5.5.2 LTE Band 7

LTE Band 7								
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	5.035	5.025	--	4.495	4.515	--
Middle	25	0	5.035	5.045	--	4.485	4.515	--
Highest	25	0	5.035	4.985	--	4.515	4.485	--
Channel Bandwidth: 10 MHz								
Lowest	50	0	9.690	9.650	--	8.931	8.931	--
Middle	50	0	9.710	9.650	--	8.911	8.931	--
Highest	50	0	9.610	9.670	--	8.951	8.911	--
Channel Bandwidth: 15 MHz								
Lowest	75	0	14.655	14.595	--	13.456	13.426	--
Middle	75	0	14.715	14.535	--	13.397	13.426	--
Highest	75	0	14.715	14.715	--	13.426	13.486	--
Channel Bandwidth: 20 MHz								
Lowest	100	0	19.301	19.141	--	17.822	17.822	--
Middle	100	0	19.341	19.181	--	17.822	17.862	--
Highest	100	0	19.221	19.221	--	17.902	17.942	--

26dB Bandwidth

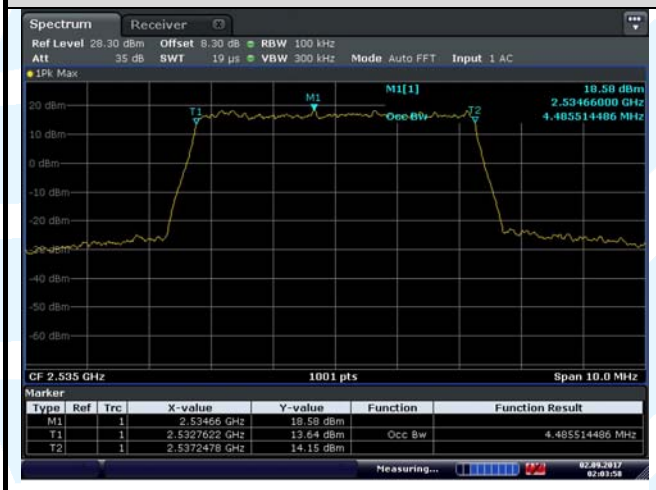
LTE Band 7_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

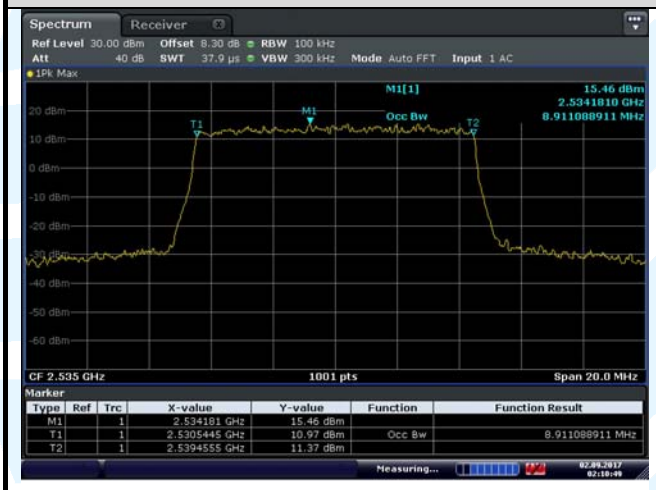
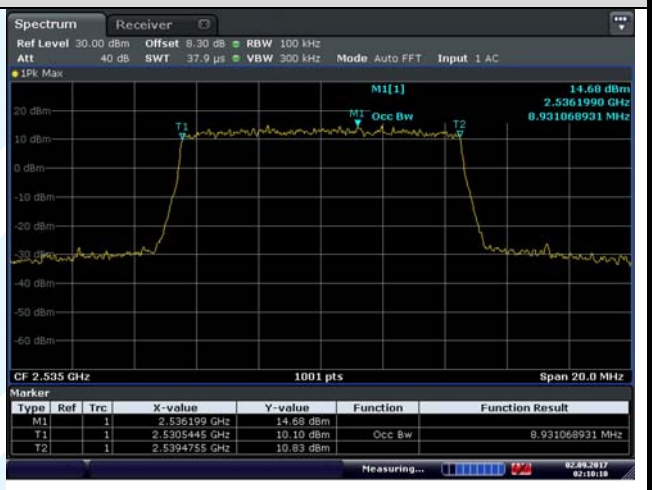
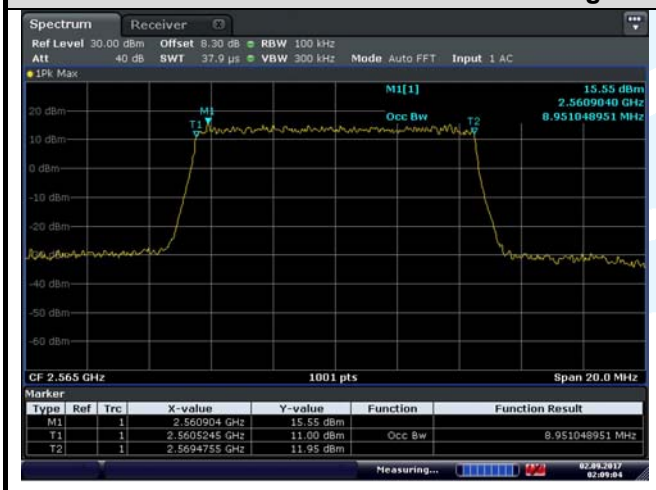
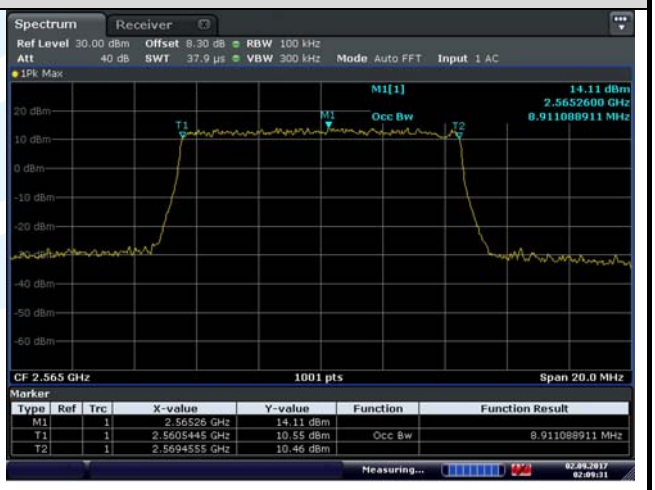
LTE Band 7_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

