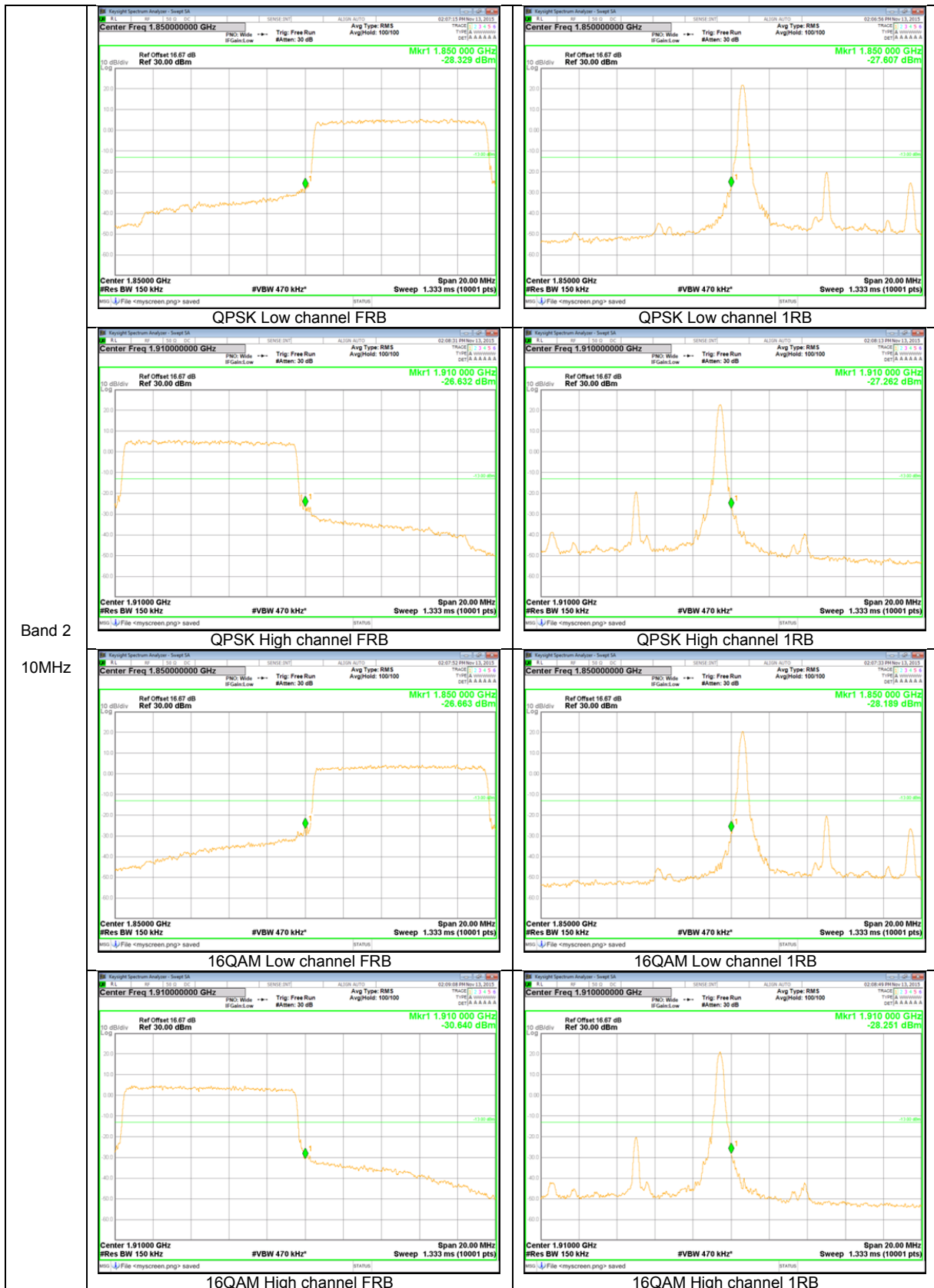
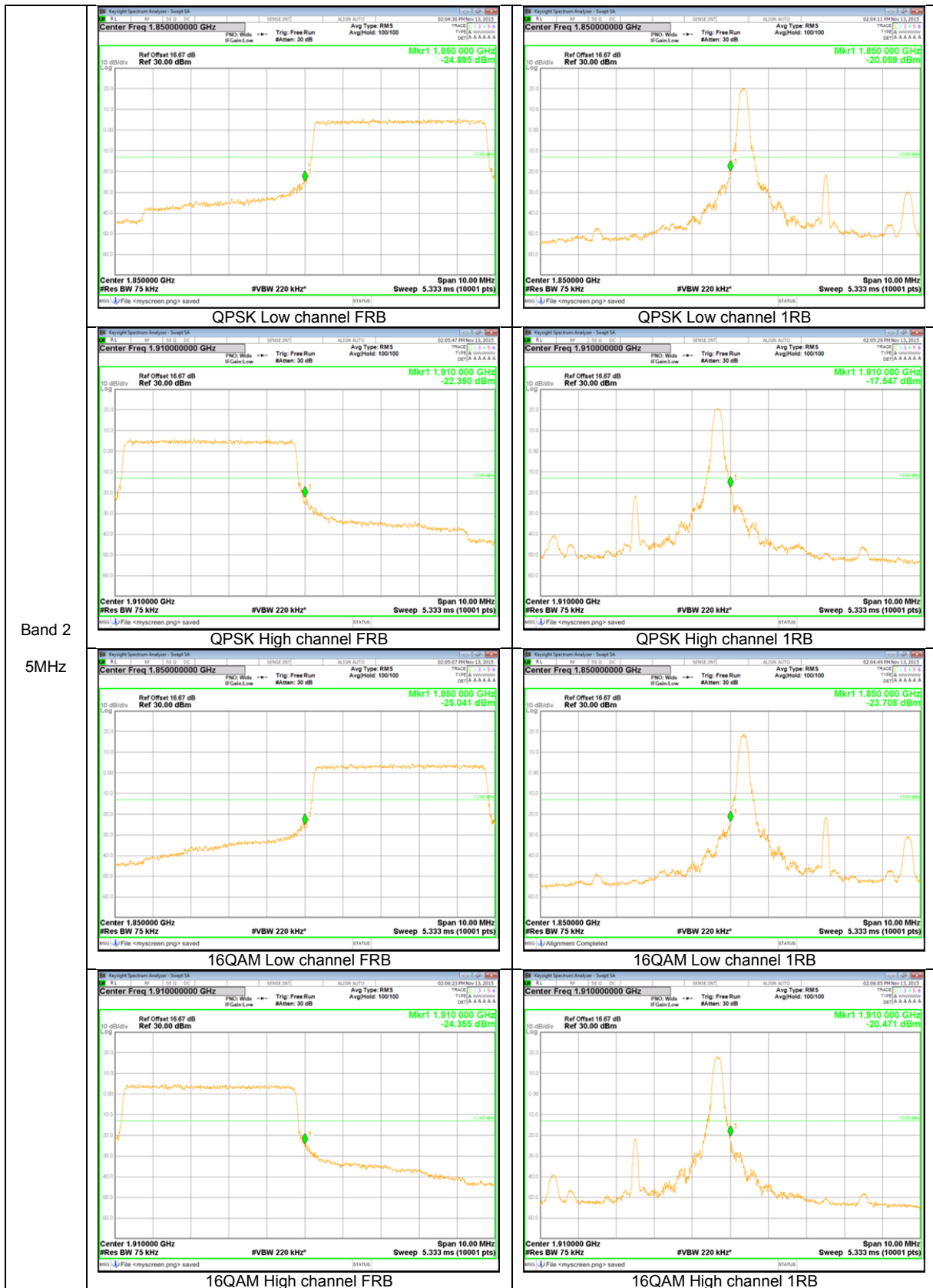
