



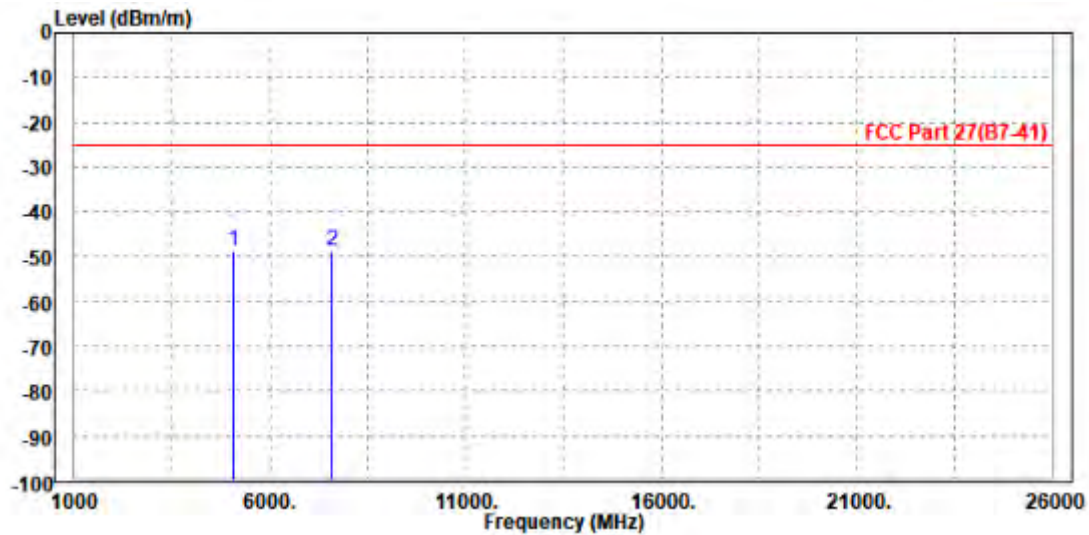
BUREAU
VERITAS

Test Report No.: W7L-P24050014RF07

CHANNEL BANDWIDTH: 20MHz / QPSK

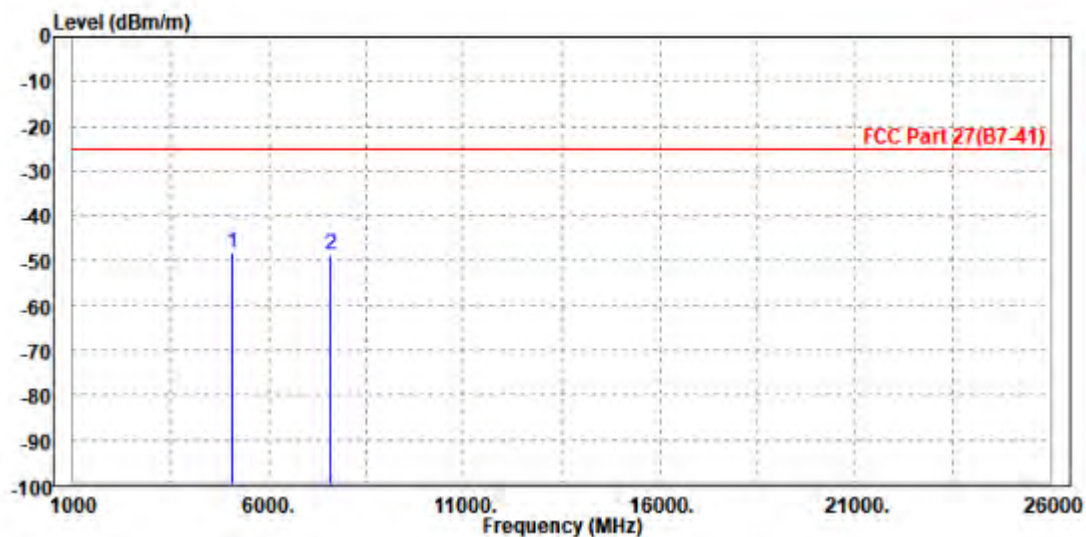
MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	5075.000	-48.71	-59.88	-25.00	-23.71	11.17	Peak	Horizontal
2		7605.000	-48.73	-63.25	-25.00	-23.73	14.52	Peak	Horizontal



MODE	TX channel 21100	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 5070.000	-48.18	-59.69	-25.00	-23.18	11.51	Peak	Vertical
2	7600.000	-48.70	-62.15	-25.00	-23.70	13.45	Peak	Vertical





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VERITAS**

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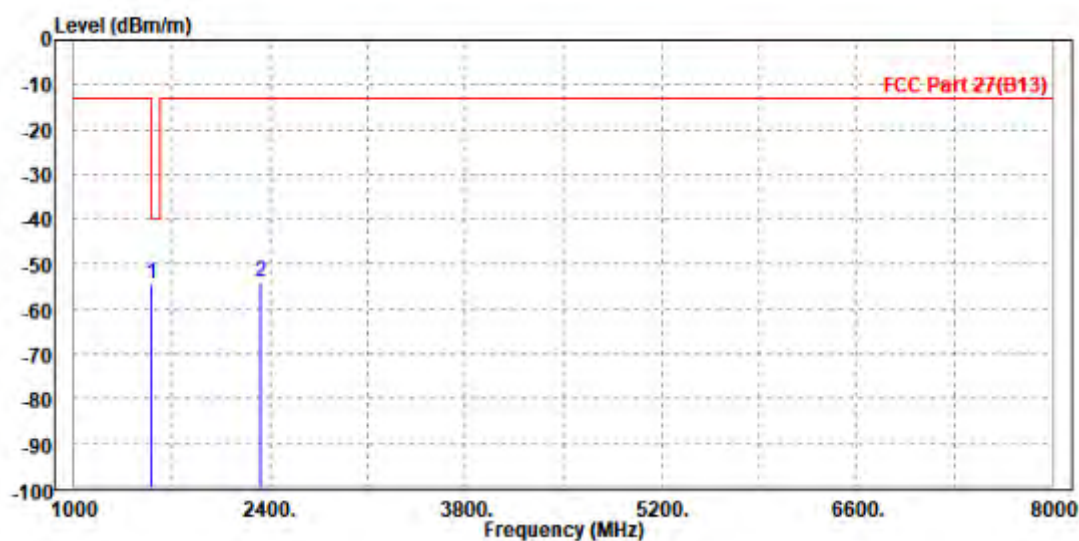
LTE Band 13(Ant1) (DOWN):

CHANNEL BANDWIDTH: 5MHz / QPSK

CH23205

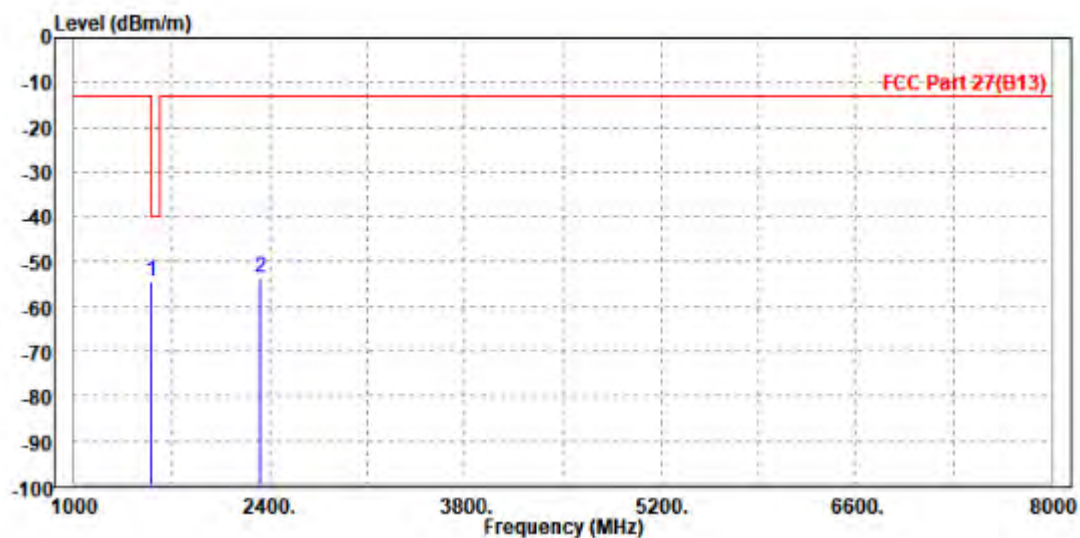
CH10100			
MODE	TX channel 23205	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	1558.000	-54.55	-57.93	-13.00	-41.55	3.38	Peak	Horizontal
2 PP	2337.000	-53.91	-59.57	-13.00	-40.91	5.66	Peak	Horizontal



MODE	TX channel 23205	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1560.000	-54.37	-57.60	-40.00	-14.37	3.23	Peak	Vertical
2	2337.000	-53.79	-58.99	-13.00	-40.79	5.20	Peak	Vertical





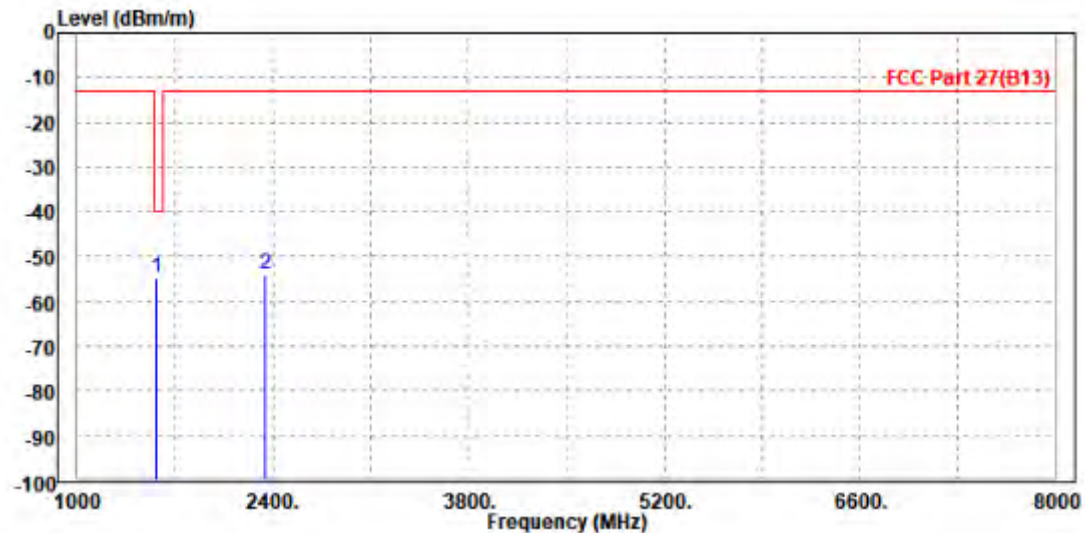
BUREAU
VERITAS

Test Report No.: W7L-P24050014RF07

CH23230

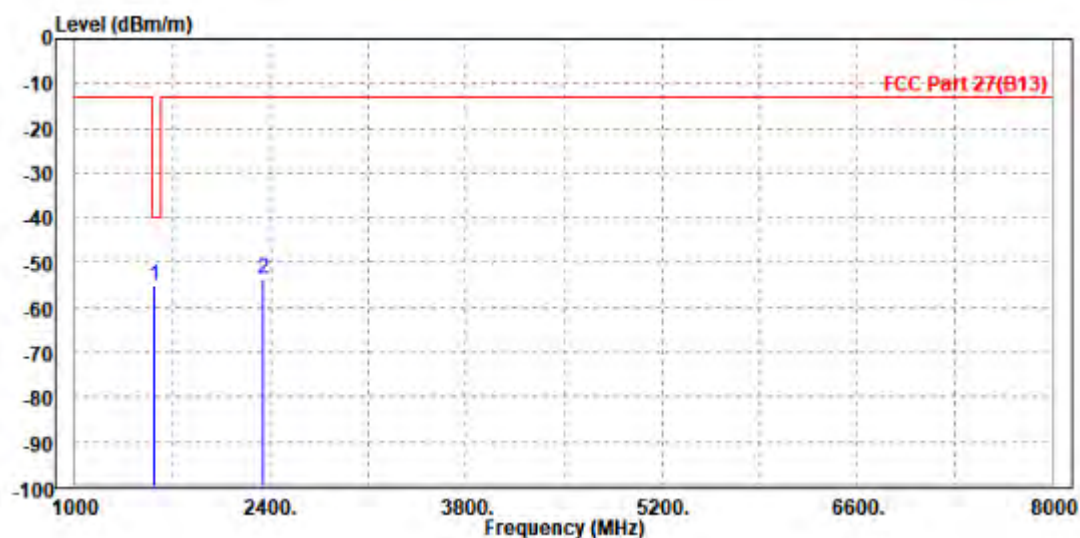
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1564.000	-54.59	-57.99	-40.00	-14.59	3.40	Peak	Horizontal
2		2344.000	-54.04	-59.72	-13.00	-41.04	5.68	Peak	Horizontal



MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1567.000	-55.04	-58.29	-40.00	-15.04	3.25	Peak	Vertical
2		2346.000	-53.53	-58.76	-13.00	-40.53	5.23	Peak	Vertical





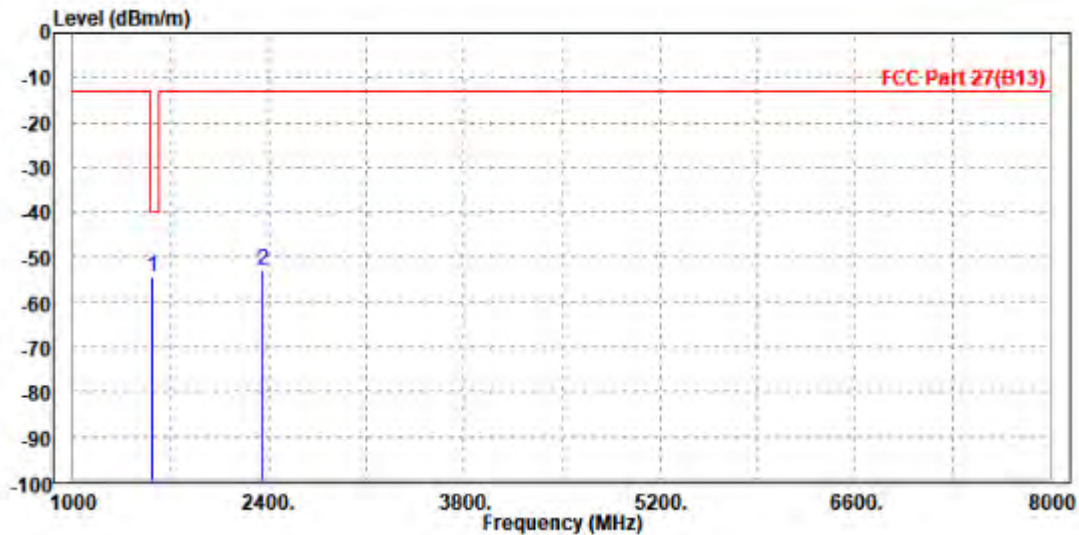
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VERITAS

Test Report No.: W7L-P24050014RF07

CH23255

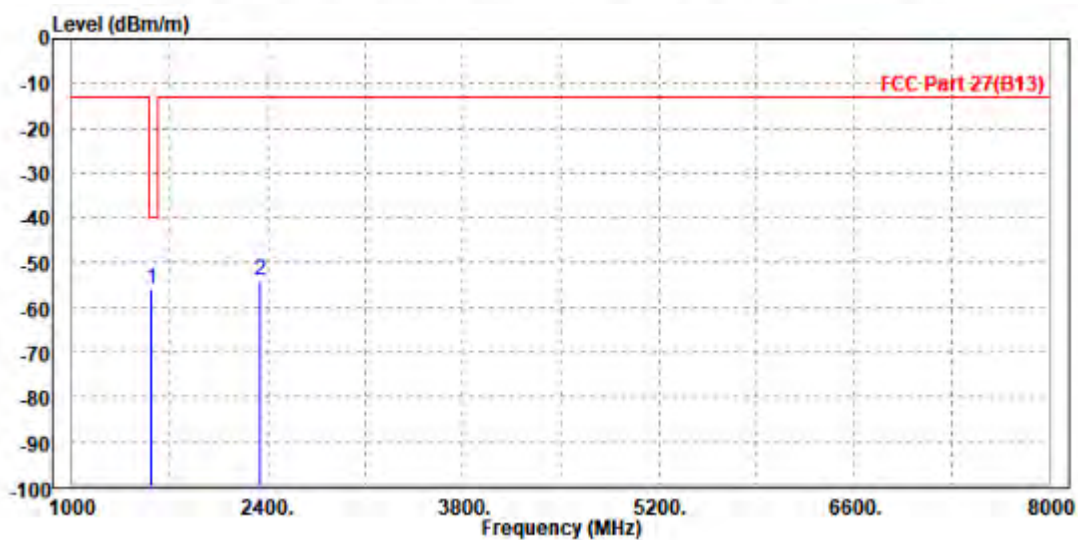
MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1567.000	-54.36	-57.77	-40.00	-14.36	3.41	Peak	Horizontal
2		2353.500	-53.04	-58.74	-13.00	-40.04	5.70	Peak	Horizontal



MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

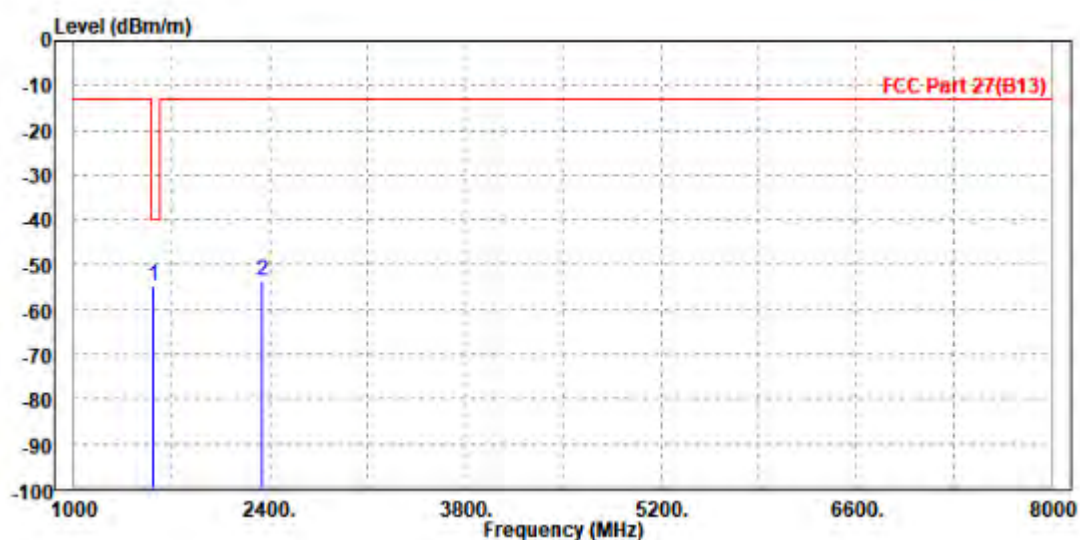
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1569.000	-55.80	-59.05	-40.00	-15.80	3.25	Peak	Vertical
2	2351.000	-53.81	-59.06	-13.00	-40.81	5.25	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz /QPSK

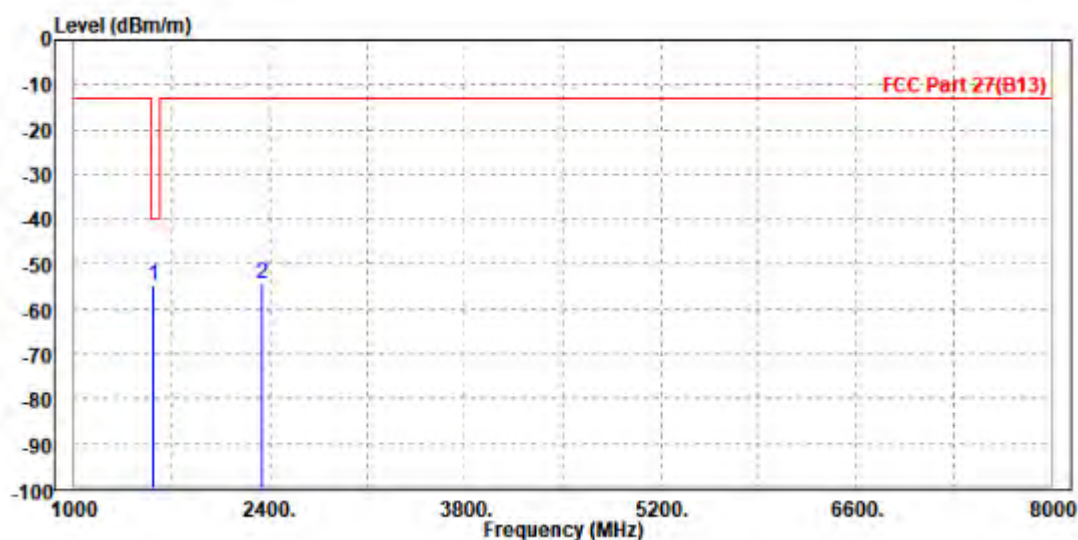
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1564.000	-54.58	-57.98	-40.00	-14.58	3.40	Peak	Horizontal
2		2344.000	-53.54	-59.22	-13.00	-40.54	5.68	Peak	Horizontal



MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1567.000	-54.73	-57.98	-40.00	-14.73	3.25	Peak	Vertical
2	2346.000	-54.45	-59.68	-13.00	-41.45	5.23	Peak	Vertical

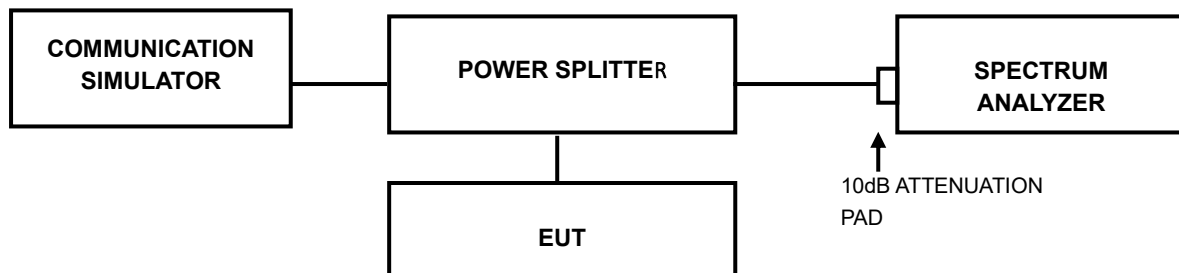


3.7 PEAK TO AVERAGE RATIO

3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

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.

3.7.2 TEST SETUP



3.7.3 TEST PROCEDURES

1. Set resolution/measurement bandwidth $\geq$ signal's occupied bandwidth.
2. Set the number of counts to a value that stabilizes the measured CCDF curve.
3. Record the maximum PAPR level associated with a probability of 0.1%.



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3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



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4 PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



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5 INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Shenzhen EMC/RF Lab:

Tel: +86-755-88696566

Fax: +86-755-88696577

Email: customerservice.sw@cn.bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.



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6 MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications are made to the EUT by the lab during the test.



