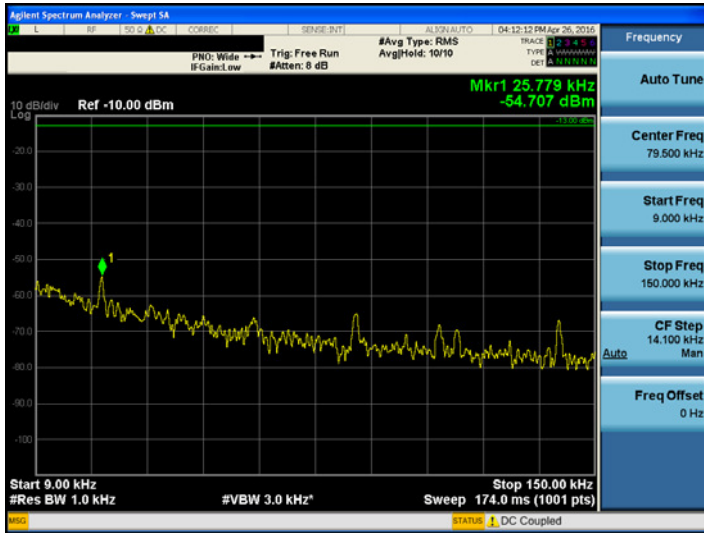
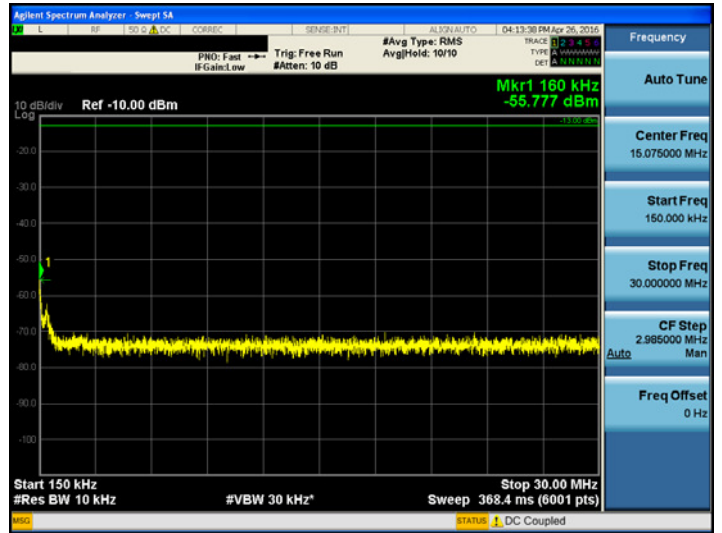


[SMR800&Cellular 850 Uplink High]

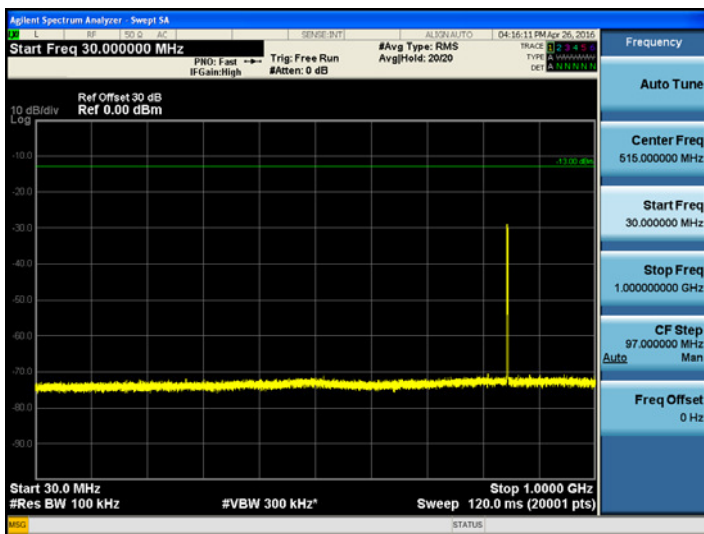
9kHz ~ 150kHz



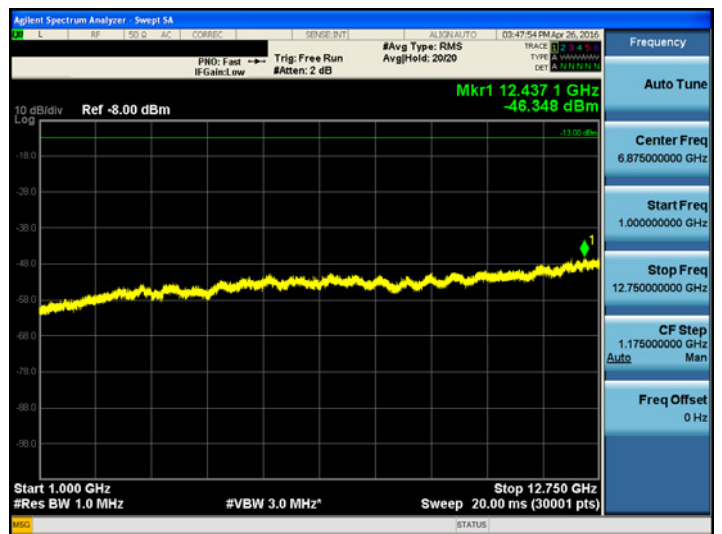
150kHz ~ 30MHz



30MHz ~ 1GHz



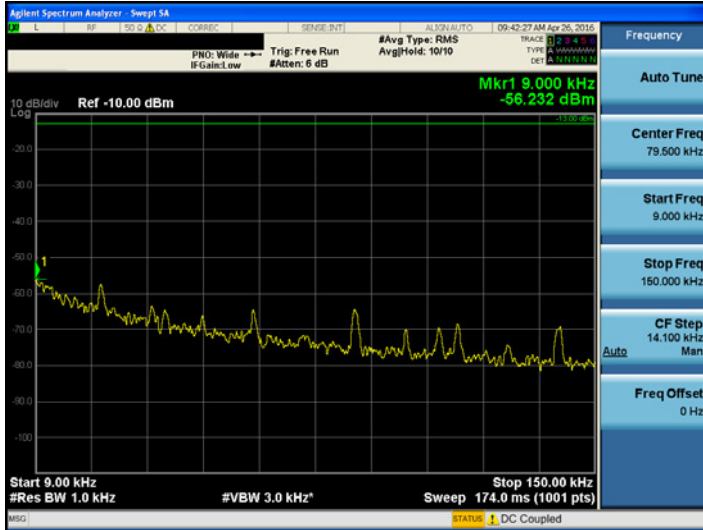
1GHz ~ 12.75GHz



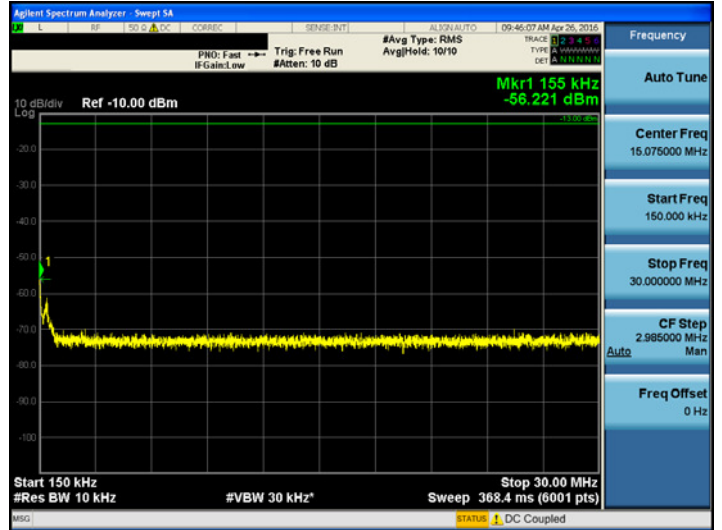
**Uplink
PCS 1900**

[PCS 1900 Uplink Low]

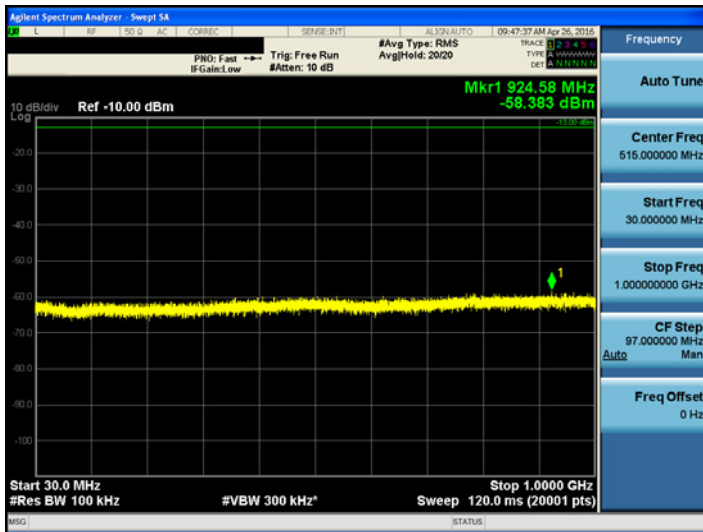
9kHz ~ 150kHz



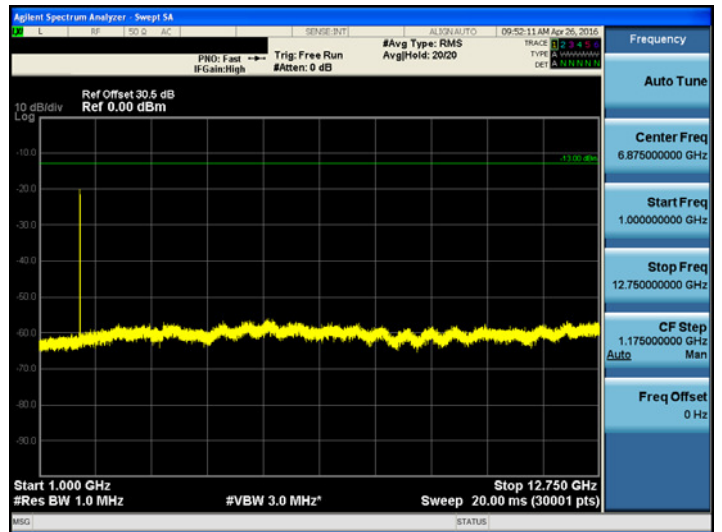
150kHz ~ 30MHz



30MHz ~ 1GHz



1GHz ~ 12.75GHz

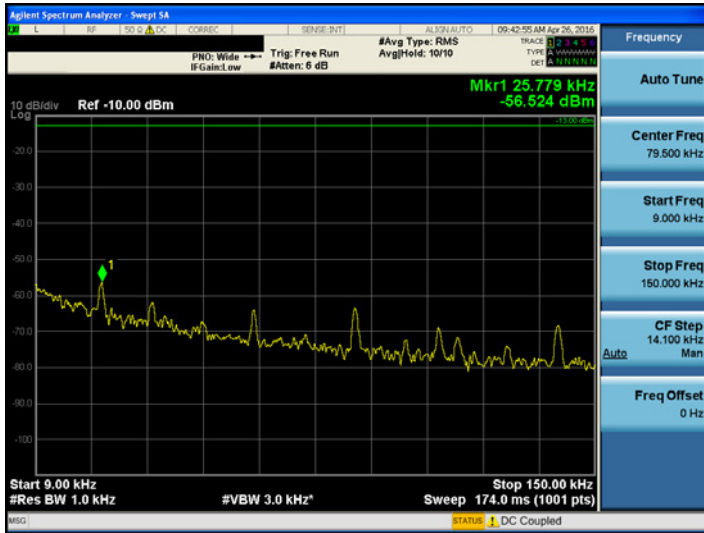


12.75GHz ~ 26.5GHz

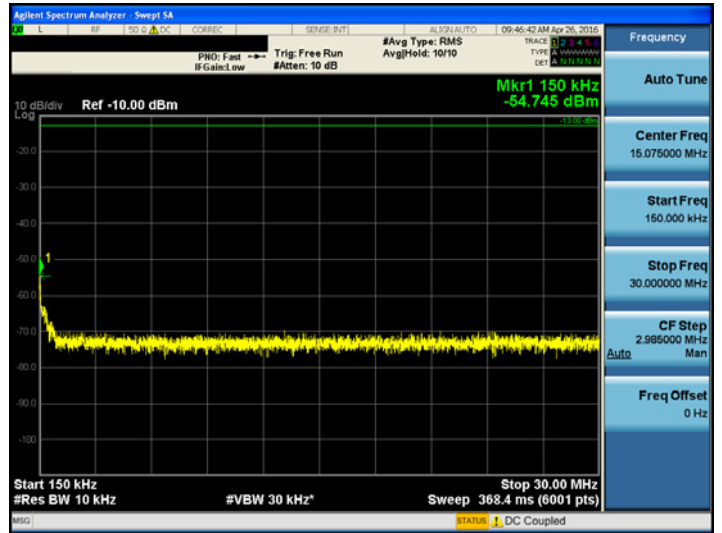


[PCS 1900 Uplink Middle]

