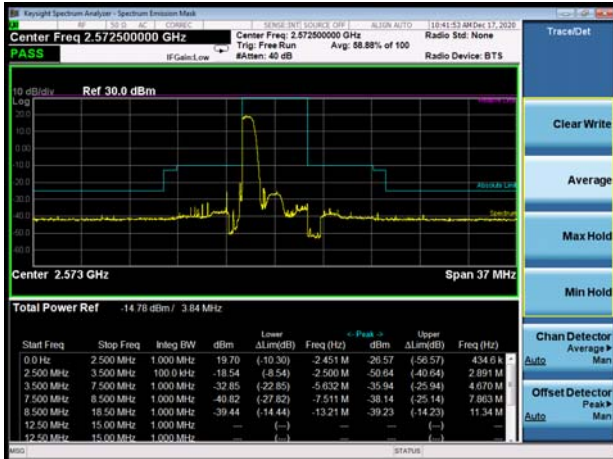
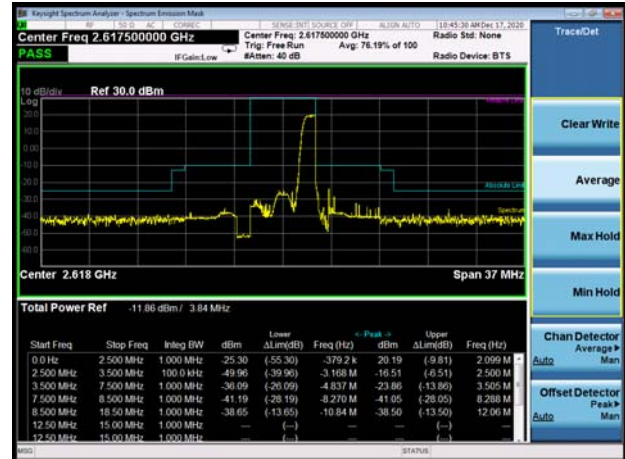




