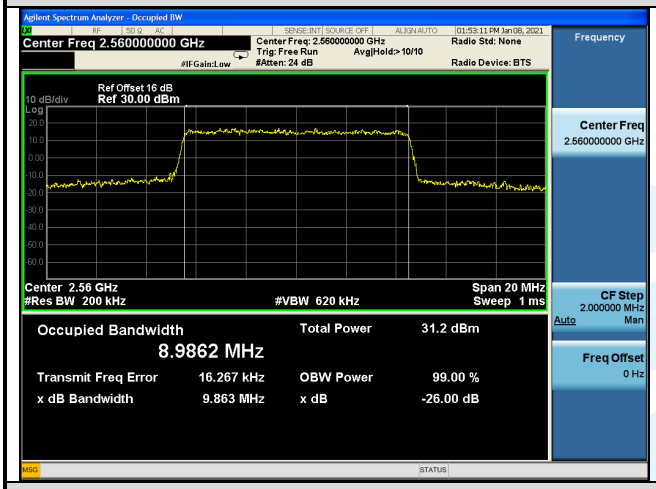
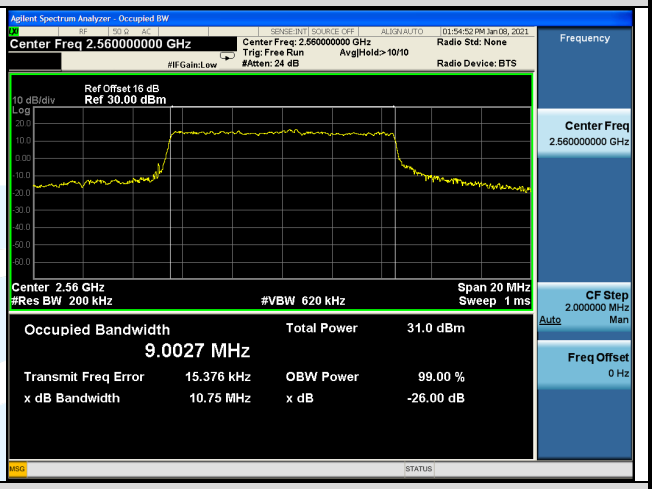
LTE Band 41_ Channel Bandwidth: 10 MHz

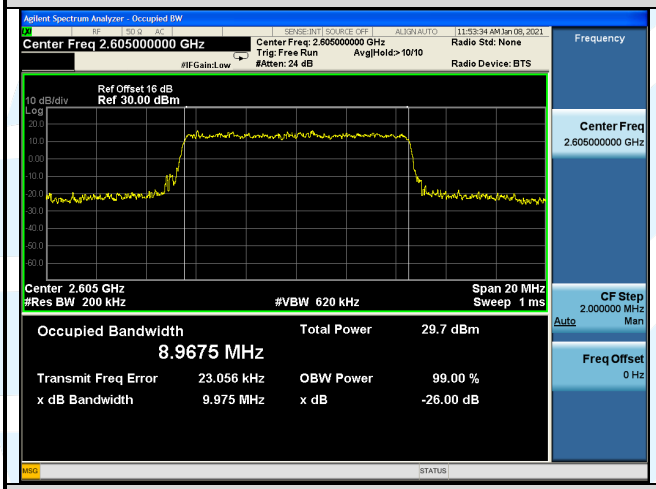
QPSK	16QAM

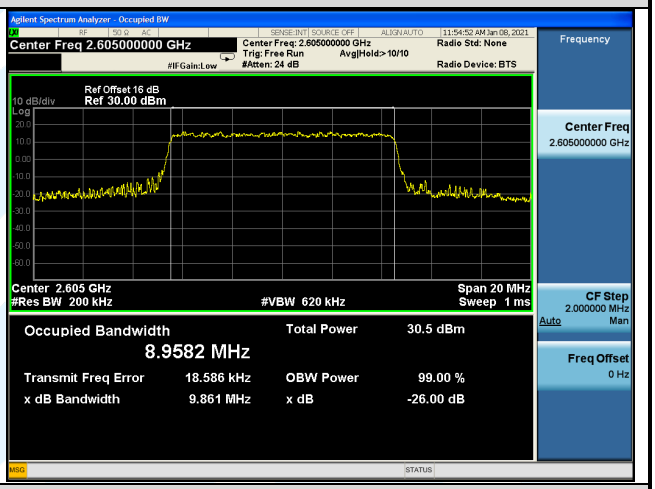
Lowest Channel



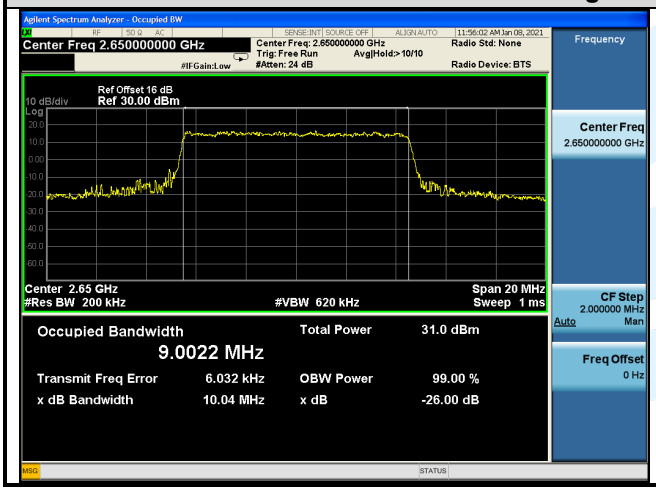


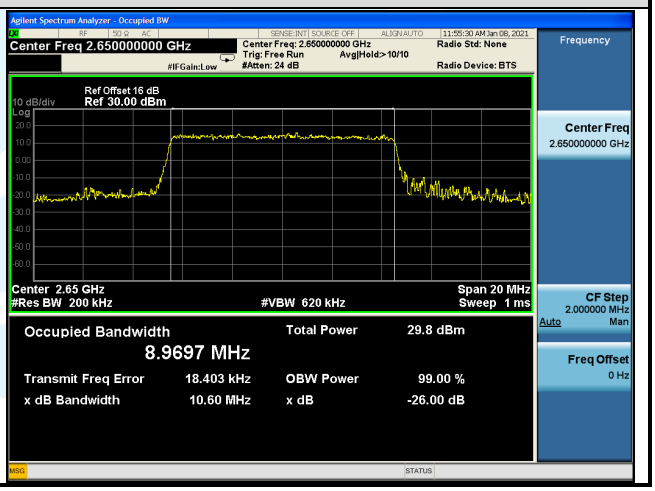
Middle Channel

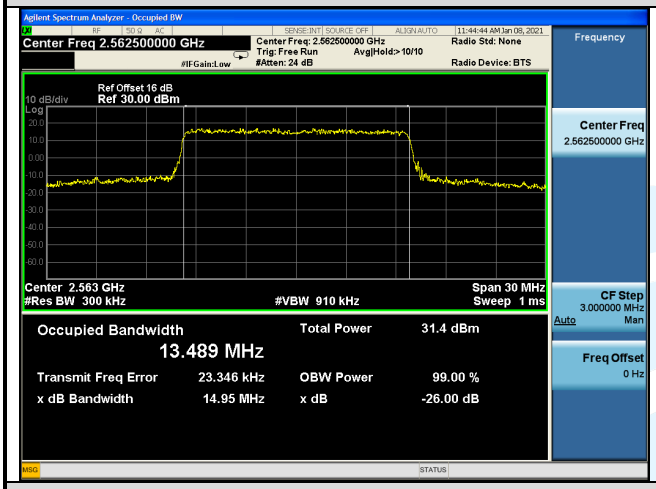
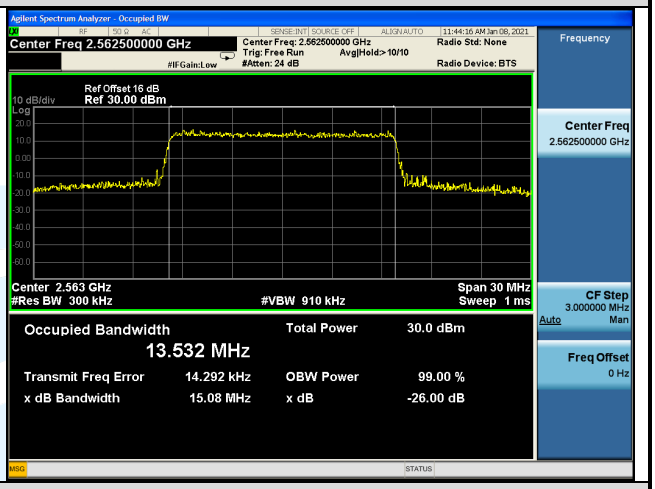
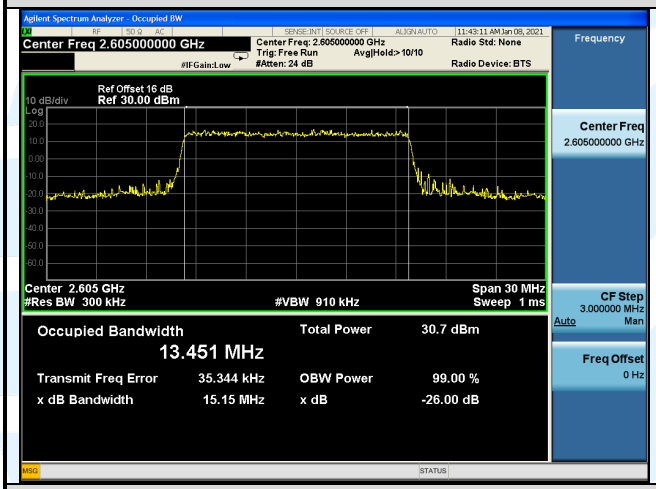
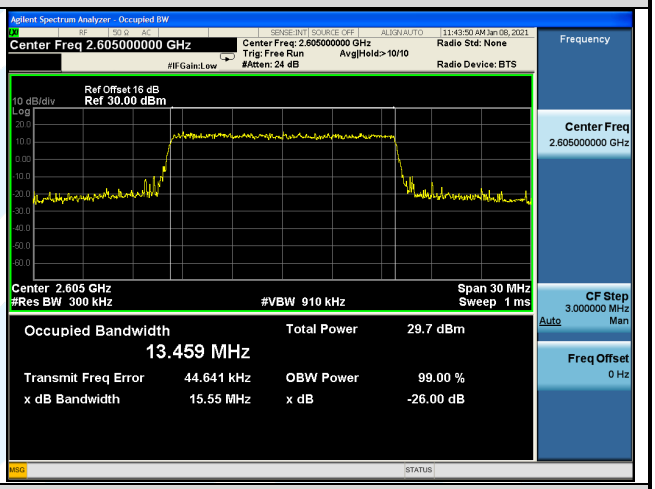
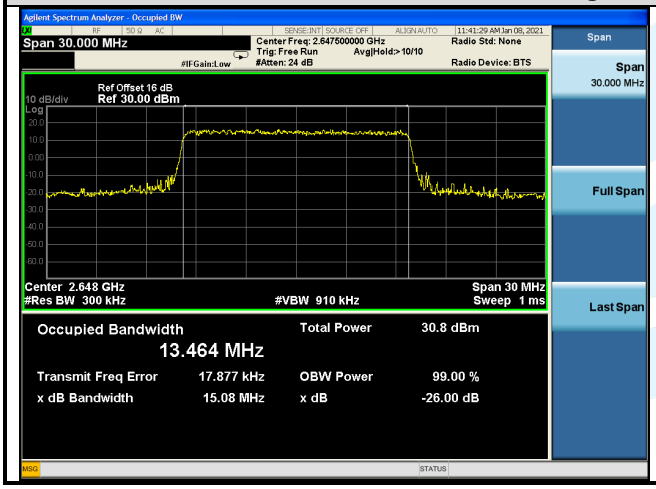
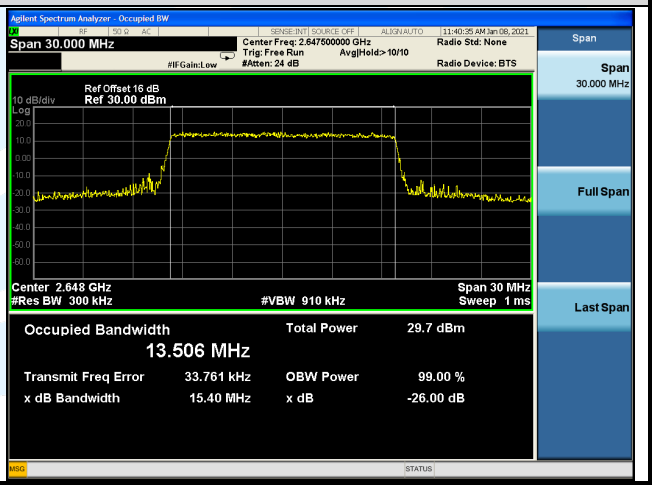


