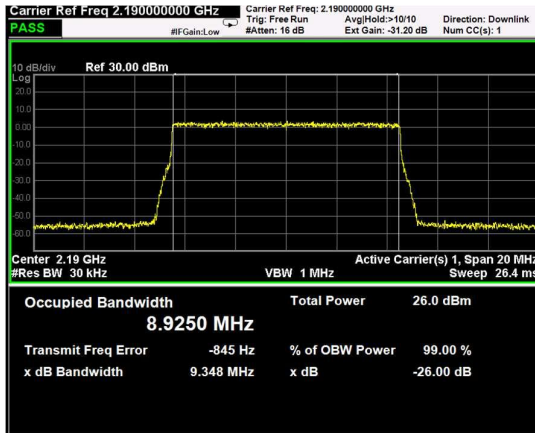
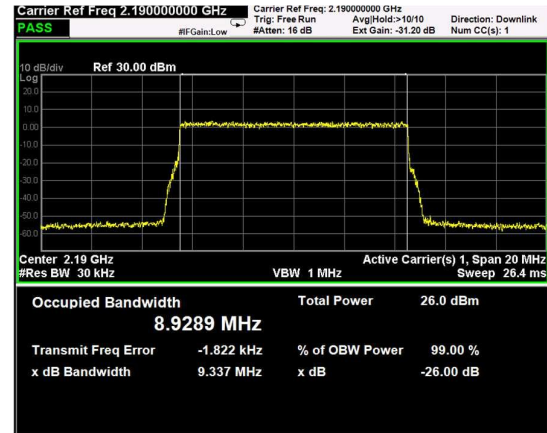
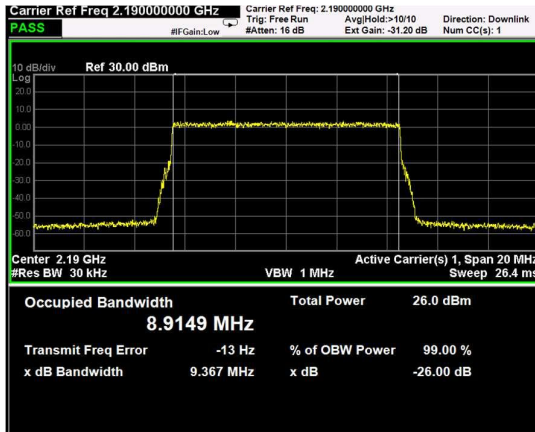
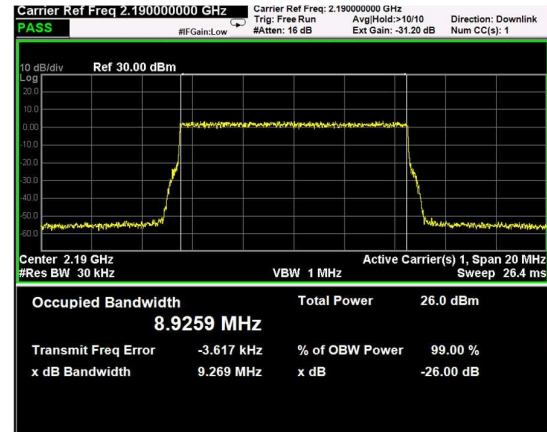
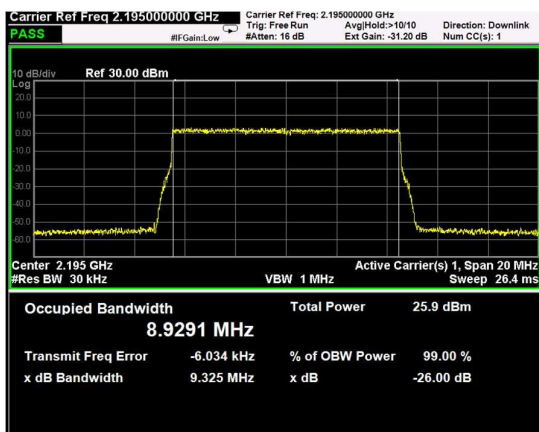
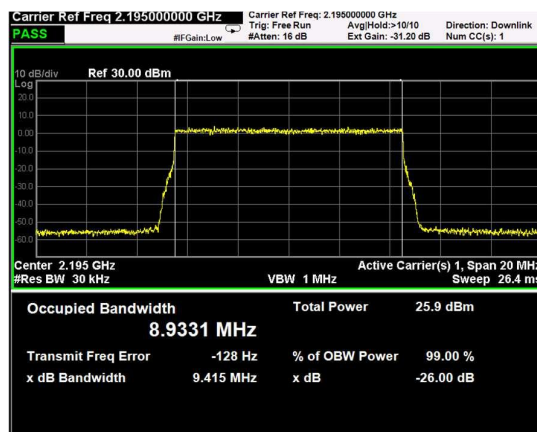


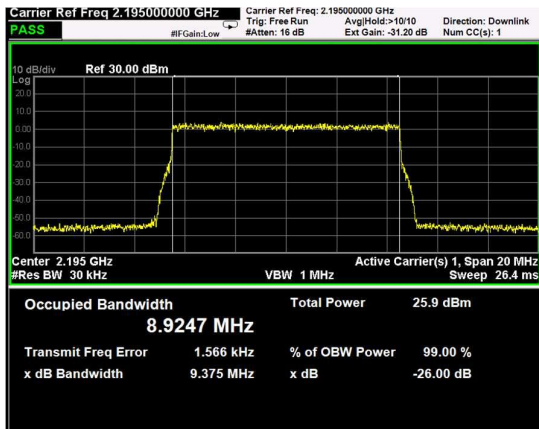

Channel: MIDDLE, Modulation: QPSK,
 BW=10MHz

Channel: MIDDLE, Modulation: 16QAM,
 BW=10MHz

Channel: MIDDLE, Modulation: 64QAM,
 BW=10MHz

Channel: MIDDLE, Modulation: 256QAM,
 BW=10MHz



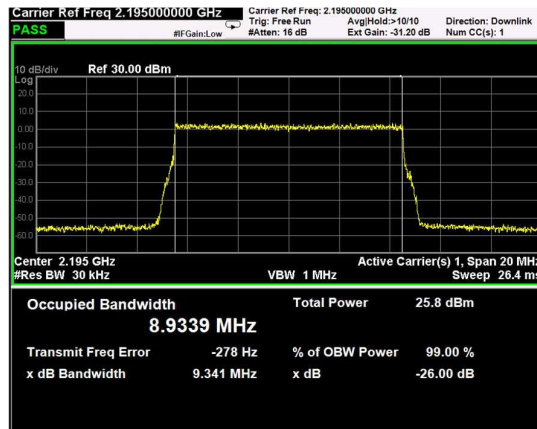
Channel: TOP, Modulation: QPSK,
 BW=10MHz



