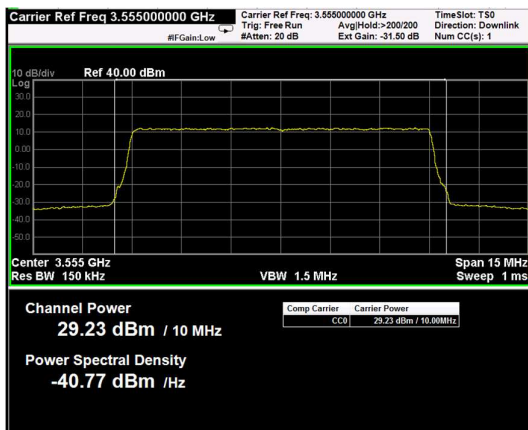
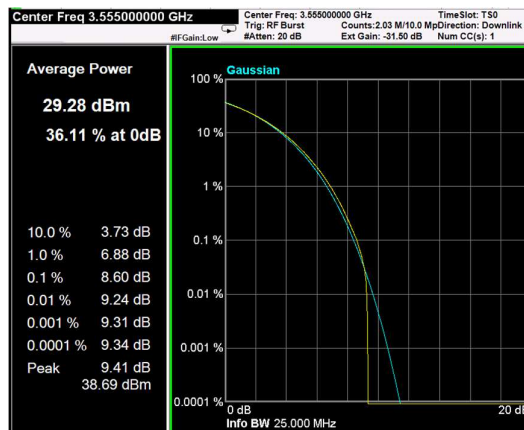


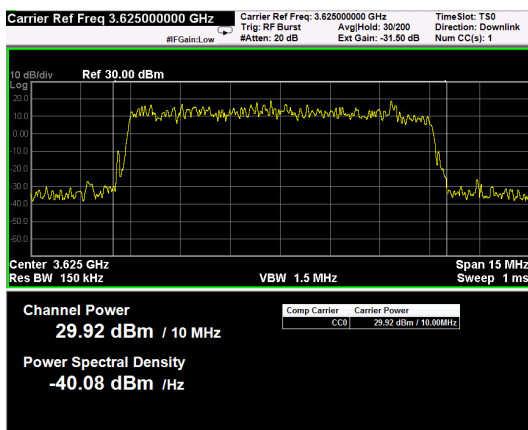
RF PORT 1 plots



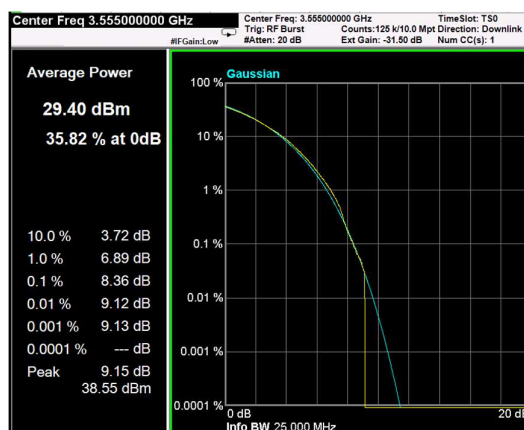
Channel: BOTTOM, Modulation: QPSK, BW=10MHz, Channel Power



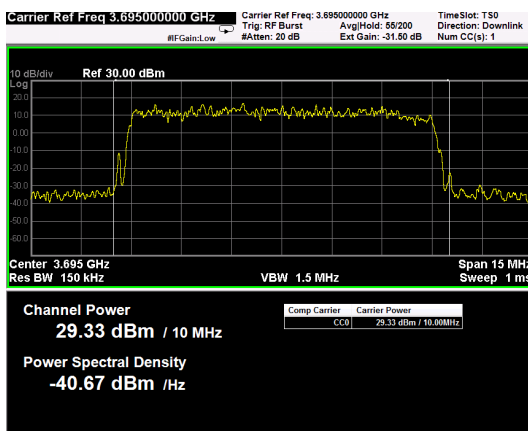
Channel: BOTTOM, Modulation: QPSK, BW=10MHz, CCDF



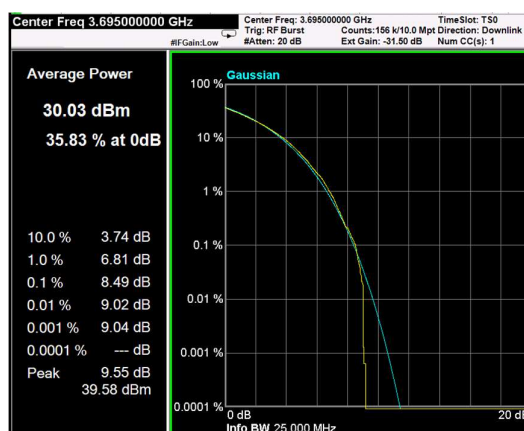
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, Channel Power



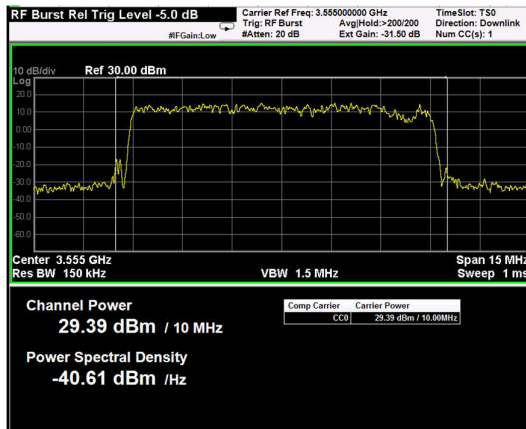
Channel: MIDDLE, Modulation: QPSK, BW=10MHz, CCDF



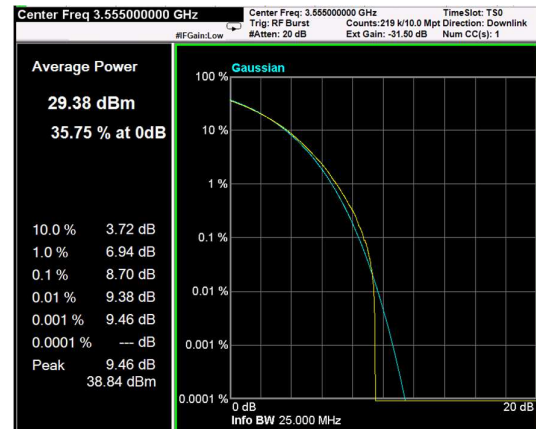
Channel: TOP, Modulation: QPSK, BW=10MHz, Channel Power



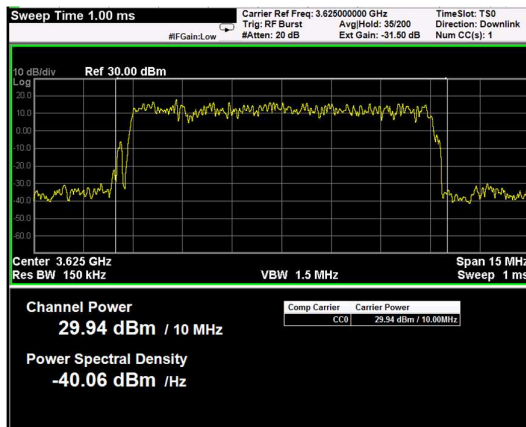
Channel: TOP, Modulation: QPSK, BW=10MHz, CCDF



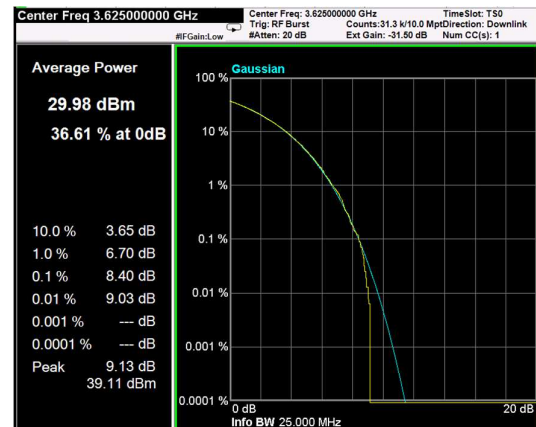
Channel: BOTTOM, Modulation: 16QAM, BW=10MHz, Channel Power



