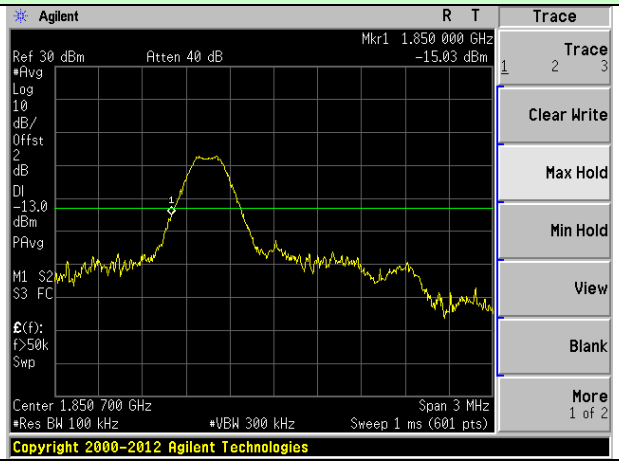
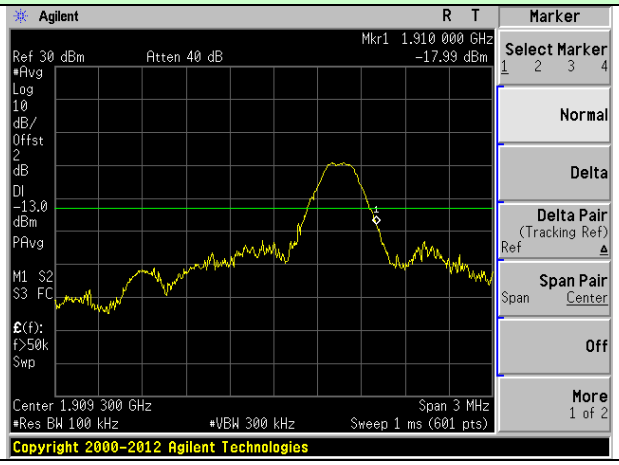
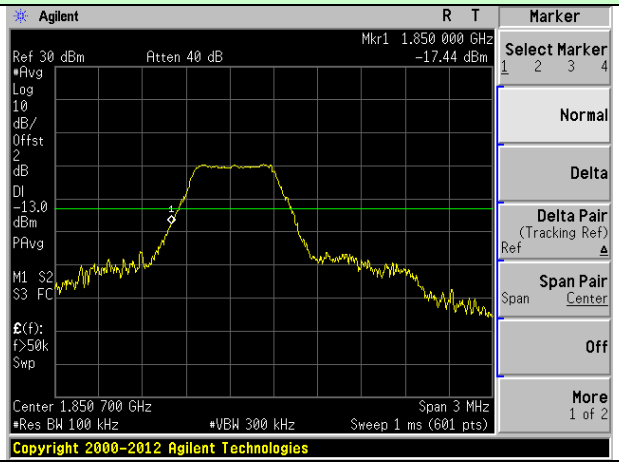
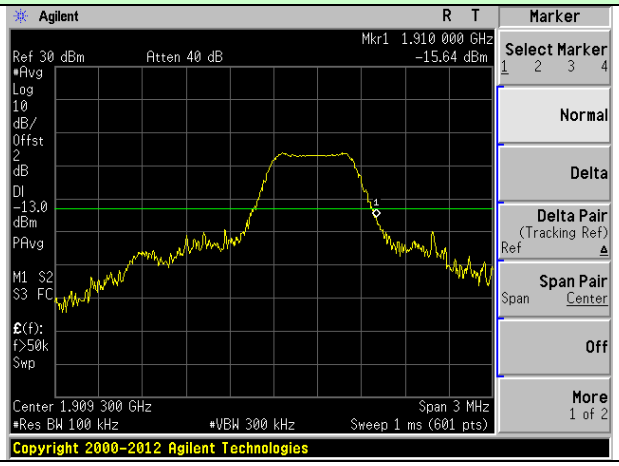
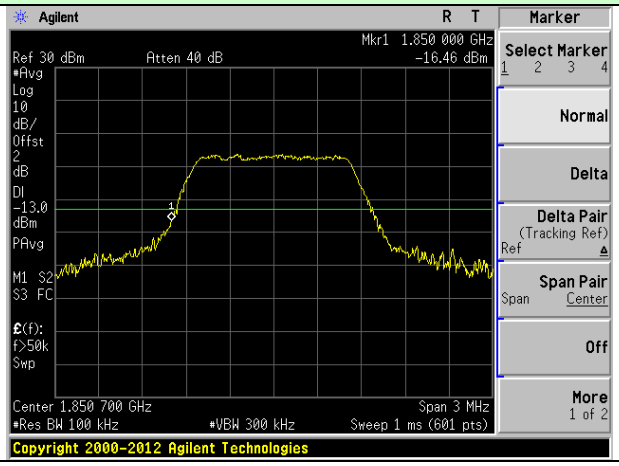
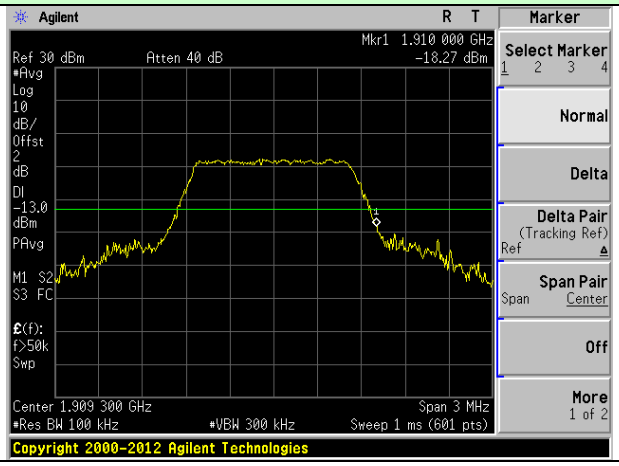
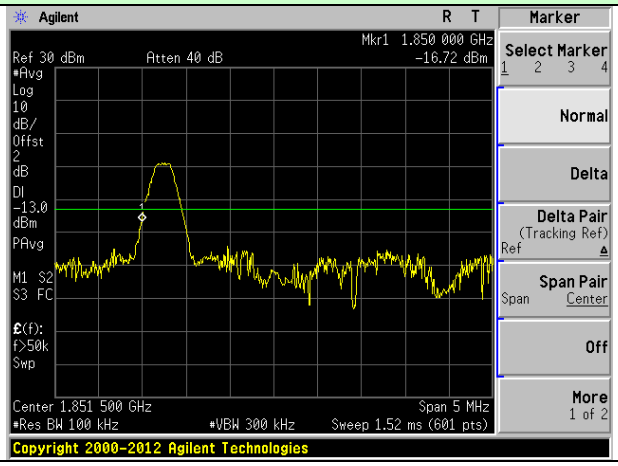
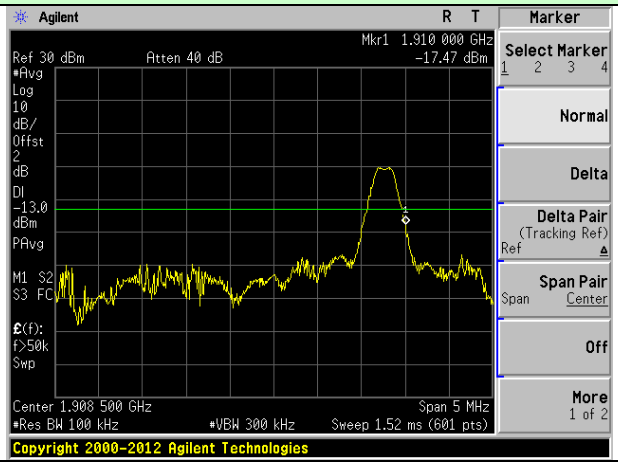
Band Edge:

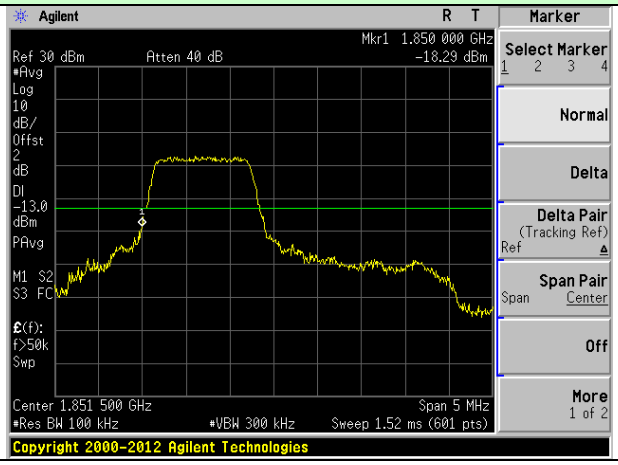
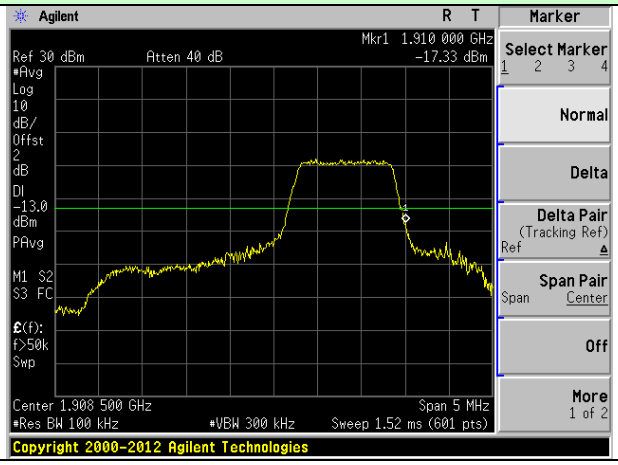
QPSK mode:

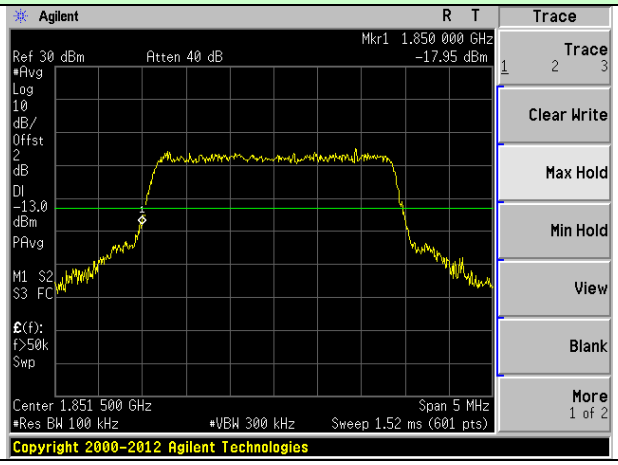
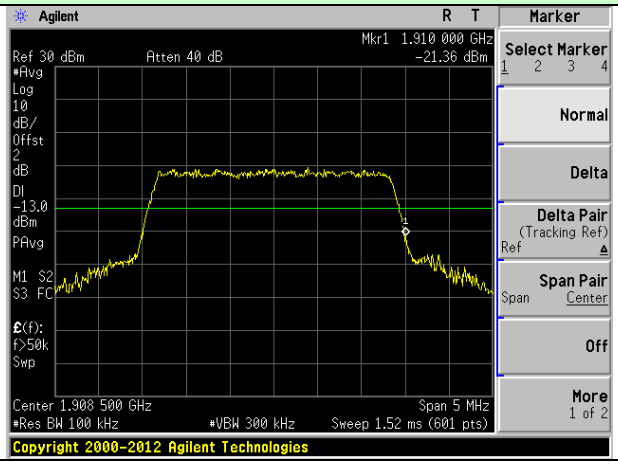
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

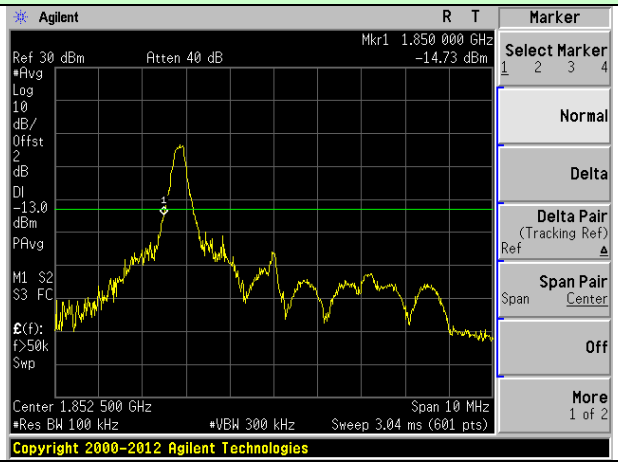
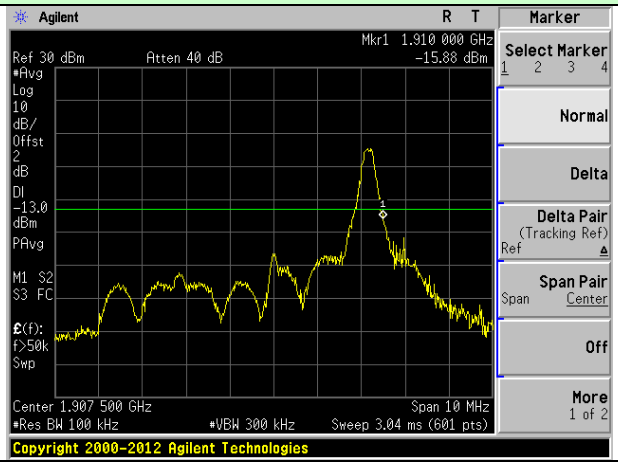
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

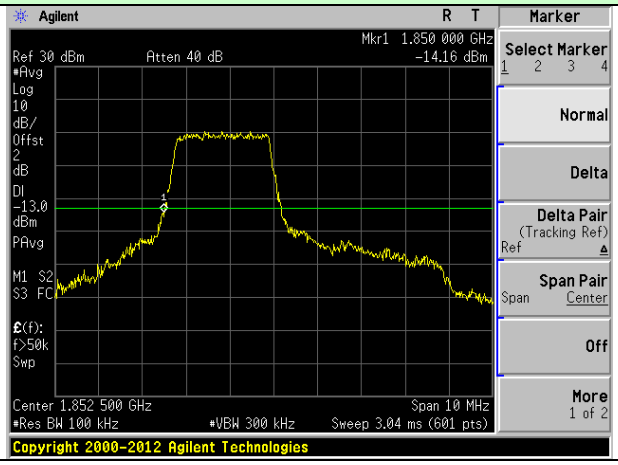
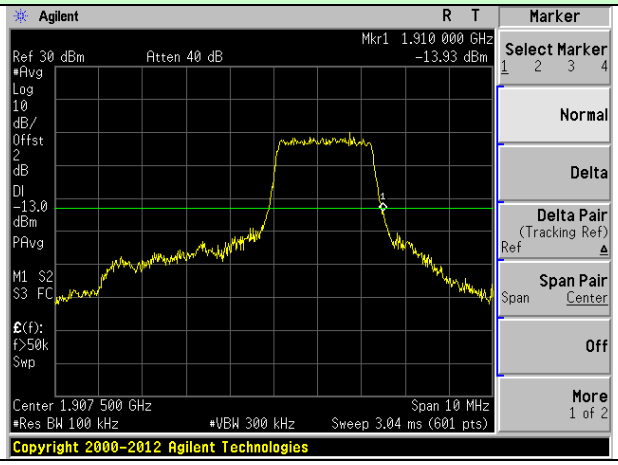
1.4MHz Bandwidth (RB size:6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

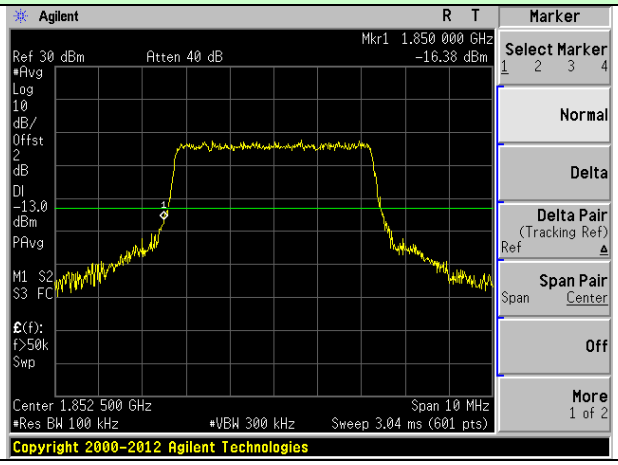
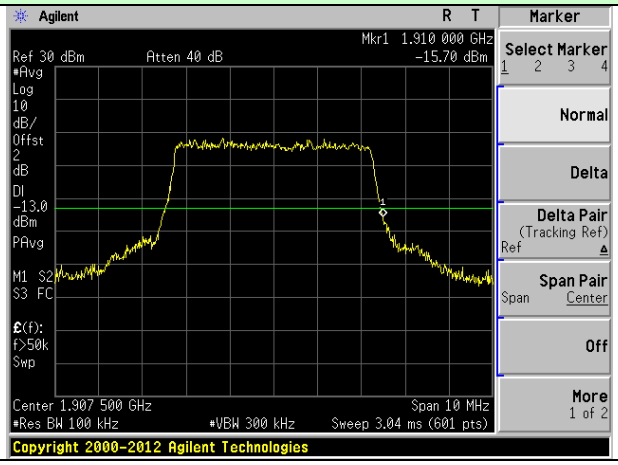
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

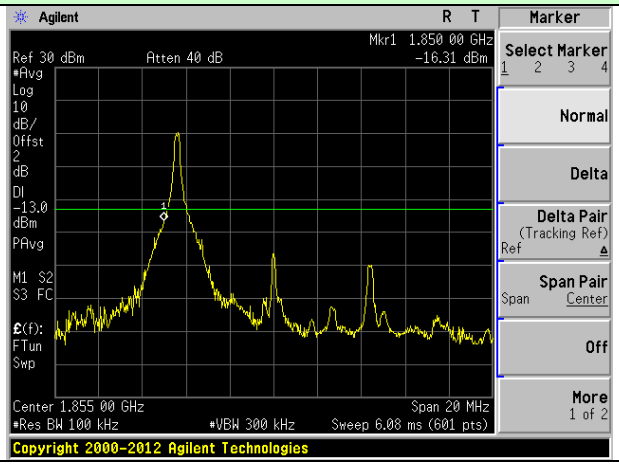
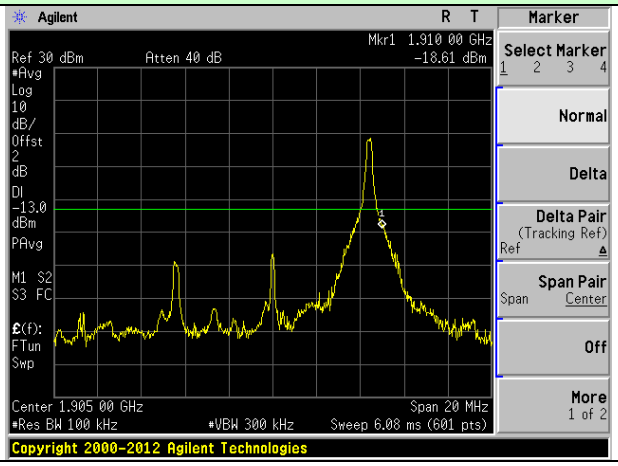
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

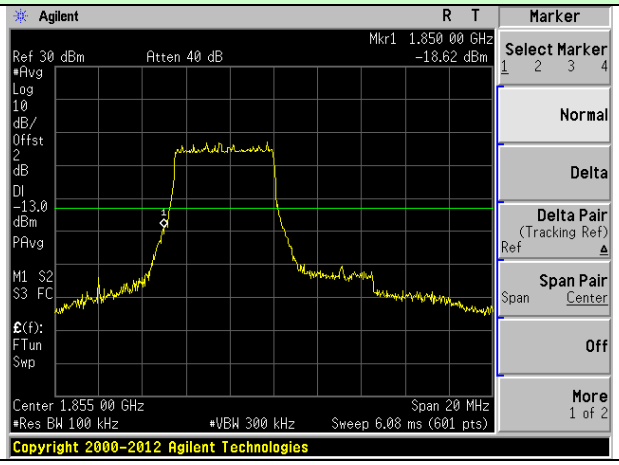
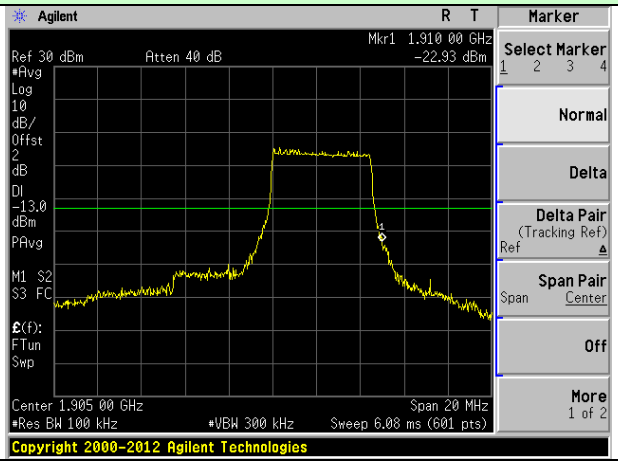
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

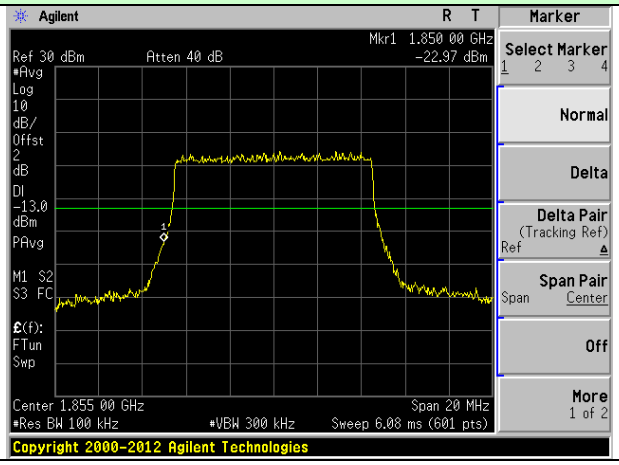
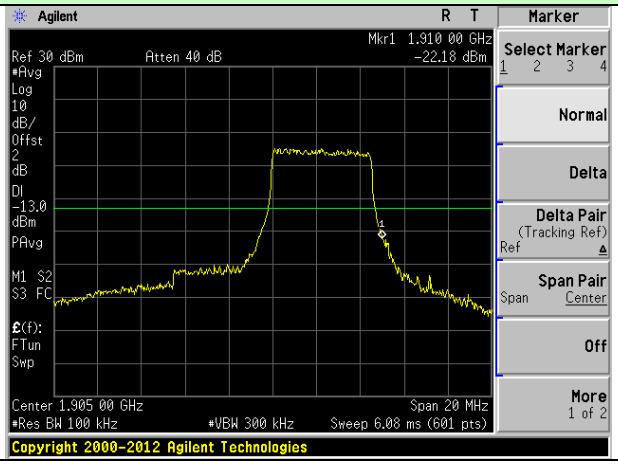
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

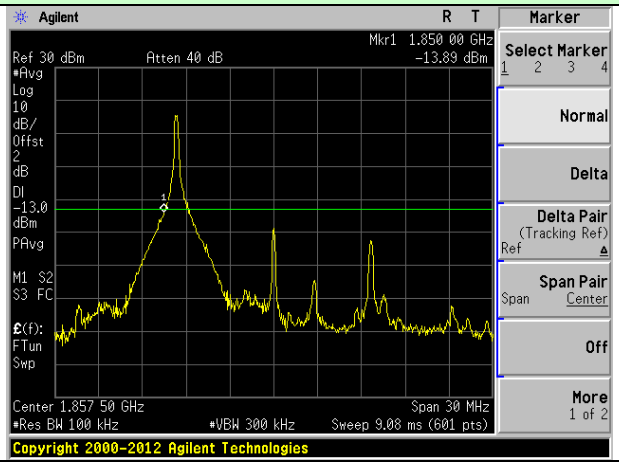
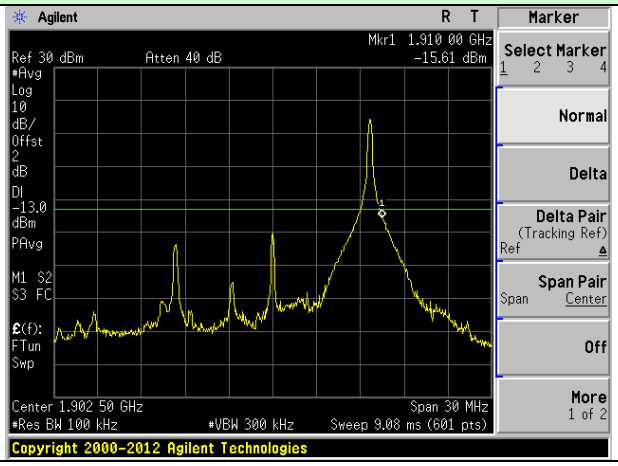
5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

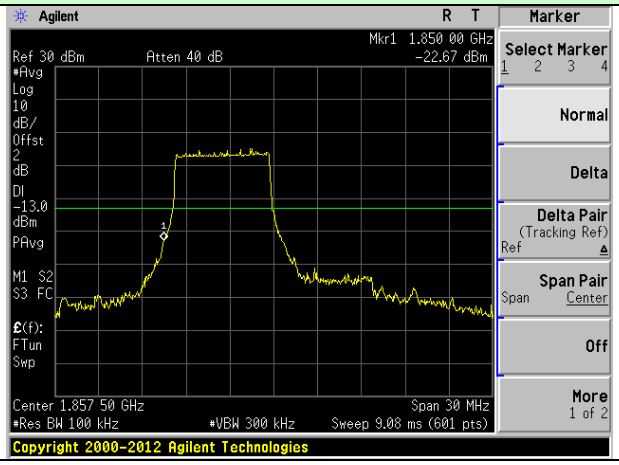
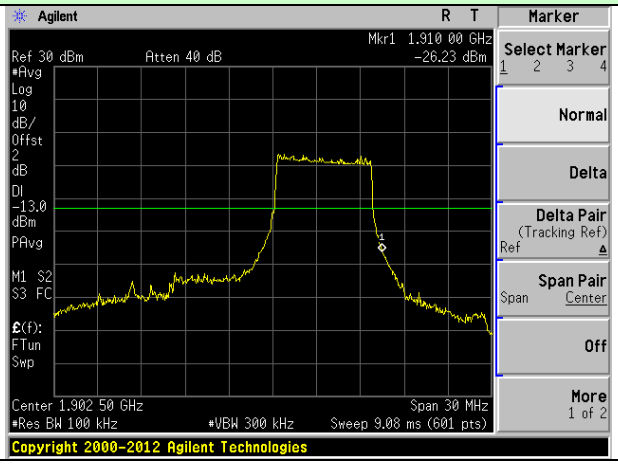
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

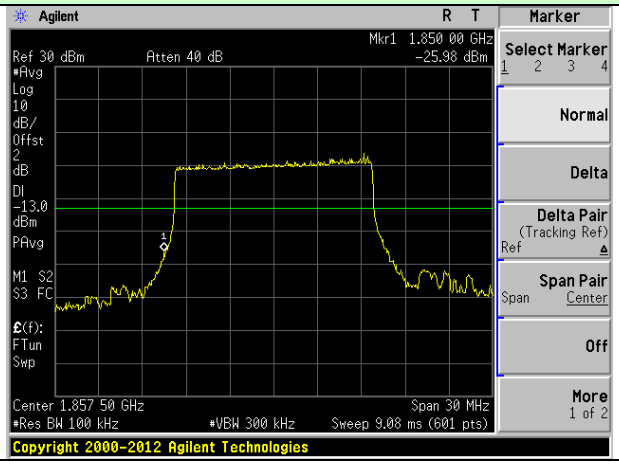
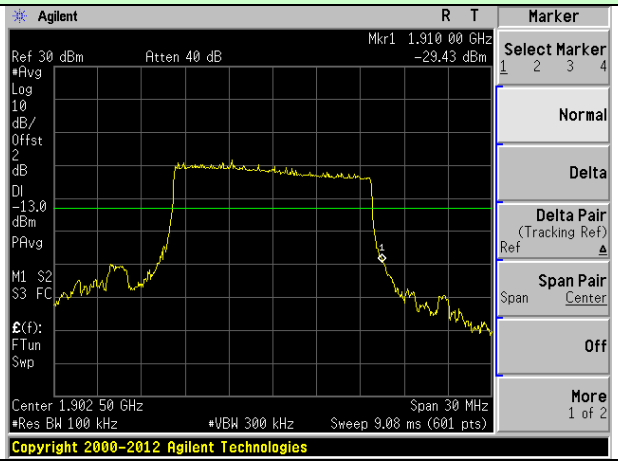
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

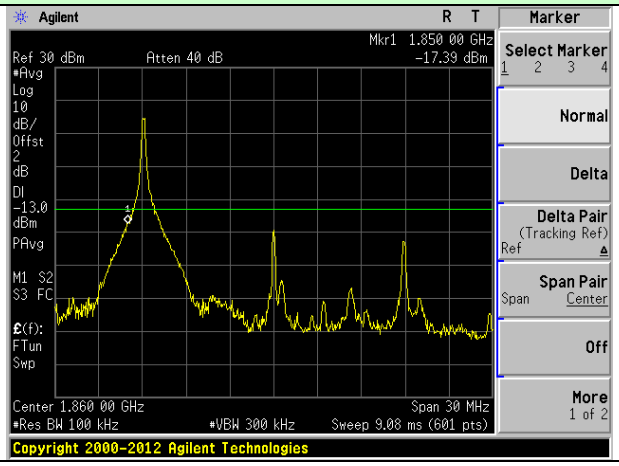
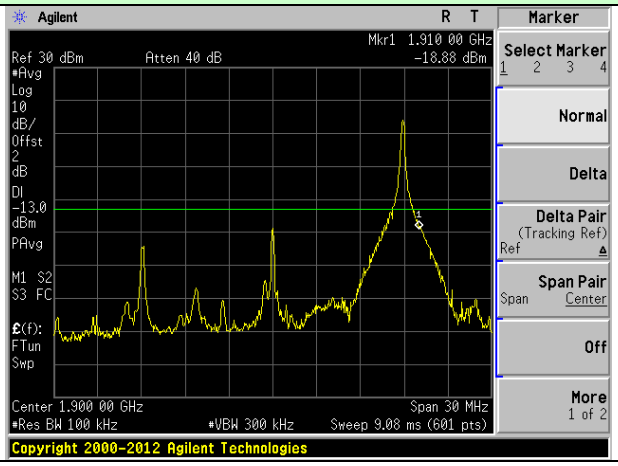
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

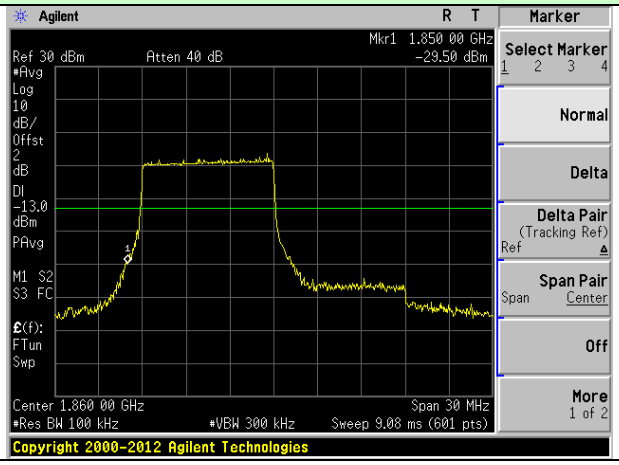
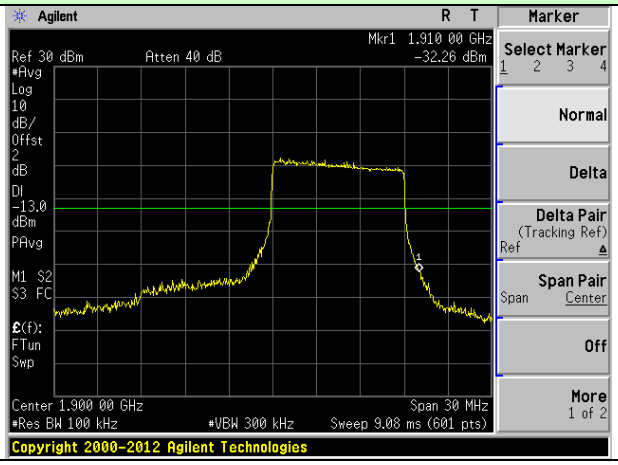
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

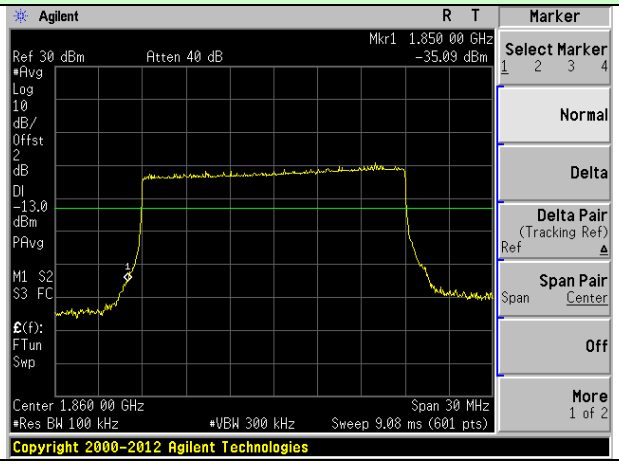
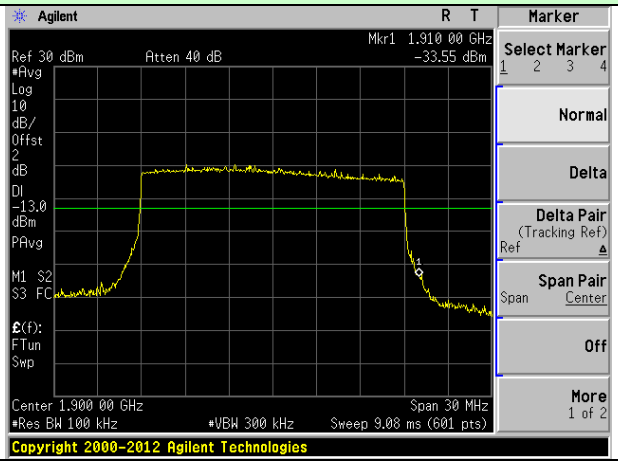
15MHz Bandwidth (RB size:1# RB offset:0#)	15MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

15MHz Bandwidth (RB size:36# RB offset:0#)	15MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

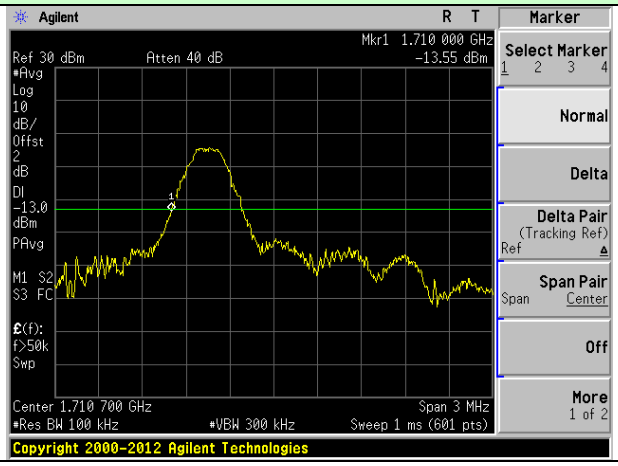
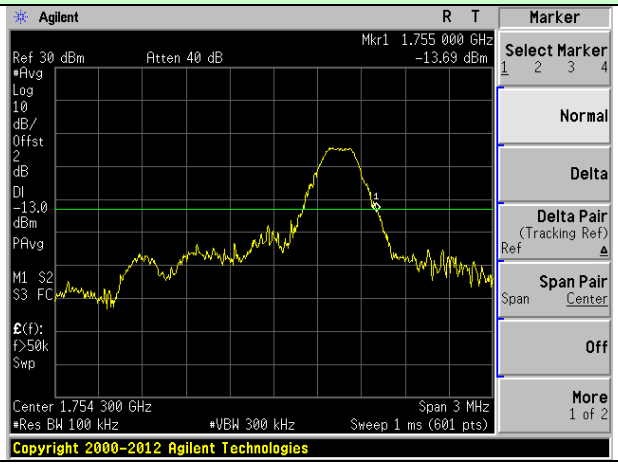
15MHz Bandwidth (RB size:75# RB offset:0#)	15MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

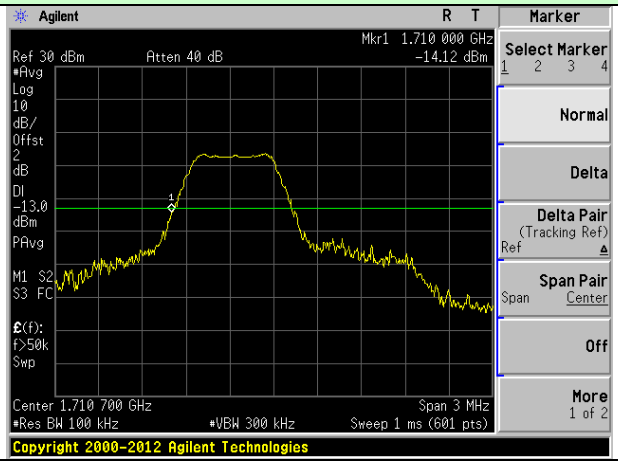
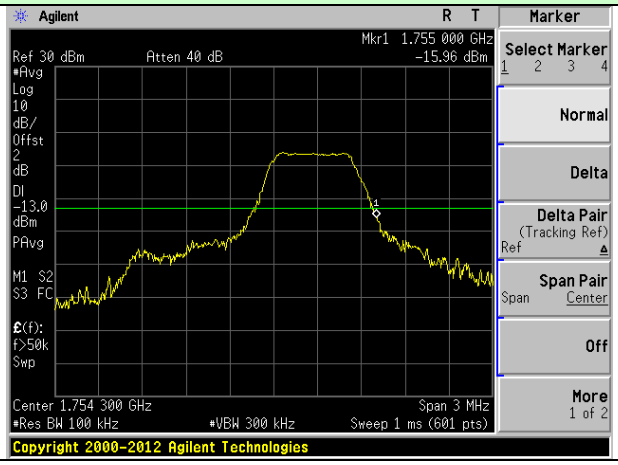
20MHz Bandwidth (RB size:1# RB offset:0#)	20MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

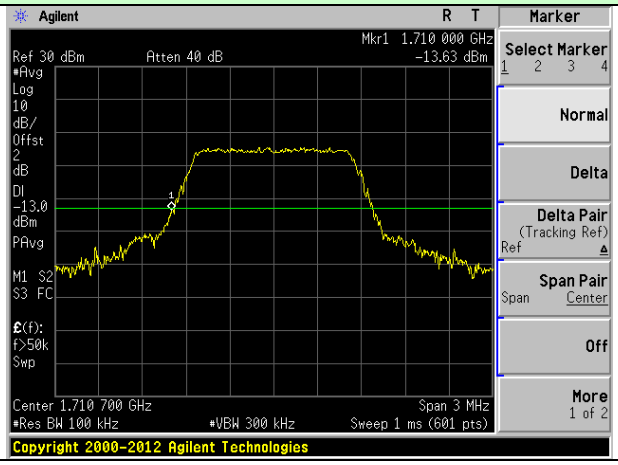
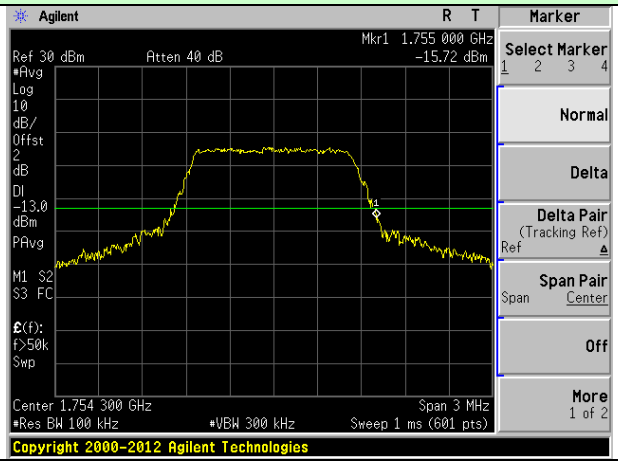
20MHz Bandwidth (RB size:50# RB offset:0#)	20MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

