





9.2.15. 5G NR n77 EMISSION MASK (FCC Part 27 3700-3980MHz)

LIMITS

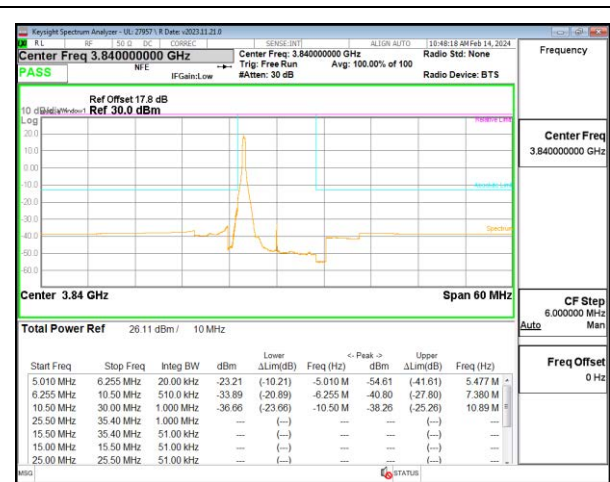
FCC: §27.53

(1) 3.7 GHz Service. The following emission limits apply to stations transmitting in the 3700-3980 MHz band:

(2) For mobile 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 (1)(2) 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, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 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.



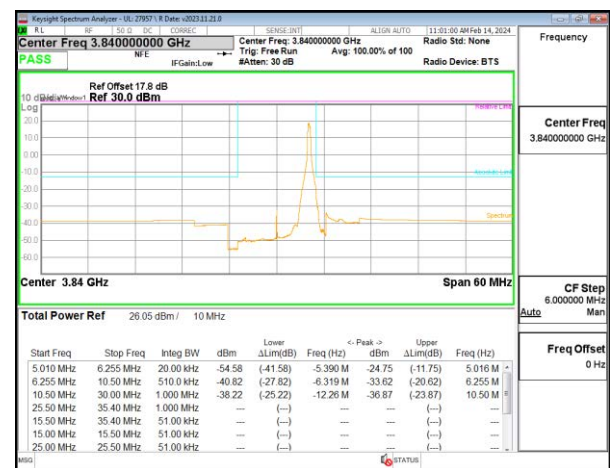
5G NR n77 10MHz BPSK Low Channel RB1-0



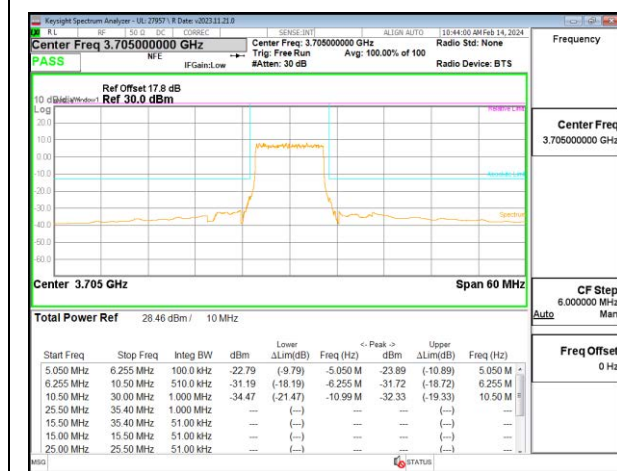
5G NR n77 10MHz BPSK Middle Channel RB1-0