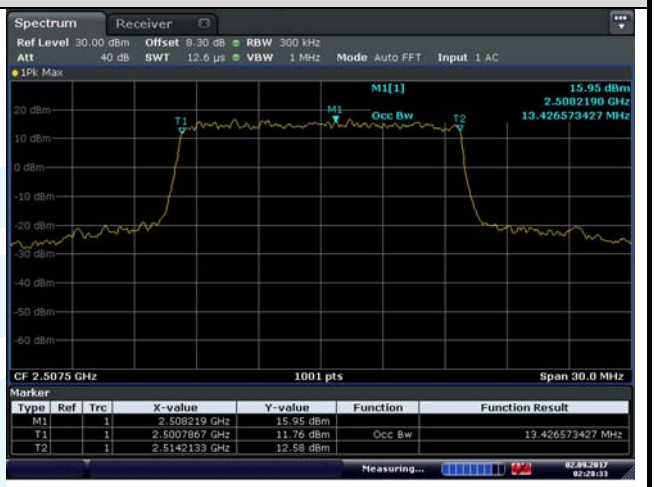
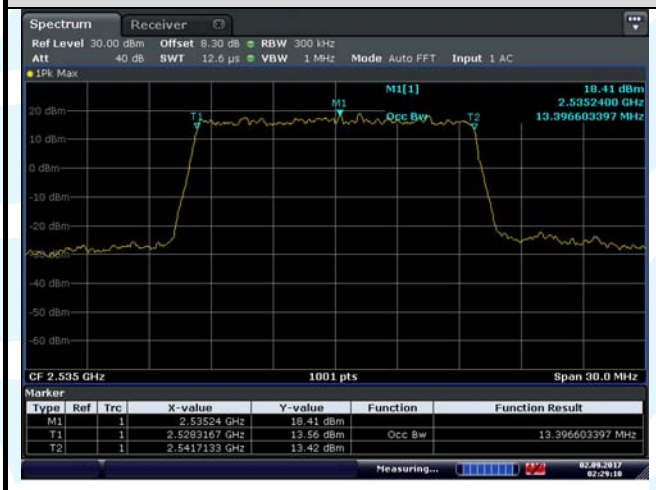
LTE Band 7_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

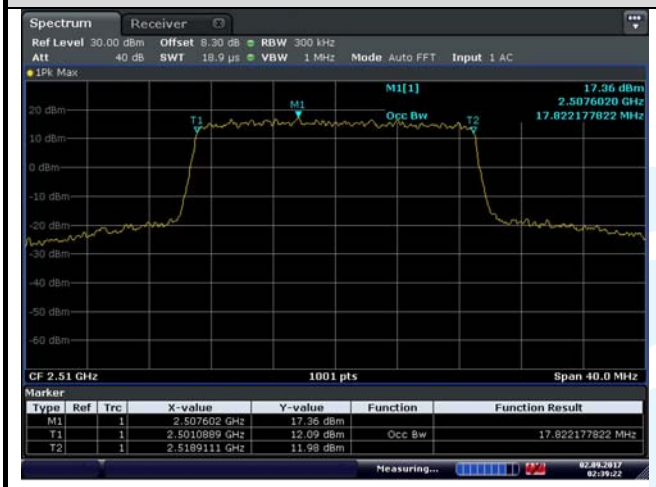
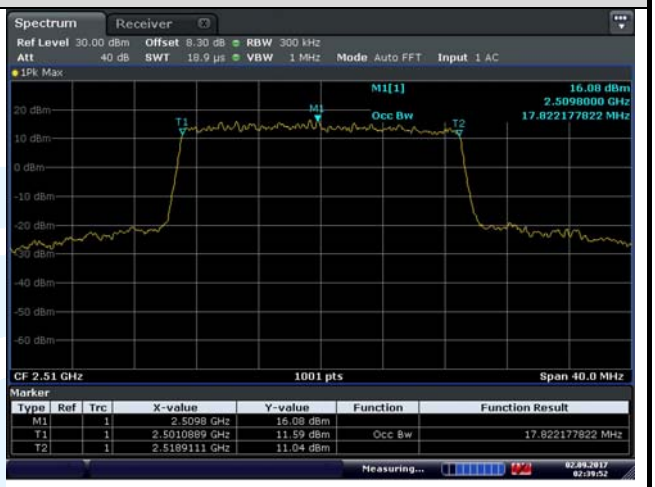
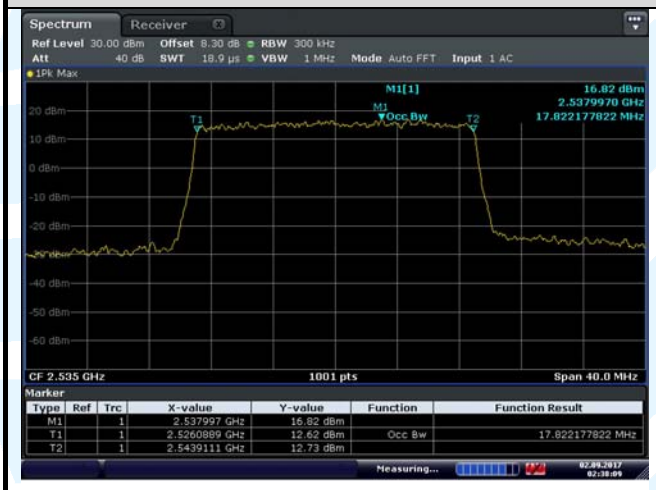
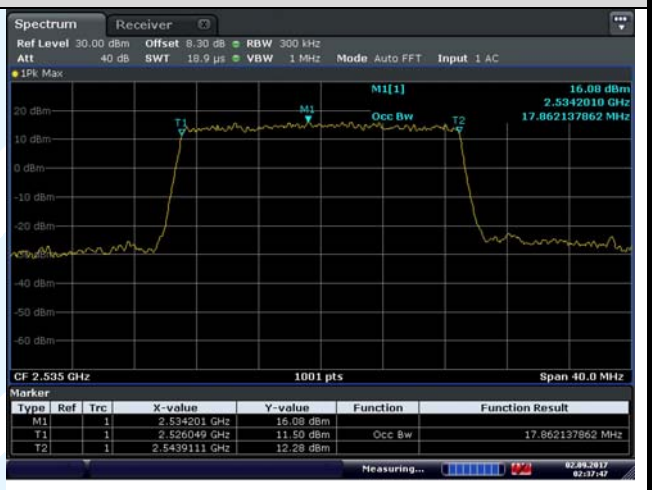
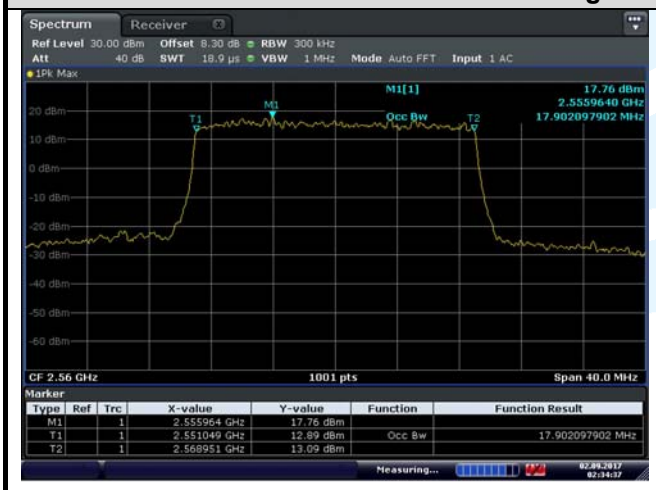
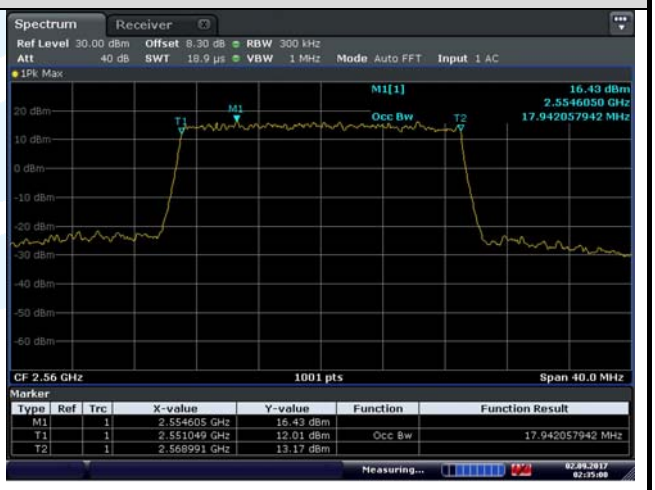
LTE Band 7_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

