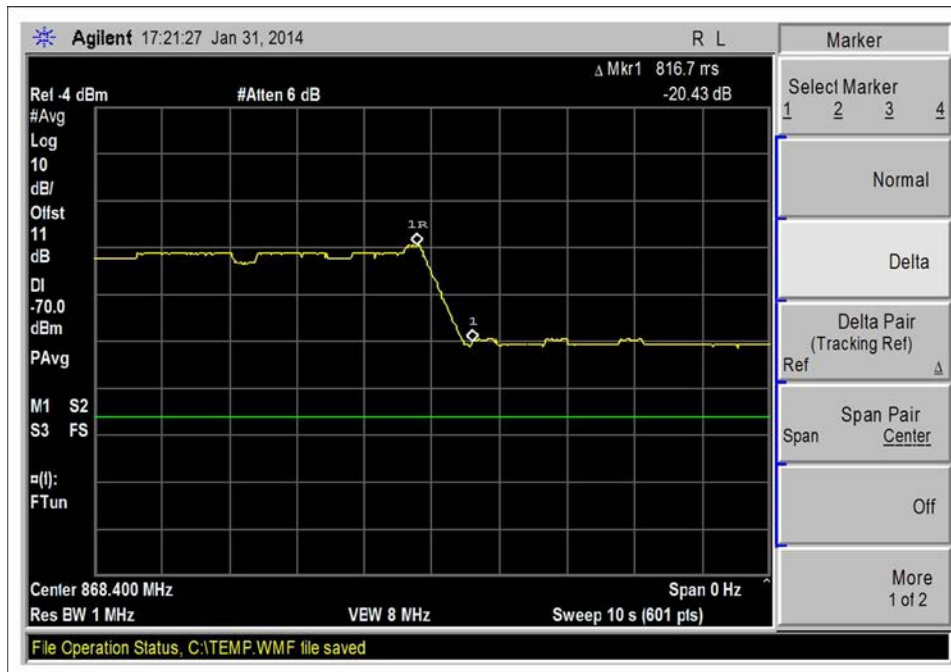
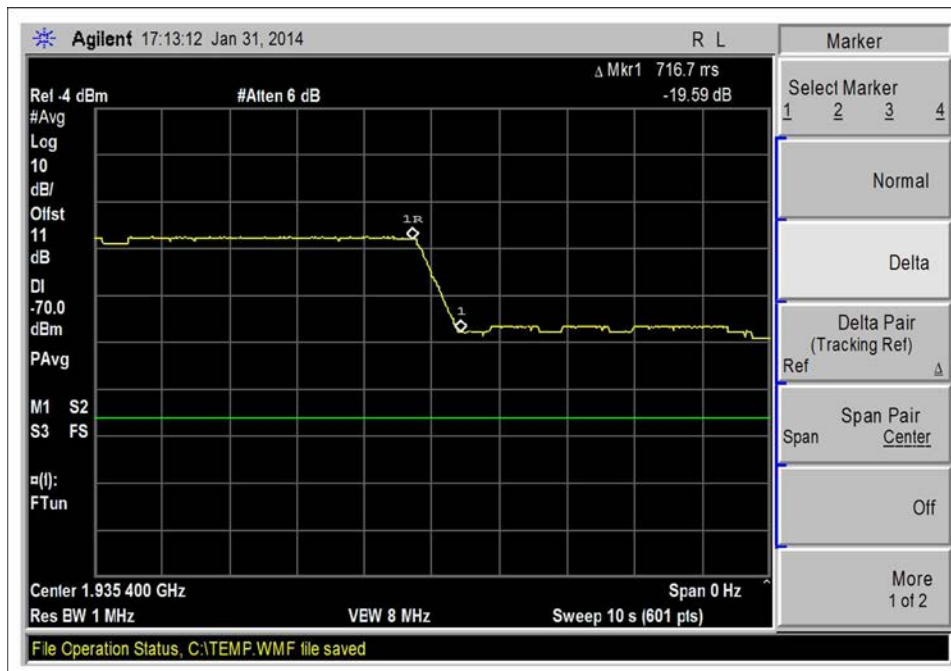
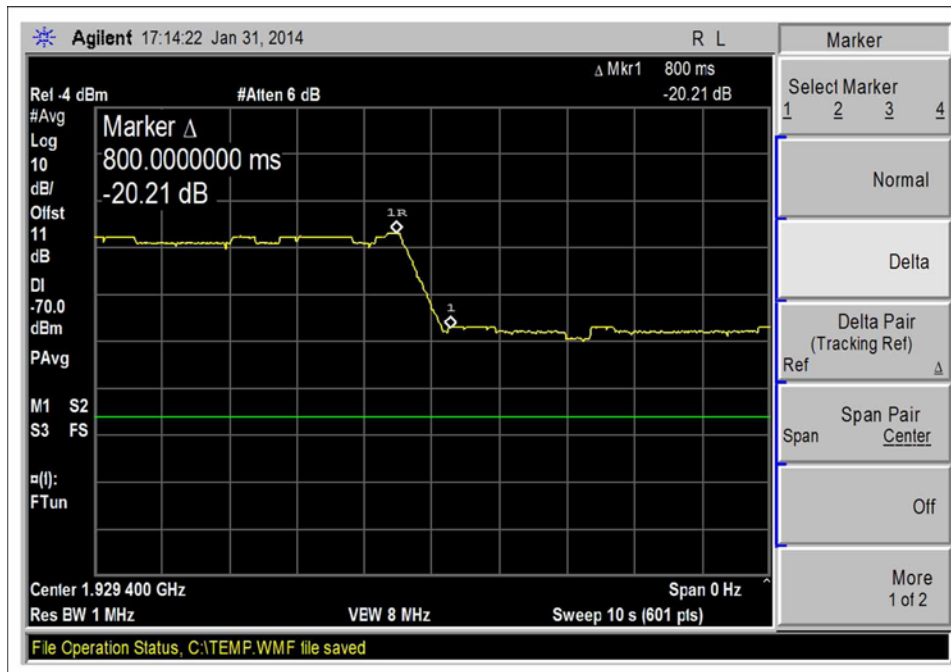




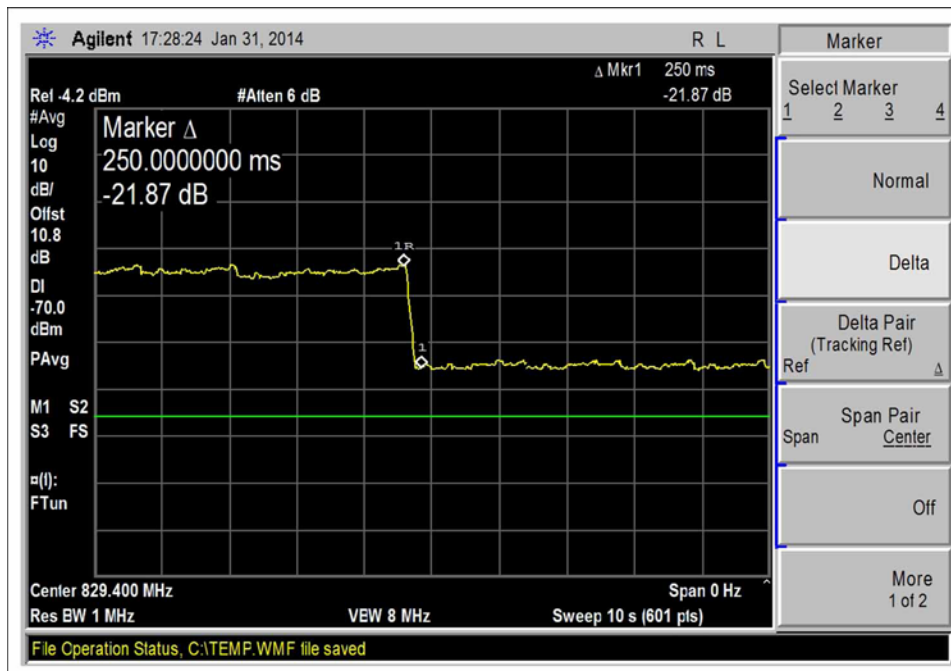
7.7(n) - (t), DL_869-894MHz_Test CF-3MHz



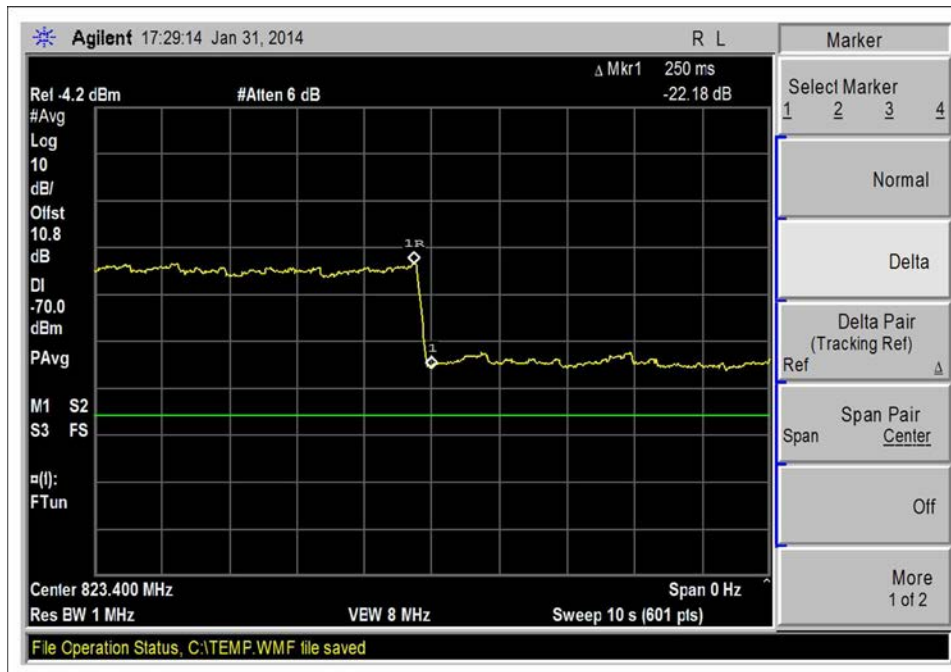
7.7(n) - (t),DL_1930-1990MHz_Test CF+3MHz



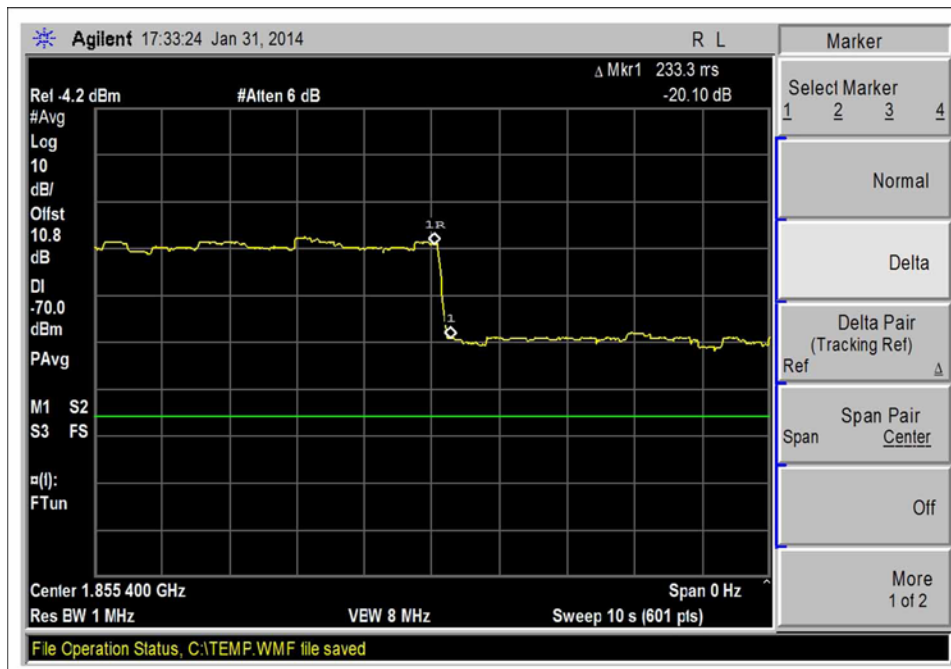
7.7(n) - (t),DL_1930-1990MHz_Test CF-3MHz