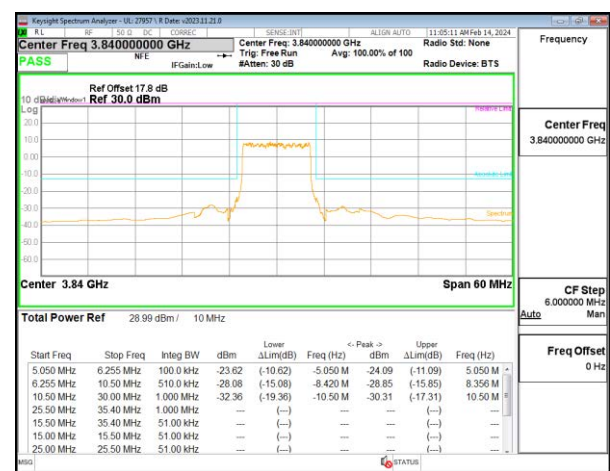
5G NR n77 10MHz BPSK Low Channel RB1-23



5G NR n77 10MHz BPSK Middle Channel RB1-23

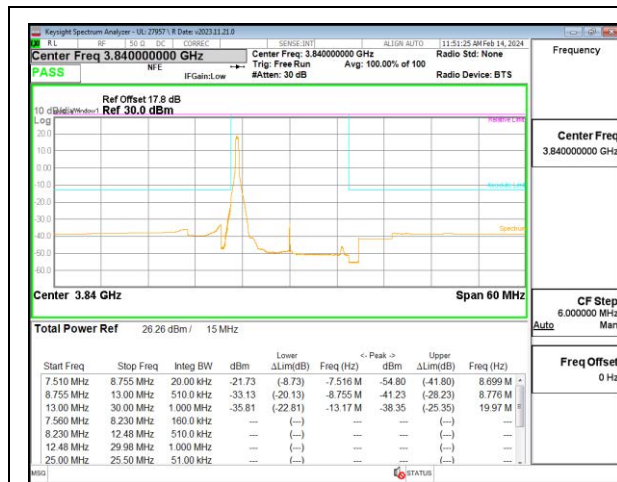


5G NR n77 10MHz BPSK Low Channel RB24-0

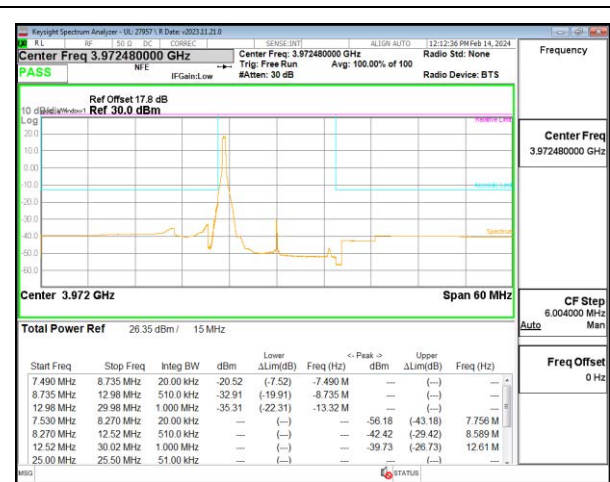


5G NR n77 10MHz BPSK Middle Channel RB24-0

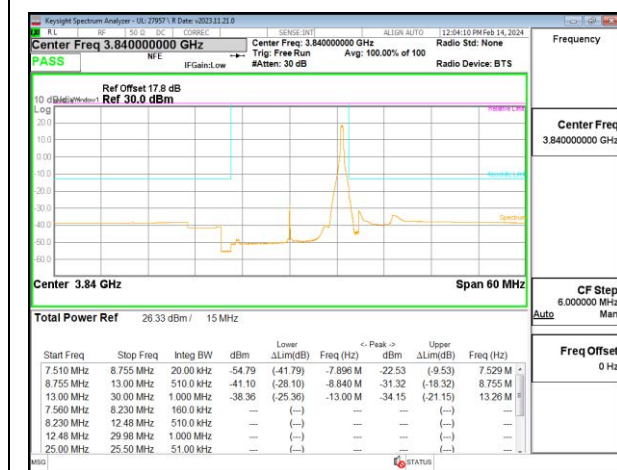




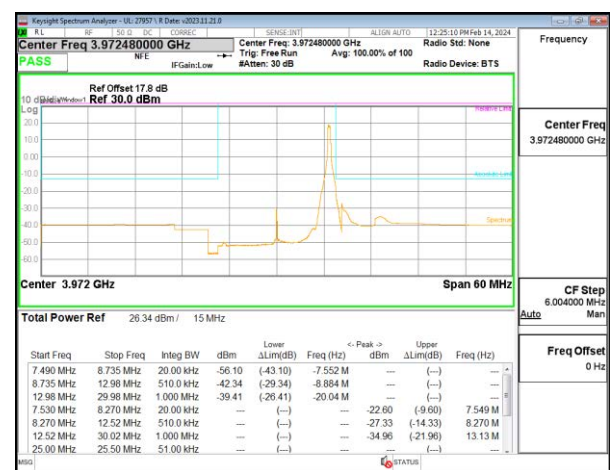
5G NR n77 15MHz BPSK Middle Channel RB1-0



