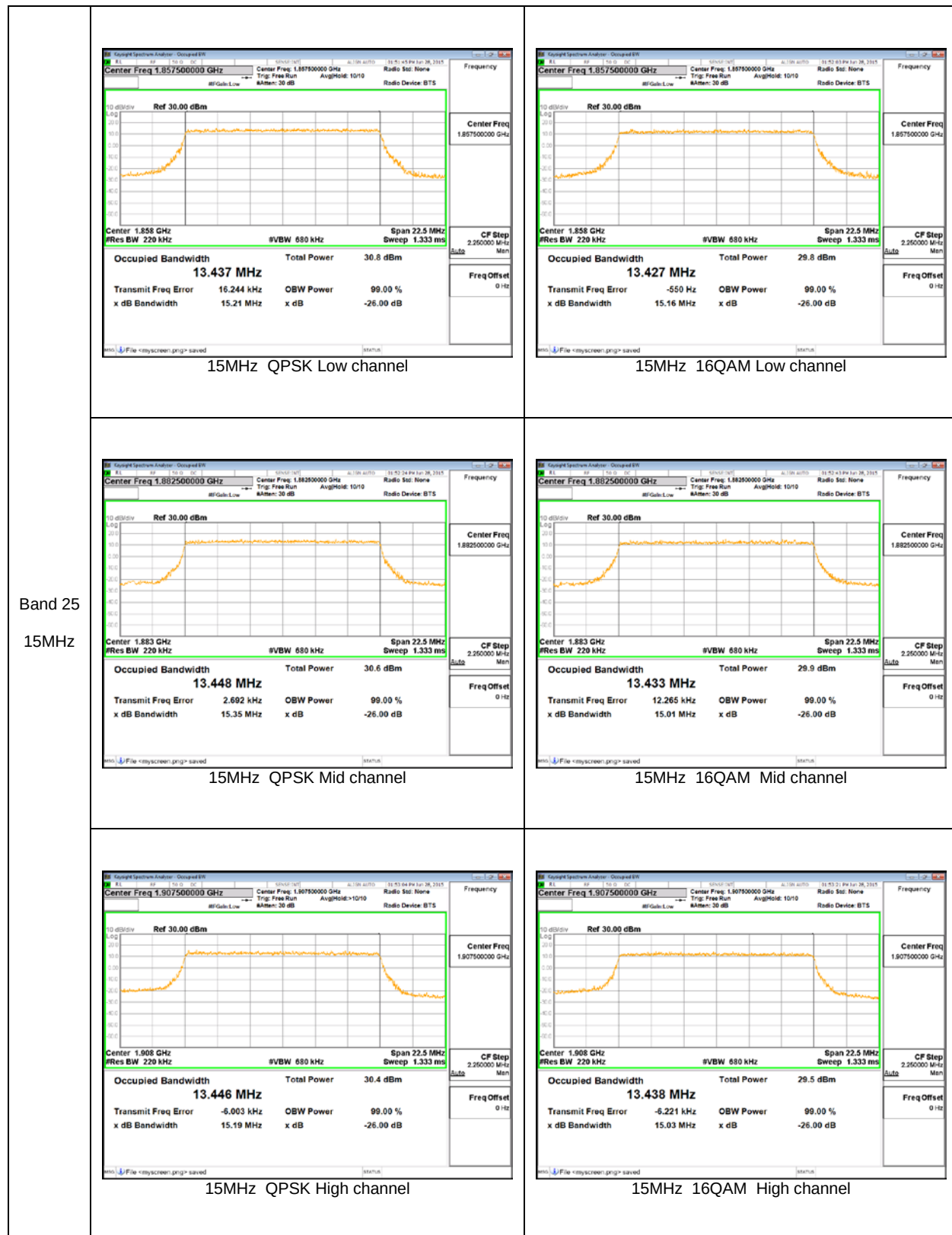
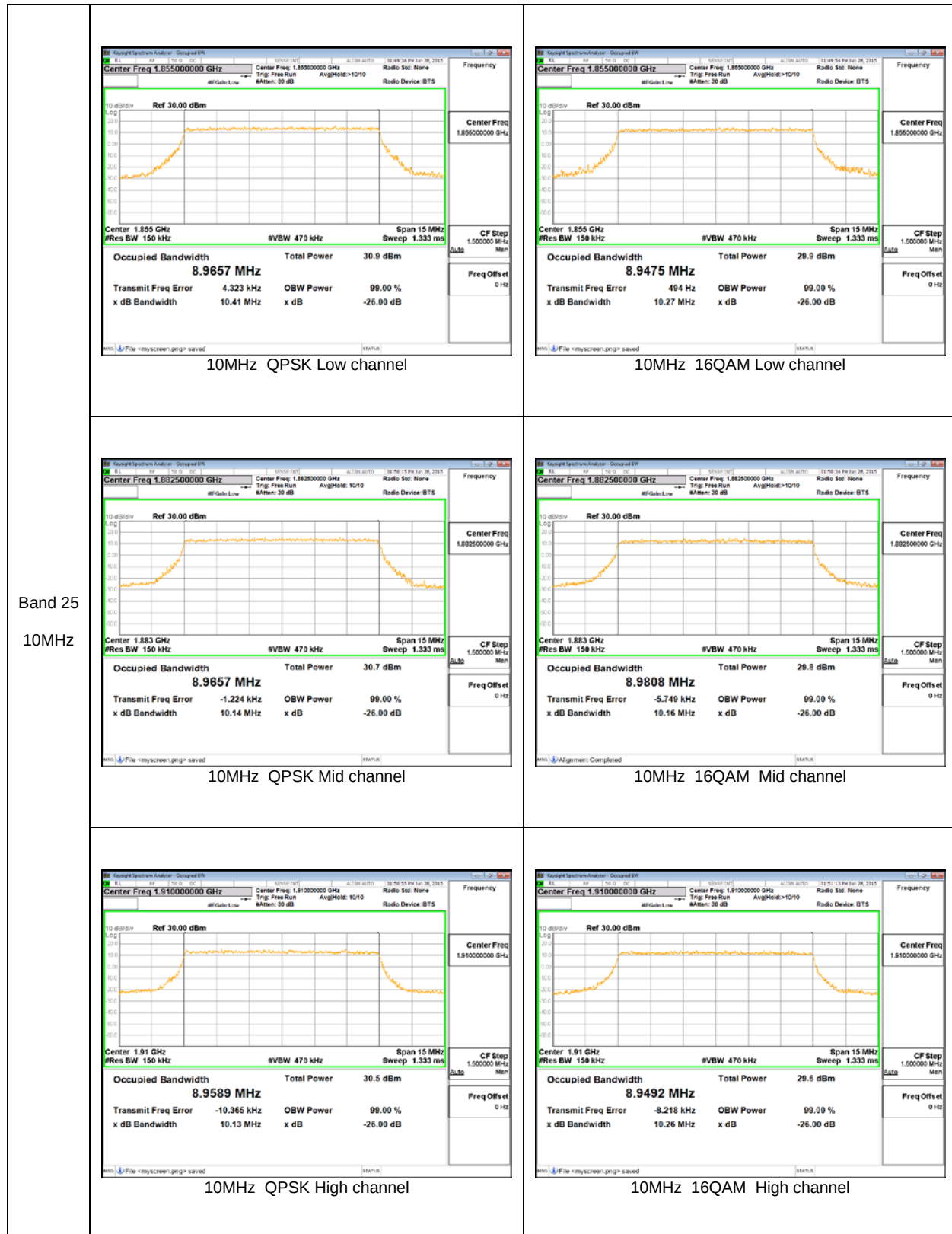