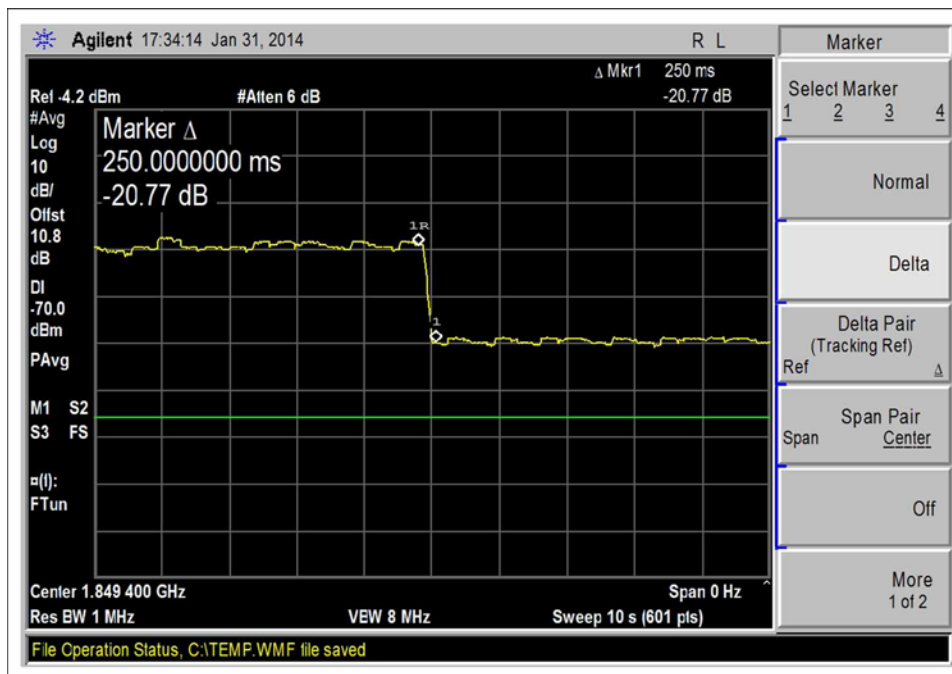
7.7(n) - (t),UL_824-849MHz_Test CF+3MHz



7.7(n) - (t),UL_824-849MHz_Test CF-3MHz

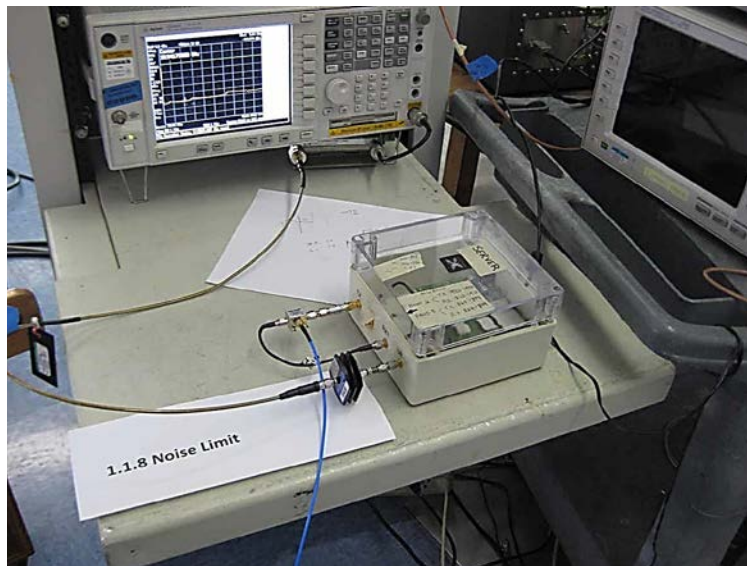


7.7(n) - (t),UL_1850-1910MHz_Test CF+3MHz



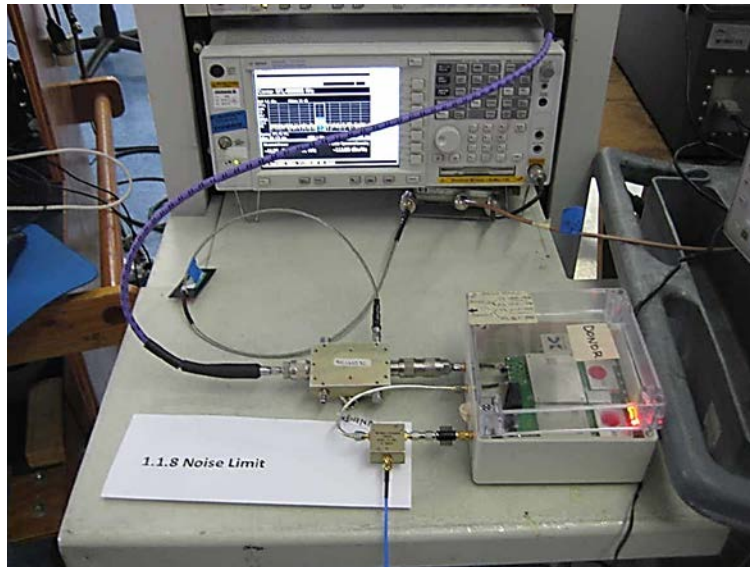
7.7(n) - (t),UL_1850-1910MHz_Test CF-3MHz

Test Setup Photo(s)



Test Setup, Noise Limit 1

Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.7.



Test Setup, Noise Limit 2

Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.7.

7.8 Uplink Inactivity

Test Conditions / Setup

Test Location: CKC Laboratories • 110 Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Nextivity, Inc.**

Specification: 7.8 Uplink Inactivity

Work Order #: **95295**

Date: 1/8/2014

Test Type: **Conducted Emissions**

Equipment: **Provider Specific Consumer Signal
Booster**

Sequence#: 1

Manufacturer: Nextivity, Inc.

Tested By: E. Wong

Model: CELFI-RS225CU, CELFI-RS225WU,

110V 60Hz

S/N: 157216000246, 157216000246

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02869	Spectrum Analyzer	E4440A	2/6/2013	2/6/2015
	AN02946	Cable	32022-2-2909K-36TC	7/31/2013	7/31/2015
	AN03430	Attenuator	75A-10-12	9/5/2013	9/5/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Provider Specific Consumer Signal Booster*	Nextivity, Inc.	CELFIR-S225CU	157216000246
Provider Specific Consumer Signal Booster	Nextivity, Inc.	CELFIR-S225WU	157216000246

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Nextivity	WRG15F-120AB	20120111
Power Supply	Nextivity	WRG15F-120AB	20120815
Signal Generator	Agilent	E4438C	MY42082260

Test Conditions / Notes:

The EUT is provider specific signal booster pair consisted of a Window unit (WU) and a Coverage unit (CU) using proprietary 5.8 GHz Wireless interface.

For testing purposes, the EUT are placed on the test bench, connected via coax cable and 50 dB attenuators. Tx of WU is connected to RX of CU, RX of WU is connected to UNII TX port of CU.

Intended band of operation

UL= 824-849 MHz, 1850-1910 MHz,
DL= 869-894 MHz 1930-1990 MHz,

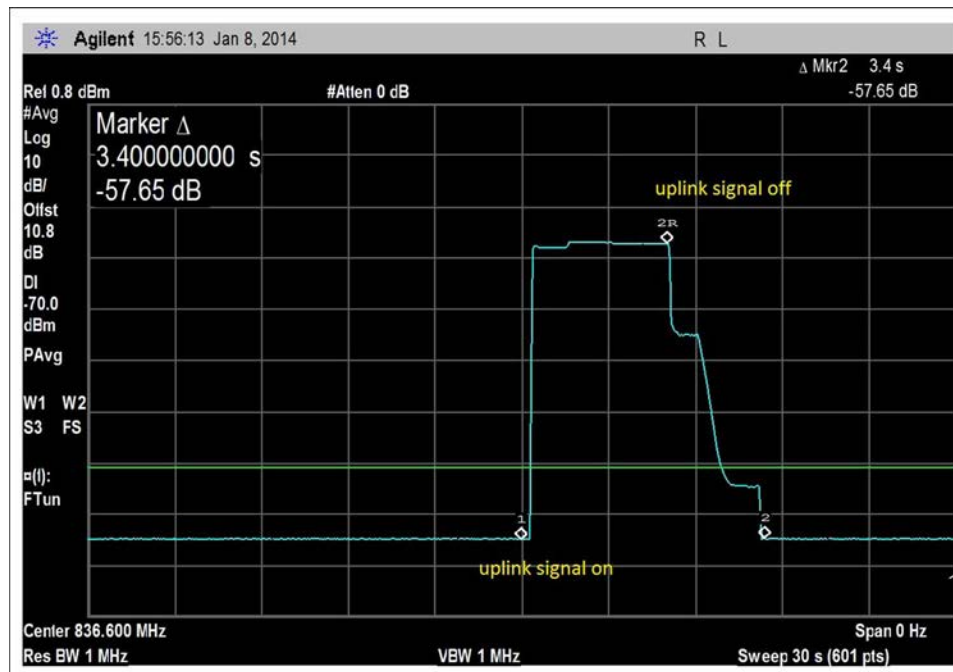
Delta Marker 2R- marker 2 is the measured Uplink inactivity time.

Test environment conditions: 23°C, 15% Relative Humidity, 100kPa

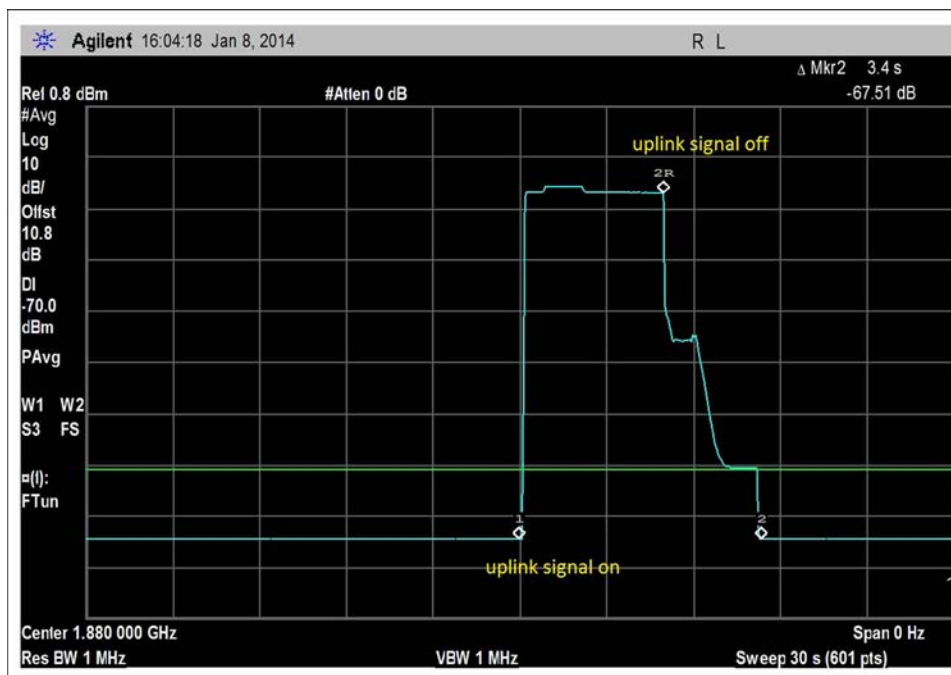
7.8 Summary of Results

Pass: As demonstrated in the test data section, the time between Cursor R2 where the uplink signal was turned off and cursor #2 where the noise level returned to the TX off level is less than 5 second.

