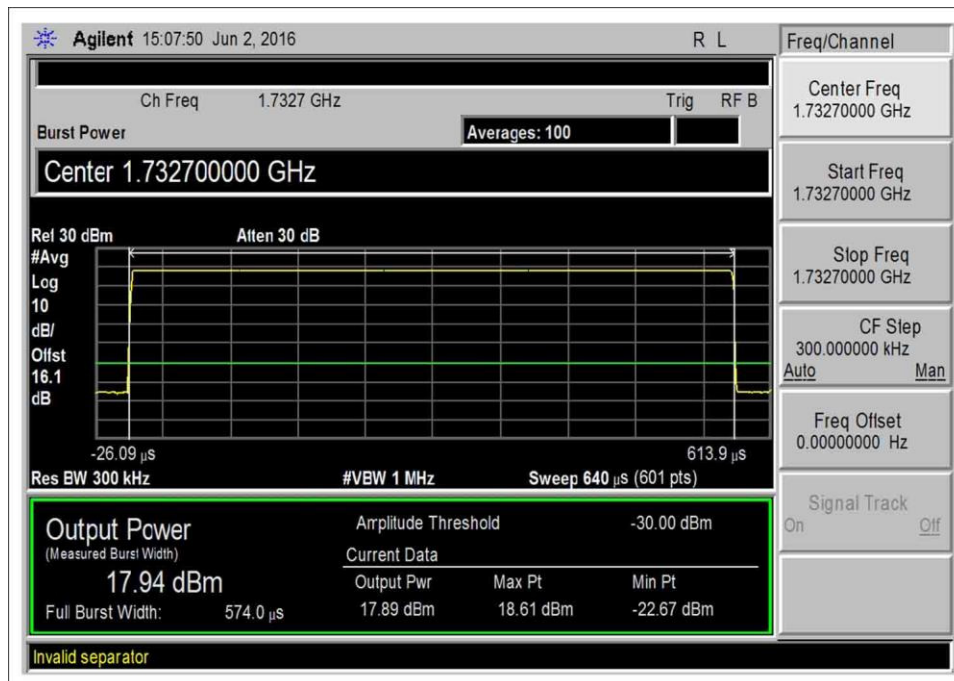




7.2\_Power\_UL\_1710-1755\_GSM



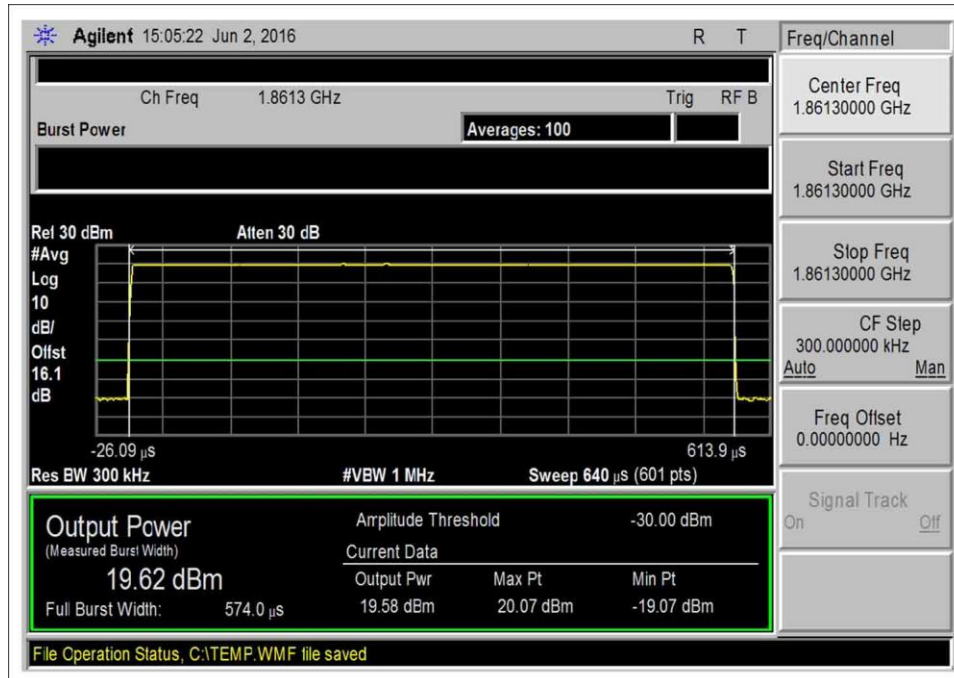
7.2\_Power\_UL\_1710-1755\_GSM-ko



7.2\_Power\_UL\_1710-1755\_GSM-Max

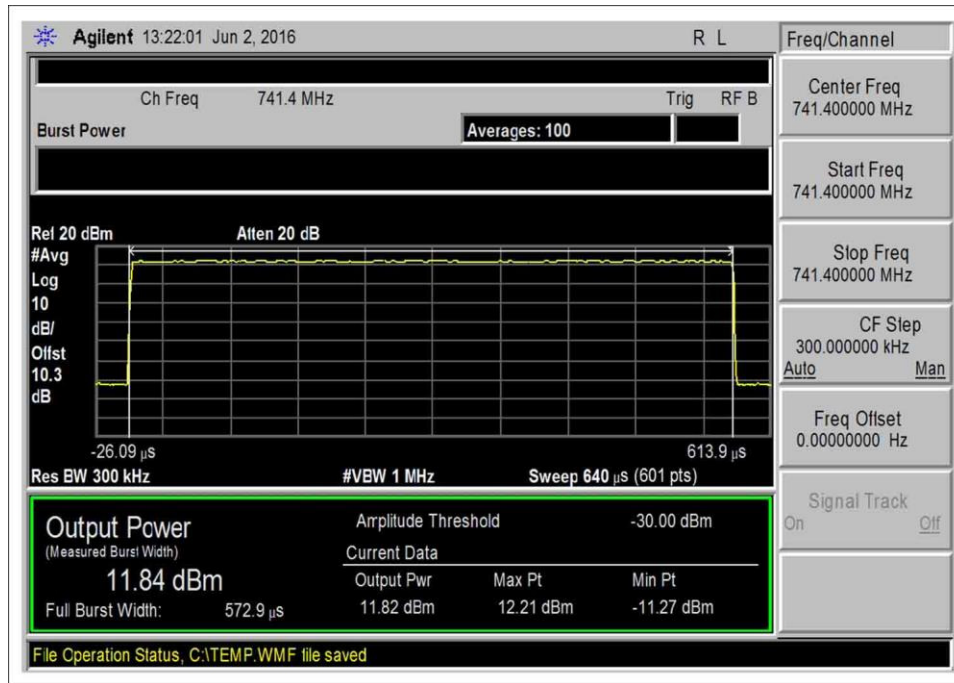


7.2\_Power\_UL\_1850-1915\_GSM



7.2\_Power\_UL\_1850-1915\_GSM-Max

### DL-GSM



7.2\_Power\_DL\_728-746\_GSM



7.2\_Power\_DL\_728-746\_GSM-Max



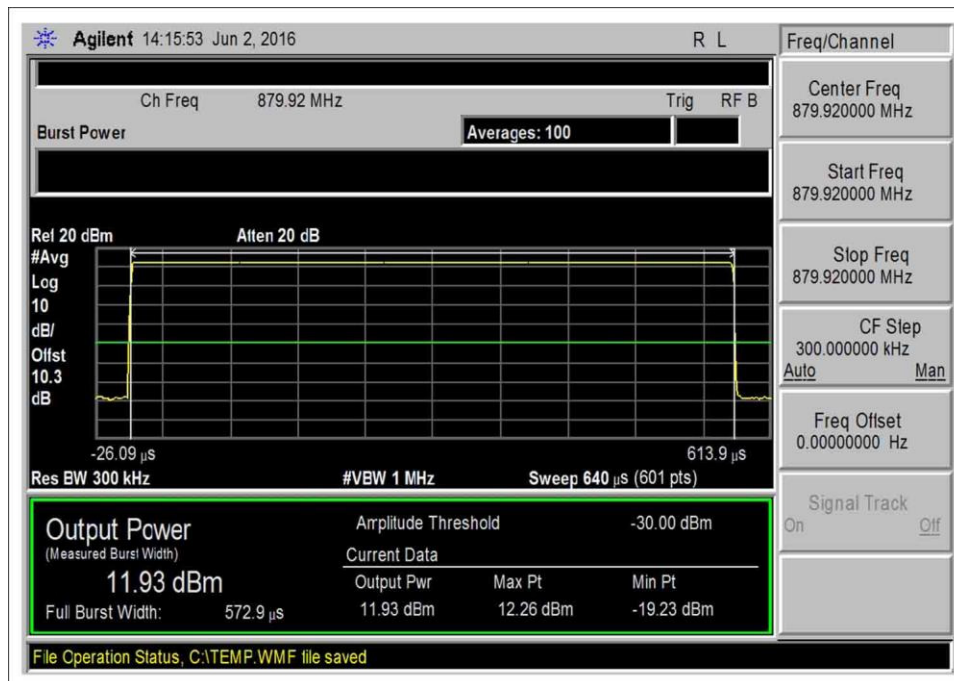
7.2\_Power\_DL\_746-757\_GSM



7.2\_Power\_DL\_746-757\_GSM-Max



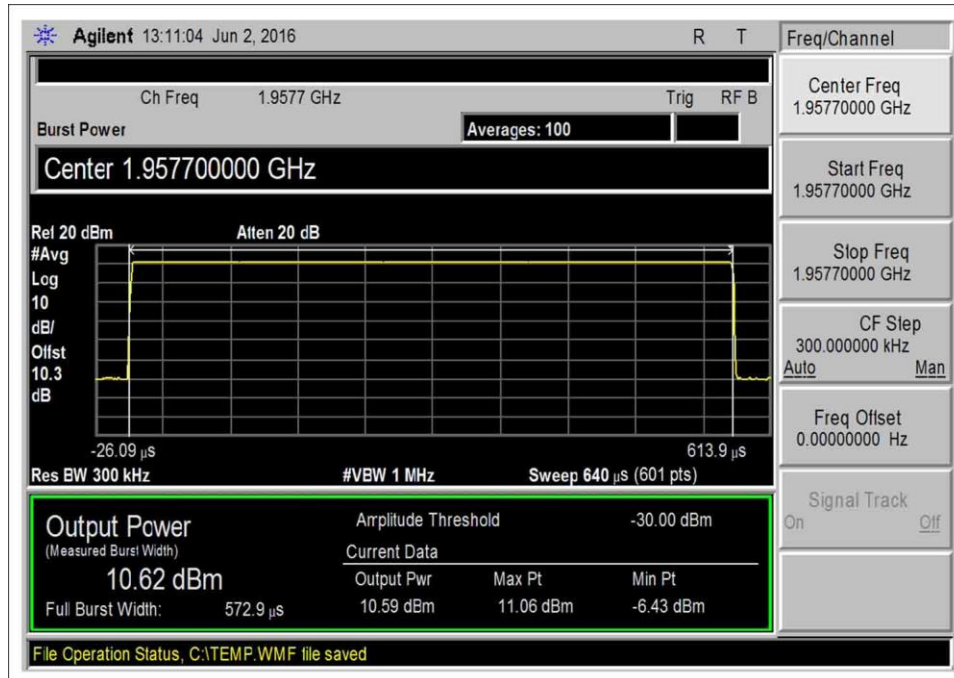
7.2\_Power\_DL\_869-894\_GSM



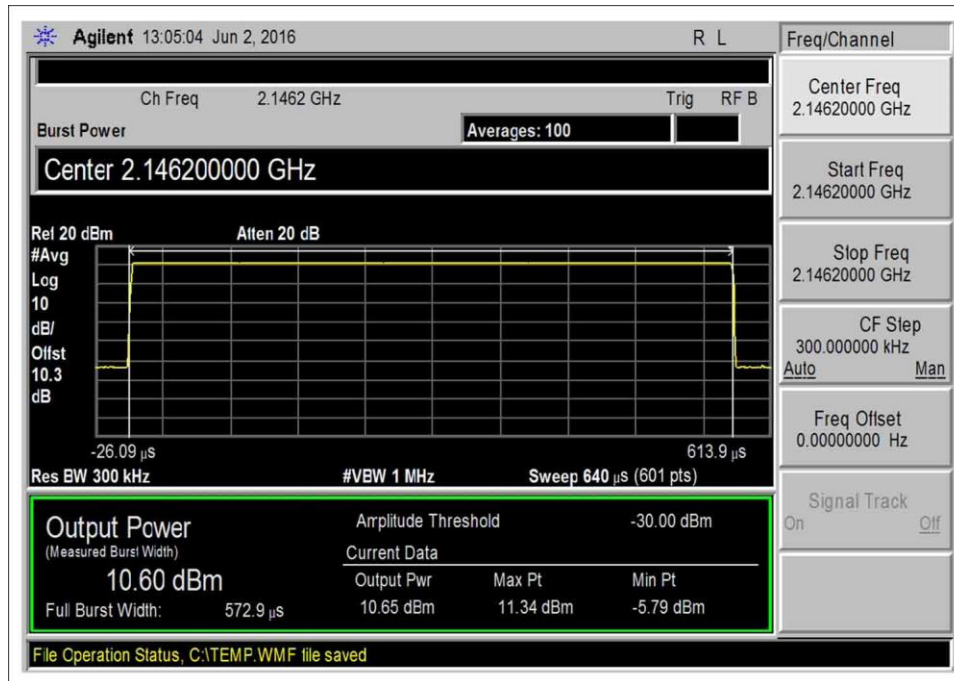
7.2\_Power\_DL\_869-894\_GSM-Max



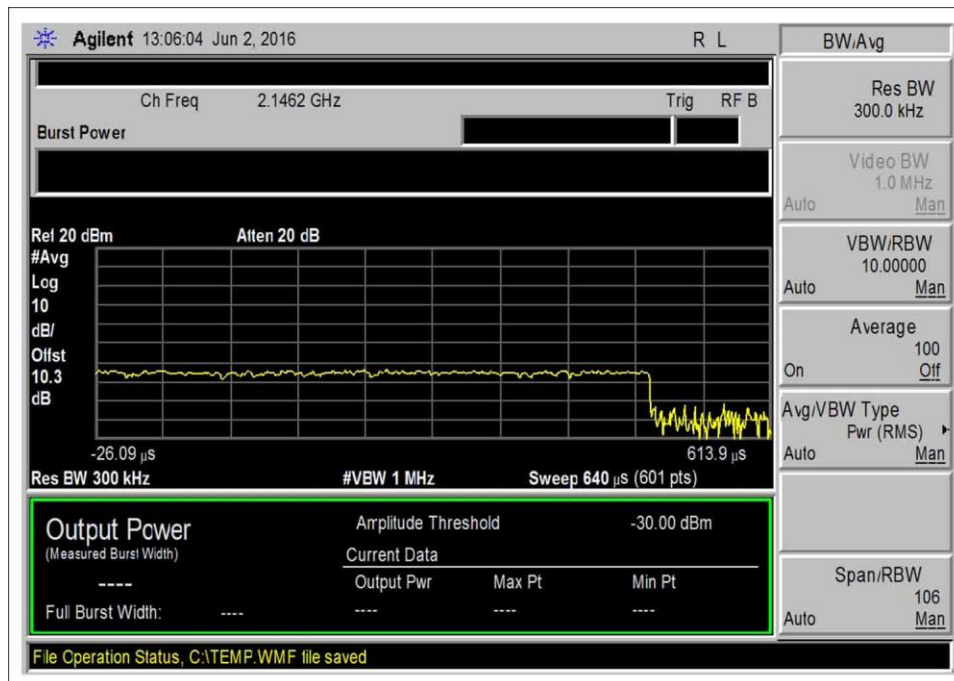
7.2\_Power\_DL\_1930-1995\_GSM



7.2\_Power\_DL\_1930-1995\_GSM-Max



7.2\_Power\_DL\_2110-2155\_GSM



7.2\_Power\_DL\_2110-2155\_GSM-20dBm





7.2\_Power\_DL\_2110-2155\_GSM-Max

## 7.4 Intermodulation Product

### Test Conditions / Setup

Test Location:	CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170		
Customer:	Cellphone-Mate, Inc.		
Specification:	<b>7.4 Intermodulation Product</b>		
Work Order #:	<b>98648</b>	Date:	06/02/2016
Test Type:	<b>Conducted Emissions</b>	Time:	16:11:26
Tested by:	Daniel Bertran	Sequence#:	1
Software:	EMITest 5.03.02		

***Equipment Tested:***

Device	Manufacturer	Model #	S/N
Configuration 1			

***Support Equipment:***

Device	Manufacturer	Model #	S/N
Configuration 1			

***Test Conditions / Notes:***

The equipment under test (EUT) is a Fixed Wideband Consumer Booster.  
 The EUT is placed on the test bench. Evaluation performed at the Outside (Donor) and Inside (Server) antenna port.  
 The EUT Server port is a type SMA connector and 50-ohm impedance.  