5G NR n77 15MHz BPSK High Channel RB1-0



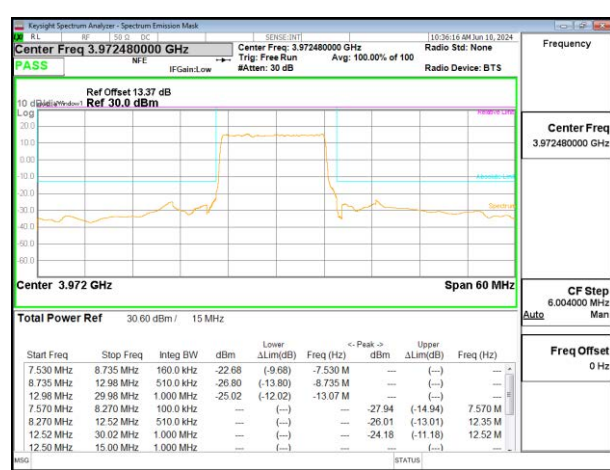
5G NR n77 15MHz BPSK Middle Channel RB1-37



5G NR n77 15MHz BPSK High Channel RB1-37



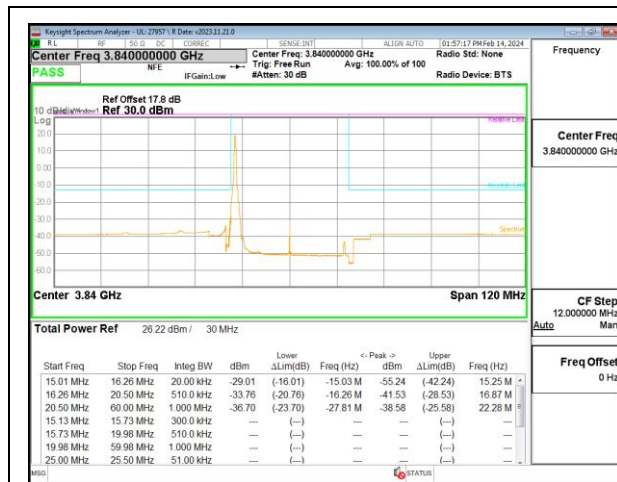
5G NR n77 15MHz BPSK Middle Channel RB36-0



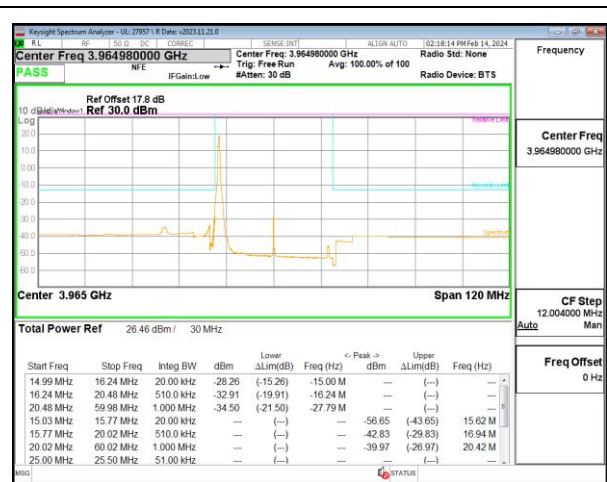
5G NR n77 15MHz BPSK High Channel RB36-0







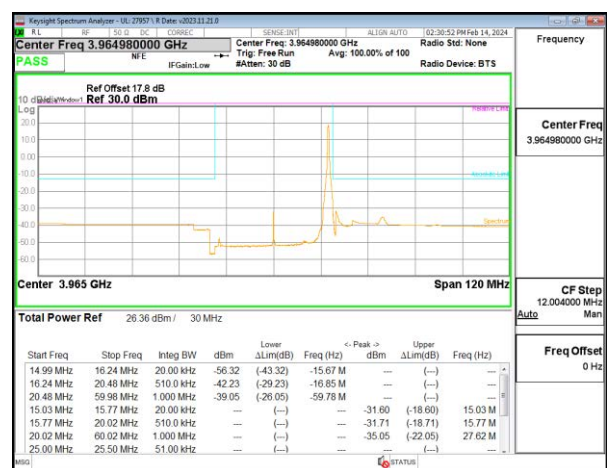
5G NR n77 30MHz BPSK Middle Channel RB1-0