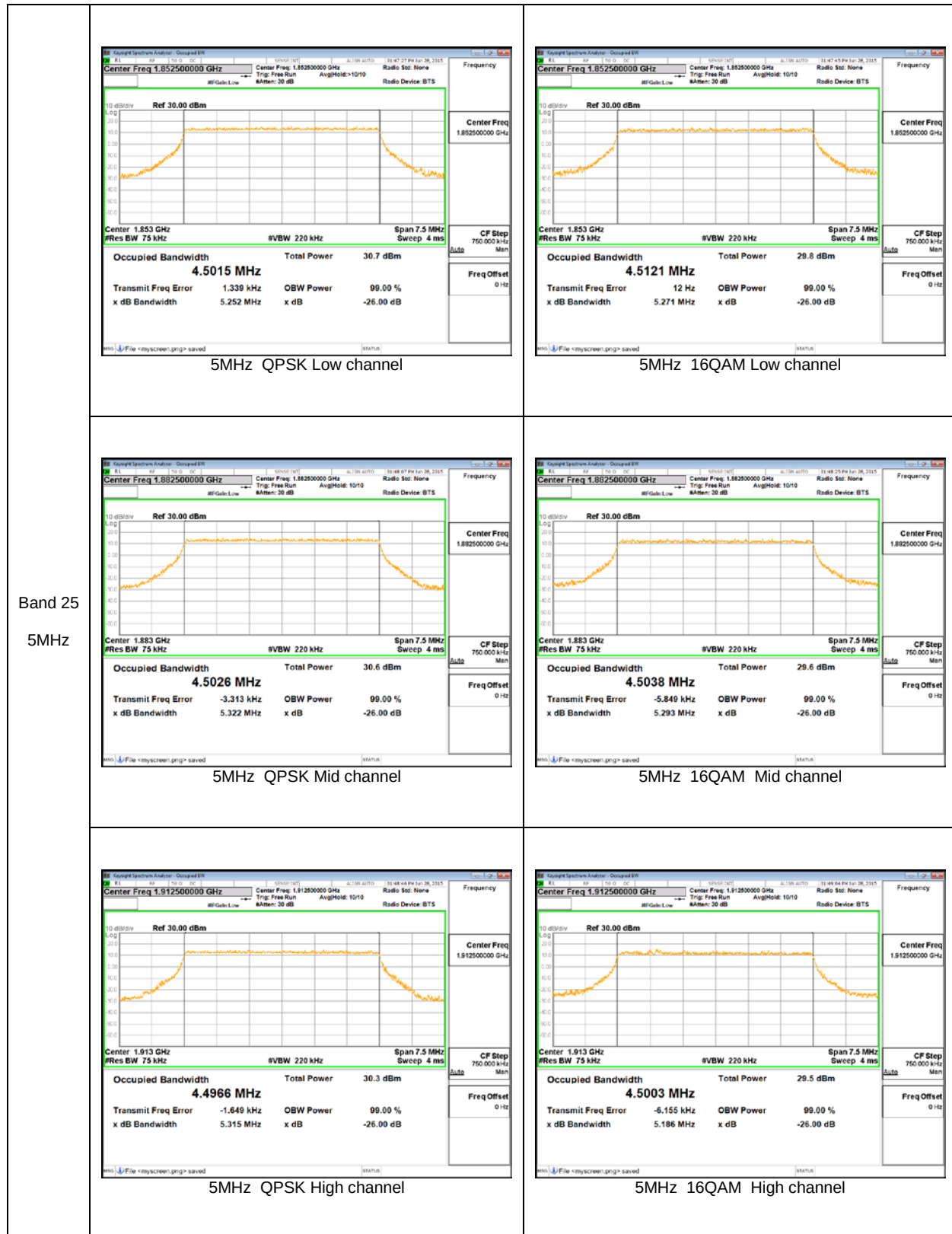