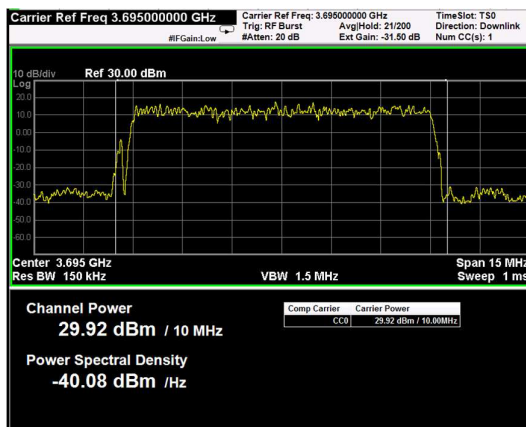
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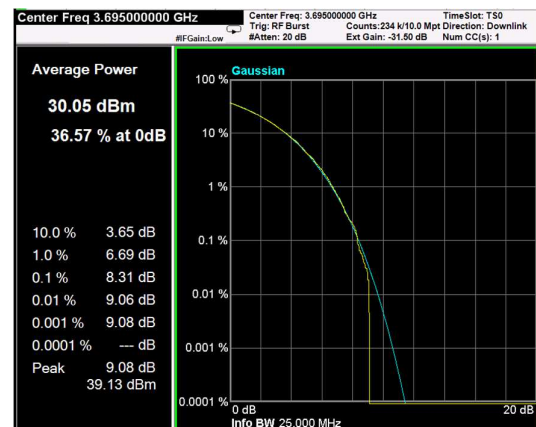
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, Channel Power



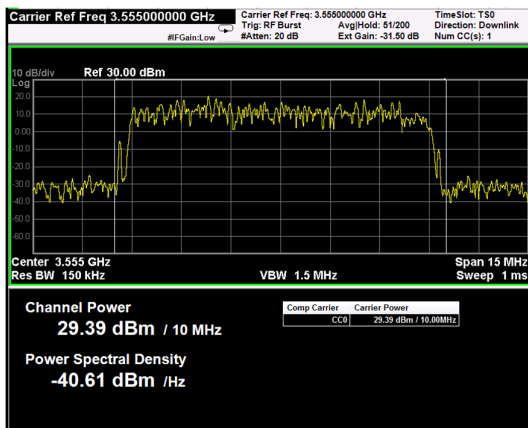
Channel: MIDDLE, Modulation: 16QAM, BW=10MHz, CCDF



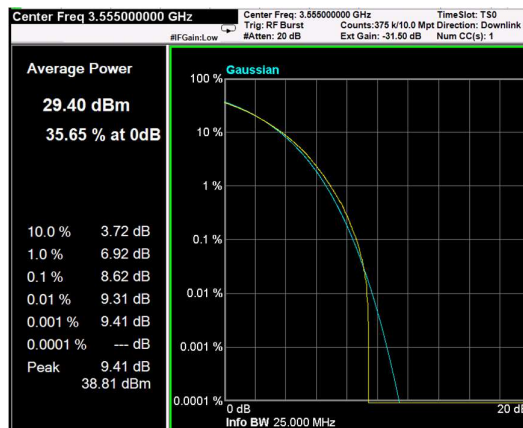
Channel: TOP, Modulation: 16QAM, BW=10MHz, Channel Power



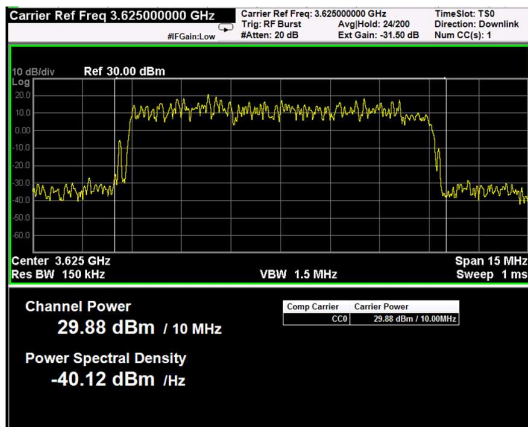
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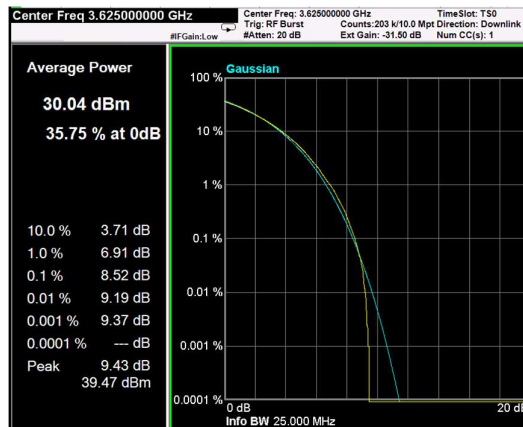
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, Channel Power



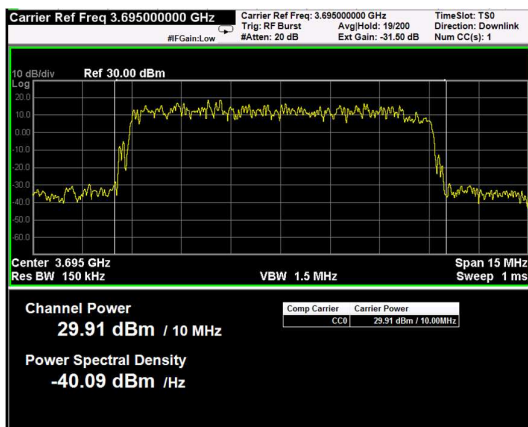
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, CCDF



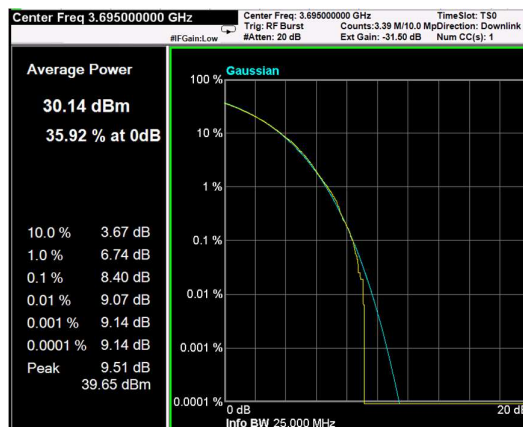
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, Channel Power



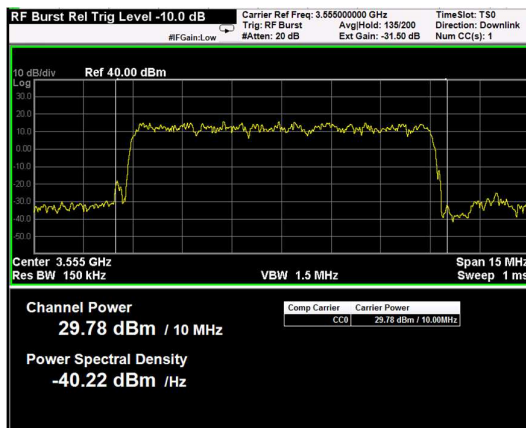
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, CCDF



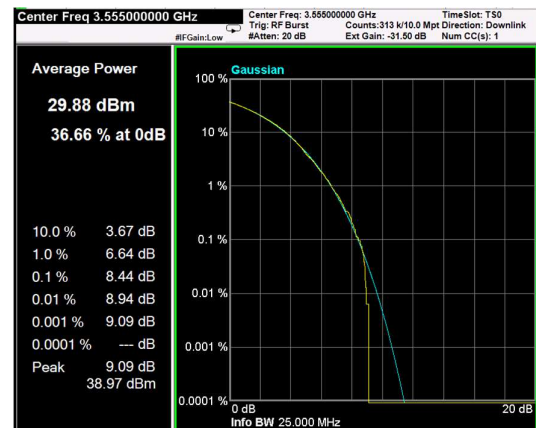
Channel: TOP, Modulation: 64QAM, BW=10MHz, Channel Power



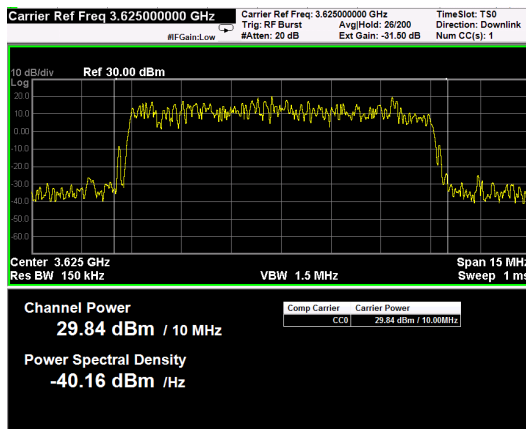
Channel: TOP, Modulation: 64QAM, BW=10MHz, CCDF



