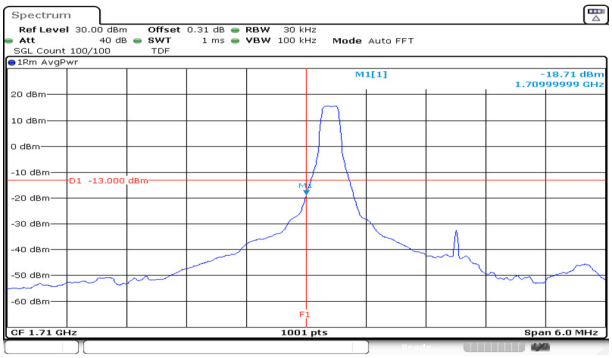
3M BW / QPSK / Low ch. / 1RB



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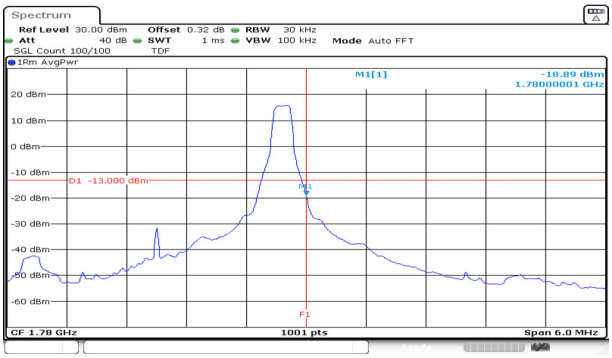

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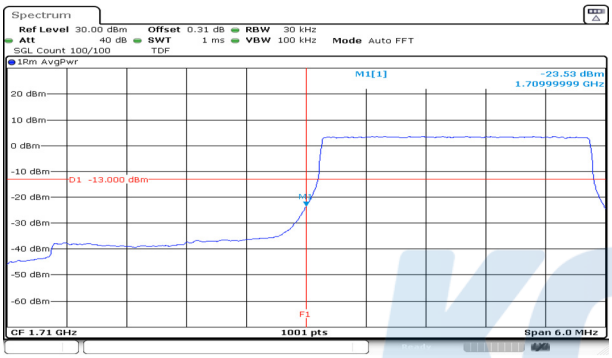

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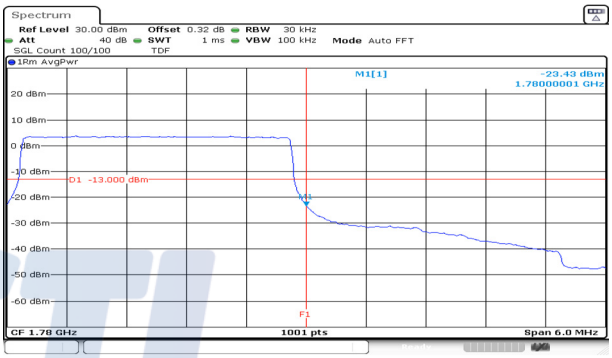

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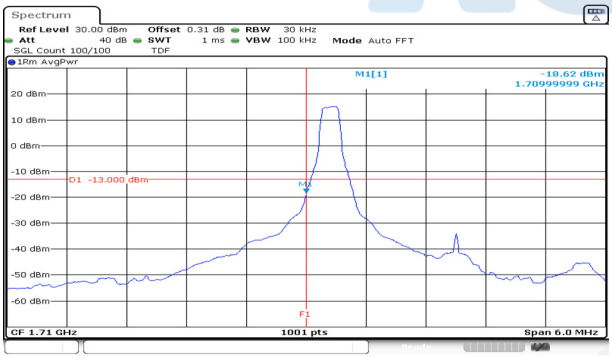

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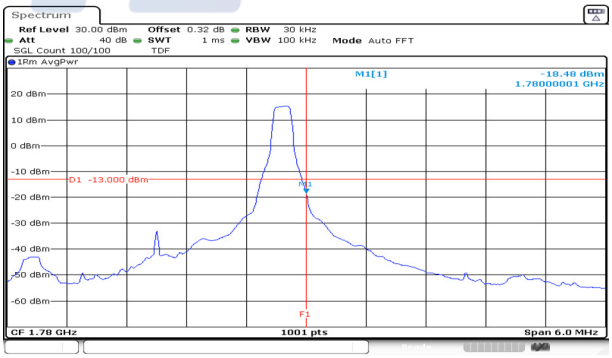

