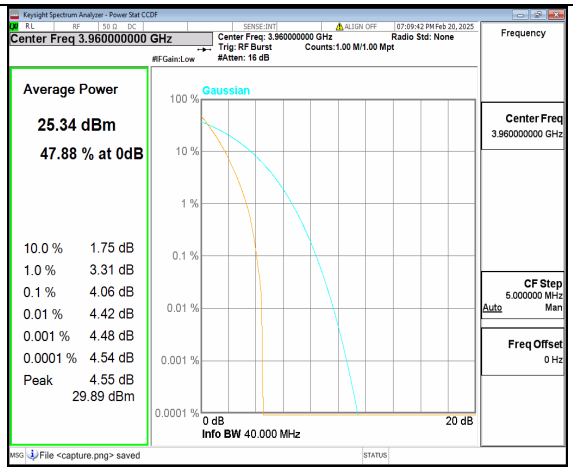
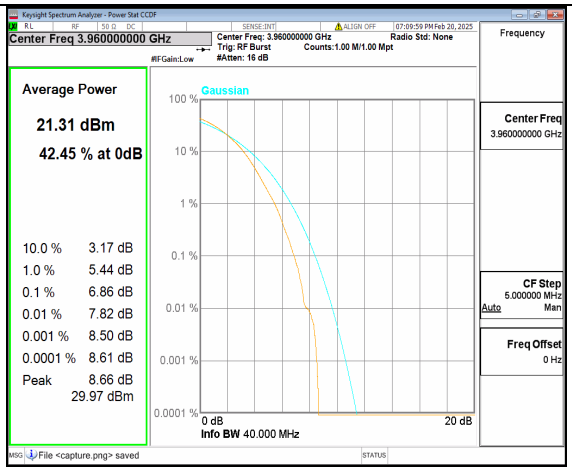
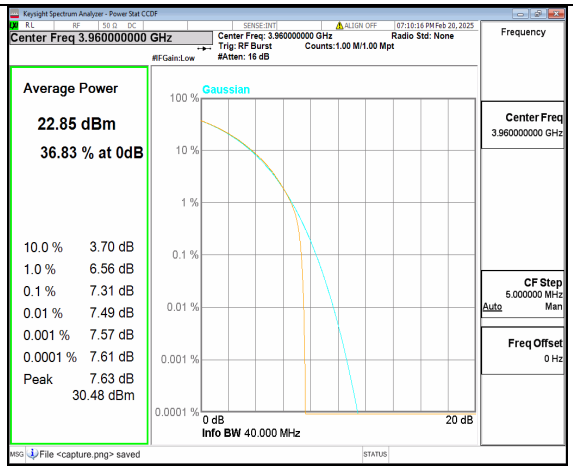


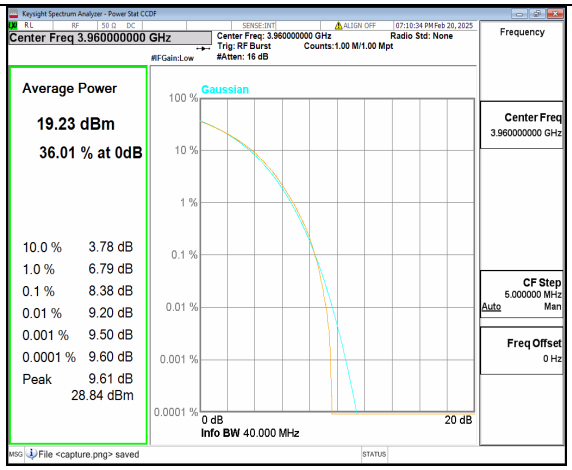
12A_n77(3700-3980MHz) 40M DFT-s-OFDM BPSK Outer_Full High



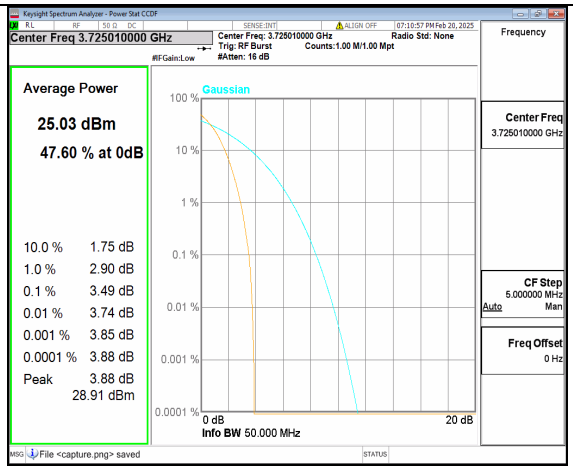
12A_n77(3700-3980MHz) 40M DFT-s-OFDM 256QAM Outer_Full High



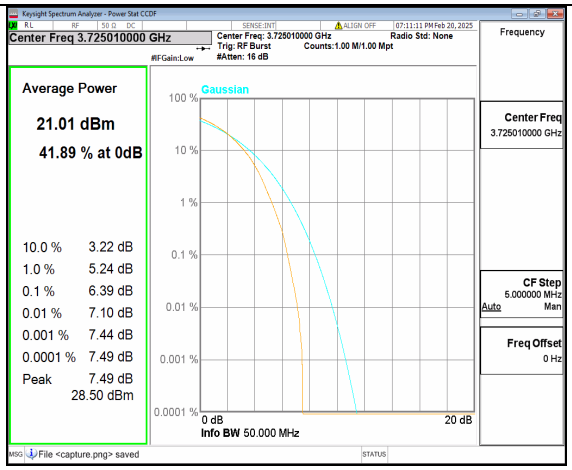
12A_n77(3700-3980MHz) 40M CP-OFDM QPSK Outer_Full High



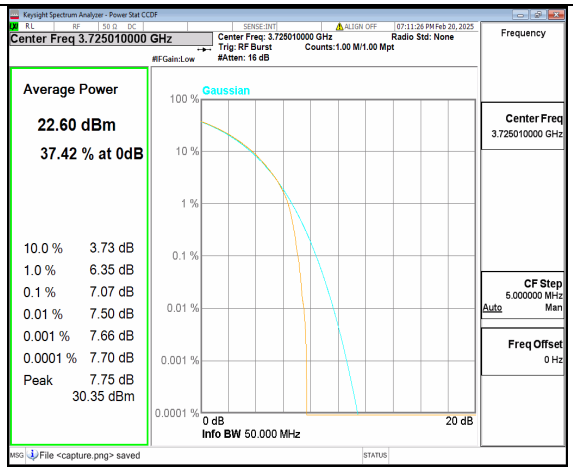
12A_n77(3700-3980MHz) 40M CP-OFDM 256QAM Outer_Full High



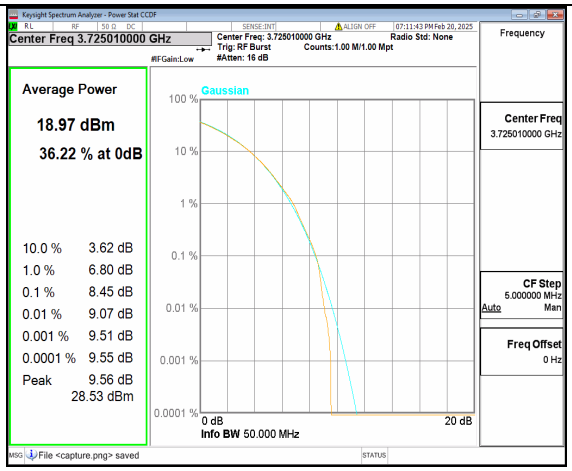
12A_n77(3700-3980MHz) 50M DFT-s-OFDM BPSK Outer_Full Low



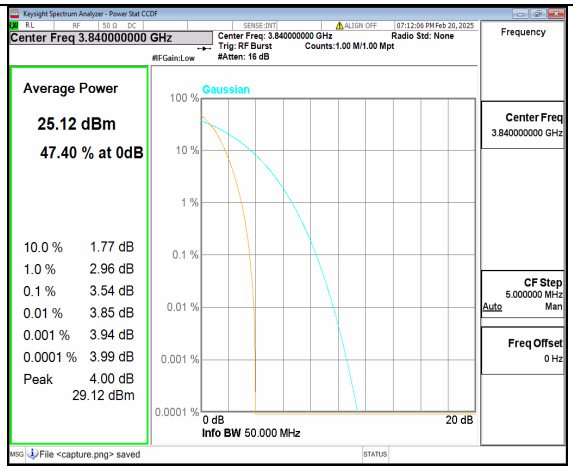
12A_n77(3700-3980MHz) 50M DFT-s-OFDM 256QAM Outer_Full Low



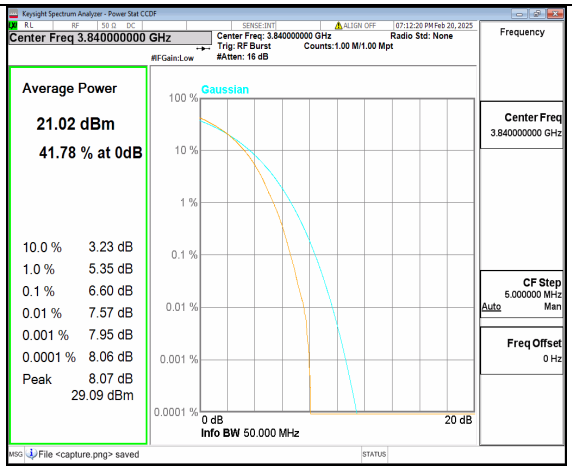
12A_n77(3700-3980MHz) 50M CP-OFDM QPSK Outer_Full Low



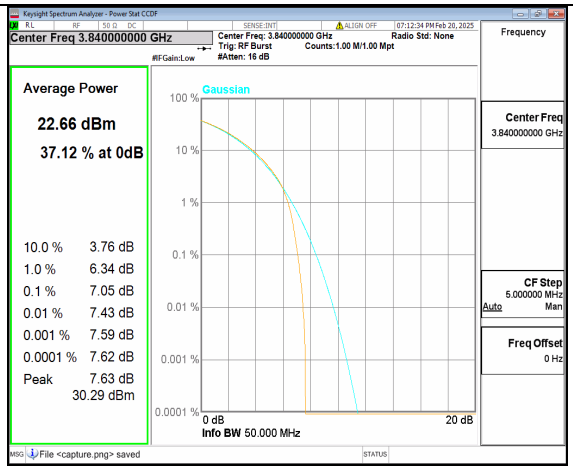
12A_n77(3700-3980MHz) 50M CP-OFDM 256QAM Outer_Full Low



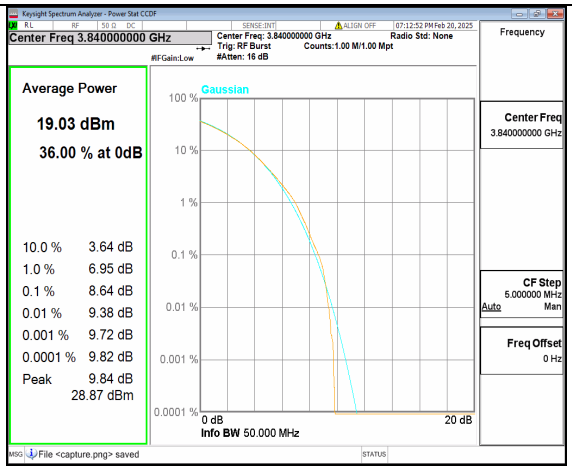
12A_n77(3700-3980MHz) 50M DFT-s-OFDM BPSK Outer_Full Mid



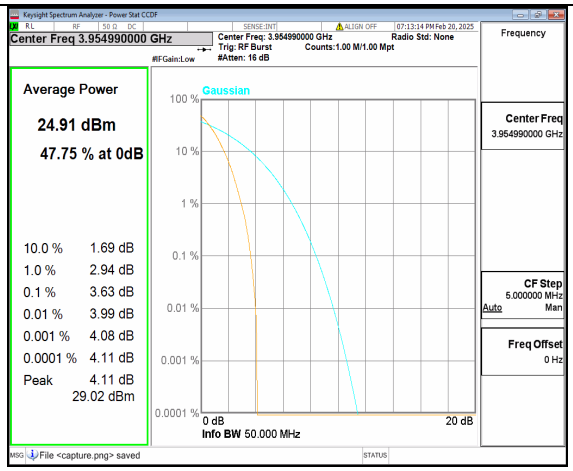
12A_n77(3700-3980MHz) 50M DFT-s-OFDM 256QAM Outer_Full Mid



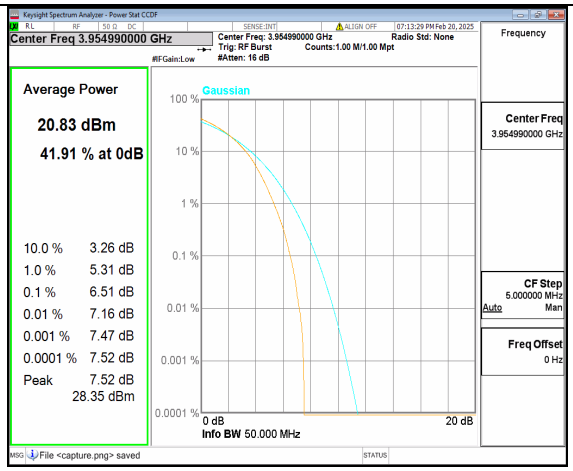
12A_n77(3700-3980MHz) 50M CP-OFDM QPSK Outer_Full Mid



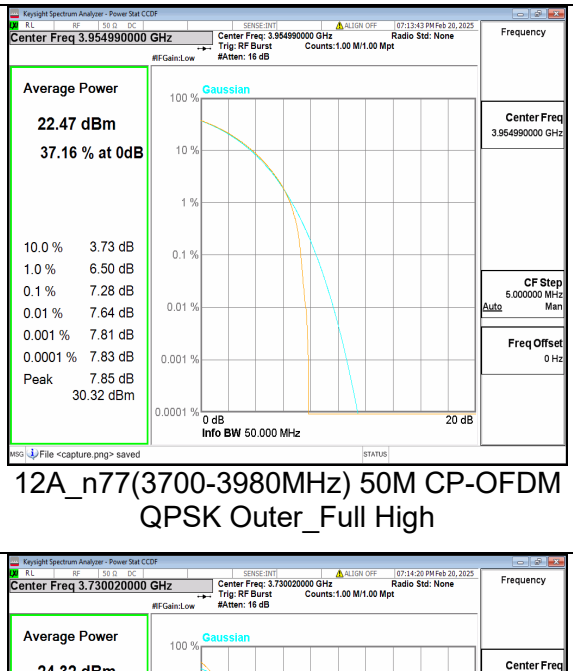
12A_n77(3700-3980MHz) 50M CP-OFDM 256QAM Outer_Full Mid



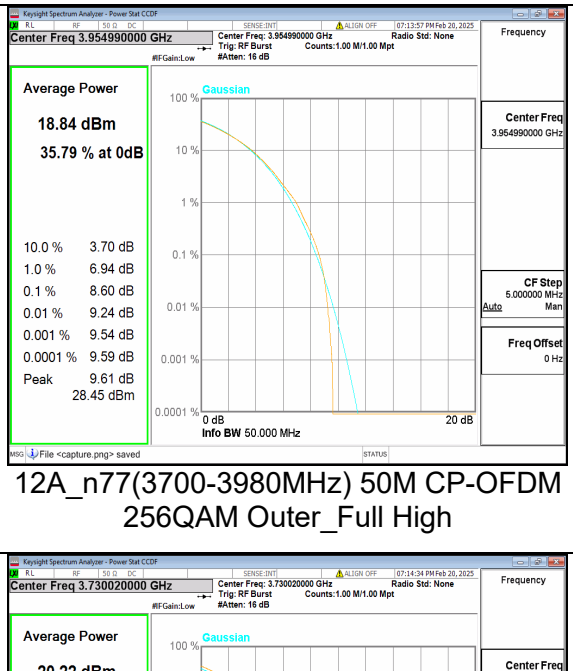
12A_n77(3700-3980MHz) 50M DFT-s-OFDM BPSK Outer_Full High



