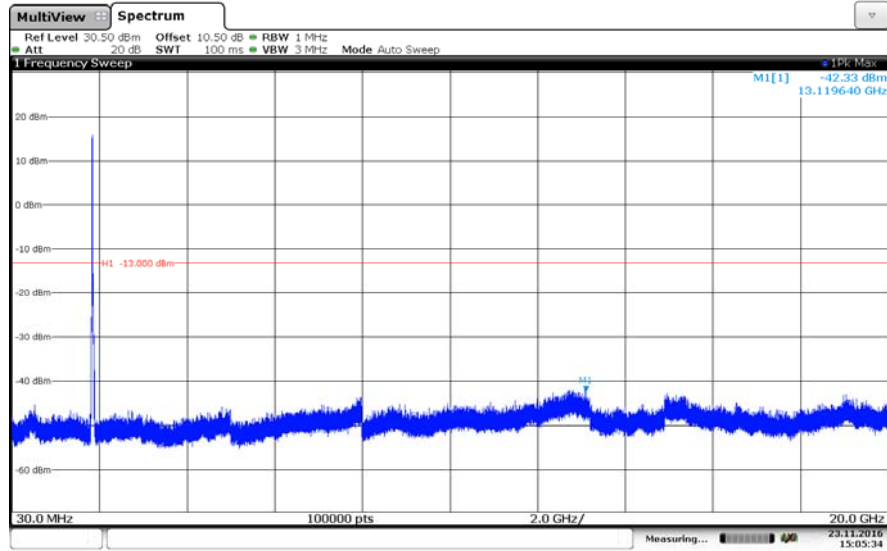
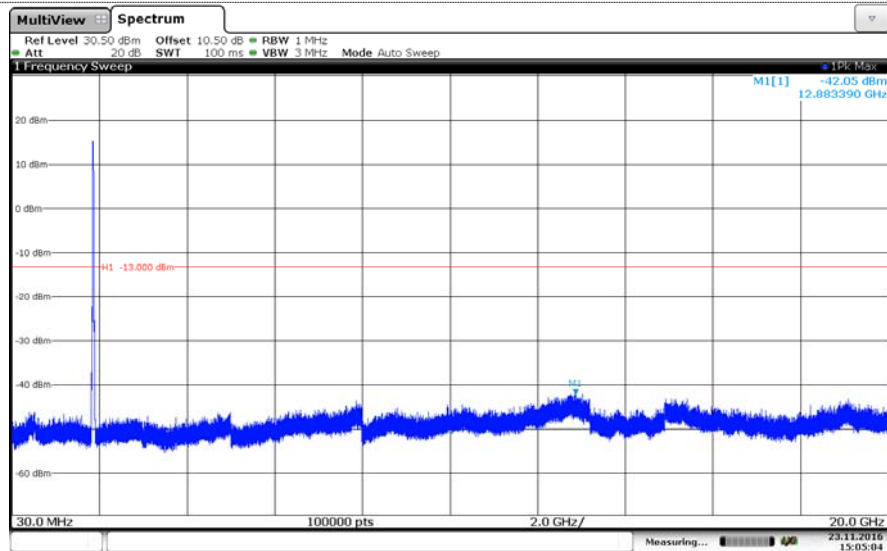


