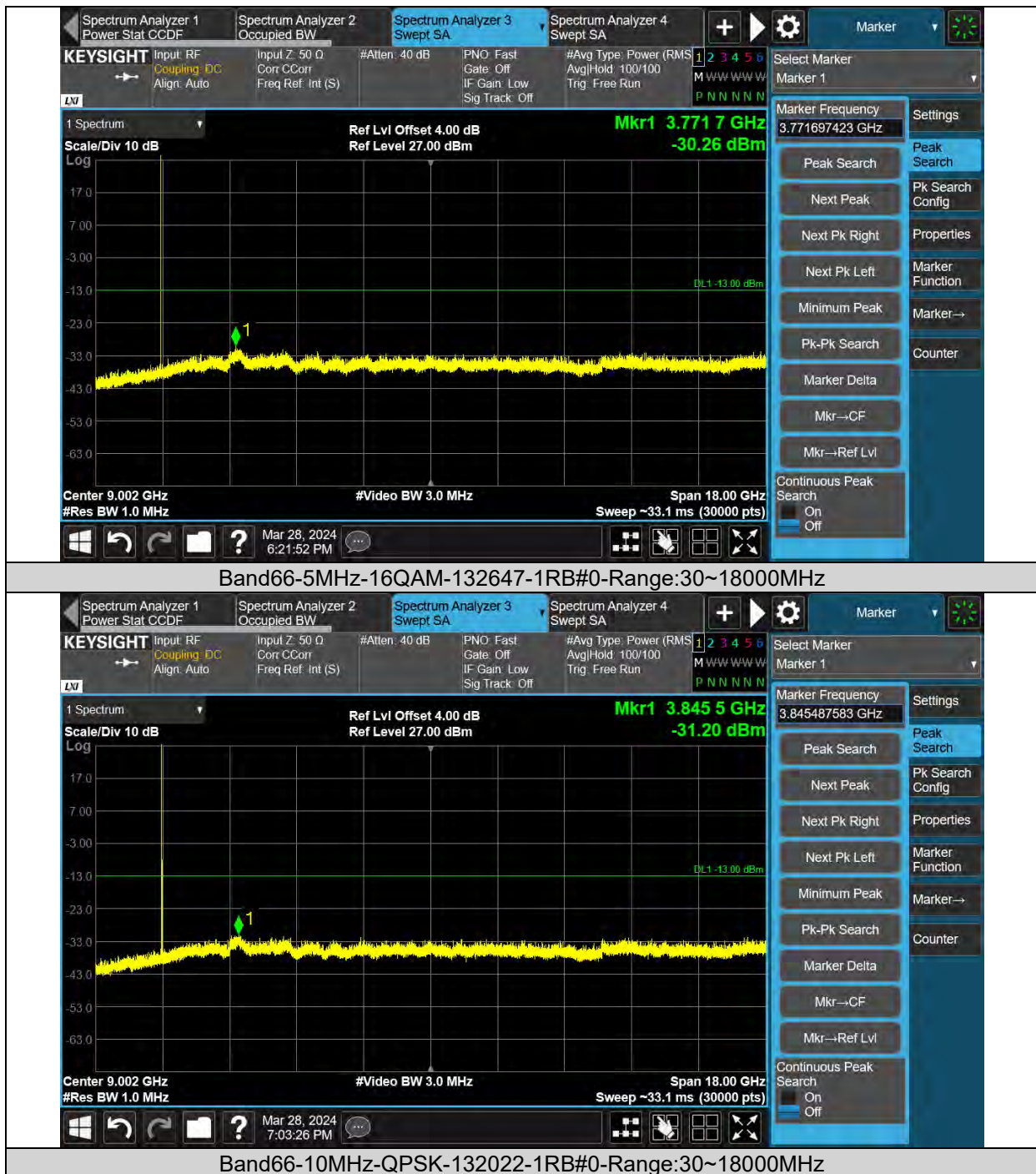




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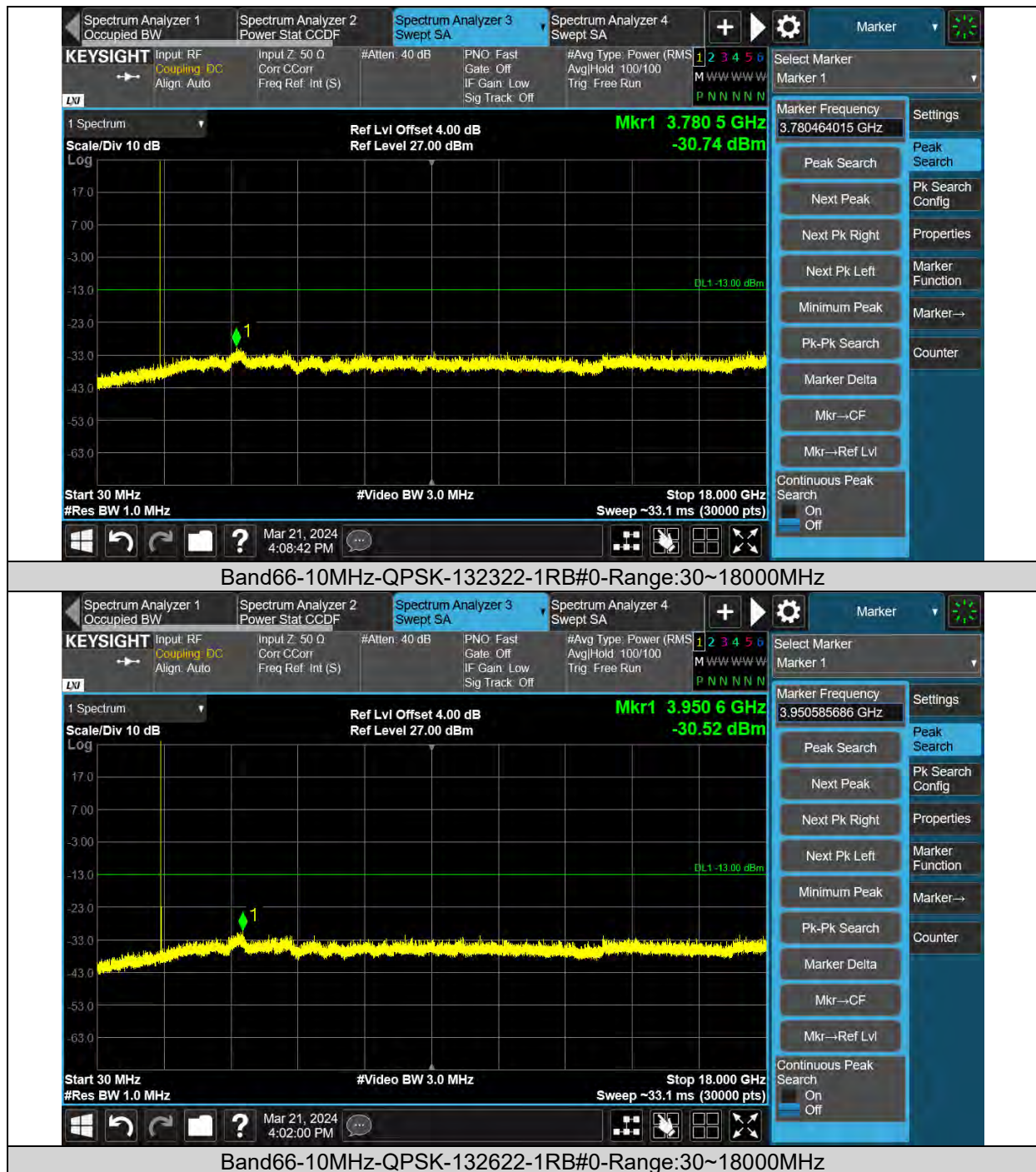
Test Report No.: W7L-240204W001RF04





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VERITAS

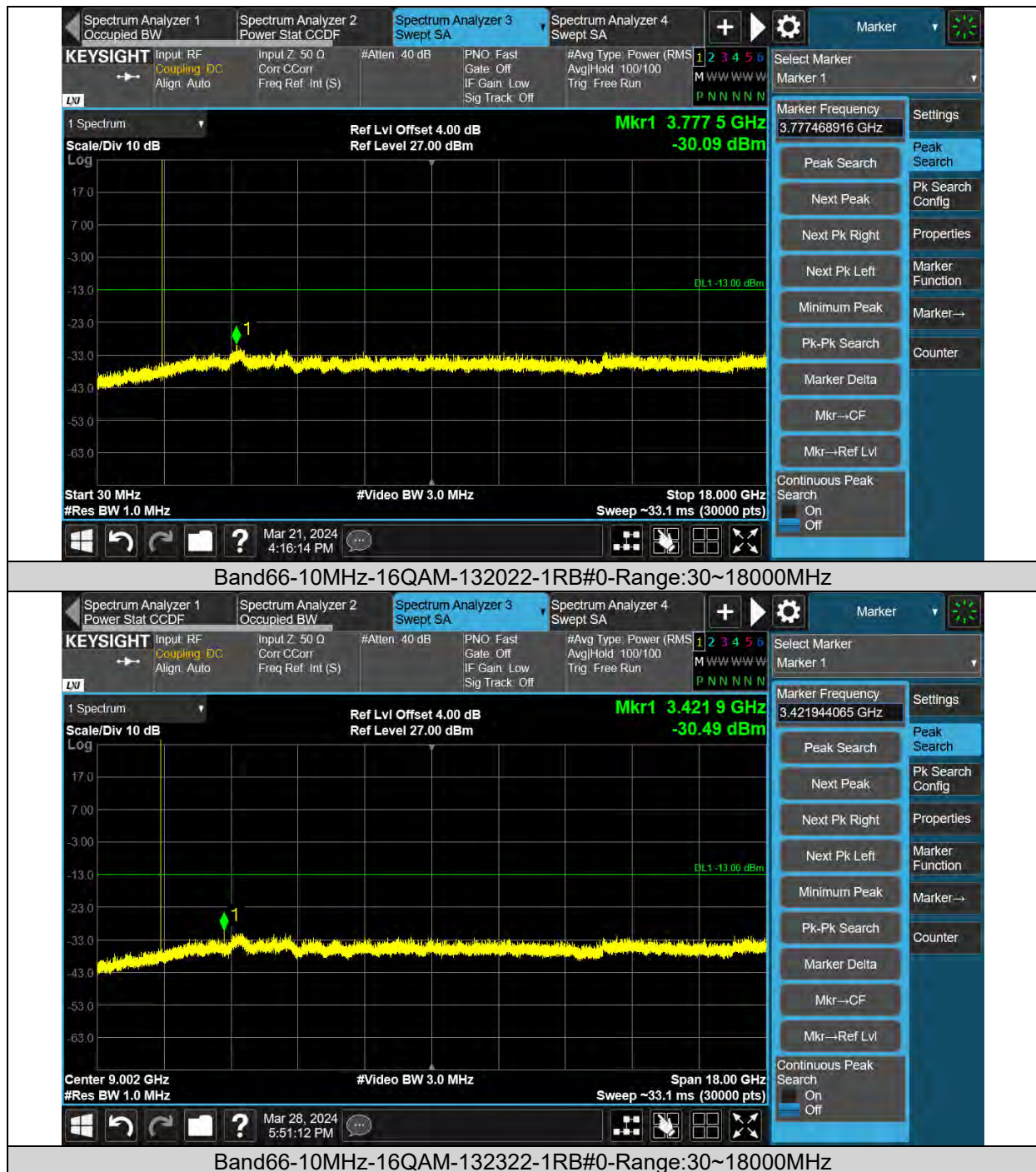
Test Report No.: W7L-240204W001RF04





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VERITAS

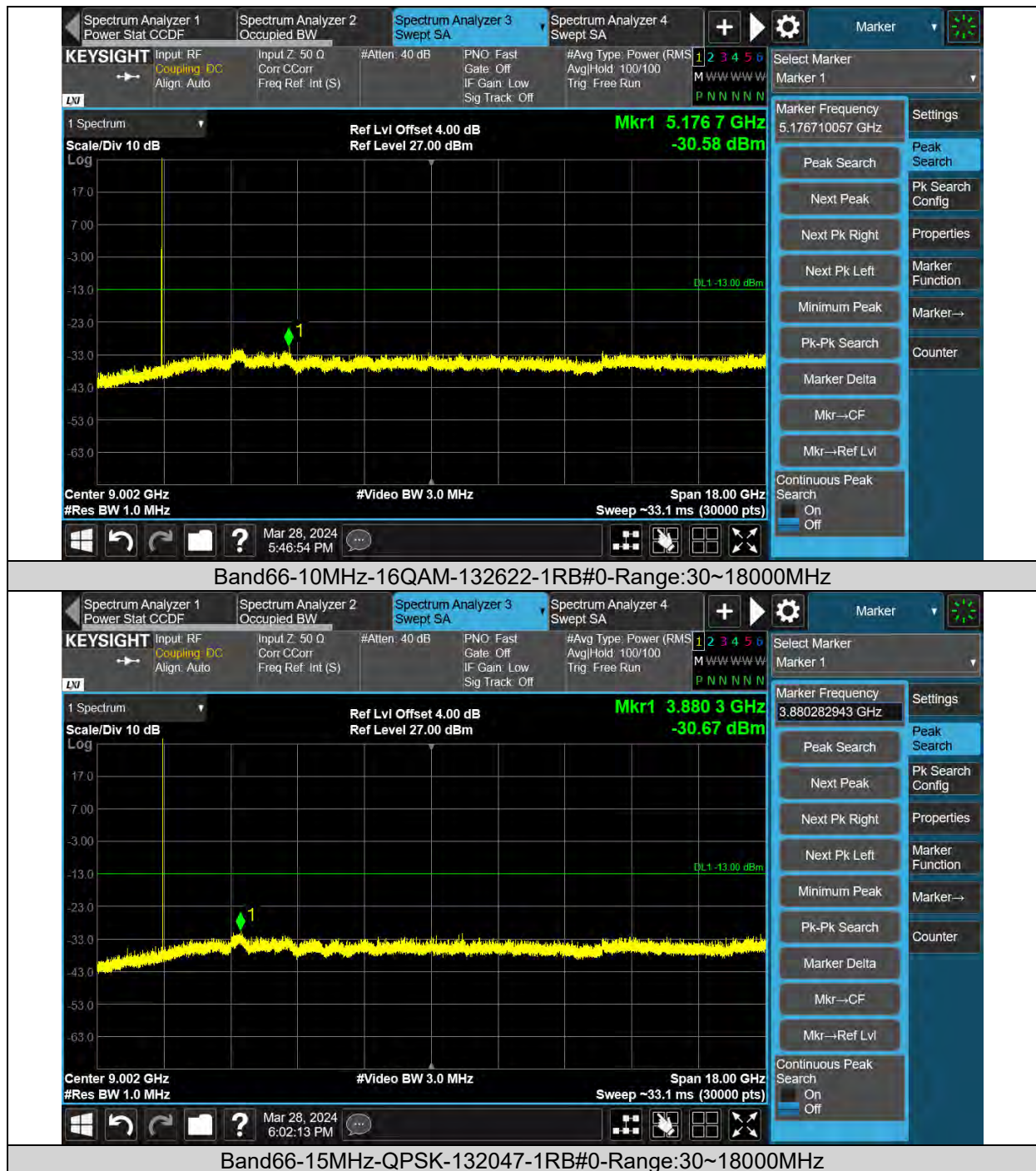
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VERITAS