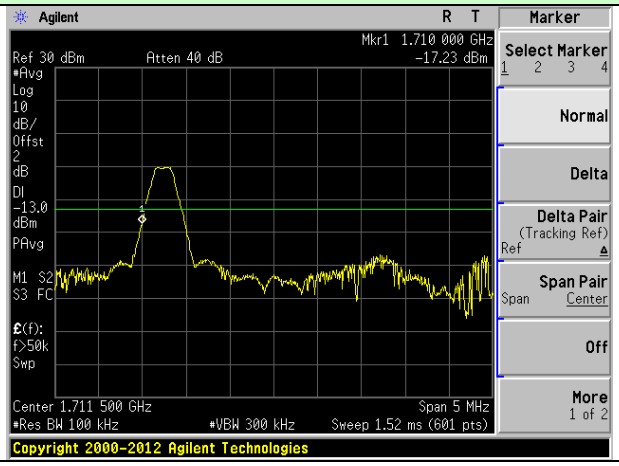
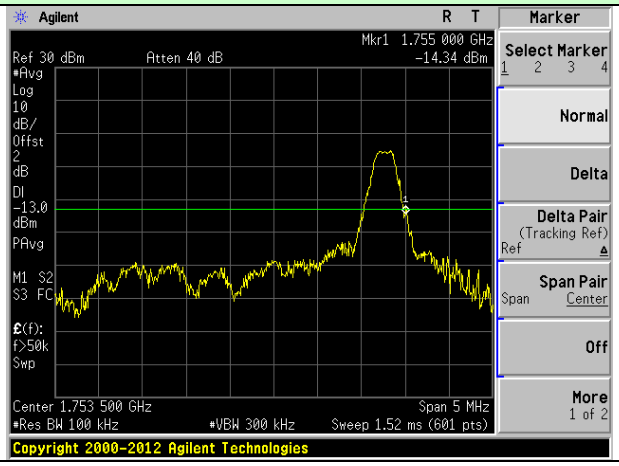
20MHz Bandwidth (RB size:100# RB offset:0#)	20MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

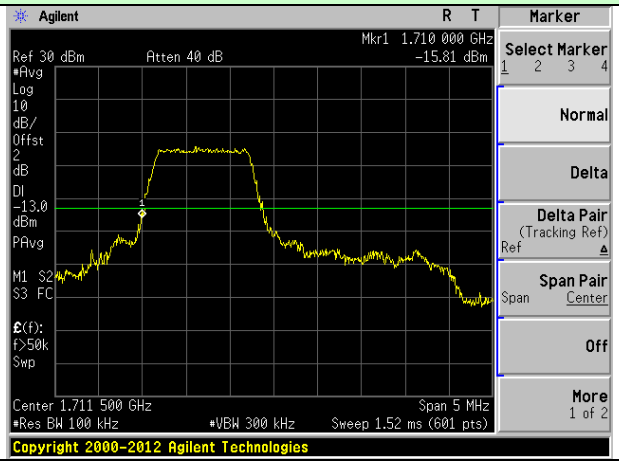
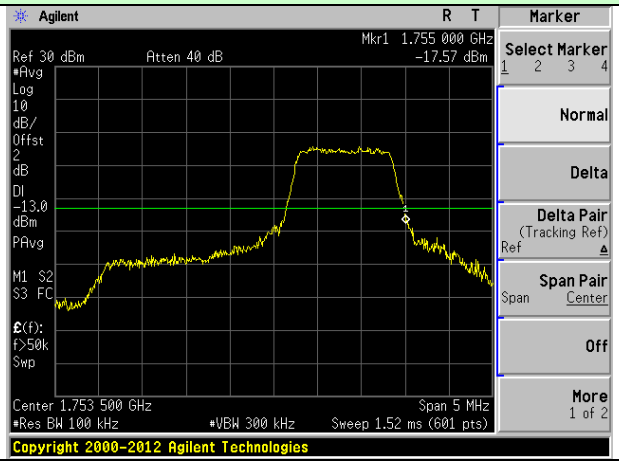
LTE Band 4

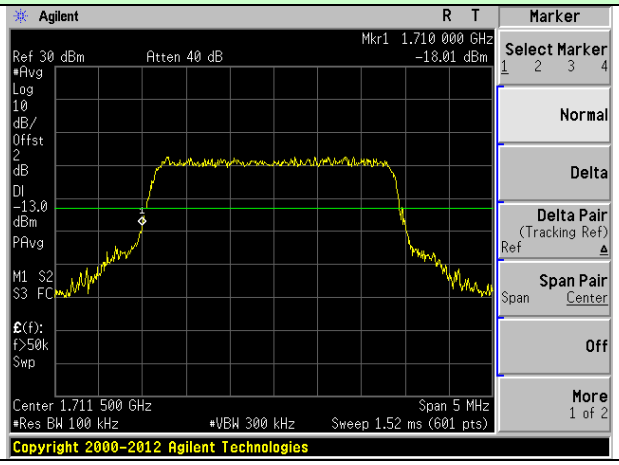
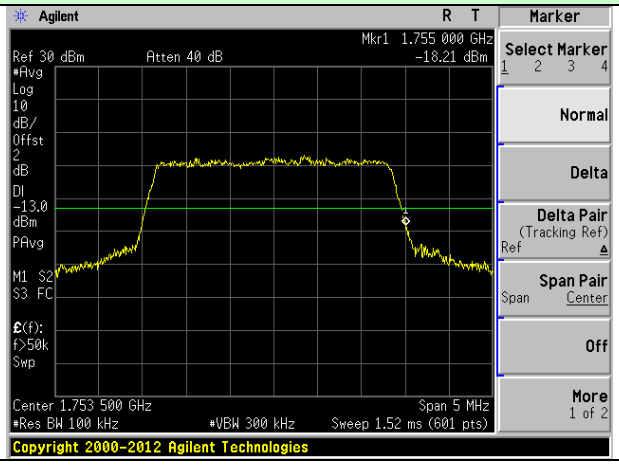
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

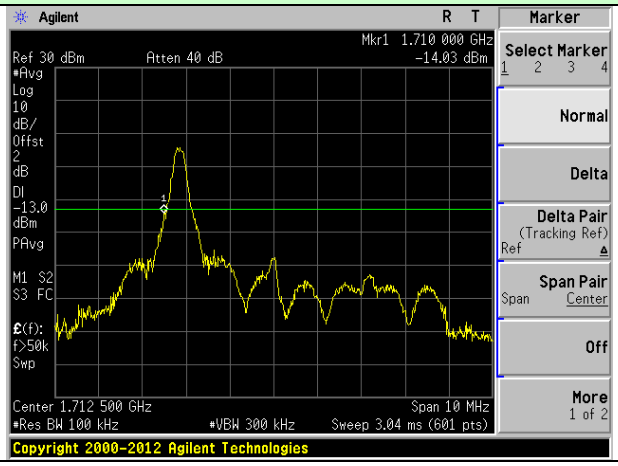
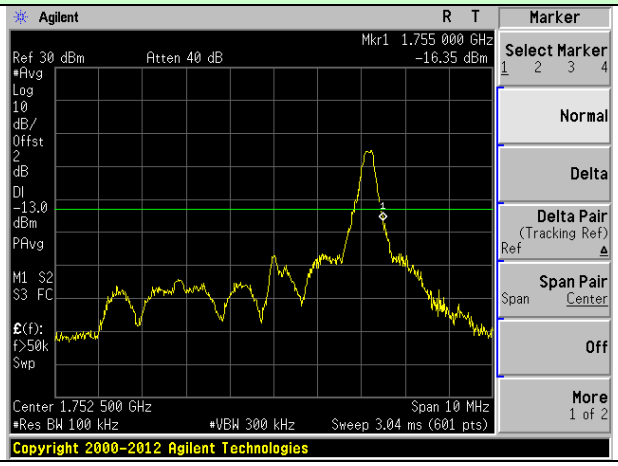
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

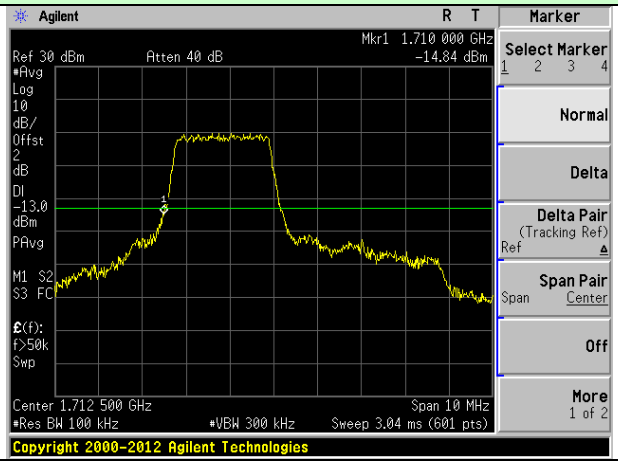
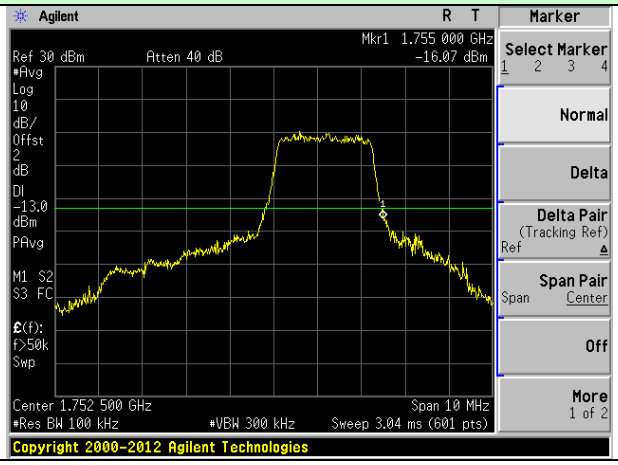
1.4MHz Bandwidth (RB size:6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

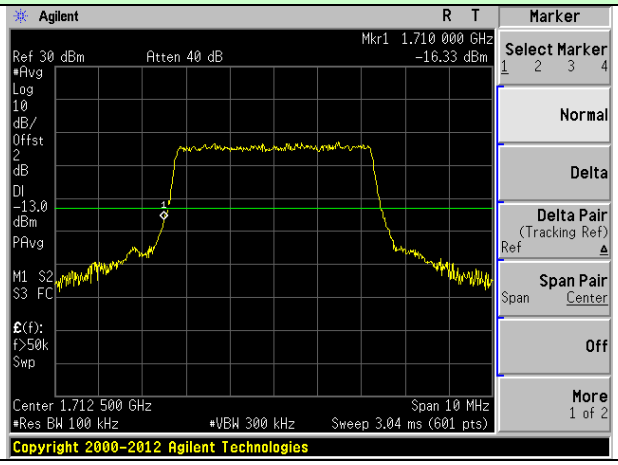
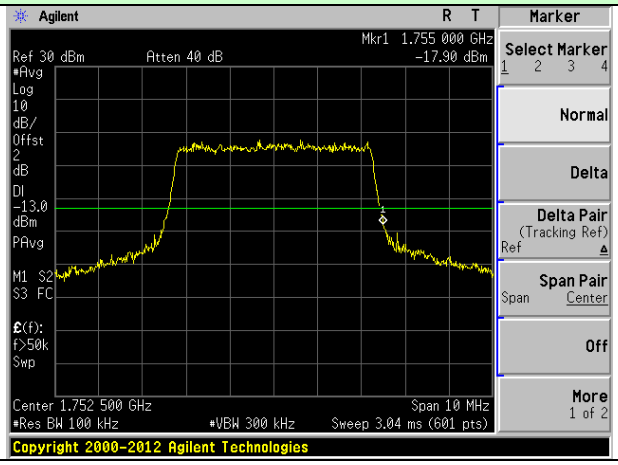
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

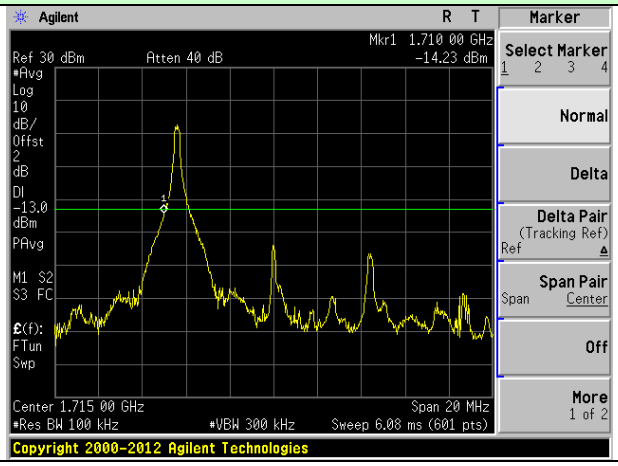
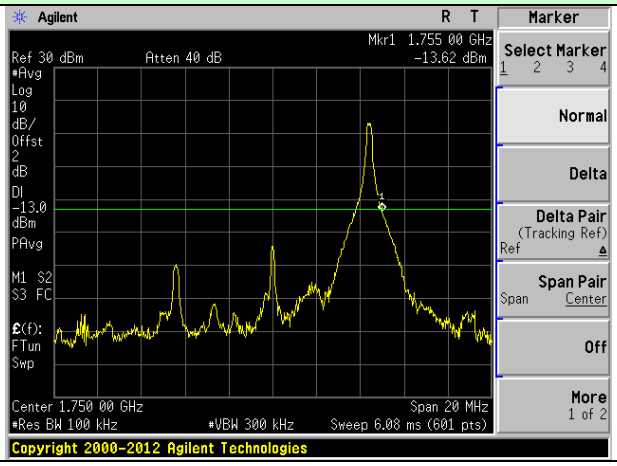
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

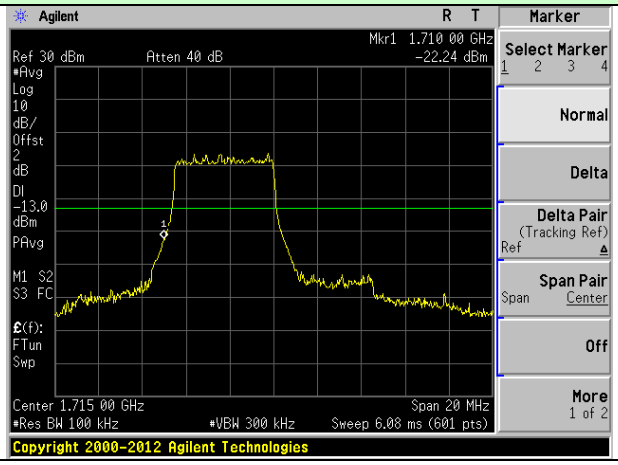
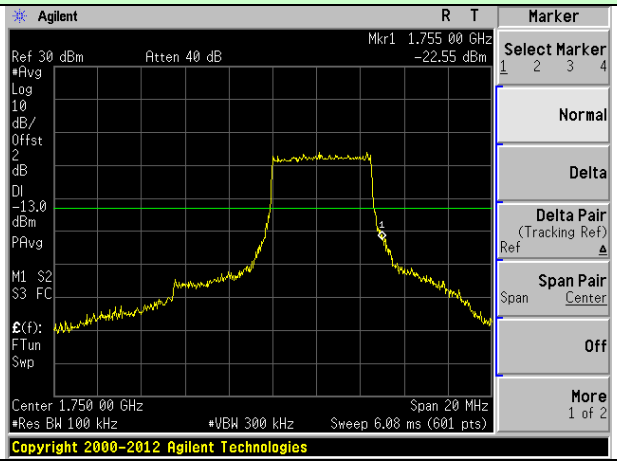
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

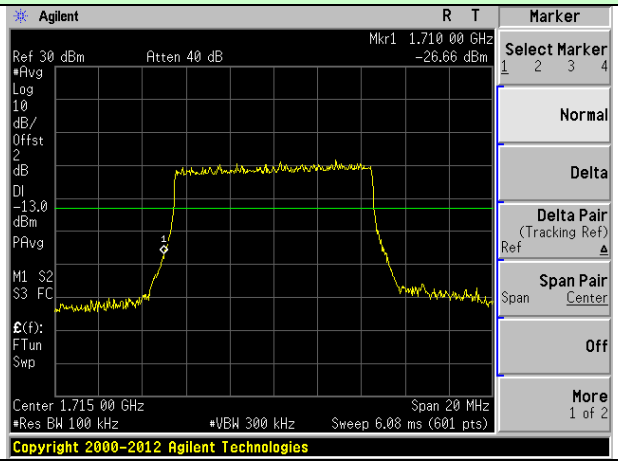
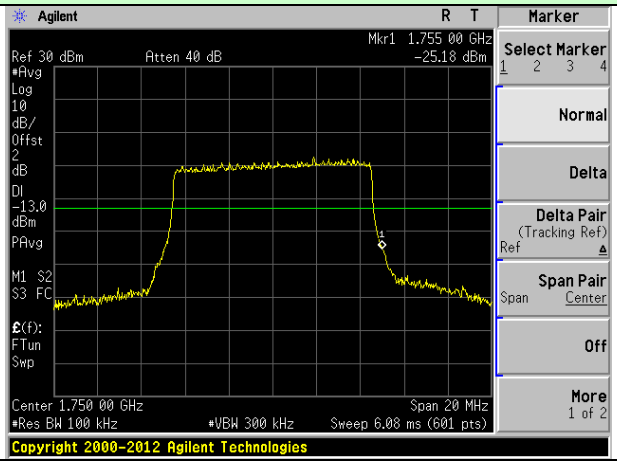
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

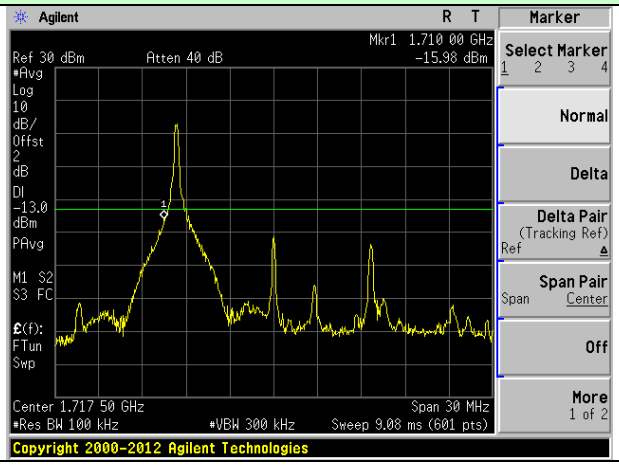
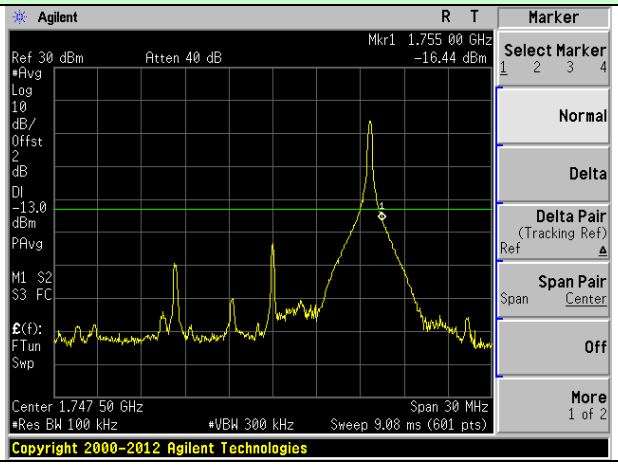
5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

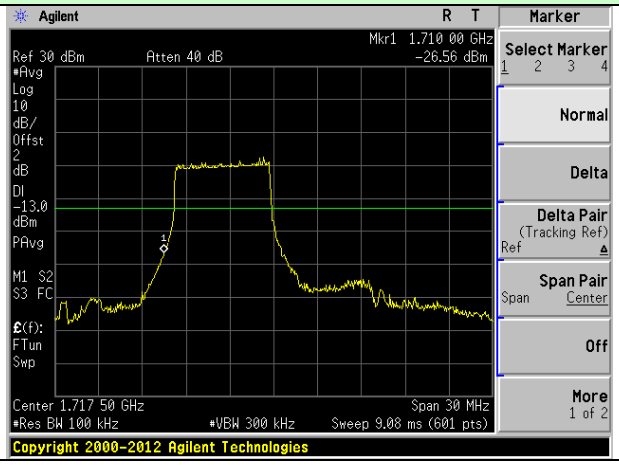
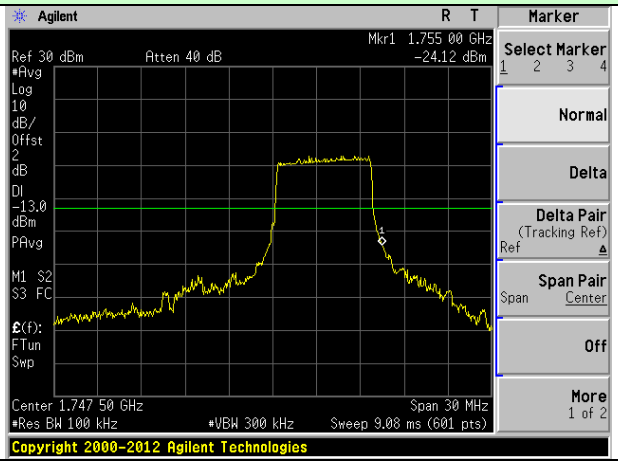
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

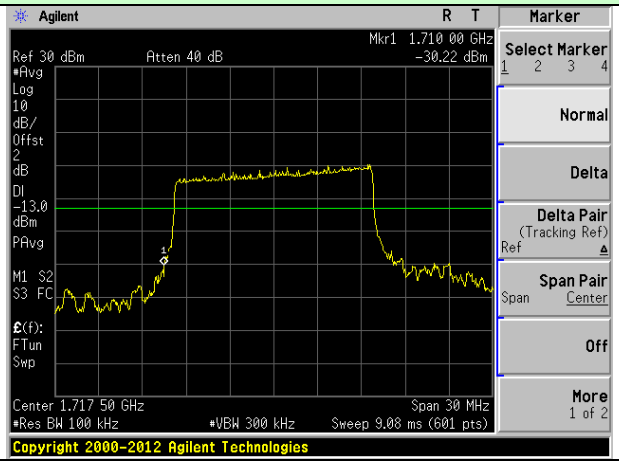
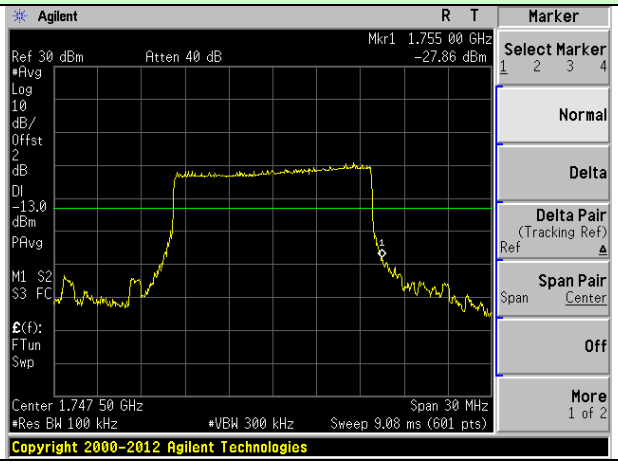
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

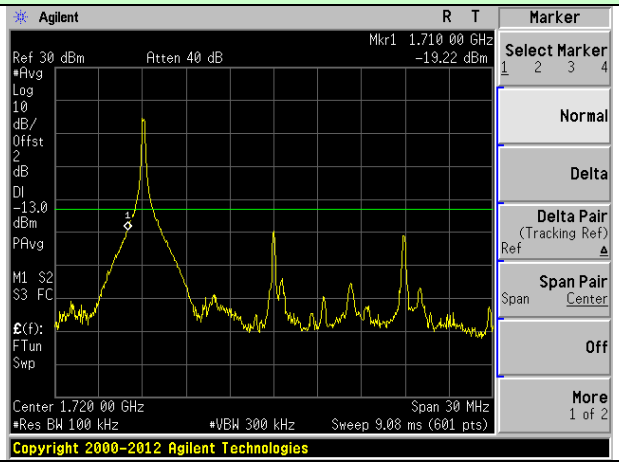
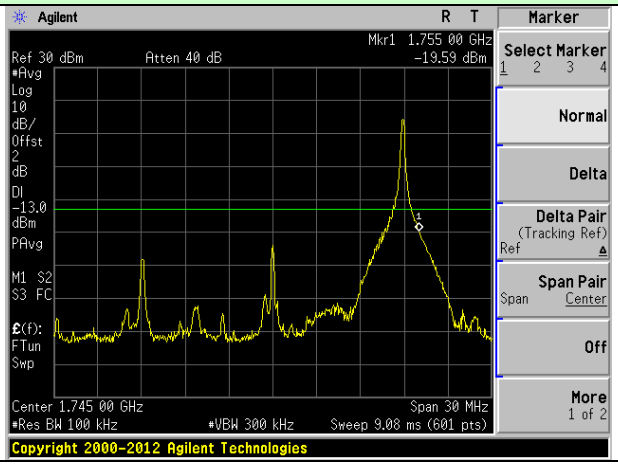
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

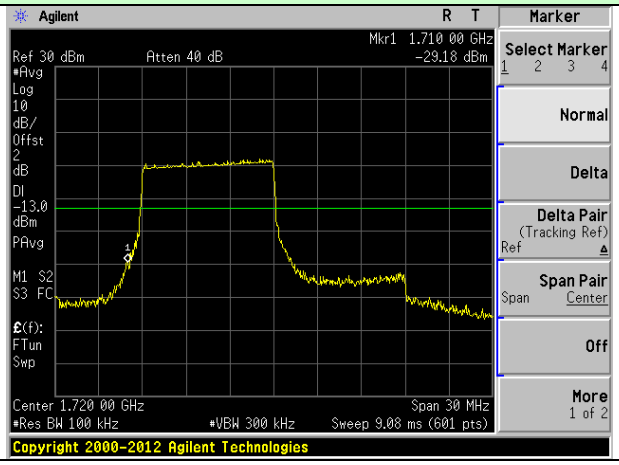
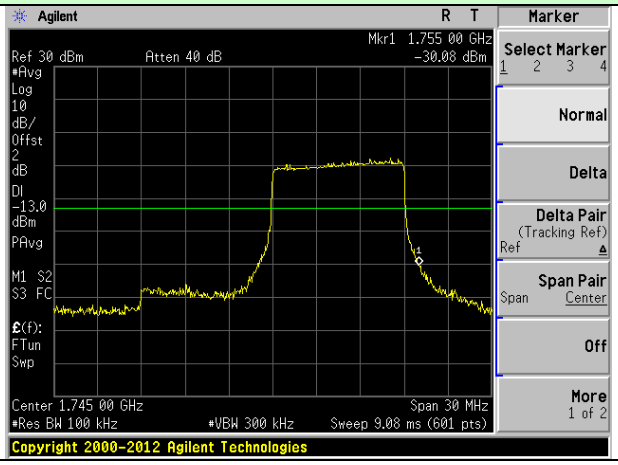
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

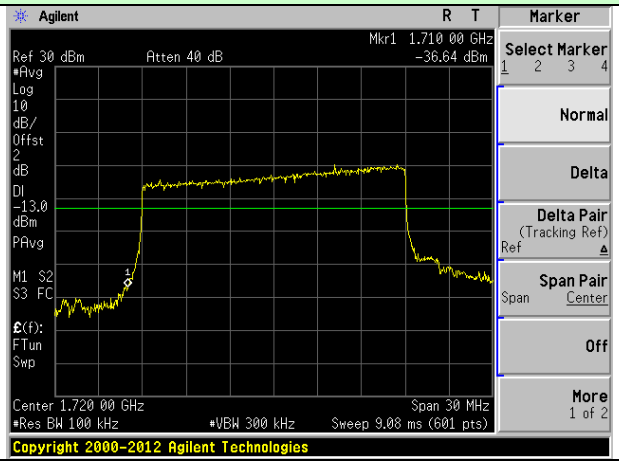
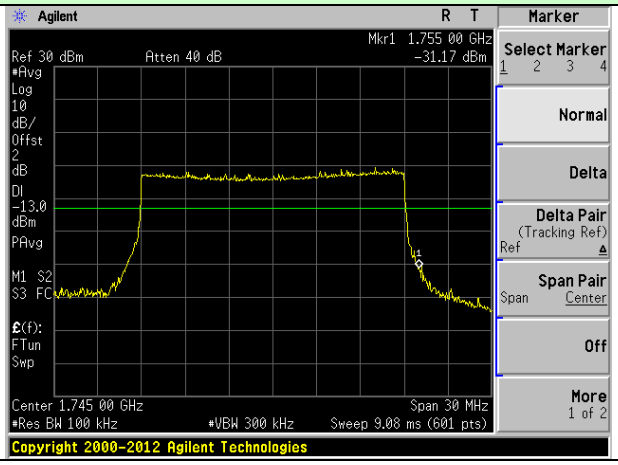
15MHz Bandwidth (RB size:1# RB offset:0#)	15MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

15MHz Bandwidth (RB size:36# RB offset:0#)	15MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

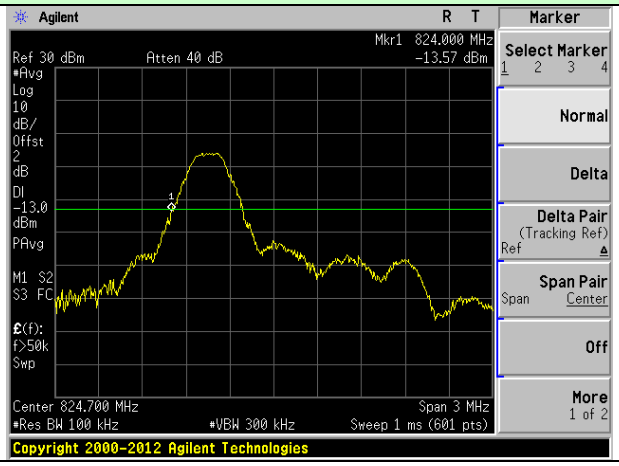
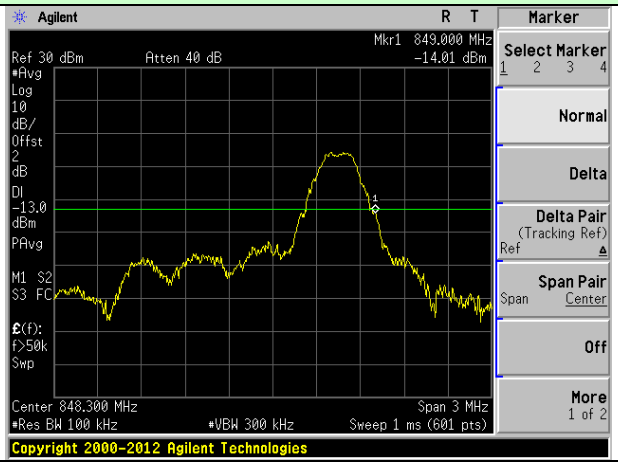
15MHz Bandwidth (RB size:75# RB offset:0#)	15MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

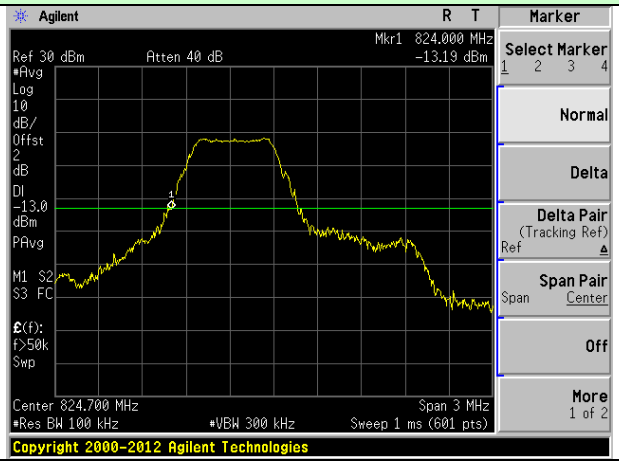
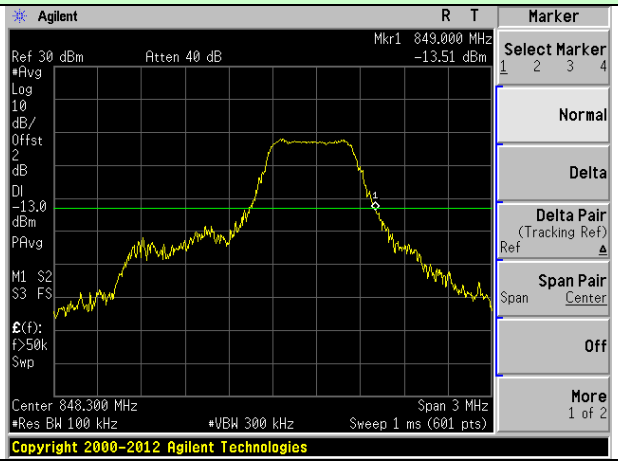
20MHz Bandwidth (RB size:1# RB offset:0#)	20MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

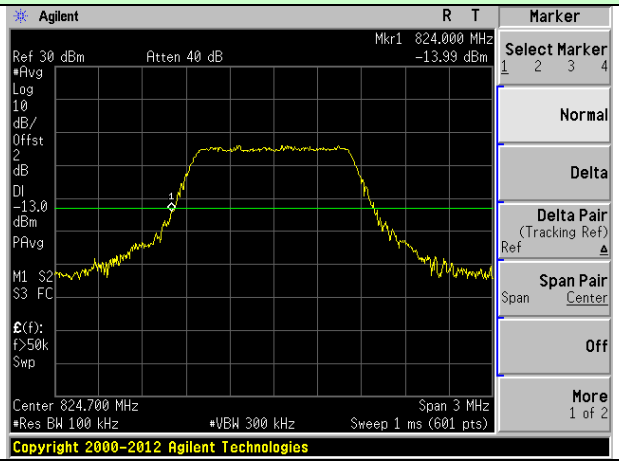
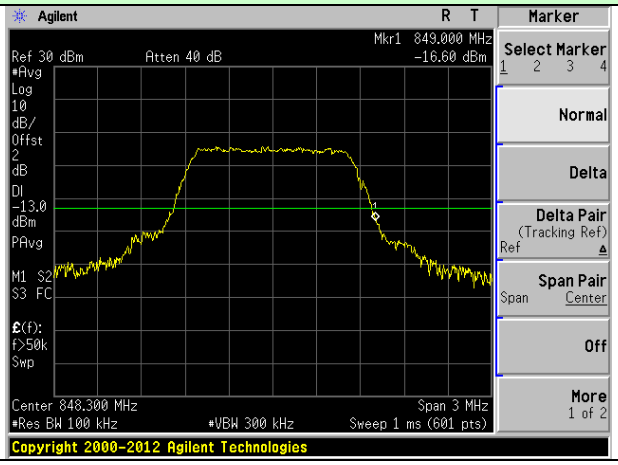
20MHz Bandwidth (RB size:50# RB offset:0#)	20MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

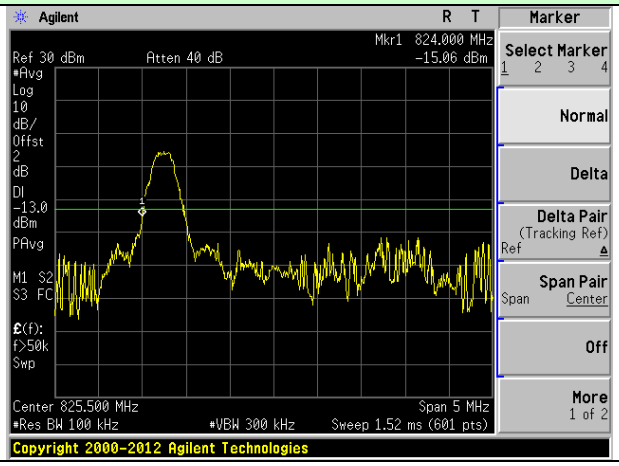
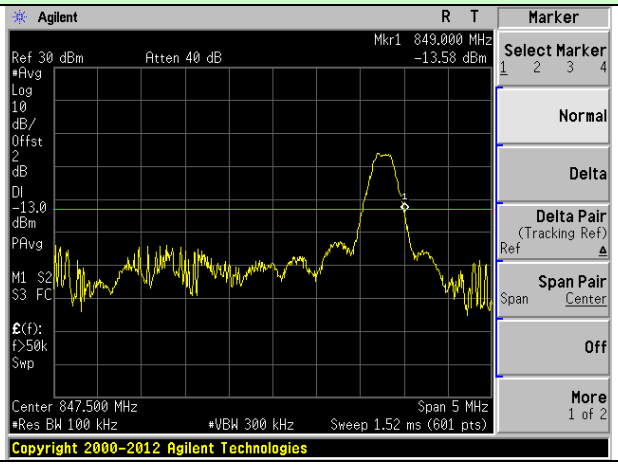
20MHz Bandwidth (RB size:100# RB offset:0#)	20MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

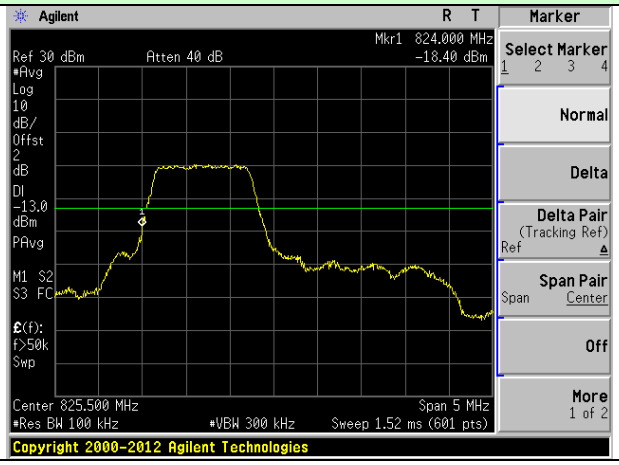
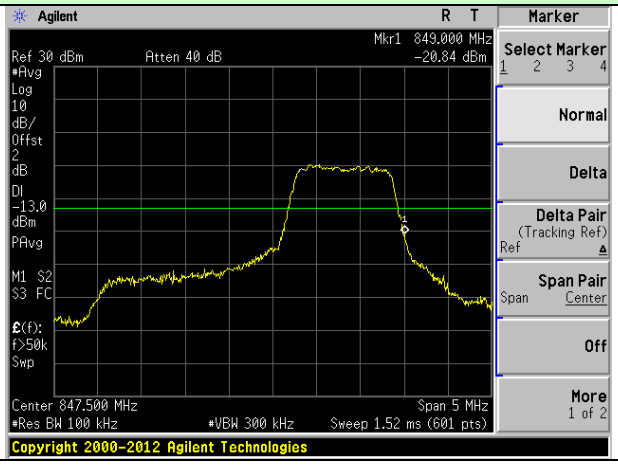
LTE Band 5:

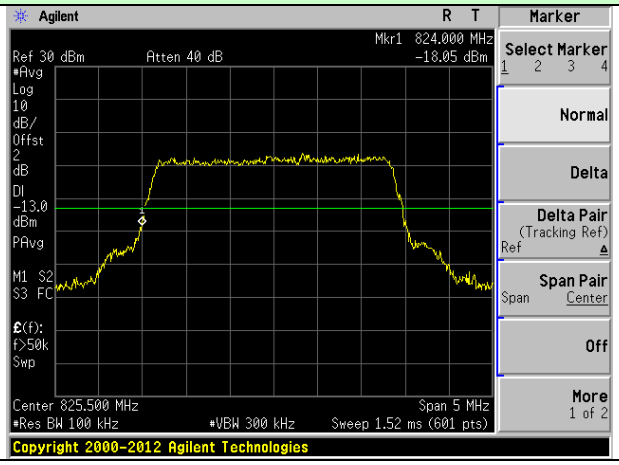
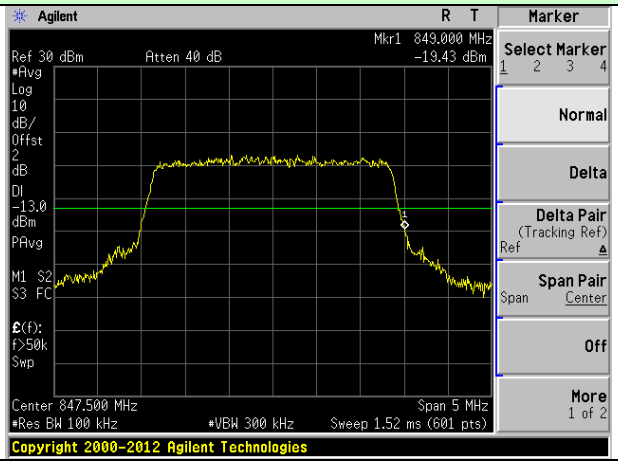
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

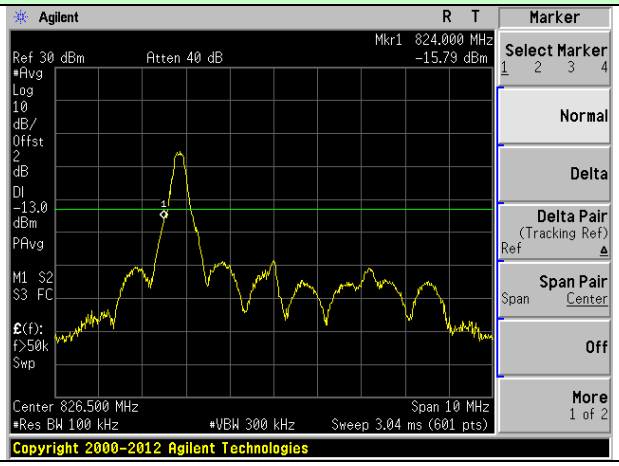
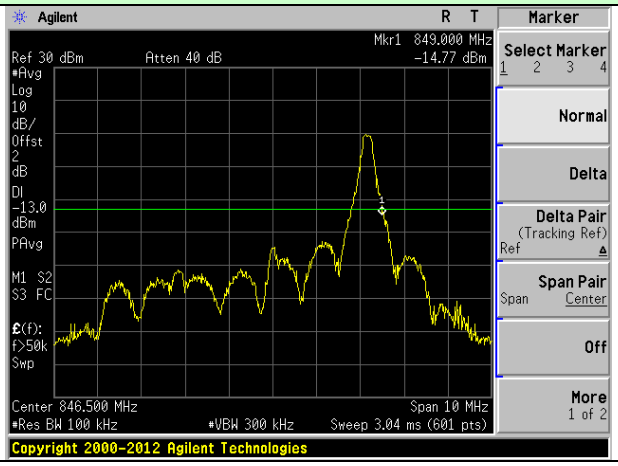
1.4MHz Bandwidth (RB size:12# RB offset:0#)	1.4MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

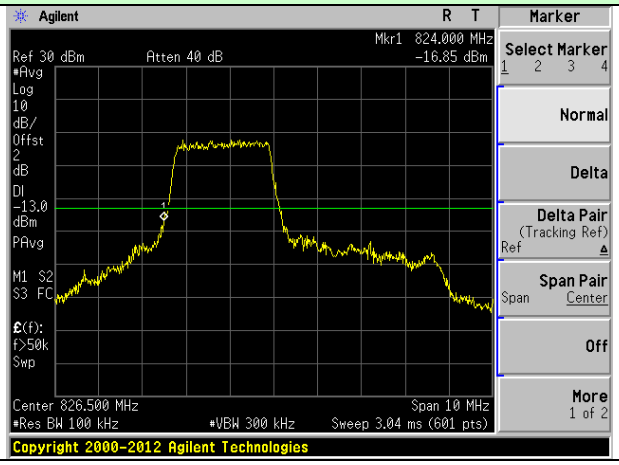
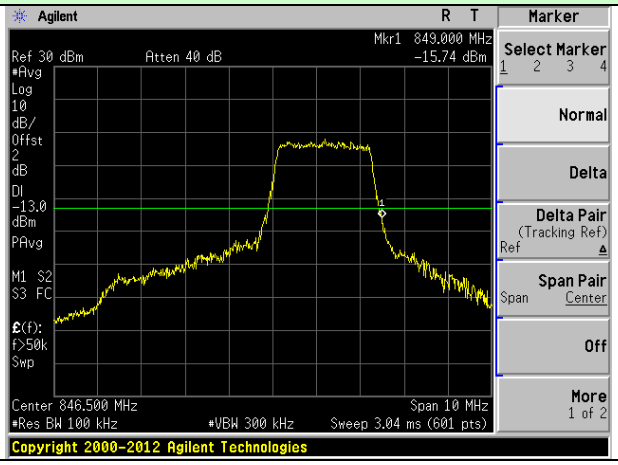
1.4MHz Bandwidth (RB size:25# RB offset:0#)	1.4MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

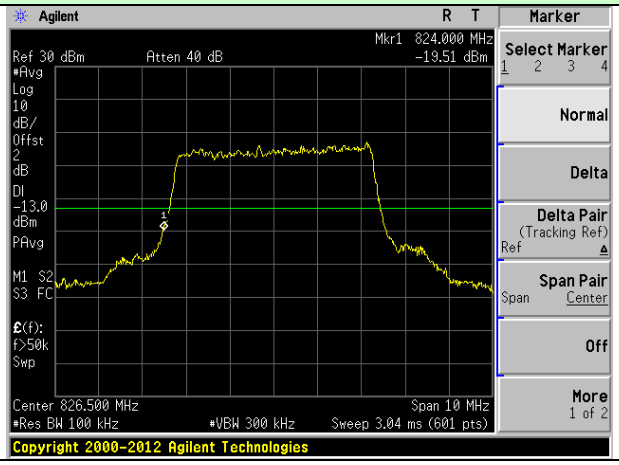
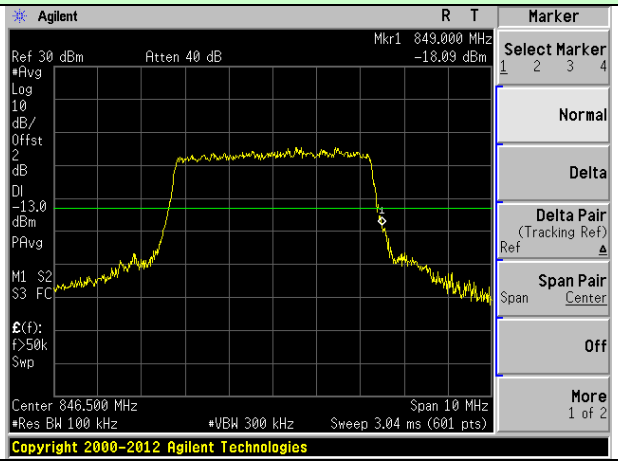
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

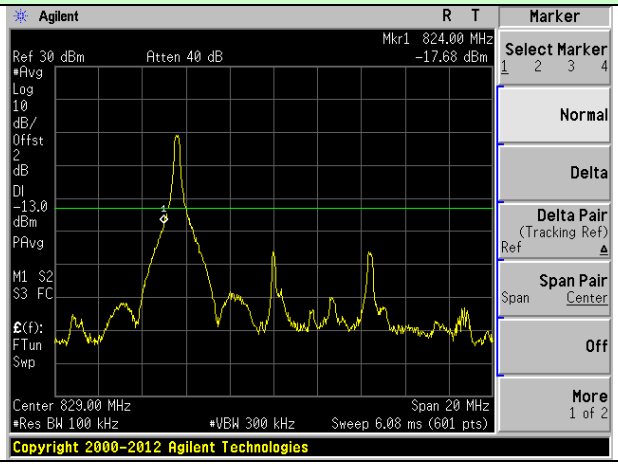
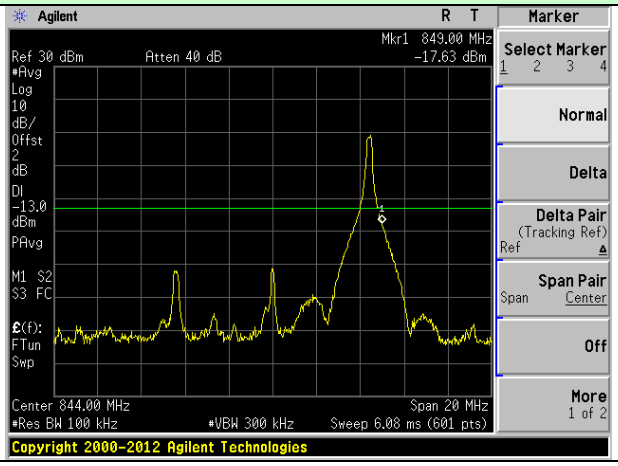
3MHz Bandwidth (RB size:25# RB offset:0#)	3MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

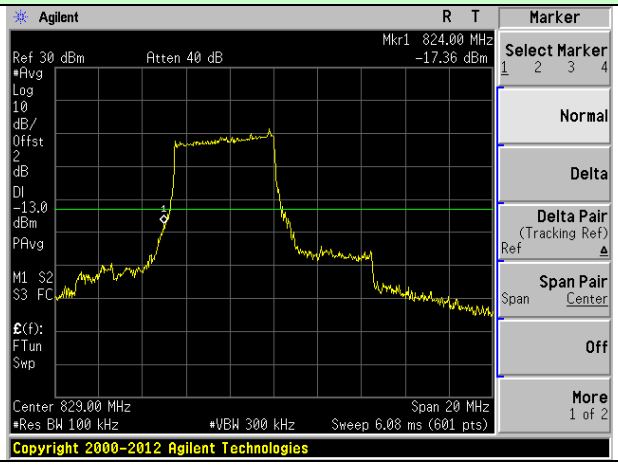
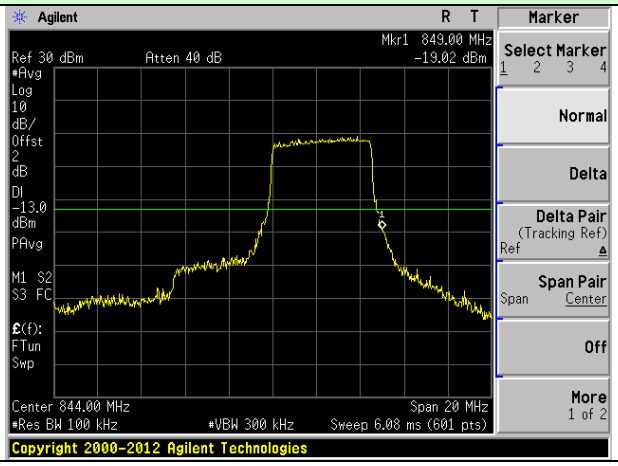
3MHz Bandwidth (RB size:50# RB offset:0#)	3MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

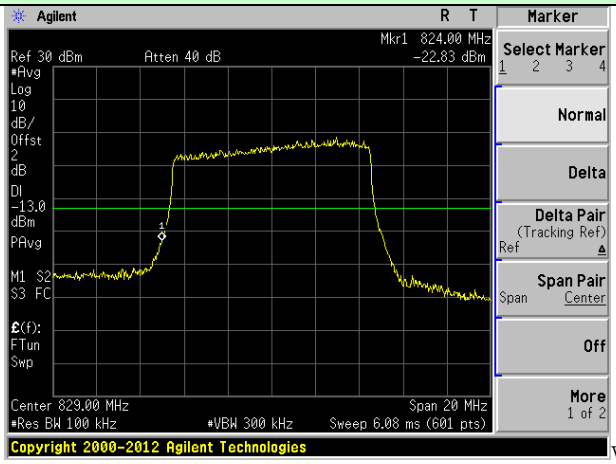
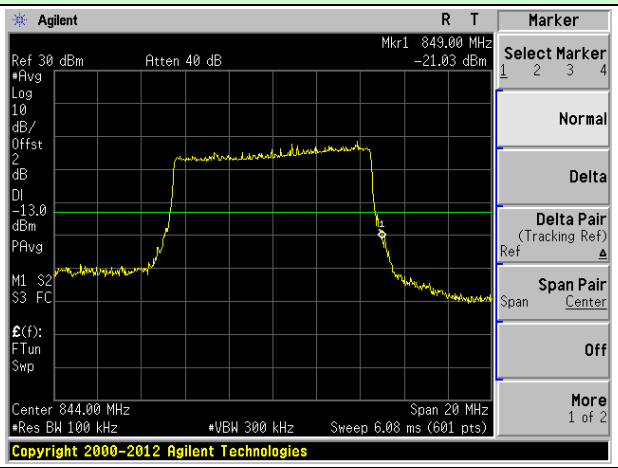
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:36# RB offset:0#)	5MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

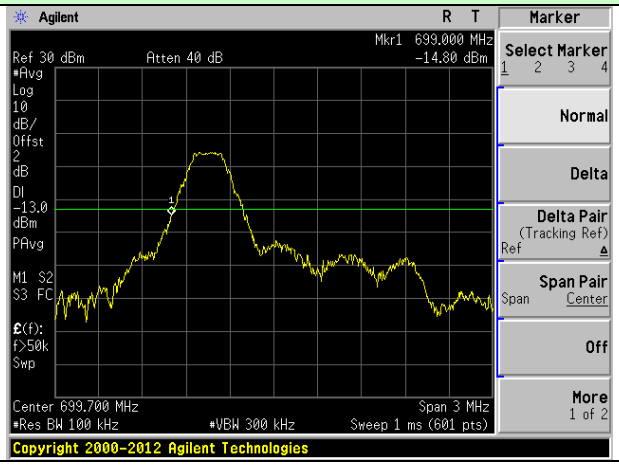
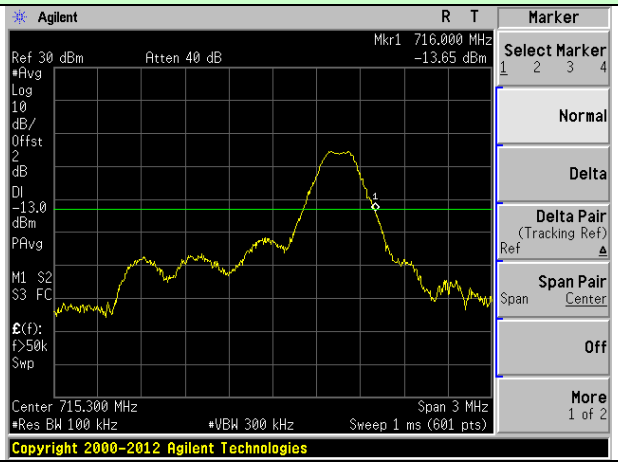
5MHz Bandwidth (RB size:75# RB offset:0#)	5MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

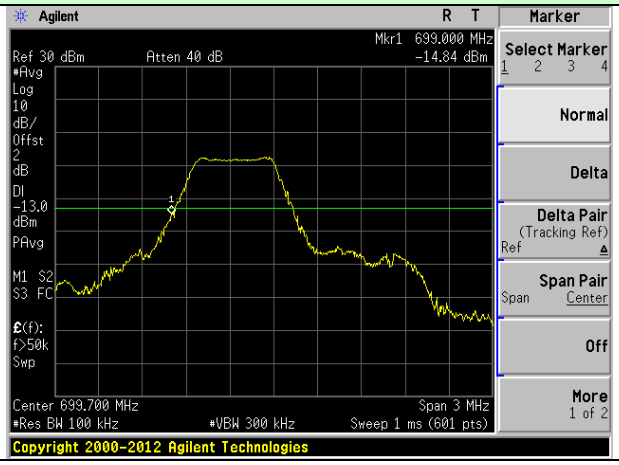
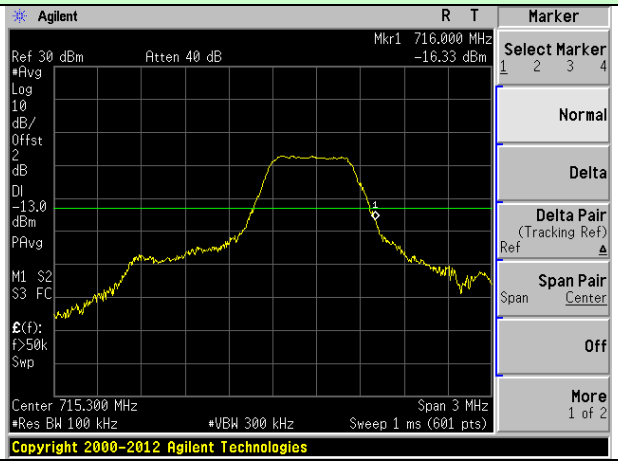
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

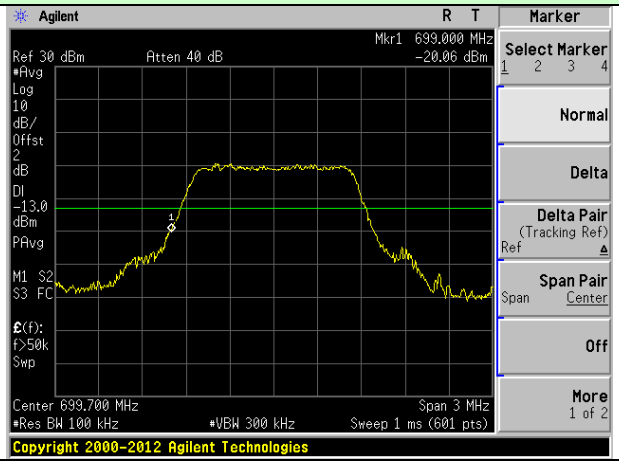
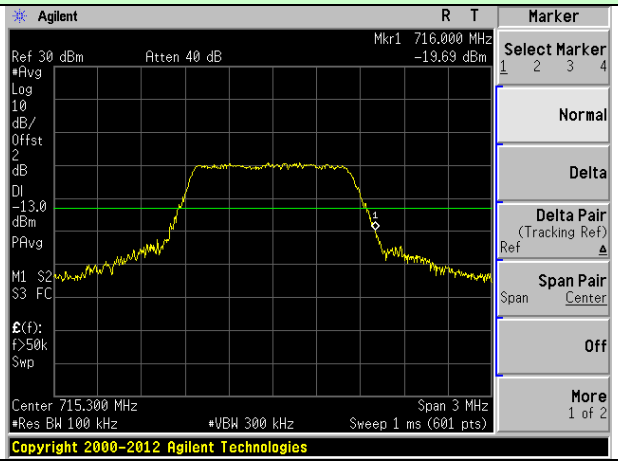
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

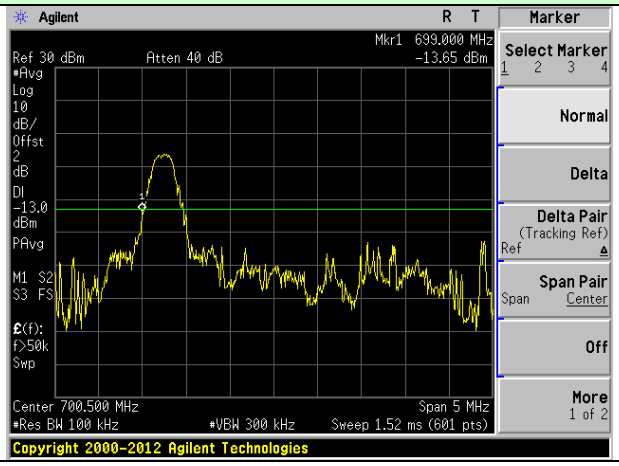
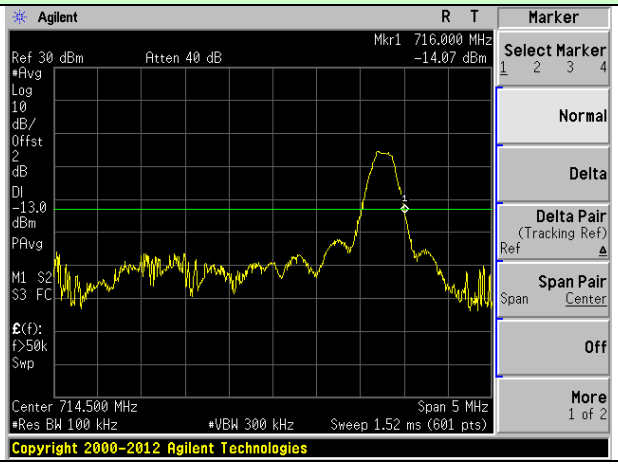
10MHz Bandwidth (RB size:100# RB offset:0#)	10MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

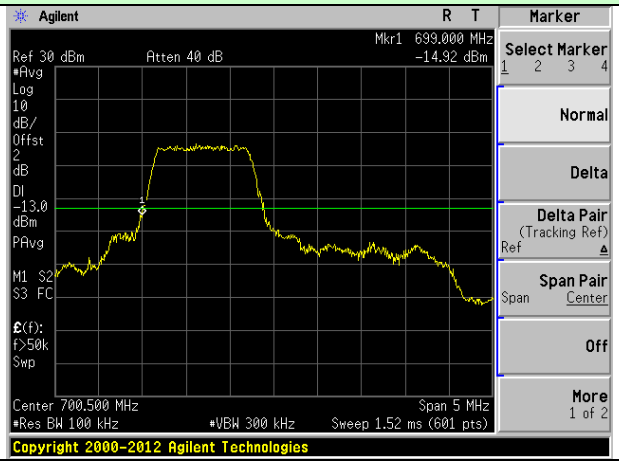
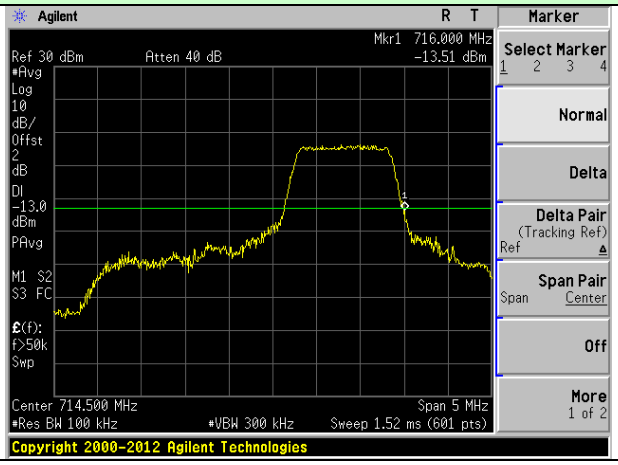
LTE Band 12:

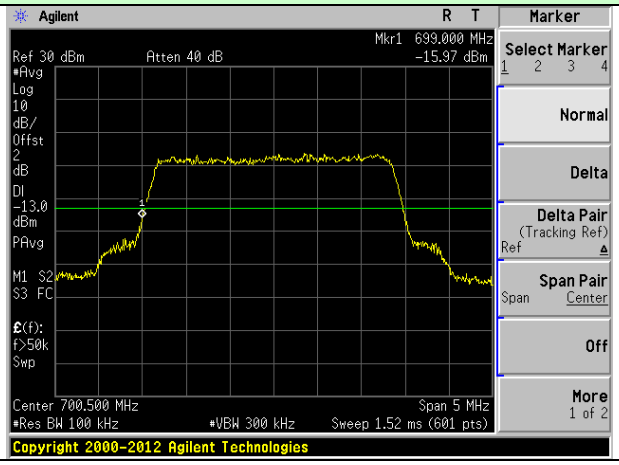
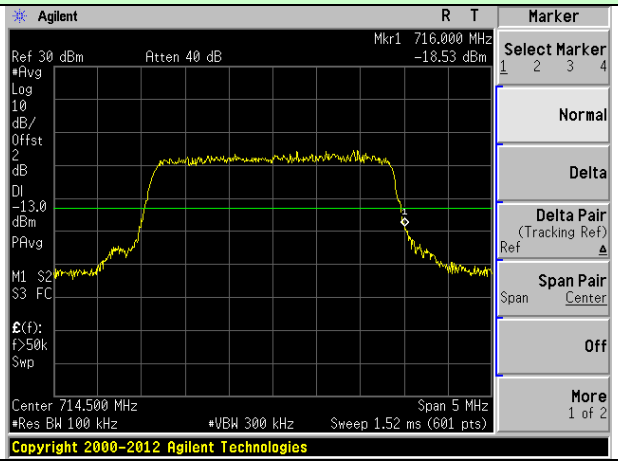
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

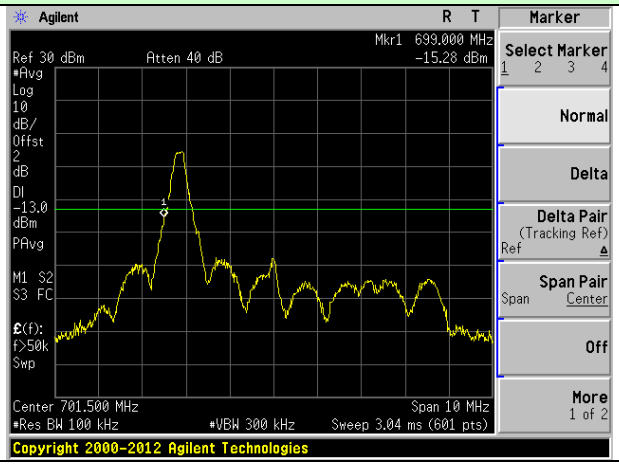
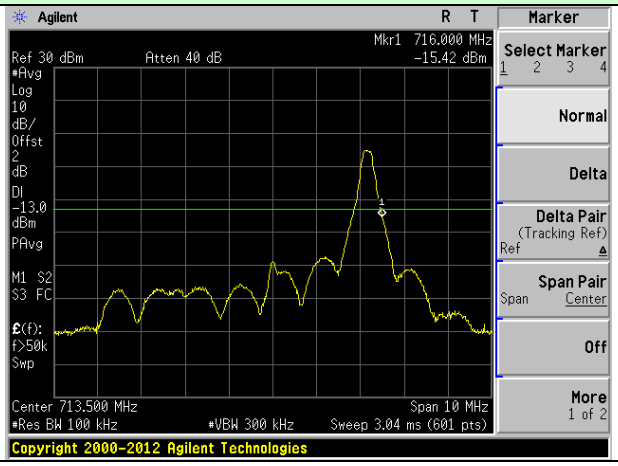
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

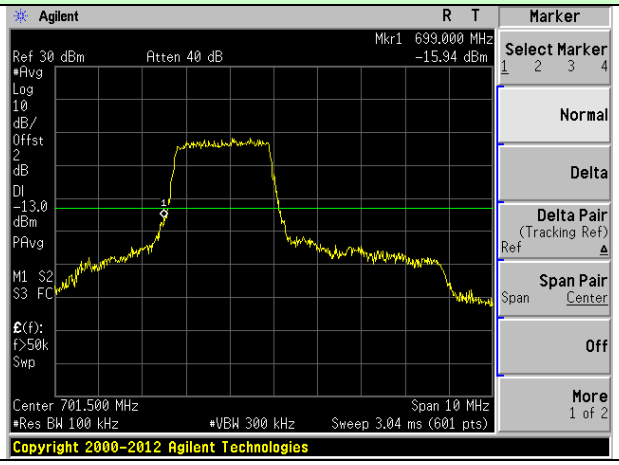
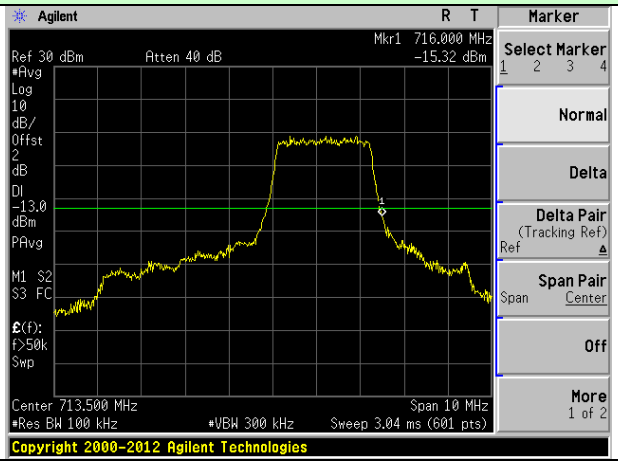
1.4MHz Bandwidth (RB size 6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

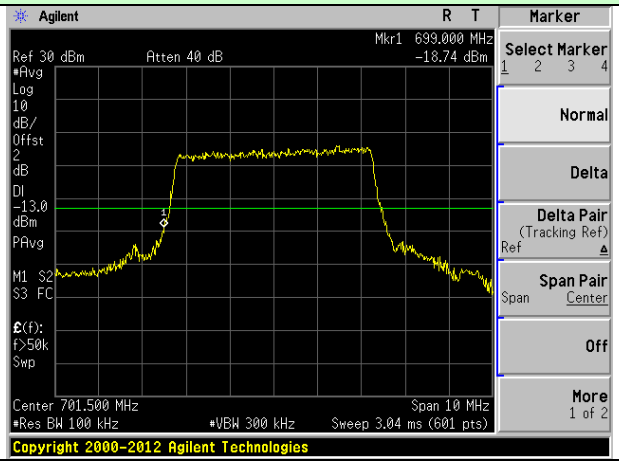
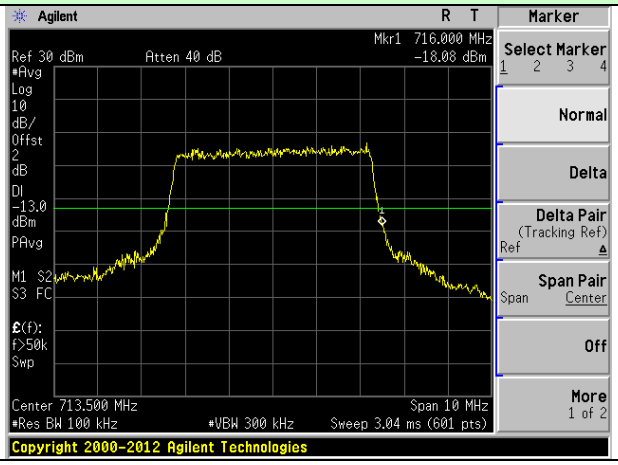
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

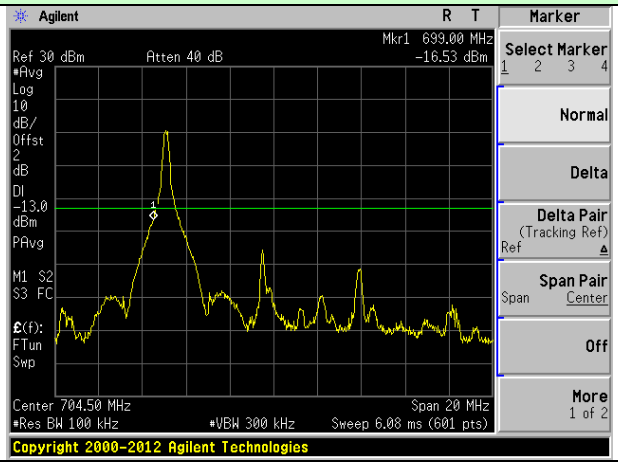
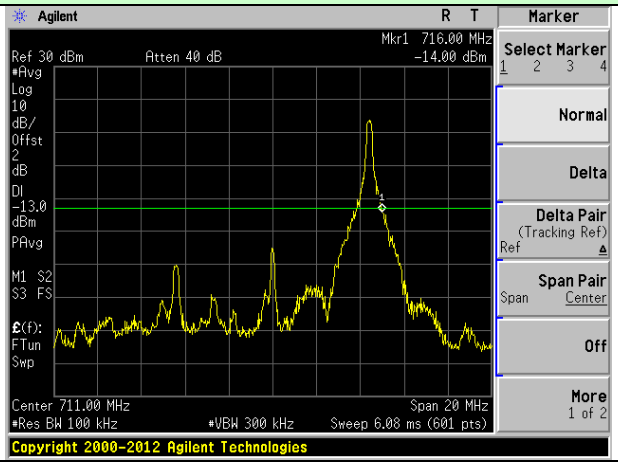
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

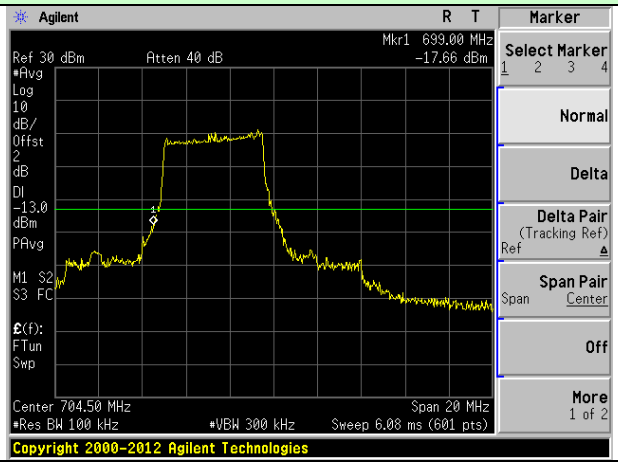
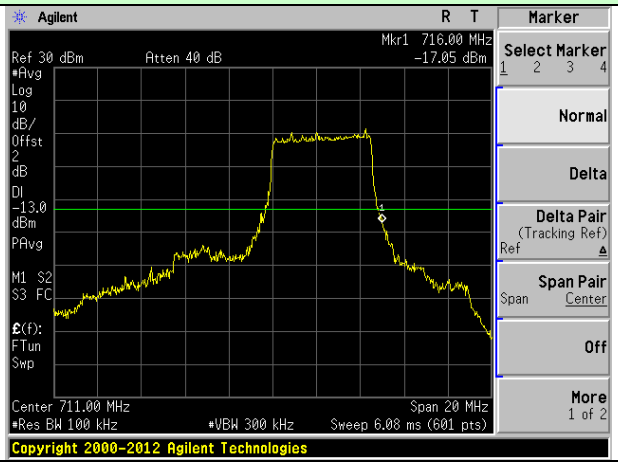
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

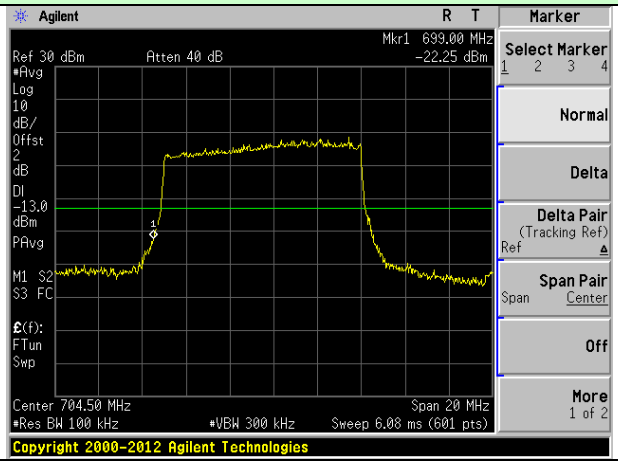
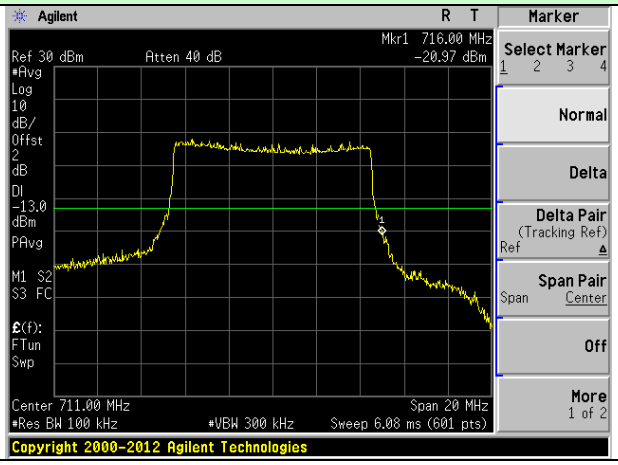
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

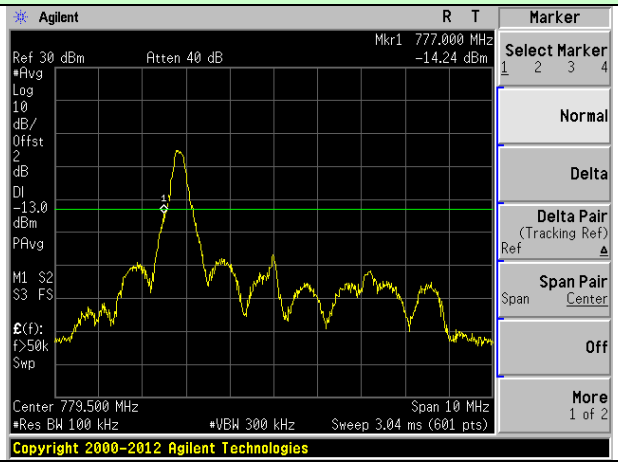
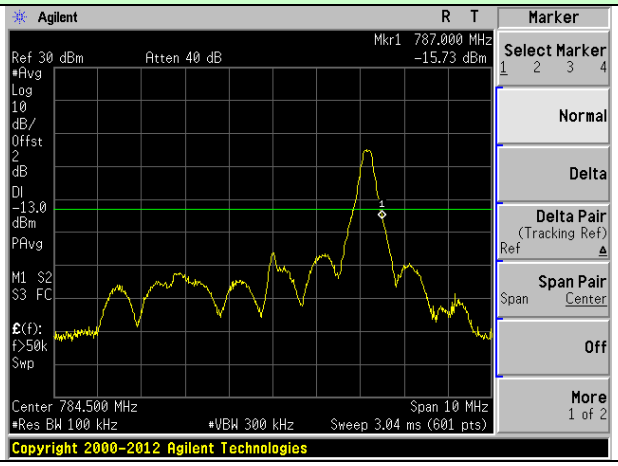
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

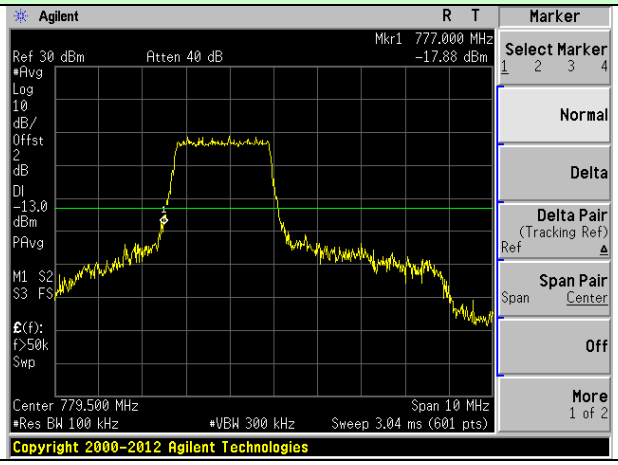
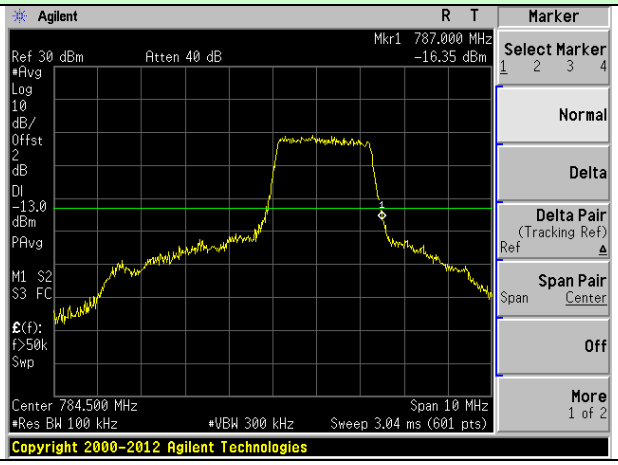
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