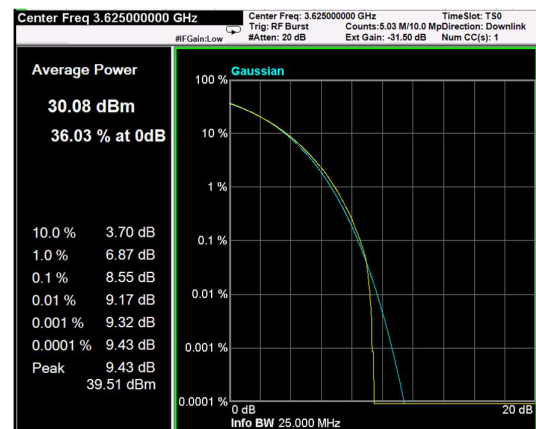
Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, Channel Power



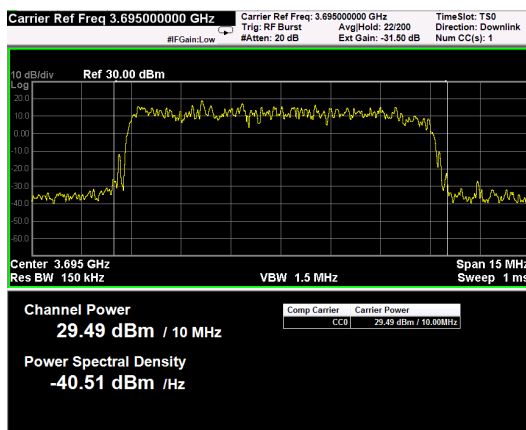
Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, CCDF



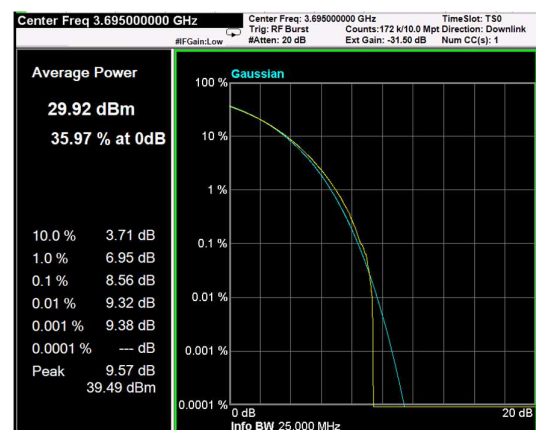
Channel: MIDDLE, Modulation: 256QAM, BW=10MHz, Channel Power



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

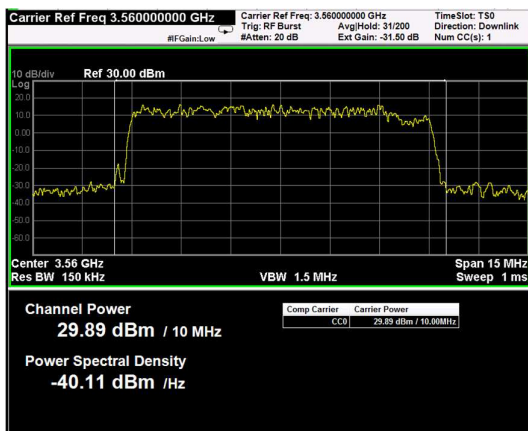


Channel: TOP, Modulation: 256QAM, BW=10MHz, Channel Power

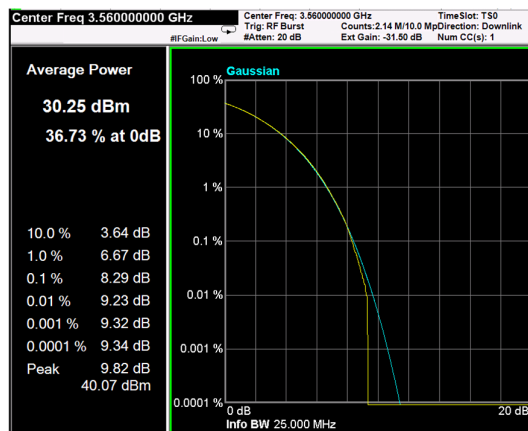


Channel: TOP, Modulation: 256QAM, BW=10MHz, CCDF

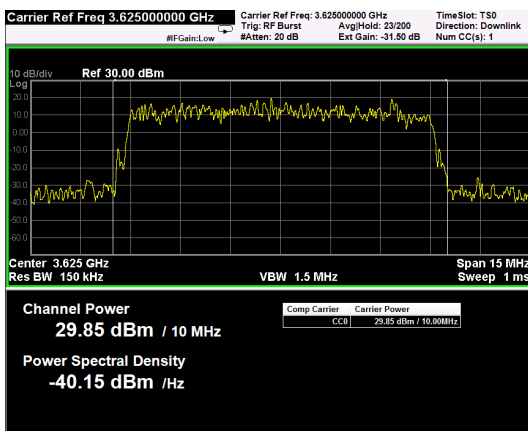
RF PORT 2 plots



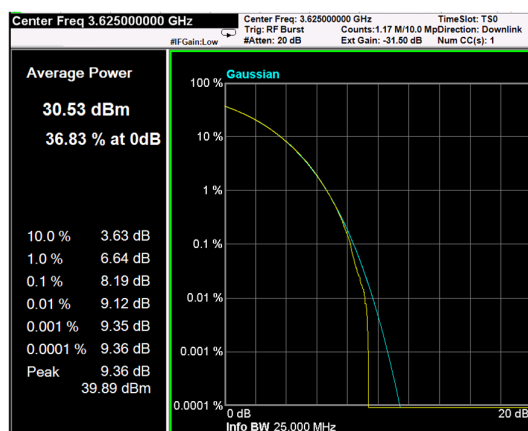
Channel: BOTTOM, Modulation: QPSK,
BW=10MHz, Channel Power



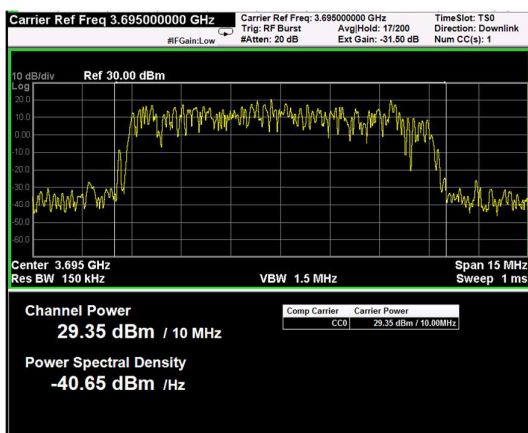
Channel: BOTTOM, Modulation: QPSK,
BW=10MHz, CCDF



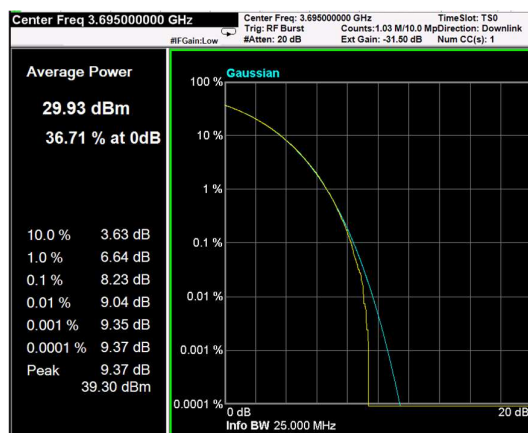
Channel: MIDDLE, Modulation: QPSK,
BW=10MHz, Channel Power



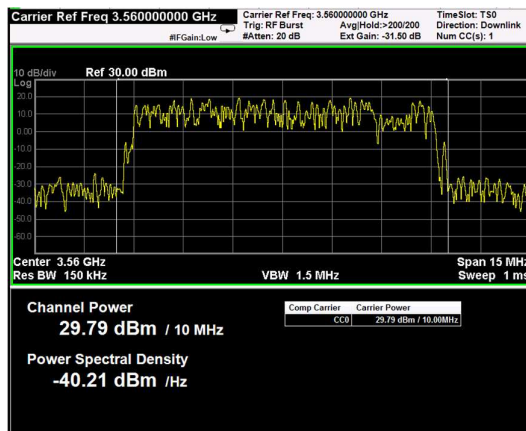
Channel: MIDDLE, Modulation: QPSK,
BW=10MHz, CCDF



