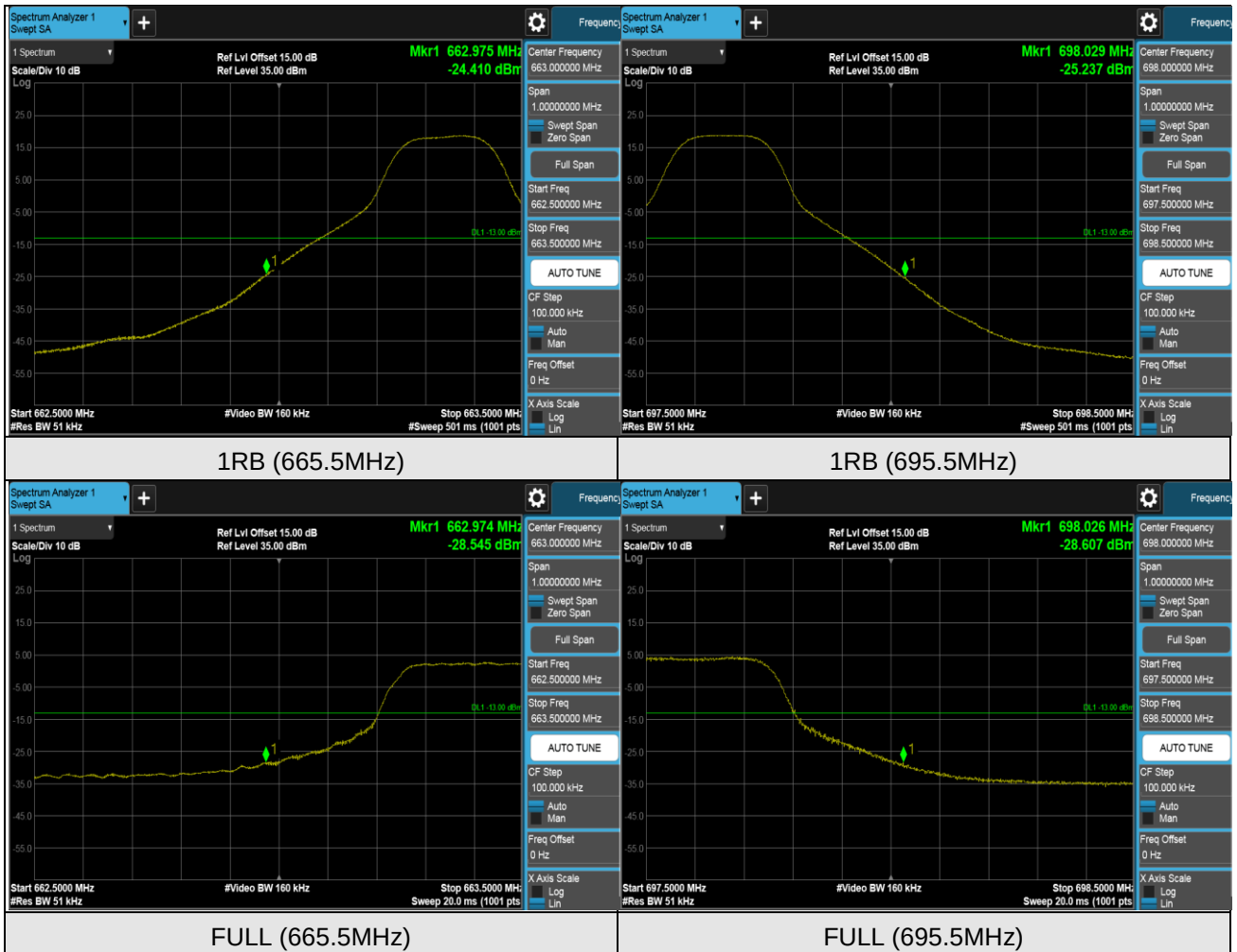
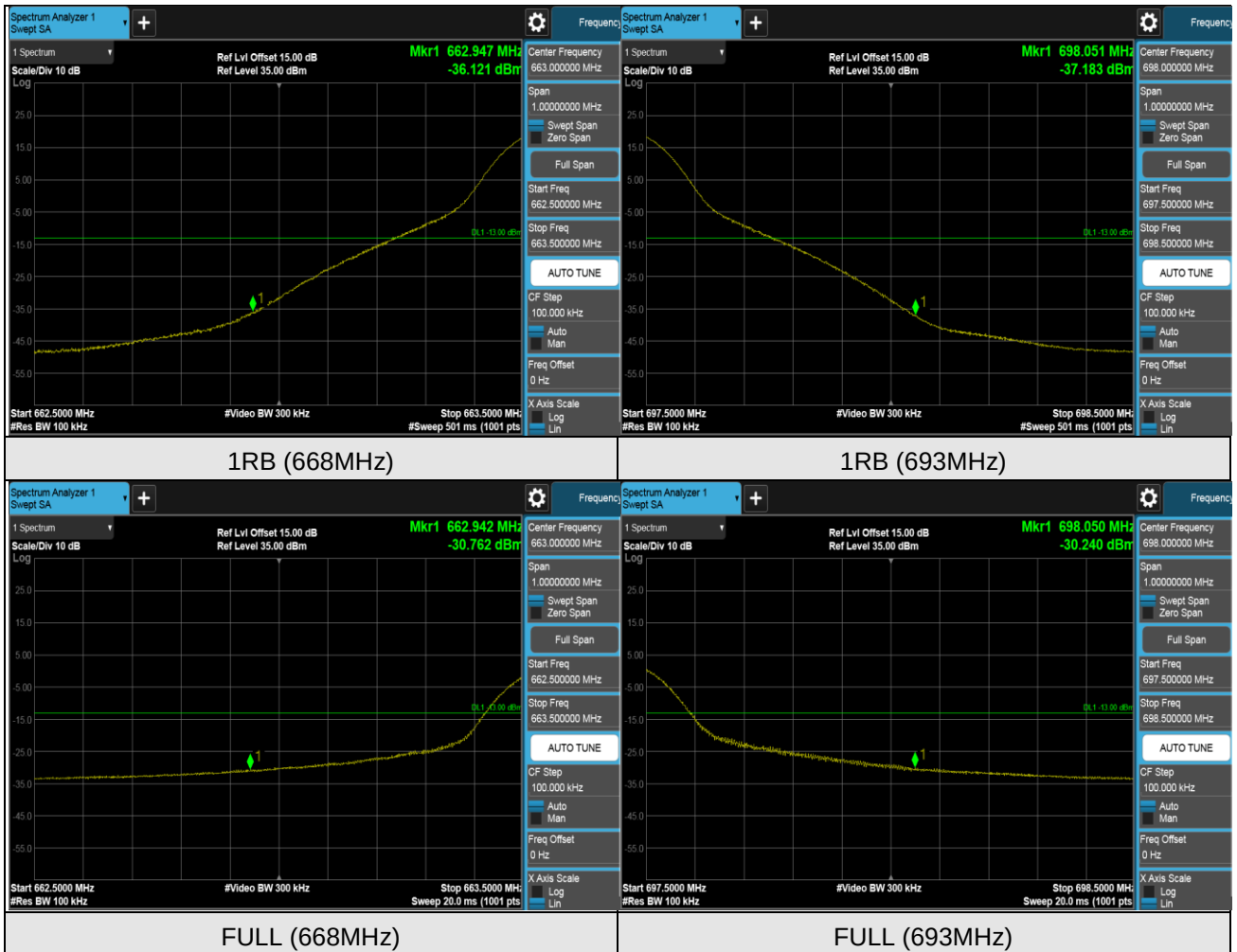