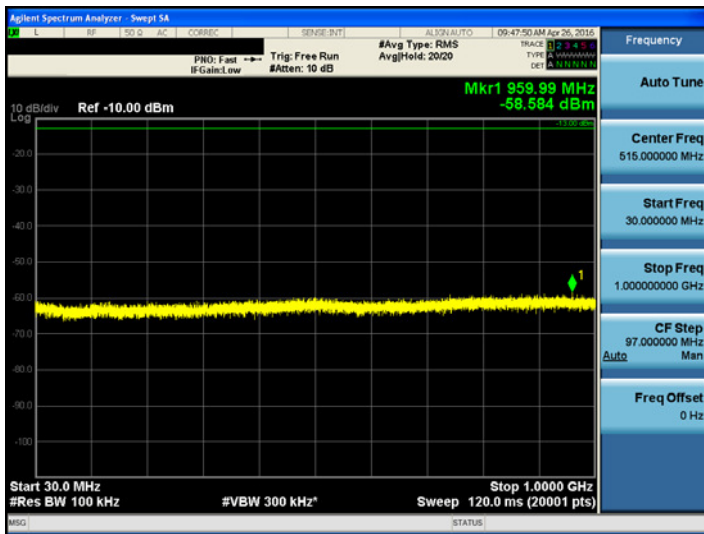
9kHz ~ 150kHz



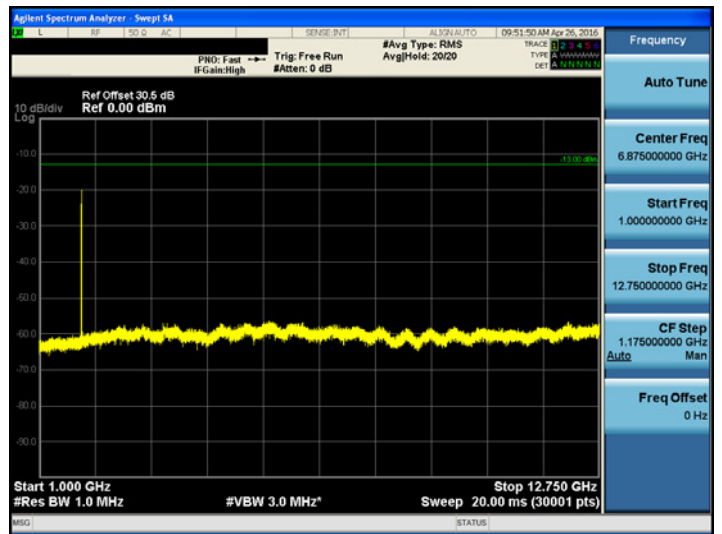
150kHz ~ 30MHz



30MHz ~ 1GHz



1GHz ~ 12.75GHz

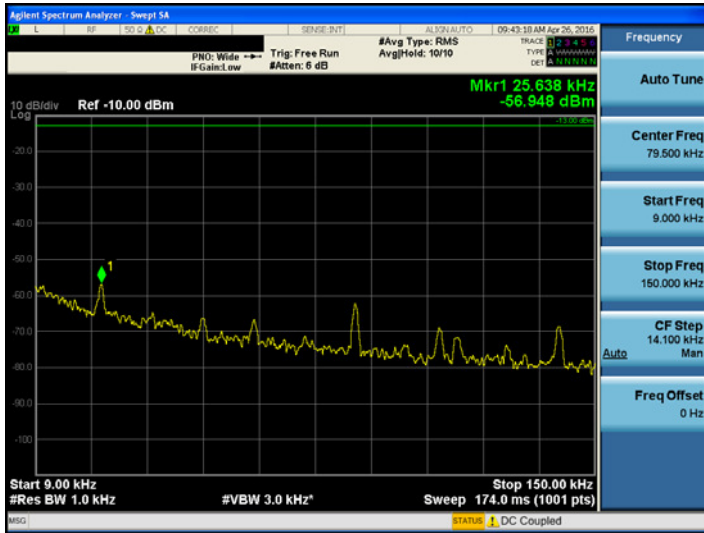


12.75GHz ~ 26.5GHz

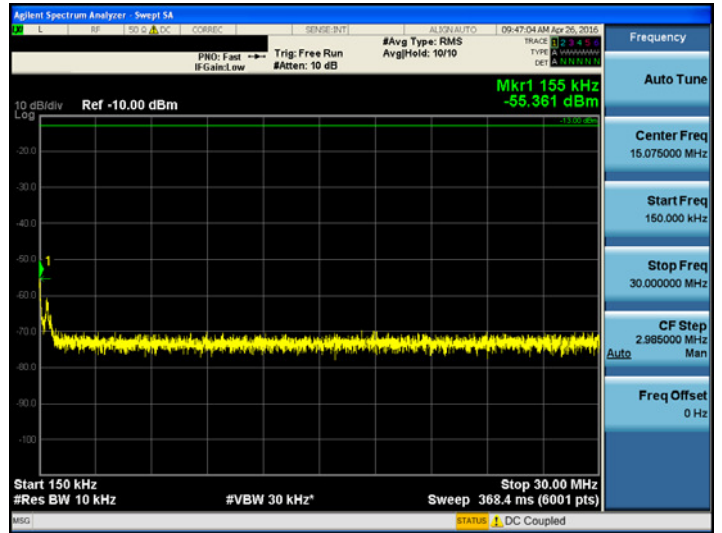


[PCS 1900 Uplink High]

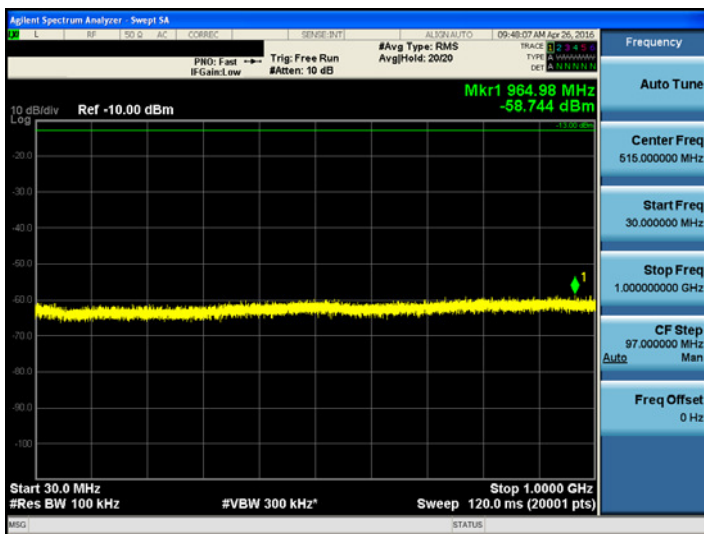
9kHz ~ 150kHz



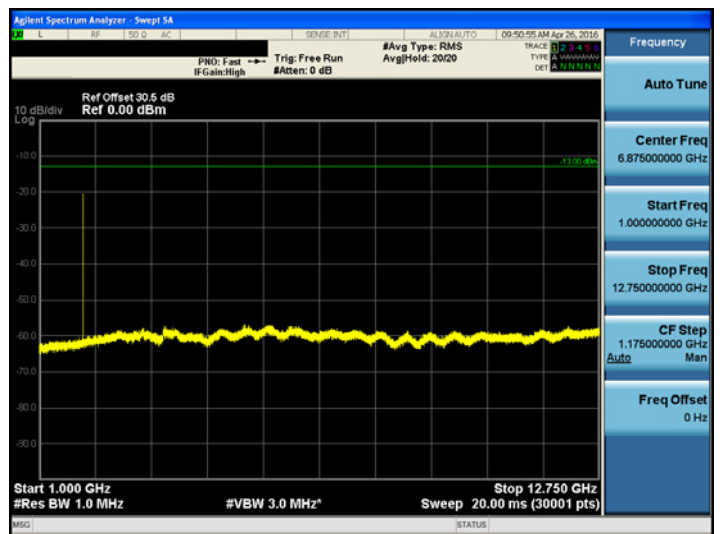
150kHz ~ 30MHz



30MHz ~ 1GHz



1GHz ~ 12.75GHz



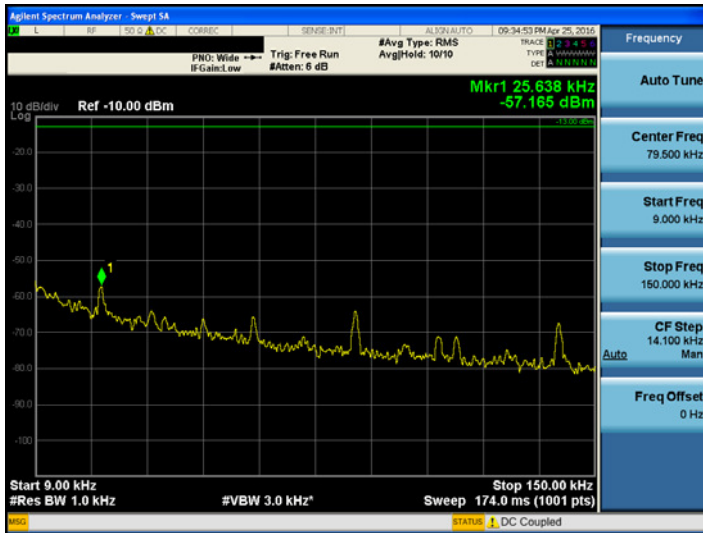
12.75GHz ~ 26.5GHz



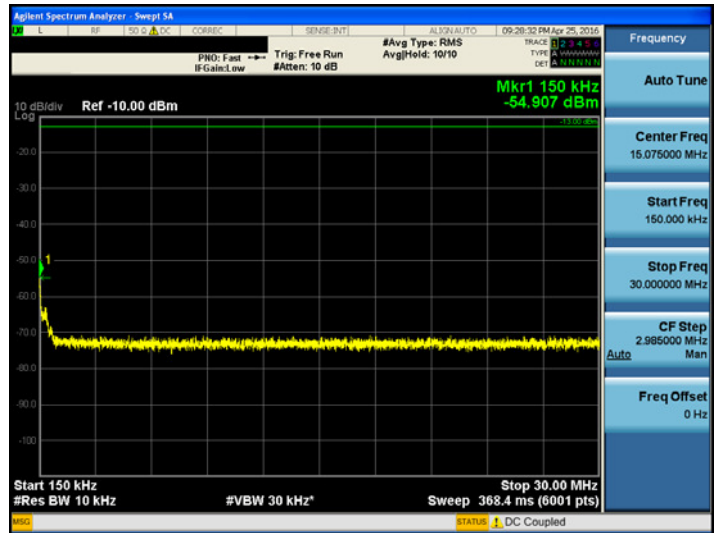
Uplink
AWS2100

[AWS2100 Uplink Low]