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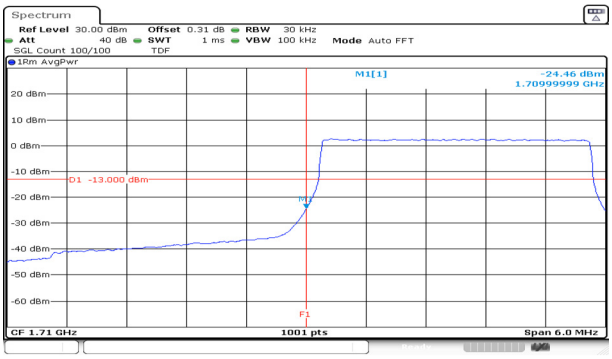
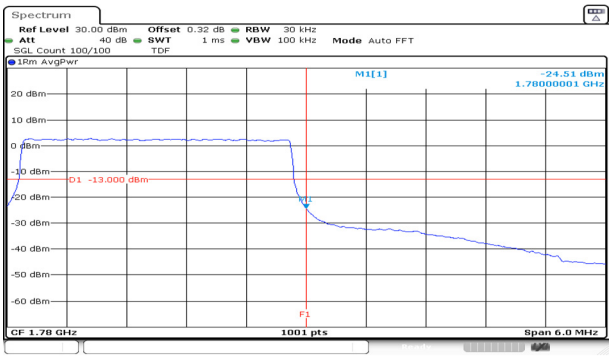


3M BW / 16QAM / High ch. / FRB



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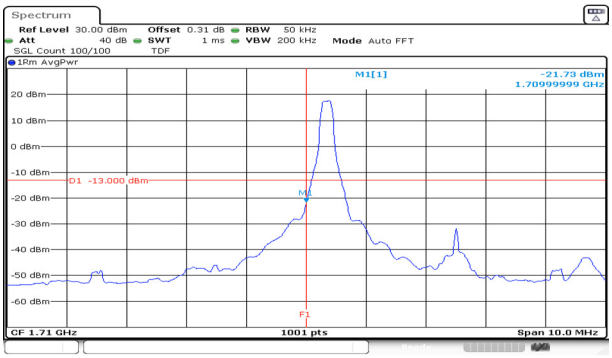
5M BW / QPSK / Low ch. / 1RB



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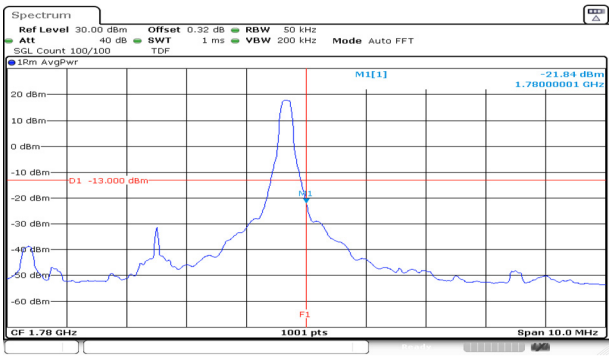

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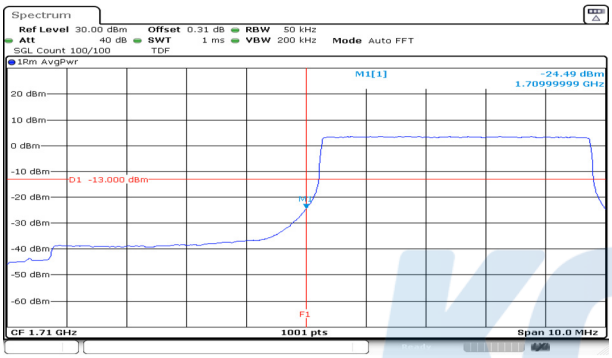

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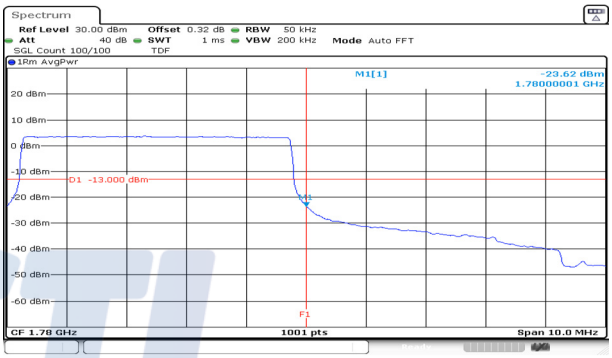

