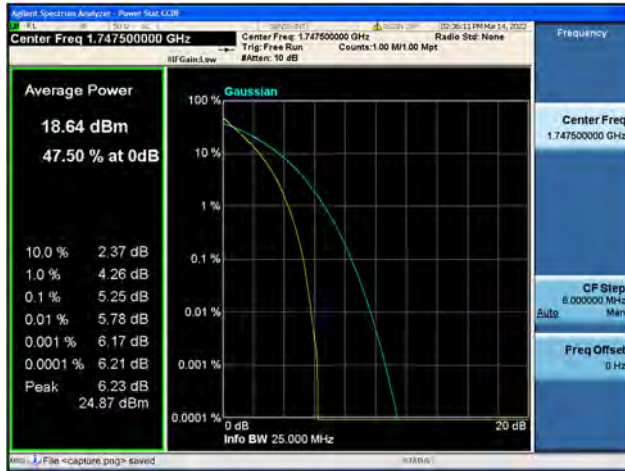




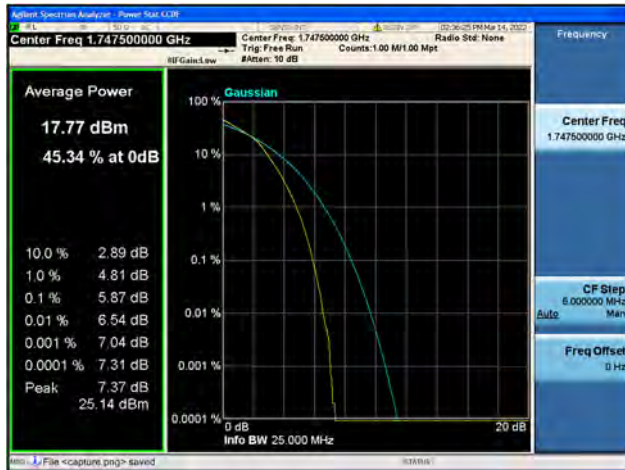
Band4 / 15MHz / High CH / QPSK



Band4 / 15MHz / High CH / 16QAM



Band4 / 15MHz / High CH / 64QAM



Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM



Band4 / 20MHz / Low CH / 64QAM





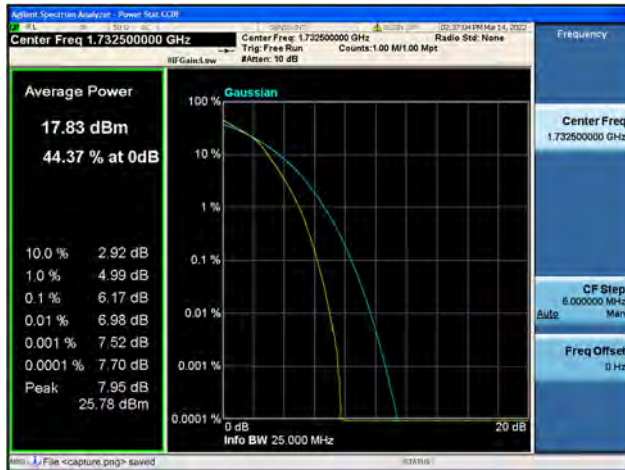
Band4 / 20MHz / Mid CH / QPSK



Band4 / 20MHz / Mid CH / 16QAM



Band4 / 20MHz / Mid CH / 64QAM



Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM



Band4 / 20MHz / High CH / 64QAM



2.5. Conducted Spurious Emissions

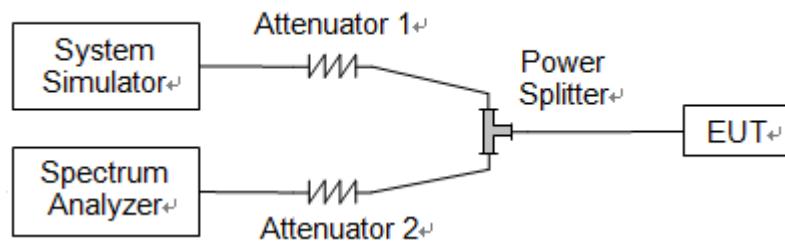
2.5.1. Requirement

According to FCC section 2.1051, 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.

Additional requirement for LTE Band 7:

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.

2.5.2. Test Description



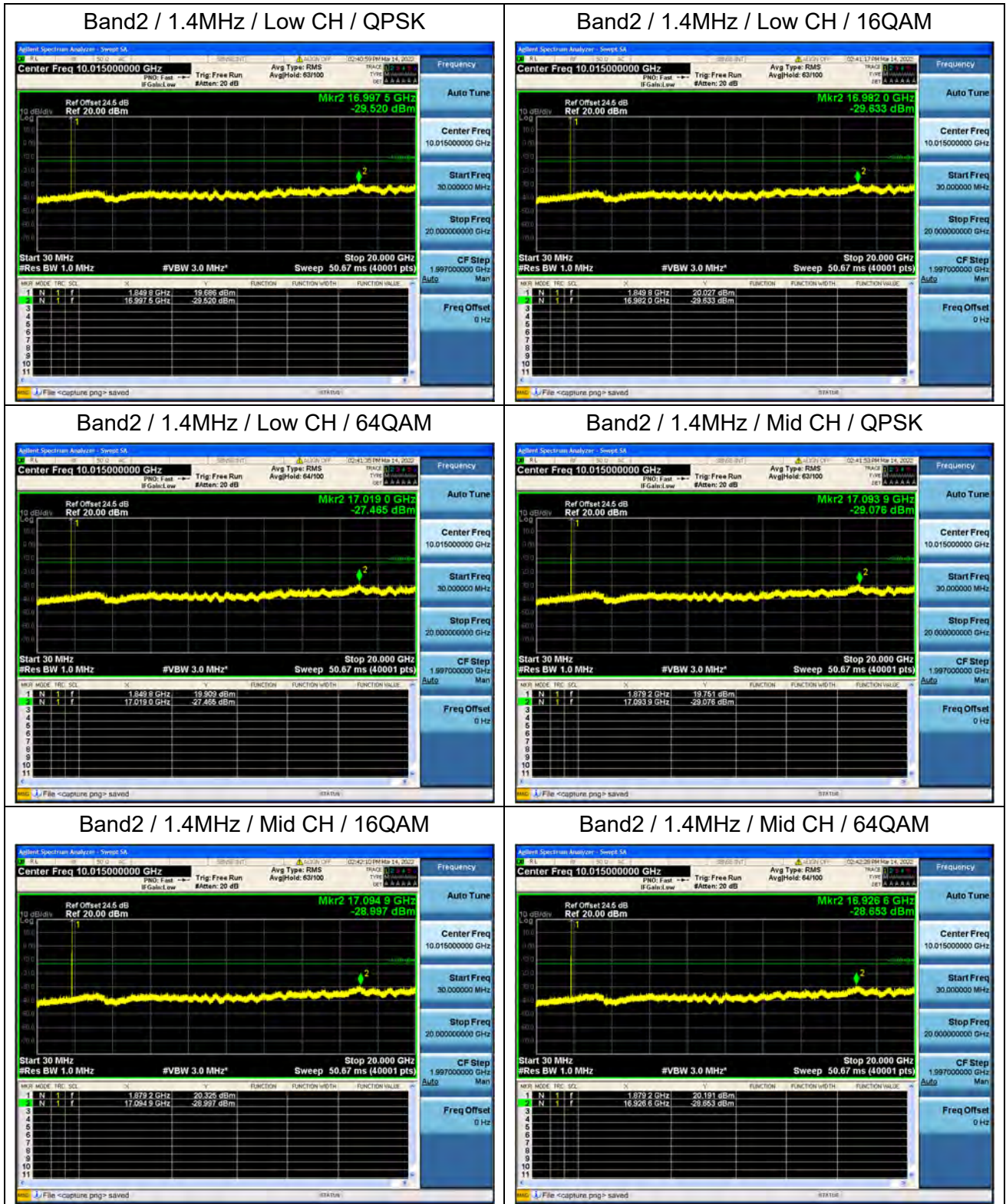
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