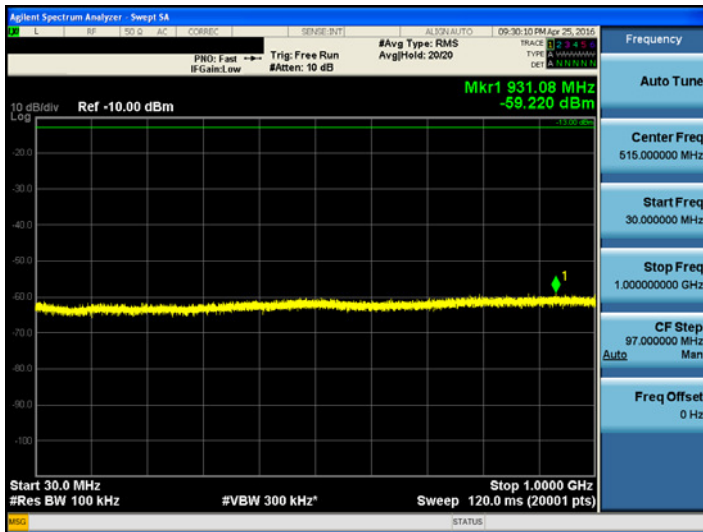
9kHz ~ 150kHz



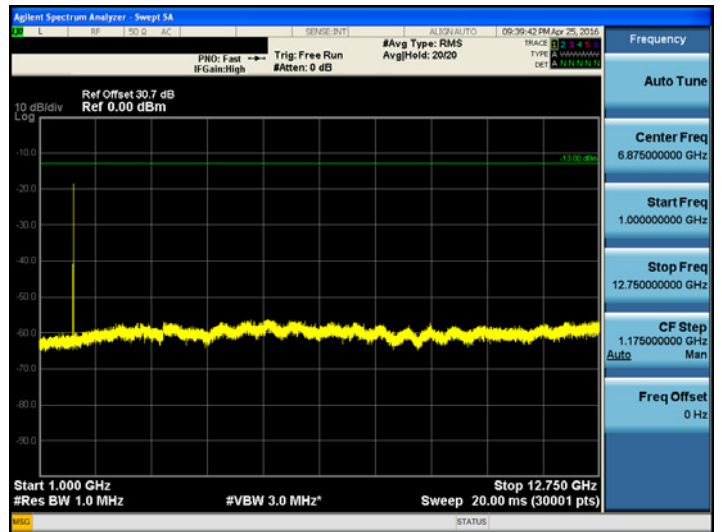
150kHz ~ 30MHz



30MHz ~ 1GHz



1GHz ~ 12.75GHz

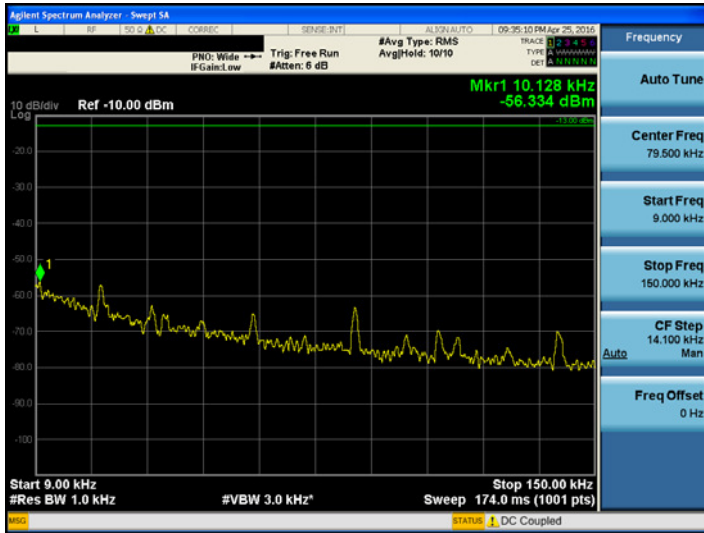


12.75GHz ~ 26.5GHz

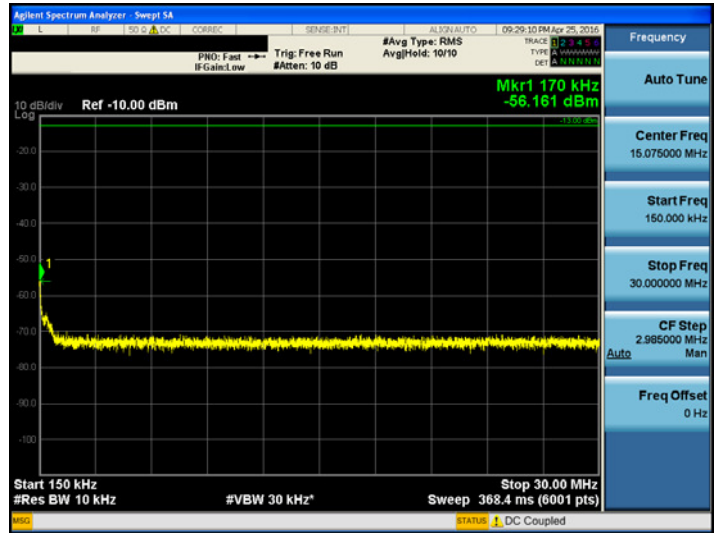


[AWS2100 Uplink Middle]

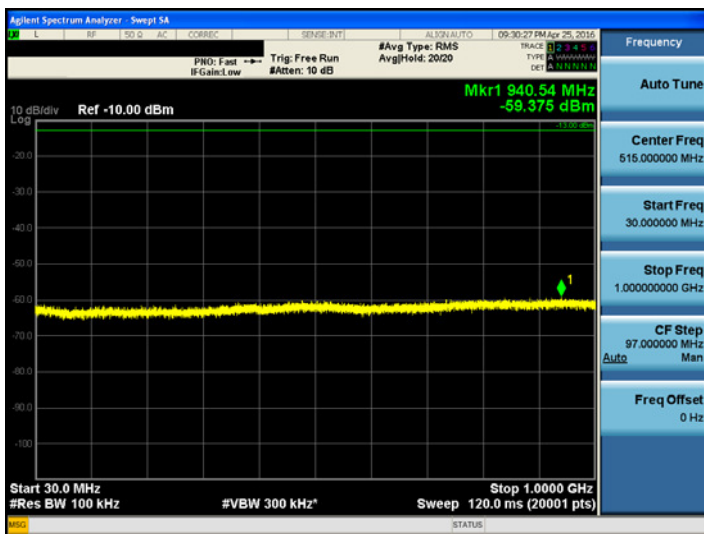
9kHz ~ 150kHz



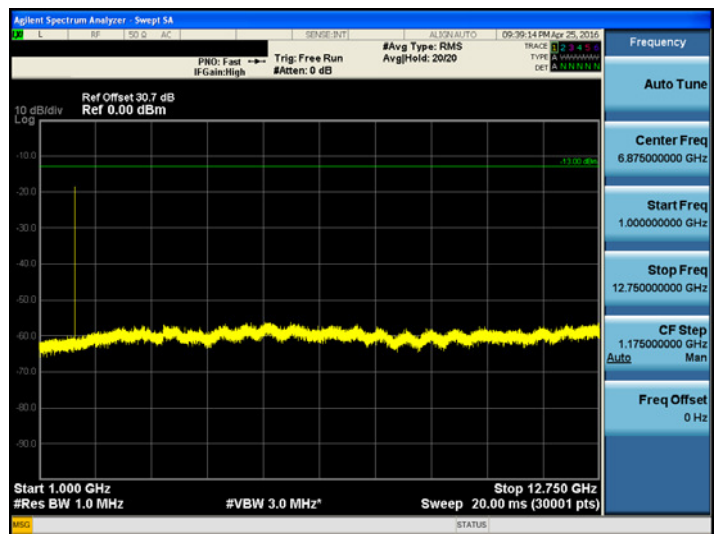
150kHz ~ 30MHz



30MHz ~ 1GHz



1GHz ~ 12.75GHz



12.75GHz ~ 26.5GHz



12.75GHz ~ 26.5GHz



Downlink Band edge for FCC
700 MHz LTE 10MHz

[700 Band LTE 10MHz Lower Downlink Low]



[700 Band LTE 10MHz Lower Downlink High]



[700 Band LTE 10MHz Upper Downlink Low]



[700 Band LTE 10MHz Upper Downlink High]



SMR800&Cellular

[SMR800&Cellular (862MHz ~ 869 MHz) 5MHz
Downlink Low]



[SMR800&Cellular (862MHz ~ 869 MHz) 5MHz
Downlink High]



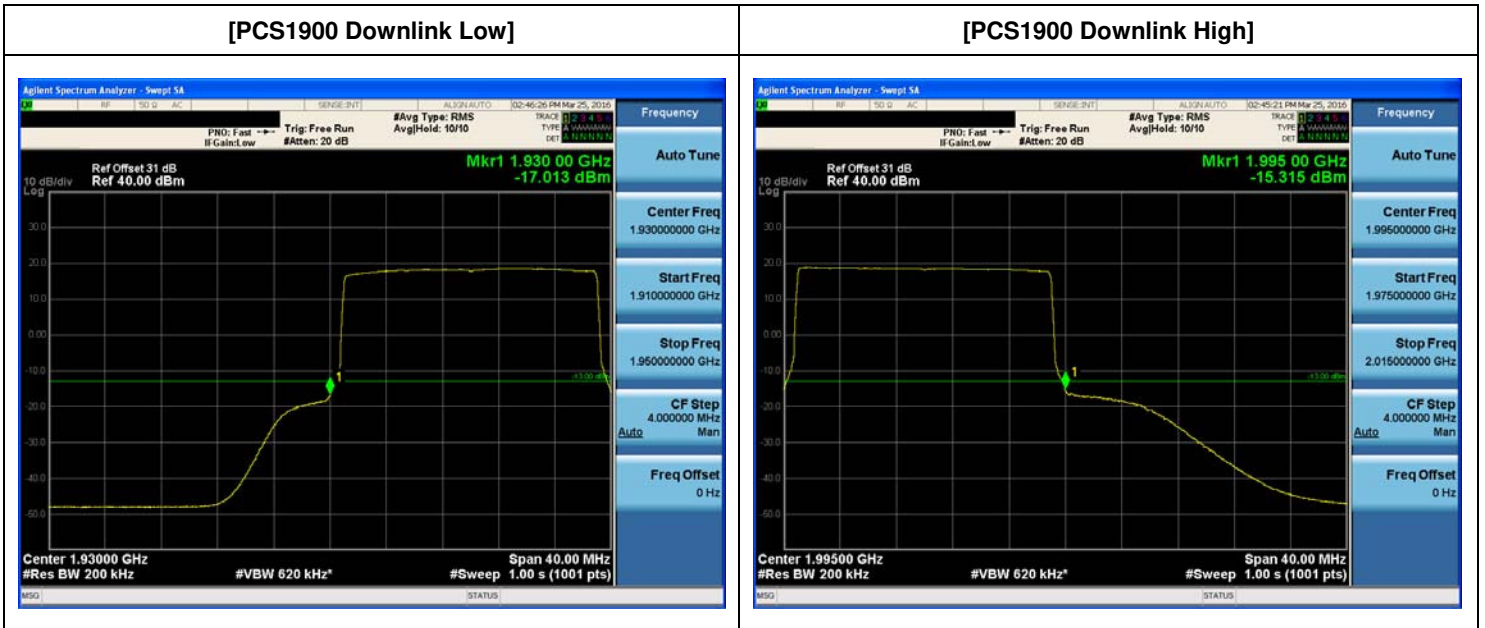
[SMR800&Cellular (869MHz ~ 894 MHz) 10MHz
Downlink Low]



