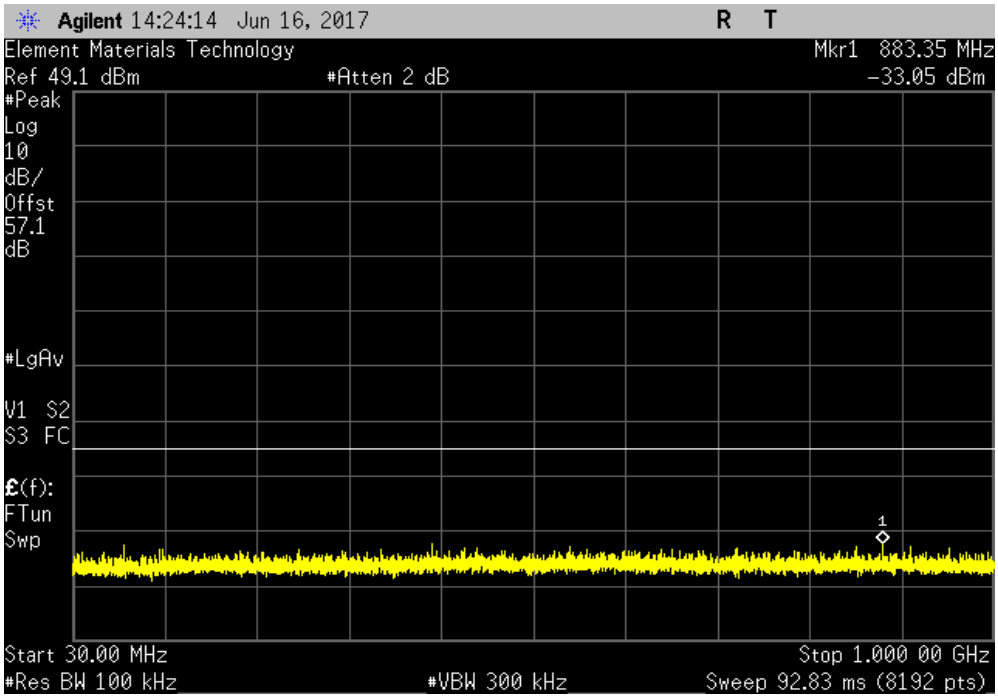
Antenna Port 2, LTE10, 2685 MHz, High Band Edge, max offset secondary channel					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
15 GHz - 27 GHz			-16.73	-16	Pass



Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

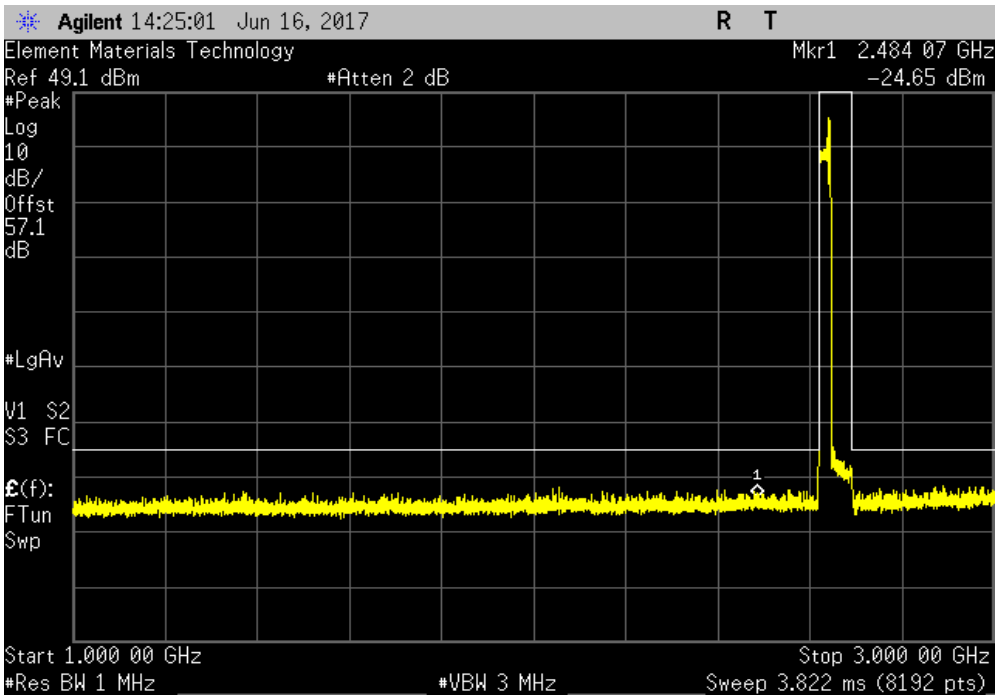


Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-33.05	-16	Pass

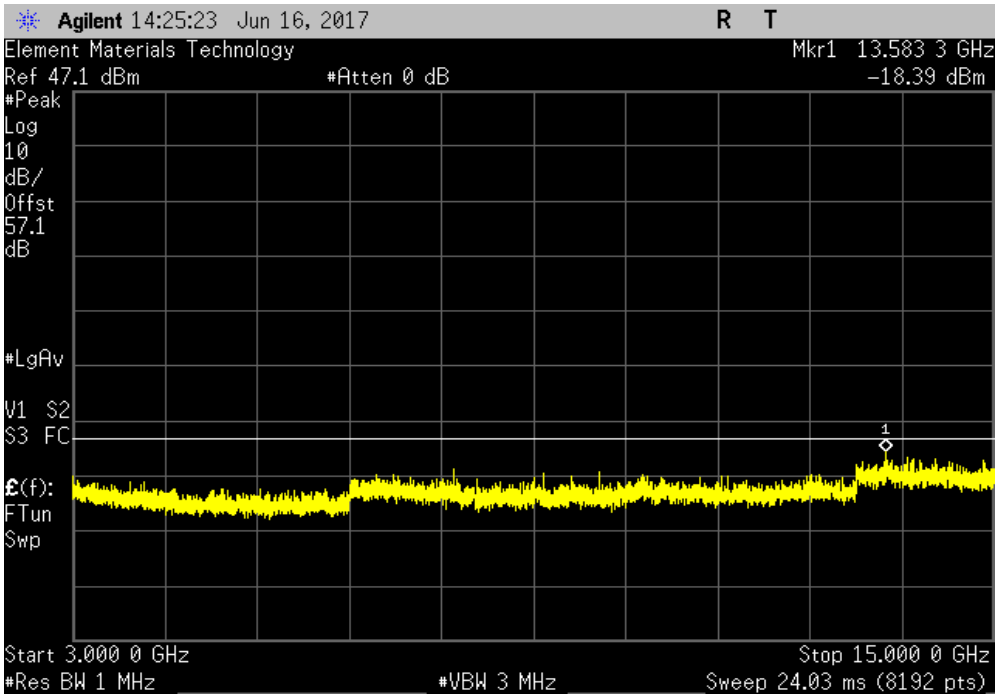


INTERMODULATION

Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-24.65	-16	Pass

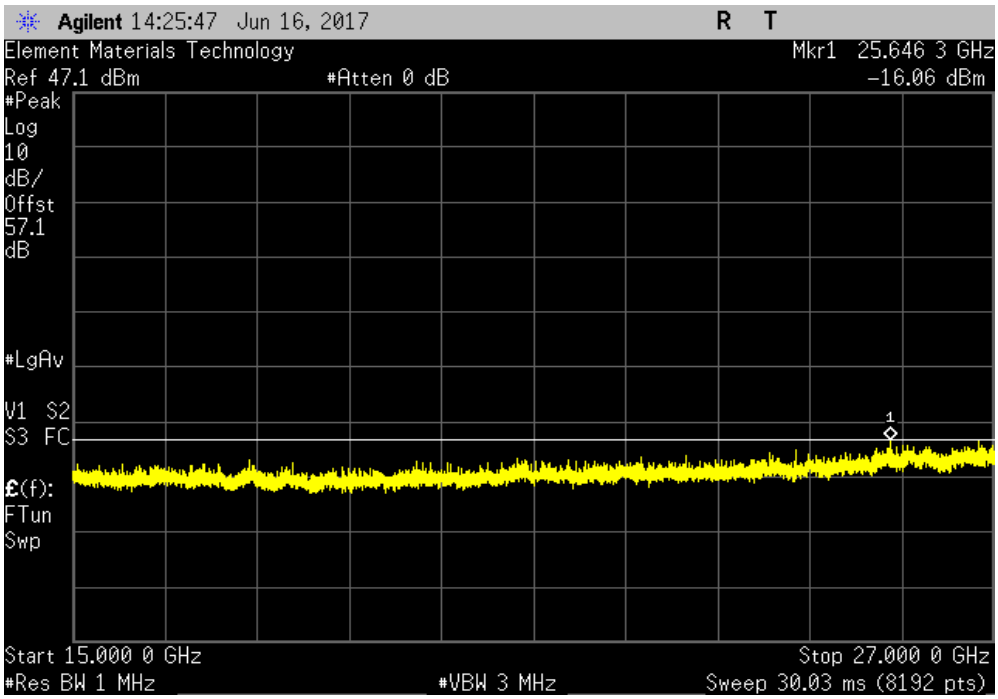


Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	3 GHz - 15 GHz			-18.39	-16	Pass