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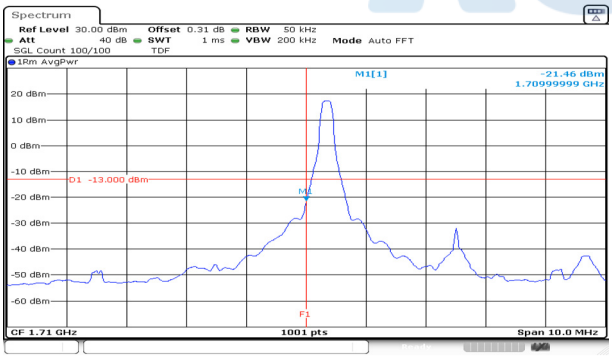
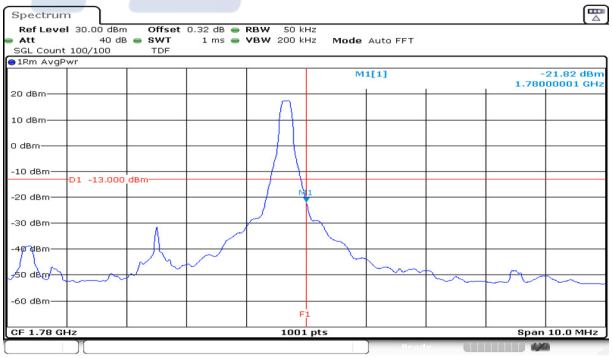
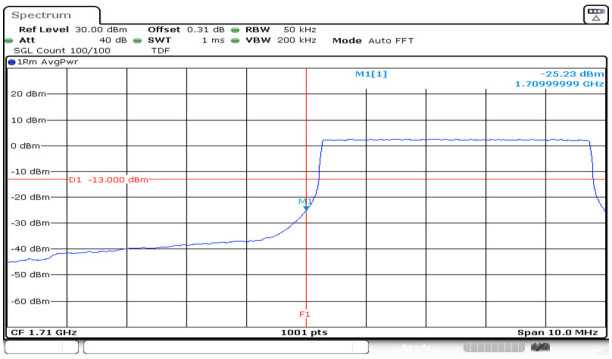


5M BW / 16QAM / High ch. / 1RB



5M BW / 16QAM / Low ch. / FRB



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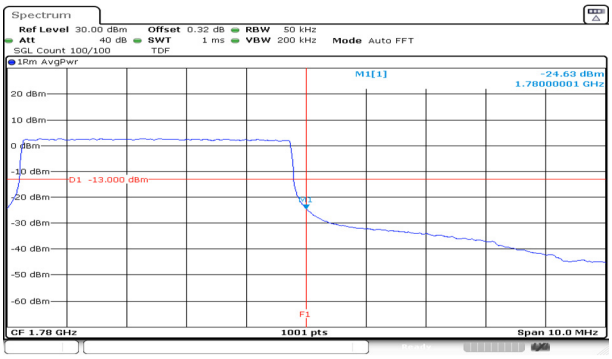

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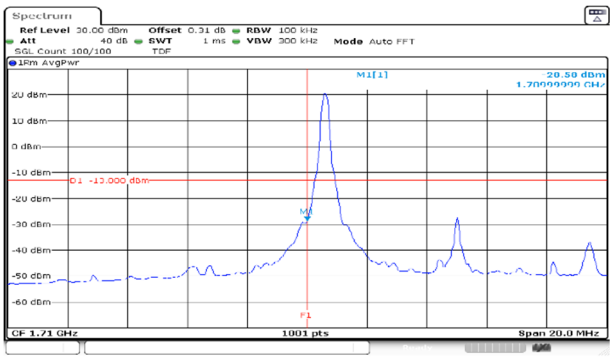
10M BW / QPSK / Low ch. / 1RB



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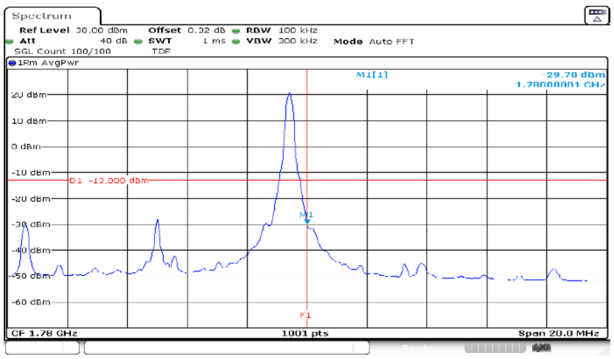

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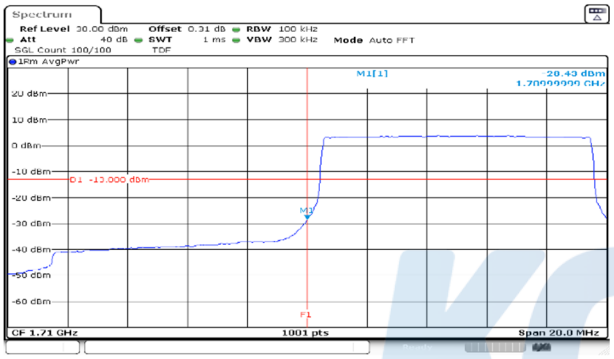