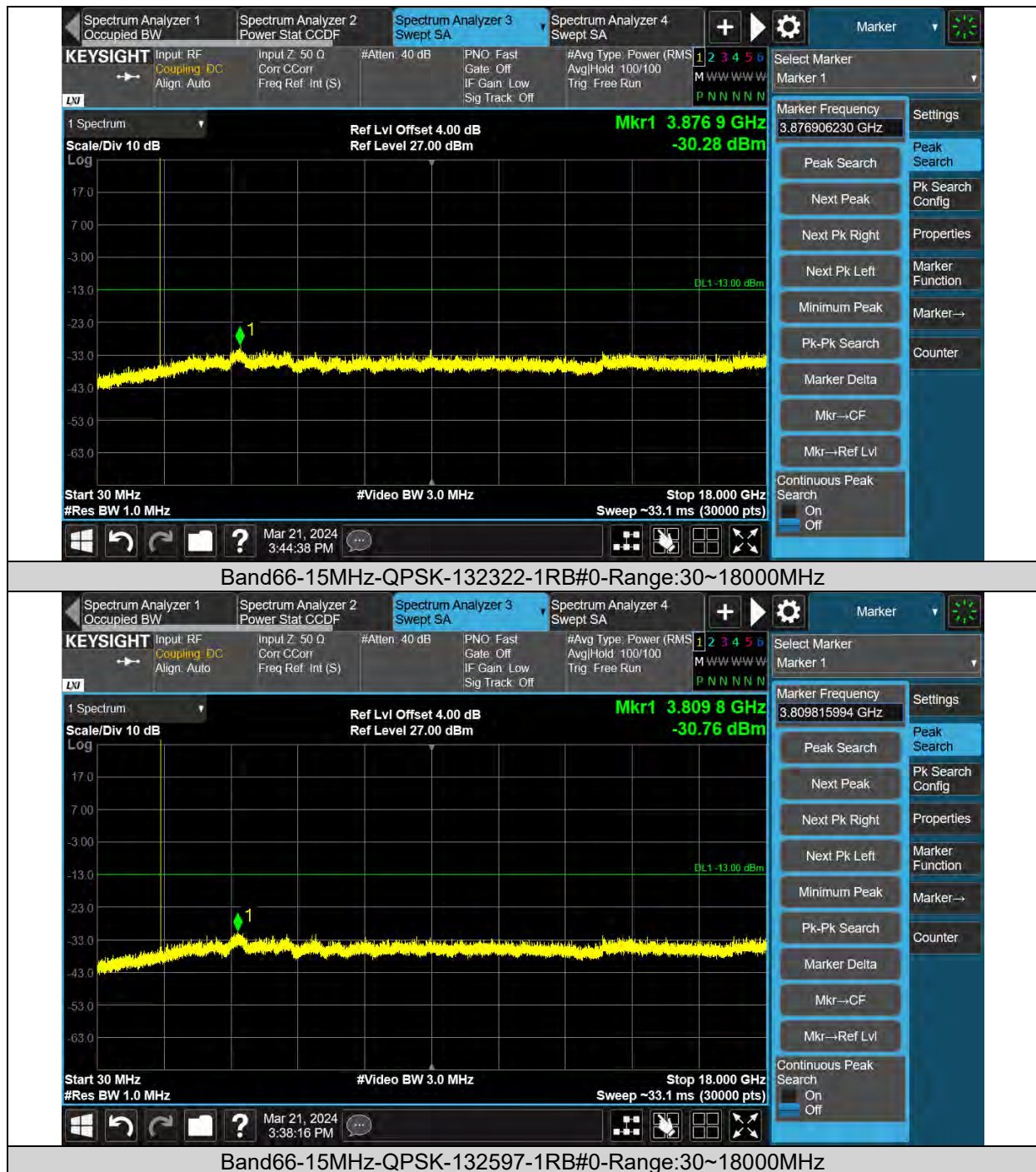
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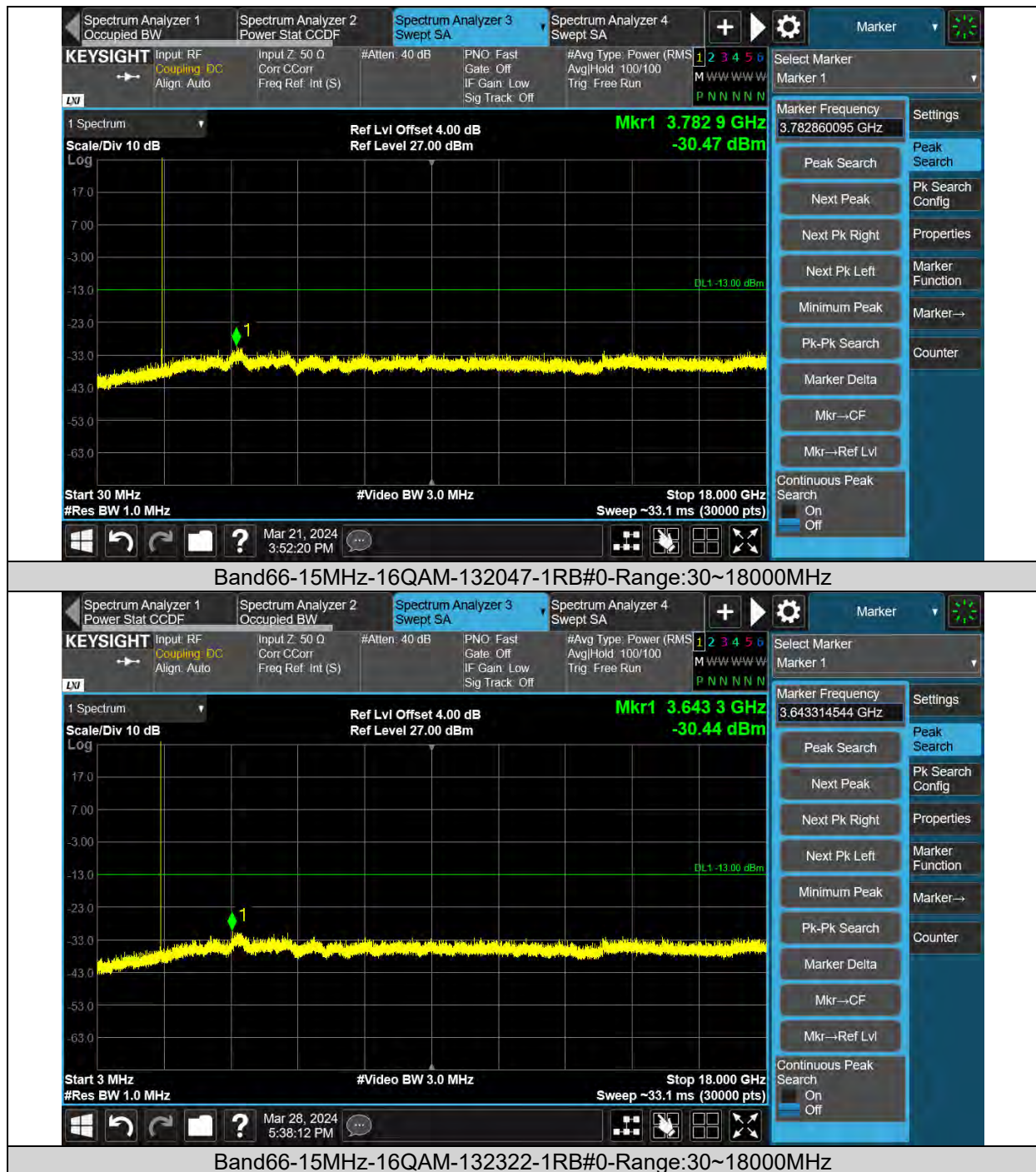
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VERITAS

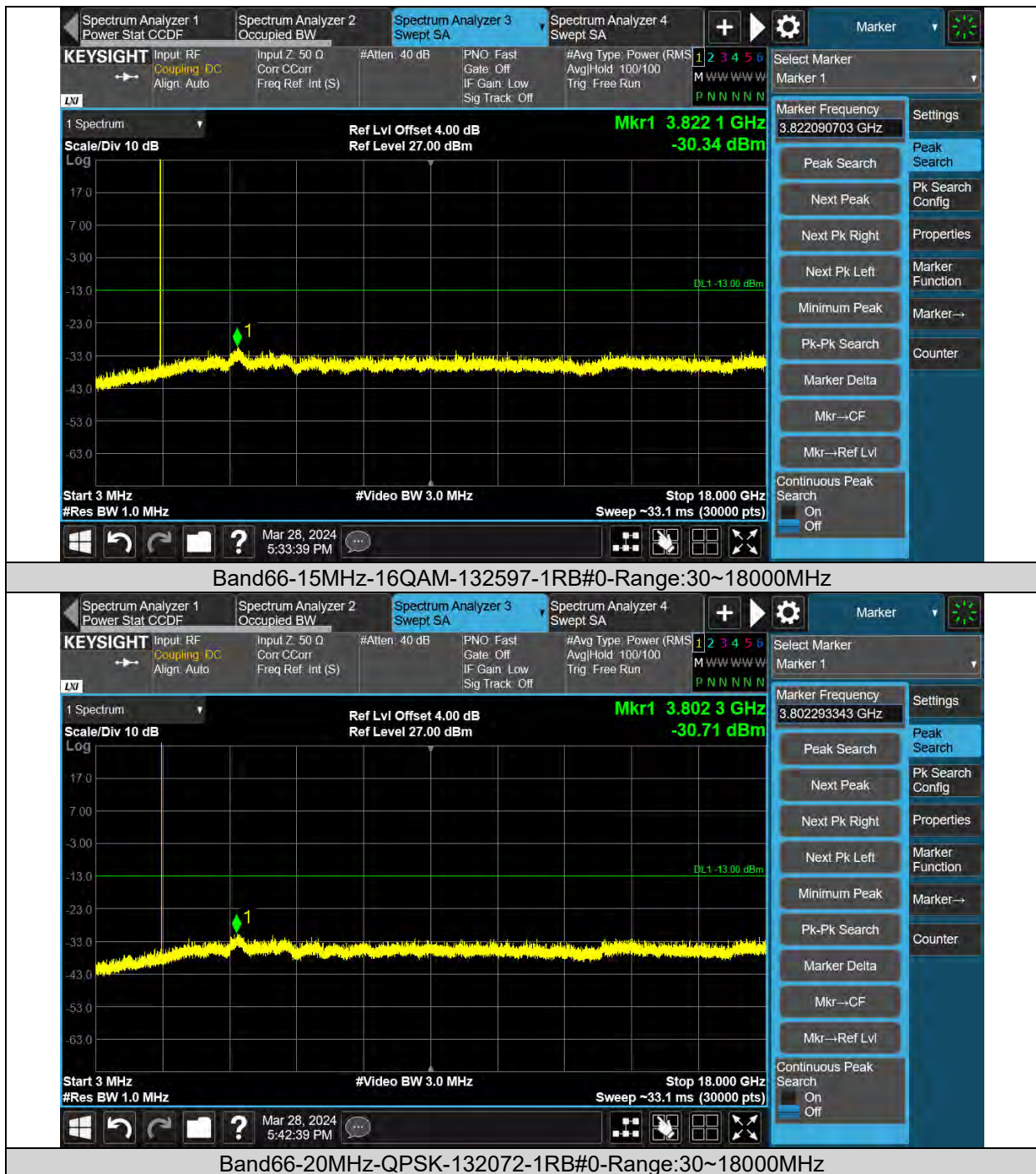
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VERITAS

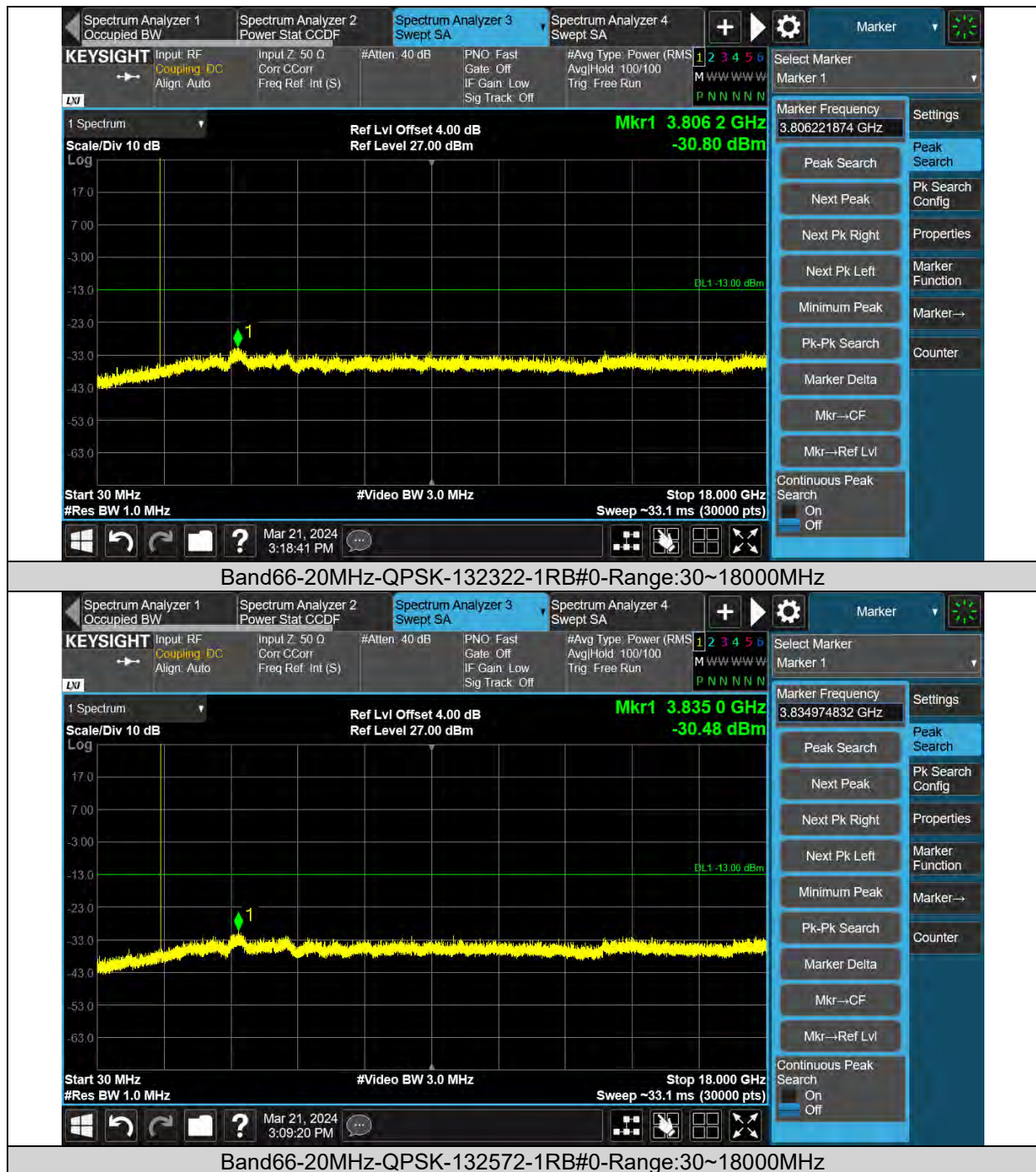
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VERITAS

