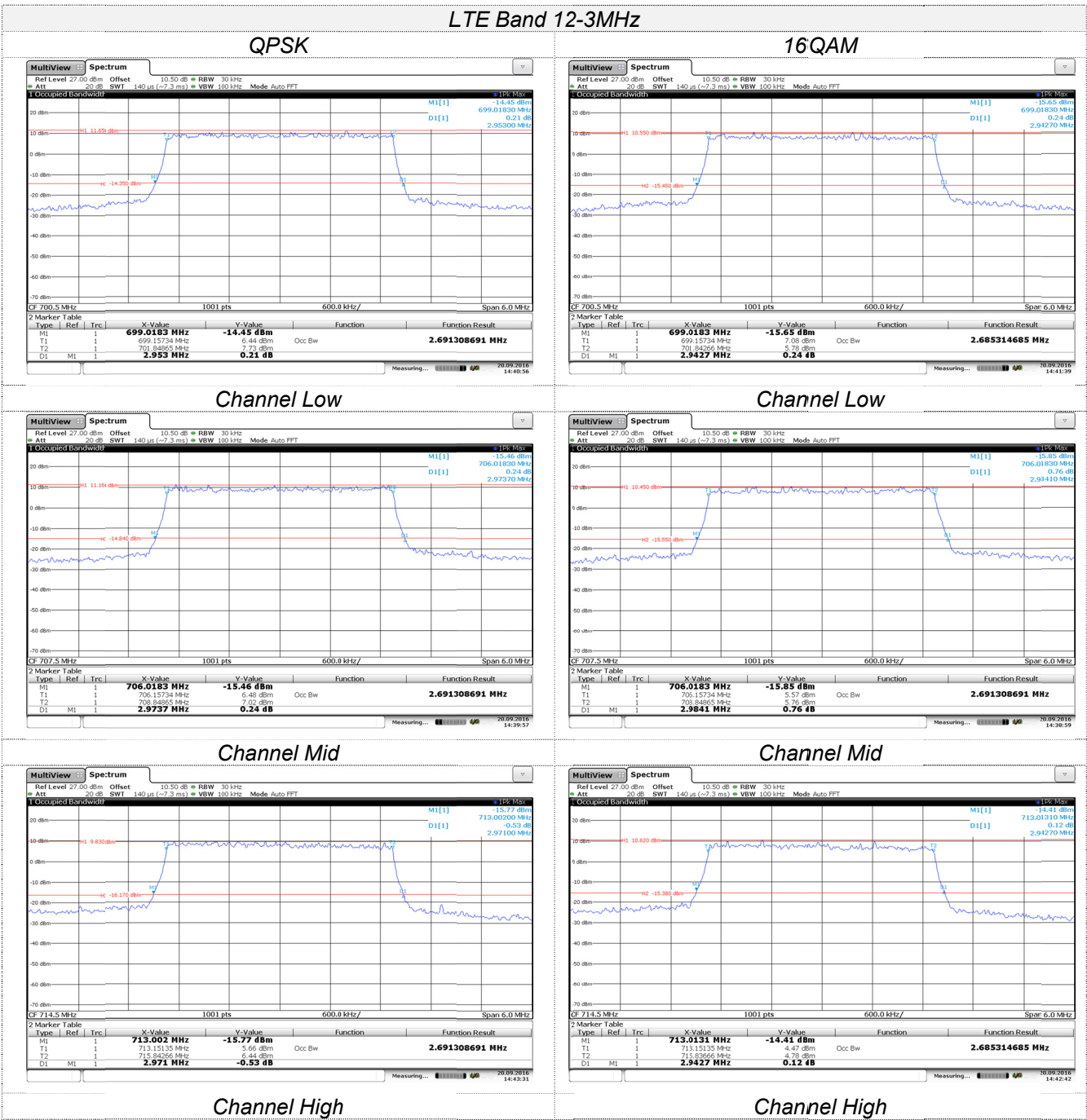