99% Bandwidth

LTE Band 7_ Channel Bandwidth: 5 MHz	
QPSK	**16QAM**
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 7_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 7_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

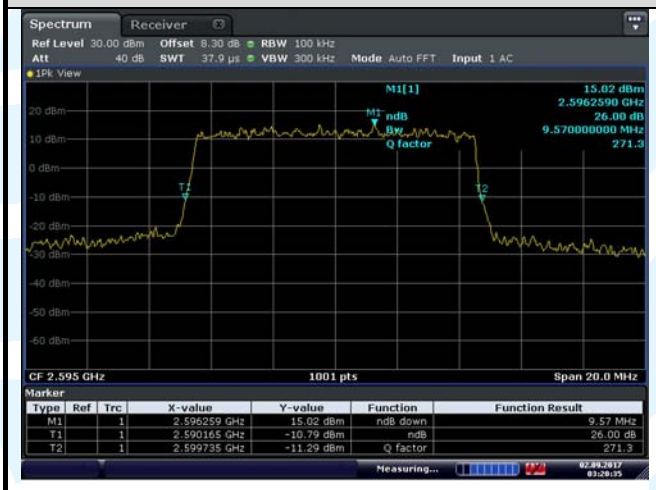
LTE Band 7_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

5.5.3 LTE Band 38

LTE Band 38								
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	4.975	5.075	--	4.505	4.505	--
Middle	25	0	5.075	5.035	--	4.495	4.515	--
Highest	25	0	5.065	5.015	--	4.505	4.505	--
Channel Bandwidth: 10 MHz								
Lowest	50	0	9.590	9.590	--	8.911	8.911	--
Middle	50	0	9.570	9.510	--	8.951	8.911	--
Highest	50	0	9.550	9.530	--	8.911	8.911	--
Channel Bandwidth: 15 MHz								
Lowest	75	0	14.625	14.685	--	13.486	13.456	--
Middle	75	0	14.685	14.326	--	13.397	13.426	--
Highest	75	0	14.266	14.476	--	13.456	13.426	--
Channel Bandwidth: 20 MHz								
Lowest	100	0	18.871	19.219	--	17.829	17.829	--
Middle	100	0	18.813	18.755	--	17.829	17.829	--
Highest	100	0	18.741	18.981	--	17.822	17.902	--

26 dB Bandwidth

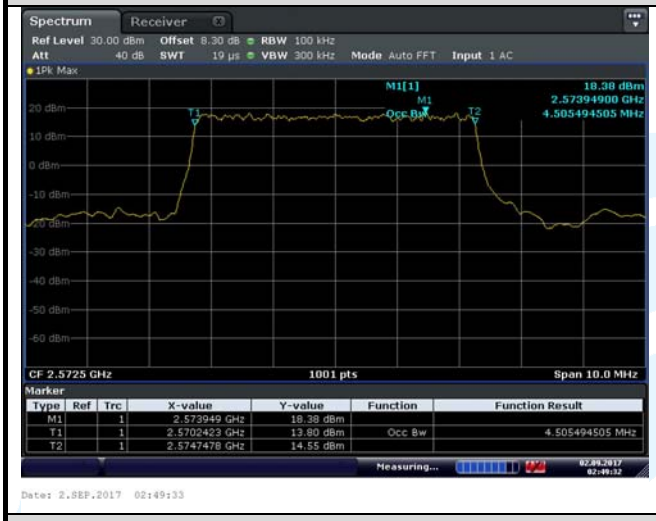
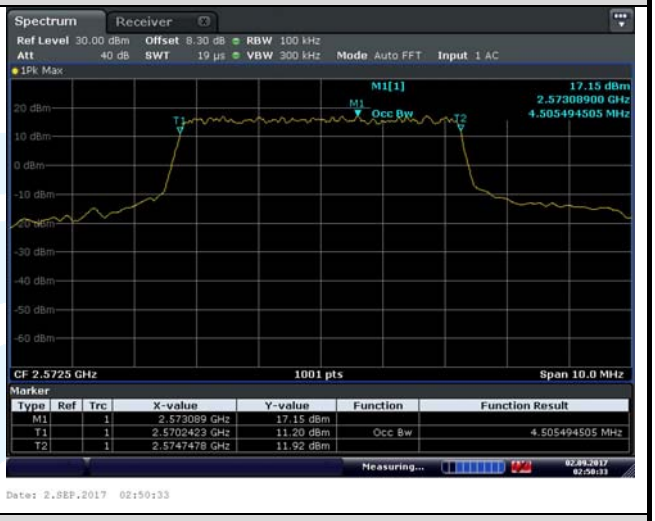
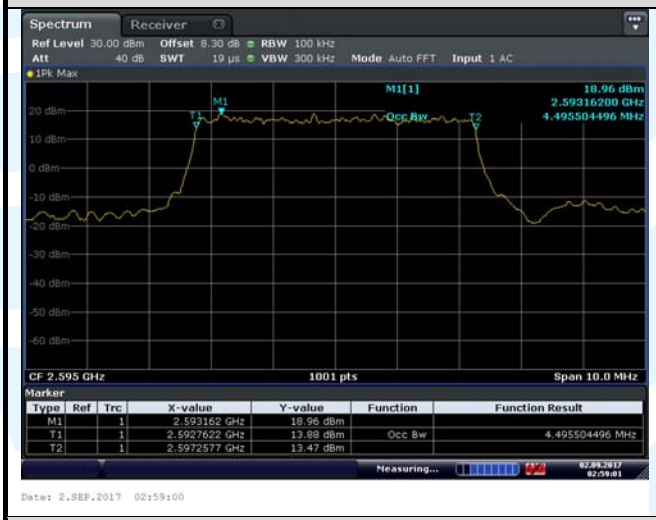
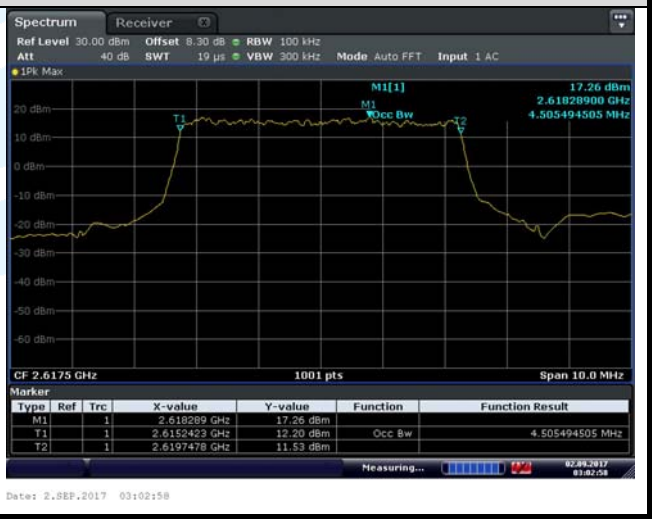
LTE Band 38_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

