CommScope

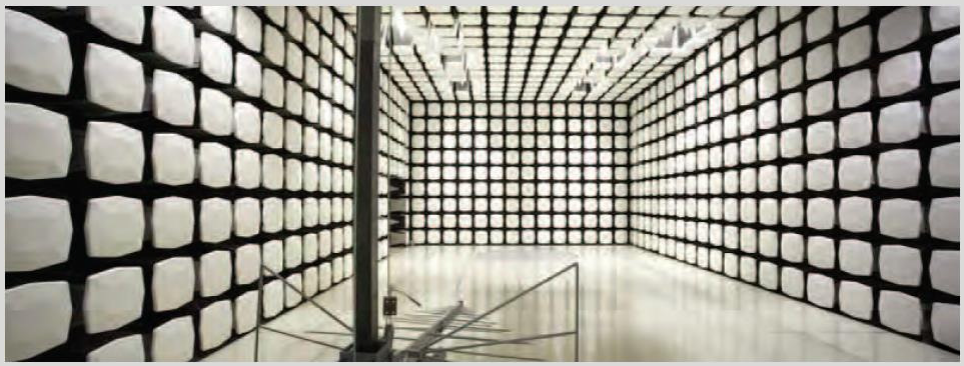
Prism 1900/2100AWS3 Dual HDM 20 Watt

FCC 24E:2018

FCC 27:2018

20W Dual SISO Cellular RF Repeater/Industrial Booster

Report # TECO0048



NVLAP Lab Code: 200881-0

CERTIFICATE OF TEST

Last Date of Test: February 20, 2018
CommScope
Model: Prism 1900/2100AWS3 Dual HDM 20 Watt

Radio Equipment Testing

Standards

Specification	Method
FCC 24E:2018	ANSI/TIA/EIA-603-D-2010 ANSI C63.26:2015
FCC 27:2018	
FCC 2:2018	

Results

Method Clause	Test Description	Applied	Results	Comments
2.2.1	Equivalent Isotropic Radiated Power (EIRP) (1900)	Yes	Pass	
2.2.1	Peak To Average Ratio (1900)	Yes	Pass	
2.2.3	Emissions Bandwidth (1900)	Yes	Pass	
2.2.13	Spurious Conducted Emissions (1900)	Yes	Pass	
2.2.13	Band Edge Compliance (1900)	Yes	Pass	
2.2.13	Band Edge Compliance (2100)	Yes	Pass	
2.2.13	Intermodulation (1900)	Yes	Pass	
2.2.2	Frequency Stability (1900)	Yes	Pass	
2.2.12	Spurious Radiated Emissions (1900)	Yes	Pass	
2.1046	Equivalent Isotropic Radiated Power (EIRP) (2100)	Yes	Pass	
2.1051	Spurious Conducted Emissions (2100)	Yes	Pass	
2.1051	Intermodulation (2100)	Yes	Pass	
2.1055	Frequency Stability (2100)	Yes	Pass	
2.1049	Emissions Bandwidth (2100)	Yes	Pass	
2.1053	Spurious Radiated Emissions (2100)	Yes	Pass	
2.1053	Peak to Average Ratio (2100)	Yes	Pass	

Deviations From Test Standards

None

Approved By:

Matt Nuernberg, 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

2018.2.20

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

MSIT / 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.

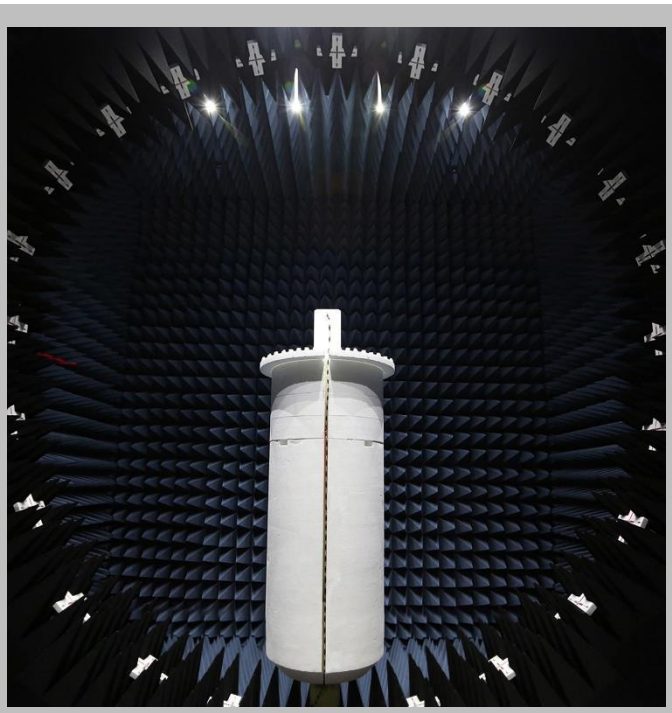
The following table represents the Measurement Uncertainty (MU) budgets for each of the tests that may be contained in this report.

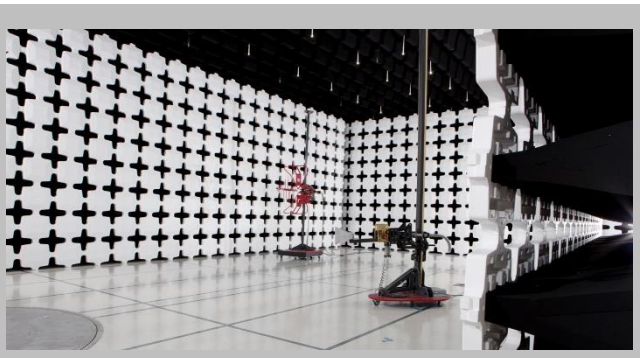
Test	+ MU	- MU
Frequency Accuracy (Hz)	0.0007%	-0.0007%
Amplitude Accuracy (dB)	1.2 dB	-1.2 dB
Conducted Power (dB)	0.3 dB	-0.3 dB
Radiated Power via Substitution (dB)	0.7 dB	-0.7 dB
Temperature (degrees C)	0.7°C	-0.7°C
Humidity (% RH)	2.5% RH	-2.5% RH
Voltage (AC)	1.0%	-1.0%
Voltage (DC)	0.7%	-0.7%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

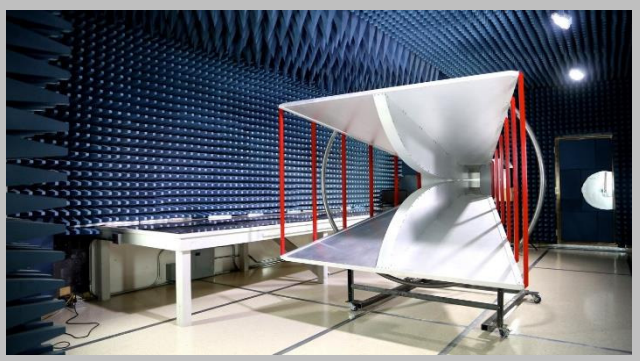
FACILITIES

2017.9.15

California	Minnesota	New York	Oregon	Texas	Washington
Labs OC01-17 41 Tesla Irvine, CA 92618 (949) 861-8918	Labs MN01-10 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 6775 NE Evergreen Pkwy #400 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, 2834E-3	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

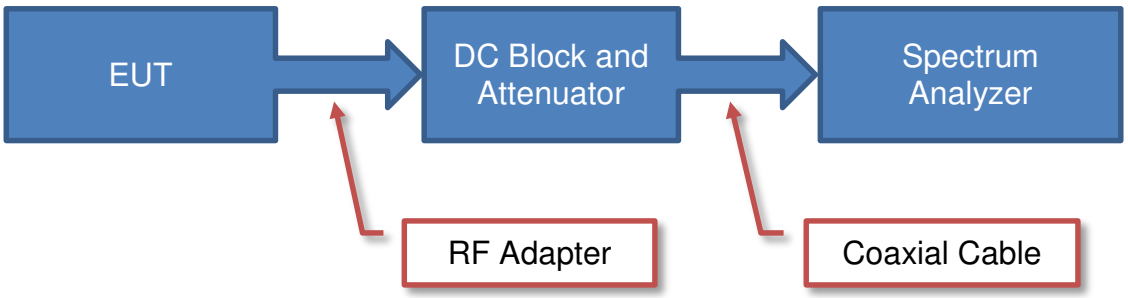




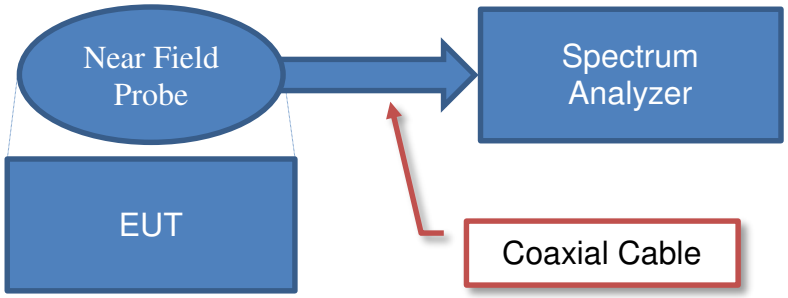


Test Setup Block Diagrams

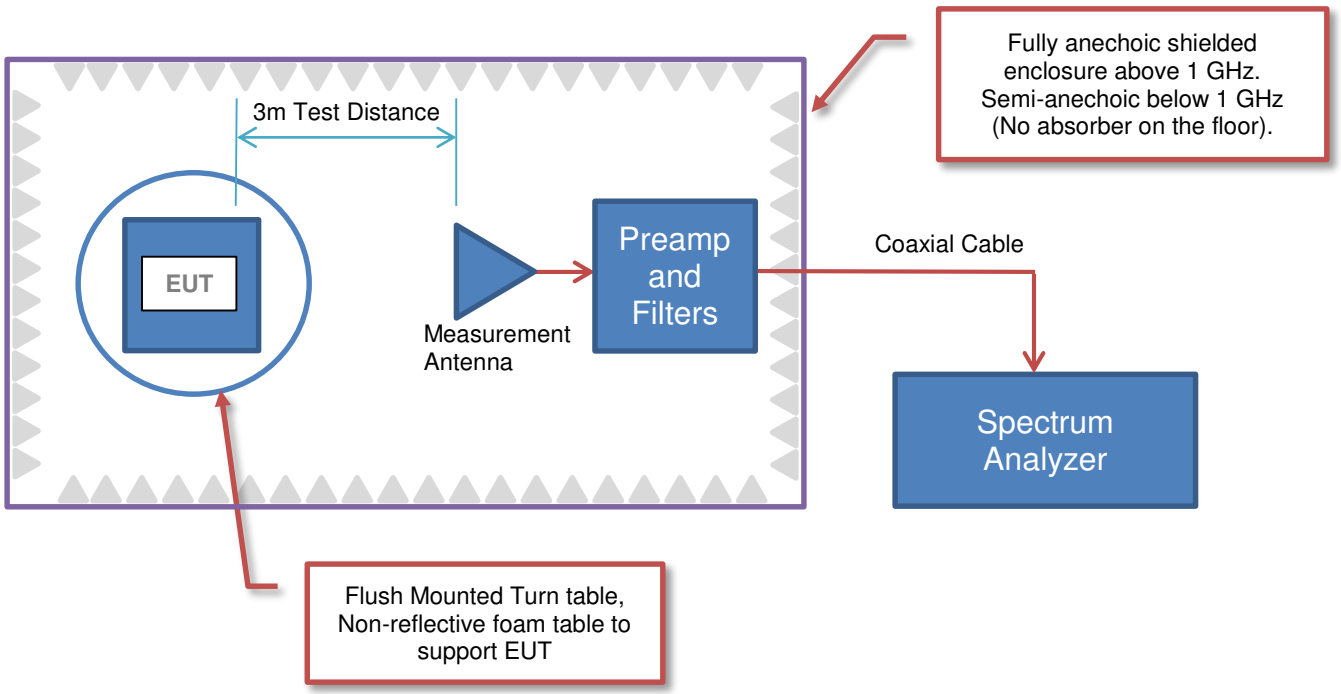
Antenna Port Conducted Measurements



Near Field Test Fixture Measurements



Spurious Radiated Emissions



PRODUCT DESCRIPTION

Client and Equipment Under Test (EUT) Information

Company Name:	CommScope
Address:	501 Shenandoah Drive
City, State, Zip:	Shakopee, MN 55379
Test Requested By:	Joshua Wittman
Model:	Prism 1900/2100AWS3 Dual HDM 20 Watt
First Date of Test:	April 9, 2014
Last Date of Test:	February 20, 2018
Receipt Date of Samples:	April 9, 2014
Equipment Design Stage:	Production
Equipment Condition:	No Damage
Purchase Authorization:	Verified

Information Provided by the Party Requesting the Test

Functional Description of the EUT:

HDM 1900 PCS/2100 AWS3 Cellular RF Repeater/Industrial Booster

Testing Objective:

To demonstrate compliance of the Cellular repeater requirements of FCC Parts 24 & 27

Client Provided Information:

RF module FWP-84MTZ4MMOD evaluated in this test report includes previously FCC certified hardware for the 1900 Band portion of the DUT. This hardware is identical as the 1900 Band hardware tested in the following NWEMC/Element projects:

- TECO0013 - Prism HDM 800/1900
- TECO0017 – Prism 1900/2100 MHz RF Module
- TECO0042 – AWS3 MIMO RF Module

Since the 1900 Band hardware is identical, the conducted measurement data in these projects was used in the FCC evaluation for FWP-84MTZ4MMOD.

CONFIGURATIONS

2017-1-25

Configuration TECO0013- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Prism 1900/2100AWS3 Dual HDM 20 Watt	TE Connectivity / ADC Telecommunications	FWP-441T841MOD	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
RF Signal Generator	Aeroflex	IFR 3413	341006/252
Power Supply	Mean Well	SE-600-48	EB11101765
IO Control Device	TE Connectivity / ADC Telecommunications	SVT-GU-1011	None
30 dB attenuator	Aeroflex	57-30-43	RA434
RF Signal Generator	Aeroflex	IFR 3413	341006/056
30 dB attenuator	Aeroflex	86-30-12 DC -22 GHz	369
Laptop	Lenovo	T500	L3-AFD7K 09/04
Laptop Supply	Lenovo	42T4418	11S42T4418Z1ZGWG19659N

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Power	No	> 3m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	AC Mains
Fiber	No	> 3m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	IO Control Device
RF	Yes	0.8m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	30 dB attenuator
RF	Yes	1.8m	No	IO Control Device	RF Signal Generator
AC Power x2	No	1.8m	No	RF Signal Generator	AC Mains
AC Power	No	1.8m	No	Power Supply	AC Mains
DC Power	No	2.8m	Yes	IO Control Device	Power Supply
AC Power	No	1.8m	No	Laptop Supply	AC Mains
DC Power	No	1.8m	Yes	Laptop	Laptop Supply
Ethernet	No	1.5m	No	Laptop	IO Control Device
RF	Yes	0.8m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	30 dB attenuator
RF	Yes	0.9m	No	IO Control Device	RF Signal Generator
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATIONS

Configuration TECO0017- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Prism 1900/2100AWS3 Dual HDM 20 Watt	TE Connectivitiy / ADC Telecommunications	FWP-84MTA4MMOD	None

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Signal Generator	Tektronix	Aeroflex IFR 3413	341006/252
Laptop	Dell	Latitude D630	34562243089
IO Control Device	TE Connectivitiy / ADC Telecommunications	SVT-GU-1011	MIN-1301041310-002
Laptop AC Adapter	Dell	PA-1900-02D	CN-09T215-55R-0526
DC Power Supply	Mean Well	SE-600-48	EB11101765
30 dB Attenuator 1	Aeroflex / Weinschel	57-30-43	RA434
30 dB Attenuator 2	Aeroflex / Weinschel	40-0052	N/A

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
Fiber Optic Cable	No	>3m	No	IO Control Device	Prism
AC Power Cable (Laptop)	No	85cm	No	AC Mains	Laptop AC Adapter
DC Power Cable (Laptop)	No	1.8m	No	Laptop AC Adapter	Laptop
Ethernet Cable	No	160cm	No	Laptop	IO Control Device
AC Power Cable (DC Power Supply)	No	225cm	No	AC Mains	DC Power Supply
AC Power Cable (Signal Generator)	No	180cm	No	AC Mains	Signal Generator
DC Power Cable	No	290cm	No	DC Power Supply	IO Control Device
Coaxial Cable	Yes	150cm	No	Signal Generator	IO Control Device
AC Power Cable (Prism)	No	500cm	No	Prism	AC Mains
Coaxial Cable	Yes	0.8m	No	Prism	30 dB Attenuator 1
Coaxial Cable	Yes	0.9m	No	Prism	30 dB Attenuator 2
PA = Cable is permanently attached to the device. Shielding and/or presence of ferrite may be unknown.					

CONFIGURATIONS

Configuration TECO0042- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Prism 1900/2100AWS3 Dual HDM 20 Watt	CommScope	7761388-00-11	459644002

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Attenuator 1	Inmet Corporation	2N75W-30-296	None
Attenuator 2	Aeroflex / Weinschel	57-30-43	QY541

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Signal Generator 1	Aeroflex	IFR 3413	341007/003
Signal Generator 2	Aeroflex	IFR 3413	341006/056
48V DC Power Supply	TDK-Lambda	SWS300A-48	3LR-140Y11-0106HO411
Laptop	Lenovo	T510	431436U
Power Supply (Laptop)	Lenovo	92P1156	11S92P1156Z1ZDXN8A81AZ
I/O Control Device	CommScope/ADC Telecommunications	1673542-21	MR222P8C

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable (Laptop)	No	1.8m	No	AC Mains	Power Supply (Laptop)
DC Power Cable (Laptop)	No	1.8m	Yes	Power Supply (Laptop)	Laptop
DC Power Cable (I/O Control Device)	No	2.8m	Yes	48V DC Power Supply	I/O Control Device
Fiber Optic Cable	No	>3.0m	No	I/O Control Device	Prism 1900/2100AWS3 Dual HDM 20 Watt
AC Mains Cable (AWS3 Dual RF Module)	No	5.0m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	AC Mains
Output Cable 1	No	1.5m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	Attenuator 1
Output Cable 2	No	0.9m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	Attenuator 2
Ethernet Cable	No	1.0m	No	I/O Control Device	Laptop
Coaxial Cable 1	No	1.8m	No	Signal Generator 1	I/O Control Device
Coaxial Cable 2	No	1.8m	No	Signal Generator 2	I/O Control Device
AC Mains Cable (Signal Generator 1)	No	1.8m	No	Signal Generator 1	AC Mains
AC Mains Cable (Signal Generator 2)	No	1.8m	No	Signal Generator 2	AC Mains

CONFIGURATIONS

Configuration TECO0042- 2

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Prism 1900/2100AWS3 Dual HDM 20 Watt	CommScope	7761388-00-11	459644002

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Attenuator 1	Inmet Corporation	2N75W-30-296	None
Attenuator 2	Aeroflex	48-30-34	RCU

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Signal Generator 1	Aeroflex	IFR 3413	341007/003
Signal Generator 2	Aeroflex	IFR 3413	341006/056
48V DC Power Supply	TDK-Lambda	SWS300A-48	3LR-140Y11-0106HO411
Laptop	Lenovo	T510	431436U
Power Supply (Laptop)	Lenovo	92P1156	11S92P1156Z1ZDXN8A81AZ
I/O Control Device	CommScope/ADC Telecommunications	1673542-21	MR222P8C

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
AC Mains Cable (Laptop)	No	1.8m	No	AC Mains	Power Supply (Laptop)
DC Power Cable (Laptop)	No	1.8m	Yes	Power Supply (Laptop)	Laptop
DC Power Cable (I/O Control Device)	No	2.8m	Yes	48V DC Power Supply	I/O Control Device
Fiber Optic Cable	No	>3.0m	No	I/O Control Device	Prism 1900/2100AWS3 Dual HDM 20 Watt
AC Mains Cable (AWS3 Dual RF Module)	No	5.0m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	AC Mains
Output Cable 1	No	1.5m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	Attenuator 1
Output Cable 2	No	0.9m	No	Prism 1900/2100AWS3 Dual HDM 20 Watt	Attenuator 2
Ethernet Cable	No	1.0m	No	I/O Control Device	Laptop
Coaxial Cable 1	No	1.8m	No	Signal Generator 1	I/O Control Device
Coaxial Cable 2	No	1.8m	No	Signal Generator 2	I/O Control Device
AC Mains Cable (Signal Generator 1)	No	1.8m	No	Signal Generator 1	AC Mains
AC Mains Cable (Signal Generator 2)	No	1.8m	No	Signal Generator 2	AC Mains

CONFIGURATIONS

Configuration TECO0048- 1

EUT			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Prism 1900/2100AWS3 Dual HDM 20 Watt	CommScope Connectivity LLC	7780060-00-11	4608740003

Peripherals in test setup boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Attenuator (1)	Aeroflex	49-30-33	MZ078
Attenuator (2)	Inmet Corp.	75 Watt	2N75W-30-296

Remote Equipment Outside of Test Setup Boundary			
Description	**Manufacturer**	**Model/Part Number**	**Serial Number**
Signal Generator	Aeroflex	IFR 3414	341007/003
Comm Box	ADC	1673542-21	MR222P8C
AC Converter	TDK	SWS300A-48 EHFP	3LR-140Y11-0105H0411
Laptop	Lenovo	SL510	LR-ZZMRO 10/05

Cables					
Cable Type	**Shield**	**Length (m)**	**Ferrite**	**Connection 1**	**Connection 2**
DC Cable (Comm Box)	No	2m	No	Comm Box	AC Converter
AC Cable (EUT)	No	3m	No	EUT	AC Mains
AC Cable (AC Converter)	No	3m	No	AC Converter	AC Mains
AC Cable (Sig Gen)	No	1.5 m	No	Signal Generator	AC Mains
RF Cable	No	1m	No	Signal Generator	Comm Box
RF Cable	No	1m	No	EUT	Attenuator 1
Fiber Cable	No	10m	No	EUT	Comm Box
RF Cable	No	1m	No	EUT	Attenuator 2
Ethernet Cable	No	1m	No	Laptop	Comm Box

MODIFICATIONS

Equipment Modifications

Item	Date	Test	Modification	Note	Disposition of EUT
1	4/9/2014	Emissions Bandwidth	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT was taken home by the client following the test.
2	5/23/2017	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.
3	5/23/2017	Equivalent Isotropic Radiated Power (EIRP)	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	5/24/2017	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.
5	5/24/2017	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.
6	5/24/2017	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.
7	5/24/2017	Spurious Conducted Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	EUT was taken home by the client following the test.
8	2/20/2018	Spurious Radiated Emissions	Tested as delivered to Test Station.	No EMI suppression devices were added or modified during this test.	Scheduled testing was completed.

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)
1900 LTE10

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The Average (RMS) output power was measured with the EUT set to the parameters called out in the data sheets. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Prior to making the measurements the setup, including cables and attenuators were calibrated and added into the reference level offset.

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 1900 LTE10

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0013
Serial Number:	None			Date:	04/09/14
Customer:	TE Connectivity / ADC Telecommunications			Temperature:	24.2°C
Attendees:	None			Humidity:	21%
Project:	None			Barometric Pres.:	1013.5
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

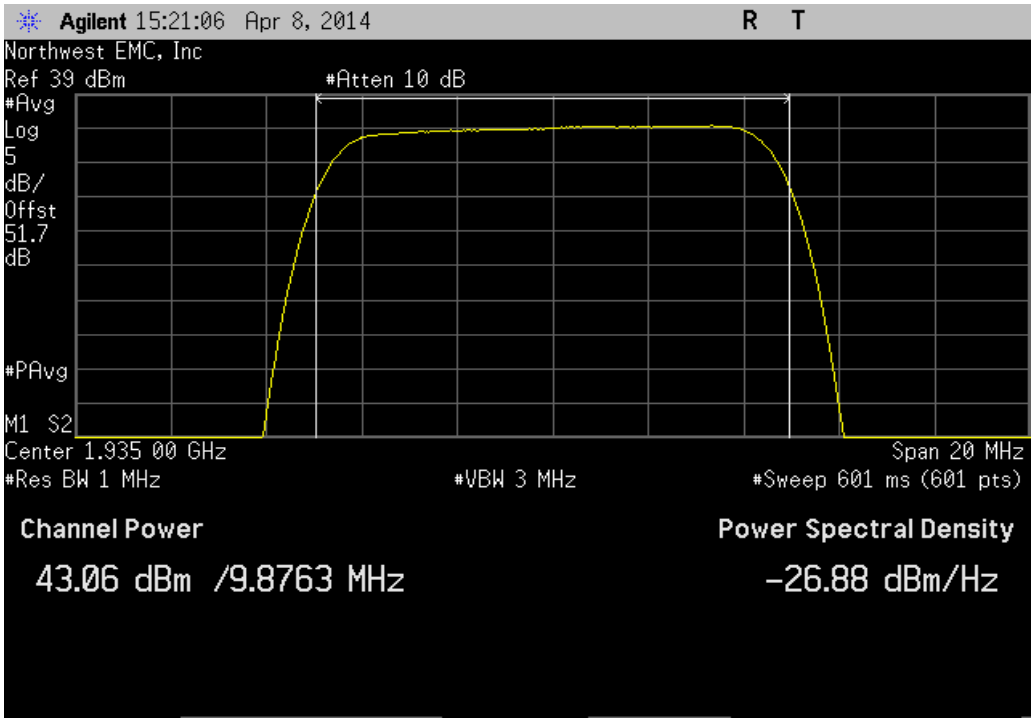
None

Configuration #	1	Signature	Trevor Buls

		Value	Limit	Result
LTE 10 MHz				
	Low Channel 1935 MHz	43.063 dBm	< 1640 W	Pass
	Mid Channel 1962.5 MHz	42.809 dBm	< 1640 W	Pass
	High Channel 1990 MHz	41.772 dBm	< 1640 W	Pass

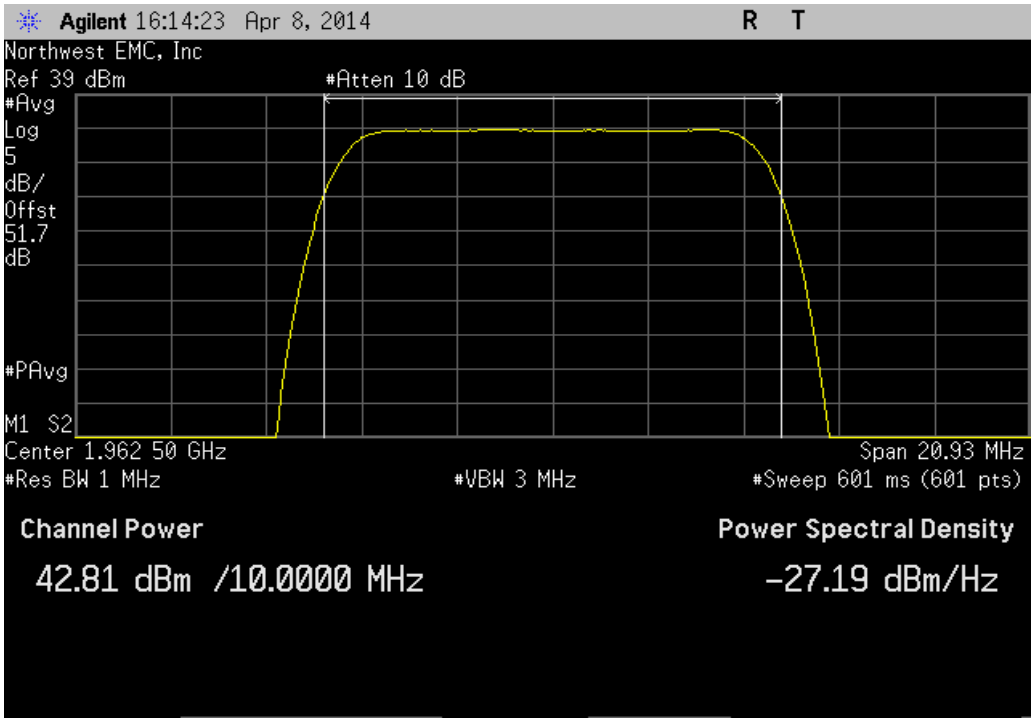
LTE 10 MHz, Low Channel 1935 MHz

				Value	Limit	Result
				43.063 dBm	< 1640 W	Pass

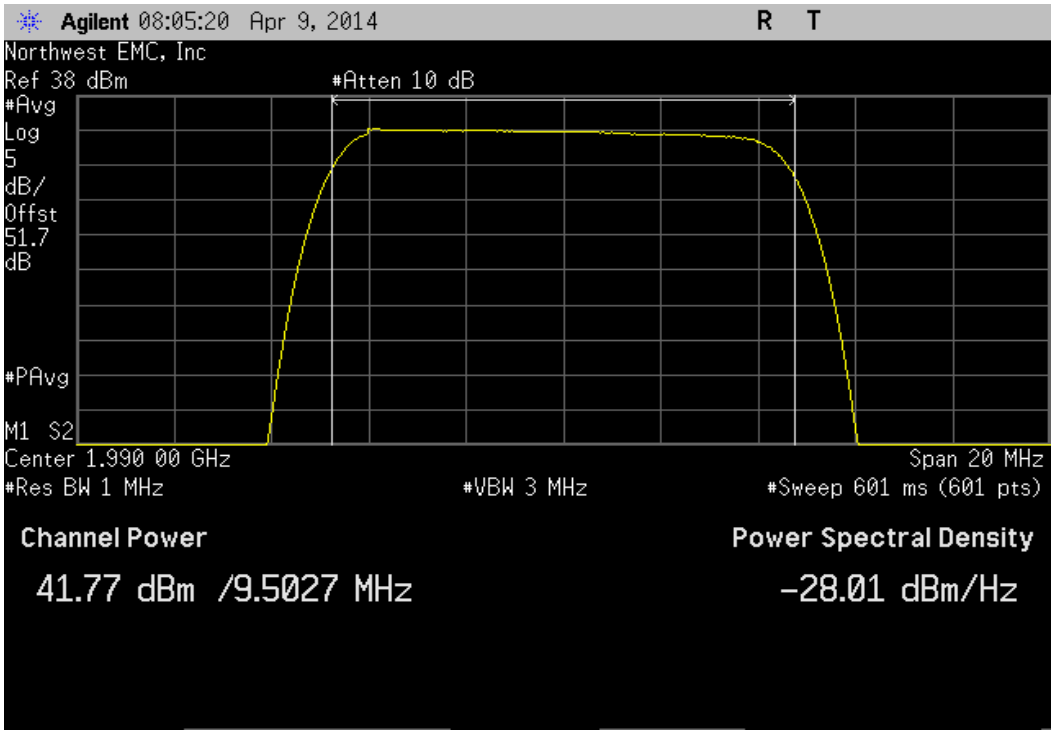


LTE 10 MHz, Mid Channel 1962.5 MHz

				Value	Limit	Result
				42.809 dBm	< 1640 W	Pass



LTE 10 MHz, High Channel 1990 MHz						
				Value	Limit	Result
				41.772 dBm	< 1640 W	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 1900 WCDMA

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

The Average (RMS) output power was measured with the EUT set to the Parameters called out in the data sheets. The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. Prior to making the measurements, the setup, including cables and attenuators were calibrated and added into the reference level offset.

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0017
Serial Number:	None			Date:	07/15/14
Customer:	TE Connectivitiy / ADC Telecommunications			Temperature:	23.1°C
Attendees:	Josh Wittman			Humidity:	45%
Project:	None			Barometric Pres.:	1021.6
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

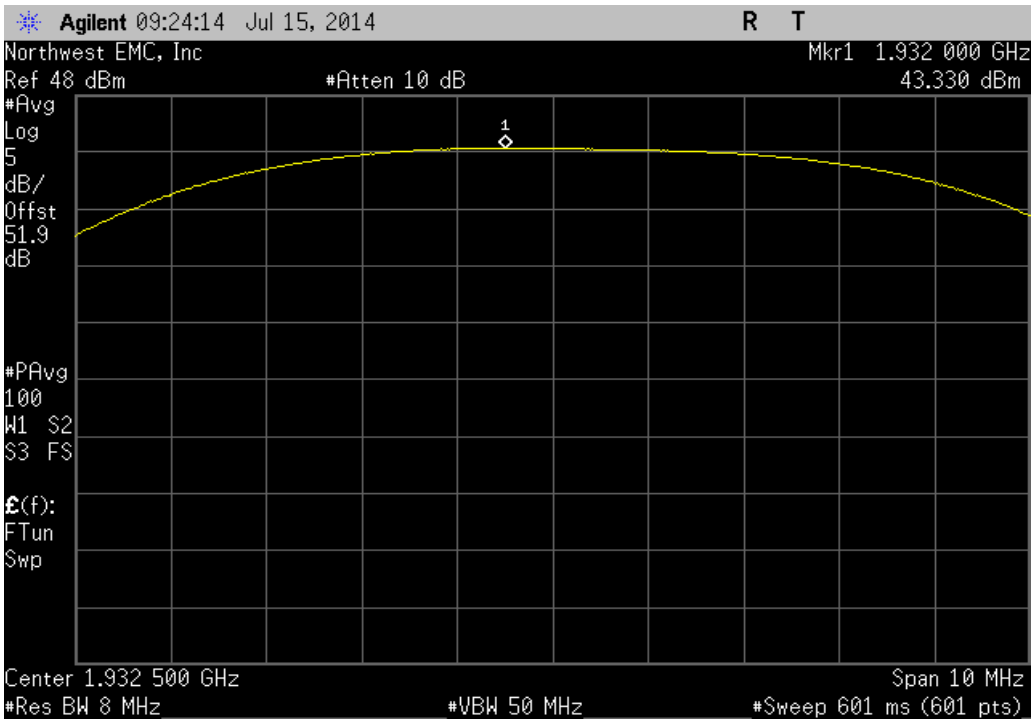
None

Configuration #	1	Signature	Trevor Buls

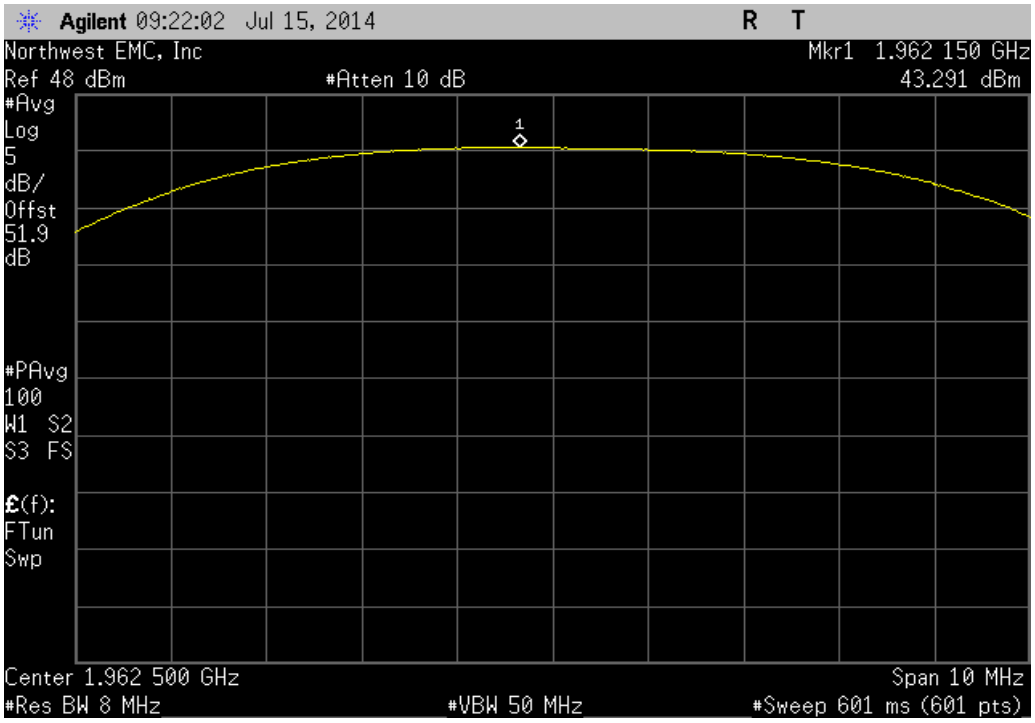
		Value	Limit	Result
WCDMA				
	Low Channel 1932.5 MHz	43.33 dBm	< 1640 W	Pass
	Mid Channel 1962.5 MHz	43.291 dBm	< 1640 W	Pass
	High Channel 1992.5 MHz	43.165 dBm	< 1640 W	Pass

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 1900 WCDMA

WCDMA, Low Channel 1932.5 MHz						
				Value	Limit	Result
				43.33 dBm	< 1640 W	Pass

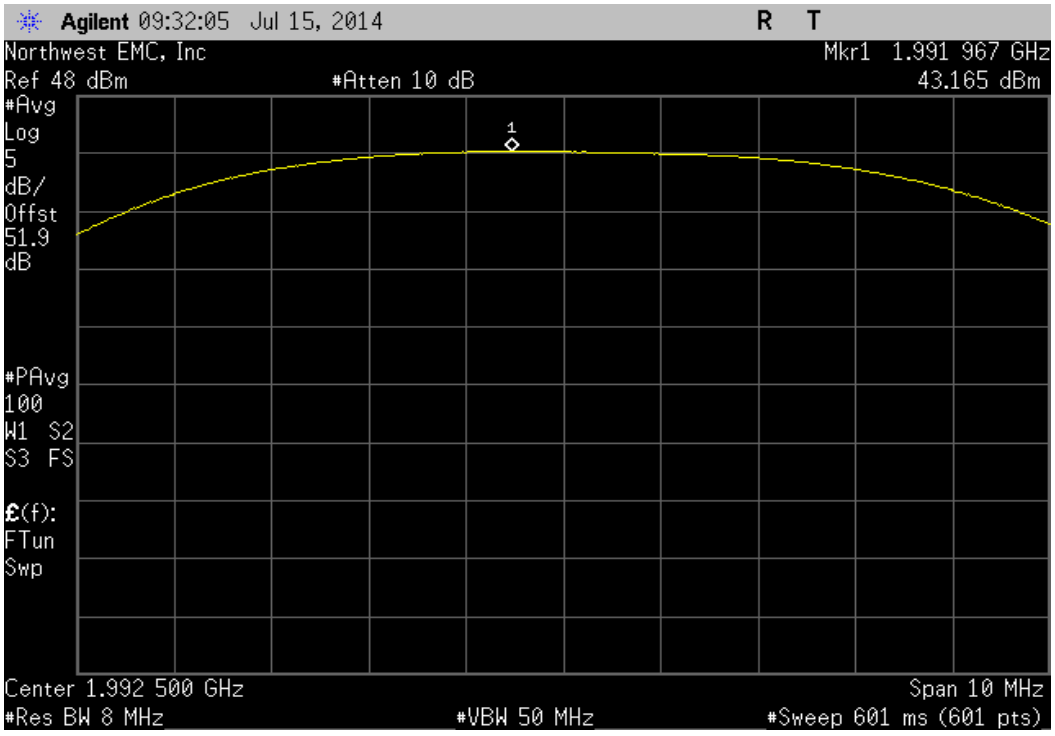


WCDMA, Mid Channel 1962.5 MHz						
				Value	Limit	Result
				43.291 dBm	< 1640 W	Pass



WCDMA, High Channel 1992.5 MHz

				Value	Limit	Result
				43.165 dBm	< 1640 W	Pass



PEAK TO AVERAGE RATIO
1900 LTE

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

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 dBm.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

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 screen captures was calculated:

- 1st Screen Capture: The same procedure and settings as was used for conducted Output Power.
- 2nd Screen Capture: Same as Screen capture 1 except using a peak detector and trace max-hold.

PEAK TO AVERAGE RATIO 1900 LTE

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0013
Serial Number:	None			Date:	04/09/14
Customer:	TE Connectivity / ADC Telecommunications			Temperature:	24.2°C
Attendees:	None			Humidity:	21%
Project:	None			Barometric Pres.:	1013.5
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

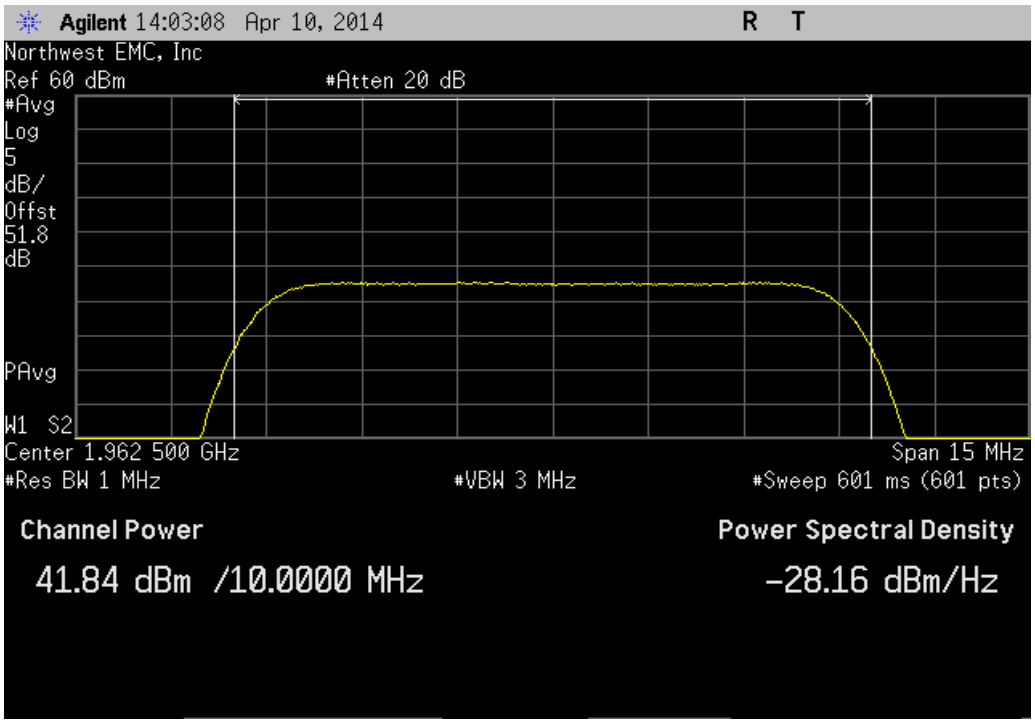
None

Configuration #	1	Signature	Trevor Buls

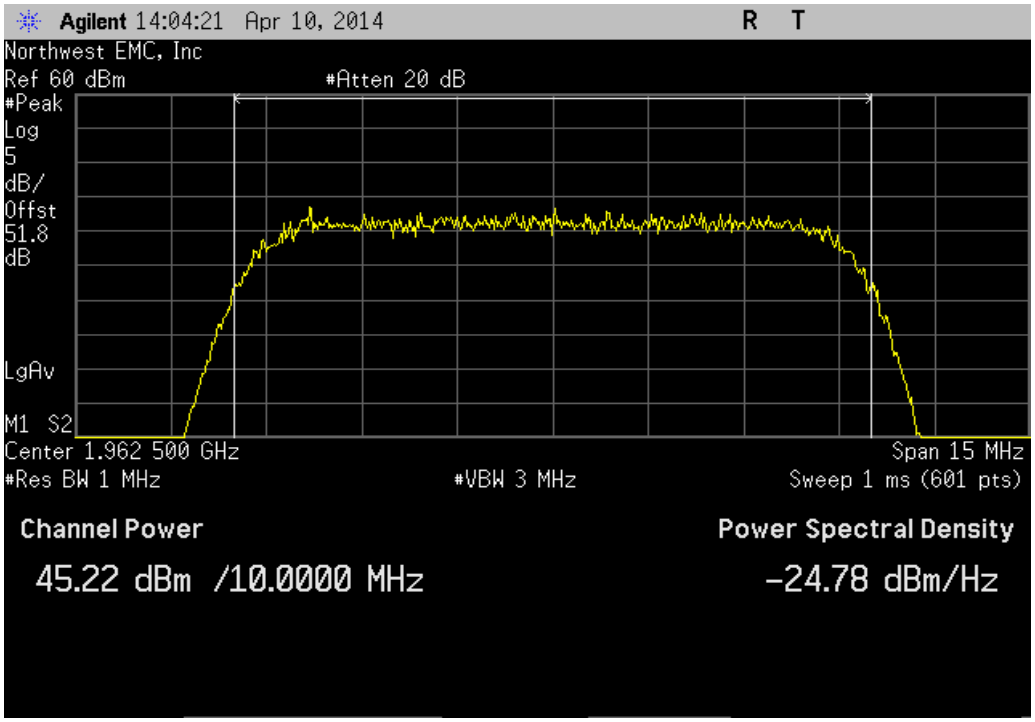
		Average Value (dBm)	Peak Value (dBm)	Delta (dB)	Limit (dB)	Result
LTE 10 MHz						
	Average (RMS)	41.84	N/A	N/A	N/A	N/A
	Peak	N/A	45.22	3.38	13	Pass

PEAK TO AVERAGE RATIO 1900 LTE

LTE 10 MHz, Average (RMS)						
	Average Value (dBm)	Peak Value (dBm)		Delta (dB)	Limit (dB)	Result
	41.84	N/A		N/A	N/A	N/A



LTE 10 MHz, Peak						
	Average Value (dBm)	Peak Value (dBm)		Delta (dB)	Limit (dB)	Result
	N/A	45.22		3.38	13	Pass



PEAK TO AVERAGE RATIO
1900 WCDMA

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

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 dBm.

A direct connection was made between the RF output of the EUT and a spectrum analyzer. Attenuation and a DC block were used. The reference level offset on the spectrum analyzer was adjusted to compensate for cable loss and the external attenuation used between the RF output and the spectrum analyzer input.

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 screen captures was calculated:

- 1st Screen Capture: The same procedure and settings as was used for conducted Output Power.
- 2nd Screen Capture: Same as Screen capture 1 except using a peak detector and trace max-hold.

PEAK TO AVERAGE RATIO 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0017
Serial Number:	None			Date:	07/16/14
Customer:	TE Connectivitiy / ADC Telecommunications			Temperature:	23.3°C
Attendees:	None			Humidity:	43%
Project:	None			Barometric Pres.:	1020.6
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

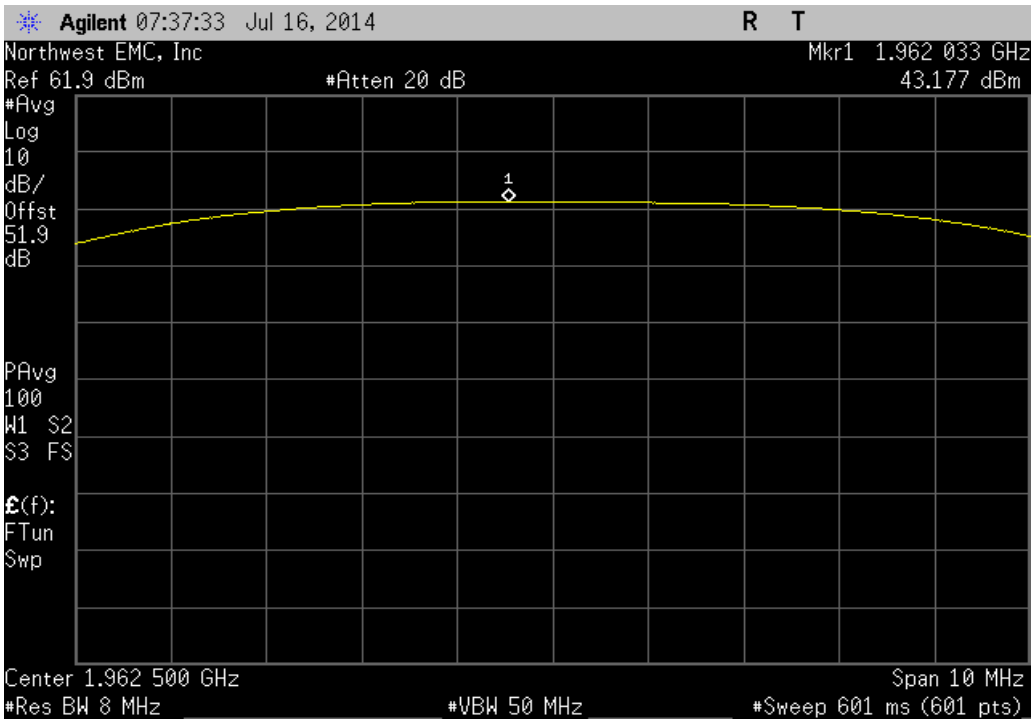
None

Configuration #	1	Signature	Trevor Buls

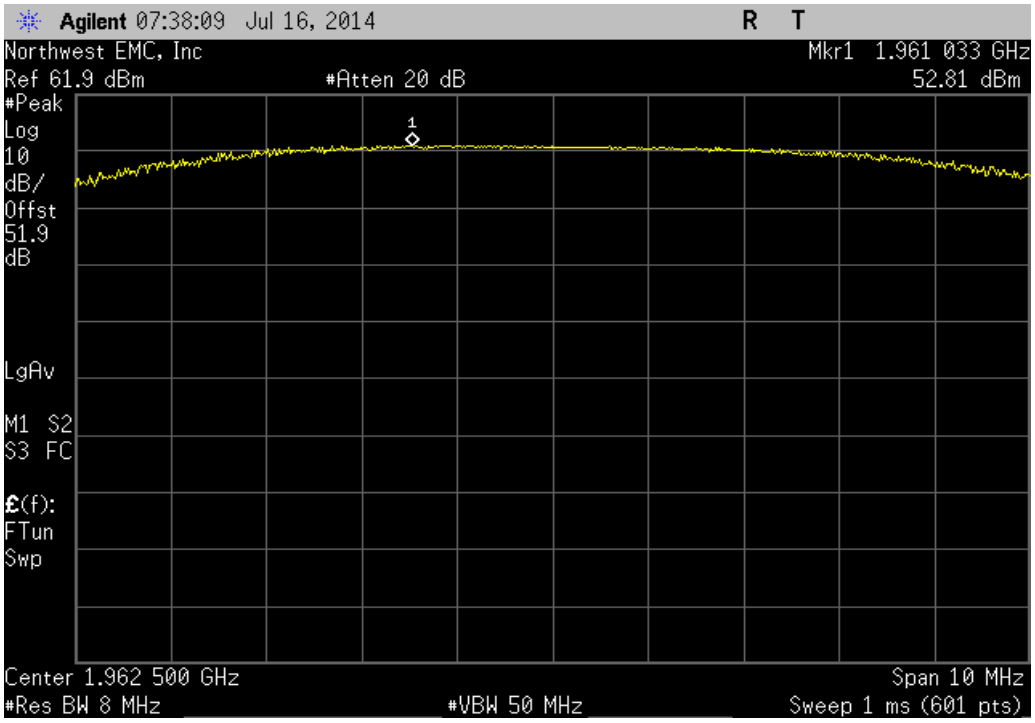
		Average Value (dBm)	Peak Value (dBm)	Delta (dB)	Limit (dB)	Result
WCDMA						
	Average (RMS)	43.177	N/A	N/A	N/A	N/A
	Peak	N/A	52.81	9.6	13	Pass

PEAK TO AVERAGE RATIO 1900 WCDMA

WCDMA, Average (RMS)						
	Average Value (dBm)	Peak Value (dBm)		Delta (dB)	Limit (dB)	Result
	43.177	N/A		N/A	N/A	N/A



WCDMA, Peak						
	Average Value (dBm)	Peak Value (dBm)		Delta (dB)	Limit (dB)	Result
	N/A	52.81		9.6	13	Pass



EMISSIONS BANDWIDTH 1900
LTE10

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The 26 dB occupied bandwidth was measured utilizing the analyzer's peak detector based on the peak output power level measured. A plot was taken to show the occupied bandwidth is contained within the allowable transmit band.

A direct connection was made between the EUT and a spectrum analyzer. The resolution bandwidth was approximately equal to 1% of the 26 dB bandwidth and the video bandwidth was greater than or equal to the resolution bandwidth.

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

EMISSIONS BANDWIDTH 1900 LTE10

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0013
Serial Number:	None			**Date:**	04/09/14
Customer:	TE Connectivity / ADC Telecommunications			**Temperature:**	24.2°C
Attendees:	None			**Humidity:**	21%
Project:	None			**Barometric Pres.:**	1013.5
Tested by:	Trevor Buls	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

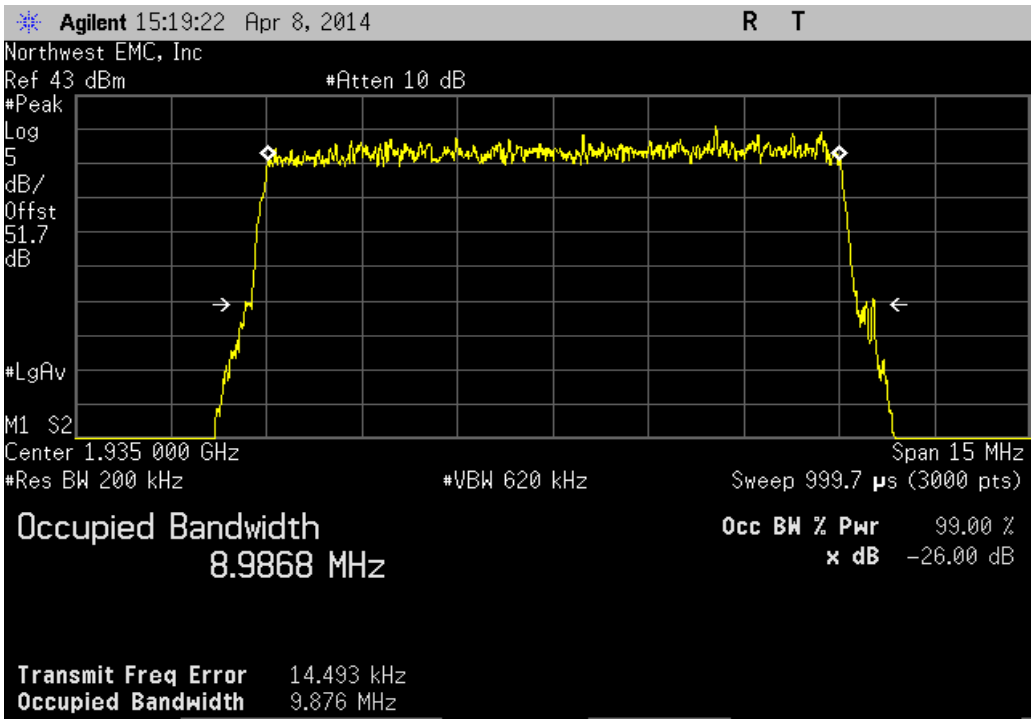
None

Configuration #	1	Signature	Trevor Buls

		Value	Limit	Result
LTE 10 MHz				
	Low Channel 1935 MHz	9.876 MHz	N/A	N/A
	Mid Channel 1962.5 MHz	9.557 MHz	N/A	N/A
	High Channel 1990 MHz	9.503 MHz	N/A	N/A
Input Signal - LTE 10 MHz				
	Mid Channel 1962.5 MHz	9.466 MHz	N/A	N/A

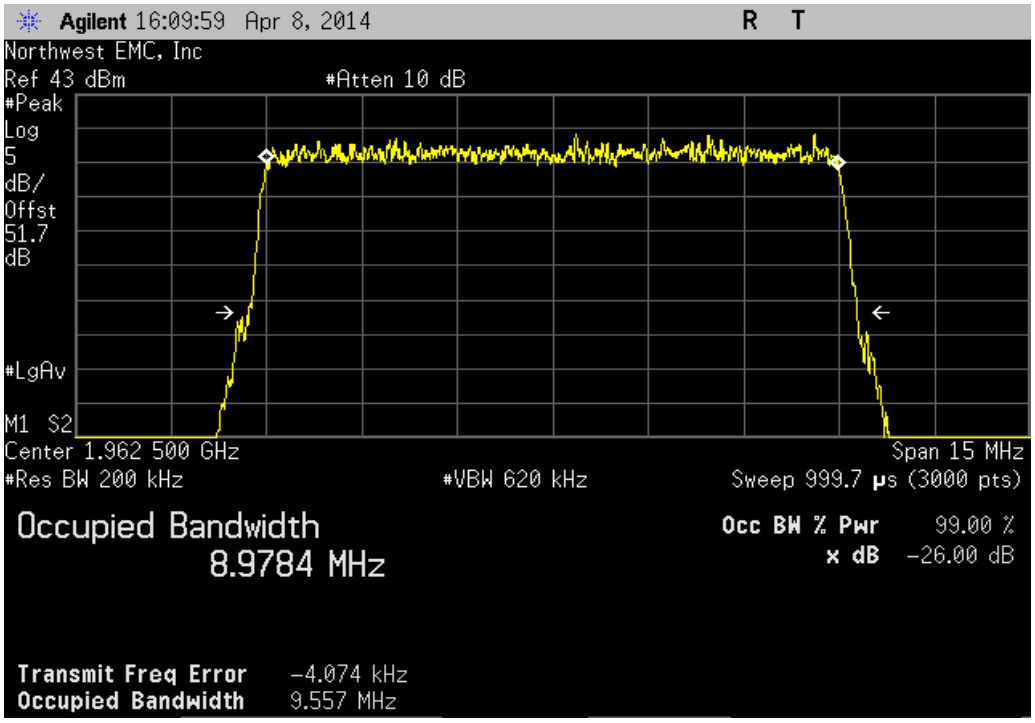
LTE 10 MHz, Low Channel 1935 MHz

				Value	Limit	Result
				9.876 MHz	N/A	N/A



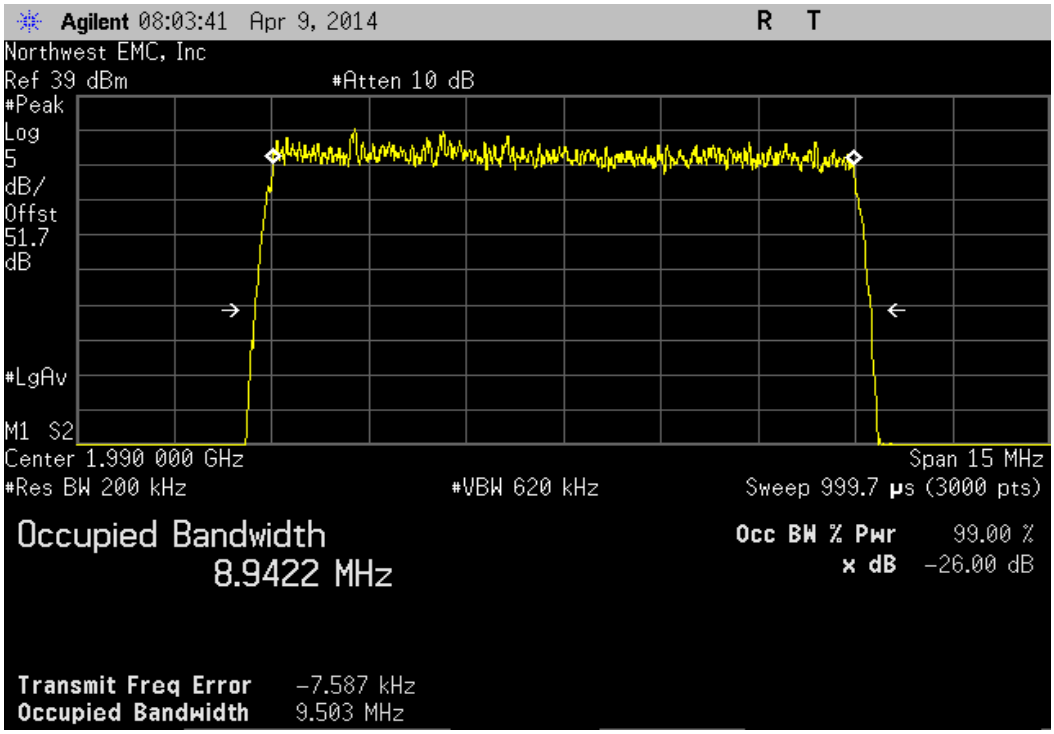
LTE 10 MHz, Mid Channel 1962.5 MHz

				Value	Limit	Result
				9.557 MHz	N/A	N/A

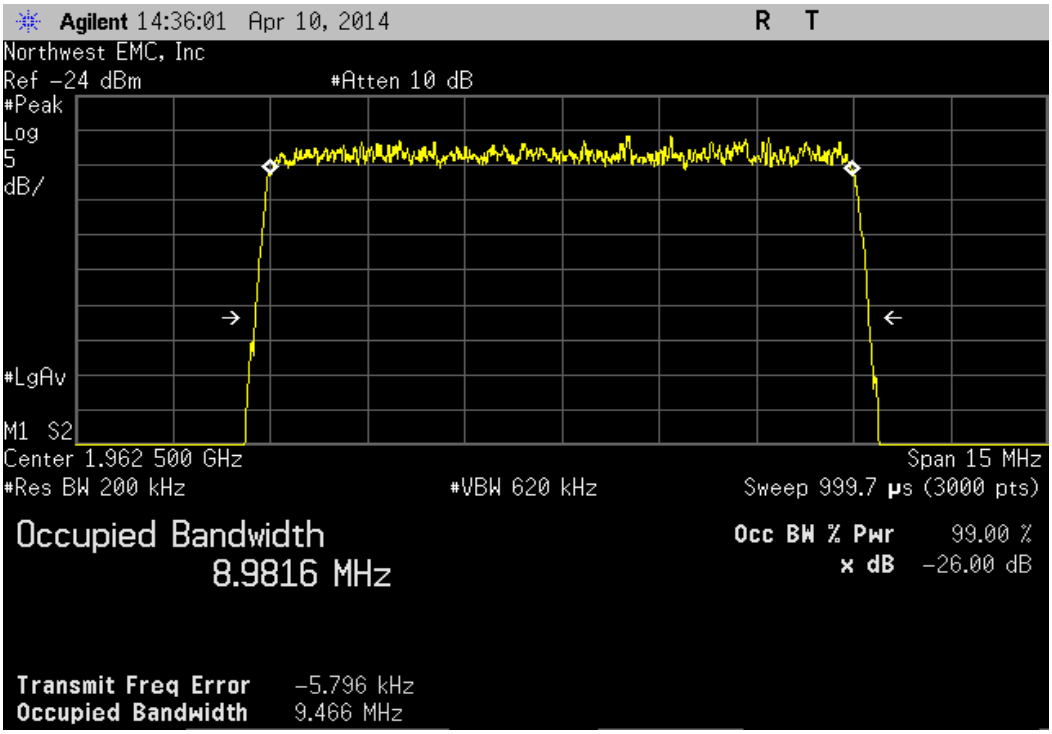


LTE 10 MHz, High Channel 1990 MHz

				Value	Limit	Result
				9.503 MHz	N/A	N/A



Input LTE 10 MHz, Mid Channel 1962.5 MHz						
				Value	Limit	Result
				9.466 MHz	N/A	N/A



EMISSIONS BANDWIDTH 1900
WCDMA

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

The occupied bandwidth was measured utilizing the analyzer's peak detector and measuring the carrier's 26 dB occupied bandwidth based on the peak output power level measured. A plot was taken to show the occupied bandwidth is contained within the allowable transmit band.

A direct connection was made between the EUT and a spectrum analyzer. The resolution bandwidth was approximately equal to 1% of the 26dB bandwidth and the video bandwidth was greater than or equal to the resolution bandwidth.