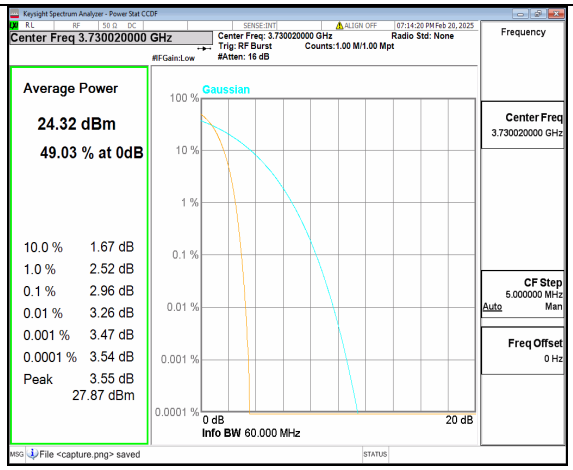
12A_n77(3700-3980MHz) 50M DFT-s-OFDM 256QAM Outer_Full High



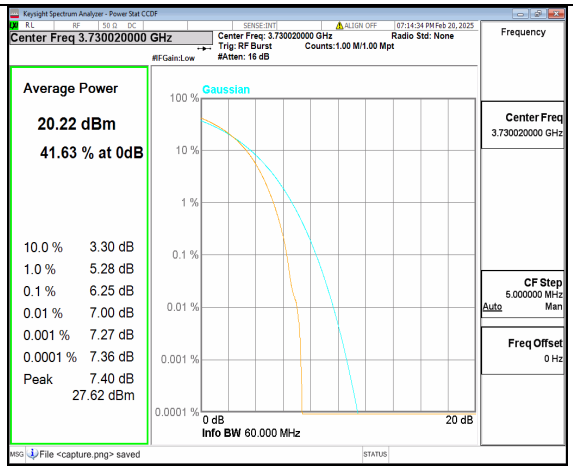
12A_n77(3700-3980MHz) 50M CP-OFDM QPSK Outer_Full High



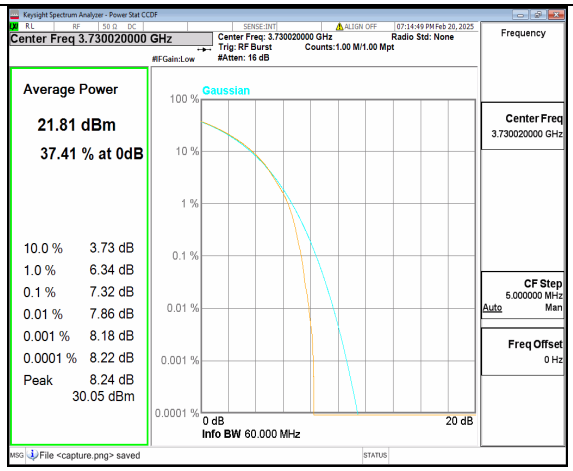
12A_n77(3700-3980MHz) 50M CP-OFDM 256QAM Outer_Full High



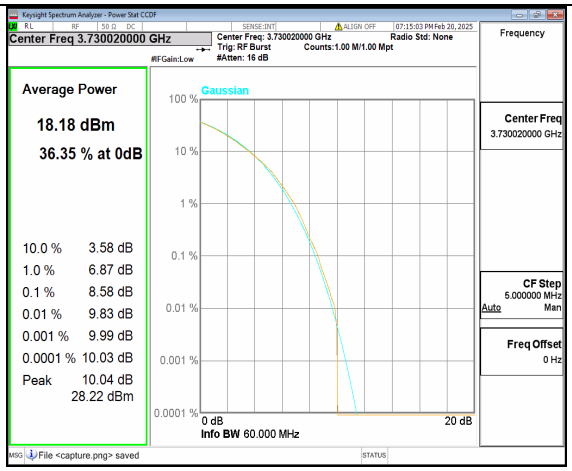
12A_n77(3700-3980MHz) 60M DFT-s-OFDM BPSK Outer_Full Low



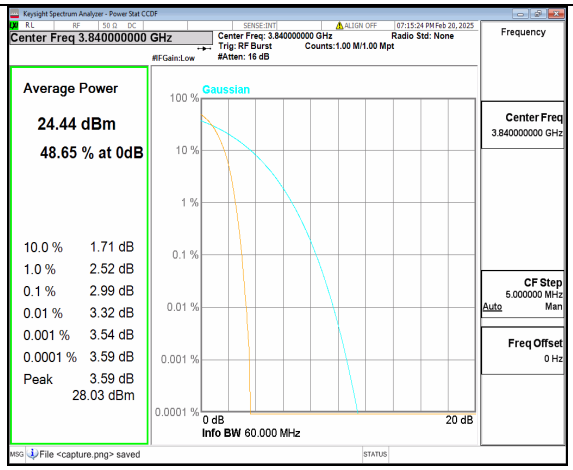
12A_n77(3700-3980MHz) 60M DFT-s-OFDM 256QAM Outer_Full Low



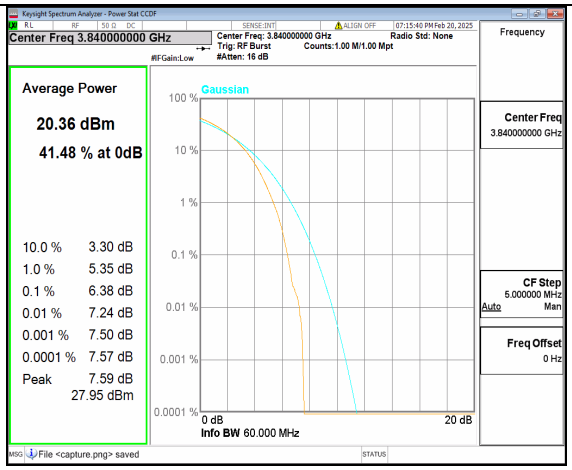
12A_n77(3700-3980MHz) 60M CP-OFDM QPSK Outer_Full Low



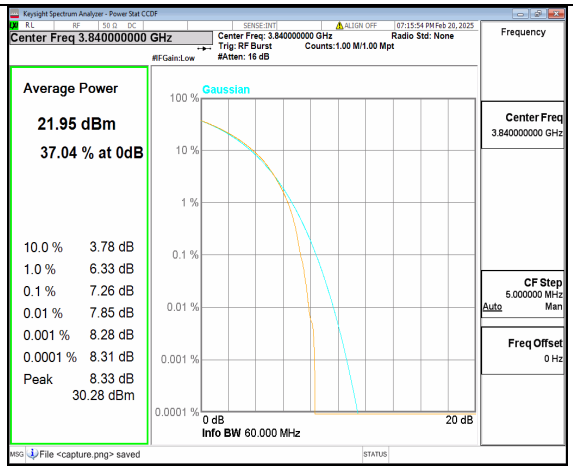
12A_n77(3700-3980MHz) 60M CP-OFDM 256QAM Outer_Full Low



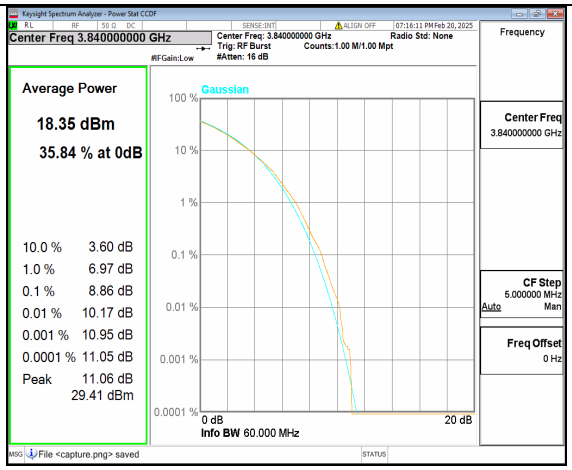
12A_n77(3700-3980MHz) 60M DFT-s-OFDM BPSK Outer_Full Mid



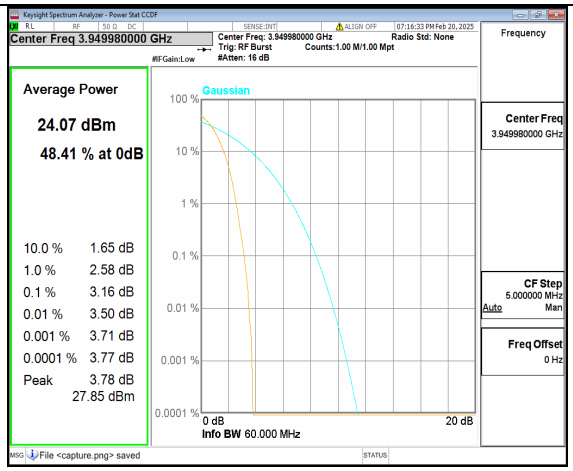
12A_n77(3700-3980MHz) 60M DFT-s-OFDM 256QAM Outer_Full Mid



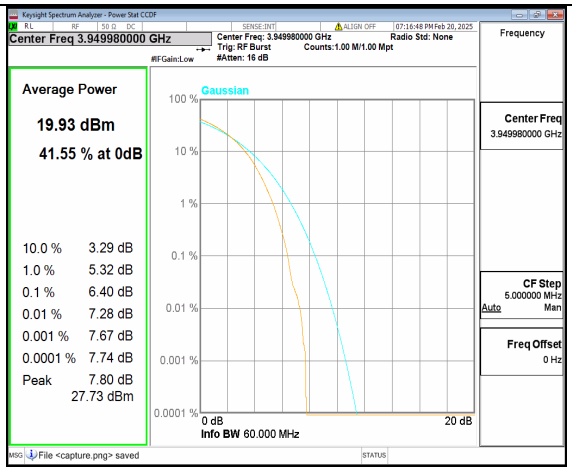
12A_n77(3700-3980MHz) 60M CP-OFDM QPSK Outer_Full Mid



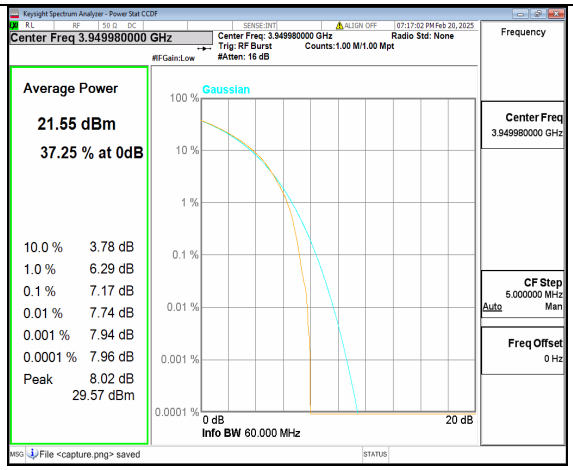
12A_n77(3700-3980MHz) 60M CP-OFDM 256QAM Outer_Full Mid



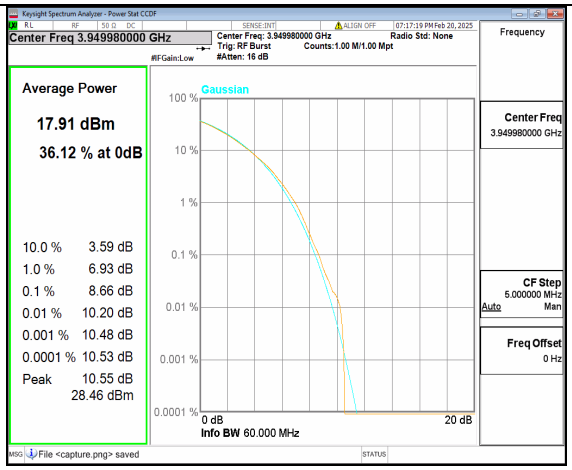
12A_n77(3700-3980MHz) 60M DFT-s-OFDM BPSK Outer_Full High



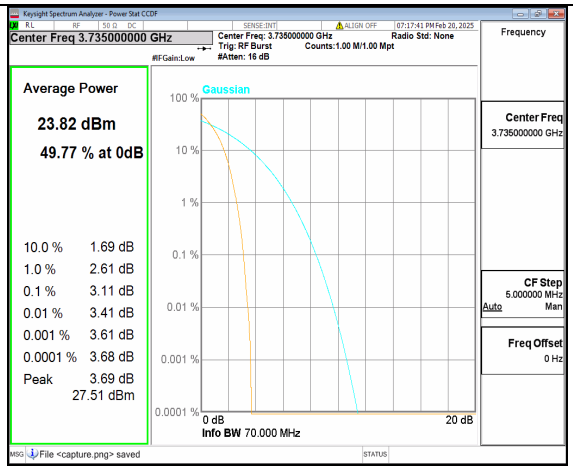
12A_n77(3700-3980MHz) 60M DFT-s-OFDM 256QAM Outer_Full High



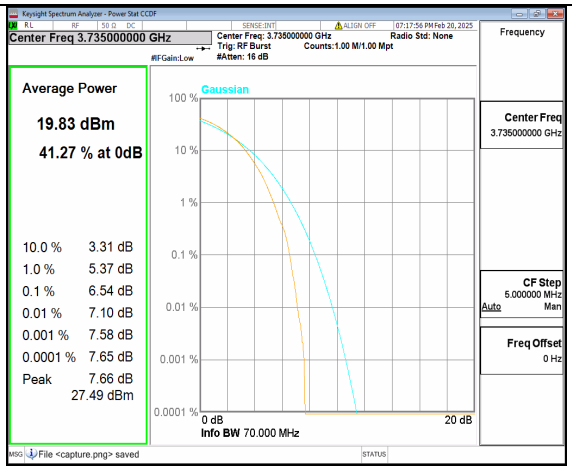
12A_n77(3700-3980MHz) 60M CP-OFDM QPSK Outer_Full High



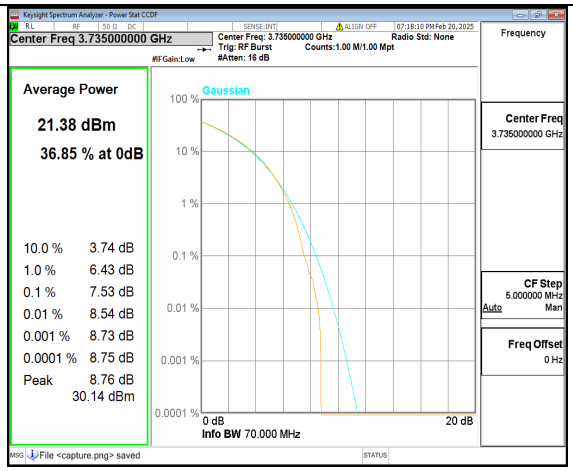
12A_n77(3700-3980MHz) 60M CP-OFDM 256QAM Outer_Full High



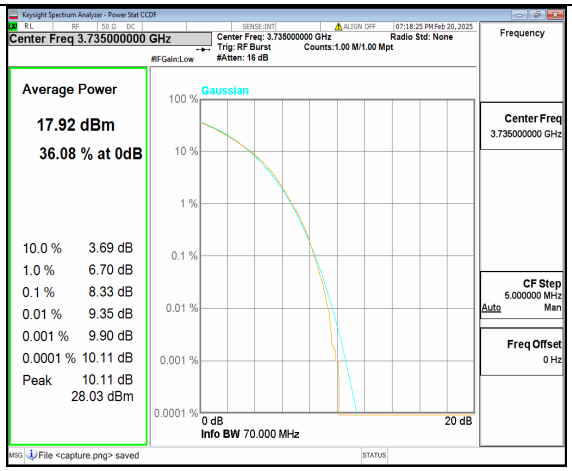
12A_n77(3700-3980MHz) 70M DFT-s-OFDM BPSK Outer_Full Low



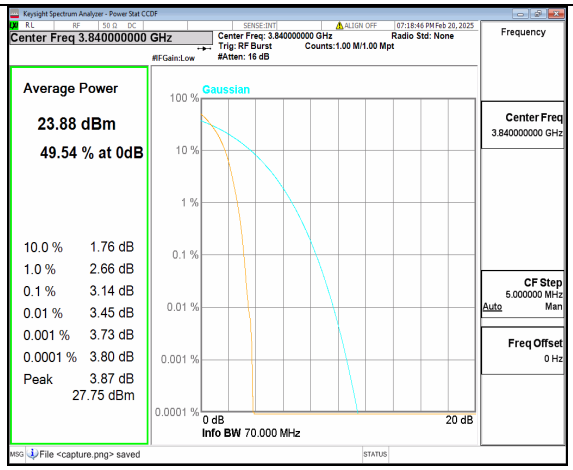
12A_n77(3700-3980MHz) 70M DFT-s-OFDM 256QAM Outer_Full Low



