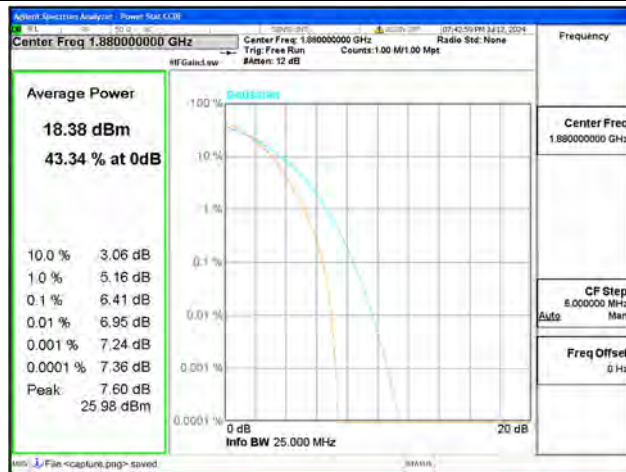




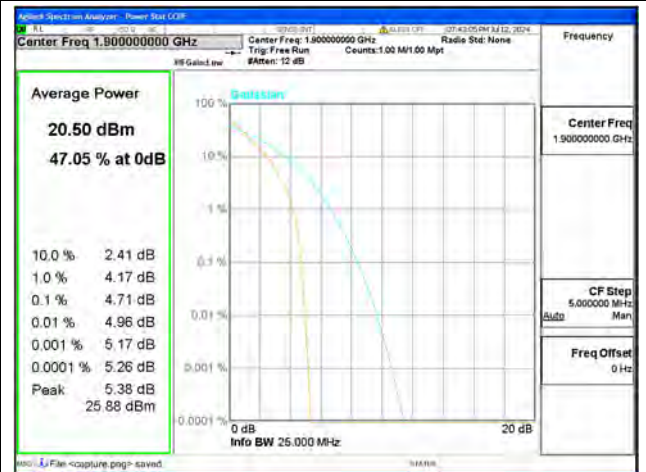
B2 / 20MHz / Mid CH / QPSK



B2 / 20MHz / Mid CH / 16QAM



B2 / 20MHz / Mid CH / 64QAM



B2 / 20MHz / High CH / QPSK



B2 / 20MHz / High CH / 16QAM



B2 / 20MHz / High CH / 64QAM



B4 / 1.4MHz / Low CH / QPSK



B4 / 1.4MHz / Low CH / 16QAM



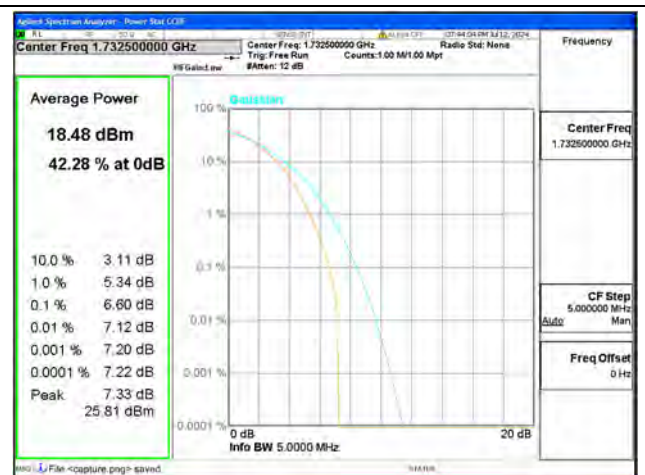
B4 / 1.4MHz / Low CH / 64QAM



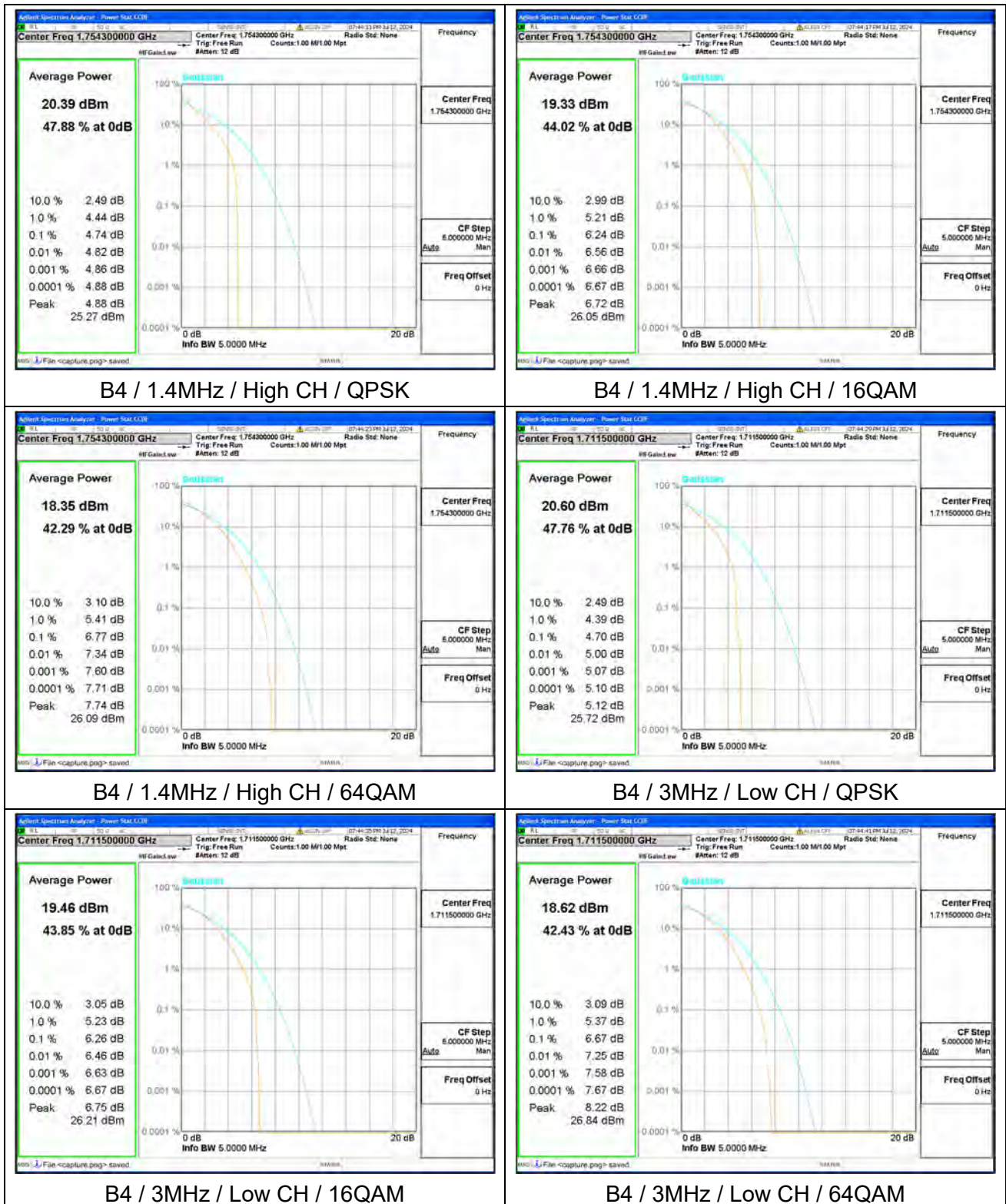
B4 / 1.4MHz / Mid CH / QPSK



B4 / 1.4MHz / Mid CH / 16QAM



B4 / 1.4MHz / Mid CH / 64QAM

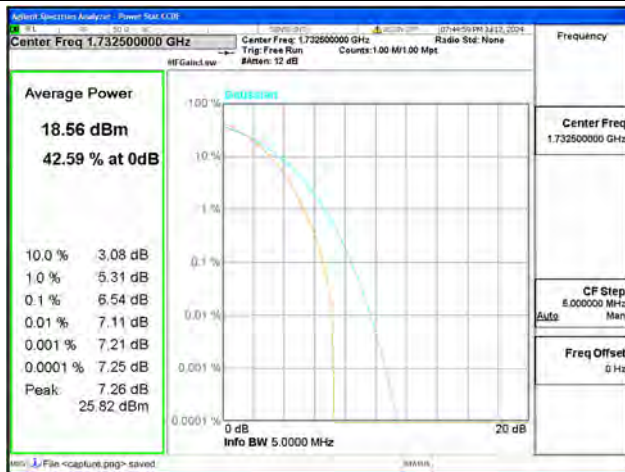




B4 / 3MHz / Mid CH / QPSK



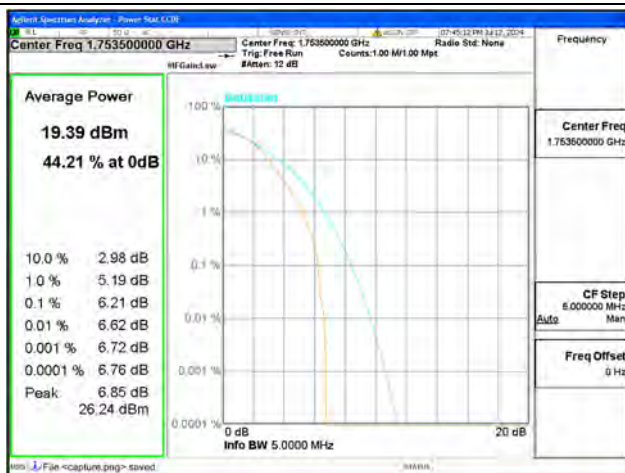
B4 / 3MHz / Mid CH / 16QAM



B4 / 3MHz / Mid CH / 64QAM



B4 / 3MHz / High CH / QPSK



B4 / 3MHz / High CH / 16QAM



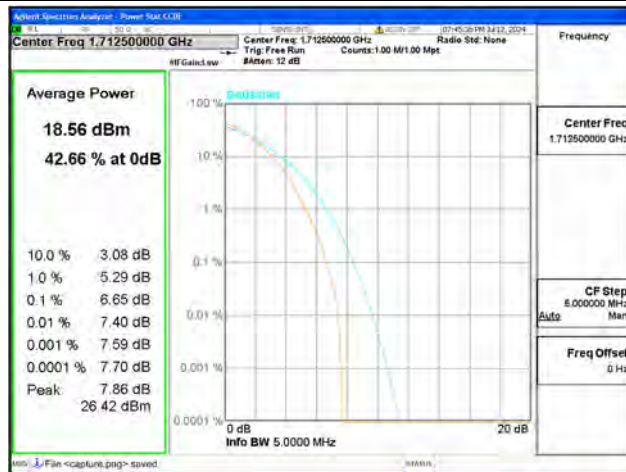
B4 / 3MHz / High CH / 64QAM



B4 / 5MHz / Low CH / QPSK



B4 / 5MHz / Low CH / 16QAM



B4 / 5MHz / Low CH / 64QAM



B4 / 5MHz / Mid CH / QPSK



B4 / 5MHz / Mid CH / 16QAM



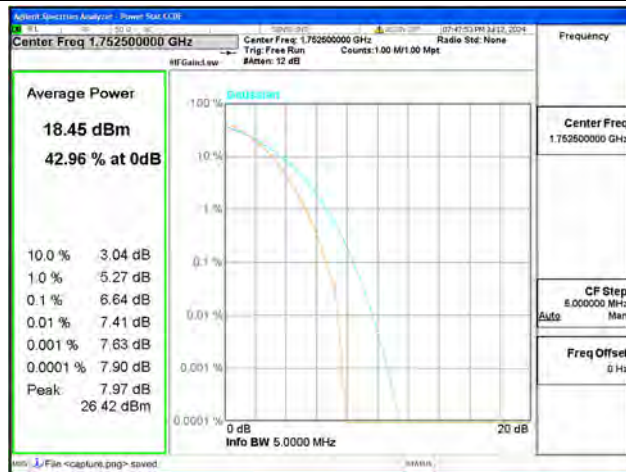
B4 / 5MHz / Mid CH / 64QAM



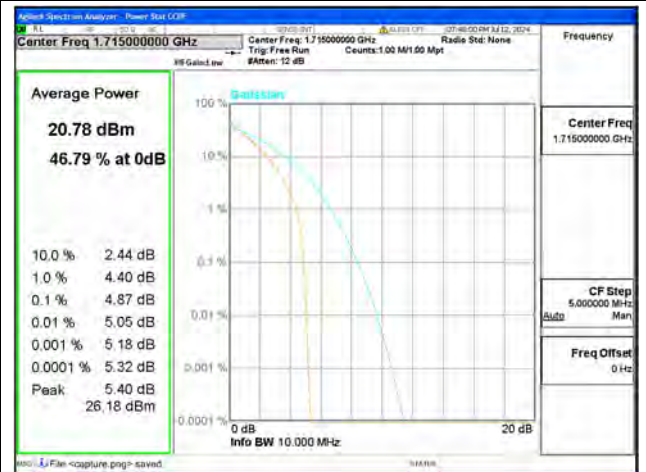
B4 / 5MHz / High CH / QPSK



B4 / 5MHz / High CH / 16QAM



B4 / 5MHz / High CH / 64QAM



B4 / 10MHz / Low CH / QPSK



B4 / 10MHz / Low CH / 16QAM



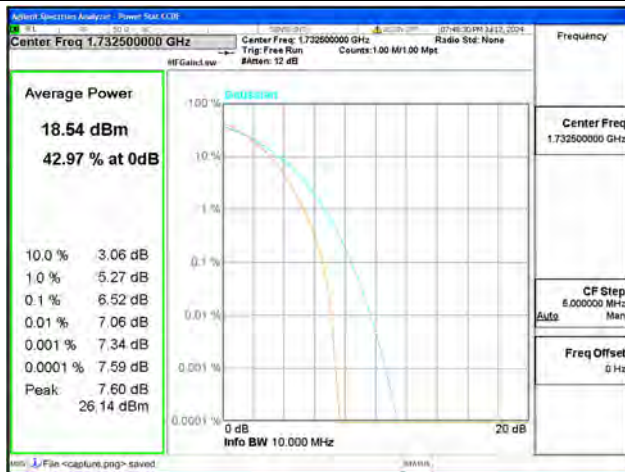
B4 / 10MHz / Low CH / 64QAM



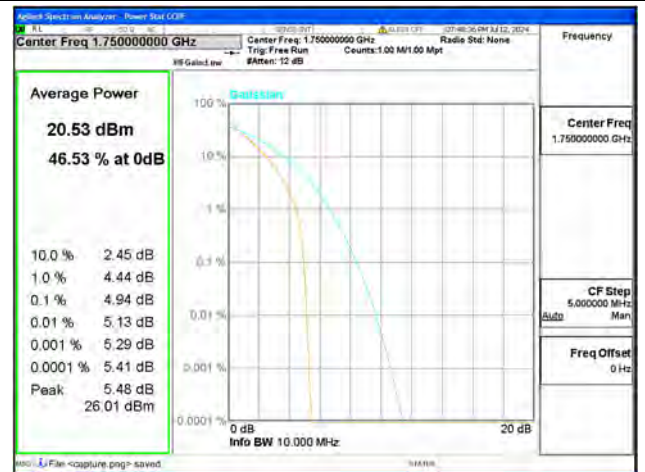
B4 / 10MHz / Mid CH / QPSK



B4 / 10MHz / Mid CH / 16QAM



B4 / 10MHz / Mid CH / 64QAM



B4 / 10MHz / High CH / QPSK



B4 / 10MHz / High CH / 16QAM



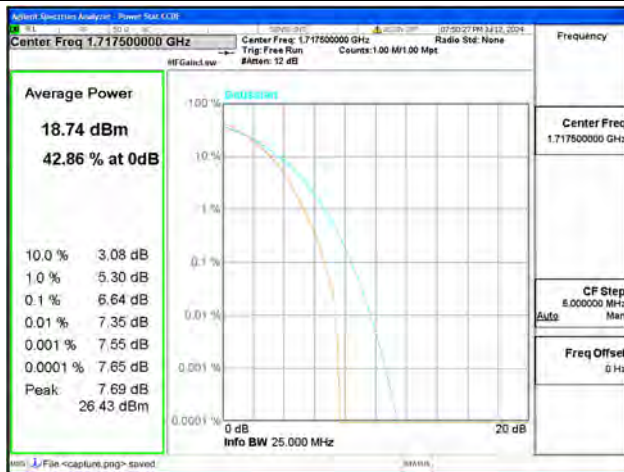
B4 / 10MHz / High CH / 64QAM



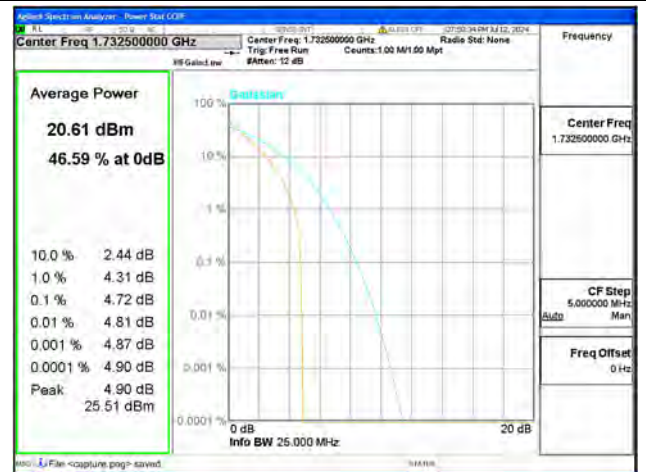
B4 / 15MHz / Low CH / QPSK



B4 / 15MHz / Low CH / 16QAM



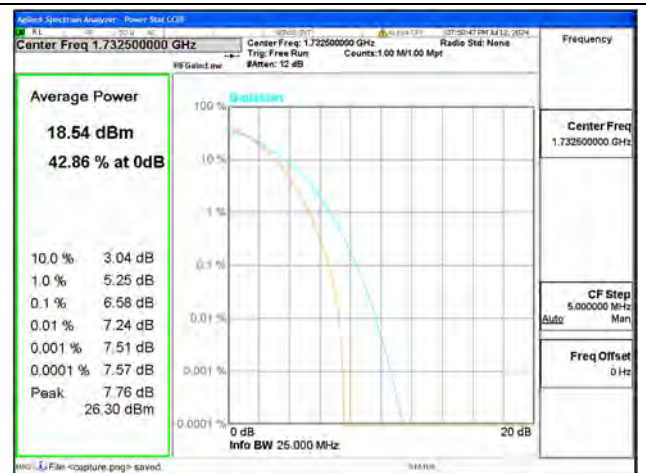
B4 / 15MHz / Low CH / 64QAM



