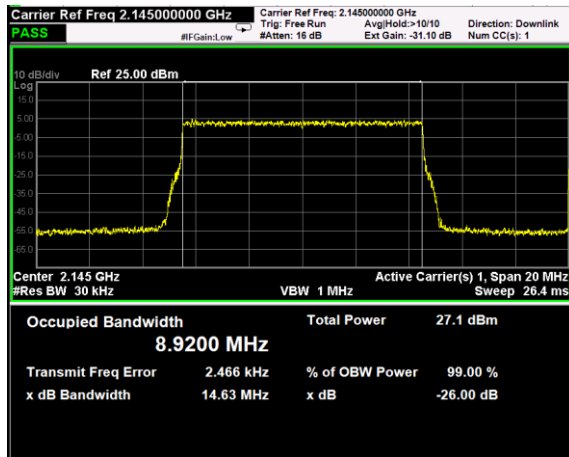
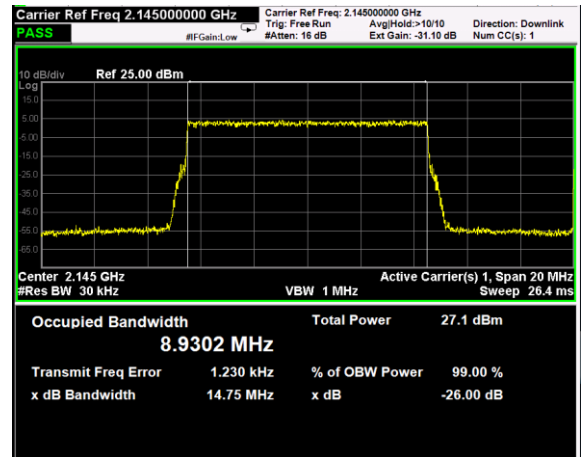
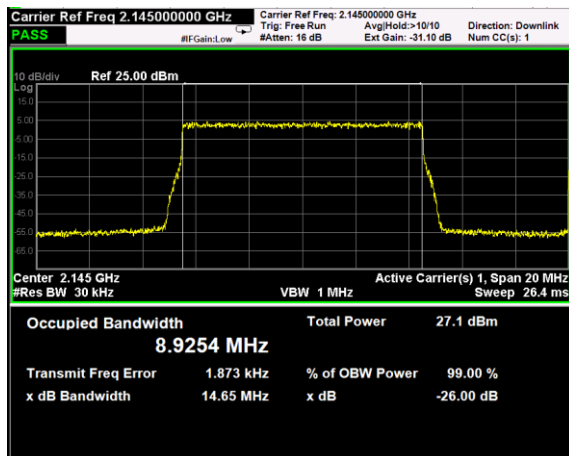
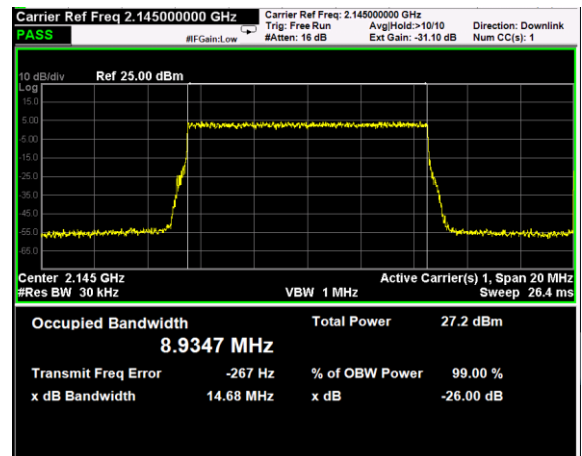
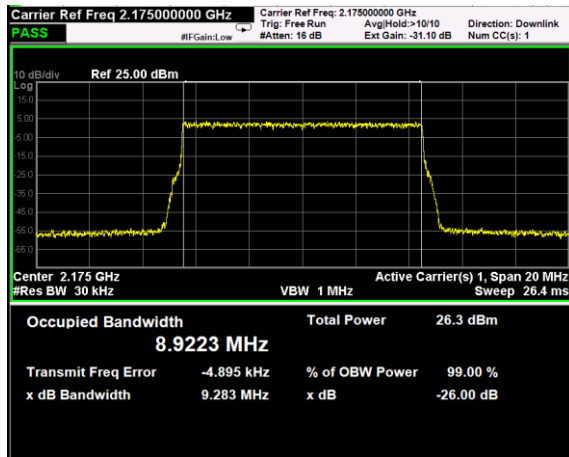
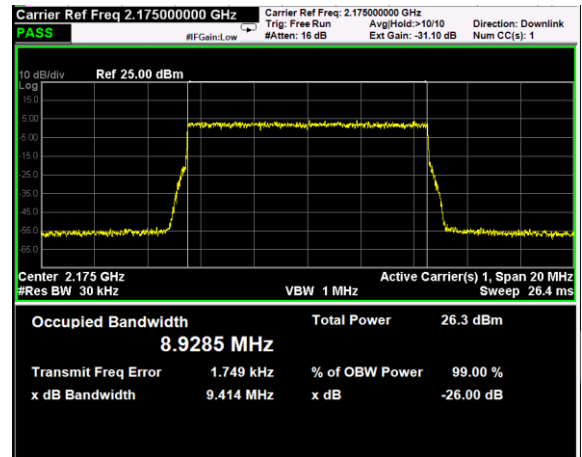
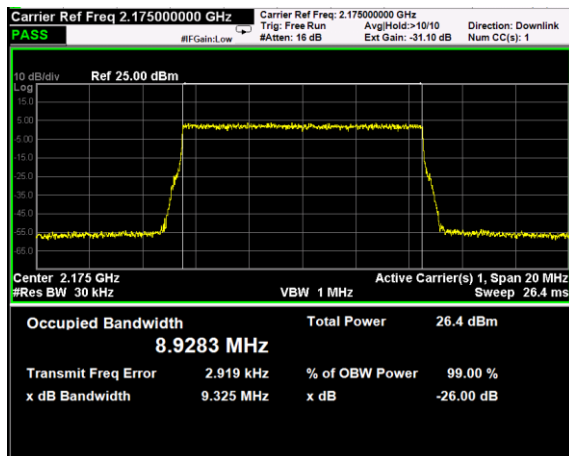
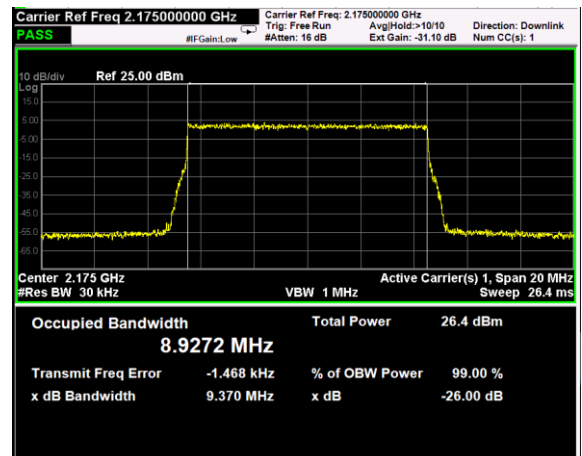
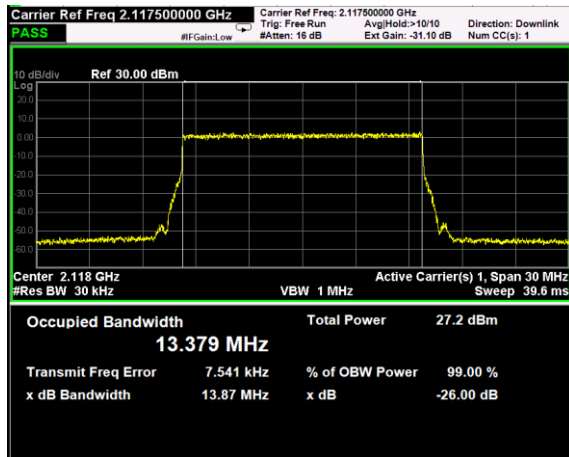
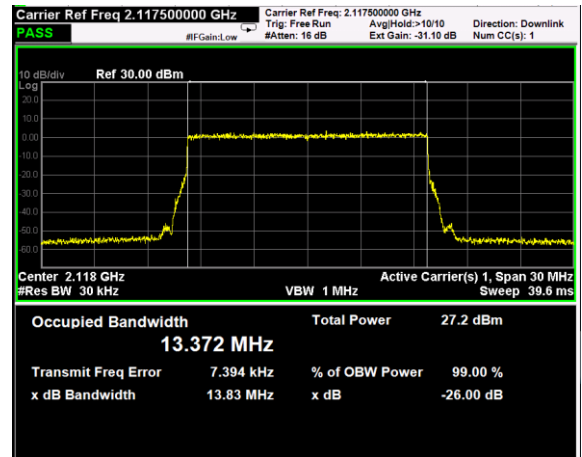



