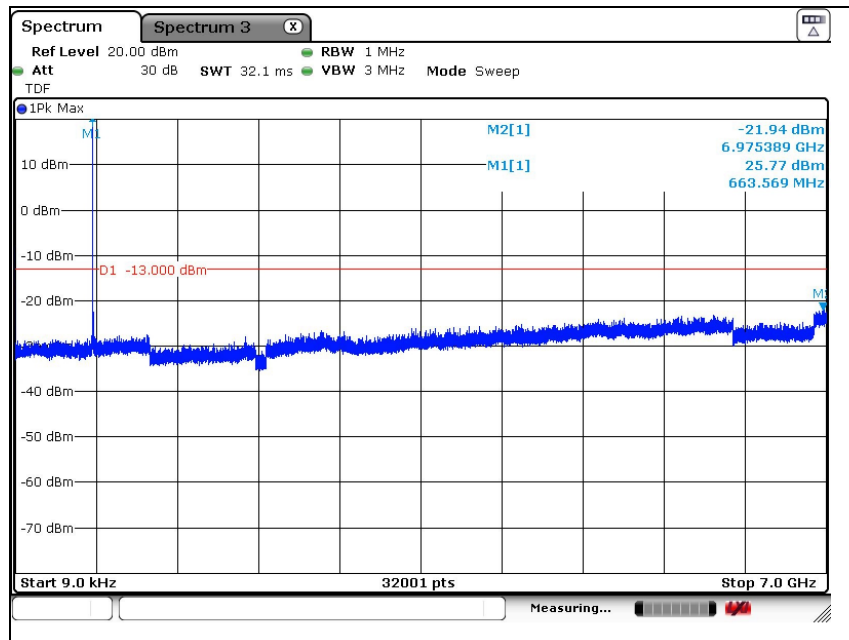
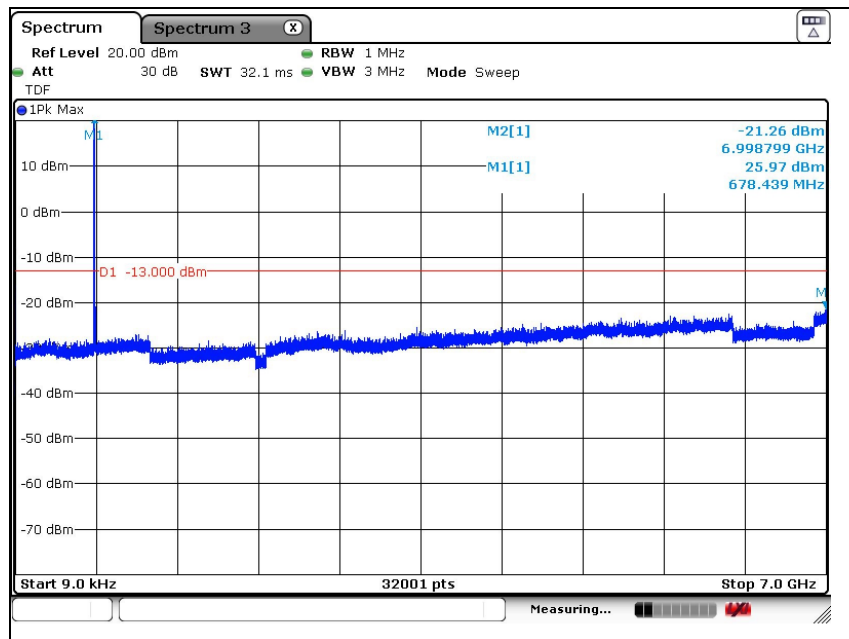


LTE band 71 (5 MHz – QPSK)

Low Channel

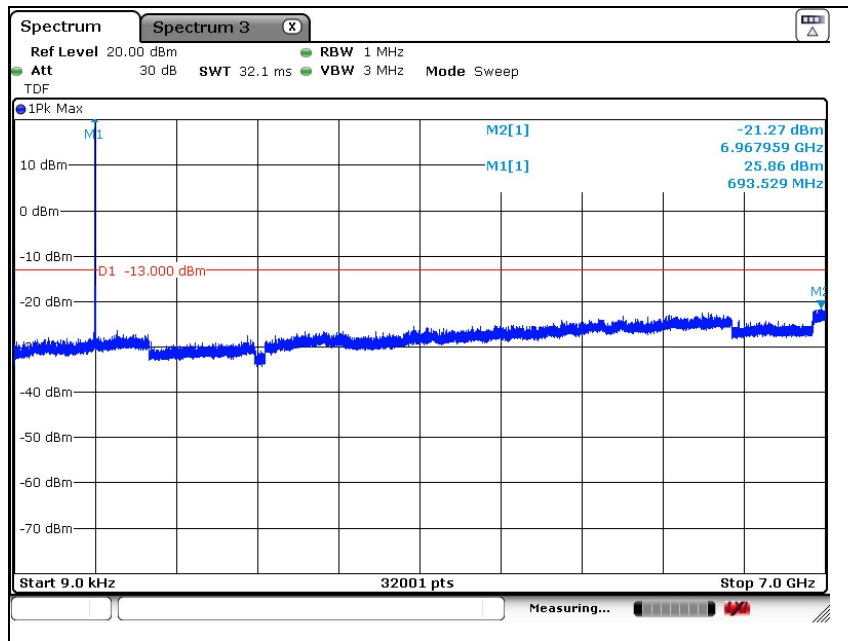


Middle Channel



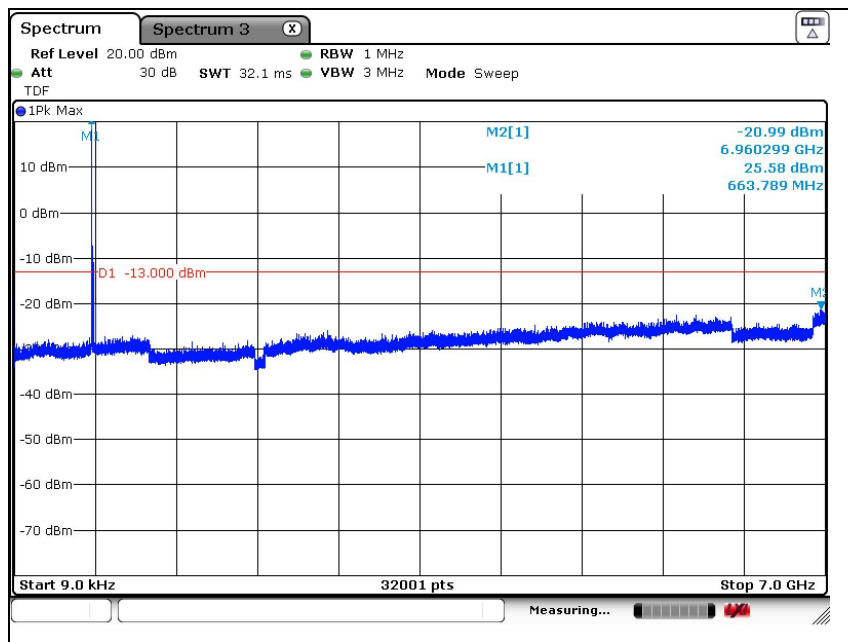
The results of this test report are effective only to the items tested. The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received. This test report cannot be reproduced, except in full, without prior written permission of the Company. This test report does not assure KOLAS accreditation.

High Channel



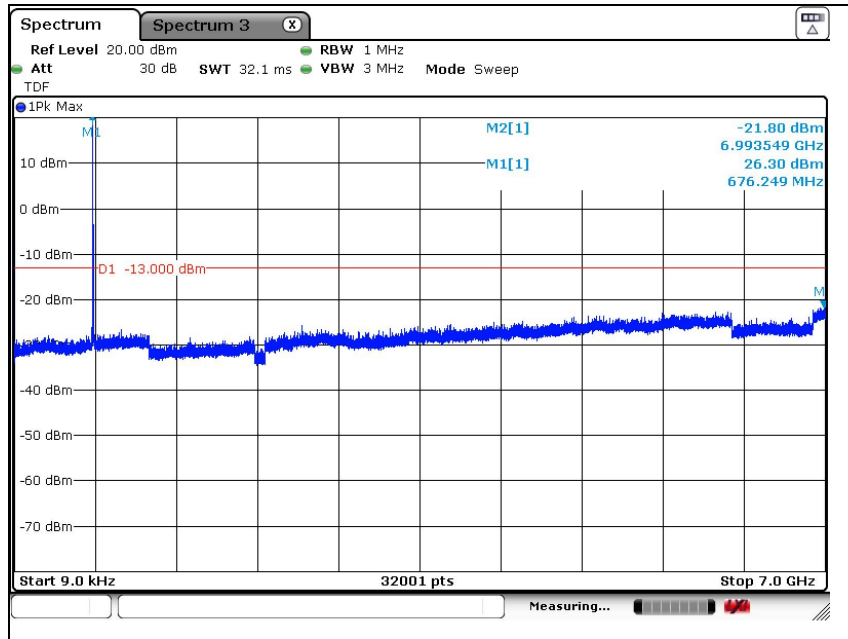
LTE band 71 (10 MHz – QPSK)

Low Channel

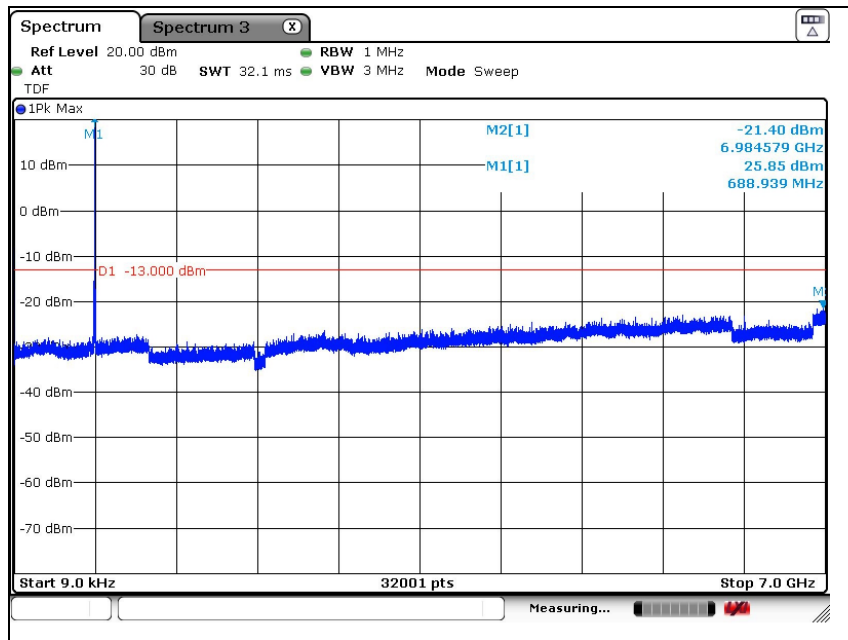


The results of this test report are effective only to the items tested. The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received. This test report cannot be reproduced, except in full, without prior written permission of the Company. This test report does not assure KOLAS accreditation.

Middle Channel



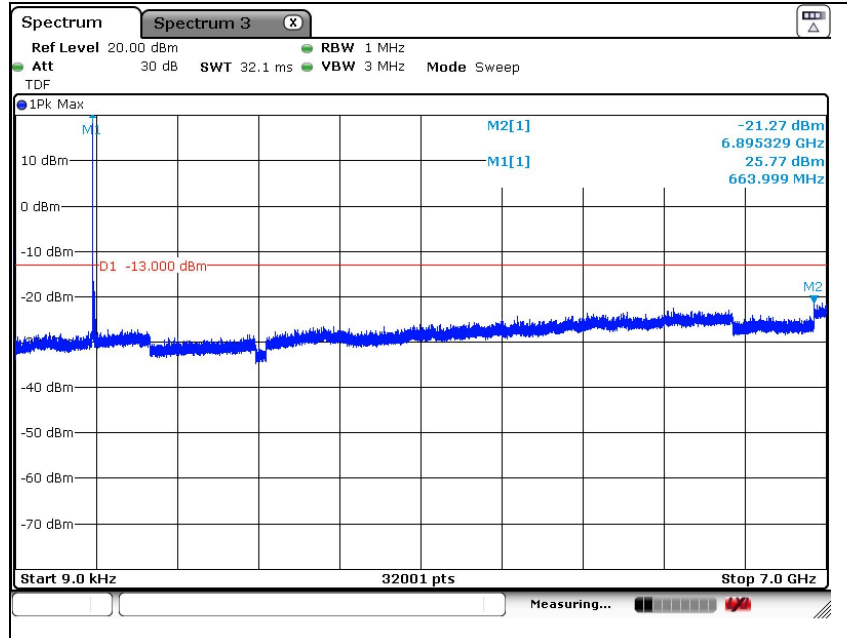
High Channel



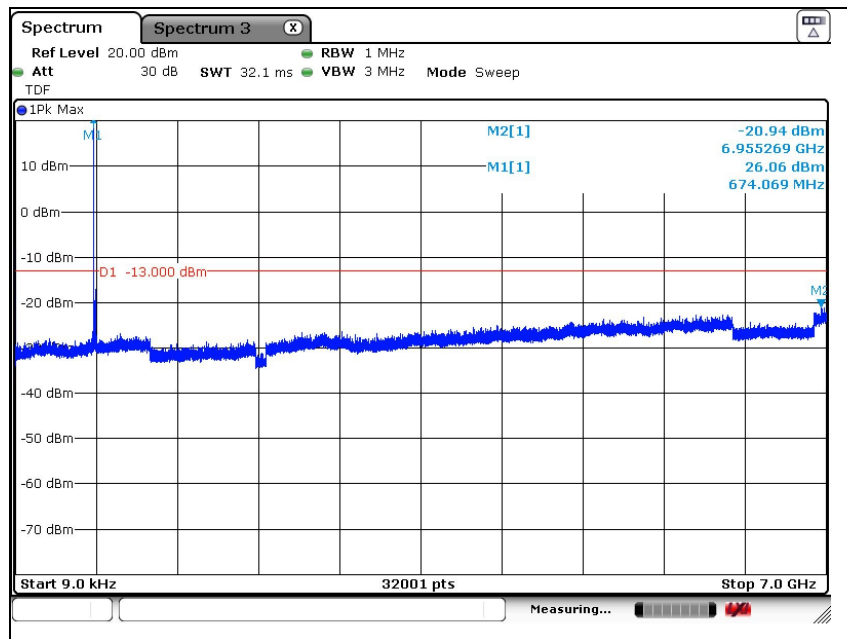
The results of this test report are effective only to the items tested. The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received. This test report cannot be reproduced, except in full, without prior written permission of the Company. This test report does not assure KOLAS accreditation.