B4 / 15MHz / Mid CH / QPSK



B4 / 15MHz / Mid CH / 16QAM



B4 / 15MHz / Mid CH / 64QAM



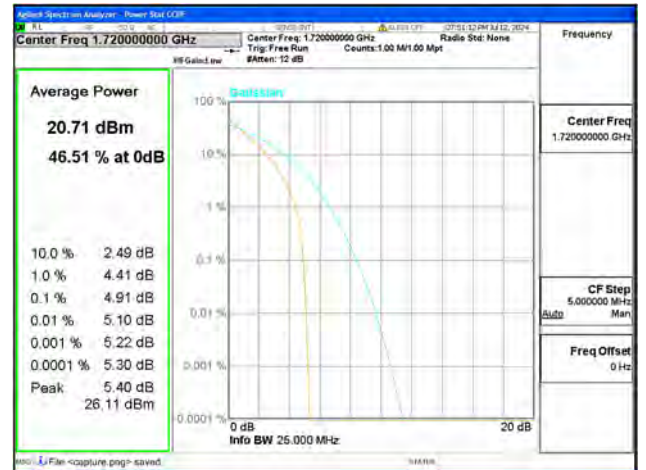
B4 / 15MHz / High CH / QPSK



B4 / 15MHz / High CH / 16QAM



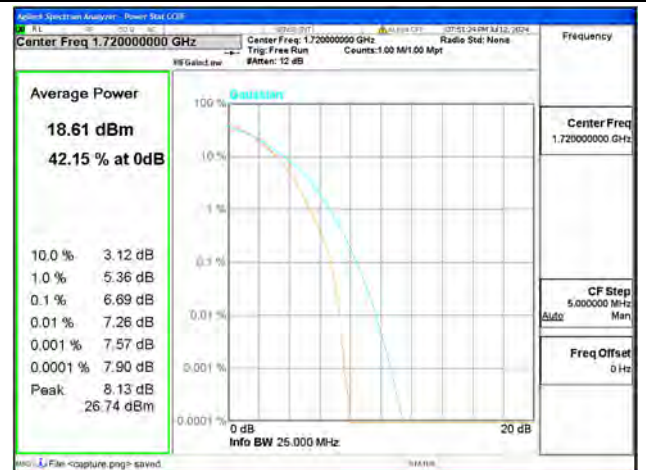
B4 / 15MHz / High CH / 64QAM



B4 / 20MHz / Low CH / QPSK



B4 / 20MHz / Low CH / 16QAM



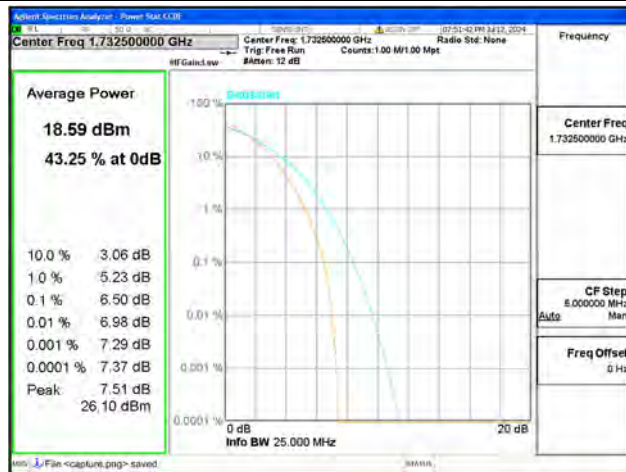
B4 / 20MHz / Low CH / 64QAM



B4 / 20MHz / Mid CH / QPSK



B4 / 20MHz / Mid CH / 16QAM



B4 / 20MHz / Mid CH / 64QAM



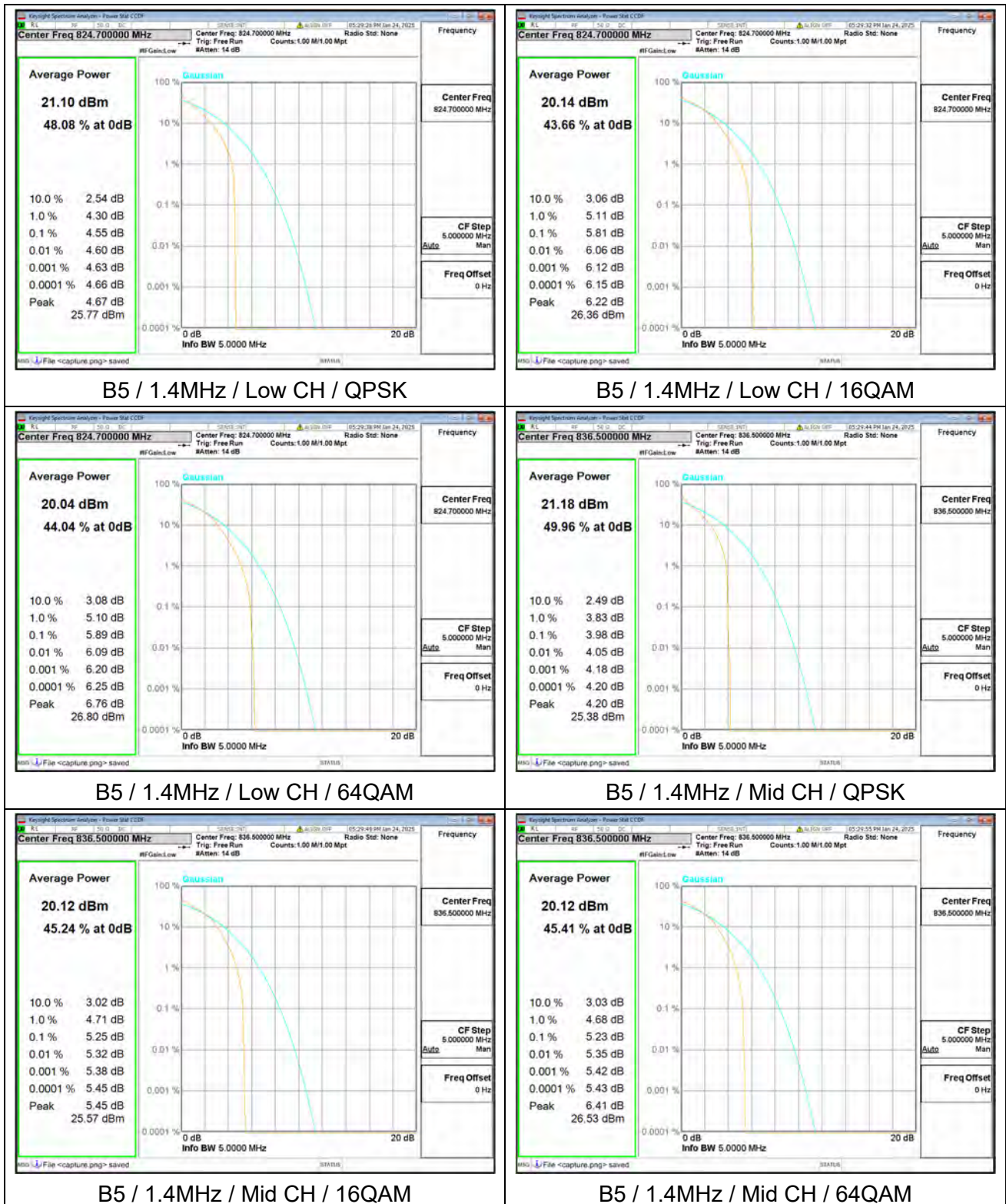
B4 / 20MHz / High CH / QPSK

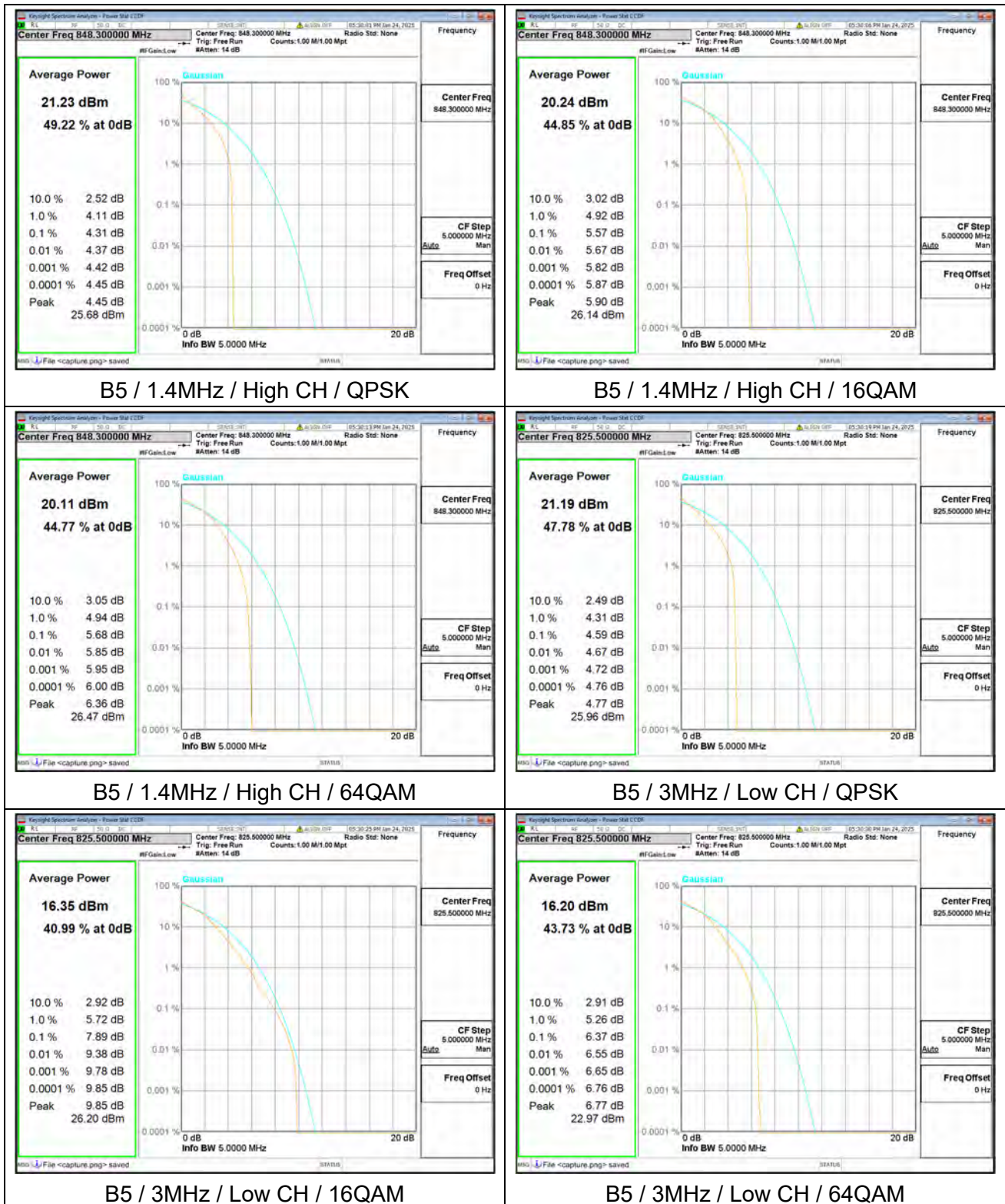


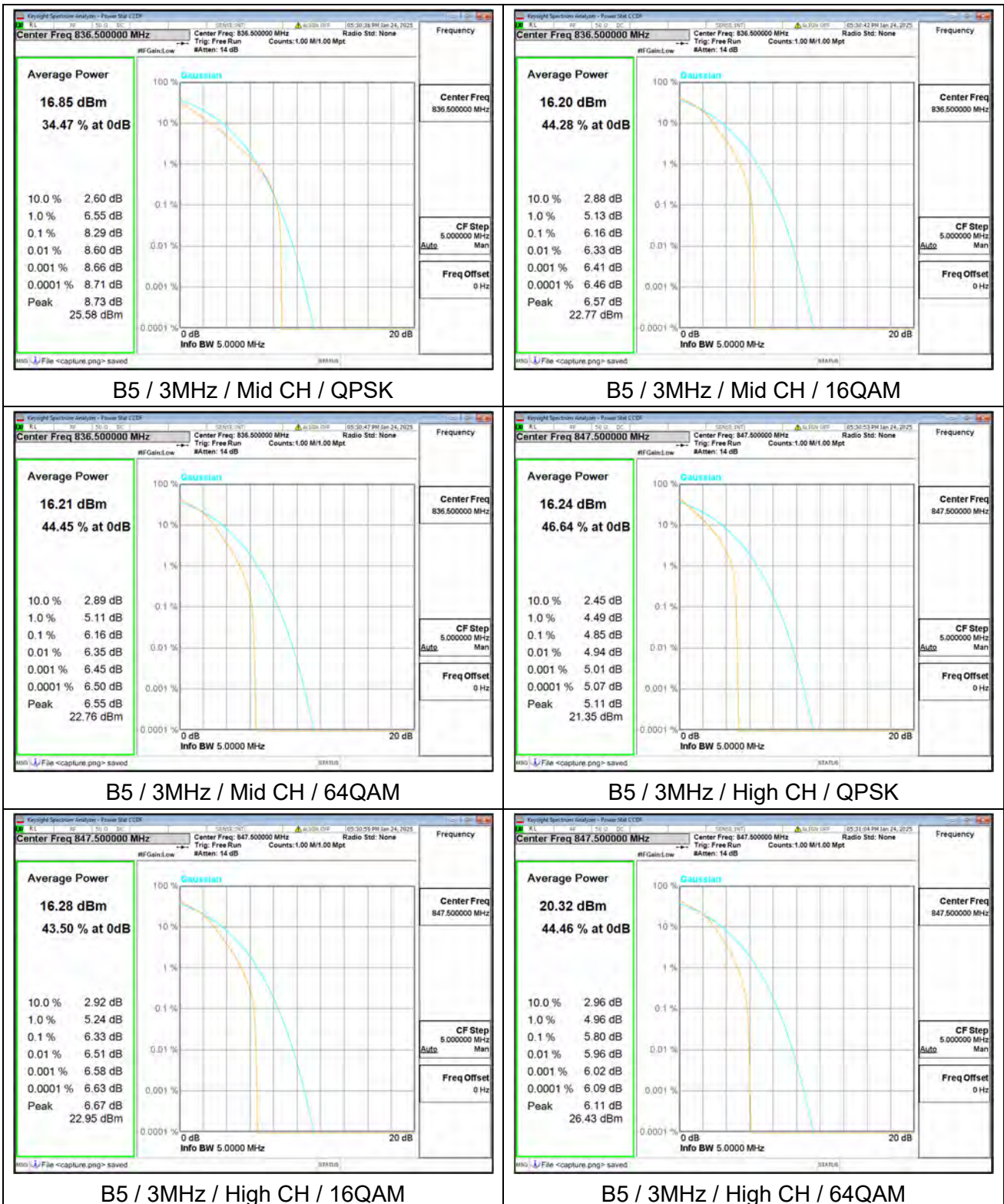
B4 / 20MHz / High CH / 16QAM

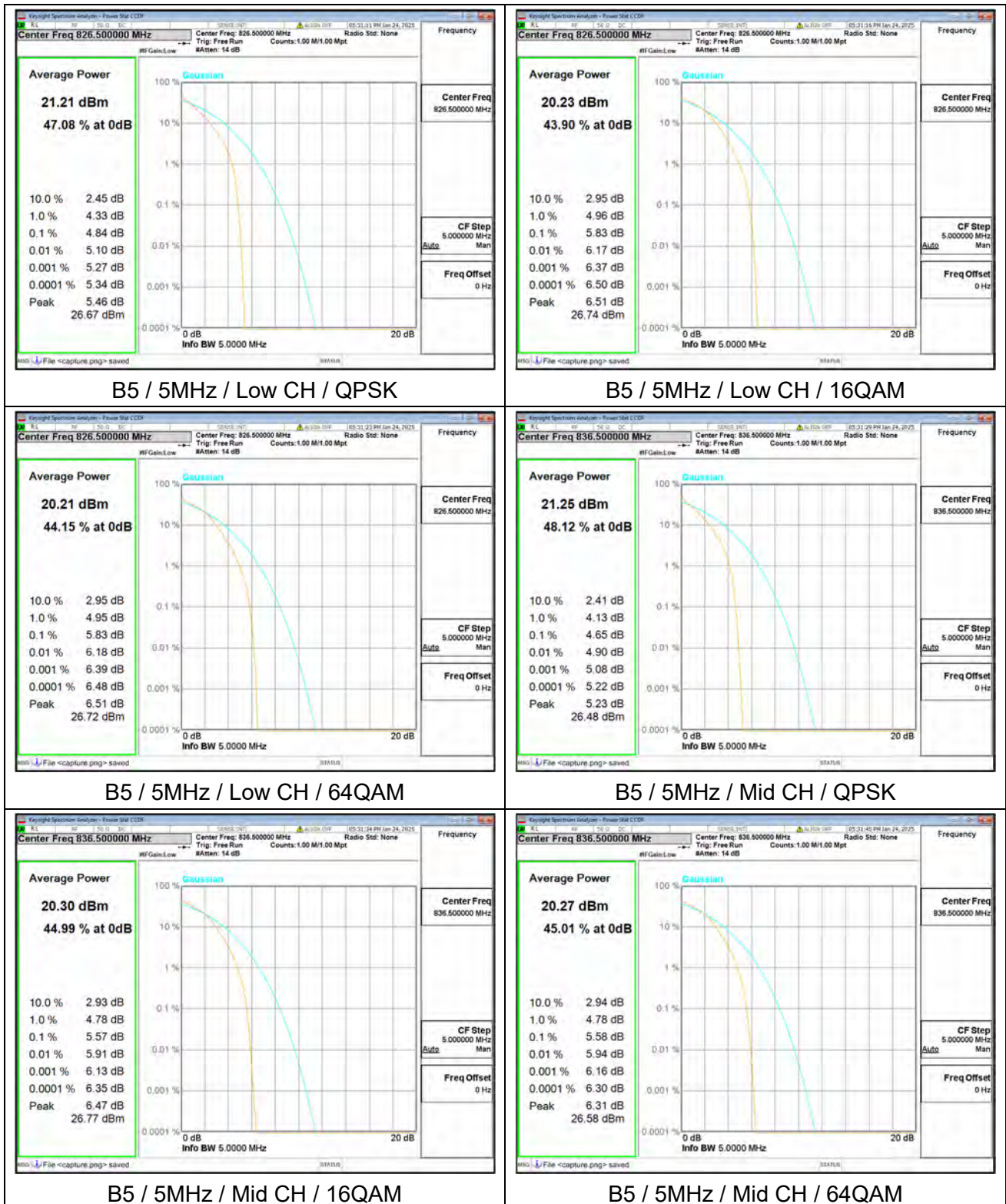


B4 / 20MHz / High CH / 64QAM



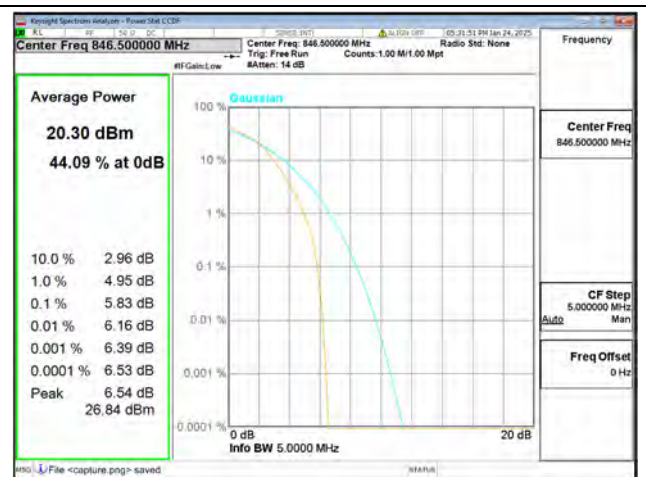








B5 / 5MHz / High CH / QPSK



B5 / 5MHz / High CH / 16QAM



B5 / 5MHz / High CH / 64QAM



B5 / 10MHz / Low CH / QPSK



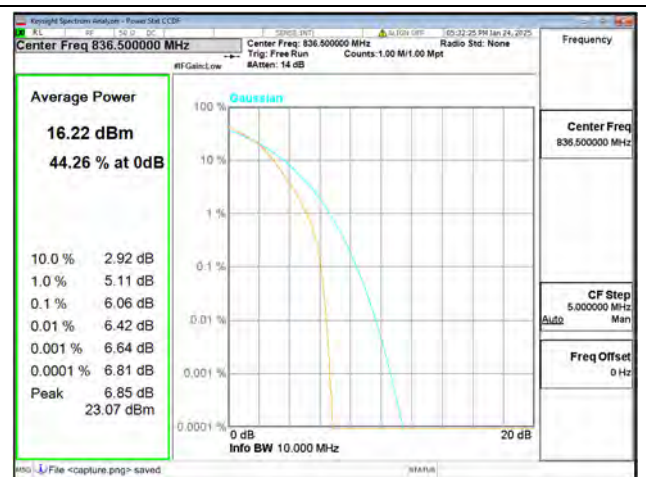
B5 / 10MHz / Low CH / 16QAM



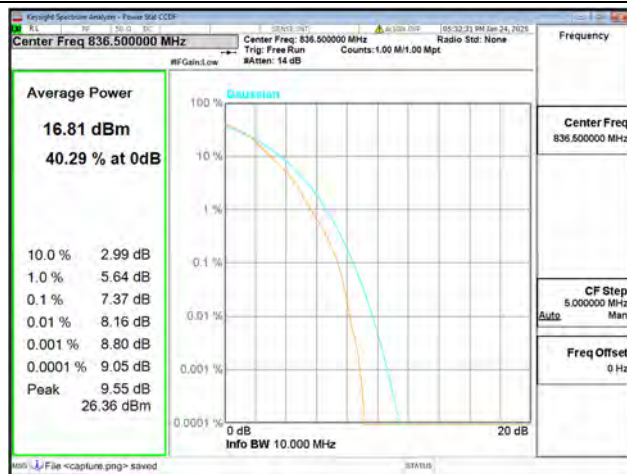
B5 / 10MHz / Low CH / 64QAM



B5 / 10MHz / Mid CH / QPSK



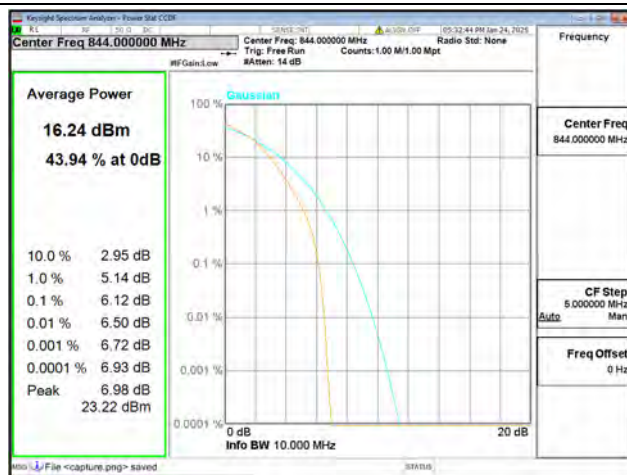
B5 / 10MHz / Mid CH / 16QAM



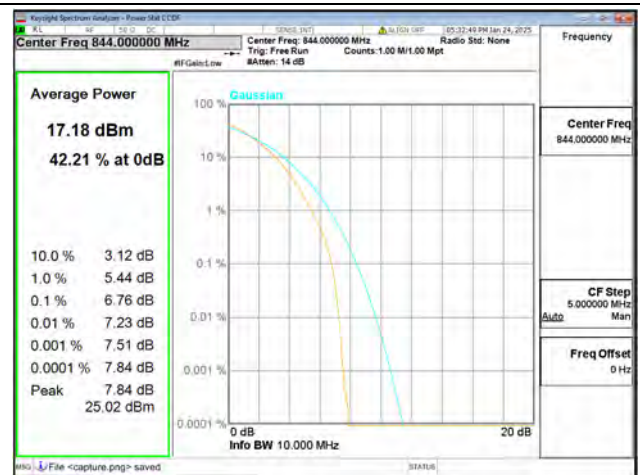
B5 / 10MHz / Mid CH / 64QAM



B5 / 10MHz / High CH / QPSK



B5 / 10MHz / High CH / 16QAM



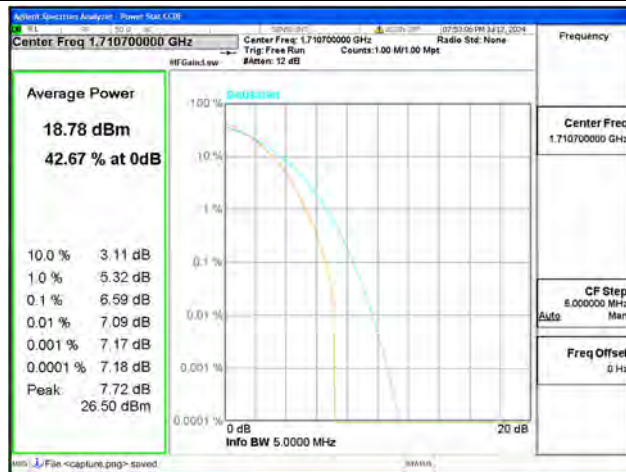
B5 / 10MHz / High CH / 64QAM



B66 / 1.4MHz / Low CH / QPSK



B66 / 1.4MHz / Low CH / 16QAM



B66 / 1.4MHz / Low CH / 64QAM



B66 / 1.4MHz / Mid CH / QPSK



B66 / 1.4MHz / Mid CH / 16QAM



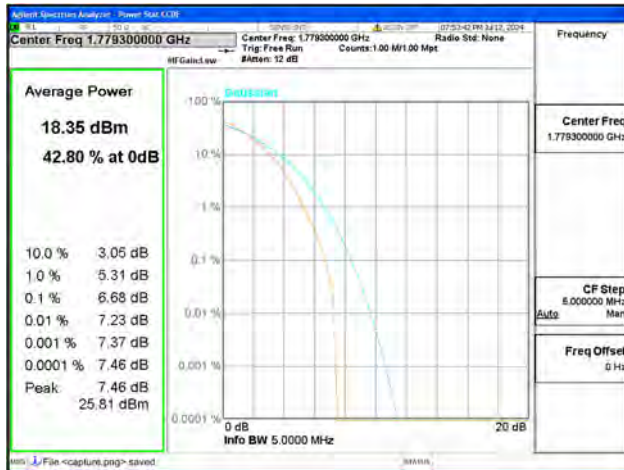
B66 / 1.4MHz / Mid CH / 64QAM



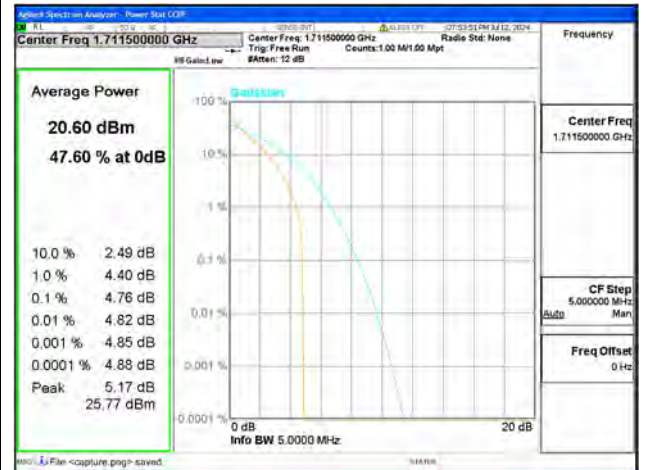
B66 / 1.4MHz / High CH / QPSK



B66 / 1.4MHz / High CH / 16QAM



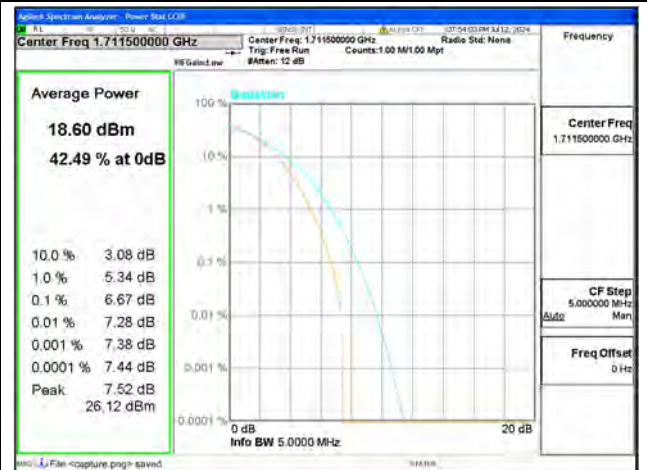
B66 / 1.4MHz / High CH / 64QAM



