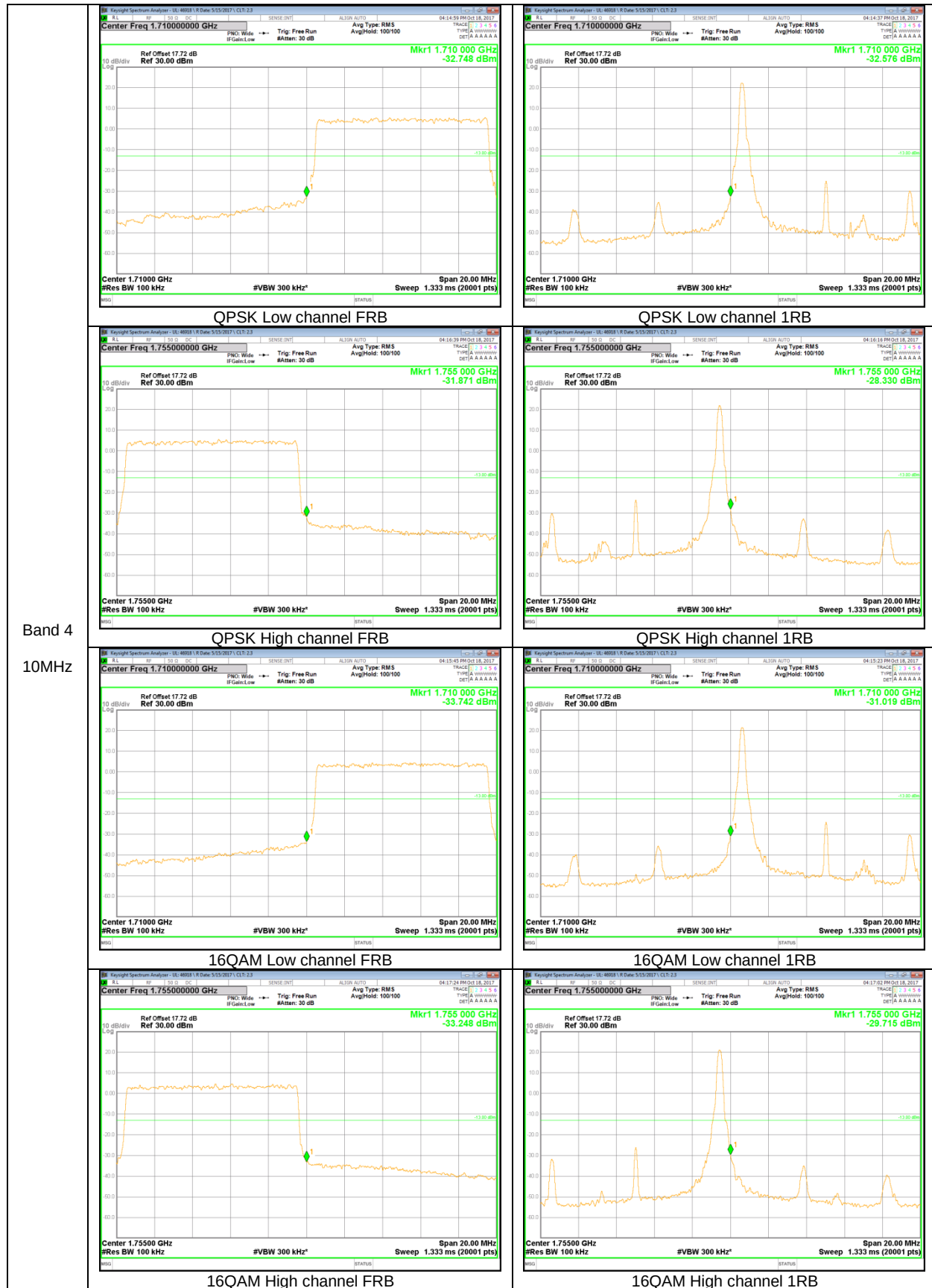
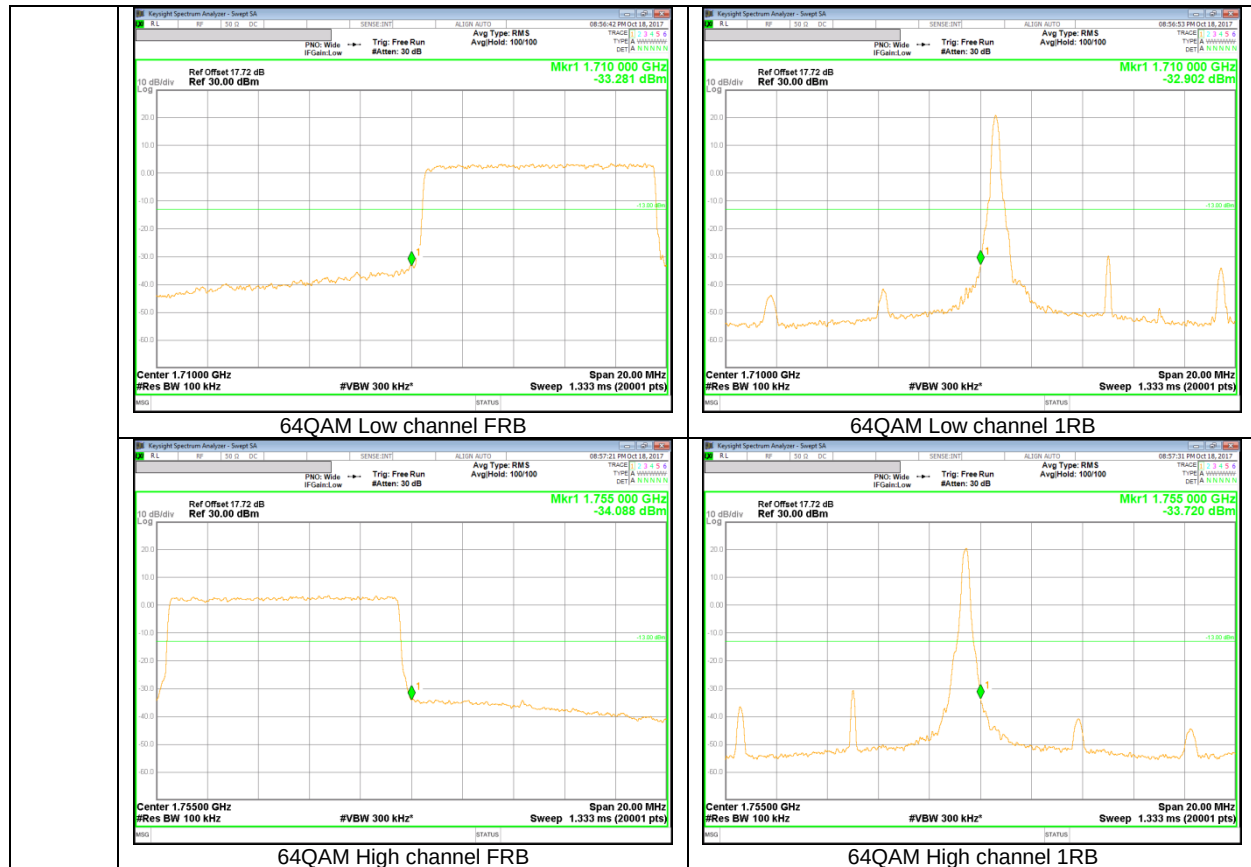