5G NR n77 30MHz BPSK High Channel RB1-0



5G NR n77 30MHz BPSK Middle Channel RB1-77



5G NR n77 30MHz BPSK High Channel RB1-77



5G NR n77 30MHz BPSK Middle Channel RB75-0



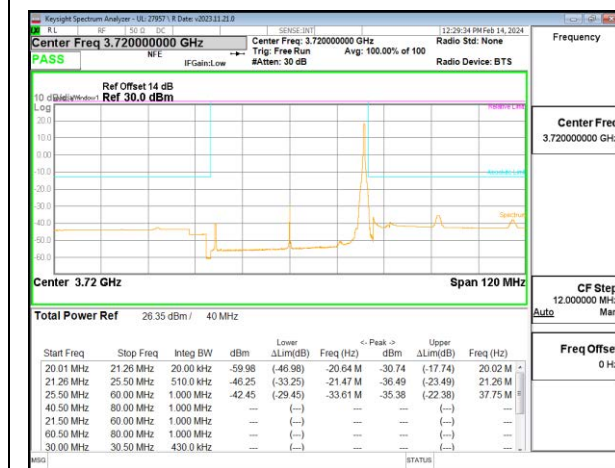
5G NR n77 30MHz BPSK High Channel RB75-0



5G NR n77 40MHz BPSK Low Channel RB1-0



5G NR n77 40MHz BPSK Middle Channel RB1-0



5G NR n77 40MHz BPSK Low Channel RB1-105



5G NR n77 40MHz BPSK Middle Channel RB1-105



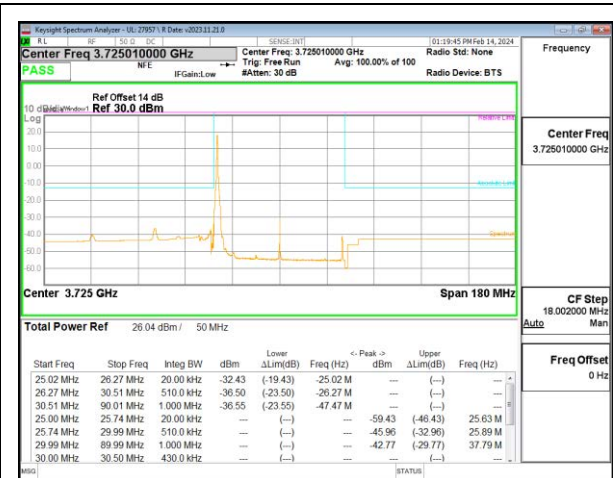
5G NR n77 40MHz BPSK Low Channel RB100-0