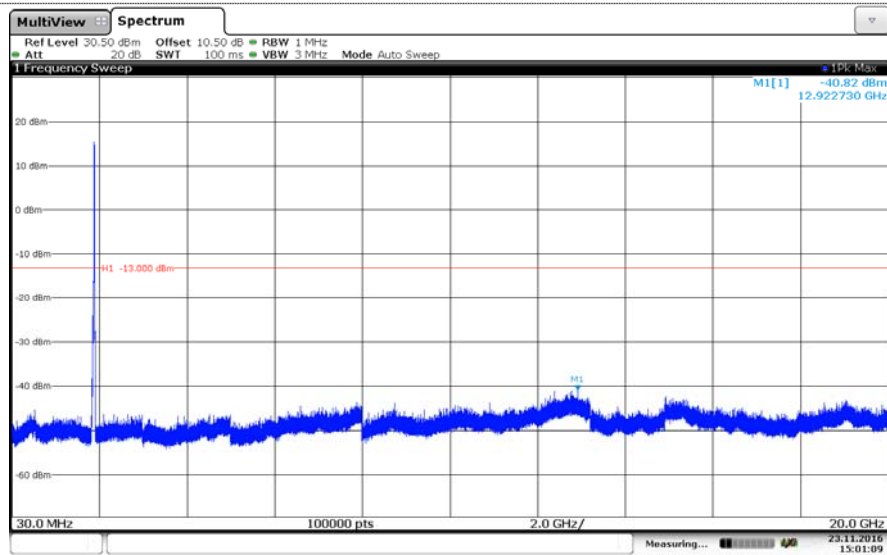
LTE Band 2-20MHz  
16QAM



Channel Low

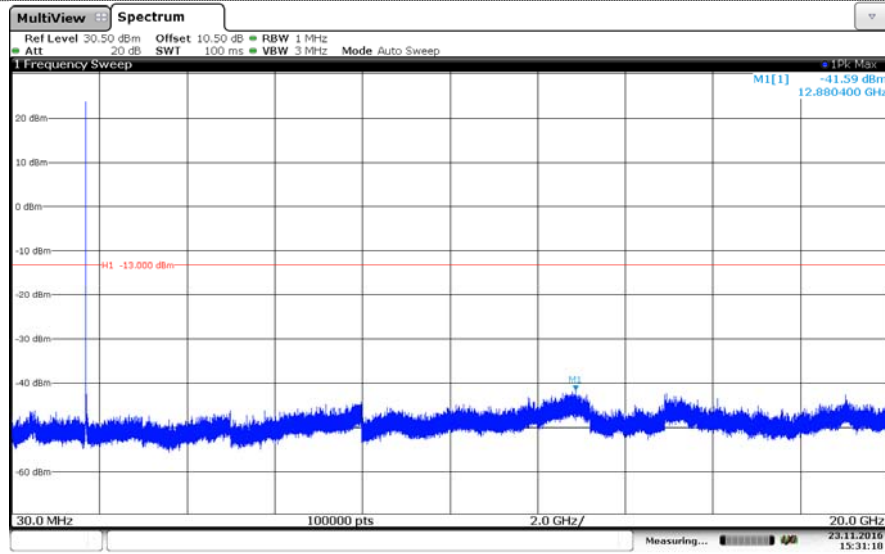


Channel Mid

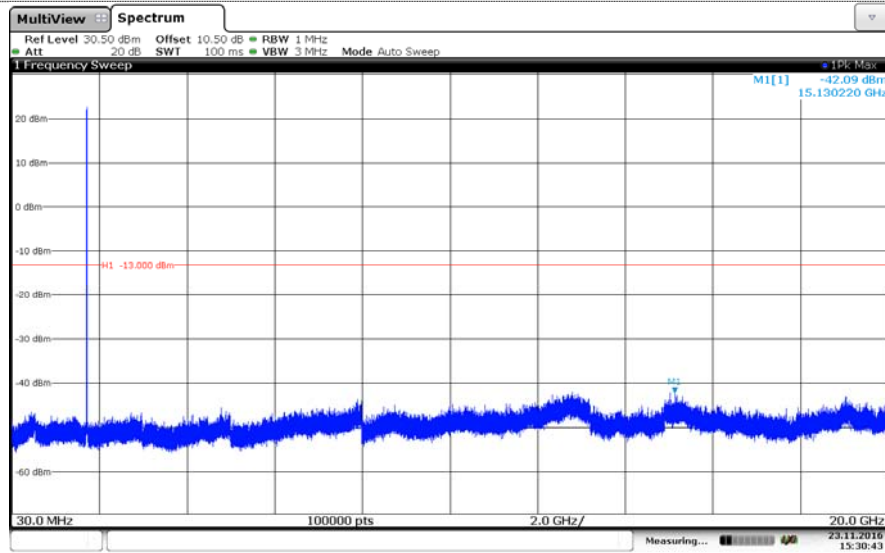


Channel High

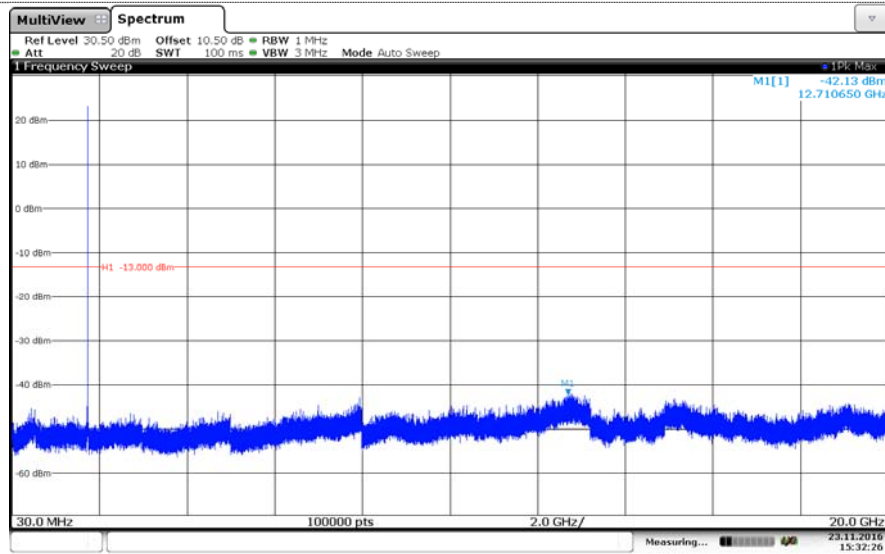
LTE Band 4-1.4MHz  
QPSK



Channel Low

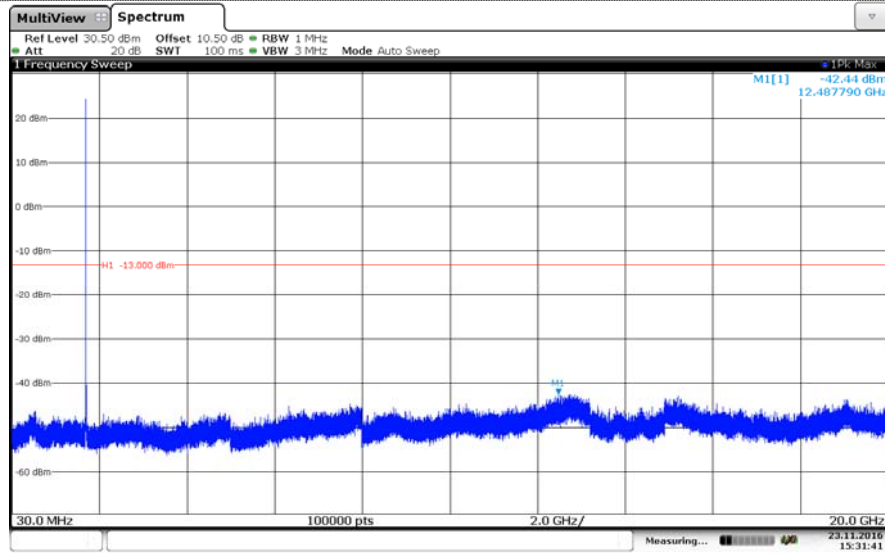


Channel Mid

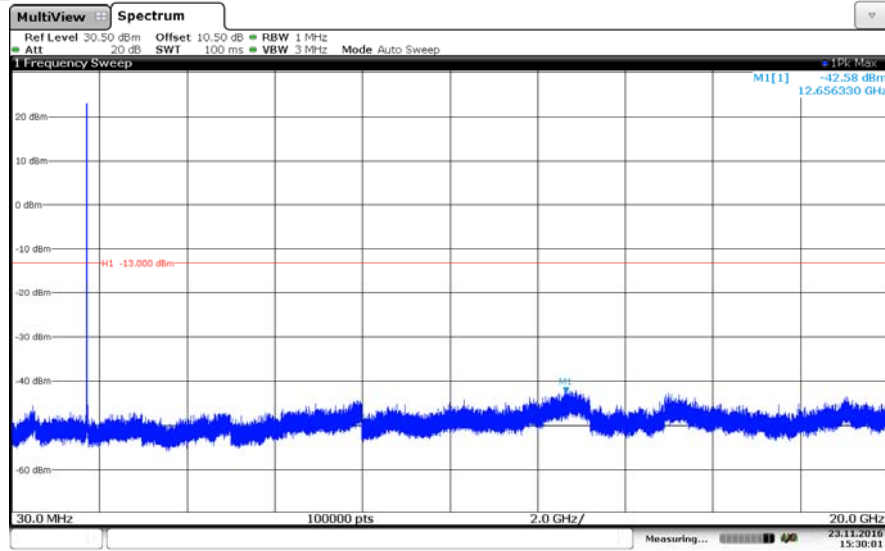


Channel High

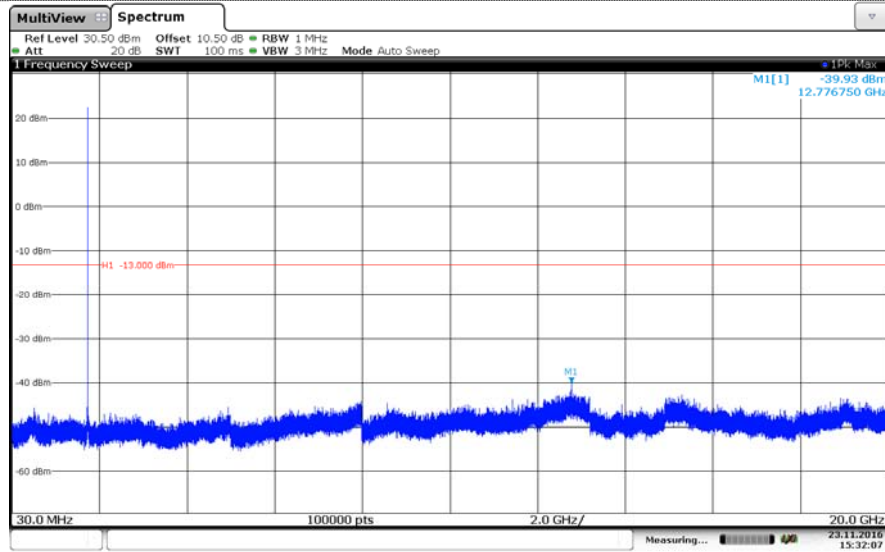
LTE Band 4-1.4MHz  
16QAM



Channel Low

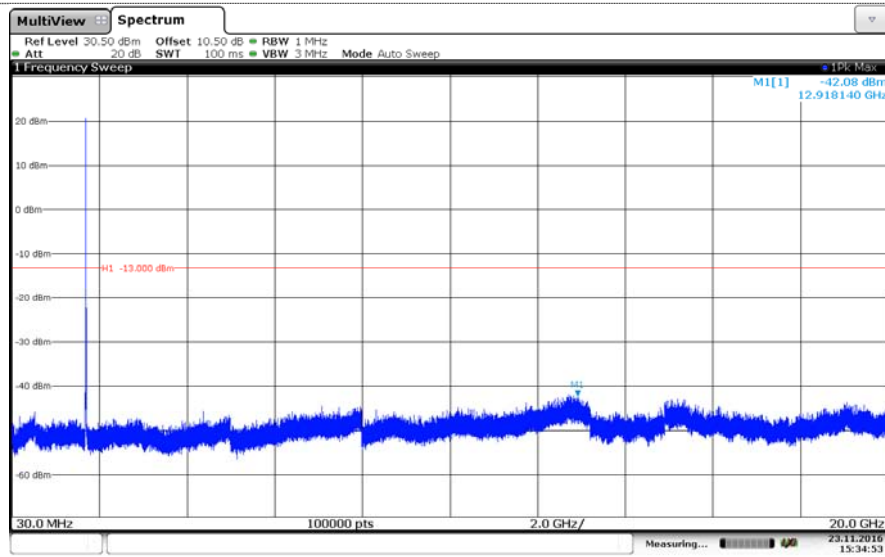


Channel Mid

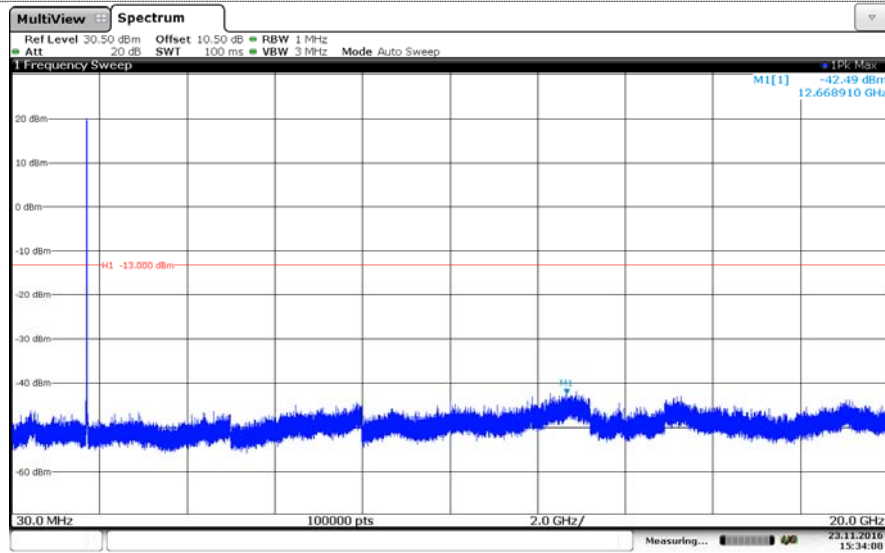


Channel High

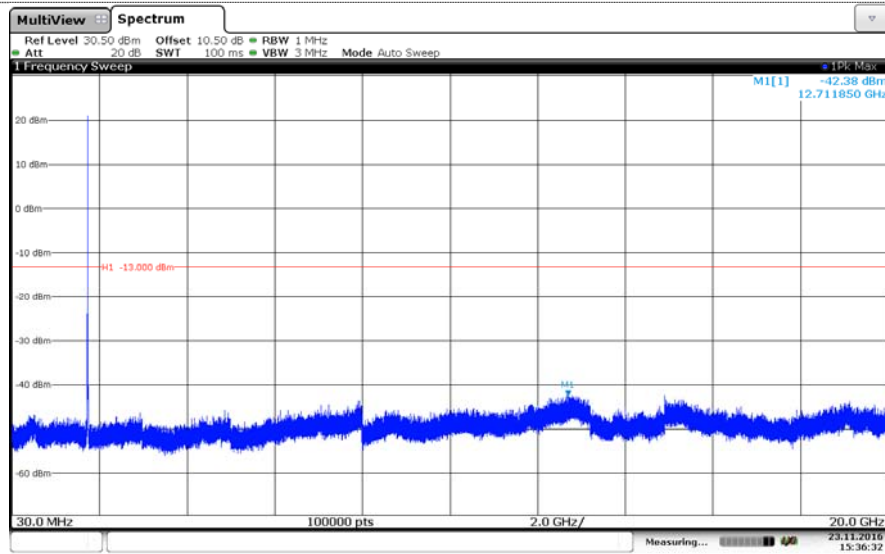
LTE Band 4-3MHz  
QPSK



Channel Low

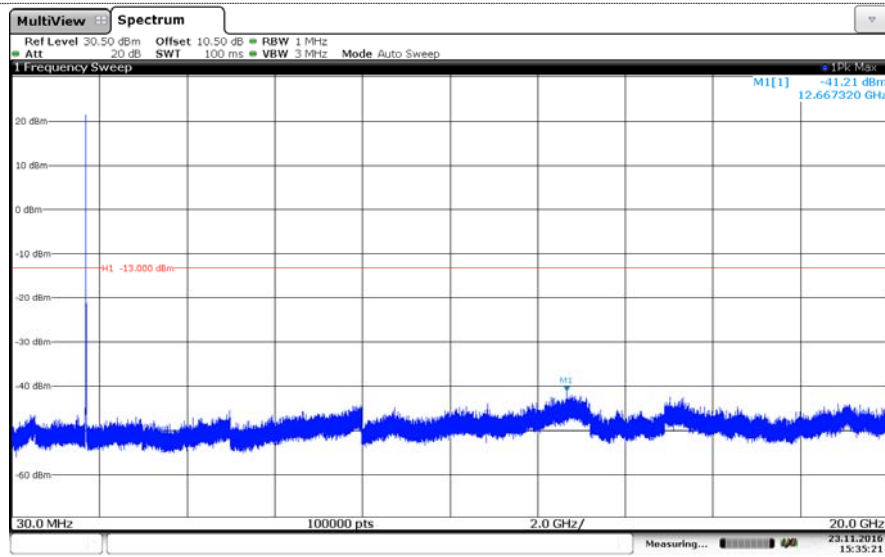


Channel Mid

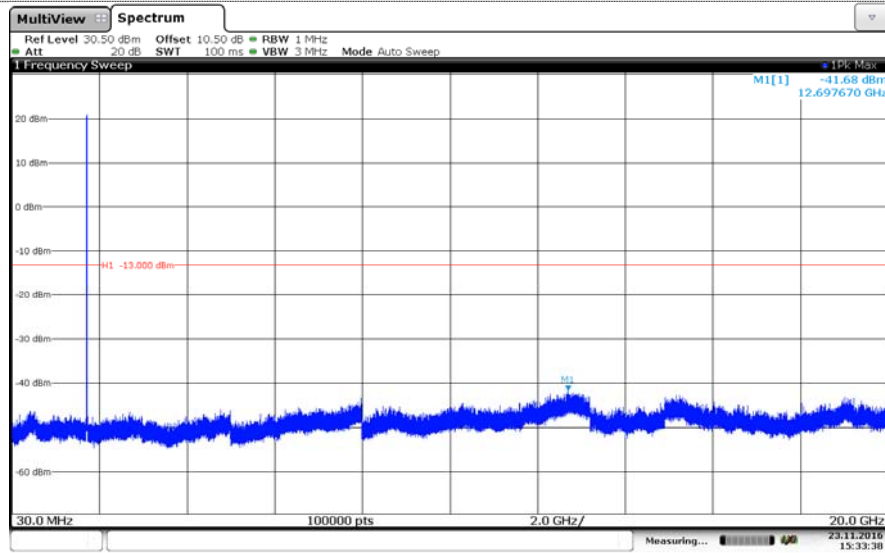


Channel High

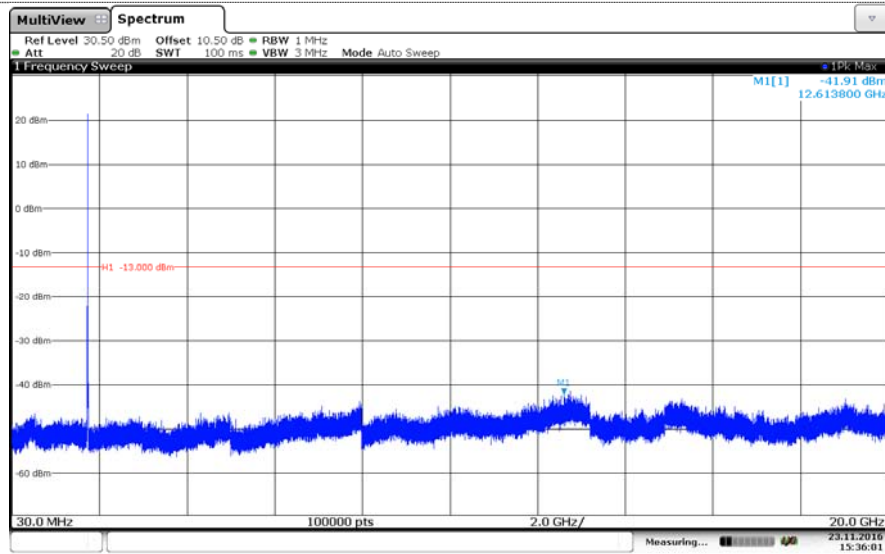
LTE Band 4-3MHz  
16QAM



Channel Low

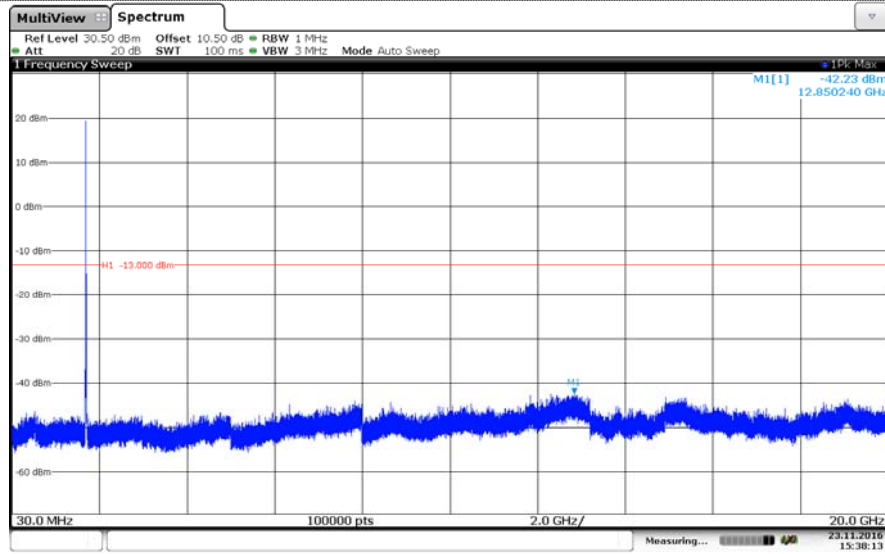


Channel Mid

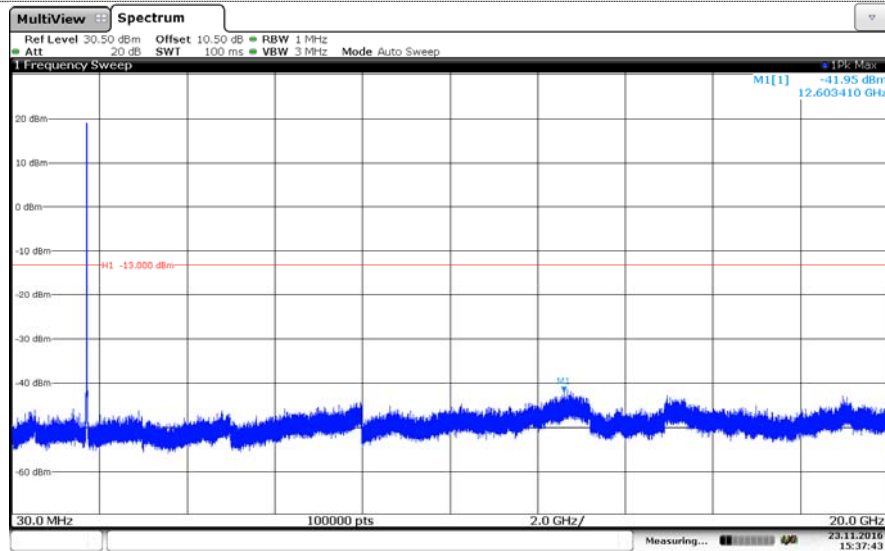


Channel High

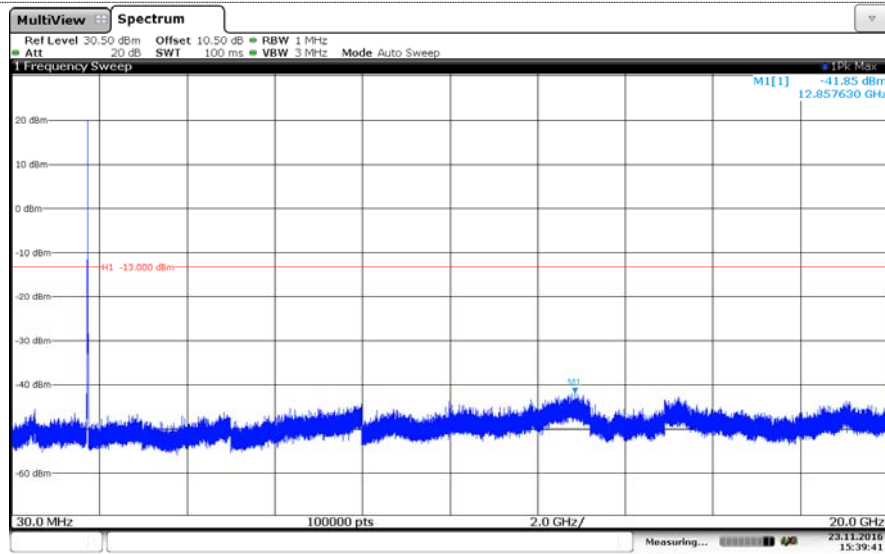
LTE Band 4-5MHz  
QPSK



Channel Low

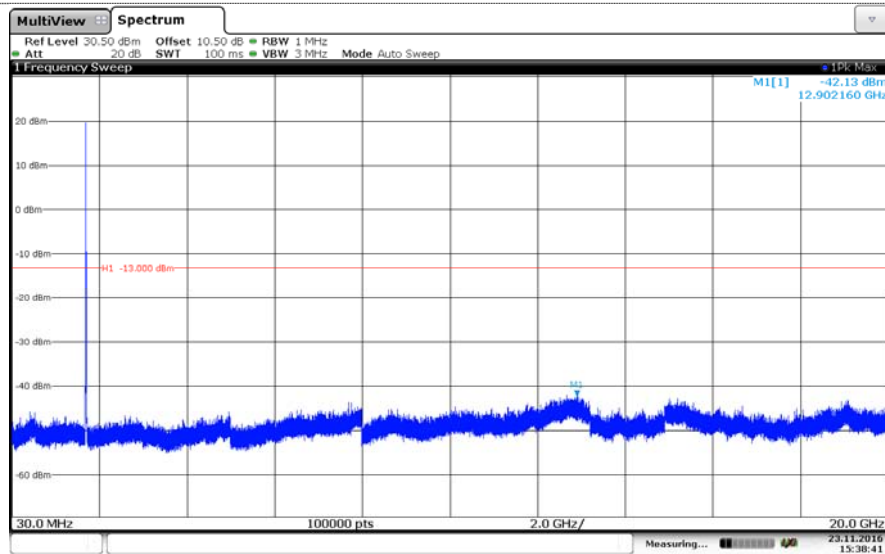


Channel Mid

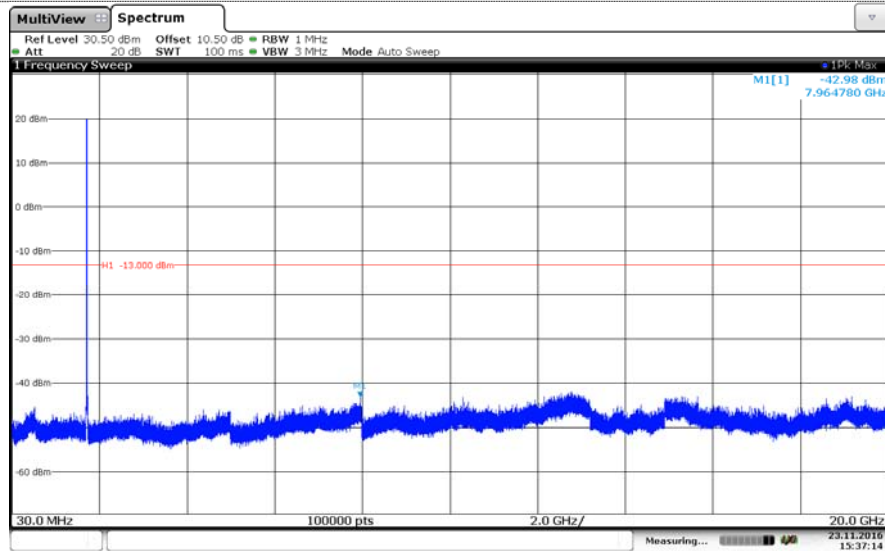


Channel High

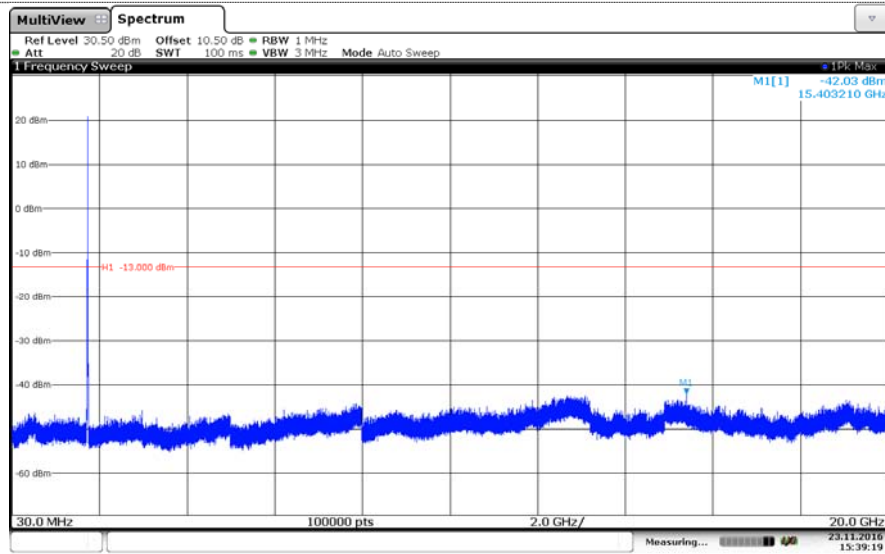
LTE Band 4-5MHz  
16QAM



Channel Low



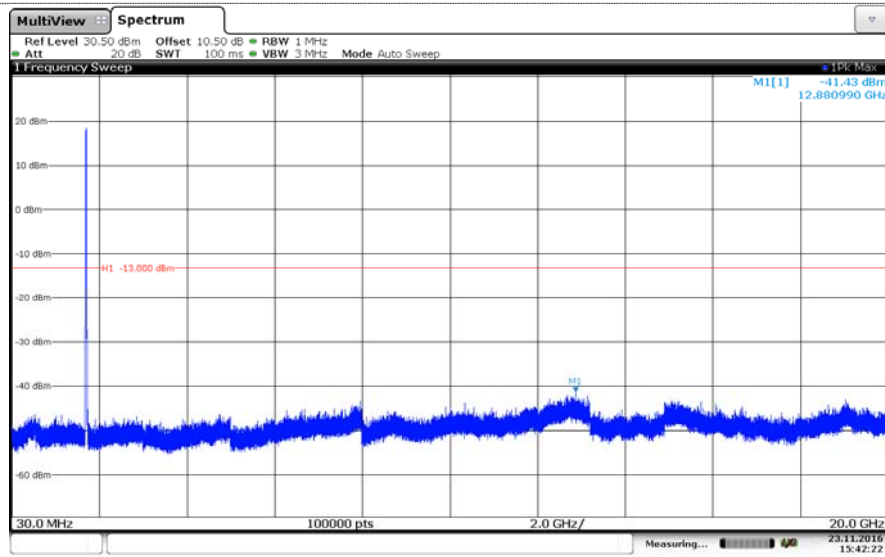
Channel Mid



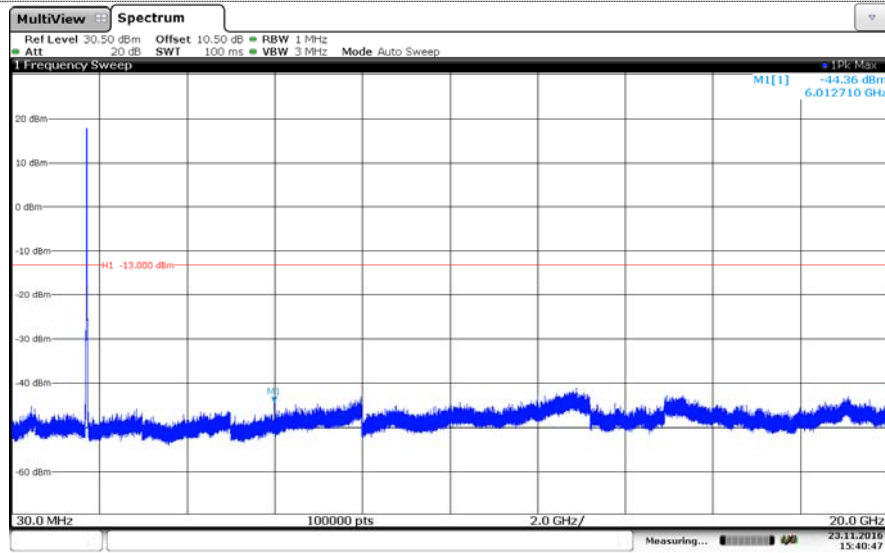
Channel High



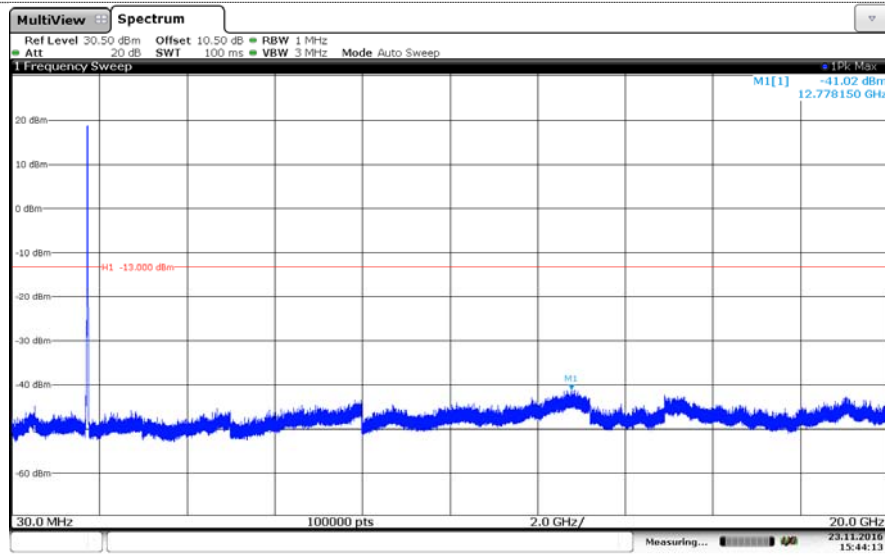
LTE Band 4-10MHz  
QPSK



Channel Low



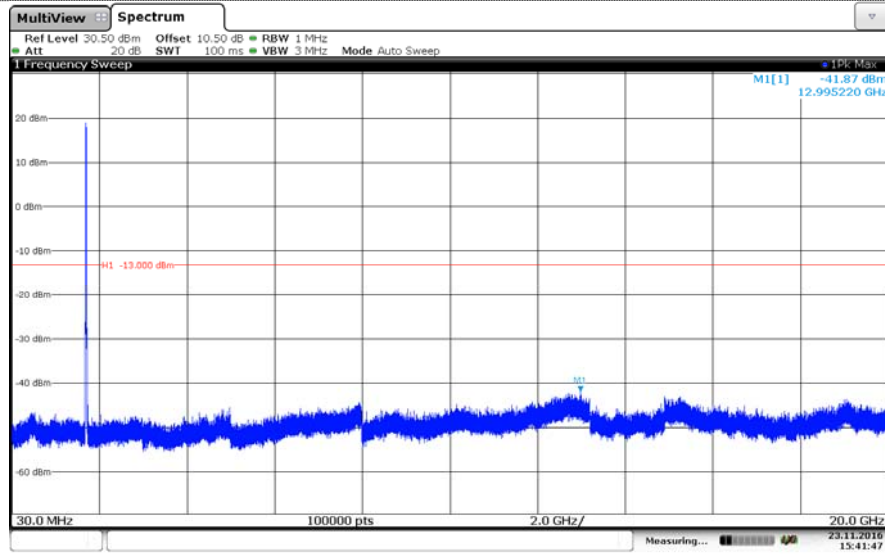
Channel Mid



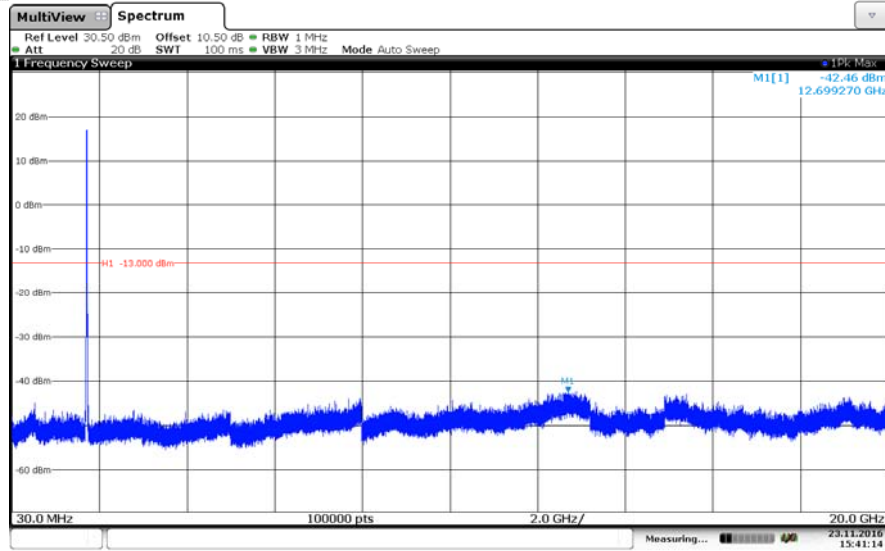
Channel High



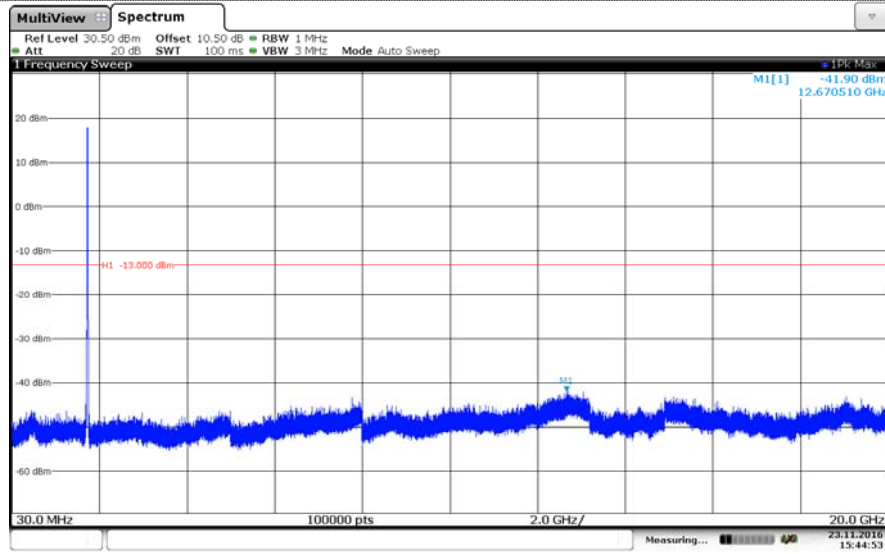
LTE Band 4-10MHz  
16QAM



Channel Low

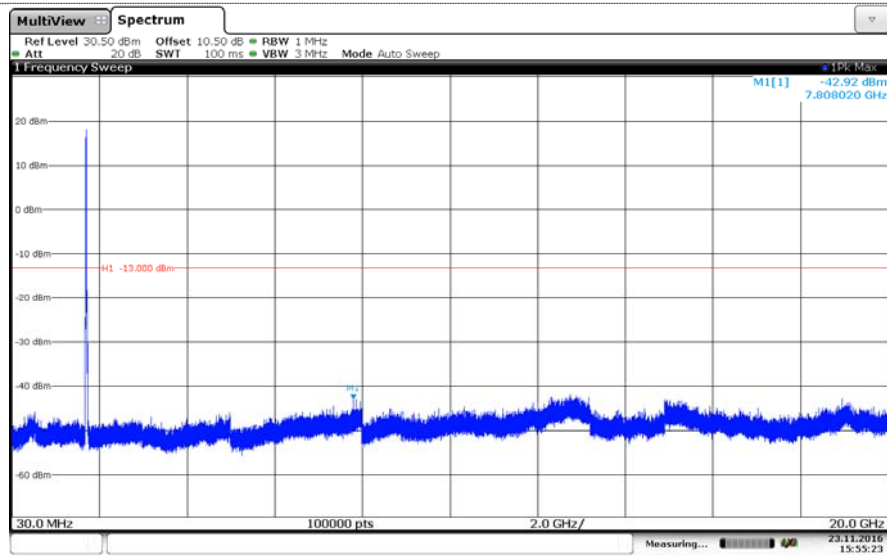


Channel Mid

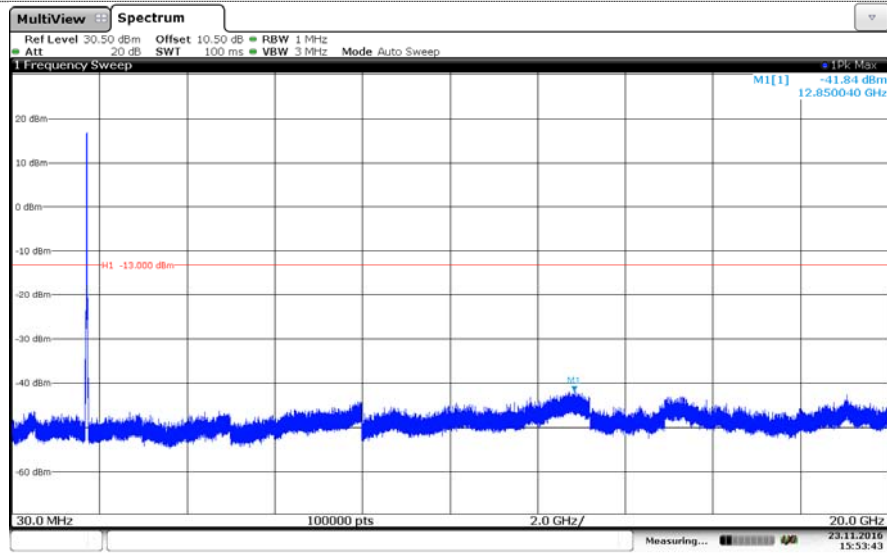


Channel High

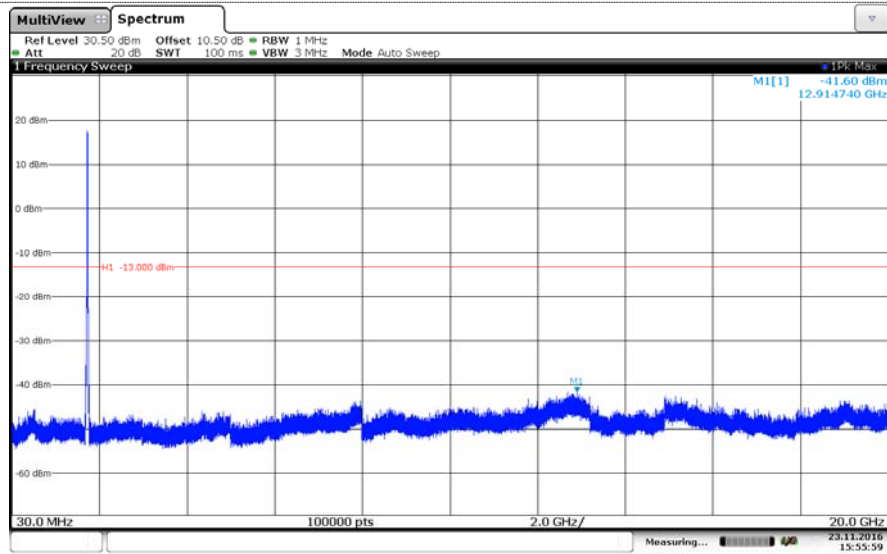
LTE Band 4-15MHz  
QPSK



Channel Low

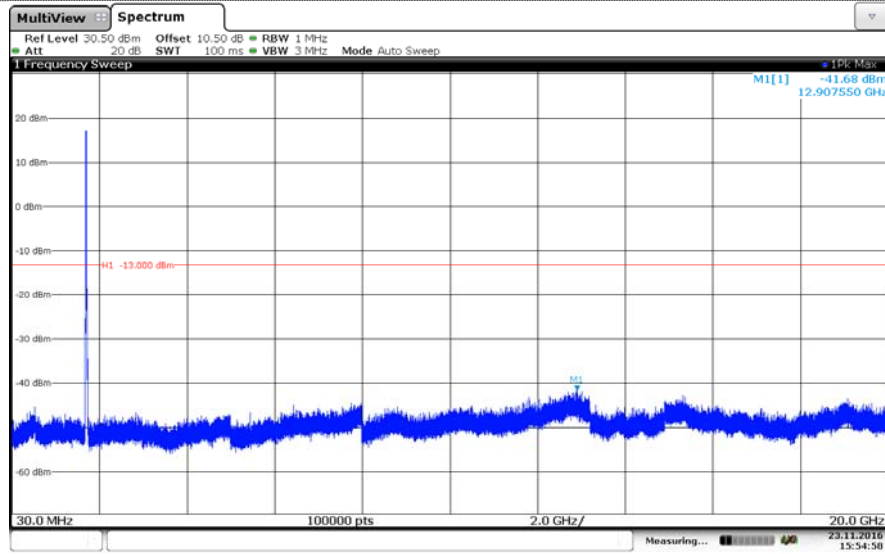


Channel Mid

