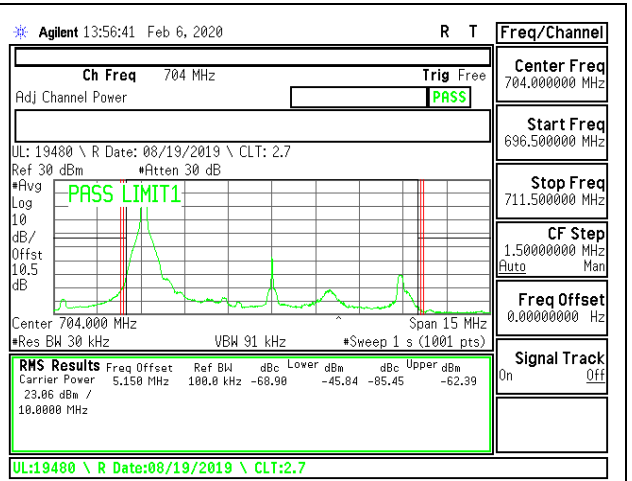
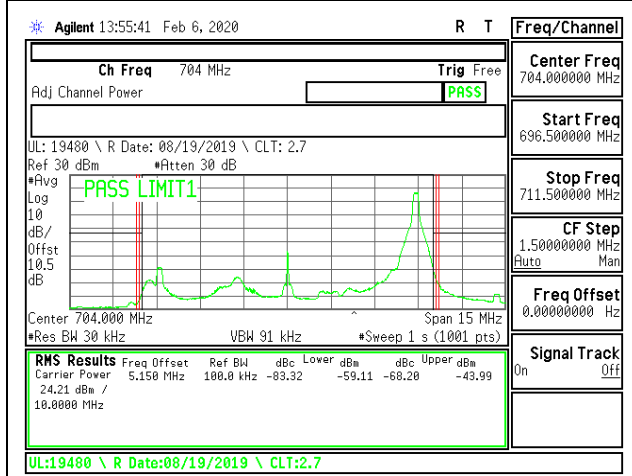


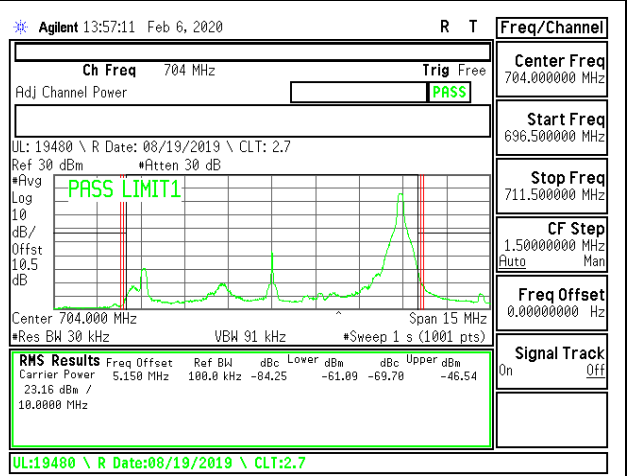
LTE B12 10MHz QPSK Low Channel RB1-0



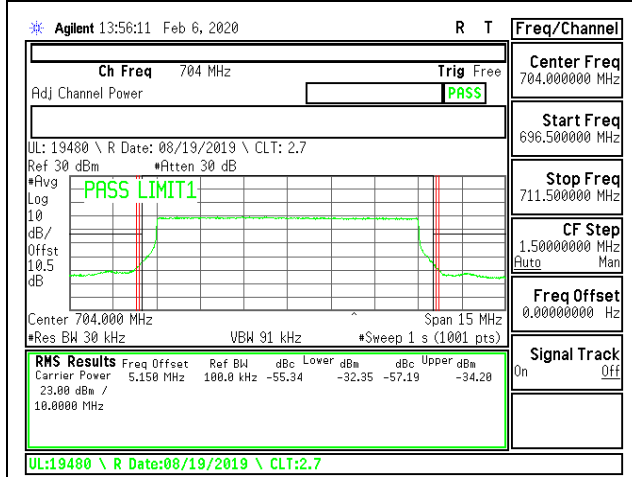
LTE B12 10MHz 16QAM Low Channel RB1-0



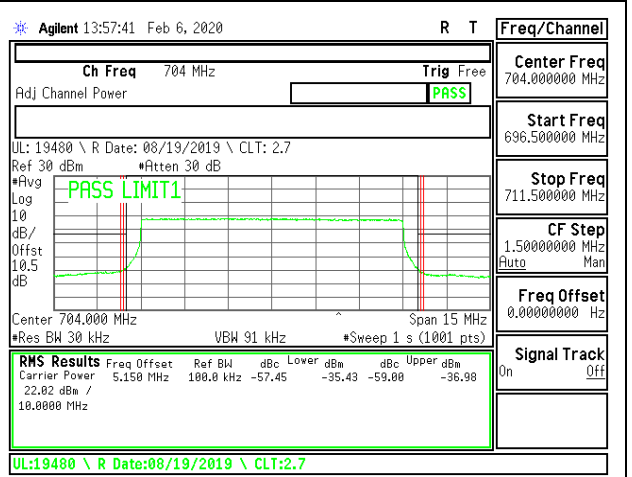
LTE B12 10MHz QPSK Low Channel RB1-49



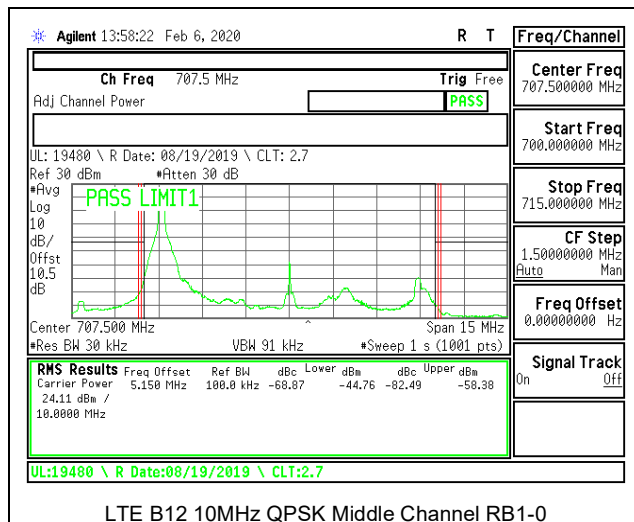
LTE B12 10MHz 16QAM Low Channel RB1-49



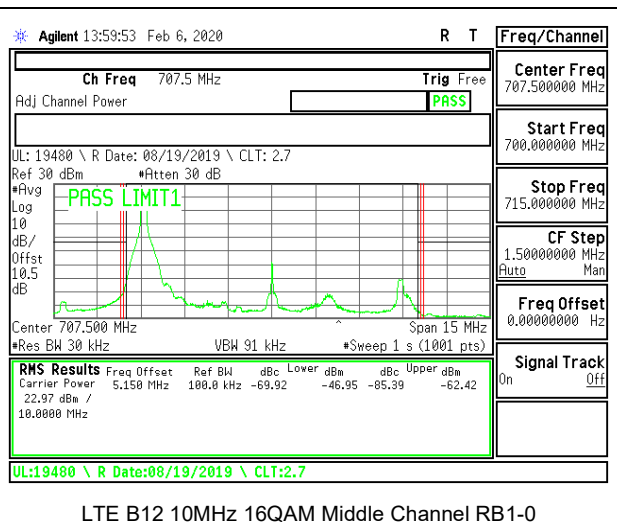
LTE B12 10MHz QPSK Low Channel RB50-0



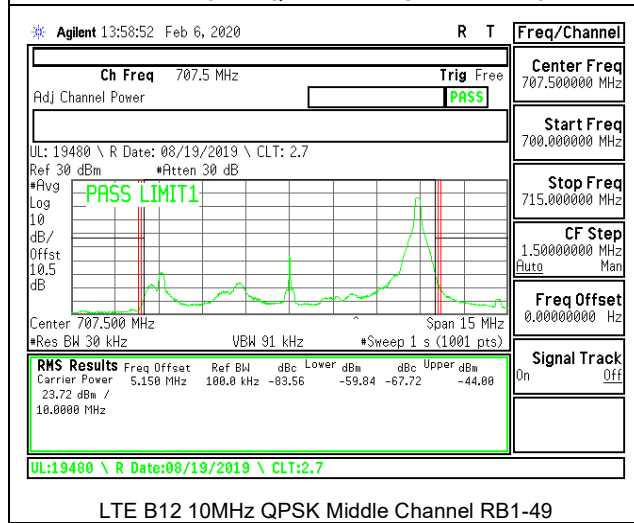
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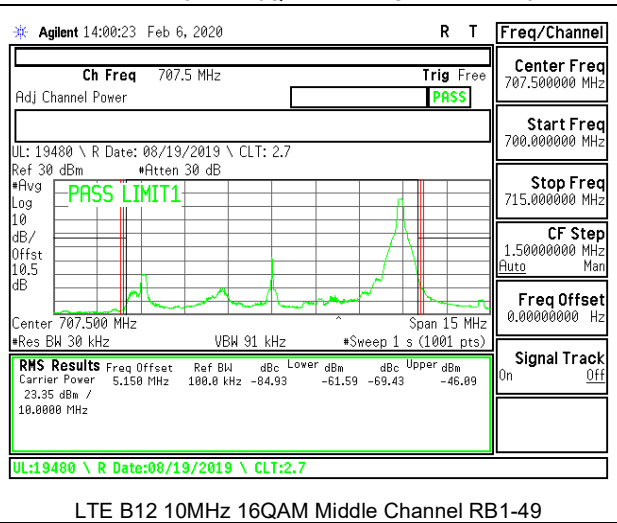
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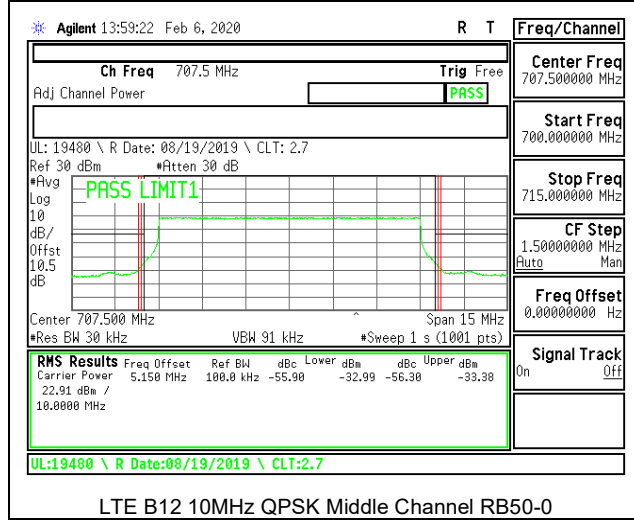
LTE B12 10MHz 16QAM Middle Channel RB1-0



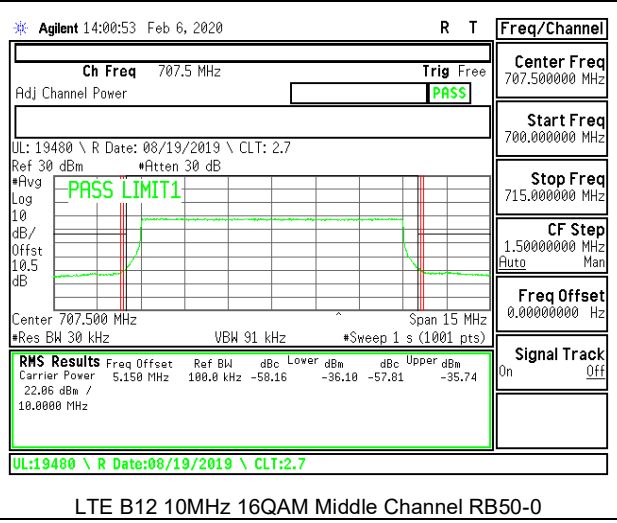
LTE B12 10MHz QPSK Middle Channel RB1-49



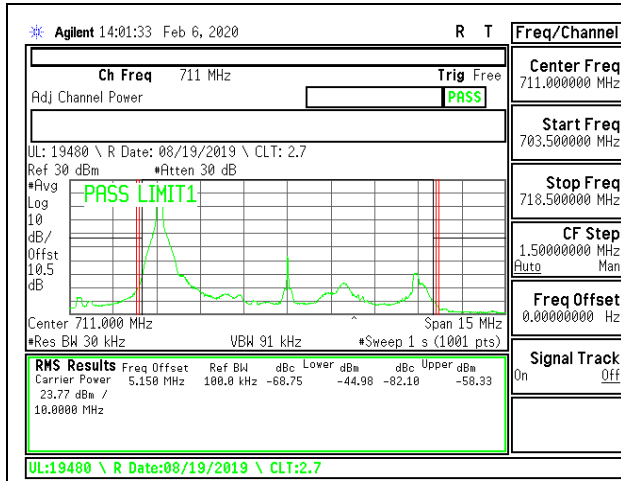
LTE B12 10MHz 16QAM Middle Channel RB1-49



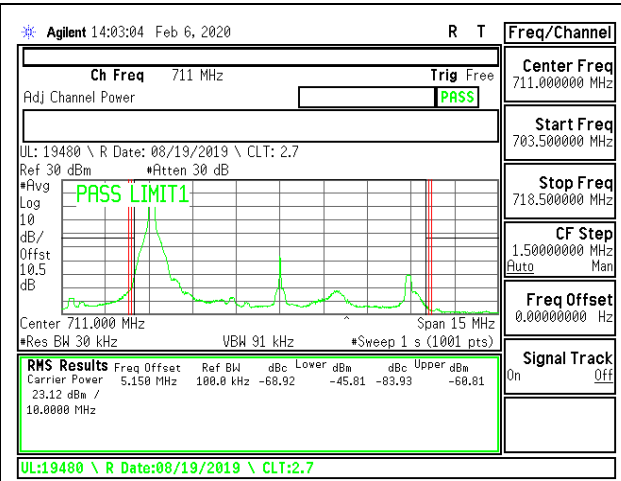
LTE B12 10MHz QPSK Middle Channel RB50-0



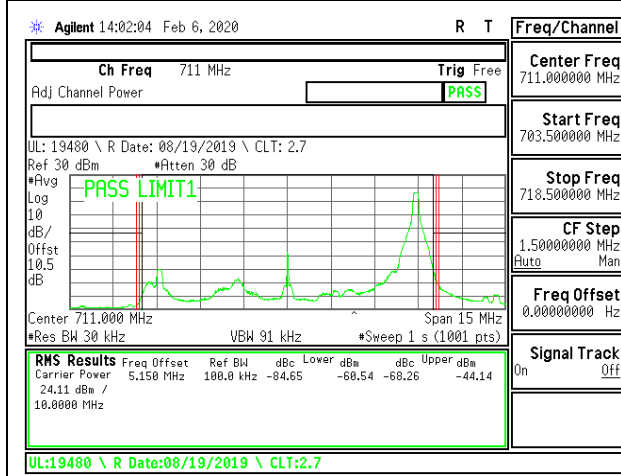
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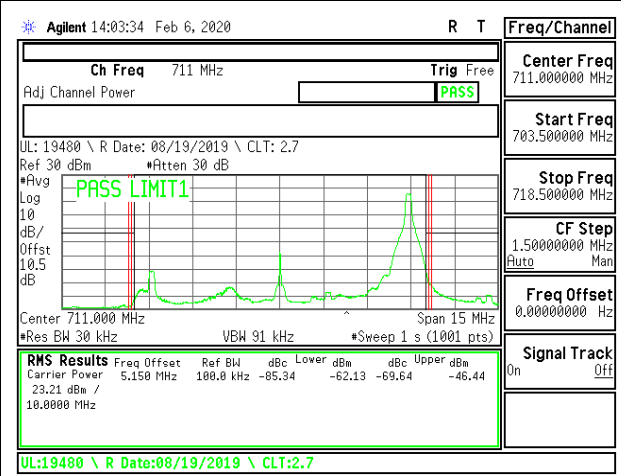
LTE B12 10MHz QPSK High Channel RB1-0



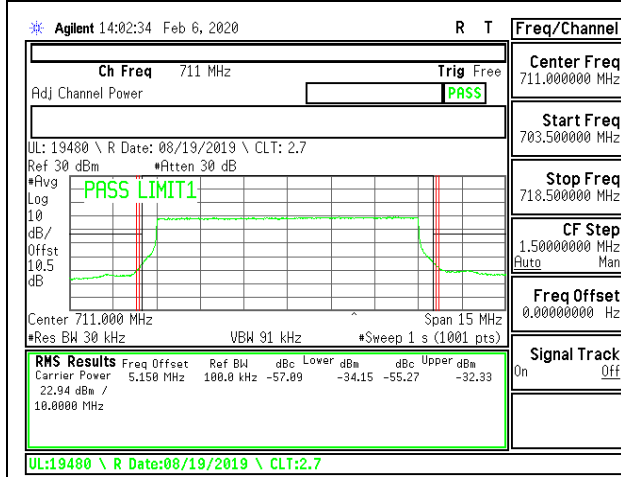
LTE B12 10MHz 16QAM High Channel RB1-0



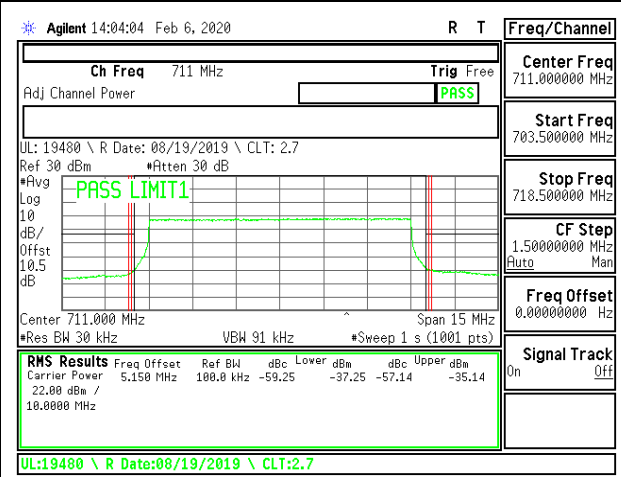
LTE B12 10MHz QPSK High Channel RB1-49



LTE B12 10MHz 16QAM High Channel RB1-49



LTE B12 10MHz QPSK High Channel RB50-0



LTE B12 10MHz 16QAM High Channel RB50-0

8.2.10. LTE BAND 13 ADJACENT CHANNEL POWER

LIMITS

FCC: §27.53

(c) For operations in the 746-758 MHz band and the 776-788 MHz band, the power of any emission outside the 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, in accordance with the following:

(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB;

(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

(f) Emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals. (-70 dBW/MHz = -40 dBm/MHz).

ISED: RSS130§4.7

4.7.1 General unwanted emissions limits

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least $43 + 10 \log_{10} p$ (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

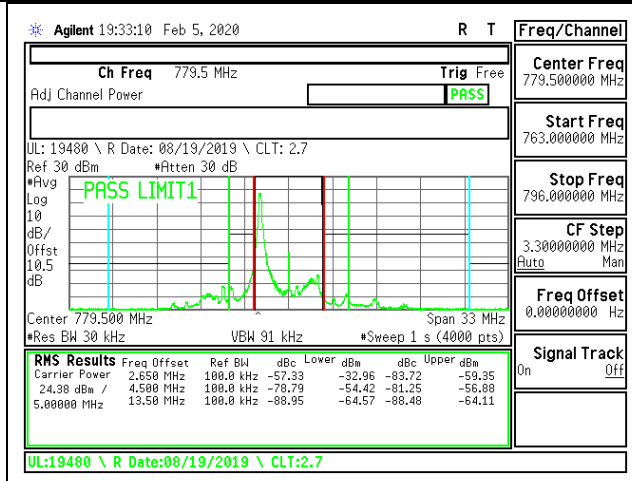
4.7.2 Additional unwanted emissions limits

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

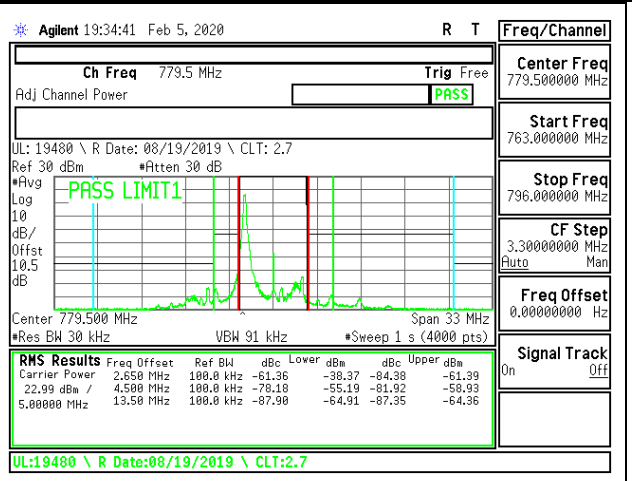
(a) the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:

- i. $76 + 10 \log_{10} p$ (watts), dB, for base and fixed equipment and
- ii. $65 + 10 \log_{10} p$ (watts), dB, for mobile and portable equipment

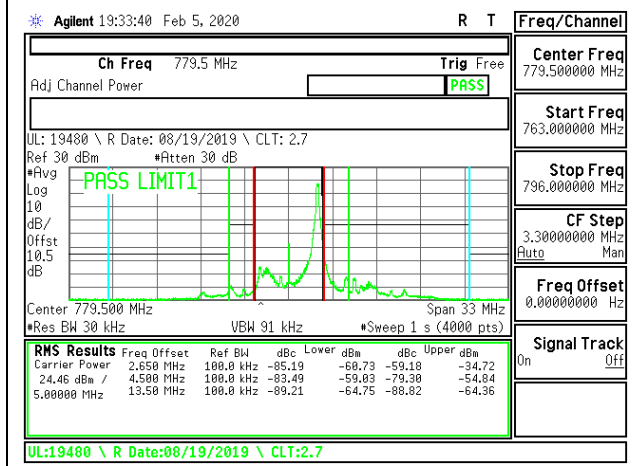
(b) the e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.



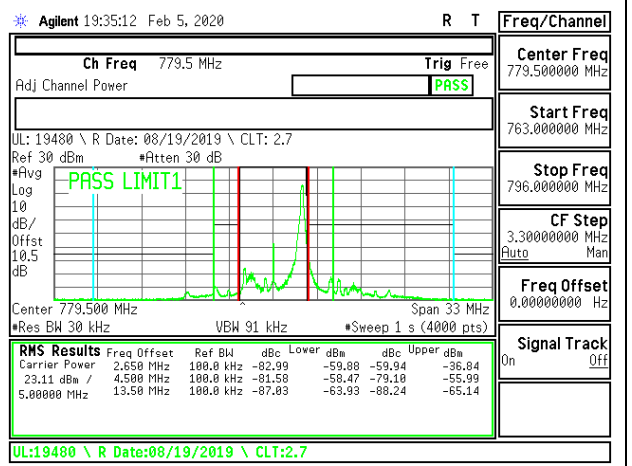
LTE B13 5MHz QPSK Low Channel RB1-0



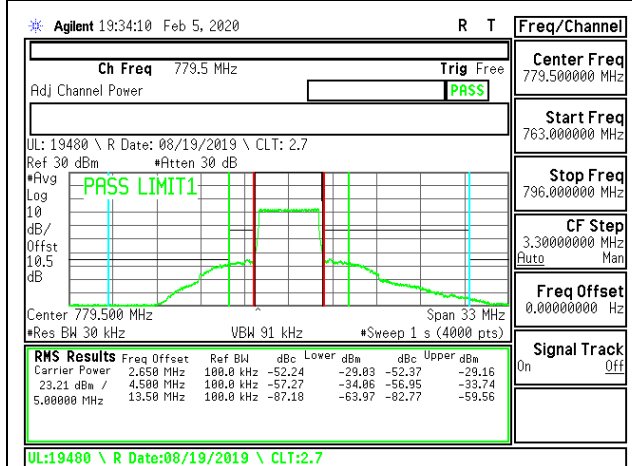
LTE B13 5MHz 16QAM Low Channel RB1-0



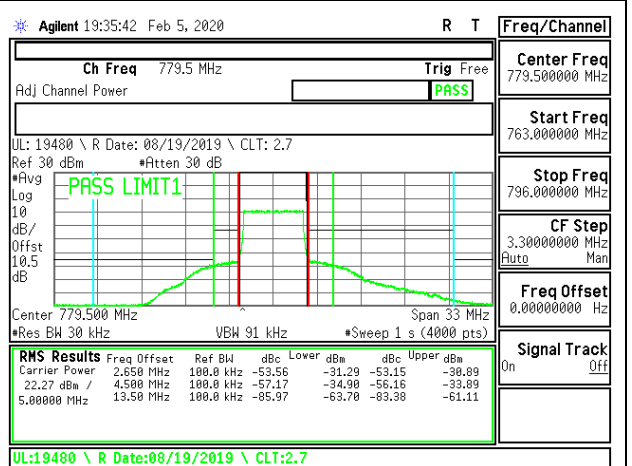
LTE B13 5MHz QPSK Low Channel RB1-24



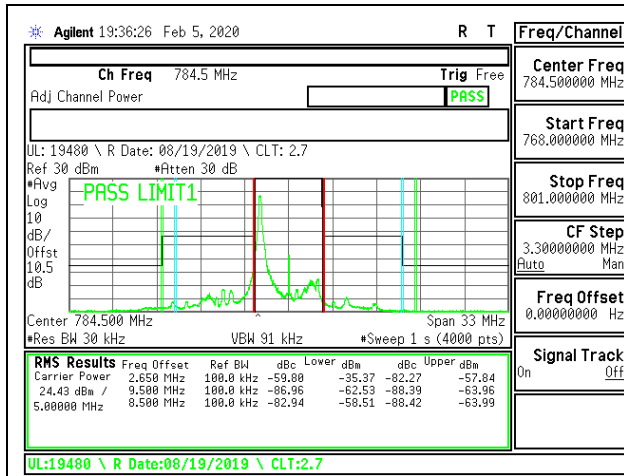
LTE B13 5MHz 16QAM Low Channel RB1-24



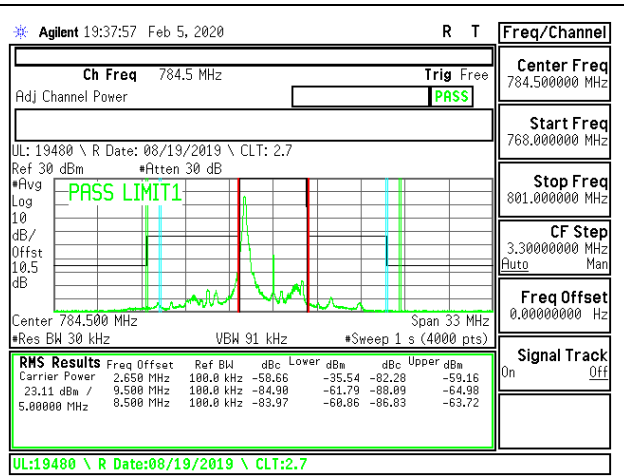
LTE B13 5MHz QPSK Low Channel RB25-0



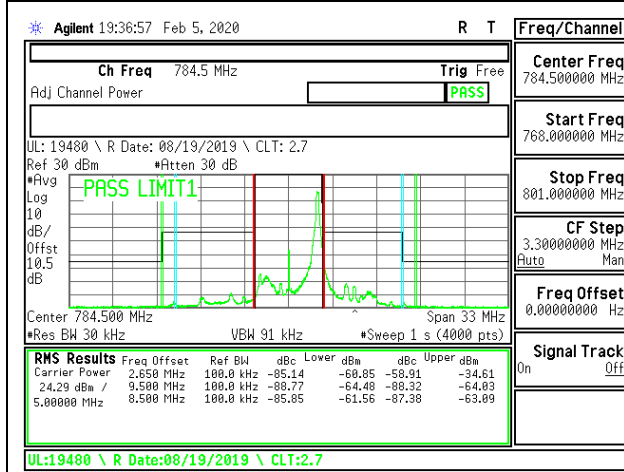
LTE B13 5MHz 16QAM Low Channel RB25-0



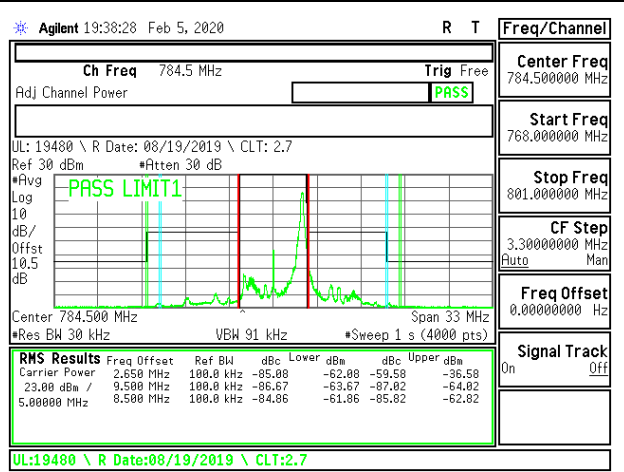
LTE B13 5MHz QPSK High Channel RB1-0



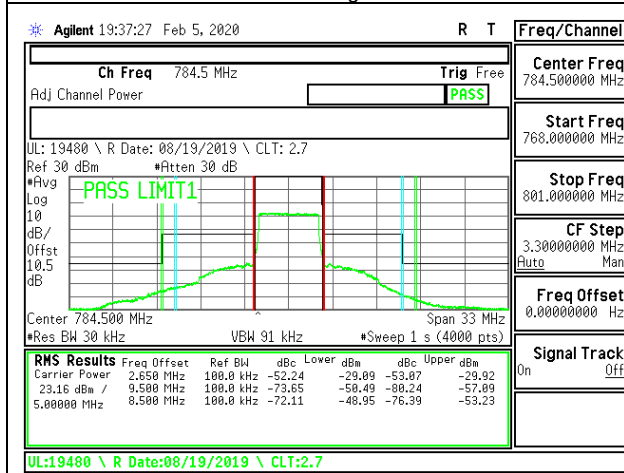
LTE B13 5MHz 16QAM High Channel RB1-0



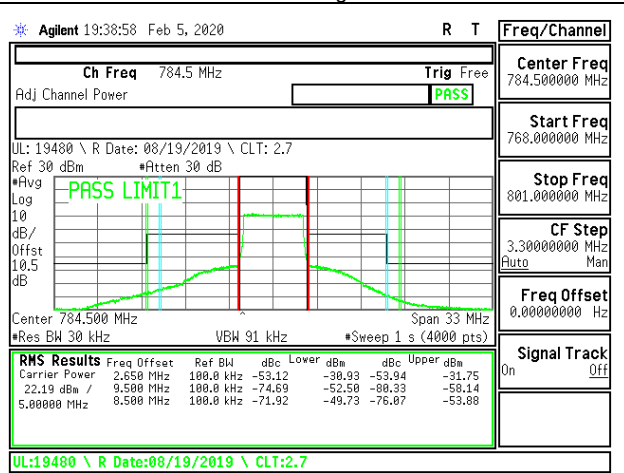
LTE B13 5MHz QPSK High Channel RB1-24



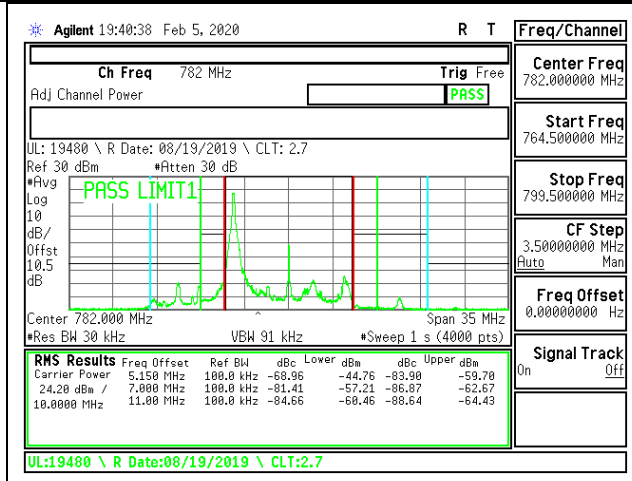
LTE B13 5MHz 16QAM High Channel RB1-24



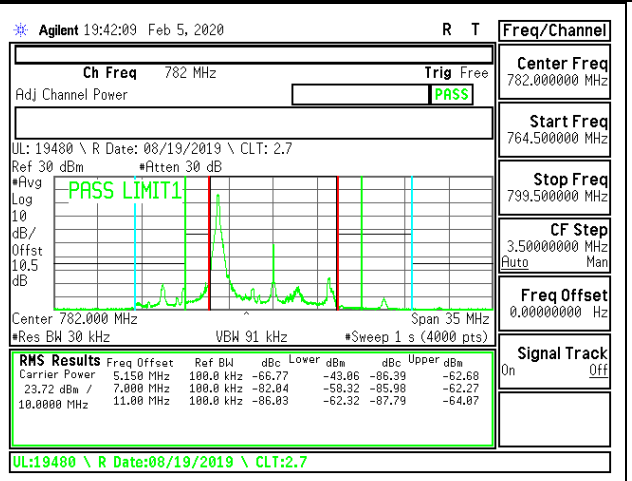
LTE B13 5MHz QPSK High Channel RB25-0



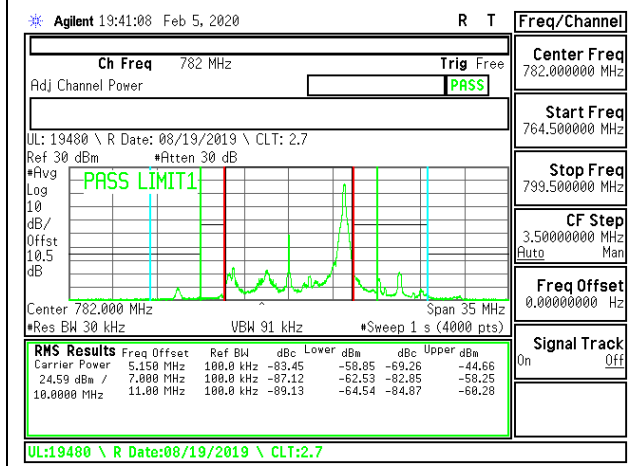
LTE B13 5MHz 16QAM High Channel RB25-0



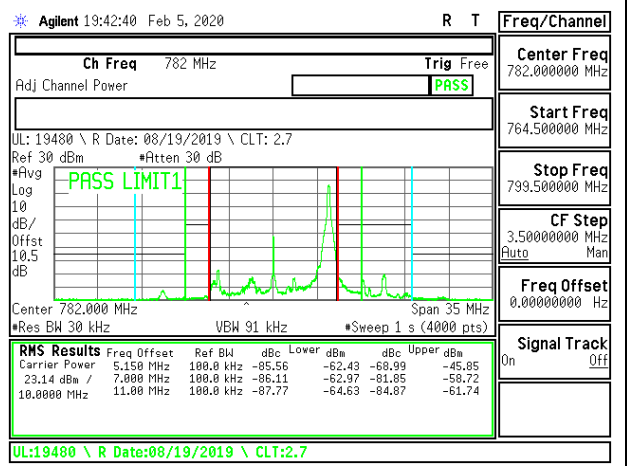
LTE B13 10MHz QPSK Middle Channel RB1-0



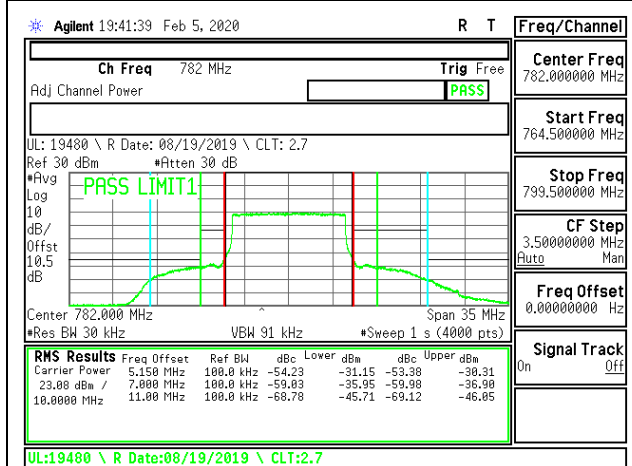
LTE B13 10MHz 16QAM Middle Channel RB1-0



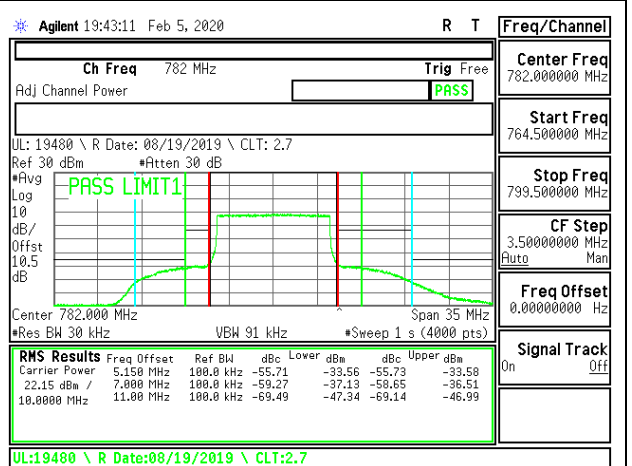
LTE B13 10MHz QPSK Middle Channel RB1-49



LTE B13 10MHz 16QAM Middle Channel RB1-49



LTE B13 10MHz QPSK Middle Channel RB50-0



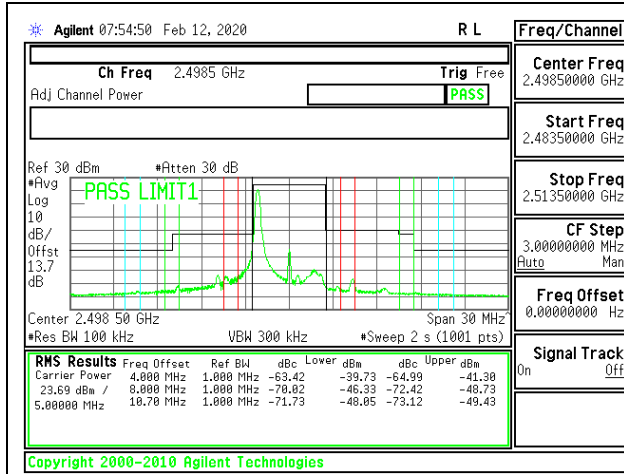
LTE B13 10MHz 16QAM Middle Channel RB50-0

8.2.11. LTE BAND 41 ADJACENT CHANNEL POWER (FCC)

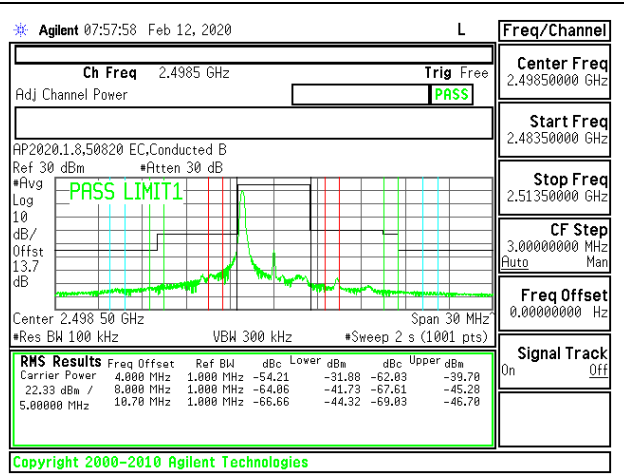
LIMITS

FCC: §27.53

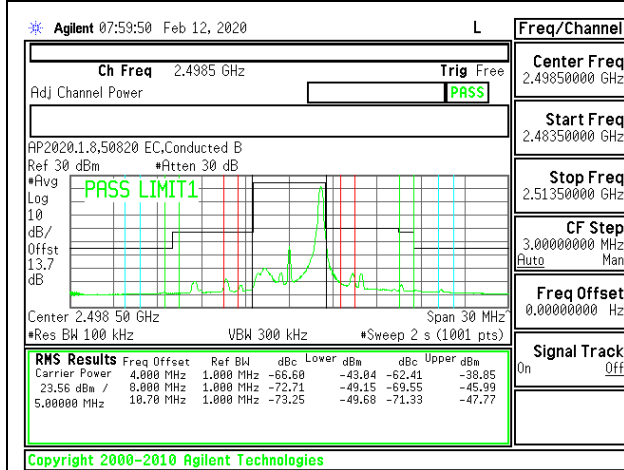
(m)(4) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ 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. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ 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.