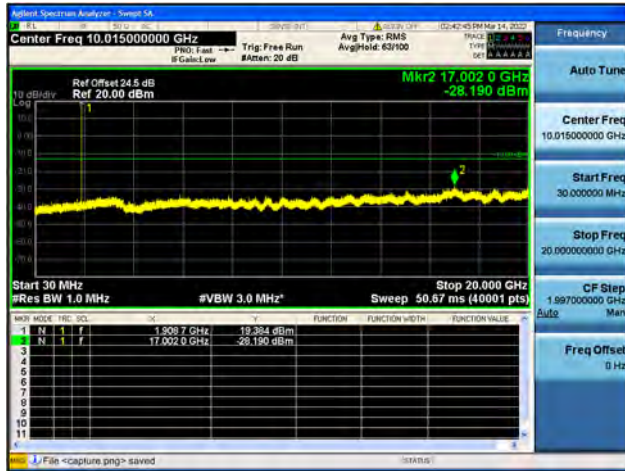


2.5.4. Test Result





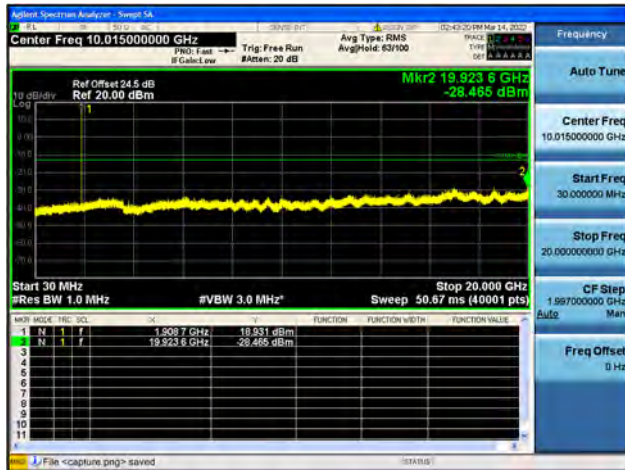
Band2 / 1.4MHz / High CH / QPSK



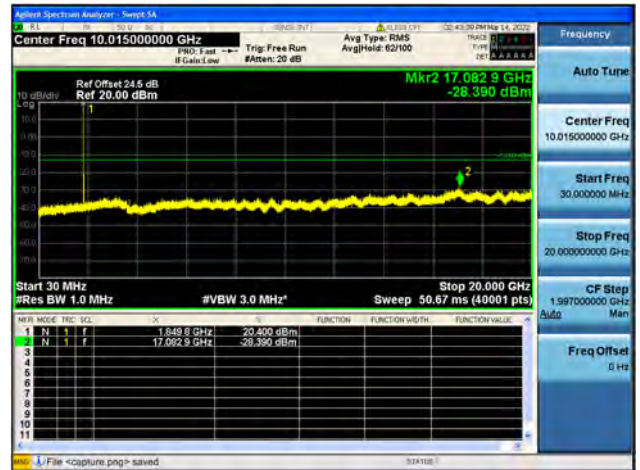
Band2 / 1.4MHz / High CH / 16QAM



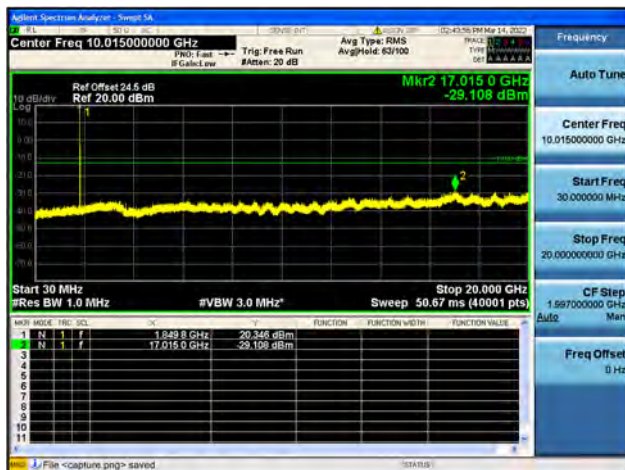
Band2 / 1.4MHz / High CH / 64QAM



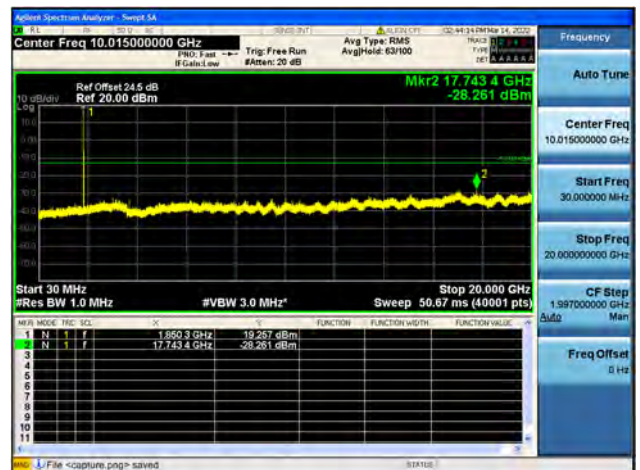
Band2 / 3MHz / Low CH / QPSK



Band2 / 3MHz / Low CH / 16QAM

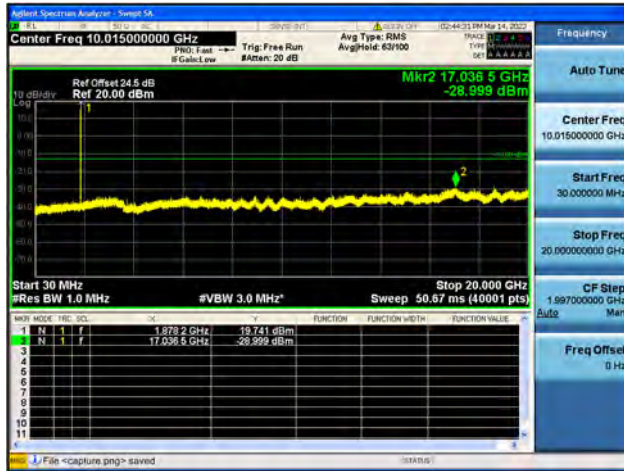


Band2 / 3MHz / Low CH / 64QAM





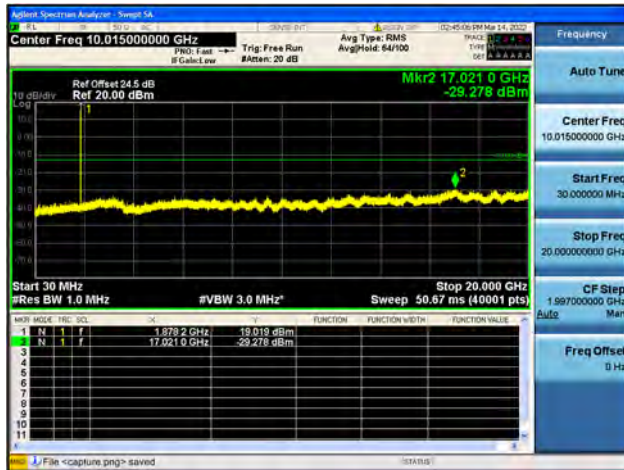
Band2 / 3MHz / Mid CH / QPSK



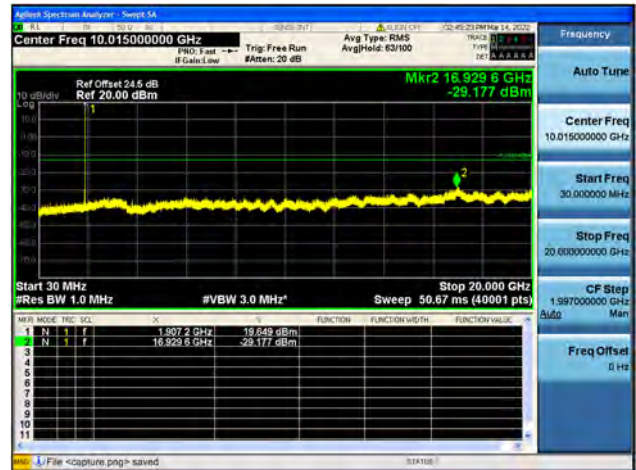
Band2 / 3MHz / Mid CH / 16QAM



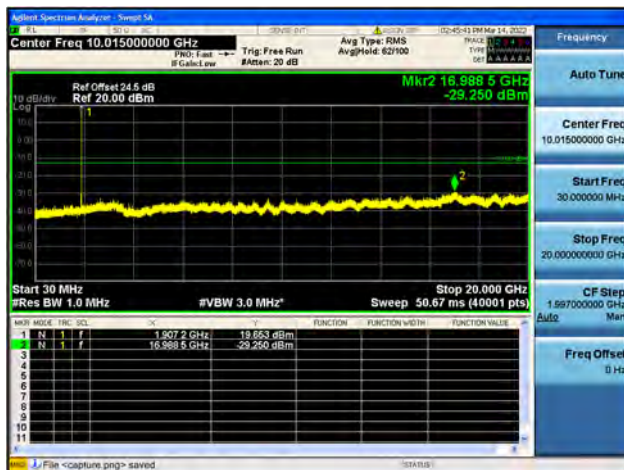
Band2 / 3MHz / Mid CH / 64QAM



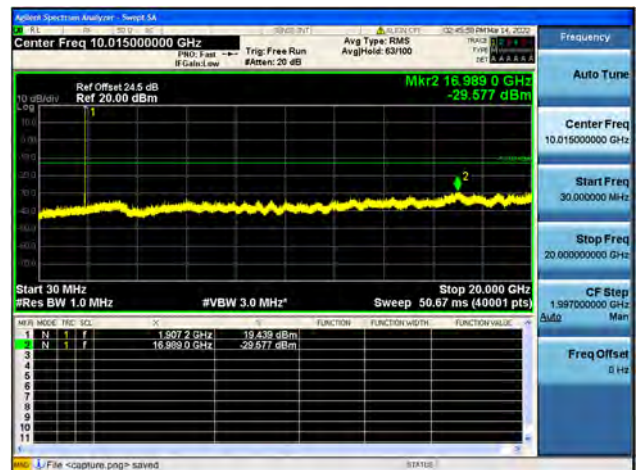
Band2 / 3MHz / High CH / QPSK



Band2 / 3MHz / High CH / 16QAM

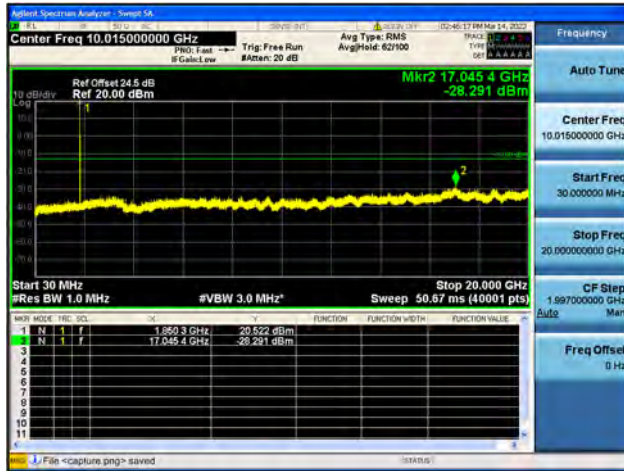


Band2 / 3MHz / High CH / 64QAM





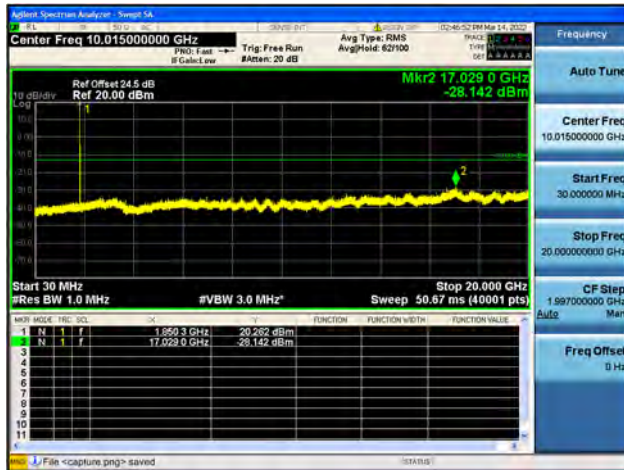
Band2 / 5MHz / Low CH / QPSK



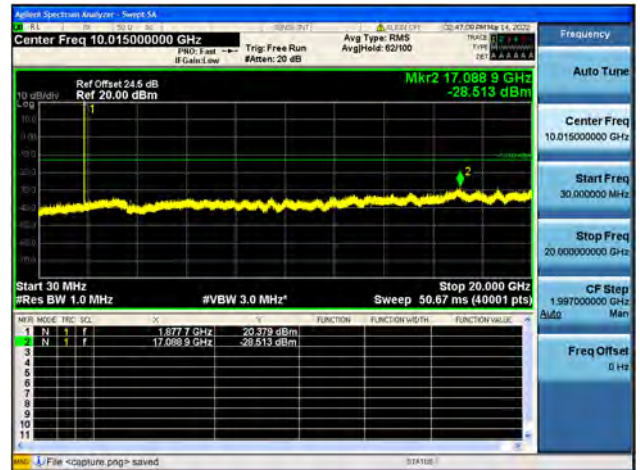
Band2 / 5MHz / Low CH / 16QAM



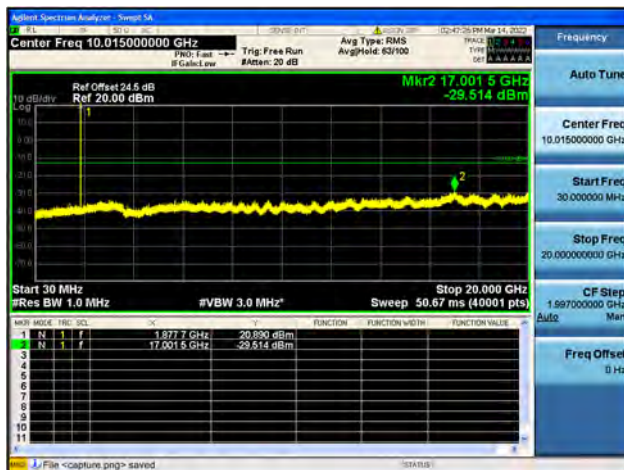
Band2 / 5MHz / Low CH / 64QAM



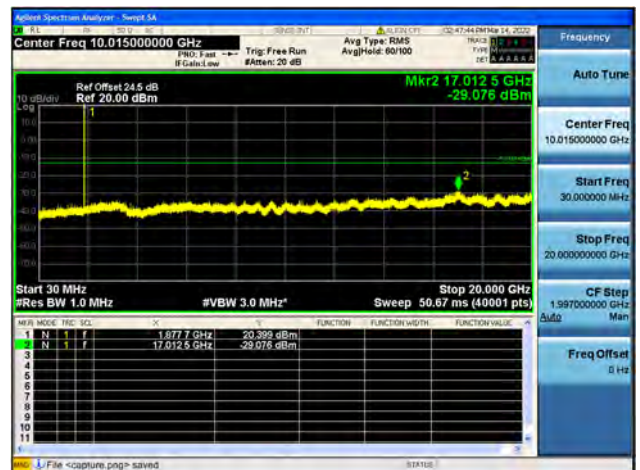
Band2 / 5MHz / Mid CH / QPSK



Band2 / 5MHz / Mid CH / 16QAM

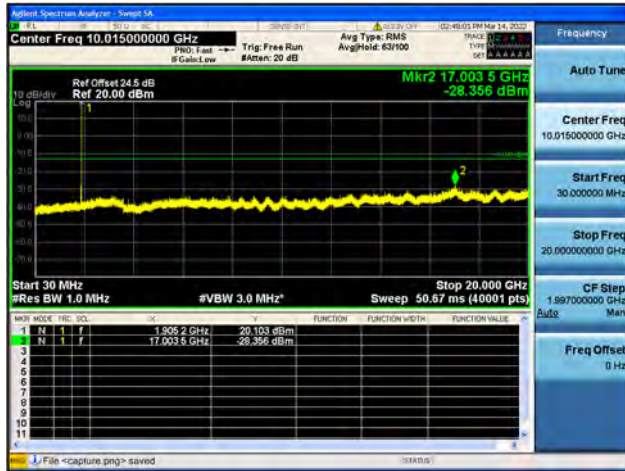


Band2 / 5MHz / Mid CH / 64QAM





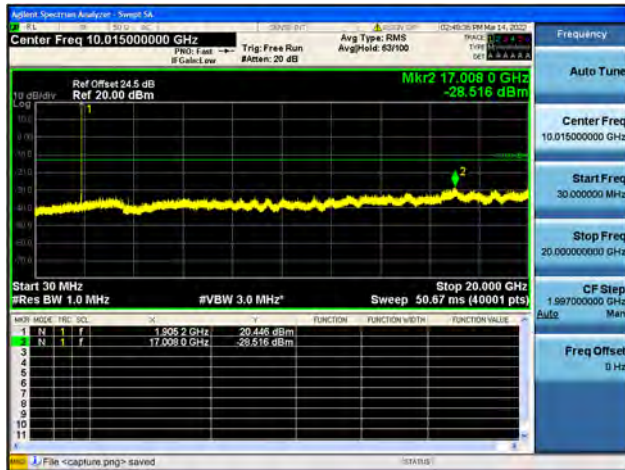
Band2 / 5MHz / High CH / QPSK



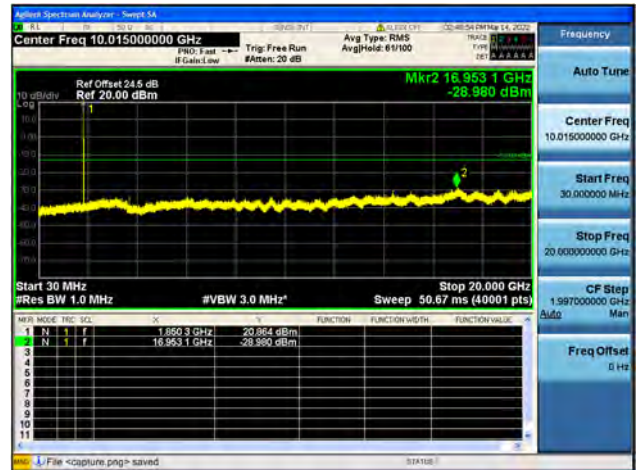
Band2 / 5MHz / High CH / 16QAM



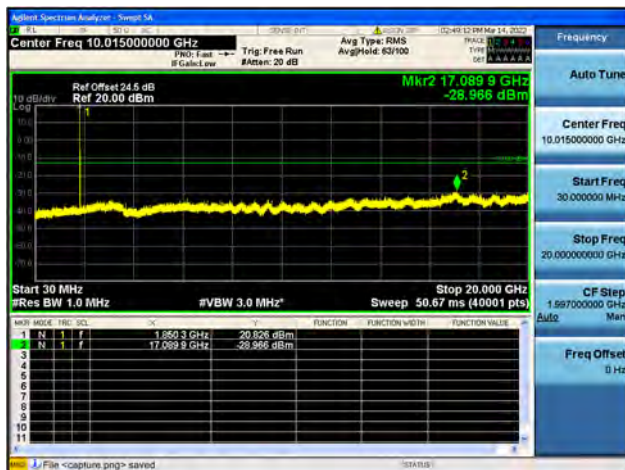
Band2 / 5MHz / High CH / 64QAM



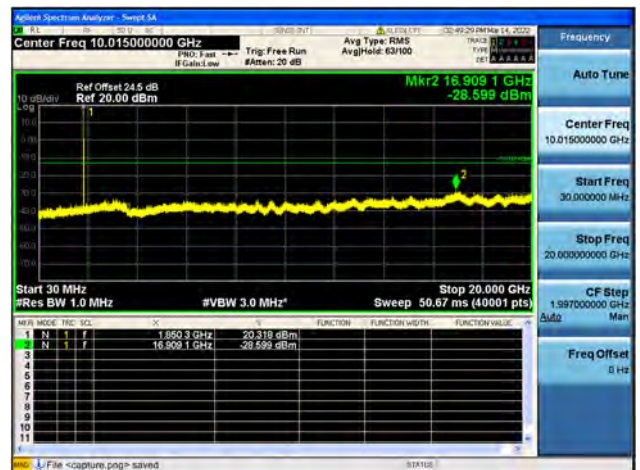
Band2 / 10MHz / Low CH / QPSK



Band2 / 10MHz / Low CH / 16QAM

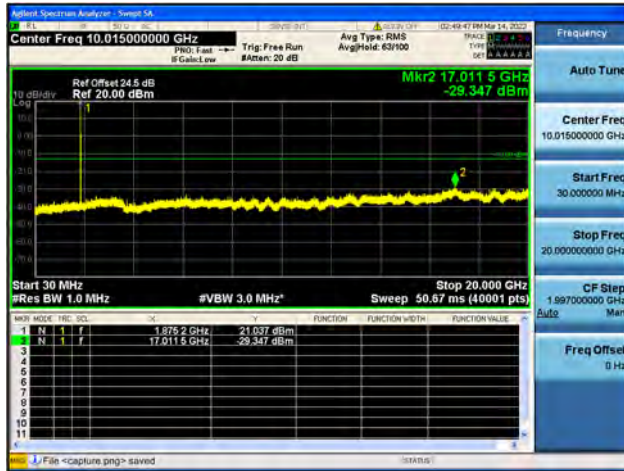


Band2 / 10MHz / Low CH / 64QAM

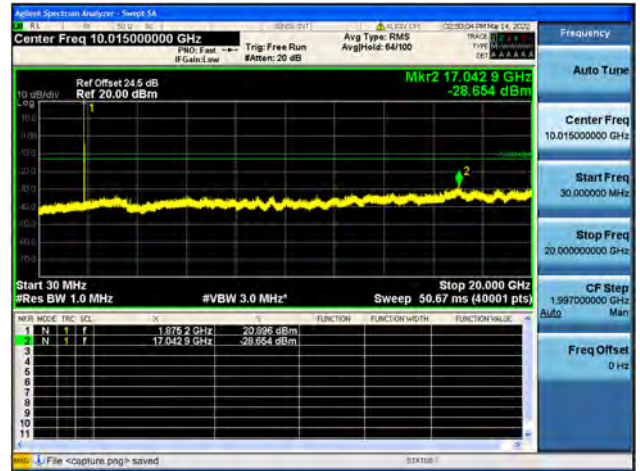




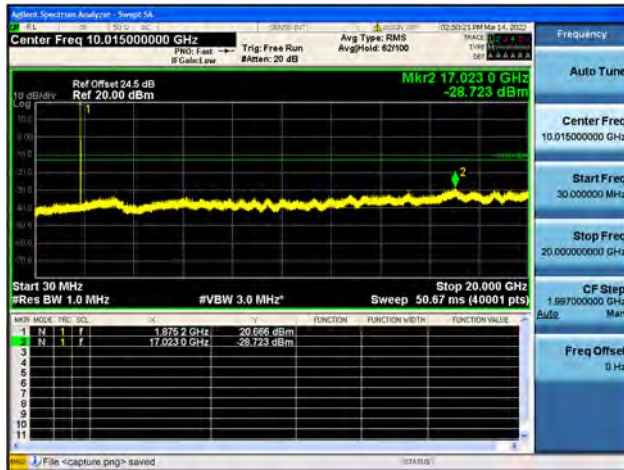
Band2 / 10MHz / Mid CH / QPSK



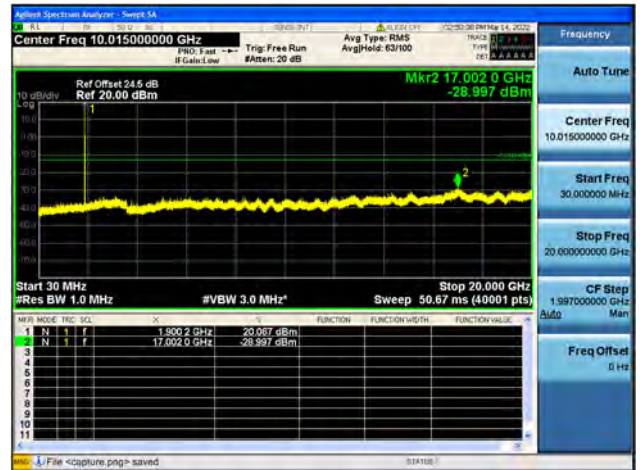
Band2 / 10MHz / Mid CH / 16QAM



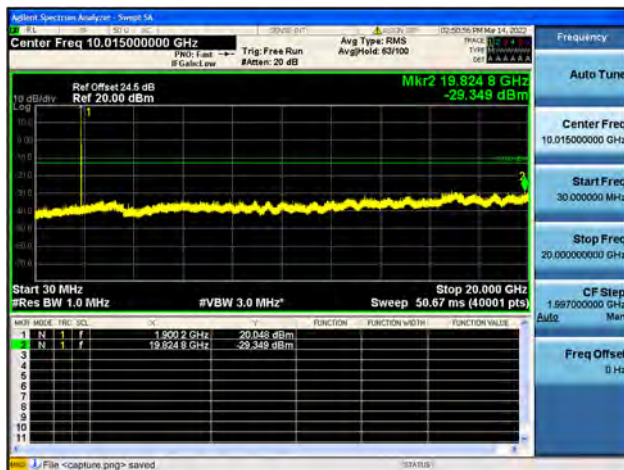
Band2 / 10MHz / Mid CH / 64QAM



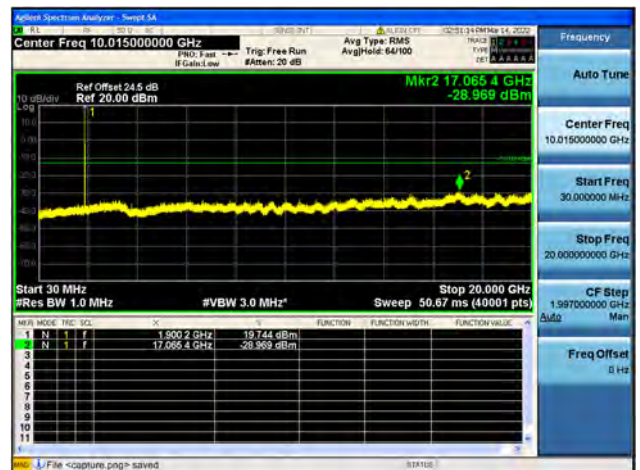
Band2 / 10MHz / High CH / QPSK



Band2 / 10MHz / High CH / 16QAM

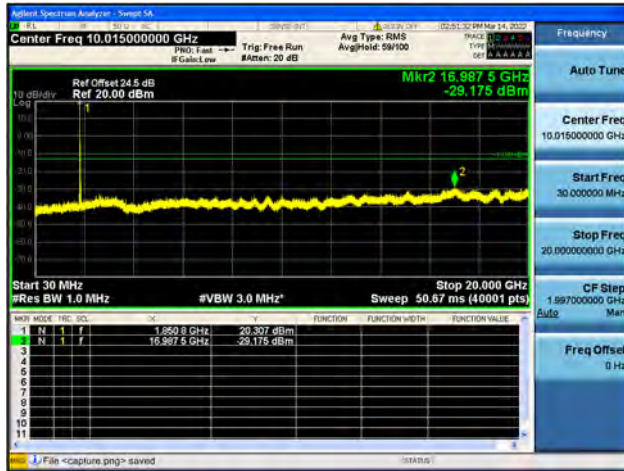


Band2 / 10MHz / High CH / 64QAM

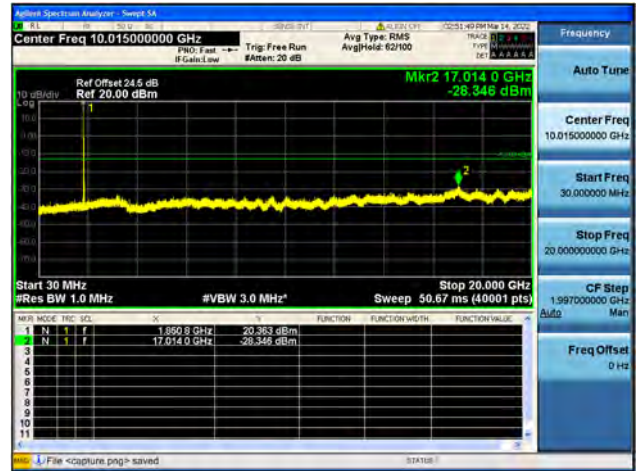




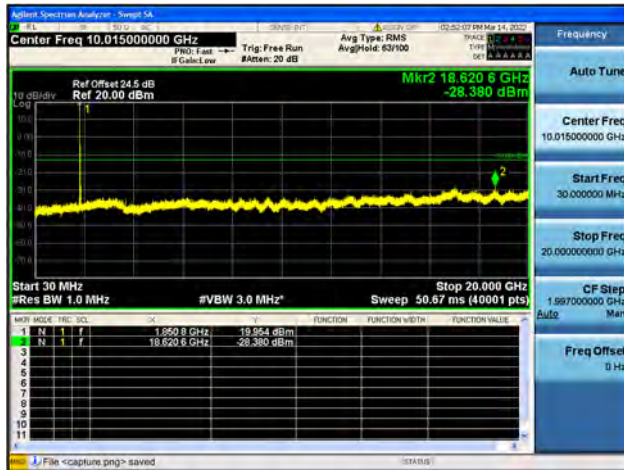
Band2 / 15MHz / Low CH / QPSK



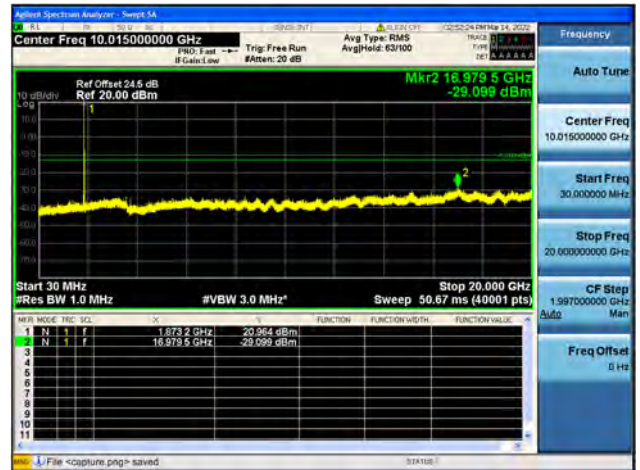
Band2 / 15MHz / Low CH / 16QAM



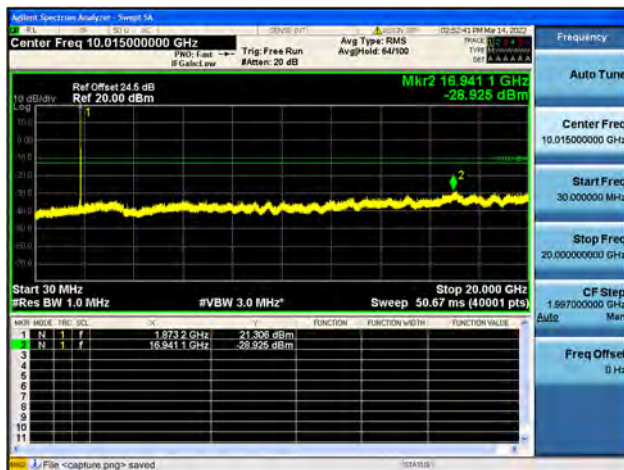
Band2 / 15MHz / Low CH / 64QAM



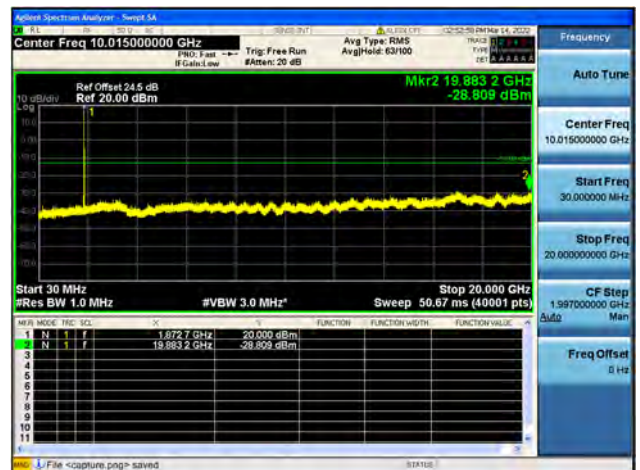
Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM