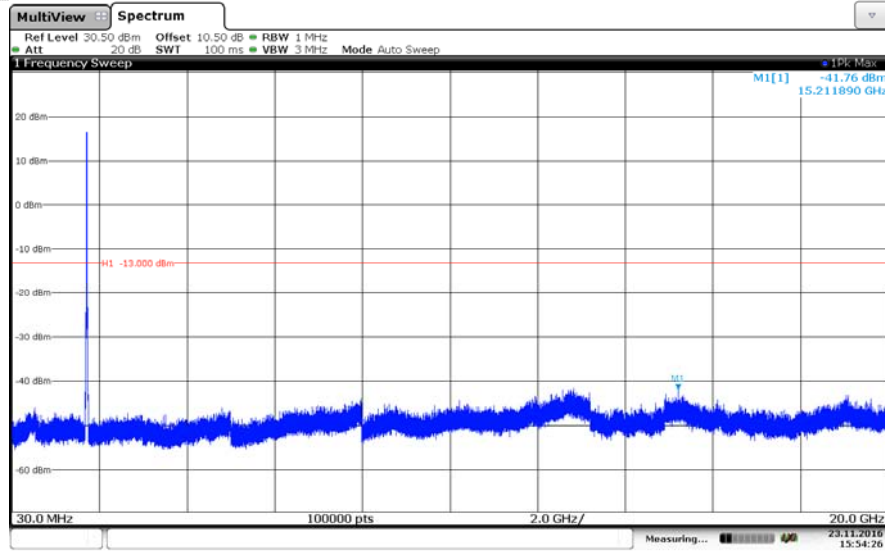


Channel High

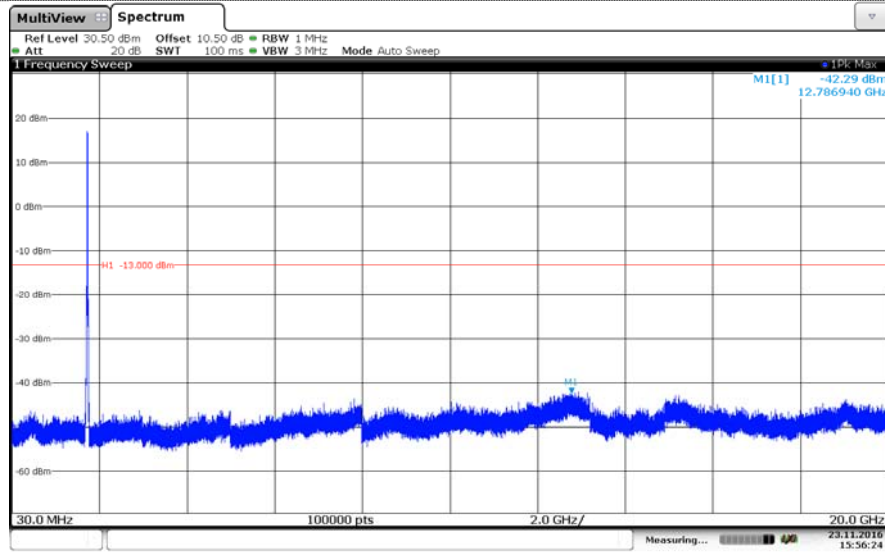
LTE Band 4-15MHz  
16QAM



Channel Low

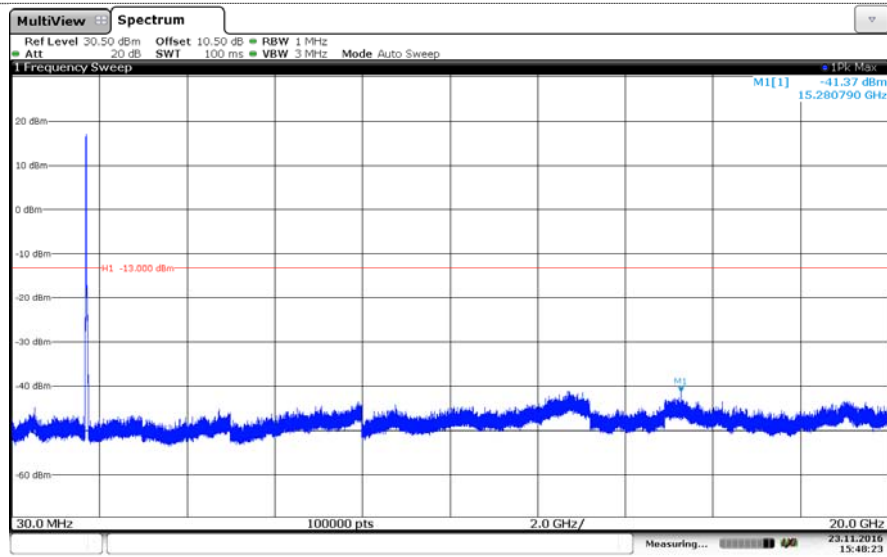


Channel Mid

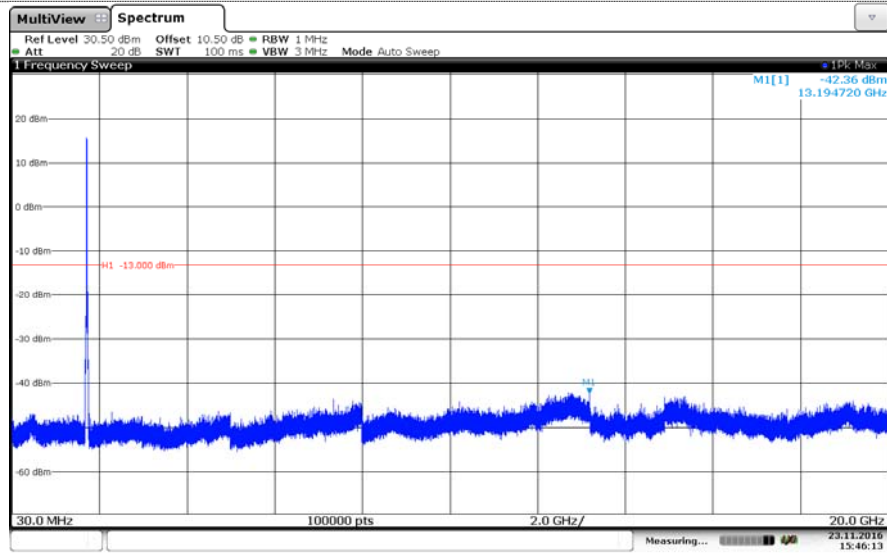


Channel High

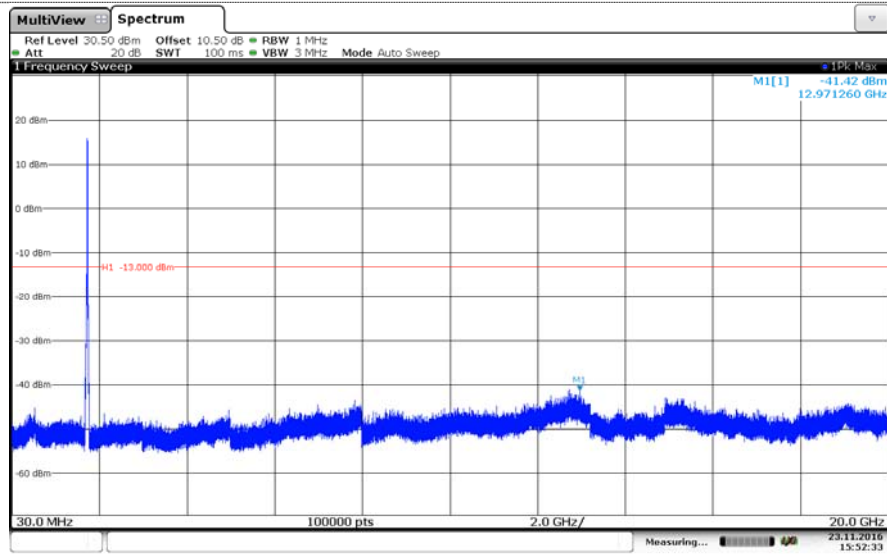
LTE Band 4-20MHz  
QPSK



Channel Low

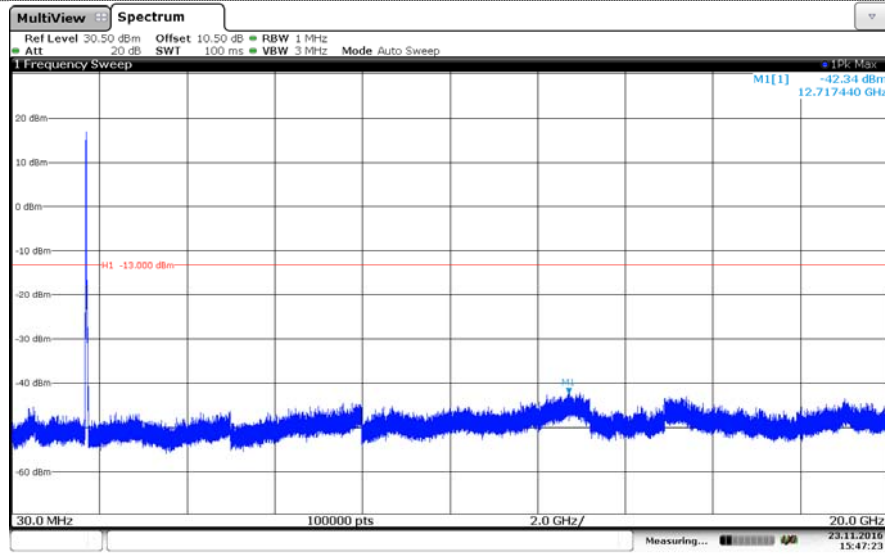


Channel Mid

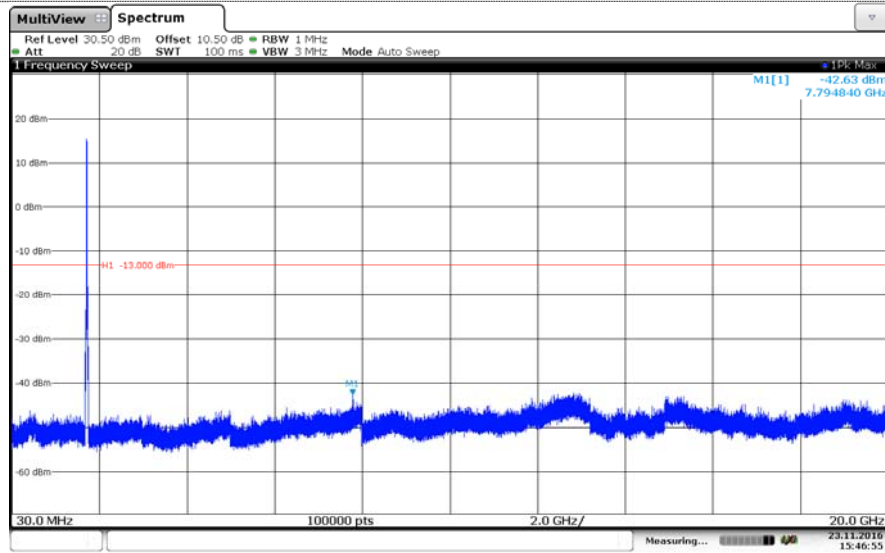


Channel High

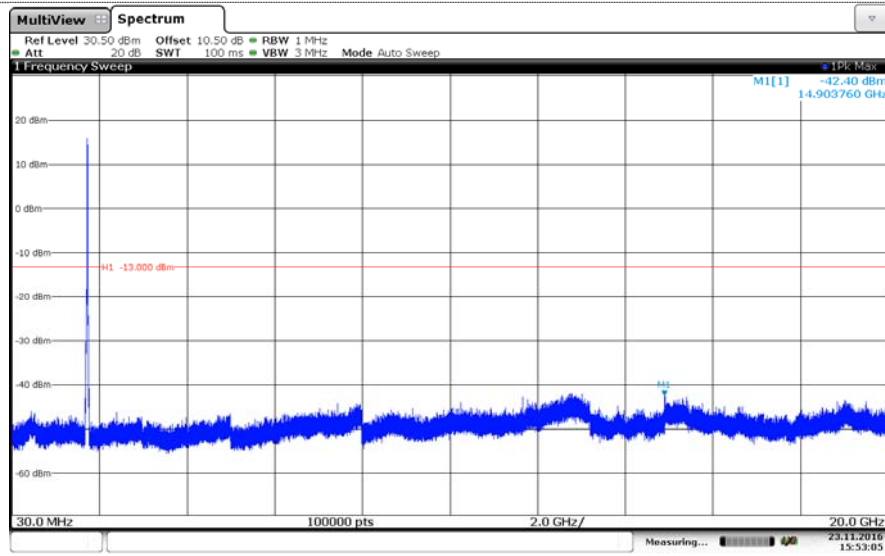
LTE Band 4-20MHz  
16QAM



Channel Low

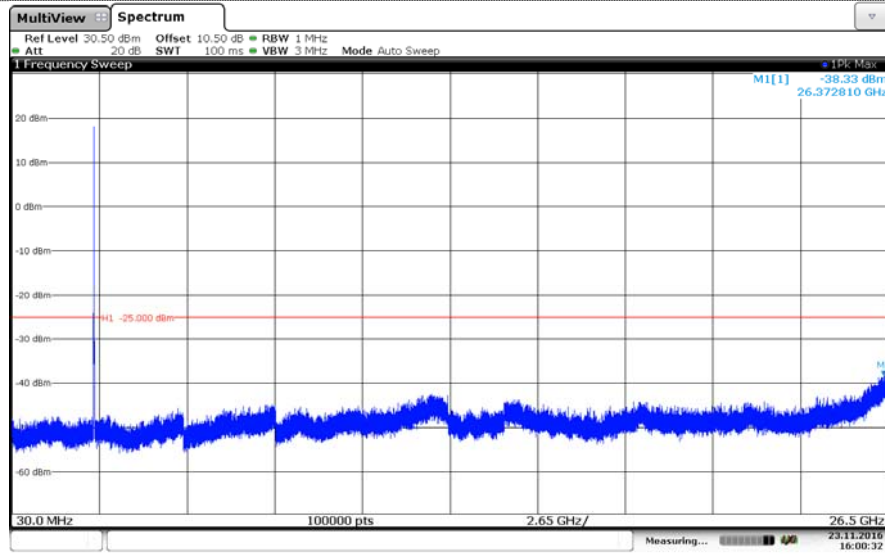


Channel Mid

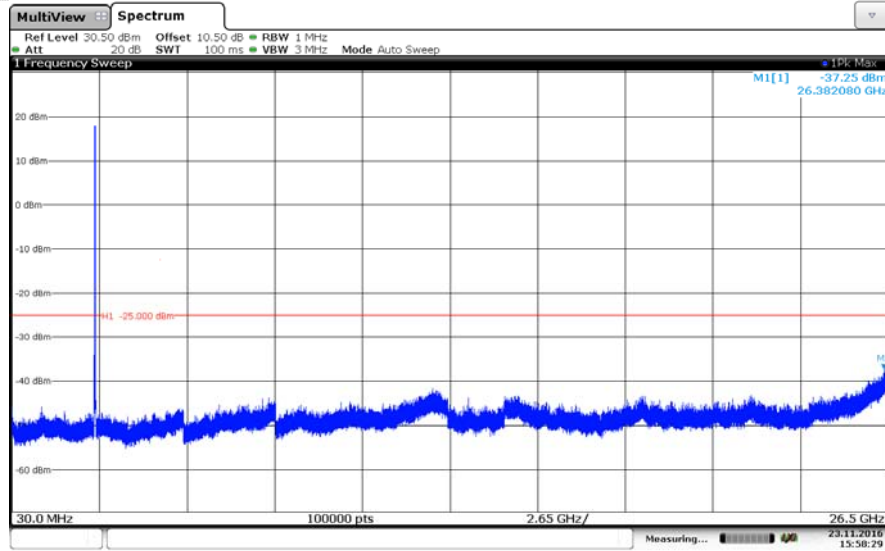


Channel High

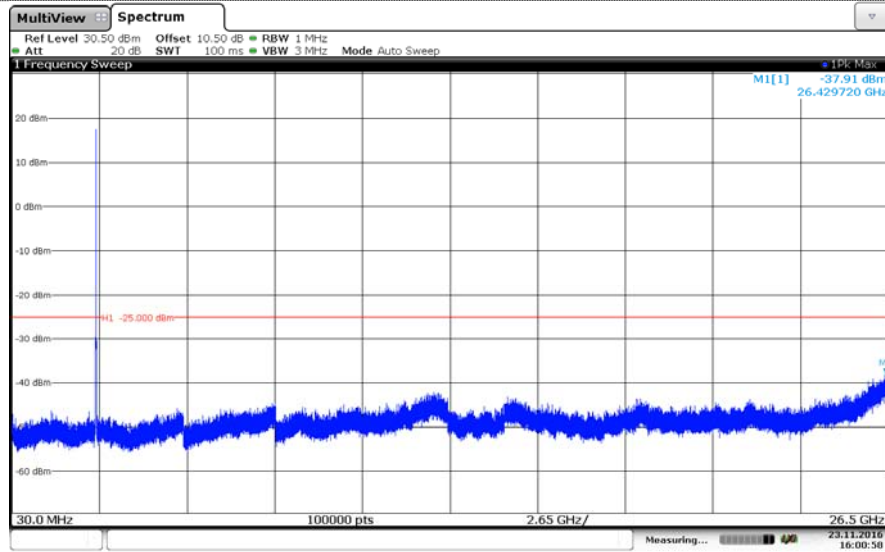
LTE Band 7-5MHz  
QPSK



Channel Low



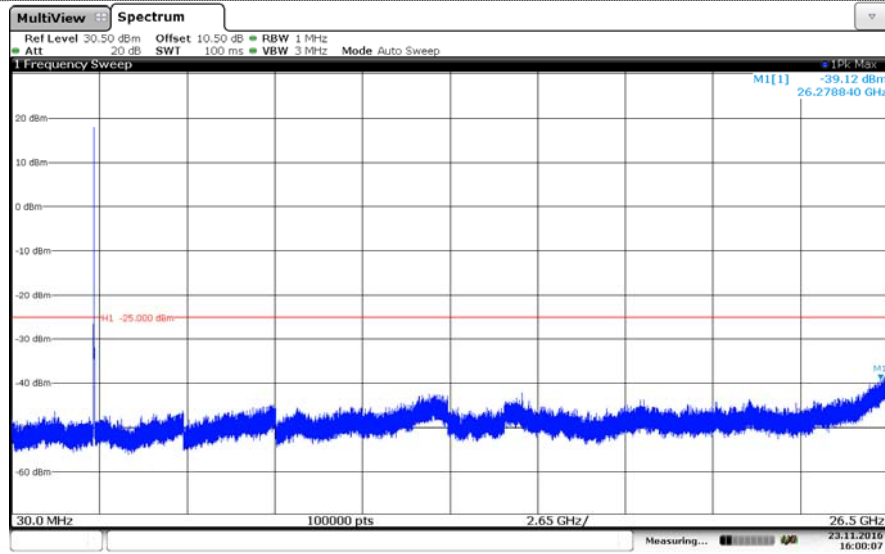
Channel Mid



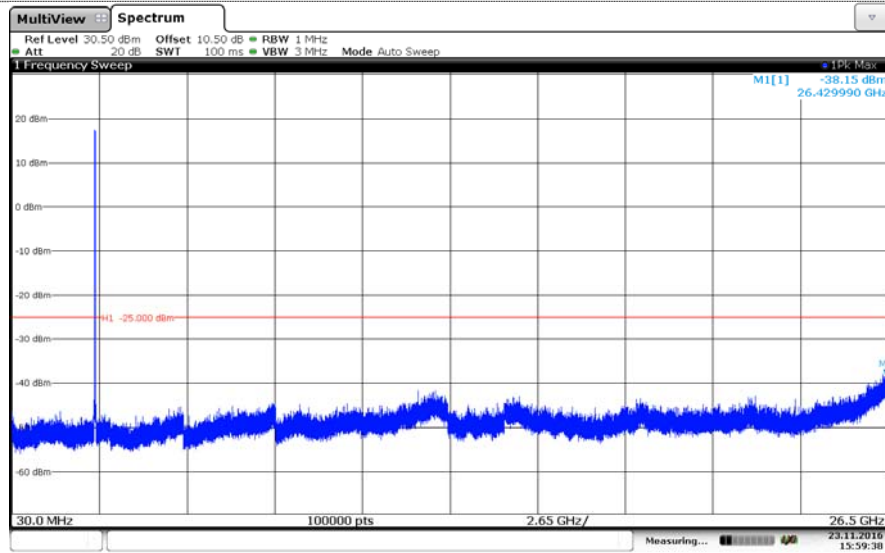
Channel High



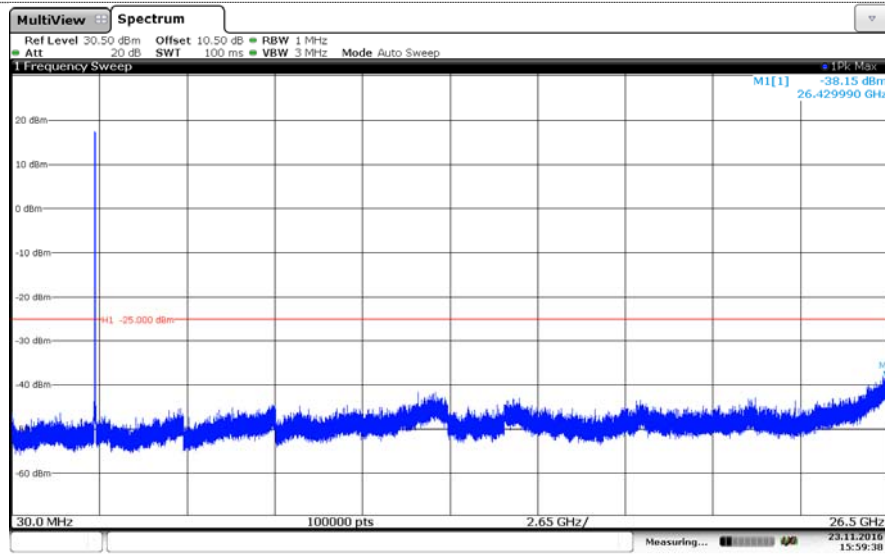
LTE Band 7-5MHz  
16QAM



Channel Low



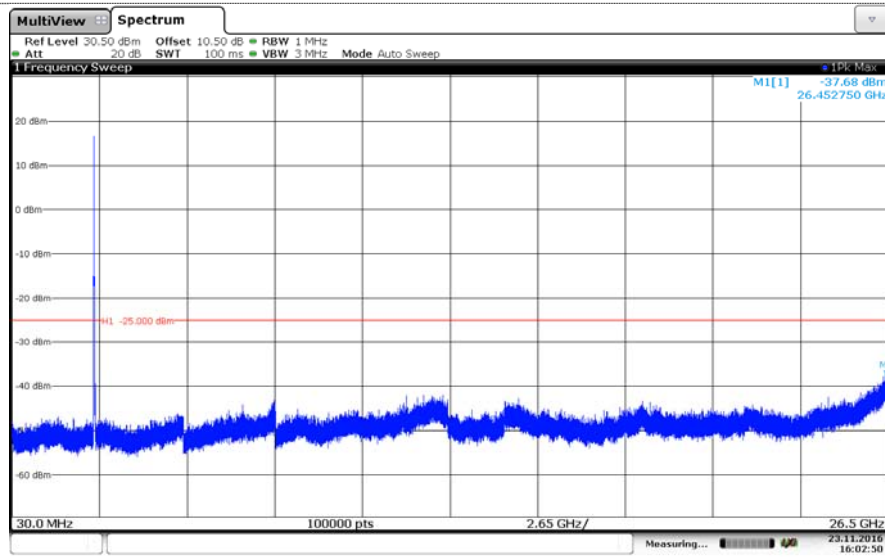
Channel Mid



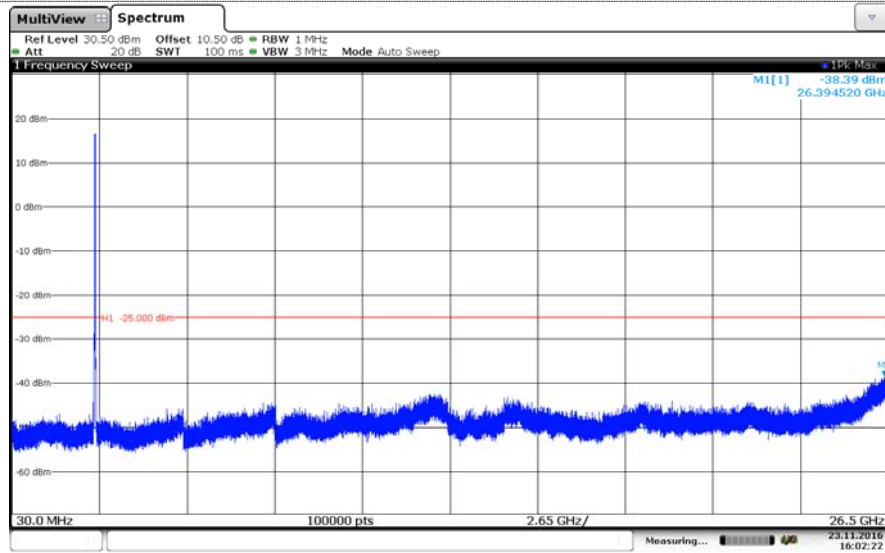
Channel High



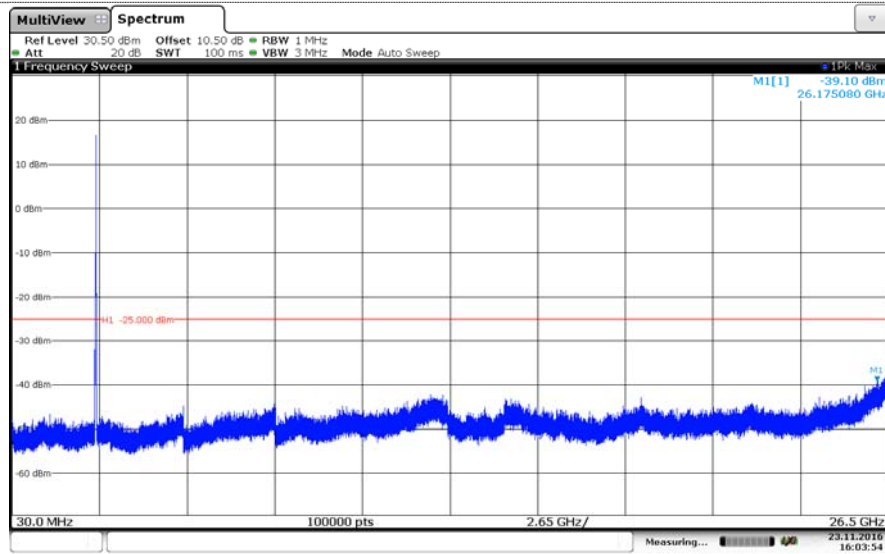
LTE Band 7-10MHz  
QPSK



Channel Low

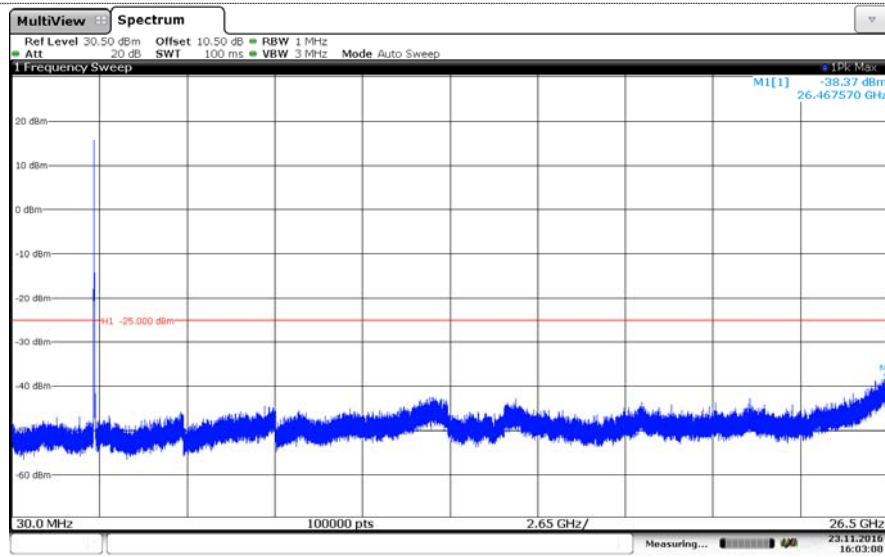


Channel Mid

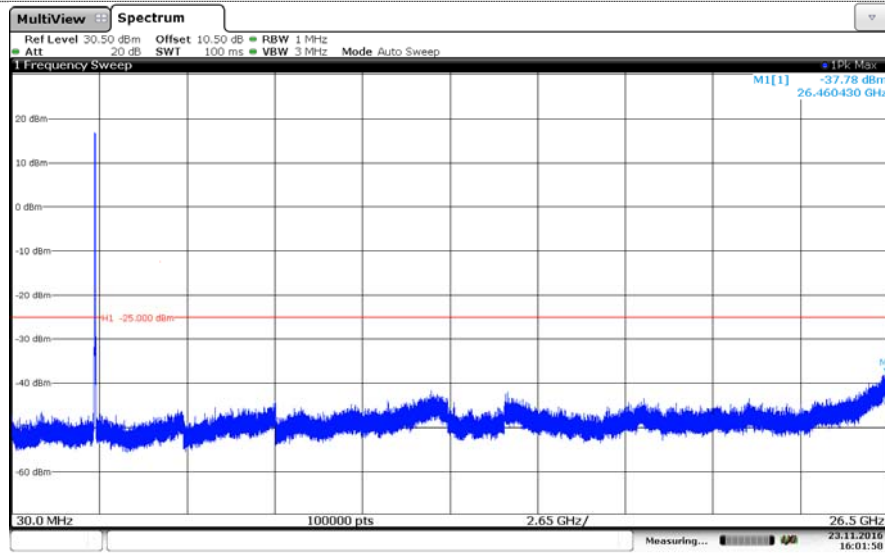


Channel High

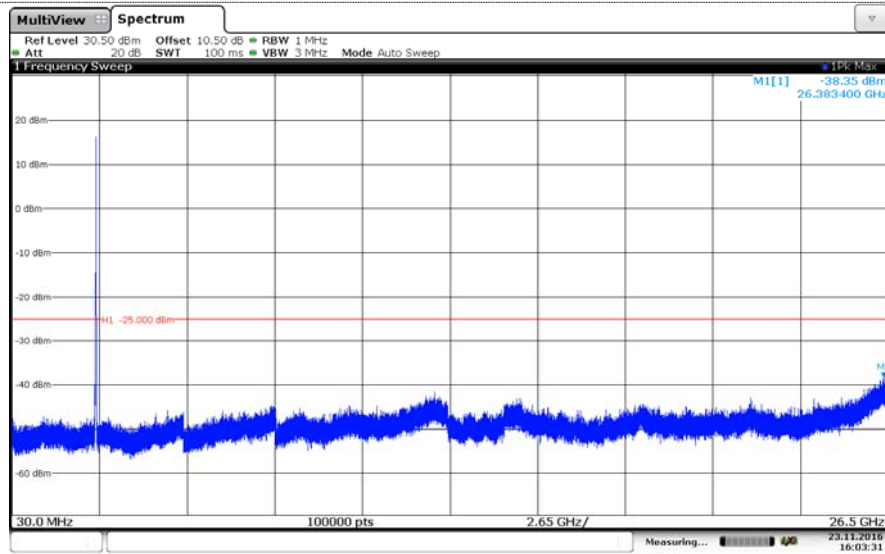
LTE Band 7-10MHz  
16QAM



Channel Low

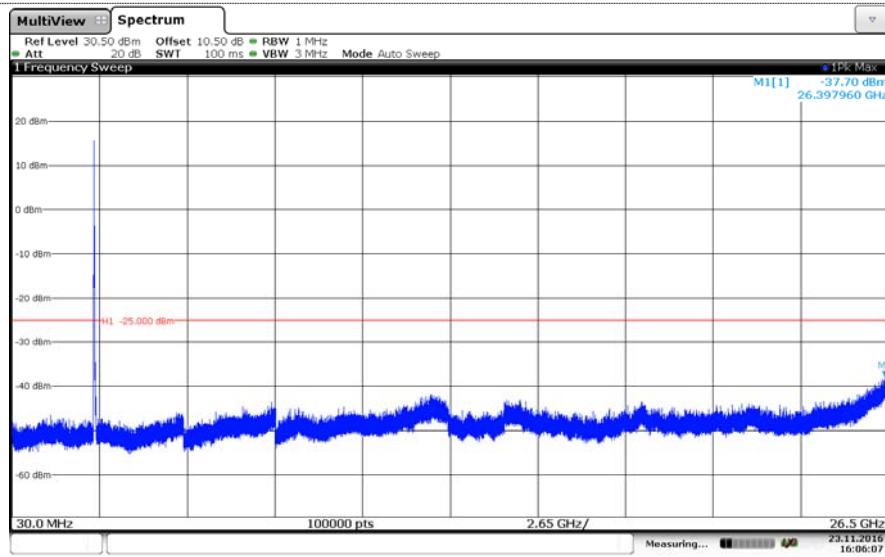


Channel Mid

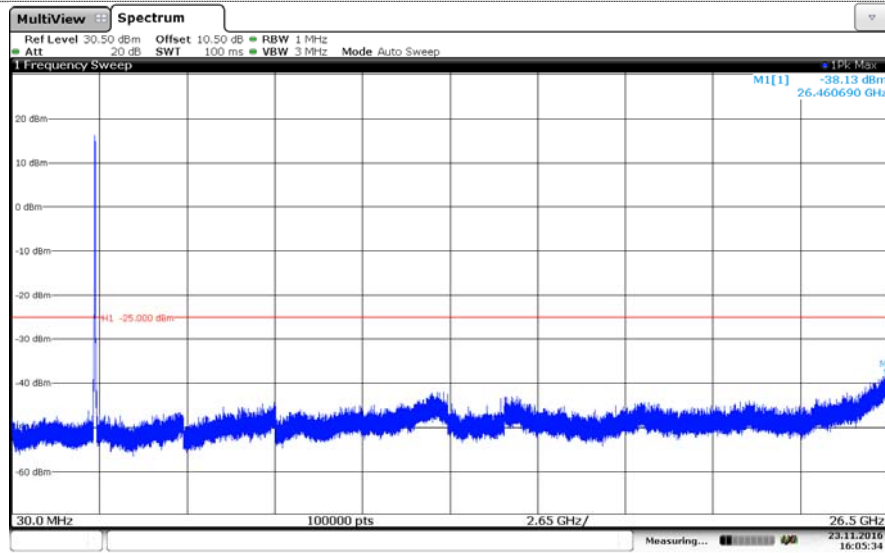


Channel High

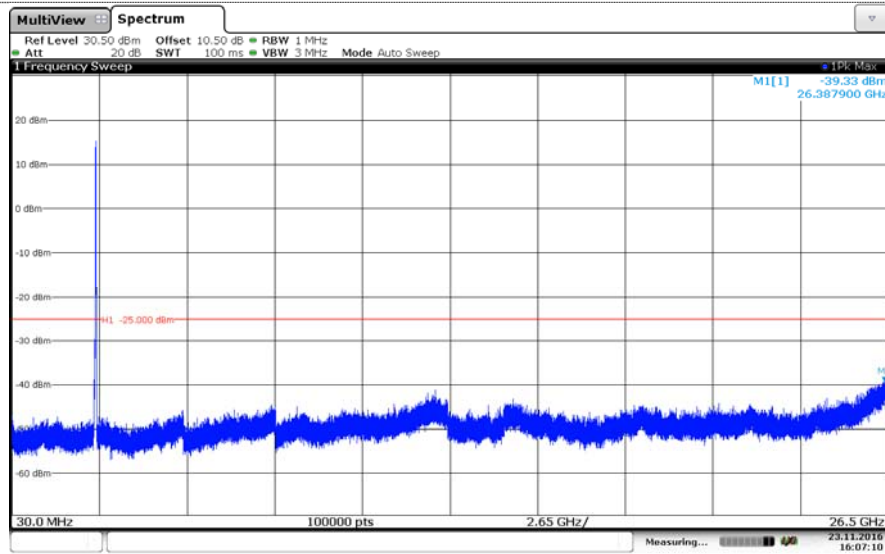
LTE Band 7-15MHz  
QPSK



Channel Low

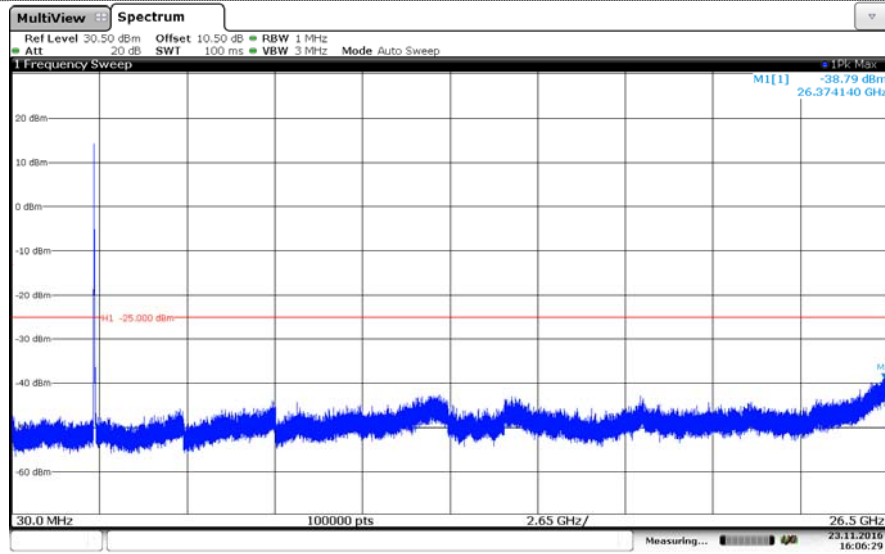


Channel Mid

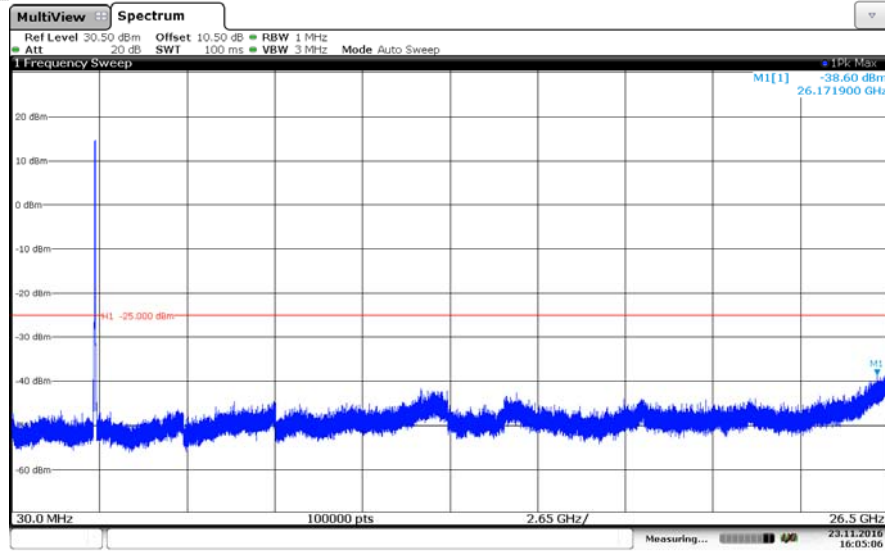


Channel High

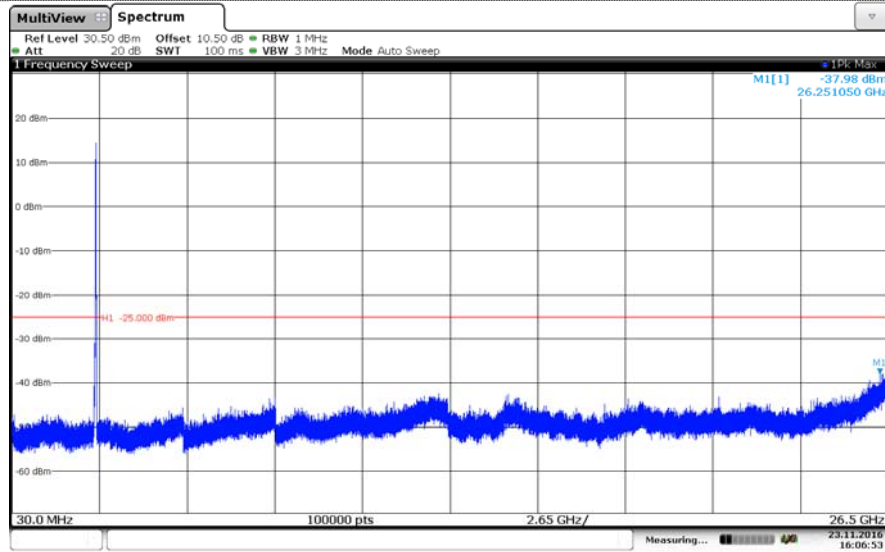
LTE Band 7-15MHz  
16QAM



Channel Low

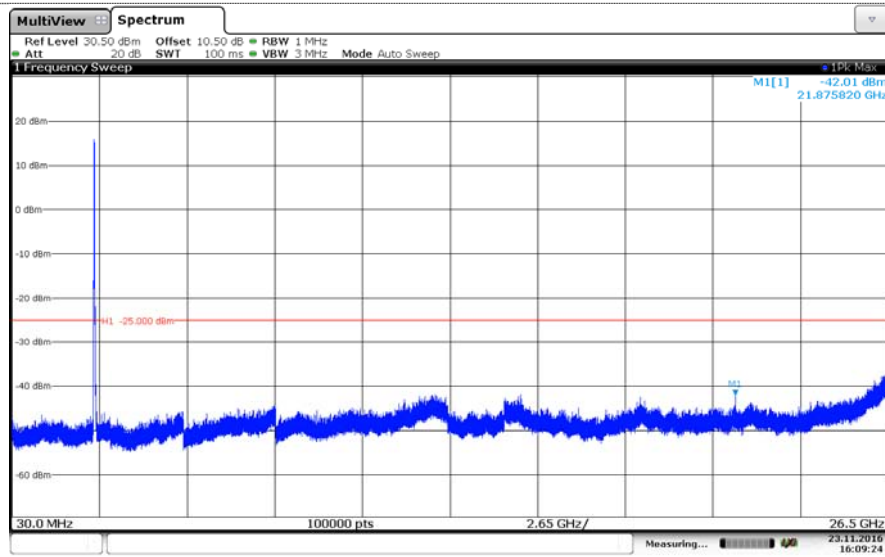


Channel Mid

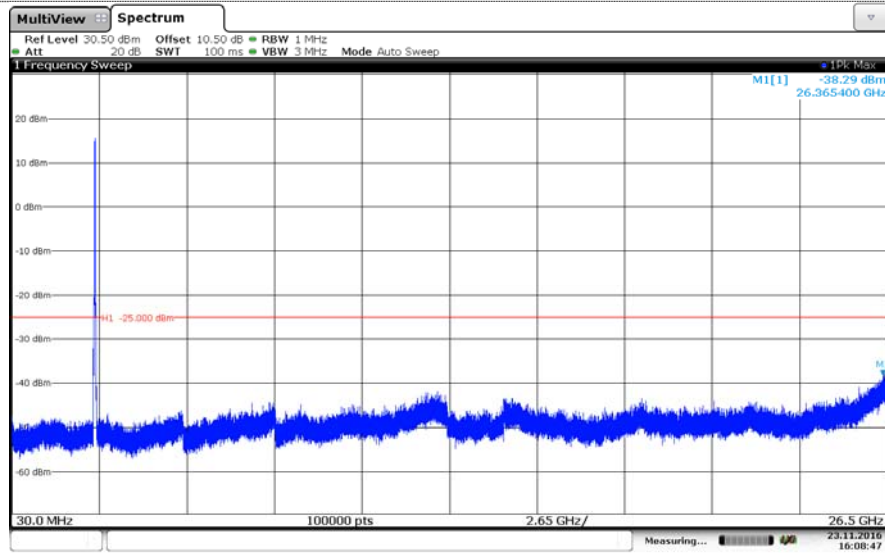


Channel High

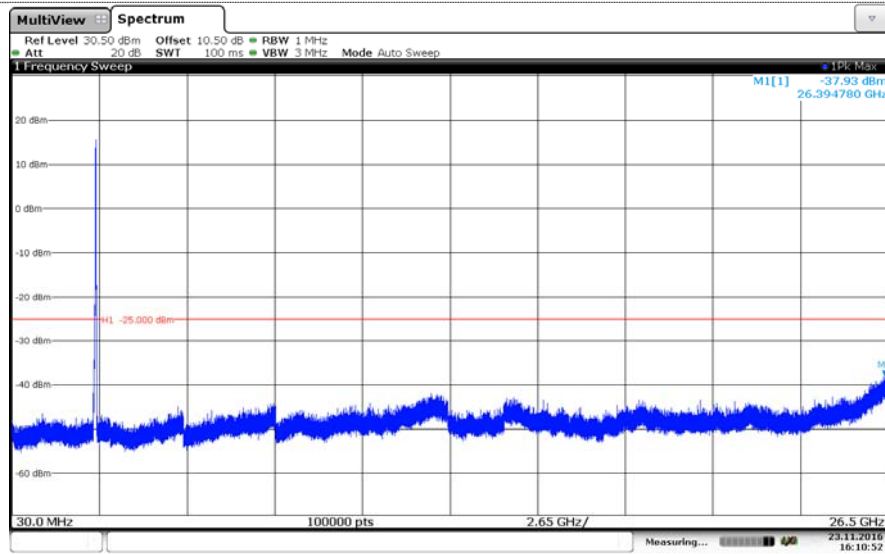
LTE Band 7-20MHz  
QPSK



Channel Low

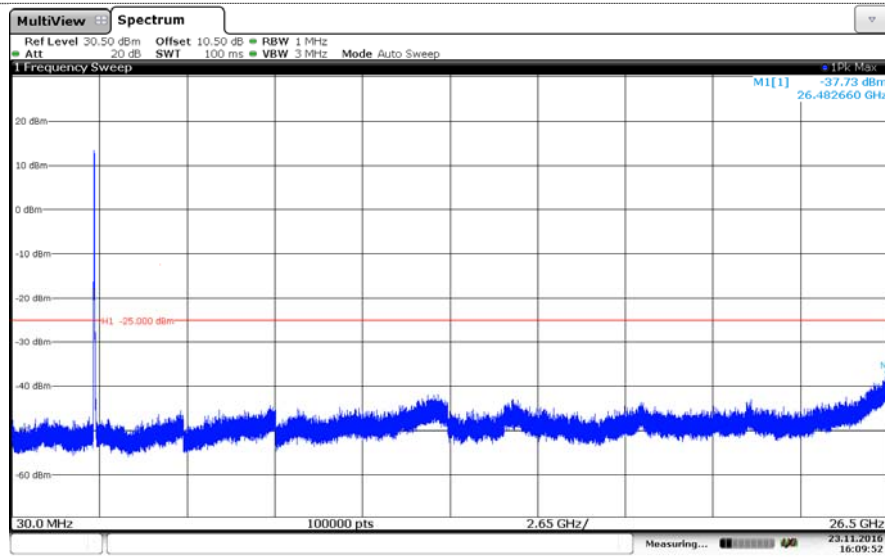