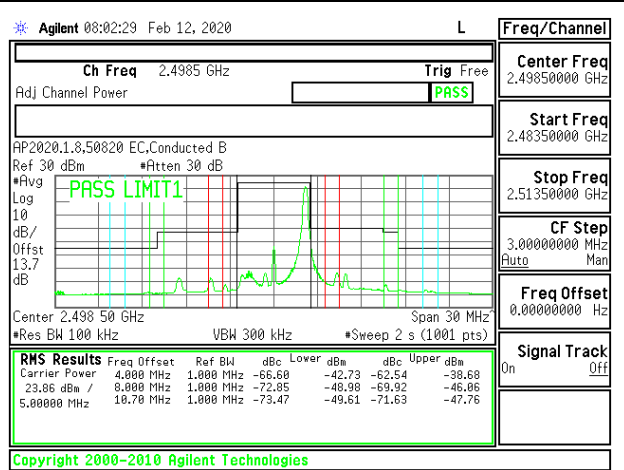
LTE B41 5MHz QPSK Low Channel RB1-0



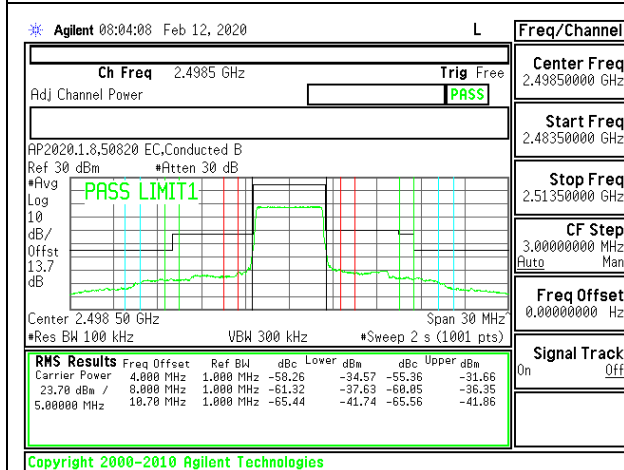
LTE B41 5MHz 16QAM Low Channel RB1-0



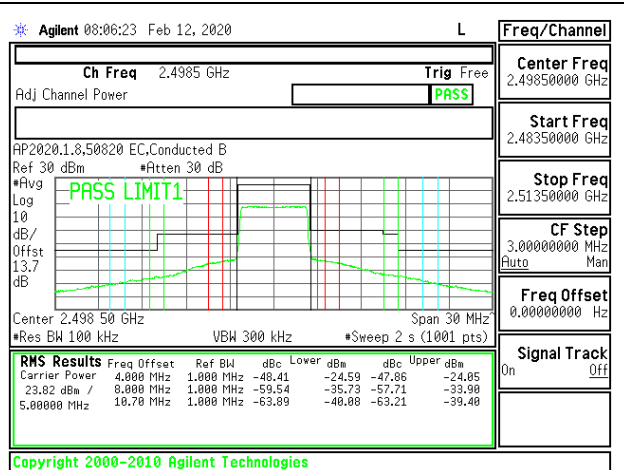
LTE B41 5MHz QPSK Low Channel RB1-24



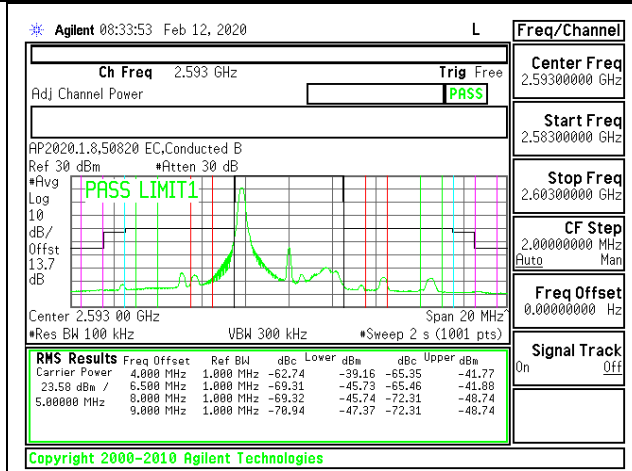
LTE B41 5MHz 16QAM Low Channel RB1-24



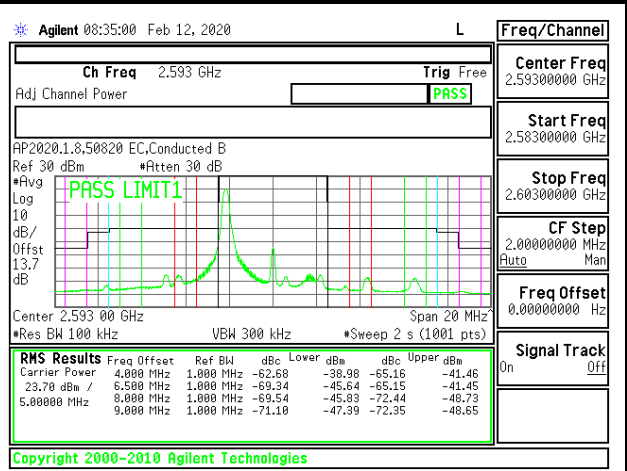
LTE B41 5MHz QPSK Low Channel RB25-0



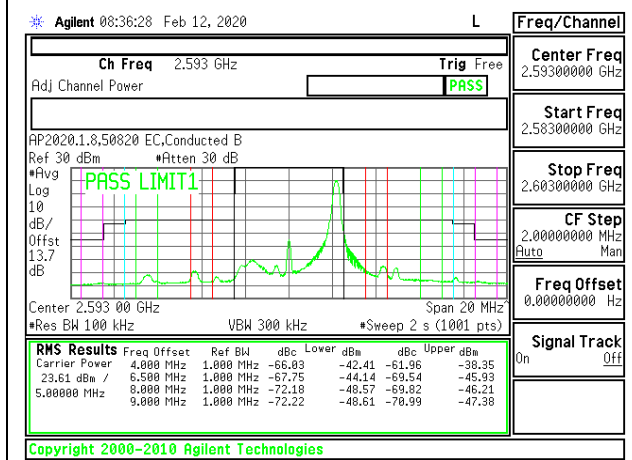
LTE B41 5MHz 16QAM Low Channel RB25-0



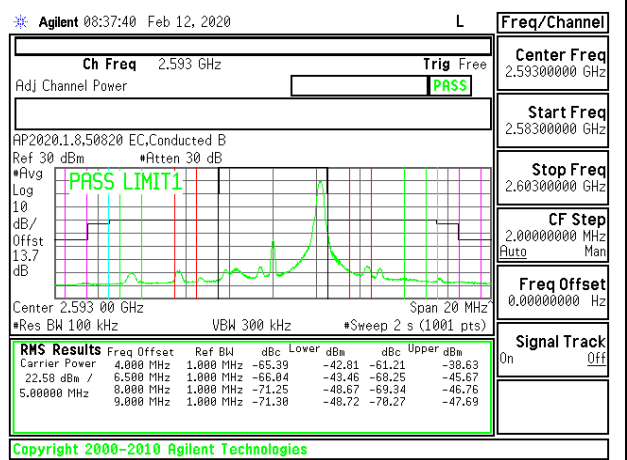
LTE B41 5MHz QPSK Middle Channel RB1-0



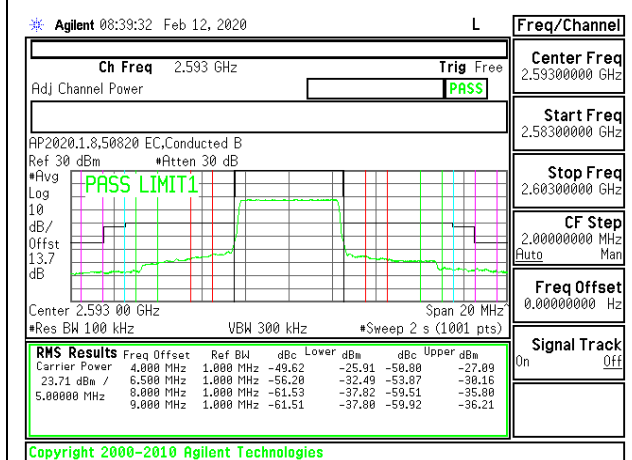
LTE B41 5MHz 16QAM Middle Channel RB1-0



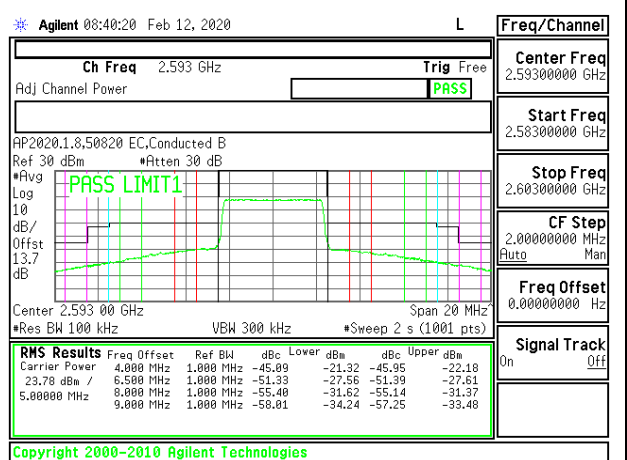
LTE B41 5MHz QPSK Middle Channel RB1-24



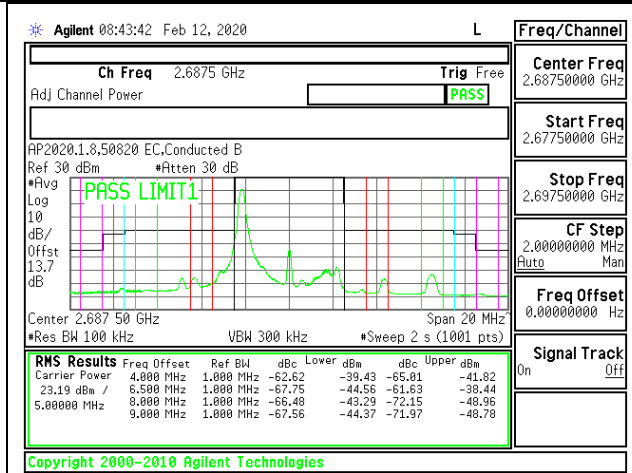
LTE B41 5MHz 16QAM Middle Channel RB1-24



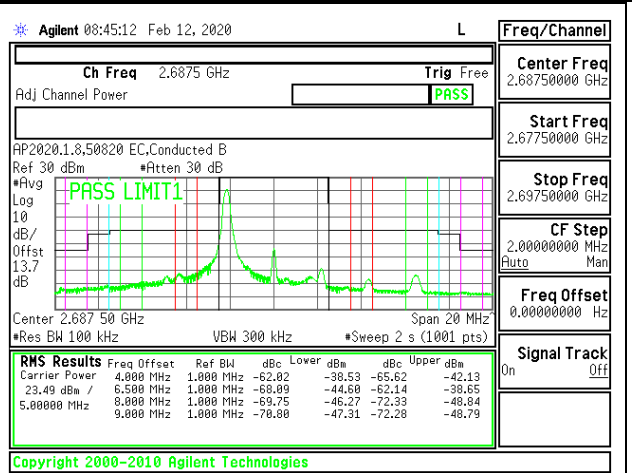
LTE B41 5MHz QPSK Middle Channel RB25-0



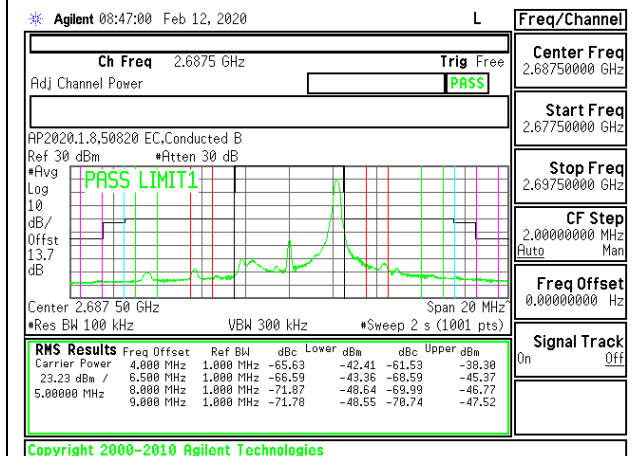
LTE B41 5MHz 16QAM Middle Channel RB25-0



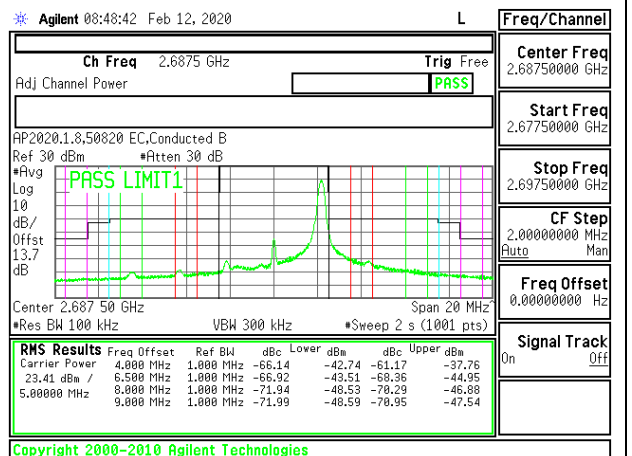
LTE B41 5MHz QPSK High Channel RB1-0



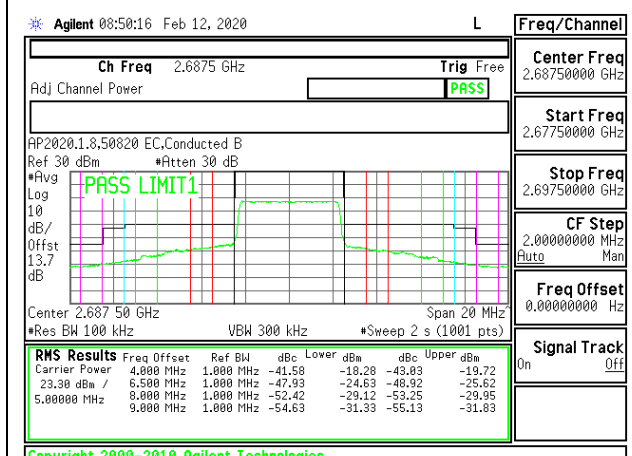
LTE B41 5MHz 16QAM High Channel RB1-0



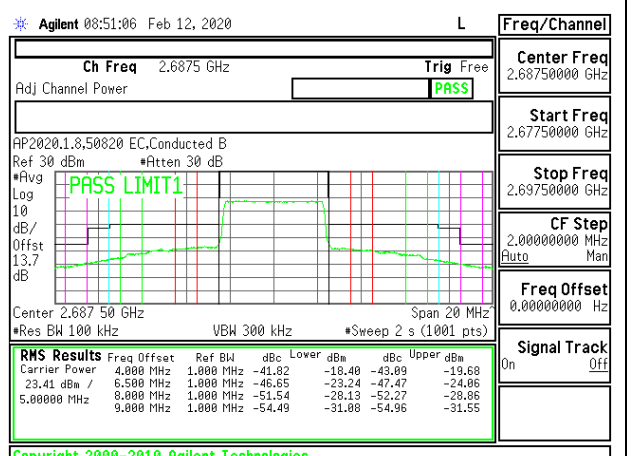
LTE B41 5MHz QPSK High Channel RB1-24



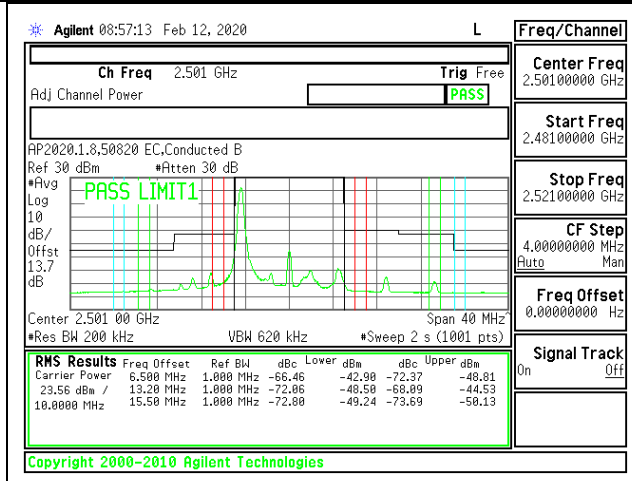
LTE B41 5MHz 16QAM High Channel RB1-24



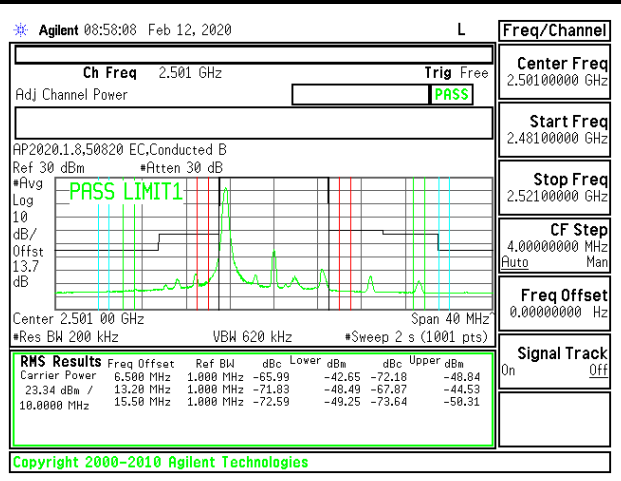
LTE B41 5MHz QPSK High Channel RB25-0



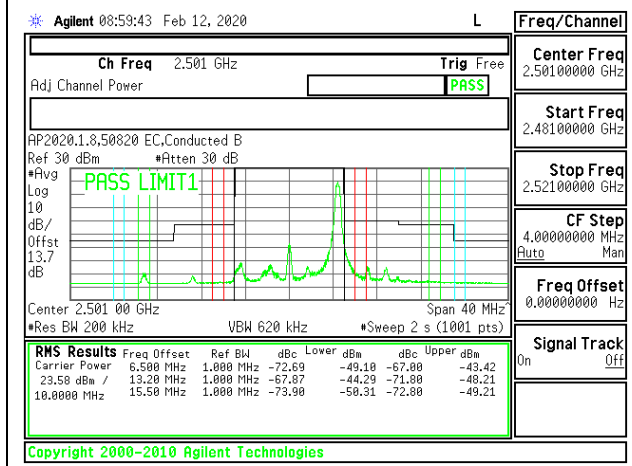
LTE B41 5MHz 16QAM High Channel RB25-0



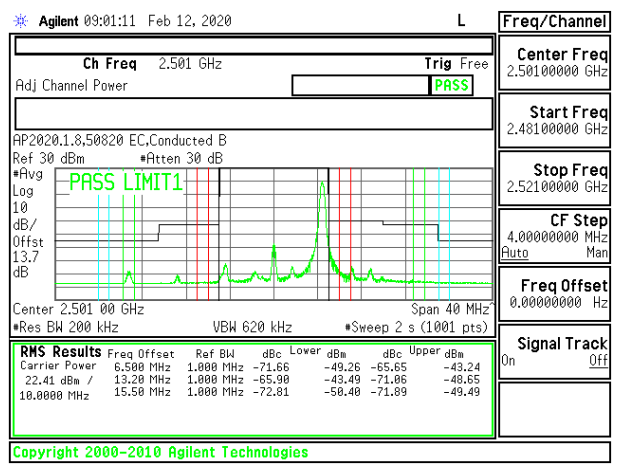
LTE B41 10MHz QPSK Low Channel RB1-0



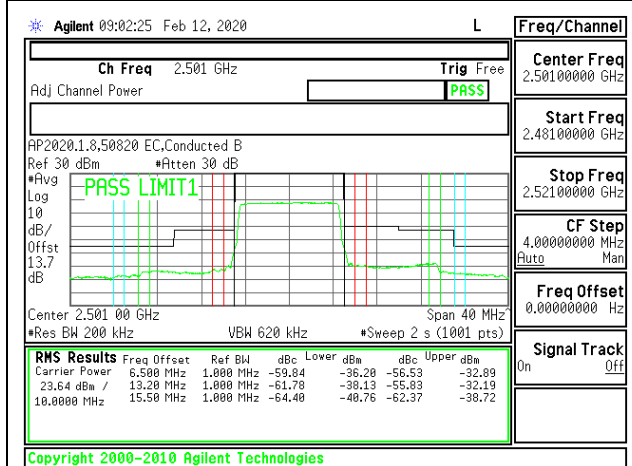
LTE B41 10MHz 16QAM Low Channel RB1-0



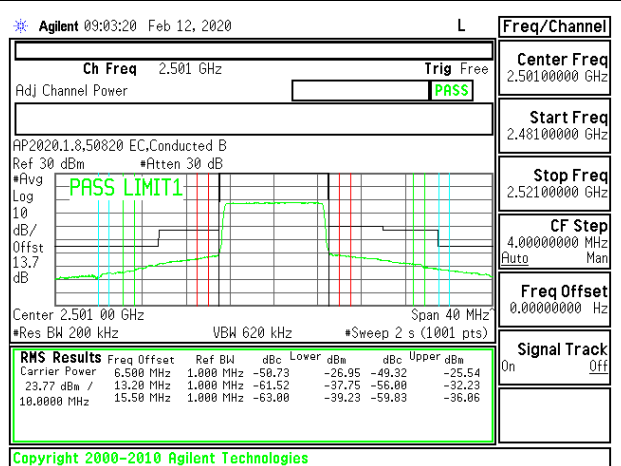
LTE B41 10MHz QPSK Low Channel RB1-49



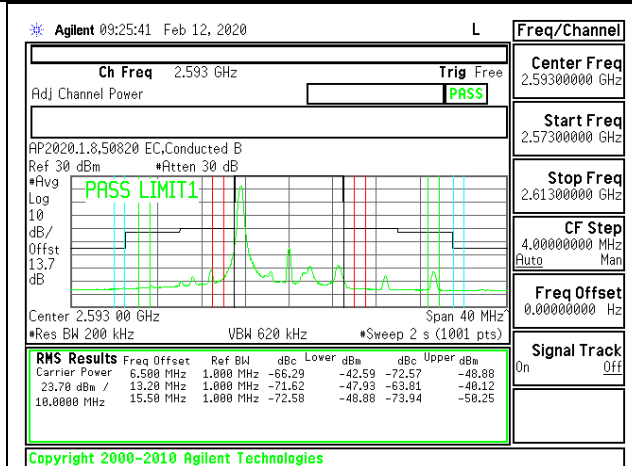
LTE B41 10MHz 16QAM Low Channel RB1-49



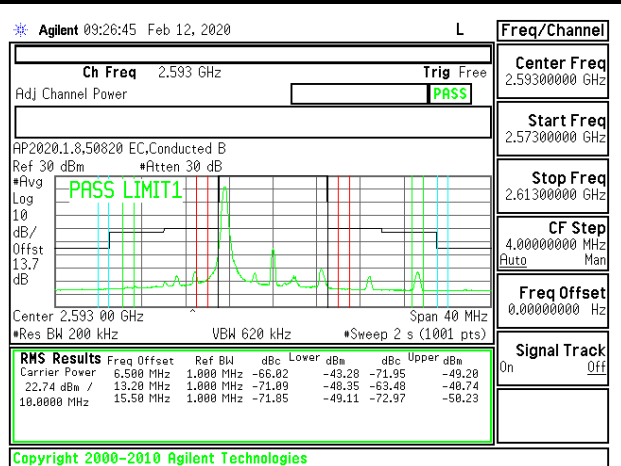
LTE B41 10MHz QPSK Low Channel RB50-0



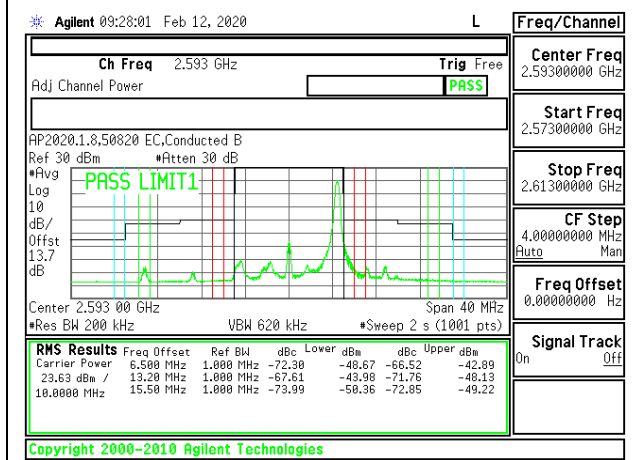
LTE B41 10MHz 16QAM Low Channel RB50-0



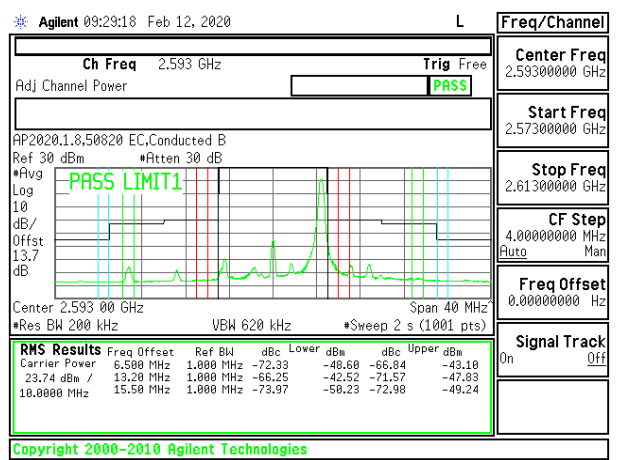
LTE B41 10MHz QPSK Middle Channel RB1-0



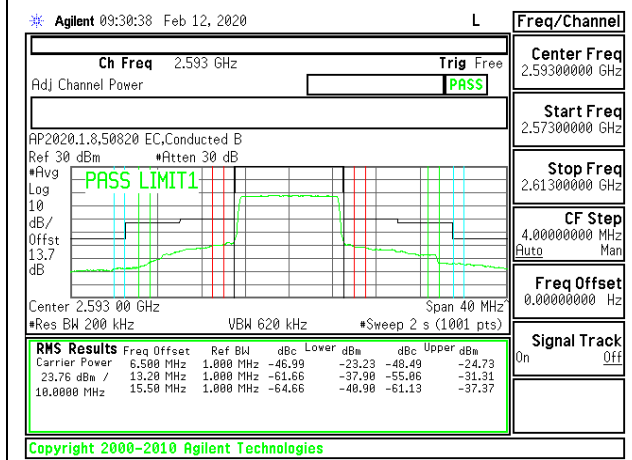
LTE B41 10MHz 16QAM Middle Channel RB1-0



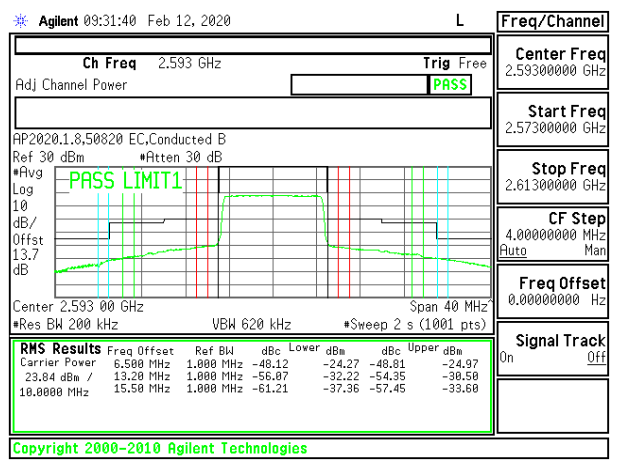
LTE B41 10MHz QPSK Middle Channel RB1-49



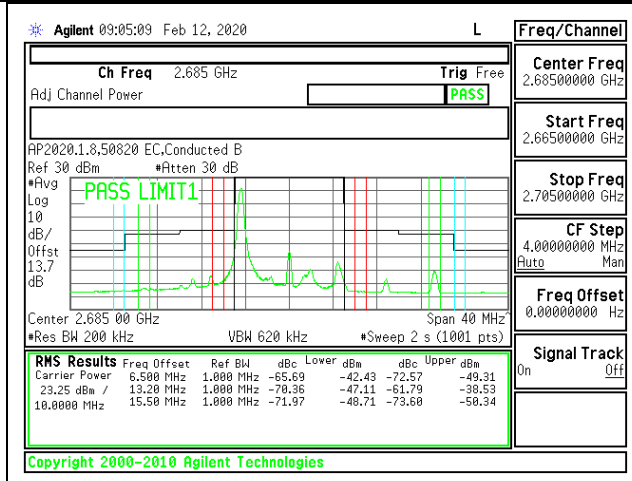
LTE B41 10MHz 16QAM Middle Channel RB1-49



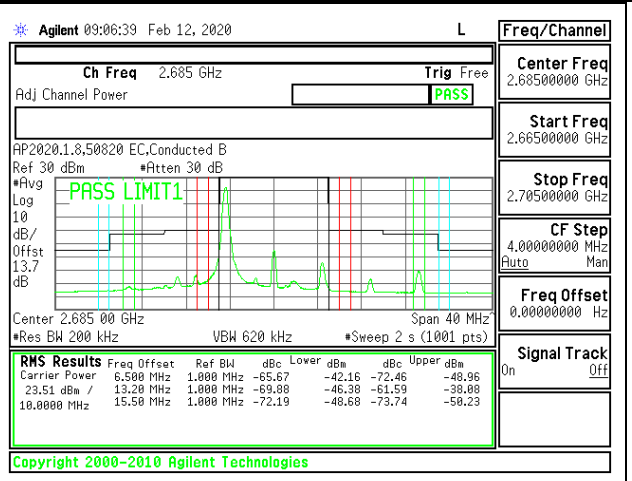
LTE B41 10MHz QPSK Middle Channel RB50-0



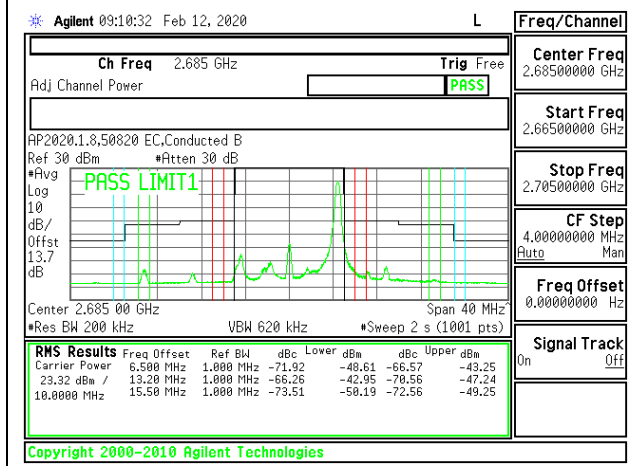
LTE B41 10MHz 16QAM Middle Channel RB50-0



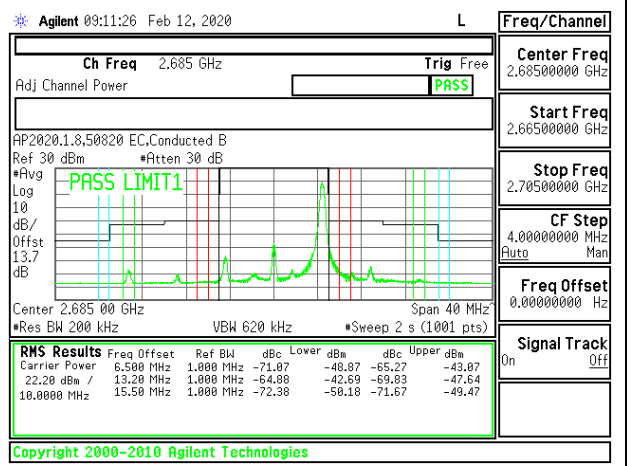
LTE B41 10MHz QPSK High Channel RB1-0



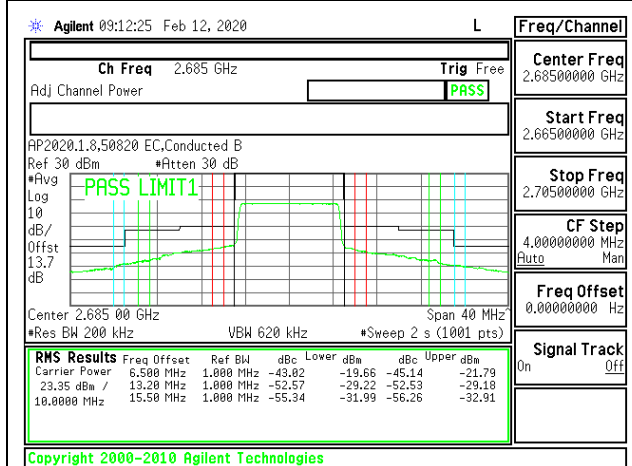
LTE B41 10MHz 16QAM High Channel RB1-0



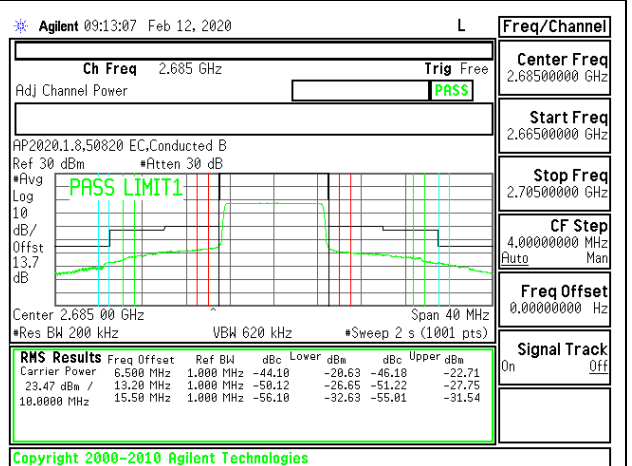
LTE B41 10MHz QPSK High Channel RB1-49



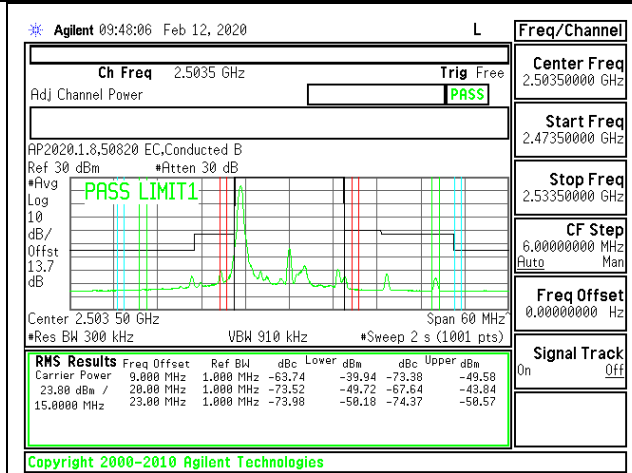
LTE B41 10MHz 16QAM High Channel RB1-49



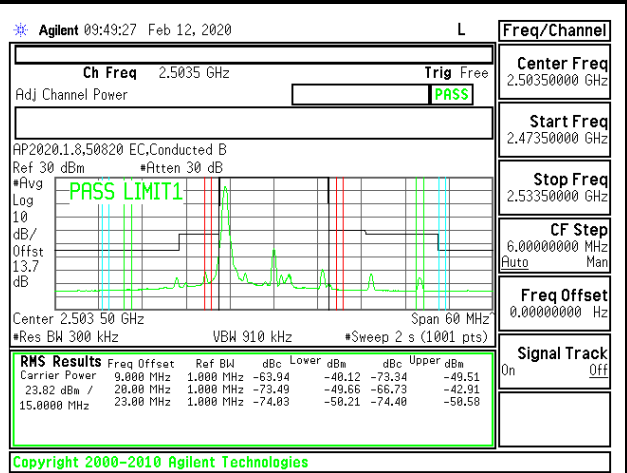
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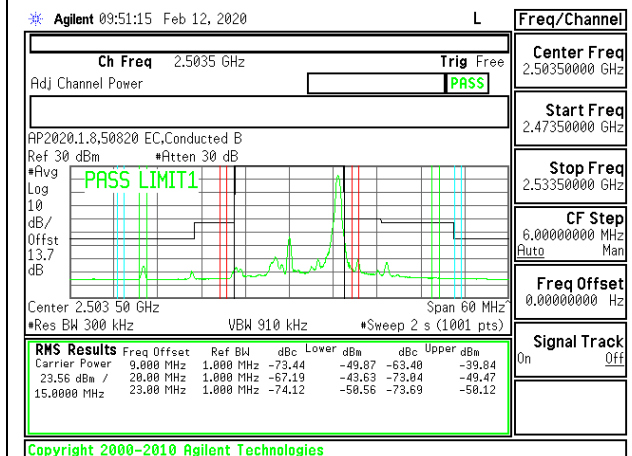
LTE B41 10MHz 16QAM High Channel RB50-0



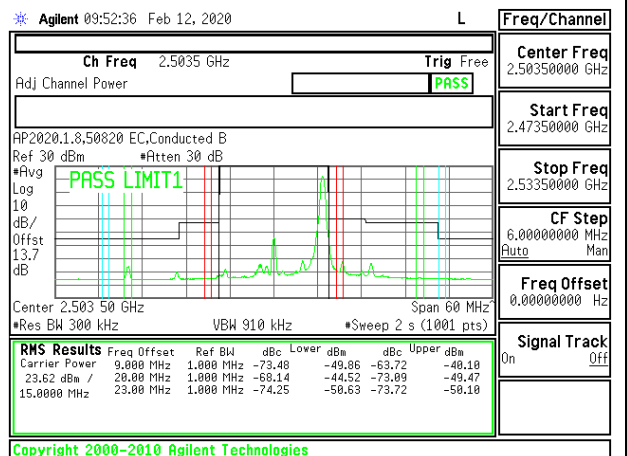
LTE B41 15MHz QPSK Low Channel RB1-0



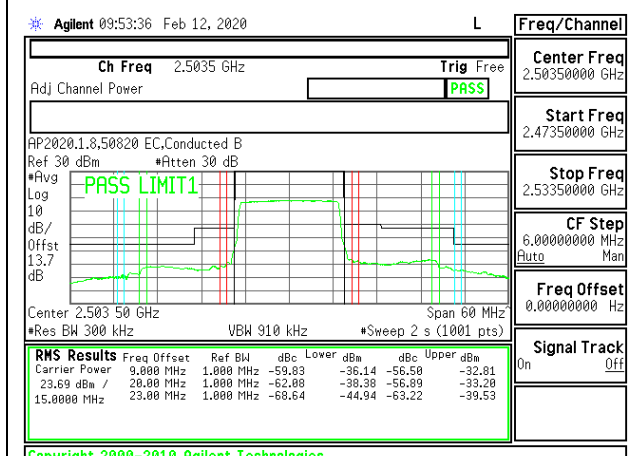
LTE B41 15MHz 16QAM Low Channel RB1-0



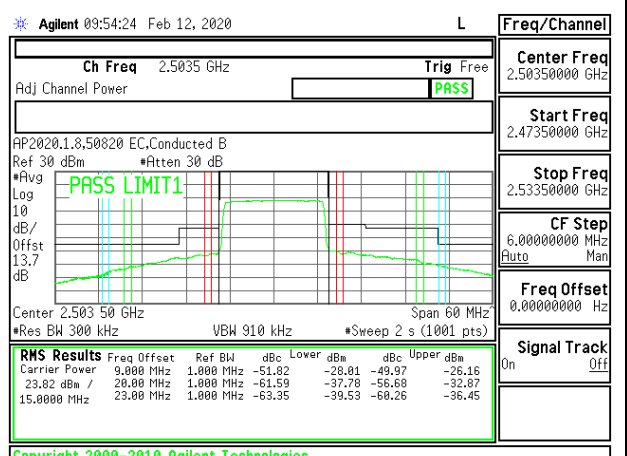
LTE B41 15MHz QPSK Low Channel RB1-74



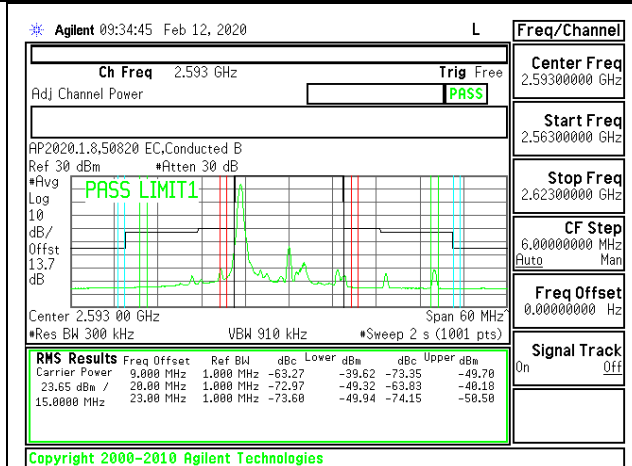
LTE B41 15MHz 16QAM Low Channel RB1-74



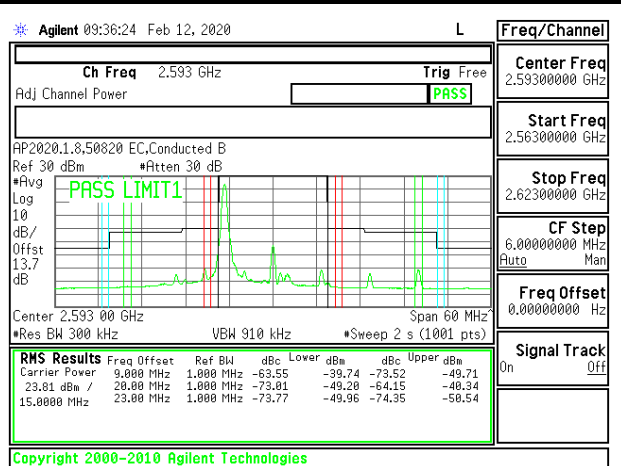
LTE B41 15MHz QPSK Low Channel RB75-0



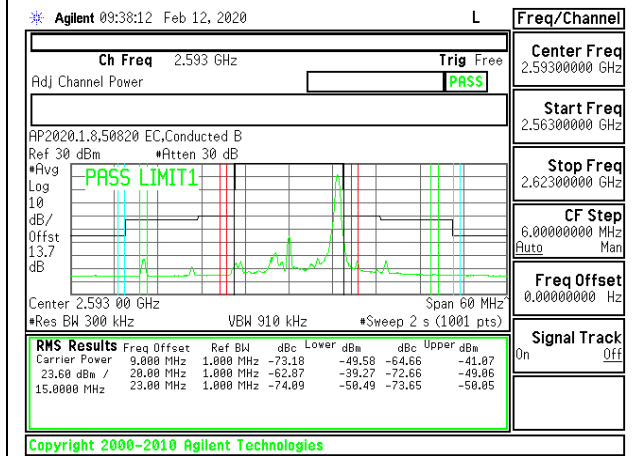
LTE B41 15MHz 16QAM Low Channel RB75-0



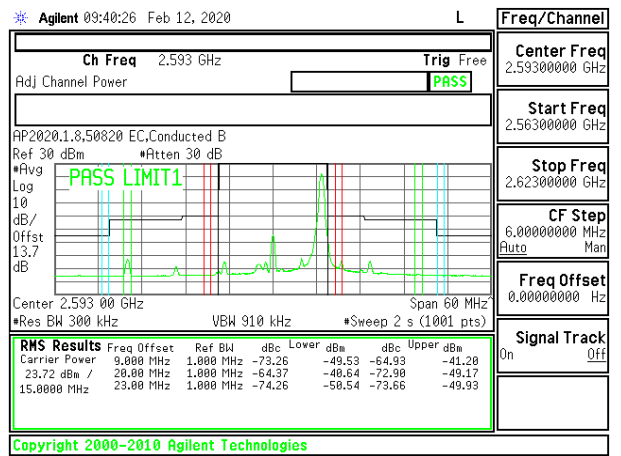
LTE B41 15MHz QPSK Middle Channel RB1-0



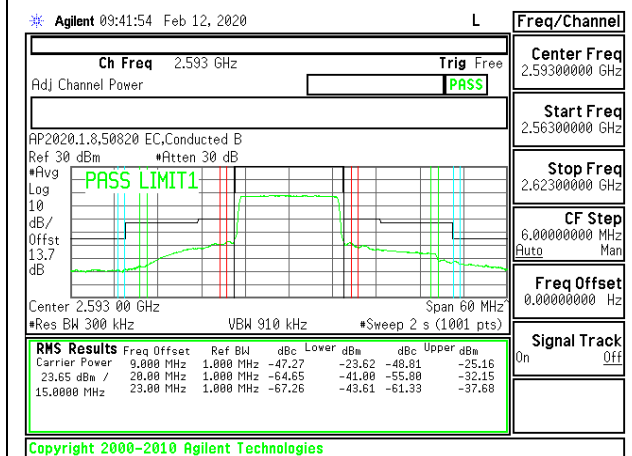
LTE B41 15MHz 16QAM Middle Channel RB1-0