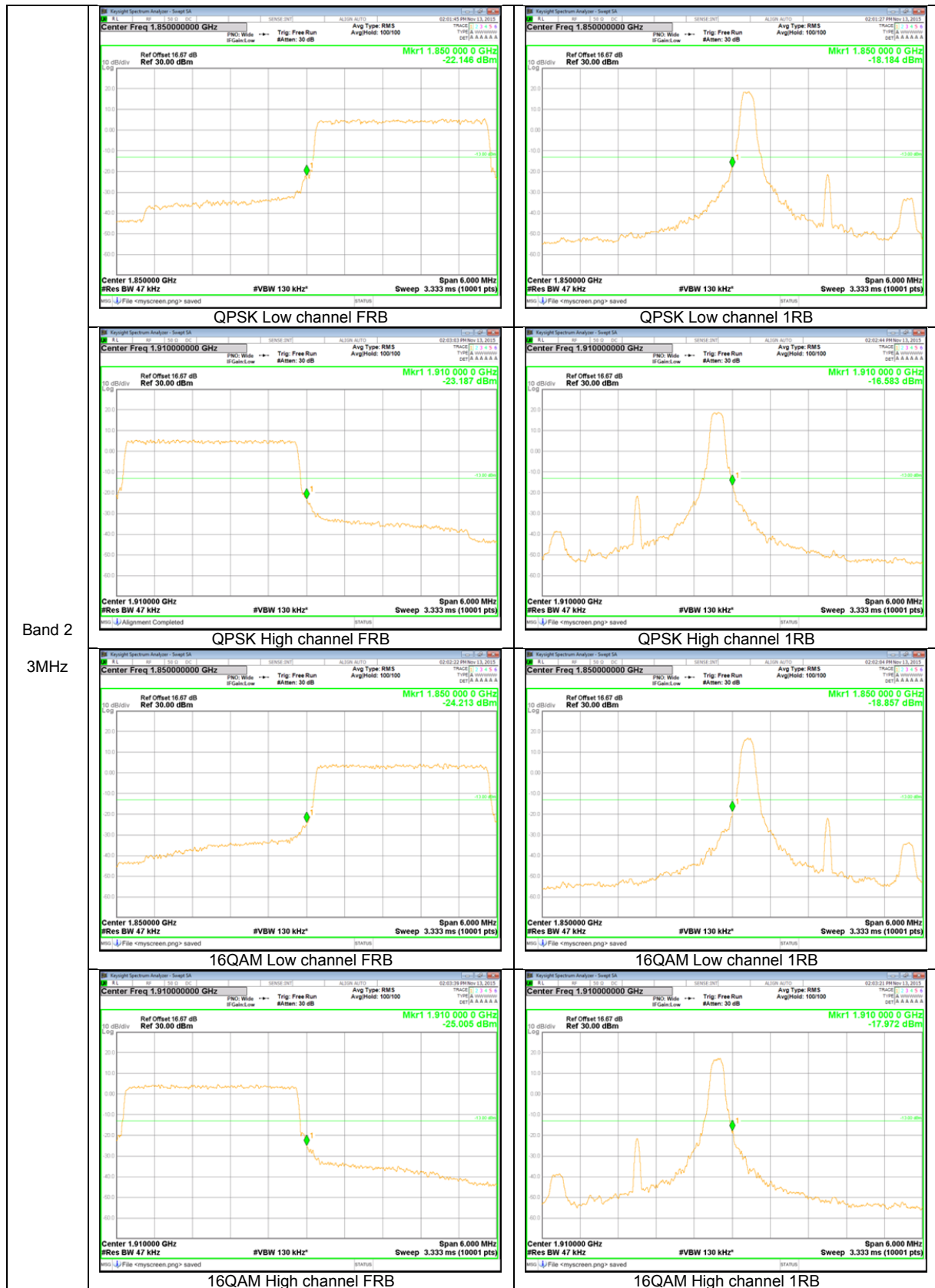