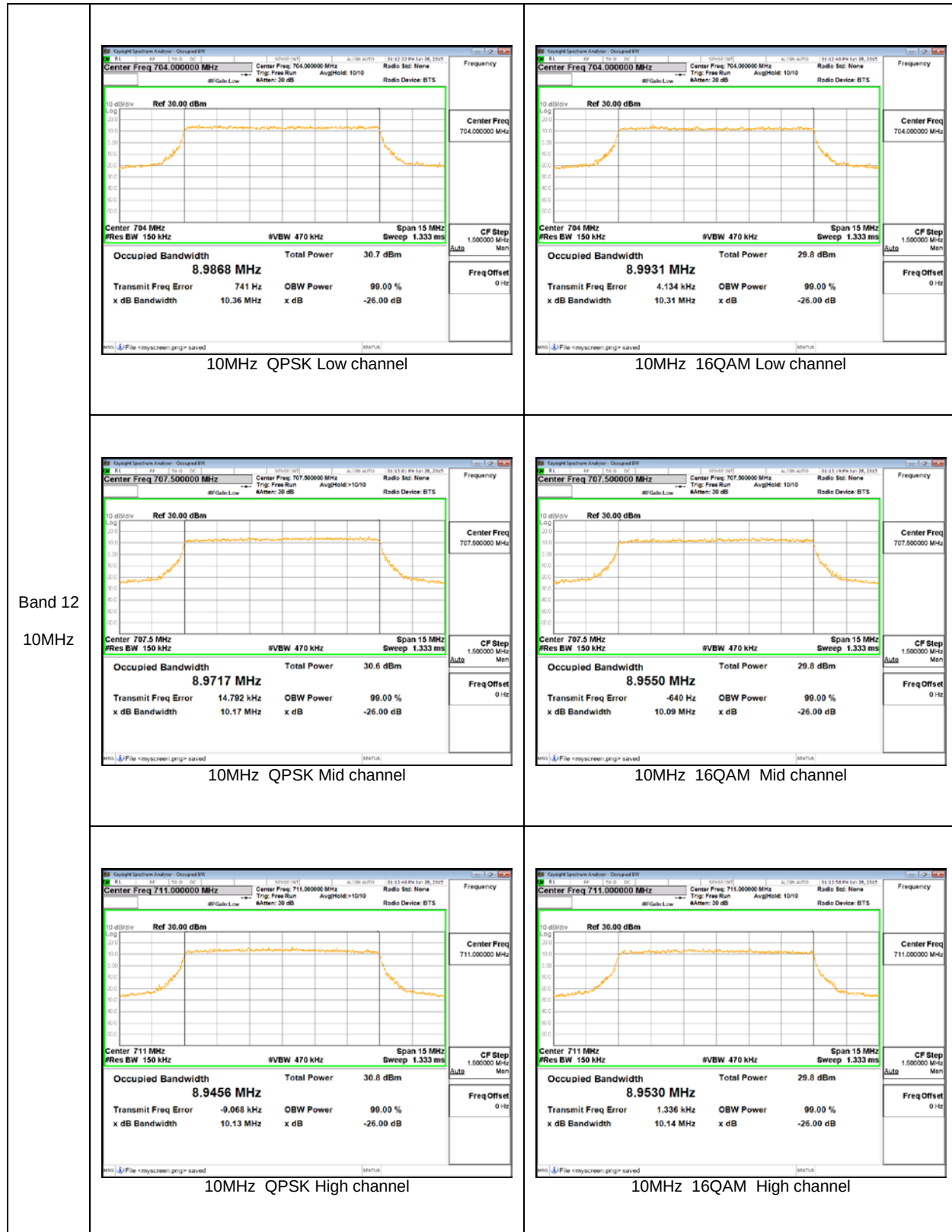


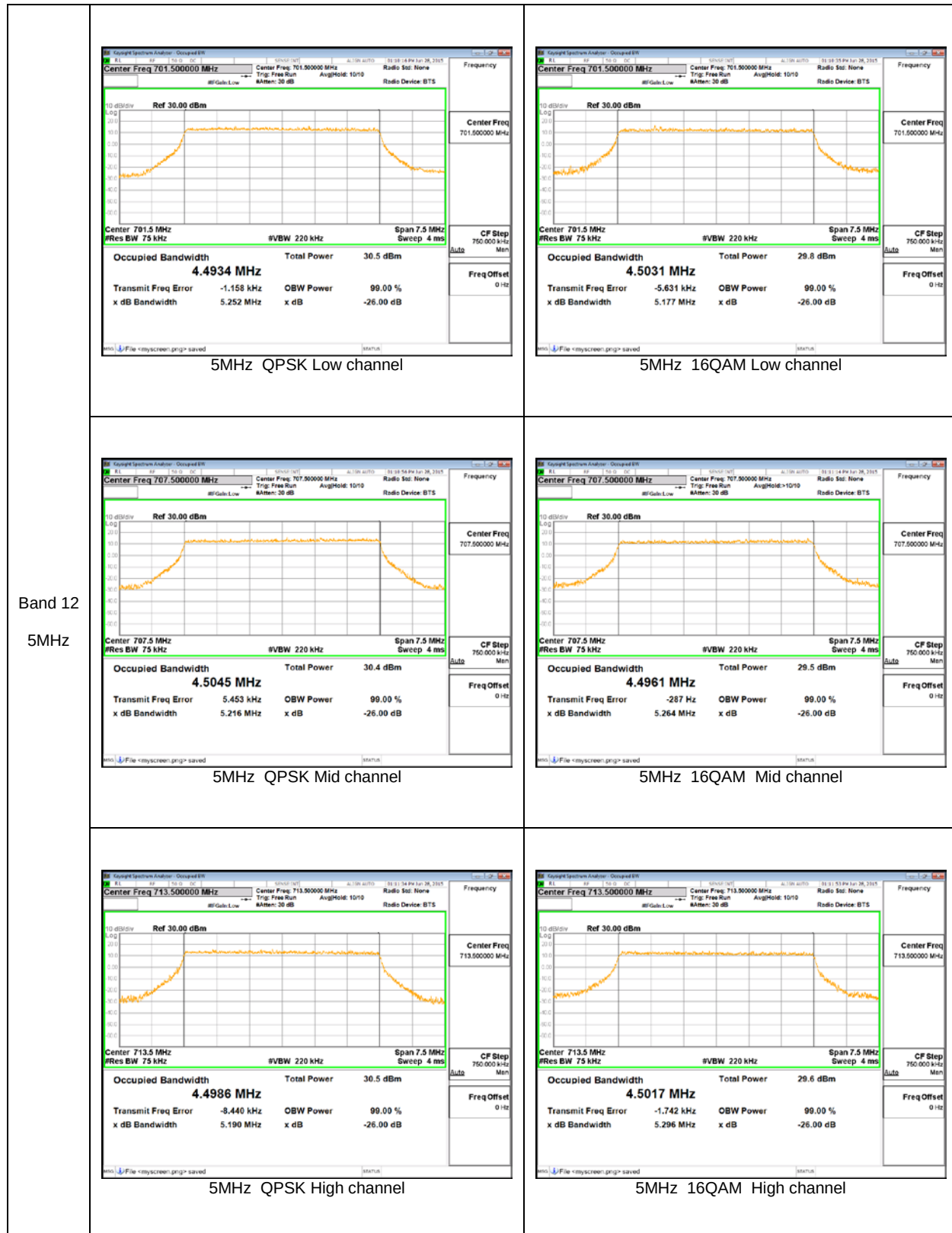


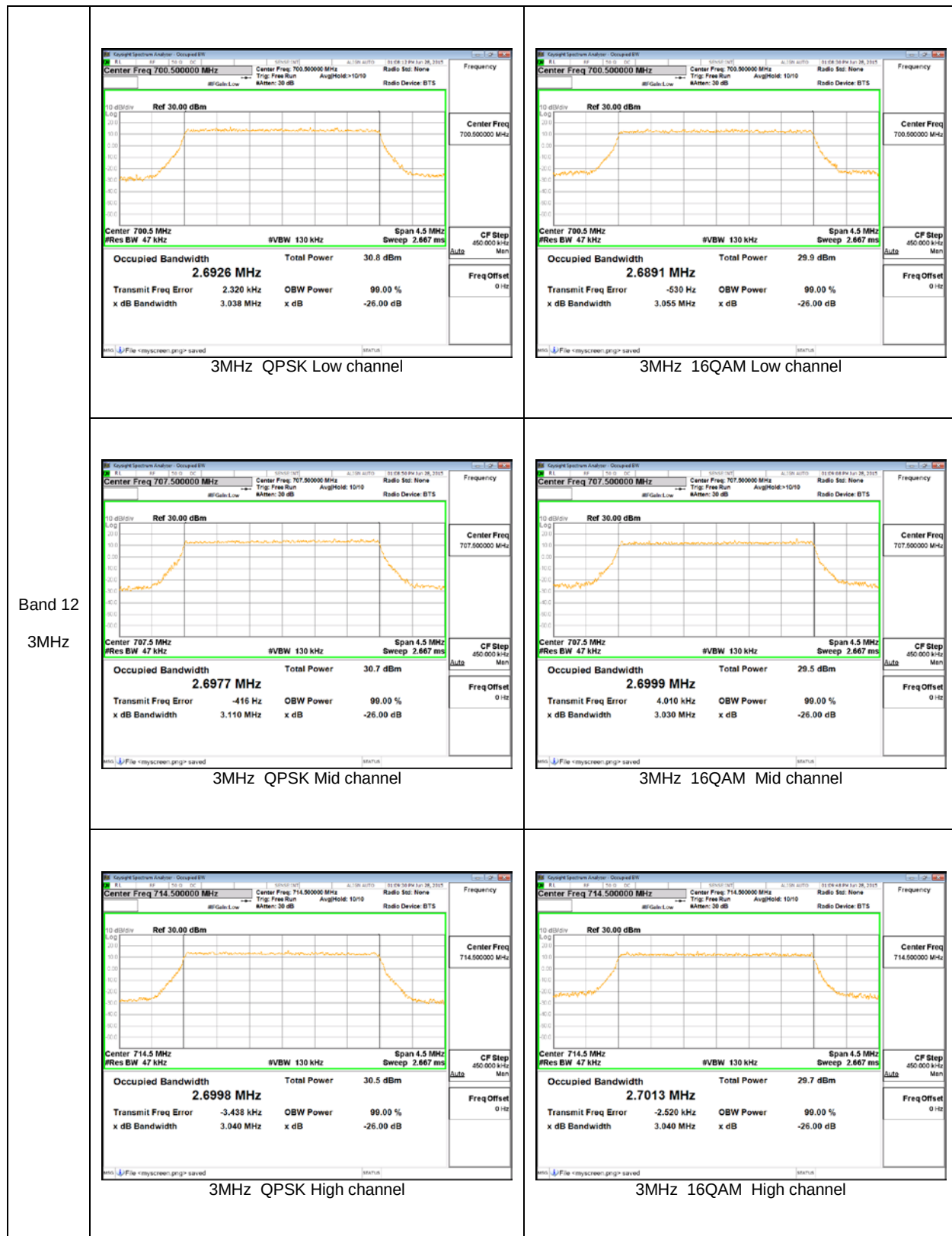