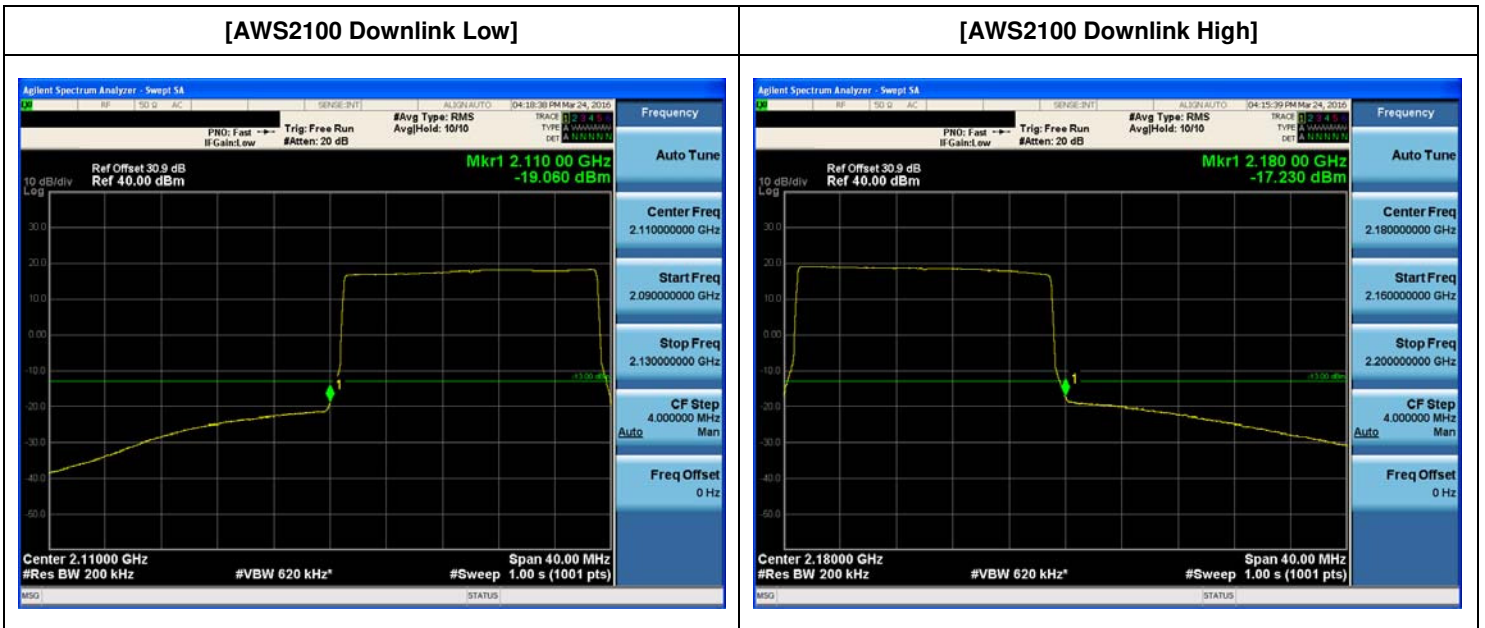
[SMR800&Cellular (869MHz ~ 894 MHz) 10MHz
Downlink High]



PCS 1900



AWS2100



Uplink Band edge for FCC
700 MHz LTE 10MHz

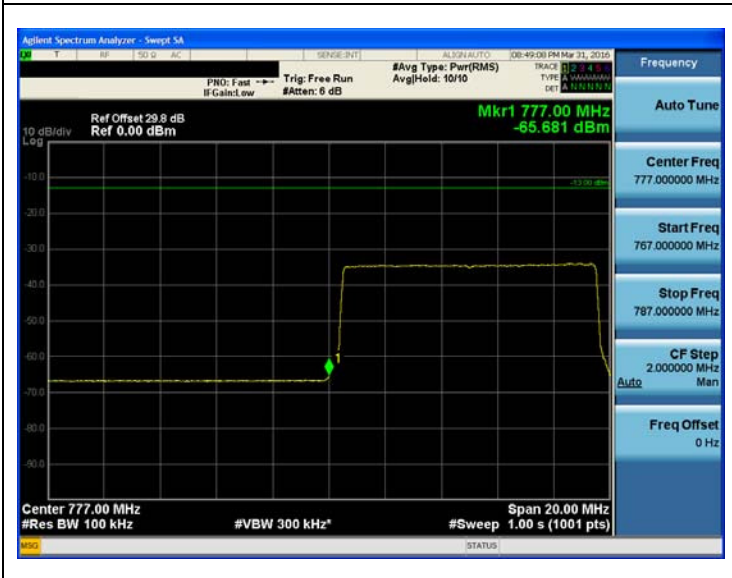
[700 Band LTE 10MHz Lower Uplink Low]



[700 Band LTE 10MHz Lower Uplink High]



[700 Band LTE 10MHz Upper Uplink Mid]

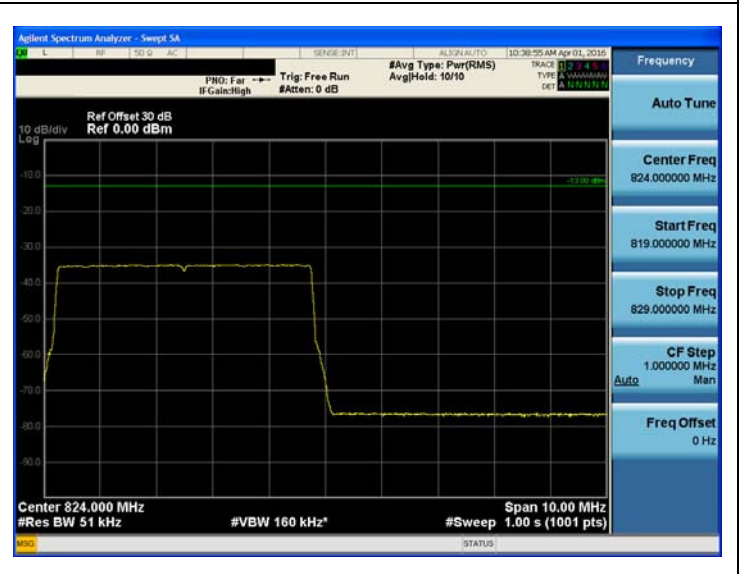


SMR800&Cellular

[SMR800&Cellular LTE 5MHz Uplink Low]



[SMR800&Cellular LTE 5MHz Uplink High]



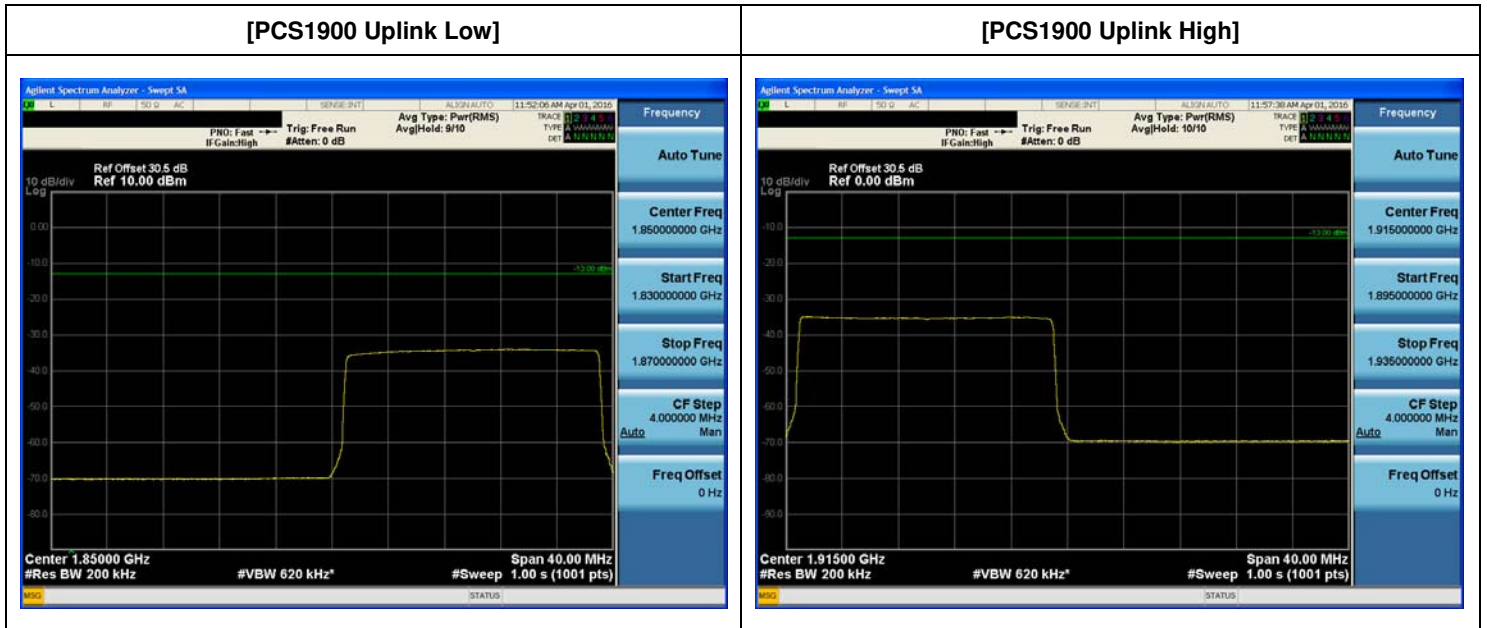
[SMR800&Cellular LTE 10MHz Uplink Low]



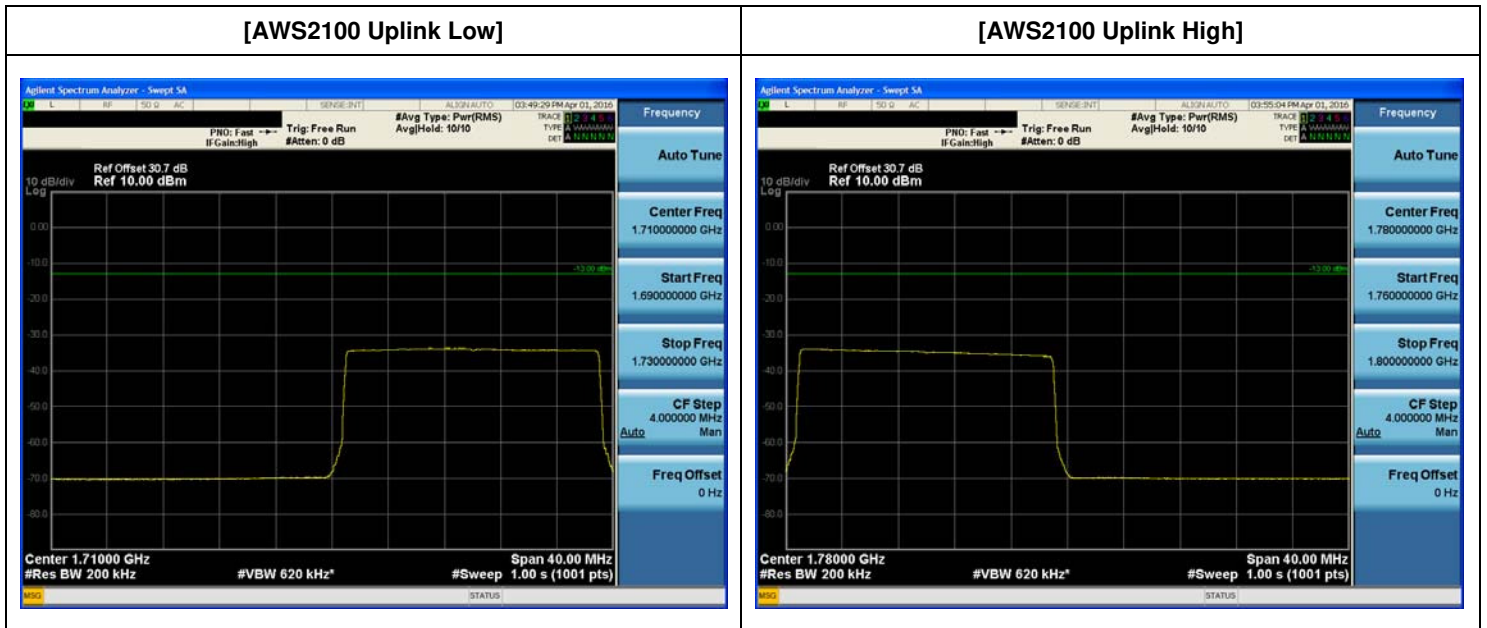
[SMR800&Cellular LTE 10MHz Uplink High]