Test Data

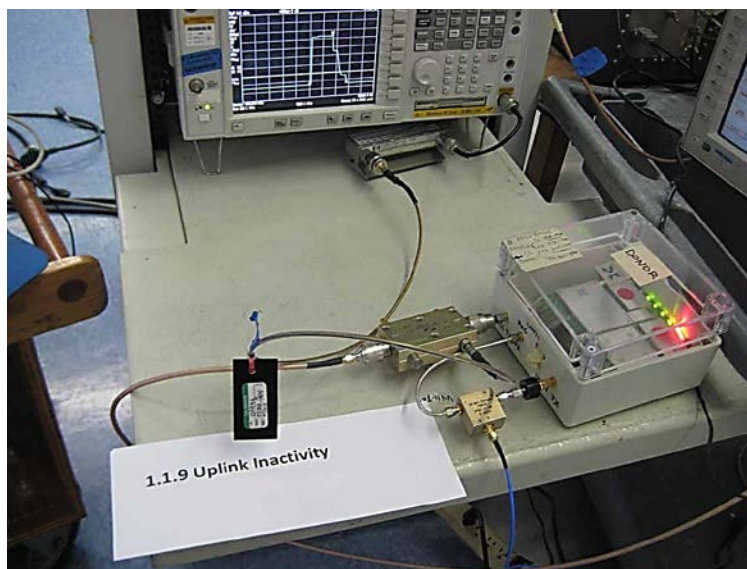


824-849MHz



1850-1915MHz

Test Setup Photo(s)



Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.8.

7.9 Variable Booster Gain

Test Conditions / Setup

Test Location: CKC Laboratories • 110 Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Nextivity, Inc.**

Specification: 7.9 Variable Booster Gain

Work Order #: **95295** Date: 1/10,16/2014

Test Type: **Conducted Emissions**

Equipment: **Provider Specific Consumer Signal Booster** Sequence#: 1

Manufacturer: Nextivity, Inc. Tested By: E. Wong

Model: CELFI-RS225CU, CELFI-RS225WU, 110V 60Hz

S/N: 157216000246, 157216000246

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02869	Spectrum Analyzer	E4440A	2/6/2013	2/6/2015
	AN02946	Cable	32022-2-2909K-36TC	7/31/2013	7/31/2015
	AN03430	Attenuator	75A-10-12	9/5/2013	9/5/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Provider Specific Consumer Signal Booster*	Nextivity, Inc.	CELFIR-S225CU	157216000246
Provider Specific Consumer Signal Booster	Nextivity, Inc.	CELFIR-S225WU	157216000246

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Nextivity	WRG15F-120AB	20120111
Power Supply	Nextivity	WRG15F-120AB	20120815
Signal Generator	Agilent	E4438C	MY42082260
Base Station Simulator	Agilent	8960	GB47320116

Test Conditions / Notes:

The EUT is provider specific signal booster pair consisted of a Window unit (WU) and a Coverage unit (CU) using proprietary 5.8 GHz Wireless interface.

For testing purposes, the EUT are placed on the test bench, connected via coax cable and 50 dB attenuators. Tx of WU is connected to RX of CU, RX of WU is connected to UNII TX port of CU.

Intended band of operation

UL= 824-849 MHz, 1850-1910 MHz,

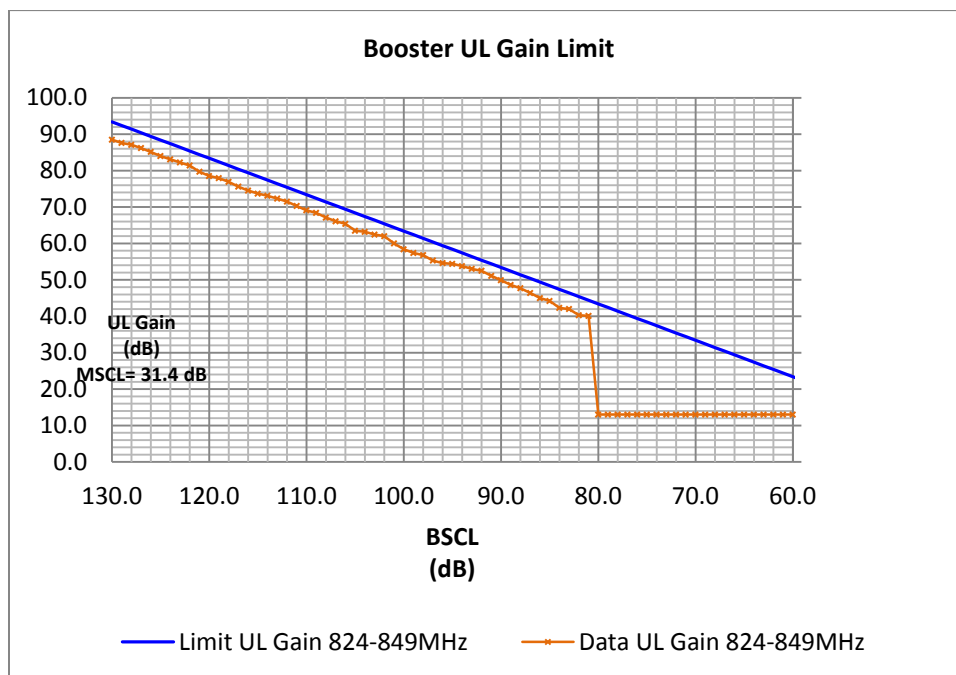
DL= 869-894 MHz 1930-1990 MHz,

MSCL of 38.2 dB (1850-1910, 1930-1990MHz) and 41.4 (824-869MHz, , 869-894MHz) calculation provided in FCC submittal package.

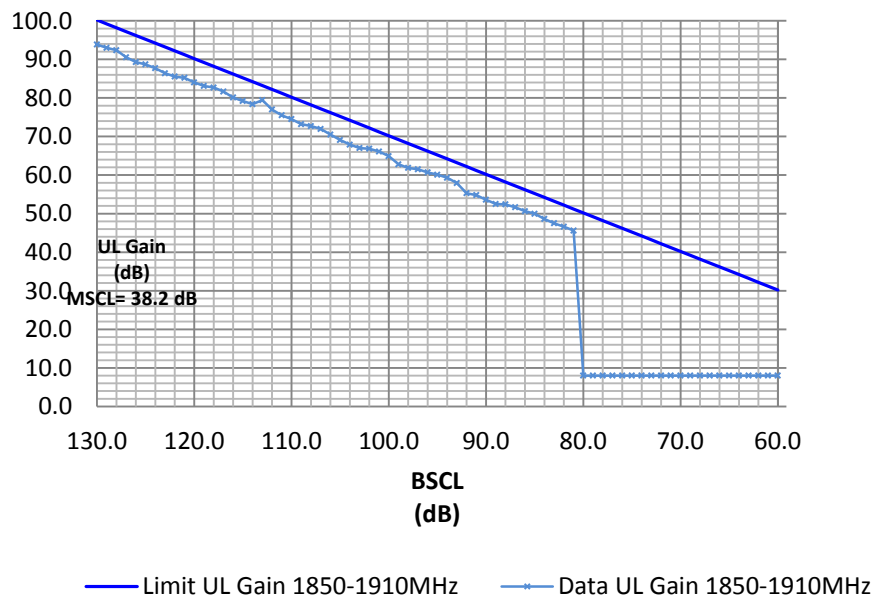
The test was performed with the booster operating in Test mode bypassing the RF input limit function. In operation, the UL path cease transmit operation at RSSI exceeding -40dBm. The system gain presented in the UL plot, at BSCL of RSSI equivalent of -40dBm (BSCL of 80dB) , the system is designed to enter transmit off and the plot represents system gain of Transmit power off.

Variable gain UL timing plot: time between market 1 and 1R is the reaction time when the BSCL dropped 20dB.

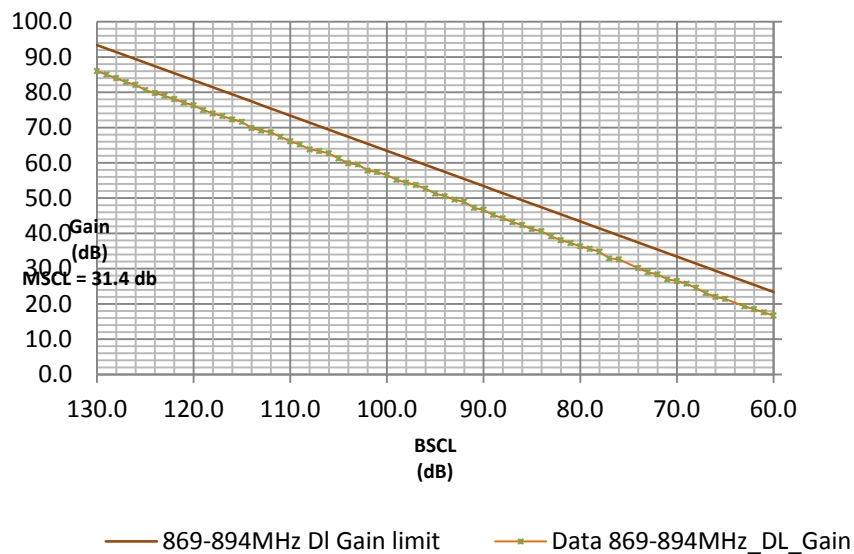
Test environment conditions: 23°C, 15% Relative Humidity, 100kPa

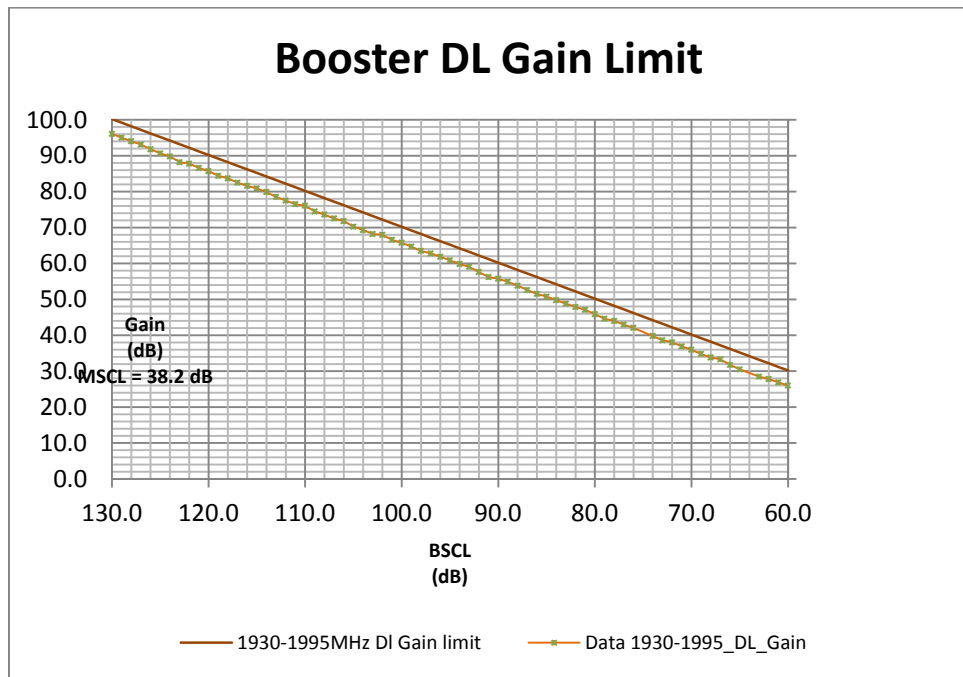


Booster UL Gain Limit



Booster DL Gain Limit





7.9 Summary of Results

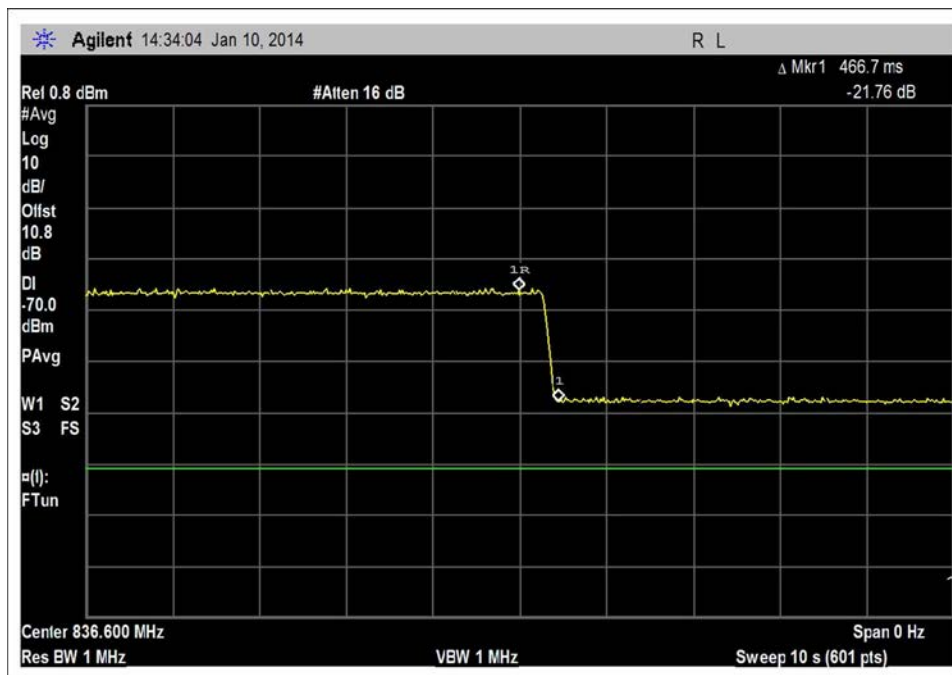
Pass: As demonstrated in the test data section, the time between Cursor R1 and cursor 1 where the BSCL was reduced by 20 dB is less than 3 seconds. Computed gain is within the gain limit.