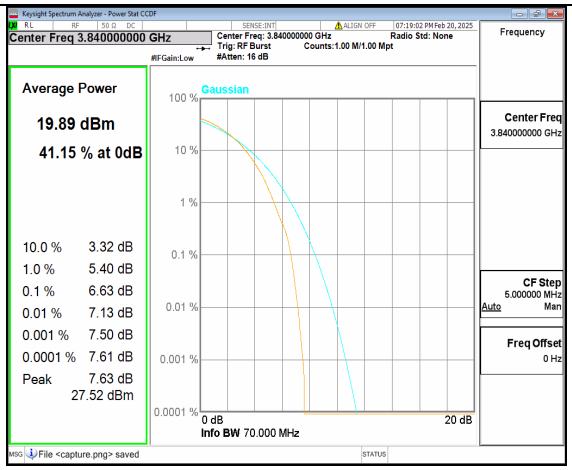
12A_n77(3700-3980MHz) 70M CP-OFDM QPSK Outer_Full Low



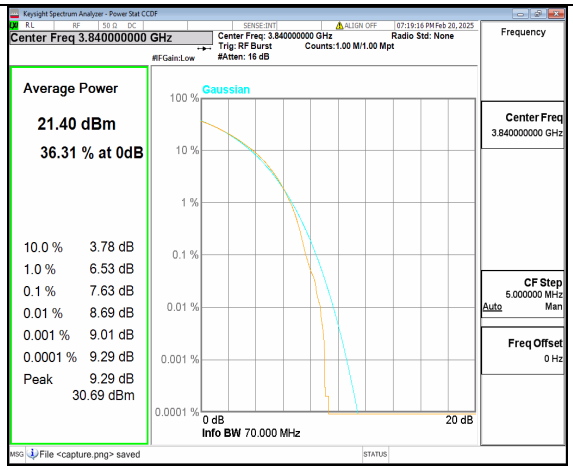
12A_n77(3700-3980MHz) 70M CP-OFDM 256QAM Outer_Full Low



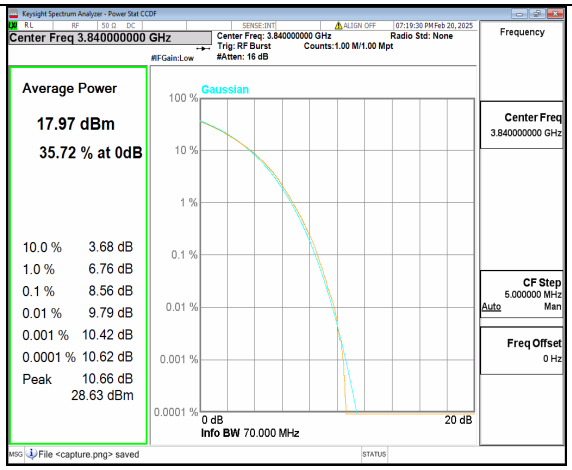
12A_n77(3700-3980MHz) 70M DFT-s-OFDM BPSK Outer_Full Mid



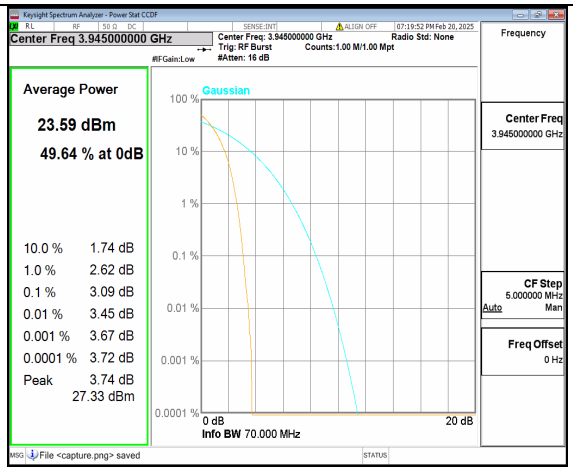
12A_n77(3700-3980MHz) 70M DFT-s-OFDM 256QAM Outer_Full Mid



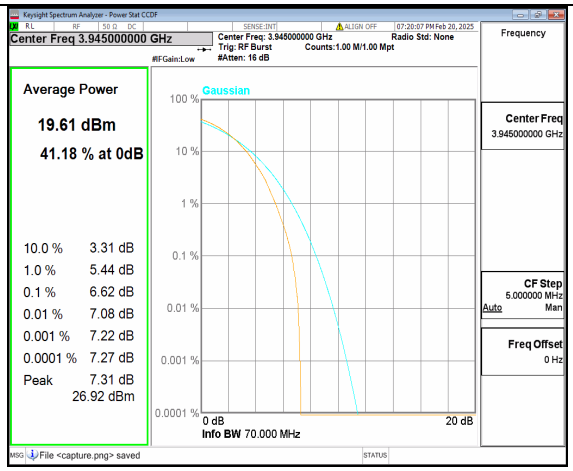
12A_n77(3700-3980MHz) 70M CP-OFDM QPSK Outer_Full Mid



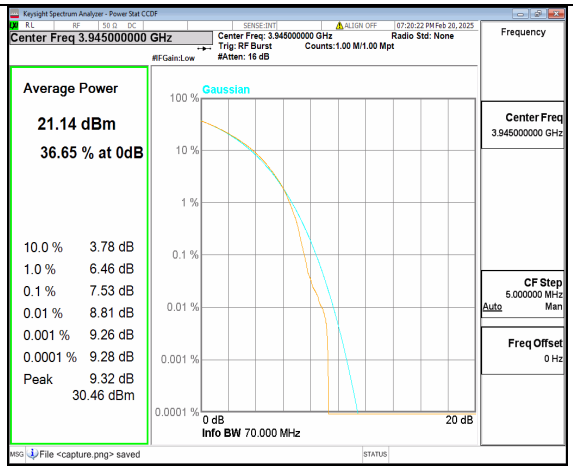
12A_n77(3700-3980MHz) 70M CP-OFDM 256QAM Outer_Full Mid



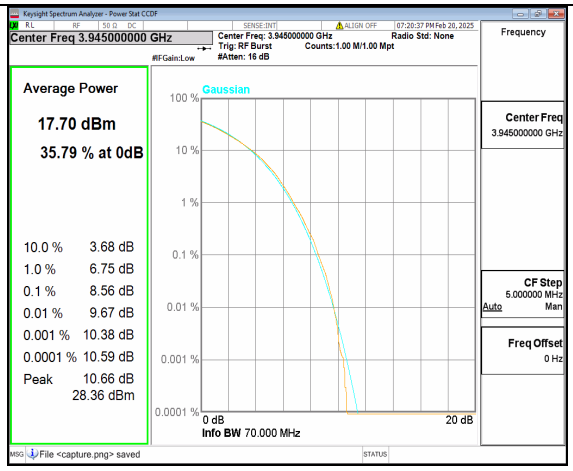
12A_n77(3700-3980MHz) 70M DFT-s-OFDM BPSK Outer_Full High



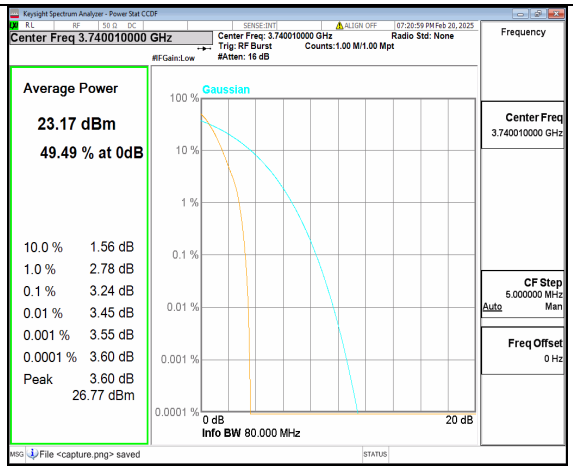
12A_n77(3700-3980MHz) 70M DFT-s-OFDM 256QAM Outer_Full High



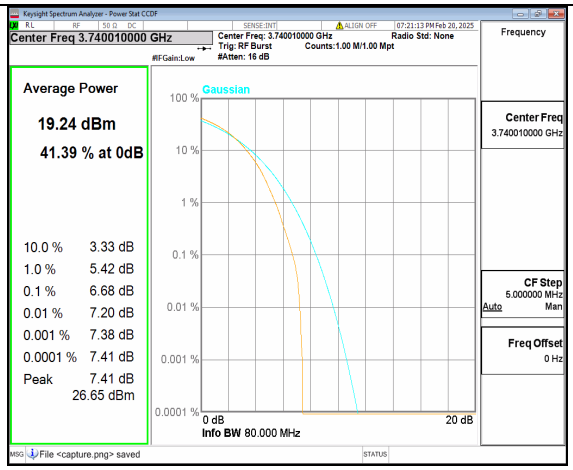
12A_n77(3700-3980MHz) 70M CP-OFDM QPSK Outer_Full High



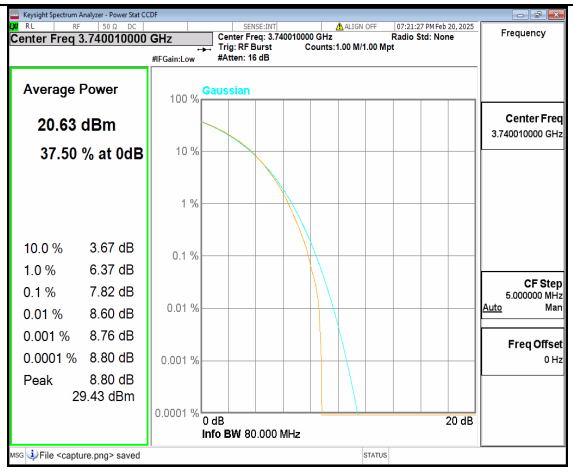
12A_n77(3700-3980MHz) 70M CP-OFDM 256QAM Outer_Full High



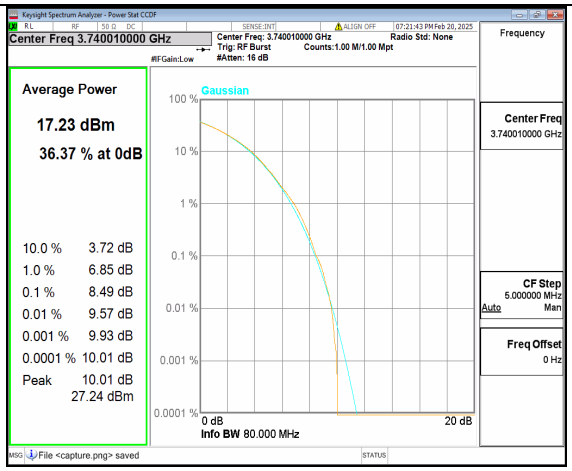
12A_n77(3700-3980MHz) 80M DFT-s-OFDM BPSK Outer_Full Low



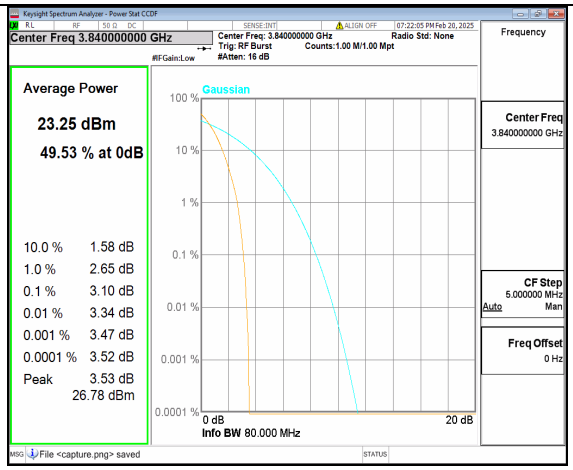
12A_n77(3700-3980MHz) 80M DFT-s-OFDM 256QAM Outer_Full Low



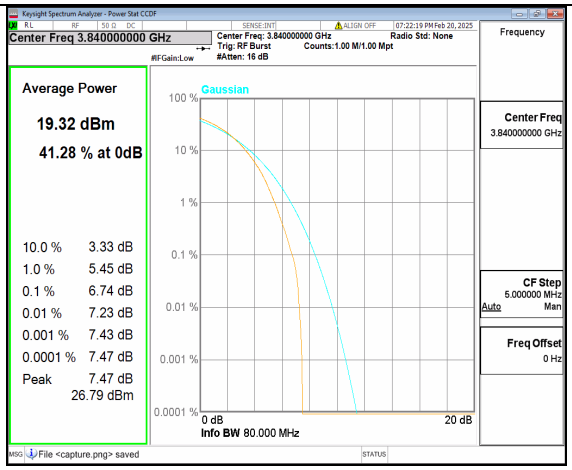
12A_n77(3700-3980MHz) 80M CP-OFDM QPSK Outer_Full Low



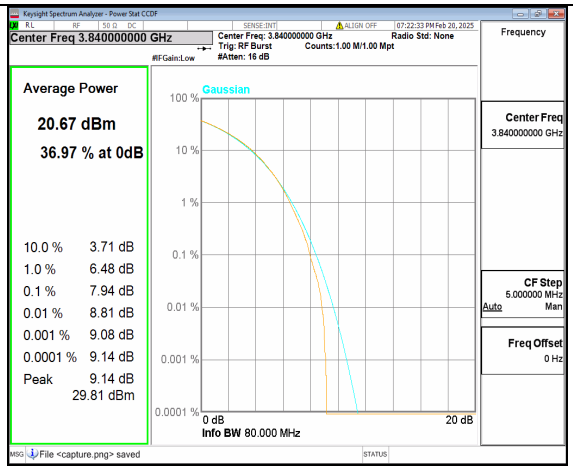
12A_n77(3700-3980MHz) 80M CP-OFDM 256QAM Outer_Full Low



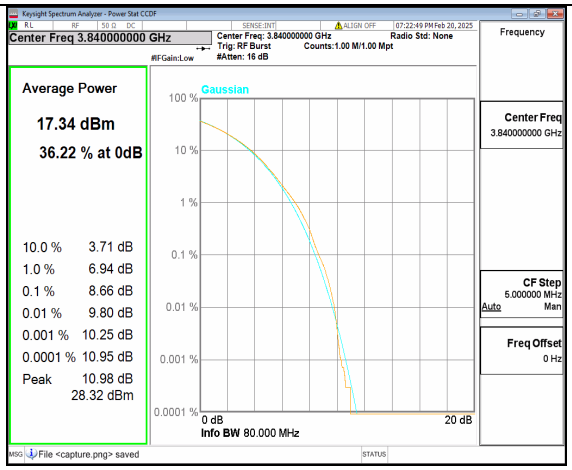
12A_n77(3700-3980MHz) 80M DFT-s-OFDM BPSK Outer_Full Mid



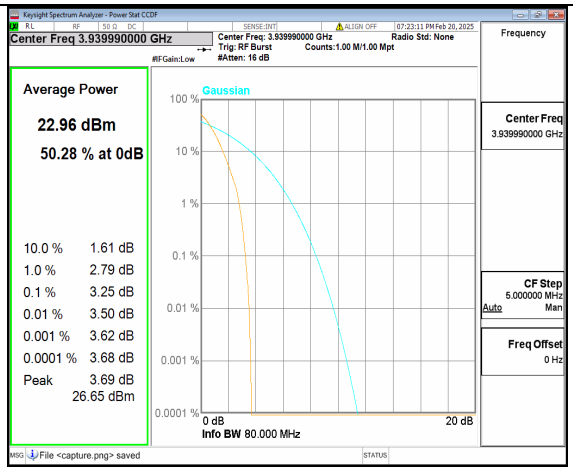
12A_n77(3700-3980MHz) 80M DFT-s-OFDM 256QAM Outer_Full Mid



