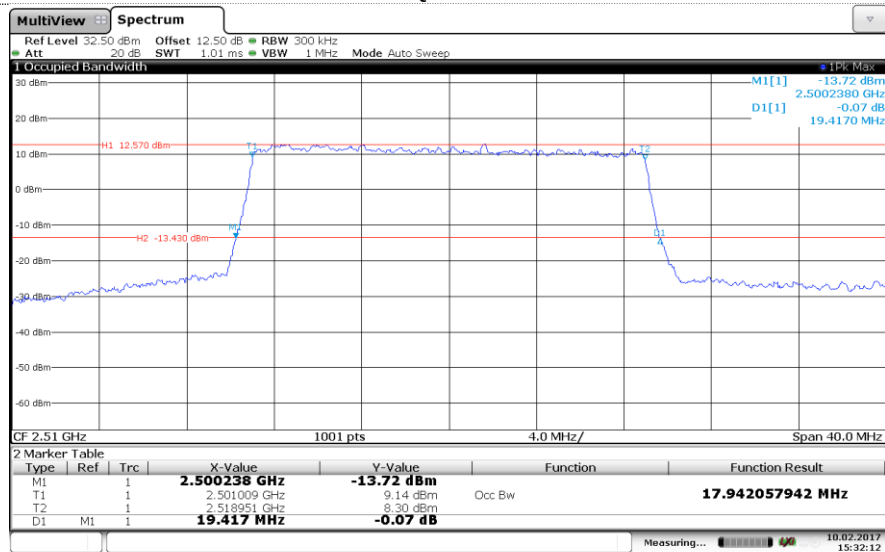
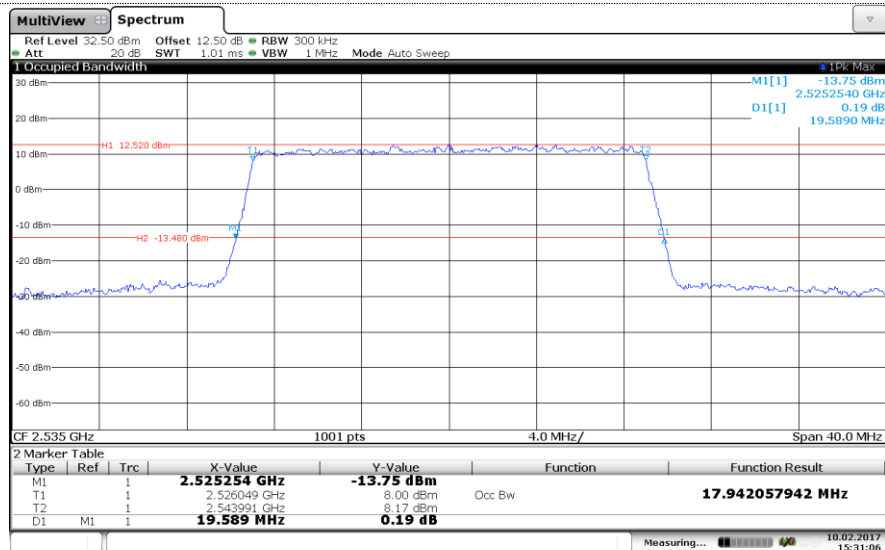


LTE Band 7-20MHz

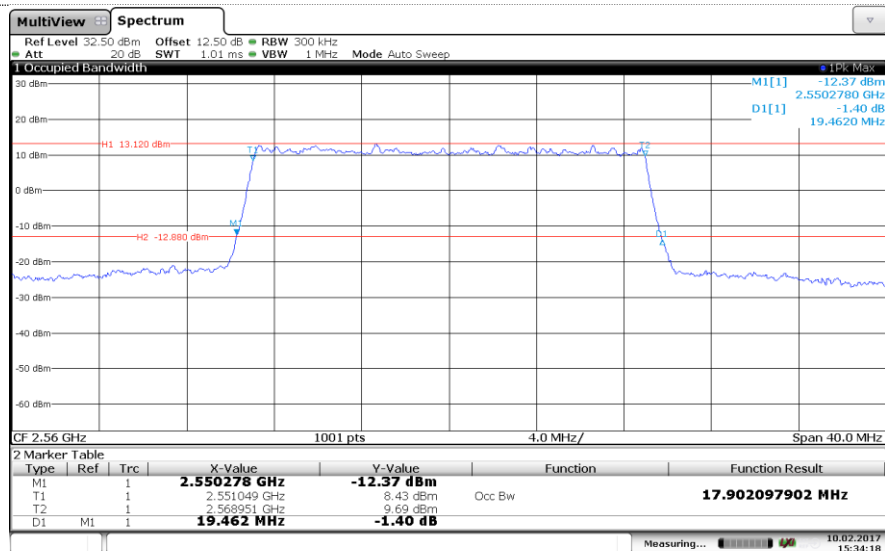
QPSK



Channel Low



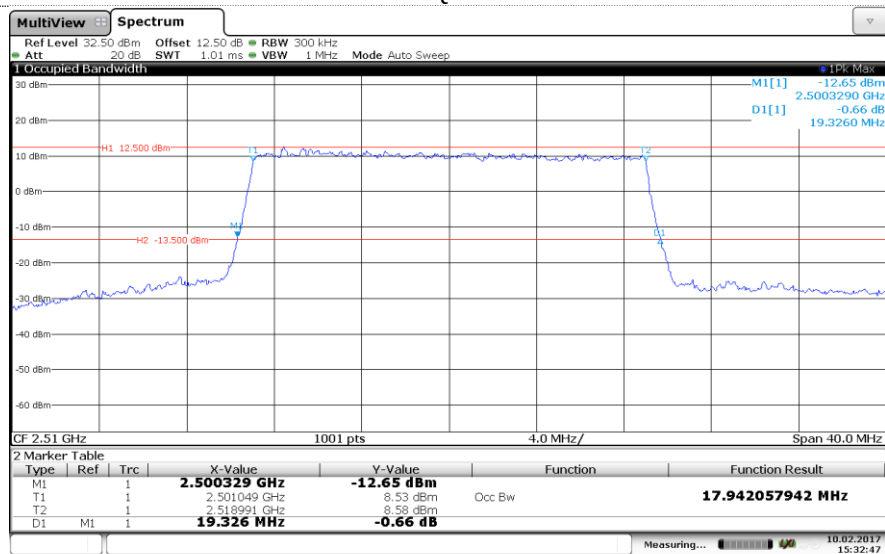
Channel Mid



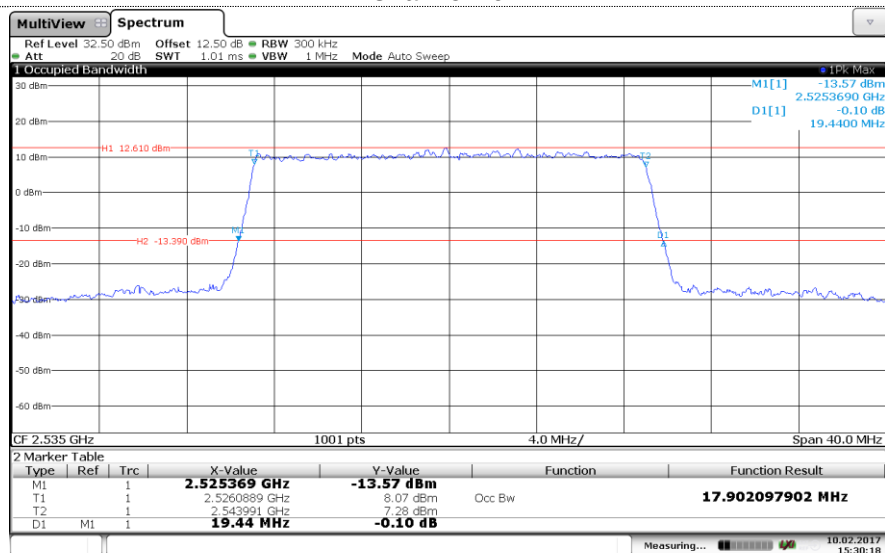
Channel High

LTE Band 7-20MHz

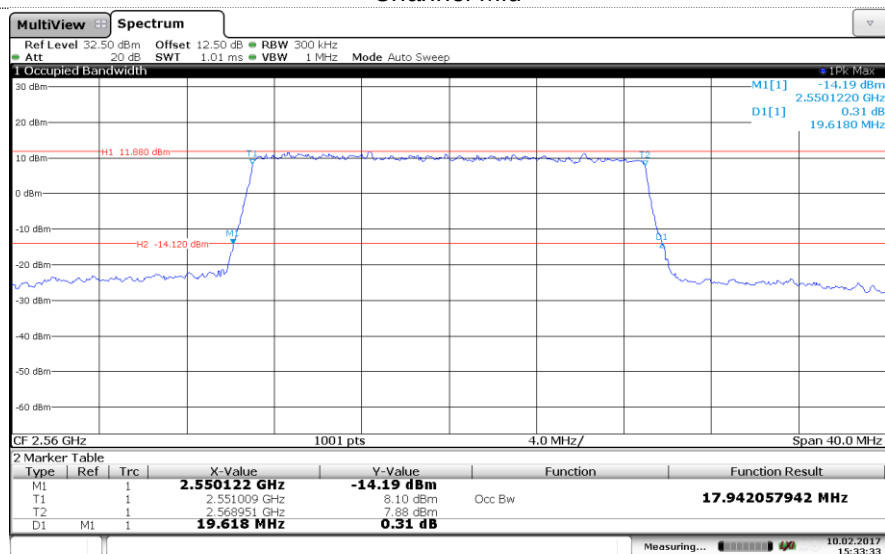
16QAM



Channel Low



Channel Mid



Channel High

5.3. Conducted Spurious Emissions

LIMIT

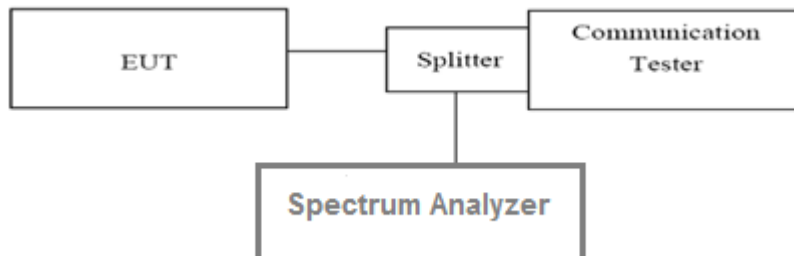
Part 24.238 and Part 27.53 h(1) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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. Limit <-25 dBm

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.

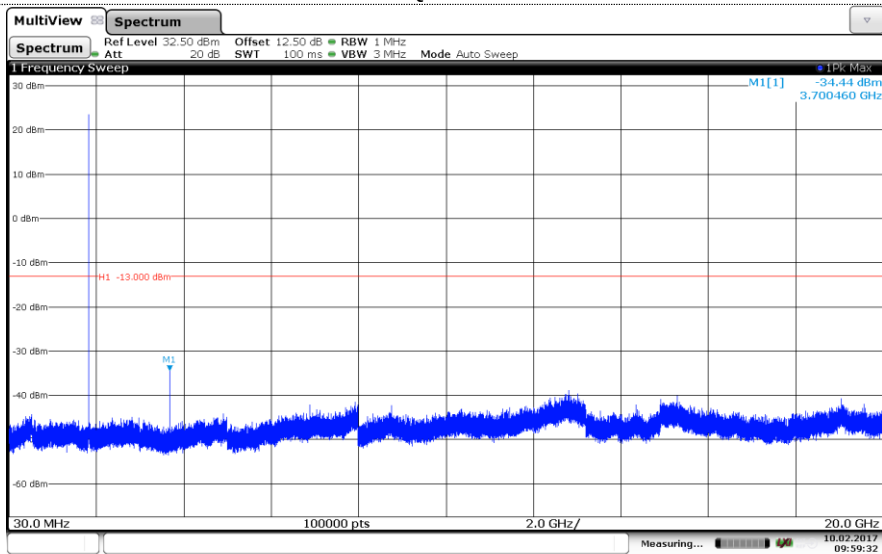
TEST MODE:

Please refer to the clause 3.3

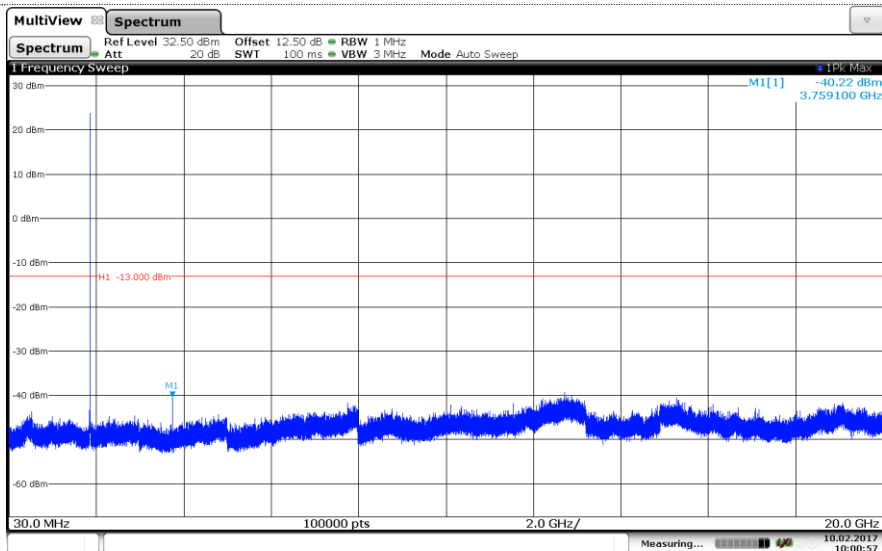
TEST RESULTS

☒ Passed ☐ Not Applicable

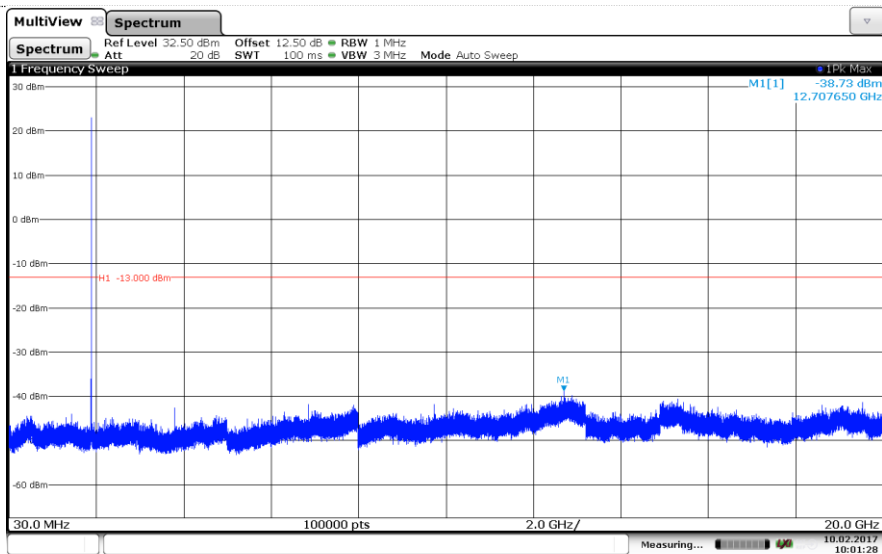
LTE Band 2-1.4MHz
QPSK



Channel Low

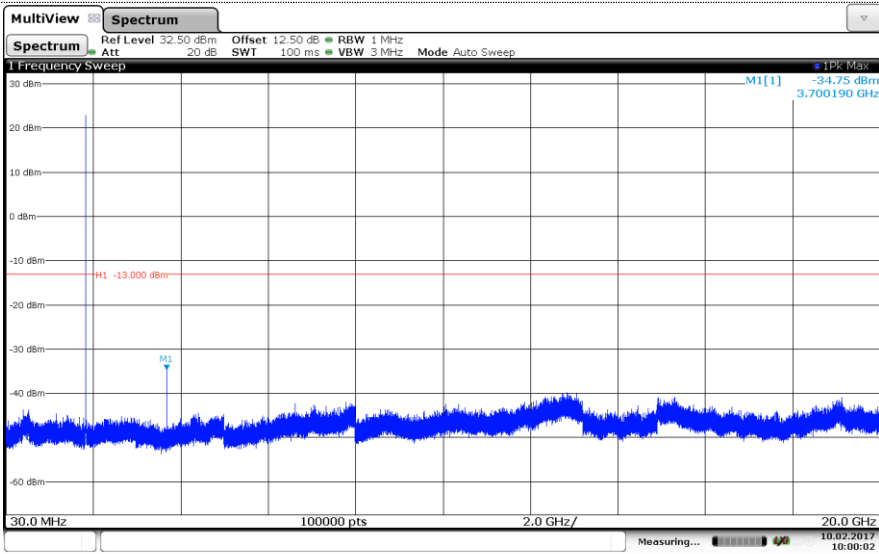


Channel Mid

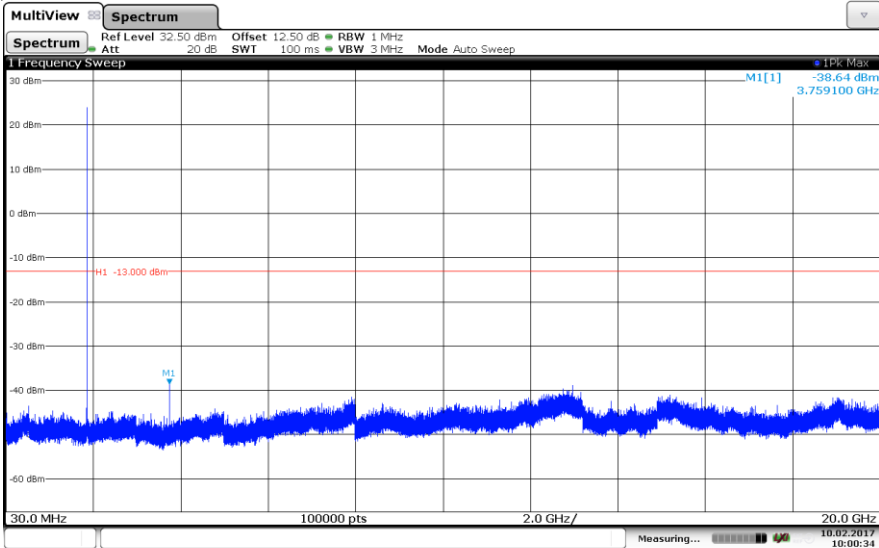


Channel High

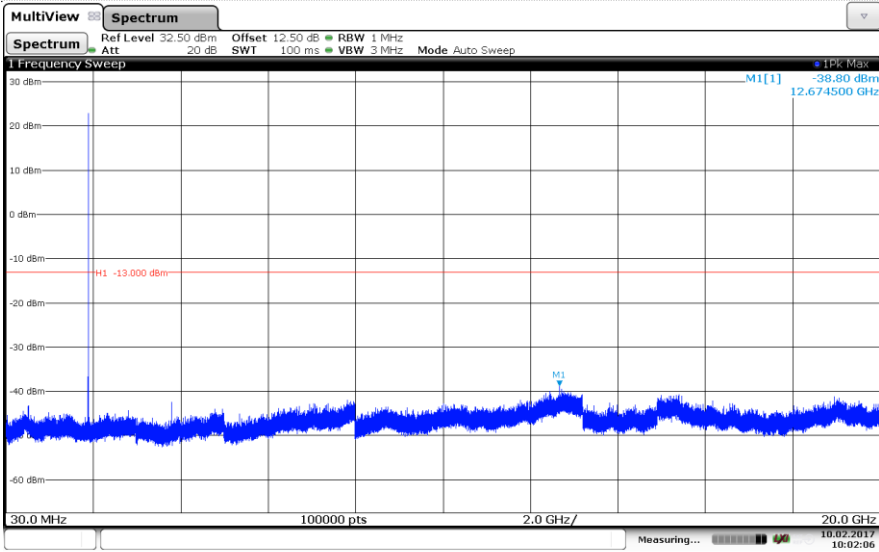
LTE Band 2-1.4MHz
16QAM



Channel Low



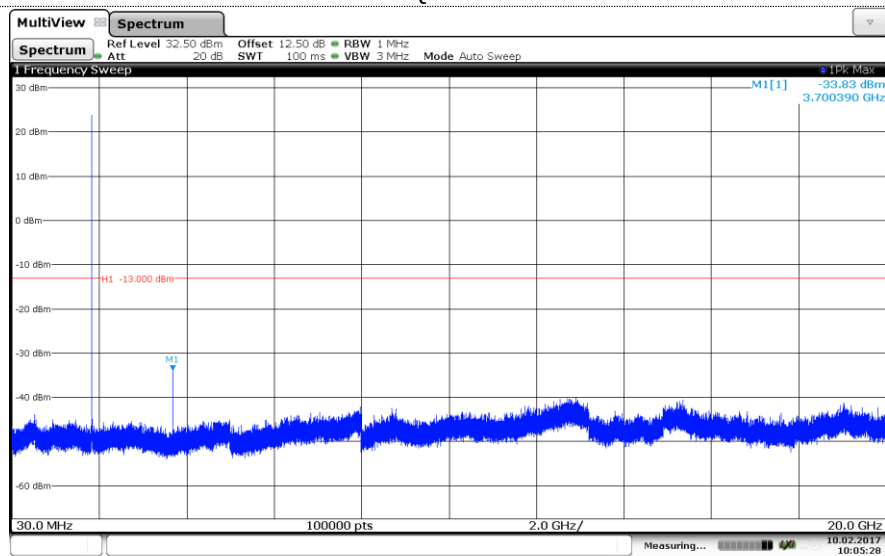
Channel Mid



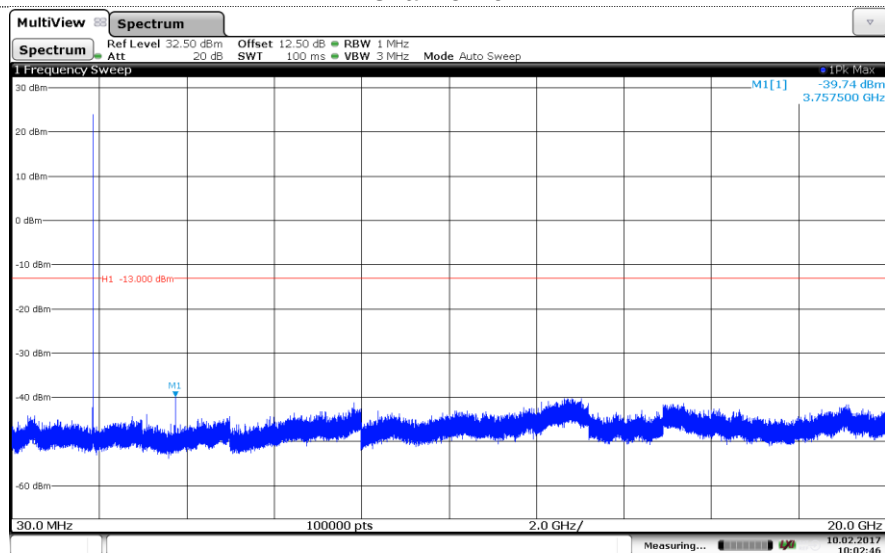
Channel High

LTE Band 2-3MHz

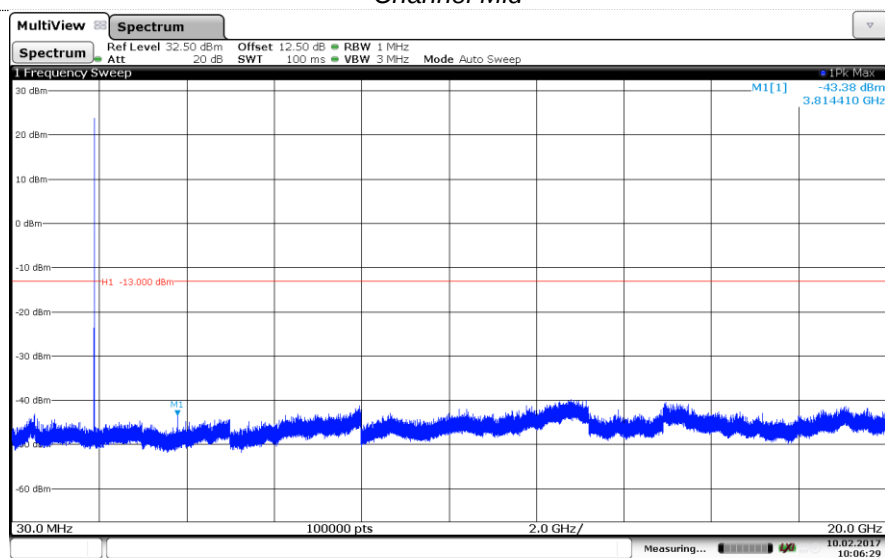
QPSK



Channel Low



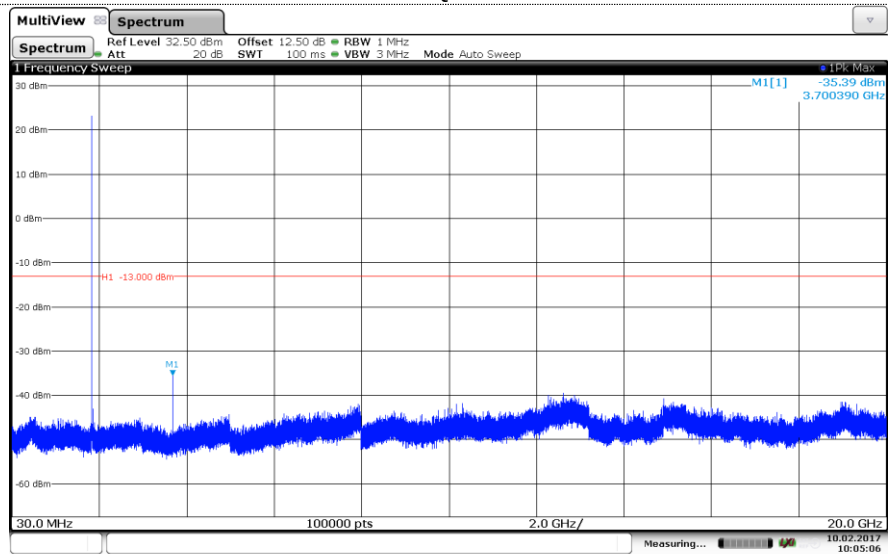
Channel Mid



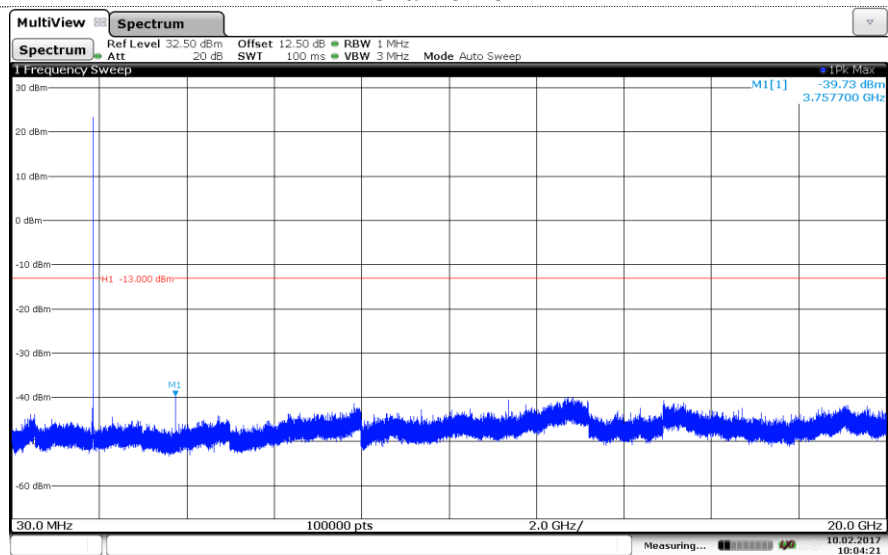
Channel High

LTE Band 2-3MHz

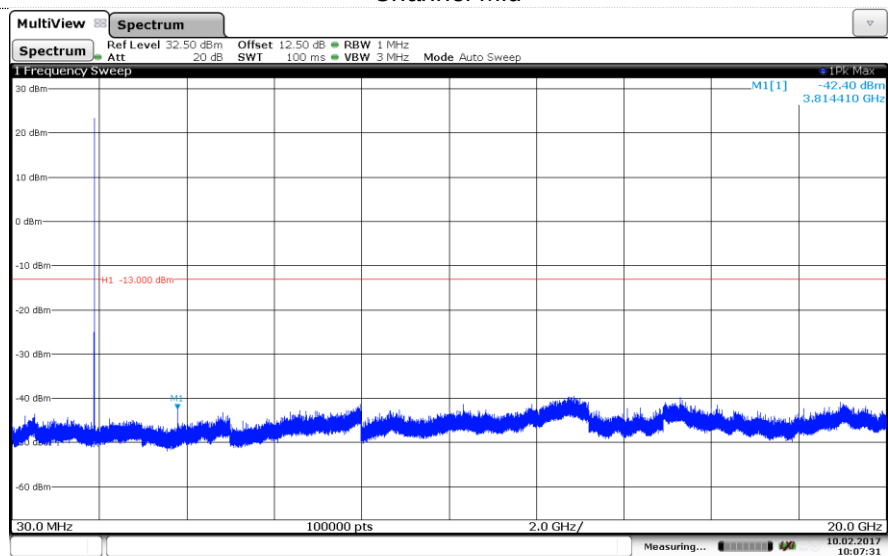
16QAM



Channel Low



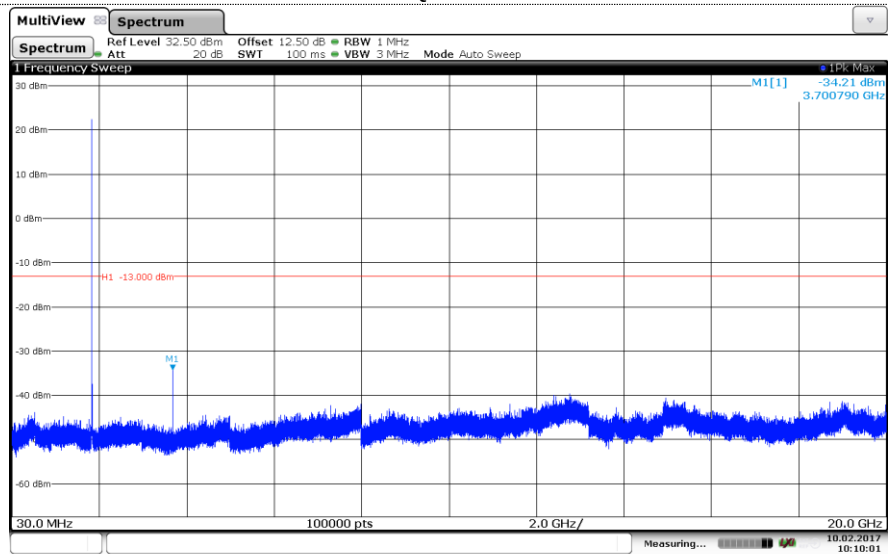
Channel Mid



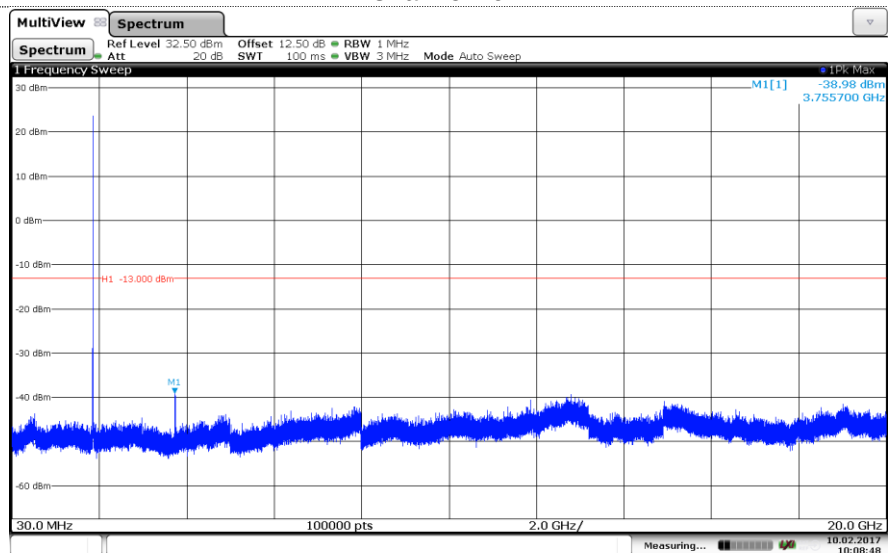
Channel High

LTE Band 2-5MHz

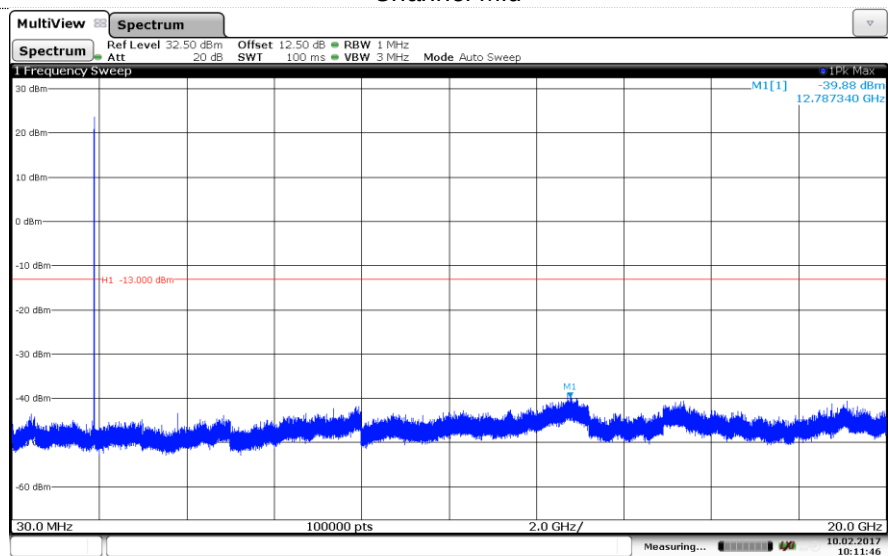
QPSK



Channel Low



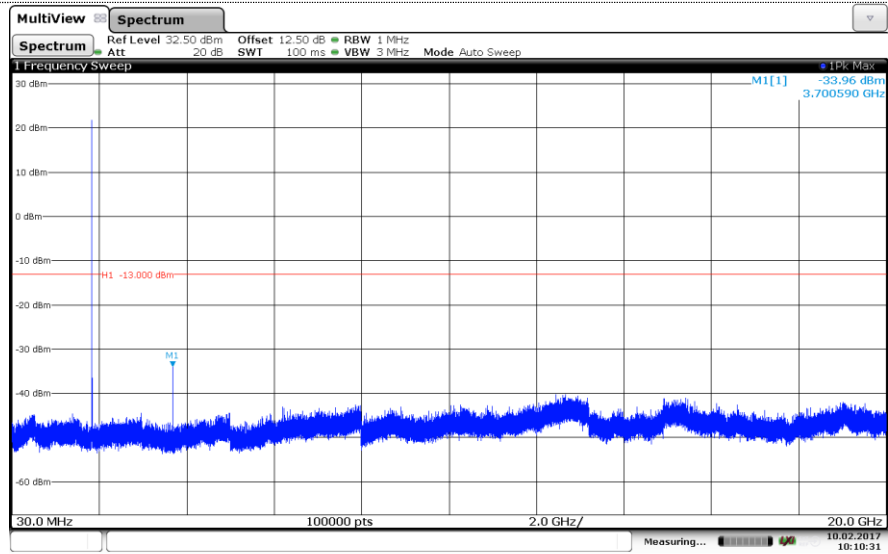
Channel Mid



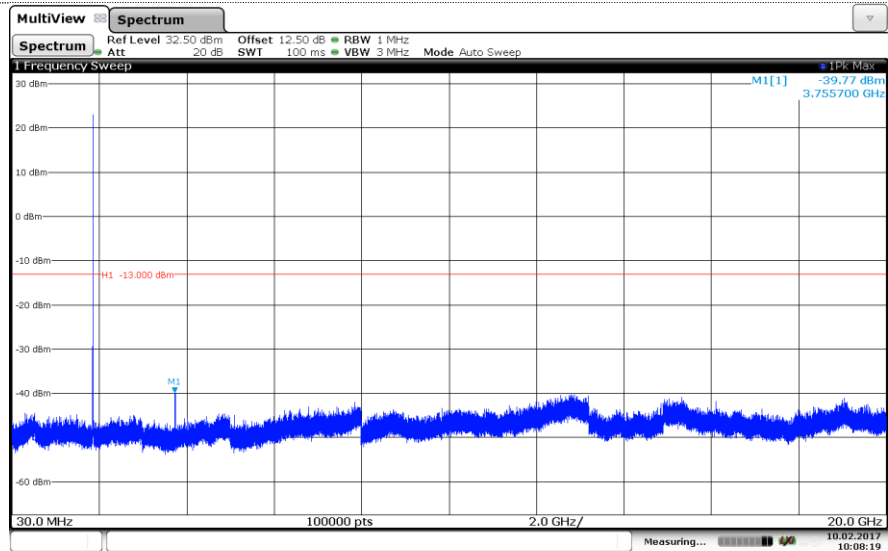
Channel High

LTE Band 2-5MHz

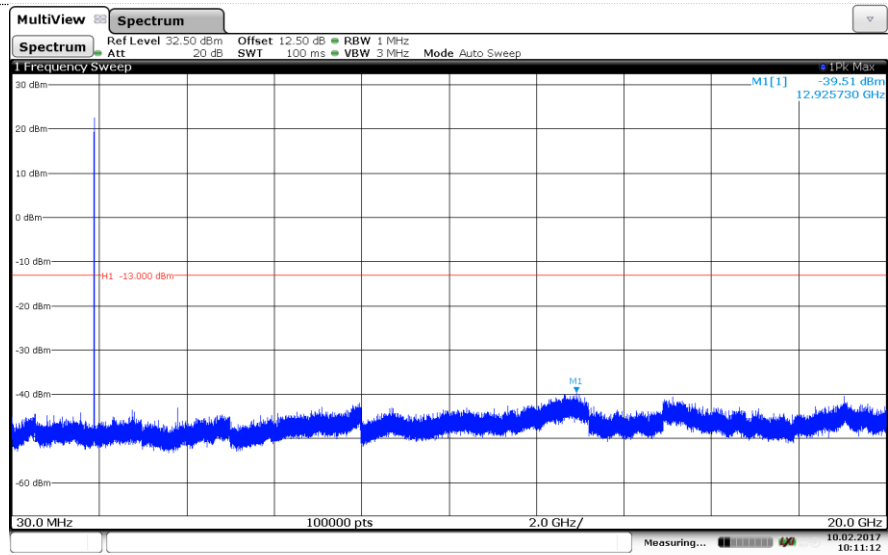
16QAM



Channel Low