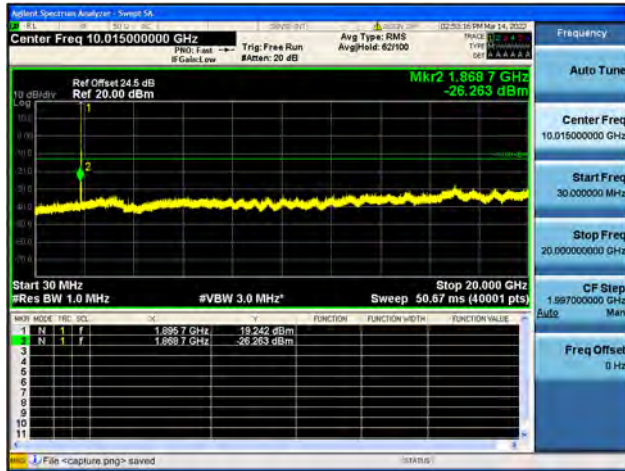


Band2 / 15MHz / Mid CH / 64QAM

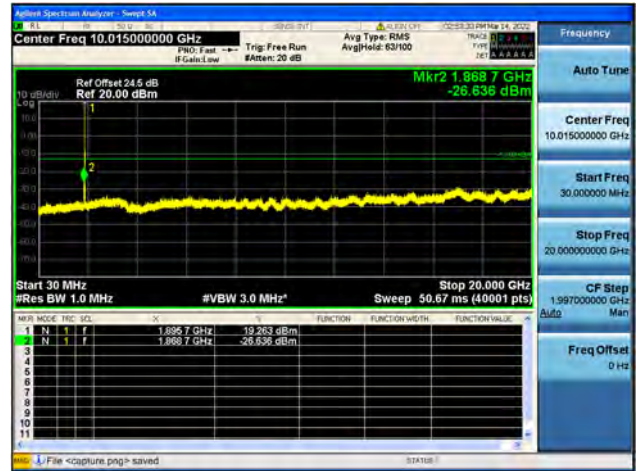




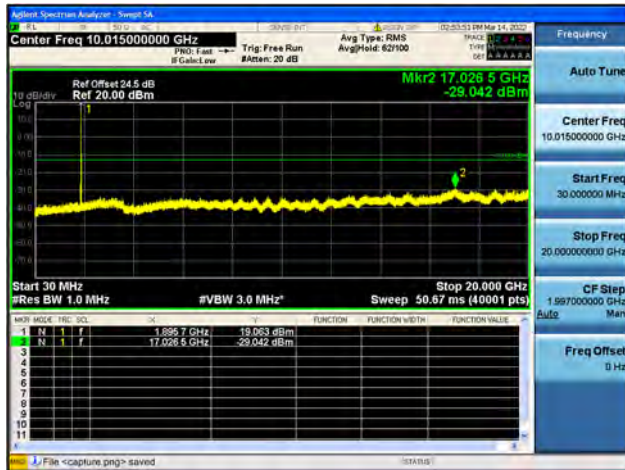
Band2 / 15MHz / High CH / QPSK



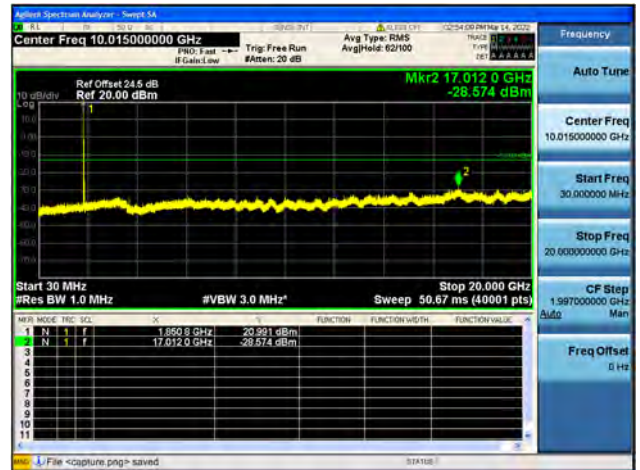
Band2 / 15MHz / High CH / 16QAM



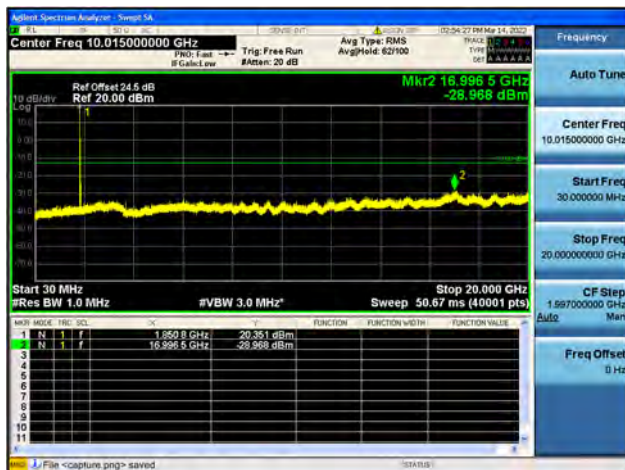
Band2 / 15MHz / High CH / 64QAM



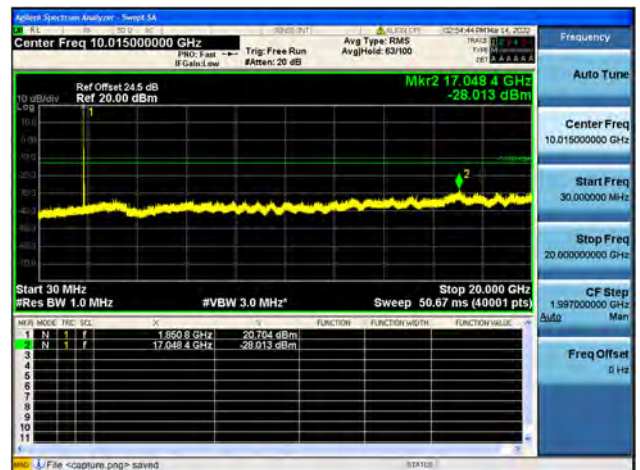
Band2 / 20MHz / Low CH / QPSK



Band2 / 20MHz / Low CH / 16QAM

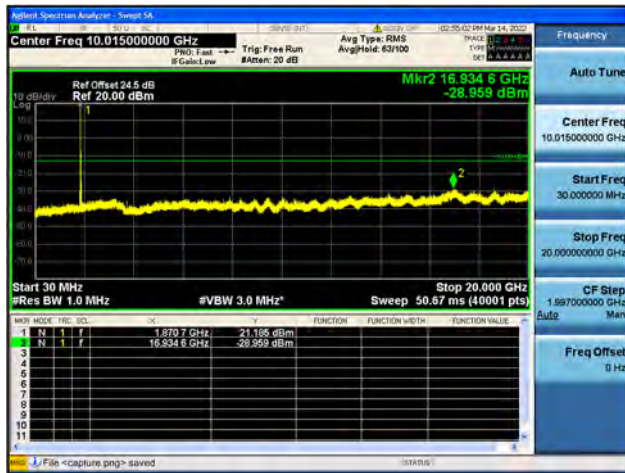


Band2 / 20MHz / Low CH / 64QAM

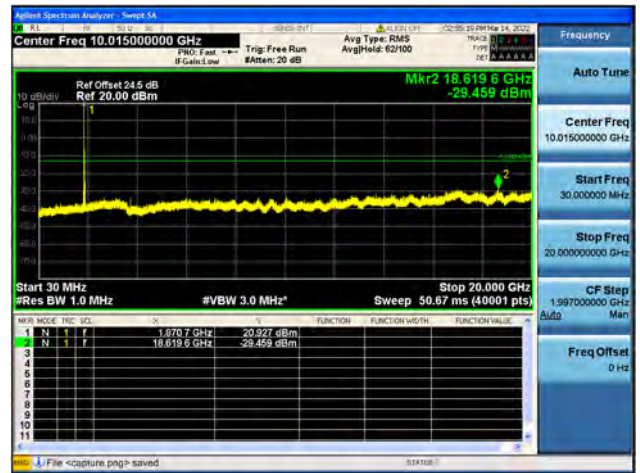




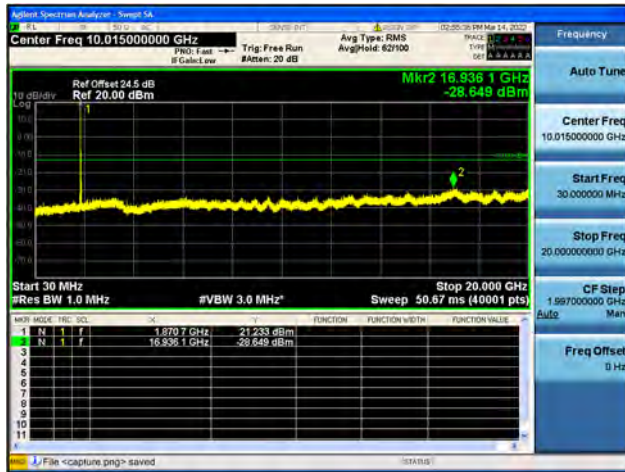
Band2 / 20MHz / Mid CH / QPSK



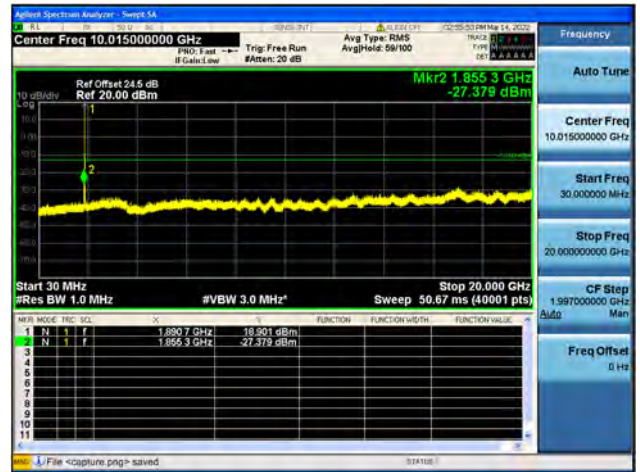
Band2 / 20MHz / Mid CH / 16QAM



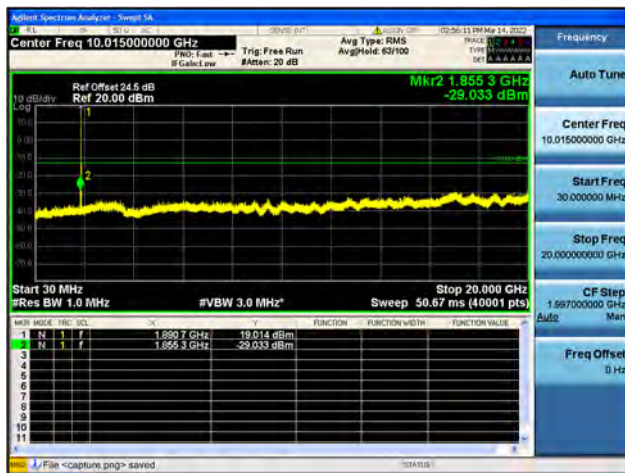
Band2 / 20MHz / Mid CH / 64QAM



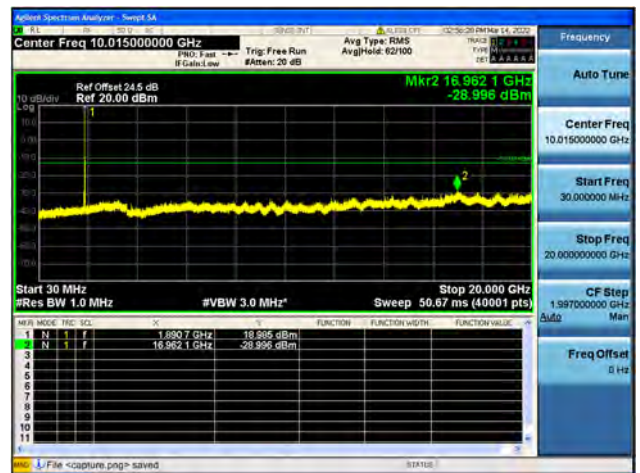
Band2 / 20MHz / High CH / QPSK



Band2 / 20MHz / High CH / 16QAM



Band2 / 20MHz / High CH / 64QAM

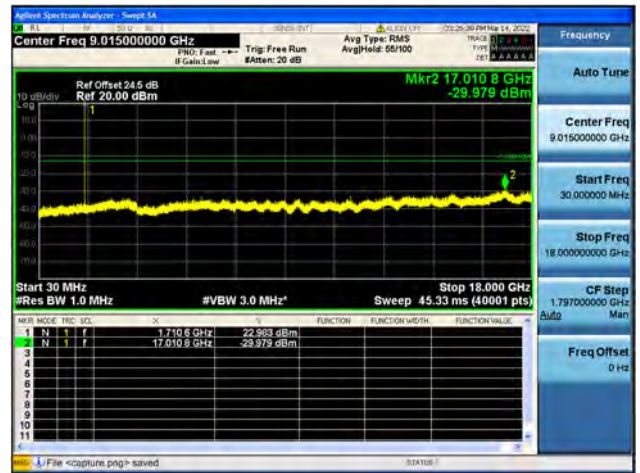




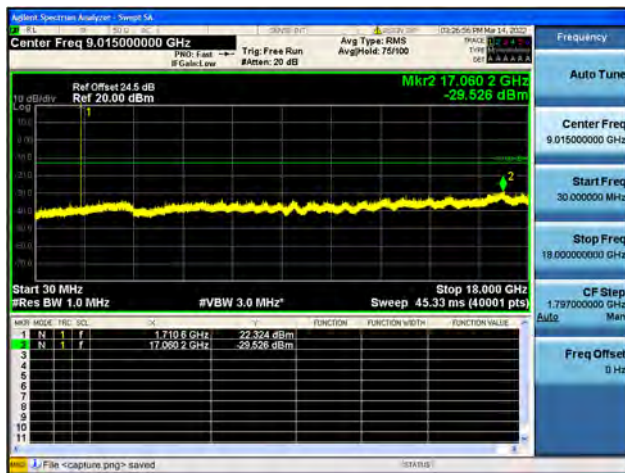
Band4 / 1.4MHz / Low CH / QPSK



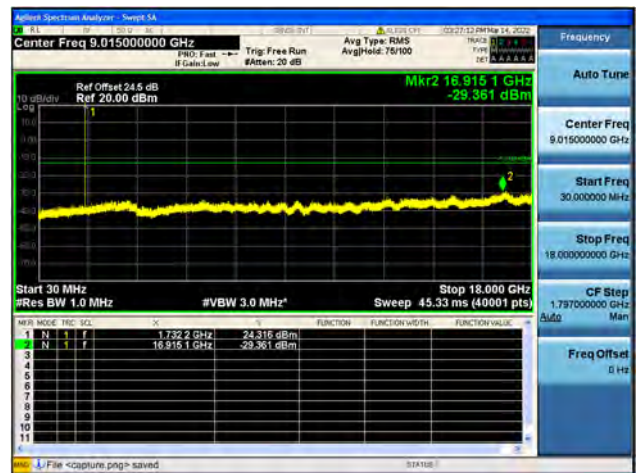
Band4 / 1.4MHz / Low CH / 16QAM



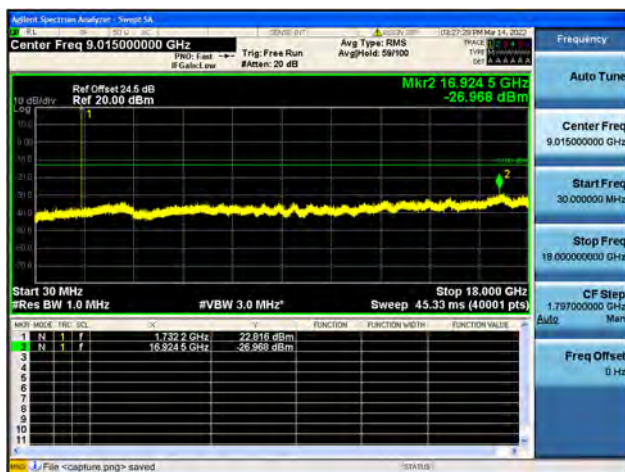
Band4 / 1.4MHz / Low CH / 64QAM



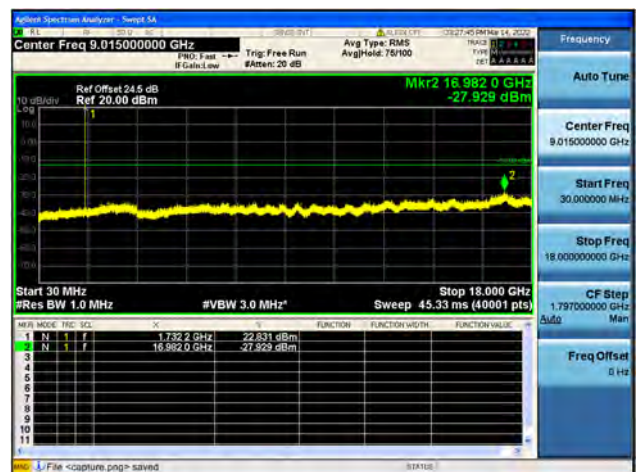
Band4 / 1.4MHz / Mid CH / QPSK



Band4 / 1.4MHz / Mid CH / 16QAM

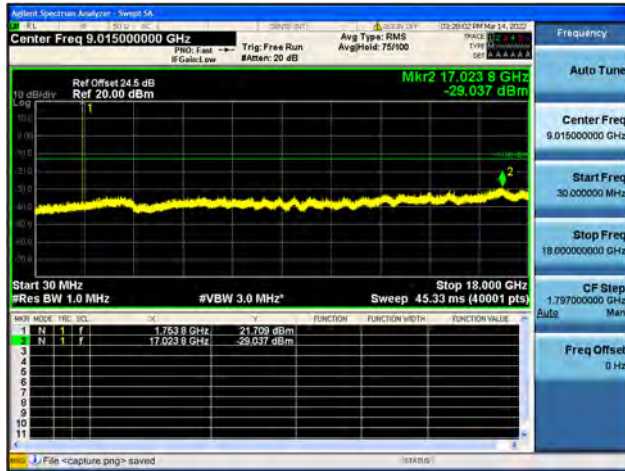


Band4 / 1.4MHz / Mid CH / 64QAM





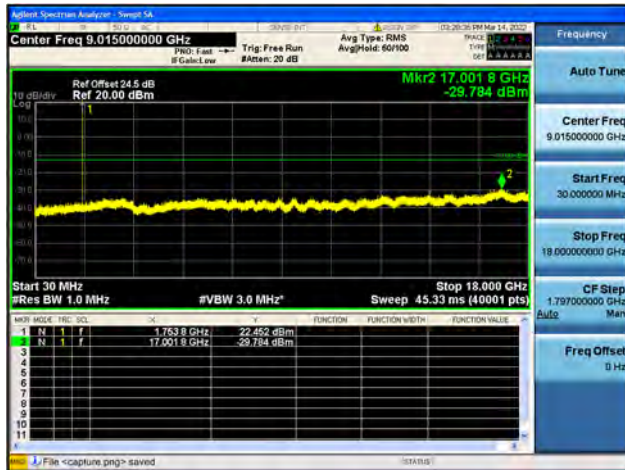
Band4 / 1.4MHz / High CH / QPSK



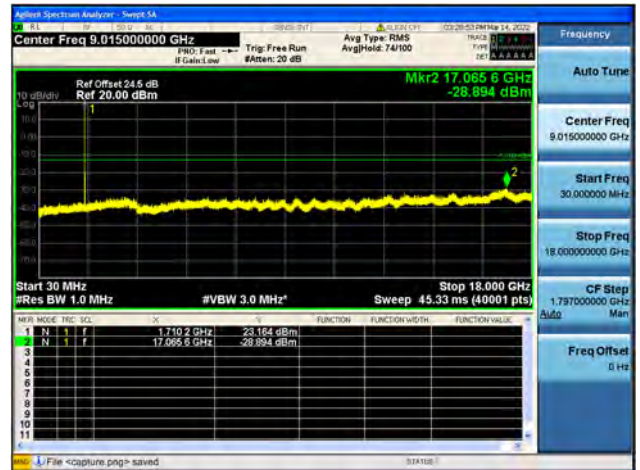
Band4 / 1.4MHz / High CH / 16QAM



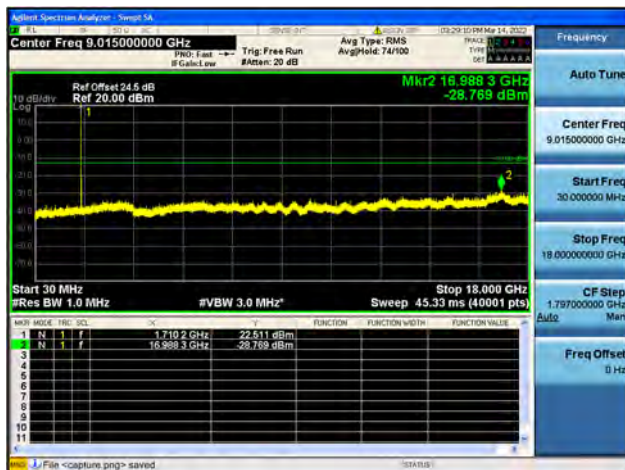
Band4 / 1.4MHz / High CH / 64QAM



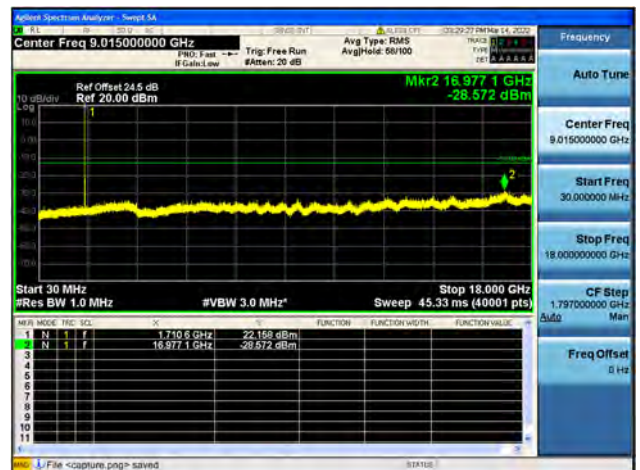
Band4 / 3MHz / Low CH / QPSK



Band4 / 3MHz / Low CH / 16QAM

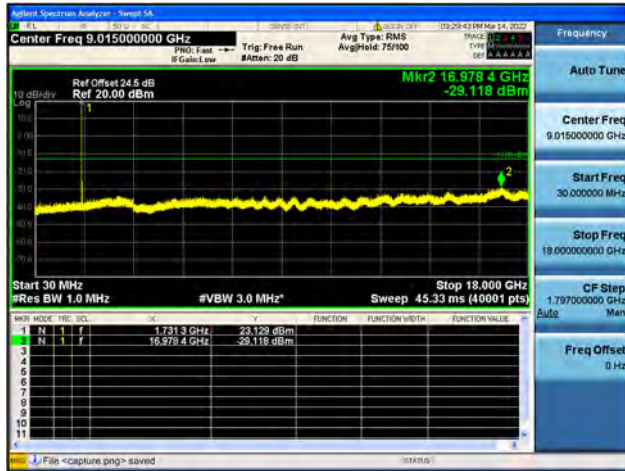


Band4 / 3MHz / Low CH / 64QAM





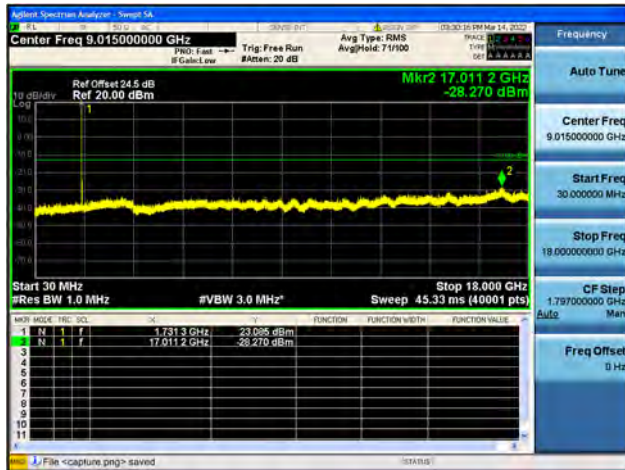
Band4 / 3MHz / Mid CH / QPSK



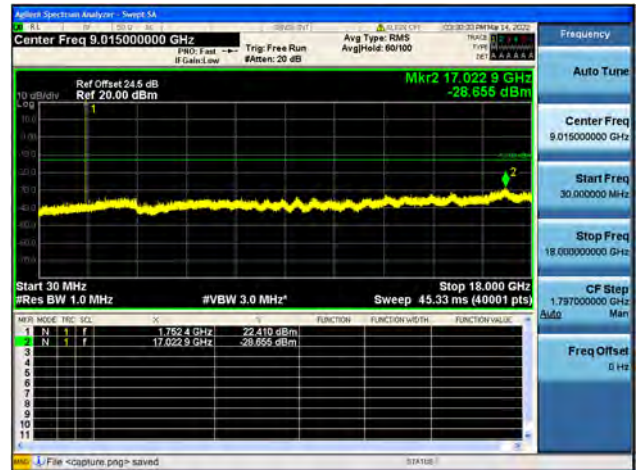
Band4 / 3MHz / Mid CH / 16QAM



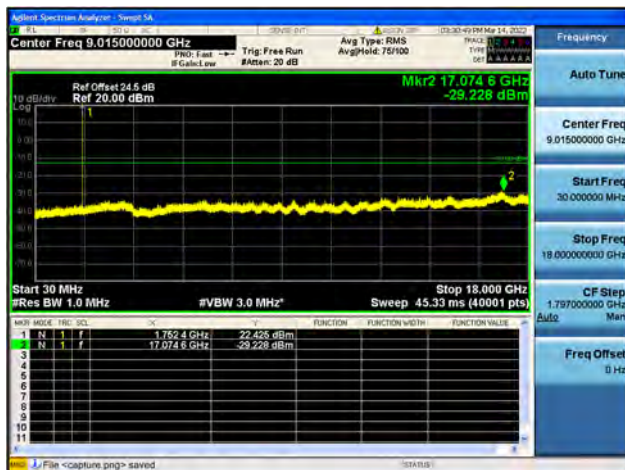
Band4 / 3MHz / Mid CH / 64QAM



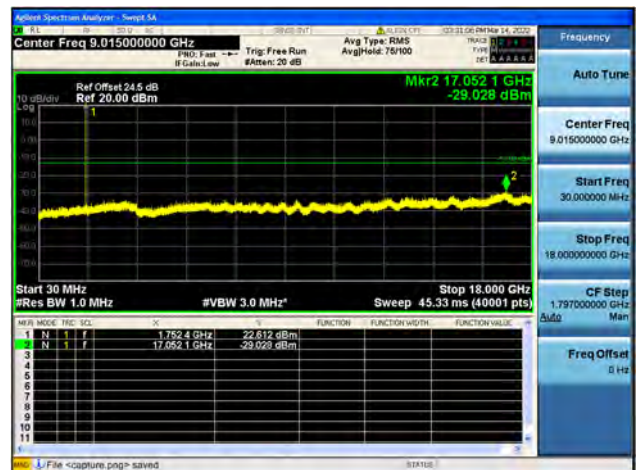
Band4 / 3MHz / High CH / QPSK



Band4 / 3MHz / High CH / 16QAM

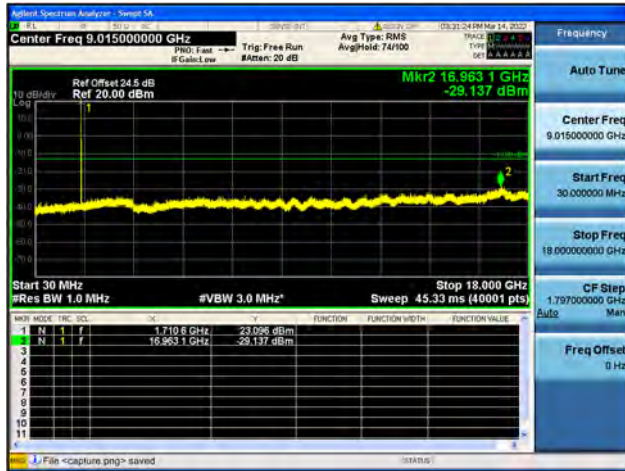


Band4 / 3MHz / High CH / 64QAM

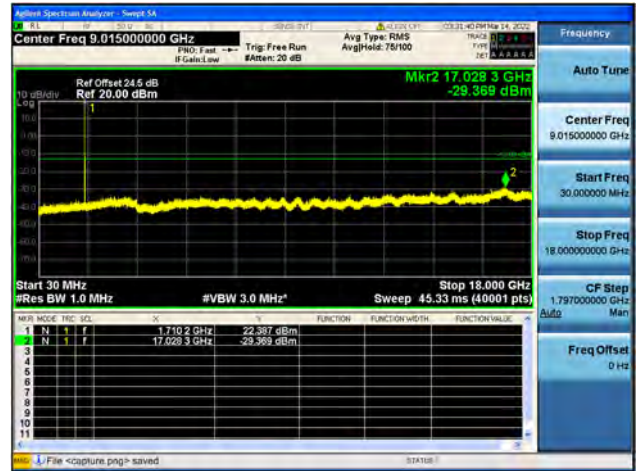