Channel: MIDDLE, Modulation: QPSK,
 BW=10MHz

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

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

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

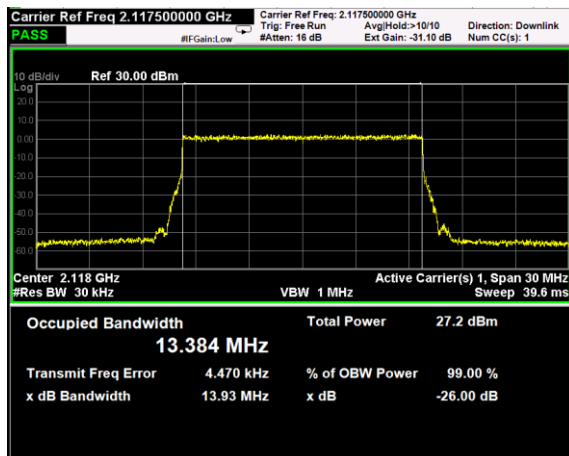

Channel: TOP, Modulation: QPSK,
 BW=10MHz

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

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

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



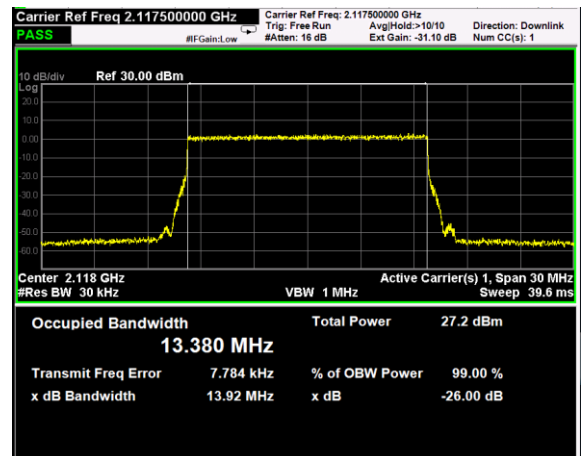
Channel: BOTTOM, Modulation: QPSK,
 BW=15MHz



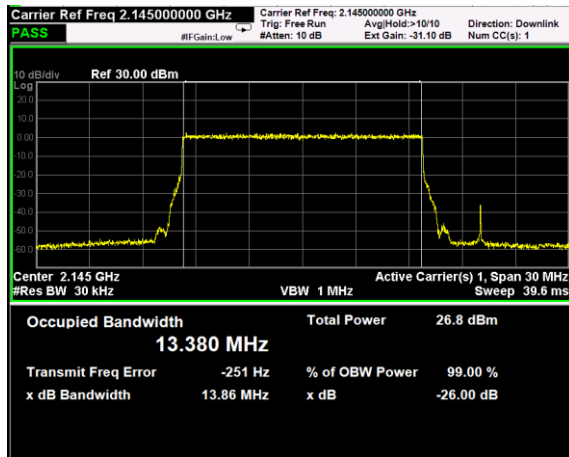
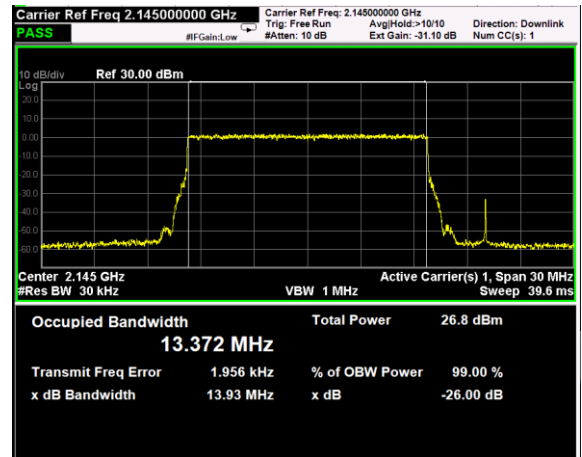
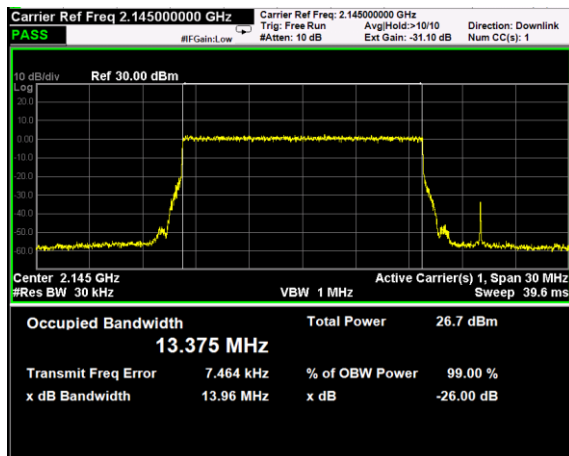
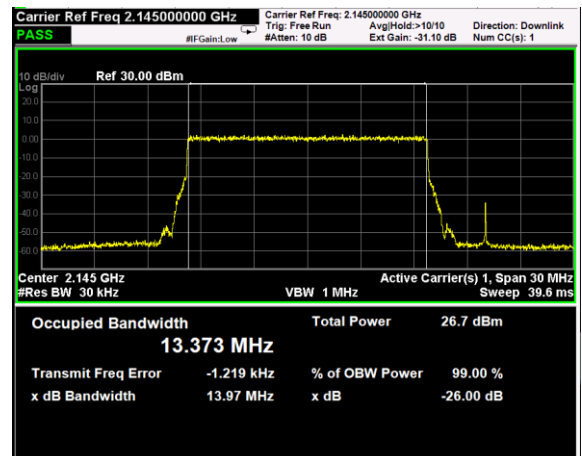
Channel: BOTTOM, Modulation: 16QAM,
 BW=15MHz

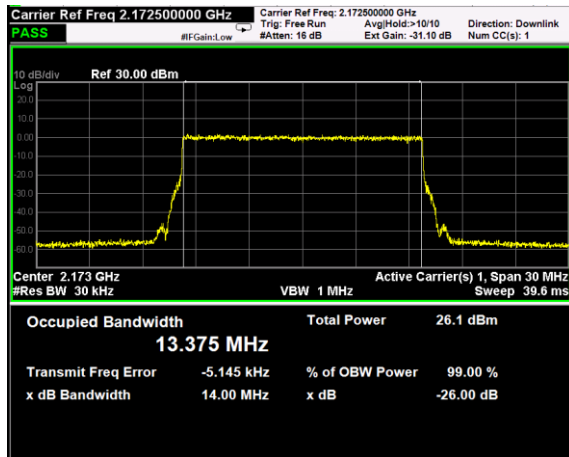
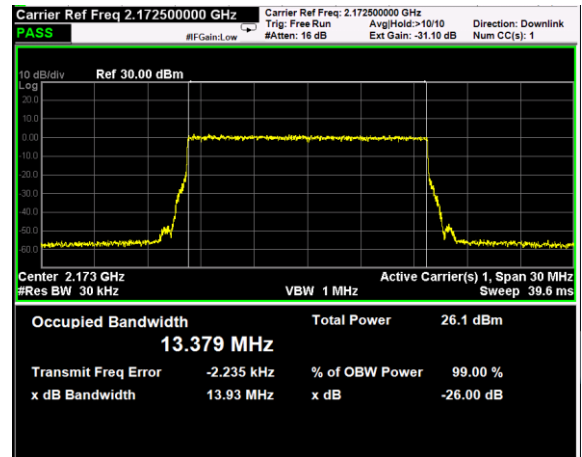
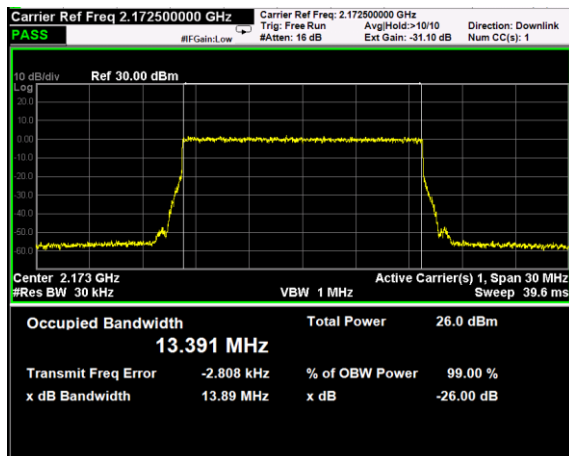
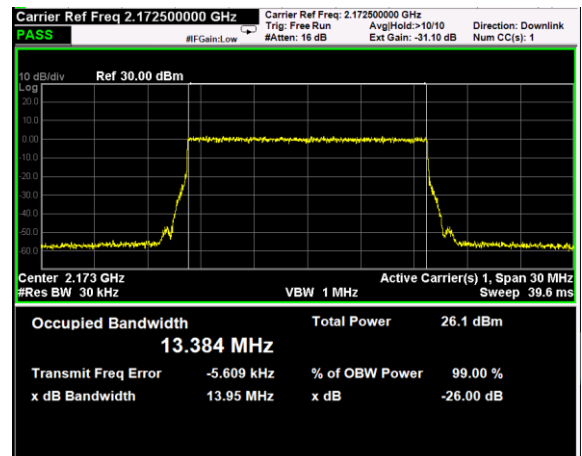


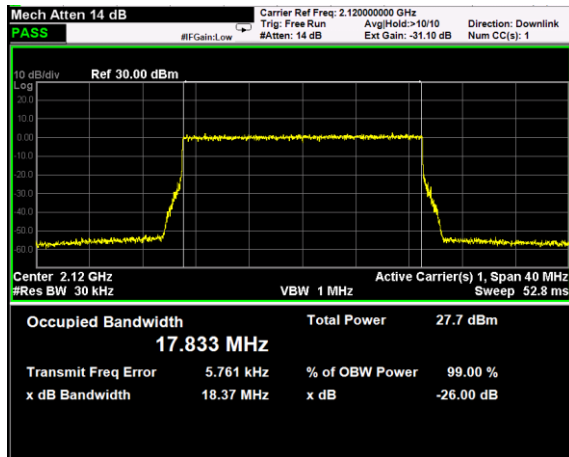
Channel: BOTTOM, Modulation: 64QAM,
 BW=15MHz