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7 APPENDIX

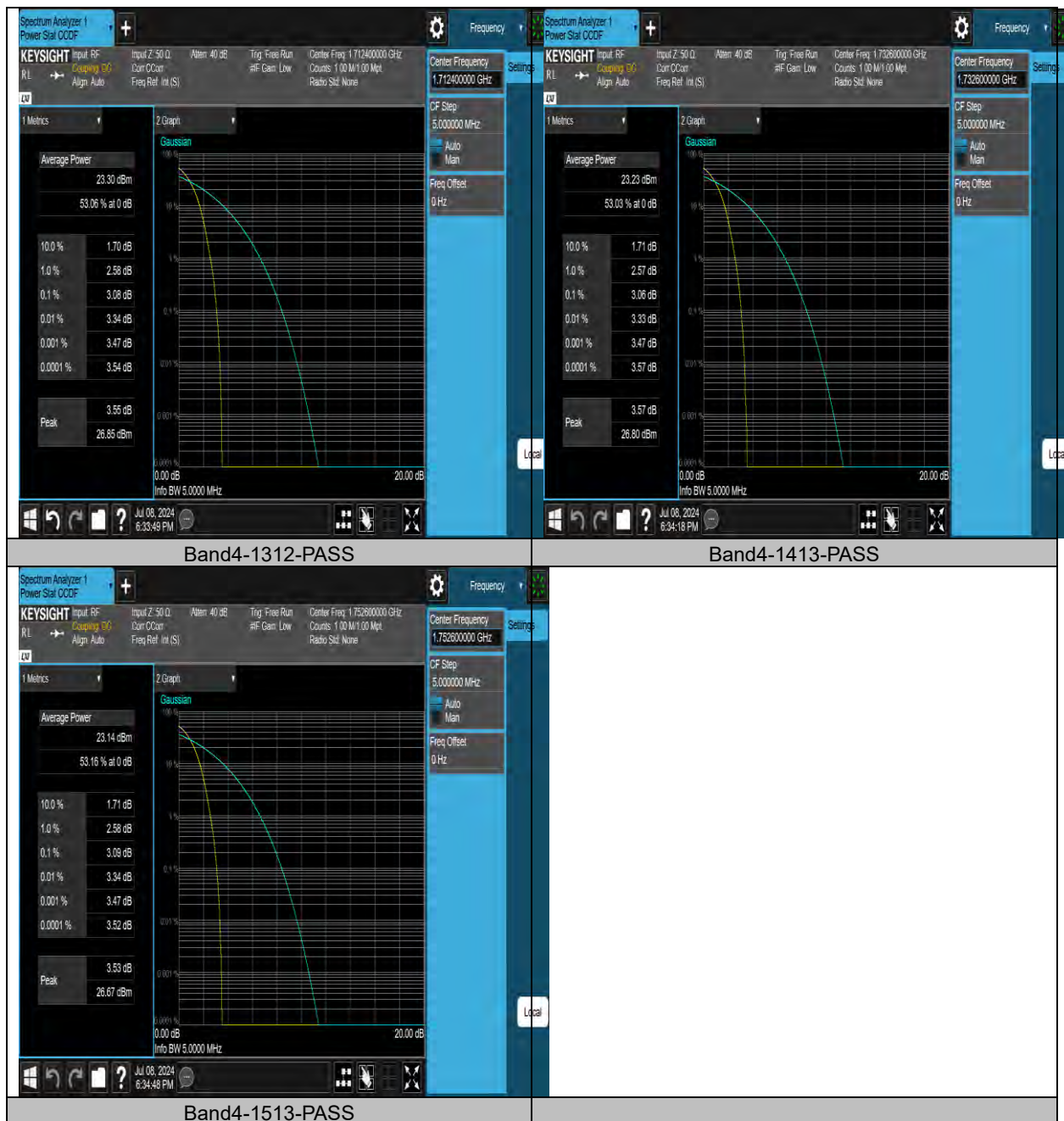
WCDMA BAND4

PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band4	1312	3.08	13	PASS
Band4	1413	3.06	13	PASS
Band4	1513	3.09	13	PASS

Test Graphs





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26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band4	1312	4.1706	4.894	---	PASS
Band4	1413	4.1638	4.703	---	PASS
Band4	1513	4.1621	4.699	---	PASS

Test Graphs





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BAND EDGE

Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band4	1312	1709.87	-28.80	-13	PASS
Band4	1513	1755.10	-29.56	-13	PASS

Test Graphs



CONDUCTED SPURIOUS EMISSION

Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (dBm)	Result (dBm)	Limit (dBm)	Verdict
Band4	1312	30~1000MHz	839.27	-49.18	-13	PASS
Band4	1312	1000~10000MHz	3834.1	-41.27	-13	PASS
Band4	1312	10000~20000MHz	19460.5	-37.43	-13	PASS
Band4	1413	30~1000MHz	890.88	-49.24	-13	PASS
Band4	1413	1000~10000MHz	3739.15	-40.72	-13	PASS
Band4	1413	10000~20000MHz	19197.5	-37.3	-13	PASS
Band4	1513	30~1000MHz	889.71	-49.22	-13	PASS
Band4	1513	1000~10000MHz	3862	-41	-13	PASS
Band4	1513	10000~20000MHz	19186.5	-37.54	-13	PASS

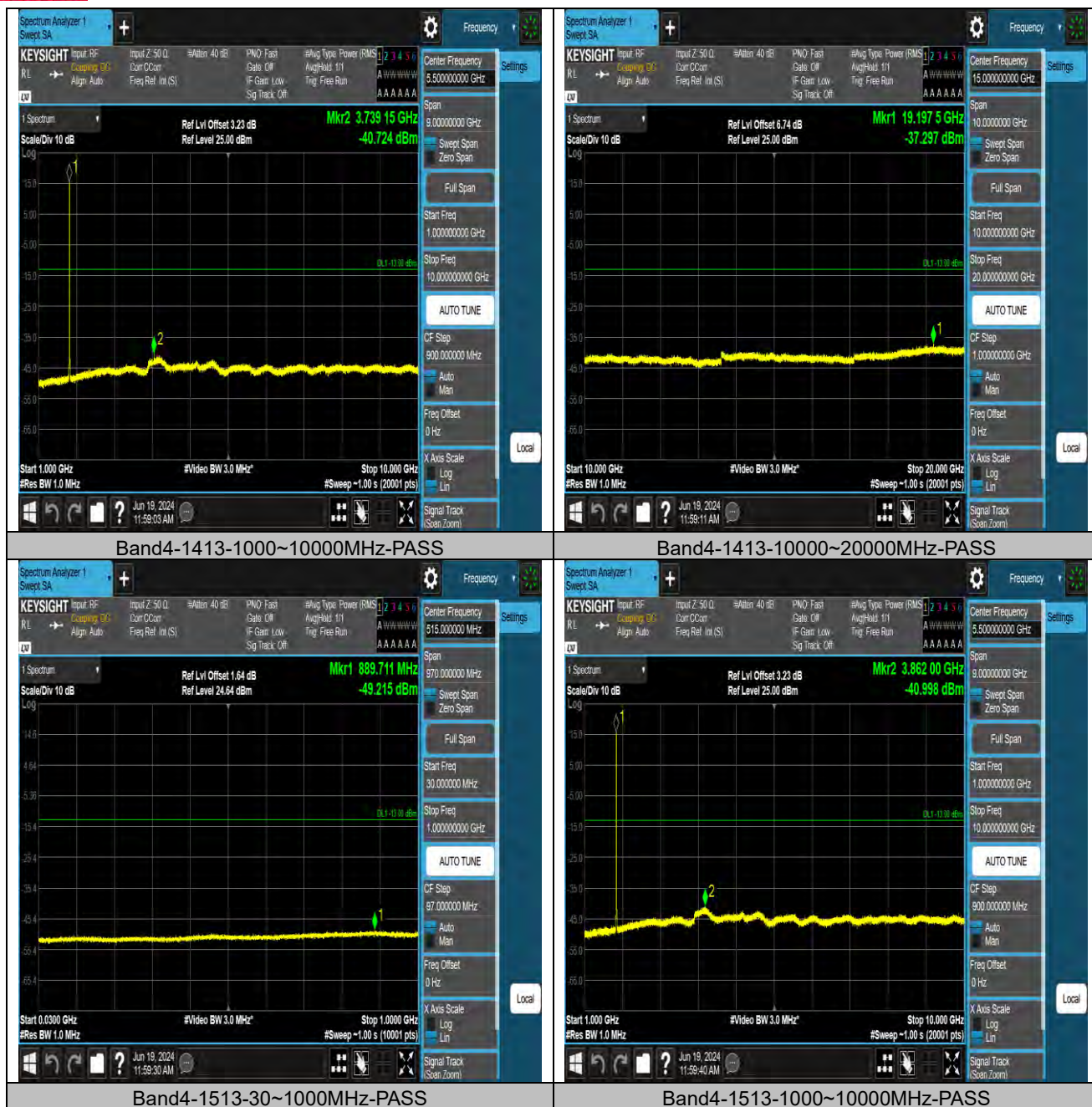
Test Graphs





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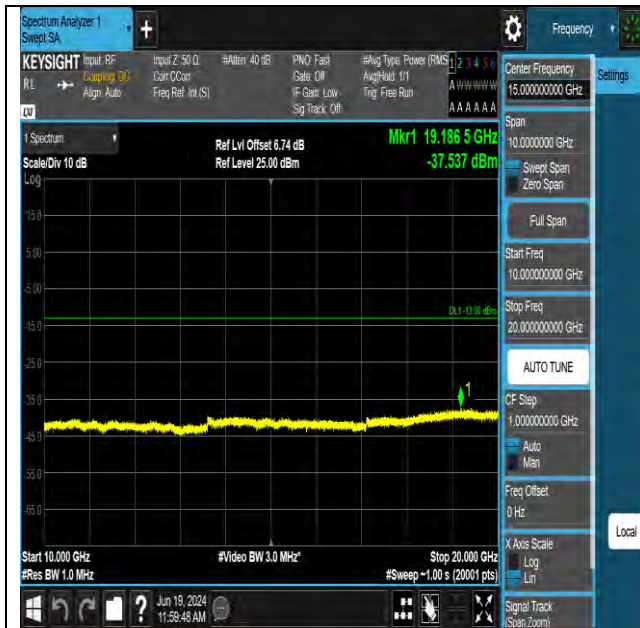
Test Report No.: W7L-P24050014RF07





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Band4-1513-10000~20000MHz-PASS

FREQUENCY STABILITY

Test Result

Voltage									
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band4	1312	VN	NT	1350.00	0.788367	1710.3238	---	1710-1910	PASS
Band4	1312	VL	NT	-670.00	-0.391264	1710.31763	---	1710-1910	PASS
Band4	1312	VH	NT	6980.00	4.076150	1710.32363	---	1710-1910	PASS
Band4	1513	VN	NT	-3120.00	-1.780212	---	1754.67603	1710-1910	PASS
Band4	1513	VL	NT	-3240.00	-1.848682	---	1754.67841	1710-1910	PASS
Band4	1513	VH	NT	-1350.00	-0.770284	---	1754.68095	1710-1910	PASS

Temperature									
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band4	1312	NV	-30	-840.00	-0.490540	1710.32081	---	1710-1910	PASS
Band4	1312	NV	-20	3480.00	2.032235	1710.32373	---	1710-1910	PASS
Band4	1312	NV	-10	2290.00	1.337304	1710.31959	---	1710-1910	PASS
Band4	1312	NV	0	4960.00	2.896520	1710.31866	---	1710-1910	PASS
Band4	1312	NV	10	1730.00	1.010278	1710.32293	---	1710-1910	PASS
Band4	1312	NV	20	1120.00	0.654053	1710.32187	---	1710-1910	PASS
Band4	1312	NV	30	4640.00	2.709647	1710.32299	---	1710-1910	PASS
Band4	1312	NV	40	4960.00	2.896520	1710.32591	---	1710-1910	PASS
Band4	1312	NV	50	2880.00	1.681850	1710.31863	---	1710-1910	PASS
Band4	1513	NV	-30	-4800.00	-2.738788	---	1754.6732	1710-1910	PASS
Band4	1513	NV	-20	-2050.00	-1.169691	---	1754.68035	1710-1910	PASS
Band4	1513	NV	-10	300.00	0.171174	---	1754.6873	1710-1910	PASS
Band4	1513	NV	0	-2510.00	-1.432158	---	1754.67784	1710-1910	PASS



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Band4	1513	NV	10	-2660.0 0	-1.5177 45	---	1754.6 8189	1710-1 910	PASS
Band4	1513	NV	20	-2640.0 0	-1.5063 33	---	1754.6 7776	1710-1 910	PASS
Band4	1513	NV	30	-2880.0 0	-1.6432 73	---	1754.6 8057	1710-1 910	PASS
Band4	1513	NV	40	910.00	0.5192 29	---	1754.6 8746	1710-1 910	PASS
Band4	1513	NV	50	960.00	0.5477 58	---	1754.6 8646	1710-1 910	PASS