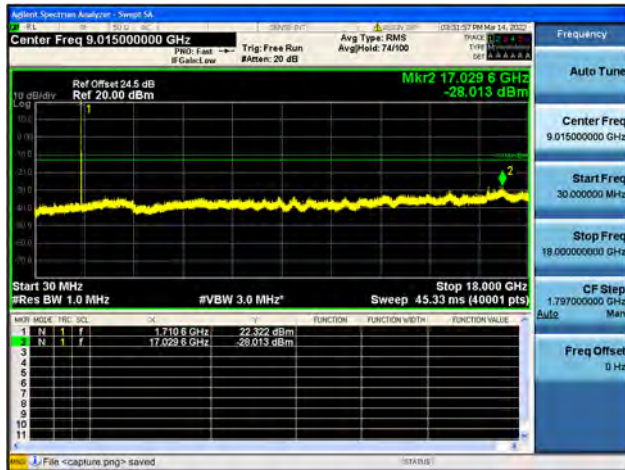
Band4 / 5MHz / Low CH / QPSK



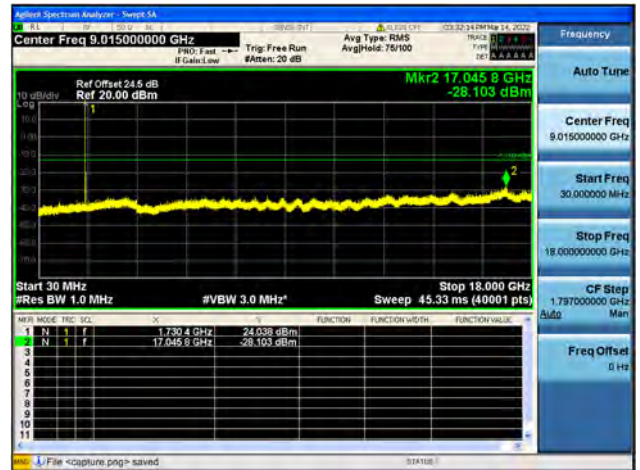
Band4 / 5MHz / Low CH / 16QAM



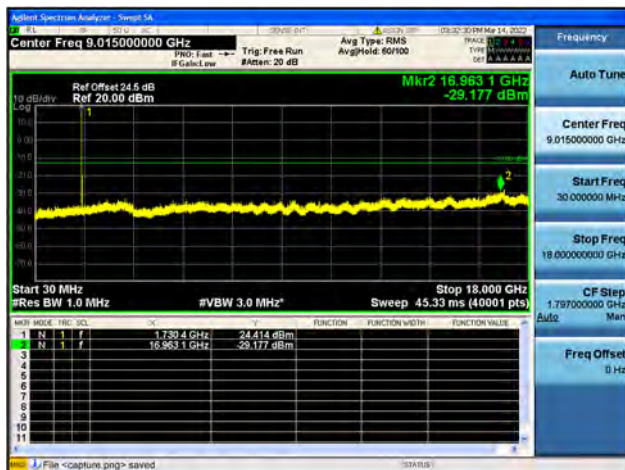
Band4 / 5MHz / Low CH / 64QAM



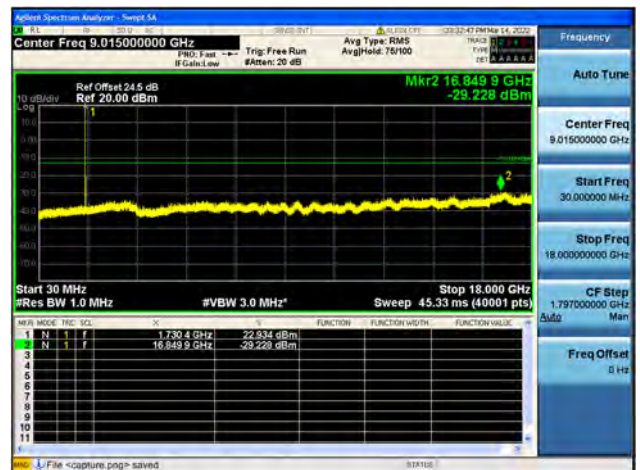
Band4 / 5MHz / Mid CH / QPSK



Band4 / 5MHz / Mid CH / 16QAM

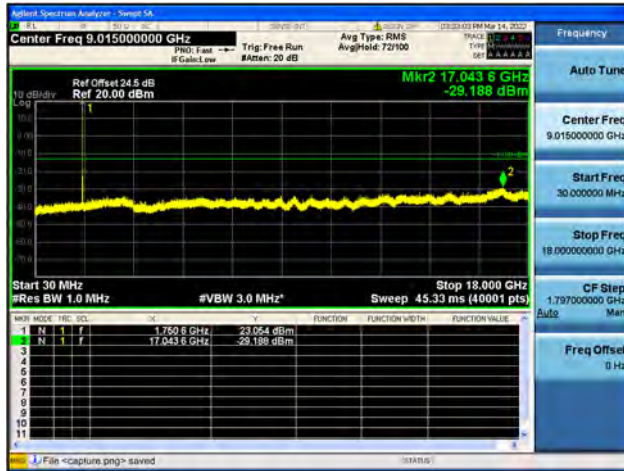


Band4 / 5MHz / Mid CH / 64QAM

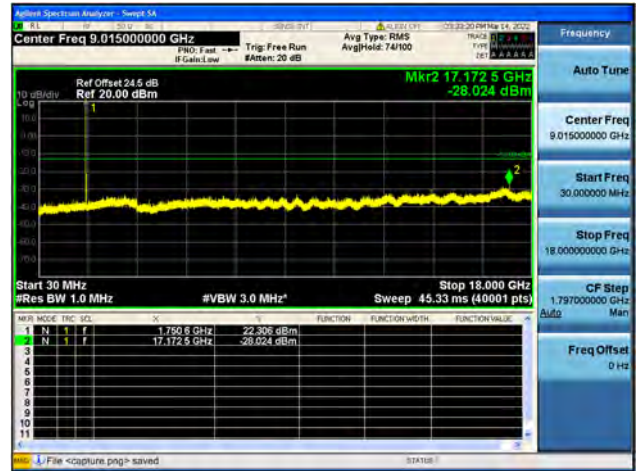




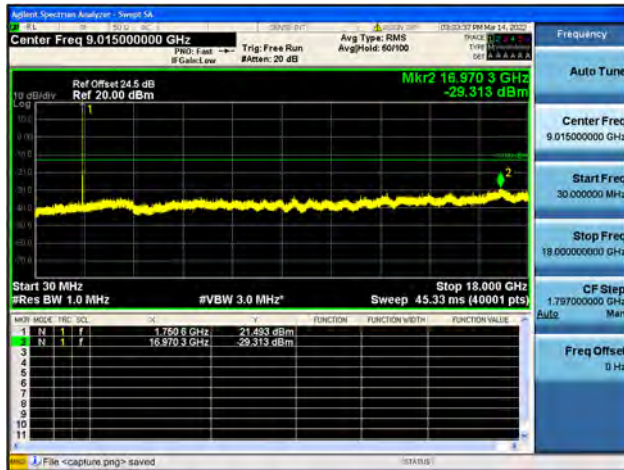
Band4 / 5MHz / High CH / QPSK



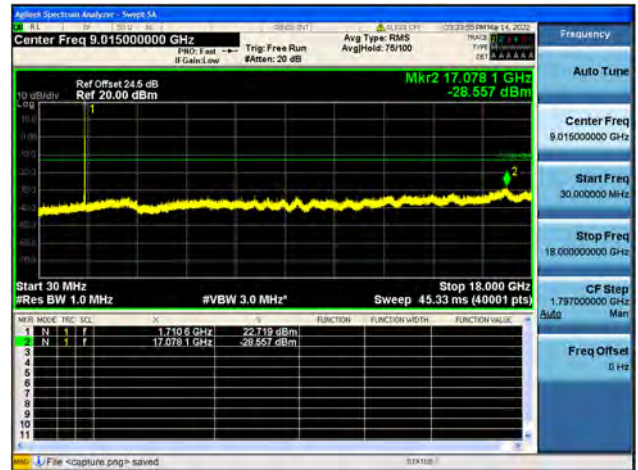
Band4 / 5MHz / High CH / 16QAM



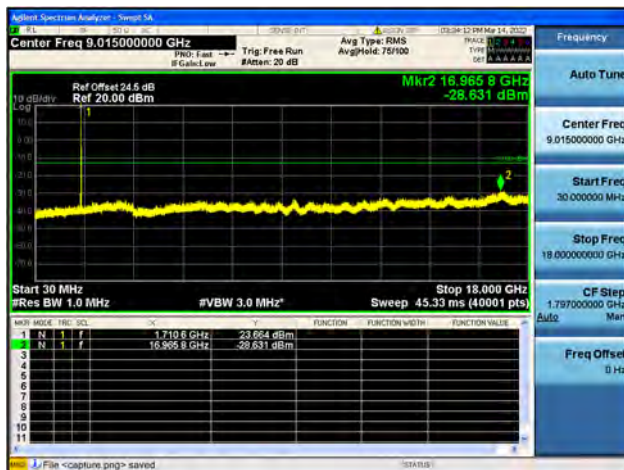
Band4 / 5MHz / High CH / 64QAM



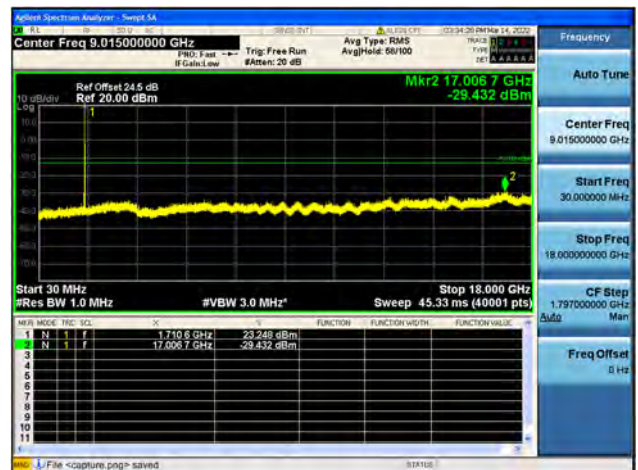
Band4 / 10MHz / Low CH / QPSK



Band4 / 10MHz / Low CH / 16QAM

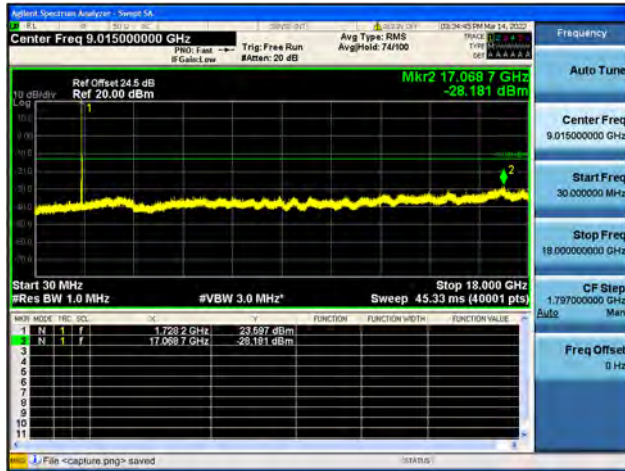


Band4 / 10MHz / Low CH / 64QAM

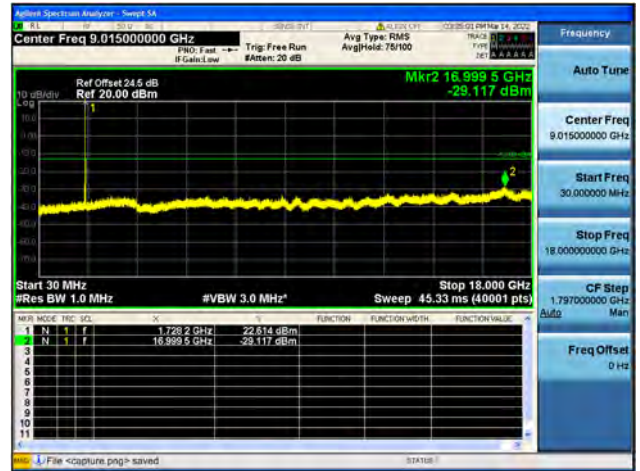




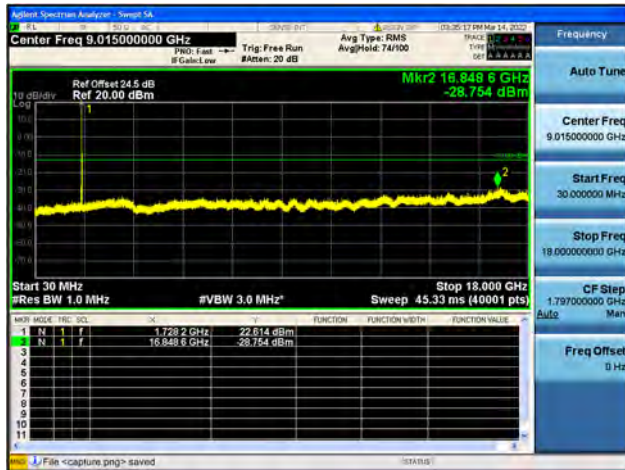
Band4 / 10MHz / Mid CH / QPSK



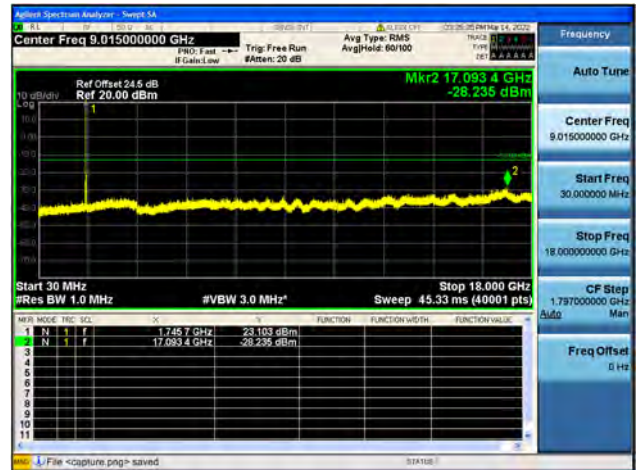
Band4 / 10MHz / Mid CH / 16QAM



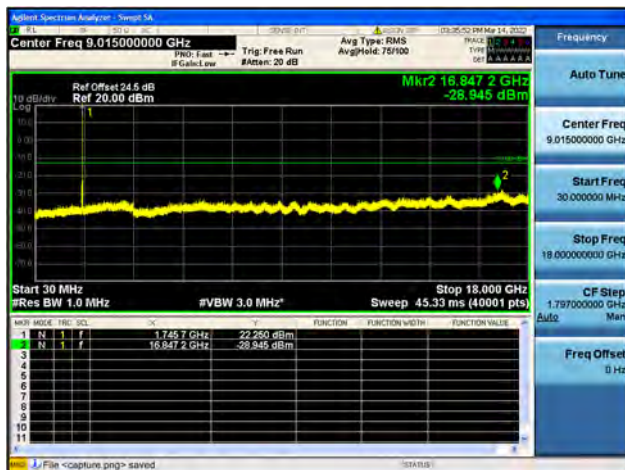
Band4 / 10MHz / Mid CH / 64QAM



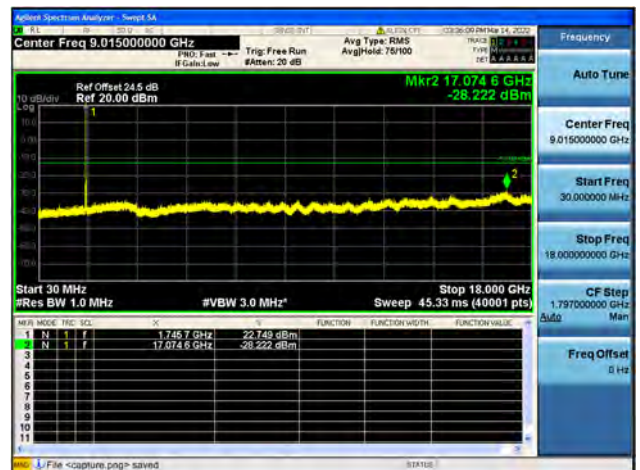
Band4 / 10MHz / High CH / QPSK



Band4 / 10MHz / High CH / 16QAM

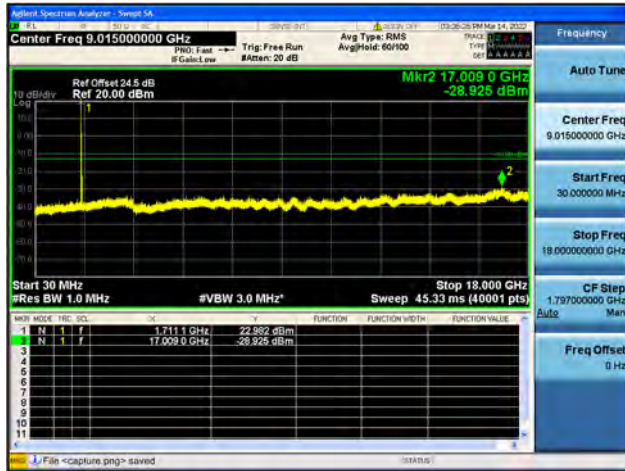


Band4 / 10MHz / High CH / 64QAM

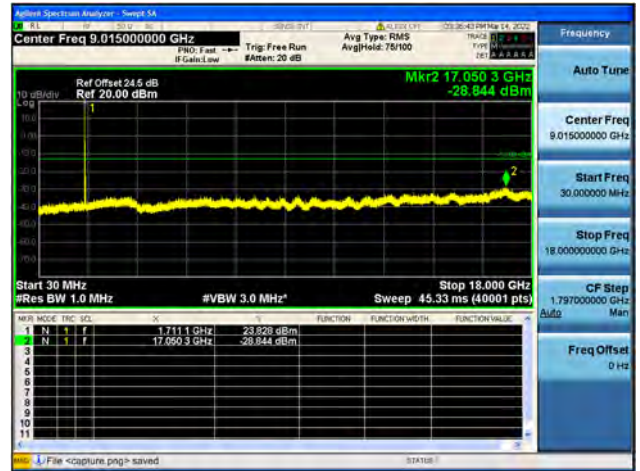




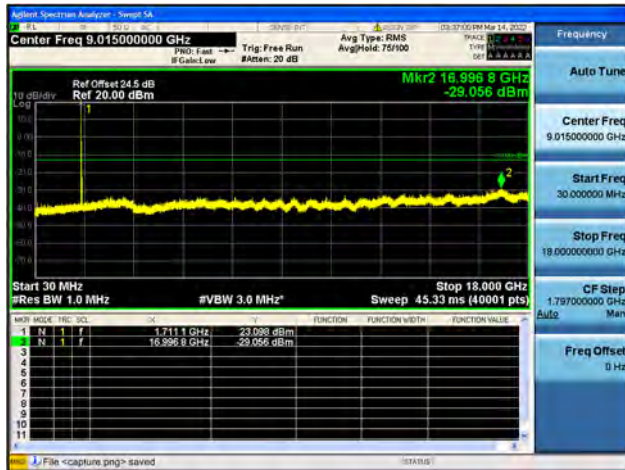
Band4 / 15MHz / Low CH / QPSK



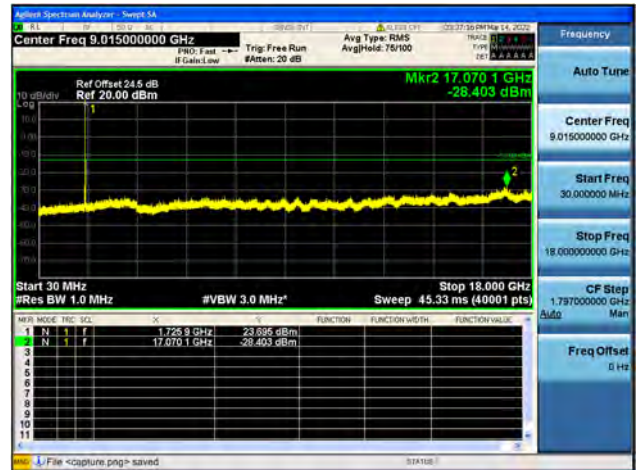
Band4 / 15MHz / Low CH / 16QAM



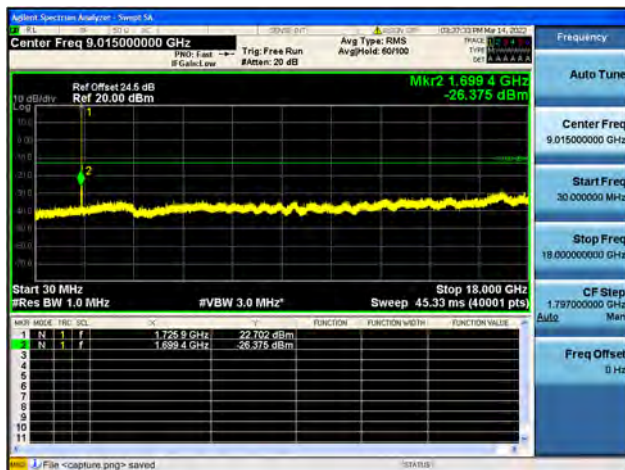
Band4 / 15MHz / Low CH / 64QAM



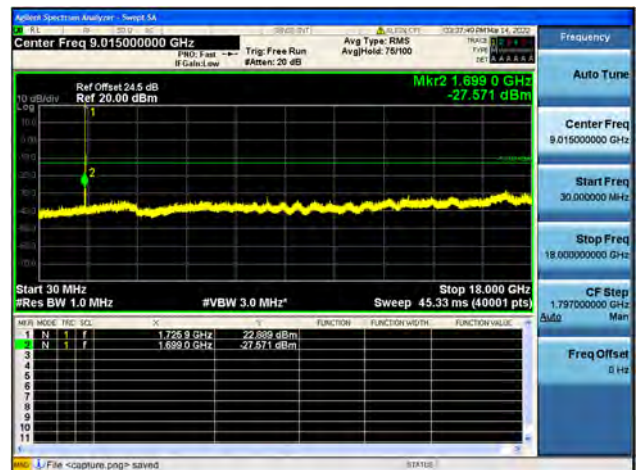
Band4 / 15MHz / Mid CH / QPSK



Band4 / 15MHz / Mid CH / 16QAM

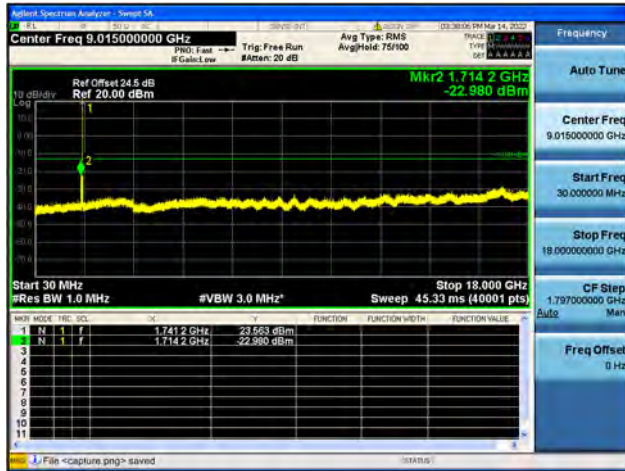


Band4 / 15MHz / Mid CH / 64QAM

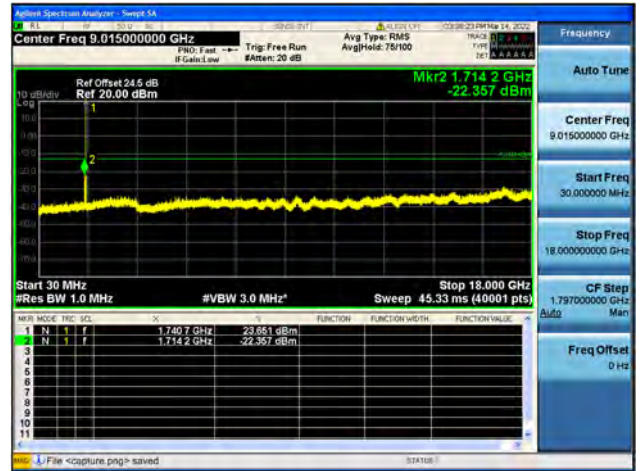




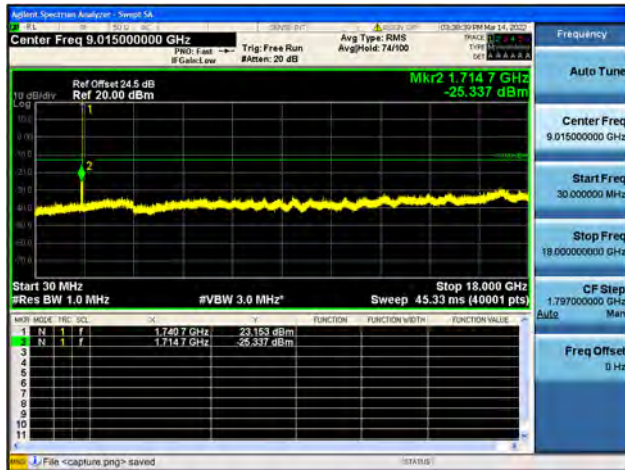
Band4 / 15MHz / High CH / QPSK



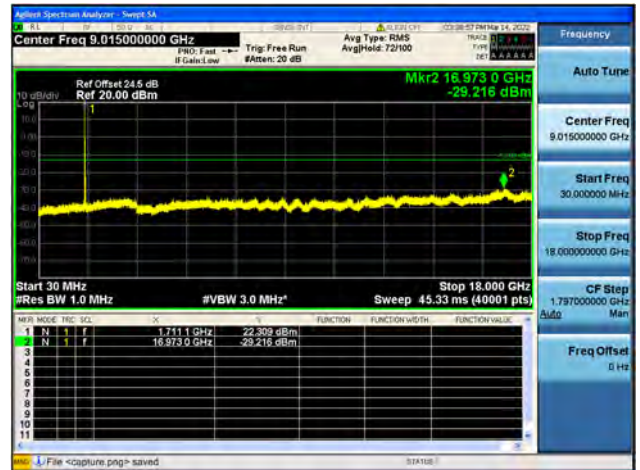
Band4 / 15MHz / High CH / 16QAM



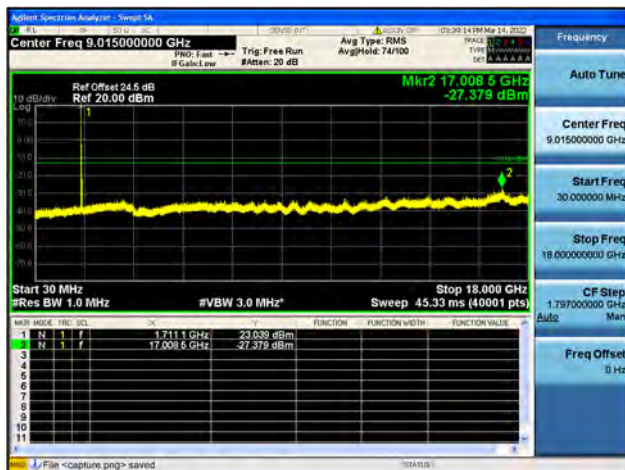
Band4 / 15MHz / High CH / 64QAM



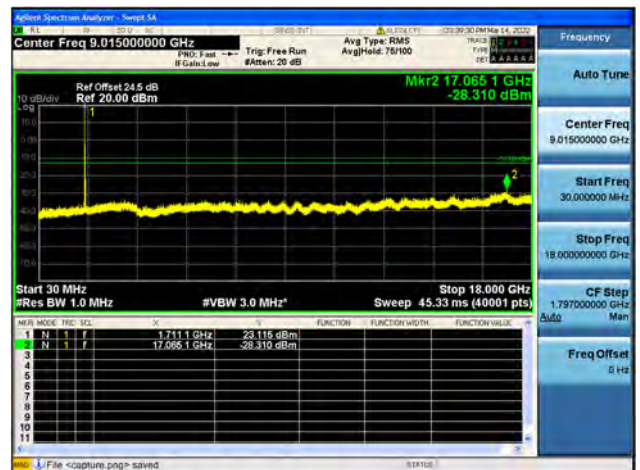
Band4 / 20MHz / Low CH / QPSK



Band4 / 20MHz / Low CH / 16QAM

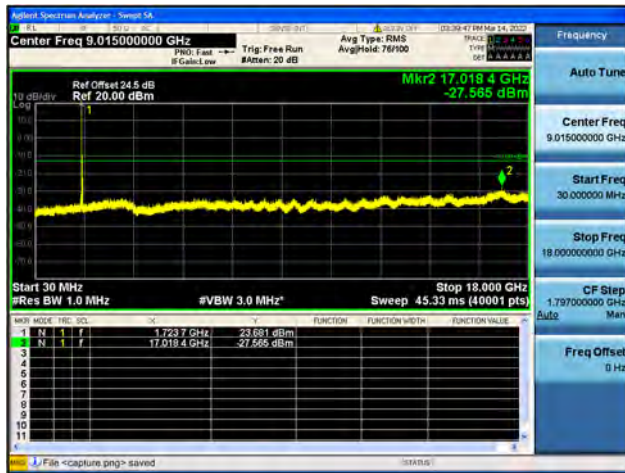


Band4 / 20MHz / Low CH / 64QAM





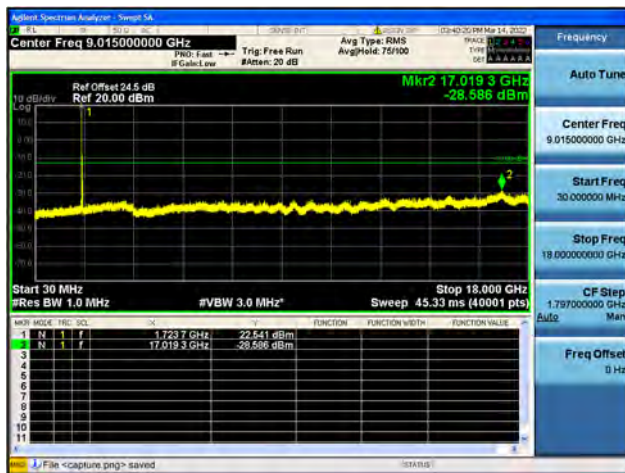
Band4 / 20MHz / Mid CH / QPSK



