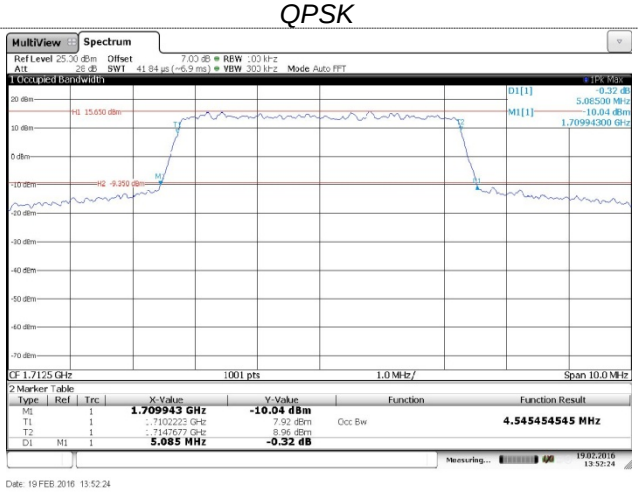
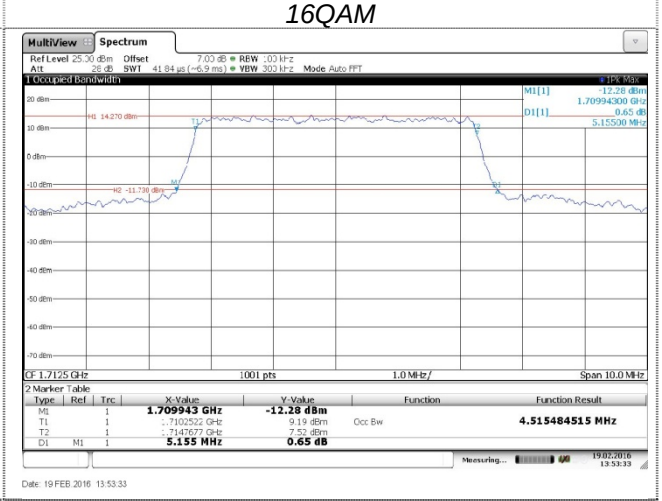
LTE Band 4-5MHz

QPSK



16QAM



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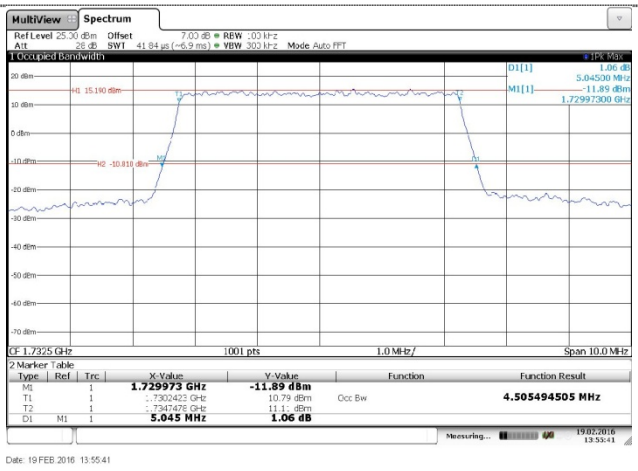

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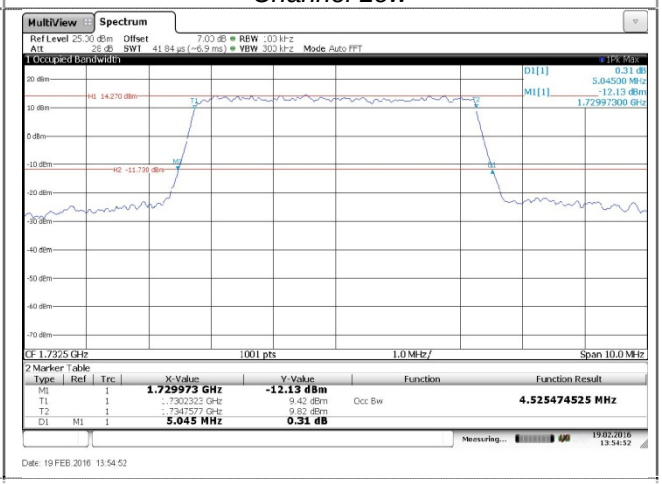

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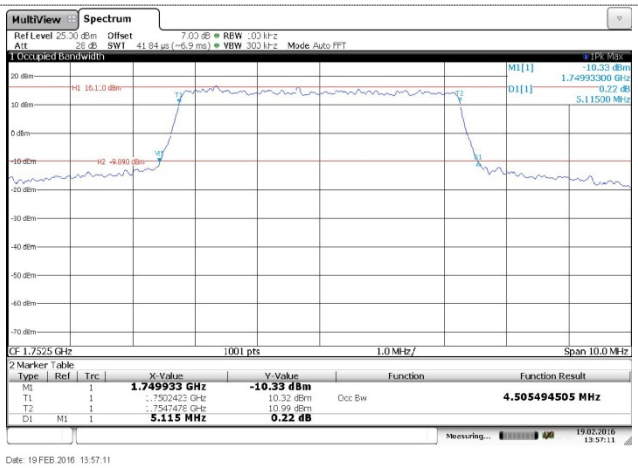

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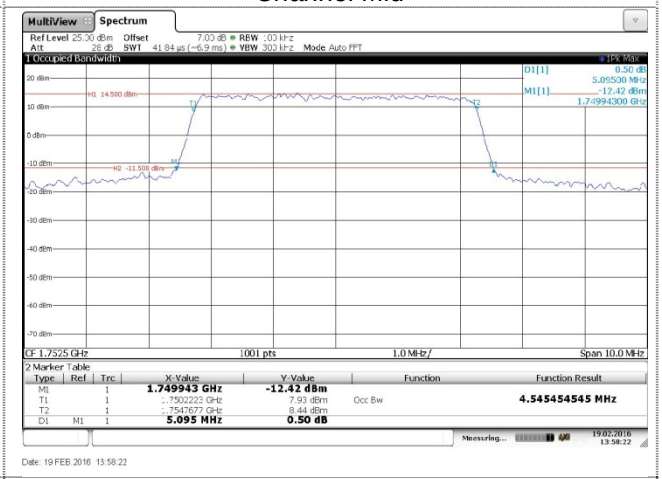
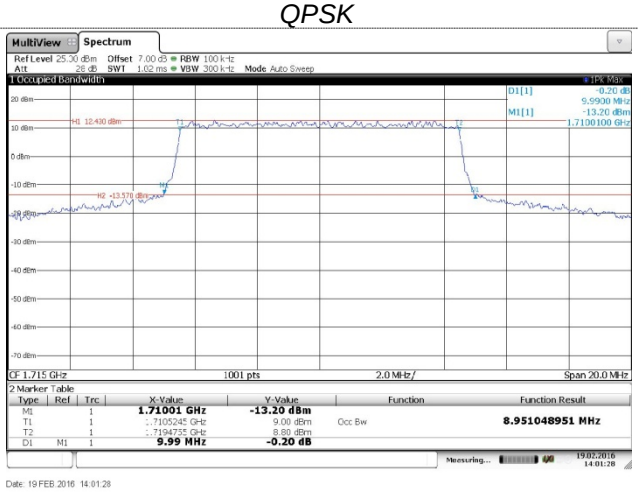