Band 2
 15MHz

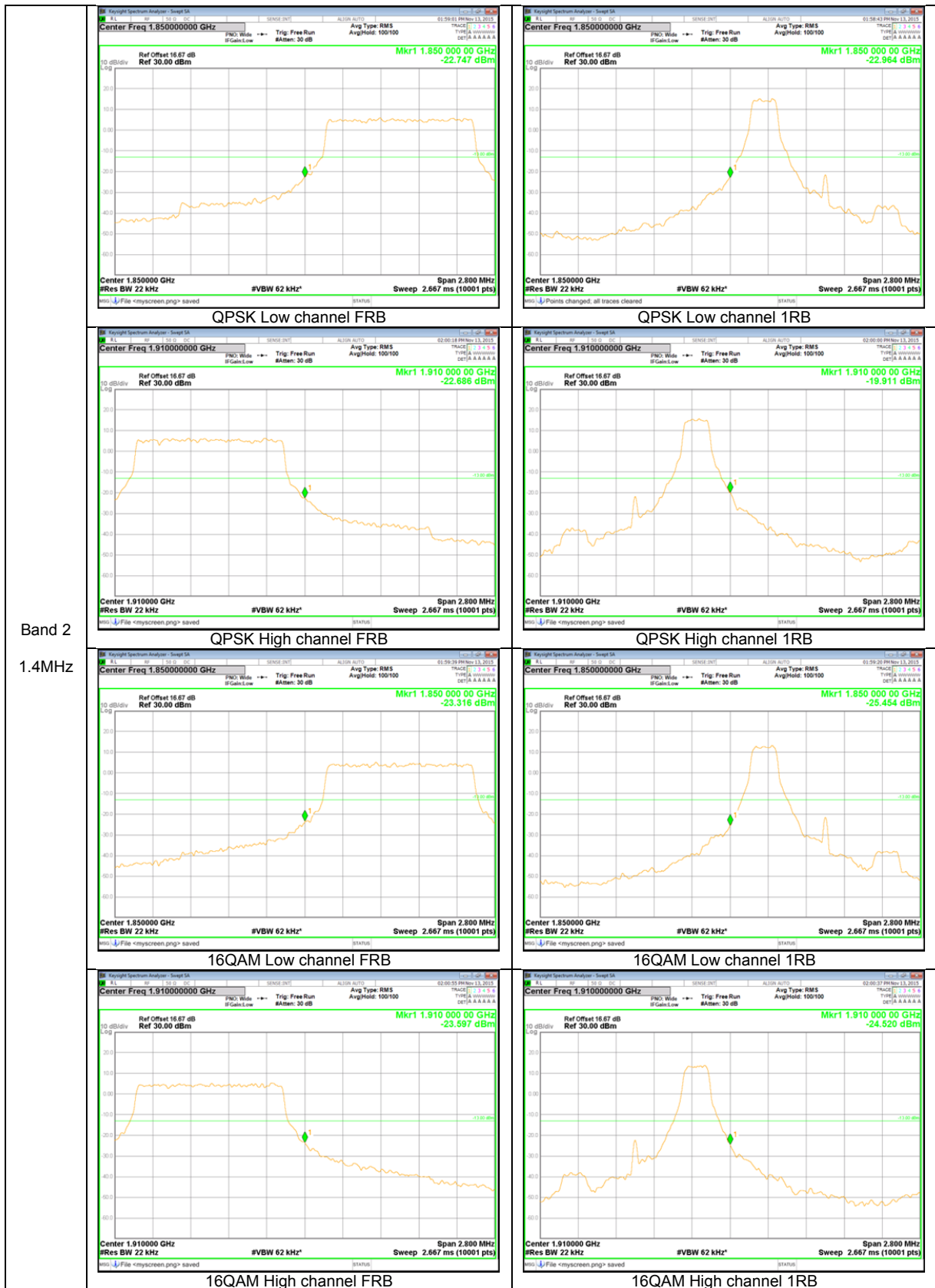




Band 2
5MHz



Band 2
 3MHz



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.

TEST PROCEDURE

Per KDB 971168 D01 Power Meas License Digital Systems v02r02

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.

RESULTS

10.3.1. OUT OF BAND EMISSIONS RESULT

GSM

Band	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]	
GSM850	GPRS	824.2	-24.70	-13.00	11.7	
		836.6	-23.64		10.64	
		848.8	-24.21		11.21	
	EGPRS	824.2	-24.37		11.37	
		836.6	-24.14		11.14	
		848.8	-23.44		10.44	
GSM1900	GPRS	1850.2	-24.78		-13.00	11.78
		1880.0	-23.46			10.46
		1909.8	-24.27			11.27
	EGPRS	1850.2	-24.05	11.05		
		1880.0	-24.47	11.47		
		1909.8	-24.04	11.04		

WCDMA

Band	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]
Band 5	REL99	826.4	-34.73	-13.00	21.73
		836.6	-34.16		21.16
		846.6	-34.75		21.75
	HSDPA	826.4	-34.37		21.37
		836.6	-33.48		20.48
		846.6	-34.58		21.58
Band 4	REL99	1712.4	-33.87		20.87
		1732.6	-33.63		20.63
		1752.6	-33.74		20.74
	HSDPA	1712.4	-33.35		20.35
		1732.6	-34.46		21.46
		1752.6	-34.53		21.53
Band 2	REL99	1852.4	-34.02	21.02	
		1880.0	-33.93	20.93	
		1907.6	-33.93	20.93	
	HSDPA	1852.4	-33.03	20.03	
		1880.0	-33.08	20.08	
		1907.6	-34.05	21.05	

LTE 17

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]
10 MHz	QPSK	709.0	-27.55	-13.00	14.55
		710.0	-28.93		15.93
		711.0	-28.67		15.67
	16QAM	709.0	-27.58		14.58
		710.0	-28.83		15.83
		711.0	-28.76		15.76
5 MHz	QPSK	706.5	-28.34		15.34
		710.0	-29.11		16.11
		713.5	-28.70		15.7
	16QAM	706.5	-29.84		16.84
		710.0	-28.62		15.62
		713.5	-28.81		15.81

LTE 5

Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]
10 MHz	QPSK	829.0	-28.27	-13.00	15.27
		836.5	-29.08		16.08
		844.0	-28.98		15.98
	16QAM	829.0	-29.16		16.16
		836.5	-28.48		15.48
		844.0	-27.92		14.92
5 MHz	QPSK	826.5	-27.87		14.87
		836.5	-29.30		16.3
		846.5	-28.77		15.77
	16QAM	826.5	-29.09		16.09
		836.5	-29.19		16.19
		846.5	-29.30		16.3
3 MHz	QPSK	825.5	-29.51		16.51
		836.5	-29.35		16.35
		847.5	-27.84		14.84
	16QAM	825.5	-28.42		15.42
		836.5	-28.30		15.3
		847.5	-29.55		16.55
1.4 MHz	QPSK	824.7	-28.49	15.49	
		836.5	-28.35	15.35	
		848.3	-29.46	16.46	
	16QAM	824.7	-29.33	16.33	
		836.5	-29.10	16.1	
		848.3	-29.05	16.05	