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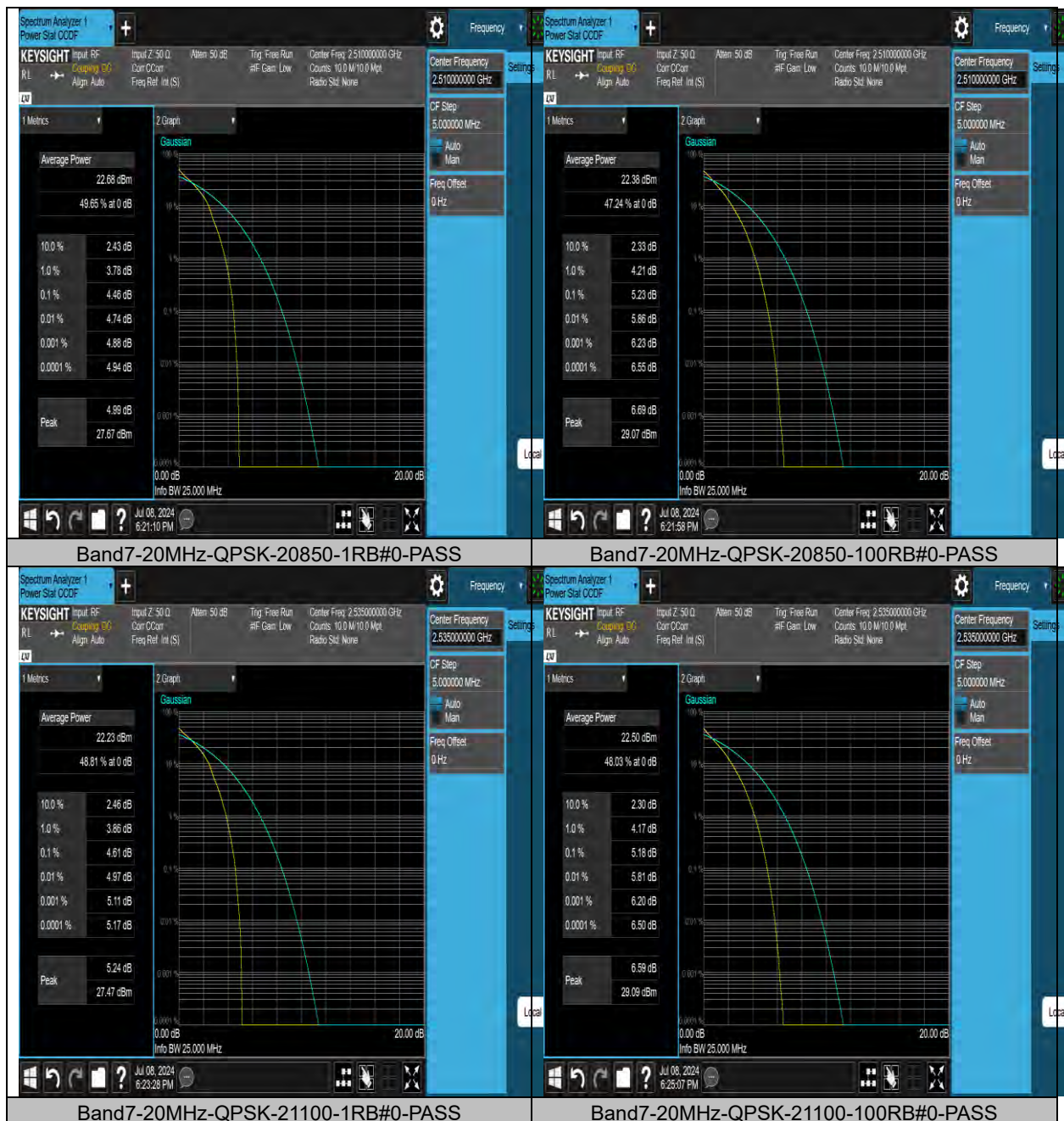
LTE BAND7

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	1RB#0	4.46	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	5.23	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.61	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.18	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.60	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	5.18	13	PASS

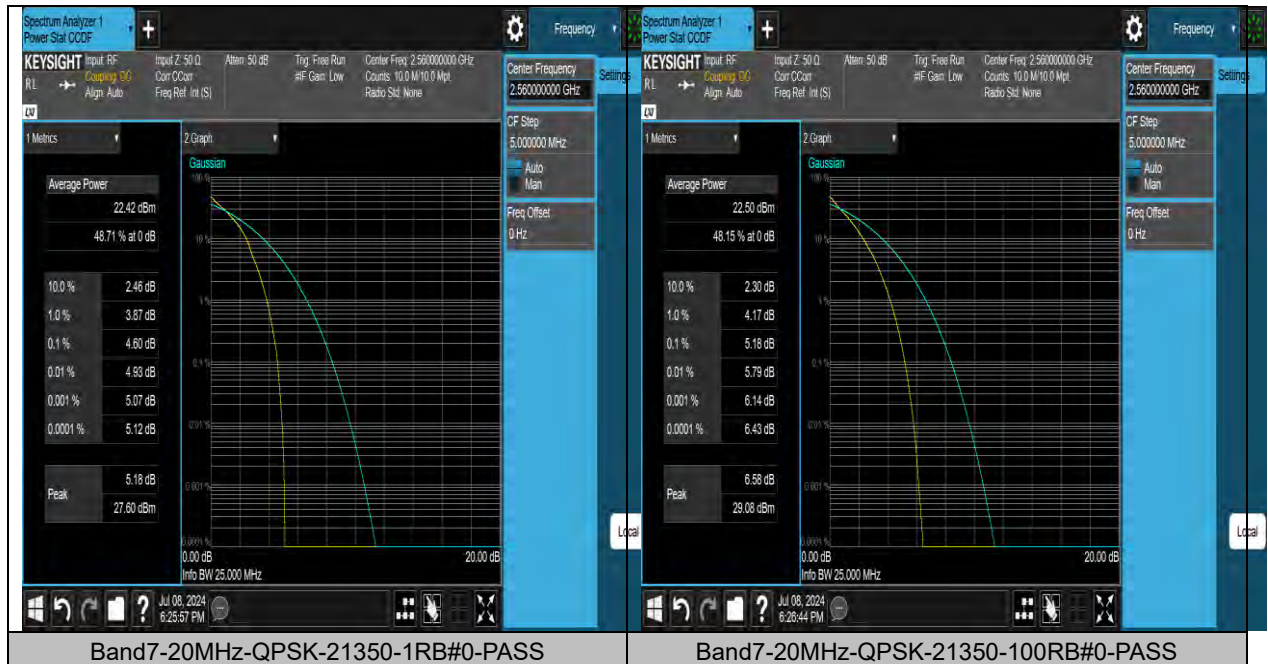
Test Graphs





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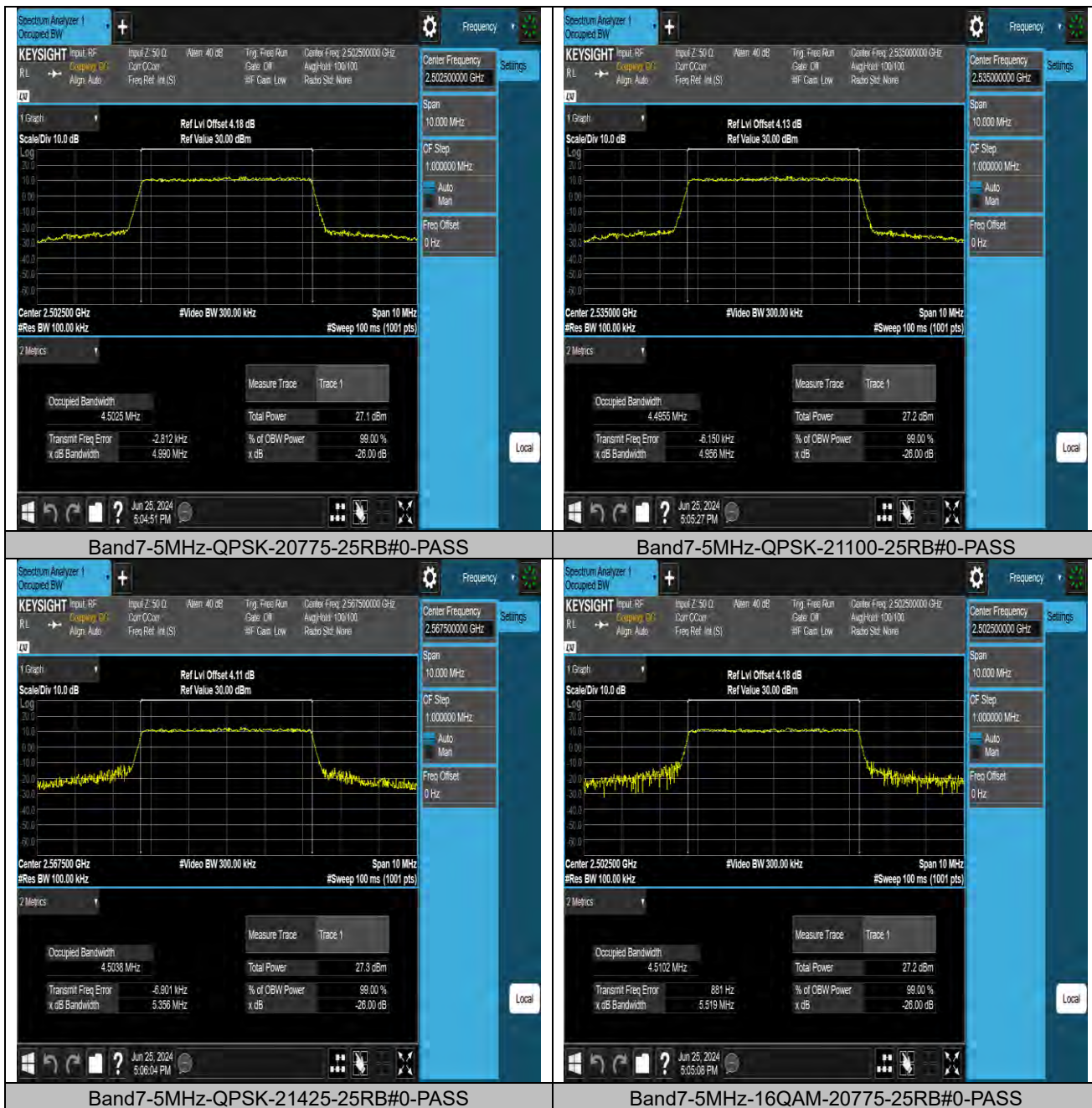


26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.5025	4.990	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.4955	4.956	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.5038	5.356	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.5102	5.519	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.4997	4.966	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.4983	4.950	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.9847	9.795	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.9721	9.789	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.9866	9.767	PASS
Band7	10MHz	16QAM	20800	50RB#0	9.0040	9.734	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.9901	9.792	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.9792	9.788	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.472	14.69	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.453	14.69	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.467	14.71	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.459	14.62	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.469	14.64	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.439	14.65	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.945	19.46	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.992	19.40	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.971	19.36	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.939	19.95	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.917	19.37	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.916	19.39	PASS