5G NR n77 40MHz BPSK Middle Channel RB100-0



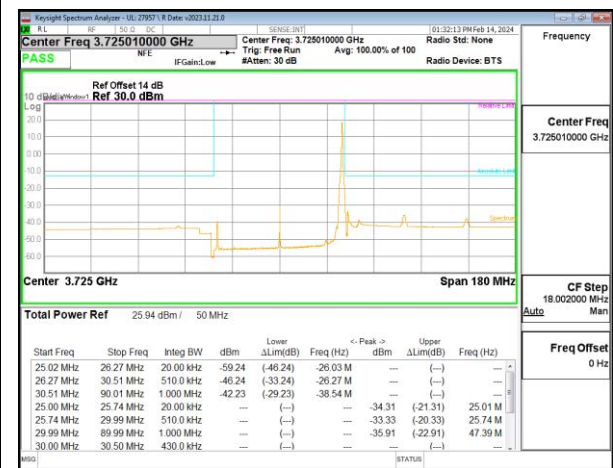
5G NR n77 40MHz BPSK High Channel RB1-0



5G NR n77 50MHz BPSK Low Channel RB1-0



5G NR n77 40MHz BPSK High Channel RB1-105



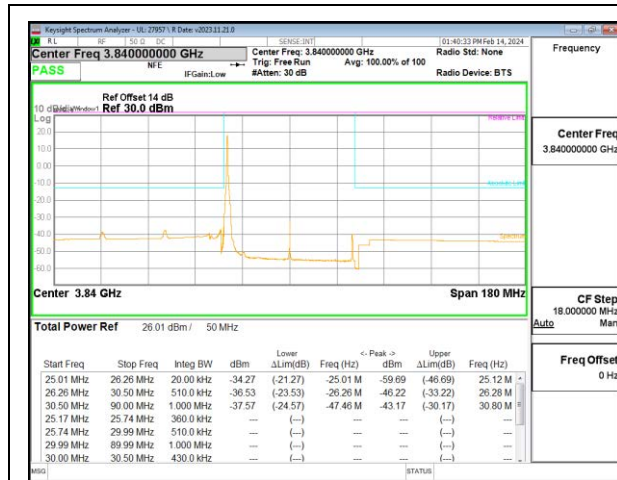
5G NR n77 50MHz BPSK Low Channel RB1-132



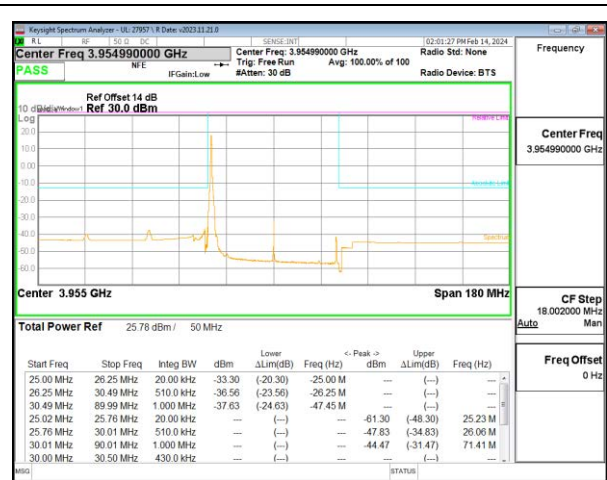
5G NR n77 40MHz BPSK High Channel RB100-0



5G NR n77 50MHz BPSK Low Channel RB128-0



5G NR n77 50MHz BPSK Middle Channel RB1-0



5G NR n77 50MHz BPSK High Channel RB1-0



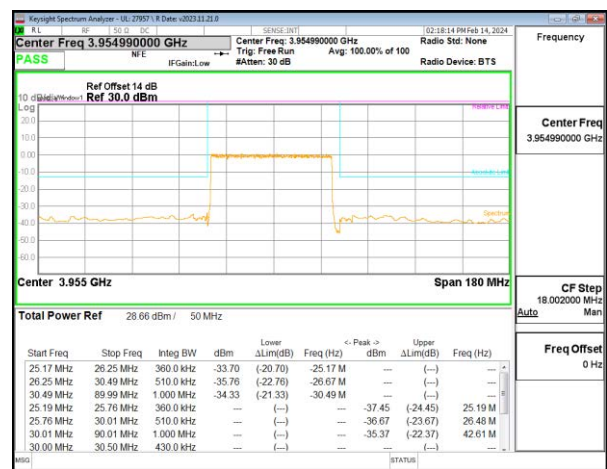
5G NR n77 50MHz BPSK Middle Channel RB1-132



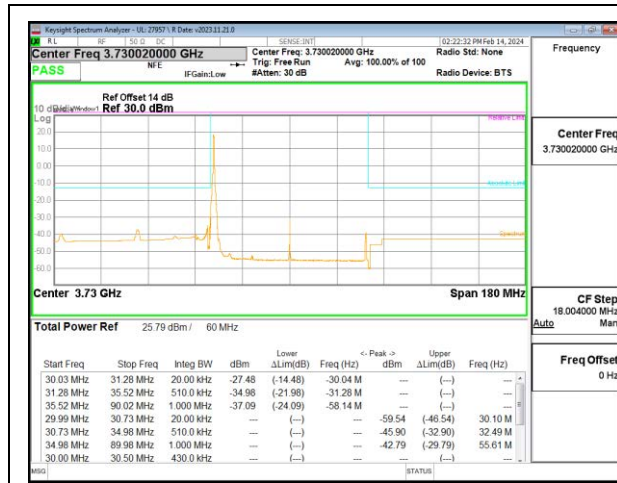
5G NR n77 50MHz BPSK High Channel RB1-132