LTE 4

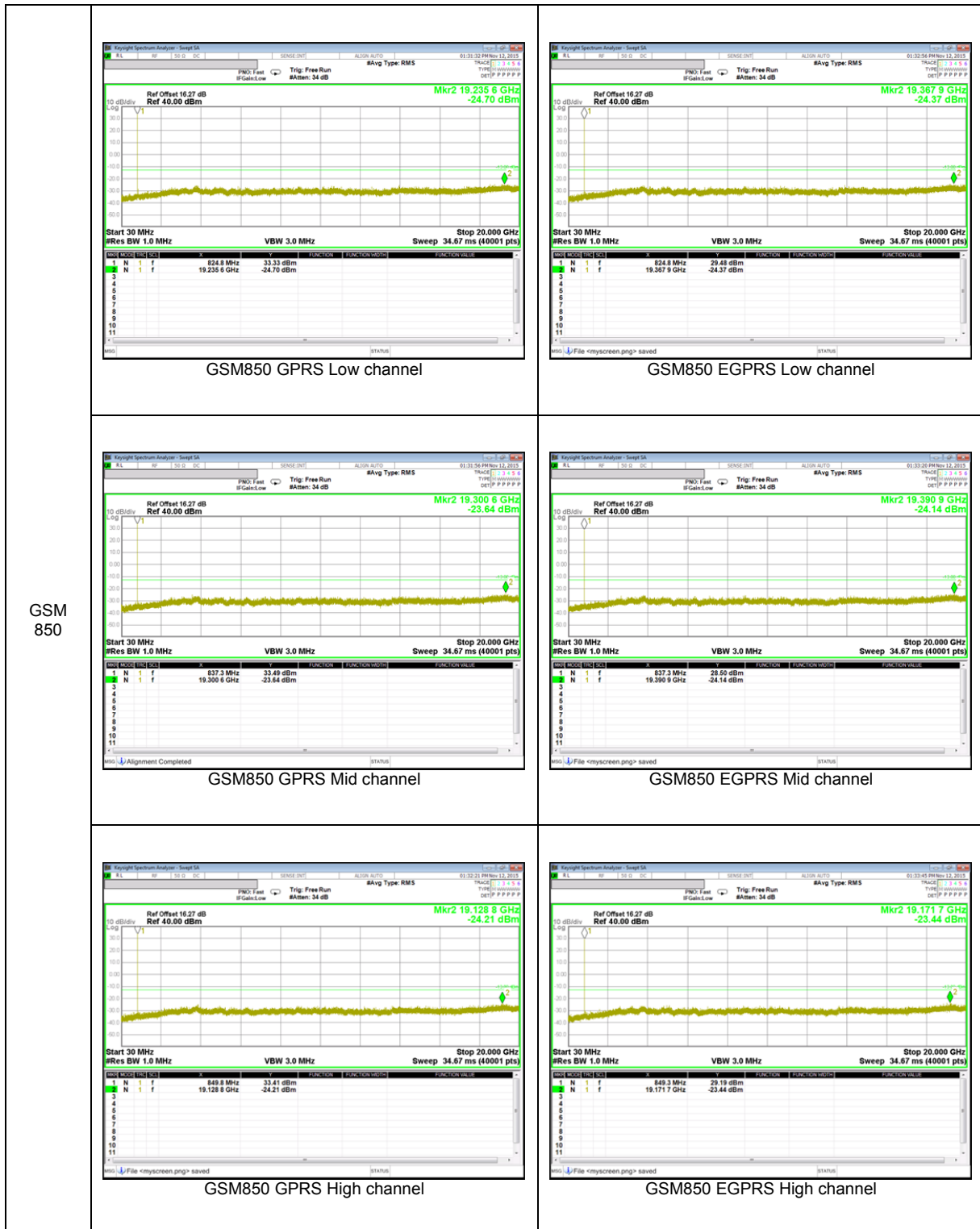
Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]
20 MHz	QPSK	1720.0	-28.85	-13.00	15.85
		1732.5	-28.26		15.26
		1745.0	-29.04		16.04
	16QAM	1720.0	-27.91		14.91
		1732.5	-28.51		15.51
		1745.0	-28.68		15.68
15 MHz	QPSK	1717.5	-28.15		15.15
		1732.5	-28.78		15.78
		1747.5	-29.35		16.35
	16QAM	1717.5	-28.65		15.65
		1732.5	-29.16		16.16
		1747.5	-28.71		15.71
10 MHz	QPSK	1715.0	-27.89		14.89
		1732.5	-28.46		15.46
		1750.0	-28.73		15.73
	16QAM	1715.0	-28.78		15.78
		1732.5	-28.80		15.8
		1750.0	-28.47		15.47
5 MHz	QPSK	1712.5	-29.44	16.44	
		1732.5	-28.62	15.62	
		1752.5	-28.60	15.6	
	16QAM	1712.5	-28.94	15.94	
		1732.5	-28.05	15.05	
		1752.5	-29.20	16.2	
3 MHz	QPSK	1711.5	-28.45	15.45	
		1732.5	-28.81	15.81	
		1753.5	-29.13	16.13	
	16QAM	1711.5	-28.76	15.76	
		1732.5	-28.88	15.88	
		1753.5	-29.32	16.32	
1.4 MHz	QPSK	1710.7	-27.94	14.94	
		1732.5	-28.88	15.88	
		1754.3	-28.49	15.49	
	16QAM	1710.7	-28.97	15.97	
		1732.5	-28.33	15.33	
		1754.3	-28.46	15.46	