B66 / 3MHz / Low CH / QPSK



B66 / 3MHz / Low CH / 16QAM



B66 / 3MHz / Low CH / 64QAM



B66 / 3MHz / Mid CH / QPSK



B66 / 3MHz / Mid CH / 16QAM



B66 / 3MHz / Mid CH / 64QAM



B66 / 3MHz / High CH / QPSK



B66 / 3MHz / High CH / 16QAM



B66 / 3MHz / High CH / 64QAM



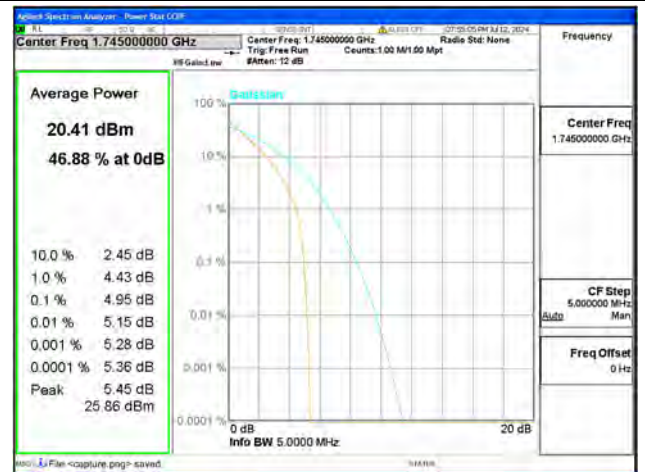
B66 / 5MHz / Low CH / QPSK



B66 / 5MHz / Low CH / 16QAM



B66 / 5MHz / Low CH / 64QAM



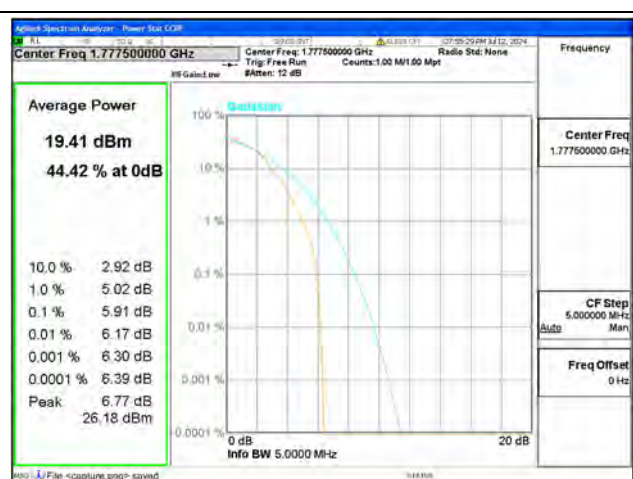
B66 / 5MHz / Mid CH / QPSK



B66 / 5MHz / Mid CH / 16QAM



B66 / 5MHz / Mid CH / 64QAM

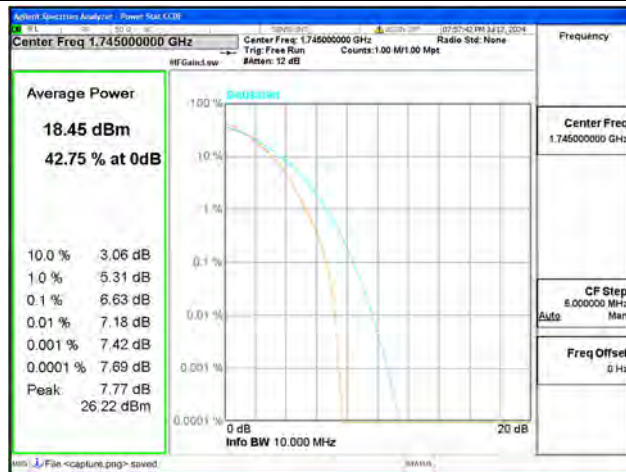




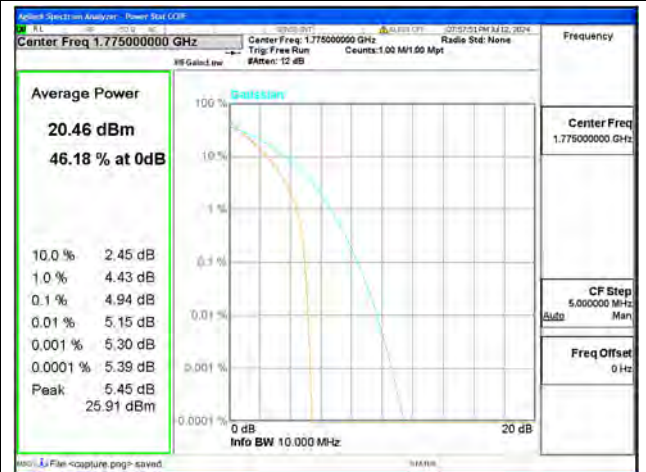
B66 / 10MHz / Mid CH / QPSK



B66 / 10MHz / Mid CH / 16QAM



B66 / 10MHz / Mid CH / 64QAM



B66 / 10MHz / High CH / QPSK



B66 / 10MHz / High CH / 16QAM



B66 / 10MHz / High CH / 64QAM



B66 / 15MHz / Low CH / QPSK



B66 / 15MHz / Low CH / 16QAM



B66 / 15MHz / Low CH / 64QAM



B66 / 15MHz / Mid CH / QPSK



B66 / 15MHz / Mid CH / 16QAM



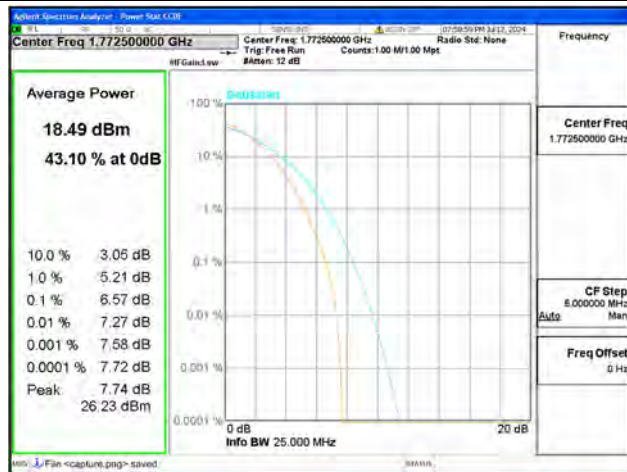
B66 / 15MHz / Mid CH / 64QAM



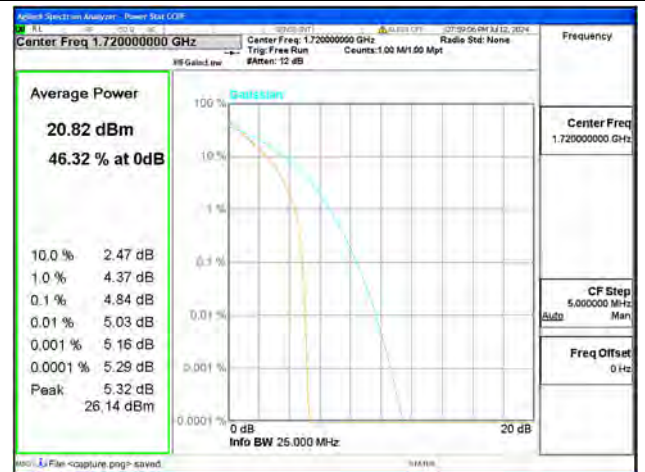
B66 / 15MHz / High CH / QPSK



B66 / 15MHz / High CH / 16QAM



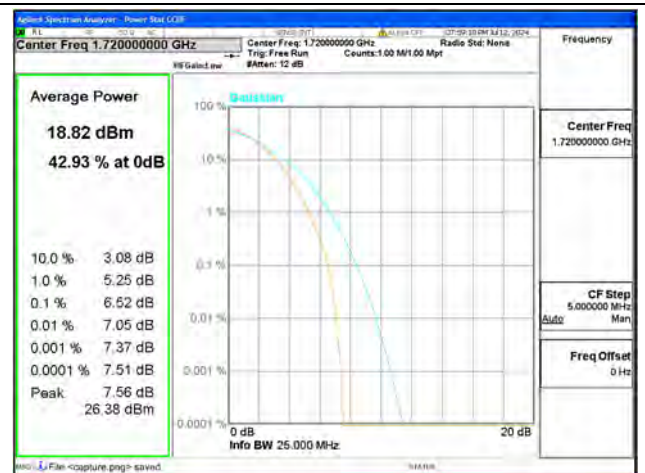
B66 / 15MHz / High CH / 64QAM



B66 / 20MHz / Low CH / QPSK



B66 / 20MHz / Low CH / 16QAM



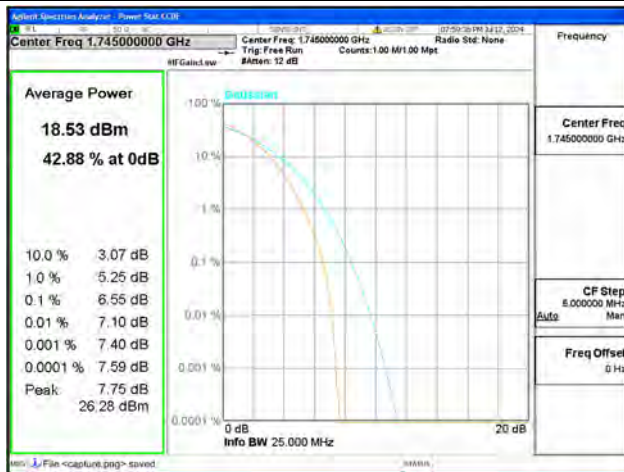
B66 / 20MHz / Low CH / 64QAM



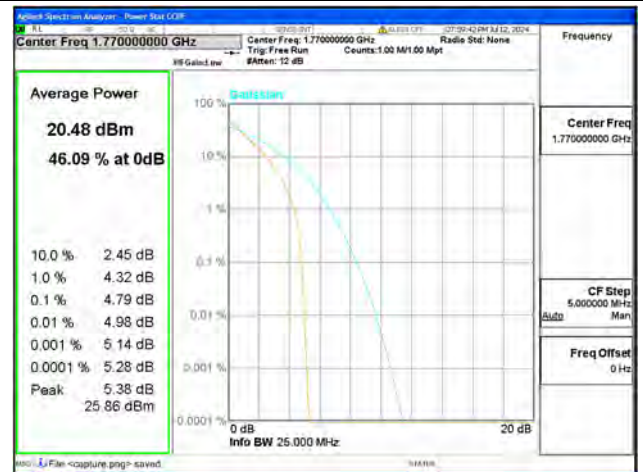
B66 / 20MHz / Mid CH / QPSK



B66 / 20MHz / Mid CH / 16QAM



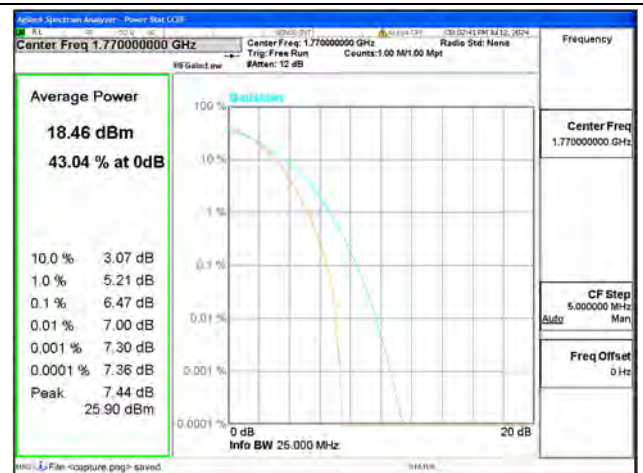
B66 / 20MHz / Mid CH / 64QAM



B66 / 20MHz / High CH / QPSK



B66 / 20MHz / High CH / 16QAM



B66 / 20MHz / High CH / 64QAM

2.5. Conducted Spurious Emissions

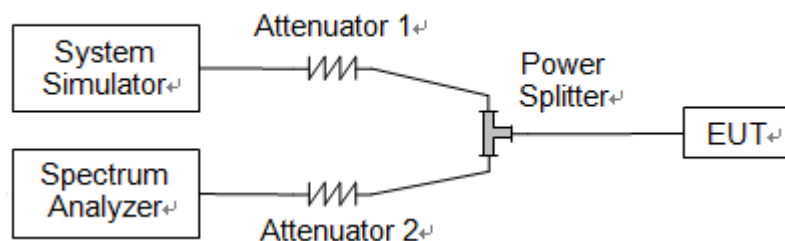
2.5.1. Requirement

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.