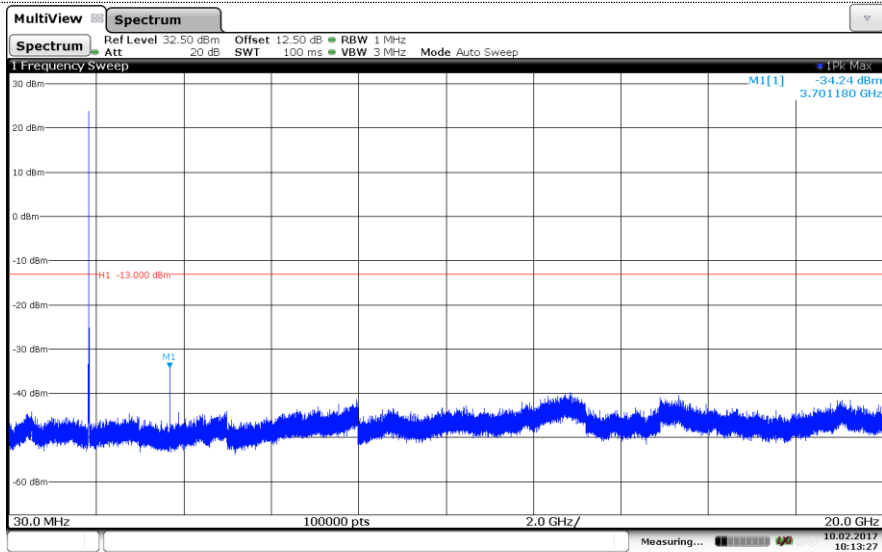


Channel Mid

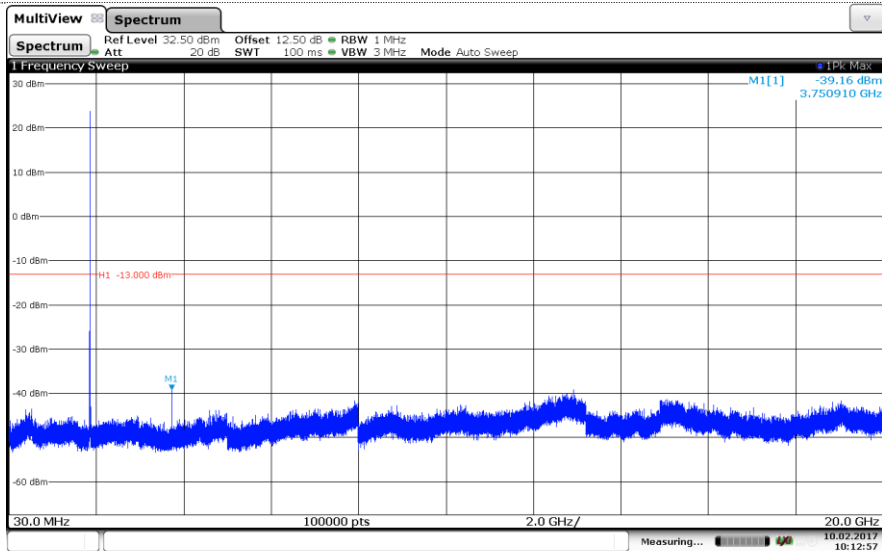


Channel High

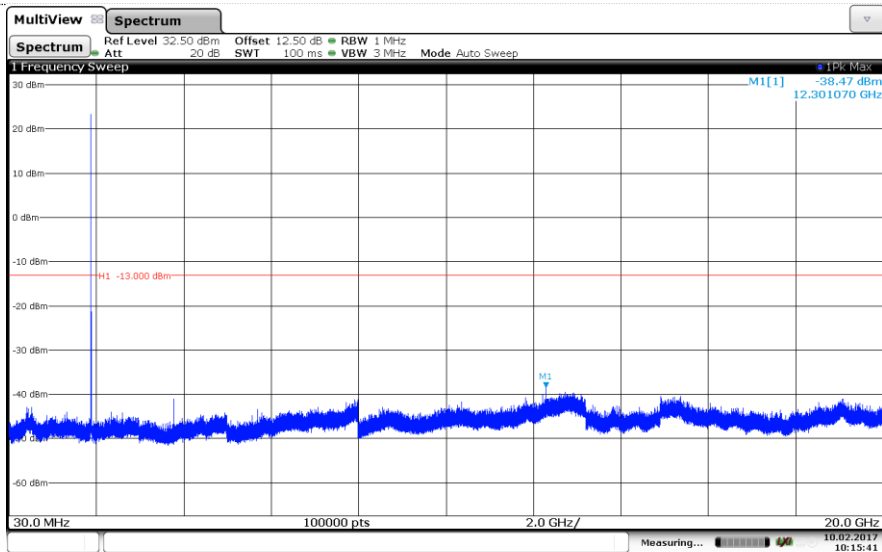
LTE Band 2-10MHz
QPSK



Channel Low

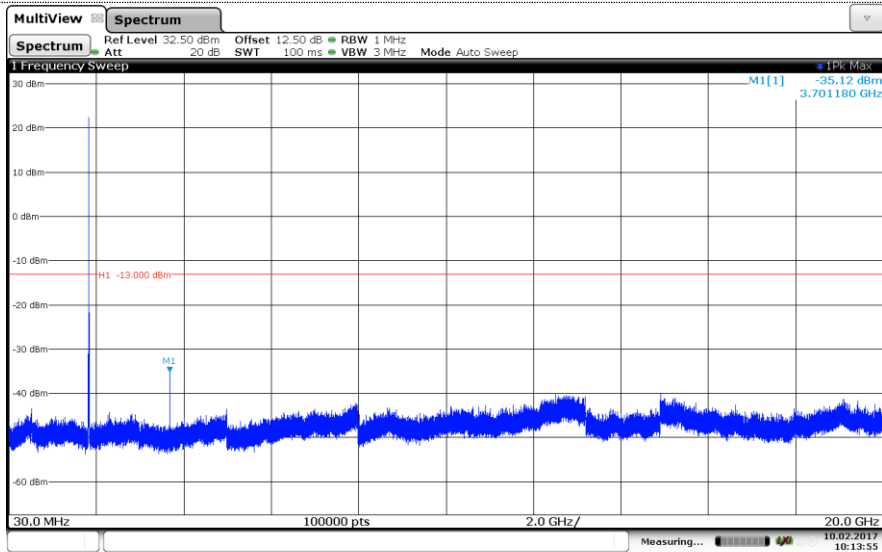


Channel Mid

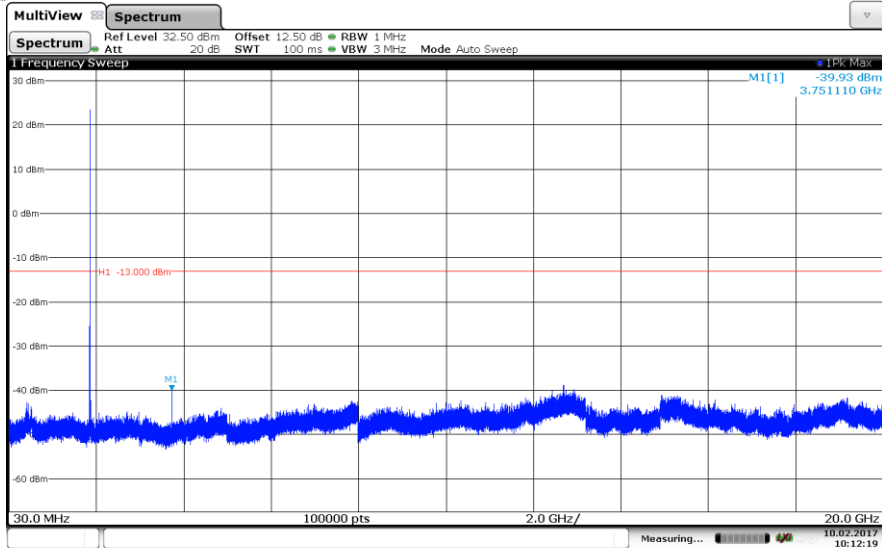


Channel High

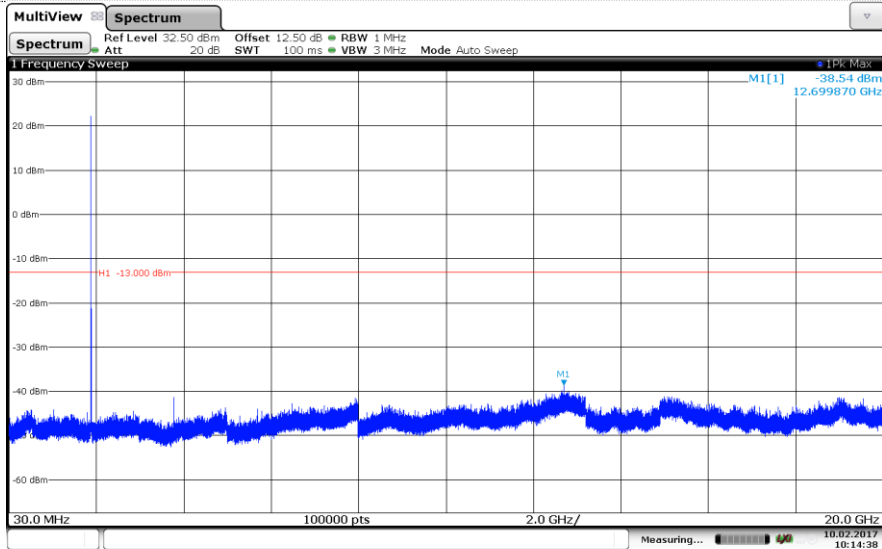
LTE Band 2-10MHz
16QAM



Channel Low



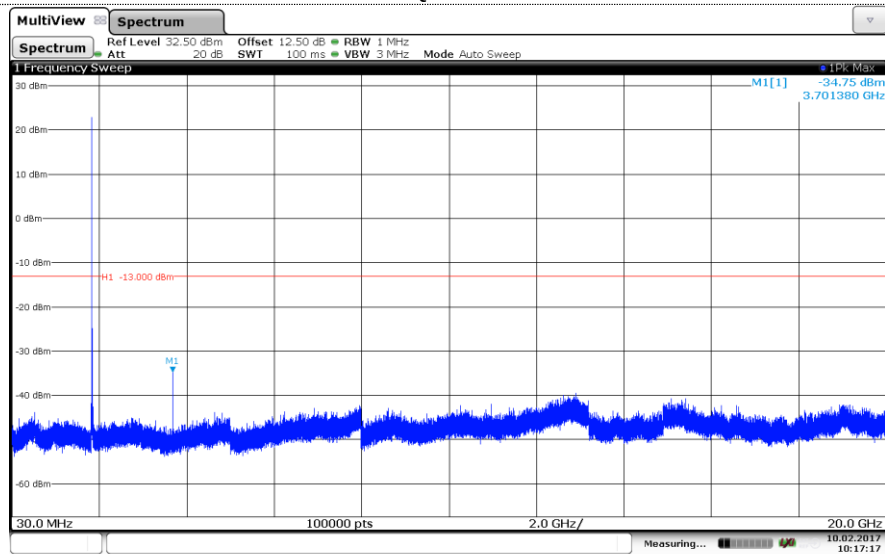
Channel Mid



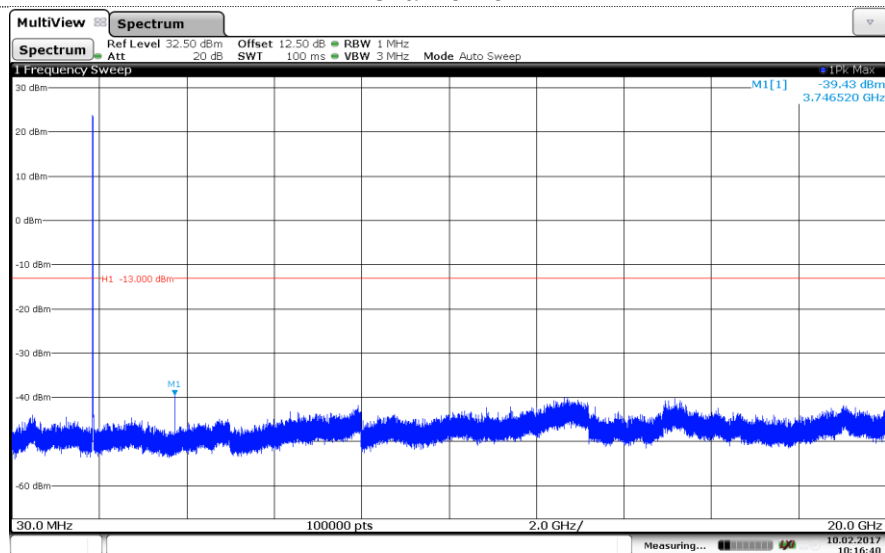
Channel High

LTE Band 2-15MHz

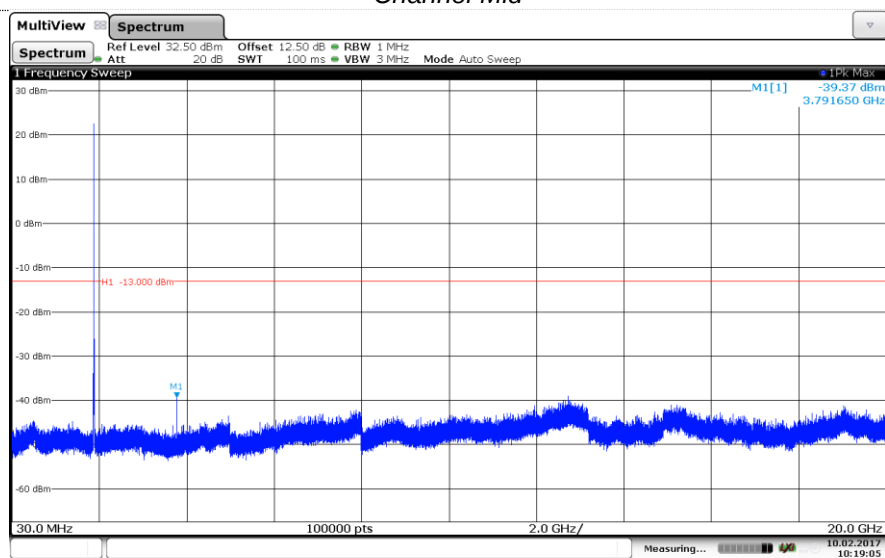
QPSK



Channel Low

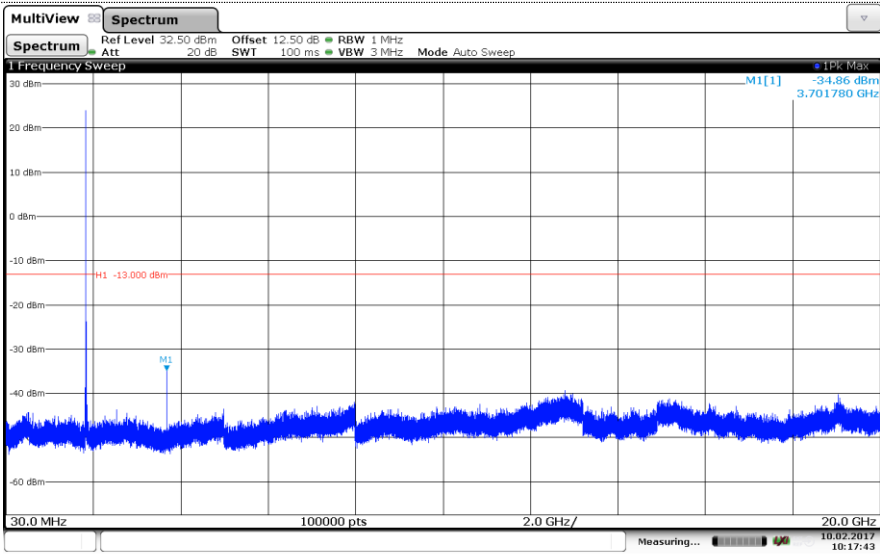


Channel Mid

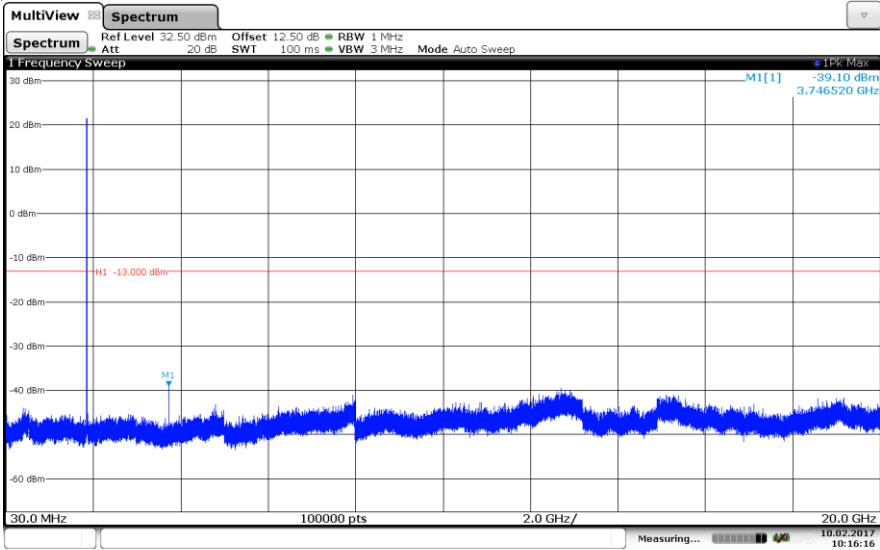


Channel High

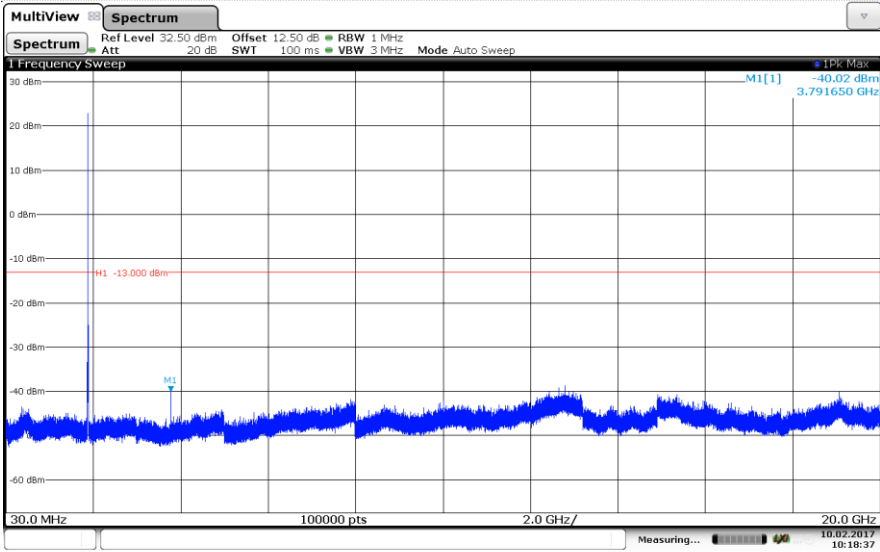
LTE Band 2-15MHz
16QAM



Channel Low

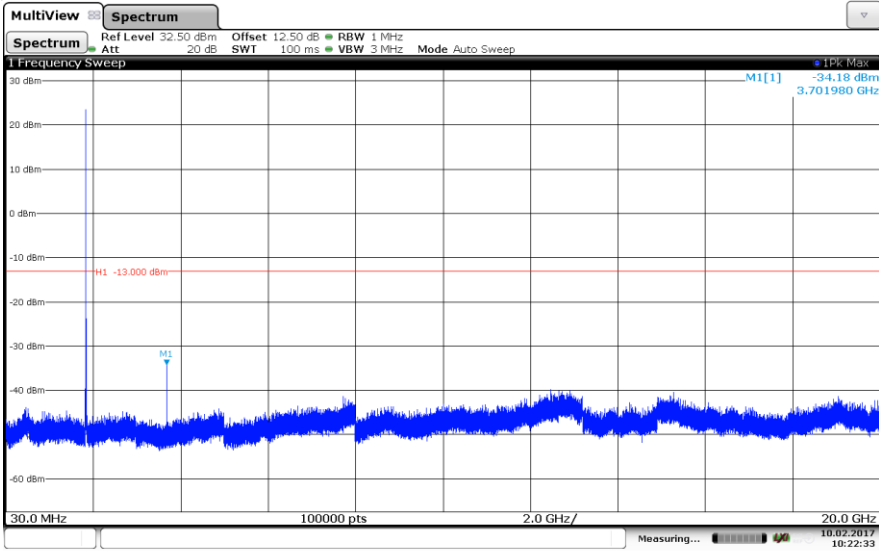


Channel Mid

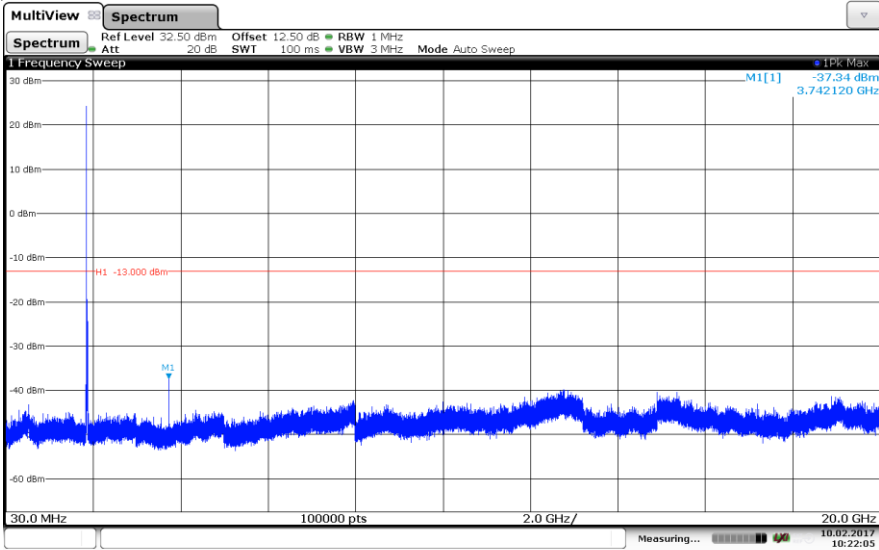


Channel High

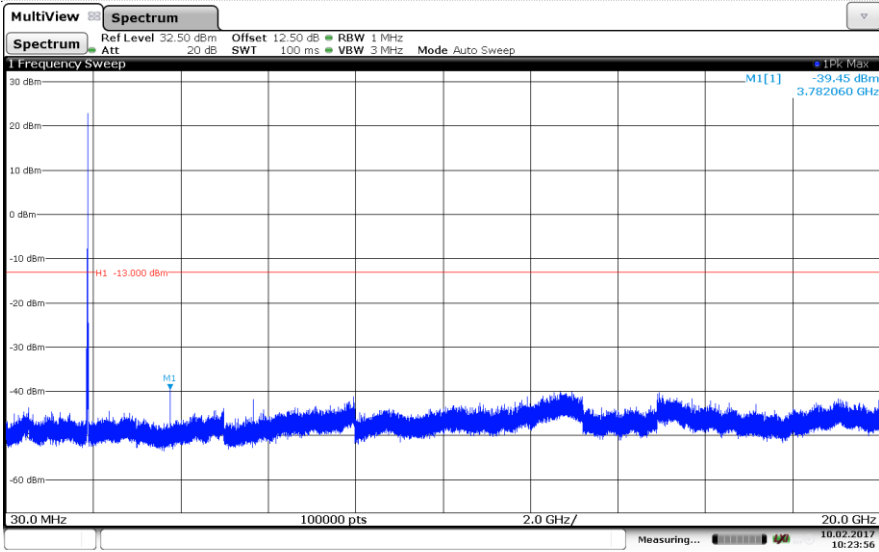
LTE Band 2-20MHz
QPSK



Channel Low

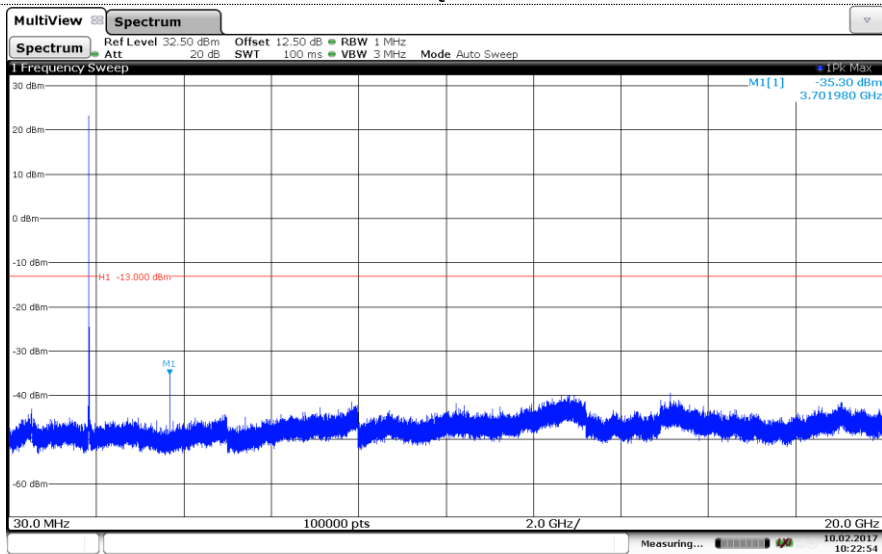


Channel Mid

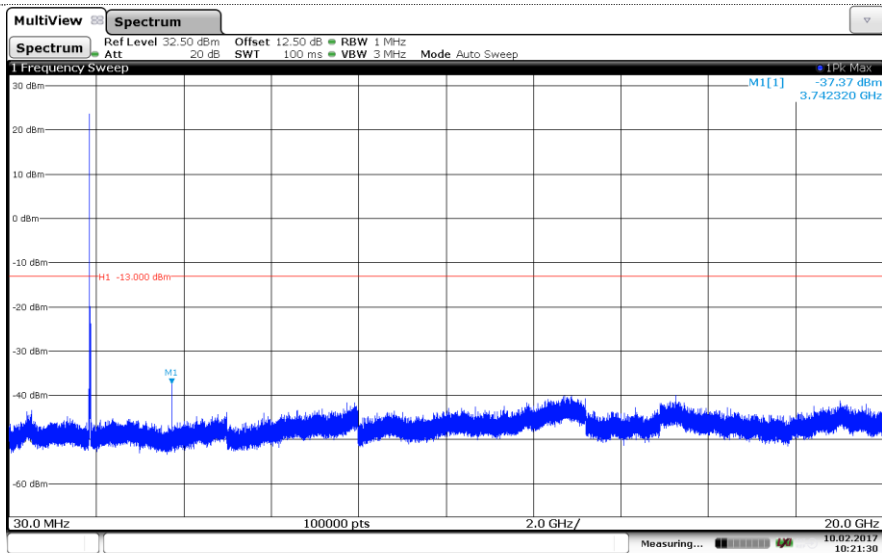


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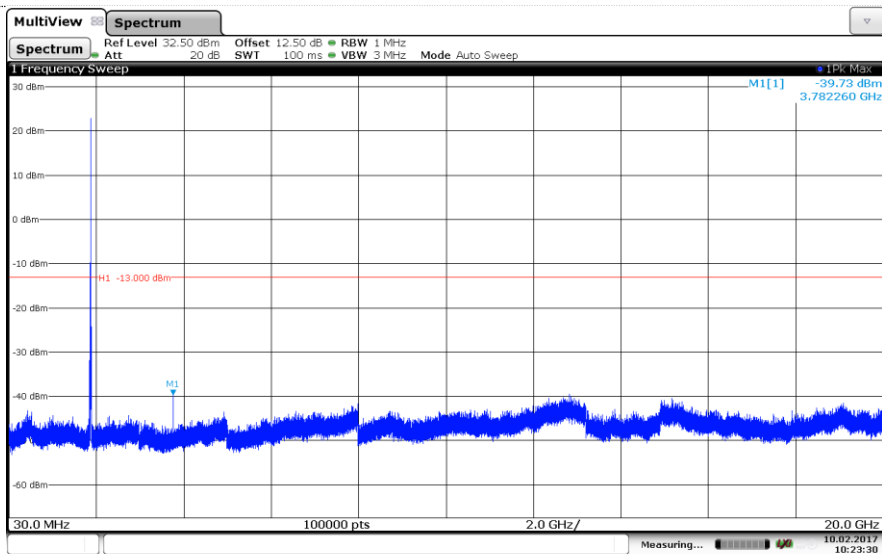
LTE Band 2-20MHz
16QAM