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

EMISSIONS BANDWIDTH 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0017
Serial Number:	None			**Date:**	07/15/14
Customer:	TE Connectivitiy / ADC Telecommunications			**Temperature:**	23.1°C
Attendees:	Josh Wittman			**Humidity:**	45%
Project:	None			**Barometric Pres.:**	1021.6
Tested by:	Trevor Buls	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. Both antenna ports were terminated but only one port is active

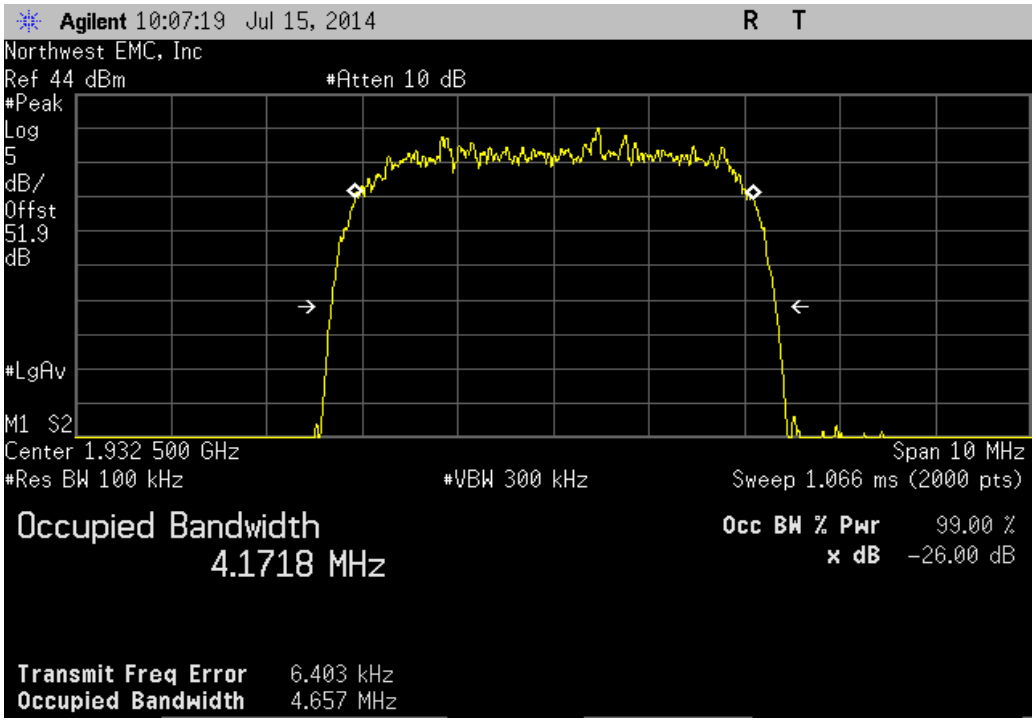
DEVIATIONS FROM TEST STANDARD

None

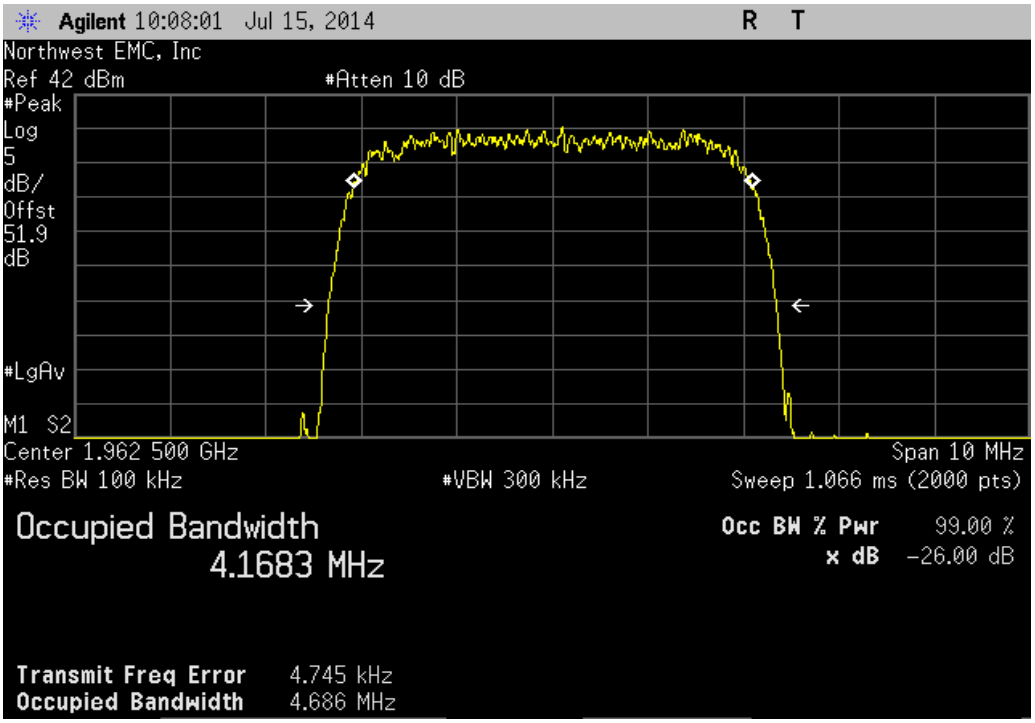
Configuration #	1	Signature	Trevor Buls

		Value	Limit	Result
WCDMA				
	Low Channel 1932.5 MHz	4.657 MHz	N/A	N/A
	Mid Channel 1962.5 MHz	4.686 MHz	N/A	N/A
	High Channel 1992.5 MHz	4.66 MHz	N/A	N/A
WCDMA Input Signal				
	Mid Channel 1962.5 MHz	4.683 MHz	N/A	N/A

WCDMA, Low Channel 1932.5 MHz						
				Value	Limit	Result
				4.657 MHz	N/A	N/A

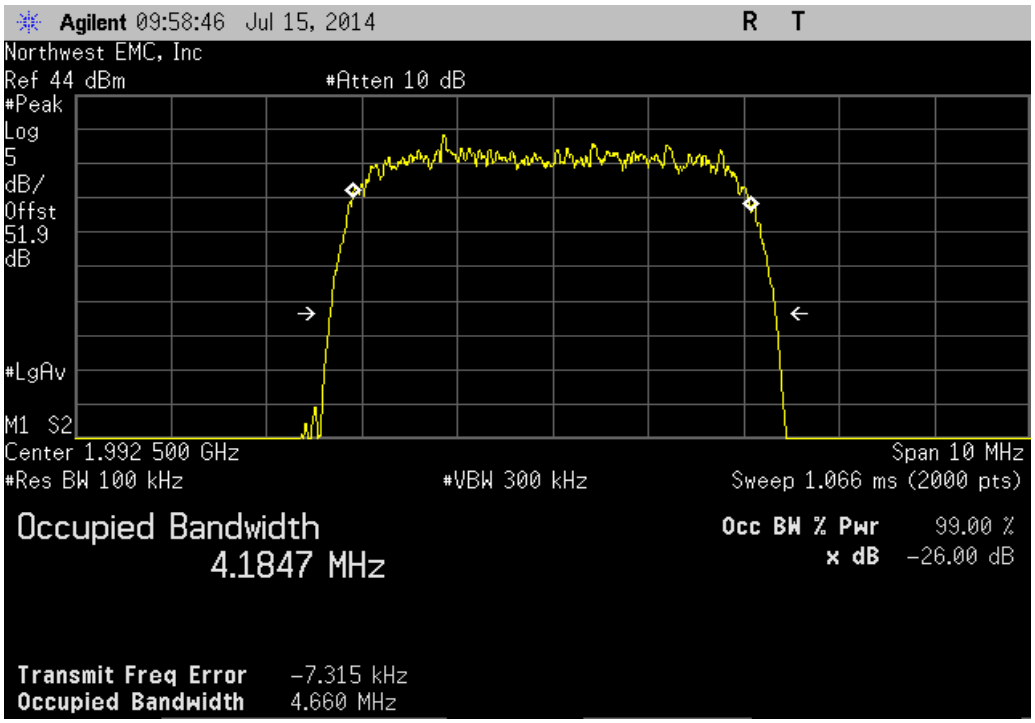


WCDMA, Mid Channel 1962.5 MHz						
				Value	Limit	Result
				4.686 MHz	N/A	N/A



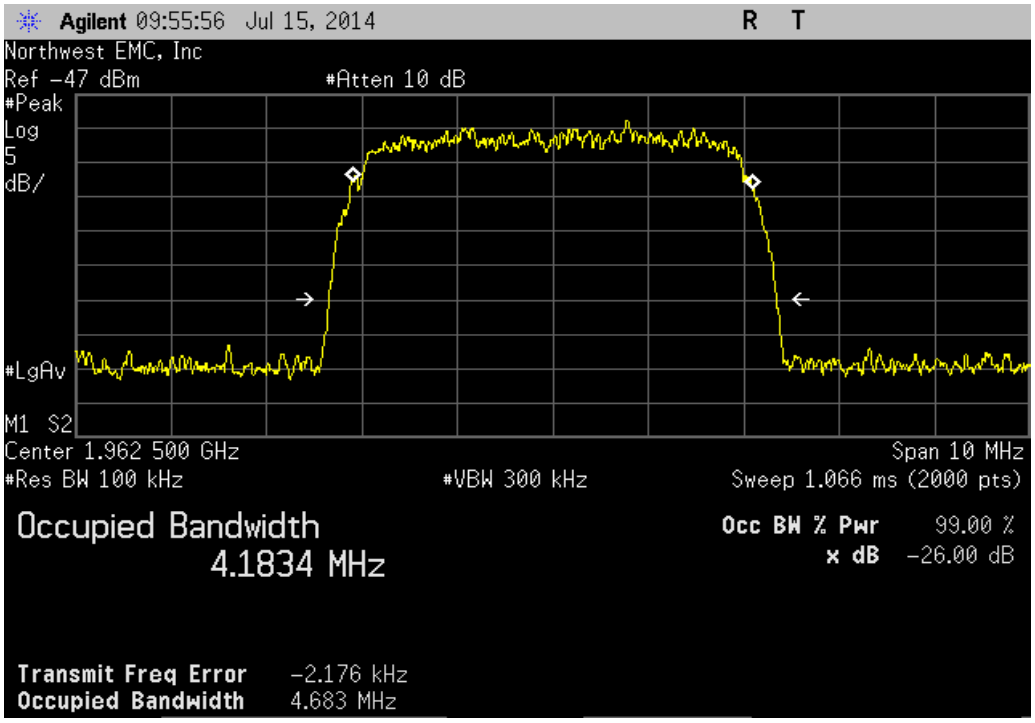
WCDMA, High Channel 1992.5 MHz

				Value	Limit	Result
				4.66 MHz	N/A	N/A



WCDMA Input Signal, Mid Channel 1962.5 MHz

				Value	Limit	Result
				4.683 MHz	N/A	N/A



SPURIOUS CONDUCTED EMISSIONS 1900 LTE10

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.	Interval
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	HGV	10/5/2012	24
High Pass Filter 2.8 GHz	Micro-Tronics	HPM50111	HGY	10/5/2012	24
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The antenna port spurious emissions were measured at the RF output terminal of the EUT with external attenuation on the RF input of the spectrum analyzer. Analyzer plots utilizing a 1 MHz resolution bandwidth and no video filtering were made for each modulation type from 30 MHz to 9 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to –13 dBm.

SPURIOUS CONDUCTED EMISSIONS 1900 LTE10

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0013
Serial Number:	None			**Date:**	04/11/14
Customer:	TE Connectivity / ADC Telecommunications			**Temperature:**	25°C
Attendees:	None			**Humidity:**	25%
Project:	None			**Barometric Pres.:**	1017.2
Tested by:	Trevor Buls	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

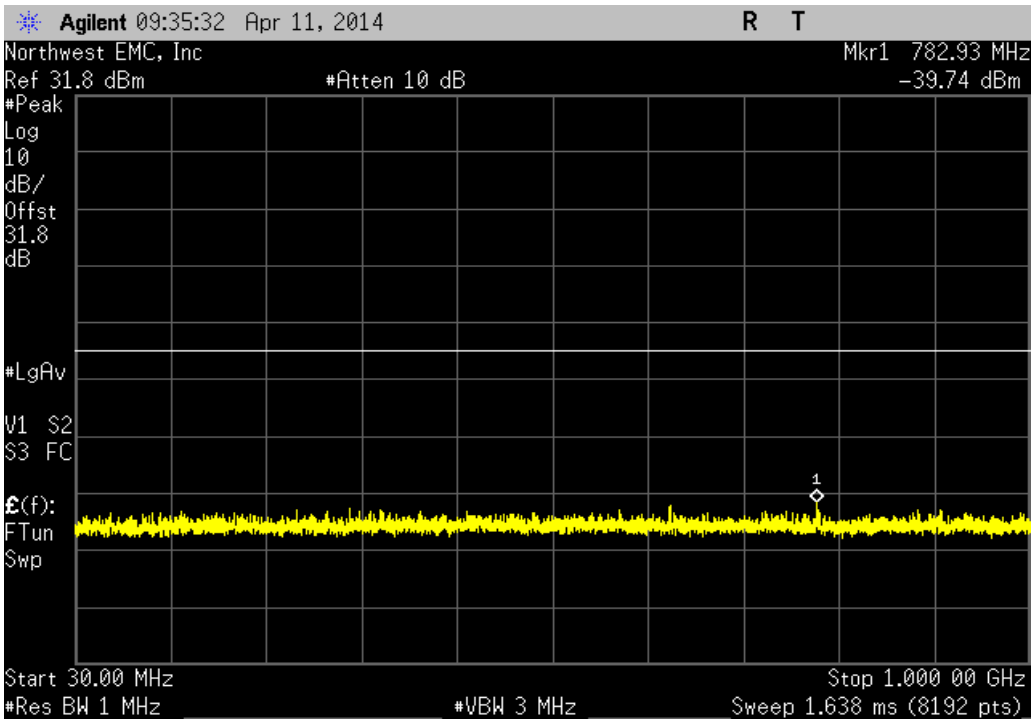
DEVIATIONS FROM TEST STANDARD

None

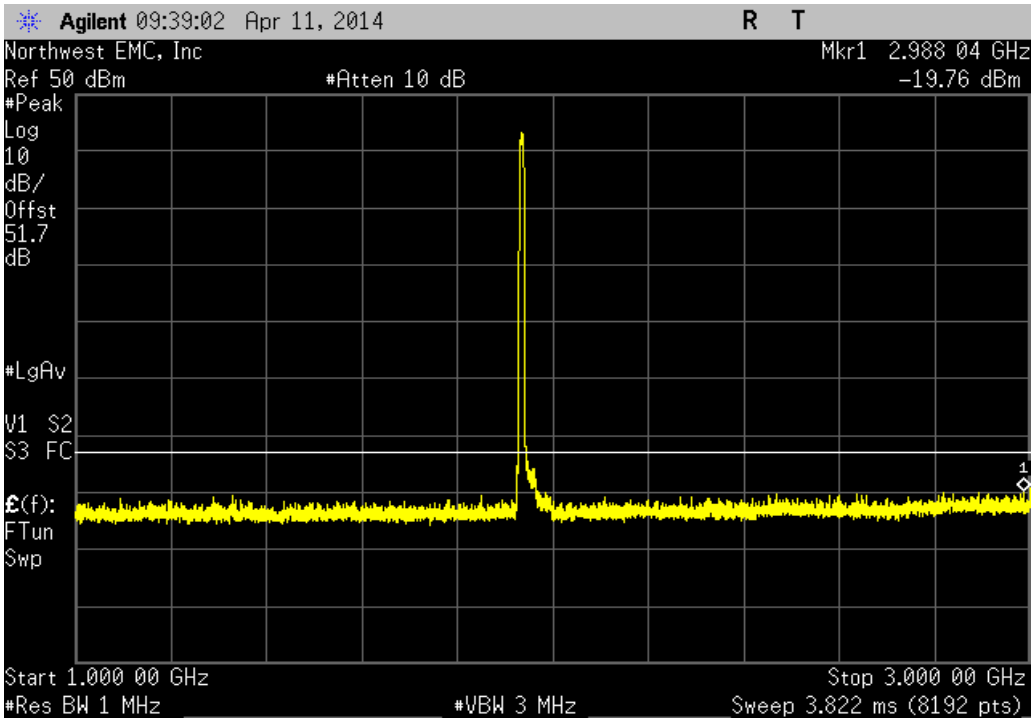
Configuration #	1	Signature	Trevor Buls

		Frequency Range	Value	Limit	Result
LTE 10 MHz					
	Mid Channel 1962.5 MHz	30 MHz - 1 GHz	-39.74 dBm	≤ -13 dBm	Pass
	Mid Channel 1962.5 MHz	1 GHz - 3 GHz	-19.76 dBm	≤ -13 dBm	Pass
	Mid Channel 1962.5 MHz	3 GHz - 20 GHz	-29.45 dBm	≤ -13 dBm	Pass
	Low Channel 1935 MHz	30 MHz - 1 GHz	-39.88 dBm	≤ -13 dBm	Pass
	Low Channel 1935 MHz	1 GHz - 3 GHz	-19.51 dBm	≤ -13 dBm	Pass
	Low Channel 1935 MHz	3 GHz - 20 GHz	-29.2 dBm	≤ -13 dBm	Pass
	High Channel 1990 MHz	30 MHz - 1 GHz	-40.24 dBm	≤ -13 dBm	Pass
	High Channel 1990 MHz	1 GHz - 3 GHz	-20.45 dBm	≤ -13 dBm	Pass
	High Channel 1990 MHz	3 GHz - 20 GHz	-29.52 dBm	≤ -13 dBm	Pass

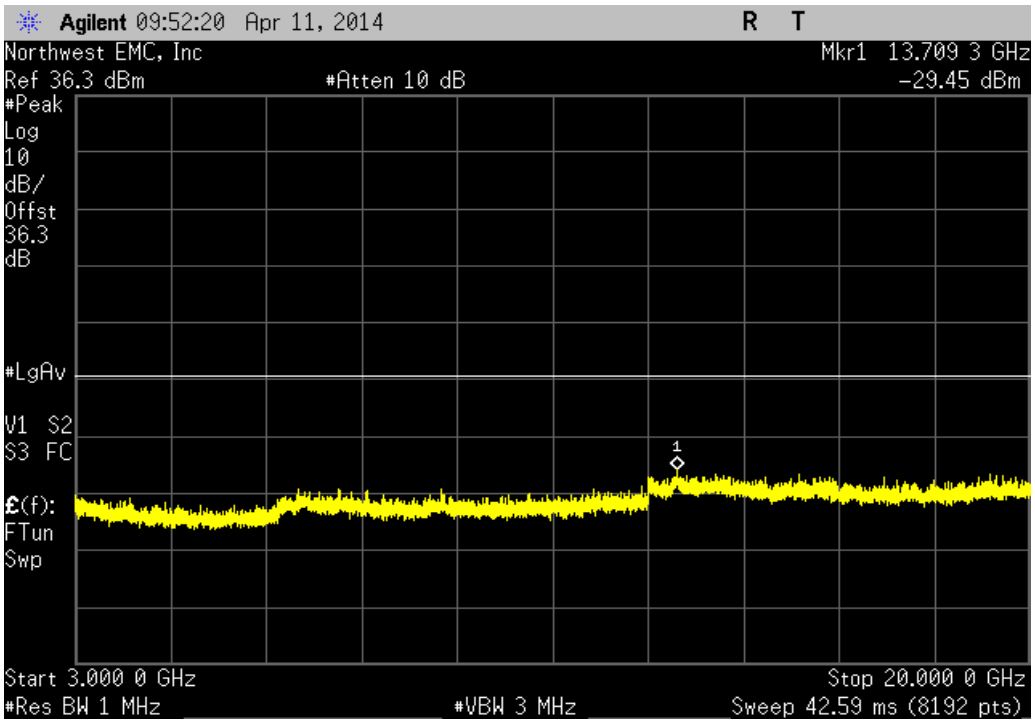
LTE 10 MHz, Mid Channel 1962.5 MHz						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-39.74 dBm	≤ -13 dBm	Pass



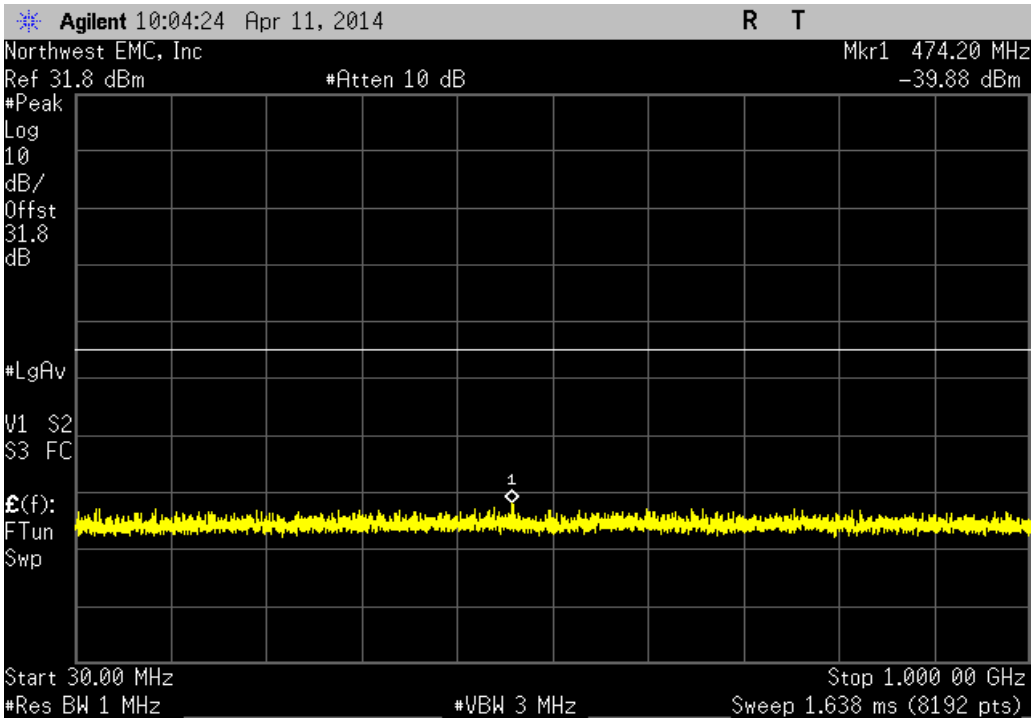
LTE 10 MHz, Mid Channel 1962.5 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.76 dBm	≤ -13 dBm	Pass



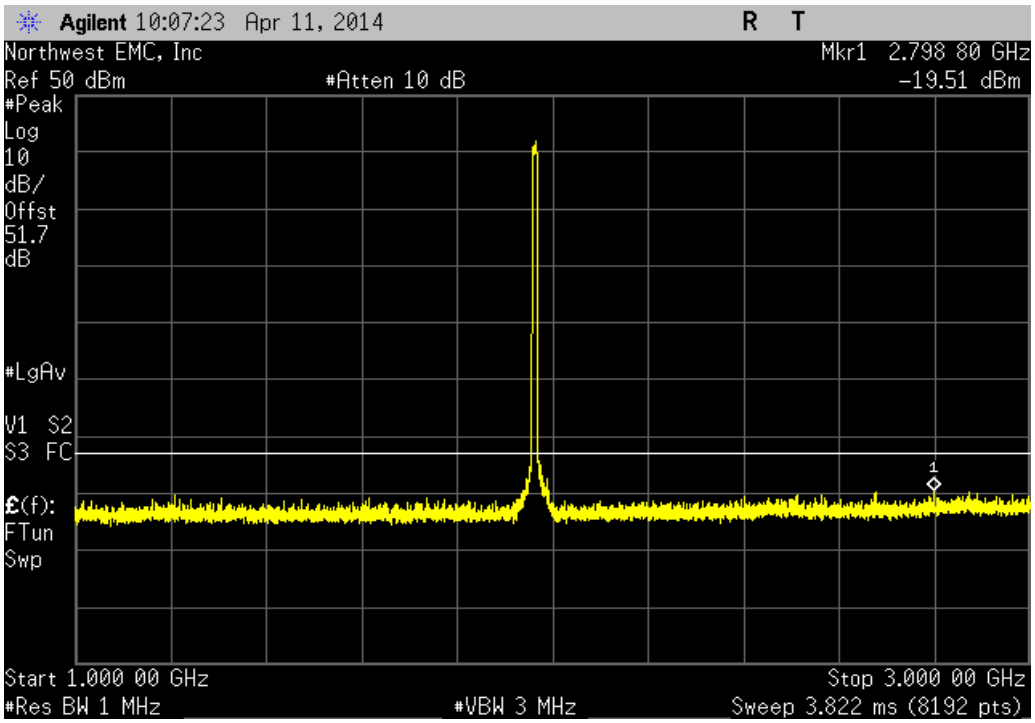
LTE 10 MHz, Mid Channel 1962.5 MHz					
Frequency Range			Value	Limit	Result
3 GHz - 20 GHz			-29.45 dBm	≤ -13 dBm	Pass



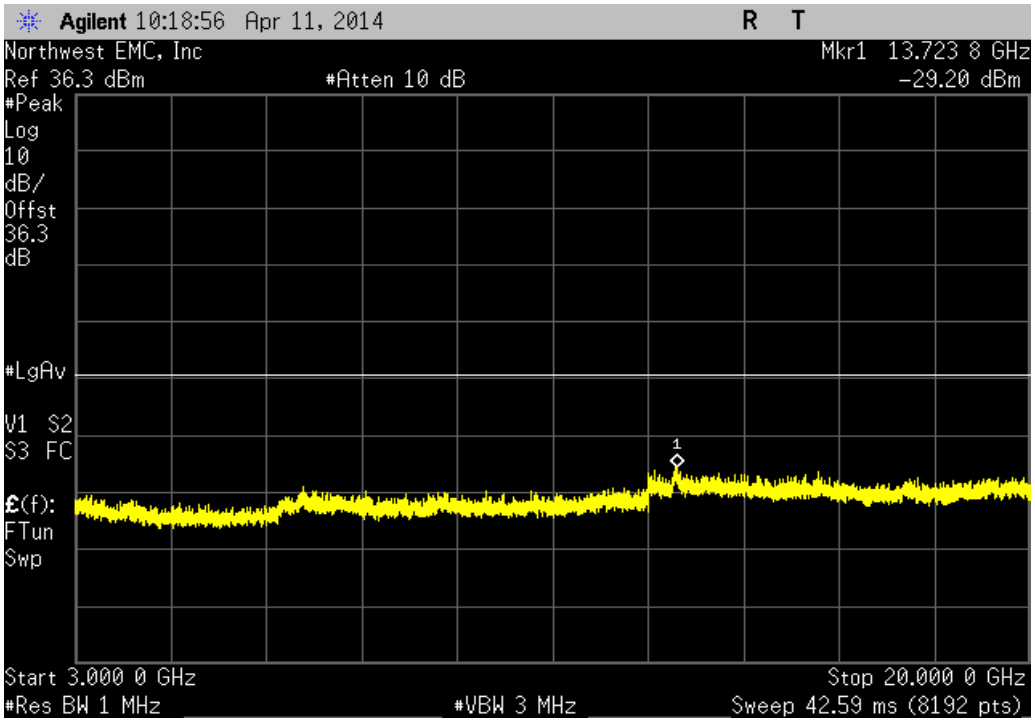
LTE 10 MHz, Low Channel 1935 MHz					
Frequency Range			Value	Limit	Result
30 MHz - 1 GHz			-39.88 dBm	≤ -13 dBm	Pass



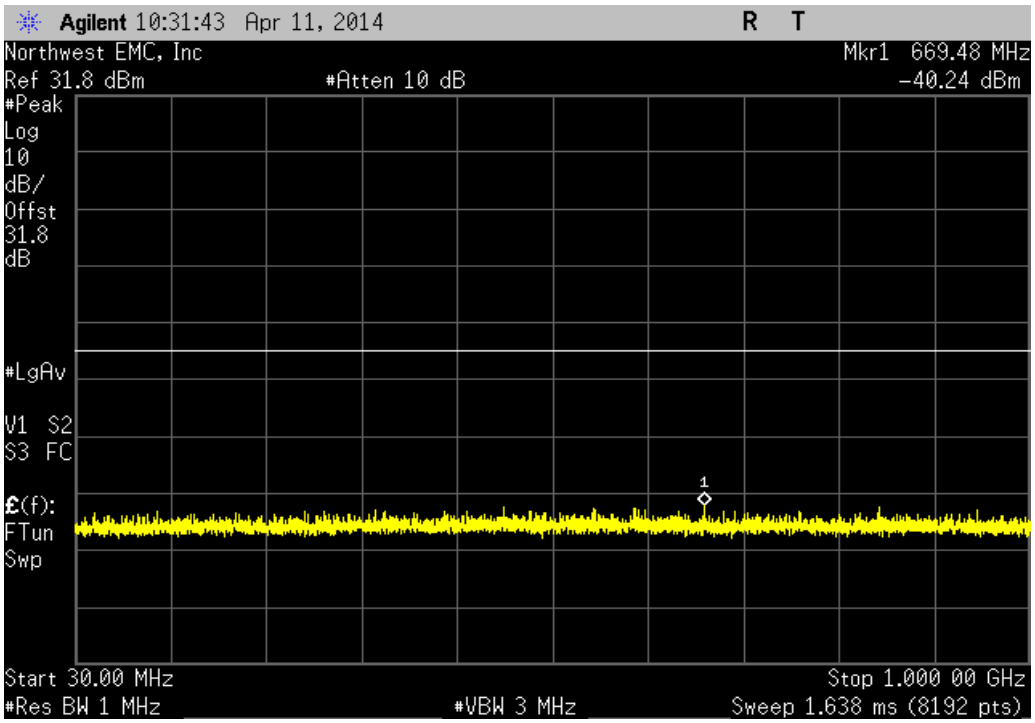
LTE 10 MHz, Low Channel 1935 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.51 dBm	≤ -13 dBm	Pass



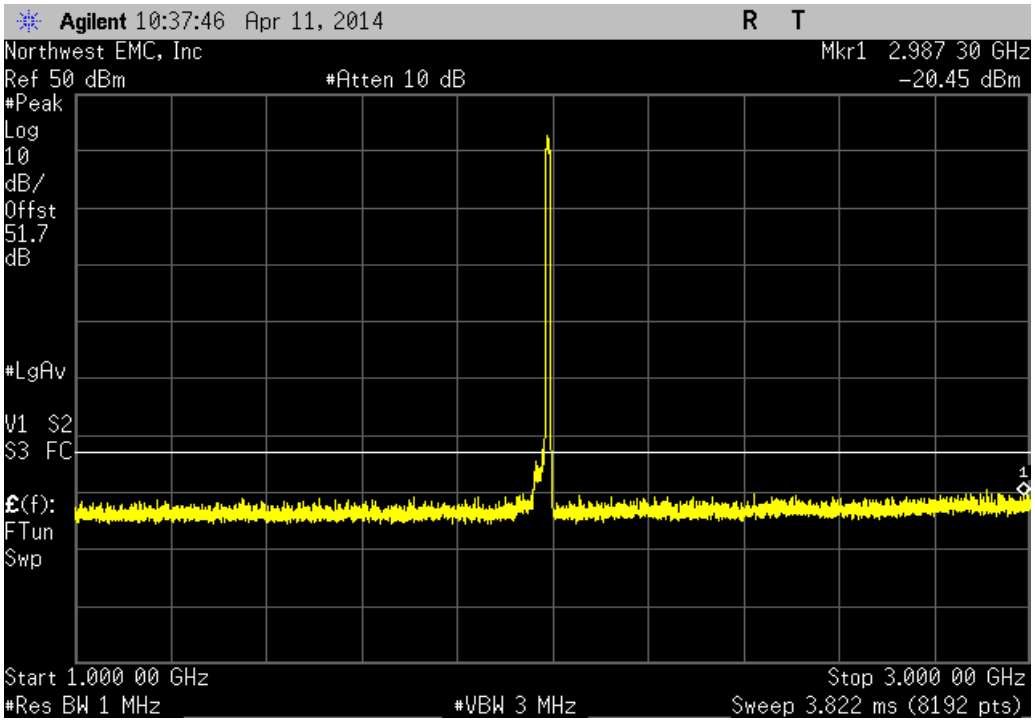
LTE 10 MHz, Low Channel 1935 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-29.2 dBm	≤ -13 dBm	Pass



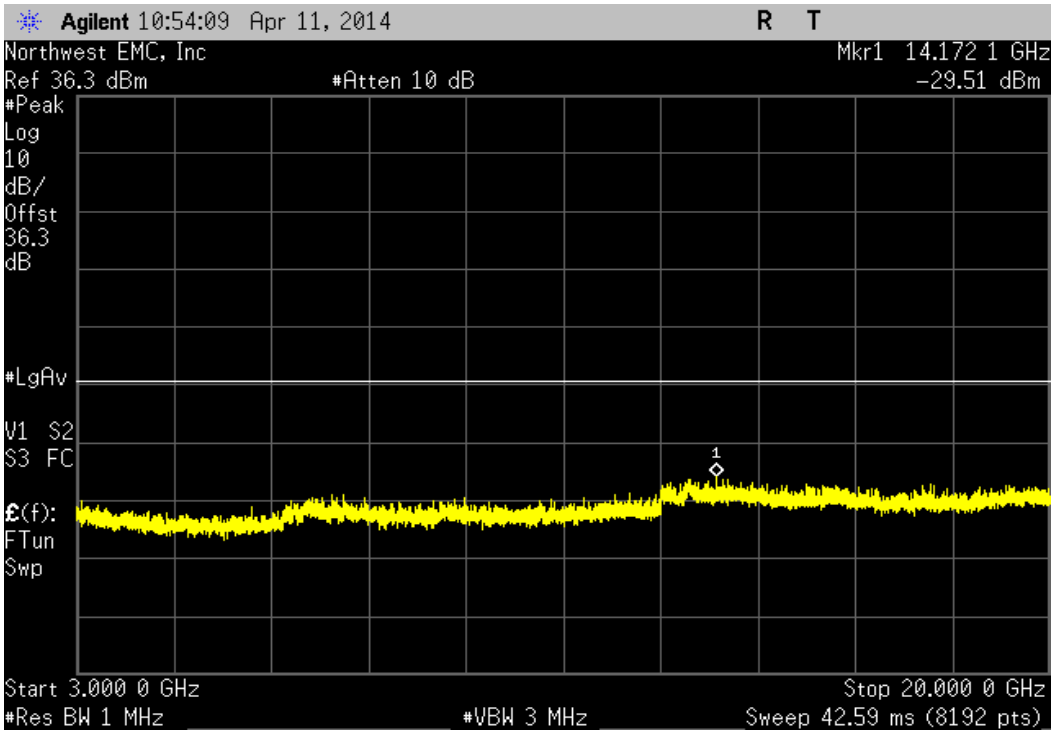
LTE 10 MHz, High Channel 1990 MHz						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.24 dBm	≤ -13 dBm	Pass



LTE 10 MHz, High Channel 1990 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-20.45 dBm	≤ -13 dBm	Pass



LTE 10 MHz, High Channel 1990 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-29.52 dBm	≤ -13 dBm	Pass



SPURIOUS CONDUCTED EMISSIONS 1900 WCDMA

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.	Interval
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	HGV	10/5/2012	24
High Pass Filter 2.8-18 GHz	Micro-Tronics	HPM50111	HGY	10/5/2012	24
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

The antenna port spurious emissions were measured at the RF output terminal of the EUT with external attenuation on the RF input of the spectrum analyzer. Analyzer plots utilizing a 1 MHz resolution bandwidth and no video filtering were made for each modulation type from 30 MHz to 20 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to –13 dBm.

SPURIOUS CONDUCTED EMISSIONS 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0017
Serial Number:	None			**Date:**	07/16/14
Customer:	TE Connectivitiy / ADC Telecommunications			**Temperature:**	23.3°C
Attendees:	None			**Humidity:**	43%
Project:	None			**Barometric Pres.:**	1020.6
Tested by:	Trevor Buls	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. Both antenna ports were terminated but only one port is active

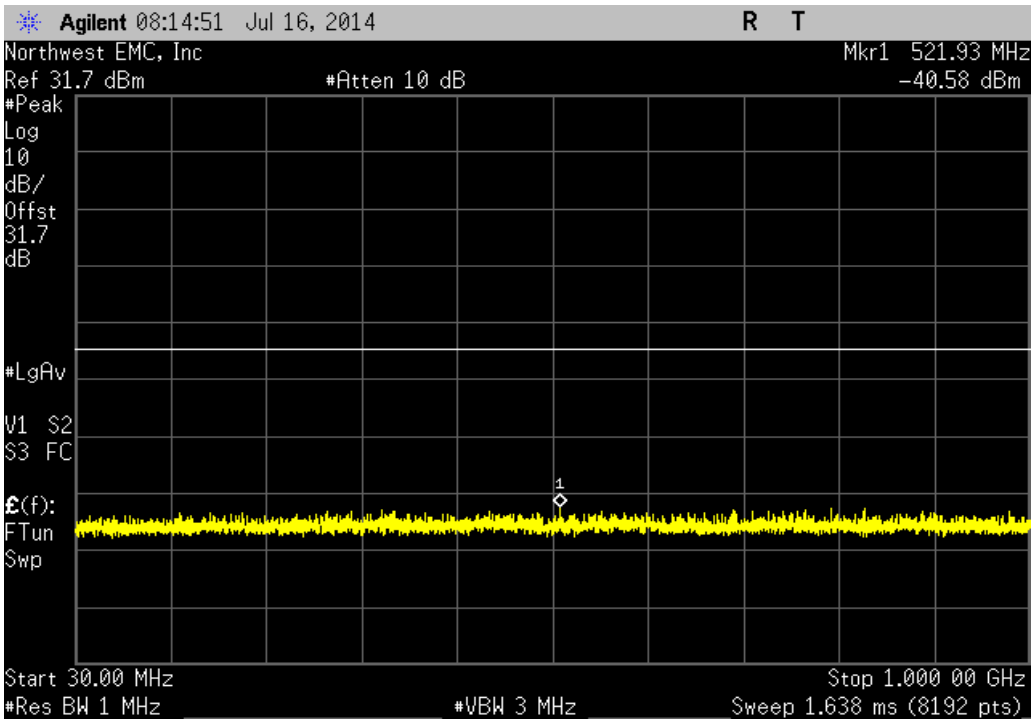
DEVIATIONS FROM TEST STANDARD

None

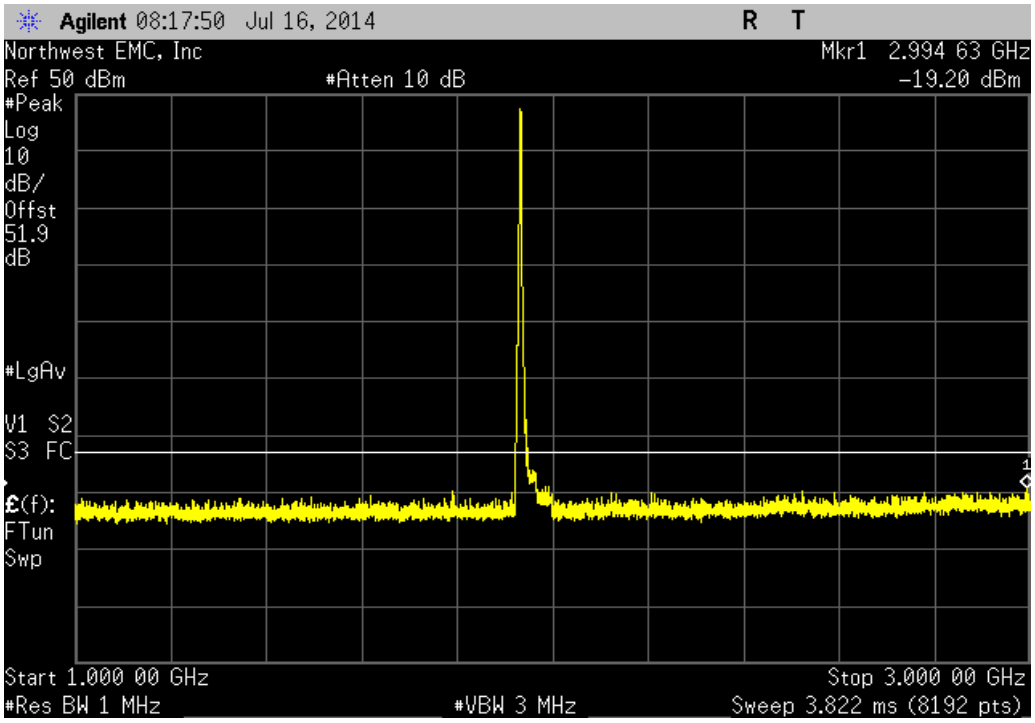
Configuration #	1	Signature	Trevor Buls

		Frequency Range	Value	Limit	Result
WCDMA					
	Low Channel 1932.5 MHz	30 MHz - 1 GHz	-40.58 dBm	≤ -13 dBm	Pass
	Low Channel 1932.5 MHz	1 GHz - 3 GHz	-19.2 dBm	≤ -13 dBm	Pass
	Low Channel 1932.5 MHz	3 GHz - 20 GHz	-32.81 dBm	≤ -13 dBm	Pass
	Mid Channel 1962.5 MHz	30 MHz - 1 GHz	-40.4 dBm	≤ -13 dBm	Pass
	Mid Channel 1962.5 MHz	1 GHz - 3 GHz	-19.12 dBm	≤ -13 dBm	Pass
	Mid Channel 1962.5 MHz	3 GHz - 20 GHz	-32.46 dBm	≤ -13 dBm	Pass
	High Channel 1992.5 MHz	30 MHz - 1 GHz	-40.2 dBm	≤ -13 dBm	Pass
	High Channel 1992.5 MHz	1 GHz - 3 GHz	-20.66 dBm	≤ -13 dBm	Pass
	High Channel 1992.5 MHz	3 GHz - 20 GHz	-32.83 dBm	≤ -13 dBm	Pass

WCDMA, Low Channel 1932.5 MHz						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.58 dBm	≤ -13 dBm	Pass

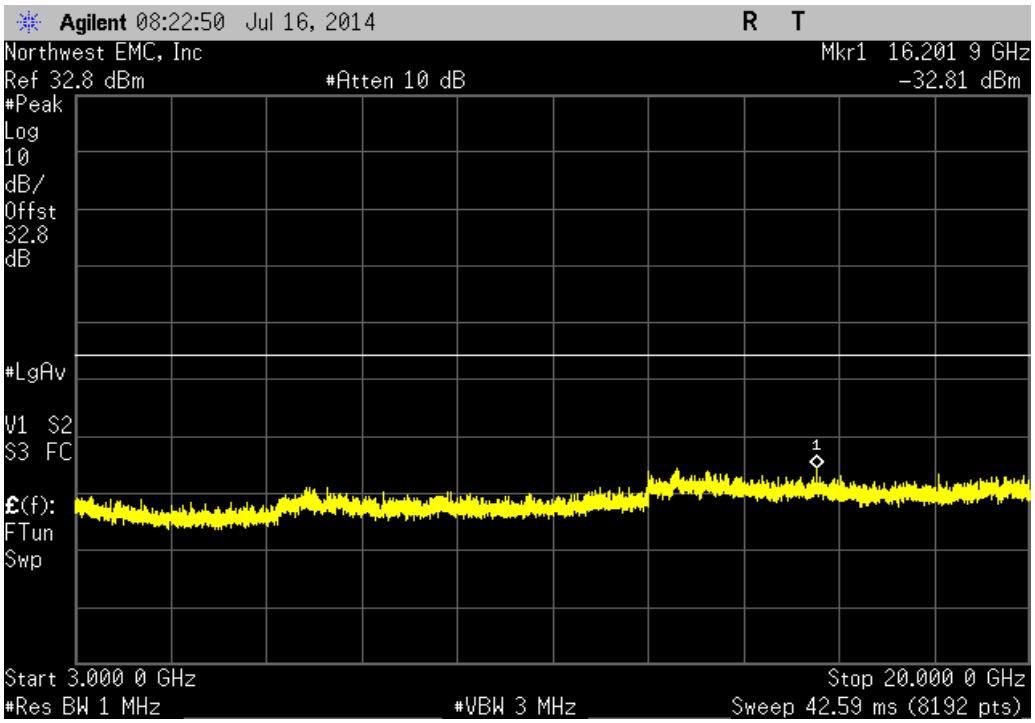


WCDMA, Low Channel 1932.5 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.2 dBm	≤ -13 dBm	Pass



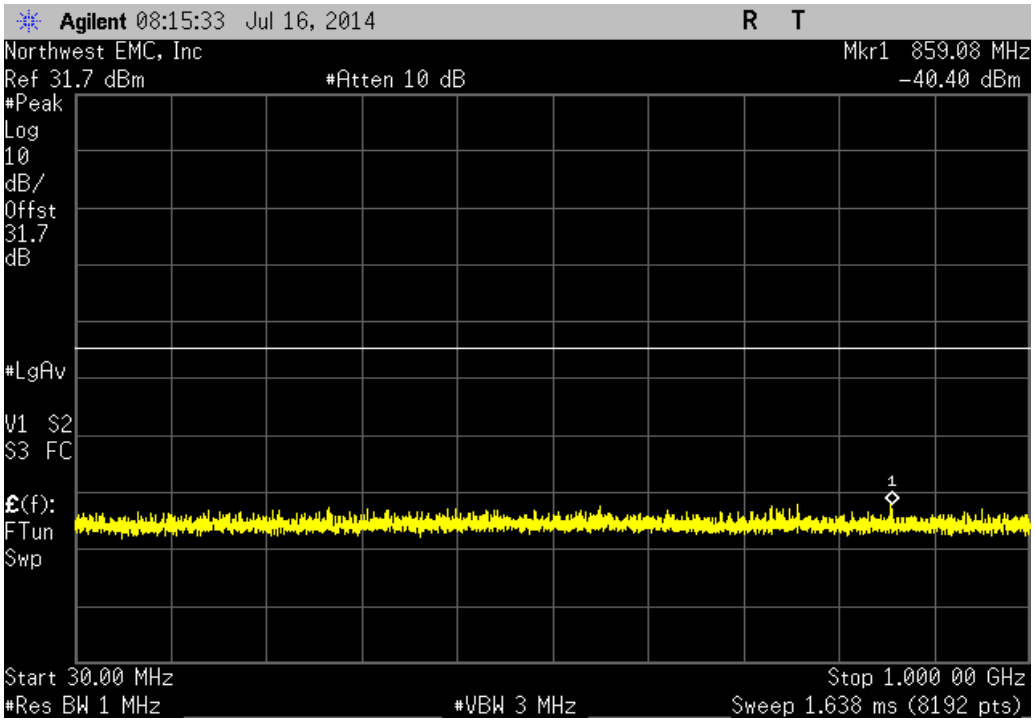
WCDMA, Low Channel 1932.5 MHz

Frequency Range			Value	Limit	Result
3 GHz - 20 GHz			-32.81 dBm	≤ -13 dBm	Pass

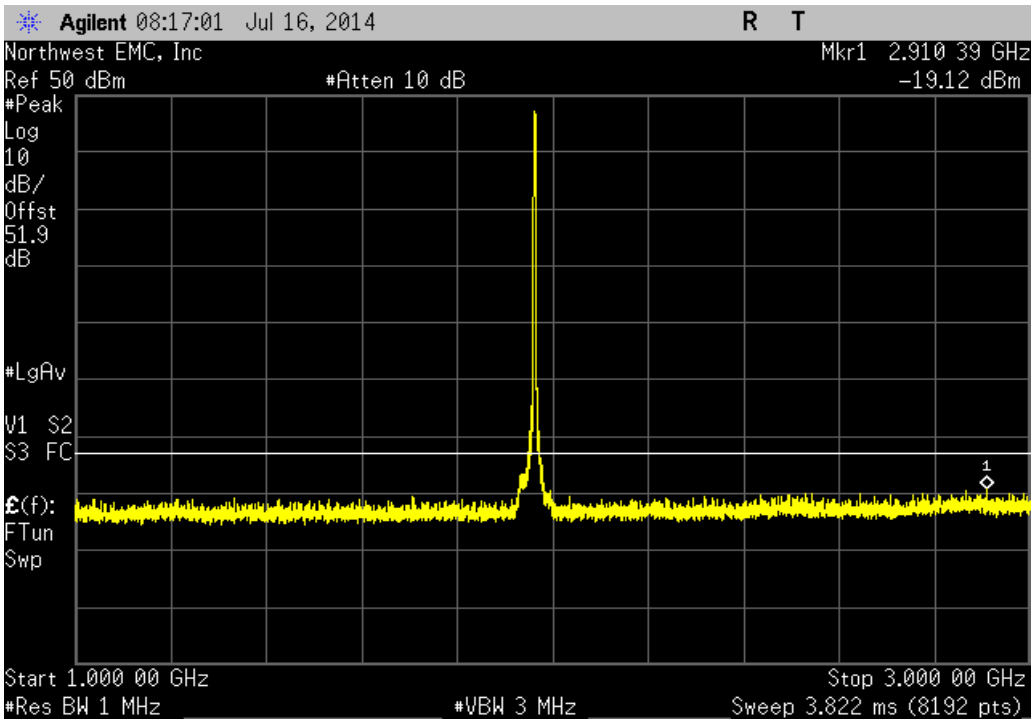


WCDMA, Mid Channel 1962.5 MHz

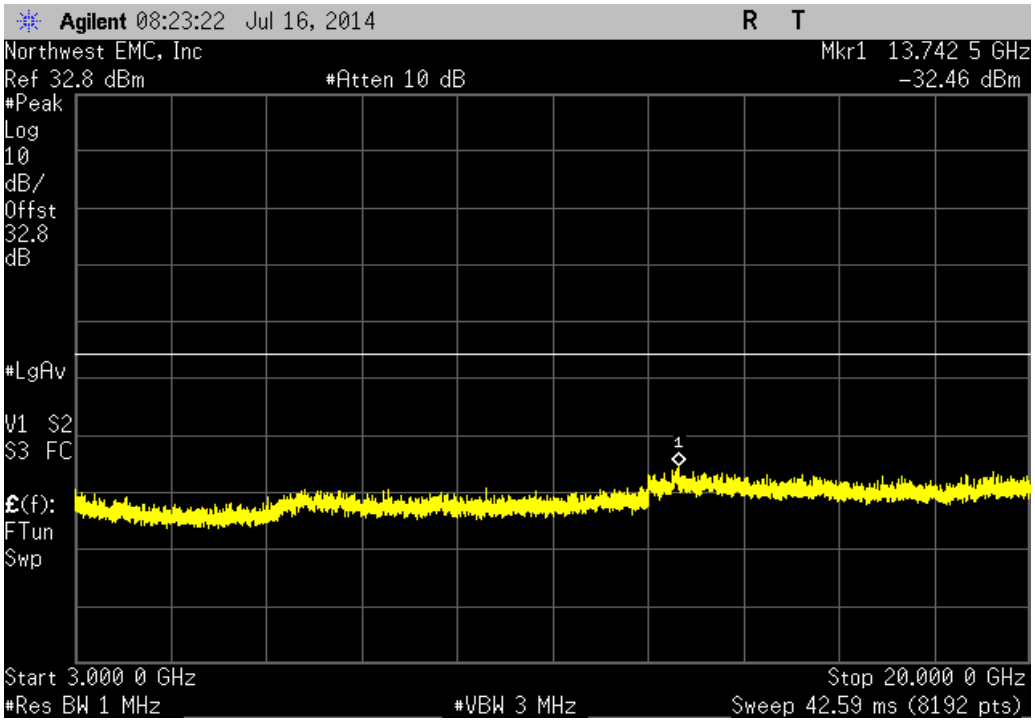
Frequency Range			Value	Limit	Result
30 MHz - 1 GHz			-40.4 dBm	≤ -13 dBm	Pass



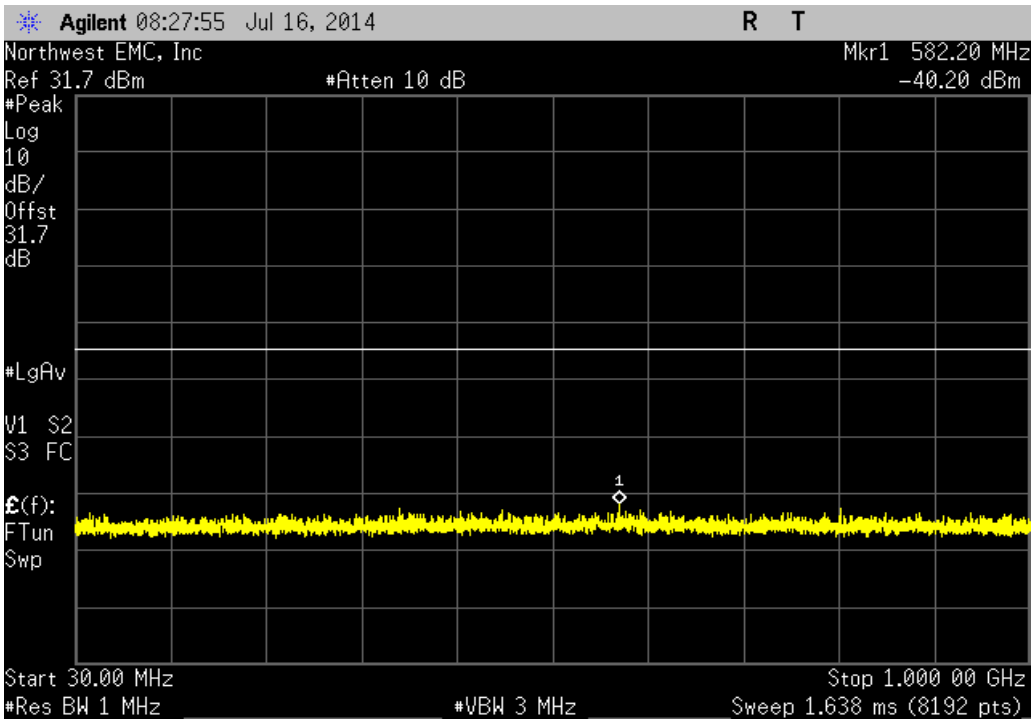
WCDMA, Mid Channel 1962.5 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.12 dBm	≤ -13 dBm	Pass



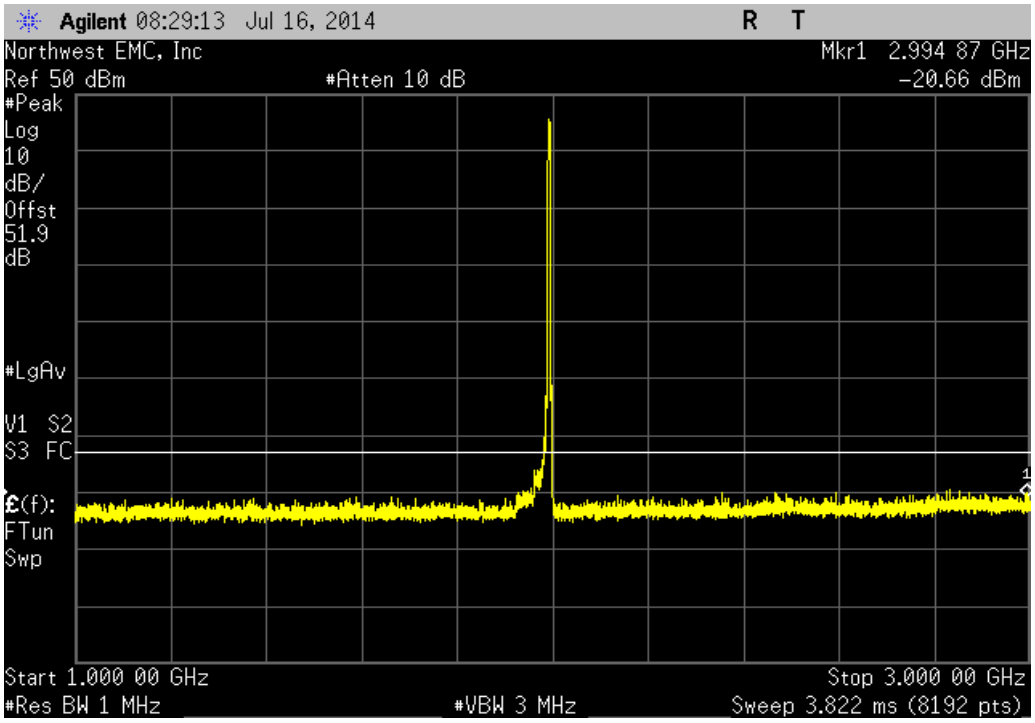
WCDMA, Mid Channel 1962.5 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-32.46 dBm	≤ -13 dBm	Pass



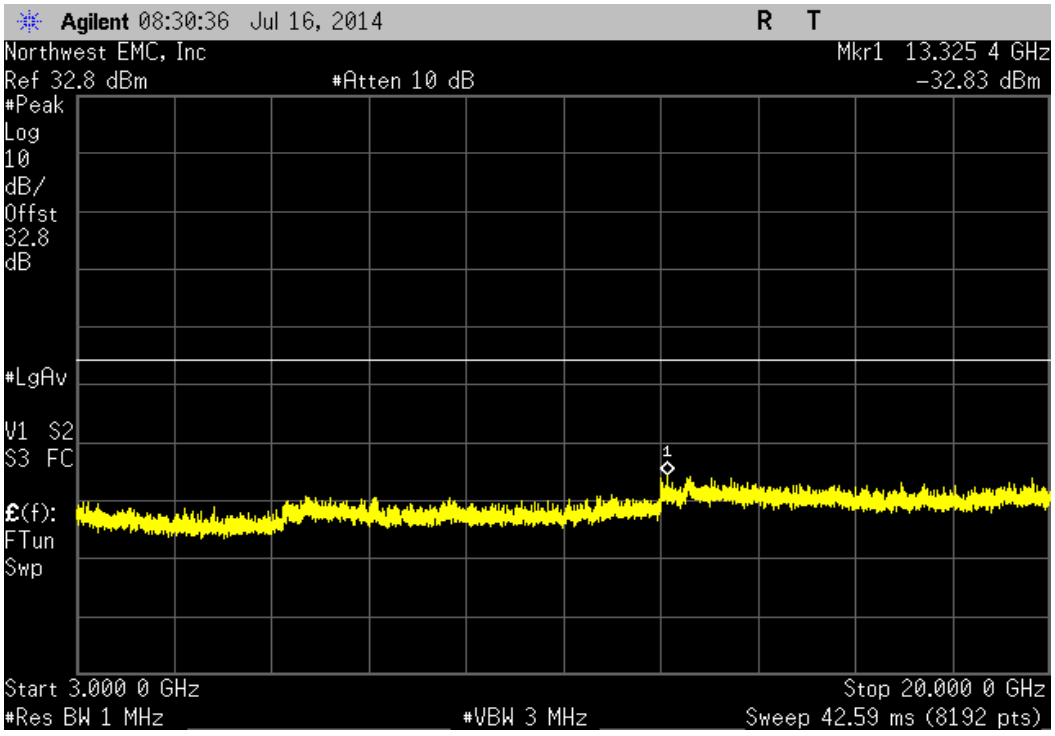
WCDMA, High Channel 1992.5 MHz						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.2 dBm	≤ -13 dBm	Pass



WCDMA, High Channel 1992.5 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-20.66 dBm	≤ -13 dBm	Pass



WCDMA, High Channel 1992.5 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-32.83 dBm	≤ -13 dBm	Pass



BAND EDGE COMPLIANCE
1900 LTE10

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

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 measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. 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. 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 -13 dBm limit at the band edge.

BAND EDGE COMPLIANCE 1900 LTE10

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0013
Serial Number:	None			Date:	04/10/14
Customer:	TE Connectivity / ADC Telecommunications			Temperature:	26.5°C
Attendees:	None			Humidity:	21%
Project:	None			Barometric Pres.:	1011.8
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

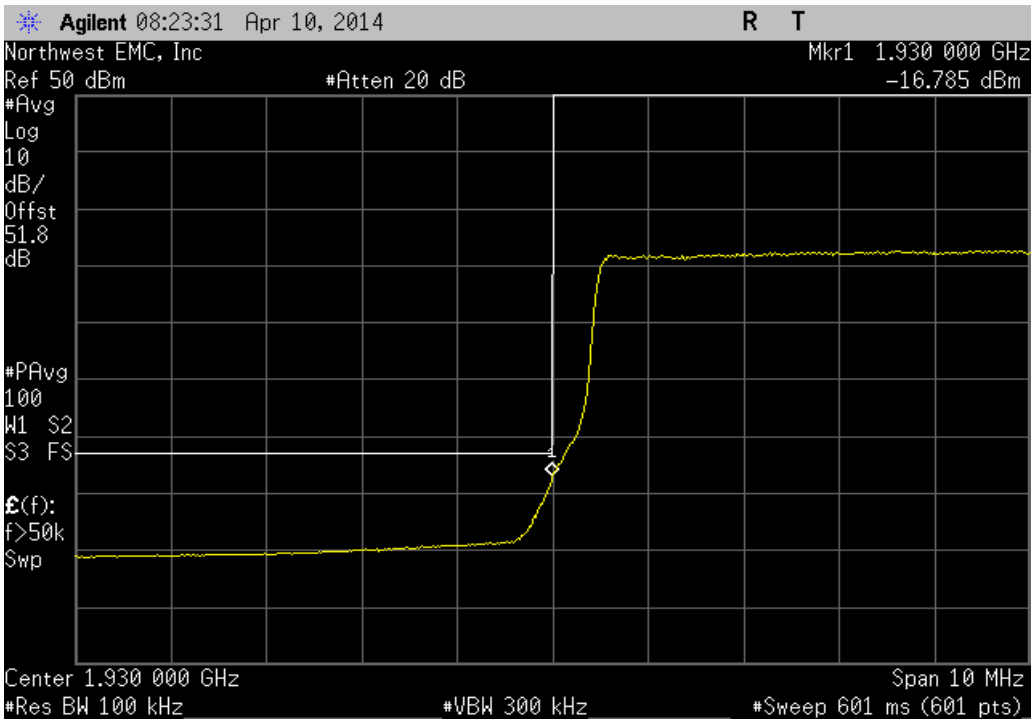
None

Configuration #	1	Signature	Trevor Buls

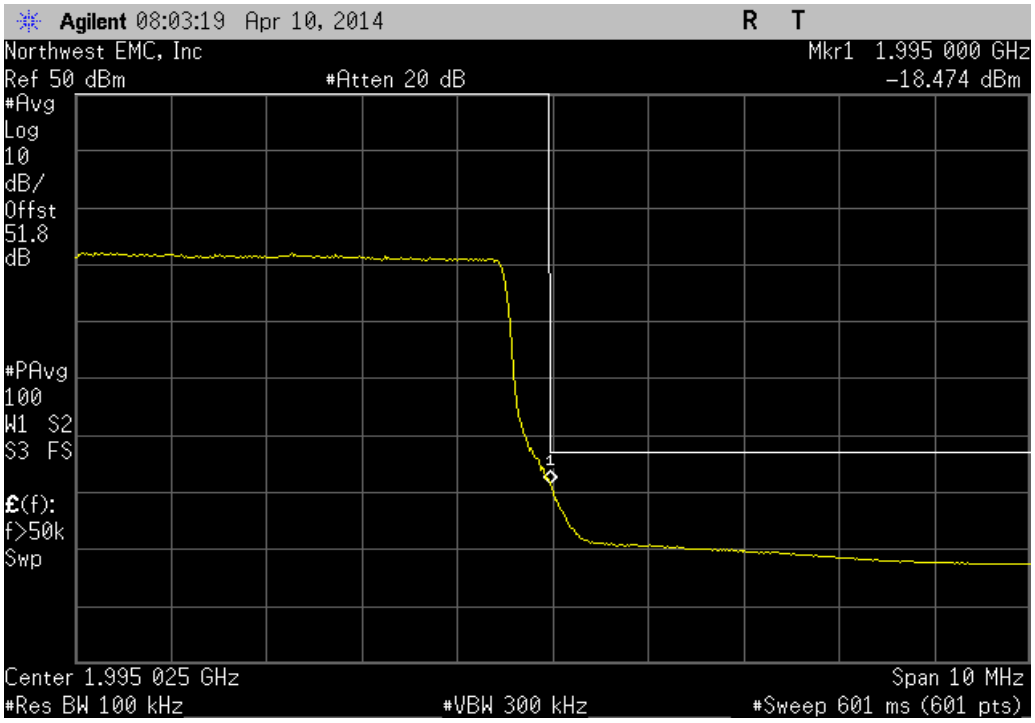
		Value (dBm)	Limit (dBm)	Result
LTE 10 MHz				
	Low Channel	-16.785	-13	Pass
	High Channel	-18.474	-13	Pass

BAND EDGE COMPLIANCE 1900 LTE10

LTE 10 MHz, Low Channel						
				Value (dBm)	Limit (dBm)	Result
				-16.785	-13	Pass



LTE 10 MHz, High Channel						
				Value (dBm)	Limit (dBm)	Result
				-18.474	-13	Pass



BAND EDGE COMPLIANCE
1900 WCDMA

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.	Interval
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

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 measurement was made using a direct connection between the RF output of the EUT and the spectrum analyzer. 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. 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 -13 dBm limit at the band edge.

BAND EDGE COMPLIANCE 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0017
Serial Number:	None			Date:	07/16/14
Customer:	TE Connectivitiy / ADC Telecommunications			Temperature:	23.3°C
Attendees:	None			Humidity:	43%
Project:	None			Barometric Pres.:	1020.6
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. WCDMA. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

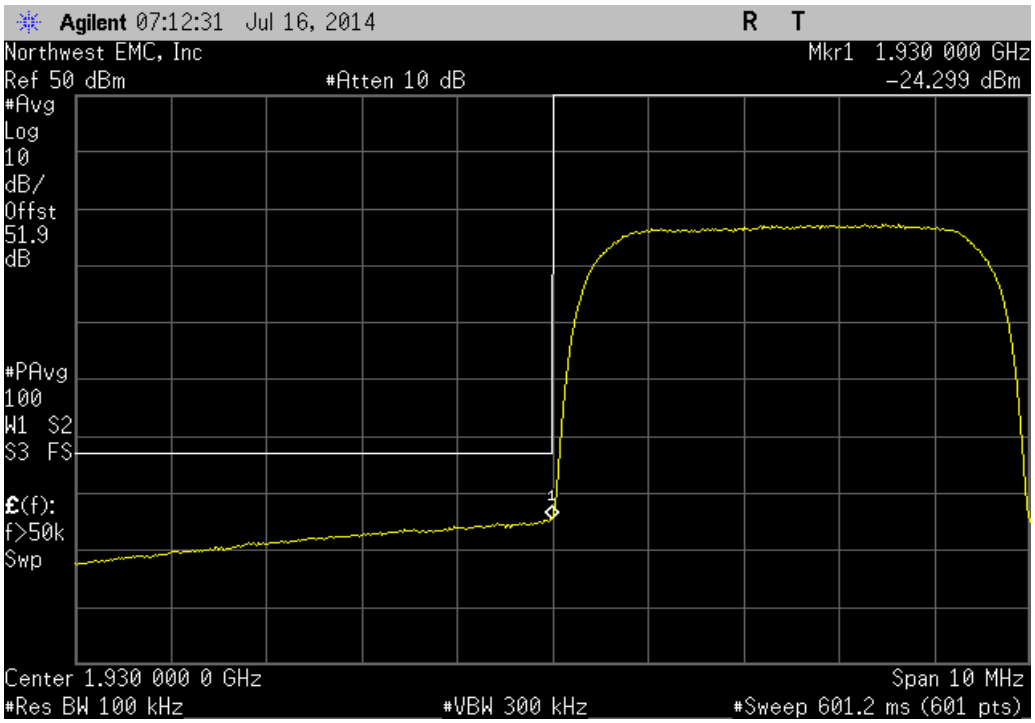
None

Configuration #	1	Signature Trevor Buls

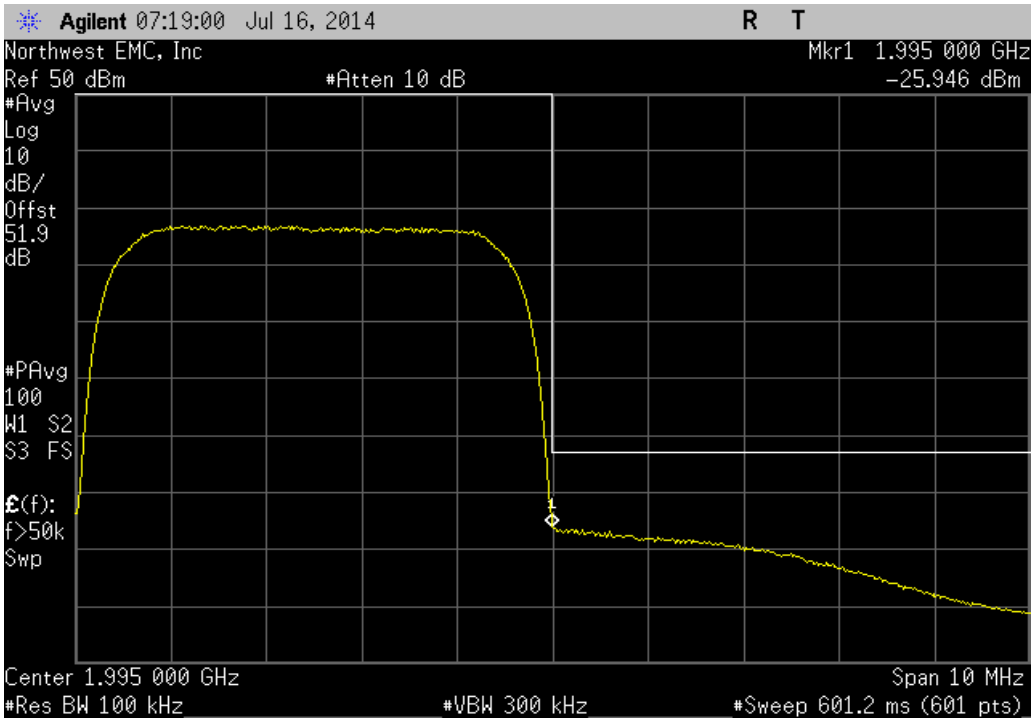
	Value (dBm)	Limit (dBm)	Result
Low Channel	-24.299	-13	Pass
High Channel	-25.946	-13	Pass

BAND EDGE COMPLIANCE 1900 WCDMA

Low Channel						
				Value (dBm)	Limit (dBm)	Result
				-24.299	-13	Pass



High Channel						
				Value (dBm)	Limit (dBm)	Result
				-25.946	-13	Pass



BAND EDGE COMPLIANCE 2100

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
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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. Failing measurements were re-measured using the channel power integration method as called out in the standard.