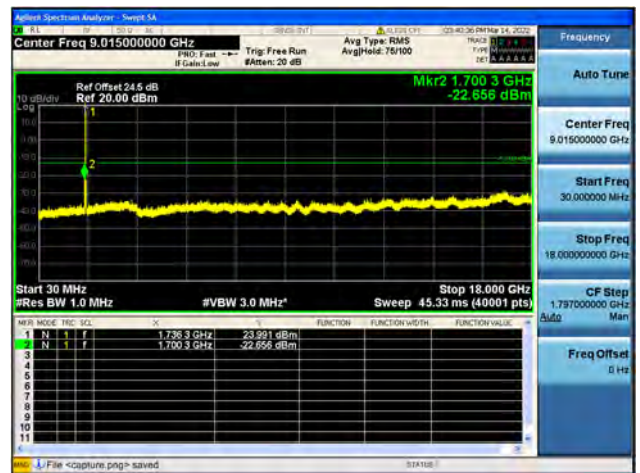
Band4 / 20MHz / Mid CH / 16QAM



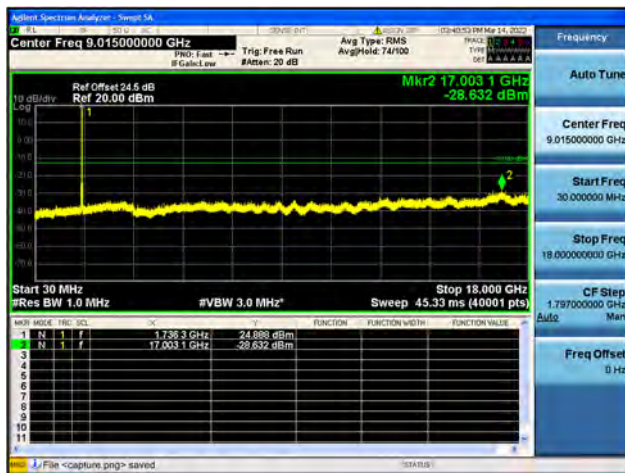
Band4 / 20MHz / Mid CH / 64QAM



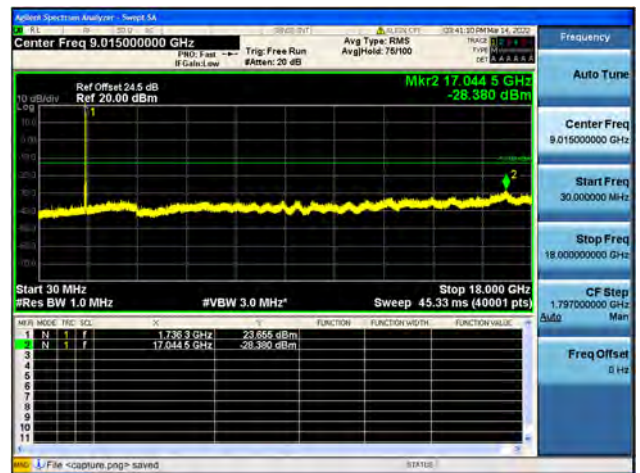
Band4 / 20MHz / High CH / QPSK



Band4 / 20MHz / High CH / 16QAM

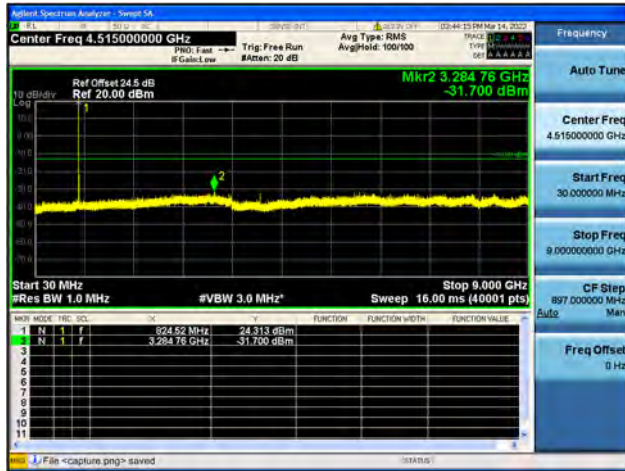


Band4 / 20MHz / High CH / 64QAM

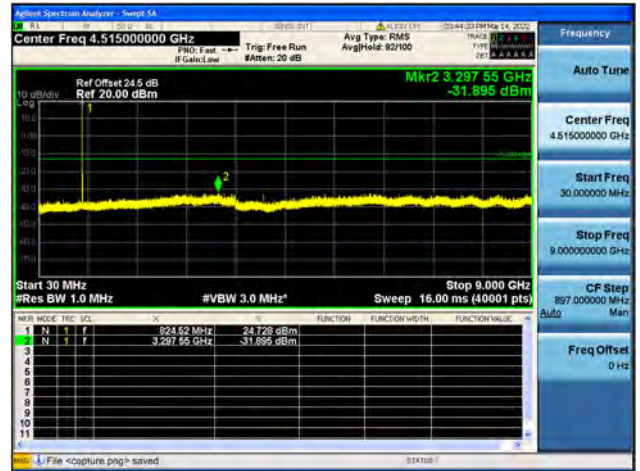




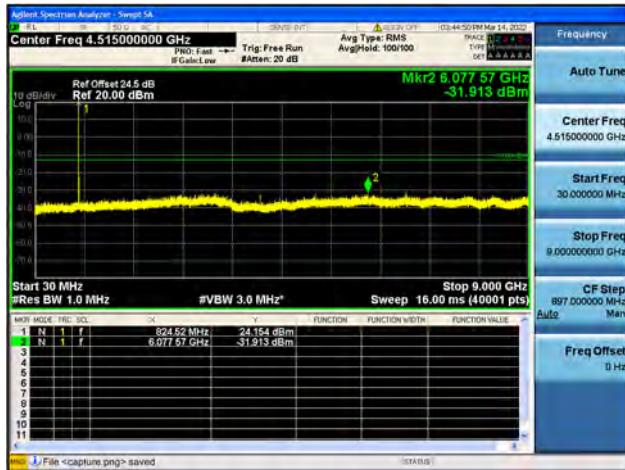
Band5 / 1.4MHz / Low CH / QPSK



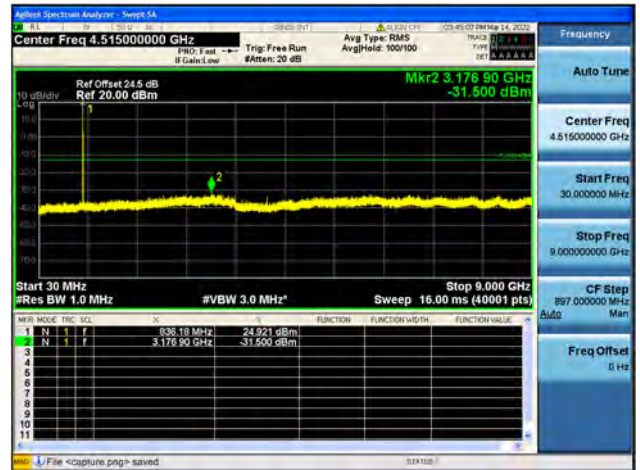
Band5 / 1.4MHz / Low CH / 16QAM



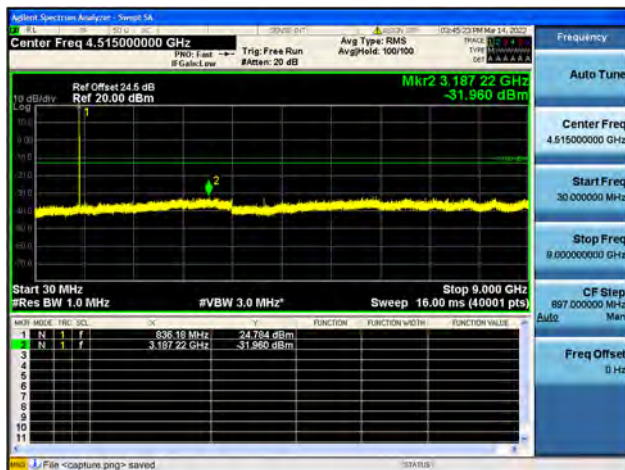
Band5 / 1.4MHz / Low CH / 64QAM



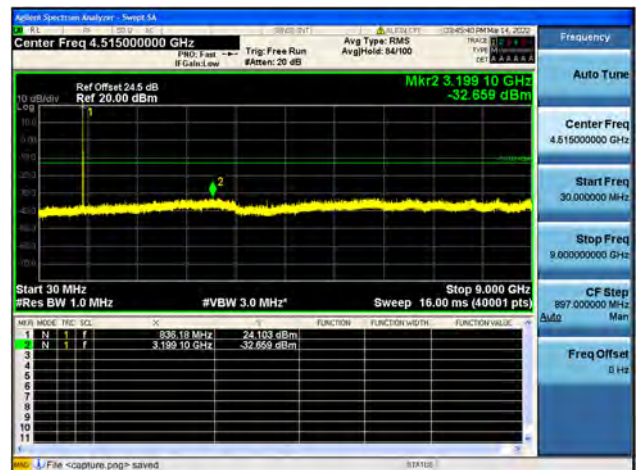
Band5 / 1.4MHz / Mid CH / QPSK



Band5 / 1.4MHz / Mid CH / 16QAM

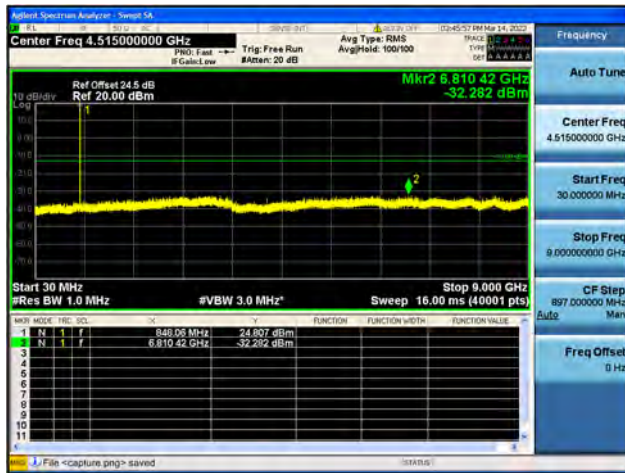


Band5 / 1.4MHz / Mid CH / 64QAM

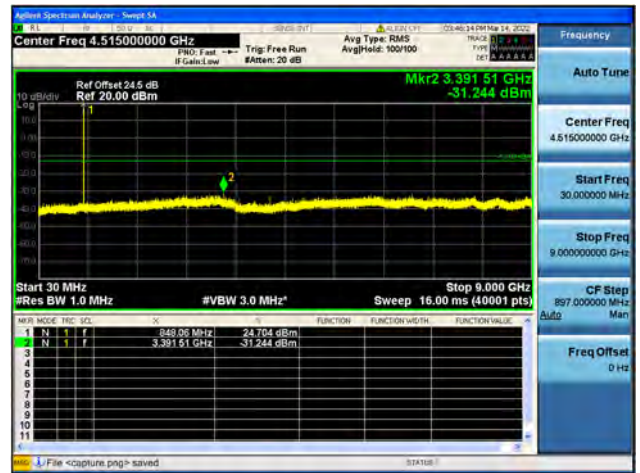




Band5 / 1.4MHz / High CH / QPSK



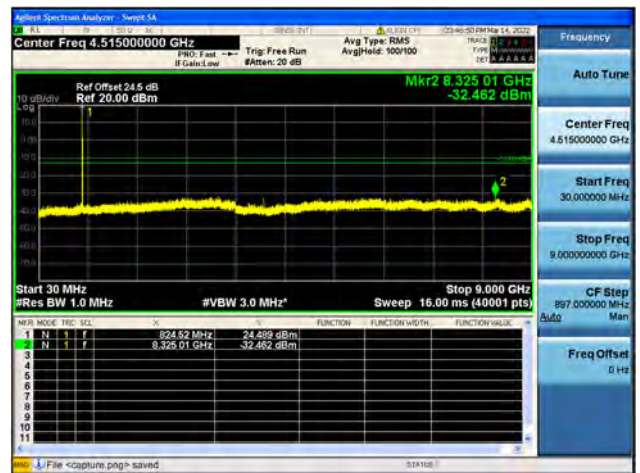
Band5 / 1.4MHz / High CH / 16QAM



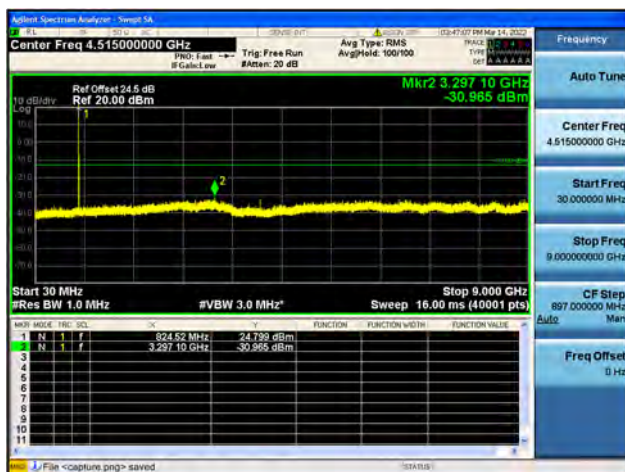
Band5 / 1.4MHz / High CH / 64QAM



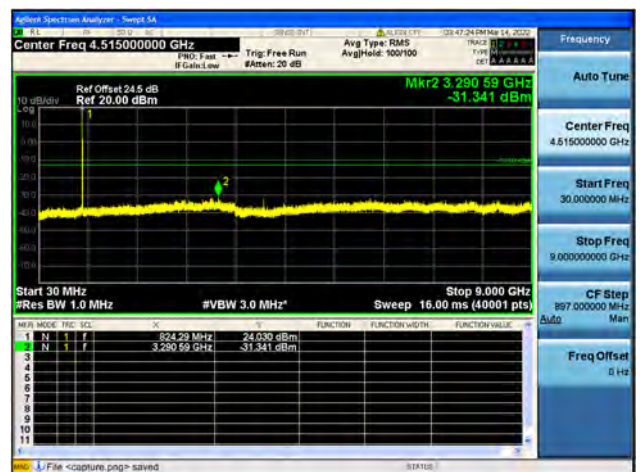
Band5 / 3MHz / Low CH / QPSK



Band5 / 3MHz / Low CH / 16QAM

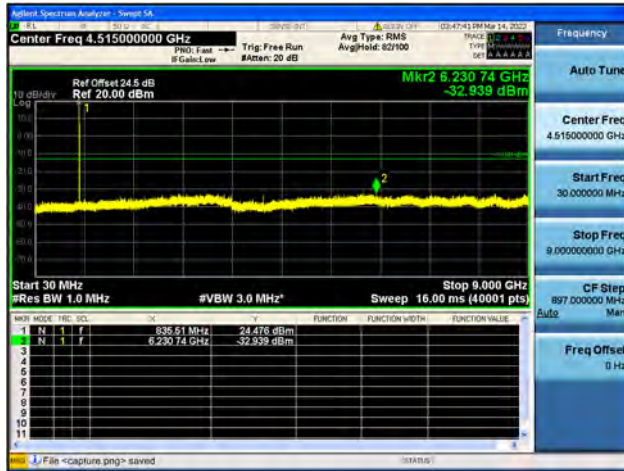


Band5 / 3MHz / Low CH / 64QAM

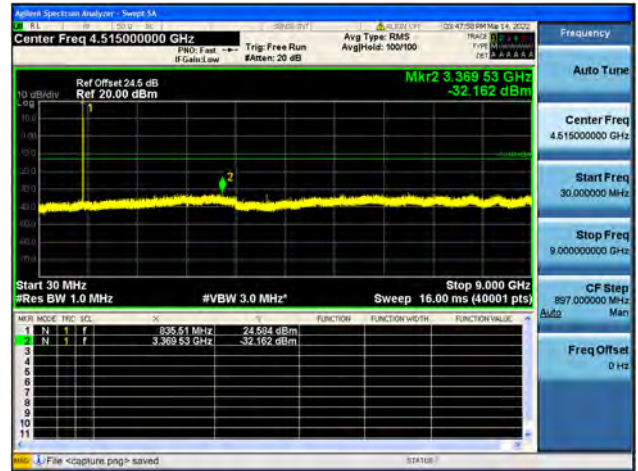




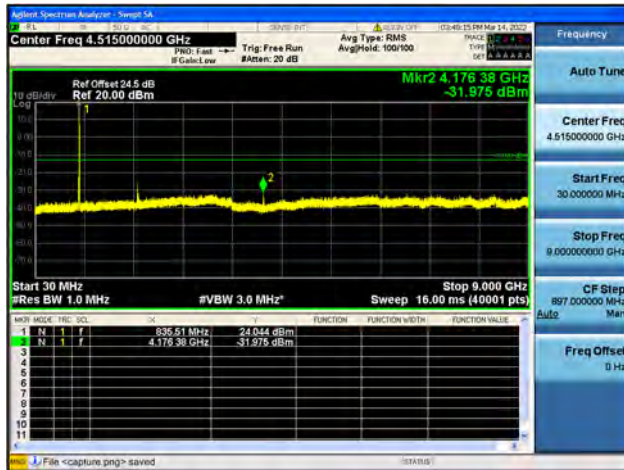
Band5 / 3MHz / Mid CH / QPSK



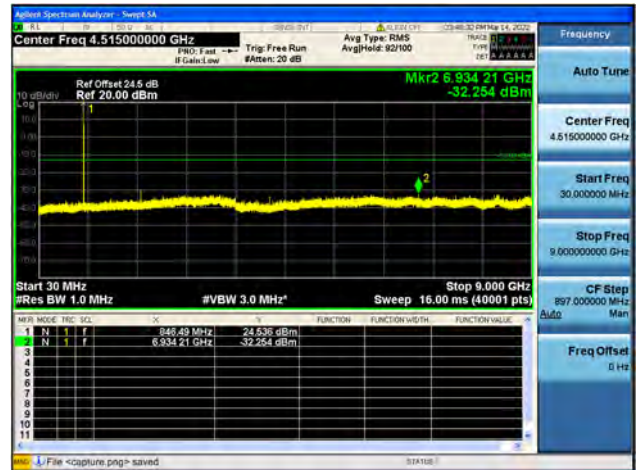
Band5 / 3MHz / Mid CH / 16QAM



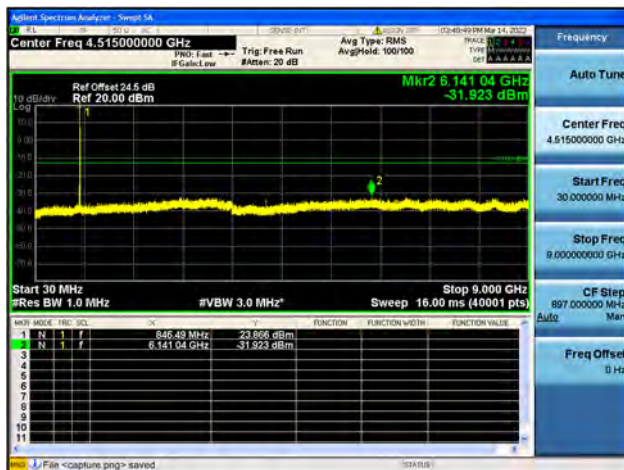
Band5 / 3MHz / Mid CH / 64QAM



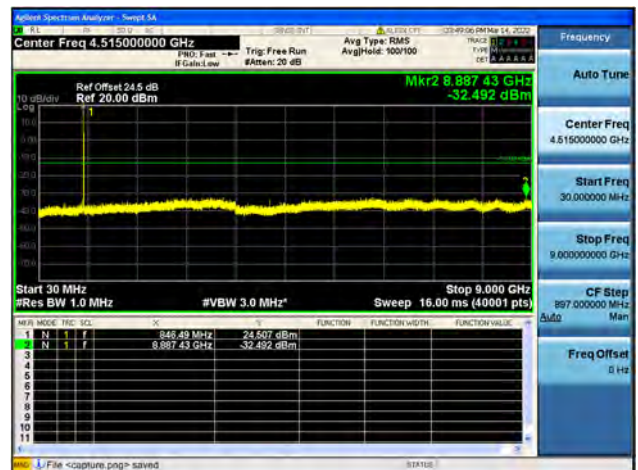
Band5 / 3MHz / High CH / QPSK



Band5 / 3MHz / High CH / 16QAM

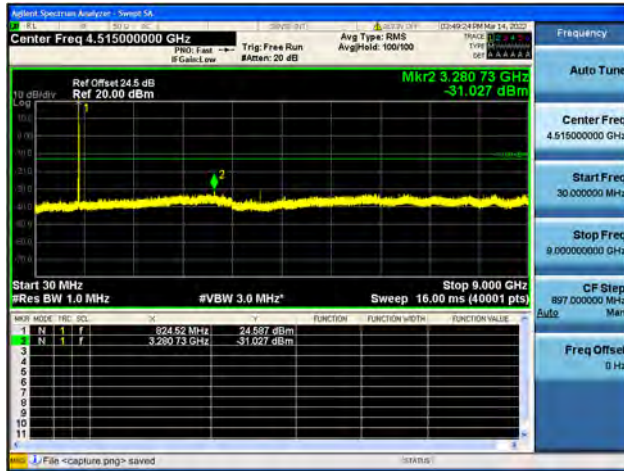


Band5 / 3MHz / High CH / 64QAM

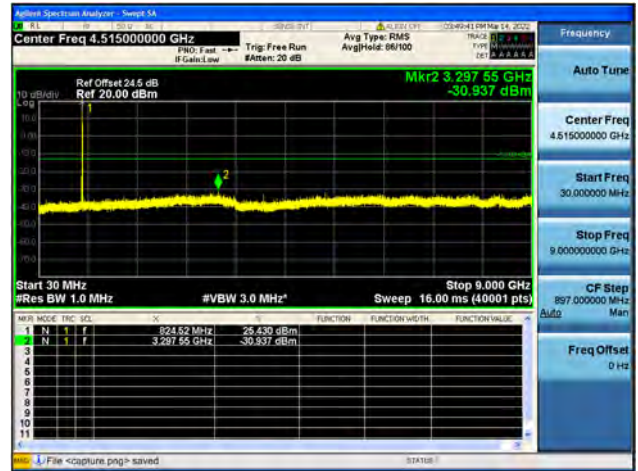




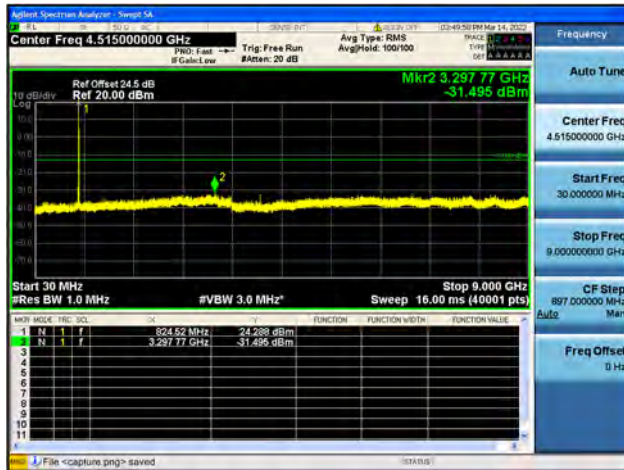
Band5 / 5MHz / Low CH / QPSK



Band5 / 5MHz / Low CH / 16QAM



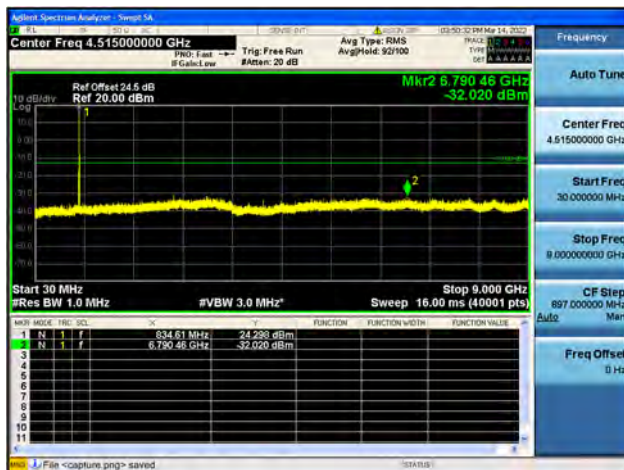
Band5 / 5MHz / Low CH / 64QAM



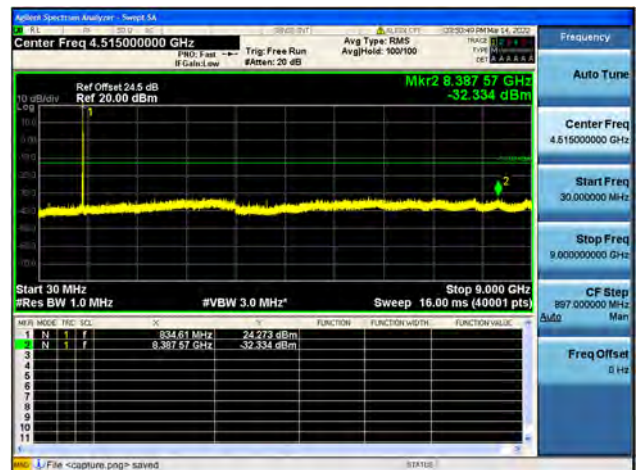
Band5 / 5MHz / Mid CH / QPSK



Band5 / 5MHz / Mid CH / 16QAM

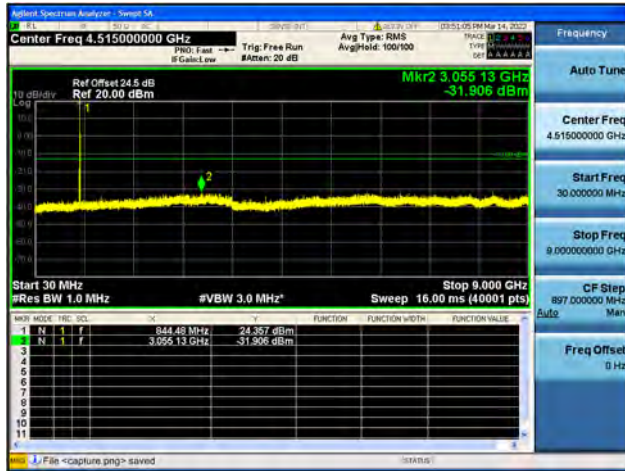


Band5 / 5MHz / Mid CH / 64QAM





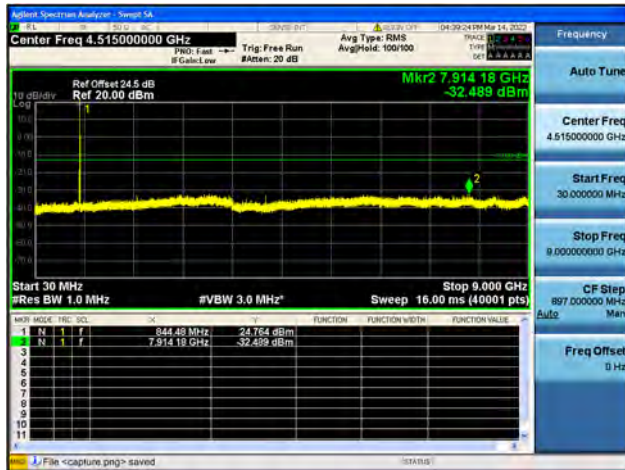
Band5 / 5MHz / High CH / QPSK



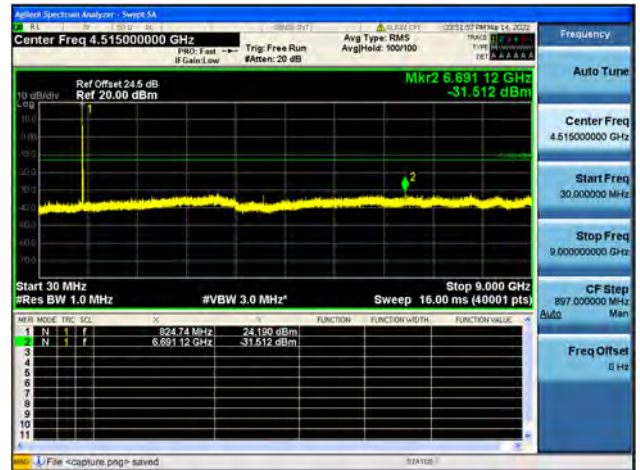
Band5 / 5MHz / High CH / 16QAM



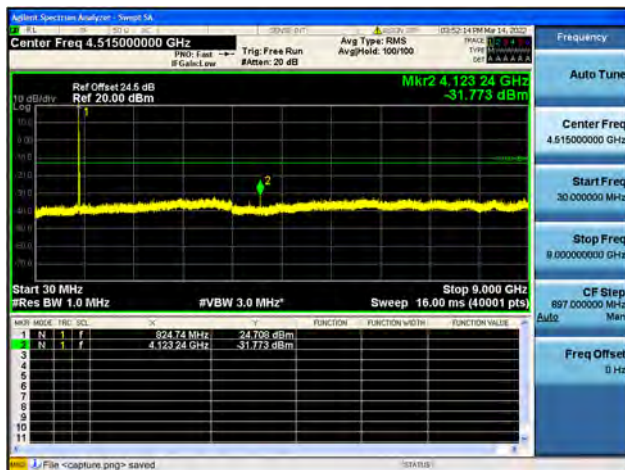
Band5 / 5MHz / High CH / 64QAM