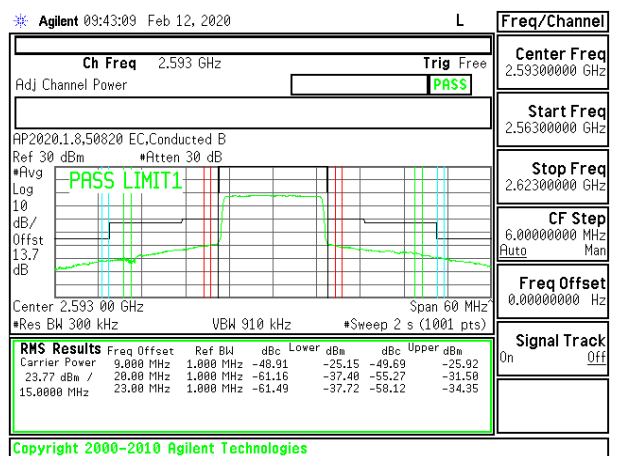
LTE B41 15MHz QPSK Middle Channel RB1-74



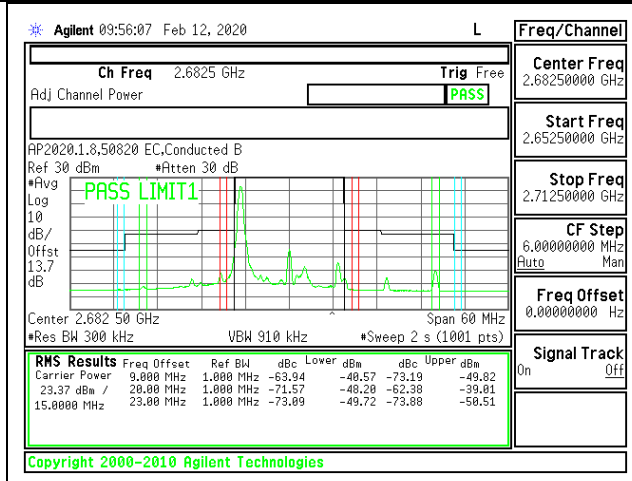
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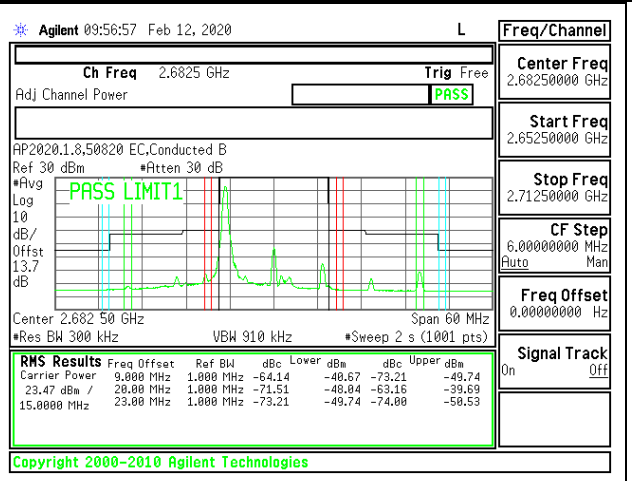
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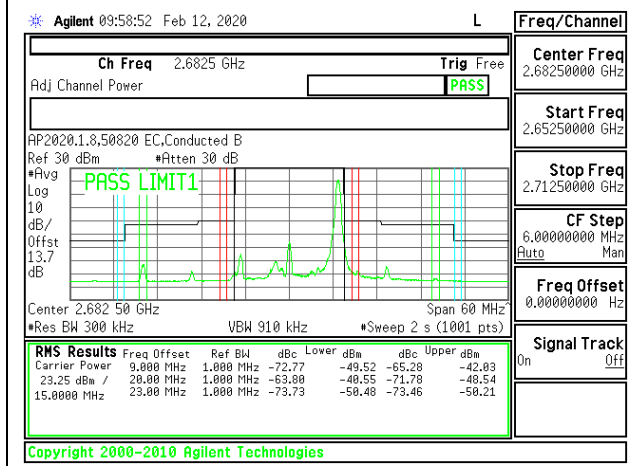
LTE B41 15MHz 16QAM Middle Channel RB75-0



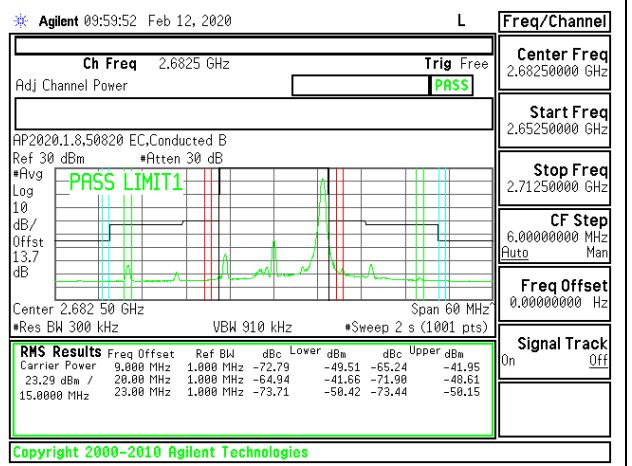
LTE B41 15MHz QPSK High Channel RB1-0



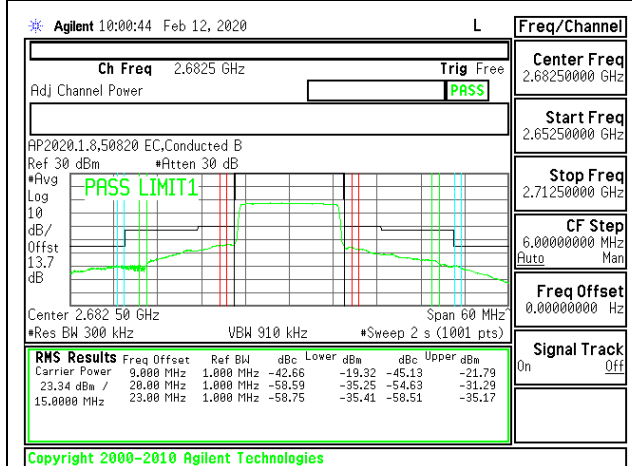
LTE B41 15MHz 16QAM High Channel RB1-0



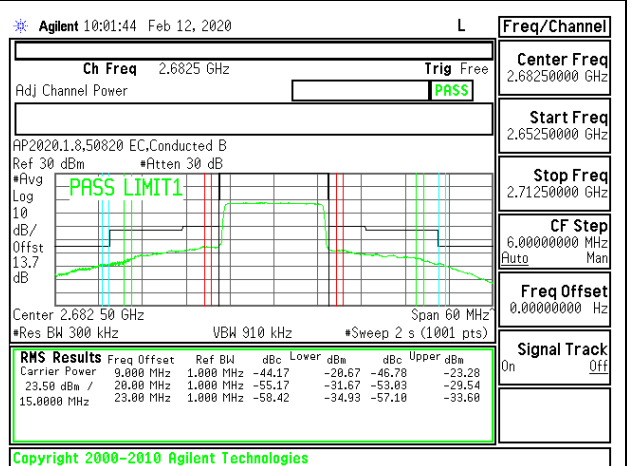
LTE B41 15MHz QPSK High Channel RB1-74



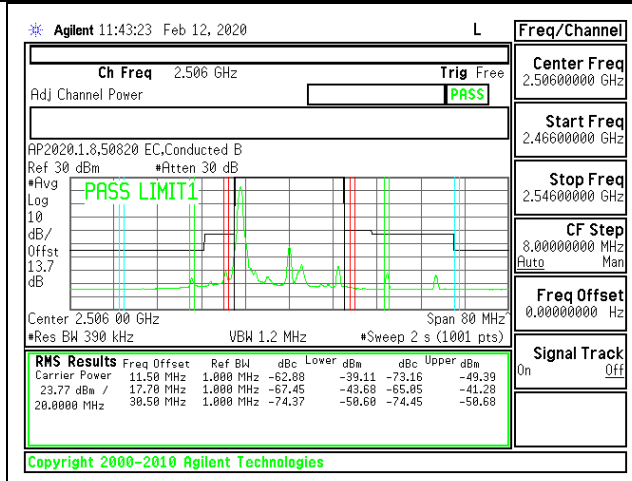
LTE B41 15MHz 16QAM High Channel RB1-74



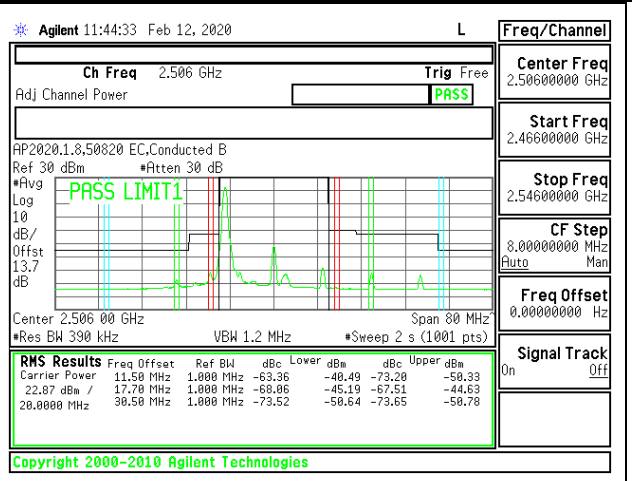
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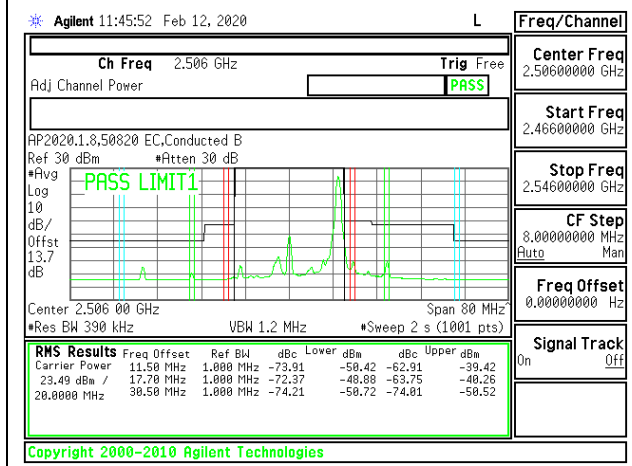
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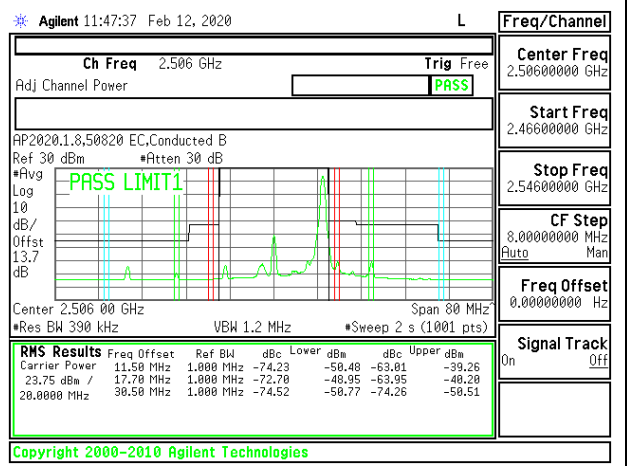
LTE B41 20MHz QPSK Low Channel RB1-0



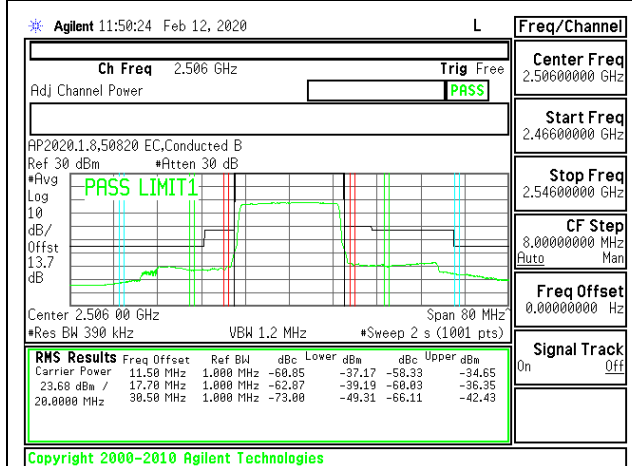
LTE B41 20MHz 16QAM Low Channel RB1-0



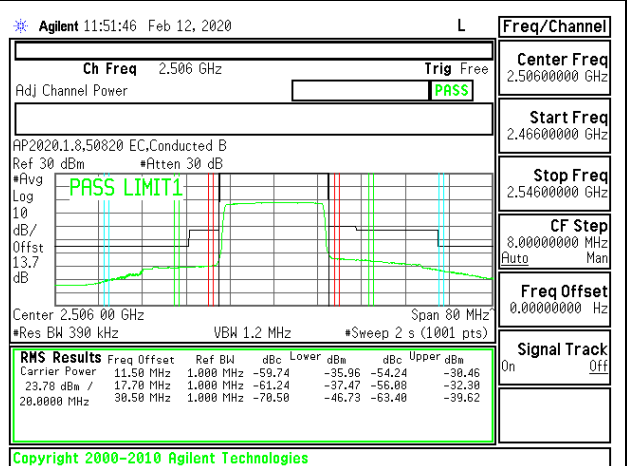
LTE B41 20MHz QPSK Low Channel RB1-99



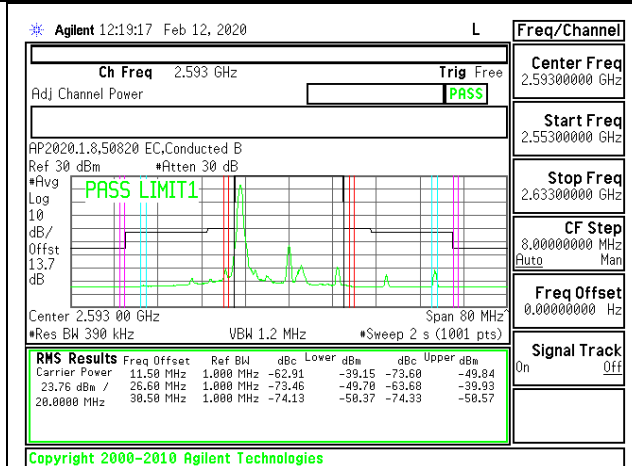
LTE B41 20MHz 16QAM Low Channel RB1-99



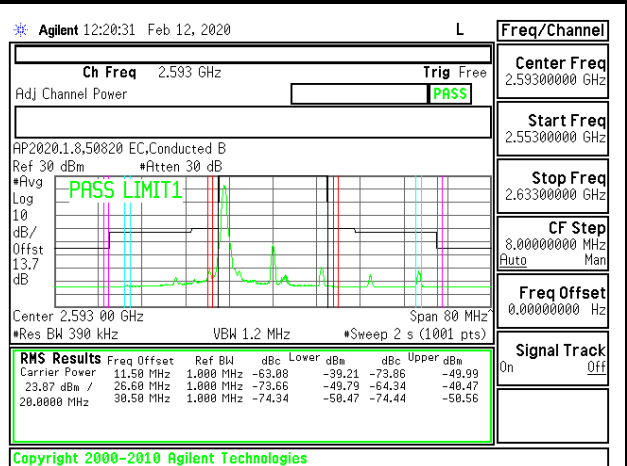
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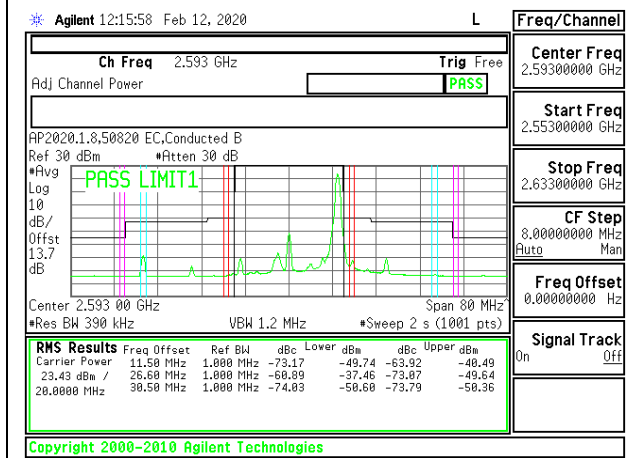
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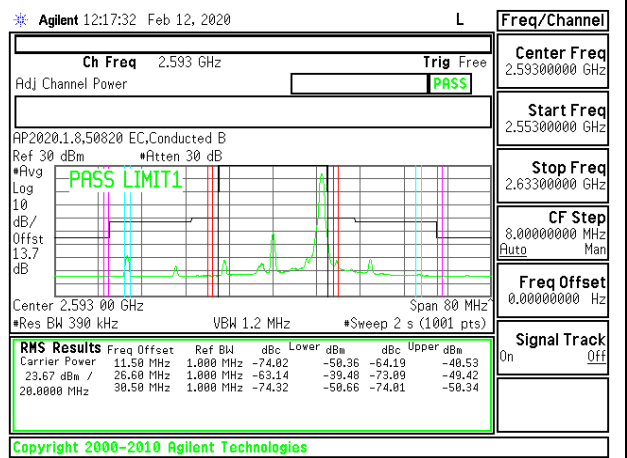
LTE B41 20MHz QPSK Middle Channel RB1-0



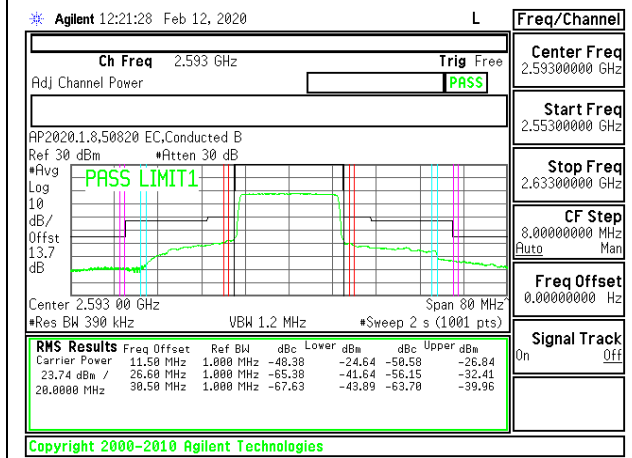
LTE B41 20MHz 16QAM Middle Channel RB1-0



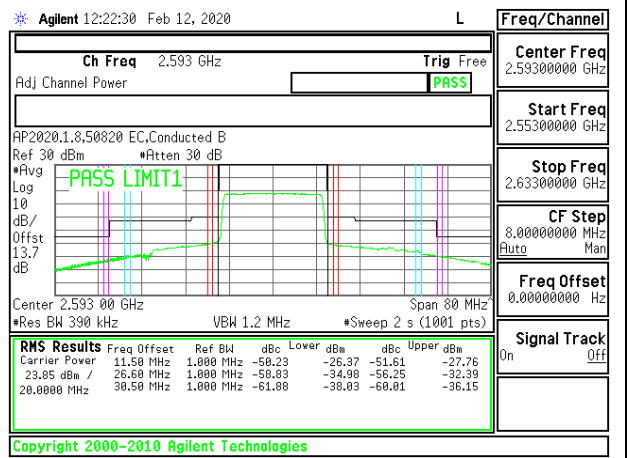
LTE B41 20MHz QPSK Middle Channel RB1-99



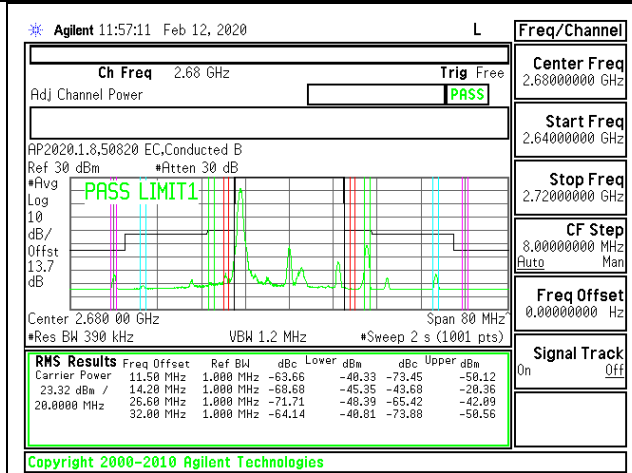
LTE B41 20MHz 16QAM Middle Channel RB1-99



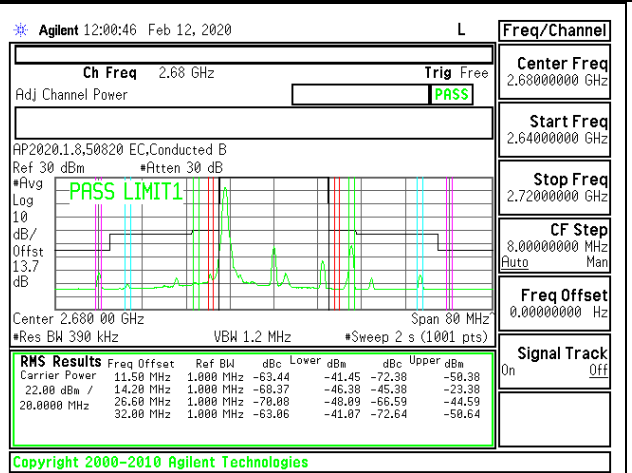
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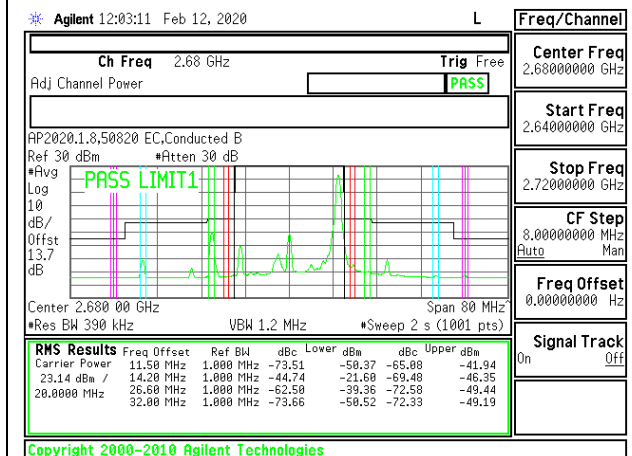
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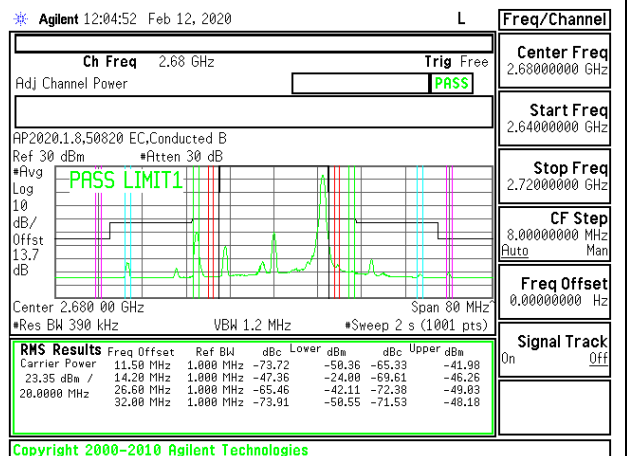
LTE B41 20MHz QPSK High Channel RB1-0



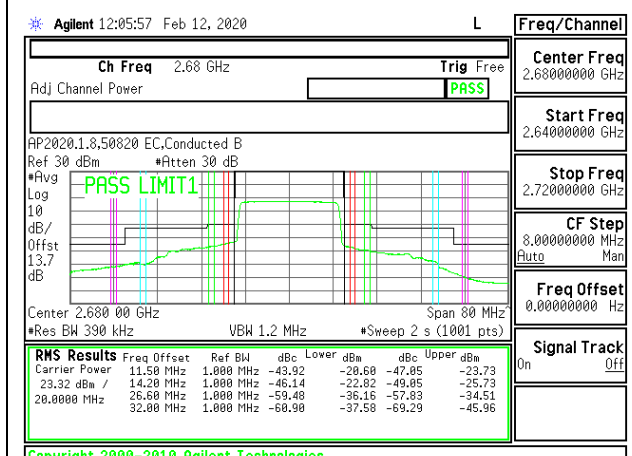
LTE B41 20MHz 16QAM High Channel RB1-0



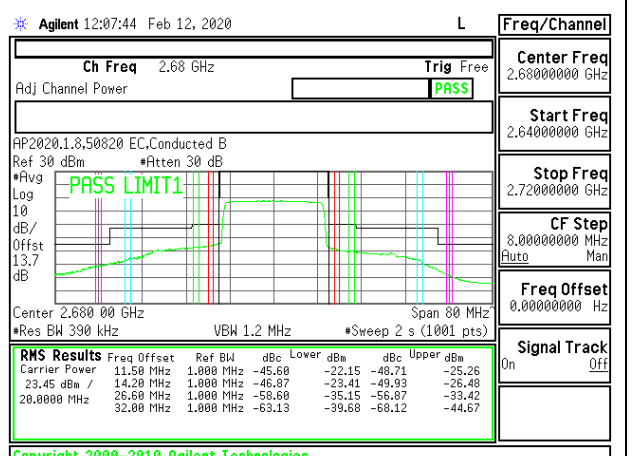
LTE B41 20MHz QPSK High Channel RB1-99



LTE B41 20MHz 16QAM High Channel RB1-99



LTE B41 20MHz QPSK High Channel RB100-0



LTE B41 20MHz 16QAM High Channel RB100-0

8.2.12. LTE BAND 41 ADJACENT CHANNEL POWER (IC)

LIMITS

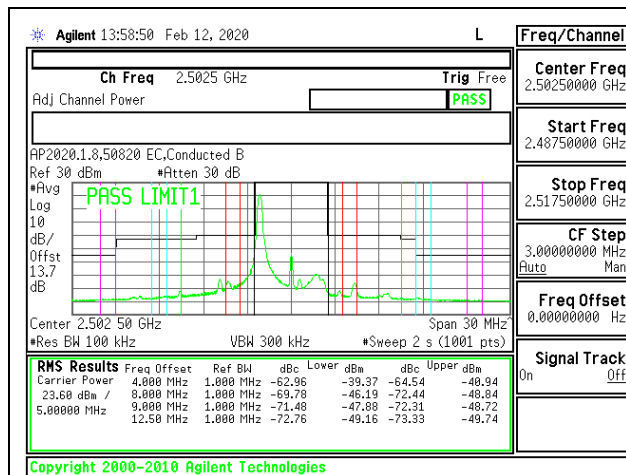
ISED: RSS199§4.5

Equipment shall comply with the following unwanted emission limits:

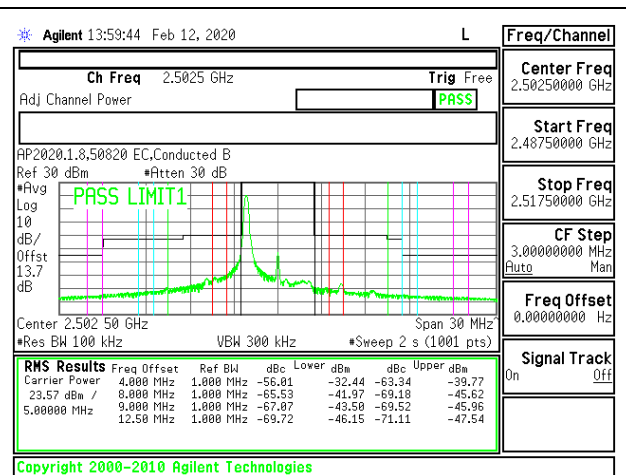
- a. for base station and fixed subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least $43 + 10 \log_{10} p$
- b. for mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power, P (dBW), by at least:
 - i. $40 + 10 \log_{10} p$ from the channel edges to 5 MHz away
 - ii. $43 + 10 \log_{10} p$ between 5 MHz and X MHz from the channel edges, and
 - iii. $55 + 10 \log_{10} p$ at X MHz and beyond from the channel edges

In addition, the attenuation shall not be less than $43 + 10 \log_{10} p$ on all frequencies between 2490.5 MHz and 2496 MHz, and $55 + 10 \log_{10} p$ at or below 2490.5 MHz.

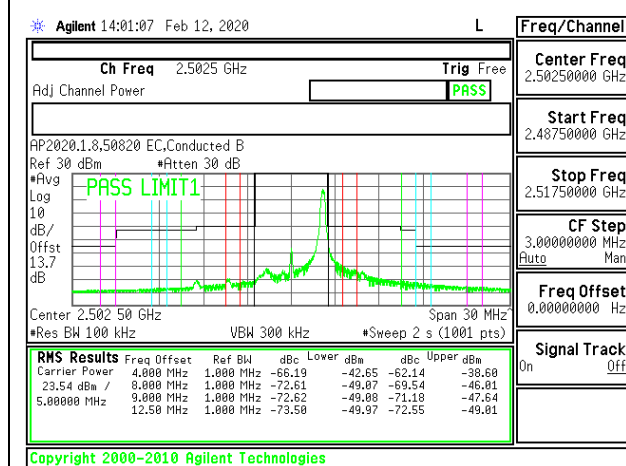
In (a) and (b), p is the transmitter power measured in watts and X is 6 MHz or the equipment occupied bandwidth, whichever is greater.



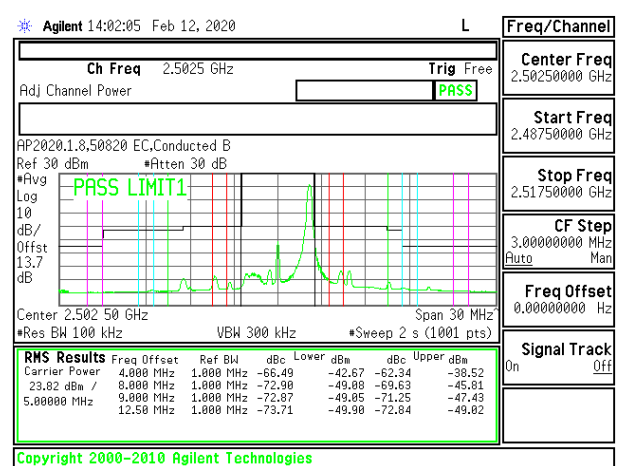
LTE B41 5MHz QPSK Low Channel RB1-0



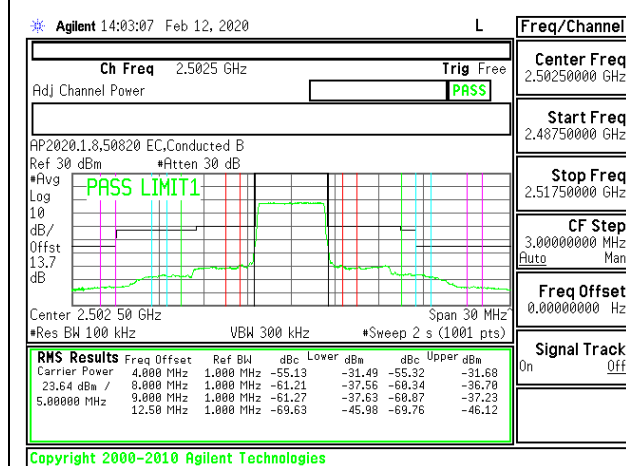
LTE B41 5MHz 16QAM Low Channel RB1-0



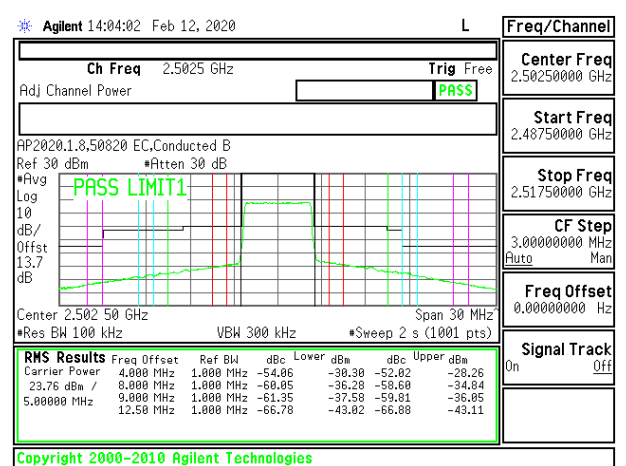
LTE B41 5MHz QPSK Low Channel RB1-24



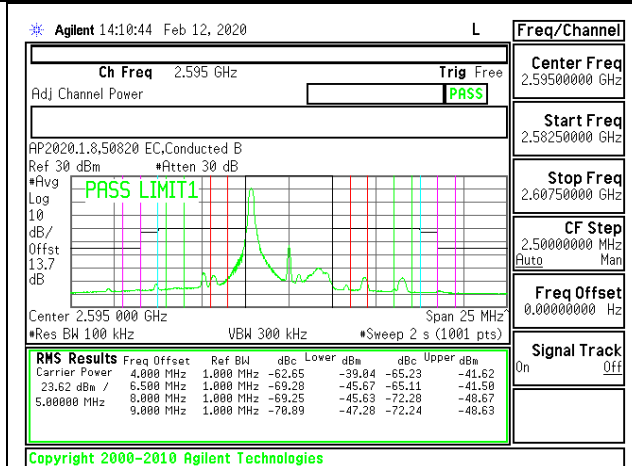
LTE B41 5MHz 16QAM Low Channel RB1-24



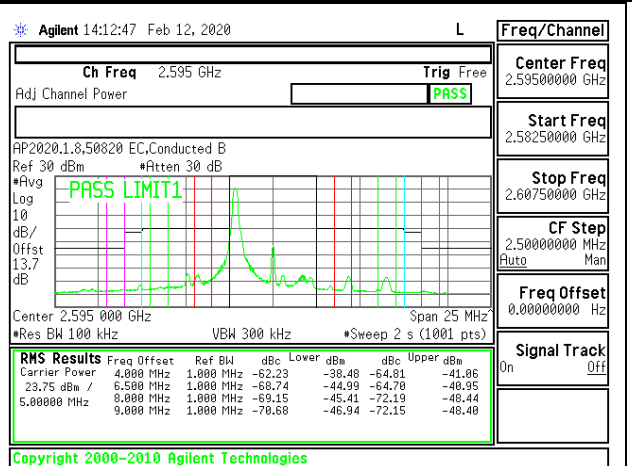
LTE B41 5MHz QPSK Low Channel RB25-0



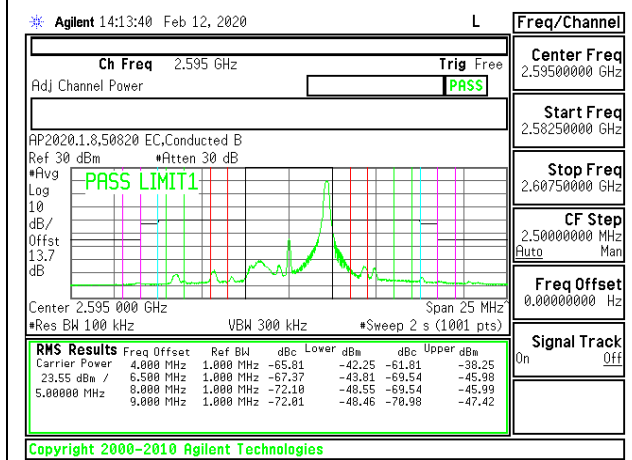
LTE B41 5MHz 16QAM Low Channel RB25-0



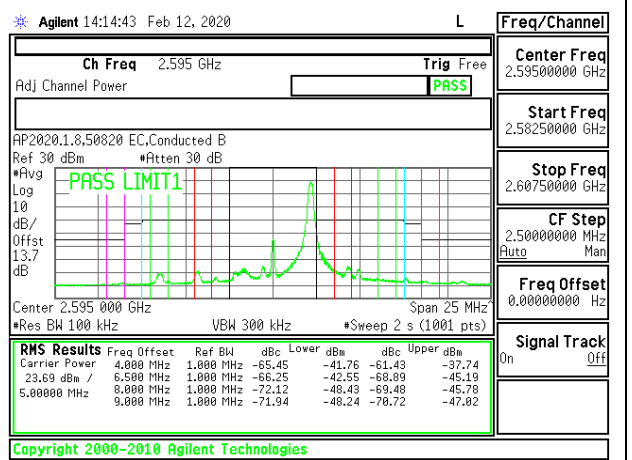
LTE B41 5MHz QPSK Middle Channel RB1-0



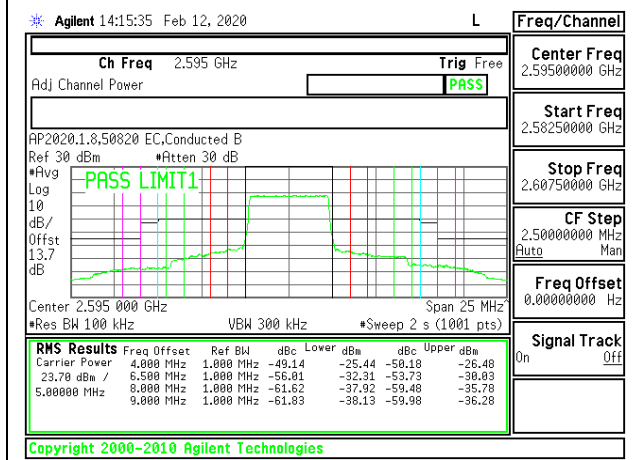
LTE B41 5MHz 16QAM Middle Channel RB1-0



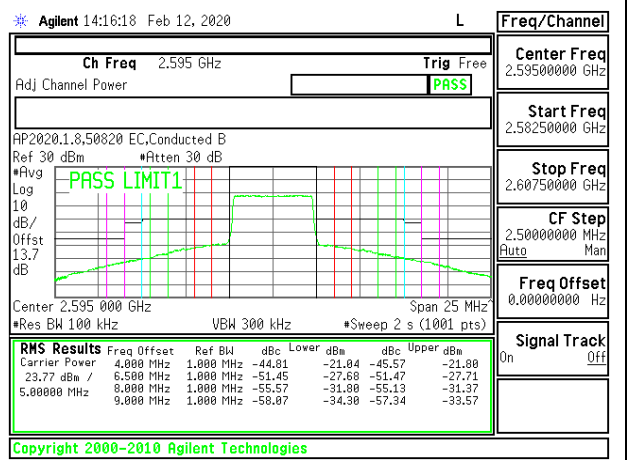
LTE B41 5MHz QPSK Middle Channel RB1-24



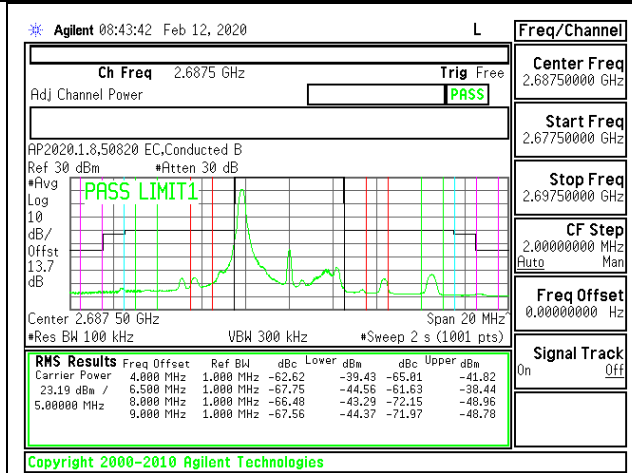
LTE B41 5MHz 16QAM Middle Channel RB1-24