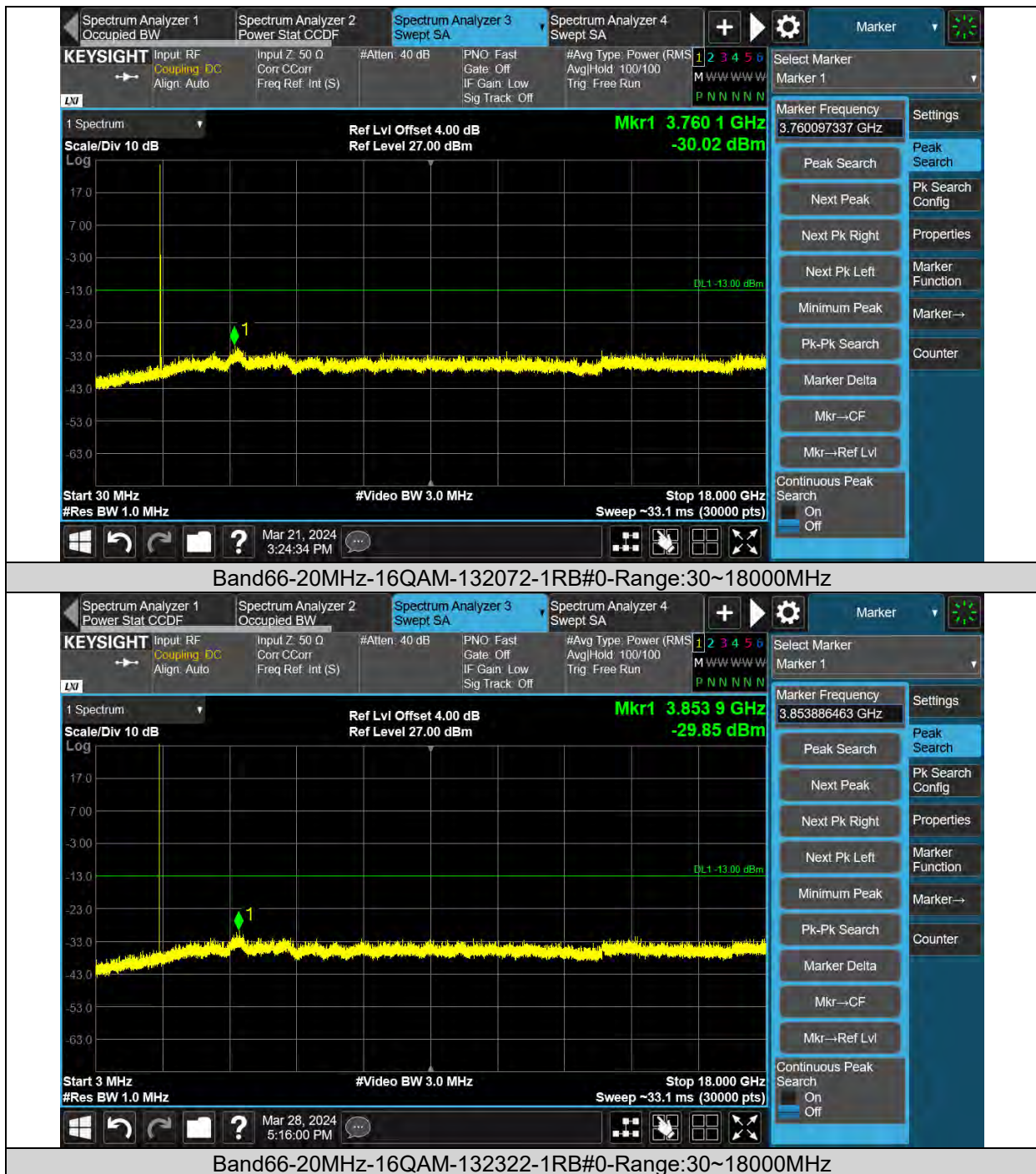
Test Report No.: W7L-240204W001RF04





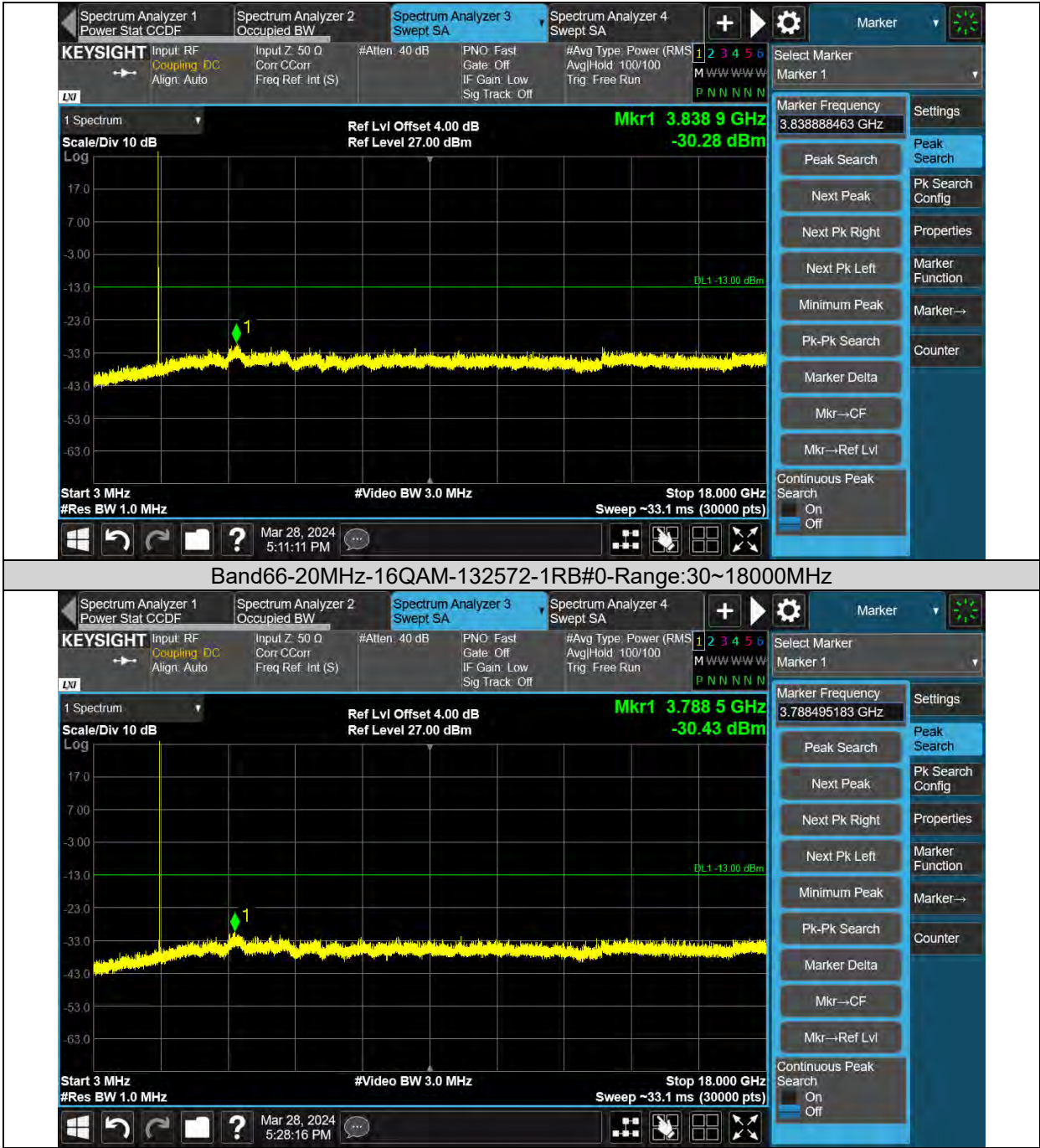
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Test Report No.: W7L-240204W001RF04



FREQUENCY STABILITY

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	20MHz	QPSK	132072	6RB#0	VL	NT	-2.7	-0.001570	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	VN	NT	-7.3	-0.004244	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	VH	NT	10.3	0.005988	±2.5	PASS



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Band66	20MHz	QPSK	132322	6RB#0	VL	NT	3.7	0.002120	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	VN	NT	-31.7	-0.018166	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	VH	NT	17.7	0.010143	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	VL	NT	8.4	0.004746	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	VN	NT	29.2	0.016497	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	VH	NT	17.5	0.009887	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	VL	NT	-33.7	-0.019593	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	VN	NT	-8.6	-0.005000	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	VH	NT	16.1	0.009360	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	VL	NT	10	0.005731	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	VN	NT	23.1	0.013238	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	VH	NT	22.3	0.012779	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	VL	NT	5.7	0.003220	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	VN	NT	8.1	0.004576	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	VH	NT	12.7	0.007175	±2.5	PASS

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	20MHz	QPSK	132072	6RB#0	NV	-30	-6.3	-0.003663	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	-20	-14.2	-0.008256	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	-10	30.2	0.017558	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	0	-15	-0.008721	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	10	2.3	0.001337	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	20	25.5	0.014826	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	30	-2.7	-0.001570	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	40	28	0.016279	±2.5	PASS
Band66	20MHz	QPSK	132072	6RB#0	NV	50	-19.1	-0.011105	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	-30	4.2	0.002407	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	-20	31.6	0.018109	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	-10	17.2	0.009857	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	0	-31.8	-0.018223	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	10	-29.1	-0.016676	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	20	-20.7	-0.011862	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	30	-8.6	-0.004928	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	40	-24.7	-0.014155	±2.5	PASS
Band66	20MHz	QPSK	132322	6RB#0	NV	50	-21.9	-0.012550	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	-30	-22.1	-0.012486	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	-20	32.2	0.018192	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	-10	-12.5	-0.007062	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	0	-27.1	-0.015311	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	10	-23.1	-0.013051	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	20	-0.9	-0.000508	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	30	-9.5	-0.005367	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	40	-28.7	-0.016215	±2.5	PASS
Band66	20MHz	QPSK	132572	6RB#0	NV	50	-5	-0.002825	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	-30	22.5	0.013081	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	-20	15.6	0.009070	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	-10	-15	-0.008721	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	0	23.2	0.013488	±2.5	PASS



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Band66	20MHz	16QAM	132072	6RB#0	NV	10	-25	-0.014535	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	20	5.9	0.003430	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	30	31.3	0.018198	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	40	-0.1	-0.000058	±2.5	PASS
Band66	20MHz	16QAM	132072	6RB#0	NV	50	1.8	0.001047	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	-30	-33.6	-0.019255	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	-20	-4.2	-0.002407	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	-10	4	0.002292	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	0	-16.2	-0.009284	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	10	21.8	0.012493	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	20	6.9	0.003954	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	30	0.4	0.000229	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	40	-17.8	-0.010201	±2.5	PASS
Band66	20MHz	16QAM	132322	6RB#0	NV	50	-34.5	-0.019771	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	-30	-27	-0.015254	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	-20	33.7	0.019040	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	-10	11.2	0.006328	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	0	-25.7	-0.014520	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	10	1.5	0.000847	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	20	33.3	0.018814	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	30	29.4	0.016610	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	40	-32.5	-0.018362	±2.5	PASS
Band66	20MHz	16QAM	132572	6RB#0	NV	50	-9.5	-0.005367	±2.5	PASS



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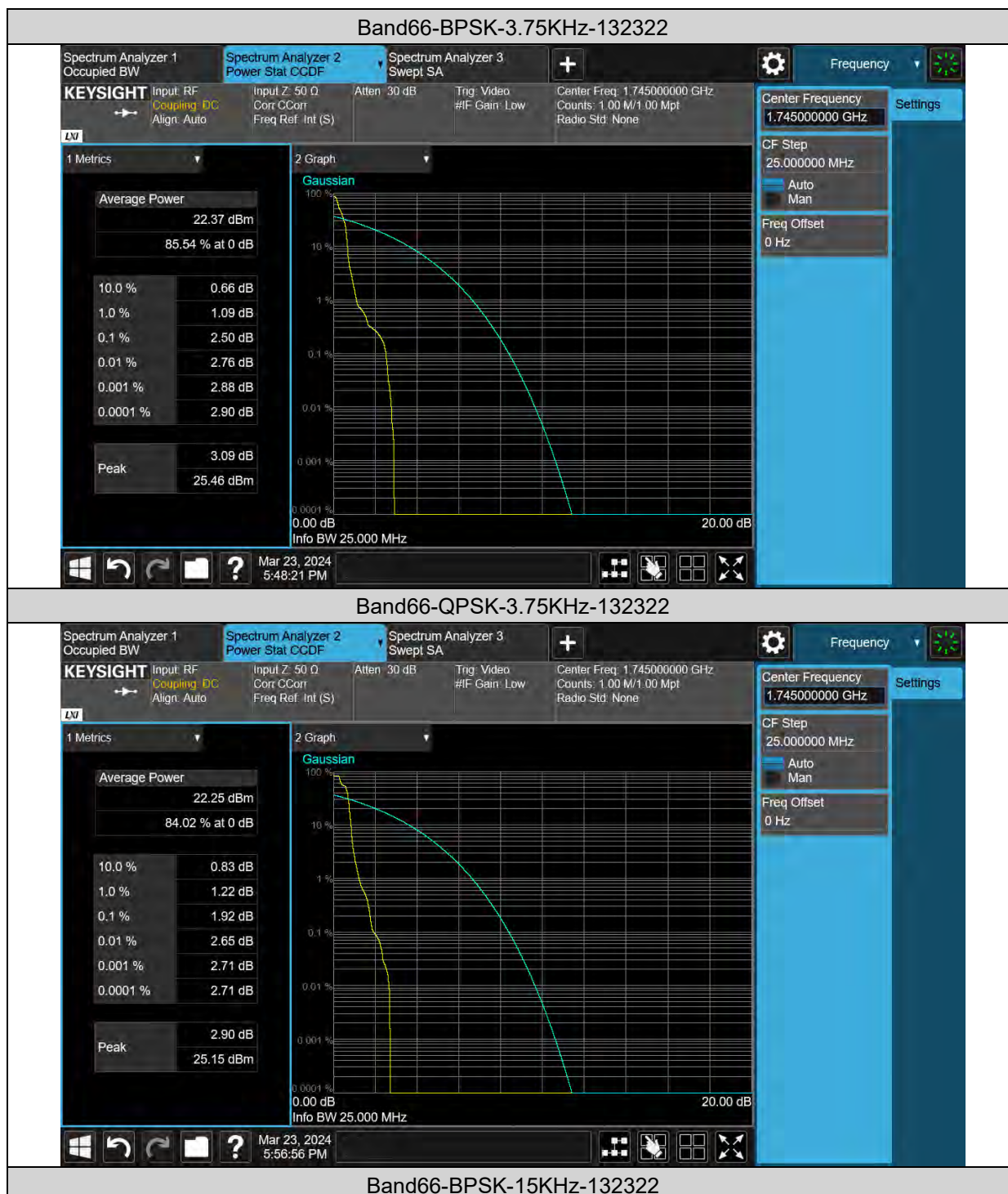
NB-IOT: LTE BAND66(INCLUDING LTE BAND4)