BAND EDGE COMPLIANCE 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/23/17
Customer:	CommScope			**Temperature:**	24.2 °C
Attendees:	Josh Wittman			**Humidity:**	40% RH
Project:	None			**Barometric Pres.:**	1012 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm). Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

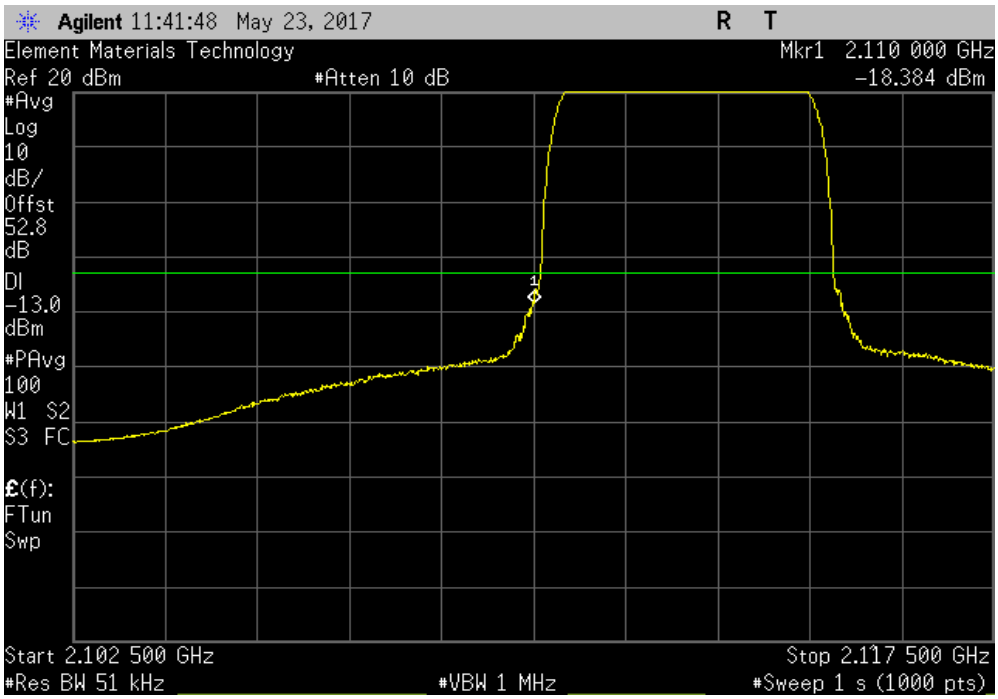
None

Configuration #	**2**	*Signature* Dustin Sparks

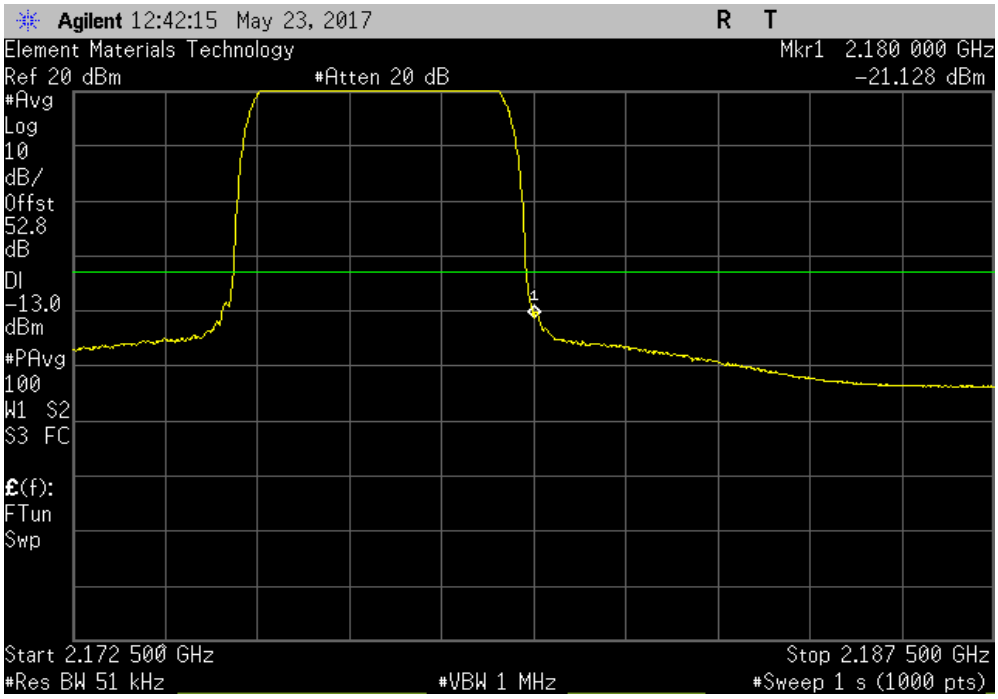
	Value (dBm)	**Limit (dBm)**	**Result**
Low Channel (2112.5 MHz) WCDMA	-18.37	-13	Pass
High Channel (2177.5 MHz) WCDMA	-21.15	-13	Pass
Low Channel (2115 MHz) LTE 10MHz	-18.54	-13	Pass
High Channel (2175 MHz) LTE 10MHz	-20.78	-13	Pass

BAND EDGE COMPLIANCE 2100

Low Channel (2112.5 MHz) WCDMA						
				Value (dBm)	Limit (dBm)	Result
				-18.37	-13	Pass

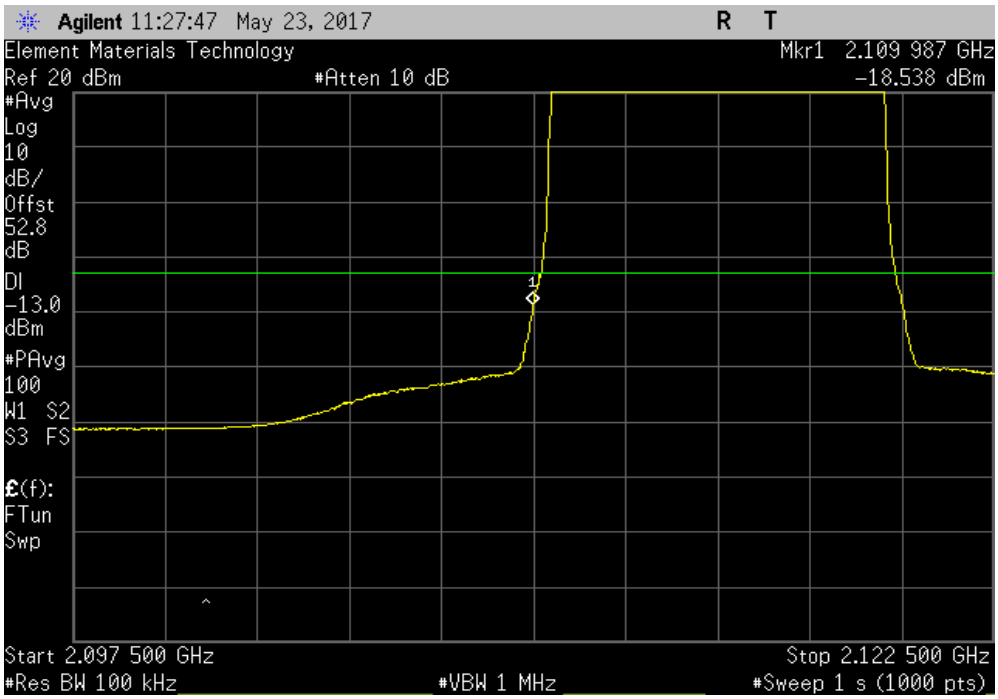


High Channel (2177.5 MHz) WCDMA						
				Value (dBm)	Limit (dBm)	Result
				-21.15	-13	Pass

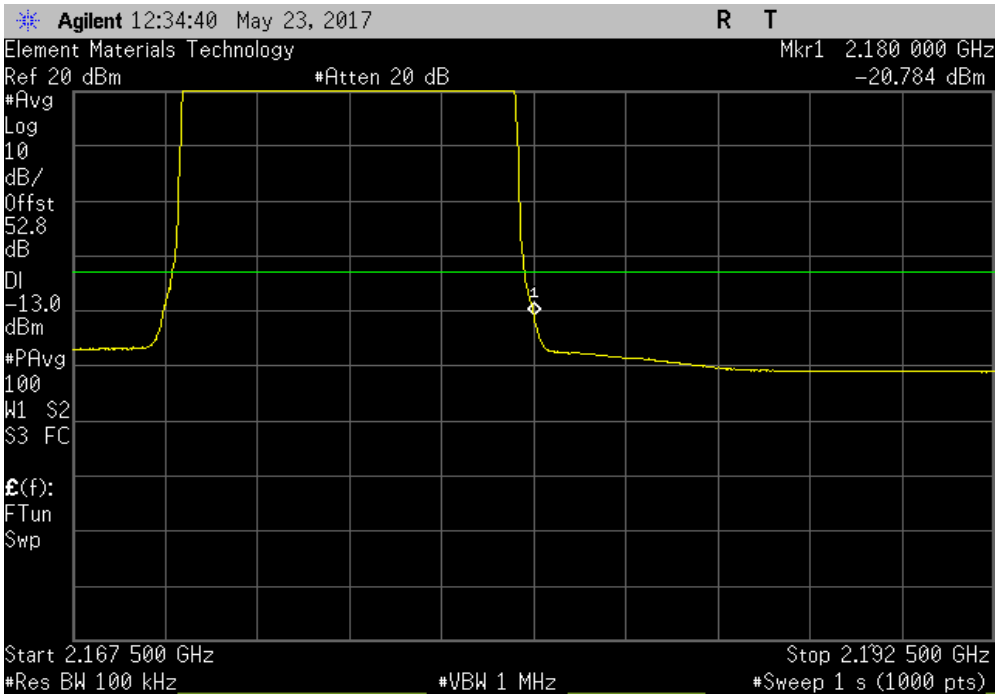


BAND EDGE COMPLIANCE 2100

Low Channel (2115 MHz) LTE 10MHz						
				Value (dBm)	Limit (dBm)	Result
				-18.54	-13	Pass



High Channel (2175 MHz) LTE 10MHz						
				Value (dBm)	Limit (dBm)	Result
				-20.78	-13	Pass



INTERMODULATION 1900
LTE10

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.	Interval
Power Divider/Combiner	Fairview Microwave Inc (SM electronics)	MP8451-2	IAD	NCR	0
Power Divider/Combiner	Fairview Microwave Inc (SM electronics)	MP8451-2	IAC	NCR	0
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

The EUT was configured with an input of a CW pulse at the bottom of the band, a CW pulse at the bottom of the band,and a modulated pulse near the edge of the band.

The antenna port spurious emissions were measured at the RF output terminal of the EUT with external attenuation on the RF input of the spectrum analyzer. Analyzer plots utilizing a 1MHz resolution bandwidth and no video filtering were made for each modulation type from 30 MHz to 20 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to –13 dBm.

INTERMODULATION 1900 LTE10

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0013
Serial Number:	None			Date:	04/11/14
Customer:	TE Connectivity / ADC Telecommunications			Temperature:	25°C
Attendees:	None			Humidity:	25%
Project:	None			Barometric Pres.:	1017.2
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator that was added into the reference level offset. Both antenna ports were terminated but only one port is active

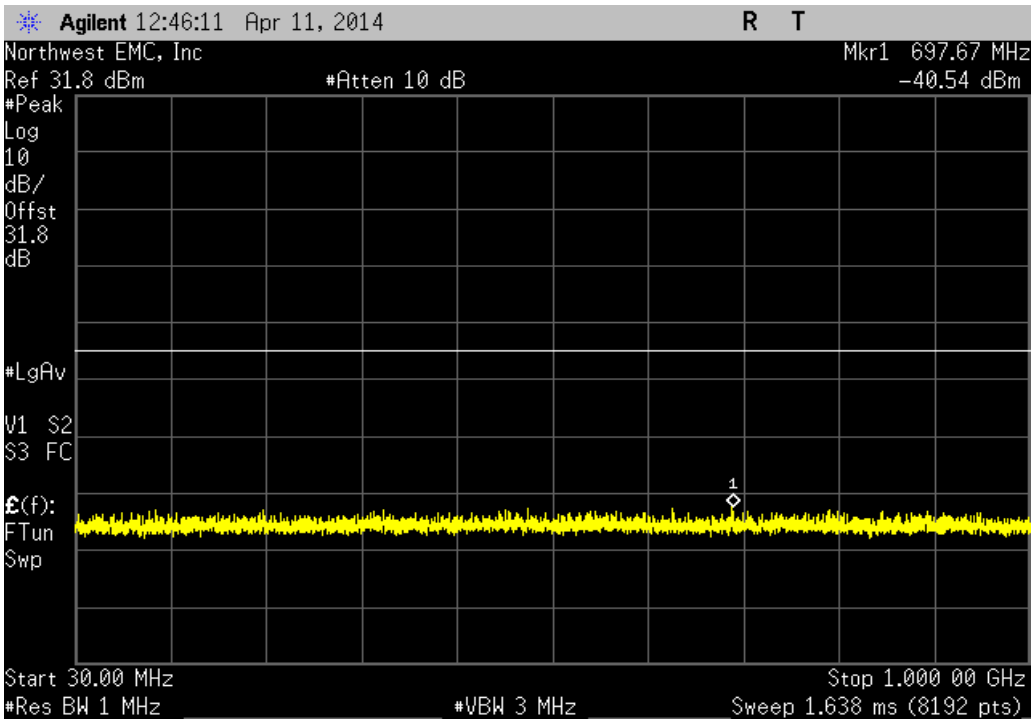
DEVIATIONS FROM TEST STANDARD

None

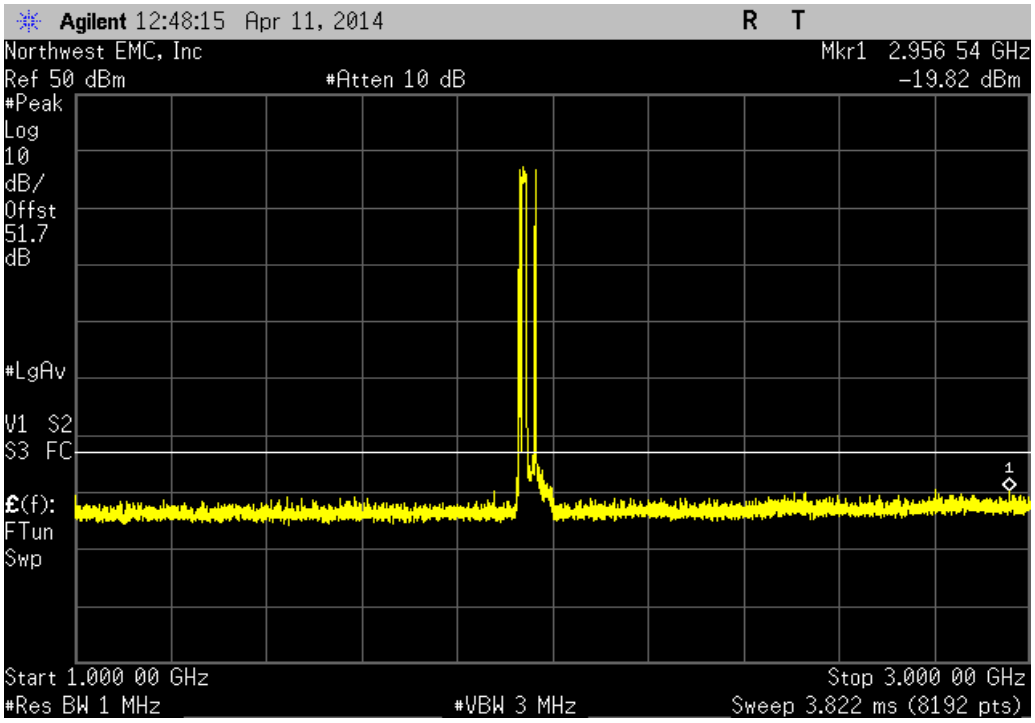
Configuration #	1	Signature	Trevor Buls

		Frequency Range	Value	Limit	Result
Band ABD					
	LTE 10 MHz	30 MHz - 1 GHz	-40.54 dBm	≤ -13 dBm	Pass
	LTE 10 MHz	1 GHz - 3 GHz	-19.82 dBm	≤ -13 dBm	Pass
	LTE 10 MHz	3 GHz - 20 GHz	-29.52 dBm	≤ -13 dBm	Pass
Band CEFG					
	LTE 10 MHz	30 MHz - 1 GHz	-40.53 dBm	≤ -13 dBm	Pass
	LTE 10 MHz	1 GHz - 3 GHz	-19.04 dBm	≤ -13 dBm	Pass
	LTE 10 MHz	3 GHz - 20 GHz	-28.86 dBm	≤ -13 dBm	Pass

Band ABD, LTE 10 MHz						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.54 dBm	≤ -13 dBm	Pass

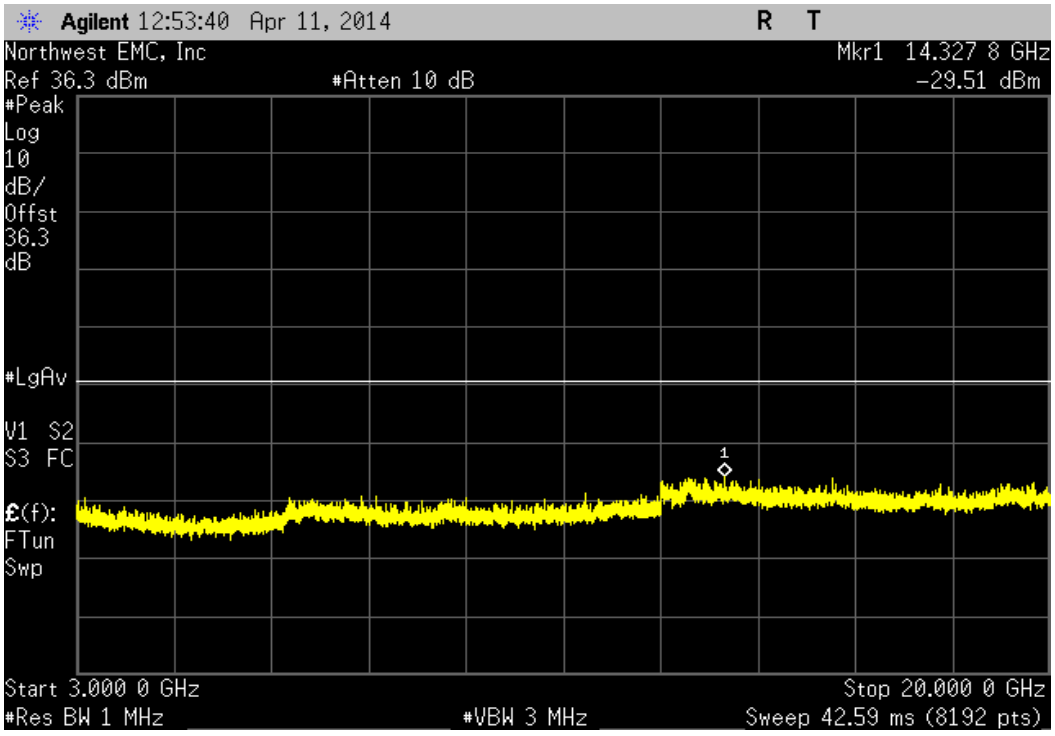


Band ABD, LTE 10 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.82 dBm	≤ -13 dBm	Pass



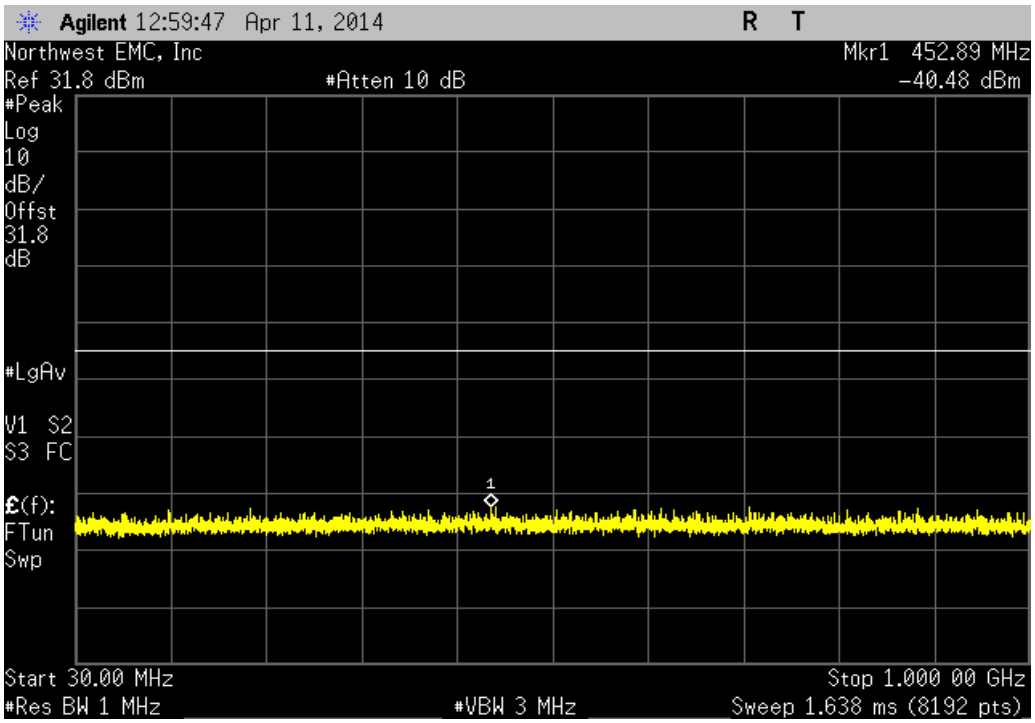
INTERMODULATION 1900 LTE10

Band ABD, LTE 10 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-29.52 dBm	≤ -13 dBm	Pass

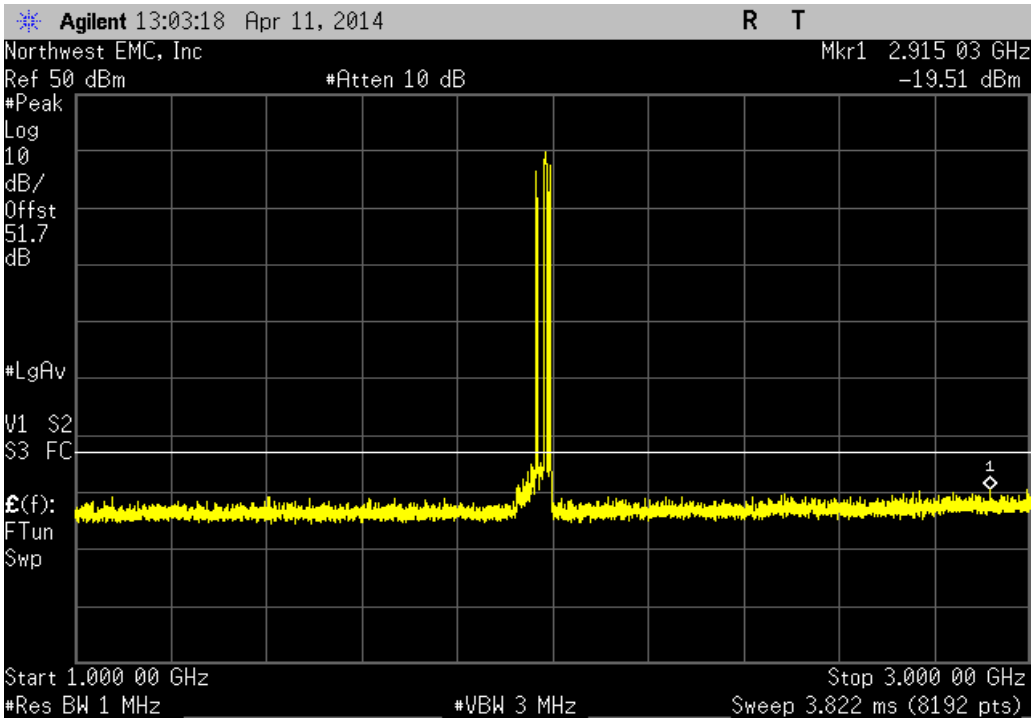


INTERMODULATION 1900 LTE10

#REF!						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.48 dBm	≤ -13 dBm	Pass

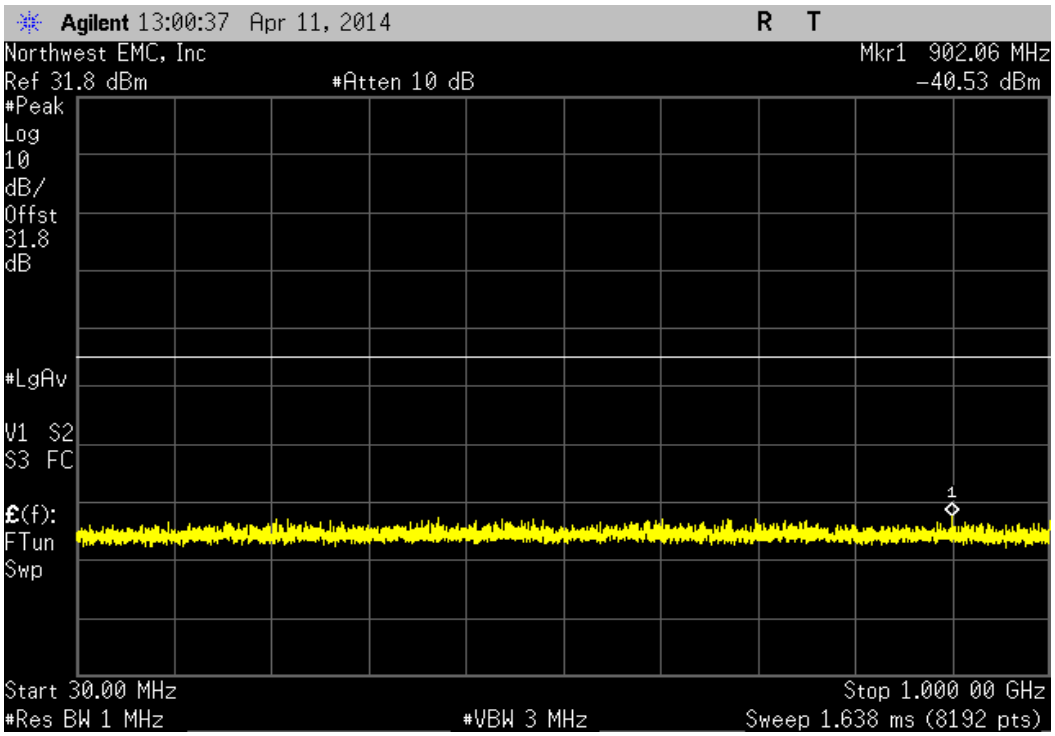


#REF!						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.51 dBm	≤ -13 dBm	Pass



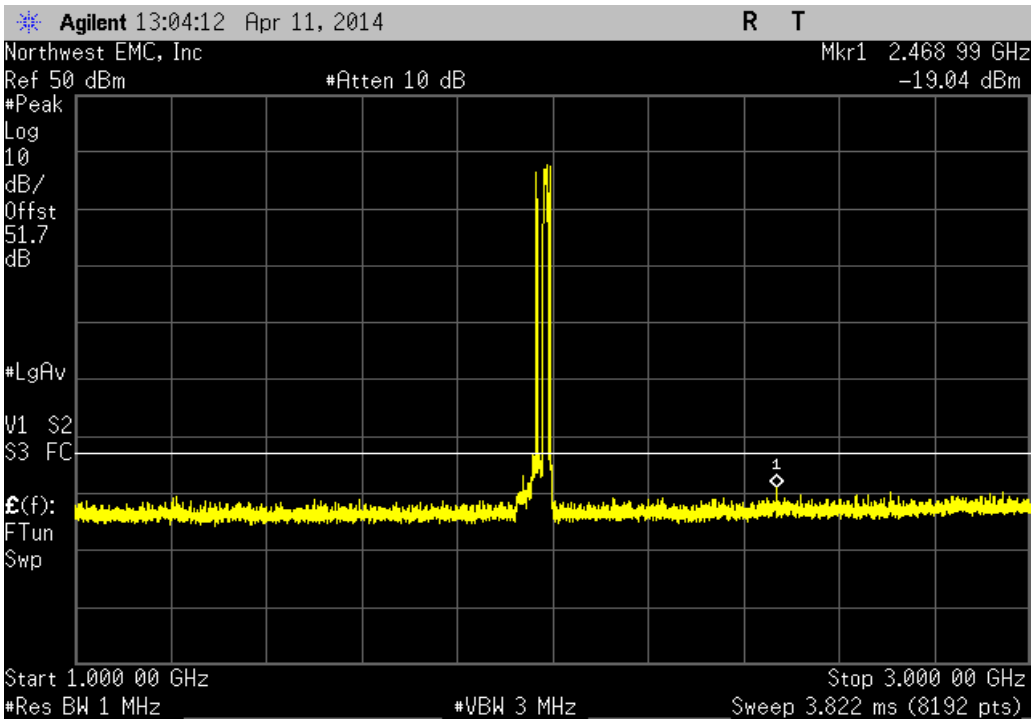
INTERMODULATION 1900 LTE10

Band CEFG, LTE 10 MHz						
	Frequency Range			**Value**	**Limit**	**Result**
	30 MHz - 1 GHz			-40.53 dBm	≤ -13 dBm	Pass

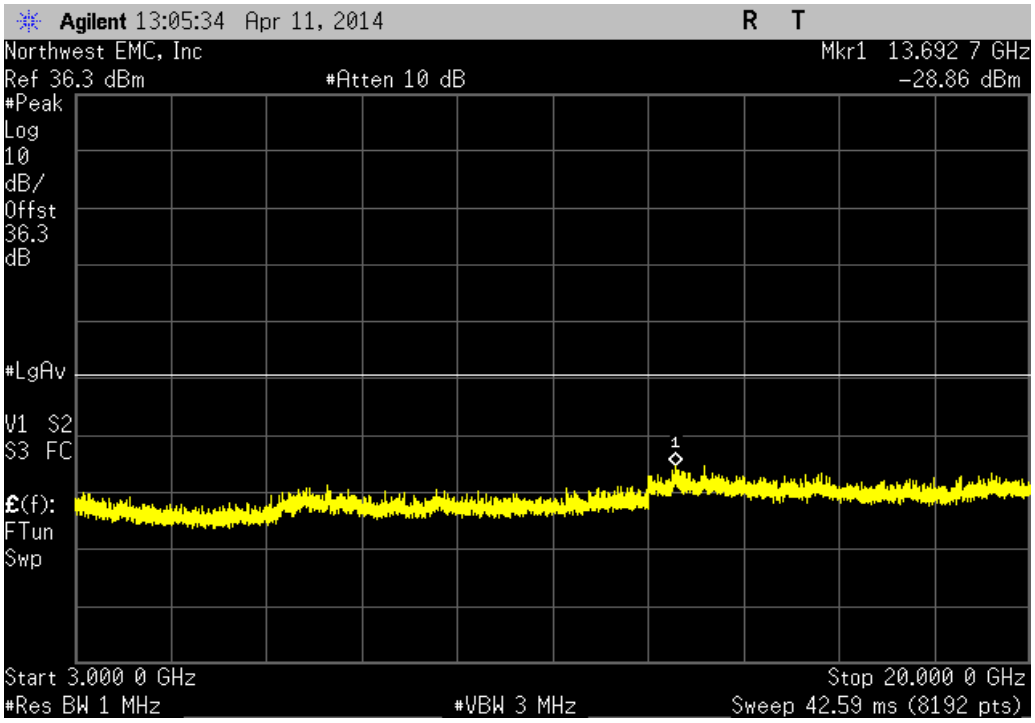


INTERMODULATION 1900 LTE10

Band CEFG, LTE 10 MHz						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.04 dBm	≤ -13 dBm	Pass



Band CEFG, LTE 10 MHz						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-28.86 dBm	≤ -13 dBm	Pass



INTERMODULATION 1900
WCDMA

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.	Interval
Power Divider/Combiner	Fairview Microwave	MP0208-2	IAE	NCR	0
Low Pass Filter 0-1000 MHz	Micro-Tronics	LPM50004	HGV	10/5/2012	24
High Pass Filter 2.8-18 GHz	Micro-Tronics	HPM50111	HGY	10/5/2012	24
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	4/28/2014	12

TEST DESCRIPTION

The EUT was configured with an input of a CW pulse at the bottom of the band, a CW pulse at the bottom of the band,and a modulated pulse near the edge of the band.

The antenna port spurious emissions were measured at the RF output terminal of the EUT with external attenuation on the RF input of the spectrum analyzer. Analyzer plots utilizing a 1MHz resolution bandwidth and no video filtering were made for each modulation type from 30 MHz to 20 GHz. The peak conducted power of spurious emissions, up to the 10th harmonic of the transmit frequency, were investigated to ensure they were less than or equal to –13 dBm.

INTERMODULATION 1900 WCDMA

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0017
Serial Number:	None			**Date:**	07/16/14
Customer:	TE Connectivitiy / ADC Telecommunications			**Temperature:**	23.3°C
Attendees:	None			**Humidity:**	43%
Project:	None			**Barometric Pres.:**	1020.6
Tested by:	Trevor Buls	**Power:**	110VAC/60Hz	**Job Site:**	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

A 30 dB high wattage attenuator was provided by the customer. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

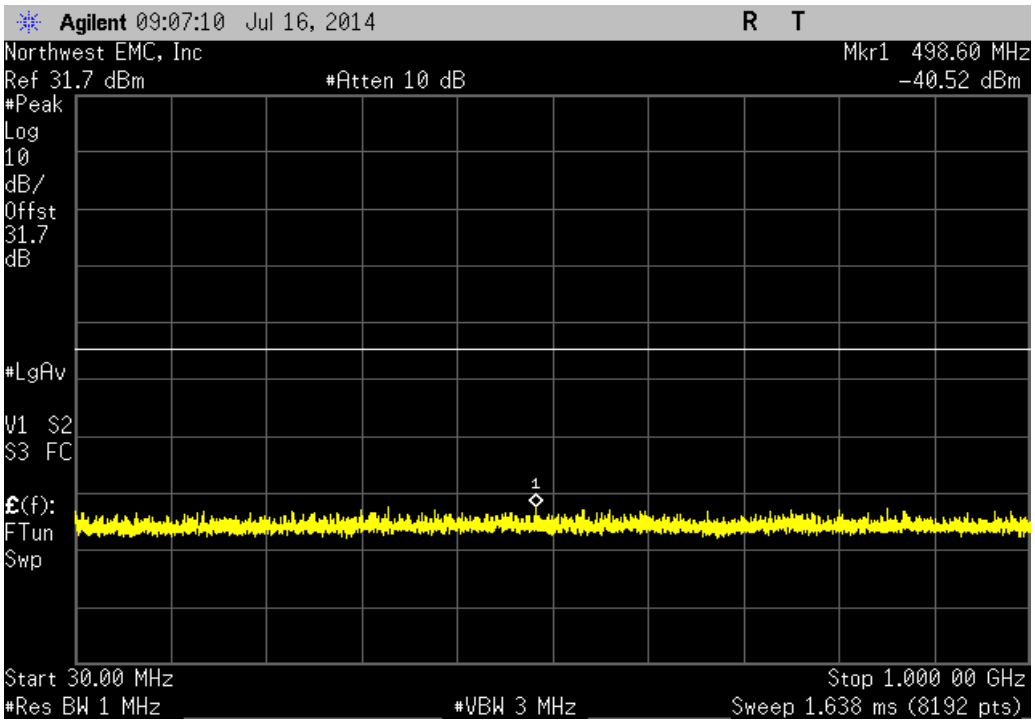
None

Configuration #	1	Signature	Trevor Buls

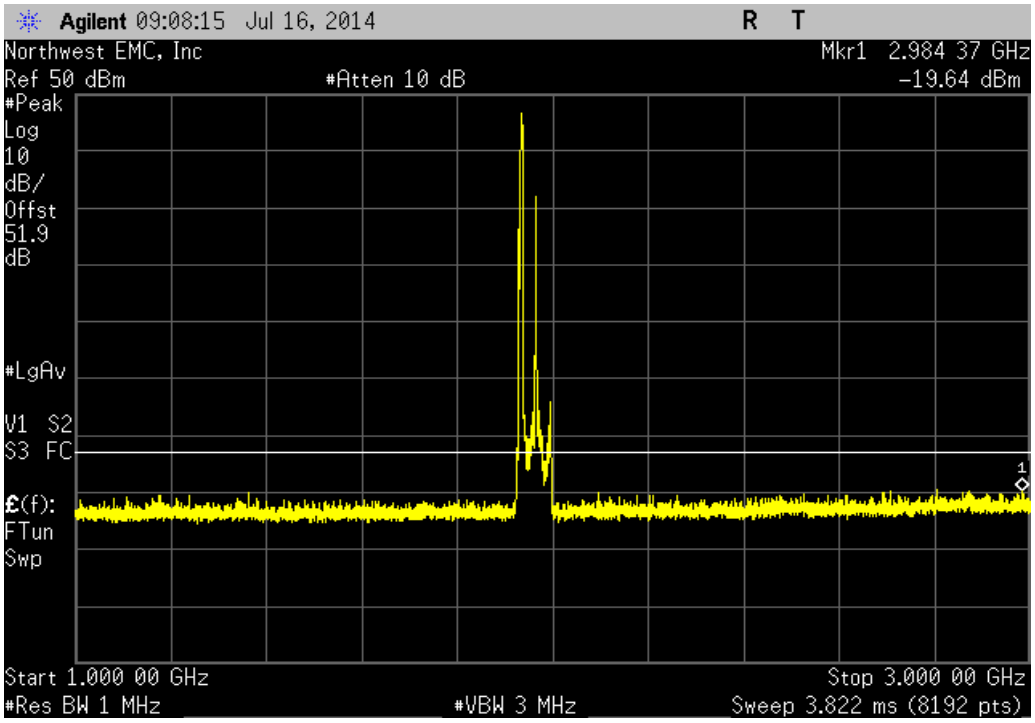
		Frequency Range	Value	Limit	Result
Band ABD					
	WCDMA	30 MHz - 1 GHz	-40.52 dBm	≤ -13 dBm	Pass
	WCDMA	1 GHz - 3 GHz	-19.64 dBm	≤ -13 dBm	Pass
	WCDMA	3 GHz - 20 GHz	-33.1 dBm	≤ -13 dBm	Pass
Band CEFG					
	WCDMA	30 MHz - 1 GHz	-40.53 dBm	≤ -13 dBm	Pass
	WCDMA	1 GHz - 3 GHz	-18.97 dBm	≤ -13 dBm	Pass
	WCDMA	3 GHz - 20 GHz	-32.69 dBm	≤ -13 dBm	Pass

INTERMODULATION 1900 WCDMA

Band ABD, WCDMA						
	Frequency Range			Value	Limit	Result
	30 MHz - 1 GHz			-40.52 dBm	≤ -13 dBm	Pass

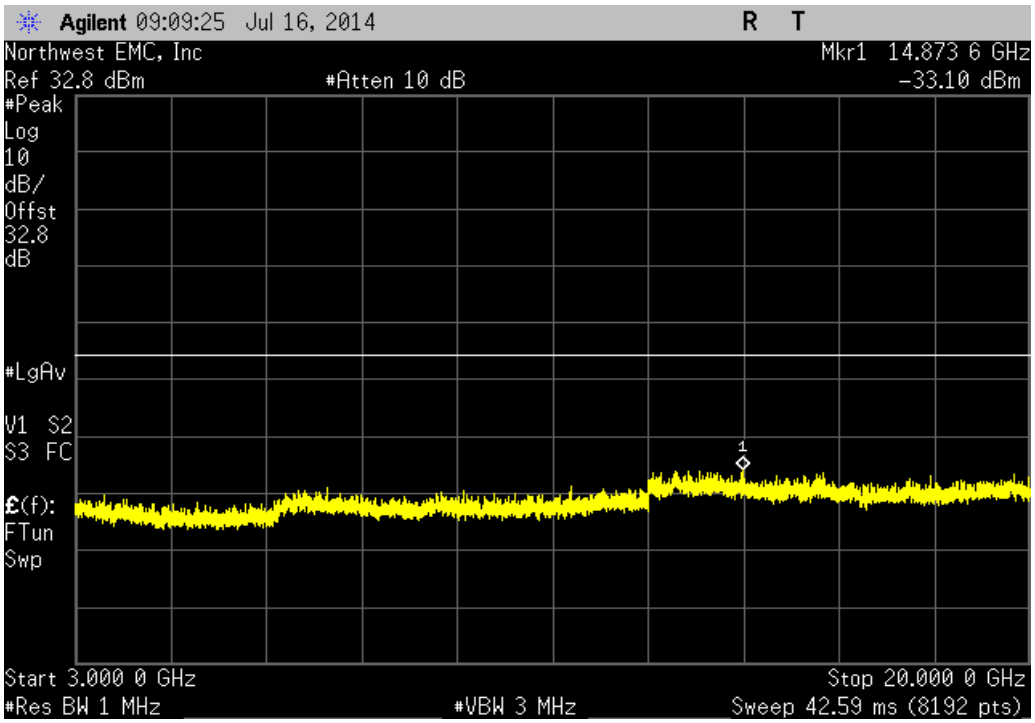


Band ABD, WCDMA						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-19.64 dBm	≤ -13 dBm	Pass

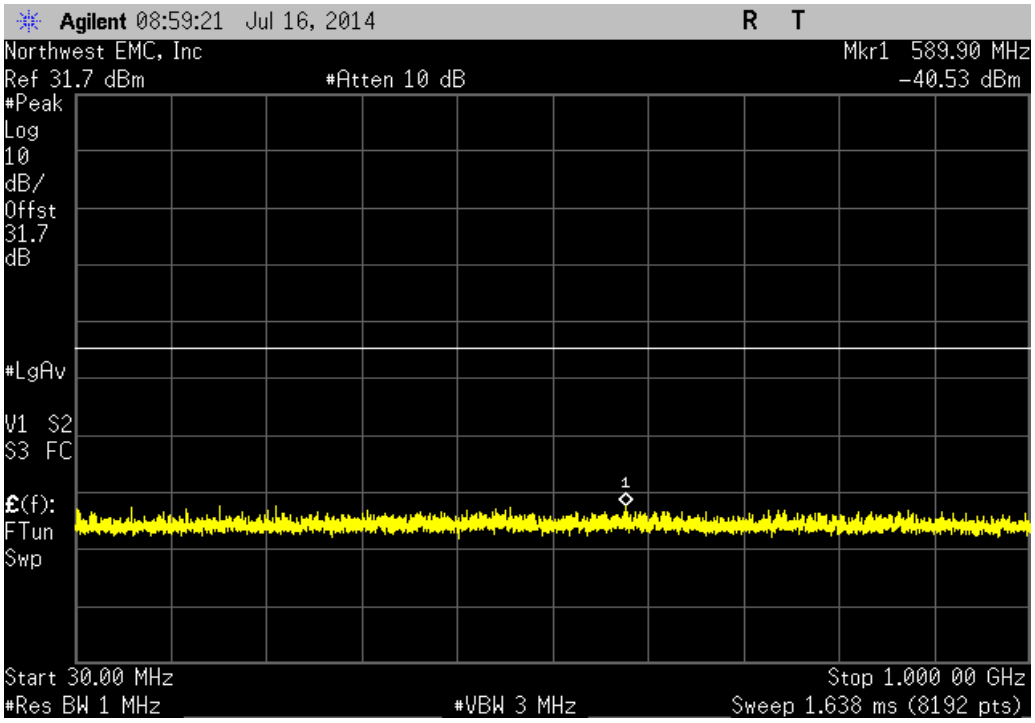


INTERMODULATION 1900 WCDMA

Band ABD, WCDMA					
Frequency Range			Value	Limit	Result
3 GHz - 20 GHz			-33.1 dBm	≤ -13 dBm	Pass

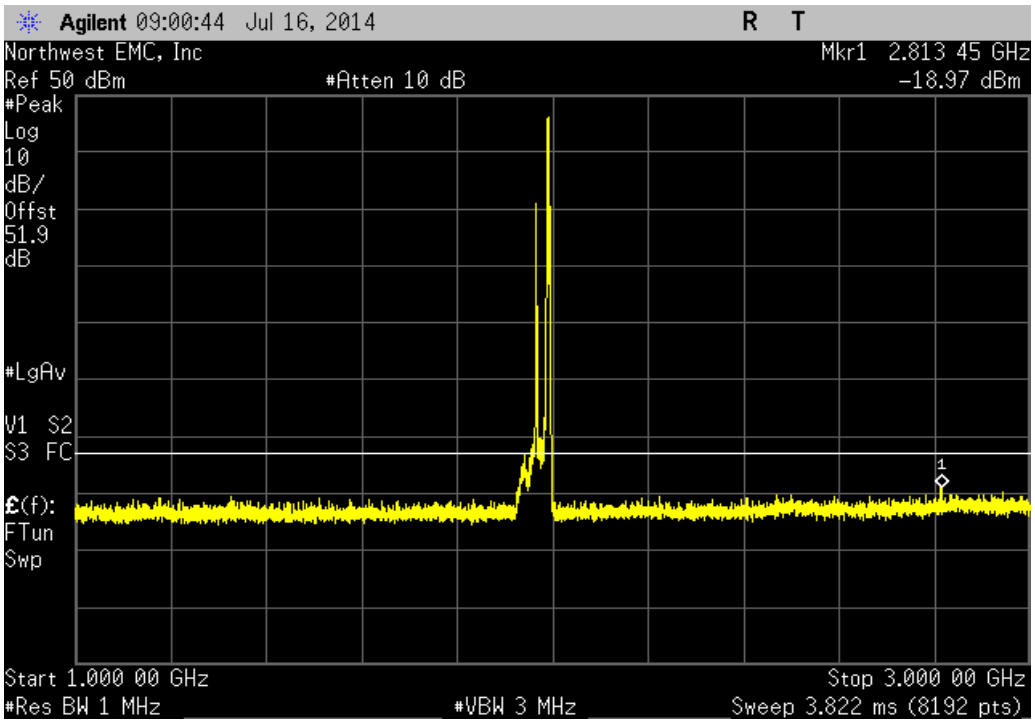


Band CEFG, WCDMA					
Frequency Range			Value	Limit	Result
30 MHz - 1 GHz			-40.53 dBm	≤ -13 dBm	Pass

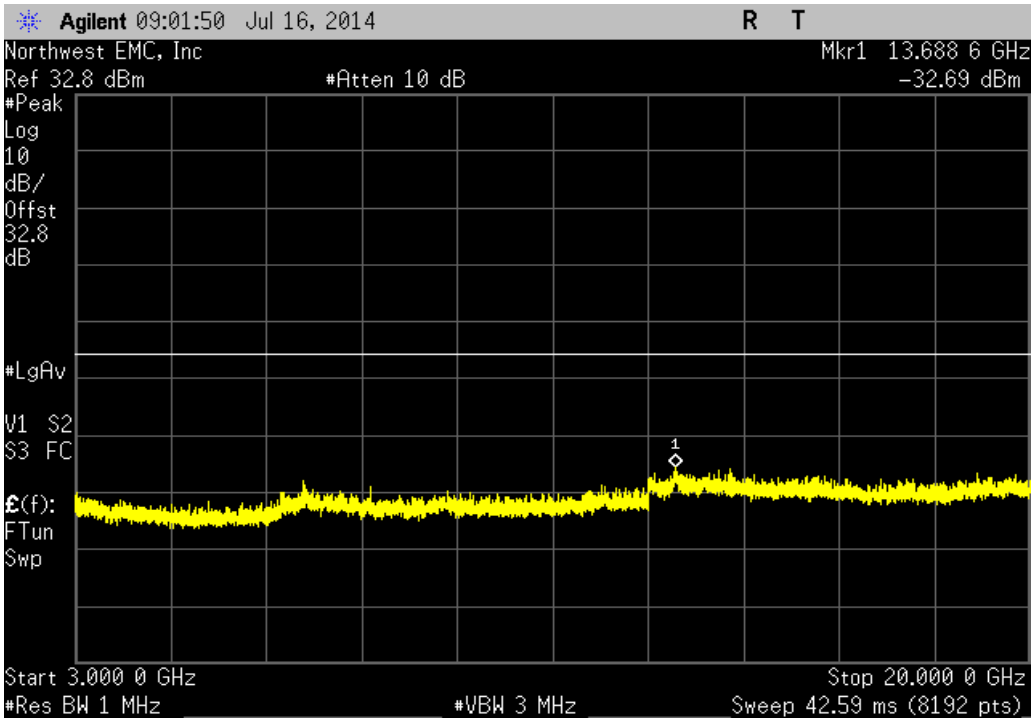


INTERMODULATION 1900 WCDMA

Band CEFG, WCDMA						
	Frequency Range			Value	Limit	Result
	1 GHz - 3 GHz			-18.97 dBm	≤ -13 dBm	Pass



Band CEFG, WCDMA						
	Frequency Range			Value	Limit	Result
	3 GHz - 20 GHz			-32.69 dBm	≤ -13 dBm	Pass



FREQUENCY STABILITY 1900

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.	Interval
Multimeter	Fluke	117	MNN	1/20/2014	36
Variable Transformer	Powerstat	246	XFR	NCR	0
Humidity Temperature Meter	Omega Engineering, Inc.	HH31	DUB	10/25/2011	36
Temp./Humidity Chamber	Cincinnati Sub Zero (CSZ)	ZPH-32-3.5-SCT/AC	TBF	NCR	0
Attenuator - 20db, 'SMA'	SM Electronics	SA26B-20	RFW	4/3/2014	12
40 GHz DC block	Fairview Microwave	SD3379	AMI	9/26/2013	12
Signal Generator MXG	Agilent	N5183A	TIK	6/7/2012	36
Spectrum Analyzer	Agilent	E4440A	AAX	5/15/2012	24

TEST DESCRIPTION

A direct connect measurement was made between the EUT's antenna cable and a spectrum analyzer. The spectrum analyzer is equipped with a precision frequency reference that exceeds the stability requirement of the EUT. 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.

FREQUENCY STABILITY 1900

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			Work Order:	TECO0013
Serial Number:	None			Date:	04/14/14
Customer:	TE Connectivity / ADC Telecommunications			Temperature:	22.8°C
Attendees:	None			Humidity:	16%
Project:	None			Barometric Pres.:	1020.6
Tested by:	Trevor Buls	Power:	110VAC/60Hz	Job Site:	MN08

TEST SPECIFICATIONS	Test Method
FCC 24E:2014	ANSI/TIA/EIA-603-C-2004

COMMENTS

Customer provided a high wattage 30 dB attenuator. Voltage range varied from 126.5 to 93.5 VAC. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

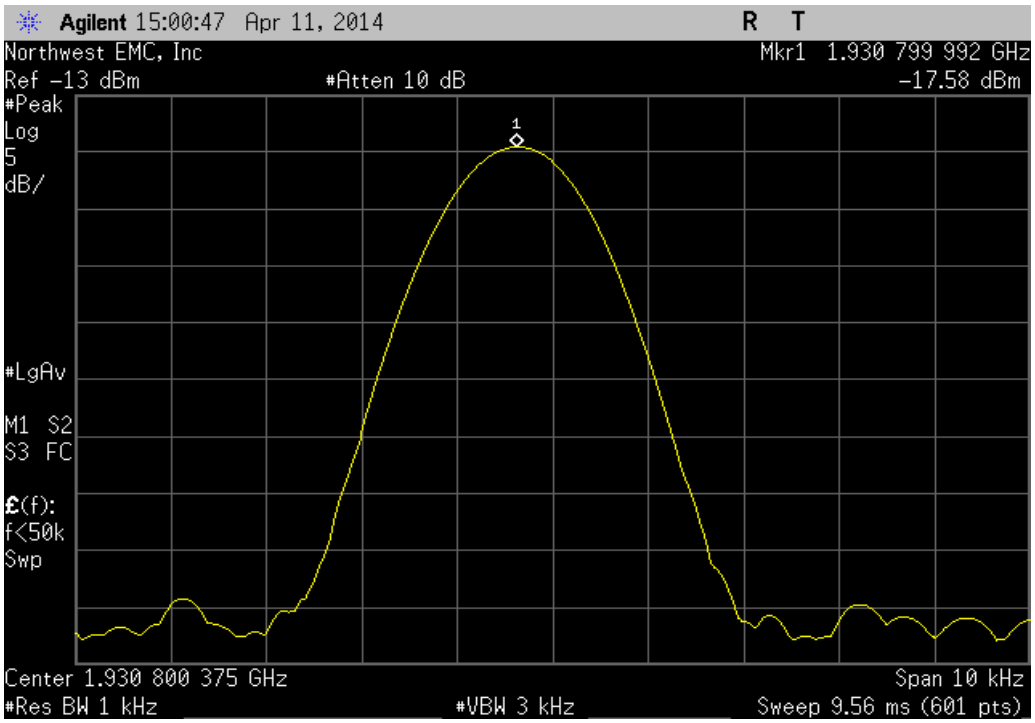
None

Configuration #	1	Signature	Trevor Buls

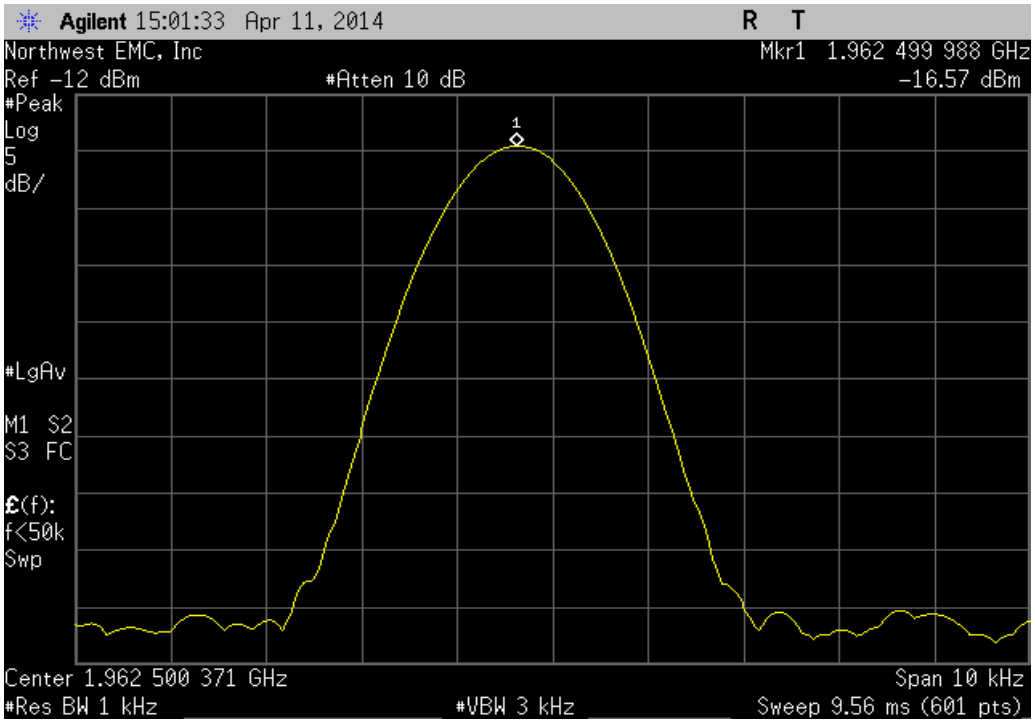
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
Voltage: 115%						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Voltage: 100%						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Voltage: 85%						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.2	1994.2	0.0000	1	Pass
Temperature: +50°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: +40°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499987	1962.5	0.0066	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: +30°						
	Low Channel, 1930.8 MHz	1930.799988	1930.8	0.0062	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: +20°						
	Low Channel, 1930.8 MHz	1930.799988	1930.8	0.0062	1	Pass
	Mid Channel, 1962.5 MHz	1962.500003	1962.5	0.0015	1	Pass
	High Channel, 1994.2 MHz	1994.199985	1994.2	0.0075	1	Pass
Temperature: +10°						
	Low Channel, 1930.8 MHz	1930.799989	1930.8	0.0057	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: 0°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.2	1994.2	0.0000	1	Pass
Temperature: -10°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499986	1962.5	0.0071	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: -20°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass
Temperature: -30°						
	Low Channel, 1930.8 MHz	1930.799992	1930.8	0.0041	1	Pass
	Mid Channel, 1962.5 MHz	1962.499988	1962.5	0.0061	1	Pass
	High Channel, 1994.2 MHz	1994.199984	1994.2	0.0080	1	Pass

FREQUENCY STABILITY 1900

Voltage: 115%, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

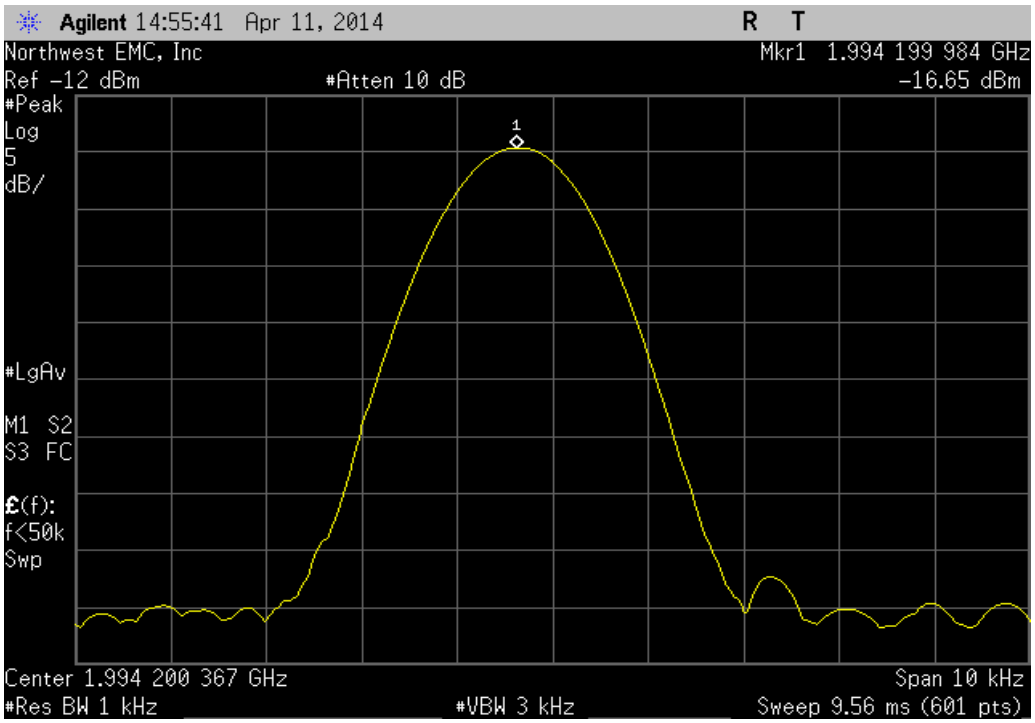


Voltage: 115%, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

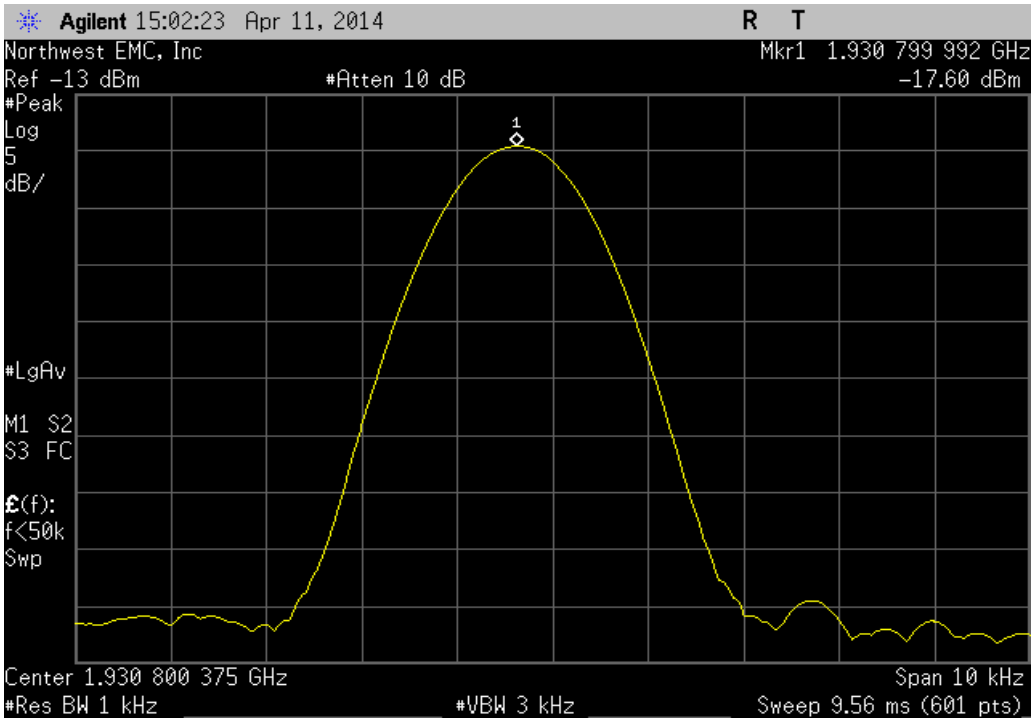


FREQUENCY STABILITY 1900

Voltage: 115%, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

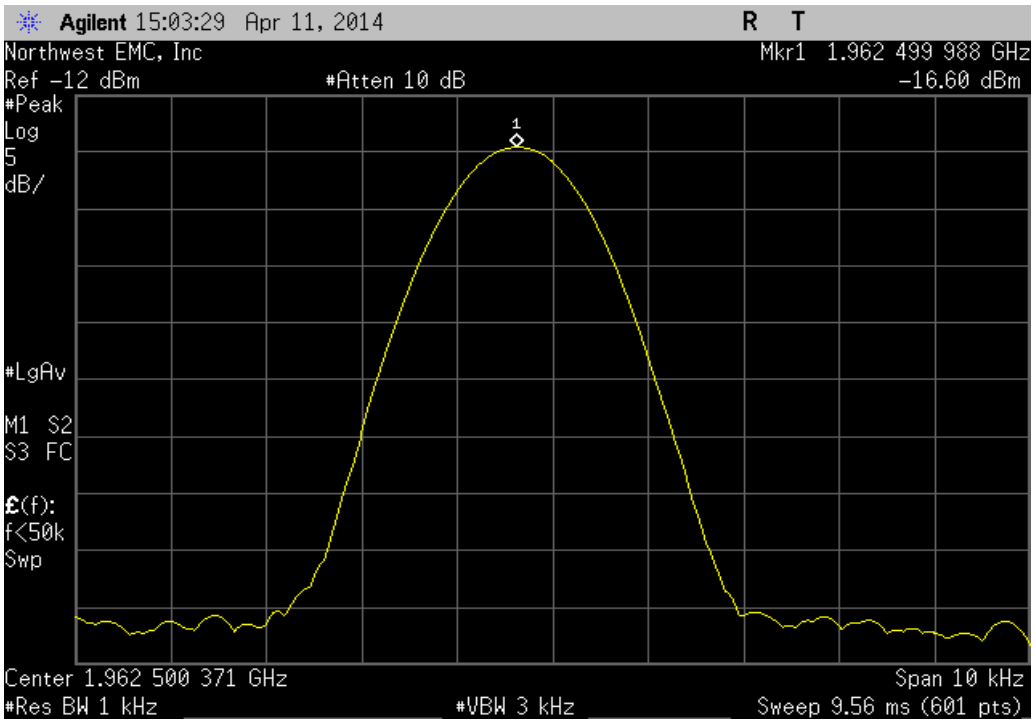


Voltage: 100%, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

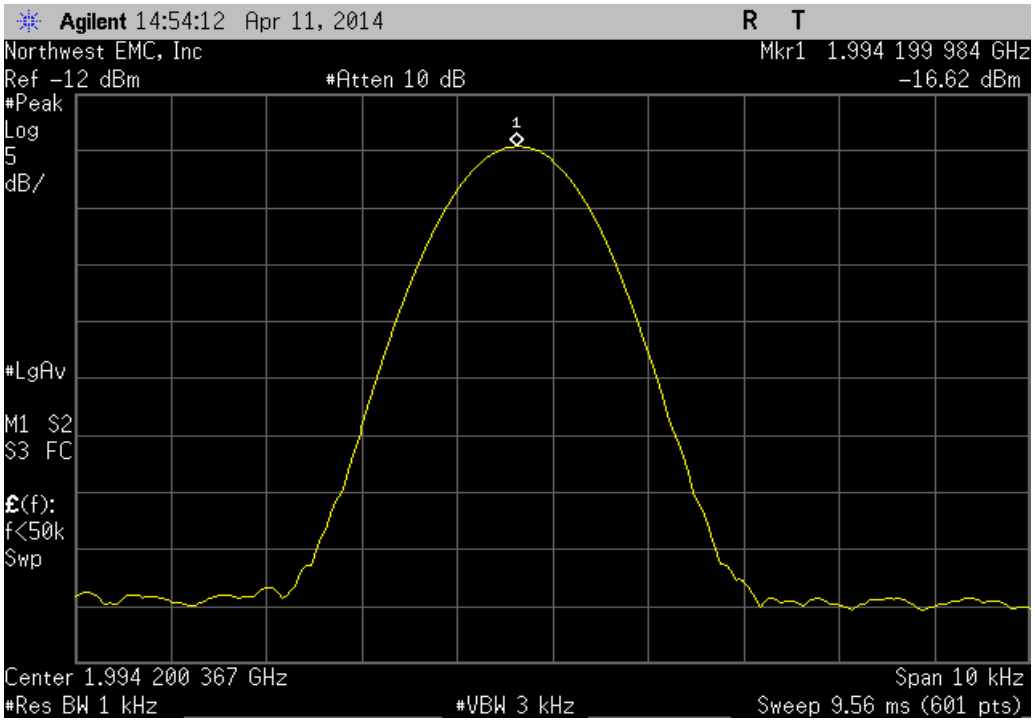


FREQUENCY STABILITY 1900

Voltage: 100%, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

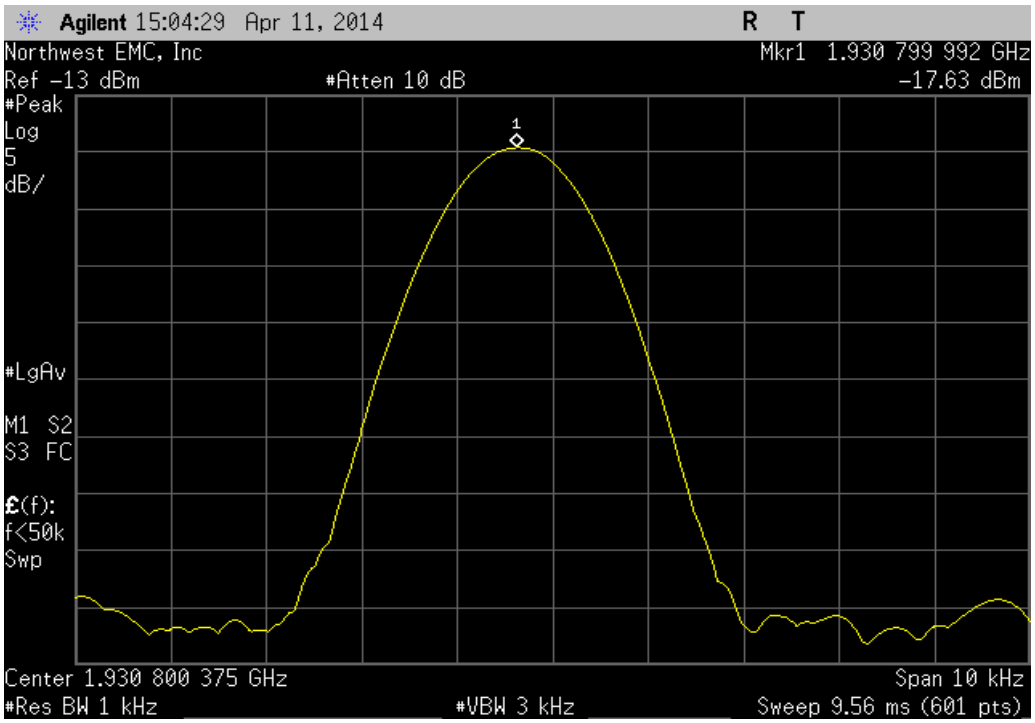


Voltage: 100%, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

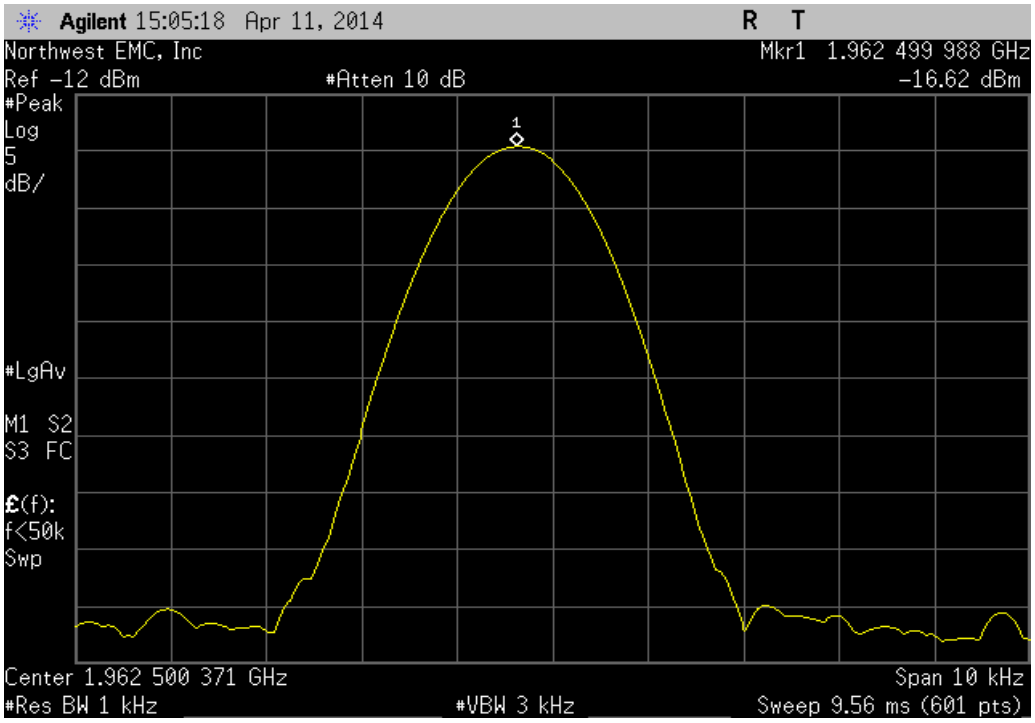


FREQUENCY STABILITY 1900

Voltage: 85%, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

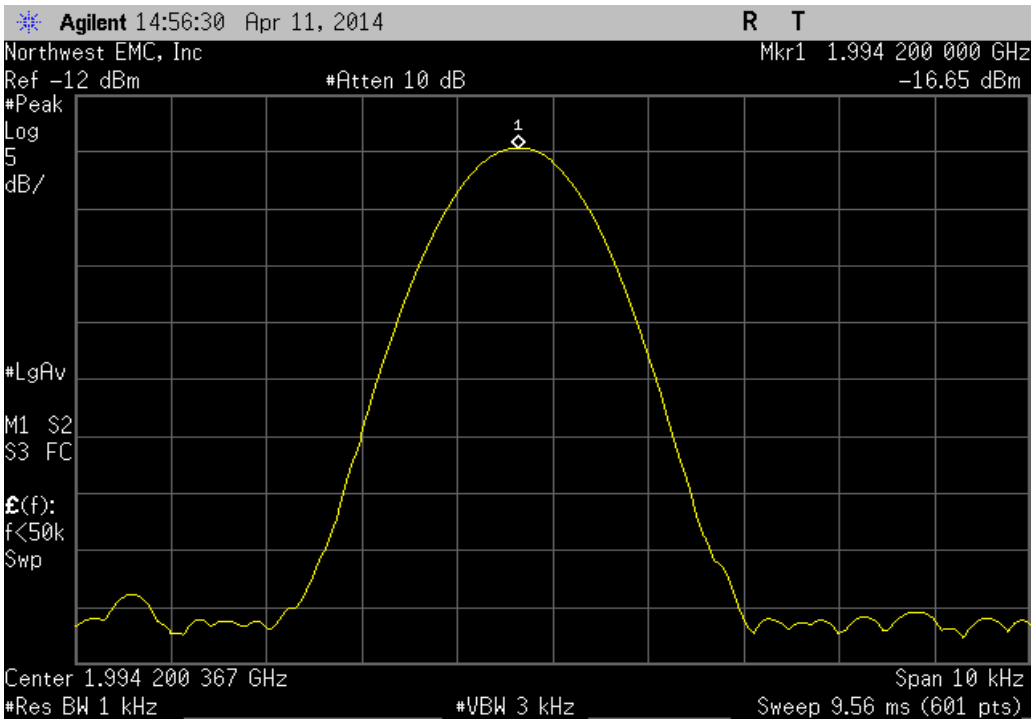


Voltage: 85%, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

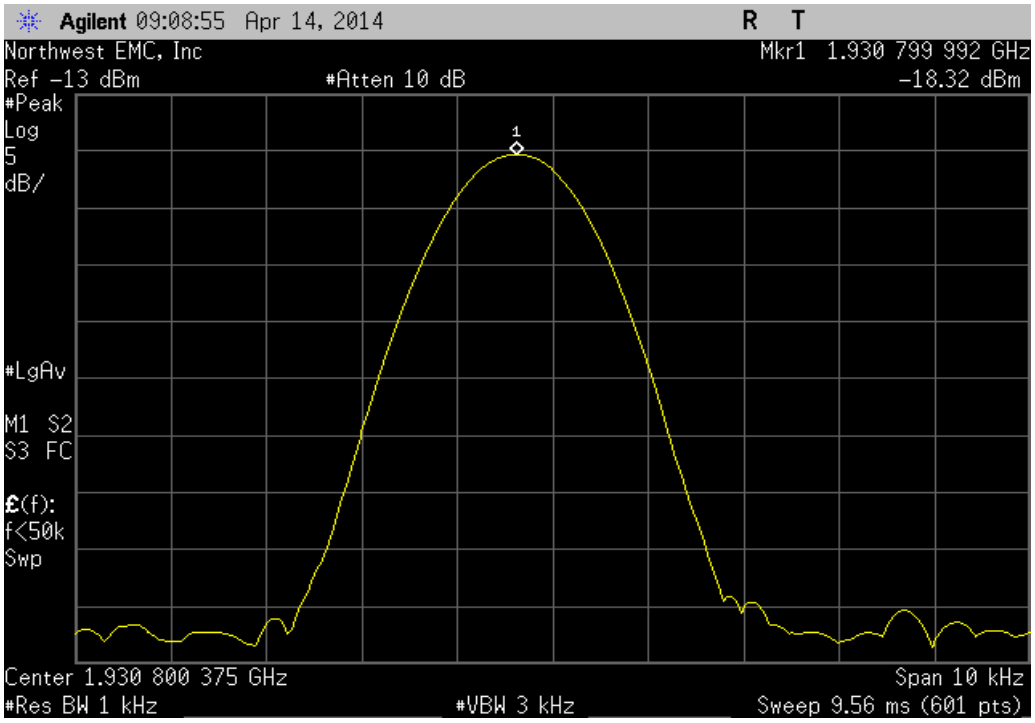


FREQUENCY STABILITY 1900

Voltage: 85%, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.2	1994.2	0.0000	1	Pass

