



9.2.7. LTE BAND 66

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.

LTE BAND 66 BANDEDGE



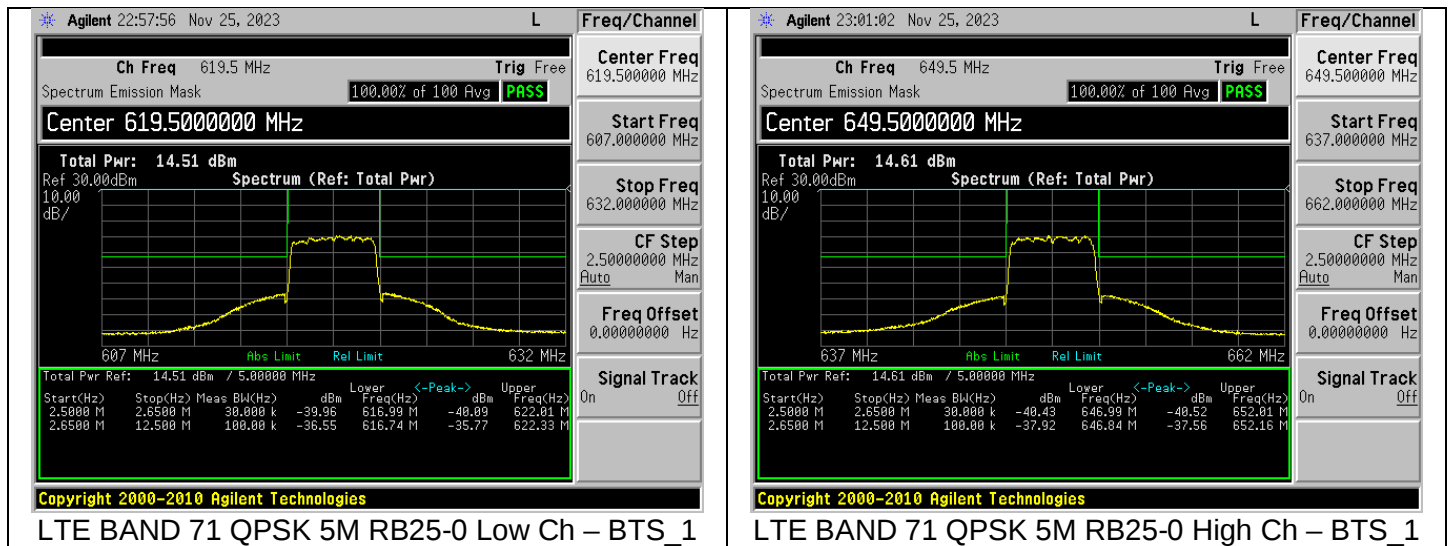
9.2.8. LTE BAND 71 AND 5G NR n71 EMISSION MASK

LIMITS

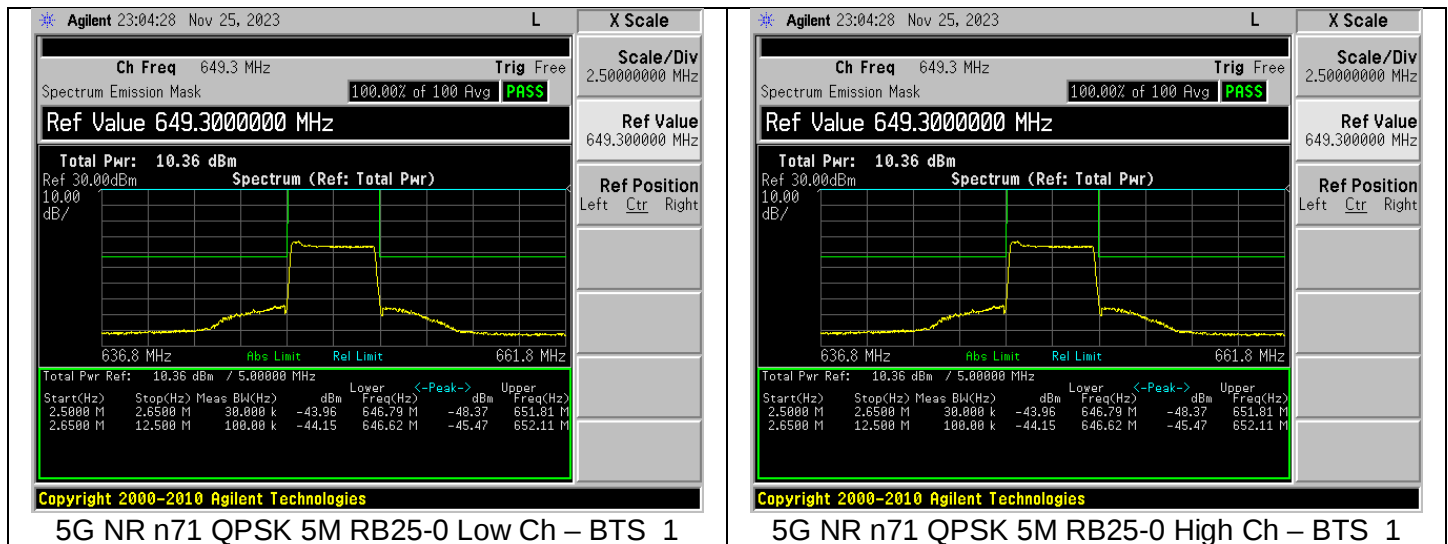
FCC: §27.53

(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.

LTE BAND 71 EMISSION MASK



5G NR n71 EMISSION MASK



9.2.9. 5G NR n77 EMISSION MASK (FCC Part 27 3450-3550MHz)

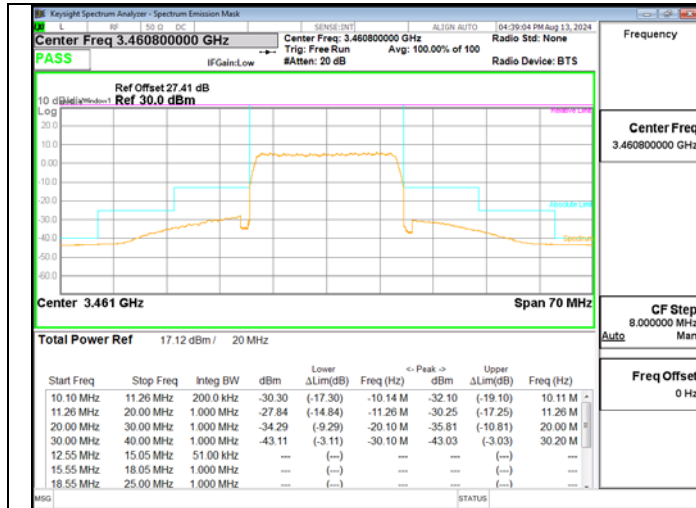
LIMITS

FCC: §27.53

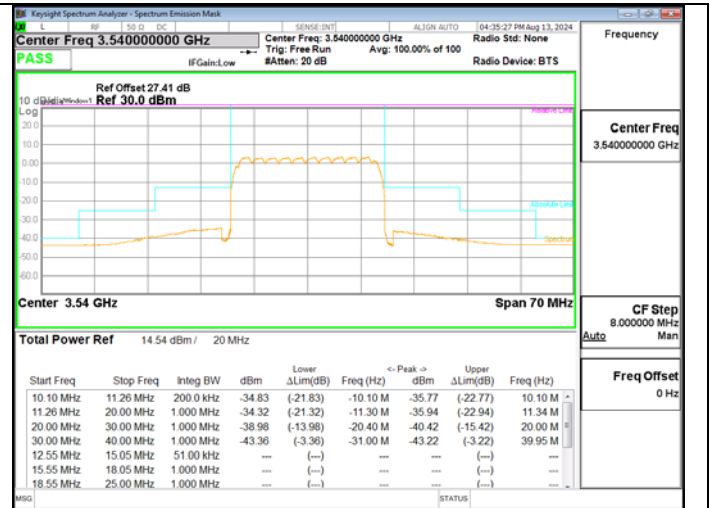
(n) 3.45 GHz Service. The following emission limits apply to stations transmitting in the 3450-3550 MHz band:

(1) For base station operations in the 3450-3550 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with the provisions of this [paragraph \(n\)\(1\)](#) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed, but limited to a maximum of 200 kHz. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Notwithstanding the channel edge requirement of -13 dBm per megahertz, for base station operations in the 3450-3550 MHz band, the conducted power of any emission below 3440 MHz or above 3560 MHz shall not exceed -25 dBm/MHz, and the conducted power of emissions below 3430 MHz or above 3570 MHz shall not exceed -40 dBm/MHz.

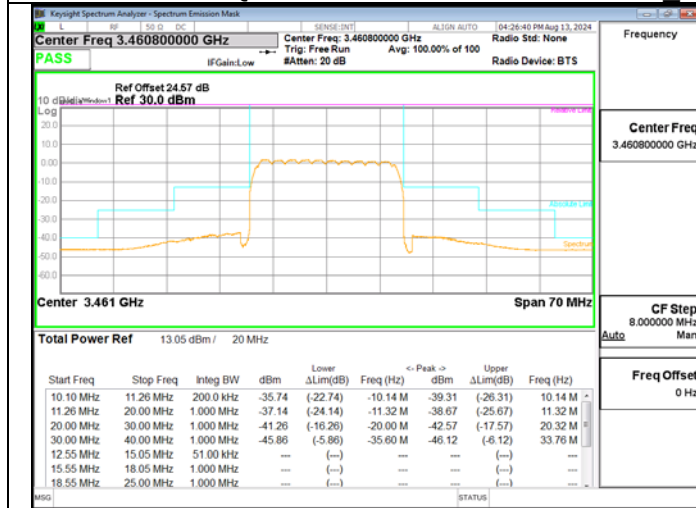
5G NR n77 EMISSION MASK



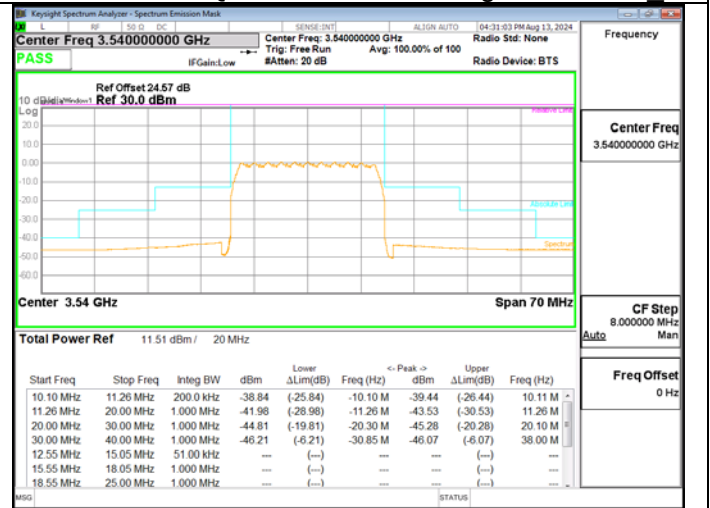
5G NR N77-A QPSK 5M RB25-0 Low Ch – BTS 1