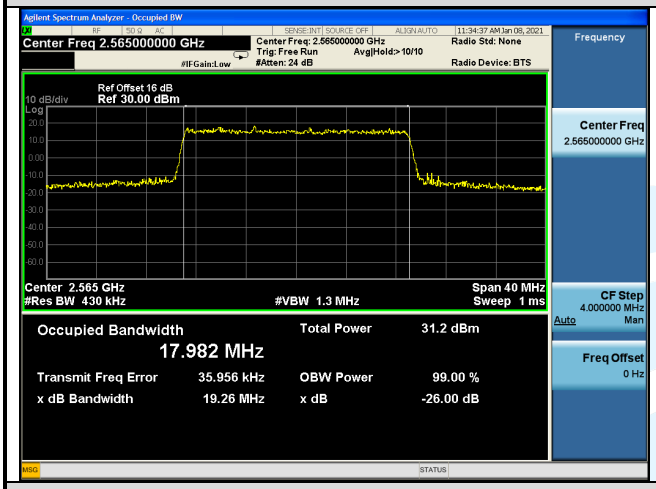
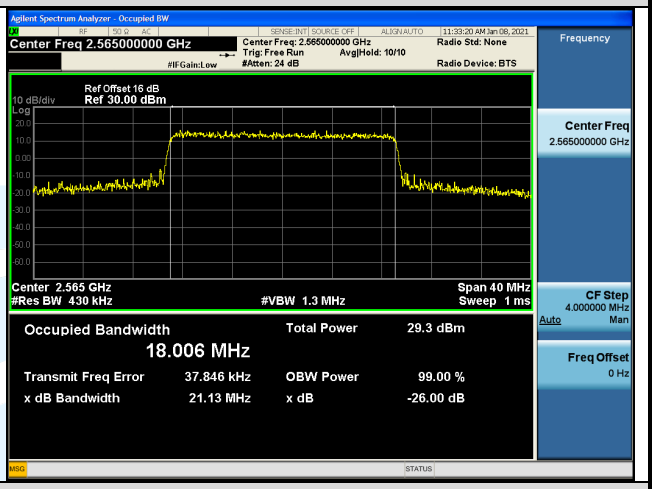
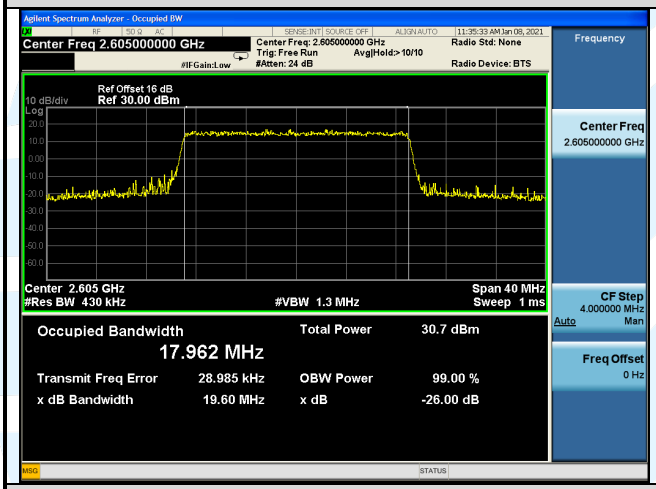
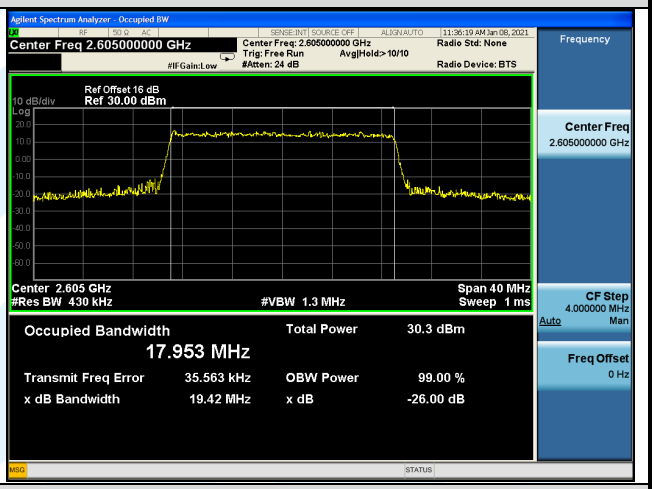
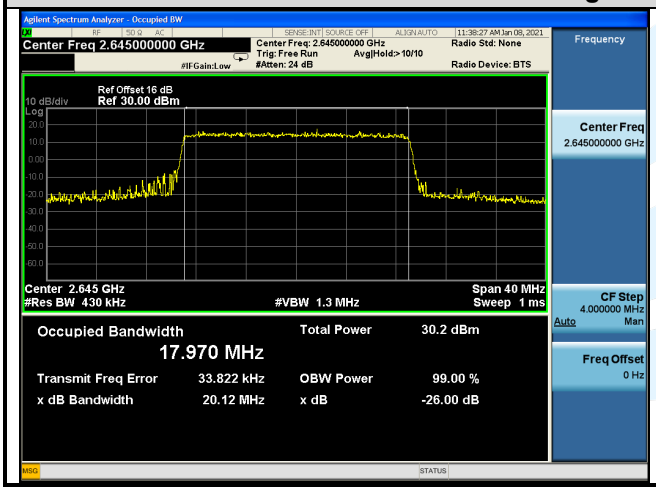
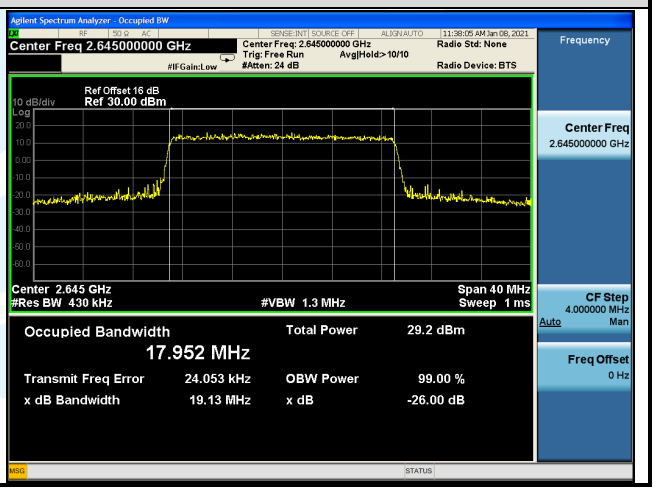


Highest Channel





LTE Band 41_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 41_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

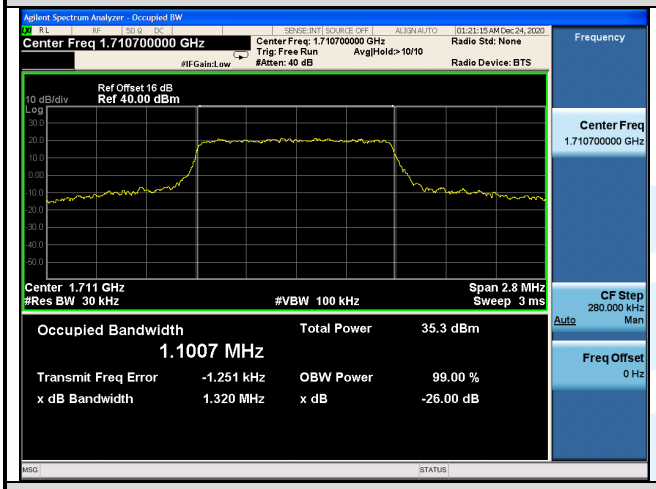
5.5.10 LTE Band 66

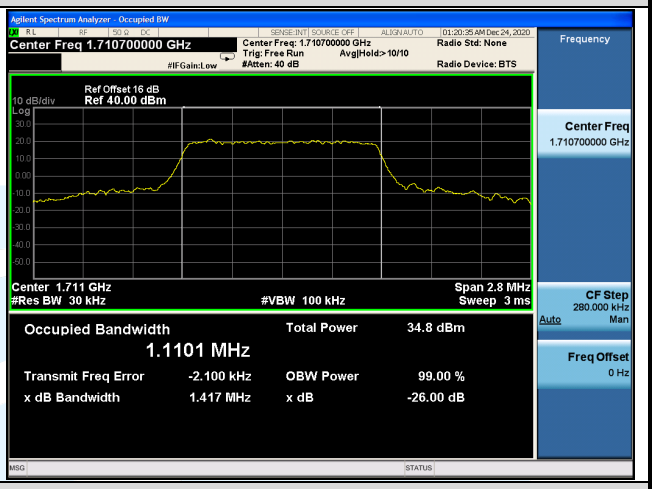
LTE Band 66								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 1.4 MHz								
Lowest	6	0	1.320	1.417	/	1.1007	1.1101	/
Middle	6	0	1.301	1.283	/	1.0970	1.0983	/
Highest	6	0	1.284	1.286	/	1.1022	1.0964	/
Channel Bandwidth: 3 MHz								
Lowest	15	0	2.926	2.919	/	2.6985	2.6882	/
Middle	15	0	2.895	2.933	/	2.6907	2.6862	/
Highest	15	0	2.916	2.910	/	2.6939	2.6879	/
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.249	5.293	/	4.5247	4.5681	/
Middle	25	0	5.203	5.202	/	4.5442	4.5320	/
Highest	25	0	5.220	5.202	/	4.5279	4.5523	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	11.26	10.21	/	9.0371	9.0326	/
Middle	50	0	10.35	10.03	/	9.0462	9.0076	/
Highest	50	0	10.16	10.13	/	8.9983	9.0224	/
Channel Bandwidth: 15 MHz								
Lowest	75	0	15.24	16.28	/	13.531	13.568	/
Middle	75	0	15.05	14.97	/	13.543	13.521	/
Highest	75	0	15.01	15.02	/	13.490	13.529	/
Channel Bandwidth: 20 MHz								
Lowest	100	0	20.07	19.90	/	18.058	18.042	/
Middle	100	0	19.78	19.80	/	18.017	18.037	/
Highest	100	0	19.74	19.83	/	18.021	18.024	/