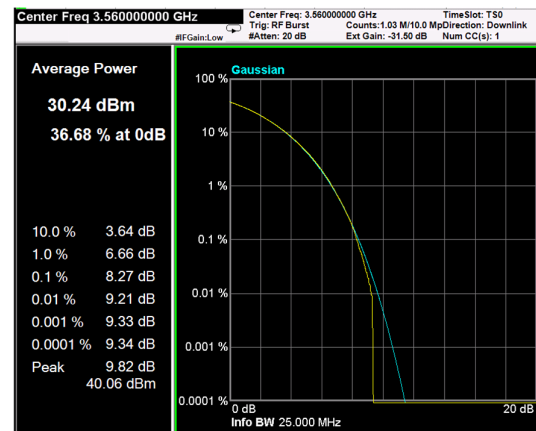
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BW=10MHz, Channel Power



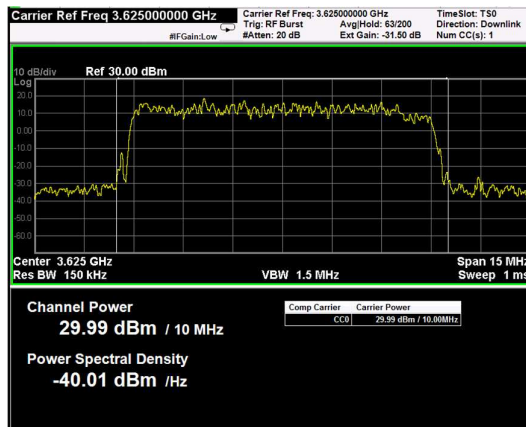
Channel: TOP, Modulation: QPSK,
BW=10MHz, CCDF



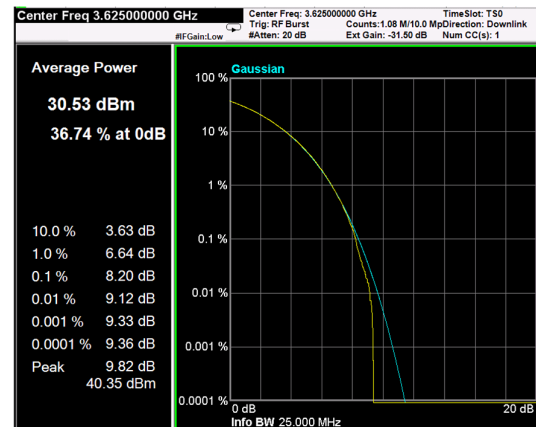
Channel: BOTTOM, Modulation: 16QAM,
 BW=10MHz, Channel Power



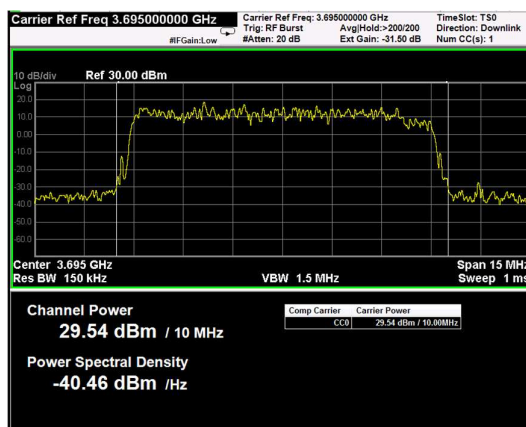
Channel: BOTTOM, Modulation: 16QAM,
 BW=10MHz, CCDF



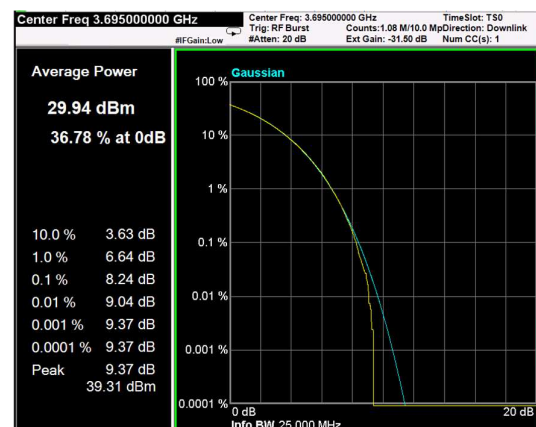
Channel: MIDDLE, Modulation: 16QAM,
 BW=10MHz, Channel Power



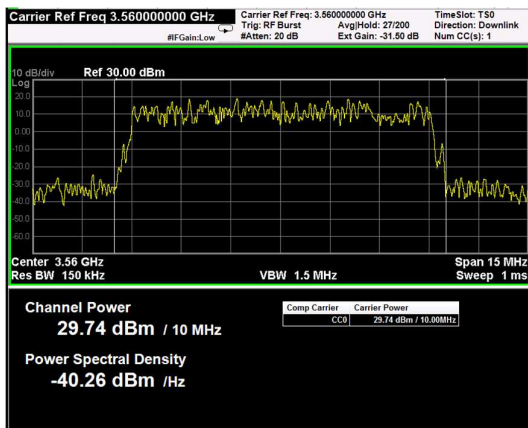
Channel: MIDDLE, Modulation: 16QAM,
 BW=10MHz, CCDF



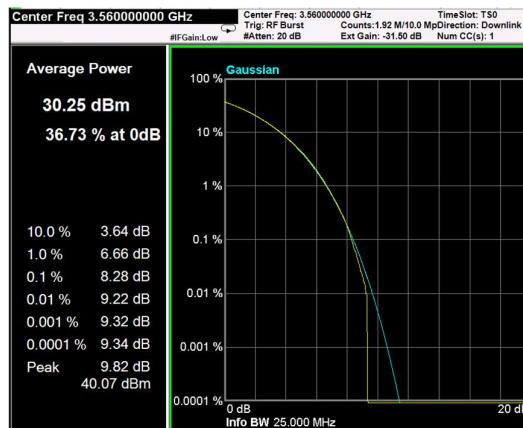
Channel: TOP, Modulation: 16QAM,
 BW=10MHz, Channel Power



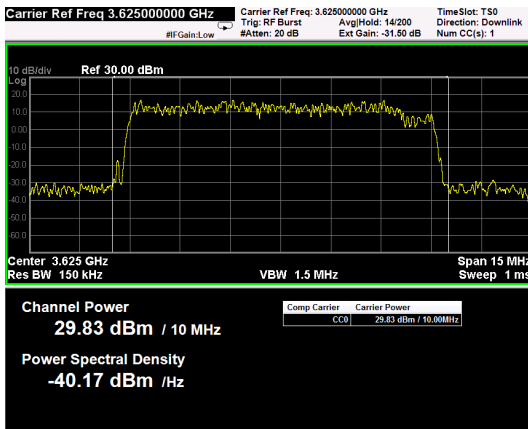
Channel: TOP, Modulation: 16QAM,
 BW=10MHz, CCDF



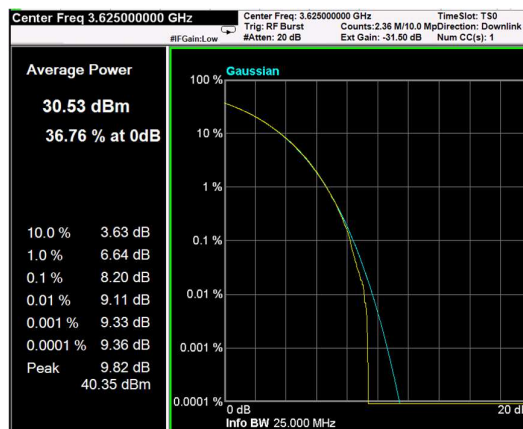
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, Channel Power