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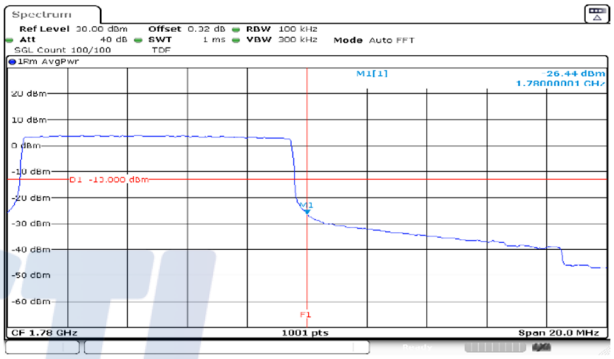
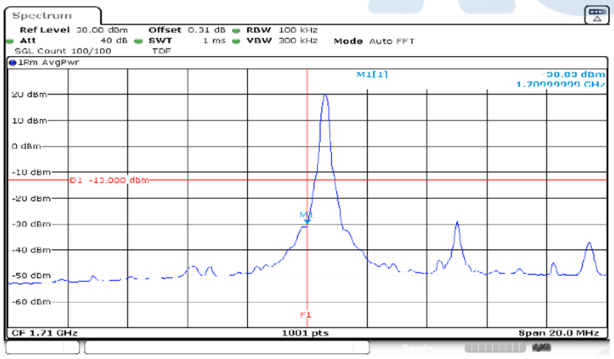


10M BW / 16QAM / Low ch. / 1RB



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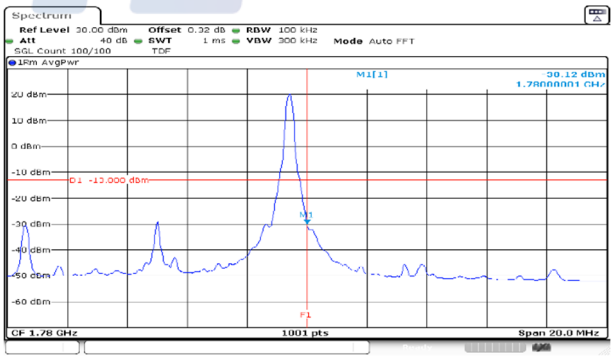
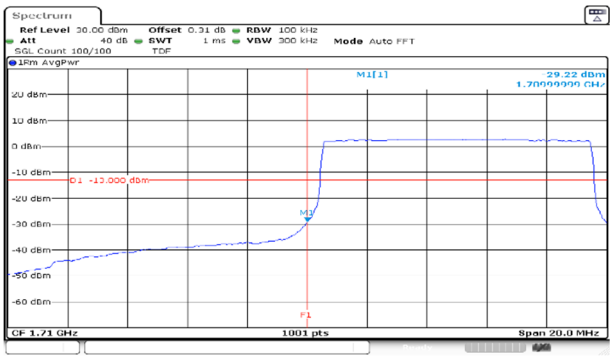
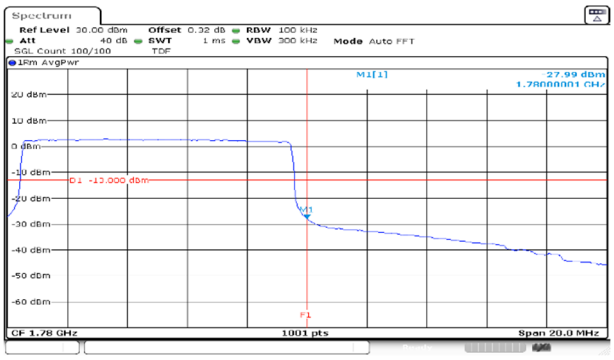


10M BW / 16QAM / Low ch. / FRB



10M BW / 16QAM / High ch. / FRB



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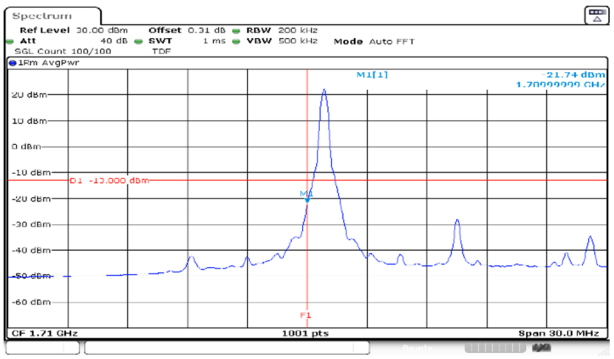
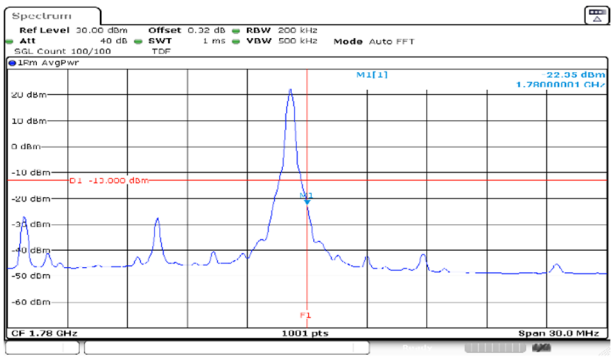
15M BW / QPSK / Low ch. / 1RB