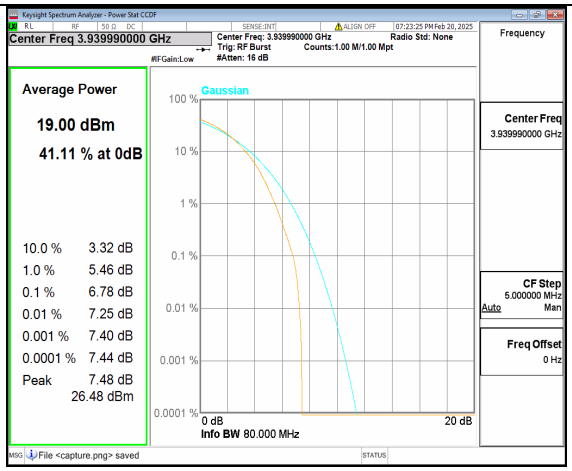
12A_n77(3700-3980MHz) 80M CP-OFDM QPSK Outer_Full Mid



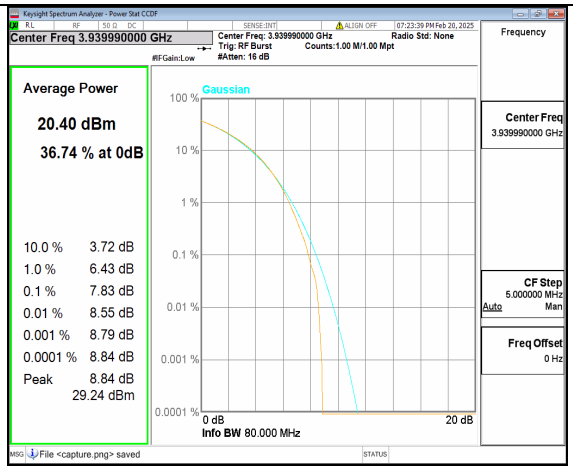
12A_n77(3700-3980MHz) 80M CP-OFDM 256QAM Outer_Full Mid



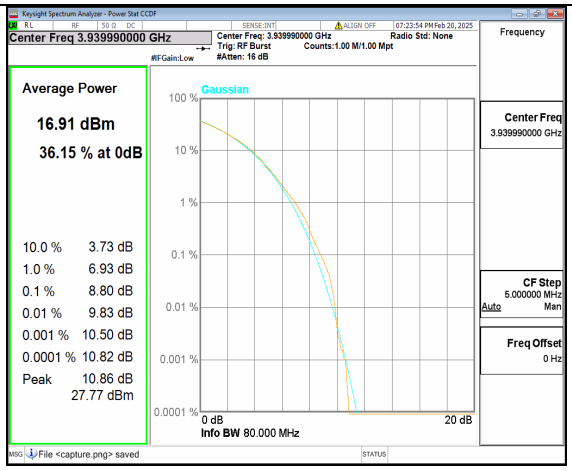
12A_n77(3700-3980MHz) 80M DFT-s-OFDM BPSK Outer_Full High



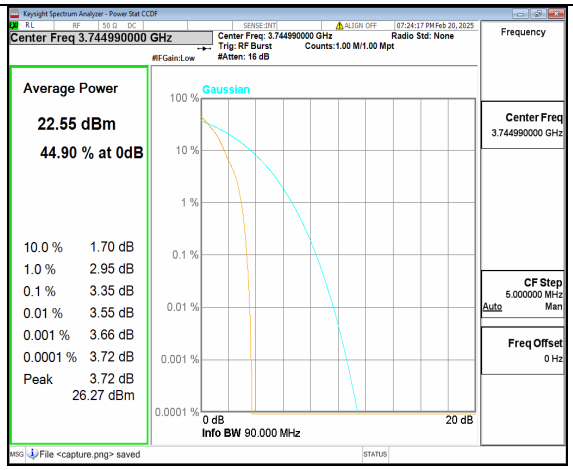
12A_n77(3700-3980MHz) 80M DFT-s-OFDM 256QAM Outer_Full High



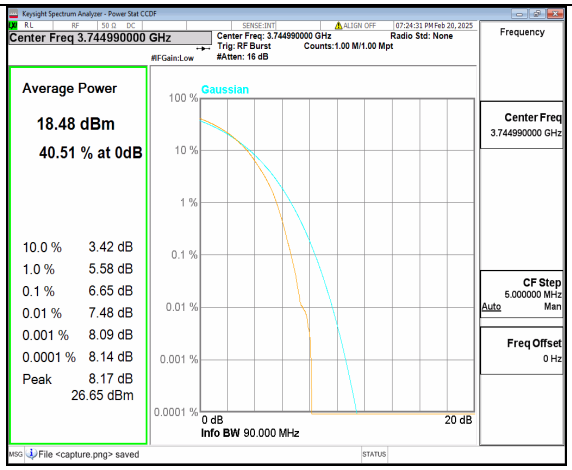
12A_n77(3700-3980MHz) 80M CP-OFDM QPSK Outer_Full High



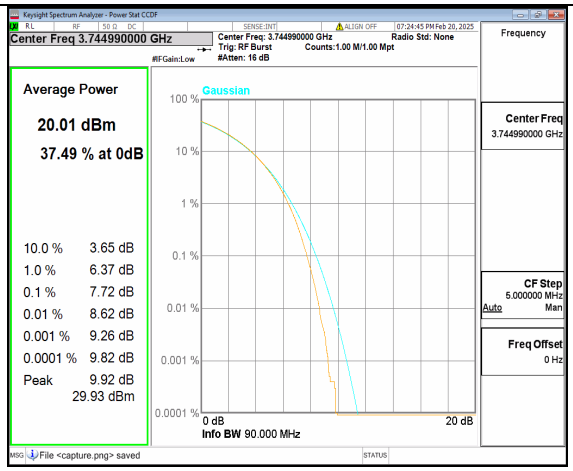
12A_n77(3700-3980MHz) 80M CP-OFDM 256QAM Outer_Full High



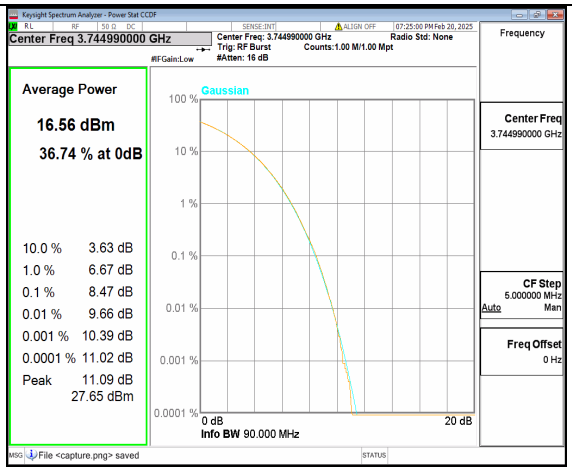
12A_n77(3700-3980MHz) 90M DFT-s-OFDM BPSK Outer_Full Low



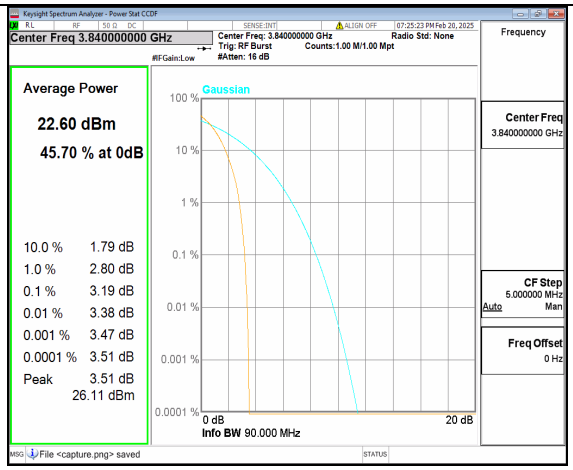
12A_n77(3700-3980MHz) 90M DFT-s-OFDM 256QAM Outer_Full Low



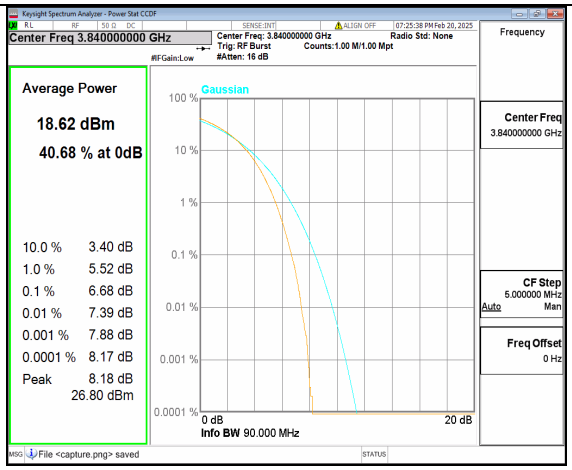
12A_n77(3700-3980MHz) 90M CP-OFDM QPSK Outer_Full Low



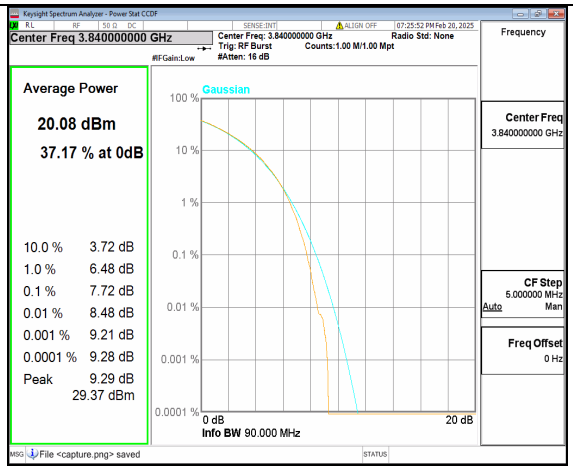
12A_n77(3700-3980MHz) 90M CP-OFDM 256QAM Outer_Full Low



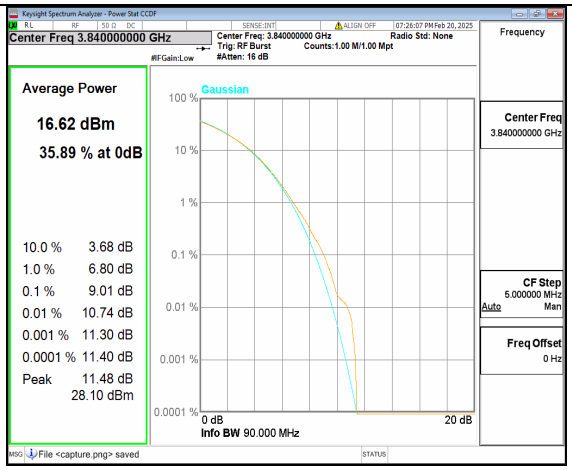
12A_n77(3700-3980MHz) 90M DFT-s-OFDM BPSK Outer_Full Mid



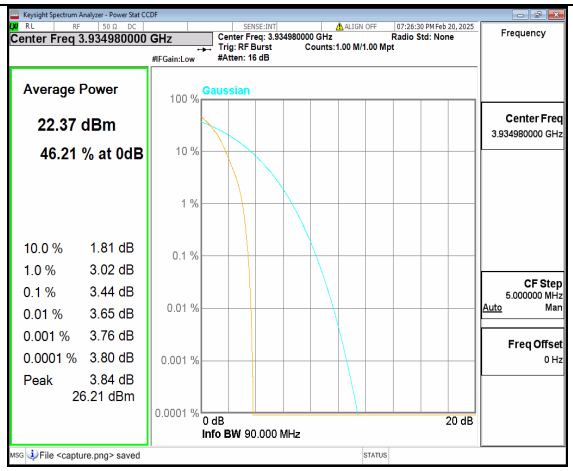
12A_n77(3700-3980MHz) 90M DFT-s-OFDM 256QAM Outer_Full Mid



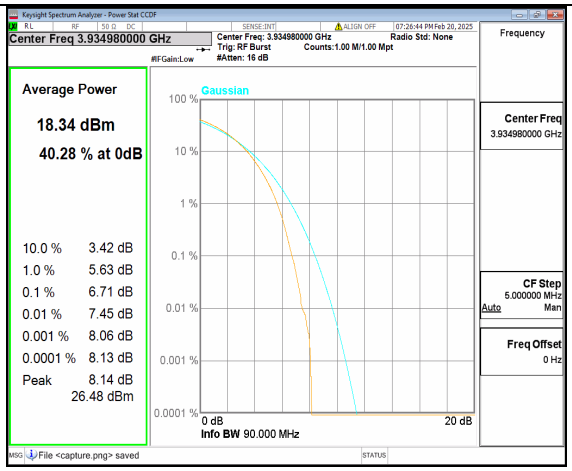
12A_n77(3700-3980MHz) 90M CP-OFDM QPSK Outer_Full Mid



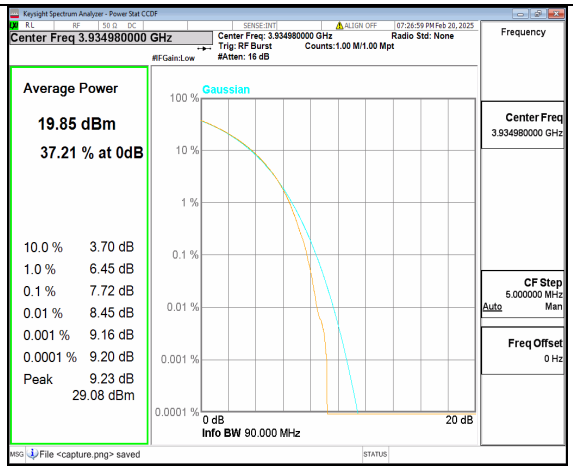
12A_n77(3700-3980MHz) 90M CP-OFDM 256QAM Outer_Full Mid



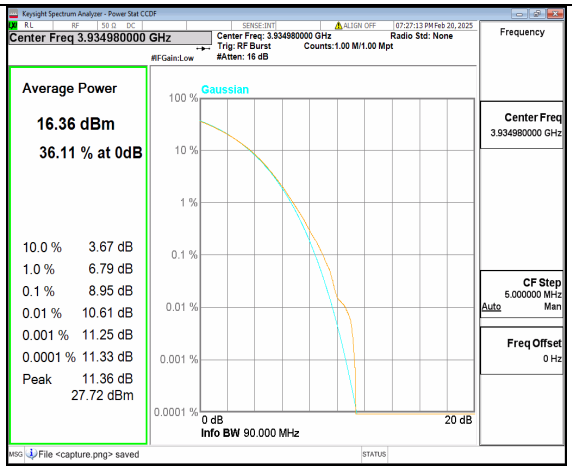
12A_n77(3700-3980MHz) 90M DFT-s-OFDM BPSK Outer_Full High



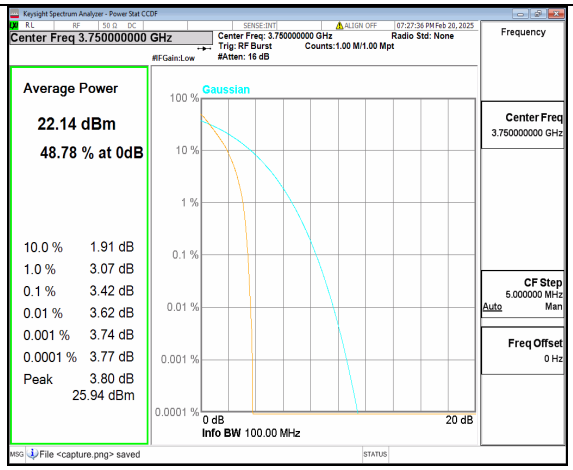
12A_n77(3700-3980MHz) 90M DFT-s-OFDM 256QAM Outer_Full High



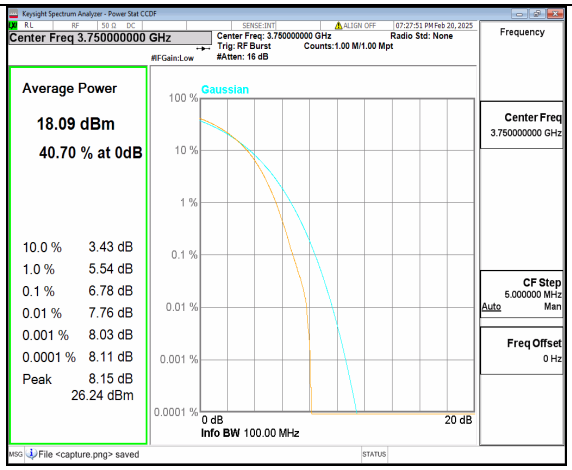
12A_n77(3700-3980MHz) 90M CP-OFDM QPSK Outer_Full High