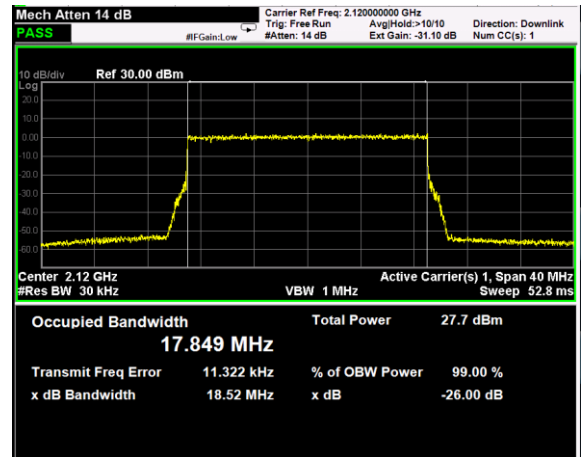
Channel: BOTTOM, Modulation: 256QAM,
 BW=15MHz


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

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

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

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

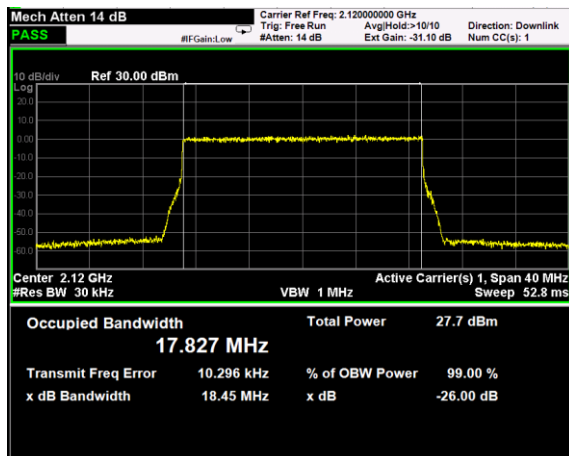

Channel: TOP, Modulation: QPSK,
 BW=15MHz

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

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

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



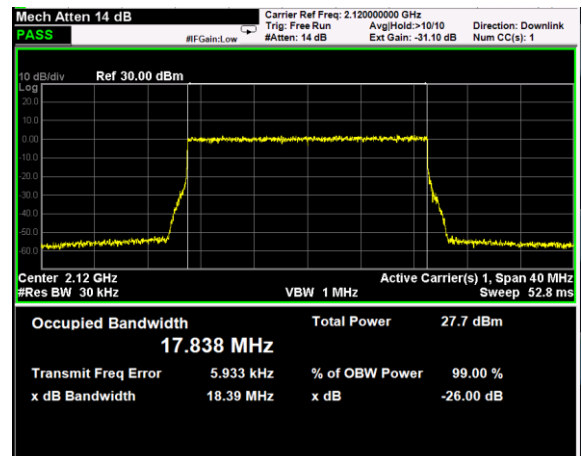
Channel: BOTTOM, Modulation: QPSK,
BW=20MHz



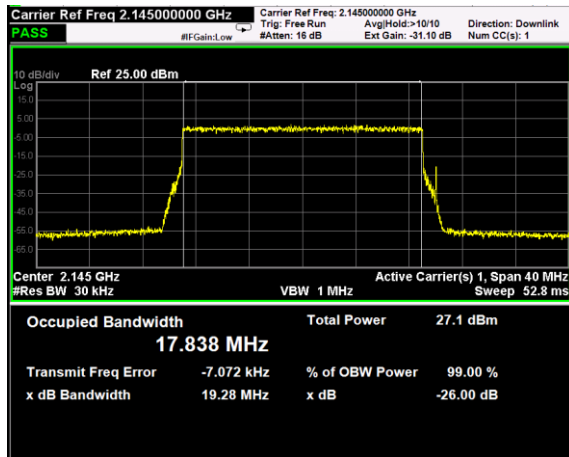
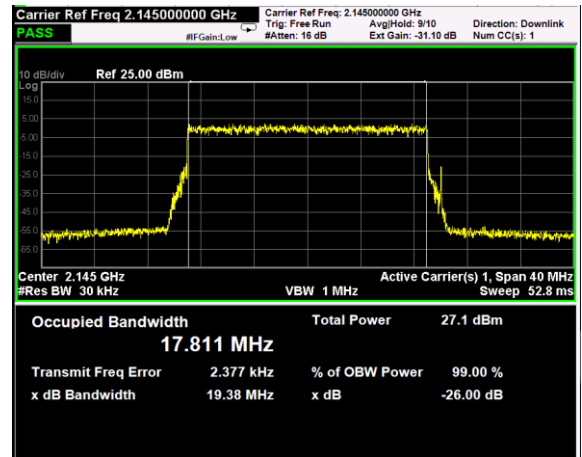
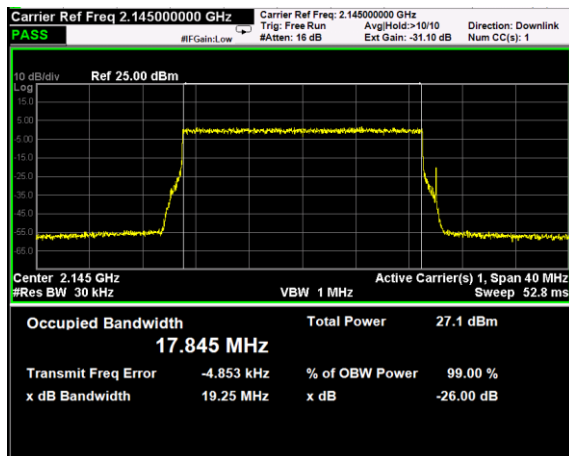
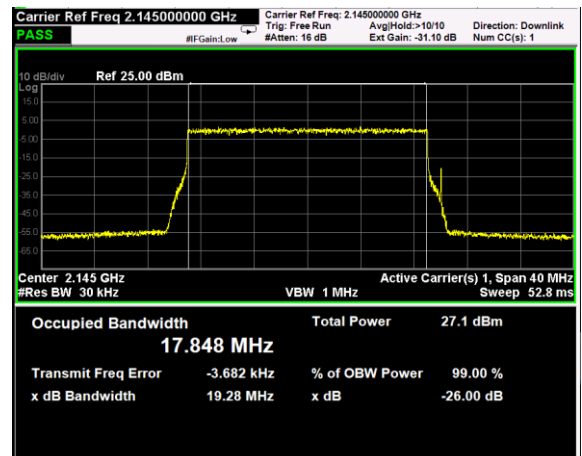
Channel: BOTTOM, Modulation: 16QAM,
BW=20MHz

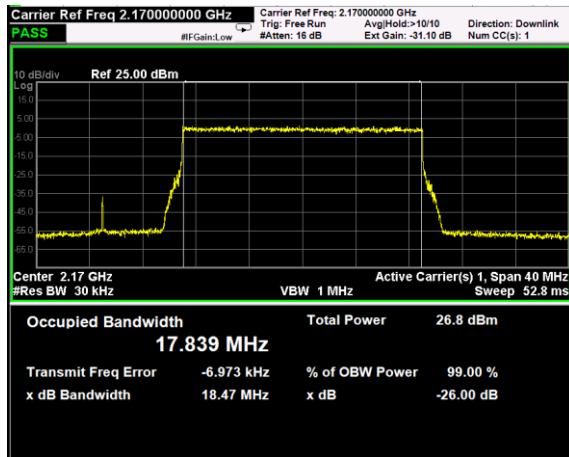


Channel: BOTTOM, Modulation: 64QAM,
BW=20MHz

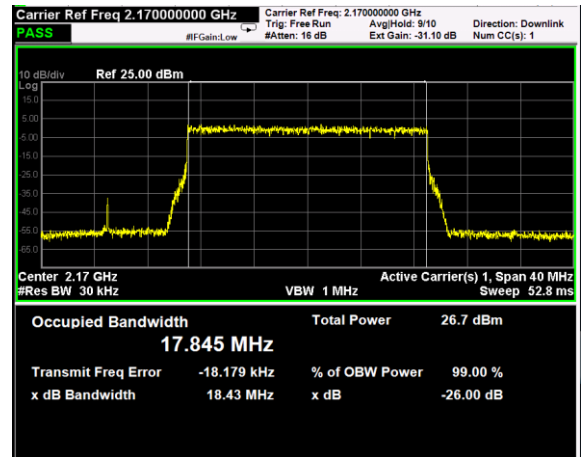


Channel: BOTTOM, Modulation: 256QAM,
BW=20MHz

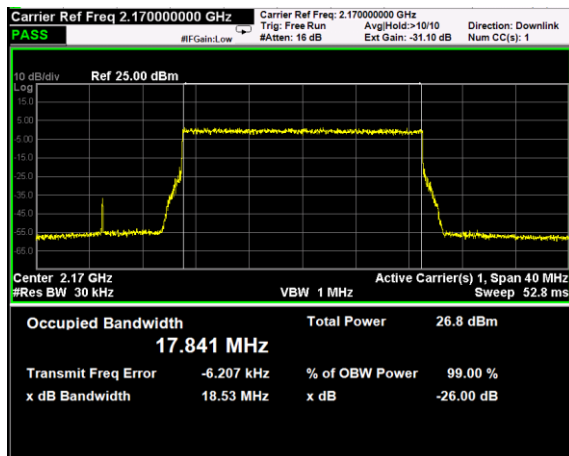

Channel: MIDDLE, Modulation: QPSK,
 BW=20MHz

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

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

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



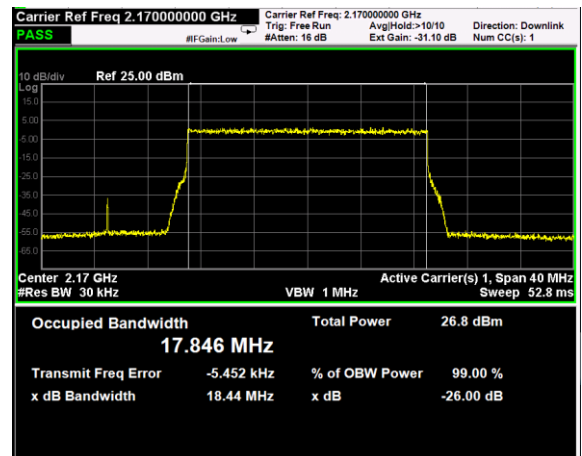
Channel: TOP, Modulation: QPSK,
BW=20MHz



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



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



Channel: TOP, 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.