Input power	
	dBm
UL AWGN power at server port 836.5MHz	-90.0
UL AWGN Power at server port 1880MHz	-85.0

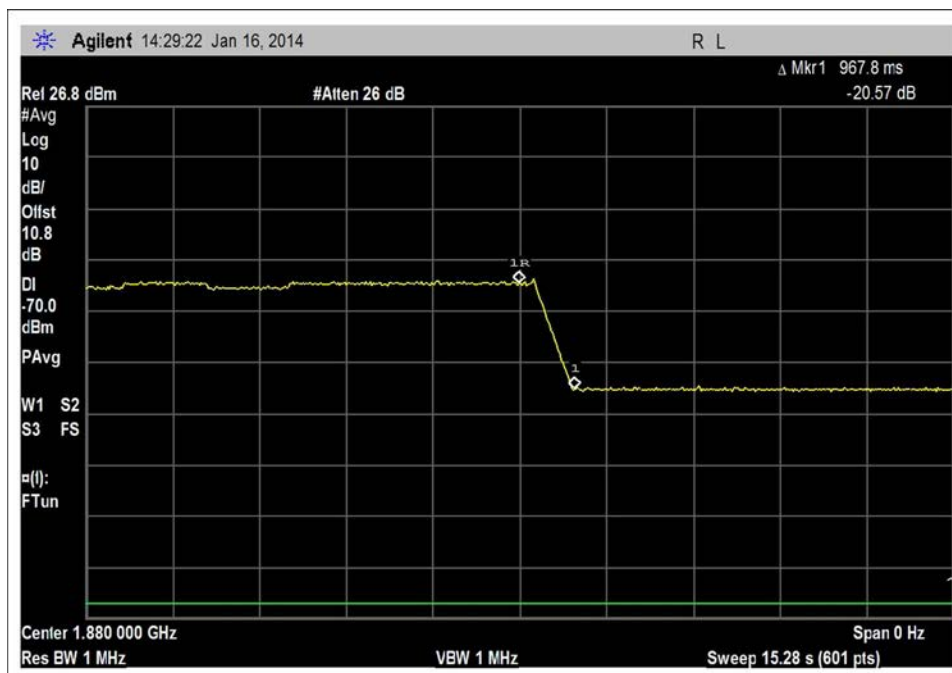
RPCH (dBm) power at Ant port	BSCL	1882.5MHz	836.5MHz	1882.5MHz	836.5MHz
RF Off		Measured Power		Computed	UL Gain
-90.0	130.0	8.9	-1.5	93.9	88.5
-89.0	129.0	8.0	-2.4	93.0	87.6
-88.0	128.0	7.4	-2.9	92.4	87.1
-87.0	127.0	5.5	-3.8	90.5	86.2
-86.0	126.0	4.3	-4.9	89.3	85.1
-85.0	125.0	3.7	-6.0	88.7	84.0
-84.0	124.0	2.7	-6.9	87.7	83.1
-83.0	123.0	1.4	-7.8	86.4	82.3
-82.0	122.0	0.6	-8.6	85.6	81.4
-81.0	121.0	0.2	-10.3	85.2	79.7
-80.0	120.0	-1.0	-11.5	84.0	78.5
-79.0	119.0	-1.9	-12.1	83.1	77.9
-78.0	118.0	-2.3	-13.1	82.7	76.9
-77.0	117.0	-3.3	-14.4	81.7	75.6
-76.0	116.0	-4.9	-15.5	80.1	74.5
-75.0	115.0	-5.8	-16.3	79.2	73.7
-74.0	114.0	-6.6	-16.9	78.4	73.1
-73.0	113.0	-5.6	-17.7	79.4	72.3
-72.0	112.0	-8.0	-18.5	77.0	71.5
-71.0	111.0	-9.5	-19.7	75.5	70.3
-70.0	110.0	-10.5	-20.9	74.5	69.1
-69.0	109.0	-11.8	-21.6	73.2	68.4
-68.0	108.0	-12.3	-22.9	72.7	67.1
-67.0	107.0	-13.1	-23.9	72.0	66.1
-66.0	106.0	-14.5	-24.6	70.5	65.4
-65.0	105.0	-15.9	-26.5	69.1	63.5
-64.0	104.0	-17.1	-26.8	67.9	63.2
-63.0	103.0	-18.0	-27.6	67.0	62.4
-62.0	102.0	-18.2	-28.0	66.8	62.0
-61.0	101.0	-18.9	-30.0	66.1	60.0
-60.0	100.0	-20.1	-31.6	64.9	58.4
-59.0	99.0	-22.2	-32.6	62.8	57.4
-58.0	98.0	-23.1	-33.2	61.9	56.8
-57.0	97.0	-23.5	-34.7	61.5	55.3
-56.0	96.0	-24.3	-35.4	60.7	54.6
-55.0	95.0	-24.9	-35.6	60.1	54.4

-54.0	94.0	-25.7	-36.2	59.3	53.8
-53.0	93.0	-27.1	-37.0	57.9	53.0
-52.0	92.0	-29.7	-37.5	55.3	52.5
-51.0	91.0	-30.2	-38.9	54.8	51.1
-50.0	90.0	-31.4	-40.1	53.6	49.9
-49.0	89.0	-32.5	-41.4	52.5	48.6
-48.0	88.0	-32.6	-42.3	52.4	47.7
-47.0	87.0	-33.3	-43.6	51.7	46.4
-46.0	86.0	-34.4	-45.0	50.6	45.0
-45.0	85.0	-35.0	-45.8	50.0	44.2
-44.0	84.0	-36.4	-47.7	48.6	42.3
-43.0	83.0	-37.5	-48.0	47.5	42.0
-42.0	82.0	-38.4	-49.7	46.6	40.3
-41.0	81.0	-39.4	-49.9	45.6	40.1
-40.0	80.0	-77.0	-77.0	8.0	13.0
-39.0	79.0	-77.0	-77.0	8.0	13.0
-38.0	78.0	-77.0	-77.0	8.0	13.0
-37.0	77.0	-77.0	-77.0	8.0	13.0
-36.0	76.0	-77.0	-77.0	8.0	13.0
-35.0	75.0	-77.0	-77.0	8.0	13.0
-34.0	74.0	-77.0	-77.0	8.0	13.0
-33.0	73.0	-77.0	-77.0	8.0	13.0
-32.0	72.0	-77.0	-77.0	8.0	13.0
-31.0	71.0	-77.0	-77.0	8.0	13.0
-30.0	70.0	-77.0	-77.0	8.0	13.0
-29.0	69.0	-77.0	-77.0	8.0	13.0
-28.0	68.0	-77.0	-77.0	8.0	13.0
-27.0	67.0	-77.0	-77.0	8.0	13.0
-26.0	66.0	-77.0	-77.0	8.0	13.0
-25.0	65.0	-77.0	-77.0	8.0	13.0
-24.0	64.0	-77.0	-77.0	8.0	13.0
-23.0	63.0	-77.0	-77.0	8.0	13.0
-22.0	62.0	-77.0	-77.0	8.0	13.0
-21.0	61.0	-77.0	-77.0	8.0	13.0
-20.0	60.0	-77.0	-77.0	8.0	13.0

Test Data

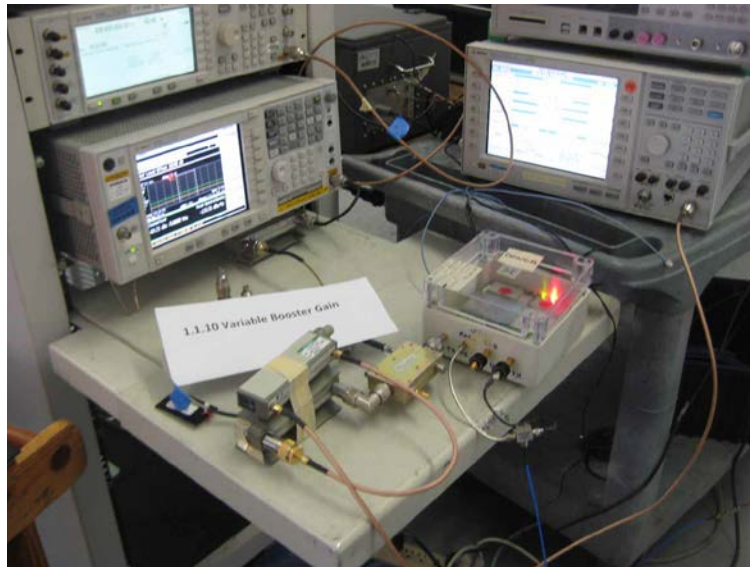


UL time_824-849MHz

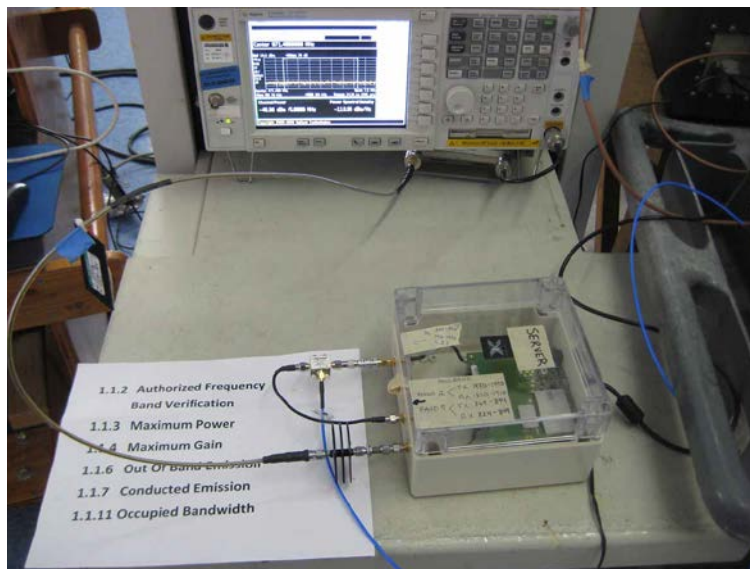


UL time_1850-1915MHz_011614

Test Setup Photo(s)



Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.9.



Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.9.

7.11 Anti-oscillation

Test Conditions / Setup

Test Location: CKC Laboratories • 110 Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Nextivity, Inc.**

Specification: 7.11 Oscillation Detection

Work Order #: **95295** Date: 1/9/2014

Test Type: **Conducted Emissions**

Equipment: **Provider Specific Consumer Signal Booster** Sequence#: 1

Manufacturer: Nextivity, Inc. Tested By: E. Wong

Model: CELFI-RS225CU, CELFI-RS225WU, 110V 60Hz

S/N: 157216000246, 157216000246

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN02869	Spectrum Analyzer	E4440A	2/6/2013	2/6/2015
	AN02946	Cable	32022-2-2909K-36TC	7/31/2013	7/31/2015
	C00082	RF Coupler	722-10-1.500V	8/21/2013	8/21/2015
	AN02475	1 dB step Attenuator	8494B	6/17/2013	6/17/2015
	AN03429	10dB step Attenuator	8496B	9/5/2013	9/5/2015
	AN03430	Attenuator	75A-10-12	9/5/2013	9/5/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Provider Specific Consumer Signal Booster*	Nextivity, Inc.	CELFIR-S225CU	157216000246
Provider Specific Consumer Signal Booster	Nextivity, Inc.	CELFIR-S225WU	157216000246

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Nextivity	WRG15F-120AB	20120111
Power Supply	Nextivity	WRG15F-120AB	20120815

Test Conditions / Notes:

The EUT is provider specific signal booster pair consisted of a Window unit (WU) and a Coverage unit (CU) using proprietary 5.8 GHz Wireless interface.