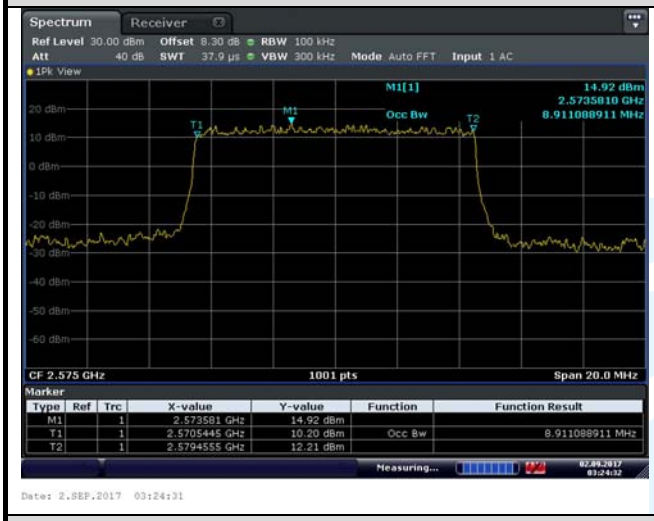
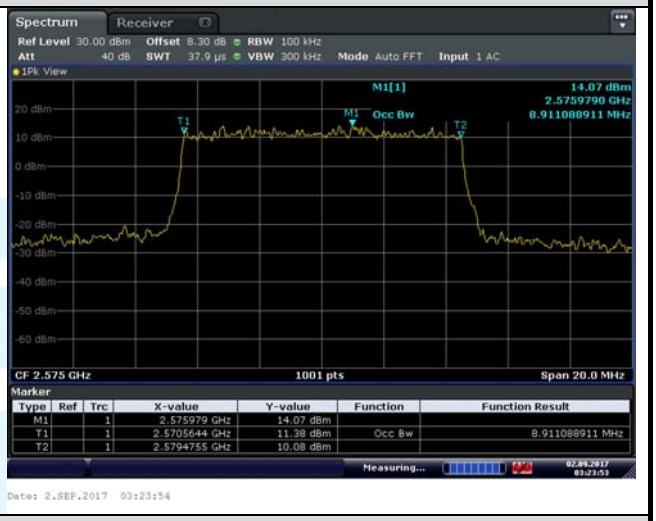
LTE Band 38_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 38_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

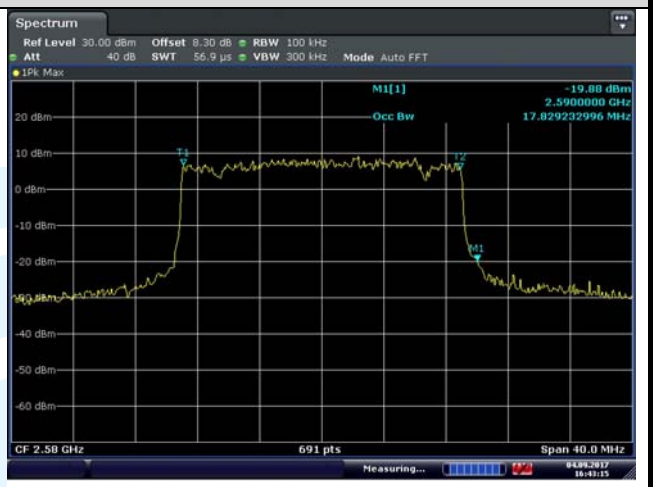
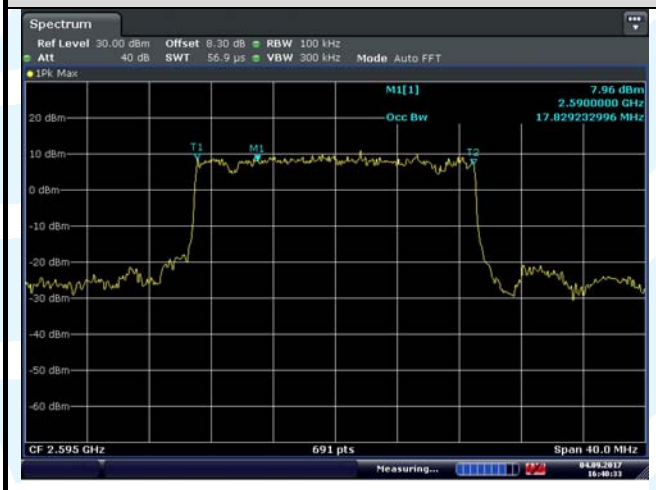
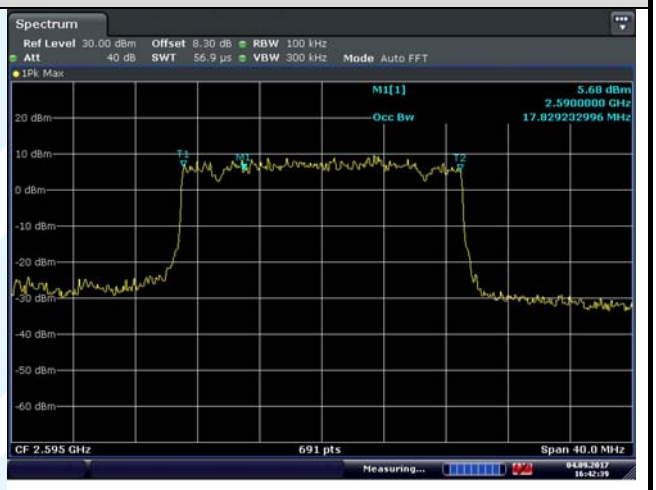
LTE Band 38_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

99% dB Bandwidth

LTE Band 38_ Channel Bandwidth: 5 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 38_ Channel Bandwidth: 10 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 38_ Channel Bandwidth: 15 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

LTE Band 38_ Channel Bandwidth: 20 MHz	
QPSK	16QAM
Lowest Channel	
	
Middle Channel	
	
Highest Channel	
	

5.6 BAND EDGE AT ANTENNA TERMINALS

Test Requirement: FCC 47 CFR Part 2.1051 & FCC 47 CFR Part 24.238(a)

Test Method: ANSI/TIA/EIA-603-D 2010 & KDB 971168 D01v02r02

Limit:

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

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.