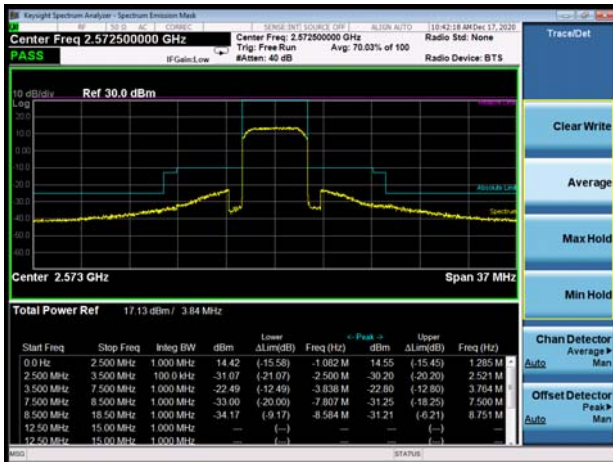
LTE Band 38 16QAM 5MHz CH-Low, 1 RB



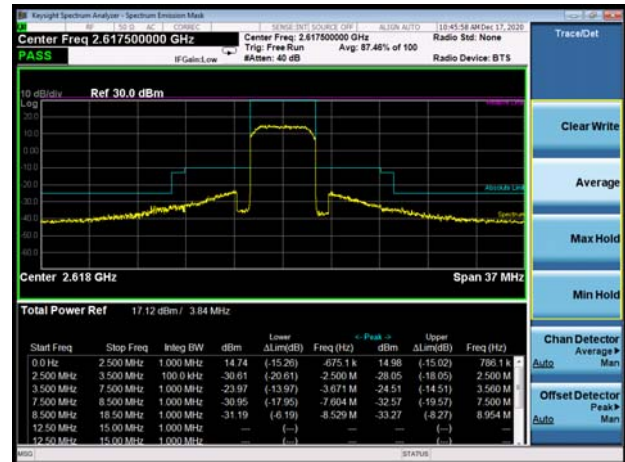
LTE Band 38 16QAM 5MHz CH-High, 1 RB



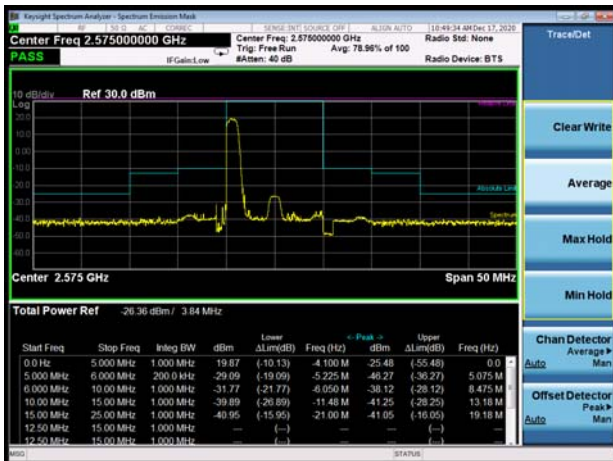
LTE Band 38 16QAM 5MHz CH-Low, 100%RB



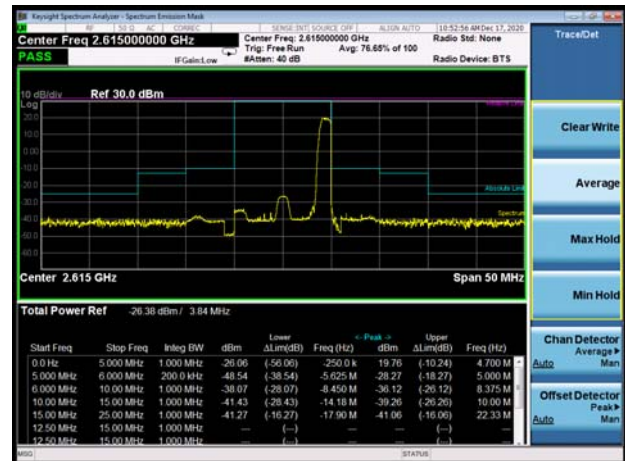
LTE Band 38 16QAM 5MHz CH-High, 100%RB



LTE Band 38 16QAM 10MHz CH-Low, 1 RB



LTE Band 38 16QAM 10MHz CH-High, 1 RB

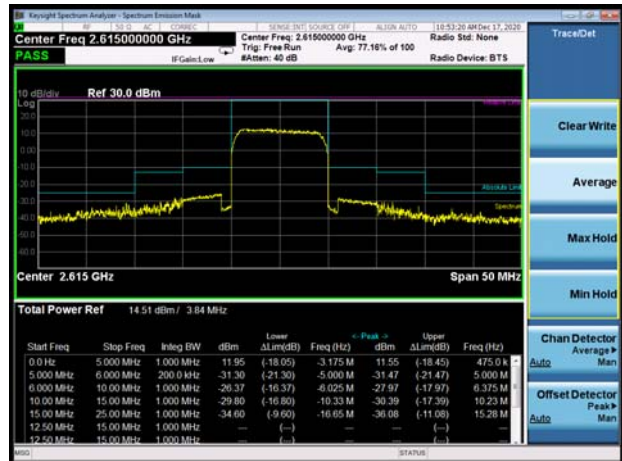




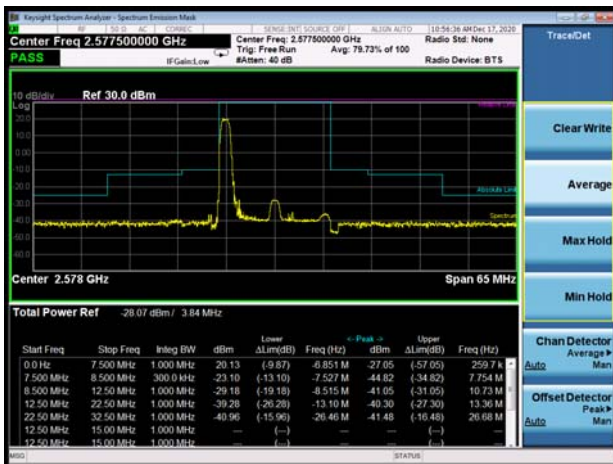
LTE Band 38 16QAM 10MHz CH-Low, 100%RB



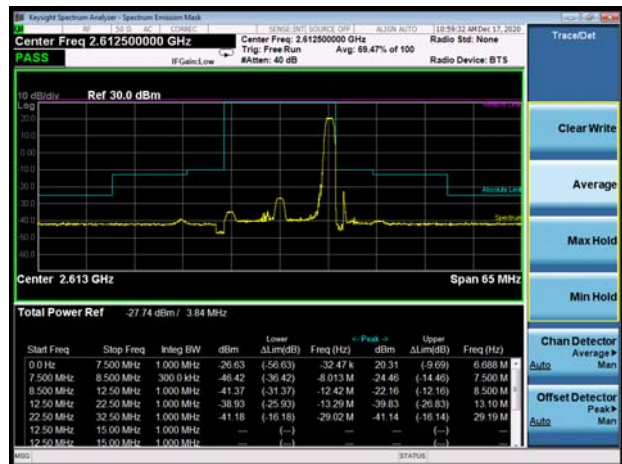
LTE Band 38 16QAM 10MHz CH-High, 100%RB



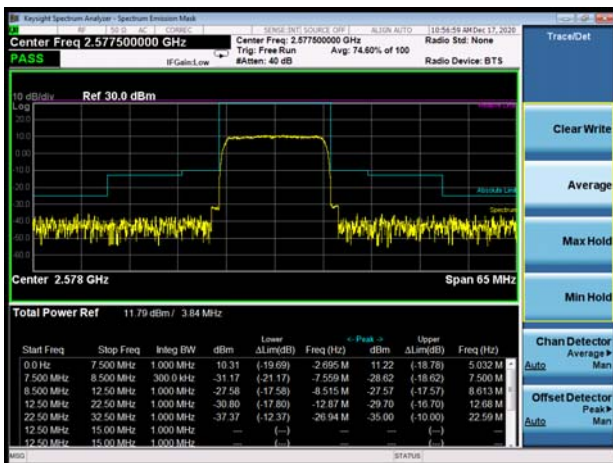
LTE Band 38 16QAM 15MHz CH-Low, 1 RB



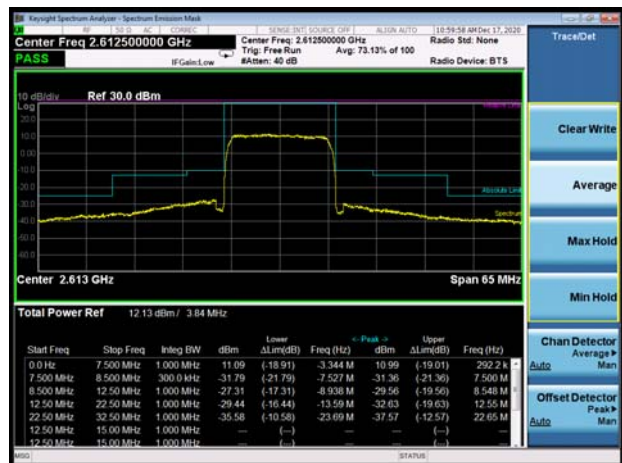
LTE Band 38 16QAM 15MHz CH-High, 1 RB



LTE Band 38 16QAM 15MHz CH-Low, 100%RB

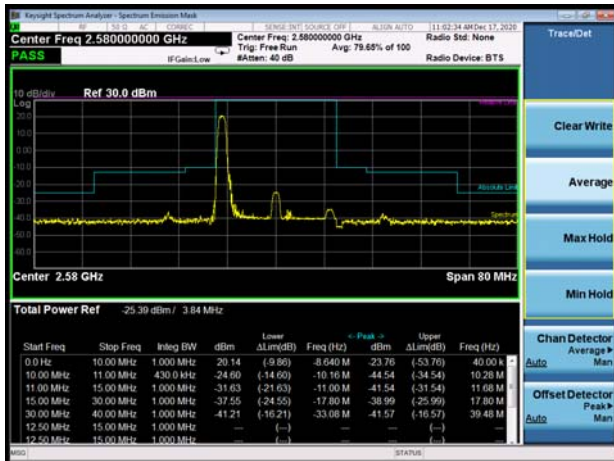


LTE Band 38 16QAM 15MHz CH-High, 100%RB

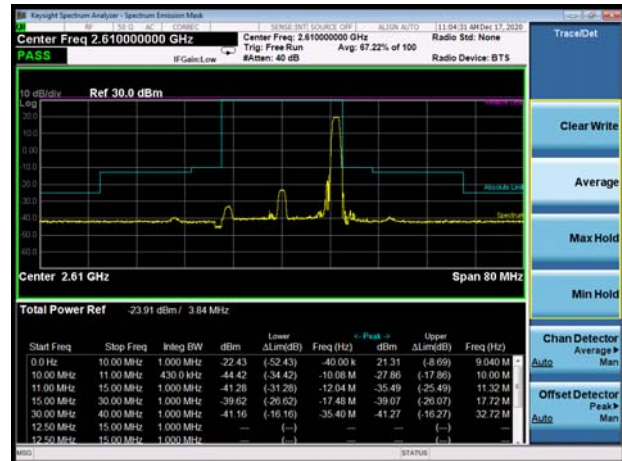




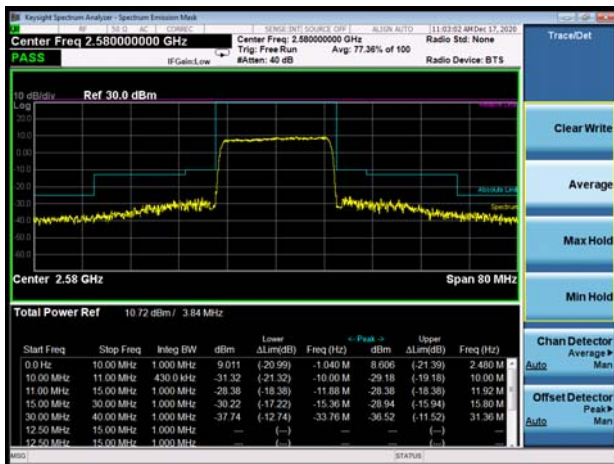
LTE Band 38 16QAM 20MHz CH-Low, 1 RB



LTE Band 38 16QAM 20MHz CH-High, 1 RB



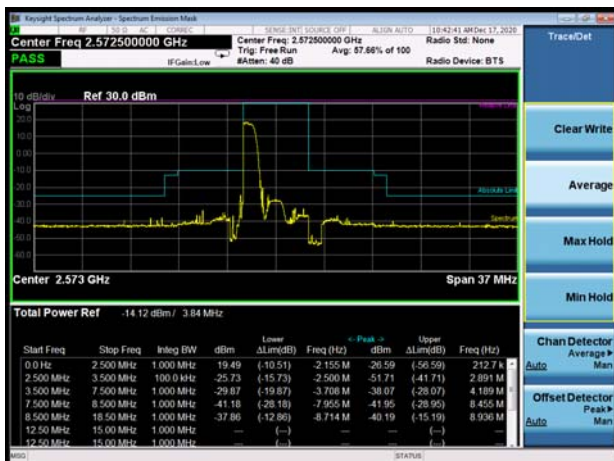
LTE Band 38 16QAM 20MHz CH-Low, 100%RB



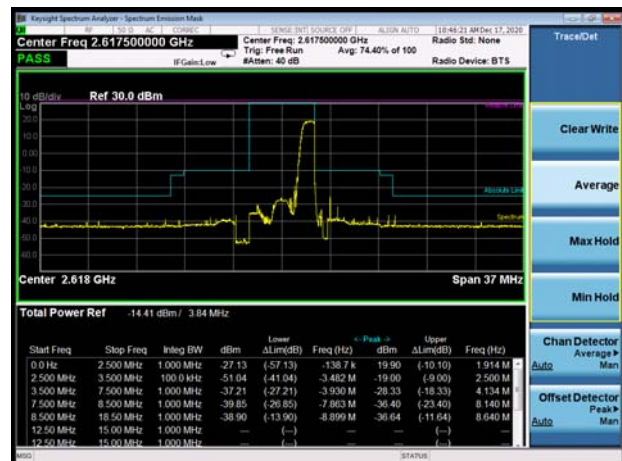
LTE Band 38 16QAM 20MHz CH-High, 100%RB



LTE Band 38 64QAM 5MHz CH-Low, 1 RB

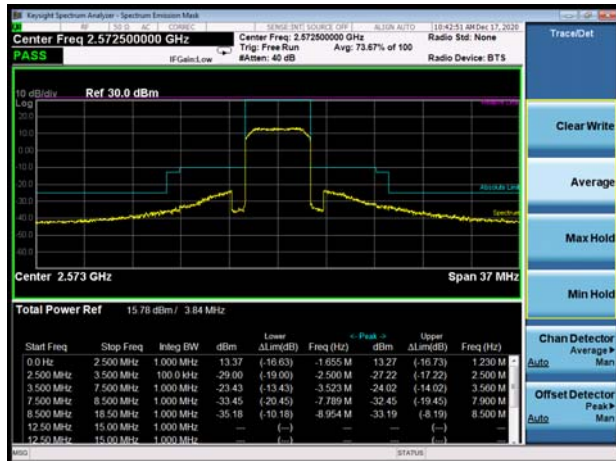


LTE Band 38 64QAM 5MHz CH-High, 1 RB

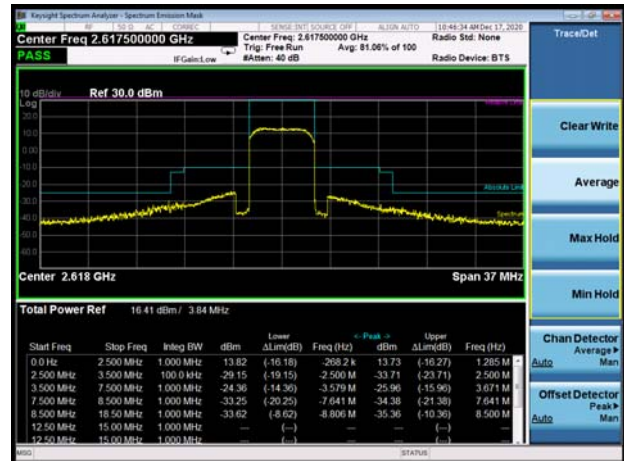




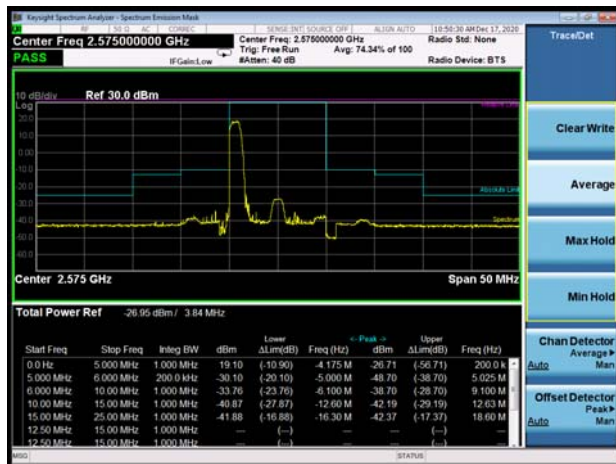
LTE Band 38 64QAM 5MHz CH-Low, 100%RB



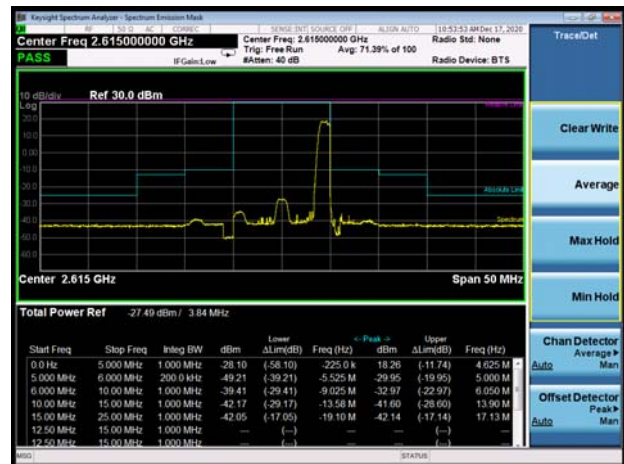
LTE Band 38 64QAM 5MHz CH-High, 100%RB



LTE Band 38 64QAM 10MHz CH-Low, 1 RB



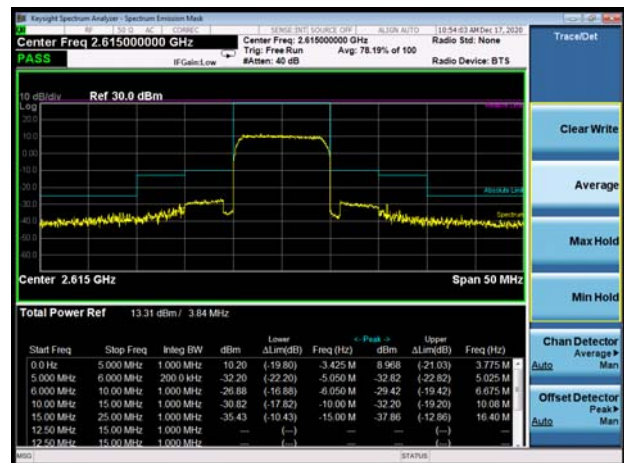
LTE Band 38 64QAM 10MHz CH-High, 1 RB