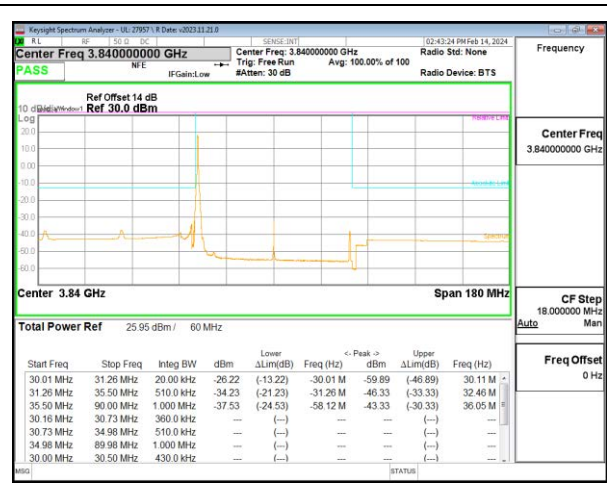
5G NR n77 50MHz BPSK Middle Channel RB128-0



5G NR n77 50MHz BPSK High Channel RB128-0



5G NR n77 60MHz BPSK Low Channel RB1-0



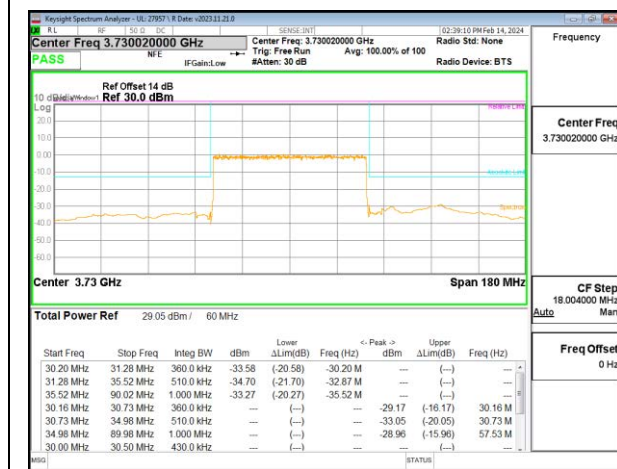
5G NR n77 60MHz BPSK Middle Channel RB1-0



5G NR n77 60MHz BPSK Low Channel RB1-161



5G NR n77 60MHz BPSK Middle Channel RB1-161



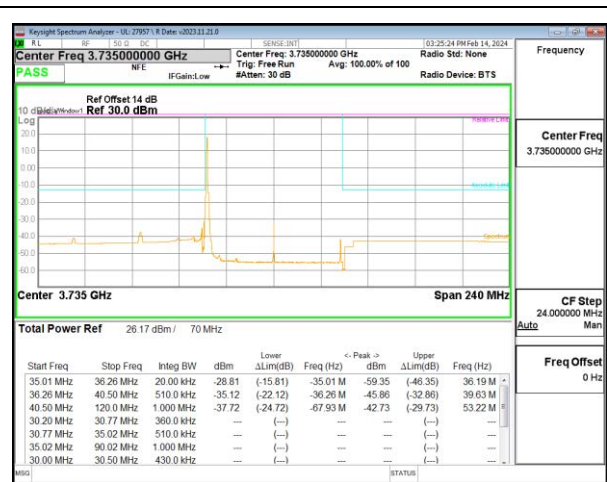
5G NR n77 60MHz BPSK Low Channel RB162-0