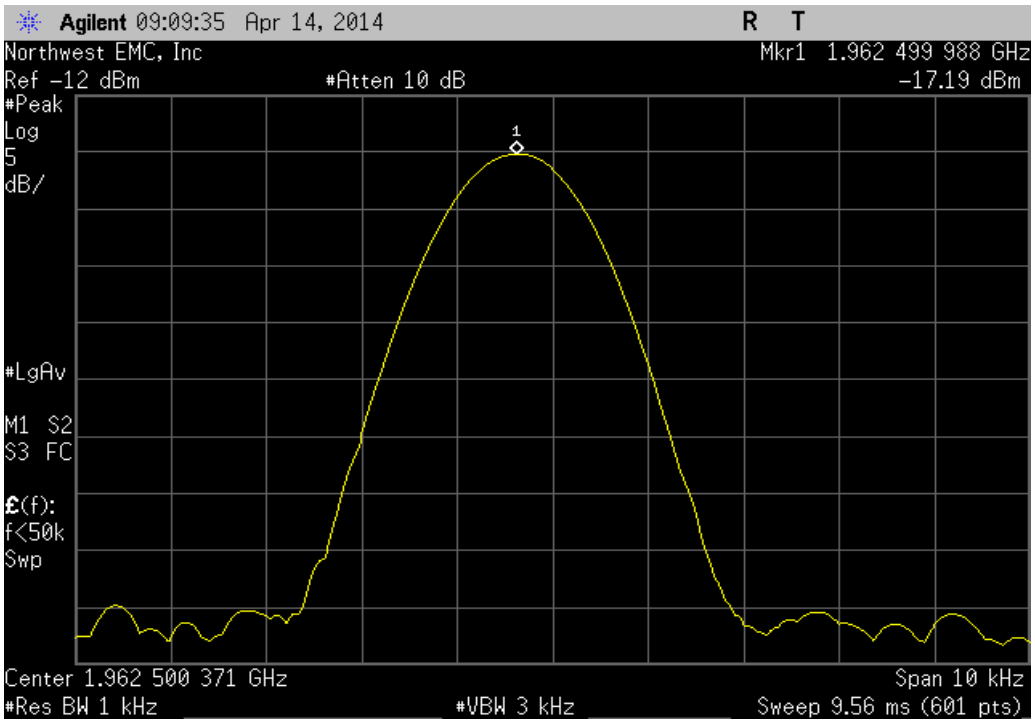


Temperature: +50°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

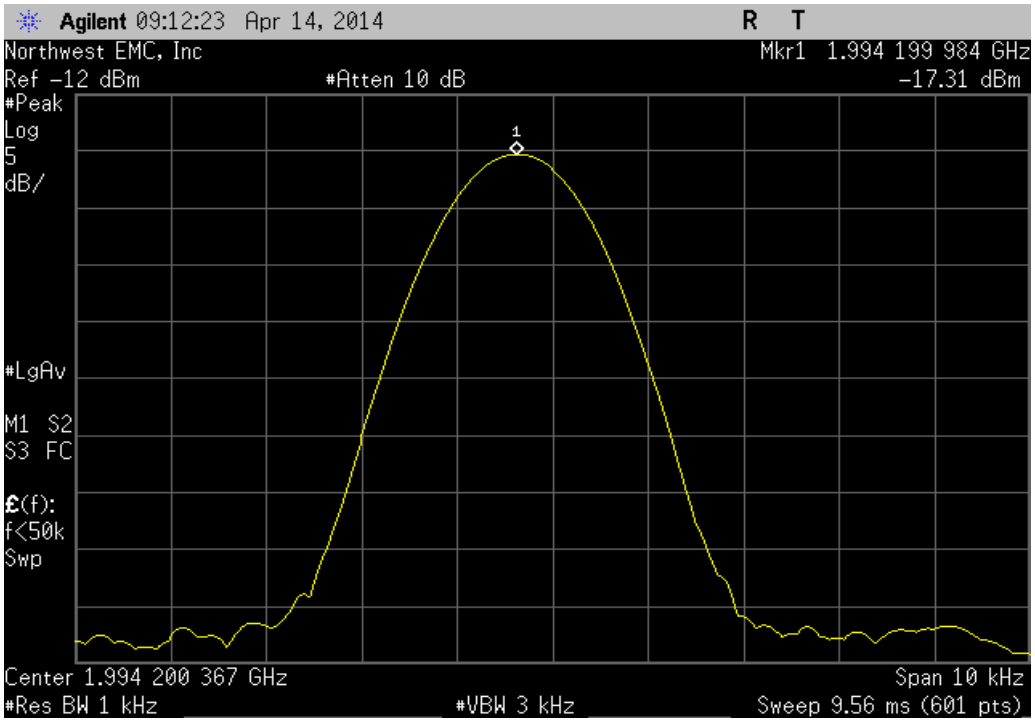


FREQUENCY STABILITY 1900

Temperature: +50°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

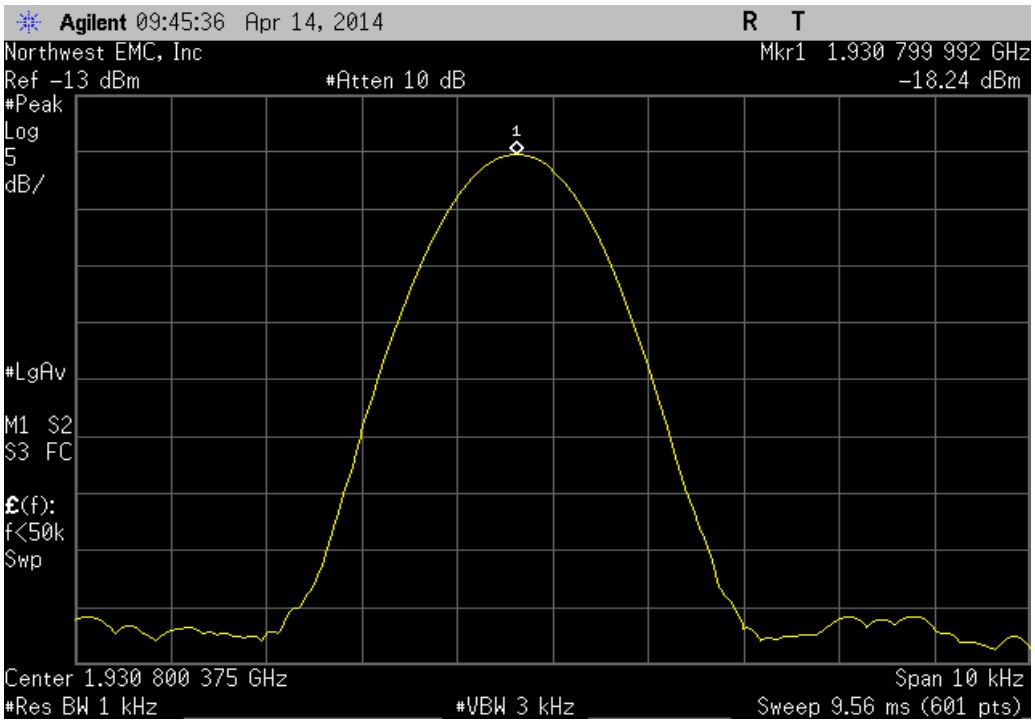


Temperature: +50°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

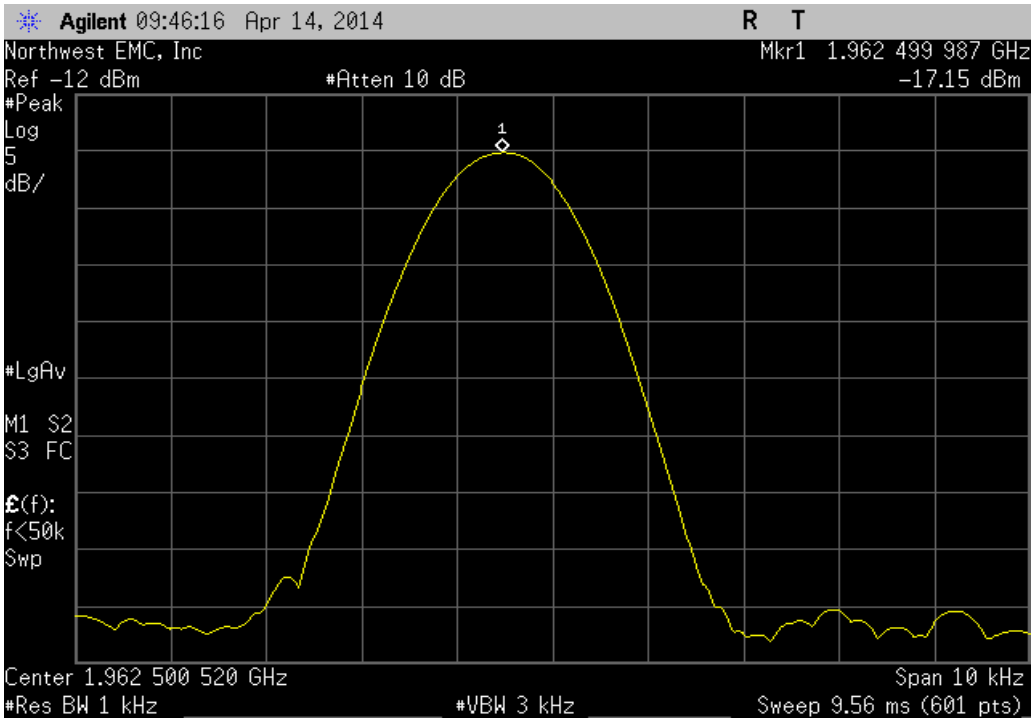


FREQUENCY STABILITY 1900

Temperature: +40°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

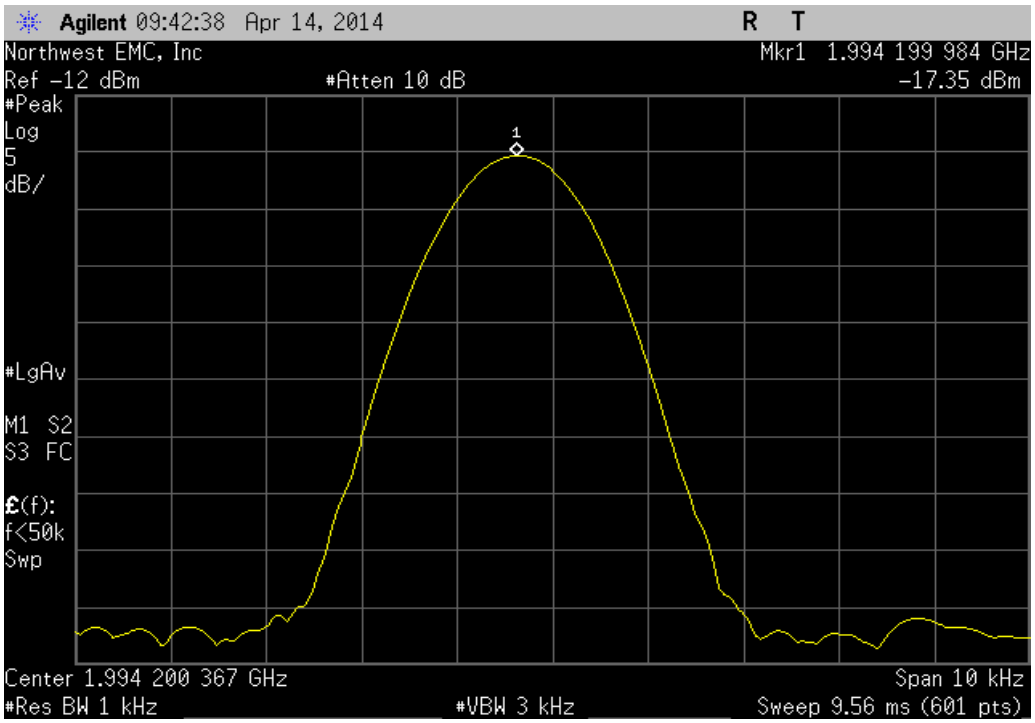


Temperature: +40°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499987	1962.5	0.0066	1	Pass

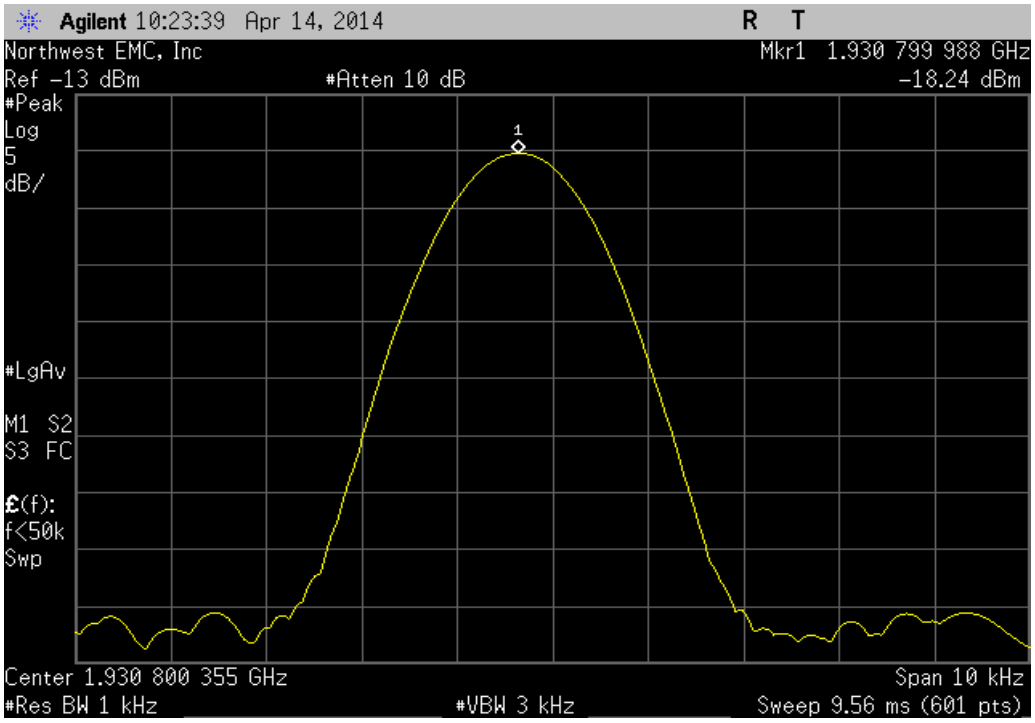


FREQUENCY STABILITY 1900

Temperature: +40°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

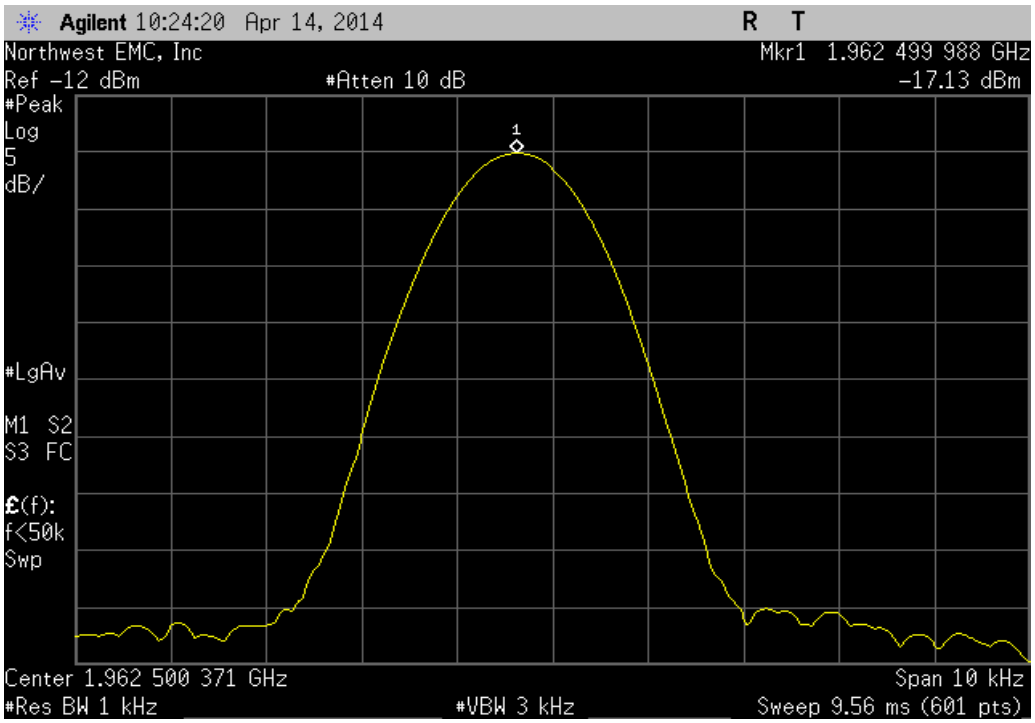


Temperature: +30°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799988	1930.8	0.0062	1	Pass

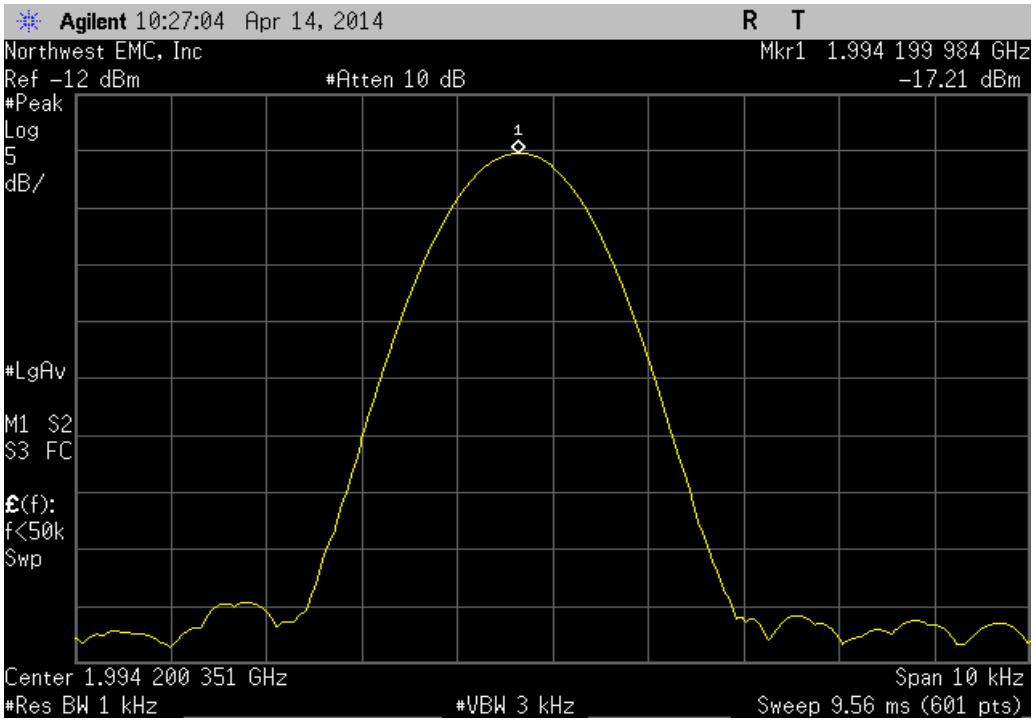


FREQUENCY STABILITY 1900

Temperature: +30°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

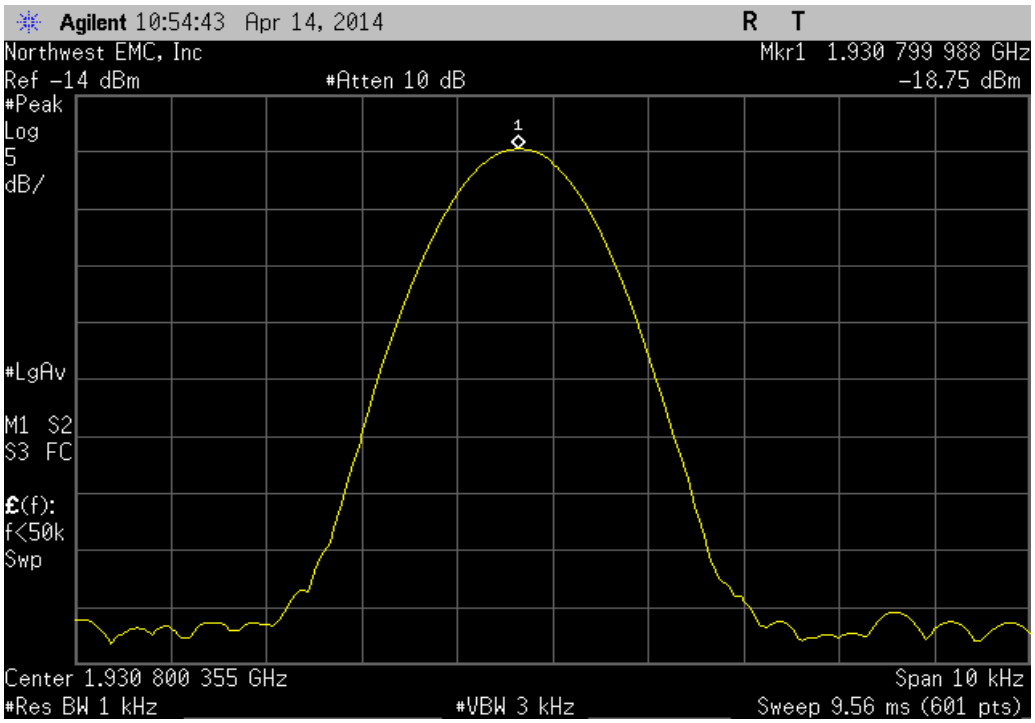


Temperature: +30°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

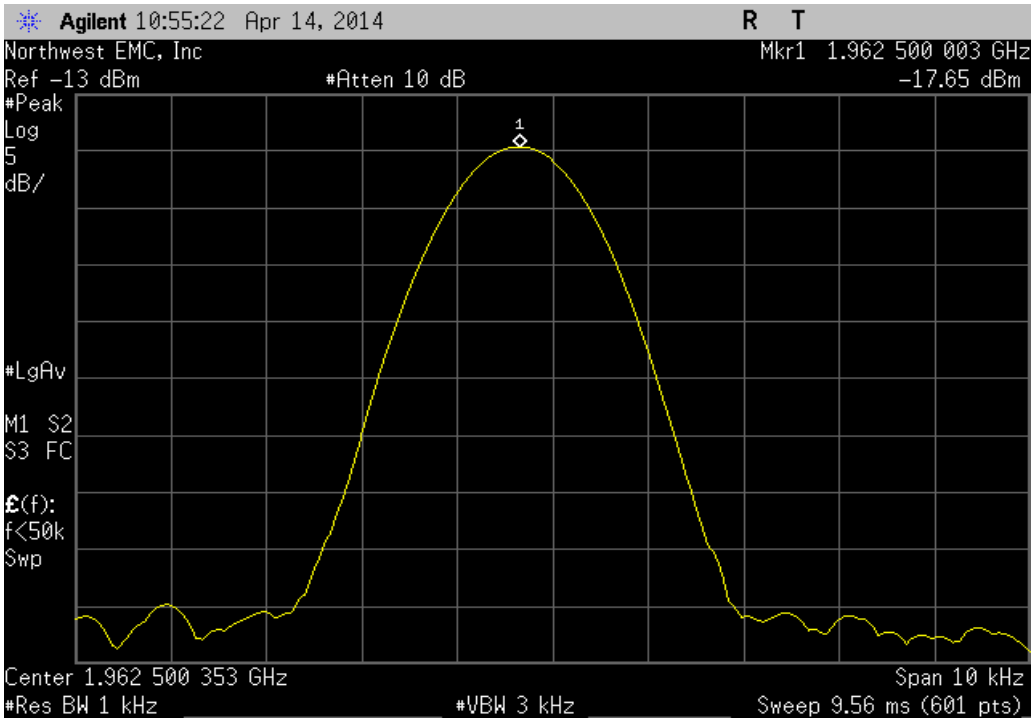


FREQUENCY STABILITY 1900

Temperature: +20°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799988	1930.8	0.0062	1	Pass

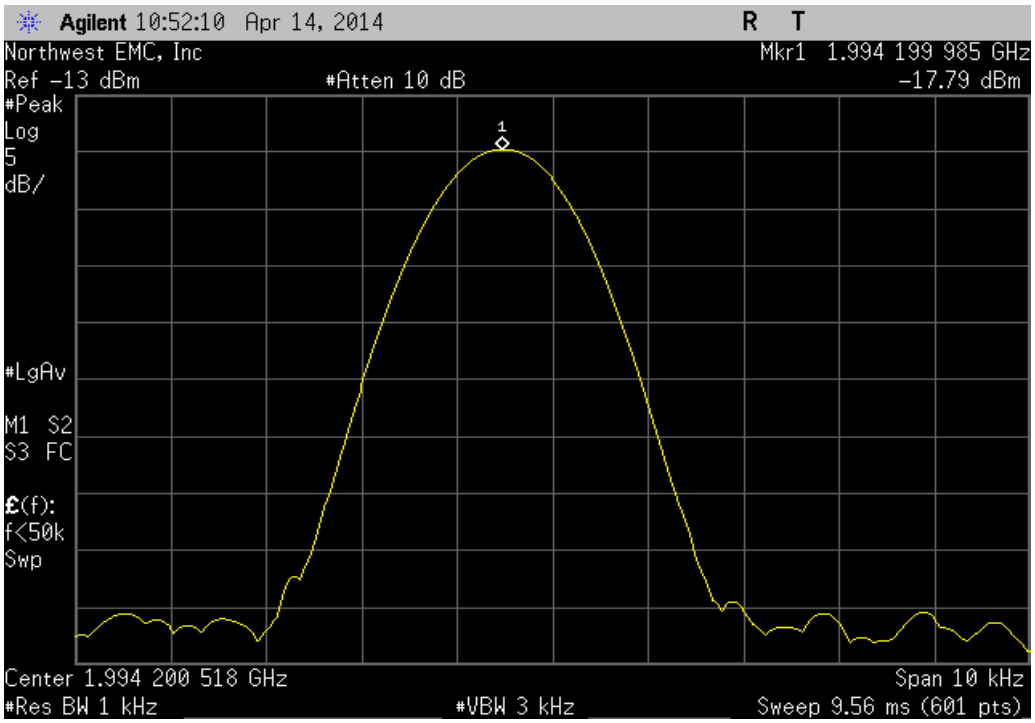


Temperature: +20°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.500003	1962.5	0.0015	1	Pass

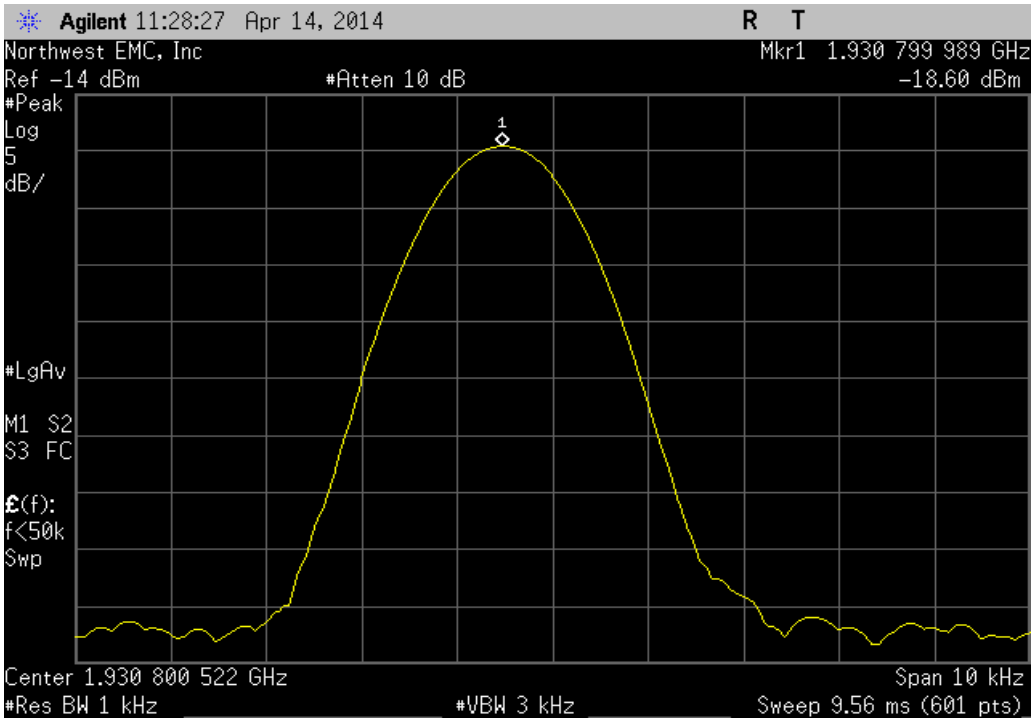


FREQUENCY STABILITY 1900

Temperature: +20°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199985	1994.2	0.0075	1	Pass

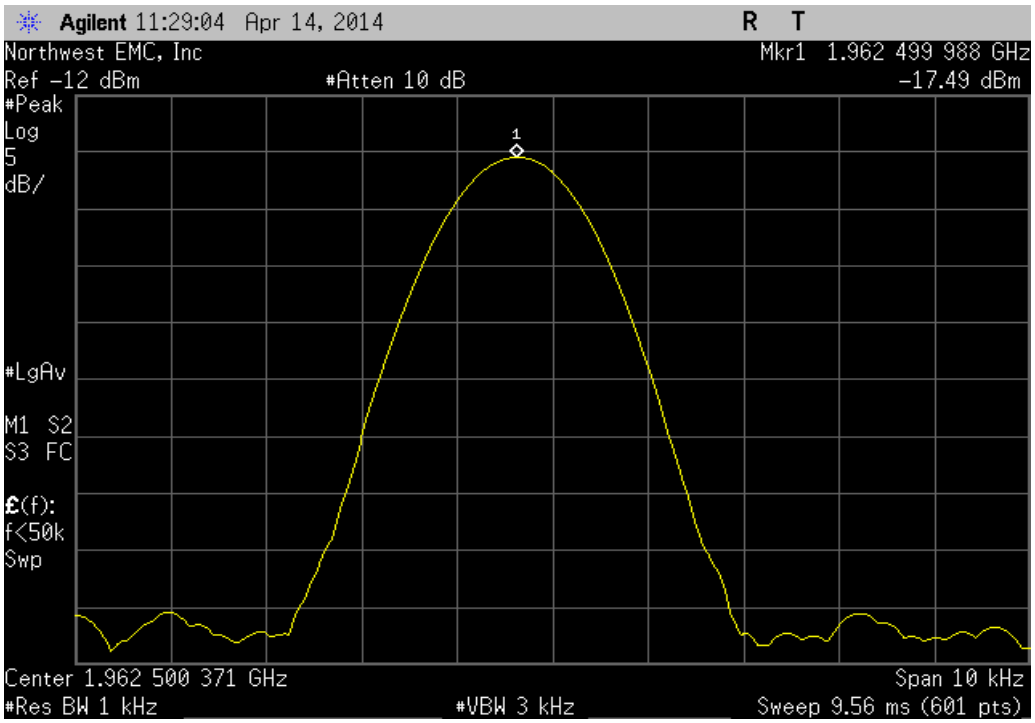


Temperature: +10°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799989	1930.8	0.0057	1	Pass

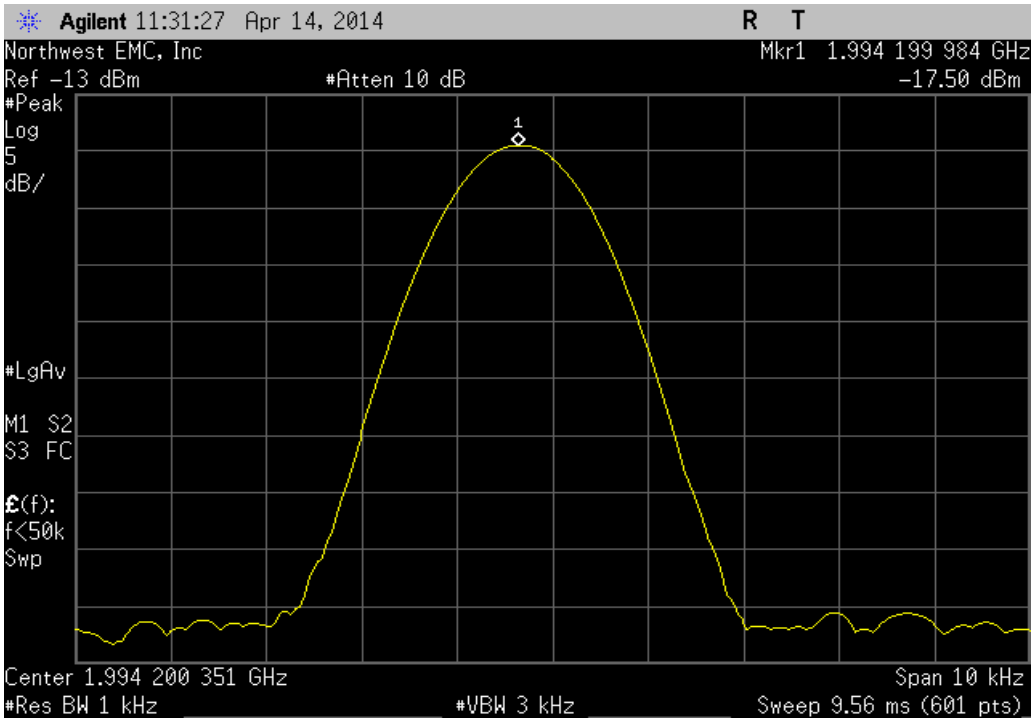


FREQUENCY STABILITY 1900

Temperature: +10°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

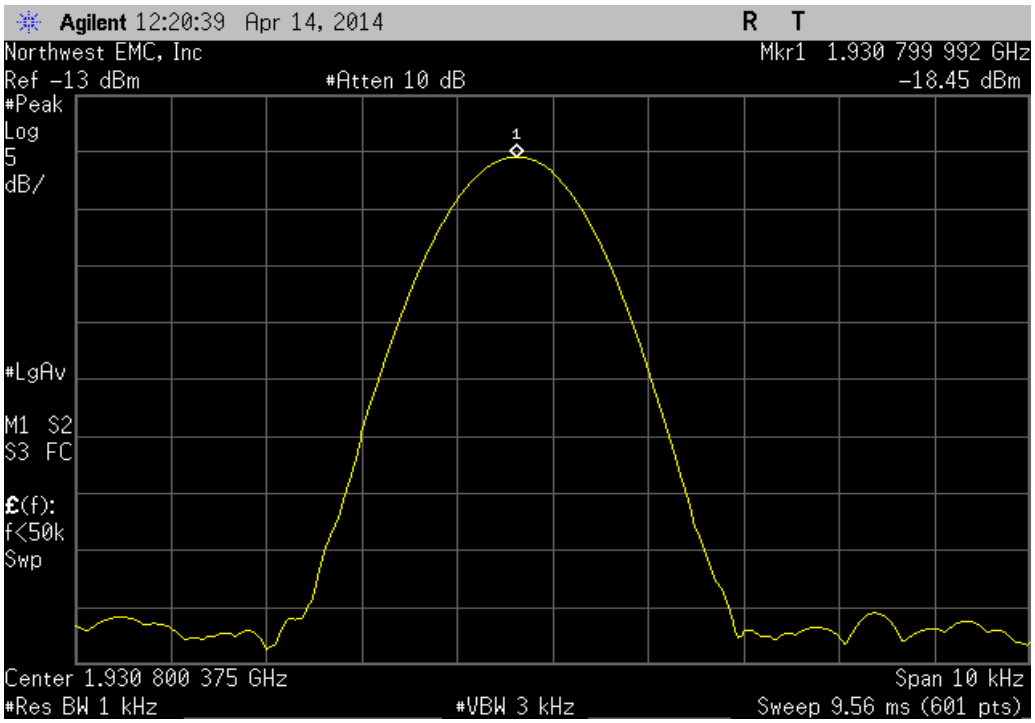


Temperature: +10°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

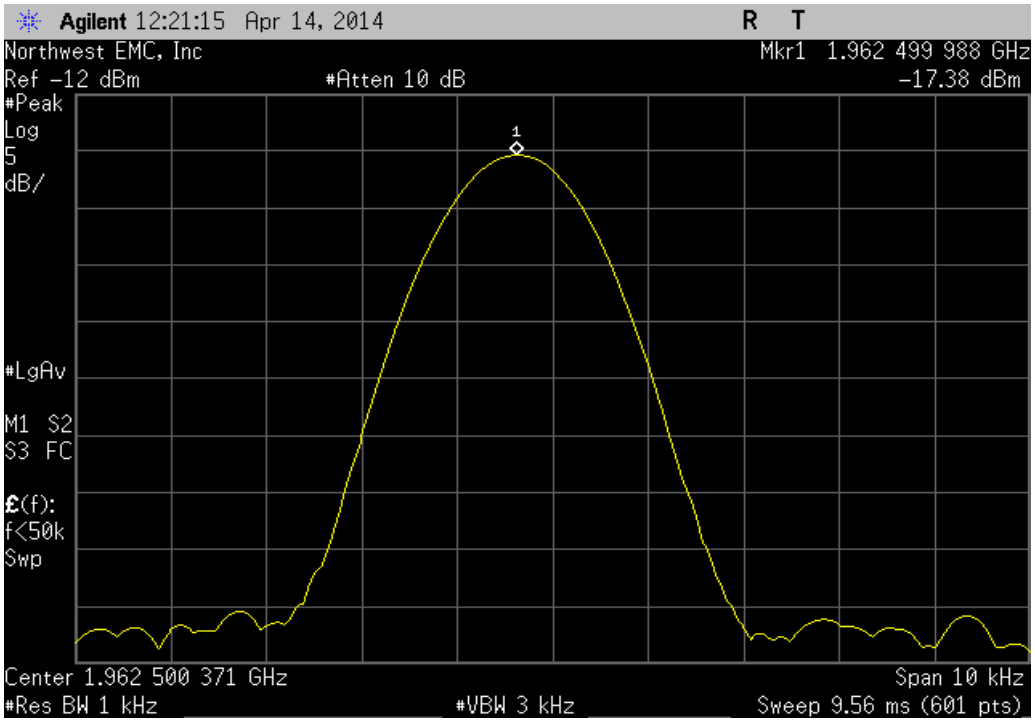


FREQUENCY STABILITY 1900

Temperature: 0°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

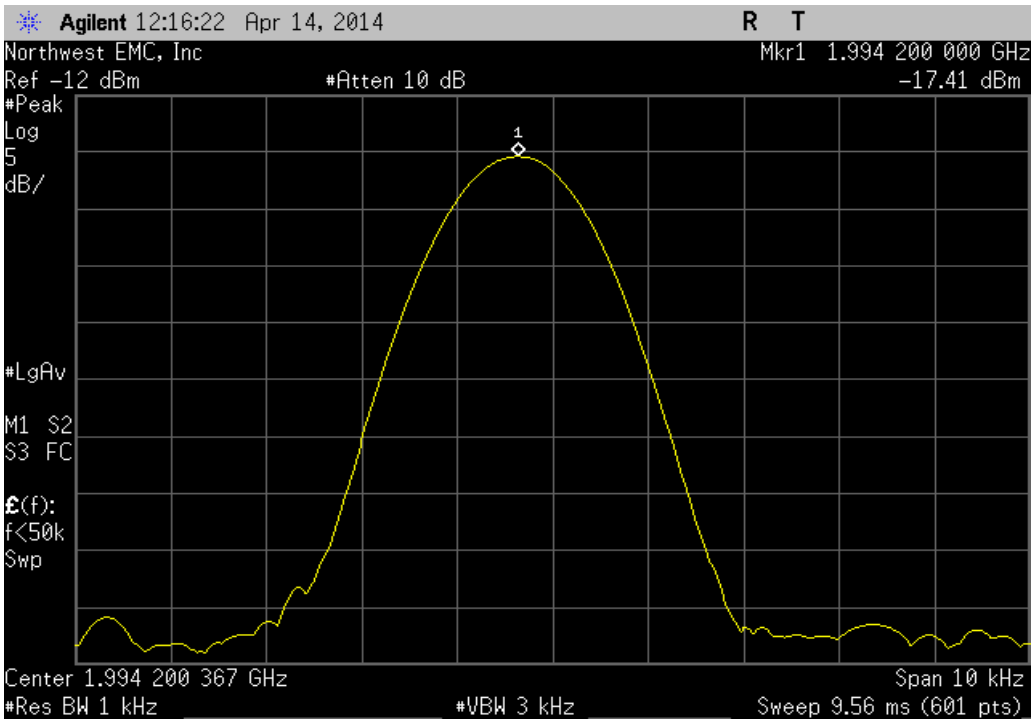


Temperature: 0°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

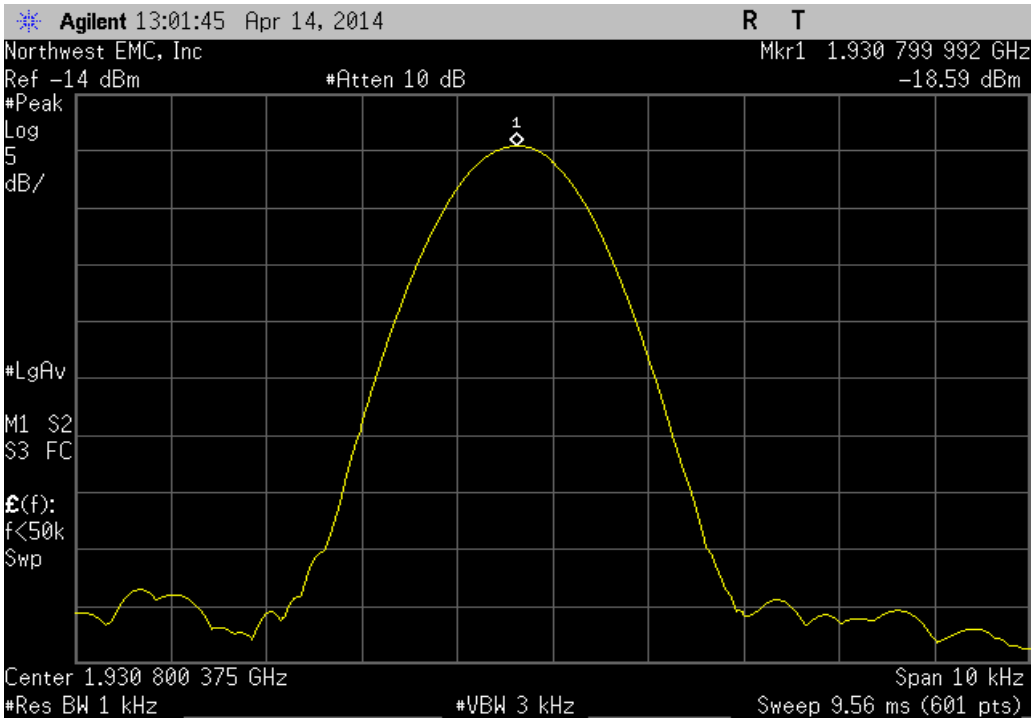


FREQUENCY STABILITY 1900

Temperature: 0°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.2	1994.2	0.0000	1	Pass

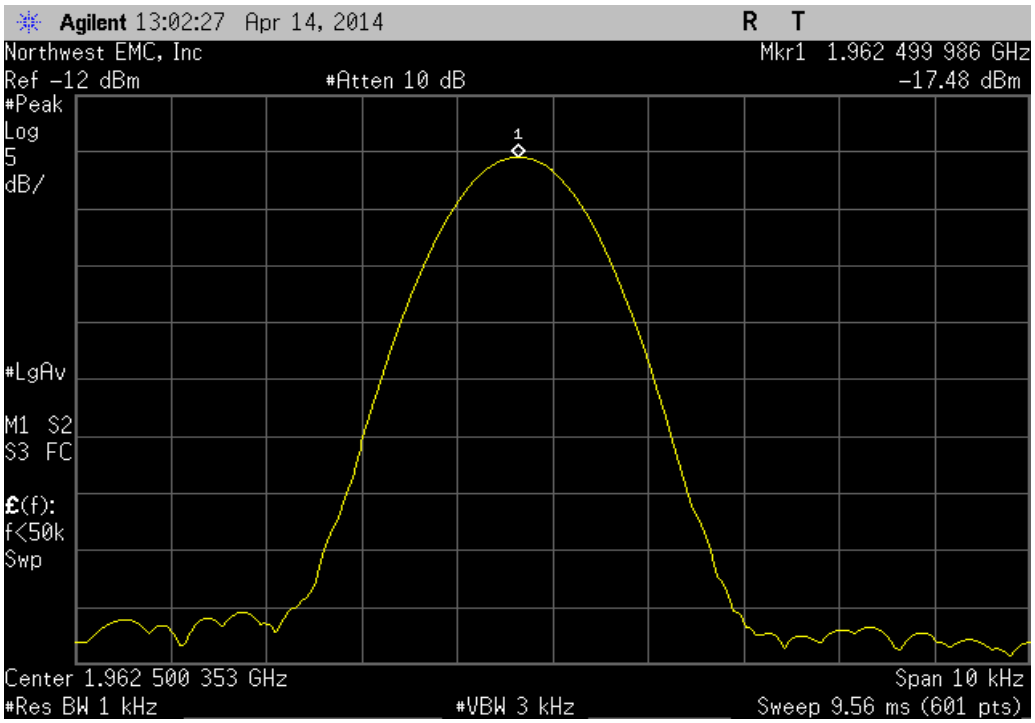


Temperature: -10°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

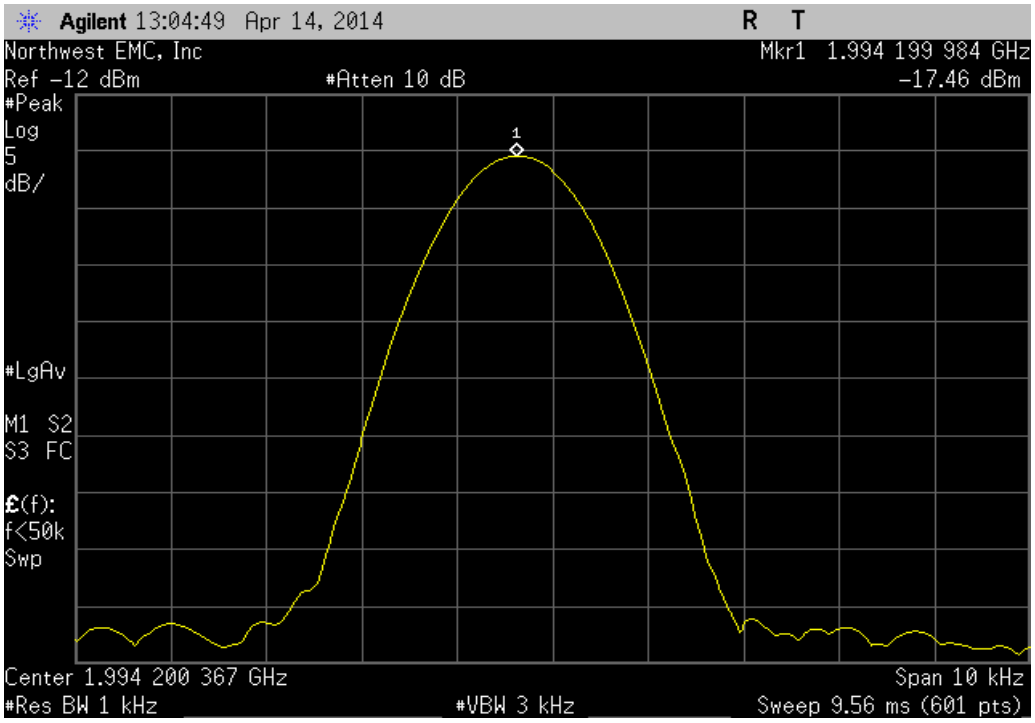


FREQUENCY STABILITY 1900

Temperature: -10°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499986	1962.5	0.0071	1	Pass

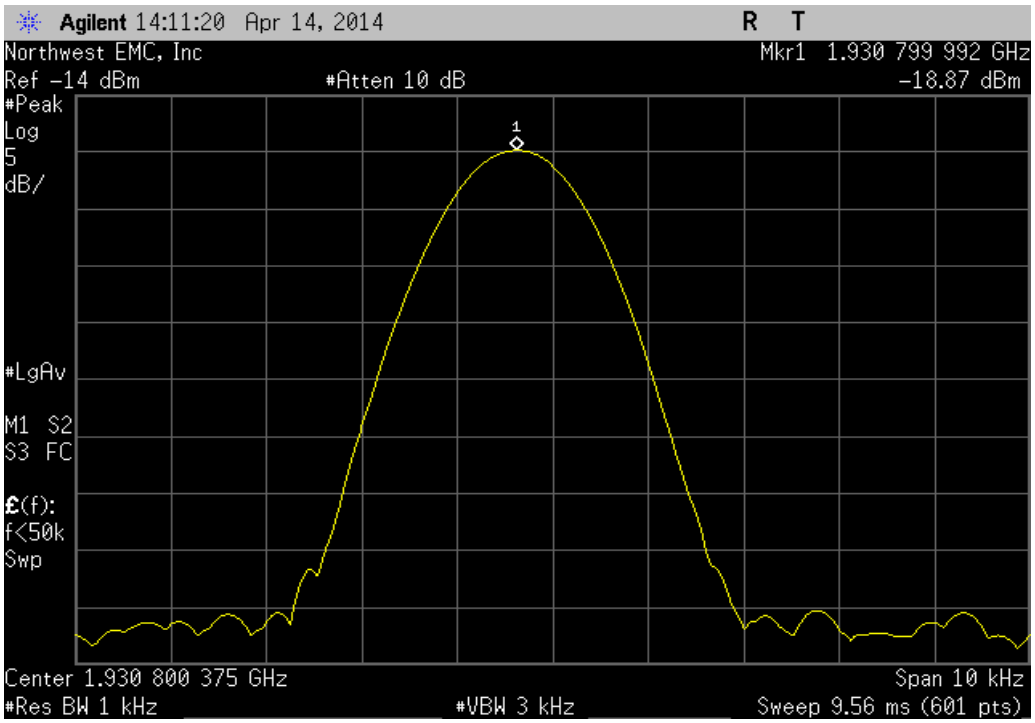


Temperature: -10°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

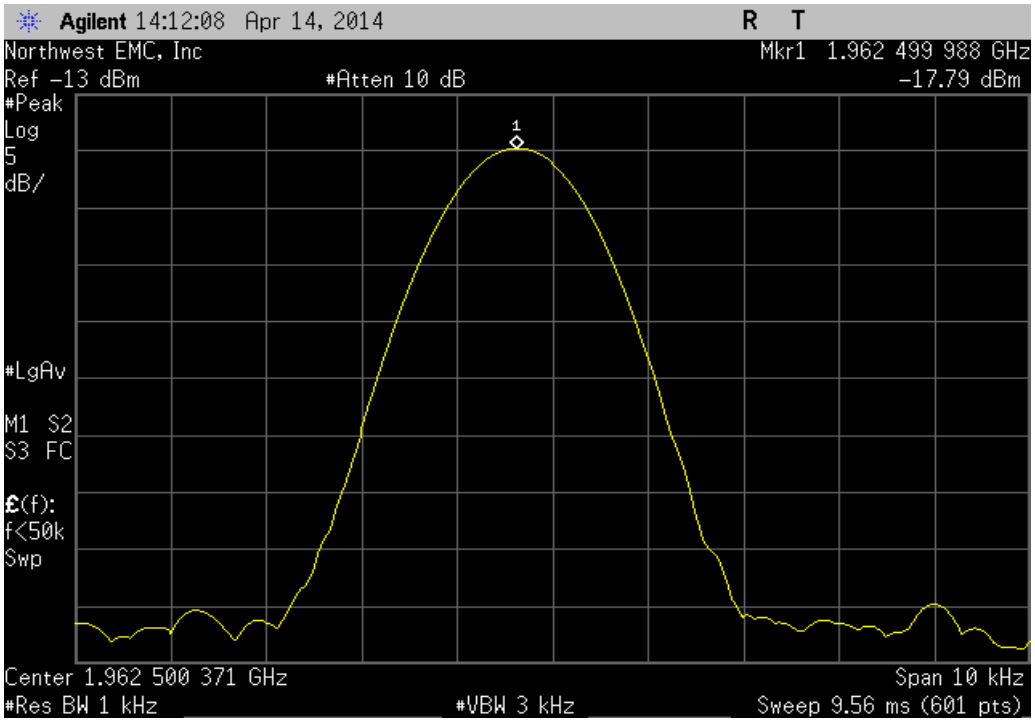


FREQUENCY STABILITY 1900

Temperature: -20°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

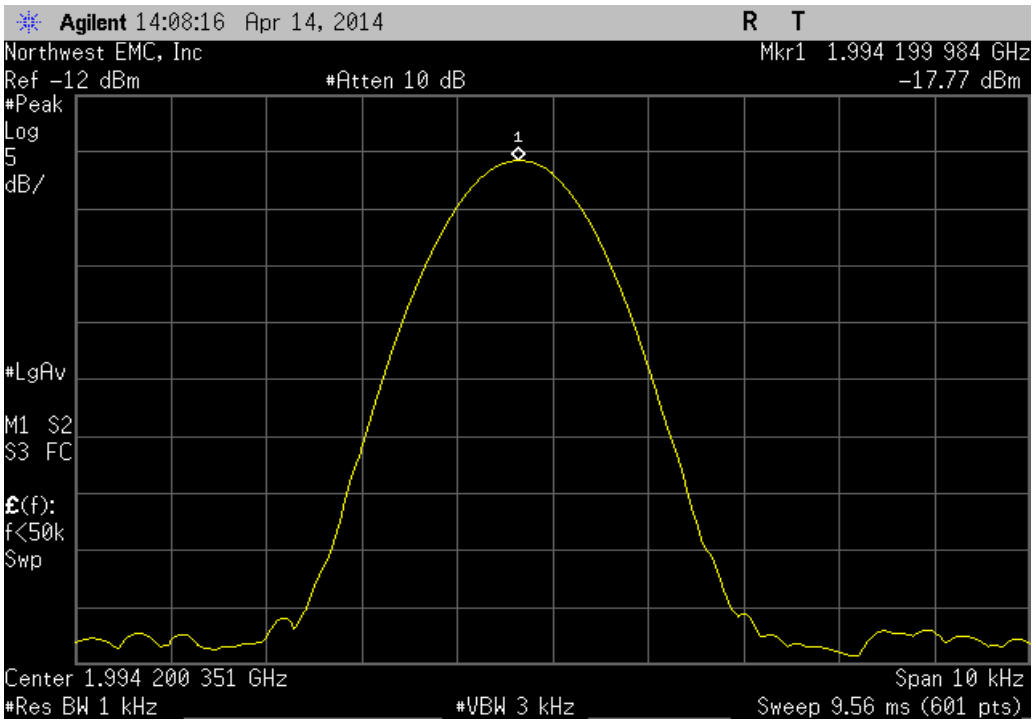


Temperature: -20°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass

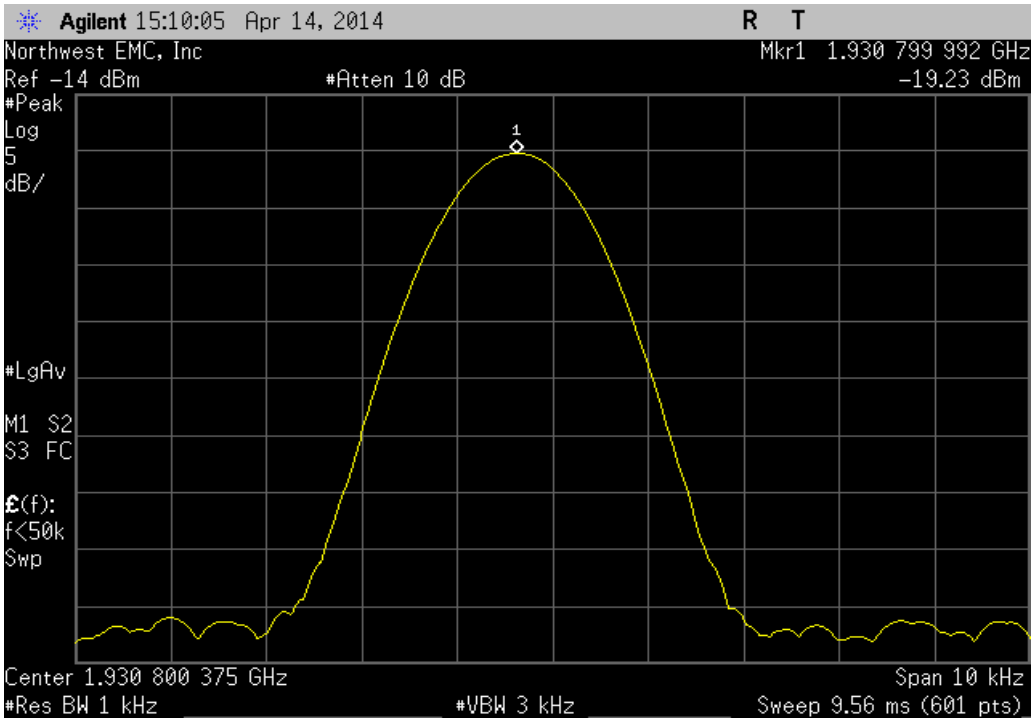


FREQUENCY STABILITY 1900

Temperature: -20°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass

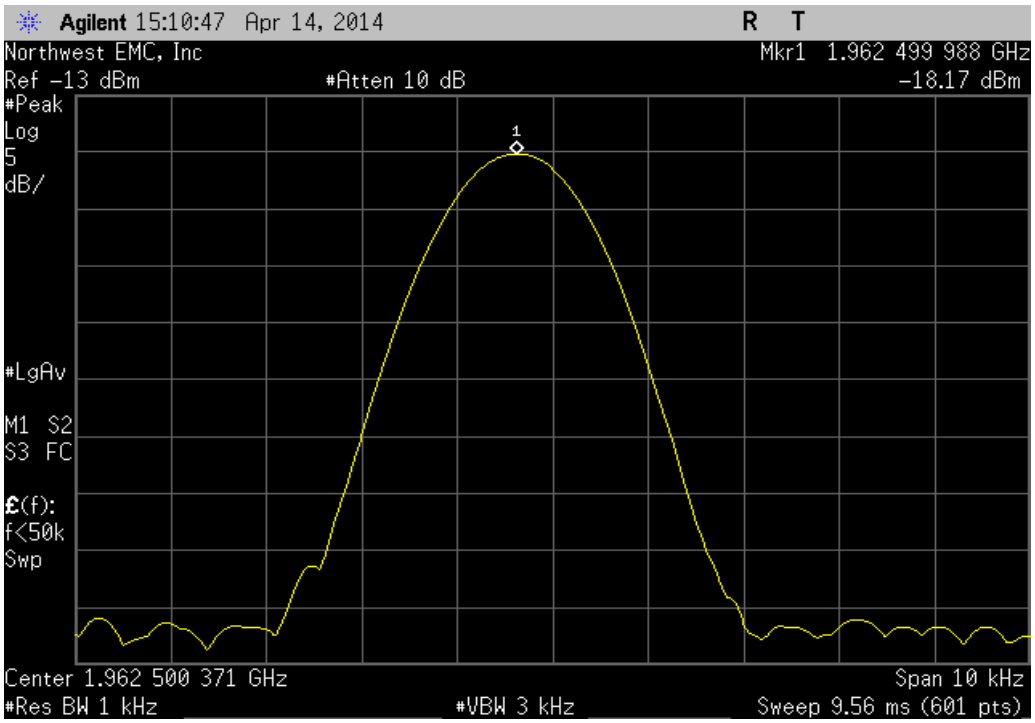


Temperature: -30°, Low Channel, 1930.8 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1930.799992	1930.8	0.0041	1	Pass

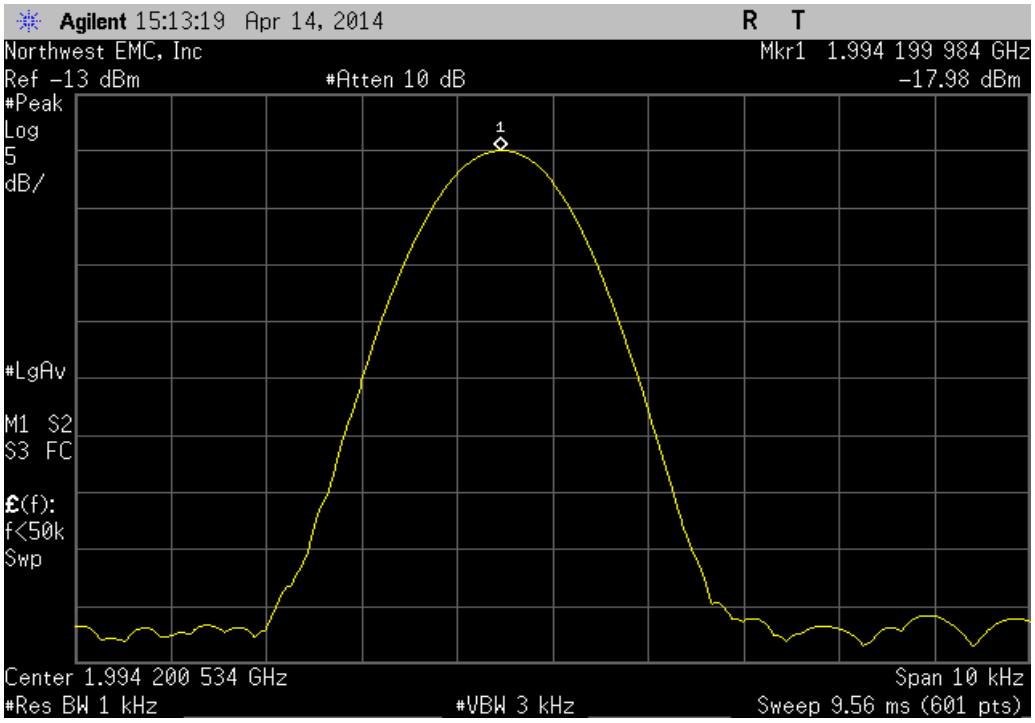


FREQUENCY STABILITY 1900

Temperature: -30°, Mid Channel, 1962.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1962.499988	1962.5	0.0061	1	Pass



Temperature: -30°, High Channel, 1994.2 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Result
		1994.199984	1994.2	0.0080	1	Pass



SPURIOUS RADIATED EMISSIONS

PSA-ESCI 2017.09.18

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 WCDMA and LTE 5 MHz - low channel (2112.5 MHz), mid channel (2145 MHz), and high channel (2177.5 MHz); LTE 10 MHz - high channel (2175 MHz).