LTE Band 38 64QAM 10MHz CH-Low, 100%RB

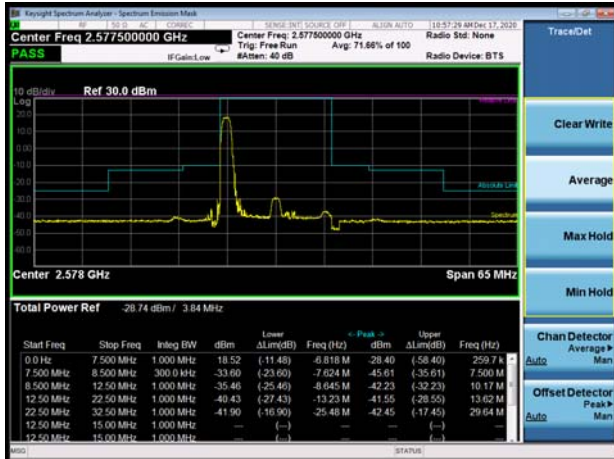


LTE Band 38 64QAM 10MHz CH-High, 100%RB

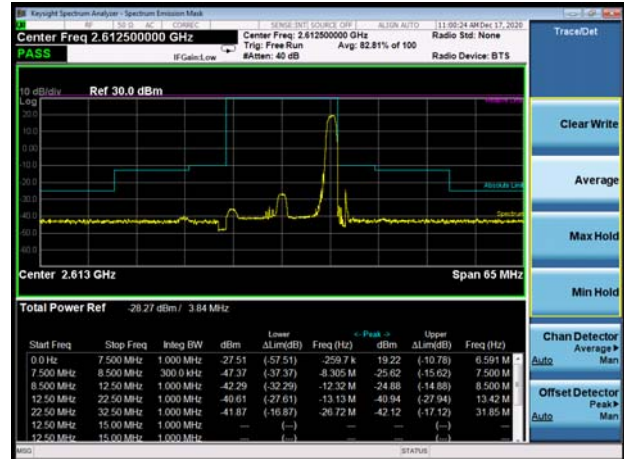




LTE Band 38 64QAM 15MHz CH-Low, 1 RB



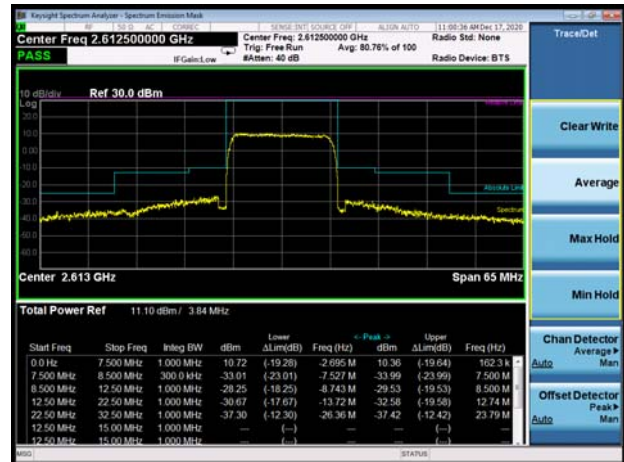
LTE Band 38 64QAM 15MHz CH-High, 1 RB



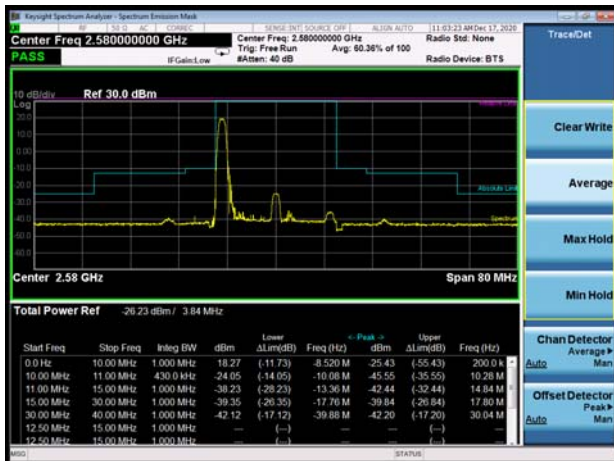
LTE Band 38 64QAM 15MHz CH-Low, 100%RB



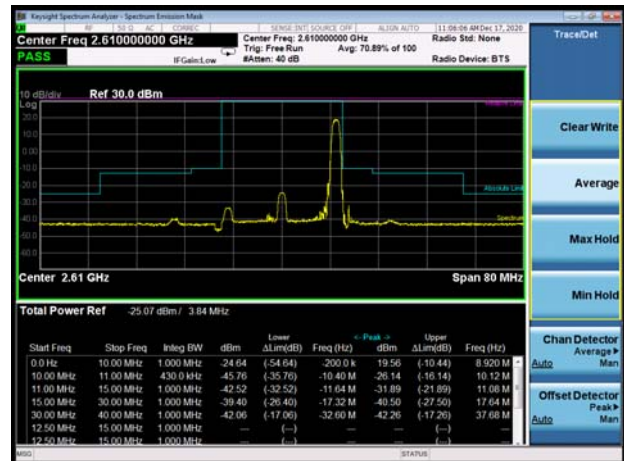
LTE Band 38 64QAM 15MHz CH-High, 100%RB



LTE Band 38 64QAM 20MHz CH-Low, 1 RB

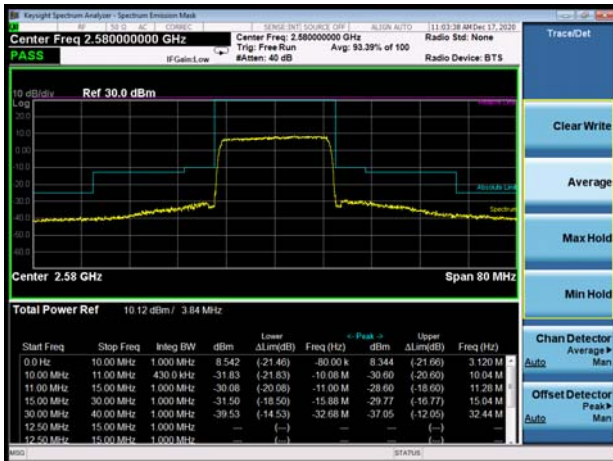


LTE Band 38 64QAM 20MHz CH-High, 1 RB

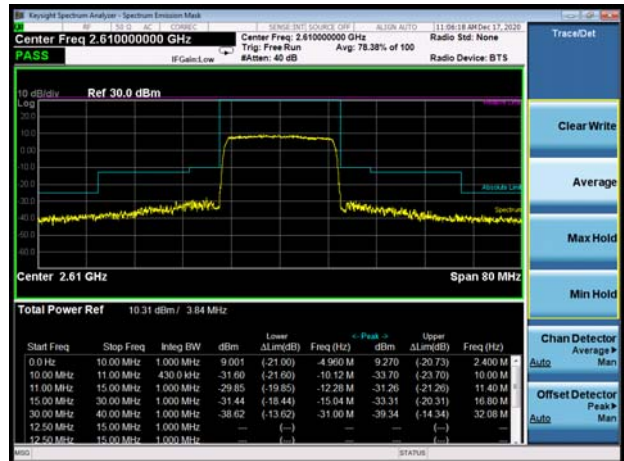




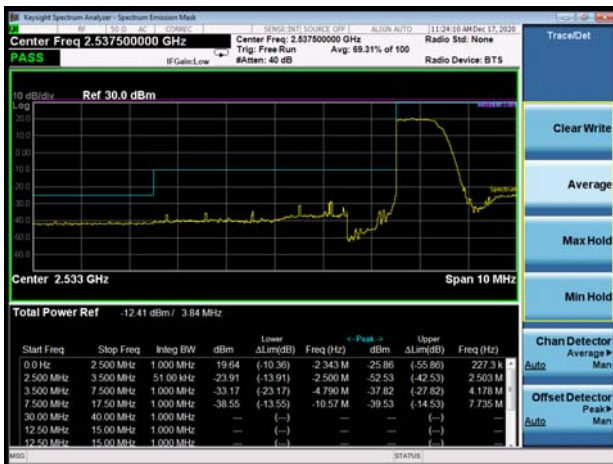
LTE Band 38 64QAM 20MHz CH-Low, 100%RB



LTE Band 38 64QAM 20MHz CH-High, 100%RB



LTE Band 41 QPSK 5MHz CH-Low, 1 RB



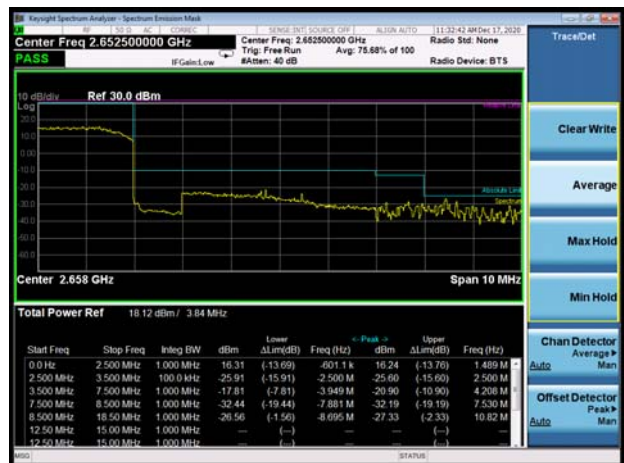
LTE Band 41 QPSK 5MHz CH-High, 1 RB



LTE Band 41 QPSK 5MHz CH-Low, 100%RB

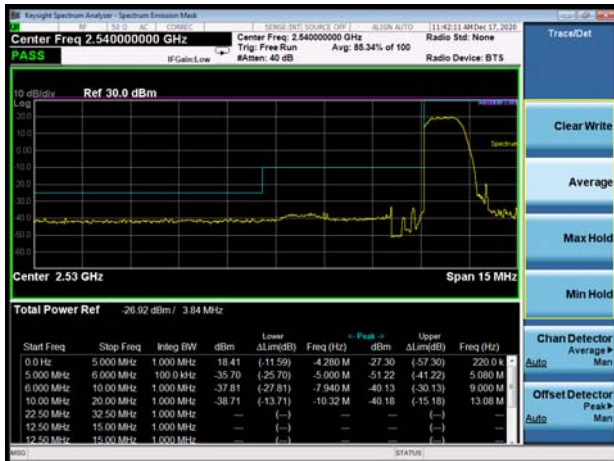


LTE Band 41 QPSK 5MHz CH-High, 100%RB

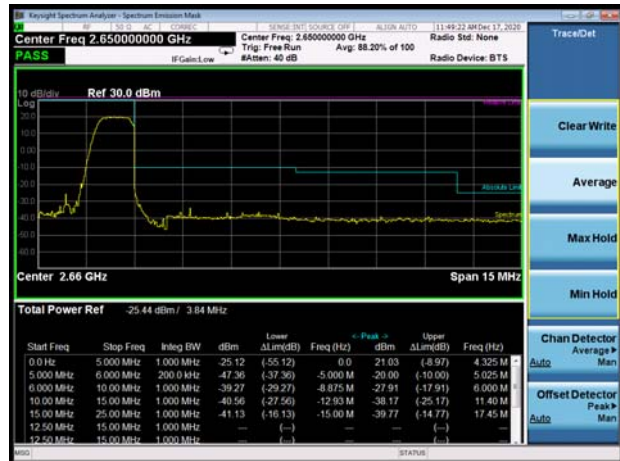




LTE Band 41 QPSK 10MHz CH-Low, 1 RB



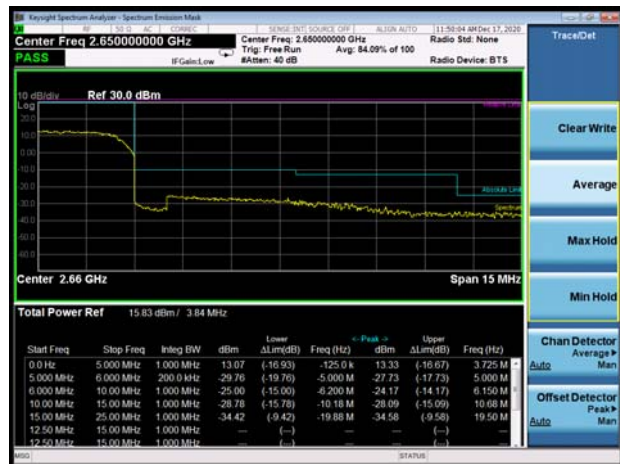
LTE Band 41 QPSK 10MHz CH-High, 1 RB



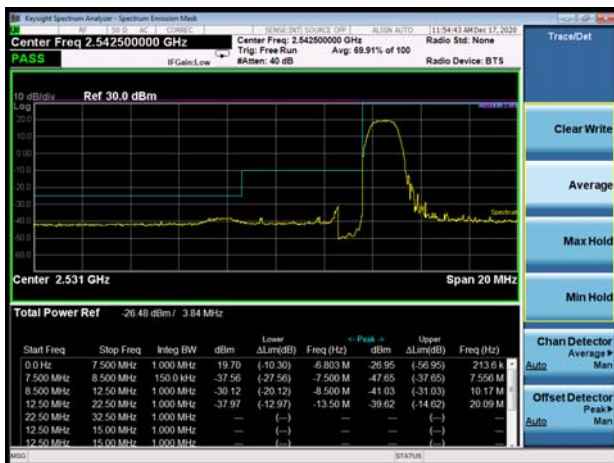
LTE Band 41 QPSK 10MHz CH-Low, 100%RB



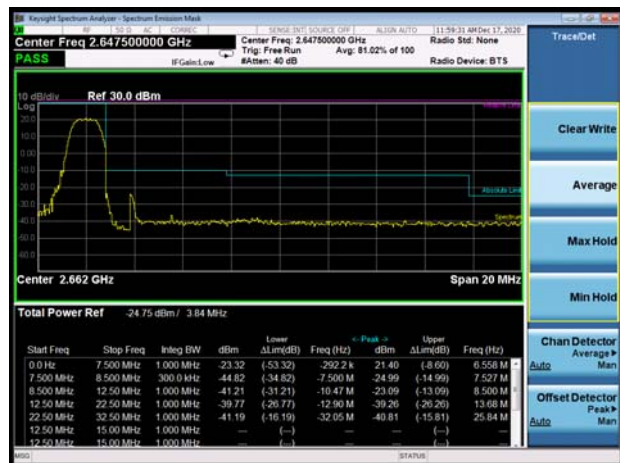
LTE Band 41 QPSK 10MHz CH-High, 100%RB



LTE Band 41 QPSK 15MHz CH-Low, 1 RB

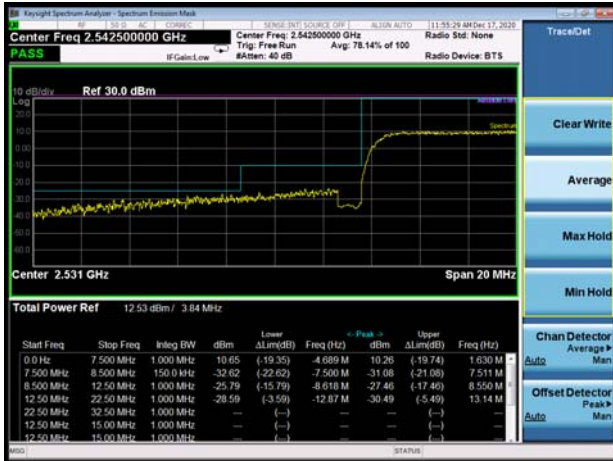


LTE Band 41 QPSK 15MHz CH-High, 1 RB

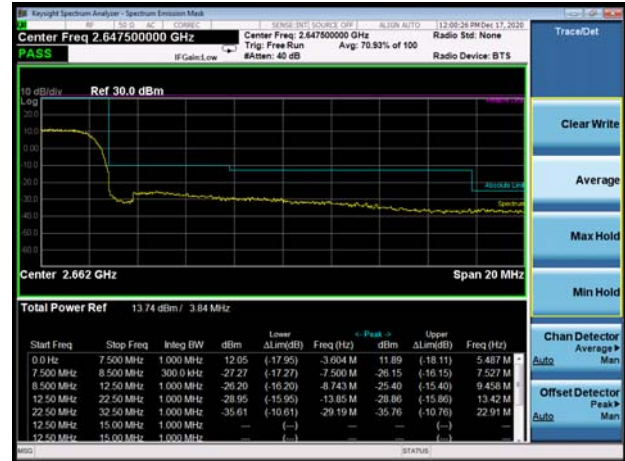




LTE Band 41 QPSK 15MHz CH-Low, 100%RB



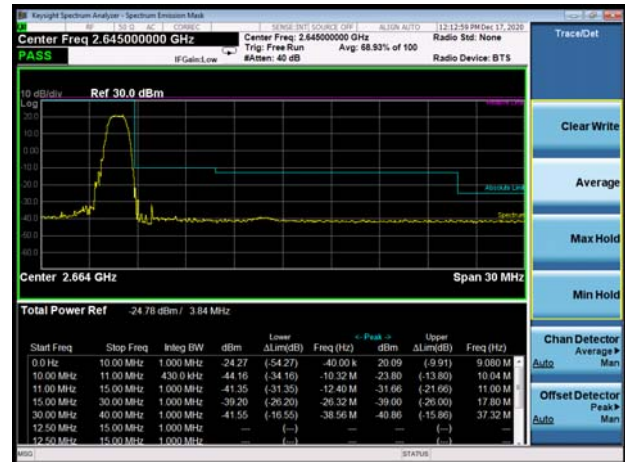
LTE Band 41 QPSK 15MHz CH-High, 100%RB



LTE Band 41 QPSK 20MHz CH-Low, 1 RB



LTE Band 41 QPSK 20MHz CH-High, 1 RB



LTE Band 41 QPSK 20MHz CH-Low, 100%RB