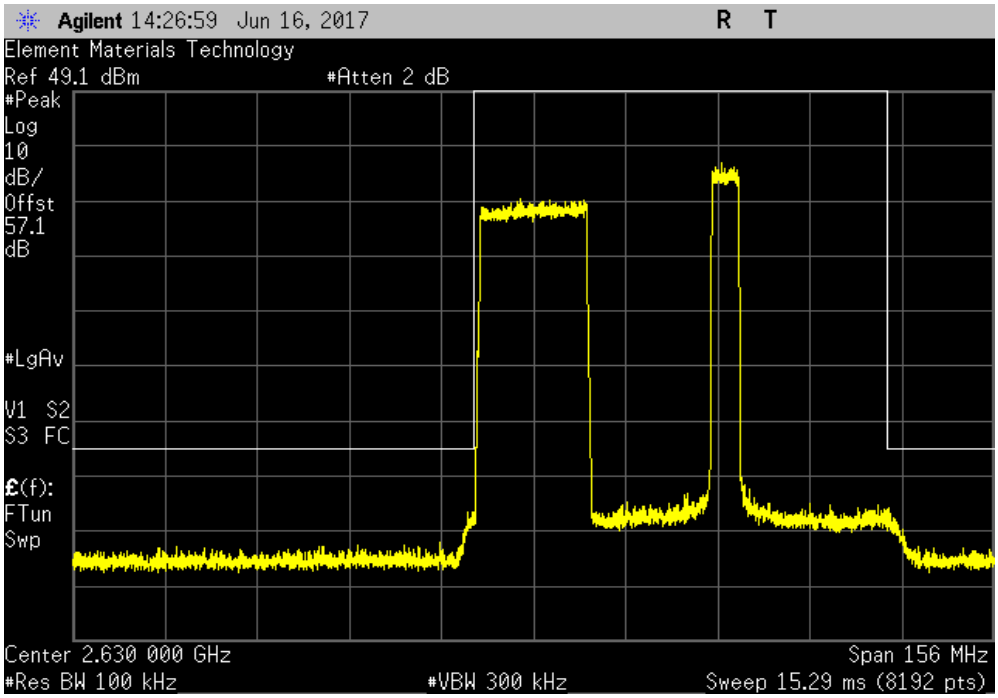


INTERMODULATION

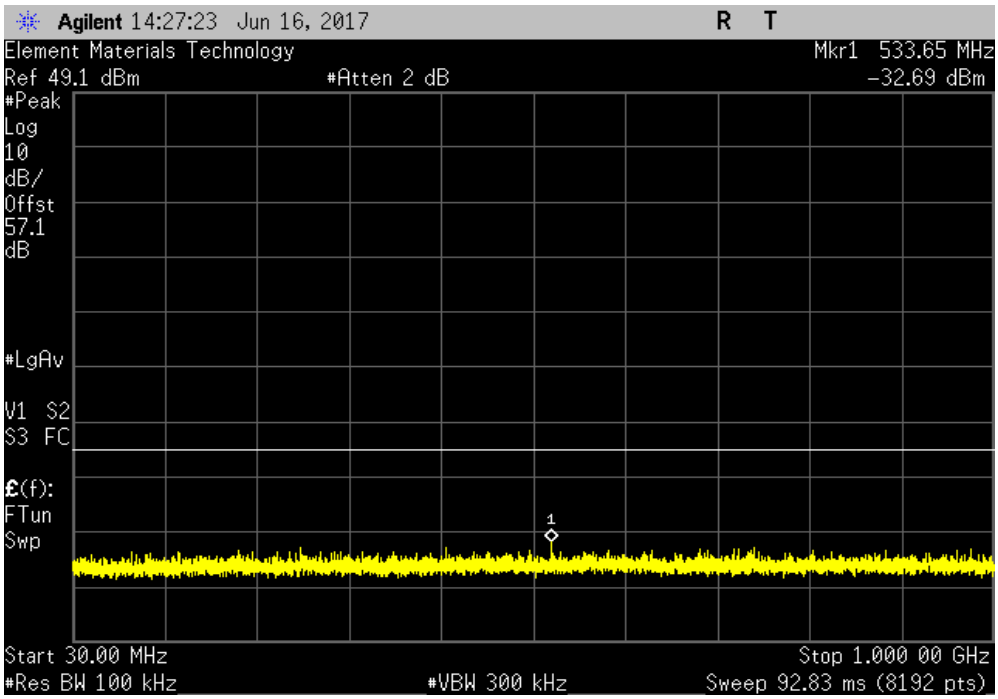
Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.06	-16	Pass



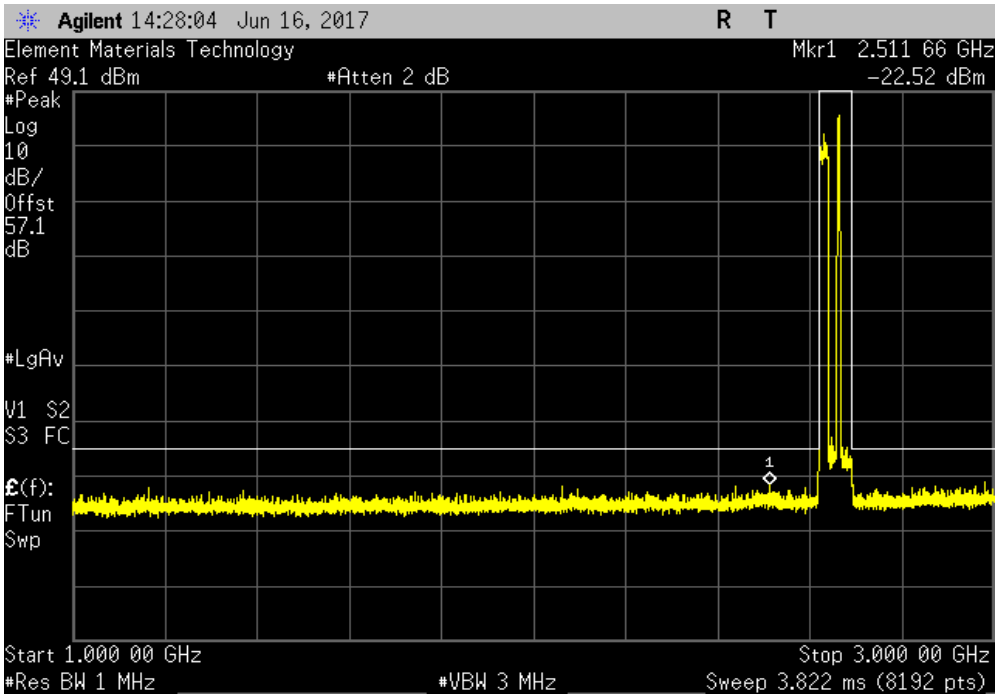
Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A



Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	30 MHz - 1 GHz			-32.69	-16	Pass

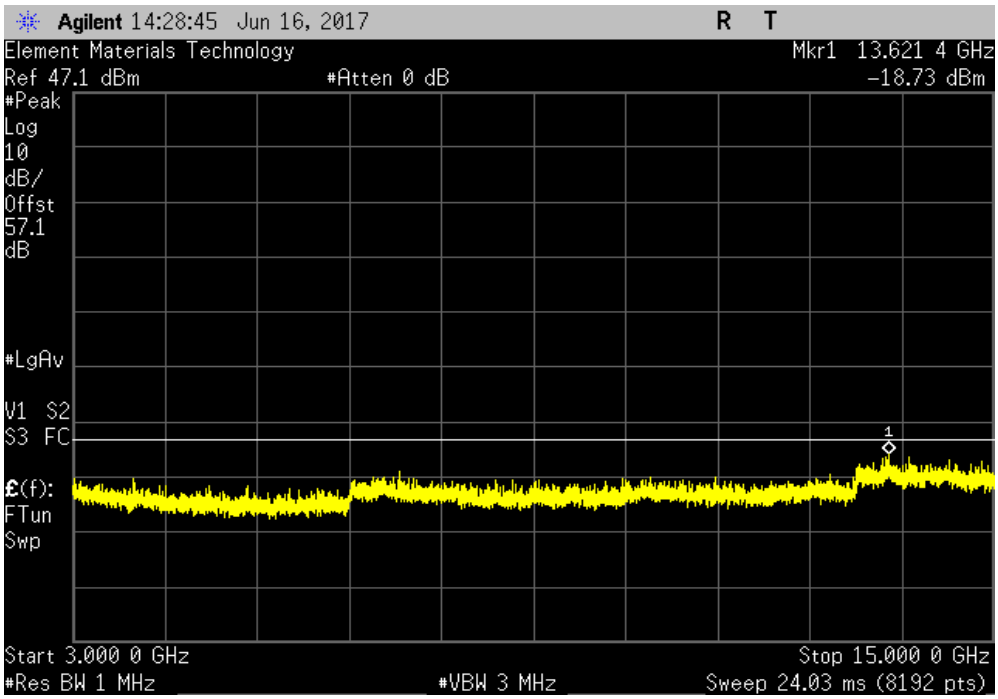


Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-22.52	-16	Pass

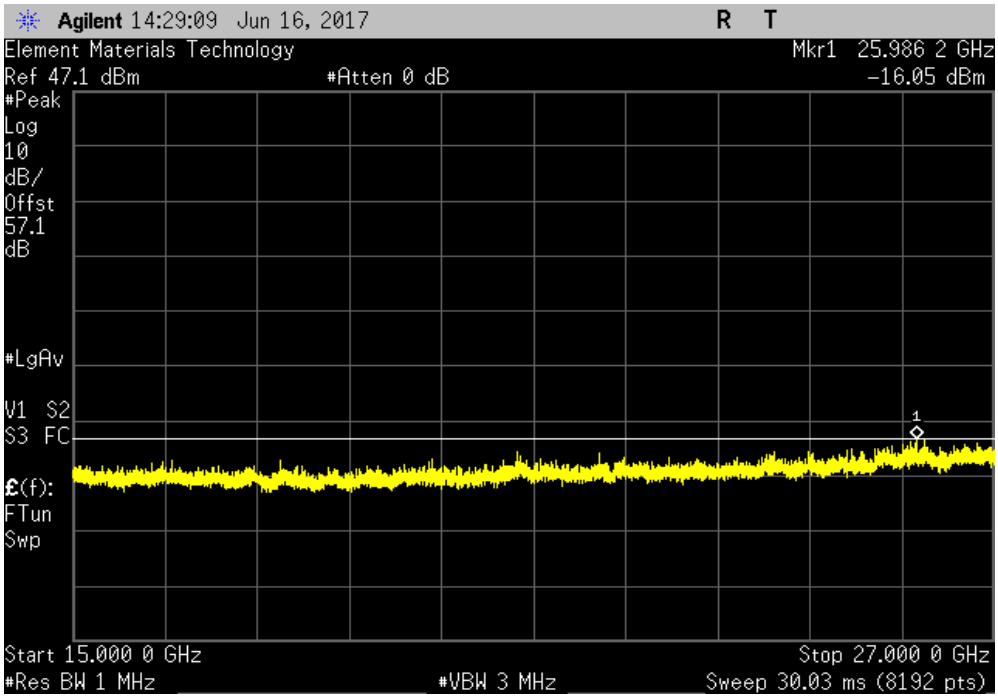


INTERMODULATION

Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel					
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result	
3 GHz - 15 GHz		-18.73	-16	Pass	