Test date: [04/03/2019 to 05/10/2019](#)

Test results: [Pass](#)

Special notes

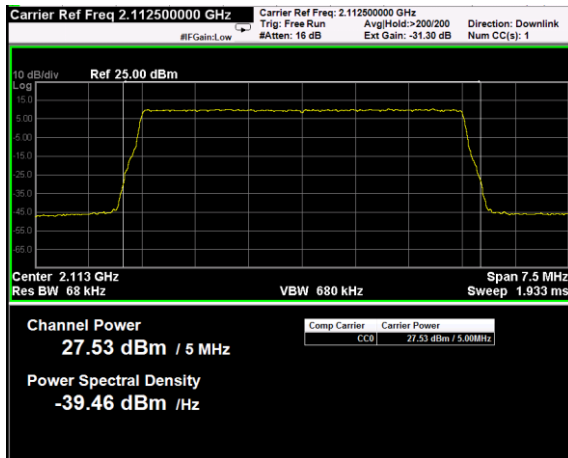
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Clause 27.50(d) Peak output power at RF antenna connector

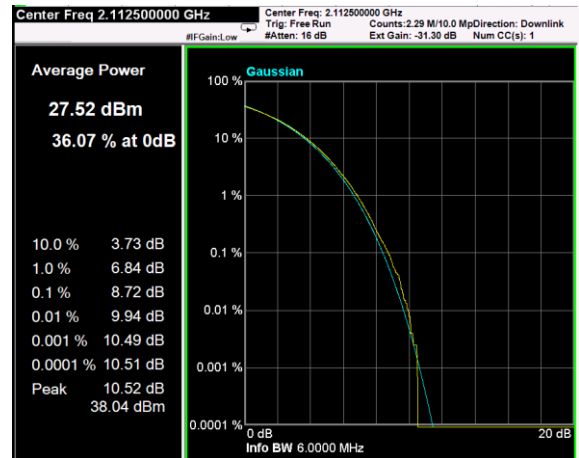
Test data

RF PORT 1

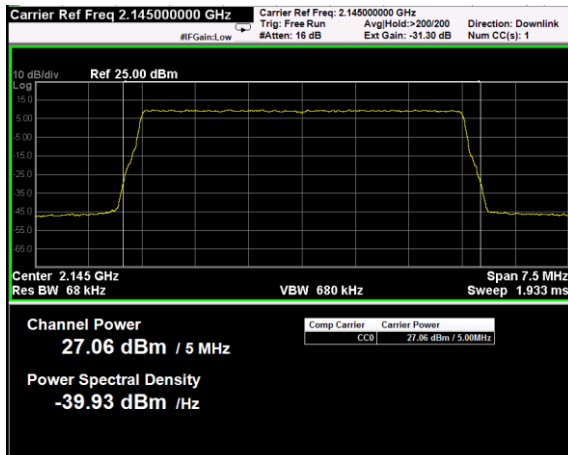
Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	LTE 5MHz (QPSK)	2112.5	27.53	0.566	10.52
Down-link	LTE 5MHz (QPSK)	2145	27.06	0.508	10.43
Down-link	LTE 5MHz (QPSK)	2177.5	26.49	0.446	10.43
Down-link	LTE 5MHz (16QAM)	2112.5	27.6	0.575	10.44
Down-link	LTE 5MHz (16QAM)	2145	27.1	0.513	10.36
Down-link	LTE 5MHz (16QAM)	2177.5	26.3	0.427	10.44
Down-link	LTE 5MHz (64QAM)	2112.5	27.57	0.571	10.54
Down-link	LTE 5MHz (64QAM)	2145	27.07	0.509	10.43
Down-link	LTE 5MHz (64QAM)	2177.5	26.3	0.427	10.51
Down-link	LTE 5MHz (256QAM)	2112.5	27.55	0.569	10.55
Down-link	LTE 5MHz (256QAM)	2145	26.89	0.489	10.41
Down-link	LTE 5MHz (256QAM)	2177.5	26.3	0.427	10.53



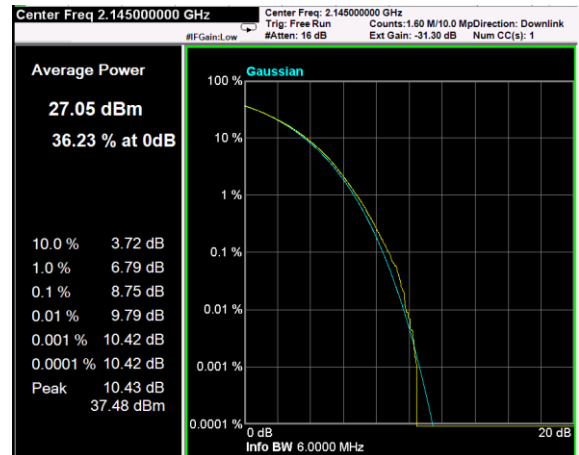
Channel: BOTTOM, Modulation: QPSK, BW=5MHz, Channel Power



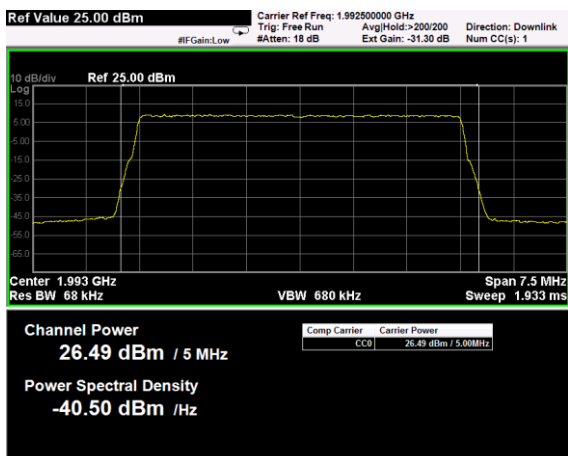
Channel: BOTTOM, Modulation: QPSK, BW=5MHz, CCDF



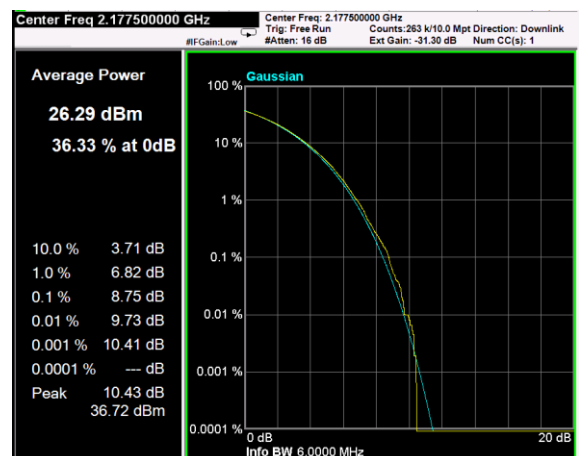
Channel: MIDDLE, Modulation: QPSK, BW=5MHz, Channel Power



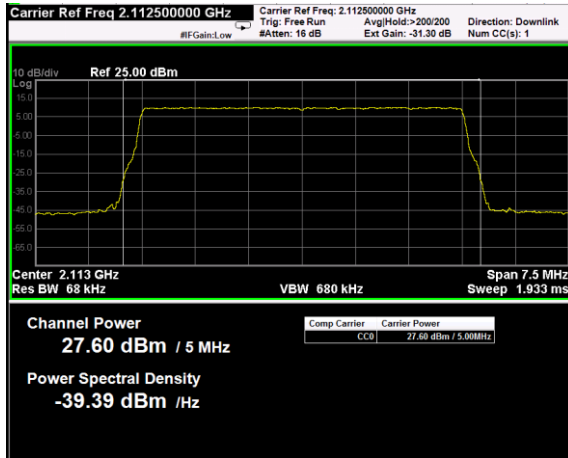
Channel: MIDDLE, Modulation: QPSK, BW=5MHz, CCDF