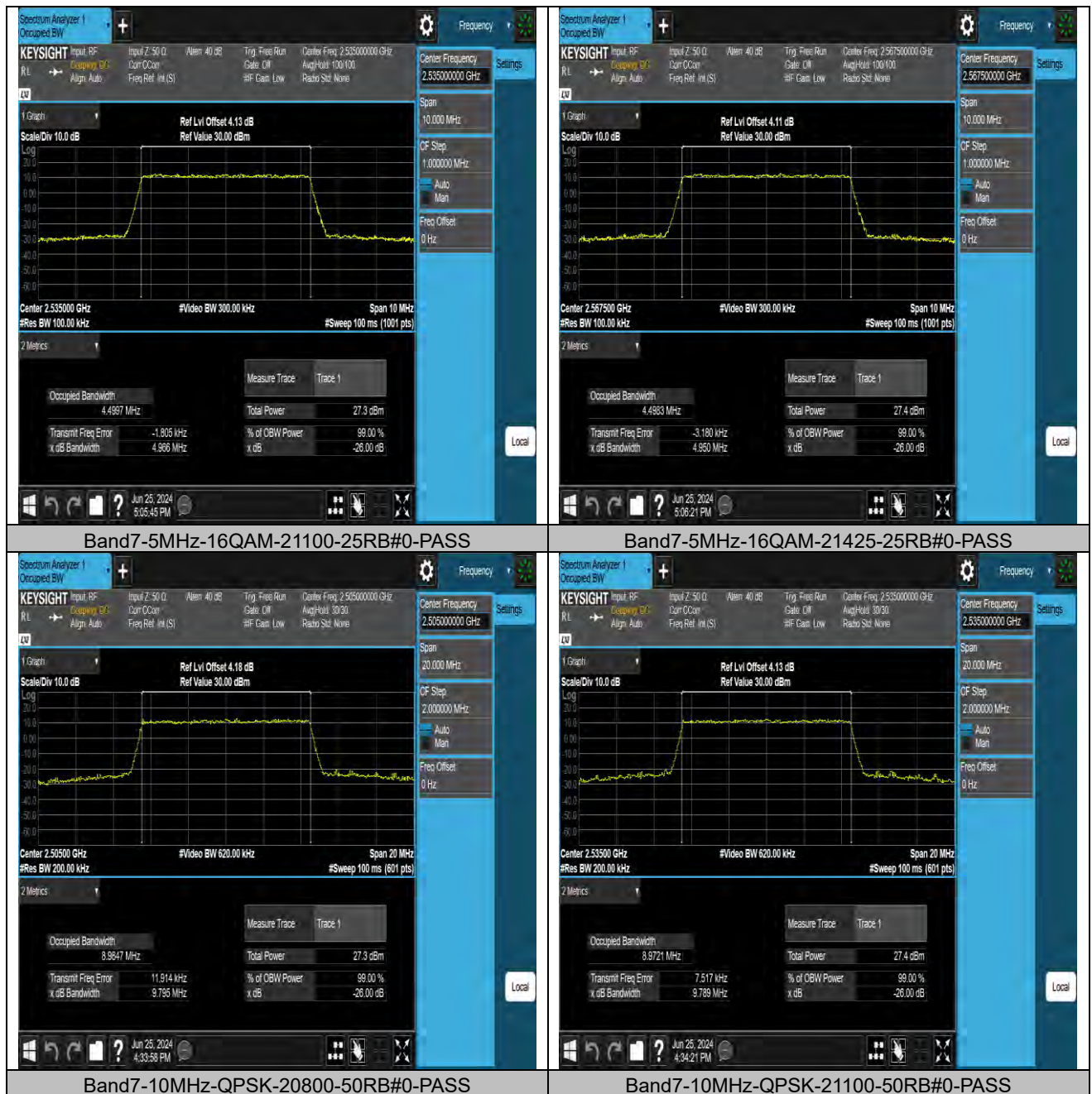
Test Graphs





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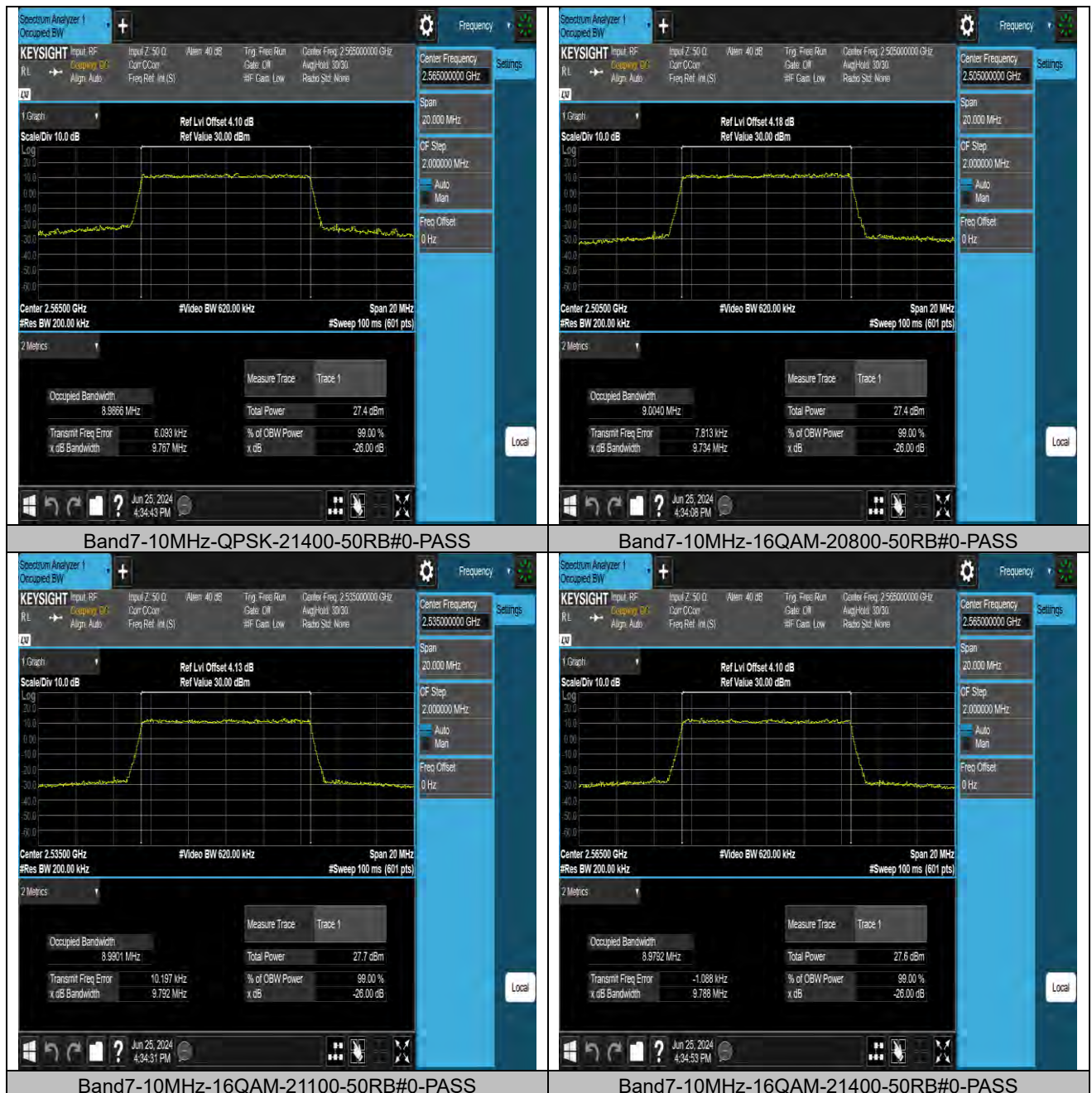
Test Report No.: W7L-P24050014RF07

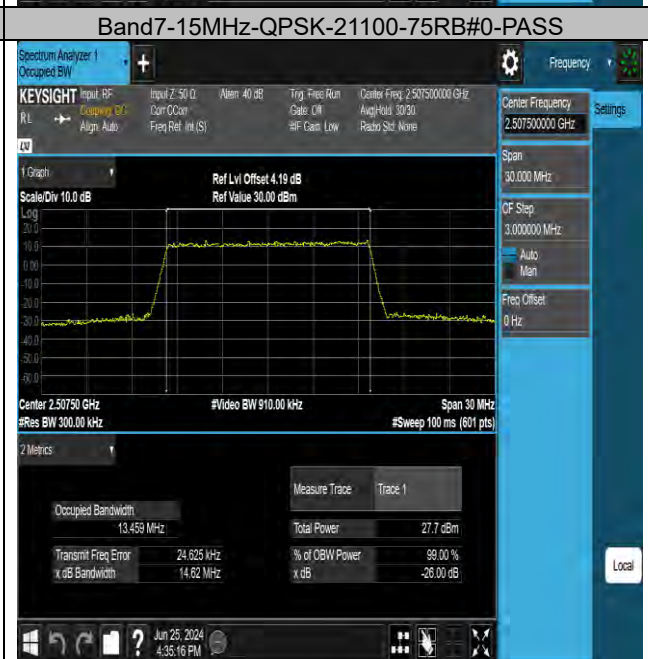
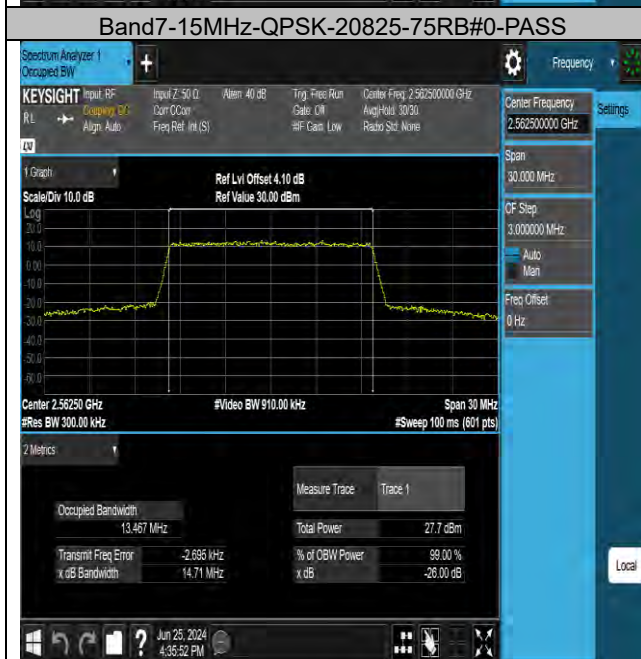