 The EUT Donor port is type F connector and 75-ohm impedance.  
 During testing there is a 75 ohm to 50 ohm matching pad connected to the EUT type F connector.  
 This matching pad has a 5.8dB correction factor.  
 Firmware: V1.0

Test environment conditions:  
 Temperature: 22°C  
 Relative Humidity: 41%  
 101.1 kPa

Part 22  
     UL: 824-849MHz  
     DL: 869-894MHz

Part 24  
     UL: 1850-1915MHz  
     DL: 1930-1995MHz

Part 27  
     UL: 1710-1755MHz, 698-716MHz, 776-787MHz  
     DL: 2110-2155MHz, 728-746MHz, 746-757MHz

Test procedure: The test was performed in accordance with section 7.4 of the FCC document: 935210 D03 Wideband Consumer Signal Booster Measurement Guidance v04 Dated February 12, 2016.

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN03418	Signal Generator	E4438C	7/30/2015	7/30/2017
	ANP06709	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	Spectrum Analyzer	E4440A	1/4/2016	1/4/2018
	ANP06467	Attenuator	PE7014-10	5/13/2015	5/13/2017
	ANP05411	Attenuator	54A-10	1/18/2016	1/18/2018

**Summary of Results**

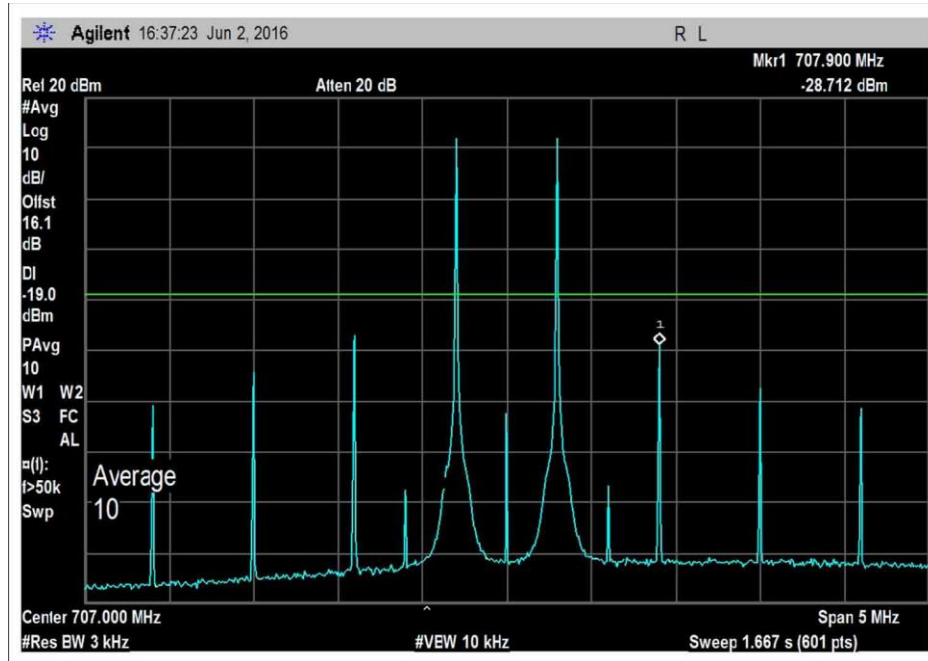
Pass: As shown on the plots, all intermodulation products are measured below -19dbm limit.

Inter Modulation Product			
Freq (MHz)	Pre AGC (dBm)	Limit (dBm)	Results
UL 1710-1755	-27.8	-19	Pass
UL 1850-1915	-30.5	-19	Pass
UL 824-894	-25.5	-19	Pass
UL 698-716	-28.7	-19	Pass
UL 776-787	-31.5	-19	Pass
DL 2110-2155	-49.5	-19	Pass
DL 1930-1995	-45.4	-19	Pass
DL 869-894	-54.5	-19	Pass
DL 728-746	-38.7	-19	Pass
DL 746-757	-41.0	-19	Pass

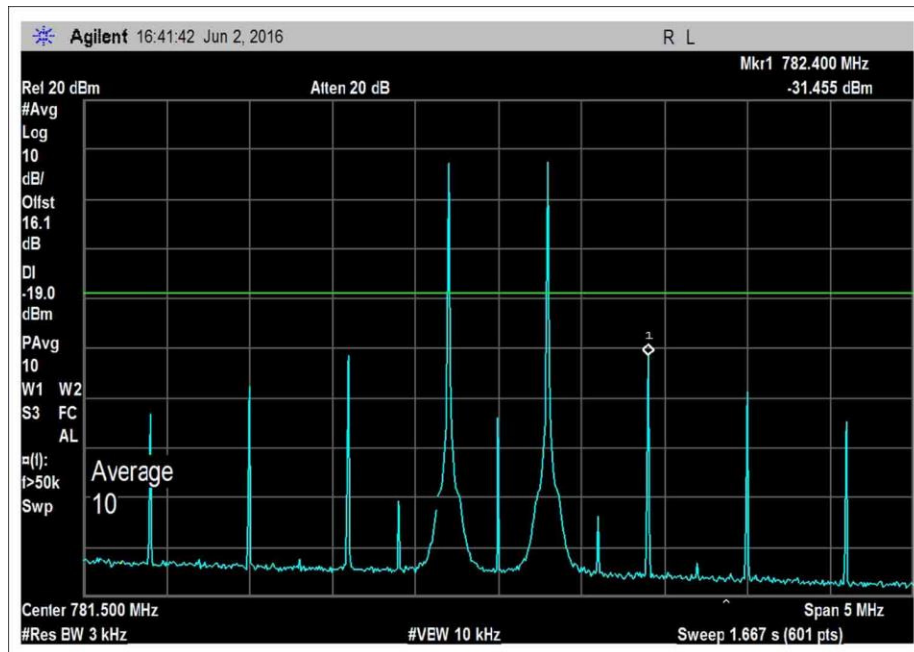
Note: The EUT maintains compliance with the intermodulation limit at input power of AGC+10dB.