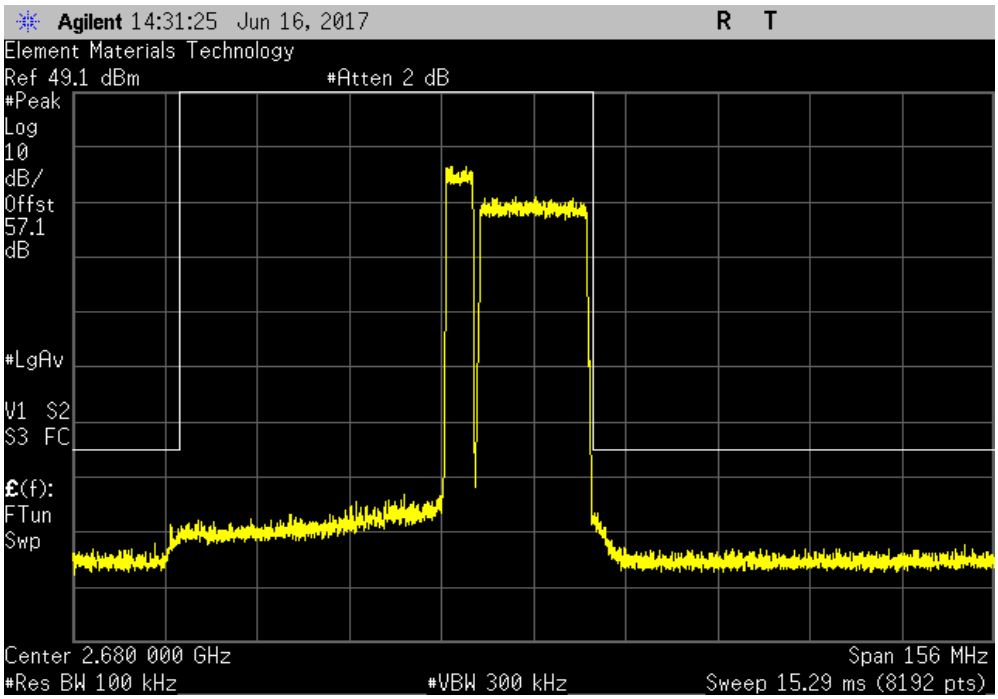


Antenna Port 2, LTE20, 2630 MHz, Low Band Edge, max offset secondary channel					
Frequency Range		Max Value (dBm)	Limit ≤ (dBm)	Result	
15 GHz - 27 GHz		-16.05	-16	Pass	