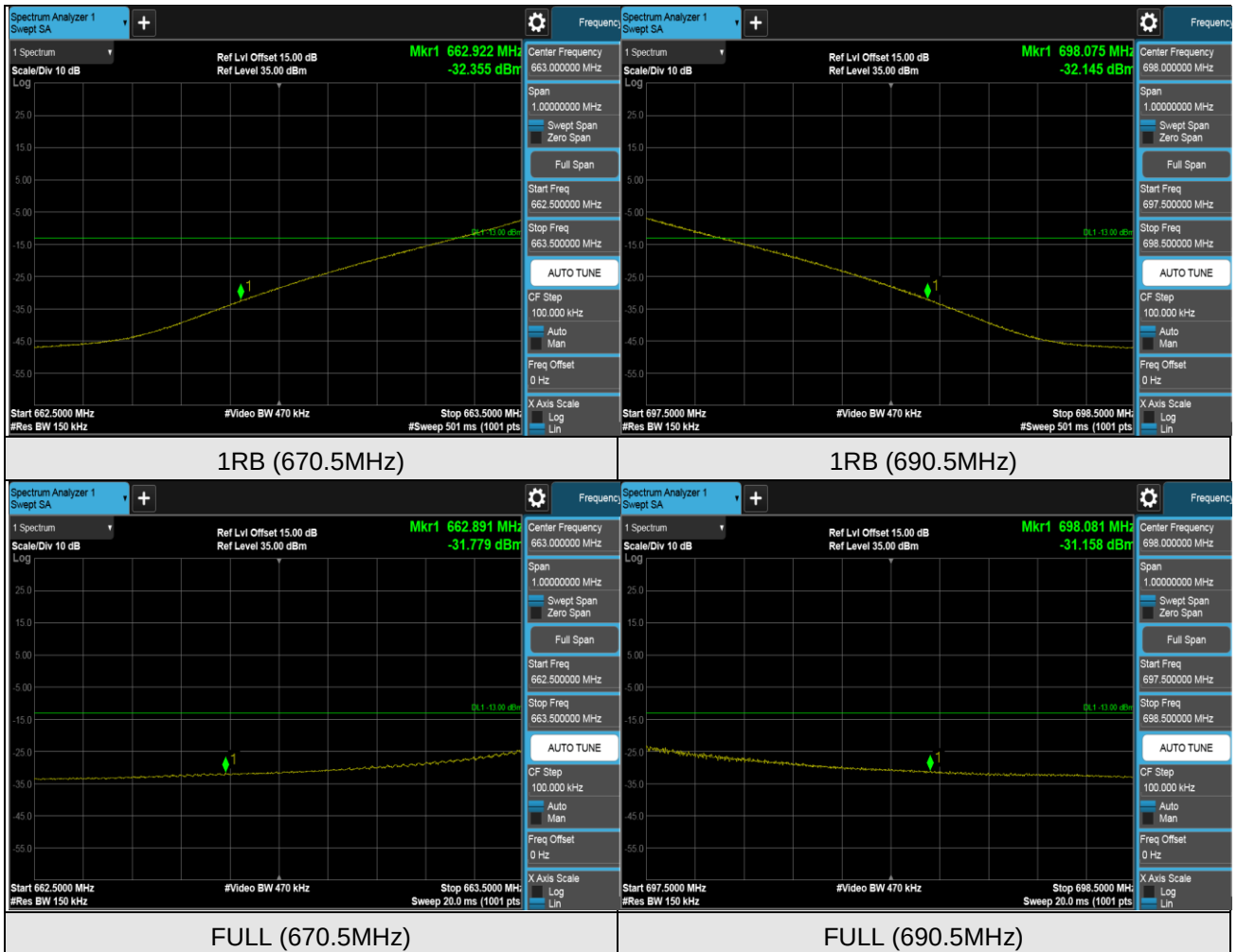
LTE Band 71 (Channel Bandwidth 5MHz)