LTE 2

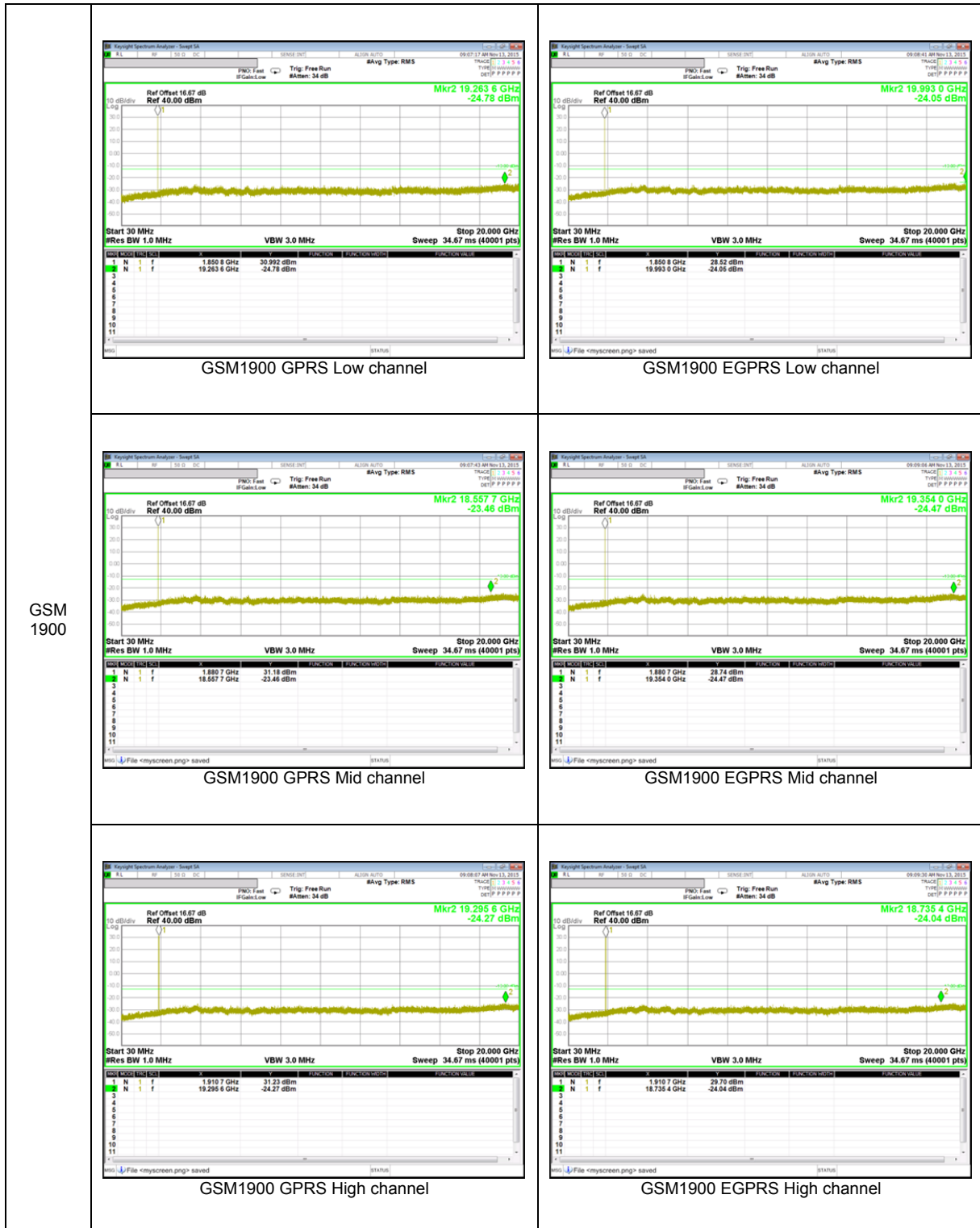
Bandwidth	Mode	f [MHz]	Spurious [dBm]	Limit [dBm]	Margin [dB]
20 MHz	QPSK	1860.0	-28.09	-13.00	15.09
		1880.0	-28.94		15.94
		1900.0	-28.54		15.54
	16QAM	1860.0	-29.25		16.25
		1880.0	-27.67		14.67
		1900.0	-29.51		16.51
15 MHz	QPSK	1857.5	-28.44		15.44
		1880.0	-28.90		15.9
		1902.5	-29.41		16.41
	16QAM	1857.5	-27.93		14.93
		1880.0	-28.18		15.18
		1902.5	-28.81		15.81
10 MHz	QPSK	1855.0	-28.22		15.22
		1880.0	-27.56		14.56
		1905.0	-28.24		15.24
	16QAM	1855.0	-27.39		14.39
		1880.0	-28.06		15.06
		1905.0	-28.39		15.39
5 MHz	QPSK	1852.5	-28.45	15.45	
		1880.0	-28.67	15.67	
		1907.5	-28.78	15.78	
	16QAM	1852.5	-28.16	15.16	
		1880.0	-28.21	15.21	
		1907.5	-28.70	15.7	
3 MHz	QPSK	1851.5	-28.50	15.5	
		1880.0	-28.43	15.43	
		1908.5	-27.40	14.4	
	16QAM	1851.5	-27.76	14.76	
		1880.0	-27.99	14.99	
		1908.5	-28.07	15.07	
1.4 MHz	QPSK	1850.7	-28.10	15.1	
		1880.0	-28.07	15.07	
		1909.3	-28.43	15.43	
	16QAM	1850.7	-28.52	15.52	
		1880.0	-28.90	15.9	
		1909.3	-28.48	15.48	