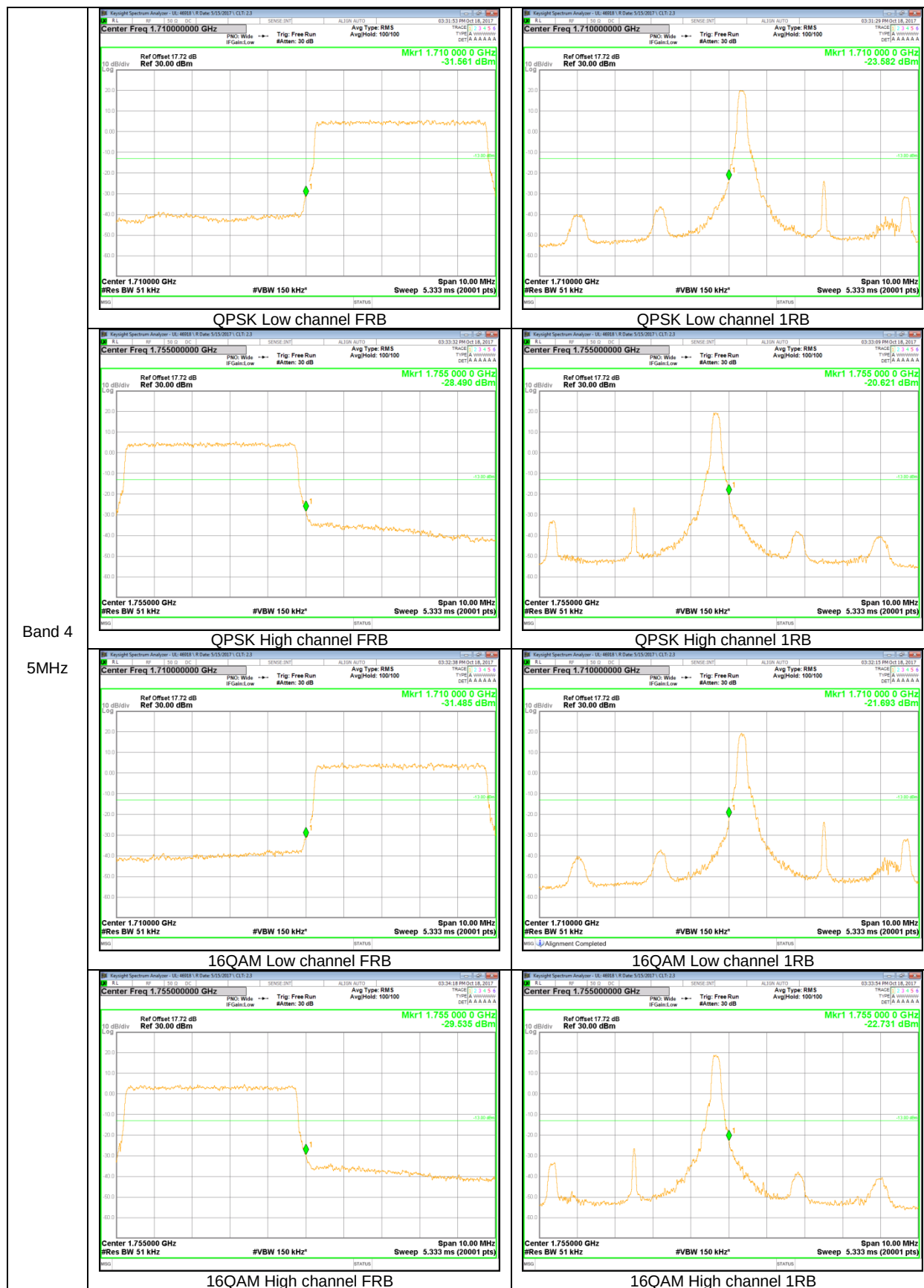