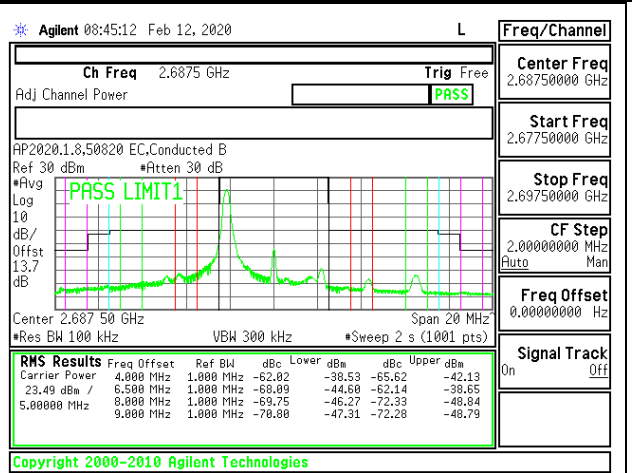
LTE B41 5MHz QPSK Middle Channel RB25-0



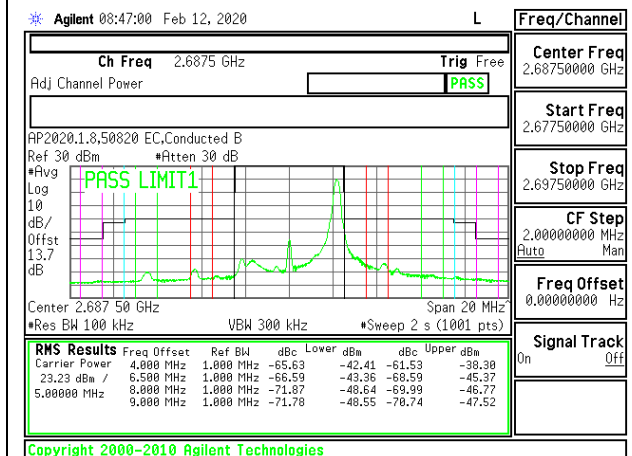
LTE B41 5MHz 16QAM Middle Channel RB25-0



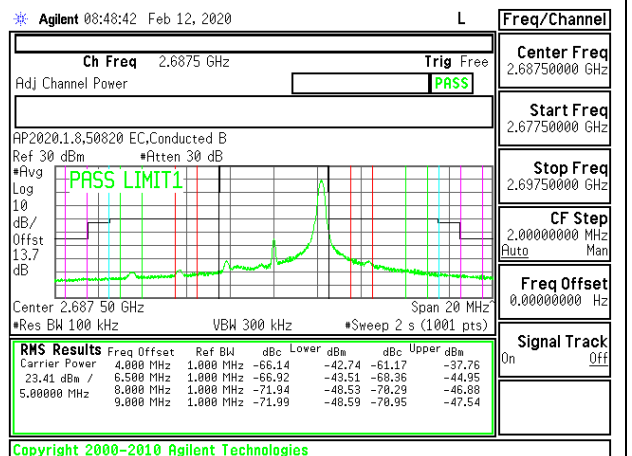
LTE B41 5MHz QPSK High Channel RB1-0



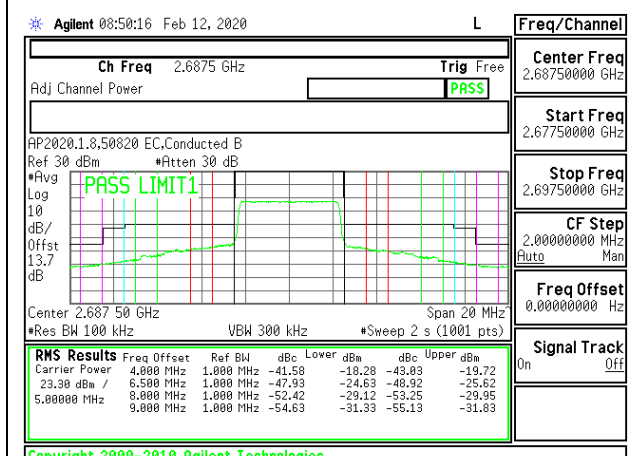
LTE B41 5MHz 16QAM High Channel RB1-0



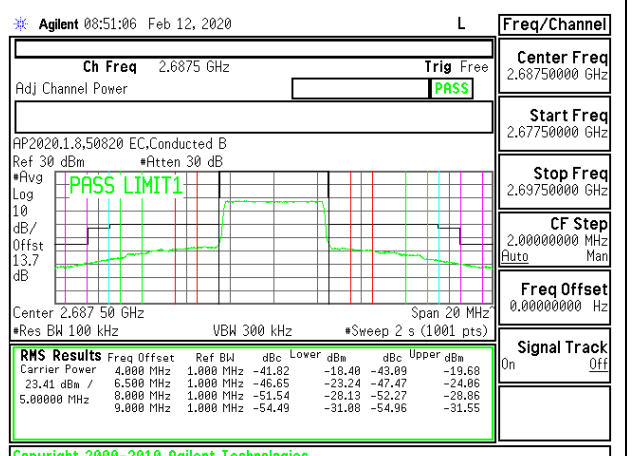
LTE B41 5MHz QPSK High Channel RB1-24



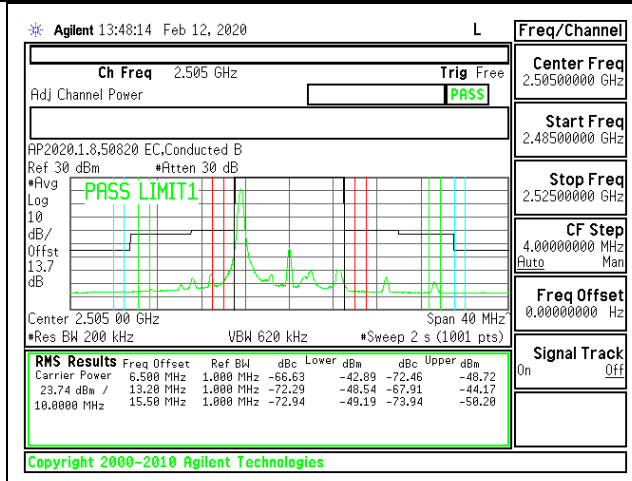
LTE B41 5MHz 16QAM High Channel RB1-24



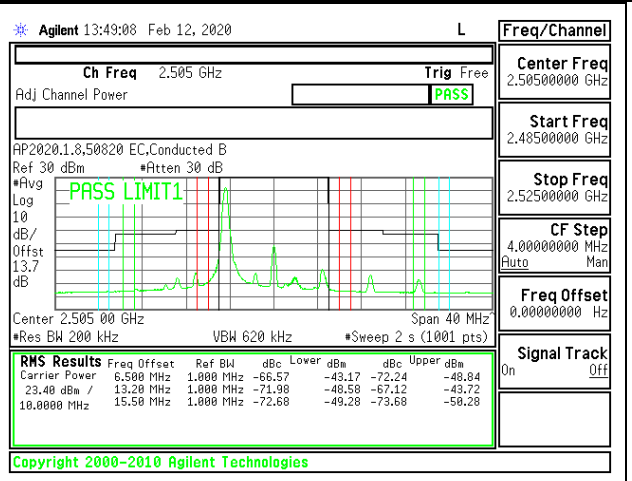
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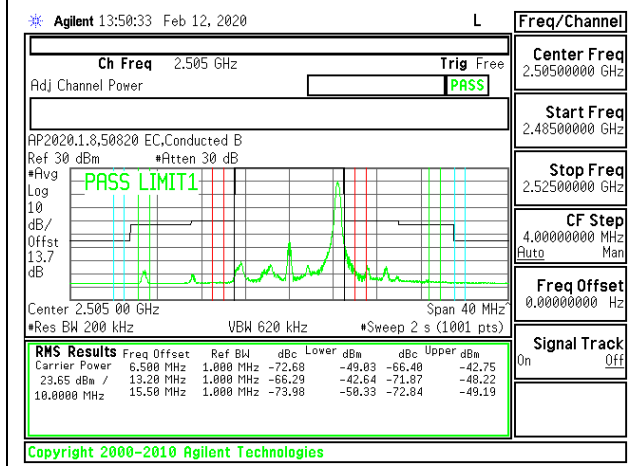
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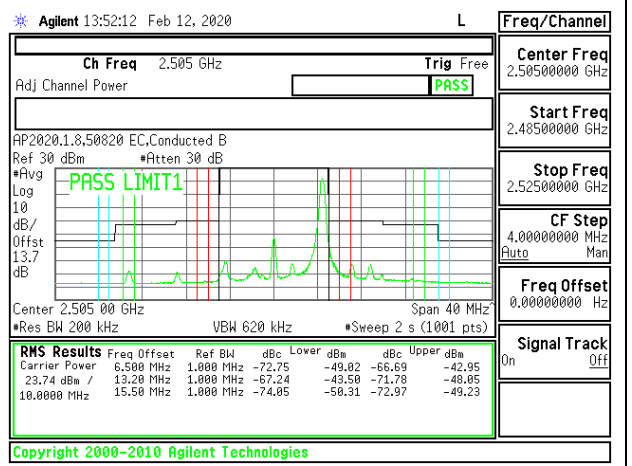
LTE B41 10MHz QPSK Low Channel RB1-0



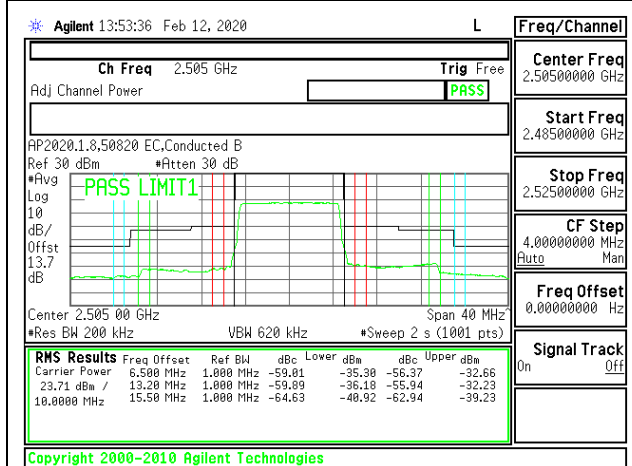
LTE B41 10MHz 16QAM Low Channel RB1-0



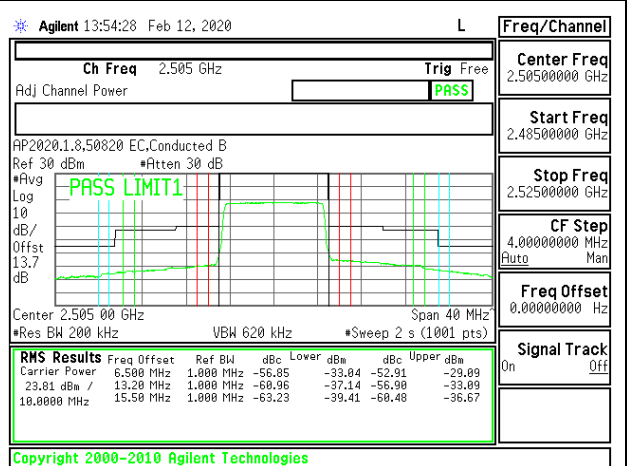
LTE B41 10MHz QPSK Low Channel RB1-49



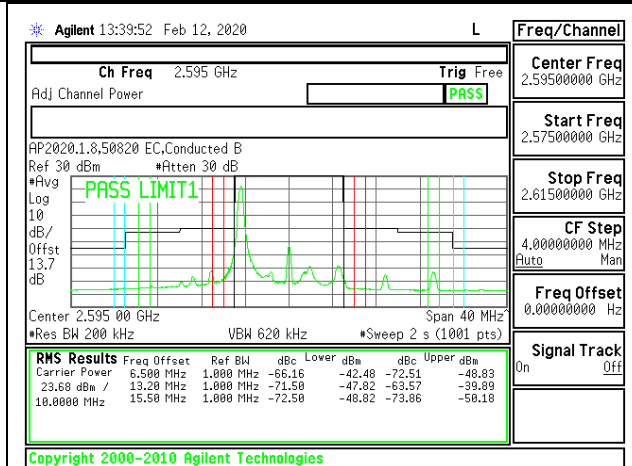
LTE B41 10MHz 16QAM Low Channel RB1-49



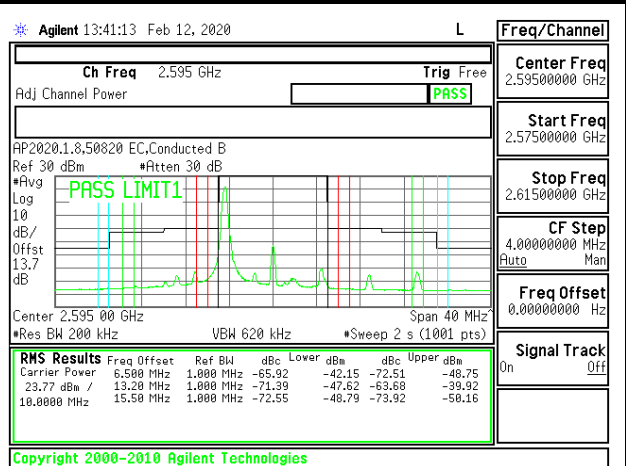
LTE B41 10MHz QPSK Low Channel RB50-0



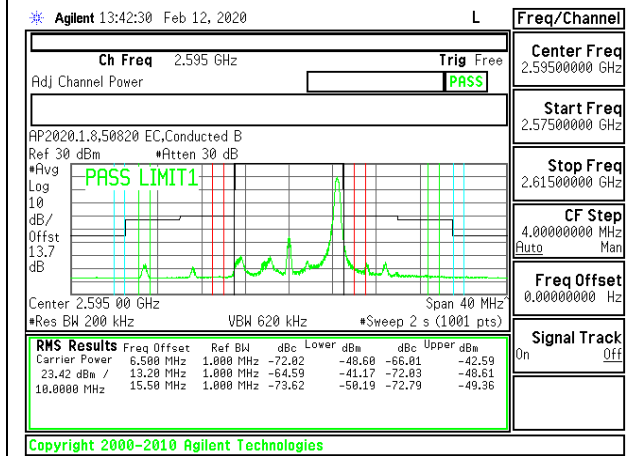
LTE B41 10MHz 16QAM Low Channel RB50-0



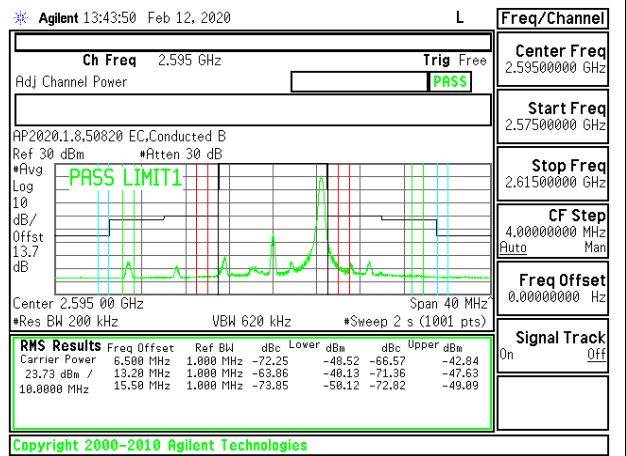
LTE B41 10MHz QPSK Middle Channel RB1-0



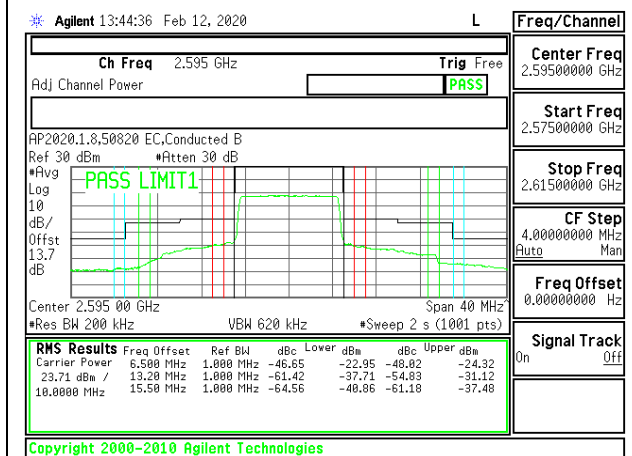
LTE B41 10MHz 16QAM Middle Channel RB1-0



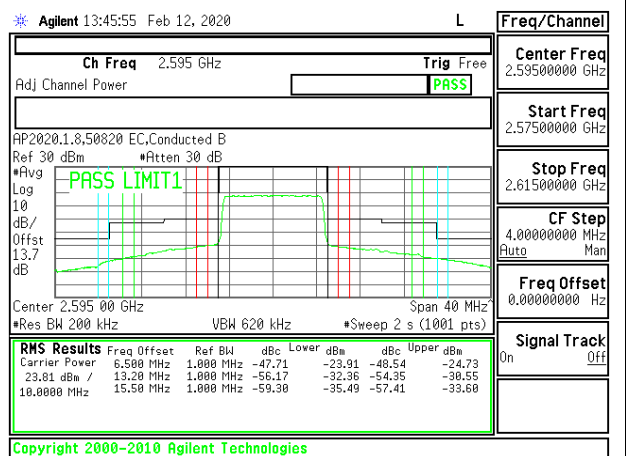
LTE B41 10MHz QPSK Middle Channel RB1-49



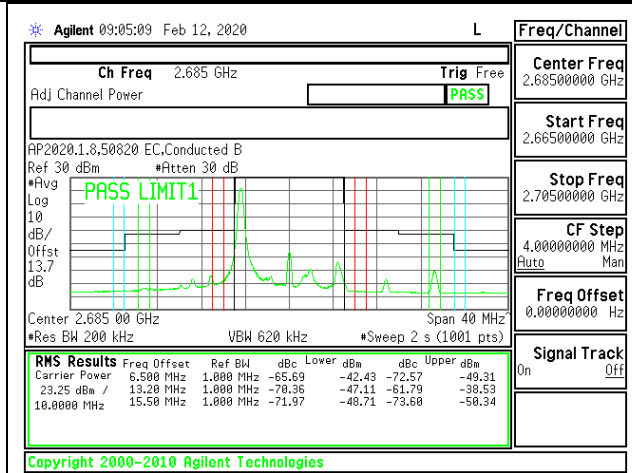
LTE B41 10MHz 16QAM Middle Channel RB1-49



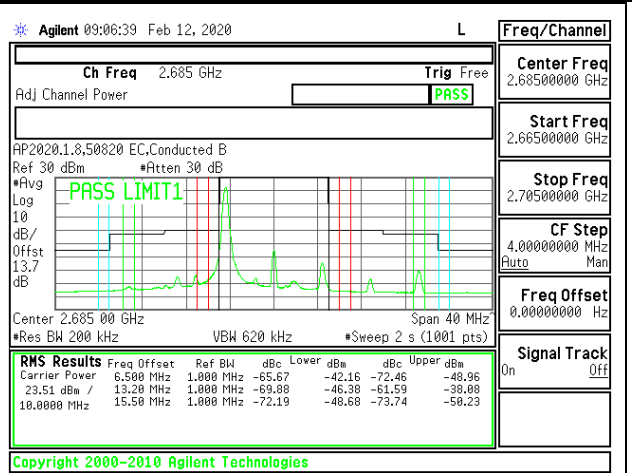
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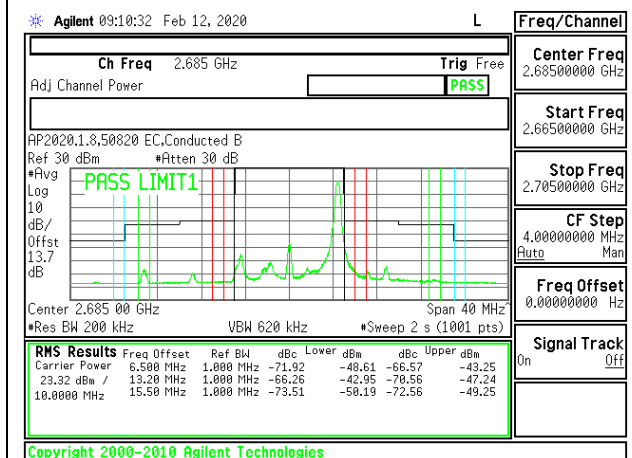
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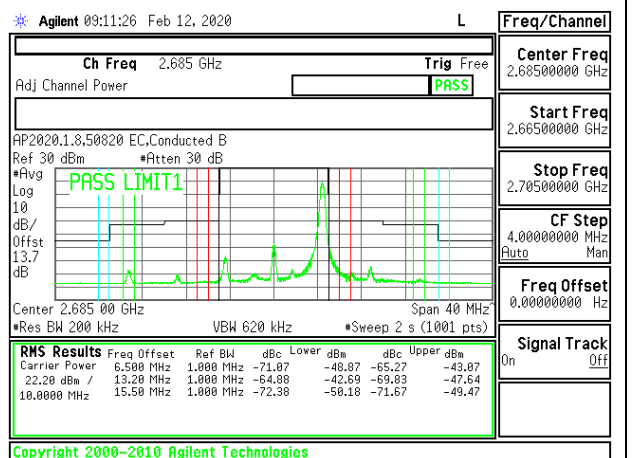
LTE B41 10MHz QPSK High Channel RB1-0



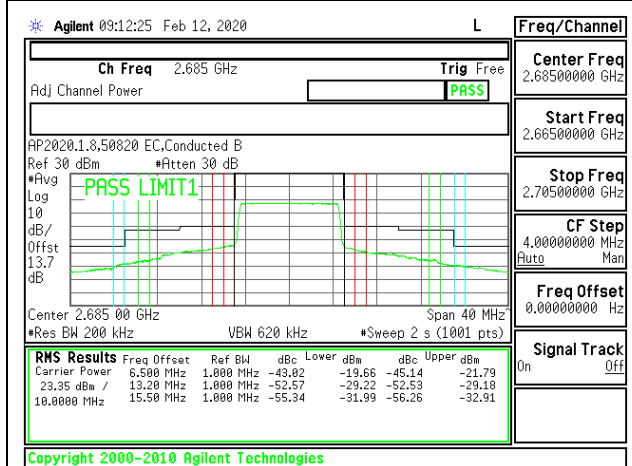
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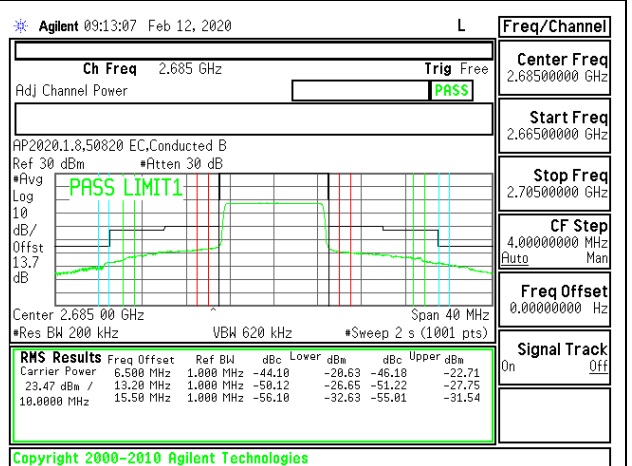
LTE B41 10MHz QPSK High Channel RB1-49



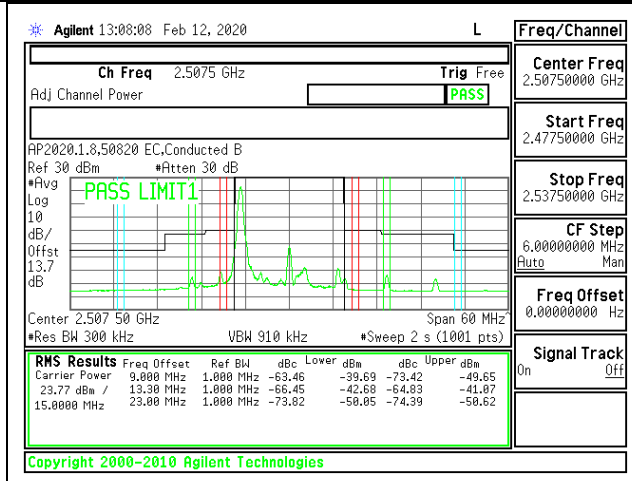
LTE B41 10MHz 16QAM High Channel RB1-49



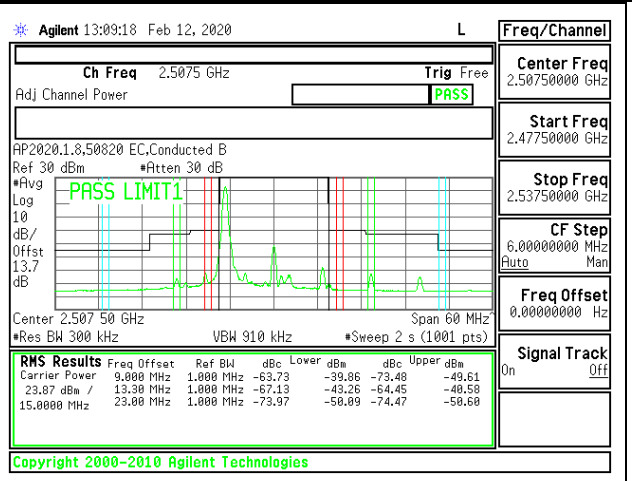
LTE B41 10MHz QPSK High Channel RB50-0



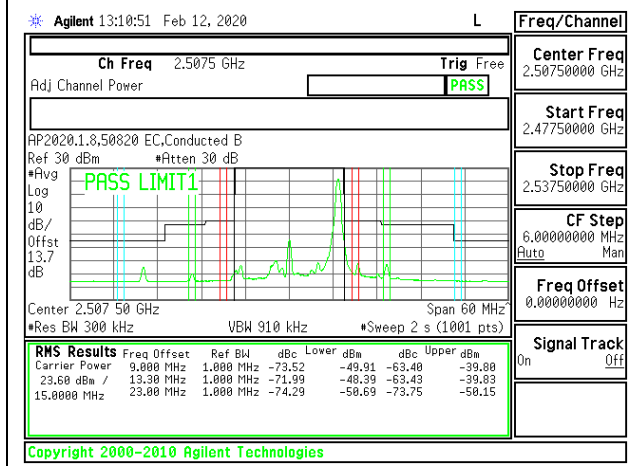
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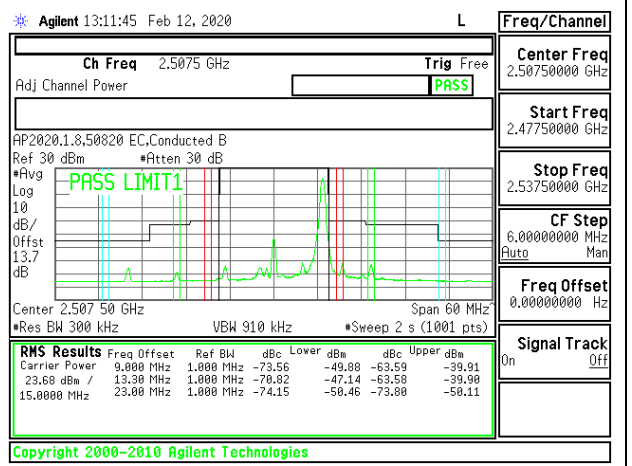
LTE B41 15MHz QPSK Low Channel RB1-0



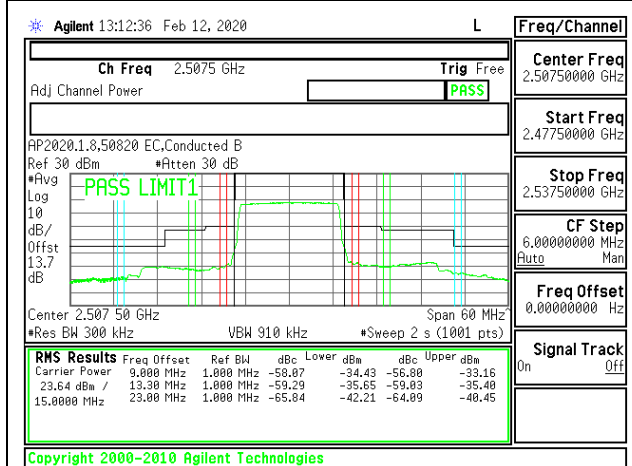
LTE B41 15MHz 16QAM Low Channel RB1-0



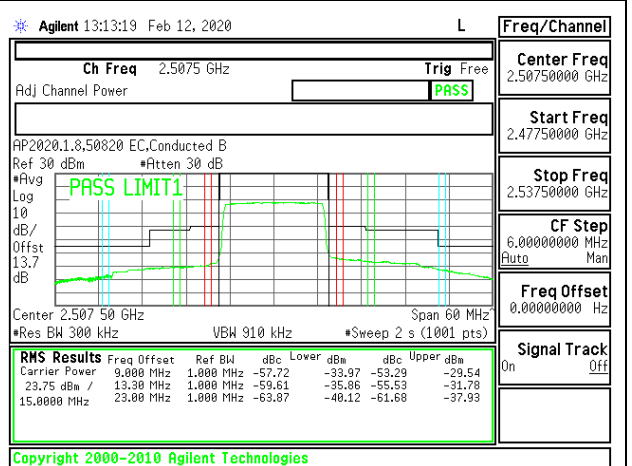
LTE B41 15MHz QPSK Low Channel RB1-74



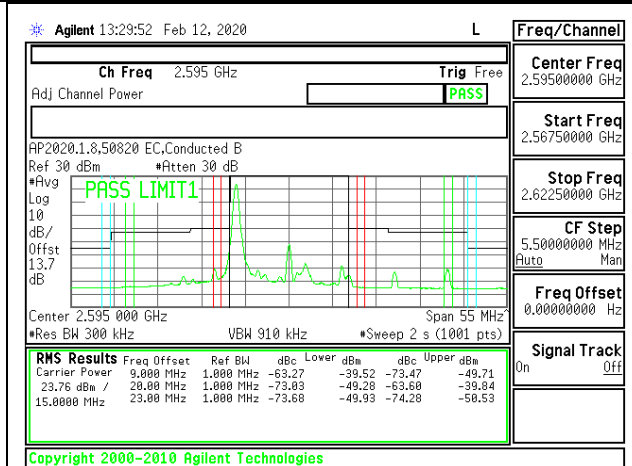
LTE B41 15MHz 16QAM Low Channel RB1-74



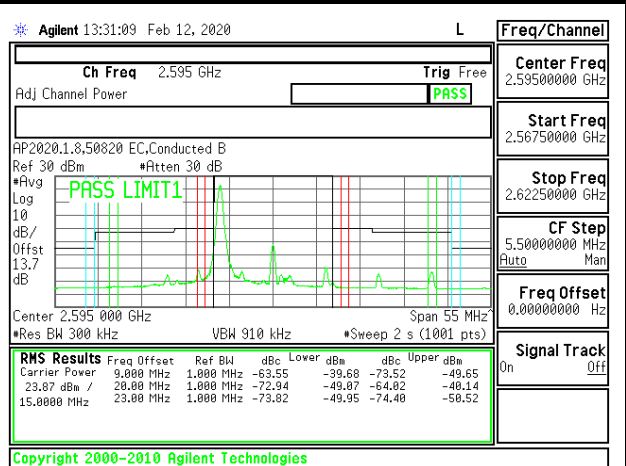
LTE B41 15MHz QPSK Low Channel RB75-0



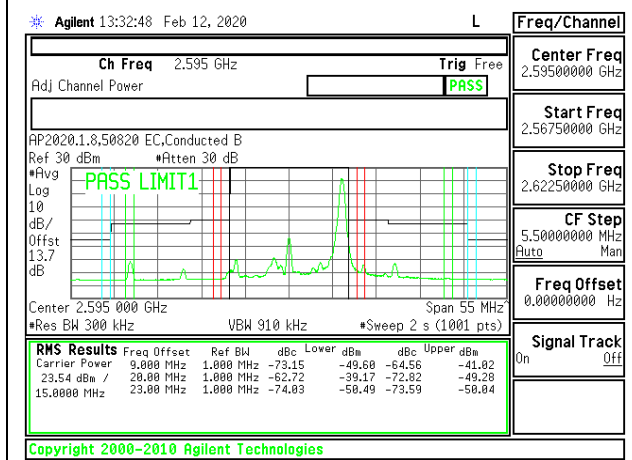
LTE B41 15MHz 16QAM Low Channel RB75-0



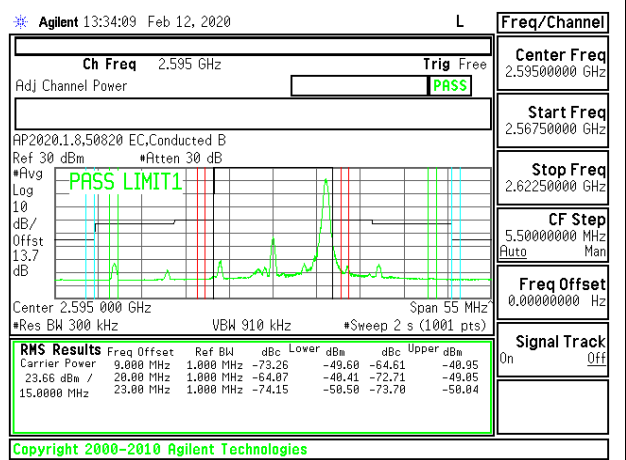
LTE B41 15MHz QPSK Middle Channel RB1-0



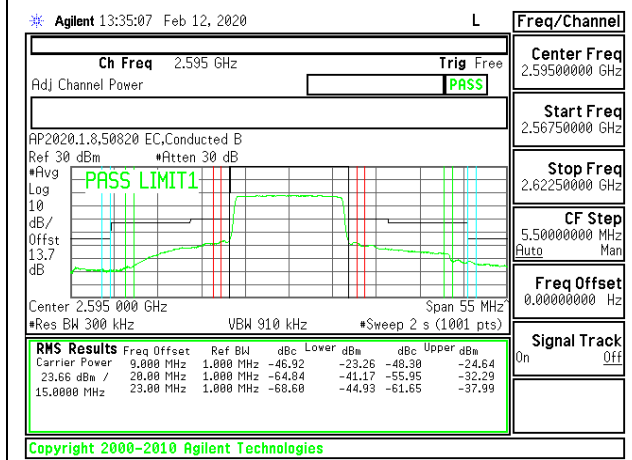
LTE B41 15MHz 16QAM Middle Channel RB1-0



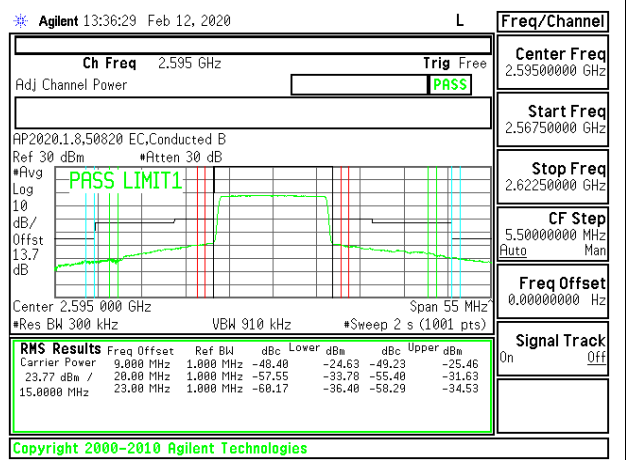
LTE B41 15MHz QPSK Middle Channel RB1-74



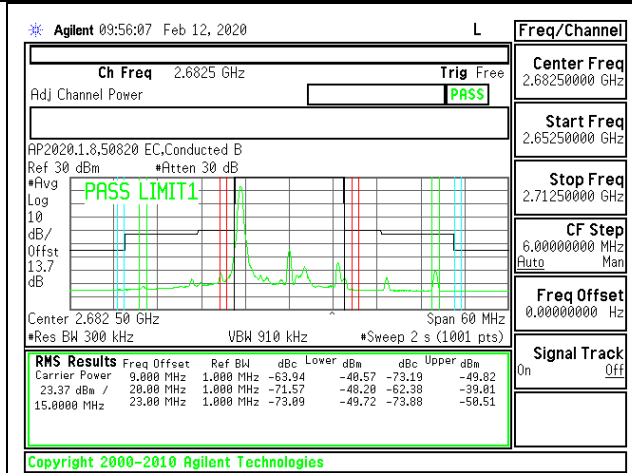
LTE B41 15MHz 16QAM Middle Channel RB1-74



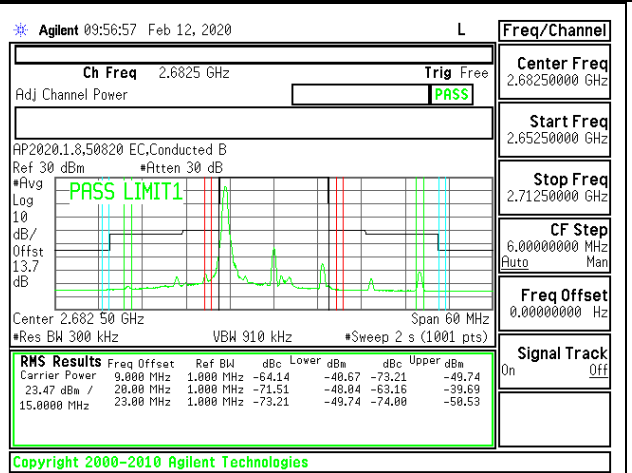
LTE B41 15MHz QPSK Middle Channel RB75-0



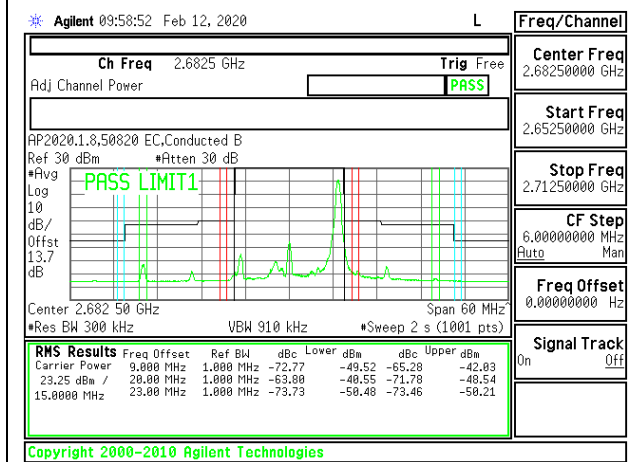
LTE B41 15MHz 16QAM Middle Channel RB75-0