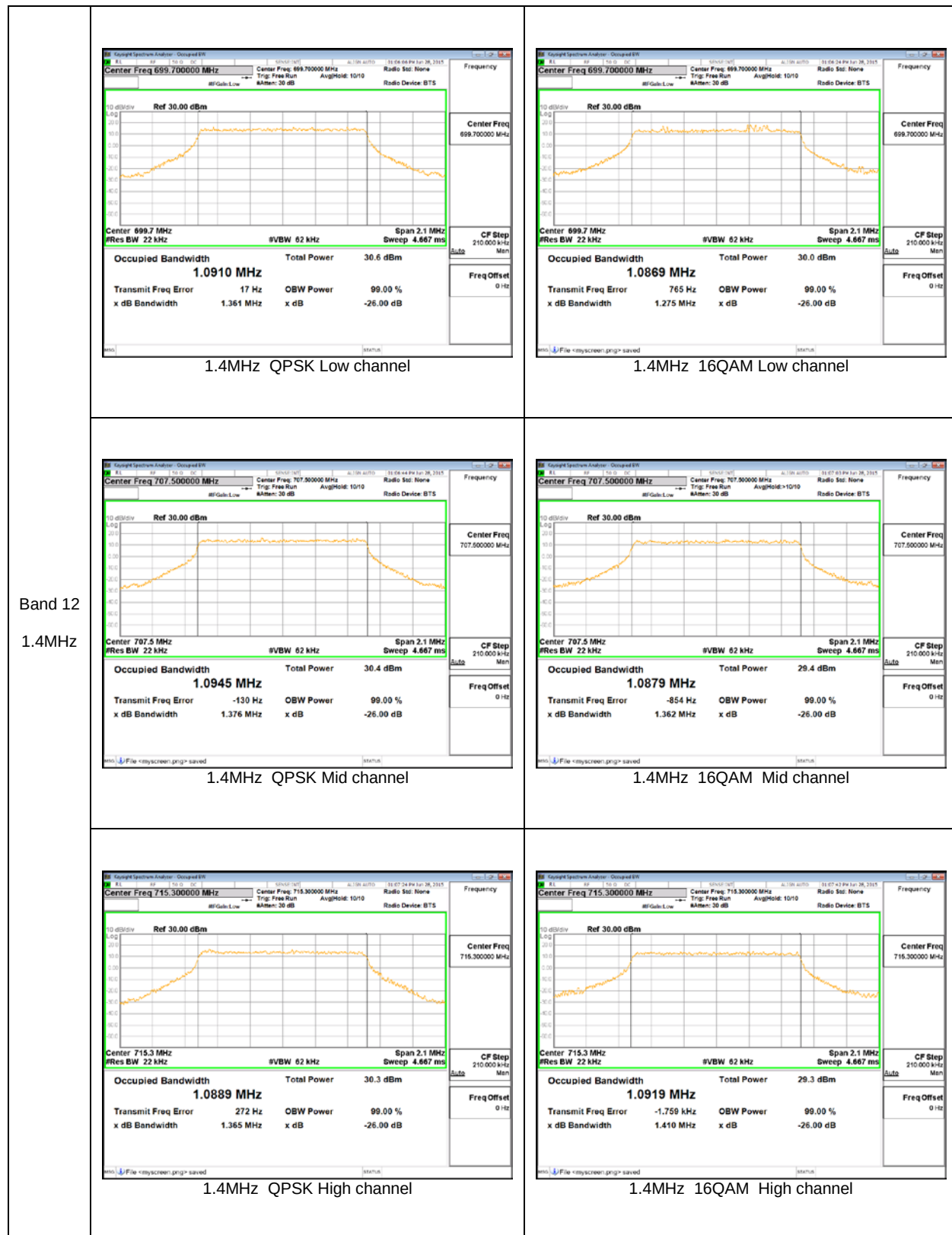


LTE Band 12

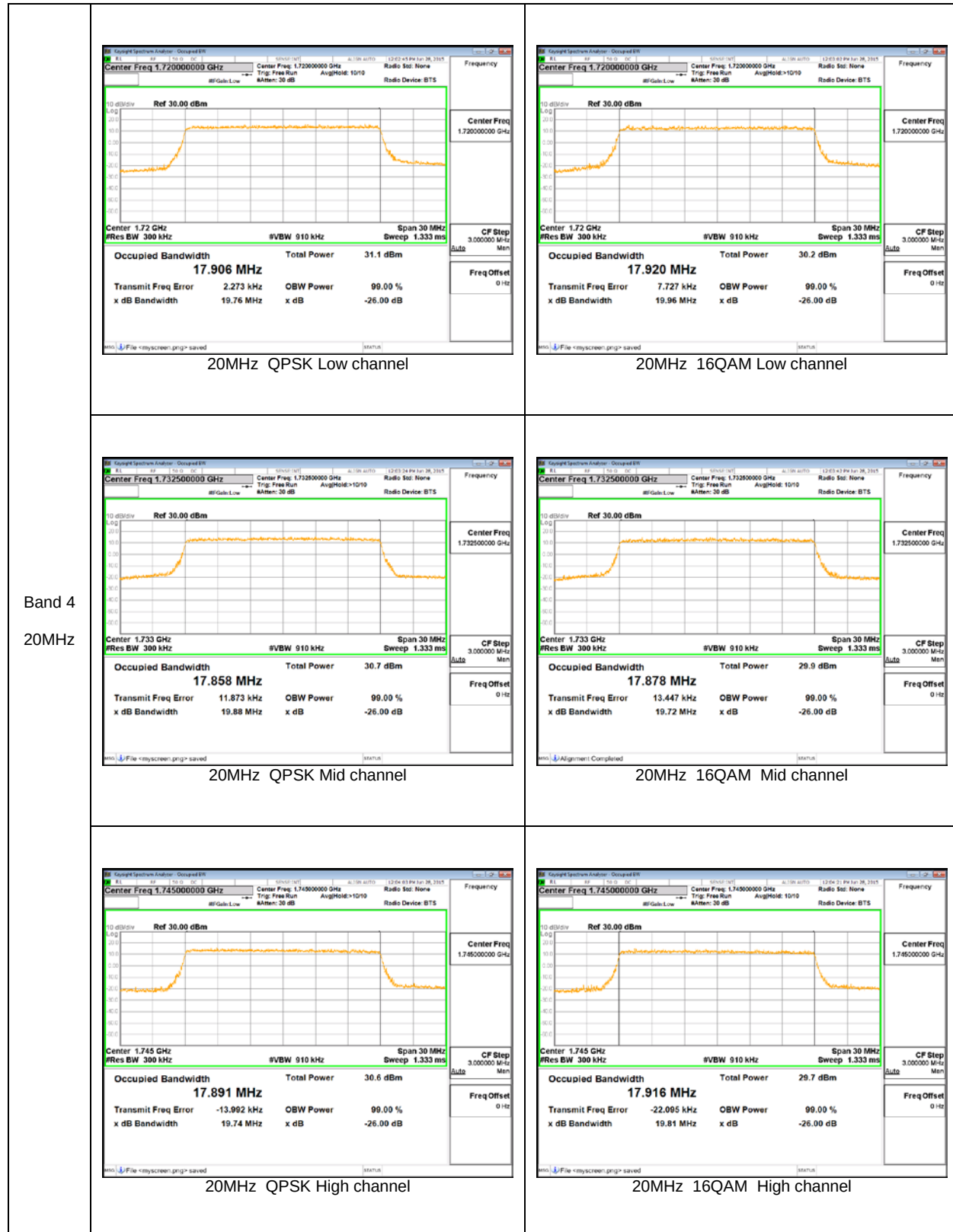