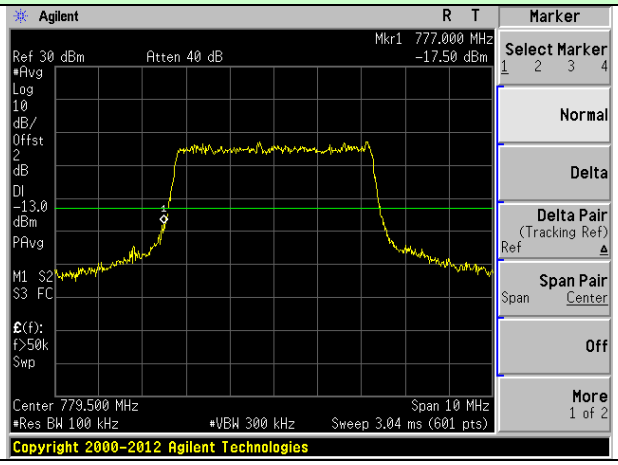
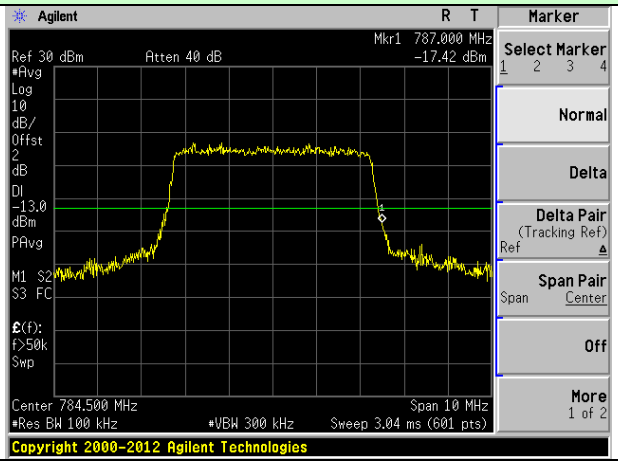
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

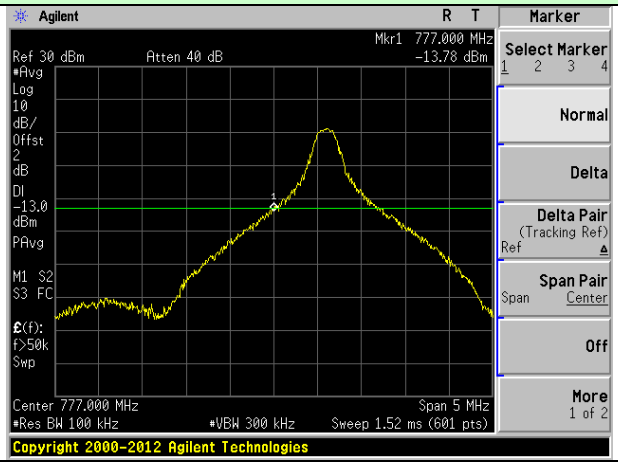
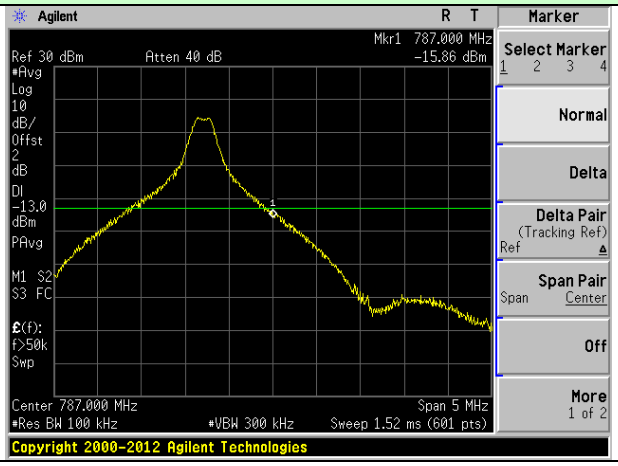
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

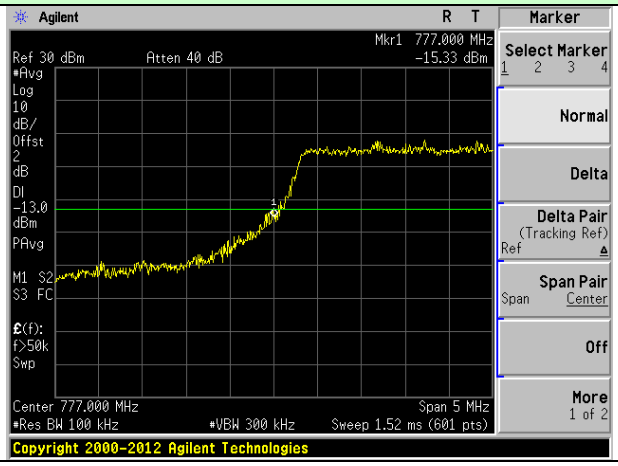
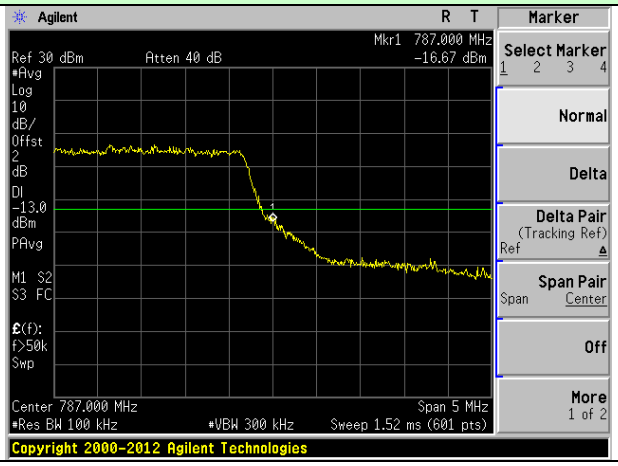
LTE band 13:

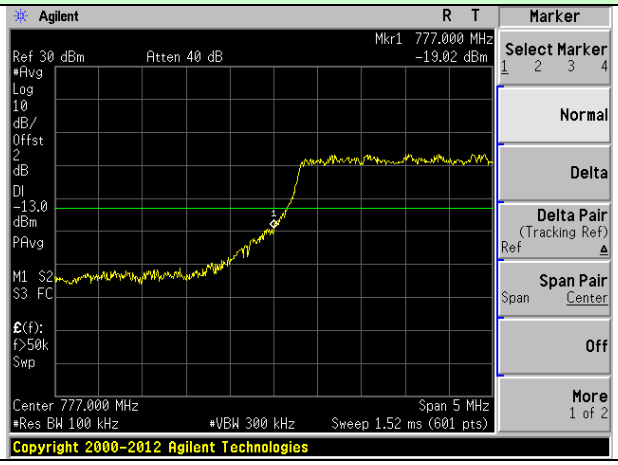
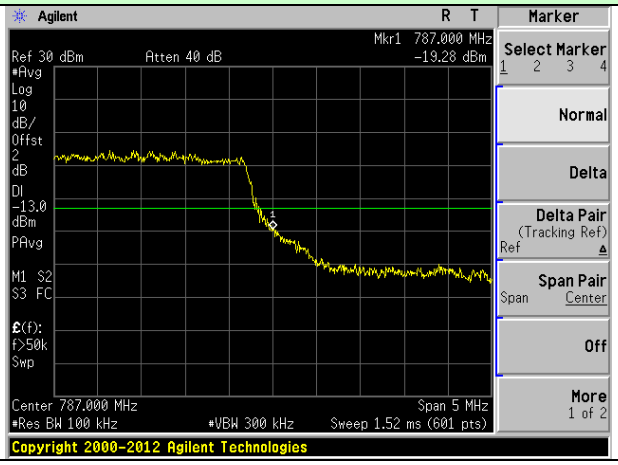
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

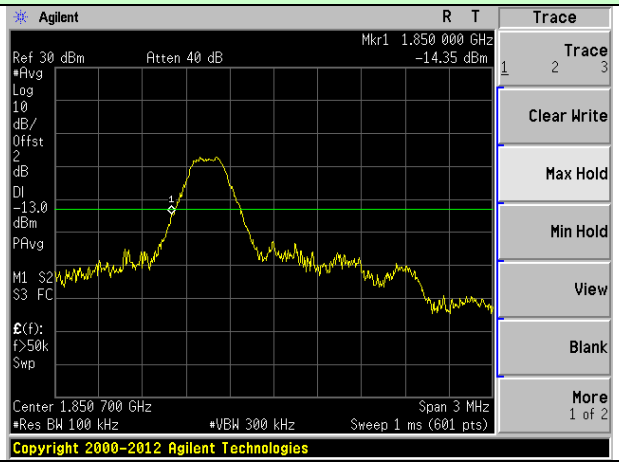
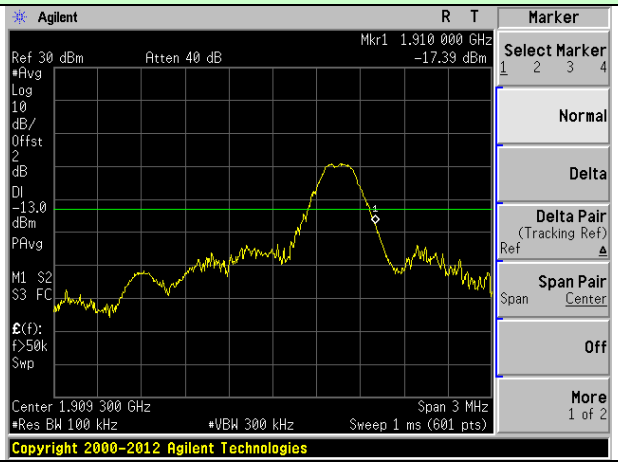
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

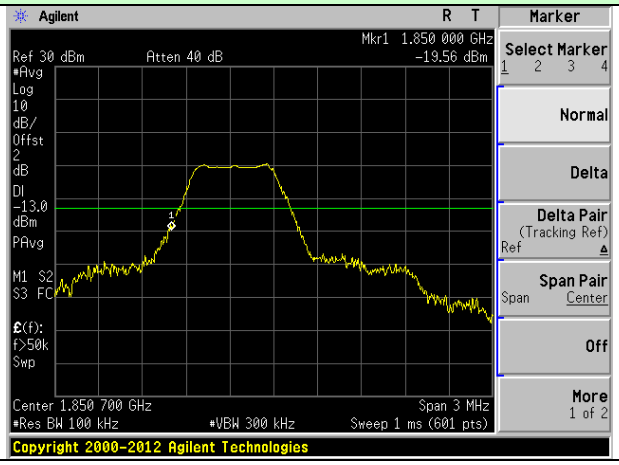
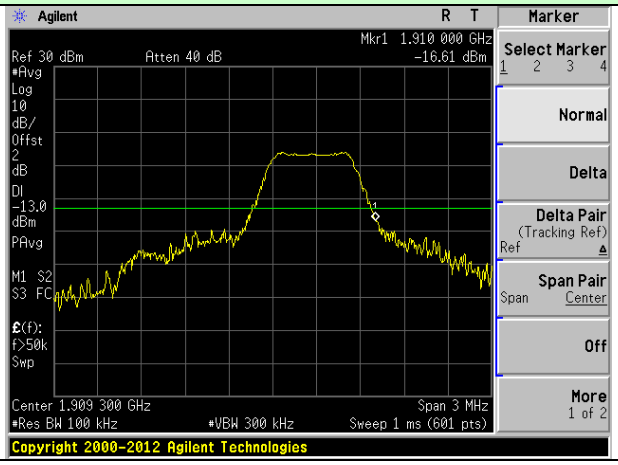
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Middle channel	Middle channel

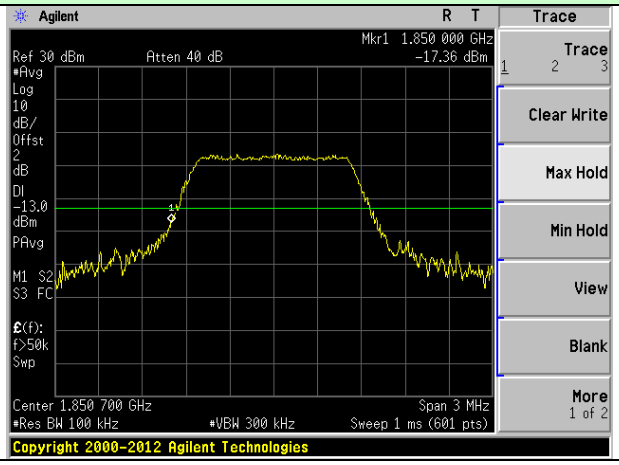
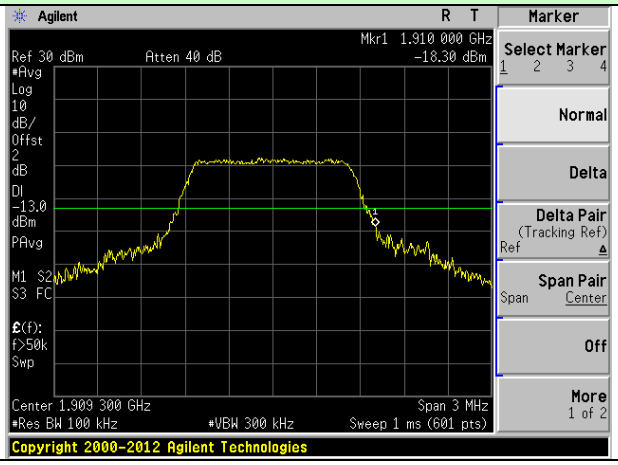
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Middle channel	Middle channel

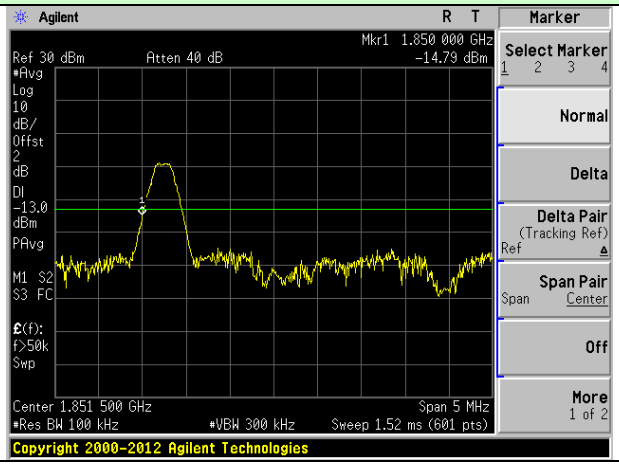
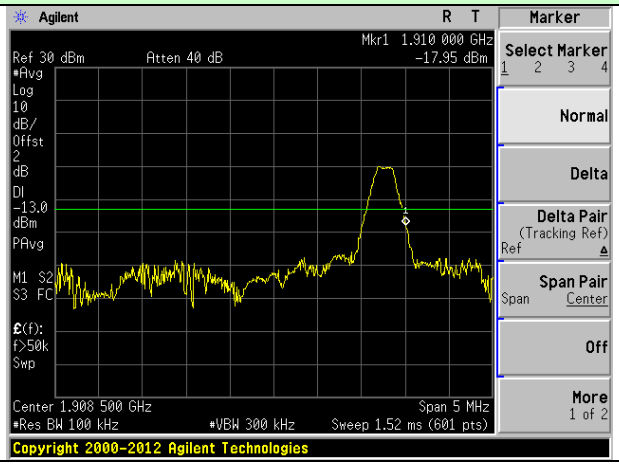
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Middle channel	Middle channel

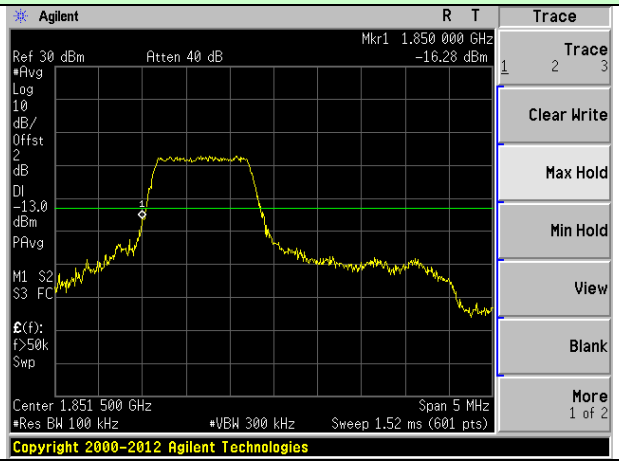
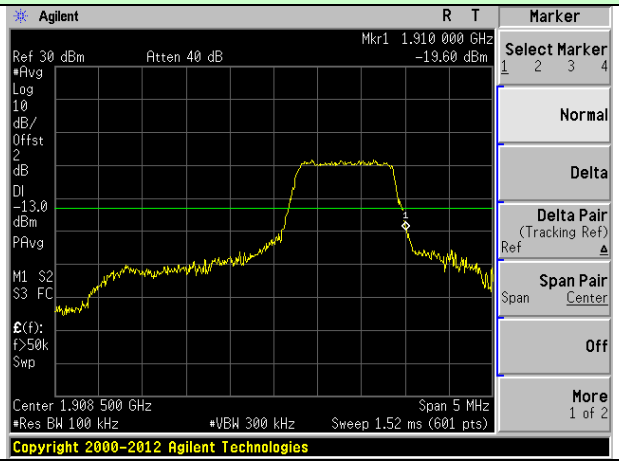
LTE Band 2 (16QAM mode):

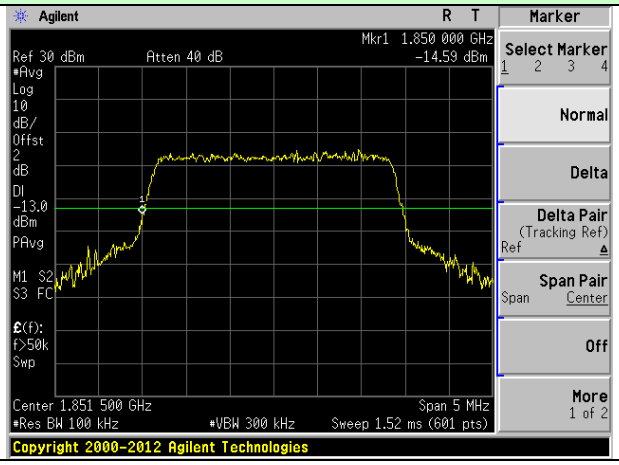
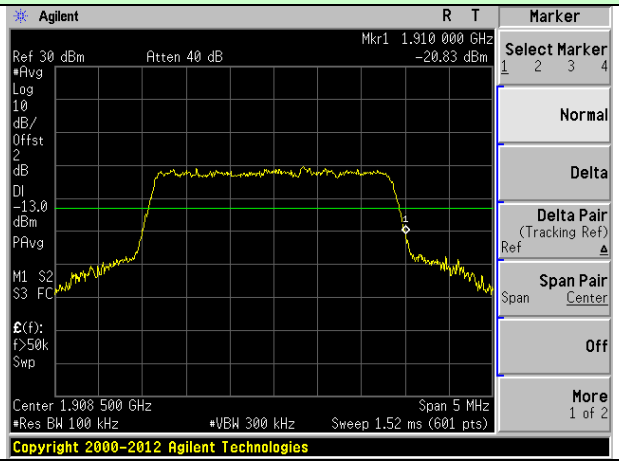
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

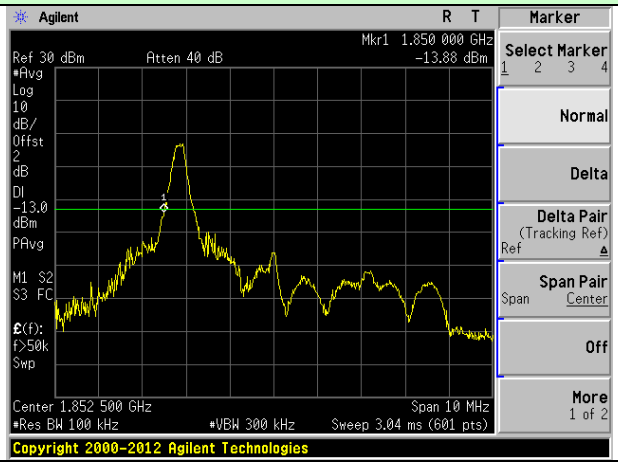
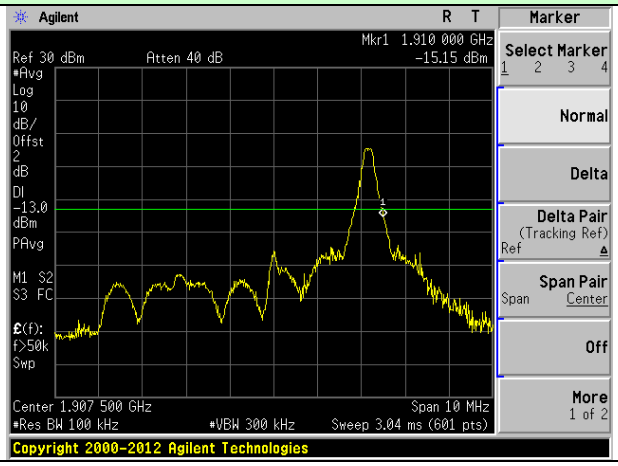
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

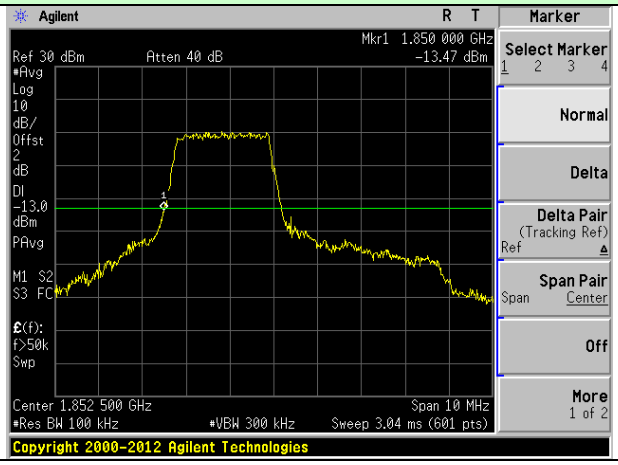
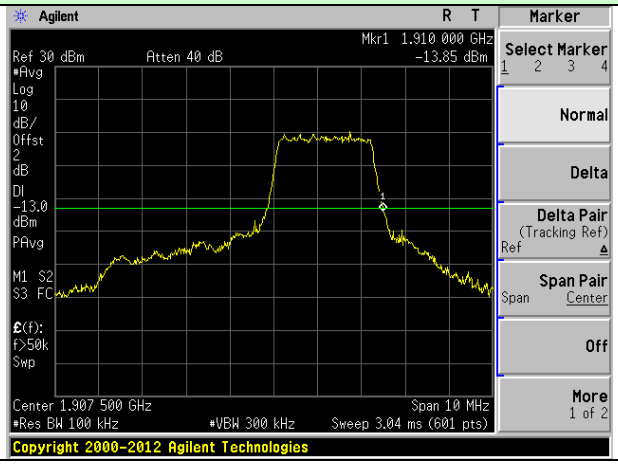
1.4MHz Bandwidth (RB size:6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

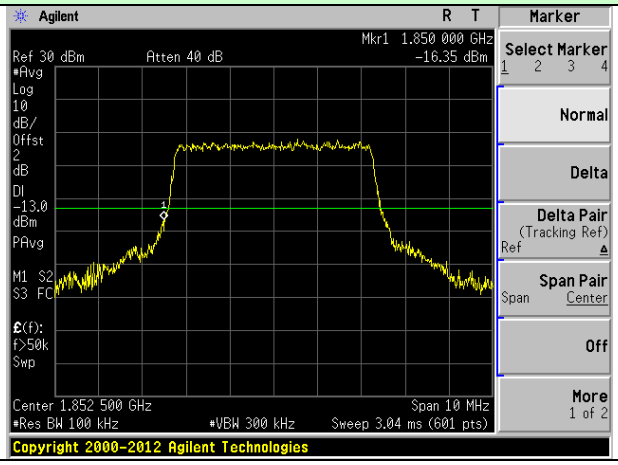
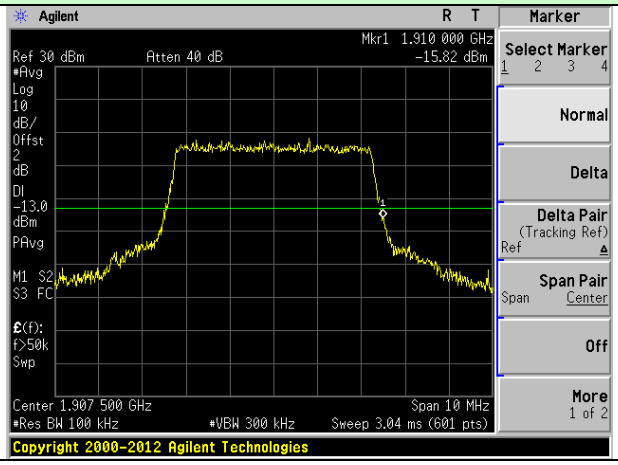
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

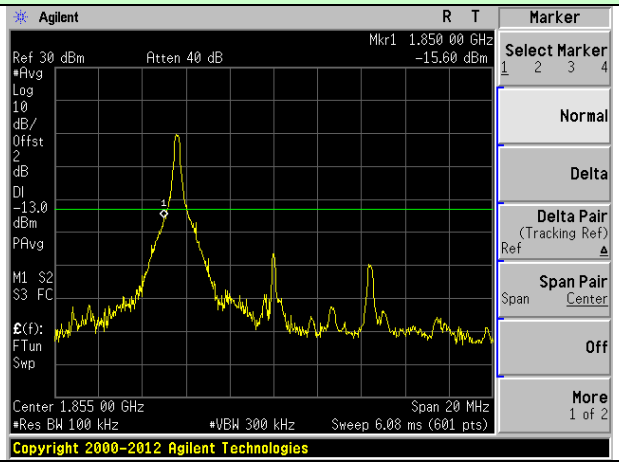
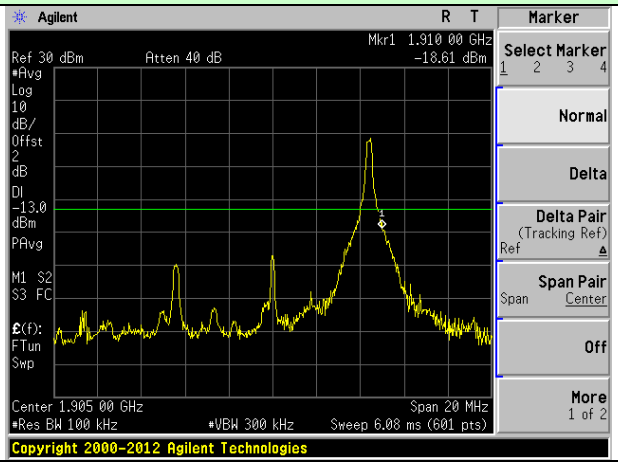
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

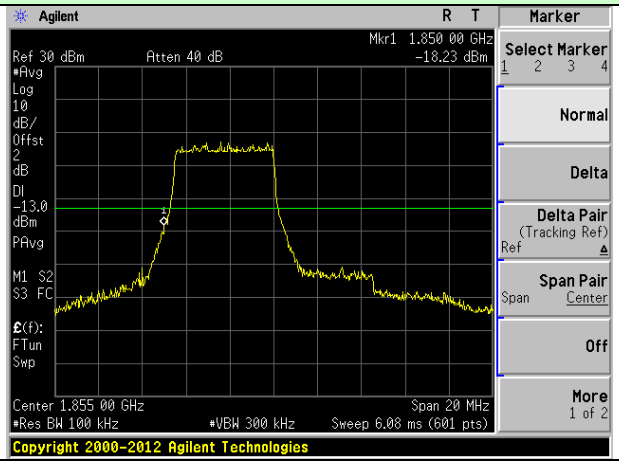
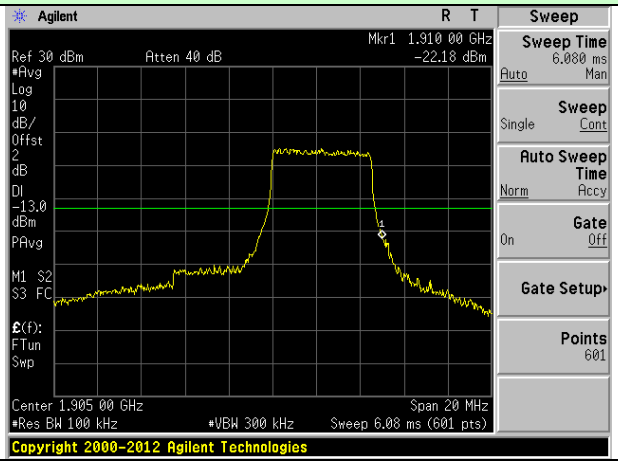
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

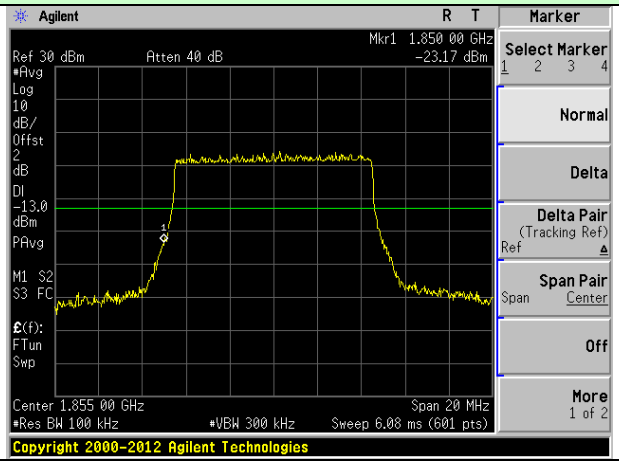
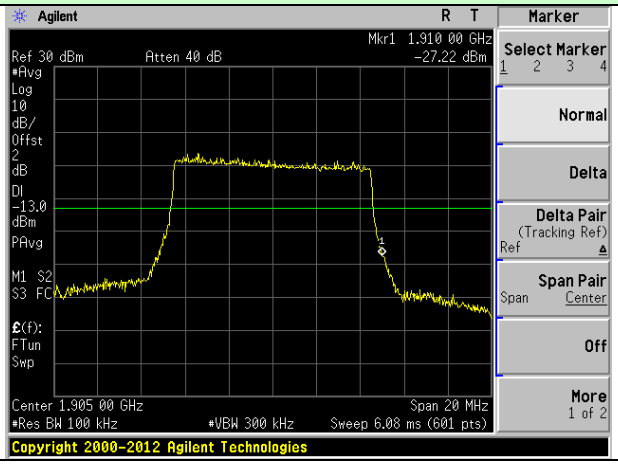
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

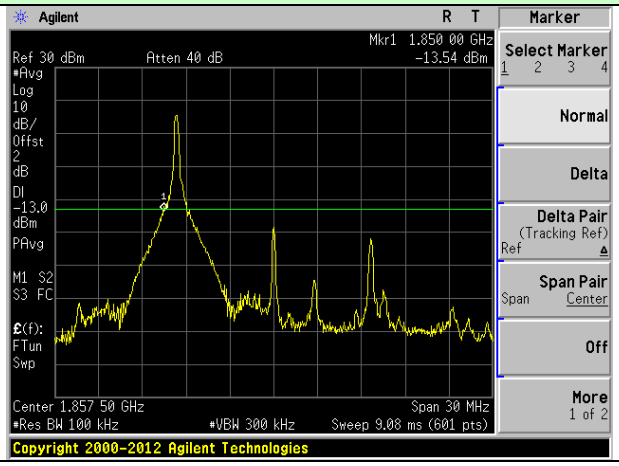
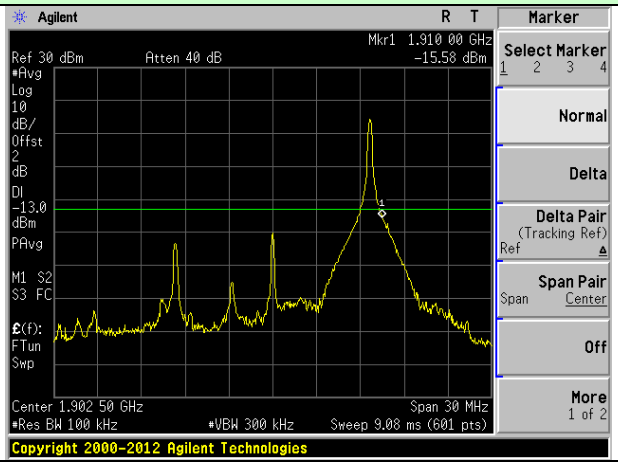
5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

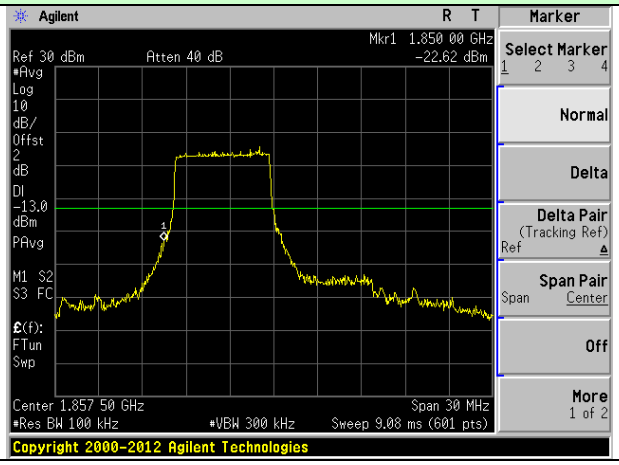
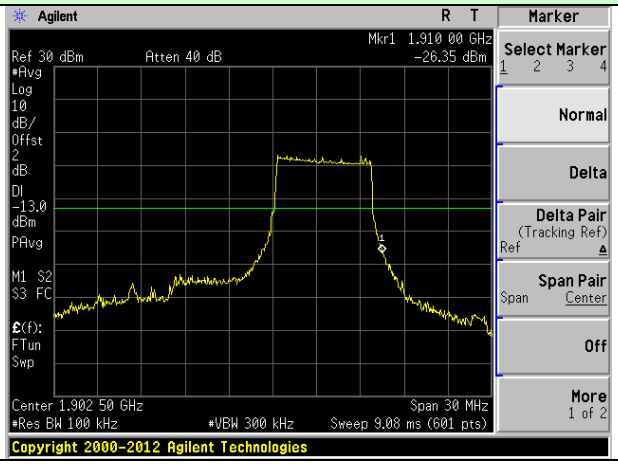
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

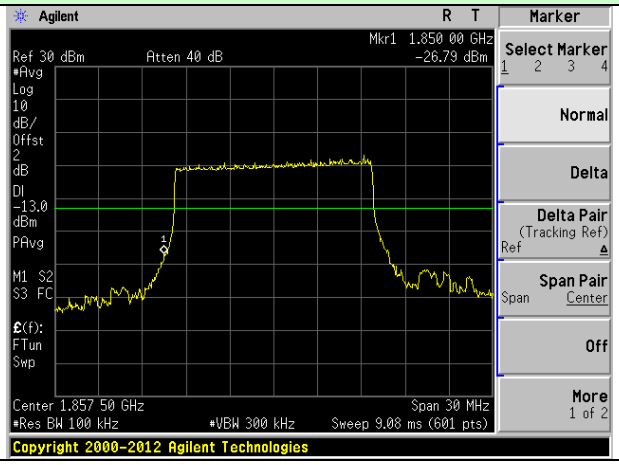
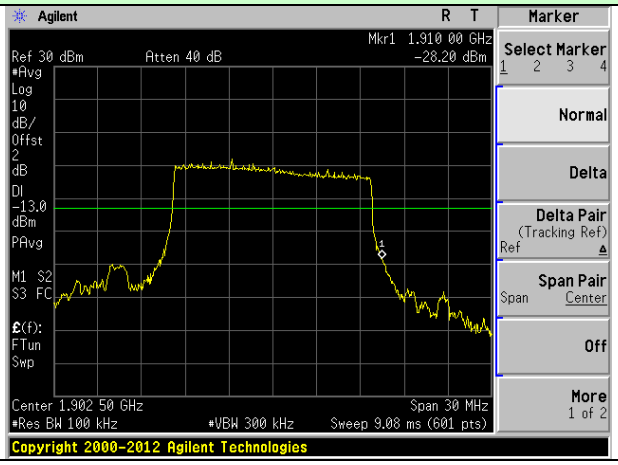
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

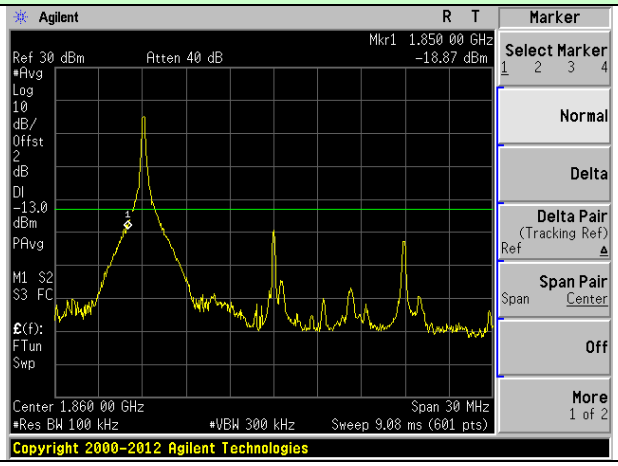
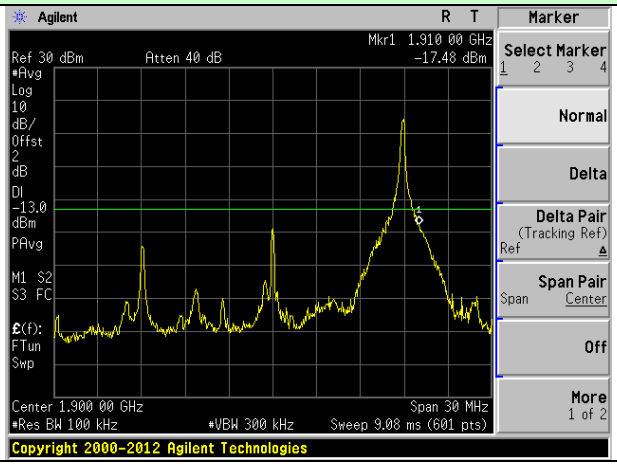
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

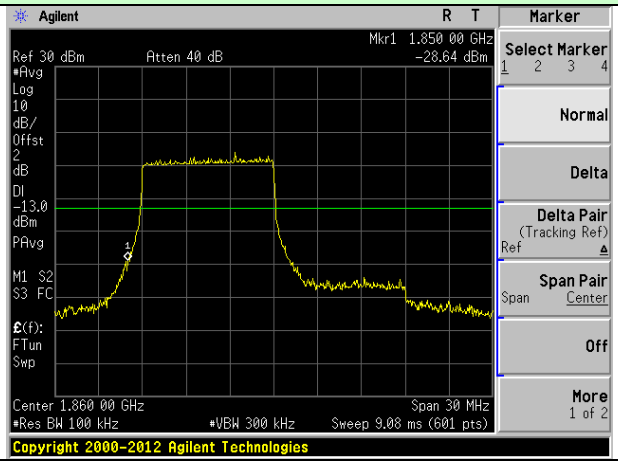
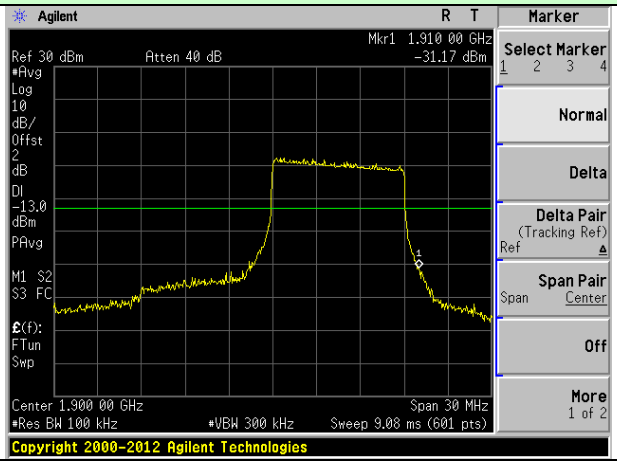
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