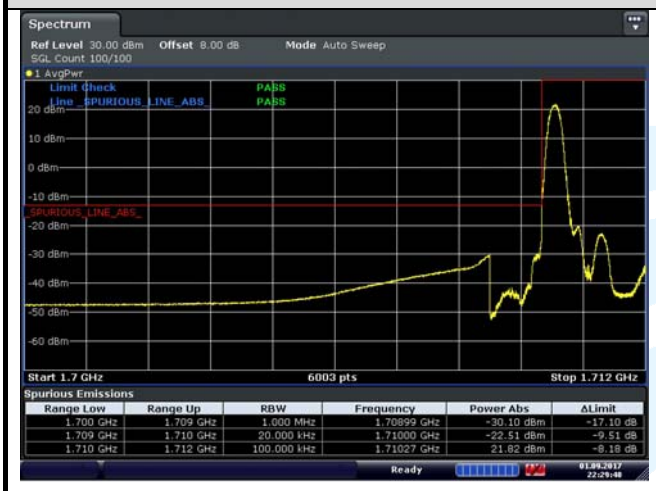
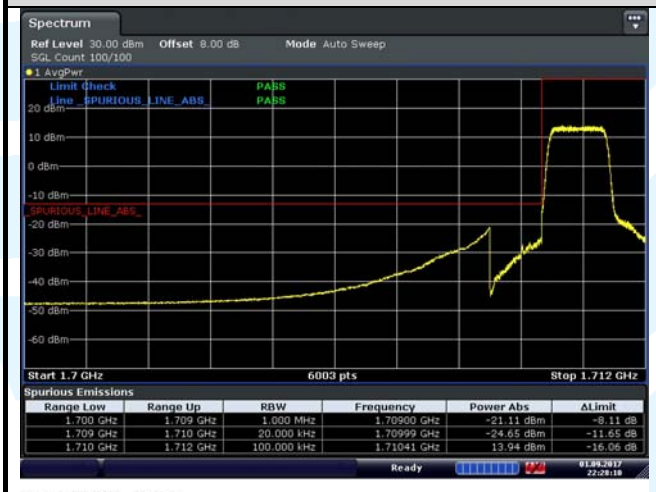
Test Setup: Refer to section 4.2.2 for details.

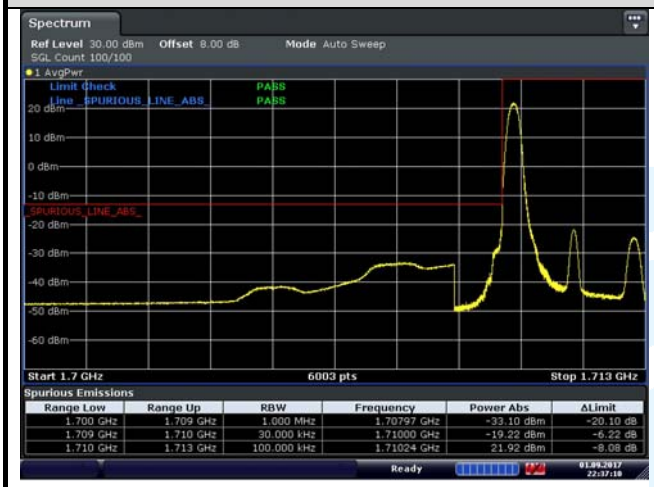
Instruments Used: Refer to section 3 for details

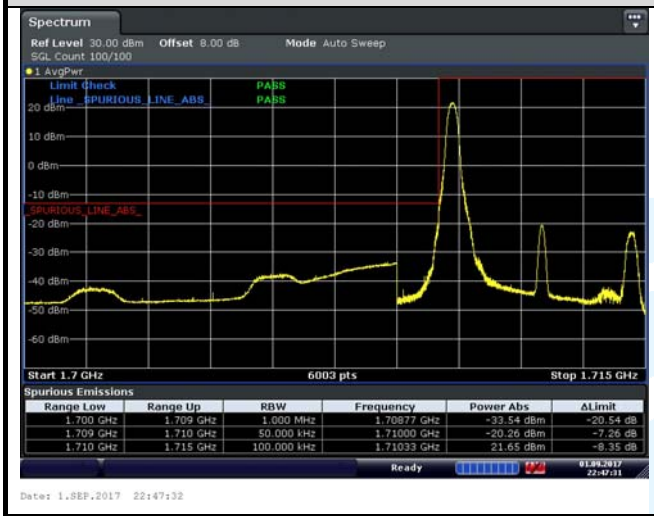
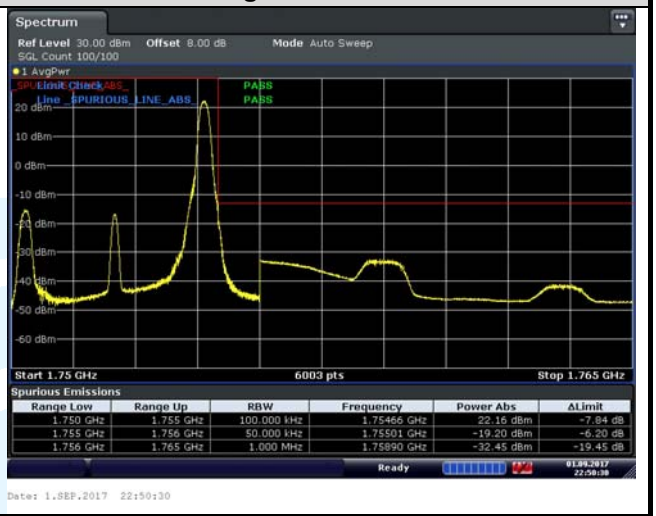
Test Mode: Link mode