5G NR N77-A QPSK 5M RB25-0 High Ch – BTS 1



5G NR N77-A QPSK 5M RB25-0 Low Ch – BTS 2



5G NR N77-A QPSK 5M RB25-0 High Ch – BTS 2

9.2.10. 5G NR n77 EMISSION MASK (FCC Part 27 3700-3980MHz)

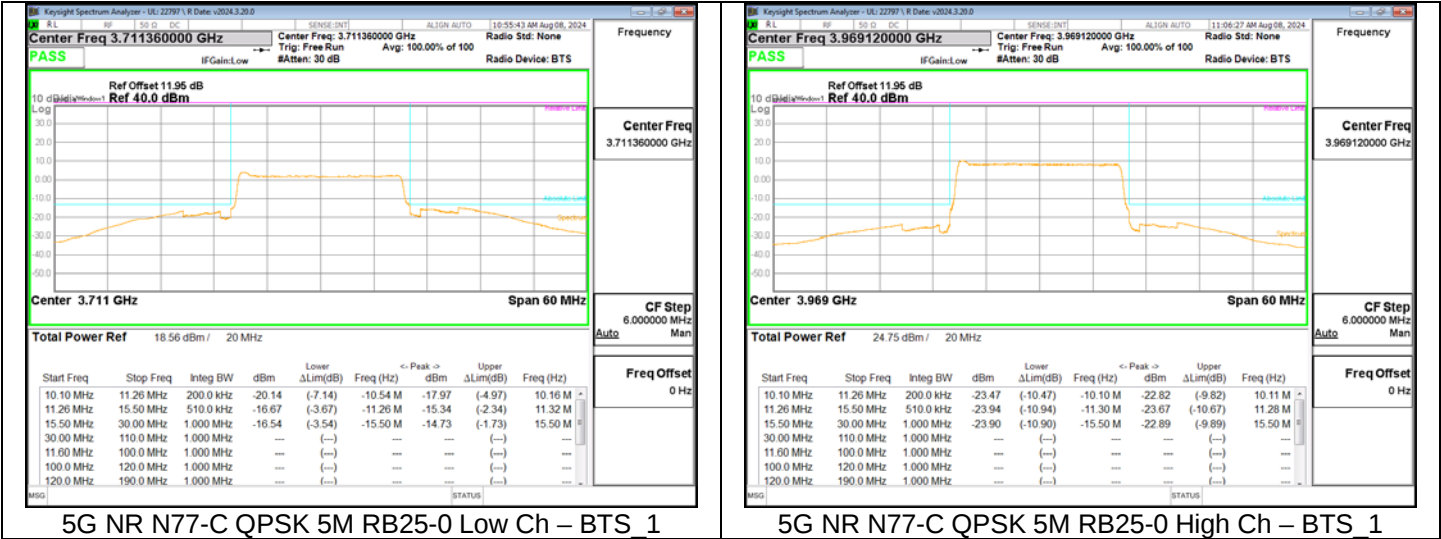
LIMITS

FCC: §27.53

(l) 3.7 GHz Service. The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

(1) For base station operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed -13 dBm/MHz. Compliance with this [paragraph \(l\)\(1\)](#) is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 megahertz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

Block-C



9.3. OUT OF BAND EMISSIONS

TEST PROCEDURE

ANSI C63.26-2015, Section 5.7.3

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, -25dBm and -40dBm 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

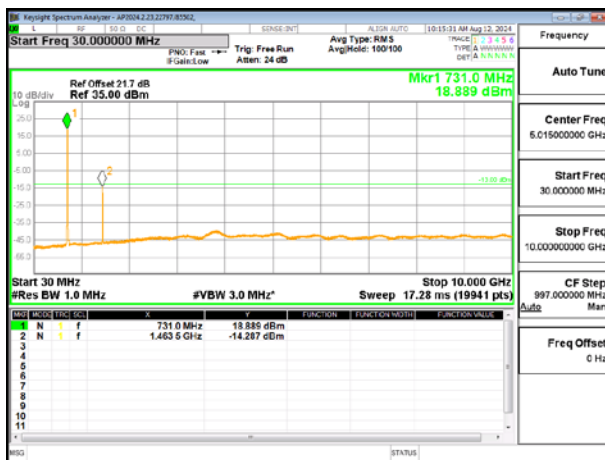
9.3.1. LTE BAND 12

LIMITS

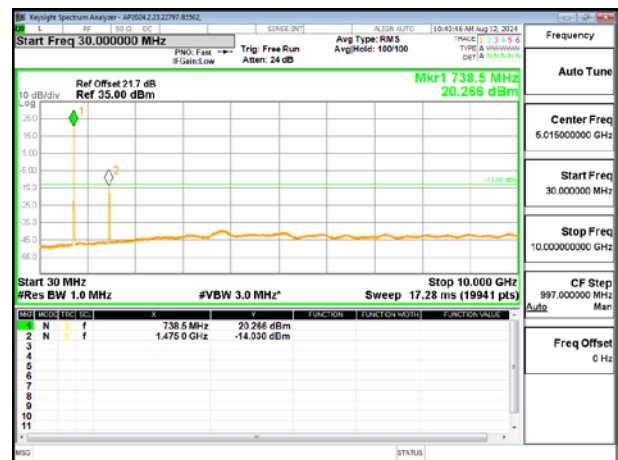
FCC: §27.53 (g)

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

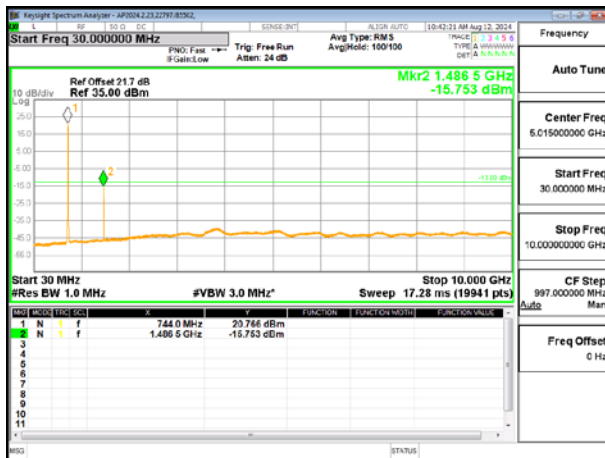
LTE BAND 12



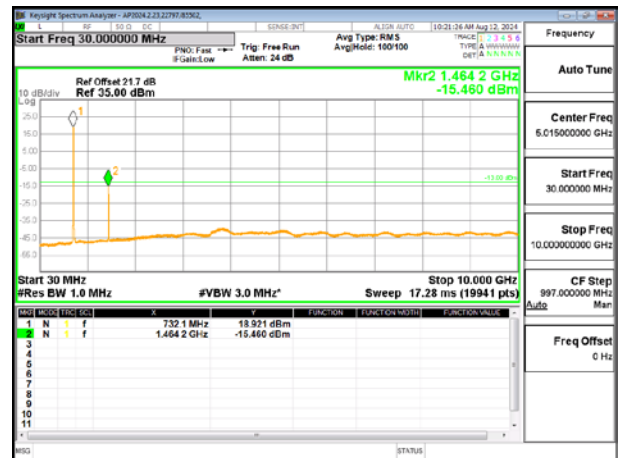
LTE BAND 12 QPSK 5M RB25-0 Low Ch – BTS_1



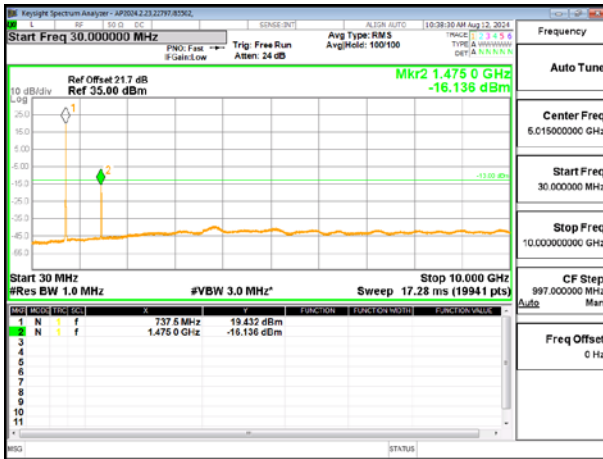
LTE BAND 12 QPSK 5M RB25-0 Mid Ch – BTS_1



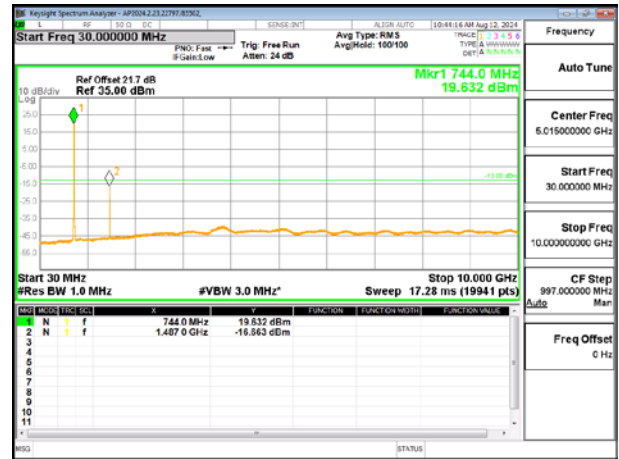
LTE BAND 12 QPSK 5M RB25-0 High Ch – BTS_1