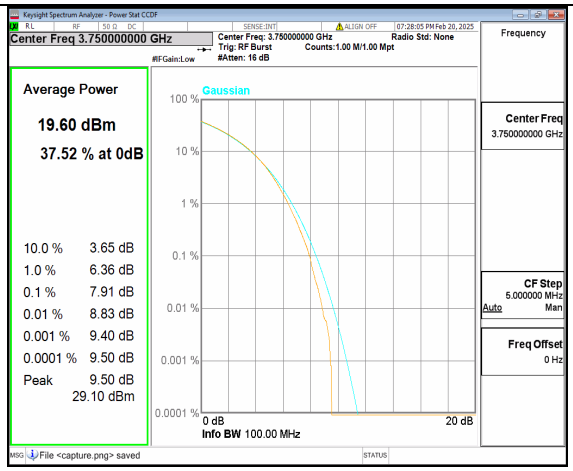
12A_n77(3700-3980MHz) 90M CP-OFDM 256QAM Outer_Full High



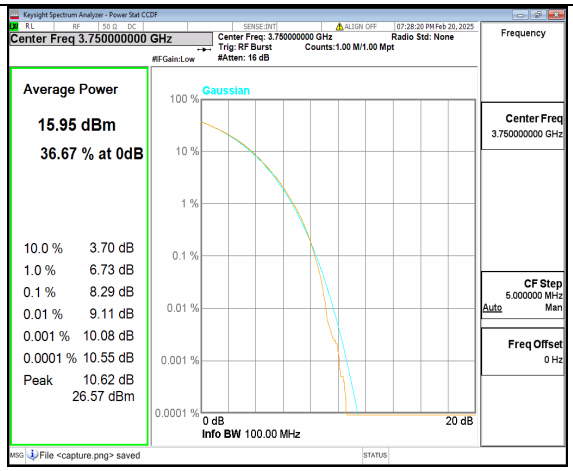
12A_n77(3700-3980MHz) 100M DFT-s-OFDM BPSK Outer_Full Low



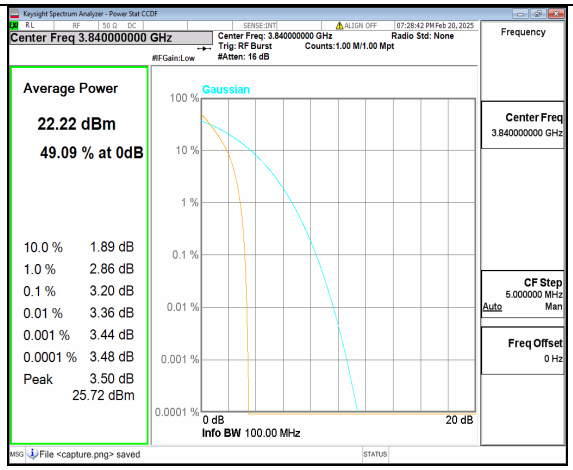
12A_n77(3700-3980MHz) 100M DFT-s-OFDM 256QAM Outer_Full Low



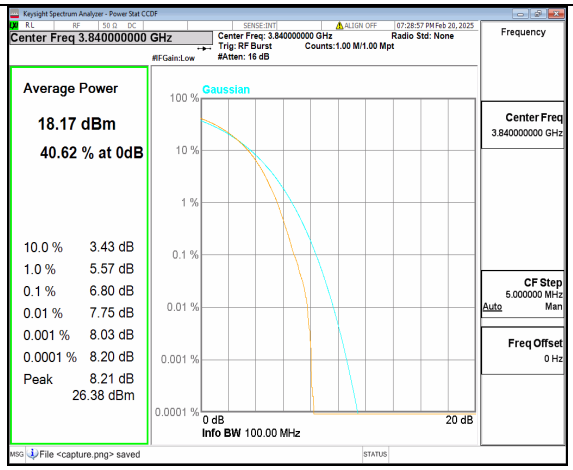
12A_n77(3700-3980MHz) 100M CP-OFDM QPSK Outer_Full Low



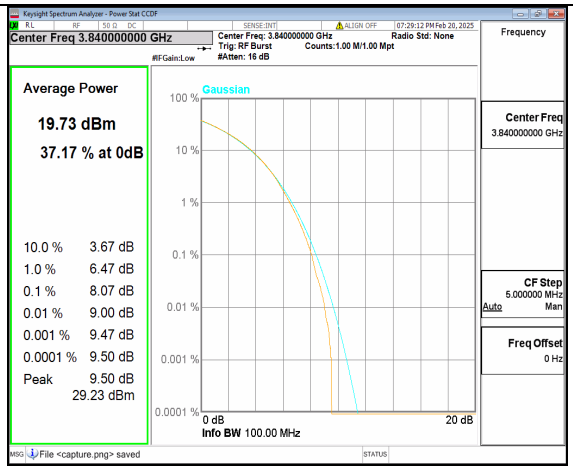
12A_n77(3700-3980MHz) 100M CP-OFDM 256QAM Outer_Full Low



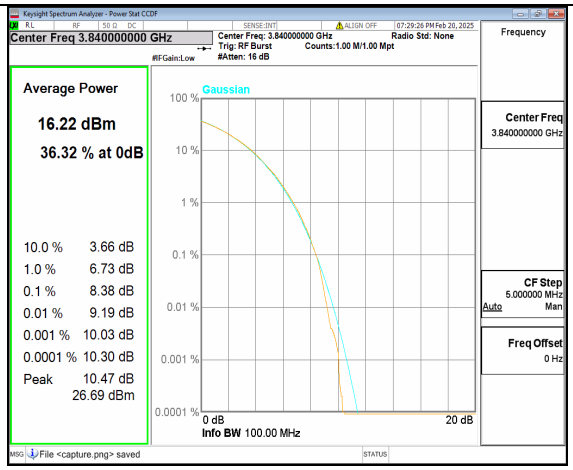
12A_n77(3700-3980MHz) 100M DFT-s-OFDM BPSK Outer_Full Mid



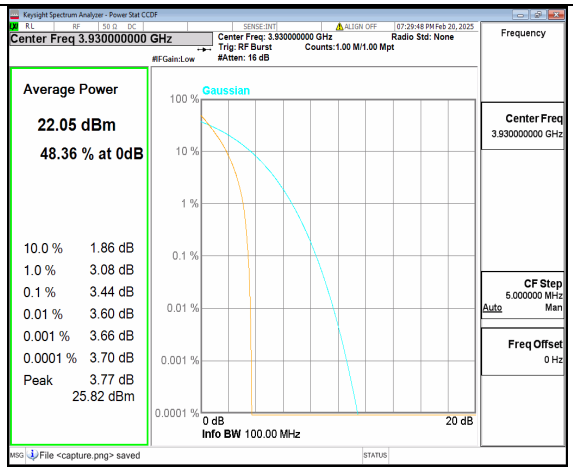
12A_n77(3700-3980MHz) 100M DFT-s-OFDM 256QAM Outer_Full Mid



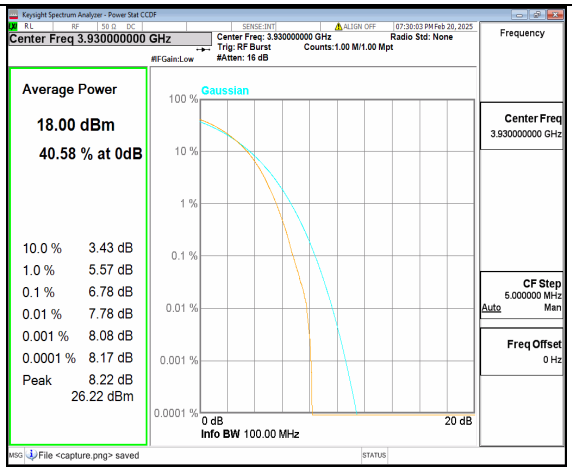
12A_n77(3700-3980MHz) 100M CP-OFDM QPSK Outer_Full Mid



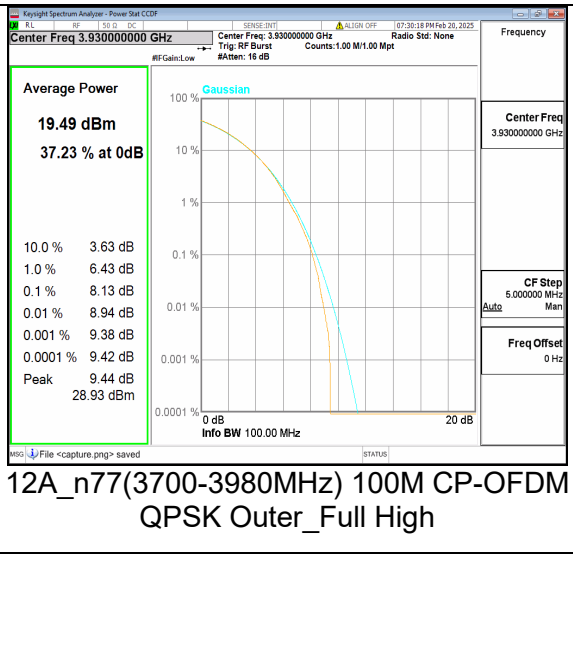
12A_n77(3700-3980MHz) 100M CP-OFDM 256QAM Outer_Full Mid



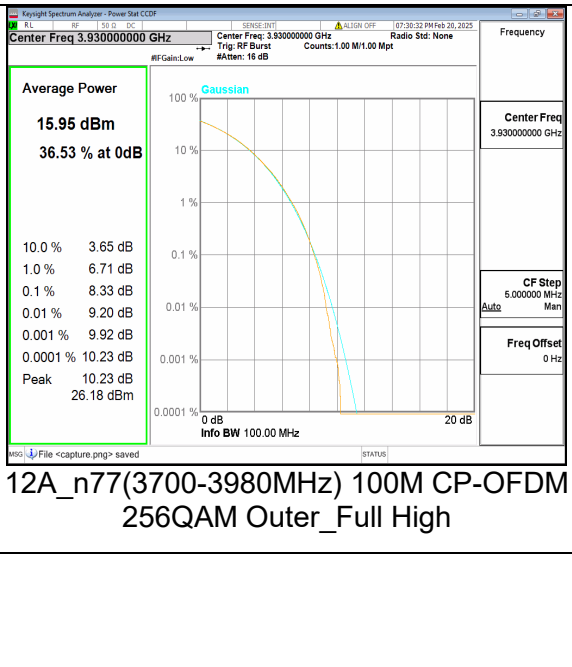
12A_n77(3700-3980MHz) 100M DFT-s-OFDM BPSK Outer_Full High



12A_n77(3700-3980MHz) 100M DFT-s-OFDM 256QAM Outer_Full High



12A_n77(3700-3980MHz) 100M CP-OFDM QPSK Outer_Full High



12A_n77(3700-3980MHz) 100M CP-OFDM 256QAM Outer_Full High

2.5. Conducted Spurious Emissions

2.5.1.Requirement

According to FCC section 2.1051, section 22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

According to FCC section 24.238(a) for n2, 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.

According to FCC section 27.53(m)(4) for n41, 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 55 + 10 log(P) dB. This calculated to be -25dBm.

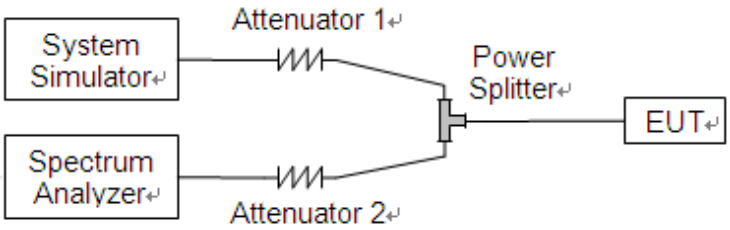
According to FCC section 27.53(g) for n71, for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB.

According to FCC section 27.53(h) for n66, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) dB.

According to FCC section 27.53(l)(2) for n77, 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.

According to FCC section 27.53(n)(2) for n77, for mobile 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.

2.5.2.Test Description

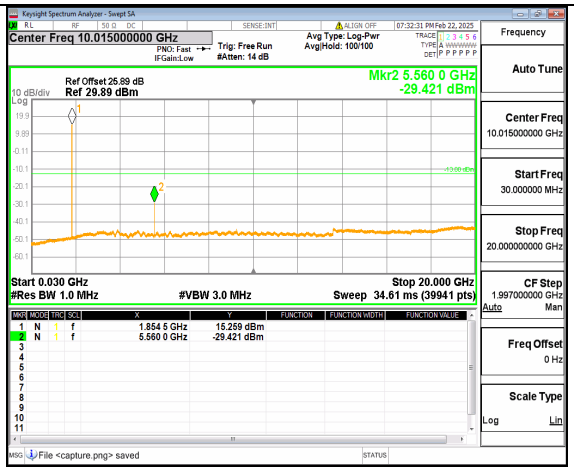


The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

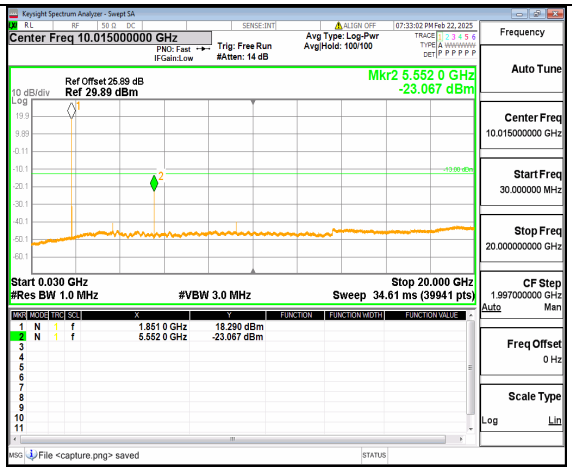
2.5.3.Test procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

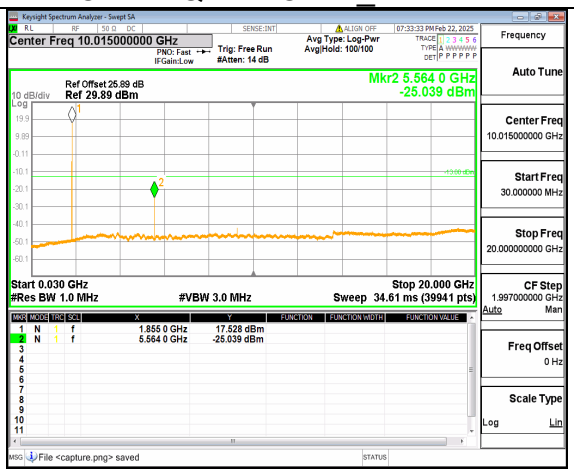
2.5.4.Test Result



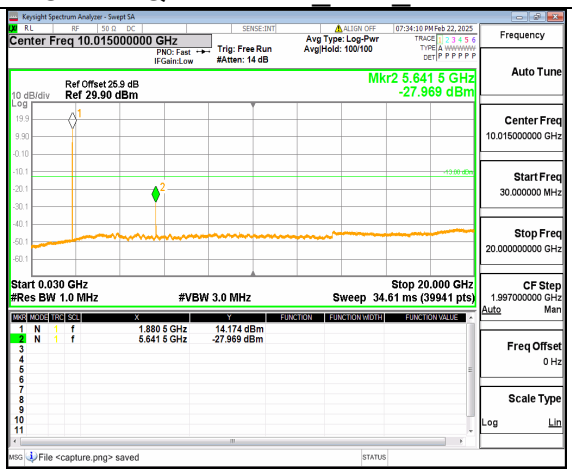
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Outer_Full Low



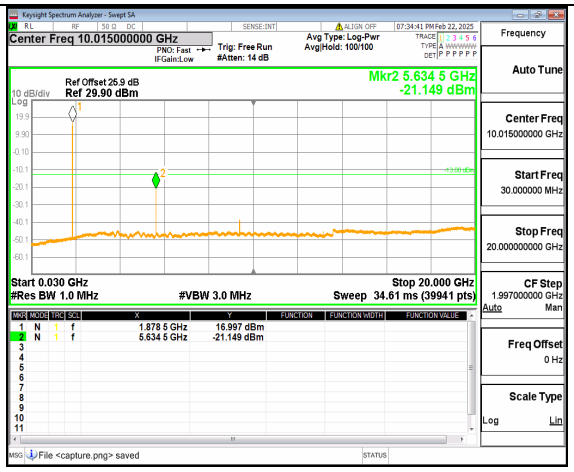
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left Low