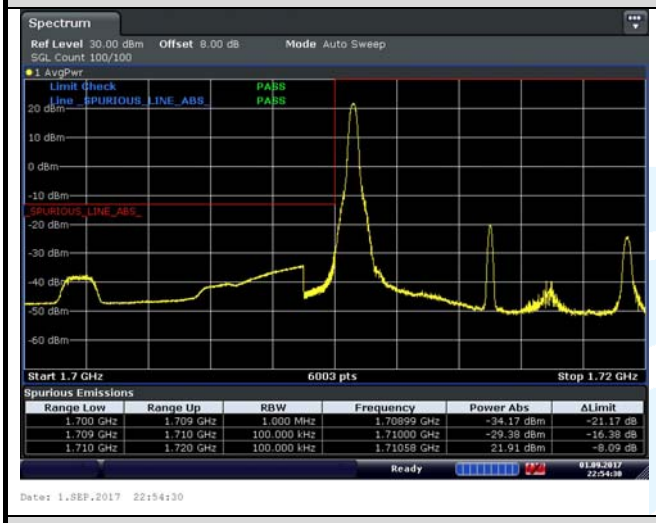
Test Results: Pass

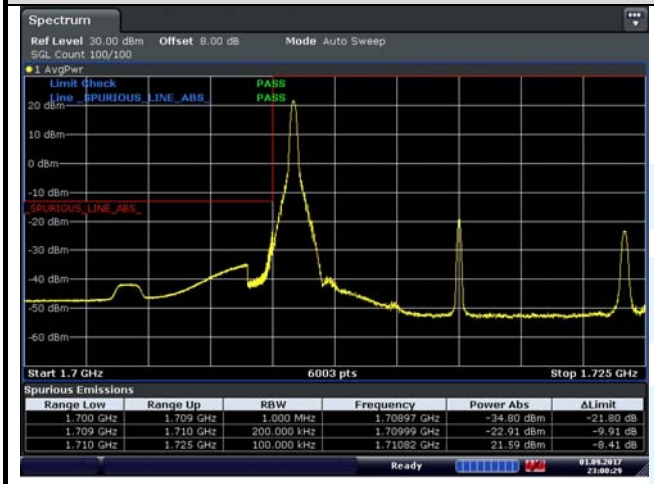
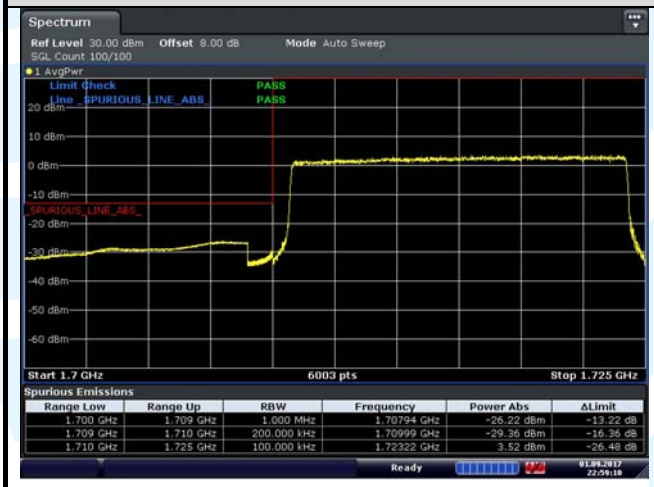
5.6.1 LTE Band 4

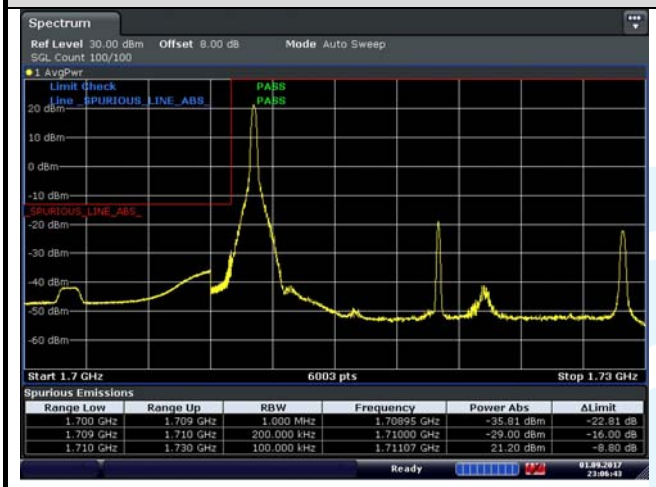
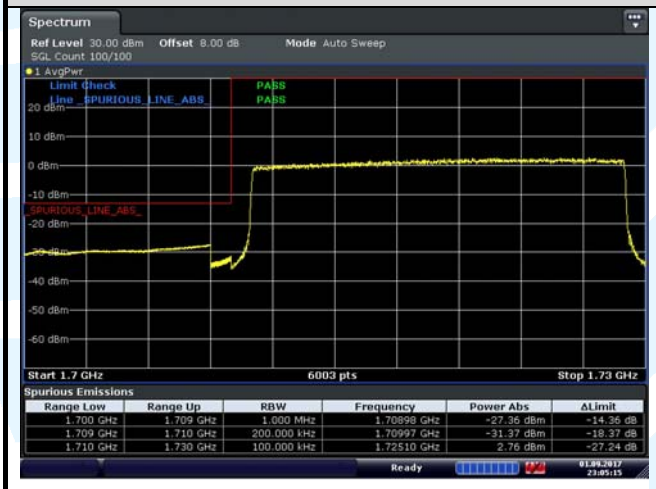
LTE Band 4 / 1.4 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

LTE Band 4 / 3 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

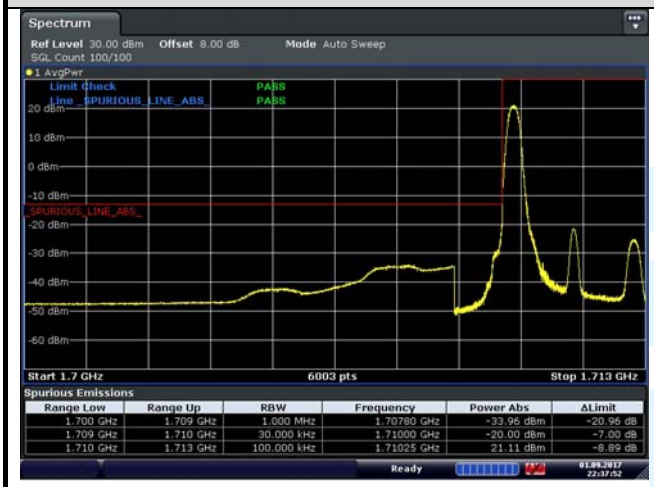
LTE Band 4 / 5 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

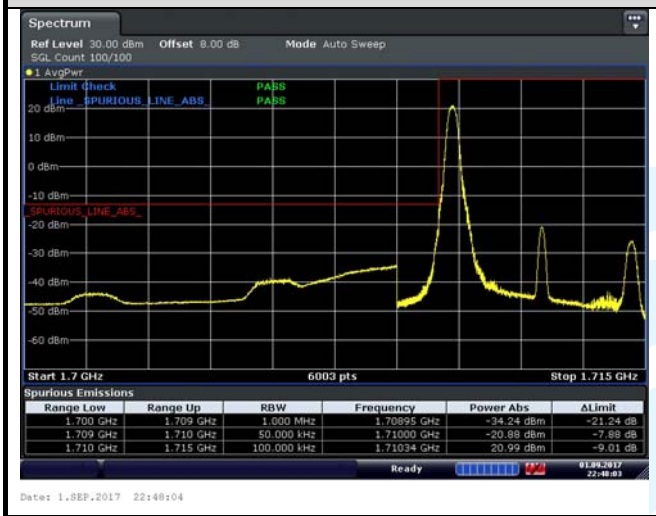
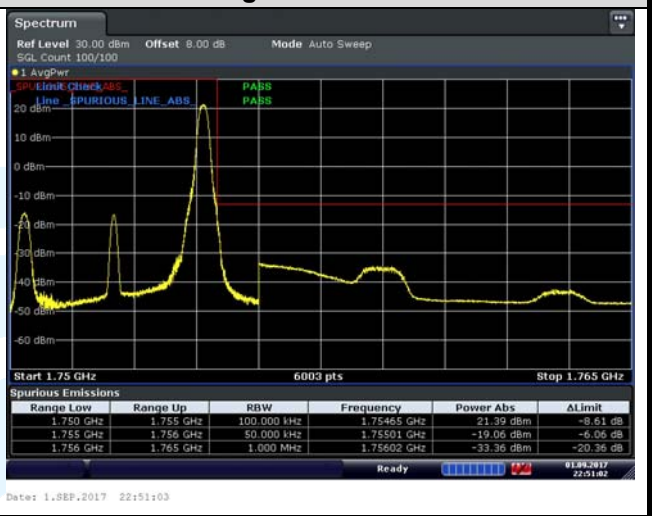
LTE Band 4 / 10 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