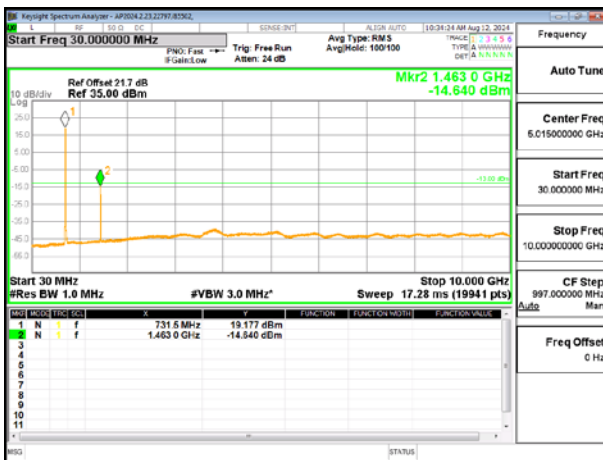
LTE BAND 12 QPSK 5M RB25-0 Low Ch – BTS_2



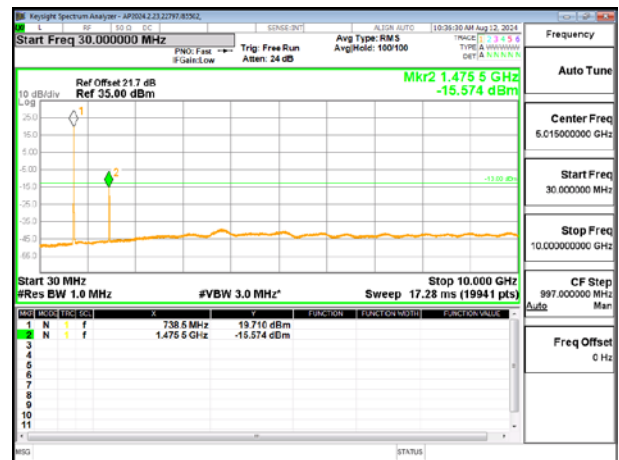
LTE BAND 12 QPSK 5M RB25-0 Mid Ch – BTS_2



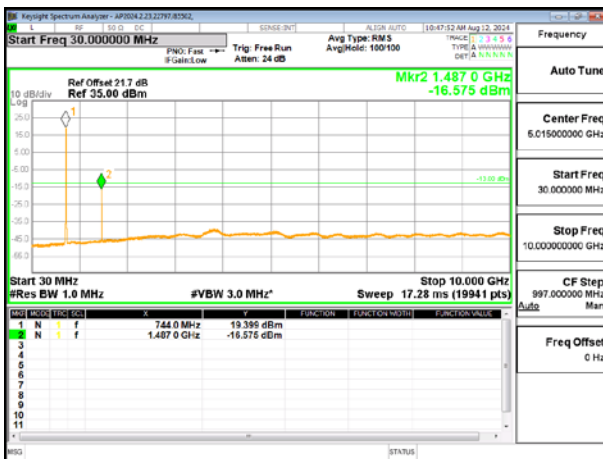
LTE BAND 12 QPSK 5M RB25-0 High Ch – BTS_2



LTE BAND 12 QPSK 5M RB25-0 Low Ch – BTS_3



LTE BAND 12 QPSK 5M RB25-0 Mid Ch – BTS_3



LTE BAND 12 QPSK 5M RB25-0 High Ch – BTS_3

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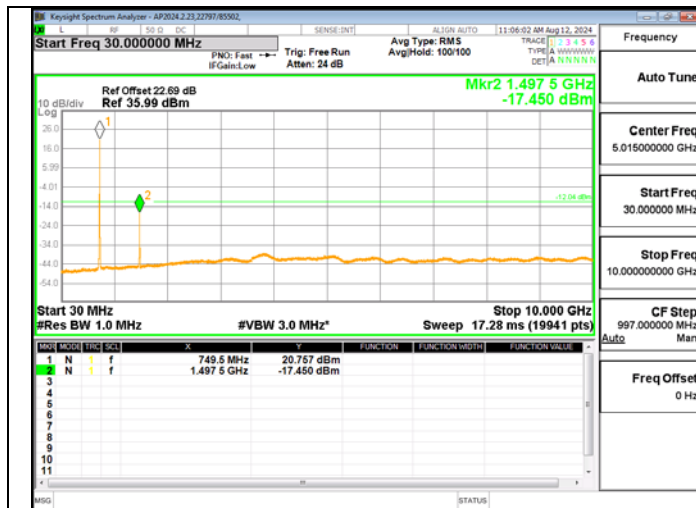
9.3.2. LTE BAND 13

LIMITS

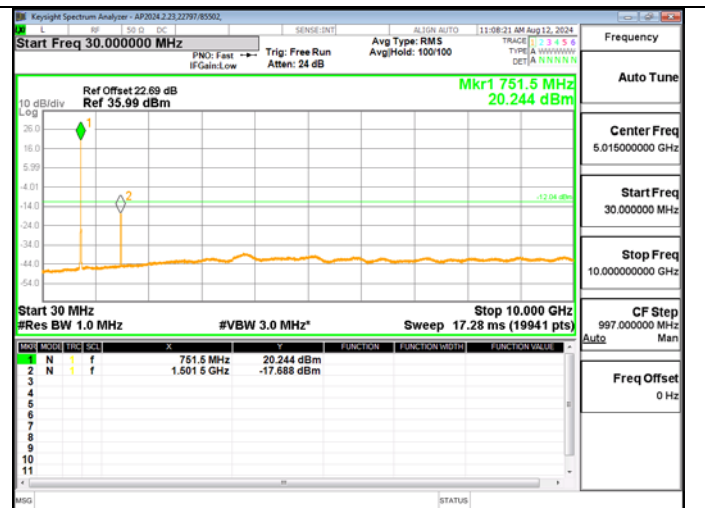
FCC: §27.53 (c), (f)

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.

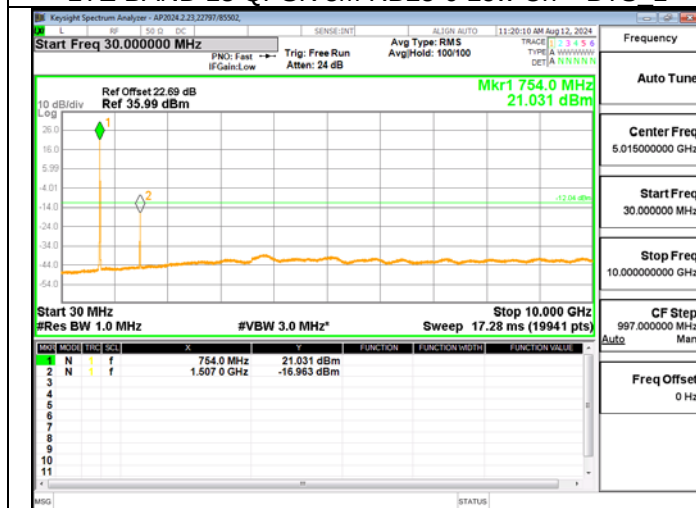
Note: Radiated data in section 10.1.2 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/MHz limit was used.



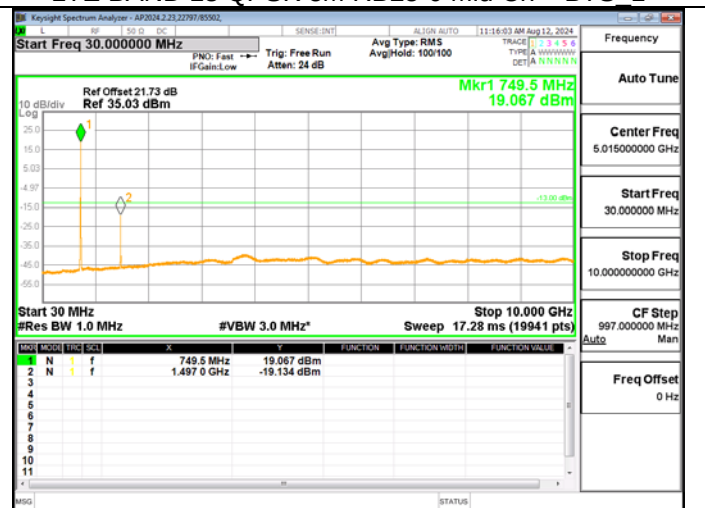
LTE BAND 13 QPSK 5M RB25-0 Low Ch - BTS 1



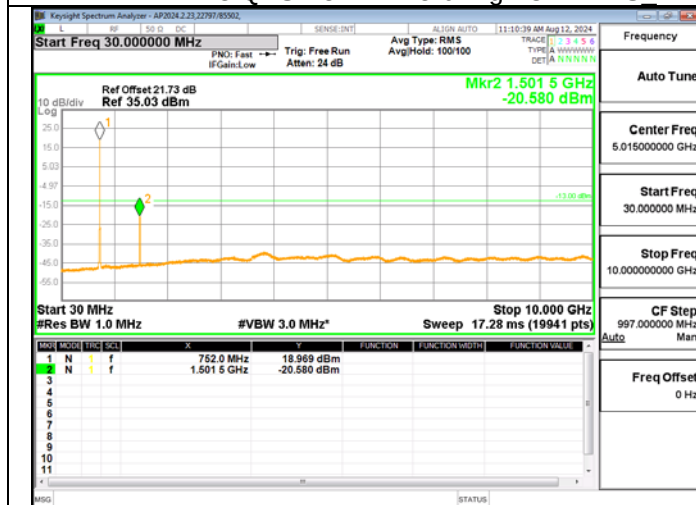
LTE BAND 13 QPSK 5M RB25-0 Mid Ch - BTS 1