For testing purposes, the EUT are placed on the test bench, connected via coax cable and 50 dB attenuators. Tx of WU is connected to RX of CU, RX of WU is connected to UNII TX port of CU.

Intended band of operation
UL= 824-849 MHz, 1850-1910 MHz,
DL= 869-894 MHz 1930-1990 MHz,

A fixed 40 dB attenuation to simulate with required isolation is included in the test setup for the specific booster design to operate in this mode. No bandpass filter is required.

Peak detector was employed for Timing measurement to enable video trigger . Additional measurement with RMS detector to show compliance with -70dBm/MHz limit after successful mitigation.

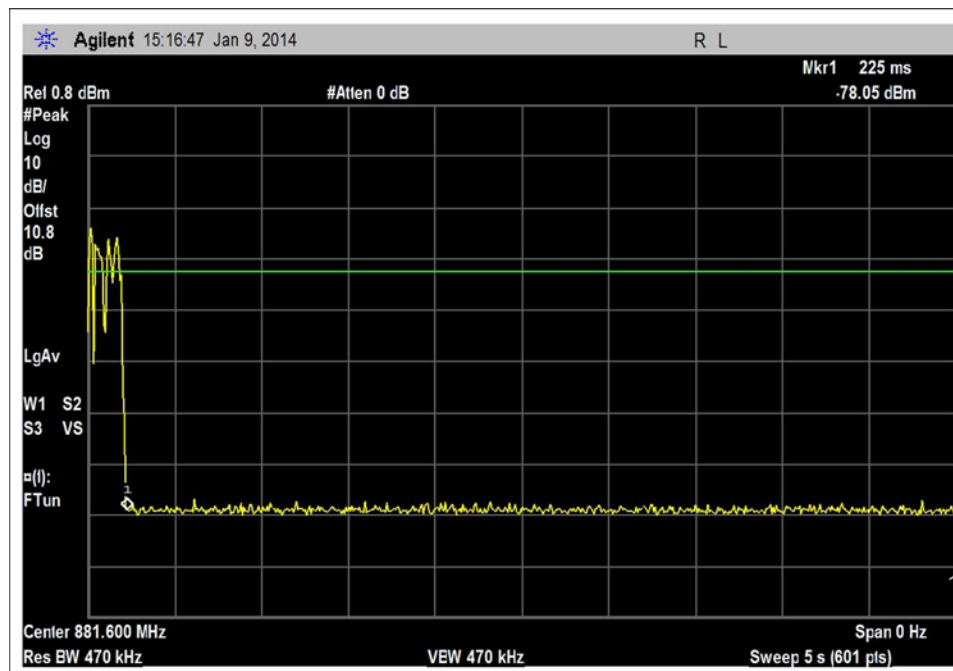
Plots with 120 second sweep demonstrate the booster does not re-start upon the first mitigation.

Test environment conditions: 23°C, 15% Relative Humidity, 100kPa

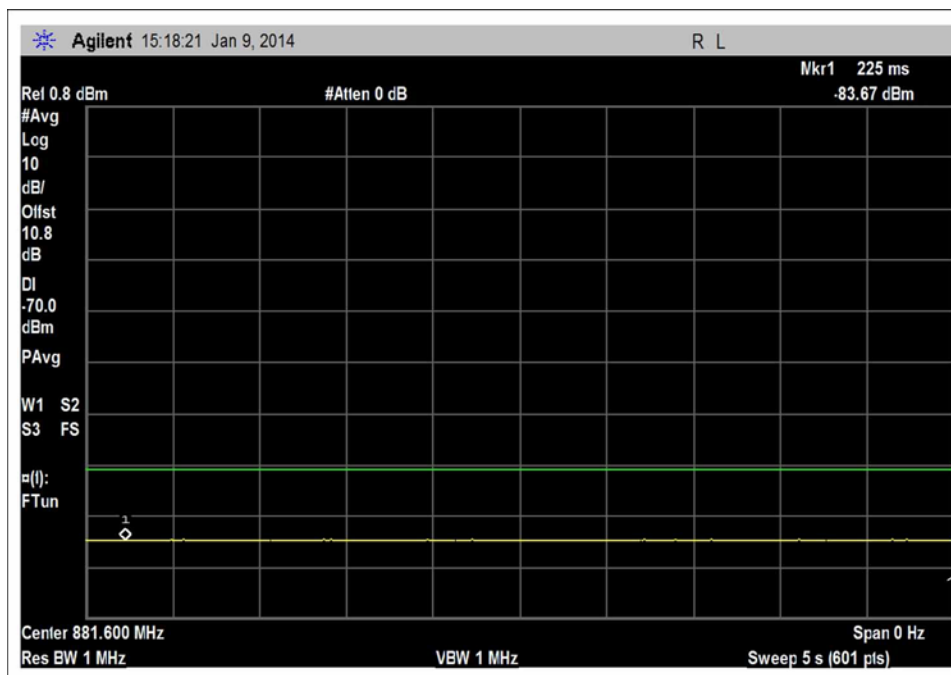
7.11 Summary of Results

Pass: All detectable oscillation was mitigated within 3 seconds and the device remains inactive without restarting. The captured level after mitigation is below -70dBm/MHz.