LTE band 71 (15 MHz – QPSK)

Low Channel

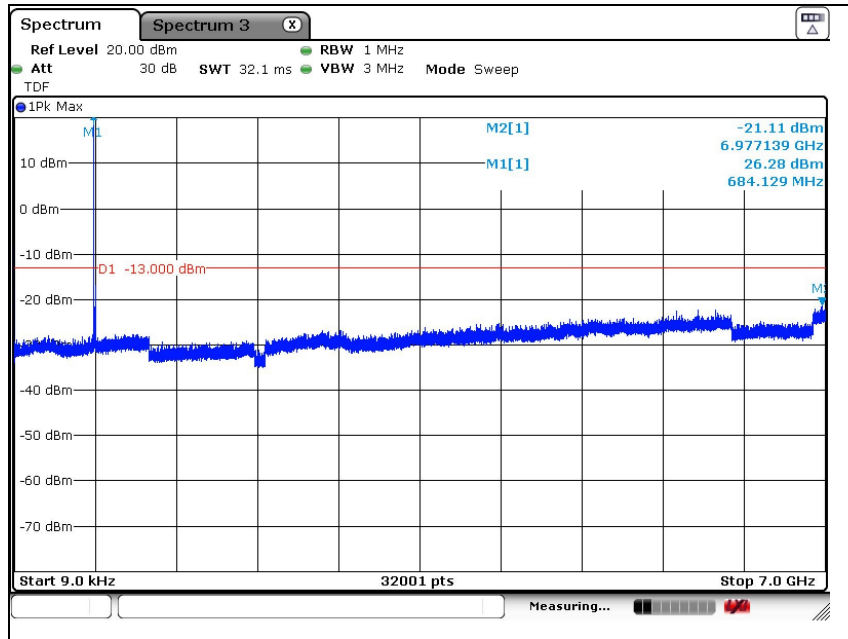


Middle Channel



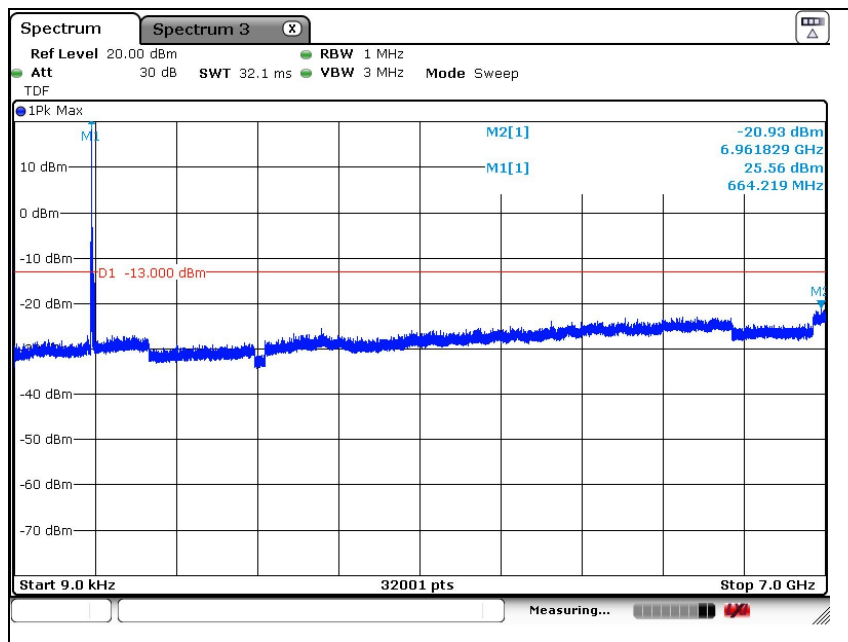
The results of this test report are effective only to the items tested. The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received. This test report cannot be reproduced, except in full, without prior written permission of the Company. This test report does not assure KOLAS accreditation.

High Channel



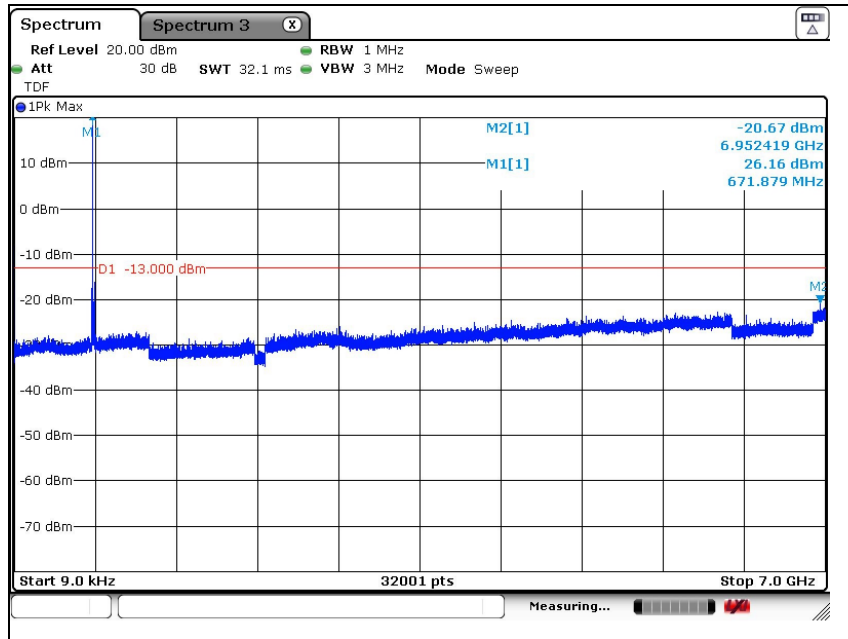
LTE band 71 (20 MHz – QPSK)

Low Channel

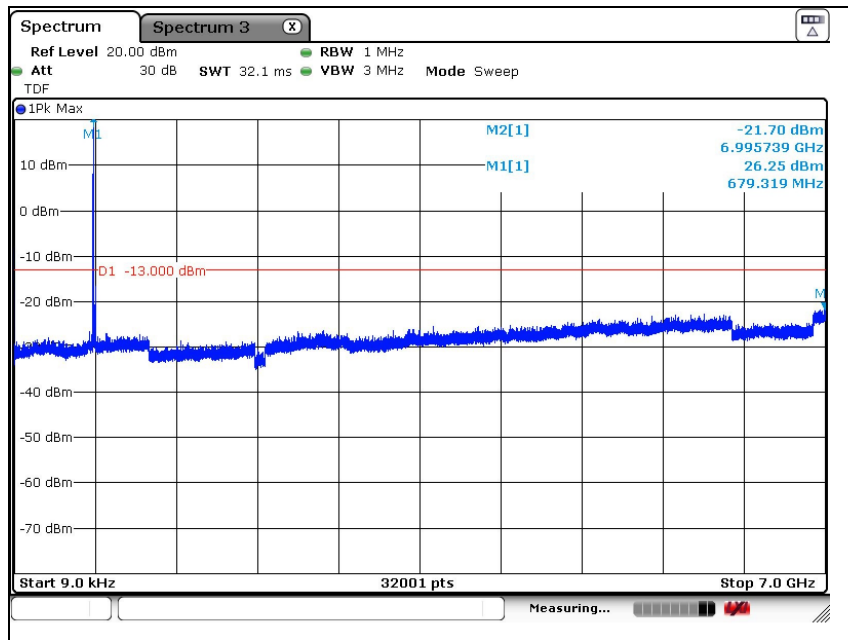


The results of this test report are effective only to the items tested. The SGS Korea is not responsible for the sampling, the results of this test report apply to the sample as received. This test report cannot be reproduced, except in full, without prior written permission of the Company. This test report does not assure KOLAS accreditation.

Middle Channel



High Channel



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6. Band Edge

6.1. Limit

- §22.917(a), 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.
- §24.238(a), 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.
- §27.53(g), the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB.
- §27.53(h)(1), for operations in the 1 695-1 710 MHz, 1 710-1 755 MHz, 1 755-1 780 MHz, 1 915-1 920 MHz, 1 995-2 000 MHz, 2 000-2 020 MHz, 2 110-2 155 MHz, 2 155-2 180 MHz, and 2 180-2 200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10} (P)$ dB.
- §27.53(m)(4), For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log_{10} (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log_{10} (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log_{10} (P)$ 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. In addition, the attenuation factor shall not be less that $43 + 10 \log_{10} (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log_{10} (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

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SGS Korea Co., Ltd. (Gunpo Laboratory) 4, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807 <http://www.sgsgroup.kr>

RTT5041-19(2019.04.24)(1)

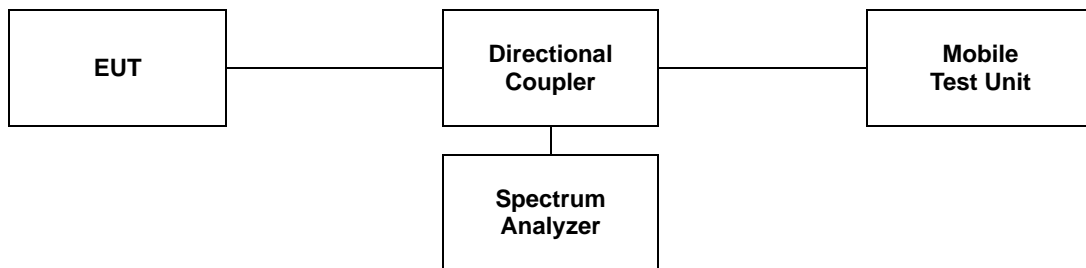
Tel. +82 31 428 5700 / Fax. +82 31 427 2370

A4(210 mm x 297 mm)

6.2. Test Procedure

The test follows section 5.7.2 of ANSI C63.26-2015.

- a. Span was set large enough so as to capture all out of band emissions near the band edge.
- b. RBW $\geq 1\%$ of OBW
- c. VBW $\geq 3 \times$ RBW.
- d. Detector = RMS.
- e. Trace mode = Average.
- f. Sweep time = Auto.
- g. The trace was allowed to stabilize.
- h. All path loss of frequency range was investigated and compensated to spectrum analyzer as TDF function.



Note;

Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two point, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

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RTT5041-19(2019.04.24)(1)

Tel. +82 31 428 5700 / Fax. +82 31 427 2370

A4(210 mm x 297 mm)

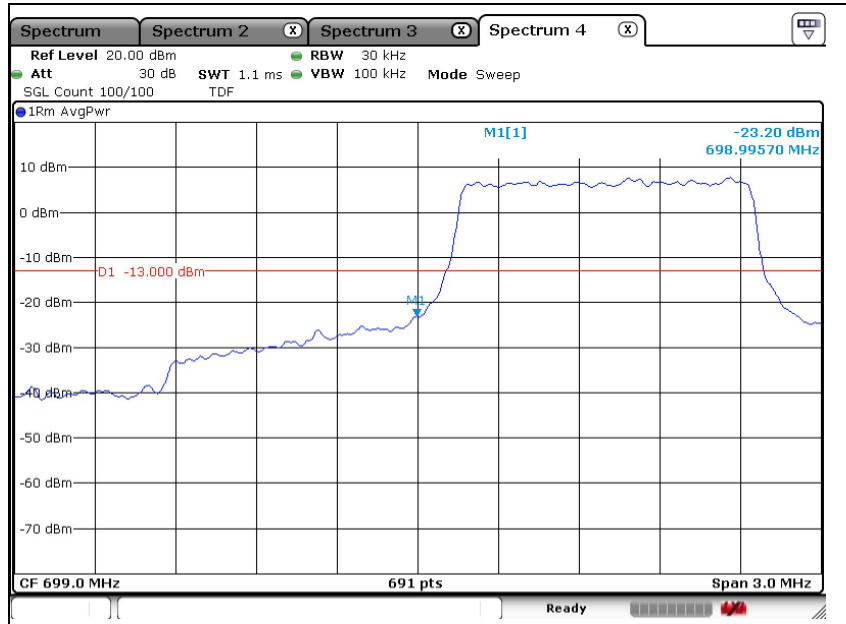
6.3. Test Results

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

- Test plots

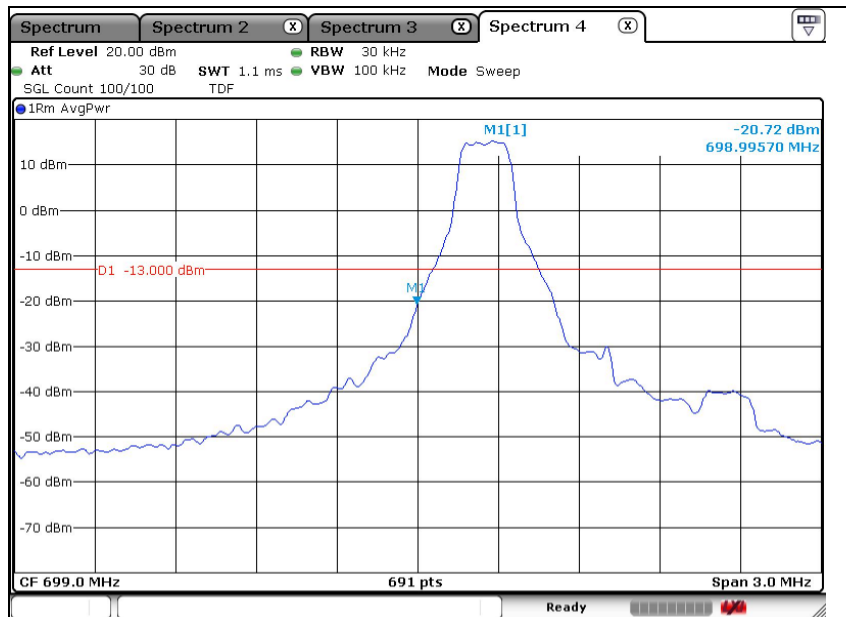
LTE band 12 (1.4 MHz – QPSK_Full RB)

Low Channel



LTE band 12 (1.4 MHz – QPSK_1 RB)