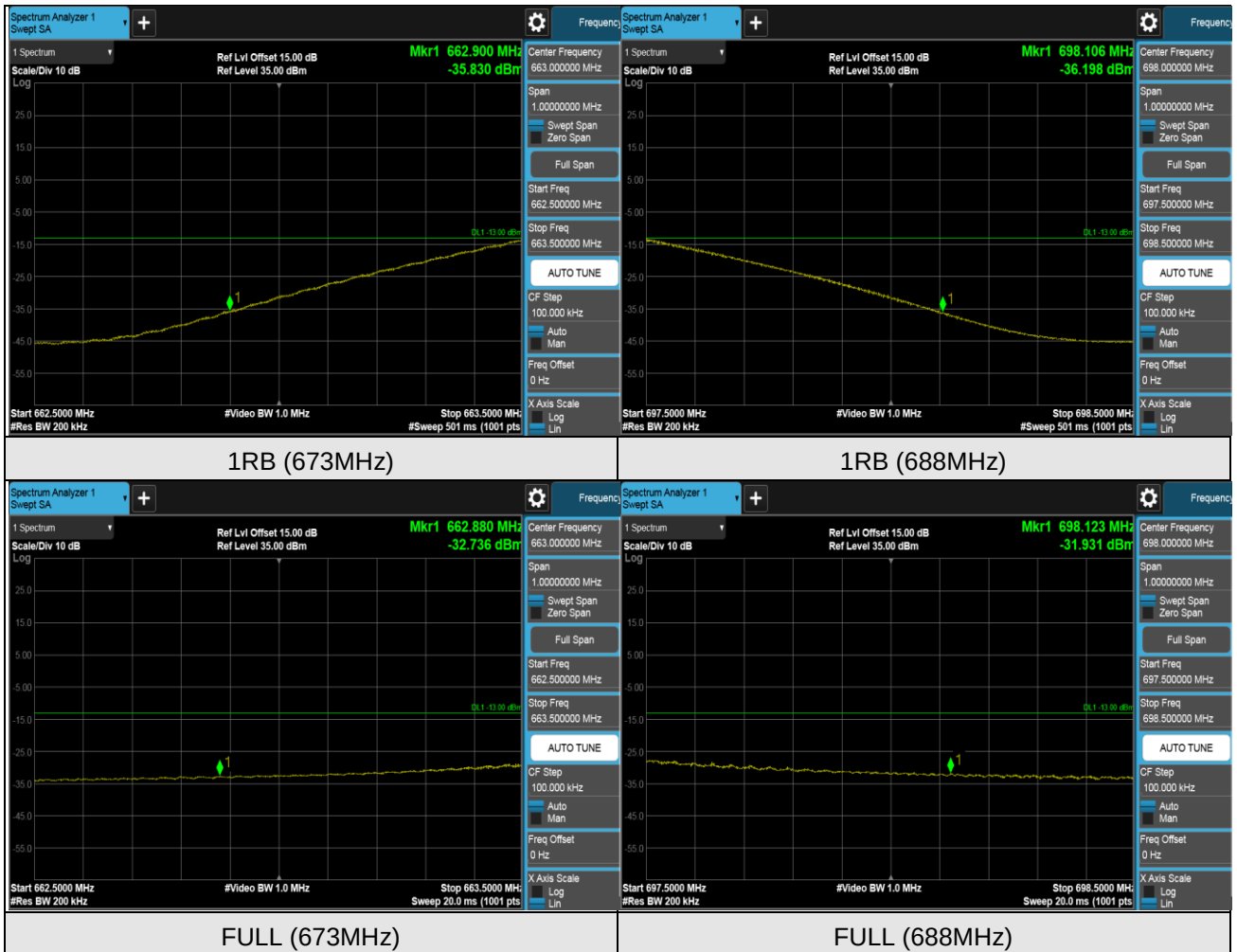
LTE Band 71 (Channel Bandwidth 10MHz)



LTE Band 71 (Channel Bandwidth 15MHz)



LTE Band 71 (Channel Bandwidth 20MHz)

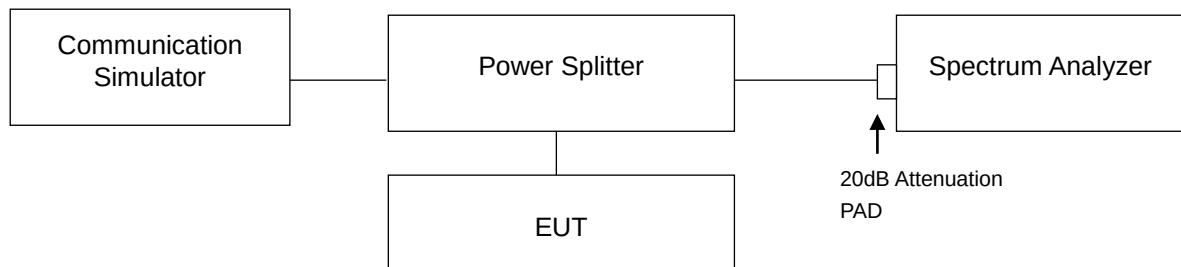


4.6 Peak to Average Ratio

4.6.1 Limits of Peak to Average Ratio Measurement

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.

4.6.2 Test Setup



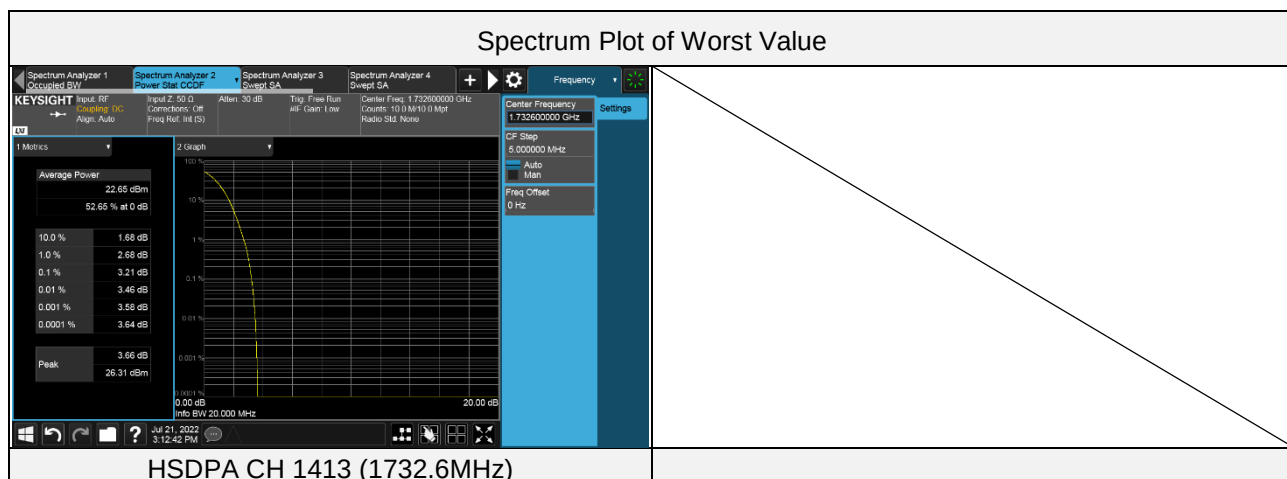
4.6.3 Test Procedures

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1 %.

4.6.4 Test Results

WCDMA Band 4

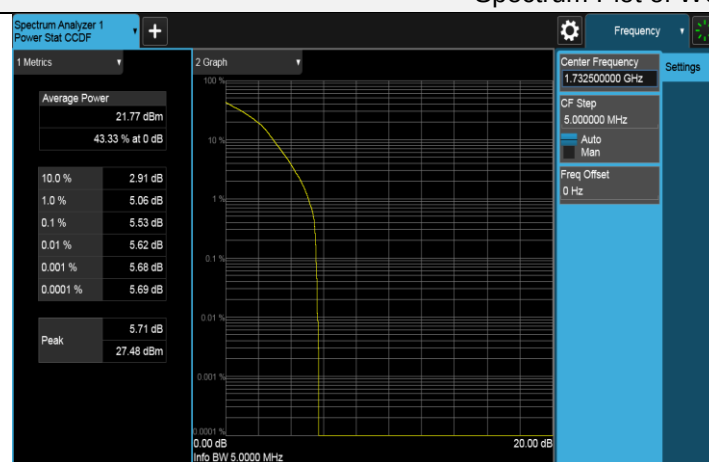
Test Condition	Channel	Frequency (MHz)	Measure. Value (dB)	Limit (dB)	Result
WCDMA	1312	1712.4	2.87	13	Pass
WCDMA	1413	1732.6	3.20	13	Pass
WCDMA	1513	1752.6	3.07	13	Pass
HSDPA	1312	1712.4	2.89	13	Pass
HSDPA	1413	1732.6	3.21	13	Pass
HSDPA	1513	1752.6	3.07	13	Pass
HSUPA	1312	1712.4	2.90	13	Pass
HSUPA	1413	1732.6	3.21	13	Pass
HSUPA	1513	1752.6	3.07	13	Pass