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Modulation	Sub-carrier spacing(KHz)	Channe	Result(dB)	Limit(dB)	Verdict
Band66	BPSK	3.75	132322	2.50	13	PASS
	QPSK	3.75	132322	1.92	13	PASS
	BPSK	15	132322	2.09	13	PASS
	QPSK	15	132322	2.09	13	PASS

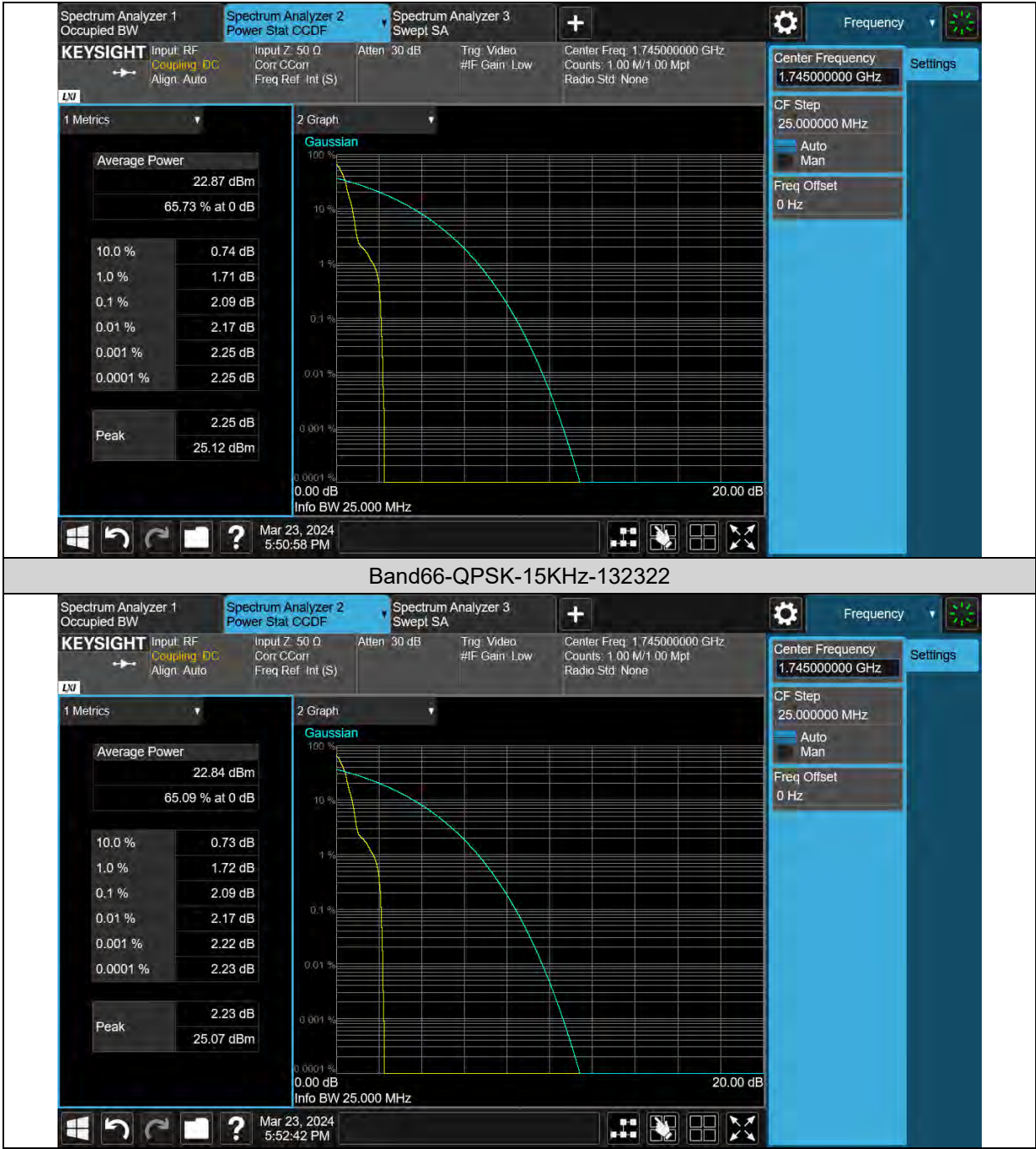
Test Graphs





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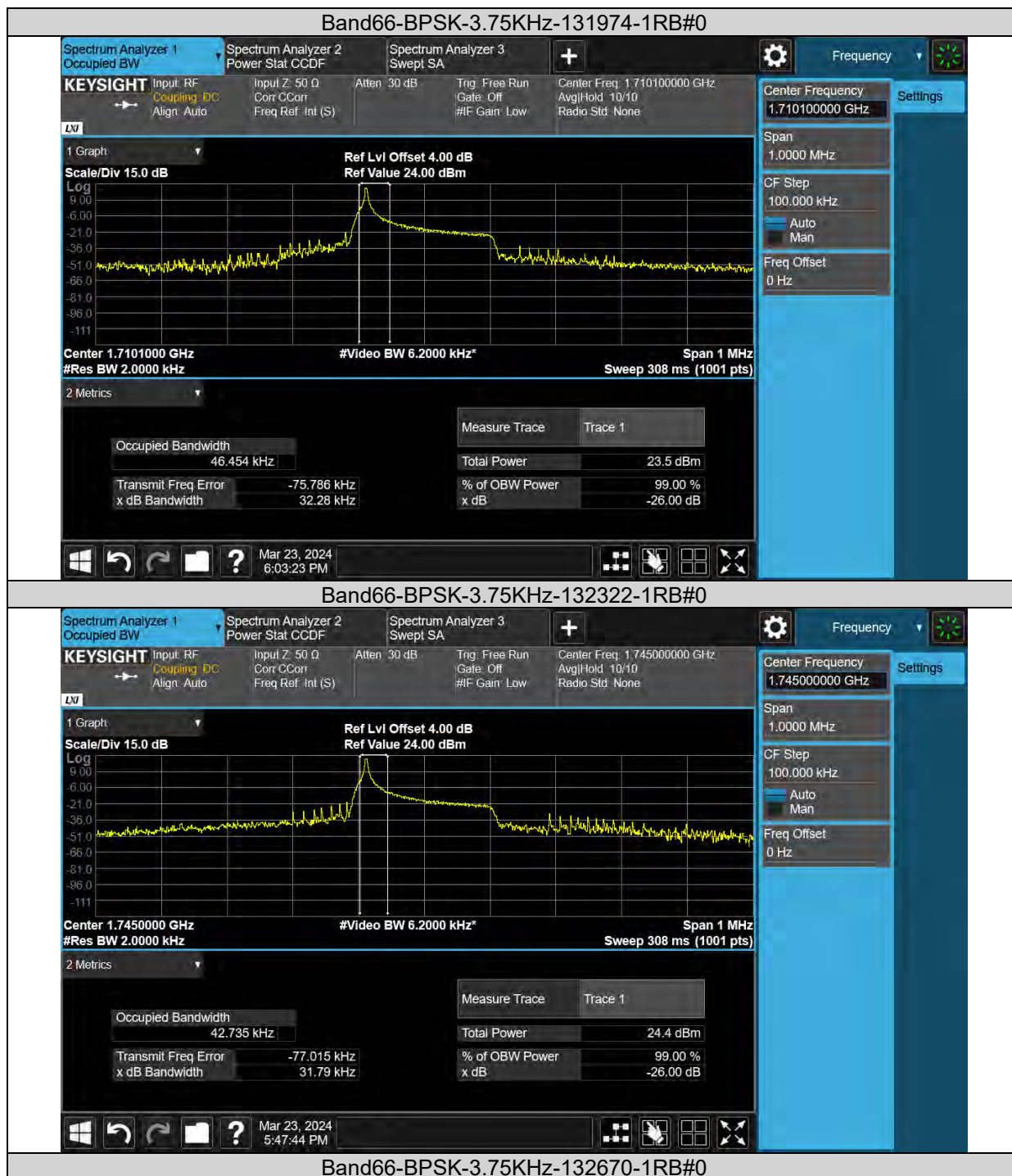


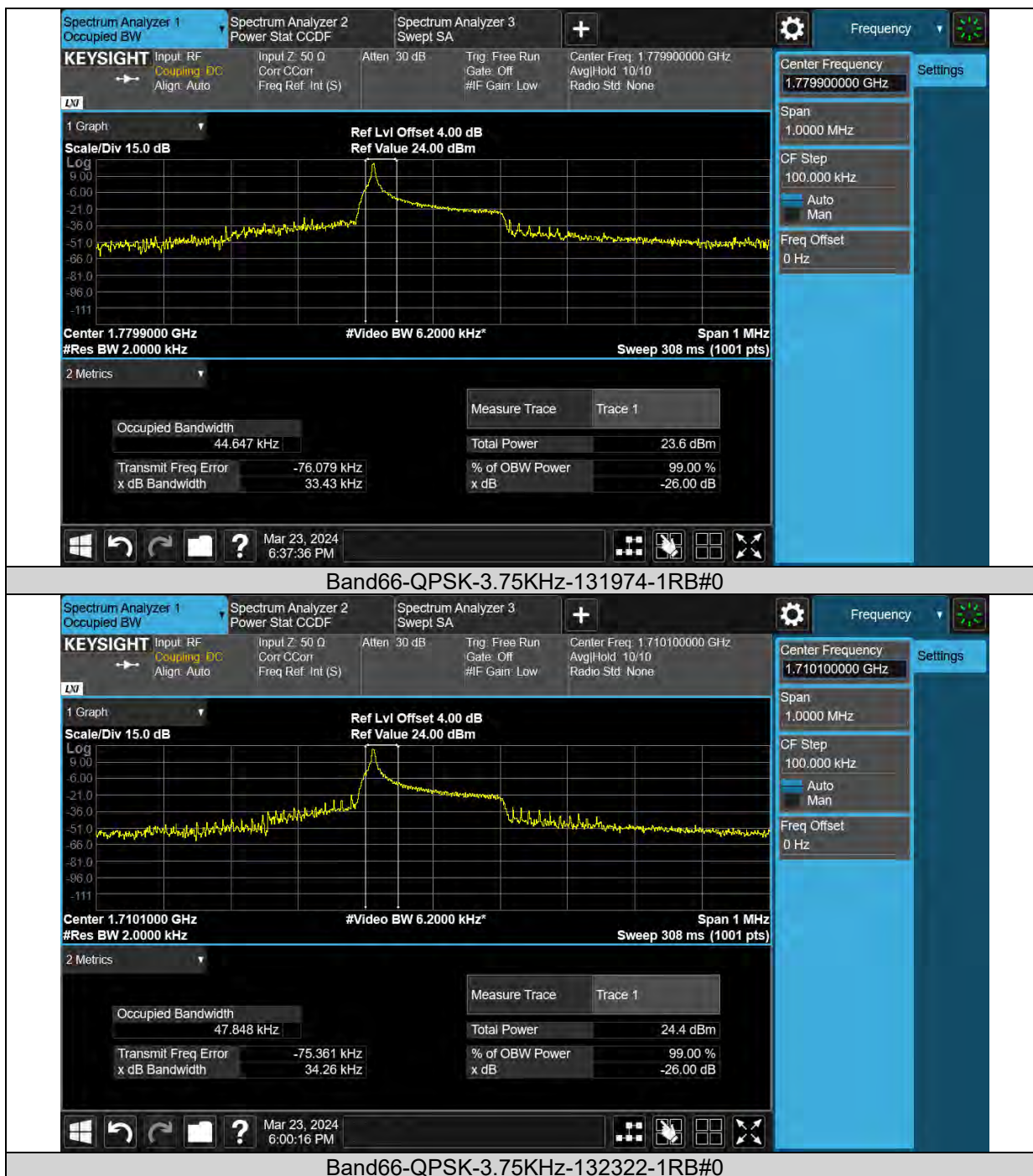
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