LTE Band 66_ Channel Bandwidth: 1.4 MHz

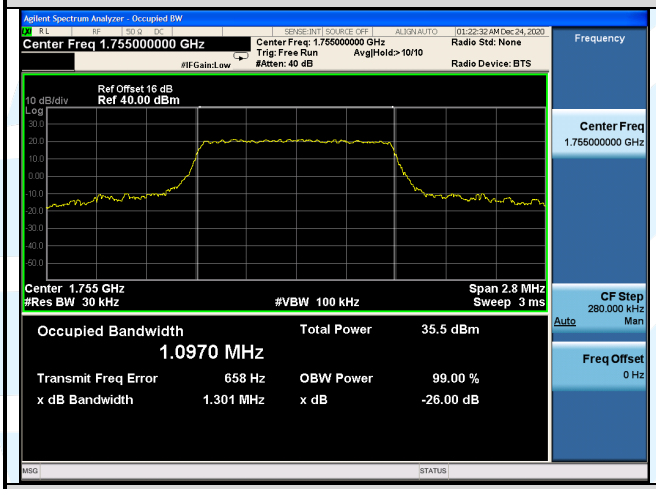
QPSK	16QAM

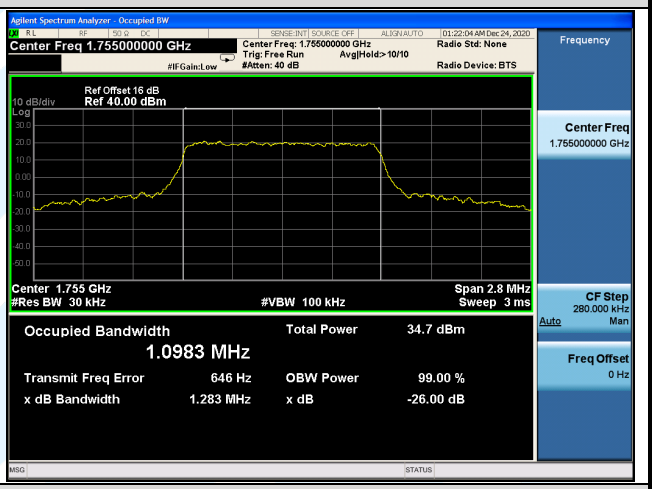
Lowest Channel



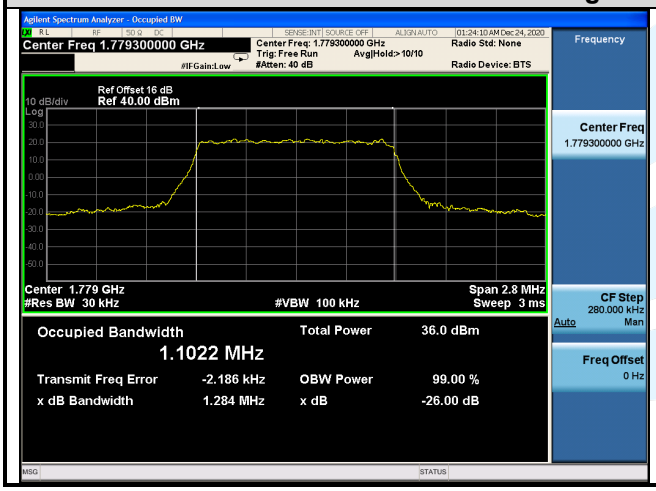


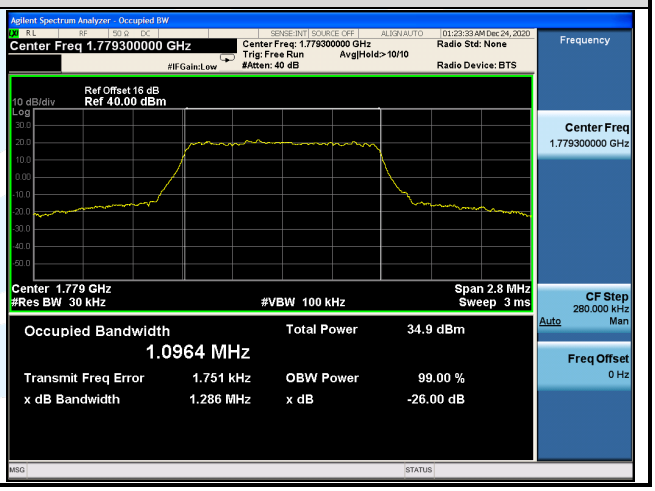
Middle Channel





Highest Channel

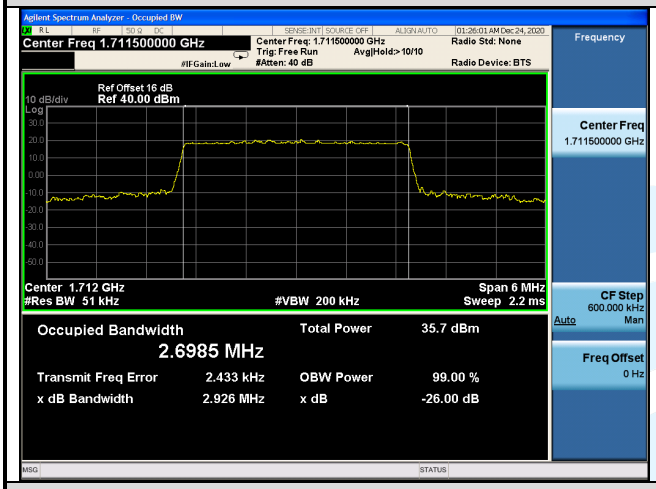


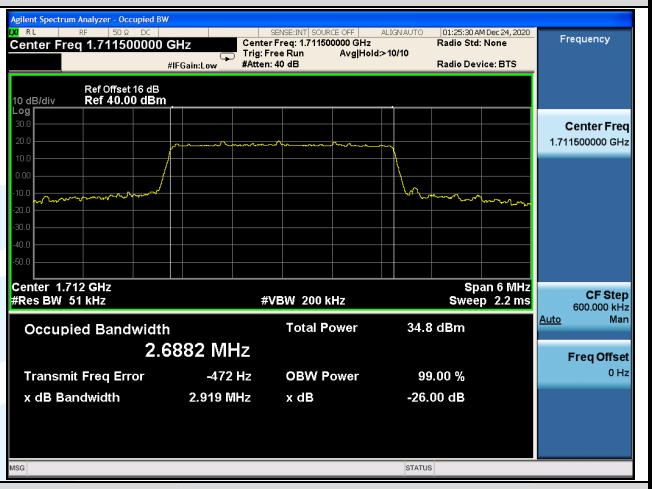


LTE Band 66_ Channel Bandwidth: 3 MHz

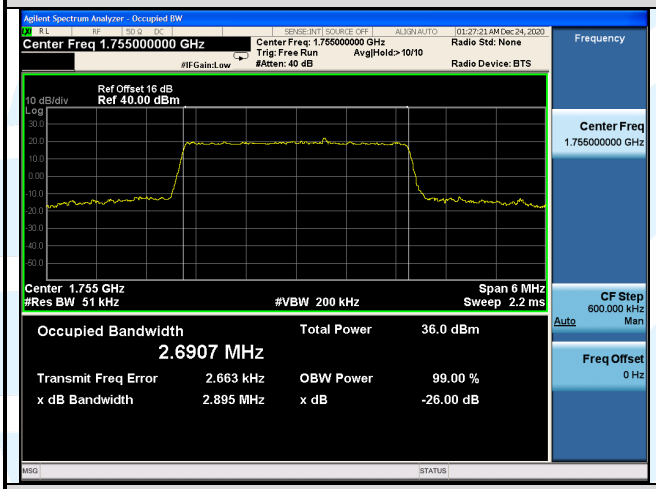
QPSK	16QAM

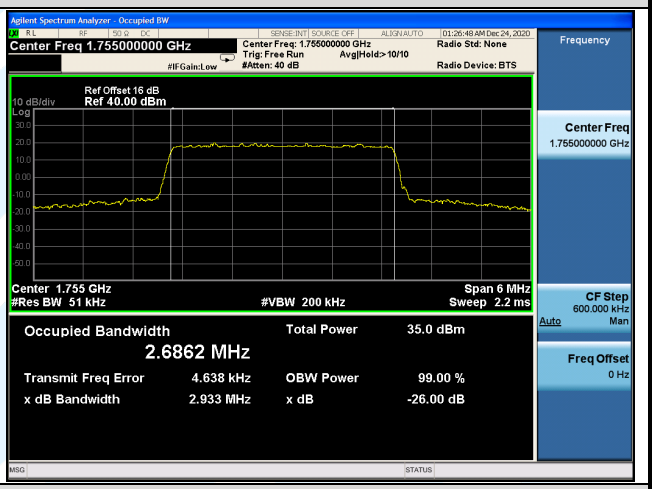
Lowest Channel



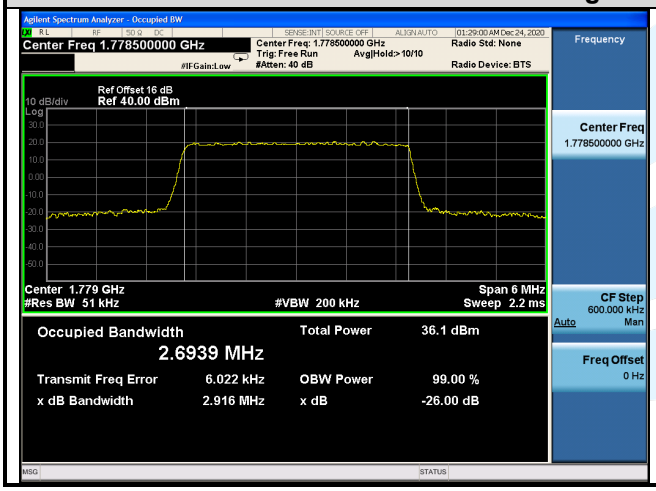