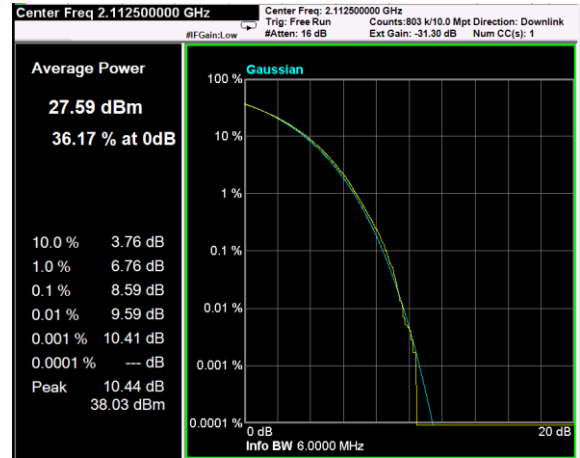
Channel: TOP, Modulation: QPSK, BW=5MHz, Channel Power



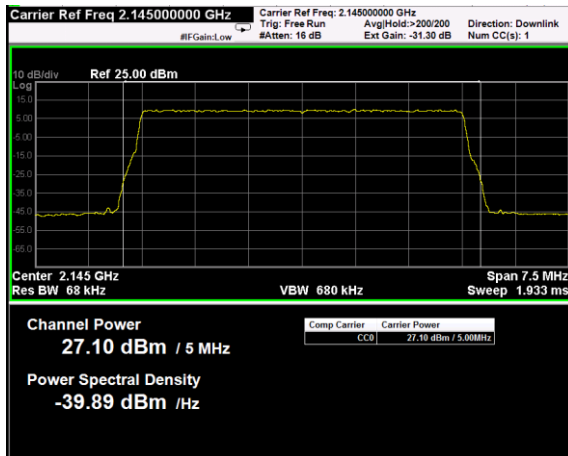
Channel: TOP, Modulation: QPSK, BW=5MHz, CCDF



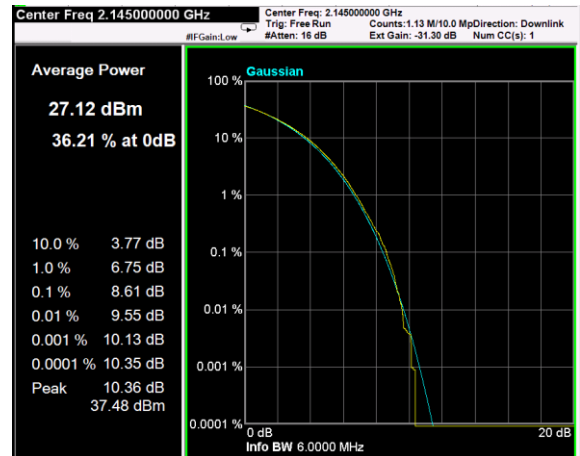
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, Channel Power



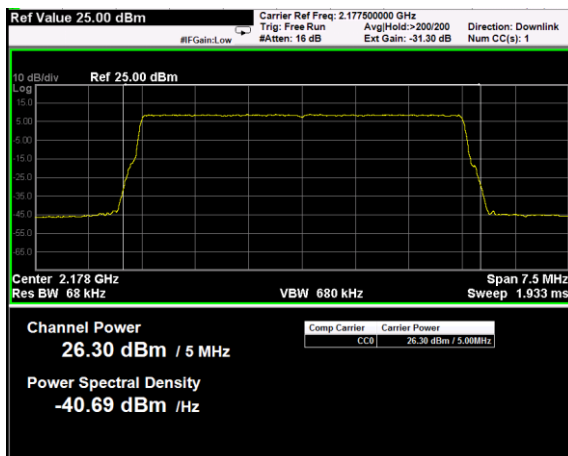
Channel: BOTTOM, Modulation: 16QAM, BW=5MHz, CCDF



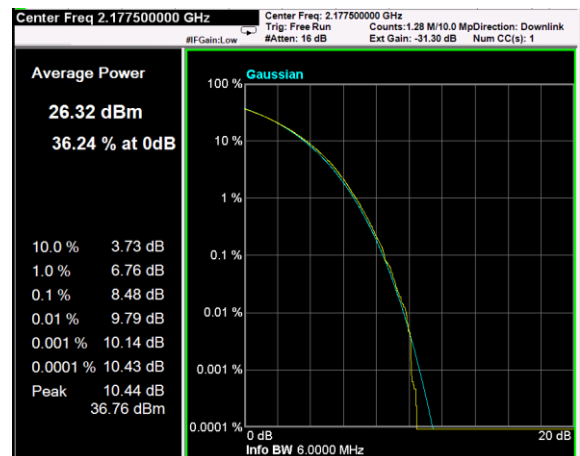
Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, Channel Power



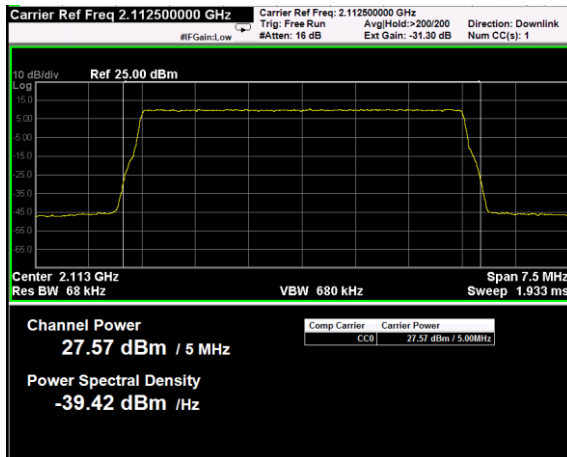
Channel: MIDDLE, Modulation: 16QAM, BW=5MHz, CCDF



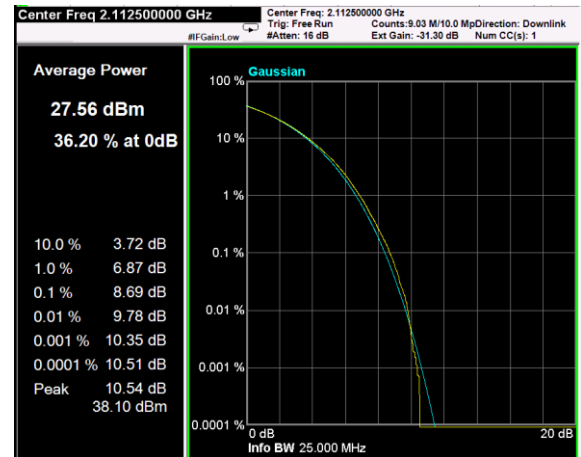
Channel: TOP, Modulation: 16QAM, BW=5MHz, Channel Power



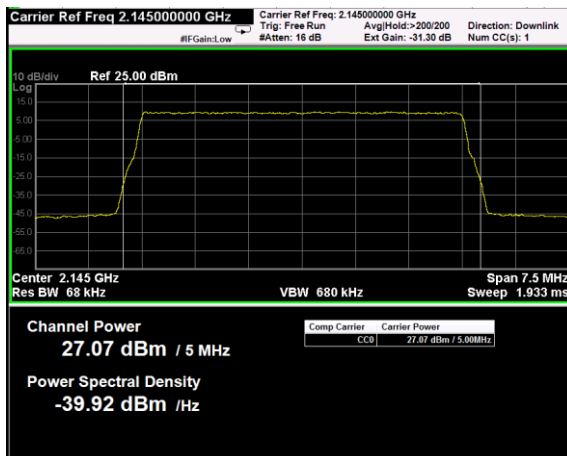
Channel: TOP, Modulation: 16QAM, BW=5MHz, CCDF



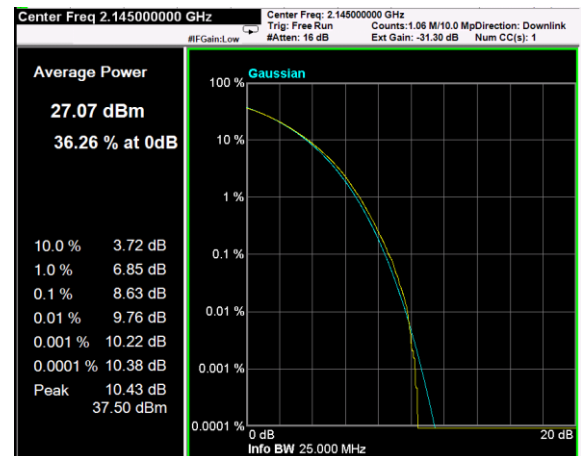
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, Channel Power



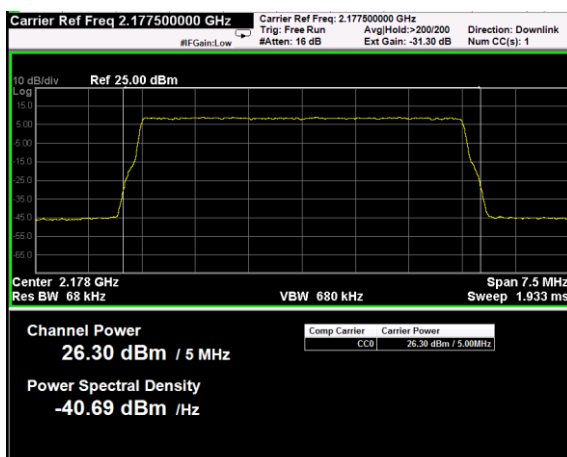
Channel: BOTTOM, Modulation: 64QAM, BW=5MHz, CCDF