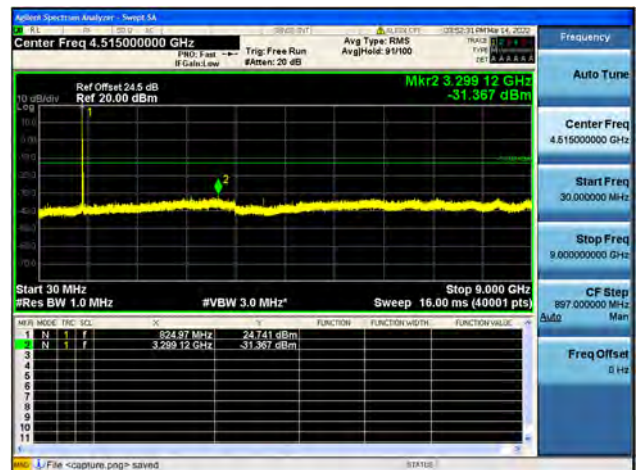
Band5 / 10MHz / Low CH / QPSK



Band5 / 10MHz / Low CH / 16QAM

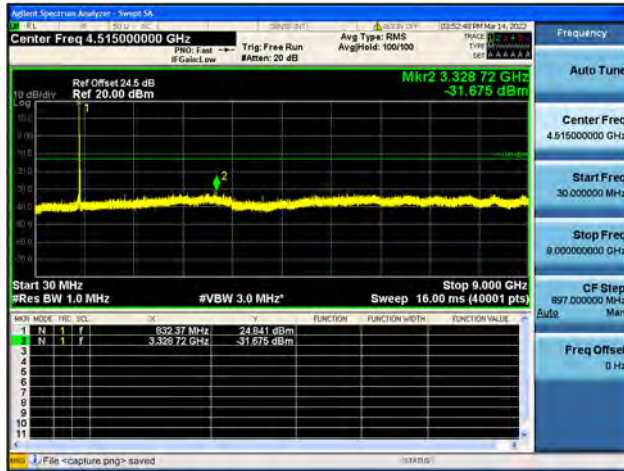


Band5 / 10MHz / Low CH / 64QAM

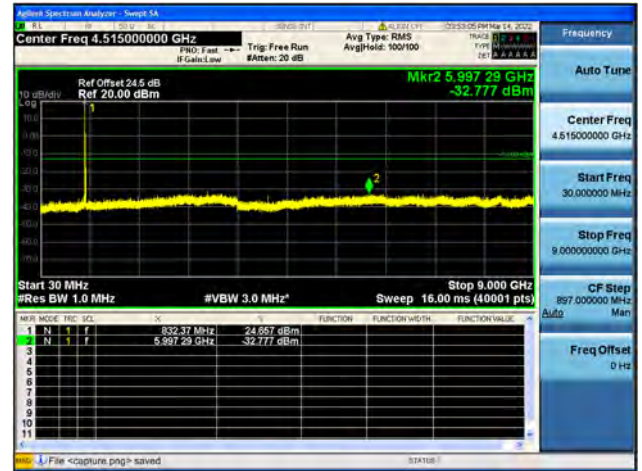




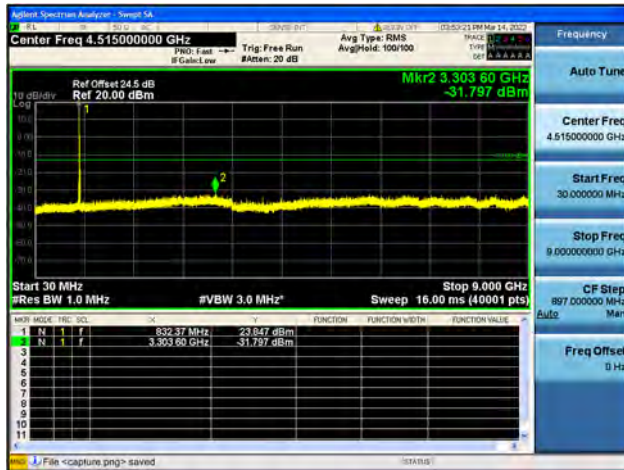
Band5 / 10MHz / Mid CH / QPSK



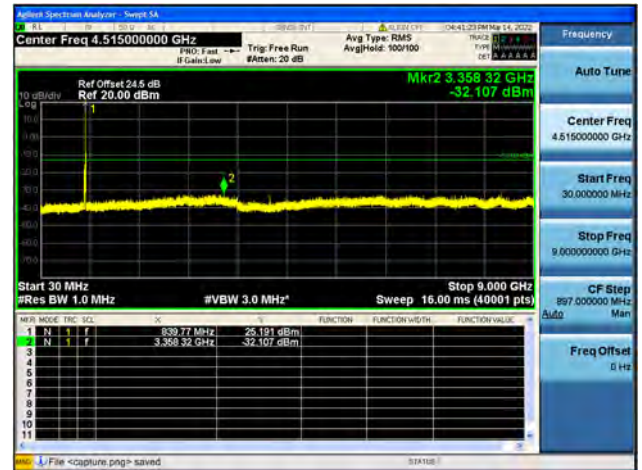
Band5 / 10MHz / Mid CH / 16QAM



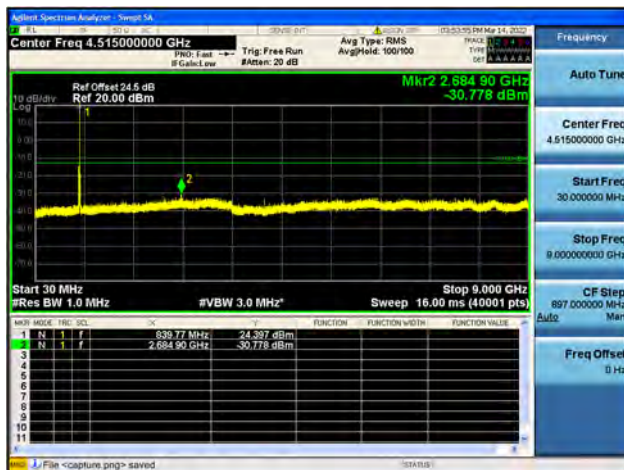
Band5 / 10MHz / Mid CH / 64QAM



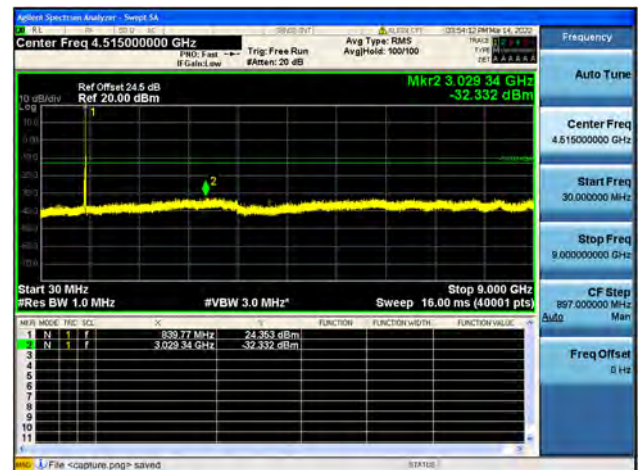
Band5 / 10MHz / High CH / QPSK



Band5 / 10MHz / High CH / 16QAM

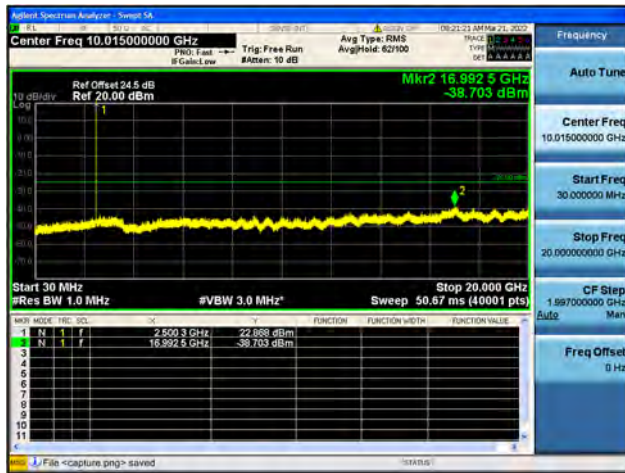


Band5 / 10MHz / High CH / 64QAM





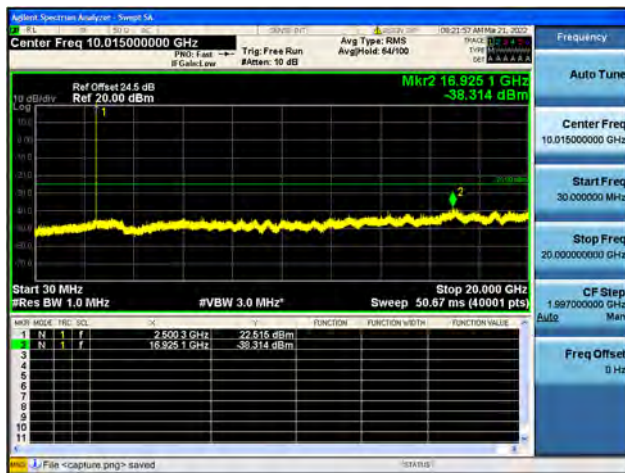
Band7 / 5MHz / Low CH / QPSK



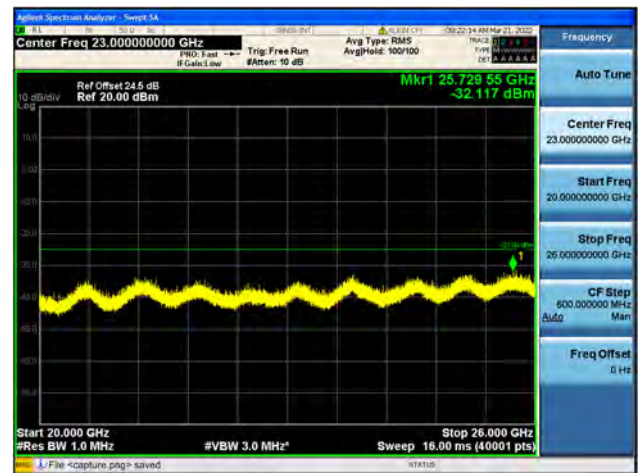
Band7 / 5MHz / Low CH / QPSK



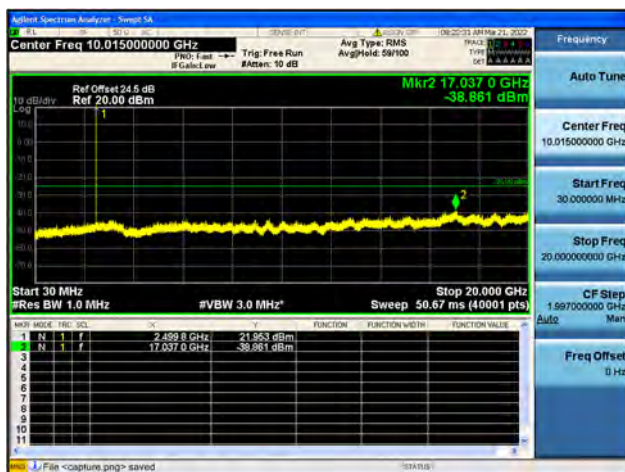
Band7 / 5MHz / Low CH / 16QAM



Band7 / 5MHz / Low CH / 16QAM



Band7 / 5MHz / Low CH / 64QAM

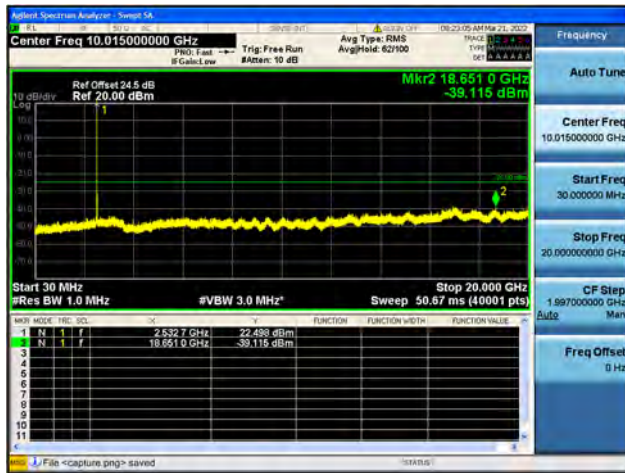


Band7 / 5MHz / Low CH / 64QAM

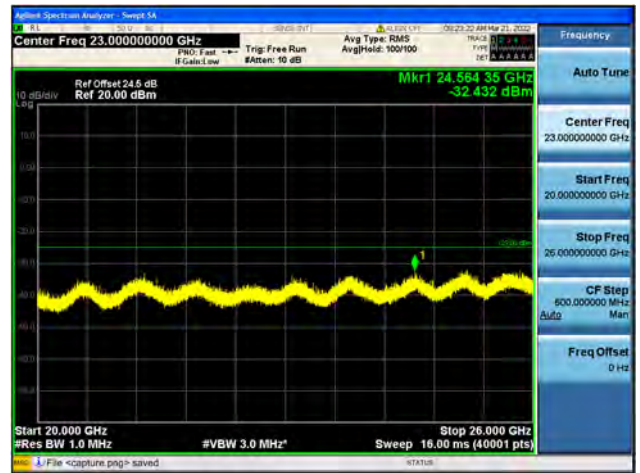




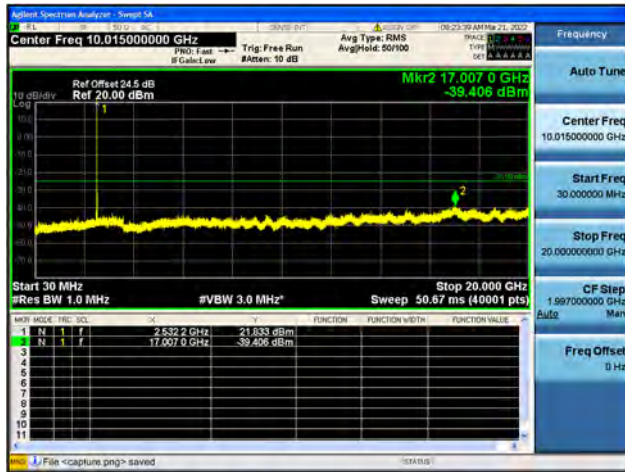
Band7 / 5MHz / Mid CH / QPSK



Band7 / 5MHz / Mid CH / QPSK



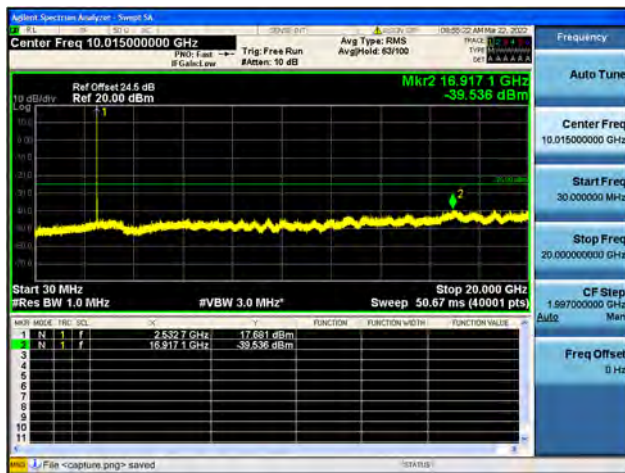
Band7 / 5MHz / Mid CH / 16QAM



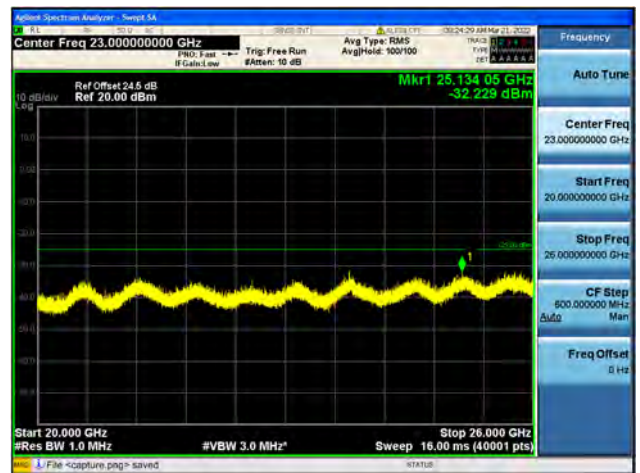
Band7 / 5MHz / Mid CH / 16QAM



Band7 / 5MHz / Mid CH / 64QAM

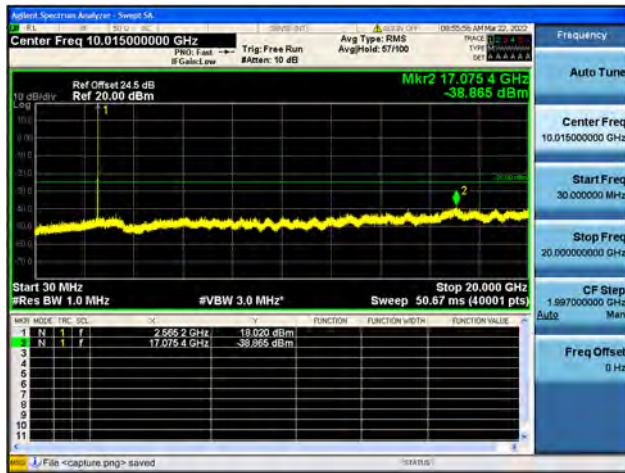


Band7 / 5MHz / Mid CH / 64QAM





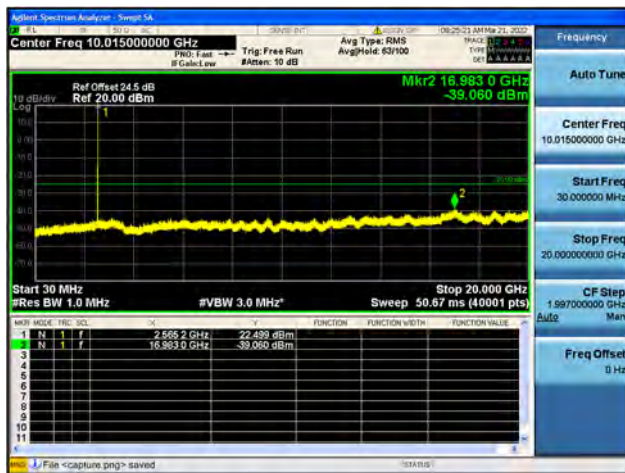
Band7 / 5MHz / High CH / QPSK



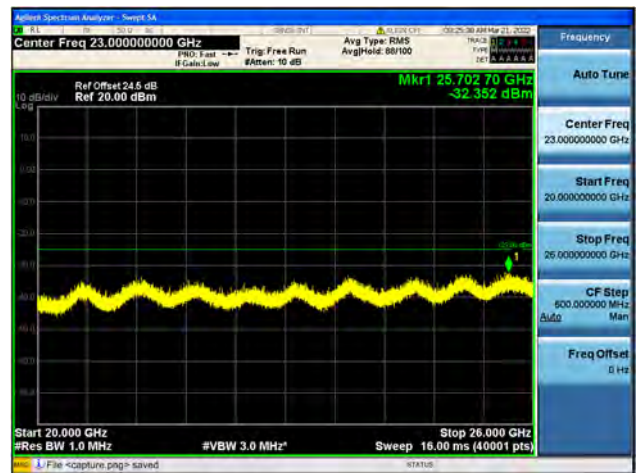
Band7 / 5MHz / High CH / QPSK



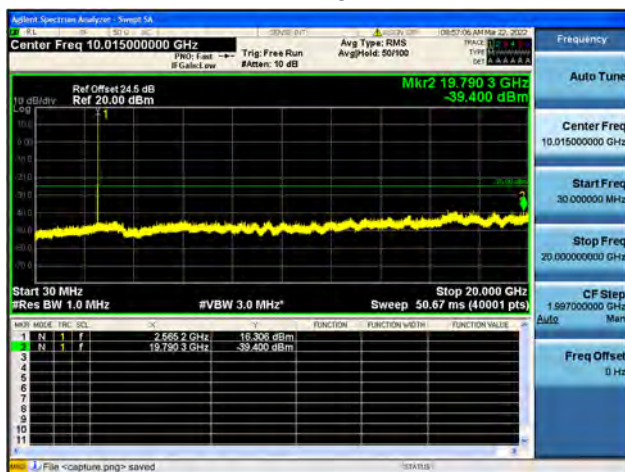
Band7 / 5MHz / High CH / 16QAM



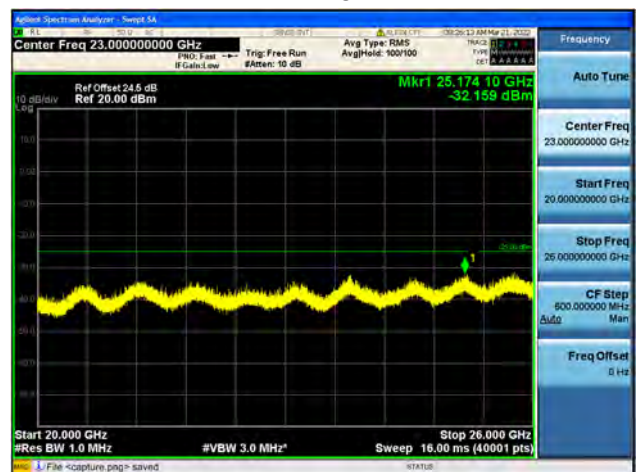
Band7 / 5MHz / High CH / 16QAM



Band7 / 5MHz / High CH / 64QAM

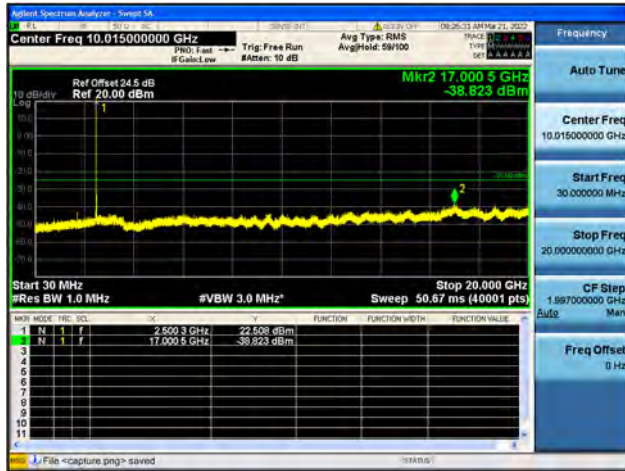


Band7 / 5MHz / High CH / 64QAM





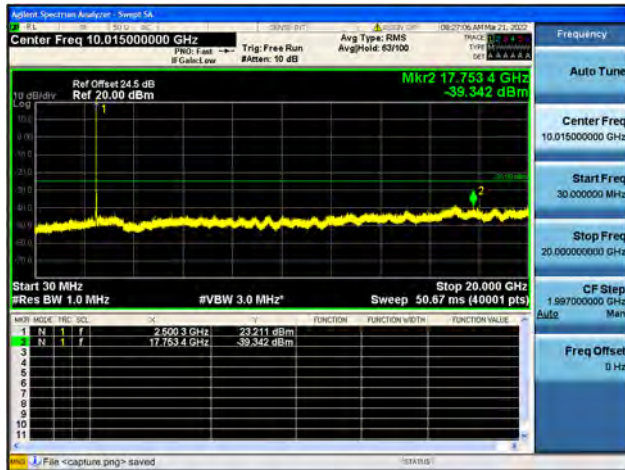
Band7 / 10MHz / Low CH / QPSK



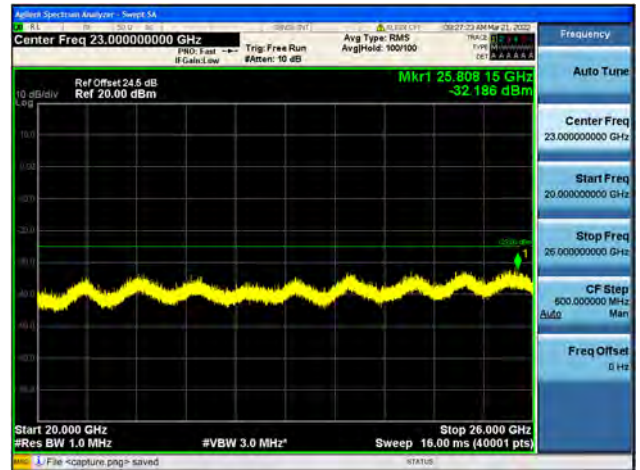
Band7 / 10MHz / Low CH / QPSK



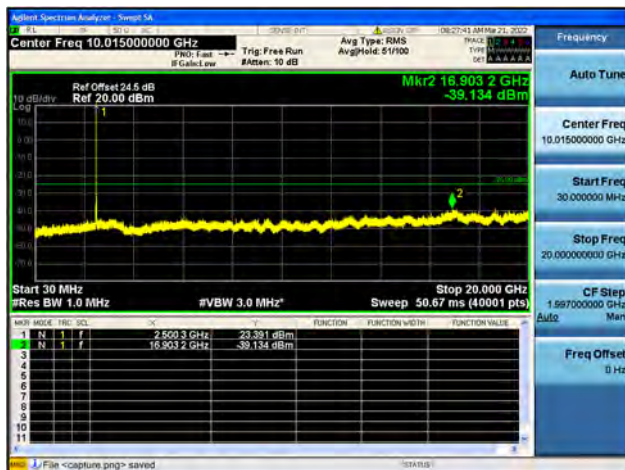
Band7 / 10MHz / Low CH / 16QAM



Band7 / 10MHz / Low CH / 16QAM



Band7 / 10MHz / Low CH / 64QAM

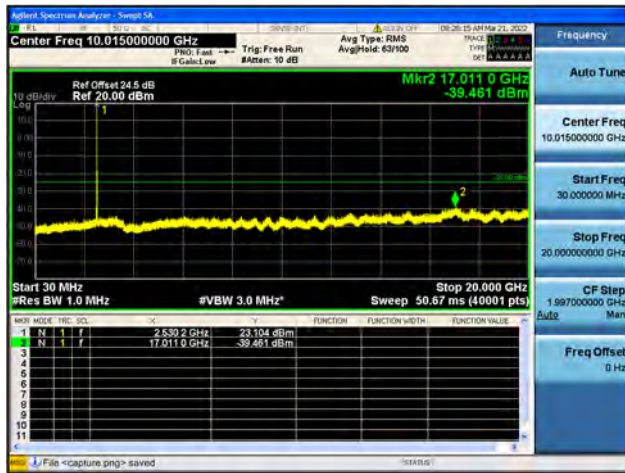


Band7 / 10MHz / Low CH / 64QAM

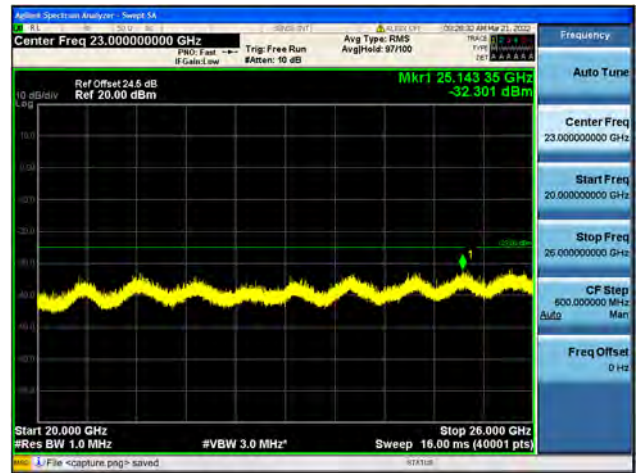




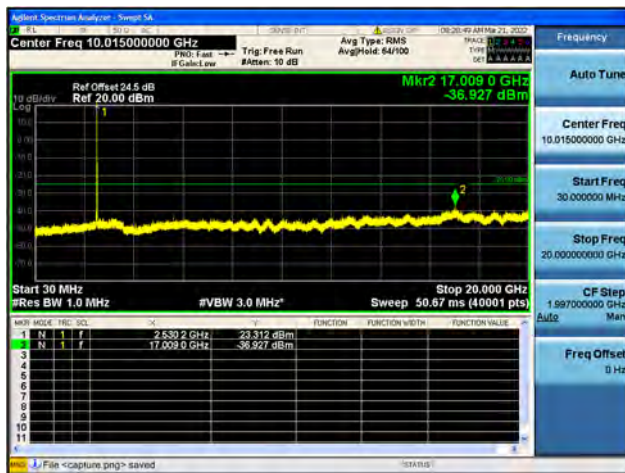
Band7 / 10MHz / Mid CH / QPSK