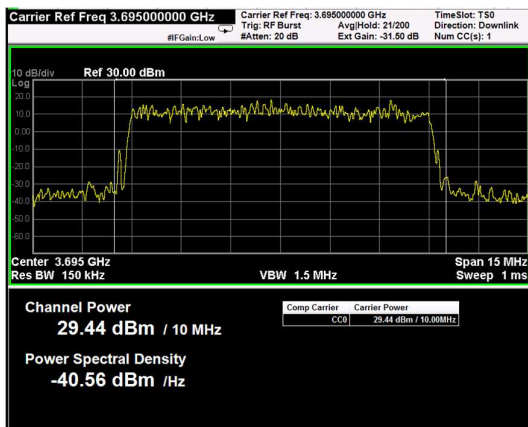
Channel: BOTTOM, Modulation: 64QAM, BW=10MHz, CCDF



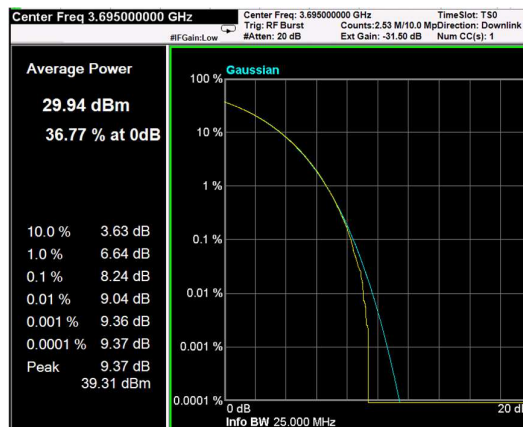
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, Channel Power



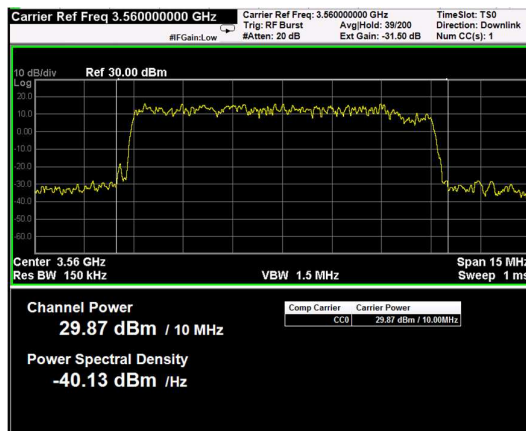
Channel: MIDDLE, Modulation: 64QAM, BW=10MHz, CCDF



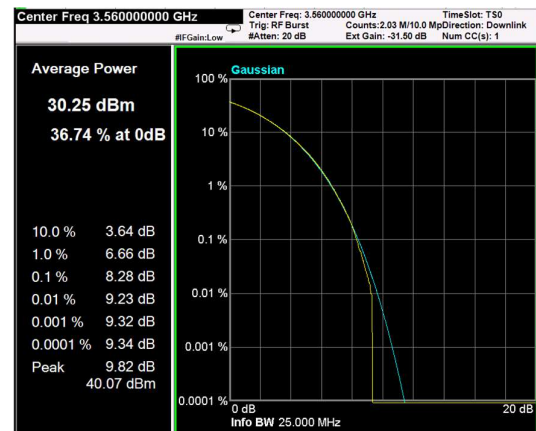
Channel: TOP, Modulation: 64QAM, BW=10MHz, Channel Power



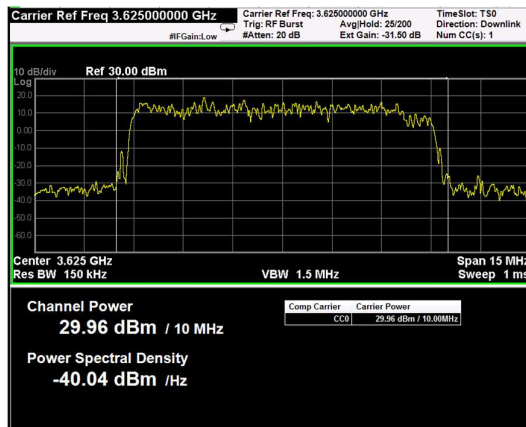
Channel: TOP, Modulation: 64QAM, BW=10MHz, CCDF



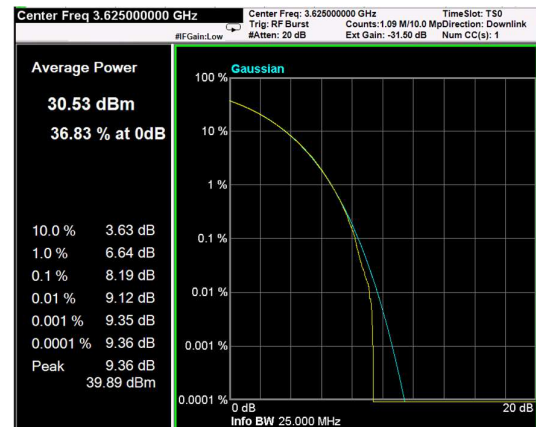
Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, Channel Power



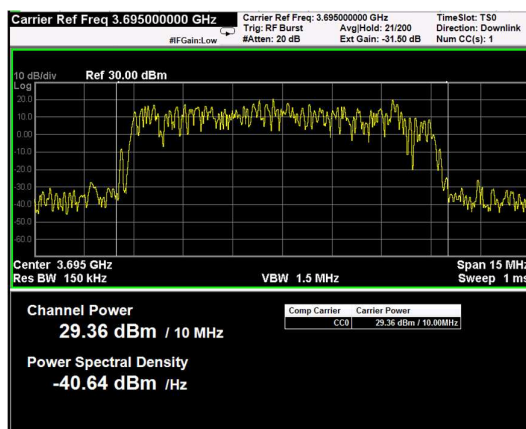
Channel: BOTTOM, Modulation: 256QAM, BW=10MHz, CCDF



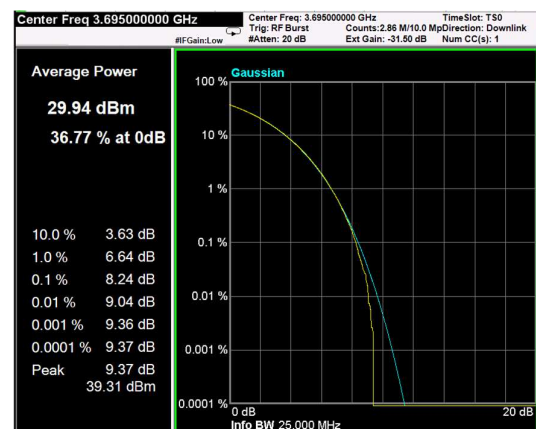
Channel: MIDDLE, Modulation: 256QAM, BW=10MHz, Channel Power



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



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



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

RF PORT 1

Test data							
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PSD (dBm/Hz)	PSD (dBm/MHz)	PAR (dB)
Down-link	LTE 15MHz (QPSK)	3557.5	29.38	0.867	-42.38	17.62	9.88
Down-link	LTE 15MHz (QPSK)	3625	29.68	0.929	-42.08	17.92	9.83
Down-link	LTE 15MHz (QPSK)	3692.5	29.73	0.940	-42.04	17.96	9.6
Down-link	LTE 15MHz (16QAM)	3557.5	29.53	0.897	-42.23	17.77	9.55
Down-link	LTE 15MHz (16QAM)	3625	29.59	0.910	-42.17	17.83	9.45
Down-link	LTE 15MHz (16QAM)	3692.5	29.64	0.920	-42.12	17.88	9.64
Down-link	LTE 15MHz (64QAM)	3557.5	29.69	0.931	-42.07	17.93	9.56
Down-link	LTE 15MHz (64QAM)	3625	29.6	0.912	-42.17	17.83	9.6
Down-link	LTE 15MHz (64QAM)	3692.5	29.93	0.984	-41.83	18.17	9.83
Down-link	LTE 15MHz (256QAM)	3557.5	29.14	0.820	-42.63	17.37	9.91
Down-link	LTE 15MHz (256QAM)	3625	29.48	0.887	-42.28	17.72	9.63
Down-link	LTE 15MHz (256QAM)	3692.5	29.57	0.906	-42.20	17.8	9.8