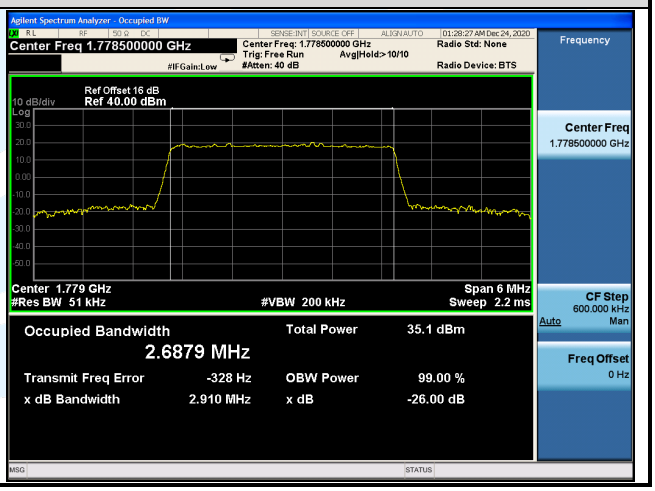
Middle Channel

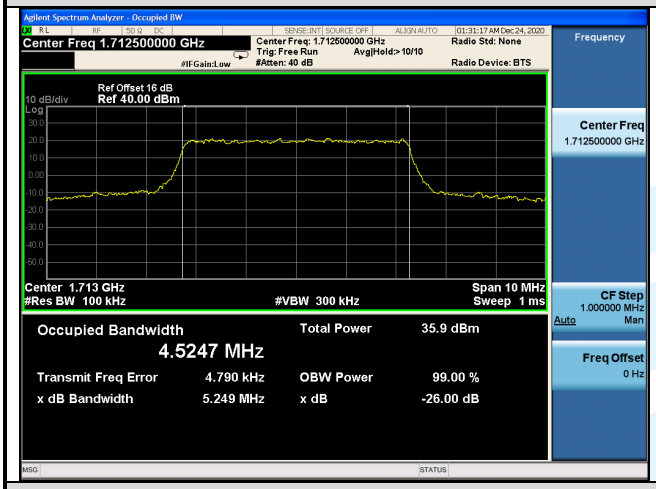
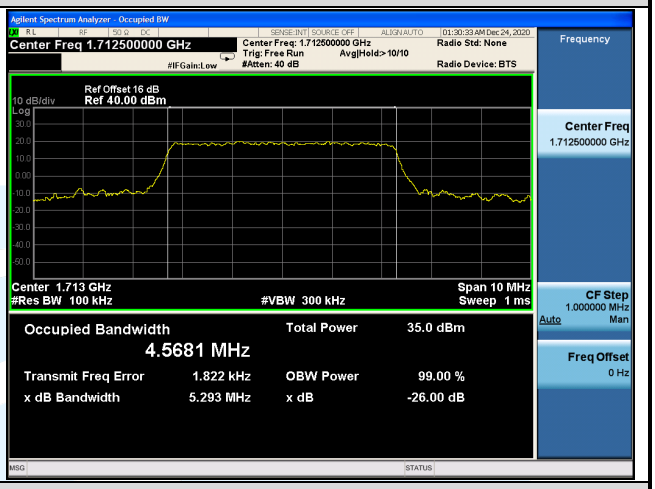
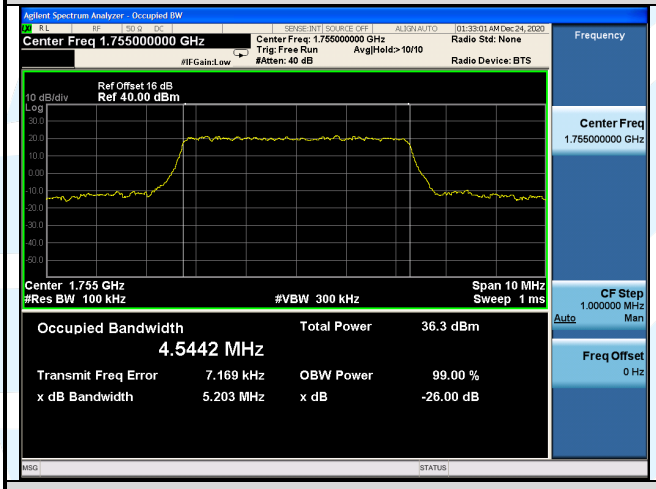
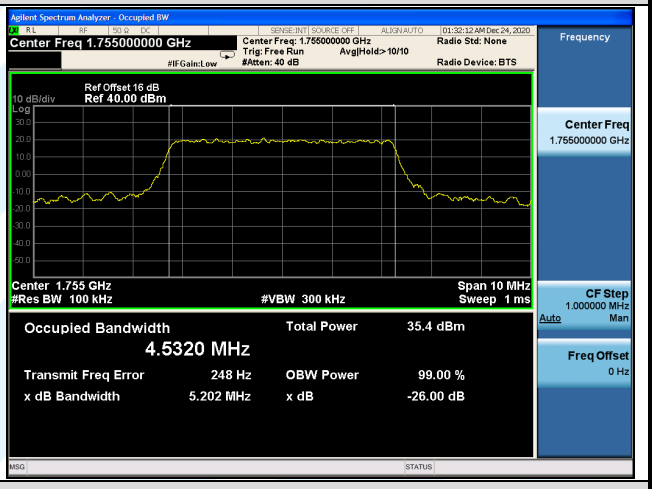
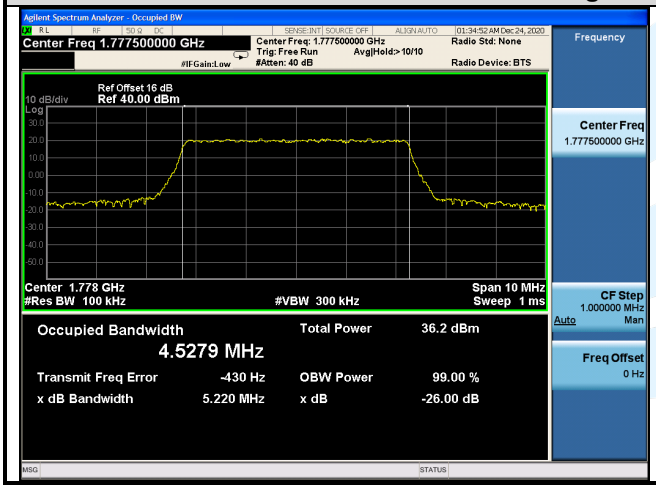
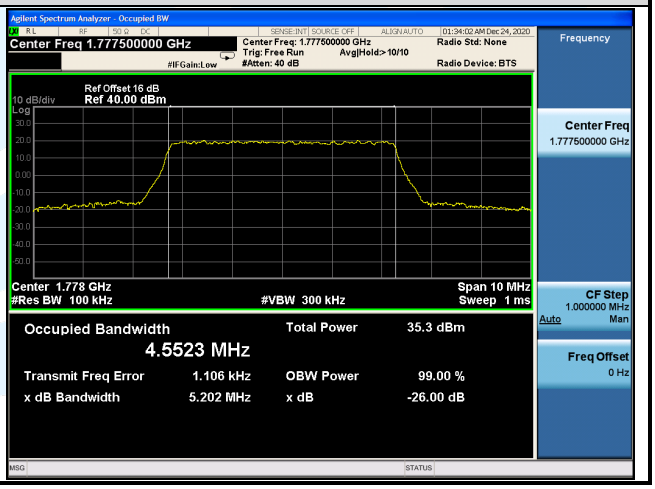


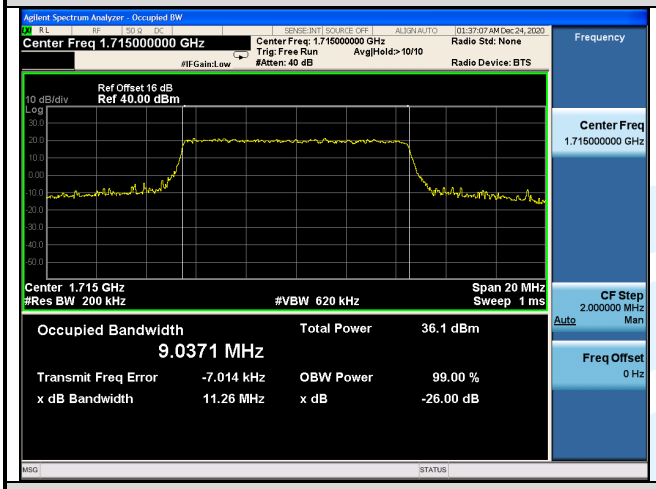
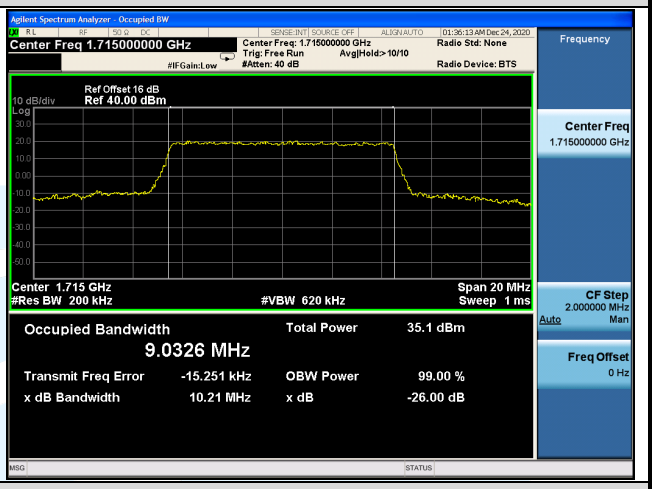
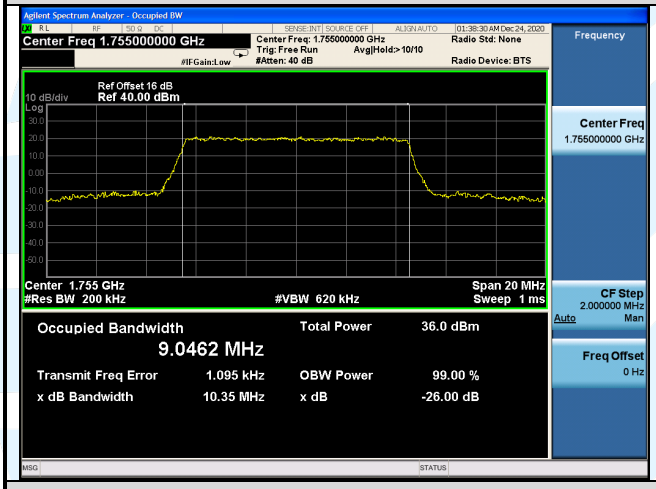
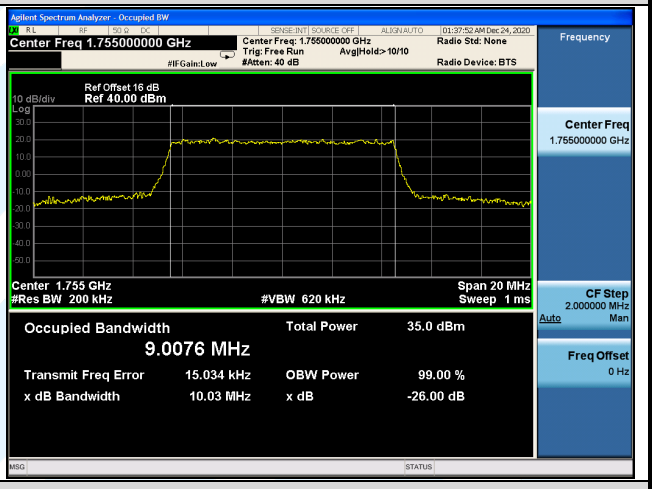
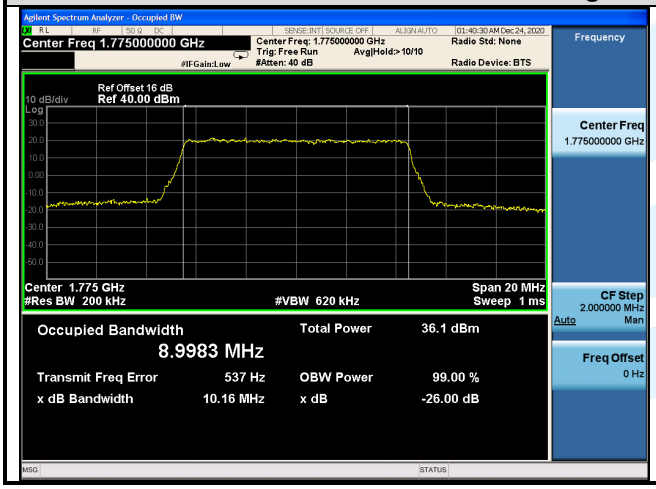
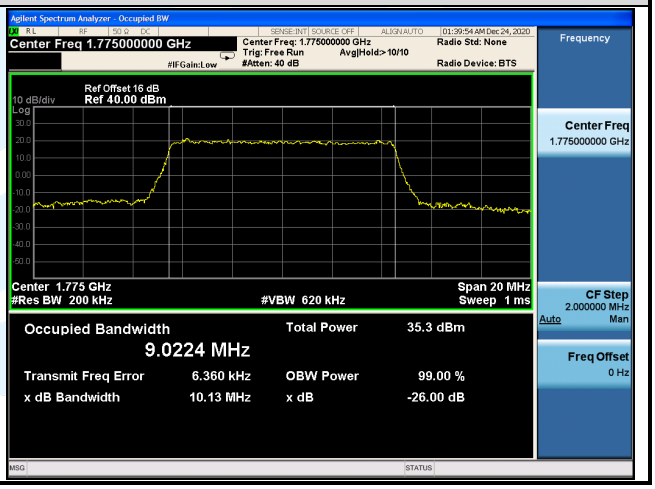