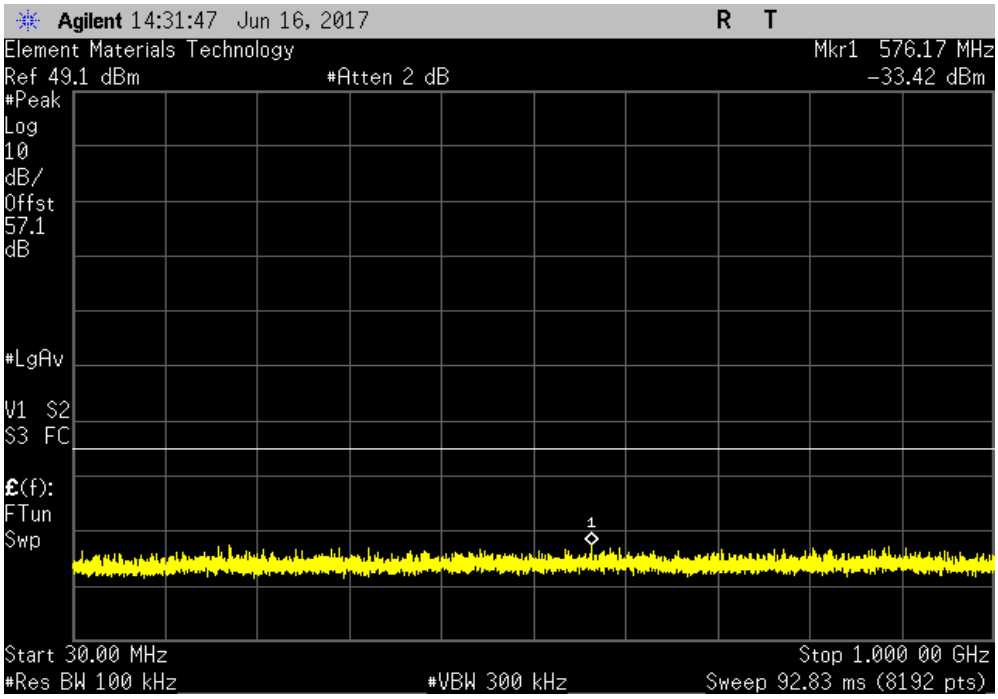


INTERMODULATION

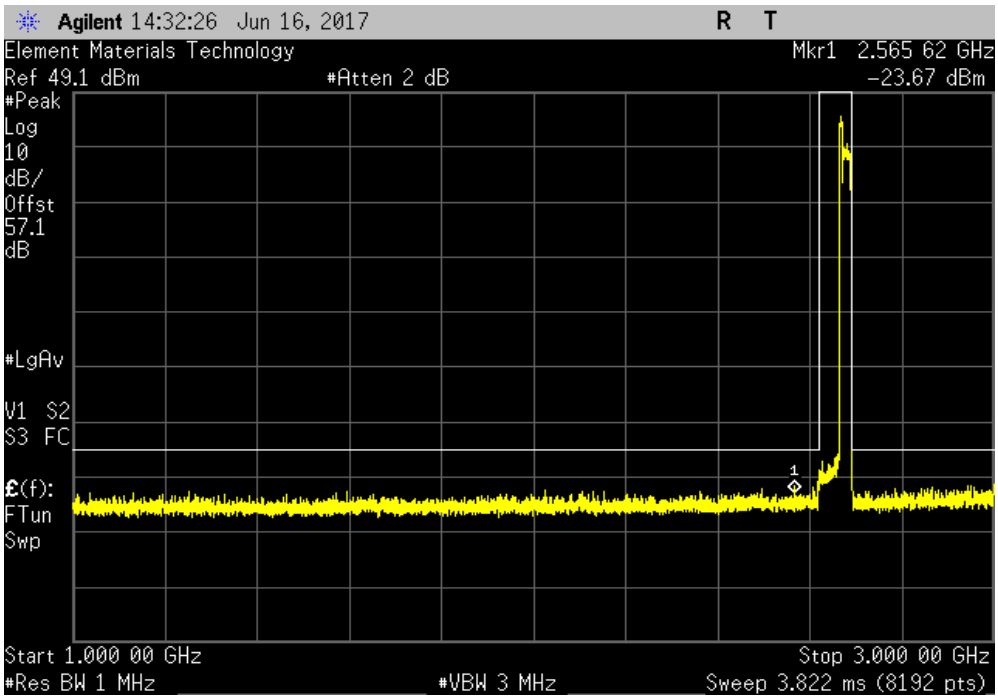
Antenna Port 2, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	Fundamental			N/A	N/A	N/A



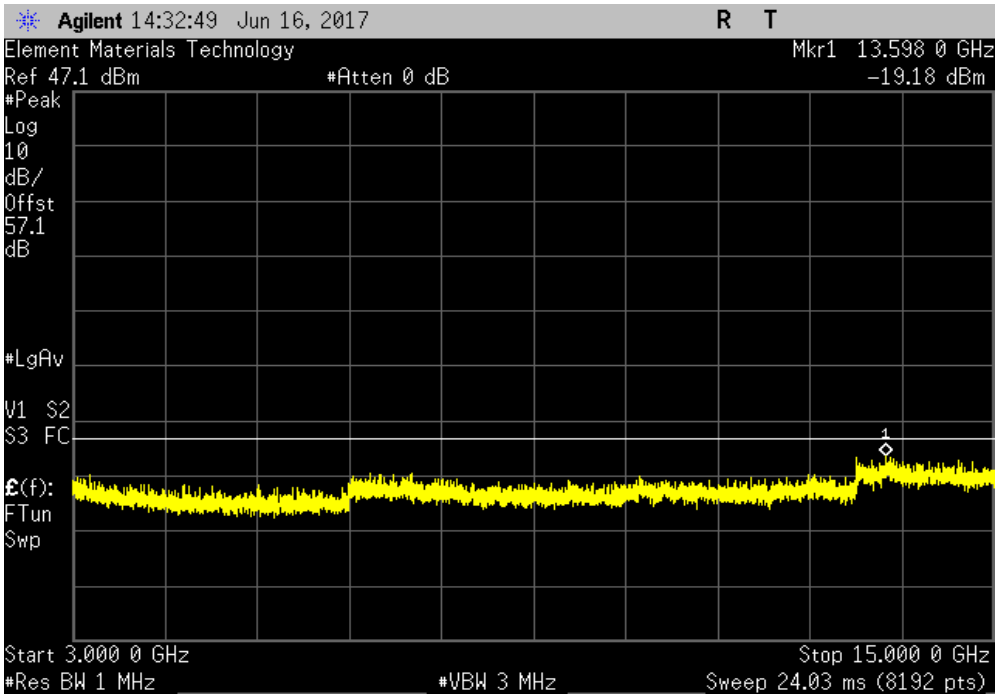
Antenna Port 2, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.42	-16	Pass



Antenna Port 2, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	1 GHz - 3 GHz			-23.67	-16	Pass

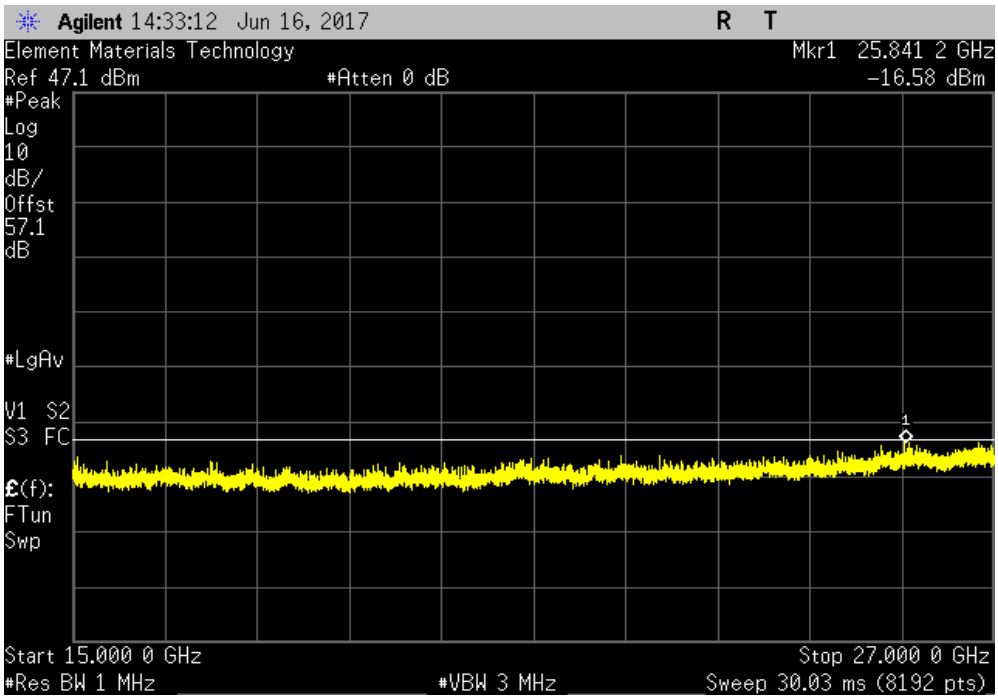


Antenna Port 2, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	3 GHz - 15 GHz			-19.18	-16	Pass