## Plots

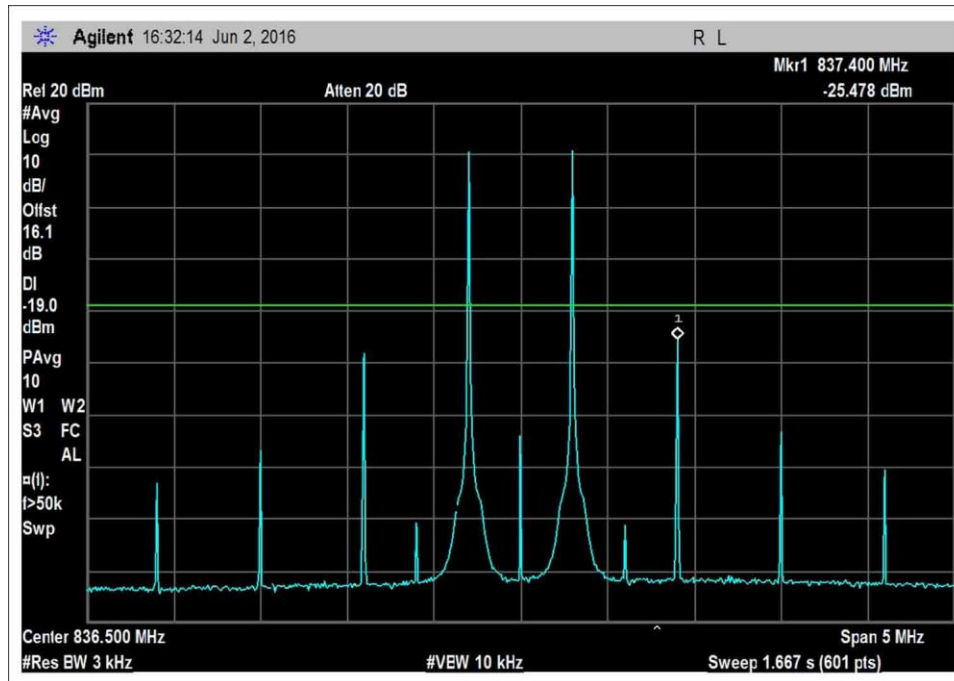
### UL



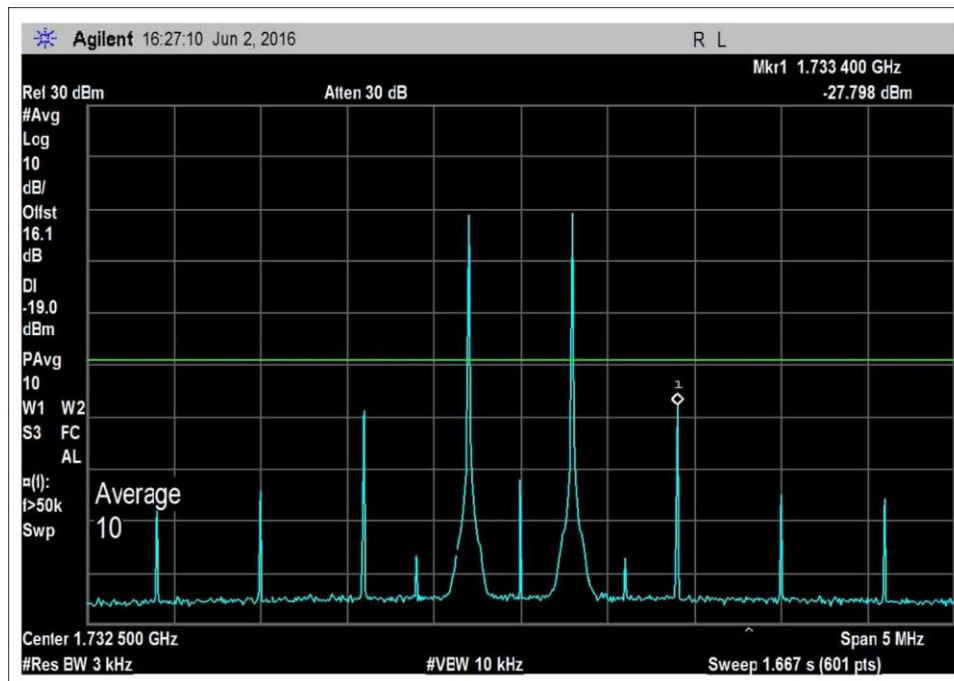
7.4\_Intermod\_UL\_698-716MHz



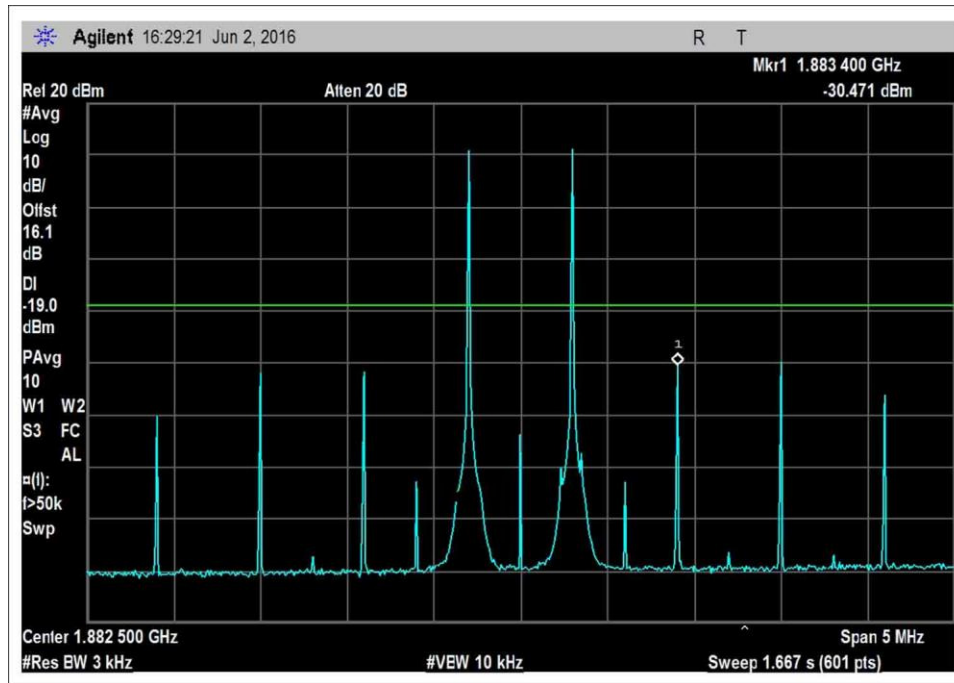
7.4\_Intermod\_UL\_776-787MHz



7.4\_Intermod\_UL\_824-849MHz

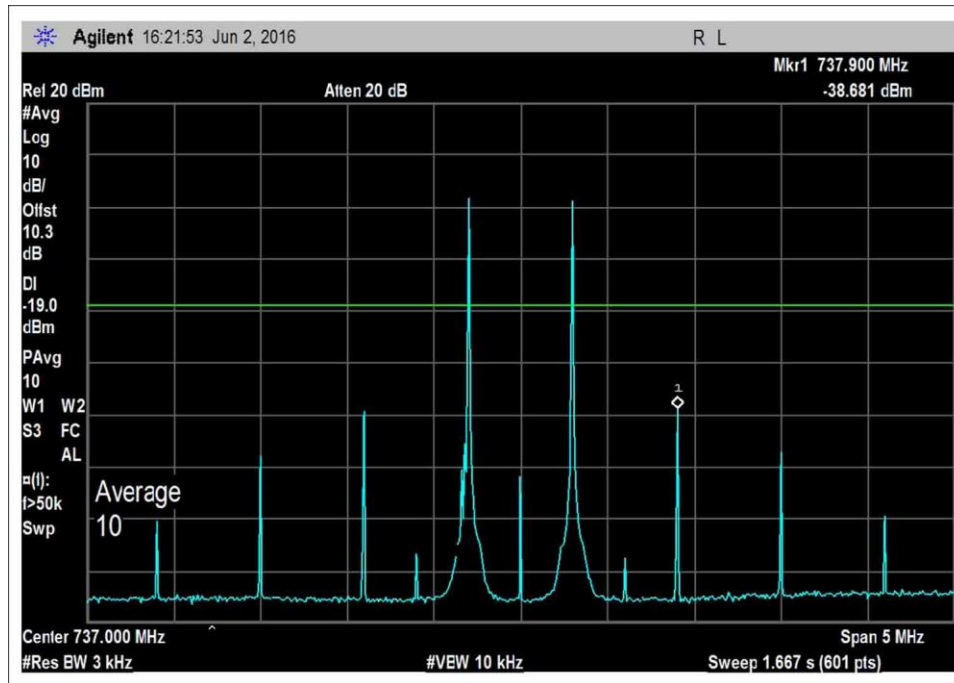


7.4\_Intermod\_UL\_1710-1755MHz

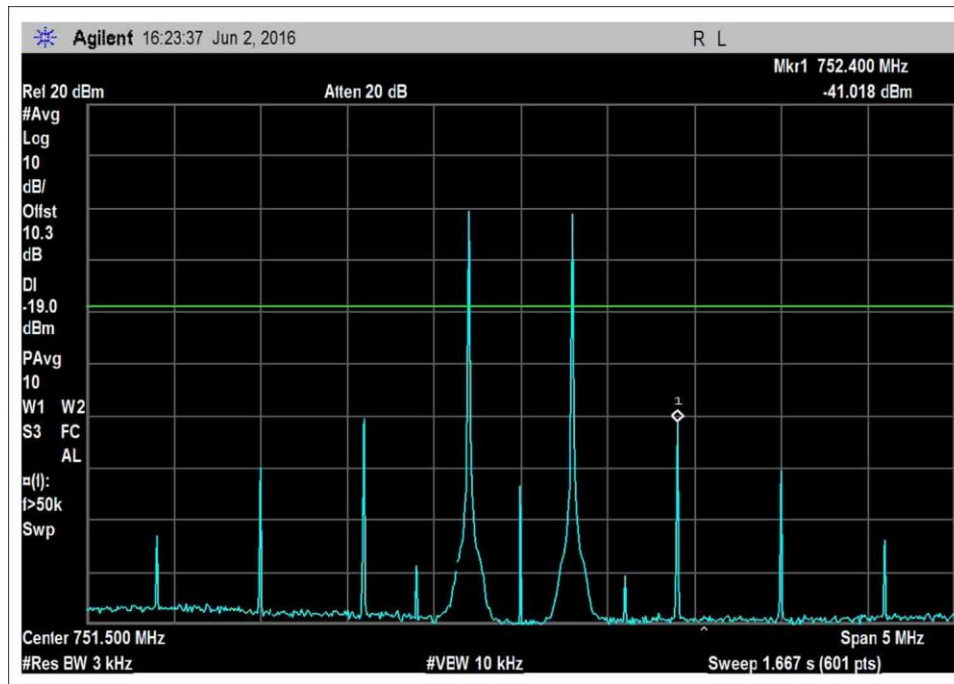


7.4\_Intermod\_UL\_1850-1915MHz

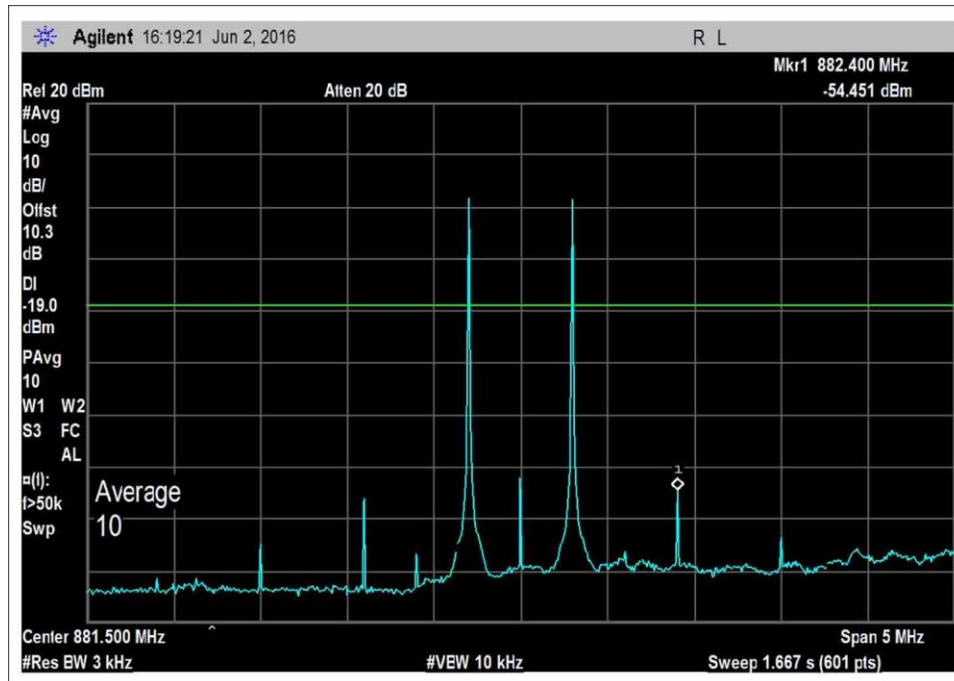
DL



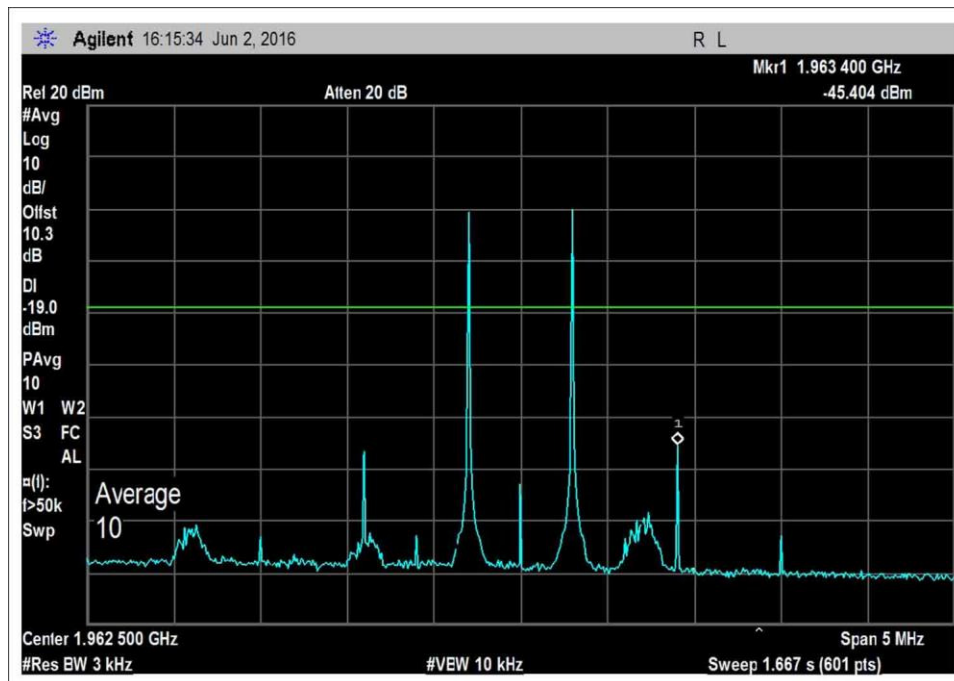
7.4\_Intermod\_DL\_728-746MHz



7.4\_Intermod\_DL\_746-757MHz

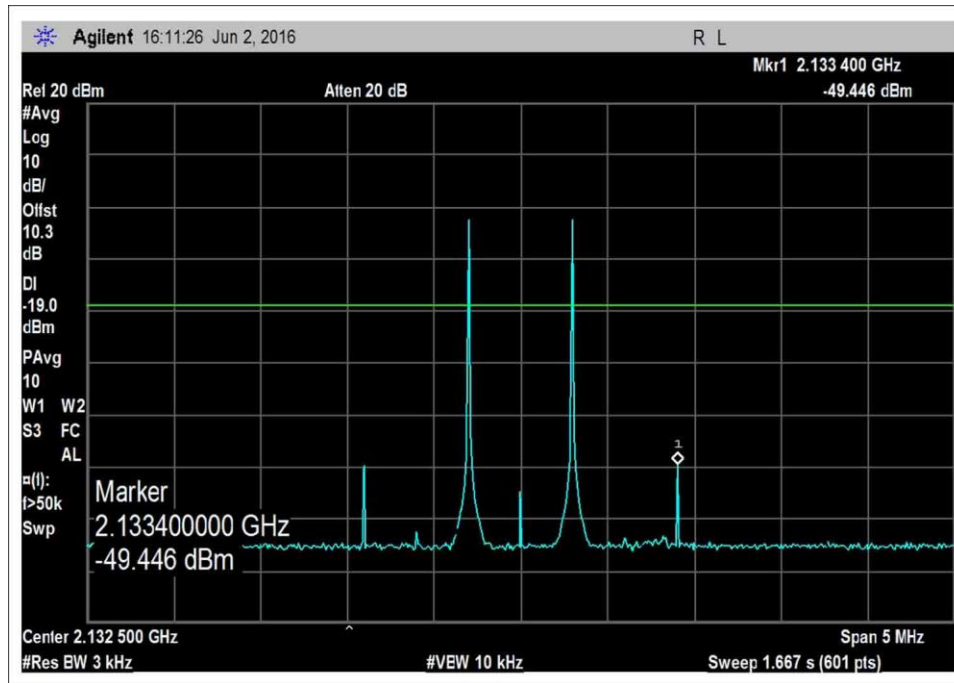


7.4\_Intermod\_DL\_869-894MHz



7.4\_Intermod\_DL\_1930-1995MHz





7.4\_Intermod\_DL\_2110-2155MHz

## 7.5 Out of Band Emissions

### Test Conditions / Setup

Test Location: CKC Laboratories, Inc. • 1120 Fulton Place • Fremont, CA 94539 • (510) 249-1170  
 Customer: Cellphone-Mate, Inc.  
 Specification: **7.5 Out-of-band Emissions**  
 Work Order #: **98648** Date: 06/03/2016  
 Test Type: **Conducted Emissions** Time: 08:29:53  
 Tested by: Daniel Bertran Sequence#: 1  
 Software: EMITest 5.03.02

**Equipment Tested:**

Device	Manufacturer	Model #	S/N
Configuration 1			

**Support Equipment:**

Device	Manufacturer	Model #	S/N
Configuration 1			

**Test Conditions / Notes:**

The equipment under test (EUT) is a Fixed Wideband Consumer Booster.  
 The EUT is placed on the test bench. Evaluation performed at the Outside (Donor) and Inside (Server) antenna port.  
 The EUT Server port is a type SMA connector and 50-ohm impedance.  
 The EUT Donor port is type F connector and 75-ohm impedance.  
 During testing there is a 75 ohm to 50 ohm matching pad connected to the EUT type F connector.  
 This matching pad has a 5.8dB correction factor.  
 Firmware: V1.0

Test environment conditions:  
 Temperature: 23°C  
 Relative Humidity: 40%  
 101.4 kPa

Part 22  
     UL: 824-849MHz  
     DL: 869-894MHz

Part 24  
     UL: 1850-1915MHz  
     DL: 1930-1995MHz

Part 27  
     UL: 1710-1755MHz, 698-716MHz, 776-787MHz  
     DL: 2110-2155MHz, 728-746MHz, 746-757MHz

Test procedure:  
 The test was performed in accordance with section 7.5 of the FCC document: 935210 D03 Wideband Consumer Signal Booster Measurement Guidance v04 Dated February 12, 2016.