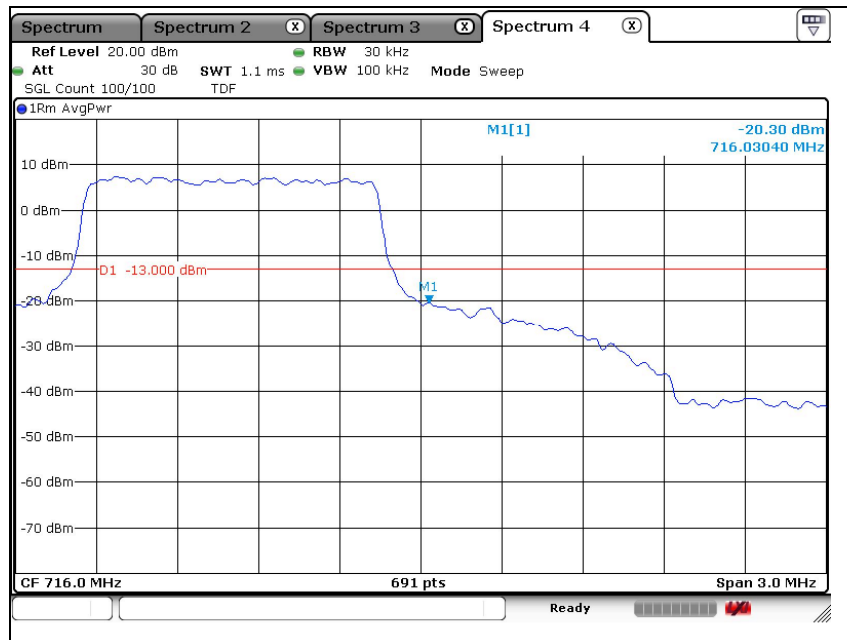
Low Channel



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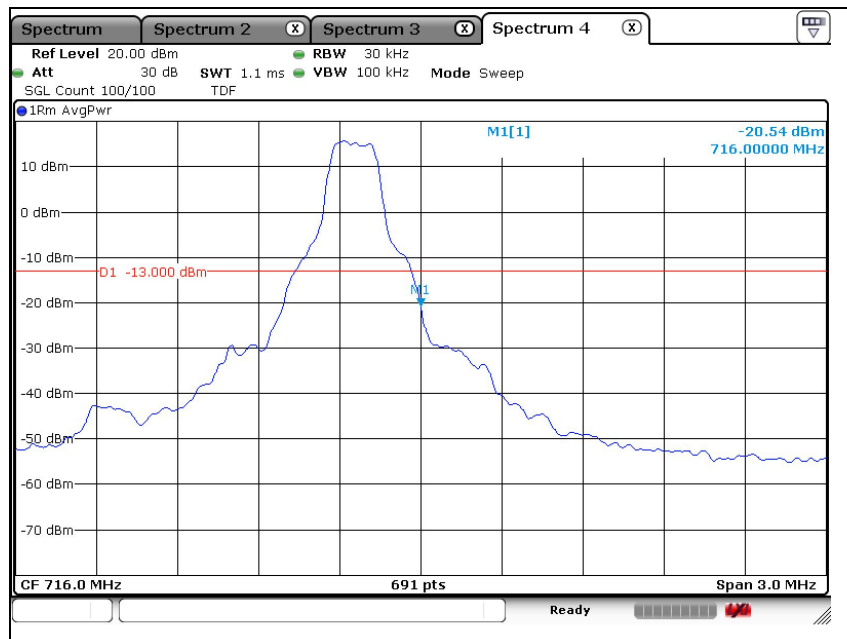
LTE band 12 (1.4 MHz – QPSK_Full RB)

High Channel



LTE band 12 (1.4 MHz – QPSK_1 RB)

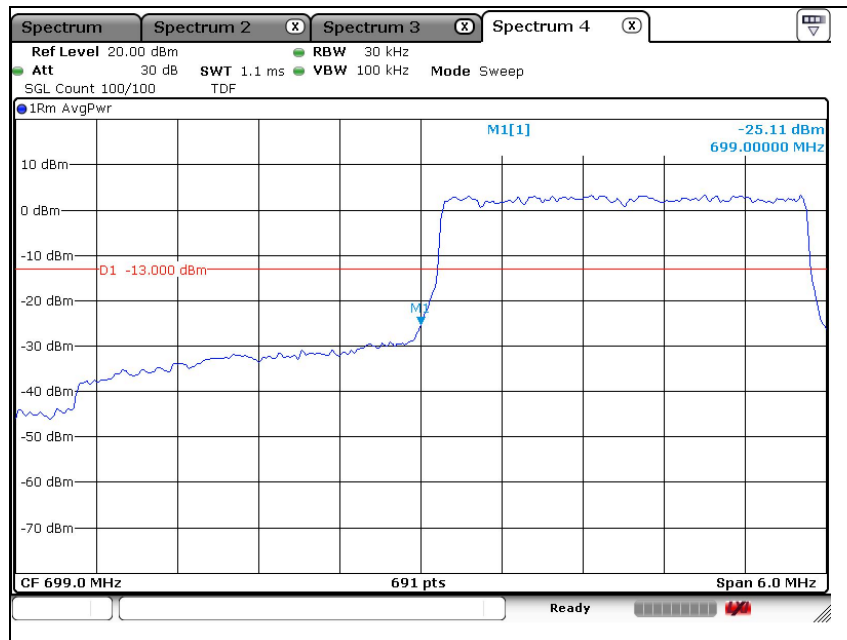
High Channel



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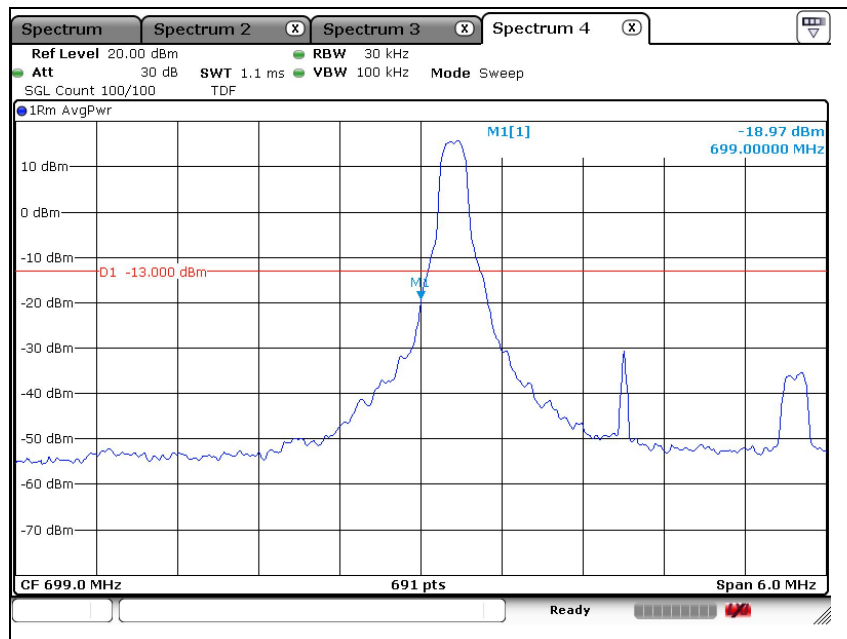
LTE band 12 (3 MHz – QPSK_Full RB)

Low Channel



LTE band 12 (3 MHz – QPSK_1 RB)

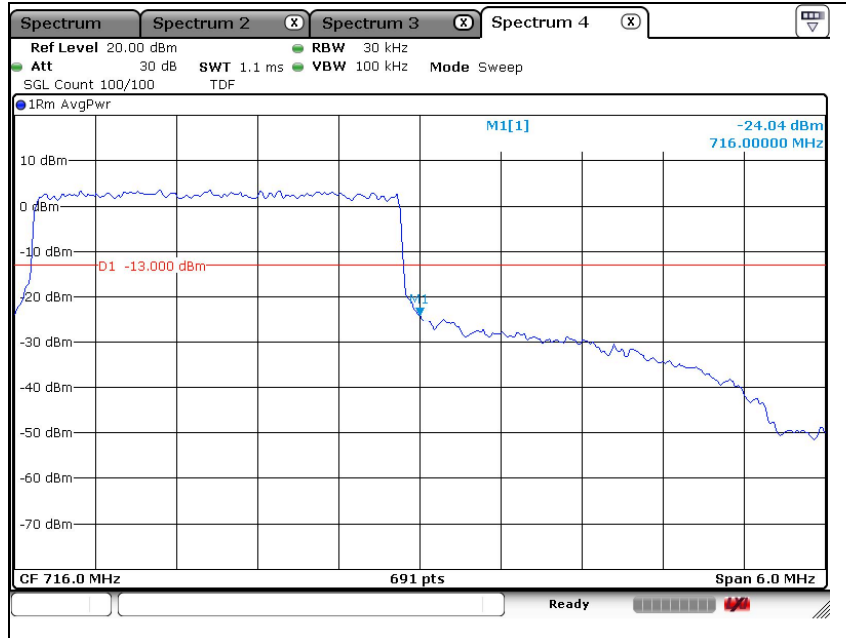
Low Channel



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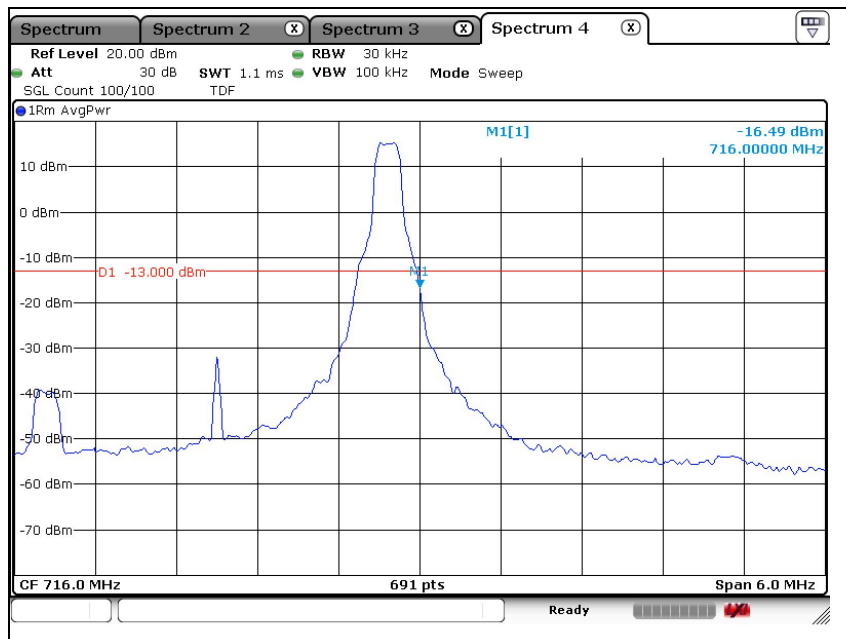
LTE band 12 (3 MHz – QPSK_Full RB)

High Channel



LTE band 12 (3 MHz – QPSK_1 RB)

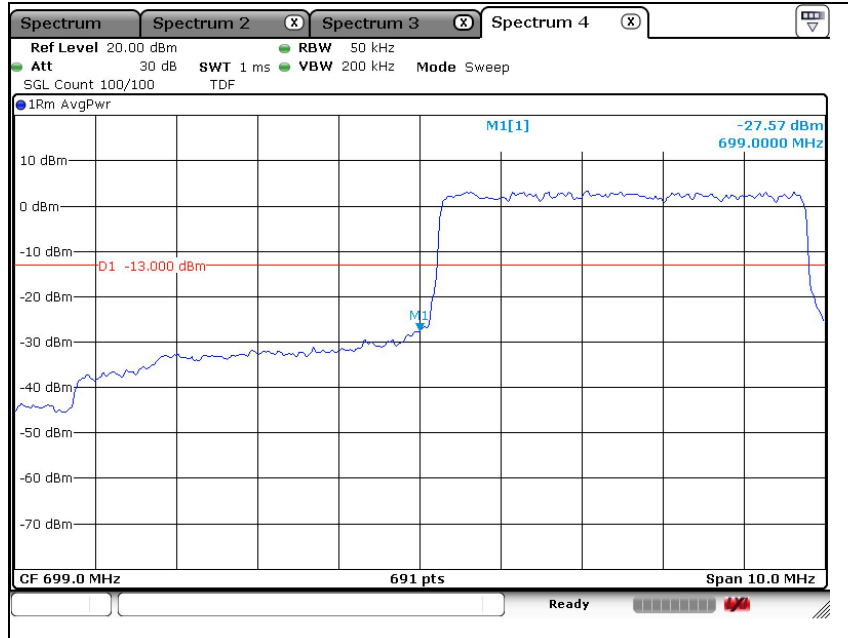
High Channel



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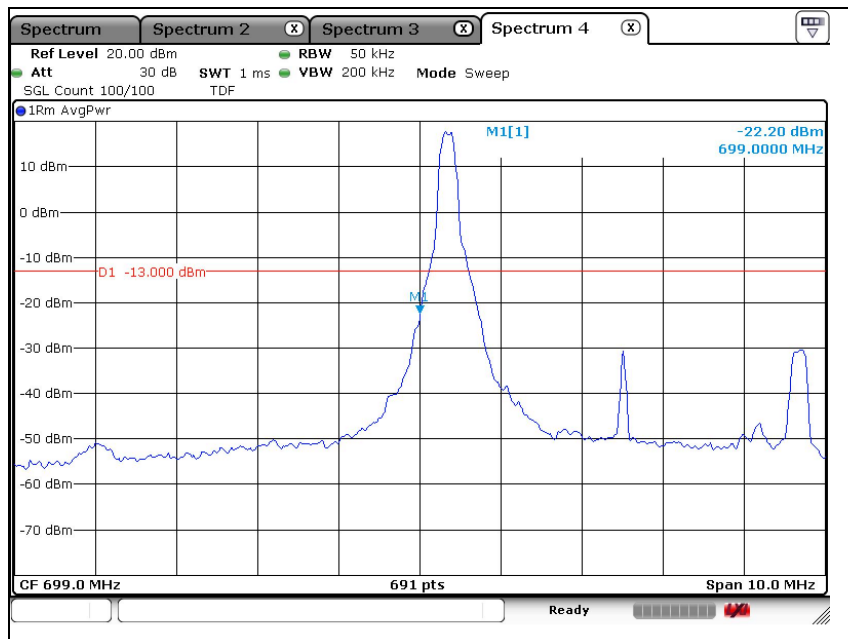
LTE band 12 (5 MHz – QPSK_Full RB)

Low Channel



LTE band 12 (5 MHz – QPSK_1 RB)