15M BW / QPSK / High ch. / 1RB



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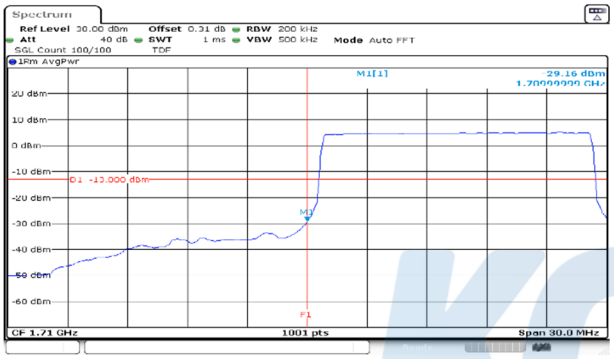

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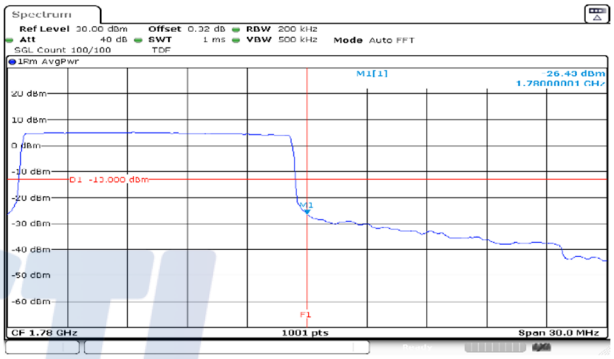

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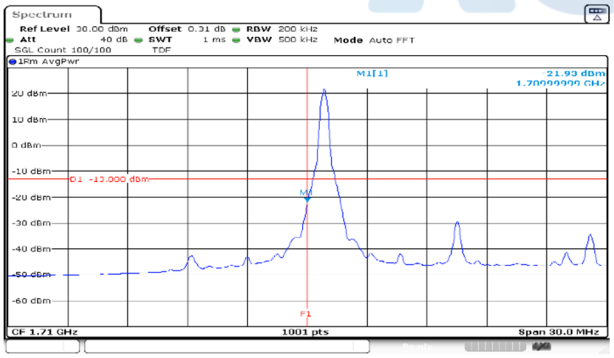

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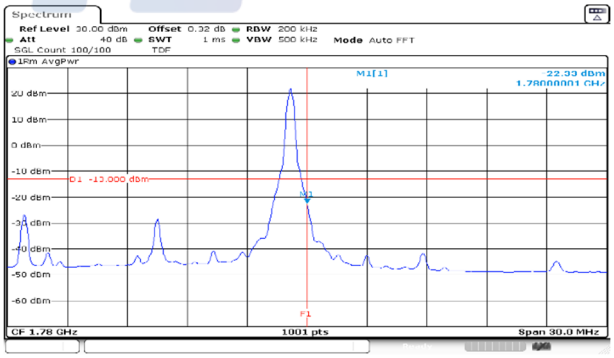

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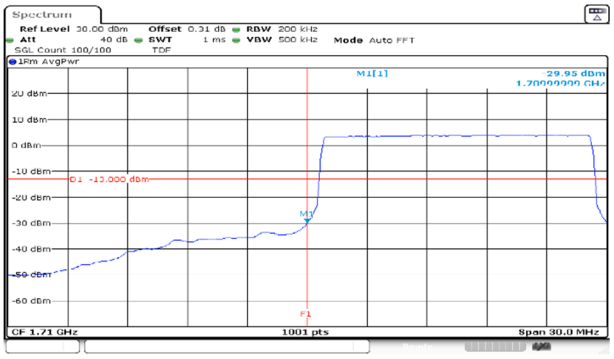

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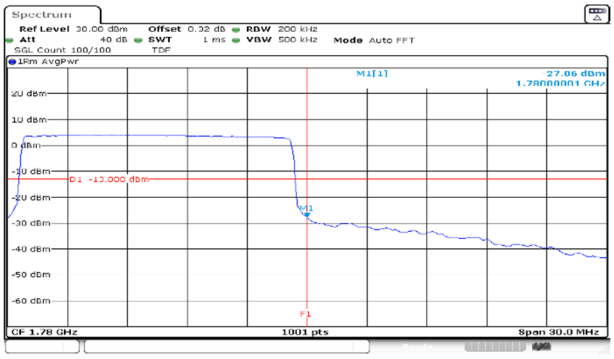