Additional plots taken at 1dB before EUT shuts down and before reaching the maximum input level indicated in section 5.5 of above document.

- Maximum uplink transmitter test levels for fixed wideband consumer signal booster: +0 dBm
- The maximum downlink input level for all device types is -20 dBm

**Test Conditions / Notes continued:**  
 Lower RBW was used as applicable per rule part, in addition integration power function of the Spectrum Analyzers' Adjacent Channel Power tool was used to show compliance in instances where accuracy can be improved by integrating power measured in smaller RBW and linearly summed into standard bandwidth.

Used for testing the alternative test modulation types:

- CDMA (alternative 1.25 MHz AWGN\*)
- LTE 5 MHz (alternative 4.1 MHz AWGN\*)

\*AWGN test signal, the bandwidth was measured 99% occupied bandwidth.

**Test Equipment:**

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN03418	Signal Generator	E4438C	7/30/2015	7/30/2017
	ANP06709	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	ANP06710	Cable	32026-29094K-29094K-72TC	9/18/2014	9/18/2016
	AN03471	Spectrum Analyzer	E4440A	1/4/2016	1/4/2018
	ANP06467	Attenuator	PE7014-10	5/13/2015	5/13/2017
	ANP05411	Attenuator	54A-10	1/18/2016	1/18/2018

## Summary of Results

Pass: as indicated in plots above, all OBE are under the limit of -19dBm.

GSM							
Low				Hi			
Out of Band Emission				Out of Band Emission			
Freq (MHz)	Pre AGC	Limit (dBm)	Results	Freq (MHz)	Pre AGC	Limit (dBm)	Results
UL1710-1755	-32.0	-19.0	Pass	UL1710-1755	-31.0	-19.0	Pass
UL1850-1915	-31.4	-19.0	Pass	UL1850-1915	-32.3	-19.0	Pass
UL824-849	-29.8	-19.0	Pass	UL824-849	-30.4	-19.0	Pass
UL 698-716	-26.1	-19.0	Pass	UL 698-716	-29.3	-19.0	Pass
UL776-787	-27.9	-19.0	Pass	UL776-787	-34.3	-19.0	Pass
DL2110-2155	-37.5	-19.0	Pass	DL2110-2155	-39.5	-19.0	Pass
DL1930-1995	-37.9	-19.0	Pass	DL1930-1995	-37.5	-19.0	Pass
DL869-894	-37.8	-19.0	Pass	DL869-894	-38.0	-19.0	Pass
DL:728-746	-38.6	-19.0	Pass	DL:728-746	-37.9	-19.0	Pass
DL 746-757	-44.4	-19.0	Pass	DL 746-757	-43.2	-19.0	Pass

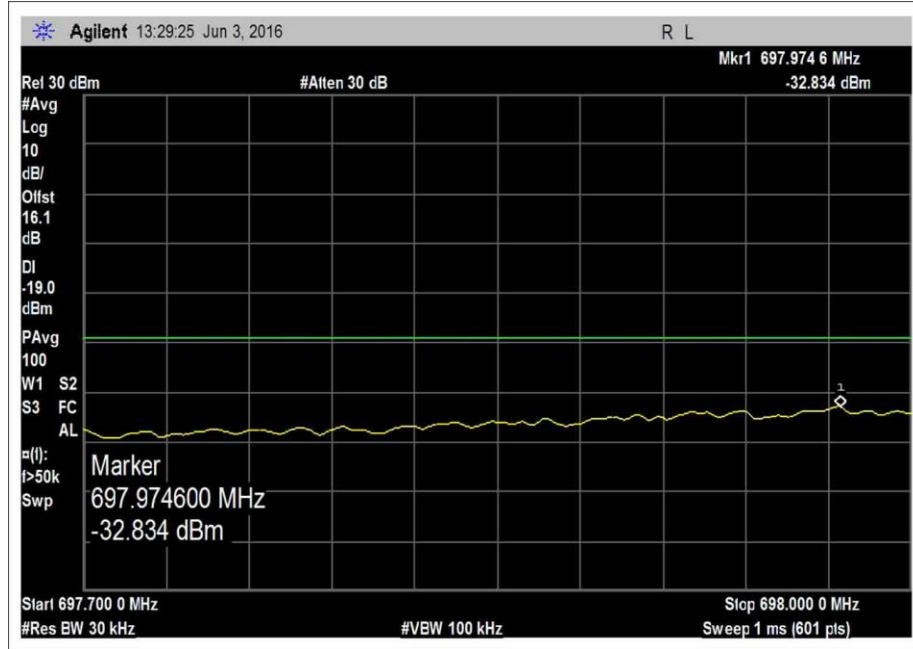
CDMA							
Low				Hi			
Out of Band Emission				Out of Band Emission			
Freq (MHz)	Pre AGC	Limit (dBm)	Results	Freq (MHz)	Pre AGC	Limit (dBm)	Results
UL1710-1755	-39.4	-19.0	Pass	UL1710-1755	-36.5	-19.0	Pass
UL1850-1915	-37.5	-19.0	Pass	UL1850-1915	-32.9	-19.0	Pass
UL824-849	-29.9	-19.0	Pass	UL824-849	-29.6	-19.0	Pass
UL 698-716	-32.8	-19.0	Pass	UL 698-716	-45.3	-19.0	Pass
UL776-787	-26.8	-19.0	Pass	UL776-787	-41.6	-19.0	Pass
DL2110-2155	-41.6	-19.0	Pass	DL2110-2155	-43.4	-19.0	Pass
DL1930-1995	-45.5	-19.0	Pass	DL1930-1995	-44.6	-19.0	Pass
DL869-894	-53.0	-19.0	Pass	DL869-894	-55.7	-19.0	Pass
DL:728-746	-49.8	-19.0	Pass	DL:728-746	-52.3	-19.0	Pass
DL 746-757	-51.7	-19.0	Pass	DL 746-757	-56.3	-19.0	Pass

LTE							
Low				Hi			
Out of Band Emission				Out of Band Emission			
Freq (MHz)	Pre AGC	Limit (dBm)	Results	Freq (MHz)	Pre AGC	Limit (dBm)	Results
UL1710-1755	-29.3	-19.0	Pass	UL1710-1755	-23.8	-19.0	Pass
UL1850-1915	-30.6	-19.0	Pass	UL1850-1915	-33.9	-19.0	Pass
UL824-849	-25.7	-19.0	Pass	UL824-849	-26.4	-19.0	Pass
UL 698-716	-21.7	-19.0	Pass	UL 698-716	-29.7	-19.0	Pass
UL776-787	-24.0	-19.0	Pass	UL776-787	-28.8	-19.0	Pass
DL2110-2155	-42.0	-19.0	Pass	DL2110-2155	-42.2	-19.0	Pass
DL1930-1995	-41.6	-19.0	Pass	DL1930-1995	-39.4	-19.0	Pass
DL869-894	-35.1	-19.0	Pass	DL869-894	-36.1	-19.0	Pass
DL:728-746	-35.5	-19.0	Pass	DL:728-746	-33.7	-19.0	Pass
DL 746-757	-33.3	-19.0	Pass	DL 746-757	-43.6	-19.0	Pass

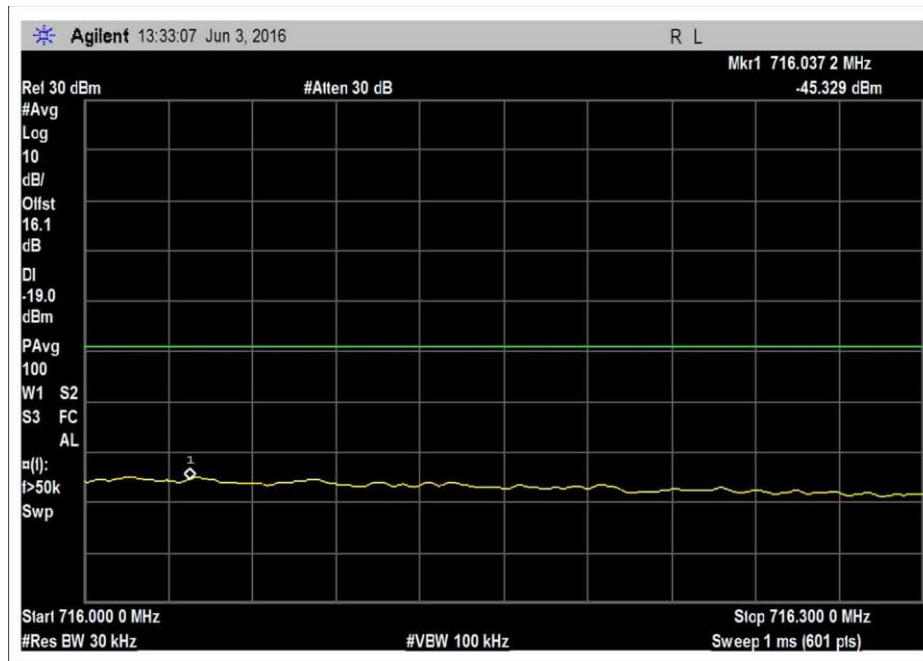
Note: The EUT also maintains compliance with the out-of-band emissions limit at input power indicated in section 5.5.