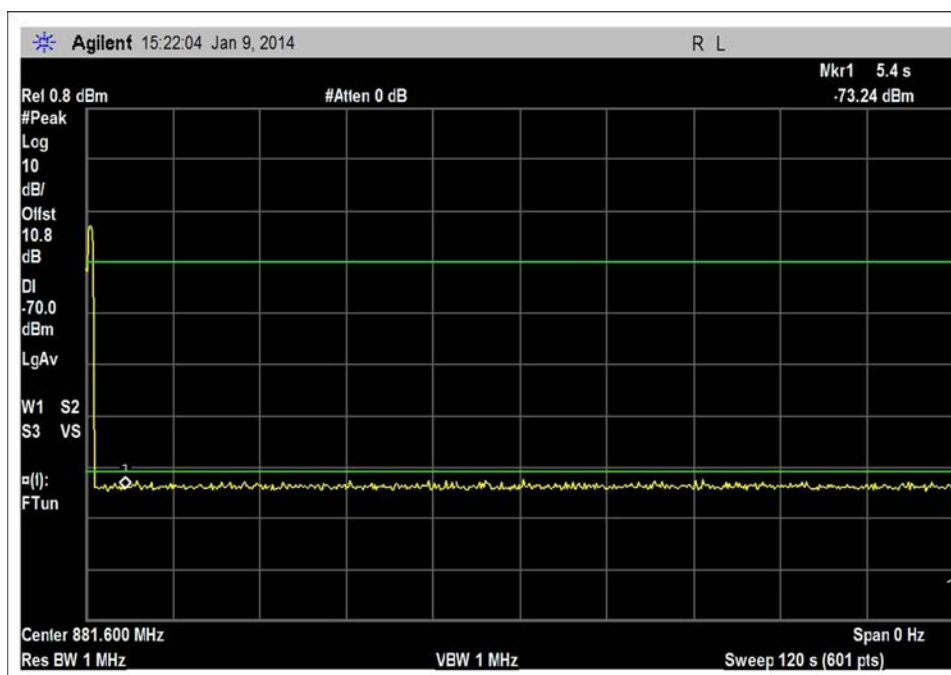
Test Data



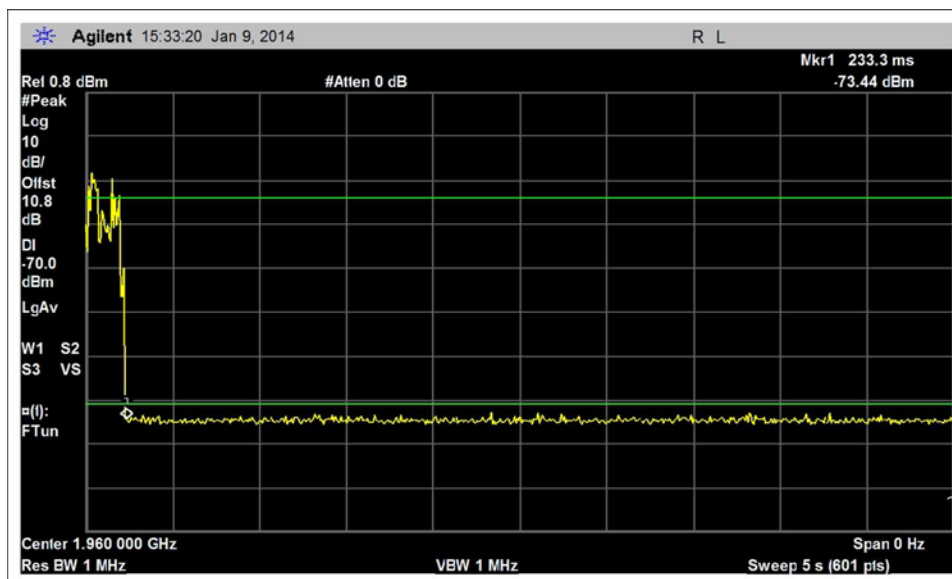
DL_869-894MHz_single



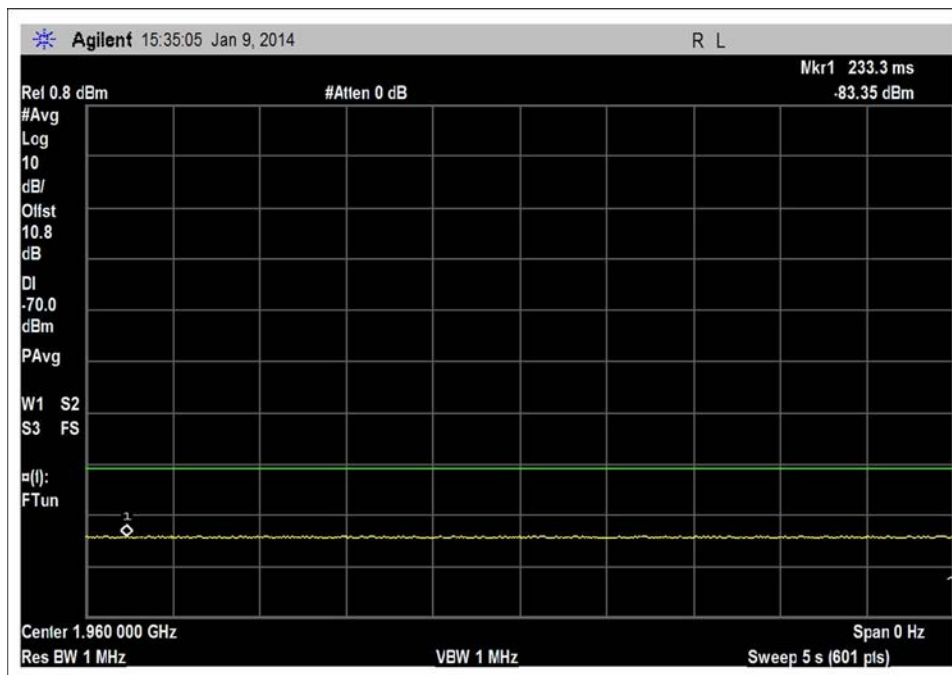
DL_869-894MHz_single_-70dBm



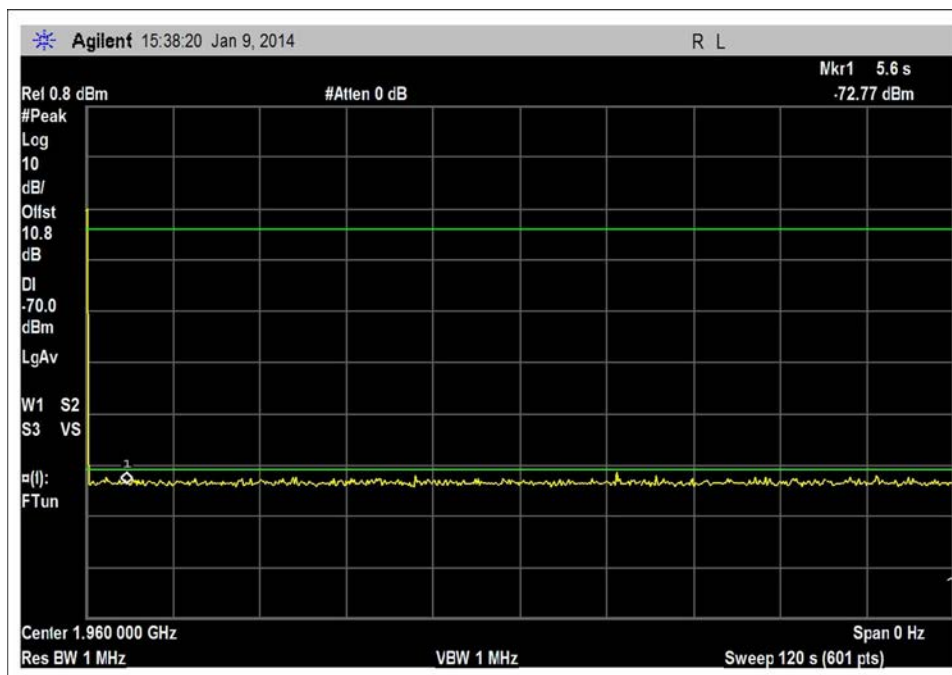
DL_869-894MHz_single_120sec



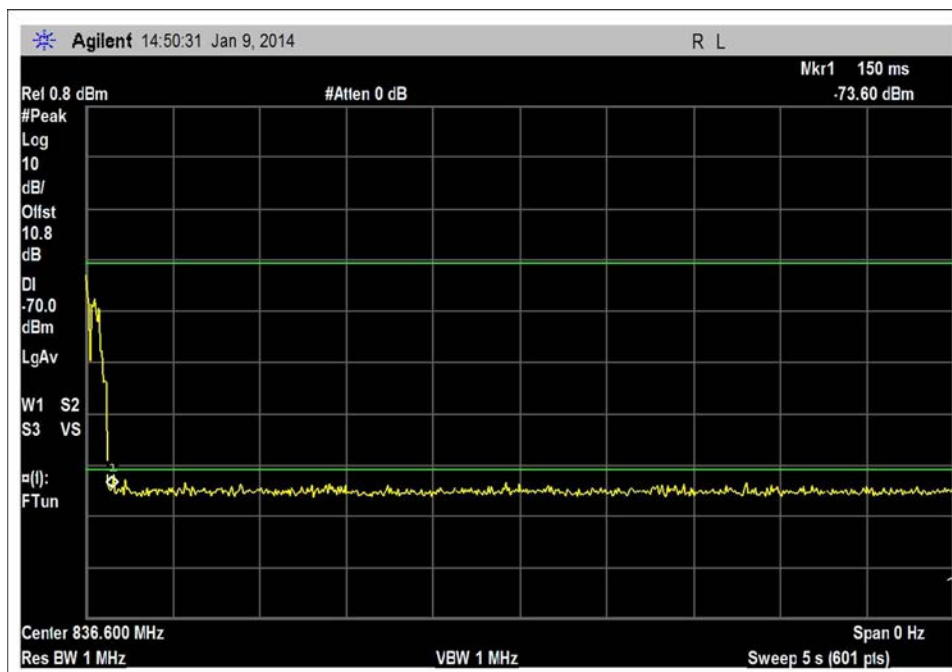
DL_1930-1995MHz_single



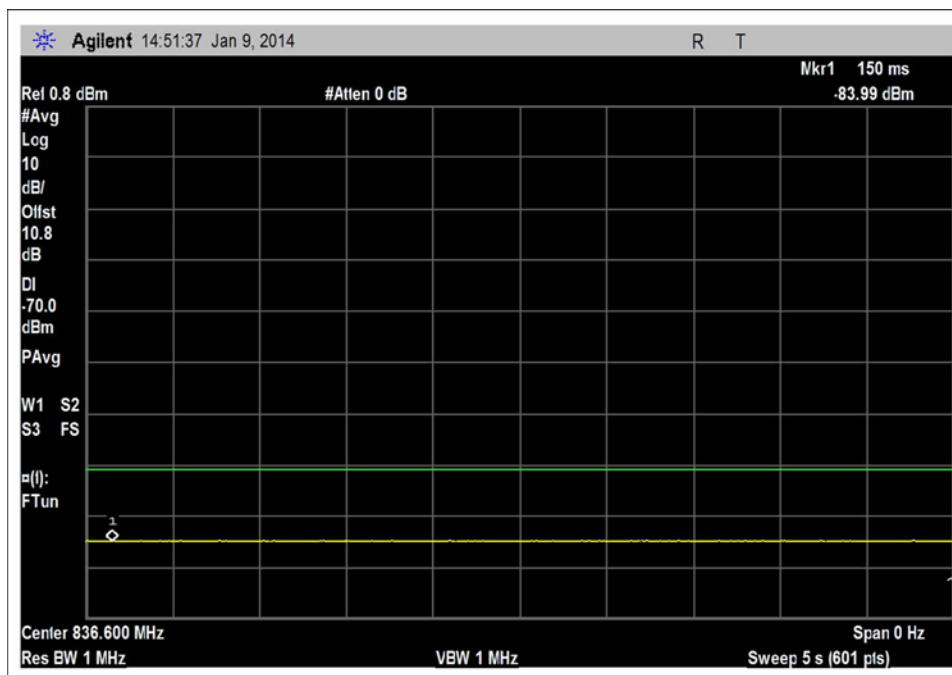
DL_1930-1995MHz_single_-70dBm



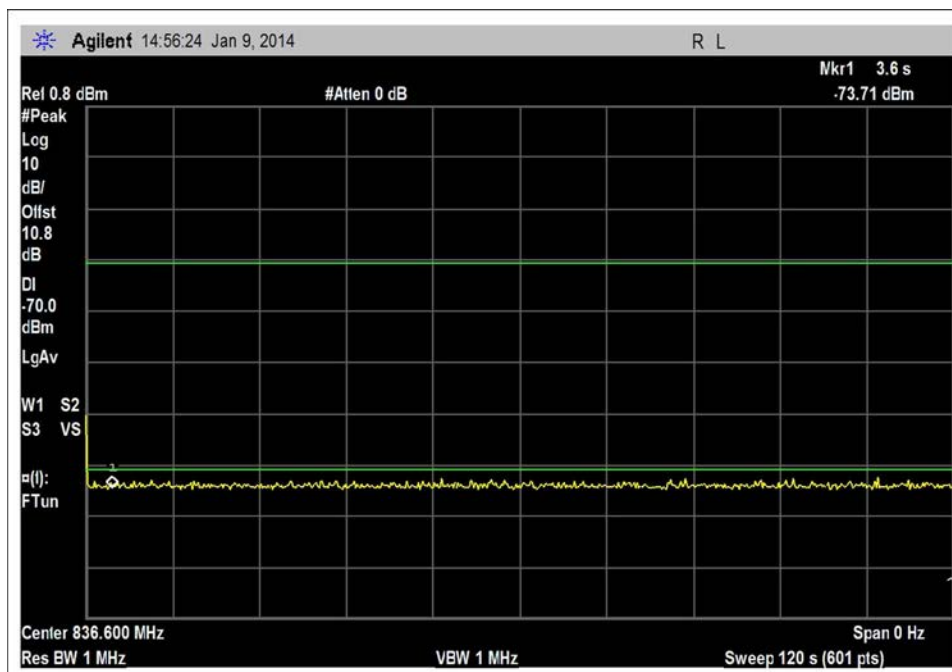
DL_1930-1995MHz_single_120sec



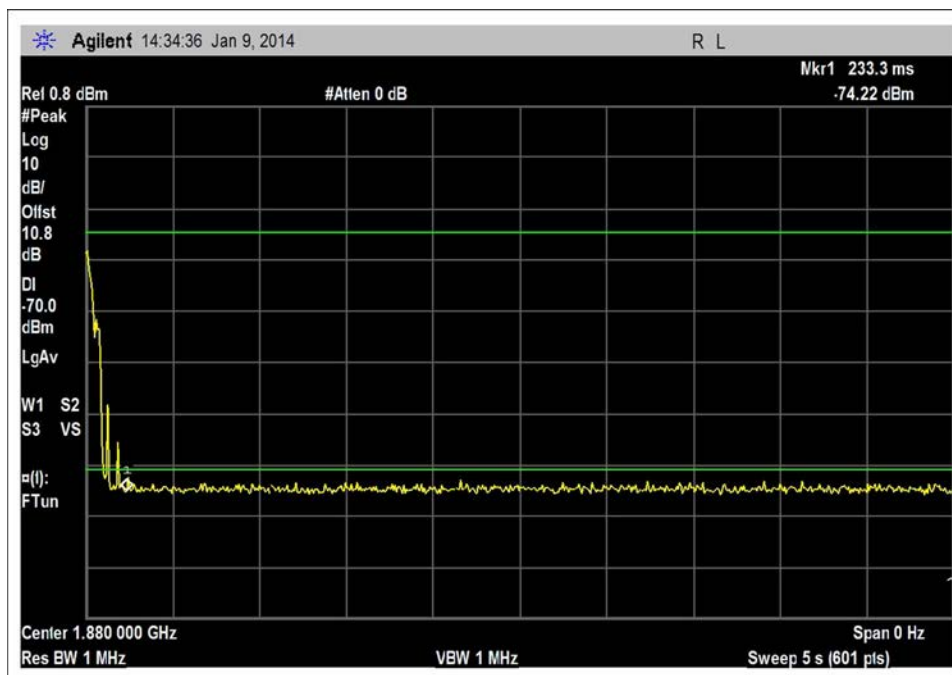
UL_824-849MHz_single



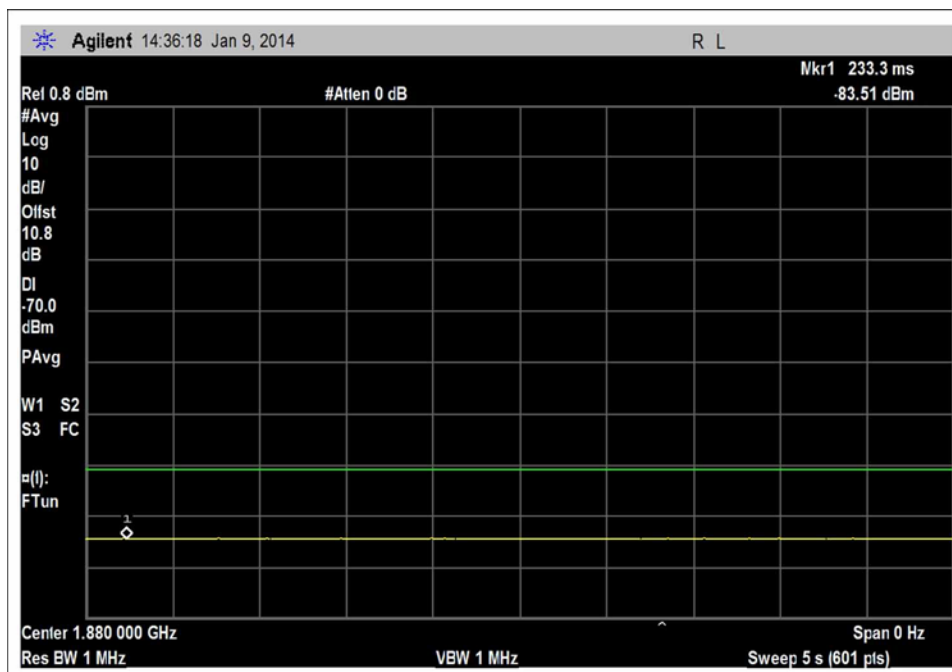
UL_824-849MHz_single_-70dBm



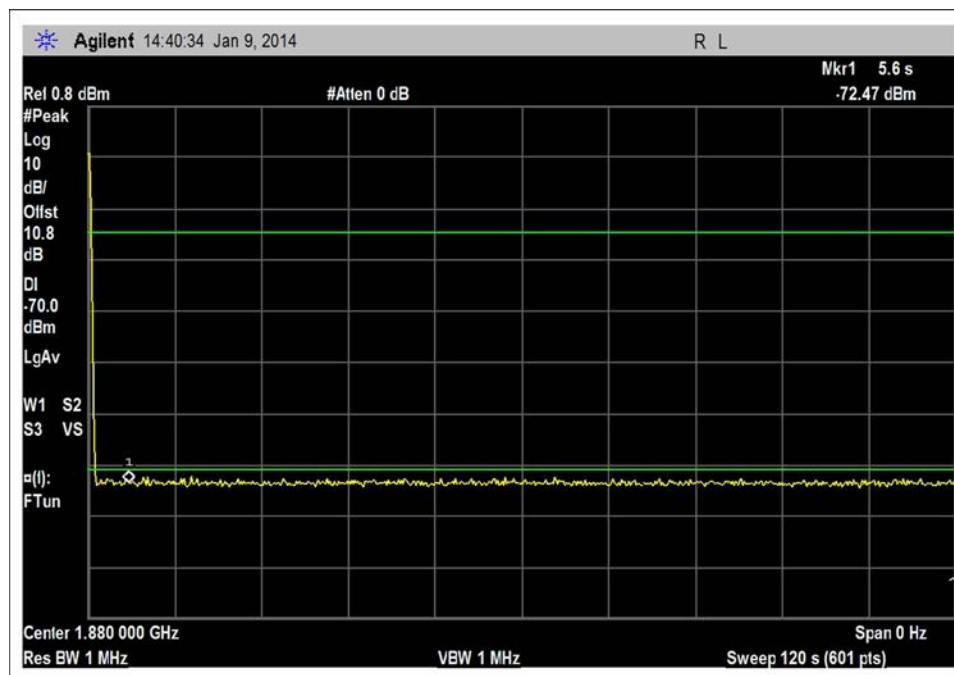
UL_824-849MHz_single_120sec



UL_1850-1915_single

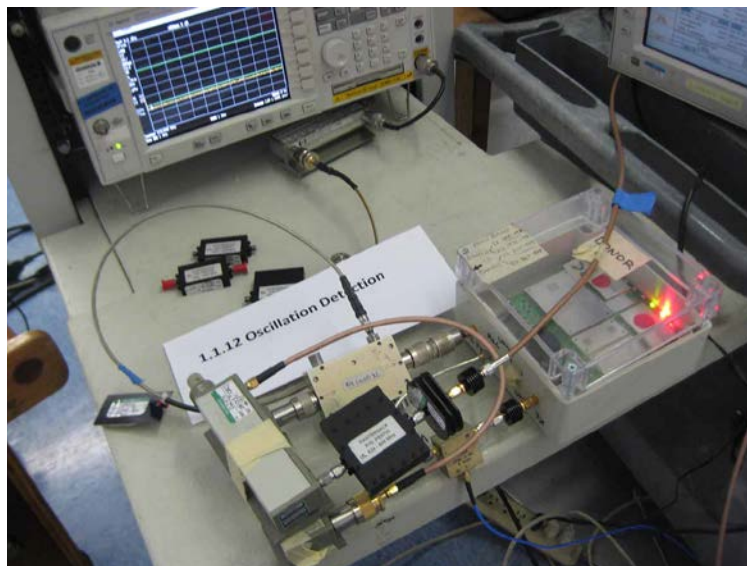


UL_1850-1915_single_-70dBm



UL_1850-1915_single_120sec

Test Setup Photo(s)



Note: The sign in the photo has the incorrect numbering reference. The proper reference is 7.11.

7.13 Spectrum Block Filtering

Not applicable to this device because it does not contain block filtering.

7.14 Out of Band Gain Limits

Test Conditions / Setup

Test Location: CKC Laboratories • 110 Olinda Place • Brea, CA 92823 • 714-993-6112

Customer: **Nextivity, Inc.**

Specification: 7.14 Out of Band gain.

Work Order #: **95295** Date: 1/30/2014

Test Type: **Conducted Emissions**

Equipment: **Provider Specific Consumer Signal Booster** Sequence#: 1

Manufacturer: Nextivity, Inc. Tested By: S. Yamamoto

Model: CELFI-RS225CU, CELFI-RS225WU, 110V 60Hz

S/N: 157216000246, 157216000246

Test Equipment:

Asset #	Description	Model	Calibration Date	Cal Due Date
02869	Spectrum Analyzer	E4440A	2/6/2013	2/6/2015
02946	Cable	32022-2-2909K-36TC	7/31/2013	7/31/2015
01705	Attenuator	8496B	6/17/2013	6/17/2015
03430	Attenuator	75A-10-12	9/5/2013	9/5/2015