Transmitting WCDMA and LTE 5 MHz - low channel (1932.5 MHz), mid channel (1962.5 MHz), and high channel (1992.5 MHz); LTE 10 MHz - high channel (1990 MHz).

POWER SETTINGS INVESTIGATED

110VAC/60Hz

CONFIGURATIONS INVESTIGATED

TECO0048 - 1

FREQUENCY RANGE INVESTIGATED

Start Frequency	30 MHz	Stop Frequency	26500 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
Power Sensor	Agilent	N8481A	SQN	17-Jul-2017	12 mo
Meter - Power	Agilent	N1913A	SQL	17-Jul-2017	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AIB	25-Aug-2016	24 mo
Generator - Signal	Keysight	N5171B (EXG)	TEY	23-Oct-2016	36 mo
Filter - Band Pass/Notch	K&L Microwave	3TNF-1000/2000-N/N	HGT	7-Aug-2017	12 mo
Attenuator	Fairview Microwave	SA18E-20	TWZ	20-Sep-2017	12 mo
Filter - High Pass	Micro-Tronics	HPM50111	LFN	20-Sep-2017	12 mo
Filter - Low Pass	Micro-Tronics	LPM50004	LFK	20-Sep-2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-12001800-30-10P	AVW	13-Feb-2018	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-08	AIQ	NCR	0 mo
Cable	ESM Cable Corp.	Standard Gain Horn Cables	MNJ	12-Jul-2017	12 mo
Amplifier - Pre-Amplifier	Miteq	AMF-6F-08001200-30-10P	AVV	13-Feb-2018	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-07	AXP	NCR	0 mo
Amplifier - Pre-Amplifier	Miteq	AMF-3D-00100800-32-13P	AVT	13-Feb-2018	12 mo
Cable	ESM Cable Corp.	Double Ridge Guide Horn Cables	MNI	21-Nov-2017	12 mo
Antenna - Double Ridge	ETS Lindgren	3115	AJA	23-Jun-2016	24 mo
Amplifier - Pre-Amplifier	Miteq	AM-1616-1000	AVO	9-Nov-2017	12 mo
Cable	ESM Cable Corp.	Bilog Cables	MNH	9-Nov-2017	12 mo
Antenna - Biconilog	Teseq	CBL 6141B	AYD	25-Jan-2018	24 mo
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	16-Mar-2017	12 mo
Amplifier - Pre-Amplifier	Miteq	JSD4-18002600-26-8P	APU	12-Sep-2017	12 mo
Cable	ESM Cable Corp.	TTBJ141 KMKM-72	MNU	11-Sep-2017	12 mo
Antenna - Standard Gain	ETS Lindgren	3160-09	AHG	NCR	0 mo

MEASUREMENT BANDWIDTHS

Frequency Range (MHz)	Peak Data (kHz)	Quasi-Peak Data (kHz)	Average Data (kHz)
0.01 - 0.15	1.0	0.2	0.2
0.15 - 30.0	10.0	9.0	9.0
30.0 - 1000	100.0	120.0	120.0

Above 1000	1000.0	N/A	1000.0

TEST DESCRIPTION

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

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.

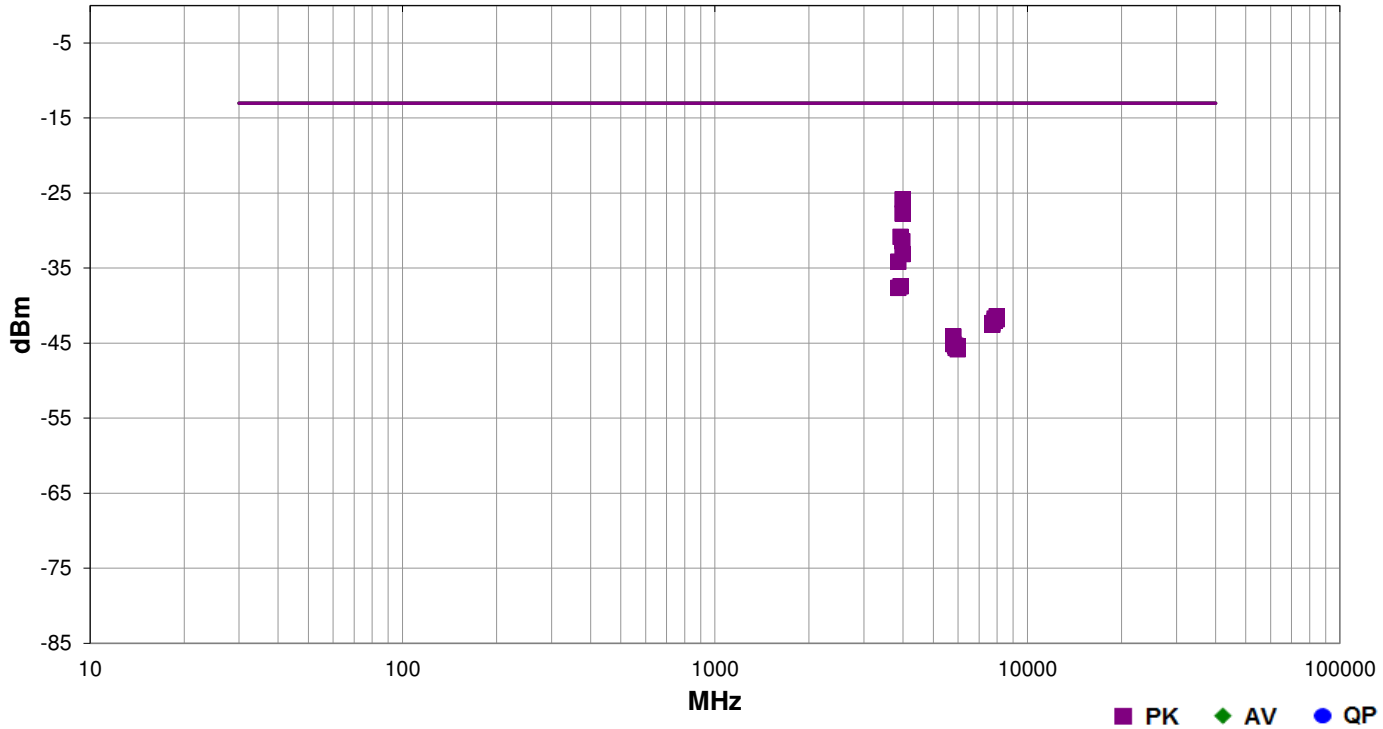
SPURIOUS RADIATED EMISSIONS

EmiR5 2017.09.18.2 PSA-ESCI 2017.09.18

Work Order:	TECO0048	**Date:**	20-Feb-2018		
Project:	None	**Temperature:**	22.6 °C		
Job Site:	MN05	**Humidity:**	18% RH		
Serial Number:	4608740003	**Barometric Pres.:**	1015 mbar	**Tested by:**	Dustin Sparks
EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt				
Configuration:	1				
Customer:	CommScope				
Attendees:	Josh Wittman				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting WCDMA and LTE 5 MHz - low channel (1932.5 MHz), mid channel (1962.5 MHz), and high channel (1992.5 MHz); LTE 10 MHz - high channel (1990 MHz).				
Deviations:	None				
Comments:	Both antenna ports were terminated but only one port is active				

Test Specifications	**Test Method**
FCC 24.238:2018	ANSI C63.26:2015

Run #	11	**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
	3986.917	1.8	325.0	Horz	PK	2.61E-06	-25.8	-13.0	-12.8	High ch, WCDMA
	3986.142	1.7	343.0	Horz	PK	1.69E-06	-27.7	-13.0	-14.7	High ch, LTE 5 MHz
	3926.833	2.1	56.1	Horz	PK	8.26E-07	-30.8	-13.0	-17.8	Mid ch, WCDMA
	3980.408	1.8	11.1	Horz	PK	7.20E-07	-31.4	-13.0	-18.4	High ch, LTE 10 MHz
	3982.808	1.0	41.1	Vert	PK	4.87E-07	-33.1	-13.0	-20.1	High ch, WCDMA

	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	3864.800	1.9	64.0	Horz	PK	3.86E-07	-34.1	-13.0	-21.1	Low ch, WCDMA
	3925.008	1.0	240.9	Vert	PK	1.81E-07	-37.4	-13.0	-24.4	Mid ch, WCDMA
	3864.842	1.0	318.9	Vert	PK	1.73E-07	-37.6	-13.0	-24.6	Low ch, WCDMA
	7969.850	1.0	239.0	Horz	PK	7.20E-08	-41.4	-13.0	-28.4	High ch, WCDMA
	7851.725	4.0	124.1	Horz	PK	6.72E-08	-41.7	-13.0	-28.7	Mid ch, WCDMA
	7971.350	1.0	62.1	Vert	PK	6.56E-08	-41.8	-13.0	-28.8	High ch, WCDMA
	7852.317	1.0	98.1	Vert	PK	6.27E-08	-42.0	-13.0	-29.0	Mid ch, WCDMA
	7728.192	1.0	196.1	Vert	PK	5.85E-08	-42.3	-13.0	-29.3	Low ch, WCDMA
	7728.158	1.0	25.0	Horz	PK	5.59E-08	-42.5	-13.0	-29.5	Low ch, WCDMA
	5795.242	1.0	75.0	Horz	PK	3.86E-08	-44.1	-13.0	-31.1	Low ch, WCDMA
	5799.775	3.1	333.9	Vert	PK	3.07E-08	-45.1	-13.0	-32.1	Low ch, WCDMA
	5887.025	1.0	6.0	Vert	PK	2.93E-08	-45.3	-13.0	-32.3	Mid ch, WCDMA
	5979.358	1.0	113.1	Horz	PK	2.86E-08	-45.4	-13.0	-32.4	High ch, WCDMA
	5888.817	1.0	173.1	Horz	PK	2.74E-08	-45.6	-13.0	-32.6	Mid ch, WCDMA
	5978.592	3.6	196.1	Vert	PK	2.61E-08	-45.8	-13.0	-32.8	High ch, WCDMA

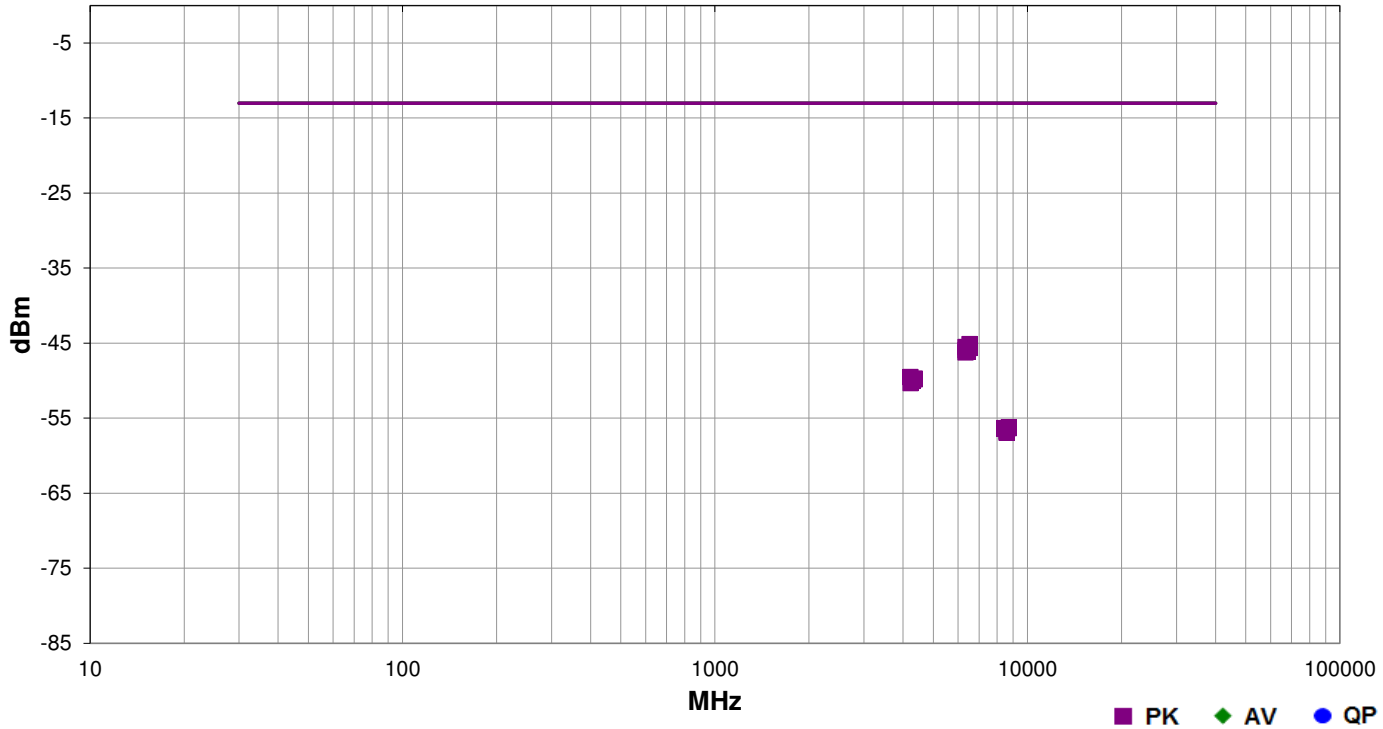
SPURIOUS RADIATED EMISSIONS

EmiR5 2017.09.18.2 PSA-ESCI 2017.09.18

Work Order:	TECO0048	**Date:**	20-Feb-2018		
Project:	None	**Temperature:**	22.6 °C		
Job Site:	MN05	**Humidity:**	18% RH		
Serial Number:	None	**Barometric Pres.:**	1015 mbar	**Tested by:**	Dustin Sparks
EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt				
Configuration:	1				
Customer:	CommScope				
Attendees:	Josh Wittman				
EUT Power:	110VAC/60Hz				
Operating Mode:	Transmitting WCDMA - low channel (2112.5 MHz), mid channel (2145 MHz), and high channel (2177.5 MHz); LTE 10 MHz - high channel (2175 MHz).				
Deviations:	None				
Comments:	Both antenna ports were terminated but only one port is active				

Test Specifications	**Test Method**
FCC 27.53:2018	ANSI C63.26:2015

Run #	24	**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
	6530.092	2.3	83.1	Vert	PK	3.07E-08	-45.1	-13.0	-32.1	High ch, WCDMA
	6337.250	1.4	134.1	Horz	PK	2.80E-08	-45.5	-13.0	-32.5	High ch, LTE 10 MHz
	6531.908	1.0	239.9	Horz	PK	2.74E-08	-45.6	-13.0	-32.6	High ch, WCDMA
	6436.850	3.2	52.1	Vert	PK	2.55E-08	-45.9	-13.0	-32.9	Mid ch, WCDMA
	6338.083	1.0	226.0	Vert	PK	2.55E-08	-45.9	-13.0	-32.9	Low ch, WCDMA

	Freq (MHz)	Antenna Height (meters)	Azimuth (degrees)	Polarity/ Transducer Type	Detector	EIRP (Watts)	EIRP (dBm)	Spec. Limit (dBm)	Compared to Spec. (dB)	Comments
	6433.375	1.0	148.1	Horz	PK	2.44E-08	-46.1	-13.0	-33.1	Mid ch, WCDMA
	6337.458	1.0	246.9	Horz	PK	2.38E-08	-46.2	-13.0	-33.2	Low ch, WCDMA
	4225.083	1.9	275.0	Vert	PK	1.11E-08	-49.5	-13.0	-36.5	Low ch, WCDMA
	4357.233	2.7	12.1	Horz	PK	1.06E-08	-49.7	-13.0	-36.7	High ch, WCDMA
	4357.075	1.0	123.1	Vert	PK	1.04E-08	-49.8	-13.0	-36.8	High ch, WCDMA
	4288.817	1.0	24.0	Horz	PK	9.93E-09	-50.0	-13.0	-37.0	Mid ch, WCDMA
	4288.892	1.4	311.0	Vert	PK	9.93E-09	-50.0	-13.0	-37.0	Mid ch, WCDMA
	4227.433	1.0	19.1	Horz	PK	9.27E-09	-50.3	-13.0	-37.3	Low ch, WCDMA
	8711.633	1.0	245.0	Vert	PK	2.38E-09	-56.2	-13.0	-43.2	High ch, WCDMA
	8449.017	1.0	197.0	Vert	PK	2.33E-09	-56.3	-13.0	-43.3	Low ch, WCDMA
	8711.567	1.0	340.9	Horz	PK	2.33E-09	-56.3	-13.0	-43.3	High ch, WCDMA
	8450.425	1.0	113.1	Horz	PK	2.28E-09	-56.4	-13.0	-43.4	Low ch, WCDMA
	8578.833	1.0	205.0	Vert	PK	2.12E-09	-56.7	-13.0	-43.7	Mid ch, WCDMA
	8577.608	1.0	191.1	Horz	PK	2.03E-09	-56.9	-13.0	-43.9	Mid ch, WCDMA

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 2100

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
Meter - Power	ETS Lindgren	7002-006	SRE	7/21/2016	7/21/2017
Meter - Power	ETS Lindgren	7002-006	SRA	3/20/2017	3/20/2018
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and an RF Power Sensor. The spectrum analyzer and signal generator were used to generate an offset for the cables and attenuators. An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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)

EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/23/17
Customer:	CommScope			**Temperature:**	22.3 °C
Attendees:	Josh Wittman			**Humidity:**	42.7% RH
Project:	None			**Barometric Pres.:**	1013 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm). Limit is 1640W (62.2 dBm). Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

None

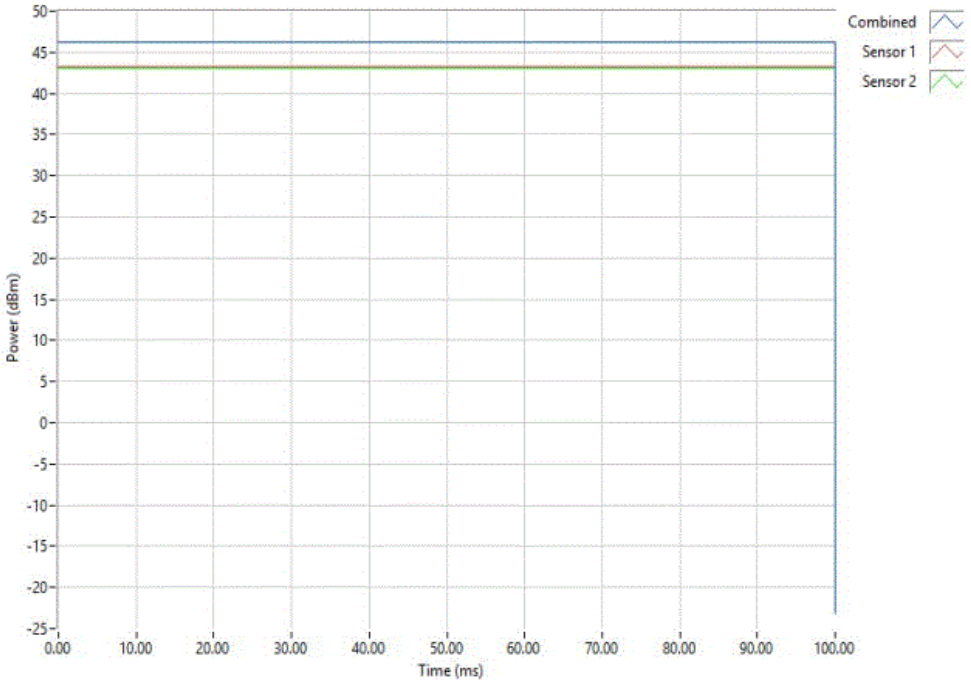
Configuration #	1	Signature Dustin Sparks

	Avg Cond Pwr Sens(dBm)	Duty Cycle (%)	Antenna Gain (dBi)	Limit (dBm)	Results
Low Channel (2112.5 MHz) WCDMA	43.27	100	0	62.2	Pass
Mid Channel (2145 MHz) WCDMA	43.35	100	0	62.2	Pass
High Channel (2177.5 MHz) WCDMA	43.03	100	0	62.2	Pass
Low Channel (2115 MHz) LTE 10MHz	43.12	99.228	0	62.2	Pass
Mid Channel (2145 MHz) LTE 10MHz	43.47	99.44	0	62.2	Pass
High Channel (2175 MHz) LTE 10MHz	43.33	100	0	62.2	Pass

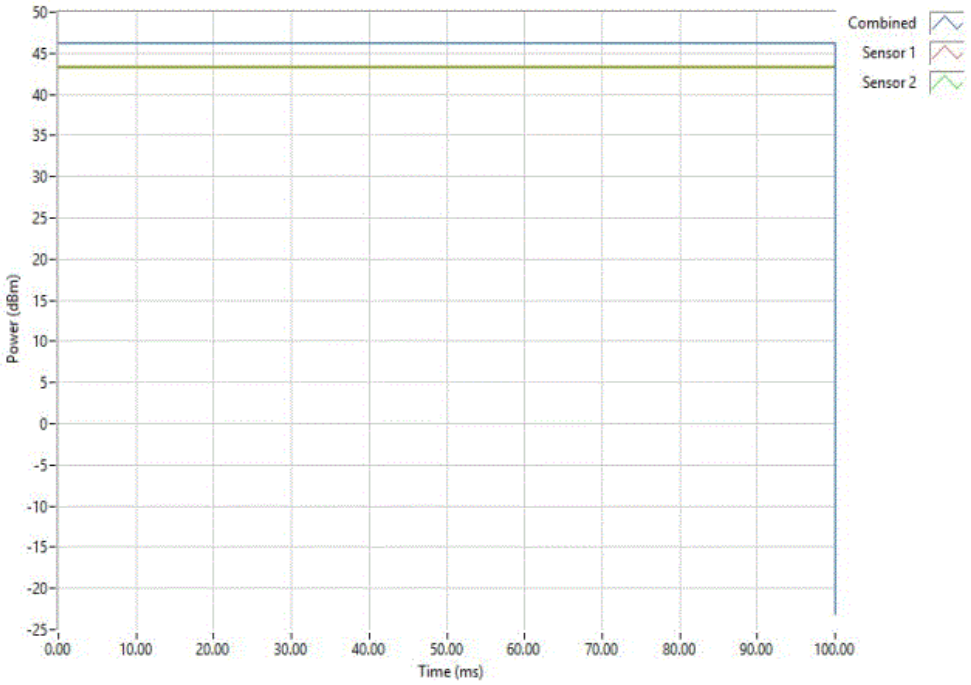
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)
2100

TbtTx 2017.01.27 XMit 2017.02.08

Low Channel (2112.5 MHz) WCDMA						
	Avg Cond Pwr Sens(dBm)		Duty Cycle (%)	Antenna Gain (dBi)	Limit (dBm)	Results
	43.27		100	0	62.2	Pass



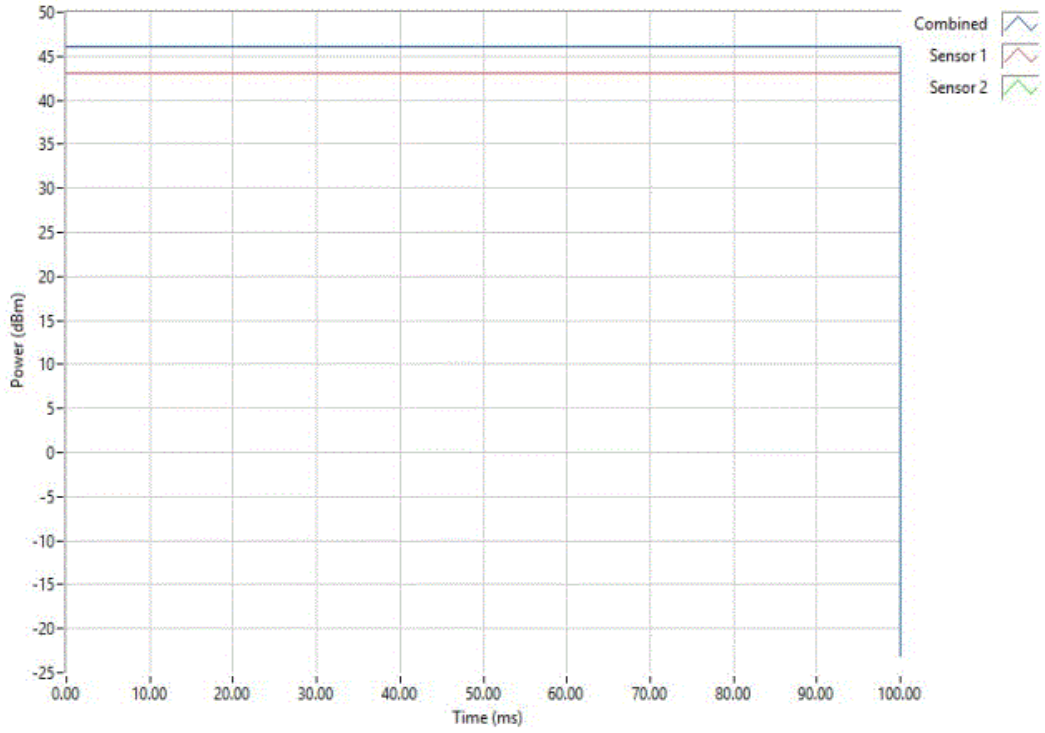
Mid Channel (2145 MHz) WCDMA						
	Avg Cond Pwr Sens(dBm)		Duty Cycle (%)	Antenna Gain (dBi)	Limit (dBm)	Results
	43.35		100	0	62.2	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP) 2100

TbtTx 2017.01.27 XMit 2017.02.08

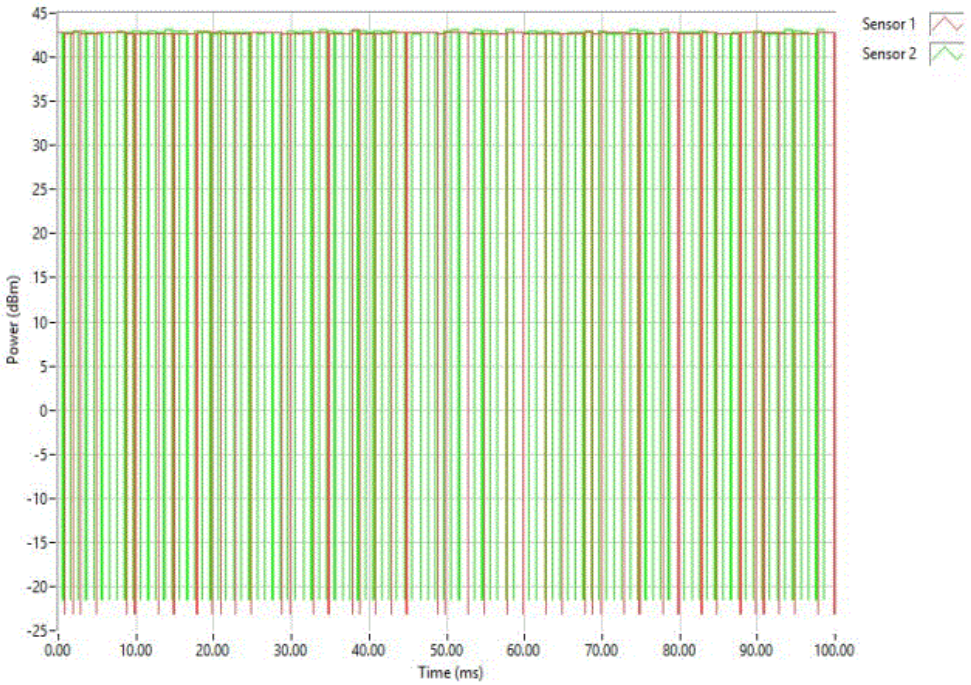
High Channel (2177.5 MHz) WCDMA						
	Avg Cond Pwr Sens(dBm)		**Duty Cycle (%)**	**Antenna Gain (dBi)**	**Limit (dBm)**	**Results**
	43.03		100	0	62.2	Pass



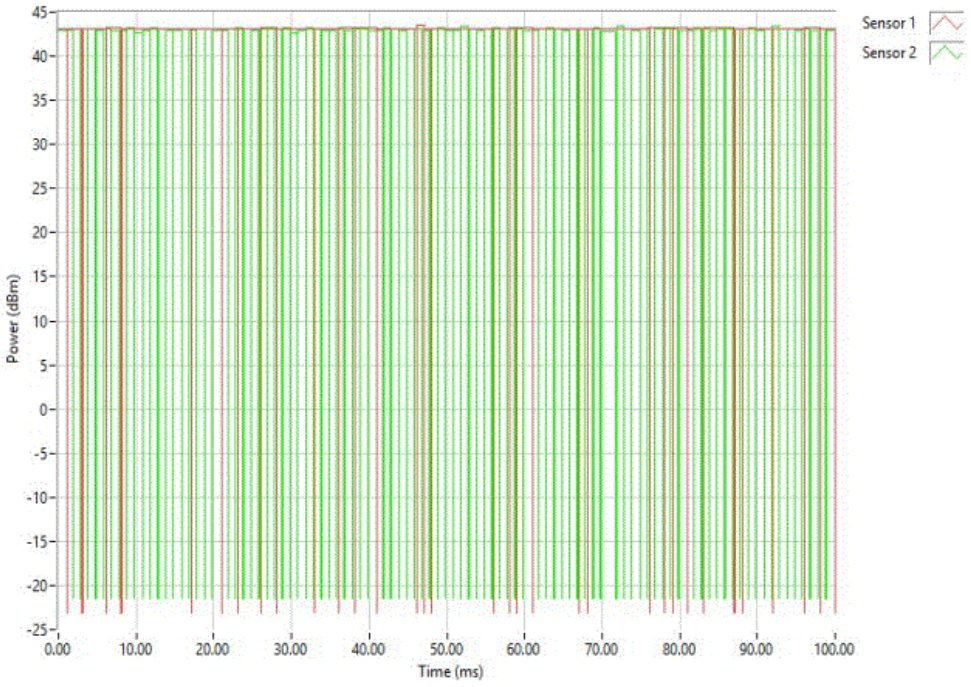
EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)
2100

TbtTx 2017.01.27 XMit 2017.02.08

Low Channel (2115 MHz) LTE 10MHz						
	Avg Cond Pwr Sens(dBm)		Duty Cycle (%)	Antenna Gain (dBi)	Limit (dBm)	Results
	43.12		99.228	0	62.2	Pass



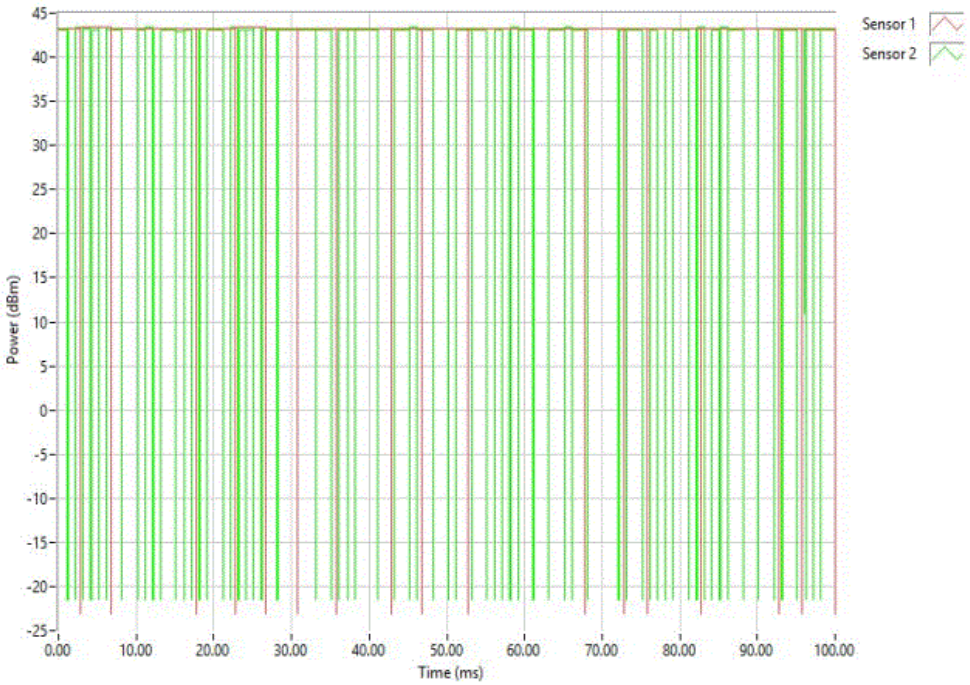
Mid Channel (2145 MHz) LTE 10MHz						
	Avg Cond Pwr Sens(dBm)		Duty Cycle (%)	Antenna Gain (dBi)	Limit (dBm)	Results
	43.47		99.44	0	62.2	Pass



EQUIVALENT ISOTROPIC RADIATED POWER (EIRP)
2100

TbtTx 2017.01.27 XMit 2017.02.08

High Channel (2175 MHz) LTE 10MHz						
	Avg Cond Pwr Sens(dBm)		**Duty Cycle (%)**	**Antenna Gain (dBi)**	**Limit (dBm)**	**Results**
	43.33		100	0	62.2	Pass



SPURIOUS CONDUCTED EMISSIONS 2100

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
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

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.

An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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 CONDUCTED EMISSIONS 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/24/17
Customer:	CommScope			**Temperature:**	21.9 °C
Attendees:	Josh Wittman			**Humidity:**	43% RH
Project:	None			**Barometric Pres.:**	1011 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm). Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

None

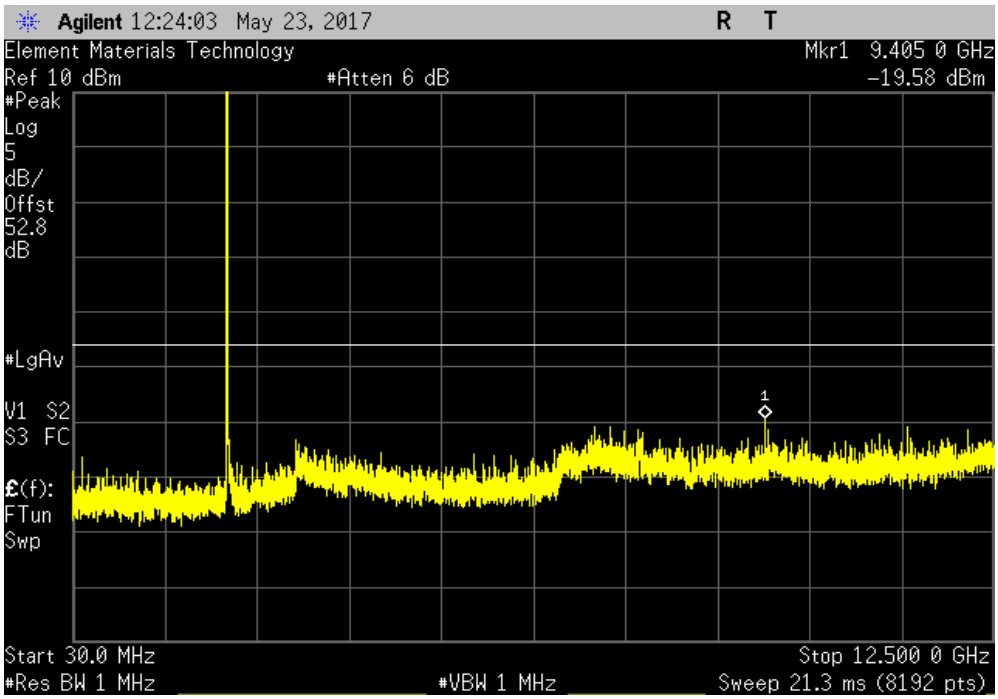
Configuration #	**2**	*Signature* Dustin Sparks

	Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
Low Channel (2112.5 MHz) WCDMA	30 MHz - 12.5 GHz	-19.58	-13	Pass
Low Channel (2112.5 MHz) WCDMA	12.5 GHz - 22 GHz	-16.6	-13	Pass
Mid Channel (2145 MHz) WCDMA	30 MHz - 12.5 GHz	-20.63	-13	Pass
Mid Channel (2145 MHz) WCDMA	12.5 GHz - 22 GHz	-17.07	-13	Pass
High Channel (2177.5 MHz) WCDMA	30 MHz - 12.5 GHz	-20.07	-13	Pass
High Channel (2177.5 MHz) WCDMA	12.5 GHz - 22 GHz	-16.83	-13	Pass
Low Channel (2115 MHz) LTE 10MHz	30 MHz - 12.5 GHz	-20.31	-13	Pass
Low Channel (2115 MHz) LTE 10MHz	12.5 GHz - 22 GHz	-16.4	-13	Pass
Mid Channel (2145 MHz) LTE 10MHz	30 MHz - 12.5 GHz	-19.97	-13	Pass
Mid Channel (2145 MHz) LTE 10MHz	12.5 GHz - 22 GHz	-16.43	-13	Pass
High Channel (2175 MHz) LTE 10MHz	30 MHz - 12.5 GHz	-20.49	-13	Pass
High Channel (2175 MHz) LTE 10MHz	12.5 GHz - 22 GHz	-16.41	-13	Pass

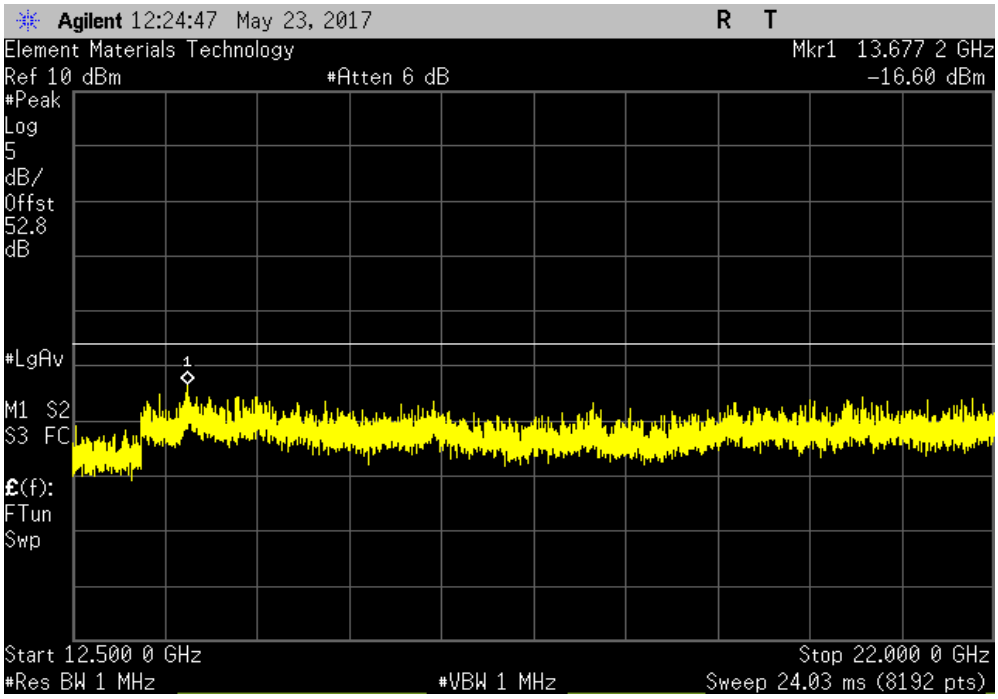
SPURIOUS CONDUCTED EMISSIONS 2100

TbtTx 2017.01.27 XMit 2017.02.08

Low Channel (2112.5 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-19.58	-13	Pass

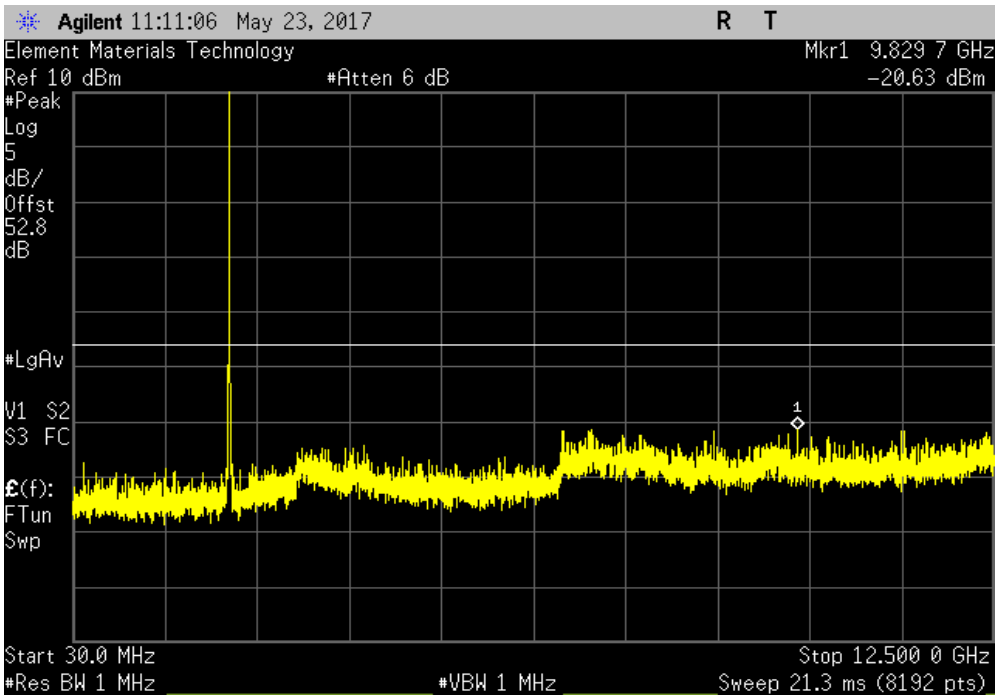


Low Channel (2112.5 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.6	-13	Pass

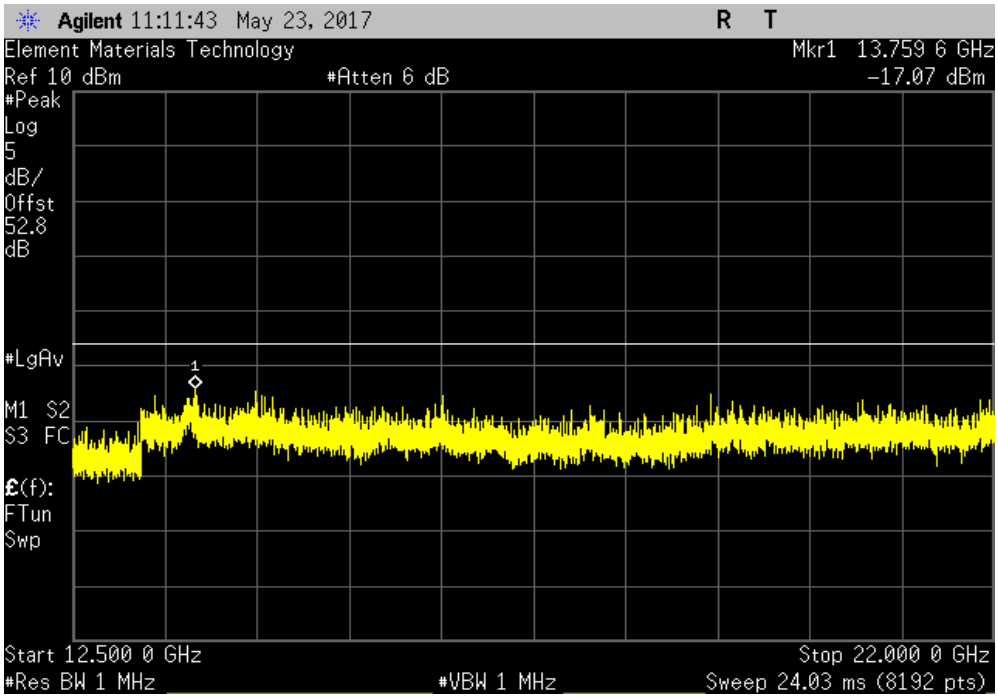


SPURIOUS CONDUCTED EMISSIONS 2100

Mid Channel (2145 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.63	-13	Pass



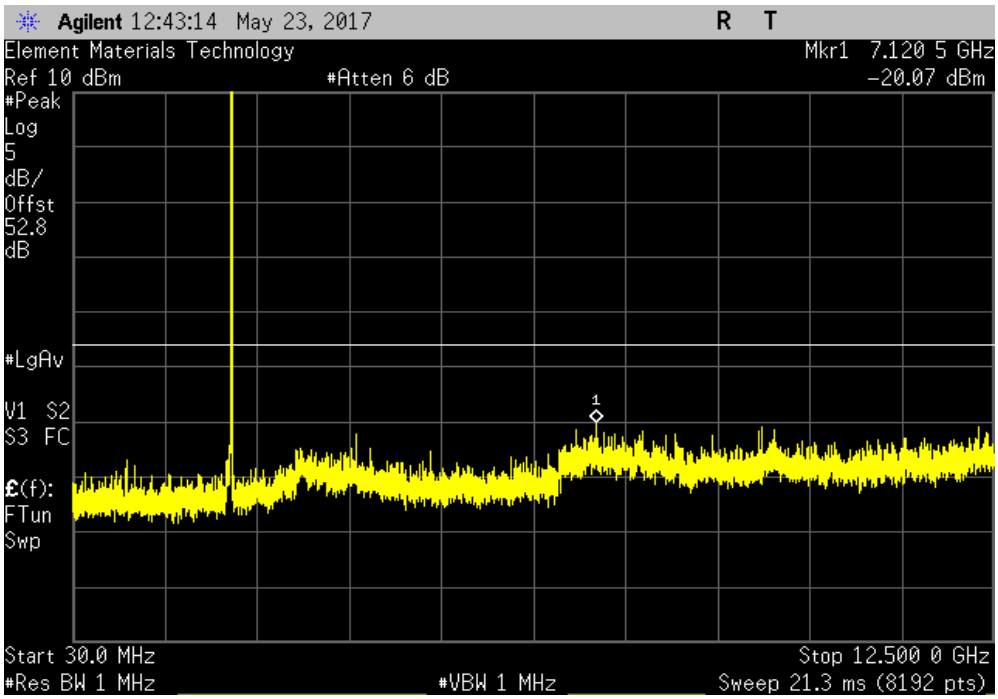
Mid Channel (2145 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-17.07	-13	Pass



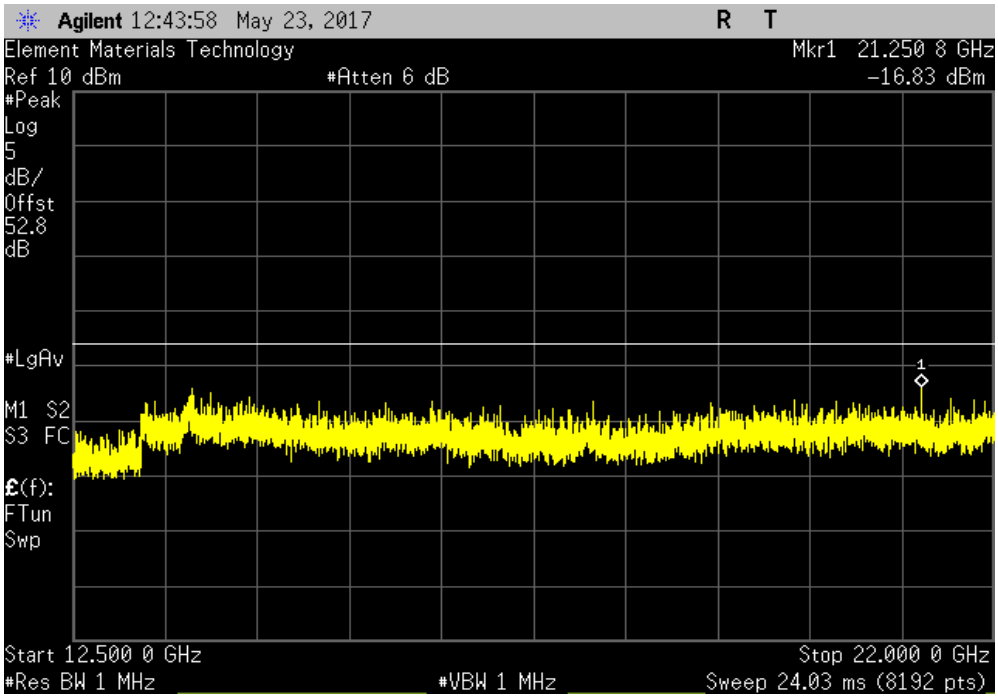
SPURIOUS CONDUCTED EMISSIONS 2100

TbtTx 2017.01.27 XMit 2017.02.08

High Channel (2177.5 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.07	-13	Pass



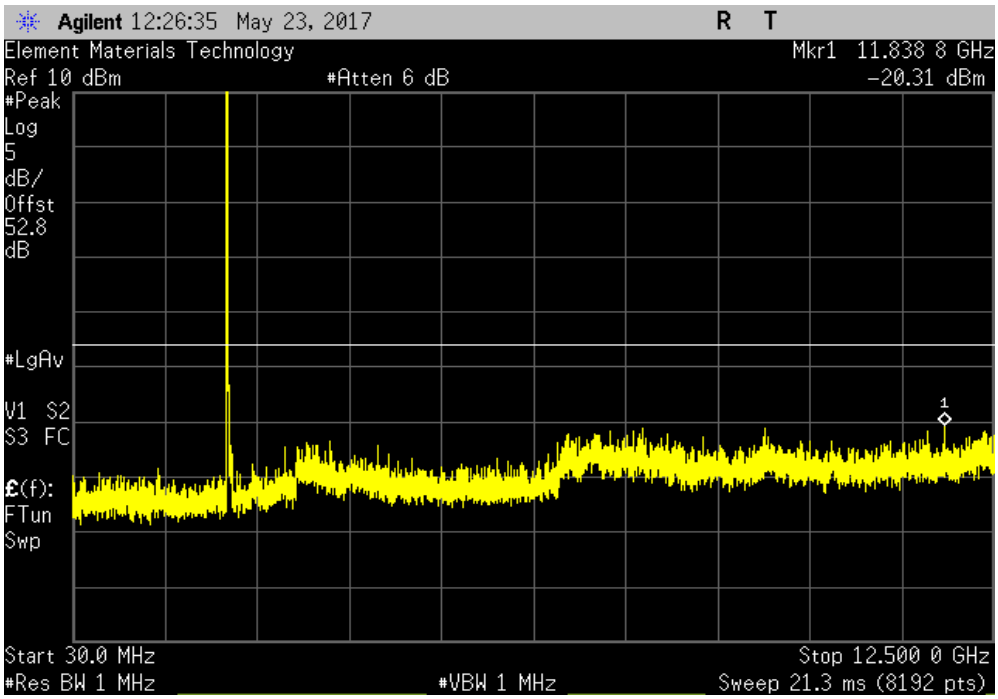
High Channel (2177.5 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.83	-13	Pass



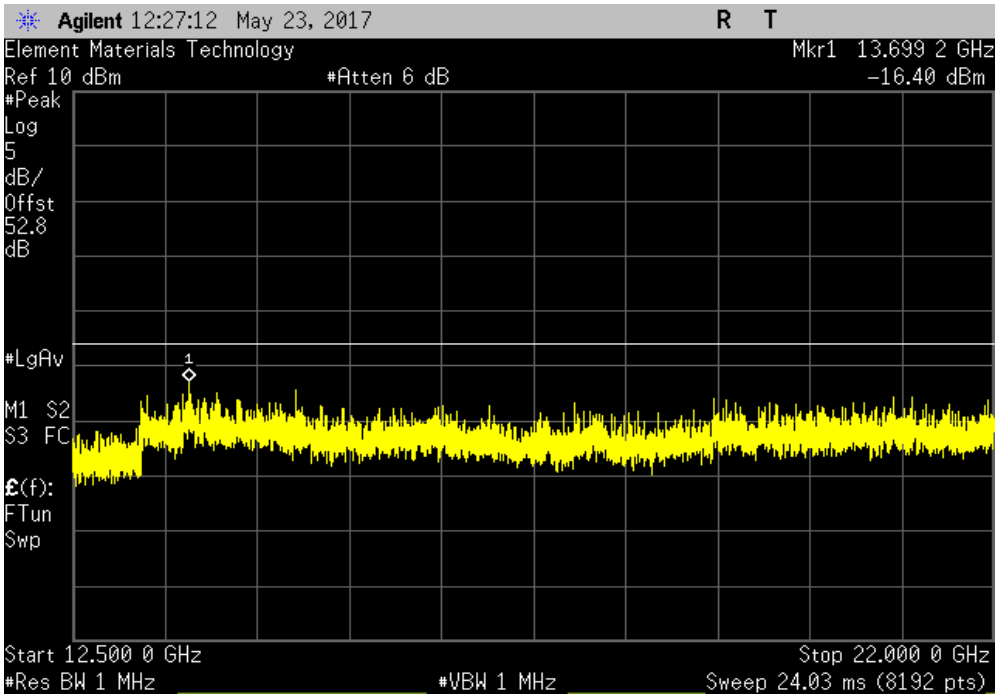
SPURIOUS CONDUCTED EMISSIONS 2100

TbtTx 2017.01.27 XMit 2017.02.08

Low Channel (2115 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.31	-13	Pass

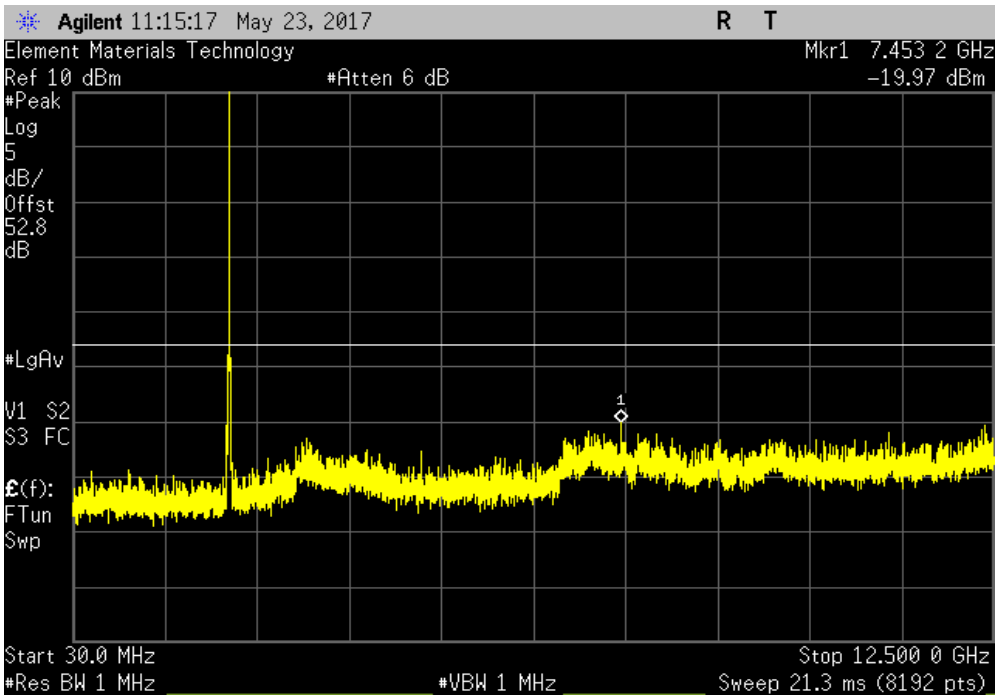


Low Channel (2115 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.4	-13	Pass

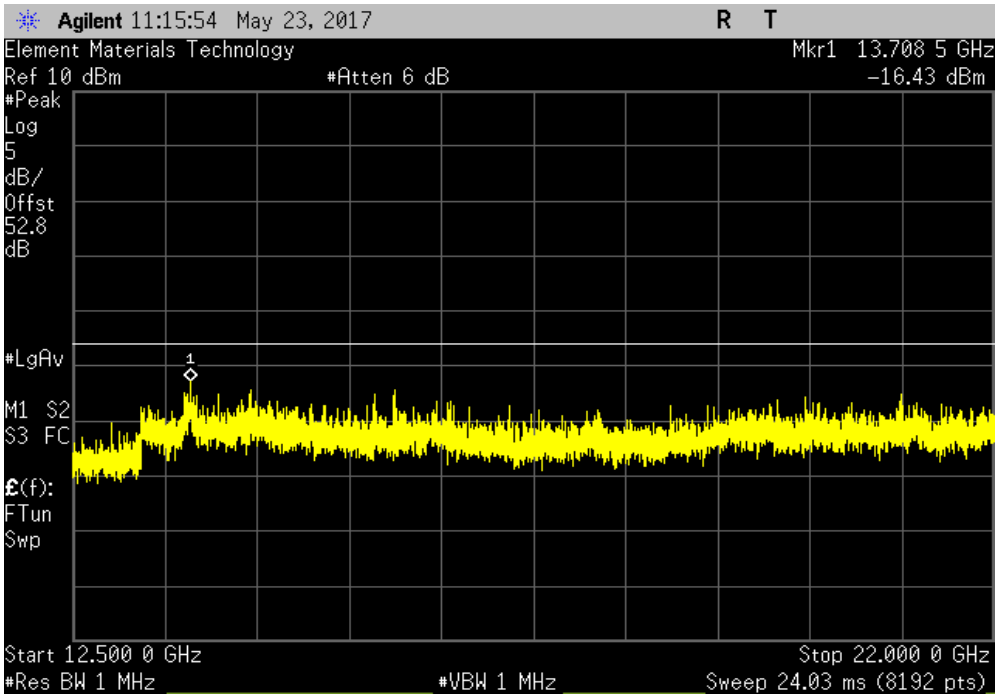


SPURIOUS CONDUCTED EMISSIONS 2100

Mid Channel (2145 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-19.97	-13	Pass



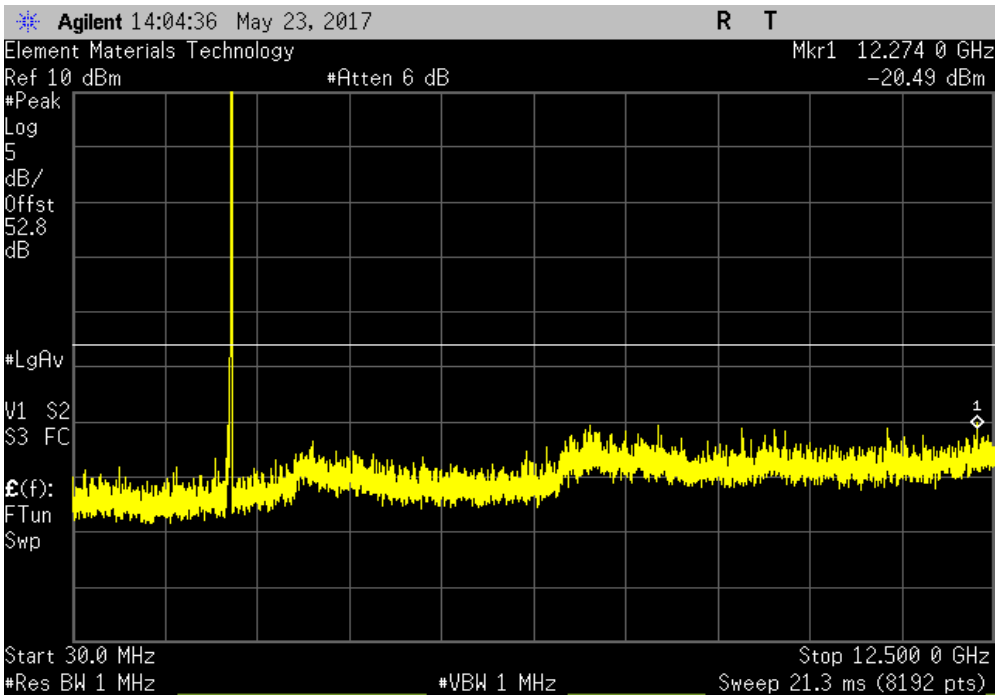
Mid Channel (2145 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.43	-13	Pass



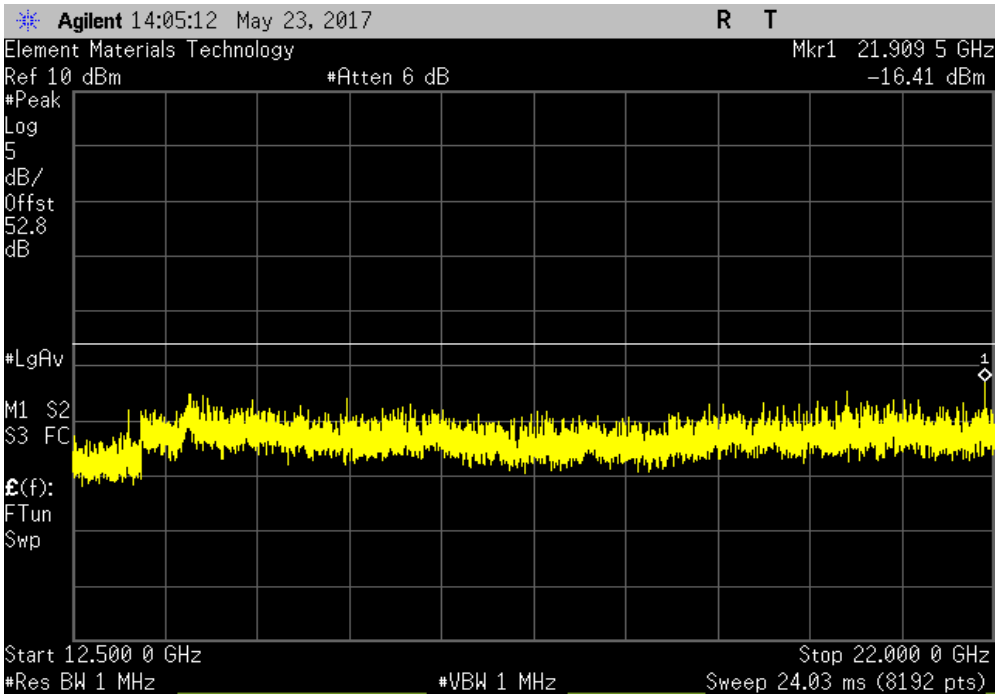
SPURIOUS CONDUCTED EMISSIONS 2100

TbtTx 2017.01.27 XMit 2017.02.08

High Channel (2175 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.49	-13	Pass



High Channel (2175 MHz) LTE 10MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.41	-13	Pass



INTERMODULATION 2100

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
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Power Divider/Combiner	Fairview Microwave	MP0208-2	IAF	NCR	NCR
Power Divider/Combiner	Fairview Microwave	MP0208-2	IAE	NCR	NCR
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

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

An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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. Measurements close to the limit were re-measured using a RMS average detector.