LTE Band 4 (Channel Bandwidth 1.4MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	19957	1710.7	3.67	13	PASS
QPSK	20175	1732.5	4.52	13	PASS
QPSK	20393	1754.3	4.35	13	PASS
16QAM	19957	1710.7	4.69	13	PASS
16QAM	20175	1732.5	5.53	13	PASS
16QAM	20393	1754.3	5.36	13	PASS

Spectrum Plot of Worst Value

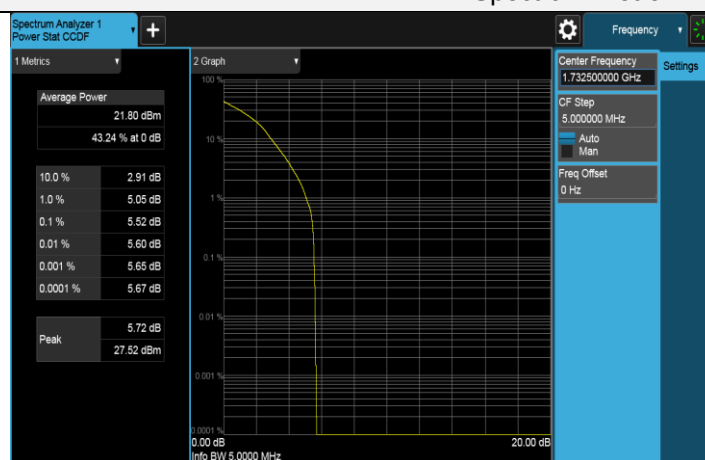


16QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 3MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	19965	1711.5	3.51	13	PASS
QPSK	20175	1732.5	4.54	13	PASS
QPSK	20385	1753.5	4.36	13	PASS
16QAM	19965	1711.5	4.51	13	PASS
16QAM	20175	1732.5	5.52	13	PASS
16QAM	20385	1753.5	5.30	13	PASS

Spectrum Plot of Worst Value

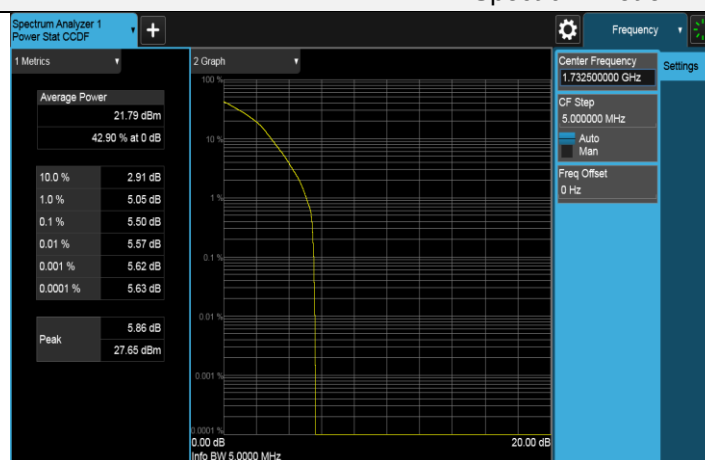


16QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 5MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	19975	1712.5	3.64	13	PASS
QPSK	20175	1732.5	4.51	13	PASS
QPSK	20375	1752.5	4.33	13	PASS
16QAM	19975	1712.5	4.48	13	PASS
16QAM	20175	1732.5	5.50	13	PASS
16QAM	20375	1752.5	5.28	13	PASS

Spectrum Plot of Worst Value

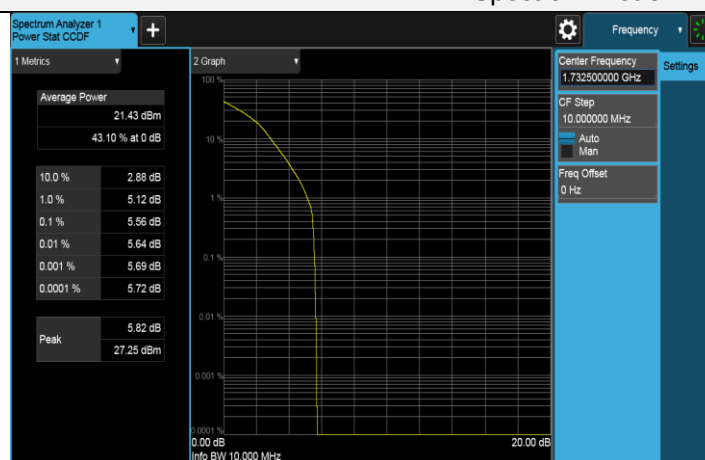


16QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 10MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	20000	1715	3.65	13	PASS
QPSK	20175	1732.5	4.55	13	PASS
QPSK	20350	1750	4.24	13	PASS
16QAM	20000	1715	4.48	13	PASS
16QAM	20175	1732.5	5.56	13	PASS
16QAM	20350	1750	5.28	13	PASS

Spectrum Plot of Worst Value

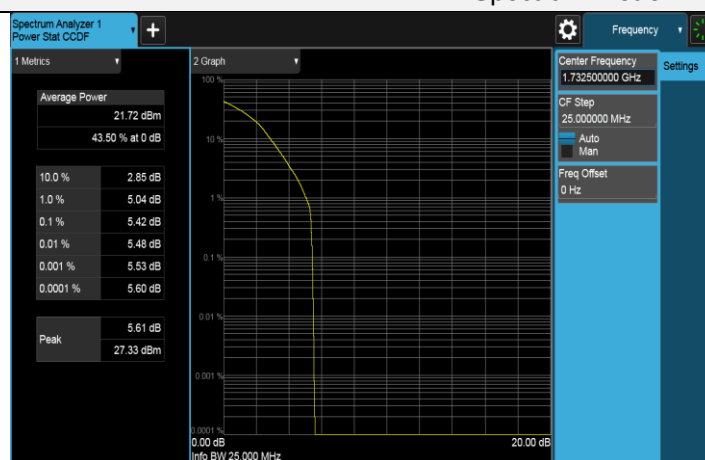


16QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 15MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	20025	1717.5	3.57	13	PASS
QPSK	20175	1732.5	4.51	13	PASS
QPSK	20325	1747.5	4.36	13	PASS
16QAM	20025	1717.5	4.69	13	PASS
16QAM	20175	1732.5	5.42	13	PASS
16QAM	20325	1747.5	5.38	13	PASS