10.3.2. OUT OF BAND EMISSIONS PLOTS

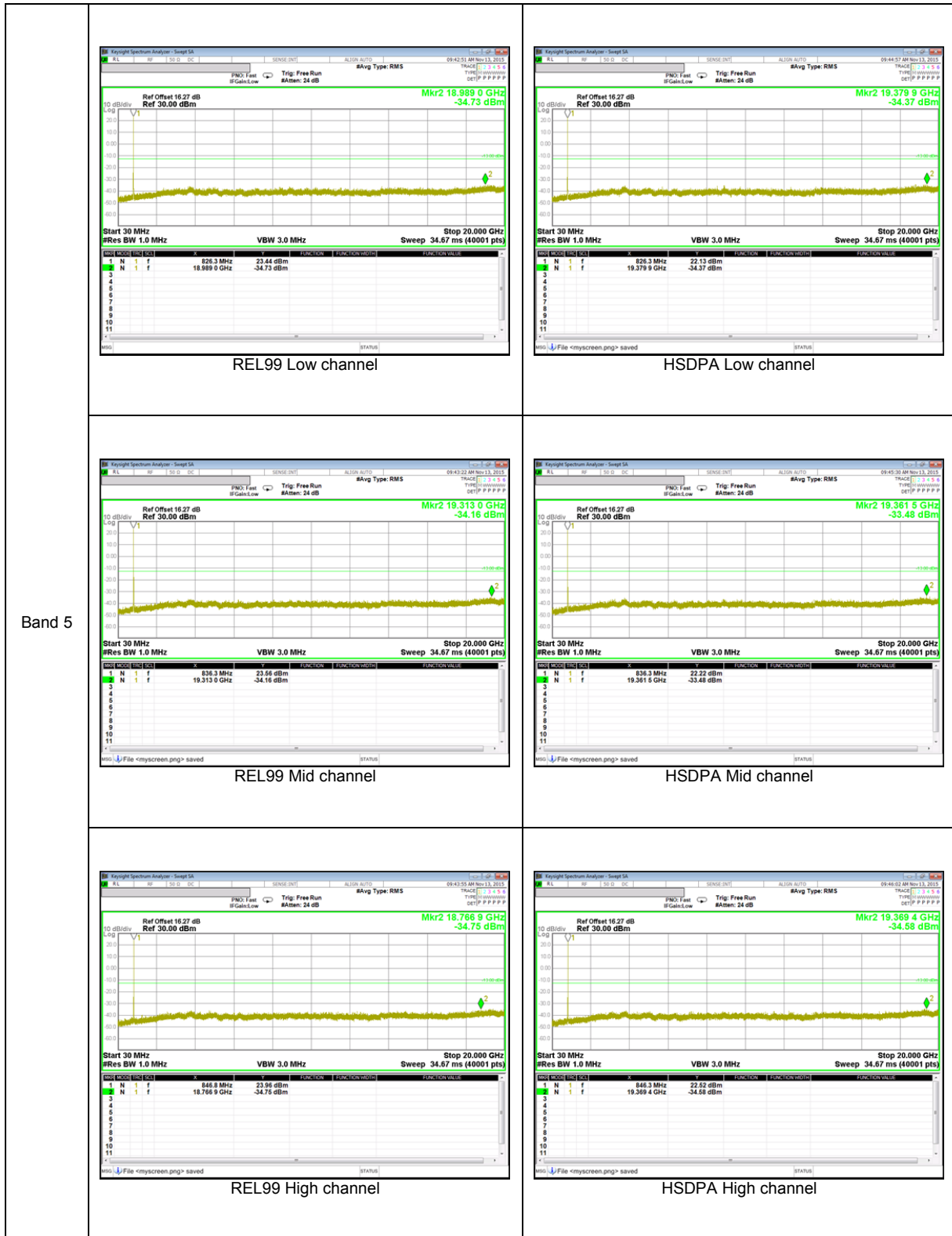
GSM 850



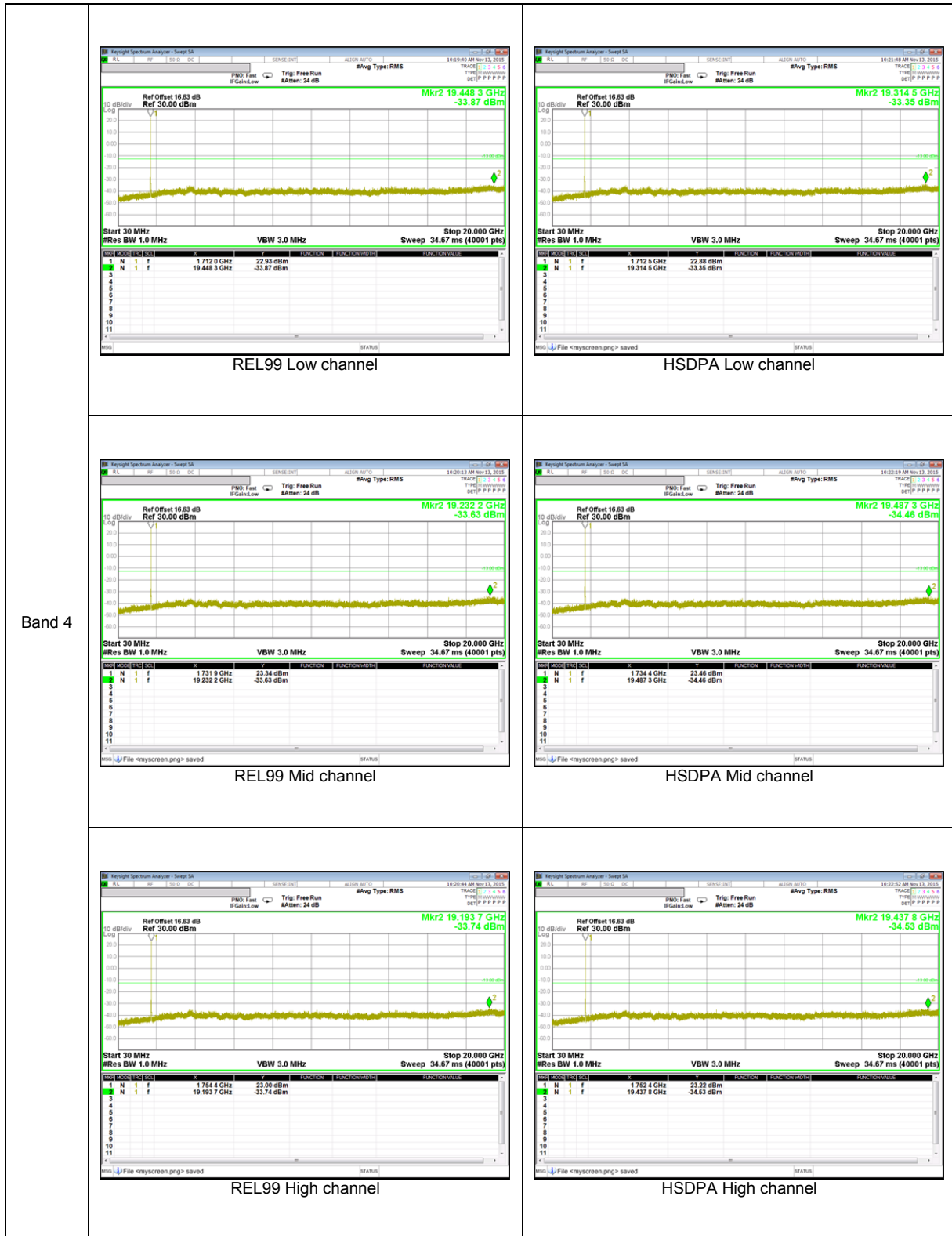