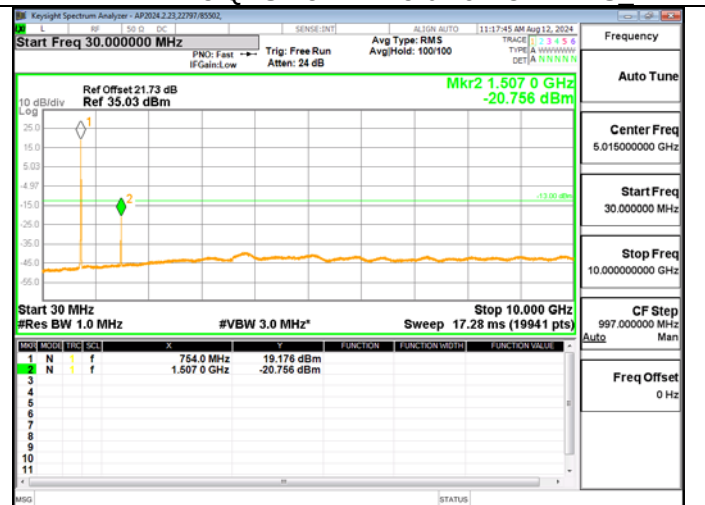
LTE BAND 13 QPSK 5M RB25-0 High Ch - BTS 1



LTE BAND 13 QPSK 5M RB25-0 Low Ch - BTS 2



LTE BAND 13 QPSK 5M RB25-0 Mid Ch - BTS 2



LTE BAND 13 QPSK 5M RB25-0 High Ch - BTS 2



9.3.3. LTE BAND 14

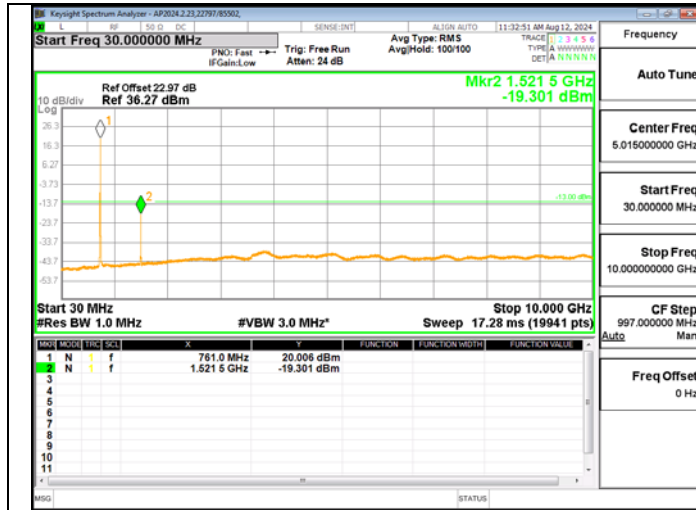
LIMITS

FCC: §90.543 (e), (f)

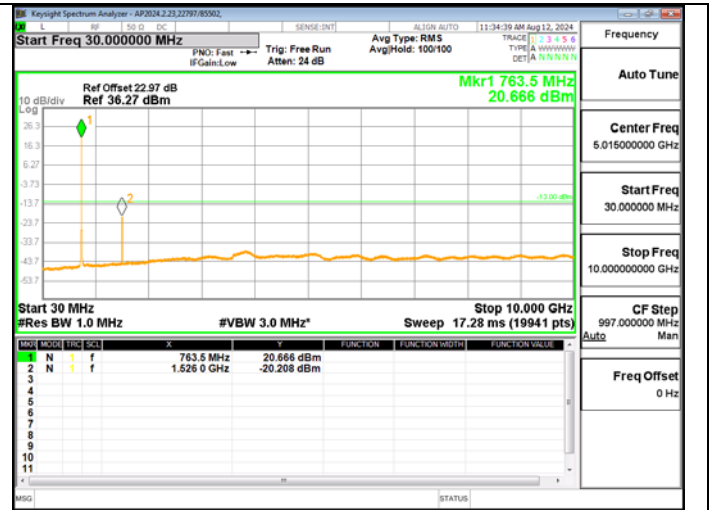
The minimum permissible attenuation level of any spurious emissions is $43 + 10 \log (P)$ dB where transmitting power (P) in Watts. The band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less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

Note: Radiated data in section 10.1.3 confirms a compliance for the emissions in GPS 1559-1610 MHz band were wideband emissions therefore the -40 dBm/MHz limit was used.

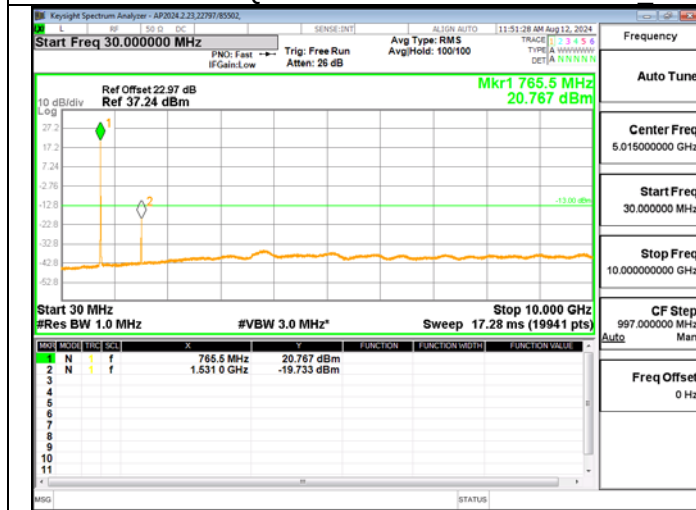
LTE BAND 14



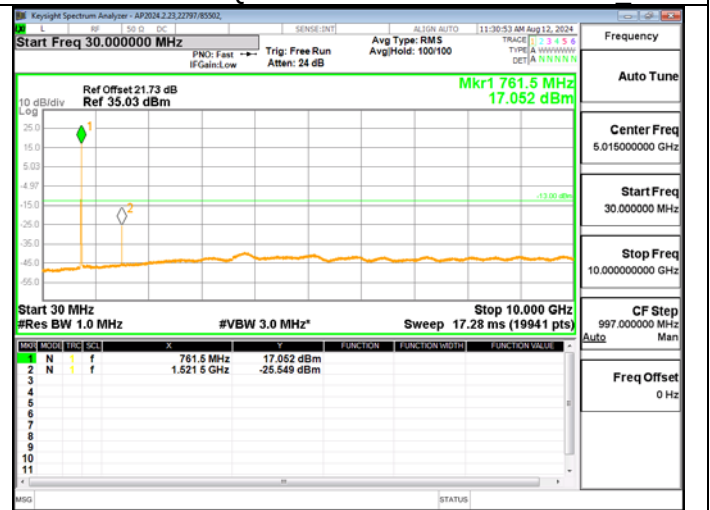
LTE BAND 14 QPSK 5M RB25-0 Low Ch – BTS 1



LTE BAND 14 QPSK 5M RB25-0 Mid Ch – BTS 1



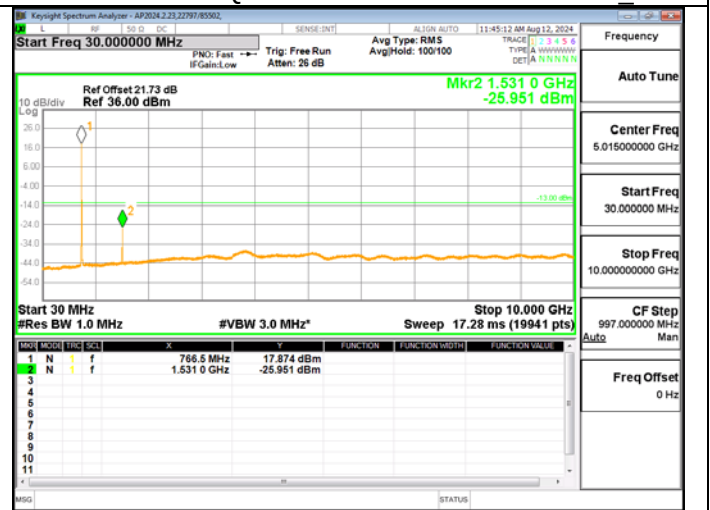
LTE BAND 14 QPSK 5M RB25-0 High Ch – BTS 1



LTE BAND 14 QPSK 5M RB25-0 Low Ch – BTS 2



LTE BAND 14 QPSK 5M RB25-0 Mid Ch – BTS 2



LTE BAND 14 QPSK 5M RB25-0 High Ch – BTS 2



Note: Radiated data in section 10.1.3 confirms a compliance with narrowband limits for GPS1559-1610 MHz band.