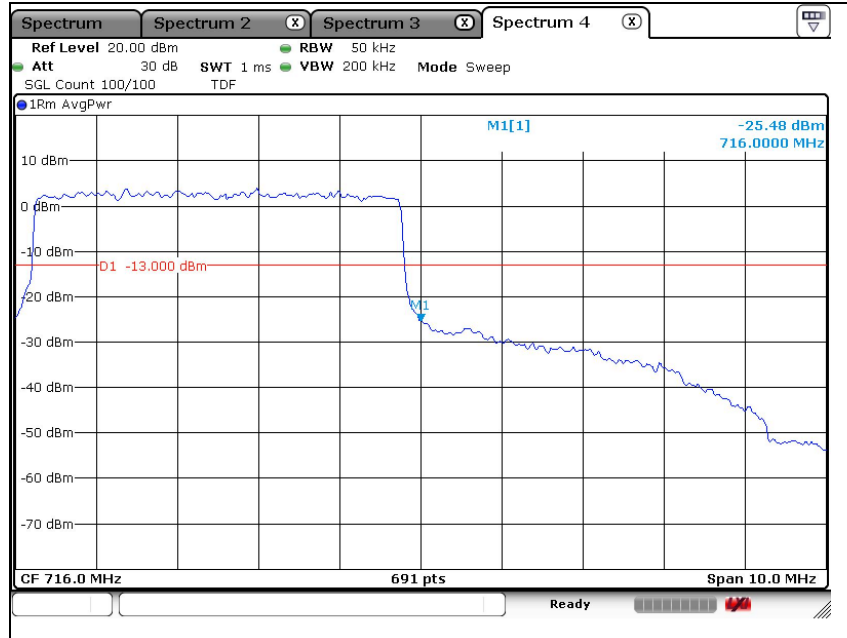
Low Channel



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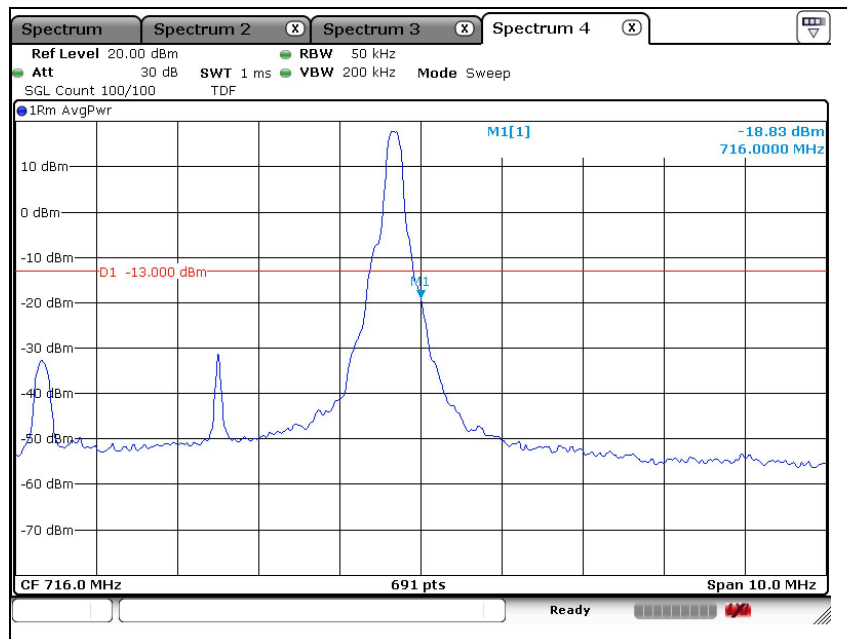
LTE band 12 (5 MHz – QPSK_Full RB)

High Channel



LTE band 12 (5 MHz – QPSK_1 RB)

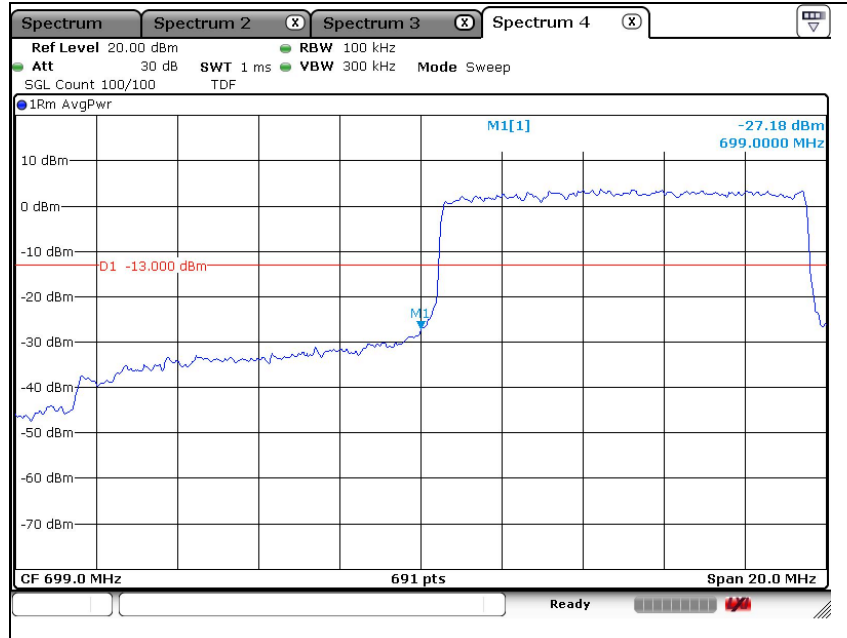
High Channel



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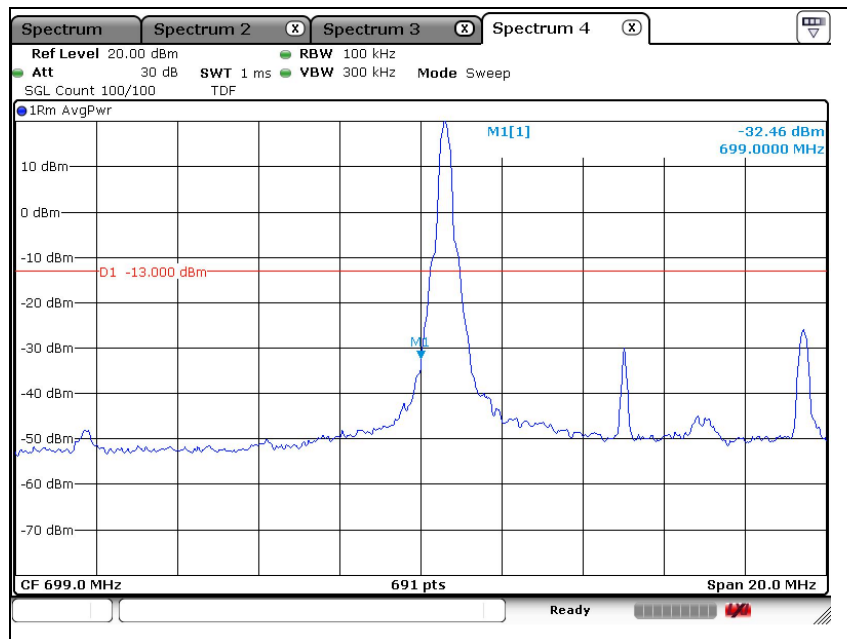
LTE band 12 (10 MHz – QPSK_Full RB)

Low Channel



LTE band 12 (10 MHz – QPSK_1 RB)

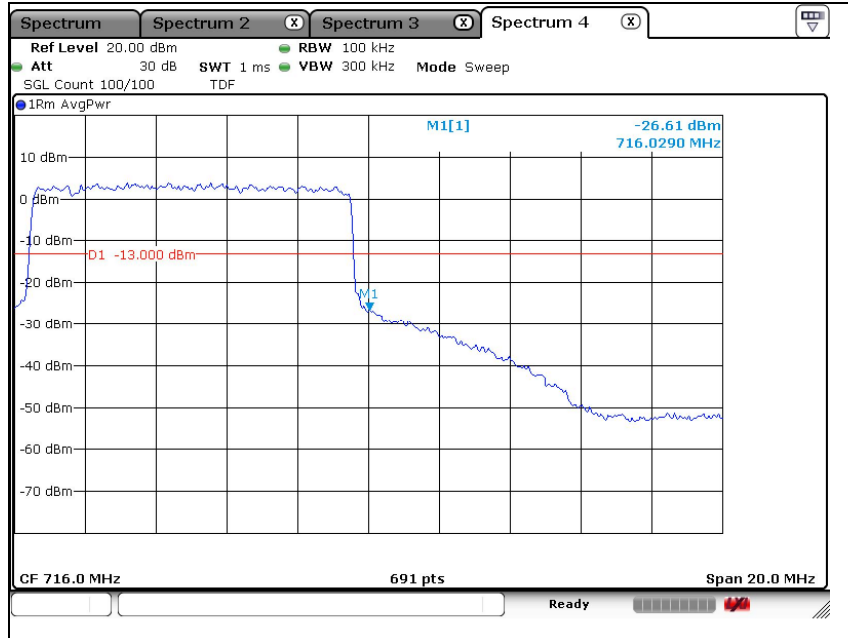
Low Channel



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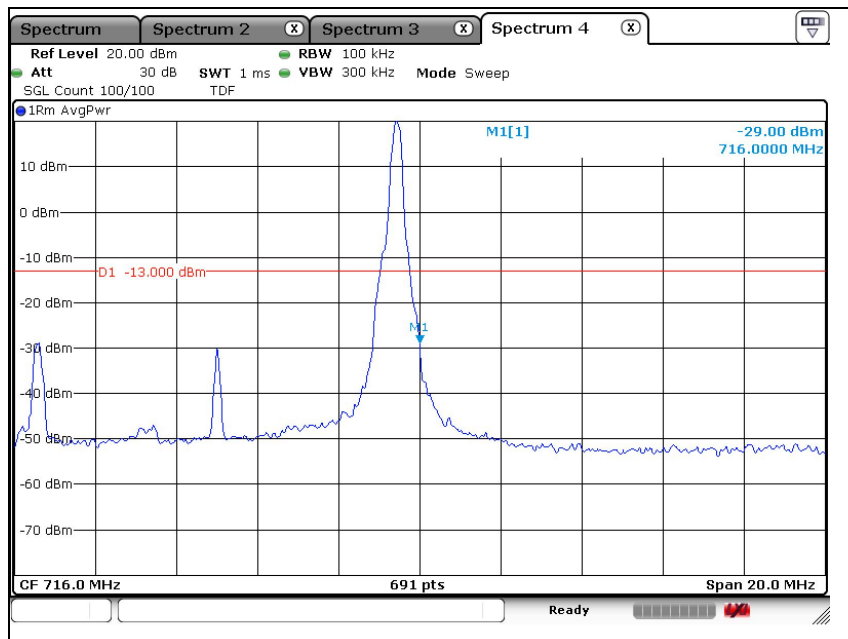
LTE band 12 (10 MHz – QPSK_Full RB)

High Channel



LTE band 12 (10 MHz – QPSK_1 RB)

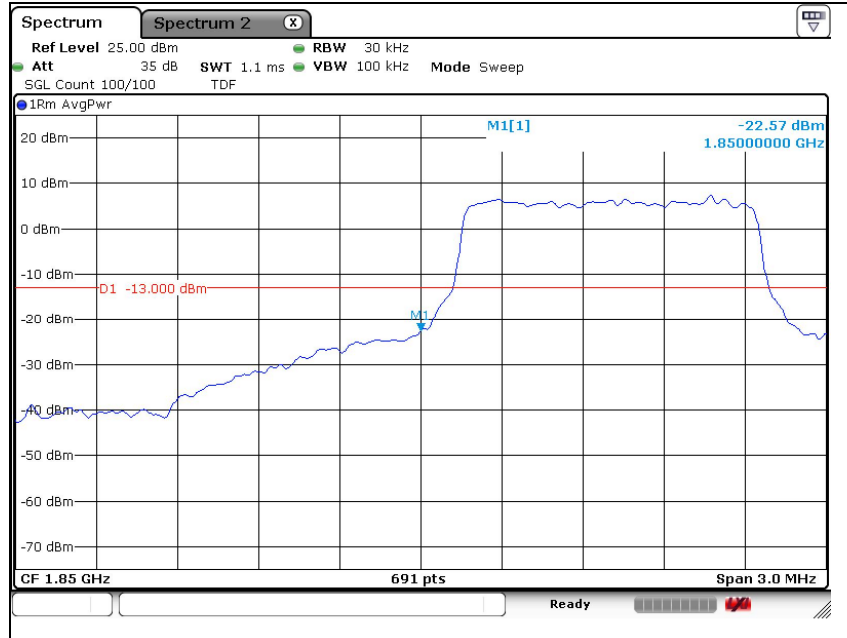
High Channel



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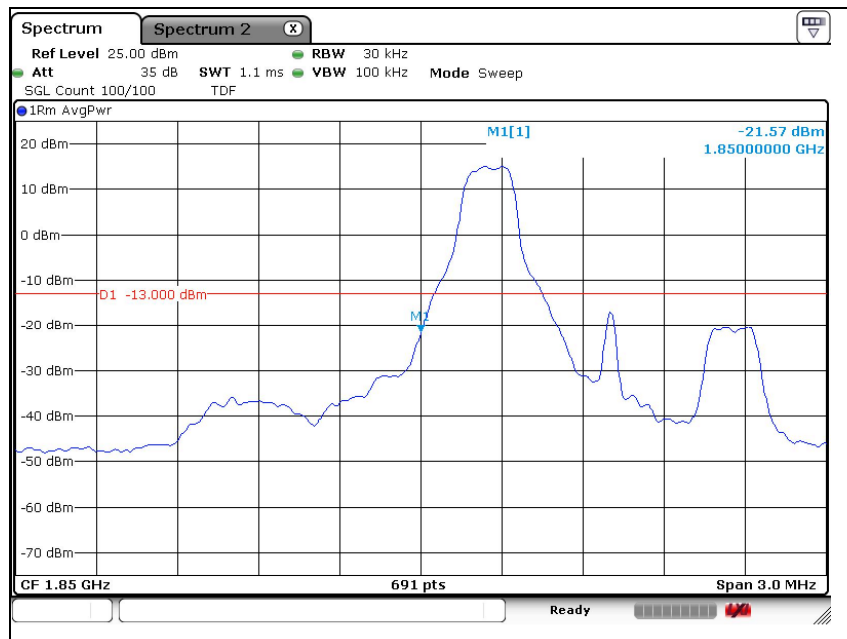
LTE band 25/2 (1.4 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (1.4 MHz – QPSK_1 RB)

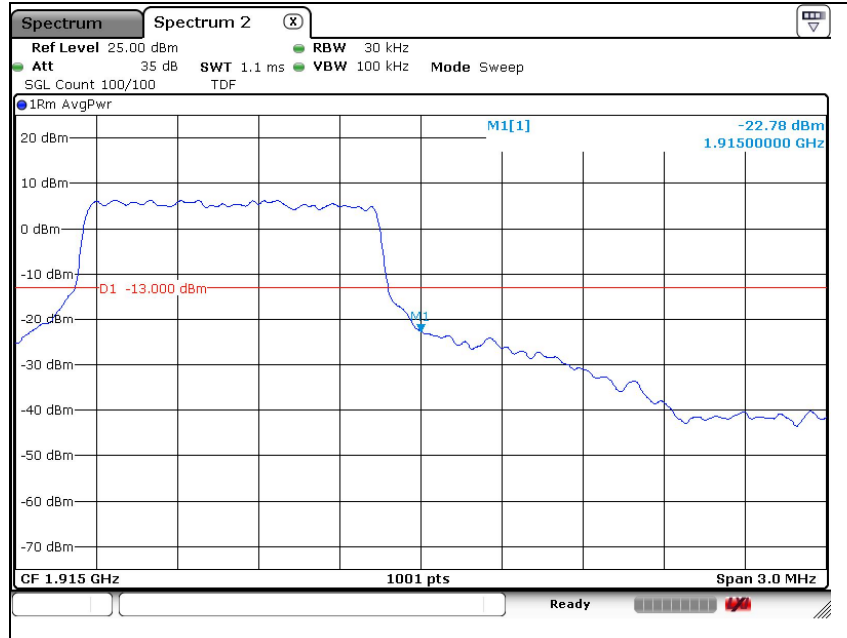
Low Channel



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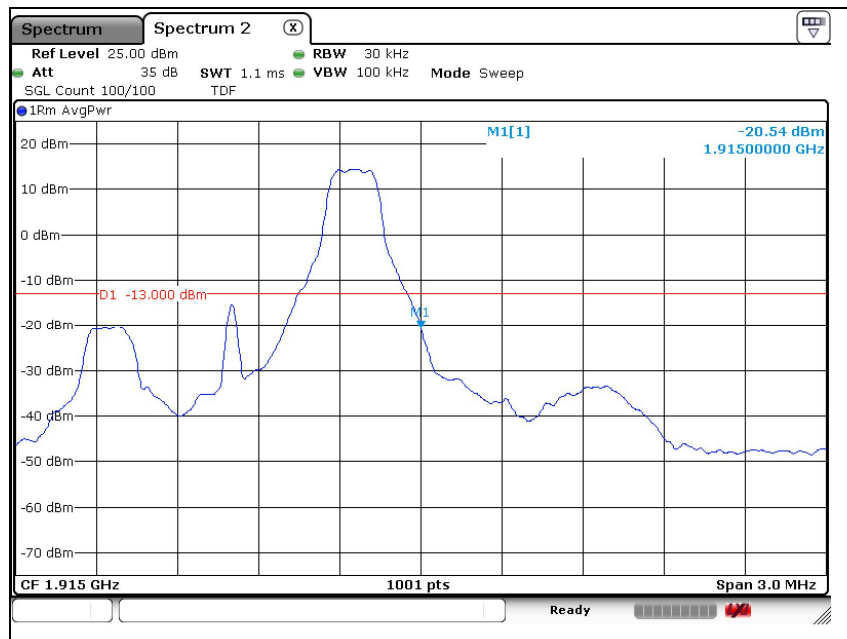
LTE band 25/2 (1.4 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (1.4 MHz – QPSK_1 RB)