Channel Mid

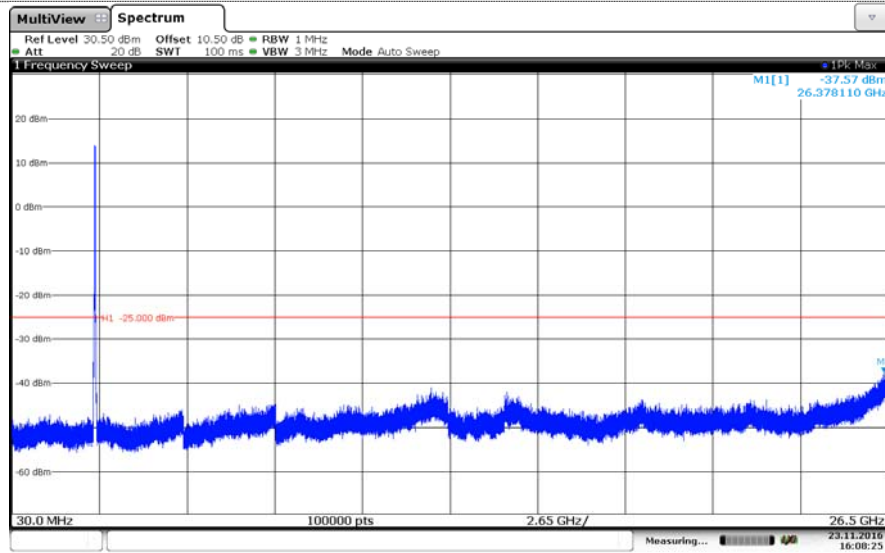


Channel High

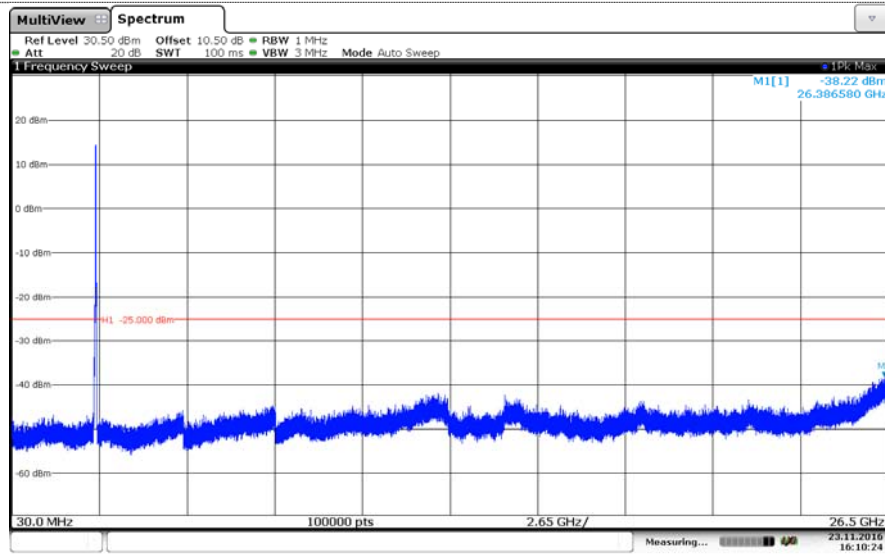
LTE Band 7-20MHz  
16QAM



Channel Low



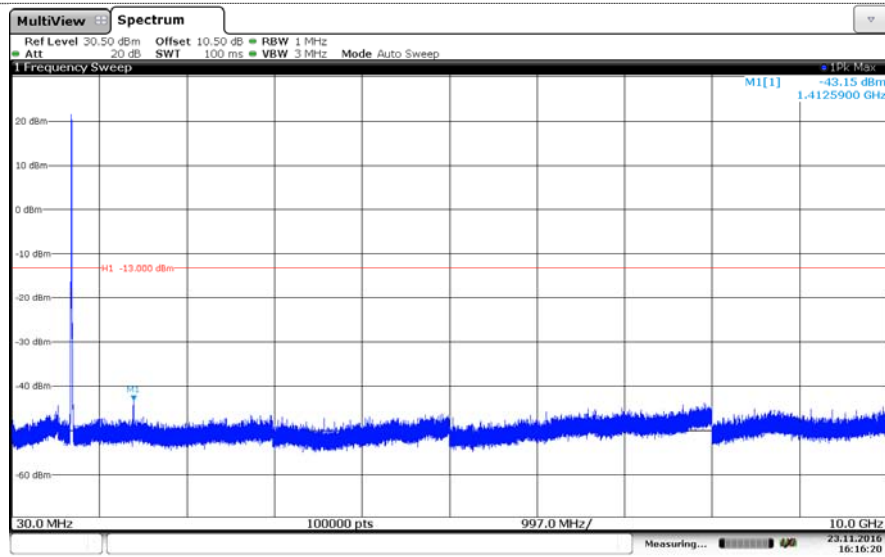
Channel Mid



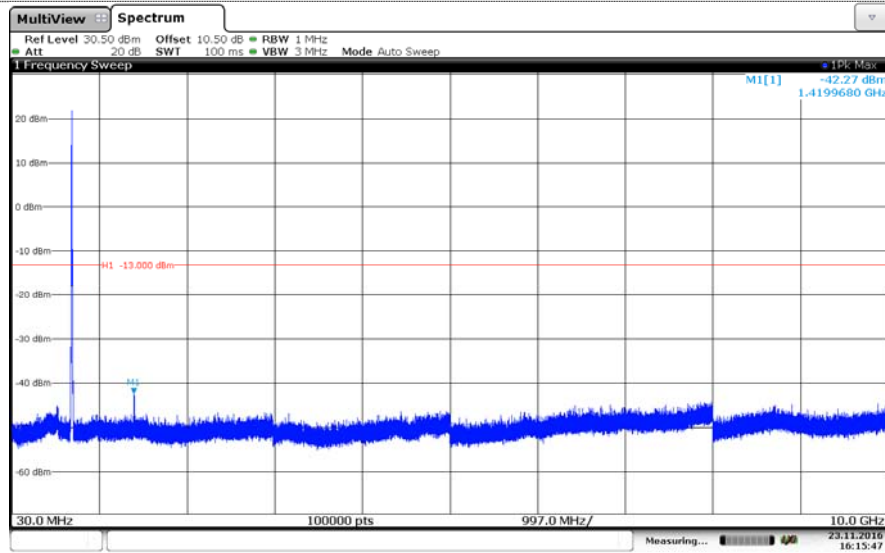
Channel High



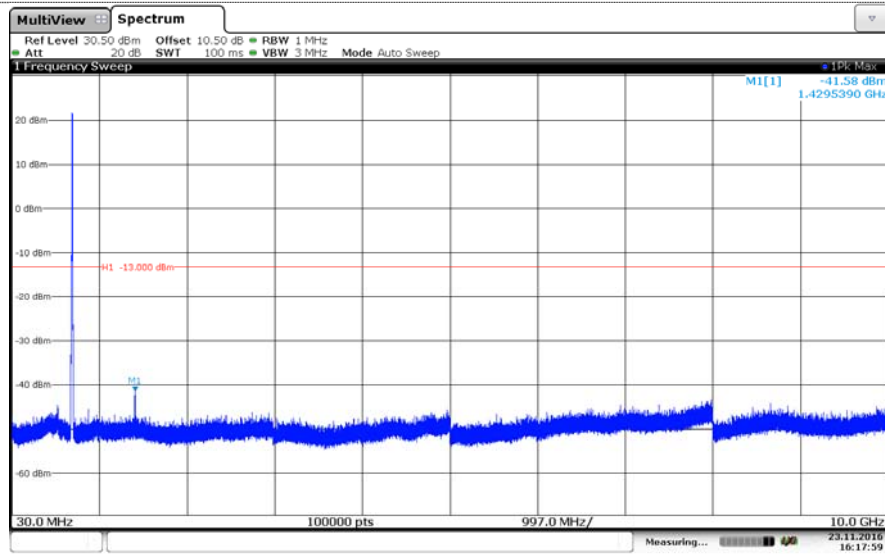
LTE Band 17-5MHz  
QPSK



Channel Low



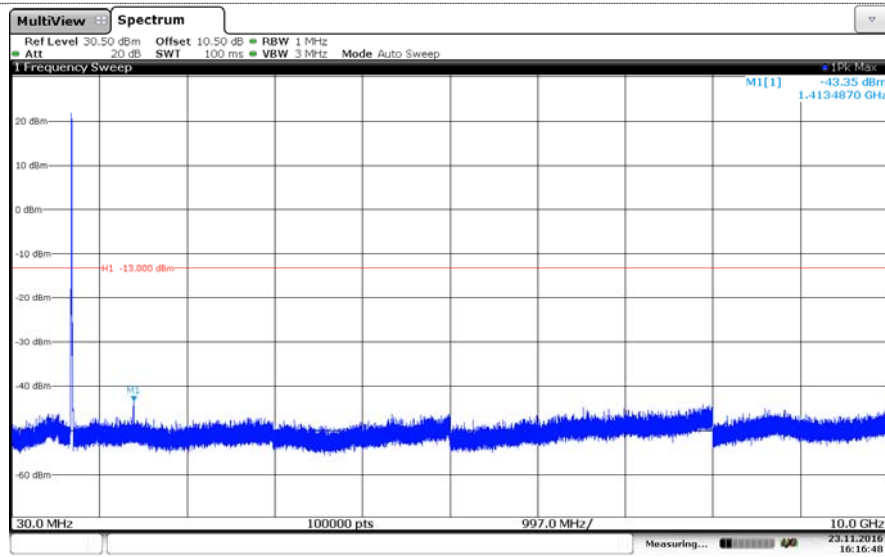
Channel Mid



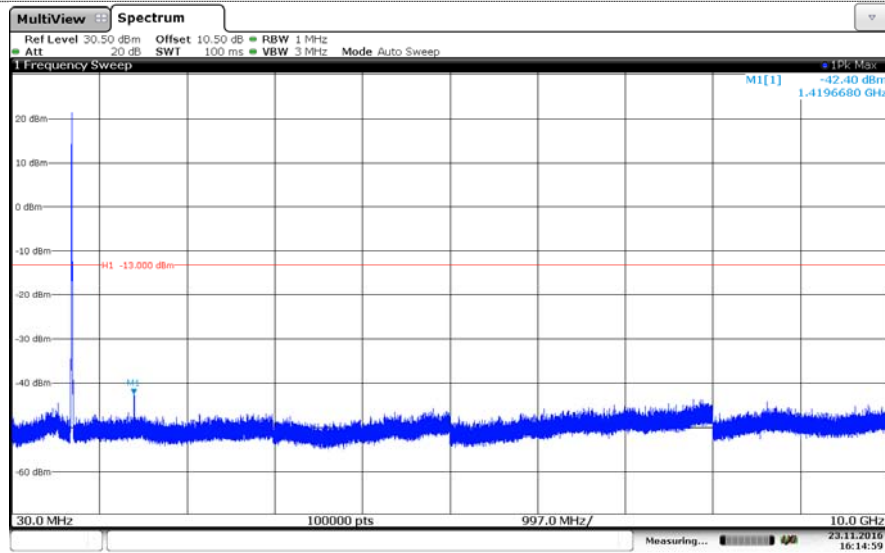
Channel High



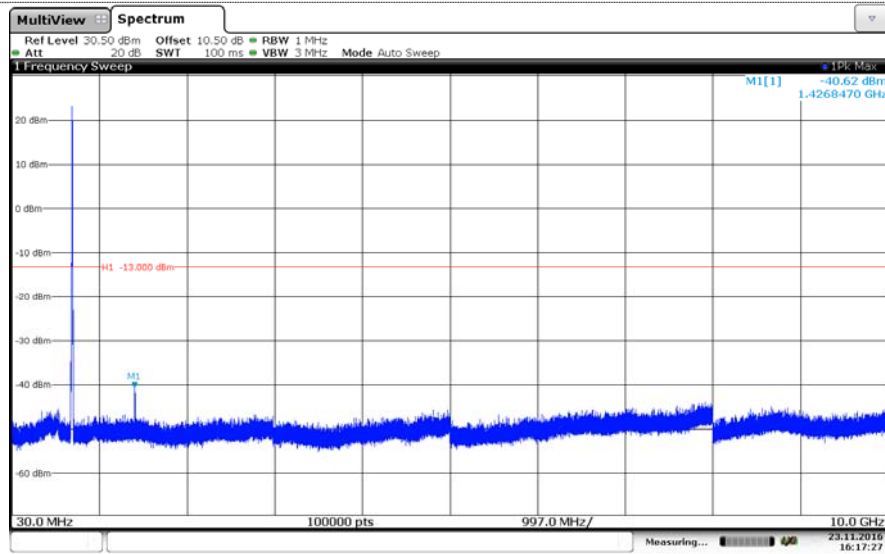
### LTE Band 17-5MHz 16QAM



Channel Low

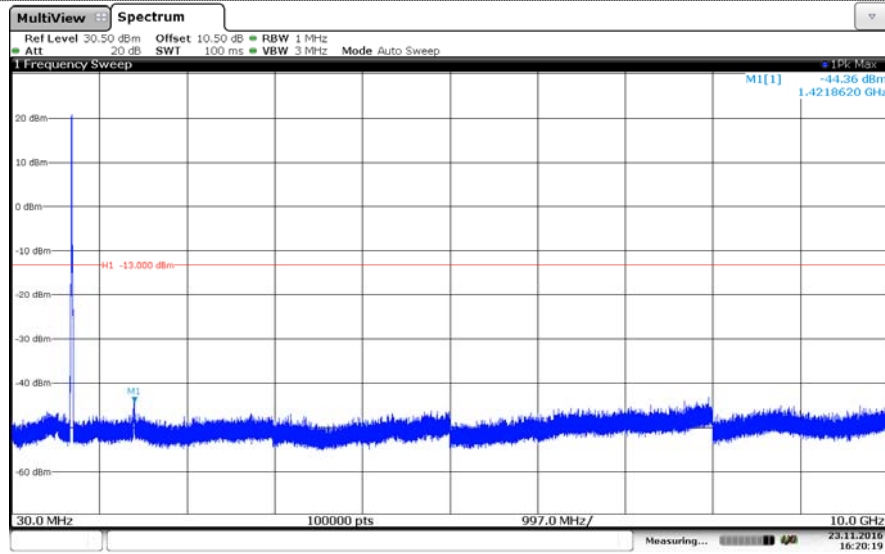


Channel Mid

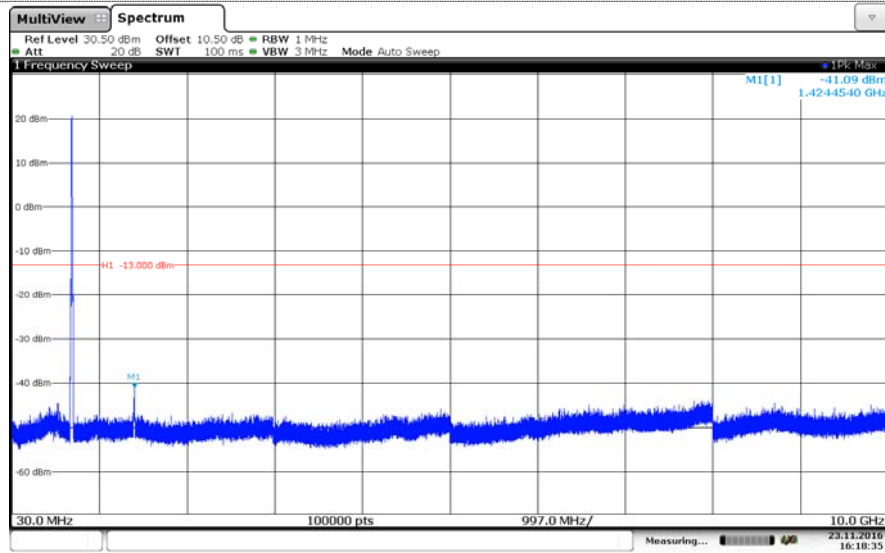


Channel High

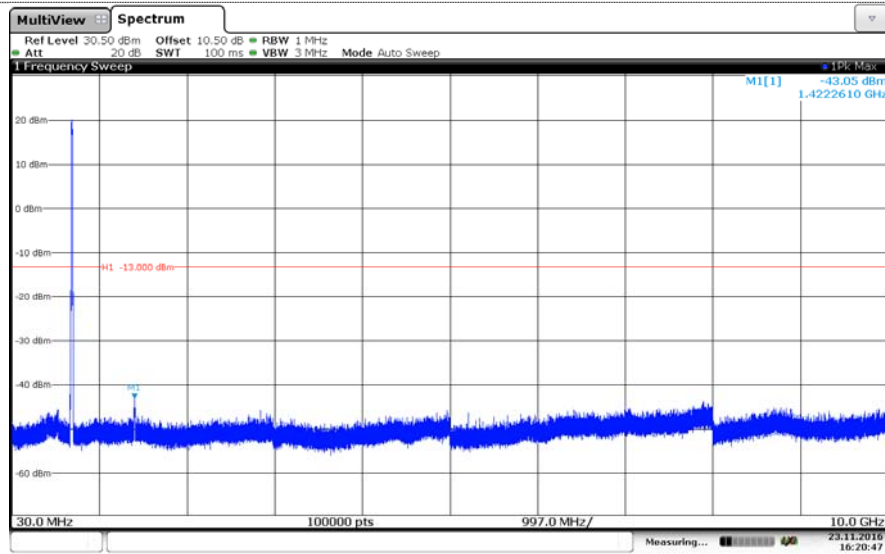
LTE Band 17-10MHz  
QPSK



Channel Low

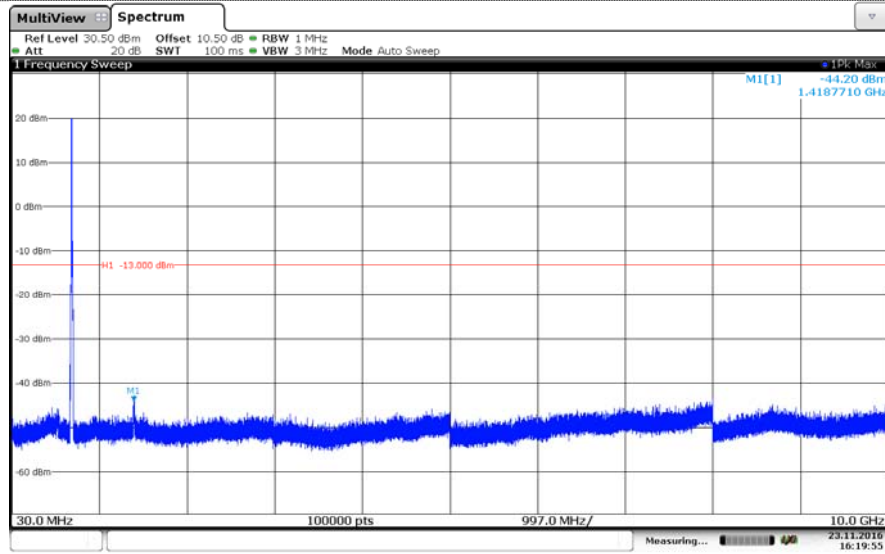


Channel Mid

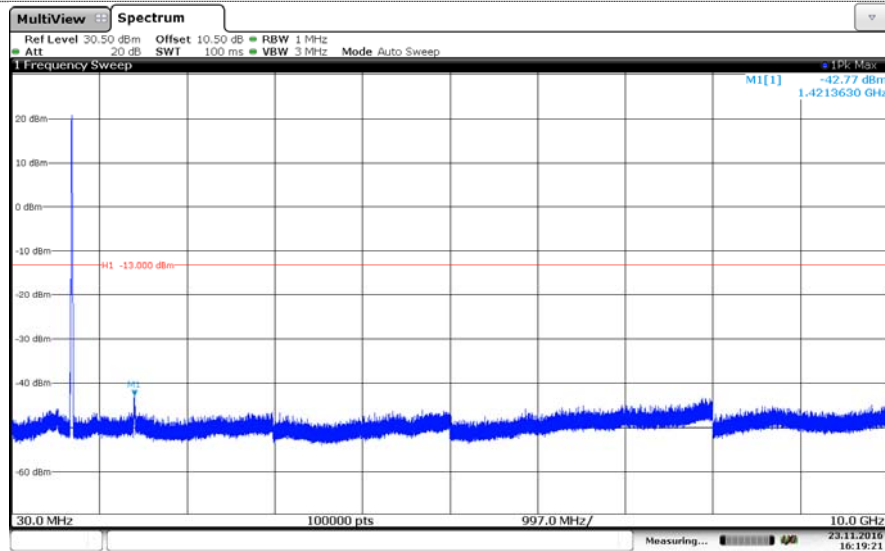


Channel High

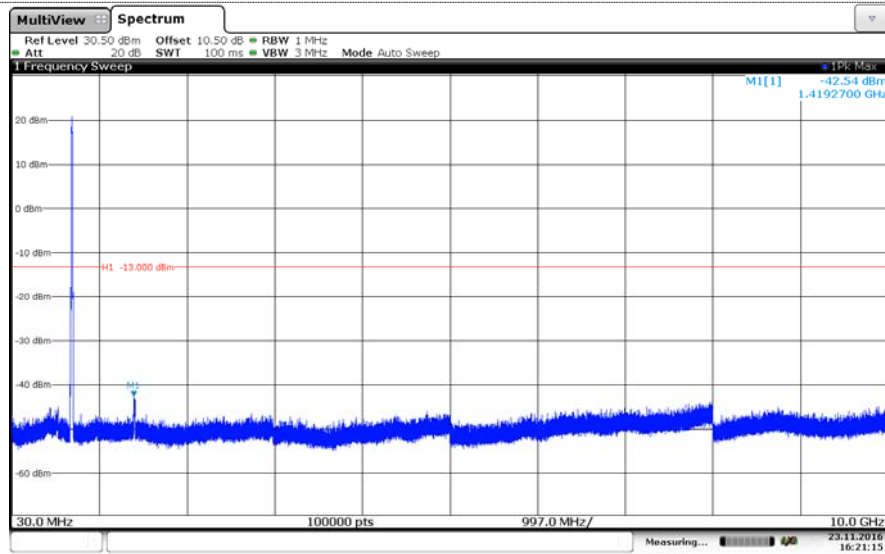
LTE Band 17-10MHz  
16QAM



Channel Low



Channel Mid



Channel High

#### 4.4. Band Edge compliance

##### LIMIT

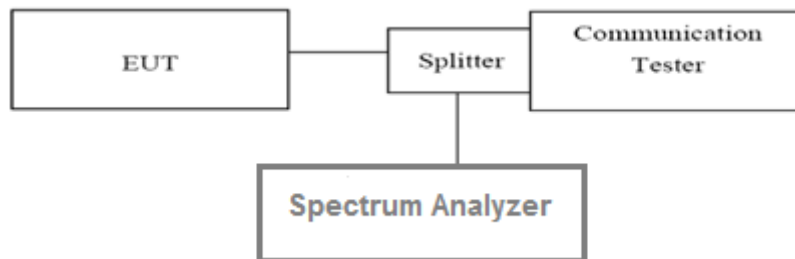
Part 24.238 and Part 22.917 and Part 27.53h(1) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB.

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.

LTE Band 7

Part 27.53 m(4) For mobile digital stations, the attenuation factor shall be not less than  $40 + 10 \log(P)$  dB on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log(P)$  dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and  $55 + 10 \log(P)$  dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.

##### TEST CONFIGURATION

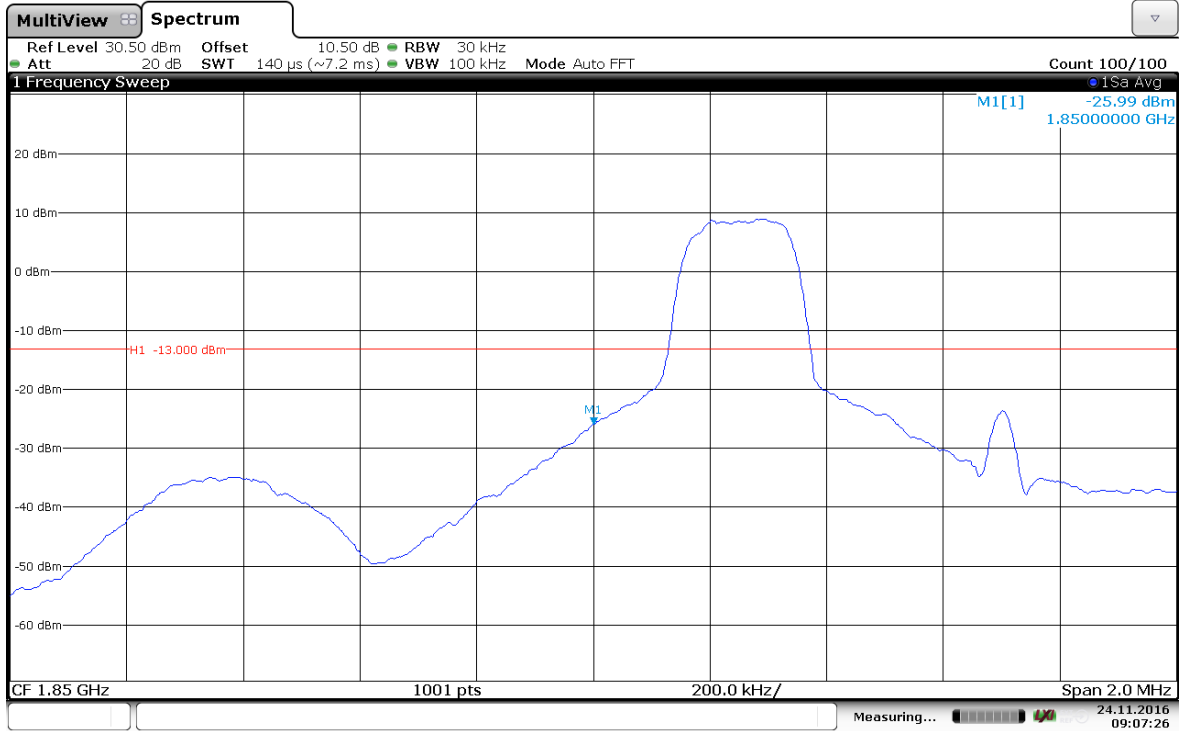


##### TEST PROCEDURE

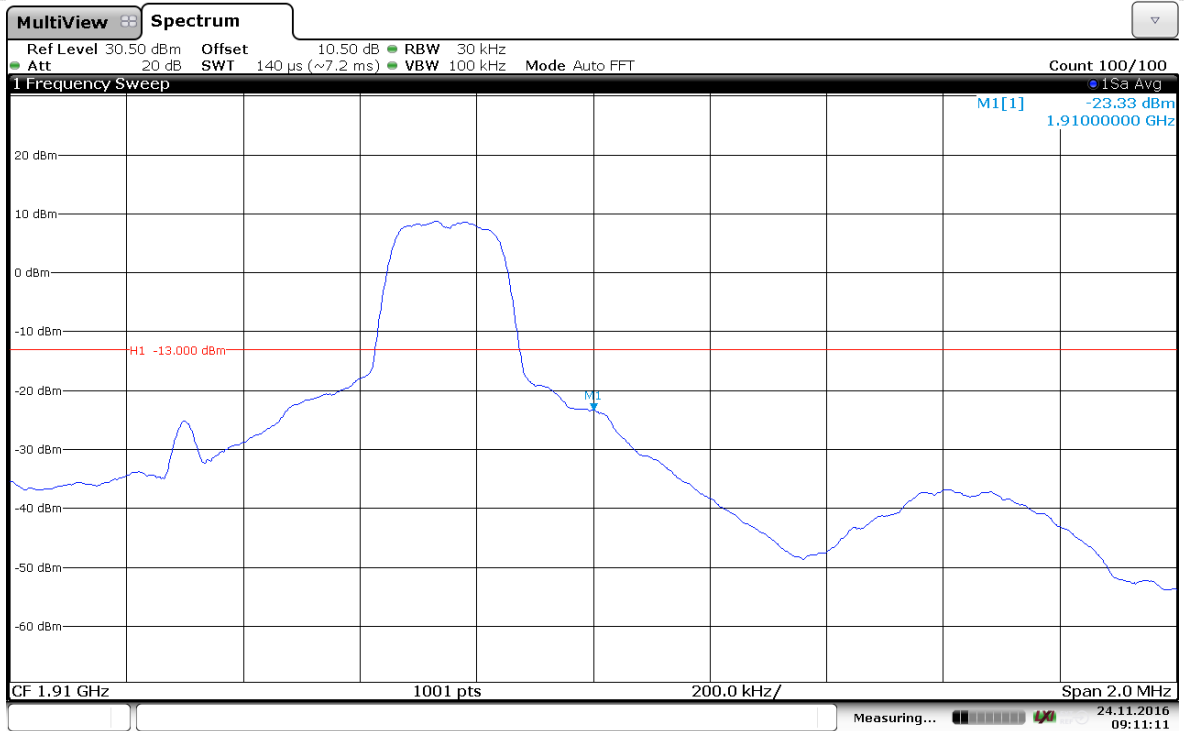
1. The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
2. The band edges of low and high channels for the highest RF powers were measured. Set  $RBW \geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with RMS detector.