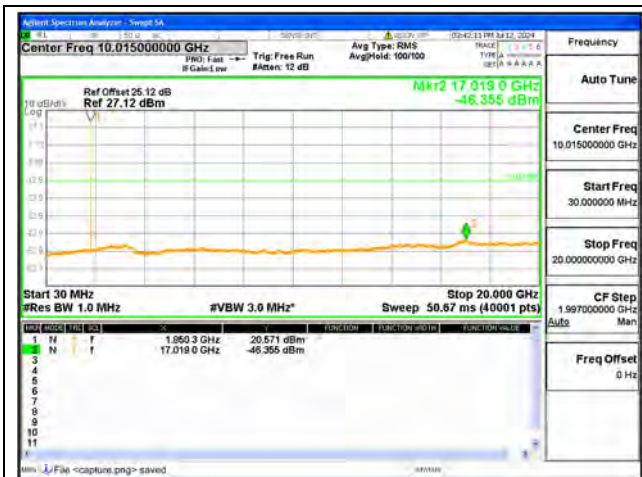
2.5.3. Test Procedure

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



2.5.4. Test Result

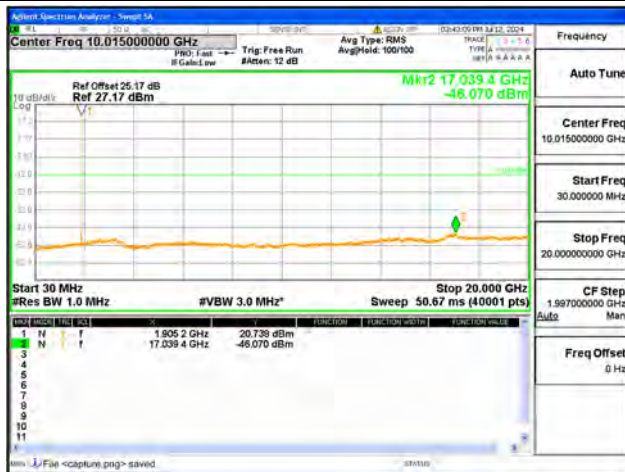




B2 / 5MHz / Low CH / QPSK



B2 / 5MHz / Mid CH / QPSK



B2 / 5MHz / High CH / QPSK



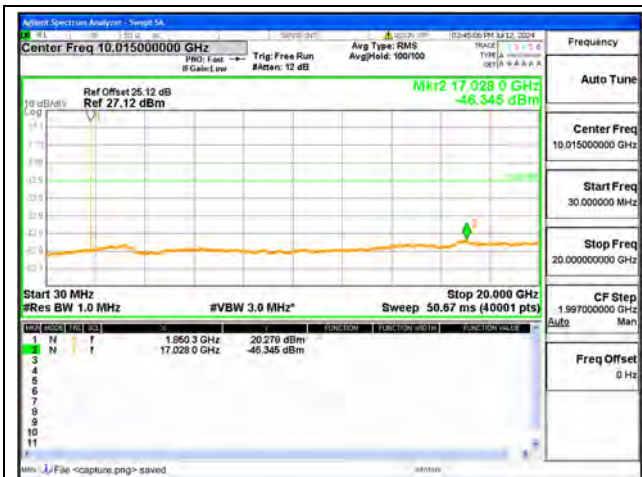
B2 / 10MHz / Low CH / QPSK



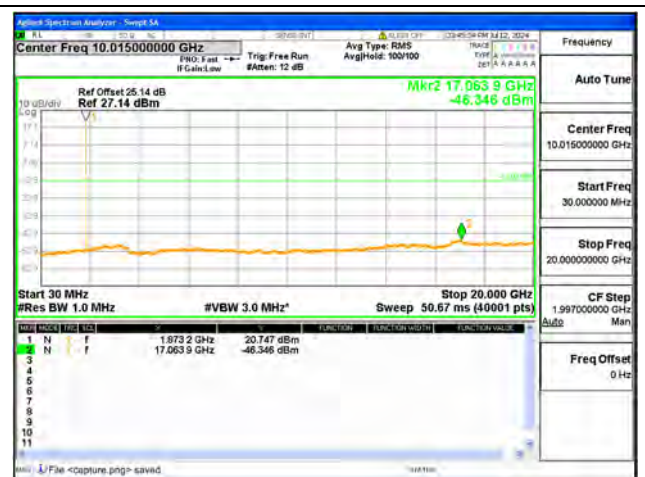
B2 / 10MHz / Mid CH / QPSK



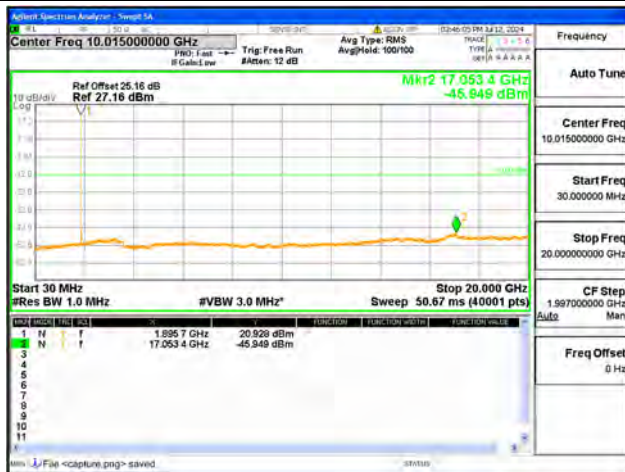
B2 / 10MHz / High CH / QPSK



B2 / 15MHz / Low CH / QPSK



B2 / 15MHz / Mid CH / QPSK



B2 / 15MHz / High CH / QPSK



B2 / 20MHz / Low CH / QPSK



B2 / 20MHz / Mid CH / QPSK



B2 / 20MHz / High CH / QPSK



B4 / 1.4MHz / Low CH / QPSK



B4 / 1.4MHz / Mid CH / QPSK



B4 / 1.4MHz / High CH / QPSK



B4 / 3MHz / Low CH / QPSK



B4 / 3MHz / Mid CH / QPSK



B4 / 3MHz / High CH / QPSK



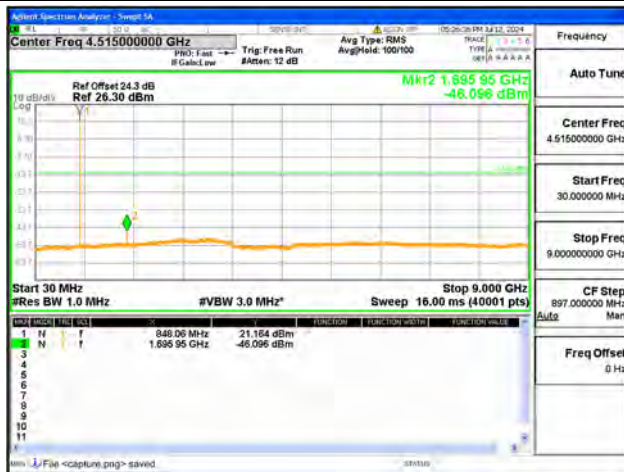




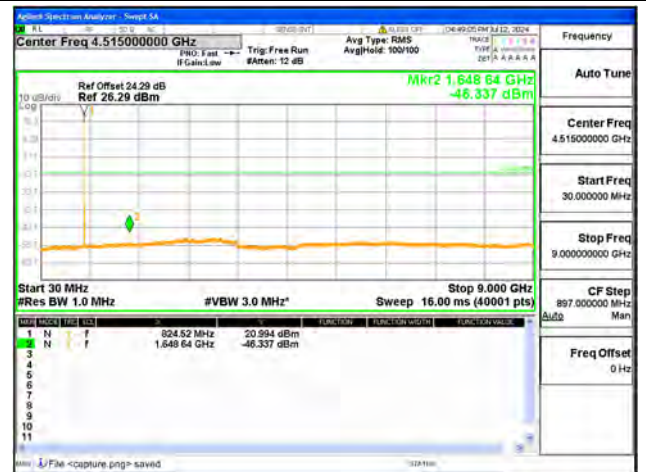
B5 / 1.4MHz / Low CH / QPSK



B5 / 1.4MHz / Mid CH / QPSK



B5 / 1.4MHz / High CH / QPSK



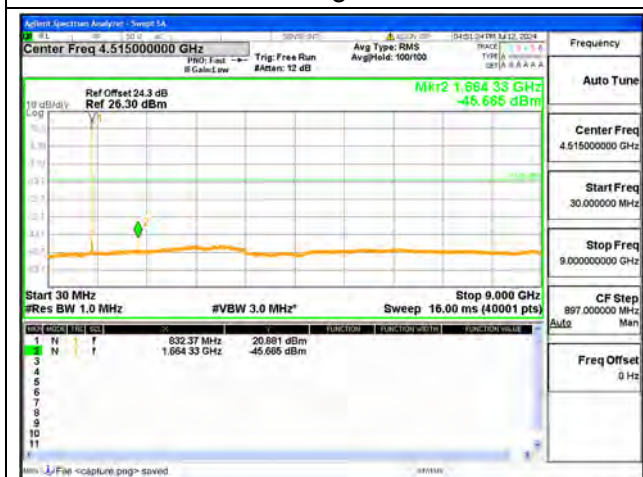
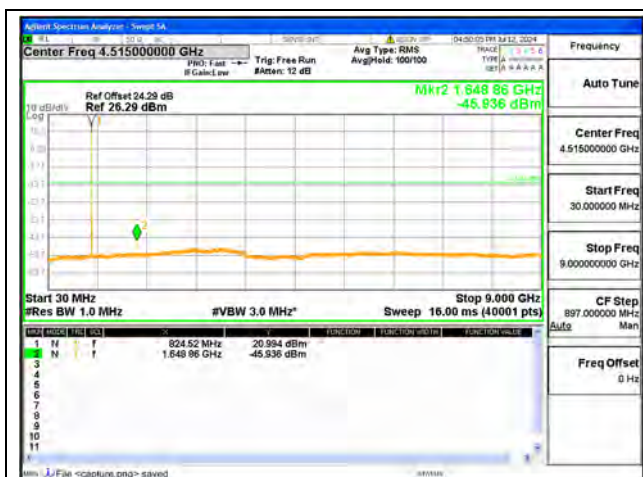
B5 / 3MHz / Low CH / QPSK