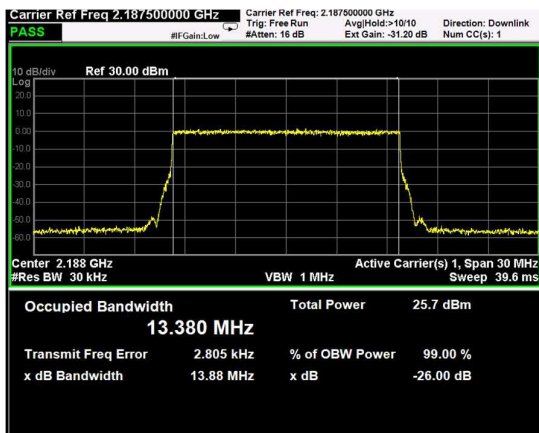
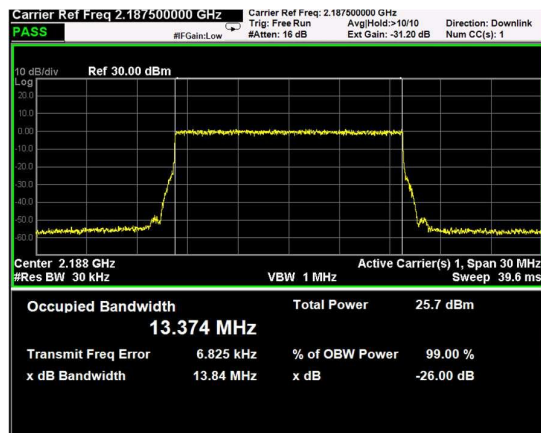
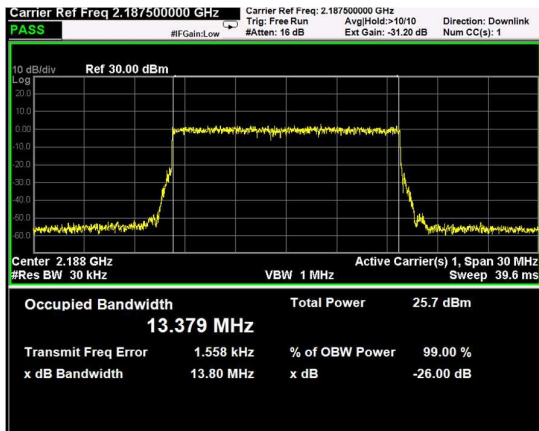
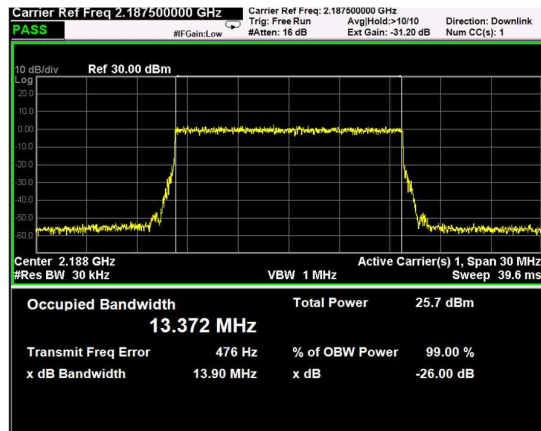
Channel: TOP, Modulation: 16QAM,
 BW=10MHz

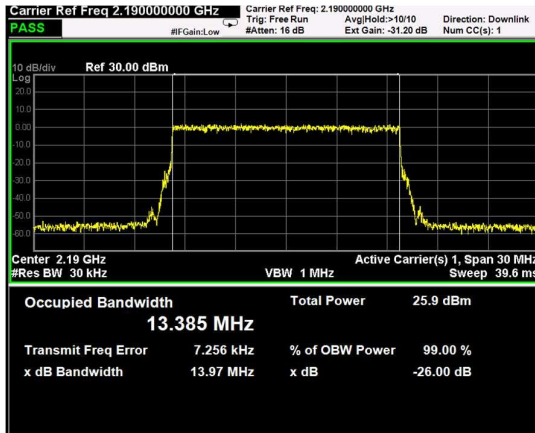
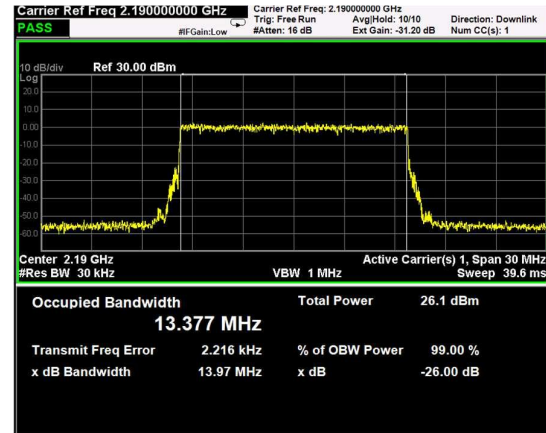
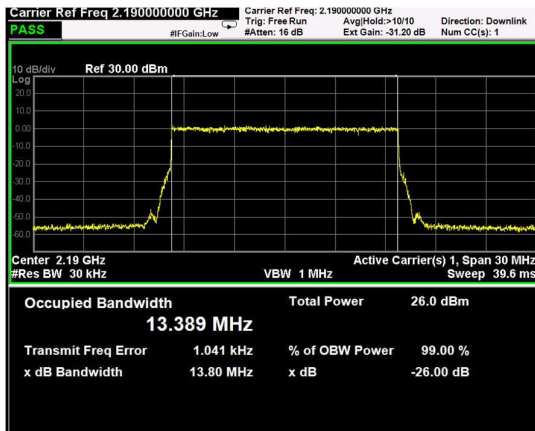
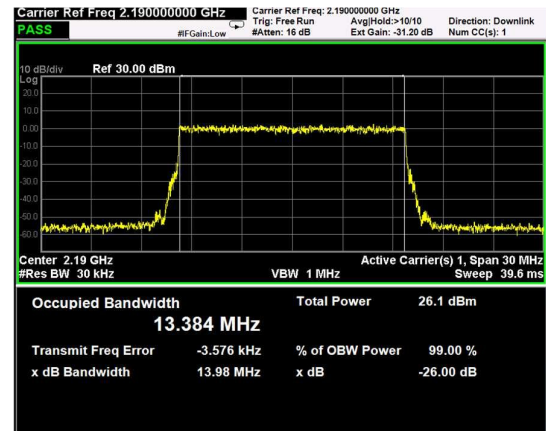