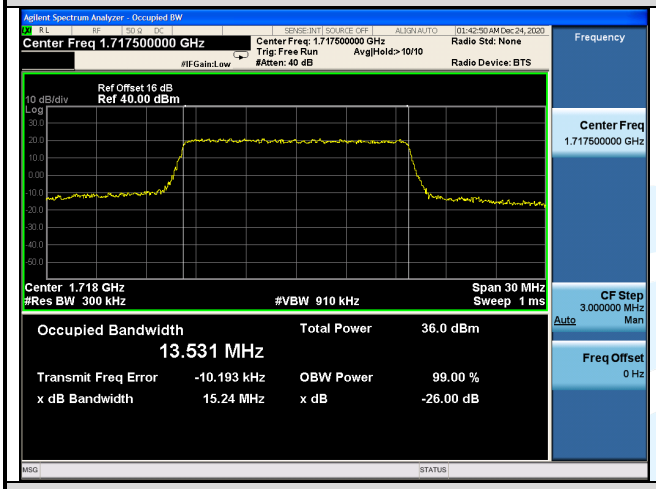
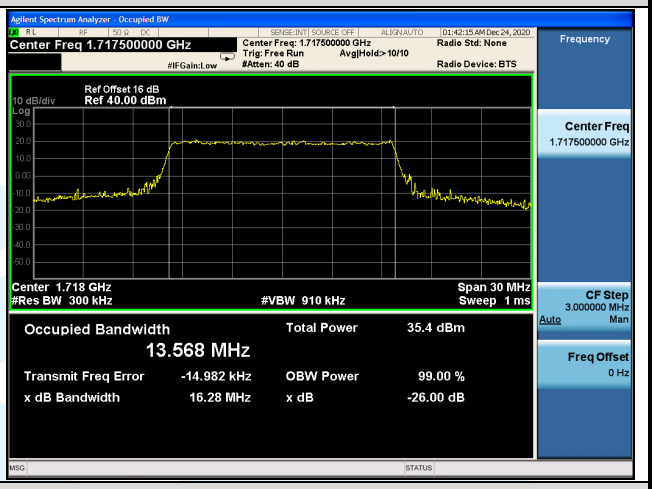
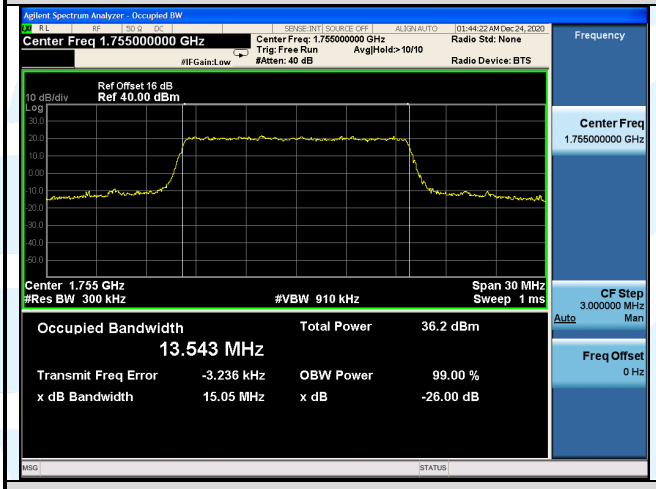
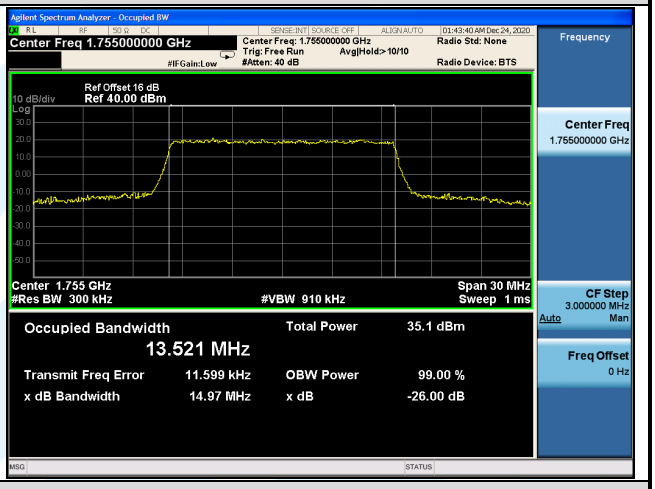
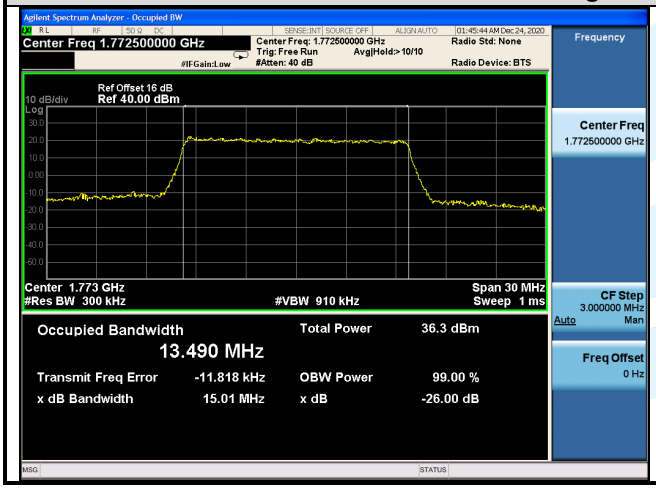
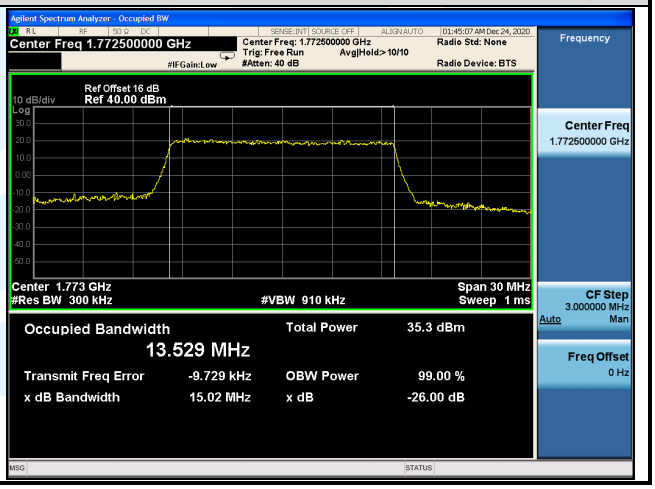
Highest Channel





LTE Band 66_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

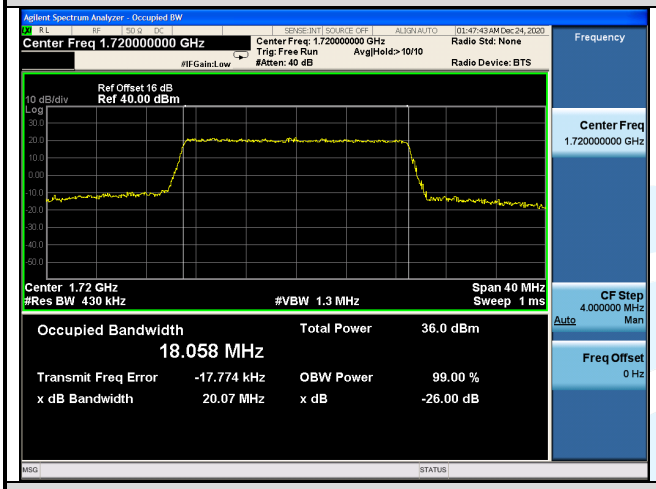
LTE Band 66_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

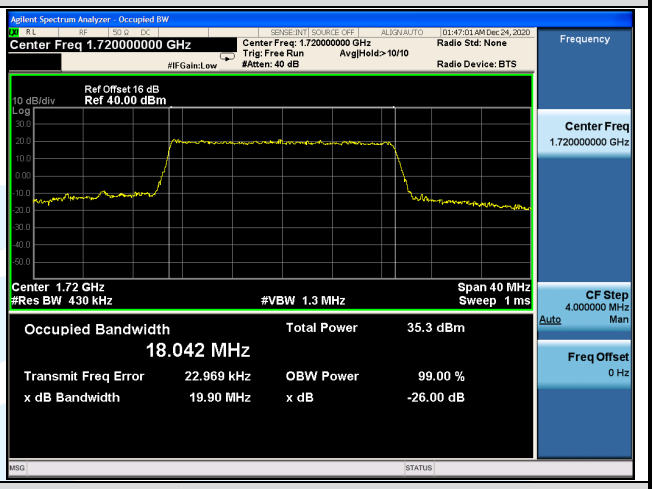
LTE Band 66_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 66_ Channel Bandwidth: 20 MHz