B5 / 3MHz / Mid CH / QPSK

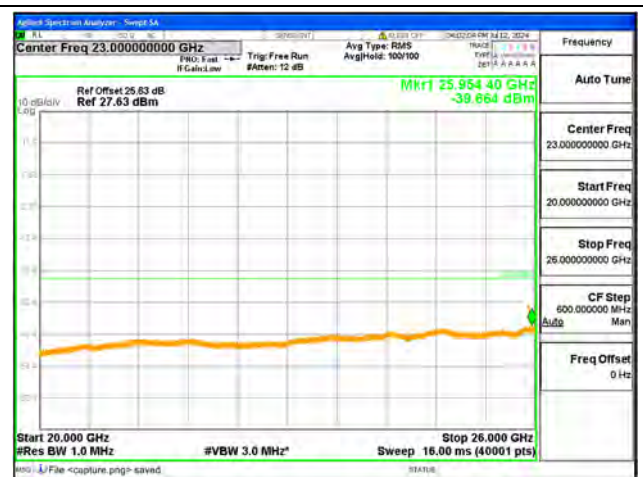


B5 / 3MHz / High CH / QPSK

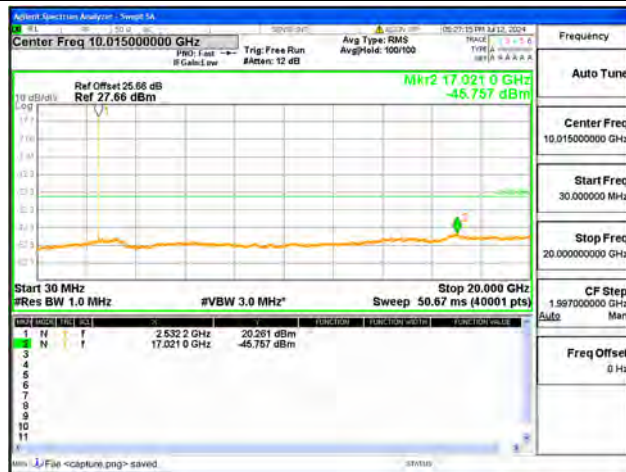




B7-30M-20G / 5MHz / Low CH / QPSK



B7-20G-26G / 5MHz / Low CH / QPSK



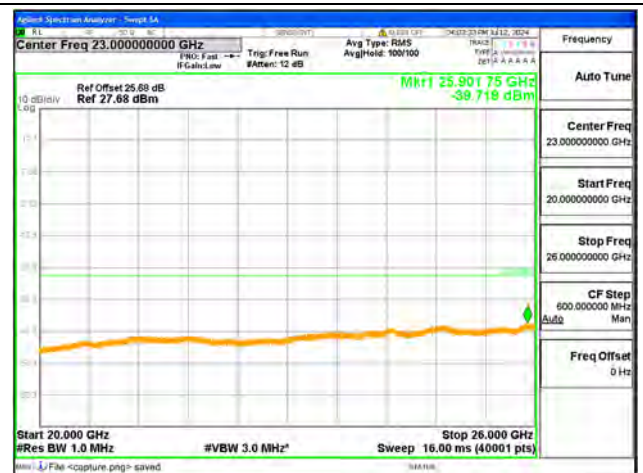
B7-30M-20G / 5MHz / Mid CH / QPSK



B7-20G-26G / 5MHz / Mid CH / QPSK



B7-30M-20G / 5MHz / High CH / QPSK



B7-20G-26G / 5MHz / High CH / QPSK



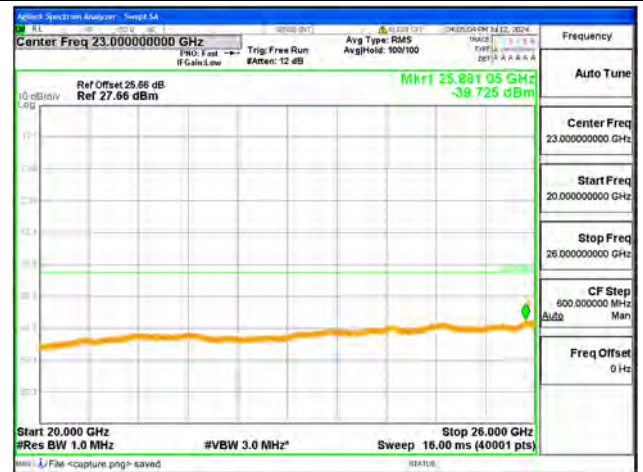
B7-30M-20G / 10MHz / Low CH / QPSK



B7-20G-26G / 10MHz / Low CH / QPSK



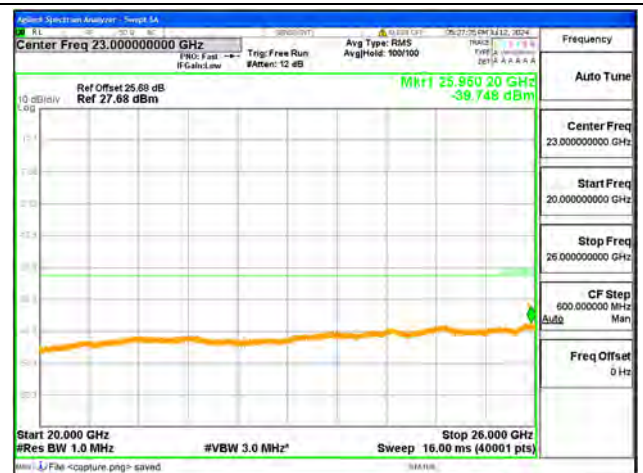
B7-30M-20G / 10MHz / Mid CH / QPSK



B7-20G-26G / 10MHz / Mid CH / QPSK



B7-30M-20G / 10MHz / High CH / QPSK



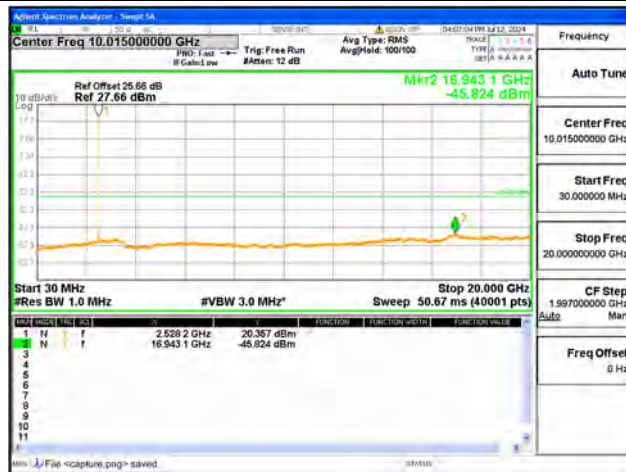
B7-20G-26G / 10MHz / High CH / QPSK



B7-30M-20G / 15MHz / Low CH / QPSK



B7-20G-26G / 15MHz / Low CH / QPSK



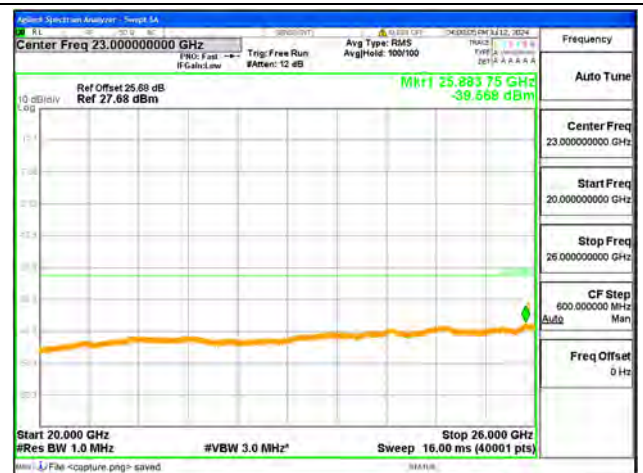
B7-30M-20G / 15MHz / Mid CH / QPSK



B7-20G-26G / 15MHz / Mid CH / QPSK



B7-30M-20G / 15MHz / High CH / QPSK



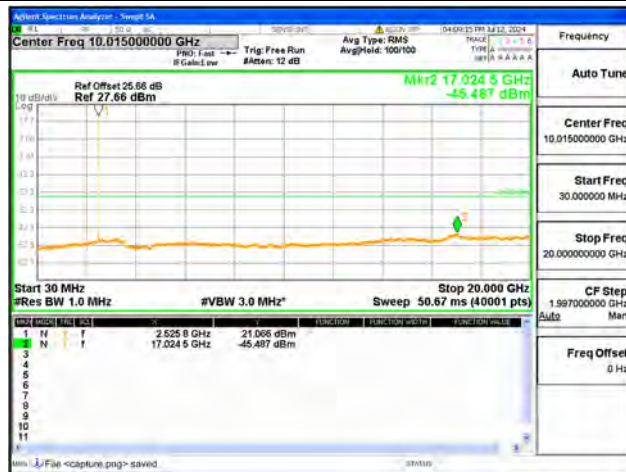
B7-20G-26G / 15MHz / High CH / QPSK



B7-30M-20G / 20MHz / Low CH / QPSK



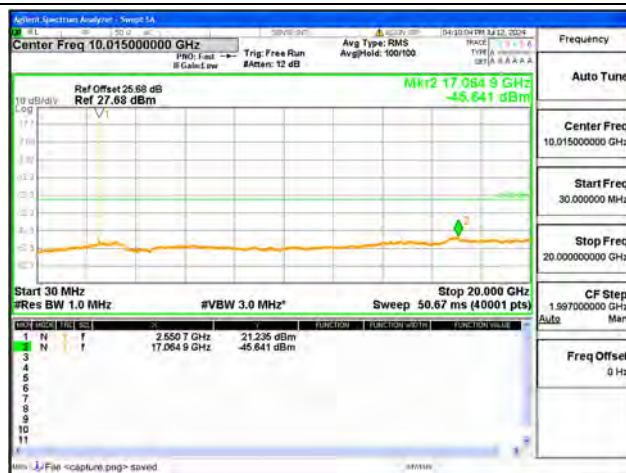
B7-20G-26G / 20MHz / Low CH / QPSK



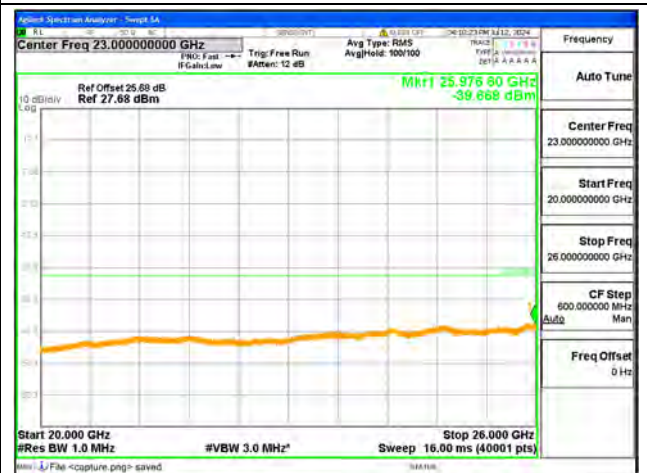
B7-30M-20G / 20MHz / Mid CH / QPSK



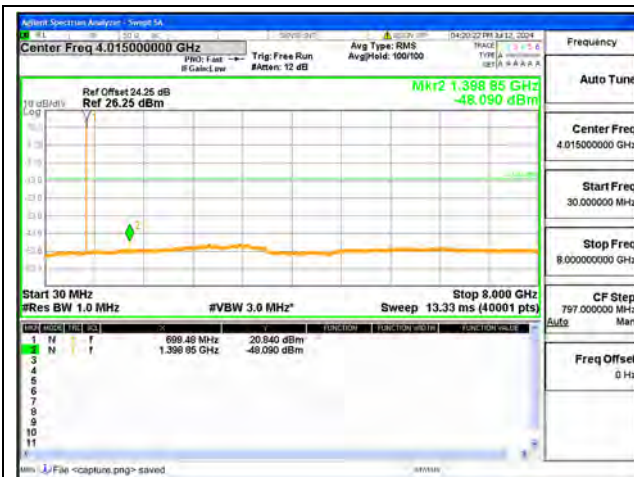
B7-20G-26G / 20MHz / Mid CH / QPSK



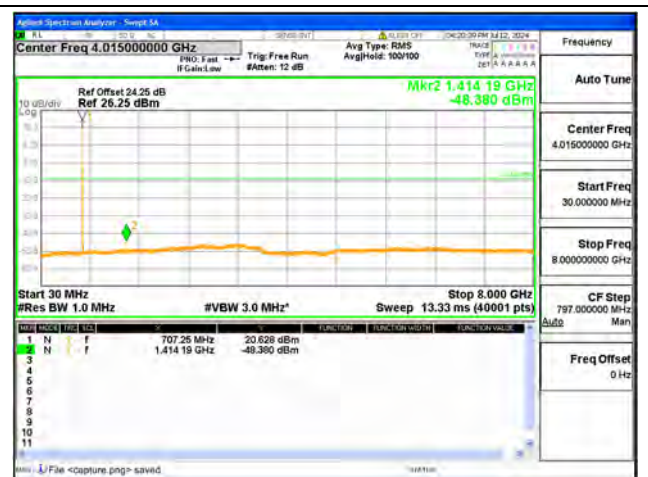
B7-30M-20G / 20MHz / High CH / QPSK



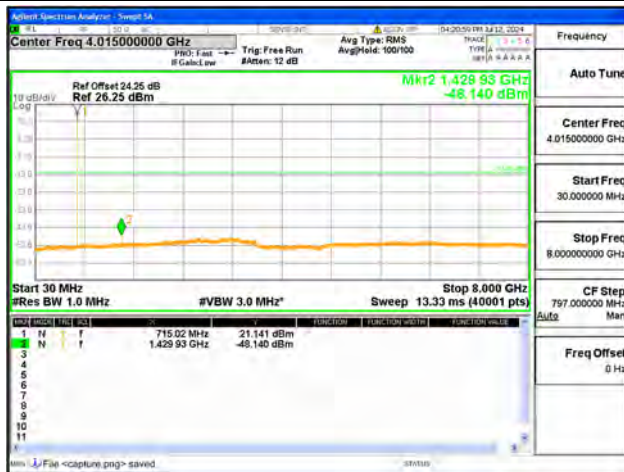
B7-20G-26G / 20MHz / High CH / QPSK



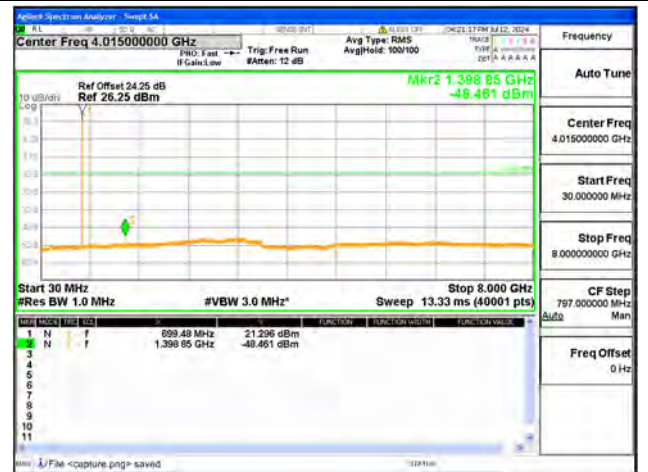
B12 / 1.4MHz / Low CH / QPSK



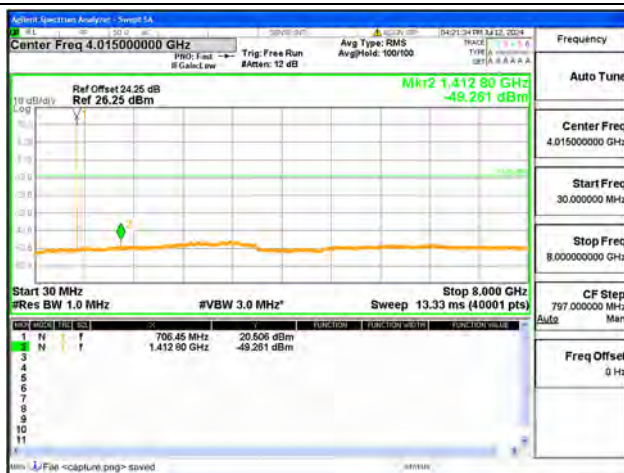
B12 / 1.4MHz / Mid CH / QPSK



B12 / 1.4MHz / High CH / QPSK



B12 / 3MHz / Low CH / QPSK

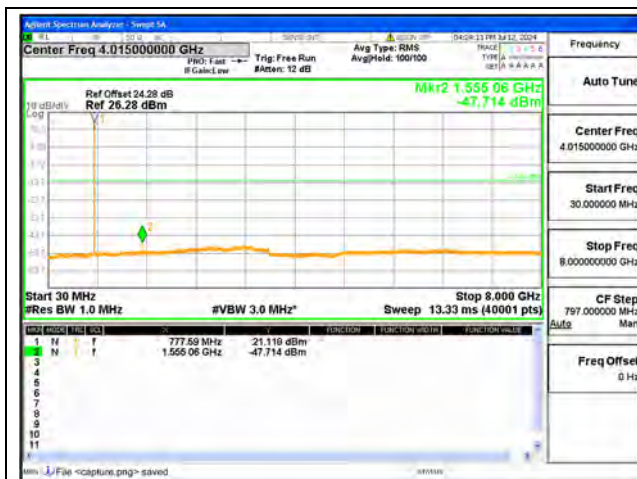


B12 / 3MHz / Mid CH / QPSK

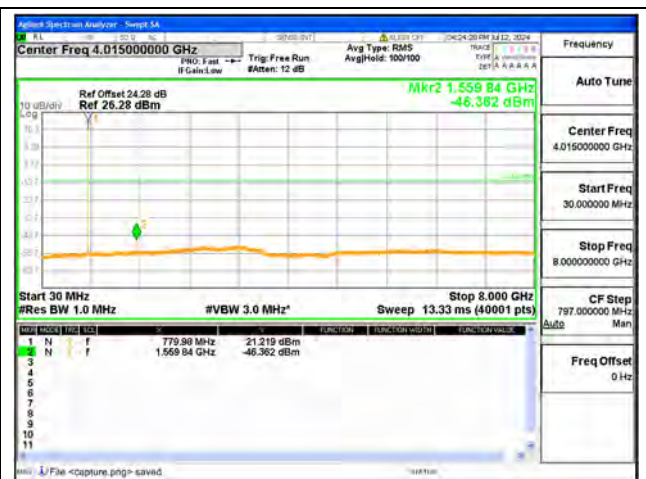


B12 / 3MHz / High CH / QPSK

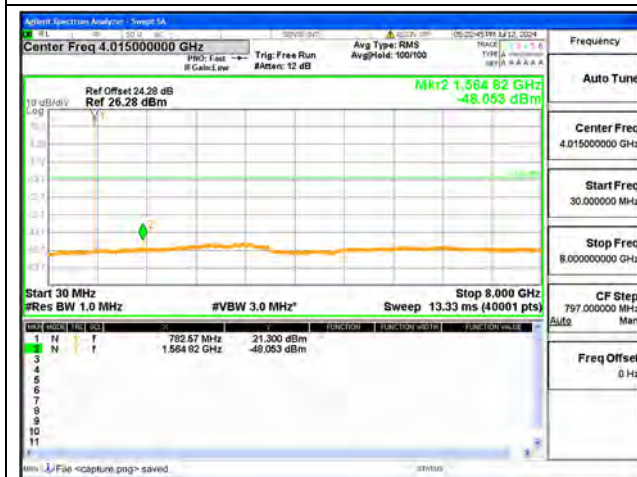




B13 / 5MHz / Low CH / QPSK



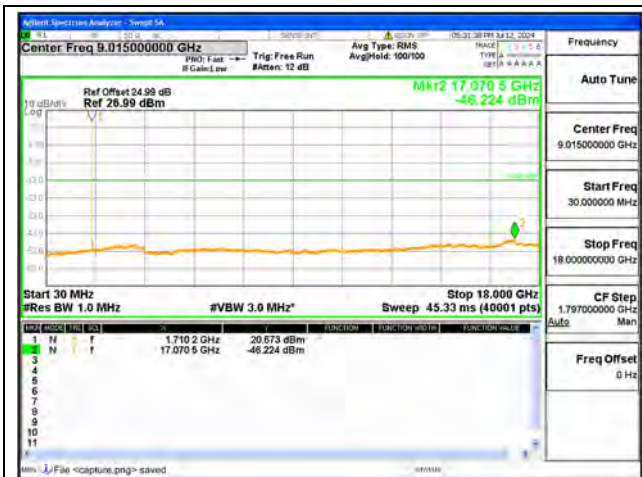
B13 / 5MHz / Mid CH / QPSK



B13 / 5MHz / High CH / QPSK



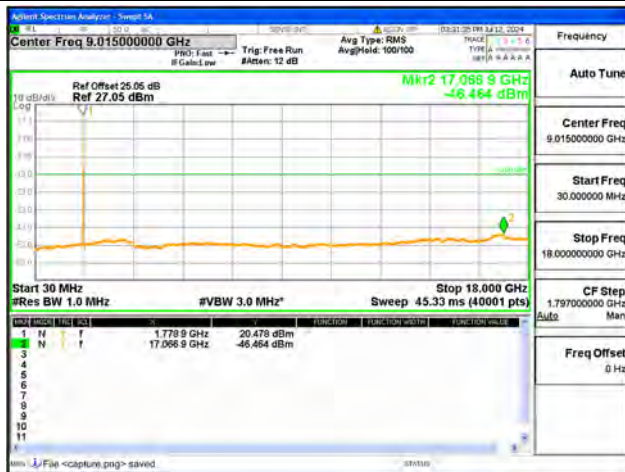
B13 / 10MHz / Mid CH / QPSK



B66 / 1.4MHz / Low CH / QPSK



B66 / 1.4MHz / Mid CH / QPSK



B66 / 1.4MHz / High CH / QPSK



B66 / 3MHz / Low CH / QPSK



B66 / 3MHz / Mid CH / QPSK



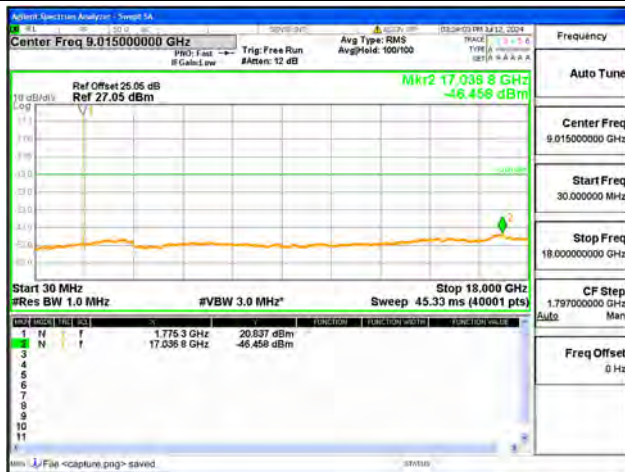
B66 / 3MHz / High CH / QPSK



B66 / 5MHz / Low CH / QPSK



B66 / 5MHz / Mid CH / QPSK



B66 / 5MHz / High CH / QPSK



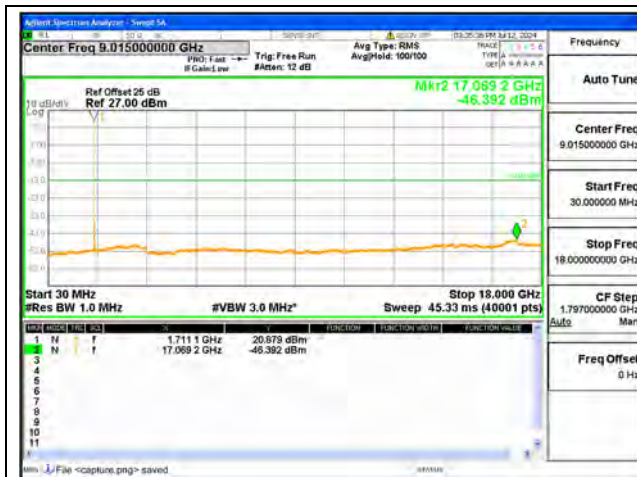
B66 / 10MHz / Low CH / QPSK



B66 / 10MHz / Mid CH / QPSK



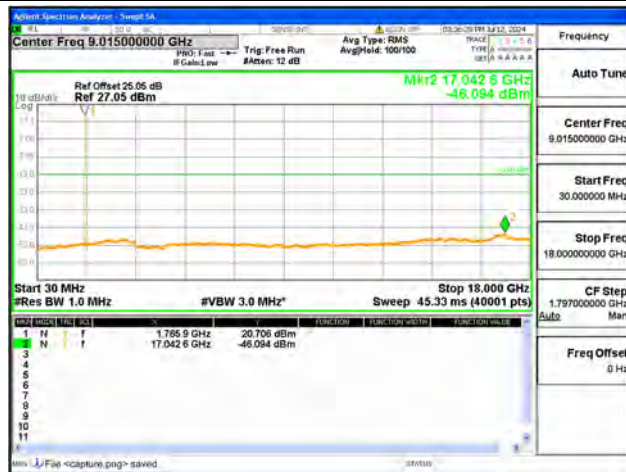
B66 / 10MHz / High CH / QPSK



B66 / 15MHz / Low CH / QPSK



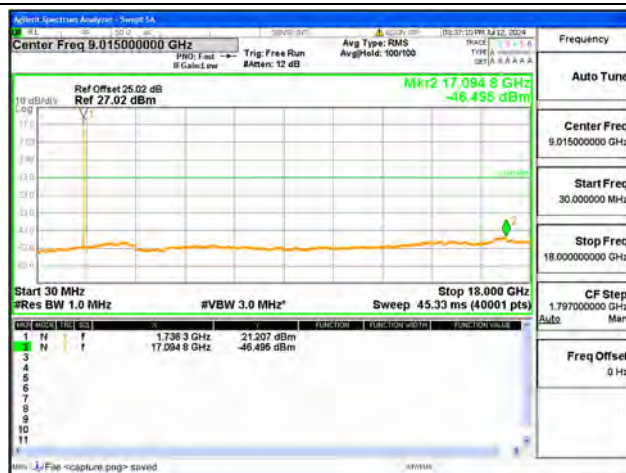
B66 / 15MHz / Mid CH / QPSK



B66 / 15MHz / High CH / QPSK



B66 / 20MHz / Low CH / QPSK



B66 / 20MHz / Mid CH / QPSK



B66 / 20MHz / High CH / QPSK



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, 66

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 than $43 + 10 \log(P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log(P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS

or EBS licensees.