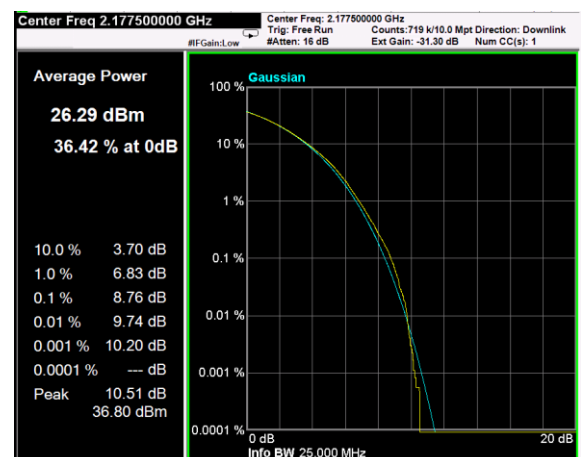
Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, Channel Power



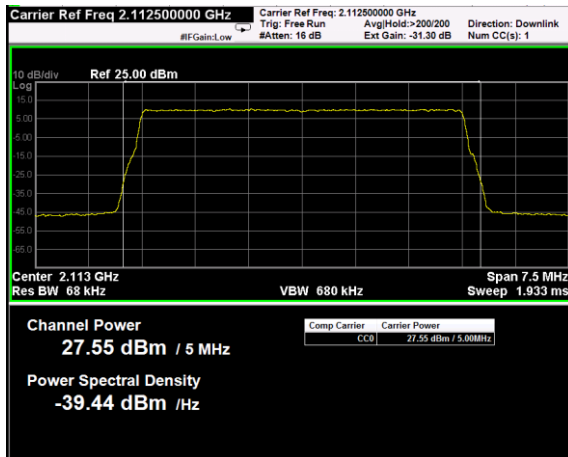
Channel: MIDDLE, Modulation: 64QAM, BW=5MHz, CCDF



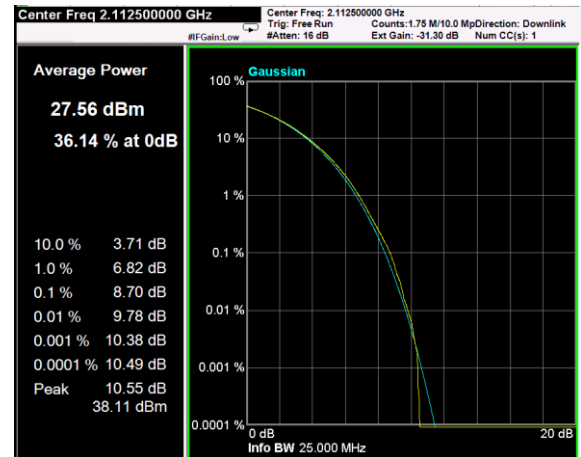
Channel: TOP, Modulation: 64QAM, BW=5MHz, Channel Power



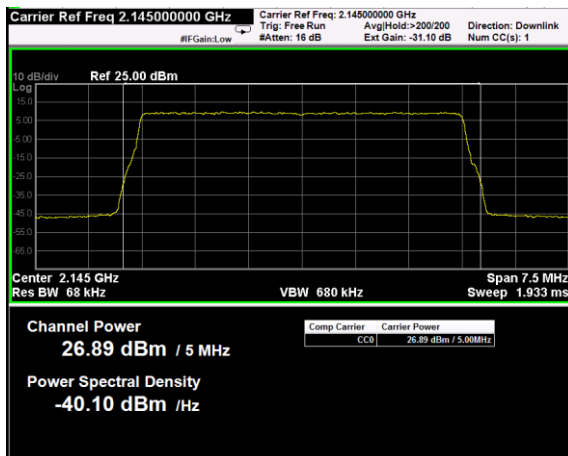
Channel: TOP, Modulation: 64QAM, BW=5MHz, CCDF



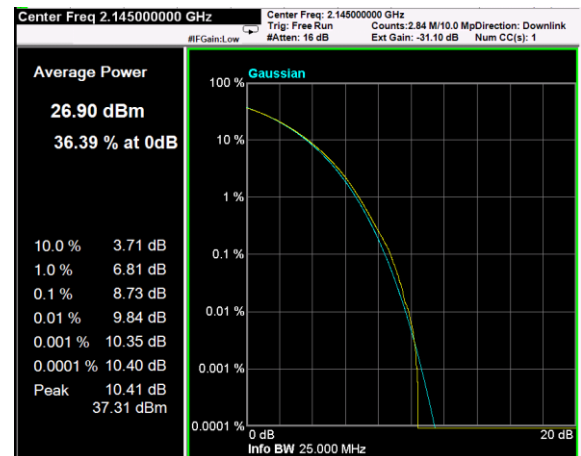
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, Channel Power



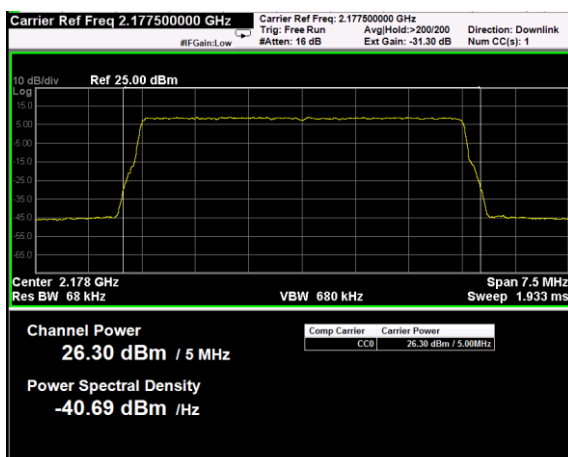
Channel: BOTTOM, Modulation: 256QAM, BW=5MHz, CCDF



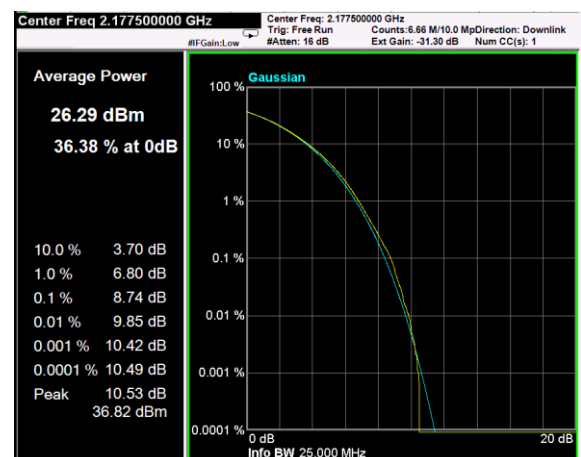
Channel: MIDDLE, Modulation: 256QAM, BW=5MHz, Channel Power



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

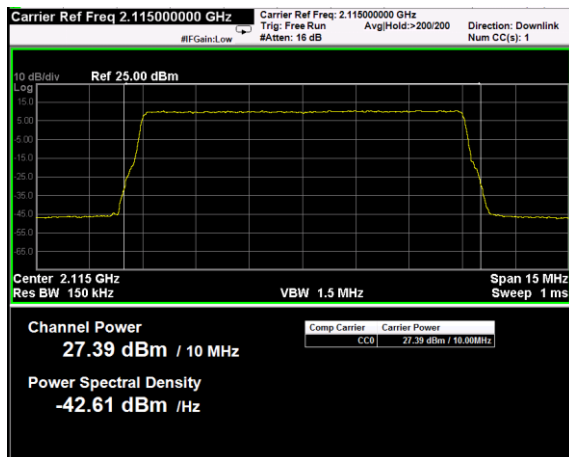


Channel: TOP, Modulation: 256QAM, BW=5MHz, Channel Power

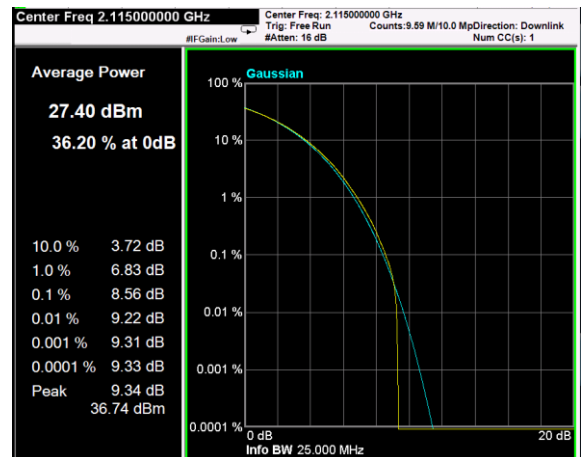


Channel: TOP, Modulation: 256QAM, BW=5MHz, CCDF

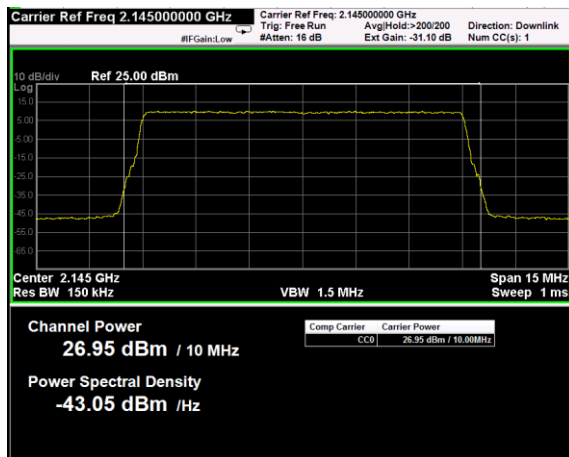
Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	LTE 10MHz (QPSK)	2115	27.39	0.548	9.34
Down-link	LTE 10MHz (QPSK)	2145	26.95	0.495	9.23
Down-link	LTE 10MHz (QPSK)	2175	26.16	0.413	9.3
Down-link	LTE 10MHz (16QAM)	2115	27.45	0.556	9.33
Down-link	LTE 10MHz (16QAM)	2145	26.92	0.492	9.23
Down-link	LTE 10MHz (16QAM)	2175	26.16	0.413	9.32
Down-link	LTE 10MHz (64QAM)	2115	27.45	0.556	9.32
Down-link	LTE 10MHz (64QAM)	2145	26.94	0.494	9.26
Down-link	LTE 10MHz (64QAM)	2175	26.17	0.414	9.28
Down-link	LTE 10MHz (256QAM)	2115	27.47	0.558	9.33
Down-link	LTE 10MHz (256QAM)	2145	27.02	0.504	9.2
Down-link	LTE 10MHz (256QAM)	2175	26.16	0.413	9.26