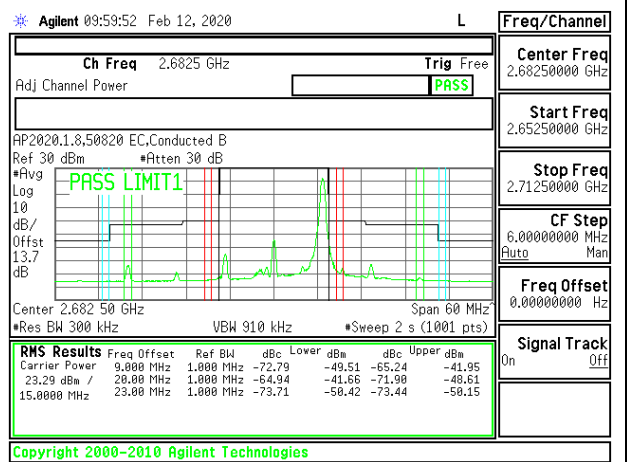
LTE B41 15MHz QPSK High Channel RB1-0



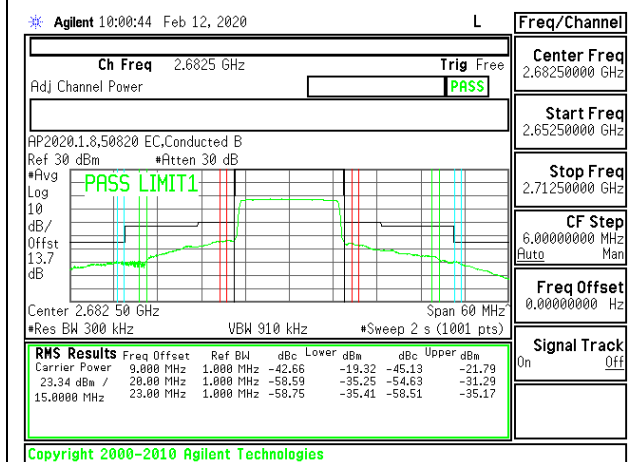
LTE B41 15MHz 16QAM High Channel RB1-0



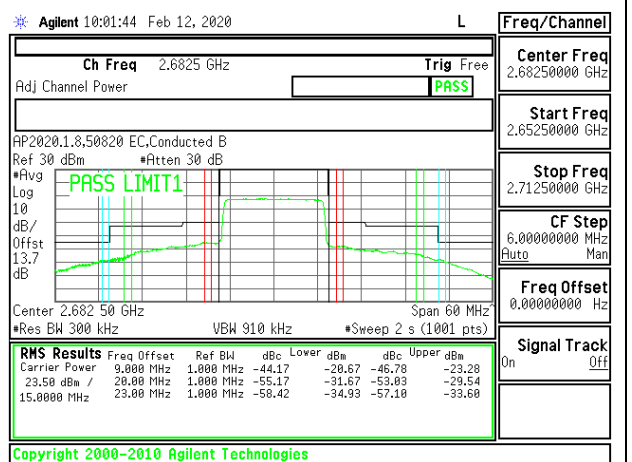
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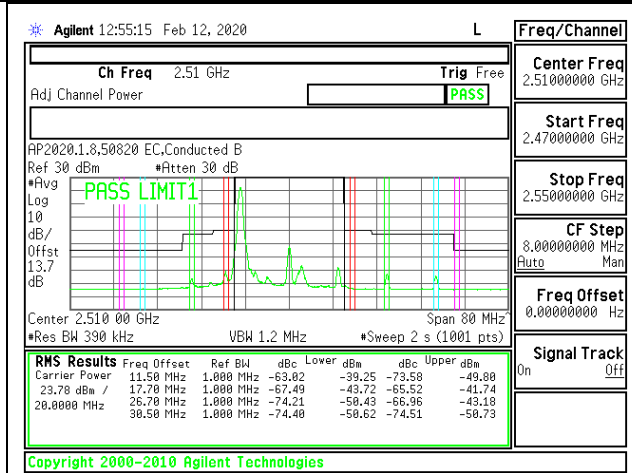
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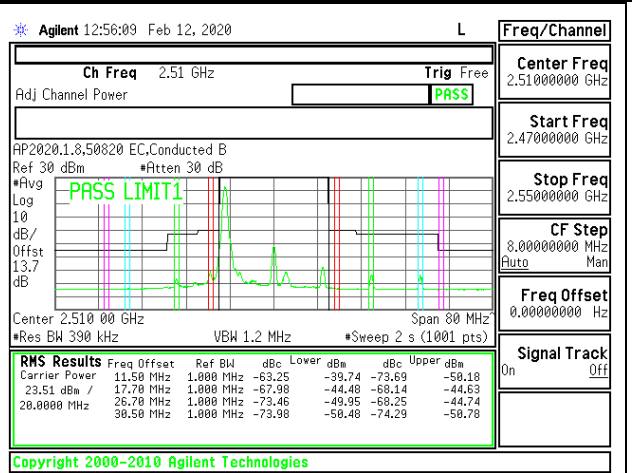
LTE B41 15MHz QPSK High Channel RB75-0



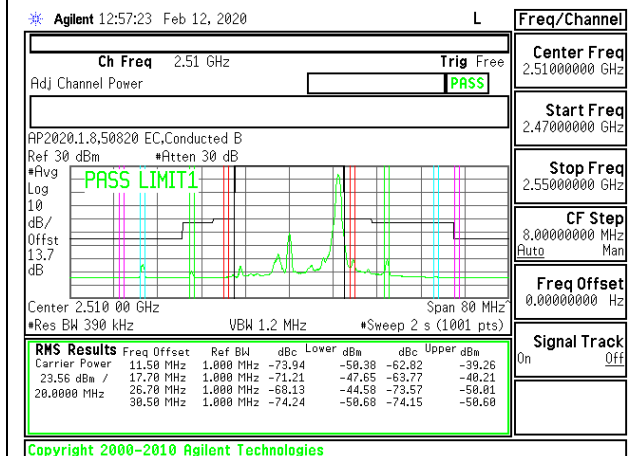
LTE B41 15MHz 16QAM High Channel RB75-0



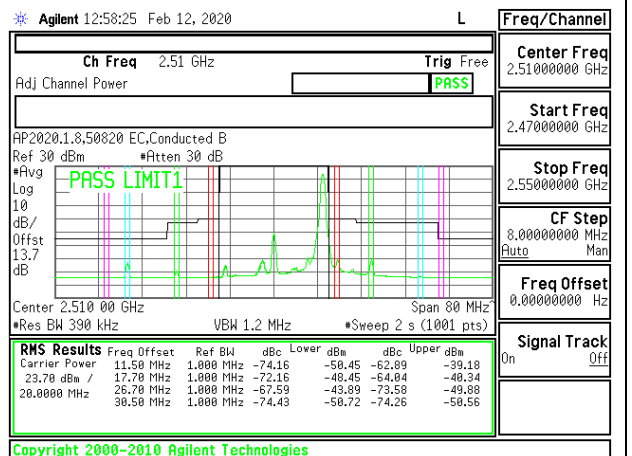
LTE B41 20MHz QPSK Low Channel RB1-0



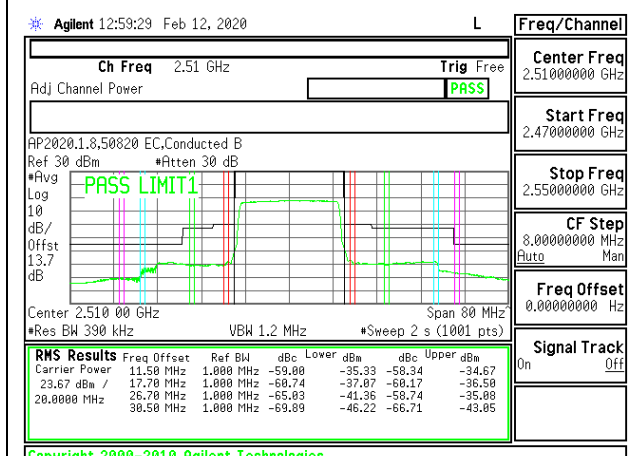
LTE B41 20MHz 16QAM Low Channel RB1-0



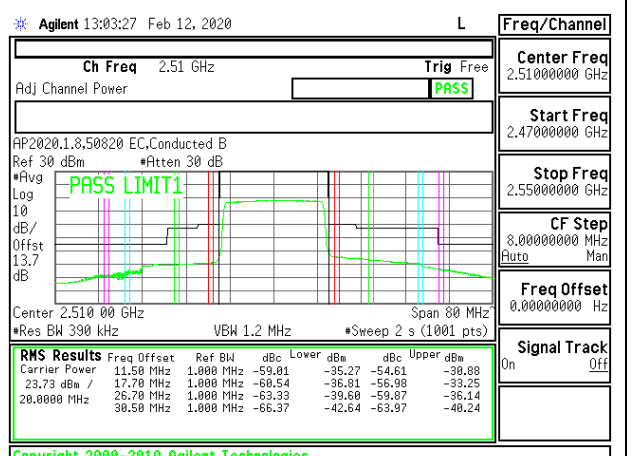
LTE B41 20MHz QPSK Low Channel RB1-99



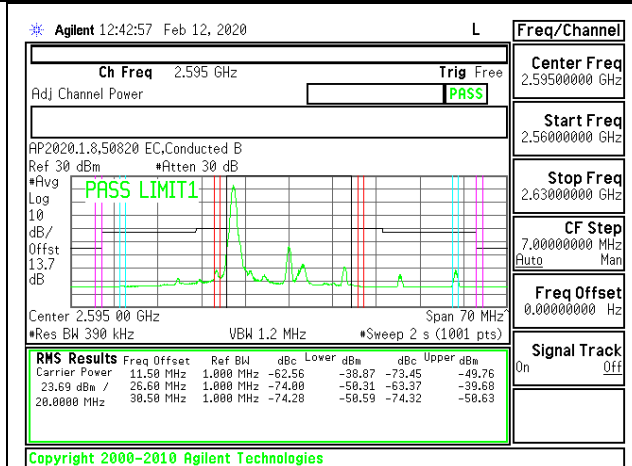
LTE B41 20MHz 16QAM Low Channel RB1-99



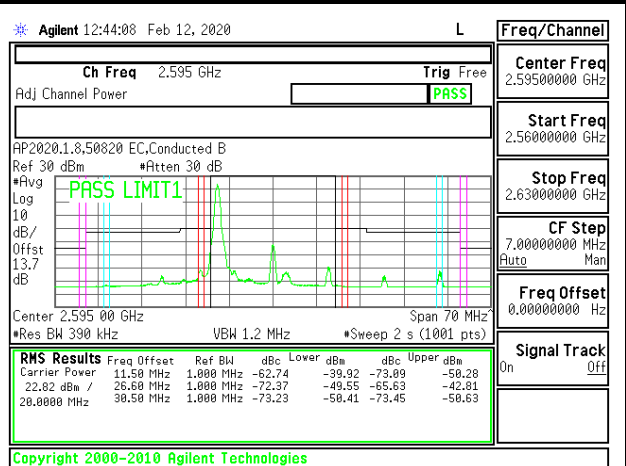
LTE B41 20MHz QPSK Low Channel RB100-0



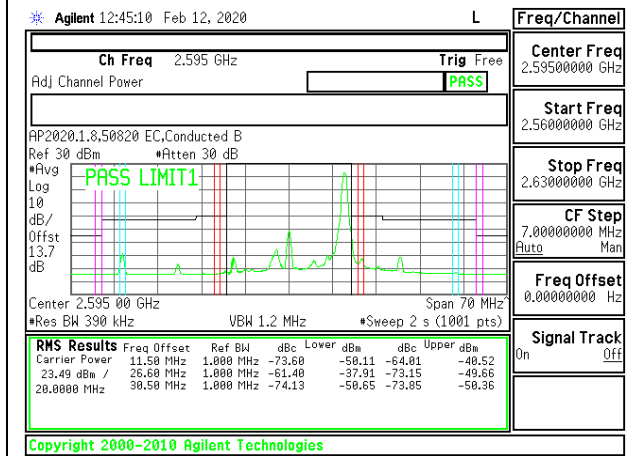
LTE B41 20MHz 16QAM Low Channel RB100-0



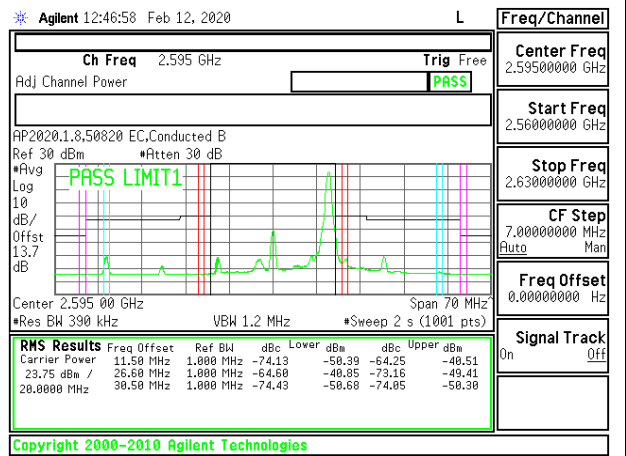
LTE B41 20MHz QPSK Middle Channel RB1-0



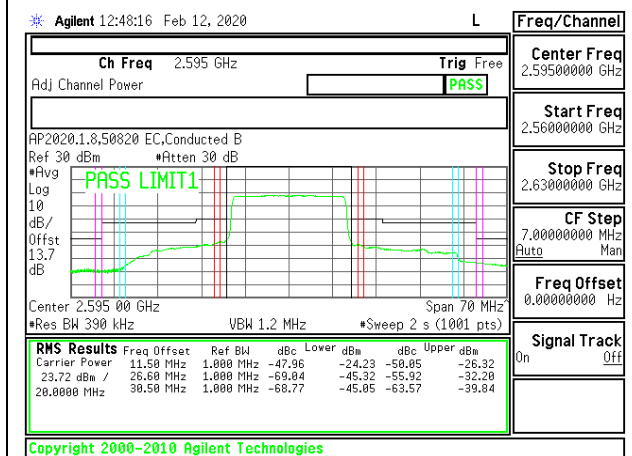
LTE B41 20MHz 16QAM Middle Channel RB1-0



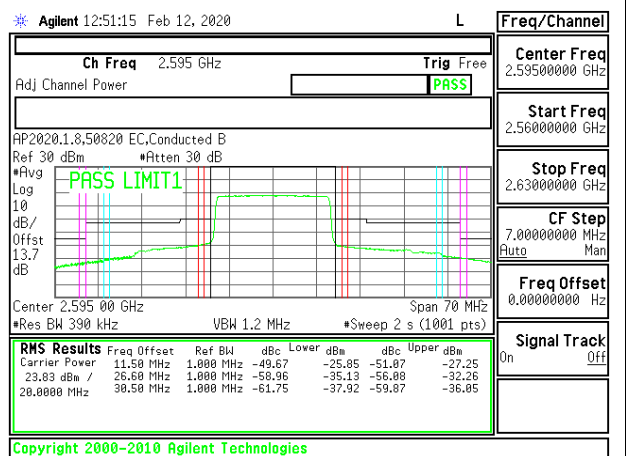
LTE B41 20MHz QPSK Middle Channel RB1-99



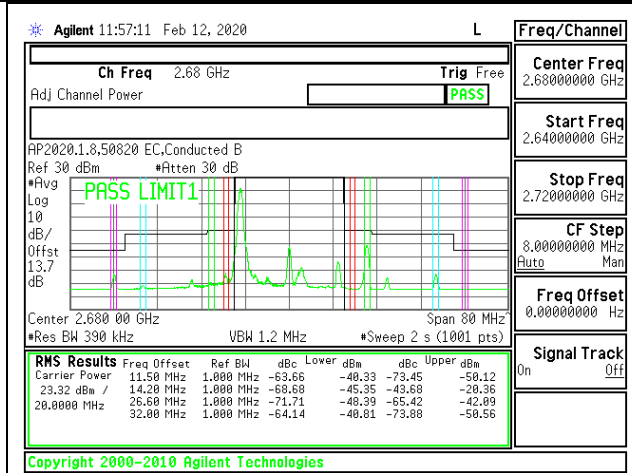
LTE B41 20MHz 16QAM Middle Channel RB1-99



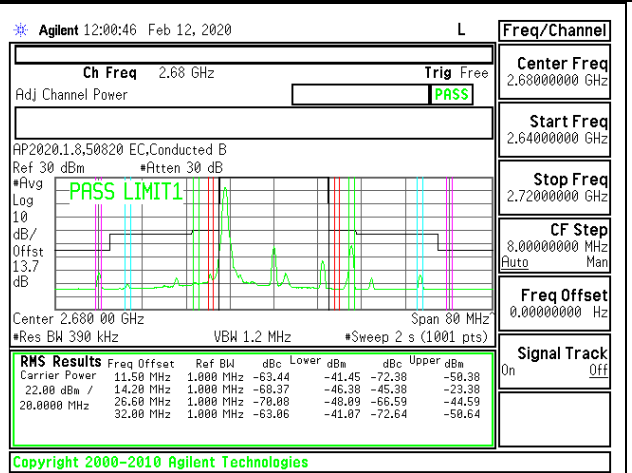
LTE B41 20MHz QPSK Middle Channel RB100-0



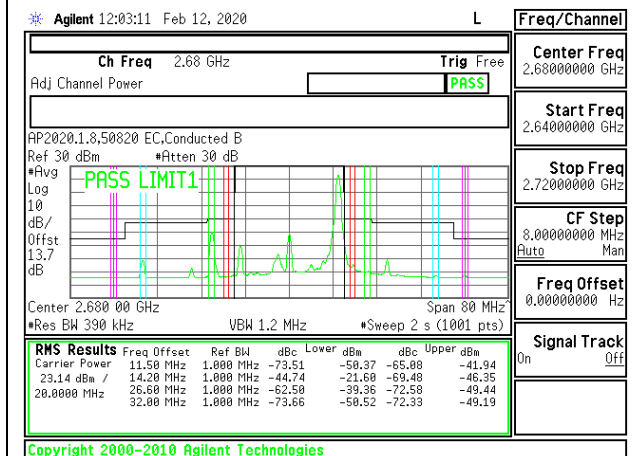
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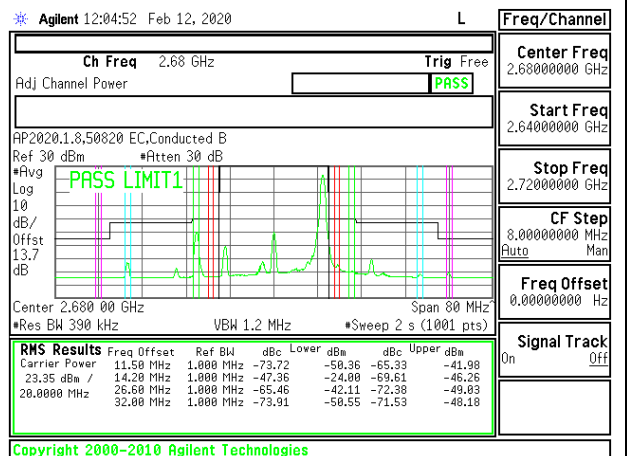
LTE B41 20MHz QPSK High Channel RB1-0



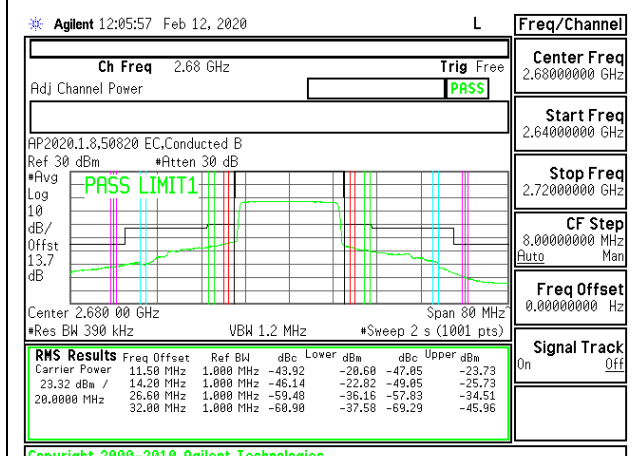
LTE B41 20MHz 16QAM High Channel RB1-0



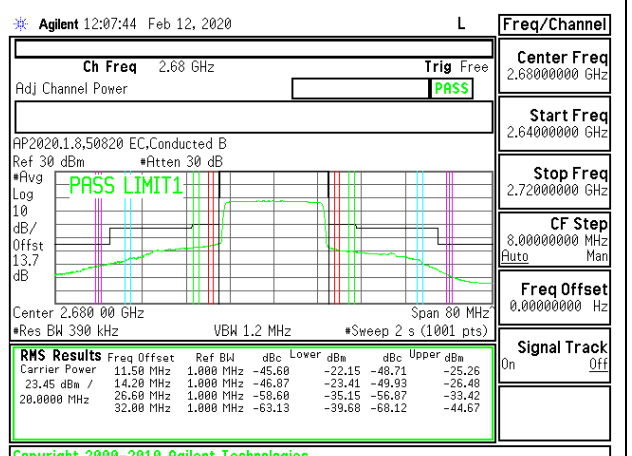
LTE B41 20MHz QPSK High Channel RB1-99



LTE B41 20MHz 16QAM High Channel RB1-99



LTE B41 20MHz QPSK High Channel RB100-0



LTE B41 20MHz 16QAM High Channel RB100-0

8.2.13. LTE BAND 66 BANDEDGE

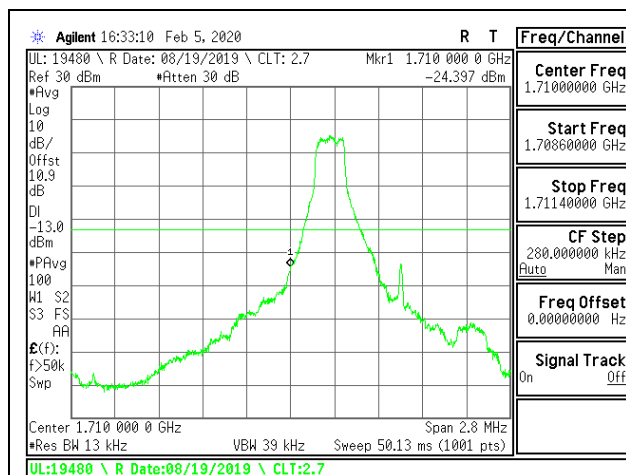
LIMITS

FCC: §27.53(h)

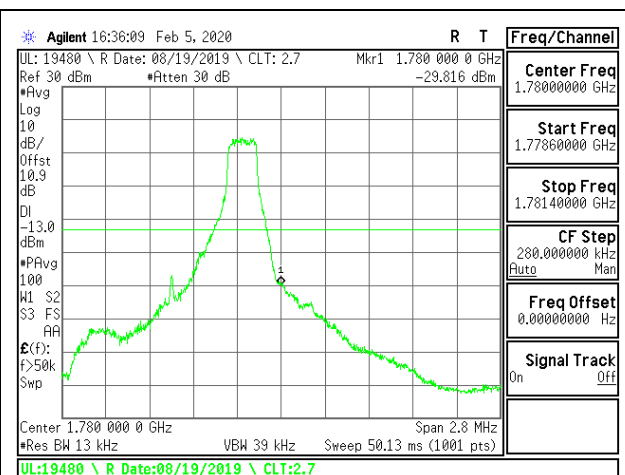
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB.

ISED: RSS139§6.6

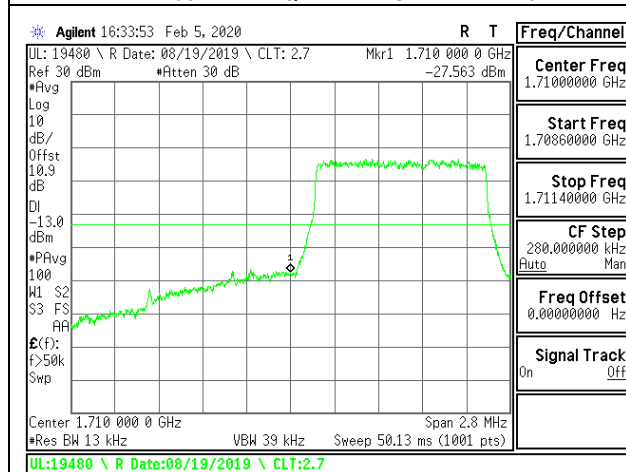
- (i) In the first 1.0 MHz bands immediately outside and adjacent to the equipment's smallest operating frequency block, Footnote 2 which can contain the equipment's occupied bandwidth, the emission power per any 1% of the emission bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least $43 + 10 \log_{10} p$ (watts) dB.
- (ii) After the first 1.0 MHz outside the equipment's smallest operating frequency block, which can contain the equipment's occupied bandwidth, the emission power in any 1 MHz bandwidth shall be attenuated below the transmitter output power P (in dBW) by at least $43 + 10 \log_{10} p$ (watts) dB.