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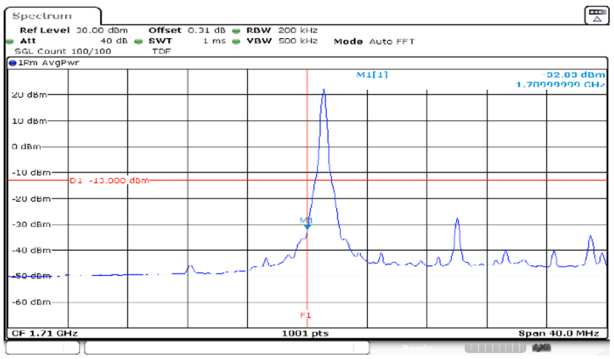

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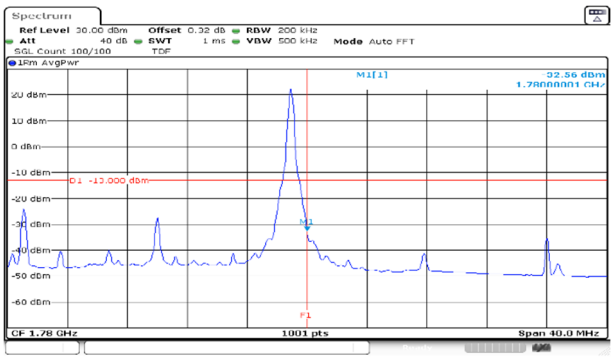

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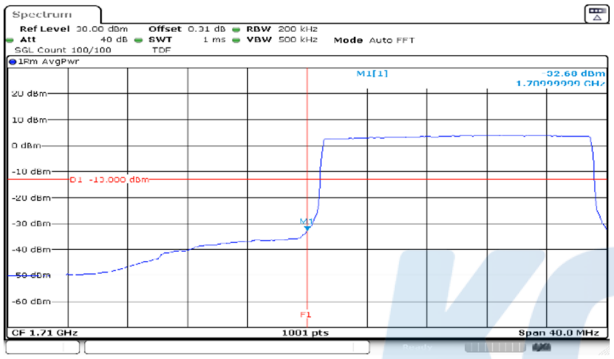

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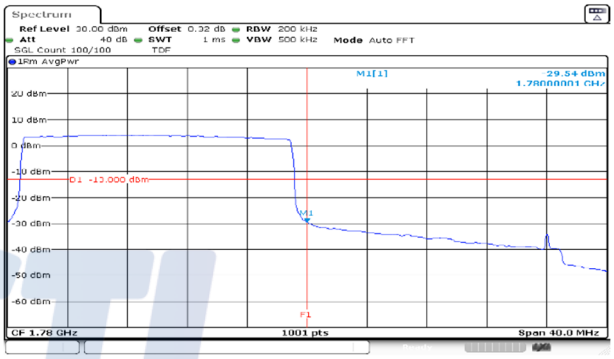
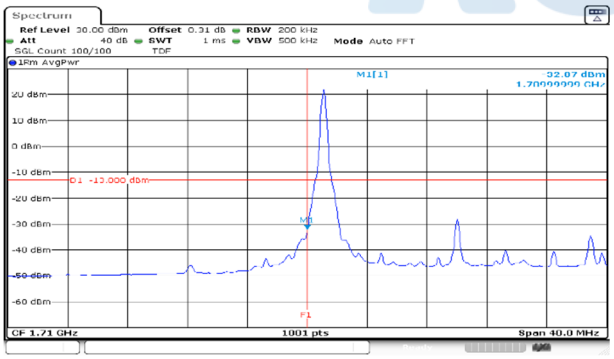


20M BW / 16QAM / Low ch. / 1RB



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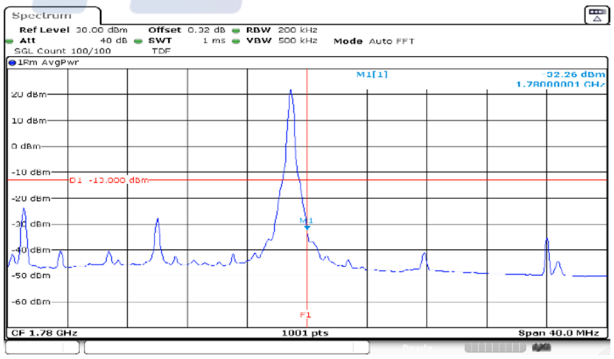
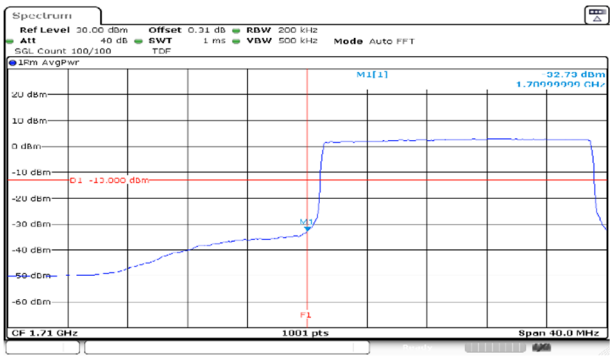
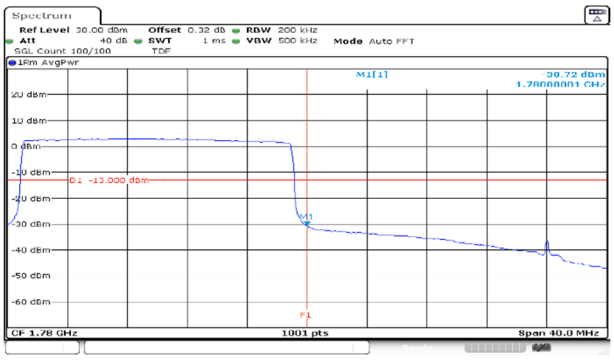