5G NR n77 60MHz BPSK Middle Channel RB162-0



5G NR n77 60MHz BPSK High Channel RB1-0



5G NR n77 70MHz BPSK Low Channel RB1-0



5G NR n77 60MHz BPSK High Channel RB1-161



5G NR n77 70MHz BPSK Low Channel RB1-188



5G NR n77 60MHz BPSK High Channel RB162-0



5G NR n77 70MHz BPSK Low Channel RB180-0





5G NR n77 80MHz BPSK Low Channel RB1-0, ID:28567



5G NR n77 80MHz BPSK Middle Channel RB1-0, ID:28567



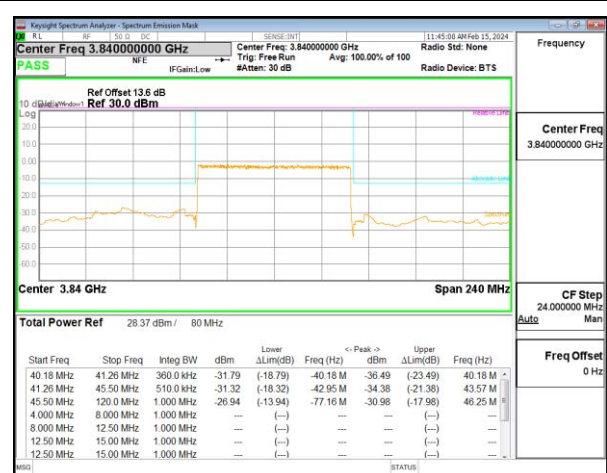
5G NR n77 80MHz BPSK Low Channel RB1-216, ID:28567



5G NR n77 80MHz BPSK Middle Channel RB1-216, ID:28567



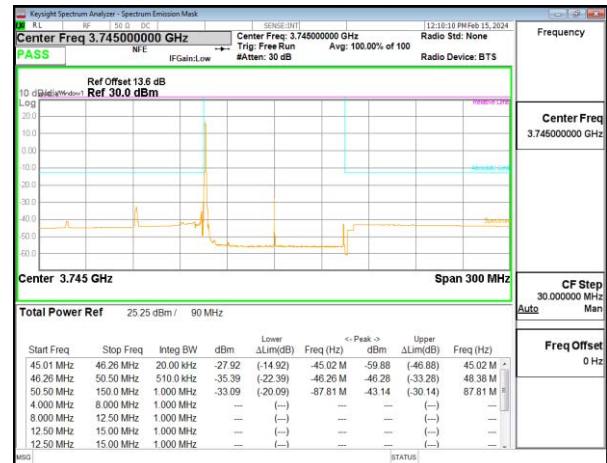
5G NR n77 80MHz BPSK Low Channel RB216-0, ID:28567



5G NR n77 80MHz BPSK Middle Channel RB216-0, ID:28567



5G NR n77 80MHz BPSK High Channel RB1-0, ID:28567



5G NR n77 90MHz BPSK Low Channel RB1-0, ID:28567



5G NR n77 80MHz BPSK High Channel RB1-216, ID:28567



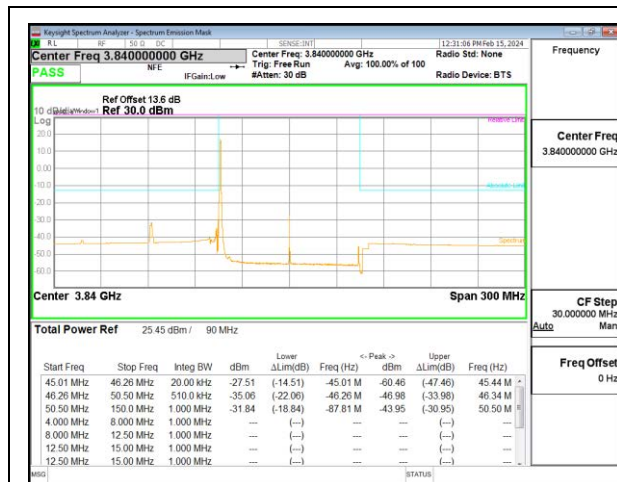
5G NR n77 90MHz BPSK Low Channel RB1-244, ID:28567