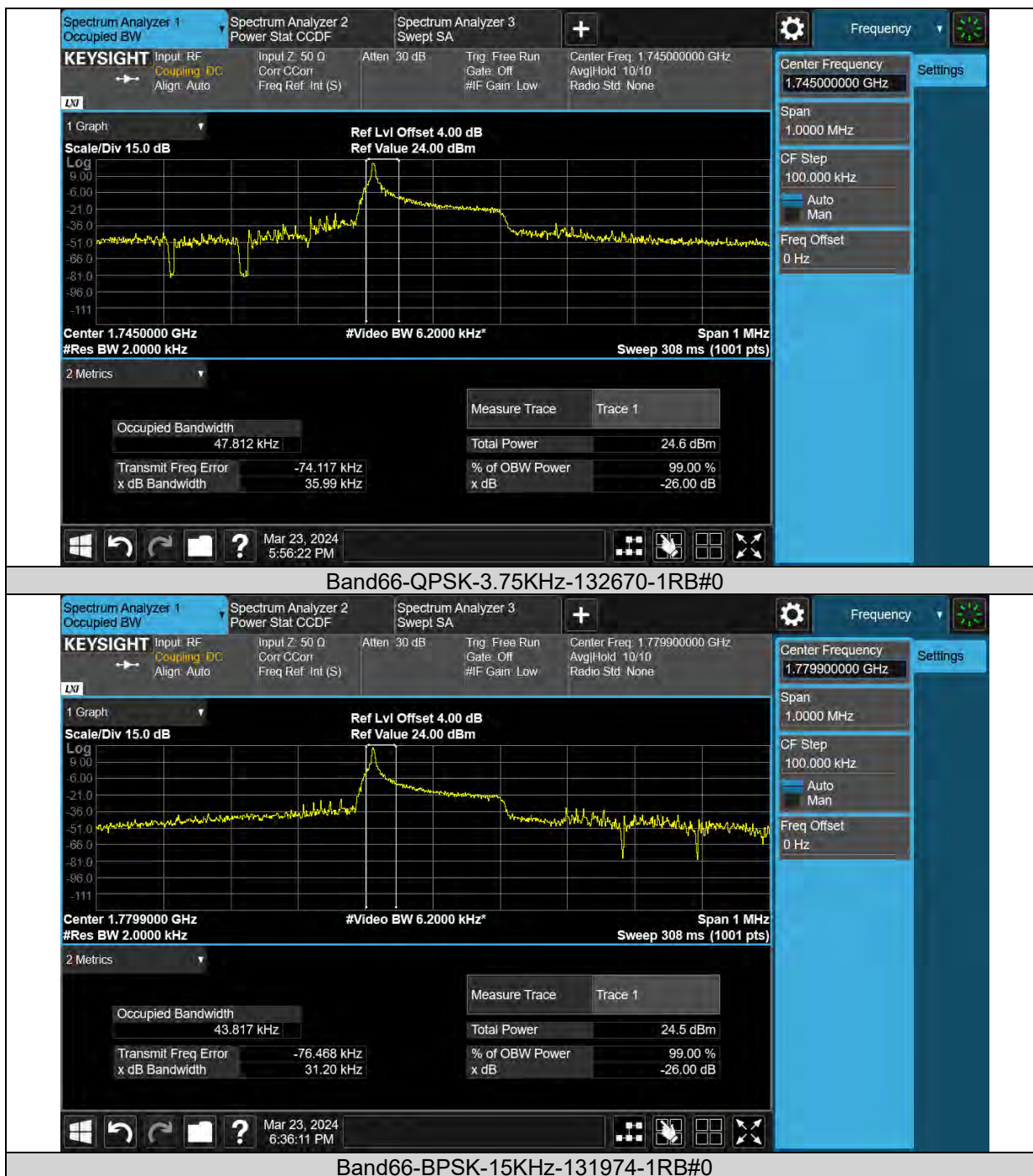
Test Result

Band	Modulation	Sub-carrier spacing(KHz)	Channel	Ntones	Occupied Bandwidth (KHz)	26dB Bandwidth (KHz)	Verdict
Band66	BPSK	3.75	131974	1RB#0	46.454	32.28	PASS
Band66	BPSK	3.75	132322	1RB#0	42.735	31.79	PASS
Band66	BPSK	3.75	132670	1RB#0	44.647	33.43	PASS
Band66	QPSK	3.75	131974	1RB#0	47.848	34.26	PASS
Band66	QPSK	3.75	132322	1RB#0	47.812	35.99	PASS
Band66	QPSK	3.75	132670	1RB#0	43.817	31.20	PASS
Band66	BPSK	15	131974	1RB#0	122.25	103.2	PASS
Band66	BPSK	15	132322	1RB#0	101.82	88.18	PASS
Band66	BPSK	15	132670	1RB#0	108.80	101.2	PASS
Band66	QPSK	15	131974	1RB#0	122.25	103.2	PASS
Band66	QPSK	15	132322	1RB#0	101.82	88.18	PASS
Band66	QPSK	15	132670	1RB#0	108.80	101.2	PASS
Band66	QPSK	15	131974	12RB#0	191.25	202.5	PASS
Band66	QPSK	15	132322	12RB#0	189.37	202.3	PASS
Band66	QPSK	15	132670	12RB#0	189.71	201.8	PASS

Test Graphs



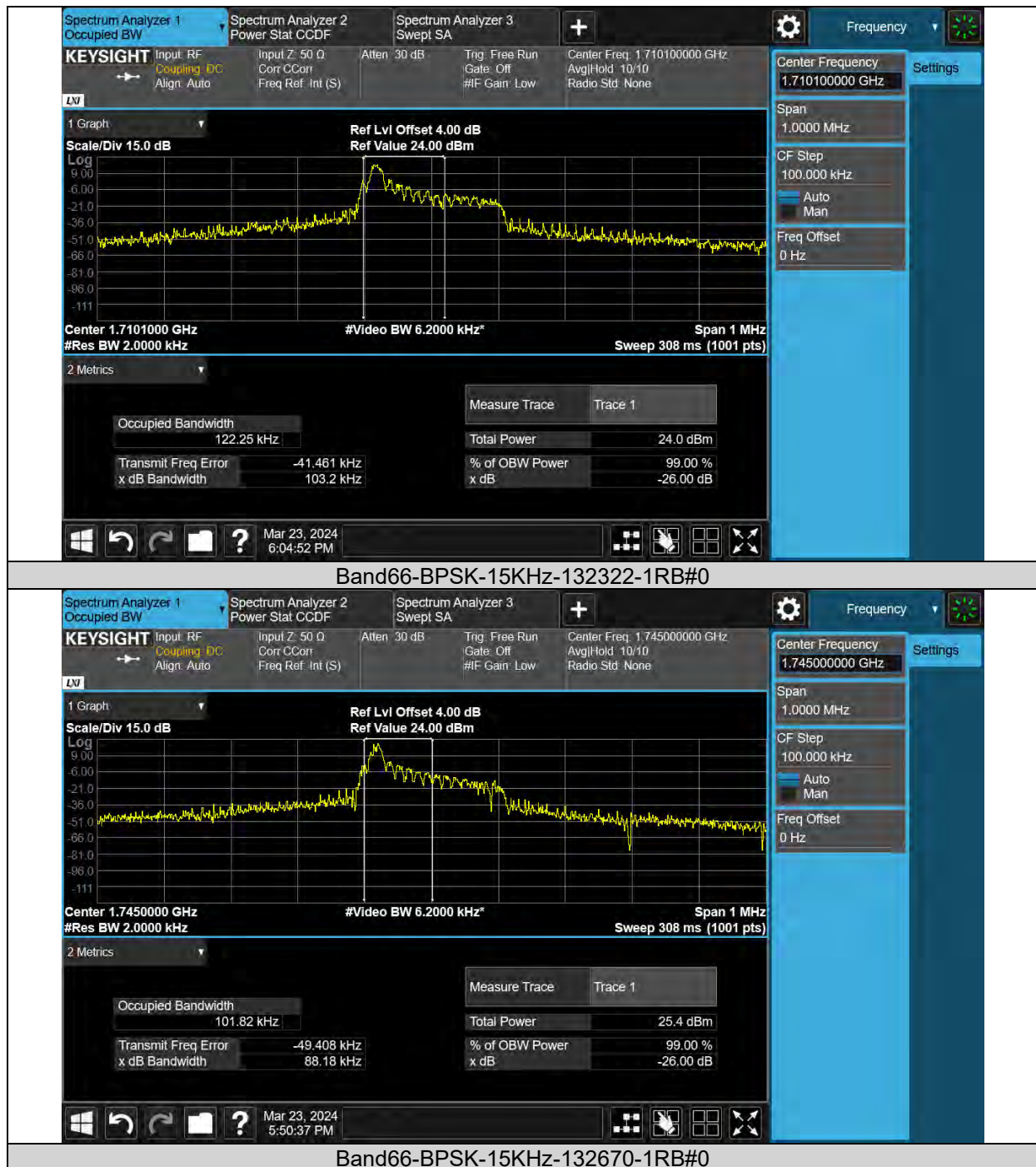


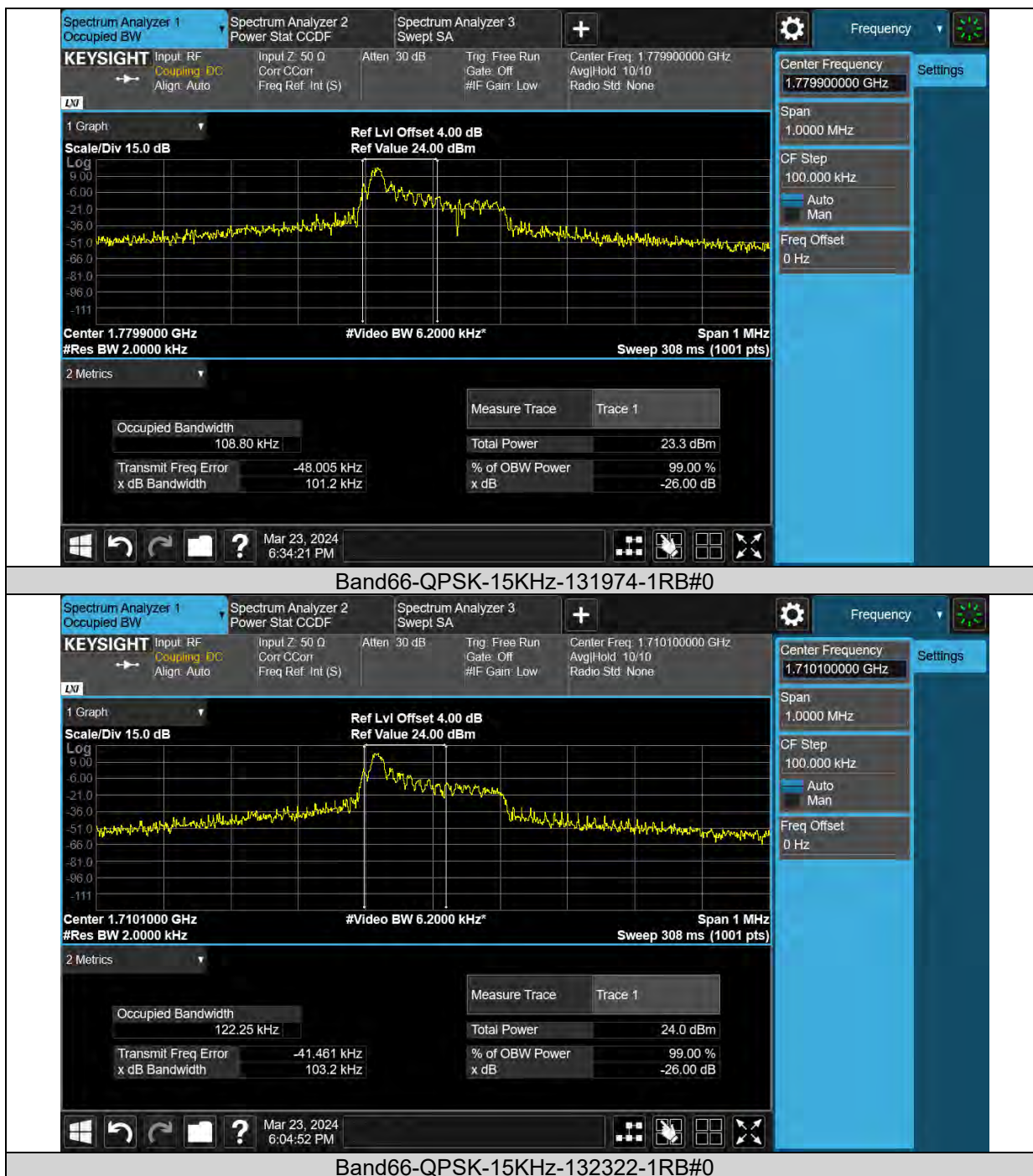




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Test Report No.: W7L-240204W001RF04