Channel High

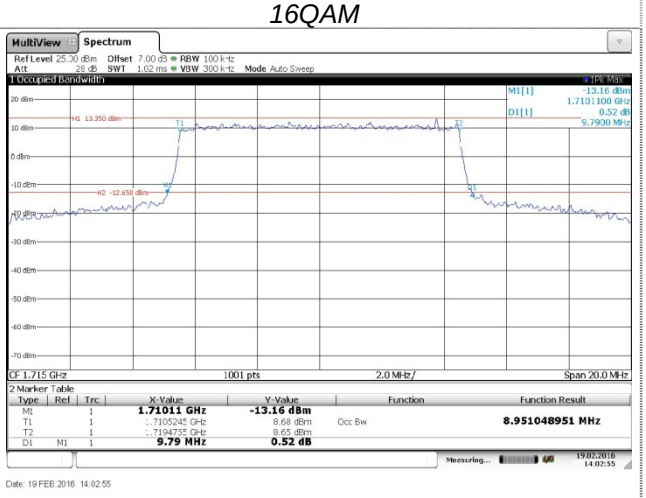
Channel High

LTE Band 4-10MHz

QPSK



16QAM



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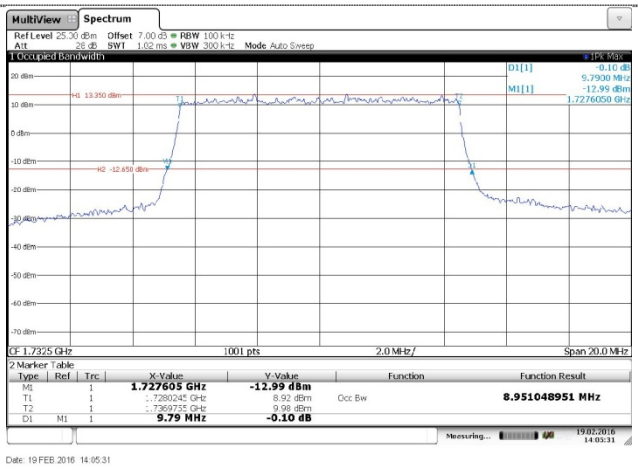

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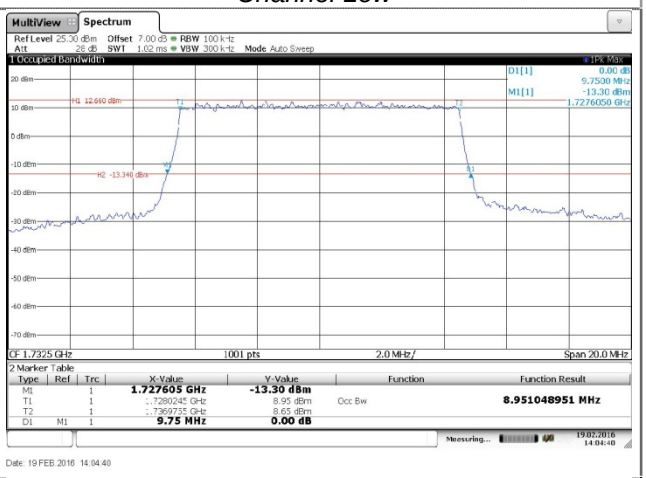

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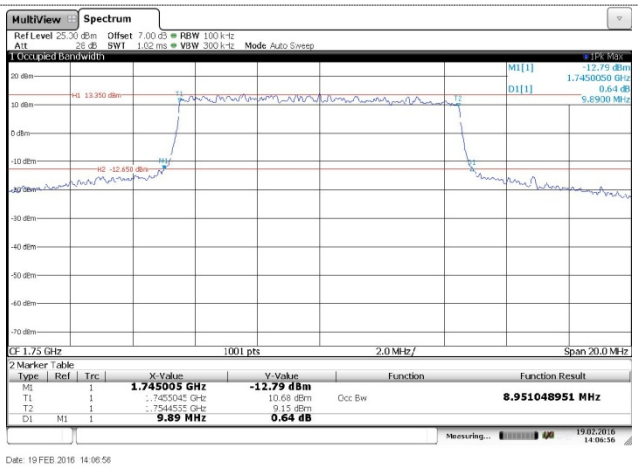

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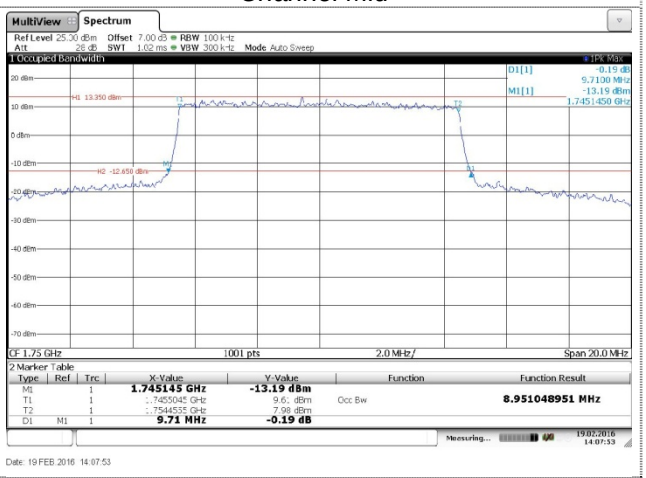
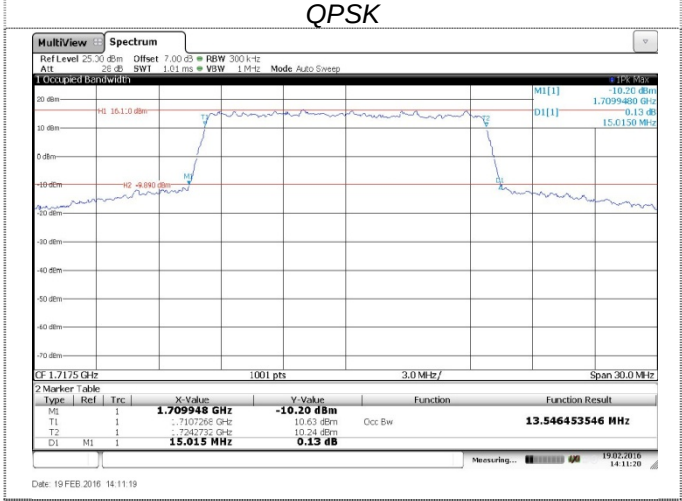


Channel High

Channel High

LTE Band 4-15MHz

QPSK



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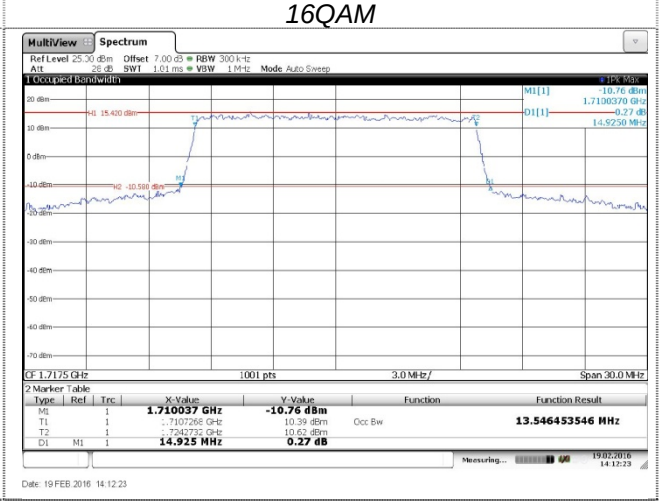