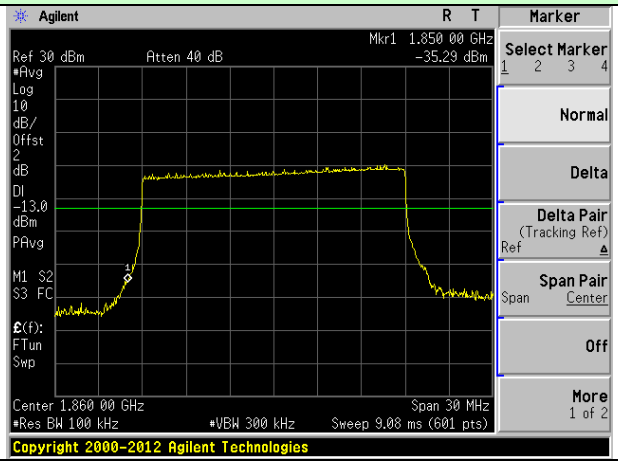
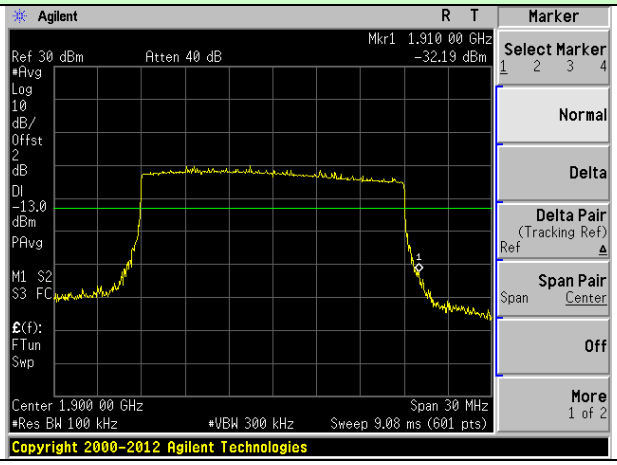
15MHz Bandwidth (RB size:1# RB offset:0#)	15MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

15MHz Bandwidth (RB size:36# RB offset:0#)	15MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

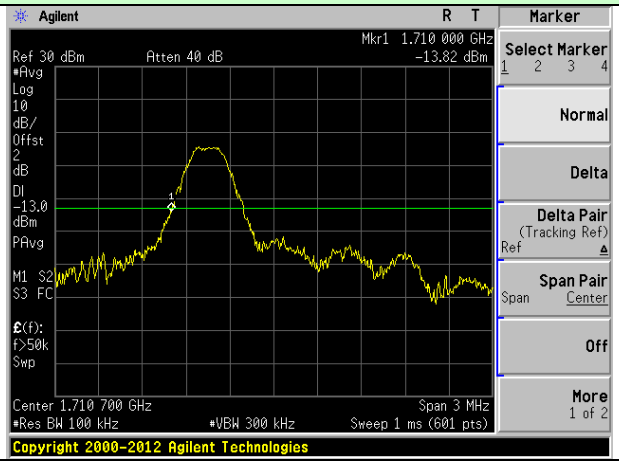
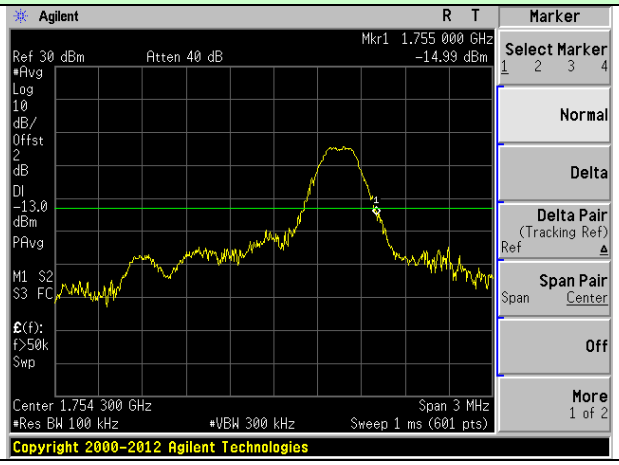
15MHz Bandwidth (RB size:75# RB offset:0#)	15MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

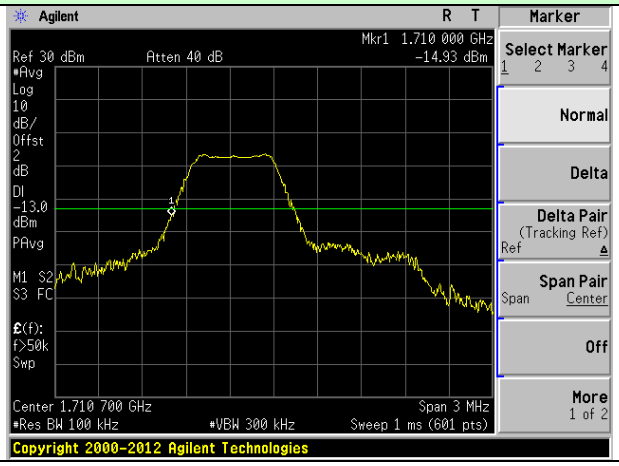
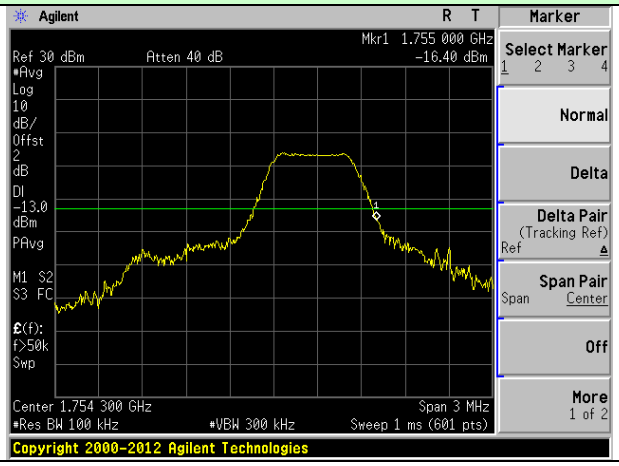
20MHz Bandwidth (RB size:1# RB offset:0#)	20MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

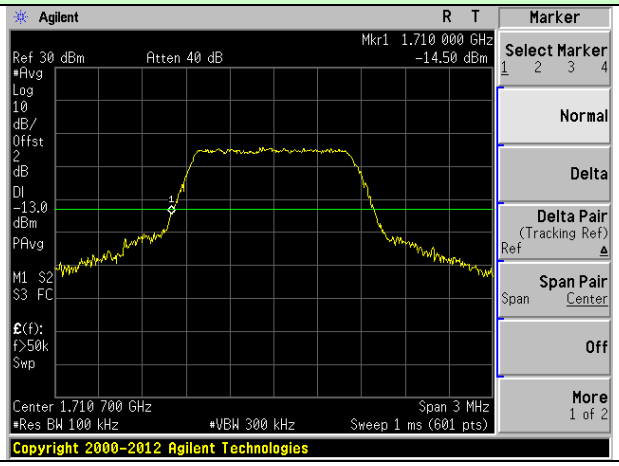
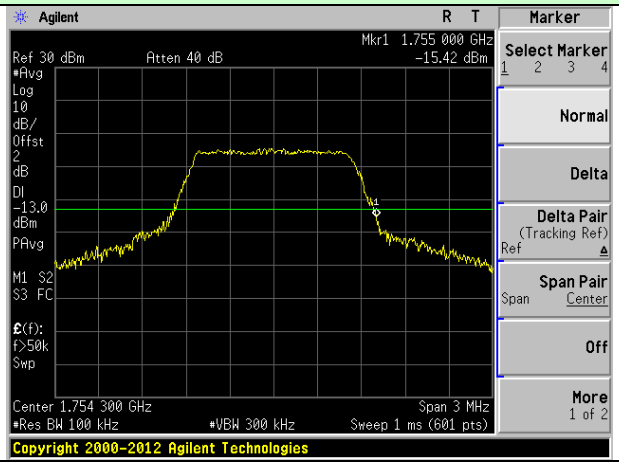
20MHz Bandwidth (RB size:50# RB offset:0#)	20MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

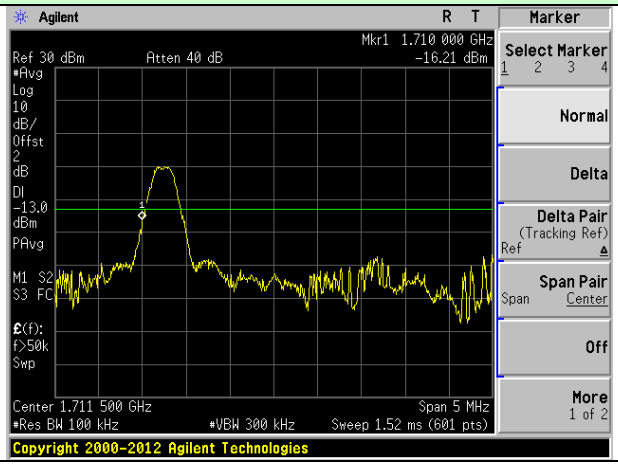
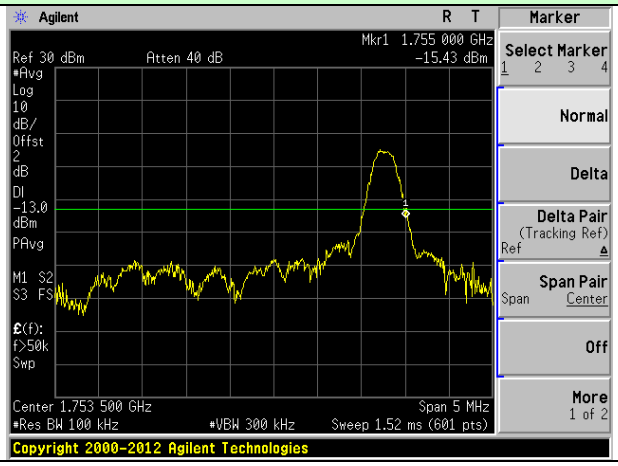
20MHz Bandwidth (RB size:100# RB offset:0#)	20MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

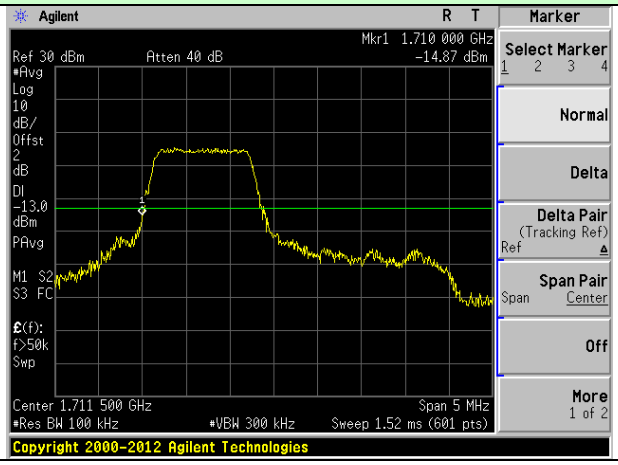
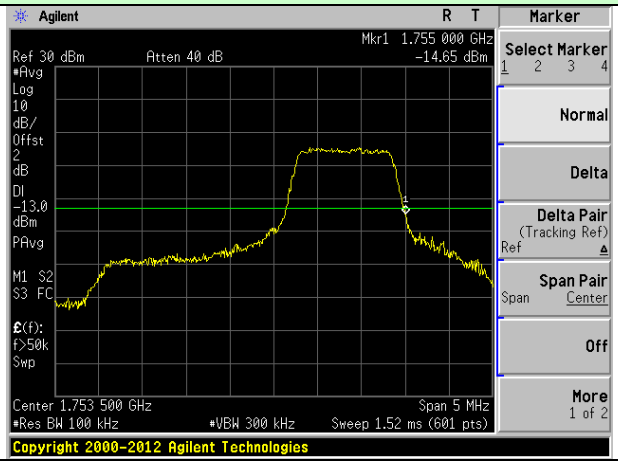
LTE Band 4 (16QAM mode):

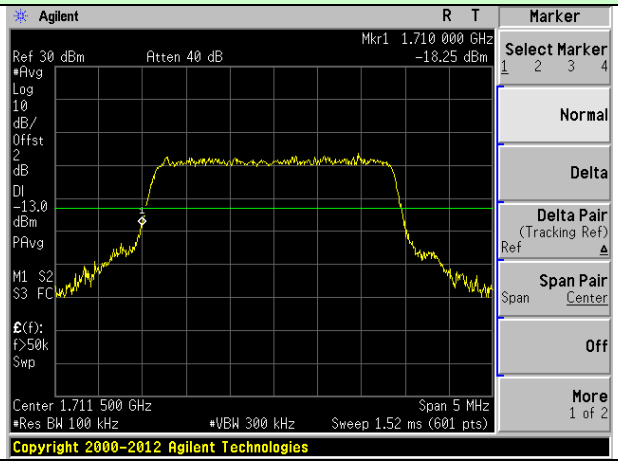
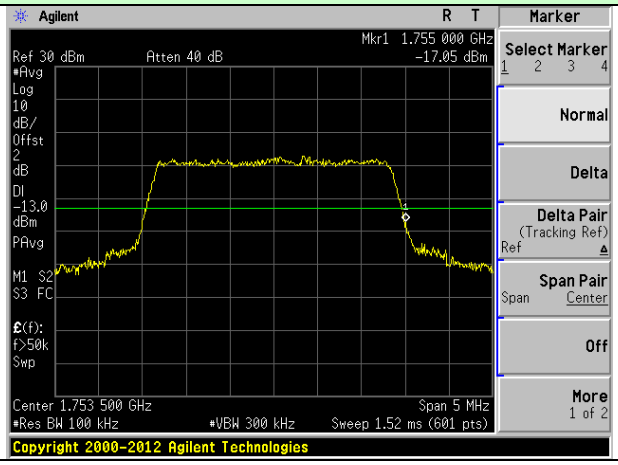
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

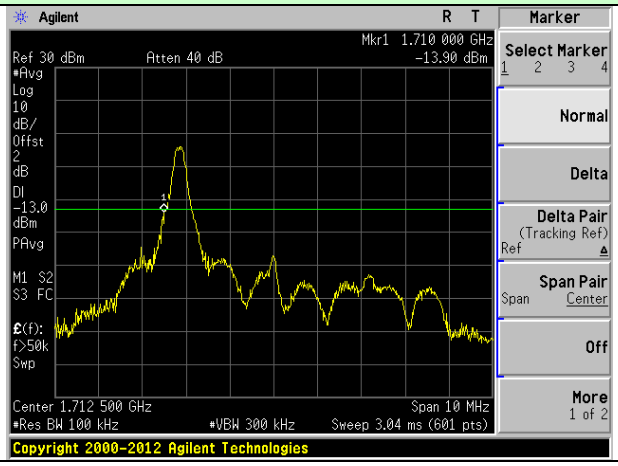
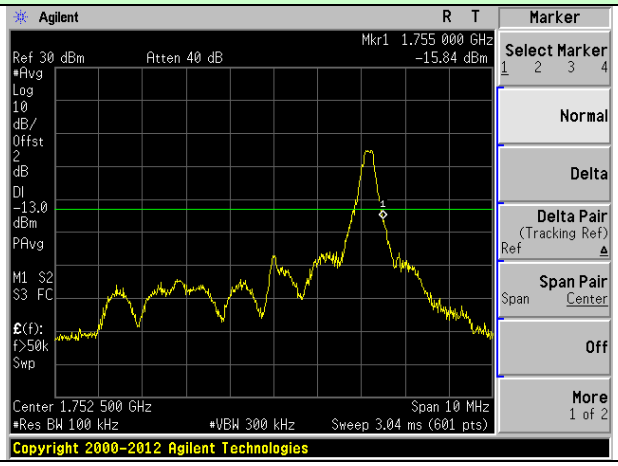
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

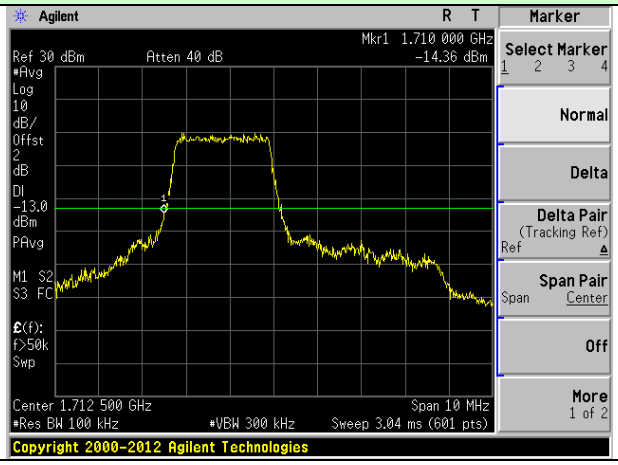
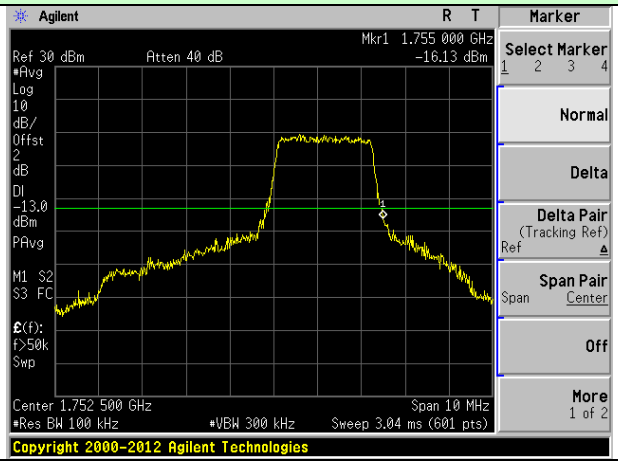
1.4MHz Bandwidth (RB size:6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

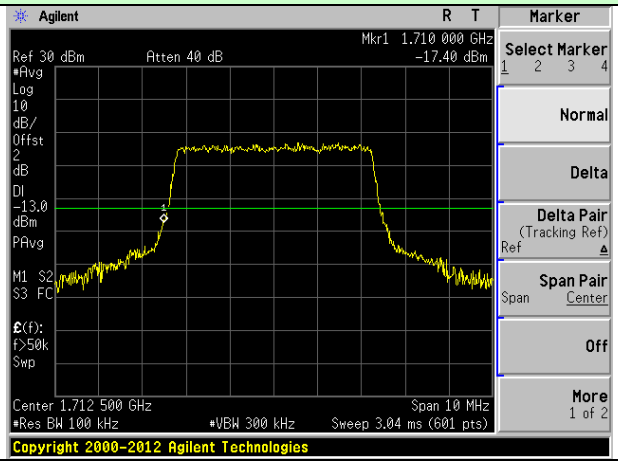
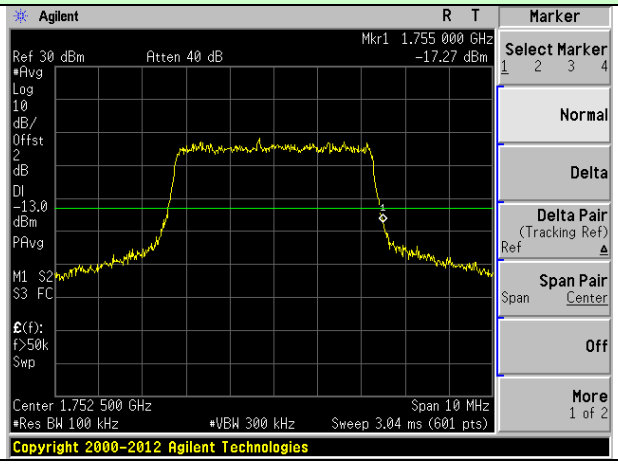
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

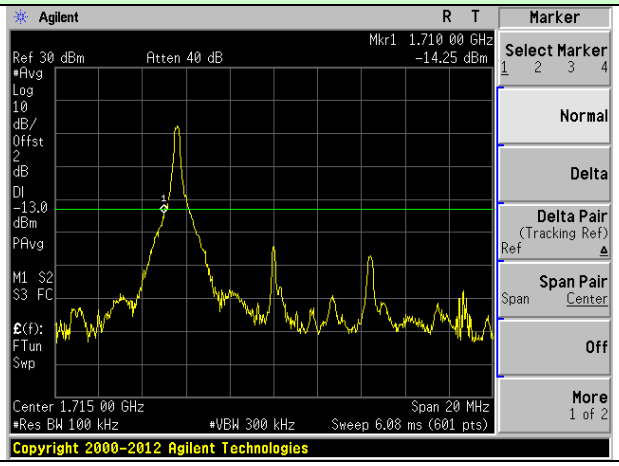
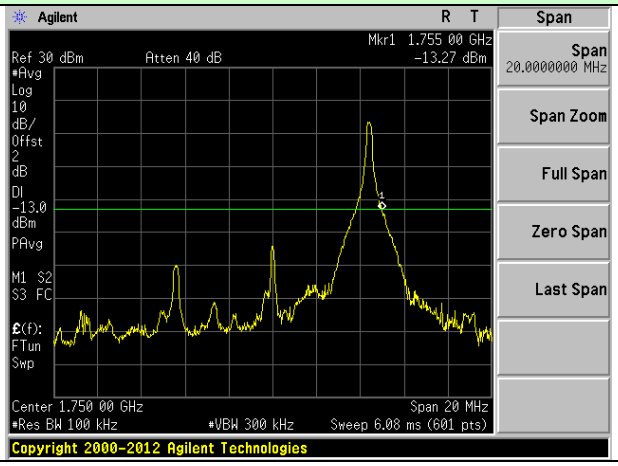
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

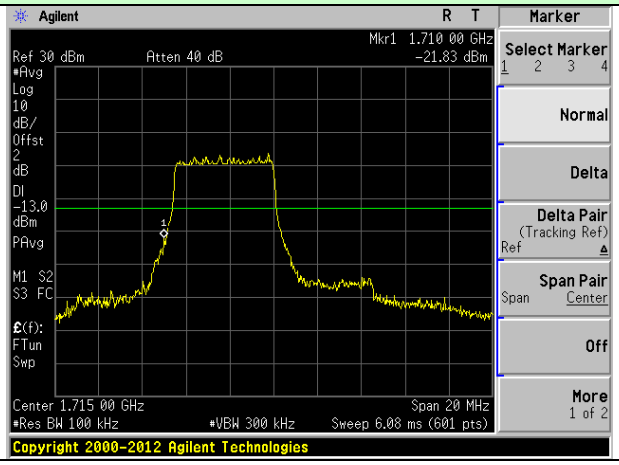
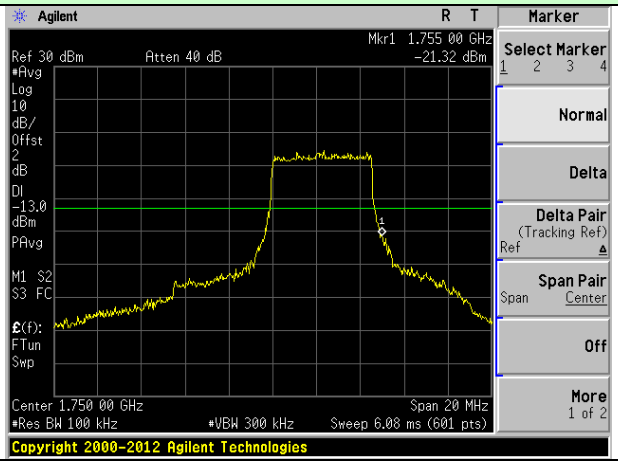
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

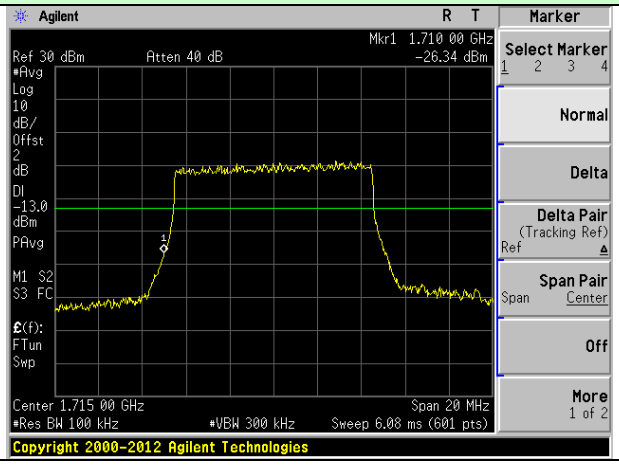
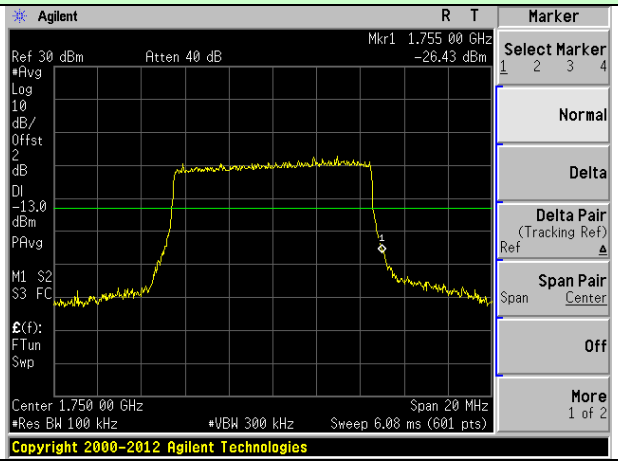
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

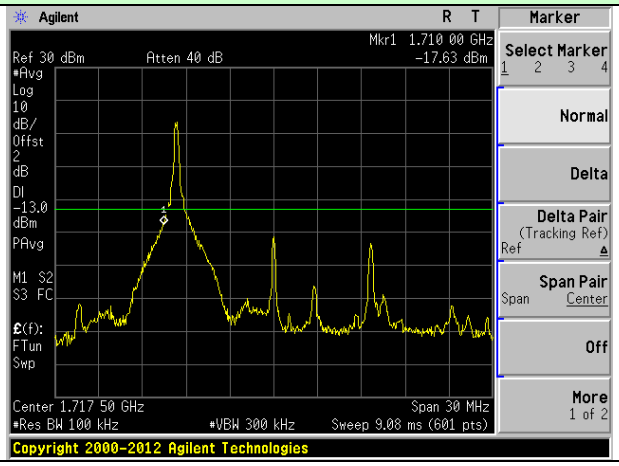
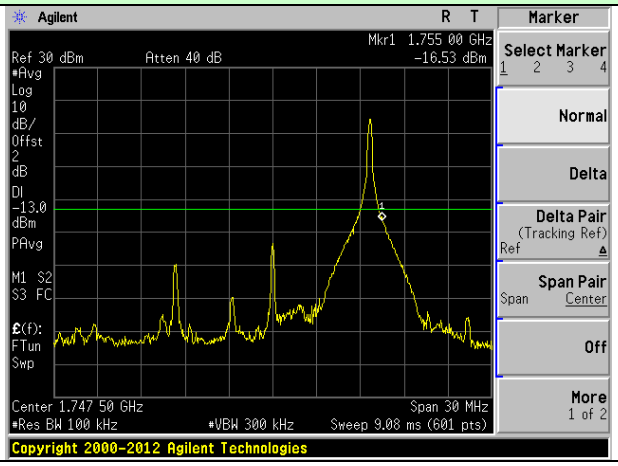
5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

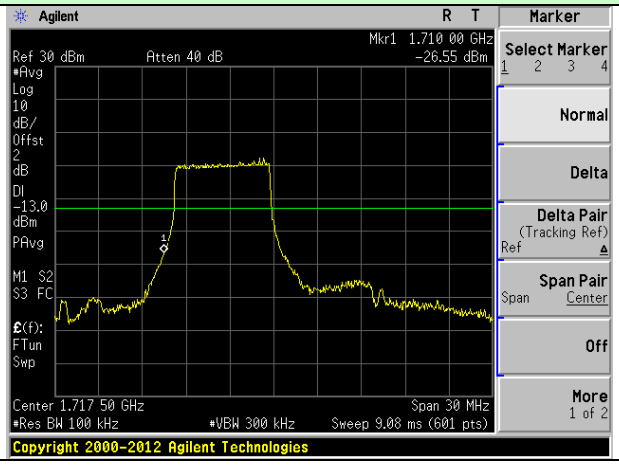
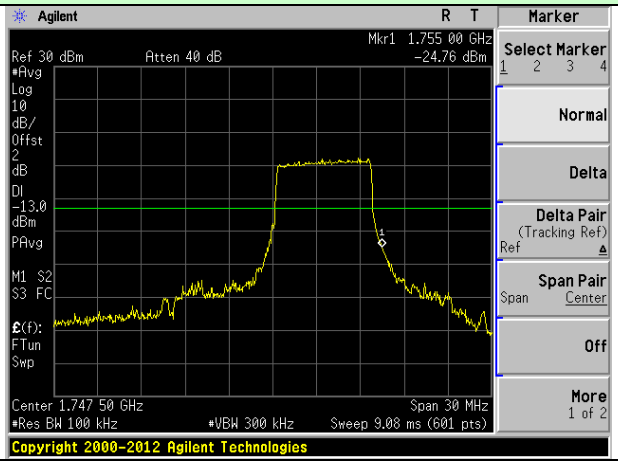
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

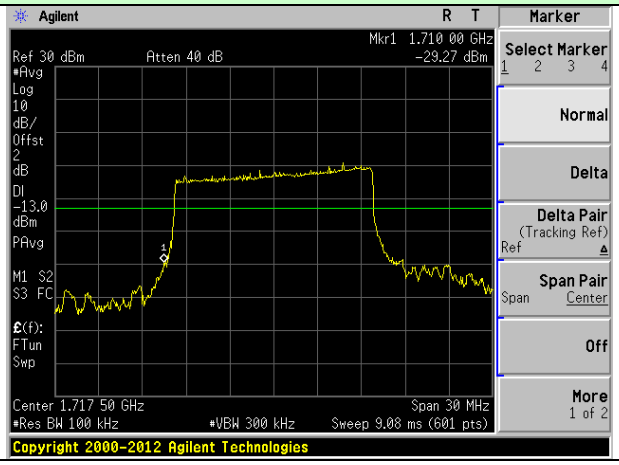
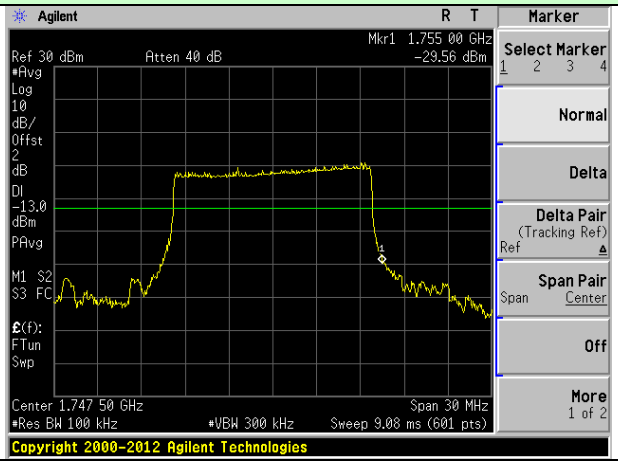
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

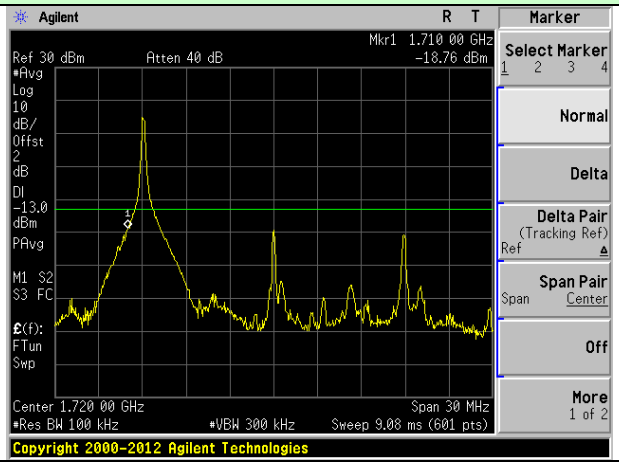
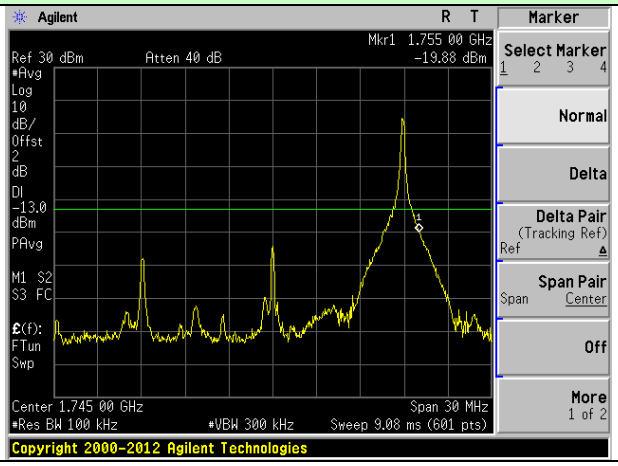
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

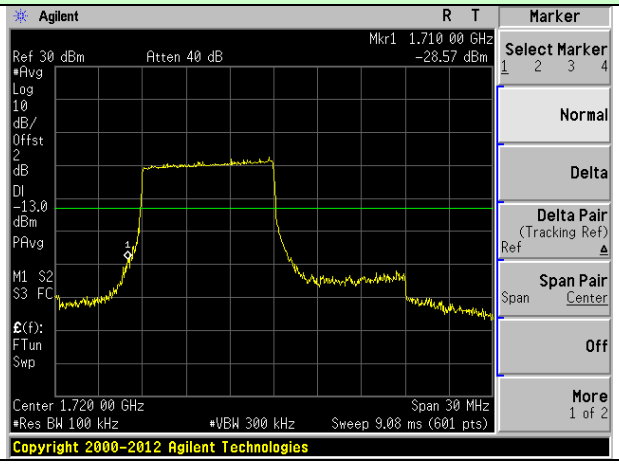
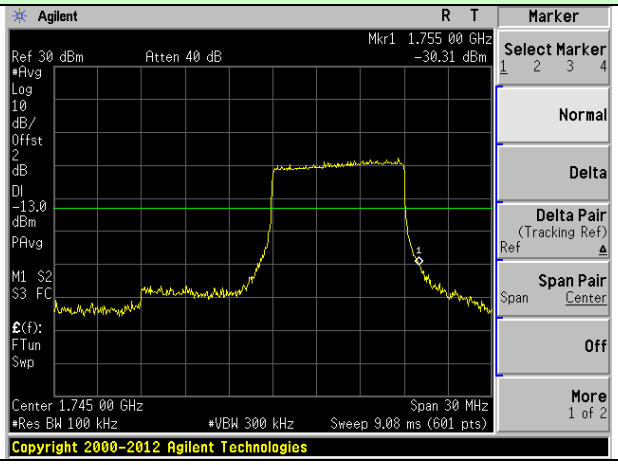
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

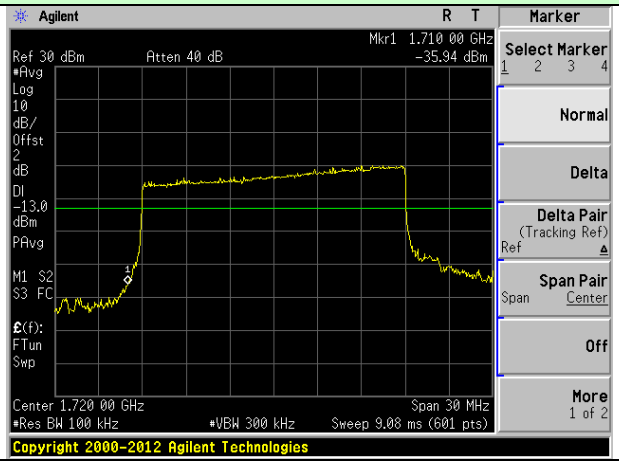
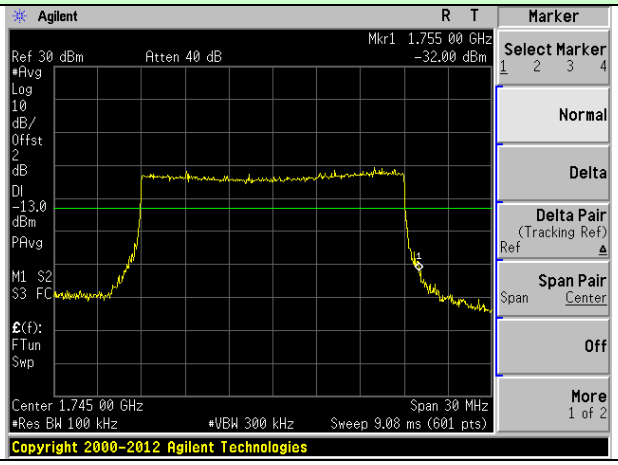
15MHz Bandwidth (RB size:1# RB offset:0#)	15MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

15MHz Bandwidth (RB size:36# RB offset:0#)	15MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

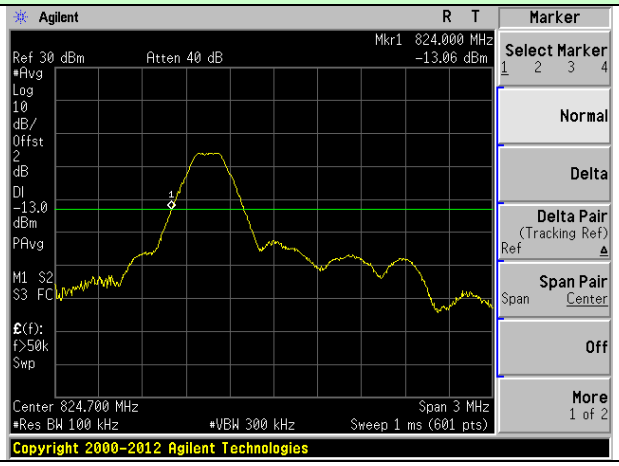
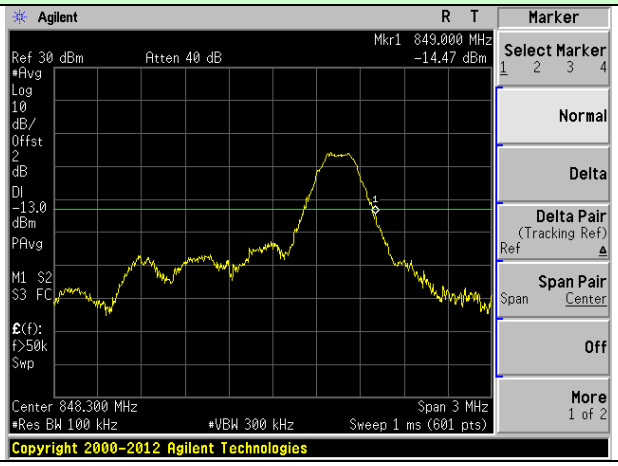
15MHz Bandwidth (RB size:75# RB offset:0#)	15MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

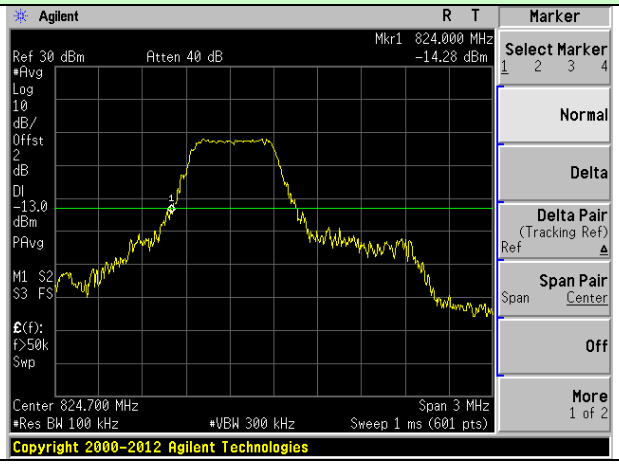
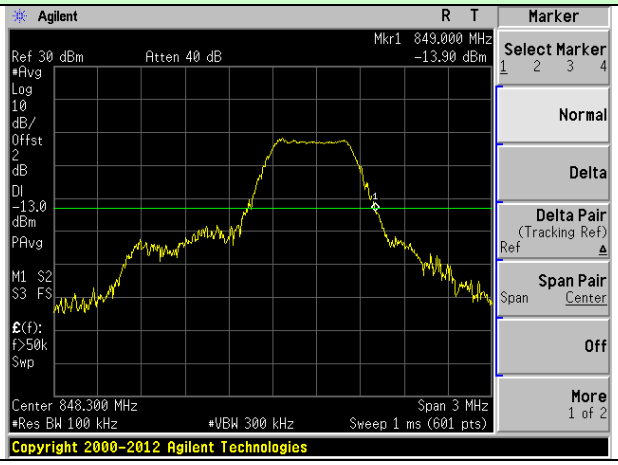
20MHz Bandwidth (RB size:1# RB offset:0#)	20MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