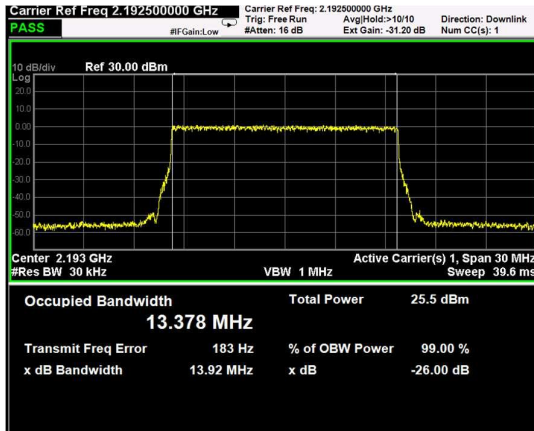
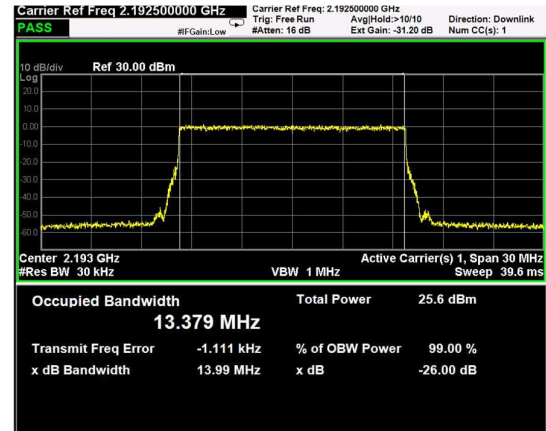
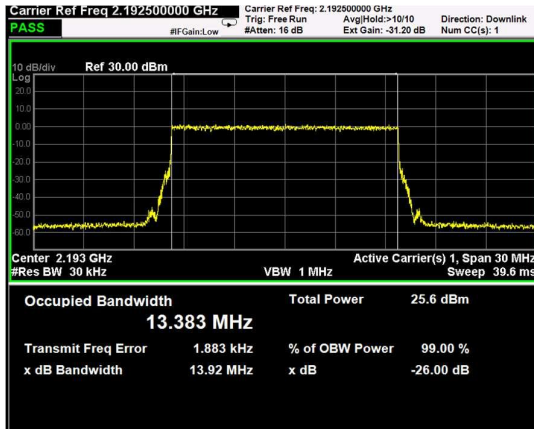
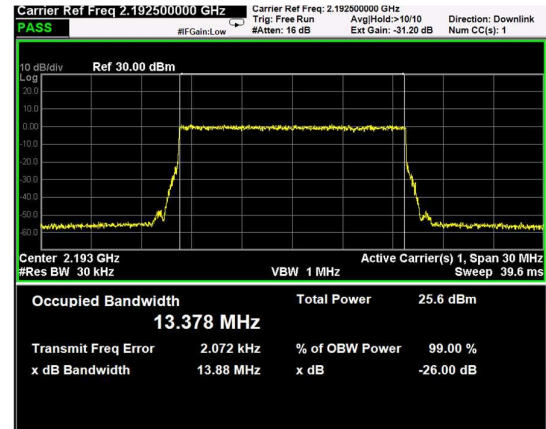
Channel: TOP, Modulation: 64QAM,
 BW=10MHz

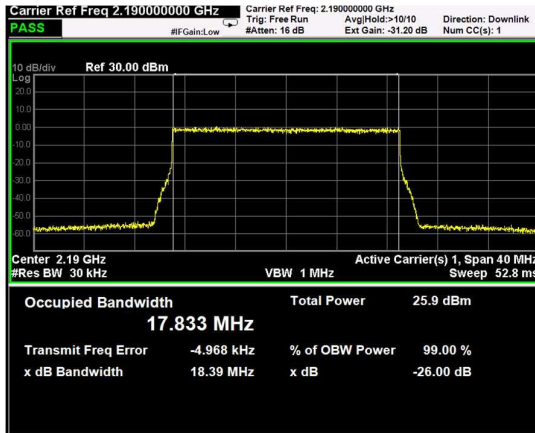
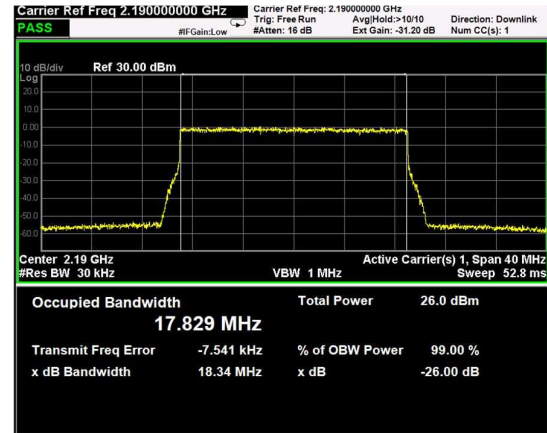
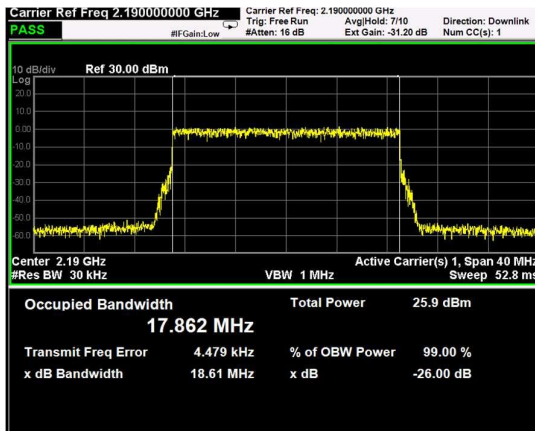
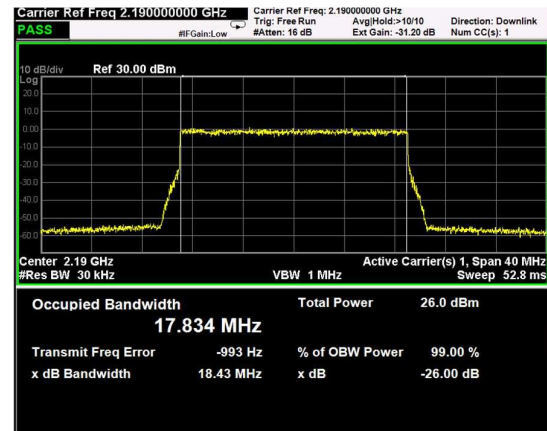


Channel: TOP, Modulation: 256QAM,
 BW=10MHz


Channel: BOTTOM, Modulation: QPSK,
 BW=15MHz

Channel: BOTTOM, Modulation: 16QAM,
 BW=15MHz

Channel: BOTTOM, Modulation: 64QAM,
 BW=15MHz

Channel: BOTTOM, Modulation: 256QAM,
 BW=15MHz


Channel: MIDDLE, Modulation: QPSK,
BW=15MHz

Channel: MIDDLE, Modulation: 16QAM,
BW=15MHz

Channel: MIDDLE, Modulation: 64QAM,
BW=15MHz

Channel: MIDDLE, Modulation: 256QAM,
BW=15MHz


Channel: TOP, Modulation: QPSK,
BW=15MHz

Channel: TOP, Modulation: 16QAM,
BW=15MHz

Channel: TOP, Modulation: 64QAM,
BW=15MHz

Channel: TOP, Modulation: 256QAM,
BW=15MHz


Channel: MIDDLE, Modulation: QPSK,
 BW=20MHz

Channel: MIDDLE, Modulation: 16QAM,
 BW=20MHz

Channel: MIDDLE, Modulation: 64QAM,
 BW=20MHz

Channel: MIDDLE, Modulation: 256QAM,
 BW=20MHz

Clause 27.50(d) Peak output power at RF antenna connector

§ 27.50(d) The following power and antenna height requirements apply to stations transmitting in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz and 2180-2200 MHz bands:

- (2) The power of each fixed or base station transmitting in the 1995-2000 MHz, the 2110-2155 MHz 2155-2180 MHz band, or 2180-2200 MHz band and situated in any geographic location other than that described in paragraph (d)(1) of this section is limited to:
 - (i) An equivalent isotropically radiated power (EIRP) of 1640 watts when transmitting with an emission bandwidth of 1 MHz or less;
 - (ii) An EIRP of 1640 watts/MHz when transmitting with an emission bandwidth greater than 1 MHz.
- (5) Equipment employed must be authorized in accordance with the provisions of §24.51. Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (d)(6) of this section. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
- (8) A licensee operating a base or fixed station in the 2180-2200 MHz band utilizing a power greater than 1640 watts EIRP and greater than 1640 watts/MHz EIRP must be coordinated in advance with all AWS licensees authorized to operate on adjacent frequency blocks in the 2180-2200 MHz band.

Test date: 10/21/2019 to 12/13/2019

Test results: Pass

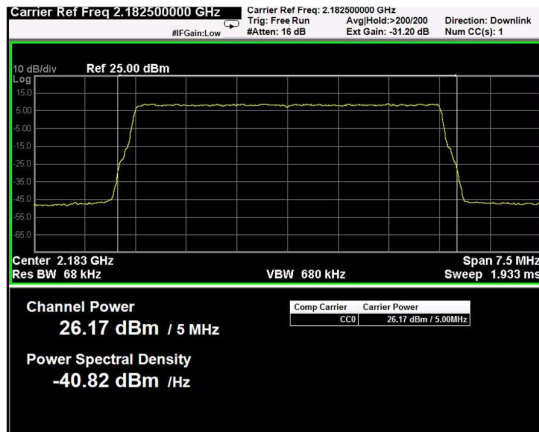
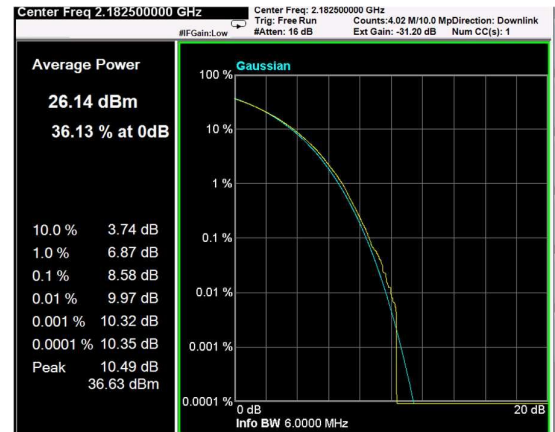
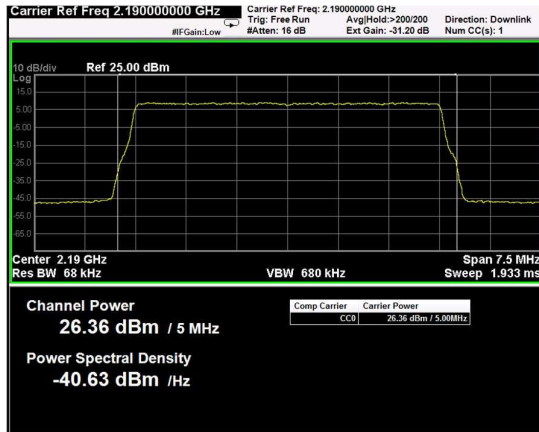
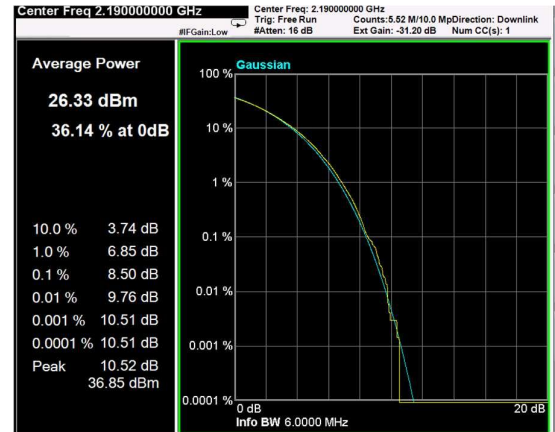
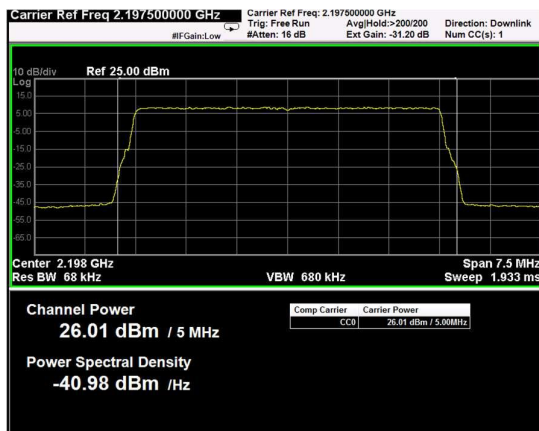
Special notes

Clause 27.50(d) Peak output power at RF antenna connector

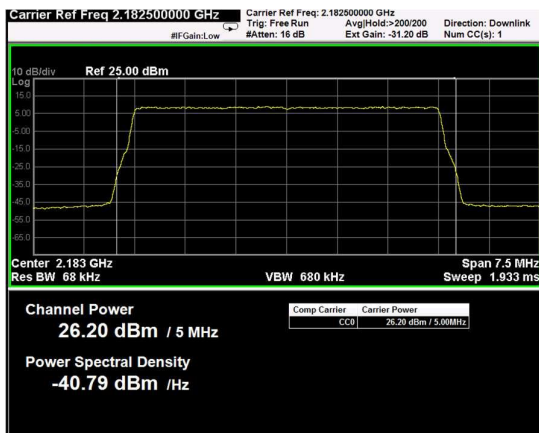
Test data

RF PORT 1

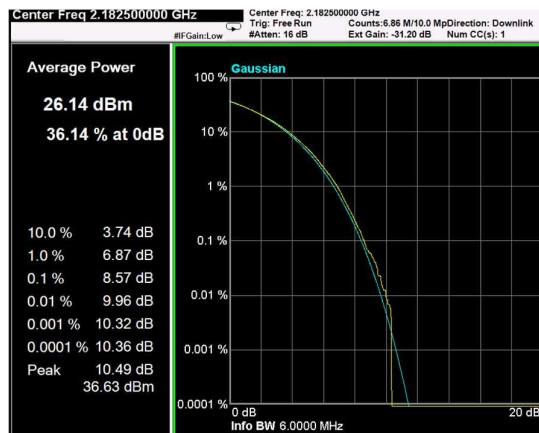
Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	LTE 5MHz (QPSK)	2182.5	26.2	0.414	10.5
Down-link	LTE 5MHz (QPSK)	2190	26.4	0.433	10.5
Down-link	LTE 5MHz (QPSK)	2197.5	26.0	0.399	10.5
Down-link	LTE 5MHz (16QAM)	2182.5	26.2	0.417	10.5
Down-link	LTE 5MHz (16QAM)	2190	26.4	0.432	10.5
Down-link	LTE 5MHz (16QAM)	2197.5	26.0	0.398	10.5
Down-link	LTE 5MHz (64QAM)	2182.5	26.2	0.415	10.5
Down-link	LTE 5MHz (64QAM)	2190	26.3	0.431	10.5
Down-link	LTE 5MHz (64QAM)	2197.5	26.0	0.398	10.5
Down-link	LTE 5MHz (256QAM)	2182.5	26.2	0.416	10.5
Down-link	LTE 5MHz (256QAM)	2190	26.3	0.431	10.5
Down-link	LTE 5MHz (256QAM)	2197.5	26.0	0.399	10.5


Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, Channel Power

Channel: BOTTOM, Modulation: QPSK,
BW=5MHz, CCDF

Channel: MIDDLE, Modulation: QPSK,
BW=5MHz, Channel Power

Channel: MIDDLE, Modulation: QPSK,
BW=5MHz, CCDF

Channel: TOP, Modulation: QPSK,
BW=5MHz, Channel Power

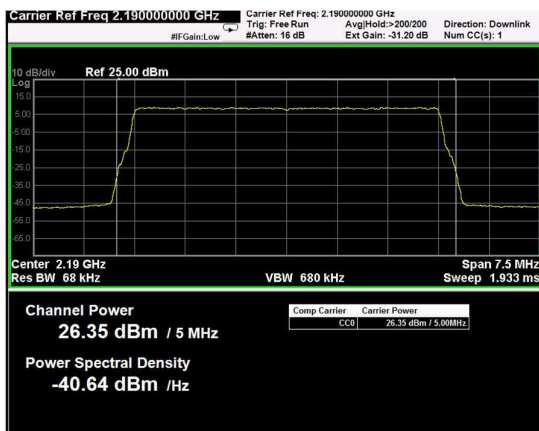
Channel: TOP, Modulation: QPSK,
BW=5MHz, CCDF



Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, Channel Power



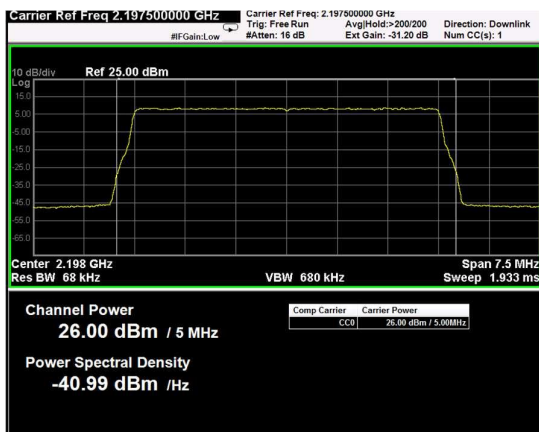
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, CCDF



Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, Channel Power



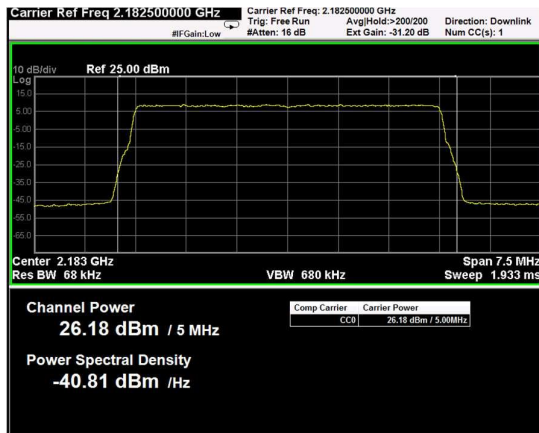
Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, CCDF



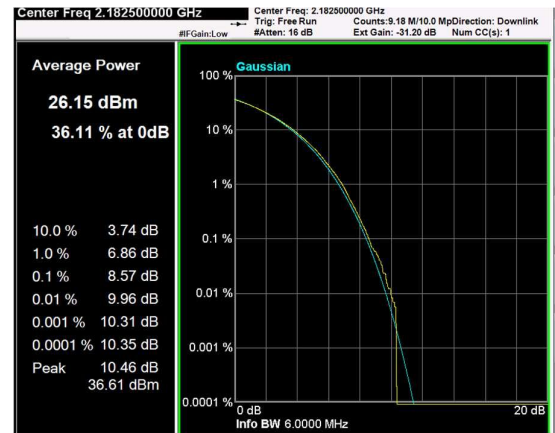
Channel: TOP, Modulation: 16QAM, BW=5MHz, Channel Power



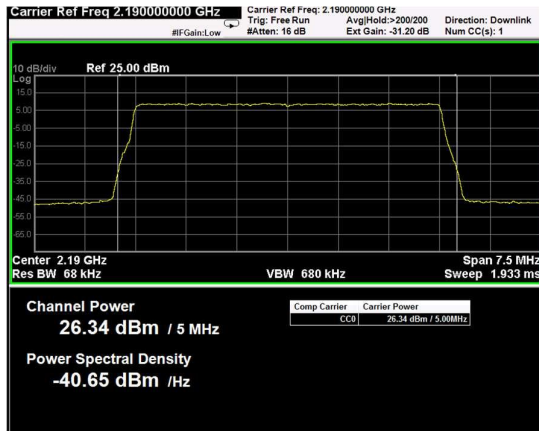
Channel: TOP, Modulation: 16QAM, BW=5MHz, CCDF



Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, Channel Power



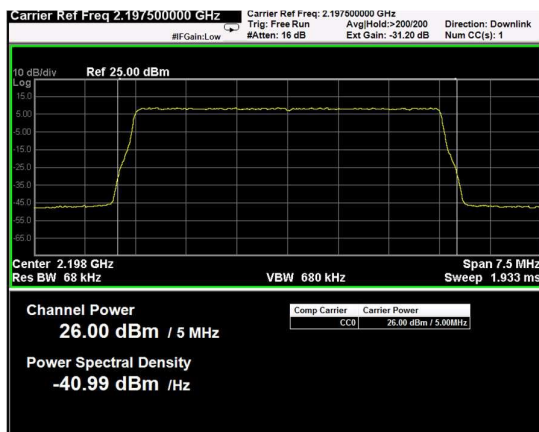
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, CCDF



Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, Channel Power



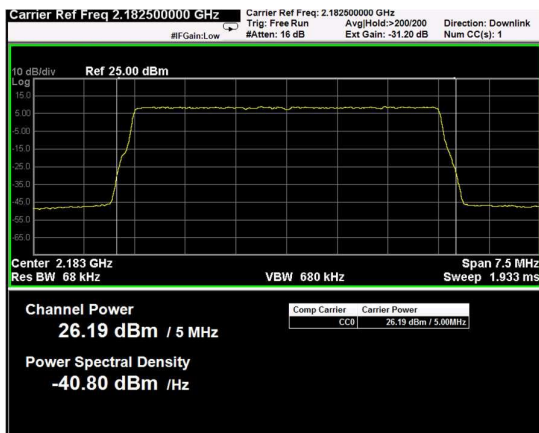
Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, CCDF