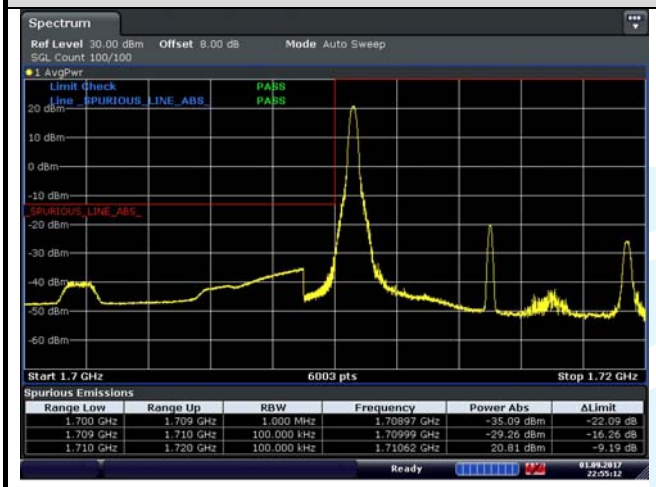
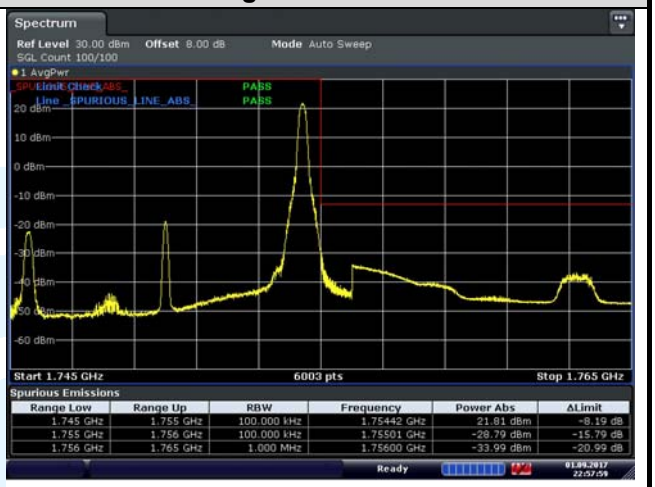
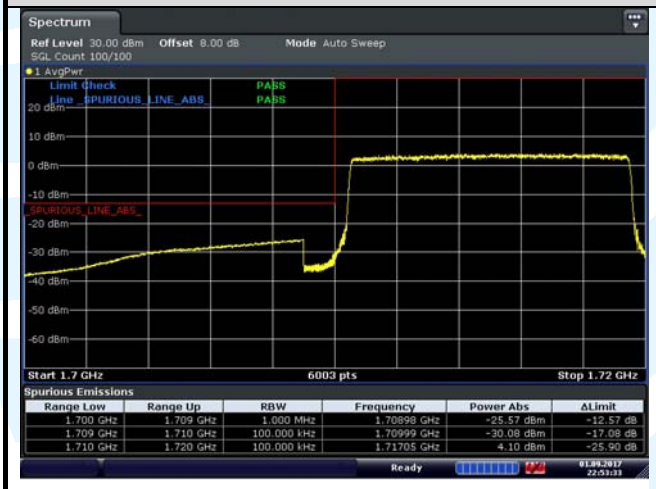
LTE Band 4 / 15 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

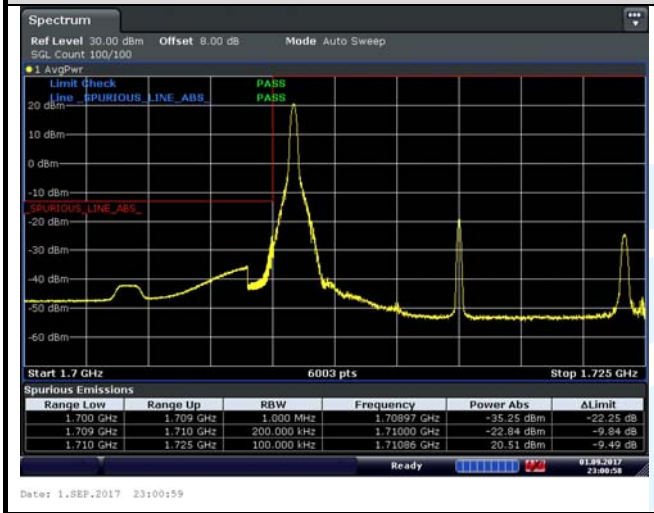
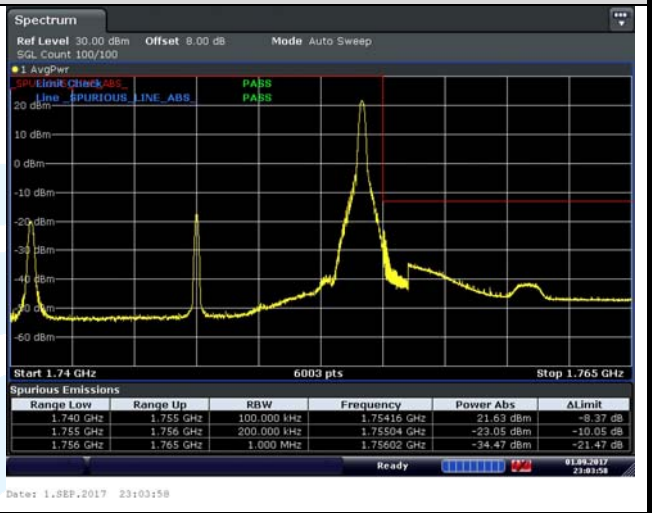
LTE Band 4 / 20 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