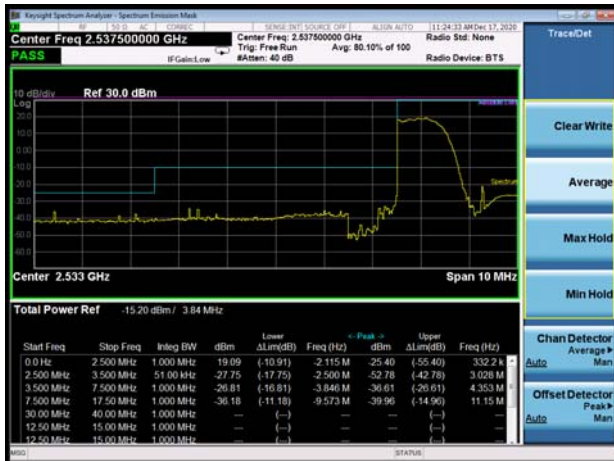


LTE Band 41 QPSK 20MHz CH-High, 100%RB

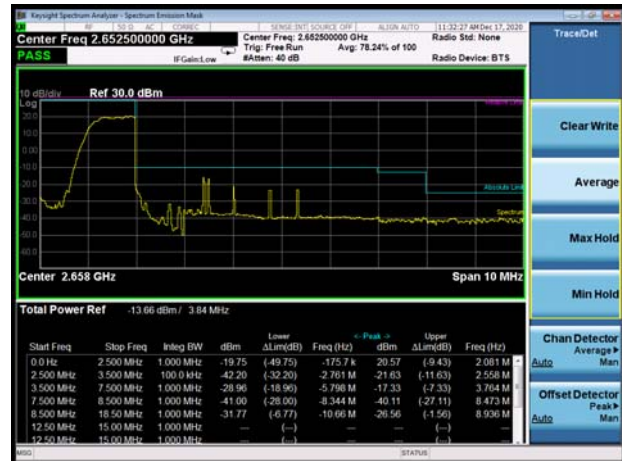




LTE Band 41 16QAM 5MHz CH-Low, 1 RB



LTE Band 41 16QAM 5MHz CH-High, 1 RB



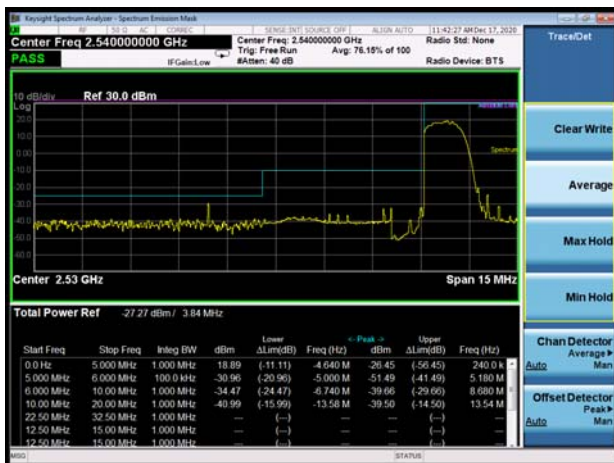
LTE Band 41 16QAM 5MHz CH-Low, 100%RB



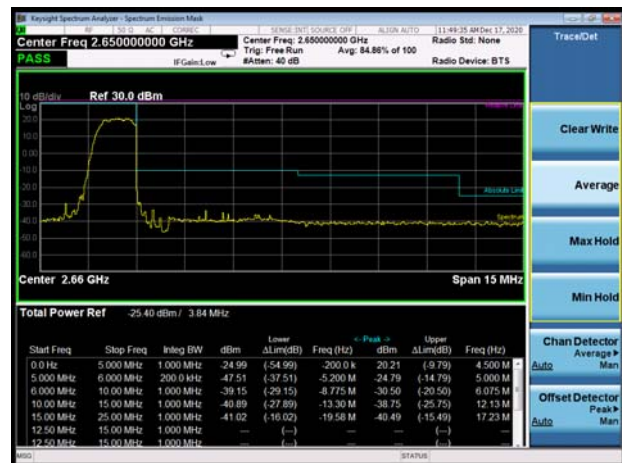
LTE Band 41 16QAM 5MHz CH-High, 100%RB



LTE Band 41 16QAM 10MHz CH-Low, 1 RB

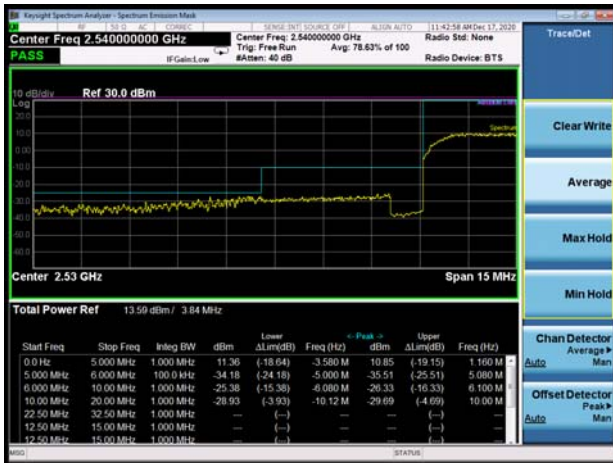


LTE Band 41 16QAM 10MHz CH-High, 1 RB





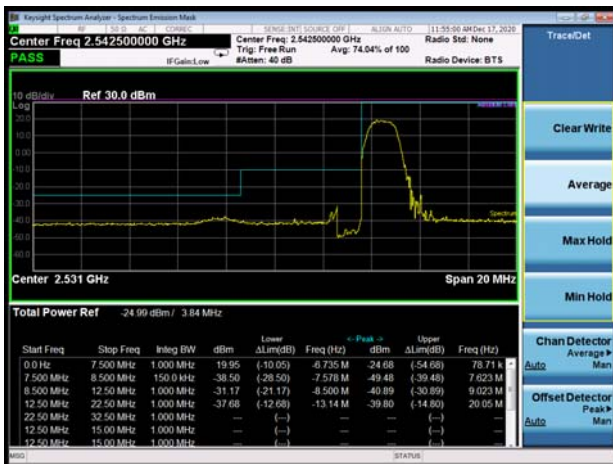
LTE Band 41 16QAM 10MHz CH-Low, 100%RB



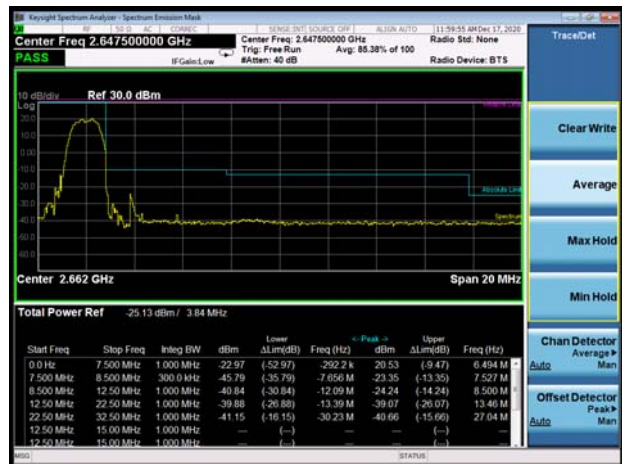
LTE Band 41 16QAM 10MHz CH-High, 100%RB



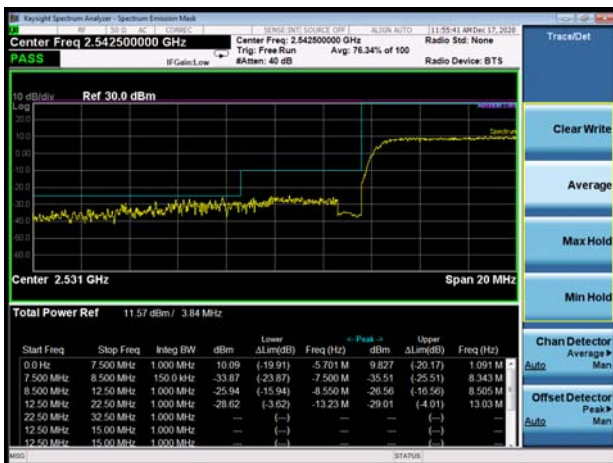
LTE Band 41 16QAM 15MHz CH-Low, 1 RB



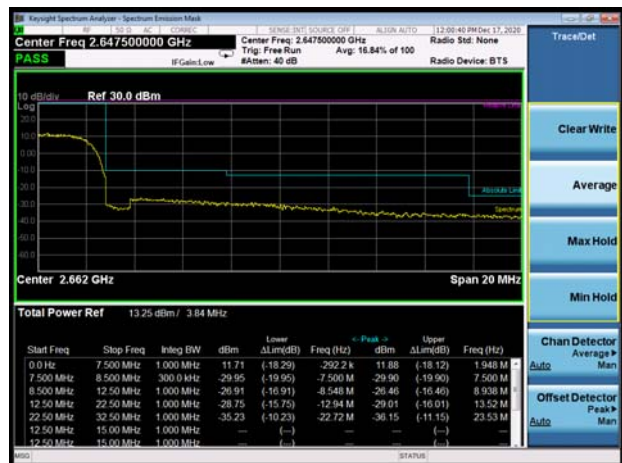
LTE Band 41 16QAM 15MHz CH-High, 1 RB



LTE Band 41 16QAM 15MHz CH-Low, 100%RB

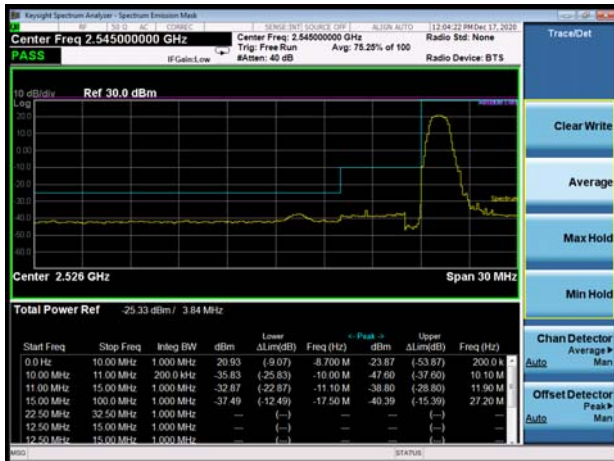


LTE Band 41 16QAM 15MHz CH-High, 100%RB

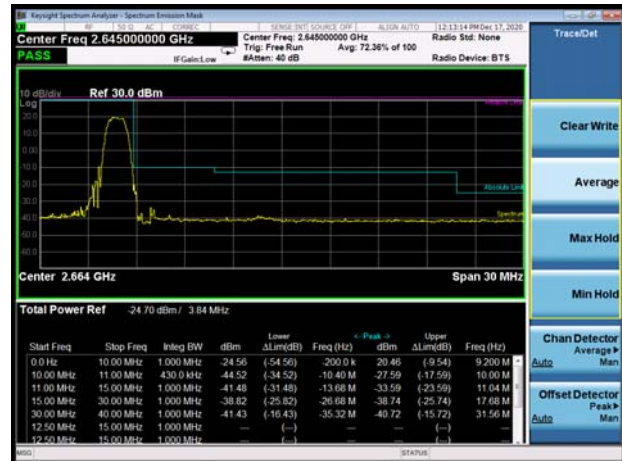




LTE Band 41 16QAM 20MHz CH-Low, RB 1



LTE Band 41 16QAM 20MHz CH-High, RB 1



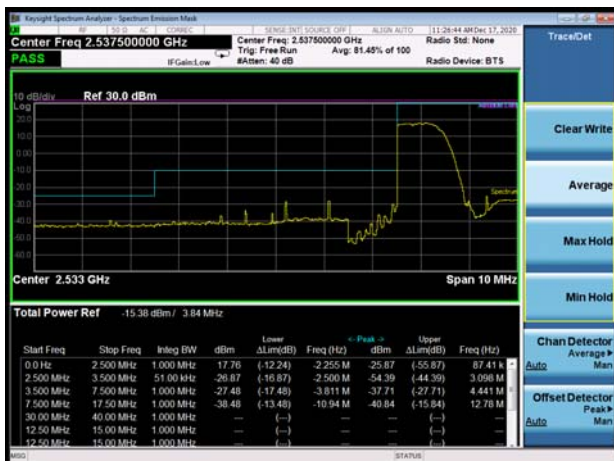
LTE Band 41 16QAM 20MHz CH-Low, 100%RB



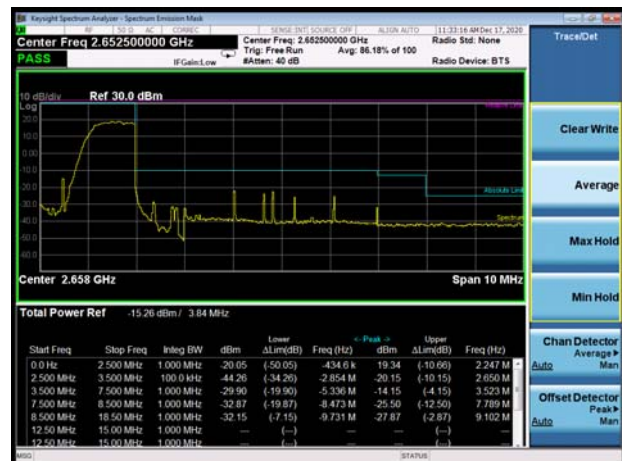
LTE Band 41 16QAM 20MHz CH-High, 100%RB



LTE Band 41 64QAM 5MHz CH-Low, 1 RB



LTE Band 41 64QAM 5MHz CH-High, 1 RB





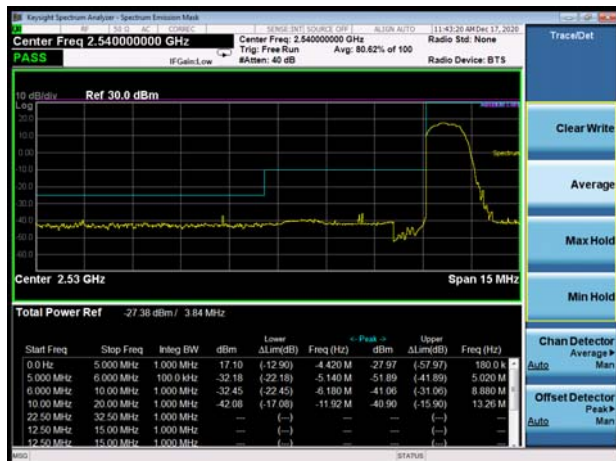
LTE Band 41 64QAM 5MHz CH-Low, 100%RB



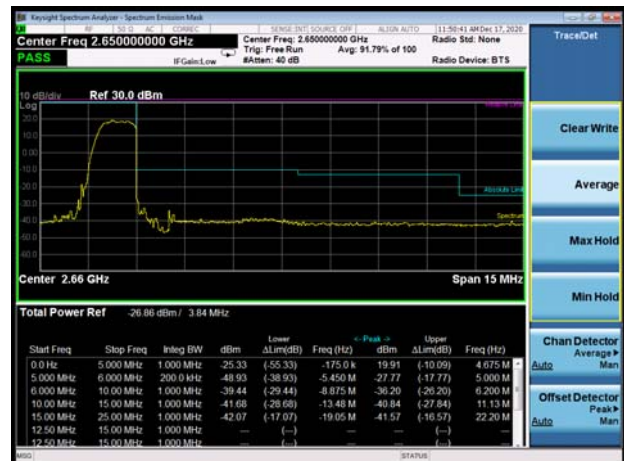
LTE Band 41 64QAM 5MHz CH-High, 100%RB



LTE Band 41 64QAM 10MHz CH-Low, 1 RB



LTE Band 41 64QAM 10MHz CH-High, 1 RB



LTE Band 41 64QAM 10MHz CH-Low, 100%RB

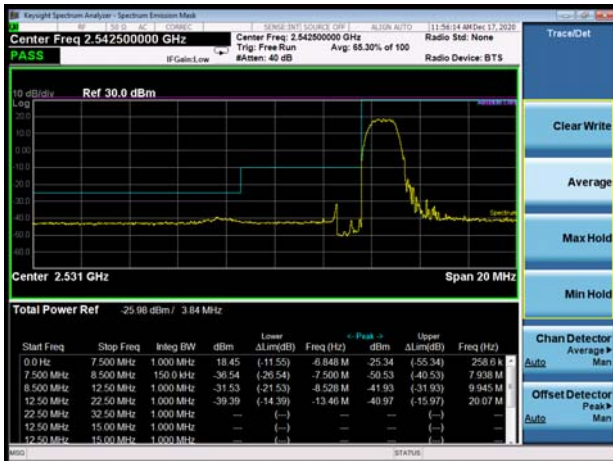


LTE Band 41 64QAM 10MHz CH-High, 100%RB