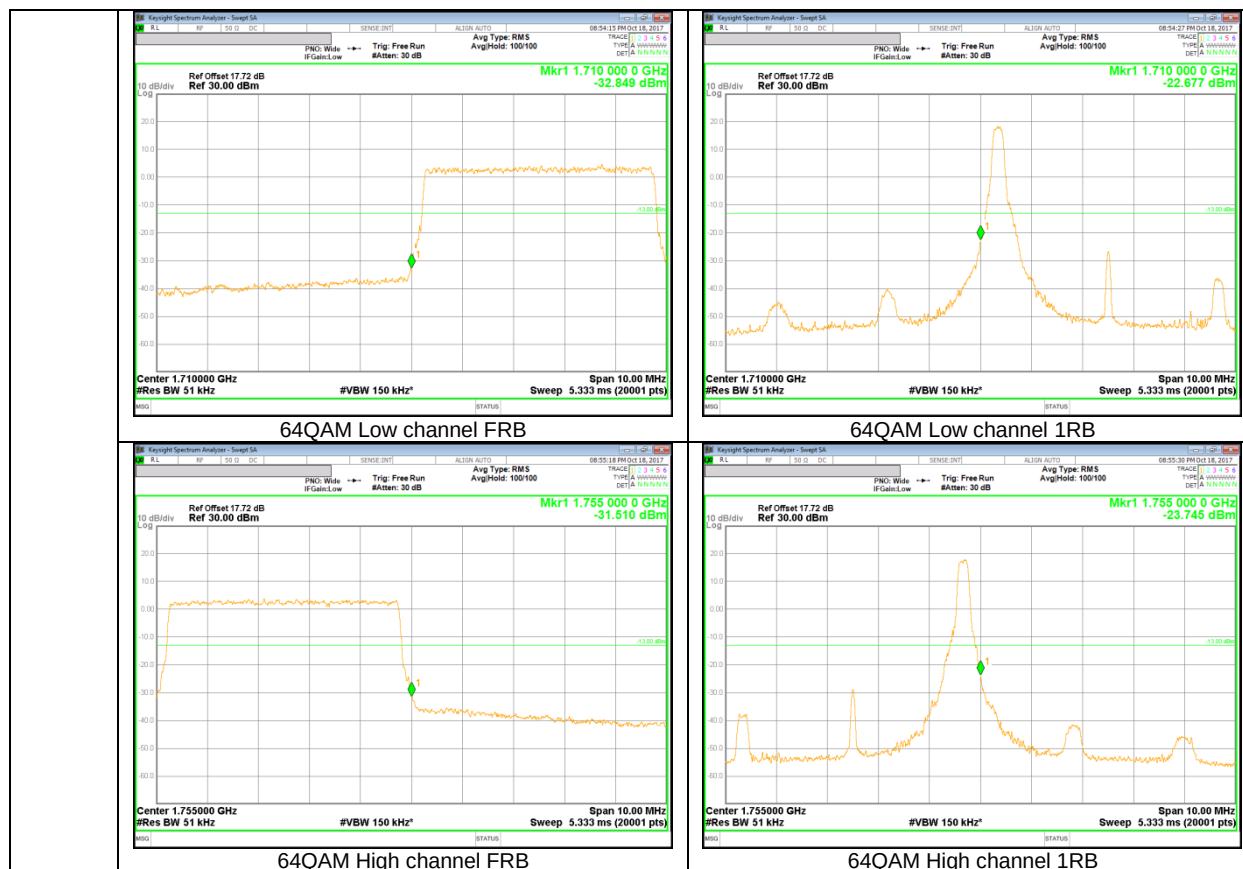
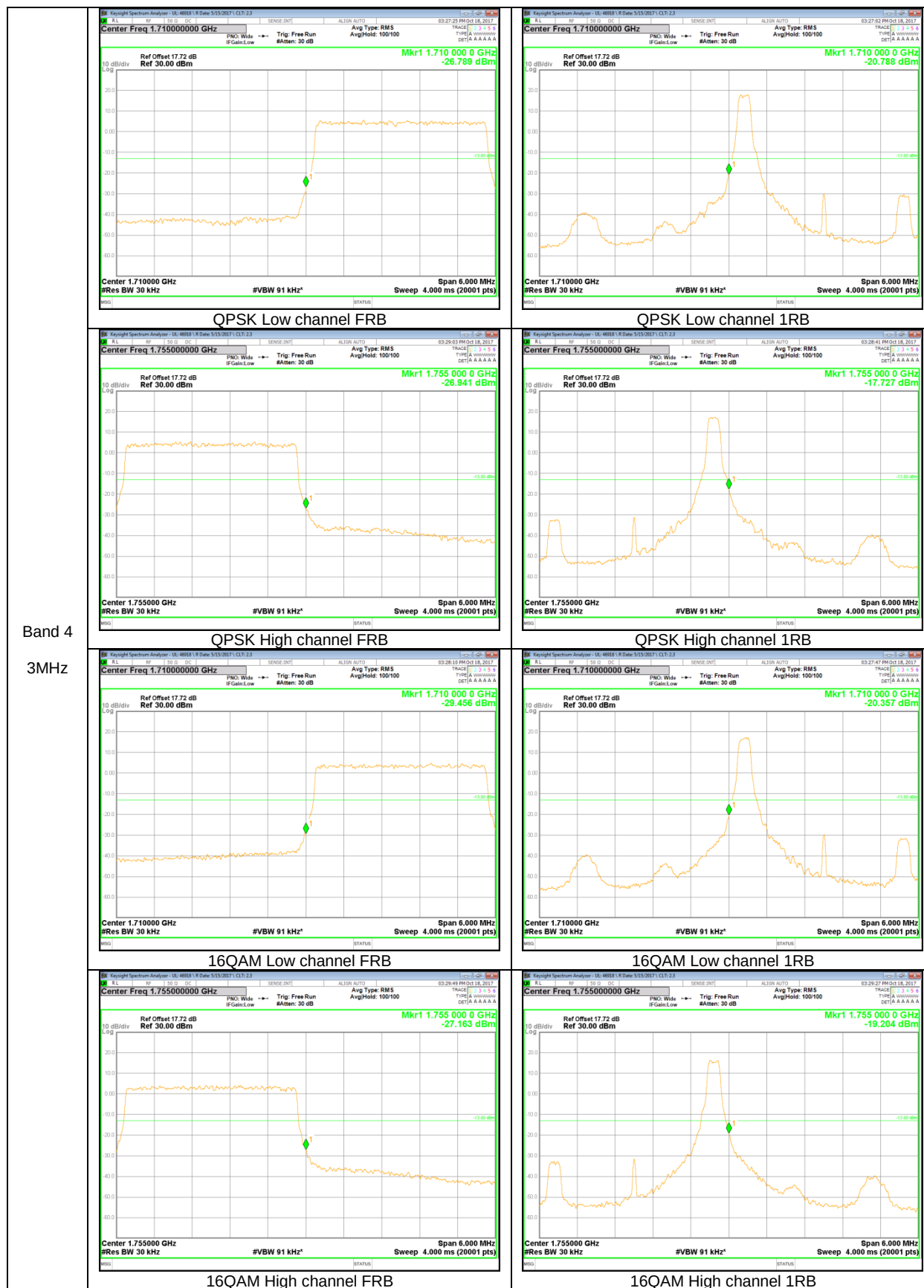