INTERMODULATION 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/24/17
Customer:	CommScope			**Temperature:**	21.6 °C
Attendees:	Josh Wittman			**Humidity:**	43.6% RH
Project:	None			**Barometric Pres.:**	1011 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm) per port. Measurements made outside of the Passband, but within the allowable band were made to show that all Intermodulation emissions were below the spurious limit. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

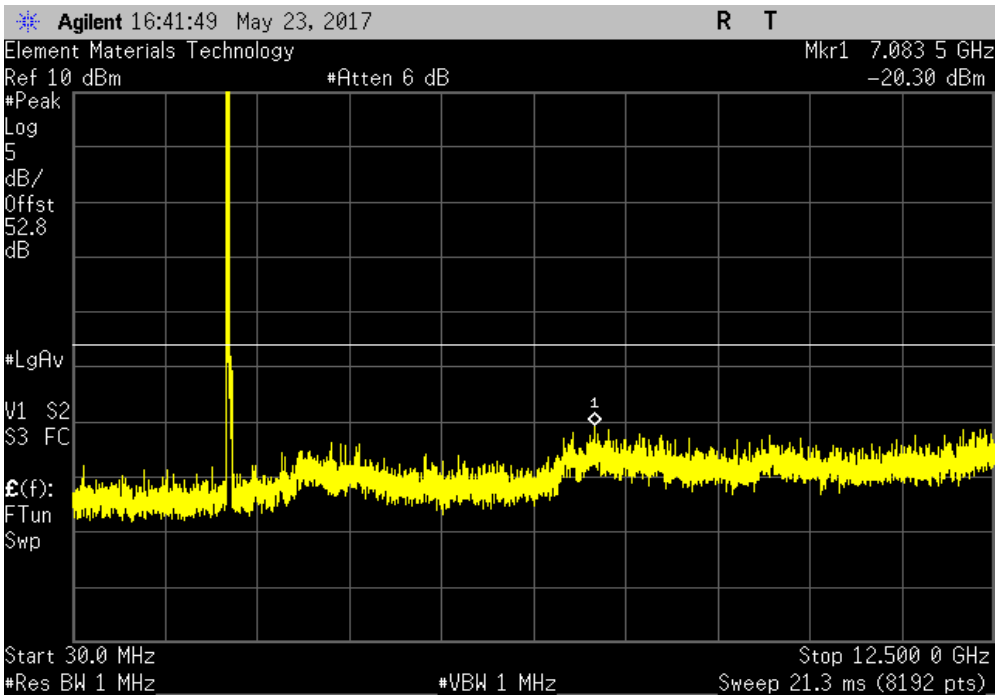
None

Configuration #	**2**	*Signature* Dustin Sparks

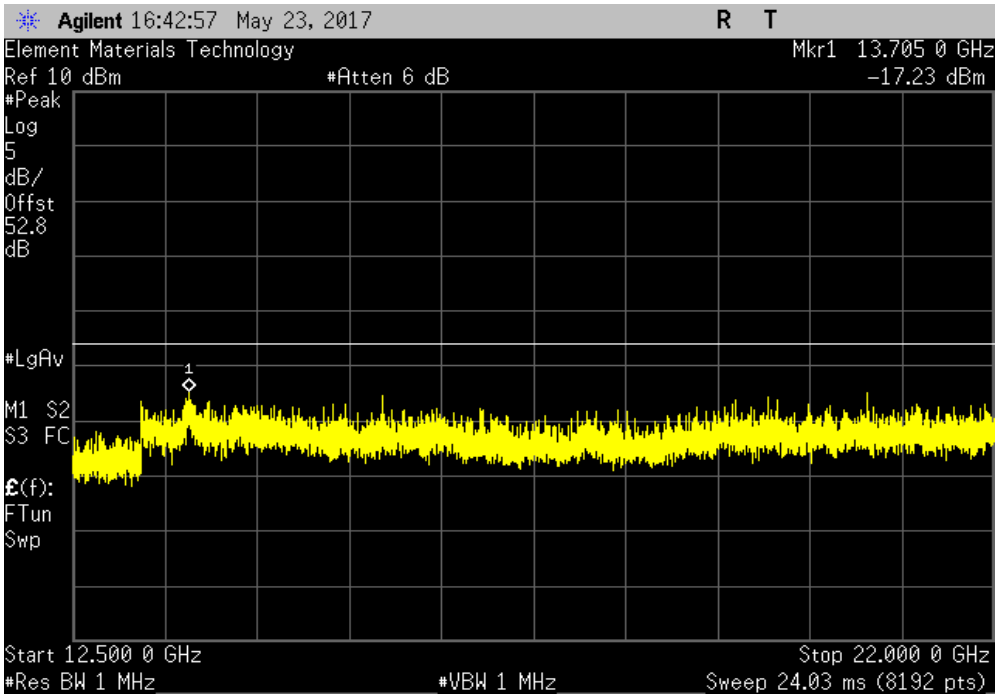
	Frequency Range	Max Value (dBm)	Limit ≤ (dBm)	Result
Low Passband (2110-2145 MHz) WCDMA	30 MHz - 12.5 GHz	-20.3	-13	Pass
Low Passband (2110-2145 MHz) WCDMA	12.5 GHz - 22 GHz	-17.23	-13	Pass
Low Passband (2110-2145 MHz) WCDMA	Fundamental	-21.76	-13	Pass
Mid Passband (2130-2160 MHz) WCDMA	30 MHz - 12.5 GHz	-20.34	-13	Pass
Mid Passband (2130-2160 MHz) WCDMA	12.5 GHz - 22 GHz	-16.81	-13	Pass
Mid Passband (2130-2160 MHz) WCDMA	Fundamental	-18.36	-13	Pass
High Passband (2145-2180 MHz) WCDMA	30 MHz - 12.5 GHz	-20.11	-13	Pass
High Passband (2145-2180 MHz) WCDMA	12.5 GHz - 22 GHz	-16.09	-13	Pass
High Passband (2145-2180 MHz) WCDMA	Fundamental	-19.6	-13	Pass
Low Passband (2110-2145 MHz) LTE 10 MHz	30 MHz - 12.5 GHz	-20.31	-13	Pass
Low Passband (2110-2145 MHz) LTE 10 MHz	12.5 GHz - 22 GHz	-17.44	-13	Pass
Low Passband (2110-2145 MHz) LTE 10 MHz	Fundamental	-22.58	-13	Pass
Mid Passband (2130-2160 MHz) LTE 10 MHz	30 MHz - 12.5 GHz	-20.28	-13	Pass
Mid Passband (2130-2160 MHz) LTE 10 MHz	12.5 GHz - 22 GHz	-16.62	-13	Pass
Mid Passband (2130-2160 MHz) LTE 10 MHz	Fundamental	-22.61	-13	Pass
High Passband (2145-2180 MHz) LTE 10 MHz	30 MHz - 12.5 GHz	-19.87	-13	Pass
High Passband (2145-2180 MHz) LTE 10 MHz	12.5 GHz - 22 GHz	-16.55	-13	Pass
High Passband (2145-2180 MHz) LTE 10 MHz	Fundamental	-23.38	-13	Pass

INTERMODULATION 2100

Low Passband (2110-2145 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.3	-13	Pass



Low Passband (2110-2145 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-17.23	-13	Pass



INTERMODULATION 2100

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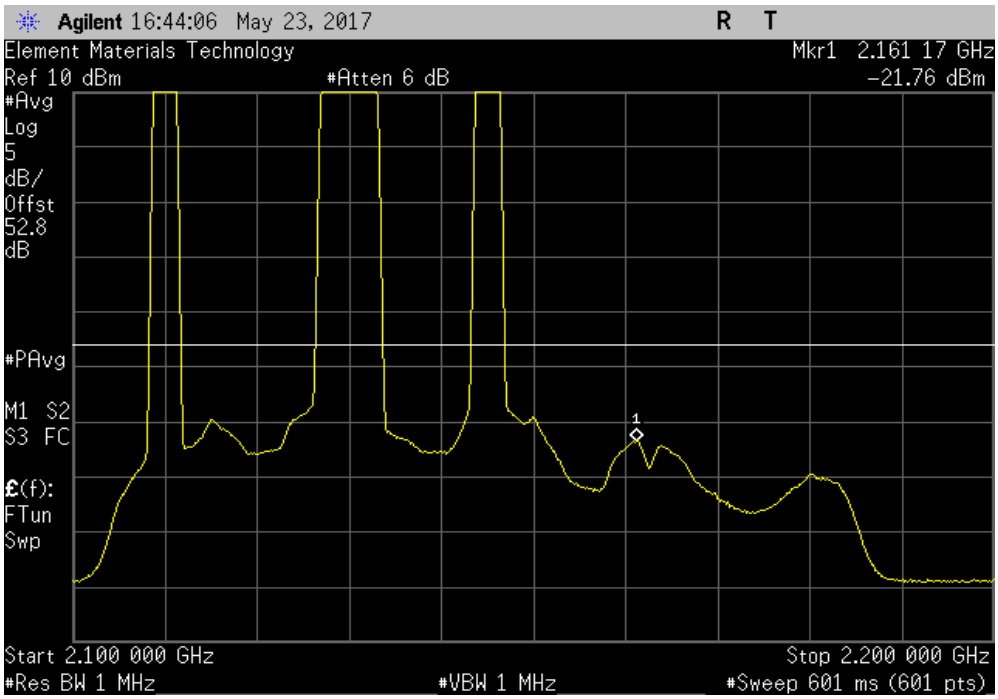
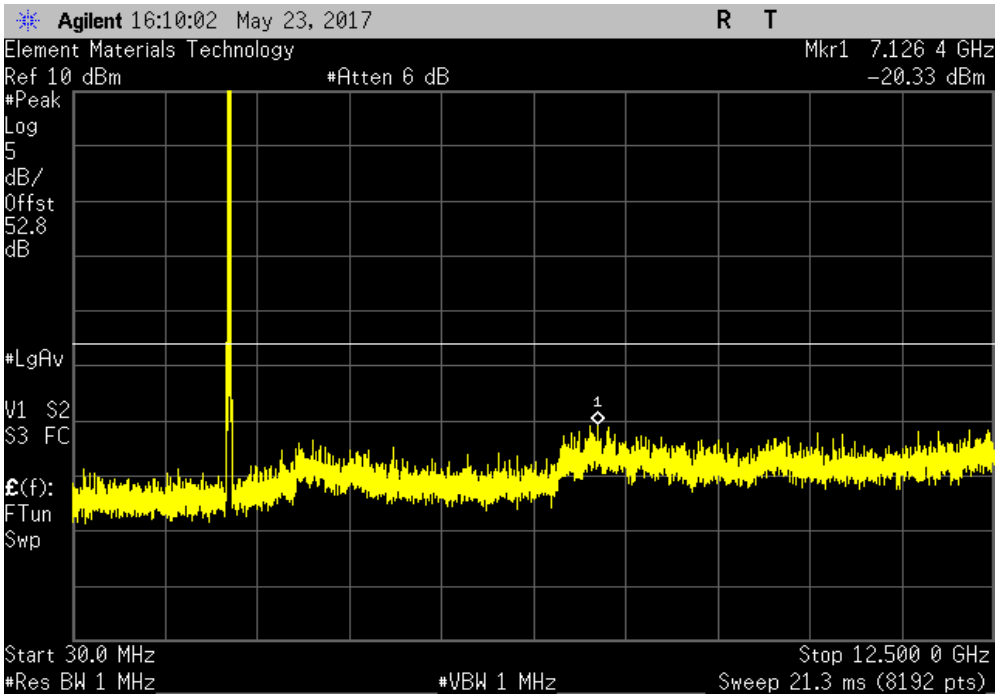
Low Passband (2110-2145 MHz) WCDMA						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-21.76	-13	Pass



Mid Passband (2130-2160 MHz) WCDMA						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz				-20.34	-13	Pass



INTERMODULATION 2100

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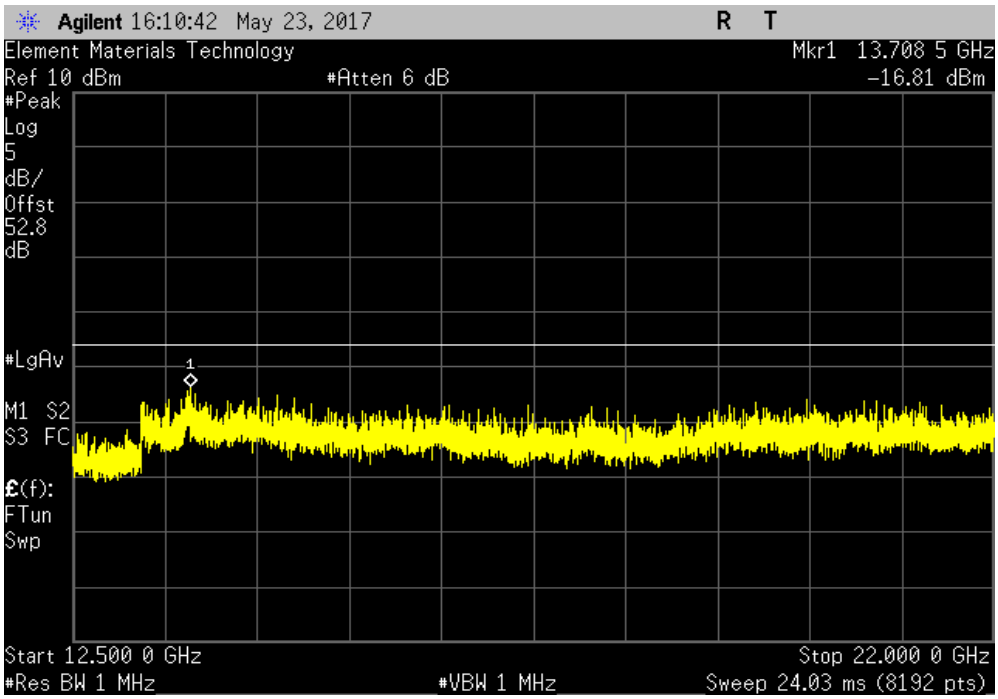
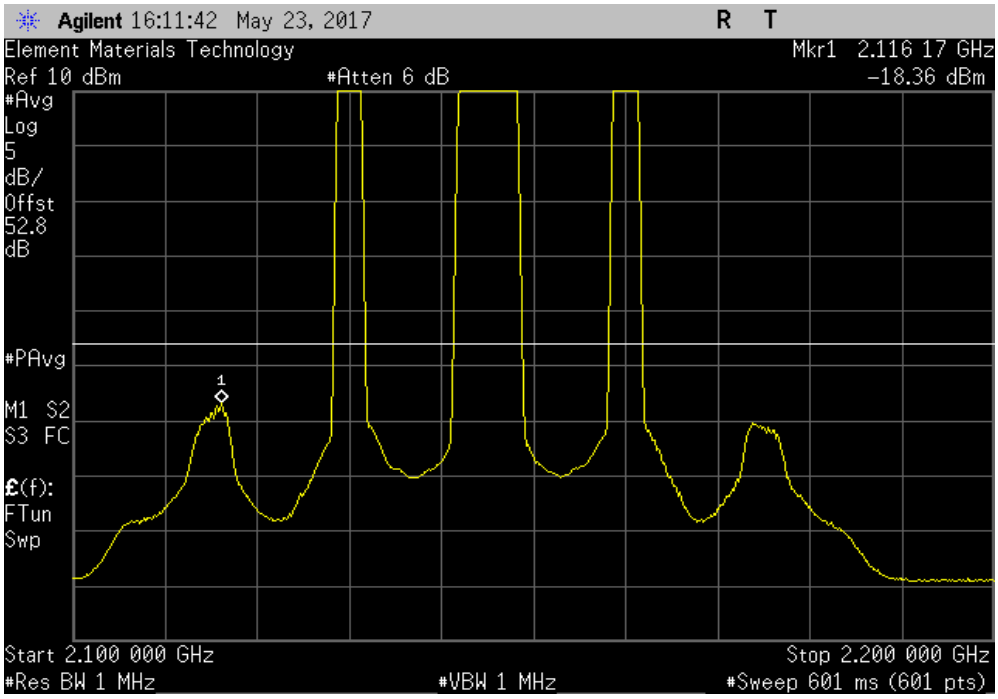
Mid Passband (2130-2160 MHz) WCDMA						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz				-16.81	-13	Pass



Mid Passband (2130-2160 MHz) WCDMA						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-18.36	-13	Pass



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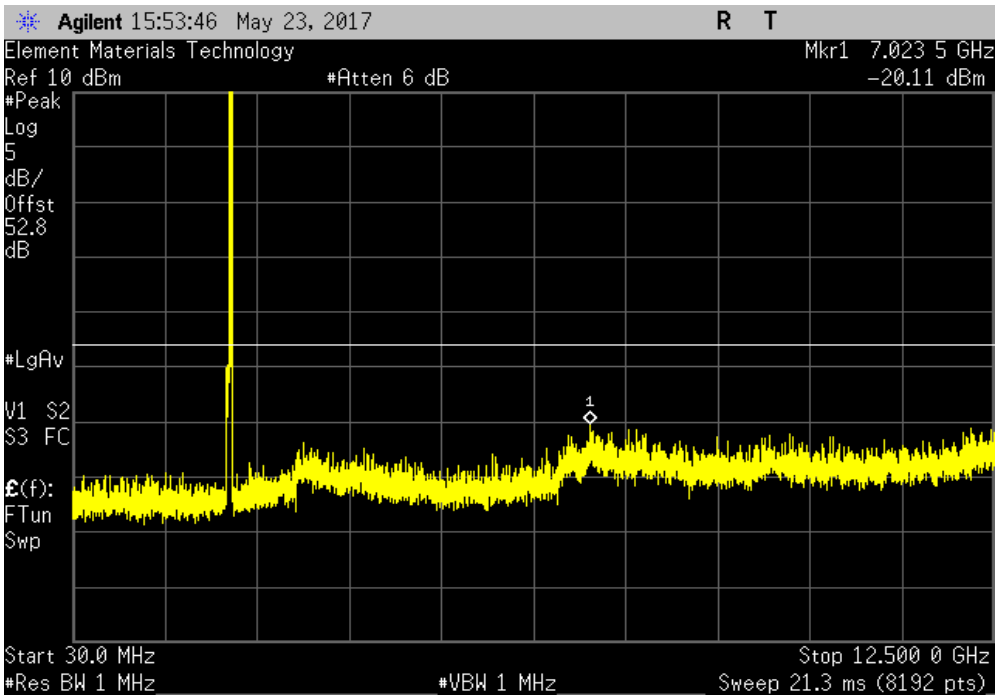
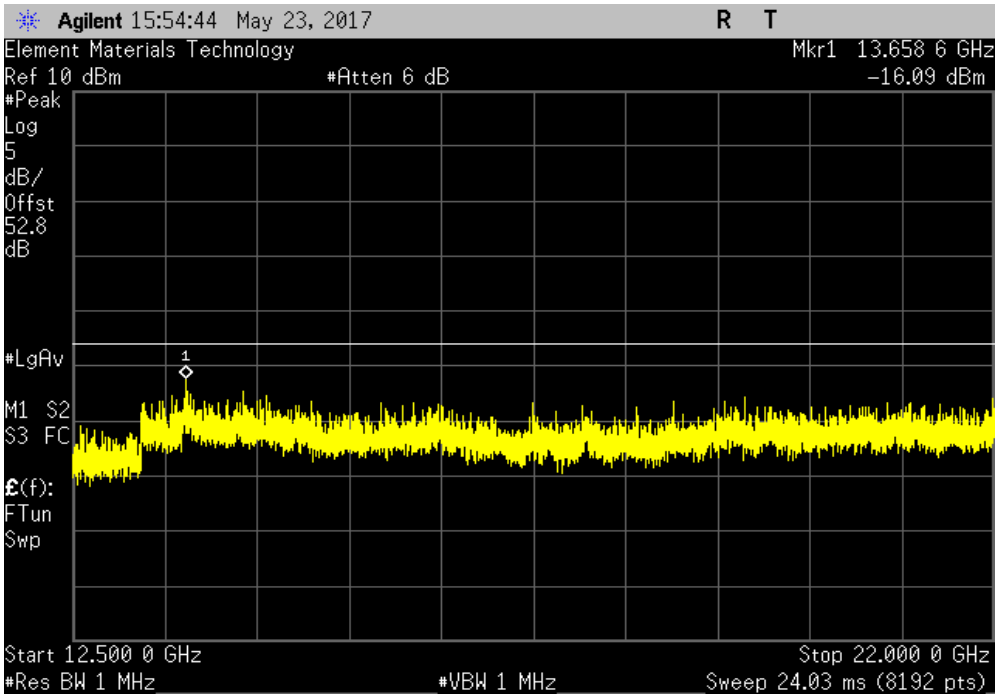
High Passband (2145-2180 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.11	-13	Pass



High Passband (2145-2180 MHz) WCDMA					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.09	-13	Pass



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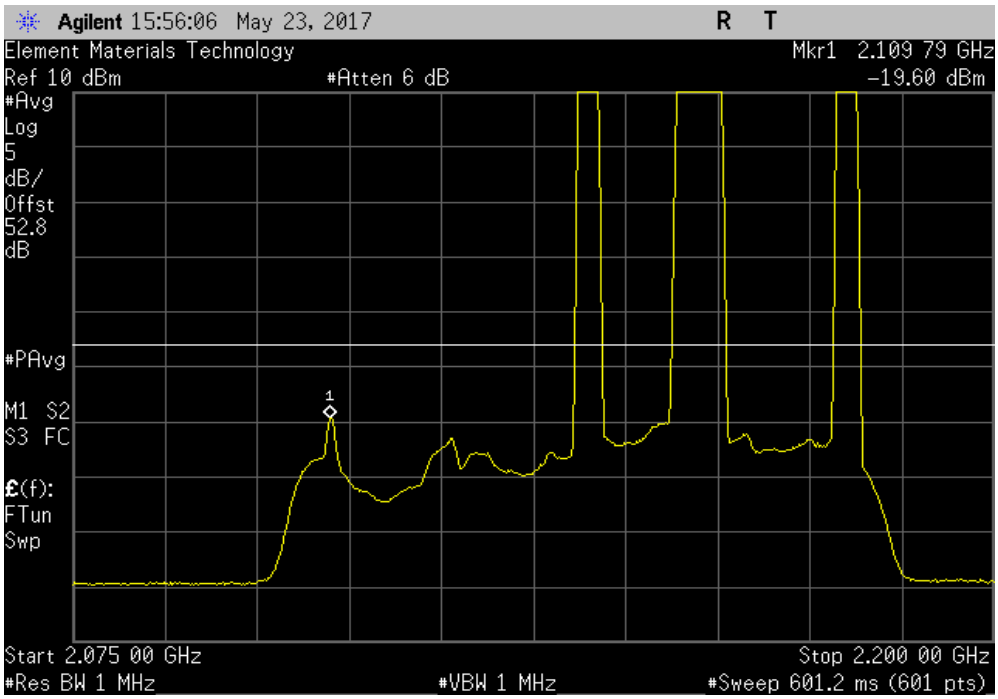
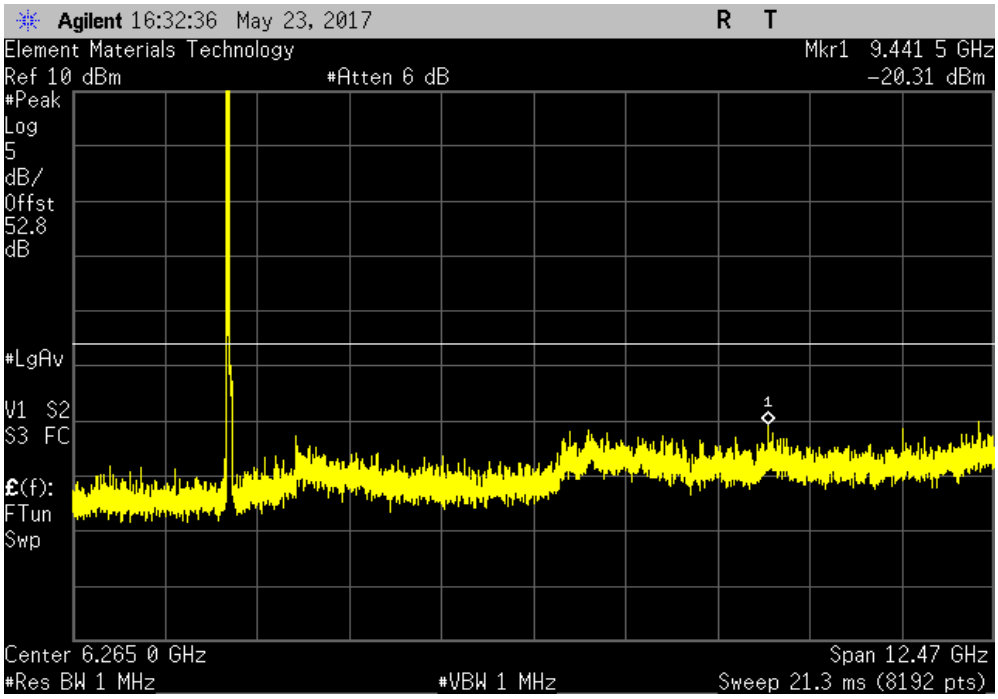
High Passband (2145-2180 MHz) WCDMA						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-19.6	-13	Pass

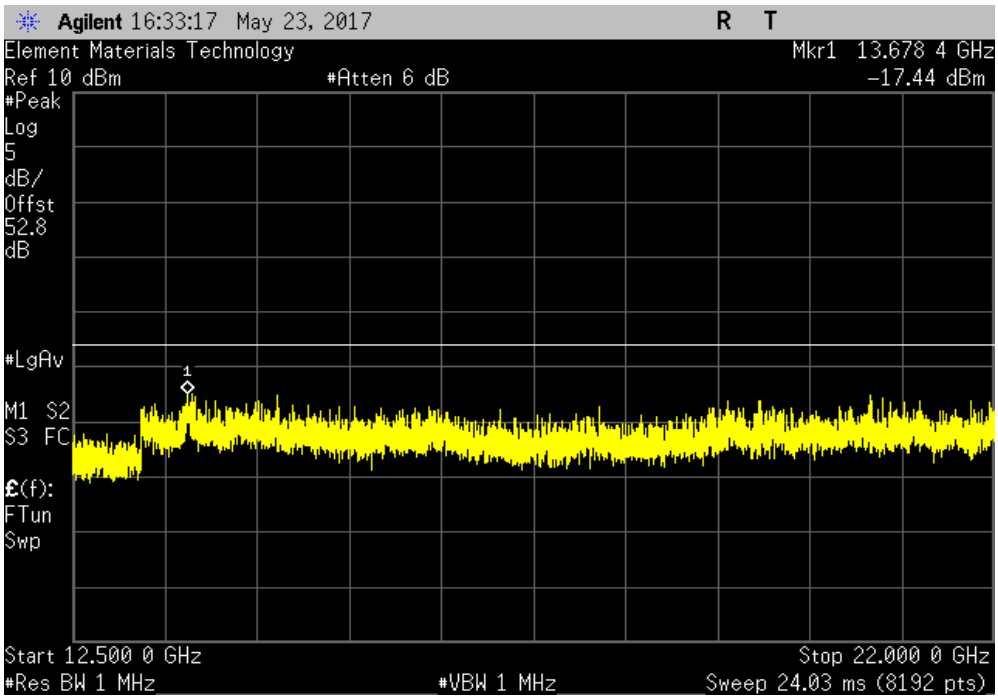


Low Passband (2110-2145 MHz) LTE 10 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.31	-13	Pass

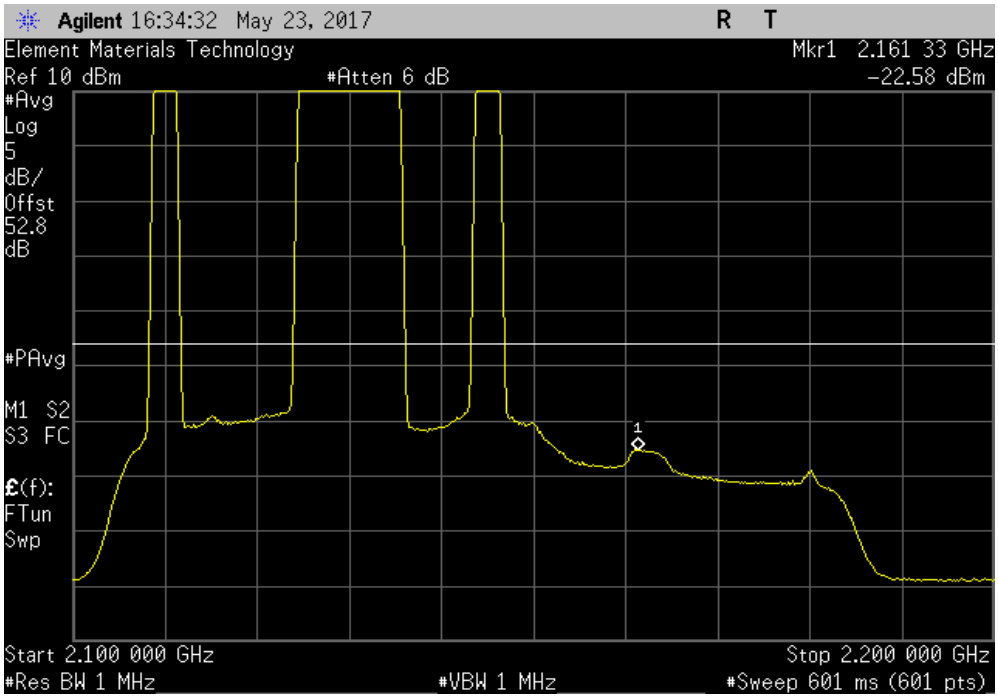


INTERMODULATION 2100

Low Passband (2110-2145 MHz) LTE 10 MHz						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz				-17.44	-13	Pass



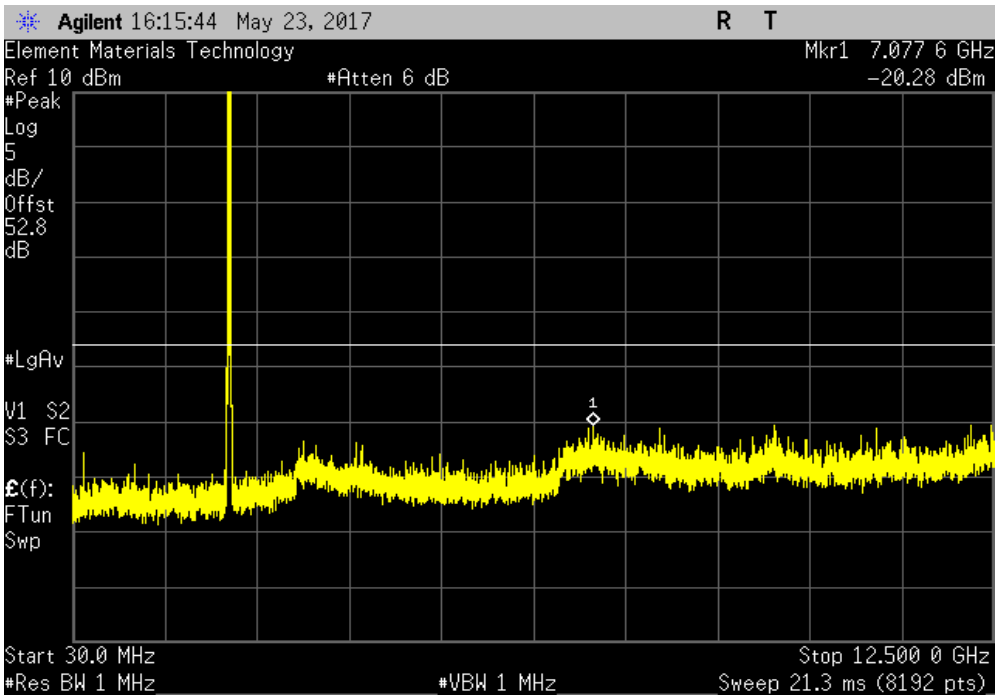
Low Passband (2110-2145 MHz) LTE 10 MHz						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-22.58	-13	Pass



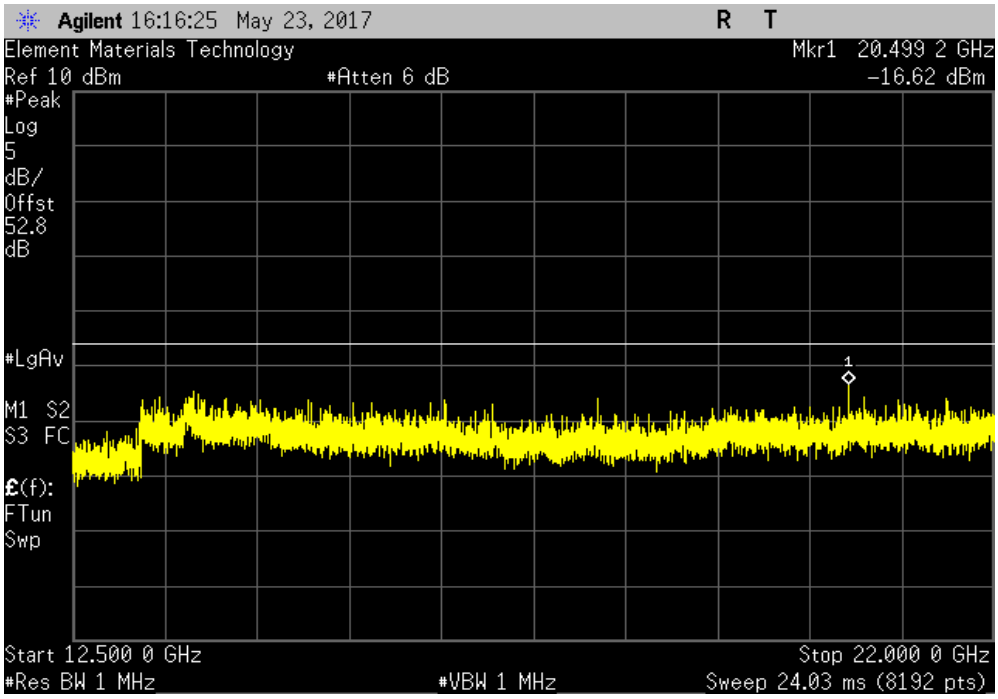
INTERMODULATION 2100

TbtTx 2017.01.27 XMit 2017.02.08

Mid Passband (2130-2160 MHz) LTE 10 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-20.28	-13	Pass



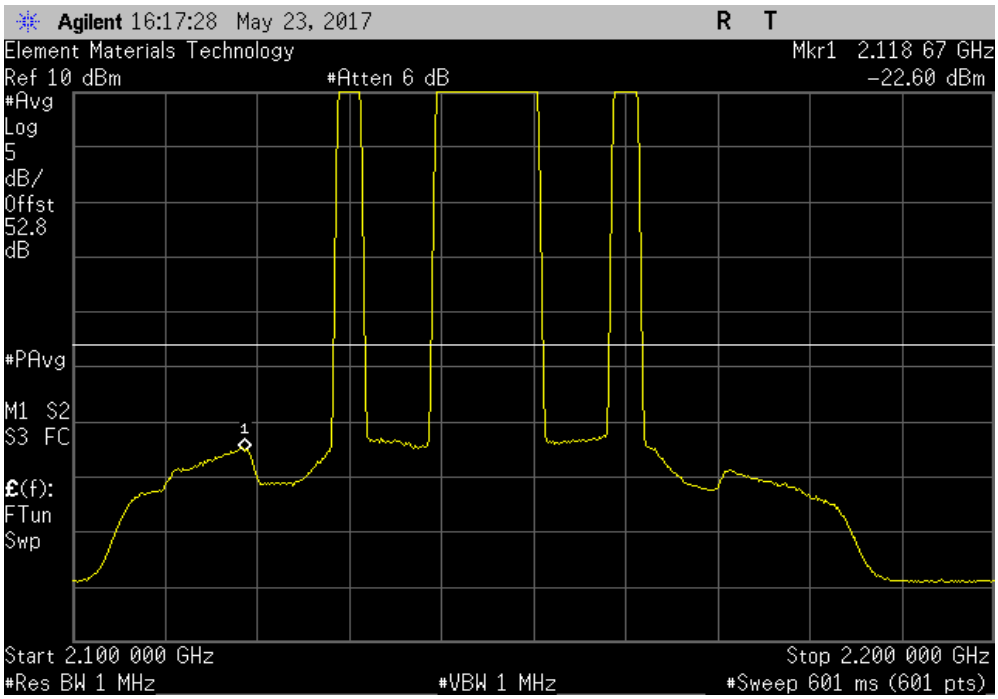
Mid Passband (2130-2160 MHz) LTE 10 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz			-16.62	-13	Pass



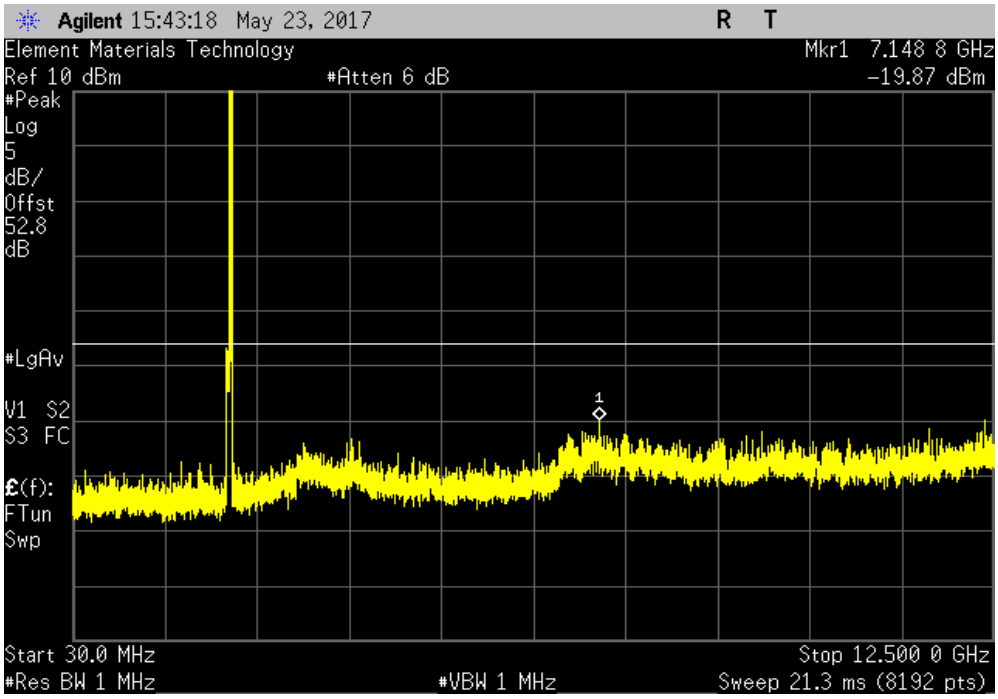
INTERMODULATION 2100

TbtTx 2017.01.27 XMit 2017.02.08

Mid Passband (2130-2160 MHz) LTE 10 MHz						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-22.61	-13	Pass

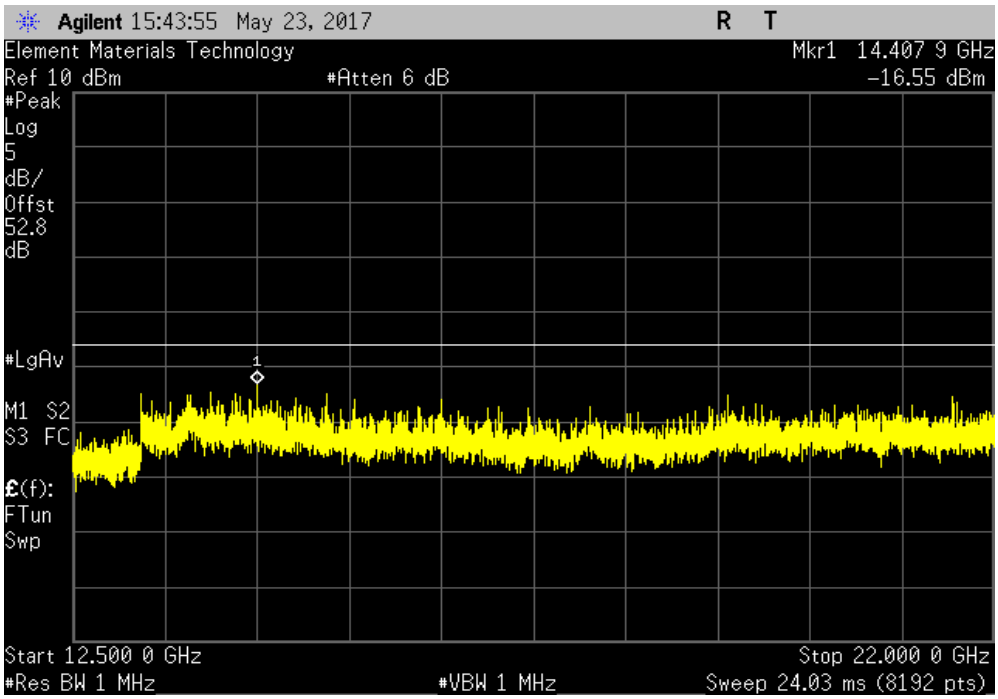


High Passband (2145-2180 MHz) LTE 10 MHz					
Frequency Range			Max Value (dBm)	Limit ≤ (dBm)	Result
30 MHz - 12.5 GHz			-19.87	-13	Pass

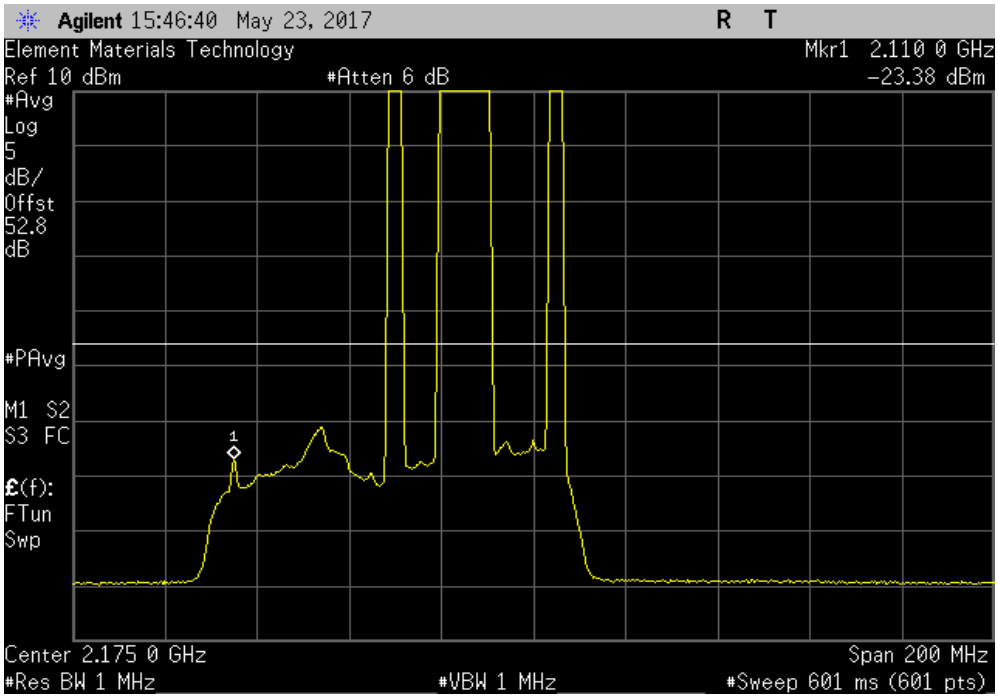


INTERMODULATION 2100

High Passband (2145-2180 MHz) LTE 10 MHz						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
12.5 GHz - 22 GHz				-16.55	-13	Pass



High Passband (2145-2180 MHz) LTE 10 MHz						
Frequency Range				Max Value (dBm)	Limit ≤ (dBm)	Result
Fundamental				-23.38	-13	Pass



FREQUENCY STABILITY 2100

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
Meter - Multimeter	Fluke	117	MLS	1/23/2017	1/23/2020
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Chamber - Temperature/Humidity	Cincinnati Sub Zero (CSZ)	ZPH-32-3.5-	TBF	NCR	NCR
Thermometer	Omega Engineering, Inc.	HH311	DUB	11/3/2014	11/3/2017
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/24/17
Customer:	CommScope			**Temperature:**	21.5 °C
Attendees:	Josh Wittman			**Humidity:**	47% RH
Project:	None			**Barometric Pres.:**	1008 mbar
Tested by:	Dustin Sparks	**Power:**	120VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm) per port. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

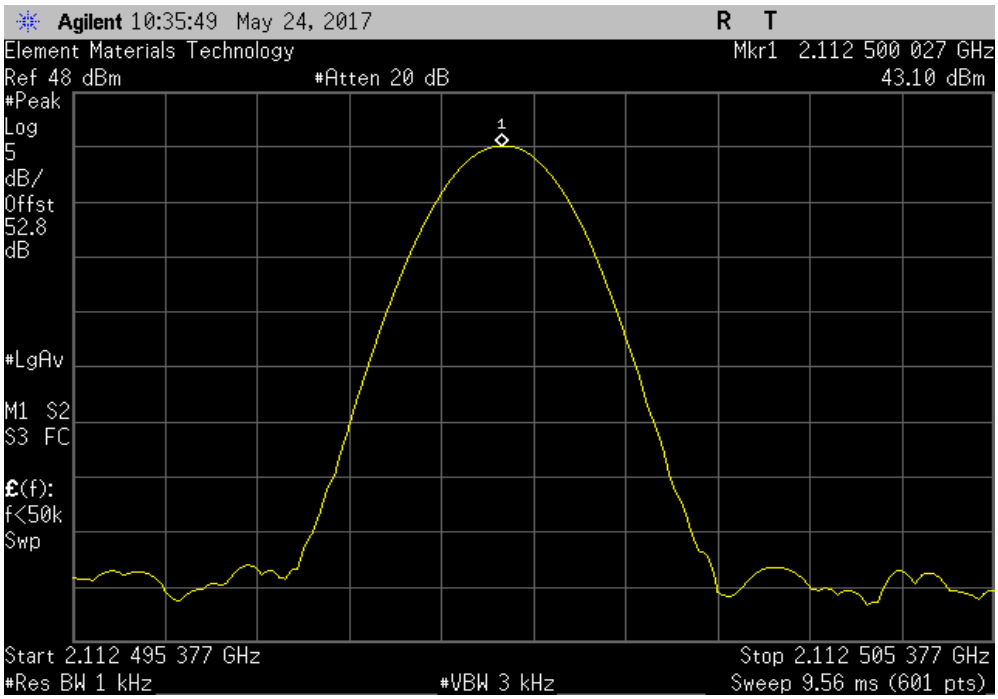
None

Configuration #	2	*Signature* Dustin Sparks

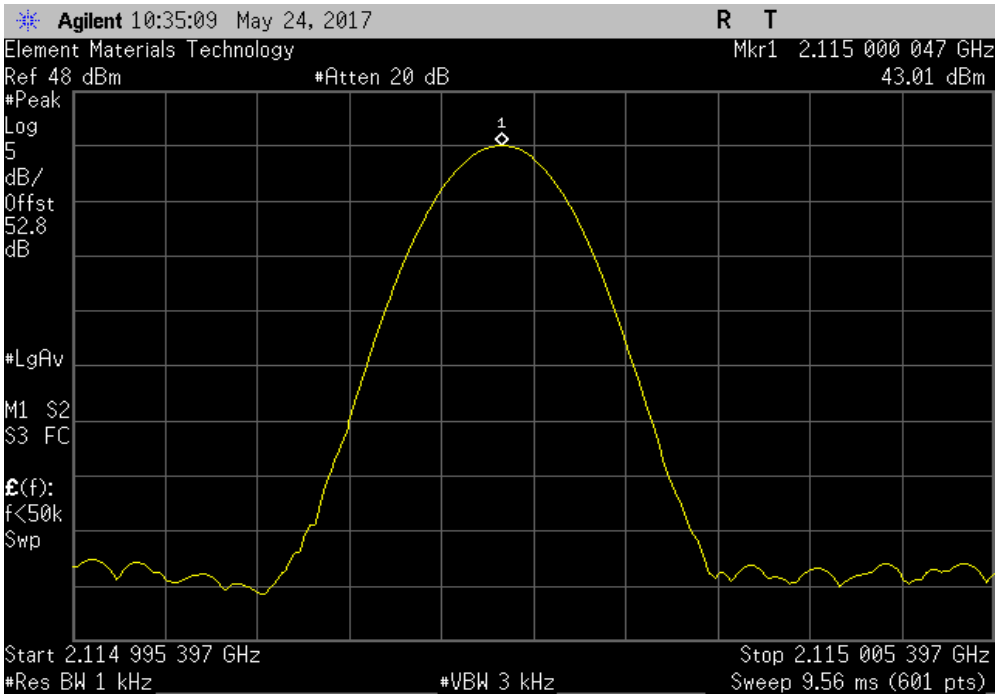
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
+50°C						
	2112.5 MHz	2112.500027	2112.5	0.013	1	Pass
	2115 MHz	2115.000047	2115.0	0.022	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
+40°C						
	2112.5 MHz	2112.500011	2112.5	0.005	1	Pass
	2115 MHz	2115.000025	2115.0	0.012	1	Pass
	2145 MHz	2145.000009	2145.0	0.004	1	Pass
	2175 MHz	2175.000019	2175.0	0.009	1	Pass
	2177.5 MHz	2177.500021	2177.5	0.010	1	Pass
+30°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000046	2115.0	0.022	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000003	2175.0	0.001	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
+20°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000042	2115.0	0.020	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000053	2175.0	0.024	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
+10°C						
	2112.5 MHz	2112.500027	2112.5	0.013	1	Pass
	2115 MHz	2115.000046	2115.0	0.022	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000052	2175.0	0.024	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
0°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000046	2115.0	0.022	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000053	2175.0	0.024	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
-10°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000042	2115.0	0.020	1	Pass
	2145 MHz	2145.00001	2145.0	0.005	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500055	2177.5	0.025	1	Pass
-20°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000042	2115.0	0.020	1	Pass
	2145 MHz	2145.000009	2145.0	0.004	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
-30°C						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000046	2115.0	0.022	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
Normal Voltage						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000025	2115.0	0.012	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000053	2175.0	0.024	1	Pass
	2177.5 MHz	2177.500055	2177.5	0.025	1	Pass
Extreme Voltage (102VAC/60Hz)						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000042	2115.0	0.020	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass
Extreme Voltage (138VAC/60Hz)						
	2112.5 MHz	2112.500044	2112.5	0.021	1	Pass
	2115 MHz	2115.000042	2115.0	0.020	1	Pass
	2145 MHz	2145.000043	2145.0	0.020	1	Pass
	2175 MHz	2175.000036	2175.0	0.017	1	Pass
	2177.5 MHz	2177.500038	2177.5	0.017	1	Pass

FREQUENCY STABILITY 2100

+50°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500027	2112.5	0.013	1	Pass

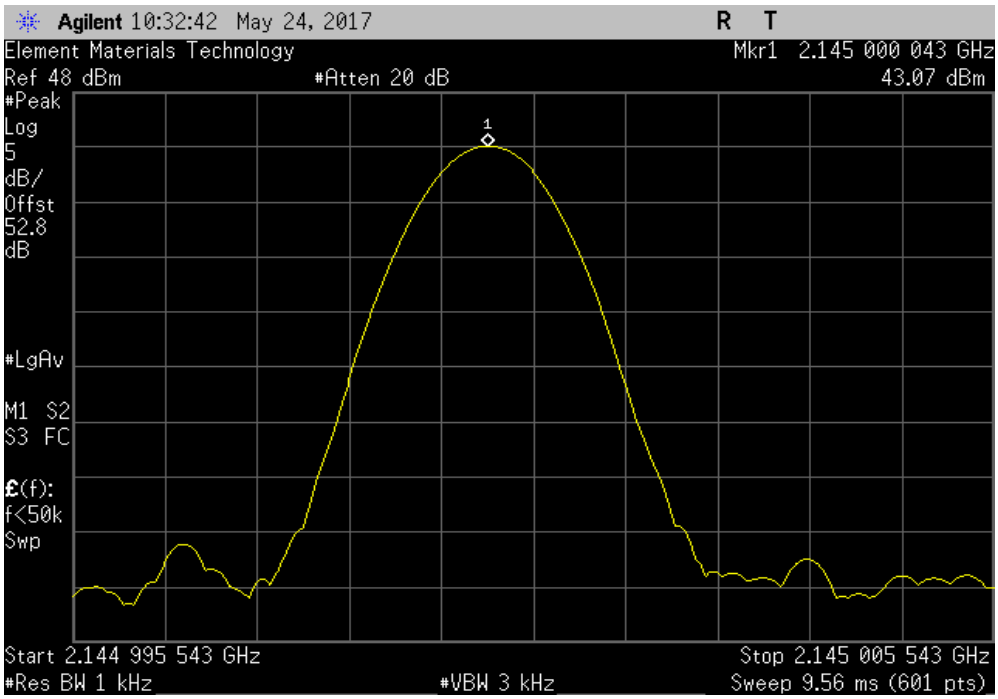


+50°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000047	2115	0.022	1	Pass

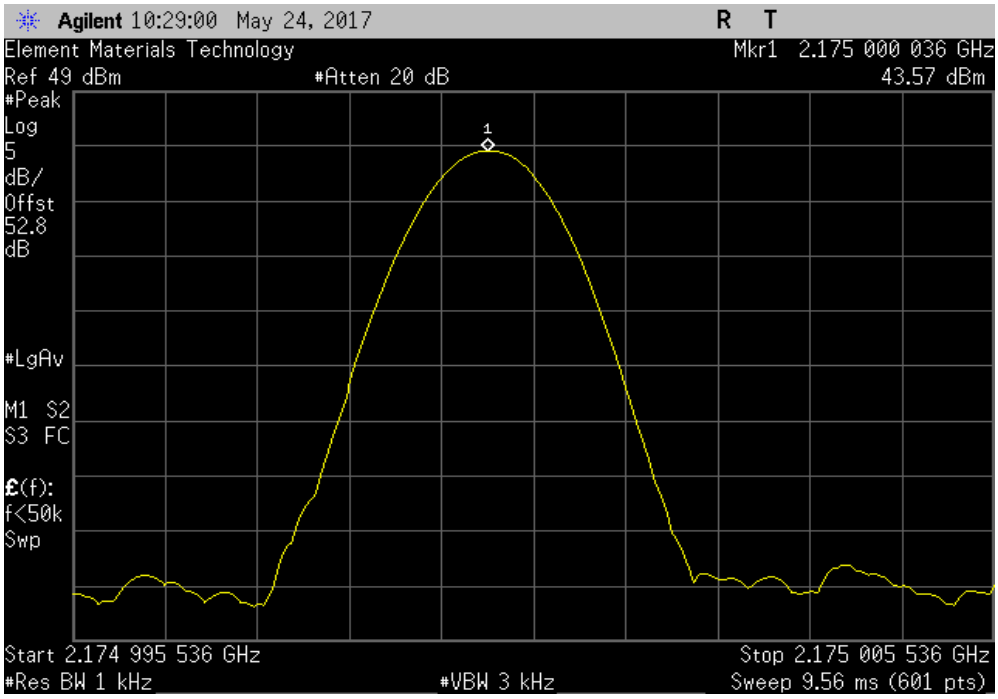


FREQUENCY STABILITY 2100

+50°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

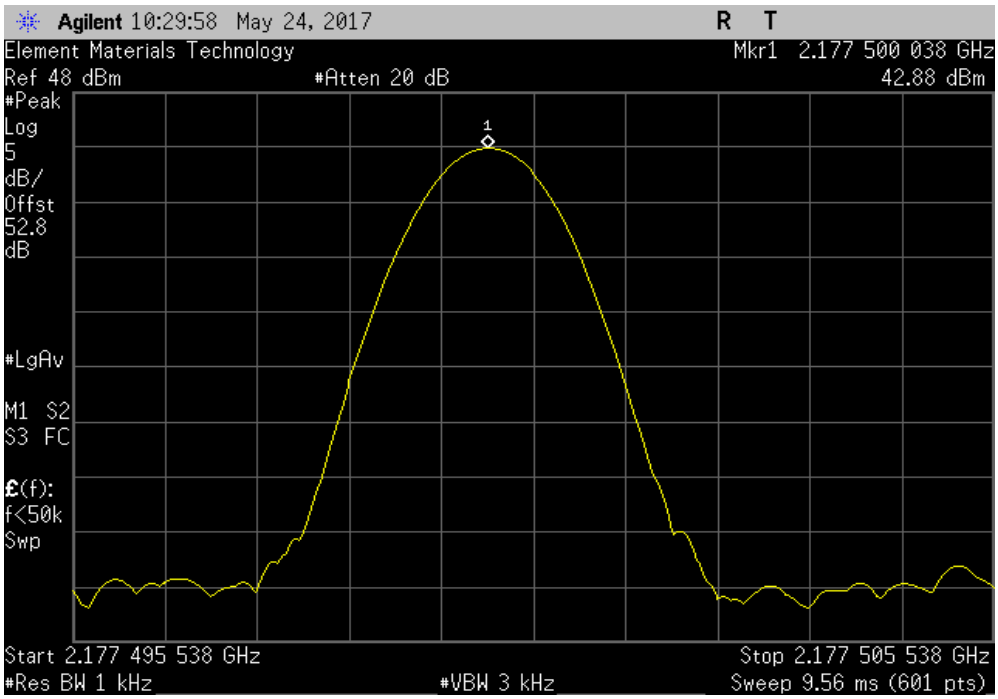


+50°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass

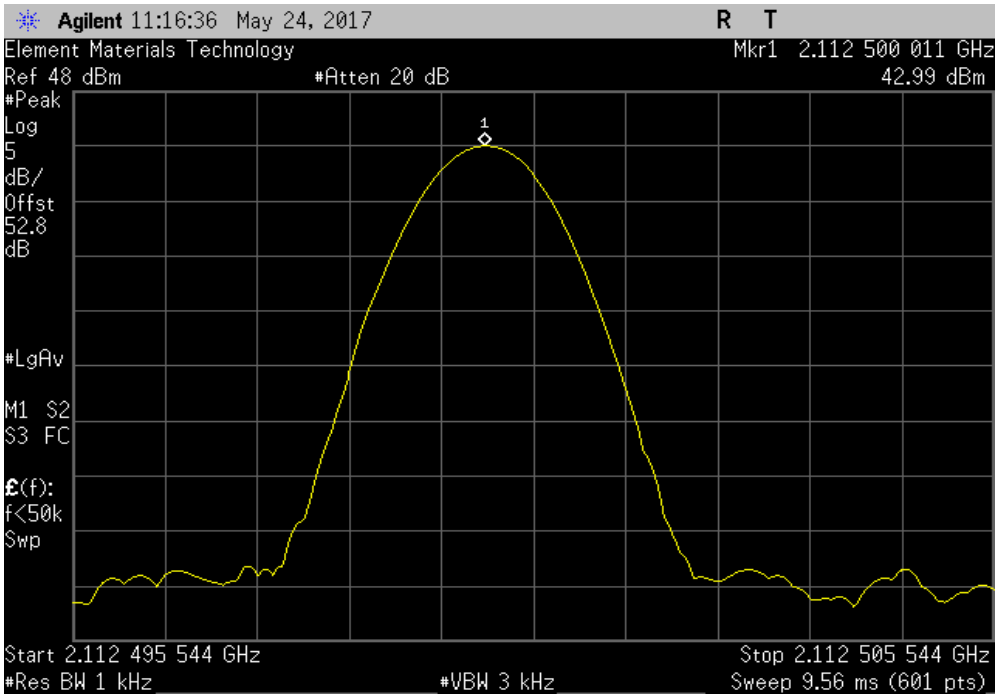


FREQUENCY STABILITY 2100

+50°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

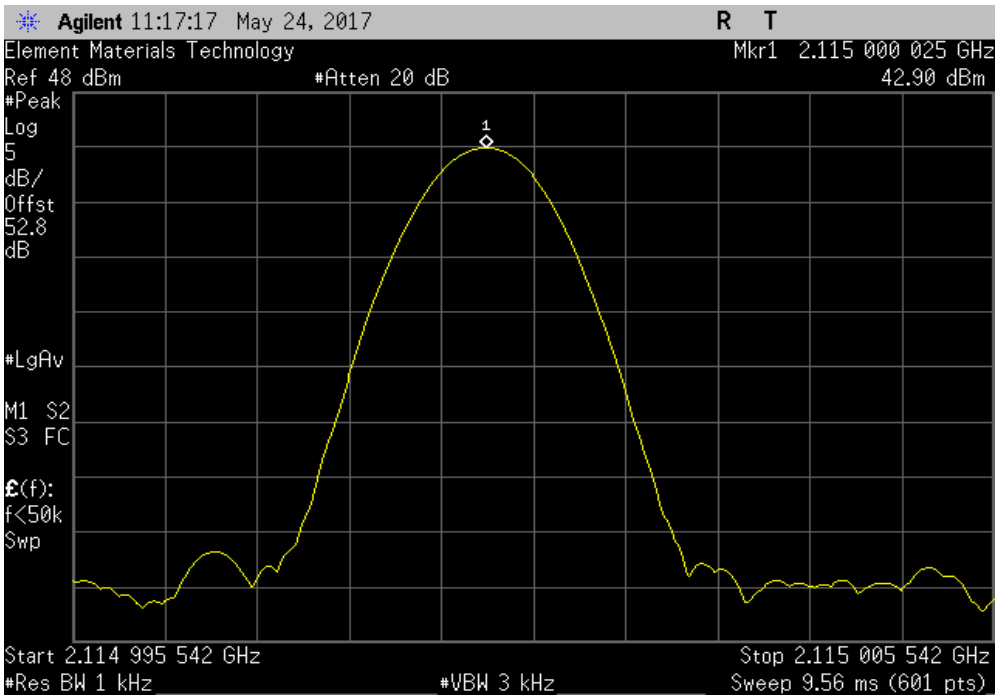


+40°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500011	2112.5	0.005	1	Pass

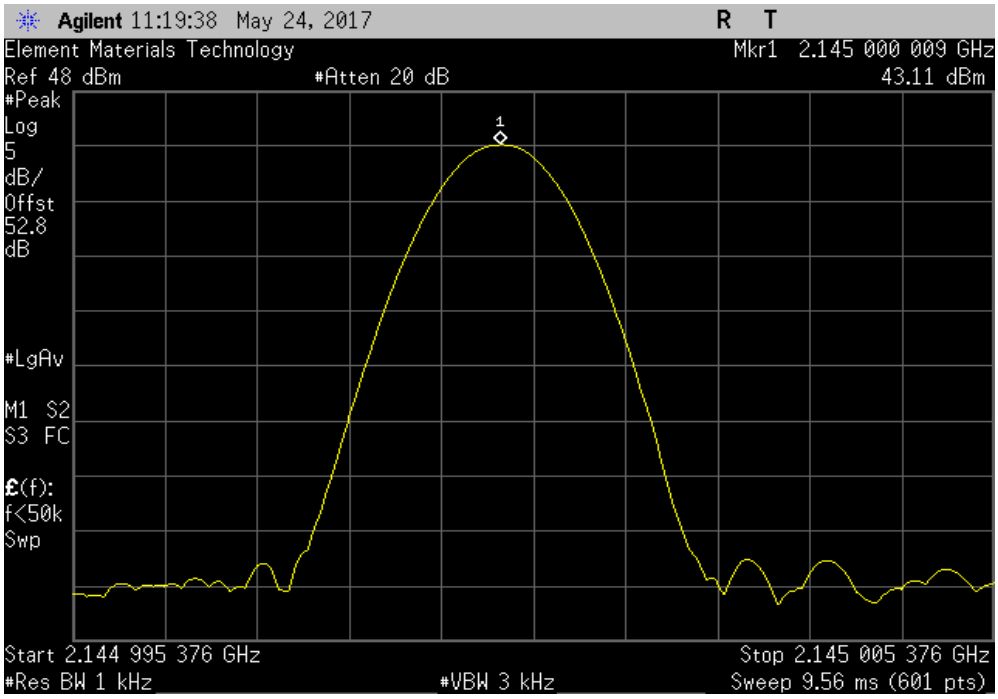


FREQUENCY STABILITY 2100

+40°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000025	2115	0.012	1	Pass

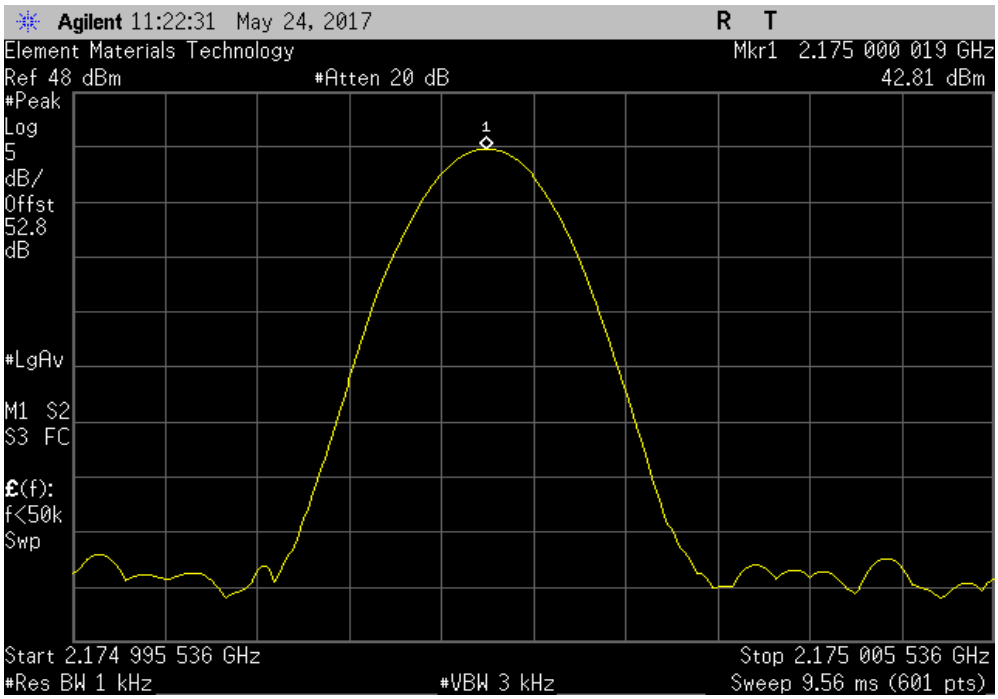


+40°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000009	2145	0.004	1	Pass

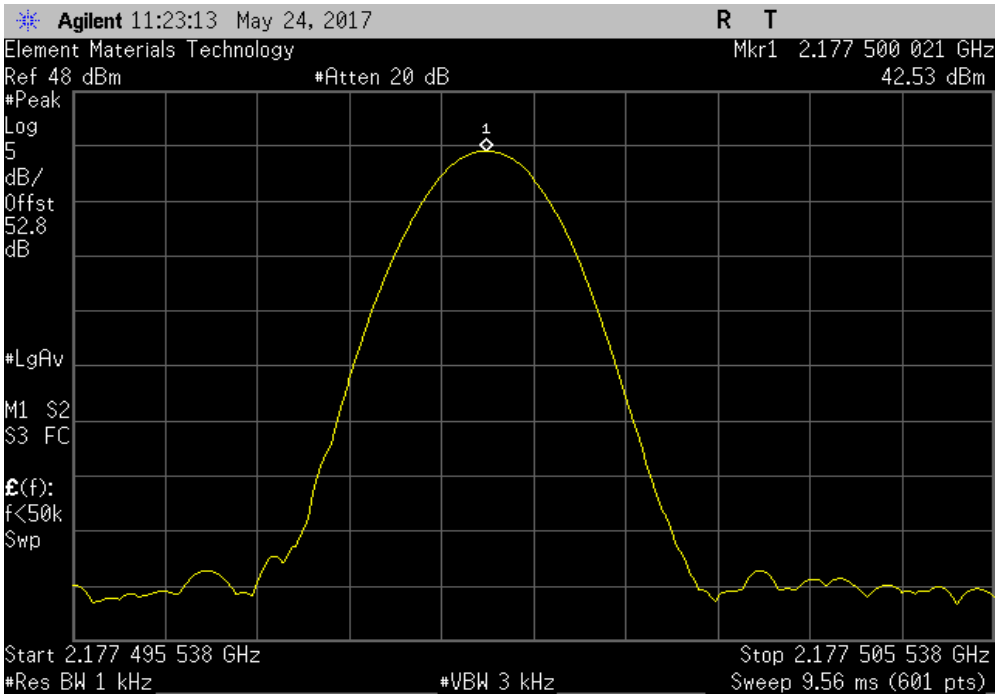


FREQUENCY STABILITY 2100

+40°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000019	2175	0.009	1	Pass

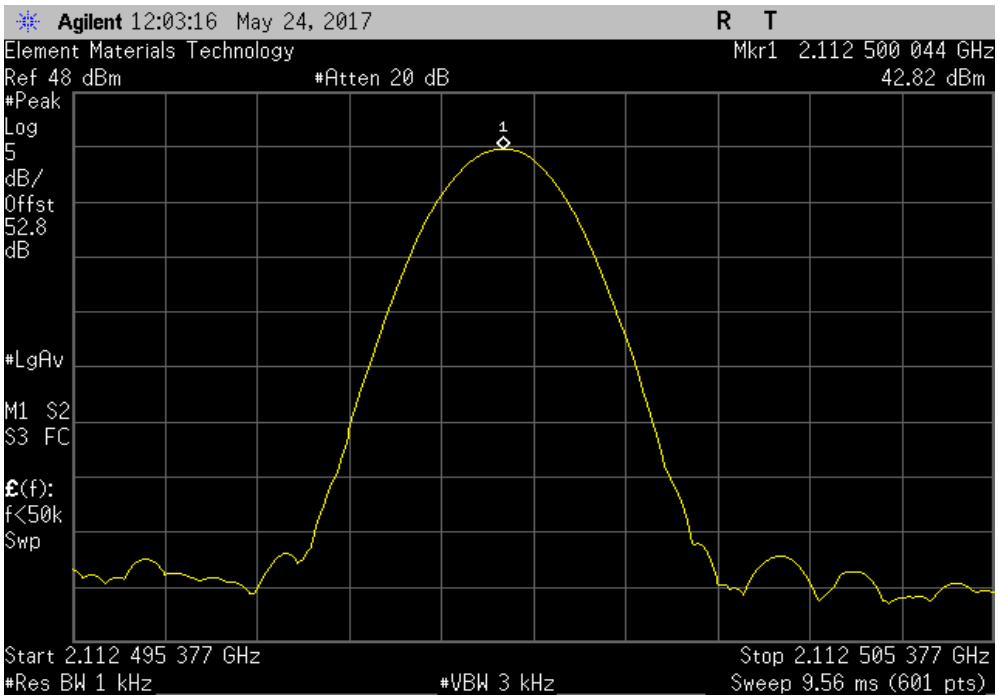


+40°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500021	2177.5	0.010	1	Pass