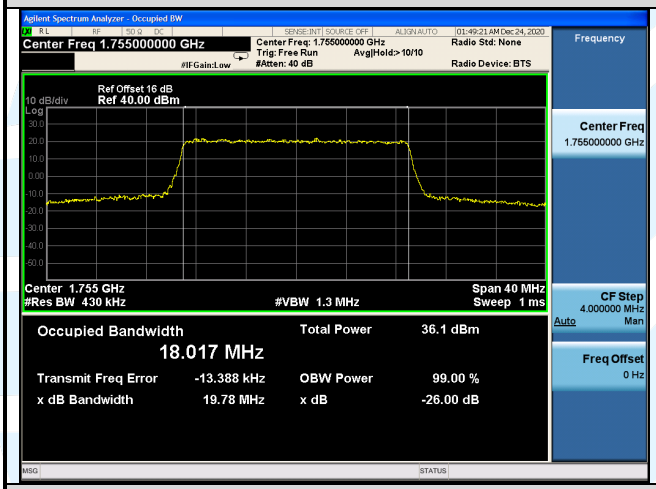
QPSK	16QAM

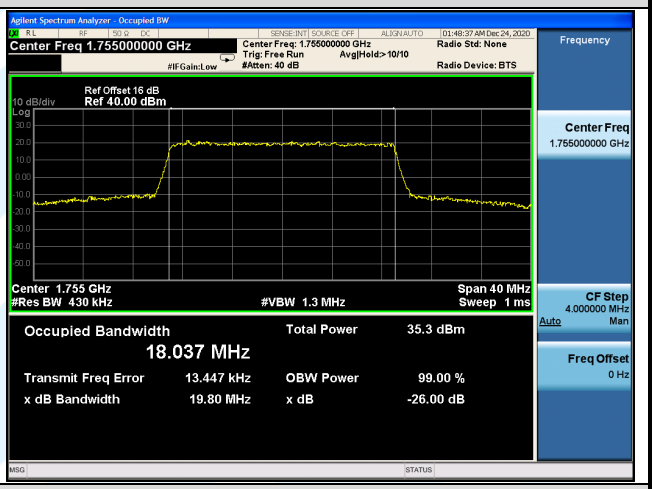
Lowest Channel



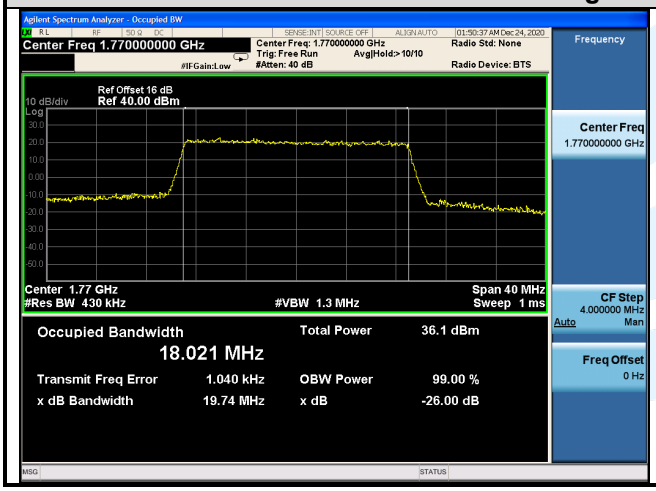


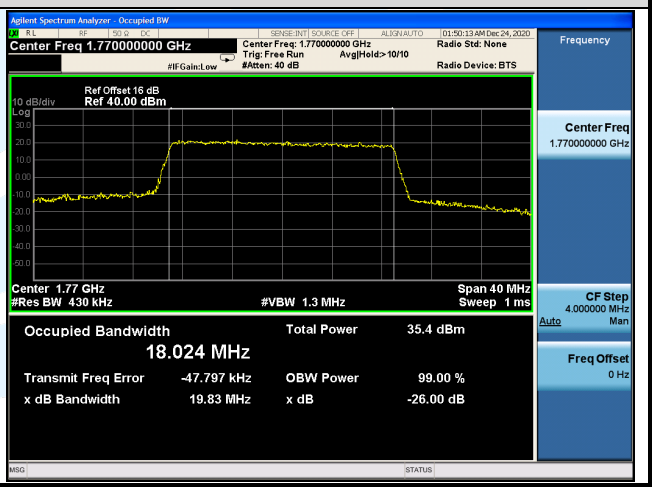
Middle Channel





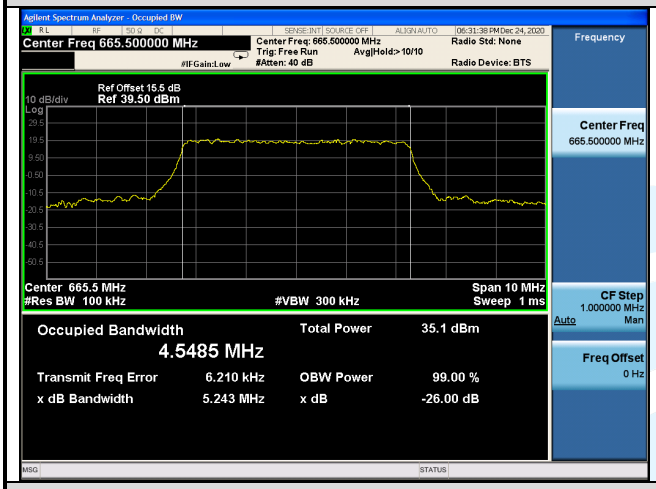
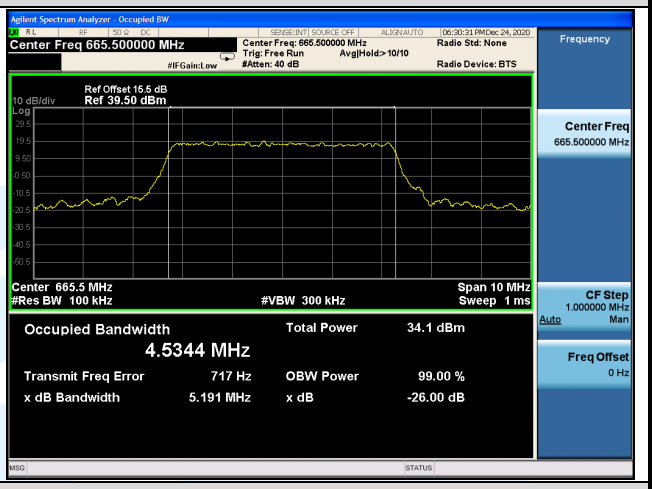
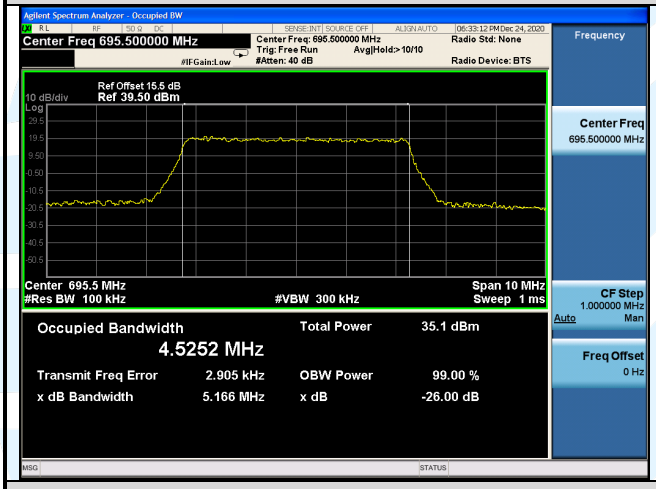
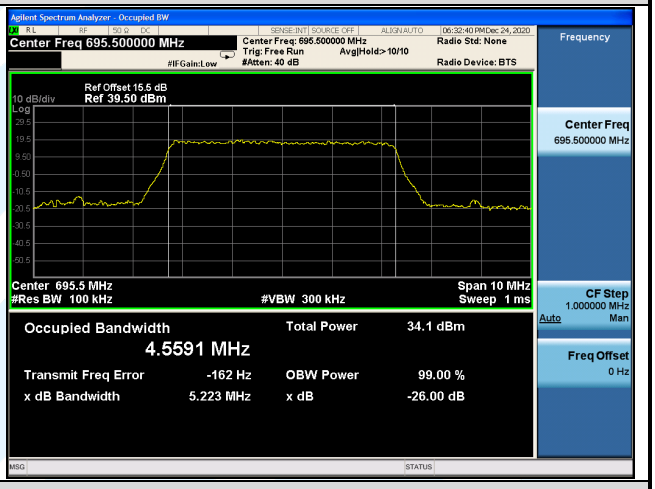
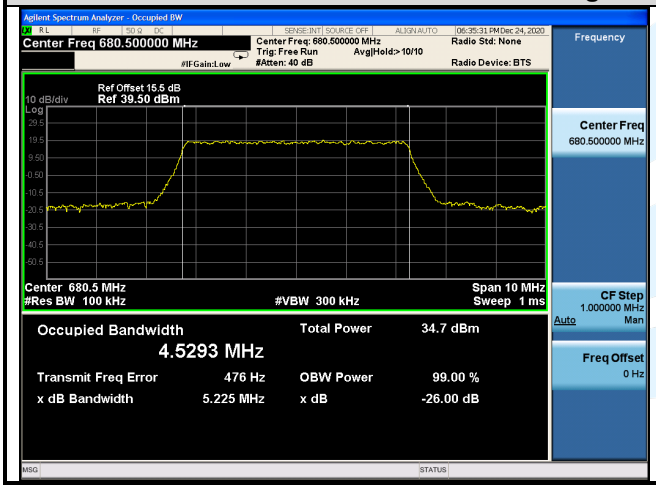
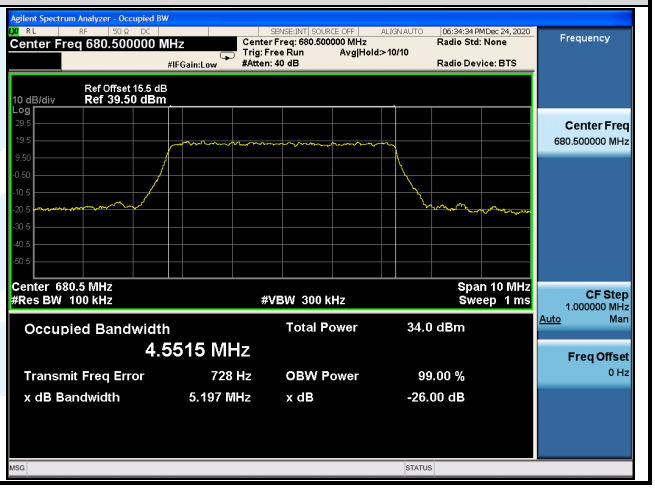
Highest Channel

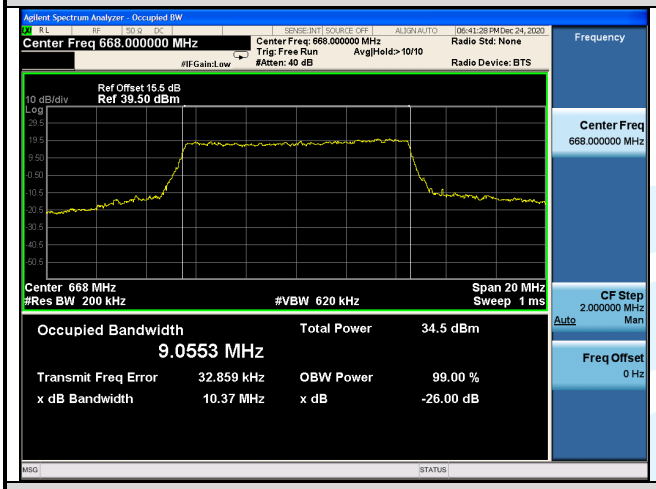
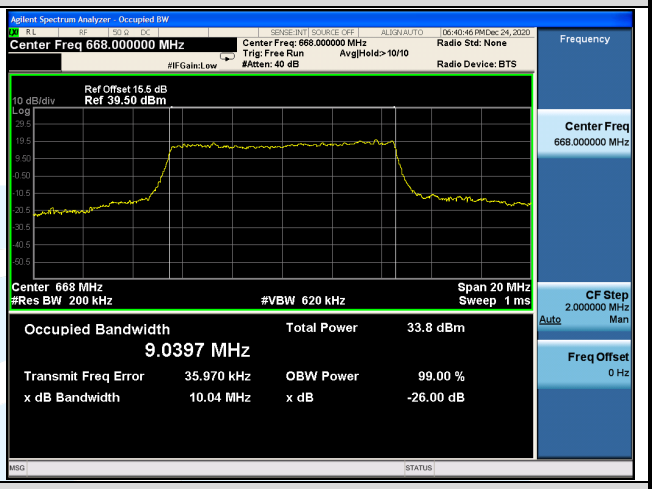
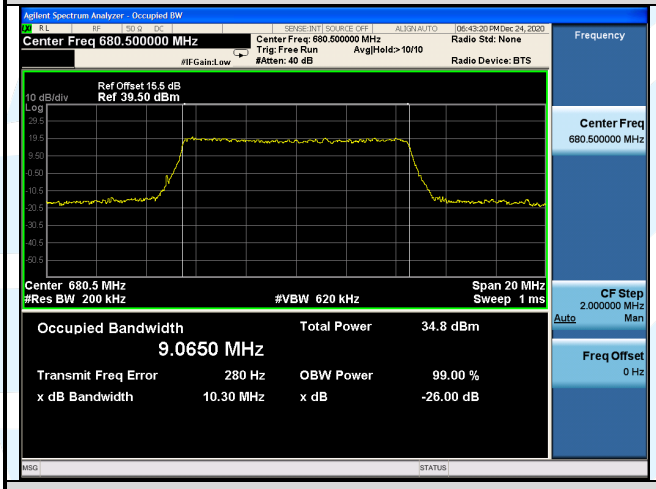
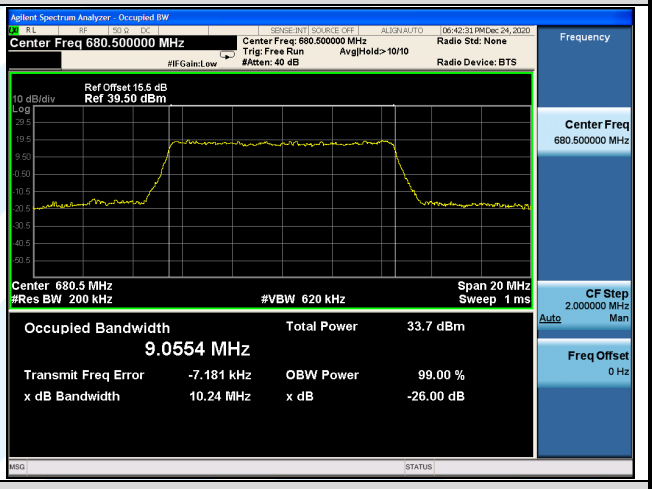
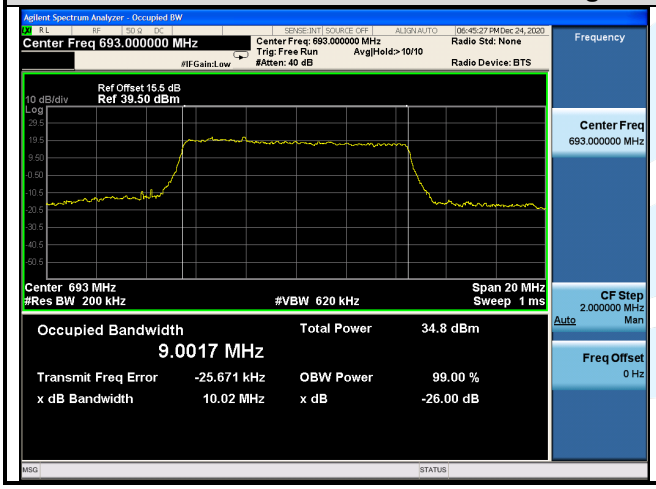
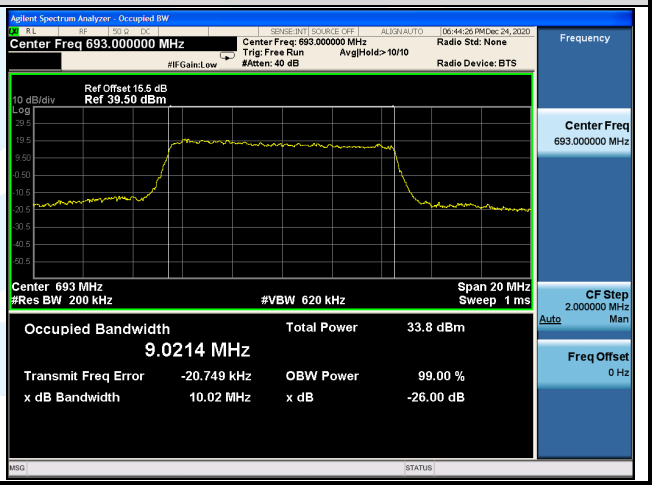