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VERITAS

Test Report No.: W7L-P24050014RF07

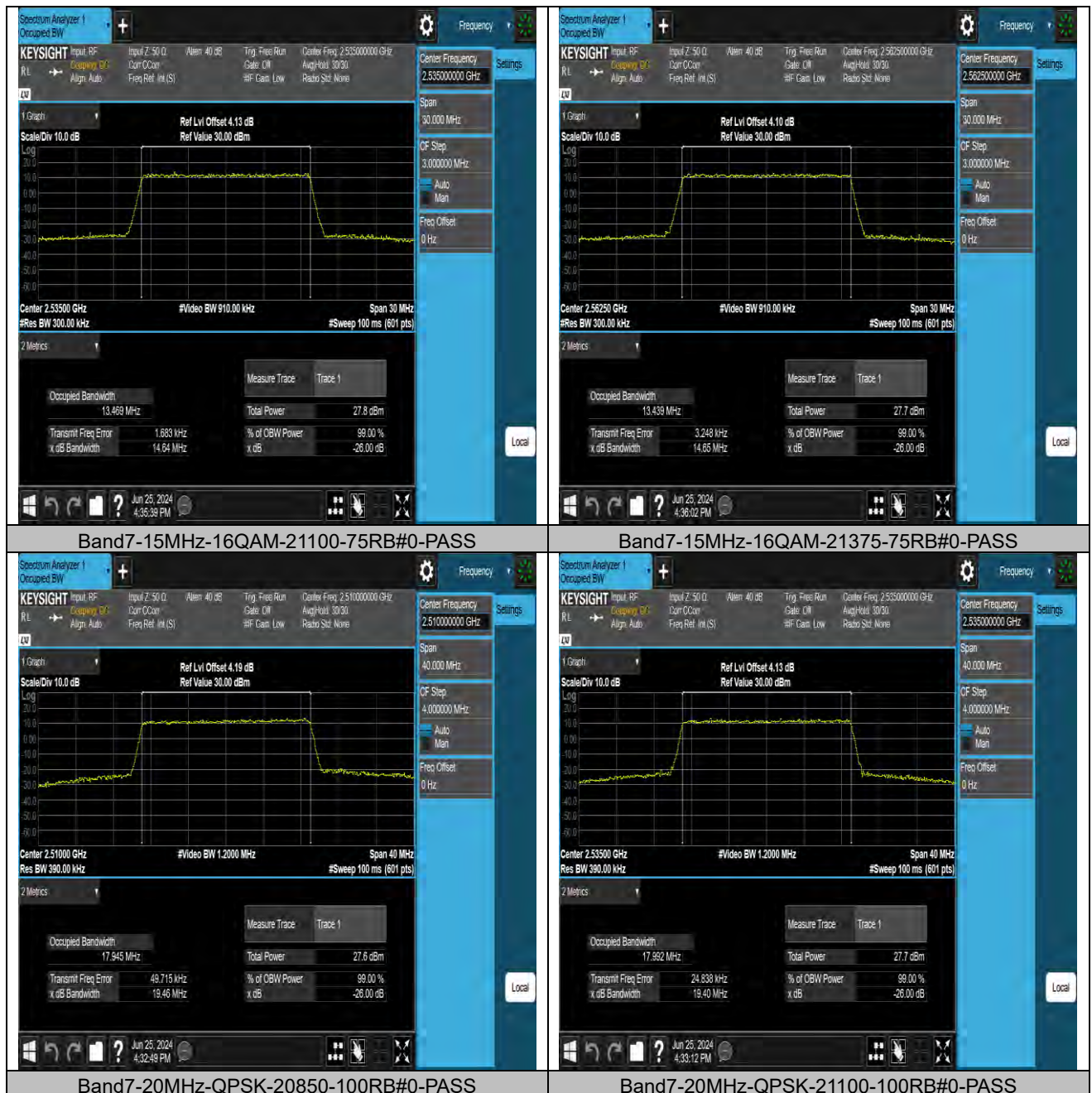






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VERITAS

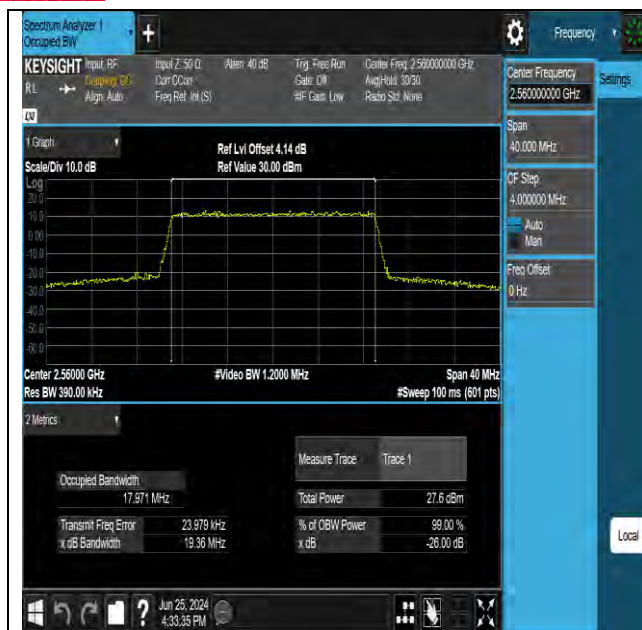
Test Report No.: W7L-P24050014RF07





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VERITAS

Test Report No.: W7L-P24050014RF07



Band7-20MHz-QPSK-21350-100RB#0-PASS



Band7-20MHz-16QAM-20850-100RB#0-PASS



Band7-20MHz-16QAM-21100-100RB#0-PASS



Band7-20MHz-16QAM-21350-100RB#0-PASS

BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	-32.61	PASS
Band7	5MHz	QPSK	20775	25RB#0	-44.27	PASS
Band7	5MHz	QPSK	21425	1RB#24	-30.60	PASS
Band7	5MHz	QPSK	21425	25RB#0	-43.53	PASS
Band7	5MHz	16QAM	20775	1RB#0	-32.98	PASS
Band7	5MHz	16QAM	20775	25RB#0	-45.99	PASS
Band7	5MHz	16QAM	21425	1RB#24	-32.39	PASS
Band7	5MHz	16QAM	21425	25RB#0	-45.46	PASS
Band7	10MHz	QPSK	20800	1RB#0	-48.76	PASS
Band7	10MHz	QPSK	20800	50RB#0	-44.72	PASS
Band7	10MHz	QPSK	21400	1RB#49	-48.74	PASS
Band7	10MHz	QPSK	21400	50RB#0	-44.18	PASS
Band7	10MHz	16QAM	20800	1RB#0	-48.69	PASS
Band7	10MHz	16QAM	20800	50RB#0	-45.70	PASS
Band7	10MHz	16QAM	21400	1RB#49	-48.70	PASS
Band7	10MHz	16QAM	21400	50RB#0	-45.19	PASS
Band7	15MHz	QPSK	20825	1RB#0	-46.80	PASS
Band7	15MHz	QPSK	20825	75RB#0	-38.87	PASS
Band7	15MHz	QPSK	21375	1RB#74	-48.79	PASS
Band7	15MHz	QPSK	21375	75RB#0	-44.50	PASS
Band7	15MHz	16QAM	20825	1RB#0	-47.91	PASS
Band7	15MHz	16QAM	20825	75RB#0	-41.88	PASS
Band7	15MHz	16QAM	21375	1RB#74	-48.86	PASS
Band7	15MHz	16QAM	21375	75RB#0	-46.30	PASS
Band7	20MHz	QPSK	20850	1RB#0	-48.34	PASS
Band7	20MHz	QPSK	20850	100RB#0	-40.29	PASS
Band7	20MHz	QPSK	21350	1RB#99	-48.95	PASS
Band7	20MHz	QPSK	21350	100RB#0	-48.12	PASS
Band7	20MHz	16QAM	20850	1RB#0	-48.38	PASS
Band7	20MHz	16QAM	20850	100RB#0	-41.01	PASS
Band7	20MHz	16QAM	21350	1RB#99	-48.93	PASS
Band7	20MHz	16QAM	21350	100RB#0	-48.17	PASS



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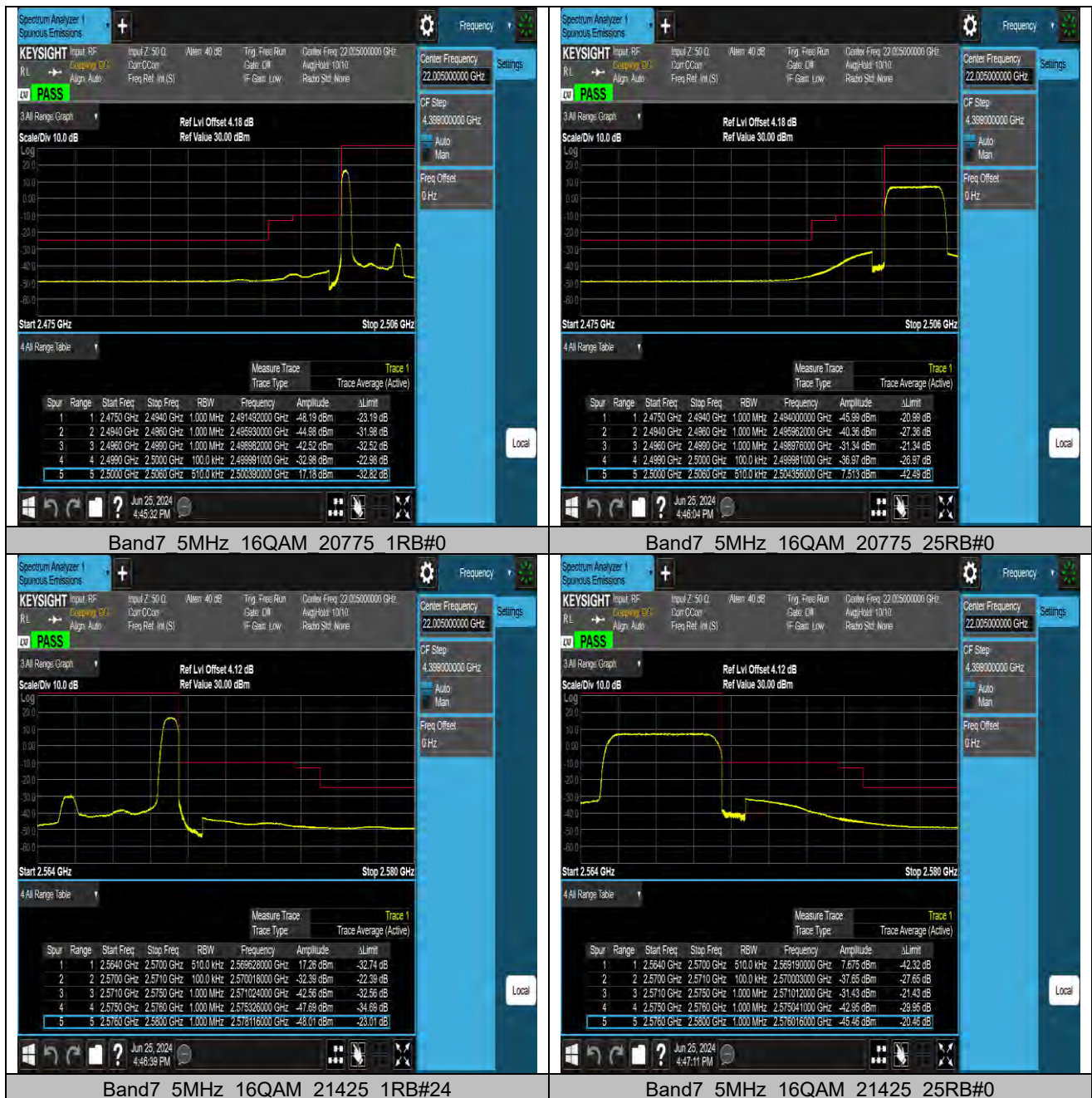
Test Report No.: W7L-P24050014RF07

Test Graphs





Test Report No.: W7L-P24050014RF07











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Test Report No.: W7L-P24050014RF07





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Test Report No.: W7L-P24050014RF07





CONDUCTED SPURIOUS EMISSION

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	30~1000	-58.28	PASS
Band7	5MHz	QPSK	20775	1RB#0	1000~10000	-48.30	PASS
Band7	5MHz	QPSK	20775	1RB#0	10000~20000	-55.94	PASS
Band7	5MHz	QPSK	20775	1RB#0	20000~27000	-53.99	PASS
Band7	5MHz	QPSK	21100	1RB#0	30~1000	-58.24	PASS
Band7	5MHz	QPSK	21100	1RB#0	1000~10000	-48.16	PASS
Band7	5MHz	QPSK	21100	1RB#0	10000~20000	-56.03	PASS
Band7	5MHz	QPSK	21100	1RB#0	20000~27000	-53.77	PASS
Band7	5MHz	QPSK	21425	1RB#0	30~1000	-58.25	PASS
Band7	5MHz	QPSK	21425	1RB#0	1000~10000	-41.09	PASS
Band7	5MHz	QPSK	21425	1RB#0	10000~20000	-55.90	PASS
Band7	5MHz	QPSK	21425	1RB#0	20000~27000	-53.90	PASS
Band7	10MHz	QPSK	20800	1RB#0	30~1000	-58.29	PASS
Band7	10MHz	QPSK	20800	1RB#0	1000~10000	-48.18	PASS
Band7	10MHz	QPSK	20800	1RB#0	10000~20000	-55.99	PASS
Band7	10MHz	QPSK	20800	1RB#0	20000~27000	-53.80	PASS
Band7	10MHz	QPSK	21100	1RB#0	30~1000	-58.21	PASS
Band7	10MHz	QPSK	21100	1RB#0	1000~10000	-48.22	PASS
Band7	10MHz	QPSK	21100	1RB#0	10000~20000	-56.02	PASS
Band7	10MHz	QPSK	21100	1RB#0	20000~27000	-53.94	PASS
Band7	10MHz	QPSK	21400	1RB#0	30~1000	-58.32	PASS
Band7	10MHz	QPSK	21400	1RB#0	1000~10000	-46.56	PASS
Band7	10MHz	QPSK	21400	1RB#0	10000~20000	-55.86	PASS
Band7	10MHz	QPSK	21400	1RB#0	20000~27000	-53.94	PASS
Band7	15MHz	QPSK	20825	1RB#0	30~1000	-58.27	PASS
Band7	15MHz	QPSK	20825	1RB#0	1000~10000	-48.33	PASS
Band7	15MHz	QPSK	20825	1RB#0	10000~20000	-55.99	PASS
Band7	15MHz	QPSK	20825	1RB#0	20000~27000	-53.87	PASS
Band7	15MHz	QPSK	21100	1RB#0	30~1000	-58.29	PASS
Band7	15MHz	QPSK	21100	1RB#0	1000~10000	-48.43	PASS
Band7	15MHz	QPSK	21100	1RB#0	10000~20000	-55.94	PASS
Band7	15MHz	QPSK	21100	1RB#0	20000~27000	-53.93	PASS
Band7	15MHz	QPSK	21375	1RB#0	30~1000	-58.22	PASS
Band7	15MHz	QPSK	21375	1RB#0	1000~10000	-48.26	PASS
Band7	15MHz	QPSK	21375	1RB#0	10000~20000	-56.04	PASS
Band7	15MHz	QPSK	21375	1RB#0	20000~27000	-53.88	PASS
Band7	20MHz	QPSK	20850	1RB#0	30~1000	-58.24	PASS
Band7	20MHz	QPSK	20850	1RB#0	1000~10000	-48.35	PASS
Band7	20MHz	QPSK	20850	1RB#0	10000~20000	-55.90	PASS
Band7	20MHz	QPSK	20850	1RB#0	20000~27000	-53.87	PASS
Band7	20MHz	QPSK	21100	1RB#0	30~1000	-58.21	PASS
Band7	20MHz	QPSK	21100	1RB#0	1000~10000	-48.31	PASS
Band7	20MHz	QPSK	21100	1RB#0	10000~20000	-56.02	PASS
Band7	20MHz	QPSK	21100	1RB#0	20000~27000	-53.94	PASS