Channel Low



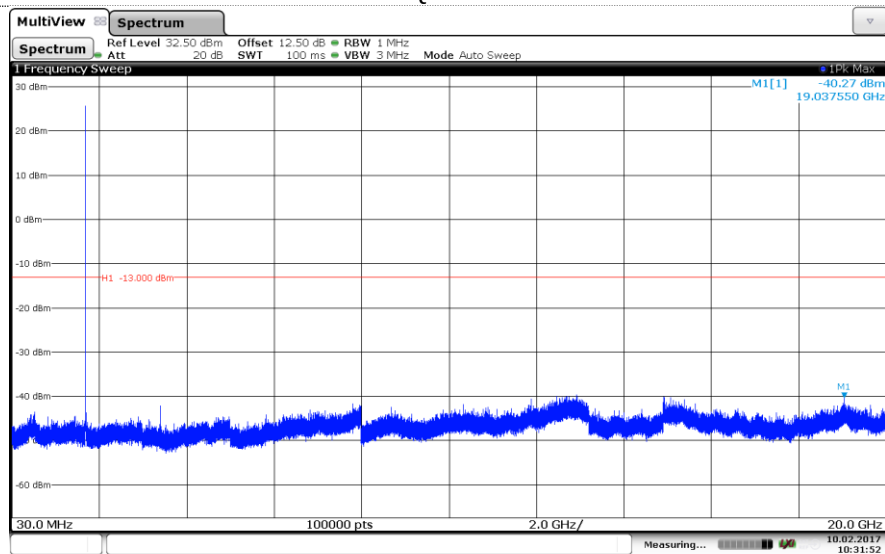
Channel Mid



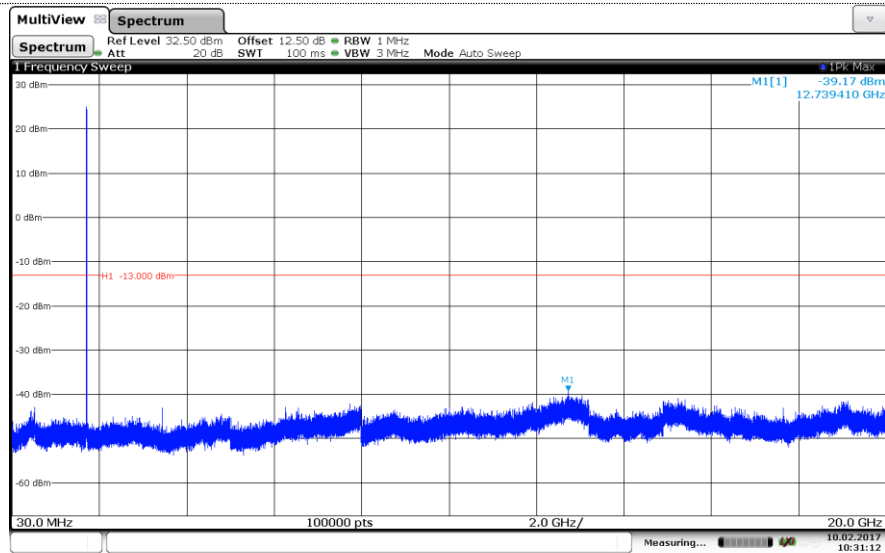
Channel High

LTE Band 4-1.4MHz

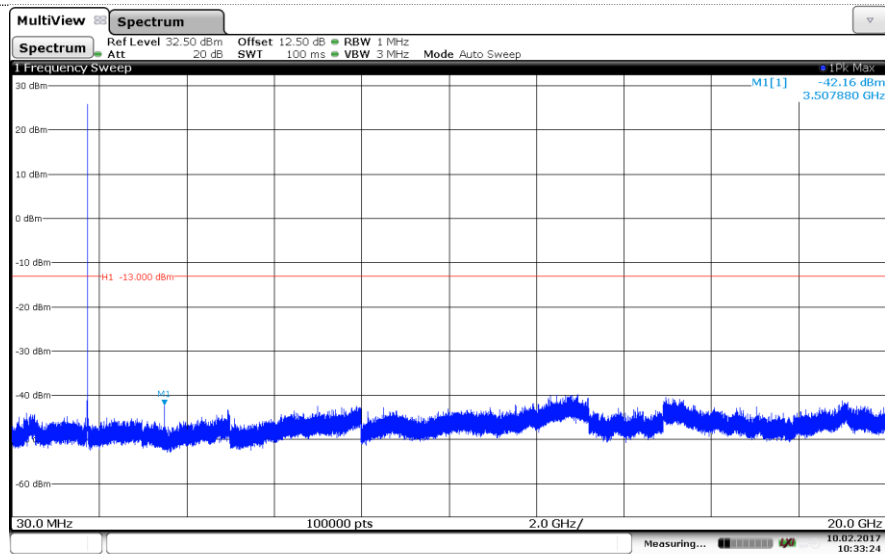
QPSK



Channel Low



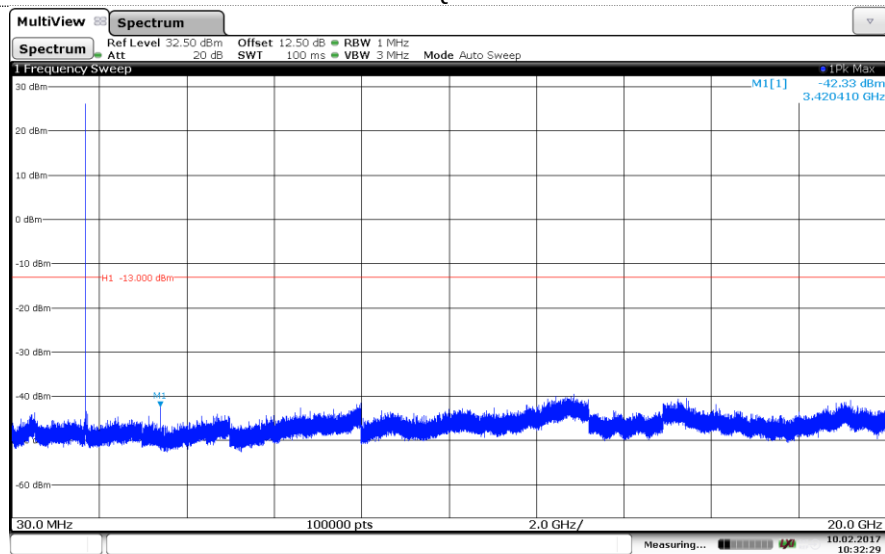
Channel Mid



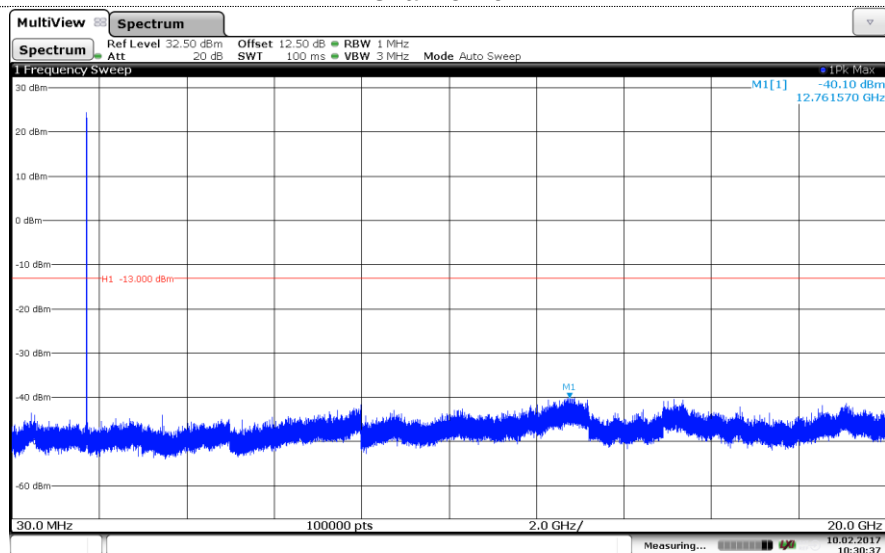
Channel High

LTE Band 4-1.4MHz

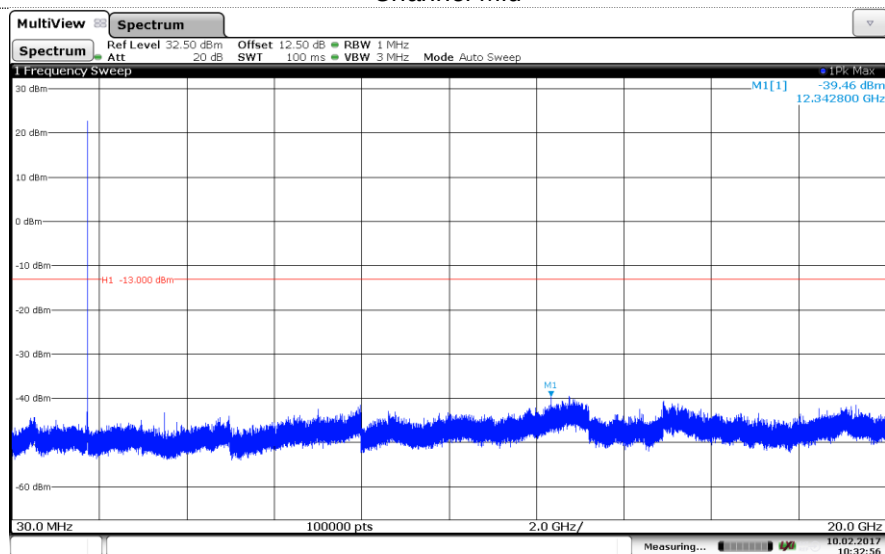
16QAM



Channel Low



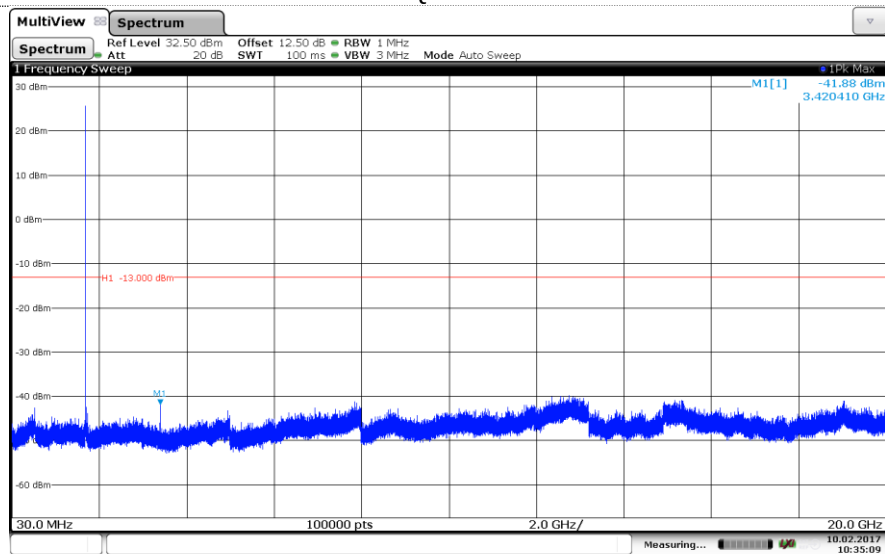
Channel Mid



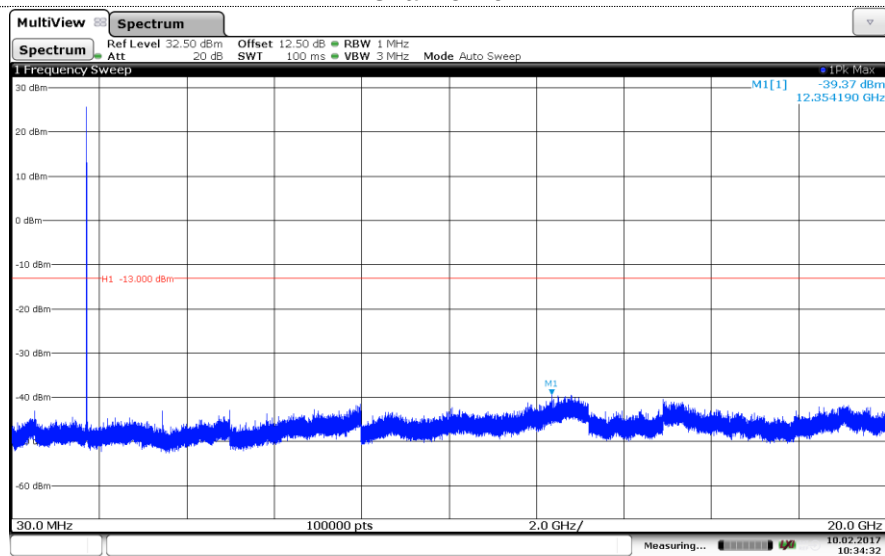
Channel High

LTE Band 4-3MHz

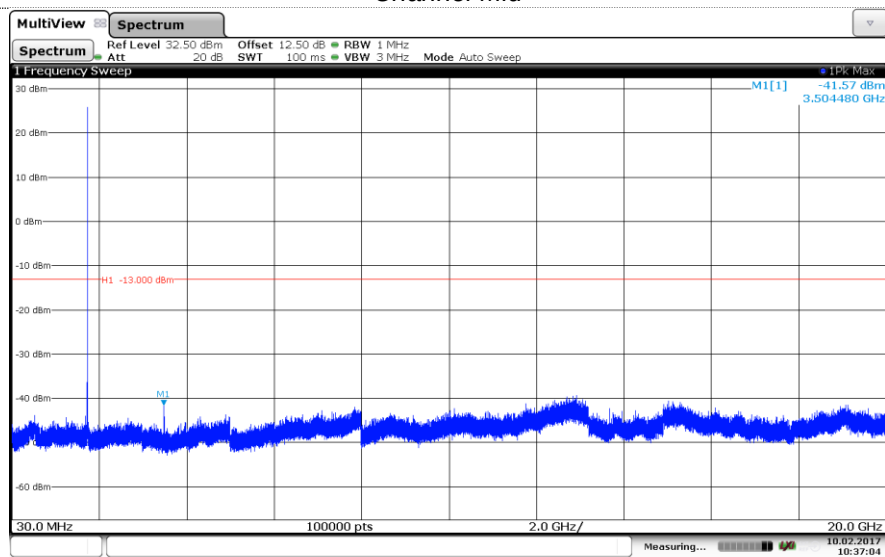
QPSK



Channel Low



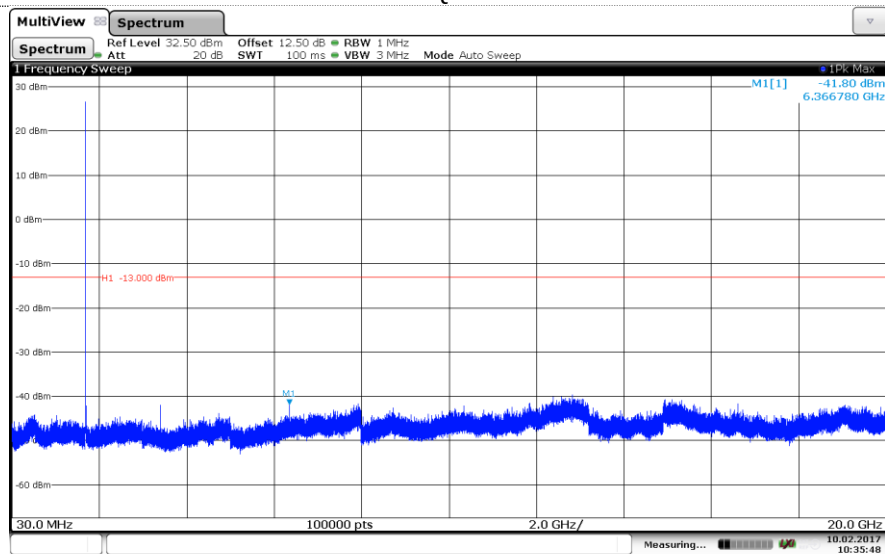
Channel Mid



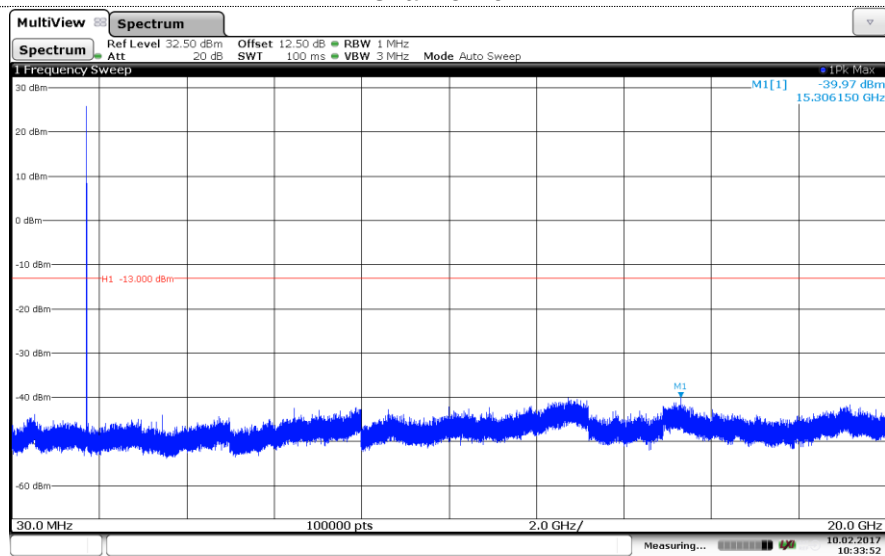
Channel High

LTE Band 4-3MHz

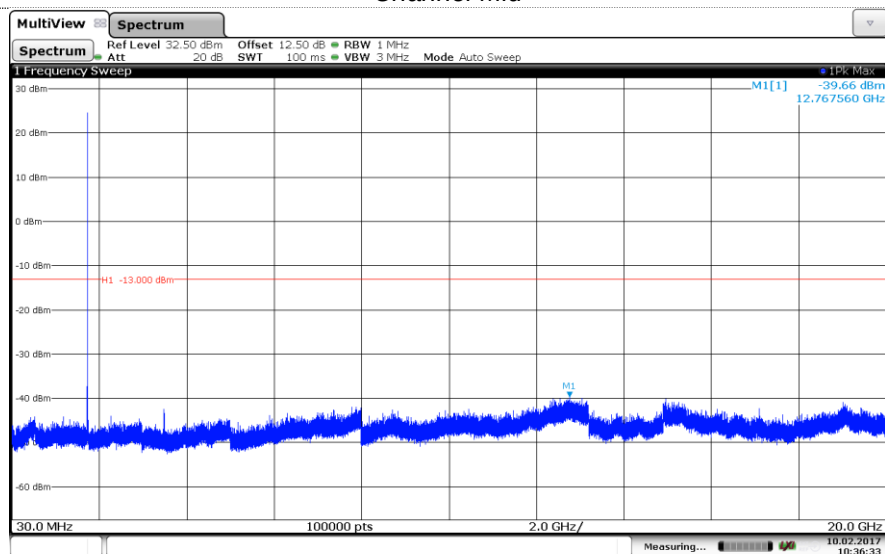
16QAM



Channel Low



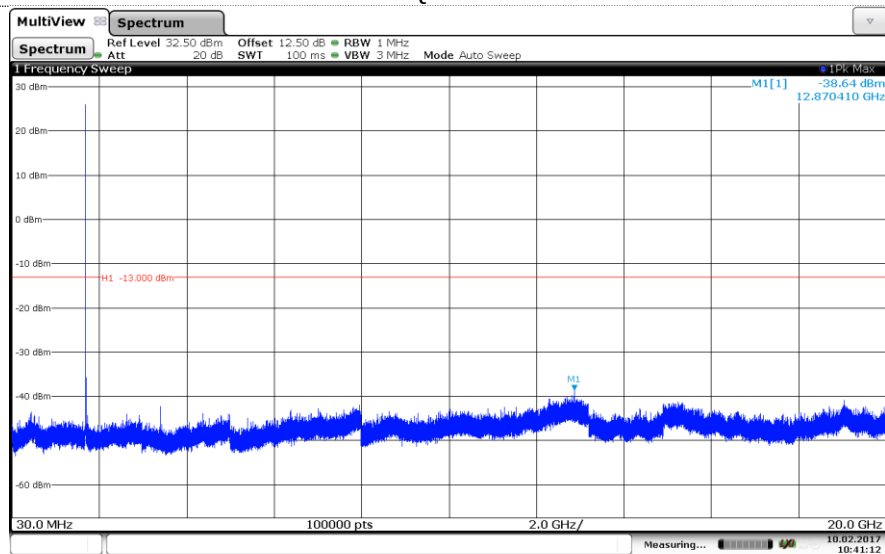
Channel Mid



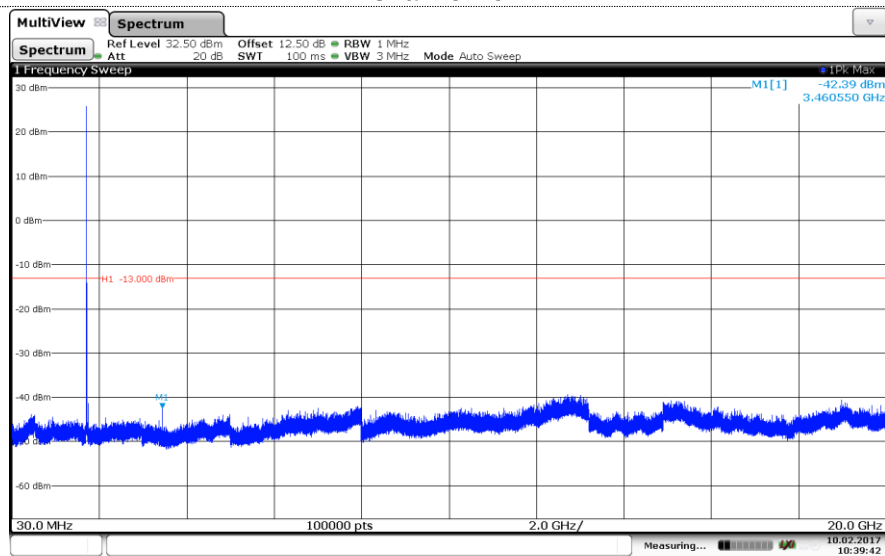
Channel High