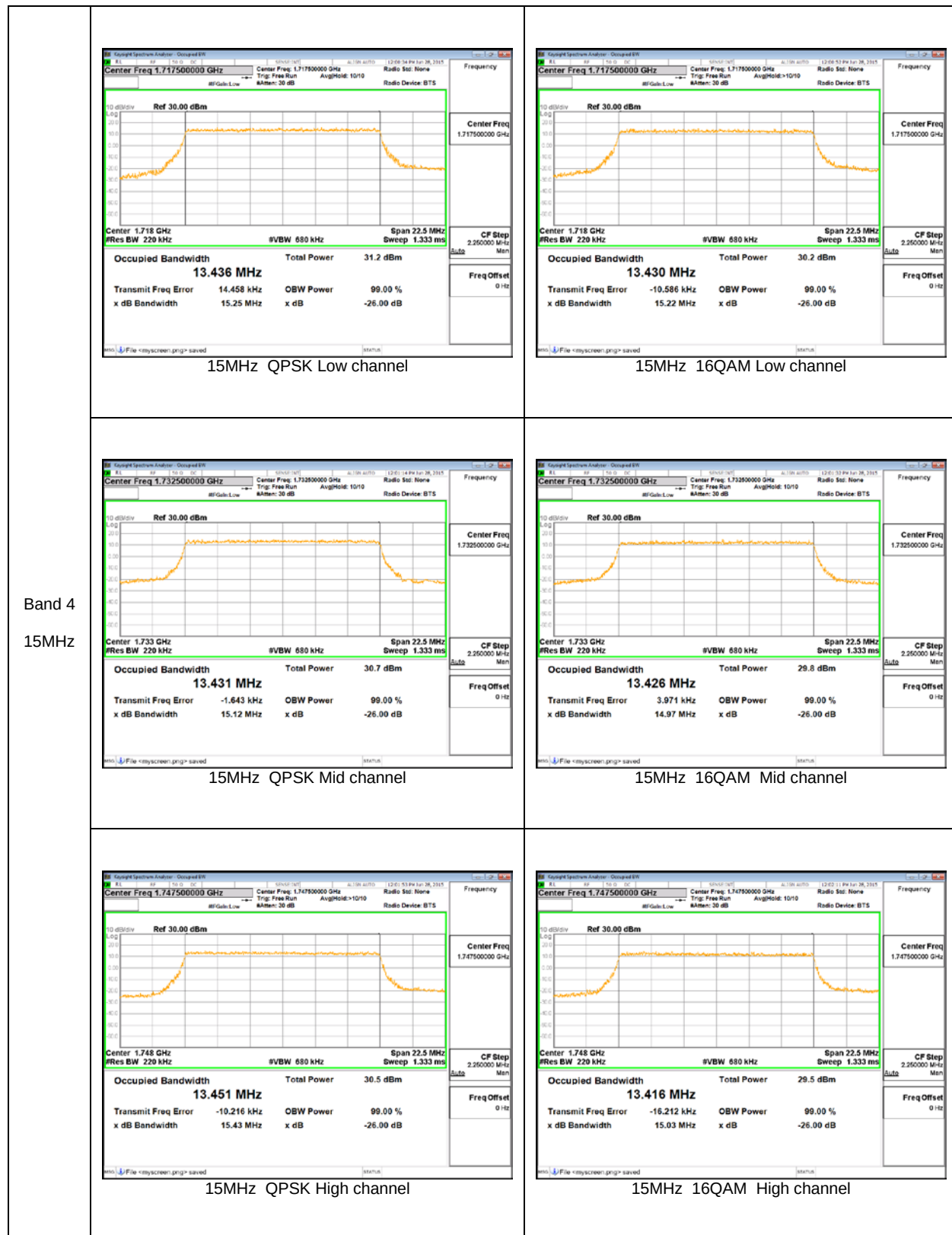


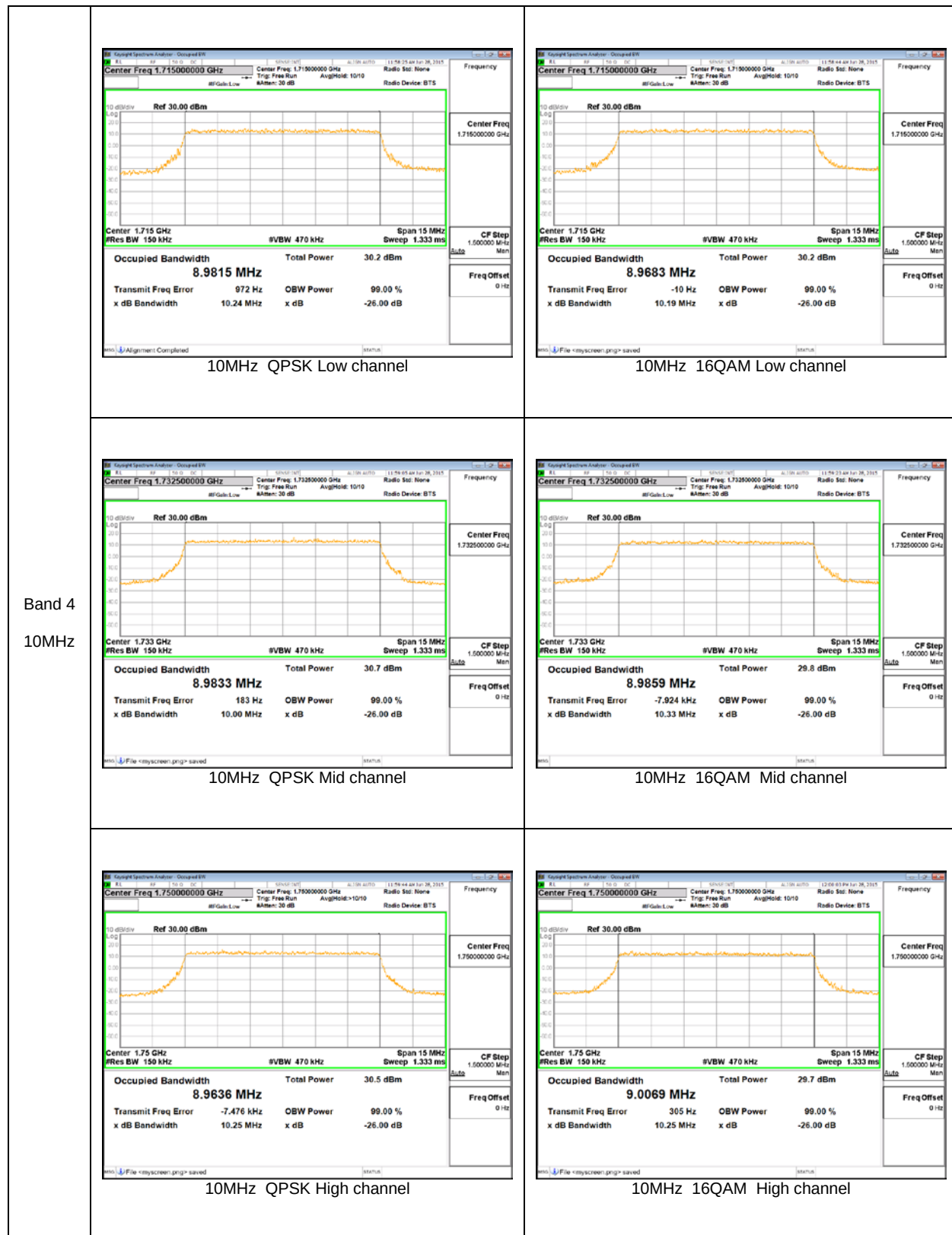


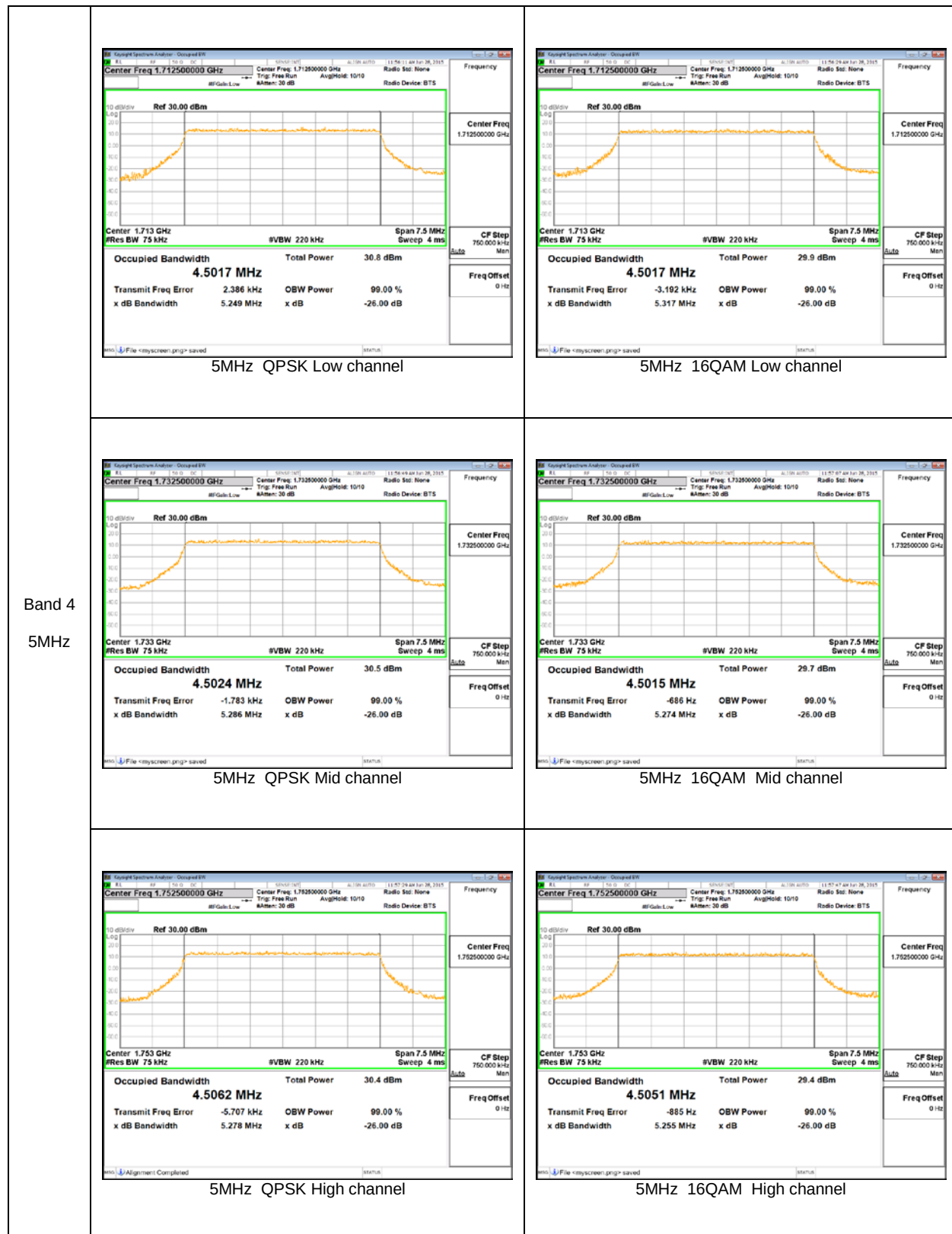