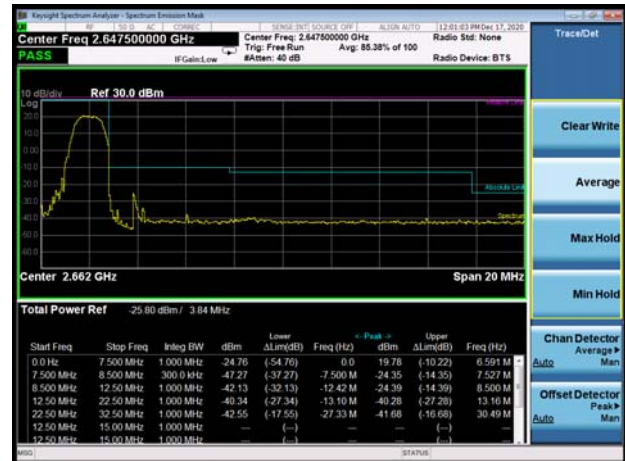




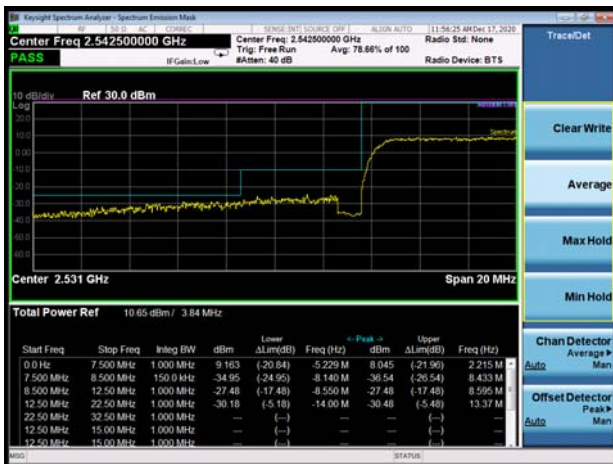
LTE Band 41 64QAM 15MHz CH-Low, 1 RB



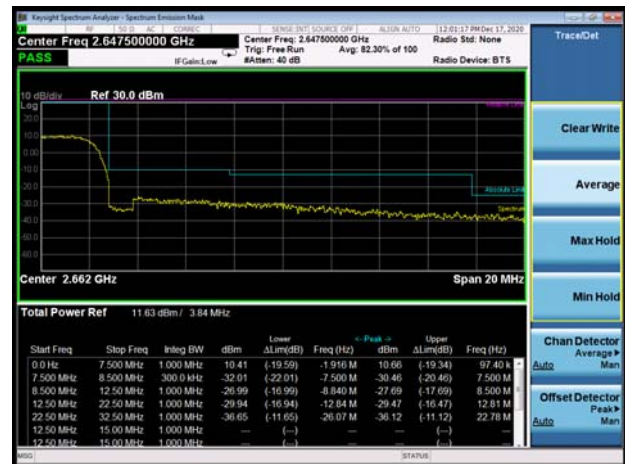
LTE Band 41 64QAM 15MHz CH-High, 1 RB



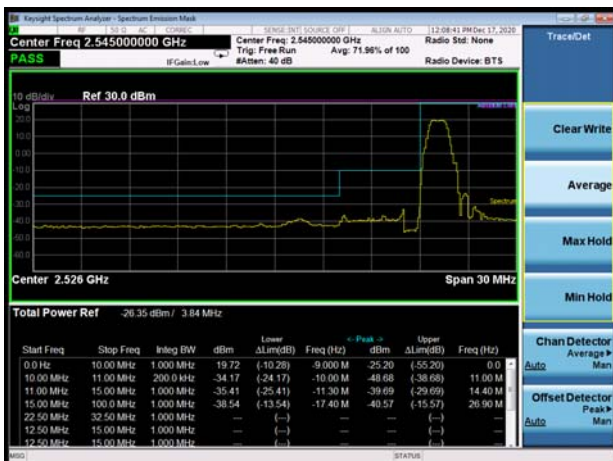
LTE Band 41 64QAM 15MHz CH-Low, 100%RB



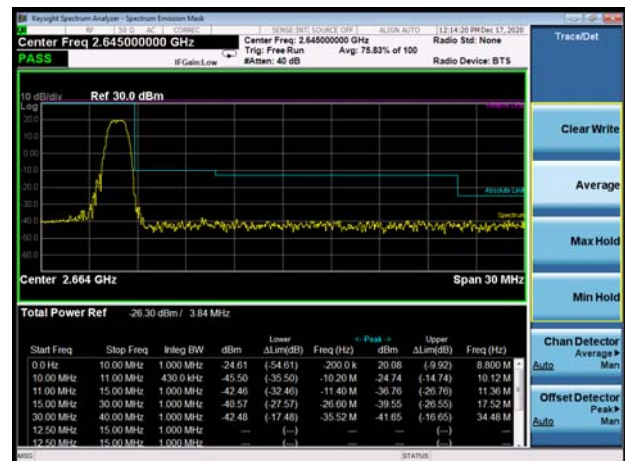
LTE Band 41 64QAM 15MHz CH-High, 100%RB



LTE Band 41 64QAM 20MHz CH-Low, 1 RB

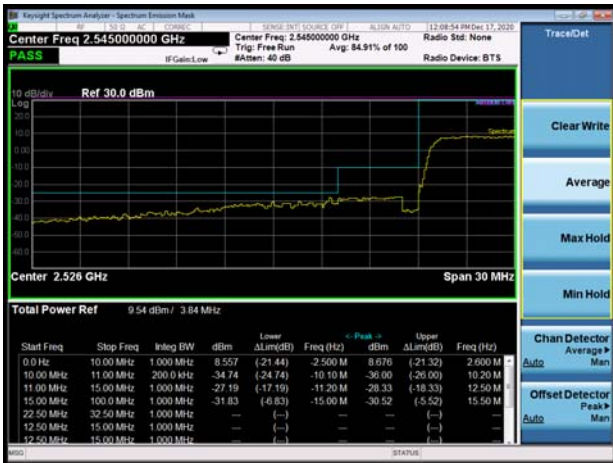


LTE Band 41 64QAM 20MHz CH-High, 1 RB

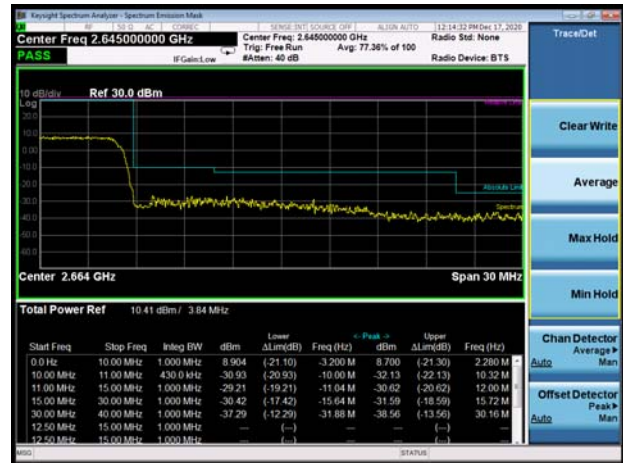




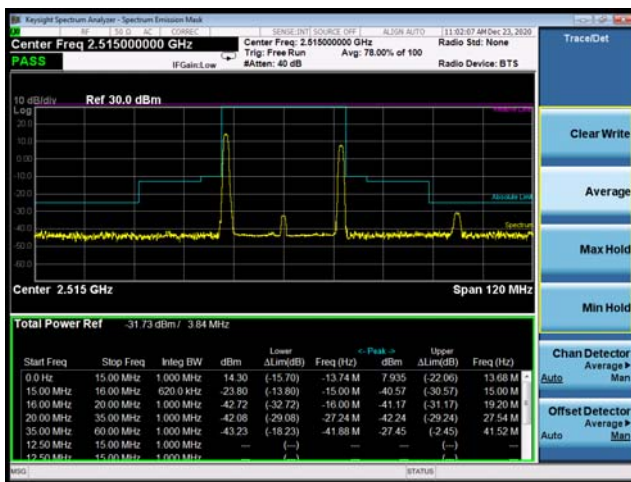
LTE Band 41 64QAM 20MHz CH-Low, 100%RB



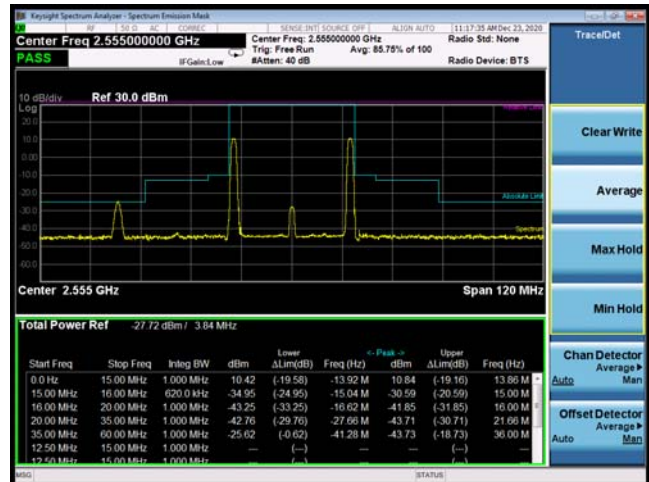
LTE Band 41 64QAM 20MHz CH-High, 100%RB



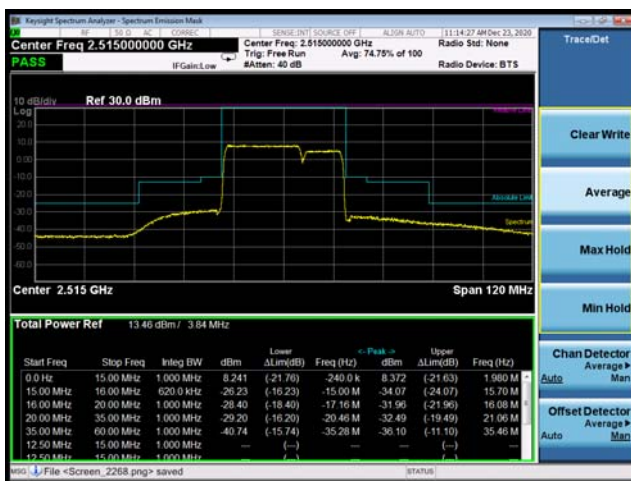
CA-7C QPSK 20MHz+10MHz CH-Low, 1RB



CA-7C QPSK 20MHz+10MHz CH-High, 1RB



CA-7C QPSK 20MHz+10MHz CH-Low, 100%RB

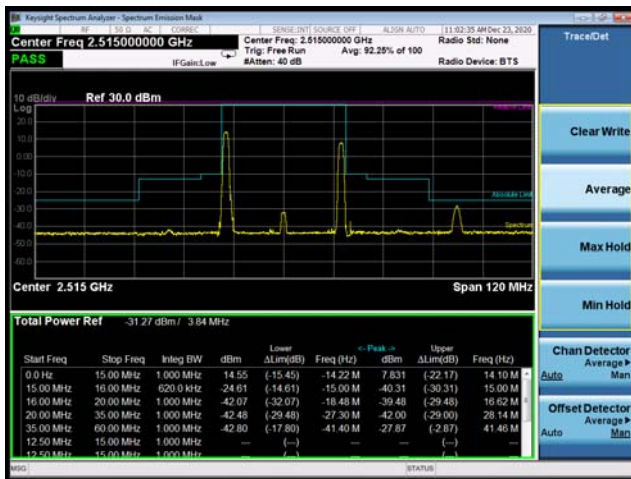


CA-7C QPSK 20MHz+10MHz CH-High, 100%RB

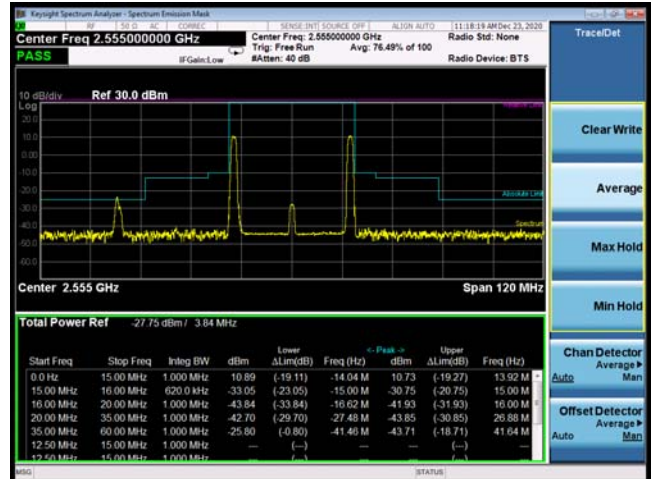




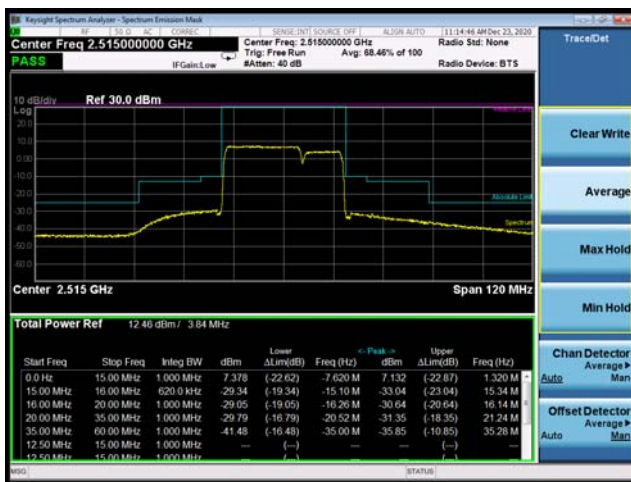
CA-7C 16QAM 20MHz+10MHz CH-Low, 1RB



CA-7C 16QAM 20MHz+10MHz CH-High, 1RB



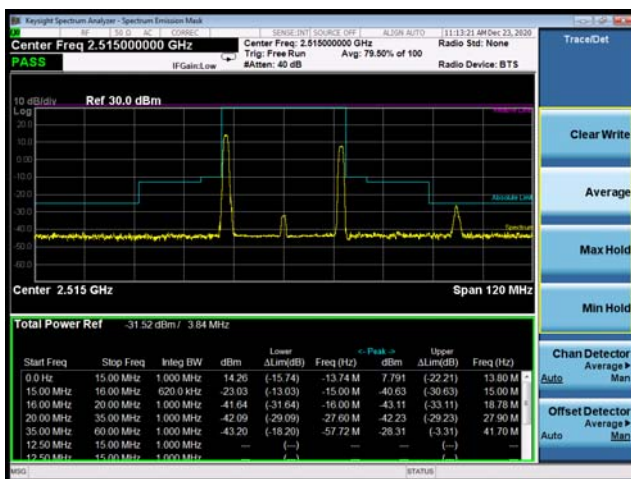
CA-7C 16QAM 20MHz+10MHz CH-Low, 100%RB



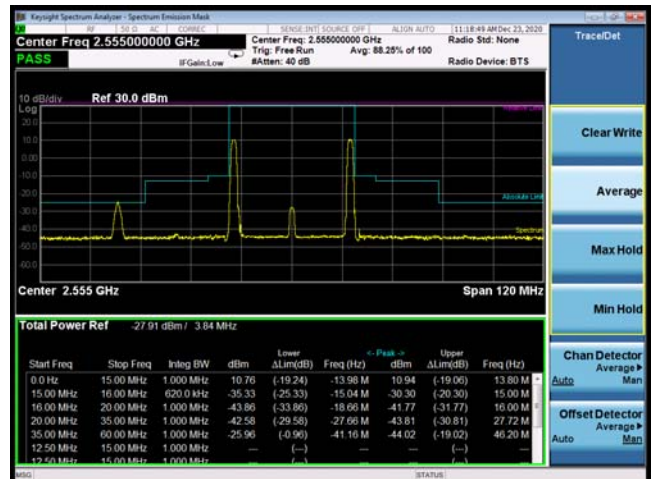
CA-7C 16QAM 20MHz+10MHz CH-High, 100%RB



CA-7C 64QAM 20MHz+10MHz CH-Low, 1RB

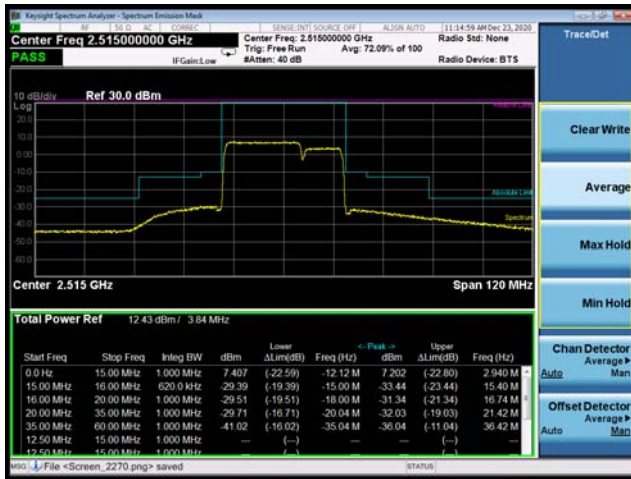


CA-7C 64QAM 20MHz+10MHz CH-High, 1RB

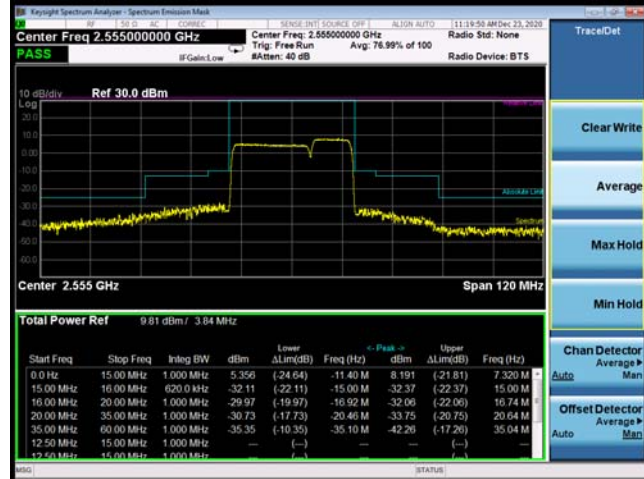




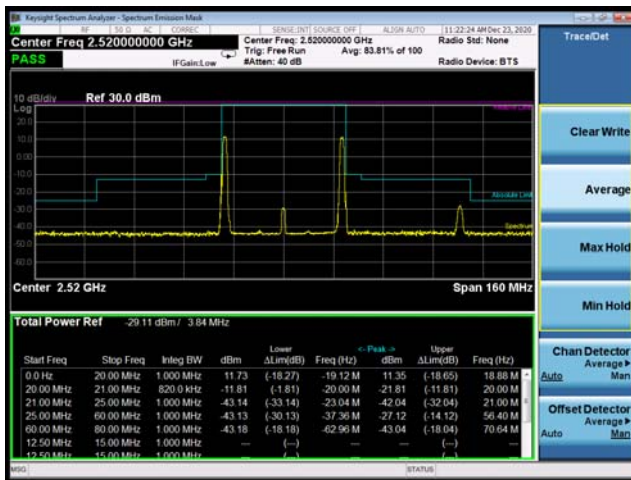
CA-7C 64QAM 20MHz+10MHz CH-Low, 100%RB



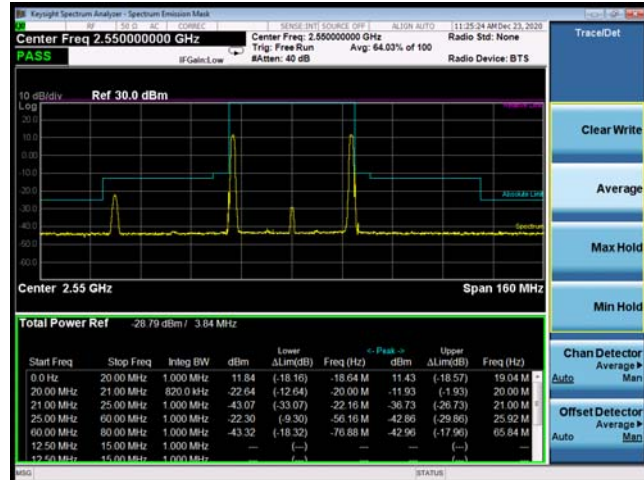
CA-7C 64QAM 20MHz+10MHz CH-High, 100%RB



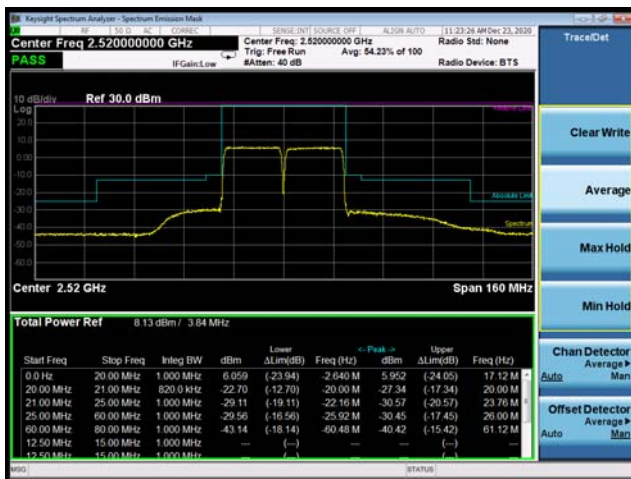
CA-7C QPSK 20MHz+20MHz CH-Low, 1RB



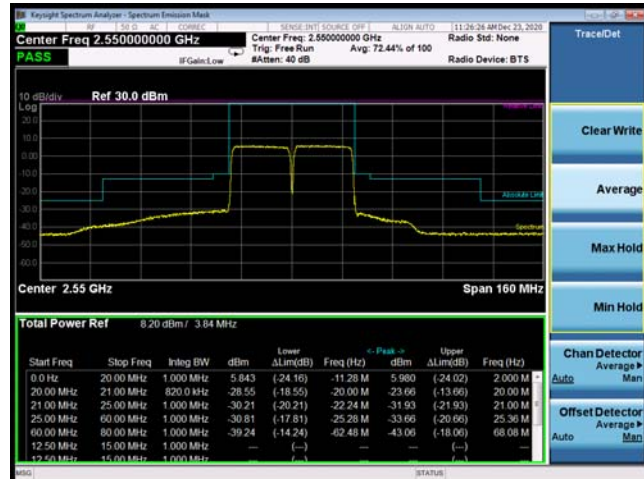