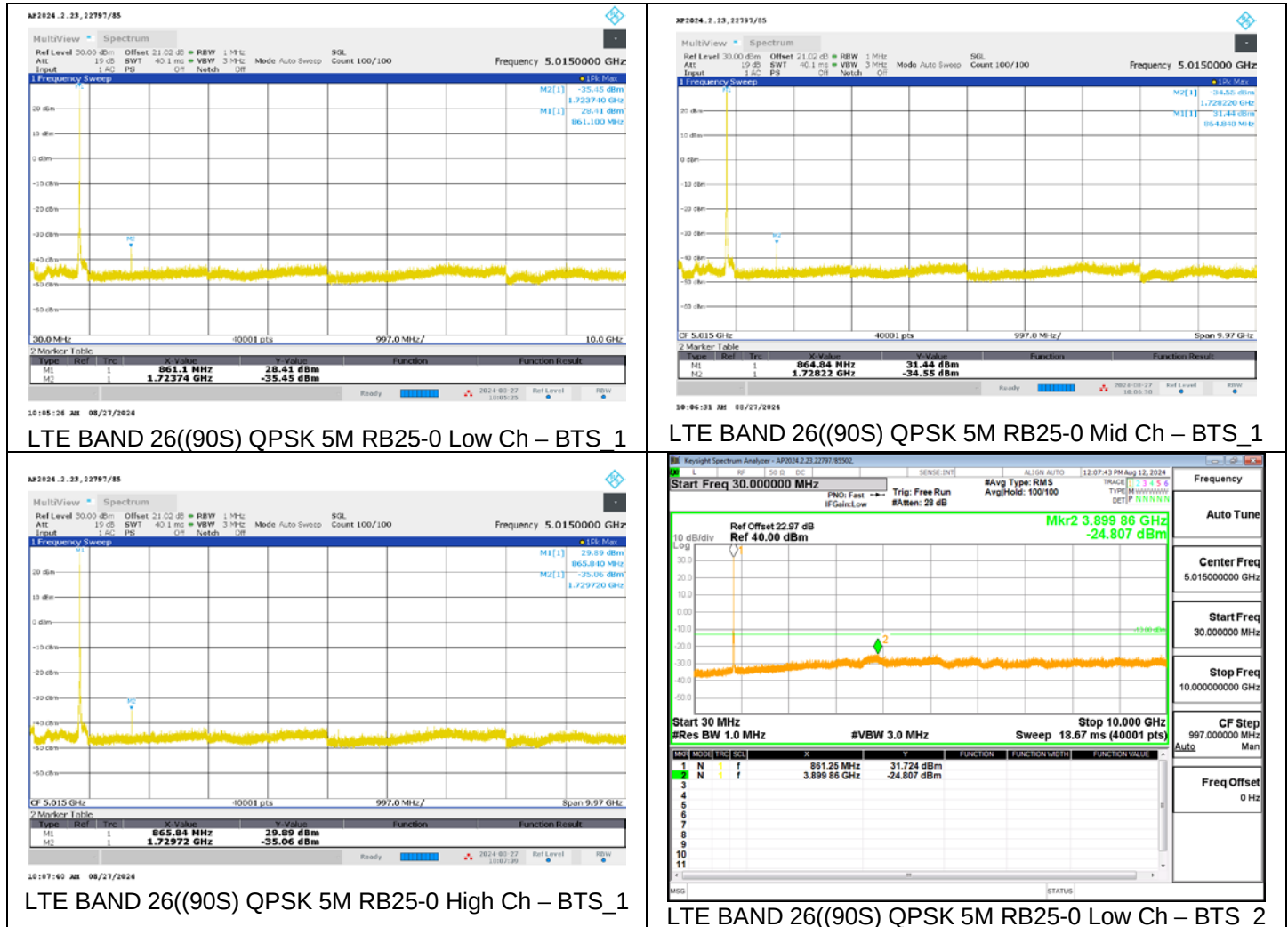
9.3.4. LTE BAND 26 (FCC PART 90S)

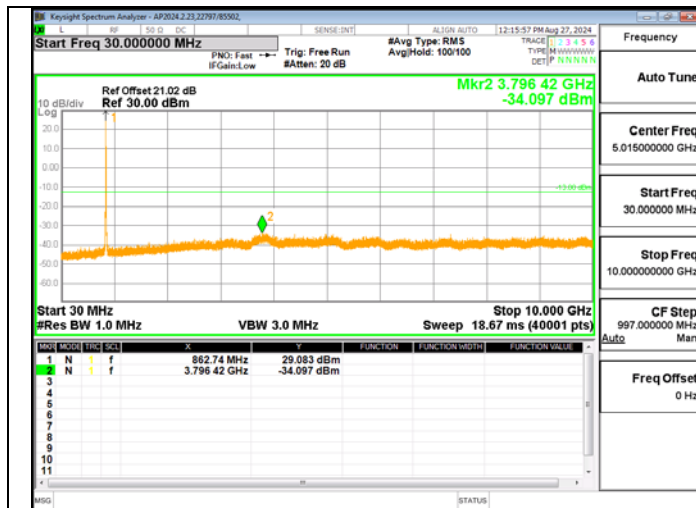
LIMITS

FCC: §90.691

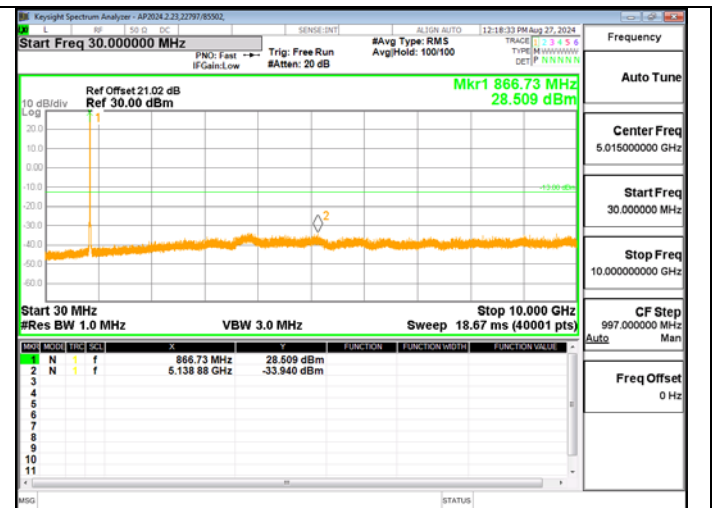
The minimum permissible attenuation level of any spurious emissions is $43 + 10 \log(P)$ dB where transmitting power (P) in Watts.

LTE BAND 26

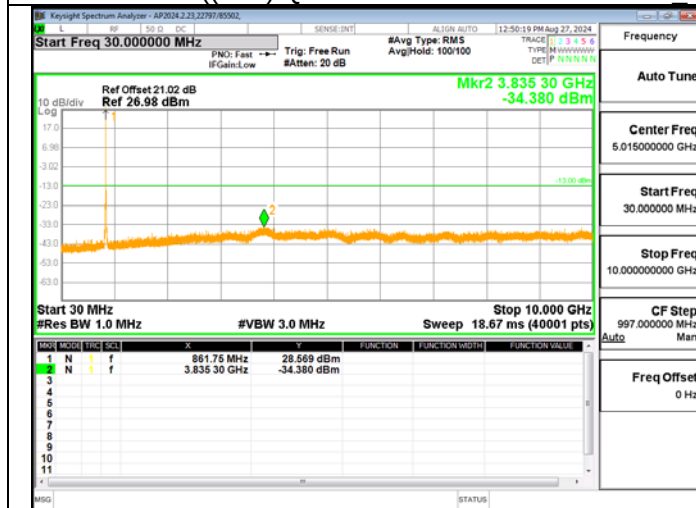




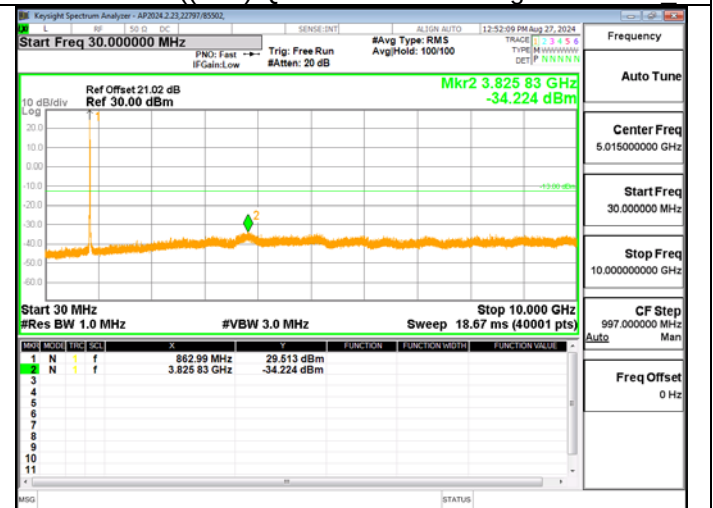
LTE BAND 26(90S) QPSK 5M RB25-0 Mid Ch – BTS 2



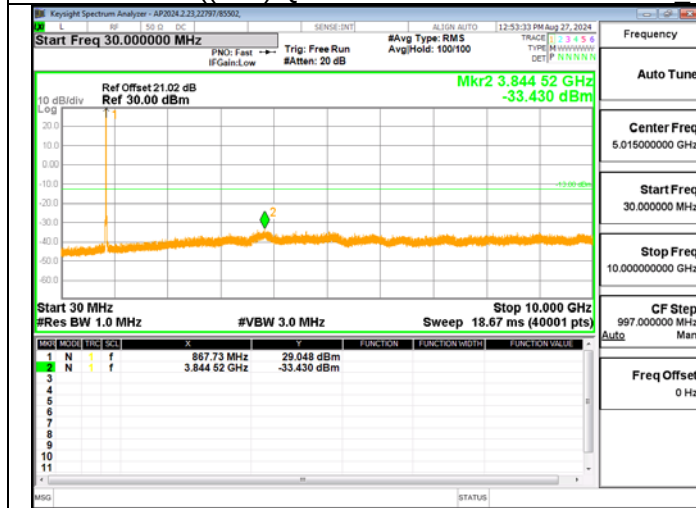
LTE BAND 26(90S) QPSK 5M RB25-0 High Ch – BTS 2



LTE BAND 26(90S) QPSK 5M RB25-0 Low Ch – BTS 3



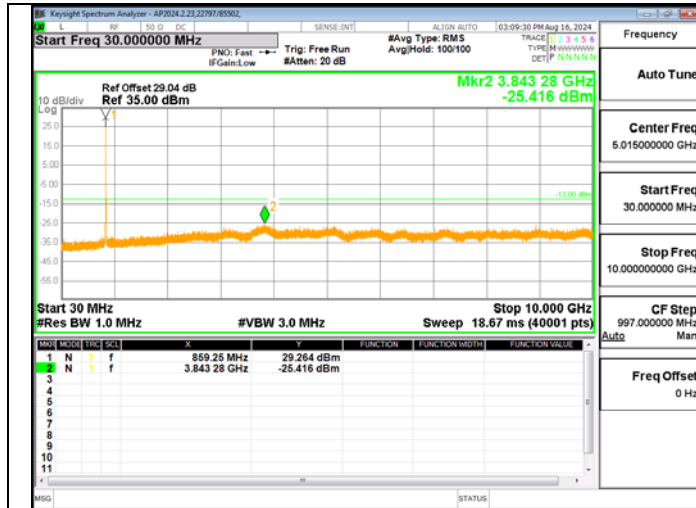
LTE BAND 26(90S) QPSK 5M RB25-0 Mid Ch – BTS 3