LTE Band 4-5MHz

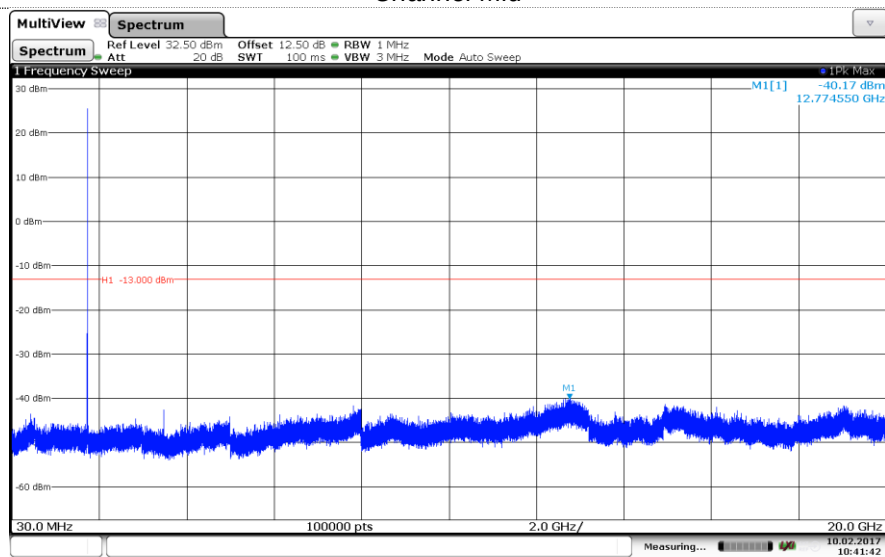
QPSK



Channel Low



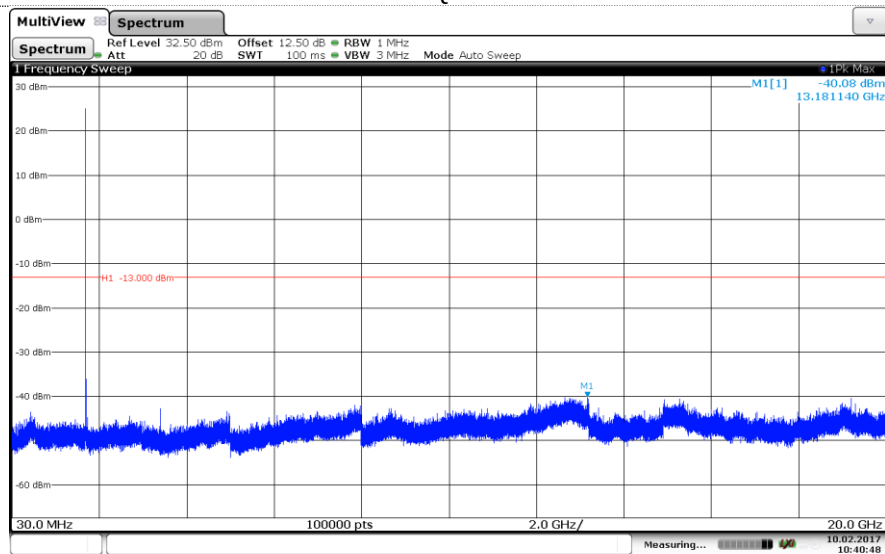
Channel Mid



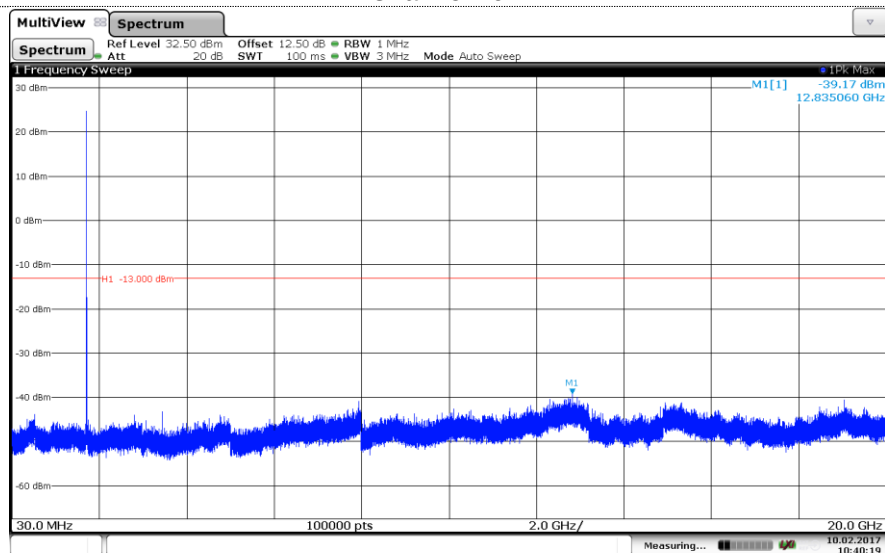
Channel High

LTE Band 4-5MHz

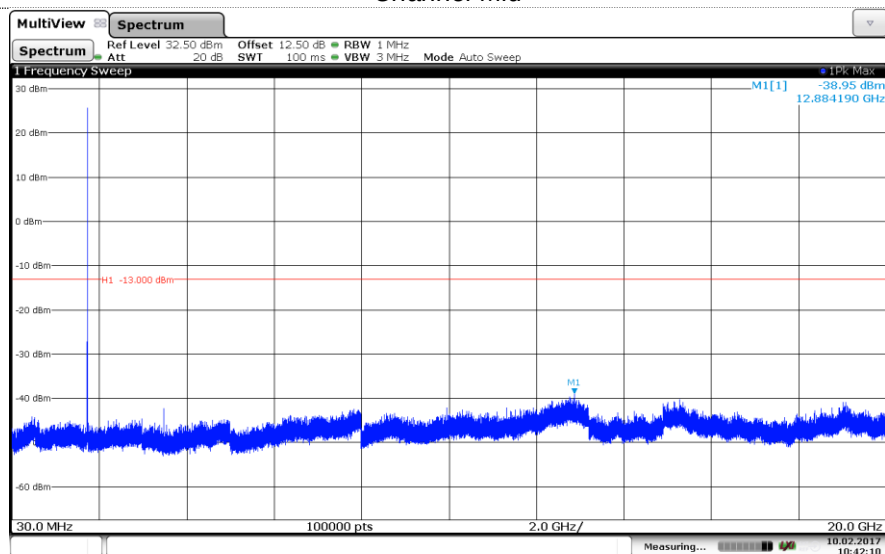
16QAM



Channel Low



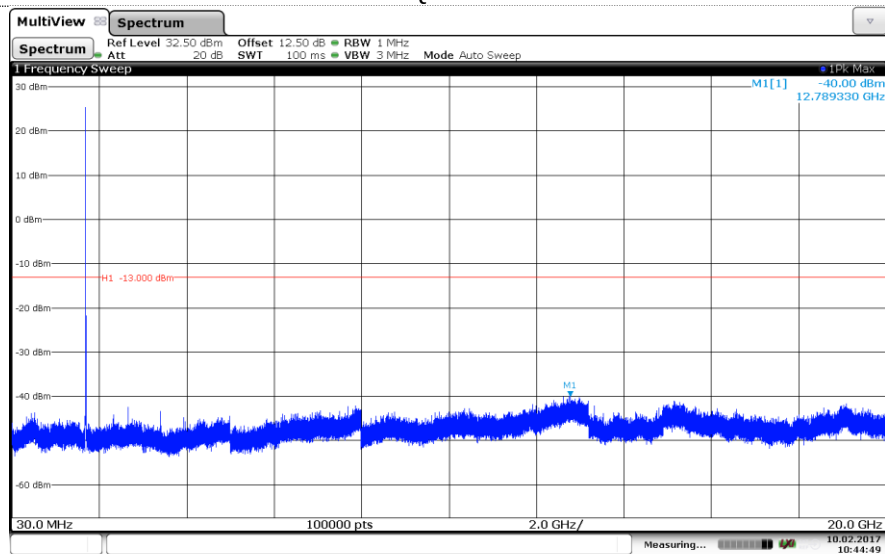
Channel Mid



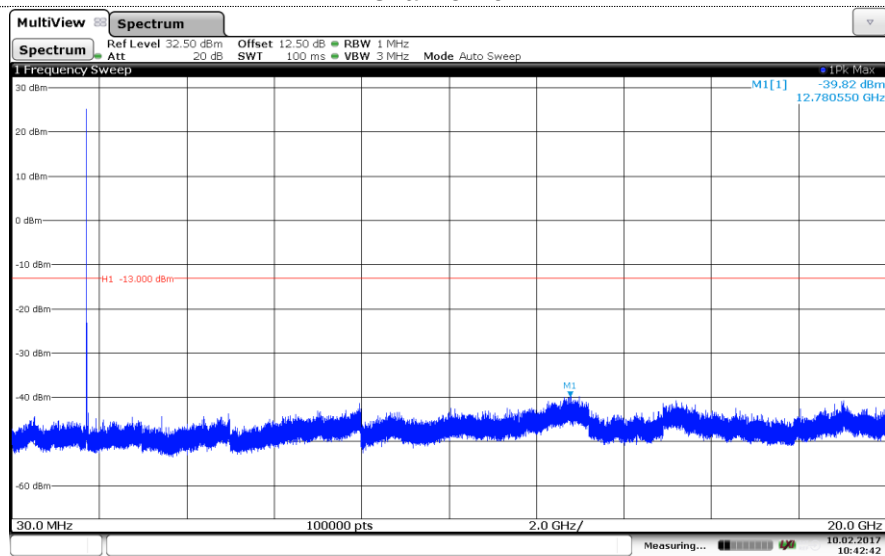
Channel High

LTE Band 4-10MHz

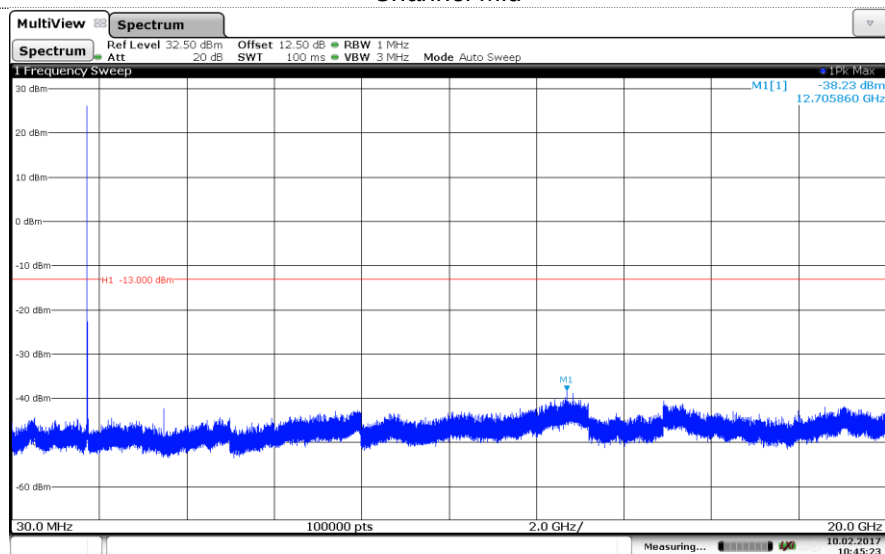
QPSK



Channel Low



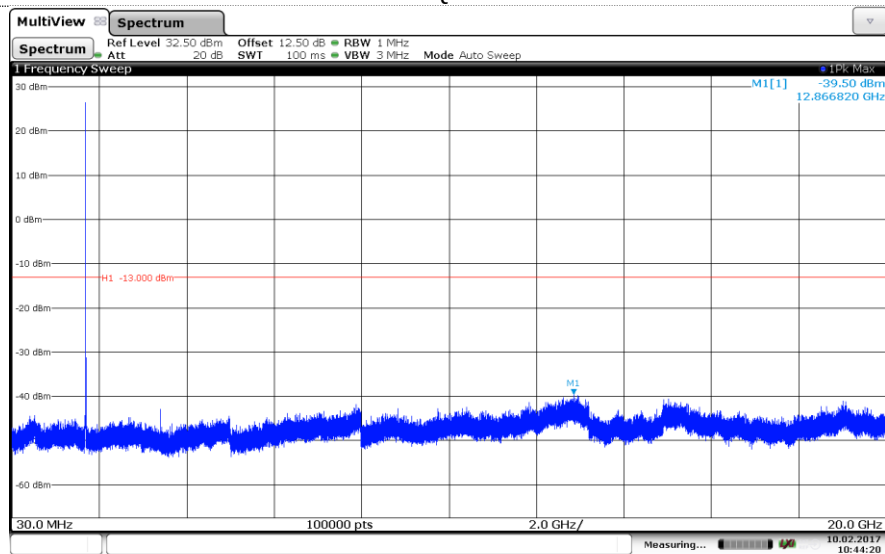
Channel Mid



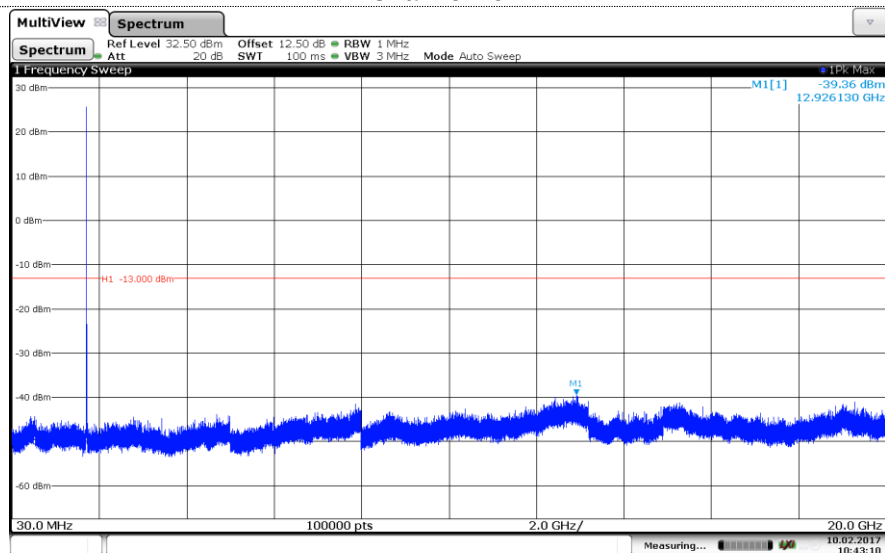
Channel High

LTE Band 4-10MHz

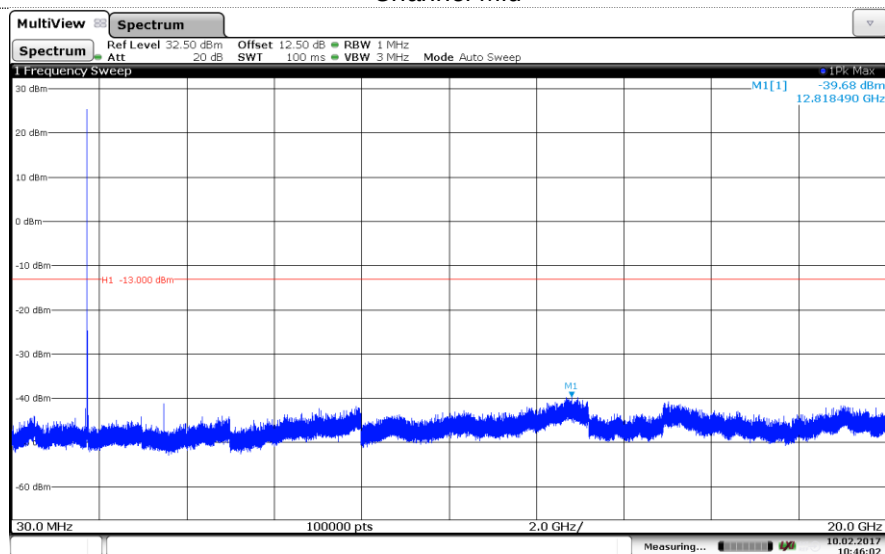
16QAM



Channel Low

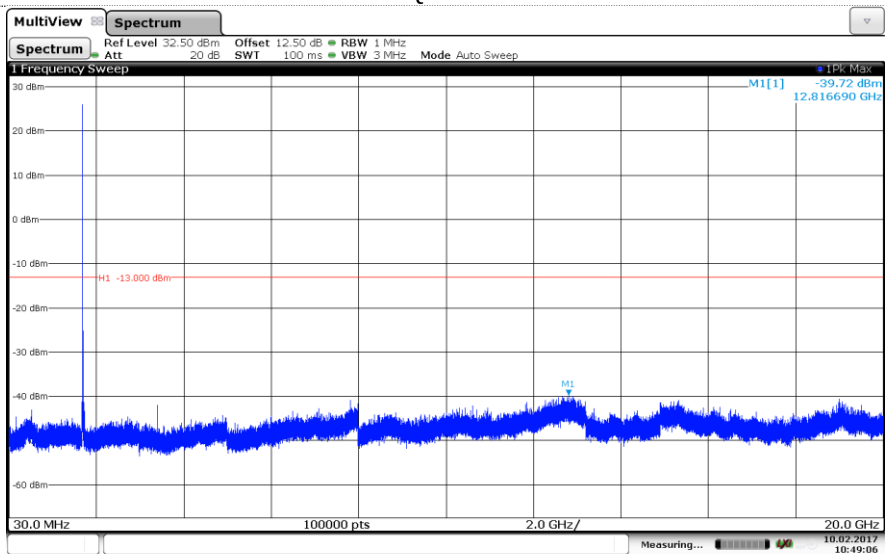


Channel Mid

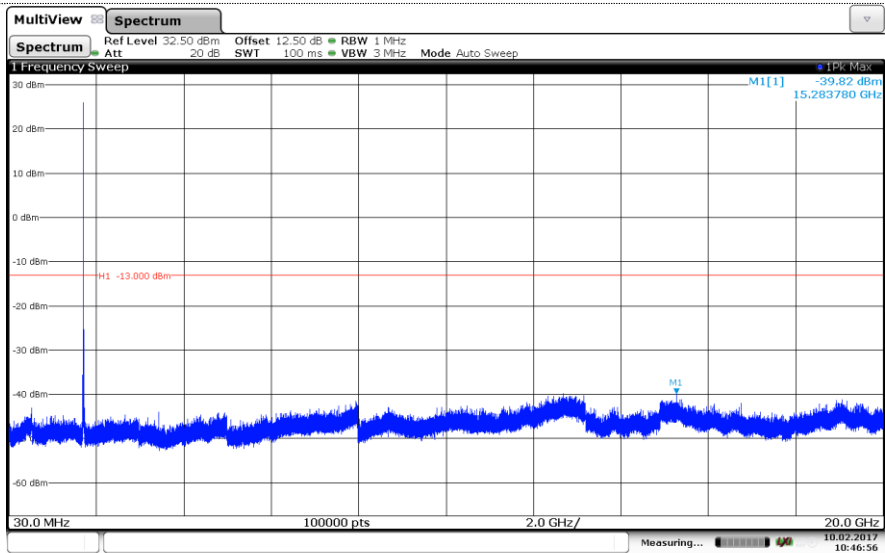


Channel High

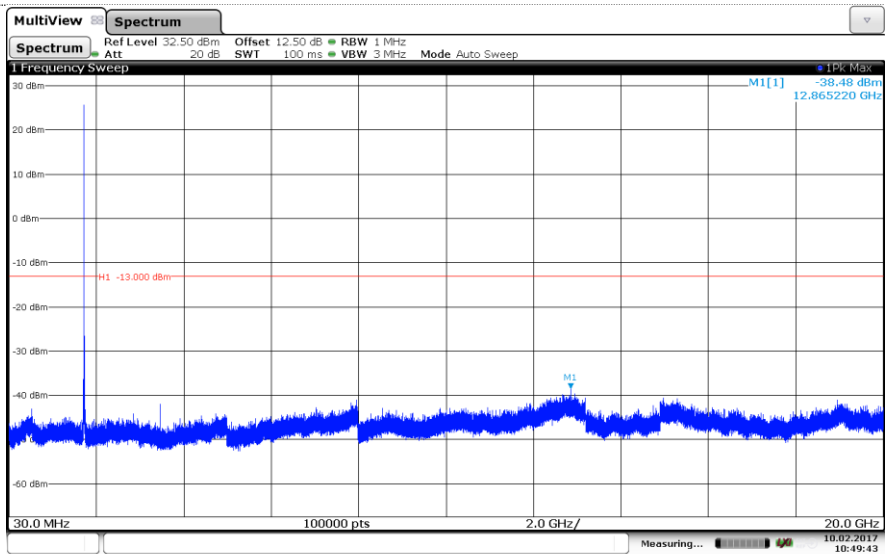
LTE Band 4-15MHz
QPSK



Channel Low

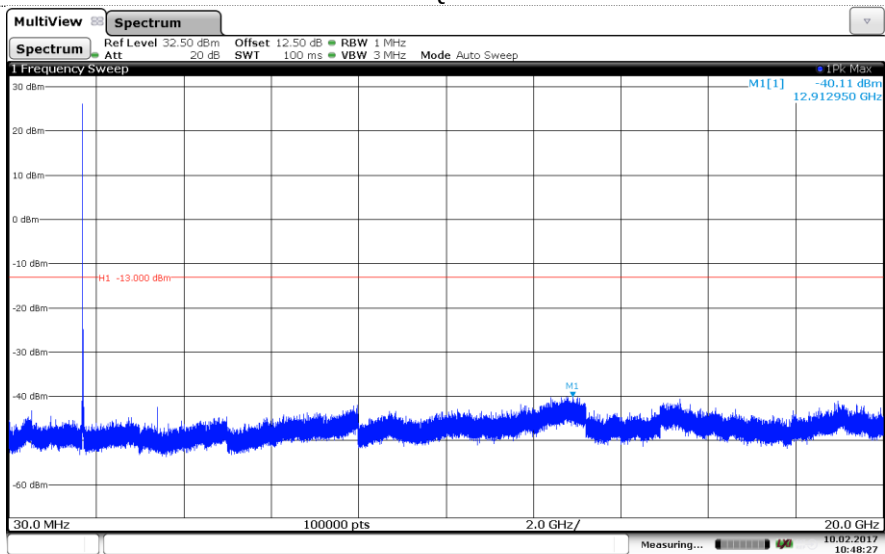