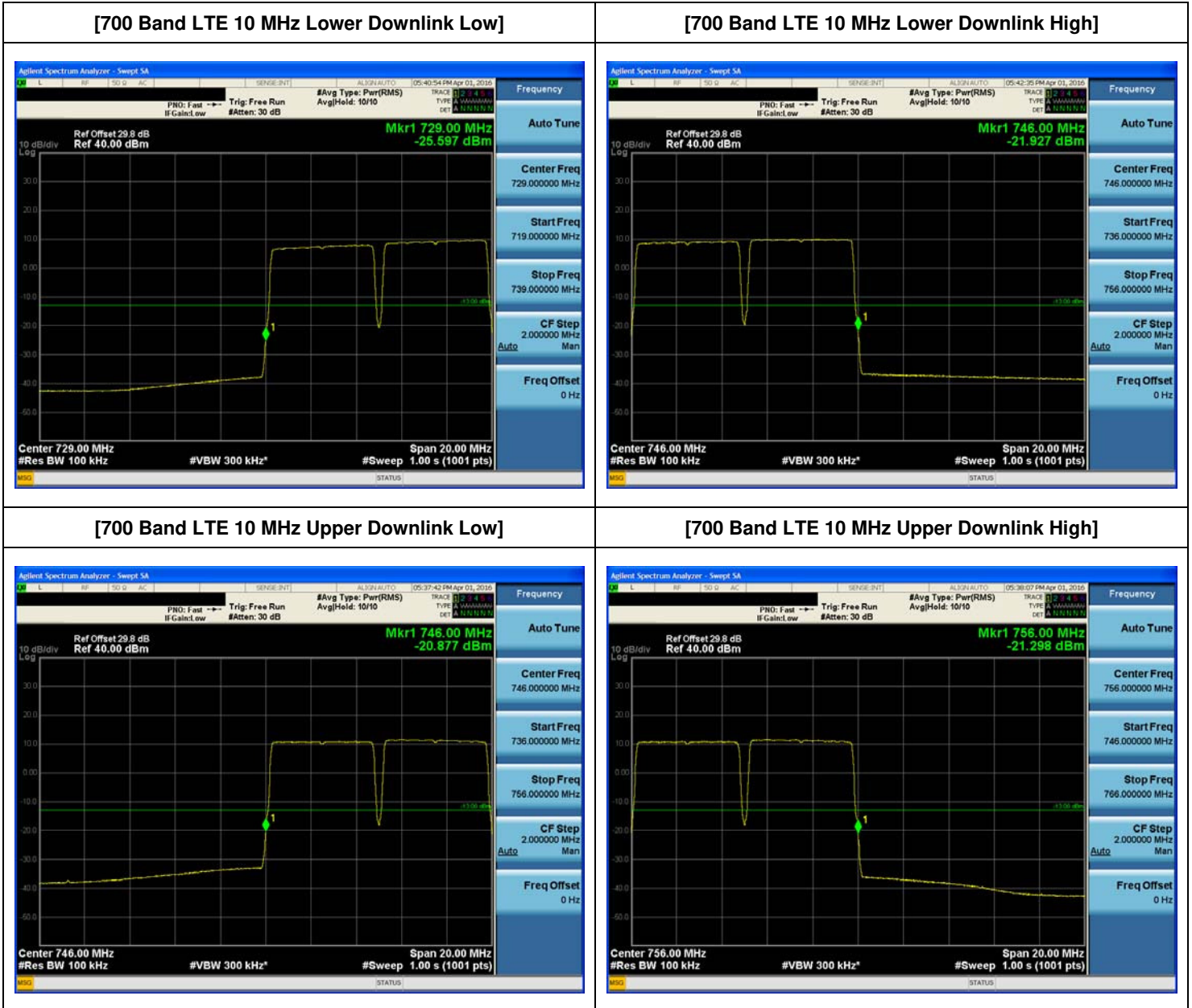
PCS 1900



AWS2100



**Intermodulation Spurious Emissions for FCC
Downlink
700 MHz Band_LTE**



SMR800&Cellular Band

**[SMR 800& Cellualr (862 MHz~869 MHz) 5MHz
Downlink Low]**

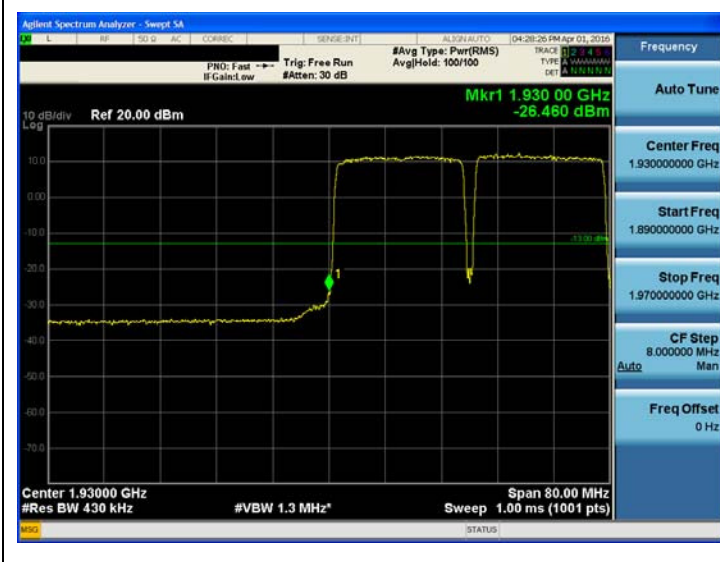


**[SMR 800& Cellualr (869 MHz~894 MHz) 10MHz
Downlink Low]**



PCS 1900 Band

[PCS 1900 Downlink Low]

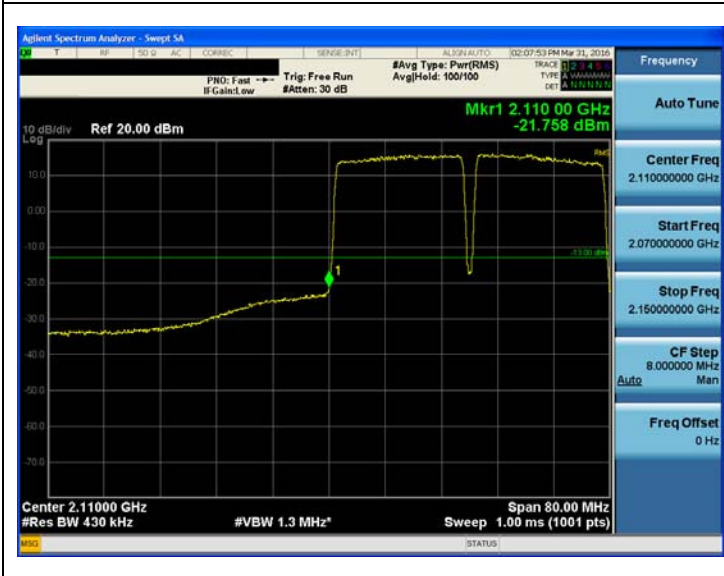


[PCS 1900 Downlink High]



AWS2100 Band

[AWS2100 LTE 20MHz Downlink Low]



[AWS2100 LTE 20MHz Downlink High]



Uplink
700 MHz Band_LTE

[700 Band LTE 10 MHz Lower Uplink Low]



[700 Band LTE 10 MHz Lower Uplink High]



[700 Band LTE 10 MHz Upper Uplink Low]



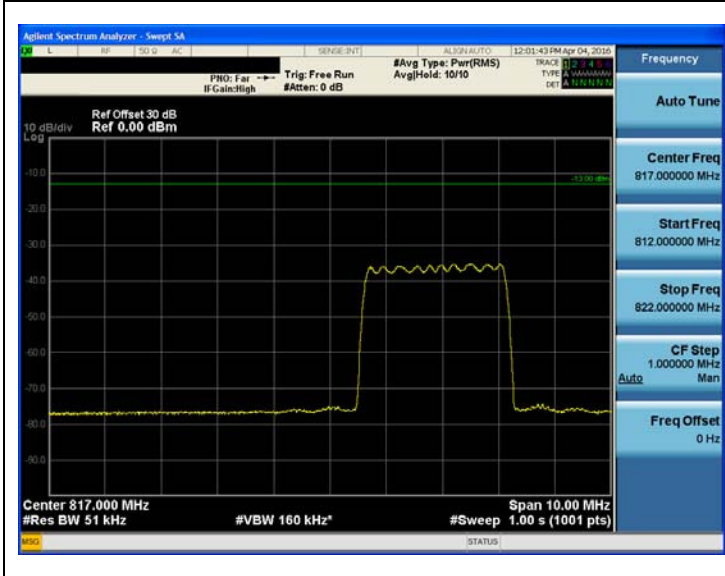
[700 Band LTE 10 MHz Upper Uplink High]



SMR800&Cellular Band

[SMR 800& Cellular LTE 5MHz

Uplink Low]



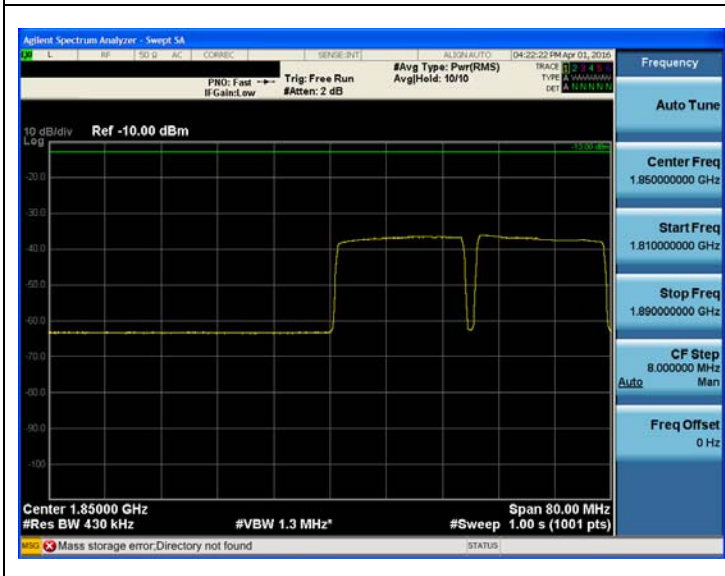
[SMR 800& Cellular LTE 10MHz

Uplink Low]