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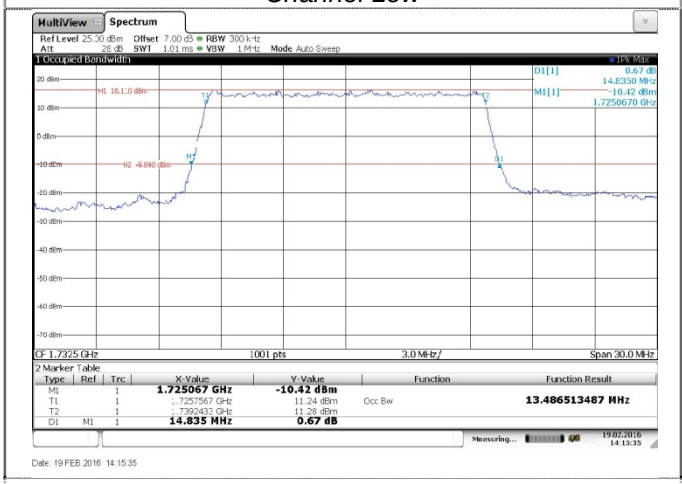

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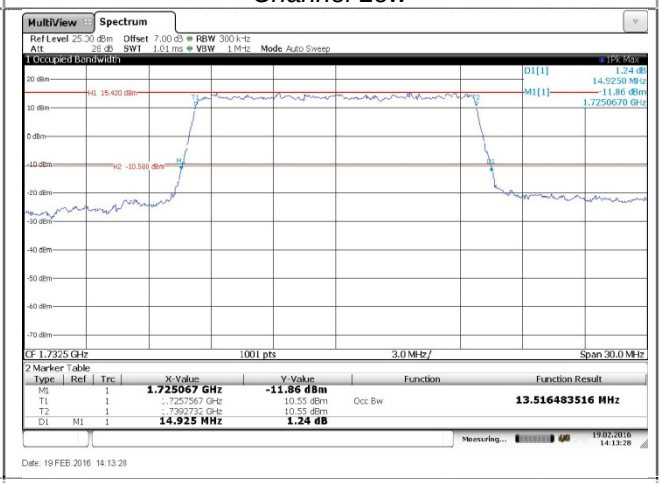
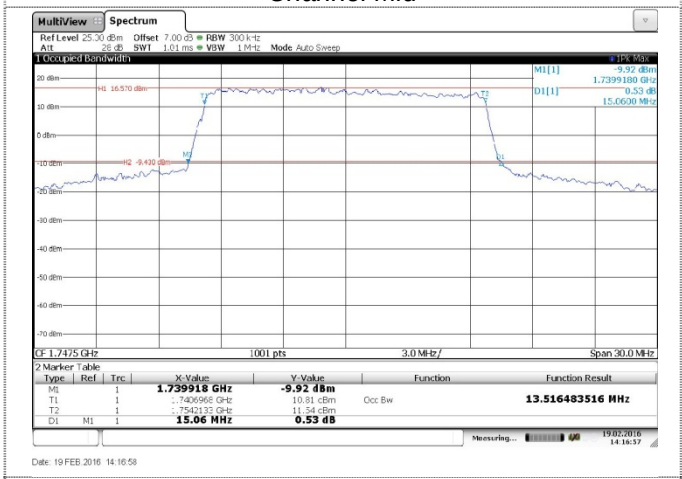


Channel Mid



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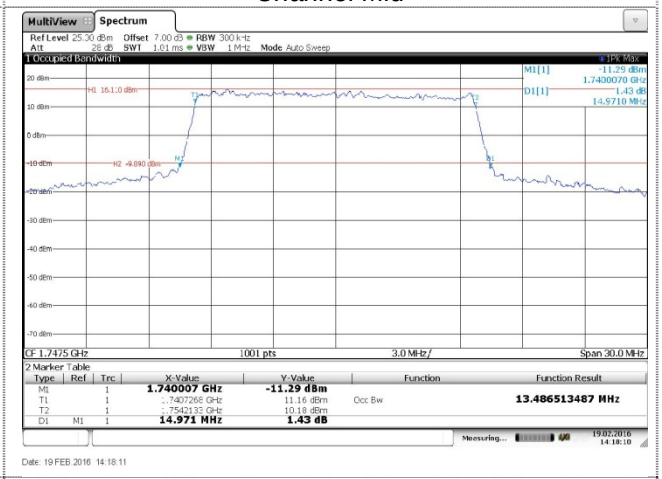
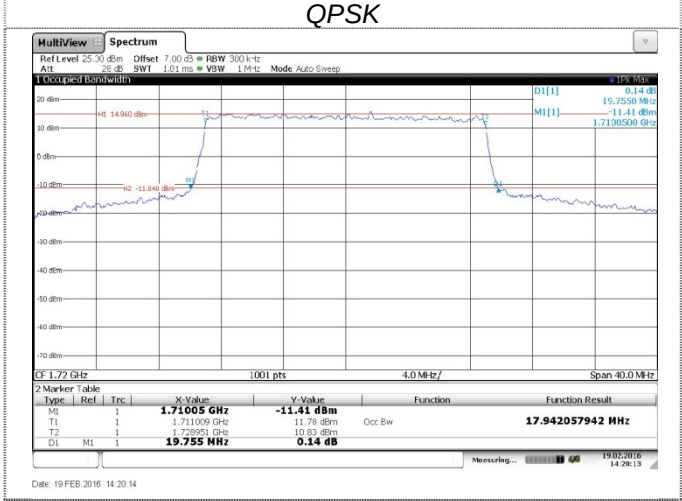


Channel High

Channel High

LTE Band 4-20MHz

QPSK



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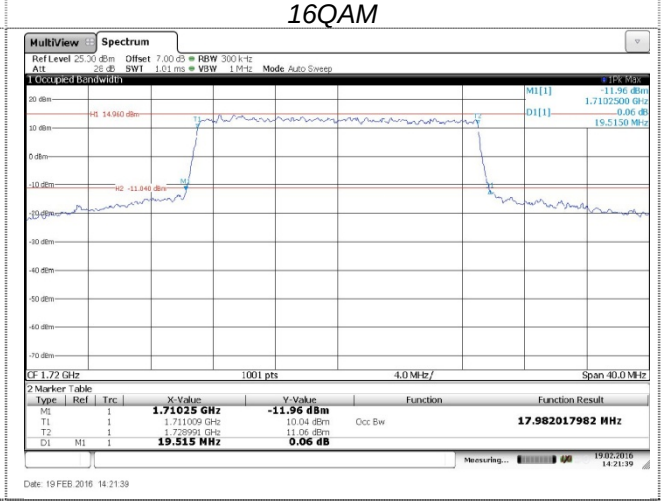

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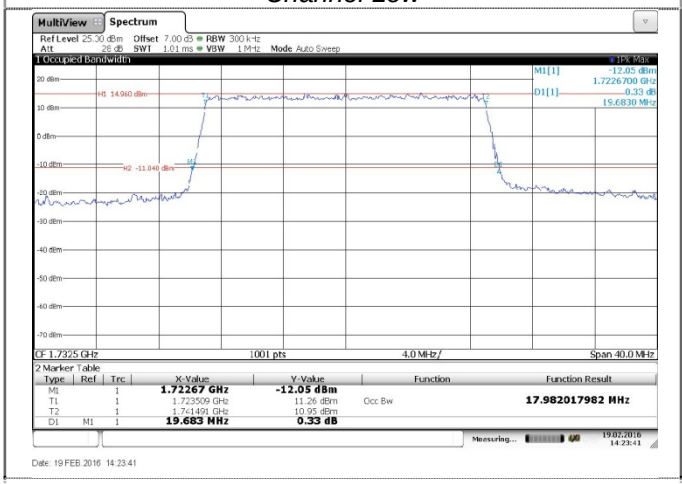