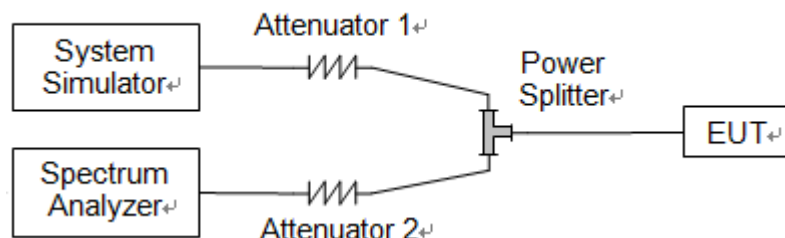
Band 12

According to FCC section 27.53(g), for operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

Band 13

According to FCC section 27.53(c)(2), any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least $43 + 10 \log (P)$ dB in a 100kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed.

2.6.2. Description



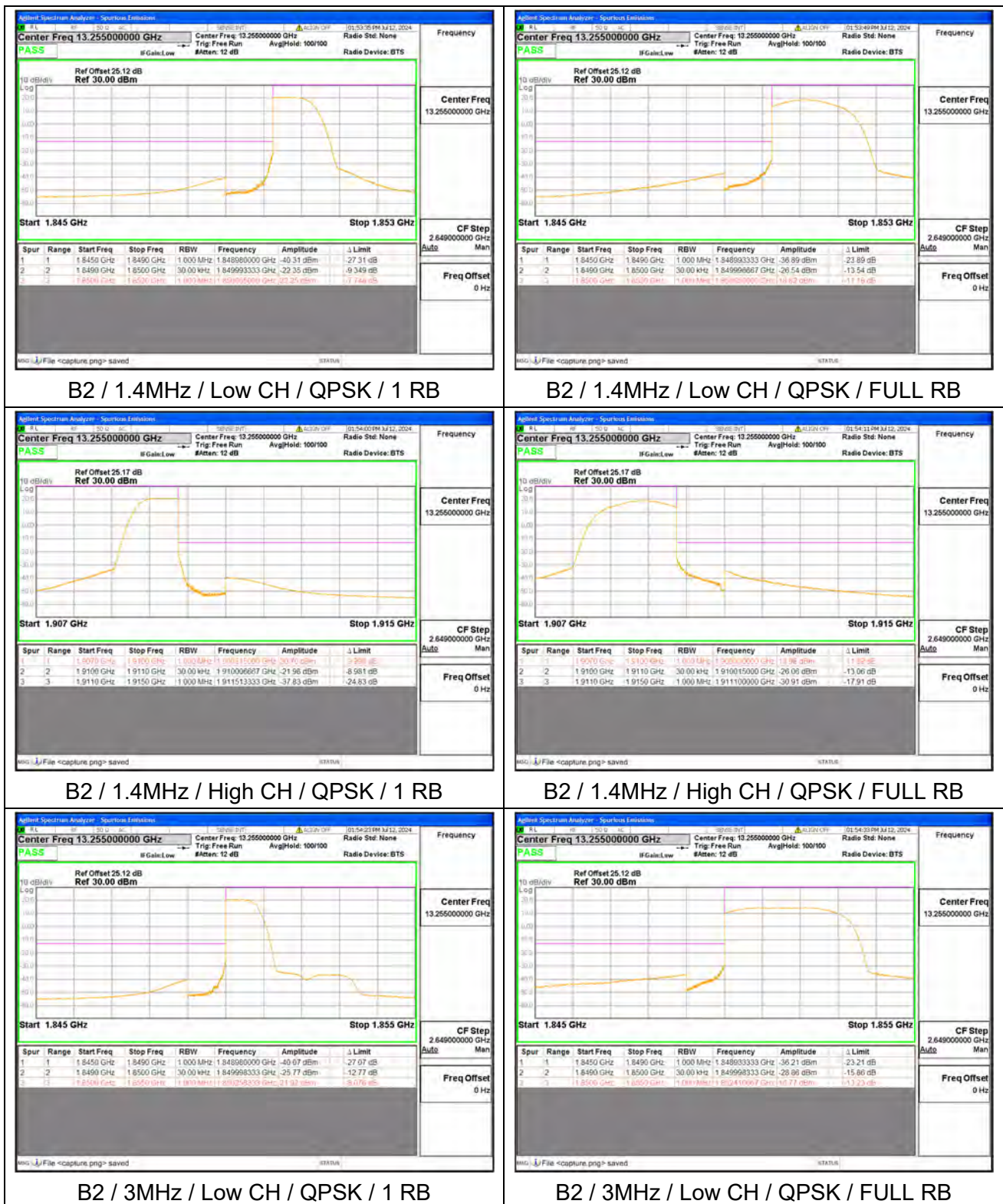
The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum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