GSM 1900



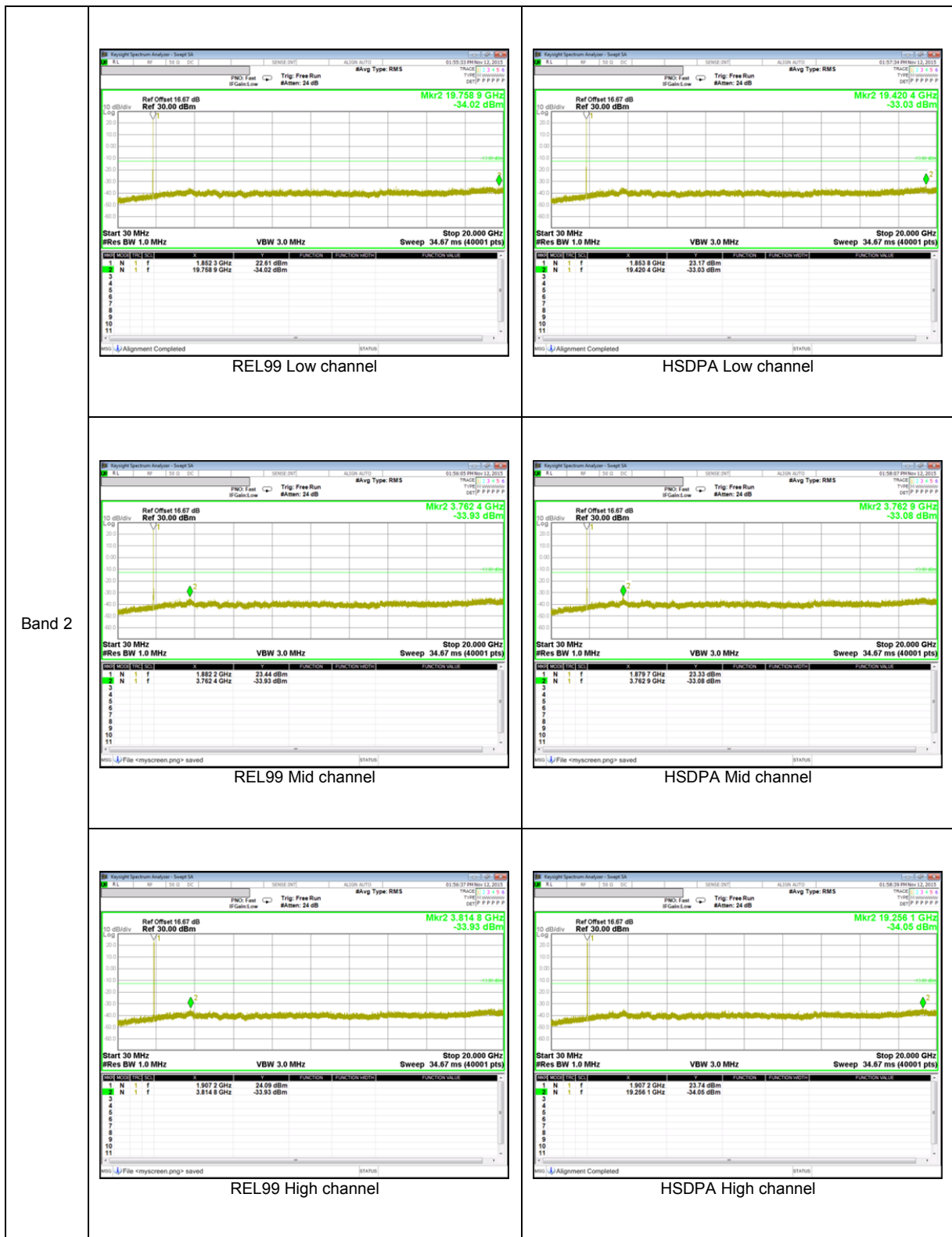
WCDMA Band 5



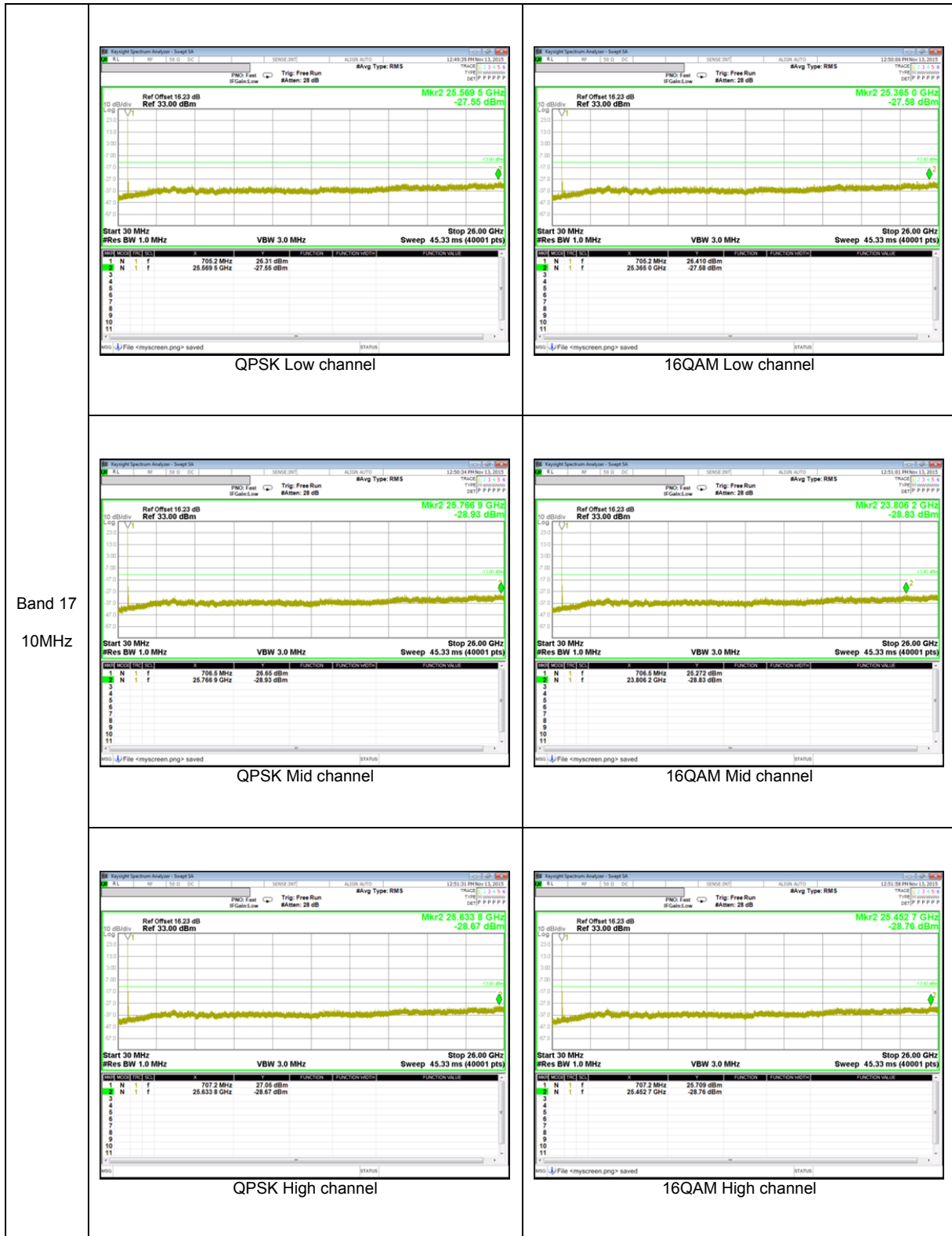