Spectrum Plot of Worst Value

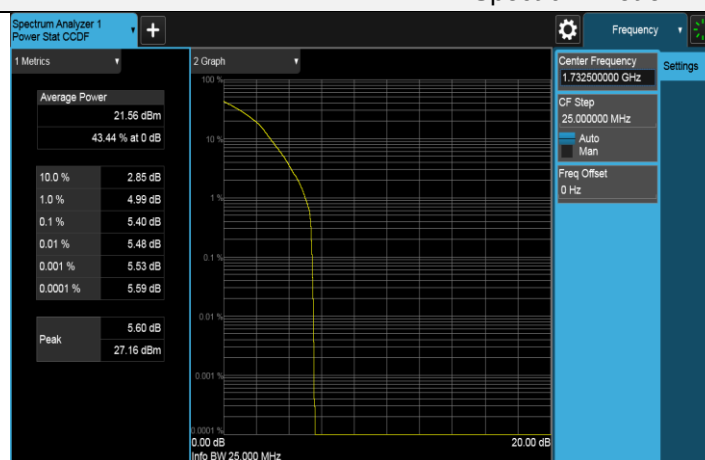


16QAM CH 20175 (1732.5MHz)

LTE Band 4 (Channel Bandwidth 20MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	20050	1720	3.65	13	PASS
QPSK	20175	1732.5	4.45	13	PASS
QPSK	20300	1745	4.43	13	PASS
16QAM	20050	1720	4.58	13	PASS
16QAM	20175	1732.5	5.40	13	PASS
16QAM	20300	1745	5.37	13	PASS

Spectrum Plot of Worst Value

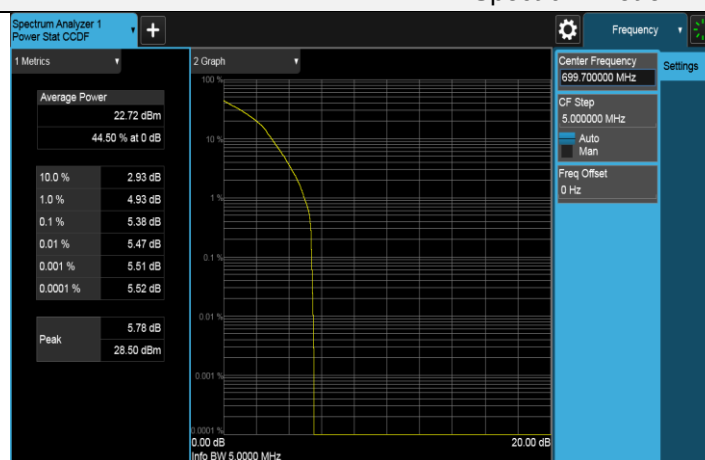


16QAM CH 20175 (1732.5MHz)

LTE Band 12 (Channel Bandwidth 1.4MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23017	699.7	4.47	13	PASS
QPSK	23095	707.5	4.48	13	PASS
QPSK	23173	715.3	4.31	13	PASS
16QAM	23017	699.7	5.38	13	PASS
16QAM	23095	707.5	5.37	13	PASS
16QAM	23173	715.3	5.24	13	PASS

Spectrum Plot of Worst Value

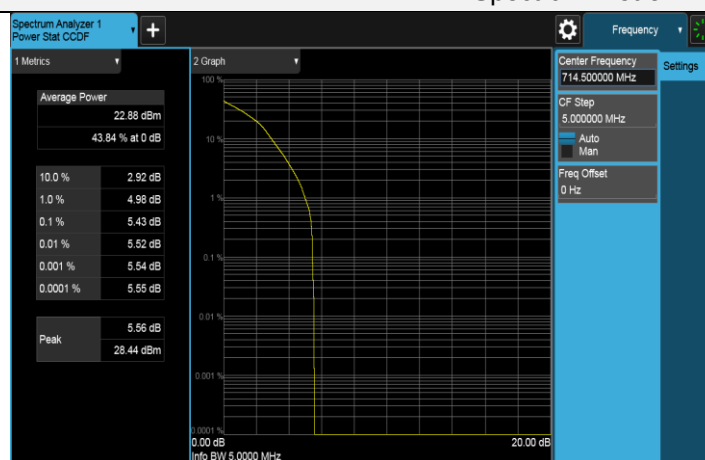


16QAM CH 23017 (699.7MHz)

LTE Band 12 (Channel Bandwidth 3MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23025	700.5	4.40	13	PASS
QPSK	23095	707.5	4.46	13	PASS
QPSK	23165	714.5	4.49	13	PASS
16QAM	23025	700.5	5.40	13	PASS
16QAM	23095	707.5	5.38	13	PASS
16QAM	23165	714.5	5.43	13	PASS

Spectrum Plot of Worst Value

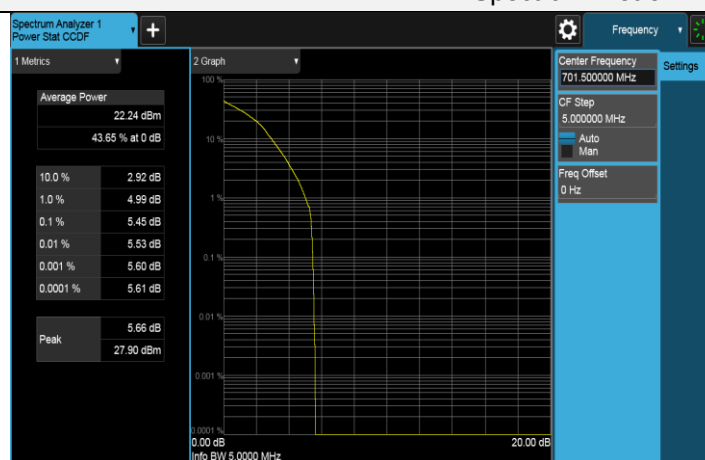


16QAM CH 23165 (714.5MHz)

LTE Band 12 (Channel Bandwidth 5MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23035	701.5	4.39	13	PASS
QPSK	23095	707.5	4.42	13	PASS
QPSK	23155	713.5	4.47	13	PASS
16QAM	23035	701.5	5.45	13	PASS
16QAM	23095	707.5	5.32	13	PASS
16QAM	23155	713.5	5.45	13	PASS