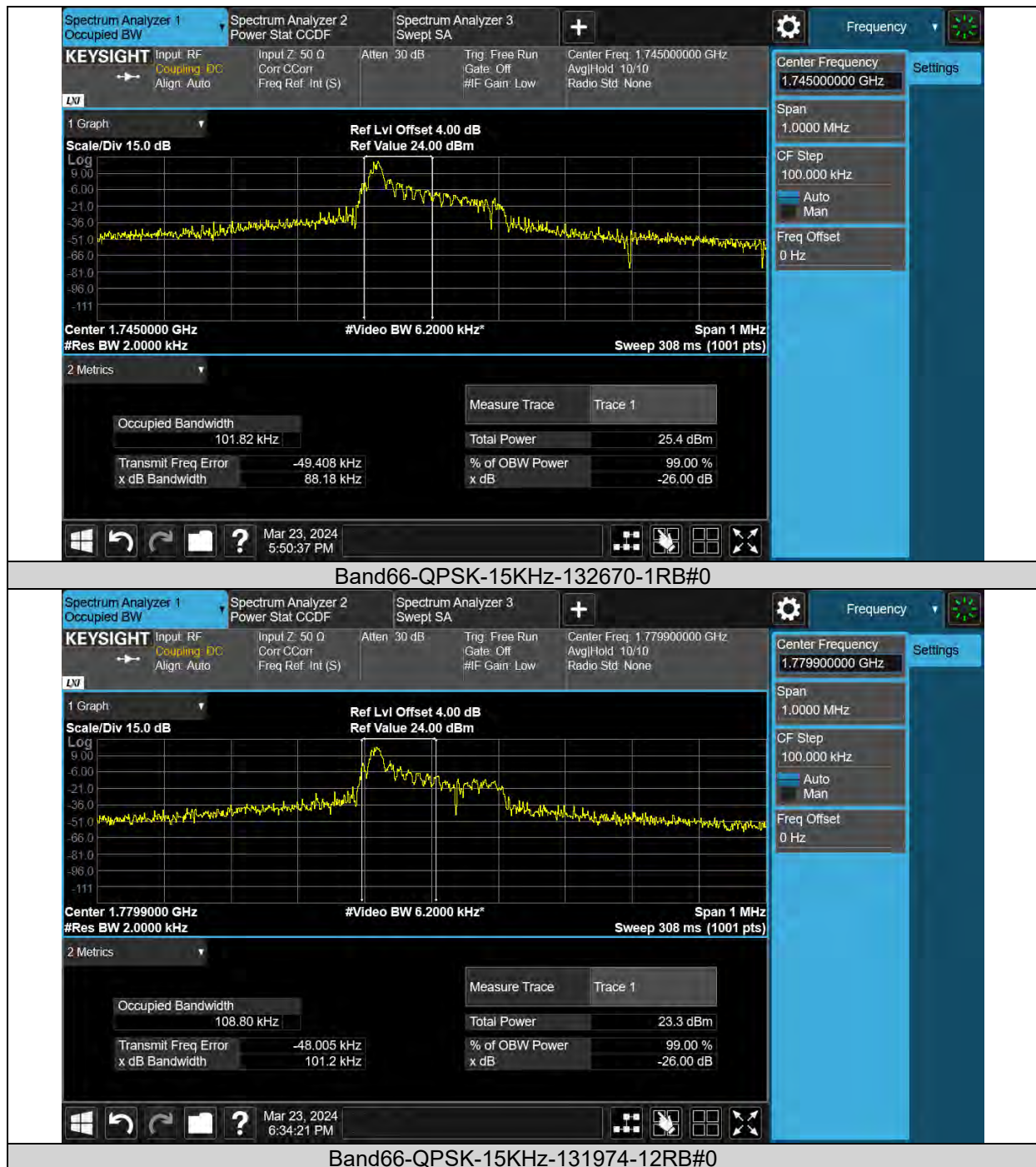


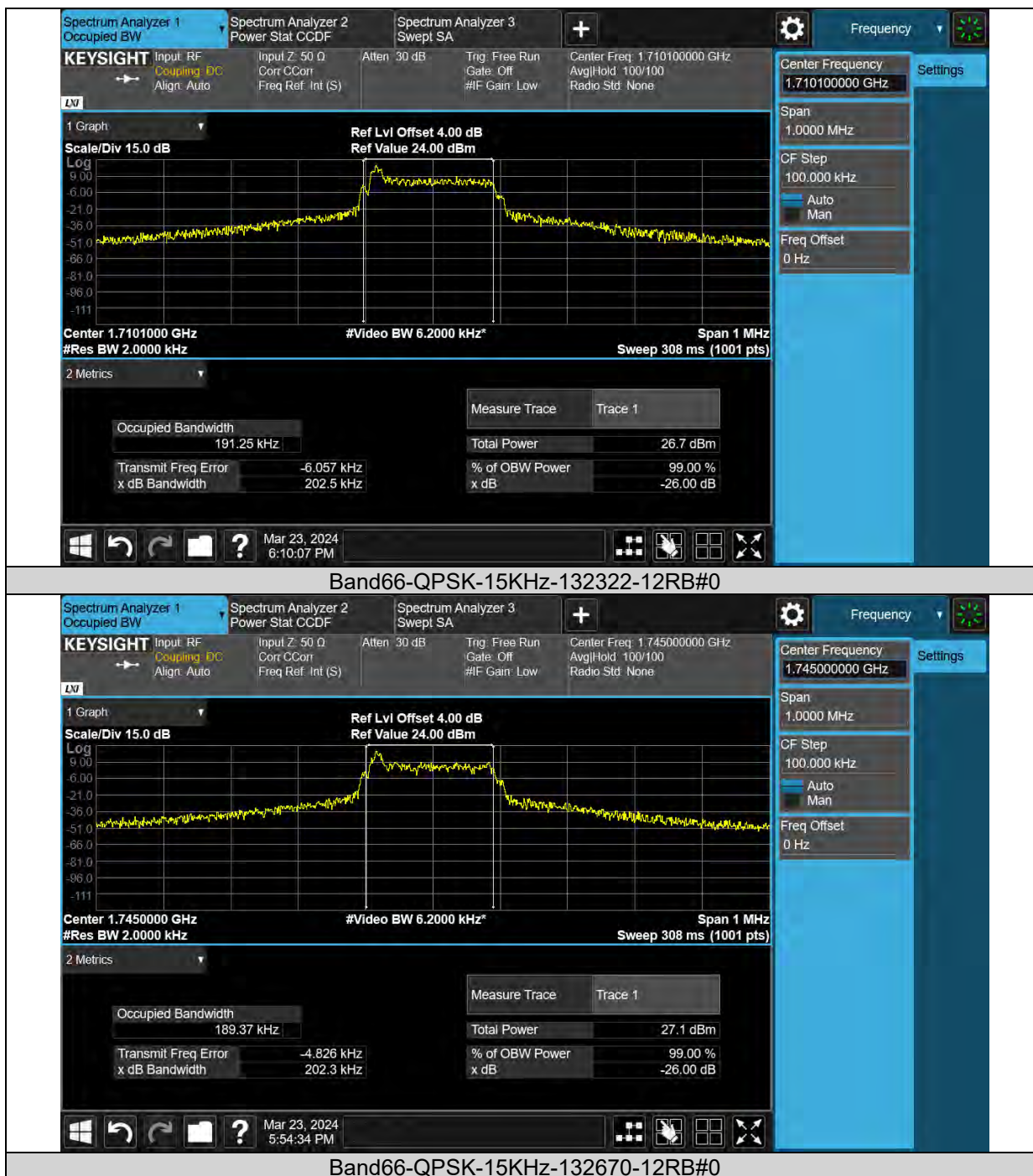


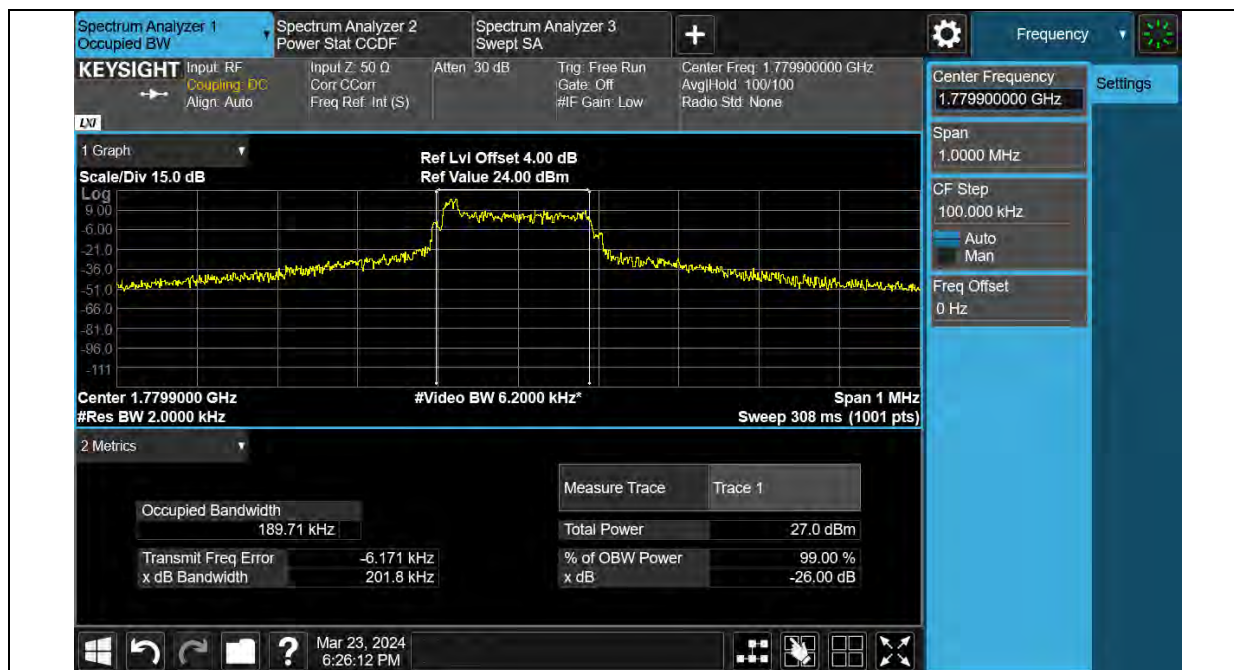


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Test Report No.: W7L-240204W001RF04





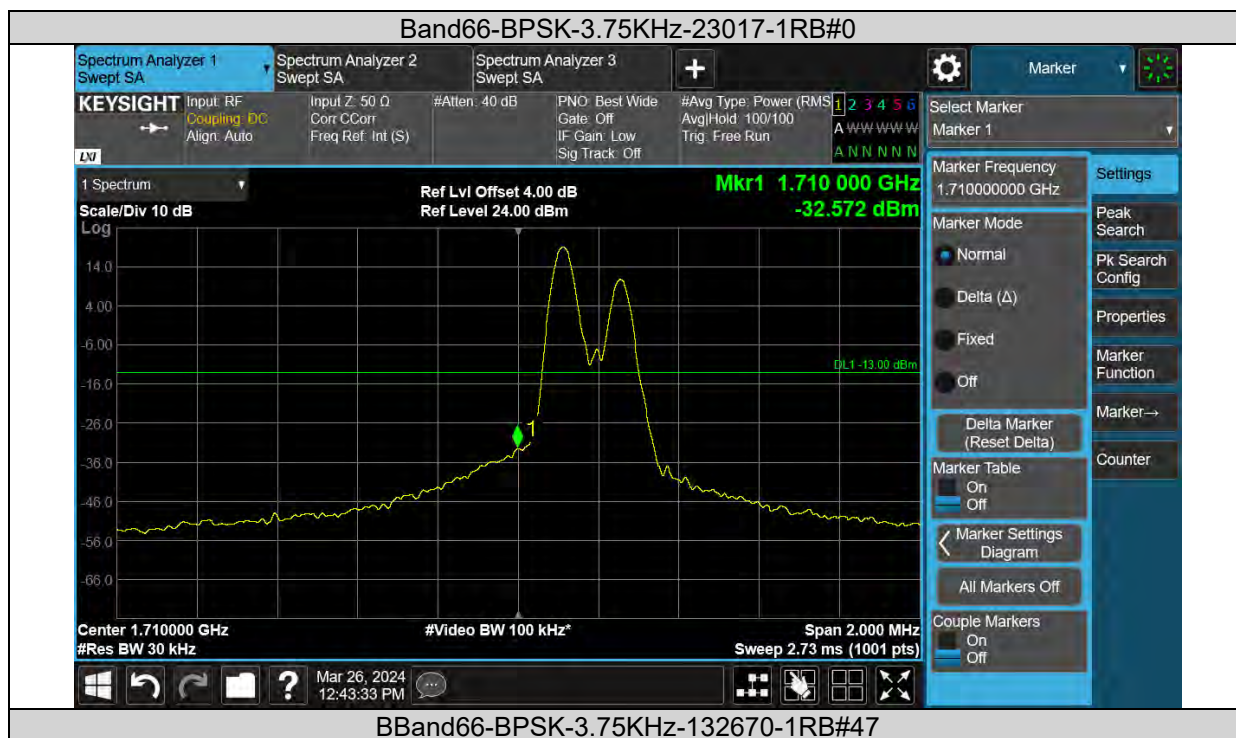


BAND EDGE

Test Result

Band	Modulation	Sub-carrier spacing(KHz)	Channel	Ntones	Result(dBm)	Verdict
Band66	BPSK	3.75	131974	1RB#0	See Graph	PASS
Band66	BPSK	3.75	132670	1RB#47	See Graph	PASS
Band66	QPSK	3.75	131974	1RB#0	See Graph	PASS
Band66	QPSK	3.75	132670	1RB#47	See Graph	PASS
Band66	BPSK	15	131974	1RB#0	See Graph	PASS
Band66	BPSK	15	132670	1RB#11	See Graph	PASS
Band66	QPSK	15	131974	1RB#0	See Graph	PASS
Band66	QPSK	15	132670	1RB#11	See Graph	PASS
Band66	QPSK	15	131974	12RB#0	See Graph	PASS
Band66	QPSK	15	132670	12RB#0	See Graph	PASS

Test Graphs





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Test Report No.: W7L-240204W001RF04





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Test Report No.: W7L-240204W001RF04





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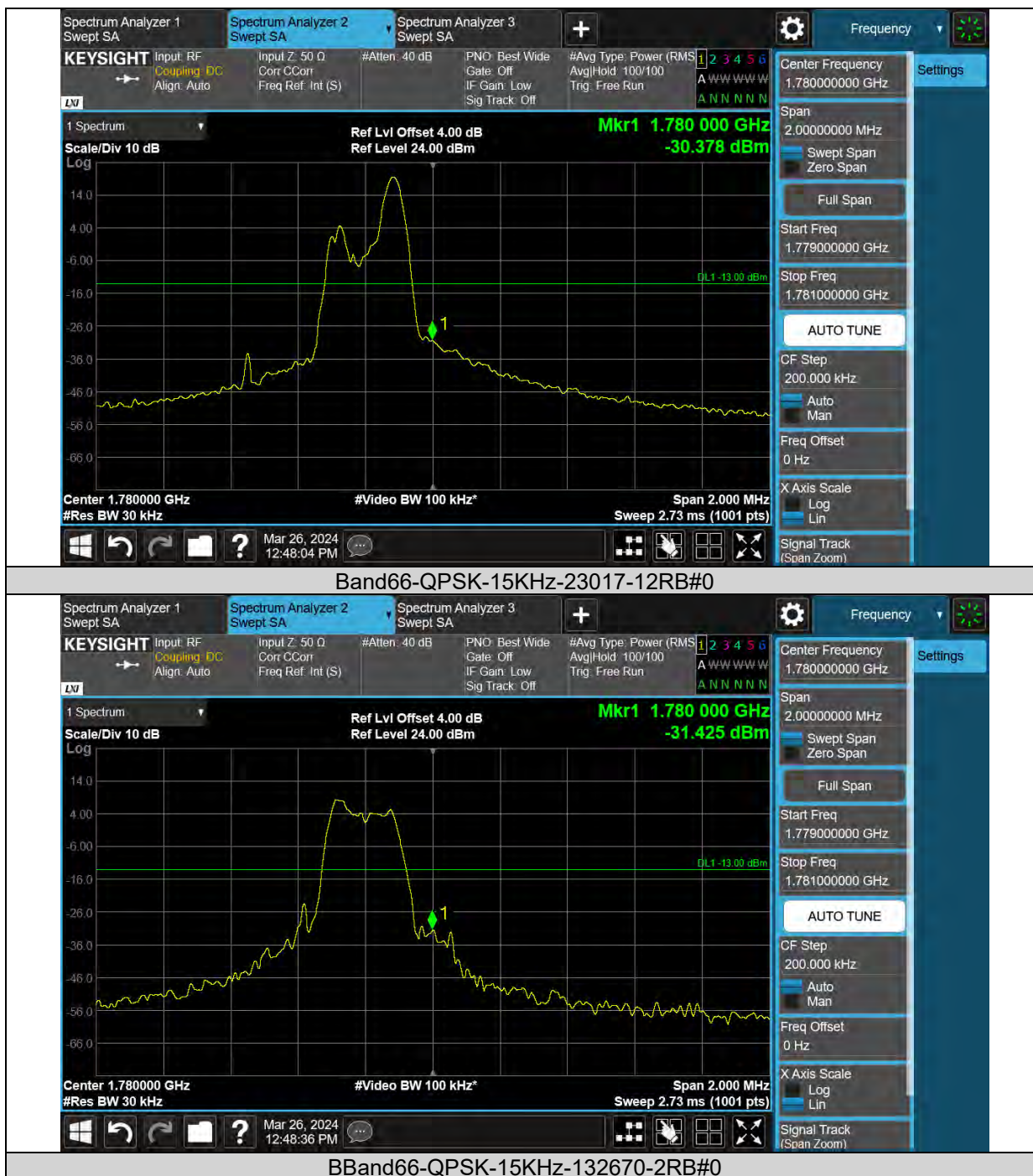
Test Report No.: W7L-240204W001RF04





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Test Report No.: W7L-240204W001RF04