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



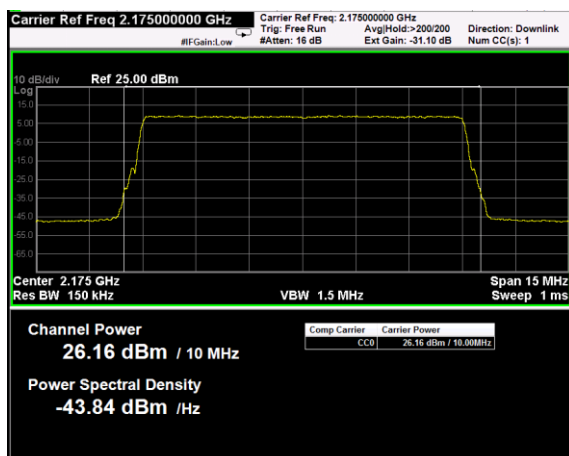
Channel: BOTTOM, Modulation: QPSK, BW=10MHz, CCDF



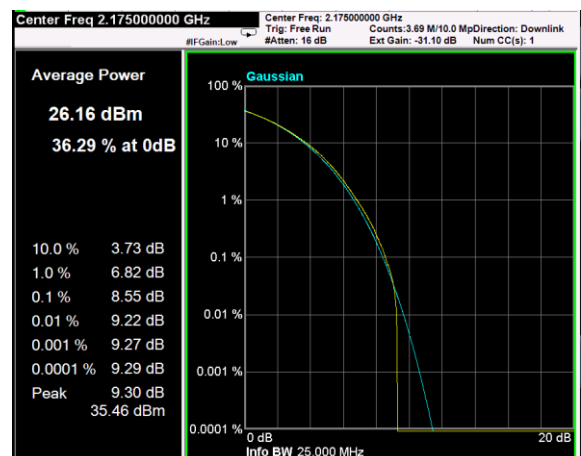
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, Channel Power



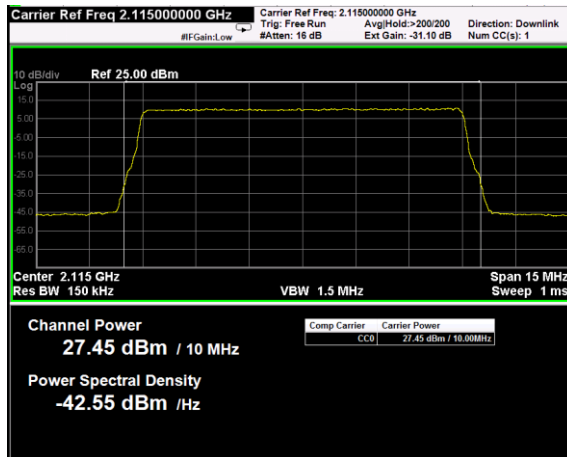
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, CCDF



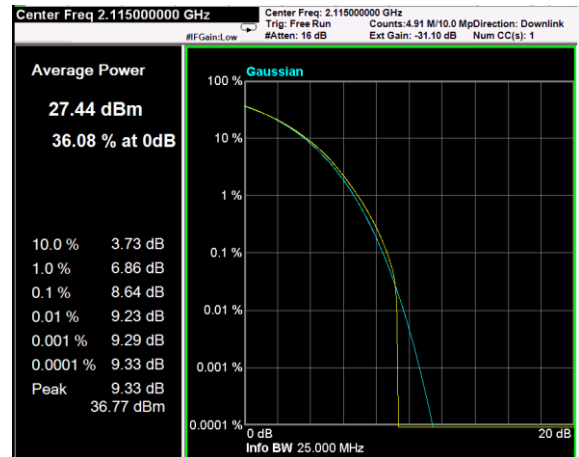
Channel: TOP, Modulation: QPSK, BW=10MHz, Channel Power



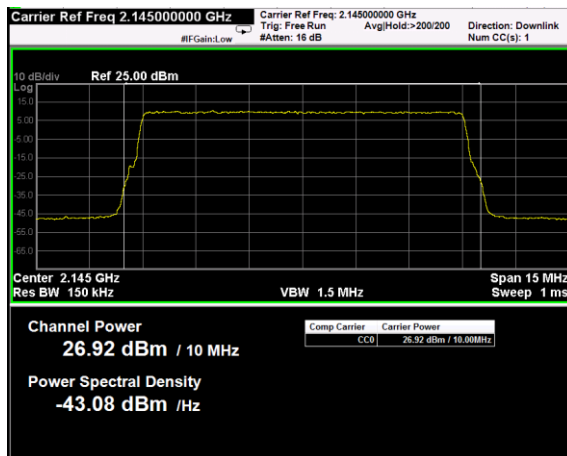
Channel: TOP, Modulation: QPSK, BW=10MHz, CCDF



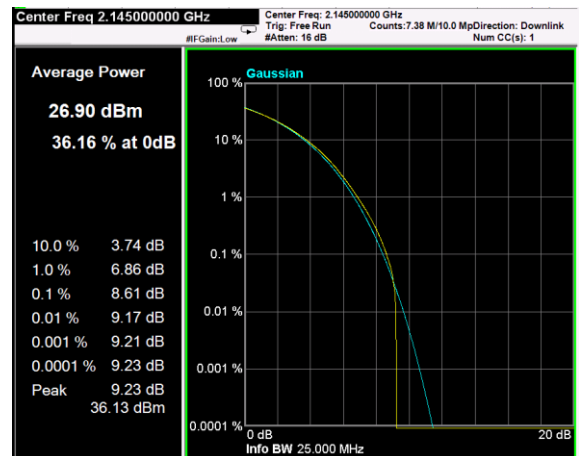
Channel: BOTTOM, Modulation: 16QAM, BW=10MHz, Channel Power



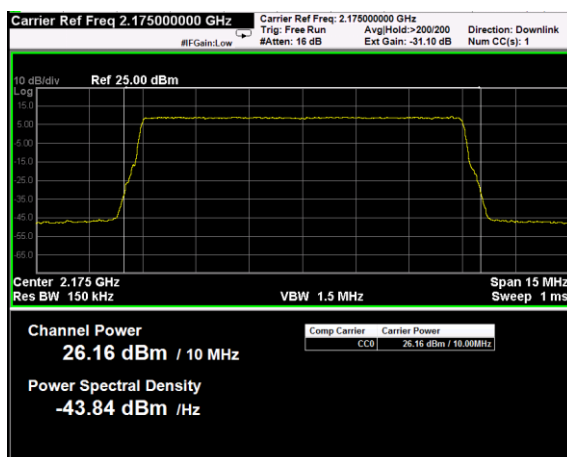
Channel: BOTTOM, Modulation: 16QAM, BW=10MHz, CCDF



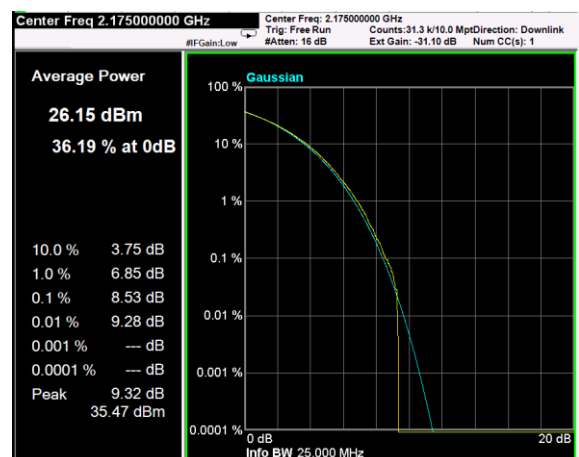
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, Channel Power



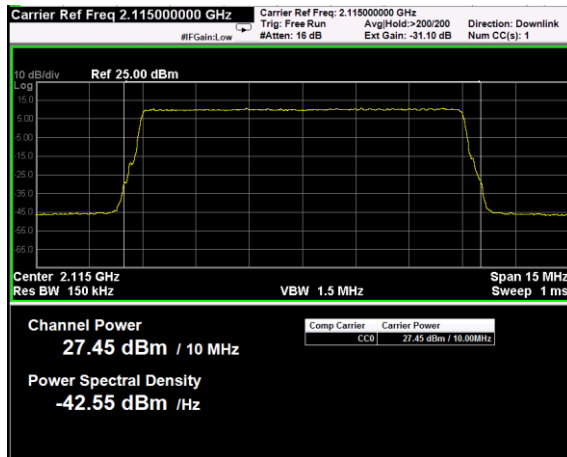
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, CCDF