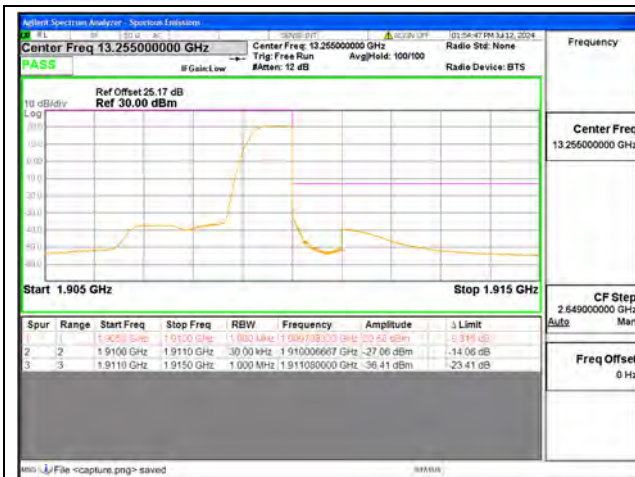
2.6.3. Test Procedure

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



2.6.4. Test Result

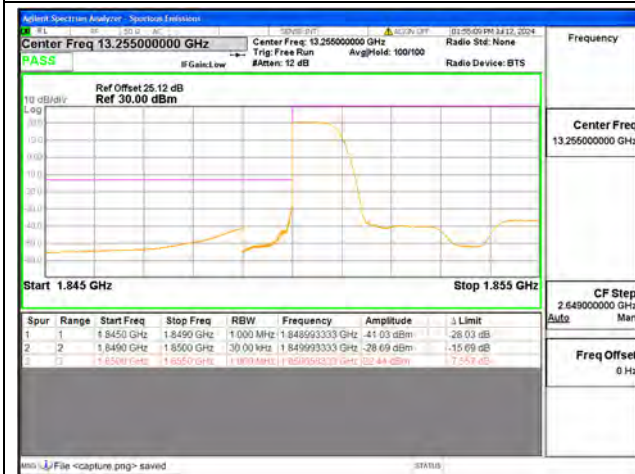




B2 / 3MHz / High CH / QPSK / 1 RB



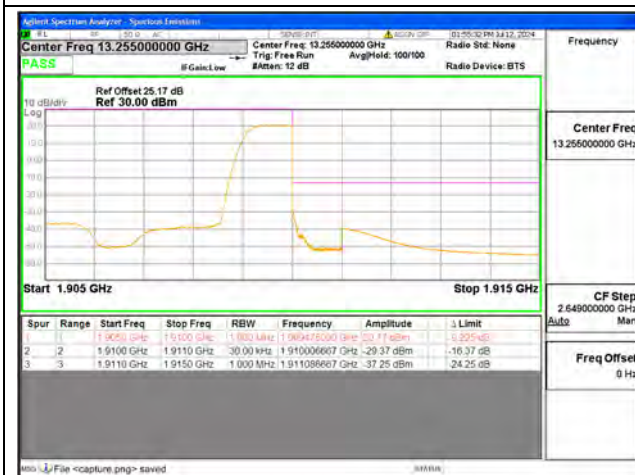
B2 / 3MHz / High CH / QPSK / FULL RB



B2 / 5MHz / Low CH / QPSK / 1 RB



B2 / 5MHz / Low CH / QPSK / FULL RB



B2 / 5MHz / High CH / QPSK / 1 RB



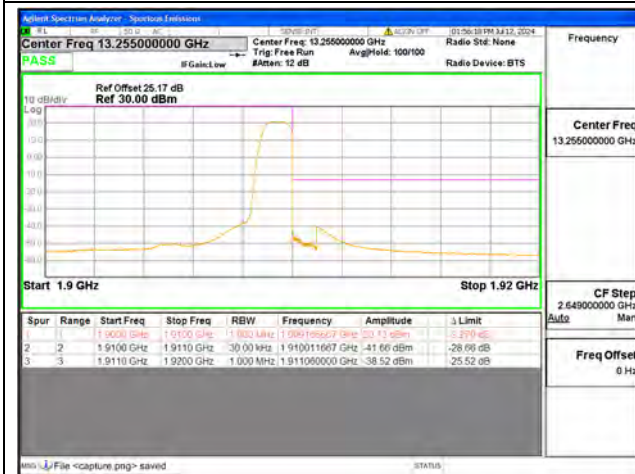
B2 / 5MHz / High CH / QPSK / FULL RB



B2 / 10MHz / Low CH / QPSK / 1 RB



B2 / 10MHz / Low CH / QPSK / FULL RB



B2 / 10MHz / High CH / QPSK / 1 RB



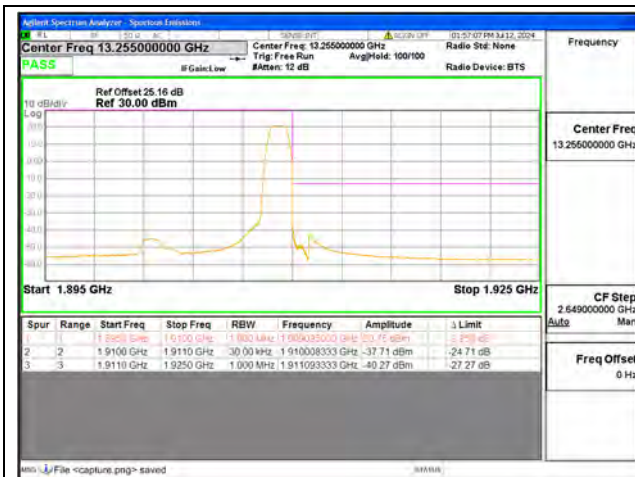
B2 / 10MHz / High CH / QPSK / FULL RB



B2 / 15MHz / Low CH / QPSK / 1 RB



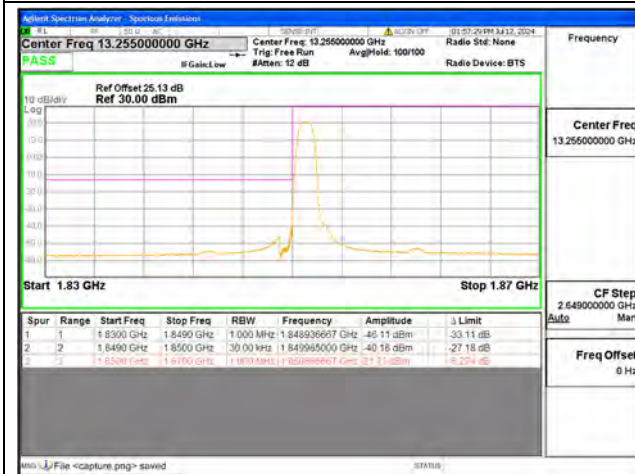
B2 / 15MHz / Low CH / QPSK / FULL RB



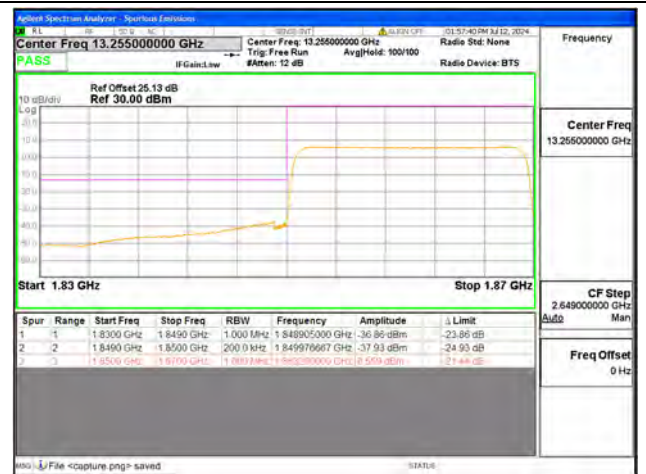
B2 / 15MHz / High CH / QPSK / 1 RB



B2 / 15MHz / High CH / QPSK / FULL RB



B2 / 20MHz / Low CH / QPSK / 1 RB



B2 / 20MHz / Low CH / QPSK / FULL RB



B2 / 20MHz / High CH / QPSK / 1 RB



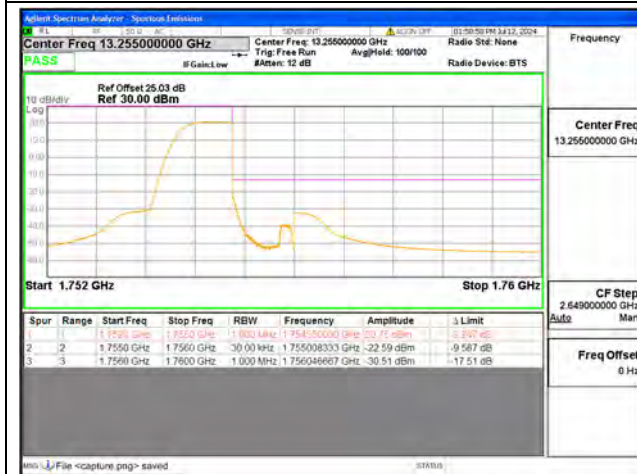
B2 / 20MHz / High CH / QPSK / FULL RB



B4 / 1.4MHz / Low CH / QPSK / 1 RB



B4 / 1.4MHz / Low CH / QPSK / FULL RB



B4 / 1.4MHz / High CH / QPSK / 1 RB



B4 / 1.4MHz / High CH / QPSK / FULL RB



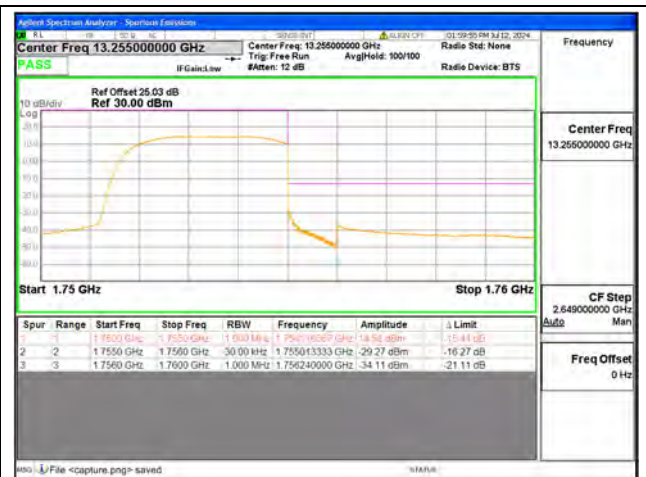
B4 / 3MHz / Low CH / QPSK / 1 RB



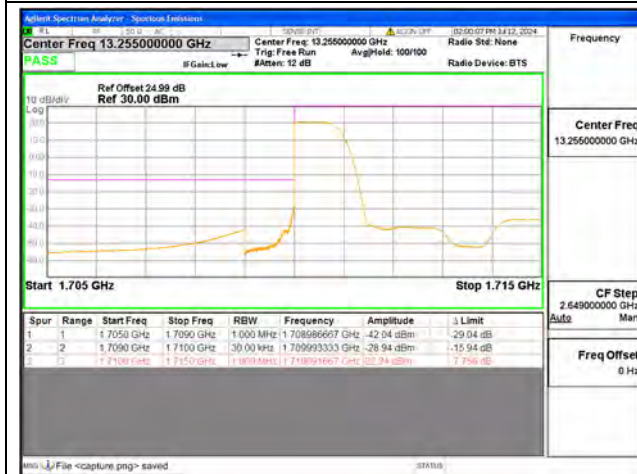
B4 / 3MHz / Low CH / QPSK / FULL RB



B4 / 3MHz / High CH / QPSK / 1 RB



B4 / 3MHz / High CH / QPSK / FULL RB



B4 / 5MHz / Low CH / QPSK / 1 RB



B4 / 5MHz / Low CH / QPSK / FULL RB



B4 / 5MHz / High CH / QPSK / 1 RB



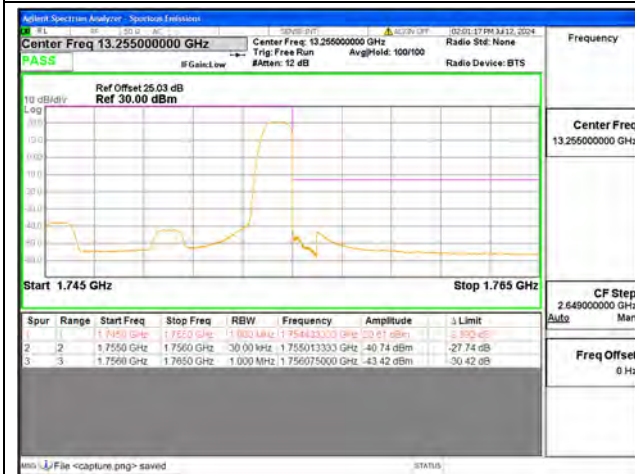
B4 / 5MHz / High CH / QPSK / FULL RB



B4 / 10MHz / Low CH / QPSK / 1 RB



B4 / 10MHz / Low CH / QPSK / FULL RB



B4 / 10MHz / High CH / QPSK / 1 RB



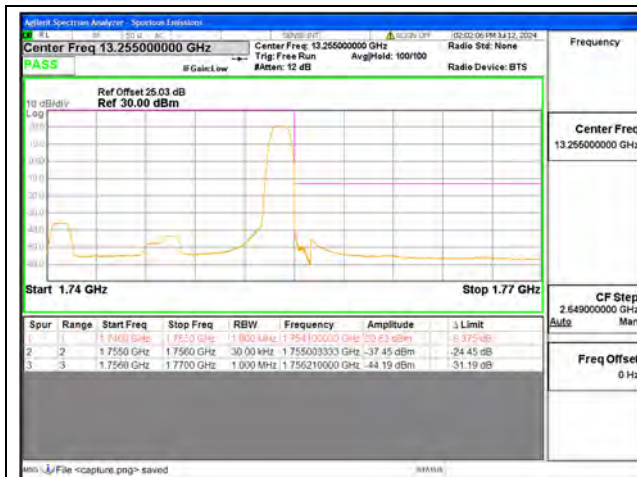
B4 / 10MHz / High CH / QPSK / FULL RB



B4 / 15MHz / Low CH / QPSK / 1 RB