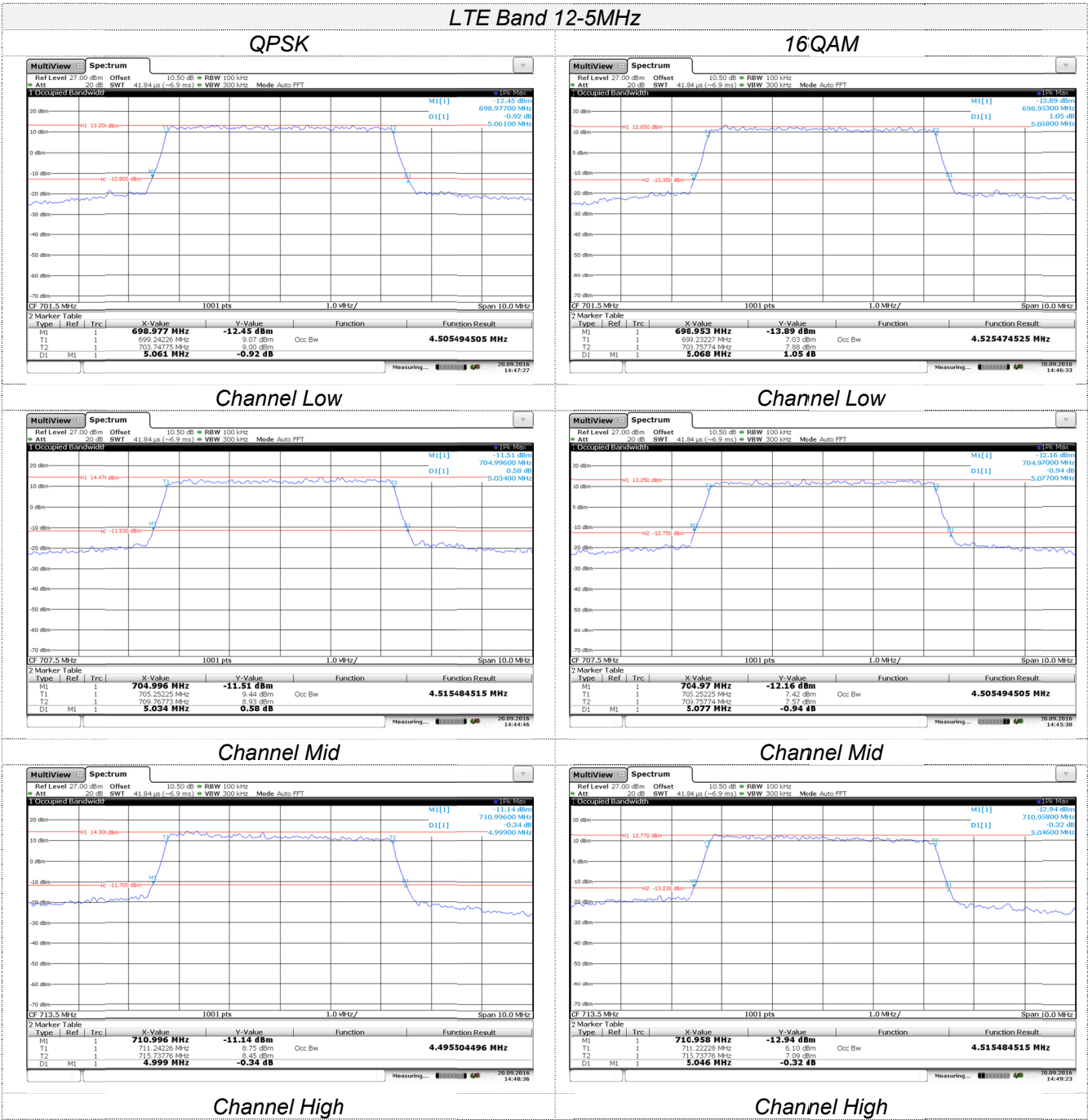