5.5.11 LTE Band 71

LTE Band 71								
Channel	RB Configuration		26 dB BW (MHz)			99% BW (MHz)		
	Size	Offset	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
Channel Bandwidth: 5 MHz								
Lowest	25	0	5.243	5.191	/	4.5485	4.5344	/
Middle	25	0	5.166	5.223	/	4.5252	4.5591	/
Highest	25	0	5.225	5.197	/	4.5293	4.5515	/
Channel Bandwidth: 10 MHz								
Lowest	50	0	10.37	10.04	/	9.0553	9.0397	/
Middle	50	0	10.30	10.24	/	9.0650	9.0554	/
Highest	50	0	10.02	10.02	/	9.0017	9.0214	/
Channel Bandwidth: 15 MHz								
Lowest	75	0	15.01	14.93	/	13.495	13.479	/
Middle	75	0	15.45	15.17	/	13.604	13.602	/
Highest	75	0	14.87	14.89	/	13.397	13.438	/
Channel Bandwidth: 20 MHz								
Lowest	100	0	19.66	19.69	/	17.936	17.991	/
Middle	100	0	20.48	19.95	/	18.084	18.056	/
Highest	100	0	19.56	19.70	/	17.918	17.908	/

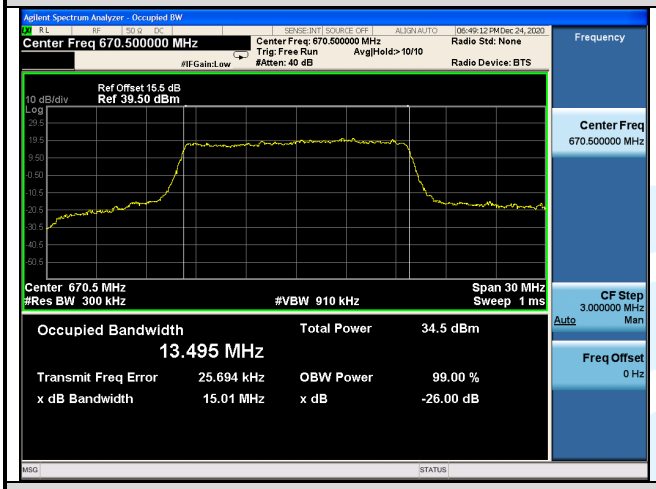
LTE Band 71_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

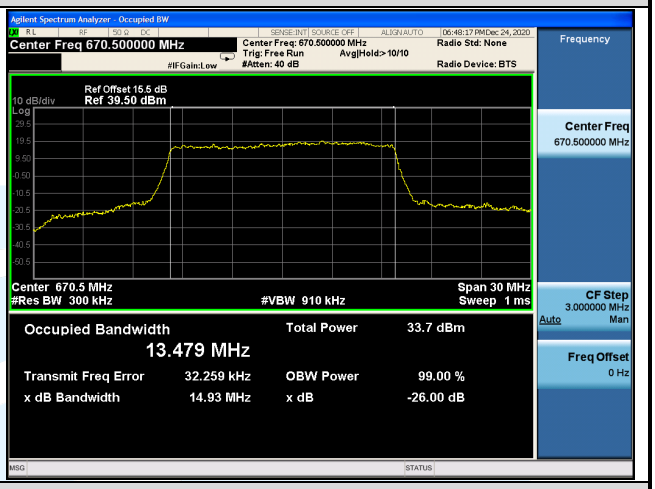
LTE Band 71_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 71_ Channel Bandwidth: 15 MHz

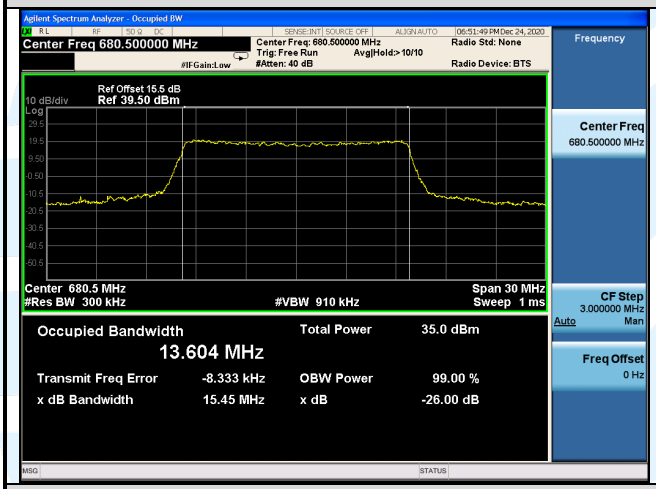
QPSK	16QAM

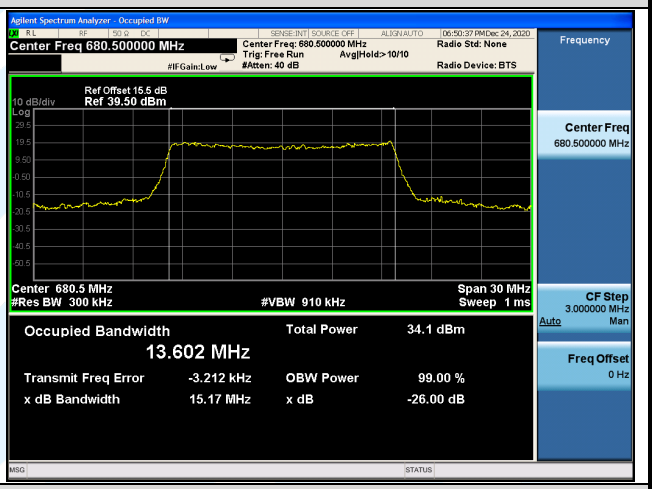
Lowest Channel



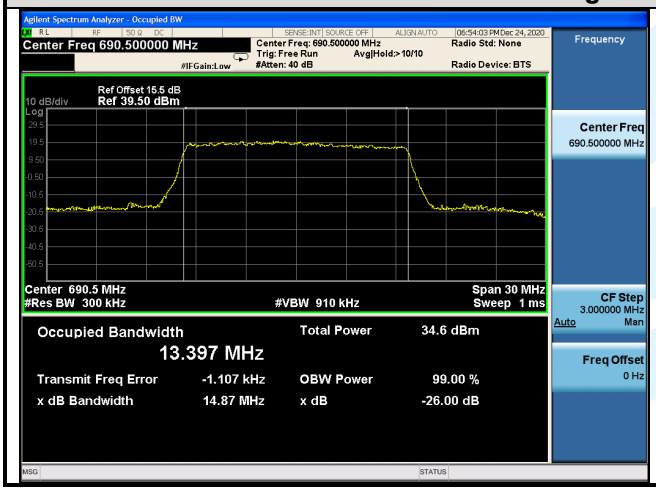


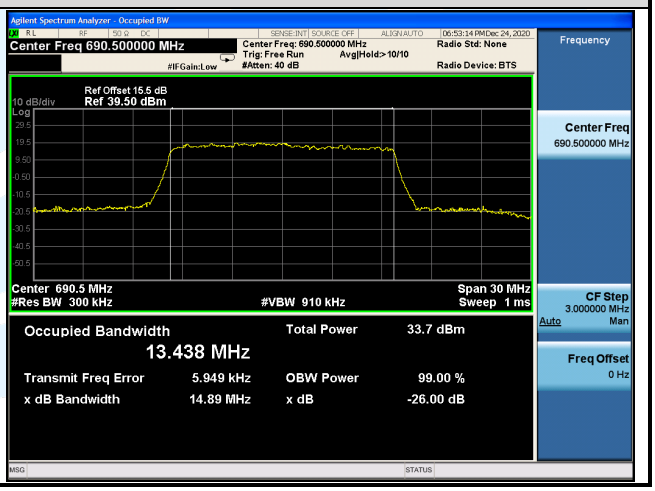
Middle Channel

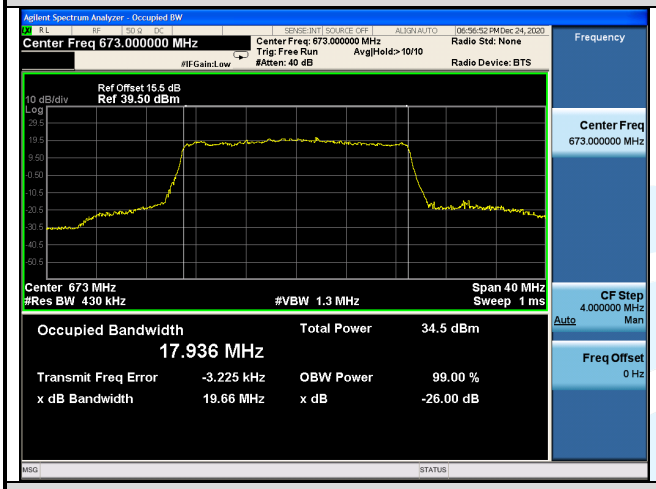
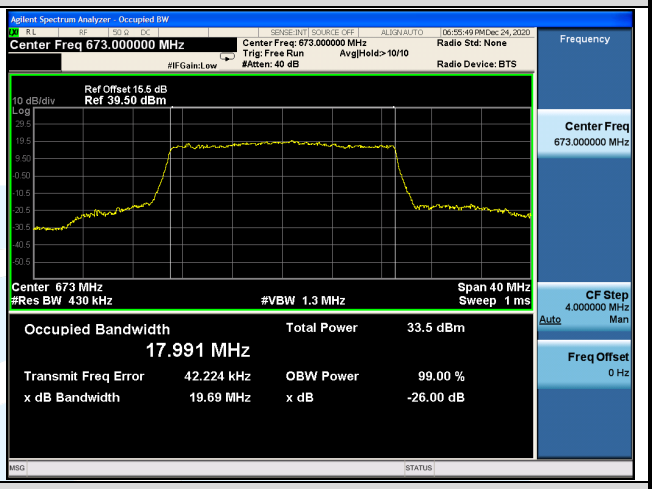
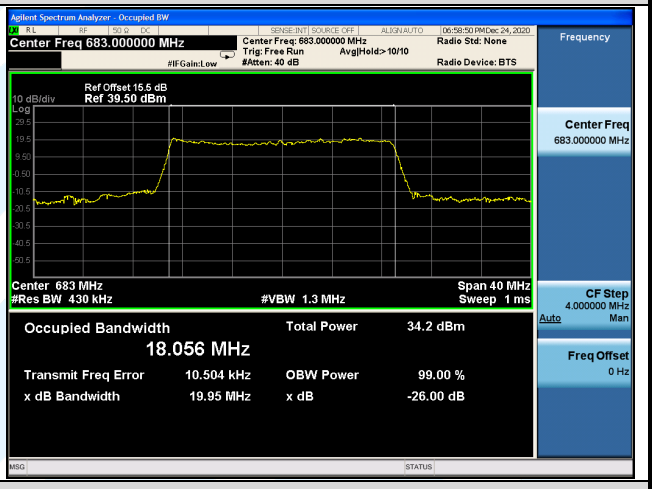
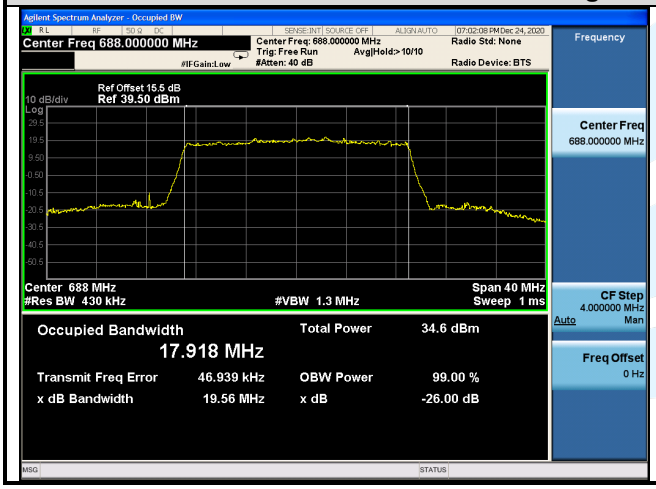
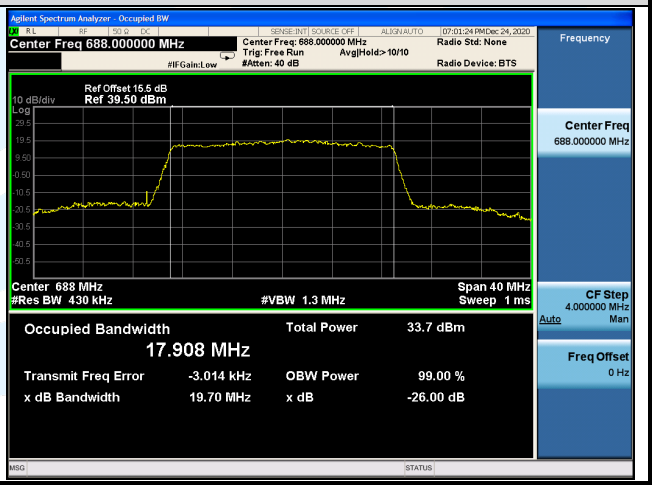




Highest Channel





LTE Band 71_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

5.6 BAND EDGE AT ANTENNA TERMINALS

Test Requirement: **LTE Band 2:** FCC 47 CFR Part 24.238(a)
LTE Band 4 & LTE Band 66: FCC 47 CFR Part 27.53(h)(1)
LTE Band 5: FCC 47 CFR Part 22.917(a)
LTE Band 7 & Band 38 & Band 41: FCC 47 CFR Part 27.53(m)(4)
LTE Band 12 & Band 71: FCC 47 CFR Part 27.53(g)
LTE Band 13: FCC 47 CFR Part 27.53(c)(2)

Test Method: ANSI C63.26-2015 & KDB 971168 D01v03r01

Limit:

FCC 47 CFR Part 24.238(a), 27.53(h)(1), 22.917(a) :
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to -13 dBm.