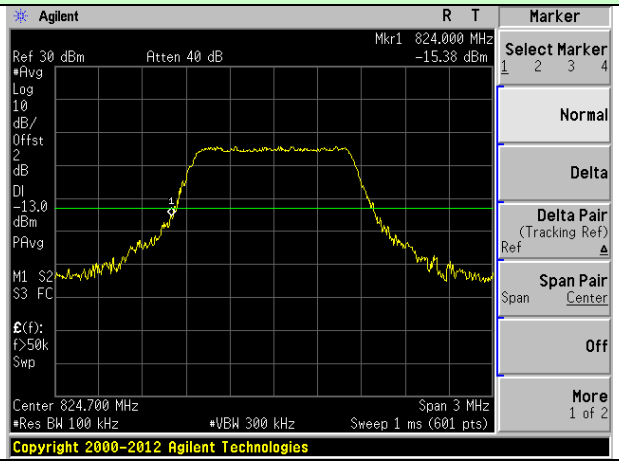
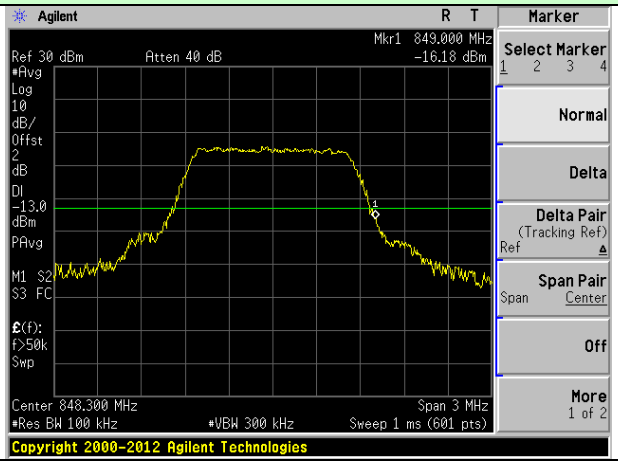
20MHz Bandwidth (RB size:50# RB offset:0#)	20MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

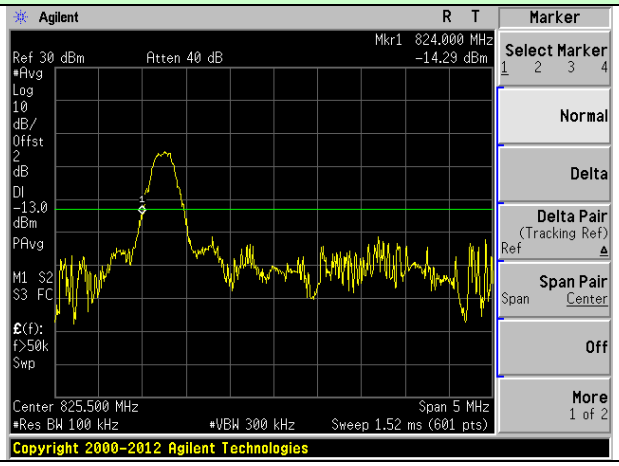
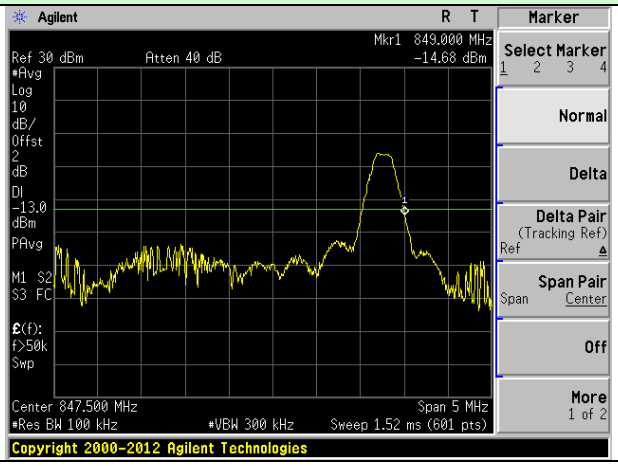
20MHz Bandwidth (RB size:100# RB offset:0#)	20MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

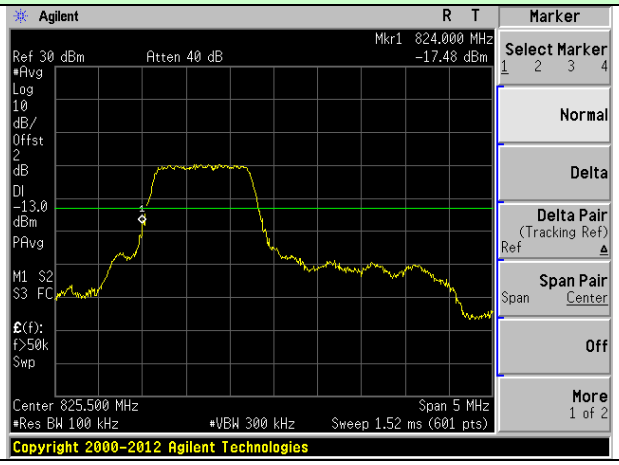
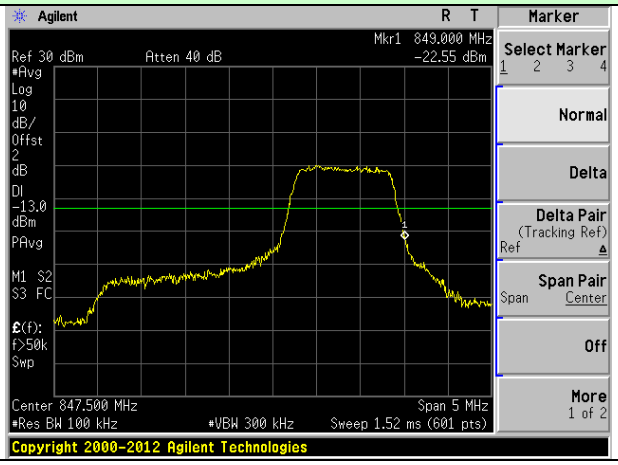
LTE Band 5 (16QAM mode):

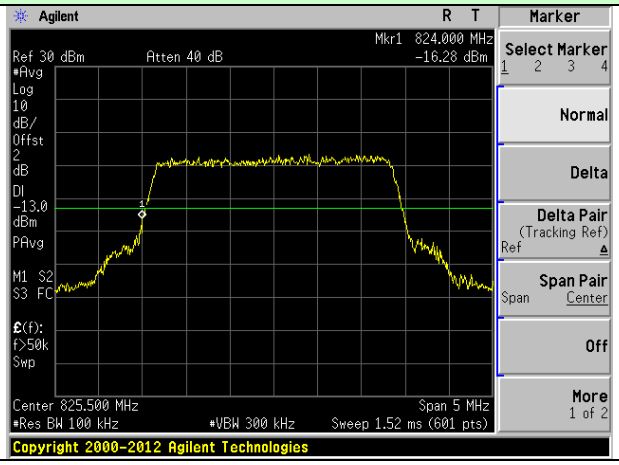
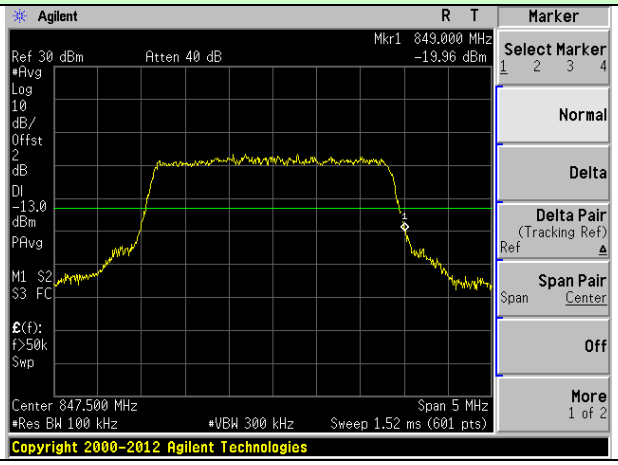
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

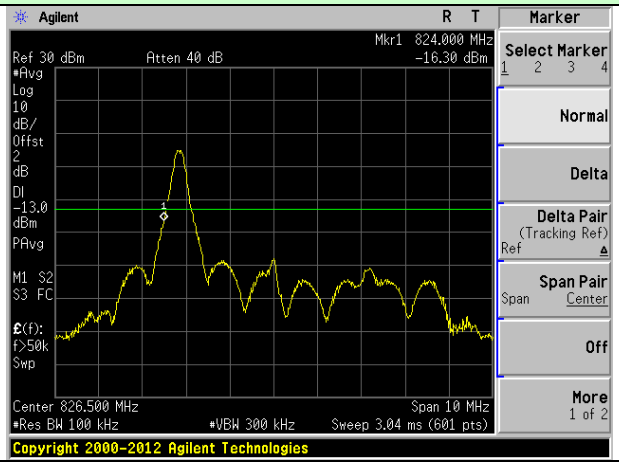
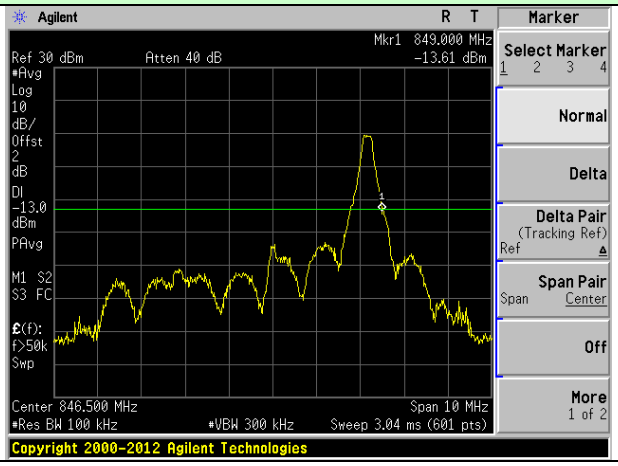
1.4MHz Bandwidth (RB size:12# RB offset:0#)	1.4MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

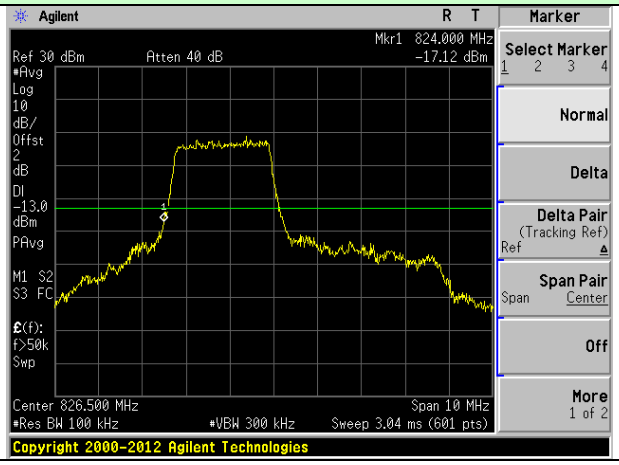
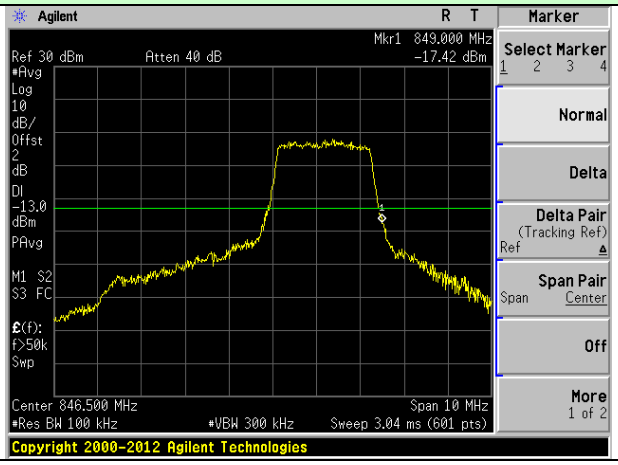
1.4MHz Bandwidth (RB size:25# RB offset:0#)	1.4MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

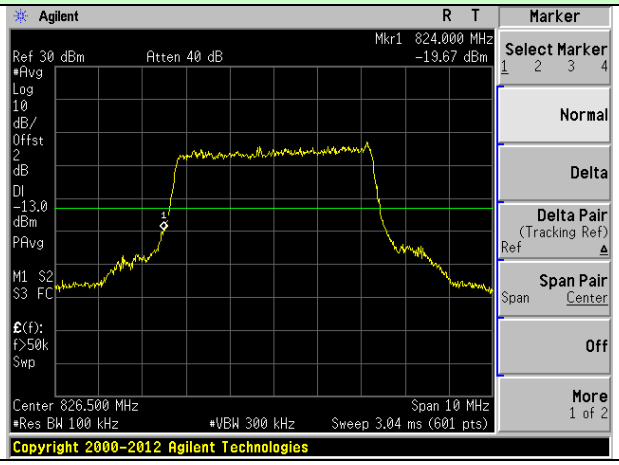
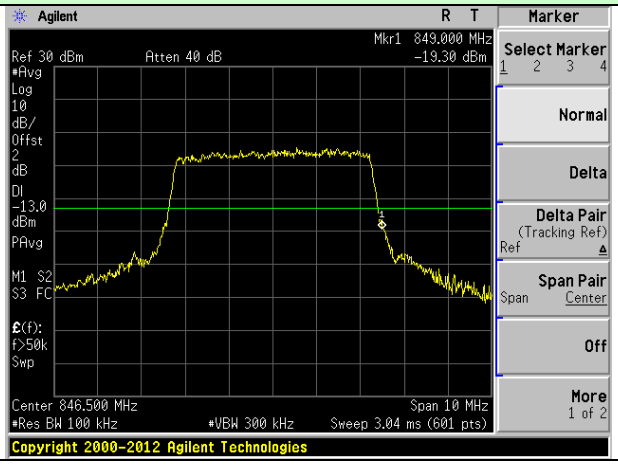
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

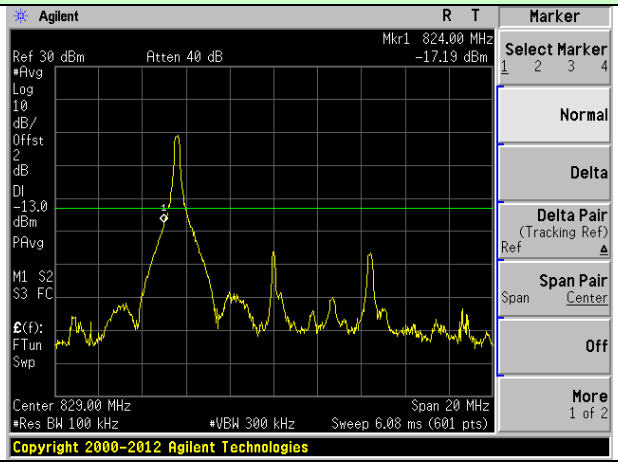
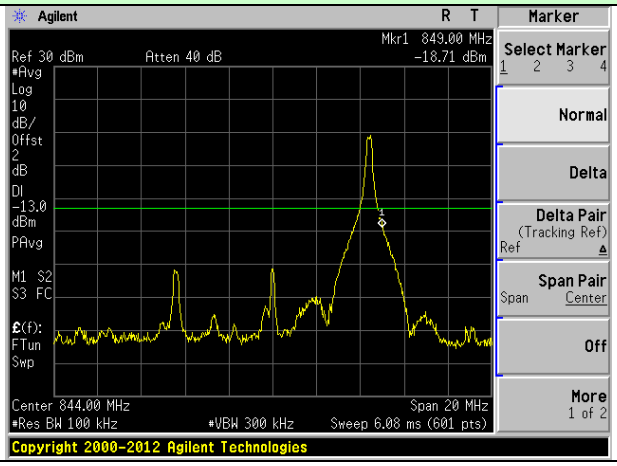
3MHz Bandwidth (RB size:25# RB offset:0#)	3MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

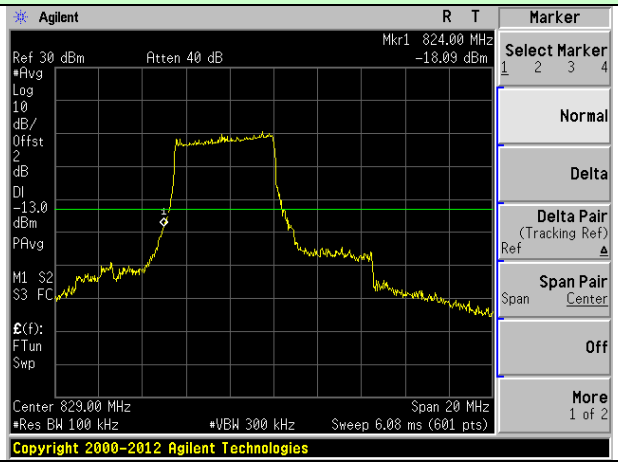
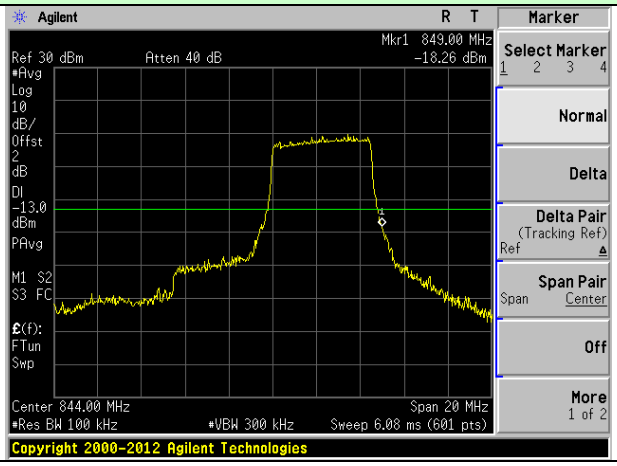
3MHz Bandwidth (RB size:50# RB offset:0#)	3MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

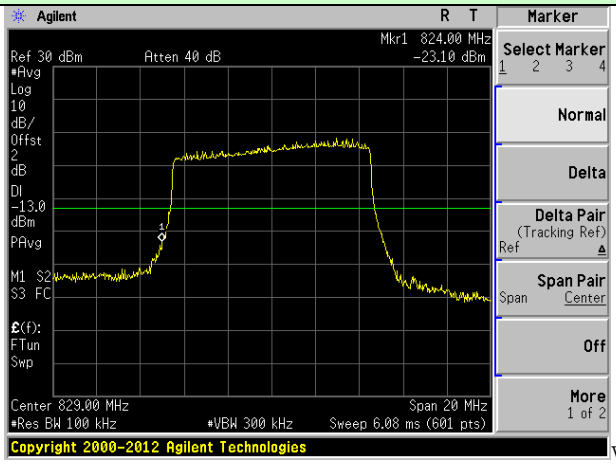
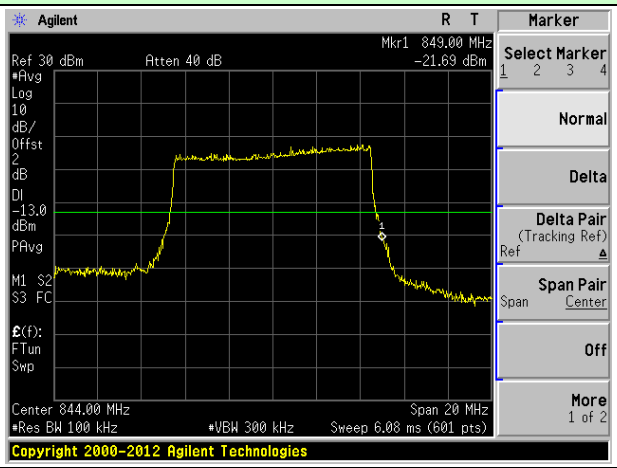
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:74#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:36# RB offset:0#)	5MHz Bandwidth (RB size:36# RB offset:39#)
	
Lowest channel	Highest channel

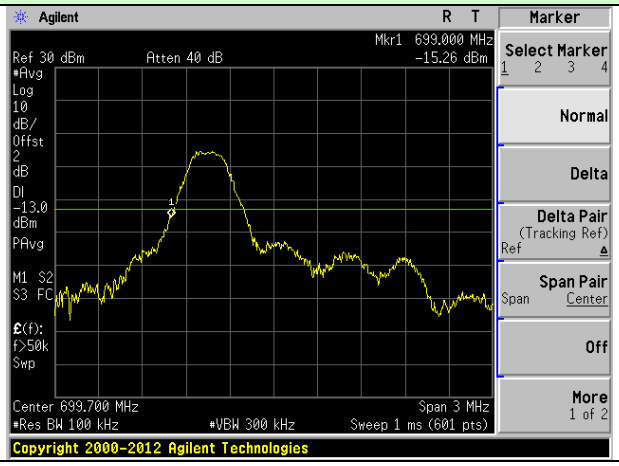
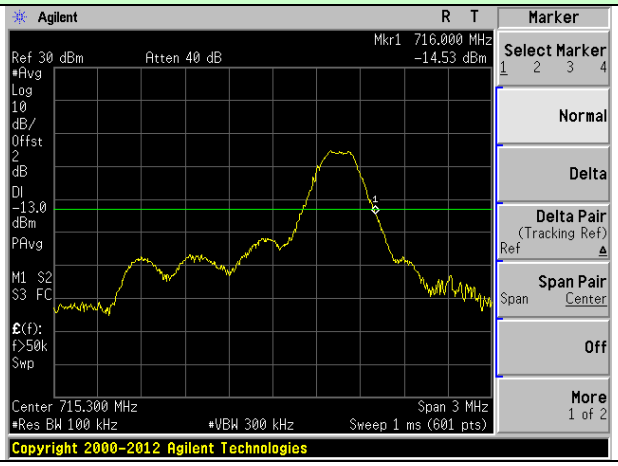
5MHz Bandwidth (RB size:75# RB offset:0#)	5MHz Bandwidth (RB size:75# RB offset:0#)
	
Lowest channel	Highest channel

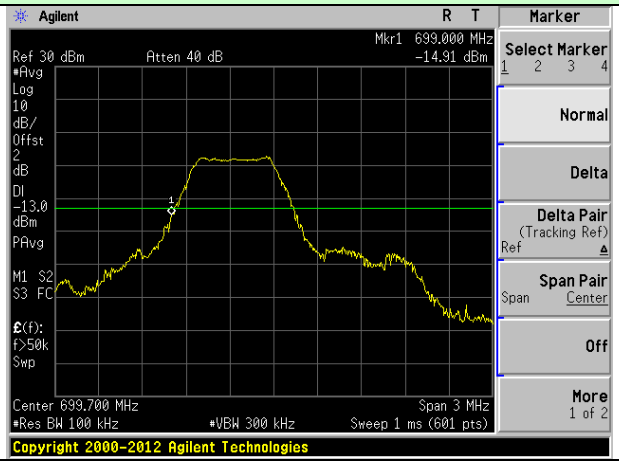
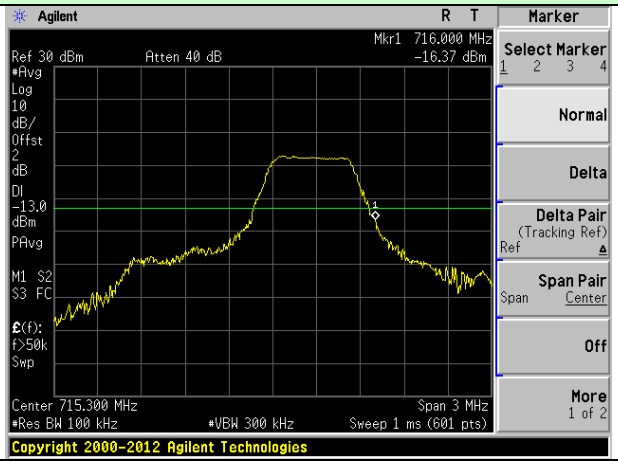
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:99#)
	
Lowest channel	Highest channel

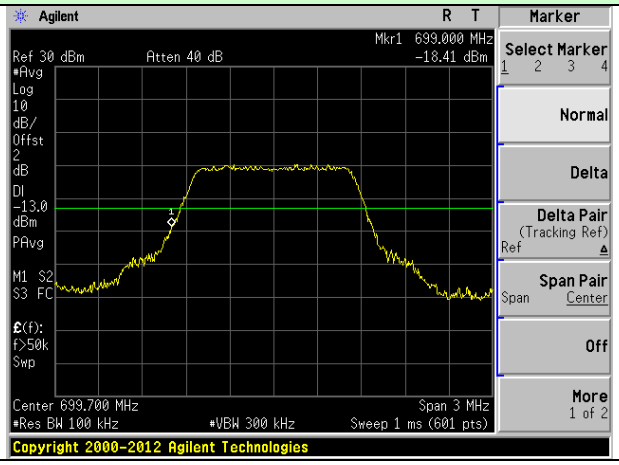
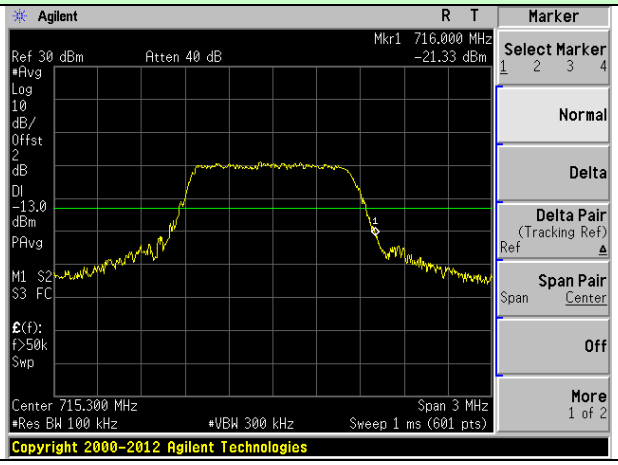
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:50#)
	
Lowest channel	Highest channel

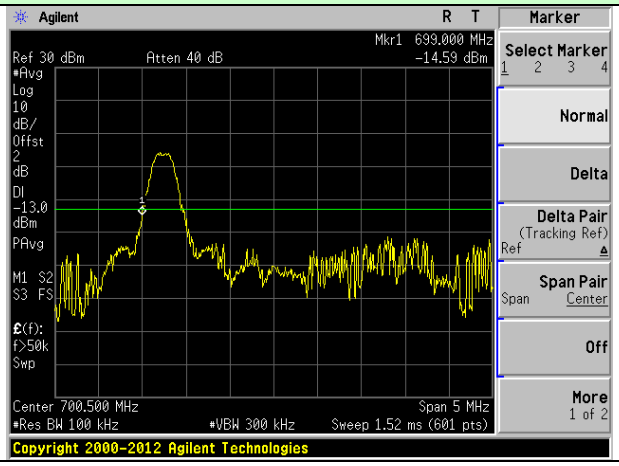
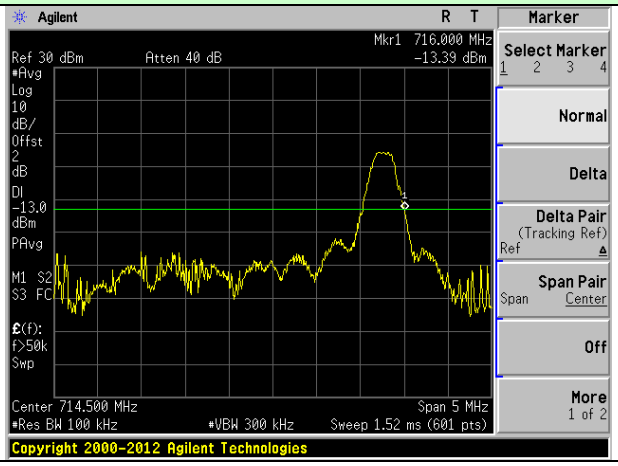
10MHz Bandwidth (RB size:100# RB offset:0#)	10MHz Bandwidth (RB size:100# RB offset:0#)
	
Lowest channel	Highest channel

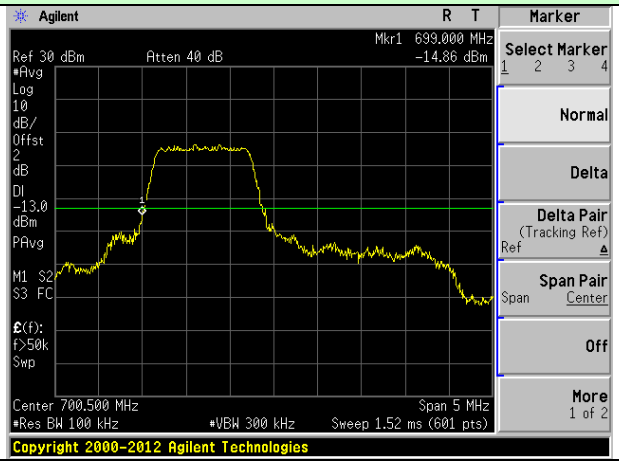
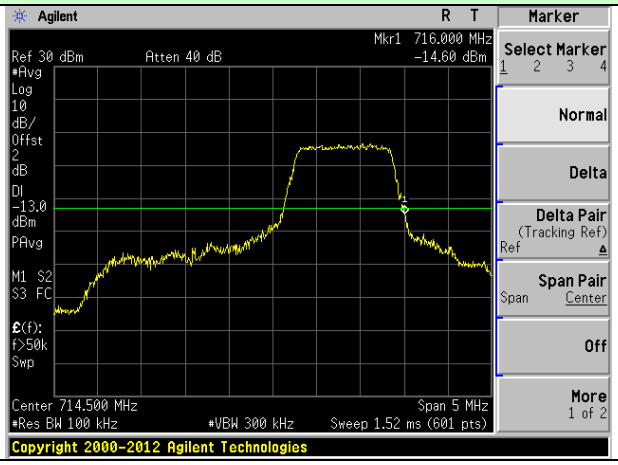
LTE Band 12 (16QAM mode):

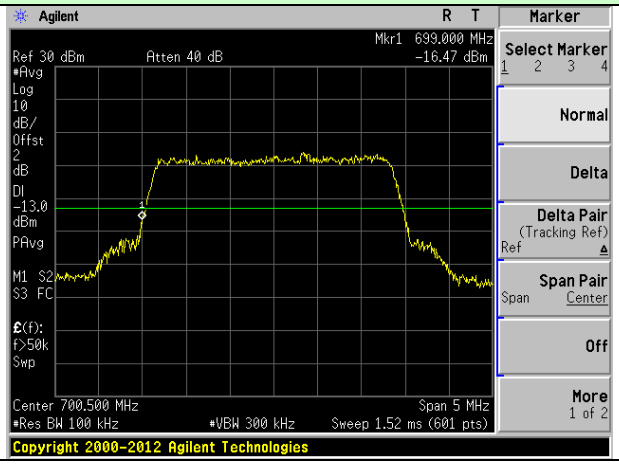
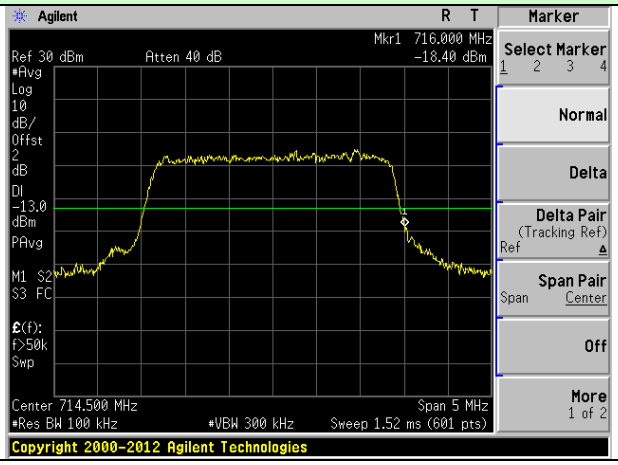
1.4MHz Bandwidth (RB size:1# RB offset:0#)	1.4MHz Bandwidth (RB size:1# RB offset:5#)
	
Lowest channel	Highest channel

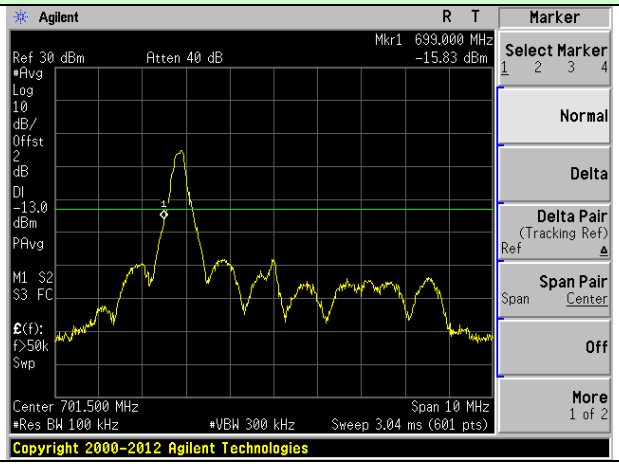
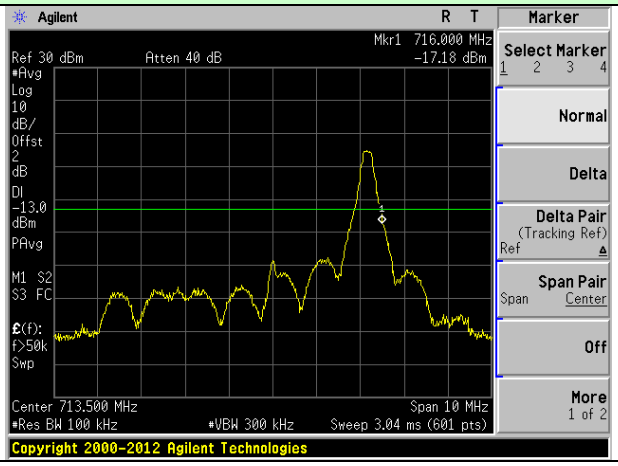
1.4MHz Bandwidth (RB size:3# RB offset:0#)	1.4MHz Bandwidth (RB size:3# RB offset:2#)
	
Lowest channel	Highest channel

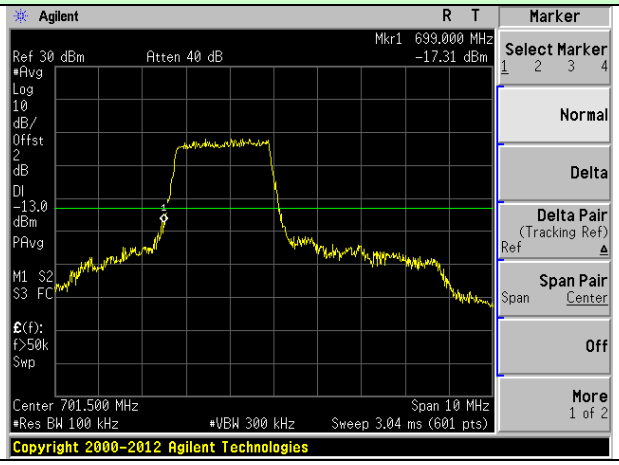
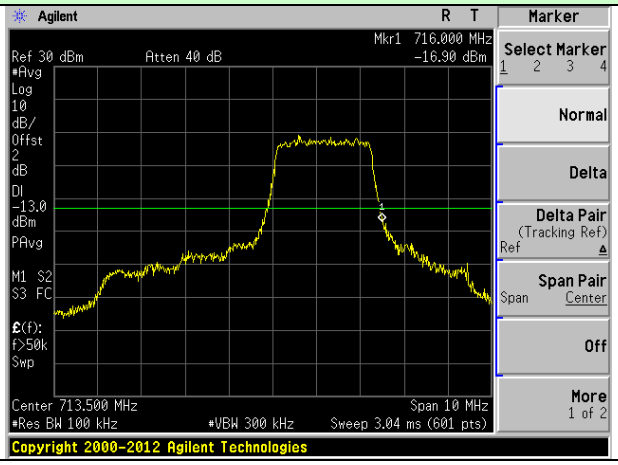
1.4MHz Bandwidth (RB size 6# RB offset:0#)	1.4MHz Bandwidth (RB size:6# RB offset:0#)
	
Lowest channel	Highest channel

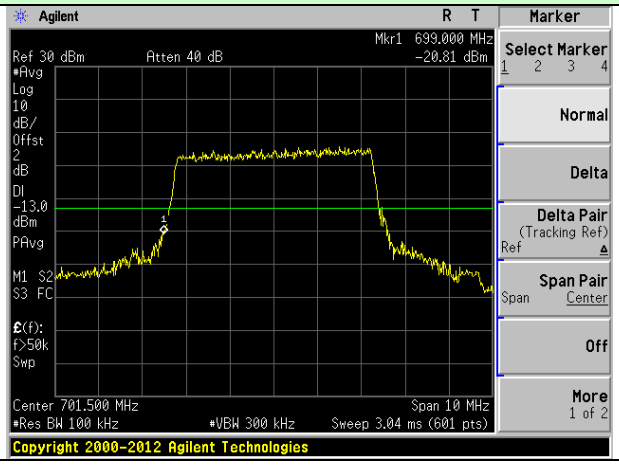
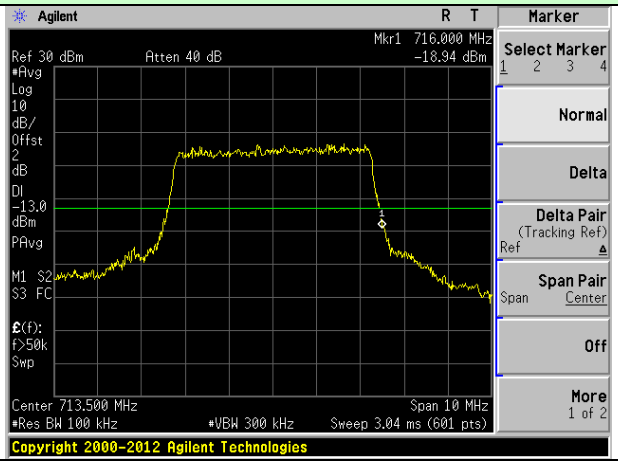
3MHz Bandwidth (RB size:1# RB offset:0#)	3MHz Bandwidth (RB size:1# RB offset:14#)
	
Lowest channel	Highest channel

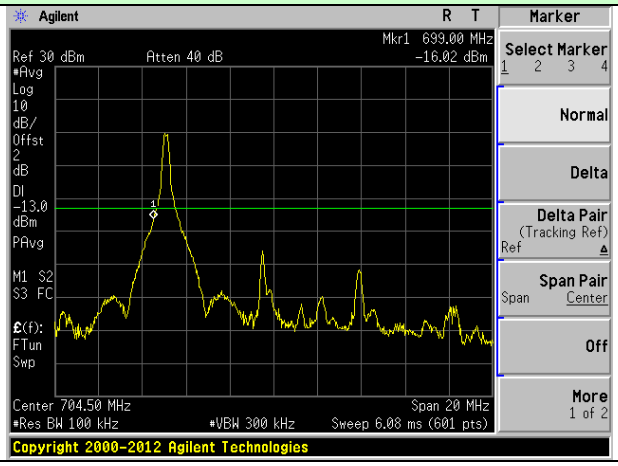
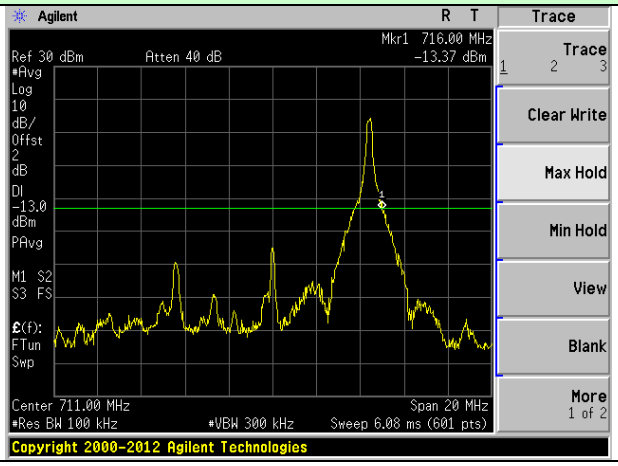
3MHz Bandwidth (RB size:8# RB offset:0#)	3MHz Bandwidth (RB size:8# RB offset:7#)
	
