



FCC Test Report

ANNEX 7 LTE BAND 71

FCC ID: 2AYFQ-SEM1000

Applicant: Quanzhou SFE Electronic Technology Co.,Ltd
Address: No.35 Yangming Street, Shuangyang, Luojiang District, Quanzhou City, Fujian Province 362012, China
Manufacturer: Quanzhou SFE Electronic Technology Co.,Ltd
Address: No.35 Yangming Street, Shuangyang, Luojiang District, Quanzhou City, Fujian Province 362012, China
EUT: In-vehicle PoC Network Radio
Trade Mark: SFE
Model Number: SEM1000, SEM2000
Date of Receipt: Dec. 03, 2021
Test Date: Dec. 03, 2021 – Jan. 07, 2022
Date of Report: Jan. 07, 2022
Prepared By: Shenzhen DL Testing Technology Co., Ltd.
Address: 101-201, Building C, Shuanghuan, No.8, Baoqing Road, Baolong Industrial Zone, Baolong Street, Longgang District, Shenzhen, Guangdong, China
FCC CFR Title 47 Part22 Subpart H
FCC CFR Title 47 Part24 Subpart E
Applicable Standards: FCC CFR Title 47 Part27
ANSI/ TIA/ EIA-603-D-2010
FCC KDB 971168 D01 Power Meas. License Digital Systems v02v02
ANSI C63.26:2015
Test Result: Pass
Report Number: DL-20220108006E

Prepared (Test Engineer): Pxing Huang
Reviewer (Supervisor): Jack Bu
Approved (Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



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**1. EMISSION TEST RESULTS****1.1. -26dB and 99% Occupied Bandwidth****1.1.1. Test Result**

EUT Mode Bandwidth	Modulation	Frequency (MHz)	99% Occupy bandwidth (MHz)	-26dB bandwidth (MHz)
LTE Band 71 5 MHz	QPSK	665.5	4.487	4.884
		680.5	4.468	4.891
		690.5	4.485	4.890
LTE Band 71 5 MHz	16-QAM	665.5	4.469	4.867
		680.5	4.478	4.911
		690.5	4.484	4.898
LTE Band 71 10 MHz	QPSK	668.0	8.890	9.579
		680.5	8.940	9.681
		693.0	8.951	9.697
LTE Band 71 10 MHz	16-QAM	668.0	8.905	9.559
		680.5	8.938	9.566
		693.0	8.953	9.703
LTE Band 71 15 MHz	QPSK	670.5	13.373	14.430
		680.5	13.378	14.360
		690.5	13.420	14.480
LTE Band 71 15 MHz	16-QAM	670.5	13.368	14.390
		680.5	13.383	14.410
		690.5	13.406	14.410
LTE Band 71 20 MHz	QPSK	673.0	17.843	19.020
		680.5	17.848	18.930
		688.0	17.864	19.050
LTE Band 71 20 MHz	16-QAM	673.0	17.843	19.150
		680.5	17.879	19.160
		688.0	17.837	19.060

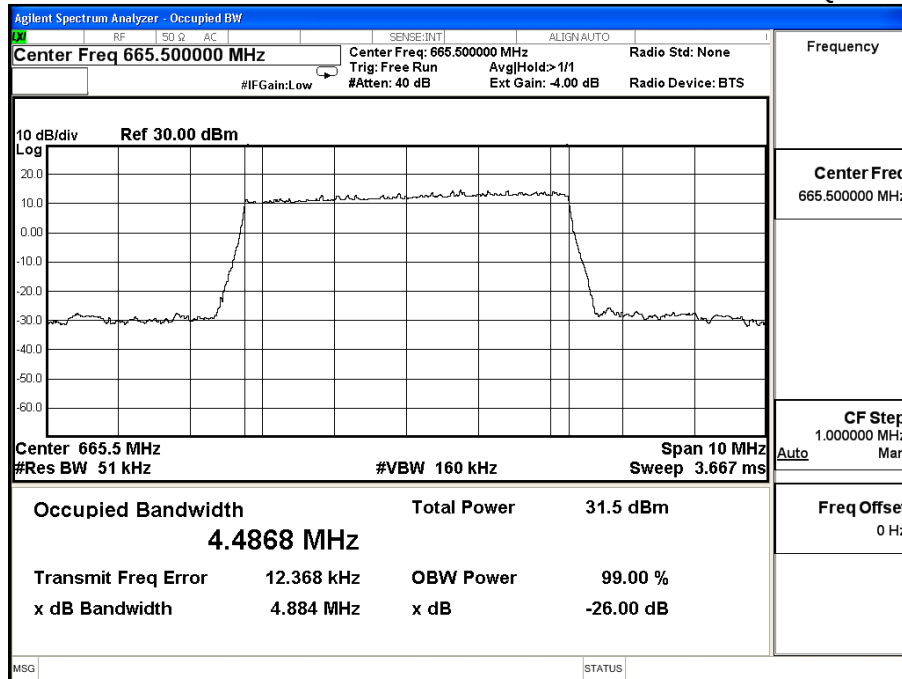
Note: Measurement Uncertainty: $\pm 20\text{Hz}$.

Test plot as follows:



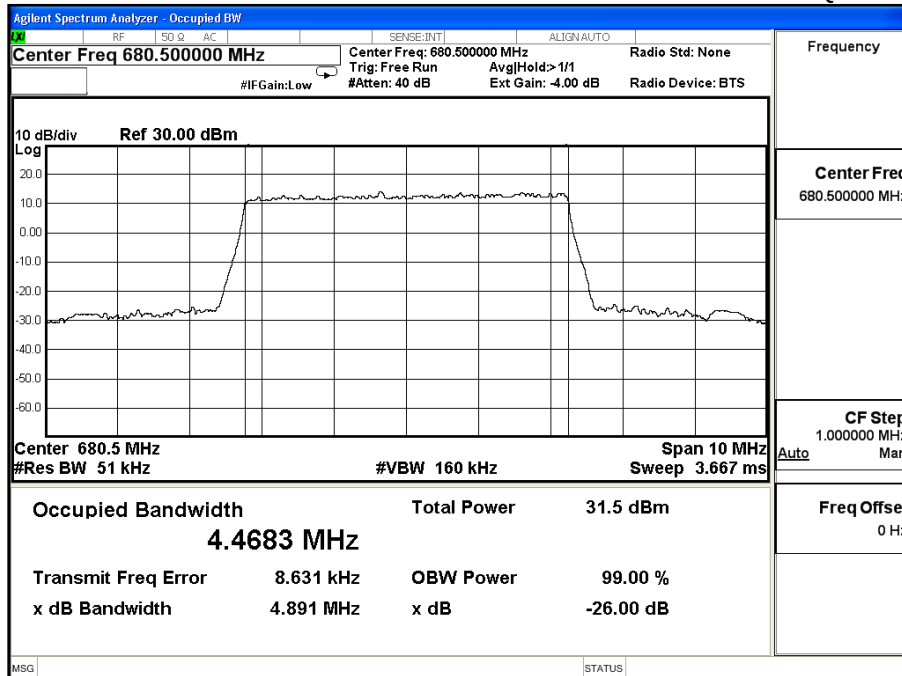
LTE Band 71 Lowest channel

5 MHz QPSK



LTE Band 71 Middle channel

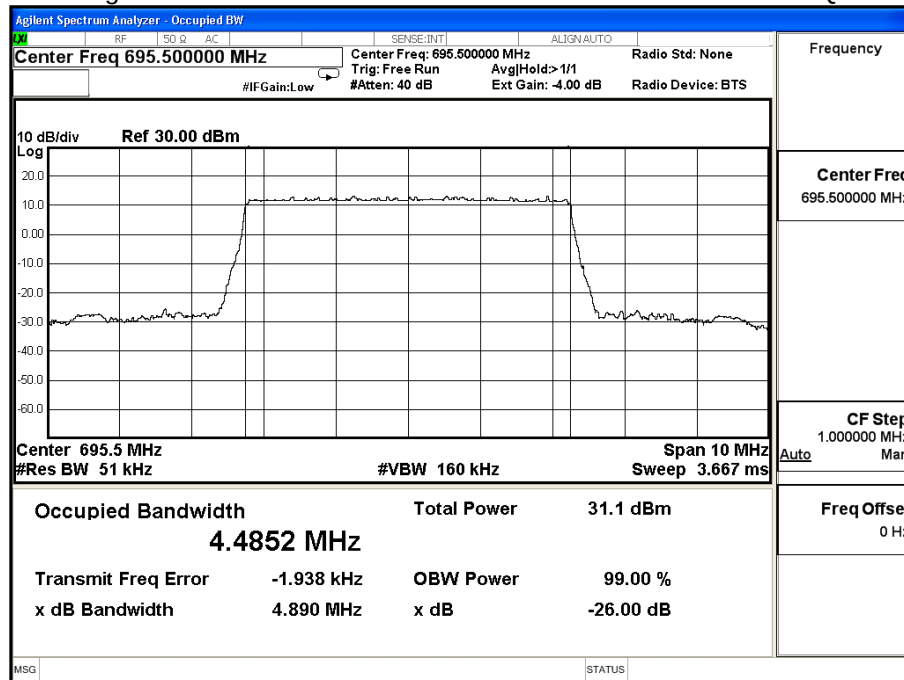
5 MHz QPSK





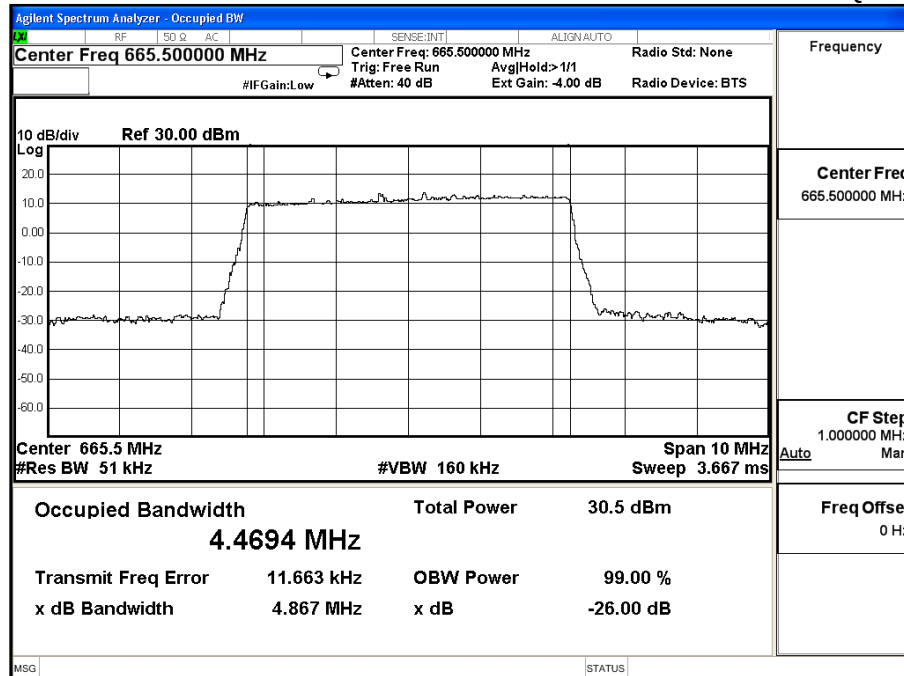
LTE Band 71 Highest channel:

5 MHz QPSK



LTE Band 71 Lowest channel

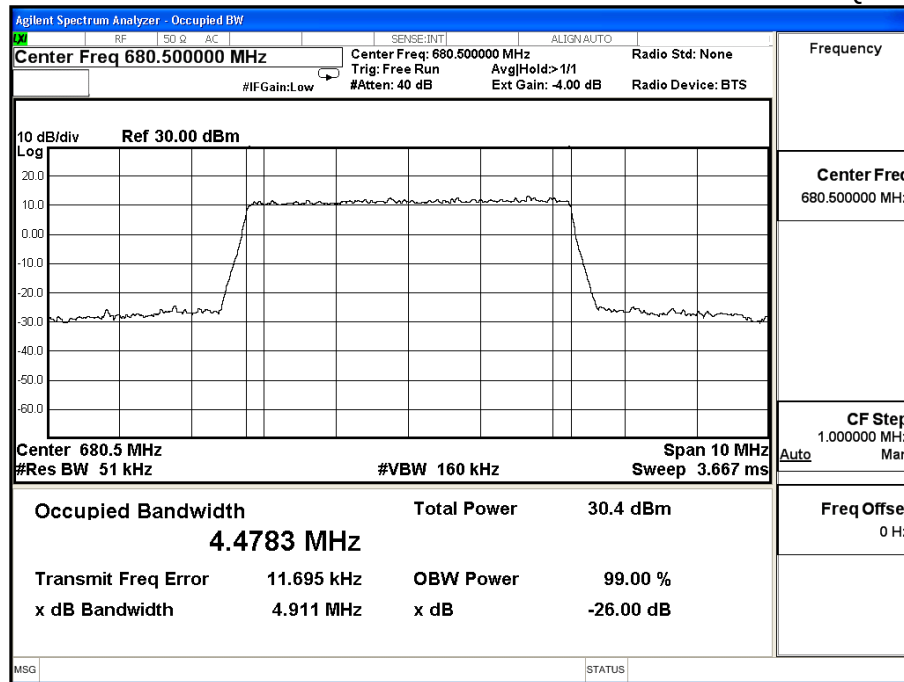
5 MHz 16-QAM





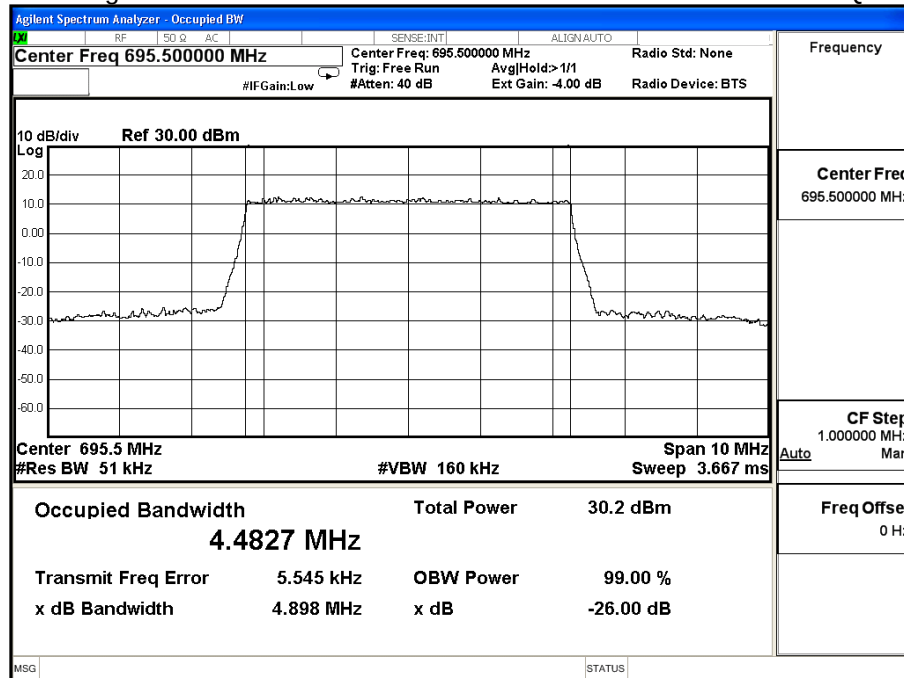
LTE Band 71 Middle channel

5 MHz 16-QAM



LTE Band 71 Highest channel:

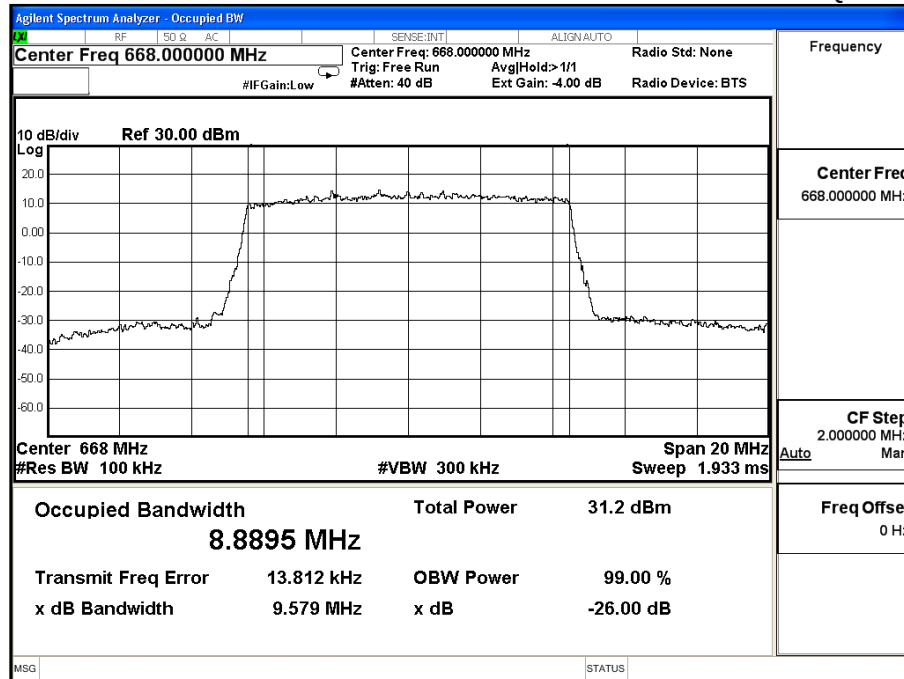
5 MHz 16-QAM





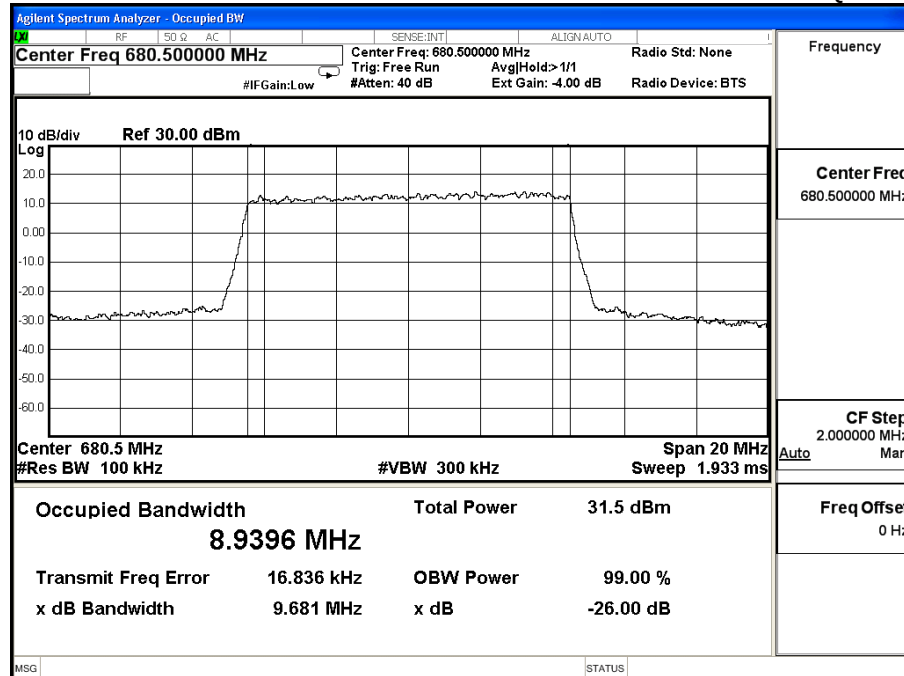
LTE Band 71 Lowest channel

10 MHz QPSK



LTE Band 71 Middle channel

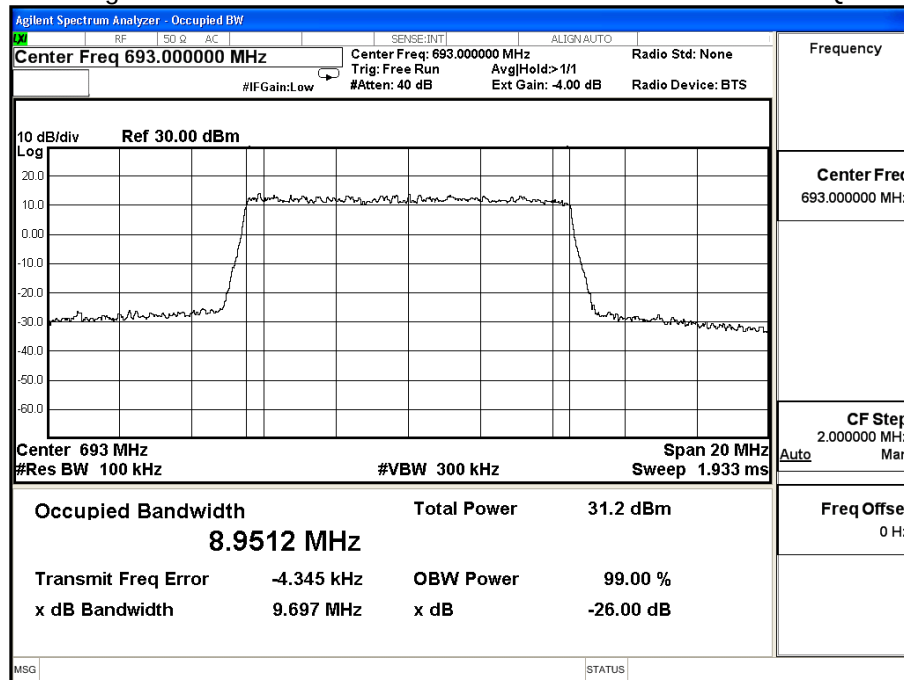
10 MHz QPSK





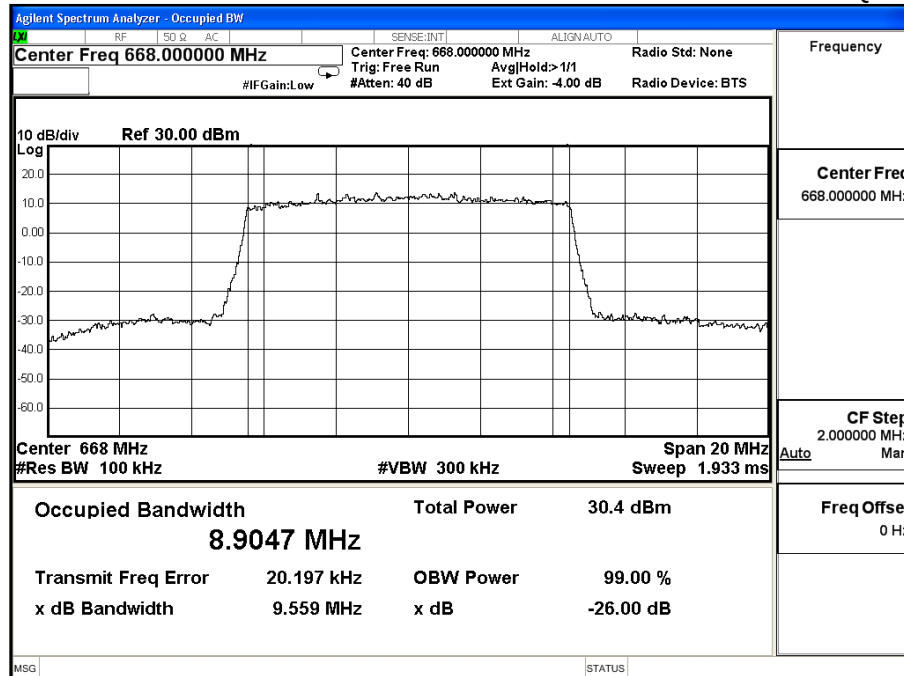
LTE Band 71 Highest channel:

10 MHz QPSK



LTE Band 71 Lowest channel

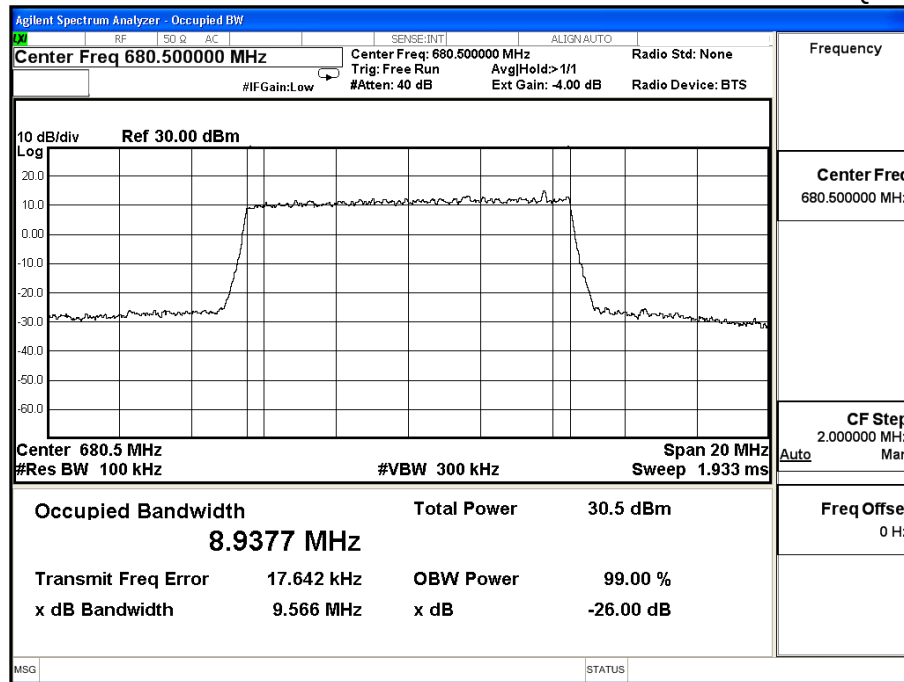
10 MHz 16-QAM





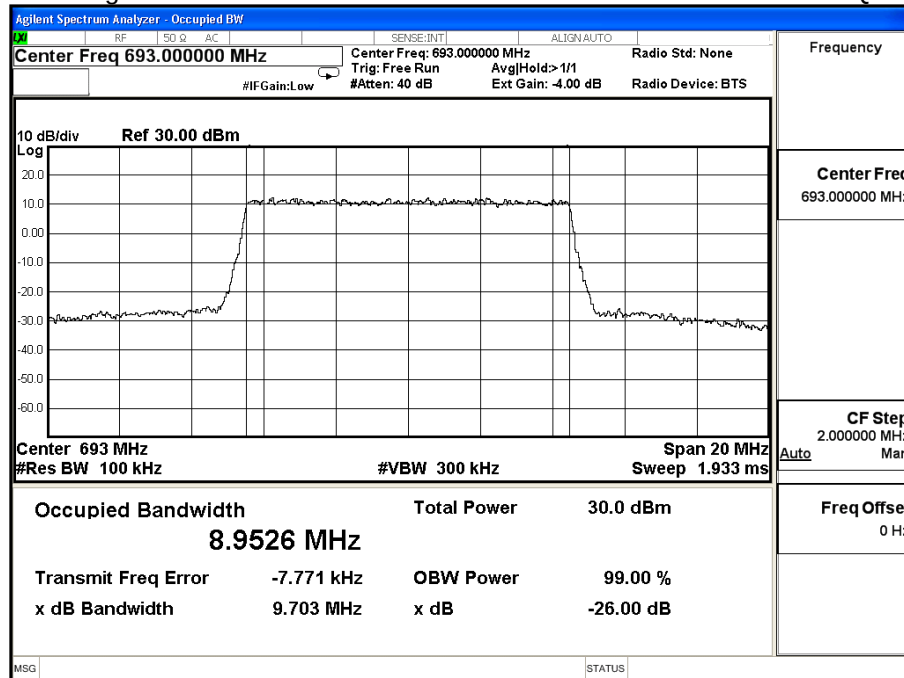
LTE Band 71 Middle channel

10 MHz 16-QAM



LTE Band 71 Highest channel:

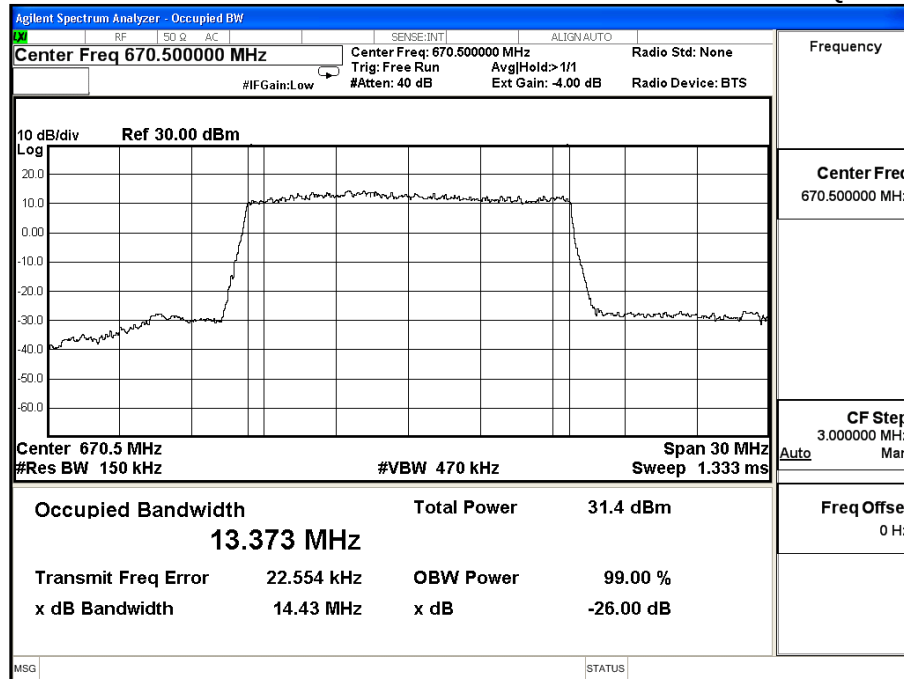
10 MHz 16-QAM





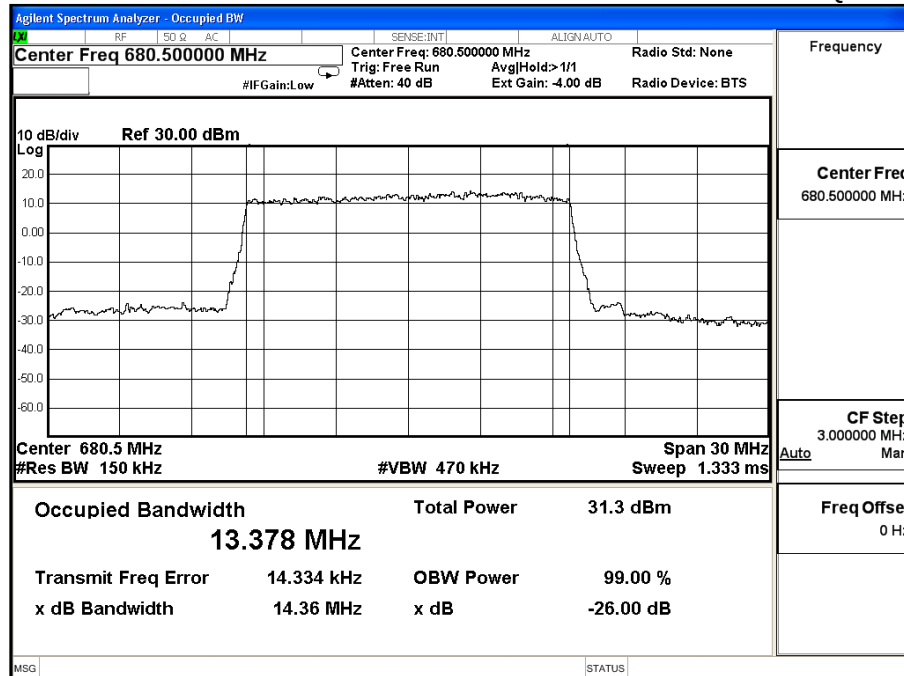
LTE Band 71 Lowest channel

15 MHz QPSK



LTE Band 71 Middle channel

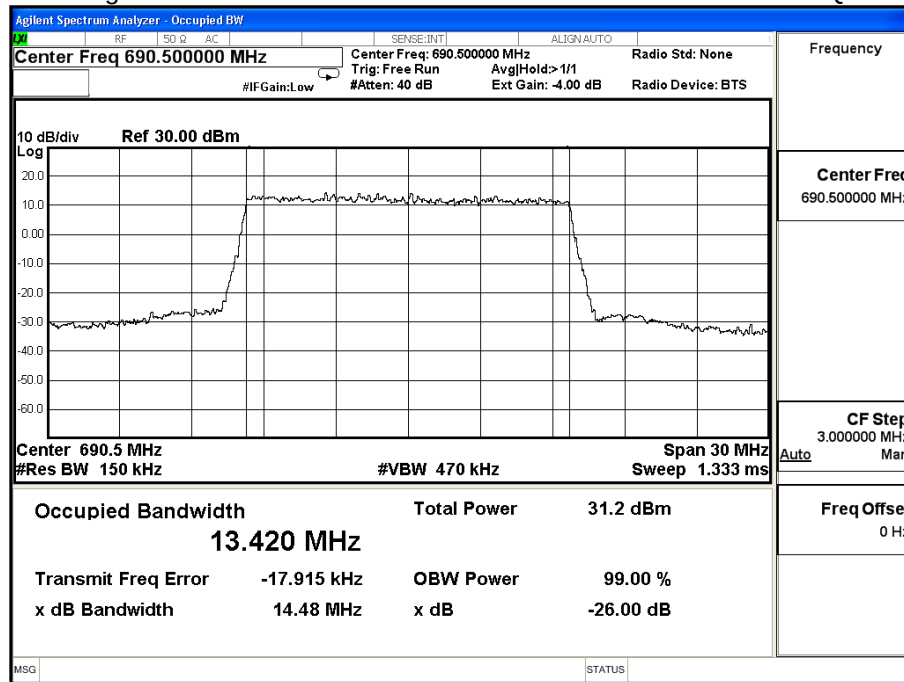
15 MHz QPSK





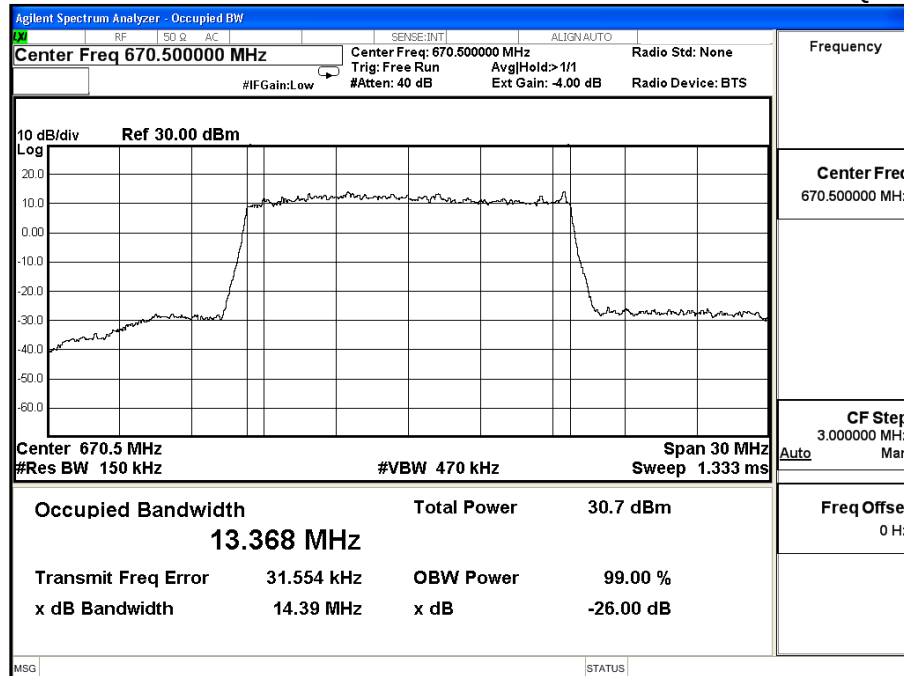
LTE Band 71 Highest channel:

15 MHz QPSK



LTE Band 71 Lowest channel

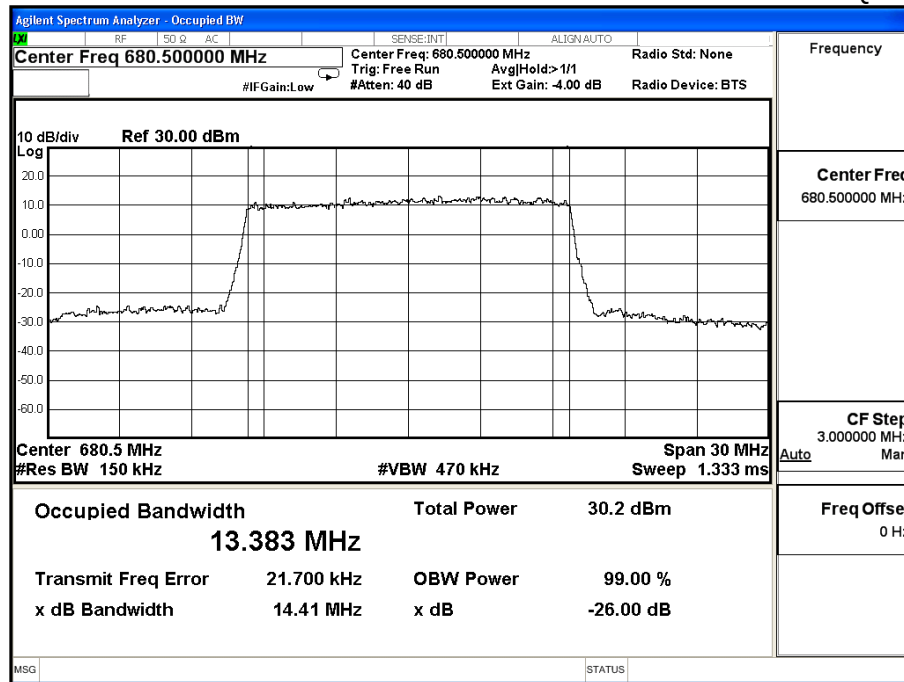
15 MHz 16-QAM





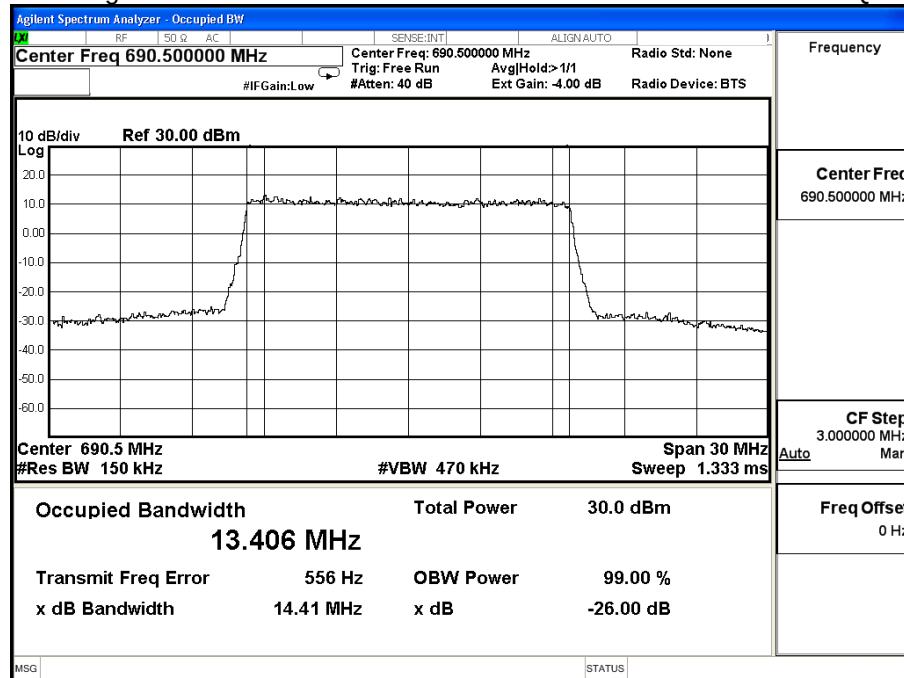
LTE Band 71 Middle channel

15 MHz 16-QAM



LTE Band 71 Highest channel:

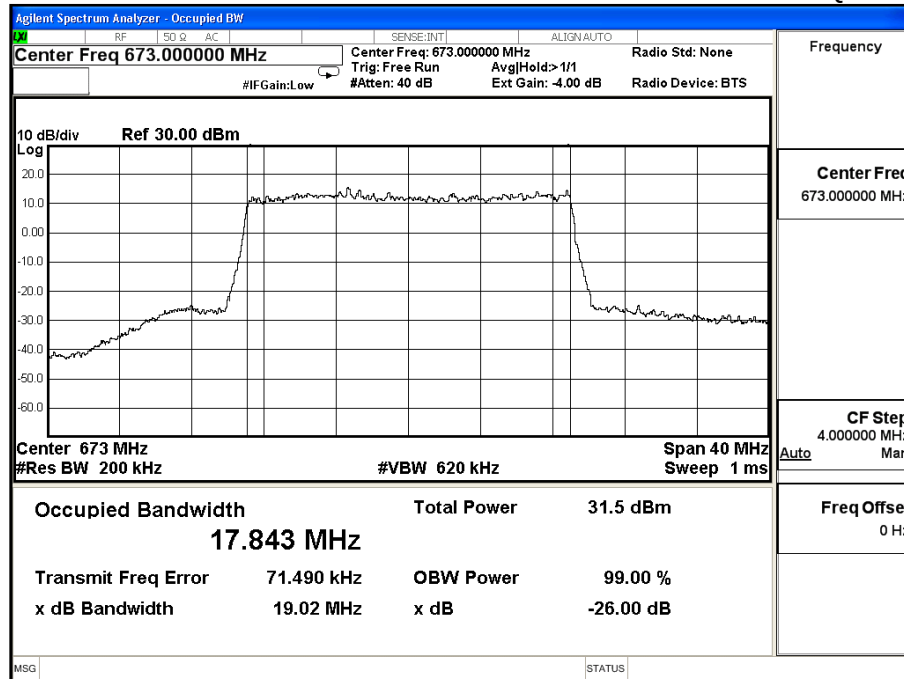
15 MHz 16-QAM





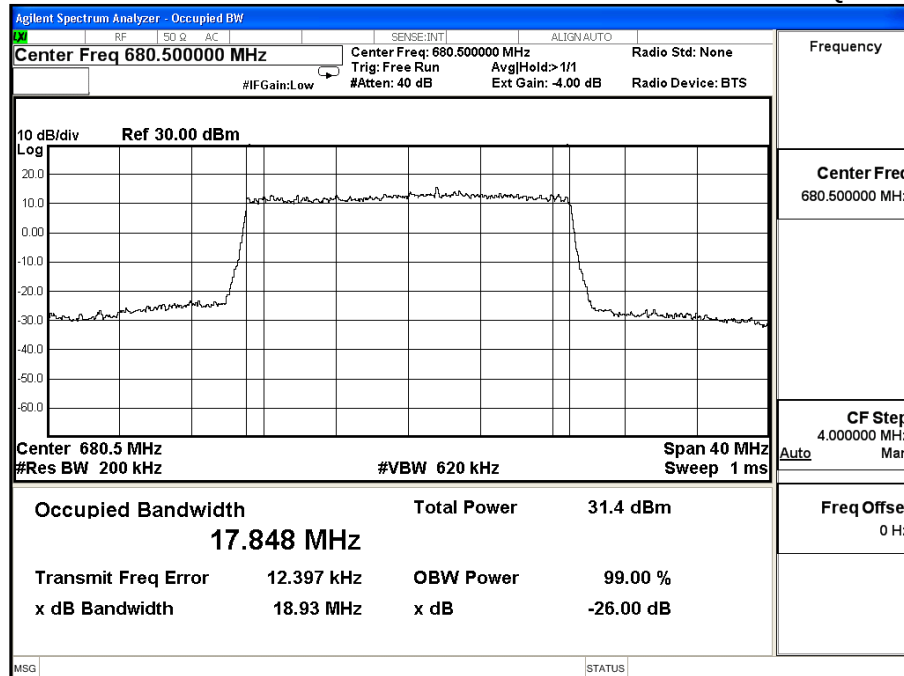
LTE Band 71 Lowest channel

20 MHz QPSK



LTE Band 71 Middle channel

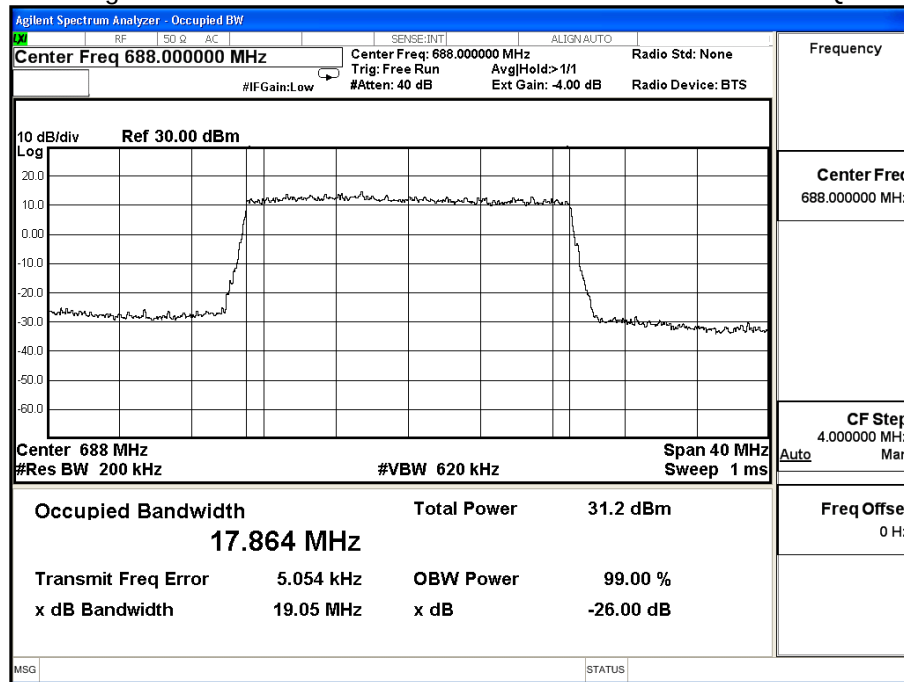
20 MHz QPSK





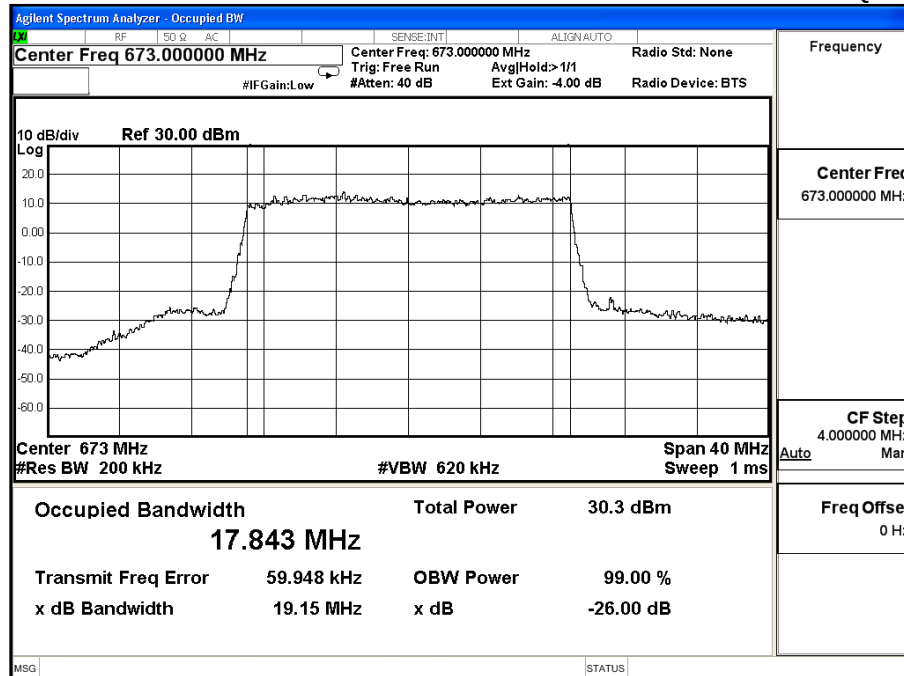
LTE Band 71 Highest channel:

20 MHz QPSK



LTE Band 71 Lowest channel

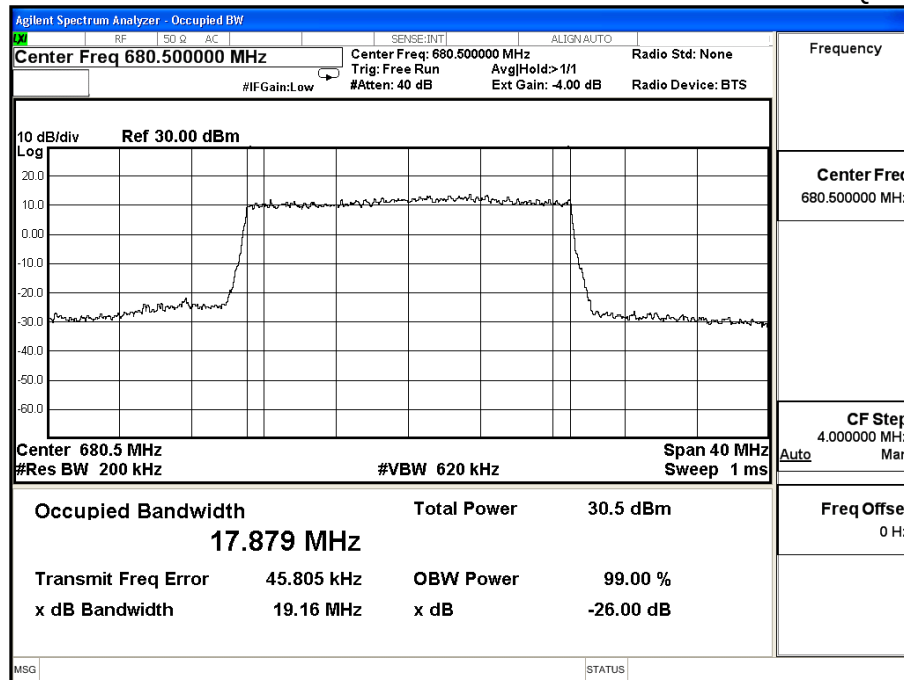
20 MHz 16-QAM





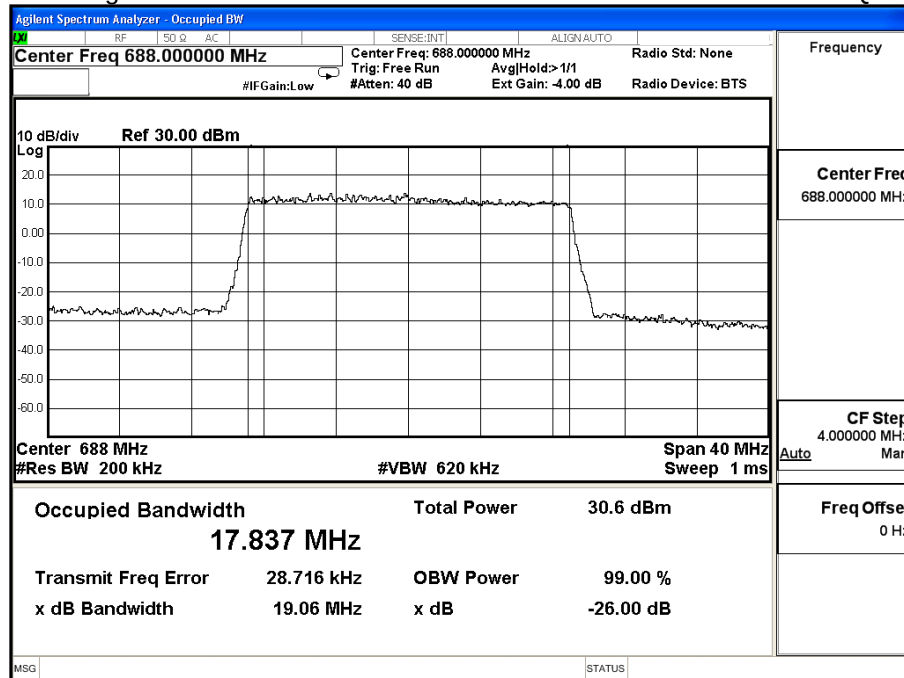
LTE Band 71 Middle channel

20 MHz 16-QAM



LTE Band 71 Highest channel:

20 MHz 16-QAM





1.2. Conducted Spurious Emissions

1.2.1. Test Result

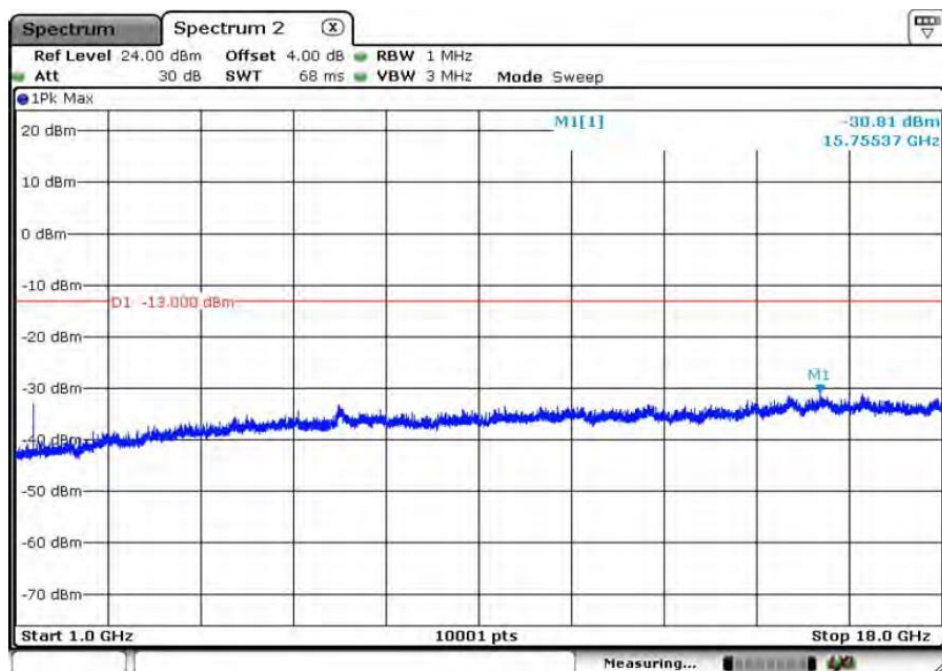
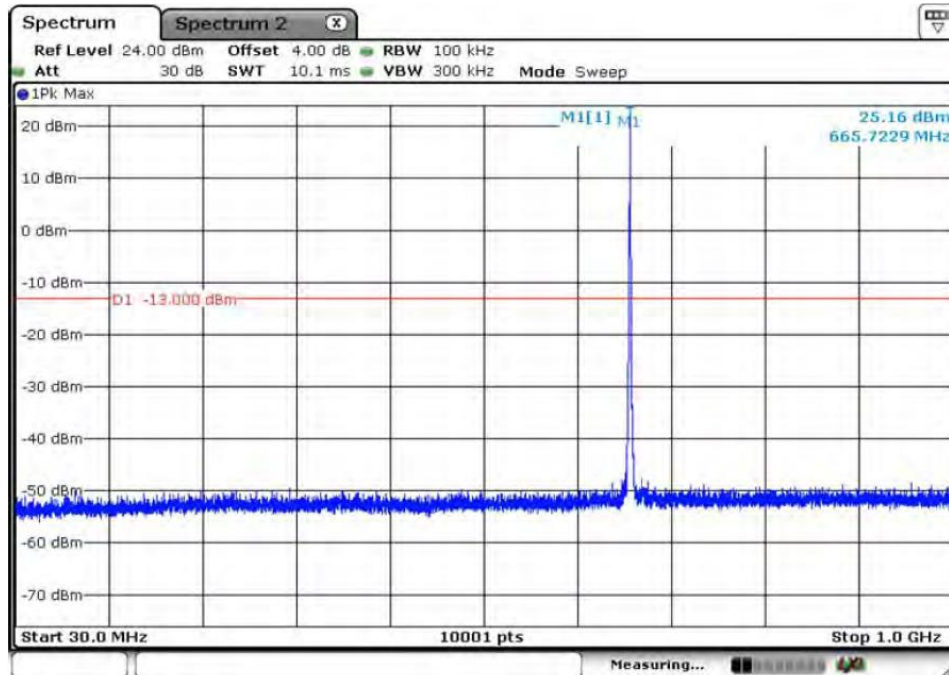
The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

For LTE mode, the plot only show the QPSK,RB100's data.

Pass, the table and plot please see annex.

LTE Band 71 Lowest channel

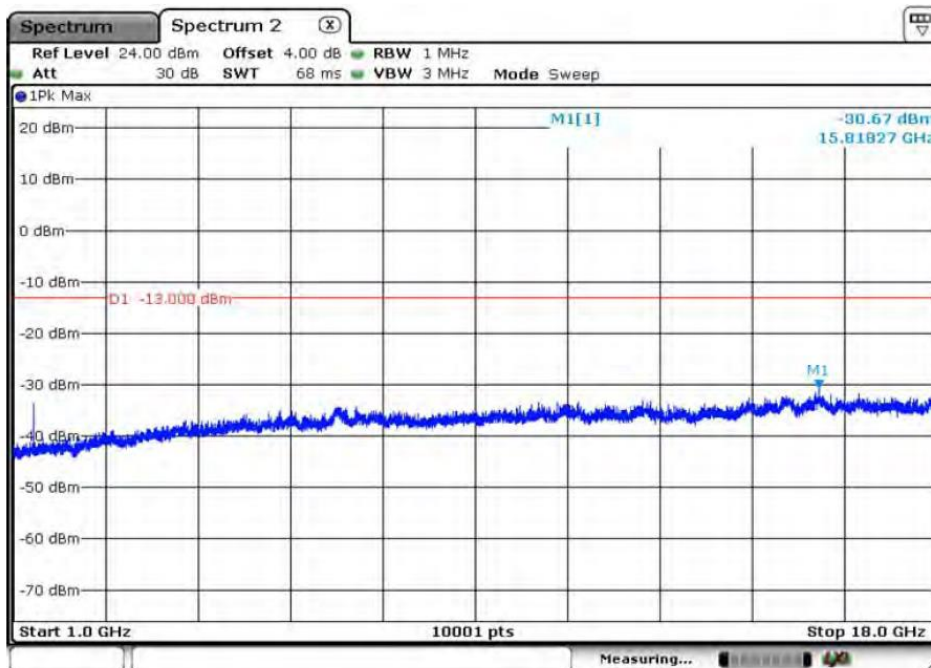
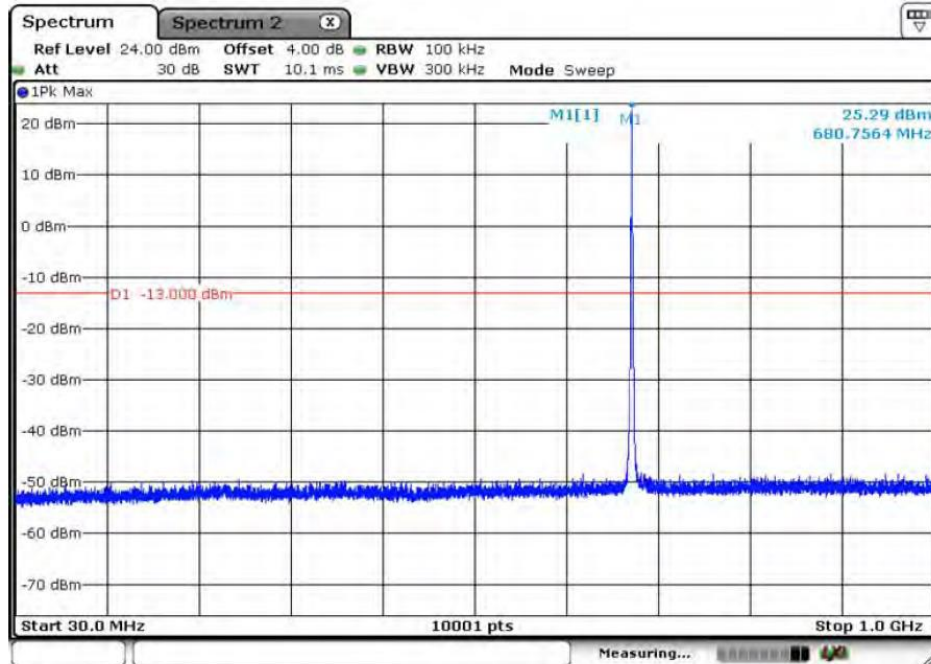
5MHz





LTE Band 71 middle channel

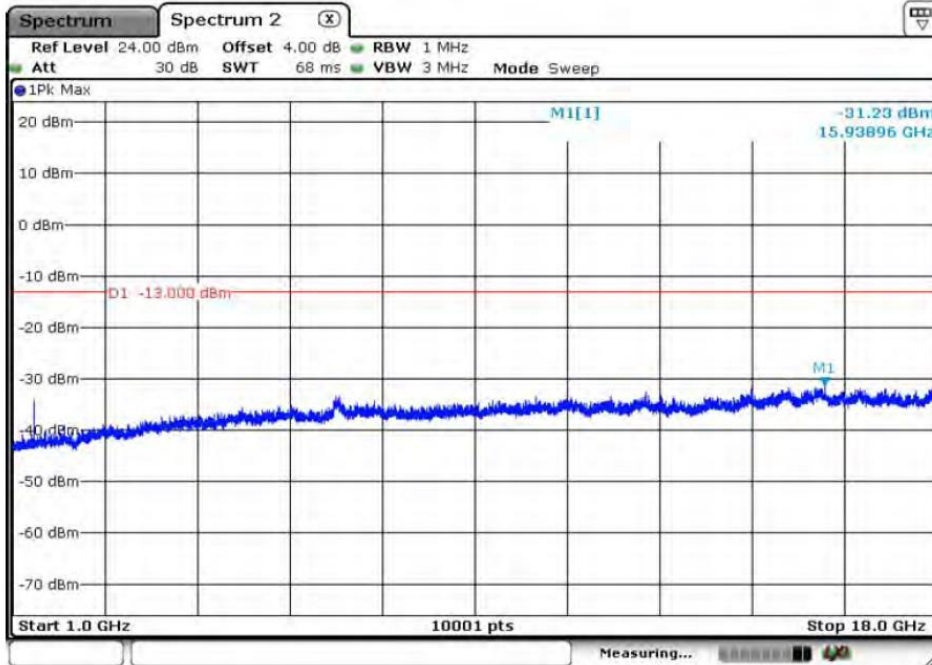
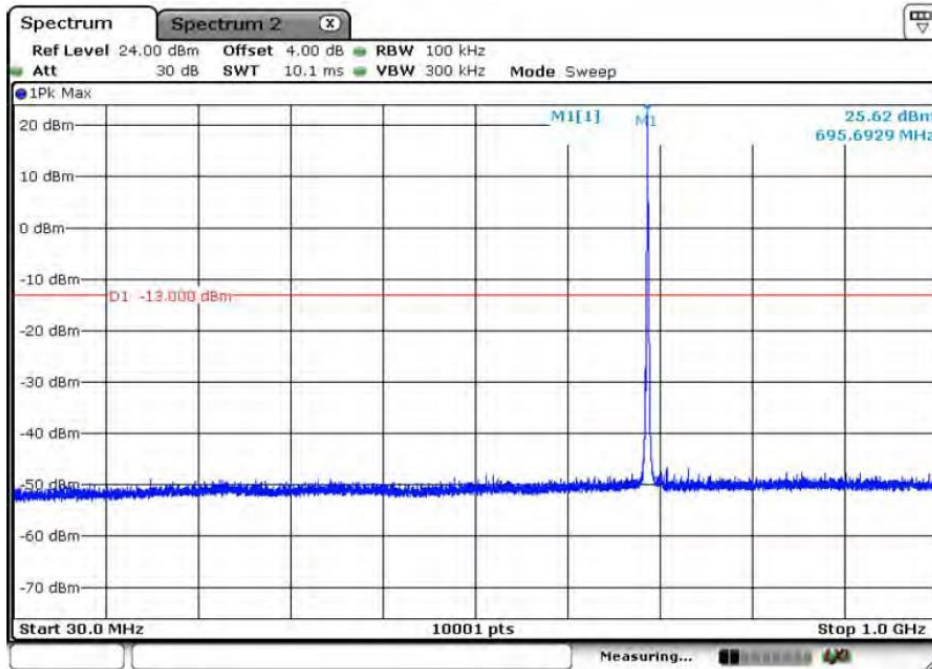
5MHz