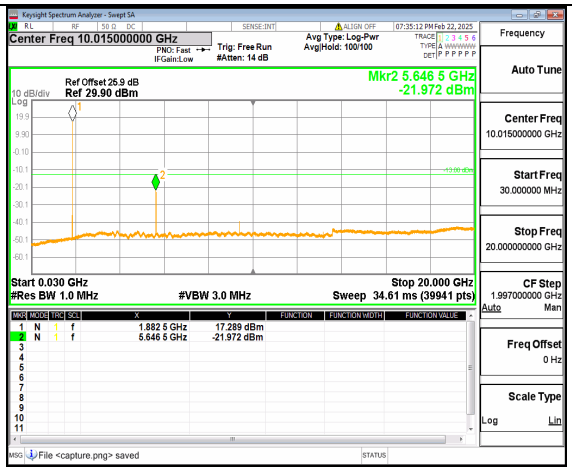
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right Low



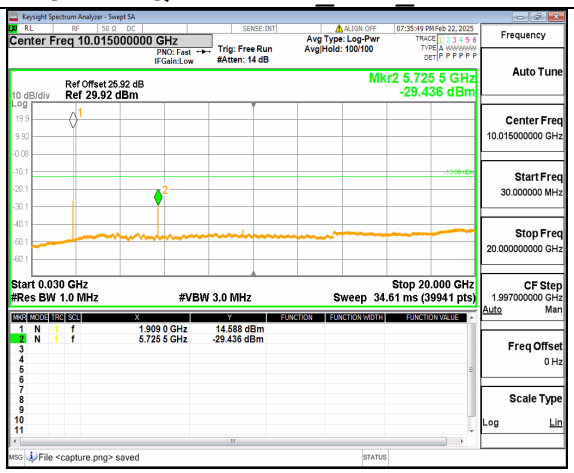
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Outer_Full Mid



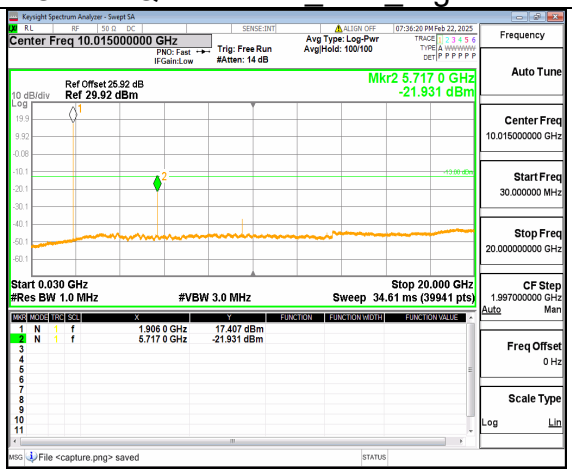
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left Mid



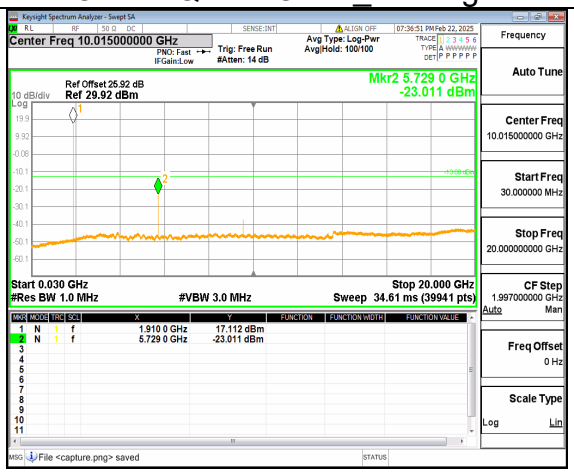
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right Mid



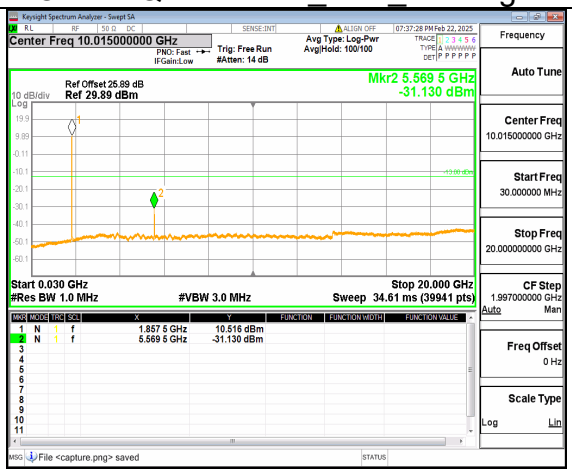
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Outer_Full High



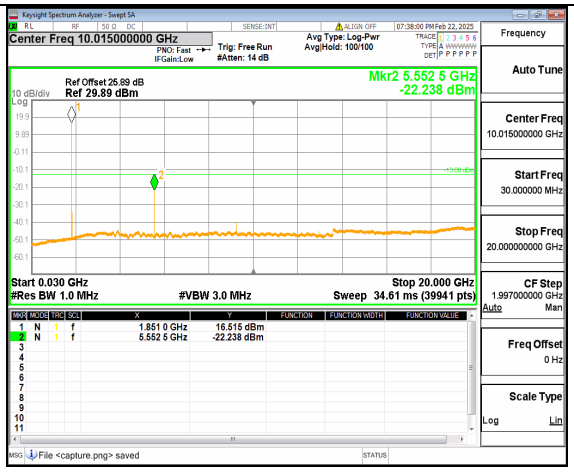
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left High



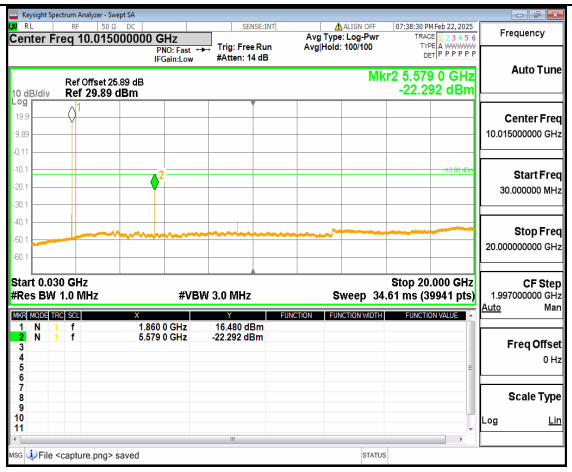
66A_n2 (30MHz-20GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right High



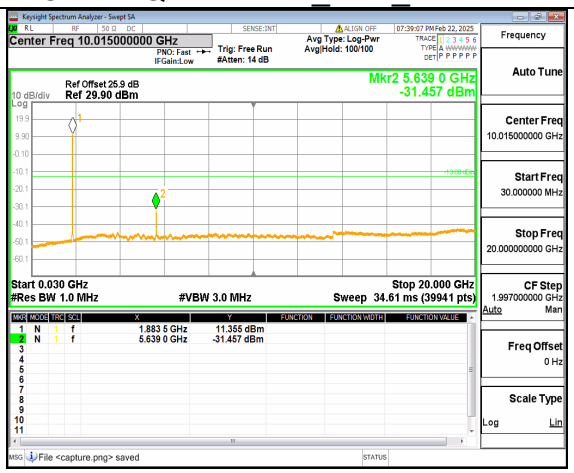
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Outer_Full Low



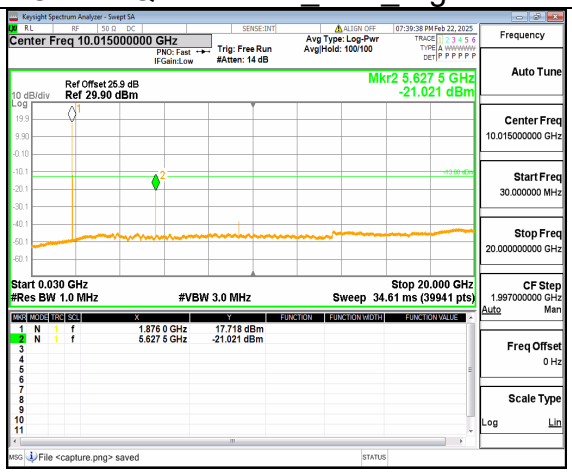
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left Low



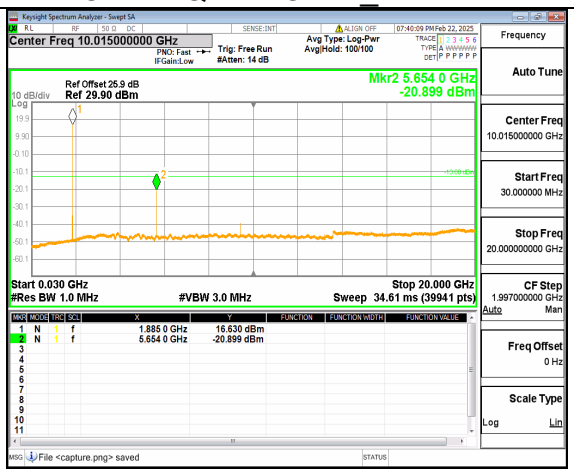
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right Low



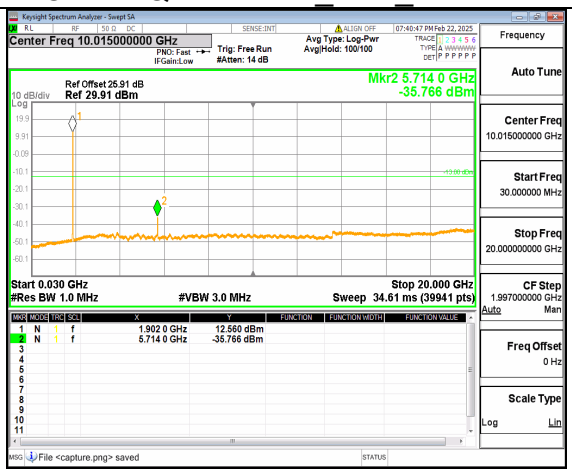
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Outer_Full Mid



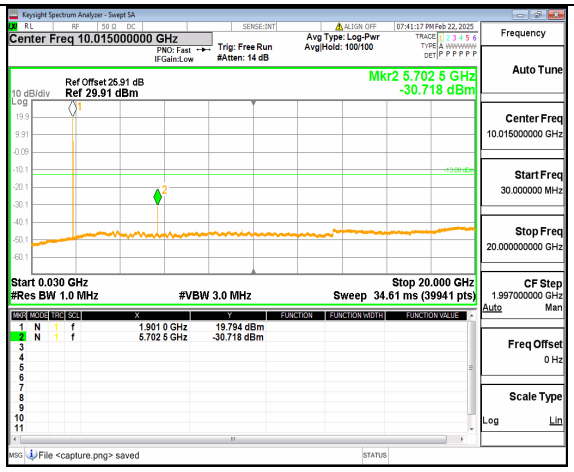
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left Mid



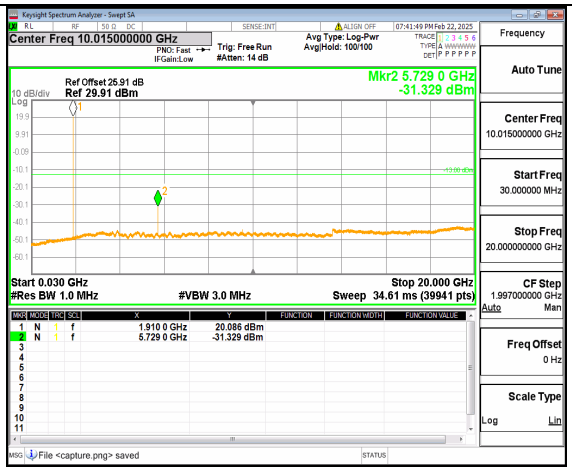
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right Mid



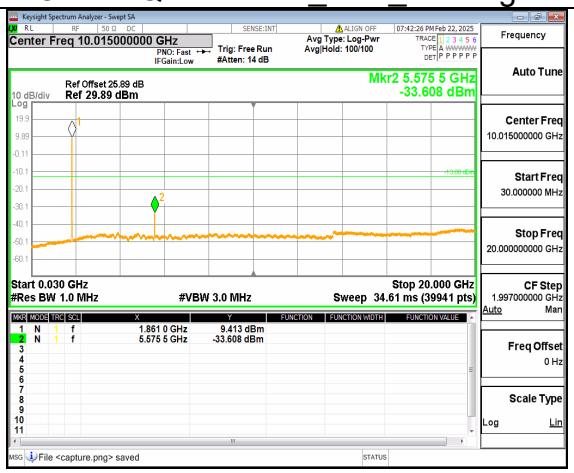
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Outer_Full High



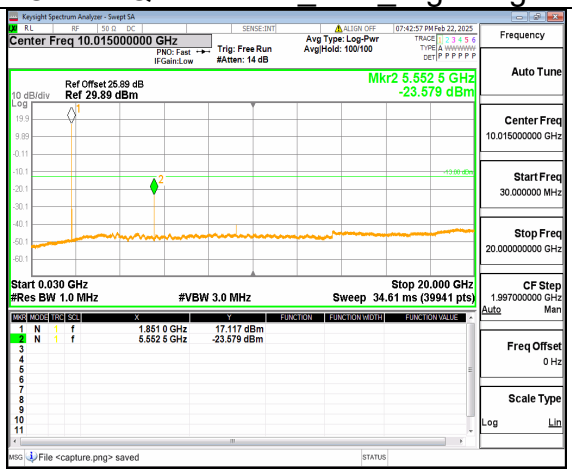
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left High



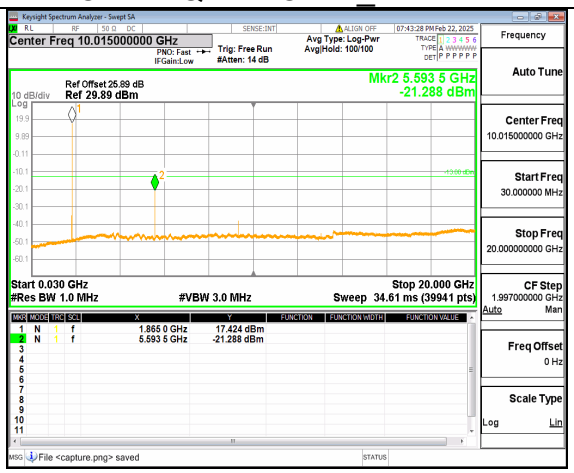
66A_n2 (30MHz-20GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right High



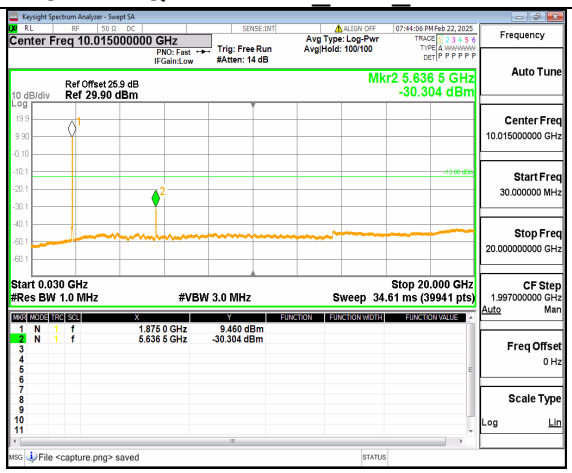
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Outer_Full Low



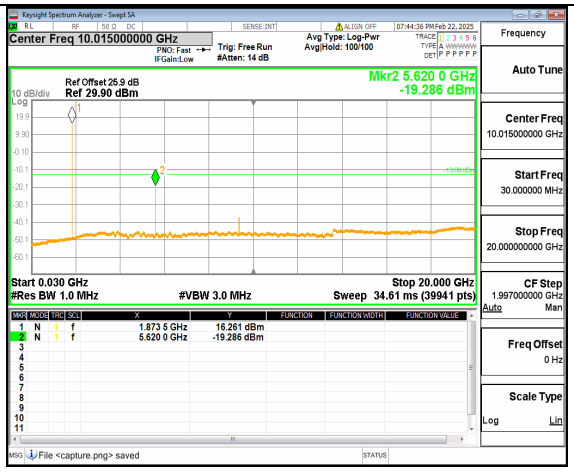
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Left Low