FCC 47 CFR Part 27.53(m)(4):
For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

FCC 47 CFR Part 27.53(g):
For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

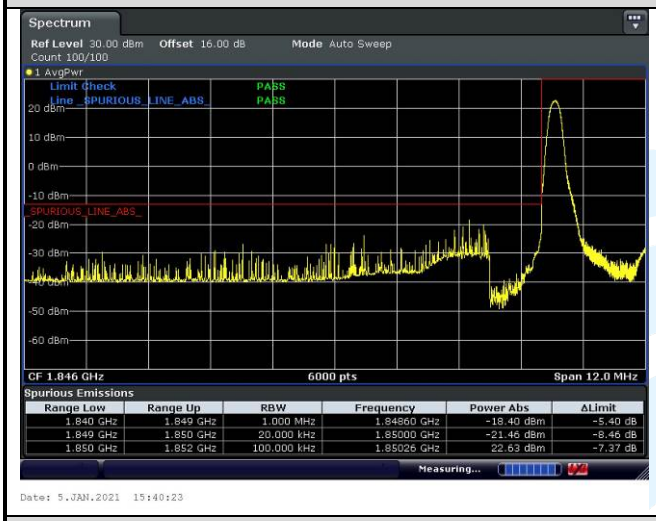
FCC 47 CFR Part 27.53(c)(2):
On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;

Test Procedure:
The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer.
For each band edge measurement:
1) Set the spectrum analyzer span to include the block edge frequency.
2) Set a marker to point the corresponding band edge frequency in each test case.
3) Set display line at -13 dBm
4) Set resolution bandwidth to at least 1% of emission bandwidth.
5) Set spectrum analyzer with RMS detector.
6) Record the max trace plot into the test report

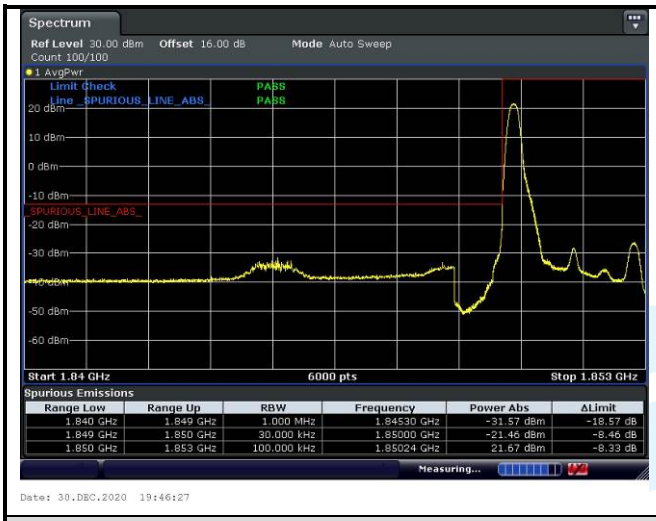
Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.2.2 for details.
Instruments Used: Refer to section 3 for details
Test Mode: Link mode
Test Results: Pass

5.6.1 LTE Band 2

LTE Band 2 / 1.4 MHz / QPSK	
1 RB	Full RB
Lowest Channel	
	
Highest Channel	
	

LTE Band 2 / 3 MHz / QPSK	
1 RB	Full RB
Lowest Channel	

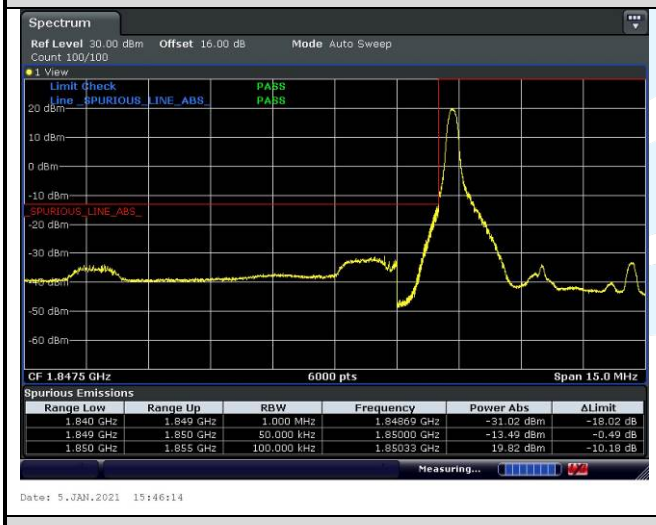


Highest Channel

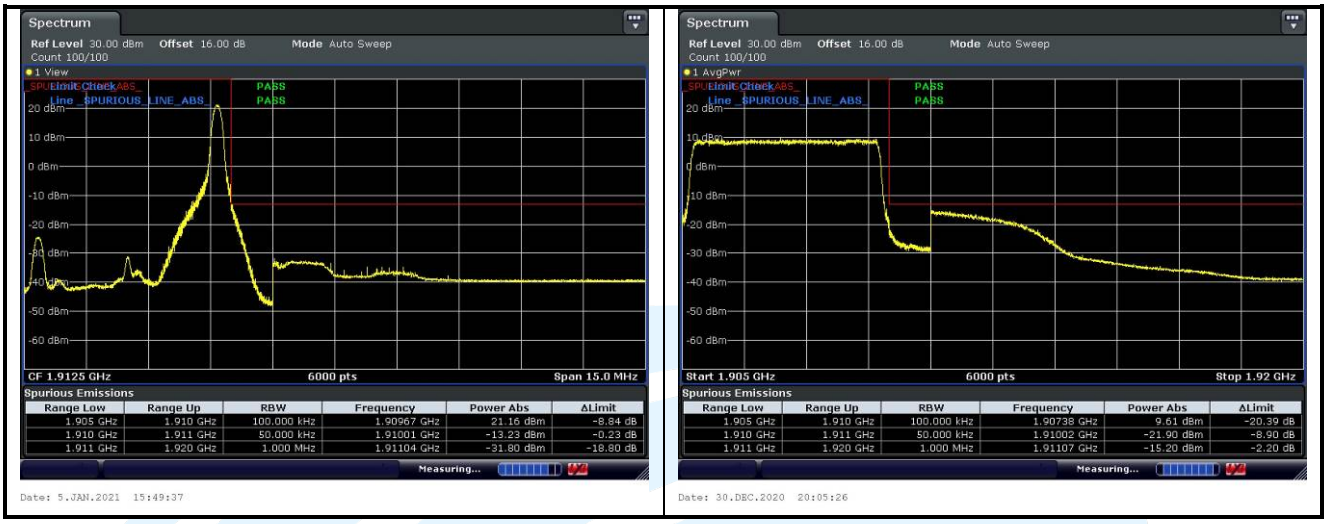
LTE Band 2 / 5 MHz / QPSK

1 RB	Full RB

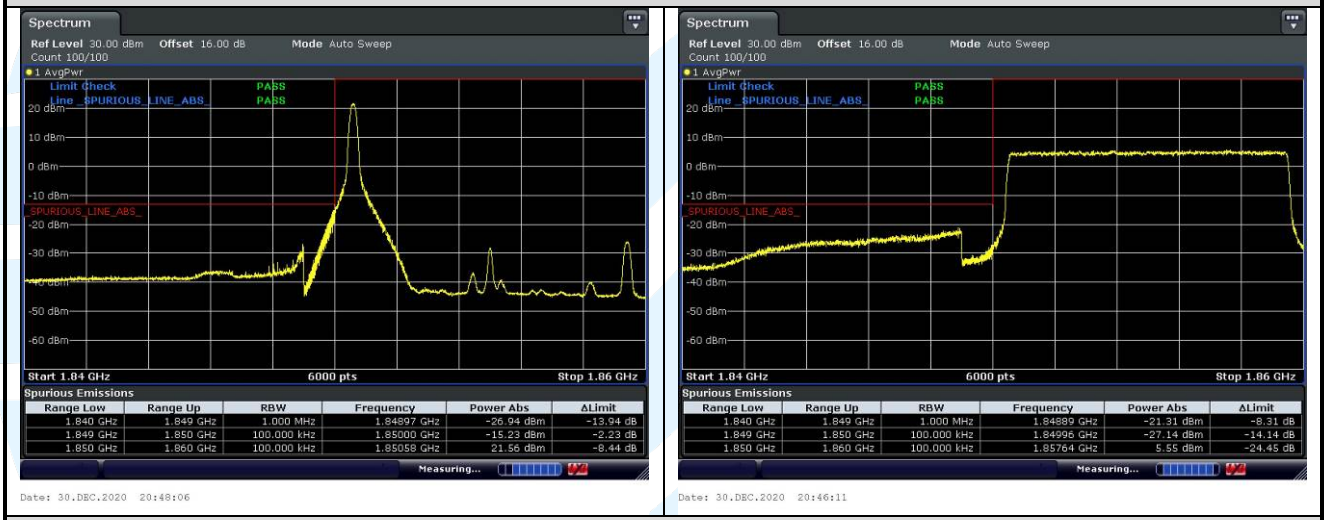
Lowest Channel



Highest Channel



LTE Band 2 / 10 MHz / QPSK	
1 RB	Full RB
Lowest Channel	



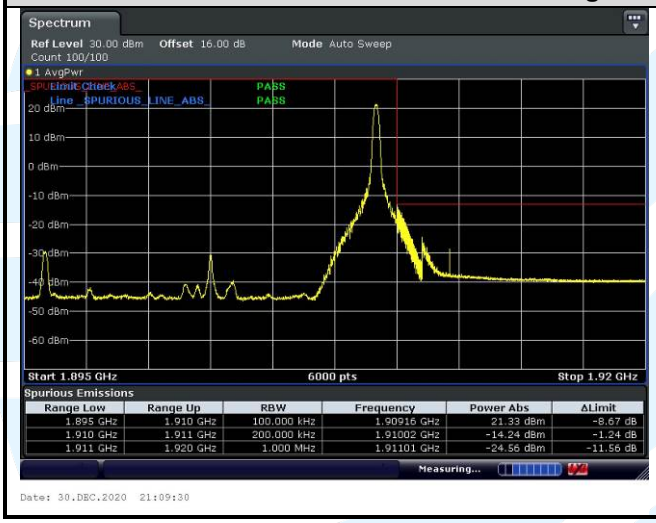
Highest Channel	

LTE Band 2 / 15 MHz / QPSK

1 RB	Full RB

Lowest Channel

Highest Channel



LTE Band 2 / 20 MHz / QPSK

1 RB	Full RB

Lowest Channel