##### TEST RESULTS

LTE Band 2-1.4MHz-QPSK

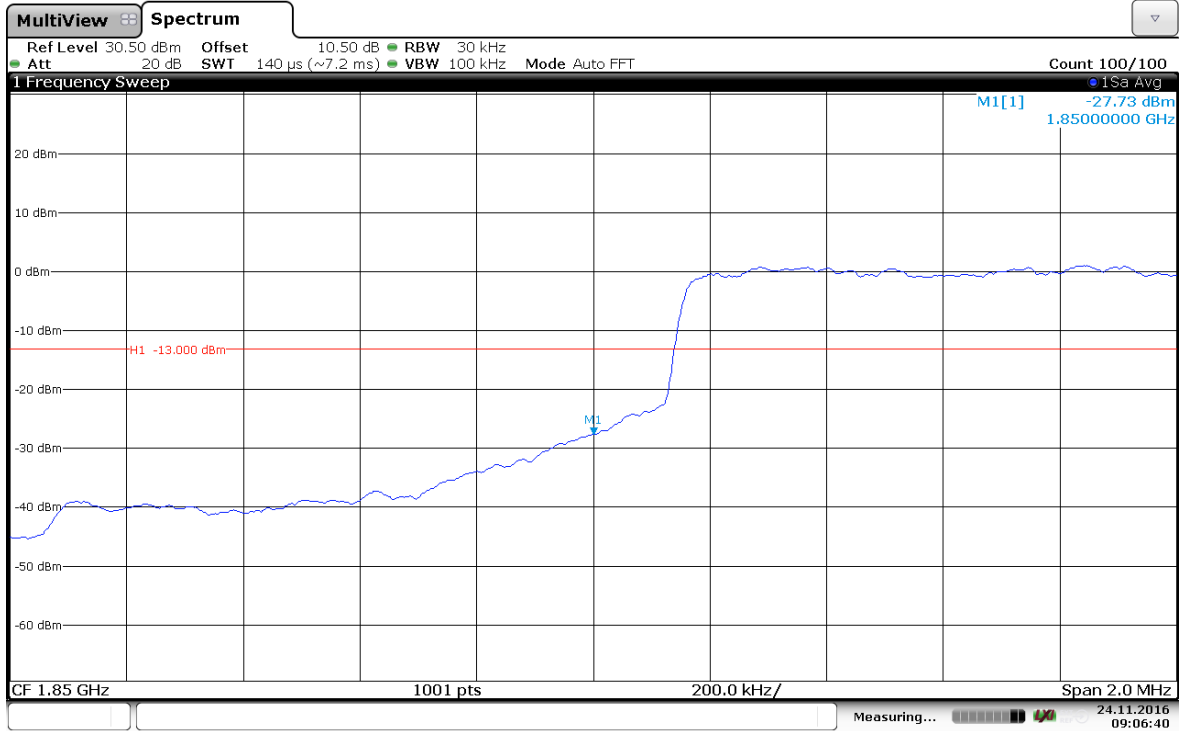


Channel Low-1RB#

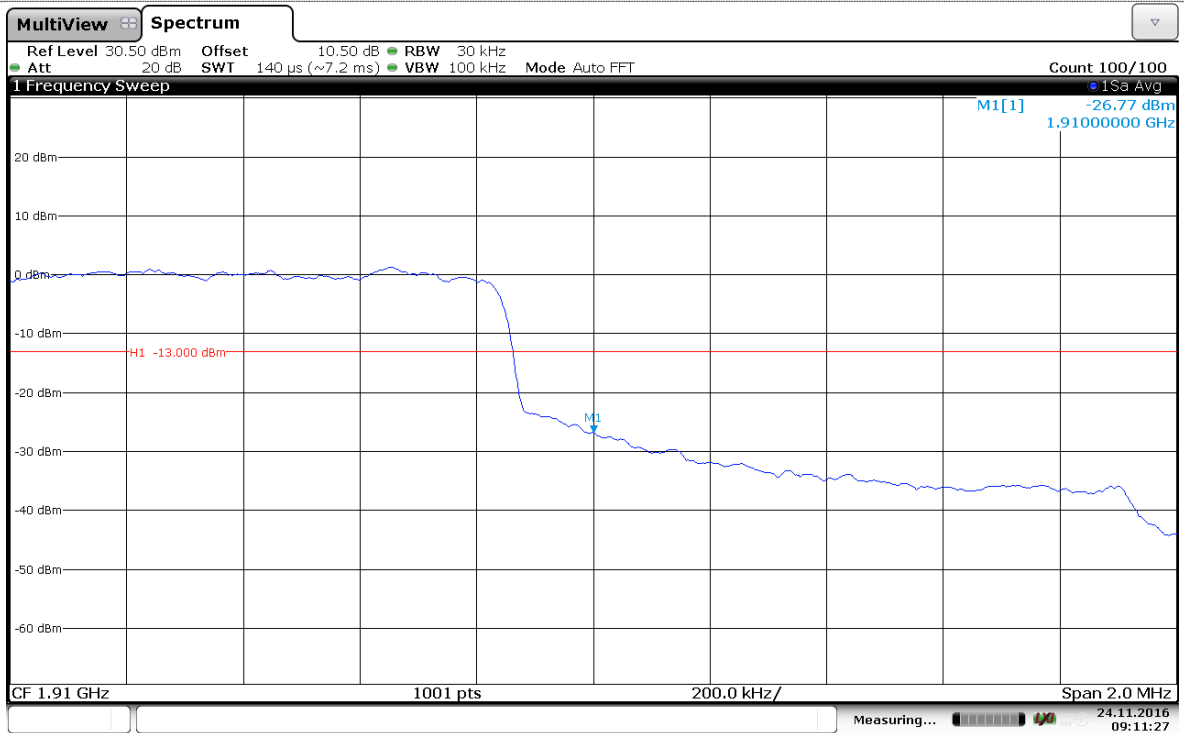


Channel High-1RB#

LTE Band 2-1.4MHz-QPSK

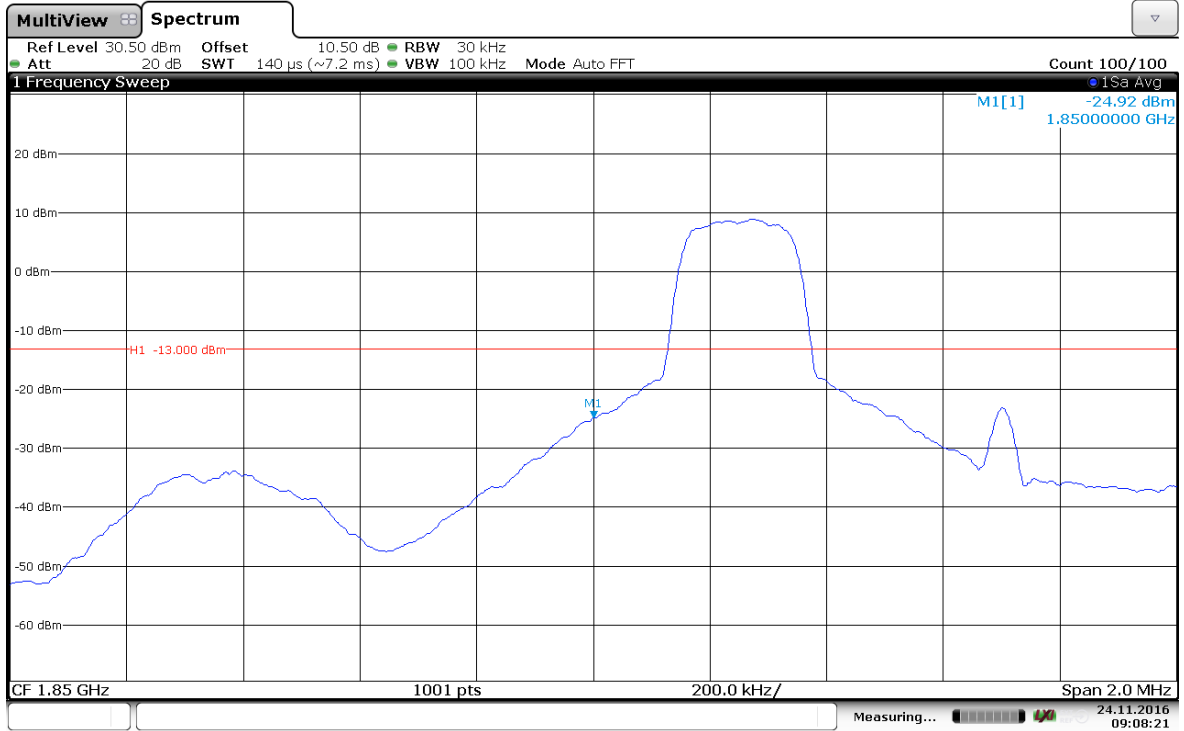


Channel Low-Full RB#

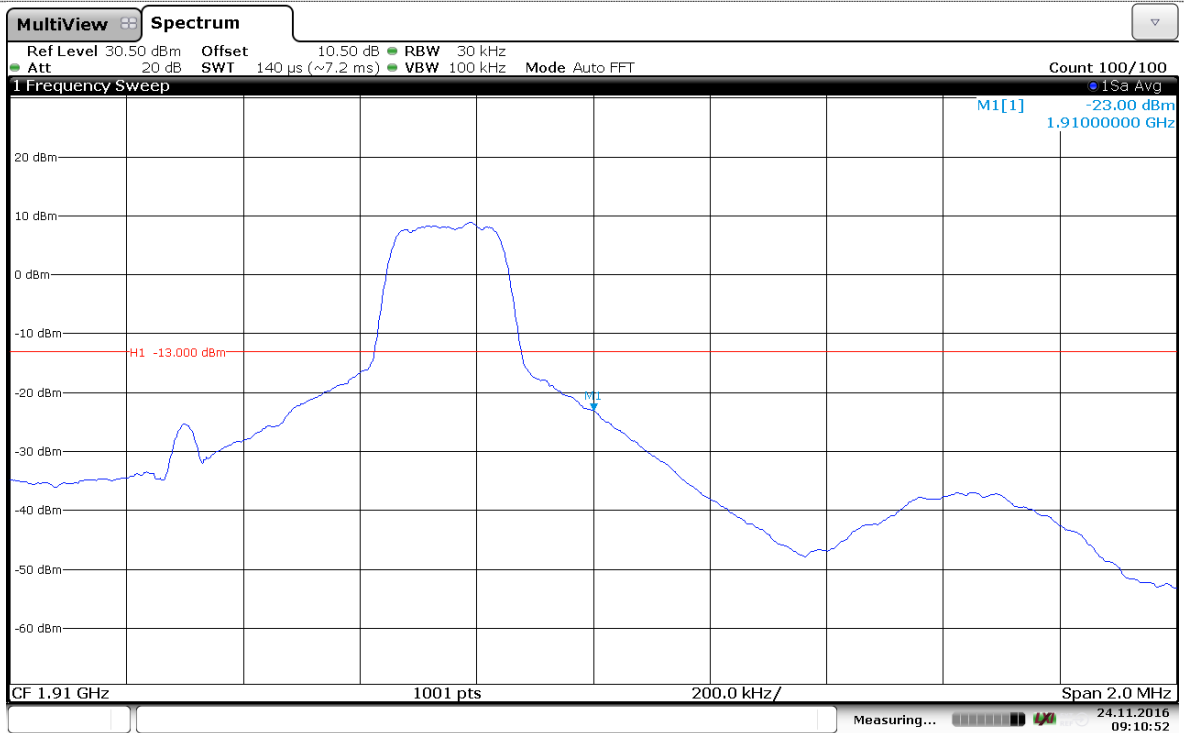


Channel High-Full RB#

LTE Band 2-1.4MHz-16QAM



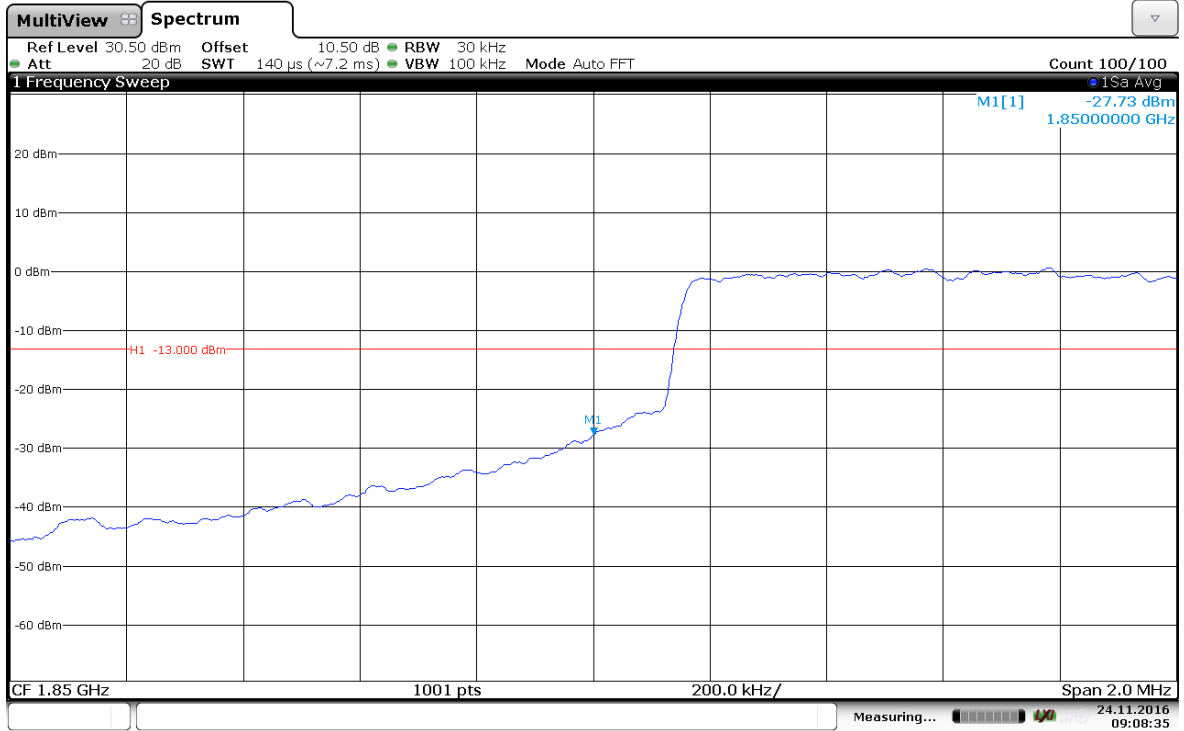
Channel Low-1RB#



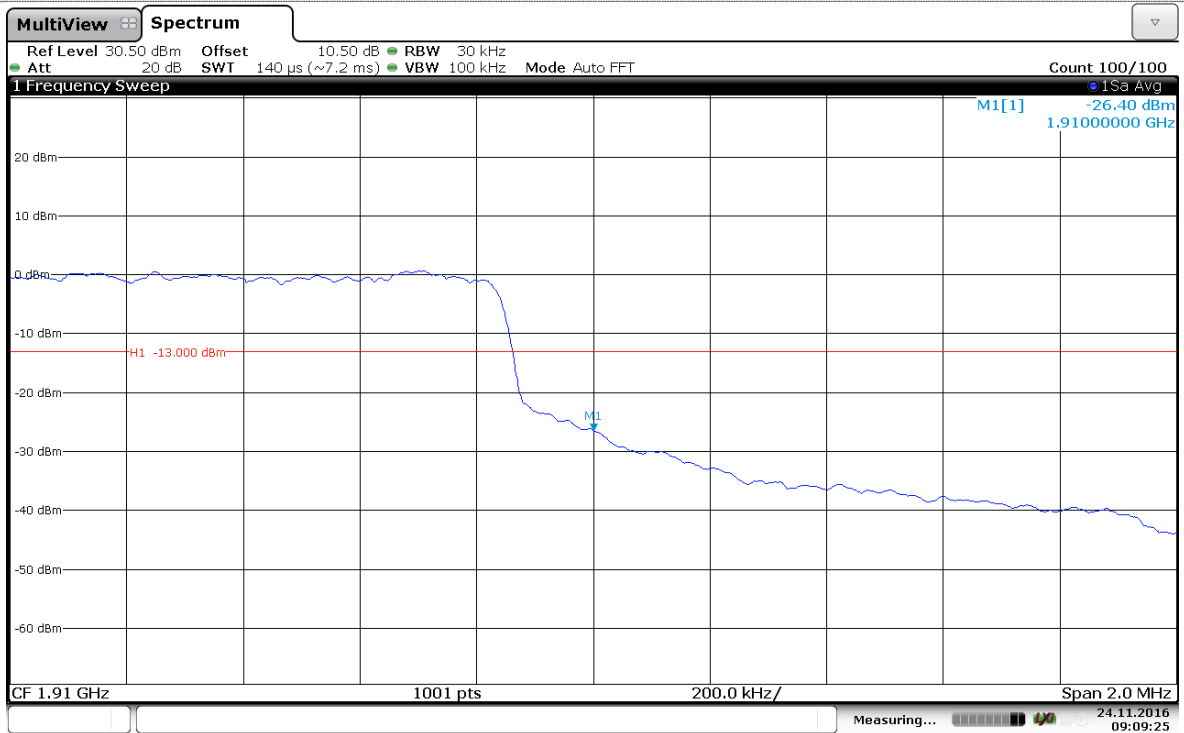
Channel High-1RB#



### LTE Band 2-1.4MHz-16QAM

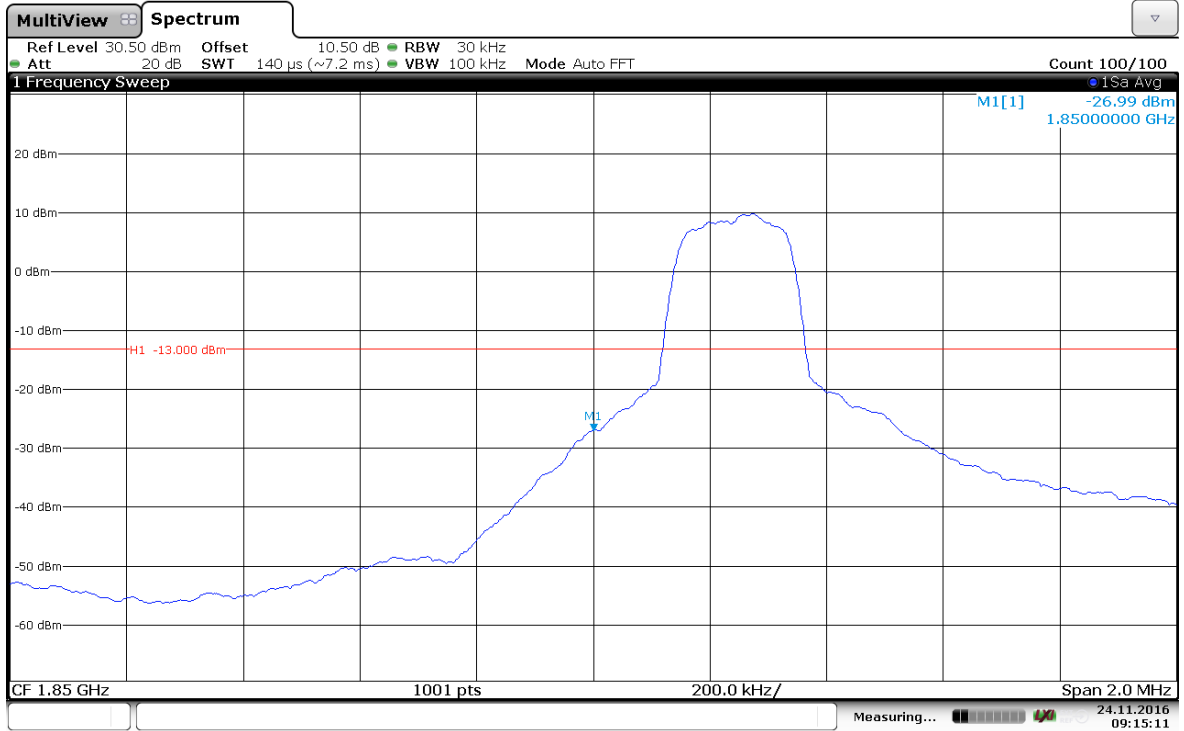


### Channel Low-Full RB#

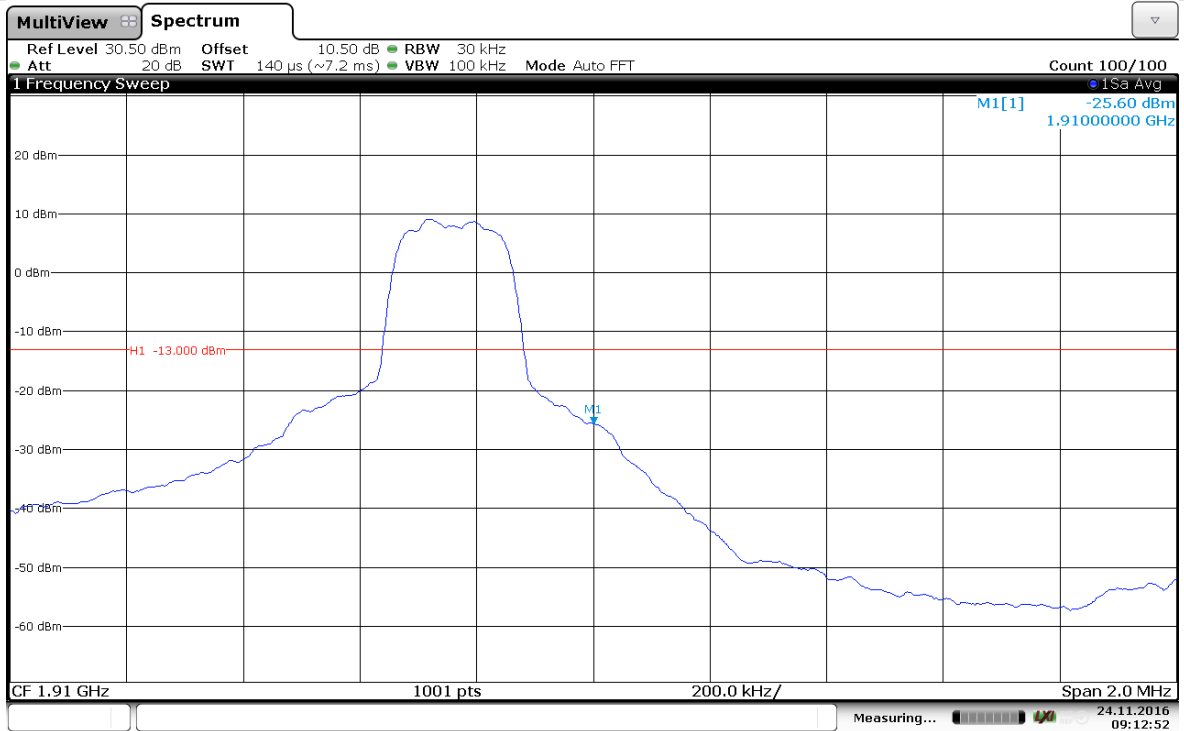


### Channel High-Full RB#

LTE Band 2-3MHz-QPSK

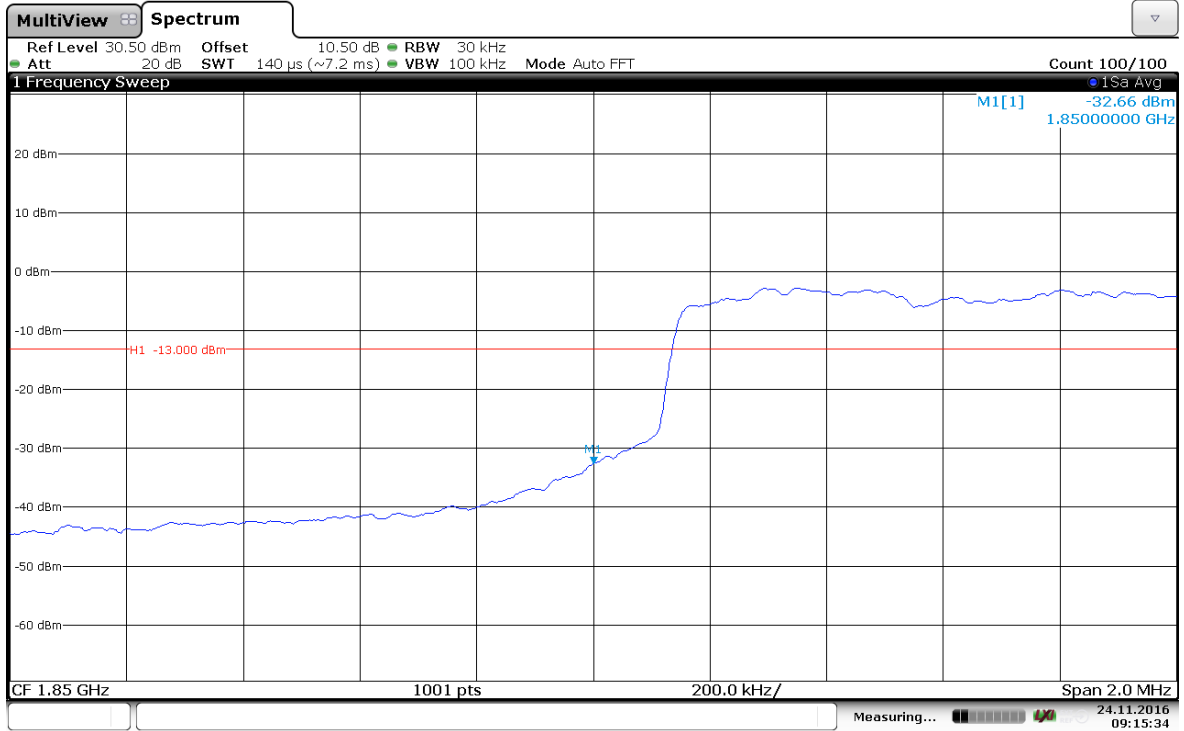


Channel Low-1RB#

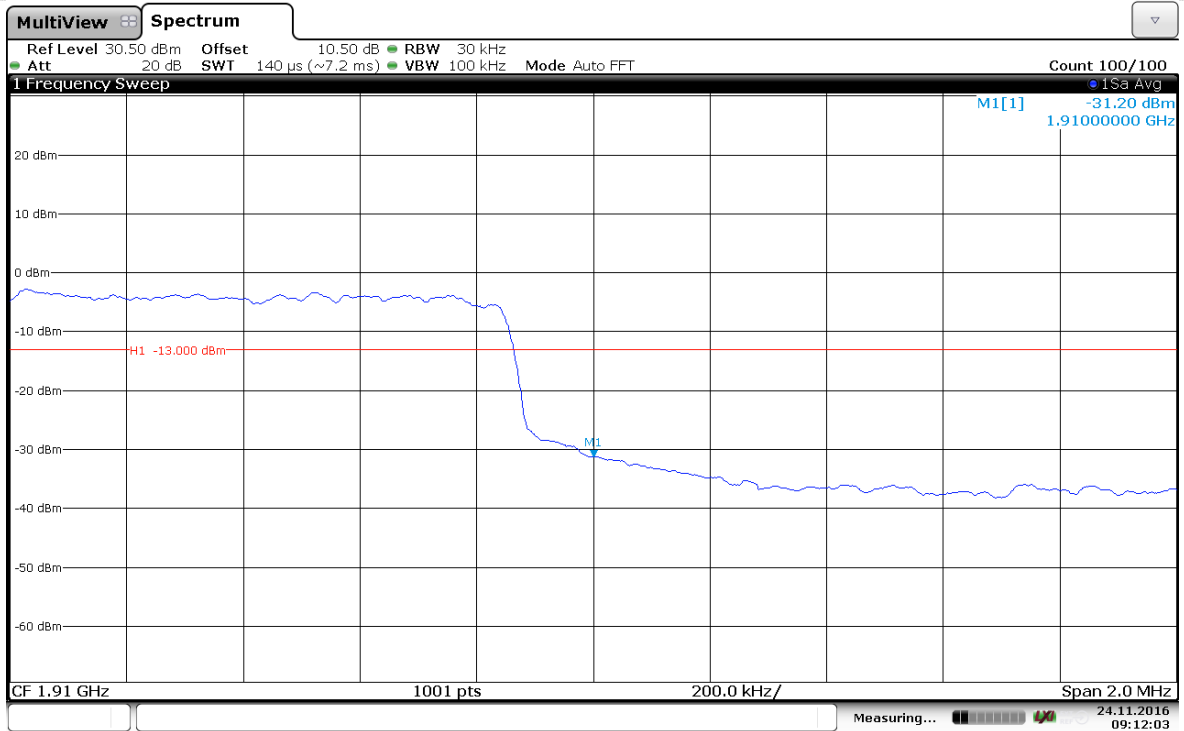


Channel High-1RB#

LTE Band 2-3MHz-QPSK

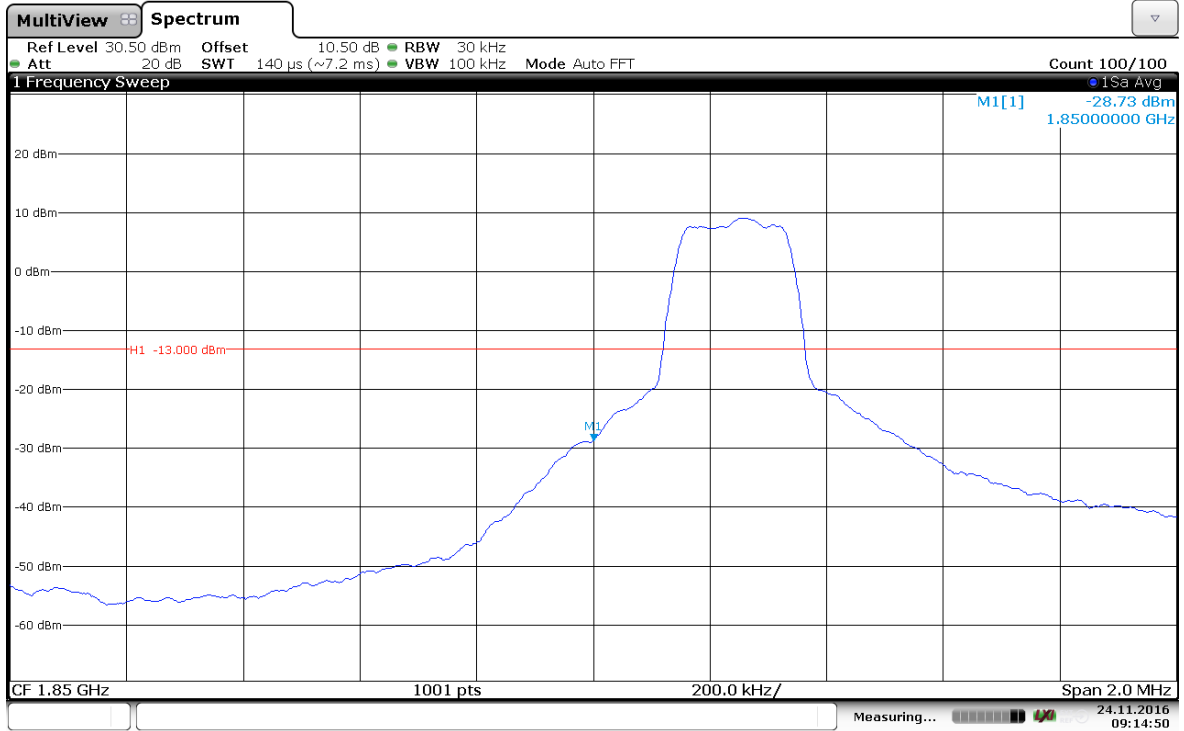


Channel Low-Full RB#

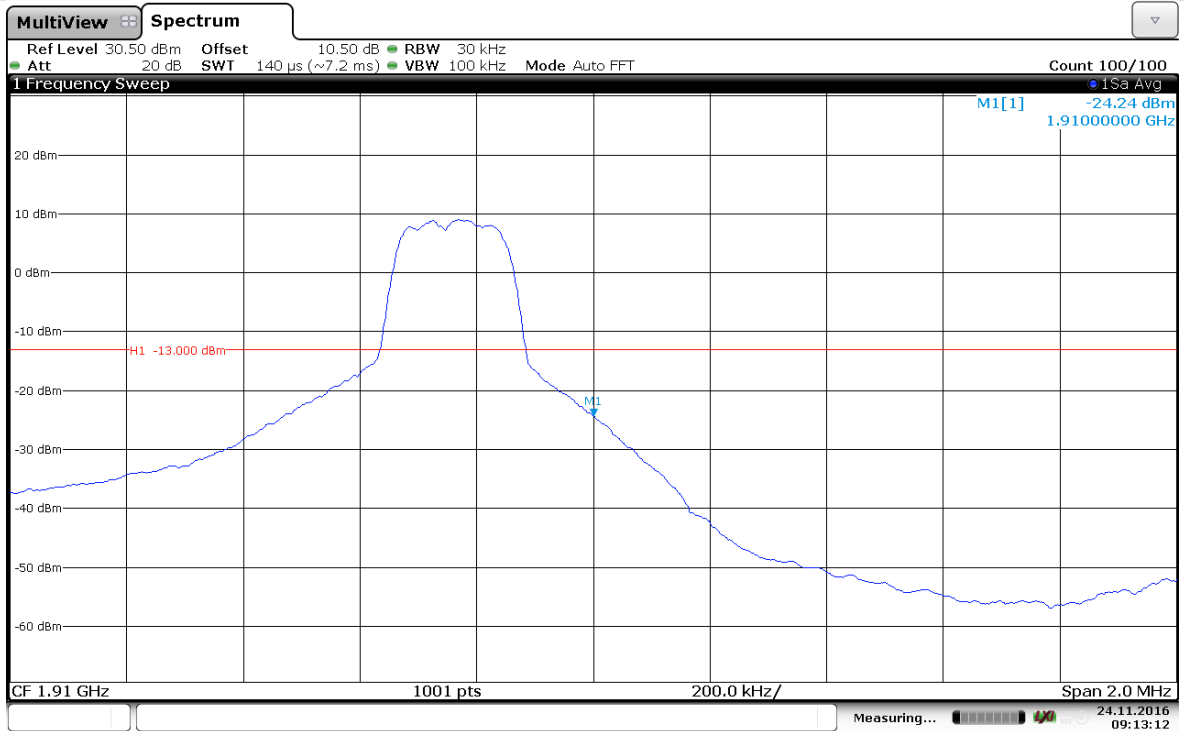


Channel High-Full RB#

### LTE Band 2-3MHz-16QAM



### Channel Low-1RB#

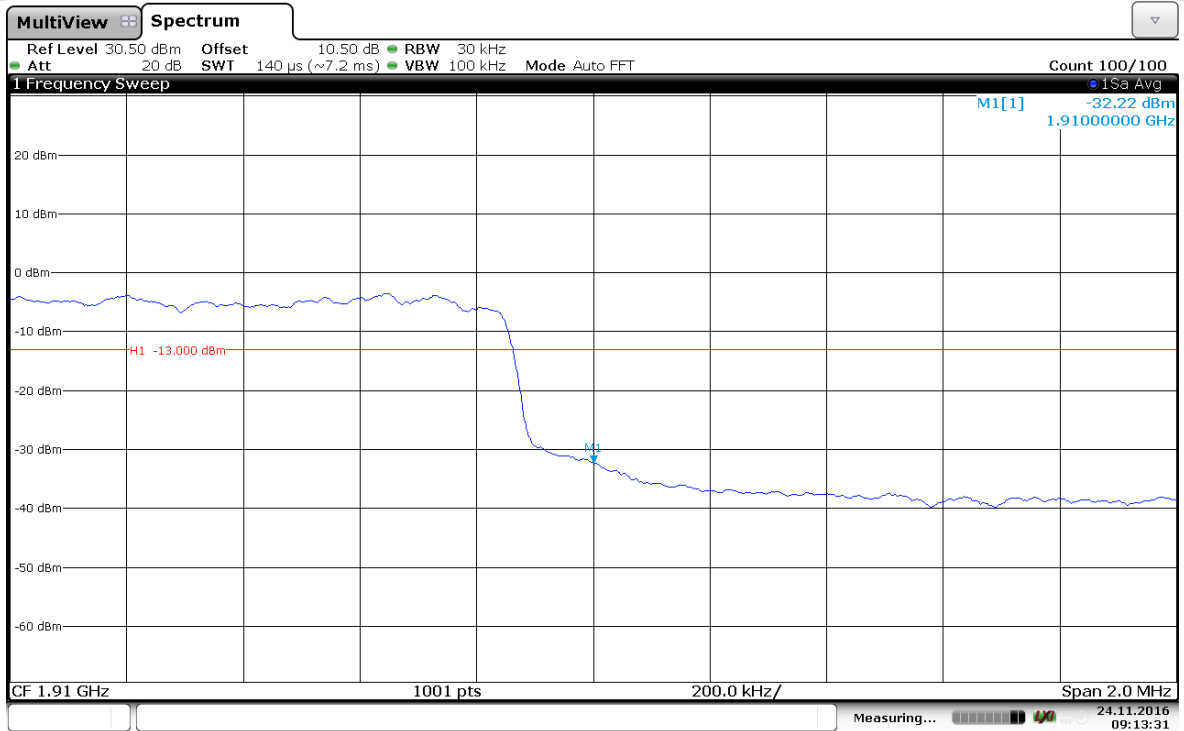


### Channel High-1RB#

LTE Band 2-3MHz-16QAM

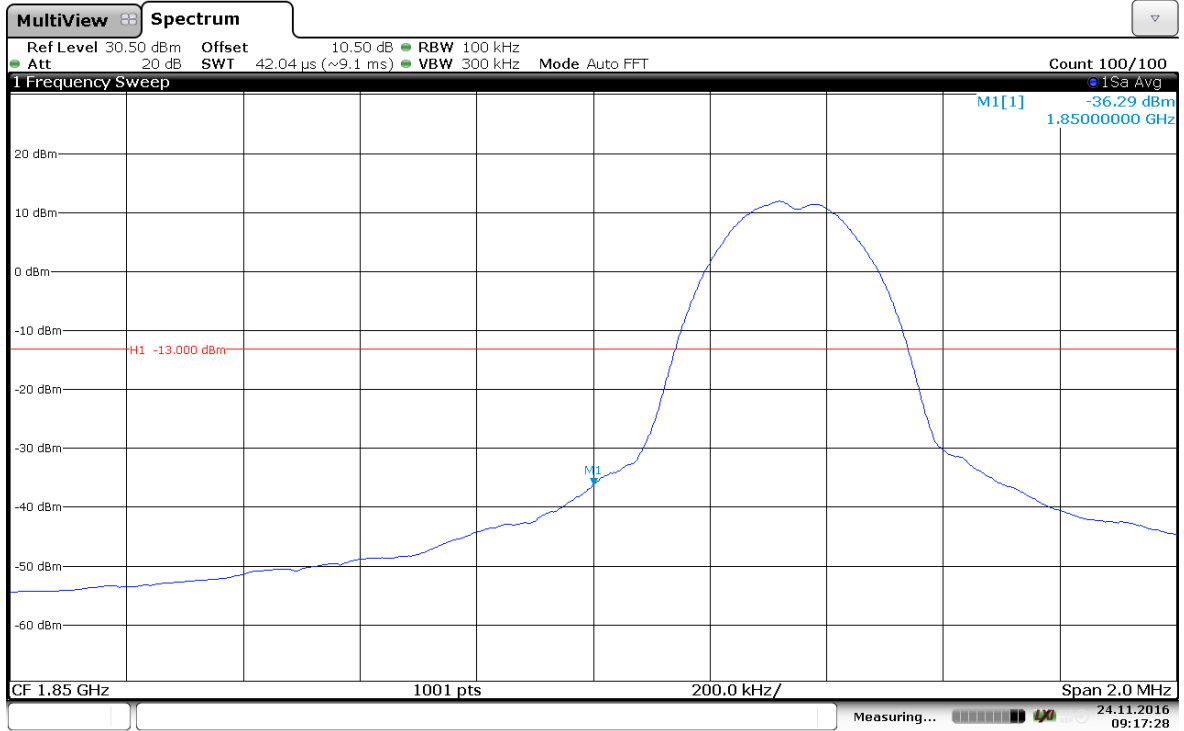


Channel Low-Full RB#

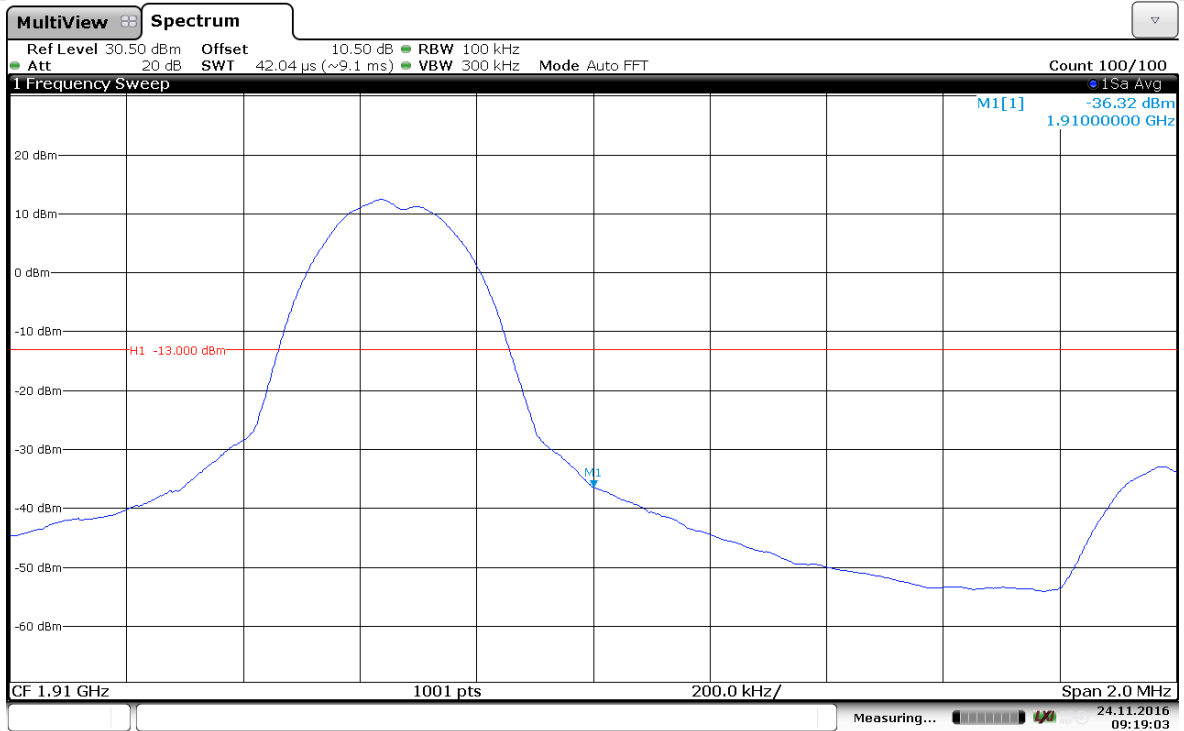


Channel High-Full RB#

LTE Band 2-5MHz-QPSK



Channel Low-1RB#

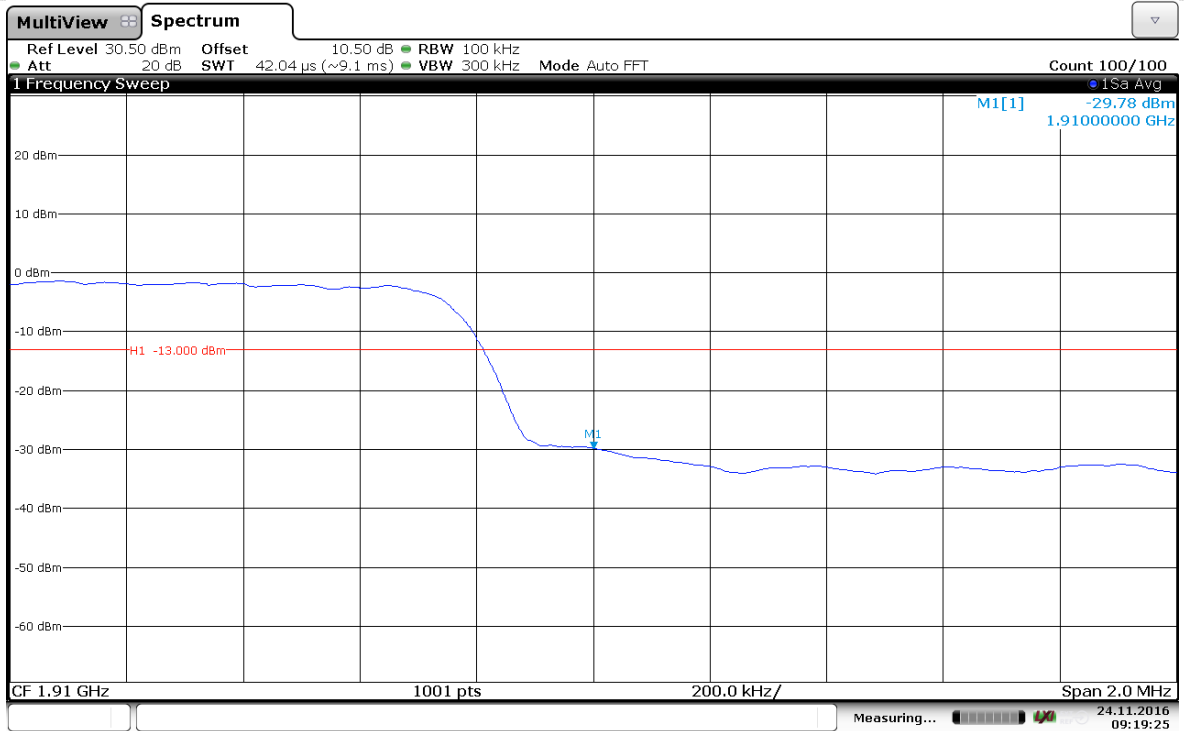