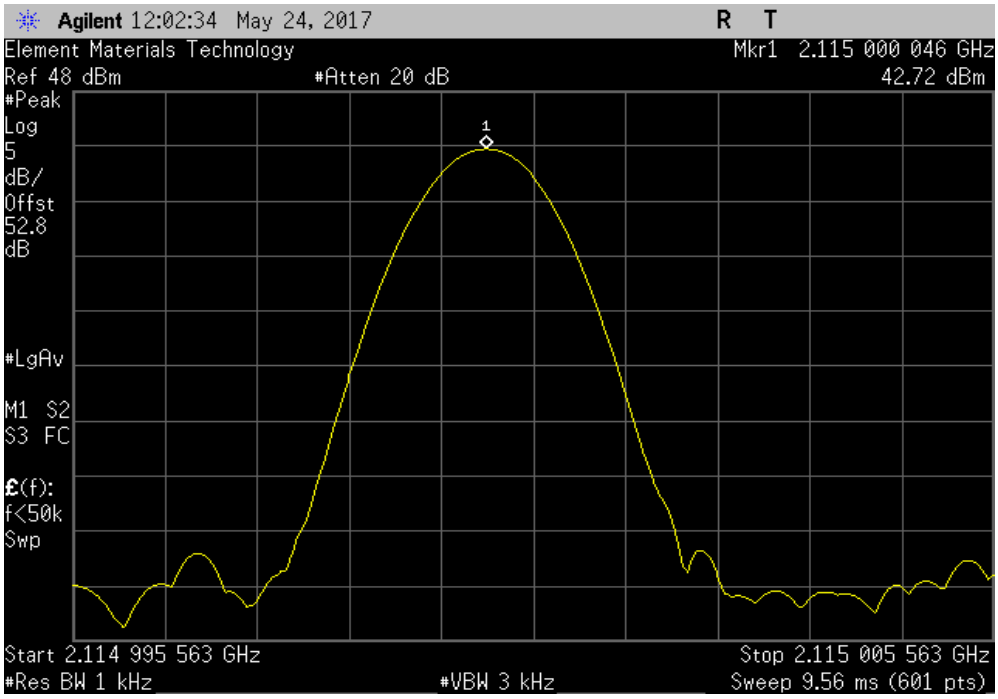


FREQUENCY STABILITY 2100

+30°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

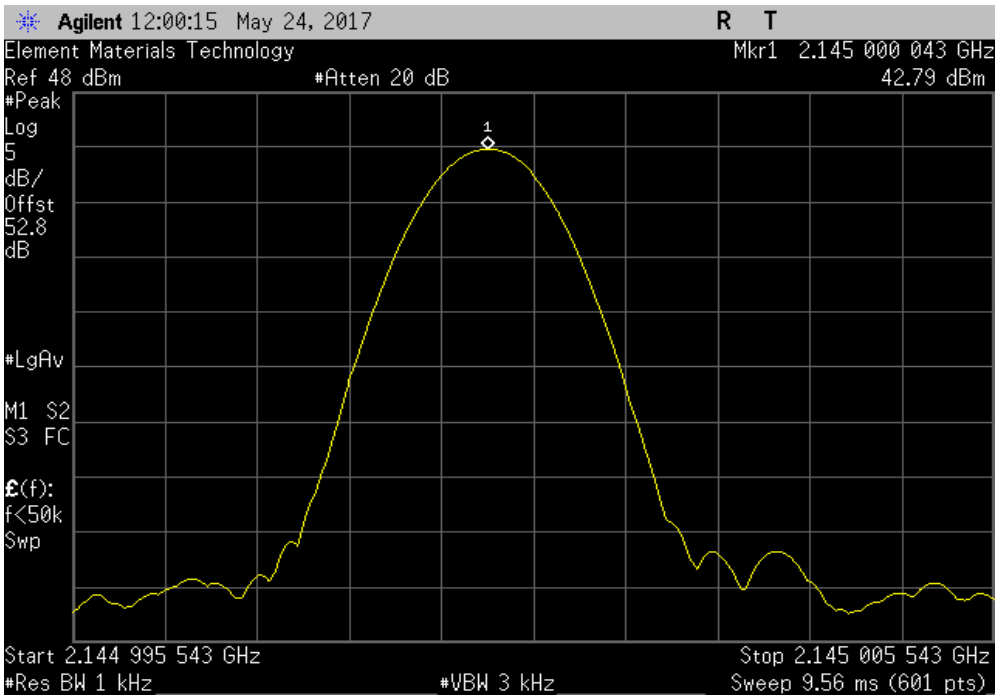


+30°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000046	2115	0.022	1	Pass

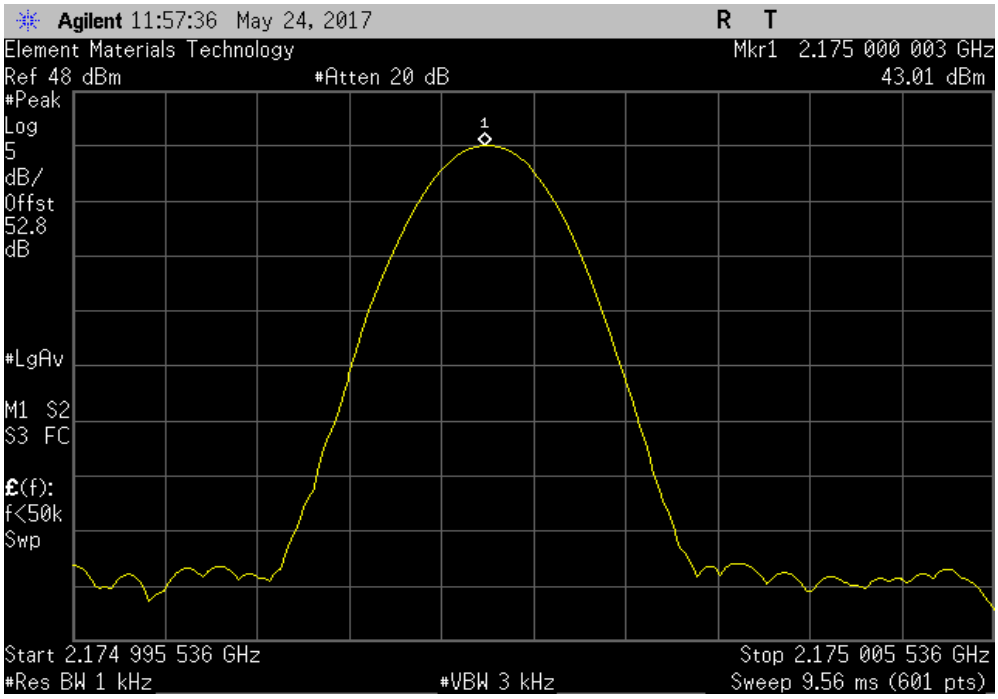


FREQUENCY STABILITY 2100

+30°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

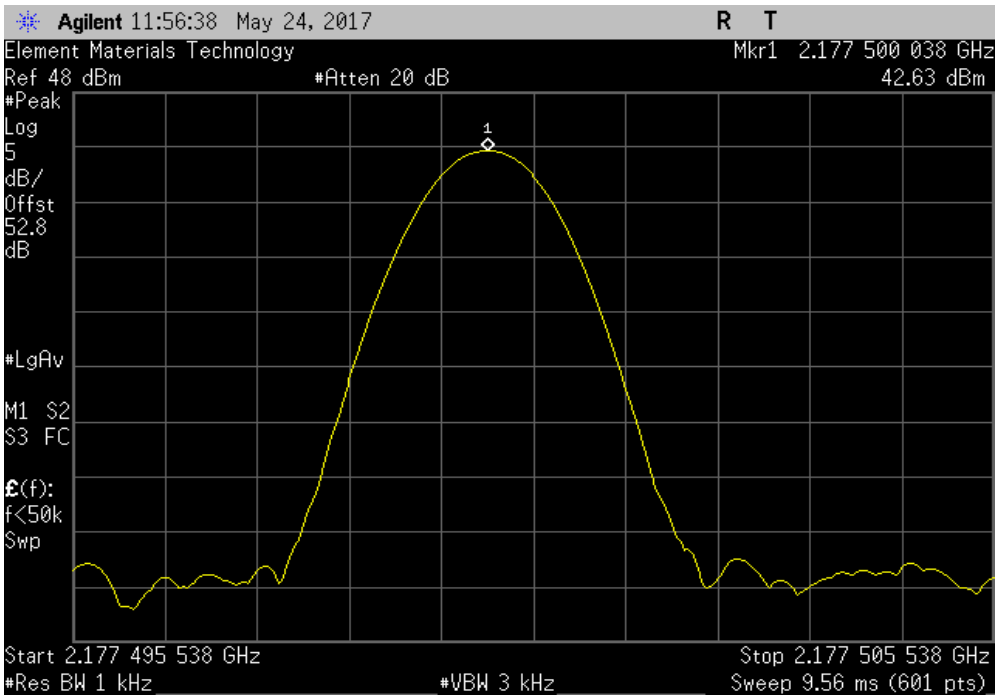


+30°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000003	2175	0.001	1	Pass

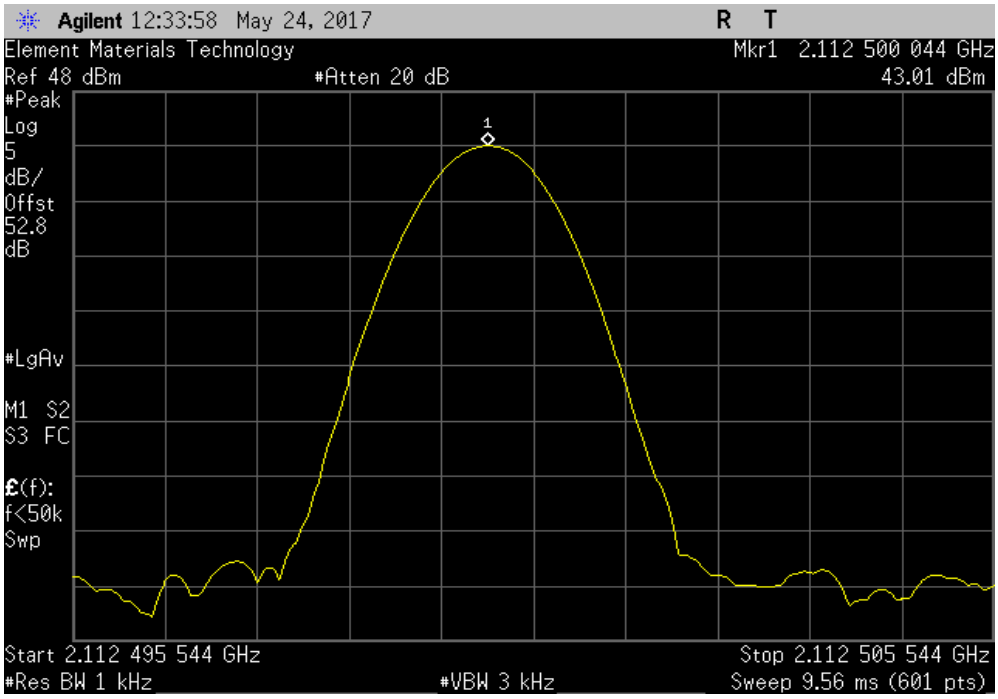


FREQUENCY STABILITY 2100

+30°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

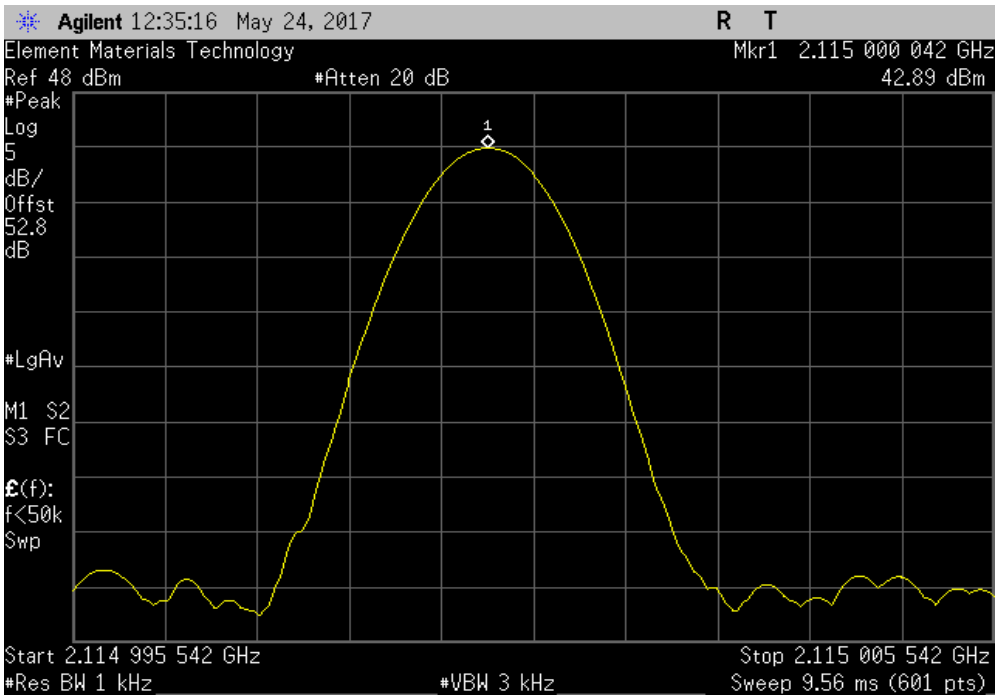


+20°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

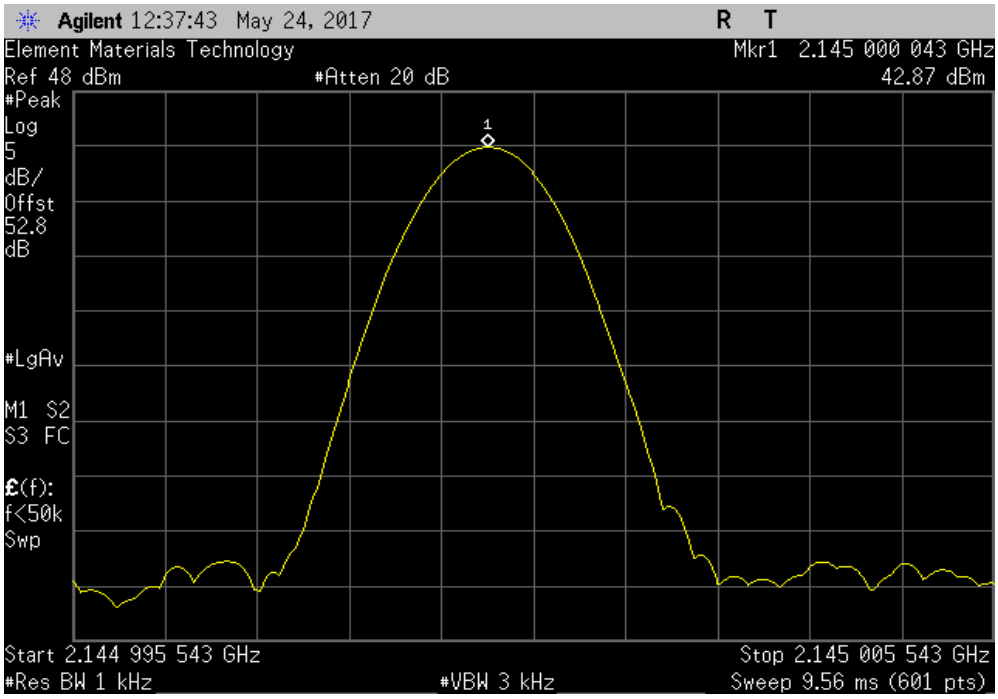


FREQUENCY STABILITY 2100

+20°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000042	2115	0.020	1	Pass

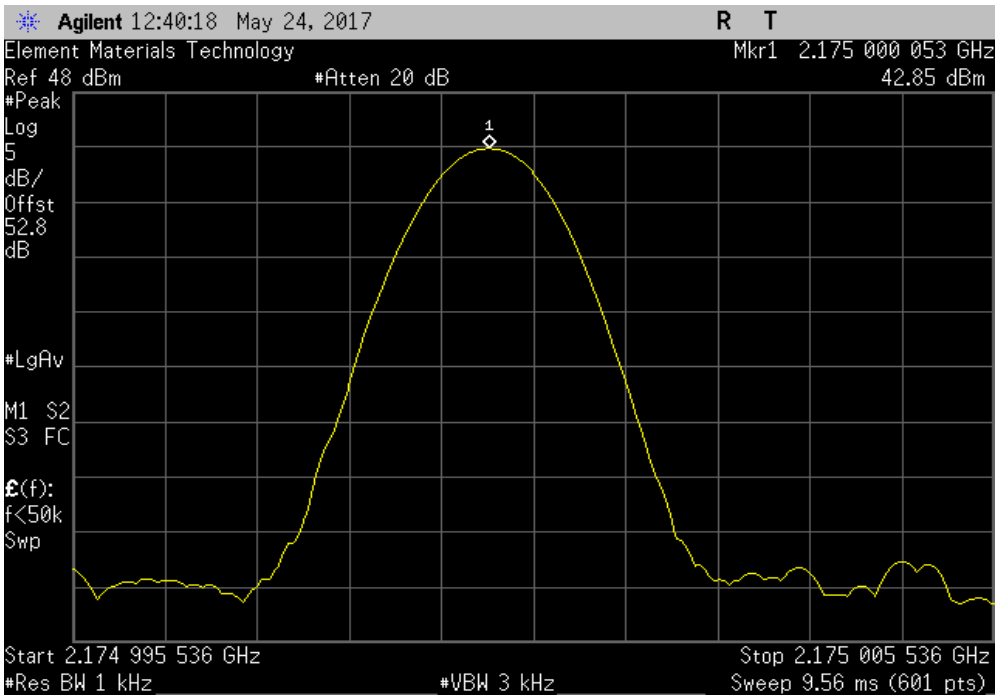


+20°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

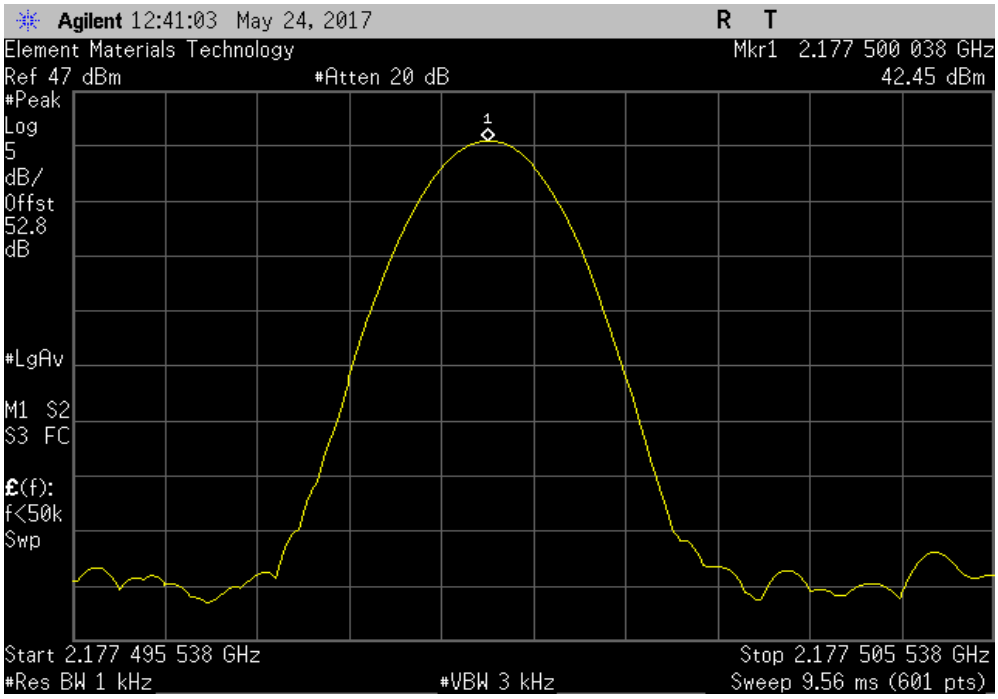


FREQUENCY STABILITY 2100

+20°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000053	2175	0.024	1	Pass

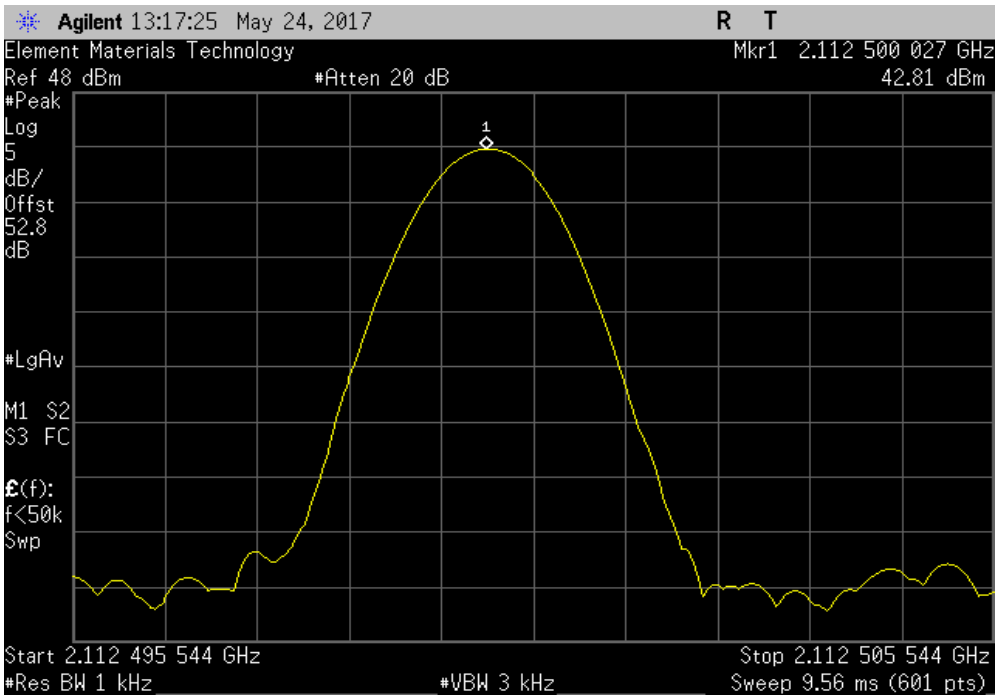


+20°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

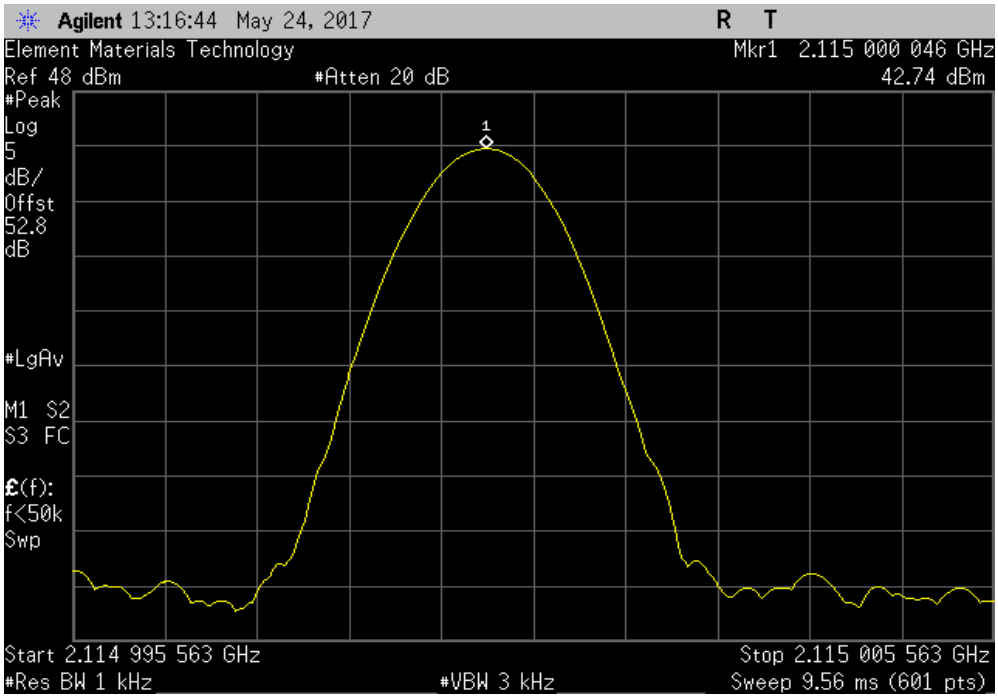


FREQUENCY STABILITY 2100

+10°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500027	2112.5	0.013	1	Pass

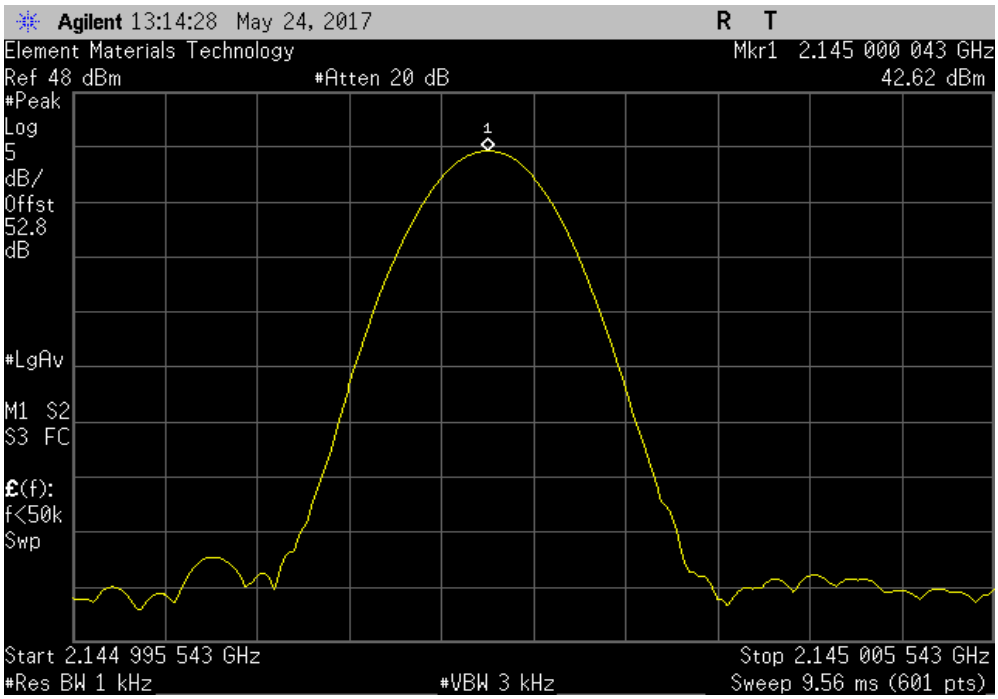


+10°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000046	2115	0.022	1	Pass

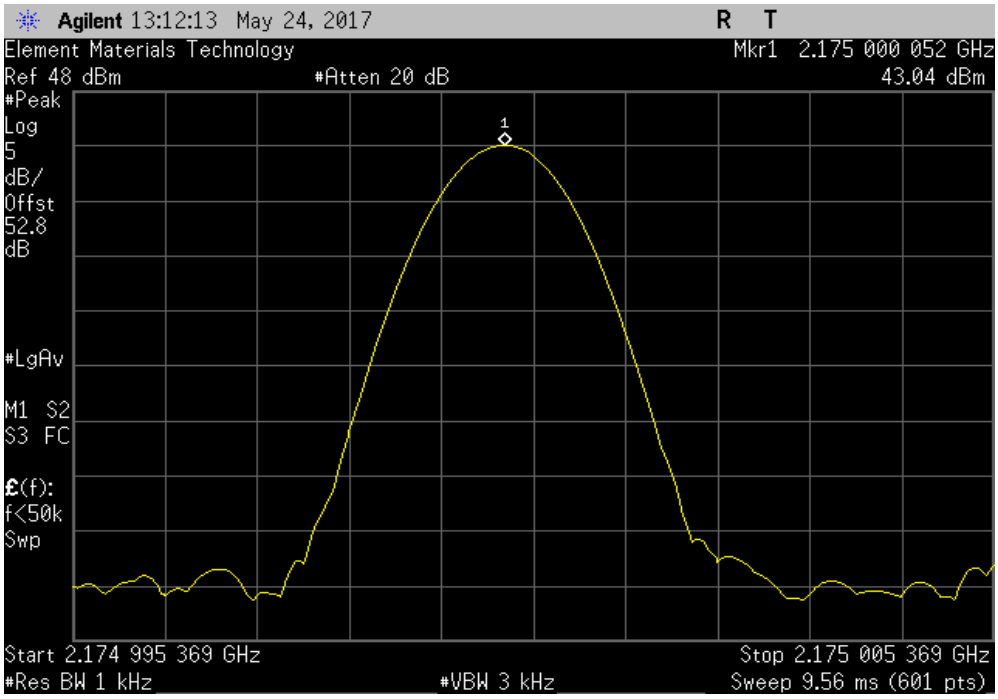


FREQUENCY STABILITY 2100

+10°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

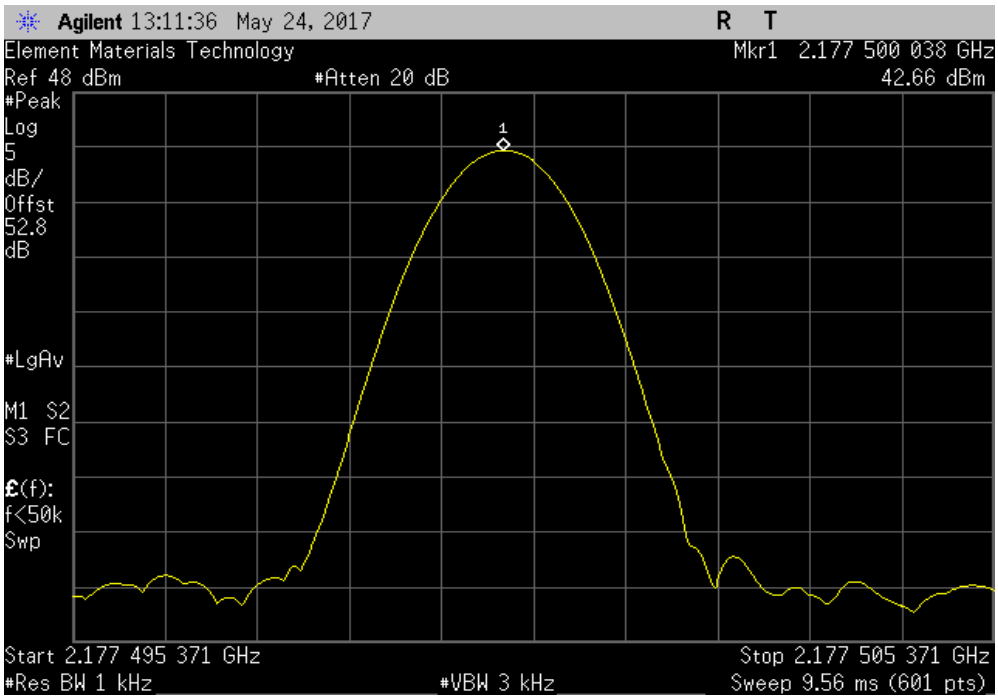


+10°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000052	2175	0.024	1	Pass

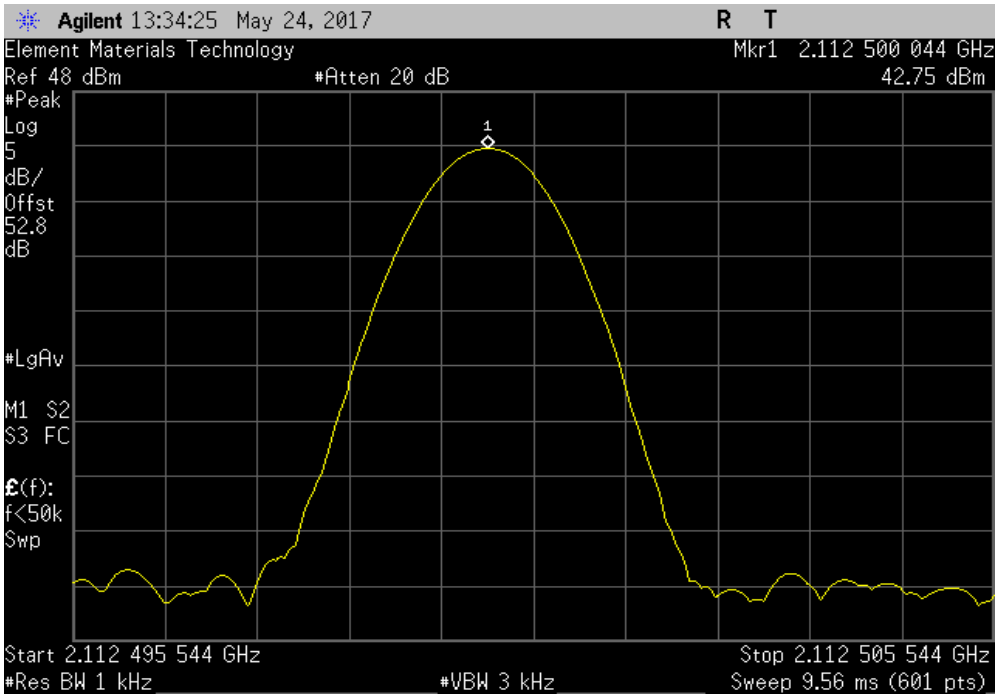


FREQUENCY STABILITY 2100

+10°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

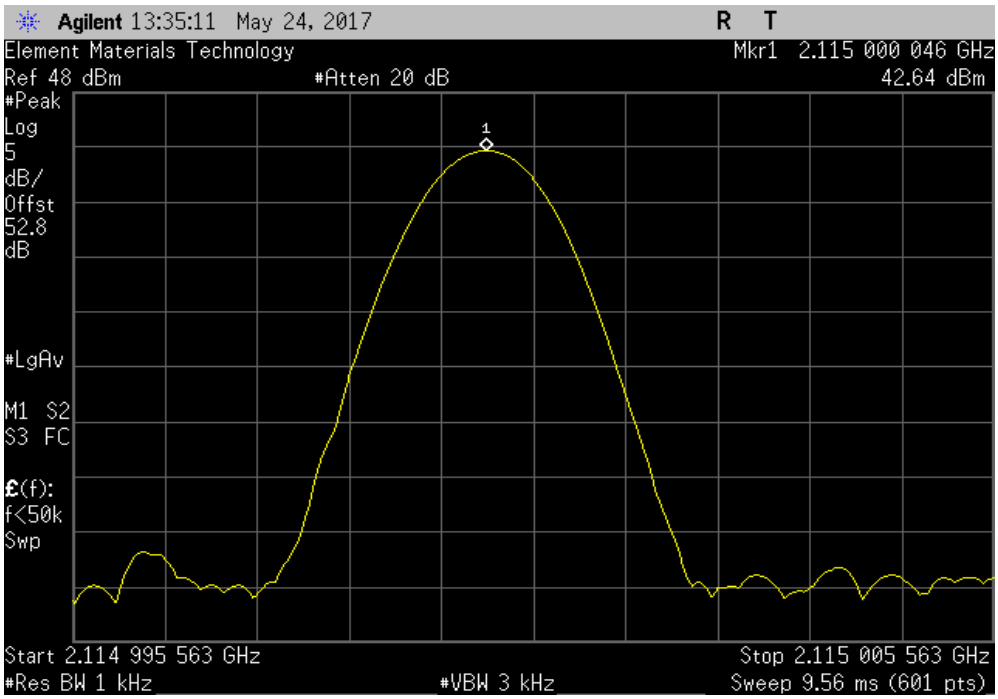


0°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

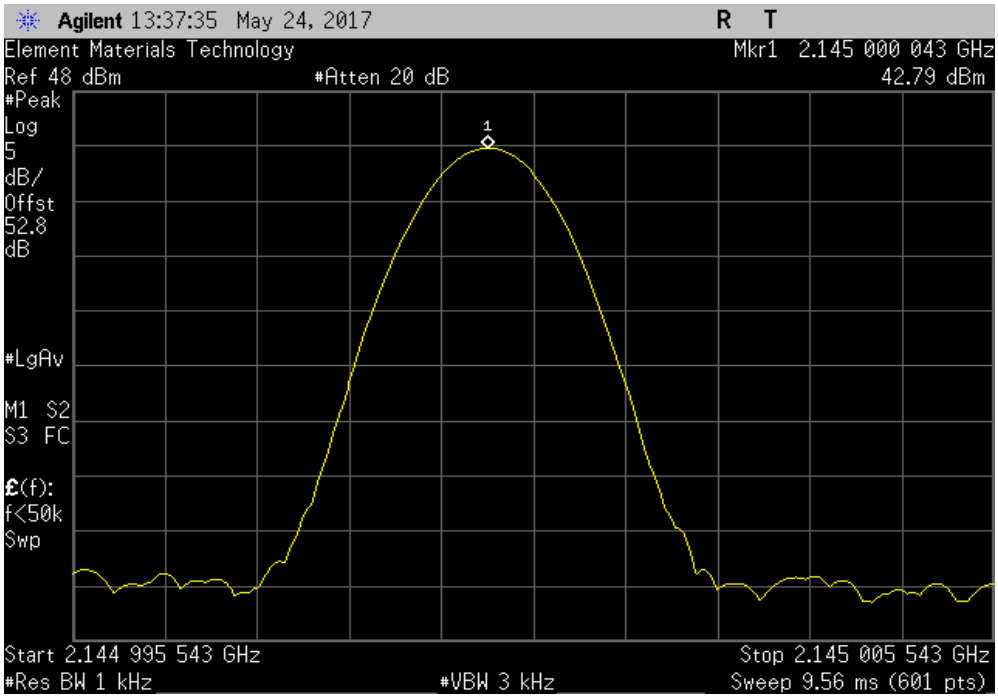


FREQUENCY STABILITY 2100

0°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000046	2115	0.022	1	Pass

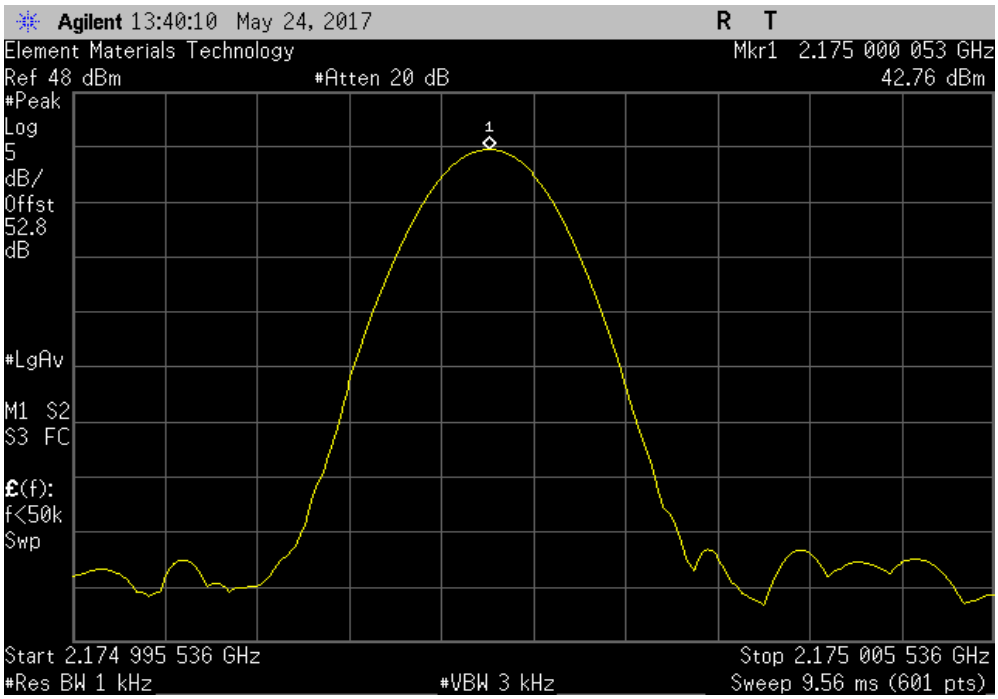


0°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

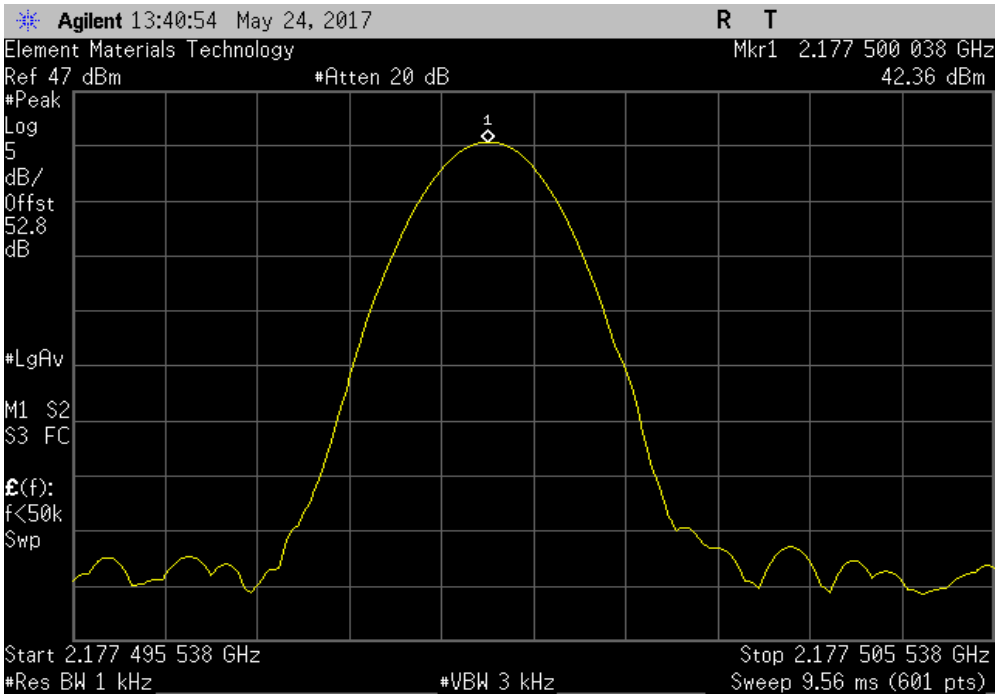


FREQUENCY STABILITY 2100

0°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000053	2175	0.024	1	Pass

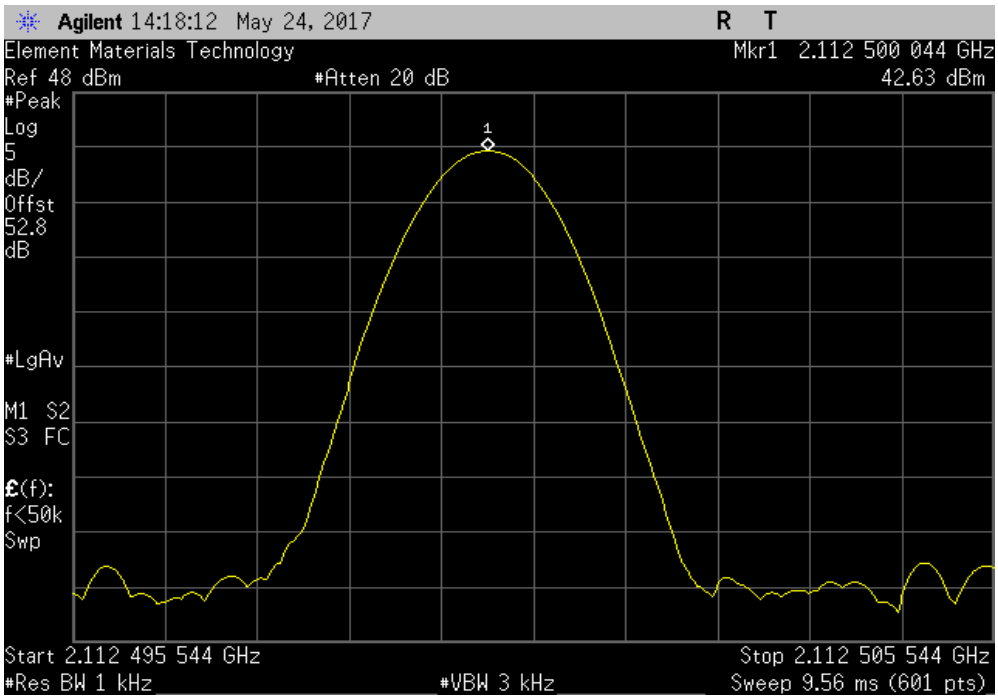


0°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

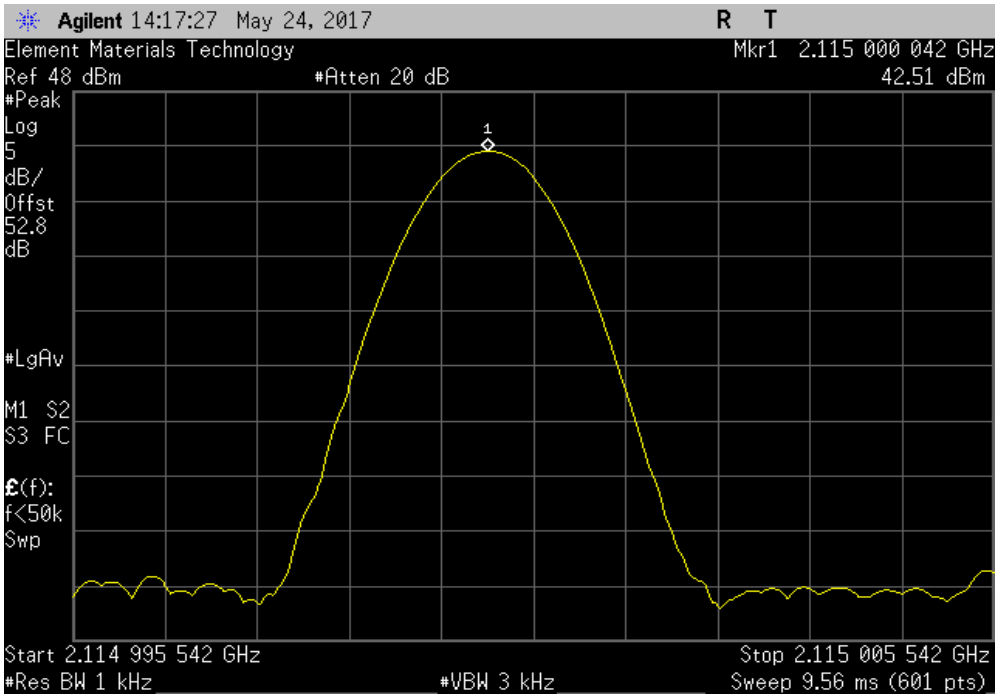


FREQUENCY STABILITY 2100

-10°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

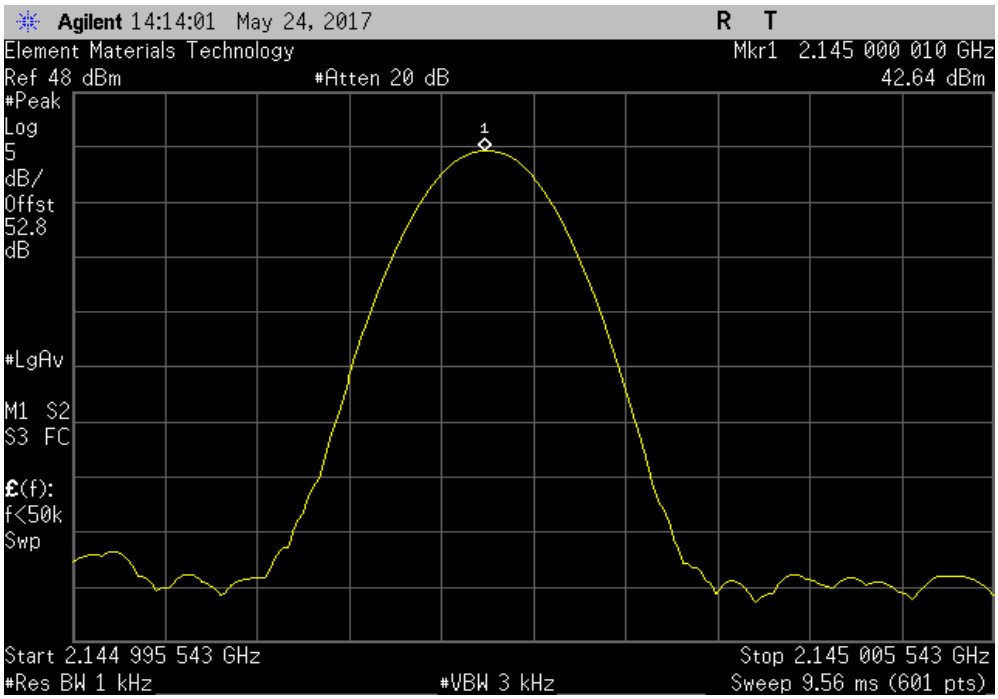


-10°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000042	2115	0.020	1	Pass

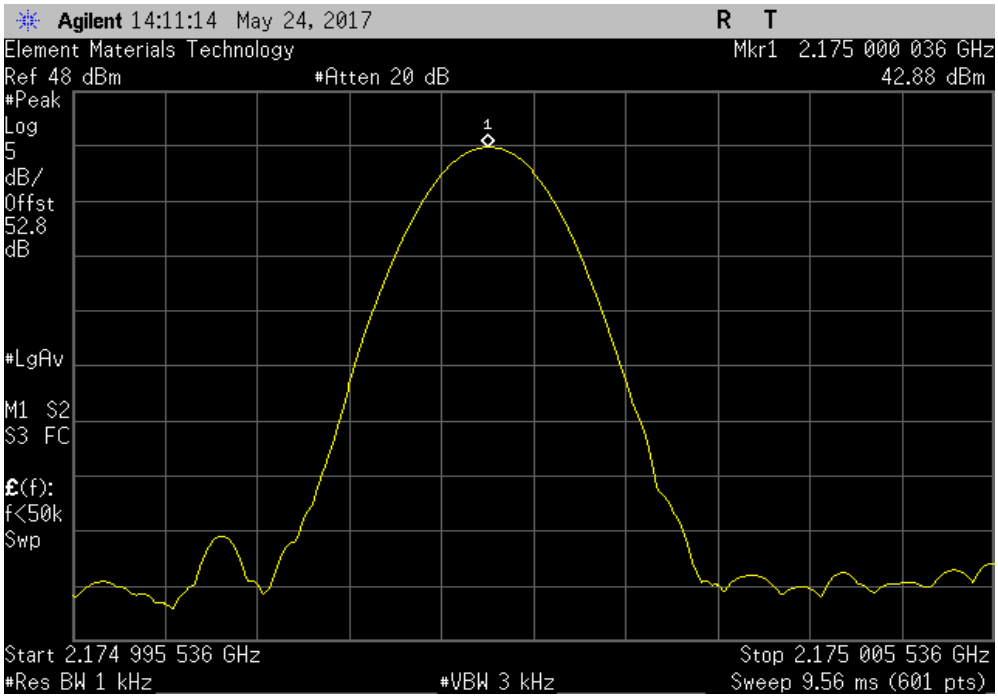


FREQUENCY STABILITY 2100

-10°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.00001	2145	0.005	1	Pass



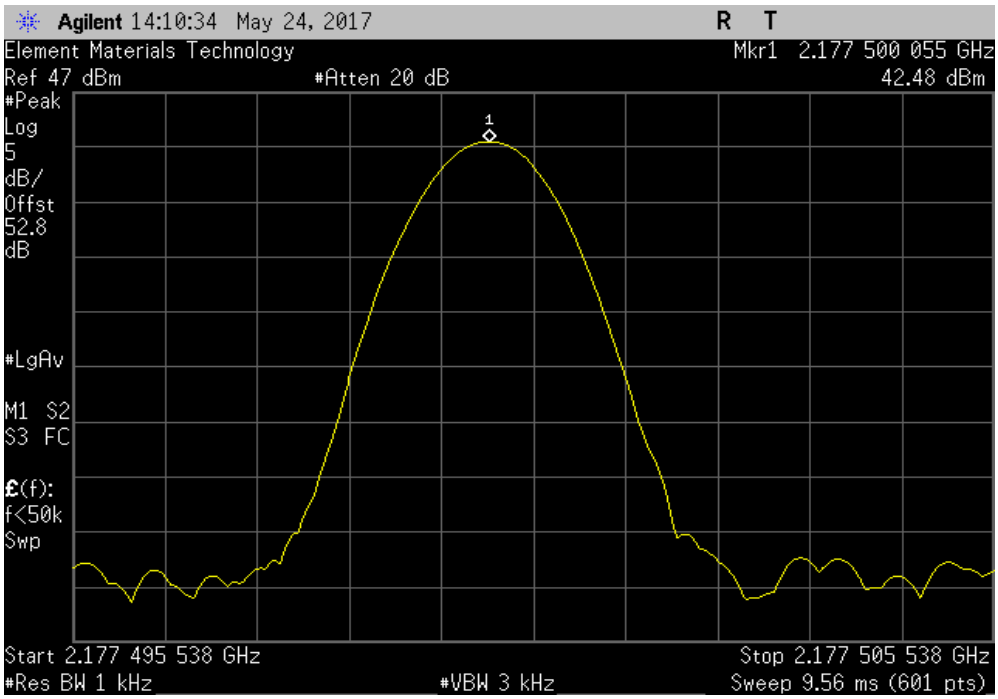
-10°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass



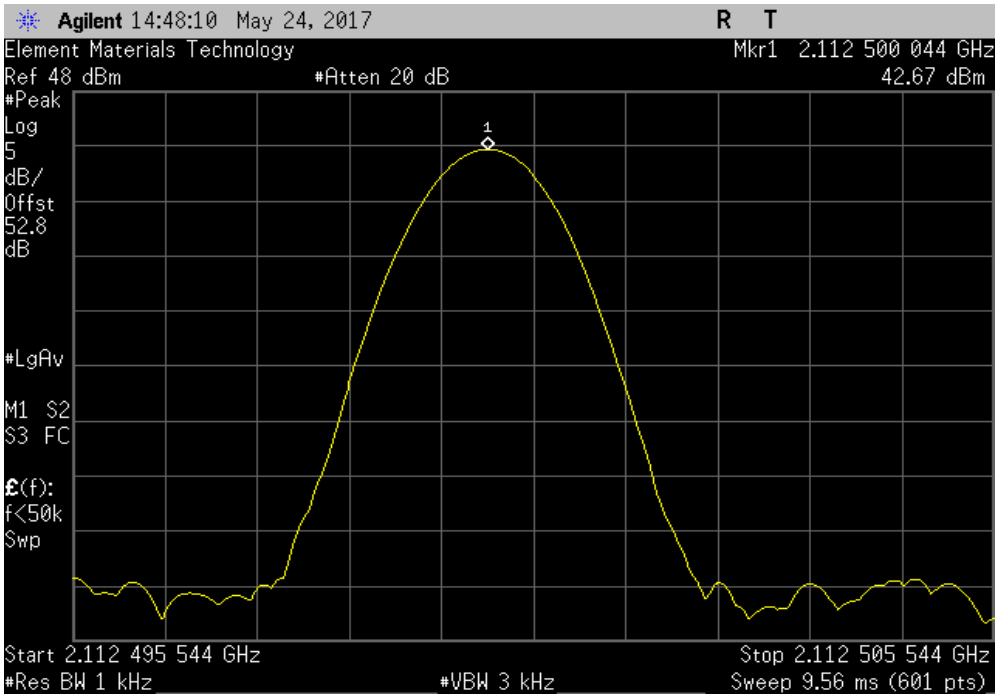
FREQUENCY STABILITY 2100

TbtTx 2017.01.27 XMit 2017.02.08

-10°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500055	2177.5	0.025	1	Pass



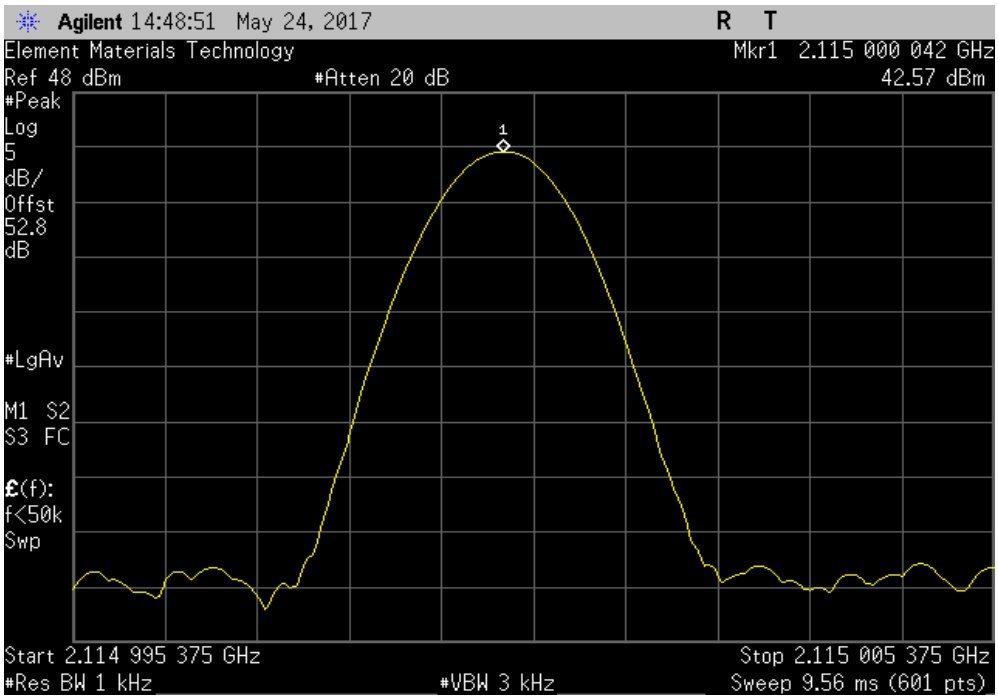
-20°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass



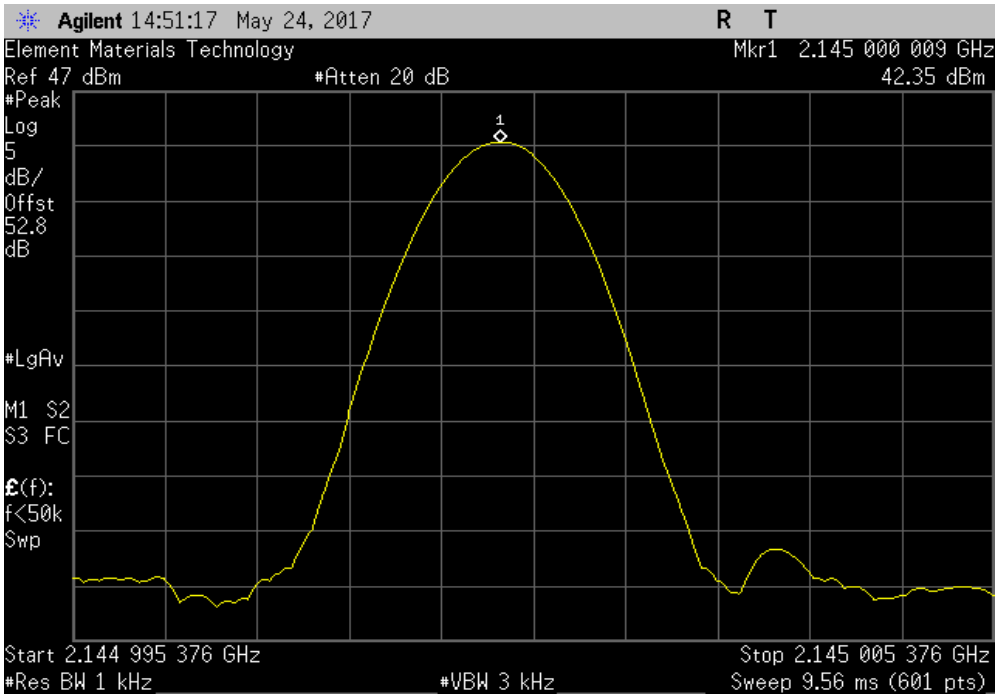
FREQUENCY STABILITY 2100

TbtTx 2017.01.27 XMit 2017.02.08

-20°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000042	2115	0.020	1	Pass

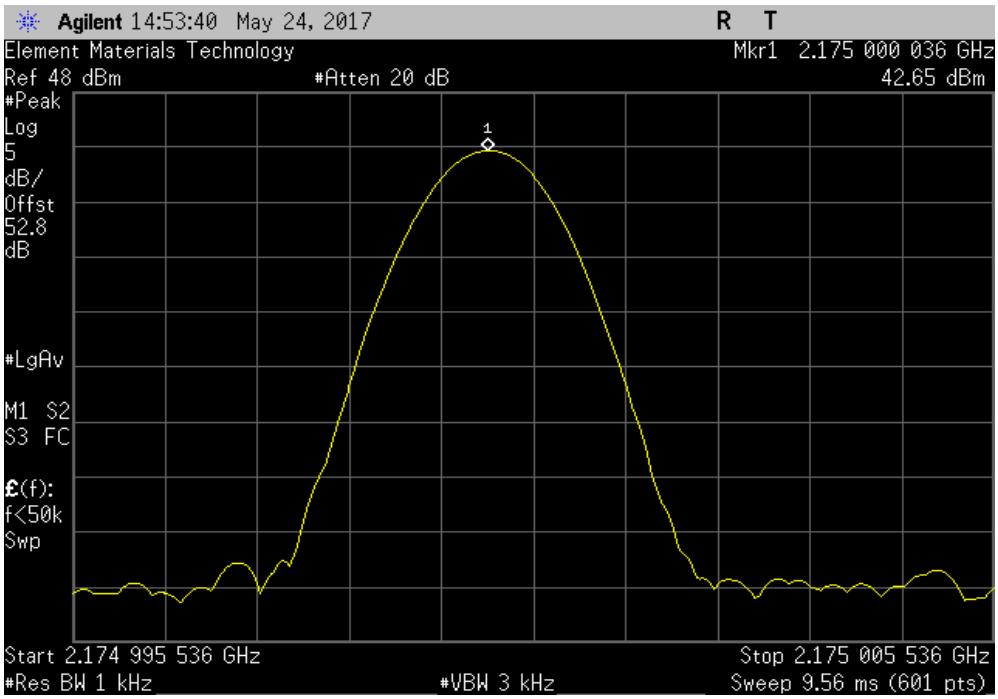


-20°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000009	2145	0.004	1	Pass

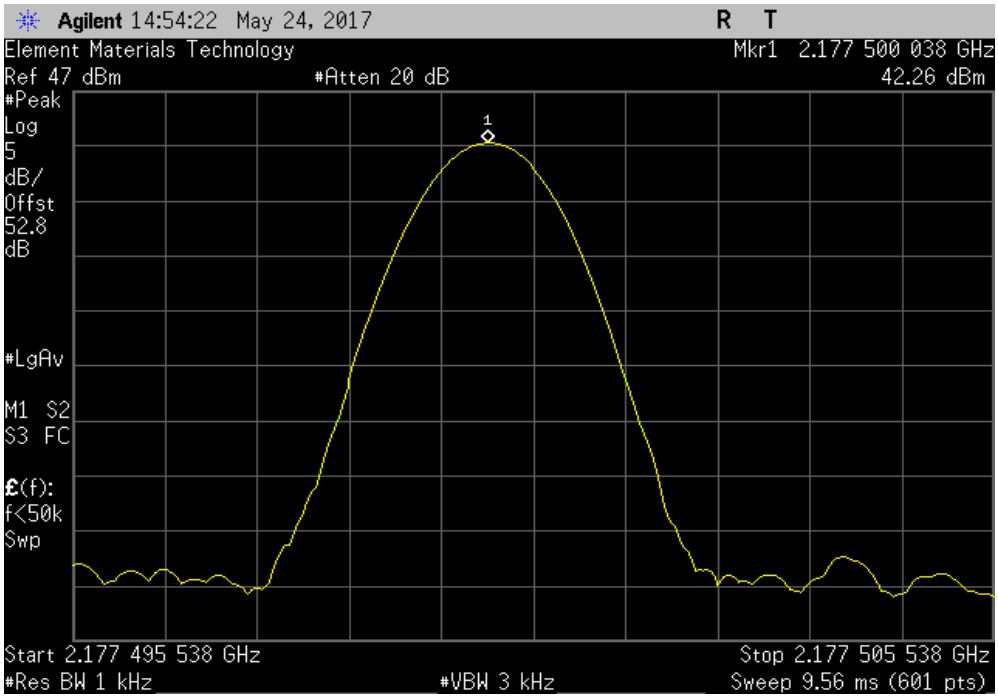


FREQUENCY STABILITY 2100

-20°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass



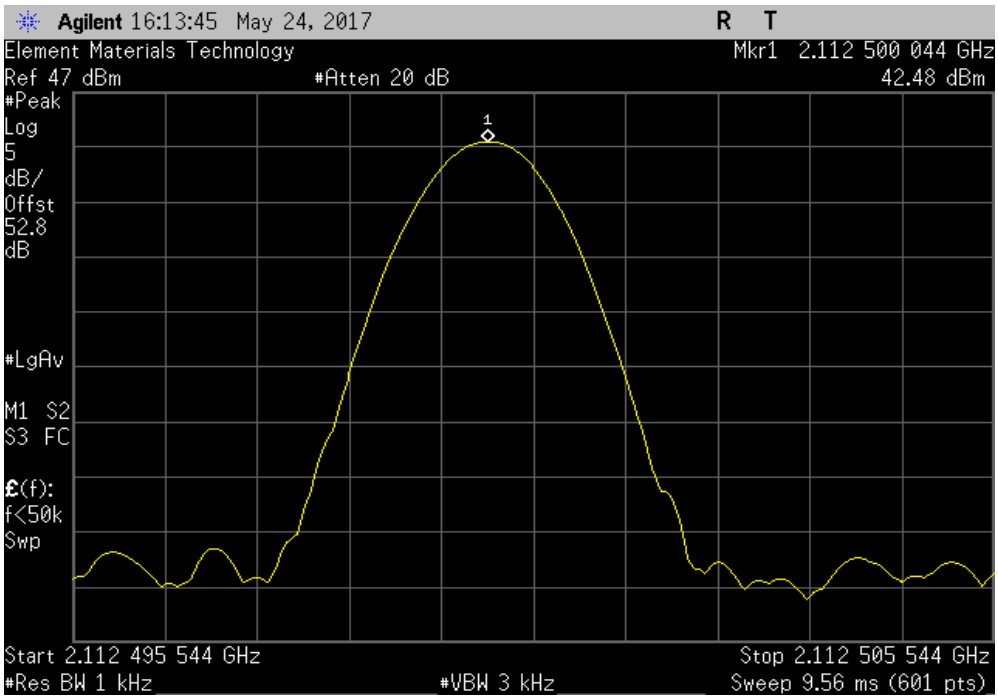
-20°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass