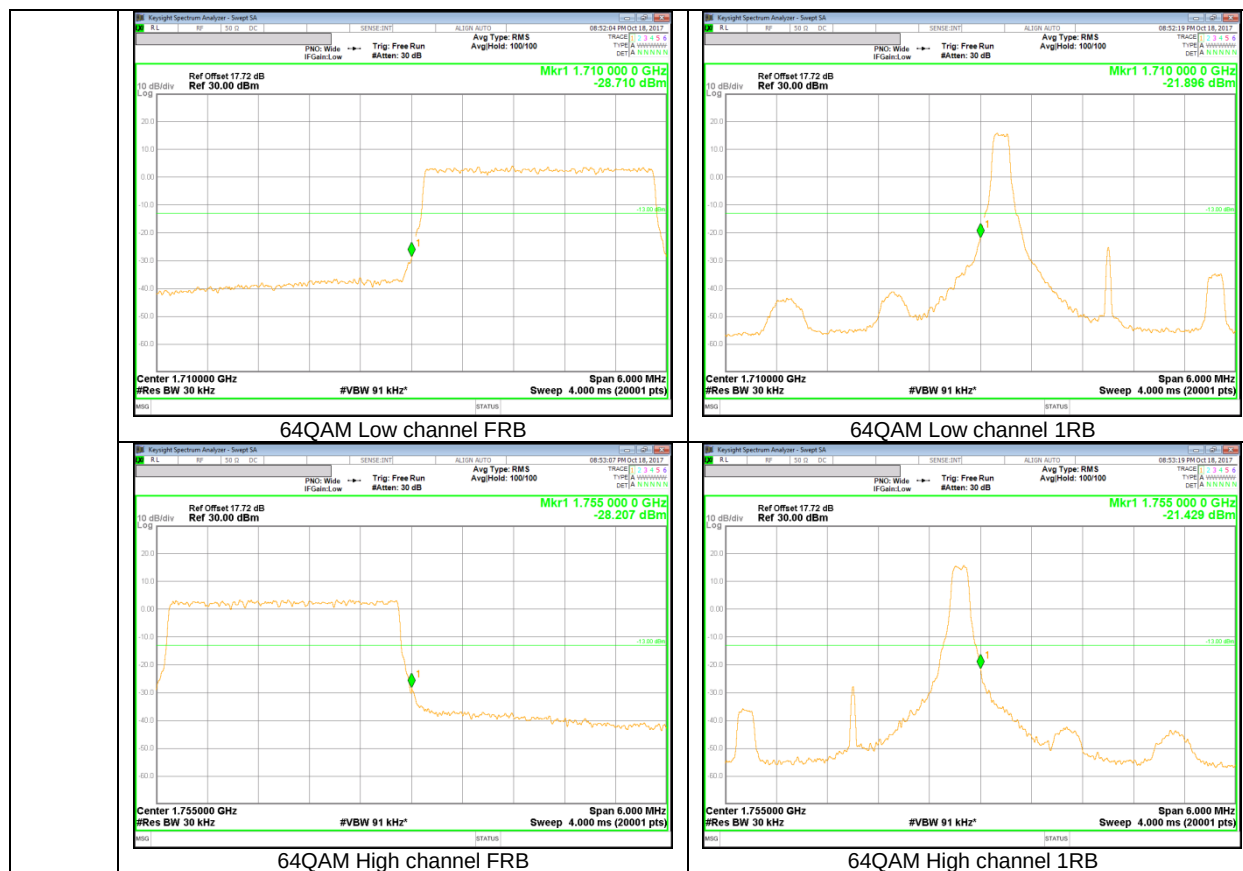


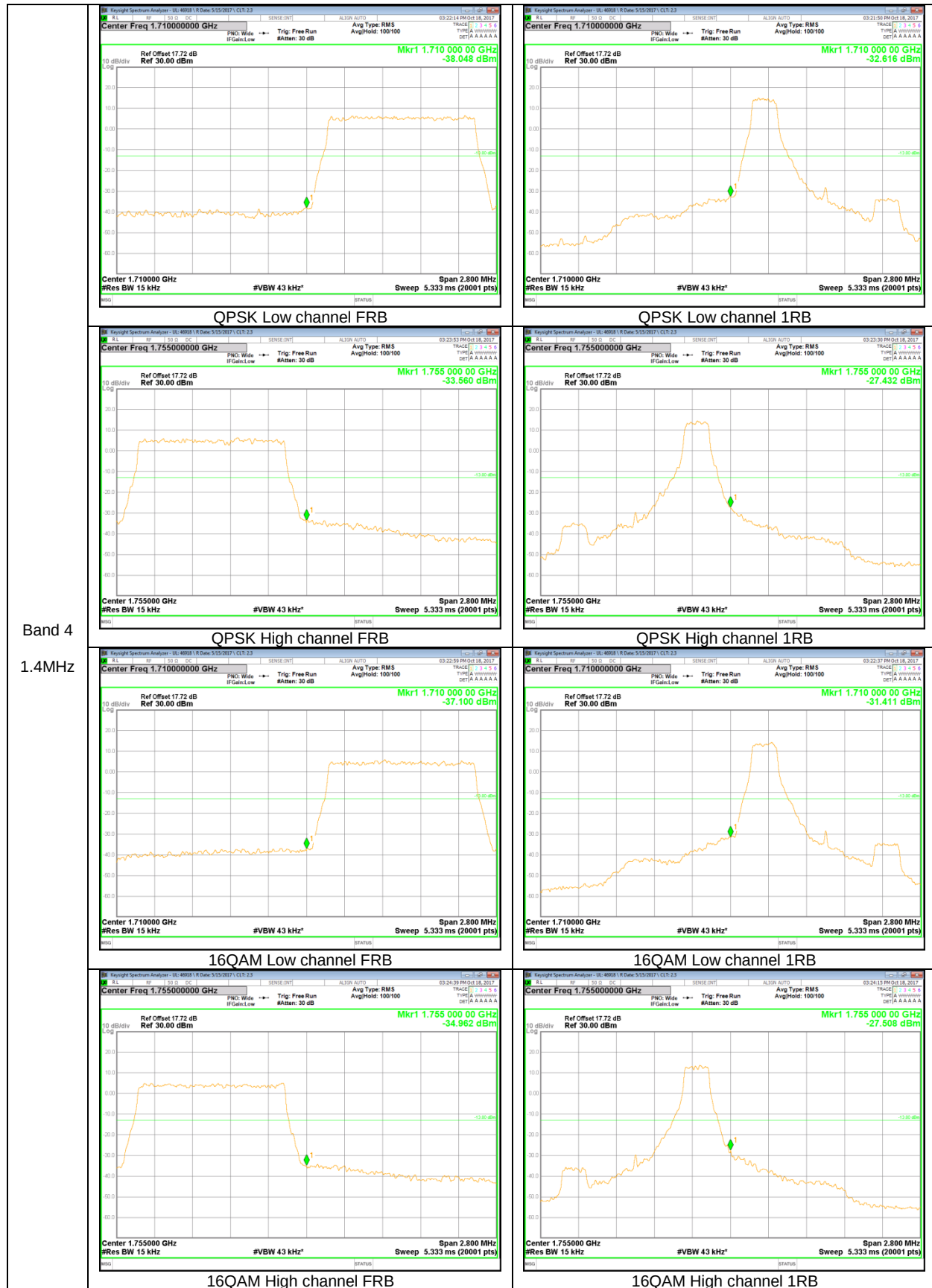


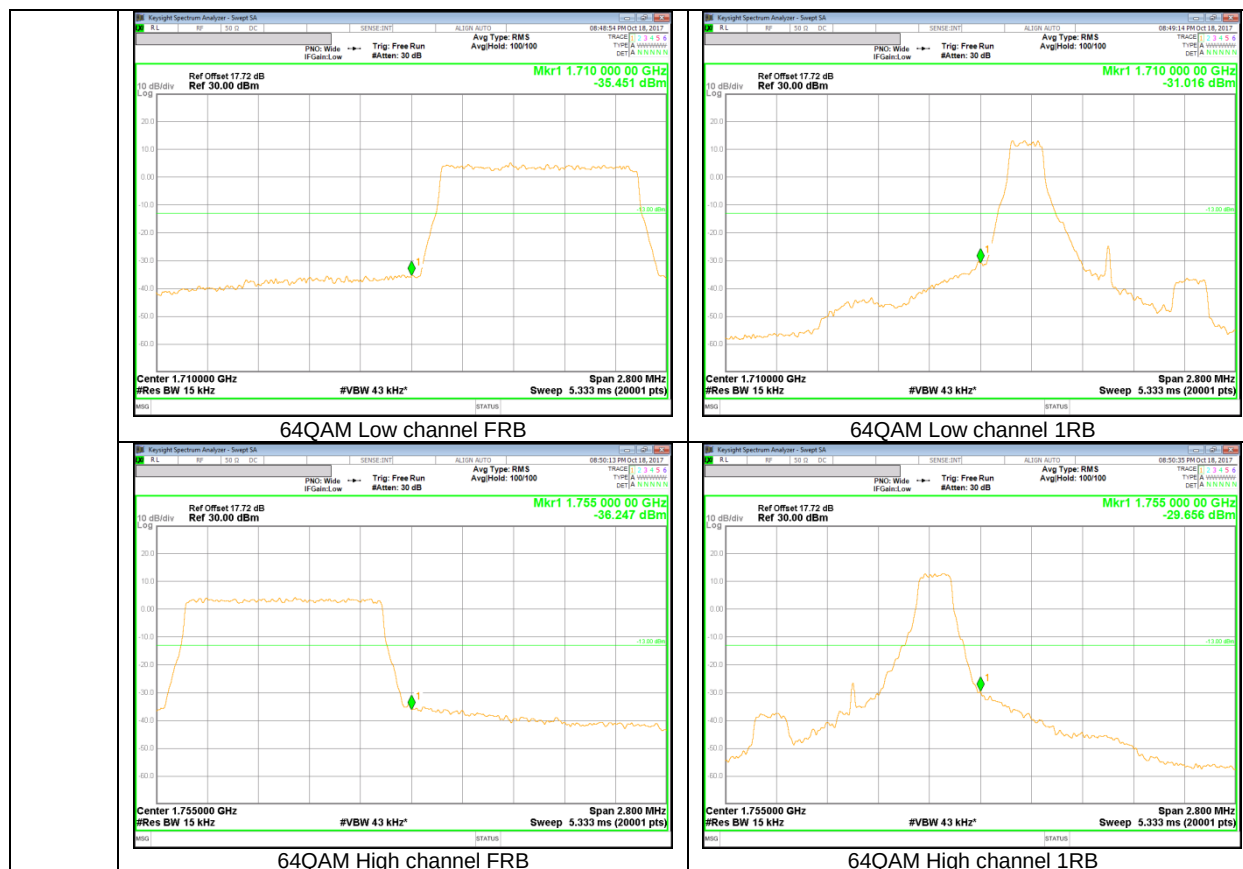




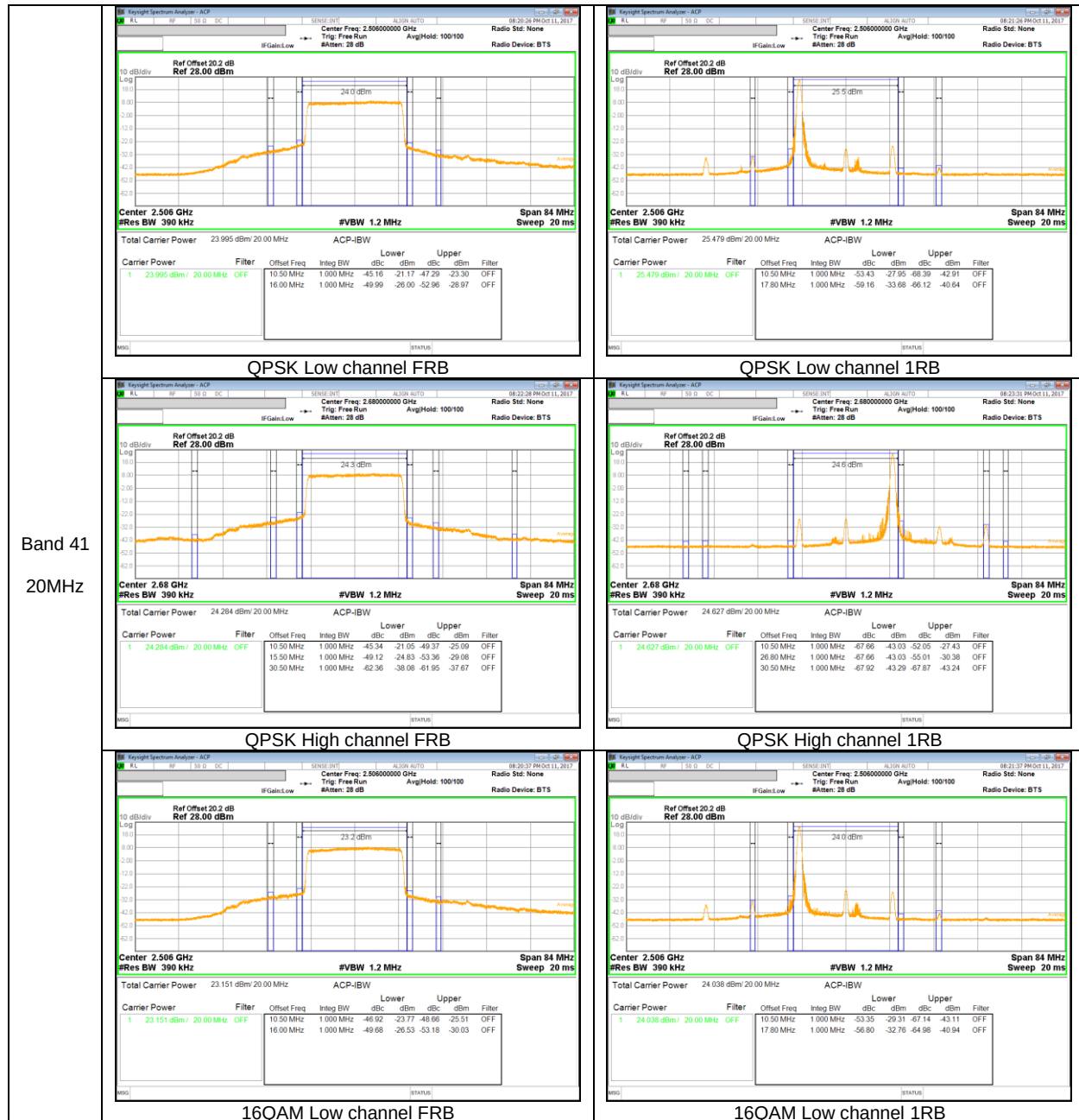






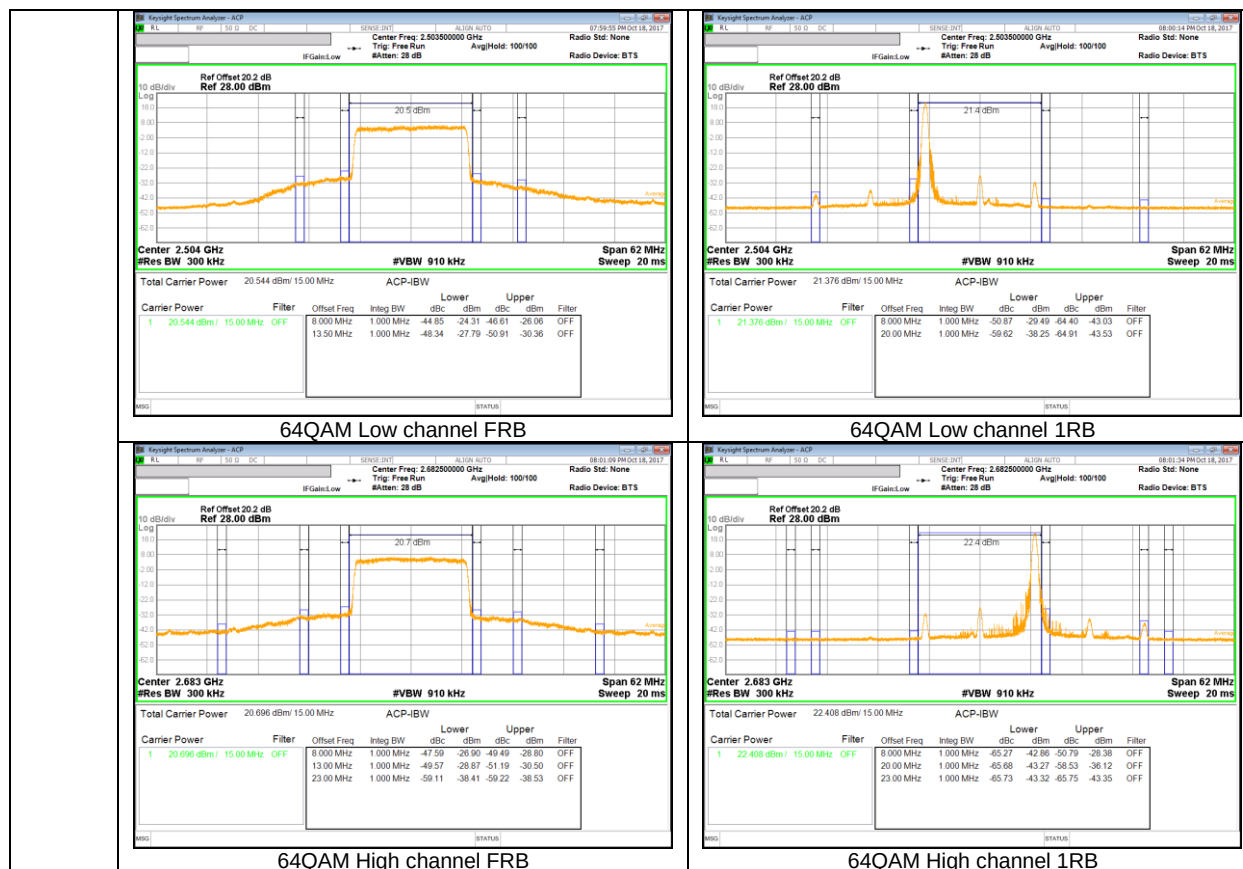


9.2.2. EMISSION MASK PLOTS