RF PORT 2

Test data							
Direction	Modulation	Frequency (MHz)	RF output Power (dBm)	RF output channel Power (W)	PSD (dBm/Hz)	PSD (dBm/MHz)	PAR (dB)
Down-link	LTE 15MHz (QPSK)	3557.5	29.43	0.877	-42.33	17.67	10.29
Down-link	LTE 15MHz (QPSK)	3625	30.09	1.021	-41.67	18.33	9.85
Down-link	LTE 15MHz (QPSK)	3692.5	28.97	0.789	-42.79	17.21	9.77
Down-link	LTE 15MHz (16QAM)	3557.5	29.48	0.887	-42.28	17.72	12.75
Down-link	LTE 15MHz (16QAM)	3625	30.1	1.023	-41.67	18.33	9.85
Down-link	LTE 15MHz (16QAM)	3692.5	28.98	0.791	-42.78	17.22	9.78
Down-link	LTE 15MHz (64QAM)	3557.5	29.47	0.885	-42.29	17.71	10.29
Down-link	LTE 15MHz (64QAM)	3625	30.14	1.033	-41.62	18.38	9.85
Down-link	LTE 15MHz (64QAM)	3692.5	29.08	0.809	-42.68	17.32	9.78
Down-link	LTE 15MHz (256QAM)	3557.5	29.47	0.885	-42.29	17.71	10.29
Down-link	LTE 15MHz (256QAM)	3625	30.22	1.052	-41.54	18.46	9.85
Down-link	LTE 15MHz (256QAM)	3692.5	29.01	0.796	-42.75	17.25	9.77

Special notes

Maximum EIRP $\leq 30\text{dBm}/10\text{MHz}$
Maximum PSD eirp $\leq 20\text{dBm}/1\text{MHz}$

$$\text{PSD eirp (in 1 MHz)} = \text{PSD}_{\text{max}} - N + G_{\text{max}} = 18,24 - N + G_{\text{max}} \leq 20$$

$$G_{\text{max}} \leq (20 - 18,24 + N) = N + 1,76$$

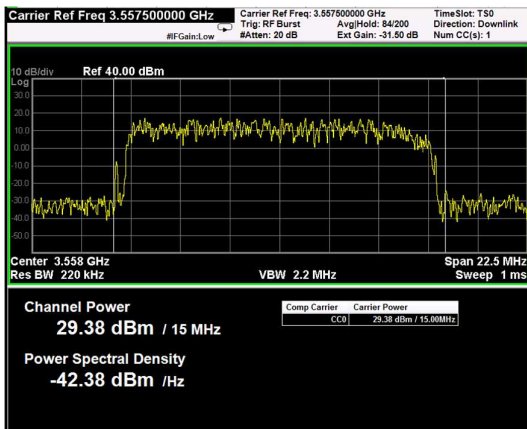
Where:

- PSD_{max} is the maximum PSD value measured on the antenna connector of the equipment and it depends on the LTE bandwidth signal
- N is system path loss (in dB) due to cable insertion, splitter, etc....
- G_{max} is the maximum antenna gain (in dBi)

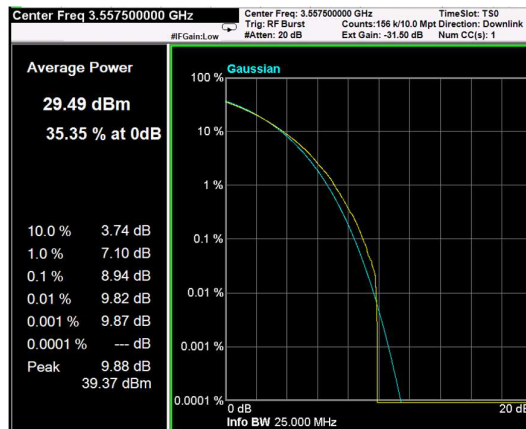
Therefore:

- Maximum antenna gain $G_{\text{max}} = (N + 1,76)$ dBi and Output power setting = 30 dBm

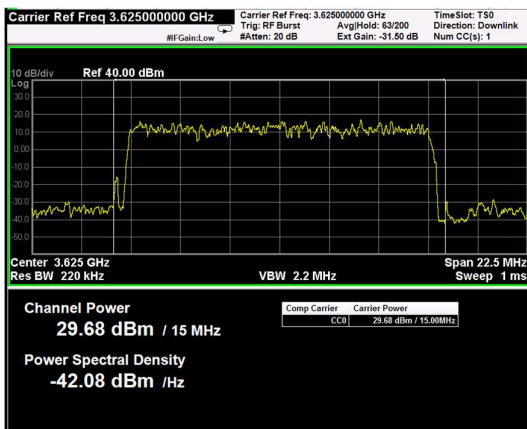
RF PORT 1 plots



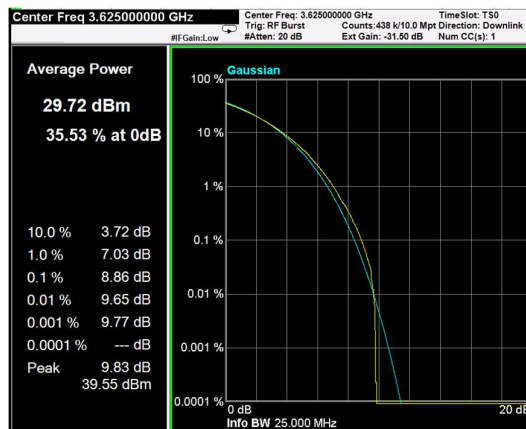
Channel: BOTTOM, Modulation: QPSK,
BW=15MHz, Channel Power



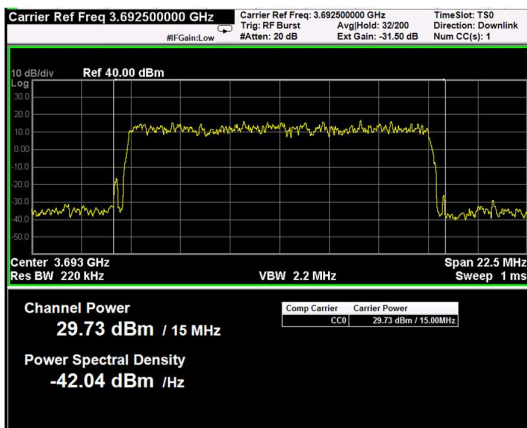
Channel: BOTTOM, Modulation: QPSK,
BW=15MHz, CCDF



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



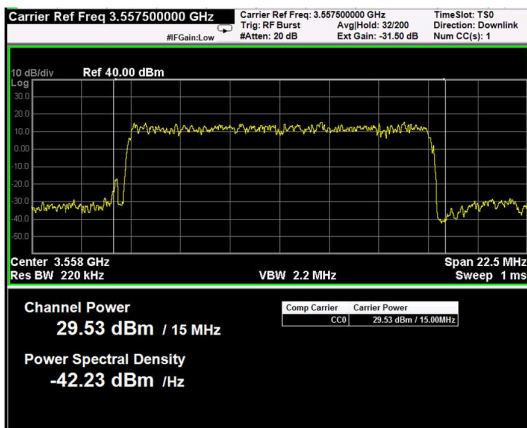
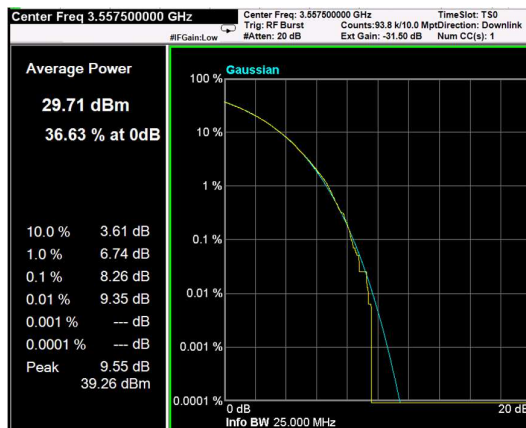
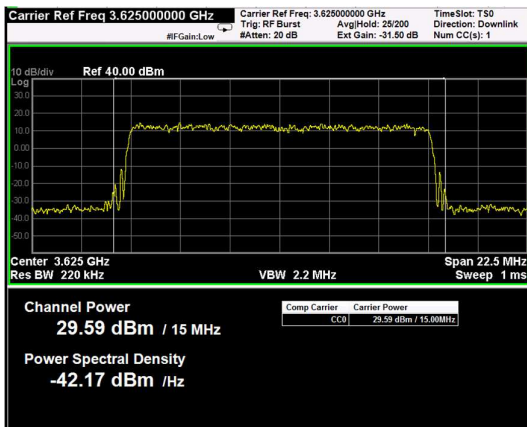
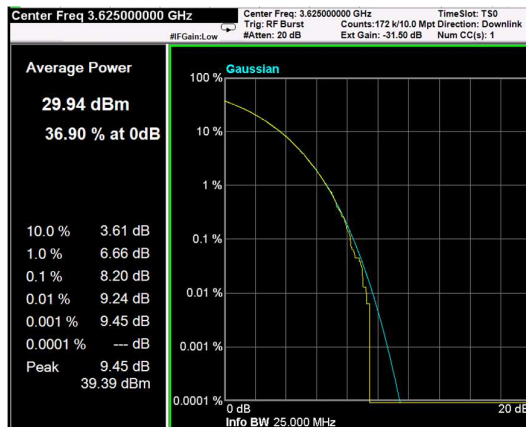
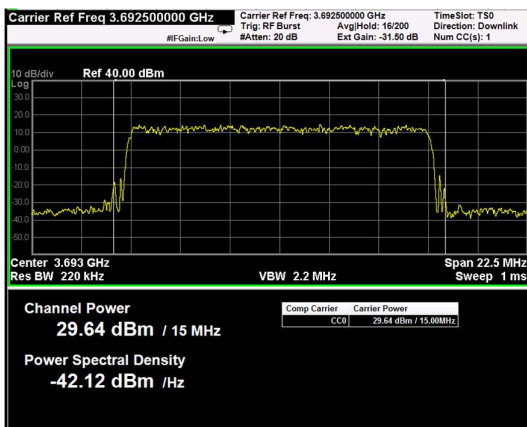
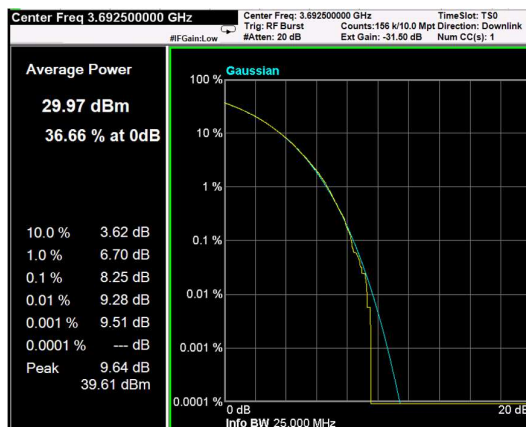
Channel: MIDDLE, Modulation: QPSK,
BW=15MHz, CCDF