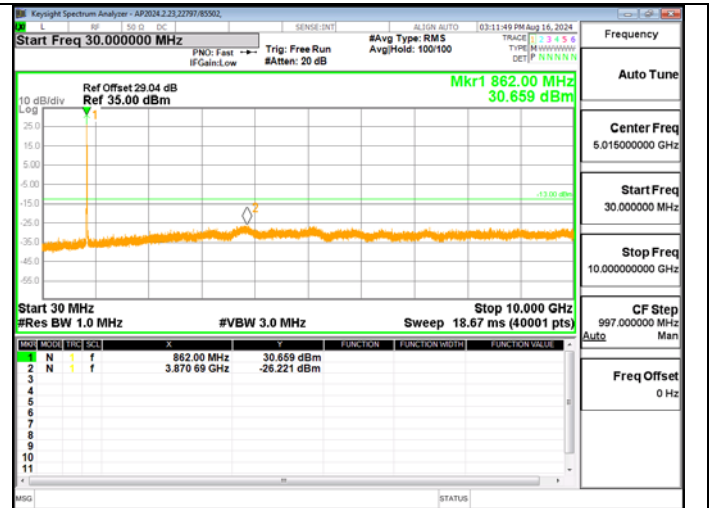
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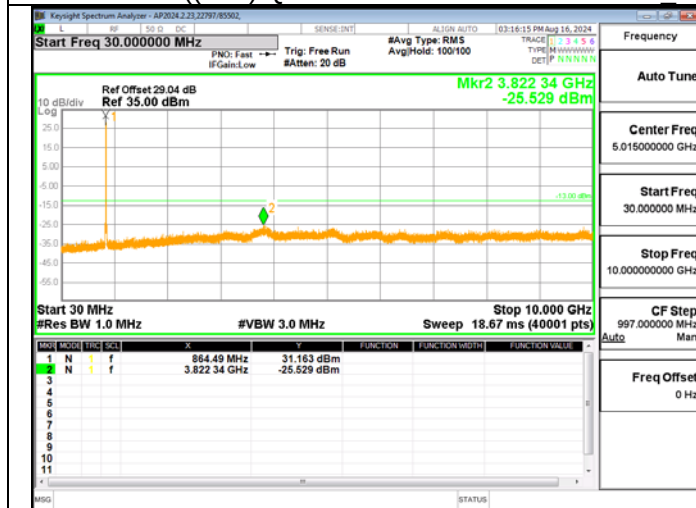
5G NR n26



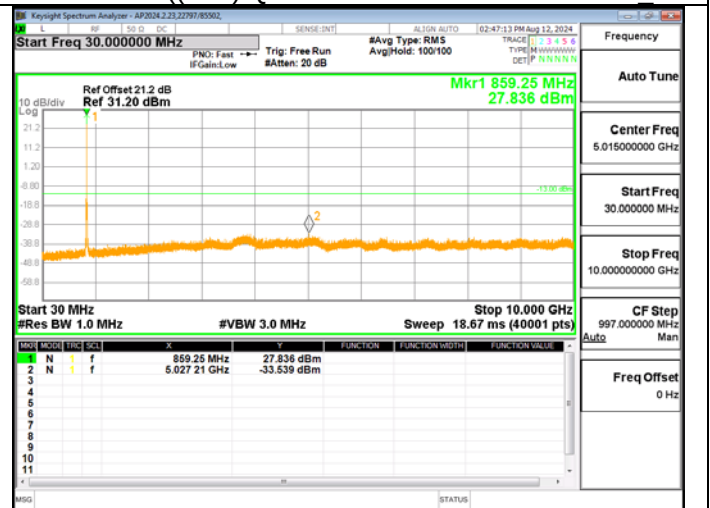
5G NR N26((90S) QPSK 5M RB25-0 Low Ch – BTS_1



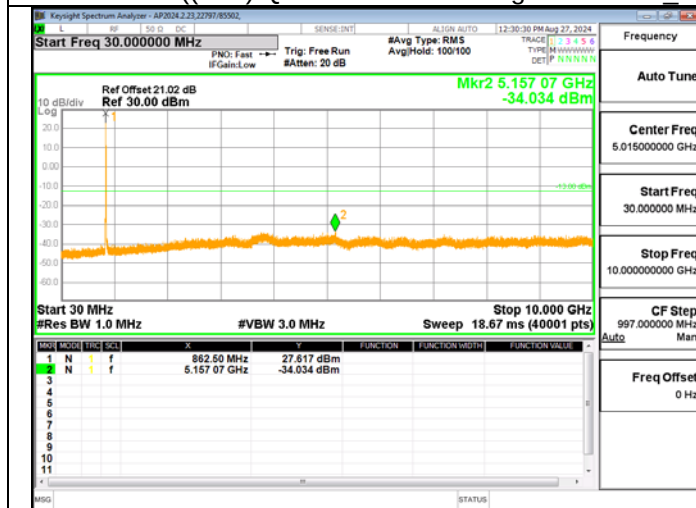
5G NR N26((90S) QPSK 5M RB25-0 Mid Ch – BTS_1



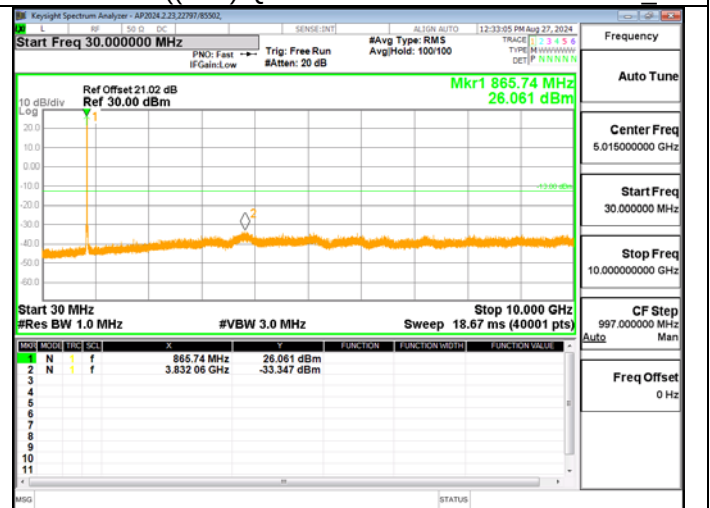
5G NR N26((90S) QPSK 5M RB25-0 High Ch – BTS_1



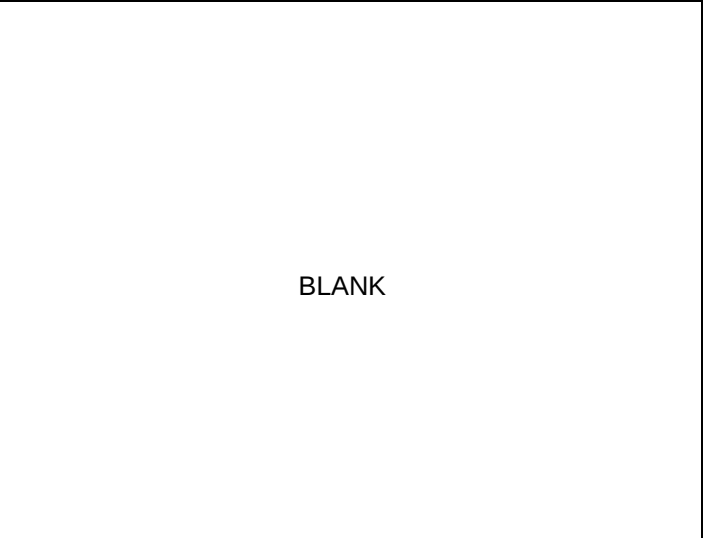
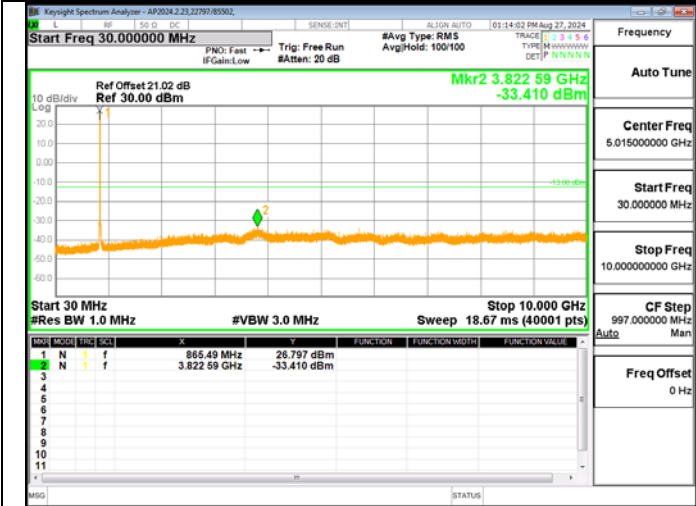
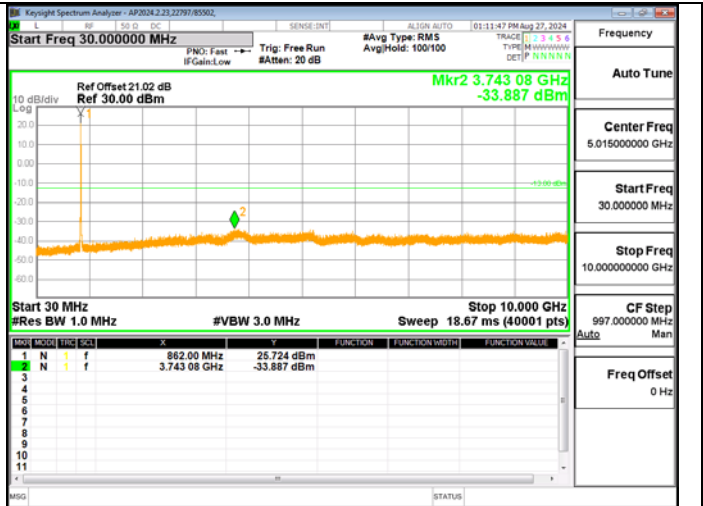
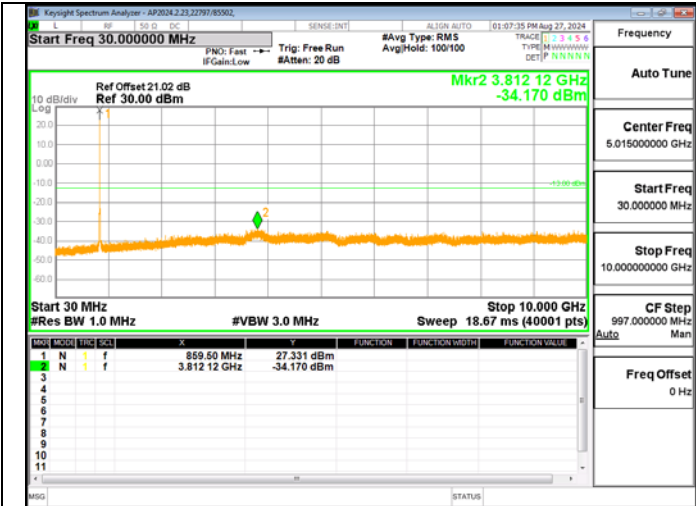
5G NR N26((90S) QPSK 5M RB25-0 Low Ch – BTS_2