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Provider Specific Consumer Signal Booster*	Nextivity, Inc.	CELFIR-S225CU	157216000246
Provider Specific Consumer Signal Booster	Nextivity, Inc.	CELFIR-S225WU	157216000246

Support Devices:

Function	Manufacturer	Model #	S/N
Power Supply	Nextivity	WRG15F-120AB	20120111
Power Supply	Nextivity	WRG15F-120AB	20120815
Signal Generator	Agilent	E4438C	MY42082260

Test Conditions / Notes:

The EUT is provider specific signal booster pair consisted of a Window unit (WU) and a Coverage unit (CU) using proprietary 5.8 GHz Wireless interface.

For testing purposes, the EUT are placed on the test bench, connected via coax cable and 50 dB attenuators. Tx of WU is connected to RX of CU, RX of WU is connected to UNII TX port of CU.

Intended band of operation
 UL= 824-849 MHz, 1850-1910 MHz,
 DL= 869-894 MHz 1930-1990 MHz,

Signal generator RF output power set at -60dBm, 10 MHz AWGN ,
 Booster DL Gain = 70dB, Booster UL Gain =70dB
 Test environment conditions: 26°C, 31%, 100kPa

7.14 Summary of Results

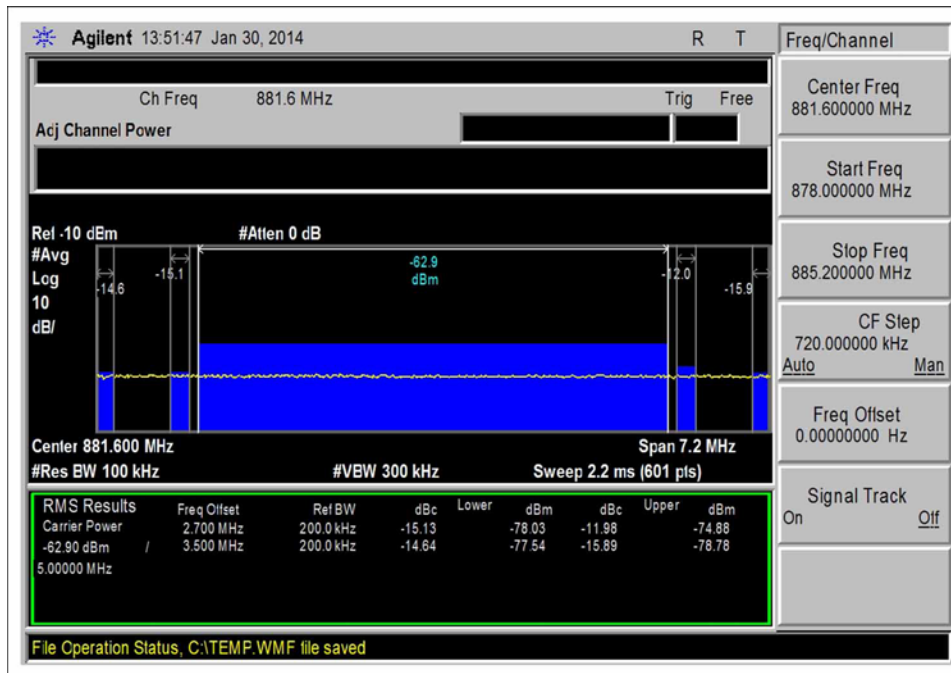
Pass: As shown by the data below.

Results				
Input				
	-1 MHz	-0.2 MHz	0.2MHz	1MHz
UL: 1850-1910MHz	-77.6	-79.8	-76.8	-81.1
UL: 824-849MHz	-76.6	-75.1	-75.5	-78.7
DL: 1930-1990MHz	-77.5	-78.0	-74.9	-78.8
DL: 869-894MHz	-78.9	-76.5	-77.1	-77.1

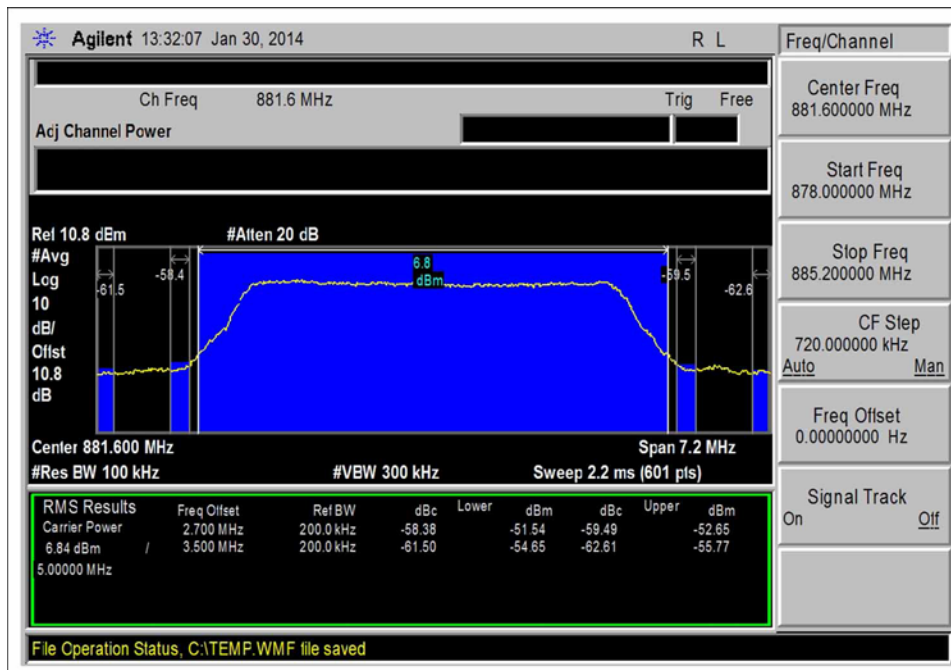
Output				
	-1 MHz	-0.2 MHz	0.2MHz	1MHz
UL: 1850-1910MHz	-51.86	-51.17	-44.57	-48.7
UL: 824-849MHz	-46.38	-44.52	-44.6	-47.1
DL: 1930-1990MHz	-51.9	-49.1	-47.8	-50.5
DL: 869-894MHz	-54.7	-51.5	-52.7	-55.8

Gain				
	-1 MHz	-0.2 MHz	0.2MHz	1MHz
UL: 1850-1910MHz	25.7	28.6	32.2	32.4
UL: 824-849MHz	30.2	30.6	30.9	31.6
DL: 1930-1990MHz	25.7	28.9	27.1	28.3
DL: 869-894MHz	24.2	24.9	24.4	21.3
Limit	45.0	60.0	60.0	45.0