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VERITAS

Test Report No.: W7L-240204W001RF04

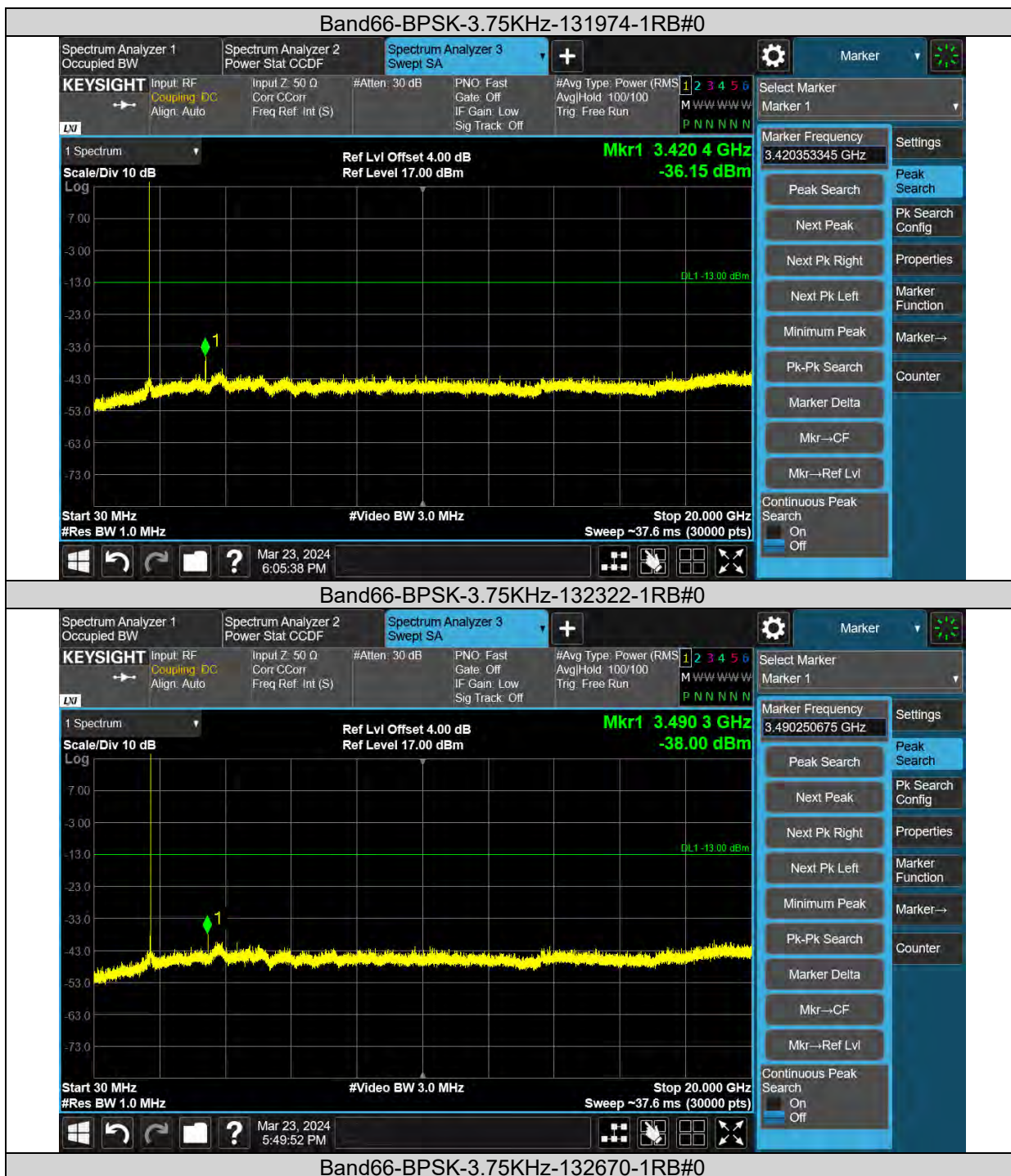


CONDUCTED SPURIOUS EMISSION

Test Result

Band	Modulation	Sub-carrier spacing(KHz)	Channel	Ntones	Frequency Range	Result (dBm)	Verdict
Band66	BPSK	3.75	131974	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	BPSK	3.75	132322	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	BPSK	3.75	132670	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	3.75	131974	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	3.75	132322	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	3.75	132670	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	BPSK	15	131974	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	BPSK	15	132322	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	BPSK	15	132670	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	131974	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	132322	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	132670	1RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	131974	12RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	132322	12RB#0	Range:30M~20000M	See Graph	PASS
Band66	QPSK	15	132670	12RB#0	Range:30M~20000M	See Graph	PASS