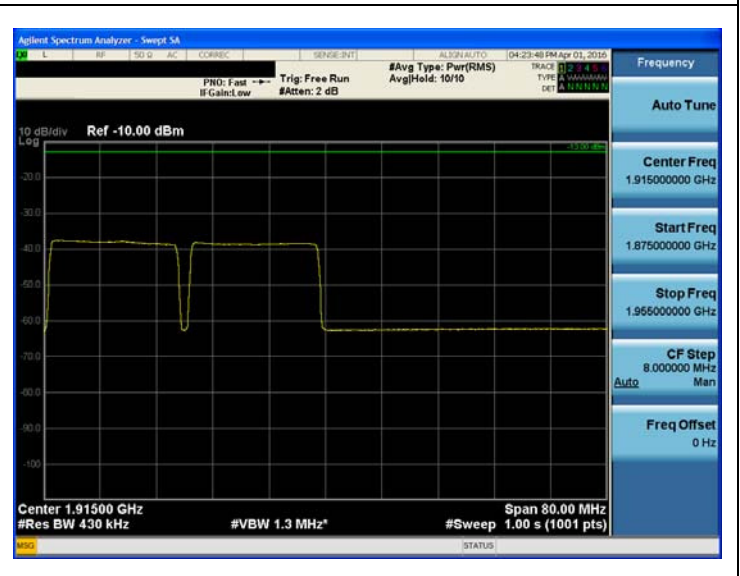


PCS 1900 Band

[PCS 1900 LTE 20MHz Uplink Low]

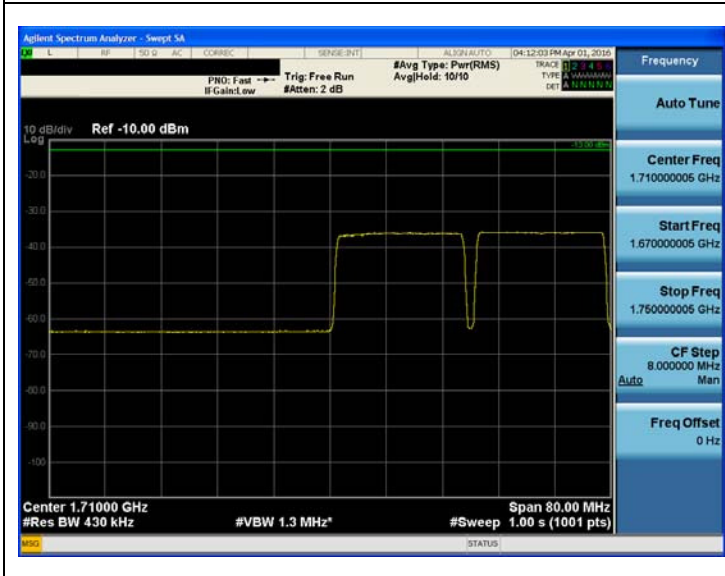


[PCS 1900 LTE 20MHz Uplink High]

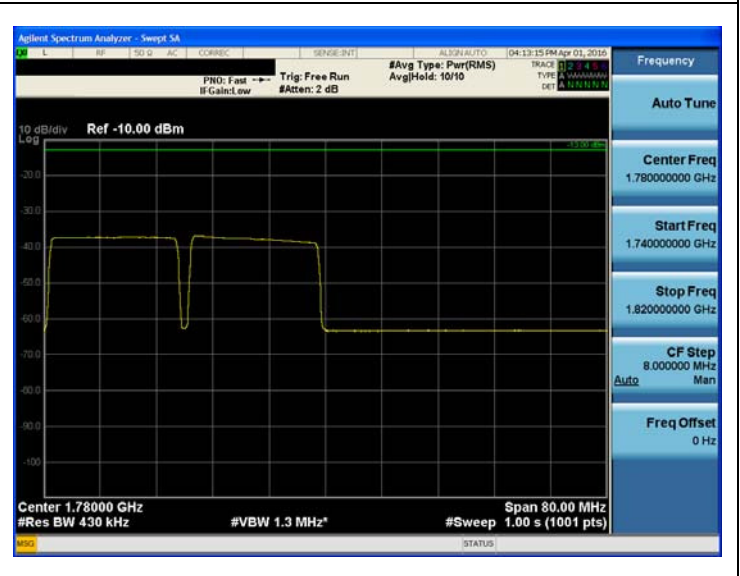


AWS2100 Band

[AWS2100 LTE 20MHz Uplink Low]

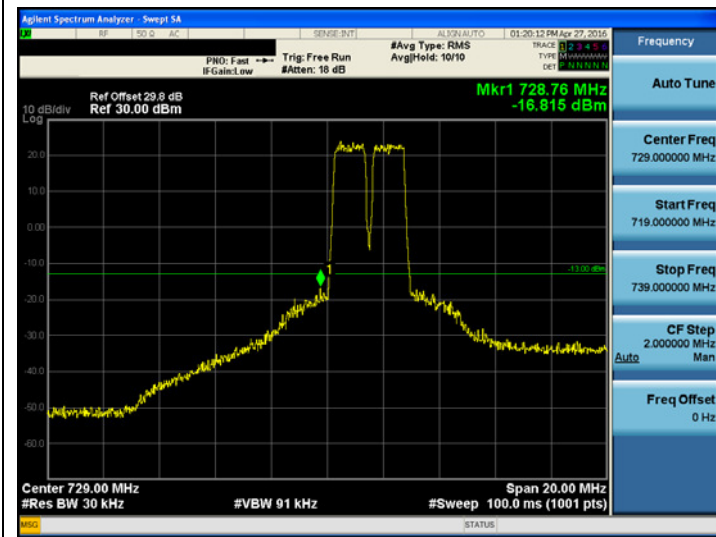


[AWS2100 LTE 20MHz Uplink High]

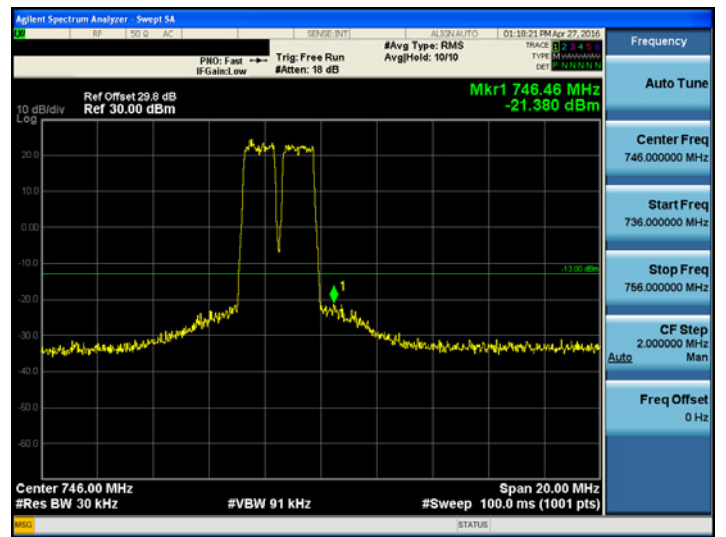


**Downlink Band edge for IC
700 MHz Lower**

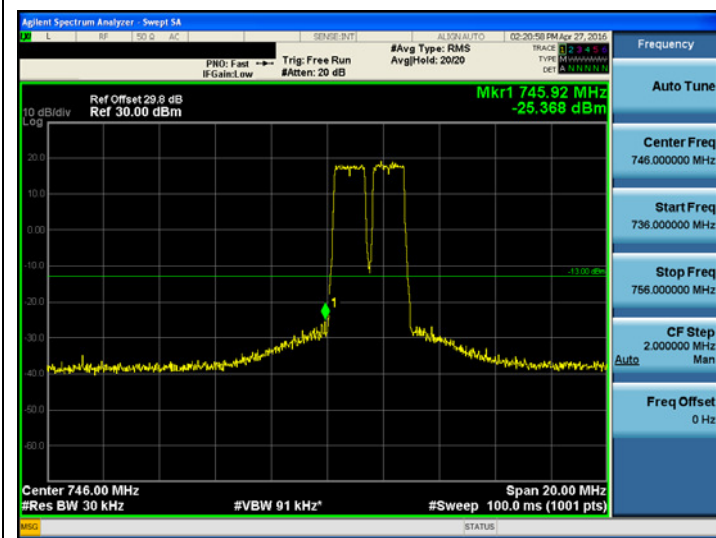
[700 Band Lower Downlink Low]



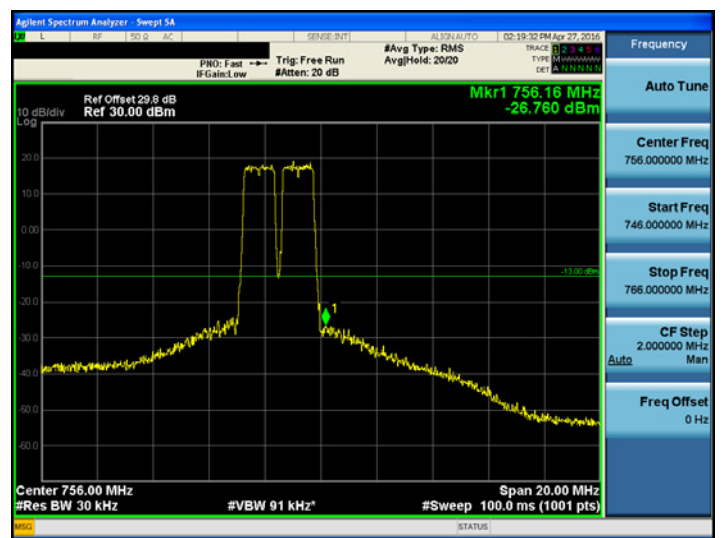
[700 Band Lower Downlink High]



[700 Band Upper Downlink Low]

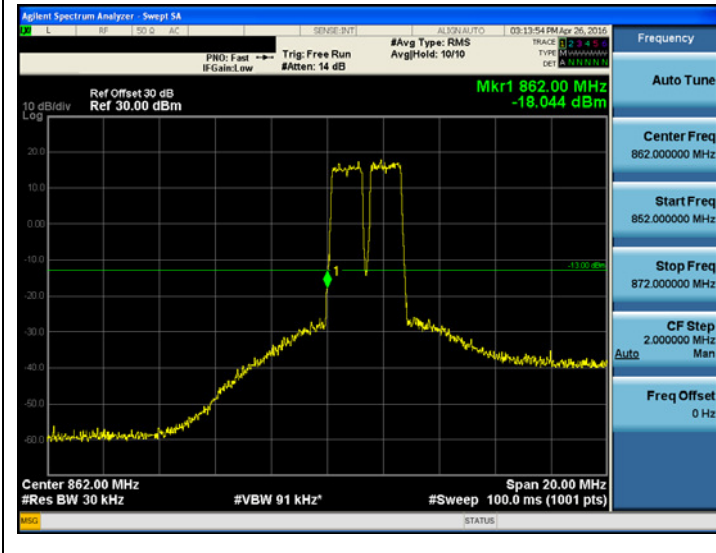


[700 Band Upper Downlink High]

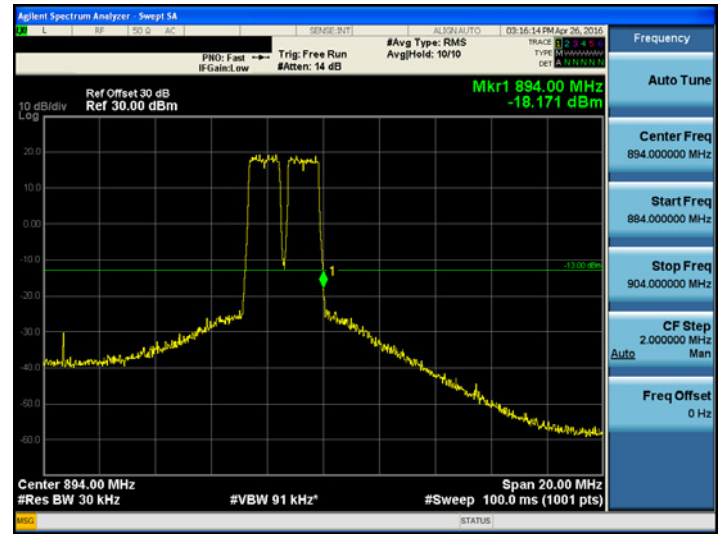


SMR800&Cellular 850

[SMR800&Cellular 850 Downlink Low]