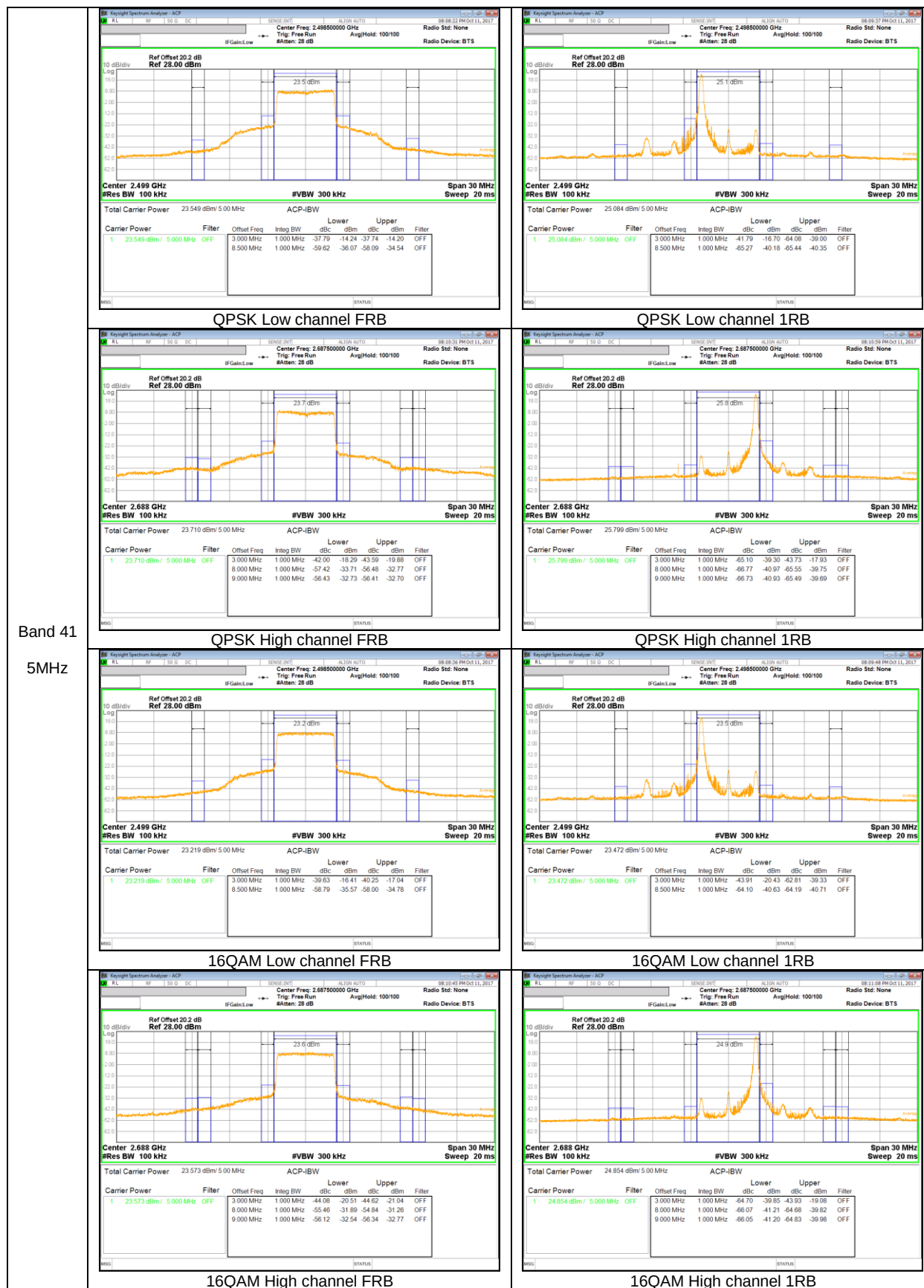














10.3 OUT OF BAND EMISSIONS

RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §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: (m)(4) For mobile station, the attenuation factor shall be not less than $43 + 10 \log (P)$ dB at the channel edge and $(55 + 10 \log (P))$ dB at the 5.5 MHz from the channel edges.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v03

The RF output of the transmitter was connected to a spectrum analyzer through a calibrated coaxial cable. Sufficient scans were taken to show the out-of-band Emissions, if any, up to 10th harmonic. Multiple sweeps were recorded in maximum hold mode using a peak detector to ensure that the worst-case emissions were caught.