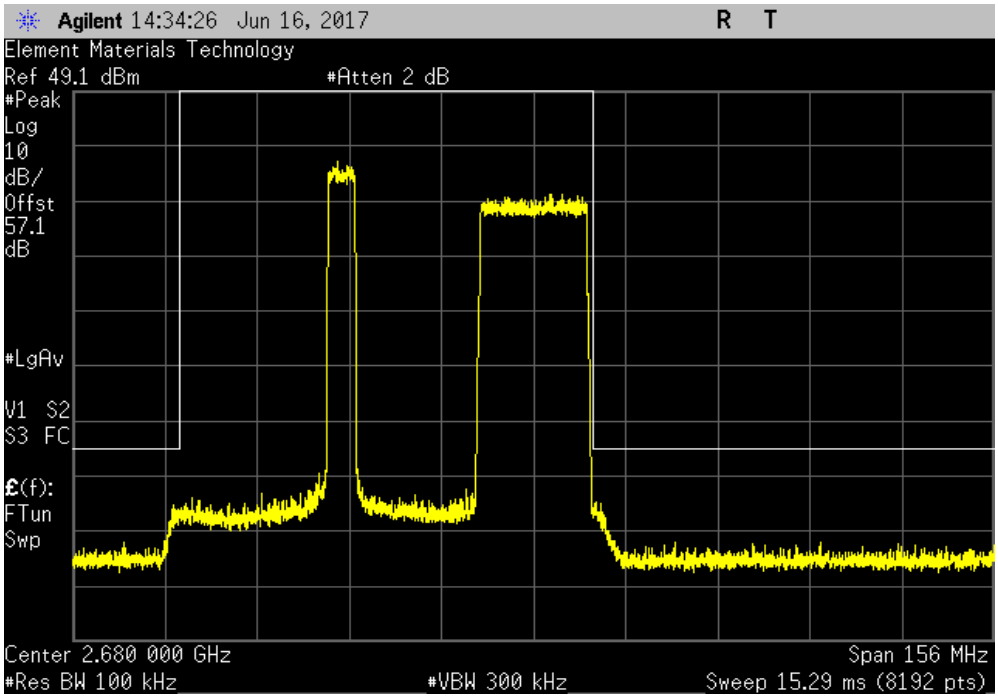


INTERMODULATION

Antenna Port 2, LTE20, 2680 MHz, High Band Edge, adjacent secondary channel				
Frequency Range		**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz		-16.58	-16	Pass

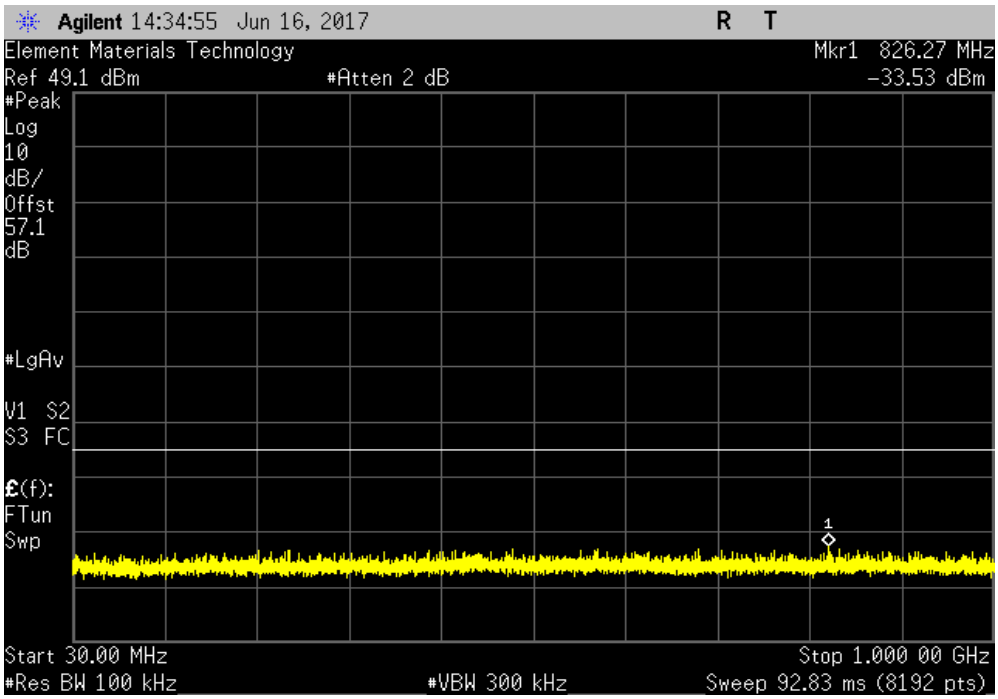


Antenna Port 2, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	Fundamental			N/A	N/A	N/A