5G NR n77 80MHz BPSK High Channel RB216-0, ID:28567



5G NR n77 90MHz BPSK Low Channel RB243-0, ID:28567



5G NR n77 90MHz BPSK Middle Channel RB1-0, ID:28567



5G NR n77 90MHz BPSK High Channel RB1-0, ID:28567



5G NR n77 90MHz BPSK Middle Channel RB1-244, ID:28567



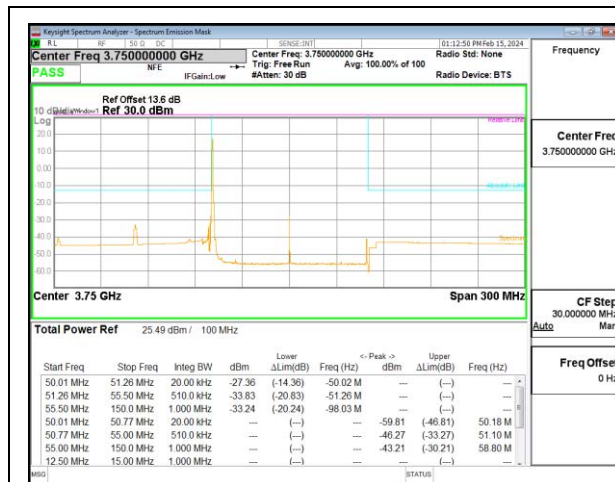
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5G NR n77 90MHz BPSK Middle Channel RB243-0, ID:28567



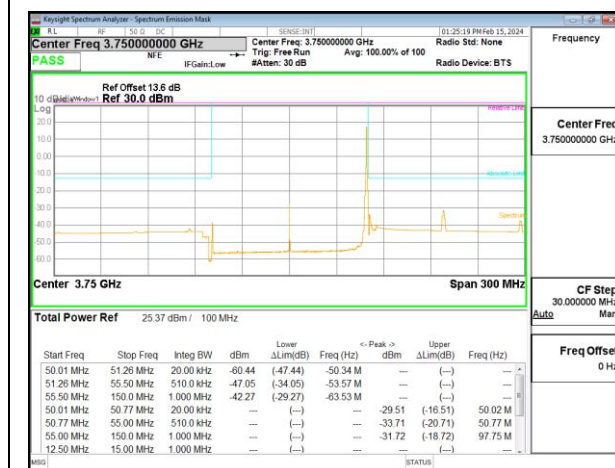
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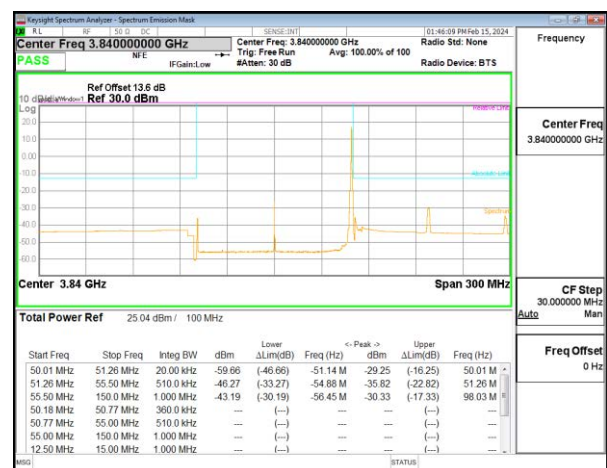
5G NR n77 100MHz BPSK Low Channel RB1-0, ID:28567



5G NR n77 100MHz BPSK Middle Channel RB1-0, ID:28567



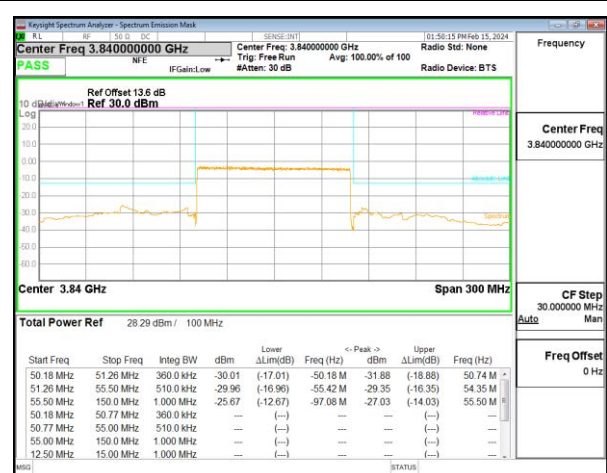
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5G NR n77 100MHz BPSK Middle Channel RB1-272, ID:28567



5G NR n77 100MHz BPSK Low Channel RB270-0, ID:28567



5G NR n77 100MHz BPSK Middle Channel RB270-0, ID:28567



9.3. OUT OF BAND EMISSIONS

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, -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

QPSK with 1RB is the highest power and PSD to all bandwidth. 1RB has the same frequency and power to all bandwidth. Therefore, QPSK with 1RB and wider bandwidths results are reported as worst case for LTE bands.

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