20M BW / 16QAM / Low ch. / FRB



20M BW / 16QAM / High ch. / FRB



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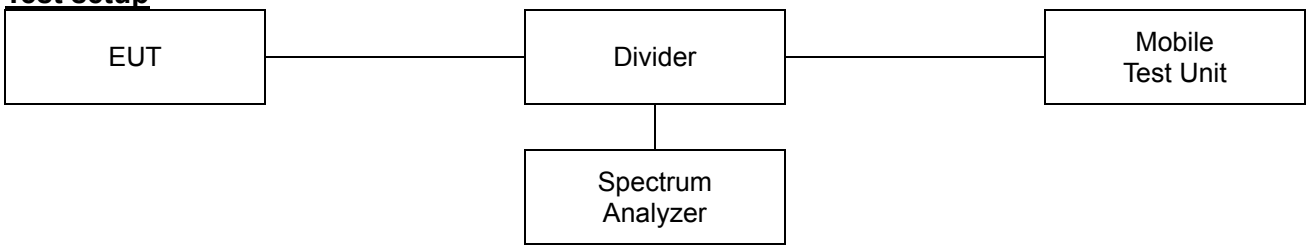
7.5. Peak to Average Power Ratio (PAPR)

Test setup



Limit

According to §27.50(d)(5), the peak-to-average ratio(PAR) of the transmission must not exceed 13 dB.

Test procedure

971168 D01 v03r01 - Section 5.7.2
ANSI 63.26-2015 – Section 5.2.3.4

Test settings

5.2.3.4 Measurement of peak power in a broadband noise-like signal using CCDF

1) Set resolution/measurement bandwidth ≥ OBW or specified reference bandwidth
2) Set the number of counts to a value that stabilizes the measured CCDF curve.
3) Set the measurement interval as follows:
   a) For continuous transmissions, set to the greater of [10 x (number of points in sweep) x (transmission symbol period)] or 1 ㎳.
   b) For burst transmissions, employ an external trigger that is synchronized with the EUT burst timing sequence, or use the internal burst trigger with a trigger level that allows the burst to stabilize. Set the measurement internal to a time that is less than or equal to the burst duration.
   c) If there are several carriers in a single antenna port, the peak power shall be determined for each individual carrier (by disabling the other carriers while measuring the required carrier) and the total peak power calculated from the sum of the individual carrier peak powers.
4) Record the maximum PAPR level associated with a probability of 0.1%

5.2.6 Peak-to-average power ratio

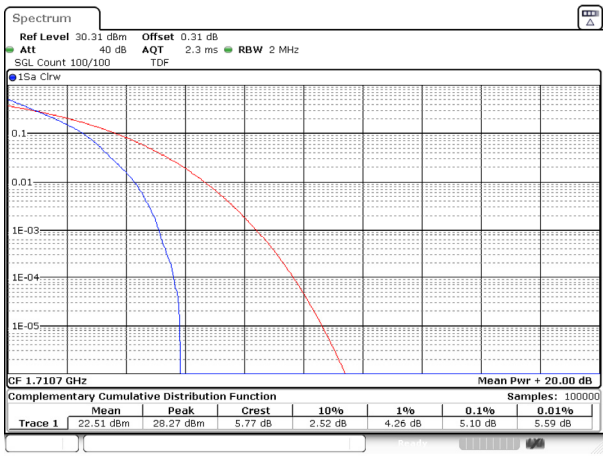
Use one of the procedures presented in 5.2(ANSI C63.26-2015) to measure the total peak power and record as P_{PK}.
Use one of the applicable procedure presented 5.2(ANSI C63.26-2015) to measure the total average power and record as P_{AG}. Determine the P.A.P.R from:

$$PAPR(dB) = P_{PK}(dBm \text{ or } dBW) - P_{AG}(dBm \text{ or } dBW)$$

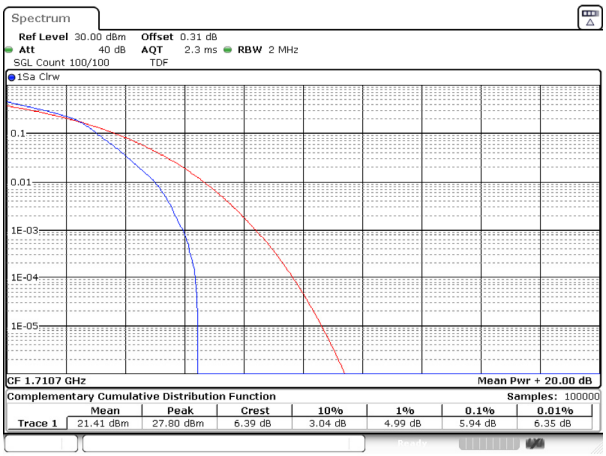
Test results

Test mode: LTE Band 4/66

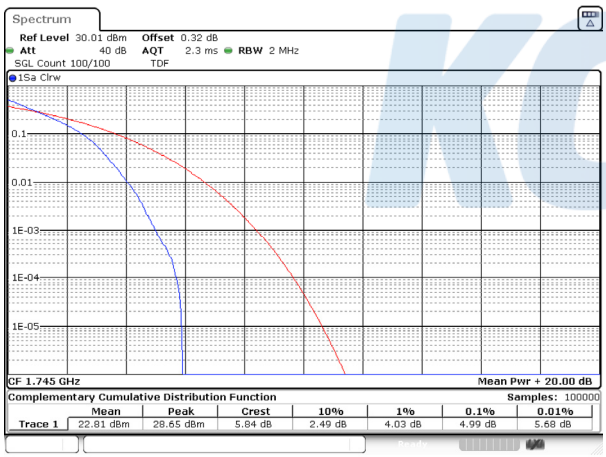
1.4M BW / QPSK / Low ch.



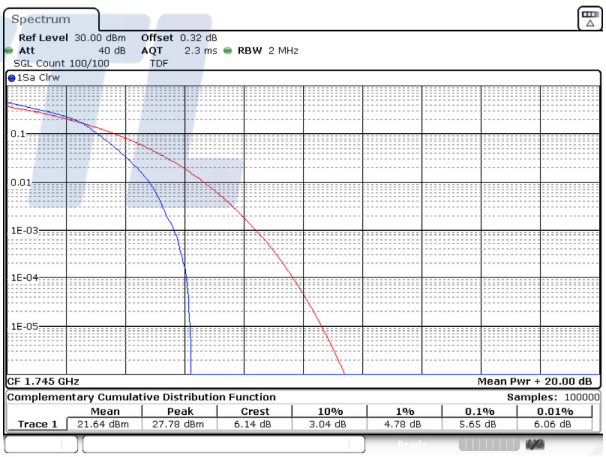
1.4M BW / 16QAM / Low ch.



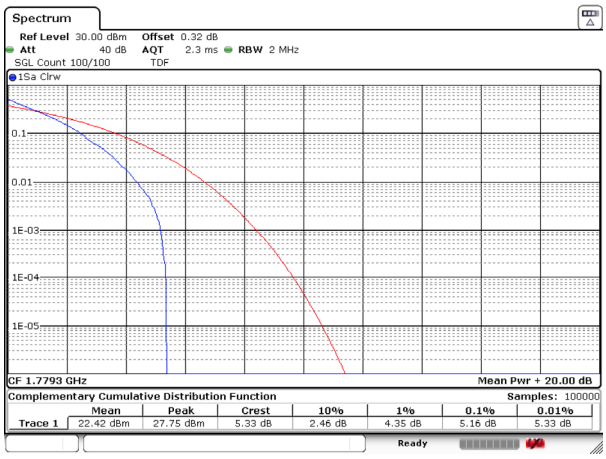
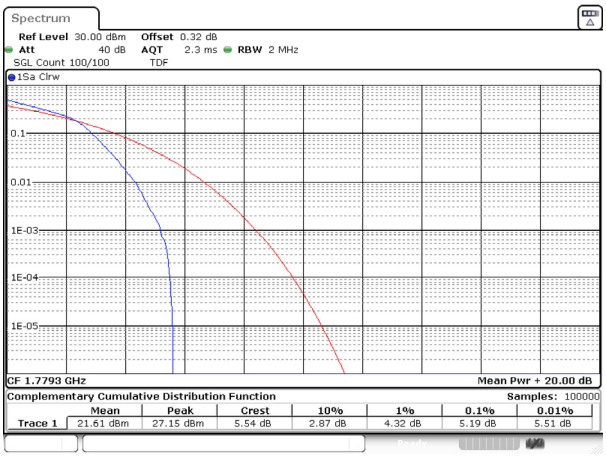
1.4M BW / QPSK / Mid ch.



1.4M BW / 16QAM / Mid ch.



1.4M BW / QPSK / High ch.



1.4M BW / 16QAM / High ch.