- Set the RBW = 100KHz for emission below 1GHz and 1MHz for emissions above 1GHz (Tests were performed 1MHz [Worst case], to sweep 1 time for all frequency range)
- Set VBW $\geq 3 \times$ RBW;
- Set span ≥ 1.5 times the OBW;
- Sweep time = auto couple;
- Detector = peak;
- Ensure that the number of measurement points = Max (40001);
- Trace mode = max hold;

RESULTS

CDMA

Band	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
BC0	1xRTT	1013	-29.699	-13.00
		384	-29.611	
		777	-29.604	
	EVDO Rel.0	1013	-30.666	
		384	-28.723	
		777	-29.562	

GSM

Band	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
GSM1900	GPRS	1850.2	-21.14	-13.00
		1880.0	-21.14	
		1909.8	-20.79	
	EGPRS	1850.2	-21.81	
		1880.0	-21.57	
		1909.8	-21.89	

WCDMA

Band	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
Band 5	REL99	826.4	-31.30	-13.00
		836.6	-30.80	
		846.6	-32.22	
	HSDPA	826.4	-32.30	
		836.6	-31.36	
		846.6	-32.36	
Band 2	REL99	1852.4	-31.79	
		1880.0	-31.43	
		1907.6	-31.67	
	HSDPA	1852.4	-31.97	
		1880.0	-31.59	
		1907.6	-32.16	

LTE 5

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
10 MHz	QPSK	829.0	-30.59	-13.00
		836.5	-30.57	
		844.0	-30.10	
	16QAM	829.0	-30.74	
		836.5	-30.46	
		844.0	-30.69	
	64QAM	829.0	-30.82	
		836.5	-30.44	
		844.0	-30.36	
5 MHz	QPSK	826.5	-30.35	
		836.5	-30.62	
		846.5	-30.43	
	16QAM	826.5	-30.37	
		836.5	-30.13	
		846.5	-30.73	
	64QAM	826.5	-30.56	
		836.5	-29.86	
		846.5	-30.36	
3 MHz	QPSK	825.5	-30.32	
		836.5	-29.86	
		847.5	-30.44	
	16QAM	825.5	-30.39	
		836.5	-29.84	
		847.5	-30.73	
	64QAM	825.5	-30.38	
		836.5	-30.56	
		847.5	-30.68	
1.4 MHz	QPSK	824.7	-30.40	
		836.5	-30.35	
		848.3	-30.66	
	16QAM	824.7	-30.54	
		836.5	-30.66	
		848.3	-29.54	
	64QAM	824.7	-30.23	
		836.5	-29.82	
		848.3	-30.00	

LTE 4

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
20 MHz	QPSK	1720.0	-28.41	-13.00
		1732.5	-28.56	
		1745.0	-27.56	
	16QAM	1720.0	-27.70	
		1732.5	-27.94	
		1745.0	-27.99	
	64QAM	1720.0	-28.12	
		1732.5	-28.05	
		1745.0	-27.95	
15 MHz	QPSK	1717.5	-27.66	
		1732.5	-27.50	
		1747.5	-28.17	
	16QAM	1717.5	-27.99	
		1732.5	-28.29	
		1747.5	-27.32	
	64QAM	1717.5	-28.15	
		1732.5	-28.38	
		1747.5	-28.43	
10 MHz	QPSK	1715.0	-27.81	
		1732.5	-27.58	
		1750.0	-28.13	
	16QAM	1715.0	-27.29	
		1732.5	-27.79	
		1750.0	-28.01	
	64QAM	1715.0	-27.28	
		1732.5	-27.89	
		1750.0	-27.22	
5 MHz	QPSK	1712.5	-28.42	
		1732.5	-27.50	
		1752.5	-27.89	
	16QAM	1712.5	-27.76	
		1732.5	-27.93	
		1752.5	-26.99	
	64QAM	1712.5	-27.91	
		1732.5	-28.13	
		1752.5	-27.71	

LTE 4

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
3 MHz	QPSK	1711.5	-28.33	-13.00
		1732.5	-27.87	
		1753.5	-28.16	
	16QAM	1711.5	-27.87	
		1732.5	-27.72	
		1753.5	-27.52	
	64QAM	1711.5	-27.68	
		1732.5	-28.19	
		1753.5	-28.21	
1.4 MHz	QPSK	1710.7	-27.47	
		1732.5	-28.20	
		1754.3	-28.29	
	16QAM	1710.7	-27.64	
		1732.5	-27.95	
		1754.3	-27.63	
	64QAM	1710.7	-27.86	
		1732.5	-27.52	
		1754.3	-28.21	

LTE 41

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]
20 MHz	QPSK	2506.0	-30.31	-25.00
		2593.0	-30.75	
		2680.0	-29.14	
	16QAM	2506.0	-30.40	
		2593.0	-29.79	
		2680.0	-30.09	
	64QAM	2506.0	-29.60	
		2593.0	-30.19	
		2680.0	-30.38	
15 MHz	QPSK	2503.5	-30.08	
		2593.0	-29.97	
		2682.5	-30.13	
	16QAM	2503.5	-29.29	
		2593.0	-30.63	
		2682.5	-30.08	
	64QAM	2503.5	-30.15	
		2593.0	-29.35	
		2682.5	-30.19	
10 MHz	QPSK	2501.0	-30.29	
		2593.0	-29.60	
		2685.0	-30.66	
	16QAM	2501.0	-30.49	
		2593.0	-30.05	
		2685.0	-30.41	
	64QAM	2501.0	-30.25	
		2593.0	-29.45	
		2685.0	-29.41	
5 MHz	QPSK	2498.5	-30.62	
		2593.0	-29.49	
		2687.5	-30.73	
	16QAM	2498.5	-29.19	
		2593.0	-30.67	
		2687.5	-30.00	
	64QAM	2498.5	-30.37	
		2593.0	-29.68	
		2687.5	-28.76	