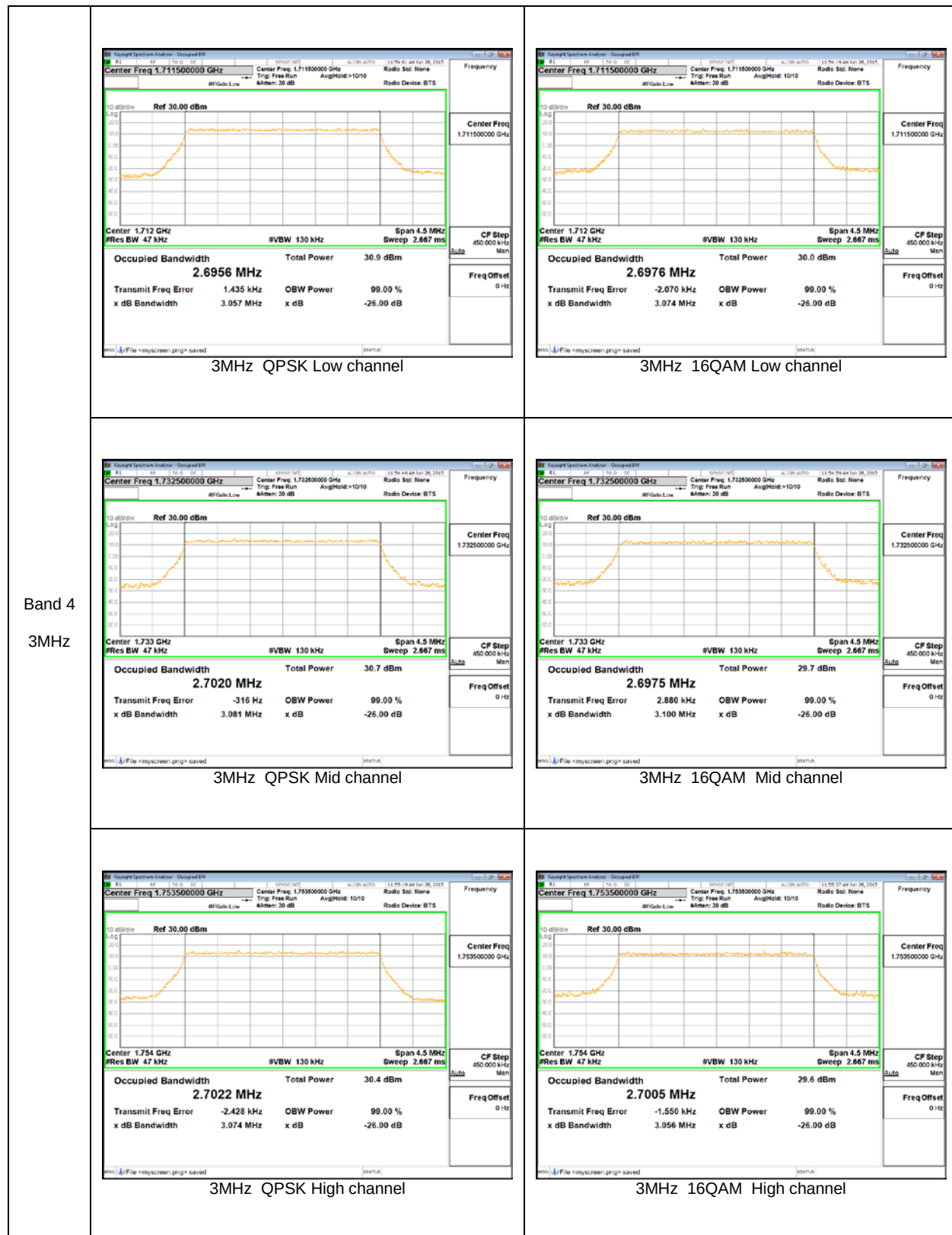
LTE Band 4

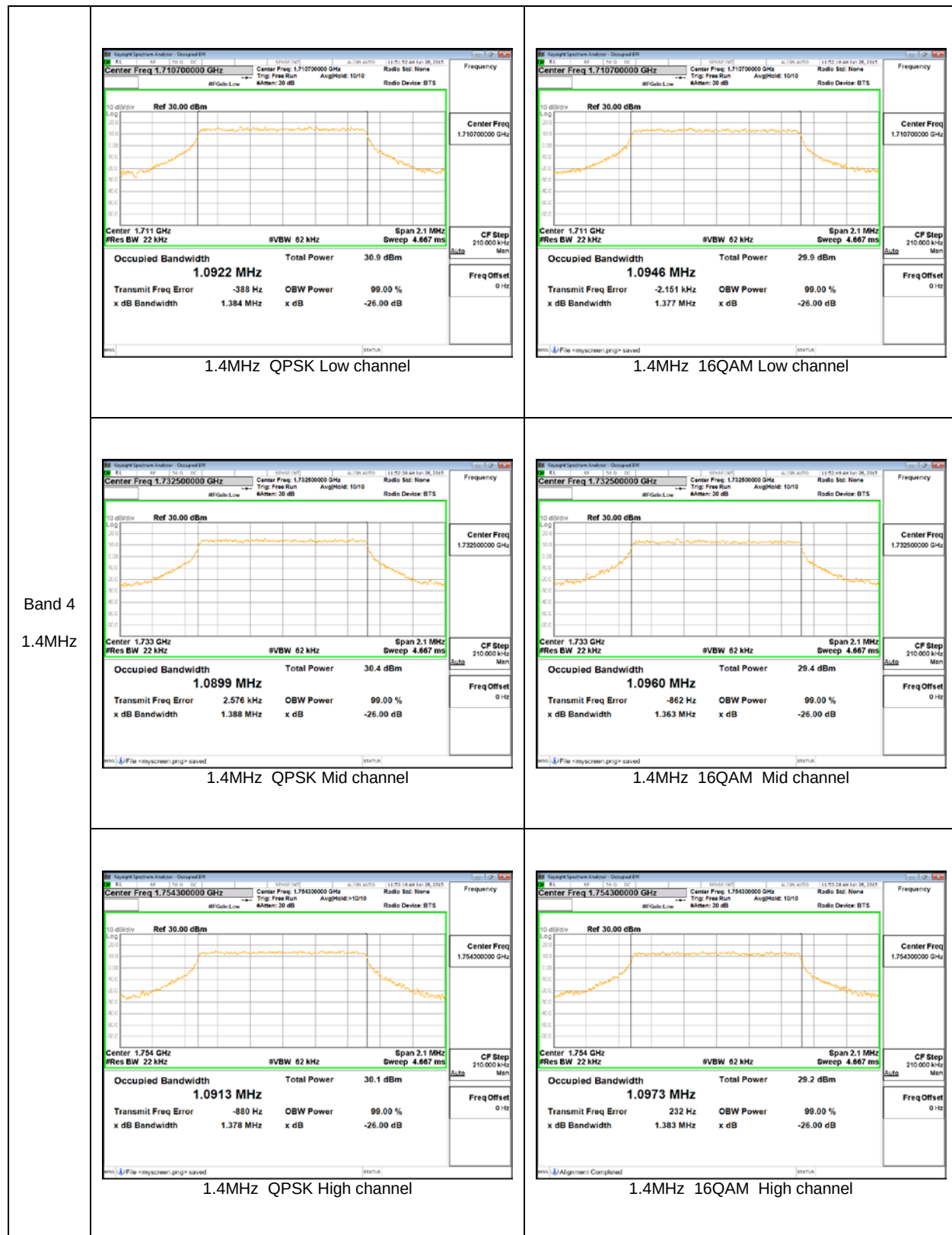












10.2. BAND EDGE EMISSIONS

RULE PART(S)

FCC: §22.359, §24.238 and §27. 53

LIMITS

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log (P)$ dB.