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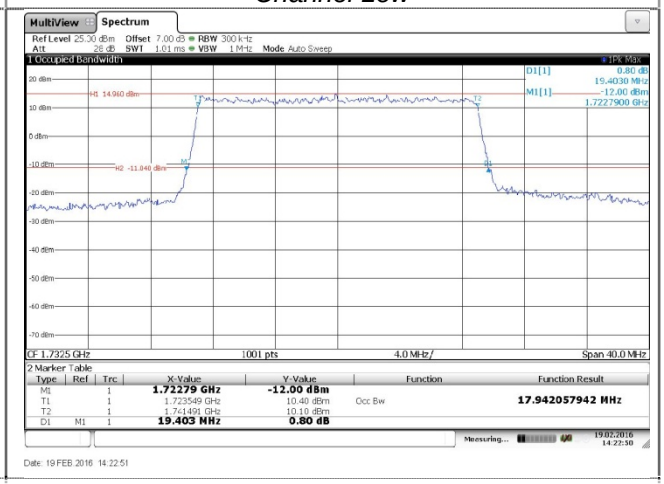

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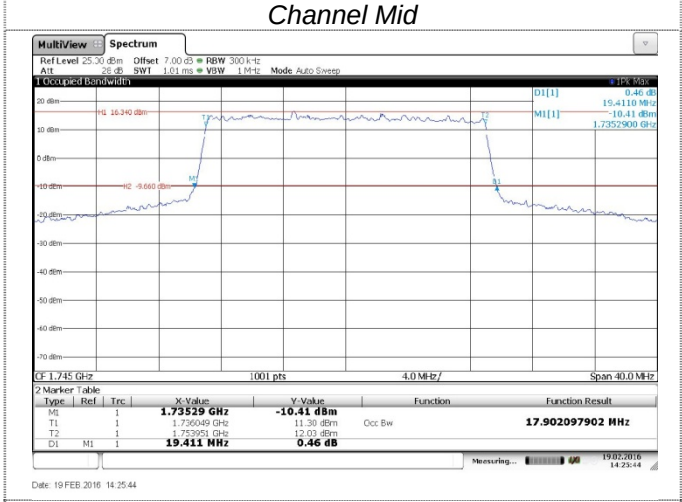

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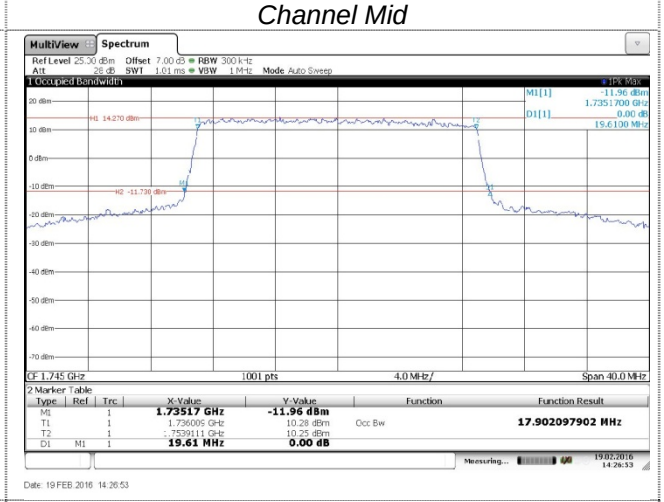
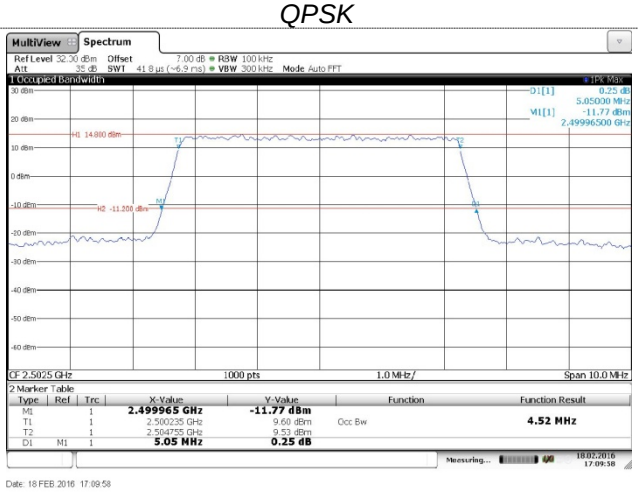


Channel High

Channel High

LTE Band 7-5MHz

QPSK



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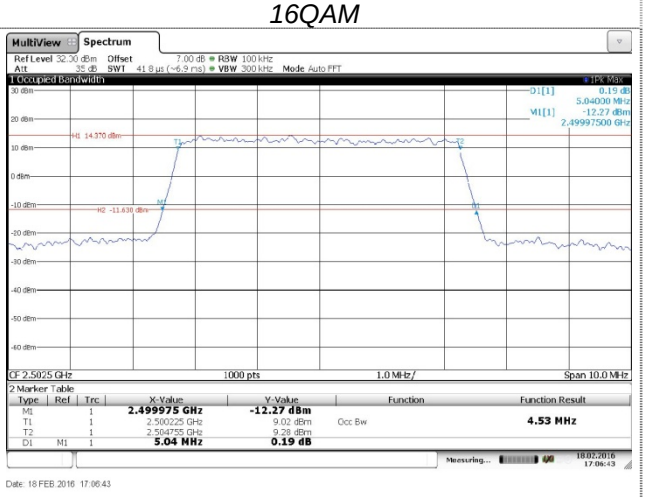

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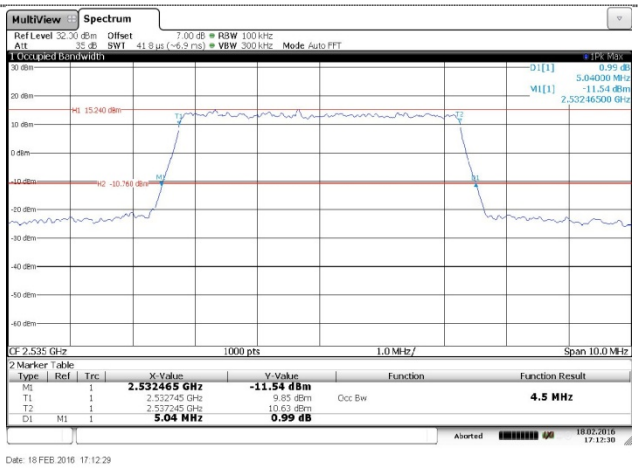