CA-7C QPSK 20MHz+20MHz CH-High, 1RB



CA-7C QPSK 20MHz+20MHz CH-Low, 100%RB

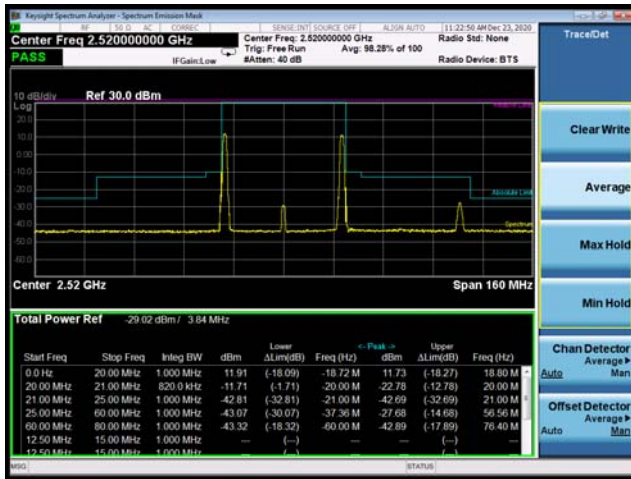


CA-7C QPSK 20MHz+20MHz CH-High, 100%RB

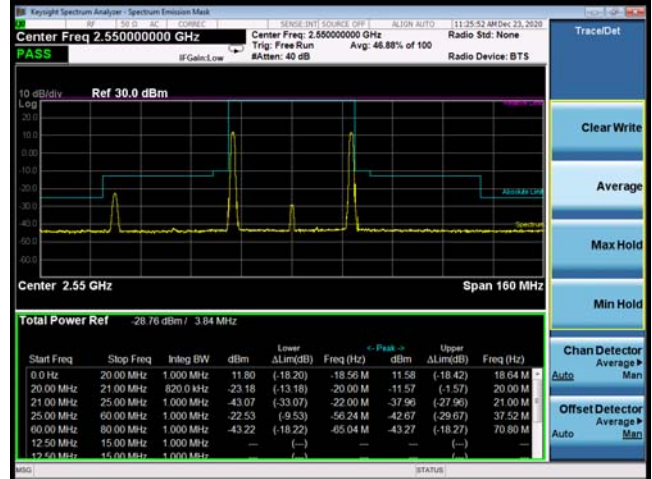




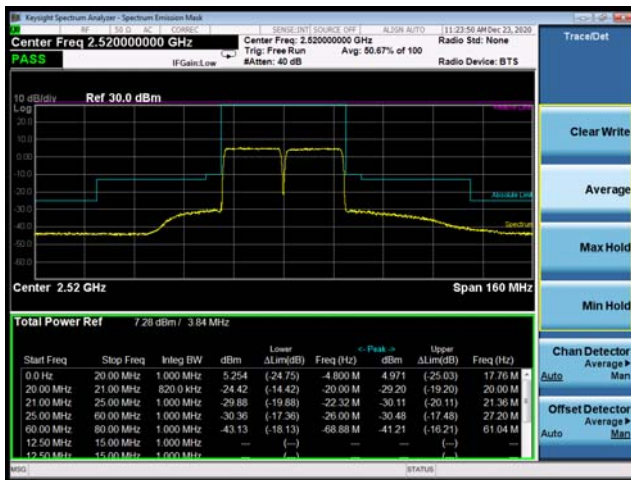
CA-7C 16QAM 20MHz+20MHz CH-Low, 1RB



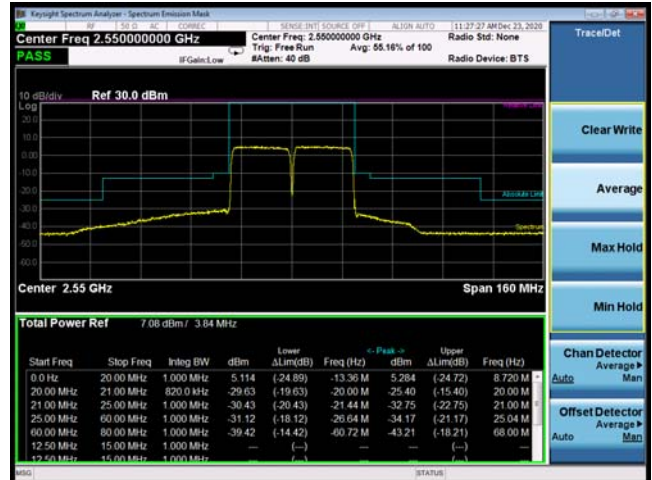
CA-7C 16QAM 20MHz+20MHz CH-High, 1RB



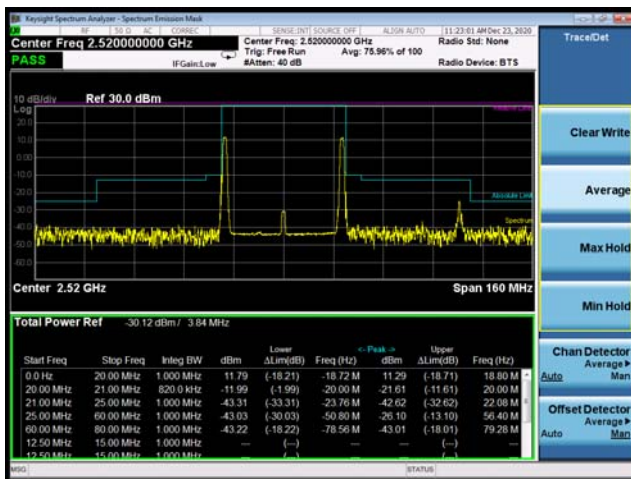
CA-7C 16QAM 20MHz+20MHz CH-Low, 100%RB



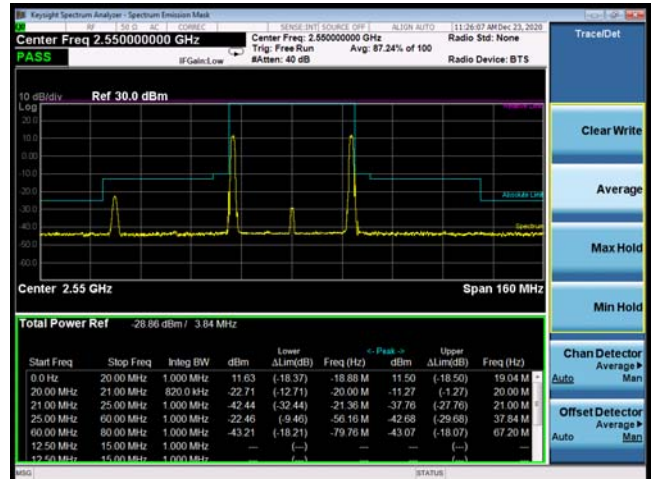
CA-7C 16QAM 20MHz+20MHz CH-High, 100%RB



CA-7C 64QAM 20MHz+20MHz CH-Low, 1RB

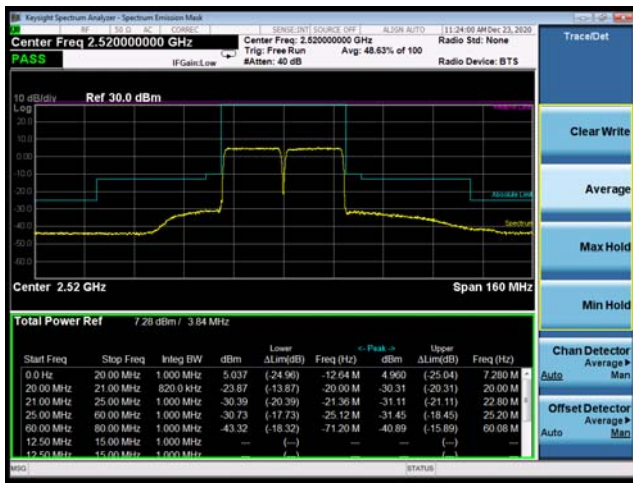


CA-7C 64QAM 20MHz+20MHz CH-High, 1RB

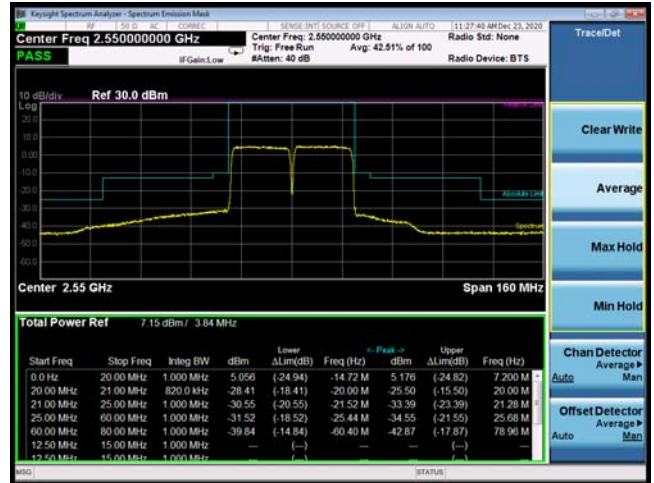




CA-7C 64QAM 20MHz+20MHz CH-Low, 100%RB



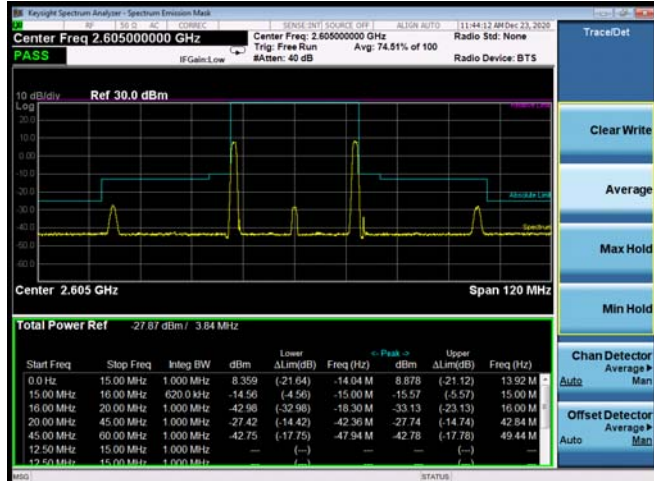
CA-7C 64QAM 20MHz+20MHz CH-High, 100%RB



CA-38C QPSK 15MHz+15MHz CH-Low, 1RB



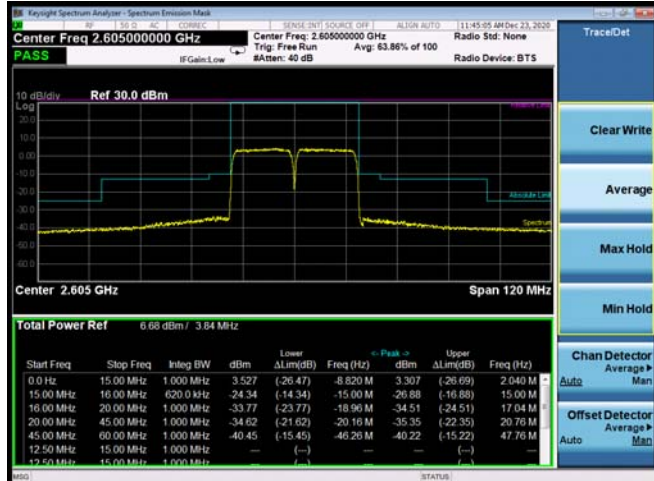
CA-38C QPSK 15MHz+15MHz CH-High, 1RB



CA-38C QPSK 15MHz+15MHz CH-Low, 100%RB

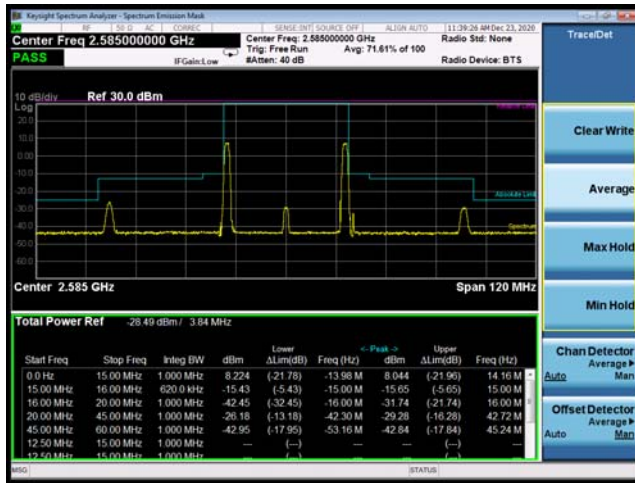


CA-38C QPSK 15MHz+15MHz CH-High, 100%RB

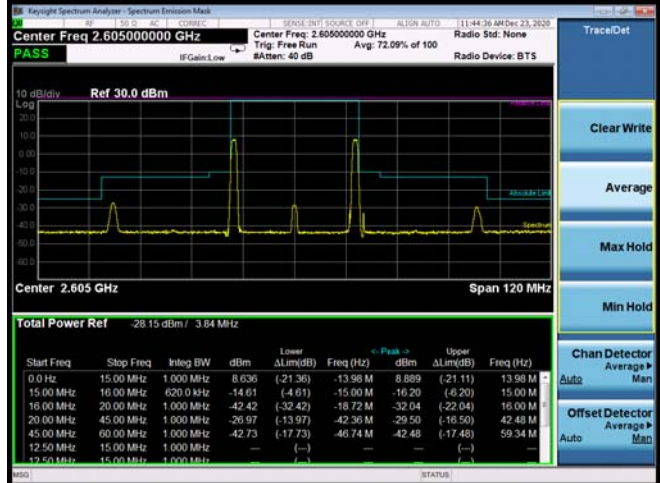




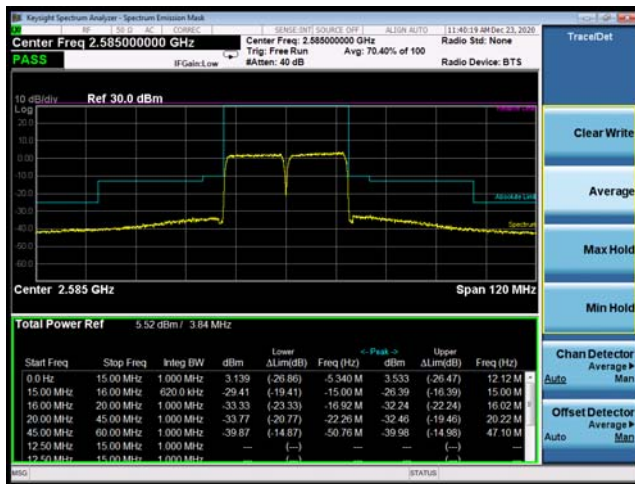
CA-38C 16QAM 15MHz+15MHz CH-Low, 1RB



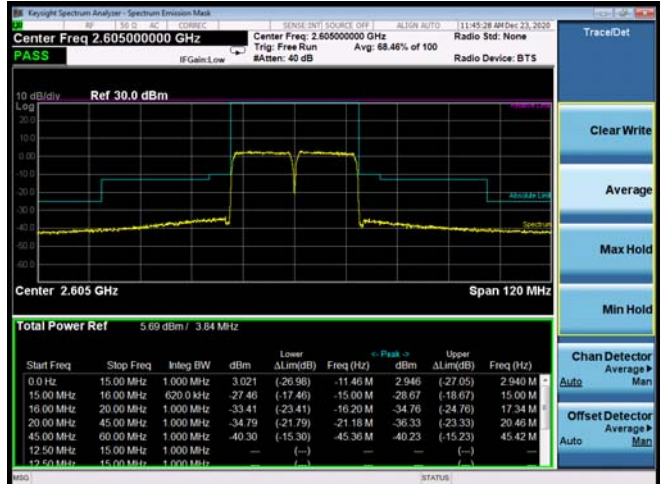
CA-38C 16QAM 15MHz+15MHz CH-High, 1RB



CA-38C 16QAM 15MHz+15MHz CH-Low, 100%RB



CA-38C 16QAM 15MHz+15MHz CH-High, 100%RB



CA-38C 64QAM 15MHz+15MHz CH-Low, 1RB

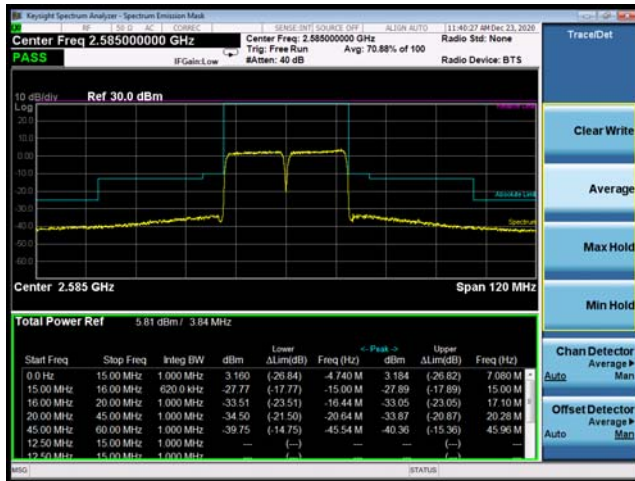


CA-38C 64QAM 15MHz+15MHz CH-High, 1RB

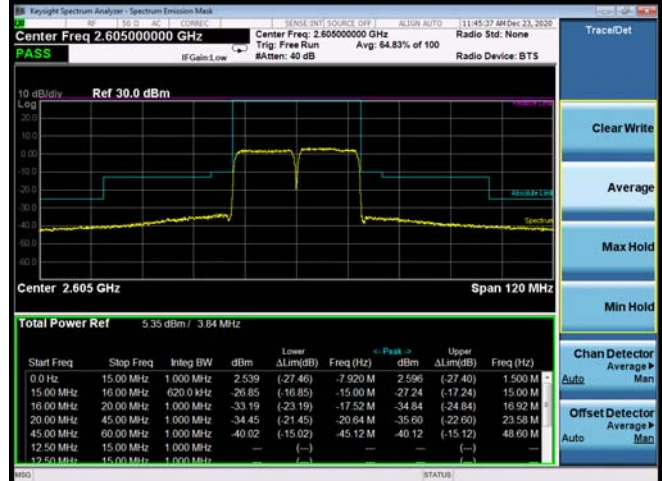




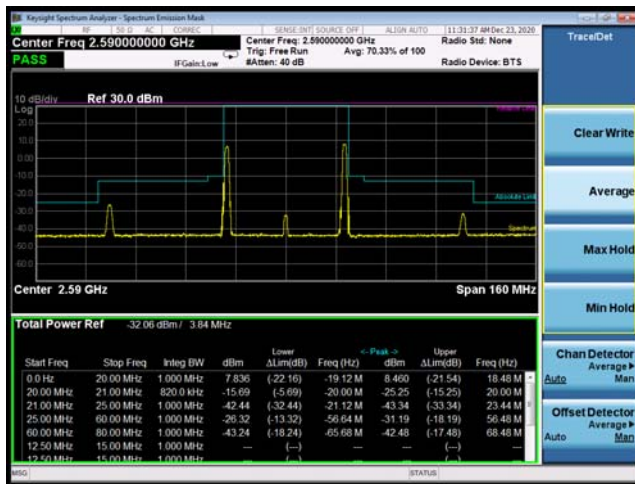
CA-38C 64QAM 15MHz+15MHz CH-Low, 100%RB



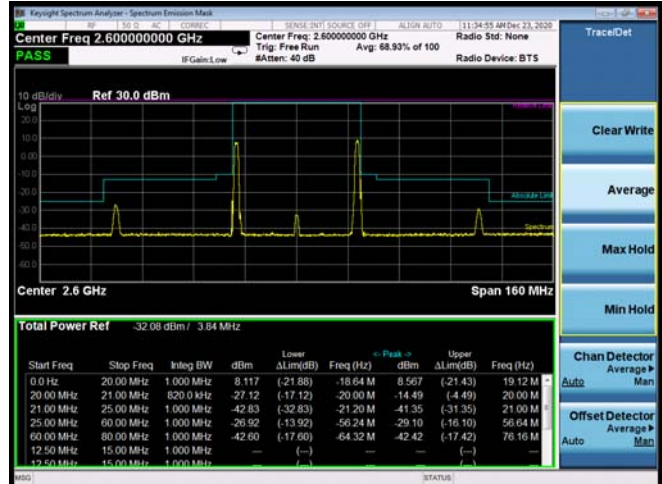
CA-38C 64QAM 15MHz+15MHz CH-High, 100%RB