## Plots

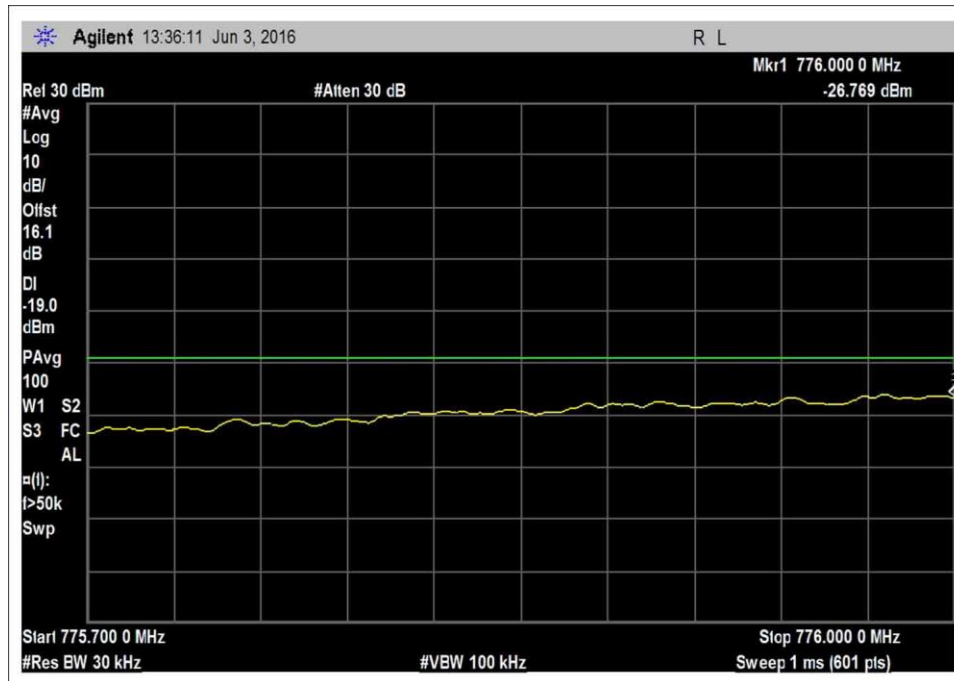
### CDMA, UL



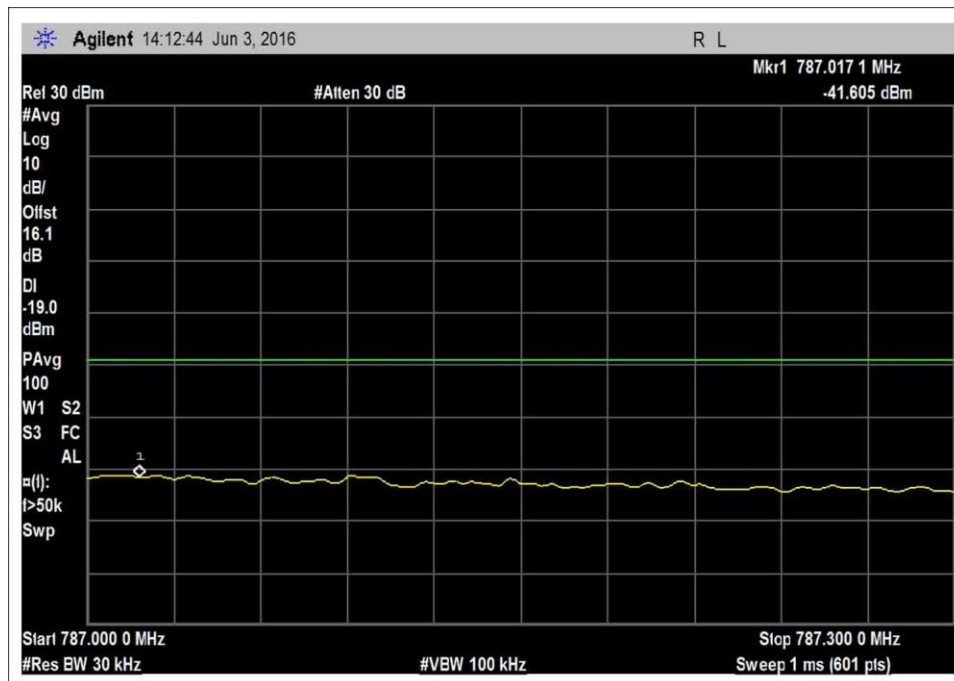
7.5\_OBE\_UL\_698-716MHz\_L\_PreAGC



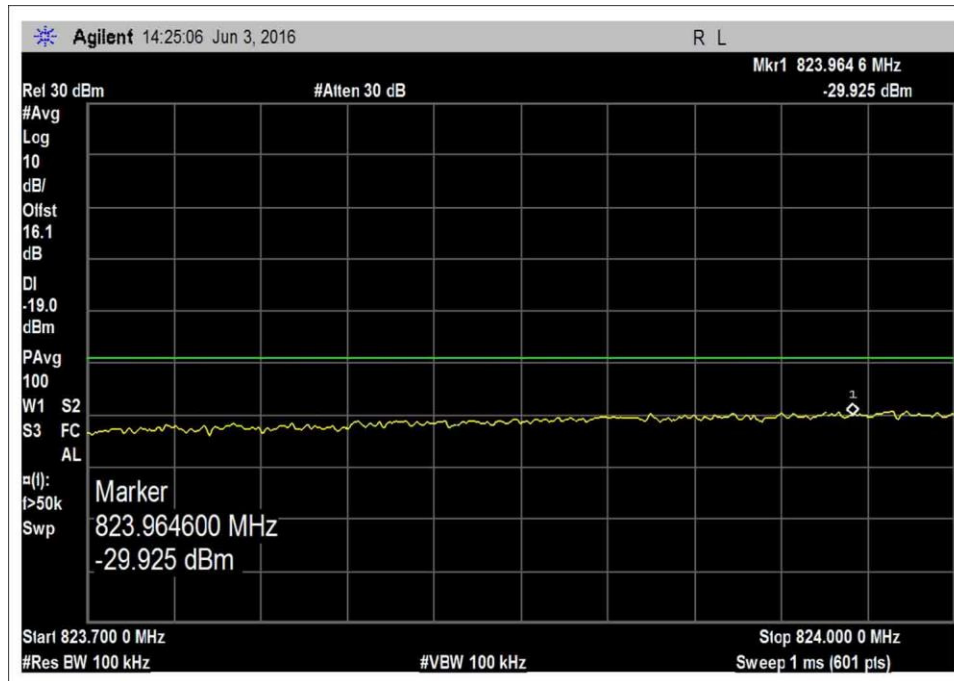
7.5\_OBE\_UL\_698-716MHz\_H\_PreAGC



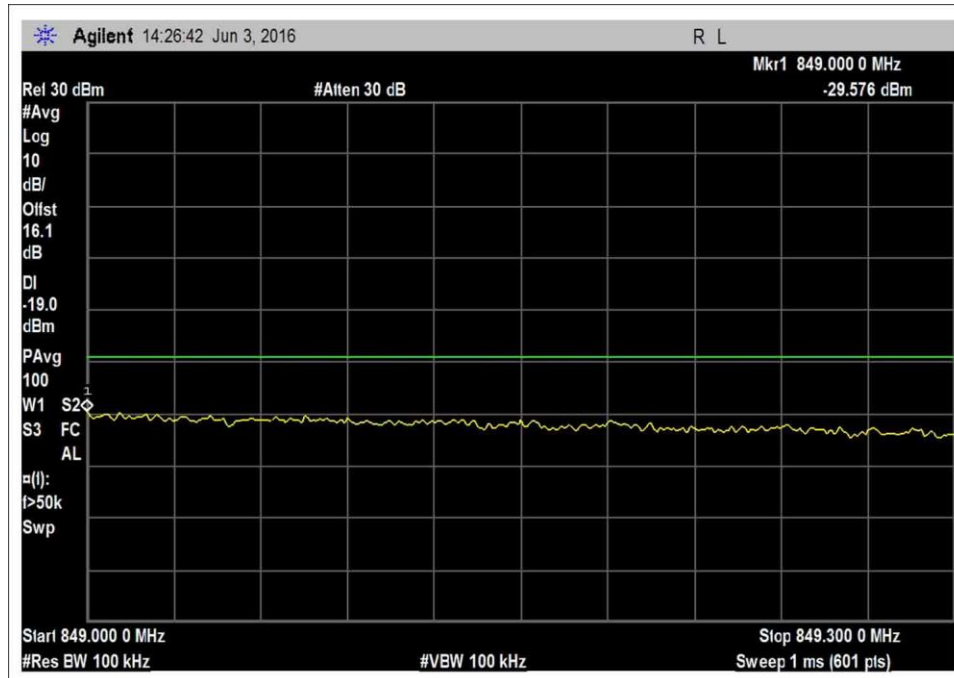
7.5\_OBE\_UL\_776-787MHz\_L\_PreAGC



7.5\_OBE\_UL\_776-787MHz\_H\_PreAGC

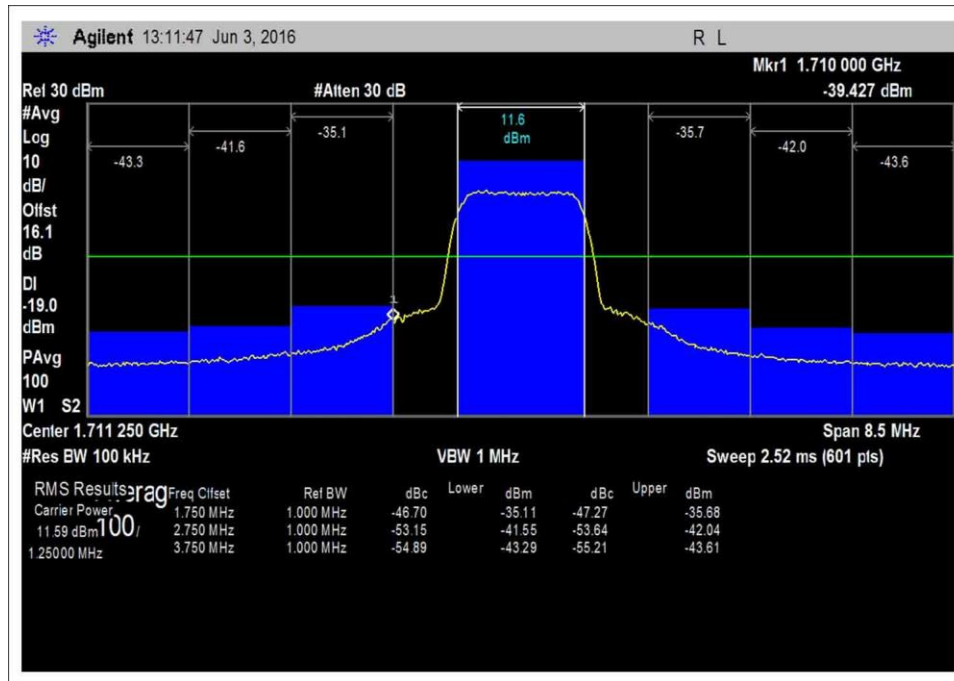


7.5\_OBE\_UL\_824-849MHz\_L\_PreAGC

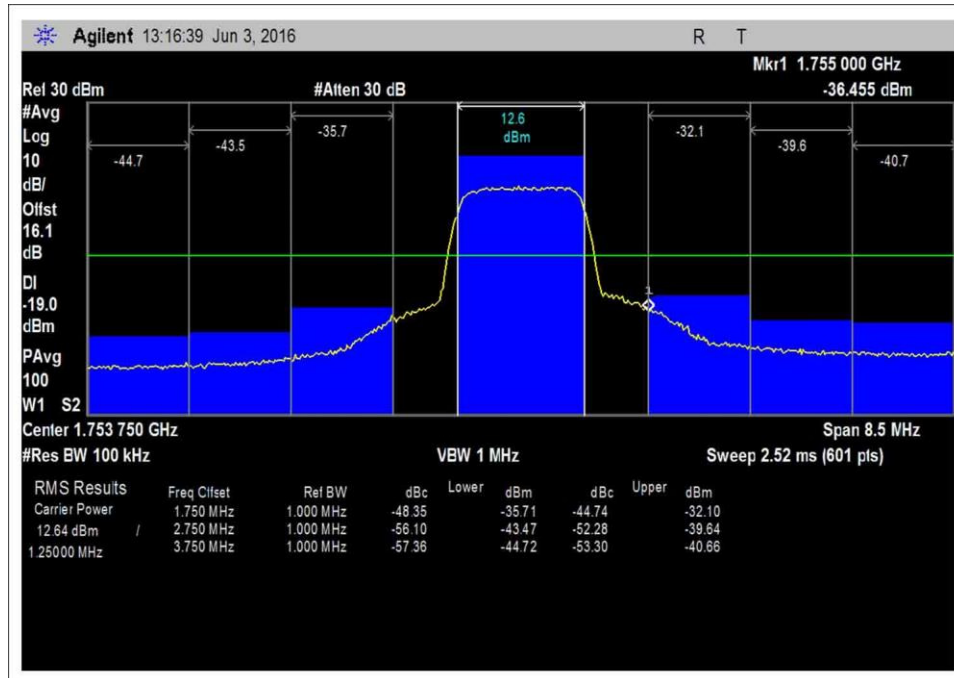


7.5\_OBE\_UL\_824-849MHz\_H\_PreAGC

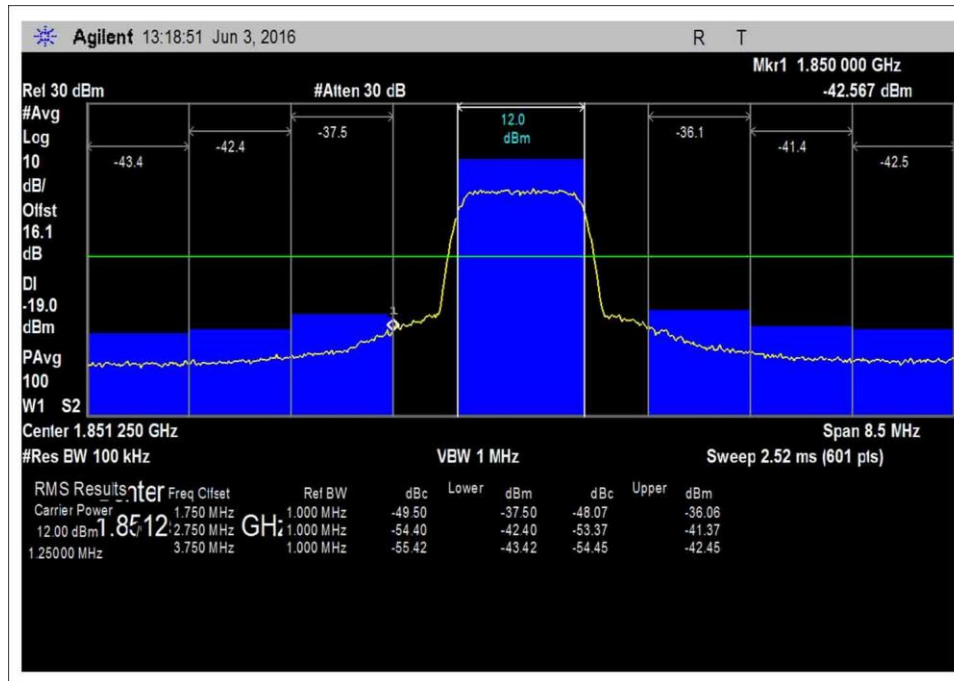