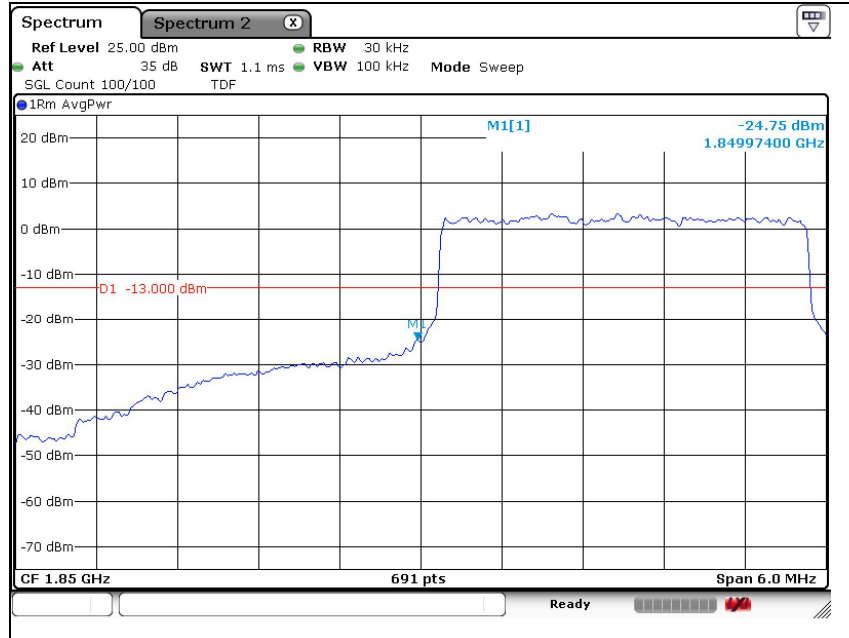
High Channel



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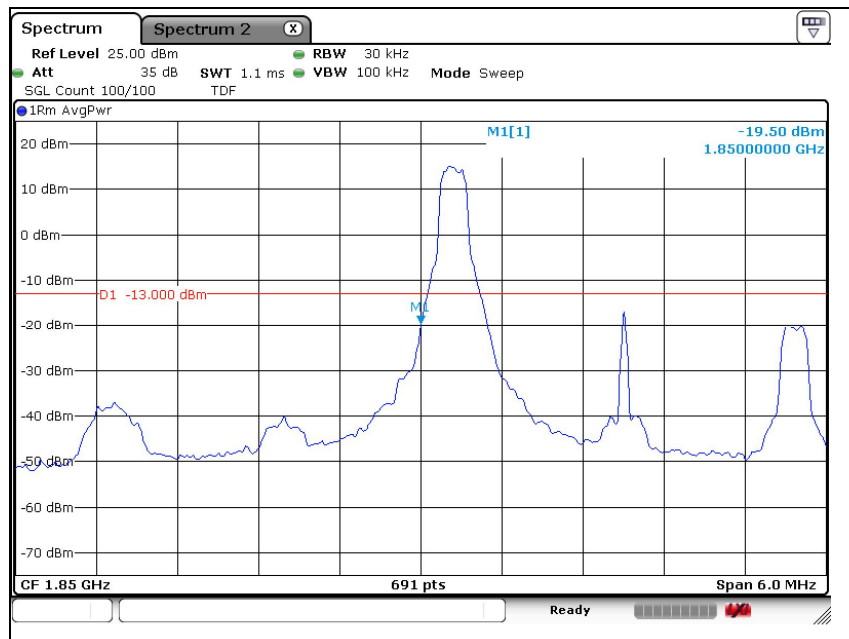
LTE band 25/2 (3 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (3 MHz – QPSK_1 RB)

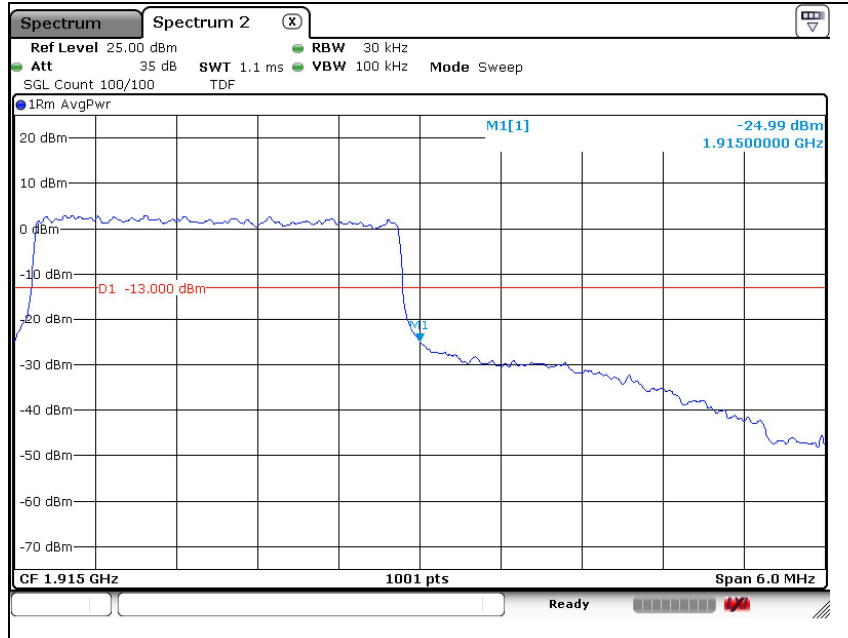
Low Channel



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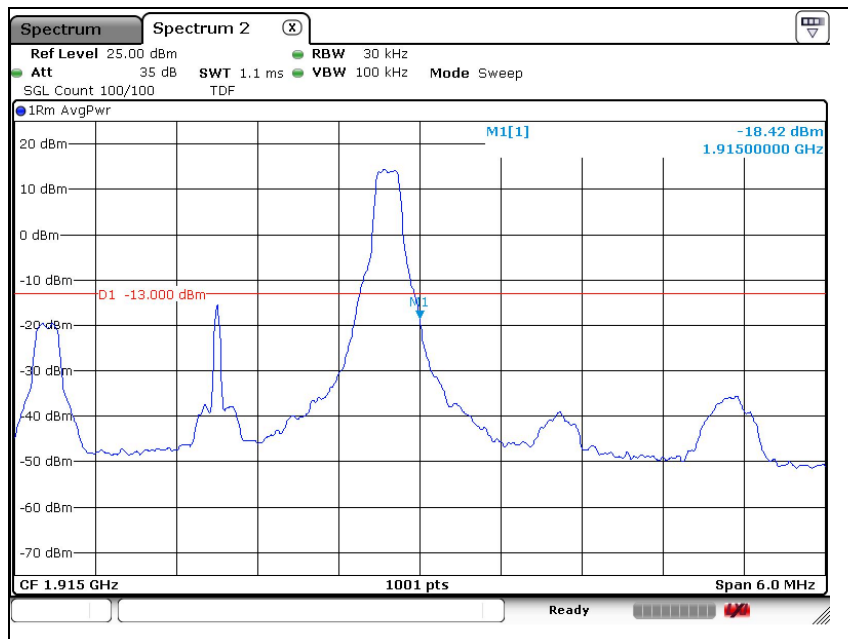
LTE band 25/2 (3 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (3 MHz – QPSK_1 RB)

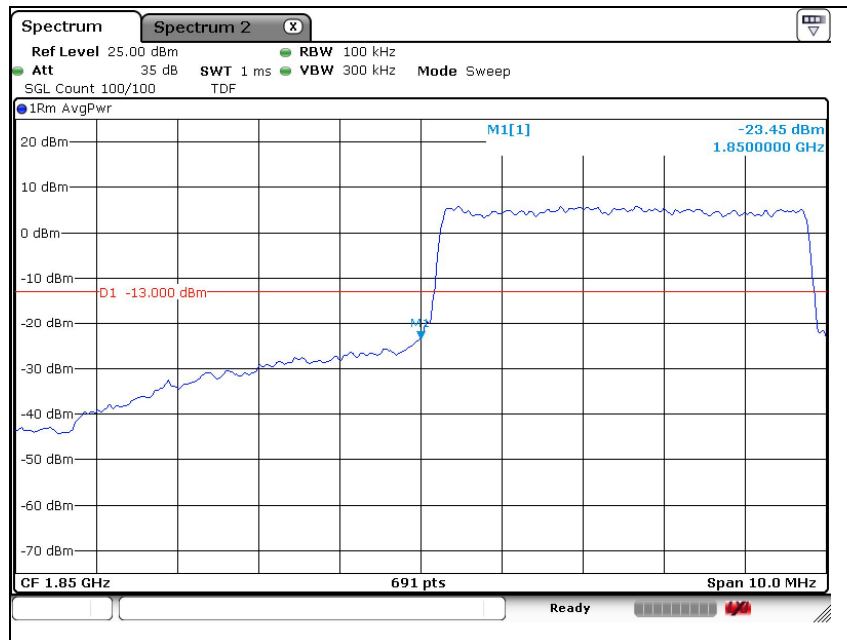
High Channel



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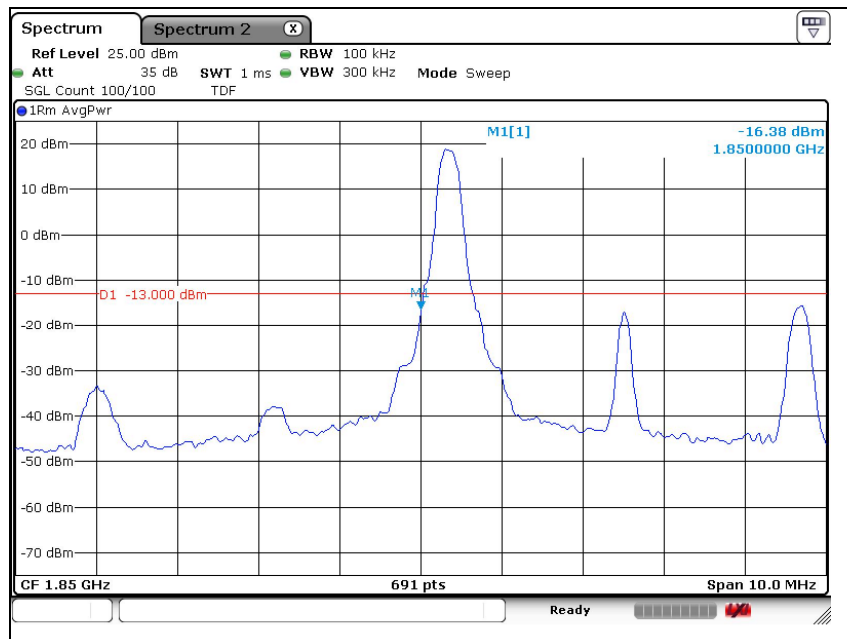
LTE band 25/2 (5 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (5 MHz – QPSK_1 RB)

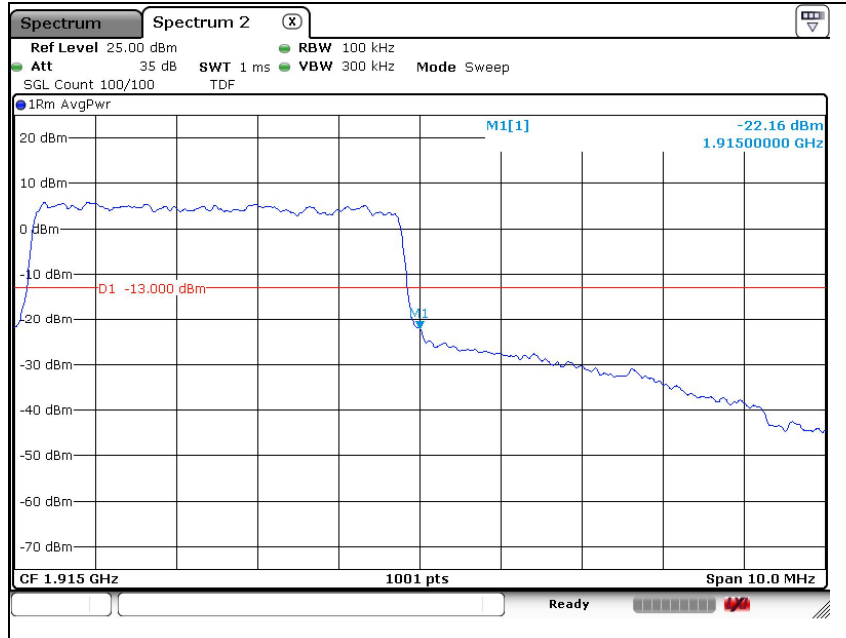
Low Channel



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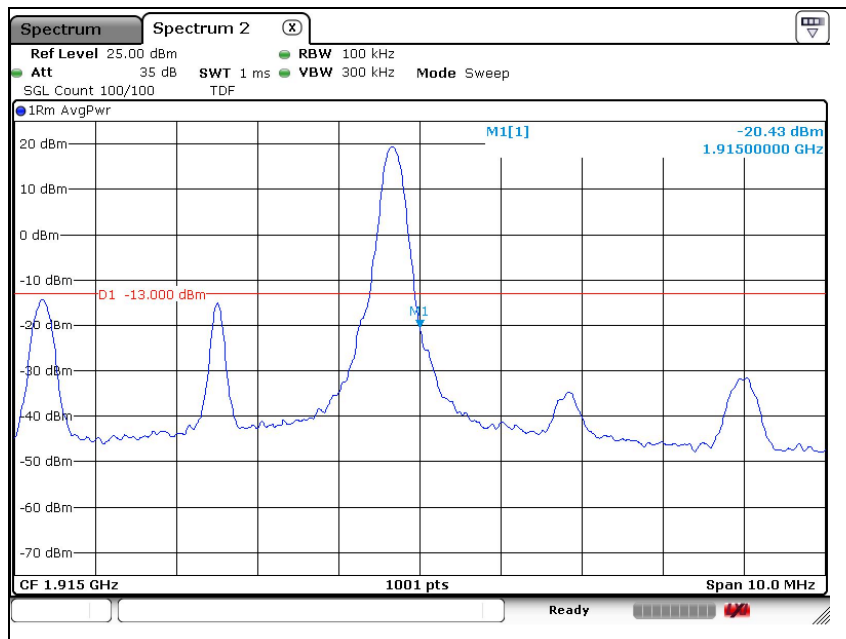
LTE band 25/2 (5 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (5 MHz – QPSK_1 RB)