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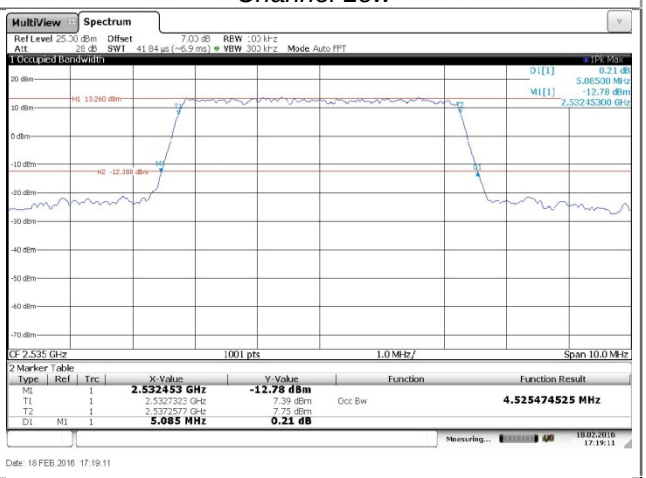

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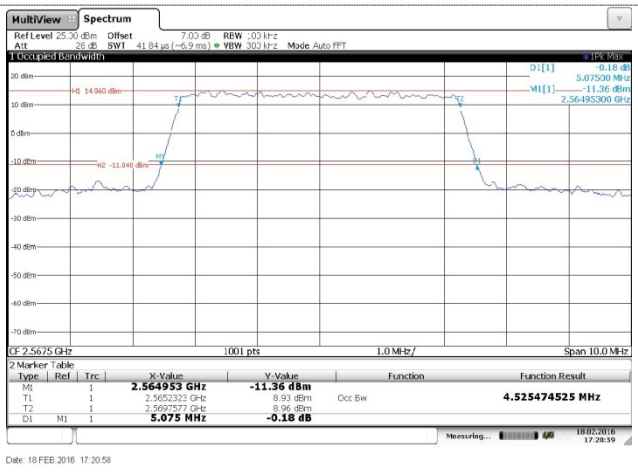

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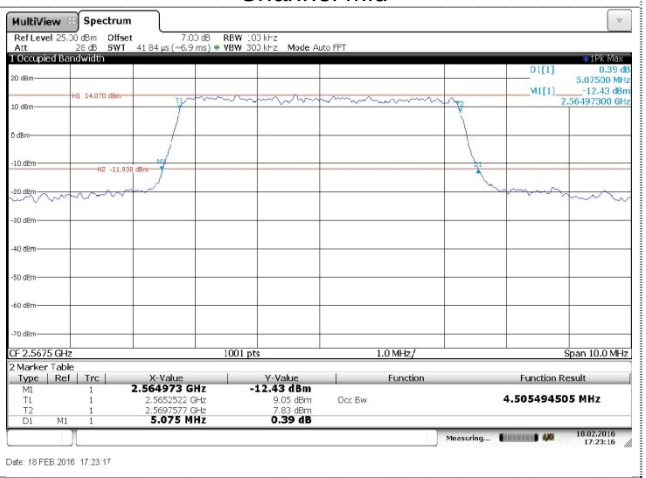
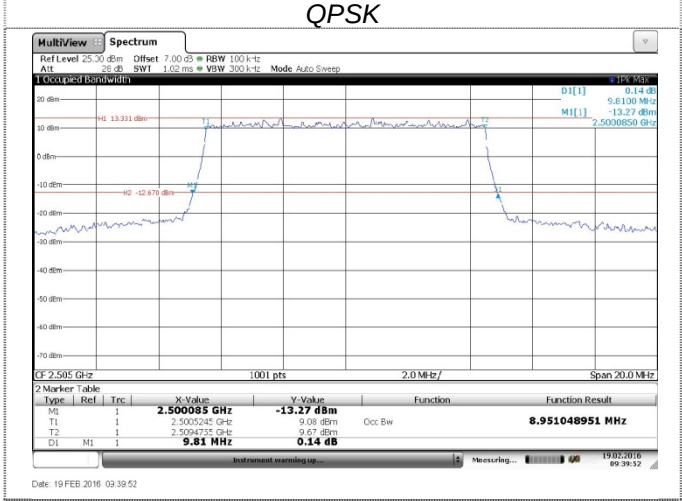


Channel High

Channel High

LTE Band 7-10MHz

QPSK



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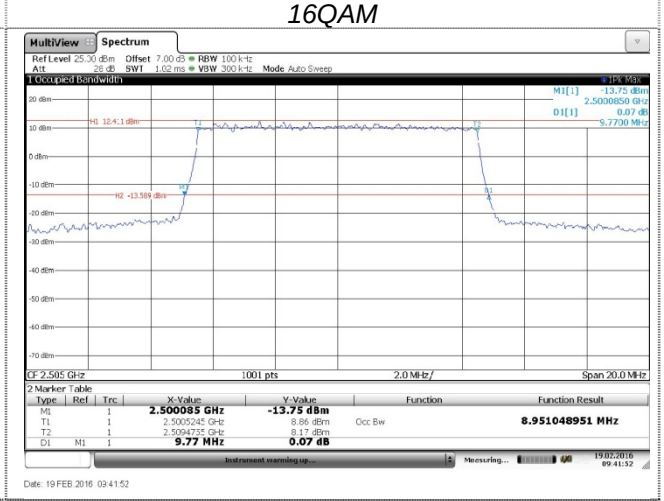

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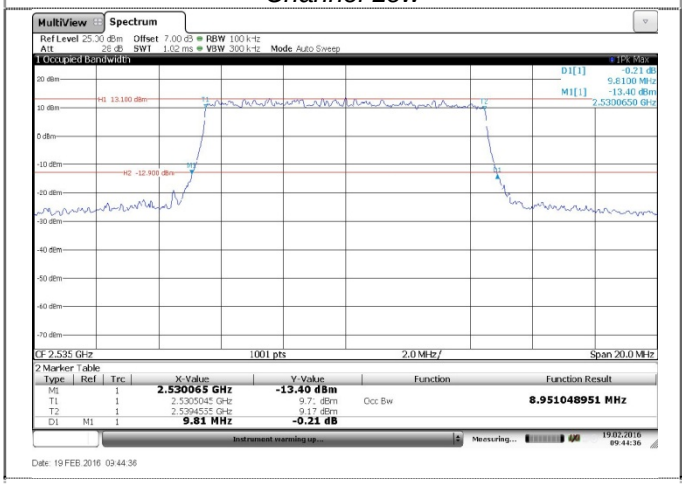

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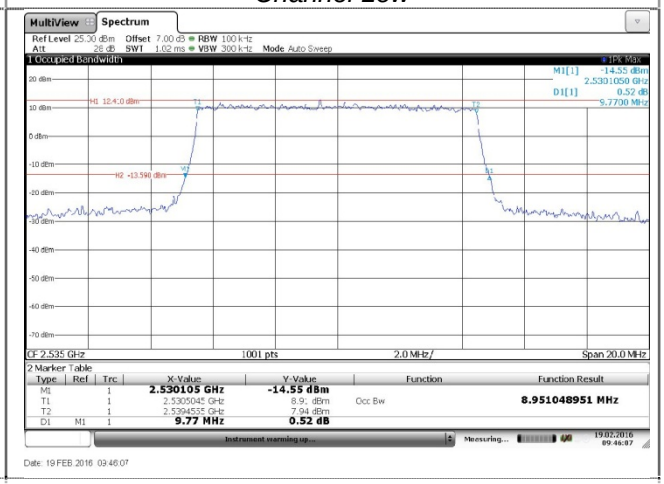