5G NR N26((90S) QPSK 5M RB25-0 Mid Ch – BTS_2



5G NR N26((90S) QPSK 5M RB25-0 High Ch – BTS_2



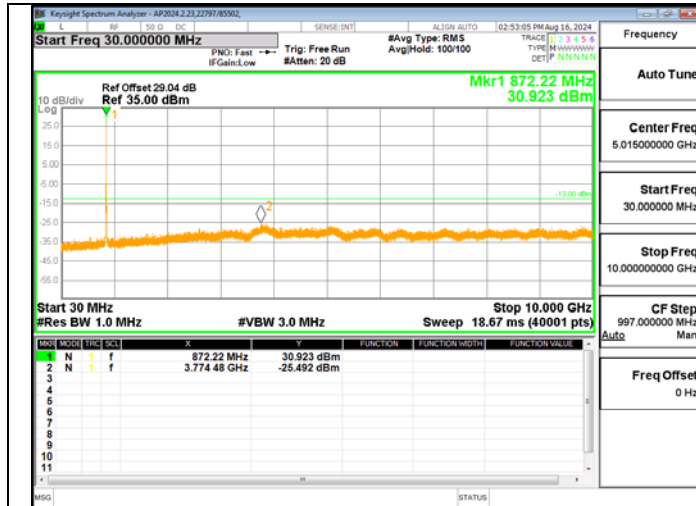
9.3.5. LTE BAND 26 (FCC PART 22)

LIMITS

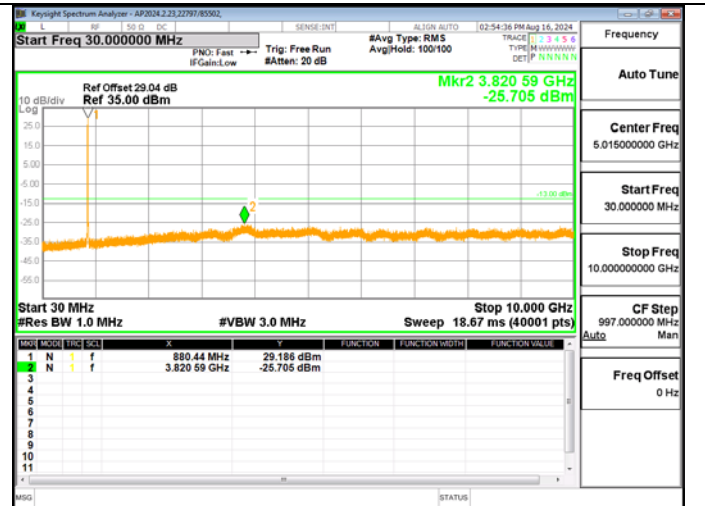
FCC: §22.917 (a)

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

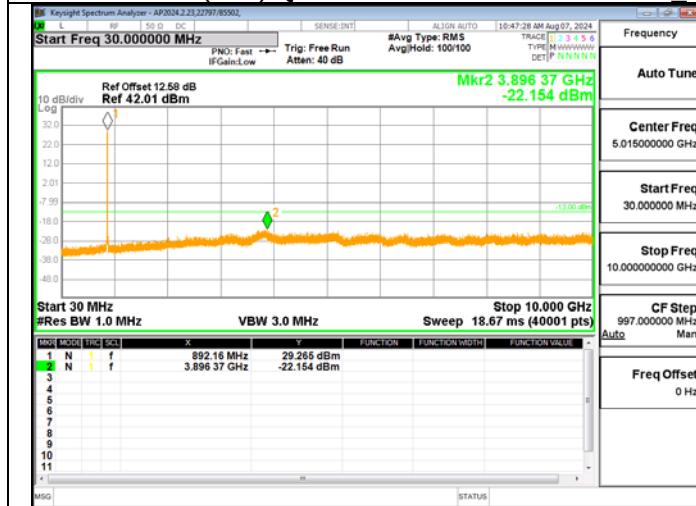
LTE BAND 26



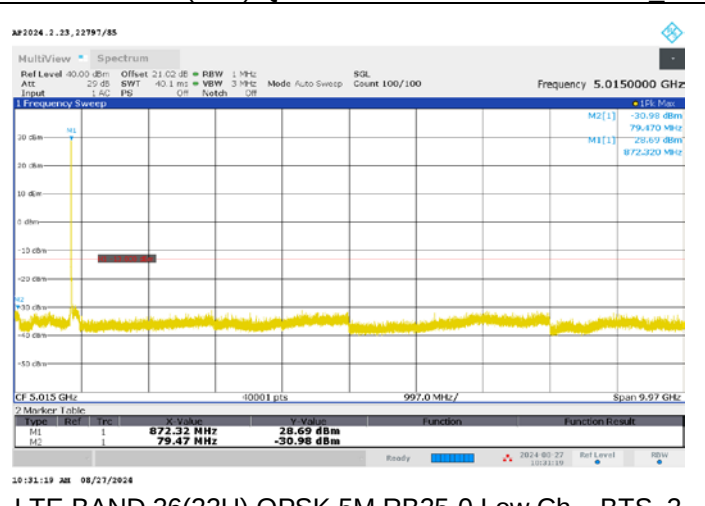
LTE BAND 26(22H) QPSK 5M RB25-0 Low Ch – BTS 1



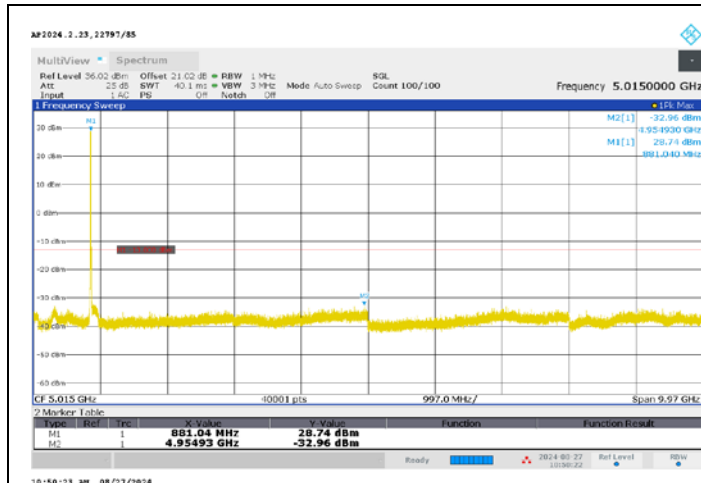
LTE BAND 26(22H) QPSK 5M RB25-0 Mid Ch – BTS 1



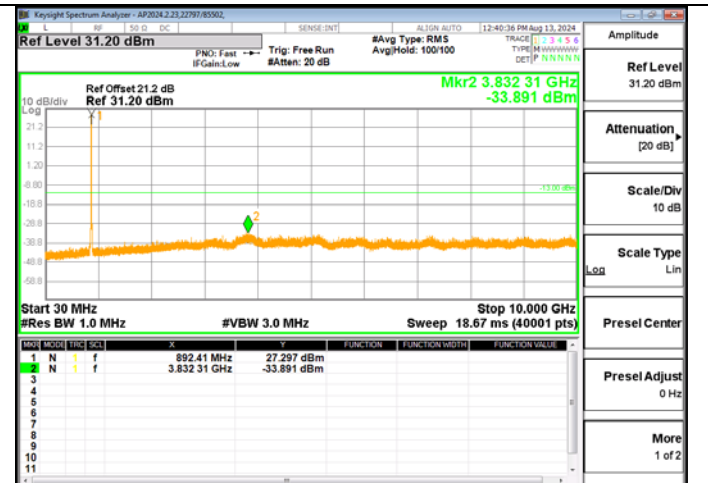
LTE BAND 26(22H) QPSK 5M RB25-0 High Ch – BTS 1



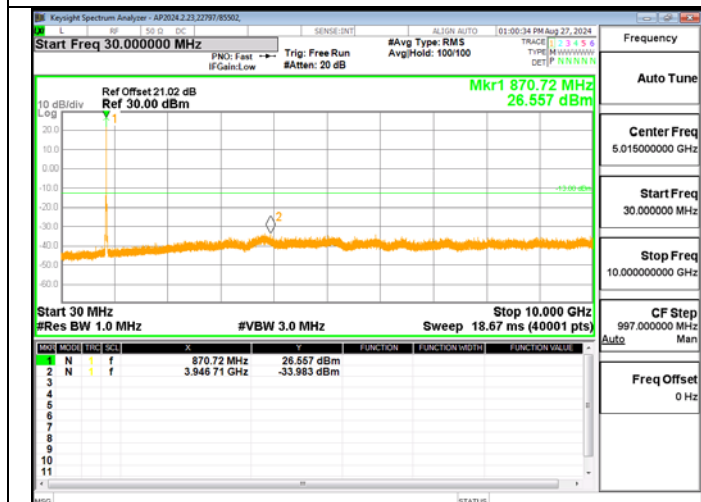
LTE BAND 26(22H) QPSK 5M RB25-0 Low Ch – BTS_2