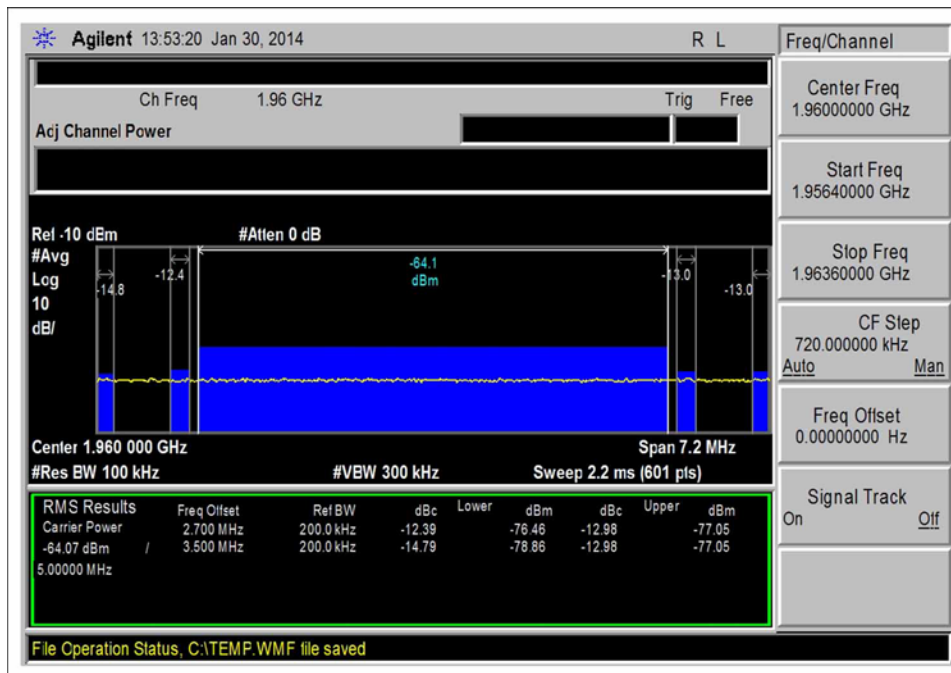
Test Data



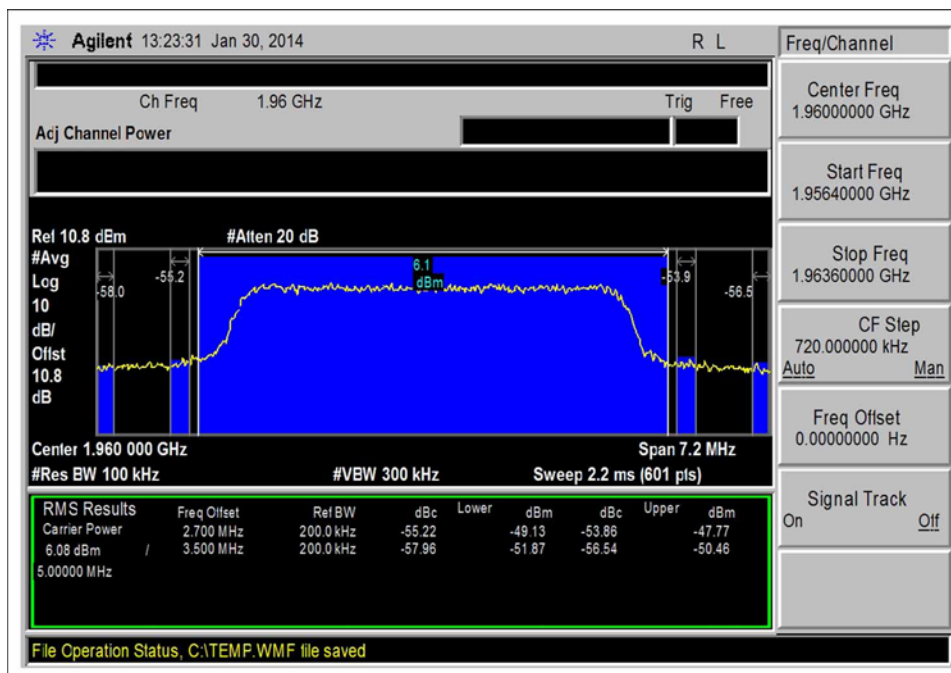
DL_869-894MHz-input_-60dBm input_gain 70dB



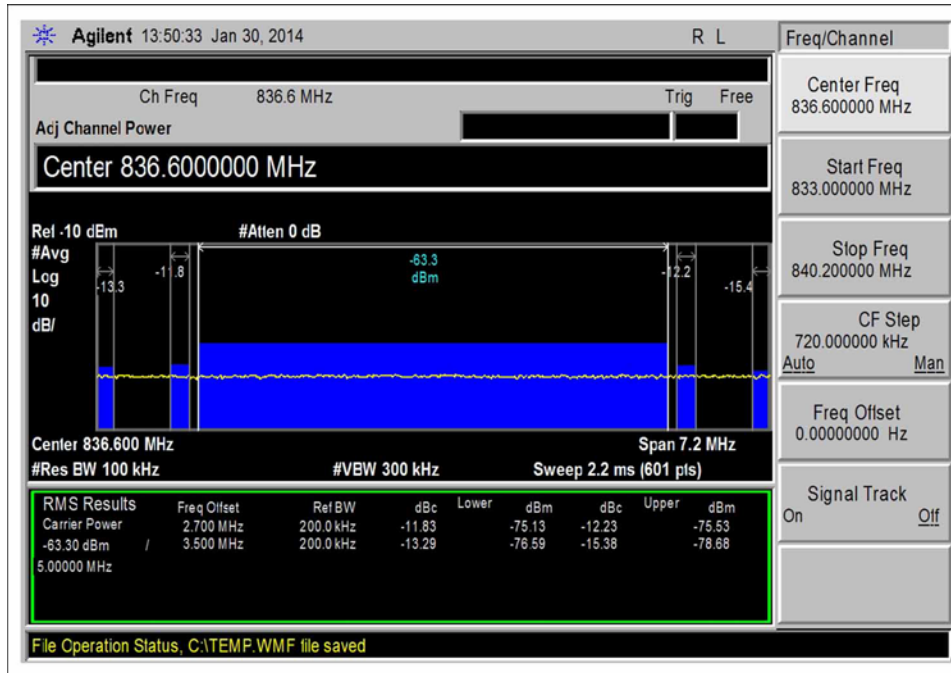
DL_869-894MHz-output_-60dBm input_gain 70dB



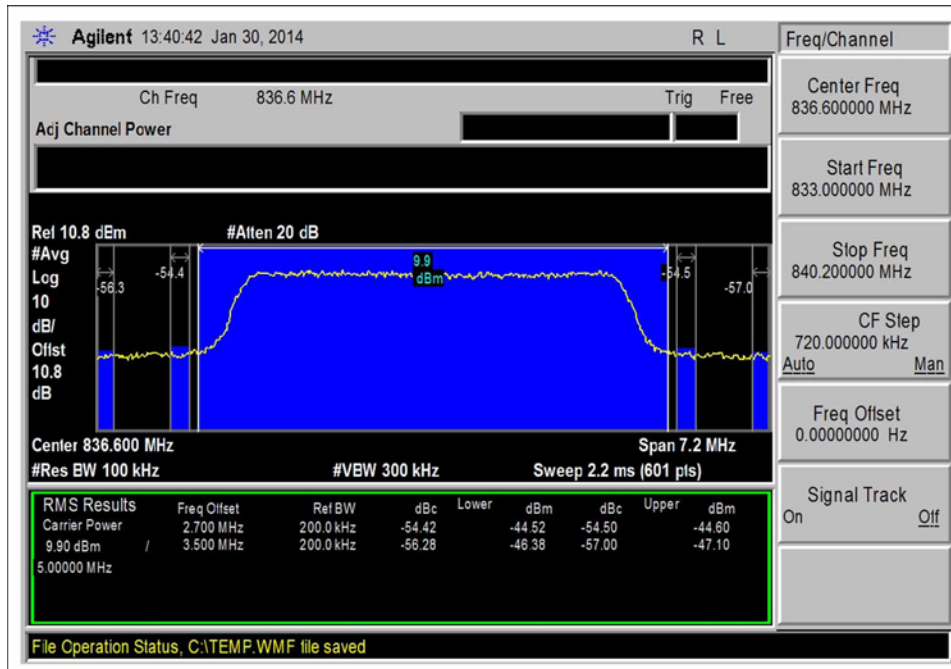
DL_1930-1990MHz-input_-60dBm input_gain 70dB



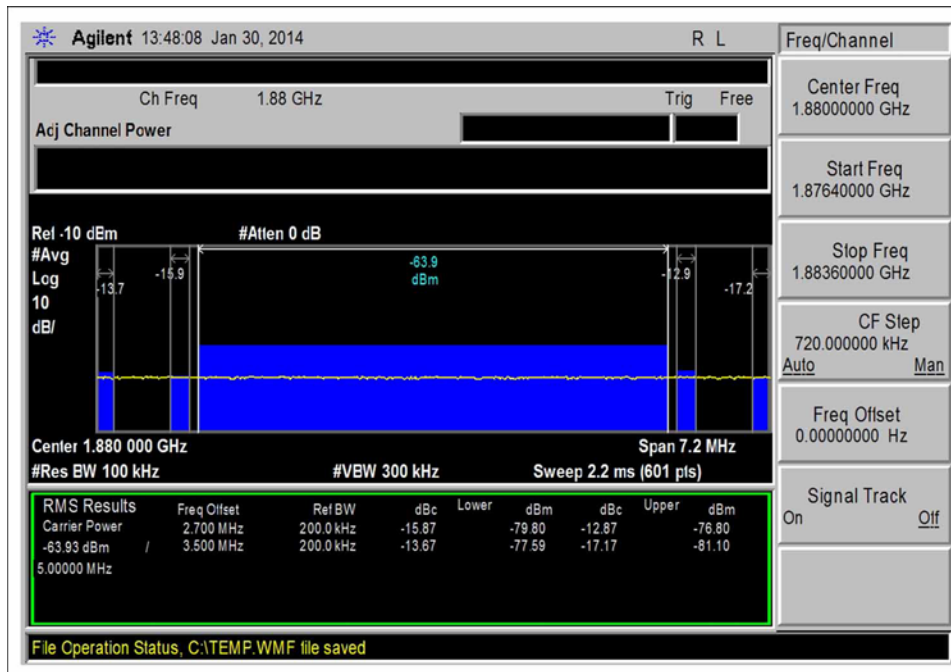
DL_1930-1990MHz-output_-60dBm input_gain 70dB



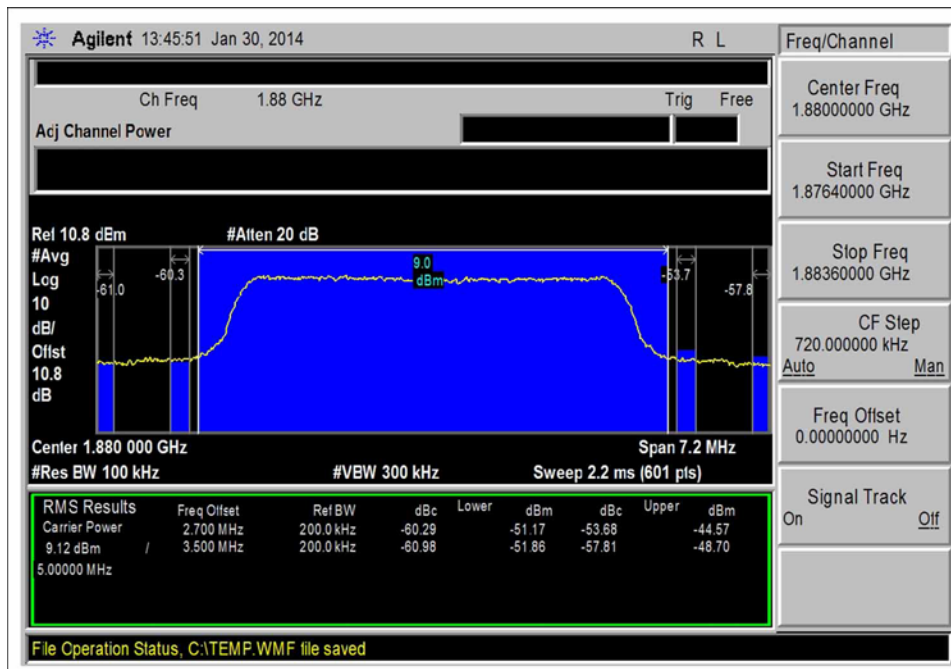
UL_824-849MHz-input_-60dBm input_gain 70dB



UL_824-849MHz-output_-60dBm input_gain 70dB



UL__1850-1910MHz-input_-60dBm input_gain 70dB



UL__1850-1910MHz-output_-60dBm input_gain 70dB

Test Setup Photo(s)