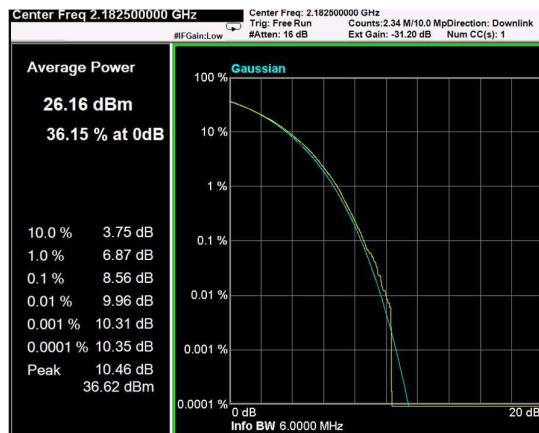
Channel: TOP, Modulation: 64QAM, BW=5MHz, Channel Power



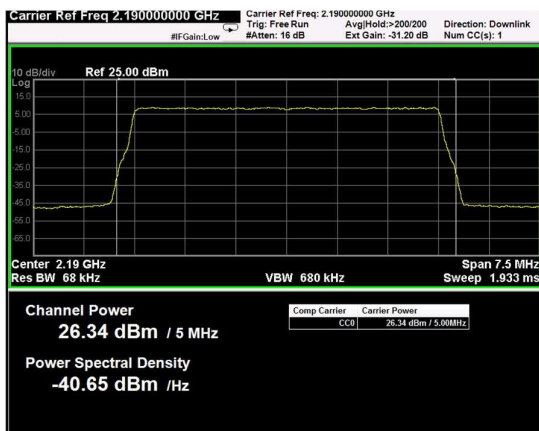
Channel: TOP, Modulation: 64QAM, BW=5MHz, CCDF



Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, Channel Power



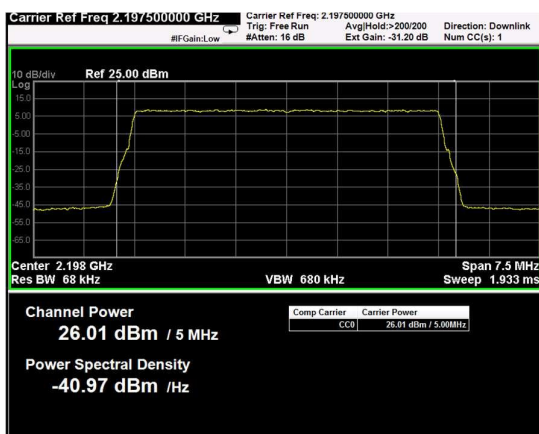
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, CCDF



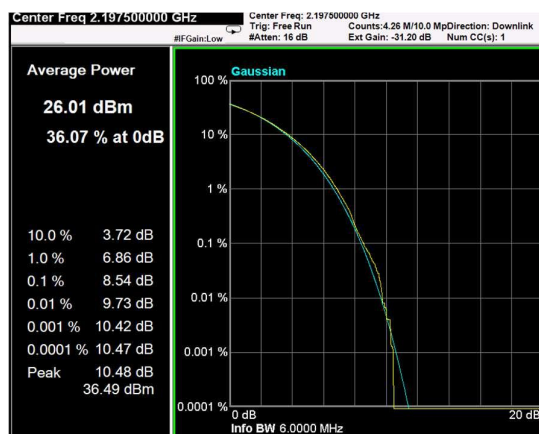
Channel: MIDDLE, Modulation: 256QAM, BW=5MHz, Channel Power



Channel: MIDDLE, Modulation: 256QAM, BW=5MHz, CCDF

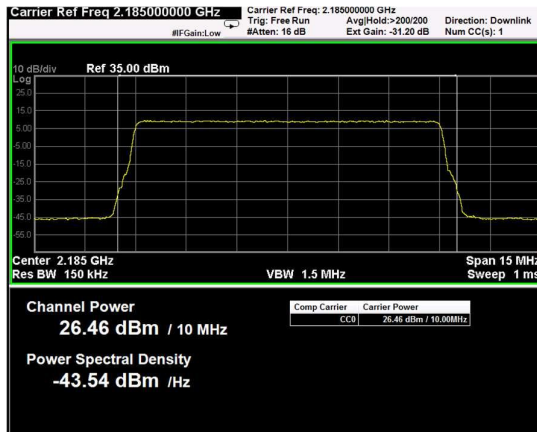
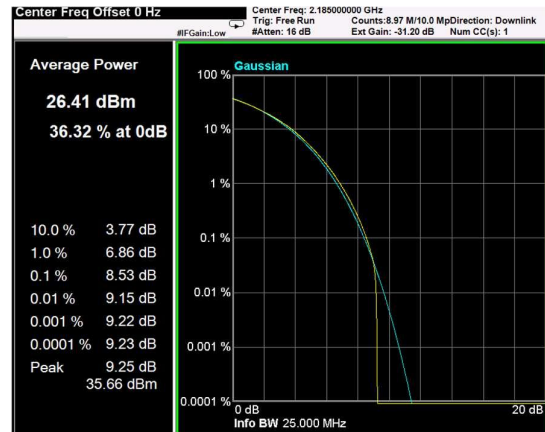
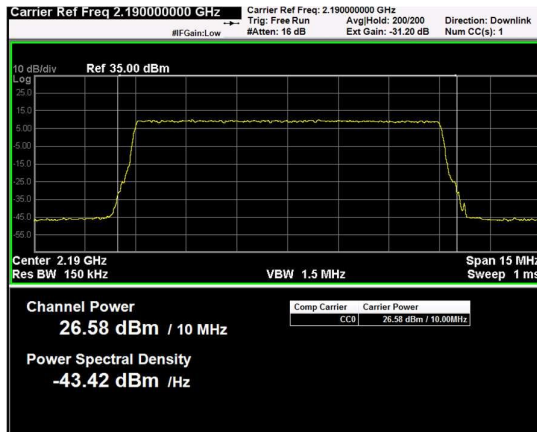
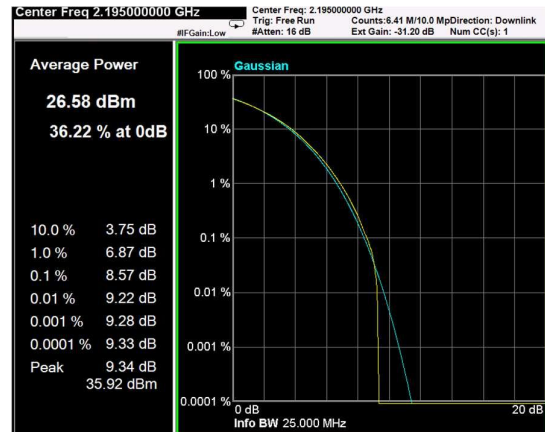
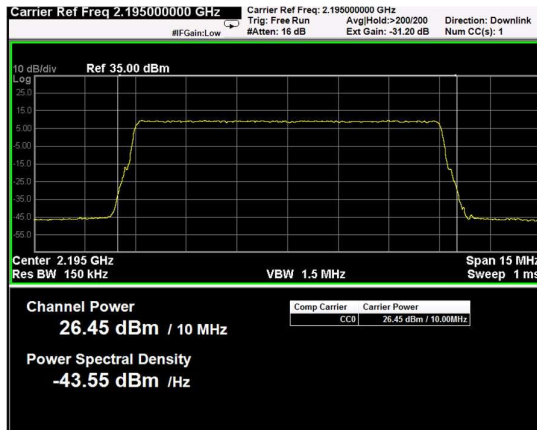
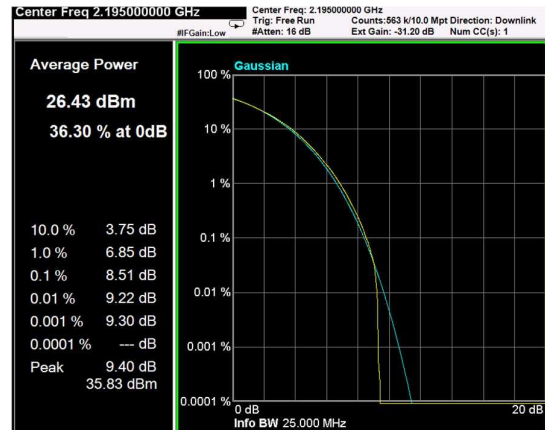