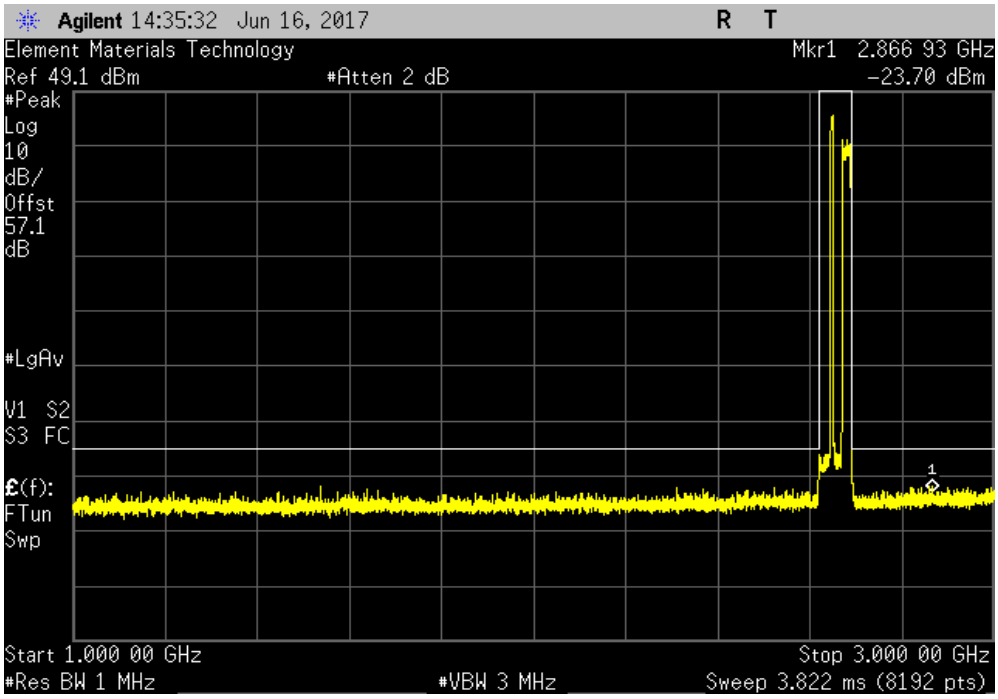


INTERMODULATION

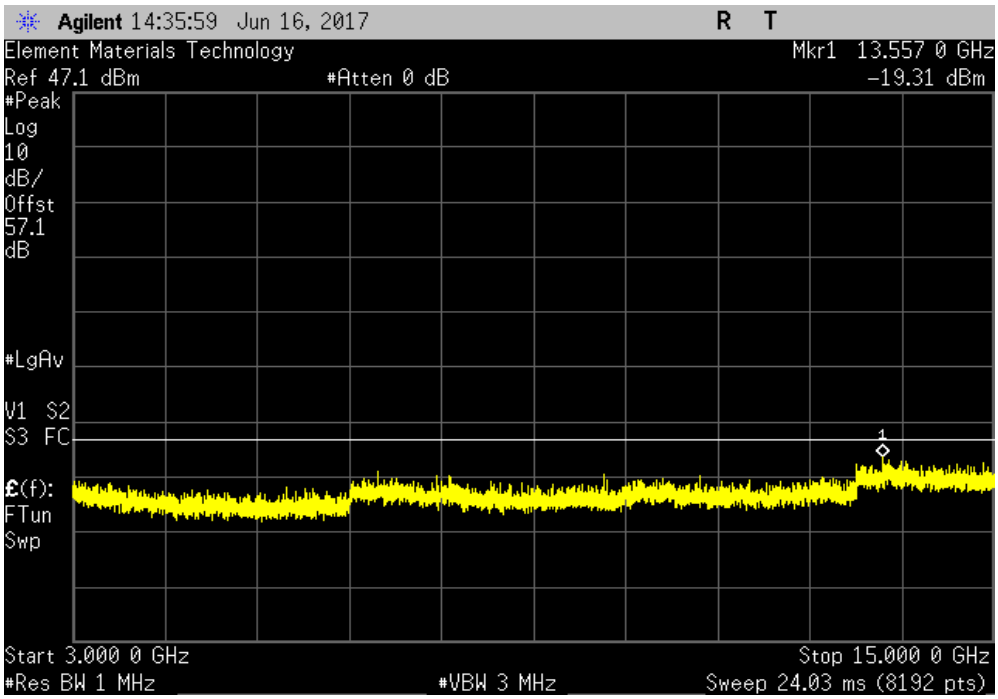
Antenna Port 2, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	30 MHz - 1 GHz			-33.53	-16	Pass



Antenna Port 2, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
	1 GHz - 3 GHz			-23.7	-16	Pass



Antenna Port 2, LTE20, 2680 MHz, High Band Edge, max offset secondary channel						
	Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
	3 GHz - 15 GHz			-19.31	-16	Pass



Antenna Port 2, LTE20, 2680 MHz, High Band Edge, max offset secondary channel					
Frequency Range			**Max Value (dBm)**	**Limit ≤ (dBm)**	**Result**
15 GHz - 27 GHz			-16.91	-16	Pass