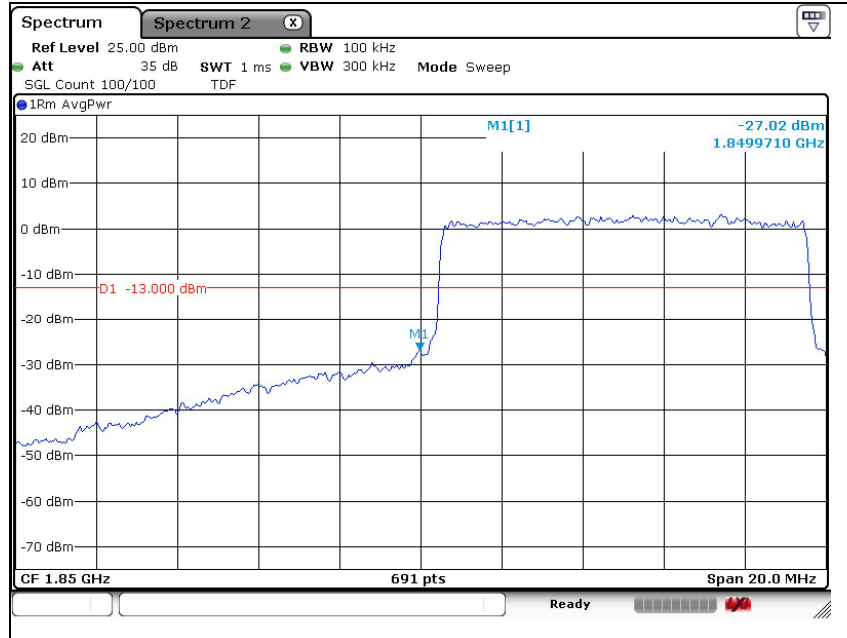
High Channel



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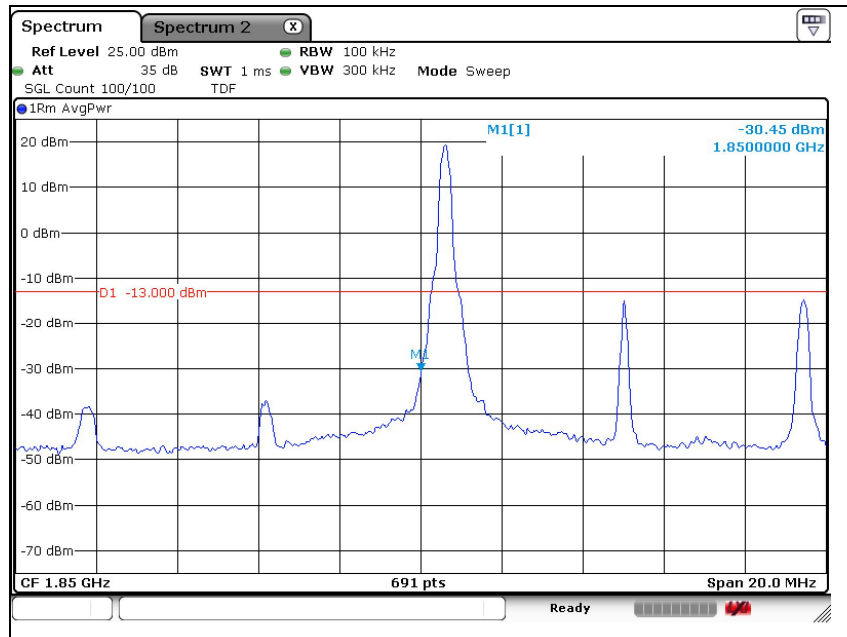
LTE band 25/2 (10 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (10 MHz – QPSK_1 RB)

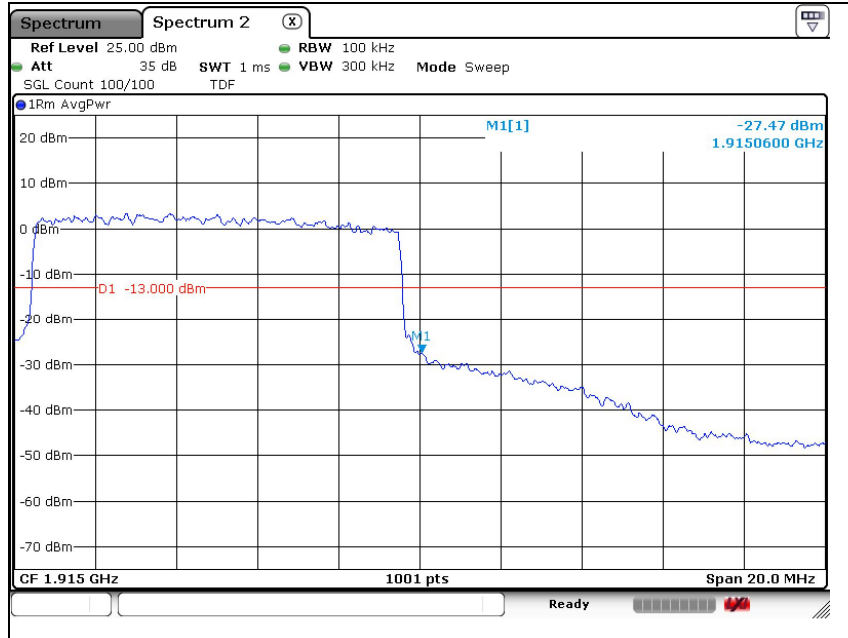
Low Channel



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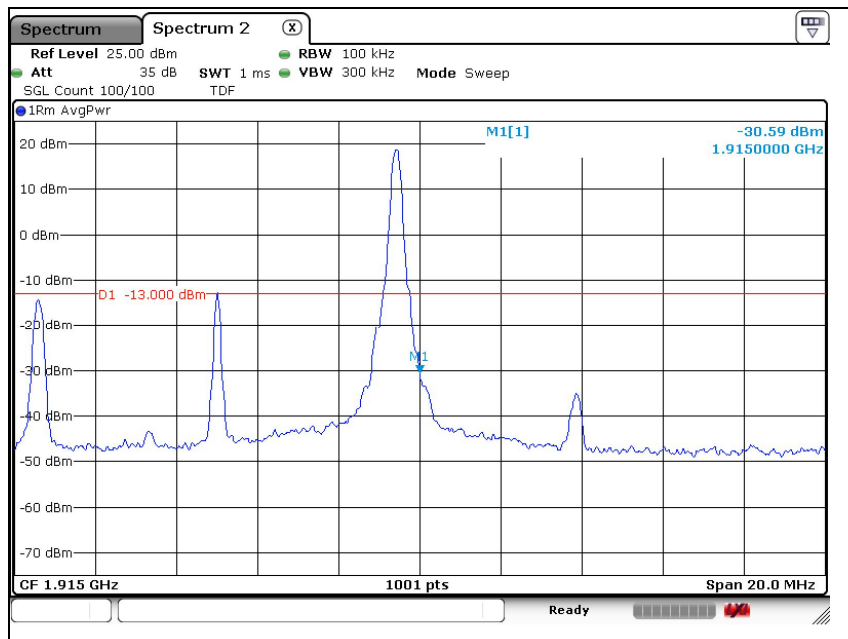
LTE band 25/2 (10 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (10 MHz – QPSK_1 RB)

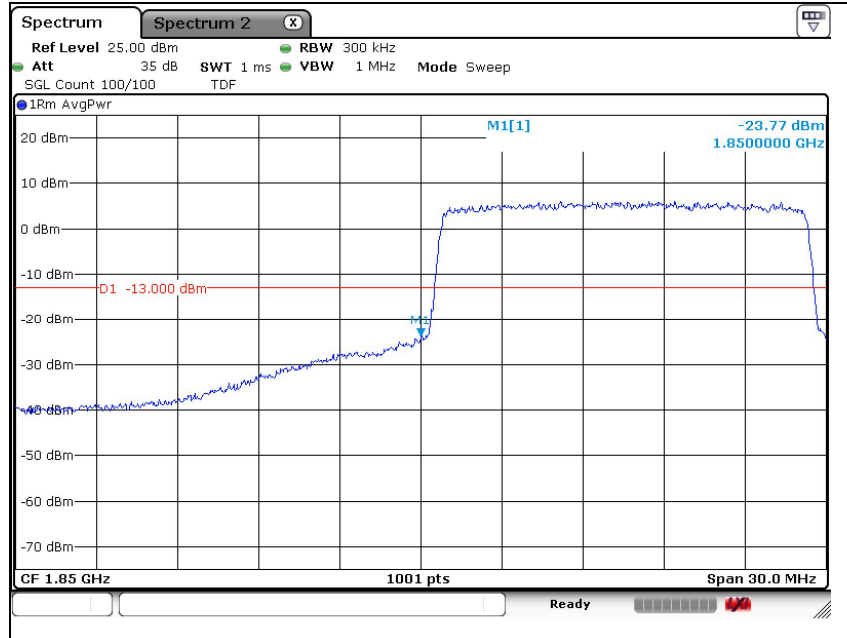
High Channel



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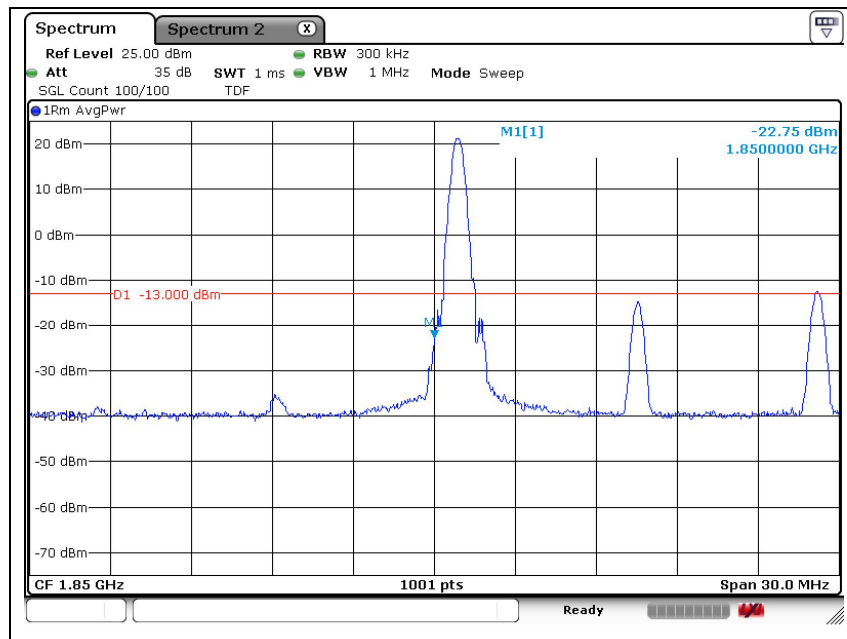
LTE band 25/2 (15 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (15 MHz – QPSK_1 RB)

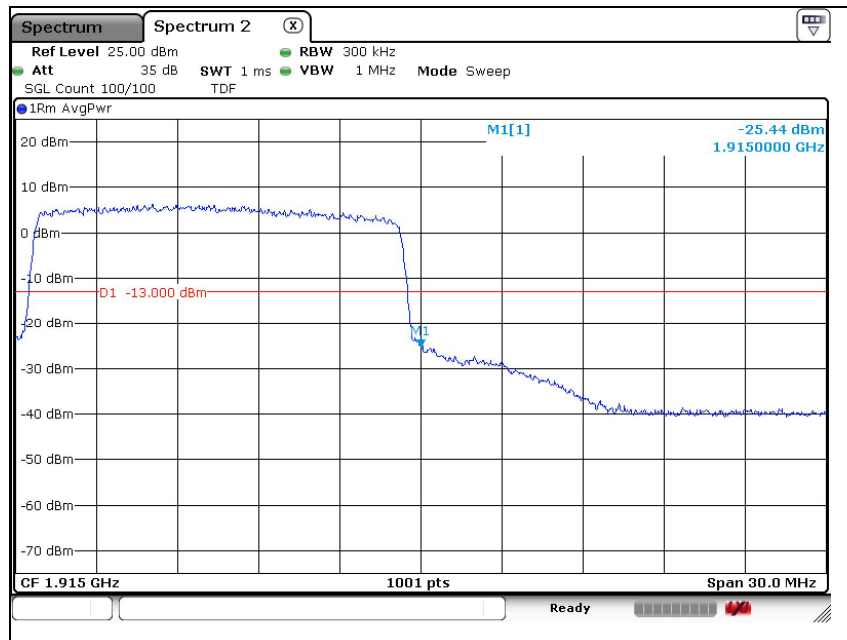
Low Channel



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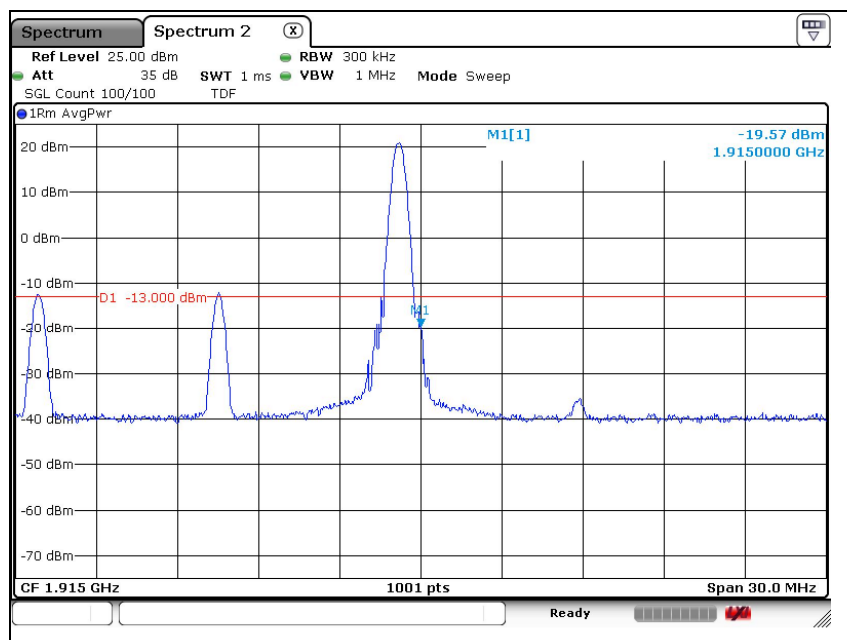
LTE band 25/2 (15 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (15 MHz – QPSK_1 RB)