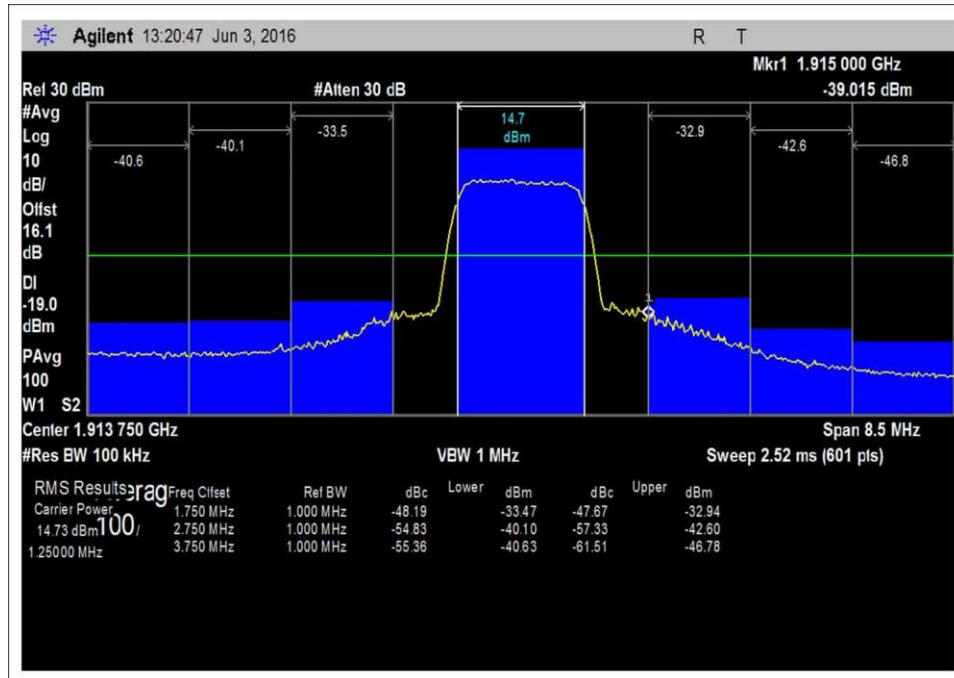
7.5\_OBE\_UL\_1710-1755MHz\_L\_PreAGC



7.5\_OBE\_UL\_1710-1755MHz\_H\_PreAGC

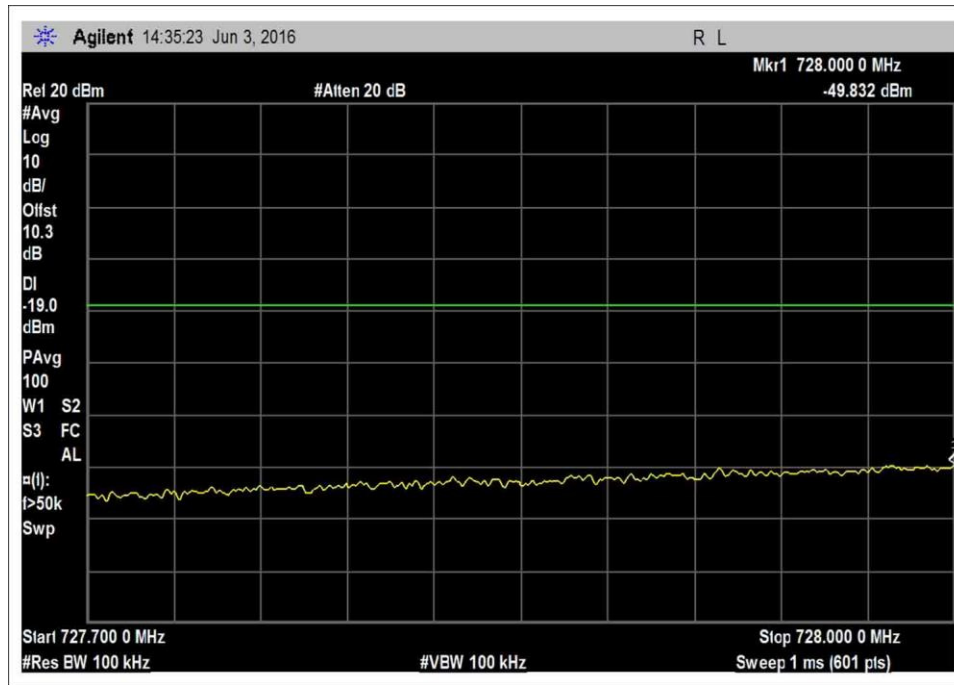


7.5\_OBE\_UL\_1850-1915MHz\_L\_PreAGC

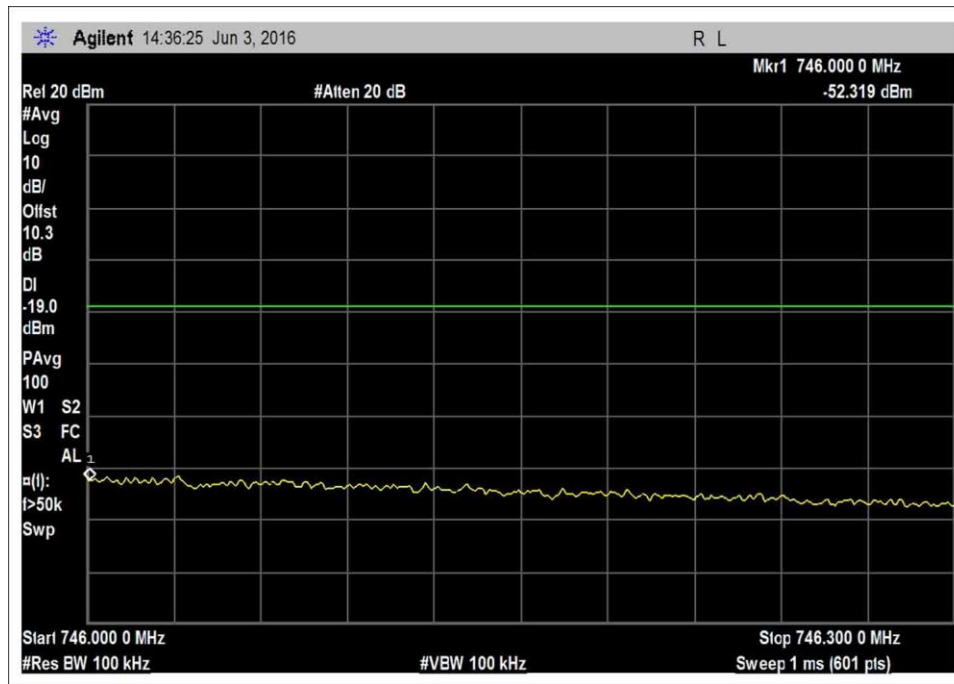


7.5\_OBE\_UL\_1850-1915MHz\_H\_PreAGC

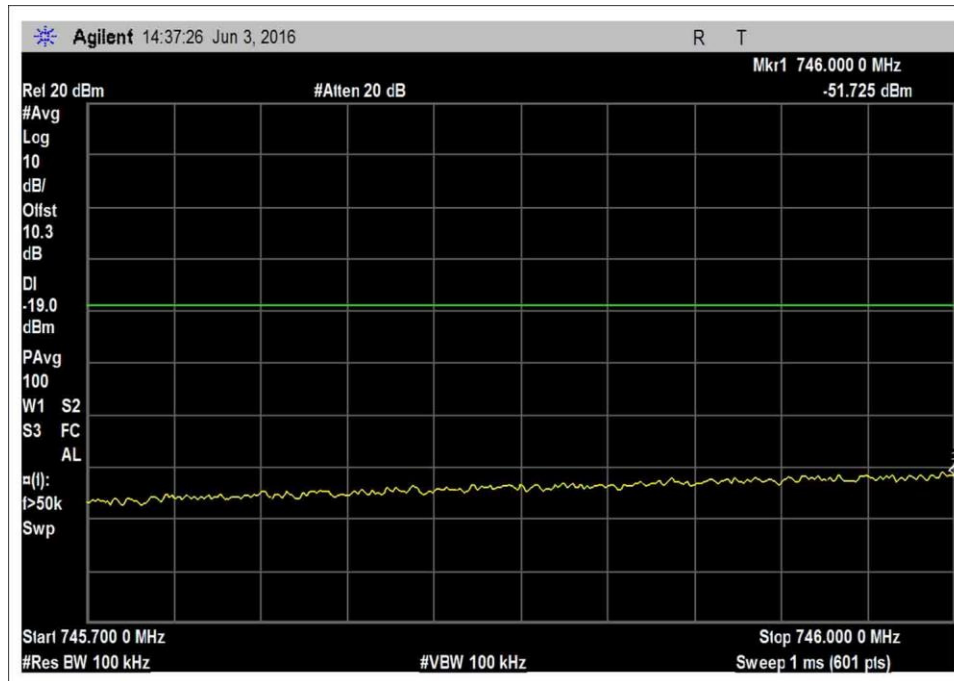
CDMA, DL



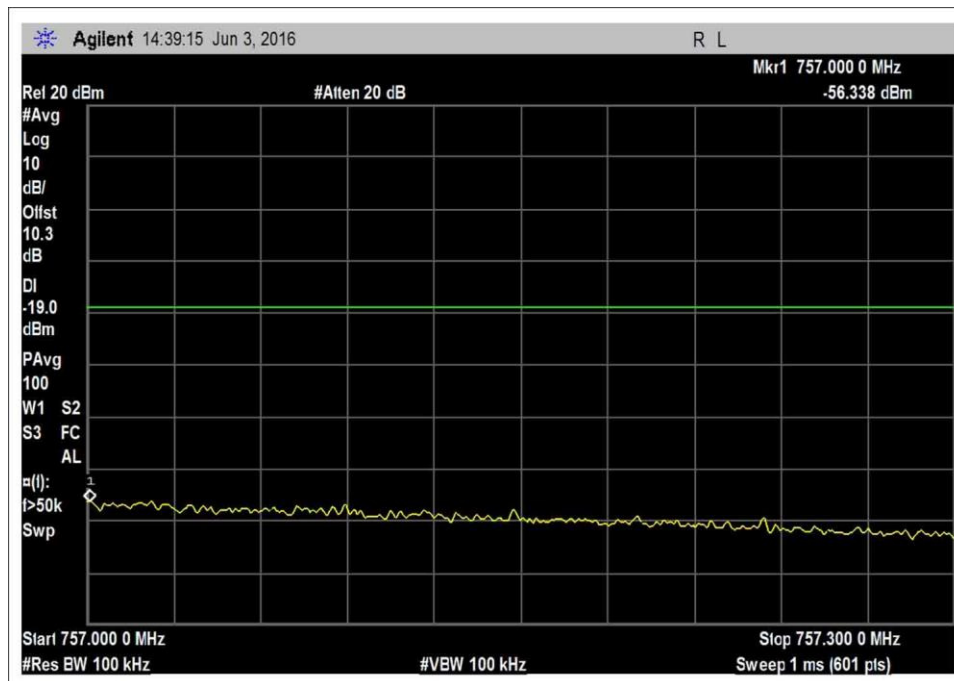
7.5\_OBE\_DL\_728-746MHz\_L\_PreAGC



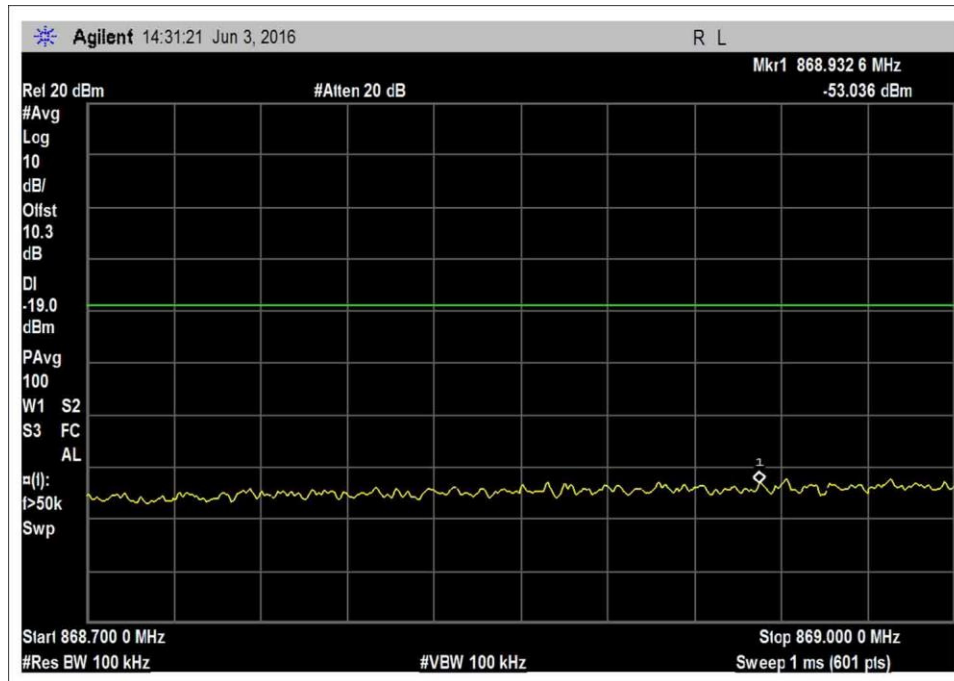
7.5\_OBE\_DL\_728-746MHz\_H\_PreAGC



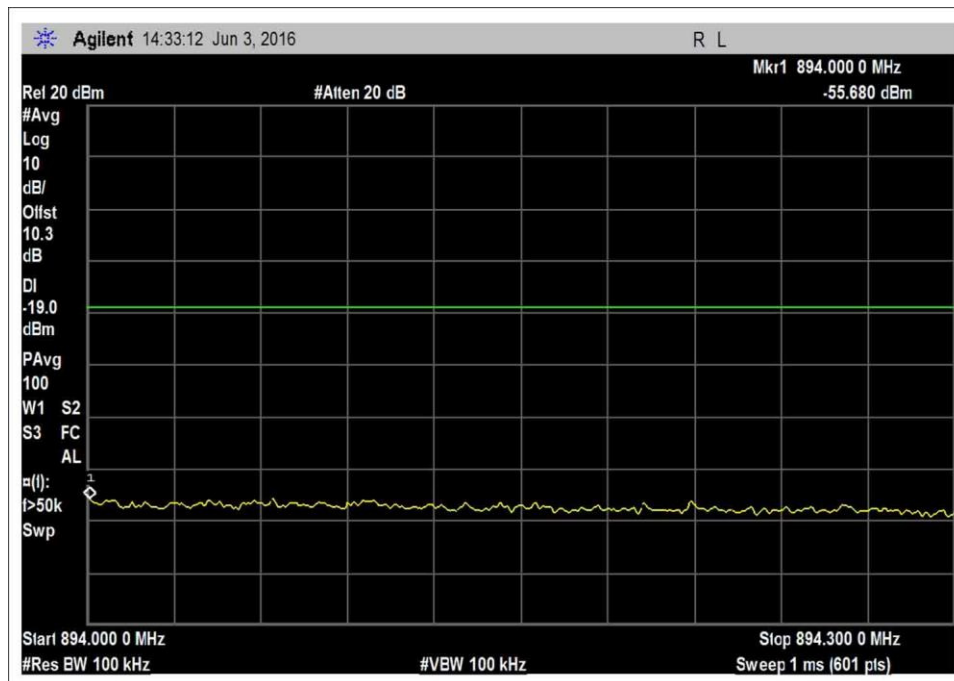
7.5\_OBE\_DL\_746-757MHz\_L\_PreAGC