Channel Mid

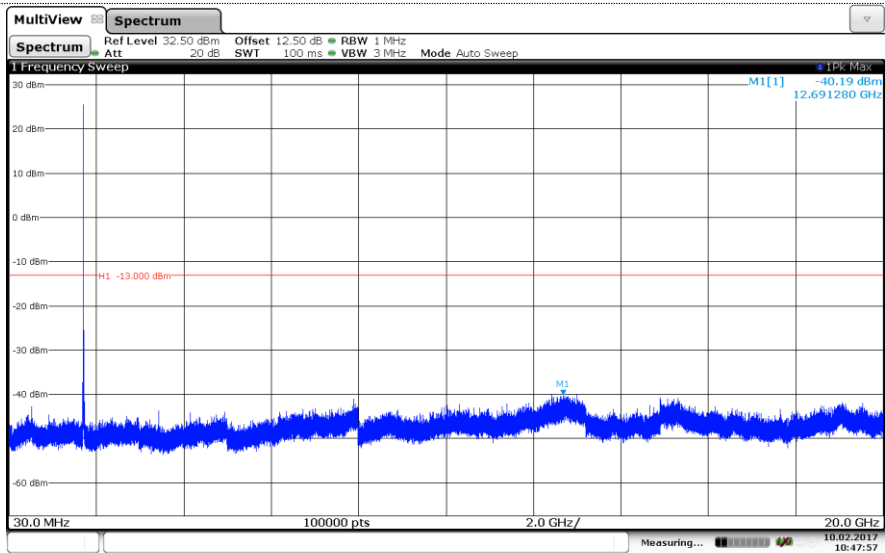


Channel High

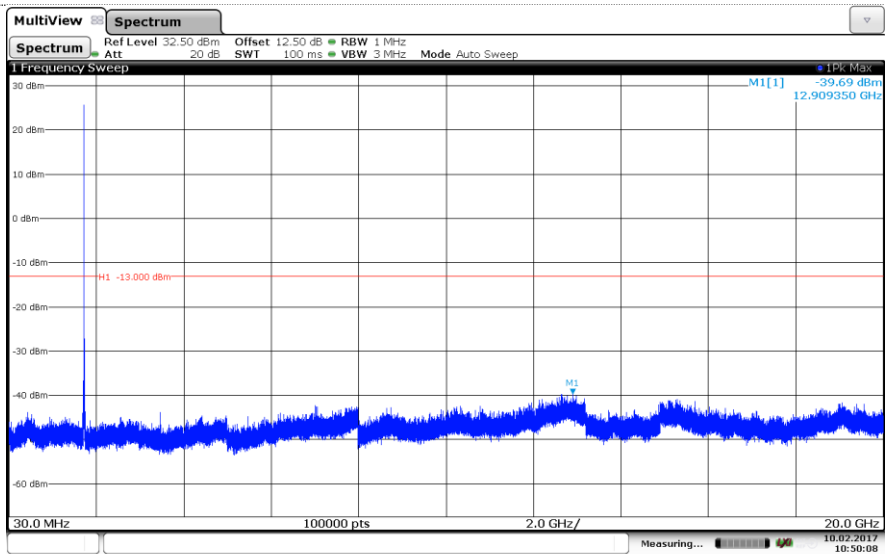
LTE Band 4-15MHz
16QAM



Channel Low

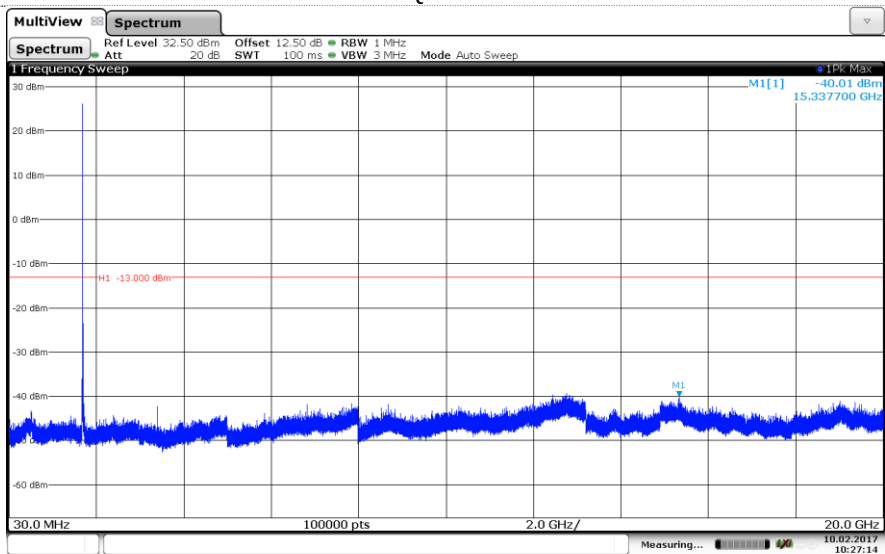


Channel Mid

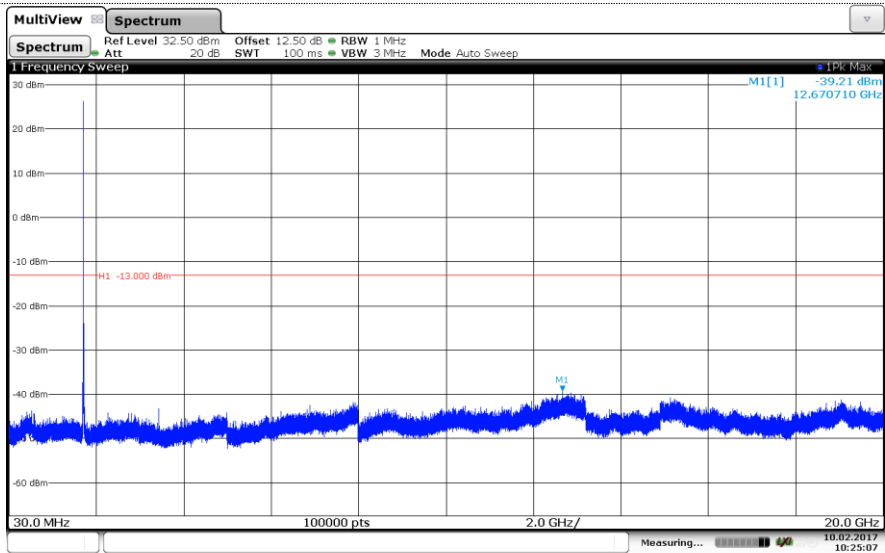


Channel High

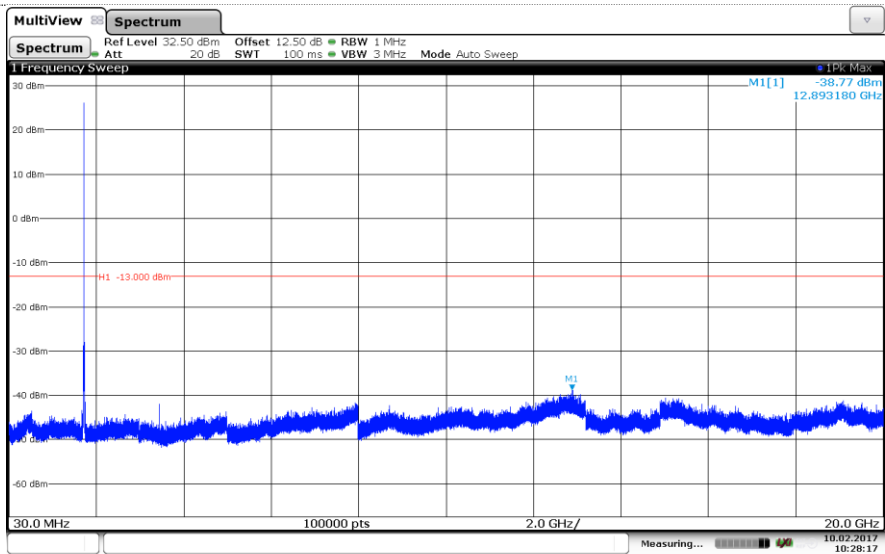
LTE Band 4-20MHz
QPSK



Channel Low



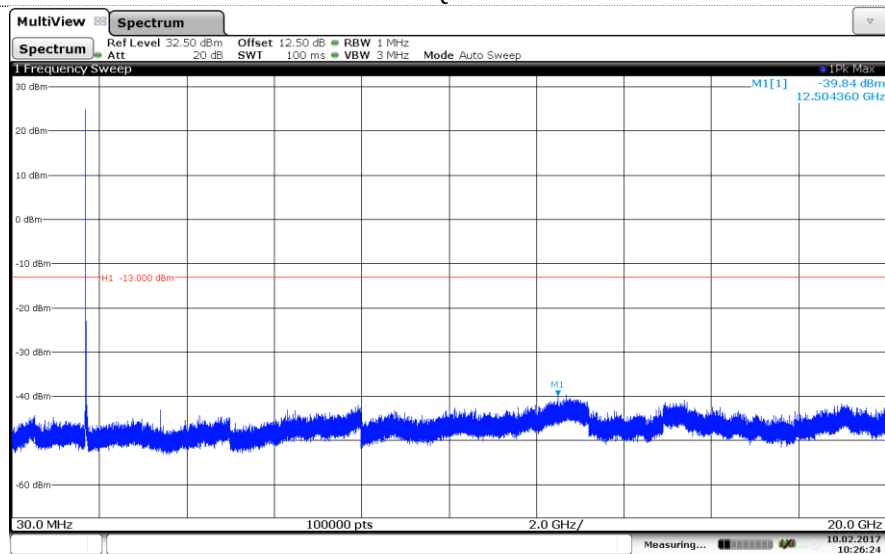
Channel Mid



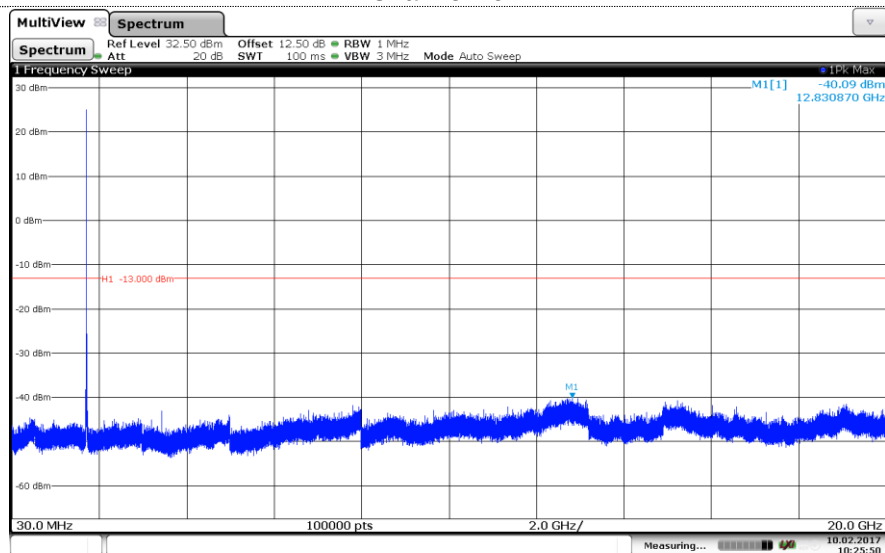
Channel High

LTE Band 4-20MHz

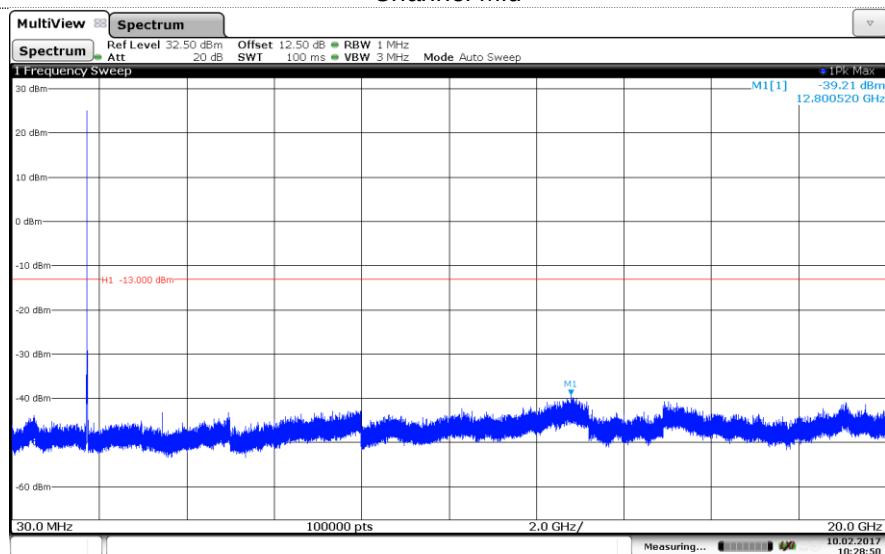
16QAM



Channel Low



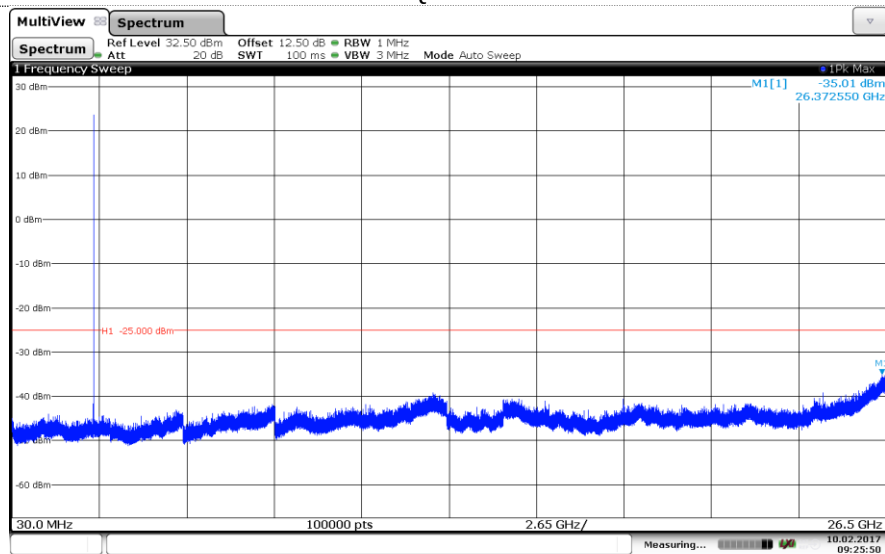
Channel Mid



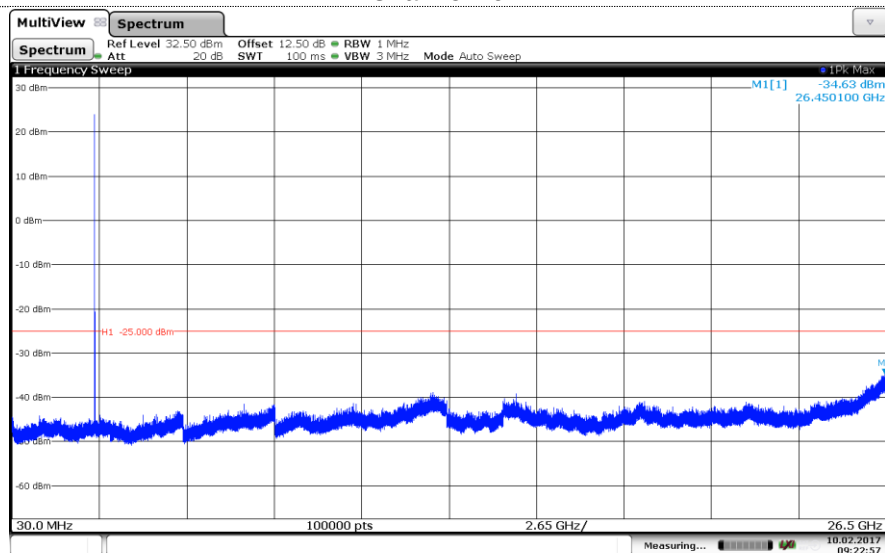
Channel High

LTE Band 7-5MHz

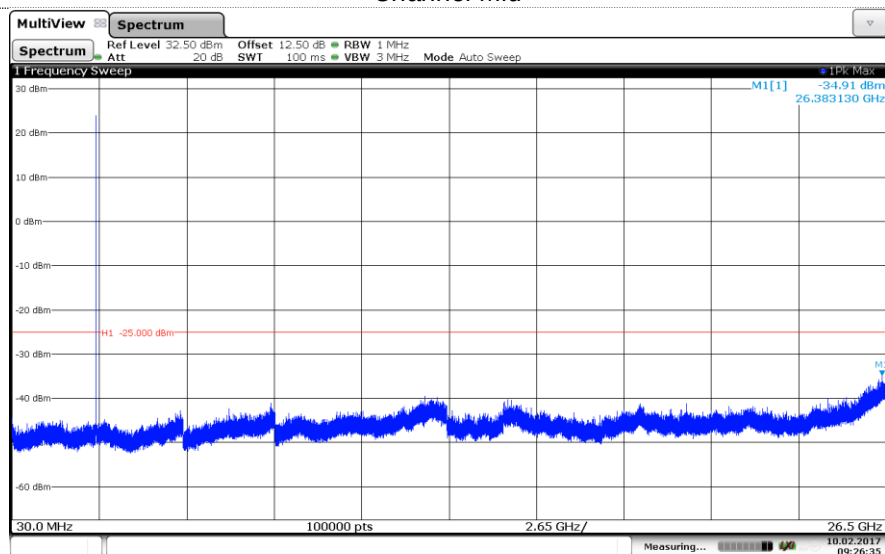
QPSK



Channel Low

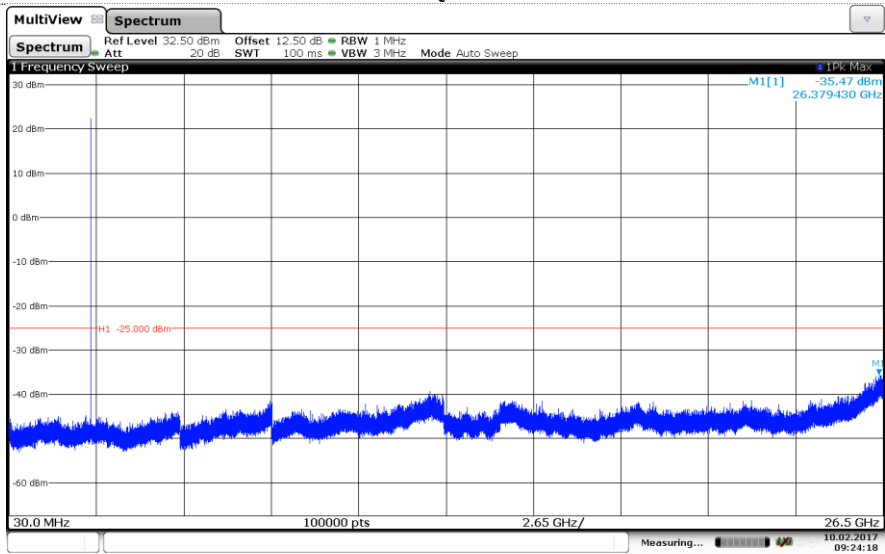


Channel Mid

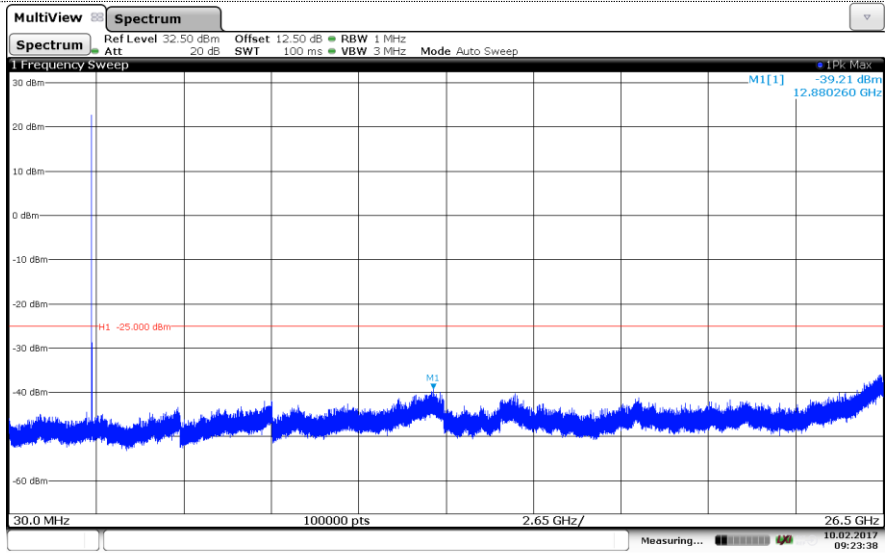


Channel High

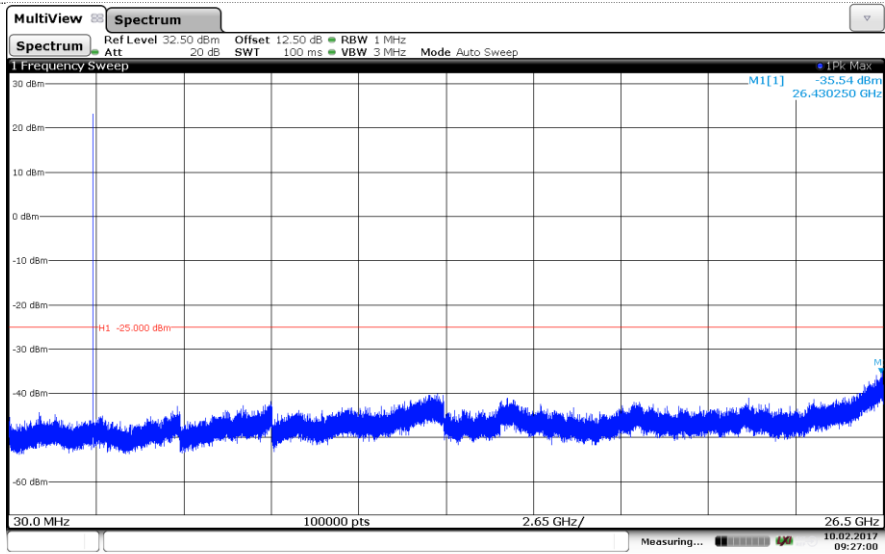
LTE Band 7-5MHz