LTE Band 71 high channel

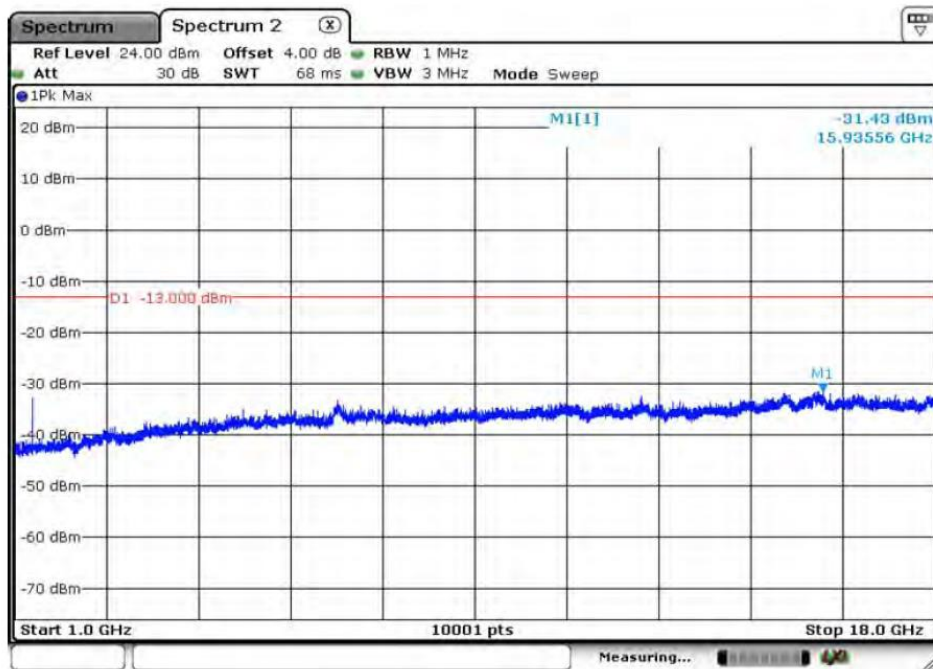
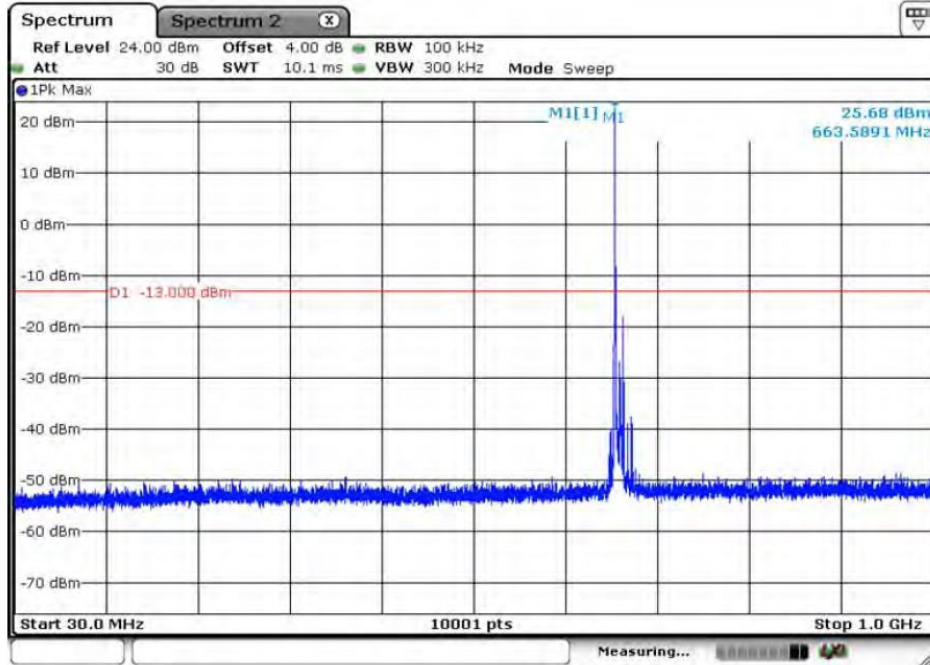
5MHz





LTE Band 71 Lowest channel

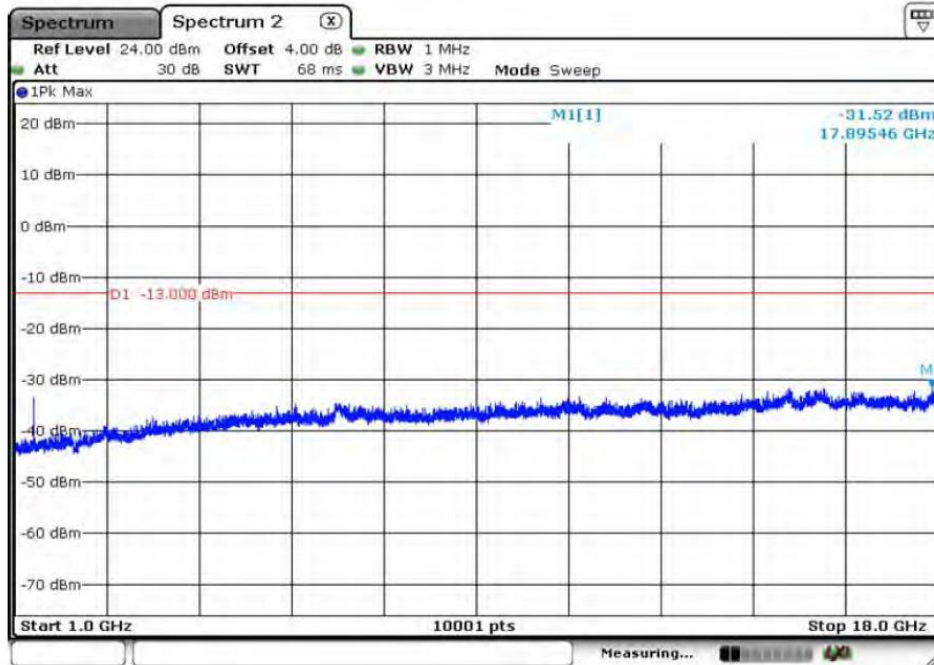
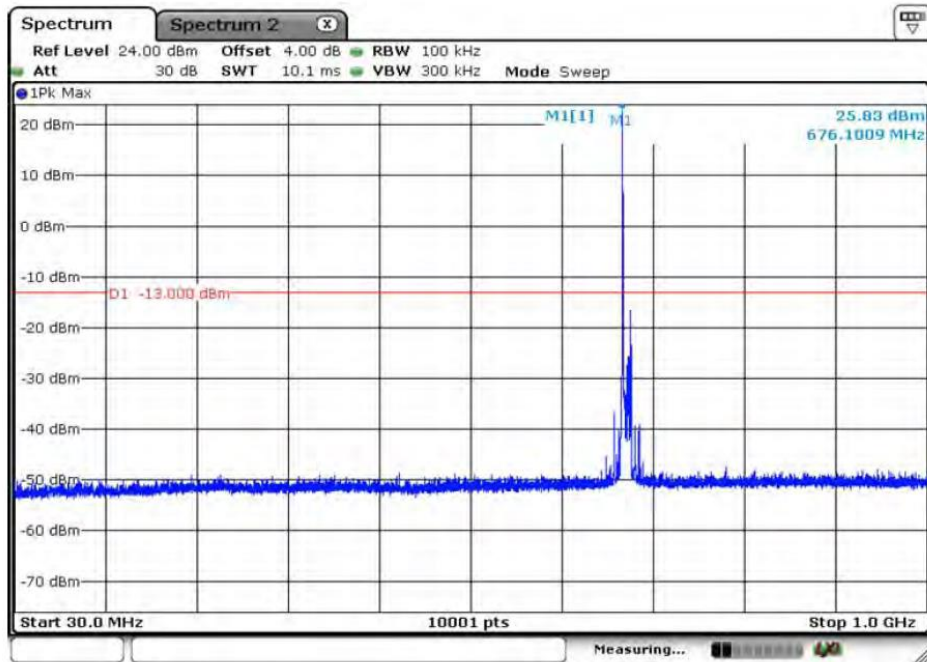
10MHz





LTE Band 71 middle channel

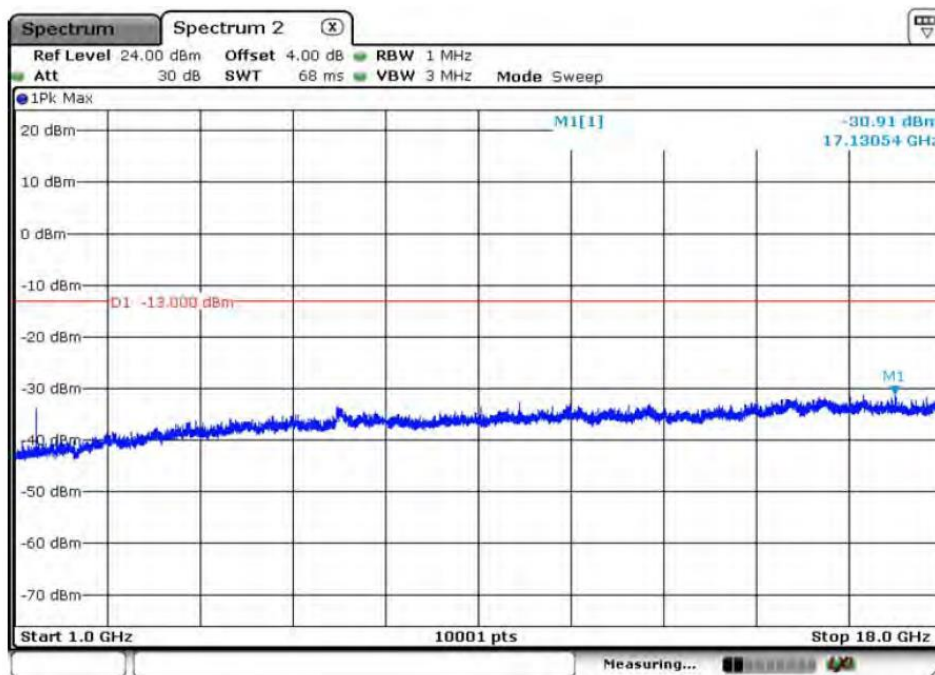
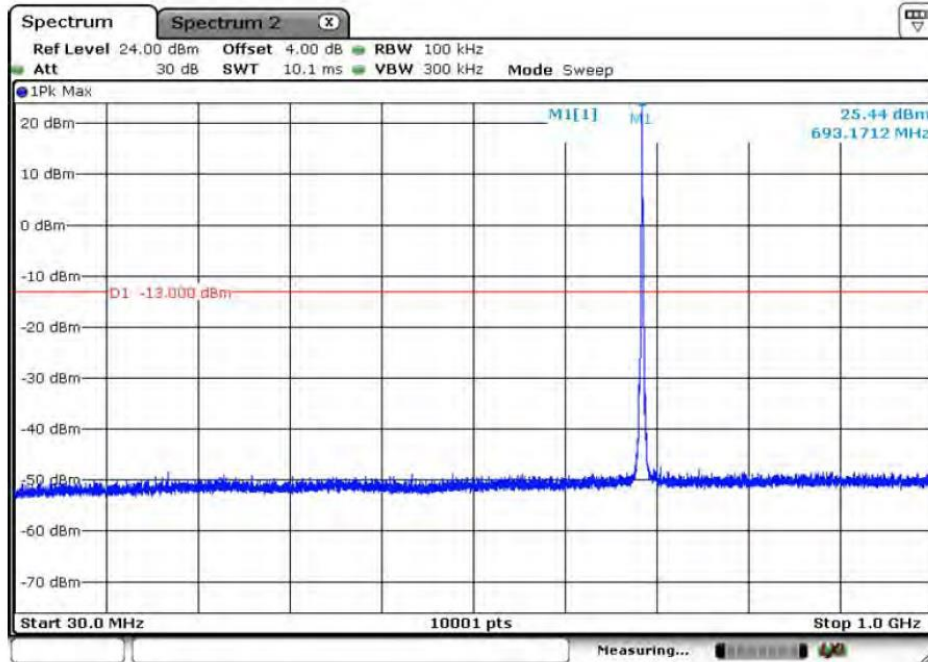
10MHz





LTE Band 71 high channel

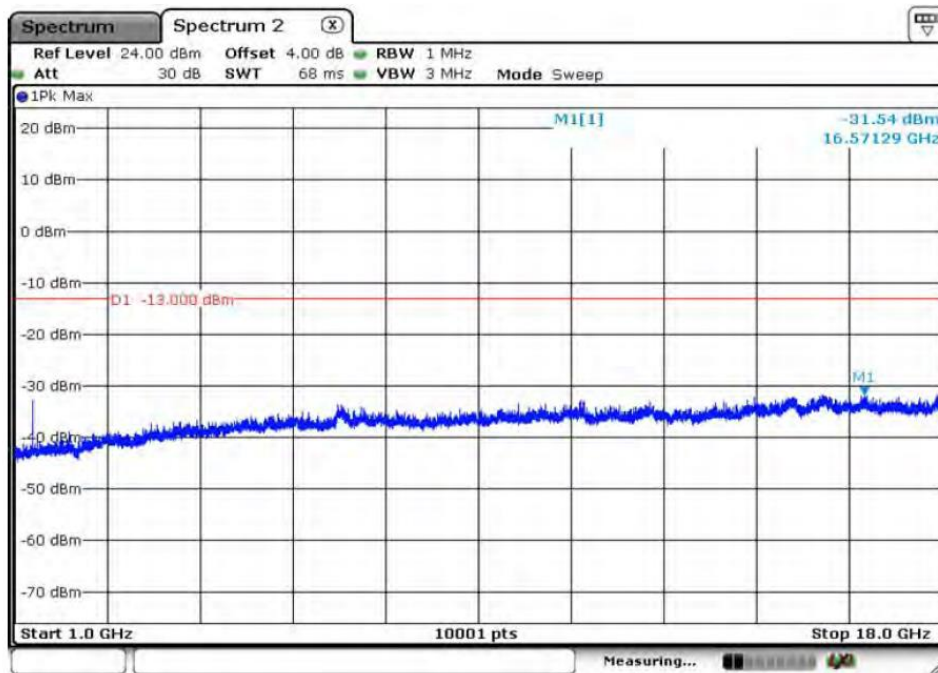
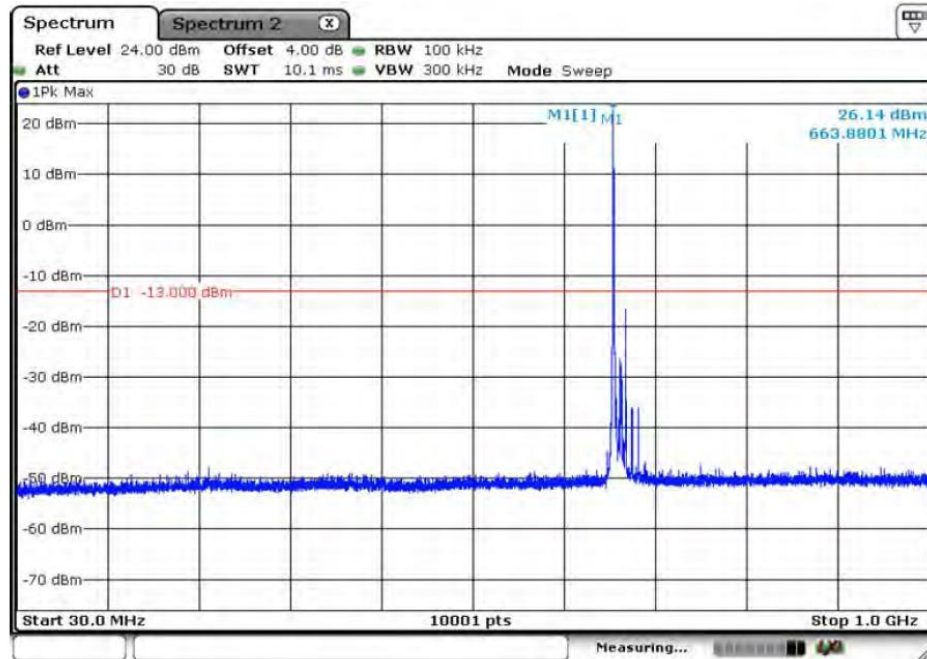
10MHz