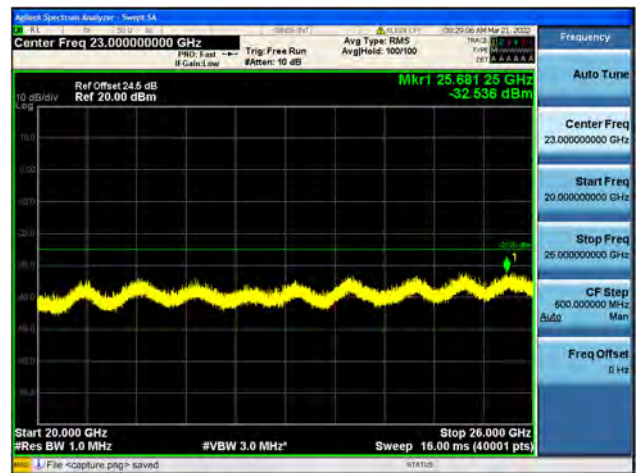
Band7 / 10MHz / Mid CH / QPSK



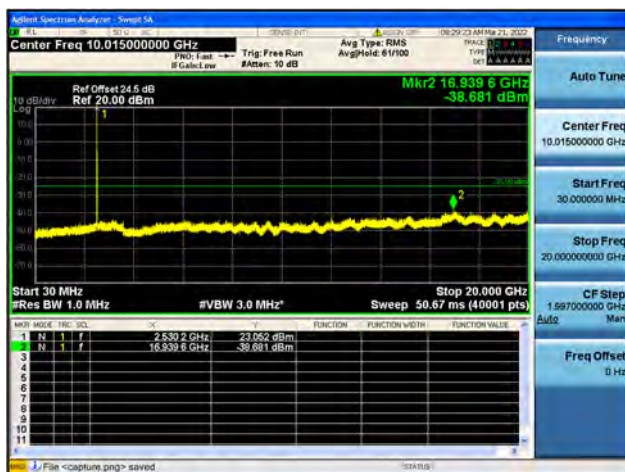
Band7 / 10MHz / Mid CH / 16QAM



Band7 / 10MHz / Mid CH / 16QAM



Band7 / 10MHz / Mid CH / 64QAM

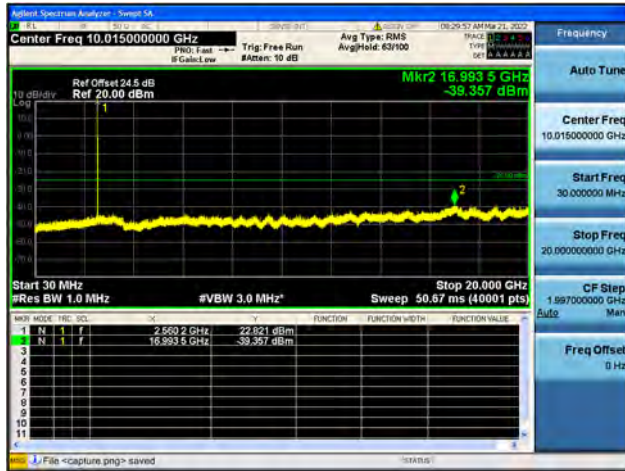


Band7 / 10MHz / Mid CH / 64QAM





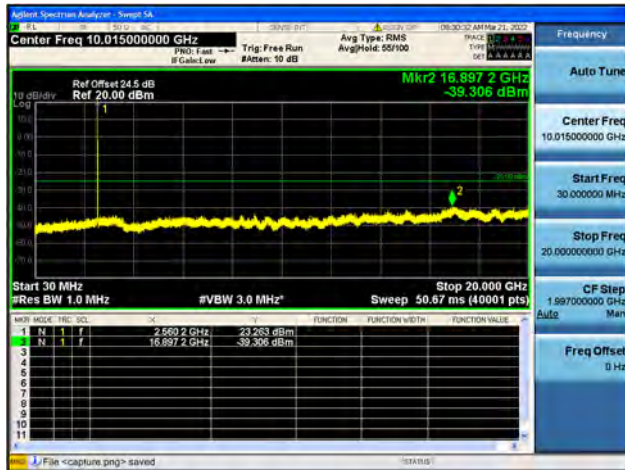
Band7 / 10MHz / High CH / QPSK



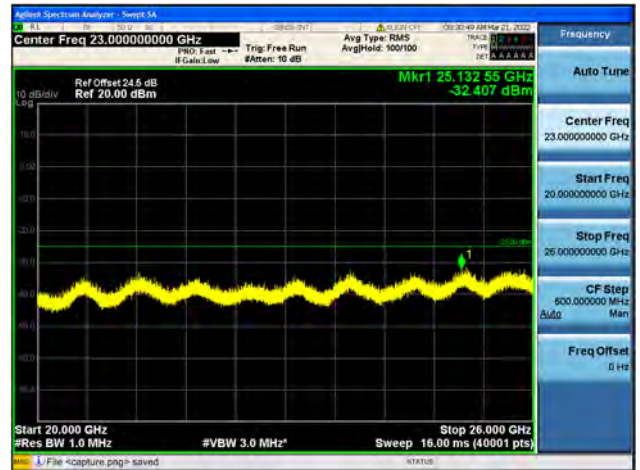
Band7 / 10MHz / High CH / QPSK



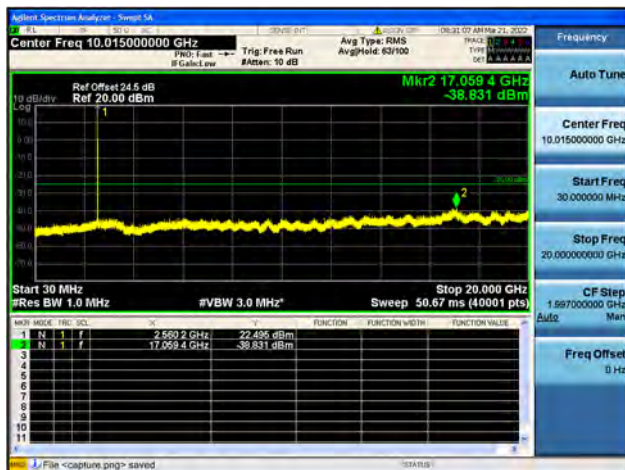
Band7 / 10MHz / High CH / 16QAM



Band7 / 10MHz / High CH / 16QAM



Band7 / 10MHz / High CH / 64QAM

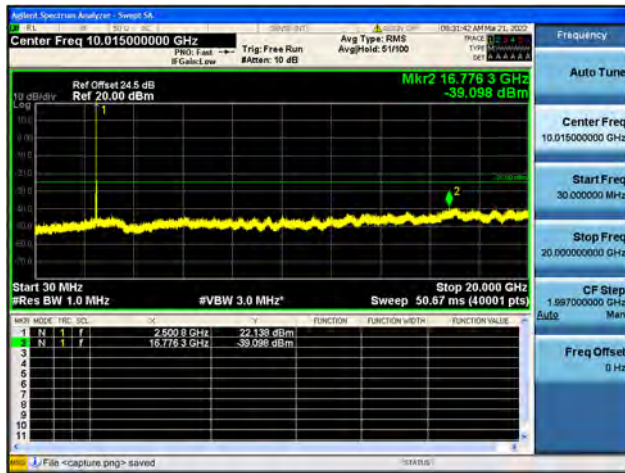


Band7 / 10MHz / High CH / 64QAM

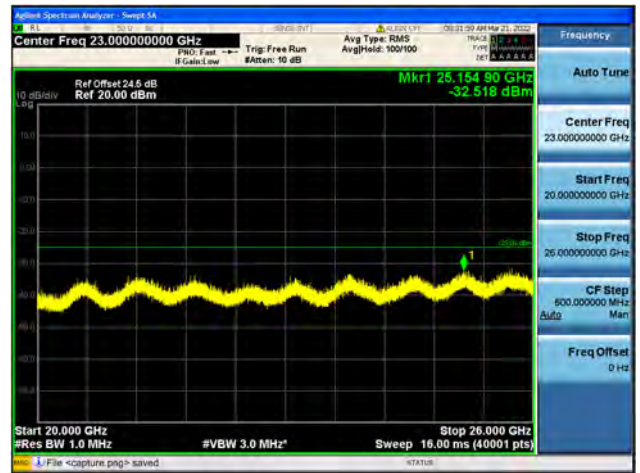




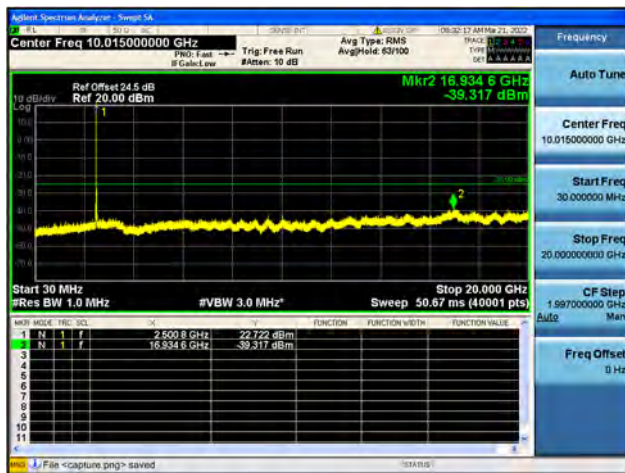
Band7 / 15MHz / Low CH / QPSK



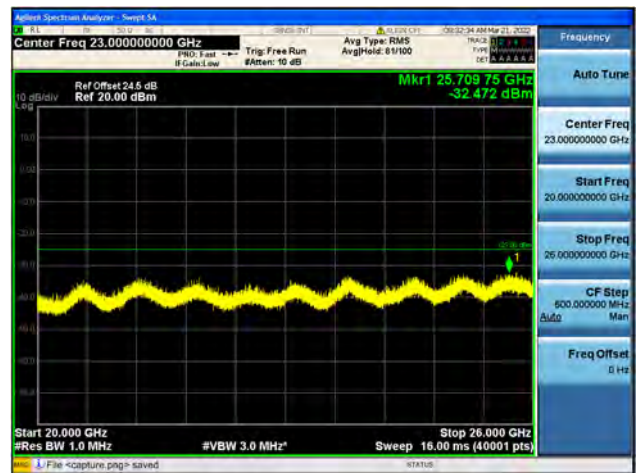
Band7 / 15MHz / Low CH / QPSK



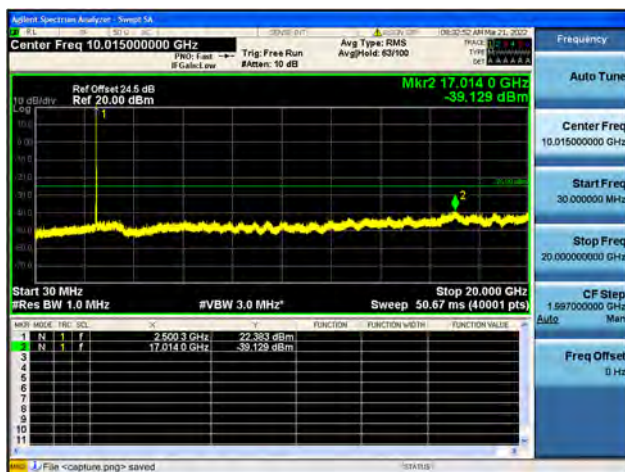
Band7 / 15MHz / Low CH / 16QAM



Band7 / 15MHz / Low CH / 16QAM



Band7 / 15MHz / Low CH / 64QAM

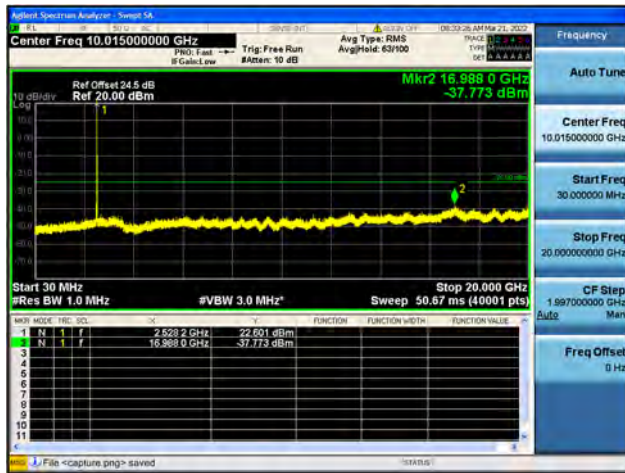


Band7 / 15MHz / Low CH / 64QAM





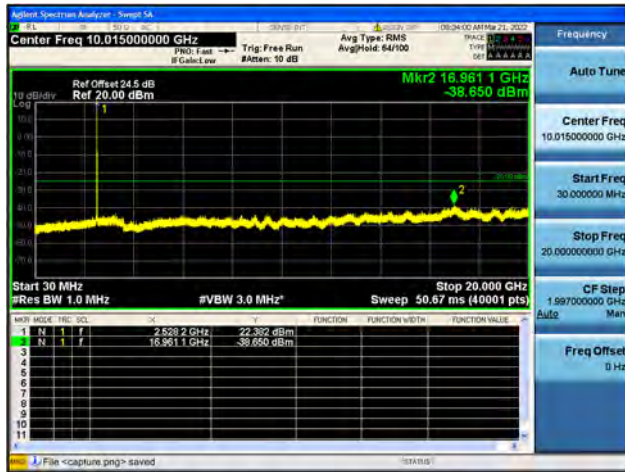
Band7 / 15MHz / Mid CH / QPSK



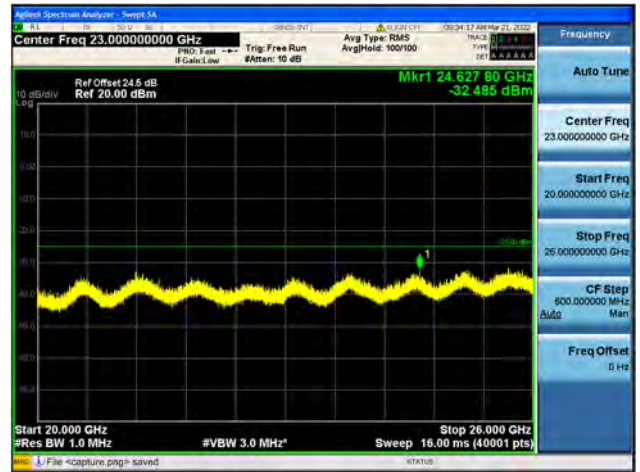
Band7 / 15MHz / Mid CH / QPSK



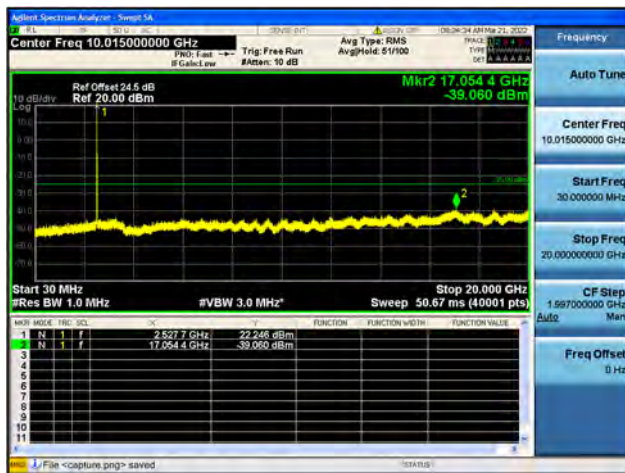
Band7 / 15MHz / Mid CH / 16QAM



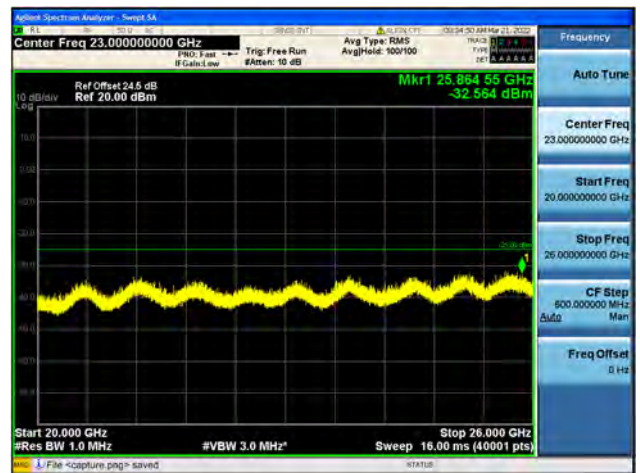
Band7 / 15MHz / Mid CH / 16QAM



Band7 / 15MHz / Mid CH / 64QAM

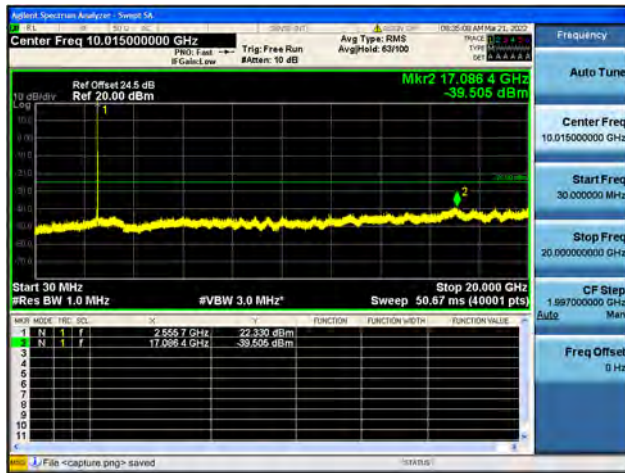


Band7 / 15MHz / Mid CH / 64QAM

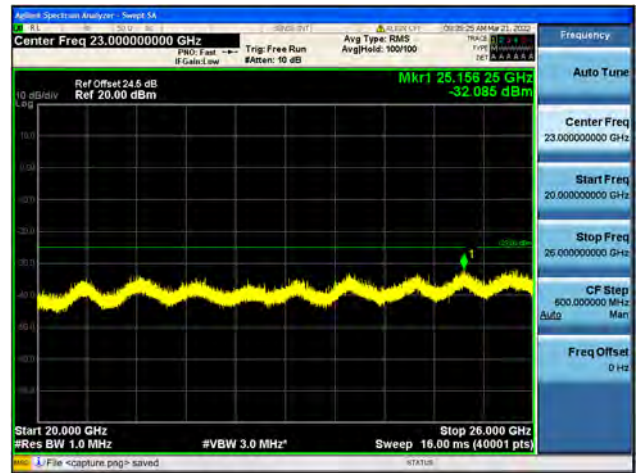




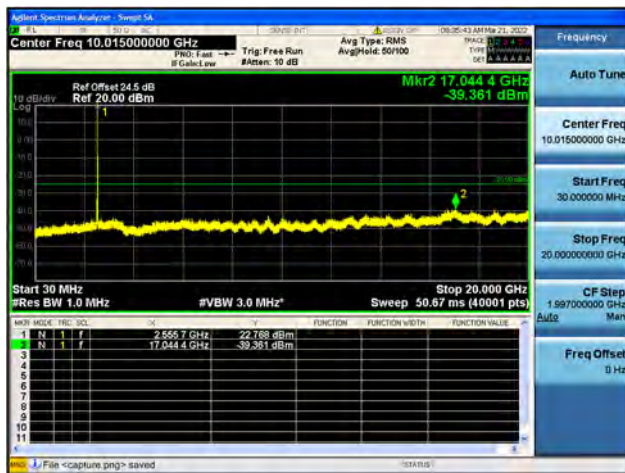
Band7 / 15MHz / High CH / QPSK



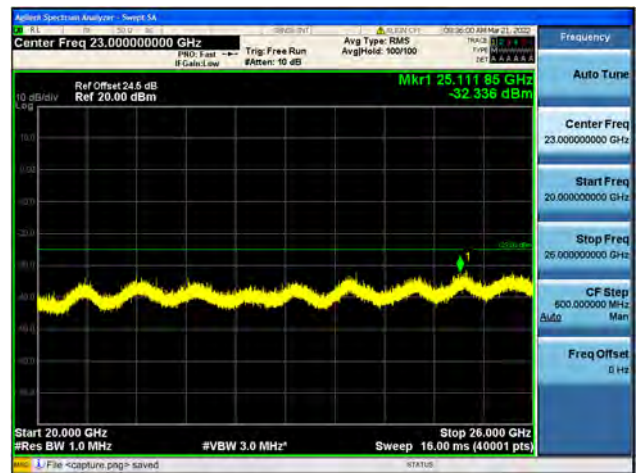
Band7 / 15MHz / High CH / QPSK



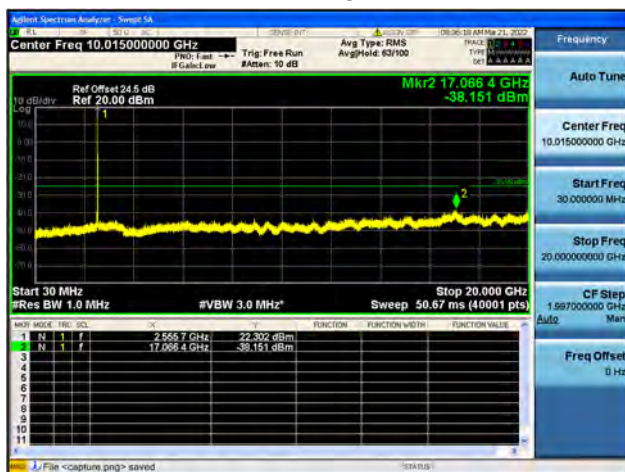
Band7 / 15MHz / High CH / 16QAM



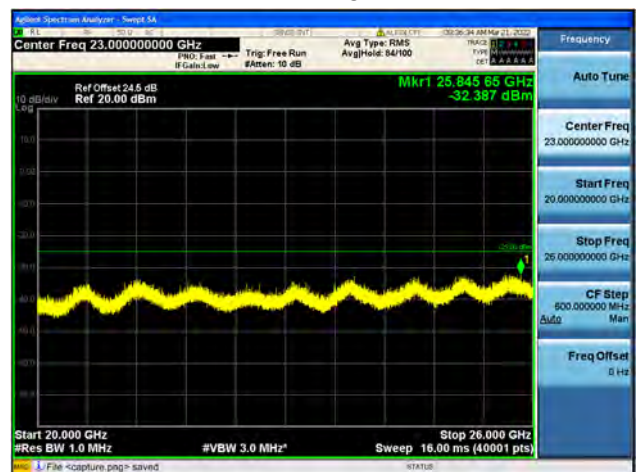
Band7 / 15MHz / High CH / 16QAM



Band7 / 15MHz / High CH / 64QAM

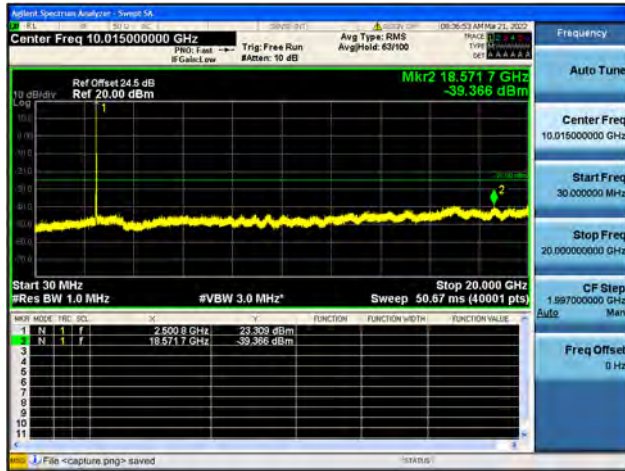


Band7 / 15MHz / High CH / 64QAM





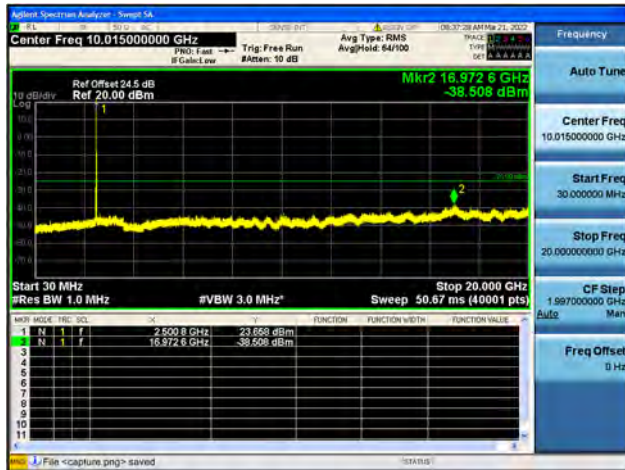
Band7 / 20MHz / Low CH / QPSK



Band7 / 20MHz / Low CH / QPSK



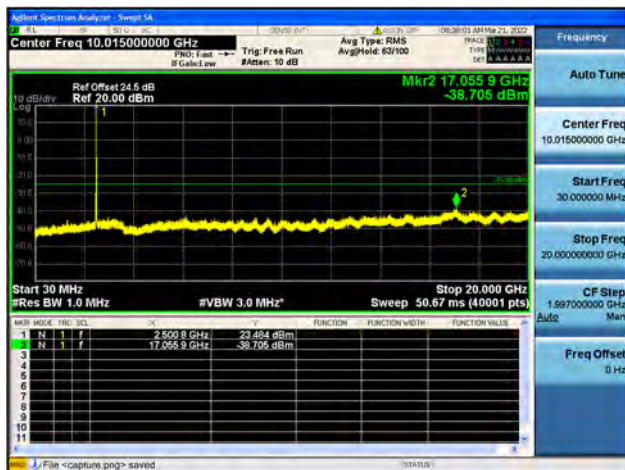
Band7 / 20MHz / Low CH / 16QAM



Band7 / 20MHz / Low CH / 16QAM



Band7 / 20MHz / Low CH / 64QAM

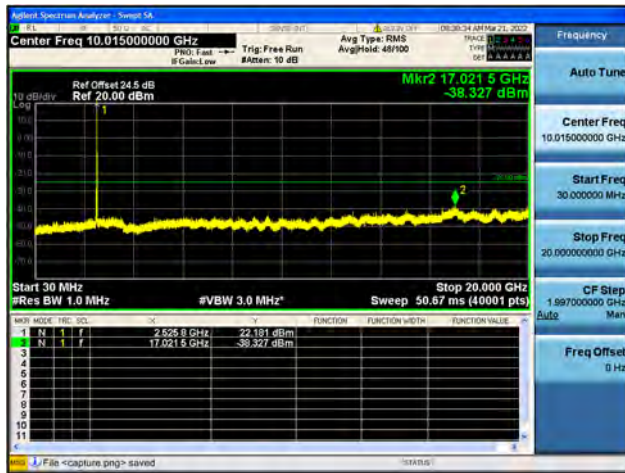


Band7 / 20MHz / Low CH / 64QAM