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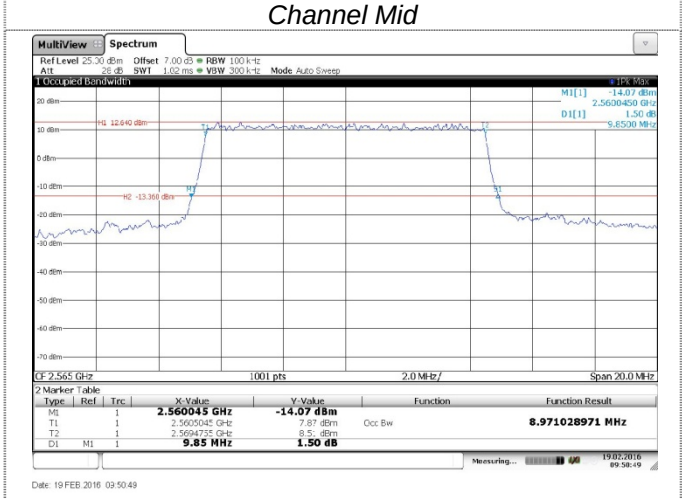

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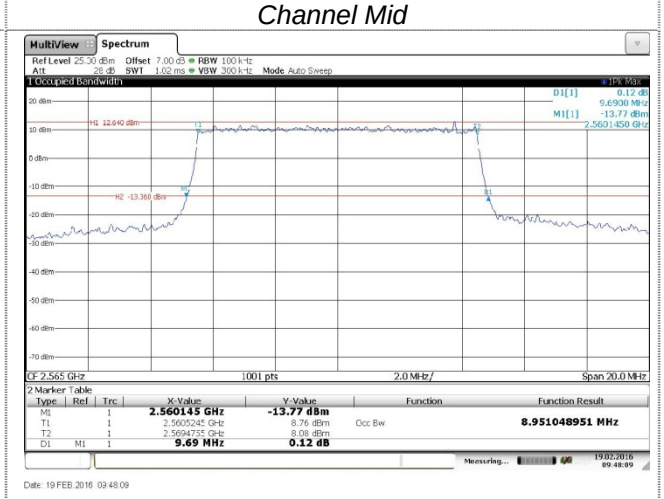
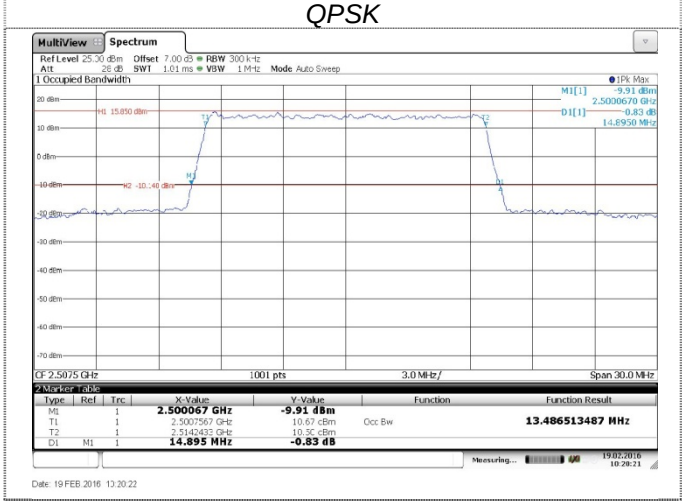


Channel High

Channel High

LTE Band 7-15MHz

QPSK



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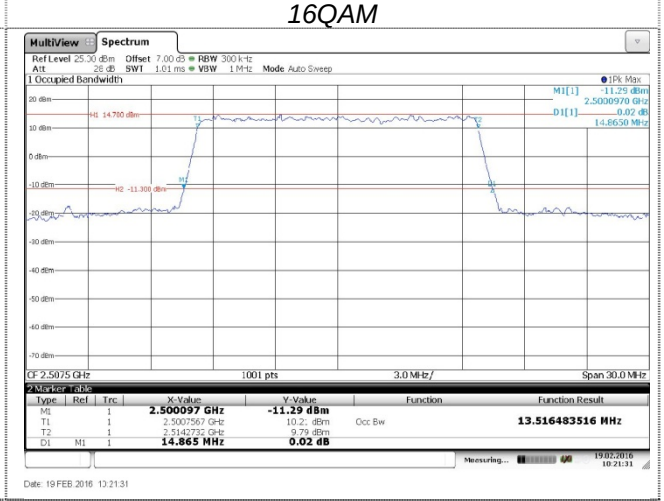

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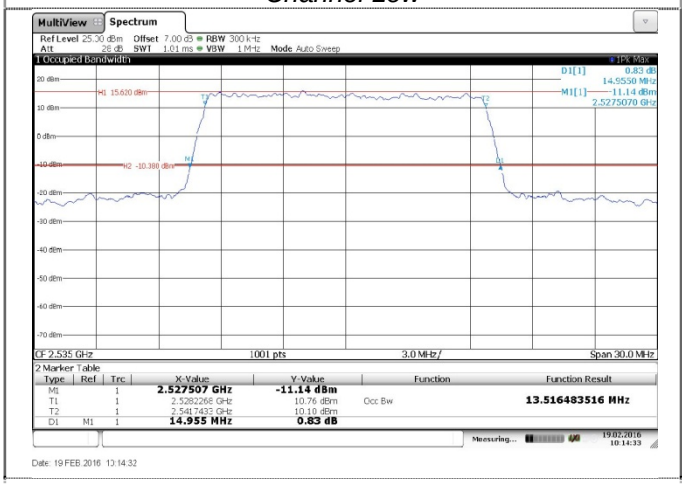
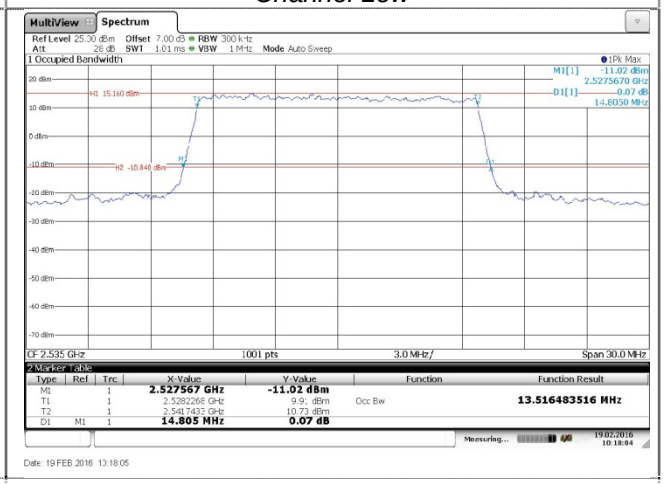


Channel Low



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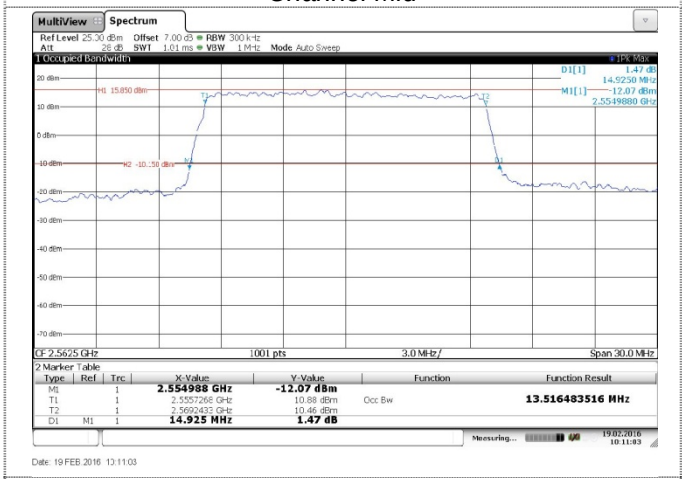