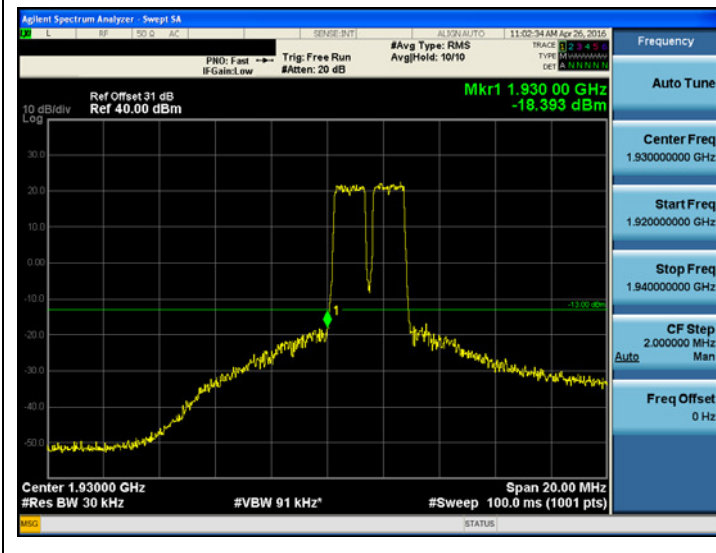


[SMR800&Cellular 850 Downlink High]

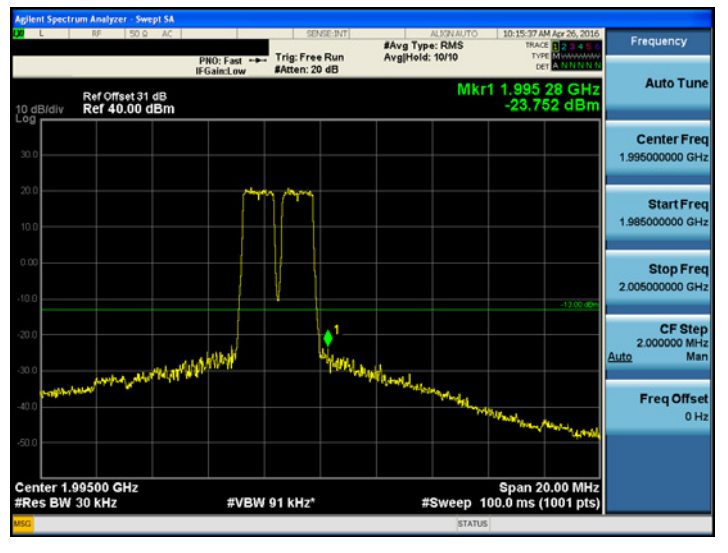


PCS 1900

[PCS1900 Downlink Low]

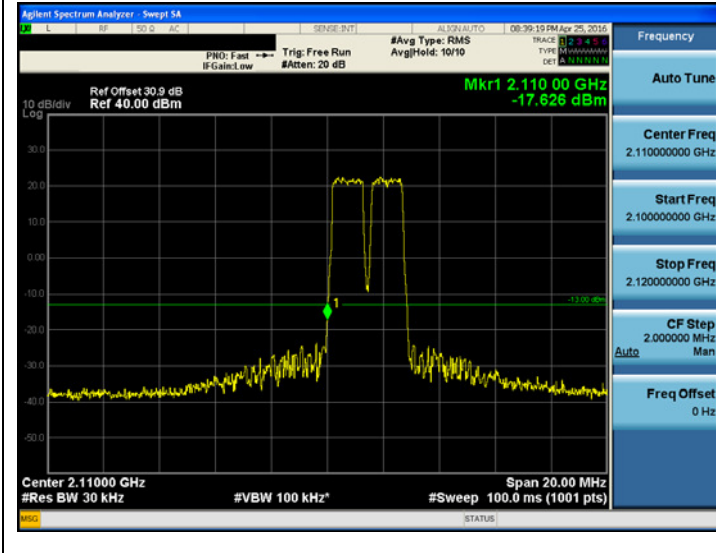


[PCS1900 Downlink High]

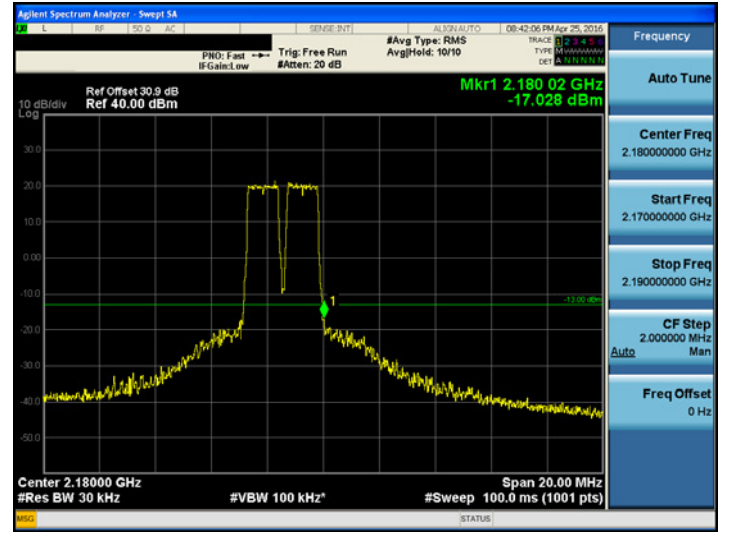


AWS2100

[AWS2100 Downlink Low]

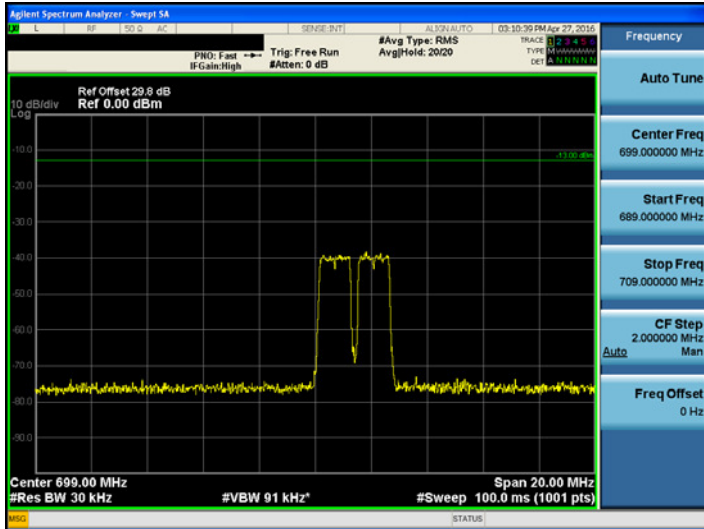


[AWS2100 Downlink High]

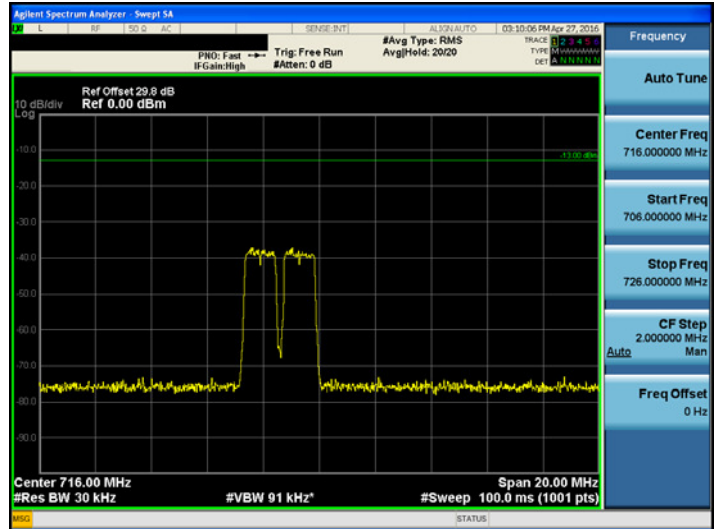


**Uplink Band edge for IC
700 MHz**

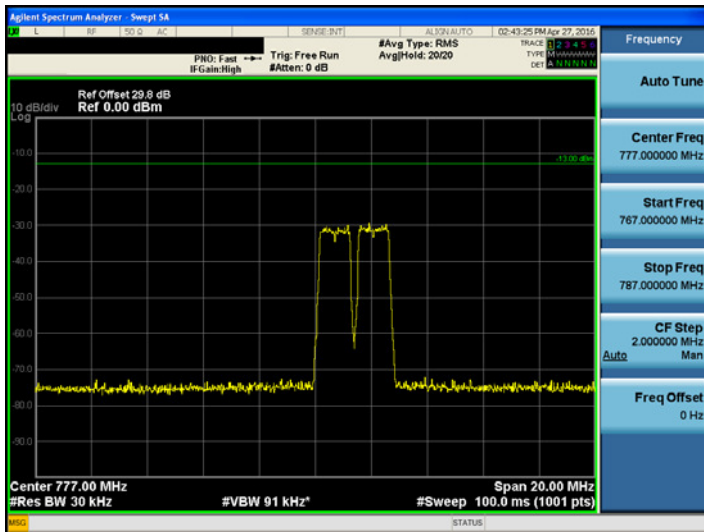
[700 Band Lower Uplink Low]



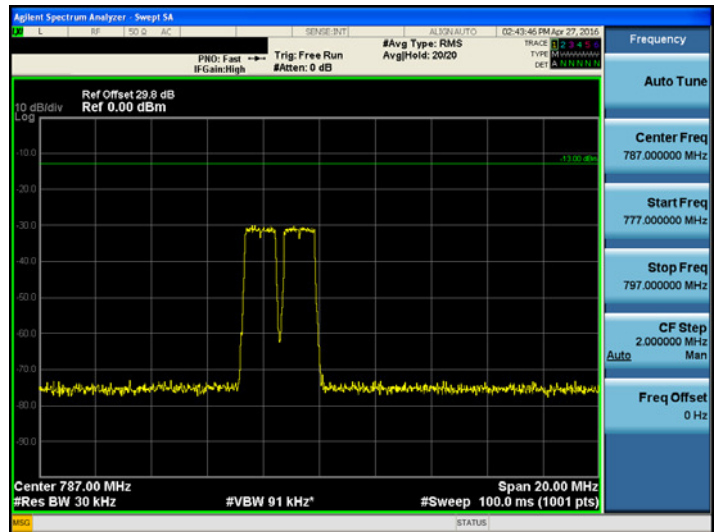
[700 Band Lower Uplink High]



[700 Band Upper Uplink Low]

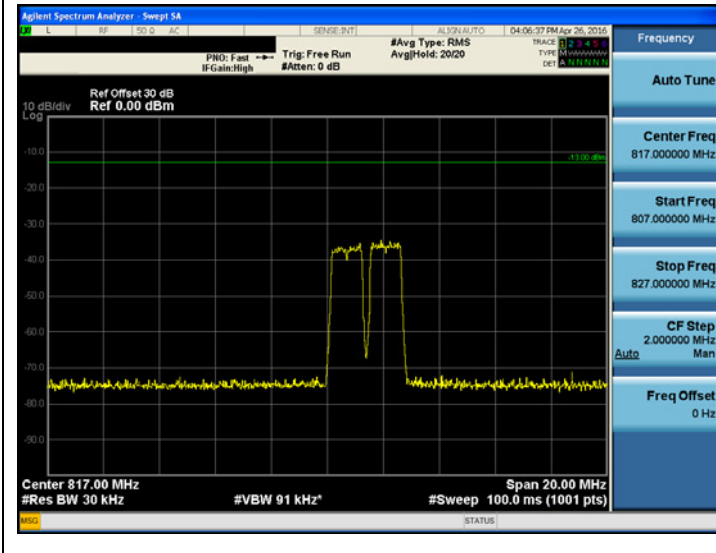


[700 Band Upper Uplink High]