LTE Band 71 Lowest channel

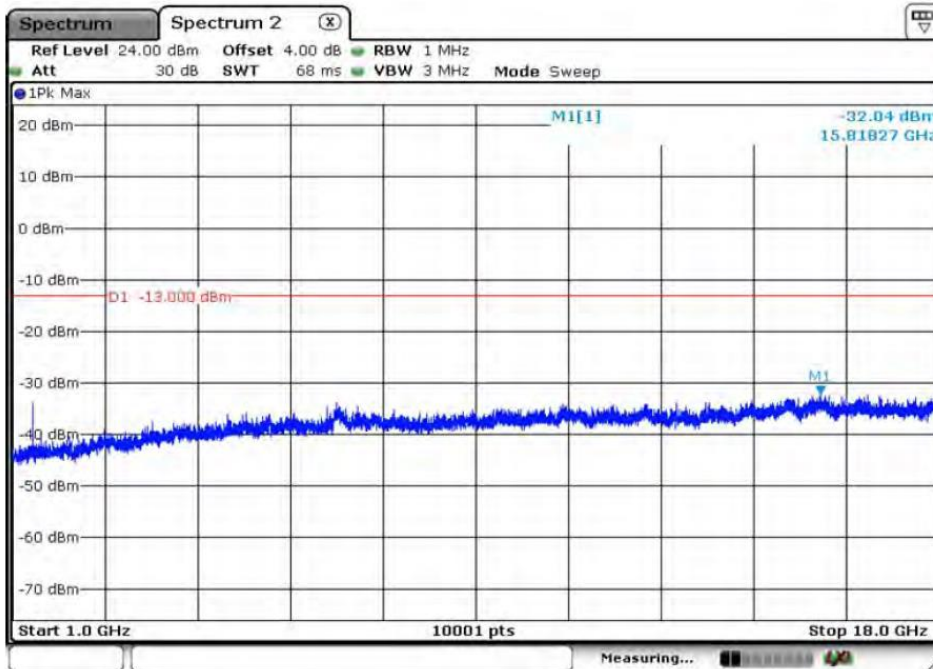
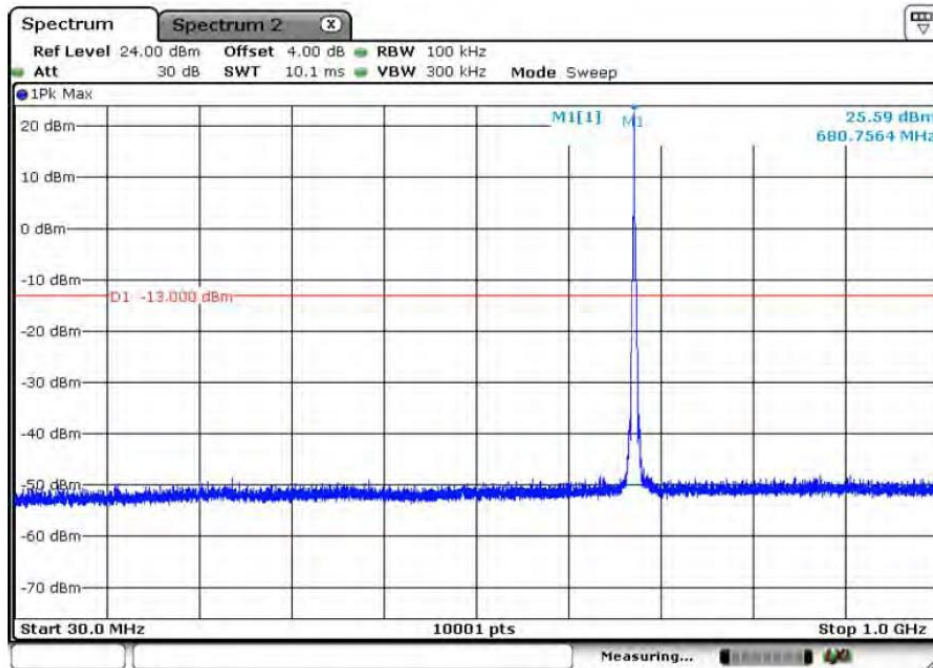
15MHz





LTE Band 71 middle channel

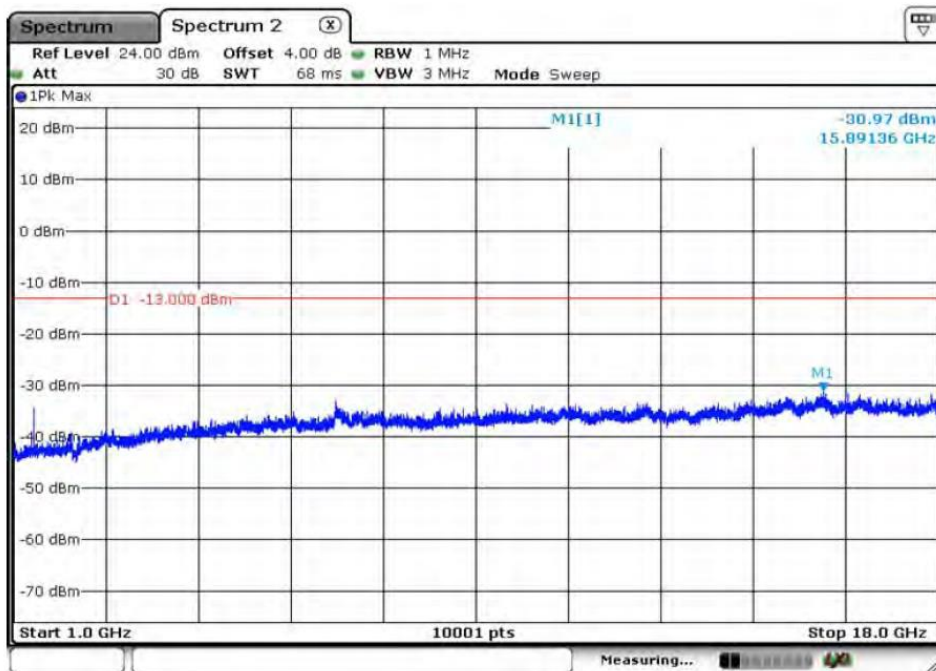
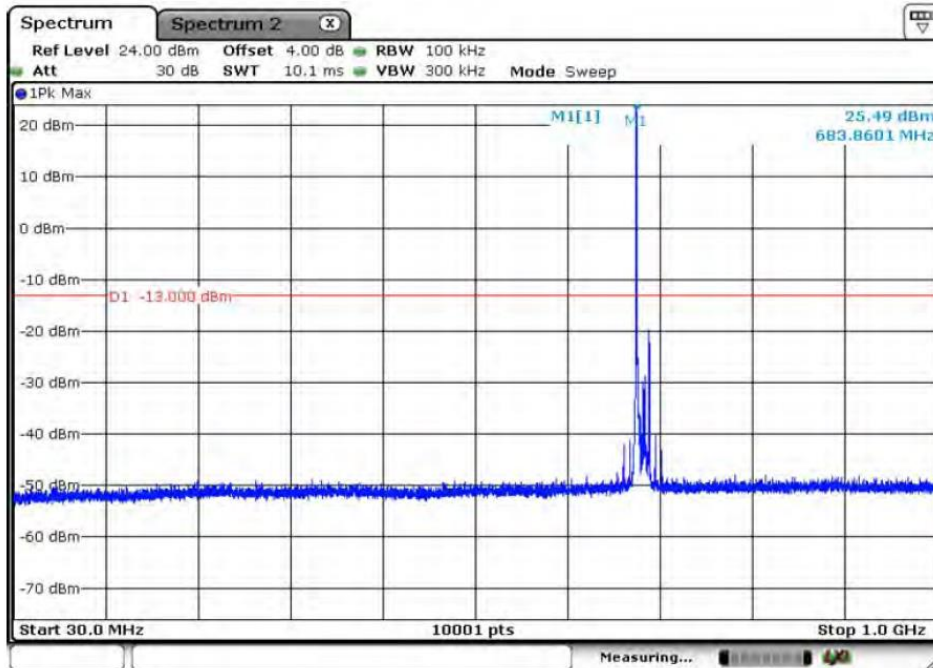
15MHz





LTE Band 71 high channel

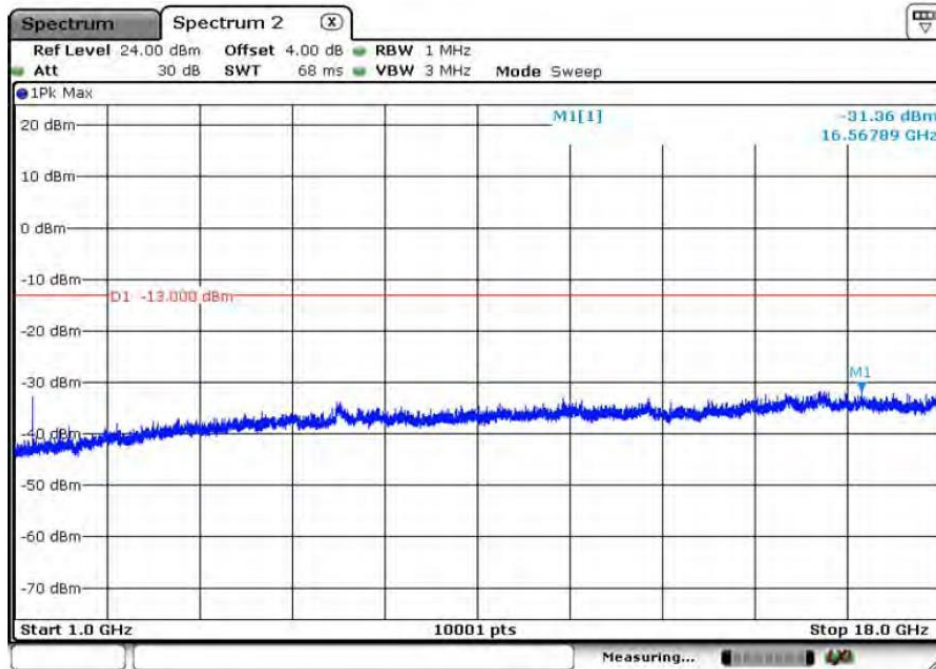
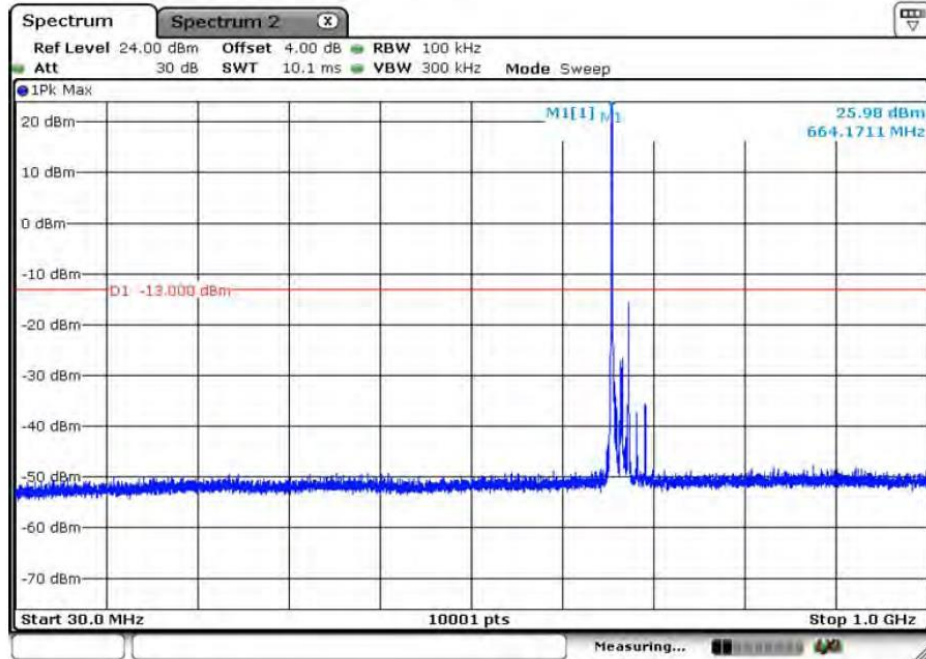
15MHz





LTE Band 71 Lowest channel

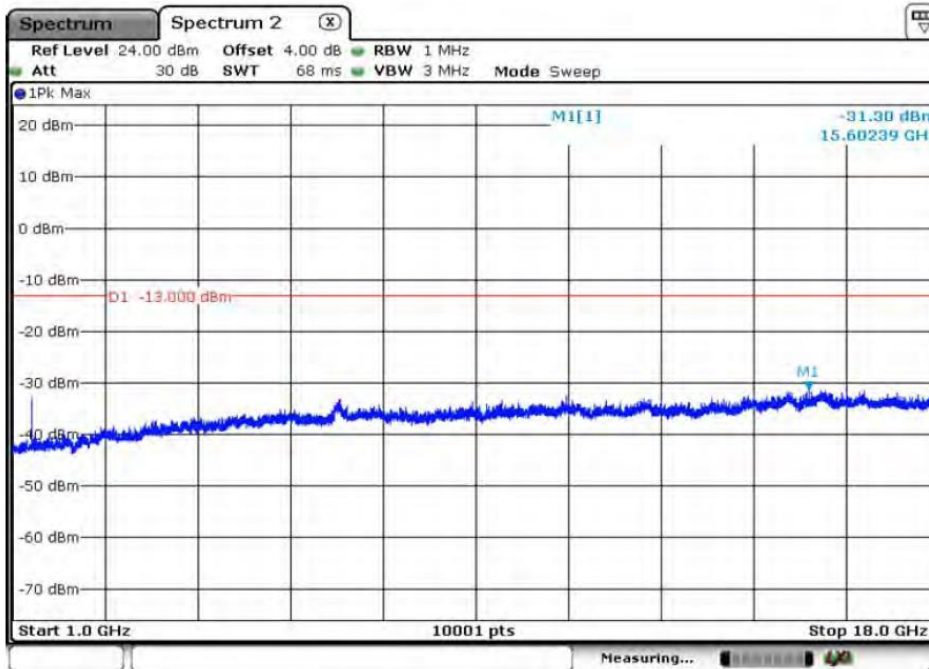
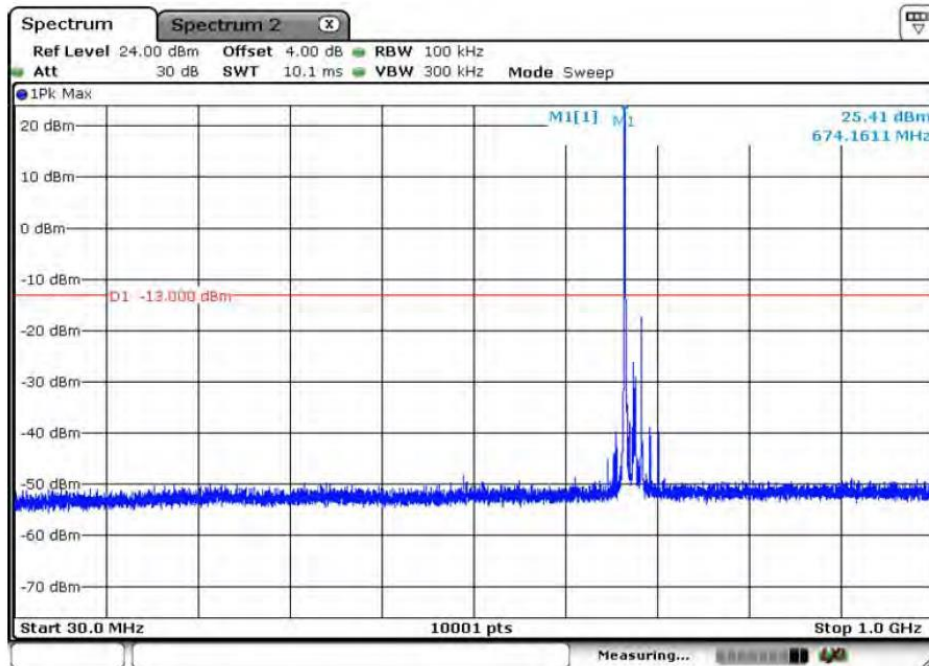
20MHz





LTE Band 71 middle channel

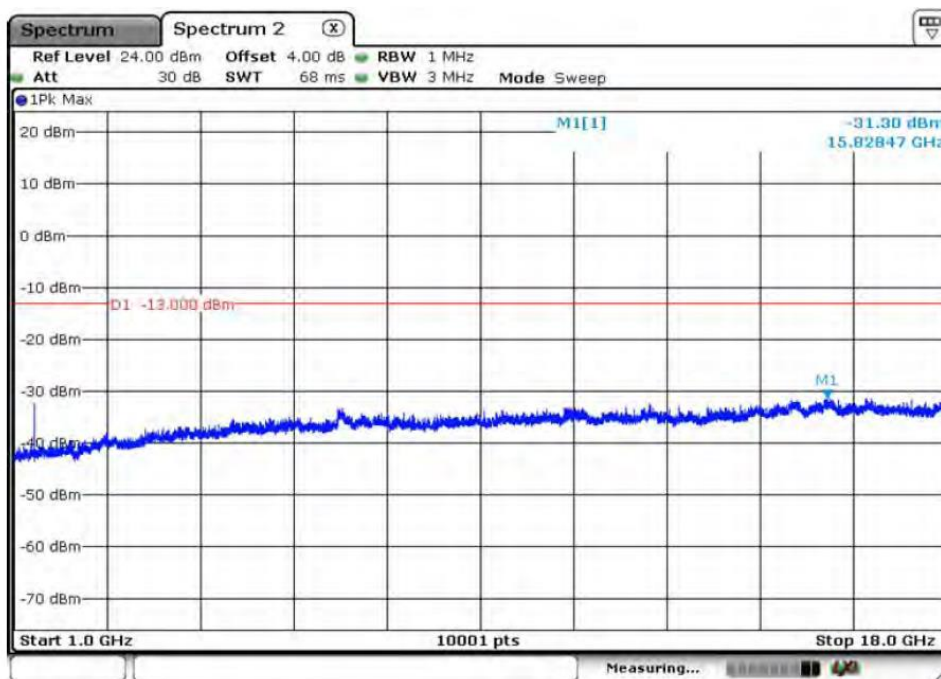
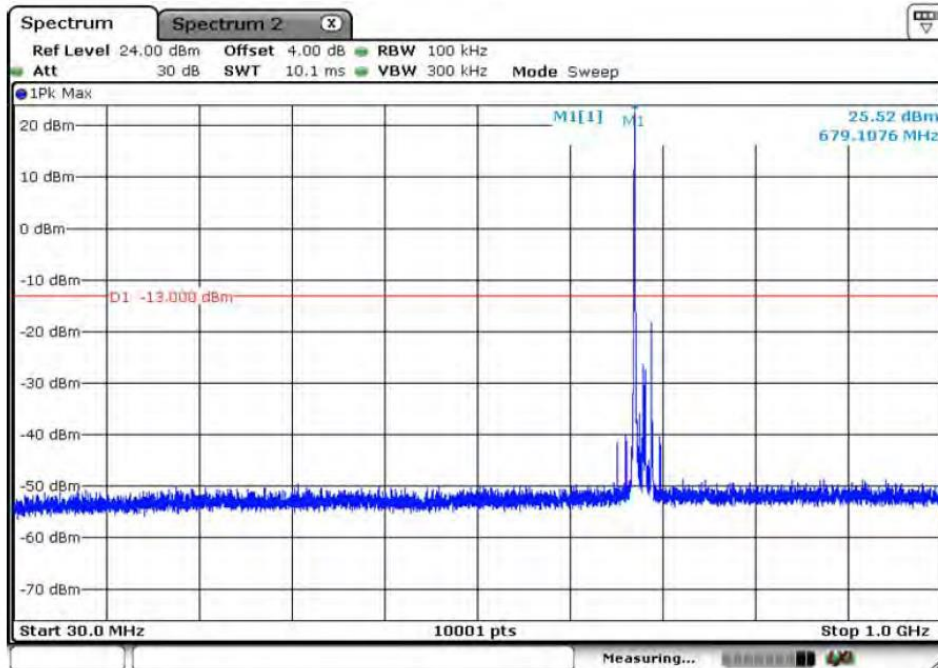
20MHz