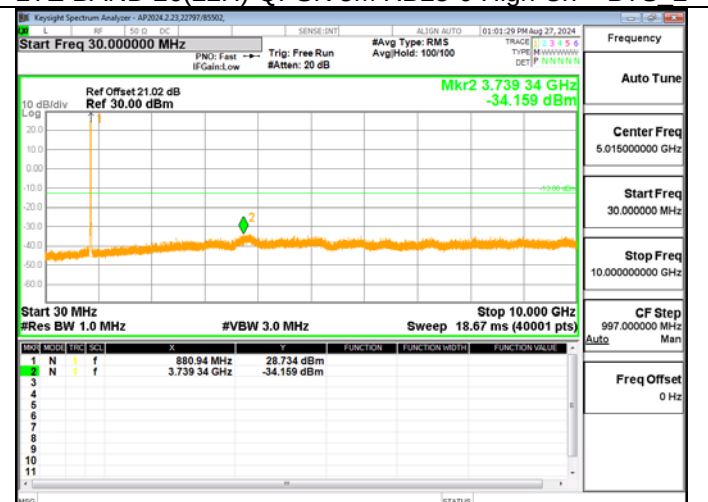
LTE BAND 26(22H) QPSK 5M RB25-0 Mid Ch – BTS_2



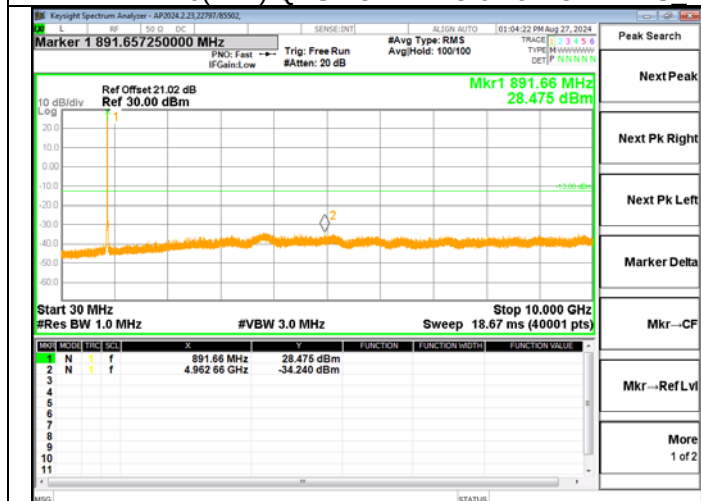
LTE BAND 26(22H) QPSK 5M RB25-0 High Ch – BTS_2



LTE BAND 26(22H) QPSK 5M RB25-0 Low Ch – BTS_1



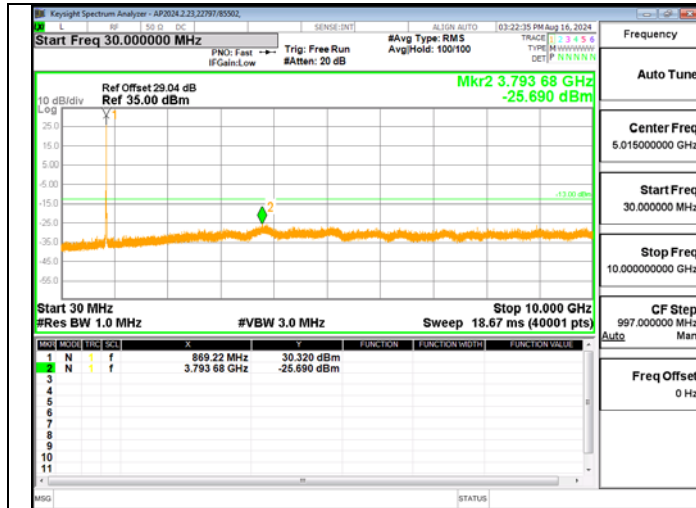
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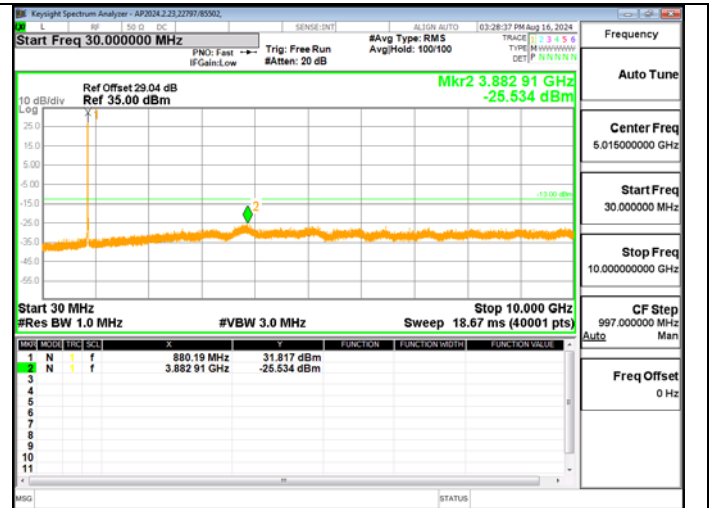
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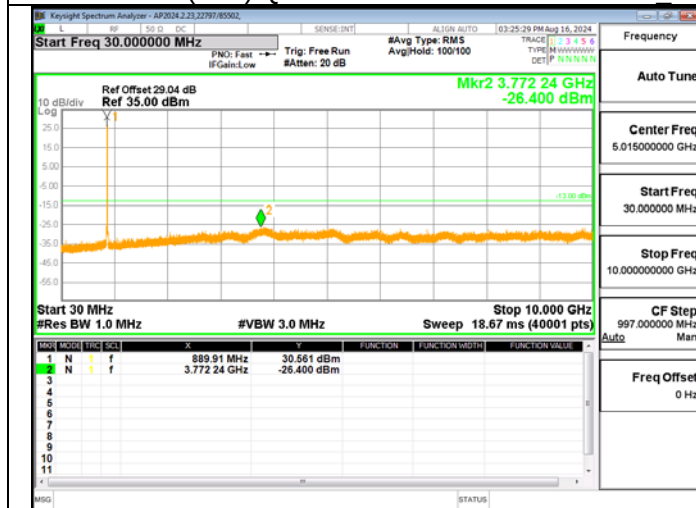
5G NR n26



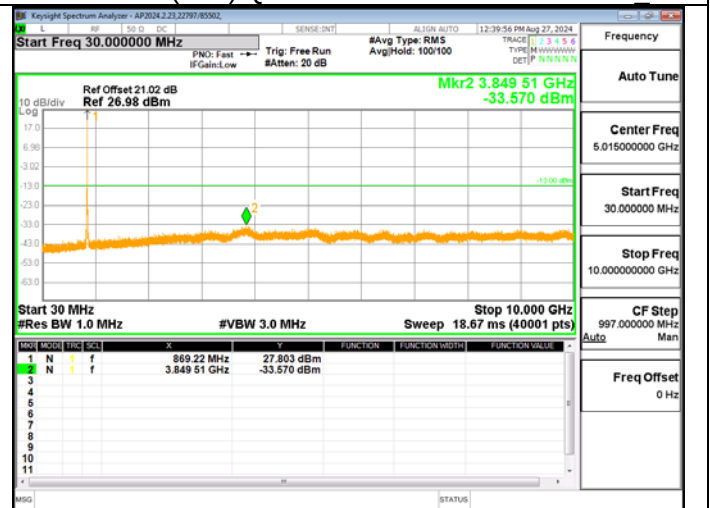
5G NR N26(22H) QPSK 5M RB25-0 Low Ch – BTS_1



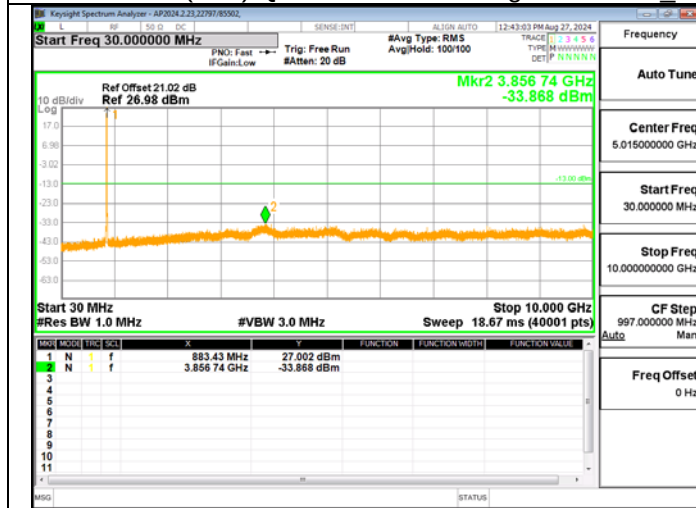
5G NR N26(22H) QPSK 5M RB25-0 Mid Ch – BTS_1



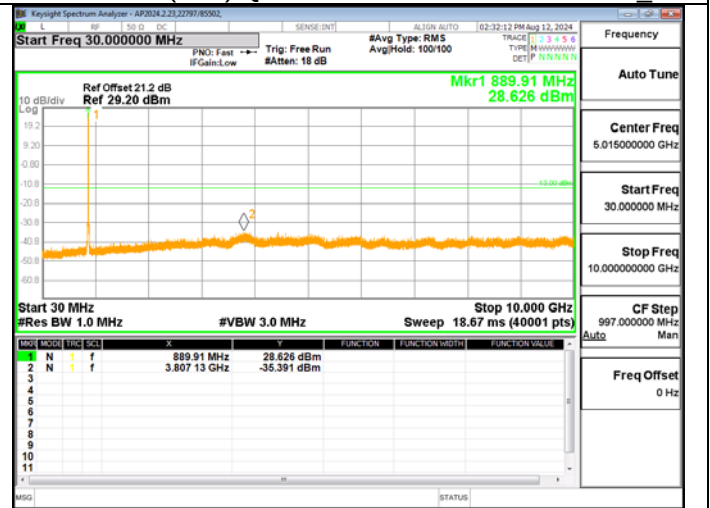
5G NR N26(22H) QPSK 5M RB25-0 High Ch – BTS_1



5G NR N26(22H) QPSK 5M RB25-0 Low Ch – BTS_2



5G NR N26(22H) QPSK 5M RB25-0 Mid Ch – BTS_2



5G NR N26(22H) QPSK 5M RB25-0 High Ch – BTS_2