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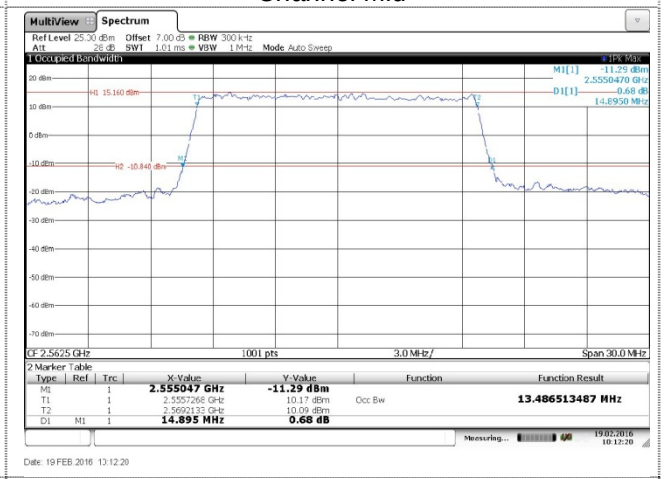
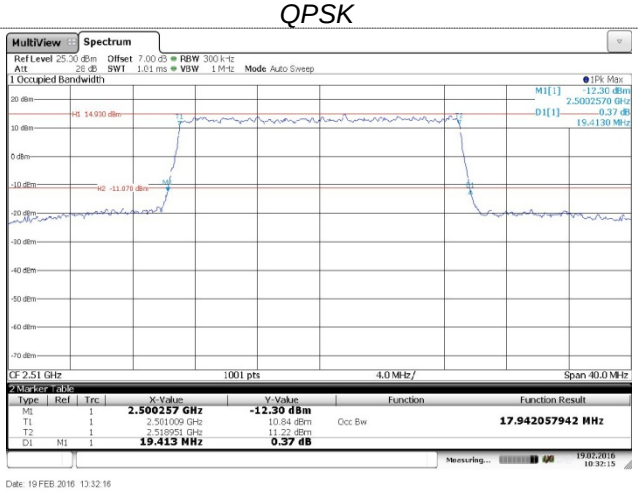


Channel High

Channel High

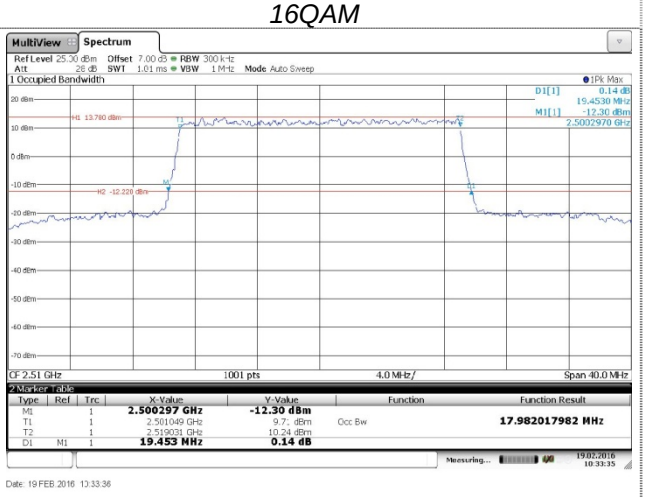
LTE Band 7-20MHz

QPSK

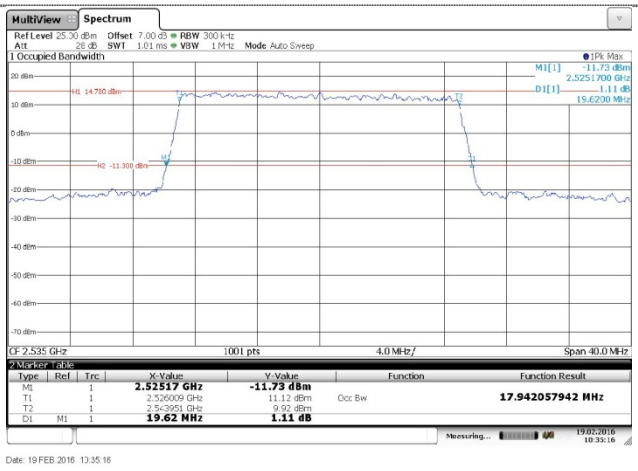


Channel Low

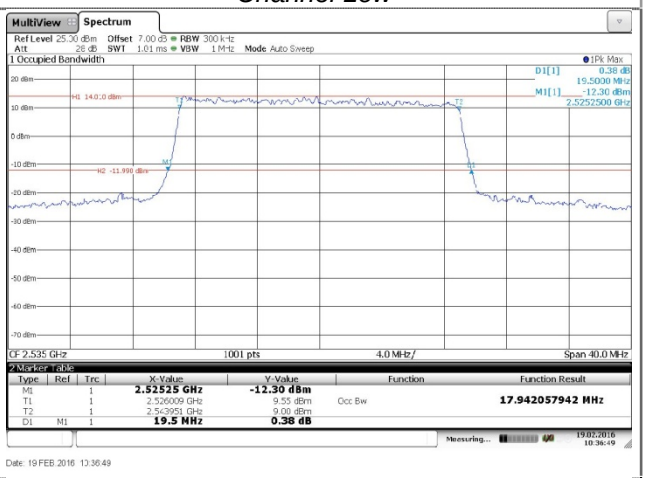
16QAM



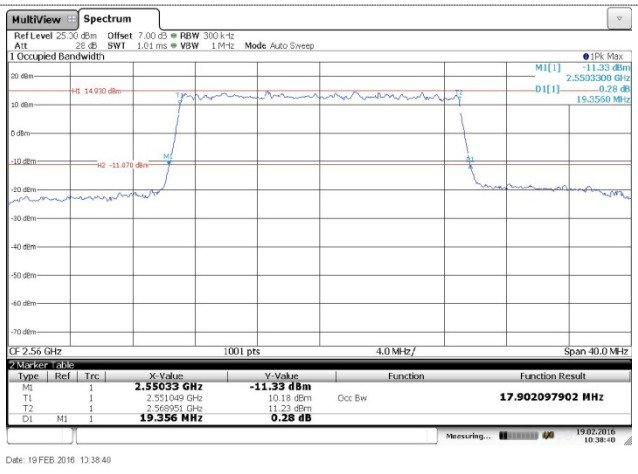
Channel Low



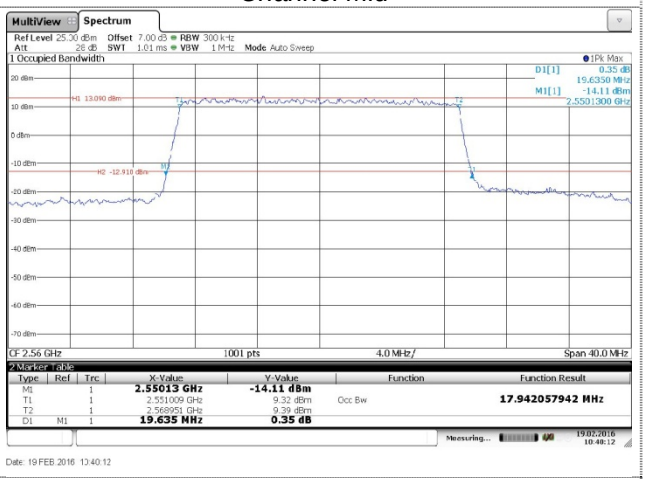
Channel Mid



Channel Mid



Channel High



Channel High

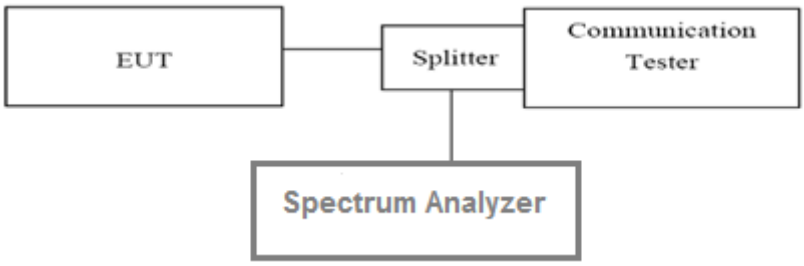
4.3. Out of band emission at antenna terminals

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.