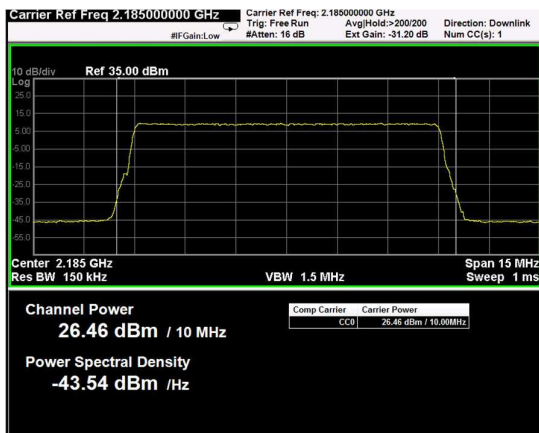
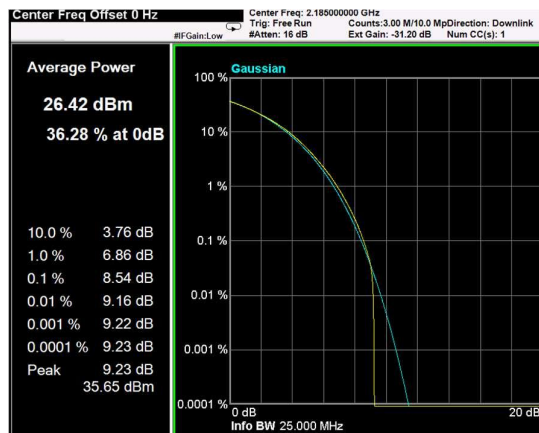
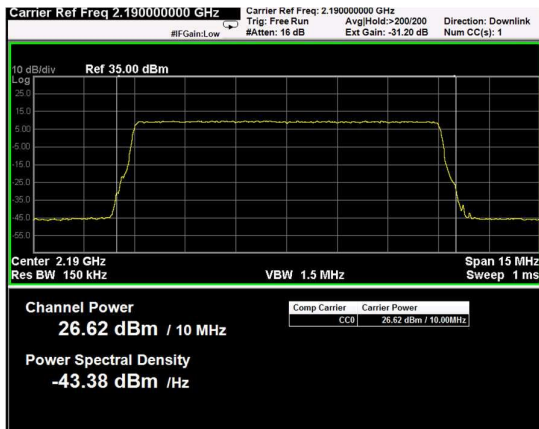
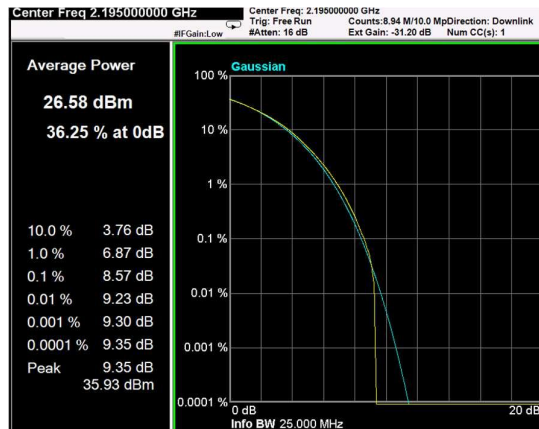
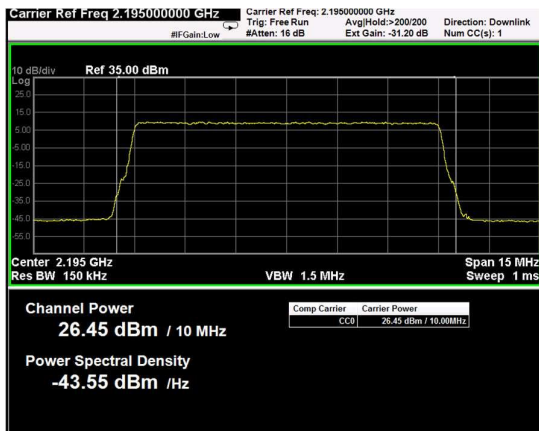
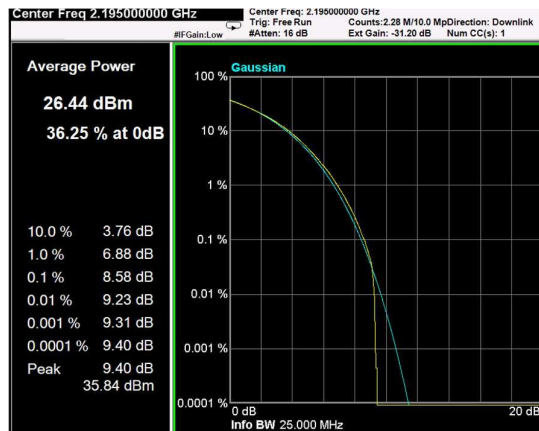
Channel: TOP, Modulation: 256QAM, BW=5MHz, Channel Power