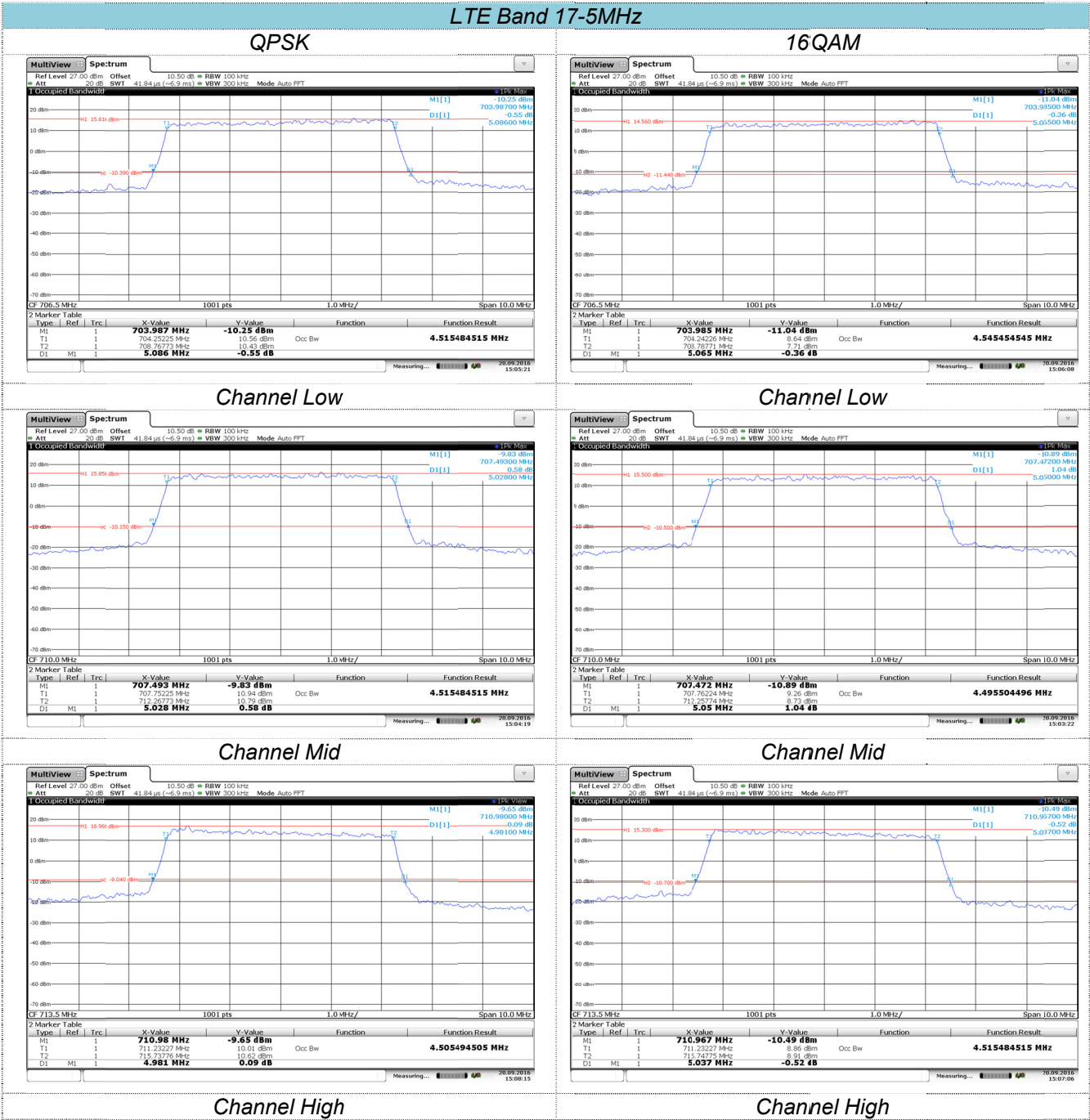