Spectrum Plot of Worst Value

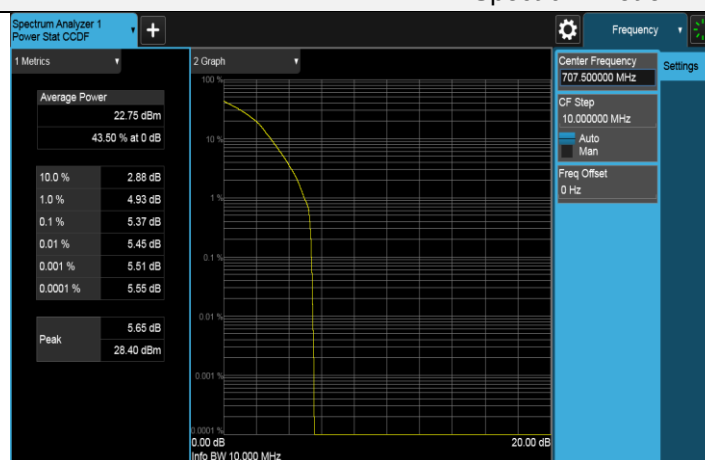


16QAM CH 23035 (701.5MHz)

LTE Band 12 (Channel Bandwidth 10MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23060	704	4.38	13	PASS
QPSK	23095	707.5	4.43	13	PASS
QPSK	23130	711	4.41	13	PASS
16QAM	23060	704	5.35	13	PASS
16QAM	23095	707.5	5.37	13	PASS
16QAM	23130	711	5.35	13	PASS

Spectrum Plot of Worst Value

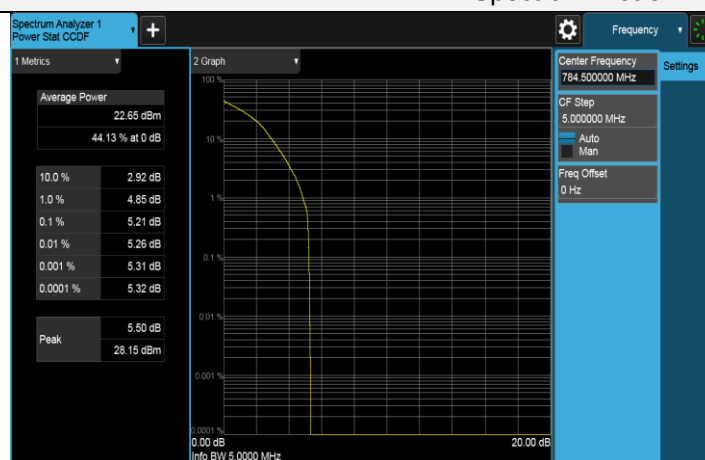


16QAM CH 23095 (707.5MHz)

LTE Band 13 (Channel Bandwidth 5MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23205	779.5	4.14	13	PASS
QPSK	23230	782	4.22	13	PASS
QPSK	23255	784.5	4.30	13	PASS
16QAM	23205	779.5	5.10	13	PASS
16QAM	23230	782	5.18	13	PASS
16QAM	23255	784.5	5.21	13	PASS

Spectrum Plot of Worst Value

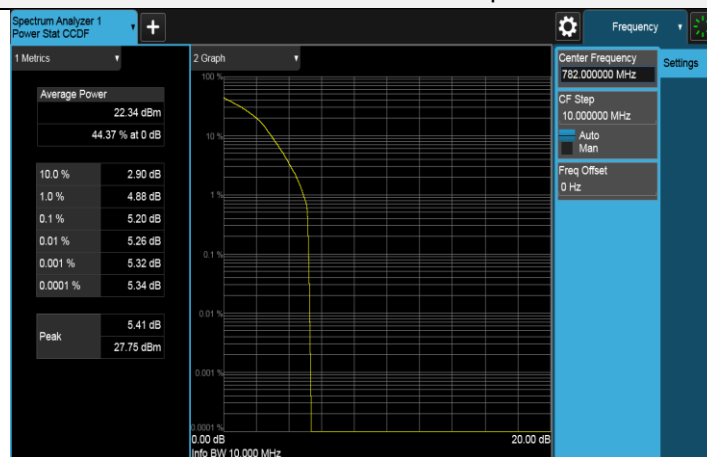


16QAM CH 23255 (784.5MHz)

LTE Band 13 (Channel Bandwidth 10MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	23230	782	4.09	13	PASS
16QAM	23230	782	5.20	13	PASS

Spectrum Plot of Worst Value

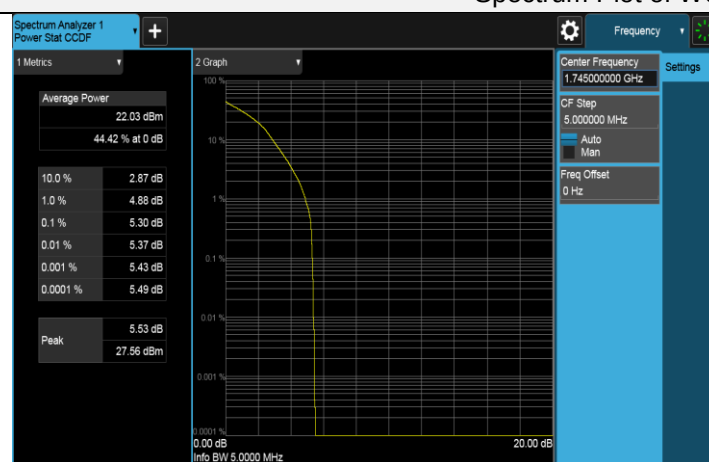


16QAM CH 23230 (782MHz)

LTE Band 66 (Channel Bandwidth 1.4MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	131979	1710.7	3.63	13	PASS
QPSK	132322	1745	4.37	13	PASS
QPSK	132665	1779.3	3.27	13	PASS
16QAM	131979	1710.7	4.59	13	PASS
16QAM	132322	1745	5.30	13	PASS
16QAM	132665	1779.3	4.15	13	PASS

Spectrum Plot of Worst Value

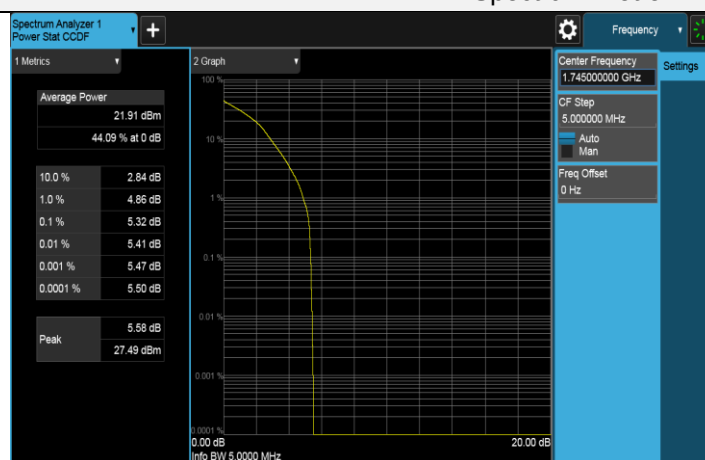


16QAM CH 132322 (1745MHz)