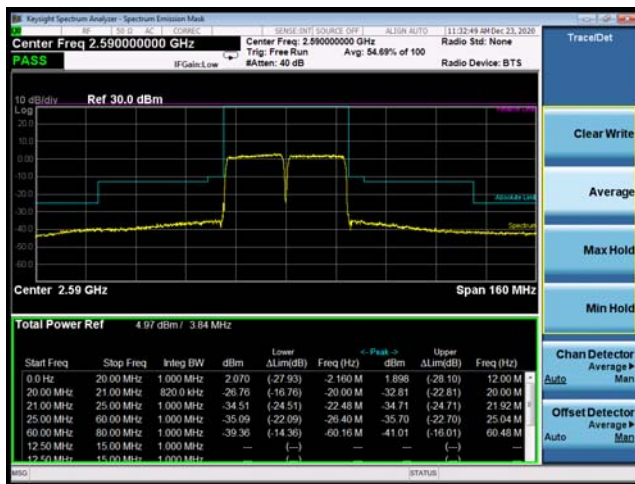
CA-38C QPSK 20MHz+20MHz CH-Low, 1RB



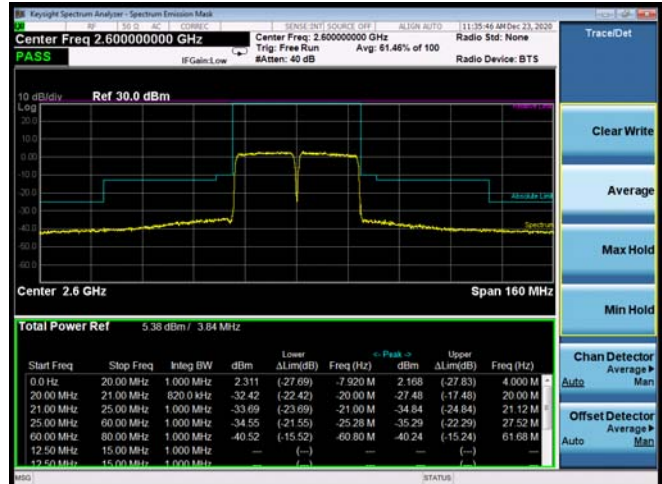
CA-38C QPSK 20MHz+20MHz CH-High, 1RB



CA-38C QPSK 20MHz+20MHz CH-Low, 100%RB

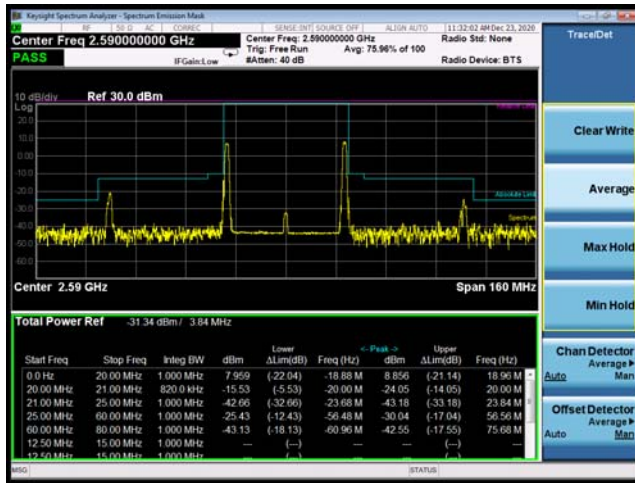


CA-38C QPSK 20MHz+20MHz CH-High, 100%RB

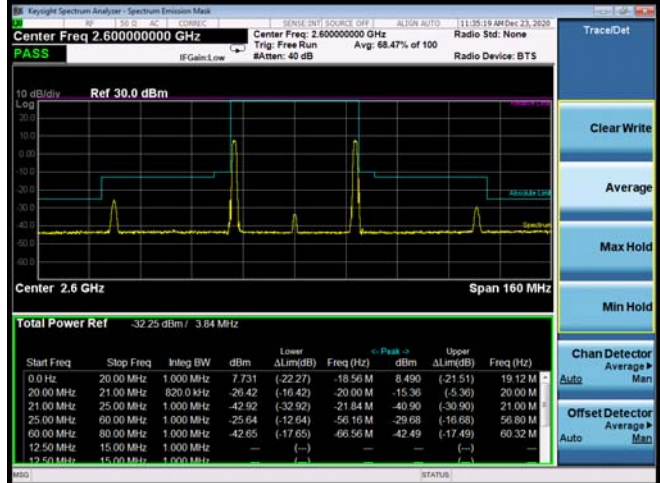




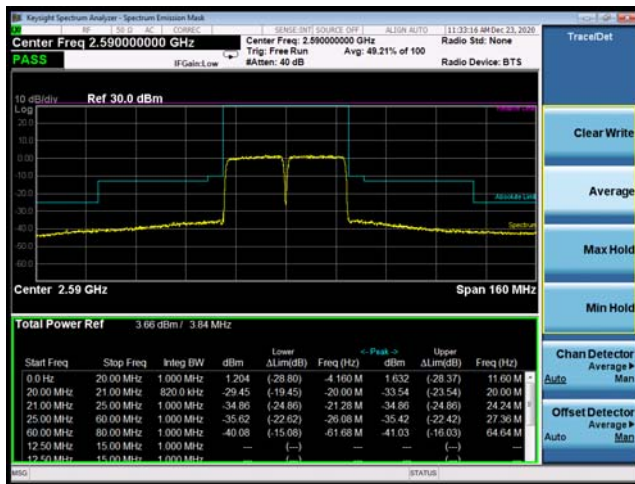
CA-38C 16QAM 20MHz+20MHz CH-Low, 1RB



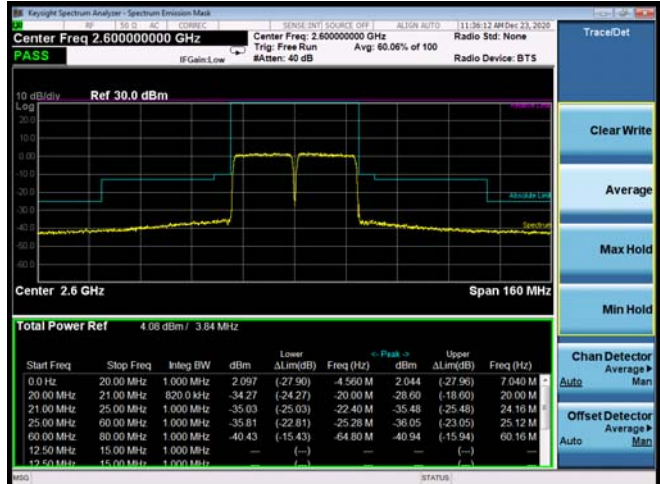
CA-38C 16QAM 20MHz+20MHz CH-High, 1RB



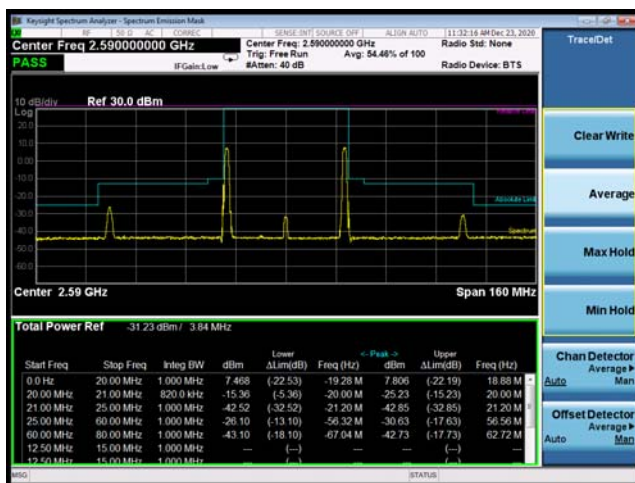
CA-38C 16QAM 20MHz+20MHz CH-Low, 100%RB



CA-38C 16QAM 20MHz+20MHz CH-High, 100%RB



CA-38C 64QAM 20MHz+20MHz CH-Low, 1RB

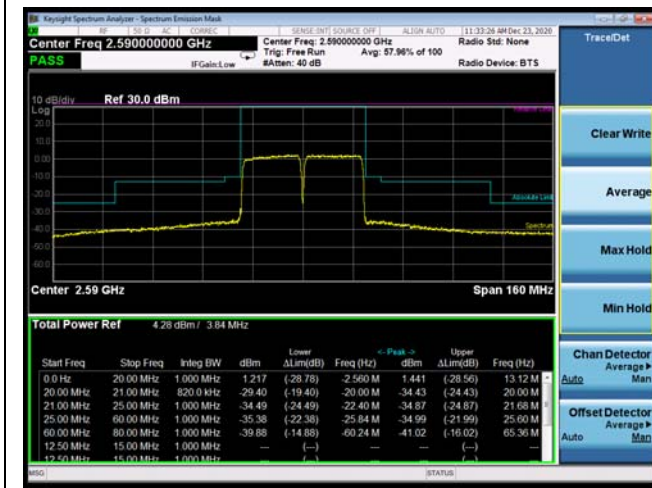


CA-38C 64QAM 20MHz+20MHz CH-High, 1RB

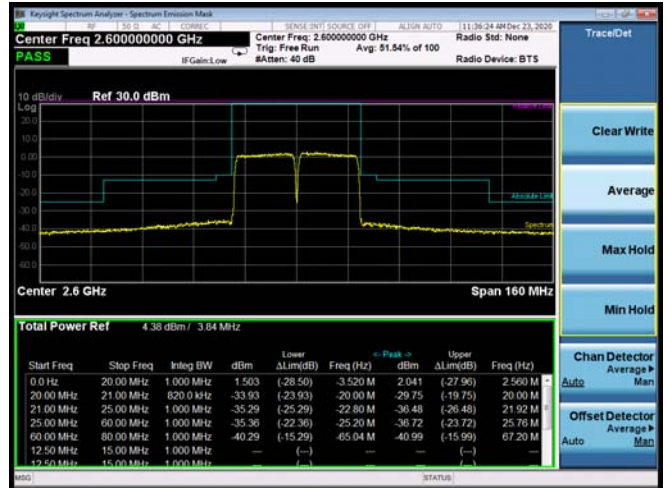




CA-38C 64QAM 20MHz+20MHz CH-Low, 100%RB



CA-38C 64QAM 20MHz+20MHz CH-High, 100%RB



5.4 Peak-to-Average Power Ratio (PAPR)

Ambient condition

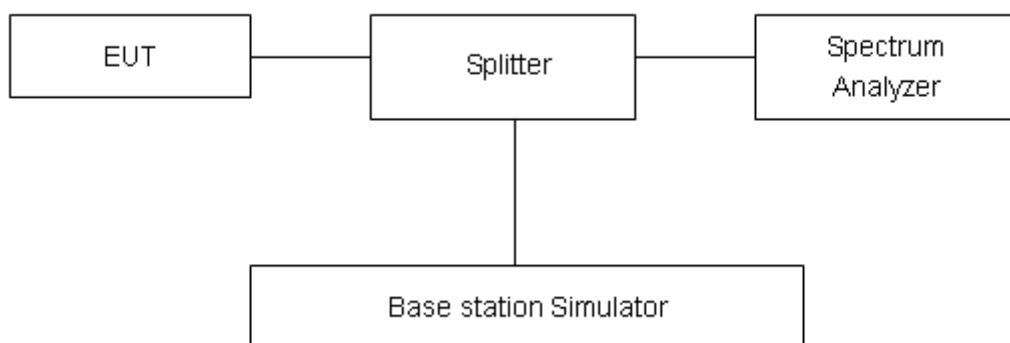
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

Measure the total peak power and record as PPk. And measure the total average power and record as PAvg. Both the peak and average power levels must be expressed in the same logarithmic units (e.g., dBm). Determine the PAPR from:

$$\text{PAPR (dB)} = \text{PPk (dBm)} - \text{PAvg (dBm)}.$$

Test Setup



Limits

Rule Part 27.50(d)(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.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U = 0.4$ dB.