B4 / 15MHz / Low CH / QPSK / FULL RB



B4 / 15MHz / High CH / QPSK / 1 RB



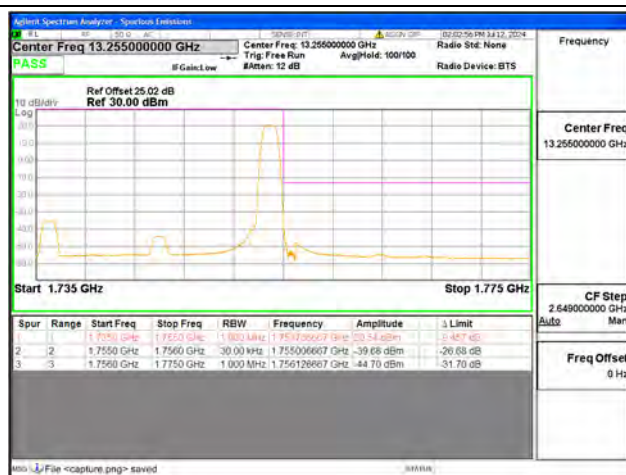
B4 / 15MHz / High CH / QPSK / FULL RB



B4 / 20MHz / Low CH / QPSK / 1 RB



B4 / 20MHz / Low CH / QPSK / FULL RB



B4 / 20MHz / High CH / QPSK / 1 RB



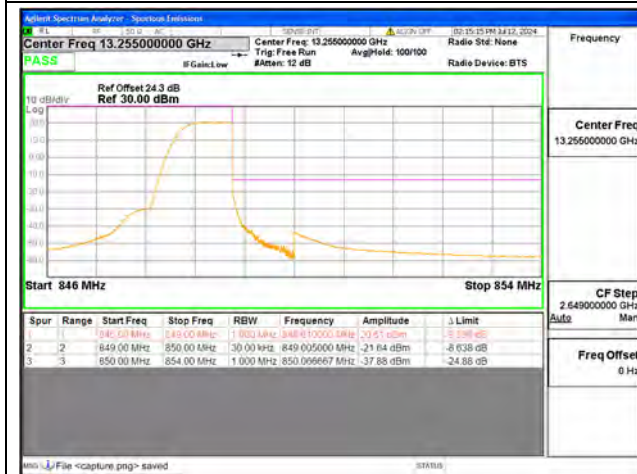
B4 / 20MHz / High CH / QPSK / FULL RB



B5 / 1.4MHz / Low CH / QPSK / 1 RB



B5 / 1.4MHz / Low CH / QPSK / FULL RB



B5 / 1.4MHz / High CH / QPSK / 1 RB



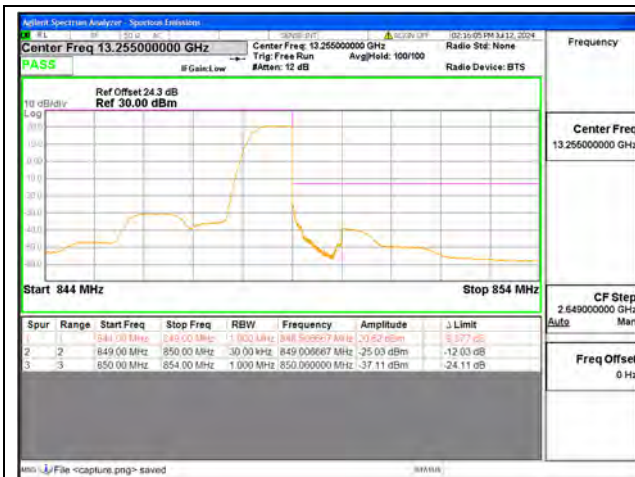
B5 / 1.4MHz / High CH / QPSK / FULL RB



B5 / 3MHz / Low CH / QPSK / 1 RB



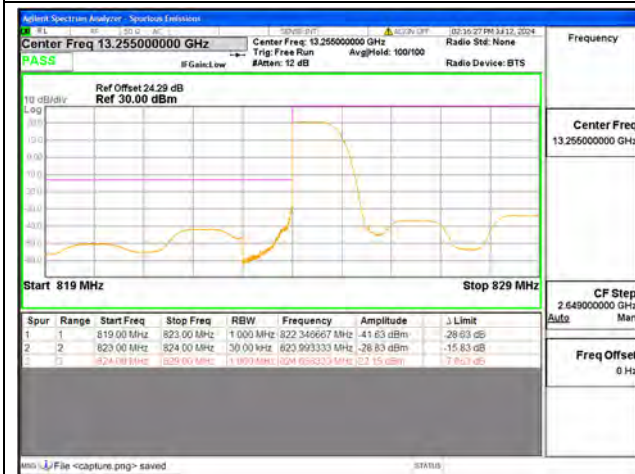
B5 / 3MHz / Low CH / QPSK / FULL RB



B5 / 3MHz / High CH / QPSK / 1 RB



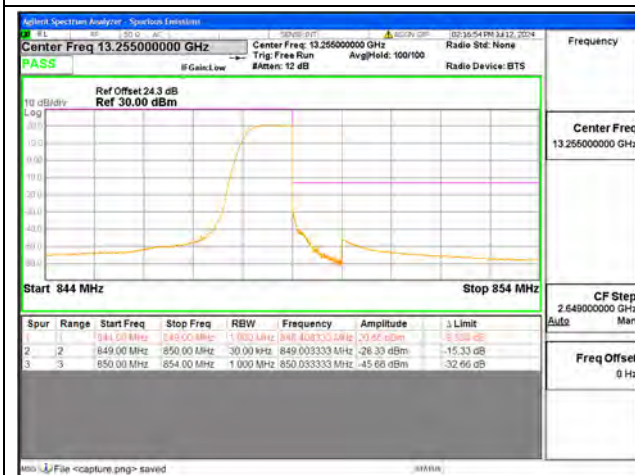
B5 / 3MHz / High CH / QPSK / FULL RB



B5 / 5MHz / Low CH / QPSK / 1 RB



B5 / 5MHz / Low CH / QPSK / FULL RB



B5 / 5MHz / High CH / QPSK / 1 RB



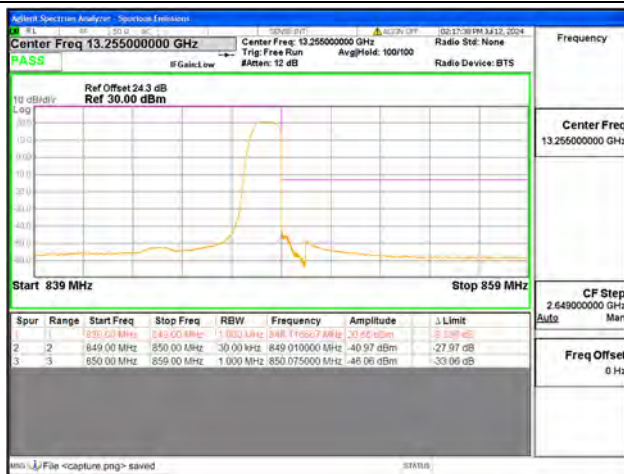
B5 / 5MHz / High CH / QPSK / FULL RB



B5 / 10MHz / Low CH / QPSK / 1 RB



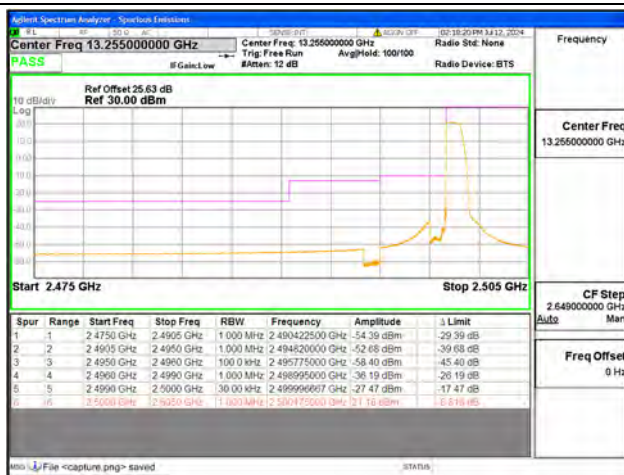
B5 / 10MHz / Low CH / QPSK / FULL RB



B5 / 10MHz / High CH / QPSK / 1 RB



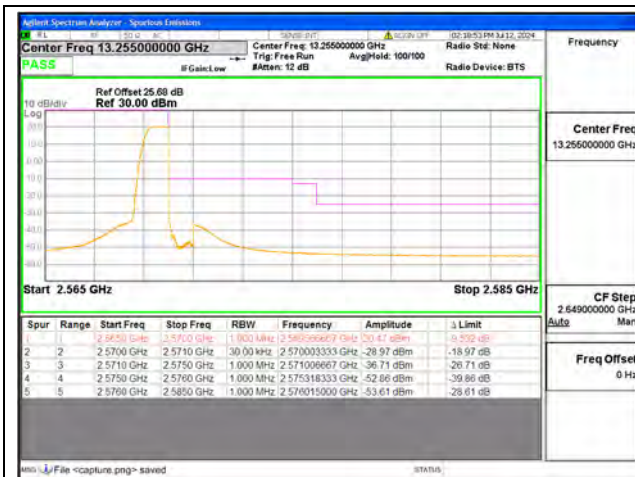
B5 / 10MHz / High CH / QPSK / FULL RB



B7 / 5MHz / Low CH / QPSK / 1 RB



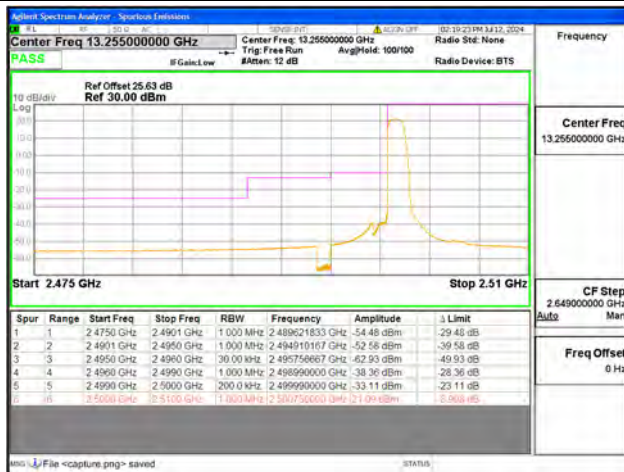
B7 / 5MHz / Low CH / QPSK / FULL RB



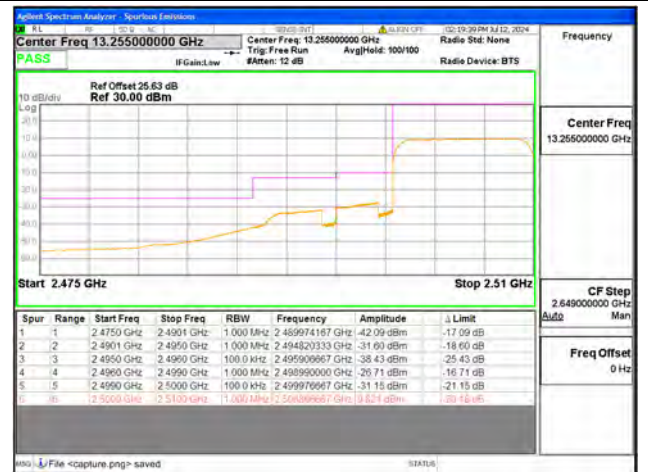
B7 / 5MHz / High CH / QPSK / 1 RB



B7 / 5MHz / High CH / QPSK / FULL RB



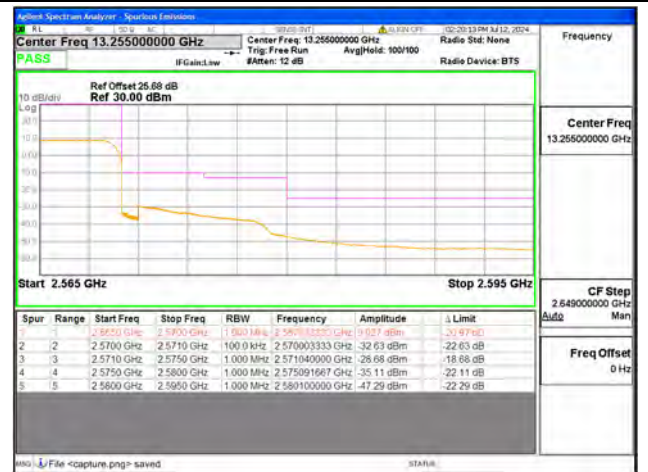
B7 / 10MHz / Low CH / QPSK / 1 RB



B7 / 10MHz / Low CH / QPSK / FULL RB



B7 / 10MHz / High CH / QPSK / 1 RB



B7 / 10MHz / High CH / QPSK / FULL RB



B7 / 15MHz / Low CH / QPSK / 1 RB



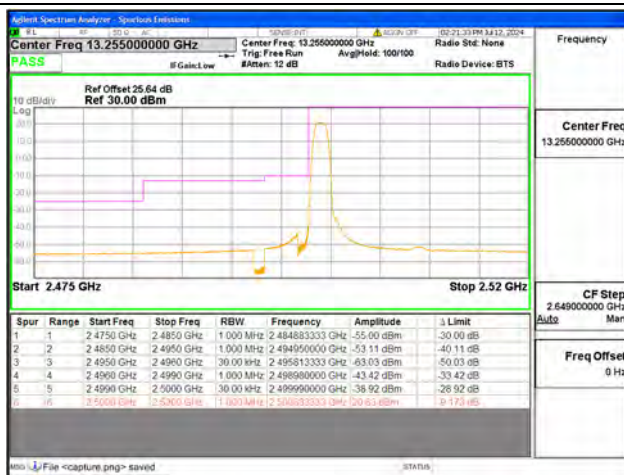
B7 / 15MHz / Low CH / QPSK / FULL RB



B7 / 15MHz / High CH / QPSK / 1 RB



B7 / 15MHz / High CH / QPSK / FULL RB



B7 / 20MHz / Low CH / QPSK / 1 RB



B7 / 20MHz / Low CH / QPSK / FULL RB