Part 27.53(m) For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

The transmitter output was connected to a CMW500 Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

RESULTS

LTE41

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
20 MHz	QPSK	2506.0	1RB	Lower Trace 1	-31.48	-13.00
				Lower Trace 2	-41.89	-25.00
			FRB	Lower Trace 1	-30.46	-13.00
				Lower Trace 2	-35.43	-25.00
		2680.0	1RB	Upper Trace 1	-31.04	-10.00
				Upper Trace 2	-30.52	-13.00
				Upper Trace 3	-52.74	-25.00
			FRB	Upper Trace 1	-30.92	-10.00
				Upper Trace 2	-37.33	-13.00
				Upper Trace 3	-47.77	-25.00
	16QAM	2506.0	1RB	Lower Trace 1	-31.04	-13.00
				Lower Trace 2	-43.17	-25.00
			FRB	Lower Trace 1	-30.12	-13.00
				Lower Trace 2	-35.88	-25.00
		2680.0	1RB	Upper Trace 1	-32.44	-10.00
				Upper Trace 2	-31.38	-13.00
				Upper Trace 3	-52.81	-25.00
			FRB	Upper Trace 1	-31.32	-10.00
15 MHz	QPSK	2503.5	1RB	Lower Trace 1	-25.52	-13.00
				Lower Trace 2	-40.28	-25.00
			FRB	Lower Trace 1	-29.00	-13.00
				Lower Trace 2	-33.67	-25.00
		2682.5	1RB	Upper Trace 1	-26.02	-10.00
				Upper Trace 2	-27.91	-13.00
				Upper Trace 3	-52.04	-25.00
			FRB	Upper Trace 1	-26.66	-10.00
				Upper Trace 2	-35.42	-13.00
				Upper Trace 3	-44.32	-25.00
	16QAM	2503.5	1RB	Lower Trace 1	-27.89	-13.00
				Lower Trace 2	-41.33	-25.00
			FRB	Lower Trace 1	-29.20	-13.00
				Lower Trace 2	-34.06	-25.00
		2682.5	1RB	Upper Trace 1	-27.57	-10.00
				Upper Trace 2	-28.63	-13.00
				Upper Trace 3	-52.03	-25.00
			FRB	Upper Trace 1	-28.37	-10.00
				Upper Trace 2	-36.96	-13.00
				Upper Trace 3	-45.33	-25.00

LTE 41 (continued)

Bandwidth	Mode	f [MHz]	RB Status	Side Trace	Level [dBm]	Limit [dBm]
10 MHz	QPSK	2501.0	1RB	Lower Trace 1	-25.21	-13.00
				Lower Trace 2	-40.14	-25.00
			FRB	Lower Trace 1	-26.93	-13.00
				Lower Trace 2	-35.75	-25.00
		2685.0	1RB	Upper Trace 1	-26.98	-10.00
				Upper Trace 2	-22.83	-13.00
				Upper Trace 3	-43.06	-25.00
			FRB	Upper Trace 1	-22.88	-10.00
				Upper Trace 2	-34.75	-13.00
				Upper Trace 3	-43.38	-25.00
	16QAM	2501.0	1RB	Lower Trace 1	-26.87	-13.00
				Lower Trace 2	-40.31	-25.00
			FRB	Lower Trace 1	-28.15	-13.00
				Lower Trace 2	-35.81	-25.00
		2685.0	1RB	Upper Trace 1	-28.43	-10.00
				Upper Trace 2	-24.02	-13.00
				Upper Trace 3	-44.50	-25.00
			FRB	Upper Trace 1	-24.50	-10.00
				Upper Trace 2	-35.62	-13.00
				Upper Trace 3	-43.64	-25.00
5 MHz	QPSK	2498.5	1RB	Lower Trace 1	-21.18	-13.00
				Lower Trace 2	-44.26	-25.00
			FRB	Lower Trace 1	-22.00	-13.00
				Lower Trace 2	-43.17	-25.00
		2687.5	1RB	Upper Trace 1	-16.07	-10.00
				Upper Trace 2	-44.43	-13.00
				Upper Trace 3	-41.91	-25.00
			FRB	Upper Trace 1	-15.53	-10.00
				Upper Trace 2	-39.55	-13.00
				Upper Trace 3	-41.41	-25.00
	16QAM	2498.5	1RB	Lower Trace 1	-21.55	-13.00
				Lower Trace 2	-44.86	-25.00
			FRB	Lower Trace 1	-23.40	-13.00
				Lower Trace 2	-44.60	-25.00
		2687.5	1RB	Upper Trace 1	-16.94	-10.00
				Upper Trace 2	-46.23	-13.00
				Upper Trace 3	-44.46	-25.00
			FRB	Upper Trace 1	-15.61	-10.00
				Upper Trace 2	-40.01	-13.00
				Upper Trace 3	-42.66	-25.00

LTE 25

Bandwidth	Mode	Side	RB Status	f [MHz]	Level [dBm]	Limit [dBm]
20 MHz	QPSK	Lower	1RB	1850.000	-32.242	-13.00
			FRB	1850.000	-27.235	
		Upper	1RB	1915.000	-30.522	
			FRB	1915.000	-26.101	
	16QAM	Lower	1RB	1850.000	-31.770	
			FRB	1850.000	-26.710	
		Upper	1RB	1915.000	-29.703	
			FRB	1915.000	-27.992	
15 MHz	QPSK	Lower	1RB	1850.000	-21.605	
			FRB	1850.000	-28.857	
		Upper	1RB	1915.000	-21.462	
			FRB	1915.000	-27.867	
	16QAM	Lower	1RB	1850.000	-24.360	
			FRB	1850.000	-31.023	
		Upper	1RB	1915.000	-23.272	
			FRB	1915.000	-27.019	
10 MHz	QPSK	Lower	1RB	1850.000	-26.448	
			FRB	1850.000	-27.846	
		Upper	1RB	1915.000	-27.219	
			FRB	1915.000	-24.826	
	16QAM	Lower	1RB	1850.000	-25.249	
			FRB	1850.000	-27.941	
		Upper	1RB	1915.000	-27.062	
			FRB	1915.000	-25.891	
5 MHz	QPSK	Lower	1RB	1850.000	-17.896	
			FRB	1850.000	-22.933	
		Upper	1RB	1915.000	-18.381	
			FRB	1915.000	-24.233	
	16QAM	Lower	1RB	1850.000	-20.793	
			FRB	1850.000	-22.907	
		Upper	1RB	1915.000	-20.939	
			FRB	1915.000	-28.142	