16QAM



Channel Low



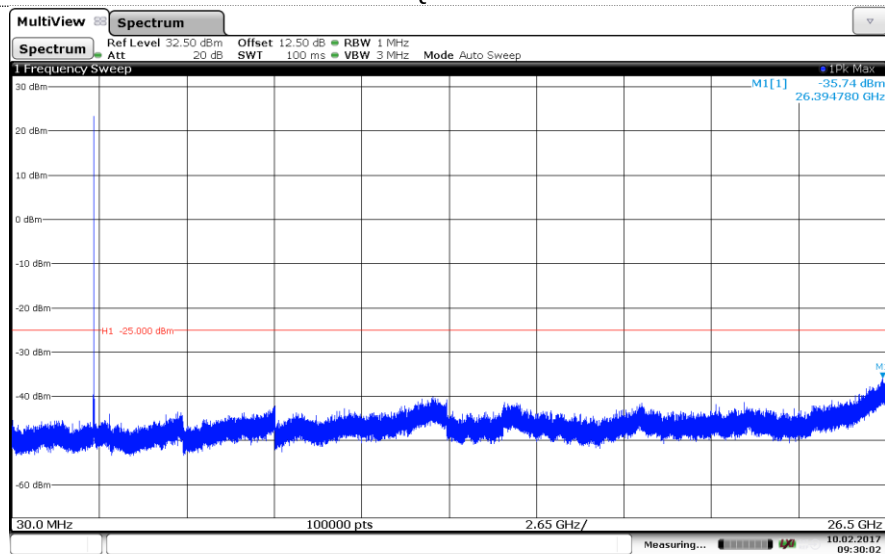
Channel Mid



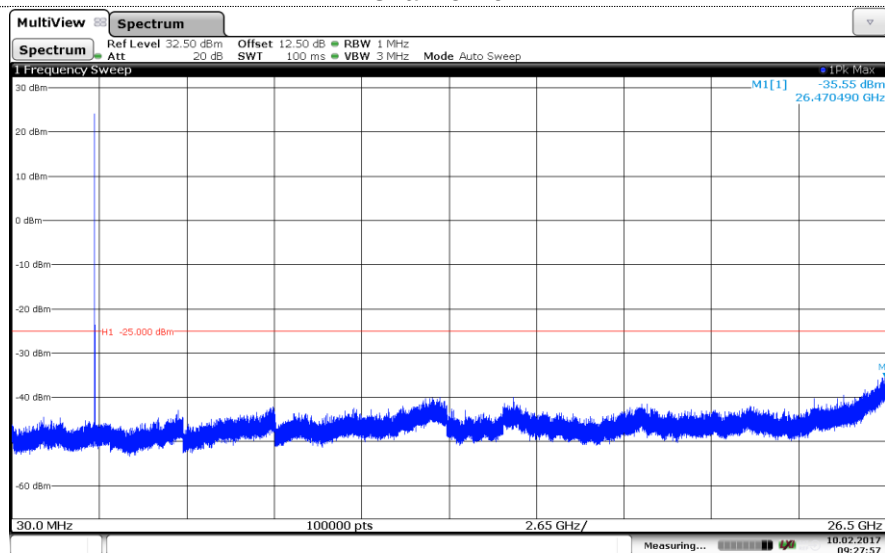
Channel High

LTE Band 7-10MHz

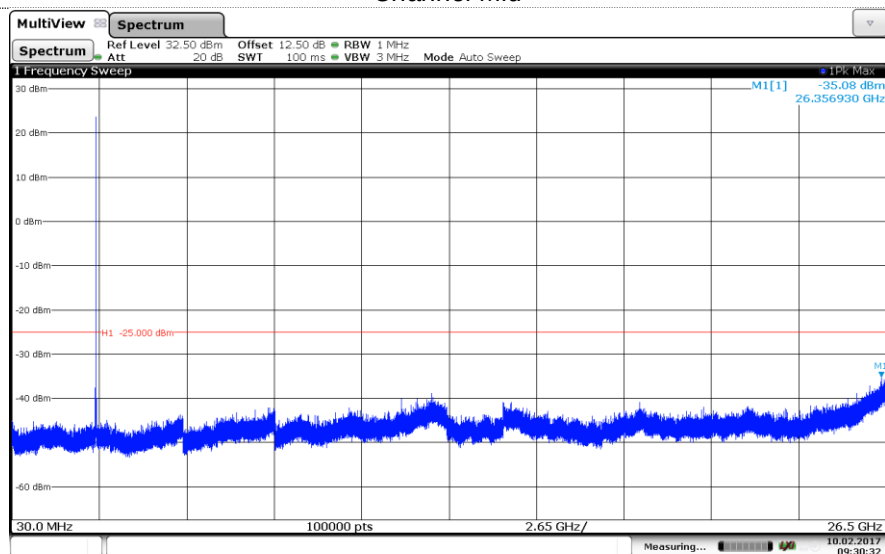
QPSK



Channel Low

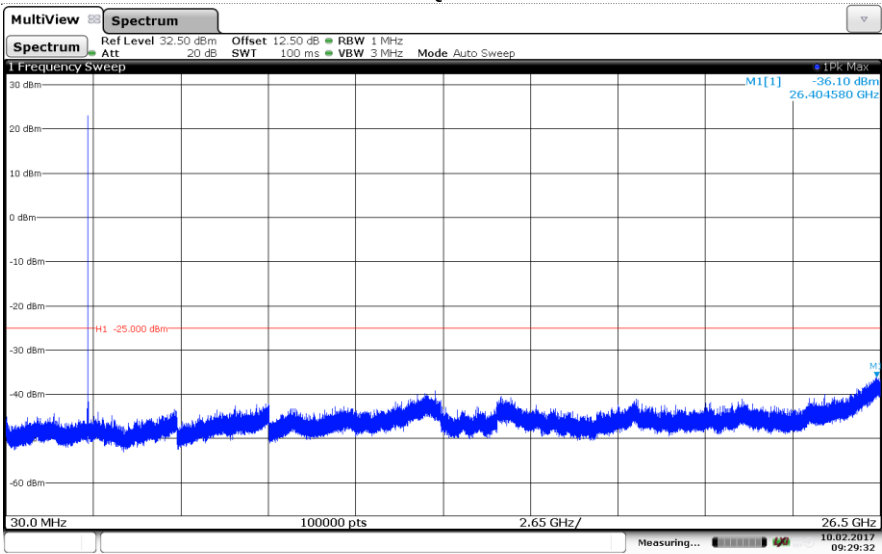


Channel Mid

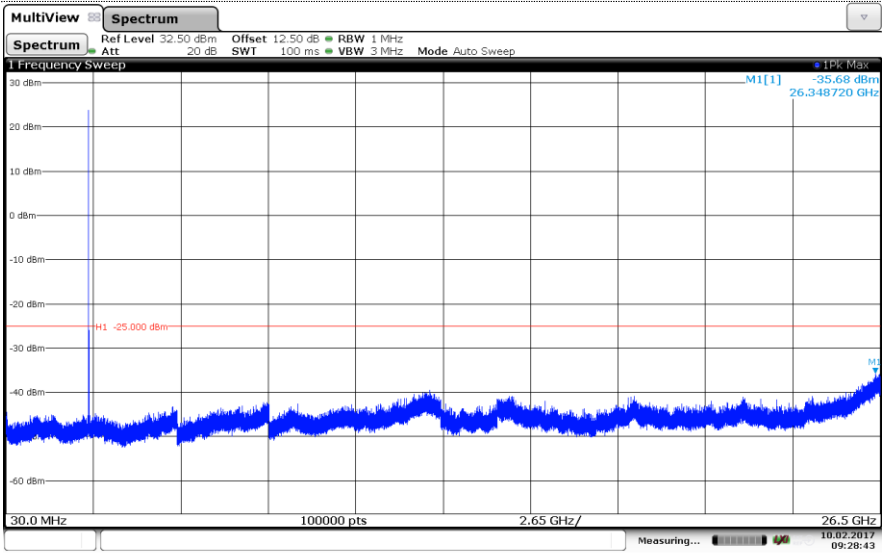


Channel High

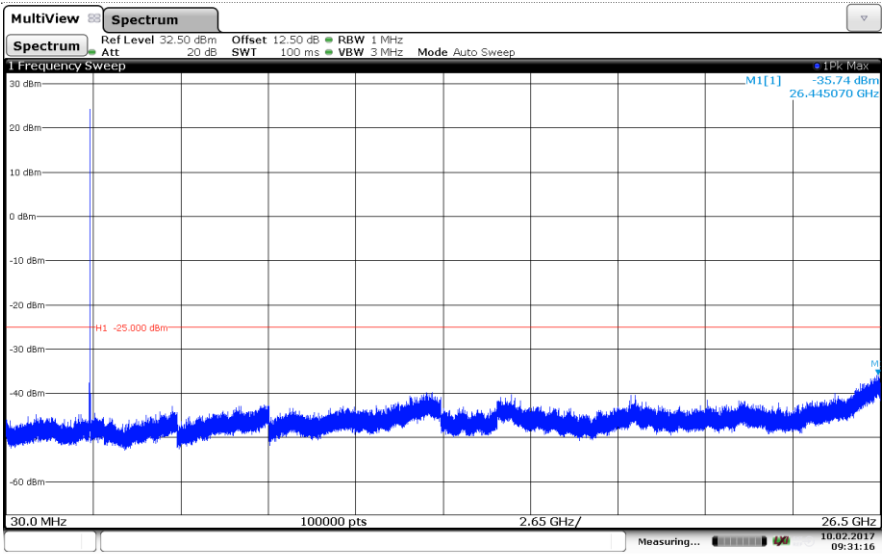
LTE Band 7-10MHz
16QAM



Channel Low



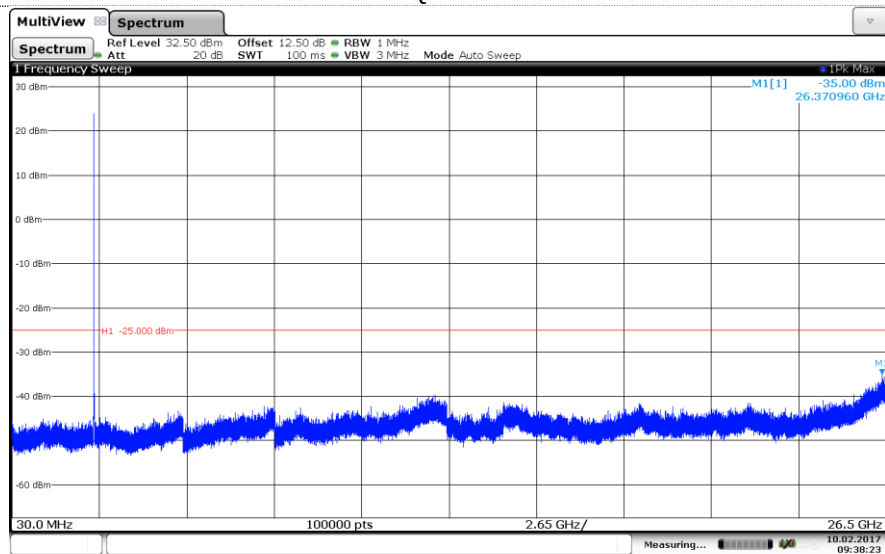
Channel Mid



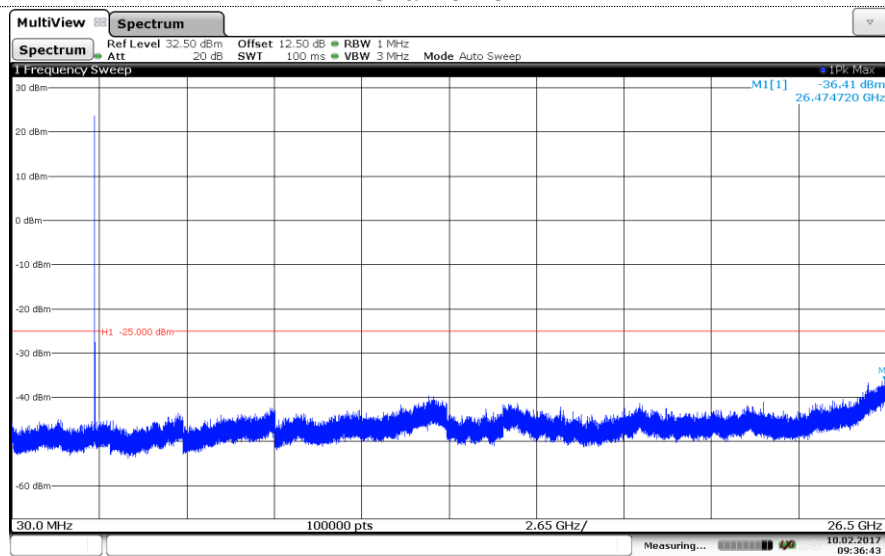
Channel High

LTE Band 7-15MHz

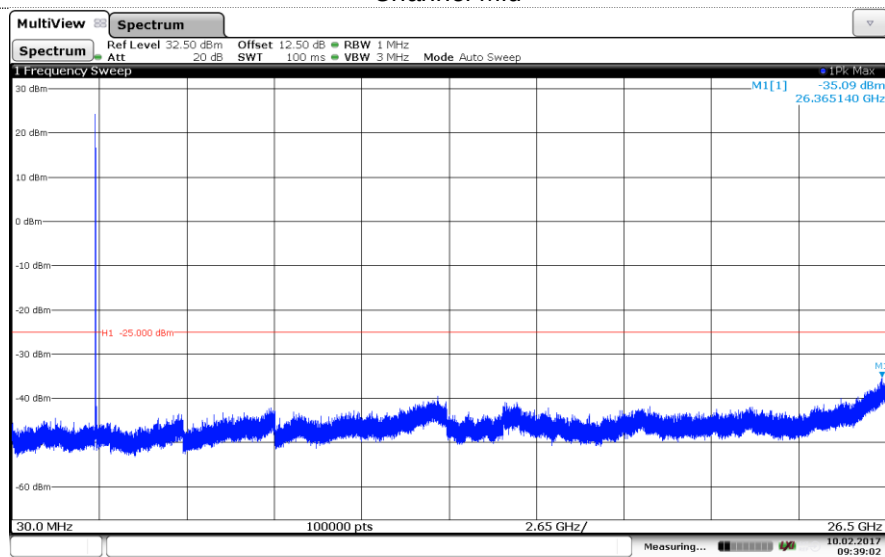
QPSK



Channel Low



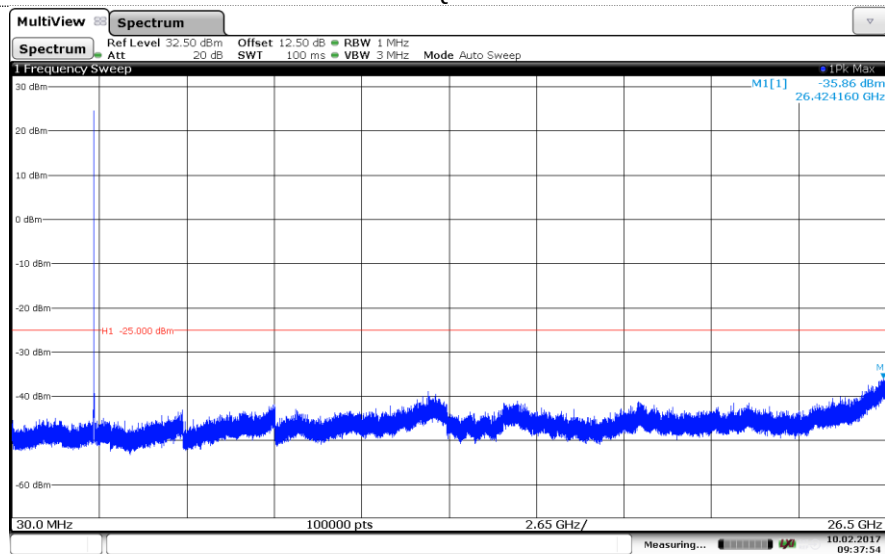
Channel Mid



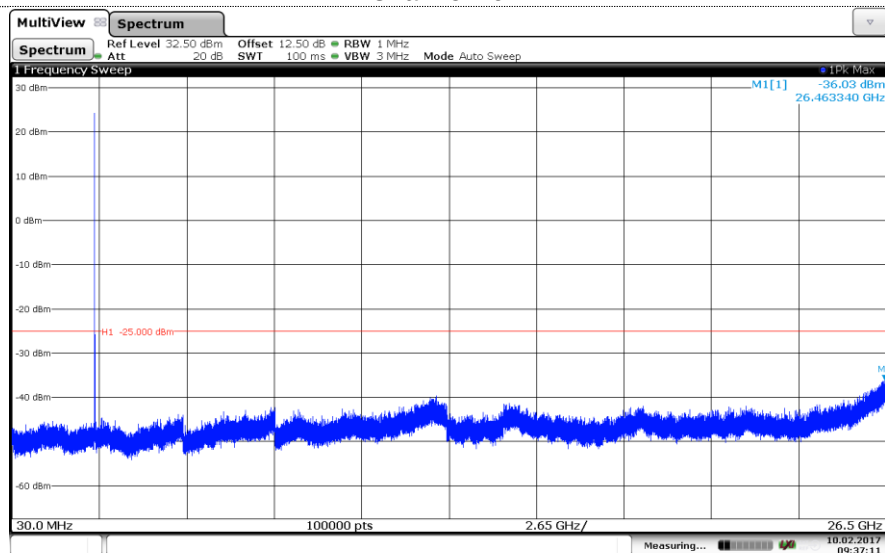
Channel High

LTE Band 7-15MHz

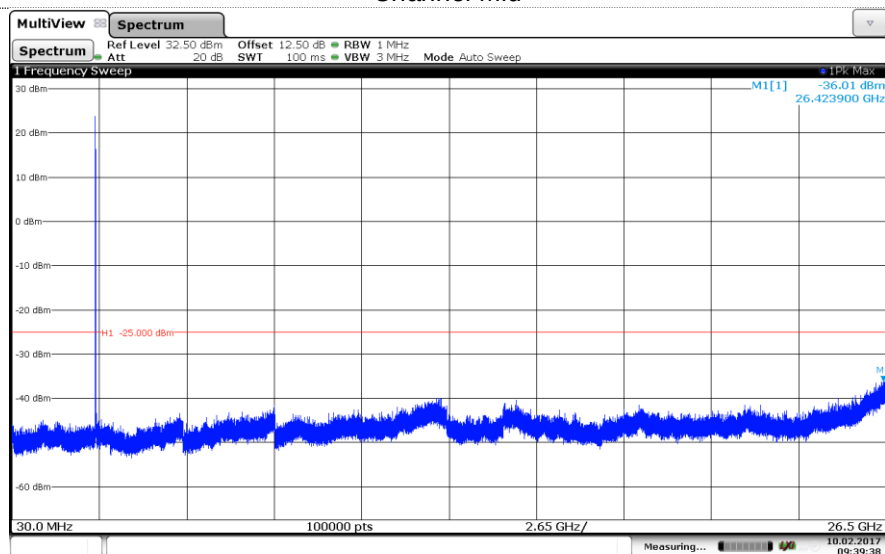
16QAM



Channel Low



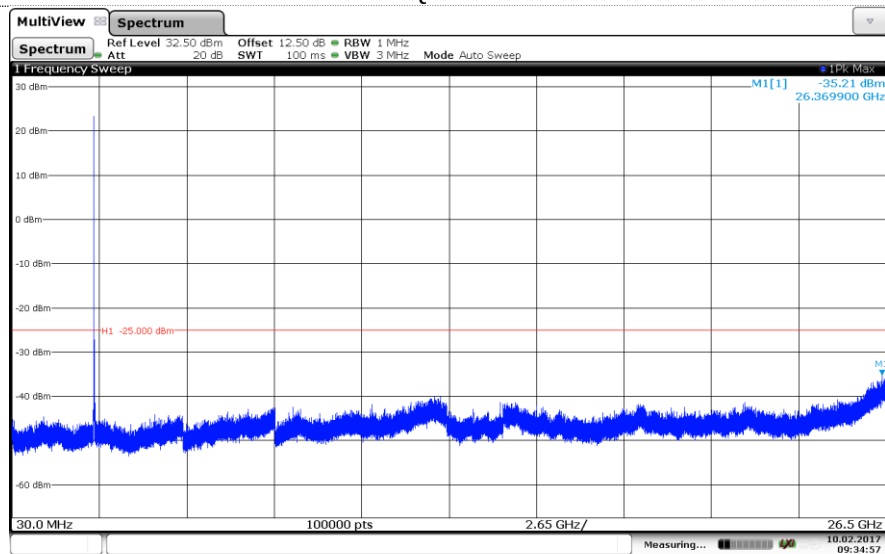
Channel Mid



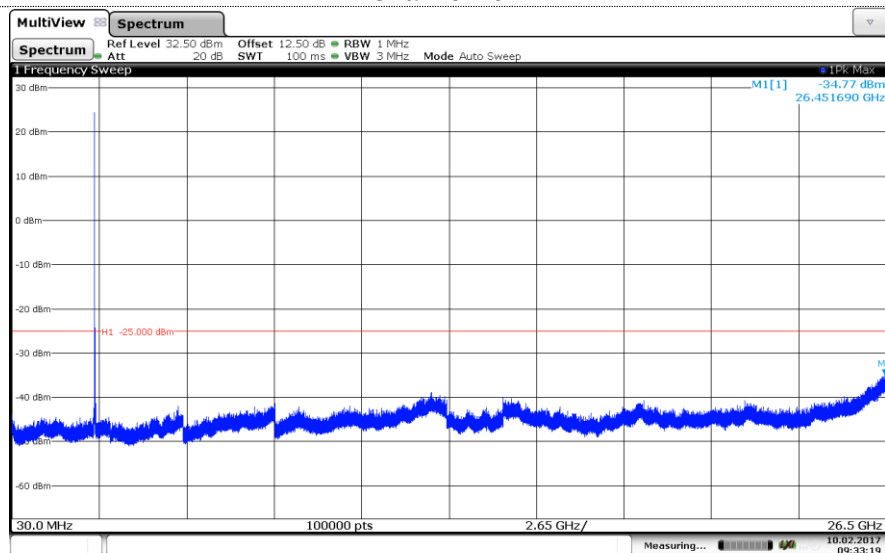