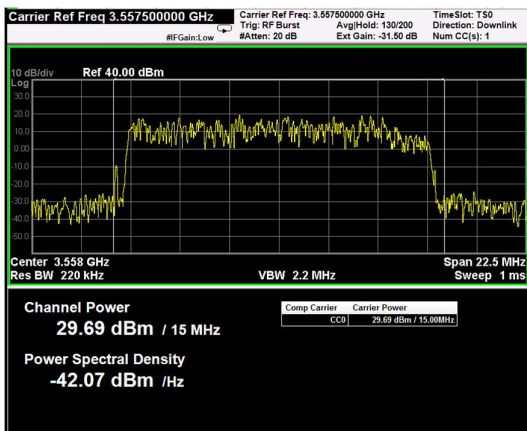


Channel: TOP, Modulation: QPSK,
BW=15MHz, Channel Power

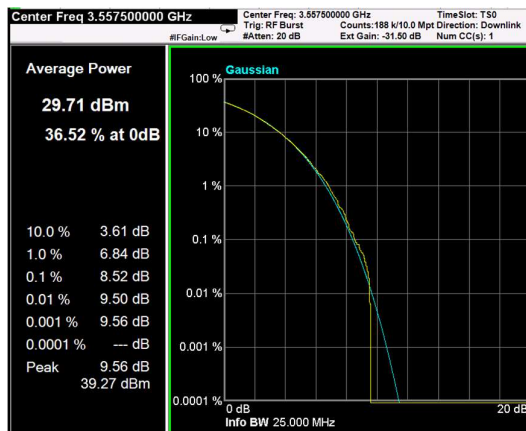


Channel: TOP, Modulation: QPSK,
BW=15MHz, CCDF

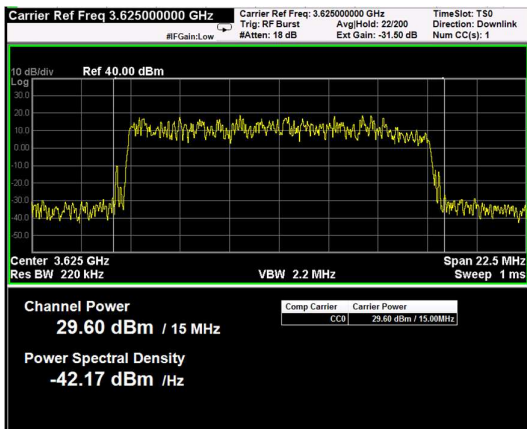

Channel: BOTTOM, Modulation: 16QAM,
BW=15MHz, Channel Power

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

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

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

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

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



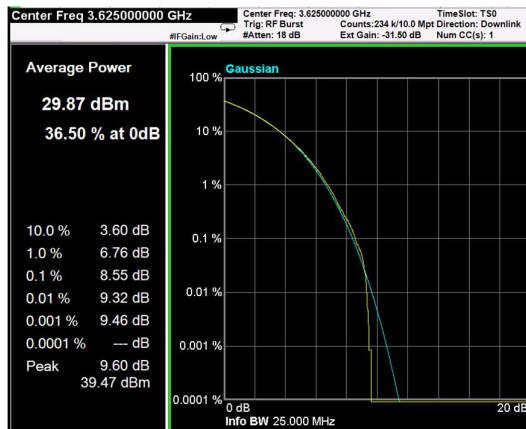
Channel: BOTTOM, Modulation: 64QAM, BW=15MHz, Channel Power



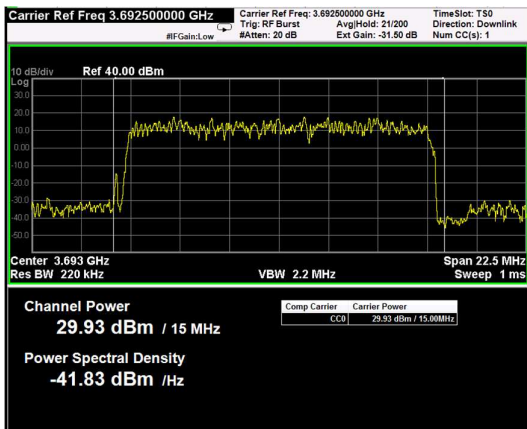
Channel: BOTTOM, Modulation: 64QAM, BW=15MHz, CCDF



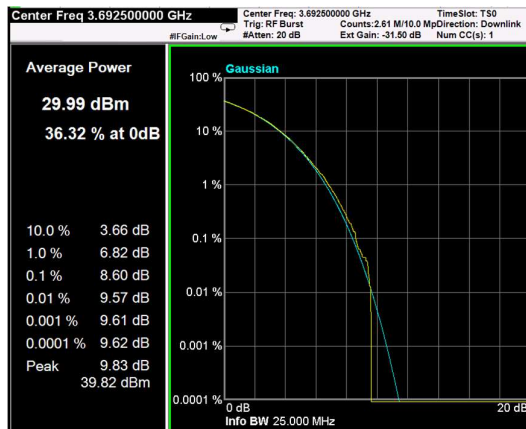
Channel: MIDDLE, Modulation: 64QAM, BW=15MHz, Channel Power



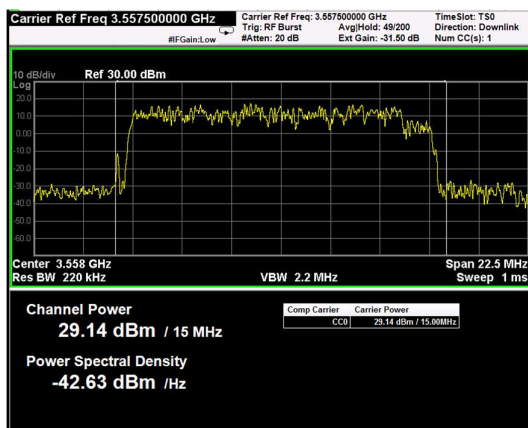
Channel: MIDDLE, Modulation: 64QAM, BW=15MHz, CCDF