Test Report No.: W7L-P24050014RF07

Band7	20MHz	QPSK	21350	1RB#0	30~1000	-58.26	PASS
Band7	20MHz	QPSK	21350	1RB#0	1000~10000	-48.17	PASS
Band7	20MHz	QPSK	21350	1RB#0	10000~20000	-56.04	PASS
Band7	20MHz	QPSK	21350	1RB#0	20000~27000	-53.90	PASS

Test Graphs



Band7 5MHz QPSK 20775 1RB#0 30~1000 30~1000



Band7 5MHz QPSK 20775 1RB#0 1000~10000 1000~10000



Band7 5MHz QPSK 20775 1RB#0 10000~20000 10000~20000



Band7 5MHz QPSK 20775 1RB#0 20000~27000 20000~27000





Band7 5MHz QPSK 21425 1RB#0 30~1000 30~1000



Band7 5MHz QPSK 21425 1RB#0 1000~10000 1000~10000



Band7 5MHz QPSK 21425 1RB#0 10000~20000 10000~20000



Band7 5MHz QPSK 21425 1RB#0 20000~27000 20000~27000



Band7 10MHz QPSK 20800 1RB#0 30~1000 30~1000

Band7 10MHz QPSK 20800 1RB#0 1000~10000 1000~10000

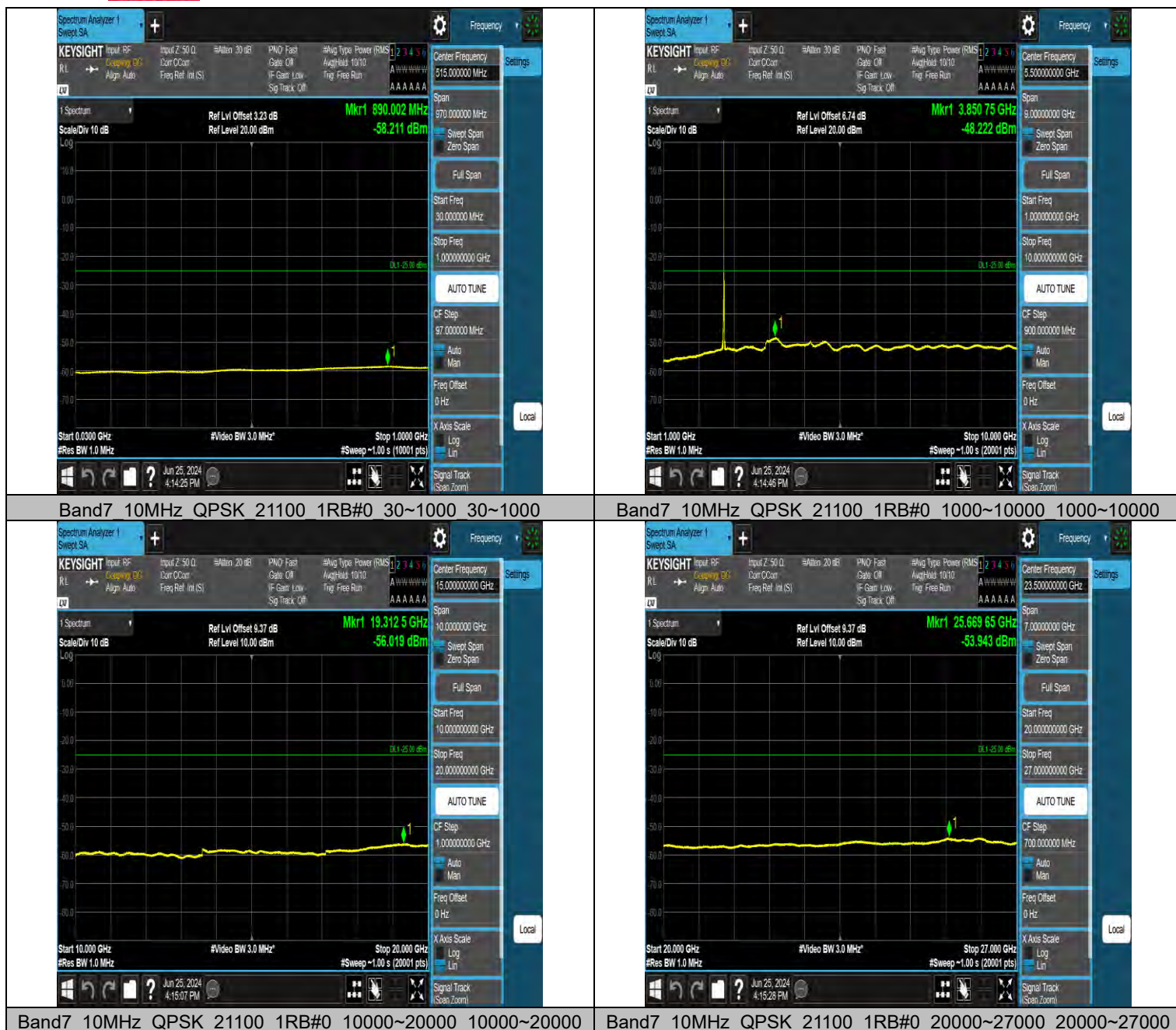


Band7 10MHz QPSK 20800 1RB#0 10000~20000 10000~20000

Band7 10MHz QPSK 20800 1RB#0 20000~27000 20000~27000

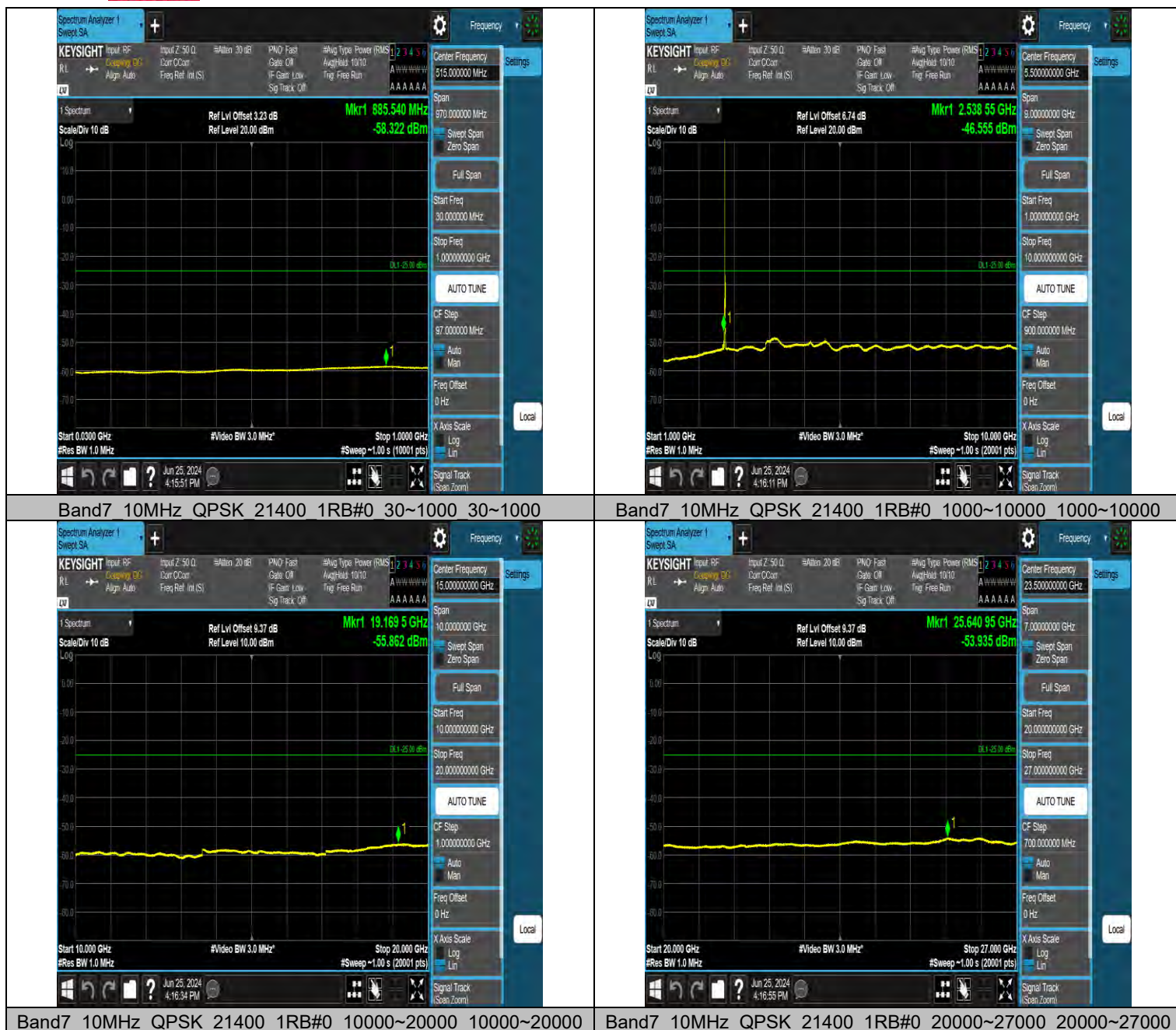


Test Report No.: W7L-P24050014RF07





Test Report No.: W7L-P24050014RF07





Band7 15MHz QPSK 20825 1RB#0 30~1000 30~1000

Band7 15MHz QPSK 20825 1RB#0 1000~10000 1000~10000



Band7 15MHz QPSK 20825 1RB#0 10000~20000 10000~20000

Band7 15MHz QPSK 20825 1RB#0 20000~27000 20000~27000



Band7 15MHz QPSK 21100 1RB#0 30~1000 30~1000

Band7 15MHz QPSK 21100 1RB#0 1000~10000 1000~10000

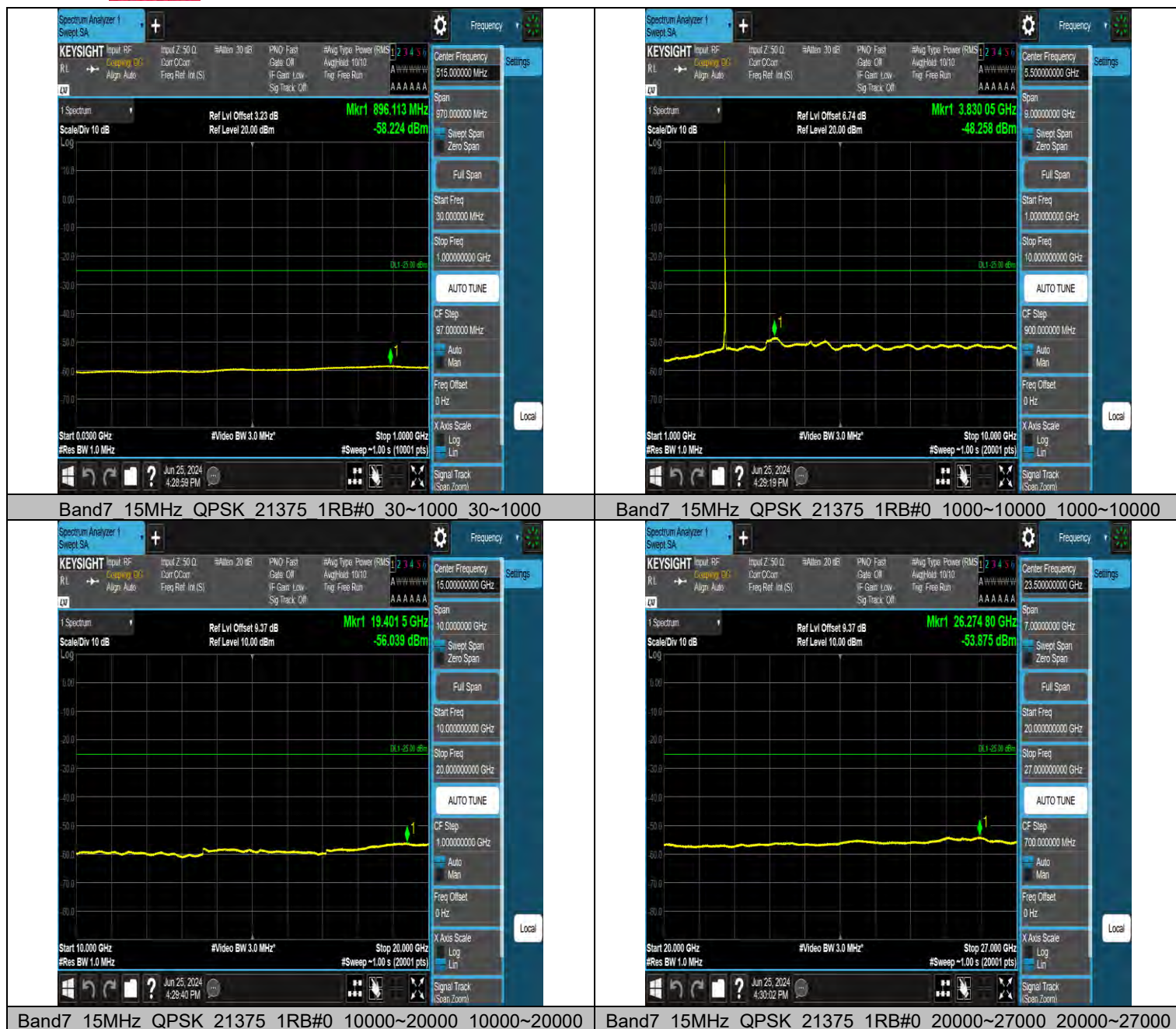


Band7 15MHz QPSK 21100 1RB#0 10000~20000 10000~20000

Band7 15MHz QPSK 21100 1RB#0 20000~27000 20000~27000



Test Report No.: W7L-P24050014RF07





Band7 20MHz QPSK 20850 1RB#0 30~1000 30~1000

Band7 20MHz QPSK 20850 1RB#0 1000~10000 1000~10000



Band7 20MHz QPSK 20850 1RB#0 10000~20000 10000~20000

Band7 20MHz QPSK 20850 1RB#0 20000~27000 20000~27000



Band7 20MHz QPSK 21100 1RB#0 30~1000 30~1000

Band7 20MHz QPSK 21100 1RB#0 1000~10000 1000~10000



Band7 20MHz QPSK 21100 1RB#0 10000~20000 10000~20000

Band7 20MHz QPSK 21100 1RB#0 20000~27000 20000~27000



Band7 20MHz QPSK 21350 1RB#0 30~1000 30~1000



Band7 20MHz QPSK 21350 1RB#0 1000~10000 1000~10000



Band7 20MHz QPSK 21350 1RB#0 10000~20000 10000~20000

Band7 20MHz QPSK 21350 1RB#0 20000~27000 20000~27000

FREQUENCY STABILITY

Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band7	10MHz	QPSK	20800	50RB #0	VN	NT	-6.67	-0.002663	2500.043188	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	VL	NT	-4.22	-0.001685	2500.007317	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	VH	NT	-5.59	-0.002232	2500.040091	---	2500-2570	PASS