Channel High

LTE Band 7-20MHz

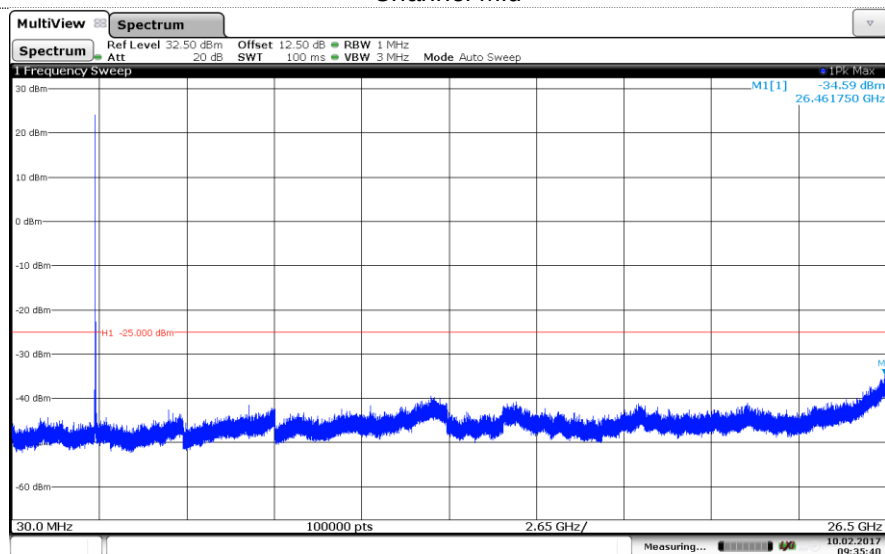
QPSK



Channel Low



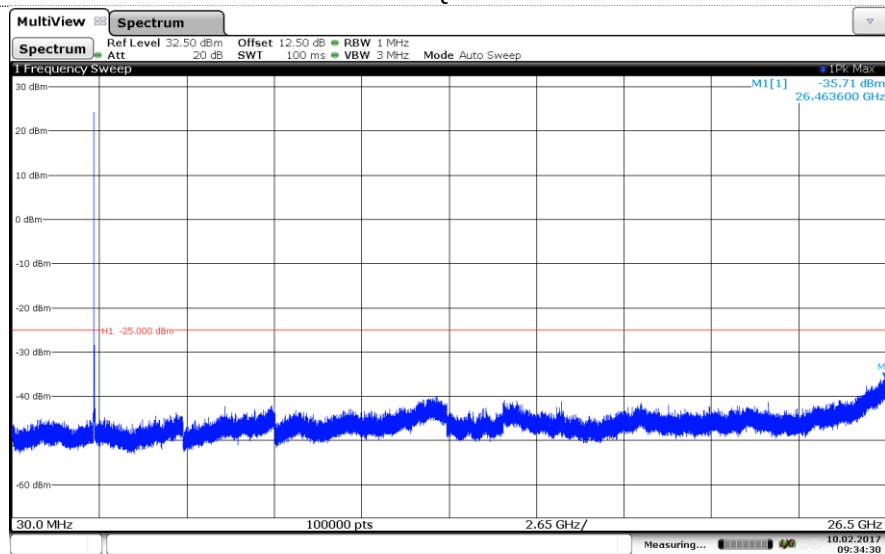
Channel Mid



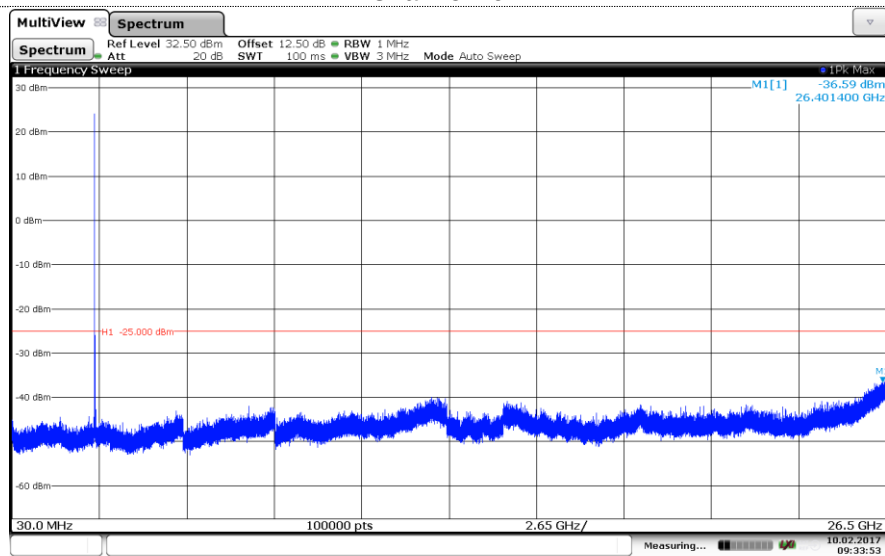
Channel High

LTE Band 7-20MHz

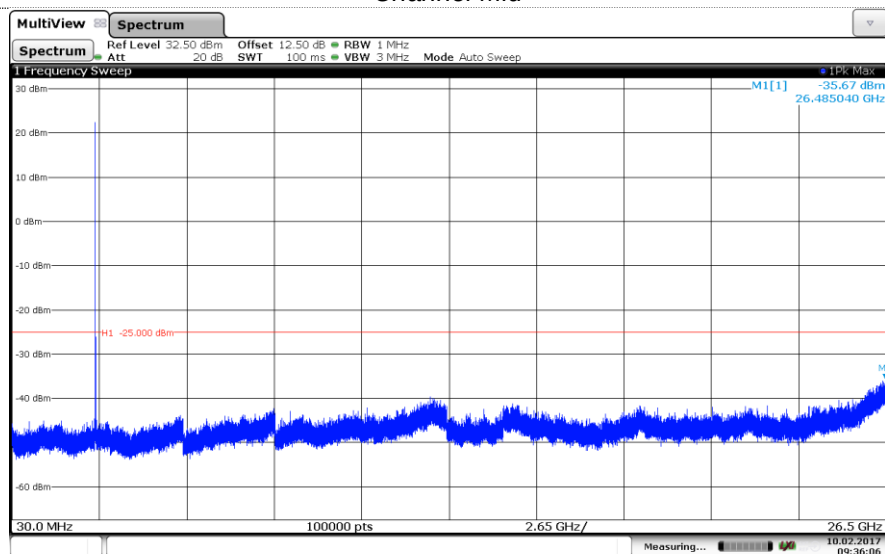
16QAM



Channel Low



Channel Mid



Channel High

5.4. Band Edge

LIMIT

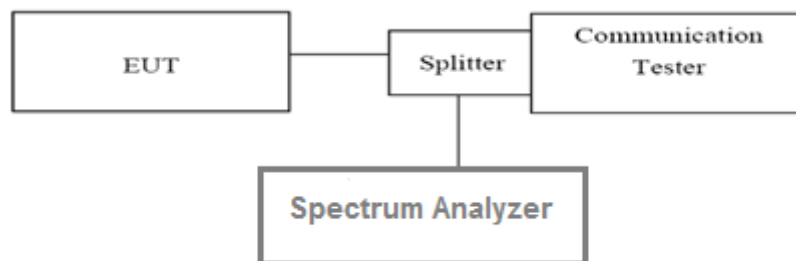
Part 24.238 and Part 27.53h(1) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

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

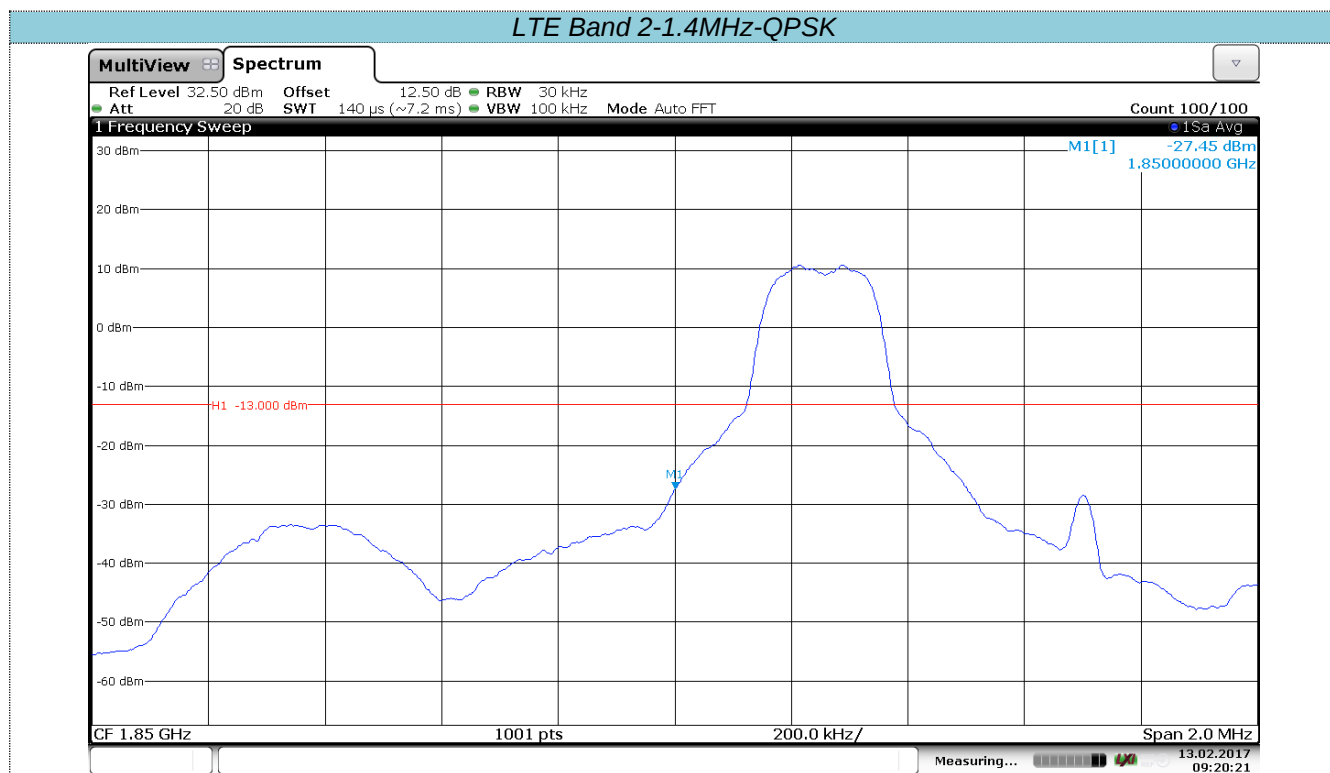
1. The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW $\geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer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

TEST MODE:

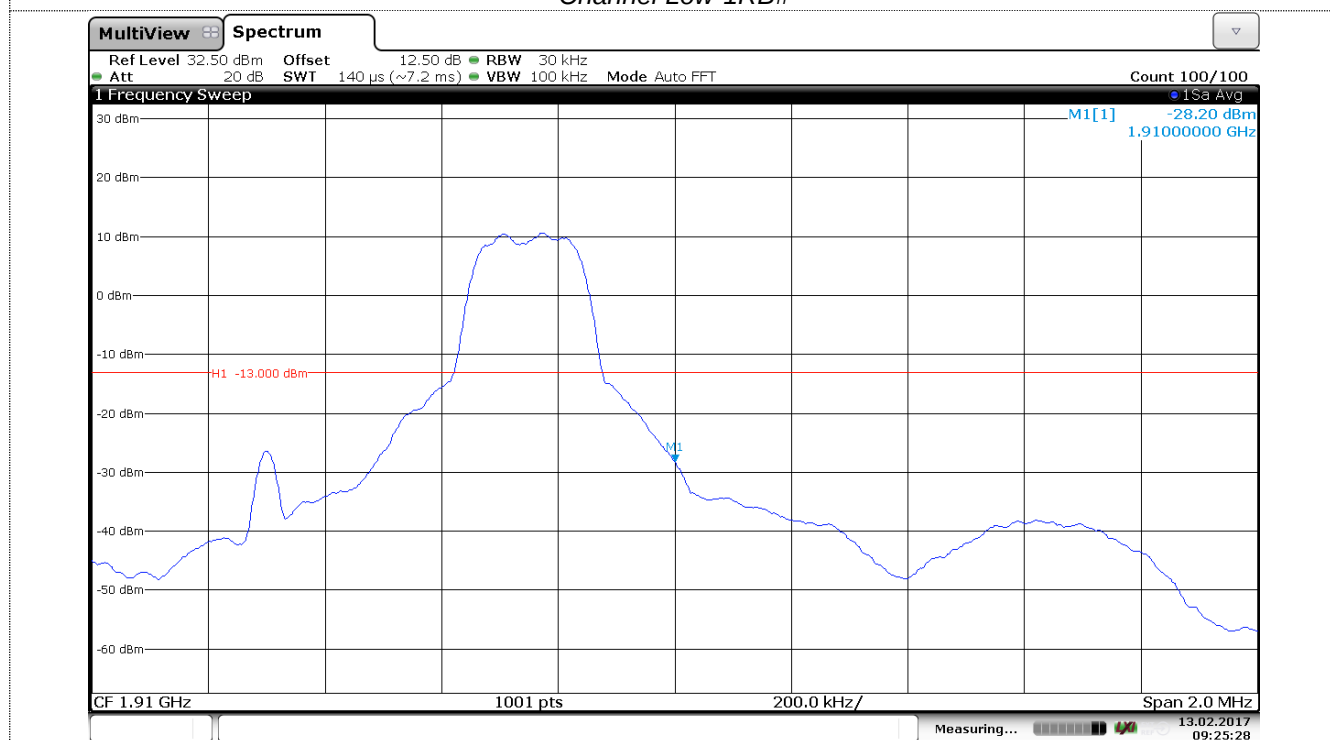
Please refer to the clause 3.3

TEST RESULTS

☒ Passed ☐ Not Applicable



Channel Low-1RB#



Channel High-1RB#