WCDMA Band 4

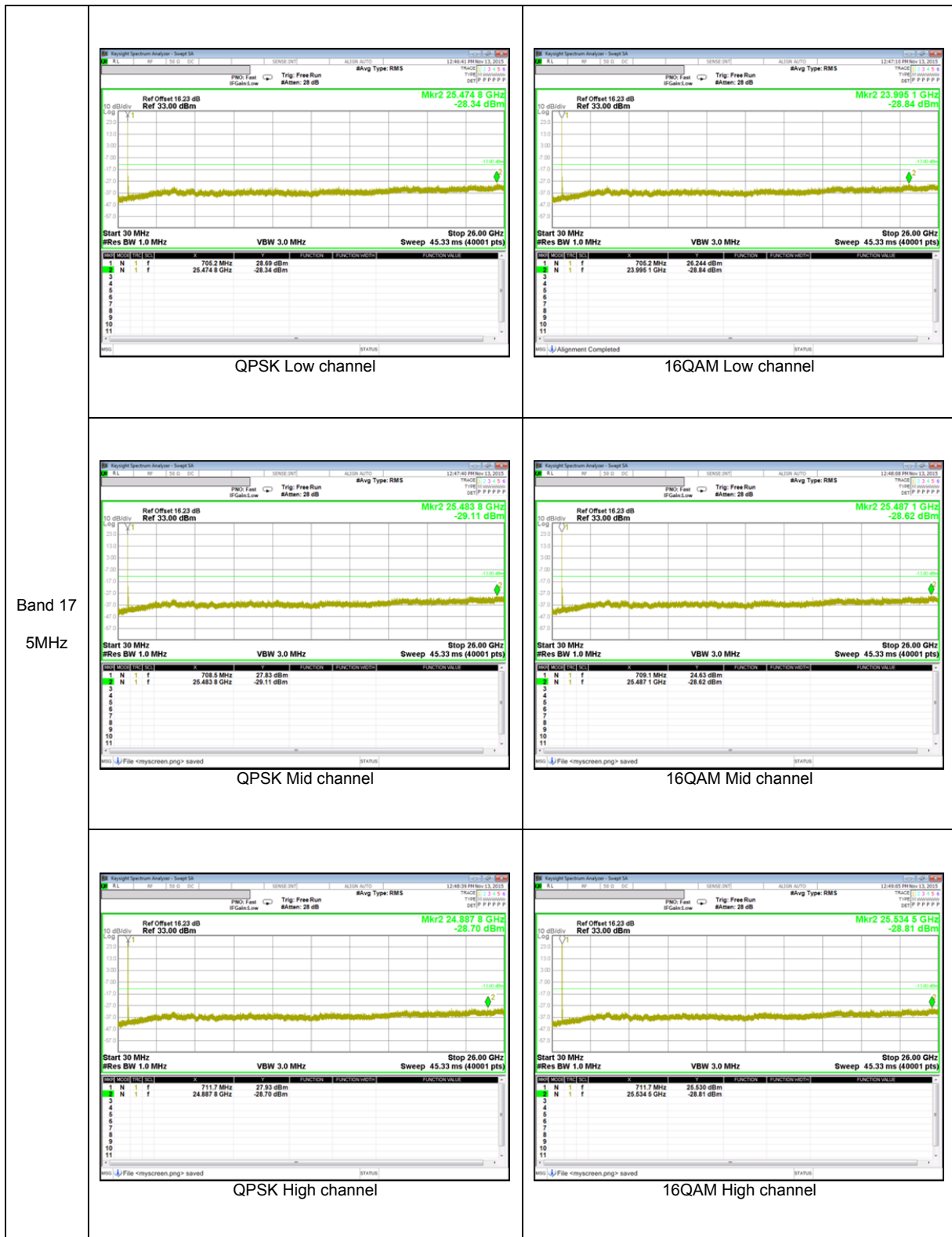


WCDMA Band 2



LTE Band 17





LTE Band 5