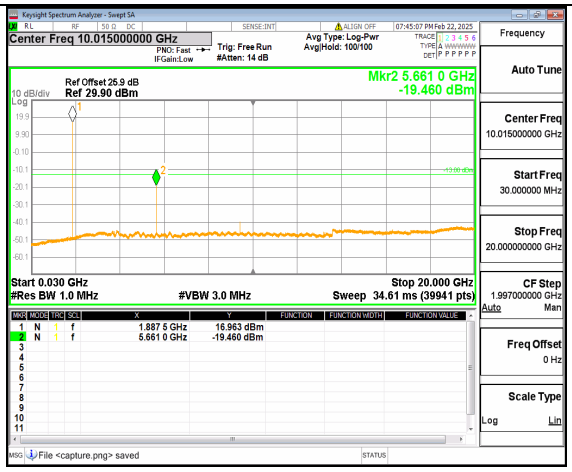
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Right Low



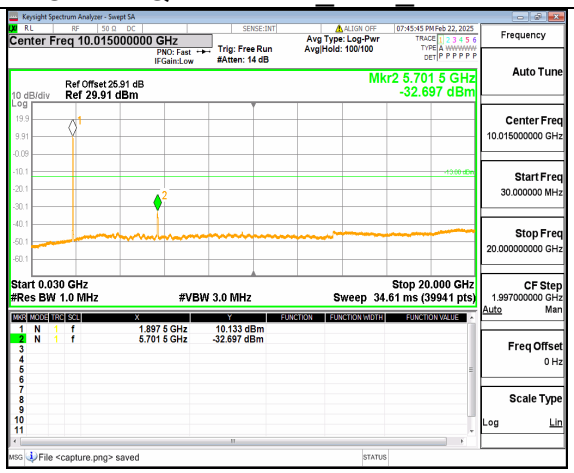
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Outer_Full Mid



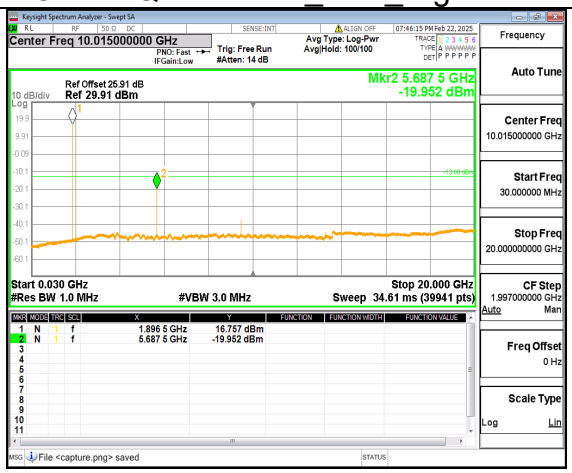
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Left Mid



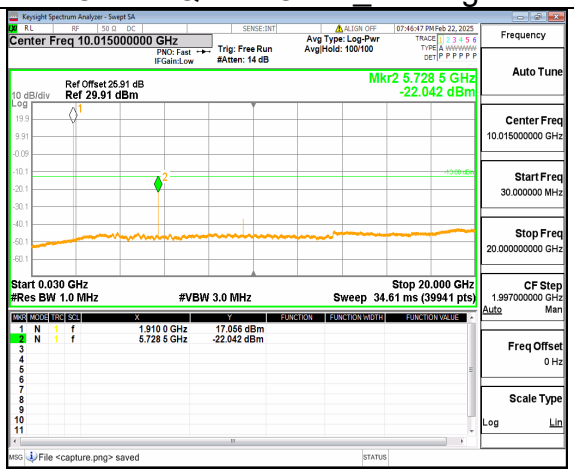
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Right Mid



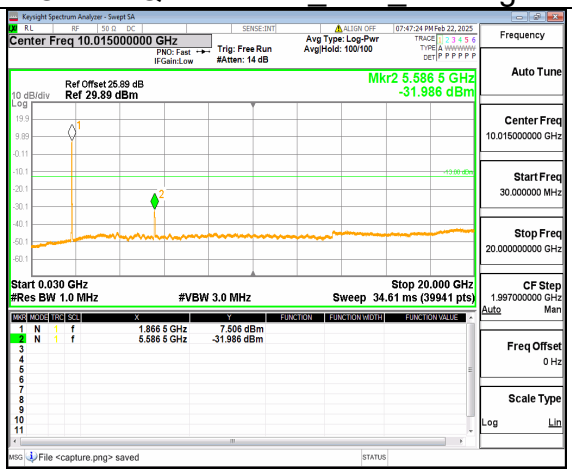
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Outer_Full High



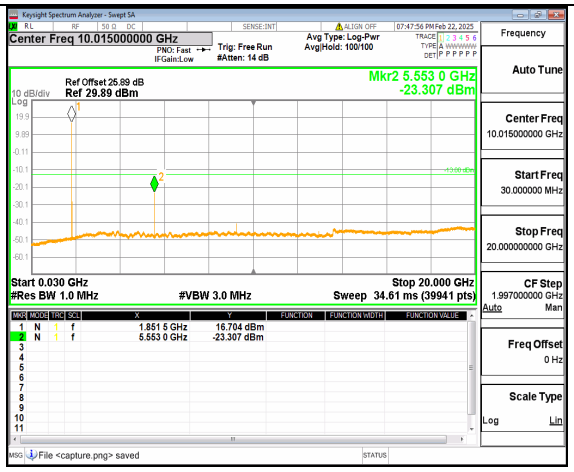
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Left High



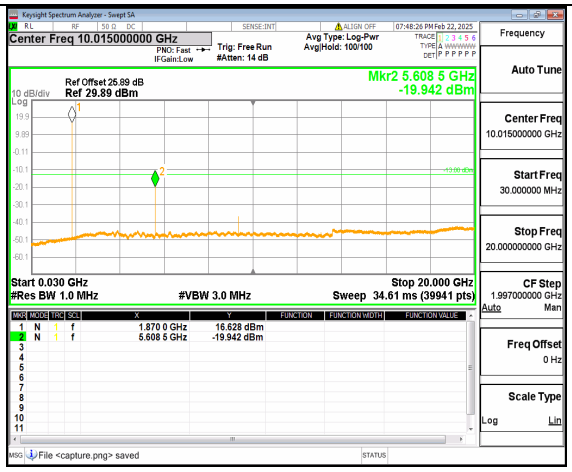
66A_n2 (30MHz-20GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Right High



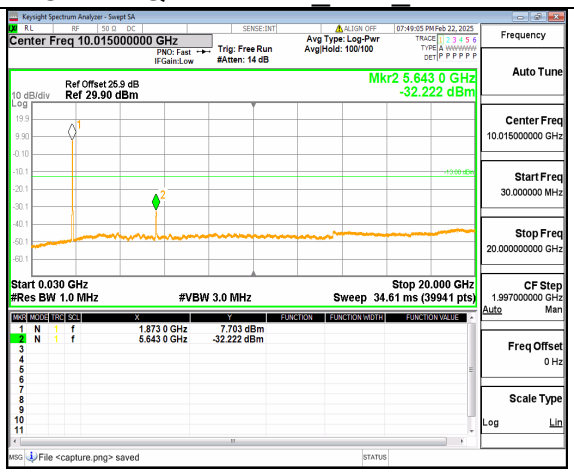
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Outer_Full Low



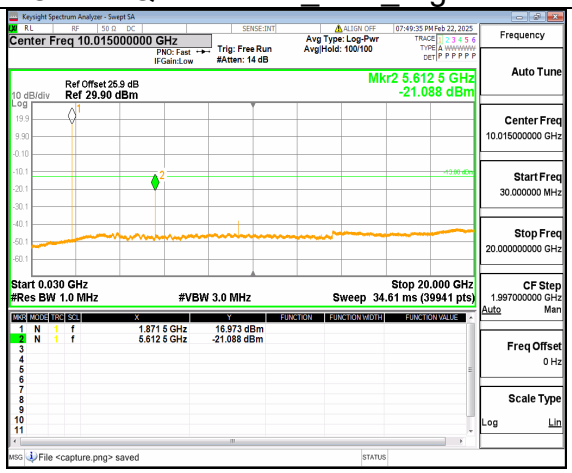
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Left Low



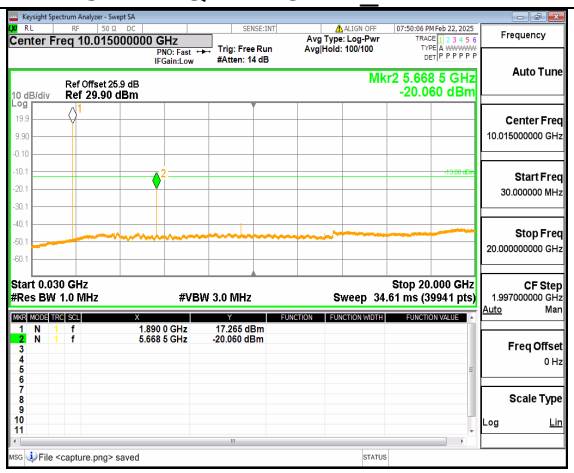
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Right Low



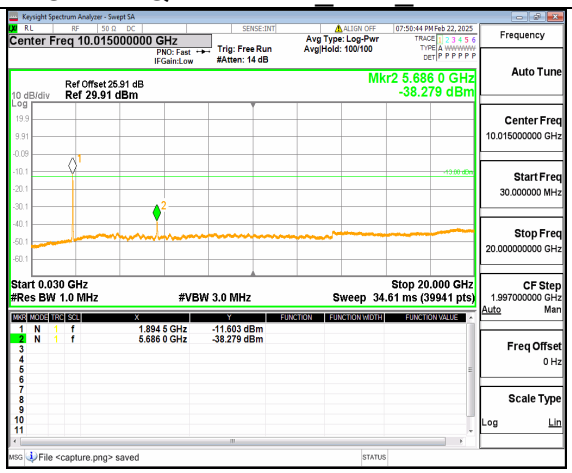
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Outer_Full Mid



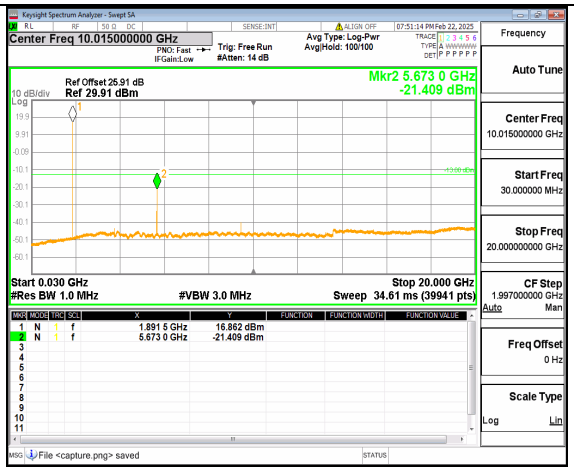
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Left Mid



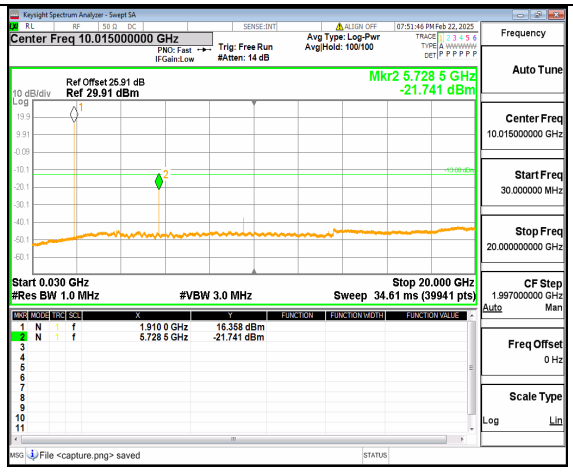
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Right Mid



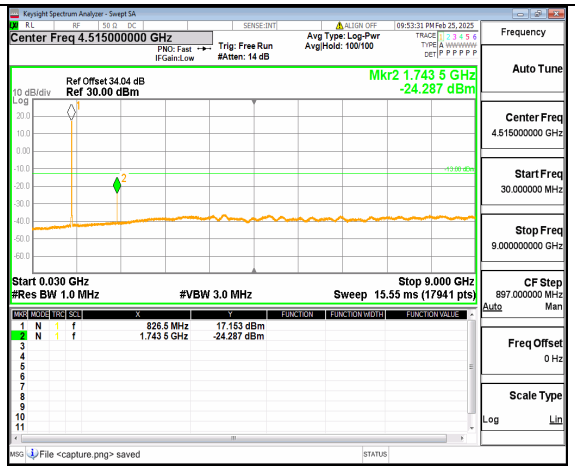
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Outer_Full High



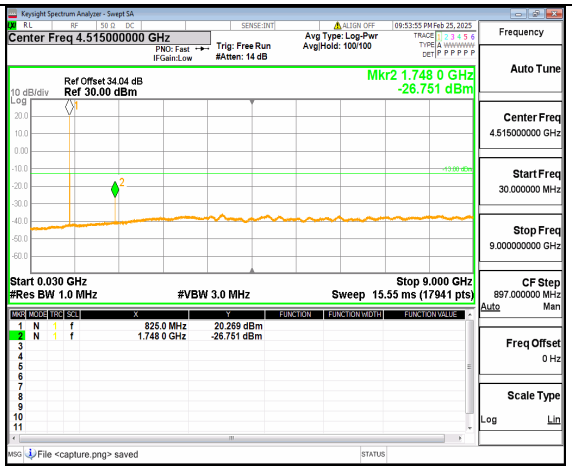
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Left High



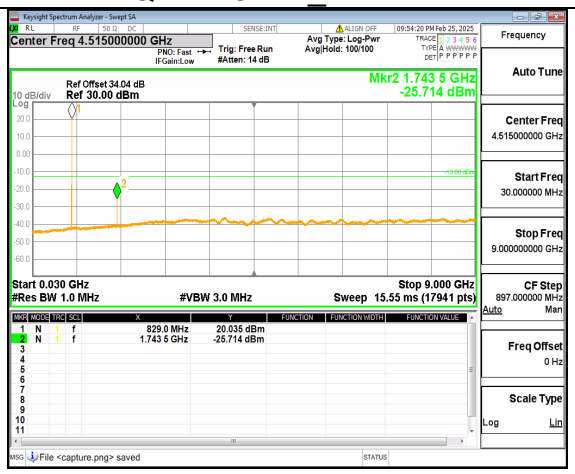
66A_n2 (30MHz-20GHz) 20M DFT-s-OFDM QPSK Inner_1RB_Right High



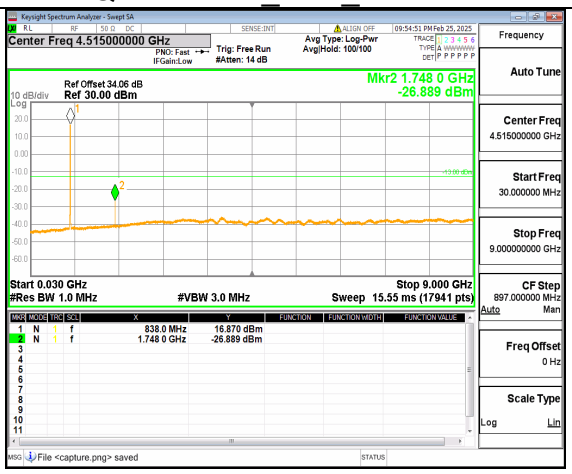
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Outer_Full Low



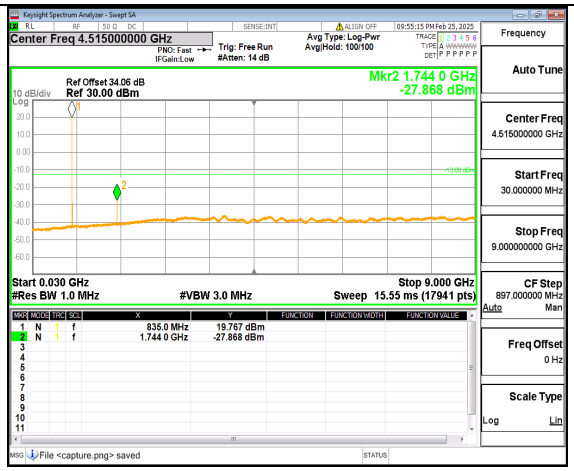
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left Low