LTE Band 66 (Channel Bandwidth 3MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	131987	1711.5	3.59	13	PASS
QPSK	132322	1745	4.37	13	PASS
QPSK	132657	1778.5	3.23	13	PASS
16QAM	131987	1711.5	4.55	13	PASS
16QAM	132322	1745	5.32	13	PASS
16QAM	132657	1778.5	4.21	13	PASS

Spectrum Plot of Worst Value

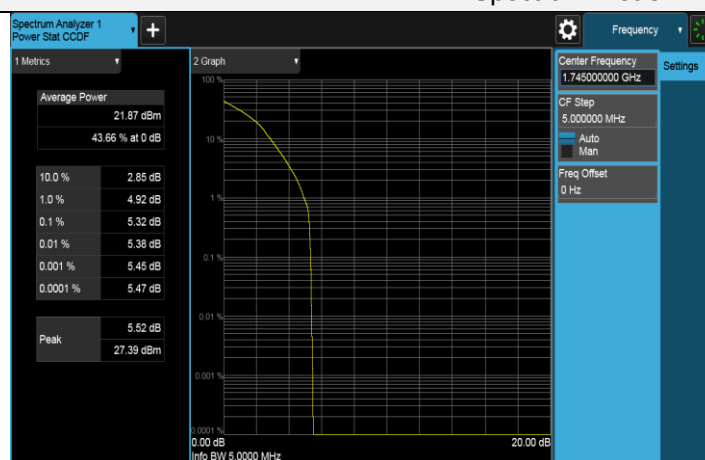


16QAM CH 132322 (1745MHz)

LTE Band 66 (Channel Bandwidth 5MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	131997	1712.5	3.63	13	PASS
QPSK	132322	1745	4.37	13	PASS
QPSK	132647	1777.5	3.44	13	PASS
16QAM	131997	1712.5	4.47	13	PASS
16QAM	132322	1745	5.32	13	PASS
16QAM	132647	1777.5	4.39	13	PASS

Spectrum Plot of Worst Value

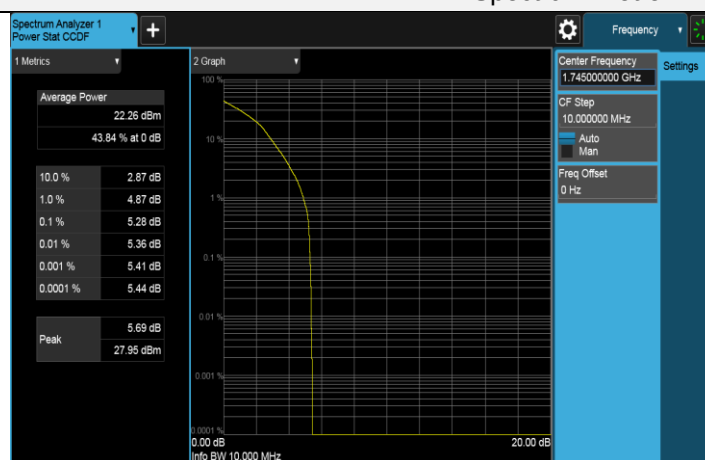


16QAM CH 132322 (1745MHz)

LTE Band 66 (Channel Bandwidth 10MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	132022	1715	3.61	13	PASS
QPSK	132322	1745	4.39	13	PASS
QPSK	132622	1775	3.91	13	PASS
16QAM	132022	1715	4.70	13	PASS
16QAM	132322	1745	5.28	13	PASS
16QAM	132622	1775	4.88	13	PASS

Spectrum Plot of Worst Value

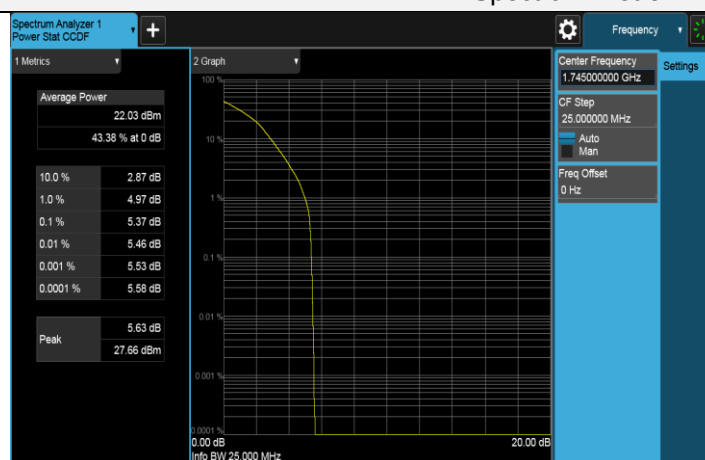


16QAM CH 132322 (1745MHz)

LTE Band 66 (Channel Bandwidth 15MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	132047	1717.5	3.65	13	PASS
QPSK	132322	1745	4.41	13	PASS
QPSK	132597	1772.5	4.20	13	PASS
16QAM	132047	1717.5	4.69	13	PASS
16QAM	132322	1745	5.37	13	PASS
16QAM	132597	1772.5	5.18	13	PASS

Spectrum Plot of Worst Value

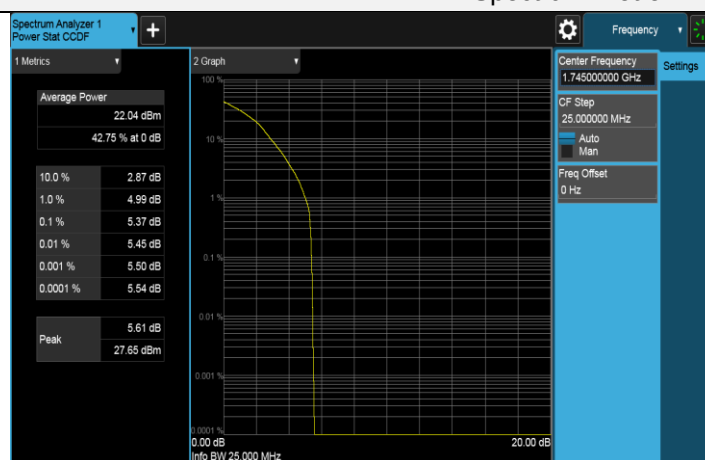


16QAM CH 132322 (1745MHz)