Channel High-1RB#

LTE Band 2-5MHz-QPSK



Channel Low-Full RB#



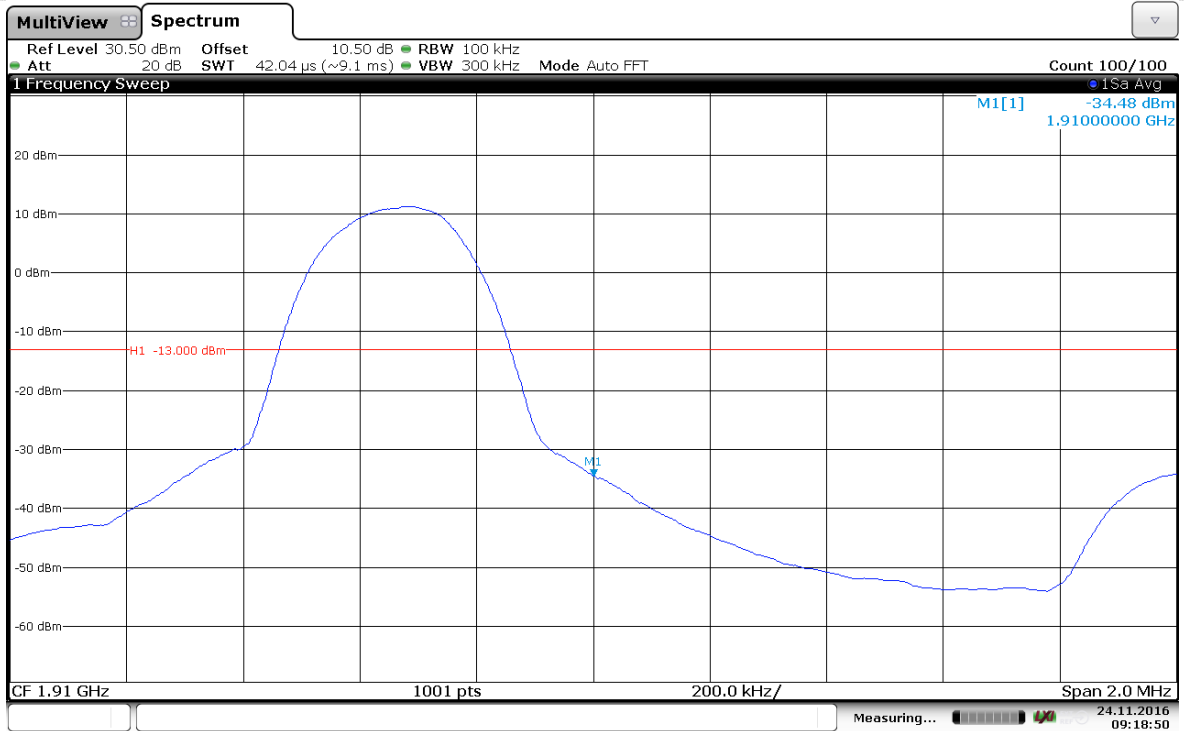
Channel High-Full RB#



LTE Band 2-5MHz-16QAM

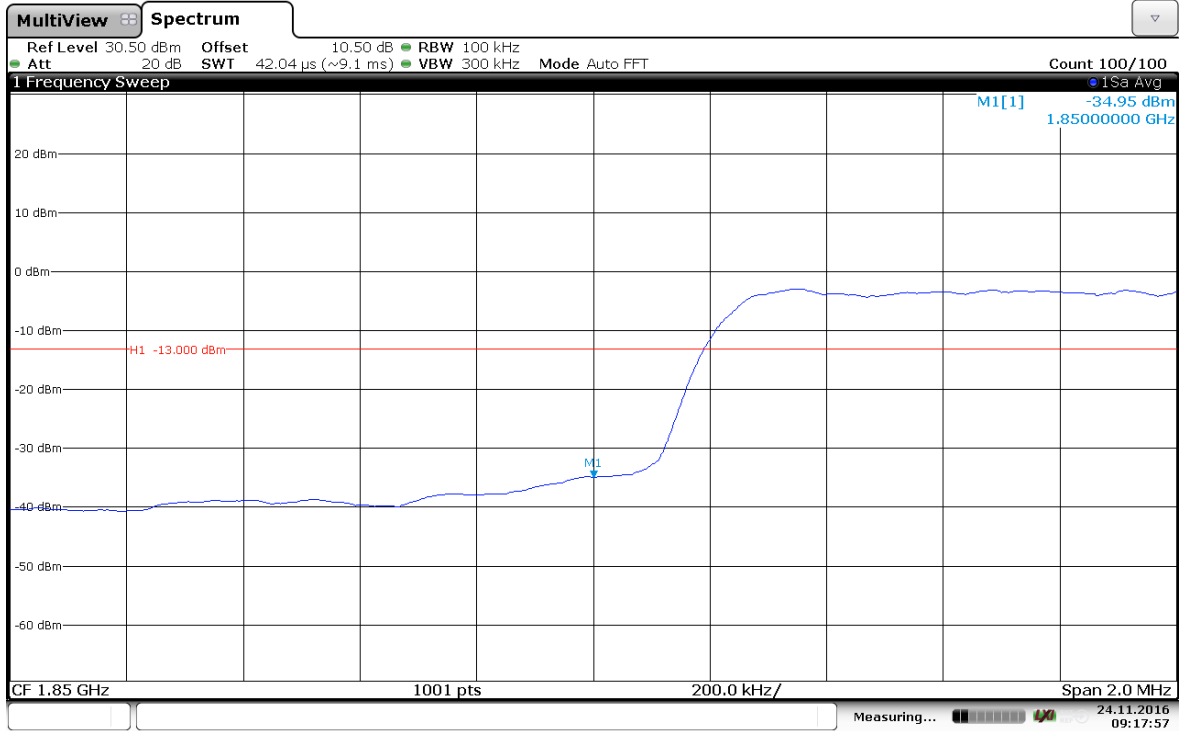


Channel Low-1RB#

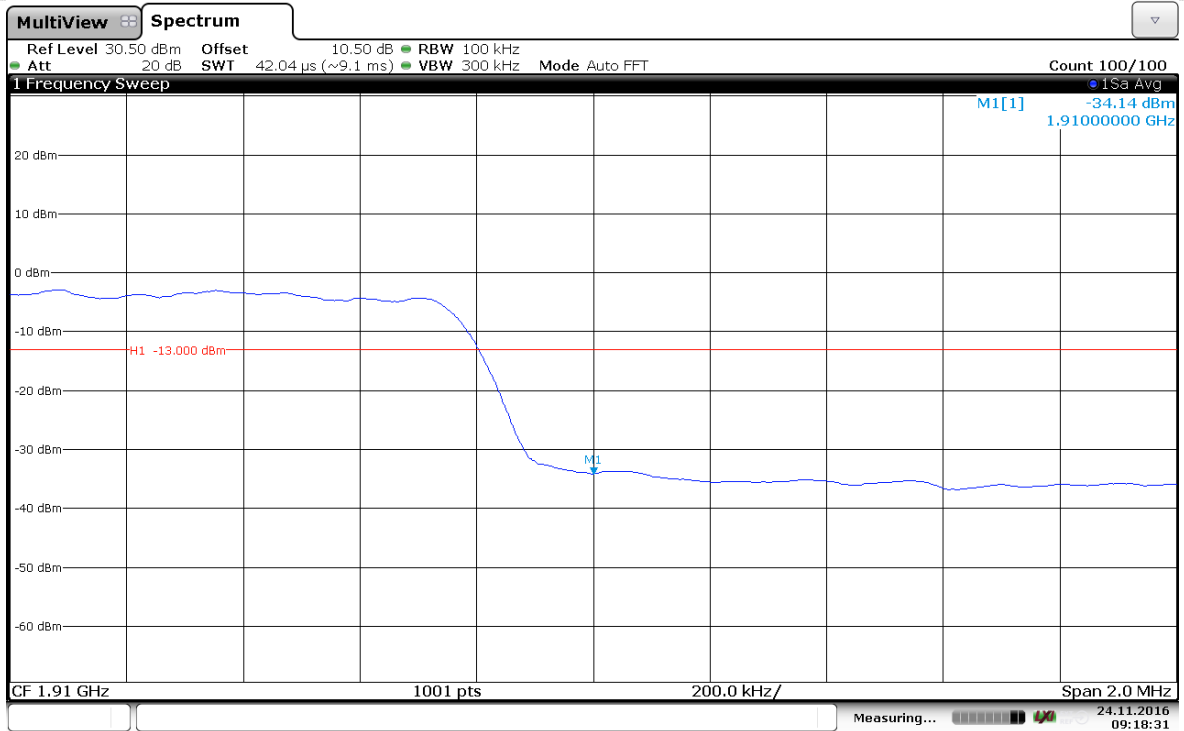


Channel High-1RB#

LTE Band 2-5MHz-16QAM



Channel Low-Full RB#

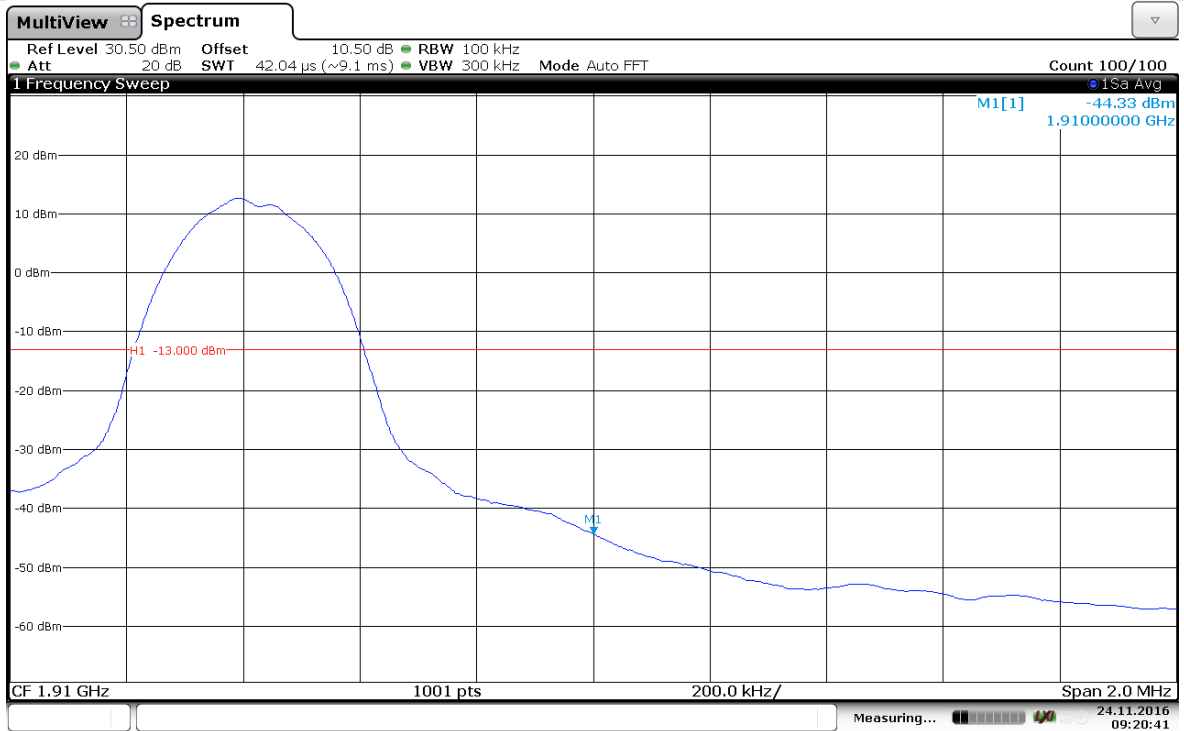


Channel High-Full RB#

### LTE Band 2-10MHz-QPSK

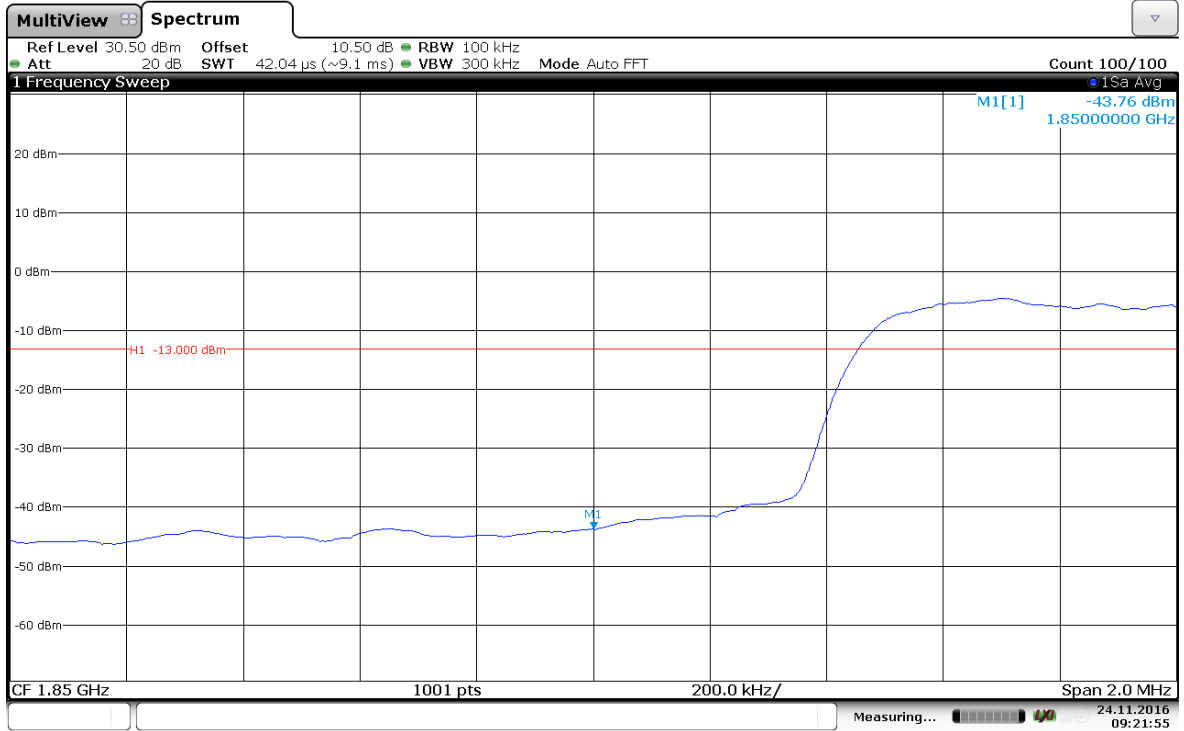


### Channel Low-1RB#

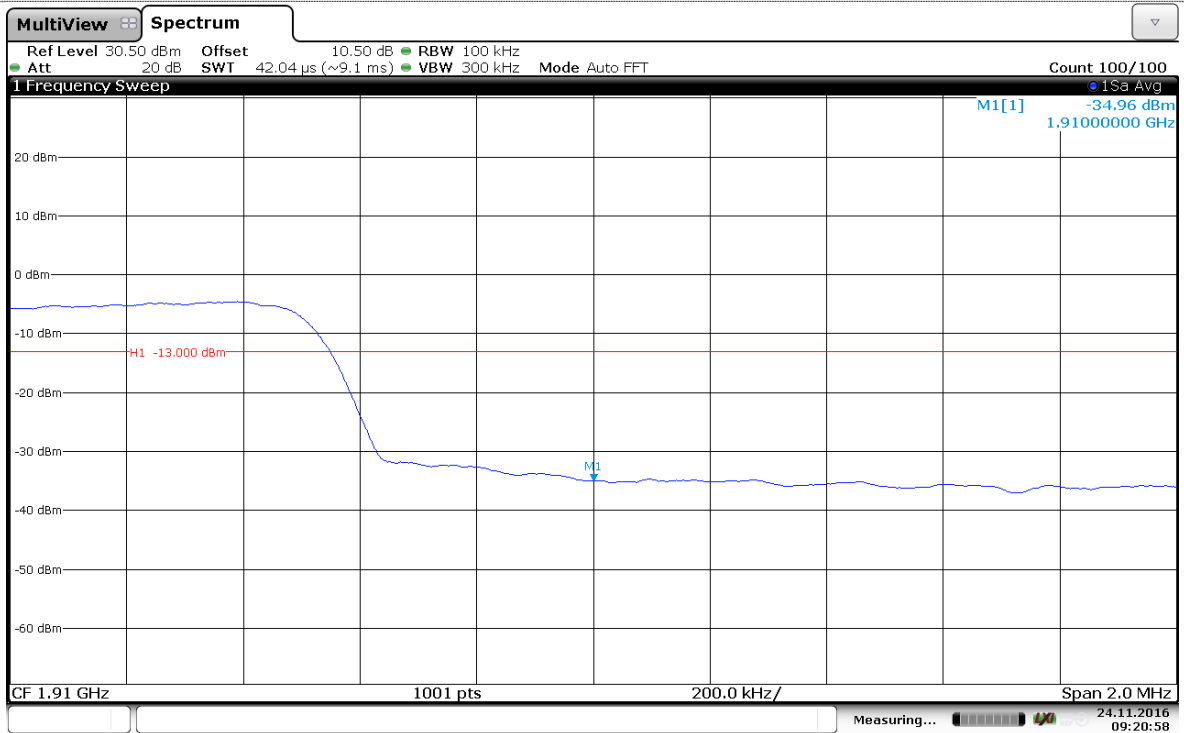


### Channel High-1RB#

LTE Band 2-10MHz-QPSK



Channel Low-Full RB#

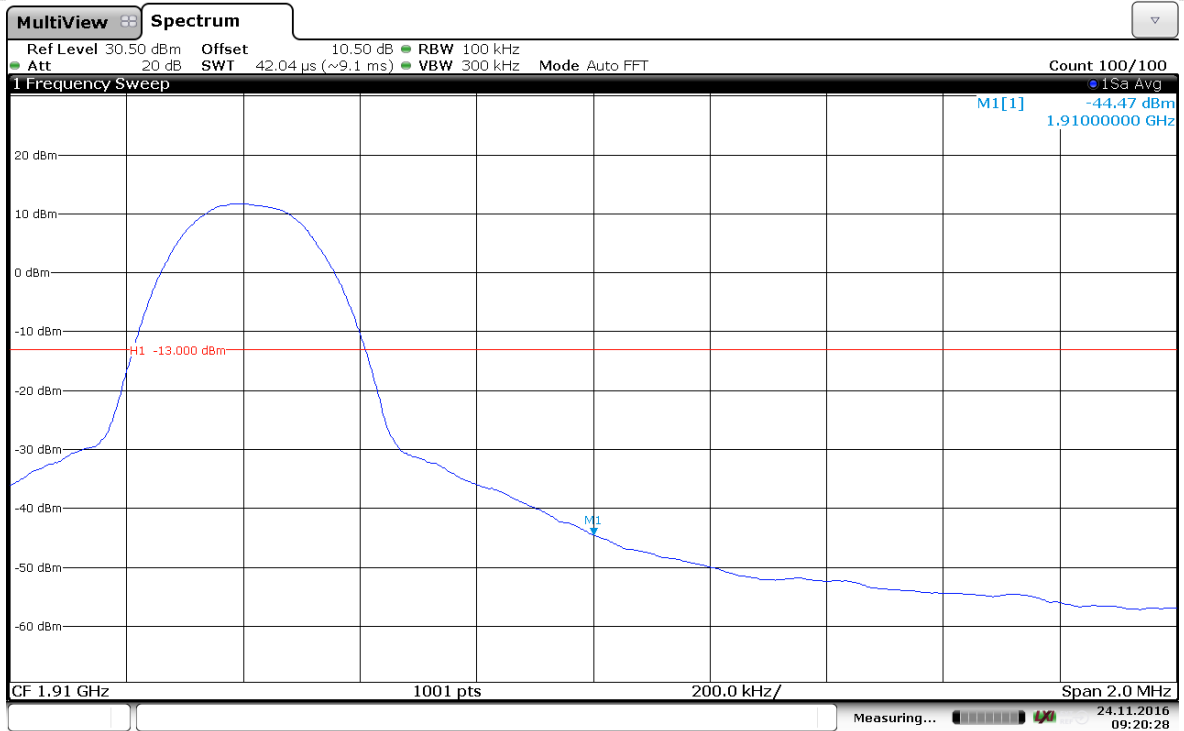


Channel High-Full RB#

### LTE Band 2-10MHz-16QAM

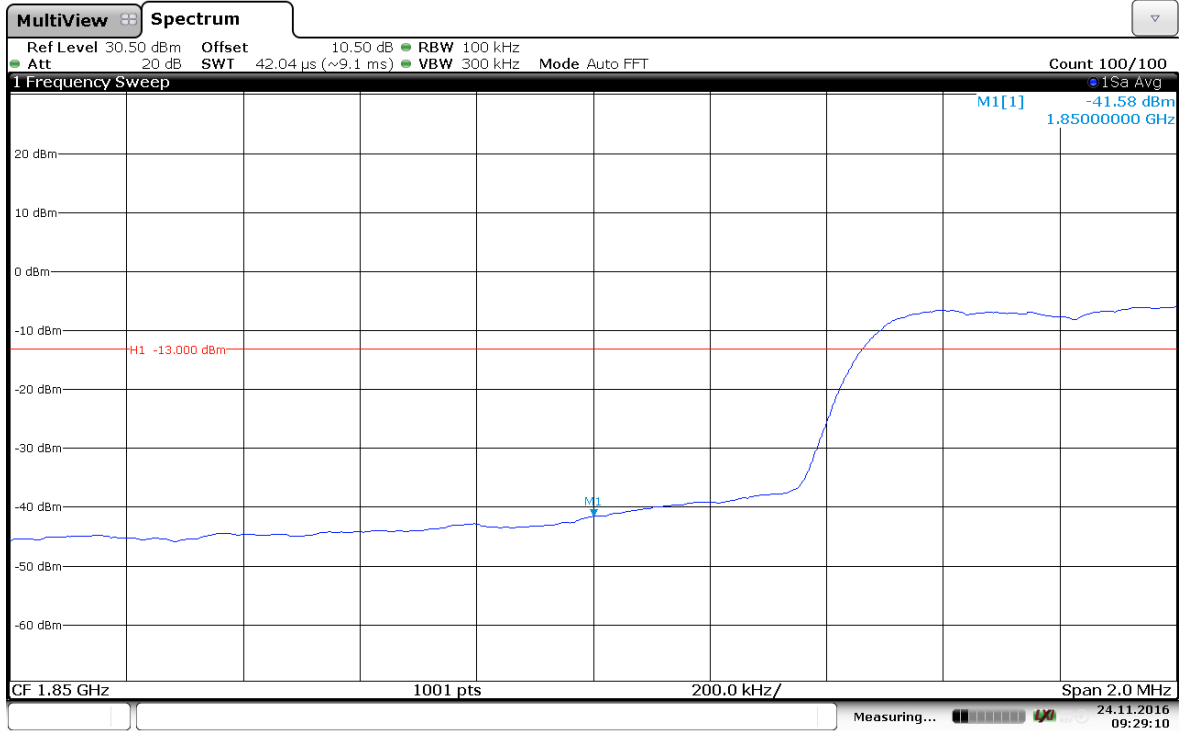


### Channel Low-1RB#

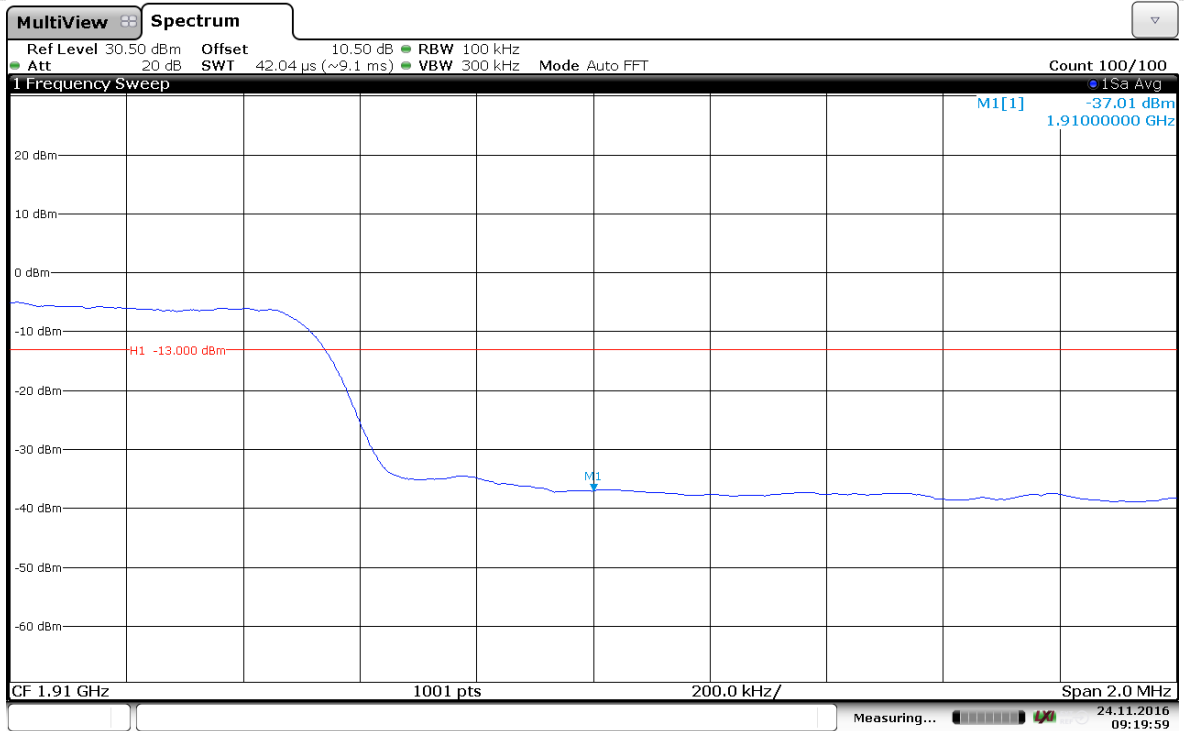


### Channel High-1RB#

LTE Band 2-10MHz-16QAM

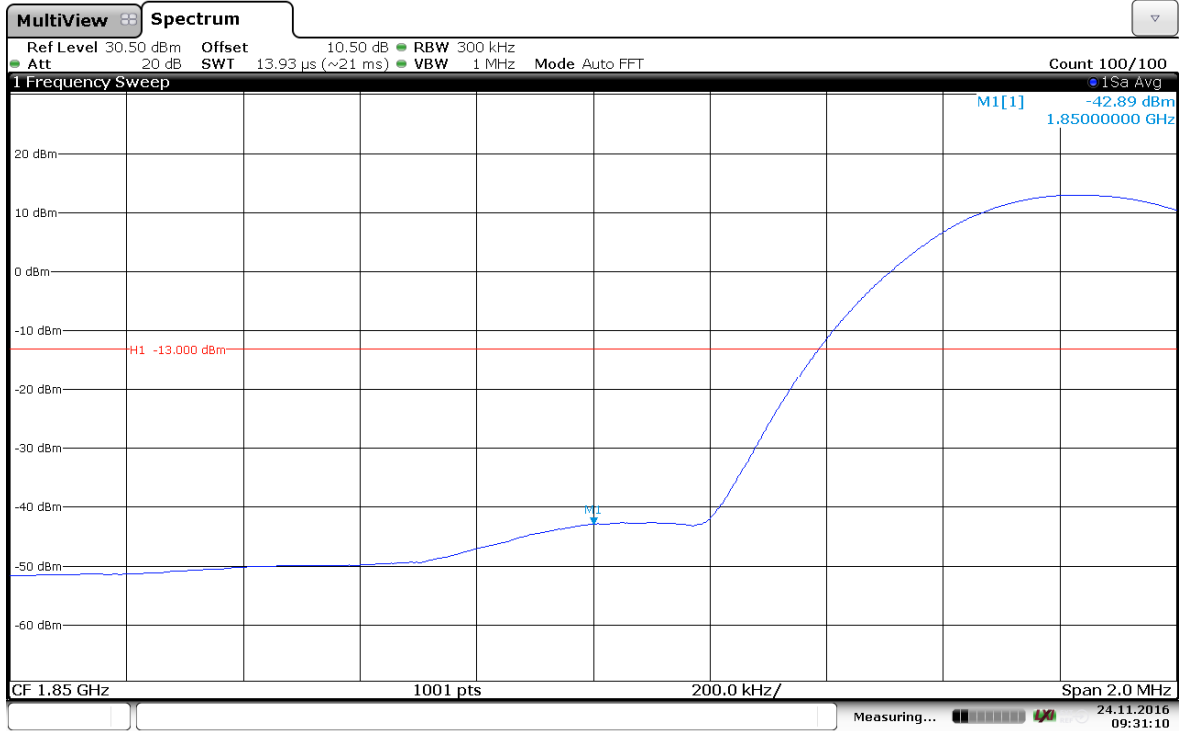


Channel Low-Full RB#

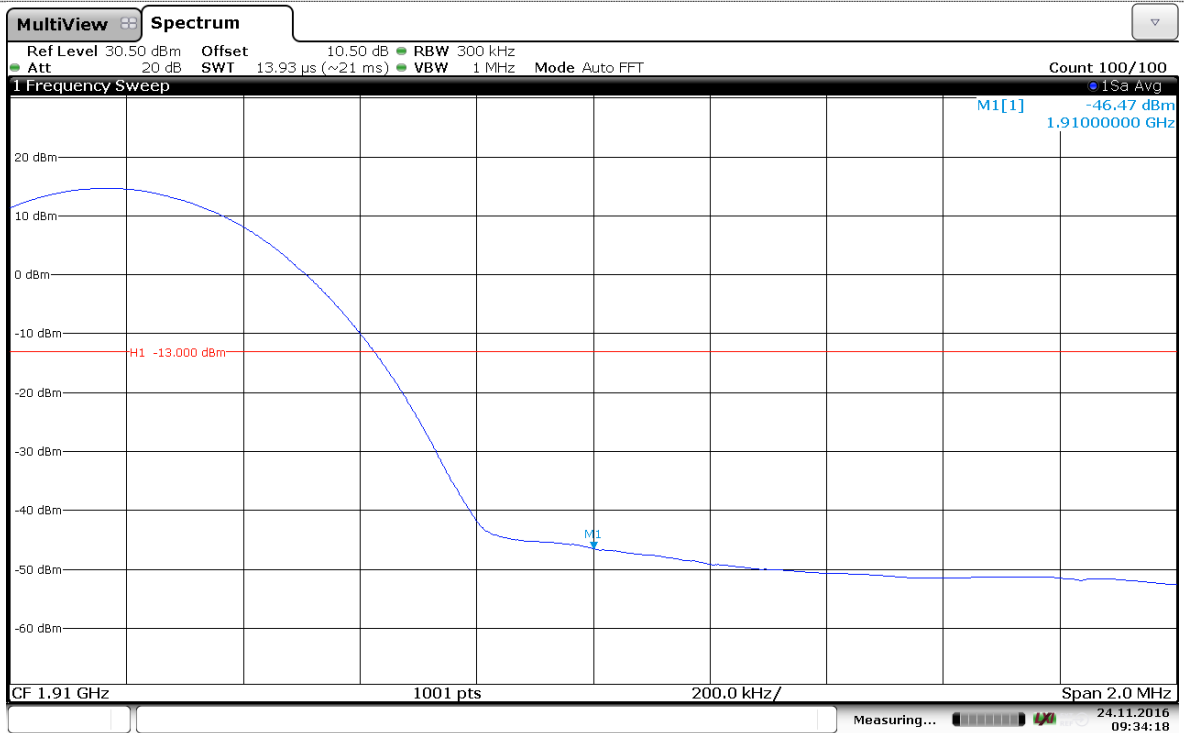


Channel High-Full RB#

LTE Band 2-15MHz-QPSK

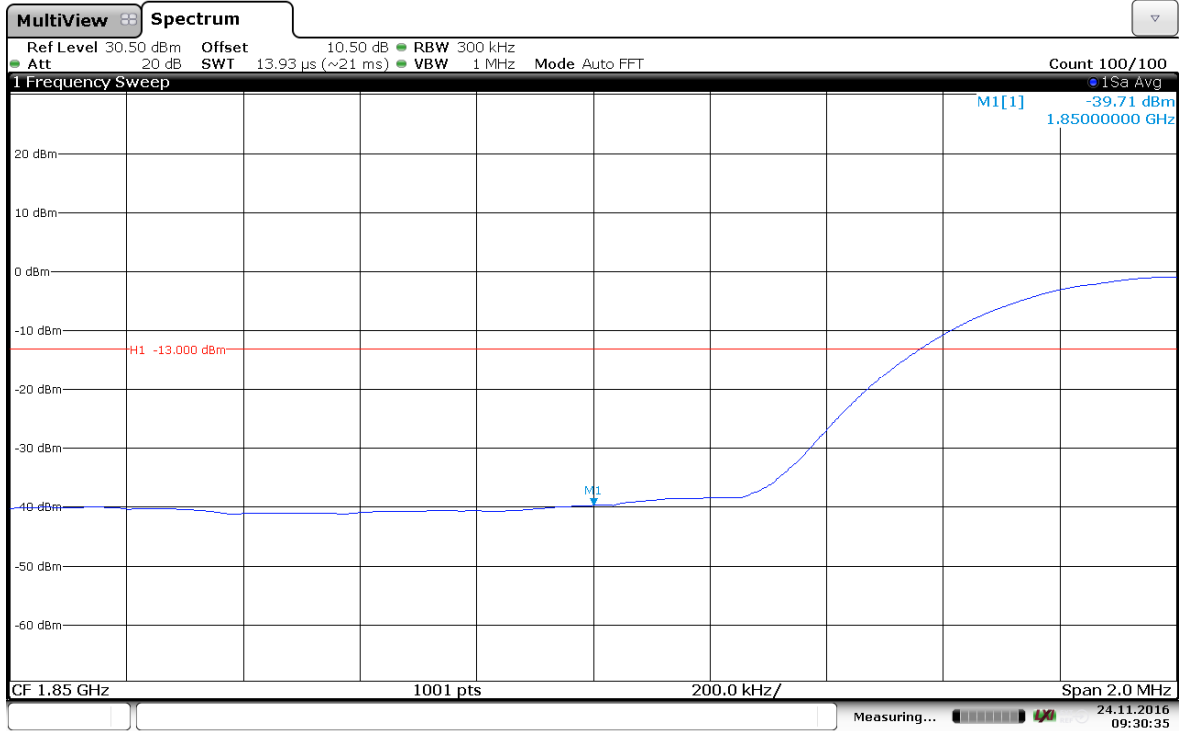


Channel Low-1RB#

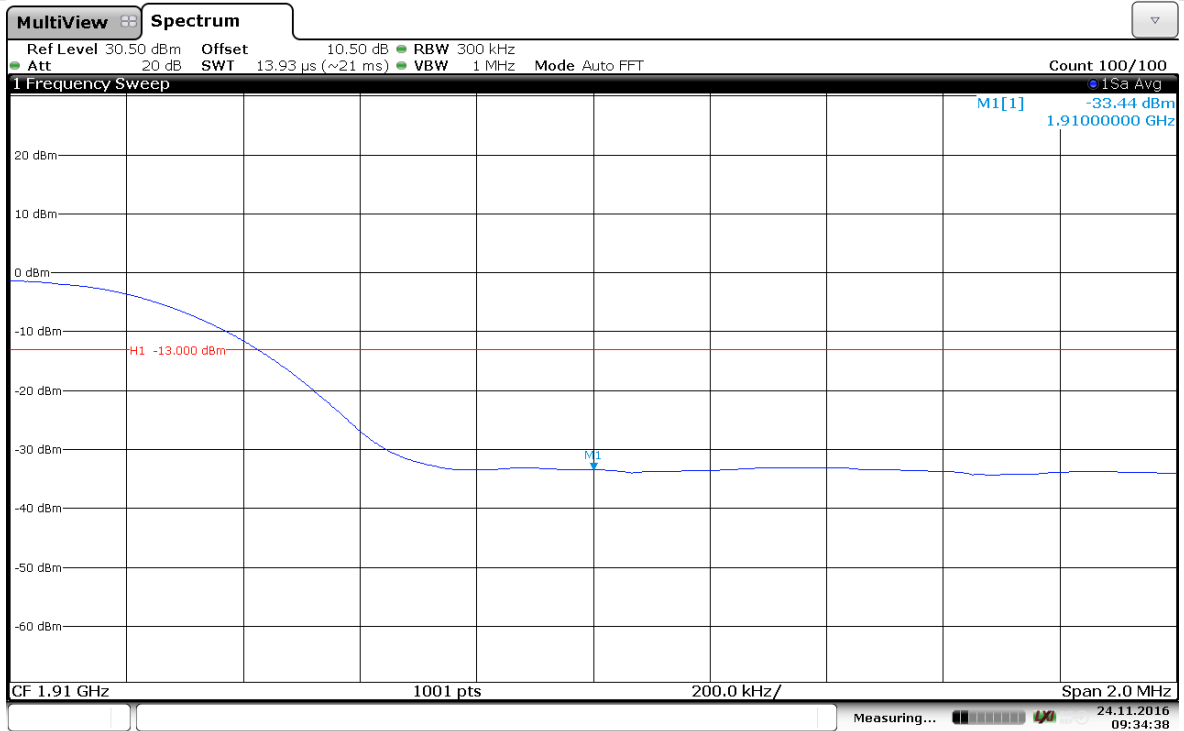


Channel High-1RB#

LTE Band 2-15MHz-QPSK



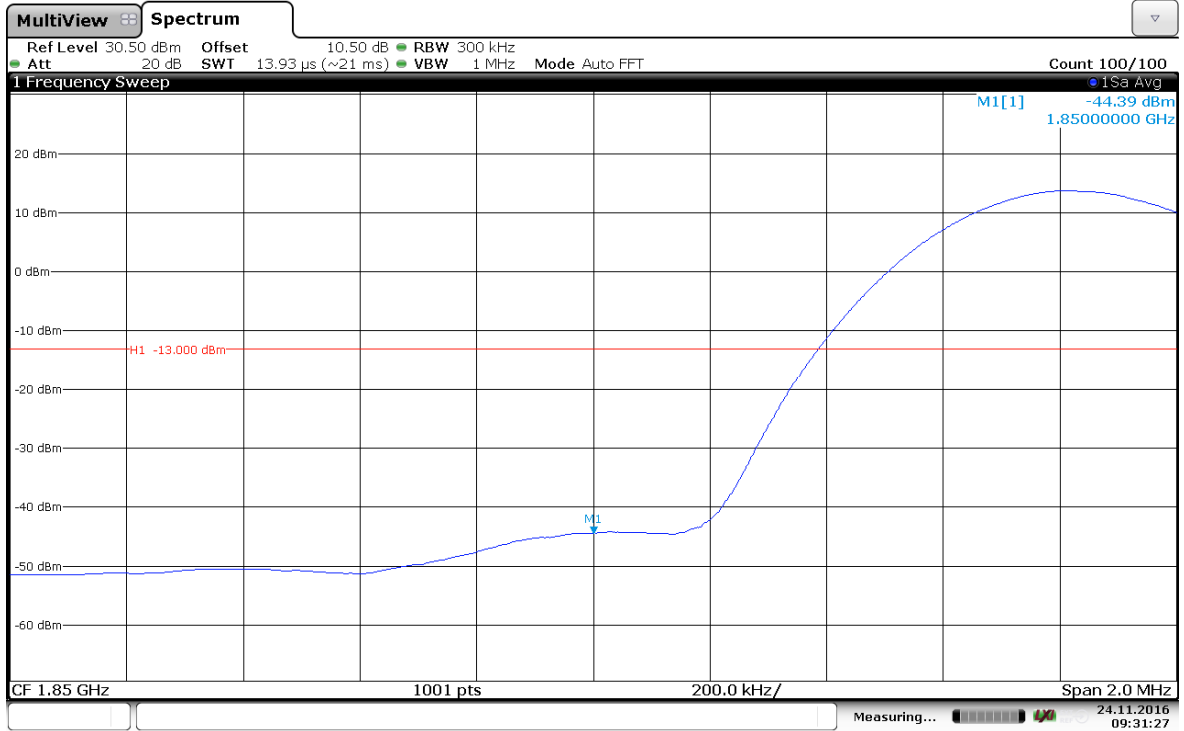
Channel Low-Full RB#



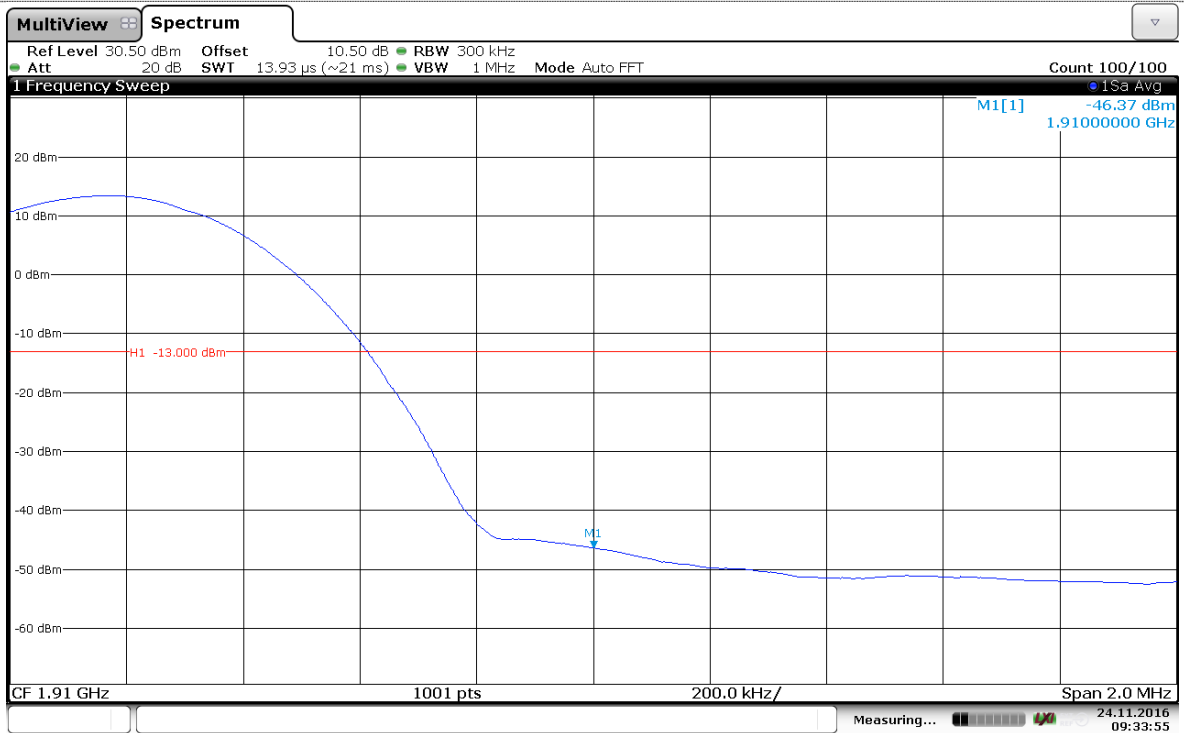