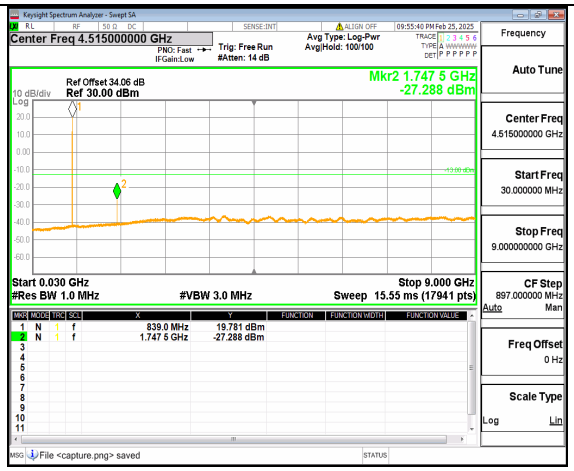
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right Low



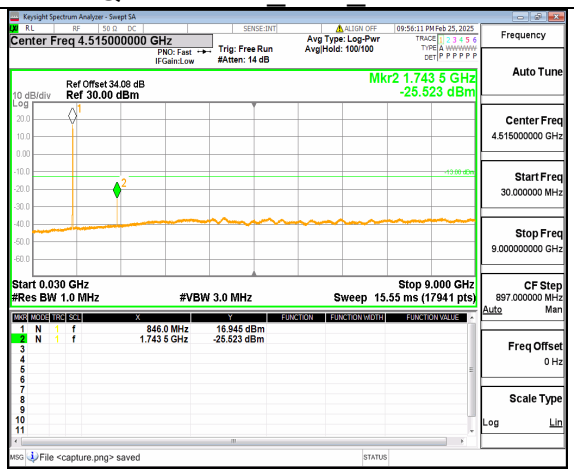
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Outer_Full Mid



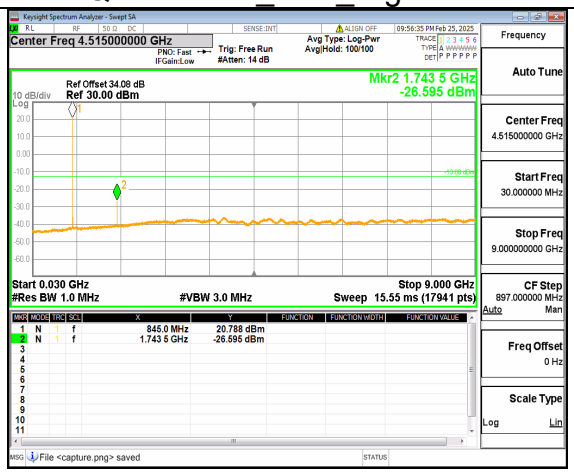
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left Mid



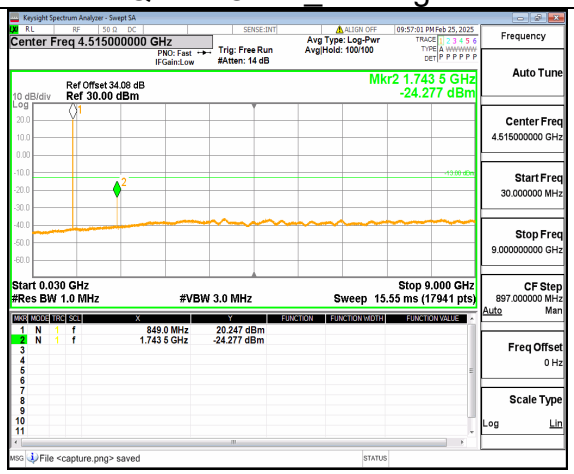
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right Mid



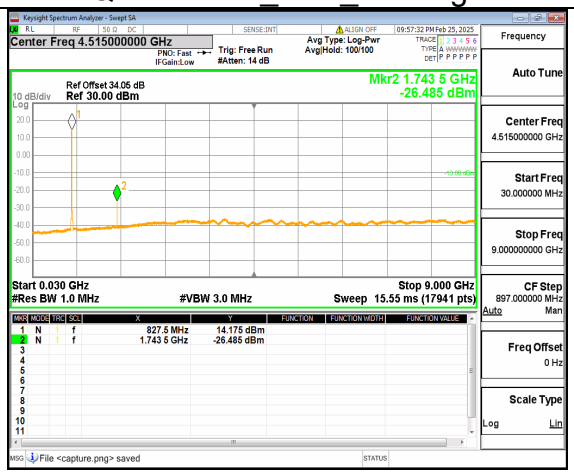
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Outer_Full High



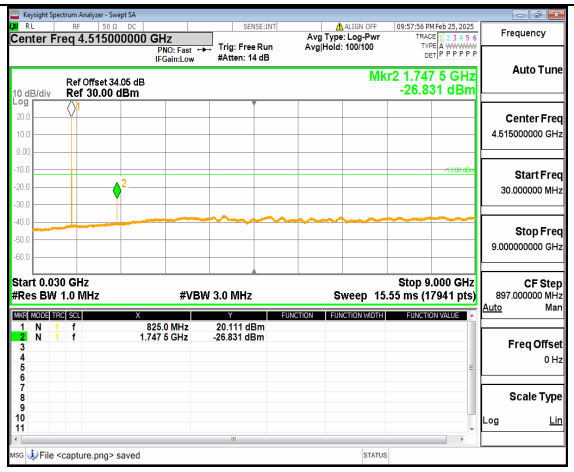
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Left High



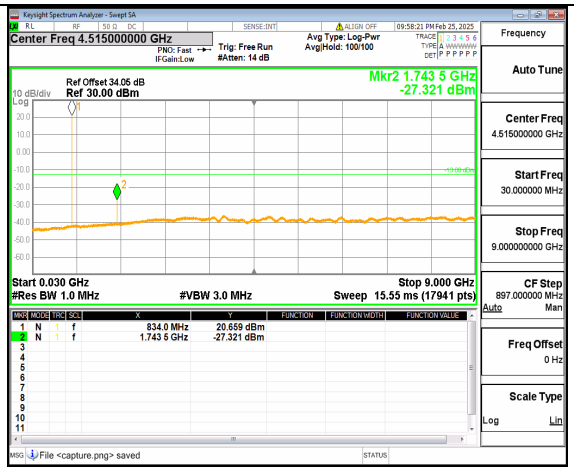
66A_n5 (30MHz-9GHz) 5M DFT-s-OFDM QPSK Inner_1RB_Right High



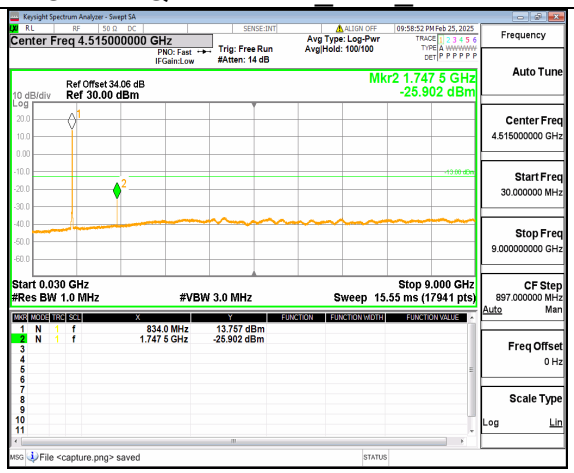
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Outer_Full Low



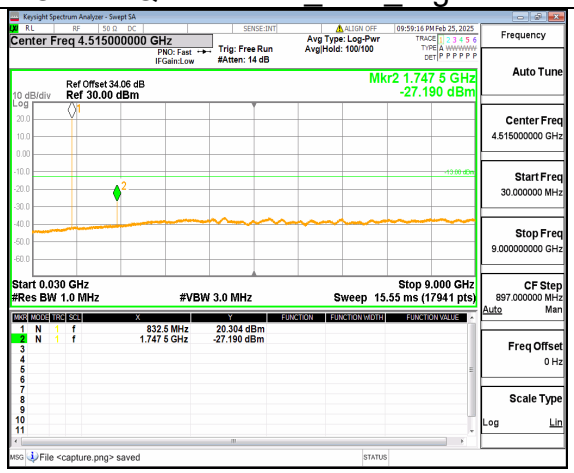
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left Low



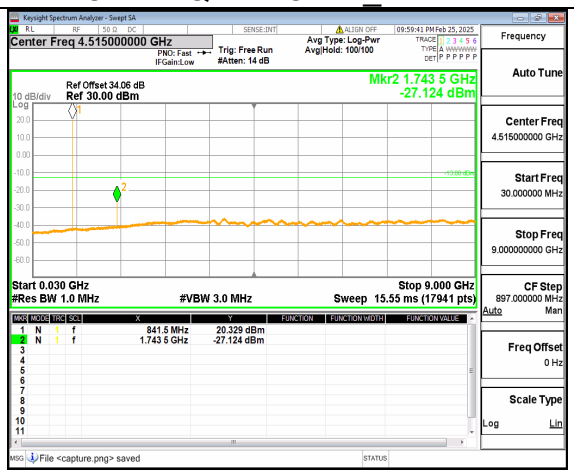
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right Low



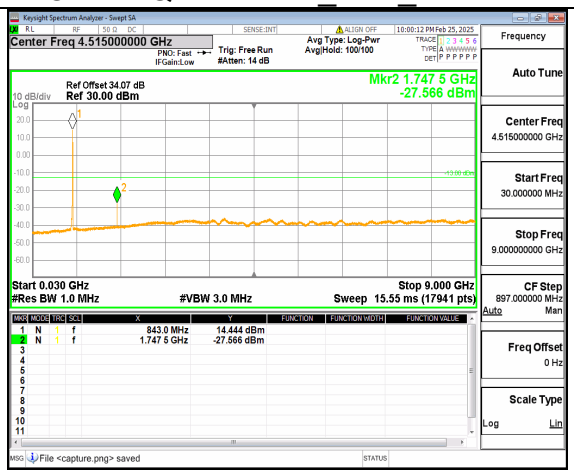
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Outer_Full Mid



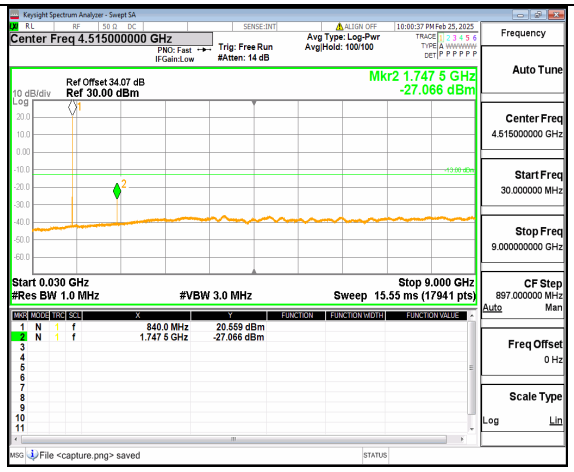
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left Mid



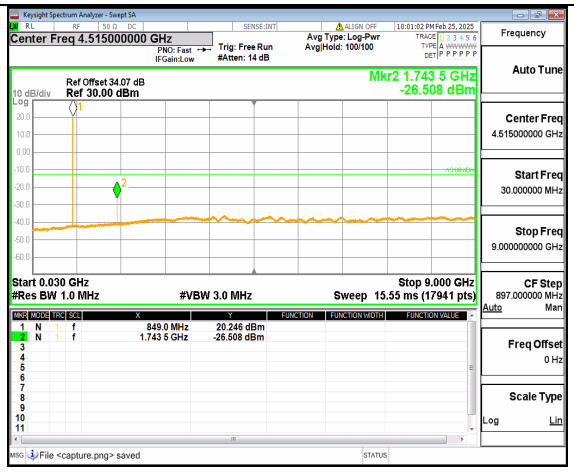
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right Mid



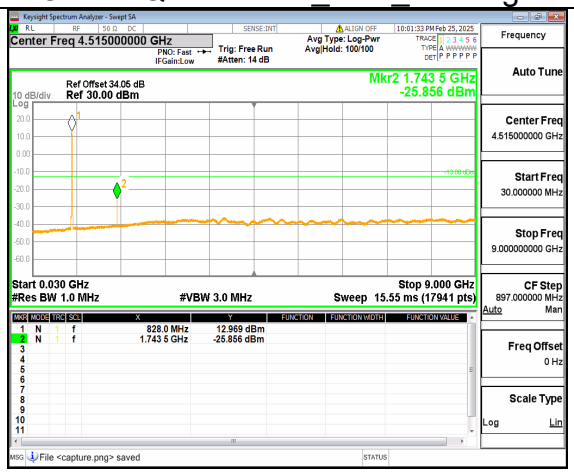
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Outer_Full High



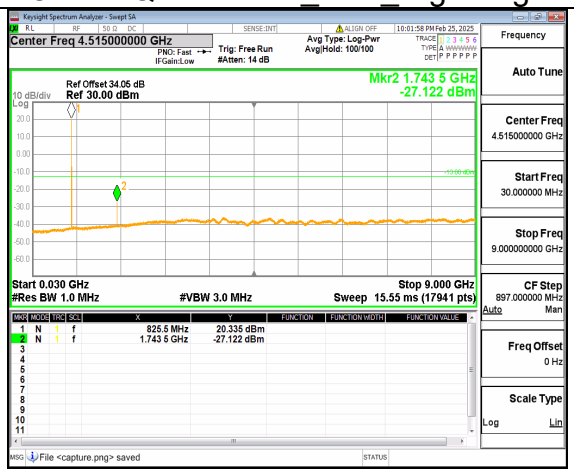
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Left High



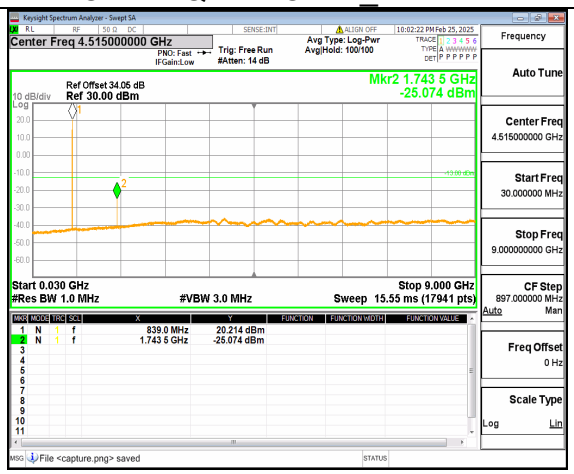
66A_n5 (30MHz-9GHz) 10M DFT-s-OFDM QPSK Inner_1RB_Right High



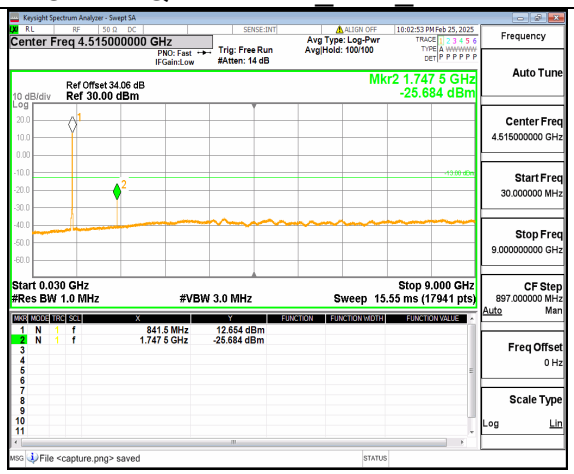
66A_n5 (30MHz-9GHz) 15M DFT-s-OFDM QPSK Outer_Full Low



66A_n5 (30MHz-9GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Left Low



66A_n5 (30MHz-9GHz) 15M DFT-s-OFDM QPSK Inner_1RB_Right Low



66A_n5 (30MHz-9GHz) 15M DFT-s-OFDM QPSK Outer_Full Mid