Lowest channel	Highest channel

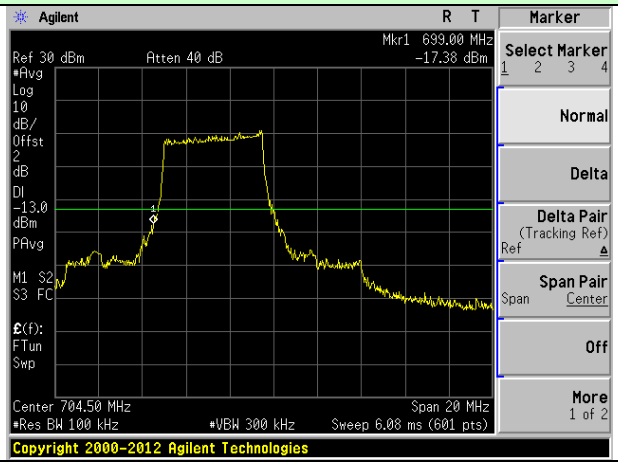
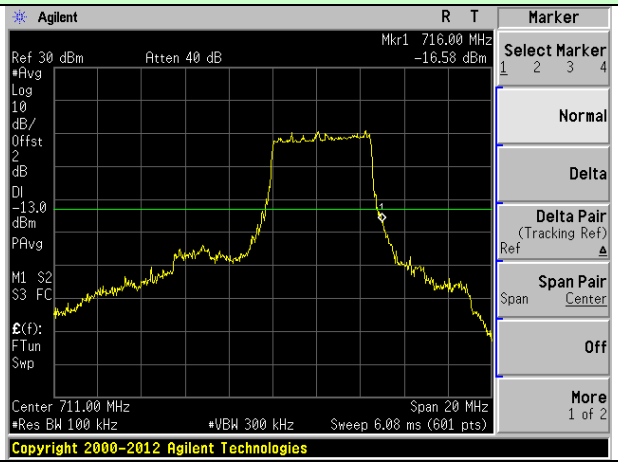
3MHz Bandwidth (RB size:15# RB offset:0#)	3MHz Bandwidth (RB size:15# RB offset:0#)
	
Lowest channel	Highest channel

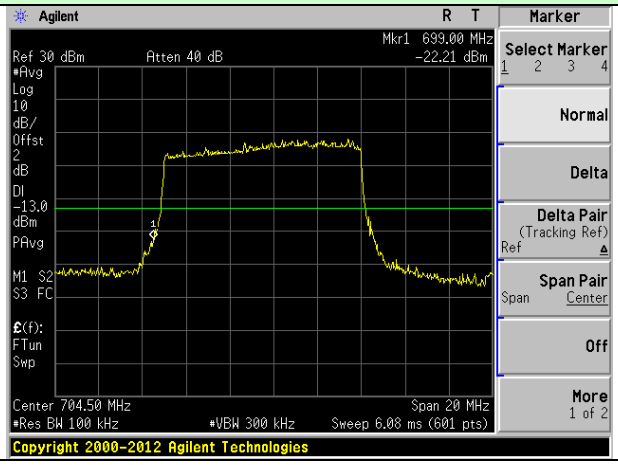
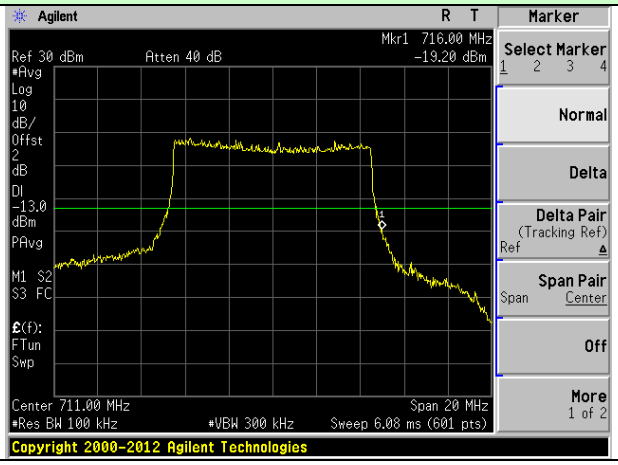
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

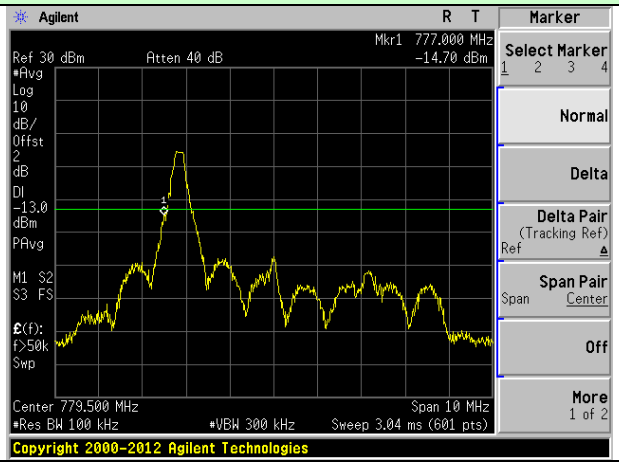
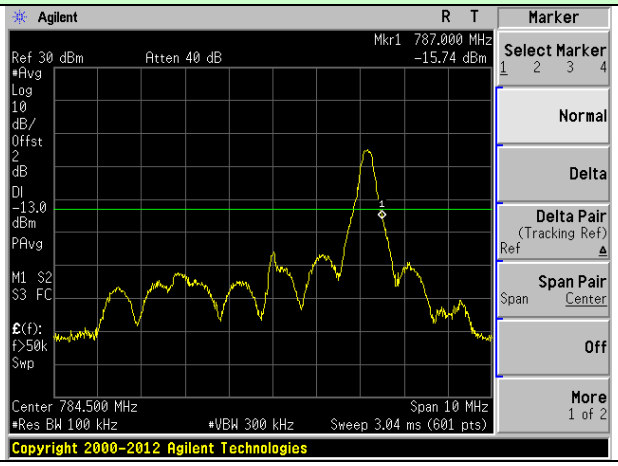
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

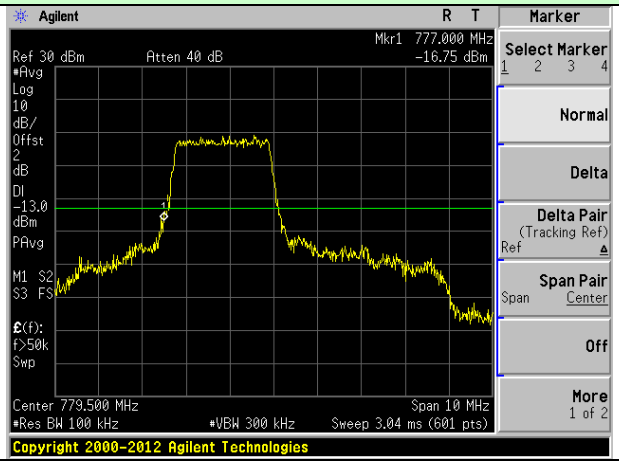
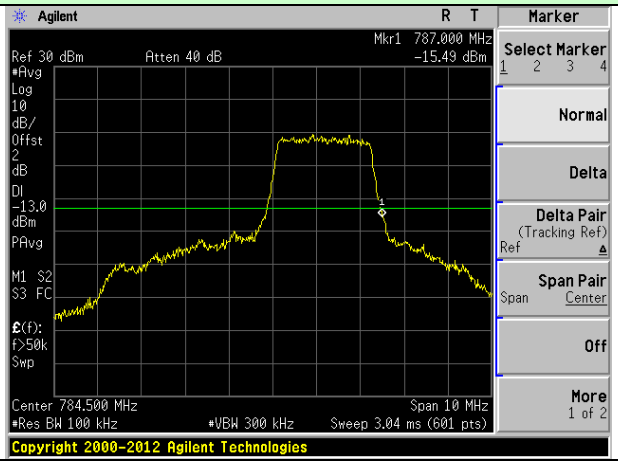
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

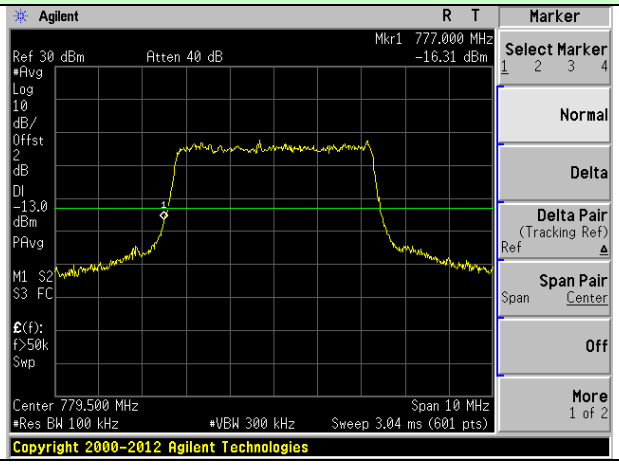
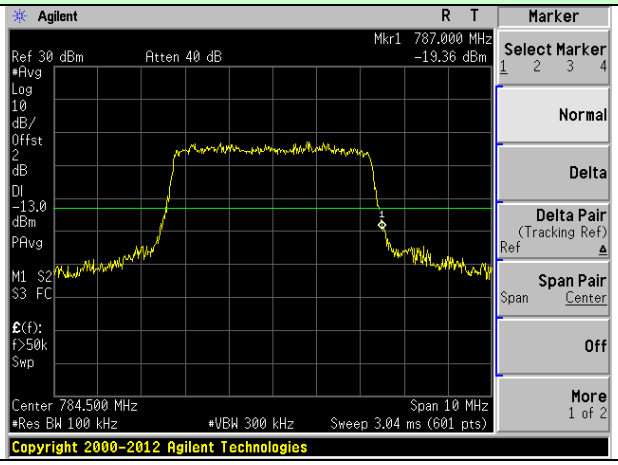
10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

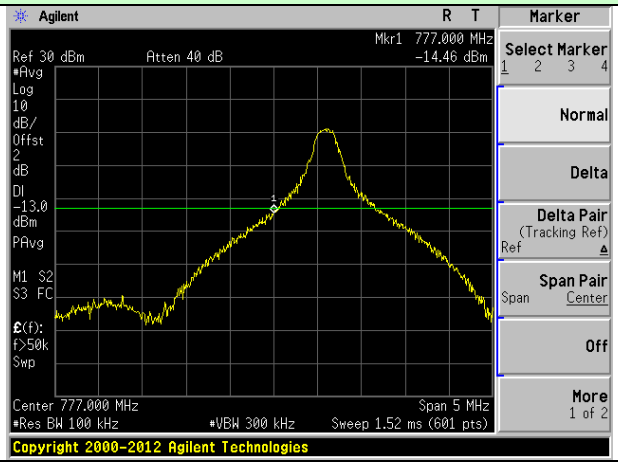
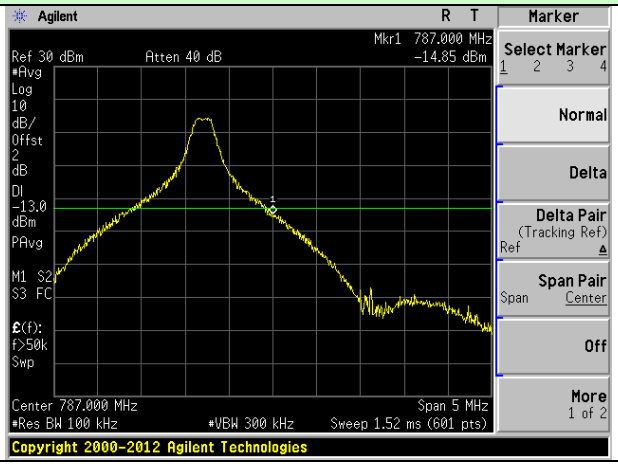
10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

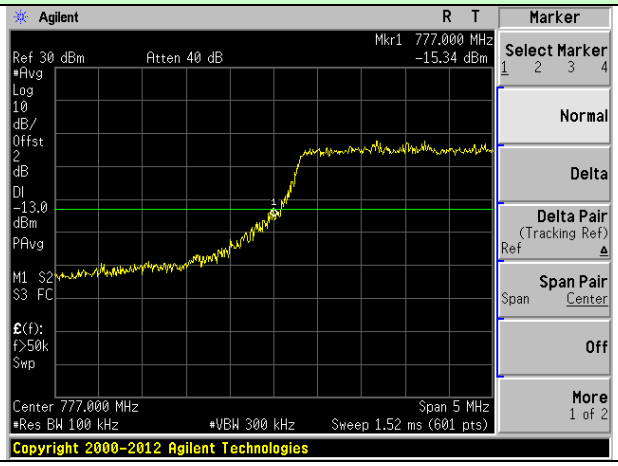
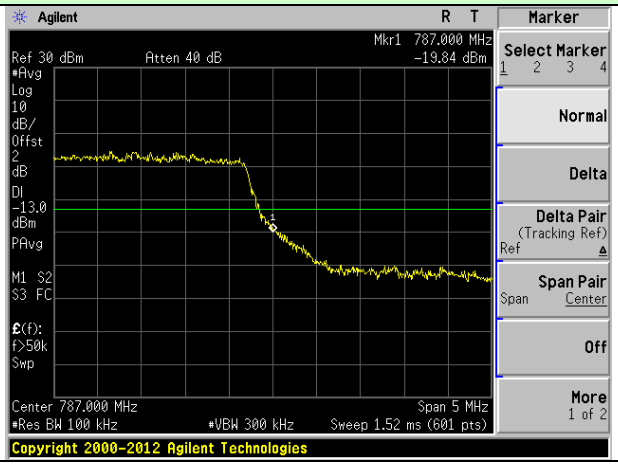
LTE Band 13 (16QAM mode):

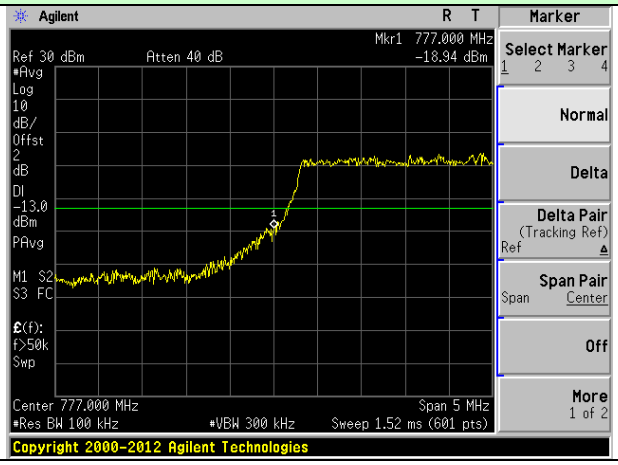
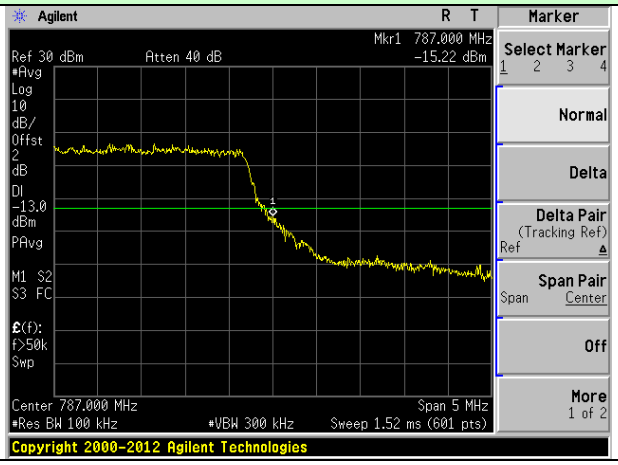
5MHz Bandwidth (RB size:1# RB offset:0#)	5MHz Bandwidth (RB size:1# RB offset:24#)
	
Lowest channel	Highest channel

5MHz Bandwidth (RB size:12# RB offset:0#)	5MHz Bandwidth (RB size:12# RB offset:13#)
	
Lowest channel	Highest channel

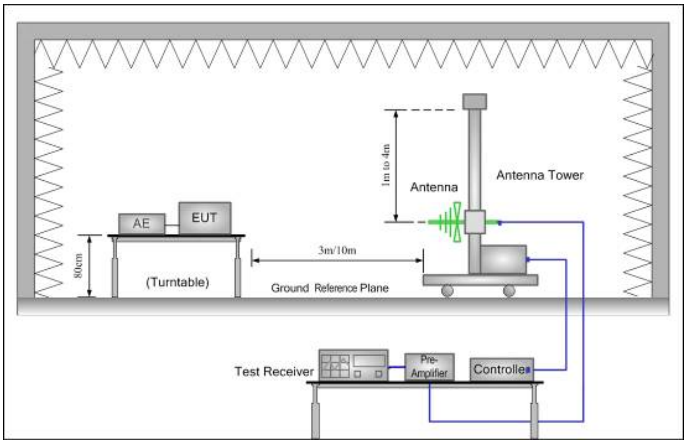
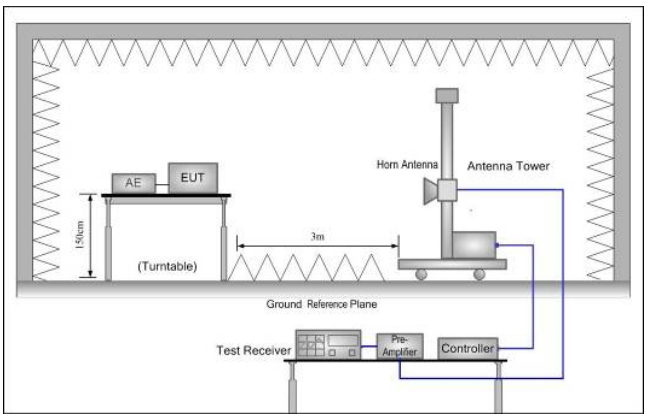
5MHz Bandwidth (RB size:25# RB offset:0#)	5MHz Bandwidth (RB size:25# RB offset:0#)
	
Lowest channel	Highest channel

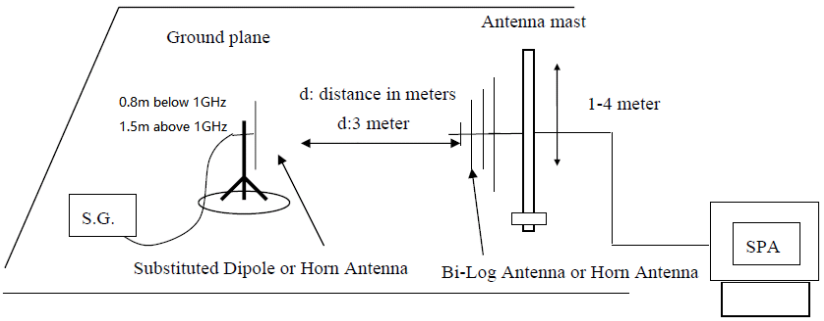
10MHz Bandwidth (RB size:1# RB offset:0#)	10MHz Bandwidth (RB size:1# RB offset:49#)
	
Lowest channel	Highest channel

10MHz Bandwidth (RB size:25# RB offset:0#)	10MHz Bandwidth (RB size:25# RB offset:25#)
	
Lowest channel	Highest channel

10MHz Bandwidth (RB size:50# RB offset:0#)	10MHz Bandwidth (RB size:50# RB offset:0#)
	
Lowest channel	Highest channel

6.9 ERP, EIRP Measurement

Test Requirement for FCC:	Part 24.238 (a); Part 27.50(c)(10)/(d)(4)
Test Requirement for IC:	RSS-130 Clause 4.4, RSS-133 Clause 6.4, RSS-139 Clause 6.5
Limit for FCC:	LTE Band 2: 2W (EIRP) LTE Band 4: 1W (EIRP) LTE Band 5: 7W(ERP) LTE Band 12: 3W (ERP) LTE Band 13: 3W(ERP)
Limit for IC:	LTE Band 2: 2W (EIRP) LTE Band 4: 1W (EIRP) LTE Band 5: 11.5W (EIRP) LTE Band 12: 5W (EIRP) LTE Band 13: 5W (EIRP)
Test setup:	Below 1GHz  Above 1GHz  Substituted method:

<table>
<tr><td></td><td colspan="6"> 
</td></tr>
<tr><td>Test Procedure:</td><td colspan="6">1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.
2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.
3. ERP in frequency band 777–787MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated asfollows:
ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB)
4. EIRP in frequency band 1710–1755MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows:
EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)</td></tr>
<tr><td>Test environment:</td><td>Temp.:</td><td>25 °C</td><td>Humid.:</td><td>52%</td><td>Press.:</td><td>1 012mbar</td></tr>
<tr><td>Test Instruments:</td><td colspan="6">Refer to section 5.0 for details</td></tr>
<tr><td>Test mode:</td><td colspan="6">Refer to section 6.1 for details</td></tr>
<tr><td>Test results:</td><td colspan="6">Pass</td></tr>
</table>

Measurement Data

The maximum value has been record and the tighter limits apply:

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (1.4M)	Lowest	QPSK	H	21.33	-1.93	1.13	20.53	33.00	Pass
	Middle	QPSK	H	21.38	-1.93	1.22	20.67	33.00	Pass
	Highest	QPSK	H	21.48	-1.93	1.34	20.89	33.00	Pass
	Lowest	16-QAM	H	21.39	-1.93	1.13	20.59	33.00	Pass
	Middle	16-QAM	H	21.27	-1.93	1.22	20.56	33.00	Pass
	Highest	16-QAM	H	21.03	-1.93	1.34	20.44	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (3M)	Lowest	QPSK	H	21.97	-1.93	1.13	21.17	33.00	Pass
	Middle	QPSK	H	21.84	-1.93	1.22	21.13	33.00	Pass
	Highest	QPSK	H	21.6	-1.93	1.34	21.01	33.00	Pass
	Lowest	16-QAM	H	21.87	-1.93	1.13	21.07	33.00	Pass
	Middle	16-QAM	H	21.99	-1.93	1.22	21.28	33.00	Pass
	Highest	16-QAM	H	21.11	-1.93	1.34	20.52	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (5M)	Lowest	QPSK	H	21.3	-1.93	1.13	20.5	33.00	Pass
	Middle	QPSK	H	21.69	-1.93	1.22	20.98	33.00	Pass
	Highest	QPSK	H	21.15	-1.93	1.34	20.56	33.00	Pass
	Lowest	16-QAM	H	21.58	-1.93	1.13	20.78	33.00	Pass
	Middle	16-QAM	H	21.93	-1.93	1.22	21.22	33.00	Pass
	Highest	16-QAM	H	21.12	-1.93	1.34	20.53	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (10M)	Lowest	QPSK	H	21.85	-1.93	1.13	21.05	33.00	Pass
	Middle	QPSK	H	21.5	-1.93	1.22	20.79	33.00	Pass
	Highest	QPSK	H	21.75	-1.93	1.34	21.16	33.00	Pass
	Lowest	16-QAM	H	21.03	-1.93	1.13	20.23	33.00	Pass
	Middle	16-QAM	H	21.5	-1.93	1.22	20.79	33.00	Pass
	Highest	16-QAM	H	21.44	-1.93	1.34	20.85	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2(15M)	Lowest	QPSK	H	21.46	-1.93	1.13	20.66	33.00	Pass
	Middle	QPSK	H	21.78	-1.93	1.22	21.07	33.00	Pass
	Highest	QPSK	H	21.02	-1.93	1.34	20.43	33.00	Pass
	Lowest	16-QAM	H	21.71	-1.93	1.13	20.91	33.00	Pass
	Middle	16-QAM	H	21.82	-1.93	1.22	21.11	33.00	Pass
	Highest	16-QAM	H	21.08	-1.93	1.34	20.49	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 2 (20M)	Lowest	QPSK	H	21.72	-1.93	1.13	20.92	33.00	Pass
	Middle	QPSK	H	21.09	-1.93	1.22	20.38	33.00	Pass
	Highest	QPSK	H	21.33	-1.93	1.34	20.74	33.00	Pass
	Lowest	16-QAM	H	21.07	-1.93	1.13	20.27	33.00	Pass
	Middle	16-QAM	H	21.8	-1.93	1.22	21.09	33.00	Pass
	Highest	16-QAM	H	21.78	-1.93	1.34	21.19	33.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (1.4M)	Lowest	QPSK	H	22.1	-2.74	1.71	21.07	30.00	Pass
	Middle	QPSK	H	21.58	-2.74	1.73	20.57	30.00	Pass
	Highest	QPSK	H	22.66	-2.74	1.81	21.73	30.00	Pass
	Lowest	16-QAM	H	21.29	-2.74	1.71	20.26	30.00	Pass
	Middle	16-QAM	H	22.35	-2.74	1.73	21.34	30.00	Pass
	Highest	16-QAM	H	22.46	-2.74	1.81	21.53	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (3M)	Lowest	QPSK	H	22.65	-2.74	1.71	21.62	30.00	Pass
	Middle	QPSK	H	21.89	-2.74	1.73	20.88	30.00	Pass
	Highest	QPSK	H	22.13	-2.74	1.81	21.2	30.00	Pass
	Lowest	16-QAM	H	21.63	-2.74	1.71	20.6	30.00	Pass
	Middle	16-QAM	H	22.46	-2.74	1.73	21.45	30.00	Pass
	Highest	16-QAM	H	21.46	-2.74	1.81	20.53	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (5M)	Lowest	QPSK	H	22.39	-2.74	1.71	21.36	30.00	Pass
	Middle	QPSK	H	22.65	-2.74	1.73	21.64	30.00	Pass
	Highest	QPSK	H	21.43	-2.74	1.81	20.5	30.00	Pass
	Lowest	16-QAM	H	21.29	-2.74	1.71	20.26	30.00	Pass
	Middle	16-QAM	H	21.12	-2.74	1.73	20.11	30.00	Pass
	Highest	16-QAM	H	22.4	-2.74	1.81	21.47	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (10M)	Lowest	QPSK	H	22.94	-2.74	1.71	21.91	30.00	Pass
	Middle	QPSK	H	21.64	-2.74	1.73	20.63	30.00	Pass
	Highest	QPSK	H	22.71	-2.74	1.81	21.78	30.00	Pass
	Lowest	16-QAM	H	22.84	-2.74	1.71	21.81	30.00	Pass
	Middle	16-QAM	H	21.96	-2.74	1.73	20.95	30.00	Pass
	Highest	16-QAM	H	22.52	-2.74	1.81	21.59	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (15M)	Lowest	QPSK	H	22.26	-2.74	1.71	21.23	30.00	Pass
	Middle	QPSK	H	22.45	-2.74	1.73	21.44	30.00	Pass
	Highest	QPSK	H	22.47	-2.74	1.81	21.54	30.00	Pass
	Lowest	16-QAM	H	21.27	-2.74	1.71	20.24	30.00	Pass
	Middle	16-QAM	H	21.03	-2.74	1.73	20.02	30.00	Pass
	Highest	16-QAM	H	21.9	-2.74	1.81	20.97	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	EIRP (dBm)	Limit (dBm)	Result
LTE Band 4 (20M)	Lowest	QPSK	H	22.08	-2.74	1.71	21.05	30.00	Pass
	Middle	QPSK	H	21.91	-2.74	1.73	20.9	30.00	Pass
	Highest	QPSK	H	21.15	-2.74	1.81	20.22	30.00	Pass
	Lowest	16-QAM	H	21.62	-2.74	1.71	20.59	30.00	Pass
	Middle	16-QAM	H	22.8	-2.74	1.73	21.79	30.00	Pass
	Highest	16-QAM	H	22.79	-2.74	1.81	21.86	30.00	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 5 (1.4M)	Lowest	QPSK	H	22.09	-2.08	1.55	21.56	38.45	Pass
	Middle	QPSK	H	22.76	-2.08	1.6	22.28	38.45	Pass
	Highest	QPSK	H	22.85	-2.08	1.65	22.42	38.45	Pass
	Lowest	16-QAM	H	22.81	-2.08	1.55	22.28	38.45	Pass
	Middle	16-QAM	H	21.8	-2.08	1.6	21.32	38.45	Pass
	Highest	16-QAM	H	21.23	-2.08	1.65	20.8	38.45	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 5 (3M)	Lowest	QPSK	H	22.5	-2.08	1.55	21.97	38.45	Pass
	Middle	QPSK	H	22.79	-2.08	1.6	22.31	38.45	Pass
	Highest	QPSK	H	22.97	-2.08	1.65	22.54	38.45	Pass
	Lowest	16-QAM	H	21.09	-2.08	1.55	20.56	38.45	Pass
	Middle	16-QAM	H	21.25	-2.08	1.6	20.77	38.45	Pass
	Highest	16-QAM	H	22.95	-2.08	1.65	22.52	38.45	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 5 (5M)	Lowest	QPSK	H	22.3	-2.08	1.55	21.77	38.45	Pass
	Middle	QPSK	H	22.4	-2.08	1.6	21.92	38.45	Pass
	Highest	QPSK	H	22.36	-2.08	1.65	21.93	38.45	Pass
	Lowest	16-QAM	H	21.16	-2.08	1.55	20.63	38.45	Pass
	Middle	16-QAM	H	21.99	-2.08	1.6	21.51	38.45	Pass
	Highest	16-QAM	H	22.91	-2.08	1.65	22.48	38.45	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 5 (10M)	Lowest	QPSK	H	21.16	-2.08	1.55	20.63	38.45	Pass
	Middle	QPSK	H	22.62	-2.08	1.6	22.14	38.45	Pass
	Highest	QPSK	H	22.52	-2.08	1.65	22.09	38.45	Pass
	Lowest	16-QAM	H	21.82	-2.08	1.55	21.29	38.45	Pass
	Middle	16-QAM	H	21.63	-2.08	1.6	21.15	38.45	Pass
	Highest	16-QAM	H	21.04	-2.08	1.65	20.61	38.45	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (1.4M)	Lowest	QPSK	H	21.72	-2.46	1.55	20.81	34.77	Pass
	Middle	QPSK	H	22.99	-2.46	1.6	22.13	34.77	Pass
	Highest	QPSK	H	22.33	-2.46	1.65	21.52	34.77	Pass
	Lowest	16-QAM	H	22.49	-2.46	1.55	21.58	34.77	Pass
	Middle	16-QAM	H	21.34	-2.46	1.6	20.48	34.77	Pass
	Highest	16-QAM	H	21.34	-2.46	1.65	20.53	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (5M)	Lowest	QPSK	H	21.45	-2.46	1.55	20.54	34.77	Pass
	Middle	QPSK	H	21.5	-2.46	1.6	20.64	34.77	Pass
	Highest	QPSK	H	22.13	-2.46	1.65	21.32	34.77	Pass
	Lowest	16-QAM	H	21.03	-2.46	1.55	20.12	34.77	Pass
	Middle	16-QAM	H	21.6	-2.46	1.6	20.74	34.77	Pass
	Highest	16-QAM	H	22.52	-2.46	1.65	21.71	34.77	Pass

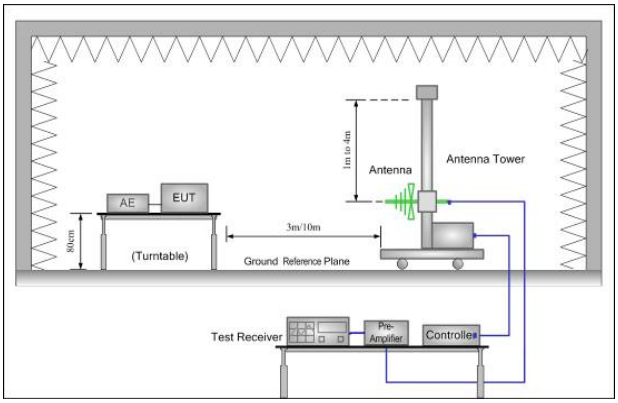
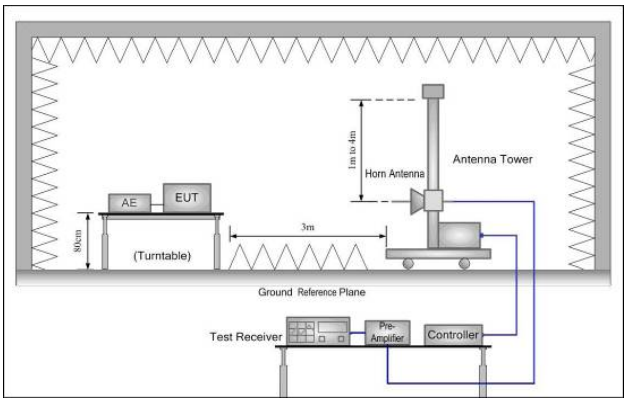
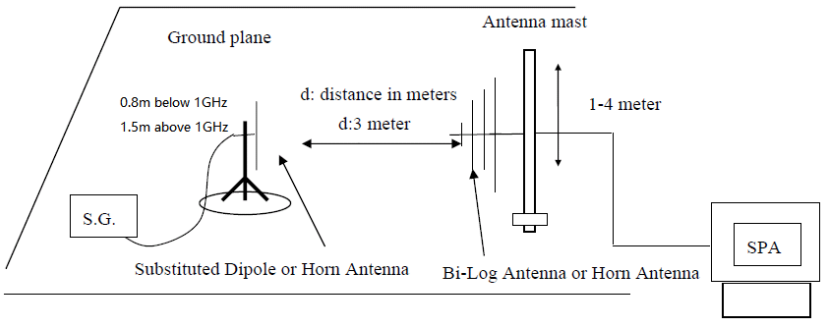
EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (5M)	Lowest	QPSK	H	21.9	-2.46	1.55	20.99	34.77	Pass
	Middle	QPSK	H	21.3	-2.46	1.6	20.44	34.77	Pass
	Highest	QPSK	H	22.51	-2.46	1.65	21.7	34.77	Pass
	Lowest	16-QAM	H	22.22	-2.46	1.55	21.31	34.77	Pass
	Middle	16-QAM	H	21.56	-2.46	1.6	20.7	34.77	Pass
	Highest	16-QAM	H	22.32	-2.46	1.65	21.51	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 12 (10M)	Lowest	QPSK	H	22.13	-2.46	1.55	21.22	34.77	Pass
	Middle	QPSK	H	21.82	-2.46	1.6	20.96	34.77	Pass
	Highest	QPSK	H	21.17	-2.46	1.65	20.36	34.77	Pass
	Lowest	16-QAM	H	22.8	-2.46	1.55	21.89	34.77	Pass
	Middle	16-QAM	H	21.09	-2.46	1.6	20.23	34.77	Pass
	Highest	16-QAM	H	21.41	-2.46	1.65	20.6	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 13 (5M)	Lowest	QPSK	H	21.51	-3.88	1.43	19.06	34.77	Pass
	Middle	QPSK	H	22.51	-3.88	1.48	20.11	34.77	Pass
	Highest	QPSK	H	21.42	-3.88	1.52	19.06	34.77	Pass
	Lowest	16-QAM	H	22.09	-3.88	1.43	19.64	34.77	Pass
	Middle	16-QAM	H	21.81	-3.88	1.48	19.41	34.77	Pass
	Highest	16-QAM	H	22.6	-3.88	1.52	20.24	34.77	Pass

EUT mode	Channel	Modulation	Polarization	SGP [dBm]	Substitution Gain[dBi]	Cable loss[dB]	ERP (dBm)	Limit (dBm)	Result
LTE Band 13 (10M)	Middle	QPSK	H	22.94	-3.88	1.43	20.49	34.77	Pass
	Middle	16-QAM	H	22.46	-3.88	1.48	20.06	34.77	Pass

6.10 Field strength of spurious radiation measurement

Test Requirement for FCC:	Part 24.238 (a); FCC Part 27.53(h)/(g)
Test Requirement for IC:	RSS-GEN Clause 6.13
Limit:	Band 2/4/5/12/13:-13dBm
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 

Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations. 3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method. 4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency. ERP / EIRP = S.G. output (dBm) + Antenna Gain(dB/dBi) – Cable Loss (dB)					
Test environment:	Temp.:	25 °C	Humid.:	52%	Press.:	1 012mbar
Test Instruments:	Refer to section 5.0 for details					
Test mode:	Refer to section 6.1 for details					
Test results:	Pass					

Measurement Data
Remark：
1. The emission behavior belongs to narrowband spurious emission.
2. The emission levels of below 1 GHz are very lower than the limit and not show in test report.