Test Results

WCDMA Band IV	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
RMC	1312	1712.4	25.21	22.13	3.08	≤13	PASS
	1413	1732.6	25.45	22.34	3.11	≤13	PASS
	1513	1752.6	25.38	22.33	3.05	≤13	PASS

LTE Band 4								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	1.4	19957	1710.7	27.18	22.98	4.20	≤13	PASS
		20175	1732.5	27.44	22.98	4.46	≤13	PASS
		20393	1754.3	27.21	23.02	4.19	≤13	PASS
	3	19965	1711.5	27.14	23.05	4.09	≤13	PASS
		20175	1732.5	27.35	23.05	4.30	≤13	PASS
		20385	1753.5	27.13	23.07	4.06	≤13	PASS
	5	19975	1712.5	27.29	23.05	4.24	≤13	PASS
		20175	1732.5	27.48	23.02	4.46	≤13	PASS
		20375	1752.5	27.24	23.10	4.14	≤13	PASS
	10	20000	1715	27.42	23.07	4.35	≤13	PASS
		20175	1732.5	27.51	23.05	4.46	≤13	PASS
		20350	1750	27.26	23.13	4.13	≤13	PASS
	15	20025	1717.5	27.68	23.03	4.65	≤13	PASS
		20175	1732.5	27.67	23.04	4.63	≤13	PASS
		20325	1747.5	27.43	23.01	4.42	≤13	PASS
	20	20050	1720	27.64	23.05	4.59	≤13	PASS
		20175	1732.5	27.56	22.99	4.57	≤13	PASS
		20300	1745	27.40	22.97	4.43	≤13	PASS
16QAM	1.4	19957	1710.7	27.26	22.00	5.26	≤13	PASS
		20175	1732.5	27.58	22.09	5.49	≤13	PASS
		20393	1754.3	27.39	22.13	5.26	≤13	PASS
	3	19965	1711.5	27.35	22.12	5.23	≤13	PASS
		20175	1732.5	27.61	22.10	5.51	≤13	PASS
		20385	1753.5	27.35	22.18	5.17	≤13	PASS
	5	19975	1712.5	27.39	22.13	5.26	≤13	PASS
		20175	1732.5	27.63	22.12	5.51	≤13	PASS
		20375	1752.5	27.35	22.16	5.19	≤13	PASS
	10	20000	1715	27.54	22.15	5.39	≤13	PASS
		20175	1732.5	27.65	22.15	5.50	≤13	PASS
		20350	1750	27.32	22.14	5.18	≤13	PASS



	15	20025	1717.5	27.81	22.15	5.66	≤13	PASS
		20175	1732.5	27.82	22.17	5.65	≤13	PASS
		20325	1747.5	27.56	22.15	5.41	≤13	PASS
	20	20050	1720	27.83	22.12	5.71	≤13	PASS
		20175	1732.5	27.74	22.09	5.65	≤13	PASS
		20300	1745	27.57	22.09	5.48	≤13	PASS
64QAM	1.4	19957	1710.7	26.60	22.42	4.18	≤13	PASS
		20175	1732.5	26.86	22.38	4.48	≤13	PASS
		20393	1754.3	26.65	22.46	4.19	≤13	PASS
	3	19965	1711.5	26.57	22.49	4.08	≤13	PASS
		20175	1732.5	26.79	22.47	4.32	≤13	PASS
		20385	1753.5	26.56	22.52	4.04	≤13	PASS
	5	19975	1712.5	26.70	22.49	4.21	≤13	PASS
		20175	1732.5	26.93	22.46	4.47	≤13	PASS
		20375	1752.5	26.67	22.55	4.12	≤13	PASS
	10	20000	1715	26.83	22.48	4.35	≤13	PASS
		20175	1732.5	26.96	22.50	4.46	≤13	PASS
		20350	1750	26.68	22.56	4.12	≤13	PASS
	15	20025	1717.5	27.14	22.49	4.65	≤13	PASS
		20175	1732.5	27.12	22.50	4.62	≤13	PASS
		20325	1747.5	26.88	22.47	4.41	≤13	PASS
	20	20050	1720	27.08	22.50	4.58	≤13	PASS
		20175	1732.5	27.00	22.45	4.55	≤13	PASS
		20300	1745	26.83	22.44	4.39	≤13	PASS

LTE Band 7								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	20775	2502.5	27.40	22.64	4.76	≤13	PASS
		21100	2535	26.28	22.35	3.93	≤13	PASS
		21425	2567.5	27.23	22.42	4.81	≤13	PASS
	10	20800	2505	27.42	22.61	4.81	≤13	PASS
		21100	2535	26.36	22.41	3.95	≤13	PASS
		21400	2565	27.25	22.47	4.78	≤13	PASS
	15	20825	2507.5	27.52	22.55	4.97	≤13	PASS
		21100	2535	26.67	22.44	4.23	≤13	PASS
		21375	2562.5	27.27	22.34	4.93	≤13	PASS
	20	20850	2510	27.49	22.74	4.75	≤13	PASS



16QAM		21100	2535	26.61	22.35	4.26	≤13	PASS
		21350	2560	27.23	22.45	4.78	≤13	PASS
	5	20775	2502.5	27.56	21.76	5.80	≤13	PASS
		21100	2535	26.34	21.40	4.94	≤13	PASS
		21425	2567.5	27.45	21.54	5.91	≤13	PASS
	10	20800	2505	27.72	21.81	5.91	≤13	PASS
		21100	2535	26.39	21.39	5.00	≤13	PASS
		21400	2565	27.40	21.48	5.92	≤13	PASS
	15	20825	2507.5	27.74	21.74	6.00	≤13	PASS
		21100	2535	26.70	21.49	5.21	≤13	PASS
		21375	2562.5	27.51	21.51	6.00	≤13	PASS
	20	20850	2510	27.76	21.87	5.89	≤13	PASS
		21100	2535	26.78	21.46	5.32	≤13	PASS
		21350	2560	27.49	21.55	5.94	≤13	PASS
64QAM	5	20775	2502.5	26.89	22.09	4.80	≤13	PASS
		21100	2535	25.77	21.84	3.93	≤13	PASS
		21425	2567.5	26.74	21.90	4.84	≤13	PASS
	10	20800	2505	26.86	22.04	4.82	≤13	PASS
		21100	2535	25.84	21.87	3.97	≤13	PASS
		21400	2565	26.74	21.95	4.79	≤13	PASS
	15	20825	2507.5	26.99	22.01	4.98	≤13	PASS
		21100	2535	26.16	21.90	4.26	≤13	PASS
		21375	2562.5	26.86	21.93	4.93	≤13	PASS
	20	20850	2510	26.88	22.12	4.76	≤13	PASS
		21100	2535	26.16	21.88	4.28	≤13	PASS
		21350	2560	26.72	21.95	4.77	≤13	PASS

LTE Band 38								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	37775	2572.5	26.59	17.24	9.35	≤13	PASS
		38000	2595	26.90	18.99	7.91	≤13	PASS
		38225	2617.5	27.33	19.55	7.78	≤13	PASS
	10	37800	2575	26.57	17.41	9.16	≤13	PASS
		38000	2595	26.82	18.55	8.27	≤13	PASS



		38200	2615	27.29	18.92	8.37	≤13	PASS
	15	37825	2577.5	26.69	17.17	9.52	≤13	PASS
		38000	2595	26.80	17.37	9.43	≤13	PASS
		38175	2612.5	27.28	18.04	9.24	≤13	PASS
	20	37850	2580	26.51	17.31	9.20	≤13	PASS
		38000	2595	26.76	18.76	8.00	≤13	PASS
		38150	2610	27.19	19.26	7.93	≤13	PASS
16QAM	5	37775	2572.5	26.79	17.20	9.59	≤13	PASS
		38000	2595	27.00	17.17	9.83	≤13	PASS
		38225	2617.5	27.53	18.13	9.40	≤13	PASS
	10	37800	2575	26.90	17.60	9.30	≤13	PASS
		38000	2595	27.08	18.73	8.35	≤13	PASS
		38200	2615	27.49	17.98	9.51	≤13	PASS
	15	37825	2577.5	26.95	17.43	9.52	≤13	PASS
		38000	2595	27.12	17.72	9.40	≤13	PASS
		38175	2612.5	27.50	18.03	9.47	≤13	PASS
	20	37850	2580	26.84	17.60	9.24	≤13	PASS
		38000	2595	27.01	17.66	9.35	≤13	PASS
		38150	2610	27.32	17.40	9.92	≤13	PASS
64QAM	5	37775	2572.5	26.26	16.68	9.58	≤13	PASS
		38000	2595	26.44	17.13	9.31	≤13	PASS
		38225	2617.5	27.03	18.65	8.38	≤13	PASS
	10	37800	2575	26.32	18.10	8.22	≤13	PASS
		38000	2595	26.57	18.73	7.84	≤13	PASS
		38200	2615	27.00	19.05	7.95	≤13	PASS
	15	37825	2577.5	26.56	18.15	8.41	≤13	PASS
		38000	2595	26.61	17.78	8.83	≤13	PASS
		38175	2612.5	27.00	18.28	8.72	≤13	PASS
	20	37850	2580	26.26	17.32	8.94	≤13	PASS
		38000	2595	26.50	18.60	7.90	≤13	PASS
		38150	2610	26.76	17.80	8.96	≤13	PASS



LTE Band 41								
Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	Peak (dBm)	Avg (dBm)	PAPR (dB)	Limit (dB)	Conclusion
QPSK	5	40065	2537.5	26.37	17.97	8.40	≤13	PASS
		40640	2595	26.88	18.52	8.36	≤13	PASS
		41215	2652.5	27.09	18.98	8.11	≤13	PASS
	10	40090	2540	26.29	17.69	8.60	≤13	PASS
		40640	2595	26.80	18.66	8.14	≤13	PASS
		41190	2650	27.04	19.01	8.03	≤13	PASS
	15	40115	2542.5	26.41	18.05	8.36	≤13	PASS
		40640	2595	26.99	18.81	8.18	≤13	PASS
		41165	2647.5	27.28	19.03	8.25	≤13	PASS
	20	40140	2545	26.29	17.74	8.55	≤13	PASS
		40640	2595	26.69	17.92	8.77	≤13	PASS
		41140	2645	27.04	18.97	8.07	≤13	PASS
16QAM	5	40065	2537.5	26.43	17.01	9.42	≤13	PASS
		40640	2595	27.05	17.44	9.61	≤13	PASS
		41215	2652.5	27.19	17.61	9.58	≤13	PASS
	10	40090	2540	26.48	16.85	9.63	≤13	PASS
		40640	2595	27.00	17.41	9.59	≤13	PASS
		41190	2650	27.19	17.65	9.54	≤13	PASS
	15	40115	2542.5	26.58	17.08	9.50	≤13	PASS
		40640	2595	27.16	17.61	9.55	≤13	PASS
		41165	2647.5	27.36	17.59	9.77	≤13	PASS
	20	40140	2545	26.52	16.94	9.58	≤13	PASS
		40640	2595	27.01	17.36	9.65	≤13	PASS
		41140	2645	27.22	17.54	9.68	≤13	PASS
64QAM	5	40065	2537.5	25.38	15.78	9.60	≤13	PASS
		40640	2595	25.89	16.06	9.83	≤13	PASS
		41215	2652.5	26.17	16.66	9.51	≤13	PASS
	10	40090	2540	25.41	15.66	9.75	≤13	PASS
		40640	2595	25.89	16.31	9.58	≤13	PASS
		41190	2650	26.26	16.87	9.39	≤13	PASS
	15	40115	2542.5	25.58	15.75	9.83	≤13	PASS



		40640	2595	26.09	16.60	9.49	≤13	PASS
		41165	2647.5	26.38	16.77	9.61	≤13	PASS
	20	40140	2545	25.54	15.91	9.63	≤13	PASS
		40640	2595	25.97	16.34	9.63	≤13	PASS
		41140	2645	26.26	16.96	9.30	≤13	PASS

Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)			Limit (dB)	Conclusion
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak(dBm)	Avg(dBm)	PAPR(dB)		
CA_7C_10MHz+20MHz	21006	2525.6	21150	2540	QPSK	26.32	20.52	5.80	≤13	PASS
CA_7C_10MHz+20MHz	21006	2525.6	21150	2540	16QAM	26.17	19.59	6.58	≤13	PASS
CA_7C_10MHz+20MHz	21006	2525.6	21150	2540	64QAM	25.89	19.54	6.35	≤13	PASS
CA_7C_20MHz+10MHz	21051	2530.1	21195	2544.5	QPSK	26.40	20.48	5.92	≤13	PASS
CA_7C_20MHz+10MHz	21051	2530.1	21195	2544.5	16QAM	26.22	19.58	6.64	≤13	PASS
CA_7C_20MHz+10MHz	21051	2530.1	21195	2544.5	64QAM	25.90	19.51	6.39	≤13	PASS
CA_7C_15MHz+10MHz	21051	2530.1	21171	2542.1	QPSK	26.78	20.97	5.81	≤13	PASS
CA_7C_15MHz+10MHz	21051	2530.1	21171	2542.1	16QAM	26.57	20.06	6.51	≤13	PASS
CA_7C_15MHz+10MHz	21051	2530.1	21171	2542.1	64QAM	26.30	19.99	6.31	≤13	PASS
CA_7C_15MHz+15MHz	21025	2527.5	21175	2542.5	QPSK	26.54	20.47	6.07	≤13	PASS
CA_7C_15MHz+15MHz	21025	2527.5	21175	2542.5	16QAM	26.24	19.53	6.71	≤13	PASS
CA_7C_15MHz+15MHz	21025	2527.5	21175	2542.5	64QAM	26.01	19.52	6.49	≤13	PASS
CA_7C_15MHz+20MHz	21003	2525.3	21174	2542.4	QPSK	26.19	19.93	6.26	≤13	PASS
CA_7C_15MHz+20MHz	21003	2525.3	21174	2542.4	16QAM	25.93	19.01	6.92	≤13	PASS
CA_7C_15MHz+20MHz	21003	2525.3	21174	2542.4	64QAM	25.64	18.91	6.73	≤13	PASS
CA_7C_20MHz+15MHz	21026	2527.6	21197	2544.7	QPSK	26.26	19.94	6.32	≤13	PASS
CA_7C_20MHz+15MHz	21026	2527.6	21197	2544.7	16QAM	25.95	19.00	6.95	≤13	PASS
CA_7C_20MHz+15MHz	21026	2527.6	21197	2544.7	64QAM	25.67	18.96	6.71	≤13	PASS
CA_7C_20MHz+20MHz	21001	2525.1	21199	2544.9	QPSK	25.98	19.38	6.60	≤13	PASS
CA_7C_20MHz+20MHz	21001	2525.1	21199	2544.9	16QAM	25.59	18.46	7.13	≤13	PASS
CA_7C_20MHz+20MHz	21001	2525.1	21199	2544.9	64QAM	25.37	18.41	6.96	≤13	PASS

Bandwidth	PCC		SCC1		Modulation	Peak-to-Average Power Ratio (PAPR)			Limit (dB)	Conclusion
	Channel	Frequency (MHz)	Channel	Frequency (MHz)		Peak(dBm)	Avg(dBm)	PAPR(dB)		
CA_38C_15MHz+15MHz	37925	2587.5	38075	2602.5	QPSK	26.87	17.25	9.62	≤13	PASS
CA_38C_15MHz+15MHz	37925	2587.5	38075	2602.5	16QAM	26.32	15.11	11.21	≤13	PASS
CA_38C_15MHz+15MHz	37925	2587.5	38075	2602.5	64QAM	26.10	15.97	10.13	≤13	PASS
CA_38C_20MHz+20MHz	37901	2585.1	38099	2604.9	QPSK	26.12	15.71	10.41	≤13	PASS
CA_38C_20MHz+20MHz	37901	2585.1	38099	2604.9	16QAM	25.56	14.84	10.72	≤13	PASS
CA_38C_20MHz+20MHz	37901	2585.1	38099	2604.9	64QAM	25.22	14.59	10.63	≤13	PASS

5.5 Frequency Stability

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

Frequency Stability (Temperature Variation)

The temperature inside the climate chamber is varied from -30°C to +50°C in 10°C step size.

(1) With all power removed, the temperature was decreased to -10°C and permitted to stabilize for three hours.

(2) Measure the carrier frequency with the test equipment in a “call mode”. These measurements should be made within 1 minute of powering up the mobile station, to prevent significant self warming.

(3) Repeat the above measurements at 10°C increments from -30°C to +50°C. Allow at least 1.5 hours at each temperature, un-powered, before making measurements.

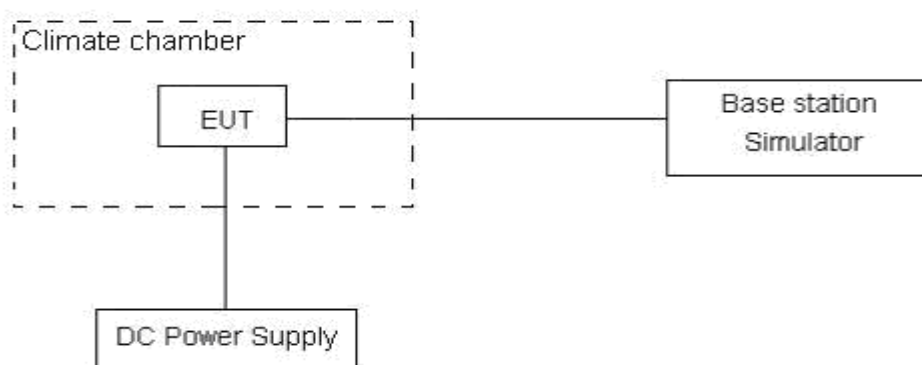
Frequency Stability (Voltage Variation)

The frequency stability shall be measured with variation of primary supply voltage as follows:

Primary Supply Voltage: The primary supply voltage is varied from 85% to 115% of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

This transceiver is specified to operate with an input voltage of between 3.29V and 4.45V, with a nominal voltage of 3.87V.

Test setup



Limits

The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 99.75% confidence level for the normal distribution is with the coverage factor $k = 3, U = 0.01\text{ppm}$.