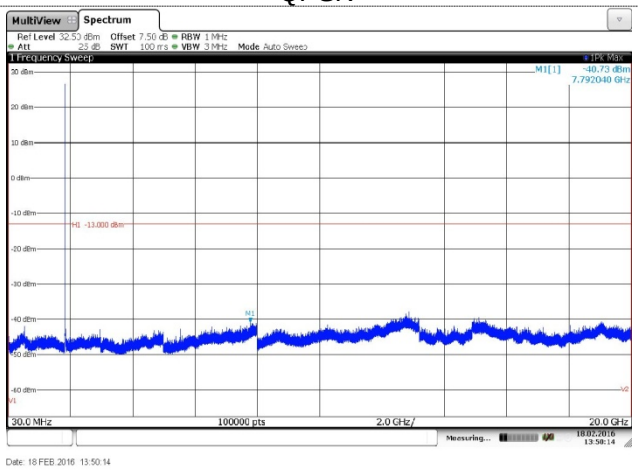
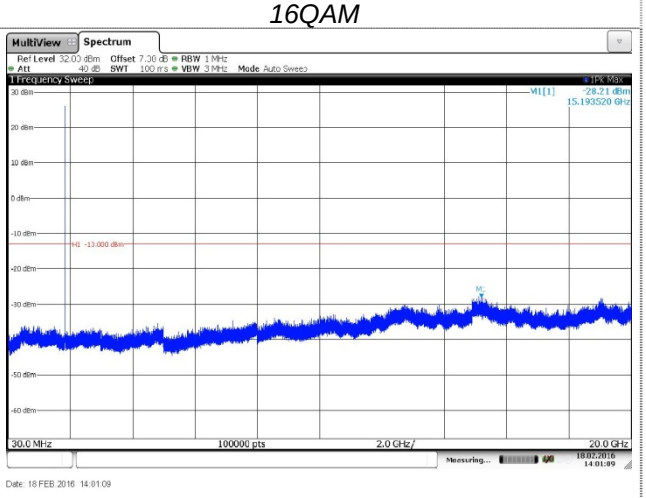
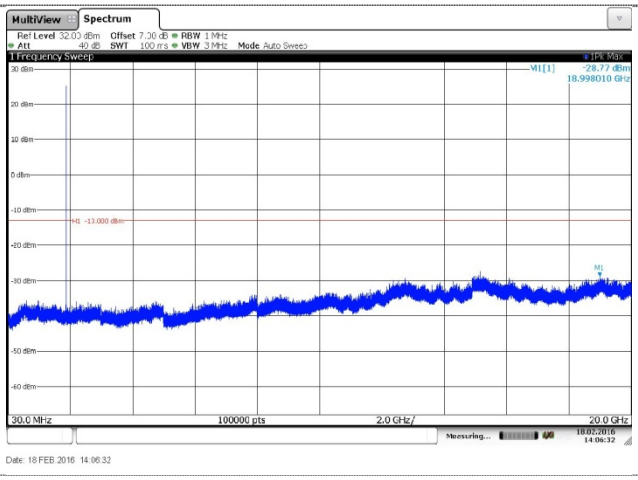
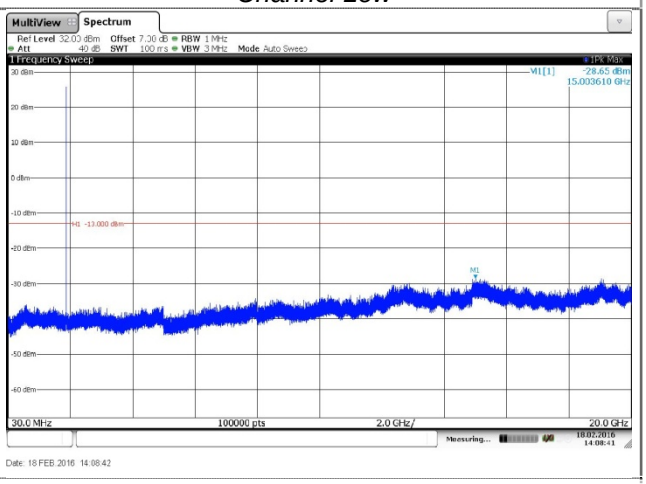
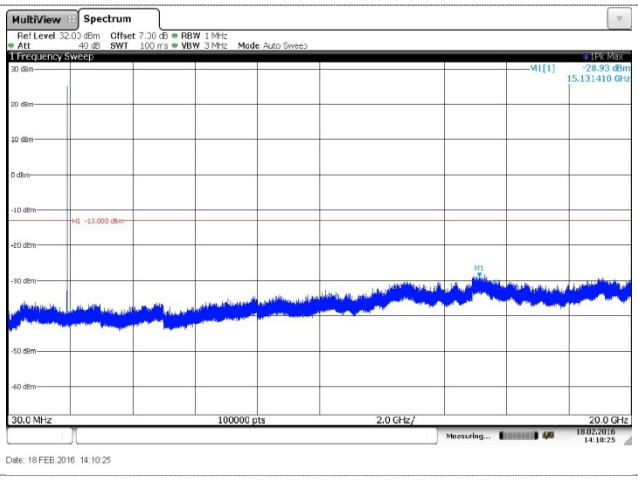
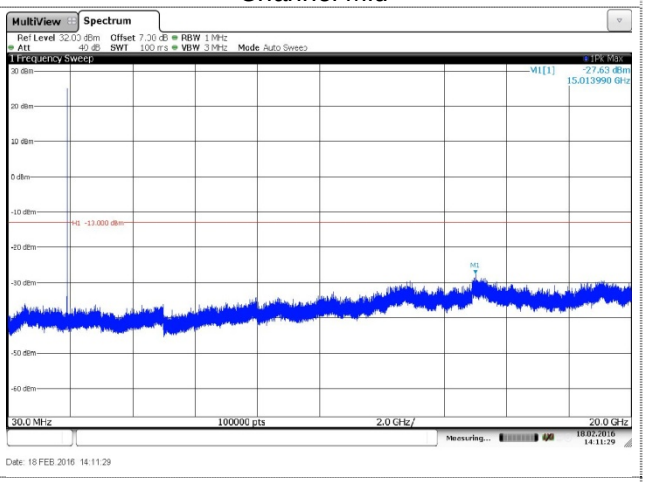
TEST CONFIGURATION



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

LTE Band 2-1.4MHz	
QPSK	*16QAM*
	
Channel Low	*Channel Low*
	
Channel Mid	*Channel Mid*
	
Channel High	*Channel High*