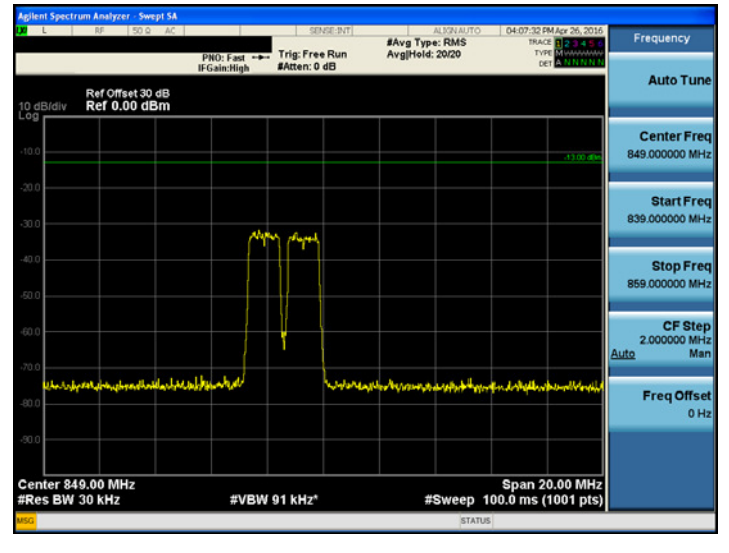


SMR800&Cellular

[SMR800&Cellular850 Uplink Low]

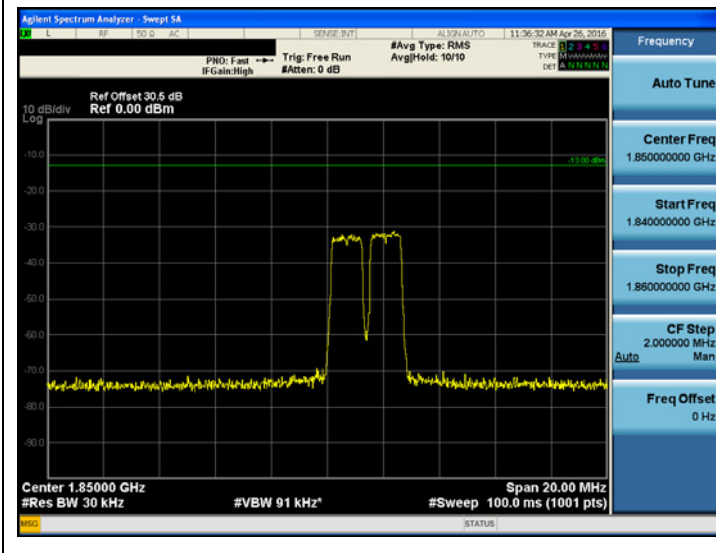


[SMR800&Cellular850 Uplink High]

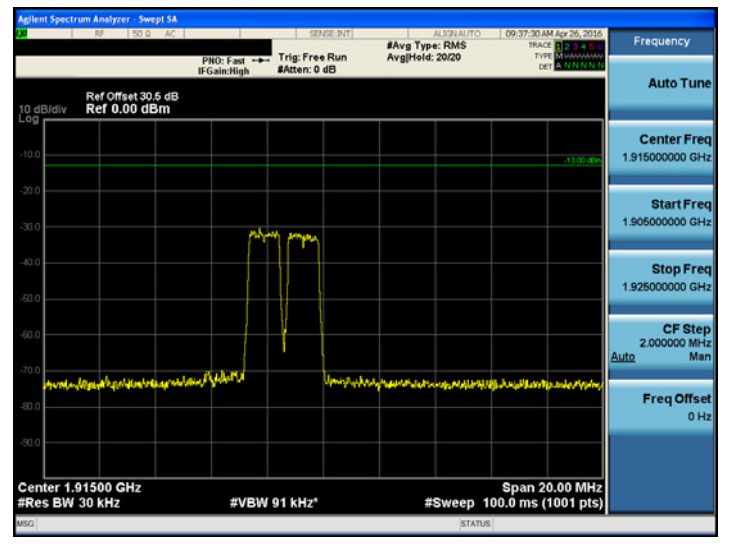


PCS 1900

[PCS1900 Uplink Low]

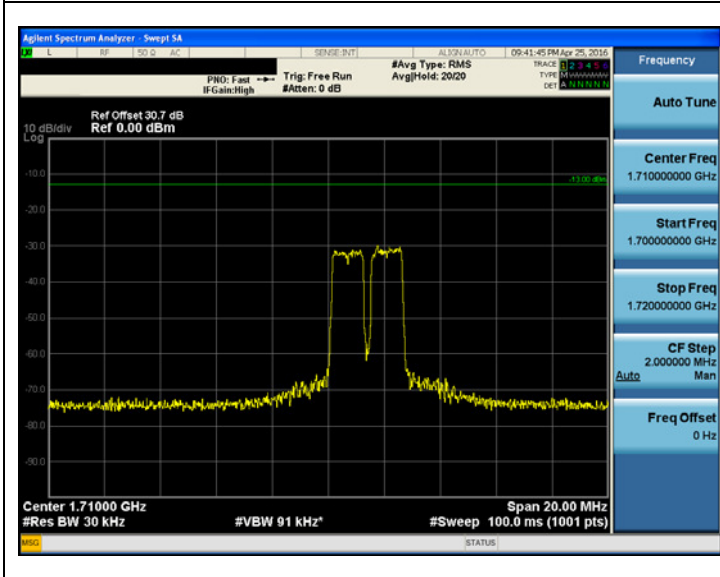


[PCS1900 Uplink High]

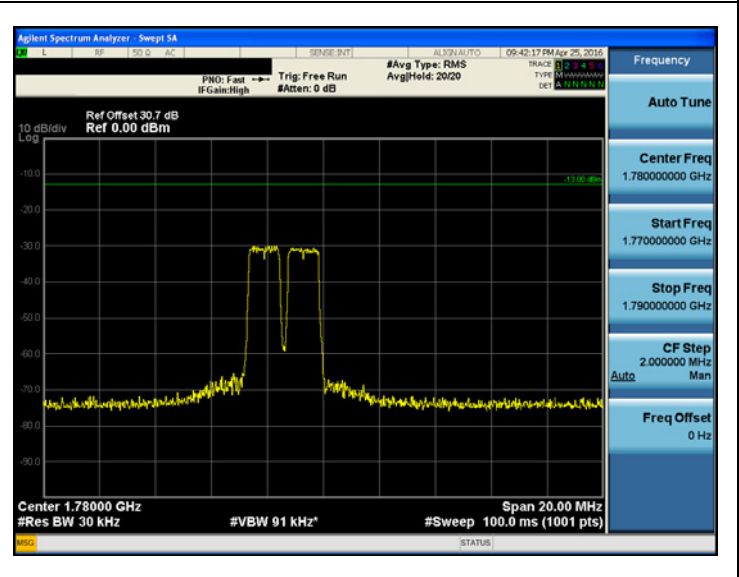


AWS2100

[AWS2100 Uplink Low]



[AWS2100 Uplink High]



Note (for IC):

The EUT is normally operate only LTE signal, not capable to operate using the two CW input signals, then we tested using two independent modulated carriers.

10. RADIATED SPURIOUS EMISSIONS

Test Requirement(s): § 2.1053 Measurements required: Field strength of spurious radiation.

§ 2.1053 (a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of § 2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from half-wave dipole antennas.

§ 2.1053 (b): The measurements specified in paragraph (a) of this section shall be made for the following equipment:

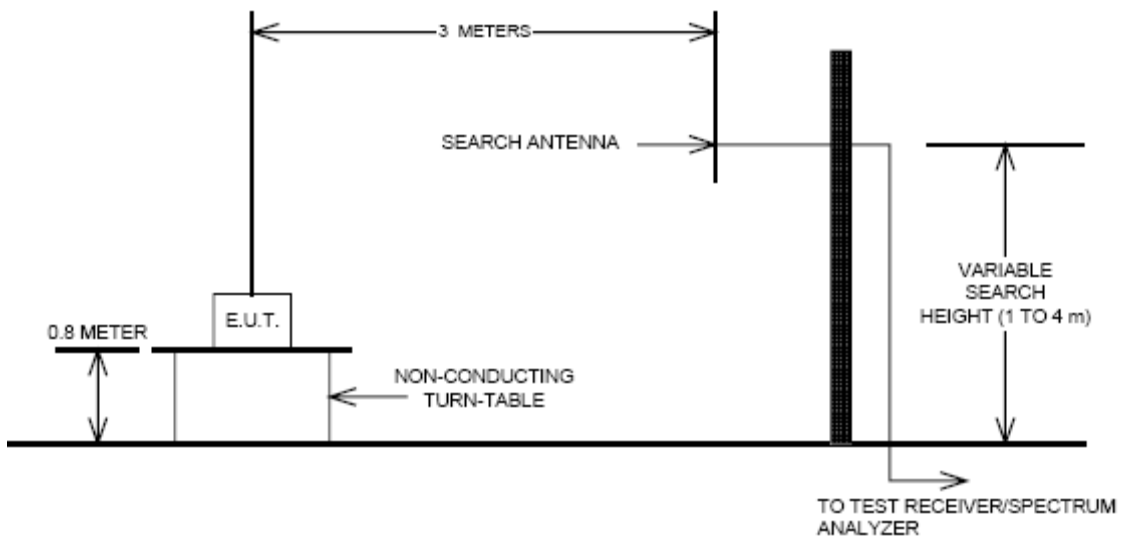
- (1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.
- (2) All equipment operating on frequencies higher than 25 MHz.
- (3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.
- (4) Other types of equipment as required, when deemed necessary by the Commission.

Test Procedures: As required by 47 CFR 2.1053, *field strength of radiated spurious measurements* were made in accordance with the procedures of ANSI/TIA-603-C-2004 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards".

Radiated emission measurements were performed inside a 3 meter semi-anechoic chamber. The EUT was set at a distance of 3m from the receiving antenna. The EUT's RF ports were terminated to 50ohm load. The EUT was set to transmit at the low, mid and high channels of the transmitter frequency range at its maximum power level. The EUT was rotated about

360 and the receiving antenna scanned from 1-3m in order to capture the maximum emission. A calibrated antenna source was positioned in place of the EUT and the previously recorded signal was duplicated. The maximum EIRP of the emission was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried out with the receiving antenna in both vertical and horizontal polarization. Harmonic emissions up to the 10th or 40GHz, whichever was the lesser, were investigated.

Radiated Spurious Emissions Test Setup



Test Result:

Note.

Input signal is the CW signal.

700 MHz band

[Downlink]

Voltage supplied to EUT	Tx Freq.(MHz)	Freq.(MHz)	Substitute Level [dBm]	Ant. Gain (dBi)	C.L	Pol.	EIRP (dBm)	Margin (dB)
120 Vac	731.50	No Peak Found						
	742.50							
	753.50							

SMR 800& Cellular MHz band

[Downlink]

Voltage supplied to EUT	Tx Freq.(MHz)	Freq.(MHz)	Substitute Level [dBm]	Ant. Gain (dBi)	C.L	Pol.	EIRP (dBm)	Margin (dB)
120 Vac	864.50	No Peak Found						
	878.00							
	891.50							

AWS2100 band

[Downlink]

Voltage supplied to EUT	Tx Freq.(MHz)	Freq.(MHz)	Substitute Level [dBm]	Ant. Gain (dBi)	C.L	Pol.	EIRP (dBm)	Margin (dB)
120 Vac	2112.50	No Peak Found						
	2145.00							
	2177.50							

PCS 1900 band

[Downlink]

Voltage supplied to EUT	Tx Freq.(MHz)	Freq.(MHz)	<u>Substitute</u> <u>Level</u> <u>[dBm]</u>	Ant. Gain (dBi)	C.L	Pol.	EIRP (dBm)	Margin (dB)
120 Vac	1932.50	No Peak Found						
	1962.50							
	1992.50							