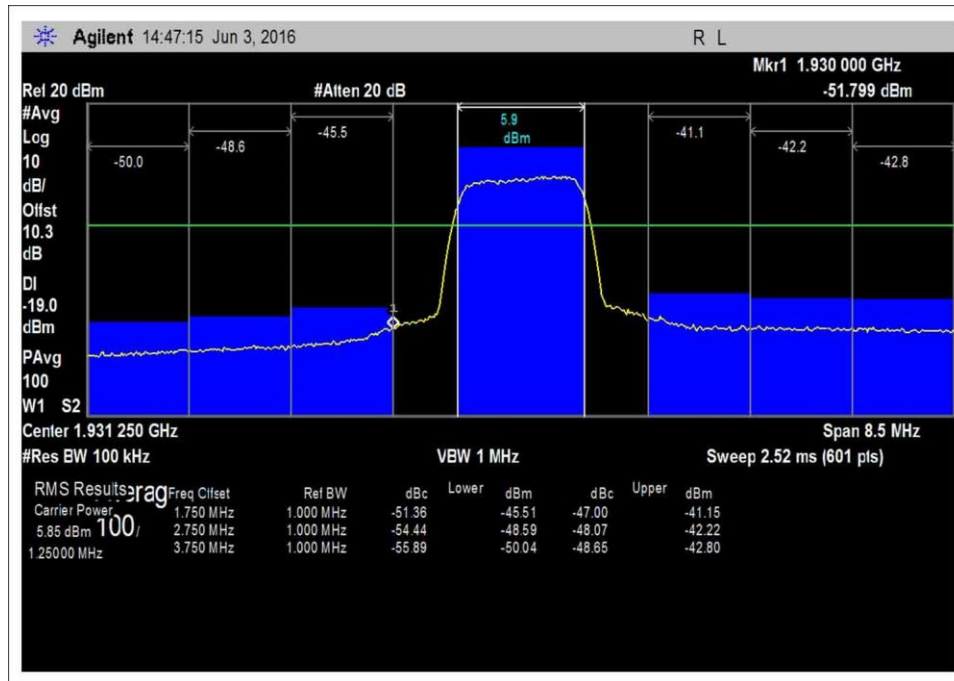
7.5\_OBE\_DL\_746-757MHz\_H\_PreAGC



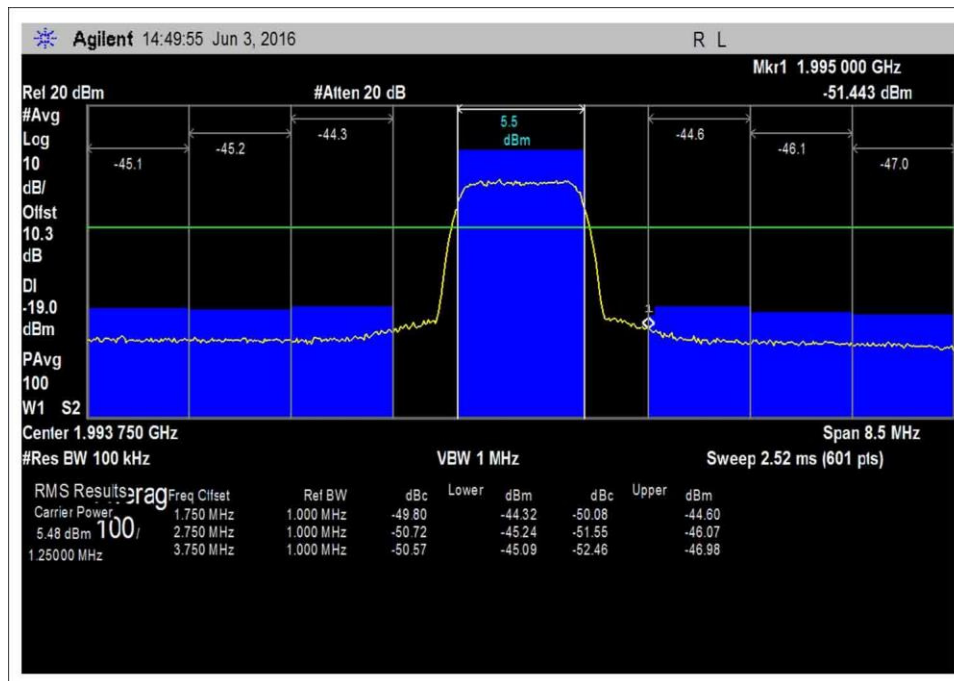
7.5\_OBE\_DL\_869-894MHz\_L\_PreAGC



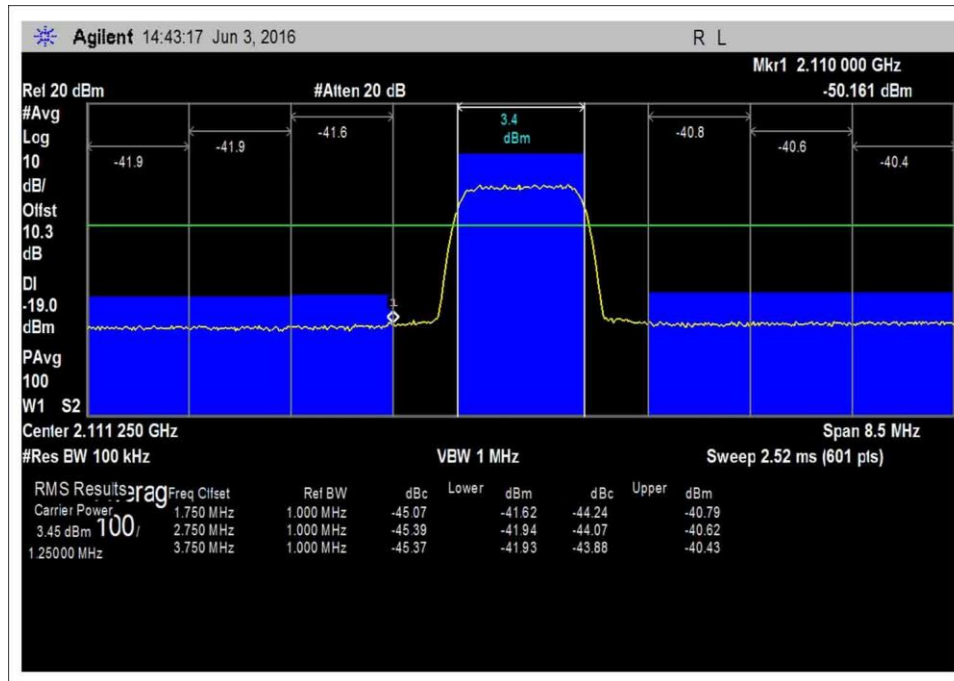
7.5\_OBE\_DL\_869-894MHz\_H\_PreAGC



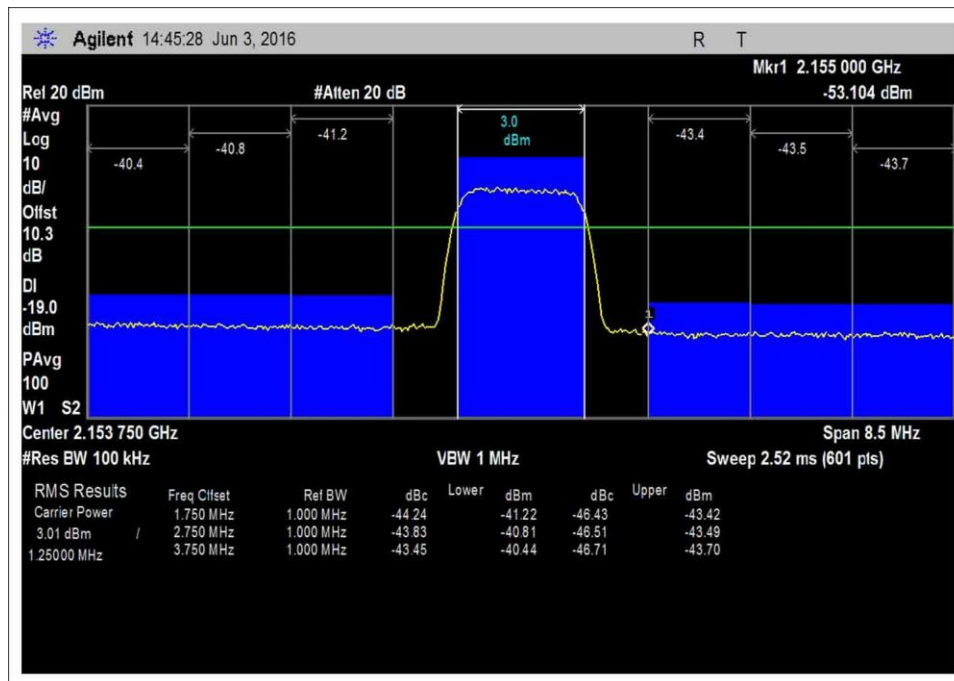
7.5\_OBE\_DL\_1930-1995MHz\_L\_PreAGC



7.5\_OBE\_DL\_1930-1995MHz\_H\_PreAGC

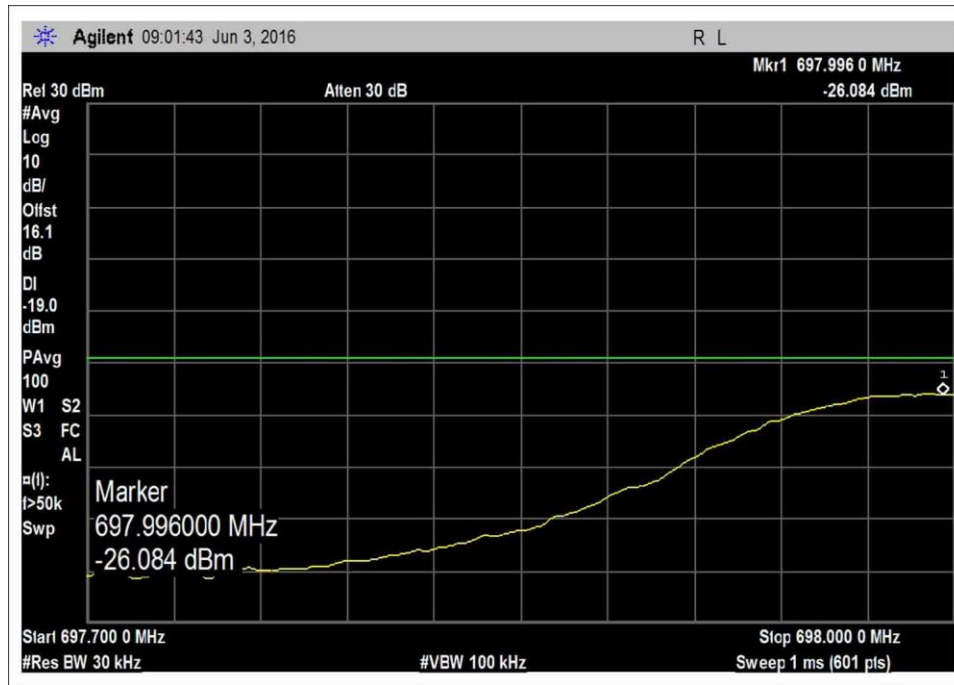


7.5\_OBE\_DL\_2110-2155MHz\_L\_PreAGC

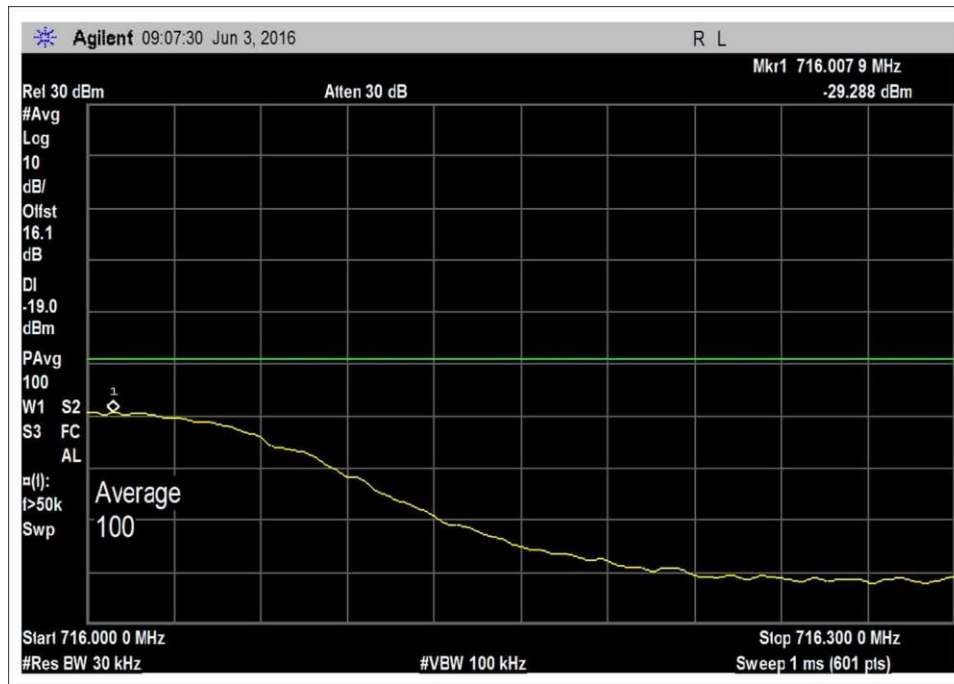


7.5\_OBE\_DL\_2110-2155MHz\_H\_PreAGC

GSM, UL