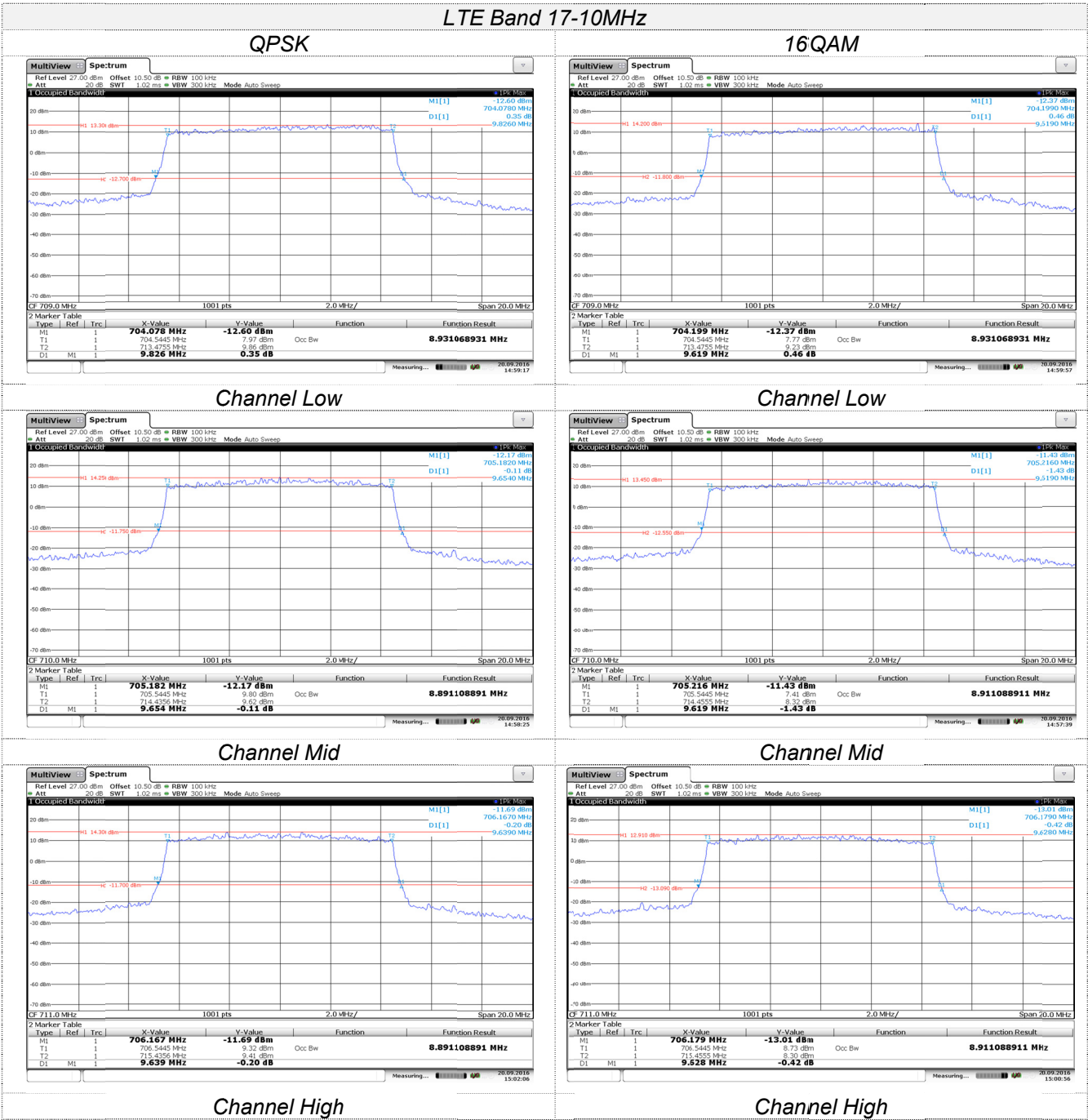