QPSK mode:

Test mode:	LTE Band 2(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3705.00	Vertical	-47.01	-13.00	Pass
5557.50	V	-46.27		
7410.00	V	-45.13		
9262.50	V	-45.54		
11115.00	V	-43.22		
3705.00	Horizontal	-44.20	-13.00	Pass
5557.50	H	-44.64		
7410.00	H	-46.56		
9262.50	H	-45.89		
11115.00	H	-44.59		
Test mode:	**LTE Band 2(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-45.16	-13.00	Pass
5640.00	V	-47.28		
7520.00	V	-46.35		
9400.00	V	-45.02		
11280.00	V	-45.32		
3760.00	Horizontal	-43.09	-13.00	Pass
5640.00	H	-44.62		
7520.00	H	-44.14		
9400.00	H	-46.52		
11280.00	H	-45.37		
Test mode:	**LTE Band 2(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3815.00	Vertical	-46.50	-13.00	Pass
5722.50	V	-45.59		
7630.00	V	-45.03		
9537.50	V	-43.31		
11445.00	V	-44.68		
3815.00	Horizontal	-44.39	-13.00	Pass
5722.50	H	-46.64		
7630.00	H	-45.30		
9537.50	H	-44.35		
11445.00	H	-45.04		

Test mode:	LTE Band 2(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3810.00	Vertical	-45.49	-13.00	Pass
5715.00	V	-47.60		
7620.00	V	-46.89		
9525.00	V	-45.24		
11430.00	V	-45.60		
3810.00	Horizontal	-43.62	-13.00	Pass
5715.00	H	-44.49		
7620.00	H	-44.66		
9525.00	H	-46.22		
11430.00	H	-45.72		
Test mode:	**LTE Band 2(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-46.44	-13.00	Pass
5640.00	V	-45.74		
7520.00	V	-45.24		
9400.00	V	-43.82		
11280.00	V	-44.24		
3760.00	Horizontal	-44.13	-13.00	Pass
5640.00	H	-46.81		
7520.00	H	-45.13		
9400.00	H	-44.88		
11280.00	H	-45.90		
Test mode:	**LTE Band 2(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3710.00	Vertical	-45.56	-13.00	Pass
5565.00	V	-47.17		
7420.00	V	-46.33		
9275.00	V	-45.28		
11130.00	V	-45.03		
3710.00	Horizontal	-43.68	-13.00	Pass
5565.00	H	-44.30		
7420.00	H	-44.72		
9275.00	H	-46.35		
11130.00	H	-45.65		

Test mode:	LTE Band 2(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3805.00	Vertical	-45.09	-13.00	Pass
5707.50	V	-47.31		
7610.00	V	-46.50		
9512.50	V	-45.38		
11415.00	V	-45.92		
3805.00	Horizontal	-43.18	-13.00	Pass
5707.50	H	-44.73		
7610.00	H	-44.23		
9512.50	H	-46.49		
11415.00	H	-45.23		
Test mode:	**LTE Band 2(15MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-45.69	-13.00	Pass
5640.00	V	-47.69		
7520.00	V	-46.89		
9400.00	V	-45.24		
11280.00	V	-45.69		
3760.00	Horizontal	-43.54	-13.00	Pass
5640.00	H	-44.30		
7520.00	H	-44.89		
9400.00	H	-46.91		
11280.00	H	-45.75		
Test mode:	**LTE Band 2(15MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3715.00	Vertical	-45.77	-13.00	Pass
5572.50	V	-47.45		
7430.00	V	-46.75		
9287.50	V	-45.46		
11145.00	V	-45.77		
3715.00	Horizontal	-43.49	-13.00	Pass
5572.50	H	-44.91		
7430.00	H	-44.04		
9287.50	H	-46.55		
11145.00	H	-45.52		

Test mode:	LTE Band 2(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3800.00	Vertical	-44.12	-13.00	Pass
5700.00	V	-45.83		
7600.00	V	-46.76		
9500.00	V	-43.86		
11400.00	V	-45.25		
3800.00	Horizontal	-44.63	-13.00	Pass
5700.00	H	-43.79		
7600.00	H	-45.09		
9500.00	H	-44.87		
11400.00	H	-43.26		
Test mode:	**LTE Band 2(20MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-44.68	-13.00	Pass
5640.00	V	-45.05		
7520.00	V	-46.87		
9400.00	V	-43.83		
11280.00	V	-45.12		
3760.00	Horizontal	-44.75	-13.00	Pass
5640.00	H	-43.02		
7520.00	H	-45.71		
9400.00	H	-44.51		
11280.00	H	-43.53		
Test mode:	**LTE Band 2(20MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3720.00	Vertical	-44.11	-13.00	Pass
5580.00	V	-45.86		
7440.00	V	-46.09		
9300.00	V	-43.42		
11160.00	V	-45.68		
3720.00	Horizontal	-44.35	-13.00	Pass
5580.00	H	-43.02		
7440.00	H	-45.35		
9300.00	H	-44.41		
11160.00	H	-43.20		

Test mode:	LTE Band 4(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3425.00	Vertical	-44.83	-13.00	Pass
5137.50	V	-45.99		
6850.00	V	-46.50		
8562.50	V	-43.44		
10275.00	V	-45.81		
3425.00	Horizontal	-44.32	-13.00	Pass
5137.50	H	-43.29		
6850.00	H	-45.60		
8562.50	H	-44.83		
10275.00	H	-43.14		
Test mode:	**LTE Band 4(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.79	-13.00	Pass
5197.50	V	-47.13		
6930.00	V	-46.89		
8662.50	V	-45.40		
10395.00	V	-45.16		
3465.00	Horizontal	-43.42	-13.00	Pass
5197.50	H	-44.75		
6930.00	H	-44.99		
8662.50	H	-46.98		
10395.00	H	-45.86		
Test mode:	**LTE Band 4(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3505.00	Vertical	-45.48	-13.00	Pass
5257.50	V	-47.33		
7010.00	V	-46.72		
8762.50	V	-45.75		
10515.00	V	-45.36		
3505.00	Horizontal	-43.06	-13.00	Pass
5257.50	H	-44.47		
7010.00	H	-44.89		
8762.50	H	-46.08		
10515.00	H	-45.93		

Test mode:	LTE Band 4(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3430.00	Vertical	-44.80	-13.00	Pass
5145.00	V	-45.67		
6860.00	V	-46.56		
8575.00	V	-43.95		
10290.00	V	-45.27		
3430.00	Horizontal	-44.59	-13.00	Pass
5145.00	H	-43.92		
6860.00	H	-45.84		
8575.00	H	-44.66		
10290.00	H	-43.36		
Test mode:	**LTE Band 4(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.28	-13.00	Pass
5197.50	V	-47.72		
6930.00	V	-46.57		
8662.50	V	-45.35		
10395.00	V	-45.11		
3465.00	Horizontal	-43.33	-13.00	Pass
5197.50	H	-44.35		
6930.00	H	-44.78		
8662.50	H	-46.16		
10395.00	H	-45.89		
Test mode:	**LTE Band 4(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3500.00	Vertical	-45.30	-13.00	Pass
5250.00	V	-47.89		
7000.00	V	-46.02		
8750.00	V	-45.52		
10500.00	V	-45.74		
3500.00	Horizontal	-43.94	-13.00	Pass
5250.00	H	-44.78		
7000.00	H	-44.25		
8750.00	H	-46.00		
10500.00	H	-45.38		

Test mode:	LTE Band 4(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3435.00	Vertical	-44.88	-13.00	Pass
5152.50	V	-45.57		
6870.00	V	-46.05		
8587.50	V	-43.15		
10305.00	V	-45.74		
3435.00	Horizontal	-44.48	-13.00	Pass
5152.50	H	-43.92		
6870.00	H	-45.20		
8587.50	H	-44.91		
10305.00	H	-43.30		
Test mode:	**LTE Band 4(15MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-44.65	-13.00	Pass
5197.50	V	-45.38		
6930.00	V	-46.20		
8662.50	V	-43.60		
10395.00	V	-45.62		
3465.00	Horizontal	-44.04	-13.00	Pass
5197.50	H	-43.14		
6930.00	H	-45.99		
8662.50	H	-44.14		
10395.00	H	-43.90		
Test mode:	**LTE Band 4(15MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3495.00	Vertical	-44.54	-13.00	Pass
5242.50	V	-45.26		
6990.00	V	-46.23		
8737.50	V	-43.75		
10485.00	V	-45.81		
3495.00	Horizontal	-44.14	-13.00	Pass
5242.50	H	-43.70		
6990.00	H	-45.49		
8737.50	H	-44.44		
10485.00	H	-43.54		

Test mode:	LTE Band 4(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3440.00	Vertical	-45.72	-13.00	Pass
5160.00	V	-47.88		
6880.00	V	-46.88		
8600.00	V	-45.68		
10320.00	V	-45.33		
3440.00	Horizontal	-43.02	-13.00	Pass
5160.00	H	-44.20		
6880.00	H	-44.86		
8600.00	H	-46.94		
10320.00	H	-45.13		
Test mode:	**LTE Band 4(20MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.07	-13.00	Pass
5197.50	V	-47.28		
6930.00	V	-46.66		
8662.50	V	-45.08		
10395.00	V	-45.28		
3465.00	Horizontal	-43.35	-13.00	Pass
5197.50	H	-44.56		
6930.00	H	-44.71		
8662.50	H	-46.37		
10395.00	H	-45.61		
Test mode:	**LTE Band 4(20MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3490.00	Vertical	-45.45	-13.00	Pass
5235.00	V	-47.22		
6980.00	V	-46.55		
8725.00	V	-45.49		
10470.00	V	-45.44		
3490.00	Horizontal	-43.76	-13.00	Pass
5235.00	H	-44.30		
6980.00	H	-44.02		
8725.00	H	-46.46		
10470.00	H	-45.16		

Test mode:	LTE Band 5(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1653.00	Vertical	-45.58	-13.00	Pass
2479.50	V	-47.60		
3306.00	V	-46.63		
4132.50	V	-45.59		
4959.00	V	-45.87		
1653.00	Horizontal	-43.01	-13.00	Pass
2479.50	H	-44.09		
3306.00	H	-44.79		
4132.50	H	-46.06		
4959.00	H	-45.71		
Test mode:	**LTE Band 5(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1673.00	Vertical	-44.56	-13.00	Pass
2509.50	V	-44.71		
3346.00	V	-46.37		
4182.50	V	-45.61		
5019.00	V	-44.89		
1673.00	Horizontal	-45.66	-13.00	Pass
2509.50	H	-46.38		
3346.00	H	-43.16		
4182.50	H	-45.63		
5019.00	H	-44.40		
Test mode:	**LTE Band 5(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1693.00	Vertical	-44.20	-13.00	Pass
2539.50	V	-44.86		
3386.00	V	-46.94		
4232.50	V	-45.13		
5079.00	V	-44.64		
1693.00	Horizontal	-45.75	-13.00	Pass
2539.50	H	-46.54		
3386.00	H	-43.64		
4232.50	H	-45.56		
5079.00	H	-44.74		

Test mode:	LTE Band 5(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1658.00	Vertical	-45.76	-13.00	Pass
2487.00	V	-47.45		
3316.00	V	-46.08		
4145.00	V	-45.12		
4974.00	V	-45.64		
1658.00	Horizontal	-43.76	-13.00	Pass
2487.00	H	-44.13		
3316.00	H	-44.93		
4145.00	H	-46.70		
4974.00	H	-45.40		
Test mode:	**LTE Band 5(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1673.00	Vertical	-45.02	-13.00	Pass
2509.50	V	-47.58		
3346.00	V	-46.72		
4182.50	V	-45.45		
5019.00	V	-45.31		
1673.00	Horizontal	-43.66	-13.00	Pass
2509.50	H	-44.45		
3346.00	H	-44.99		
4182.50	H	-46.56		
5019.00	H	-45.58		
Test mode:	**LTE Band 5(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1688.00	Vertical	-45.36	-13.00	Pass
2532.00	V	-47.33		
3376.00	V	-46.40		
4220.00	V	-45.40		
5064.00	V	-45.13		
1688.00	Horizontal	-43.07	-13.00	Pass
2532.00	H	-44.61		
3376.00	H	-44.89		
4220.00	H	-46.65		
5064.00	H	-45.93		

Test mode:	LTE Band 12(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-46.56	-13.00	Pass
2338.50	V	-45.58		
3118.00	V	-44.70		
3897.50	V	-45.24		
4677.00	V	-46.26		
1559.00	Horizontal	-43.75	-13.00	Pass
2338.50	H	-45.24		
3118.00	H	-44.83		
3897.50	H	-43.99		
4677.00	H	-45.23		
Test mode:	**LTE Band 12(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1764.00	Vertical	-44.61	-13.00	Pass
2646.00	V	-44.89		
3528.00	V	-46.65		
4410.00	V	-45.93		
5292.00	V	-44.41		
1764.00	Horizontal	-45.15	-13.00	Pass
2646.00	H	-46.35		
3528.00	H	-43.82		
4410.00	H	-45.81		
5292.00	H	-44.01		
Test mode:	**LTE Band 12(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-45.10	-13.00	Pass
2353.50	V	-47.76		
3138.00	V	-46.27		
3922.50	V	-45.32		
4707.00	V	-45.12		
1569.00	Horizontal	-43.89	-13.00	Pass
2353.50	H	-44.02		
3138.00	H	-44.15		
3922.50	H	-46.79		
4707.00	H	-45.91		

Test mode:	LTE Band 12(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1408.00	Vertical	-47.15	-13.00	Pass
2112.00	V	-46.17		
2816.00	V	-45.77		
3520.00	V	-45.59		
4224.00	V	-43.35		
1408.00	Horizontal	-44.33	-13.00	Pass
2112.00	H	-45.00		
2816.00	H	-46.85		
3520.00	H	-45.07		
4224.00	H	-44.96		
Test mode:	**LTE Band 12(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1415.00	Vertical	-45.77	-13.00	Pass
2122.50	V	-47.55		
2830.00	V	-46.22		
3537.50	V	-45.61		
4245.00	V	-45.57		
1415.00	Horizontal	-43.84	-13.00	Pass
2122.50	H	-44.43		
2830.00	H	-44.47		
3537.50	H	-46.47		
4245.00	H	-45.17		
Test mode:	**LTE Band 12(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1422.00	Vertical	-47.65	-13.00	Pass
2133.00	V	-46.75		
2844.00	V	-45.92		
3555.00	V	-45.58		
4266.00	V	-43.39		
1422.00	Horizontal	-44.63	-13.00	Pass
2133.00	H	-44.59		
2844.00	H	-46.17		
3555.00	H	-45.05		
4266.00	H	-44.30		

Test mode:	LTE Band 13(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-47.66	-13.00	Pass
2338.50	V	-46.51		
3118.00	V	-45.34		
3897.50	V	-45.54		
4677.00	V	-43.78		
1559.00	Horizontal	-44.41	-13.00	Pass
2338.50	H	-44.42		
3118.00	H	-46.82		
3897.50	H	-45.18		
4677.00	H	-44.44		
Test mode:	**LTE Band 13(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1564.00	Vertical	-46.17	-13.00	Pass
2346.00	V	-45.05		
3128.00	V	-44.30		
3910.00	V	-45.77		
4692.00	V	-46.22		
1564.00	Horizontal	-43.45	-13.00	Pass
2346.00	H	-45.05		
3128.00	H	-44.63		
3910.00	H	-43.80		
4692.00	H	-45.61		
Test mode:	**LTE Band 13(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-43.84	-13.00	Pass
2353.50	V	-44.43		
3138.00	V	-44.47		
3922.50	V	-46.47		
4707.00	V	-45.17		
1569.00	Horizontal	-44.74	-13.00	Pass
2353.50	H	-45.96		
3138.00	H	-46.55		
3922.50	H	-43.38		
4707.00	H	-45.75		

Test mode:	LTE Band 13(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1564.00	Vertical	-44.42	-13.00	Pass
2346.00	V	-46.82		
3128.00	V	-45.18		
3910.00	V	-44.44		
4692.00	V	-45.32		
1564.00	Horizontal	-46.15	-13.00	Pass
2346.00	H	-43.85		
3128.00	H	-45.55		
3910.00	H	-44.32		
4692.00	H	-43.90		

16QAM mode:

Test mode:	LTE Band 2(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3705.00	Vertical	-44.78	-13.00	Pass
5557.50	V	-45.13		
7410.00	V	-46.30		
9262.50	V	-43.34		
11115.00	V	-45.16		
3705.00	Horizontal	-44.28	-13.00	Pass
5557.50	H	-43.72		
7410.00	H	-45.56		
9262.50	H	-44.15		
11115.00	H	-43.69		
Test mode:	**LTE Band 2(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-44.59	-13.00	Pass
5640.00	V	-45.86		
7520.00	V	-46.24		
9400.00	V	-43.20		
11280.00	V	-45.59		
3760.00	Horizontal	-44.74	-13.00	Pass
5640.00	H	-43.50		
7520.00	H	-45.64		
9400.00	H	-44.99		
11280.00	H	-43.01		
Test mode:	**LTE Band 2(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3815.00	Vertical	-44.03	-13.00	Pass
5722.50	V	-45.17		
7630.00	V	-46.38		
9537.50	V	-43.39		
11445.00	V	-45.52		
3815.00	Horizontal	-44.97	-13.00	Pass
5722.50	H	-43.03		
7630.00	H	-45.57		
9537.50	H	-44.75		
11445.00	H	-43.01		

Test mode:	LTE Band 2(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3810.00	Vertical	-45.13	-13.00	Pass
5715.00	V	-47.57		
7620.00	V	-46.22		
9525.00	V	-45.11		
11430.00	V	-45.27		
3810.00	Horizontal	-43.39	-13.00	Pass
5715.00	H	-44.89		
7620.00	H	-44.92		
9525.00	H	-46.12		
11430.00	H	-45.01		
Test mode:	**LTE Band 2(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-44.09	-13.00	Pass
5640.00	V	-45.02		
7520.00	V	-46.39		
9400.00	V	-43.74		
11280.00	V	-45.42		
3760.00	Horizontal	-44.16	-13.00	Pass
5640.00	H	-43.88		
7520.00	H	-45.59		
9400.00	H	-44.02		
11280.00	H	-43.64		
Test mode:	**LTE Band 2(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3710.00	Vertical	-44.34	-13.00	Pass
5565.00	V	-45.32		
7420.00	V	-46.31		
9275.00	V	-43.94		
11130.00	V	-45.83		
3710.00	Horizontal	-44.65	-13.00	Pass
5565.00	H	-43.84		
7420.00	H	-45.21		
9275.00	H	-44.67		
11130.00	H	-43.99		

Test mode:	LTE Band 2(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3805.00	Vertical	-44.98	-13.00	Pass
5707.50	V	-45.94		
7610.00	V	-46.11		
9512.50	V	-43.72		
11415.00	V	-45.87		
3805.00	Horizontal	-44.65	-13.00	Pass
5707.50	H	-43.02		
7610.00	H	-45.65		
9512.50	H	-44.68		
11415.00	H	-43.29		
Test mode:	**LTE Band 2(15MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-44.89	-13.00	Pass
5640.00	V	-45.76		
7520.00	V	-46.95		
9400.00	V	-43.75		
11280.00	V	-45.11		
3760.00	Horizontal	-44.43	-13.00	Pass
5640.00	H	-43.22		
7520.00	H	-45.86		
9400.00	H	-44.22		
11280.00	H	-43.25		
Test mode:	**LTE Band 2(15MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3715.00	Vertical	-45.74	-13.00	Pass
5572.50	V	-47.98		
7430.00	V	-46.95		
9287.50	V	-45.04		
11145.00	V	-45.09		
3715.00	Horizontal	-43.14	-13.00	Pass
5572.50	H	-44.50		
7430.00	H	-44.22		
9287.50	H	-46.31		
11145.00	H	-45.24		

Test mode:	LTE Band 2(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3800.00	Vertical	-45.75	-13.00	Pass
5700.00	V	-47.52		
7600.00	V	-46.95		
9500.00	V	-45.40		
11400.00	V	-45.10		
3800.00	Horizontal	-43.83	-13.00	Pass
5700.00	H	-44.51		
7600.00	H	-44.92		
9500.00	H	-46.63		
11400.00	H	-45.33		
Test mode:	**LTE Band 2(20MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3760.00	Vertical	-45.41	-13.00	Pass
5640.00	V	-47.55		
7520.00	V	-46.37		
9400.00	V	-45.31		
11280.00	V	-45.08		
3760.00	Horizontal	-43.50	-13.00	Pass
5640.00	H	-44.01		
7520.00	H	-44.39		
9400.00	H	-46.70		
11280.00	H	-45.15		
Test mode:	**LTE Band 2(20MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3720.00	Vertical	-45.02	-13.00	Pass
5580.00	V	-47.14		
7440.00	V	-46.03		
9300.00	V	-45.46		
11160.00	V	-45.39		
3720.00	Horizontal	-43.30	-13.00	Pass
5580.00	H	-44.60		
7440.00	H	-44.80		
9300.00	H	-46.62		
11160.00	H	-45.89		

Test mode:	LTE Band 4(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3425.00	Vertical	-44.67	-13.00	Pass
5137.50	V	-45.79		
6850.00	V	-46.55		
8562.50	V	-43.40		
10275.00	V	-45.77		
3425.00	Horizontal	-44.06	-13.00	Pass
5137.50	H	-43.89		
6850.00	H	-45.44		
8562.50	H	-44.05		
10275.00	H	-43.27		
Test mode:	**LTE Band 4(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.66	-13.00	Pass
5197.50	V	-47.82		
6930.00	V	-46.22		
8662.50	V	-45.39		
10395.00	V	-45.37		
3465.00	Horizontal	-43.48	-13.00	Pass
5197.50	H	-44.81		
6930.00	H	-44.41		
8662.50	H	-46.22		
10395.00	H	-45.78		
Test mode:	**LTE Band 4(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3505.00	Vertical	-45.65	-13.00	Pass
5257.50	V	-47.56		
7010.00	V	-46.05		
8762.50	V	-45.87		
10515.00	V	-45.67		
3505.00	Horizontal	-43.65	-13.00	Pass
5257.50	H	-44.16		
7010.00	H	-44.73		
8762.50	H	-46.54		
10515.00	H	-45.24		

Test mode:	LTE Band 4(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3430.00	Vertical	-45.43	-13.00	Pass
5145.00	V	-47.50		
6860.00	V	-46.97		
8575.00	V	-45.46		
10290.00	V	-45.63		
3430.00	Horizontal	-43.26	-13.00	Pass
5145.00	H	-44.26		
6860.00	H	-44.70		
8575.00	H	-46.79		
10290.00	H	-45.14		
Test mode:	**LTE Band 4(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.49	-13.00	Pass
5197.50	V	-47.81		
6930.00	V	-46.59		
8662.50	V	-45.71		
10395.00	V	-45.97		
3465.00	Horizontal	-43.16	-13.00	Pass
5197.50	H	-44.43		
6930.00	H	-44.41		
8662.50	H	-46.04		
10395.00	H	-45.23		
Test mode:	**LTE Band 4(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3500.00	Vertical	-44.89	-13.00	Pass
5250.00	V	-45.51		
7000.00	V	-46.02		
8750.00	V	-43.39		
10500.00	V	-45.97		
3500.00	Horizontal	-44.75	-13.00	Pass
5250.00	H	-43.33		
7000.00	H	-45.95		
8750.00	H	-44.94		
10500.00	H	-43.68		

Test mode:	LTE Band 4(15MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3435.00	Vertical	-44.19	-13.00	Pass
5152.50	V	-45.98		
6870.00	V	-46.29		
8587.50	V	-43.57		
10305.00	V	-45.39		
3435.00	Horizontal	-44.52	-13.00	Pass
5152.50	H	-43.63		
6870.00	H	-45.43		
8587.50	H	-44.40		
10305.00	H	-43.24		
Test mode:	**LTE Band 4(15MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-44.51	-13.00	Pass
5197.50	V	-45.54		
6930.00	V	-46.48		
8662.50	V	-43.09		
10395.00	V	-45.65		
3465.00	Horizontal	-44.81	-13.00	Pass
5197.50	H	-43.84		
6930.00	H	-45.02		
8662.50	H	-44.18		
10395.00	H	-43.33		
Test mode:	**LTE Band 4(15MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3495.00	Vertical	-44.68	-13.00	Pass
5242.50	V	-45.07		
6990.00	V	-46.77		
8737.50	V	-43.75		
10485.00	V	-45.29		
3495.00	Horizontal	-44.43	-13.00	Pass
5242.50	H	-43.67		
6990.00	H	-45.37		
8737.50	H	-44.83		
10485.00	H	-43.82		

Test mode:	LTE Band 4(20MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3440.00	Vertical	-45.79	-13.00	Pass
5160.00	V	-47.97		
6880.00	V	-46.03		
8600.00	V	-44.80		
10320.00	V	-43.27		
3440.00	Horizontal	-44.65	-13.00	Pass
5160.00	H	-45.49		
6880.00	H	-44.22		
8600.00	H	-46.93		
10320.00	H	-43.16		
Test mode:	**LTE Band 4(20MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3465.00	Vertical	-45.92	-13.00	Pass
5197.50	V	-47.56		
6930.00	V	-46.62		
8662.50	V	-44.62		
10395.00	V	-43.83		
3465.00	Horizontal	-44.55	-13.00	Pass
5197.50	H	-45.15		
6930.00	H	-44.01		
8662.50	H	-46.95		
10395.00	H	-43.23		
Test mode:	**LTE Band 4(20MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
3490.00	Vertical	-45.27	-13.00	Pass
5235.00	V	-47.07		
6980.00	V	-46.68		
8725.00	V	-44.28		
10470.00	V	-43.40		
3490.00	Horizontal	-44.62	-13.00	Pass
5235.00	H	-45.68		
6980.00	H	-44.08		
8725.00	H	-46.89		
10470.00	H	-43.51		

Test mode:	LTE Band 5(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1653.00	Vertical	-45.48	-13.00	Pass
2479.50	V	-47.18		
3306.00	V	-46.93		
4132.50	V	-44.31		
4959.00	V	-43.18		
1653.00	Horizontal	-44.47	-13.00	Pass
2479.50	H	-45.22		
3306.00	H	-44.91		
4132.50	H	-46.88		
4959.00	H	-43.22		
Test mode:	**LTE Band 5(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1673.00	Vertical	-44.17	-13.00	Pass
2509.50	V	-45.83		
3346.00	V	-46.84		
4182.50	V	-43.54		
5019.00	V	-45.41		
1673.00	Horizontal	-44.74	-13.00	Pass
2509.50	H	-43.67		
3346.00	H	-45.10		
4182.50	H	-44.37		
5019.00	H	-43.25		
Test mode:	**LTE Band 5(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1693.00	Vertical	-44.24	-13.00	Pass
2539.50	V	-45.79		
3386.00	V	-46.78		
4232.50	V	-43.45		
5079.00	V	-45.15		
1693.00	Horizontal	-44.46	-13.00	Pass
2539.50	H	-43.16		
3386.00	H	-45.77		
4232.50	H	-44.45		
5079.00	H	-43.51		

Test mode:	LTE Band 5(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1658.00	Vertical	-44.15	-13.00	Pass
2487.00	V	-45.96		
3316.00	V	-46.72		
4145.00	V	-43.48		
4974.00	V	-45.31		
1658.00	Horizontal	-44.34	-13.00	Pass
2487.00	H	-43.63		
3316.00	H	-45.01		
4145.00	H	-44.43		
4974.00	H	-43.56		
Test mode:	**LTE Band 5(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1673.00	Vertical	-44.11	-13.00	Pass
2509.50	V	-45.66		
3346.00	V	-46.07		
4182.50	V	-43.23		
5019.00	V	-45.78		
1673.00	Horizontal	-44.36	-13.00	Pass
2509.50	H	-43.34		
3346.00	H	-45.34		
4182.50	H	-44.78		
5019.00	H	-43.19		
Test mode:	**LTE Band 5(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1688.00	Vertical	-45.47	-13.00	Pass
2532.00	V	-47.64		
3376.00	V	-46.51		
4220.00	V	-44.11		
5064.00	V	-43.41		
1688.00	Horizontal	-44.85	-13.00	Pass
2532.00	H	-45.53		
3376.00	H	-44.90		
4220.00	H	-46.35		
5064.00	H	-43.02		

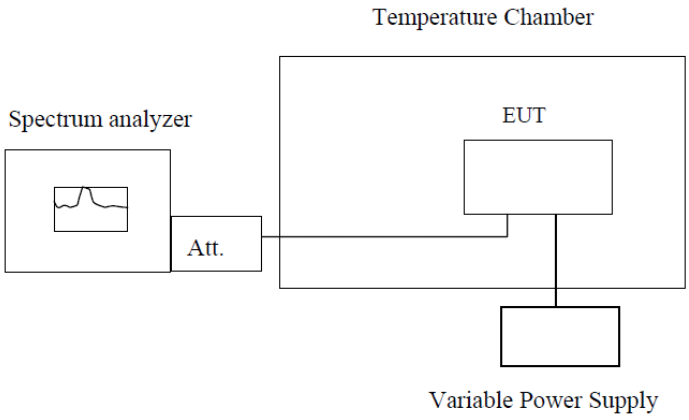
Test mode:	LTE Band 12(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-45.40	-13.00	Pass
2338.50	V	-47.92		
3118.00	V	-46.78		
3897.50	V	-44.36		
4677.00	V	-43.80		
1559.00	Horizontal	-44.18	-13.00	Pass
2338.50	H	-45.59		
3118.00	H	-44.57		
3897.50	H	-46.32		
4677.00	H	-43.08		
Test mode:	**LTE Band 12(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1764.00	Vertical	-45.71	-13.00	Pass
2646.00	V	-47.27		
3528.00	V	-46.06		
4410.00	V	-44.14		
5292.00	V	-43.31		
1764.00	Horizontal	-44.65	-13.00	Pass
2646.00	H	-45.58		
3528.00	H	-44.52		
4410.00	H	-47.00		
5292.00	H	-43.47		
Test mode:	**LTE Band 12(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-45.77	-13.00	Pass
2353.50	V	-47.07		
3138.00	V	-46.42		
3922.50	V	-44.74		
4707.00	V	-43.16		
1569.00	Horizontal	-44.31	-13.00	Pass
2353.50	H	-45.54		
3138.00	H	-44.44		
3922.50	H	-46.13		
4707.00	H	-43.93		

Test mode:	LTE Band 12(10MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1408.00	Vertical	-44.17	-13.00	Pass
2112.00	V	-45.37		
2816.00	V	-46.26		
3520.00	V	-43.66		
4224.00	V	-45.73		
1408.00	Horizontal	-44.51	-13.00	Pass
2112.00	H	-43.55		
2816.00	H	-45.92		
3520.00	H	-44.85		
4224.00	H	-43.97		
Test mode:	**LTE Band 12(10MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1415.00	Vertical	-44.71	-13.00	Pass
2122.50	V	-45.13		
2830.00	V	-46.11		
3537.50	V	-43.16		
4245.00	V	-45.98		
1415.00	Horizontal	-44.98	-13.00	Pass
2122.50	H	-43.29		
2830.00	H	-45.30		
3537.50	H	-44.12		
4245.00	H	-43.41		
Test mode:	**LTE Band 12(10MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1422.00	Vertical	-44.72	-13.00	Pass
2133.00	V	-45.52		
2844.00	V	-46.48		
3555.00	V	-43.22		
4266.00	V	-45.14		
1422.00	Horizontal	-44.95	-13.00	Pass
2133.00	H	-43.36		
2844.00	H	-45.09		
3555.00	H	-44.86		
4266.00	H	-43.58		

Test mode:	LTE Band 13(5MHz)		Test channel:	Lowest
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1559.00	Vertical	-45.04	-13.00	Pass
2338.50	V	-47.18		
3118.00	V	-46.22		
3897.50	V	-44.76		
4677.00	V	-43.24		
1559.00	Horizontal	-44.50	-13.00	Pass
2338.50	H	-45.09		
3118.00	H	-44.86		
3897.50	H	-46.59		
4677.00	H	-43.73		
Test mode:	**LTE Band 13(5MHz)**		**Test channel:**	**Middle**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1564.00	Vertical	-45.85	-13.00	Pass
2346.00	V	-47.21		
3128.00	V	-46.81		
3910.00	V	-44.81		
4692.00	V	-43.76		
1564.00	Horizontal	-44.78	-13.00	Pass
2346.00	H	-45.87		
3128.00	H	-44.62		
3910.00	H	-46.71		
4692.00	H	-43.98		
Test mode:	**LTE Band 13(5MHz)**		**Test channel:**	**Highest**
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1569.00	Vertical	-45.46	-13.00	Pass
2353.50	V	-47.66		
3138.00	V	-46.92		
3922.50	V	-44.12		
4707.00	V	-43.17		
1569.00	Horizontal	-44.70	-13.00	Pass
2353.50	H	-45.45		
3138.00	H	-44.38		
3922.50	H	-46.51		
4707.00	H	-43.77		

Test mode:	LTE Band 13(10MHz)		Test channel:	Middle
Frequency (MHz)	Spurious Emission		Limit (dBm)	Result
	Polarization	Level (dBm)		
1564.00	Vertical	-45.02	-13.00	Pass
2346.00	V	-47.93		
3128.00	V	-46.97		
3910.00	V	-44.35		
4692.00	V	-43.02		
1564.00	Horizontal	-44.69	-13.00	Pass
2346.00	H	-45.76		
3128.00	H	-44.88		
3910.00	H	-46.78		
4692.00	H	-43.30		

6.11 Frequency stability V.S. Temperature measurement

Test Requirement for FCC:	FCC Part2.1055(a)(1)(b)
Test Requirement for IC:	RSS-130 Clause 4.3, RSS-132 Cluase 5.3 RSS-133 Clause 6.3, RSS-139 Clause 6.4
Limit:	2.5ppm
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.
Test Instruments:	Refer to section 5.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data

QPSK mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	110	0.1317	2.5	Pass
	-20	125	0.1493		
	-10	105	0.1259		
	0	86	0.1025		
	10	100	0.1201		
	20	86	0.1025		
	30	144	0.1726		
	40	130	0.1551		
	50	125	0.1493		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	38	0.0449	2.5	Pass
	-20	41	0.0494		
	-10	36	0.0427		
	0	32	0.0382		
	10	34	0.0404		
	20	30	0.0359		
	30	51	0.0606		
	40	43	0.0516		
	50	41	0.0494		

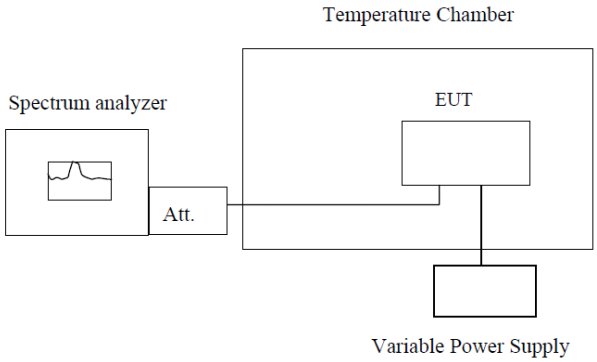
Reference Frequency: LTE Band 5 Middle channel=20525 channel=836.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	151	0.1806	2.5	Pass
	-20	174	0.2085		
	-10	146	0.1748		
	0	127	0.1522		
	10	142	0.1703		
	20	124	0.1485		
	30	209	0.2497		
	40	182	0.2176		
	50	172	0.2061		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	91	0.0486	2.5	Pass
	-20	108	0.0575		
	-10	91	0.0486		
	0	78	0.0412		
	10	91	0.0486		
	20	80	0.0427		
	30	128	0.0678		
	40	111	0.0590		
	50	105	0.0560		
Reference Frequency: LTE Band 13 Middle channel=23230 channel=782MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	92	0.0491	2.5	Pass
	-20	107	0.0568		
	-10	87	0.0461		
	0	72	0.0384		
	10	90	0.0476		
	20	72	0.0384		
	30	121	0.0645		
	40	101	0.0537		
	50	107	0.0568		

16QAM mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	102	0.0542	2.5	Pass
	-20	120	0.0637		
	-10	98	0.0521		
	0	81	0.0431		
	10	99	0.0527		
	20	83	0.0443		
	30	134	0.0714		
	40	113	0.0599		
	50	118	0.0629		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
12.0	-30	168	0.0896	2.5	Pass
	-20	150	0.0800		
	-10	130	0.0693		
	0	122	0.0650		
	10	112	0.0597		
	20	98	0.0522		
	30	122	0.0650		
	40	136	0.0725		
	50	130	0.0693		

Reference Frequency: LTE Band 5 Middle channel=20525 channel=836.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	50	0.0594	2.5	Pass
	-20	70	0.0841		
	-10	80	0.0953		
	0	36	0.0436		
	10	55	0.0661		
	20	61	0.0728		
	30	91	0.1088		
	40	85	0.1020		
	50	102	0.1223		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	179	0.1035	2.5	Pass
	-20	162	0.0936		
	-10	133	0.0766		
	0	116	0.0667		
	10	96	0.0554		
	20	113	0.0653		
	30	145	0.0837		
	40	155	0.0893		
	50	191	0.1105		
Reference Frequency: LTE Band 13 Middle channel=23230 channel=782MHz					
Power supplied (Vdc)	Temperature (°C)	Frequency error			Result
		Hz	ppm		
12.0	-30	65	0.0780	2.5	Pass
	-20	93	0.1106		
	-10	105	0.1254		
	0	48	0.0573		
	10	73	0.0869		
	20	80	0.0958		
	30	120	0.1432		
	40	112	0.1343		
	50	135	0.1609		

6.12 Frequency stability V.S. Voltage measurement

Test Requirement for FCC:	FCC Part2.1055(d)(1)(2)
Test Requirement for IC:	RSS-130 Clause 4.3, RSS-132 Cluase 5.3 RSS-133 Clause 6.3, RSS-139 Clause 6.4
Limit:	2.5ppm
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 5.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data

QPSK mode:

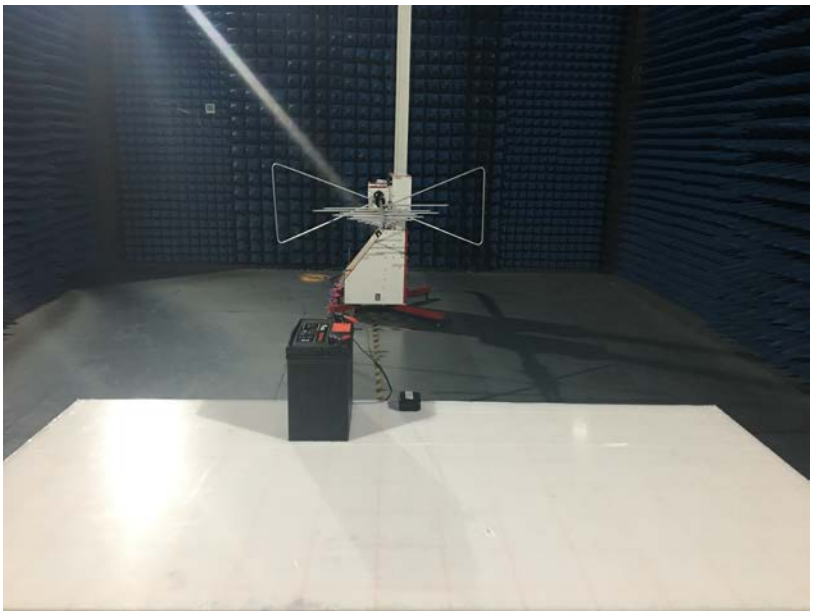
Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	55	0.0656	2.5	Pass
	12.0	64	0.0759		
	9.0	72	0.0863		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	116	0.1392	2.5	Pass
	12.0	84	0.1003		
	9.0	95	0.1133		
Reference Frequency: LTE Band 5 Middle channel=20525 channel=836.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	112	0.1343	2.5	Pass
	12.0	128	0.1533		
	9.0	144	0.1719		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	67	0.0358	2.5	Pass
	12.0	82	0.0438		
	9.0	82	0.0438		
Reference Frequency: LTE Band 13 Middle channel=23230 channel=782MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	187	0.0994	2.5	Pass
	12.0	138	0.0734		
	9.0	148	0.0786		

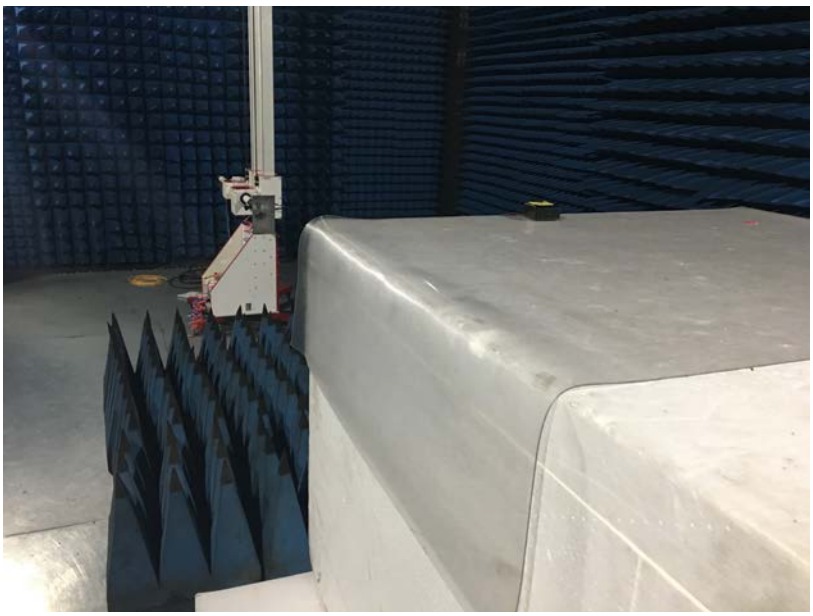
16QAM mode:

Reference Frequency: LTE Band 2 Middle channel=18900 channel=1880MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	110	0.0583	2.5	Pass
	12.0	126	0.0669		
	9.0	126	0.0672		
Reference Frequency: LTE Band 4 Middle channel=20175 channel=1732.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	131	0.0699	2.5	Pass
	12.0	151	0.0802		
	9.0	152	0.0807		
Reference Frequency: LTE Band 5 Middle channel=20525 channel=836.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	101	0.1210	2.5	Pass
	12.0	115	0.1377		
	9.0	129	0.1540		
Reference Frequency: LTE Band 12 Middle channel=23095 channel=707.5MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	95	0.0507	2.5	Pass
	12.0	116	0.0616		
	9.0	116	0.0616		
Reference Frequency: LTE Band 13 Middle channel=23230 channel=782MHz					
Temperature (°C)	Power supplied (Vdc)	Frequency error		Limit (ppm)	Result
		Hz	ppm		
25	15.0	138	0.0736	2.5	Pass
	12.0	103	0.0547		
	9.0	110	0.0585		

7 Test Setup Photo

Radiated Emission





8 EUT Constructional Details

Reference to the test report No. : GTS201811000009-01

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