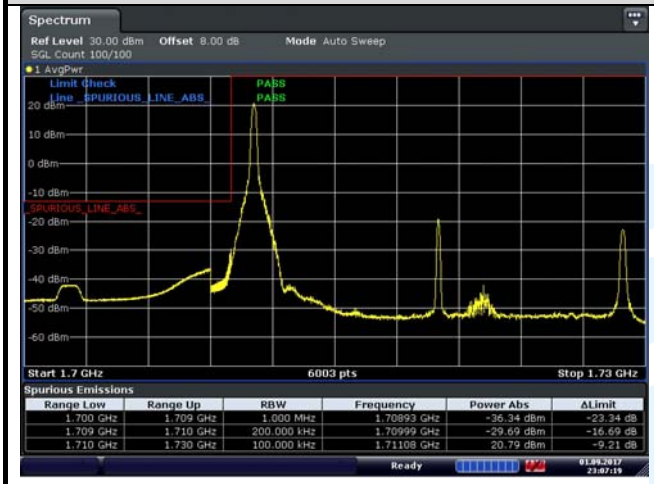
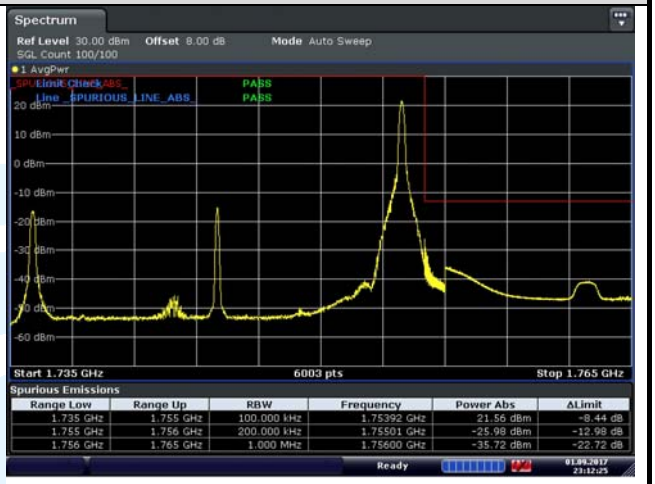
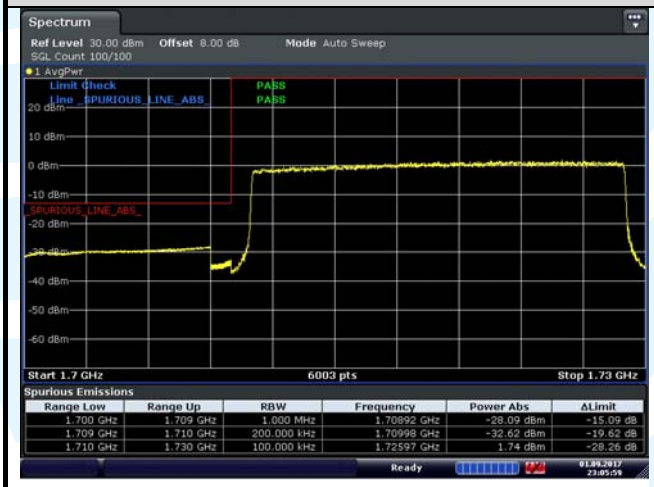
LTE Band 4 / 1.4 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

LTE Band 4 / 3 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

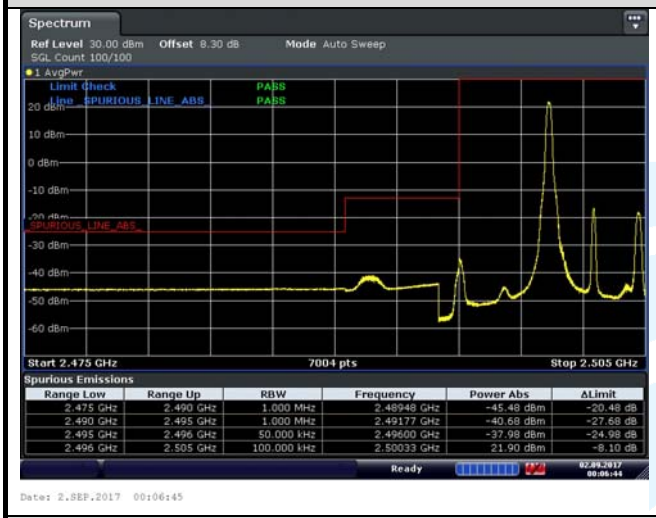
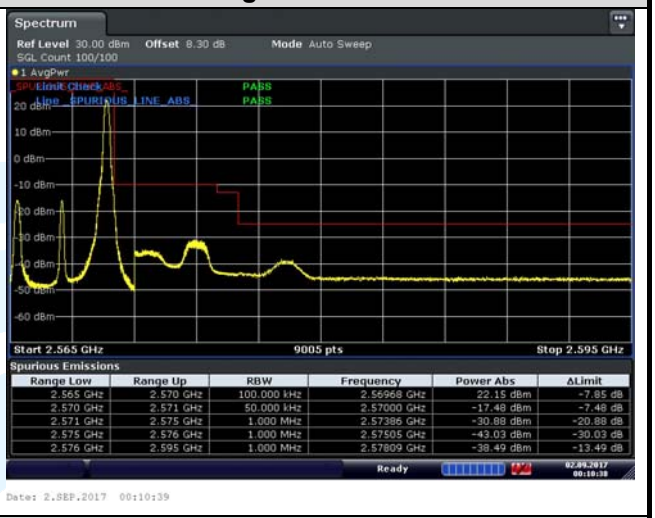
LTE Band 4 / 5 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

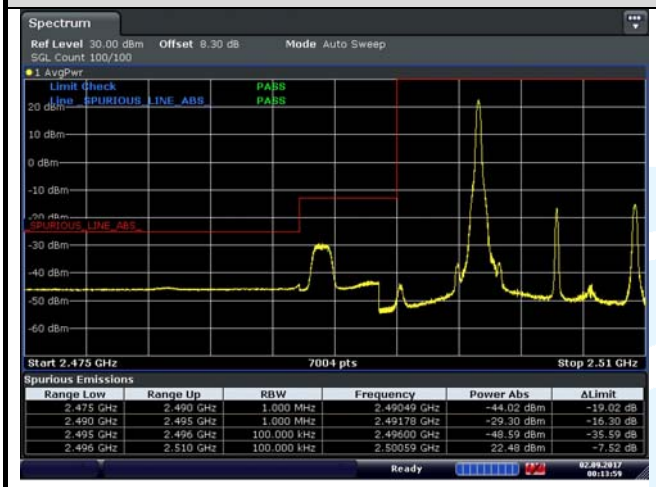
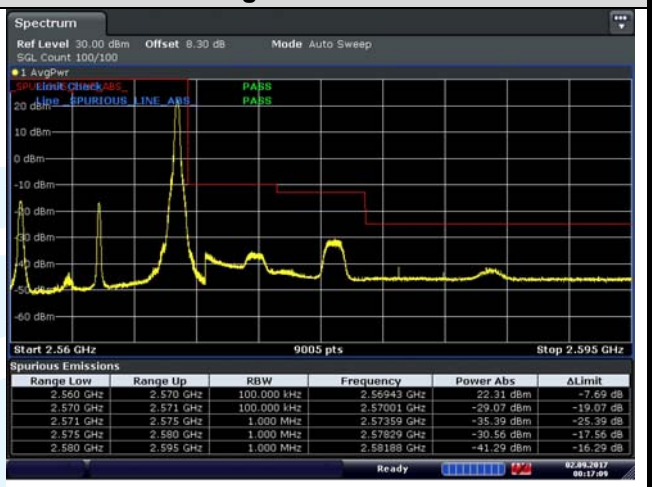
LTE Band 4 / 10 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

LTE Band 4 / 15 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

LTE Band 4 / 20 MHz / 16QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

5.6.2 LTE Band 7

LTE Band 7 / 5 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel
	

LTE Band 7 / 10 MHz / QPSK	
1 RB	
Lowest Channel	Highest Channel
	
Full RB	
Lowest Channel	Highest Channel