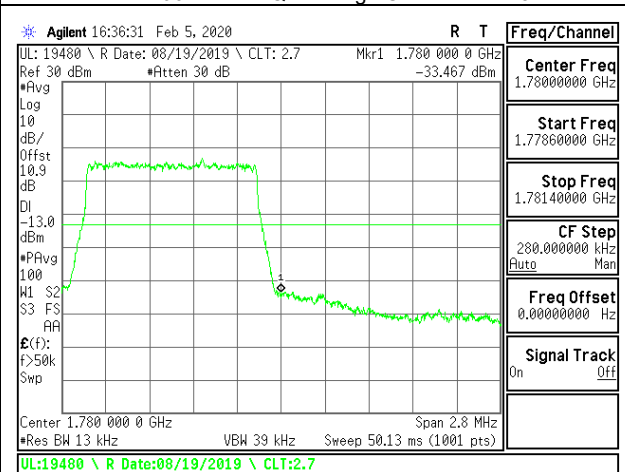
LTE B66 1.4MHz QPSK Low Channel RB1-0



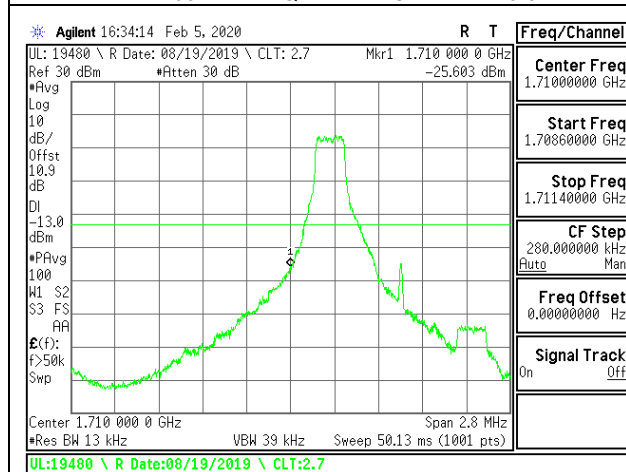
LTE B66 1.4MHz QPSK High Channel RB1-5



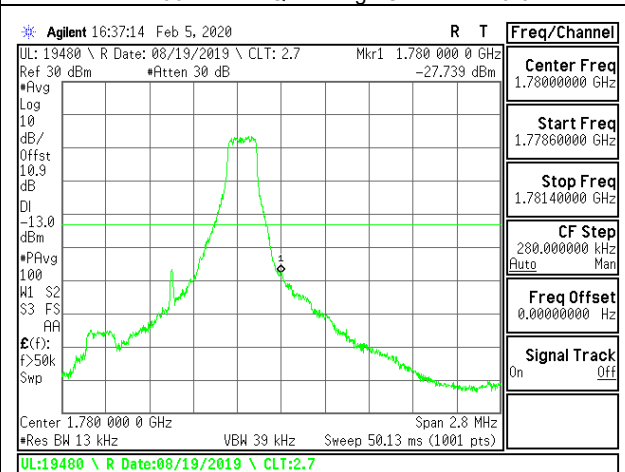
LTE B66 1.4MHz QPSK Low Channel RB6-0



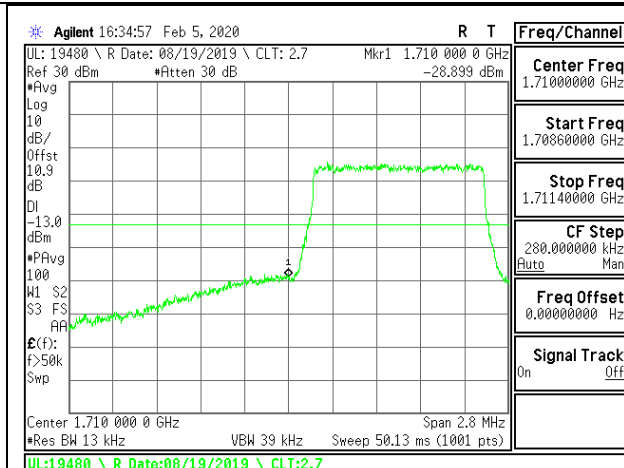
LTE B66 1.4MHz QPSK High Channel RB6-0



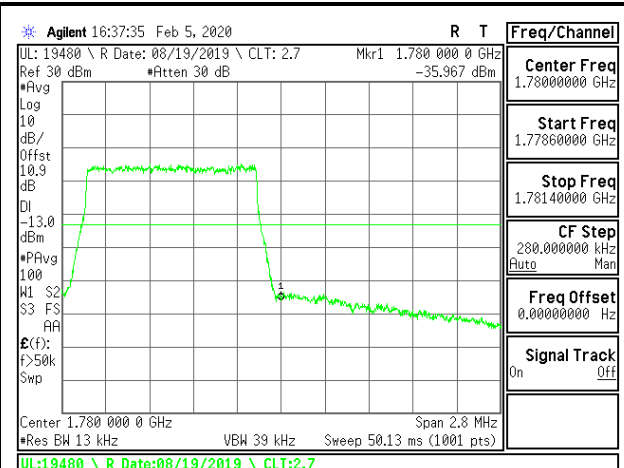
LTE B66 1.4MHz 16QAM Low Channel RB1-0



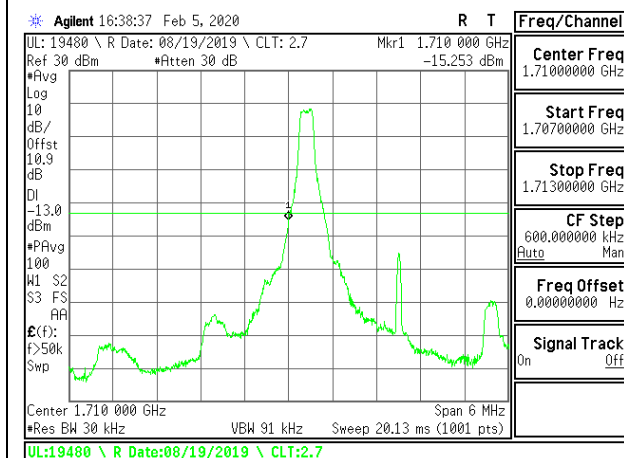
LTE B66 1.4MHz 16QAM High Channel RB1-5



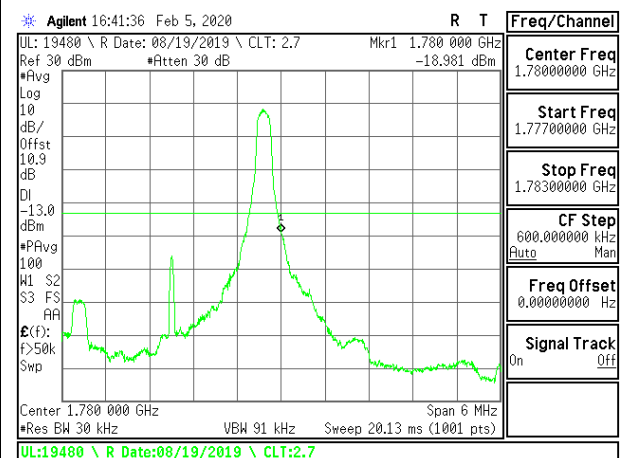
LTE B66 1.4MHz 16QAM Low Channel RB6-0



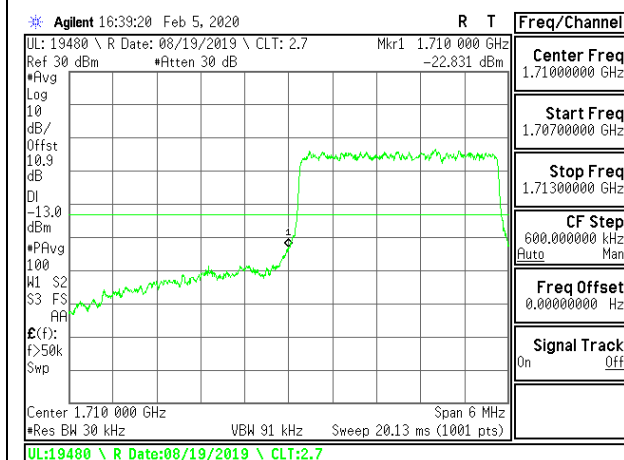
LTE B66 1.4MHz 16QAM High Channel RB6-0



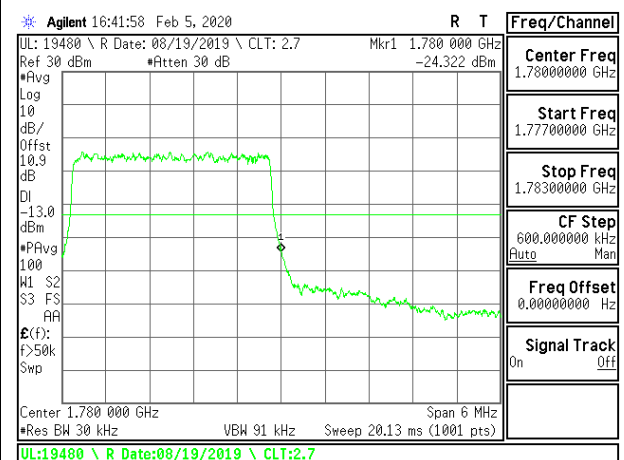
LTE B66 3MHz QPSK Low Channel RB1-0



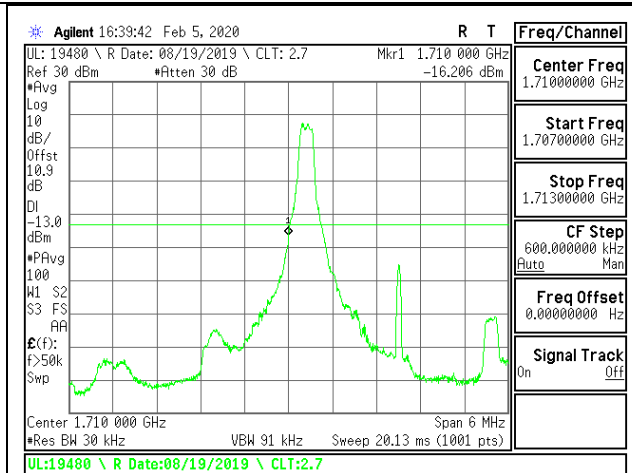
LTE B66 3MHz QPSK High Channel RB1-14



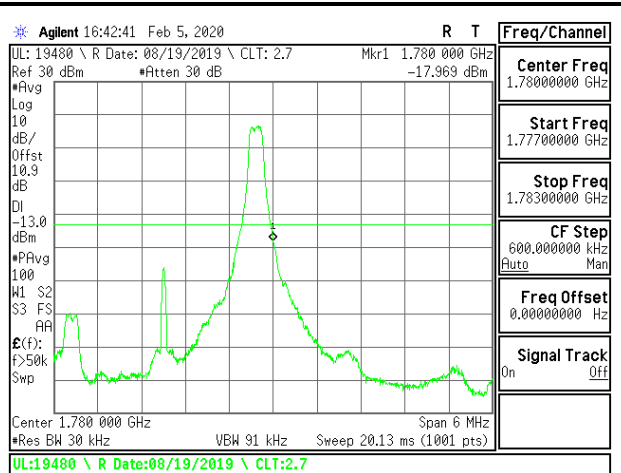
LTE B66 3MHz QPSK Low Channel RB15-0



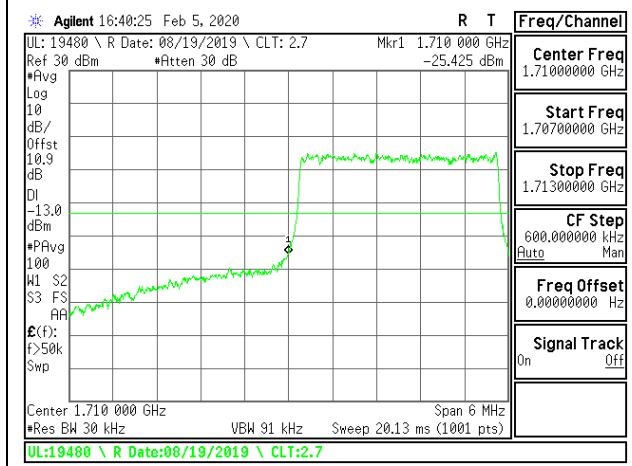
LTE B66 3MHz QPSK High Channel RB15-0



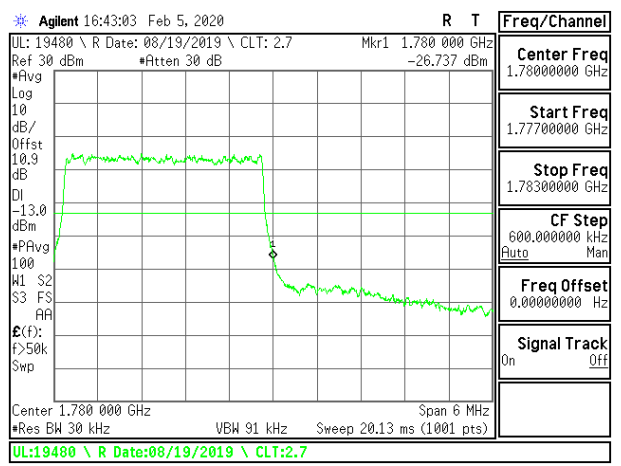
LTE B66 3MHz 16QAM Low Channel RB1-0



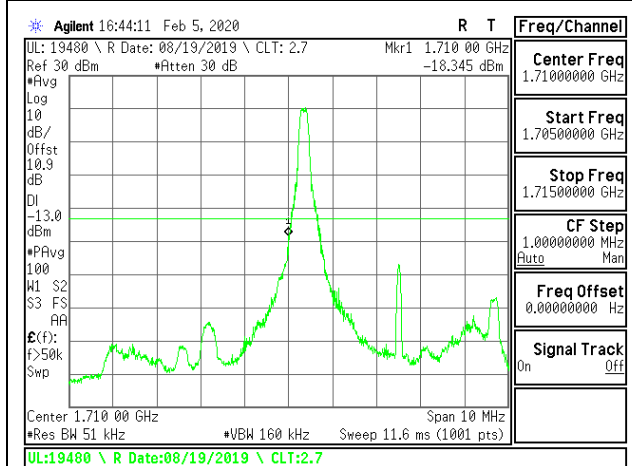
LTE B66 3MHz 16QAM High Channel RB1-14



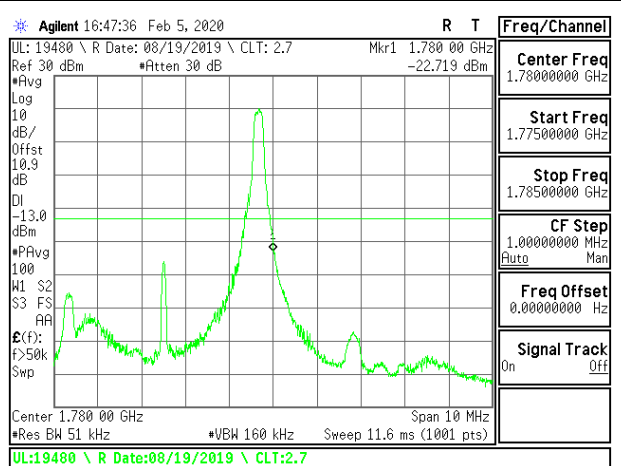
LTE B66 3MHz 16QAM Low Channel RB15-0



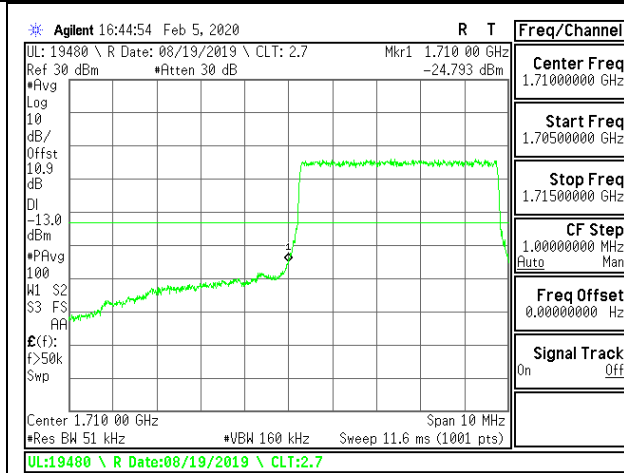
LTE B66 3MHz 16QAM High Channel RB15-0



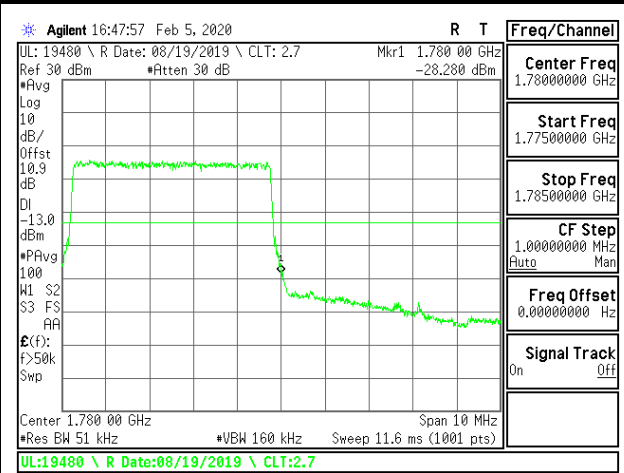
LTE B66 5MHz QPSK Low Channel RB1-0



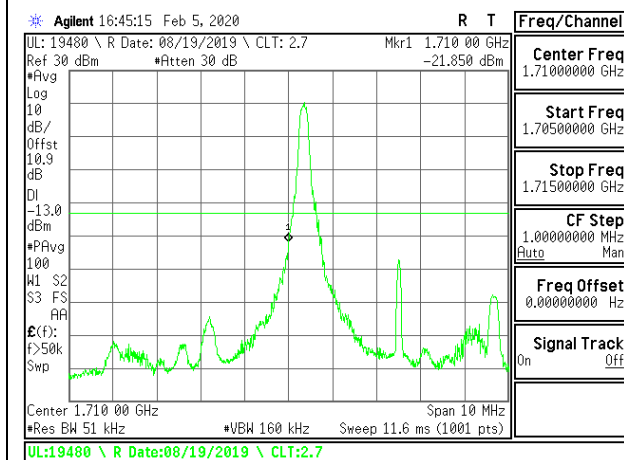
LTE B66 5MHz QPSK High Channel RB1-24



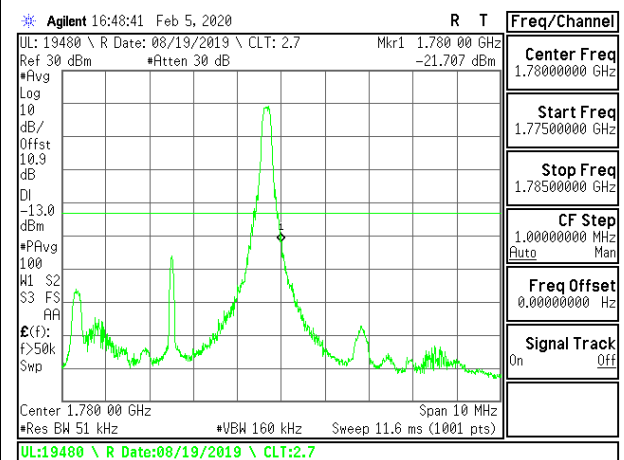
LTE B66 5MHz QPSK Low Channel RB25-0



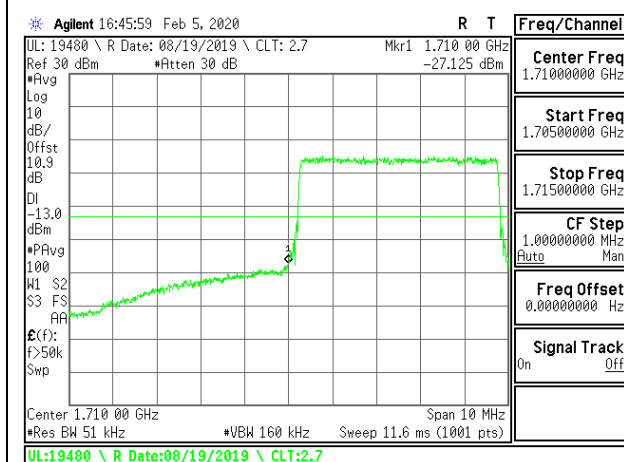
LTE B66 5MHz QPSK High Channel RB25-0



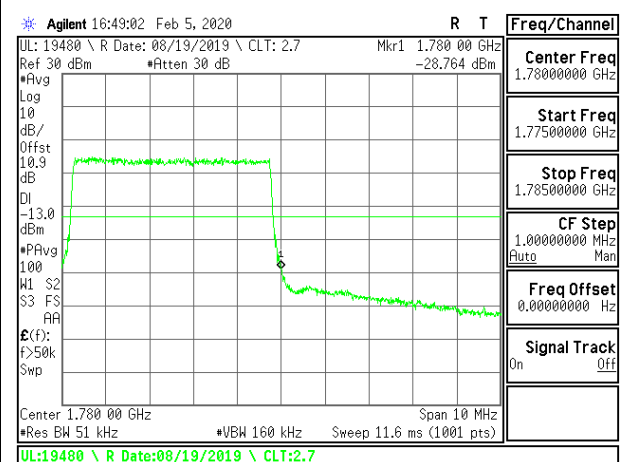
LTE B66 5MHz 16QAM Low Channel RB1-0



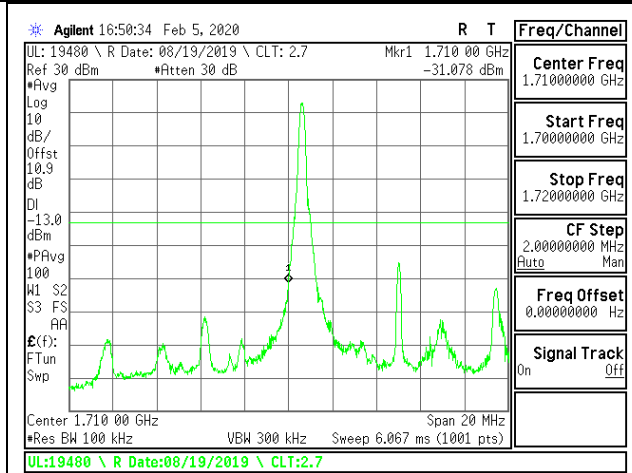
LTE B66 5MHz 16QAM High Channel RB1-24



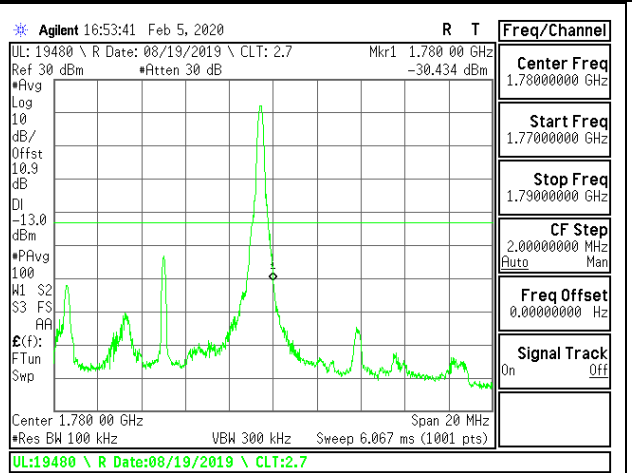
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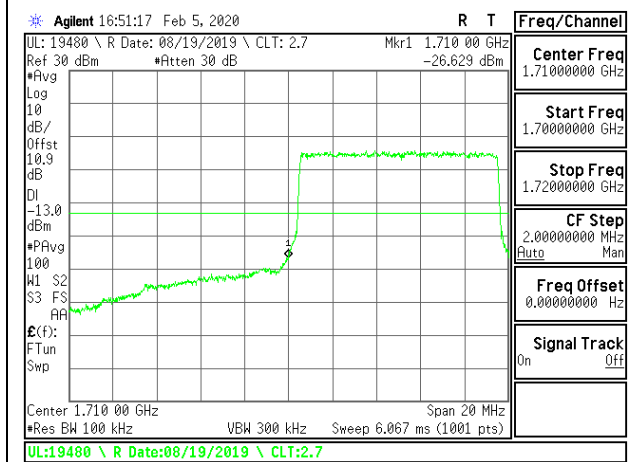
LTE B66 5MHz 16QAM High Channel RB25-0



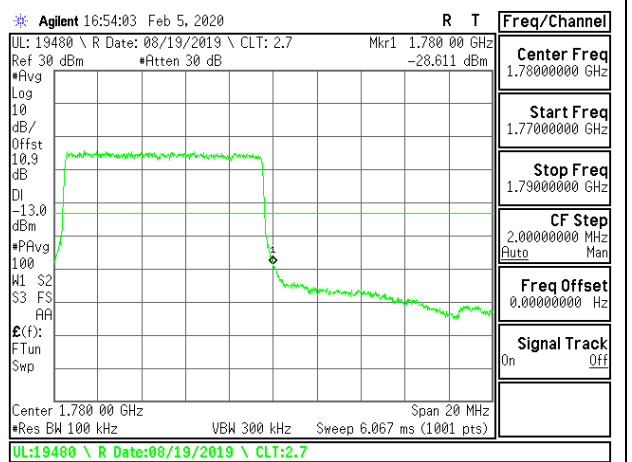
LTE B66 10MHz QPSK Low Channel RB1-0



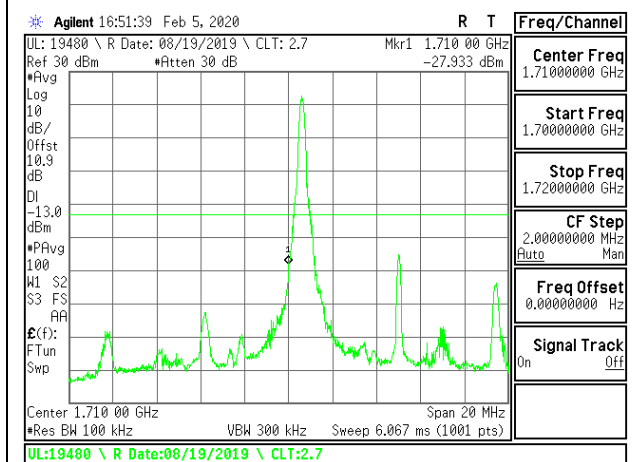
LTE B66 10MHz QPSK High Channel RB1-49



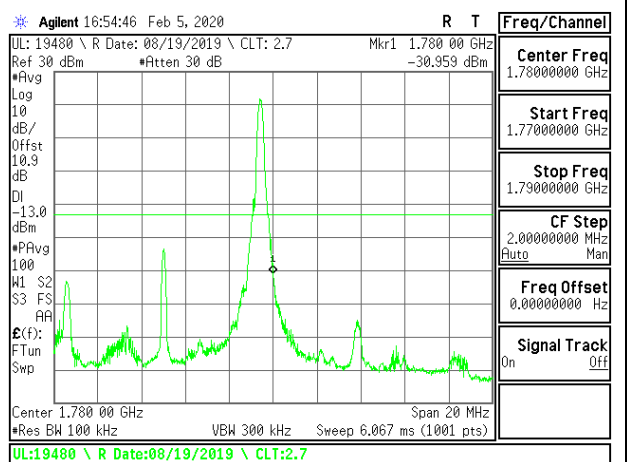
LTE B66 10MHz QPSK Low Channel RB50-0



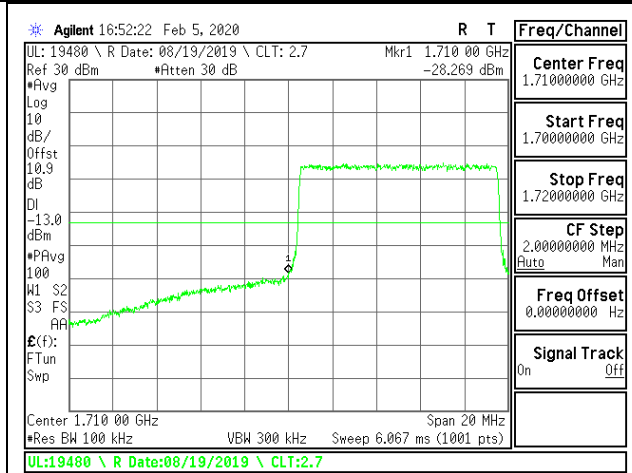
LTE B66 10MHz QPSK High Channel RB50-0



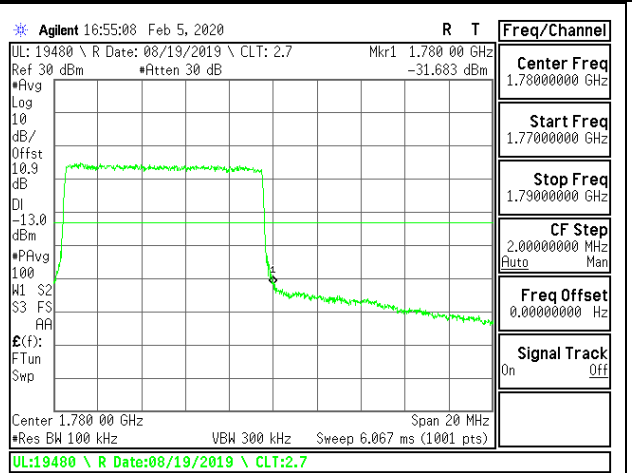
LTE B66 10MHz 16QAM Low Channel RB1-0



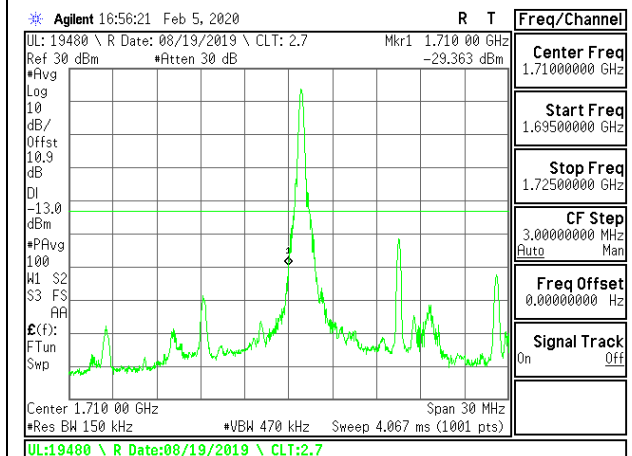
LTE B66 10MHz 16QAM High Channel RB1-49



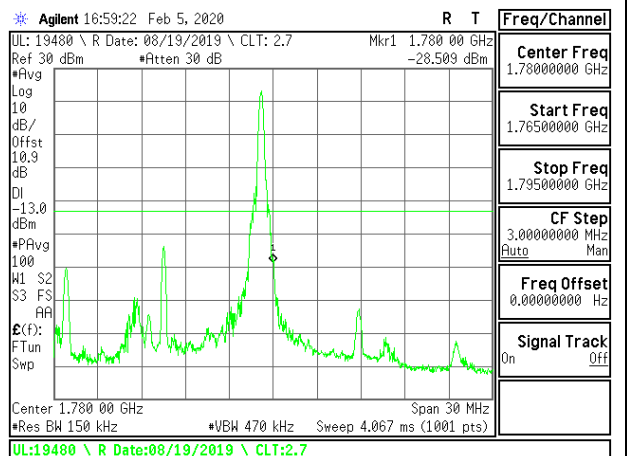
LTE B66 10MHz 16QAM Low Channel RB50-0



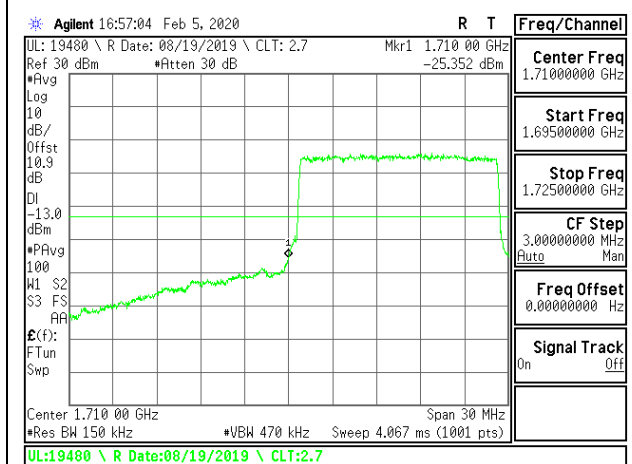
LTE B66 10MHz 16QAM High Channel RB50-0



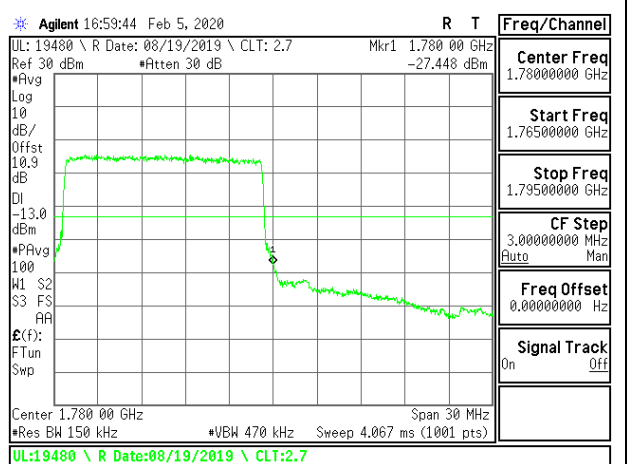
LTE B66 15MHz QPSK Low Channel RB1-0



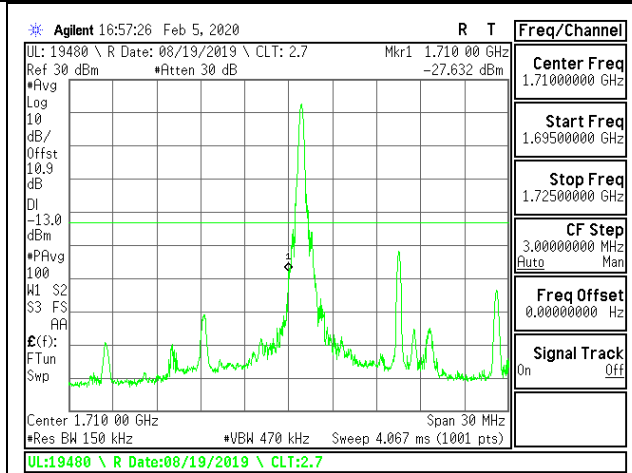
LTE B66 15MHz QPSK High Channel RB1-74



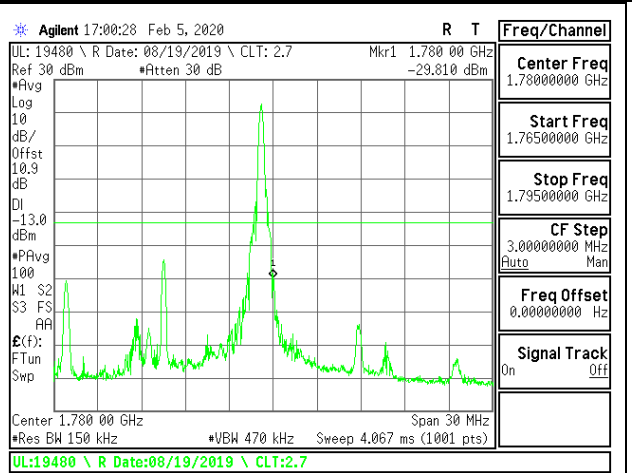
LTE B66 15MHz QPSK Low Channel RB75-0



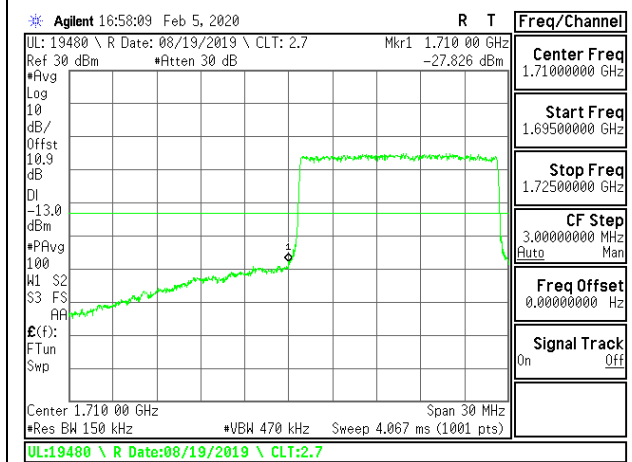
LTE B66 15MHz QPSK High Channel RB75-0



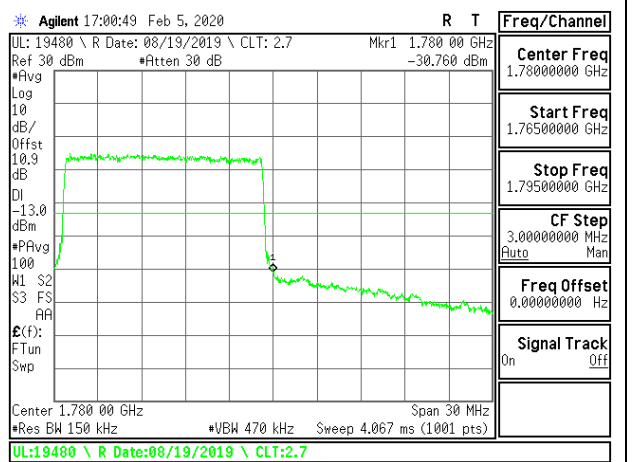
LTE B66 15MHz 16QAM Low Channel RB1-0



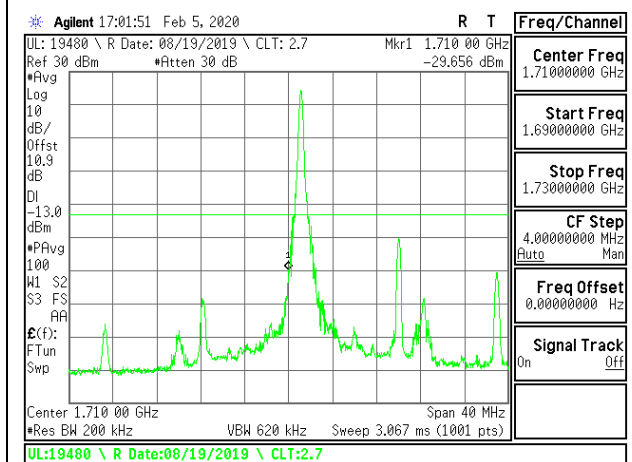
LTE B66 15MHz 16QAM High Channel RB1-74



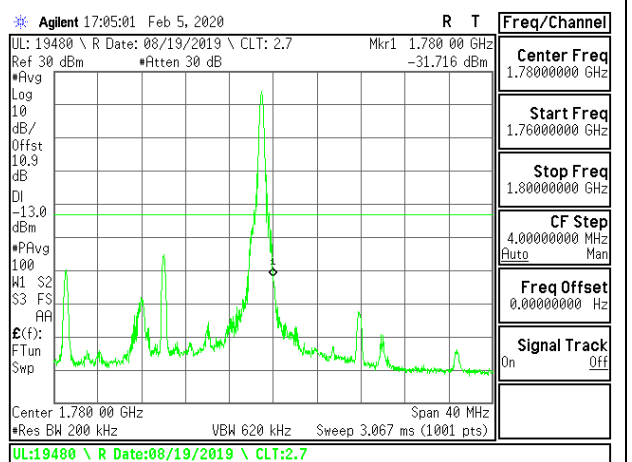
LTE B66 15MHz 16QAM Low Channel RB75-0



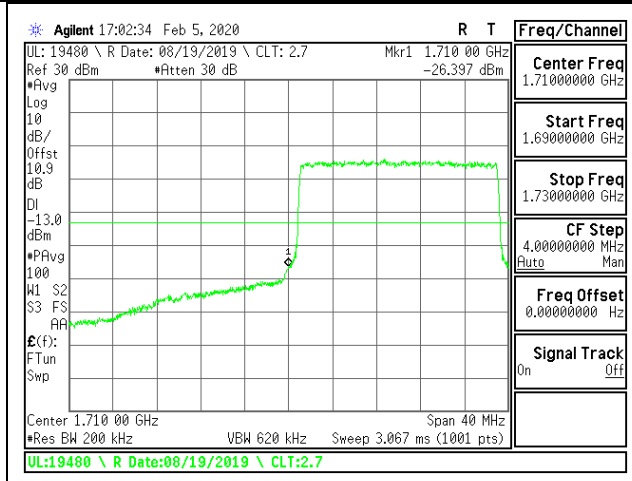
LTE B66 15MHz 16QAM High Channel RB75-0



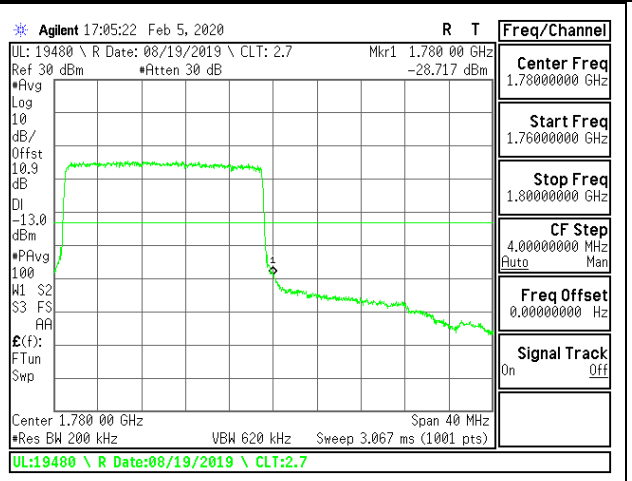
LTE B66 20MHz QPSK Low Channel RB1-0



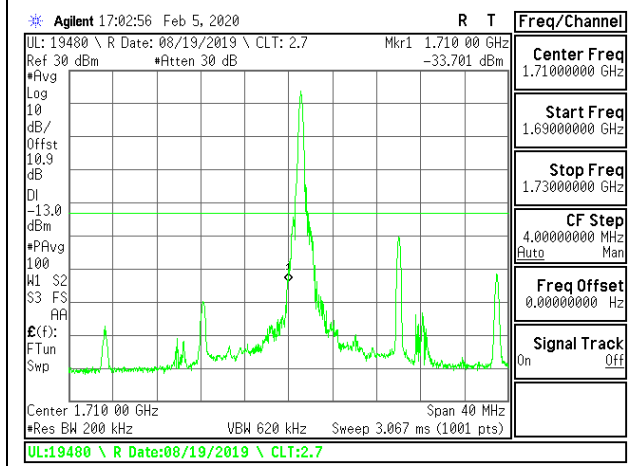
LTE B66 20MHz QPSK High Channel RB1-99



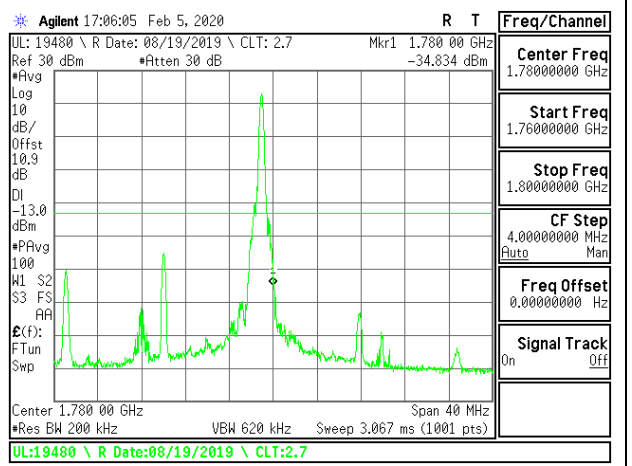
LTE B66 20MHz QPSK Low Channel RB100-0



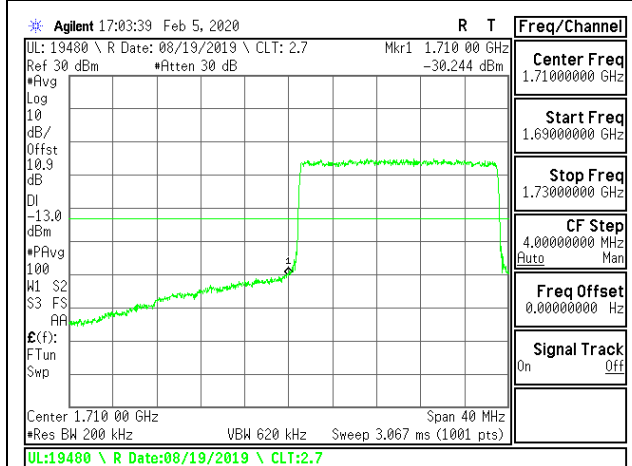
LTE B66 20MHz QPSK High Channel RB100-0



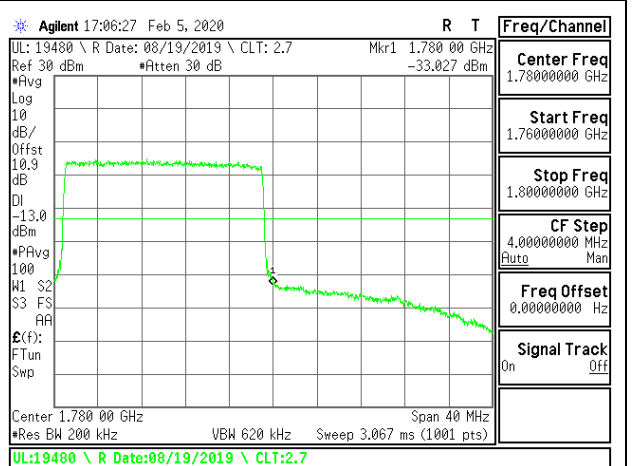
LTE B66 20MHz 16QAM Low Channel RB1-0



LTE B66 20MHz 16QAM High Channel RB1-99



LTE B66 20MHz 16QAM Low Channel RB100-0



LTE B66 20MHz 16QAM High Channel RB100-0

8.2.14. LTE BAND 71 ADJACENT CHANNEL POWER

LIMITS

FCC: §27.53

(g) For operations in the 600 MHz band and the 698-746 MHz band, 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. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

ISED: RSS130§4.7

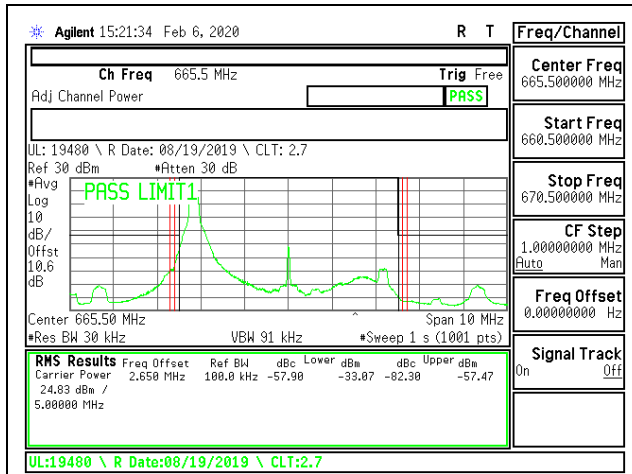
4.7.1 General unwanted emissions limits

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least $43 + 10 \log_{10} p$ (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

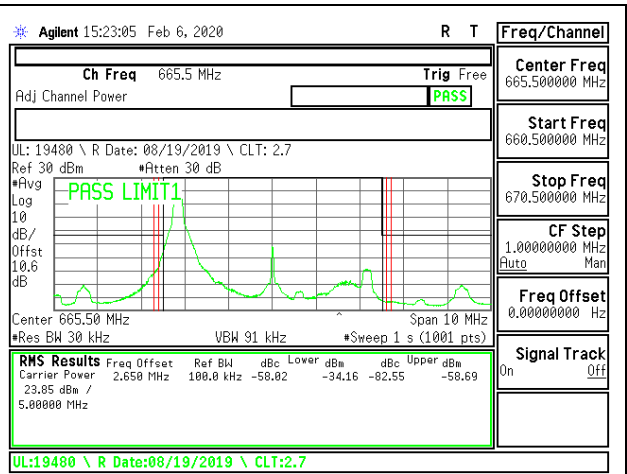
4.7.2 Additional unwanted emissions limits

In addition to the limit outlined in section 4.7.1 above, equipment operating in the frequency bands 746-756 MHz and 777-787 MHz shall also comply with the following restrictions:

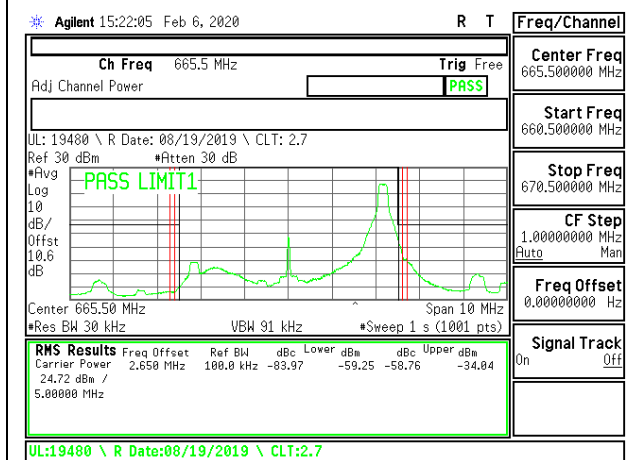
- (a) the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least:
 - i. $76 + 10 \log_{10} p$ (watts), dB, for base and fixed equipment and
 - ii. $65 + 10 \log_{10} p$ (watts), dB, for mobile and portable equipment
- (b) the e.i.r.p. in the band 1559-1610 MHz shall not exceed -70 dBW/MHz for wideband signal and -80 dBW for discrete emission with bandwidth less than 700 Hz.



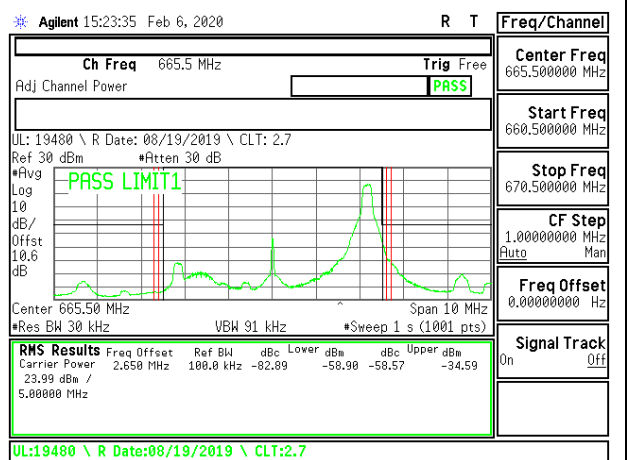
LTE B71 5MHz QPSK Low Channel RB1-0



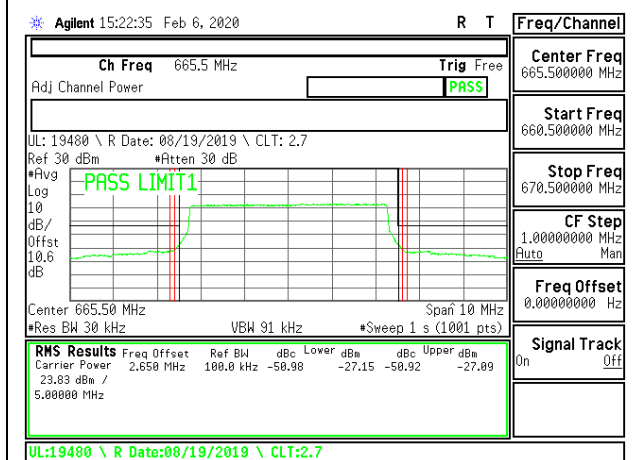
LTE B71 5MHz 16QAM Low Channel RB1-0



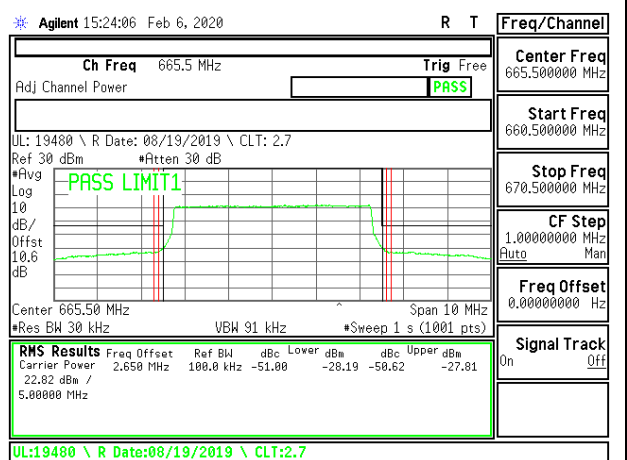
LTE B71 5MHz QPSK Low Channel RB1-24



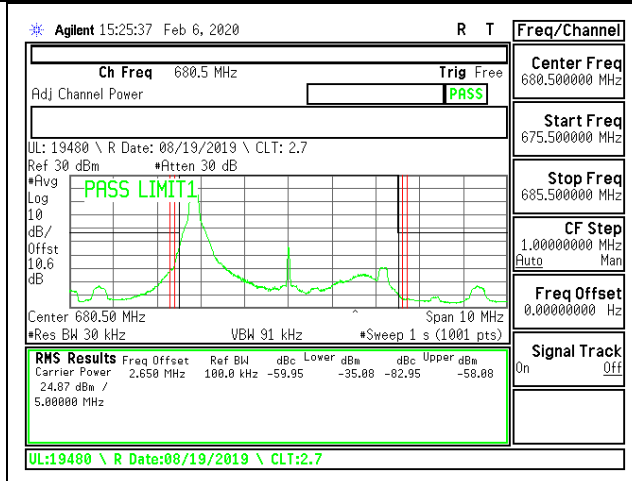
LTE B71 5MHz 16QAM Low Channel RB1-24



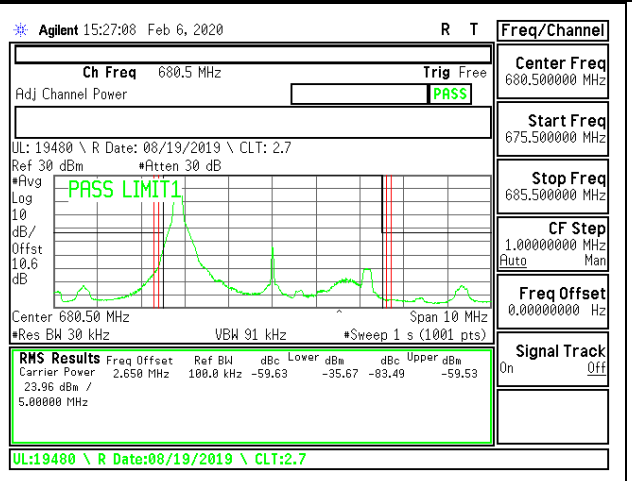
LTE B71 5MHz QPSK Low Channel RB25-0



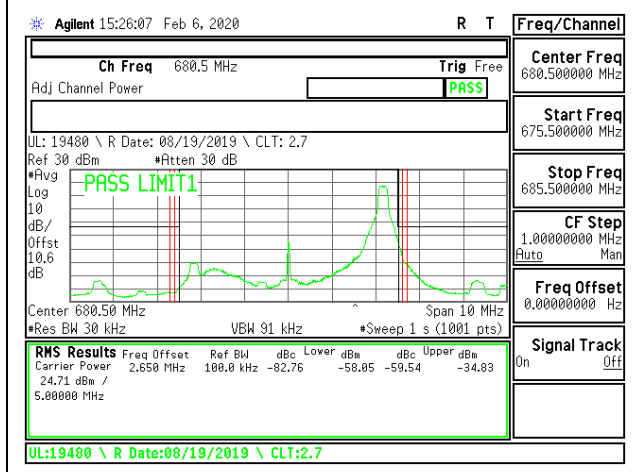
LTE B71 5MHz 16QAM Low Channel RB25-0



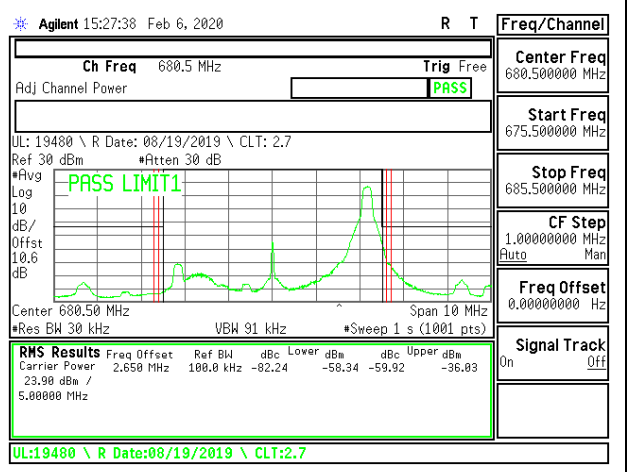
LTE B71 5MHz QPSK Middle Channel RB1-0



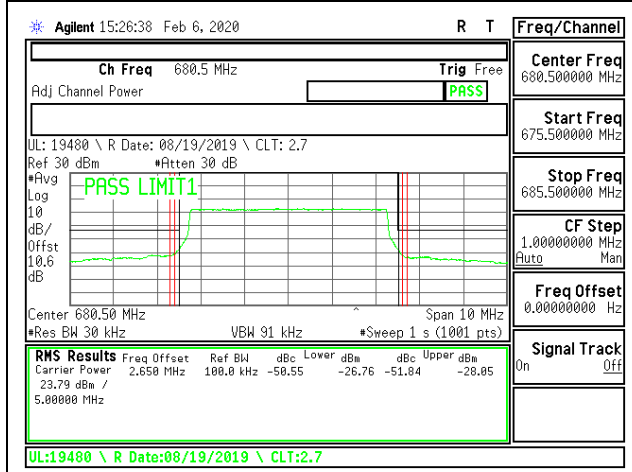
LTE B71 5MHz 16QAM Middle Channel RB1-0



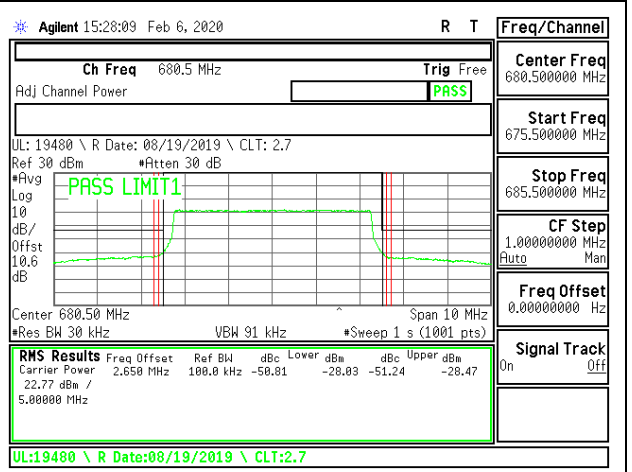
LTE B71 5MHz QPSK Middle Channel RB1-24



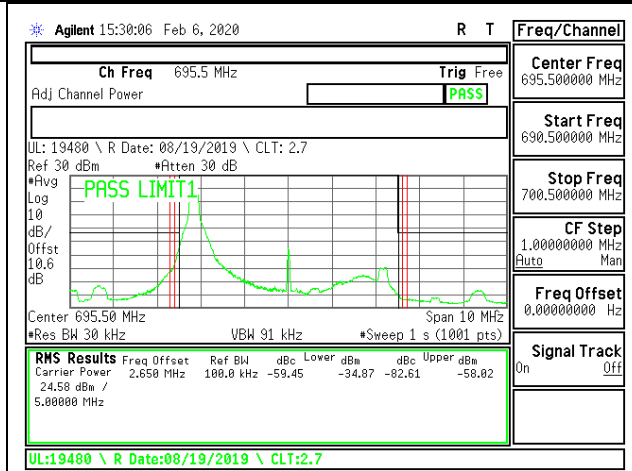
LTE B71 5MHz 16QAM Middle Channel RB1-24