Channel High-Full RB#



LTE Band 2-15MHz-16QAM

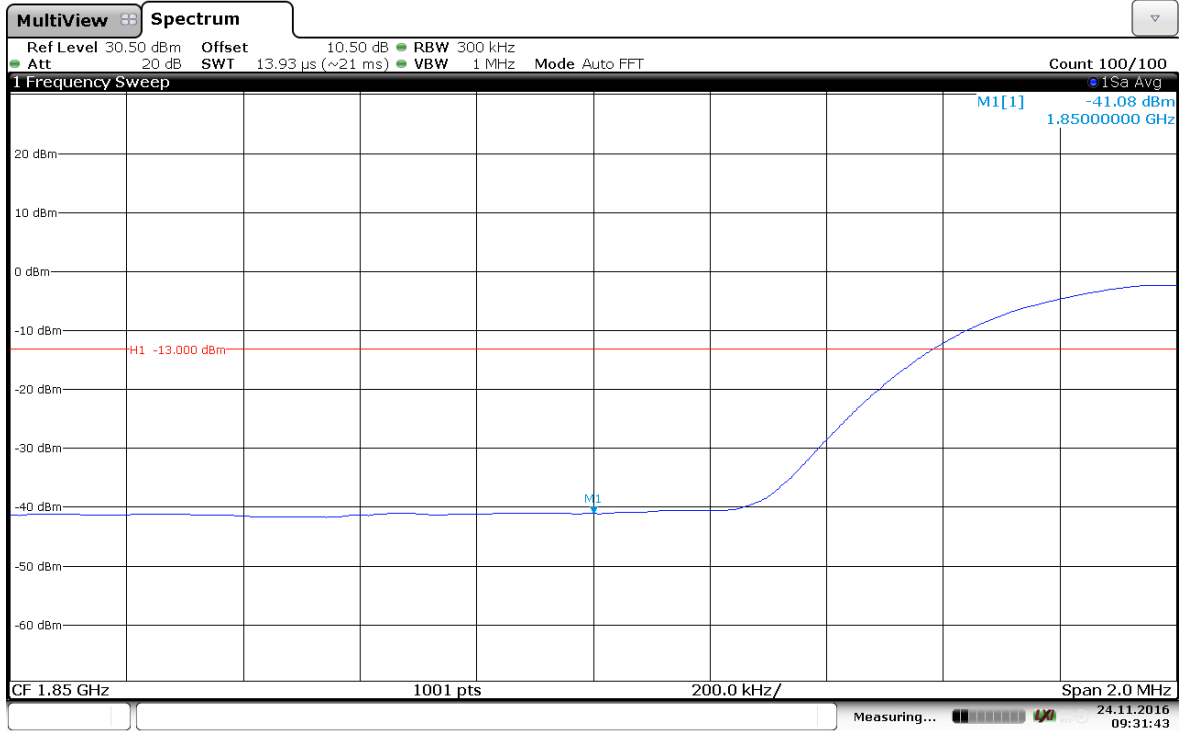


Channel Low-1RB#

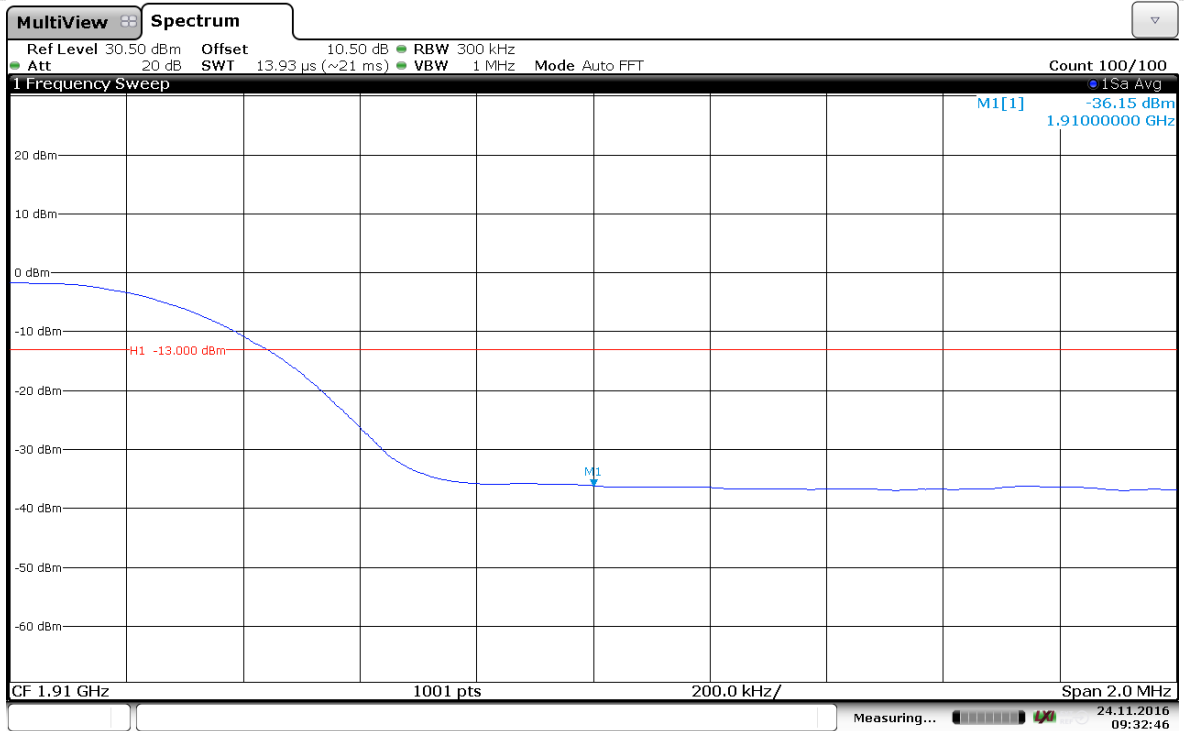


Channel High-1RB#

### LTE Band 2-15MHz-16QAM

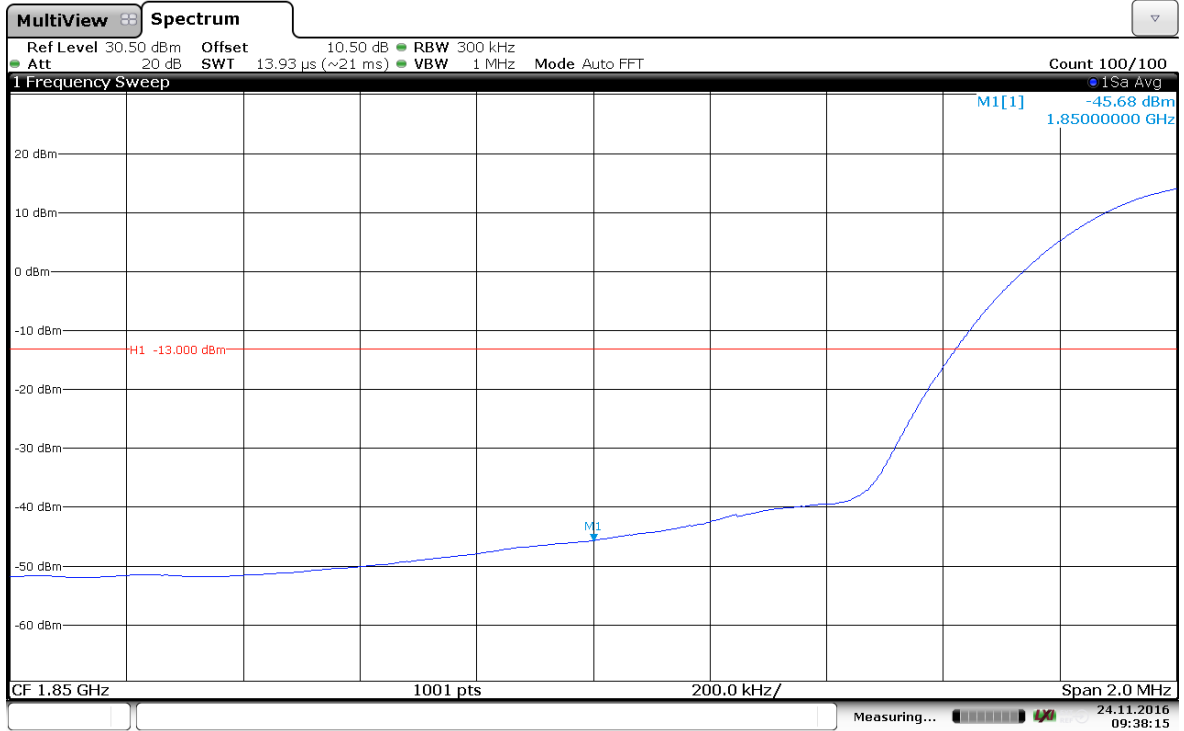


### Channel Low-Full RB#

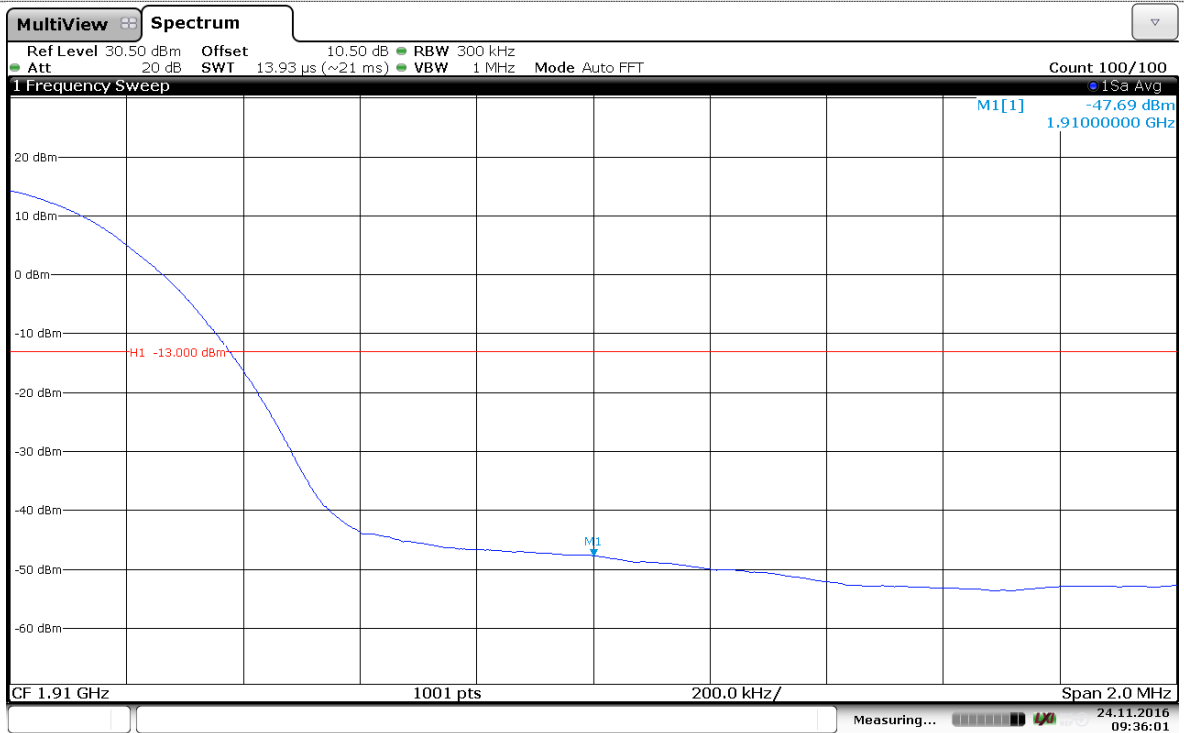


### Channel High-Full RB#

### LTE Band 2-20MHz-QPSK

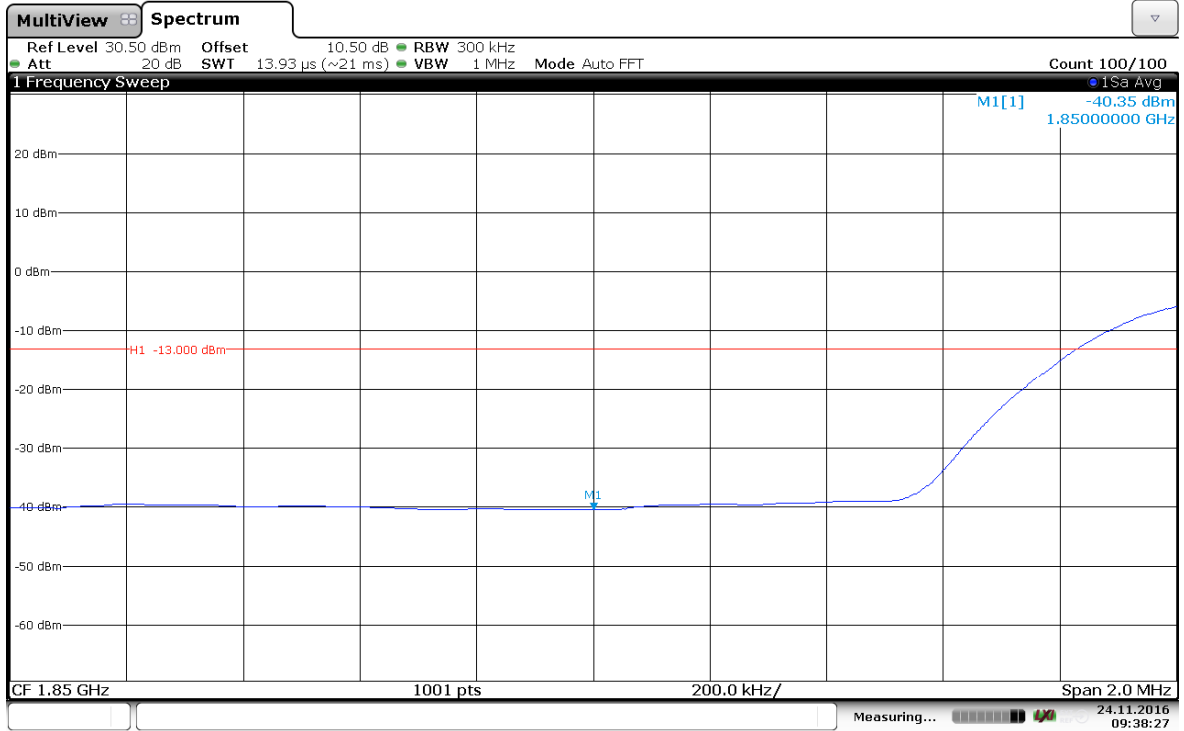


### Channel Low-1RB#

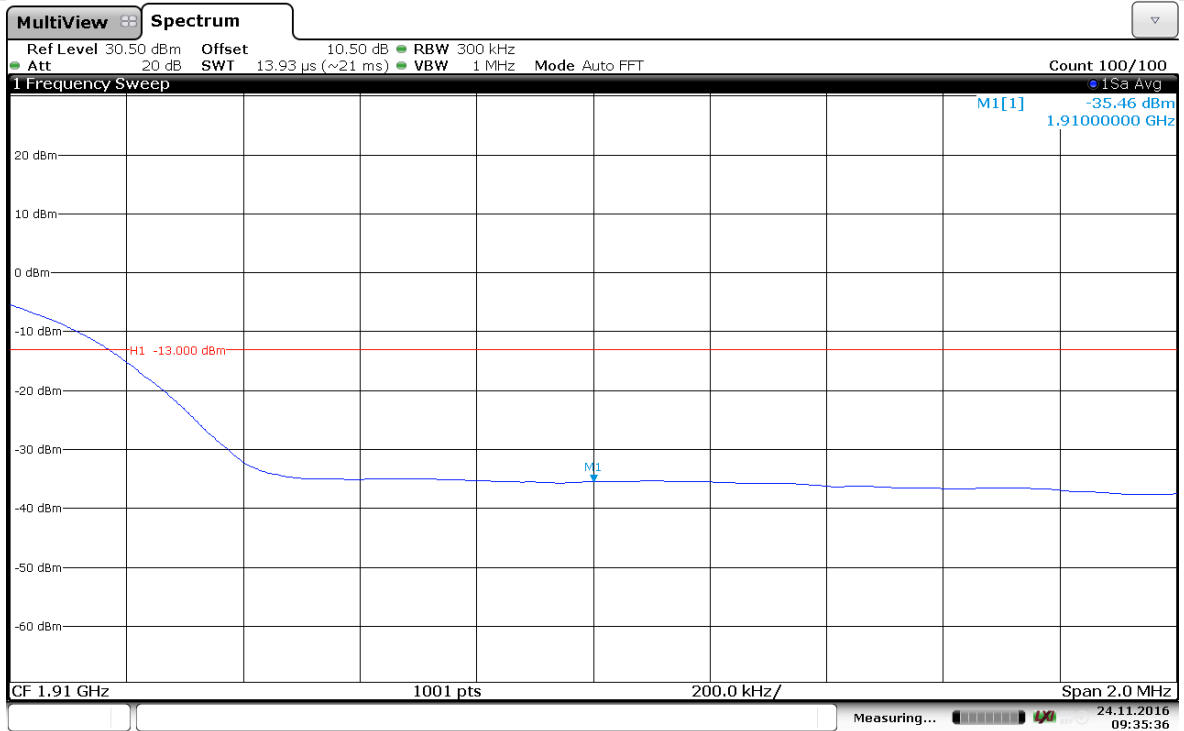


### Channel High-1RB#

LTE Band 2-20MHz-QPSK



Channel Low-Full RB#

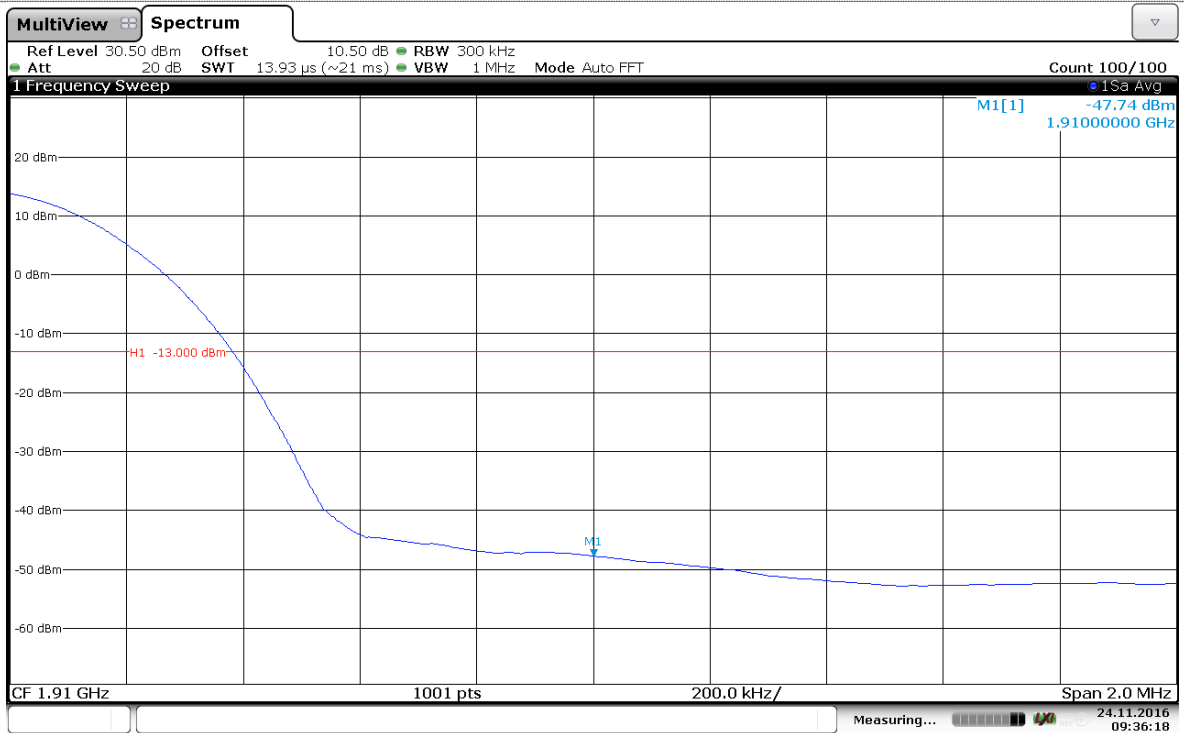


Channel High-Full RB#

### LTE Band 2-20MHz-16QAM

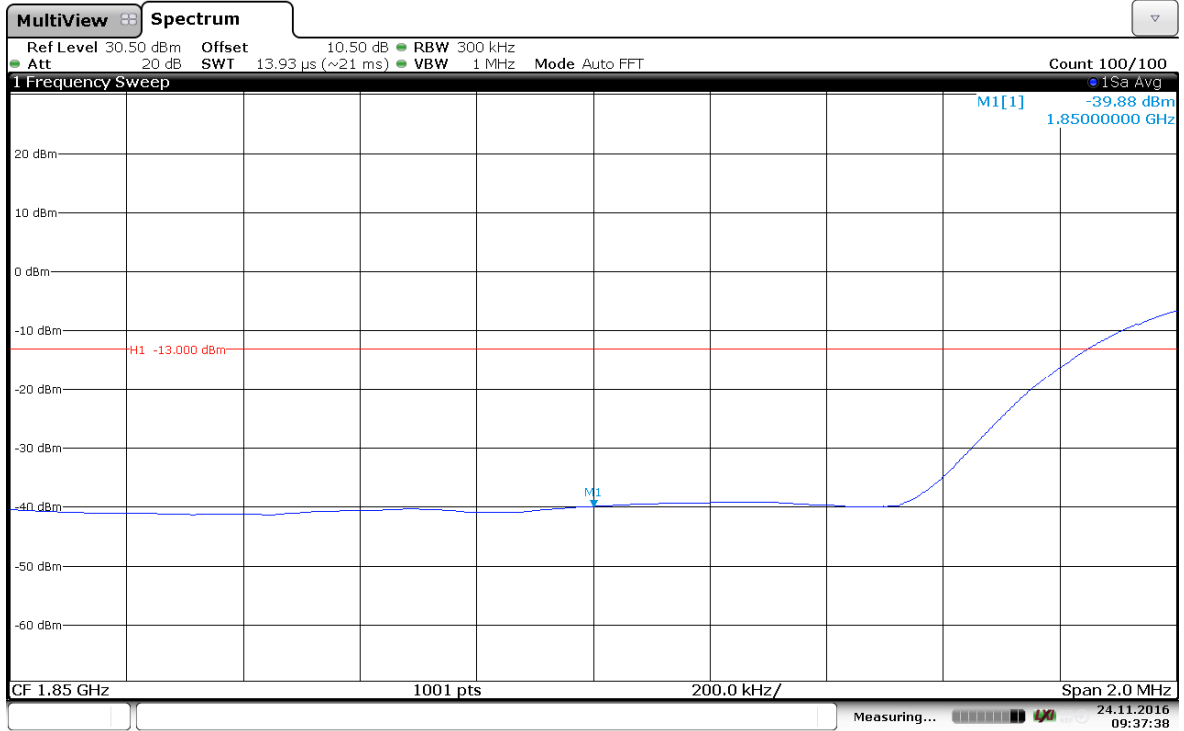


### Channel Low-1RB#

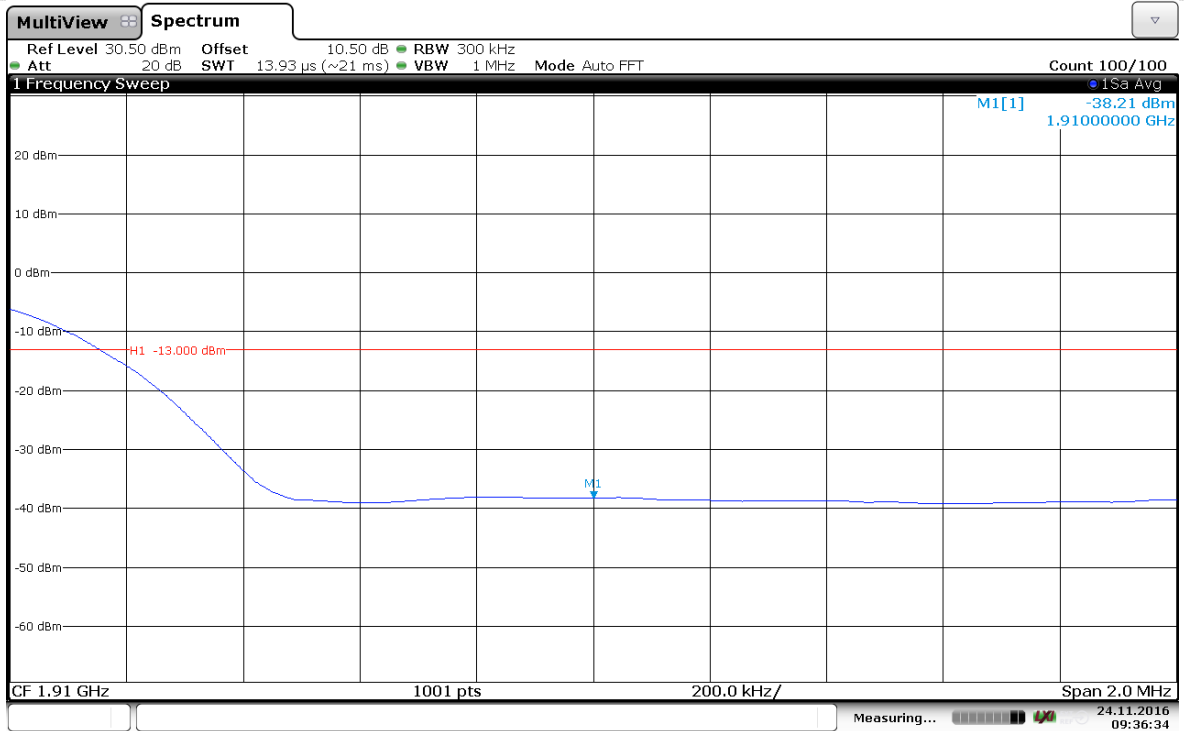


### Channel High-1RB#

### LTE Band 2-20MHz-16QAM

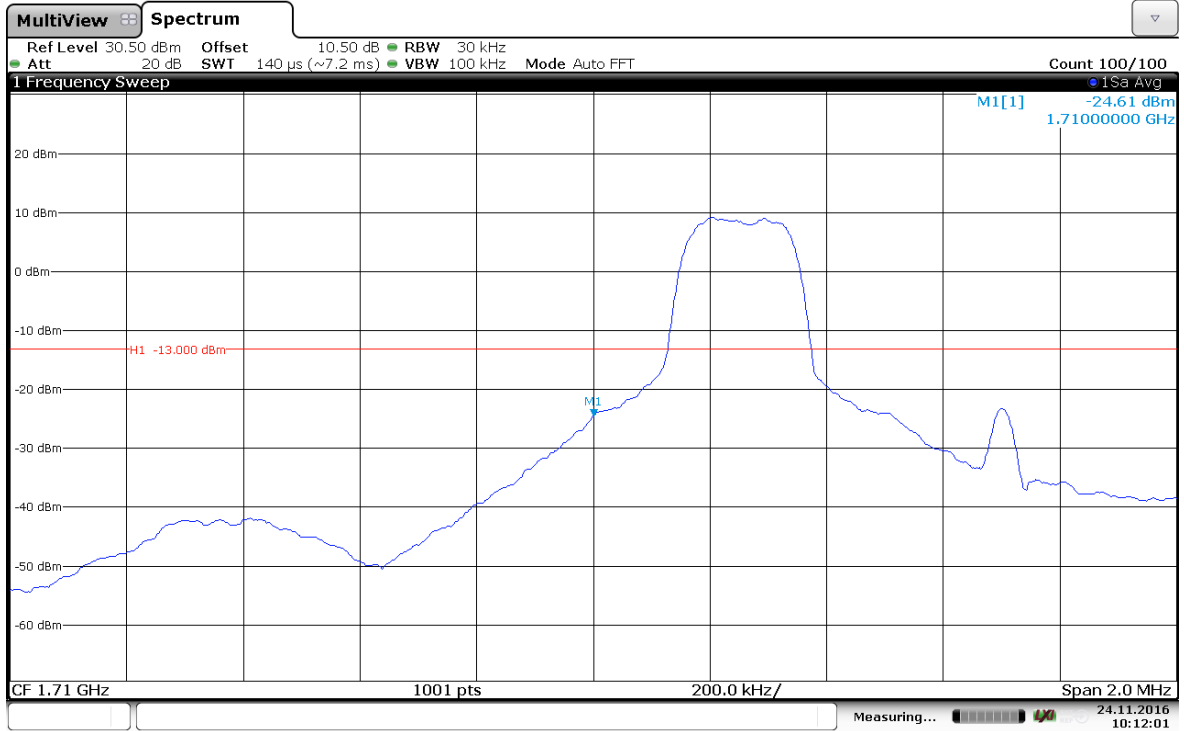


### Channel Low-Full RB#

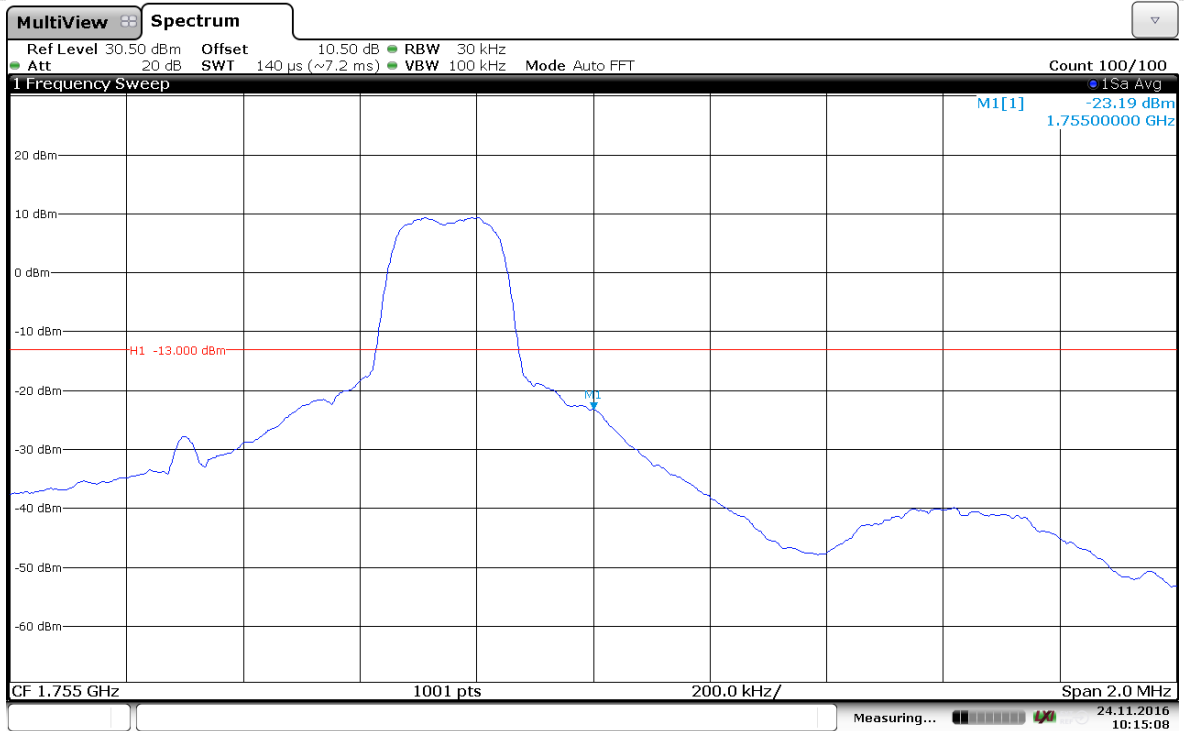


### Channel High-Full RB#

### LTE Band 4-1.4MHz-QPSK

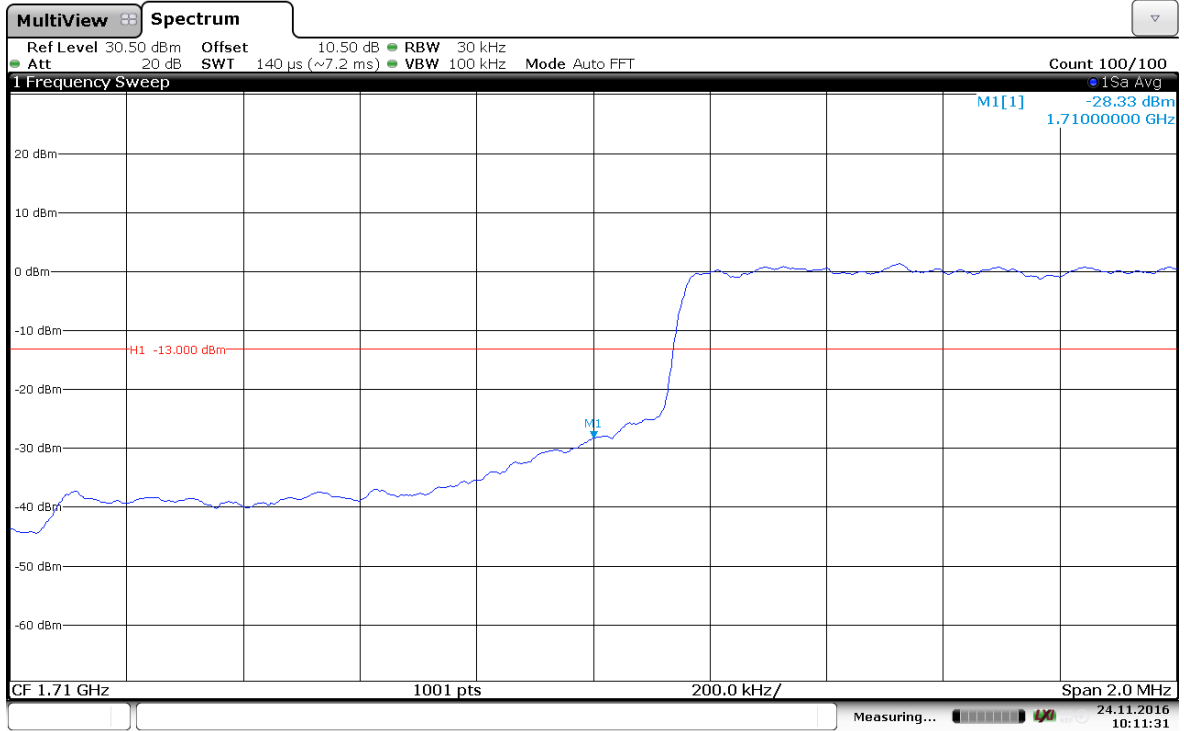


### Channel Low-1RB#

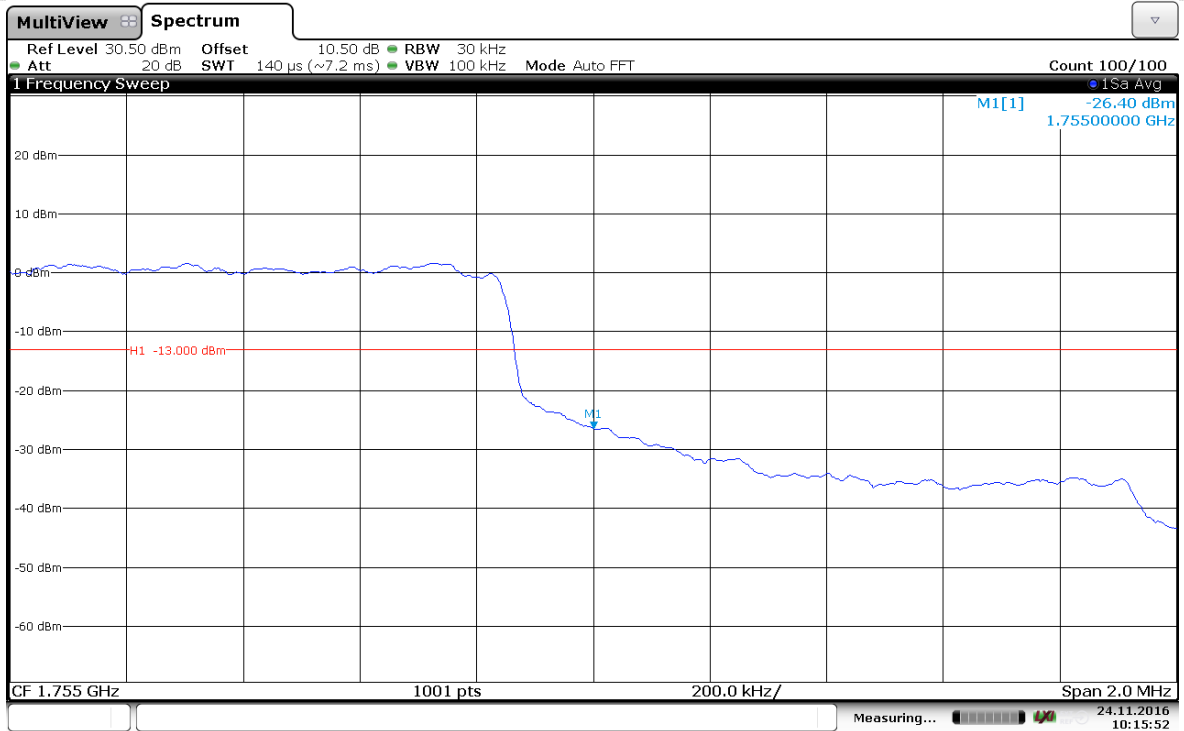


### Channel High-1RB#

LTE Band 4-1.4MHz-QPSK



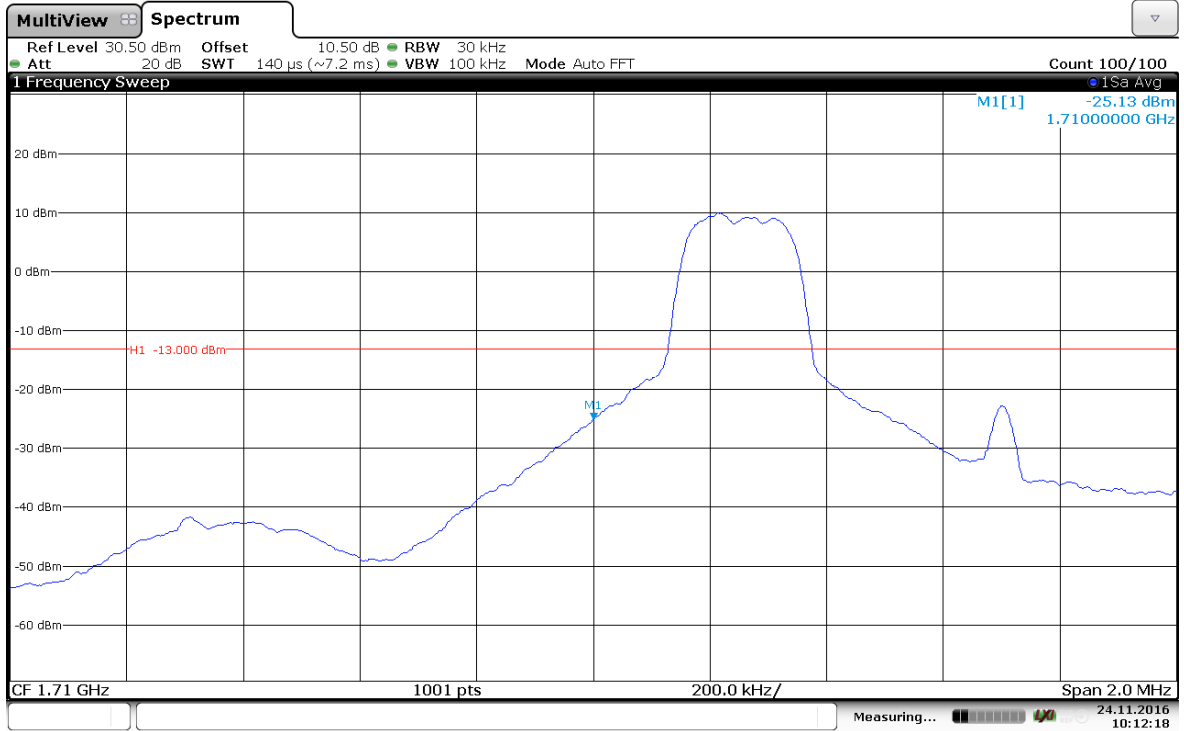
Channel Low-Full RB#



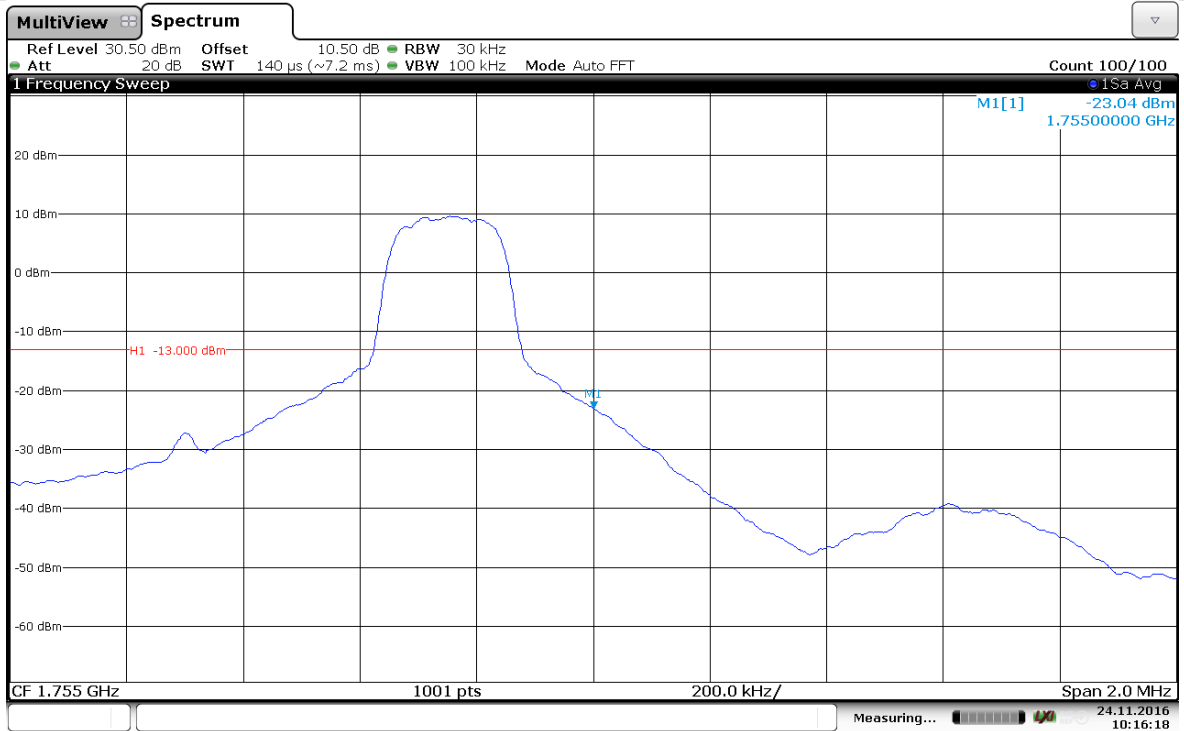
Channel High-Full RB#