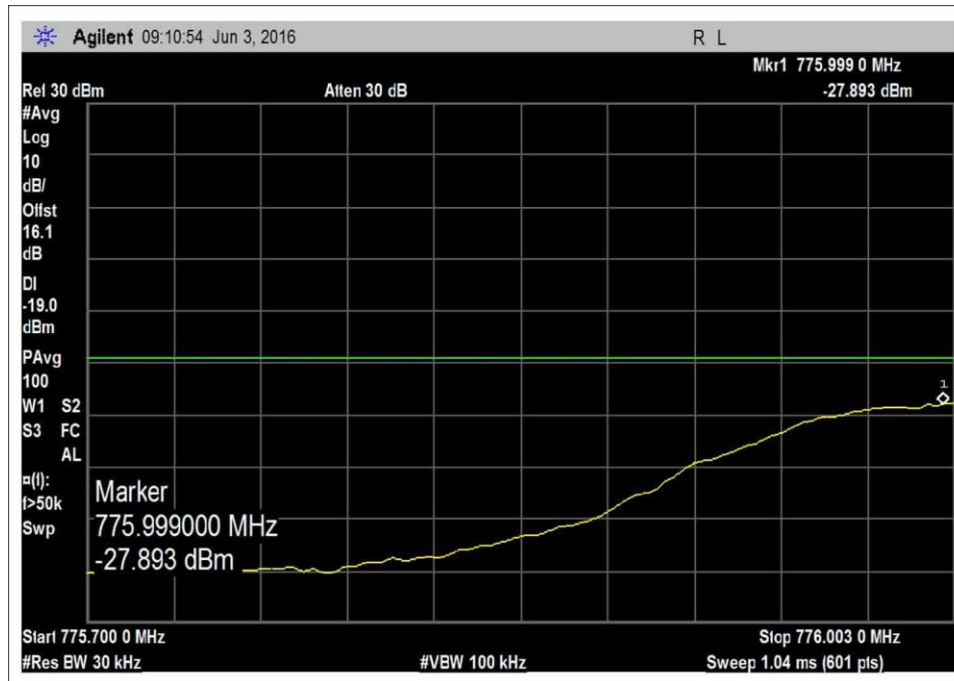


7.5\_OBE\_UL\_698-716MHz\_L\_PreAGC

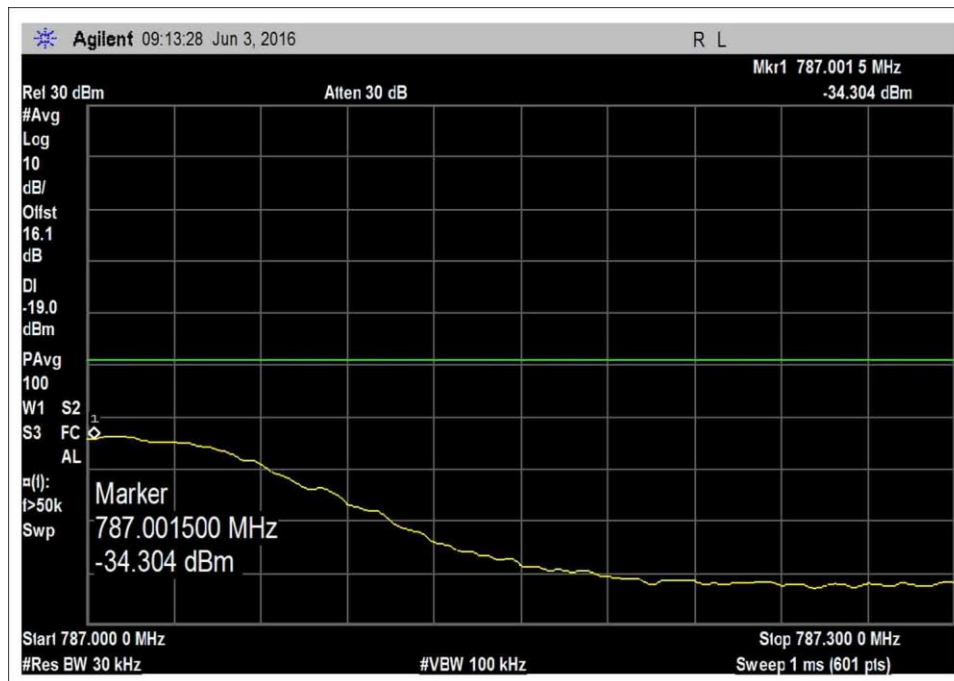


7.5\_OBE\_UL\_698-716MHz\_H\_PreAGC

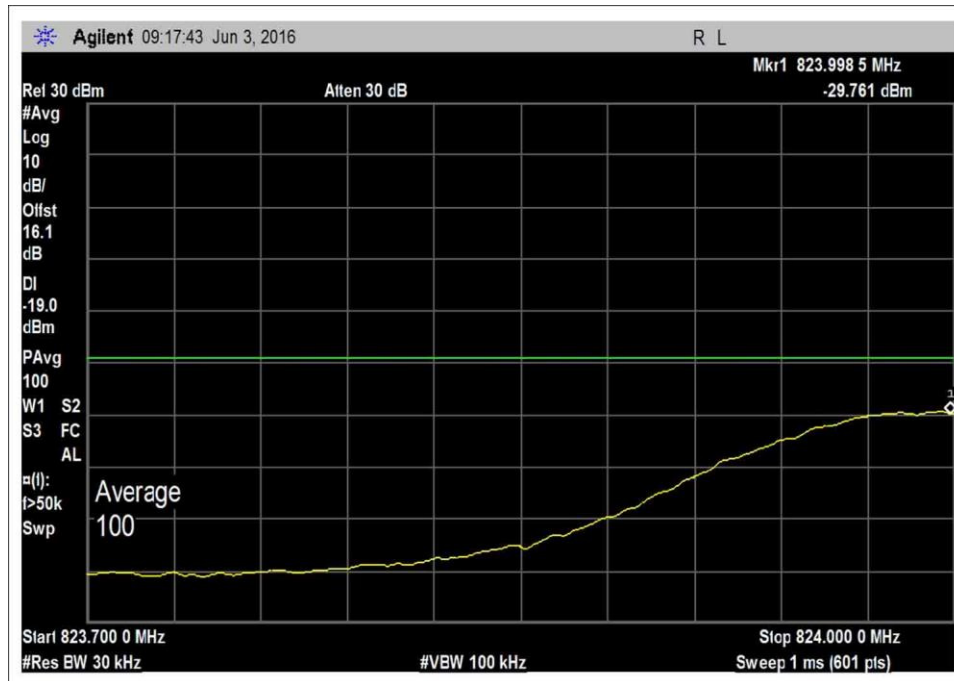




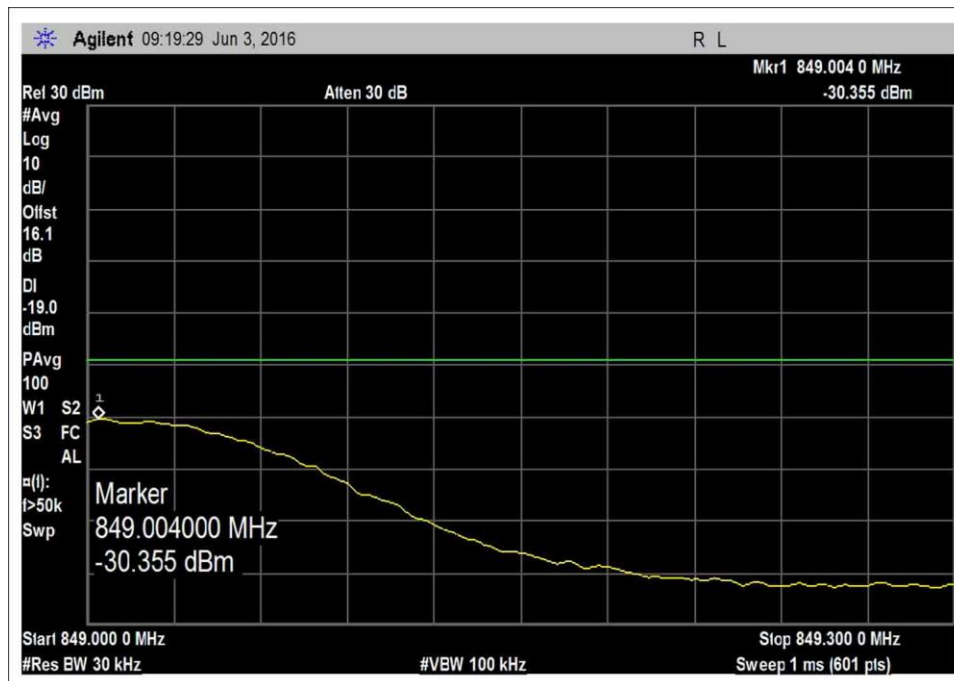
7.5\_OBE\_UL\_776-787MHz\_L\_PreAGC



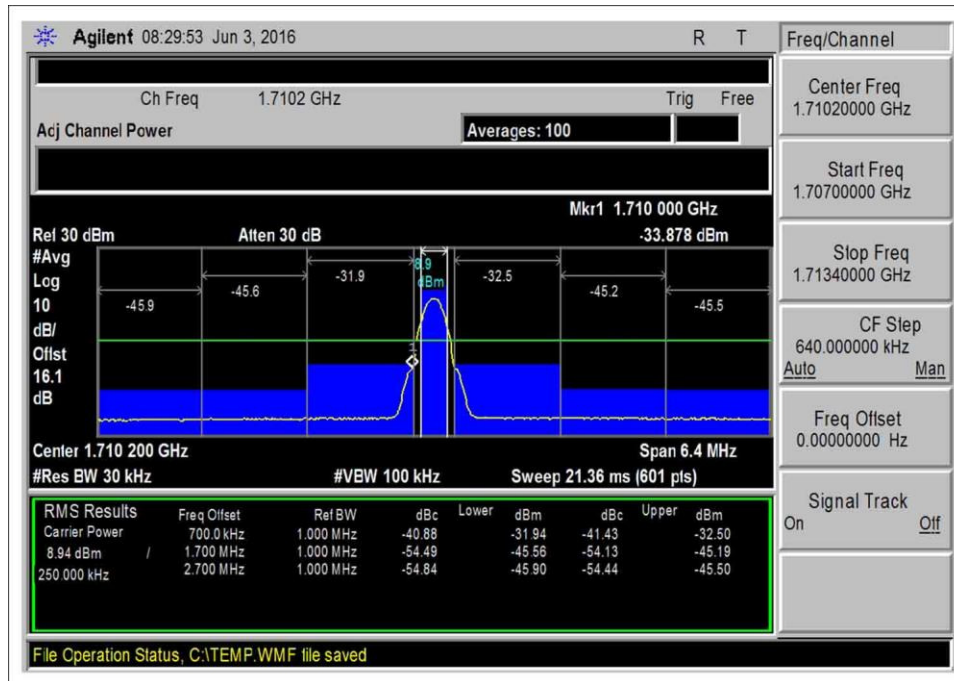
7.5\_OBE\_UL\_776-787MHz\_H\_PreAGC



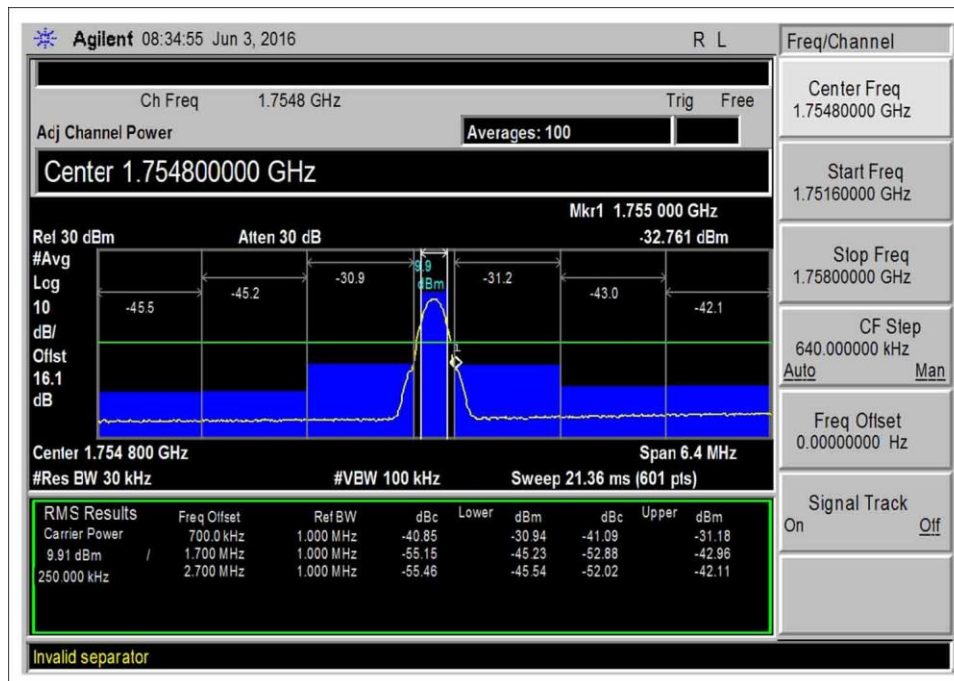
7.5\_OBE\_UL\_824-849MHz\_L\_PreAGC



7.5\_OBE\_UL\_824-849MHz\_H\_PreAGC



7.5\_OBE\_UL\_1710-1755MHz\_L\_PreAGC



7.5\_OBE\_UL\_1710-1755MHz\_H\_PreAGC