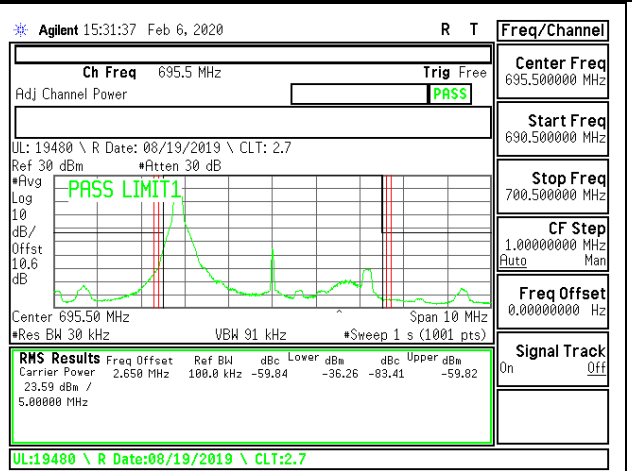
LTE B71 5MHz QPSK Middle Channel RB25-0



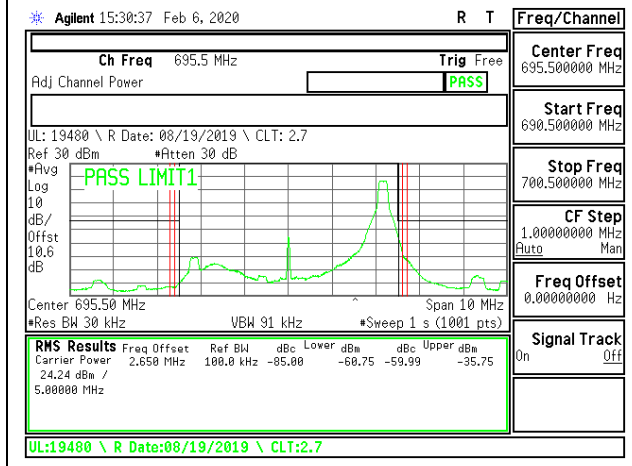
LTE B71 5MHz 16QAM Middle Channel RB25-0



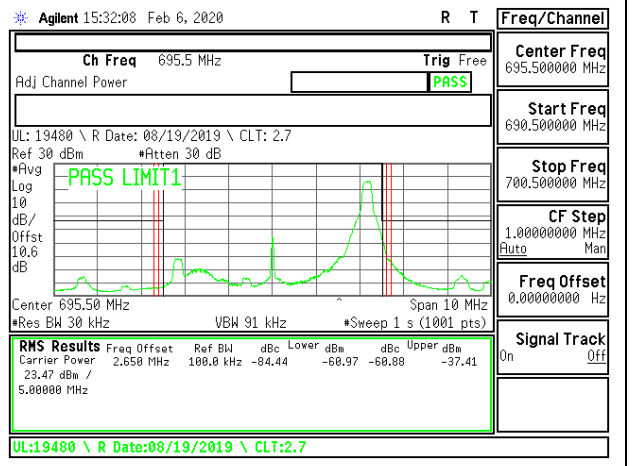
LTE B71 5MHz QPSK High Channel RB1-0



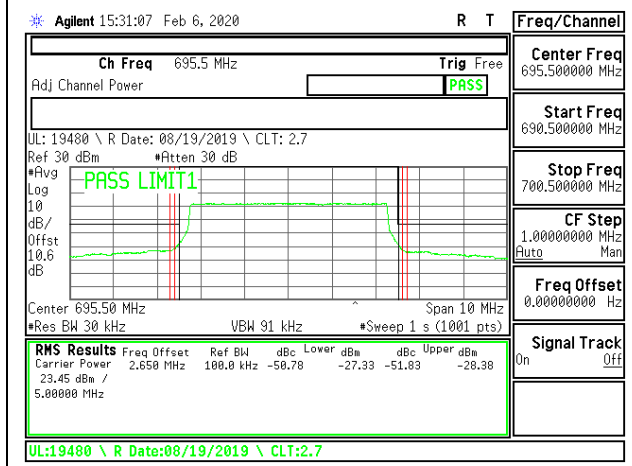
LTE B71 5MHz 16QAM High Channel RB1-0



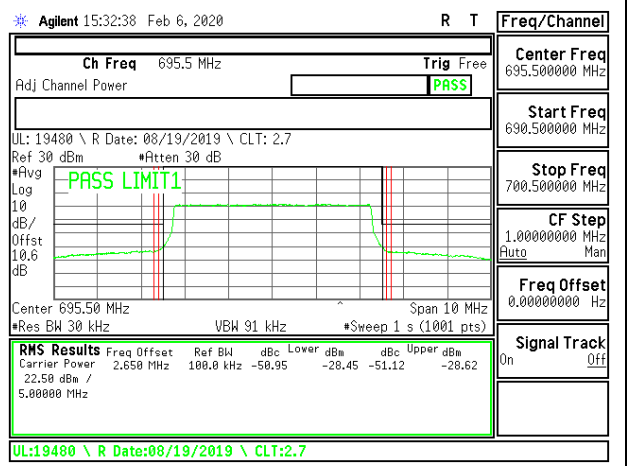
LTE B71 5MHz QPSK High Channel RB1-24



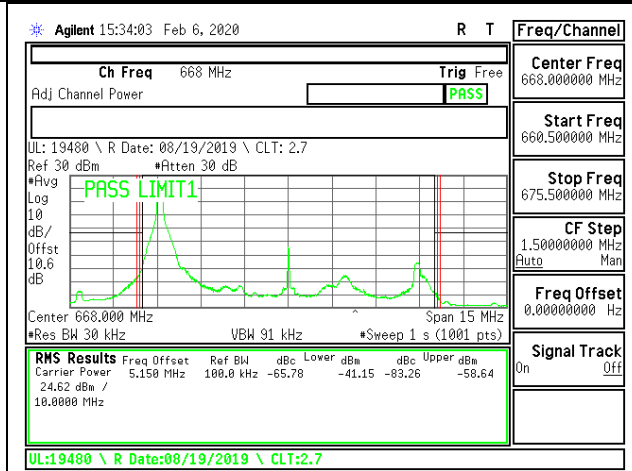
LTE B71 5MHz 16QAM High Channel RB1-24



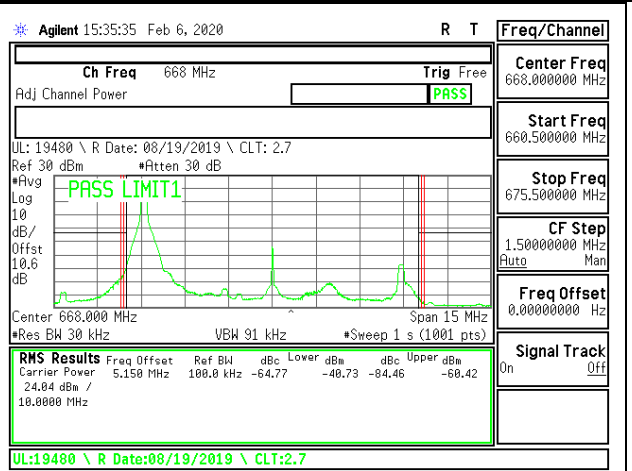
LTE B71 5MHz QPSK High Channel RB25-0



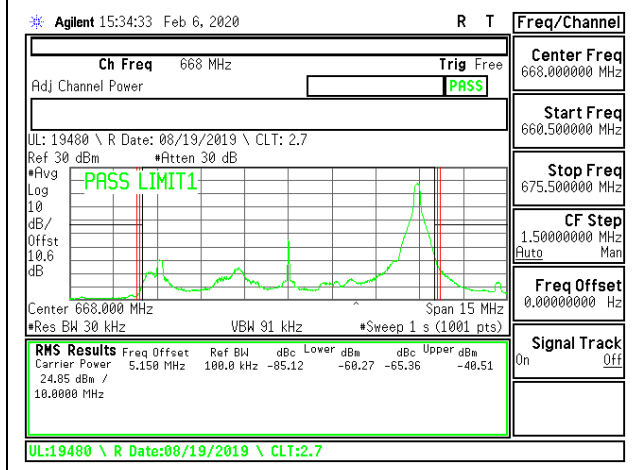
LTE B71 5MHz 16QAM High Channel RB25-0



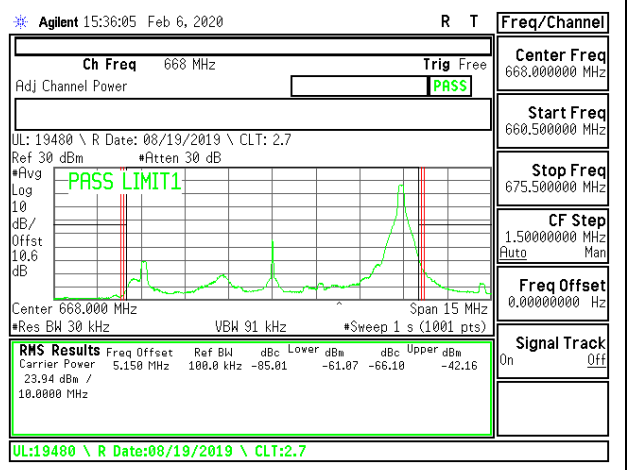
LTE B71 10MHz QPSK Low Channel RB1-0



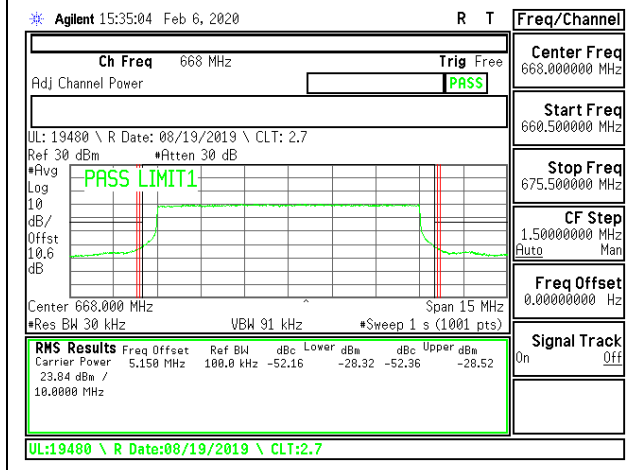
LTE B71 10MHz 16QAM Low Channel RB1-0



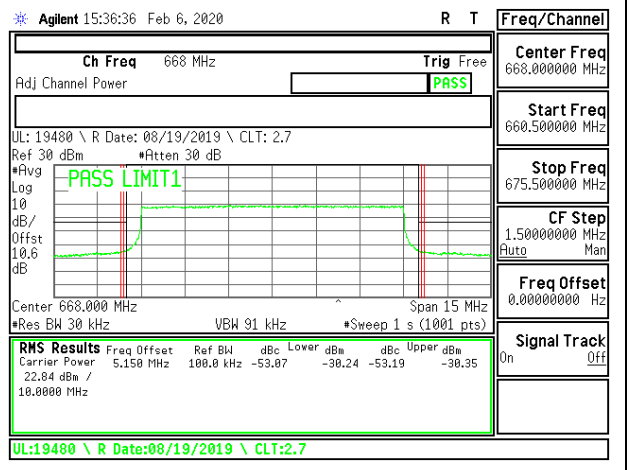
LTE B71 10MHz QPSK Low Channel RB1-49



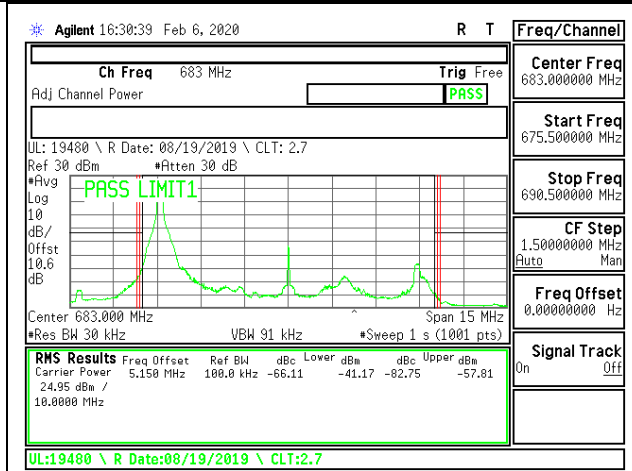
LTE B71 10MHz 16QAM Low Channel RB1-49



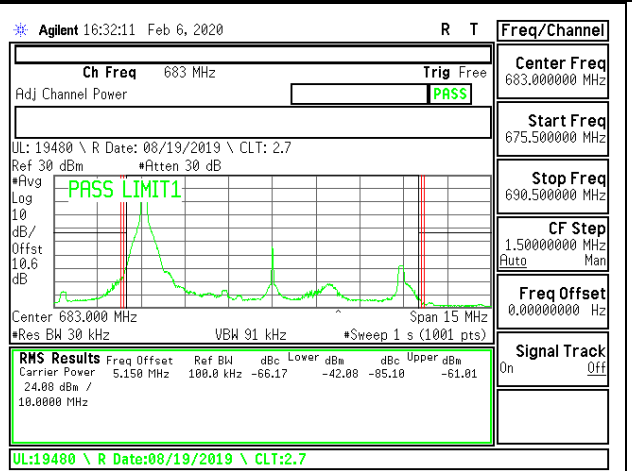
LTE B71 10MHz QPSK Low Channel RB50-0



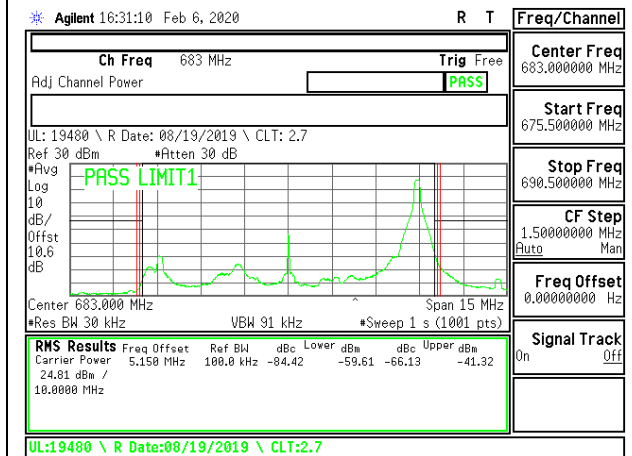
LTE B71 10MHz 16QAM Low Channel RB50-0



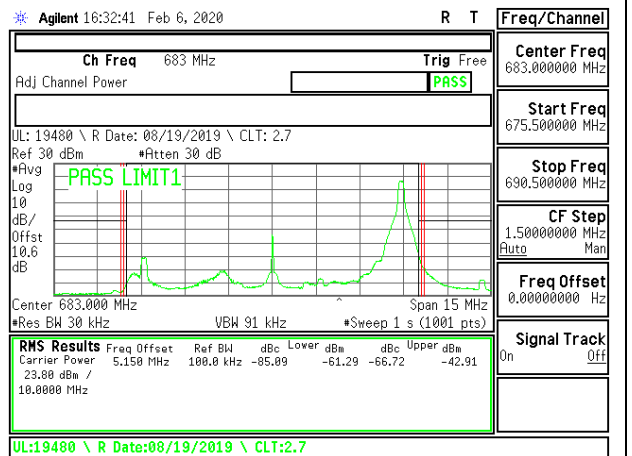
LTE B71 10MHz QPSK Middle Channel RB1-0



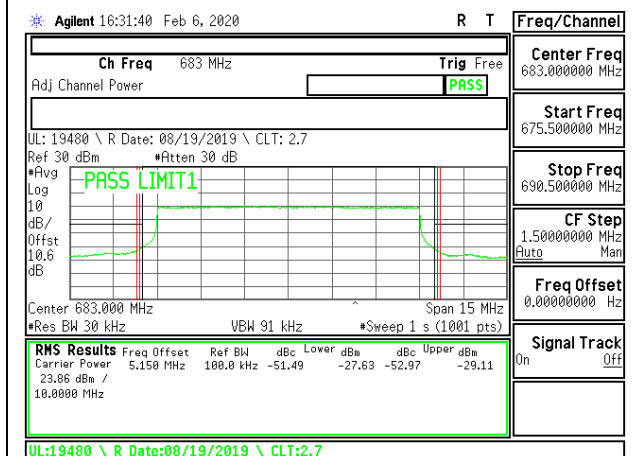
LTE B71 10MHz 16QAM Middle Channel RB1-0



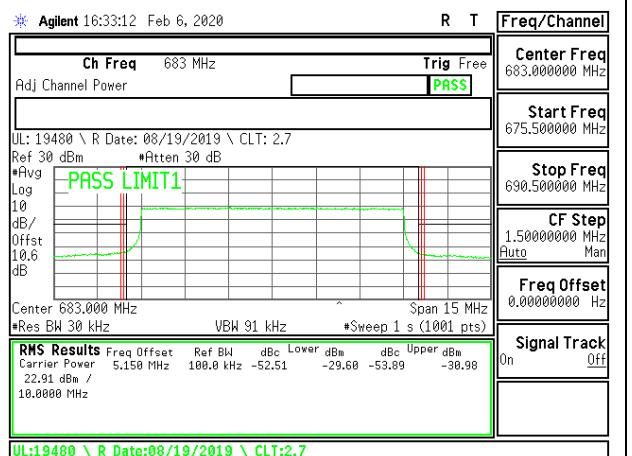
LTE B71 10MHz QPSK Middle Channel RB1-49



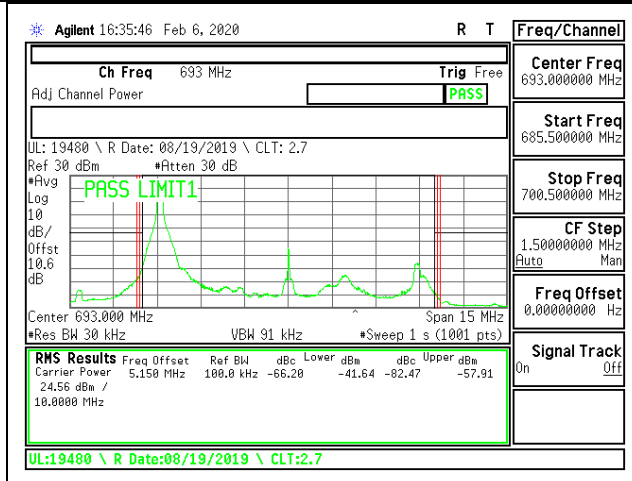
LTE B71 10MHz 16QAM Middle Channel RB1-49



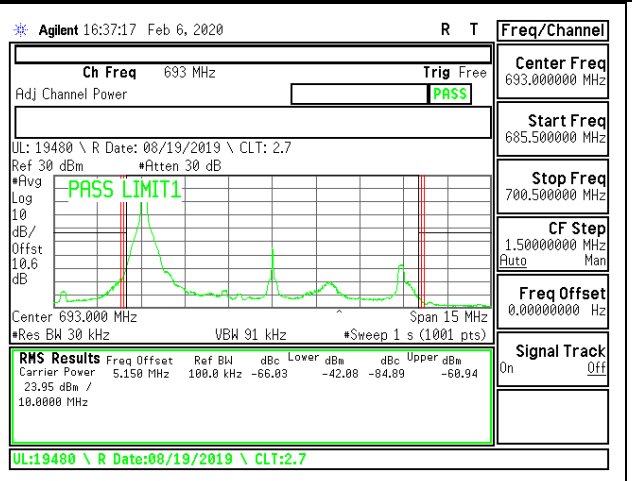
LTE B71 10MHz QPSK Middle Channel RB50-0



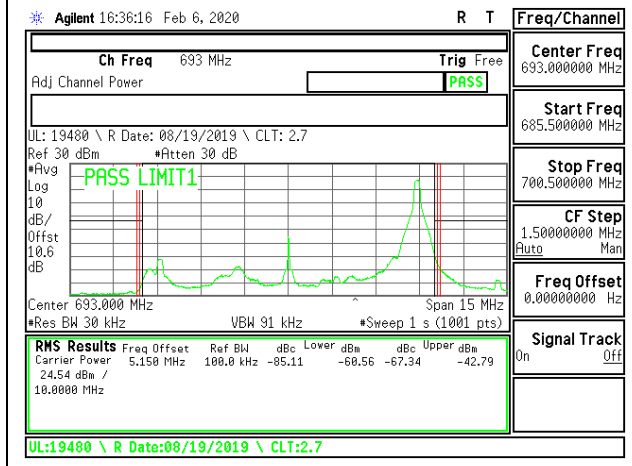
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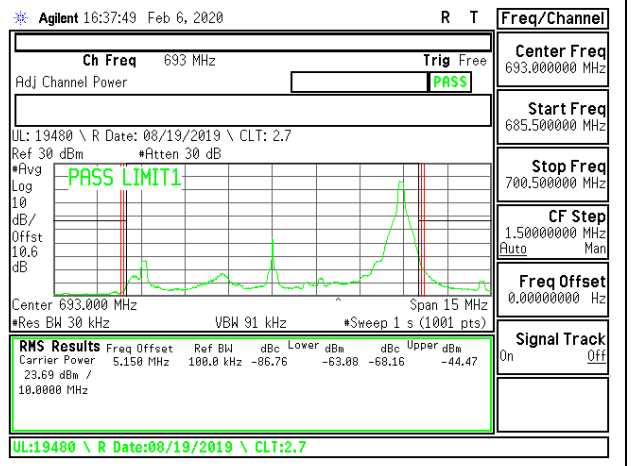
LTE B71 10MHz QPSK High Channel RB1-0



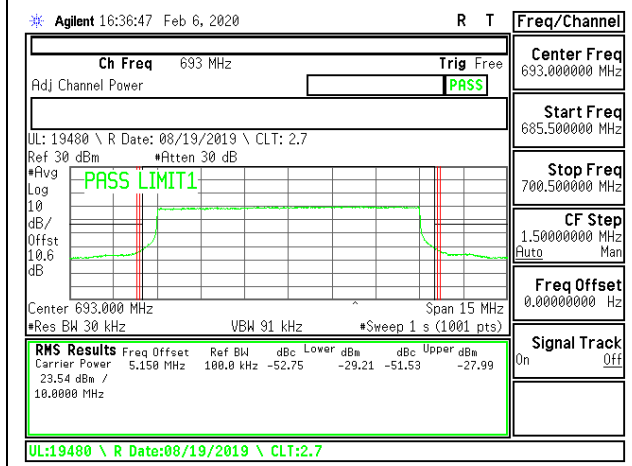
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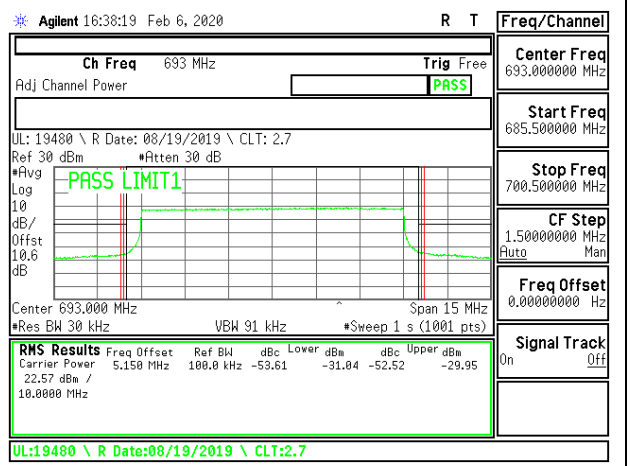
LTE B71 10MHz QPSK High Channel RB1-49



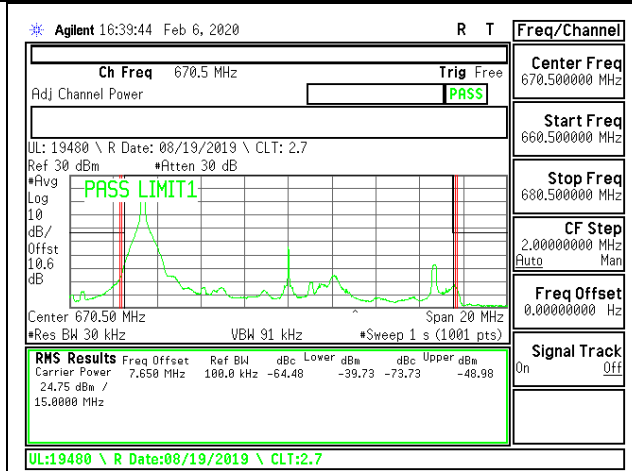
LTE B71 10MHz 16QAM High Channel RB1-49



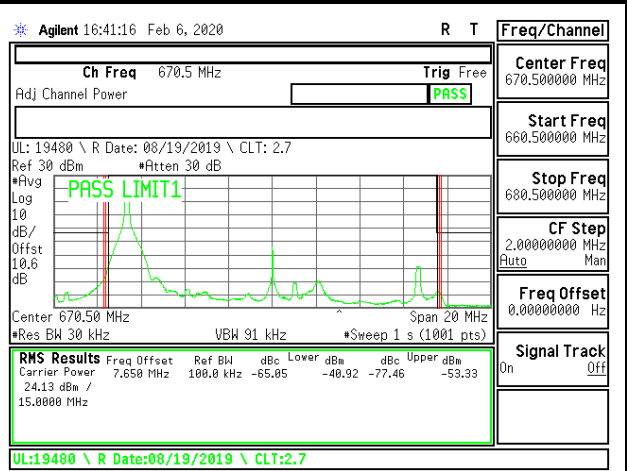
LTE B71 10MHz QPSK High Channel RB50-0



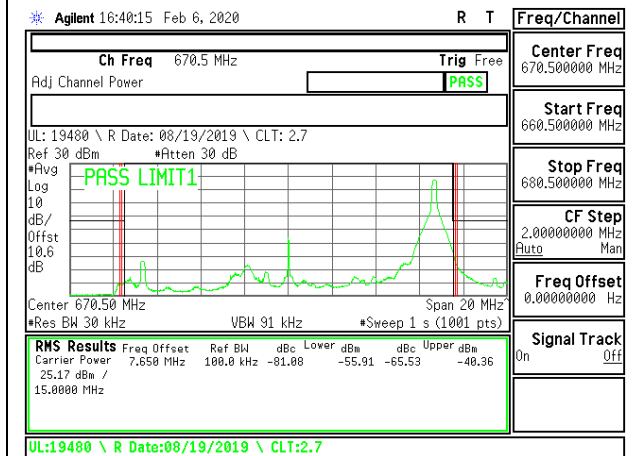
LTE B71 10MHz 16QAM High Channel RB50-0



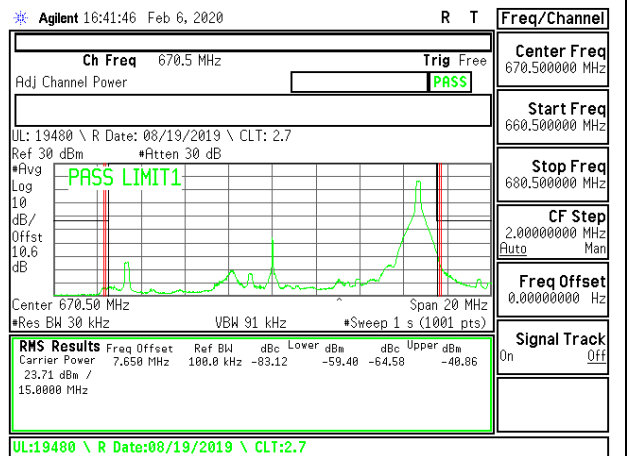
LTE B71 15MHz QPSK Low Channel RB1-0



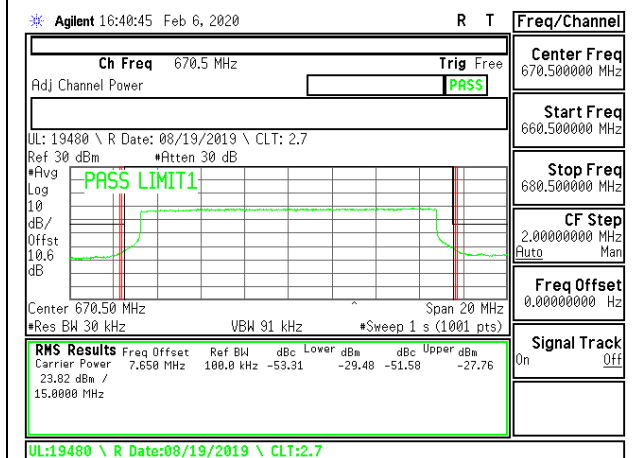
LTE B71 15MHz 16QAM Low Channel RB1-0



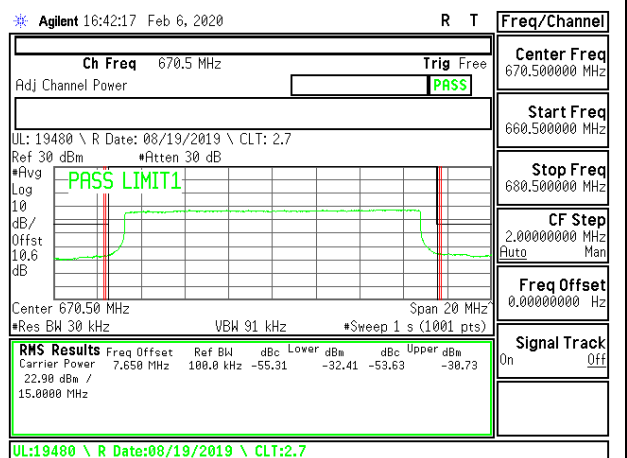
LTE B71 15MHz QPSK Low Channel RB1-74



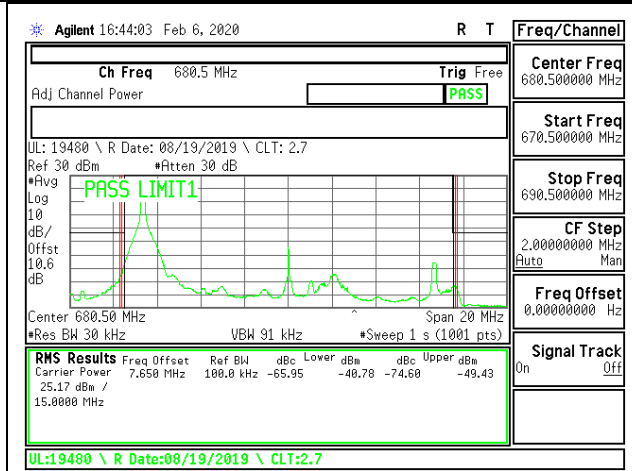
LTE B71 15MHz 16QAM Low Channel RB1-74



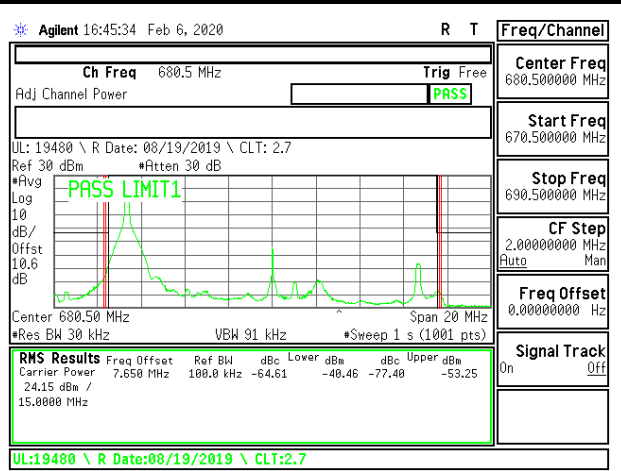
LTE B71 15MHz QPSK Low Channel RB75-0



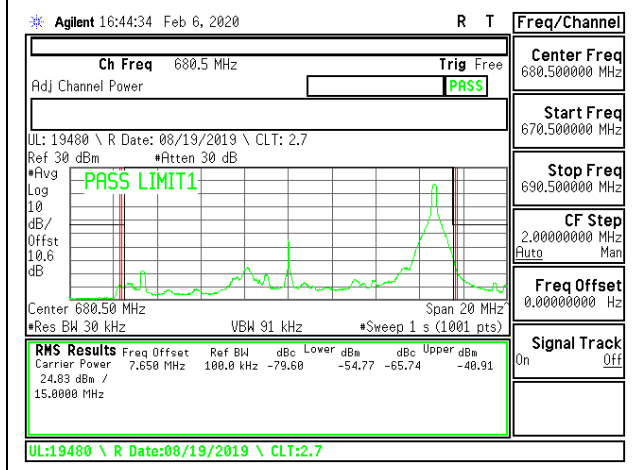
LTE B71 15MHz 16QAM Low Channel RB75-0



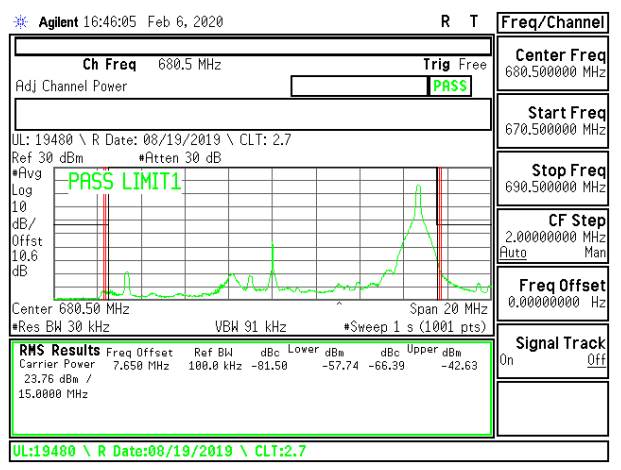
LTE B71 15MHz QPSK Middle Channel RB1-0



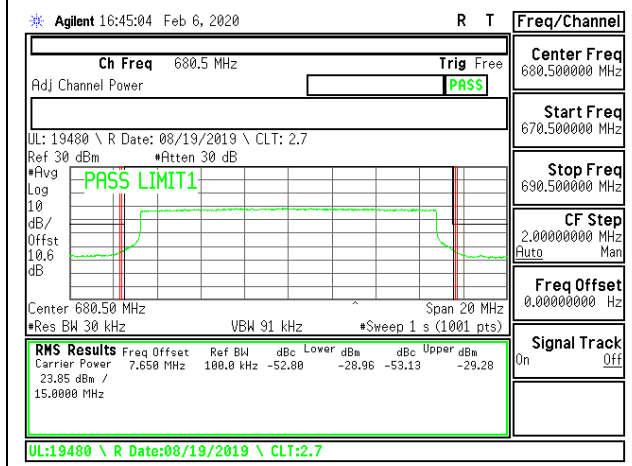
LTE B71 15MHz 16QAM Middle Channel RB1-0



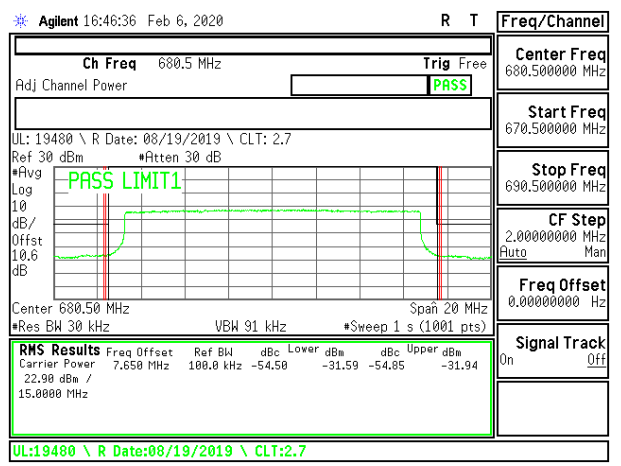
LTE B71 15MHz QPSK Middle Channel RB1-74



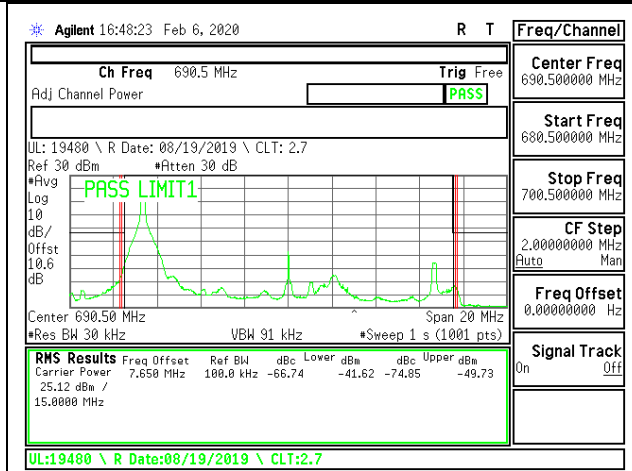
LTE B71 15MHz 16QAM Middle Channel RB1-74



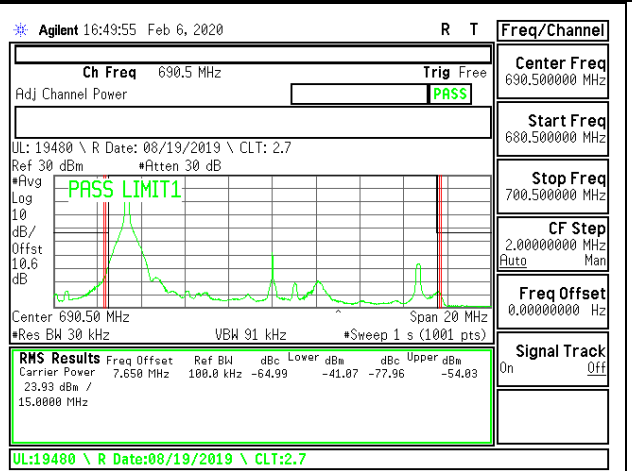
LTE B71 15MHz QPSK Middle Channel RB75-0



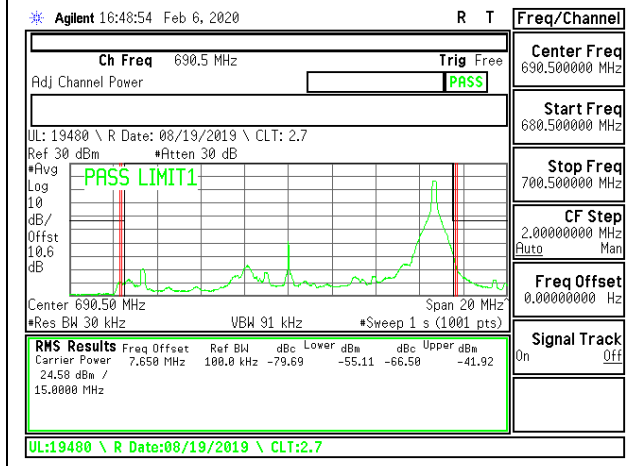
LTE B71 15MHz 16QAM Middle Channel RB75-0