LTE Band 71 high channel

20MHz





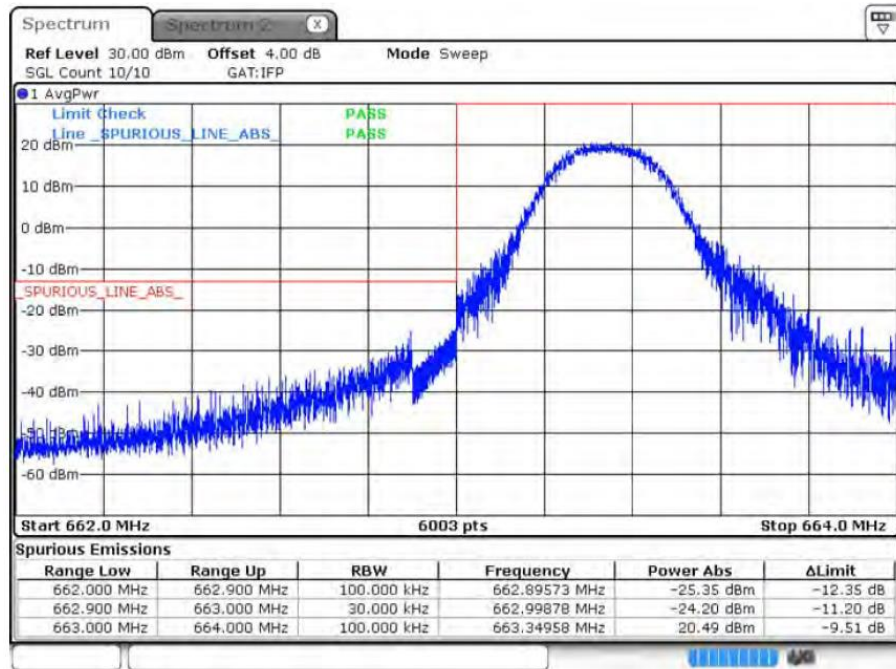
1.3. Conducted Out of Band Emissions

1.3.1. Test Result

The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the out of band emissions.

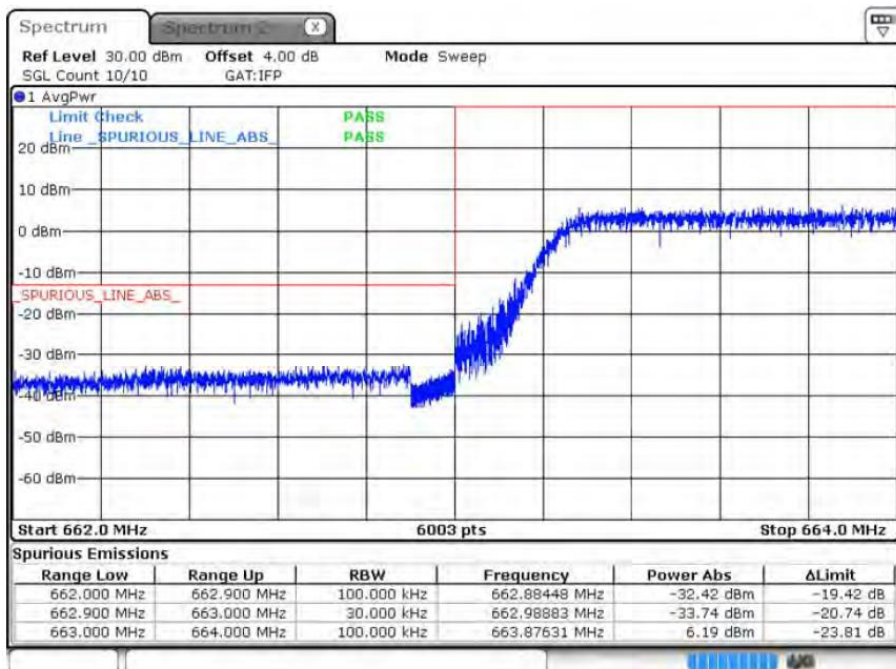
LTE Band 71 Lowest channel

5MHz 1RB



LTE Band 71 Lowest channel

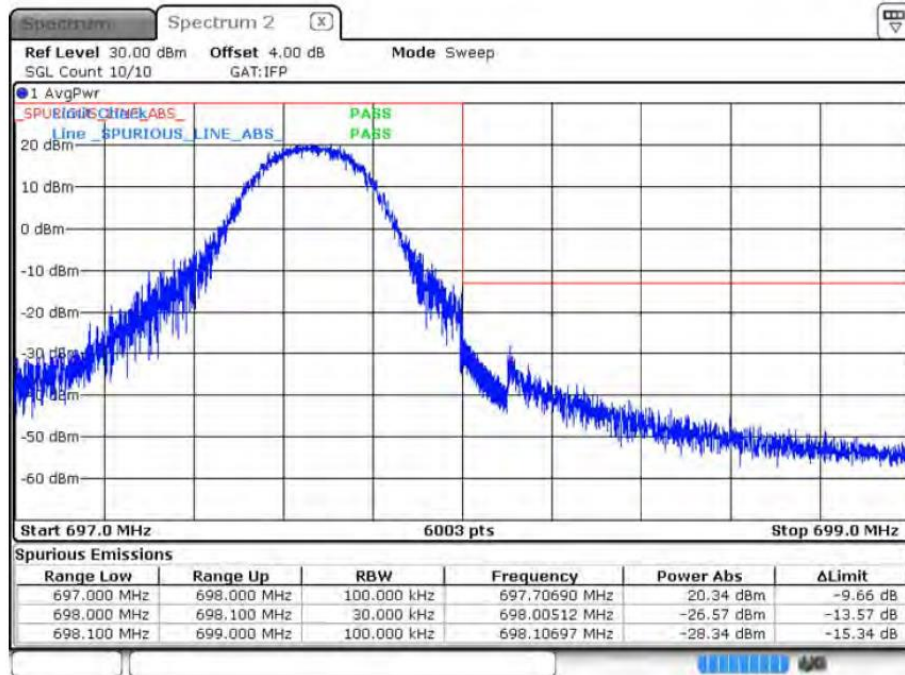
5MHz 25RB





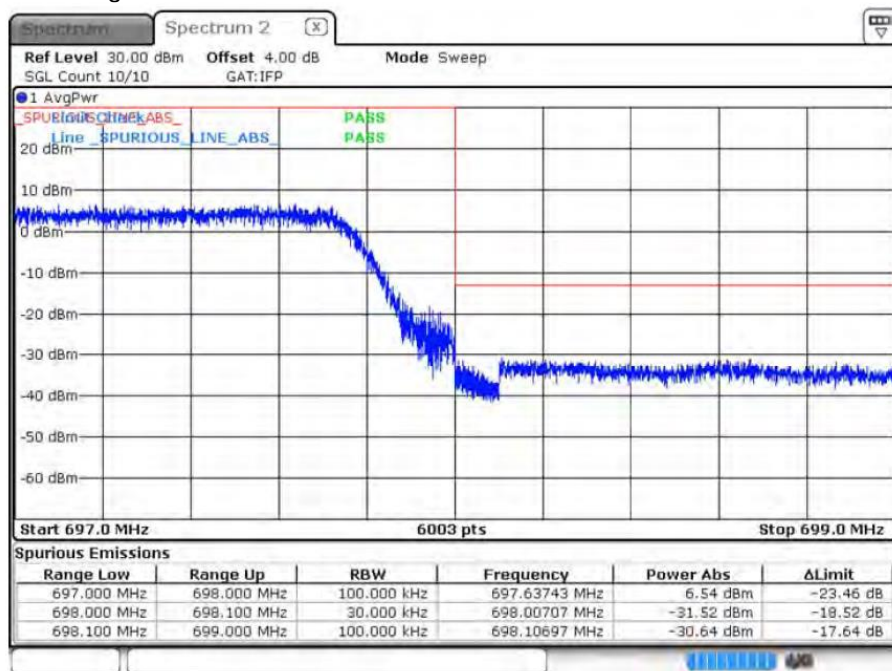
LTE Band 71 Highest channel:

5MHz 1RB



LTE Band 71 Highest channel:

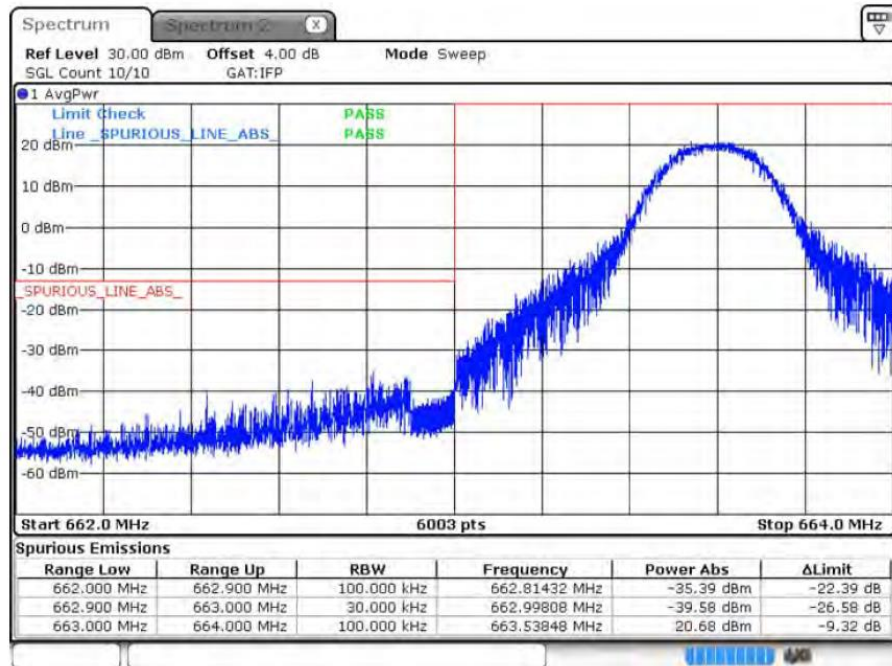
5MHz 25RB





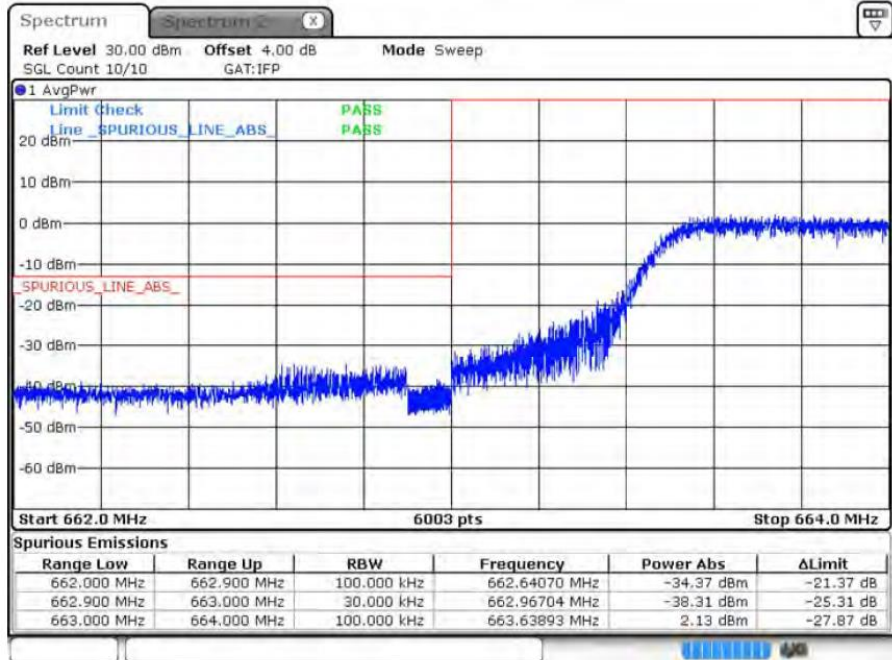
LTE Band 71 Lowest channel

10MHz 1RB



LTE Band 71 Lowest channel

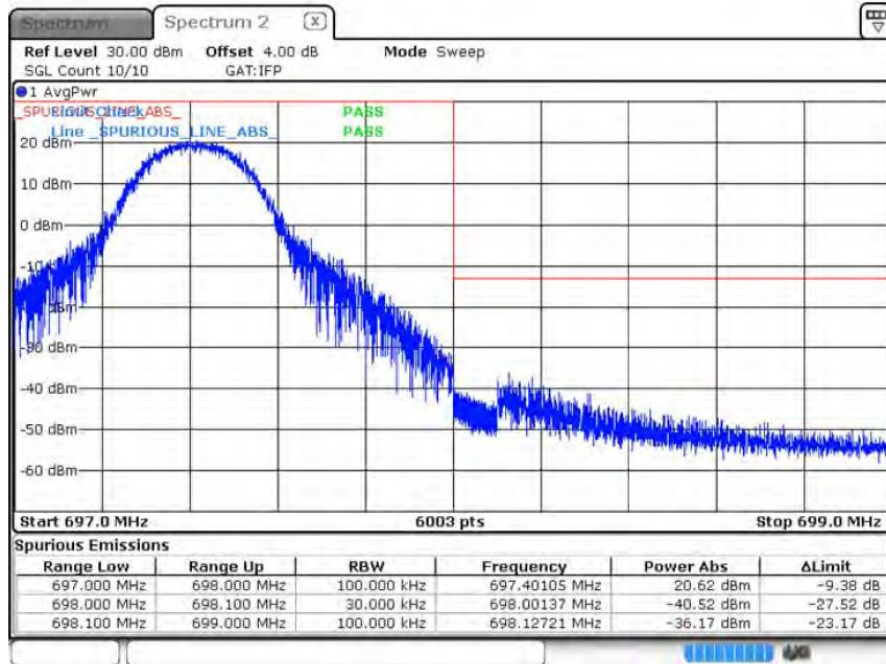
10MHz 50RB





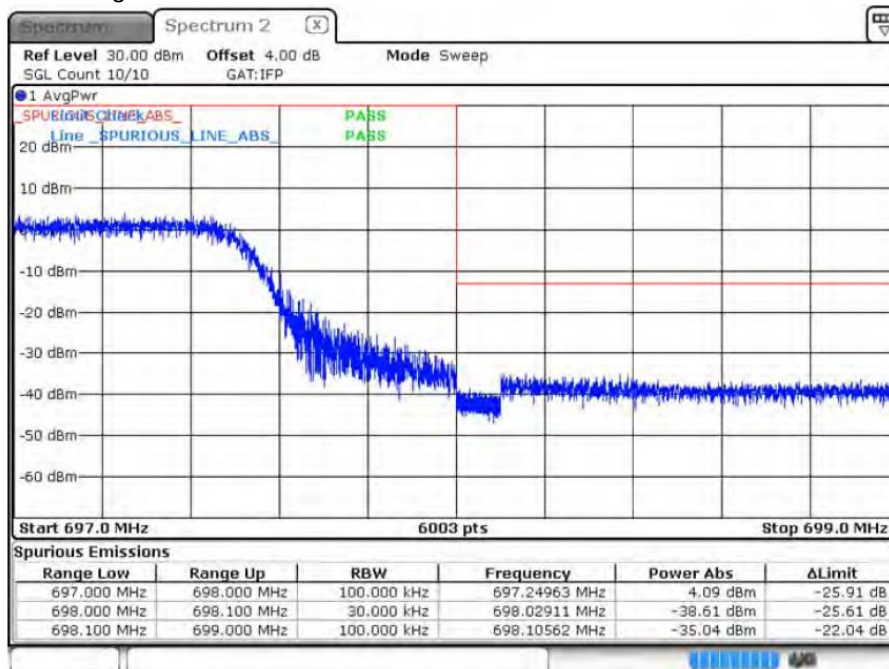
LTE Band 71 Highest channel:

10MHz 1RB



LTE Band 71 Highest channel:

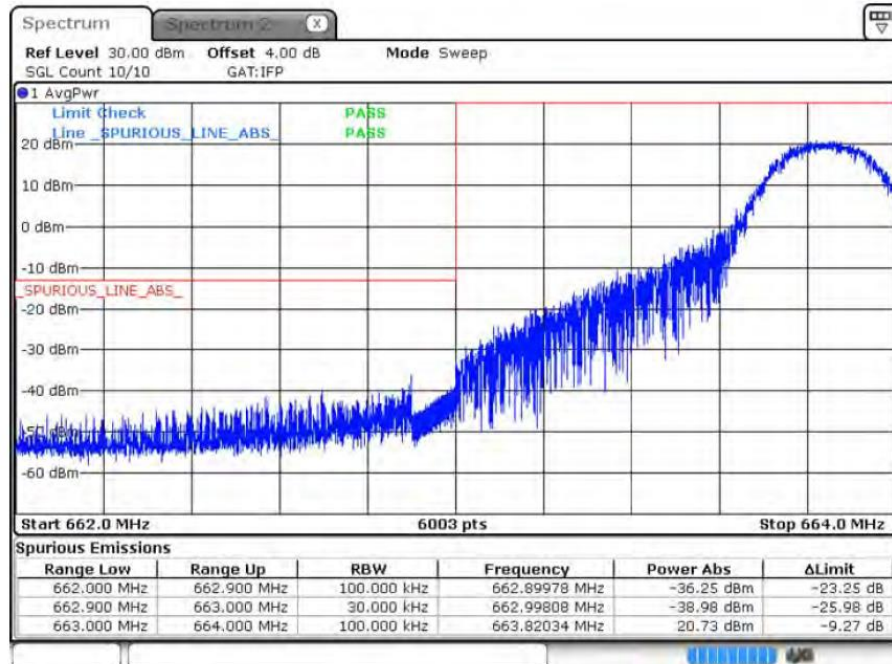
10MHz 50RB





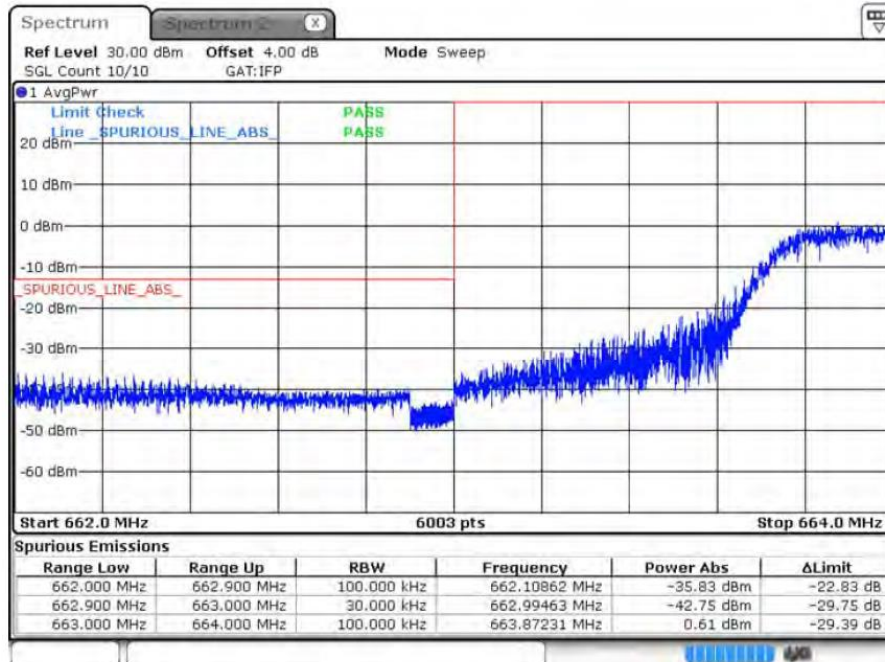
LTE Band 71 Lowest channel

15MHz 1RB



LTE Band 71 Lowest channel

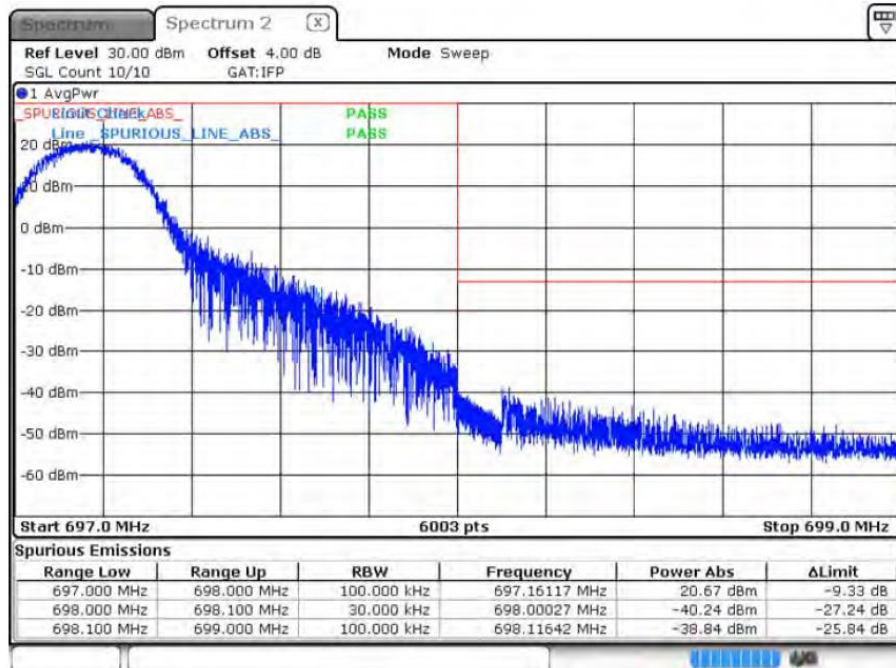
15MHz 75RB





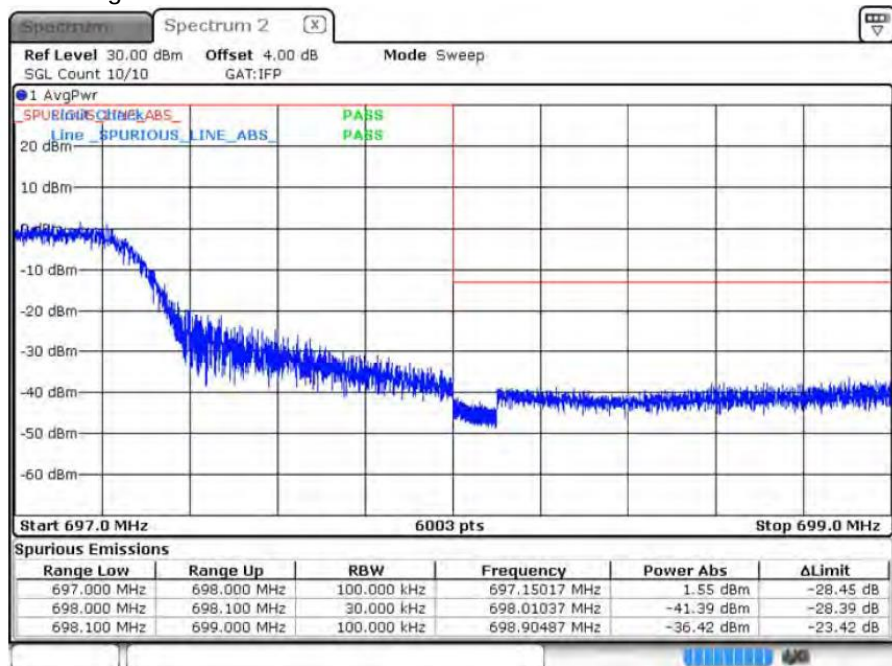
LTE Band 71 Highest channel:

15MHz 1RB



LTE Band 71 Highest channel:

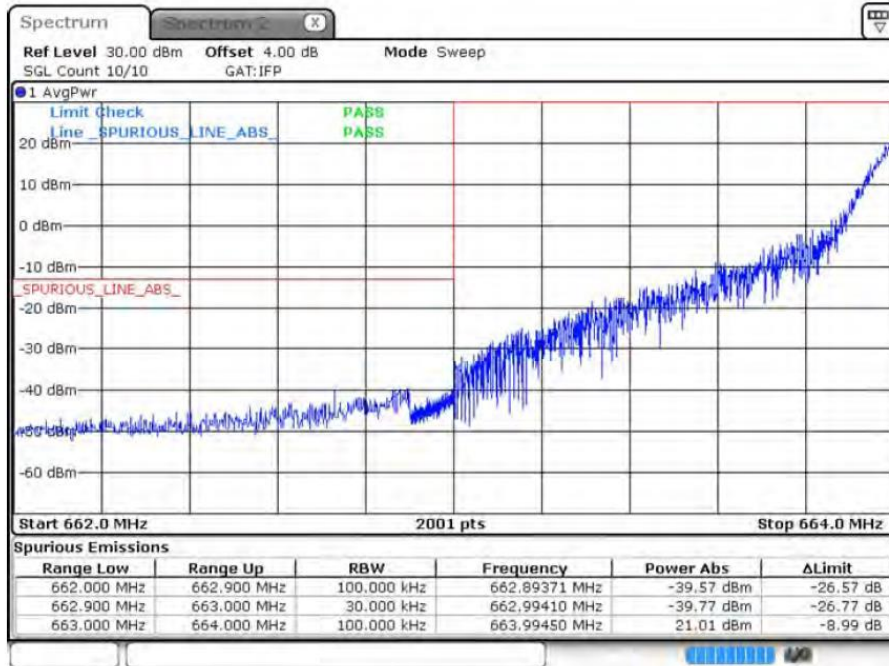
15MHz 75RB





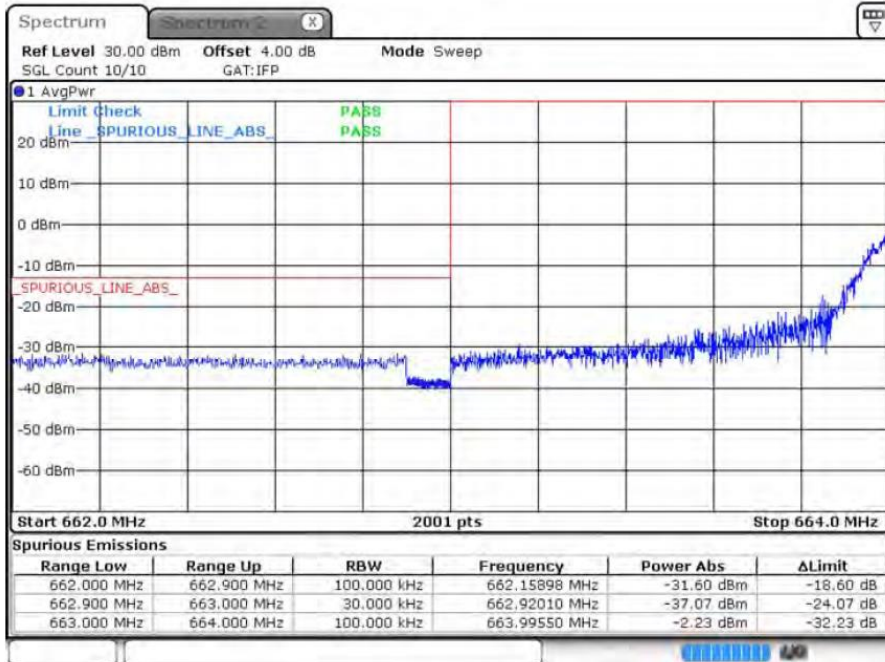
LTE Band 71 Lowest channel

20MHz 1RB



LTE Band 71 Lowest channel

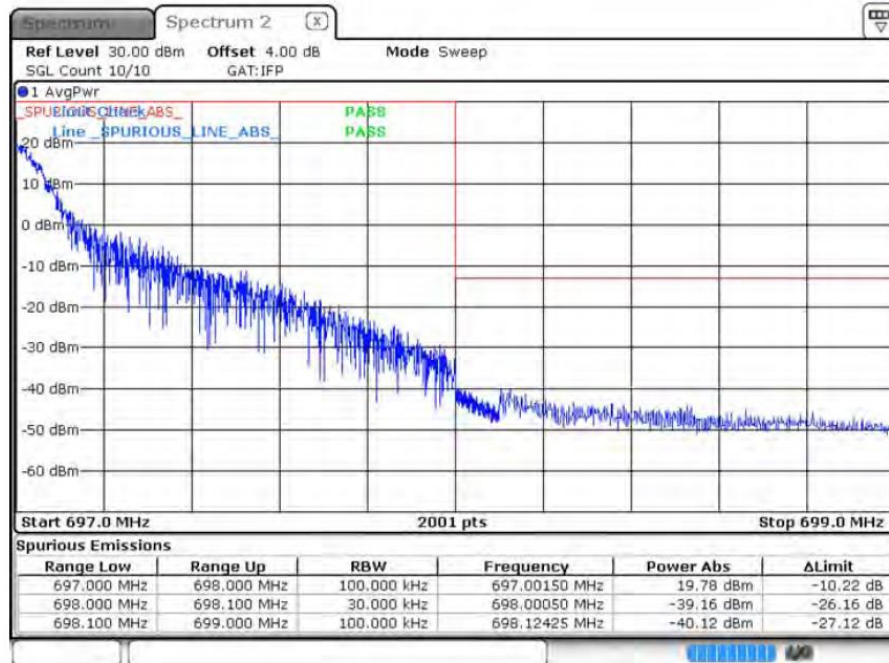
20MHz 100RB





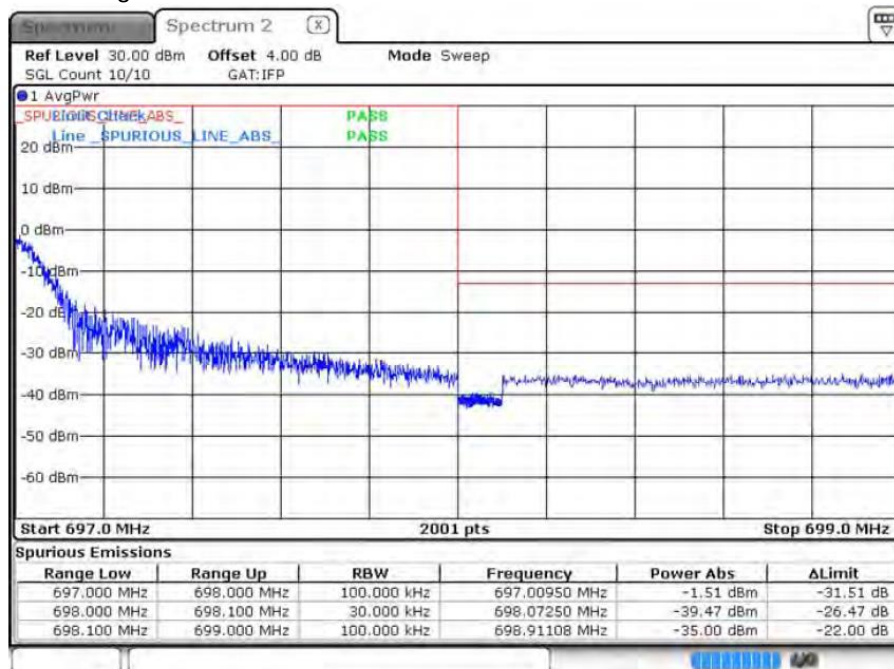
LTE Band 71 Highest channel:

20MHz 1RB



LTE Band 71 Highest channel:

20MHz 100RB



***** END *****