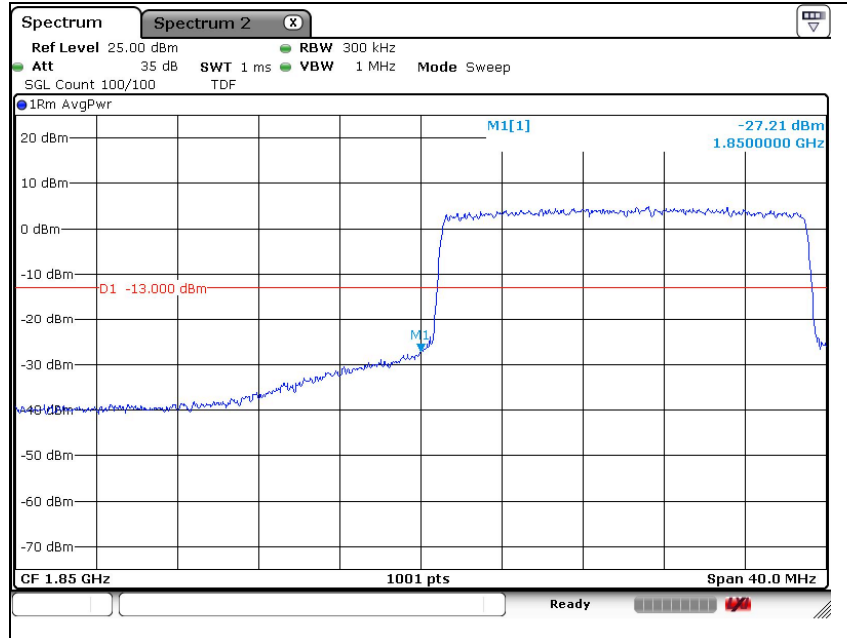
High Channel



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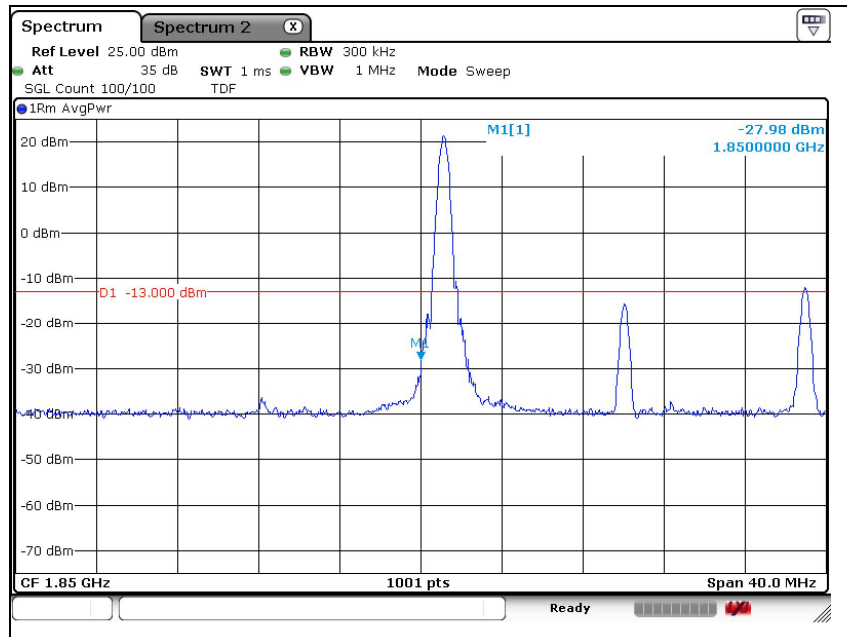
LTE band 25/2 (20 MHz – QPSK_Full RB)

Low Channel



LTE band 25/2 (20 MHz – QPSK_1 RB)

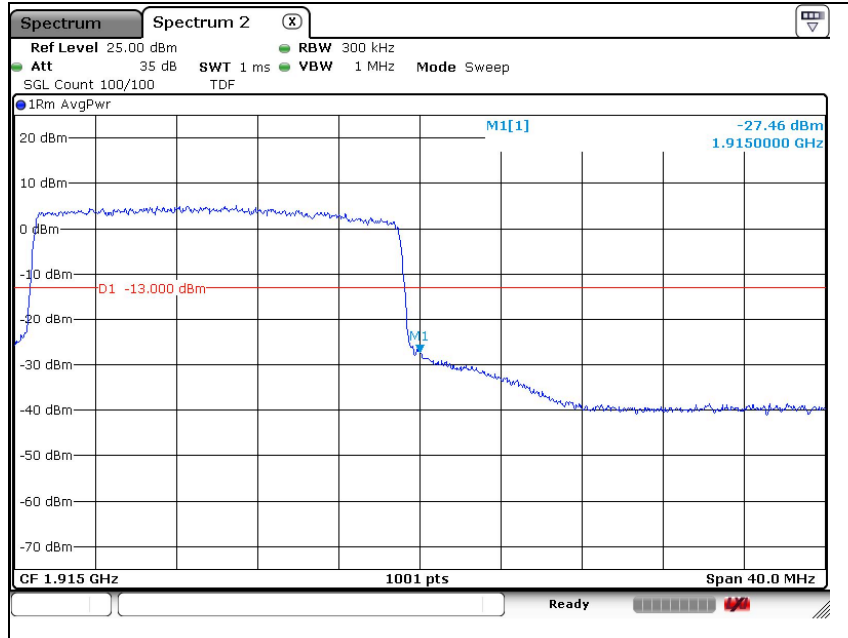
Low Channel



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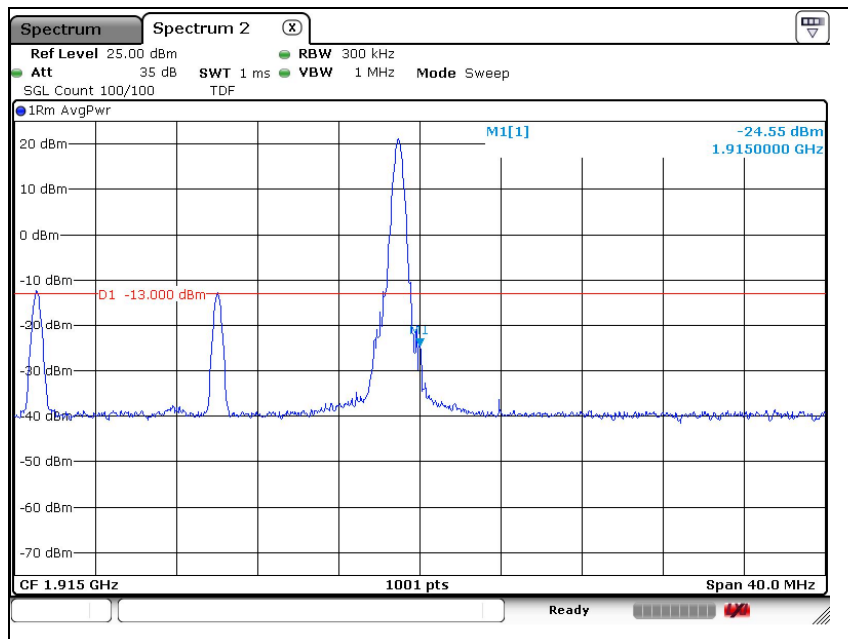
LTE band 25/2 (20 MHz – QPSK_Full RB)

High Channel



LTE band 25/2 (20 MHz – QPSK_1 RB)

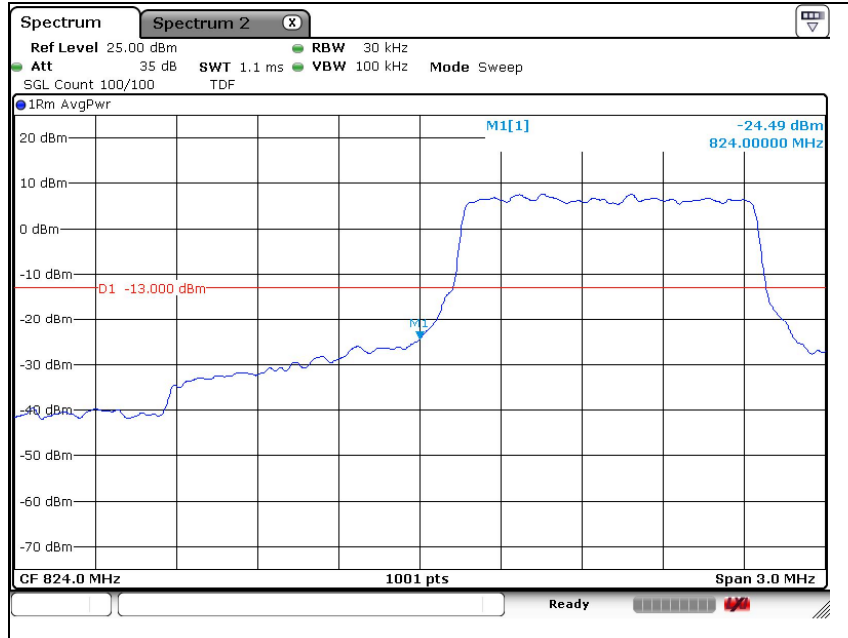
High Channel



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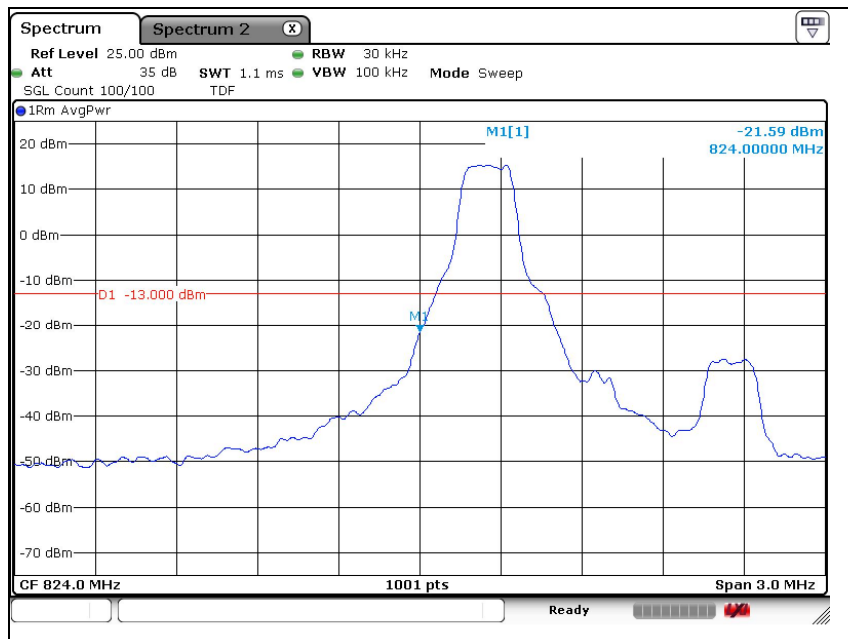
LTE band 26/5 (1.4 MHz – QPSK_Full RB)

Low Channel



LTE band 26/5 (1.4 MHz – QPSK_1 RB)

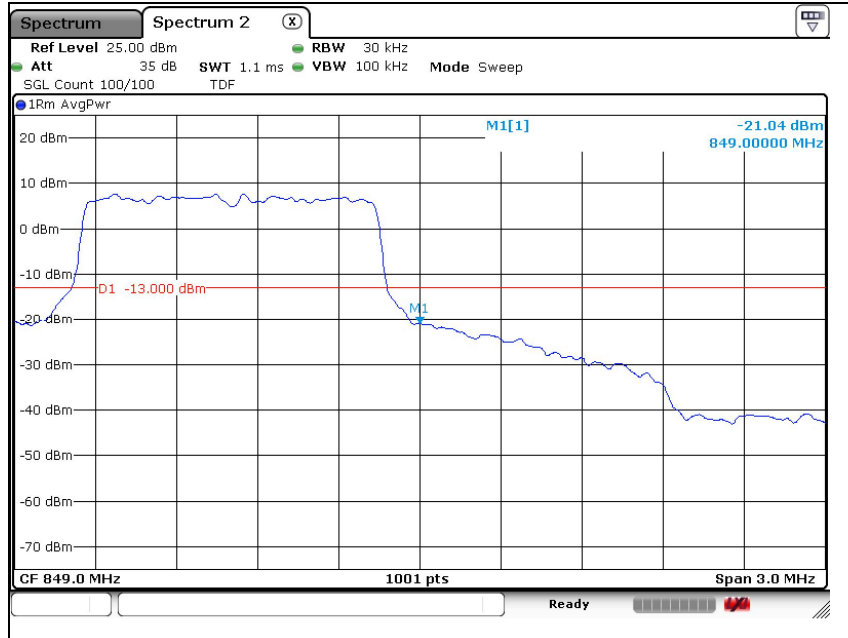
Low Channel



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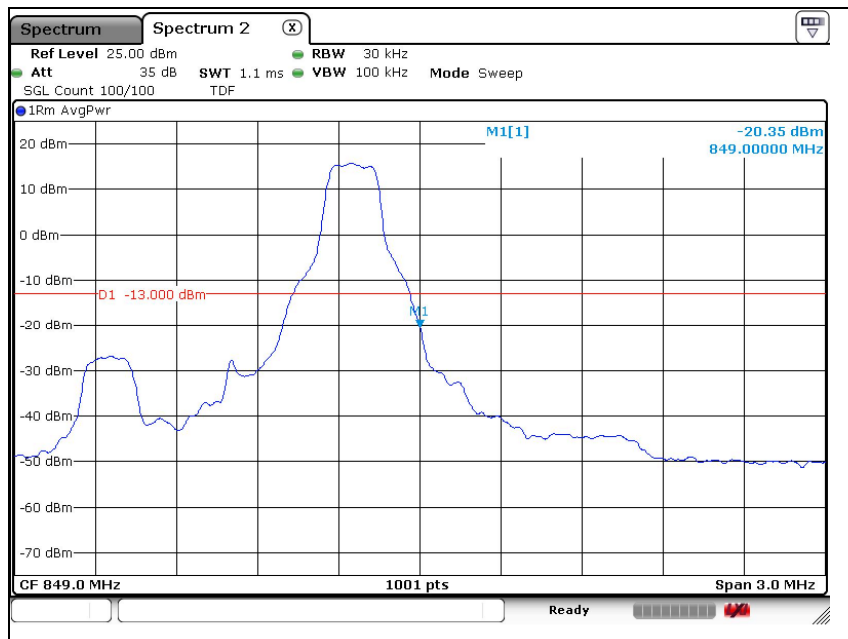
LTE band 26/5 (1.4 MHz – QPSK_Full RB)