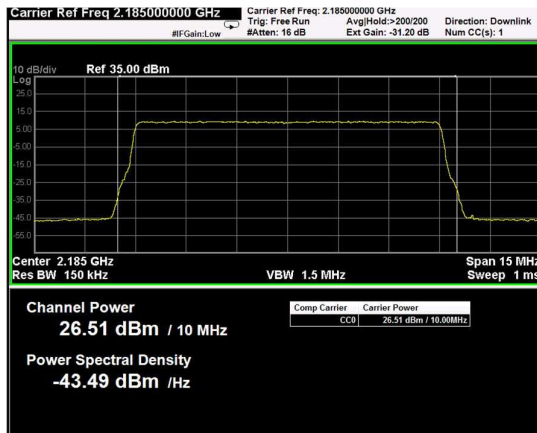
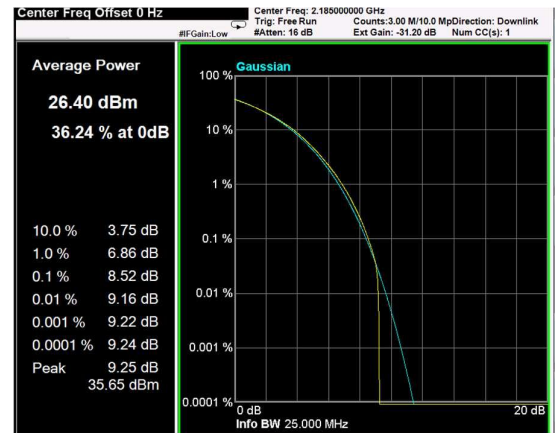
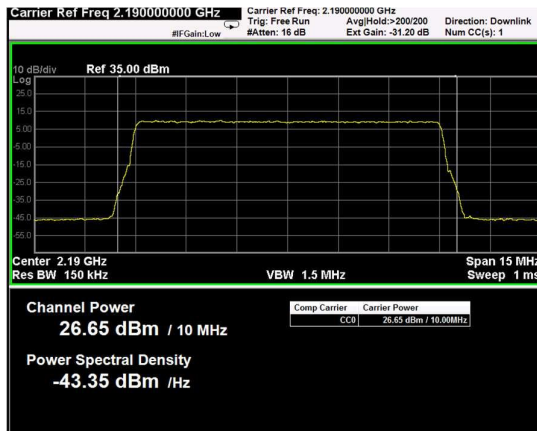
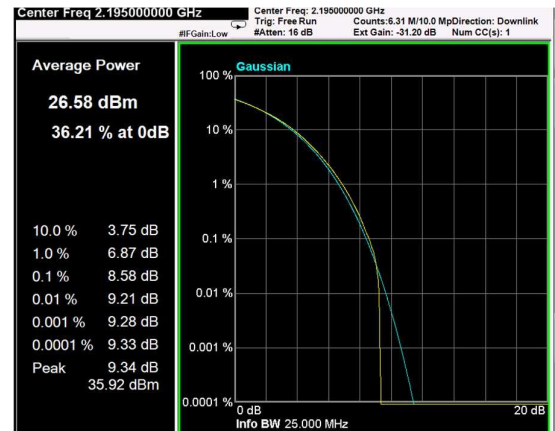
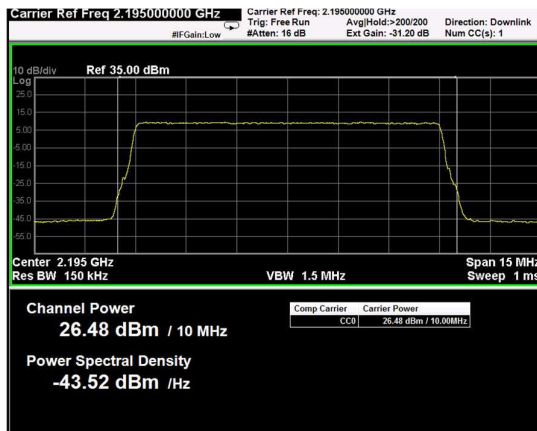
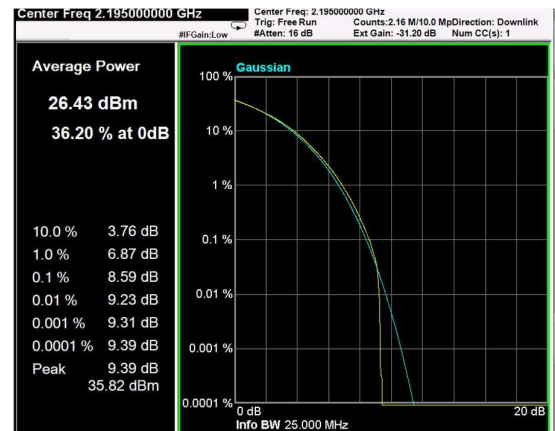


Channel: TOP, Modulation: 256QAM, BW=5MHz, CCDF

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	LTE 10MHz (QPSK)	2185	26.5	0.443	9.3
Down-link	LTE 10MHz (QPSK)	2190	26.6	0.455	9.3
Down-link	LTE 10MHz (QPSK)	2195	26.5	0.442	9.4
Down-link	LTE 10MHz (16QAM)	2185	26.5	0.443	9.2
Down-link	LTE 10MHz (16QAM)	2190	26.6	0.459	9.4
Down-link	LTE 10MHz (16QAM)	2195	26.5	0.442	9.4
Down-link	LTE 10MHz (64QAM)	2185	26.5	0.448	9.3
Down-link	LTE 10MHz (64QAM)	2190	26.7	0.462	9.3
Down-link	LTE 10MHz (64QAM)	2195	26.5	0.445	9.4
Down-link	LTE 10MHz (256QAM)	2185	26.5	0.442	9.2
Down-link	LTE 10MHz (256QAM)	2190	26.7	0.463	9.3
Down-link	LTE 10MHz (256QAM)	2195	26.5	0.443	9.4


Channel: BOTTOM, Modulation: QPSK,
BW=10MHz, Channel Power

Channel: BOTTOM, Modulation: QPSK,
BW=10MHz, CCDF

Channel: MIDDLE, Modulation: QPSK,
BW=10MHz, Channel Power

Channel: MIDDLE, Modulation: QPSK,
BW=10MHz, CCDF

Channel: TOP, Modulation: QPSK,
BW=10MHz, Channel Power

Channel: TOP, Modulation: QPSK,
BW=10MHz, CCDF


Channel: BOTTOM, Modulation: 16QAM,
BW=10MHz, Channel Power

Channel: BOTTOM, Modulation: 16QAM,
BW=10MHz, CCDF

Channel: MIDDLE, Modulation: 16QAM,
BW=10MHz, Channel Power

Channel: MIDDLE, Modulation: 16QAM,
BW=10MHz, CCDF

Channel: TOP, Modulation: 16QAM,
BW=10MHz, Channel Power

Channel: TOP, Modulation: 16QAM,
BW=10MHz, CCDF


Channel: BOTTOM, Modulation: 64QAM,
BW=10MHz, Channel Power

Channel: BOTTOM, Modulation: 64QAM,
BW=10MHz, CCDF

Channel: MIDDLE, Modulation: 64QAM,
BW=10MHz, Channel Power

Channel: MIDDLE, Modulation: 64QAM,
BW=10MHz, CCDF

Channel: TOP, Modulation: 64QAM,
BW=10MHz, Channel Power

Channel: TOP, Modulation: 64QAM,
BW=10MHz, CCDF