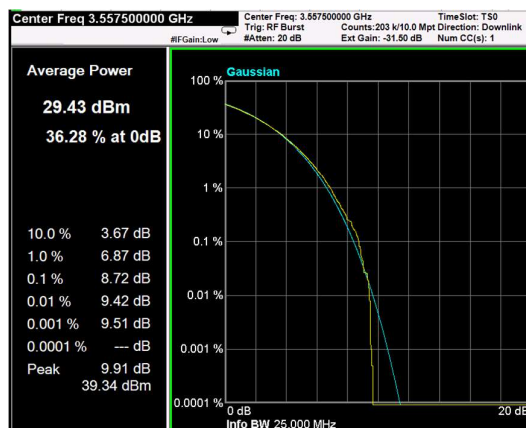
Channel: TOP, Modulation: 64QAM, BW=15MHz, Channel Power



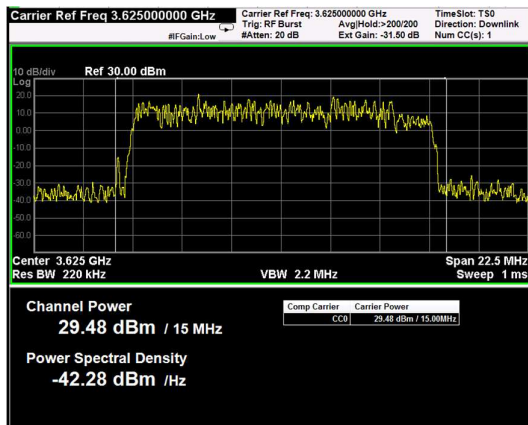
Channel: TOP, Modulation: 64QAM, BW=15MHz, CCDF



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



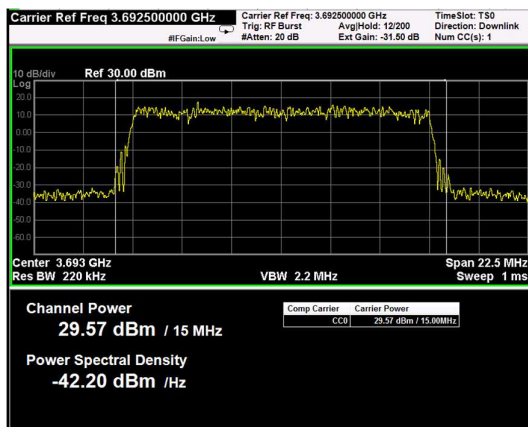
Channel: BOTTOM, Modulation: 256QAM, BW=15MHz, CCDF



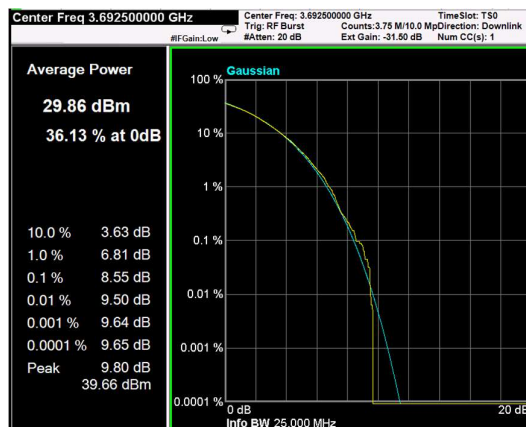
Channel: MIDDLE, Modulation: 256QAM, BW=15MHz, Channel Power



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

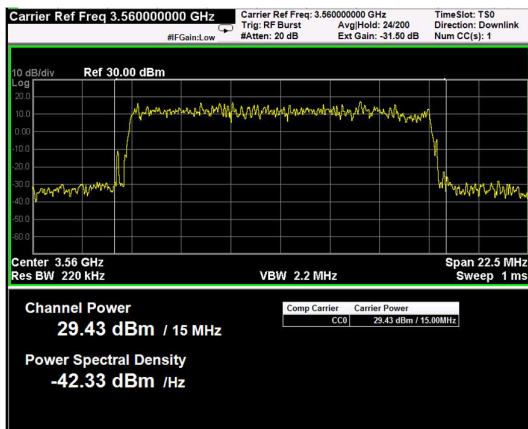


Channel: TOP, Modulation: 256QAM, BW=15MHz, Channel Power

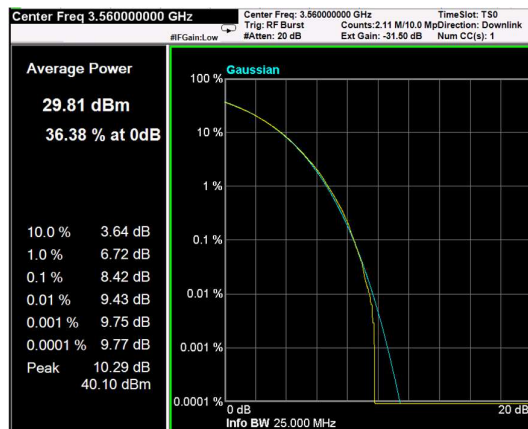


Channel: TOP, Modulation: 256QAM, BW=15MHz, CCDF

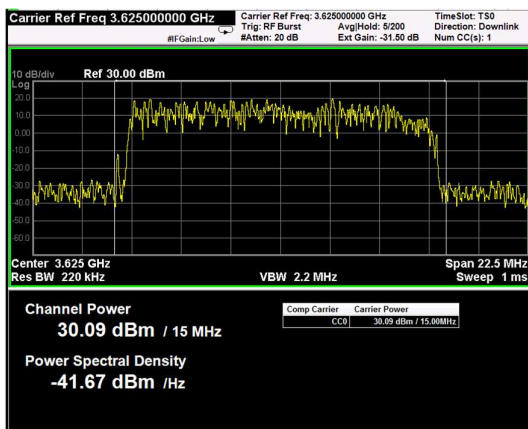
RF PORT 2 plots



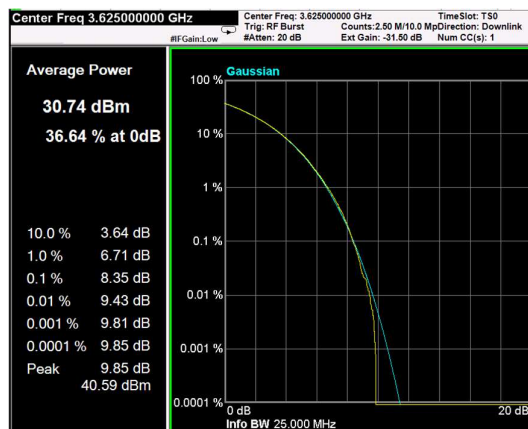
Channel: BOTTOM, Modulation: QPSK,
 BW=15MHz, Channel Power



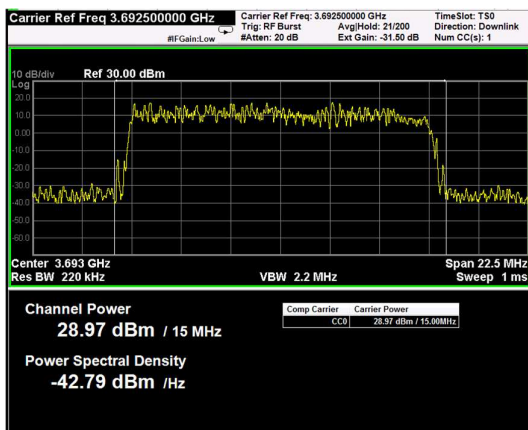
Channel: BOTTOM, Modulation: QPSK,
 BW=15MHz, CCDF



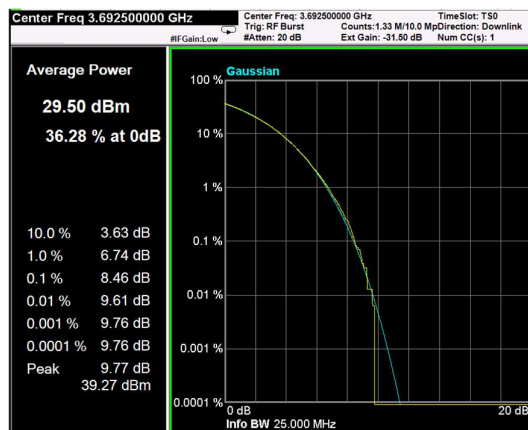
Channel: MIDDLE, Modulation: QPSK,
 BW=15MHz, Channel Power



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



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



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