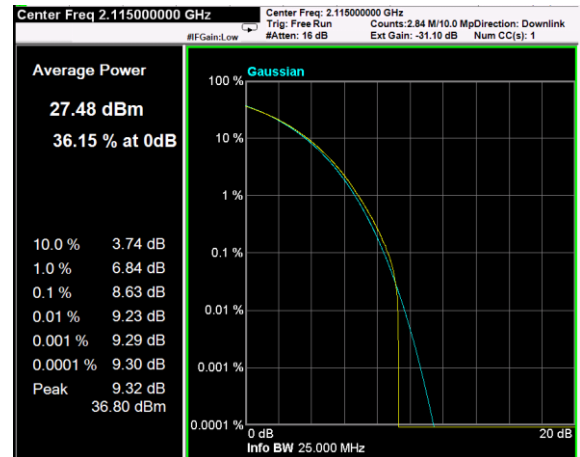
Channel: TOP, Modulation: 16QAM, BW=10MHz, Channel Power



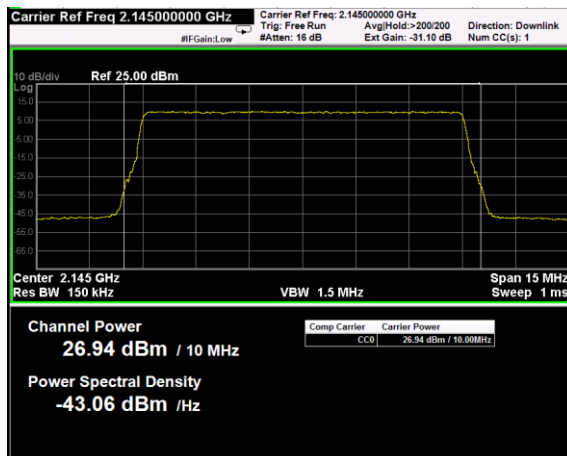
Channel: TOP, Modulation: 16QAM, BW=10MHz, CCDF



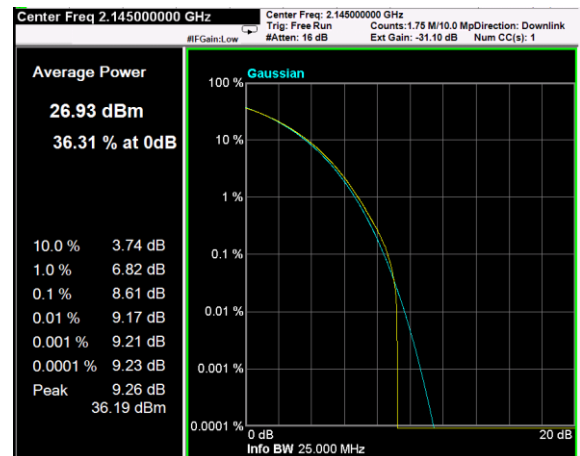
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, Channel Power



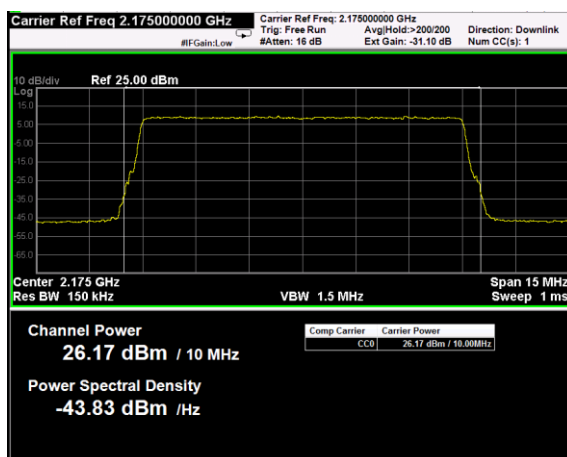
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, CCDF



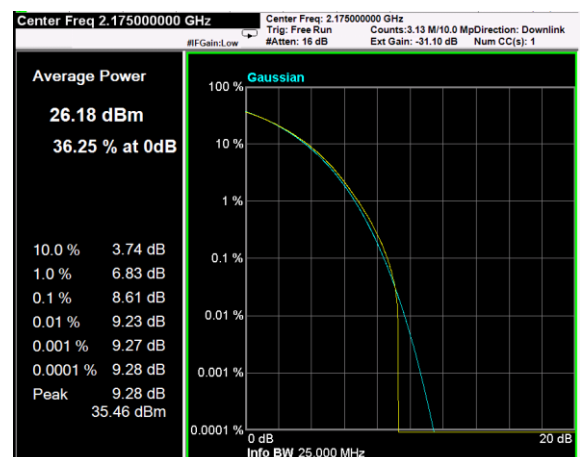
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, Channel Power



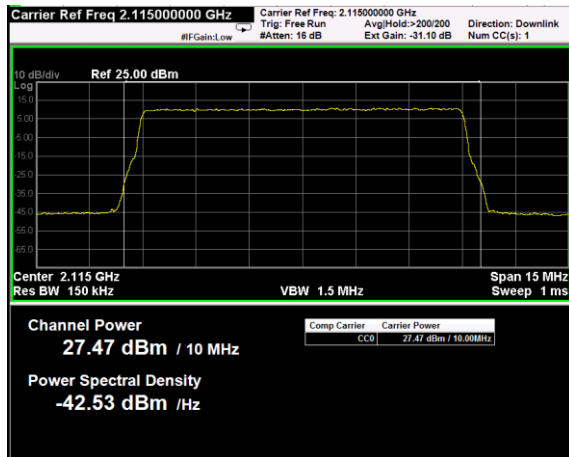
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, CCDF



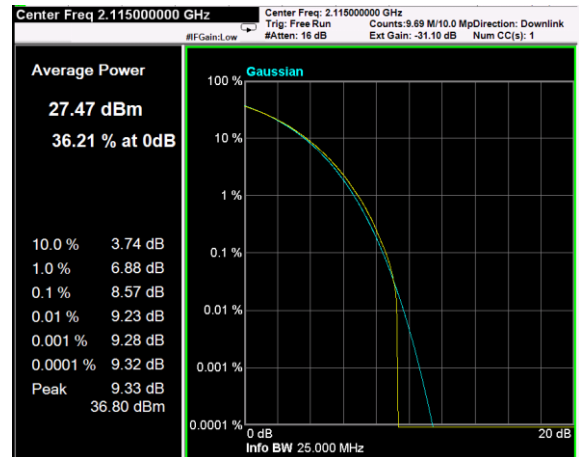
Channel: TOP, Modulation: 64QAM, BW=10MHz, Channel Power



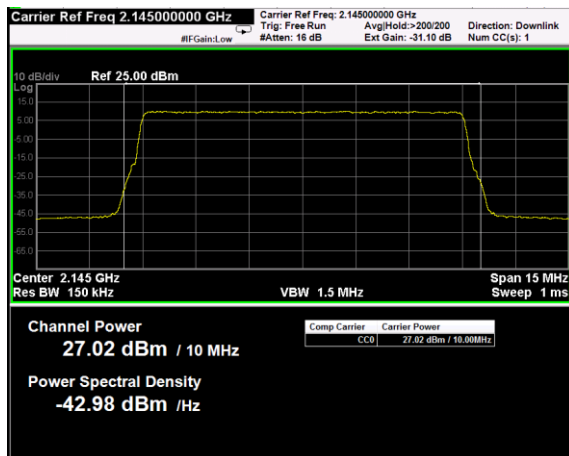
Channel: TOP, Modulation: 64QAM, BW=10MHz, CCDF



Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, Channel Power



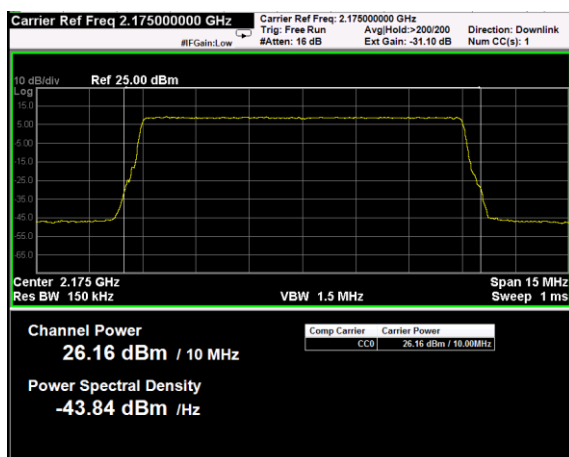
Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, CCDF



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



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



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



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

Test data					
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PAR (dB)
Down-link	LTE 15MHz (QPSK)	2117.5	27.52	0.565	9.73
Down-link	LTE 15MHz (QPSK)	2145	27.03	0.505	9.70
Down-link	LTE 15MHz (QPSK)	2172.5	26.33	0.430	9.77
Down-link	LTE 15MHz (16QAM)	2117.5	27.51	0.564	9.74
Down-link	LTE 15MHz (16QAM)	2145	26.99	0.500	9.69
Down-link	LTE 15MHz (16QAM)	2172.5	26.31	0.428	9.73
Down-link	LTE 15MHz (64QAM)	2117.5	27.54	0.568	9.79
Down-link	LTE 15MHz (64QAM)	2145	27.03	0.505	9.68
Down-link	LTE 15MHz (64QAM)	2172.5	26.33	0.430	9.75
Down-link	LTE 15MHz (256QAM)	2117.5	27.52	0.565	9.80
Down-link	LTE 15MHz (256QAM)	2145	27.05	0.507	9.71
Down-link	LTE 15MHz (256QAM)	2172.5	26.33	0.430	9.76