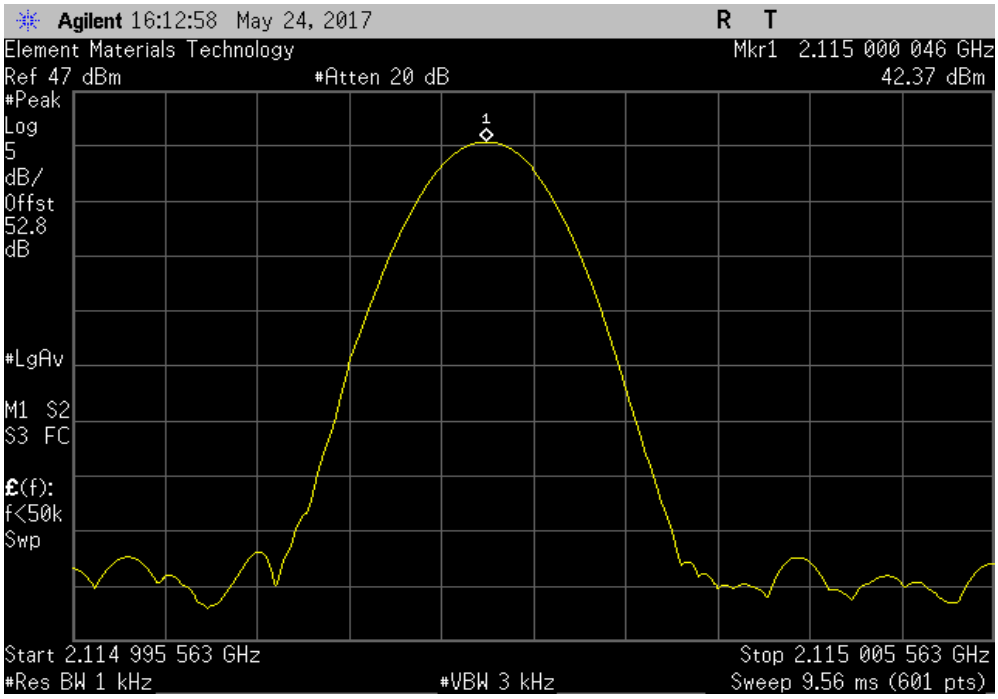
FREQUENCY STABILITY 2100

TbtTx 2017.01.27 XMit 2017.02.08

-30°C, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

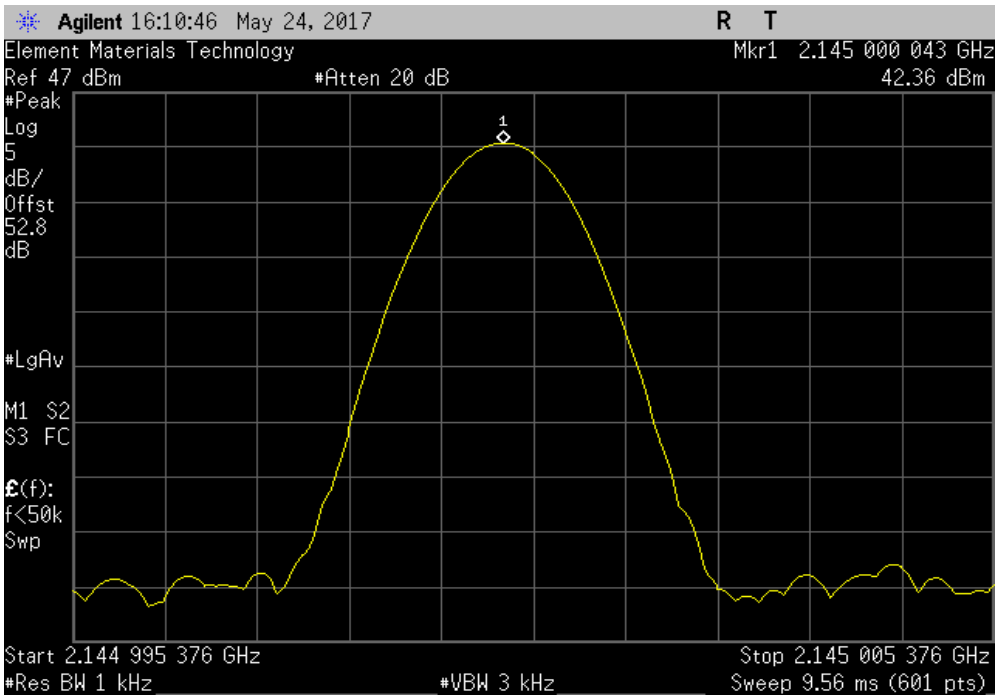


-30°C, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000046	2115	0.022	1	Pass

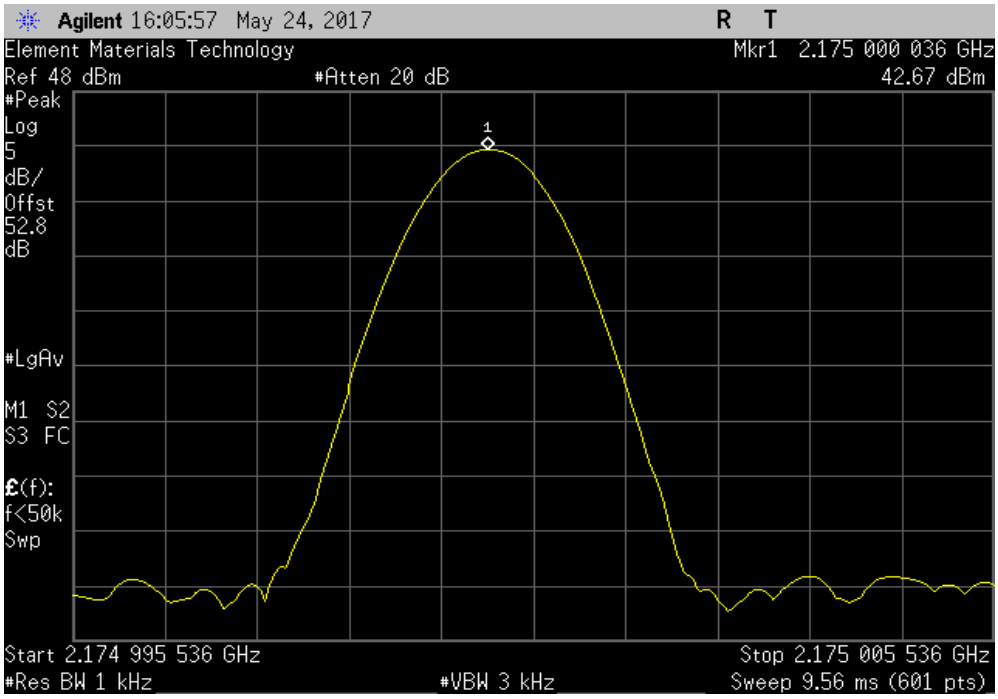


FREQUENCY STABILITY 2100

-30°C, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

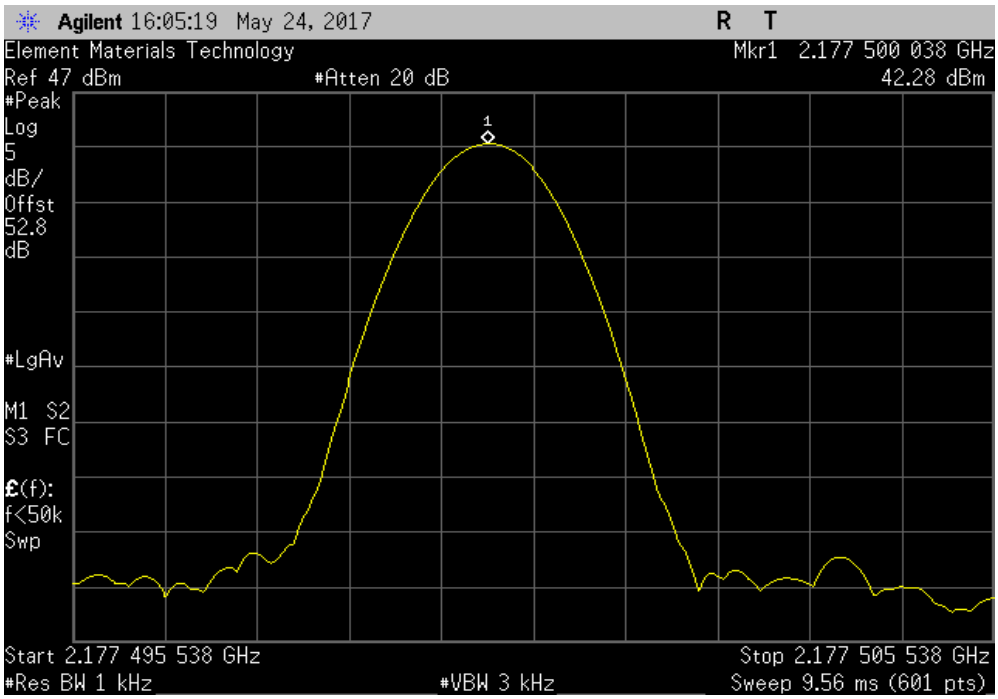


-30°C, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass

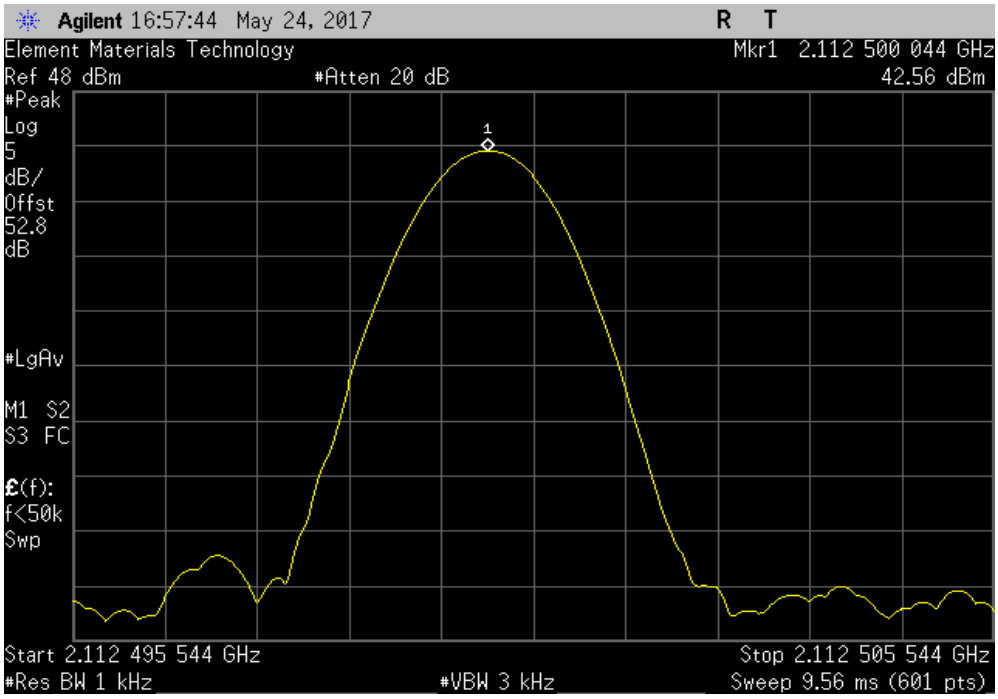


FREQUENCY STABILITY 2100

-30°C, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass

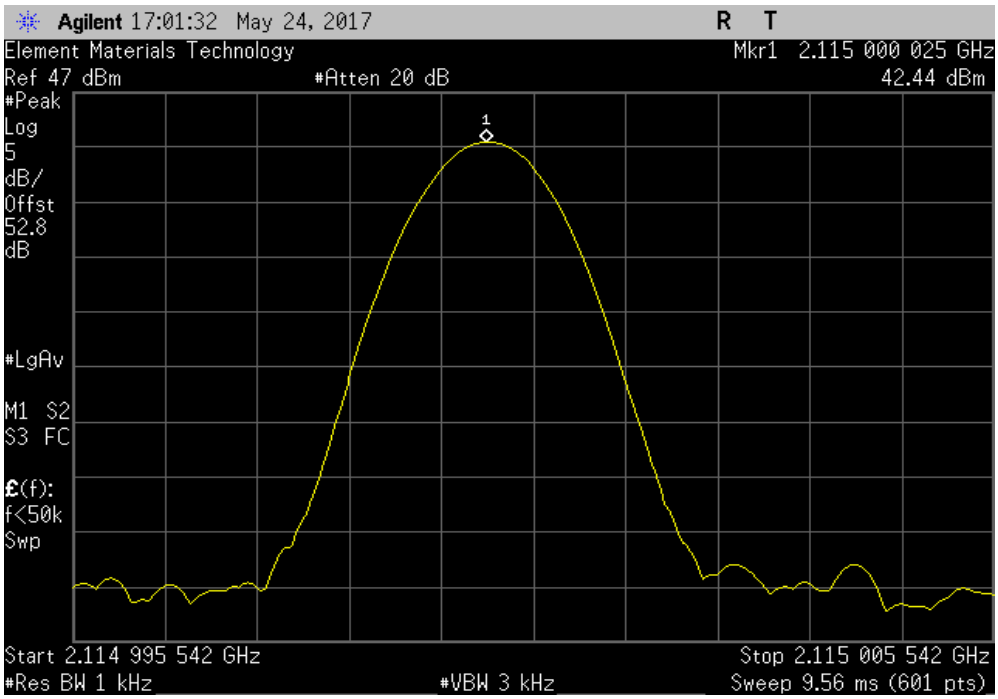


Normal Voltage, 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

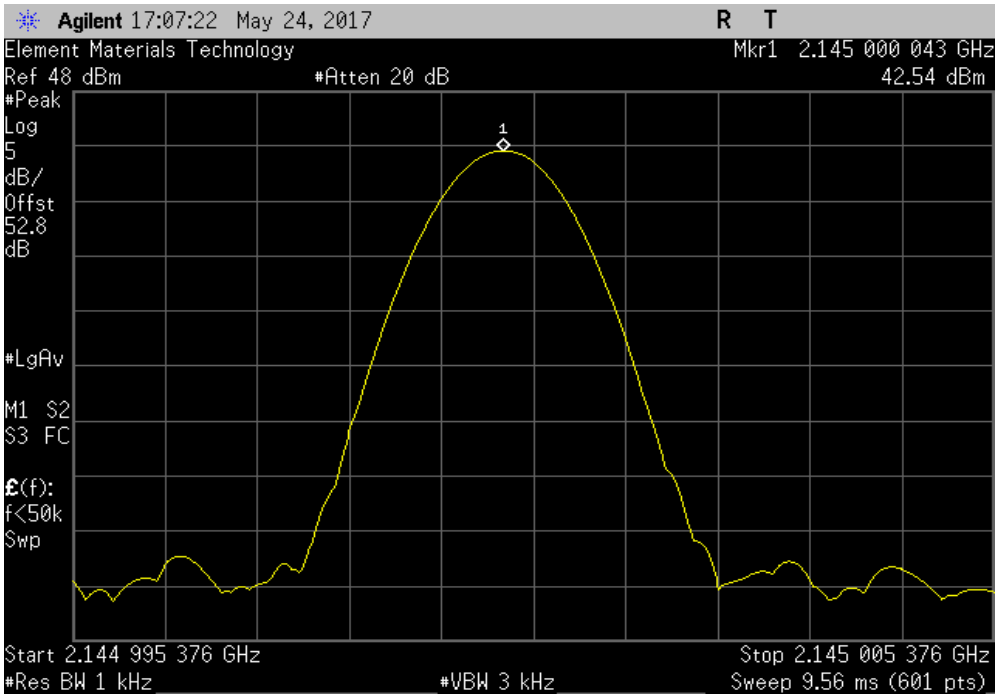


FREQUENCY STABILITY 2100

Normal Voltage, 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000025	2115	0.012	1	Pass

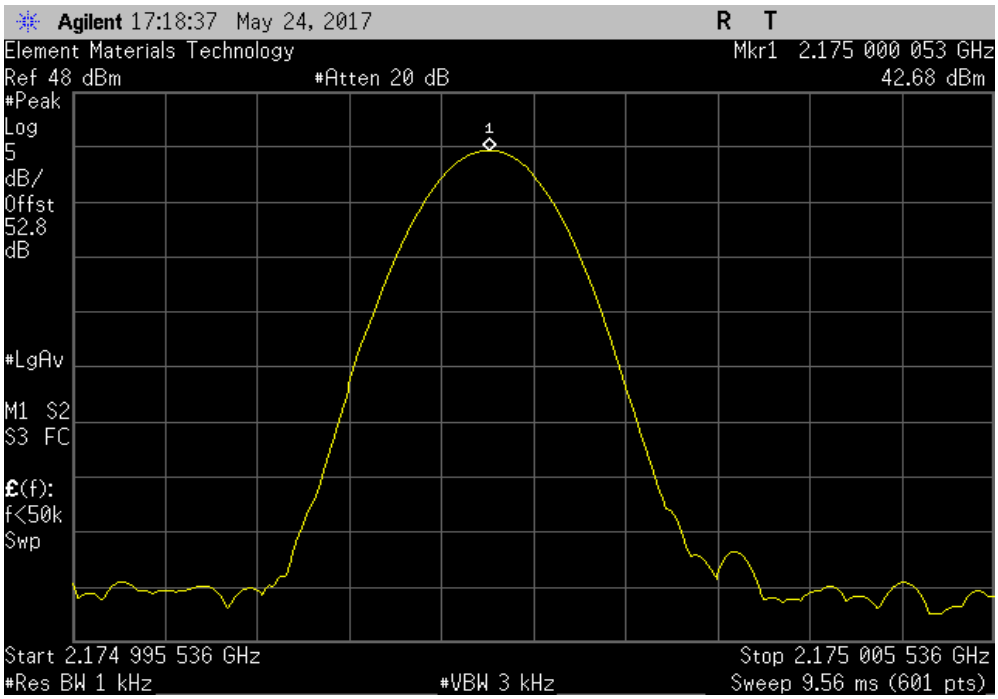


Normal Voltage, 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

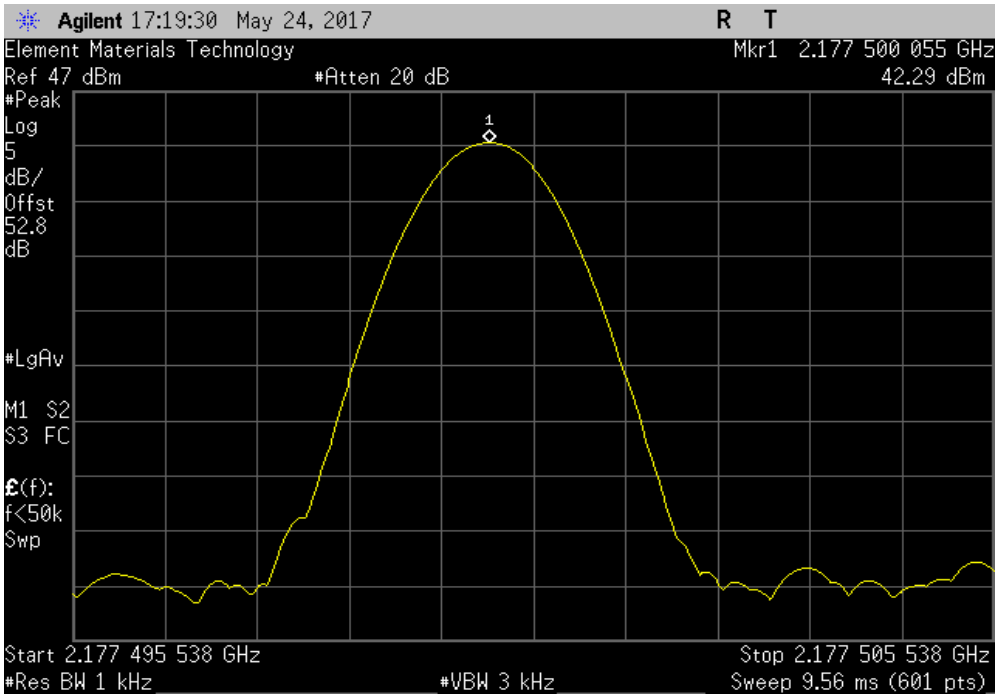


FREQUENCY STABILITY 2100

Normal Voltage, 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000053	2175	0.024	1	Pass

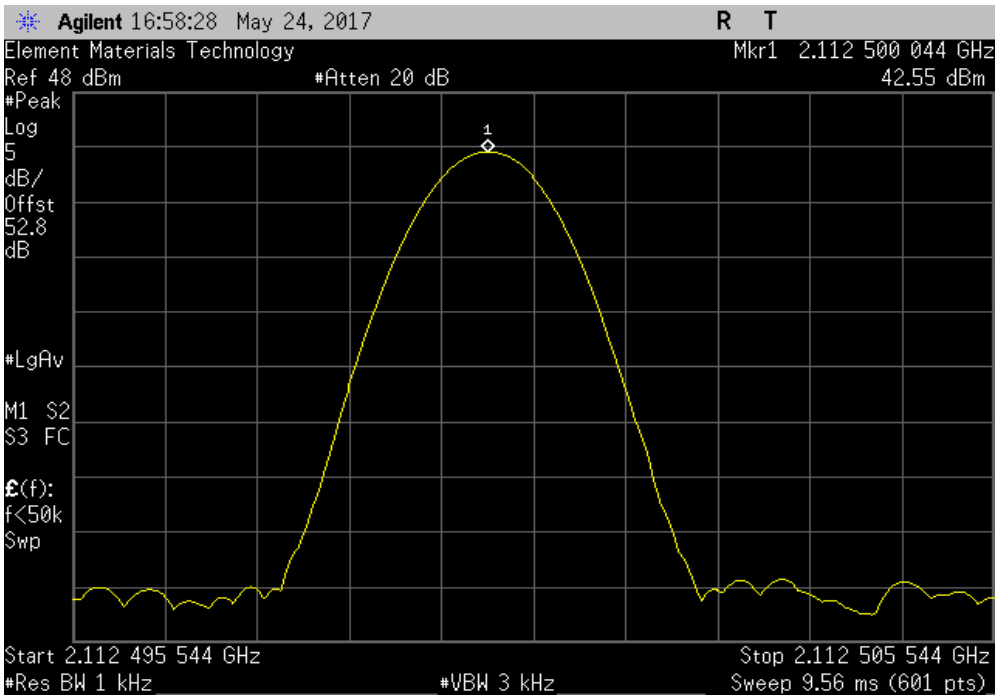


Normal Voltage, 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500055	2177.5	0.025	1	Pass

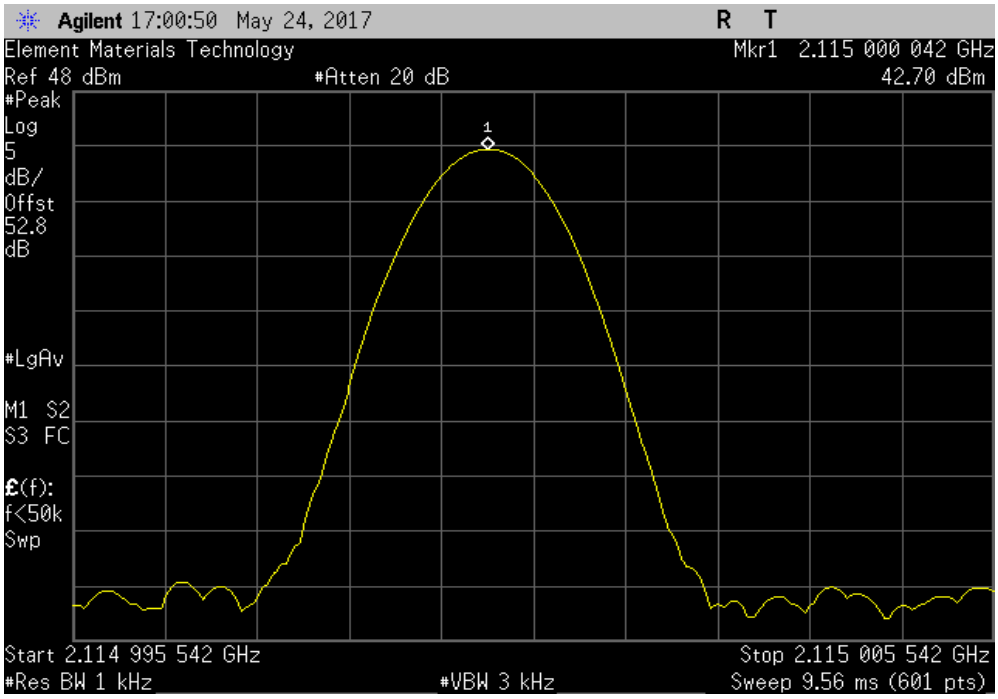


FREQUENCY STABILITY 2100

Extreme Voltage (102VAC/60Hz), 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass

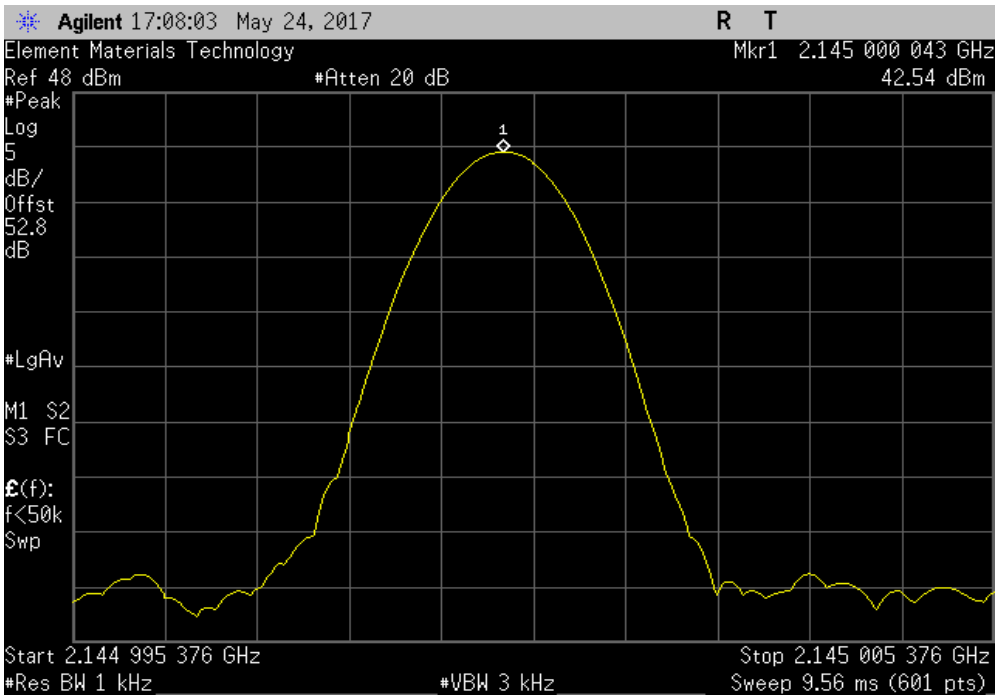


Extreme Voltage (102VAC/60Hz), 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000042	2115	0.020	1	Pass

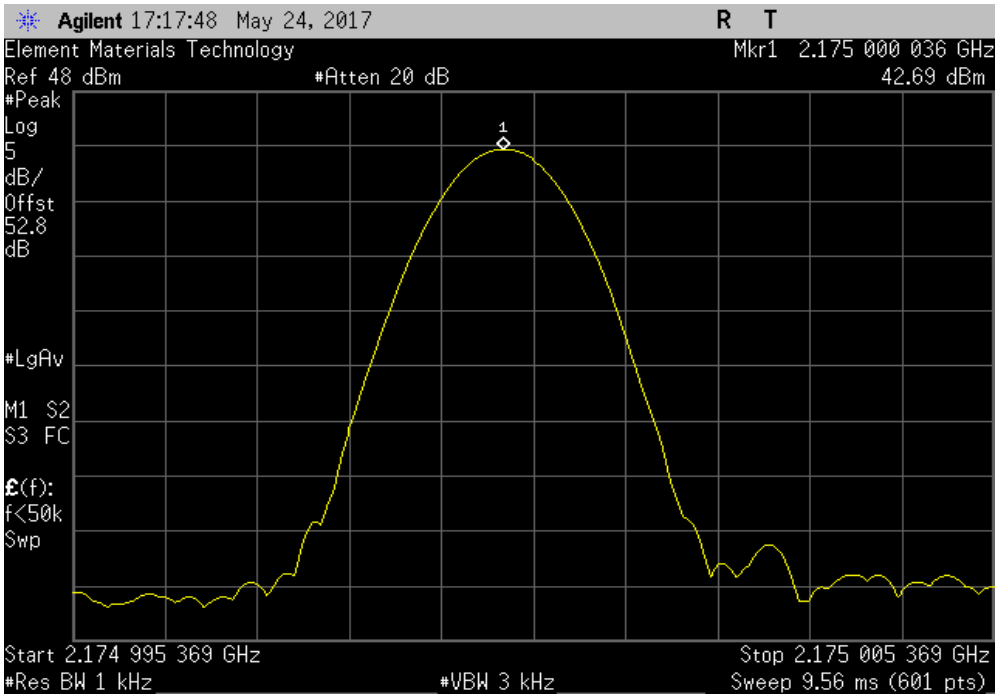


FREQUENCY STABILITY 2100

Extreme Voltage (102VAC/60Hz), 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

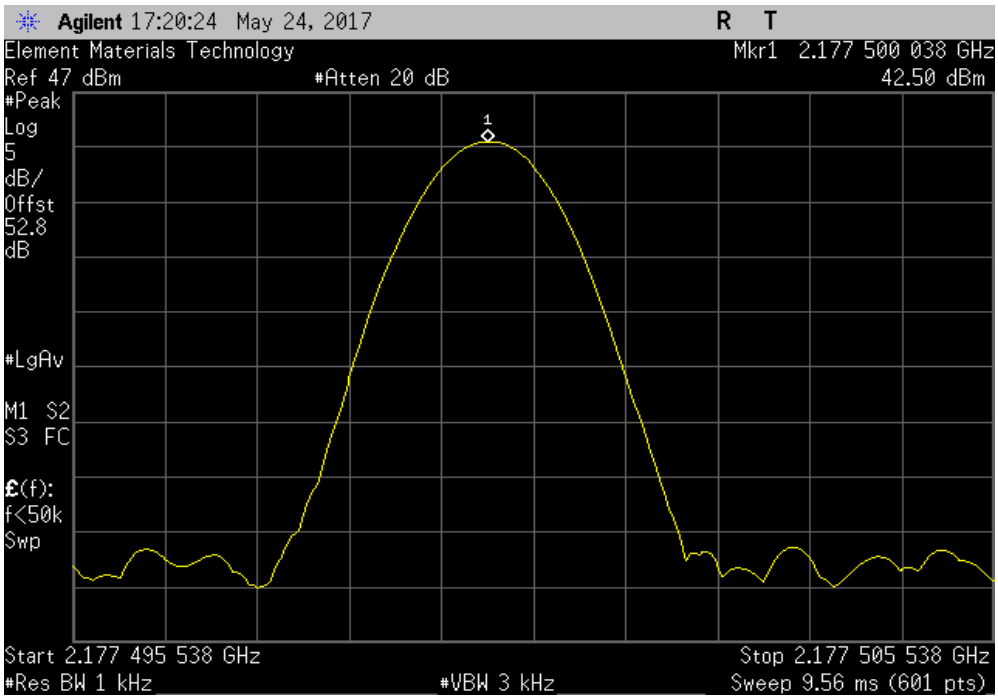


Extreme Voltage (102VAC/60Hz), 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass

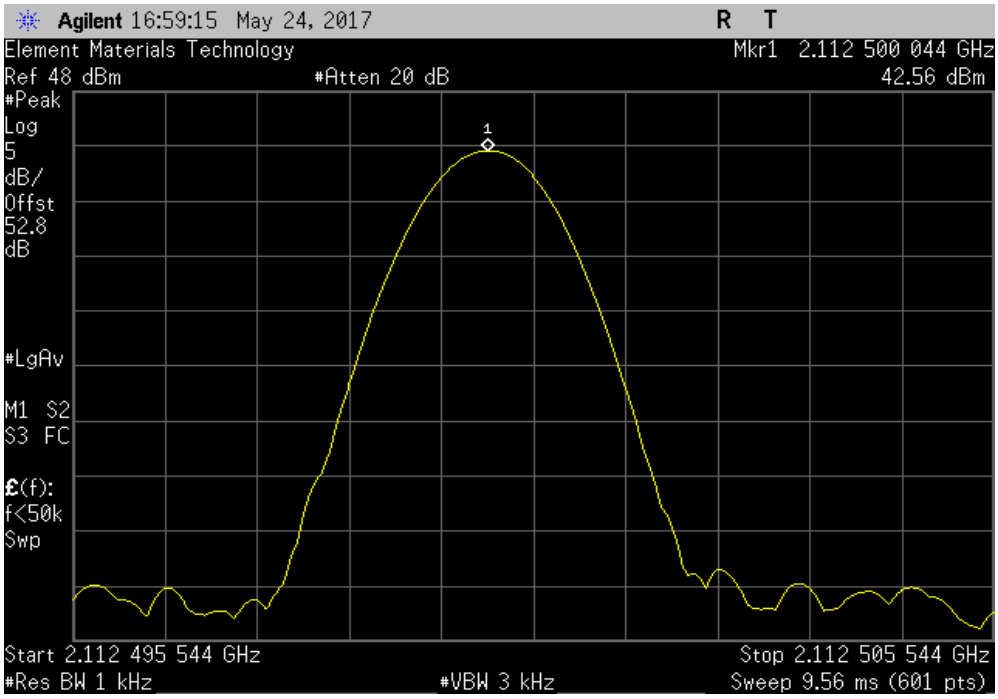


FREQUENCY STABILITY 2100

Extreme Voltage (102VAC/60Hz), 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass



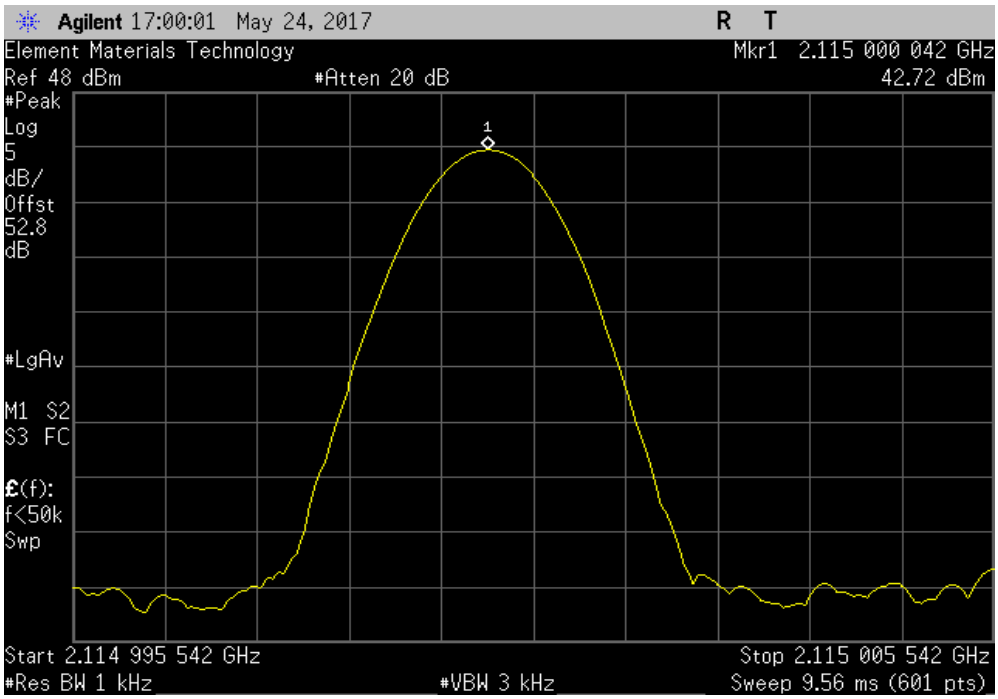
Extreme Voltage (138VAC/60Hz), 2112.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2112.500044	2112.5	0.021	1	Pass



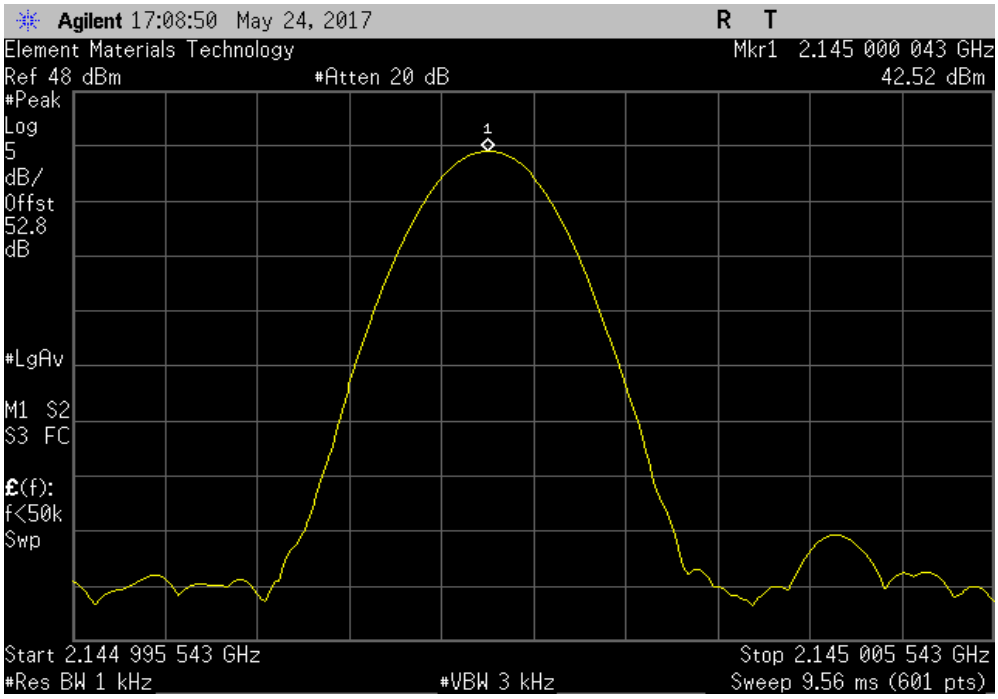
FREQUENCY STABILITY 2100

TbtTx 2017.01.27 XMit 2017.02.08

Extreme Voltage (138VAC/60Hz), 2115 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2115.000042	2115	0.020	1	Pass

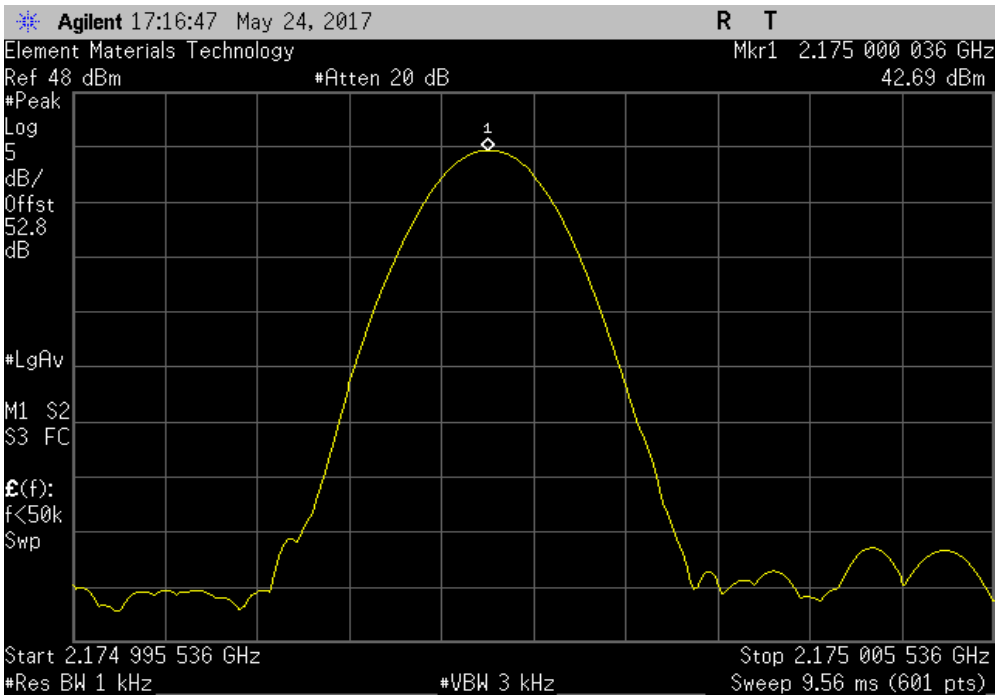


Extreme Voltage (138VAC/60Hz), 2145 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2145.000043	2145	0.020	1	Pass

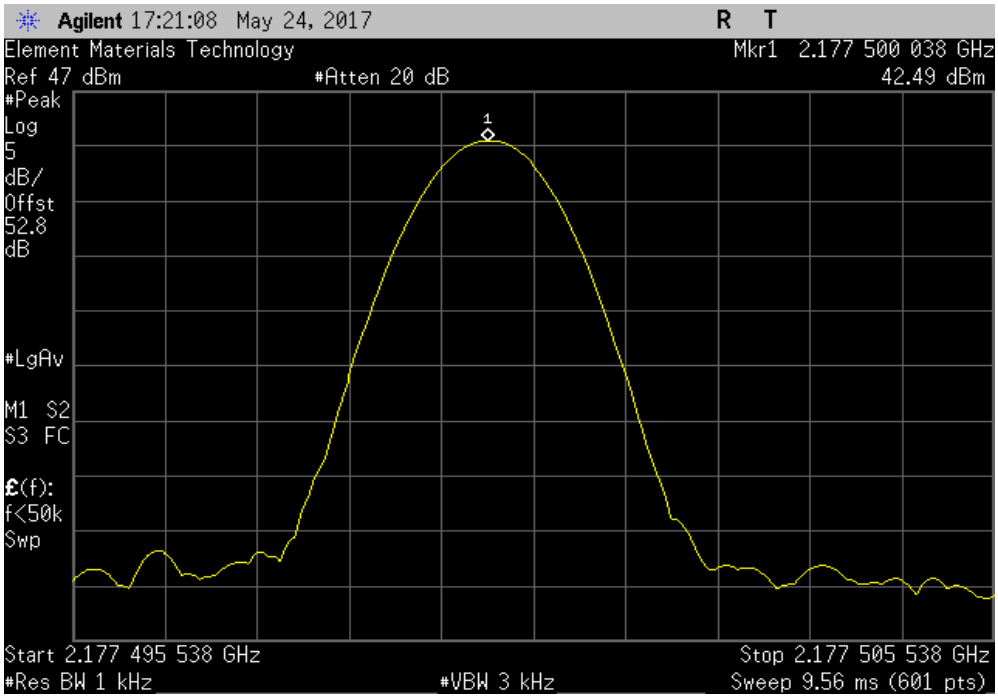


FREQUENCY STABILITY 2100

Extreme Voltage (138VAC/60Hz), 2175 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2175.000036	2175	0.017	1	Pass



Extreme Voltage (138VAC/60Hz), 2177.5 MHz						
		Measured Value (MHz)	Assigned Value (MHz)	Error (ppm)	Limit (ppm)	Results
		2177.500038	2177.5	0.017	1	Pass



EMISSIONS BANDWIDTH 2100

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
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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.

EMISSIONS BANDWIDTH 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism AWS: Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/24/17
Customer:	CommScope			**Temperature:**	21.6 °C
Attendees:	Josh Wittman			**Humidity:**	46.4% RH
Project:	None			**Barometric Pres.:**	1008 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm) per port. Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

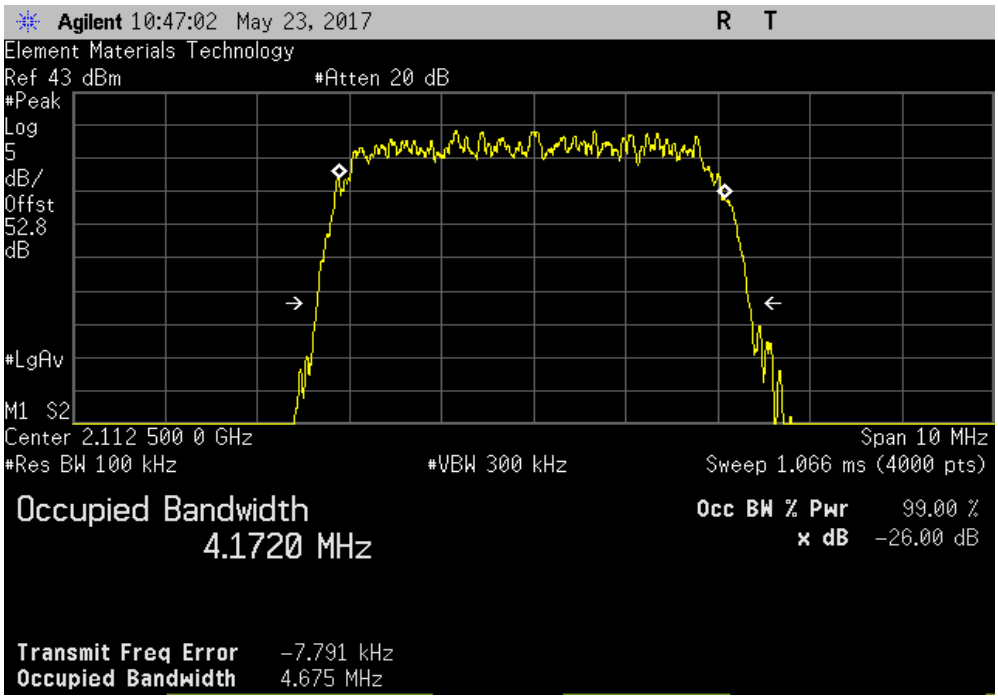
None

Configuration #	2	Signature Dustin Sparks

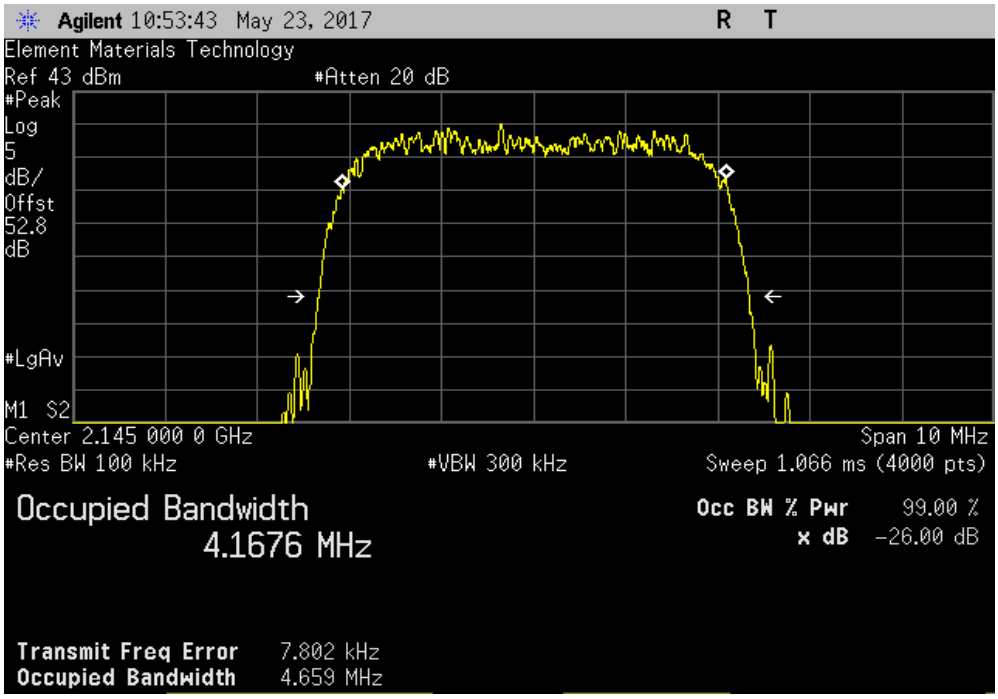
	Value	Limit	Result
Low Channel (2112.5 MHz) WCDMA	4.675 MHz	N/A	N/A
Mid Channel (2145 MHz) WCDMA	4.659 MHz	N/A	N/A
Mid Channel (2145 MHz) WCDMA, Input Signal	4.23 MHz	N/A	N/A
High Channel (2177.5 MHz) WCDMA	4.667 MHz	N/A	N/A
Low Channel (2115 MHz) LTE 10 MHz	9.46 MHz	N/A	N/A
Mid Channel (2145 MHz) LTE 10 MHz	9.484 MHz	N/A	N/A
Mid Channel (2145 MHz) LTE 10 MHz, Input Signal	8.99 MHz	N/A	N/A
High Channel (2175 MHz) LTE 10 MHz, Input Signal	9.466 MHz	N/A	N/A

EMISSIONS BANDWIDTH 2100

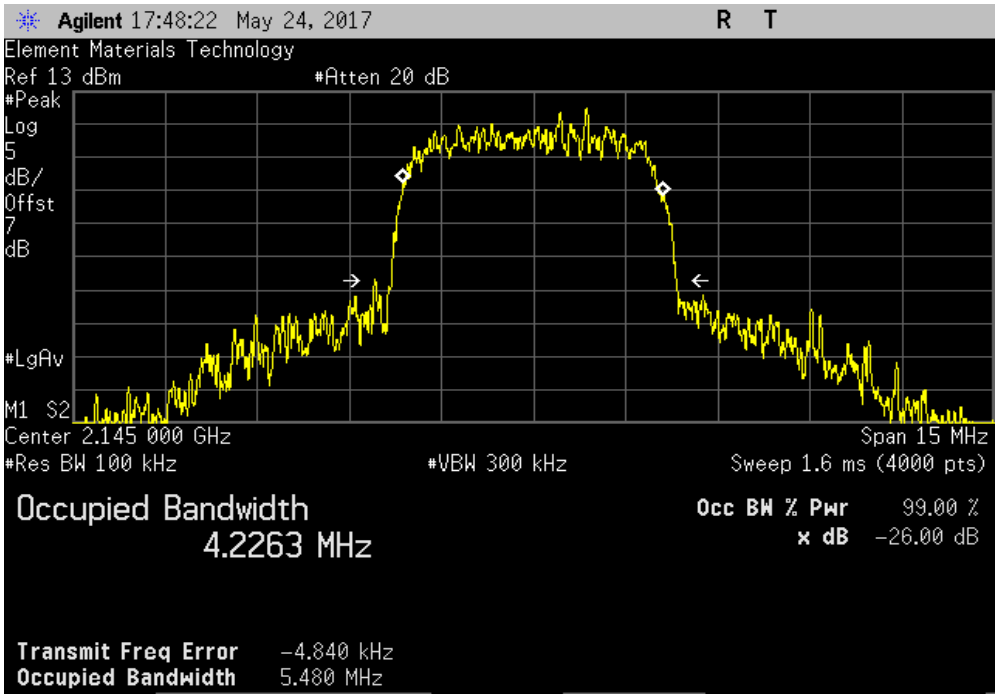
Low Channel (2112.5 MHz) WCDMA						
				Value	Limit	Result
				4.675 MHz	N/A	N/A



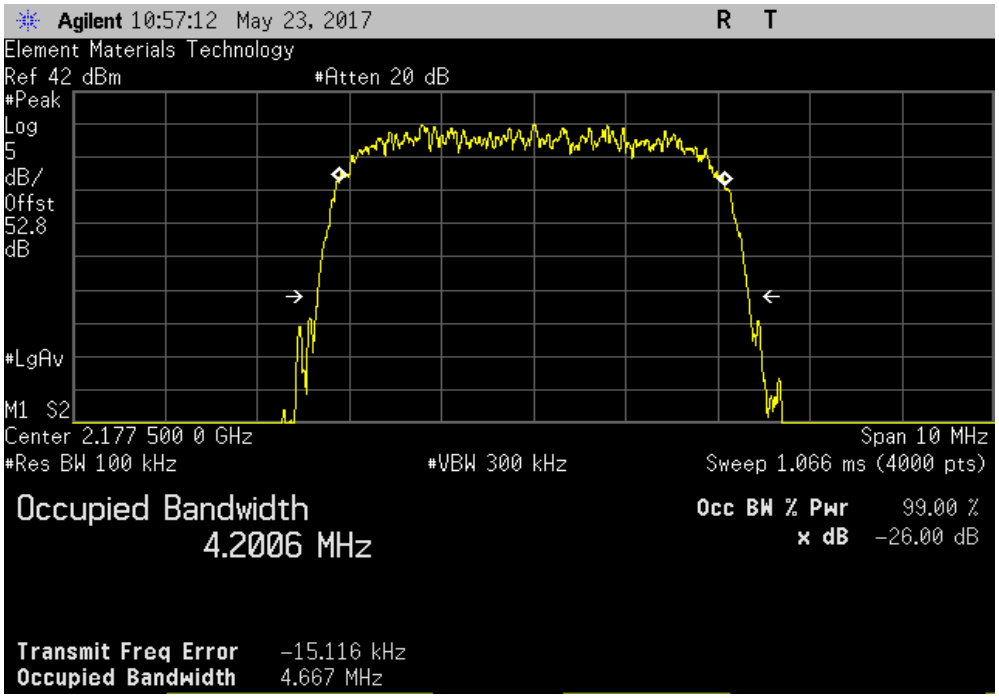
Mid Channel (2145 MHz) WCDMA						
				Value	Limit	Result
				4.659 MHz	N/A	N/A



Mid Channel (2145 MHz) WCDMA, Input Signal						
				Value	Limit	Result
				4.23 MHz	N/A	N/A



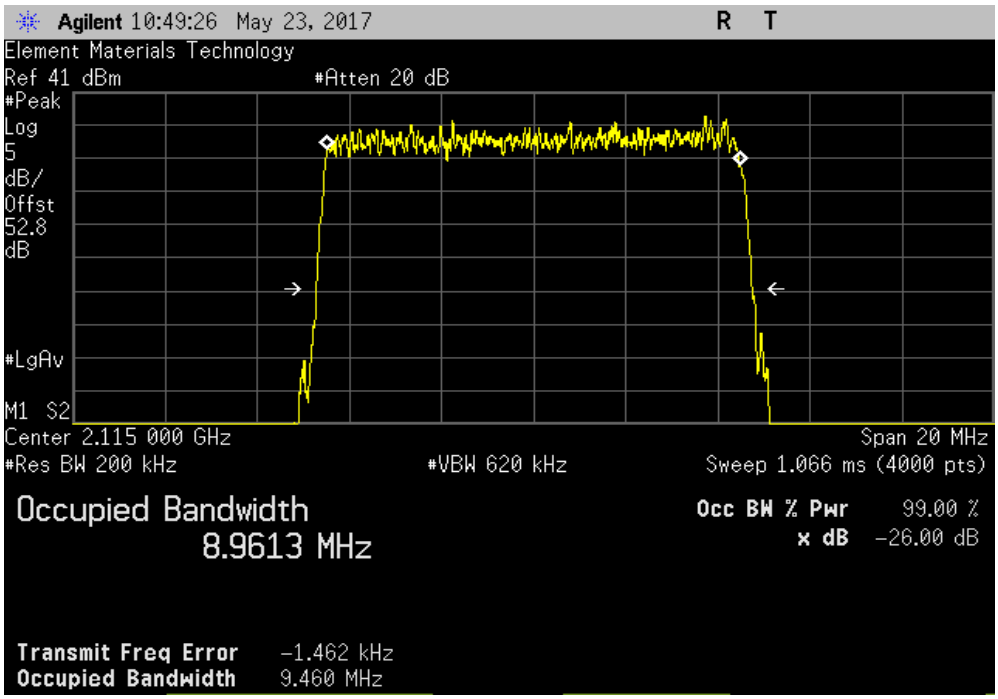
High Channel (2177.5 MHz) WCDMA						
				Value	Limit	Result
				4.667 MHz	N/A	N/A



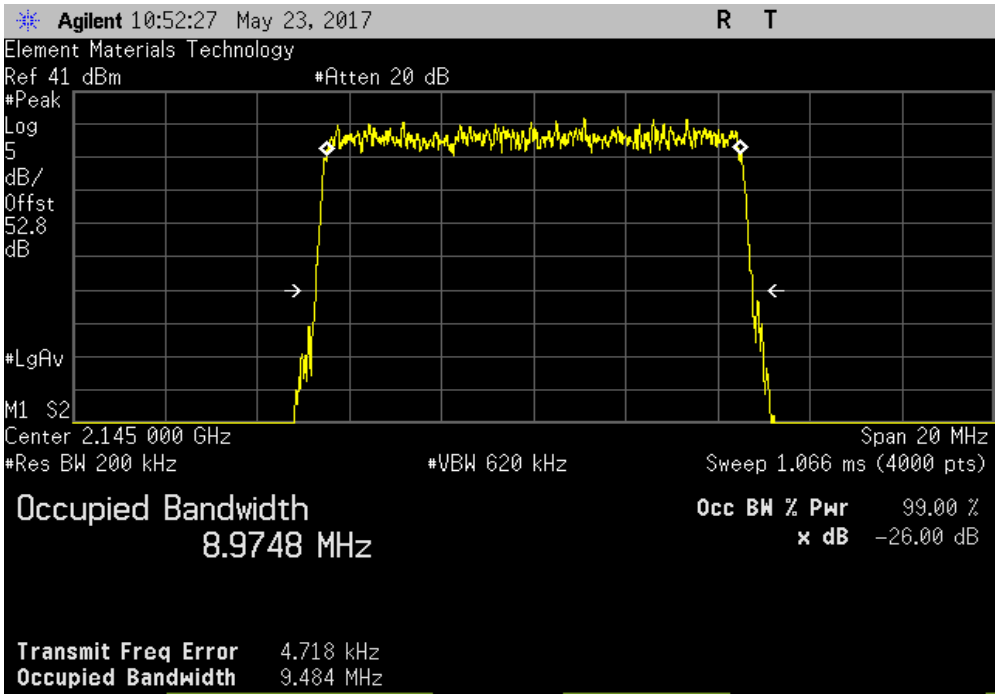
EMISSIONS BANDWIDTH 2100

TbtTx 2017.01.27 XMit 2017.02.08

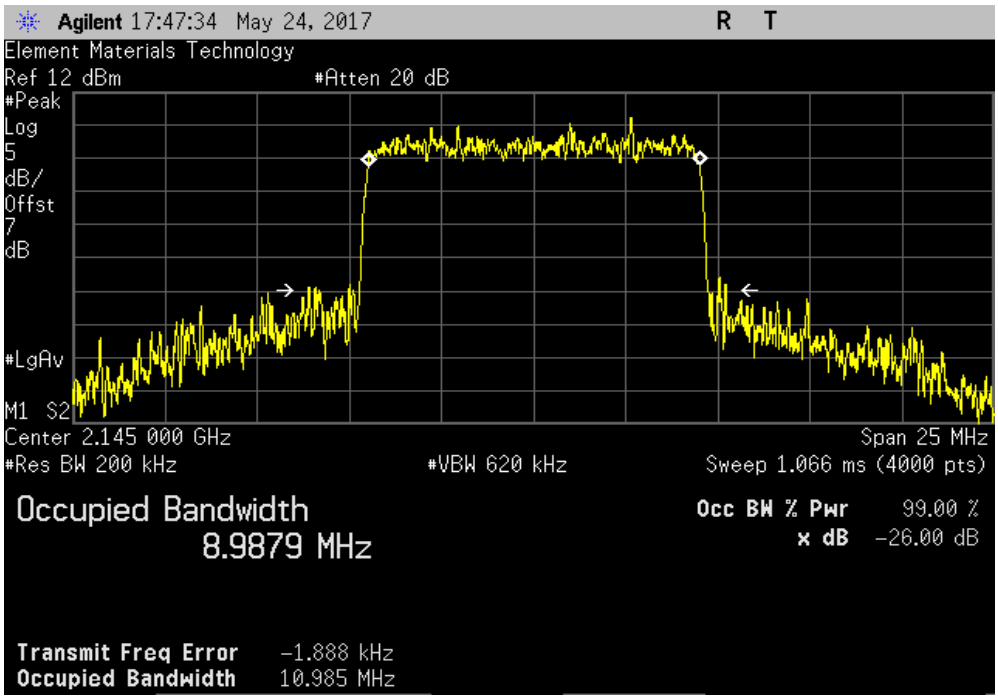
Low Channel (2115 MHz) LTE 10 MHz						
				Value	Limit	Result
				9.46 MHz	N/A	N/A



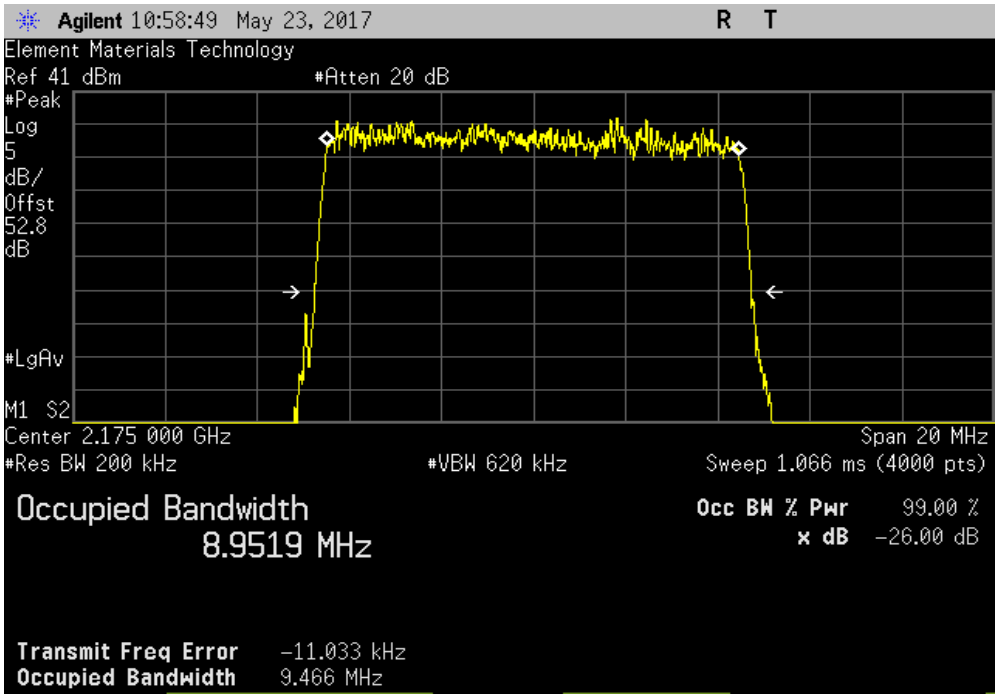
Mid Channel (2145 MHz) LTE 10 MHz						
				Value	Limit	Result
				9.484 MHz	N/A	N/A



Mid Channel (2145 MHz) LTE 10 MHz, Input Signal						
				Value	Limit	Result
				8.99 MHz	N/A	N/A



High Channel (2175 MHz) LTE 10 MHz, Input Signal						
				Value	Limit	Result
				9.466 MHz	N/A	N/A



PEAK TO AVERAGE RATIO 2100

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
Attenuator	Aeroflex	48-30-34	RCU	9/15/2016	9/15/2017
Generator - Signal	Agilent	N5183A	TIK	10/17/2014	10/17/2017
Cable	ESM Cable Corp	TTBJ141 KMKM-72	MNP	NCR	NCR
Attenuator	S.M. Electronics	SA26B-20	RFW	2/14/2017	2/14/2018
Block - DC	Fairview Microwave	SD3379	AMI	9/15/2016	9/15/2017
Analyzer - Spectrum Analyzer	Agilent	E4440A	AAX	3/16/2017	3/16/2018

TEST DESCRIPTION

The measurement was made using a direct connection between the RF output of the EUT and a spectrum analyzer. An RF signal generator was used to create the modulated signal(s) listed in the datasheets. These signals were input into the EUT.

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 screen captures/traces was calculated:
- 1st Screen Capture/Trace: Peak detector and trace max-hold.
- 2nd Screen Capture/Trace: The same procedure and settings as was used for conducted Output Power.

PEAK TO AVERAGE RATIO 2100

TbtTx 2017.01.27 XMit 2017.02.08

EUT:	Prism 1900/2100AWS3 Dual HDM 20 Watt			**Work Order:**	TECO0042
Serial Number:	459644002			**Date:**	05/24/17
Customer:	CommScope			**Temperature:**	21.6 °C
Attendees:	Josh Wittman			**Humidity:**	47.3% RH
Project:	None			**Barometric Pres.:**	1008 mbar
Tested by:	Dustin Sparks	**Power:**	110VAC/60Hz	**Job Site:**	MN08

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

COMMENTS

Antenna gain is assumed to be 0 - per customer, the antenna gain will be reevaluated during installation. System is rated at 20W (+43 dBm). Both antenna ports were terminated but only one port is active

DEVIATIONS FROM TEST STANDARD

None

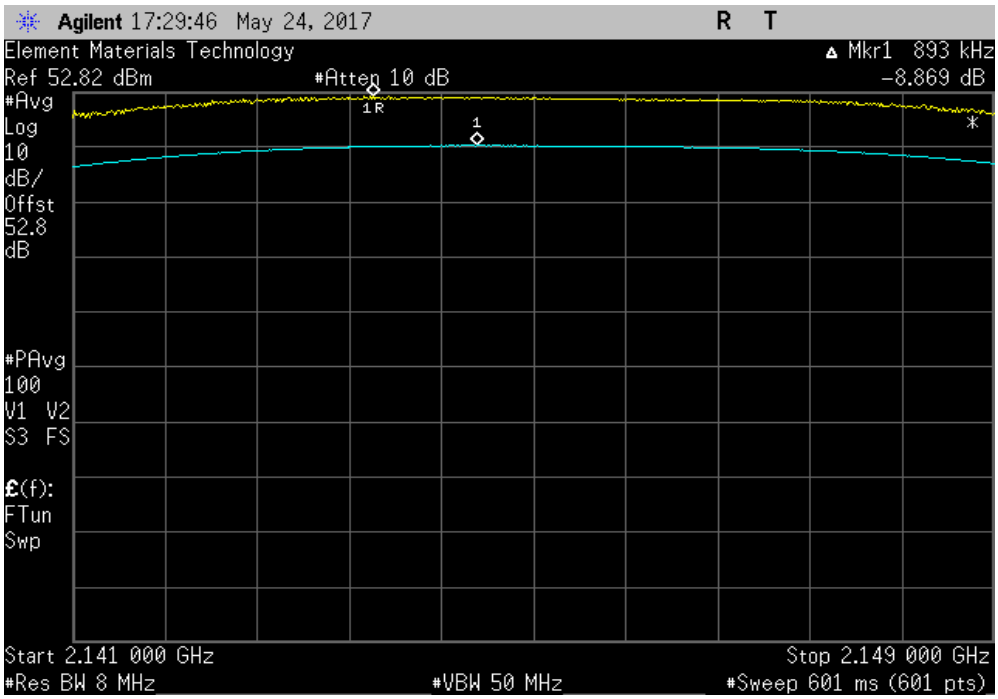
Configuration #	**2**	*Signature* Dustin Sparks

		Value (dB)	Limit < (dB)	Results
WCDMA				
	Mid Channel, 2145 MHz	8.869	13	Pass
LTE 10MHz				
	Mid Channel, 2145 MHz	11.986	13	Pass

PEAK TO AVERAGE RATIO 2100

TbtTx 2017.01.27 XMit 2017.02.08

WCDMA, Mid Channel, 2145 MHz						
				Value (dB)	Limit < (dB)	Results
				8.869	13	Pass



LTE 10MHz, Mid Channel, 2145 MHz						
				Value (dB)	Limit < (dB)	Results
				11.986	13	Pass