### LTE Band 4-1.4MHz-16QAM

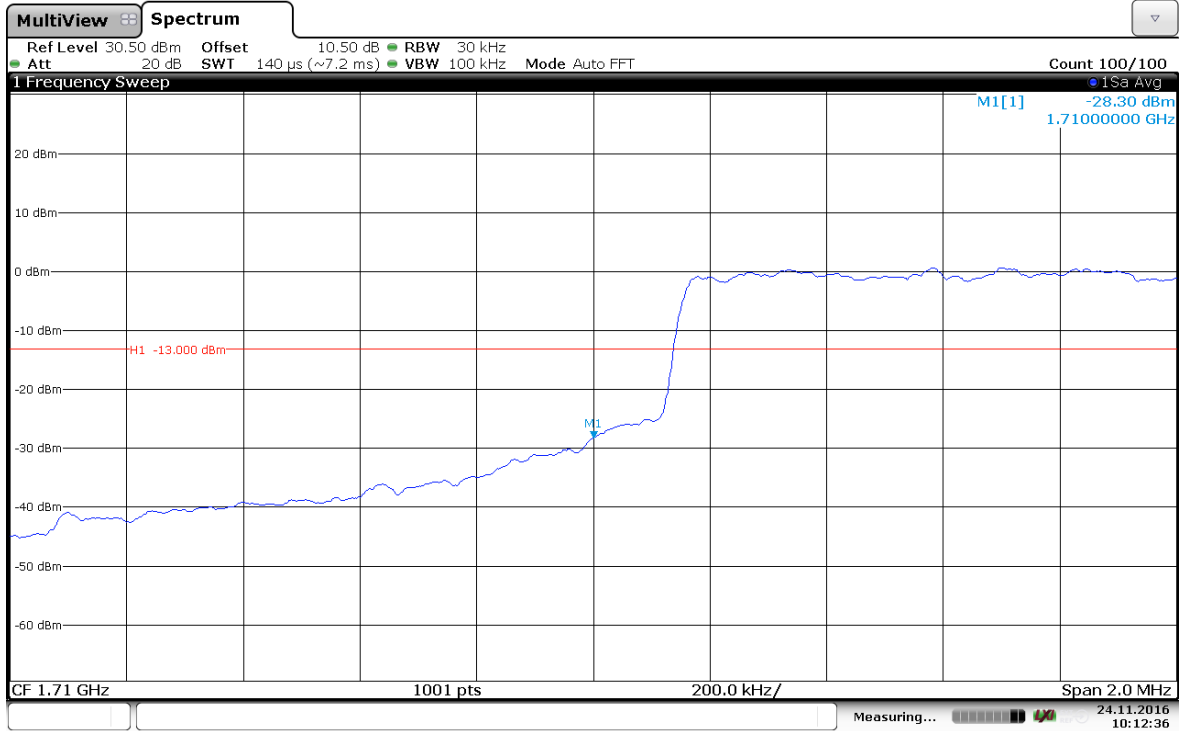


### Channel Low-1RB#

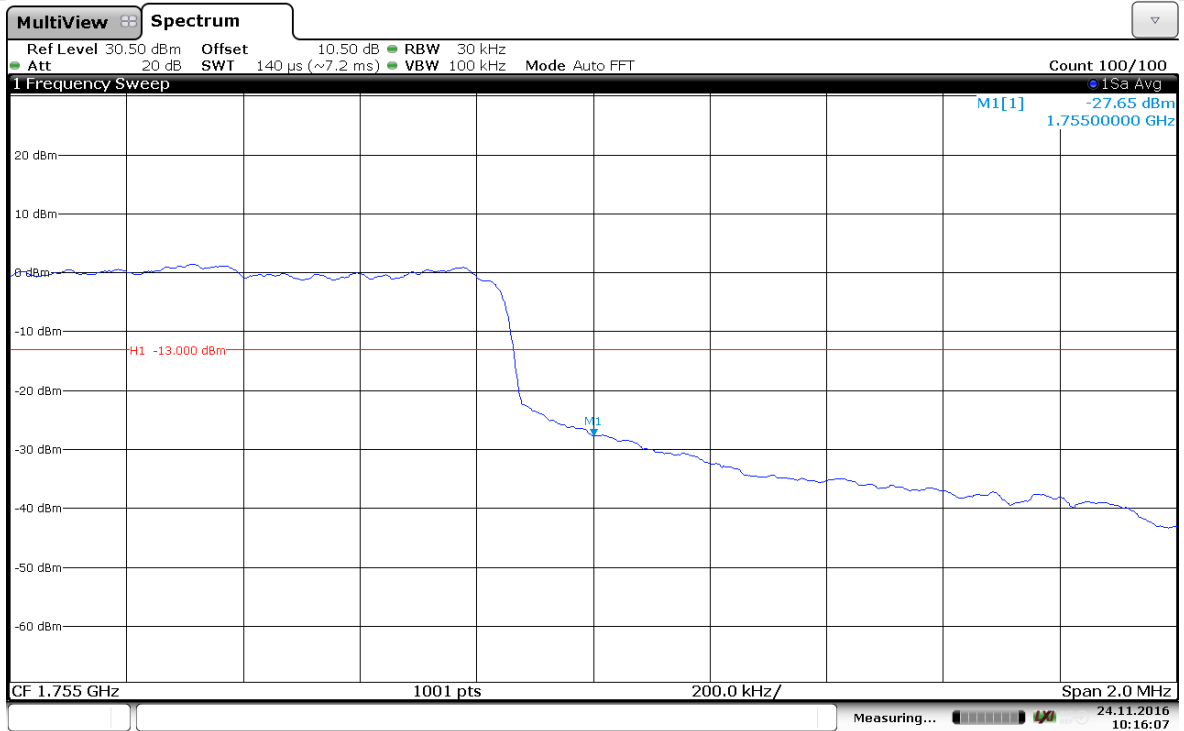


### Channel High-1RB#

### LTE Band 4-1.4MHz-16QAM

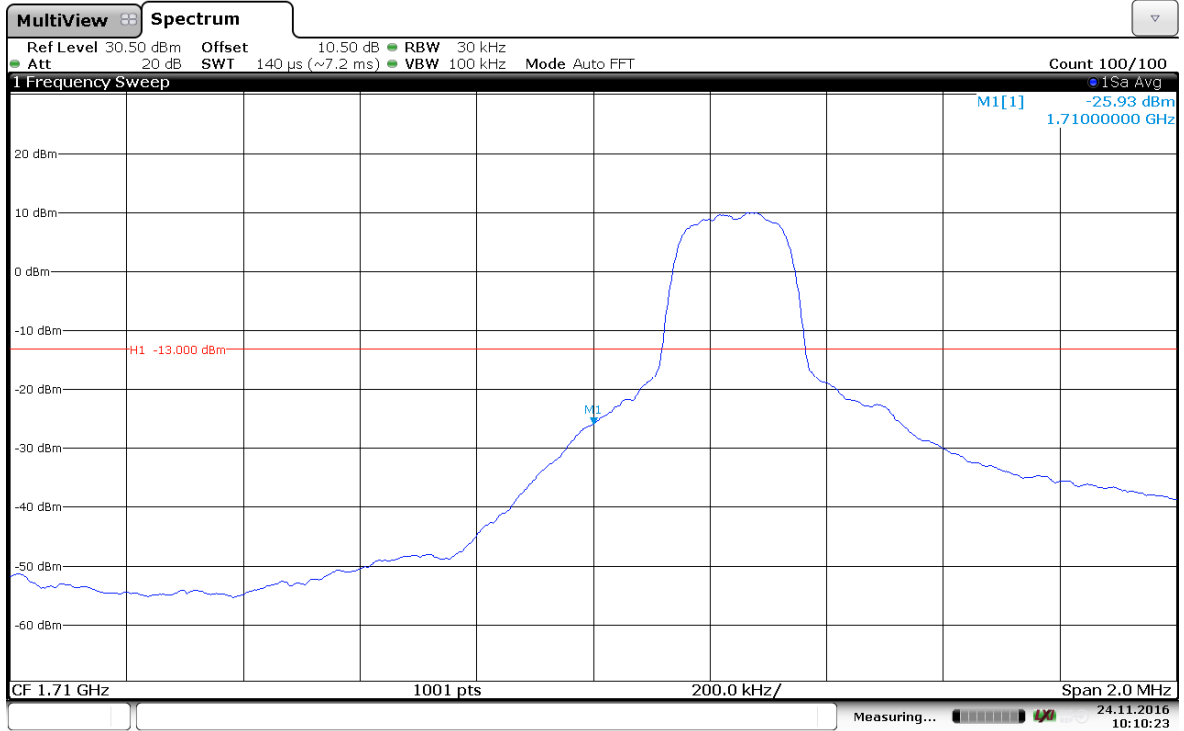


### Channel Low-Full RB#

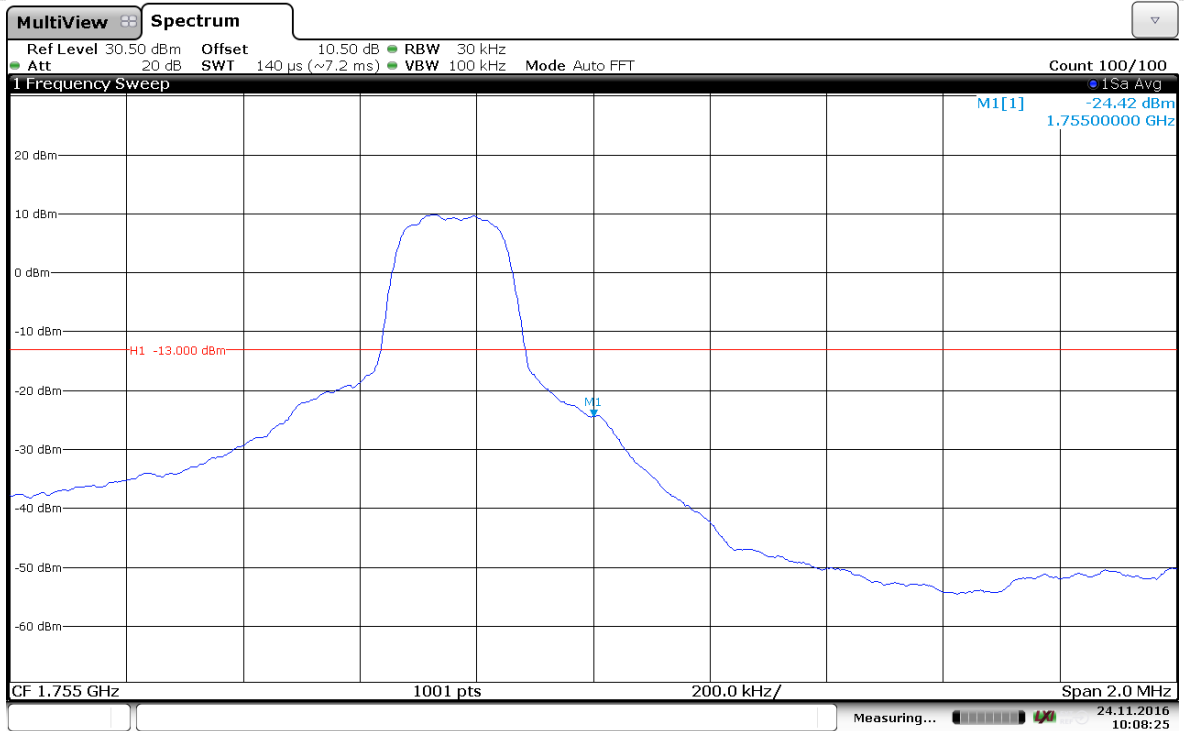


### Channel High-Full RB#

### LTE Band 4-3MHz-QPSK



### Channel Low-1RB#

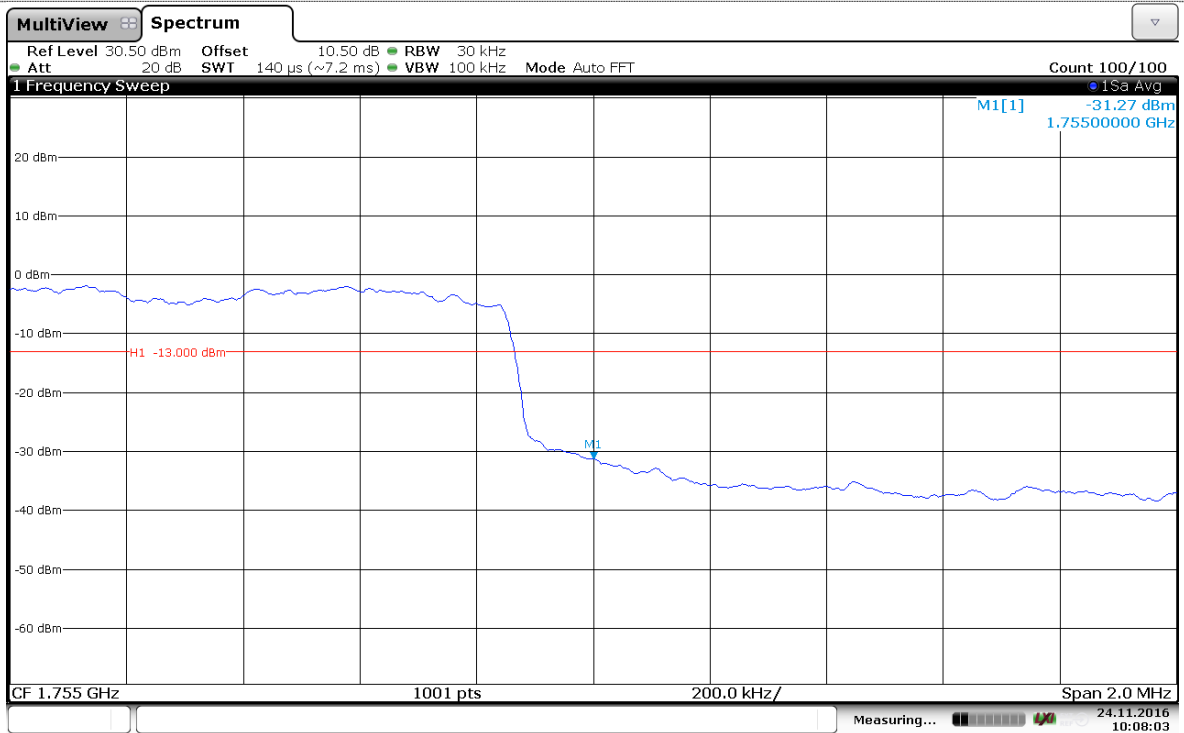


### Channel High-1RB#

### LTE Band 4-3MHz-QPSK

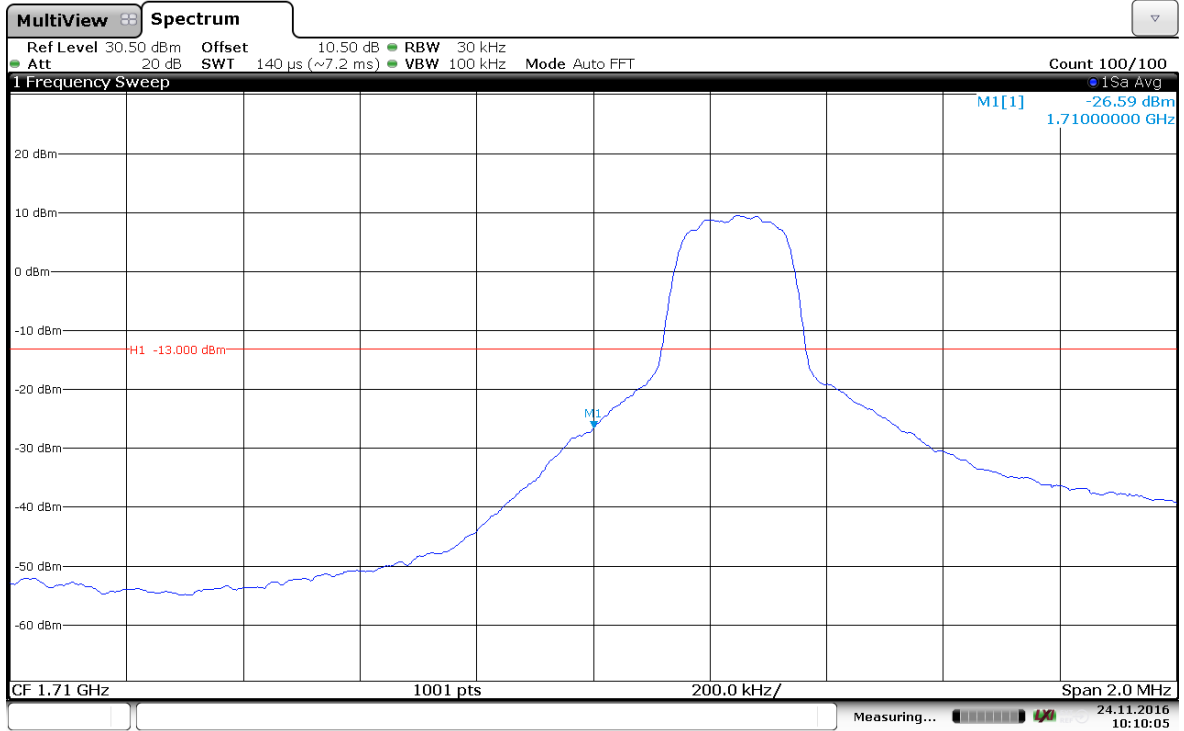


### Channel Low-Full RB#

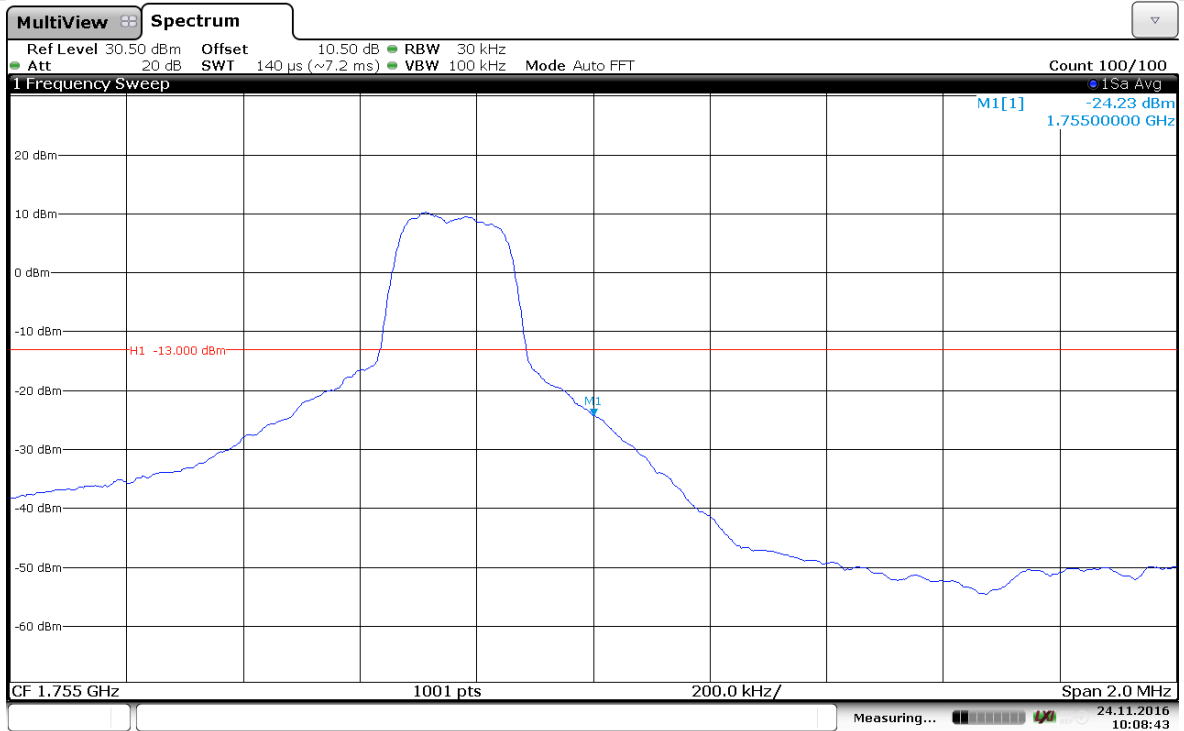


### Channel High-Full RB#

LTE Band 4-3MHz-16QAM



Channel Low-1RB#

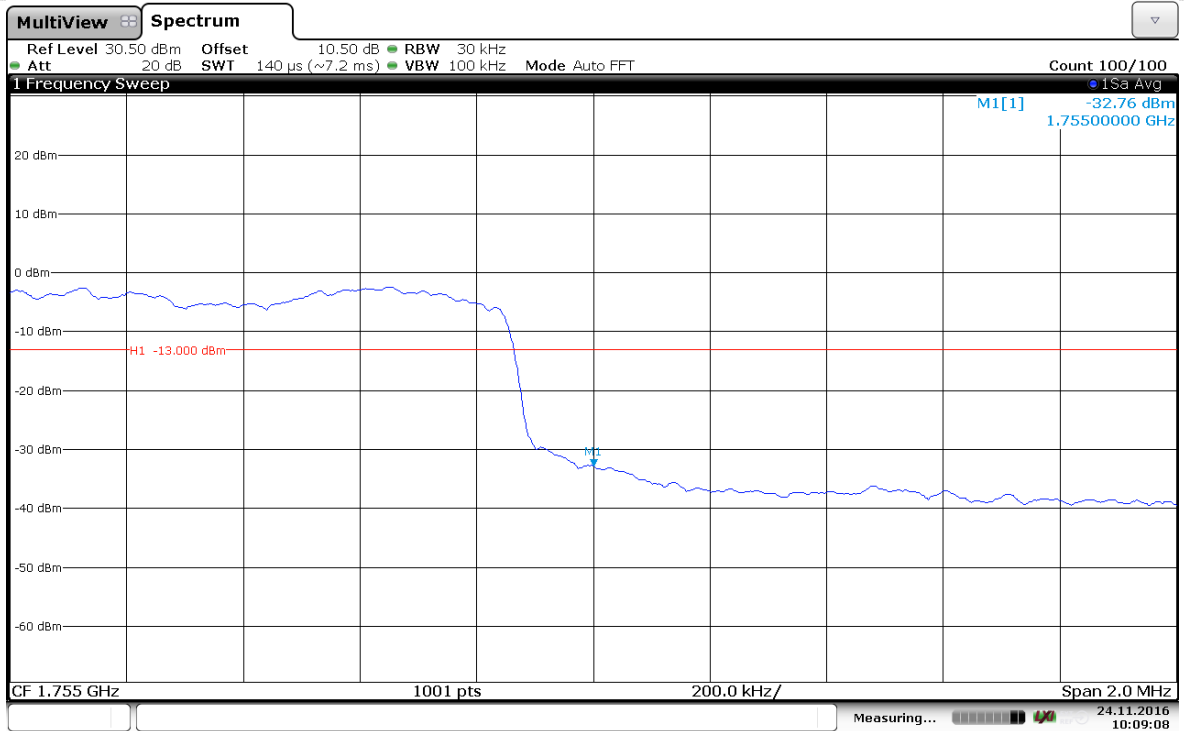


Channel High-1RB#

LTE Band 4-3MHz-16QAM

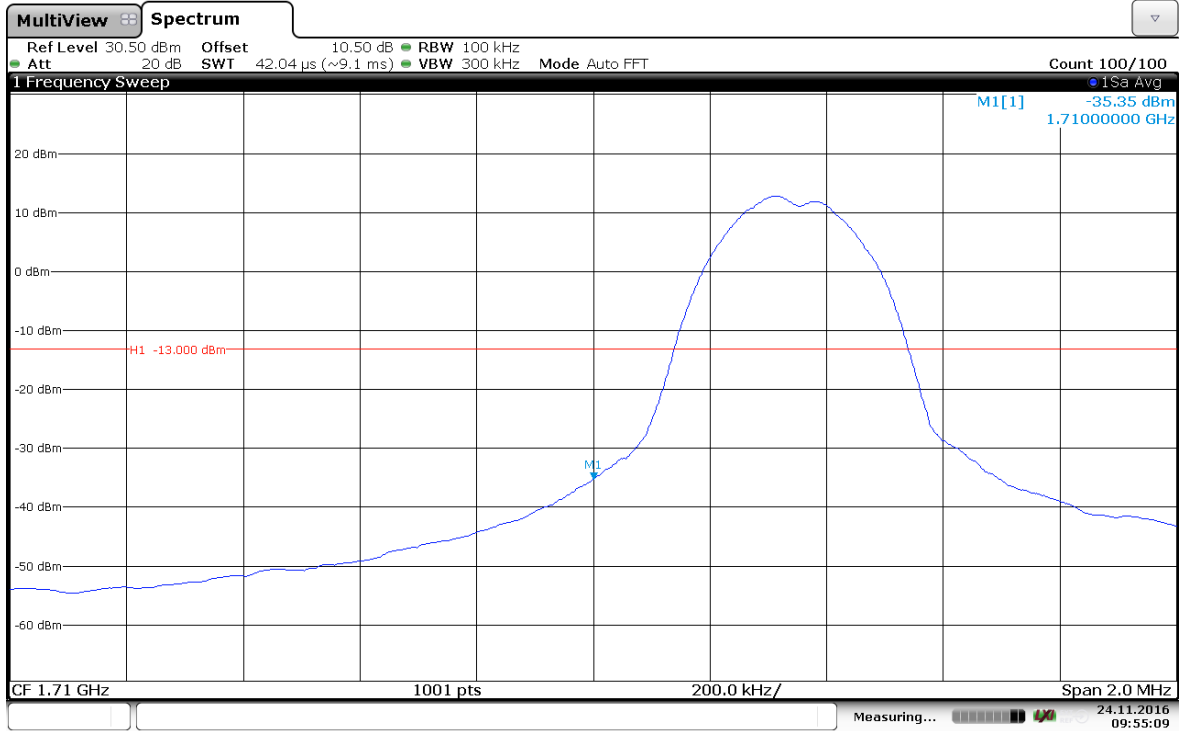


Channel Low-Full RB#

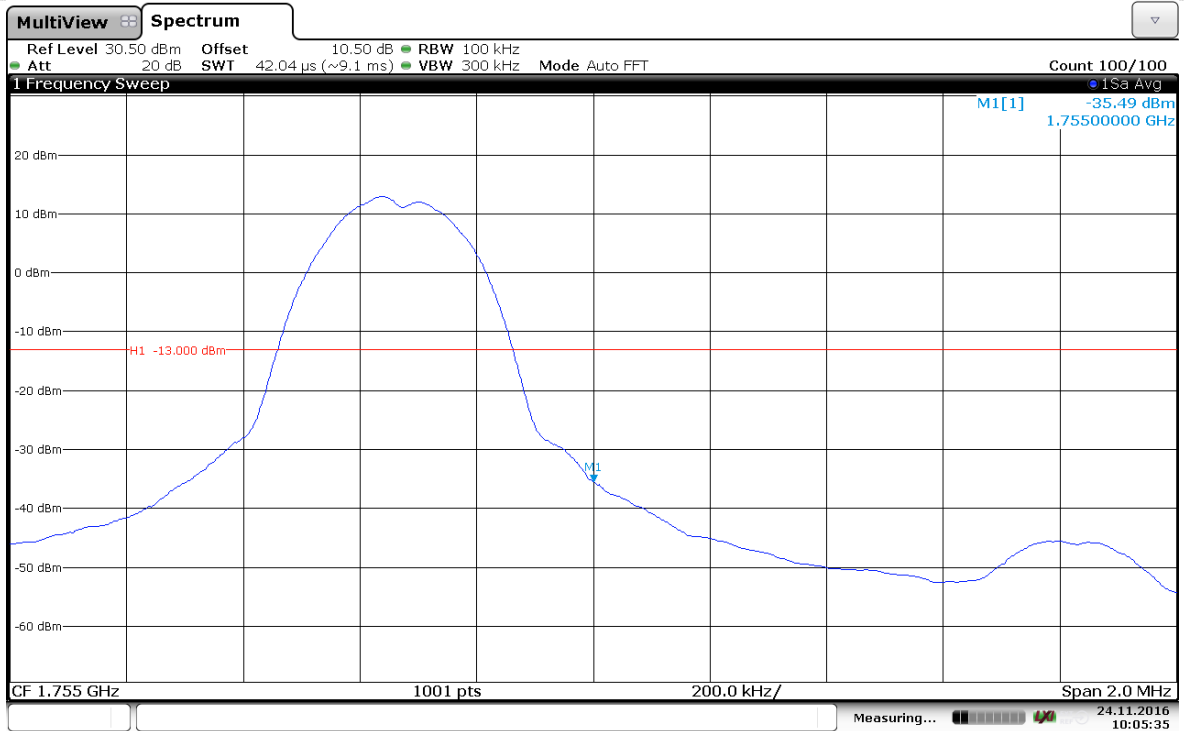


Channel High-Full RB#

### LTE Band 4-5MHz-QPSK



### Channel Low-1RB#

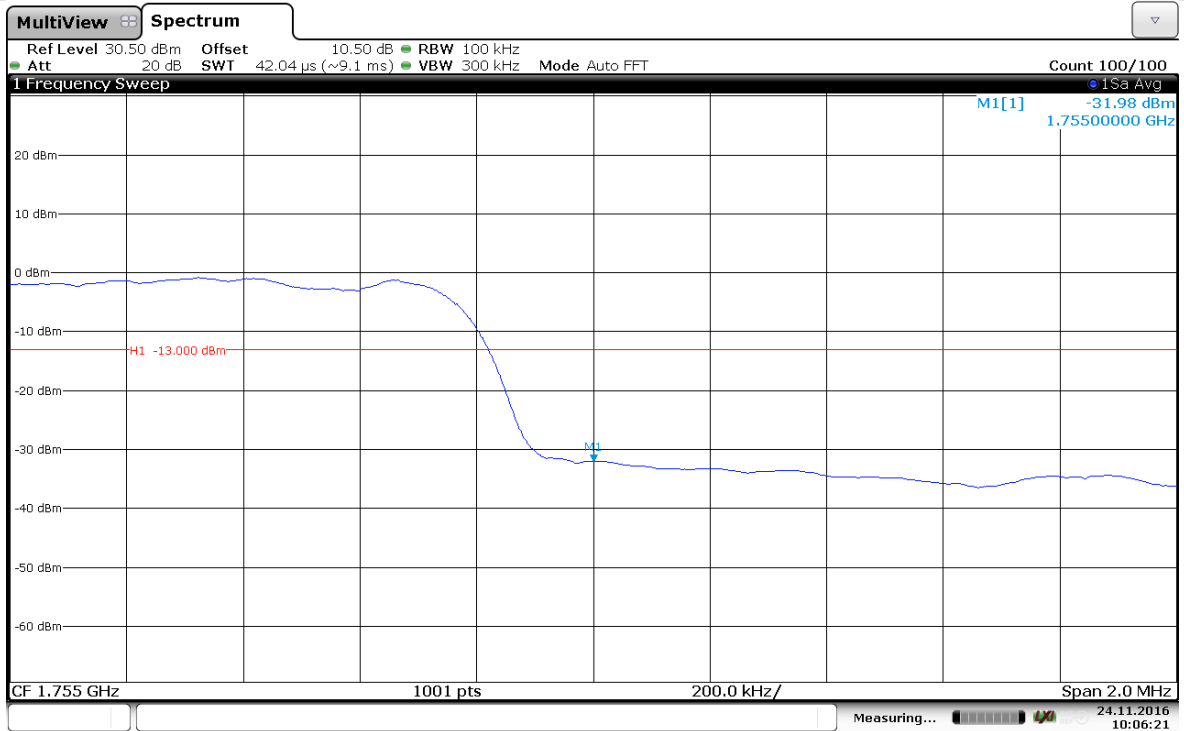


### Channel High-1RB#

LTE Band 4-5MHz-QPSK



Channel Low-Full RB#



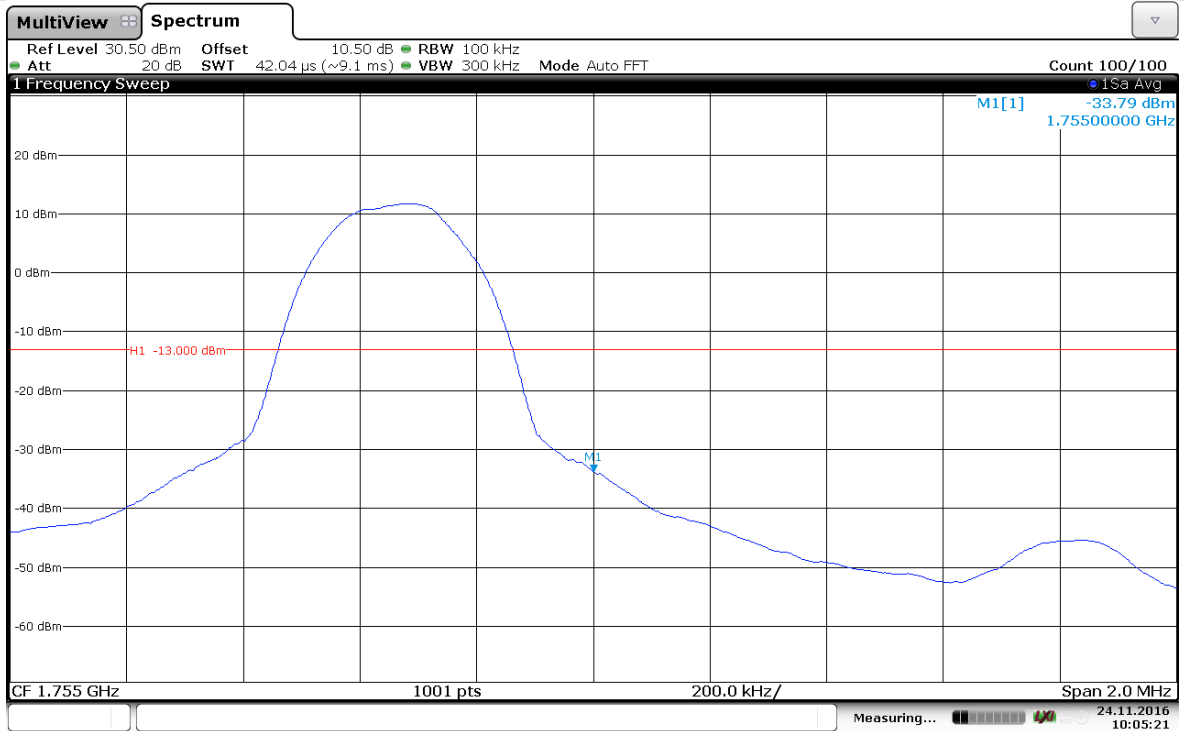
Channel High-Full RB#



LTE Band 4-5MHz-16QAM

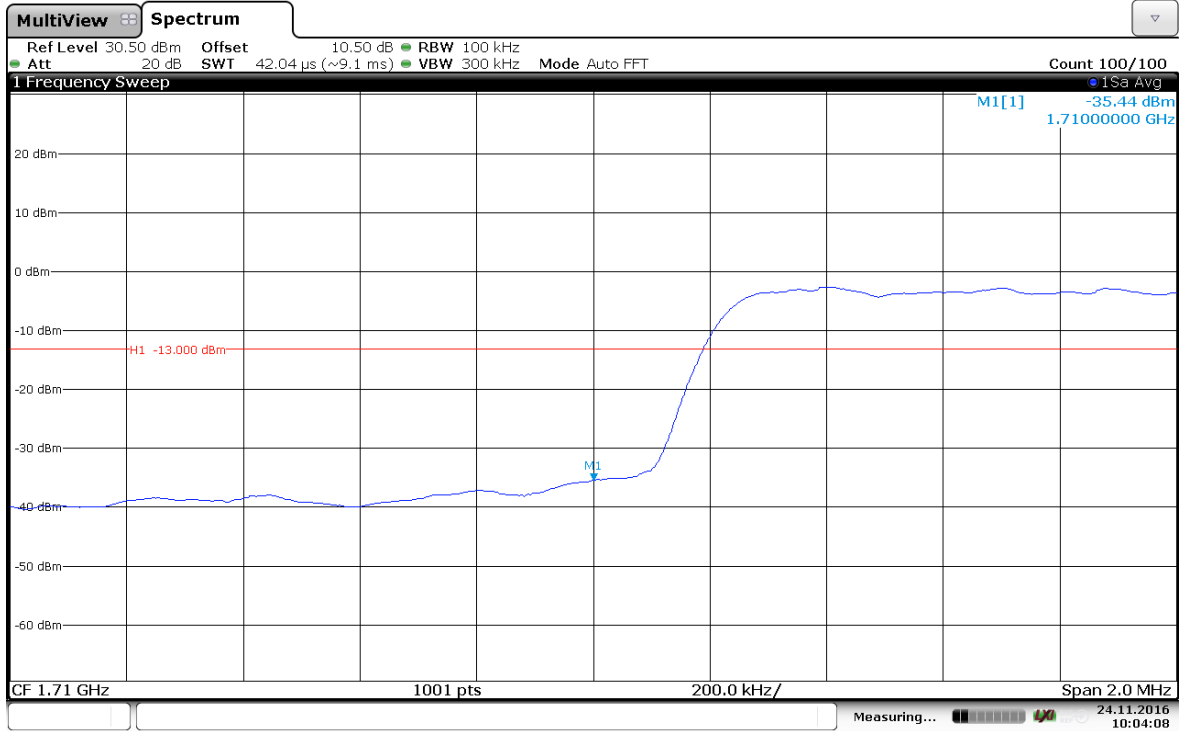


Channel Low-1RB#

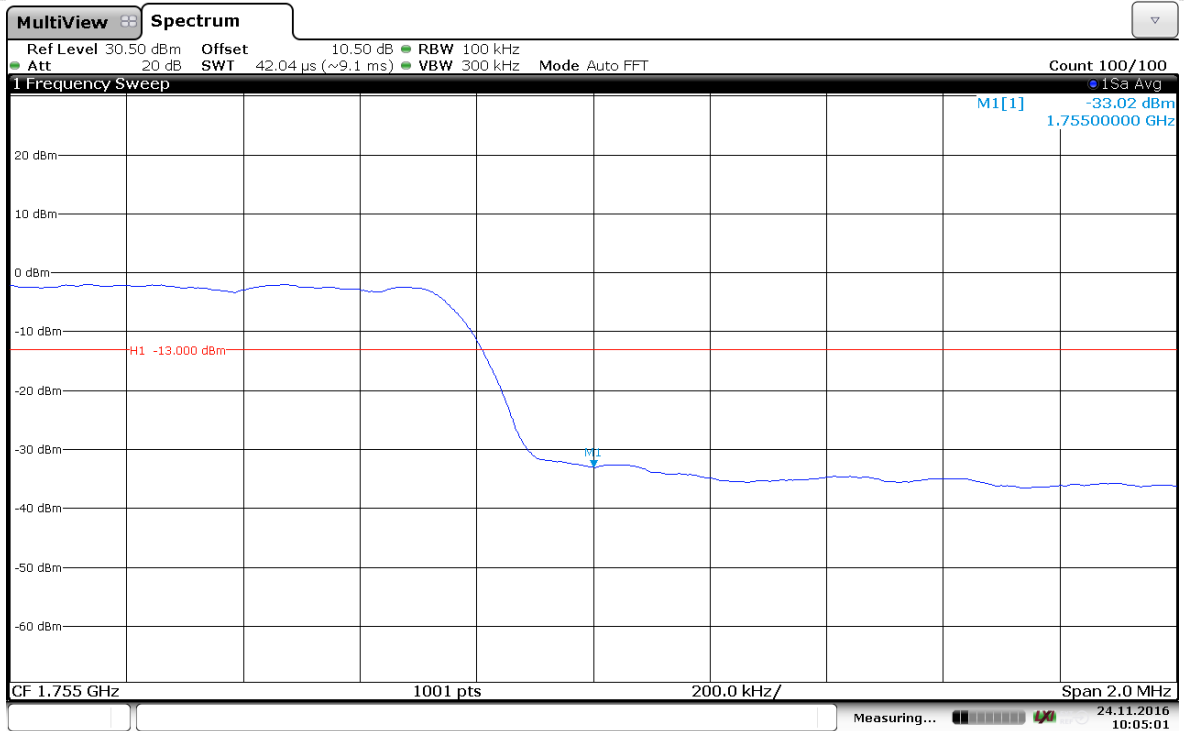


Channel High-1RB#

LTE Band 4-5MHz-16QAM



Channel Low-Full RB#



Channel High-Full RB#