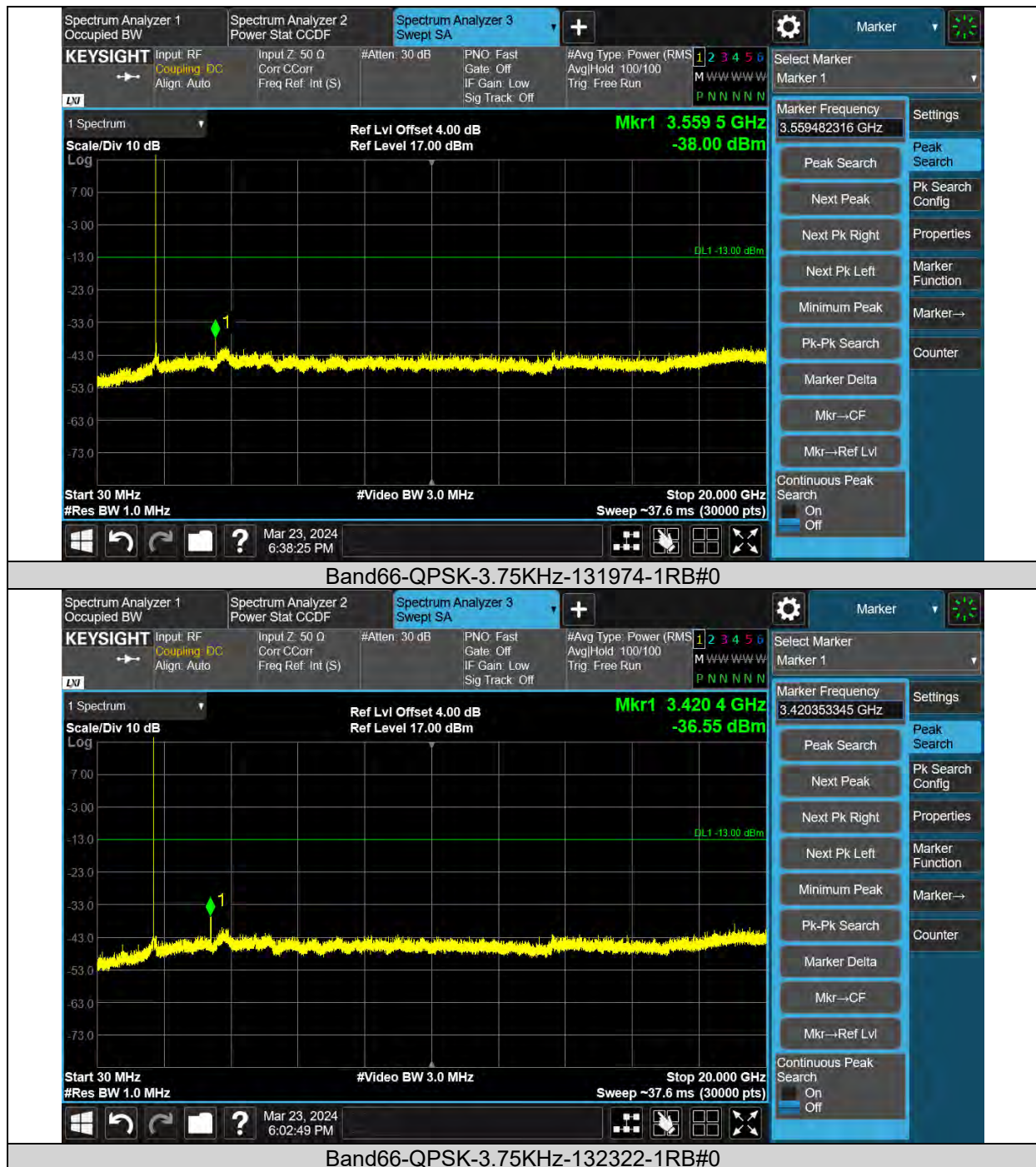
Test Graphs





BUREAU
VERITAS

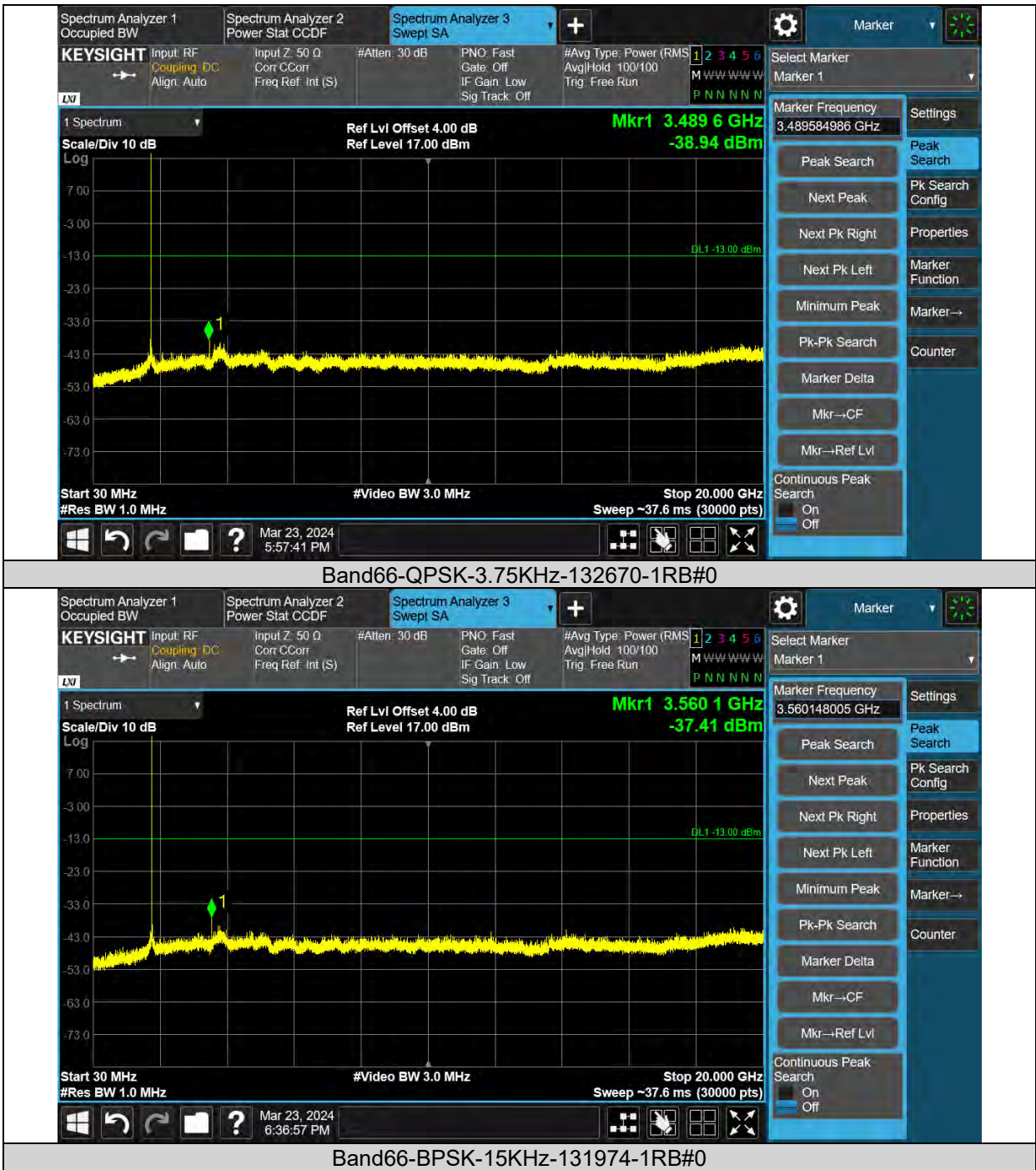
Test Report No.: W7L-240204W001RF04





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VERITAS

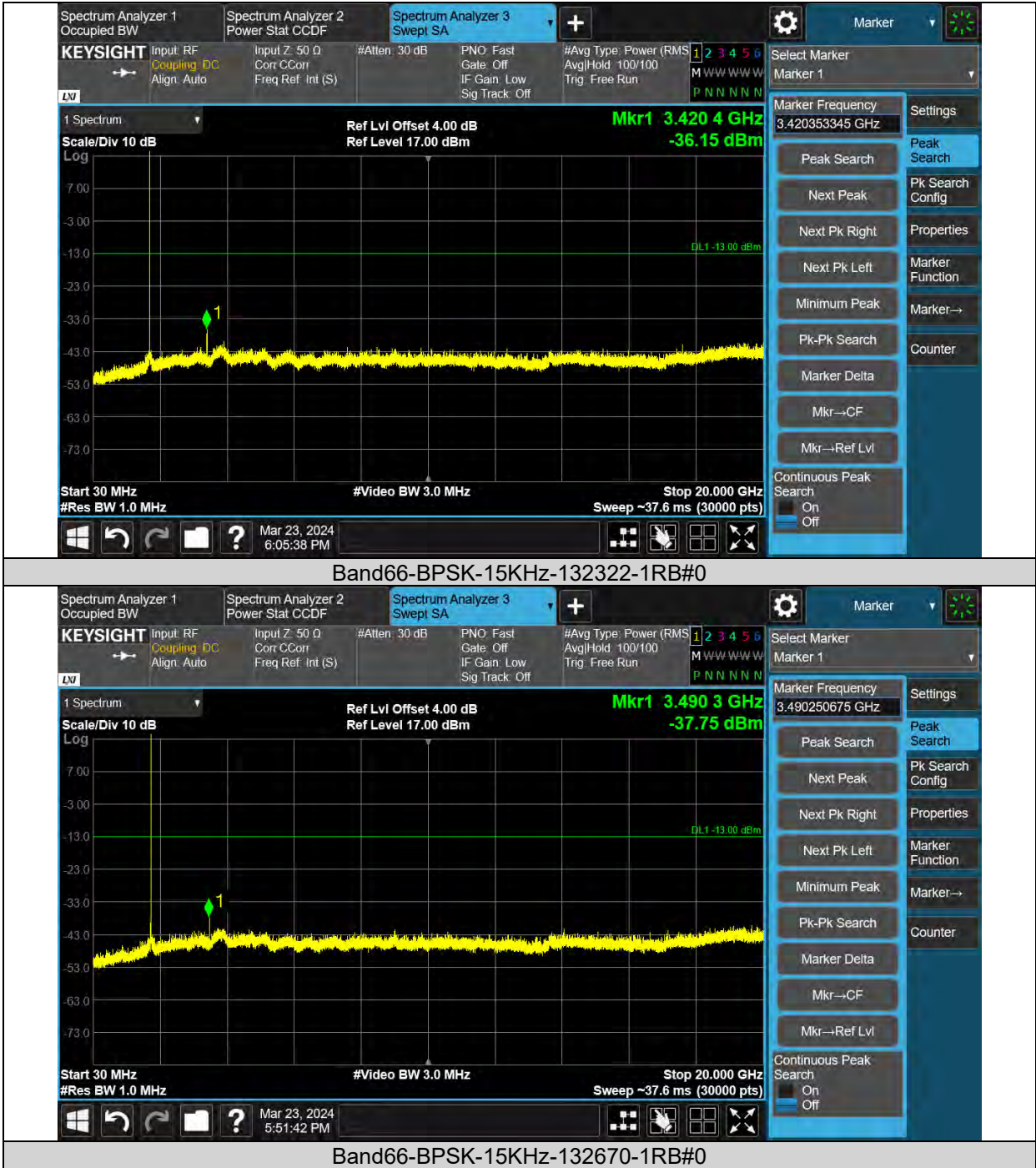
Test Report No.: W7L-240204W001RF04





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VERITAS

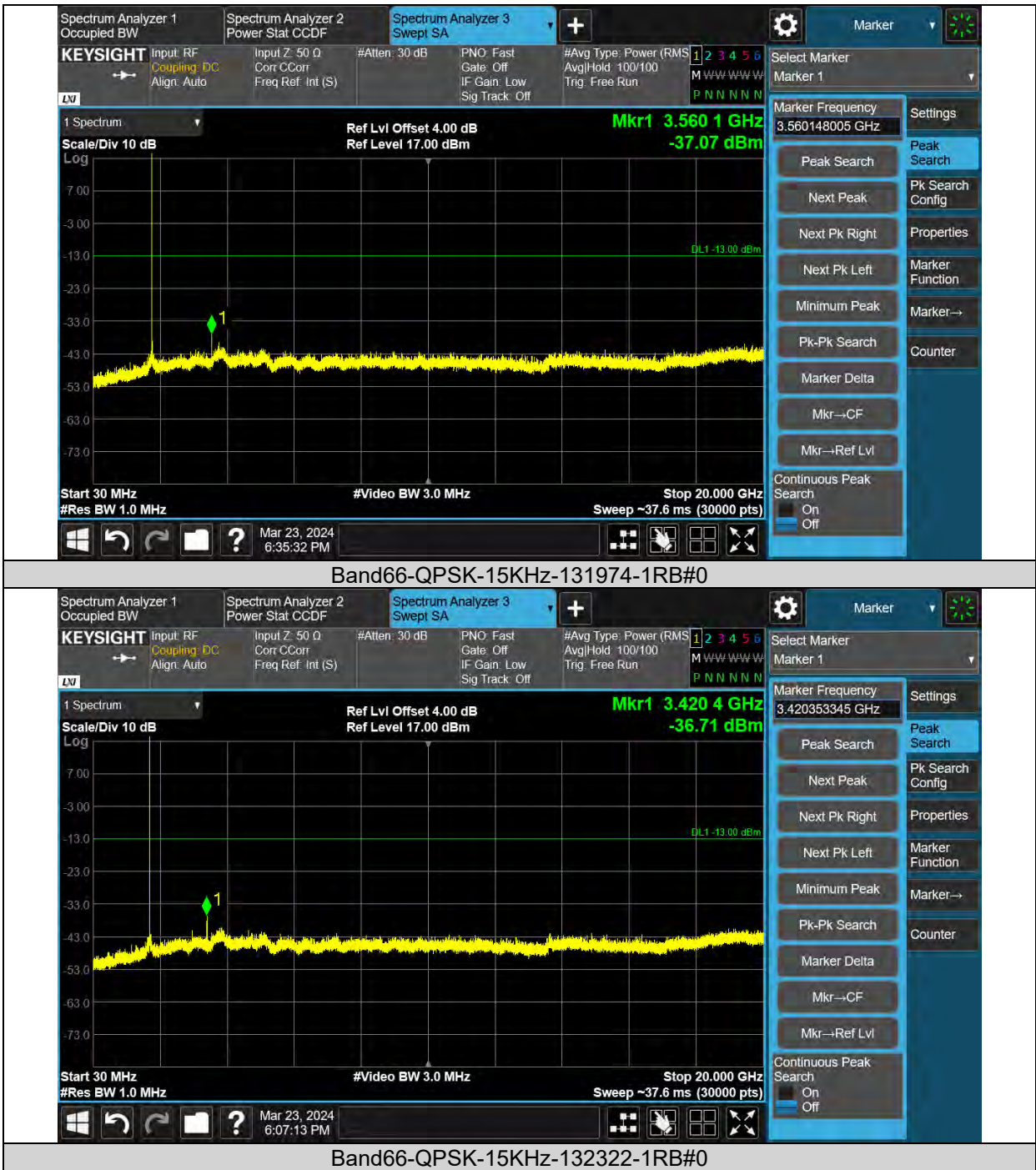
Test Report No.: W7L-240204W001RF04

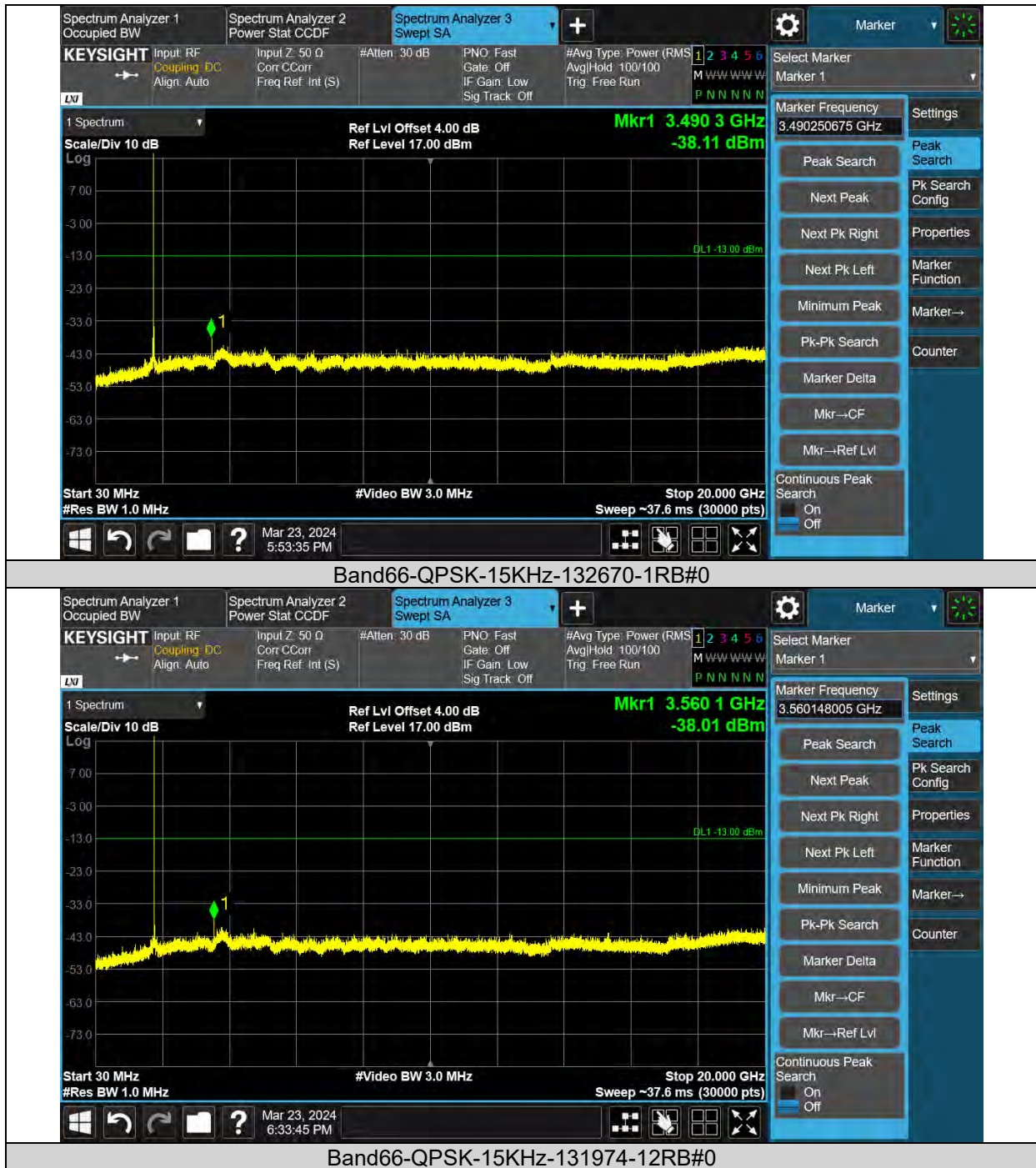




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VERITAS

Test Report No.: W7L-240204W001RF04

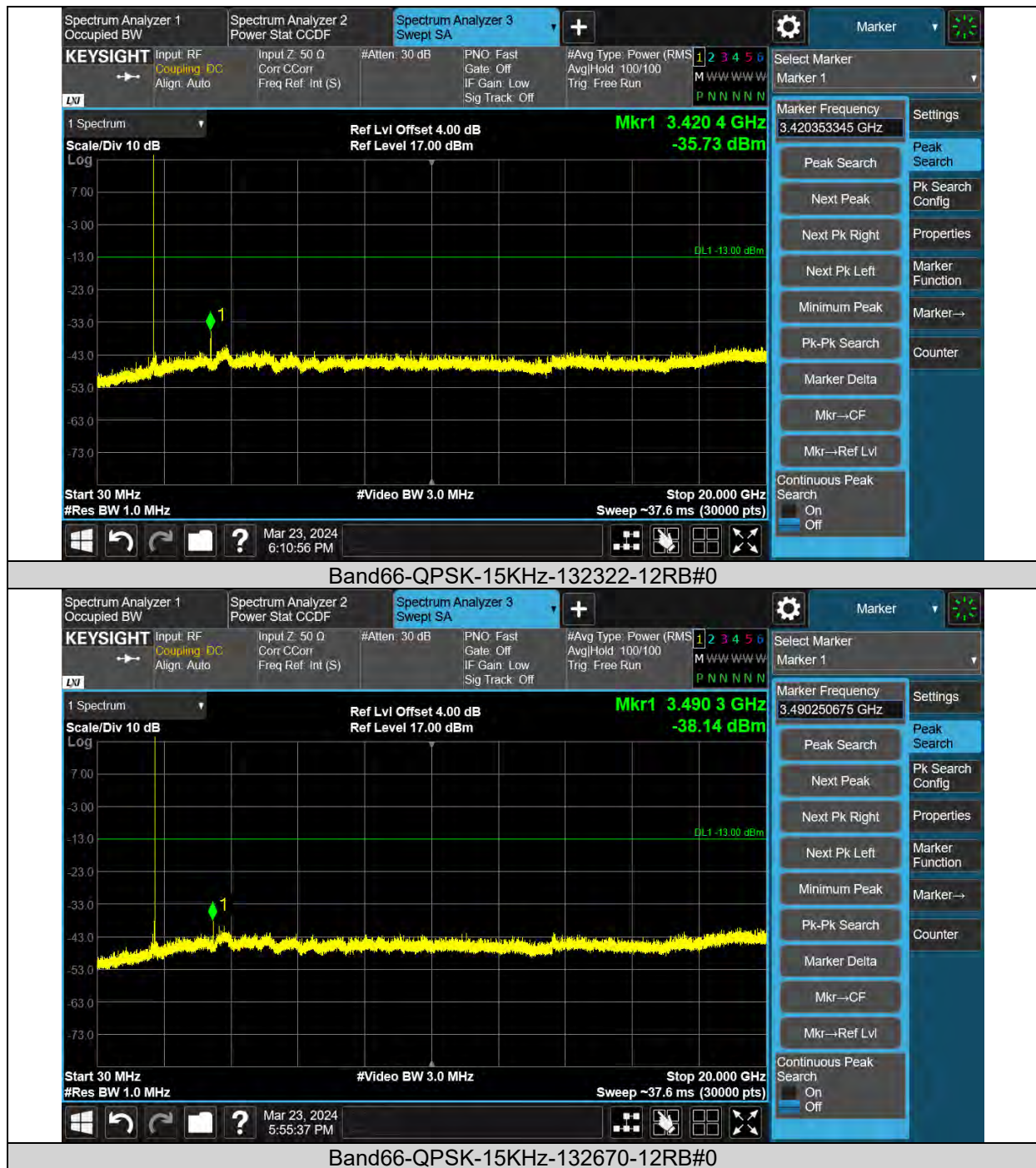






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Test Report No.: W7L-240204W001RF04





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Test Report No.: W7L-240204W001RF04



FREQUENCY STABILITY

Test Result

Voltage								
Band	Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	QPSK	132322	VL	NT	11.4	0.006628	±2.5	PASS
Band66	QPSK	132322	VN	NT	33.8	0.019651	±2.5	PASS
Band66	QPSK	132322	VH	NT	-29.5	-0.017151	±2.5	PASS
Band66	BPSK	132322	VL	NT	-26.7	-0.015301	±2.5	PASS
Band66	BPSK	132322	VN	NT	-17.8	-0.010201	±2.5	PASS
Band66	BPSK	132322	VH	NT	-28.7	-0.016447	±2.5	PASS

Temperature								
Band	Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	QPSK	132322	NV	-30	13.5	0.007849	±2.5	PASS
Band66	QPSK	132322	NV	-20	-5.3	-0.003081	±2.5	PASS
Band66	QPSK	132322	NV	-10	22.3	0.012965	±2.5	PASS
Band66	QPSK	132322	NV	0	-32	-0.018605	±2.5	PASS
Band66	QPSK	132322	NV	10	-5.6	-0.003256	±2.5	PASS
Band66	QPSK	132322	NV	20	16.7	0.009709	±2.5	PASS
Band66	QPSK	132322	NV	30	4.9	0.002849	±2.5	PASS
Band66	QPSK	132322	NV	40	-7.3	-0.004244	±2.5	PASS
Band66	QPSK	132322	NV	50	5.7	0.003314	±2.5	PASS
Band66	BPSK	132322	NV	-30	3.4	0.001948	±2.5	PASS
Band66	BPSK	132322	NV	-20	8.5	0.004871	±2.5	PASS
Band66	BPSK	132322	NV	-10	-4.4	-0.002521	±2.5	PASS
Band66	BPSK	132322	NV	0	2.6	0.001490	±2.5	PASS
Band66	BPSK	132322	NV	10	15.9	0.009112	±2.5	PASS
Band66	BPSK	132322	NV	20	-25.6	-0.014670	±2.5	PASS
Band66	BPSK	132322	NV	30	-11.1	-0.006361	±2.5	PASS
Band66	BPSK	132322	NV	40	-25.9	-0.014842	±2.5	PASS
Band66	BPSK	132322	NV	50	-15.3	-0.008768	±2.5	PASS

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