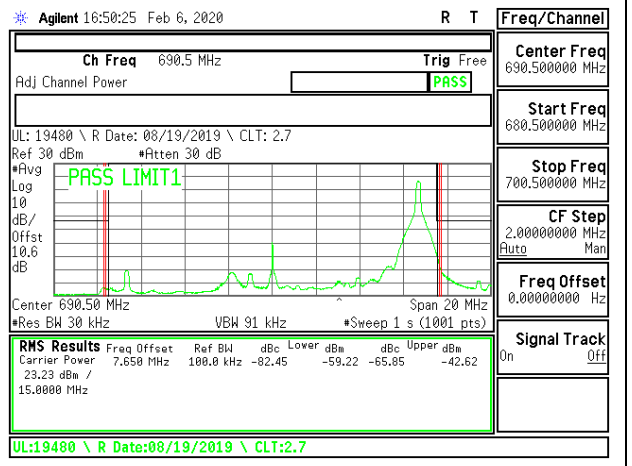
LTE B71 15MHz QPSK High Channel RB1-0



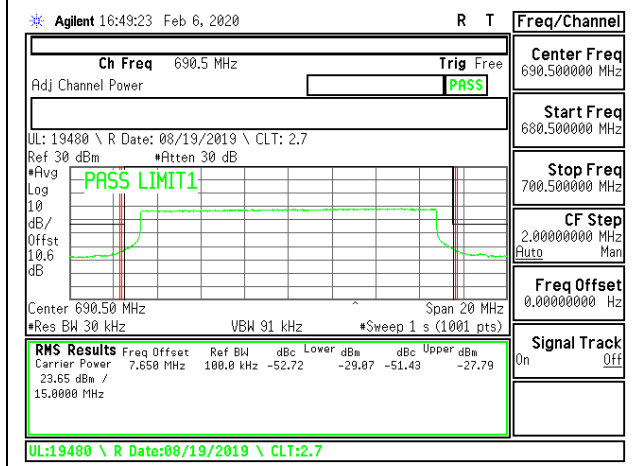
LTE B71 15MHz 16QAM High Channel RB1-0



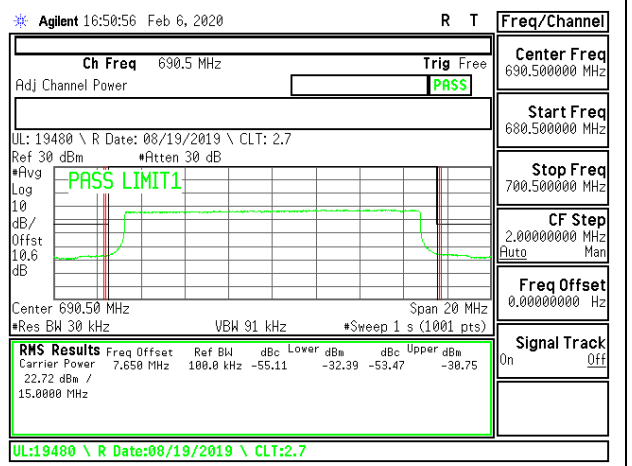
LTE B71 15MHz QPSK High Channel RB1-74



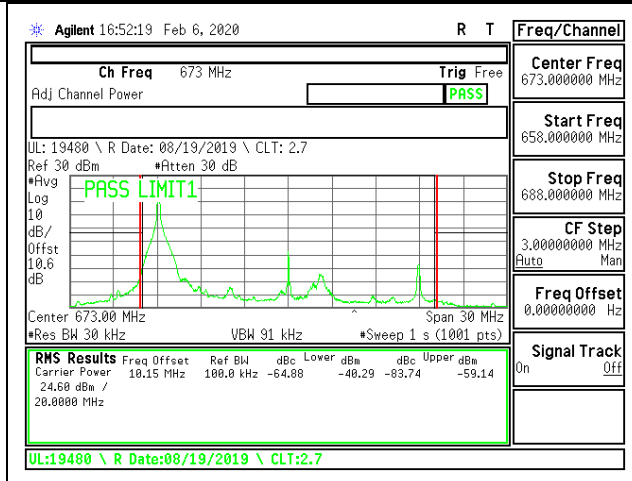
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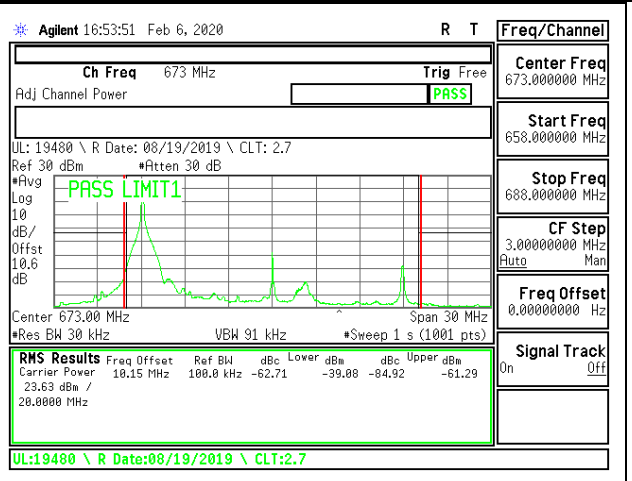
LTE B71 15MHz QPSK High Channel RB75-0



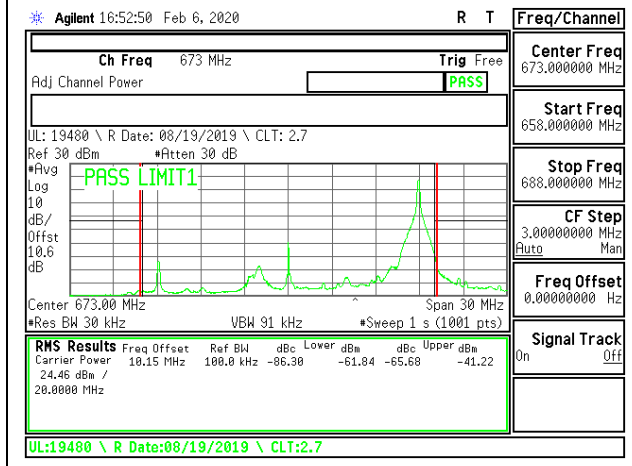
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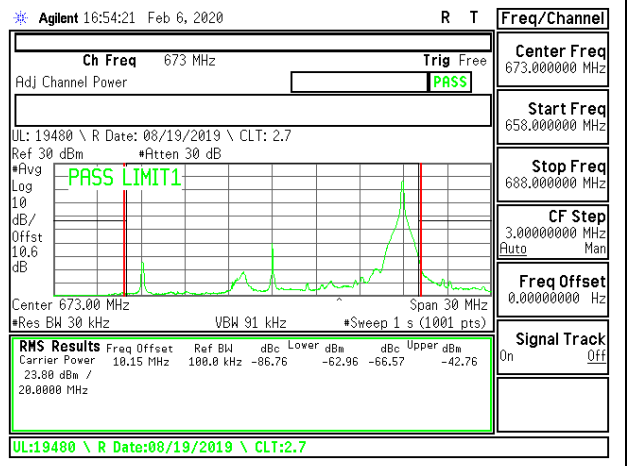
LTE B71 20MHz QPSK Low Channel RB1-0



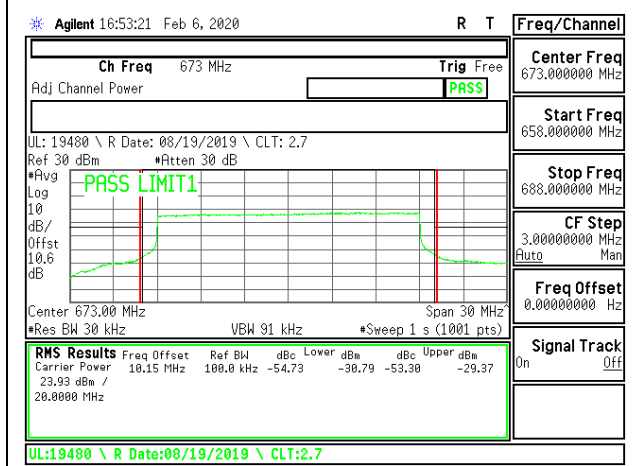
LTE B71 20MHz 16QAM Low Channel RB1-0



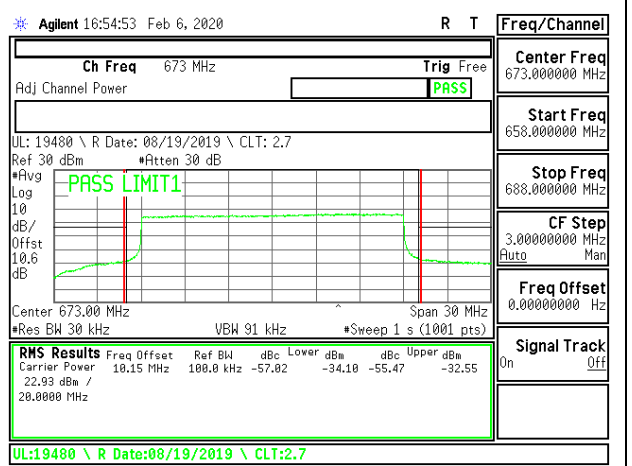
LTE B71 20MHz QPSK Low Channel RB1-99



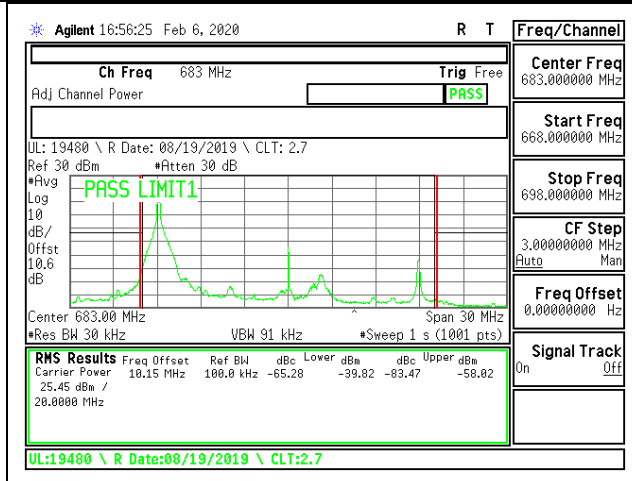
LTE B71 20MHz 16QAM Low Channel RB1-99



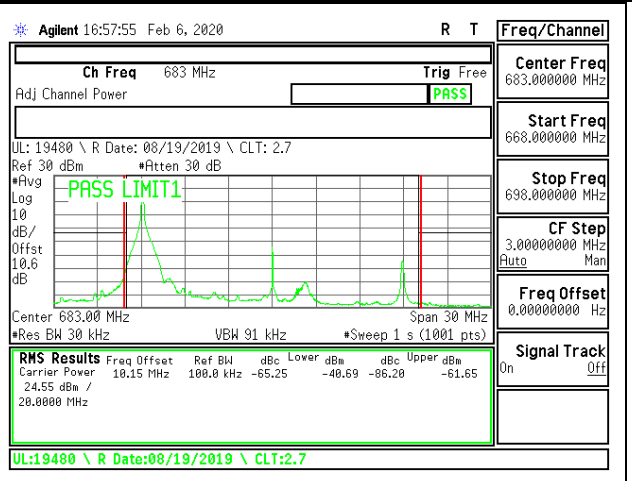
LTE B71 20MHz QPSK Low Channel RB100-0



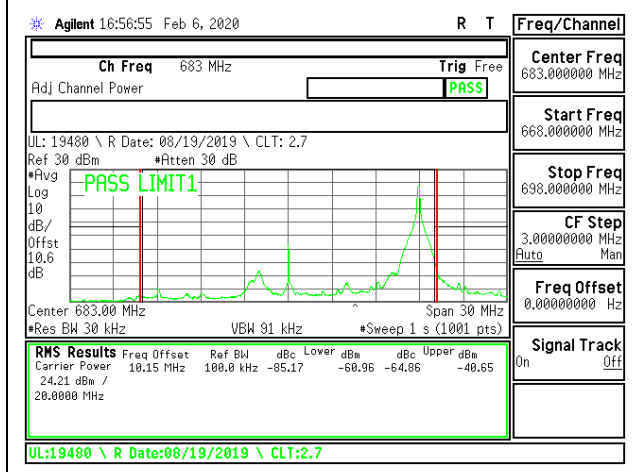
LTE B71 20MHz 16QAM Low Channel RB100-0



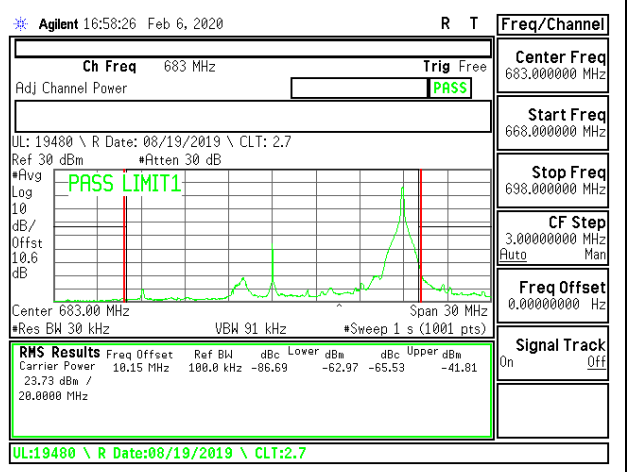
LTE B71 20MHz QPSK Middle Channel RB1-0



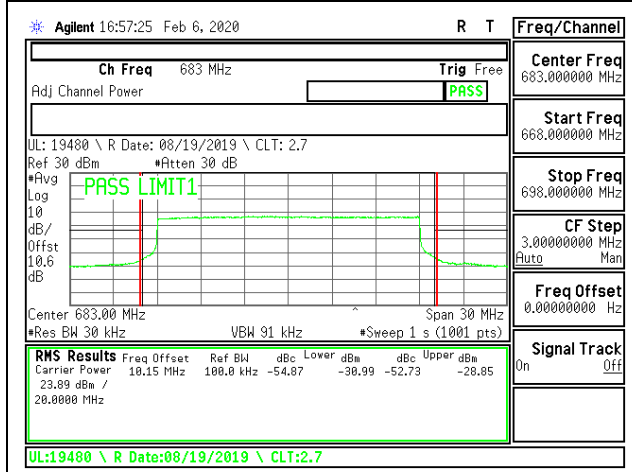
LTE B71 20MHz 16QAM Middle Channel RB1-0



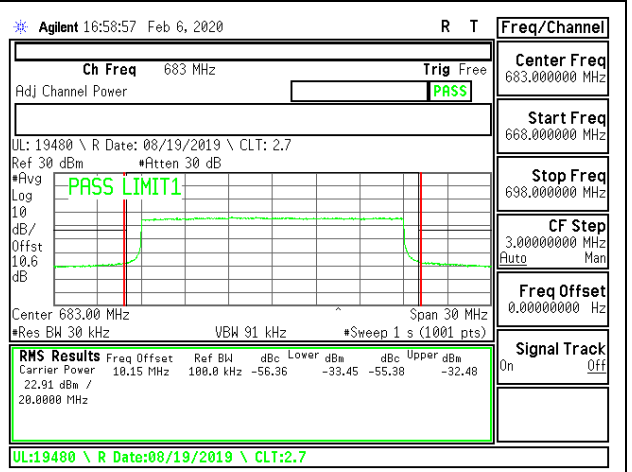
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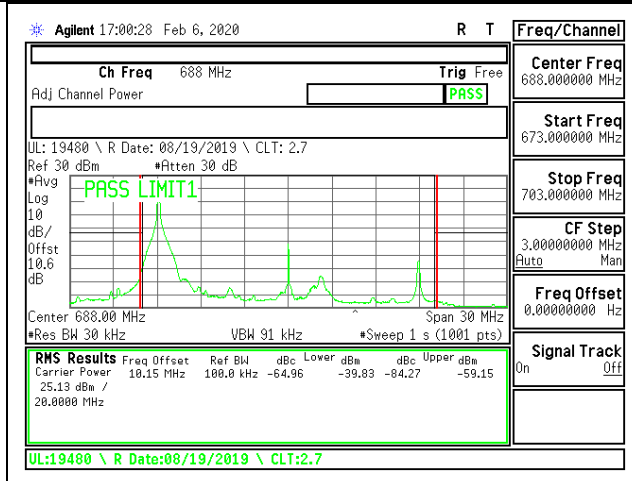
LTE B71 20MHz 16QAM Middle Channel RB1-99



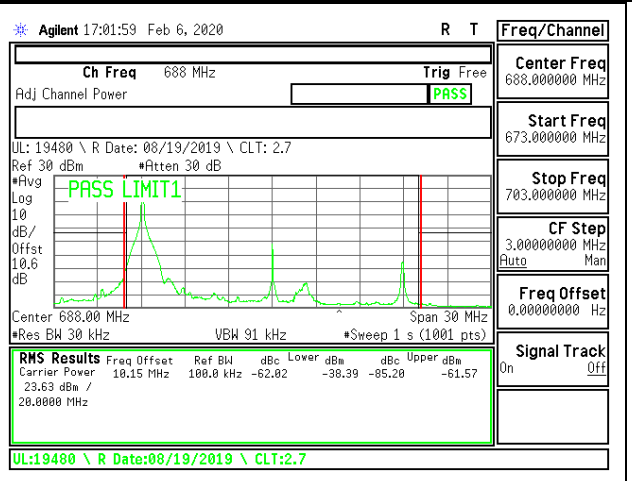
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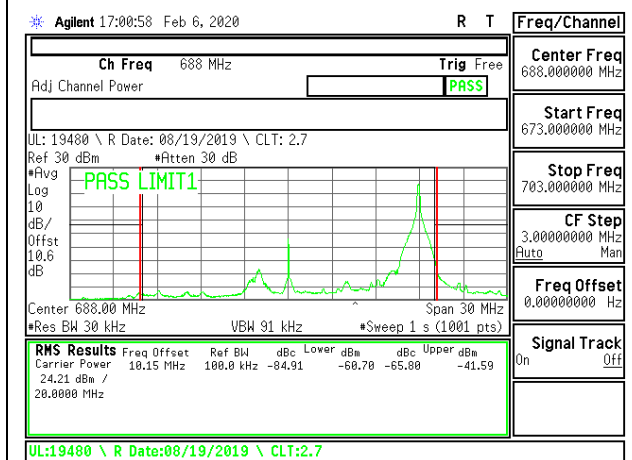
LTE B71 20MHz 16QAM Middle Channel RB100-0



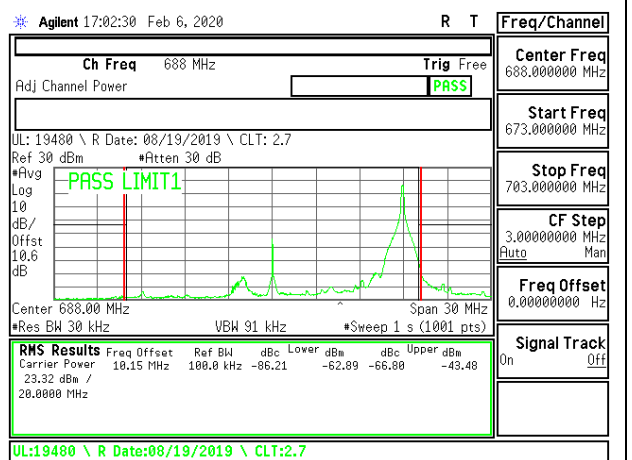
LTE B71 20MHz QPSK High Channel RB1-0



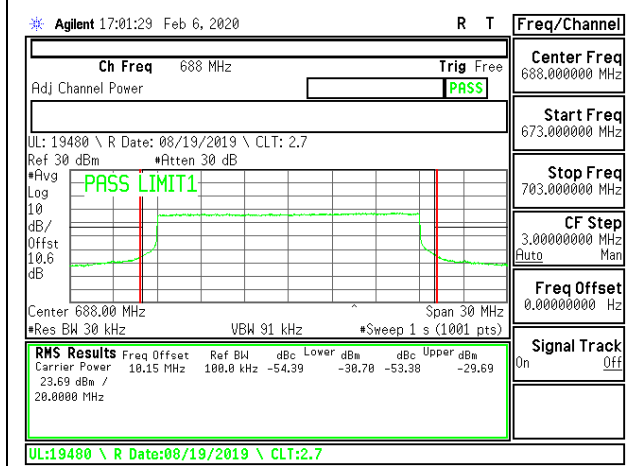
LTE B71 20MHz 16QAM High Channel RB1-0



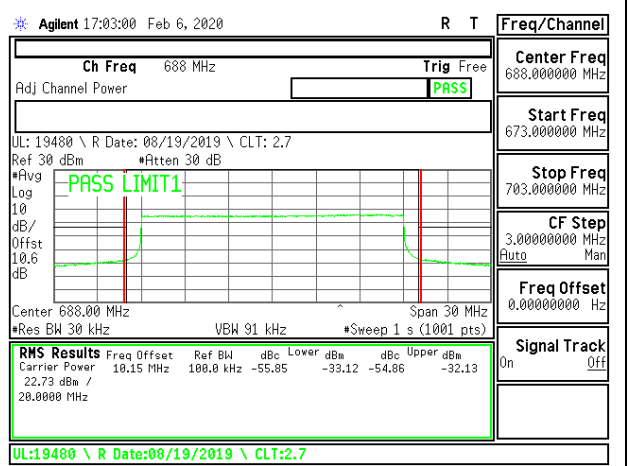
LTE B71 20MHz QPSK High Channel RB1-99



LTE B71 20MHz 16QAM High Channel RB1-99



LTE B71 20MHz QPSK High Channel RB100-0



LTE B71 20MHz 16QAM High Channel RB100-0

8.3. OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.917, §24.238, and §27.53

ISED: RSS130§4.7, RSS132§5.5; RSS133§6.5, RSS139§6.6, RSS199§4.5.

LIMITS

FCC: §22.917, §24.238, §27.53 (g), (h)

The minimum permissible attenuation level of any spurious emissions is $43 + 10 \log (P)$ dB where transmitting power (P) in Watts.

FCC: §27.53 (c), (f) (Band 13)

The minimum permissible attenuation level of any spurious emissions is $43 + 10 \log (P)$ dB where transmitting power (P) in Watts. The band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

Note: Radiated data in section 9.1.6 confirms a compliance with narrowband limits for GPS1559-1610 MHz band.

FCC: §27.53 (m) (Band 7, 41)

The minimum permissible attenuation level of any spurious emissions is $55 + 10 \log (P)$ dB where transmitting power (P) in Watts.

RSS130§4.7, RSS132§5.5, RSS133§6.5, RSS139§6.6

The minimum permissible attenuation level of any spurious emissions is $43 + 10 \log (P)$ dB where transmitting power (P) in Watts.

RSS199§4.5

The minimum permissible attenuation level of any spurious emissions is $55 + 10 \log (P)$ dB where transmitting power (P) in Watts.

TEST PROCEDURE

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

For each out of band emissions measurement:

- Set display line at -13 dBm, -25 dBm and -40 dBm according to the band Limit
- Set RBW & VBW to 100 kHz for the measurement below 1 GHz, and 1 MHz for the measurement above 1 GHz.
(NOTE: Worst case set RBW/VBW to 1MHz/3MHz)

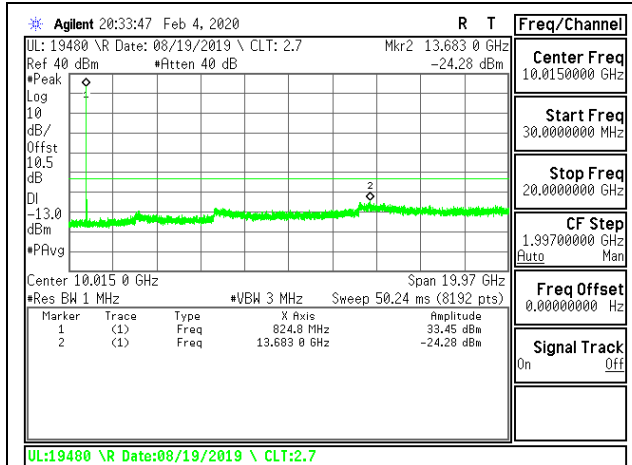
RESULTS

8.3.1. GSM 850

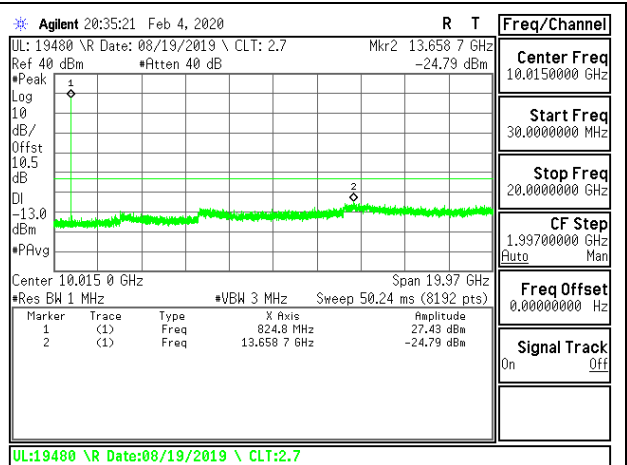
LIMITS

FCC: §22.917

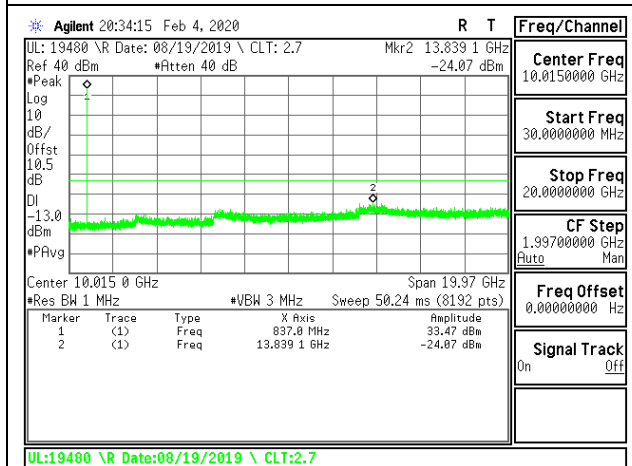
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.



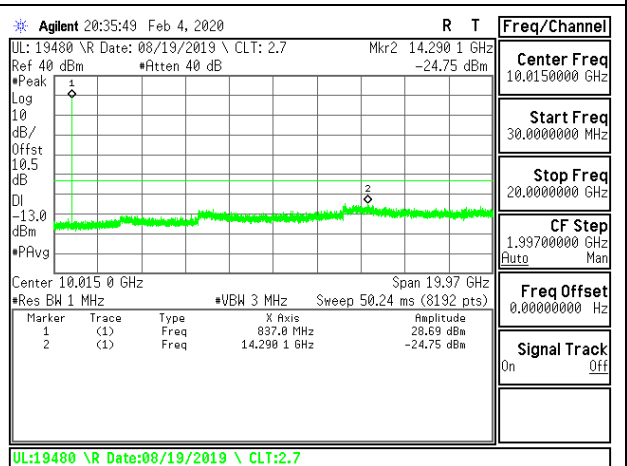
GSM 850 GPRS Low Channel



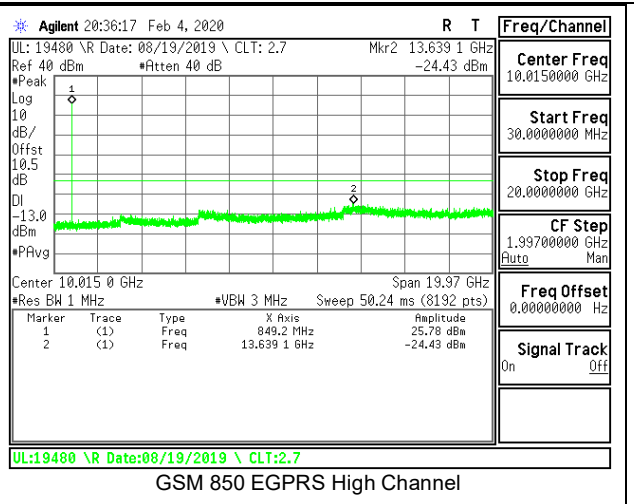
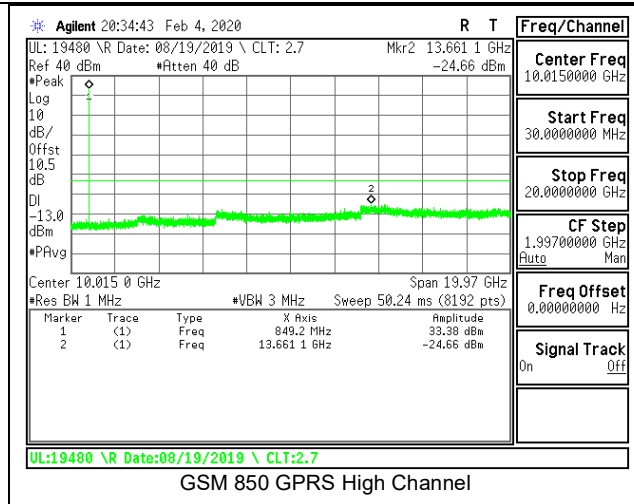
GSM 850 EGPRS Low Channel



GSM 850 GPRS Middle Channel



GSM 850 EGPRS Middle Channel

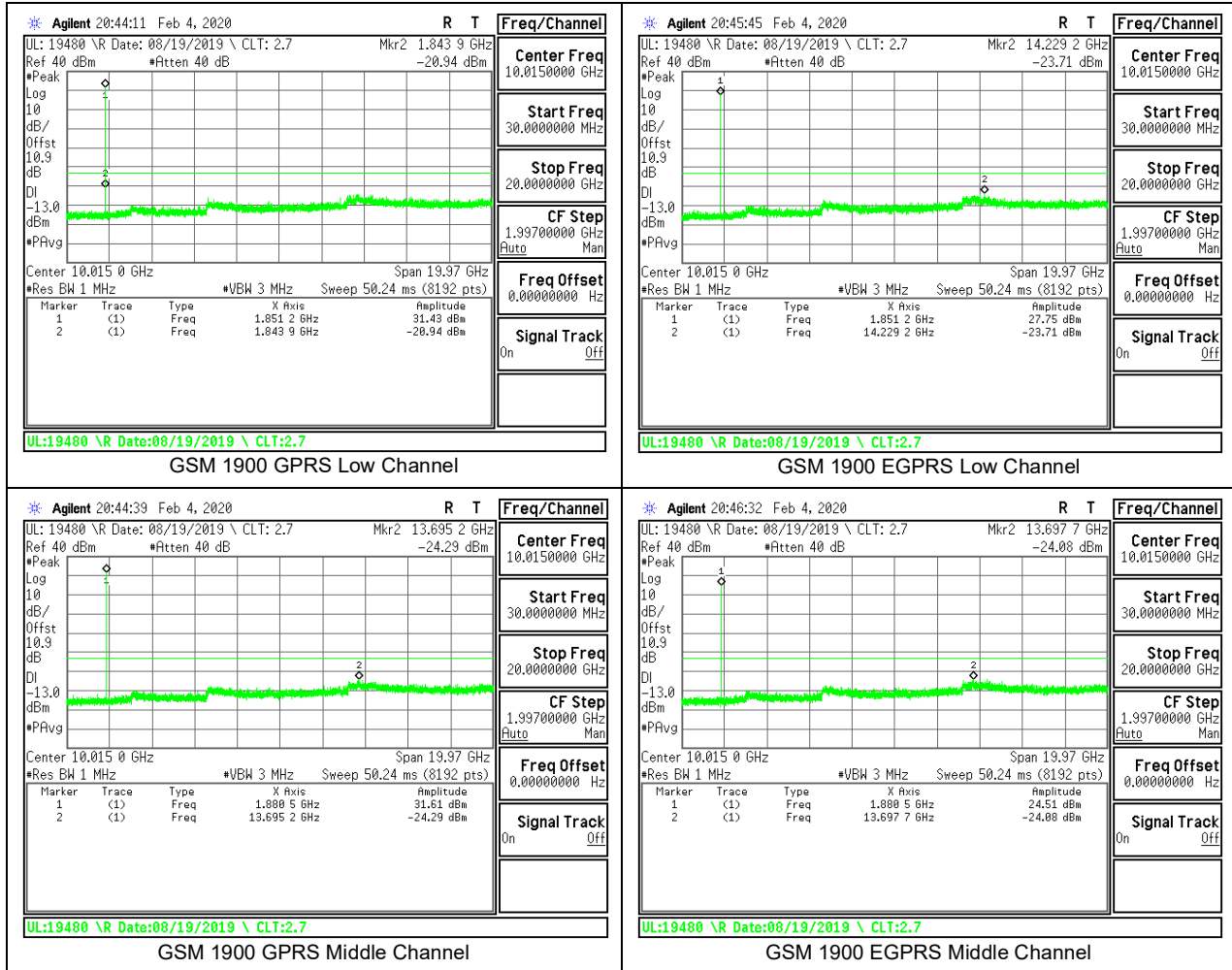


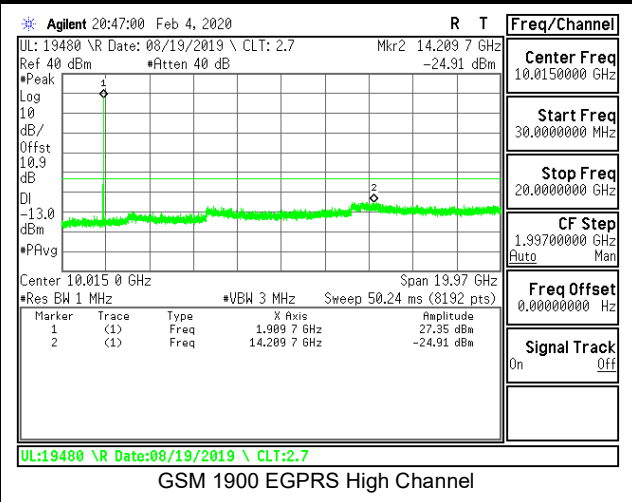
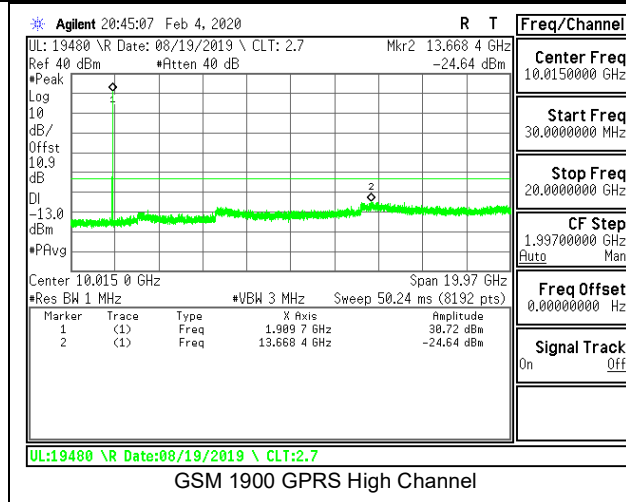
8.3.2. GSM 1900

LIMITS

FCC: §24.238

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.



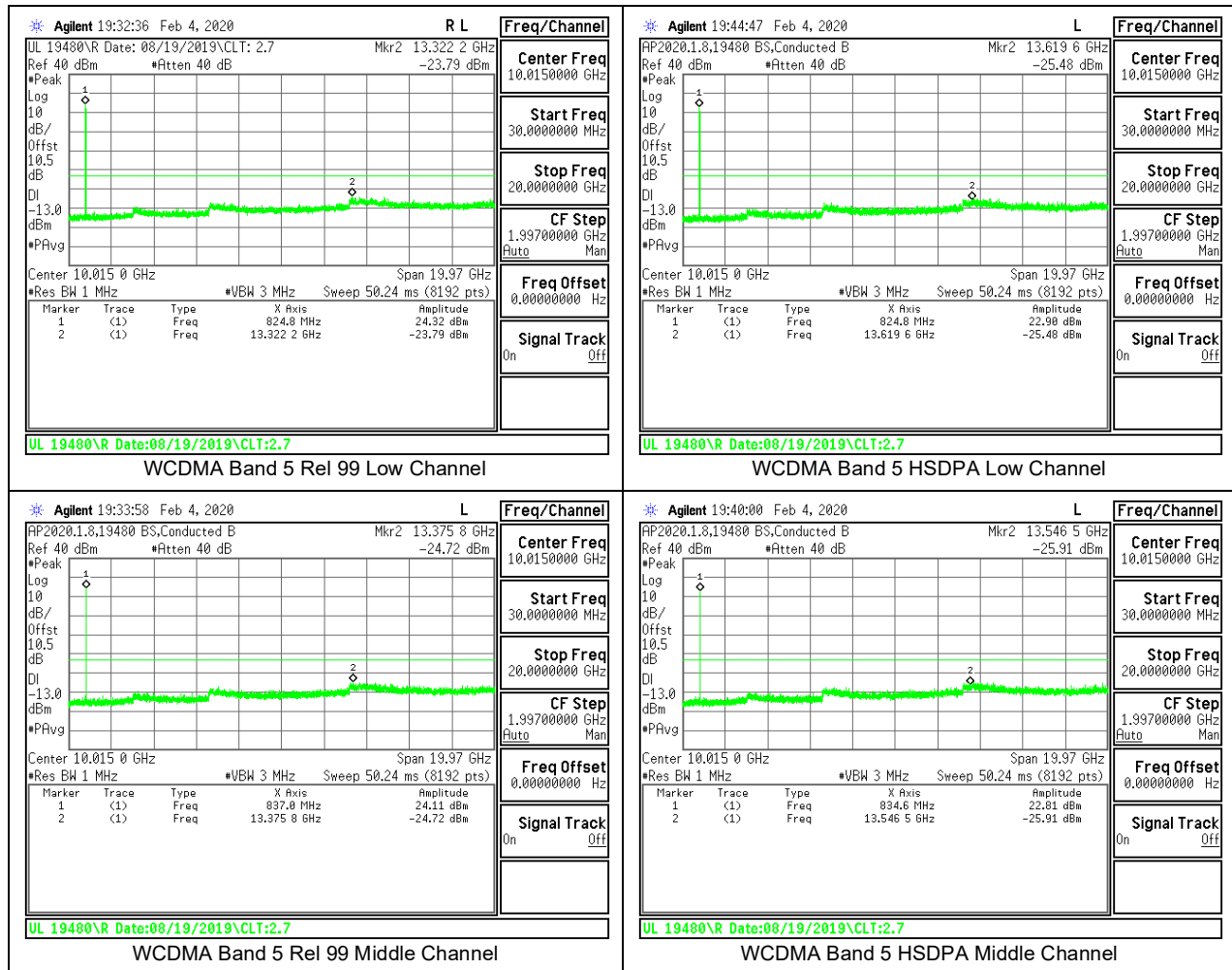


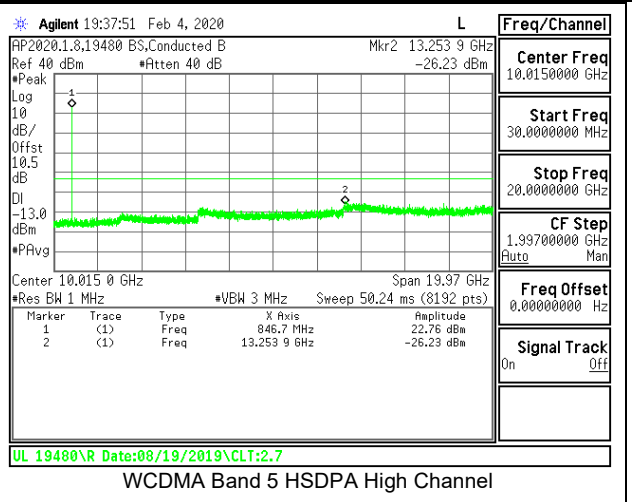
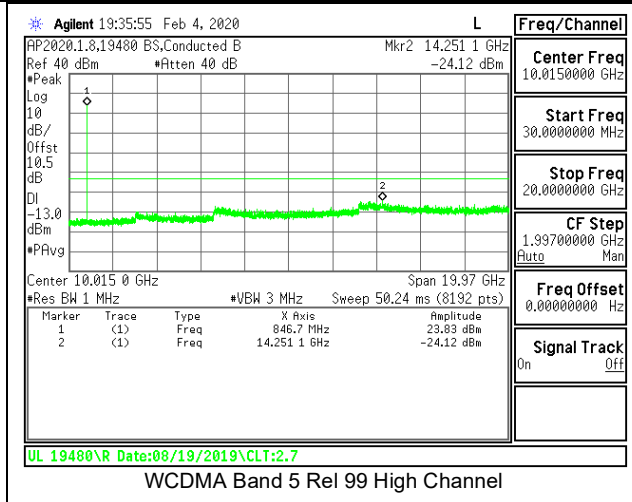
8.3.3. WCDMA BAND 5

LIMITS

FCC: §22.917

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.





8.3.4. WCDMA BAND 2

LIMITS

FCC: §24.238

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.