High Channel



LTE band 26/5 (1.4 MHz – QPSK_1 RB)

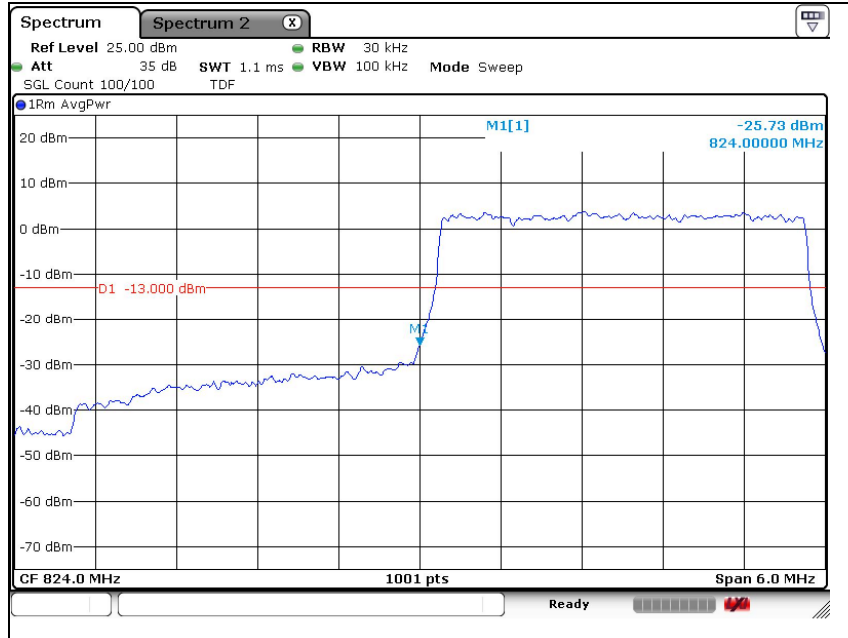
High Channel



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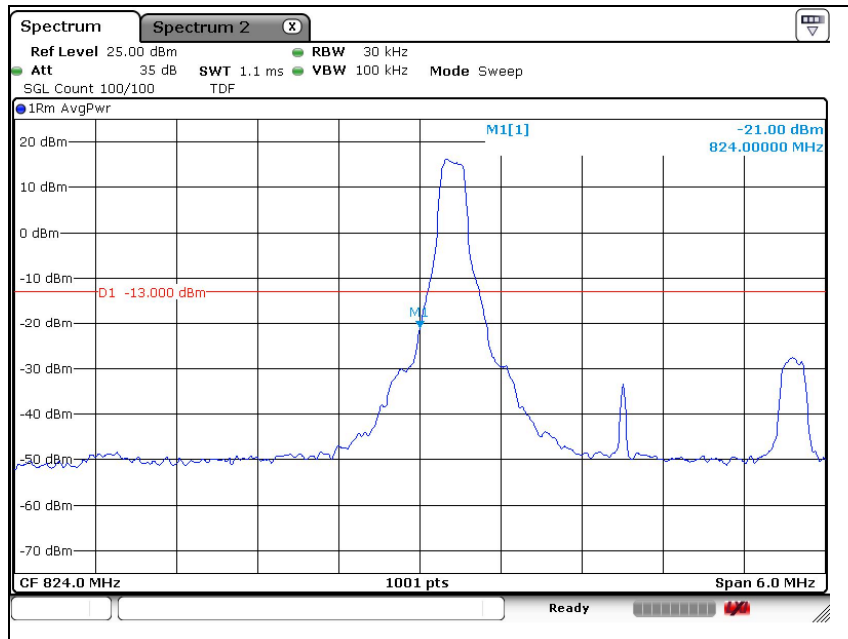
LTE band 26/5 (3 MHz – QPSK_Full RB)

Low Channel



LTE band 26/5 (3 MHz – QPSK_1 RB)

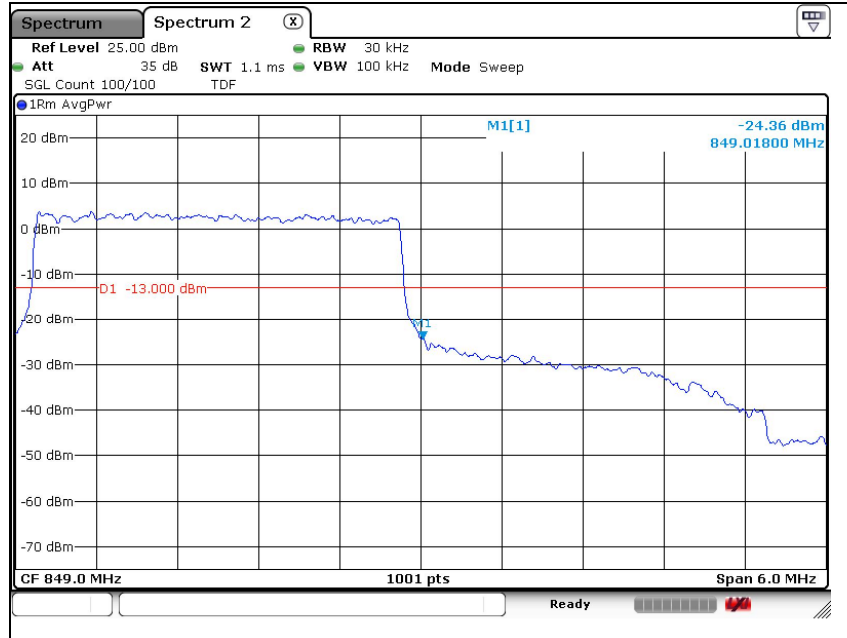
Low Channel



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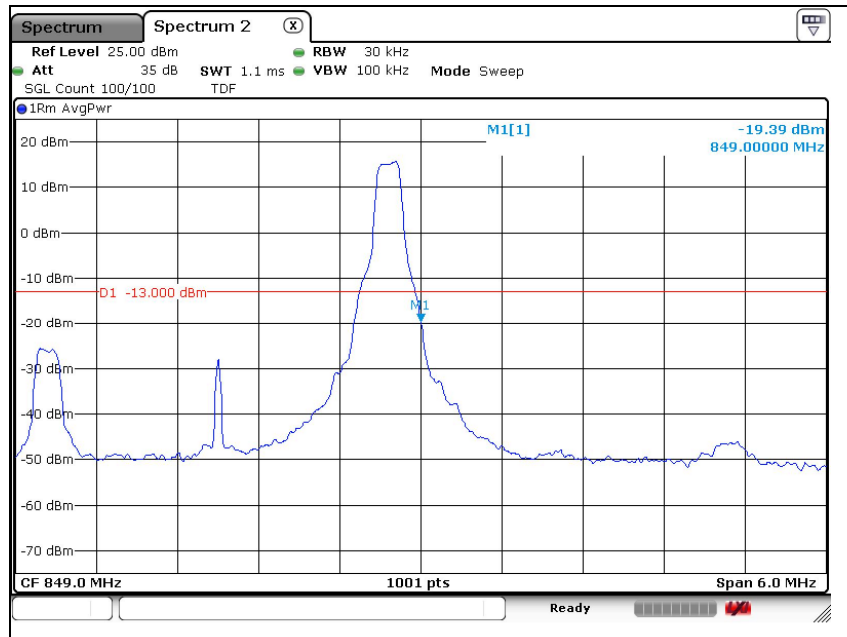
LTE band 26/5 (3 MHz – QPSK_Full RB)

High Channel



LTE band 26/5 (3 MHz – QPSK_1 RB)

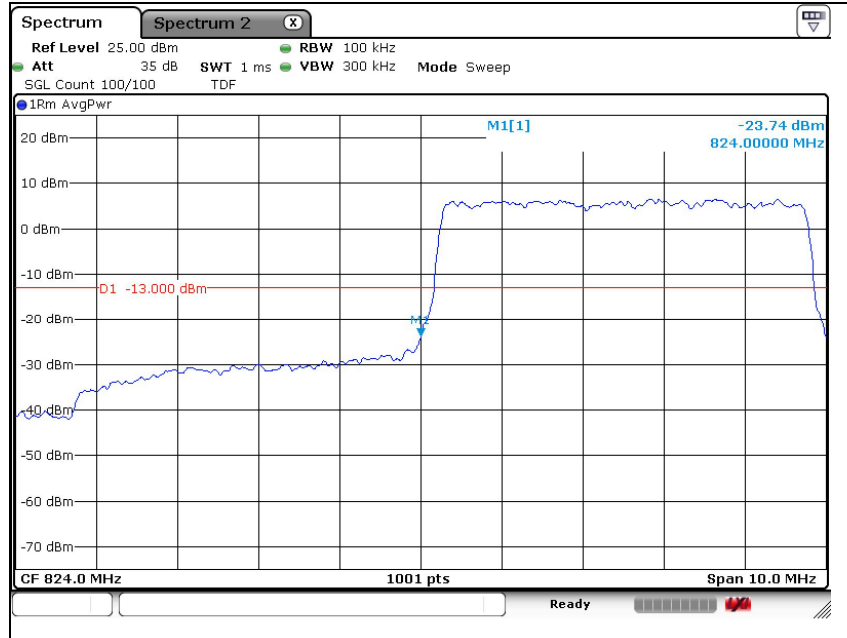
High Channel



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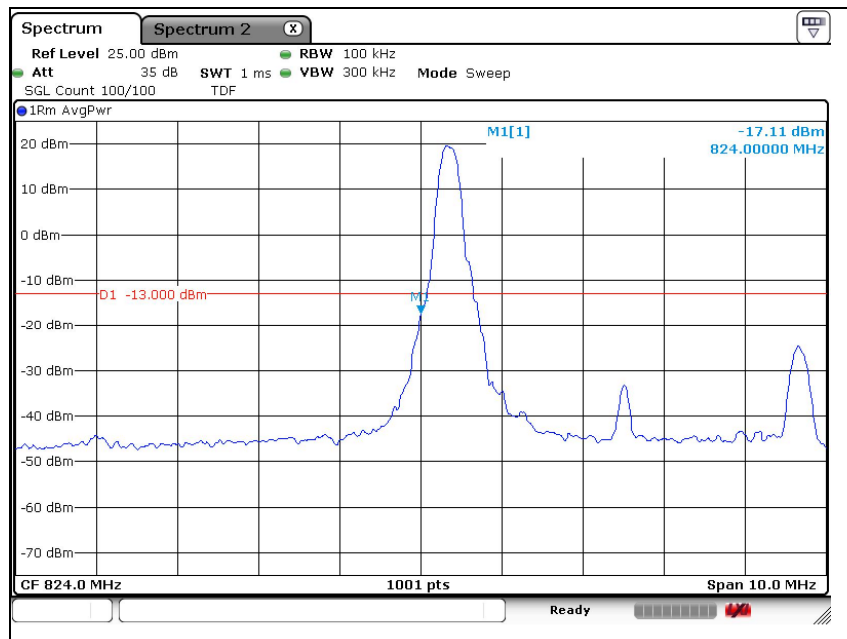
LTE band 26/5 (5 MHz – QPSK_Full RB)

Low Channel



LTE band 26/5 (5 MHz – QPSK_1 RB)

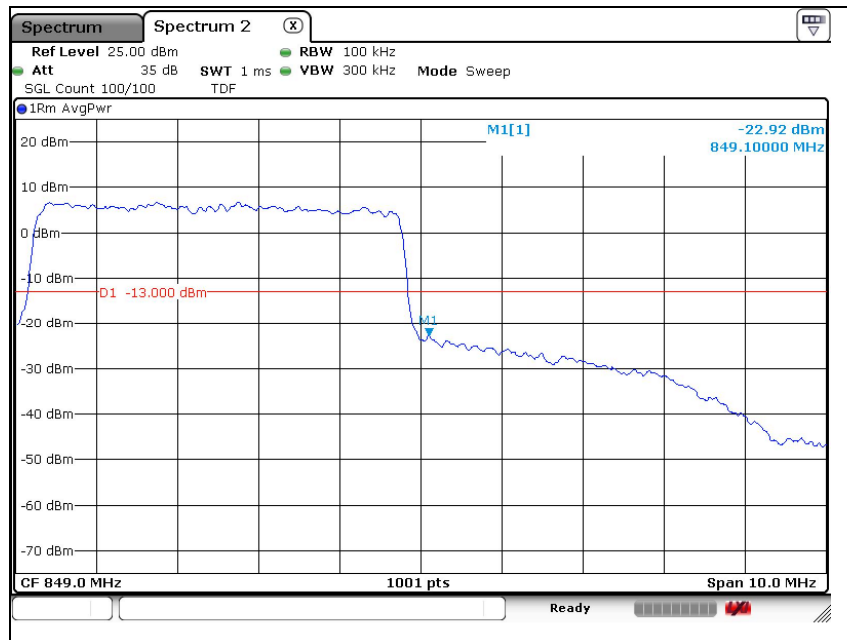
Low Channel



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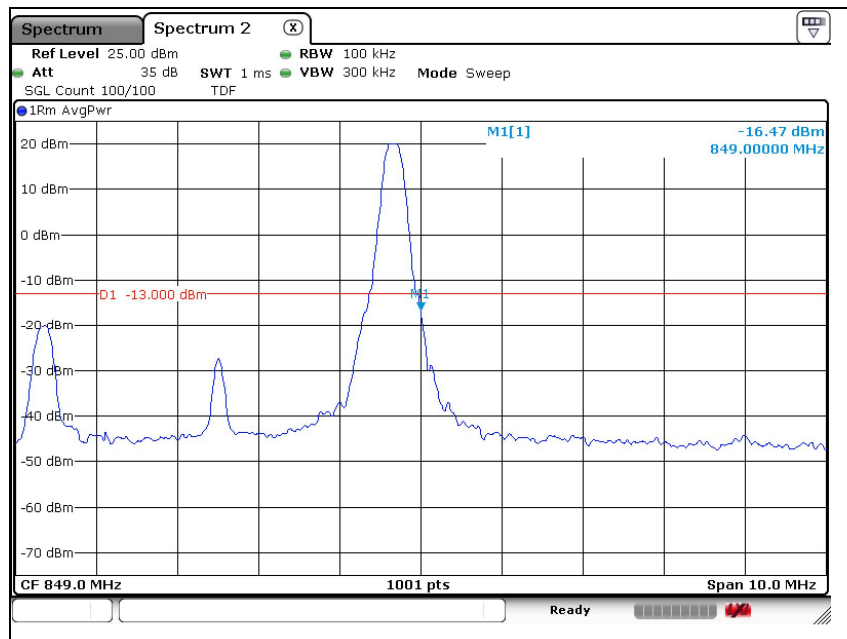
LTE band 26/5 (5 MHz – QPSK_Full RB)

High Channel



LTE band 26/5 (5 MHz – QPSK_1 RB)

High Channel



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