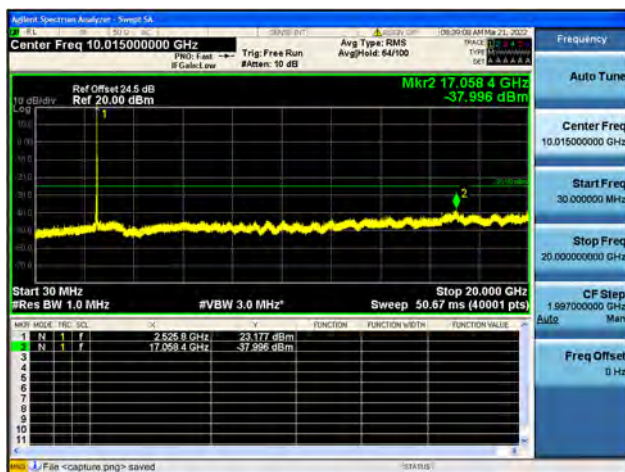
Band7 / 20MHz / Mid CH / QPSK



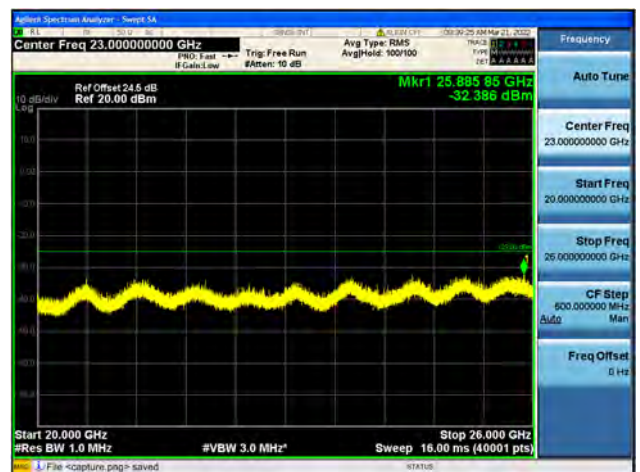
Band7 / 20MHz / Mid CH / QPSK



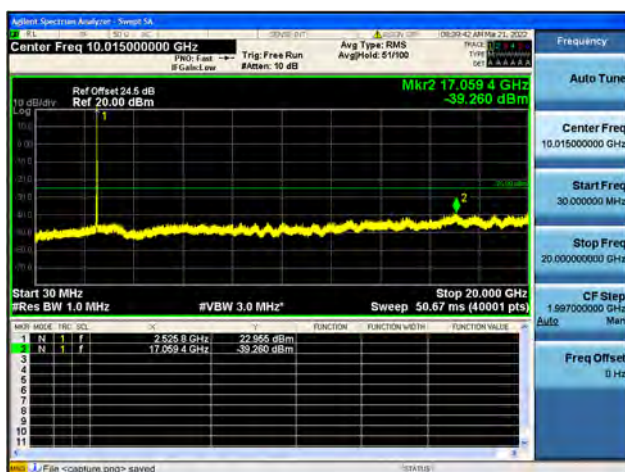
Band7 / 20MHz / Mid CH / 16QAM



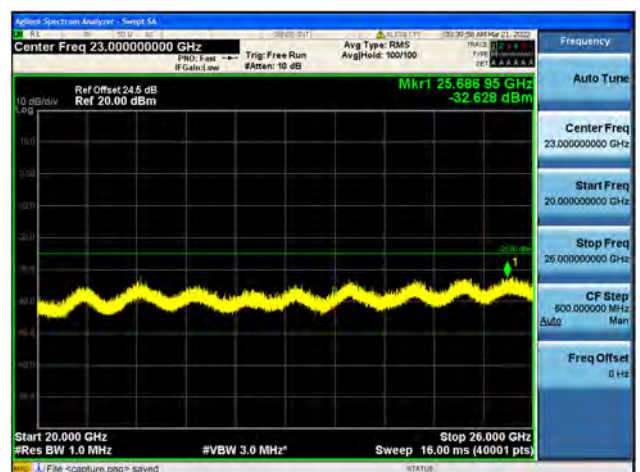
Band7 / 20MHz / Mid CH / 16QAM



Band7 / 20MHz / Mid CH / 64QAM

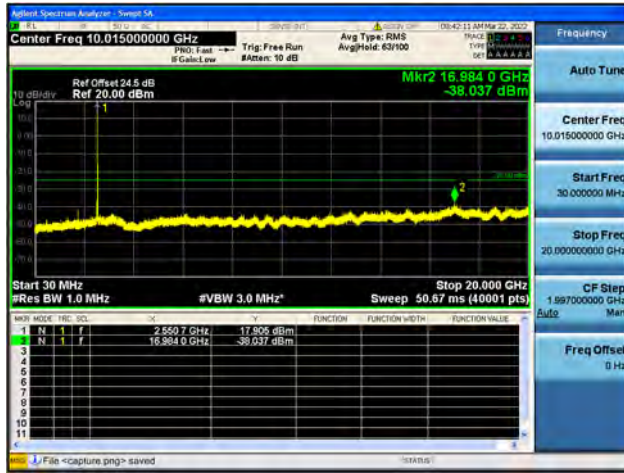


Band7 / 20MHz / Mid CH / 64QAM





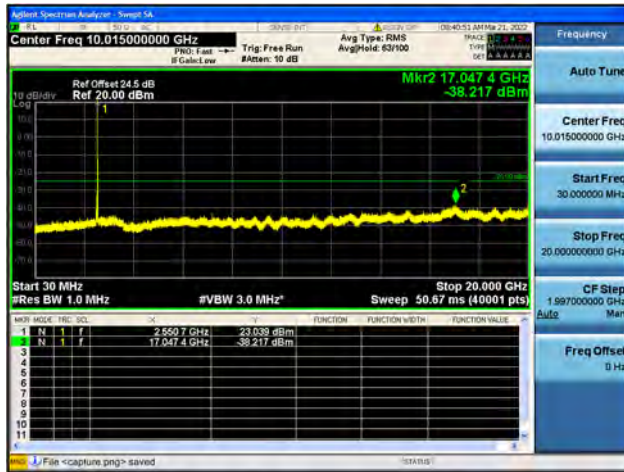
Band7 / 20MHz / High CH / QPSK



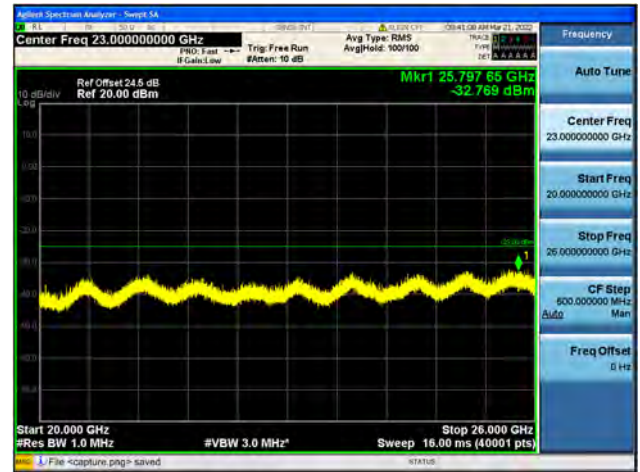
Band7 / 20MHz / High CH / QPSK



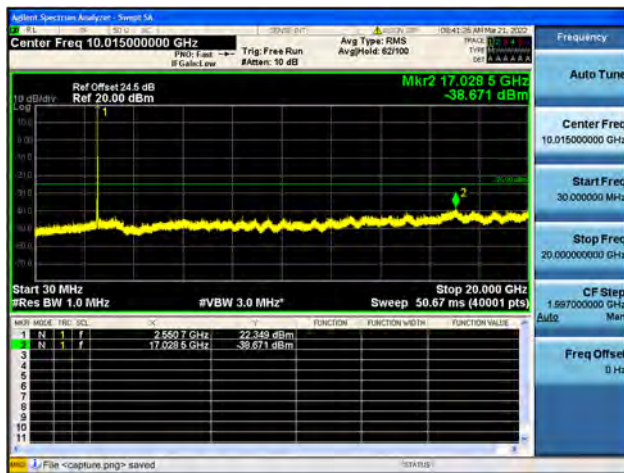
Band7 / 20MHz / High CH / 16QAM



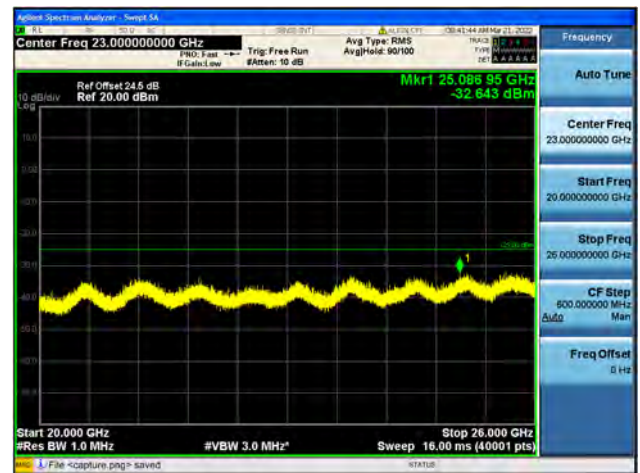
Band7 / 20MHz / High CH / 16QAM



Band7 / 20MHz / High CH / 64QAM



Band7 / 20MHz / High CH / 64QAM





2.6. Band Edge

2.6.1. Requirement

Band 2

According to FCC section 24.238(a), for operations in the 1850–1910MHz bands, 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 in a 1MHz bandwidth. However, in the 1 MHz 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.

Band 4

According to FCC section 27.53(h), for operations in the 1710–1755MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB a 1MHz bandwidth. However, in the 1 MHz 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.

Band 5

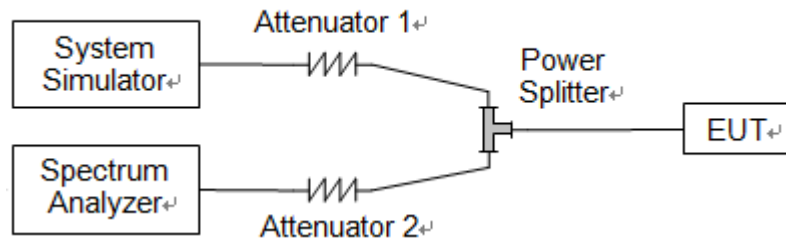
According to FCC section 22.917(a), for operations in the 824–849MHz bands, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB in a 100kHz bandwidth. However, in the 1 MHz bands 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.

Band 7

According to FCC section 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 that $43 + 10 \log(P)$ 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.

2.6.2. Description



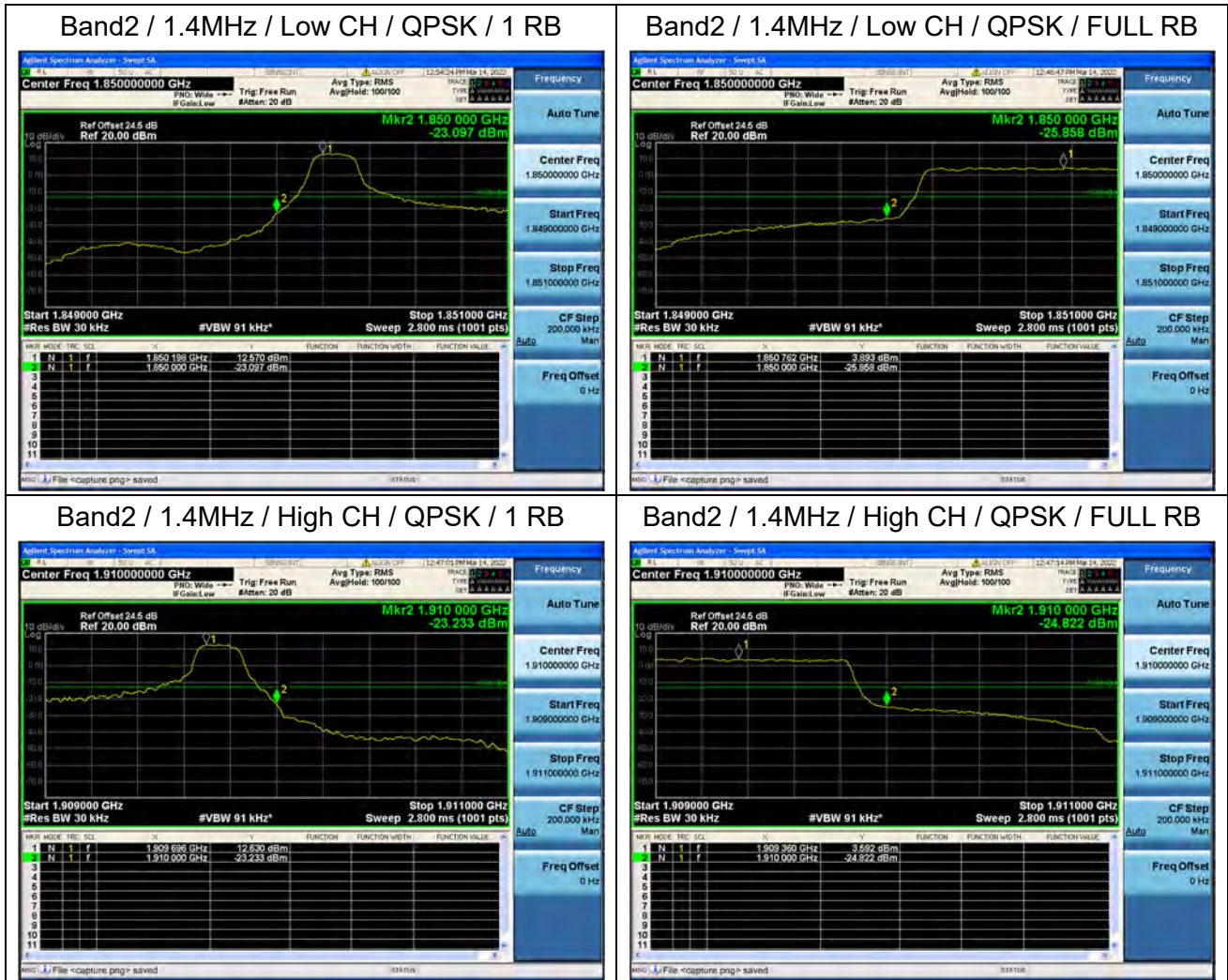
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

2.6.3. Test Procedure

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



2.6.4. Test Result





Band2 / 3MHz / Low CH / QPSK / 1 RB



Band2 / 3MHz / Low CH / QPSK / FULL RB



Band2 / 3MHz / High CH / QPSK / 1 RB



Band2 / 3MHz / High CH / QPSK / FULL RB





Band2 / 5MHz / Low CH / QPSK / 1 RB



Band2 / 5MHz / Low CH / QPSK / FULL RB



Band2 / 5MHz / High CH / QPSK / 1 RB



Band2 / 5MHz / High CH / QPSK / FULL RB