LTE Band 66 (Channel Bandwidth 20MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	132072	1720	3.69	13	PASS
QPSK	132322	1745	4.46	13	PASS
QPSK	132572	1770	4.29	13	PASS
16QAM	132072	1720	4.66	13	PASS
16QAM	132322	1745	5.37	13	PASS
16QAM	132572	1770	5.32	13	PASS

Spectrum Plot of Worst Value

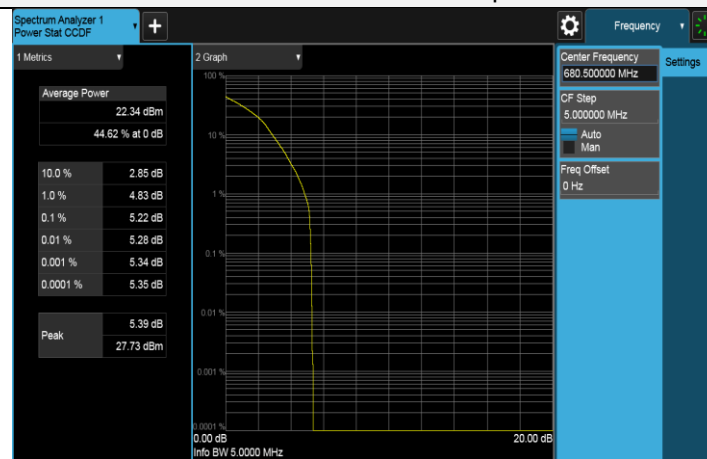


16QAM CH 132322 (1745MHz)

LTE Band 71 (Channel Bandwidth 5MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	133147	665.5	3.72	13	PASS
QPSK	133297	680.5	4.26	13	PASS
QPSK	133447	695.5	4.17	13	PASS
16QAM	133147	665.5	4.76	13	PASS
16QAM	133297	680.5	5.22	13	PASS
16QAM	133447	695.5	5.15	13	PASS

Spectrum Plot of Worst Value

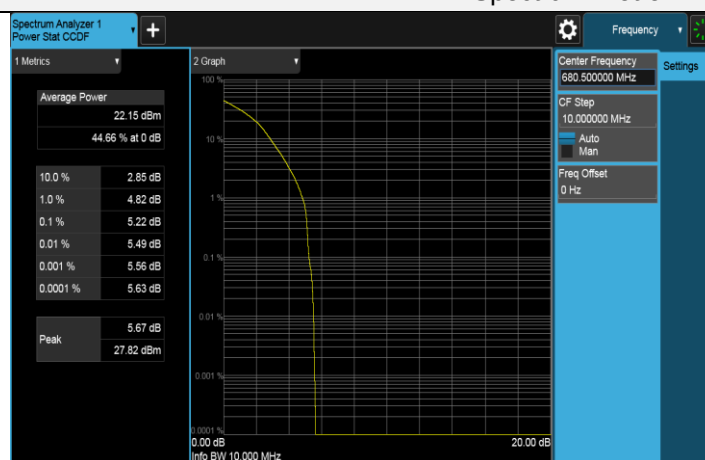


16QAM CH 133297 (680.5MHz)

LTE Band 71 (Channel Bandwidth 10MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	133172	668	3.82	13	PASS
QPSK	133297	680.5	4.07	13	PASS
QPSK	133422	693	3.99	13	PASS
16QAM	133172	668	4.76	13	PASS
16QAM	133297	680.5	5.22	13	PASS
16QAM	133422	693	4.82	13	PASS

Spectrum Plot of Worst Value

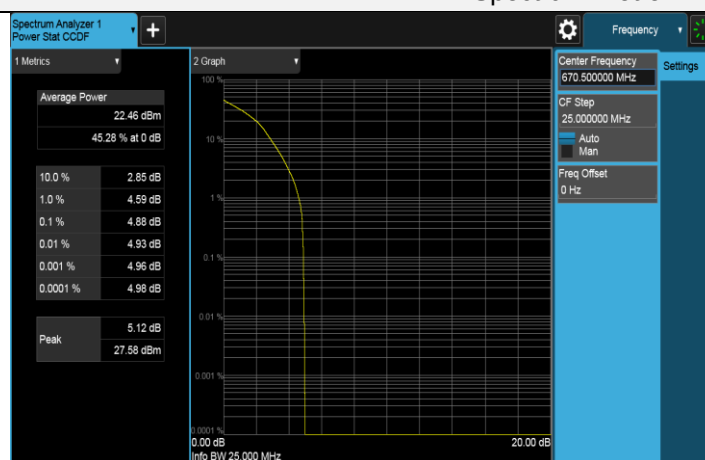


16QAM CH 133297 (680.5MHz)

LTE Band 71 (Channel Bandwidth 15MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	133197	670.5	3.83	13	PASS
QPSK	133297	680.5	3.66	13	PASS
QPSK	133397	690.5	3.84	13	PASS
16QAM	133197	670.5	4.88	13	PASS
16QAM	133297	680.5	4.57	13	PASS
16QAM	133397	690.5	4.86	13	PASS

Spectrum Plot of Worst Value

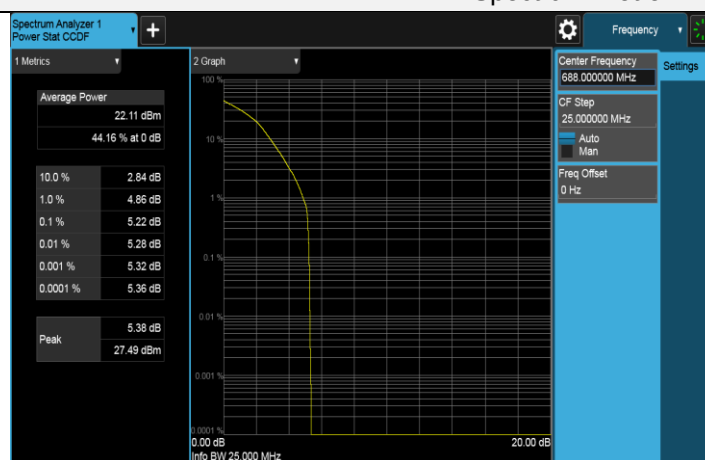


16QAM CH 133197 (670.5MHz)

LTE Band 71 (Channel Bandwidth 20MHz)

Test Condition	Channel	Frequency (MHz)	Measure. Value(dB)	Limit dB	Result
QPSK	133222	673	3.98	13	PASS
QPSK	133297	680.5	3.67	13	PASS
QPSK	133372	688	4.30	13	PASS
16QAM	133222	673	4.96	13	PASS
16QAM	133297	680.5	4.49	13	PASS
16QAM	133372	688	5.22	13	PASS

Spectrum Plot of Worst Value



16QAM CH 133372 (688MHz)