Channel High





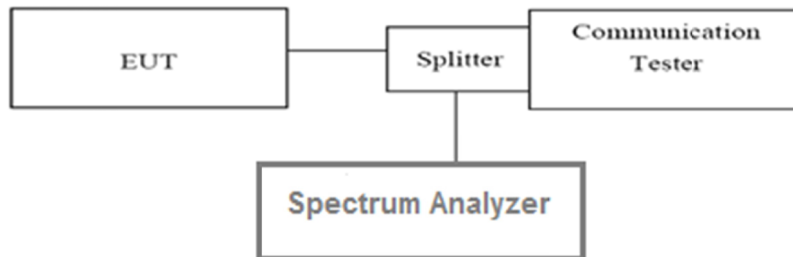
4.3. Out of band emission at antenna terminals

LIMIT

Part 24.238 and Part 22.917 specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

The specification that emissions shall be attenuated below the transmitter power (P) by at least $43 + 10 \log(P)$ dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

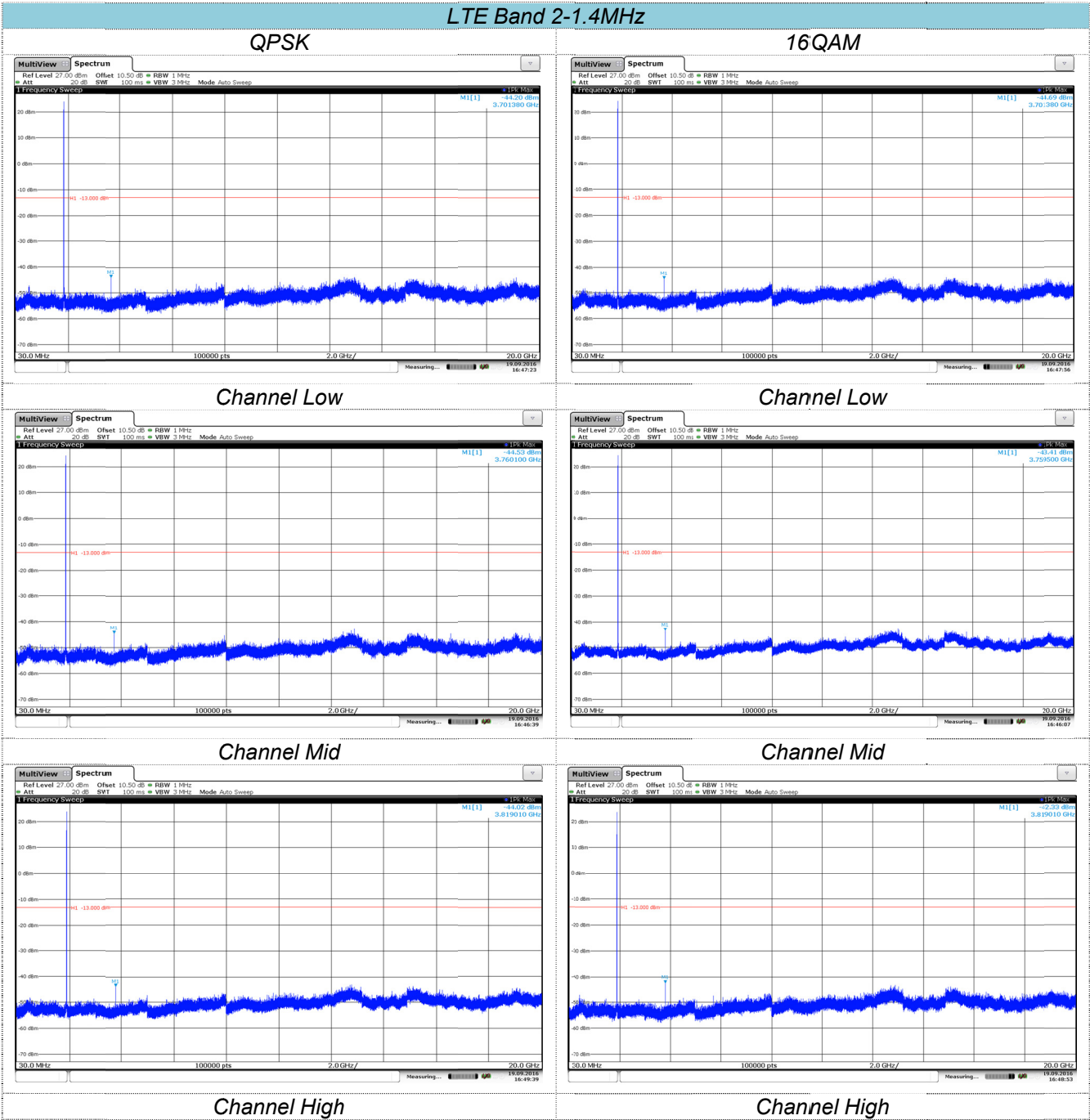
TEST CONFIGURATION

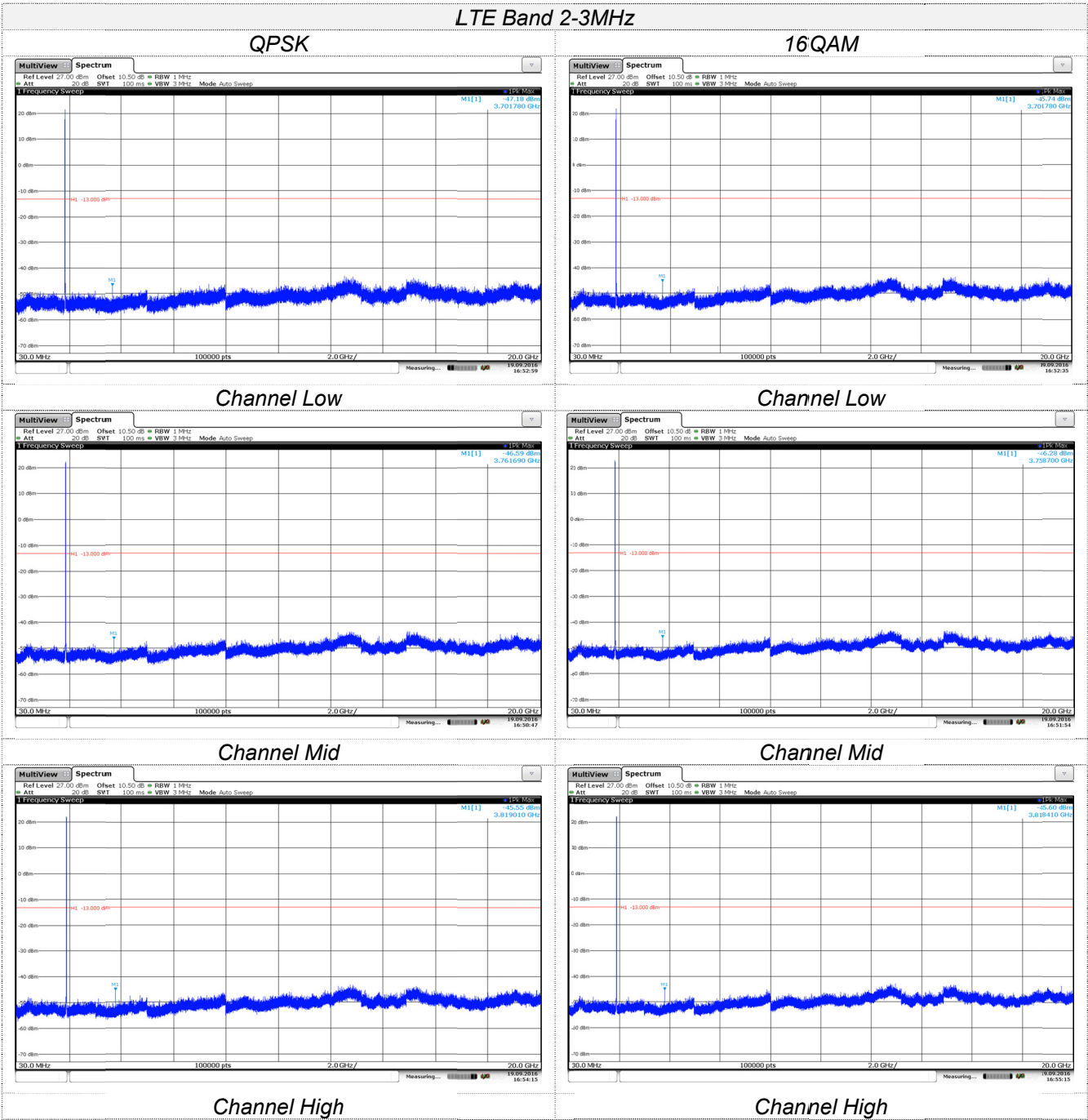


TEST PROCEDURE

1. The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
2. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.
3. For the out of band: Set the RBW= 1MHz, VBW = 3MHz, Start=30MHz, Stop= 10th harmonic.

TEST RESULTS





Channel Low

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -46.59 dBm 3.761690 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:52:47

Measuring...

Channel Low

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -46.29 dBm 3.758700 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:52:54

Measuring...

Channel Mid

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -45.55 dBm 3.819010 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:53:15

Measuring...

Channel Mid

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -45.60 dBm 3.818410 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:53:15

Measuring...

Channel High

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -45.55 dBm 3.819010 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:53:15

Measuring...

Channel High

MultView

Spectrum

Ref Level 27.00 dBm Offset 10.50 dB RBW 1 MHz

Att 20 dB SWT 100 ms VBW 3 kHz Mode Auto Sweep

Frequency Sweep

M1(1) -45.60 dBm 3.818410 GHz

10 dBm

0 dBm

-10 dBm

-20 dBm

-30 dBm

-40 dBm

-50 dBm

-60 dBm

-70 dBm

30.0 MHz

100000 pts

2.0 GHz/

20.0 GHz

16:53:15

Measuring...