Band7	10MHz	QPSK	21400	50RB #0	VN	NT	5.36	0.002090	---	2569.996562	2500-2570	PASS
Band7	10MHz	QPSK	21400	50RB #0	VL	NT	-4.56	-0.001778	---	2569.924375	2500-2570	PASS
Band7	10MHz	QPSK	21400	50RB #0	VH	NT	-6.94	-0.002706	---	2569.633599	2500-2570	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band7	10MHz	QPSK	20800	50RB #0	NV	-30	-2.90	-0.001158	2500.036804	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	-20	-4.98	-0.001988	2500.032221	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	-10	4.42	0.001764	2500.034073	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	0	-10.67	-0.004259	2500.027768	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	10	-6.81	-0.002719	2500.012877	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	20	6.48	0.002587	2500.035125	---	2500-2570	PASS
Band7	10MHz	QPSK	20800	50RB #0	NV	30	-8.30	-0.003	2500.	---	2500-	PASS



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Test Report No.: W7L-P24050014RF07

	z			#0				313	04849 6		2570	
Band7	10MH z	QPSK	20800	50RB #0	NV	40	-8.13	-0.003 246	2500. 01336 5	---	2500- 2570	PASS
Band7	10MH z	QPSK	20800	50RB #0	NV	50	-7.41	-0.002 958	2500. 00346 1	---	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	-30	-5.31	-0.002 070	---	2569. 85989 6	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	-20	-5.94	-0.002 316	---	2569. 93683 4	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	-10	-8.37	-0.003 263	---	2569. 98435 9	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	0	-9.16	-0.003 571	---	2569. 85826 7	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	10	-5.02	-0.001 957	---	2569. 91120 8	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	20	-8.71	-0.003 396	---	2569. 66631 8	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	30	-12.32	-0.004 803	---	2569. 78523 3	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	40	-6.02	-0.002 347	---	2569. 78624 1	2500- 2570	PASS
Band7	10MH z	QPSK	21400	50RB #0	NV	50	-9.67	-0.003 770	---	2569. 67487 3	2500- 2570	PASS



Test Report No.: W7L-P24050014RF07

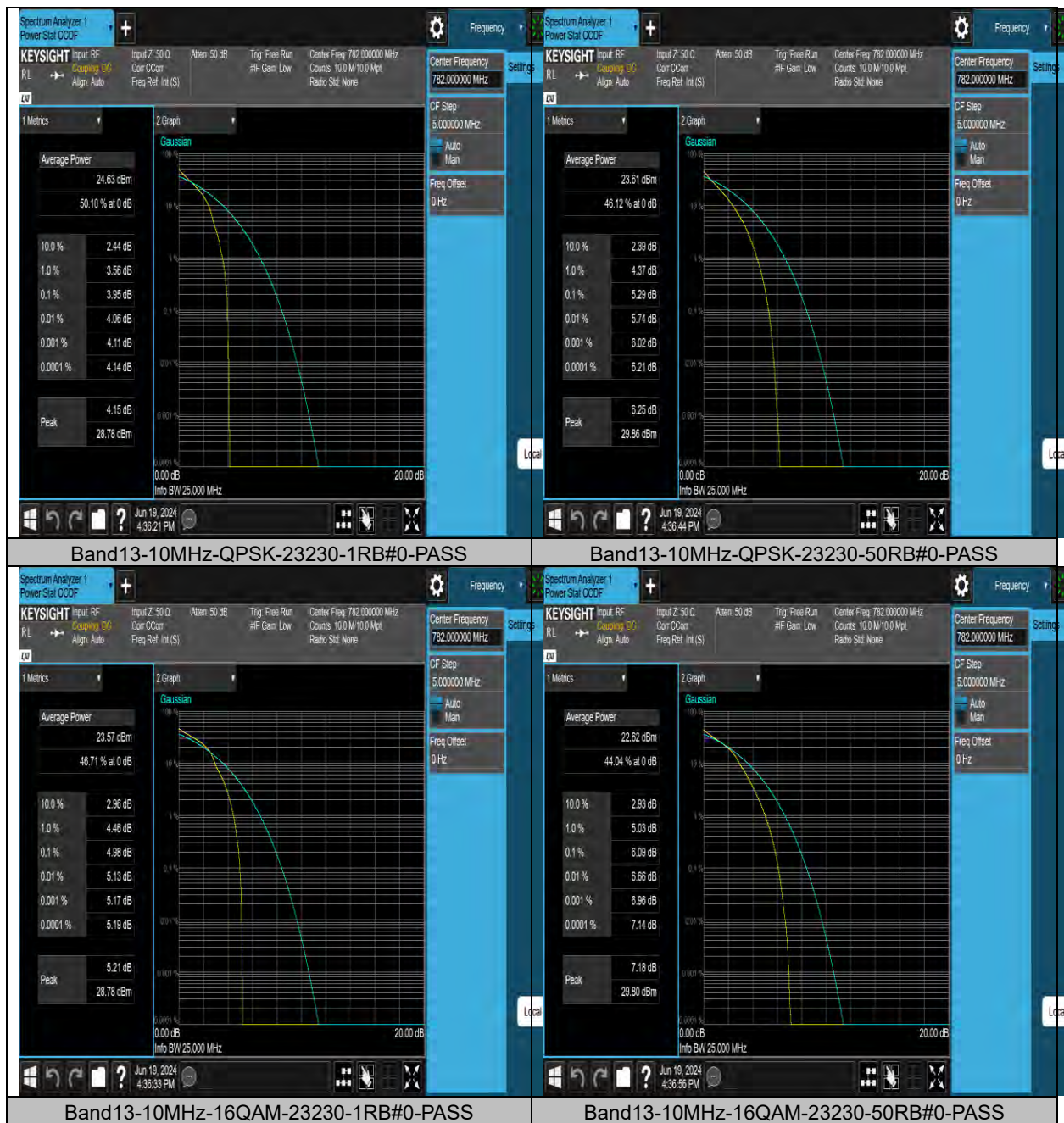
LTE BAND13

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	10MHz	QPSK	23230	1RB#0	3.95	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.29	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	4.98	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.09	13	PASS

Test Graphs

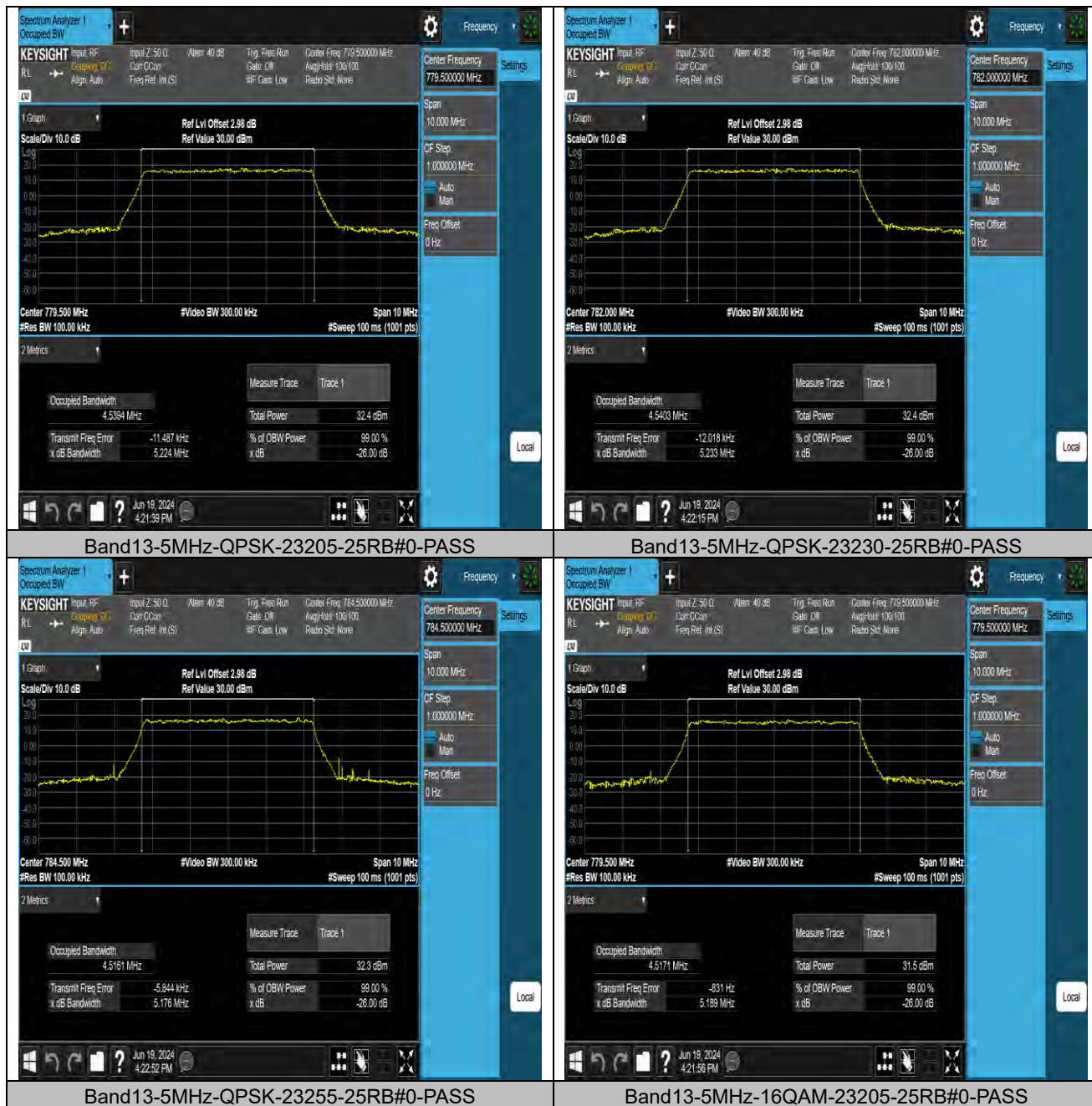


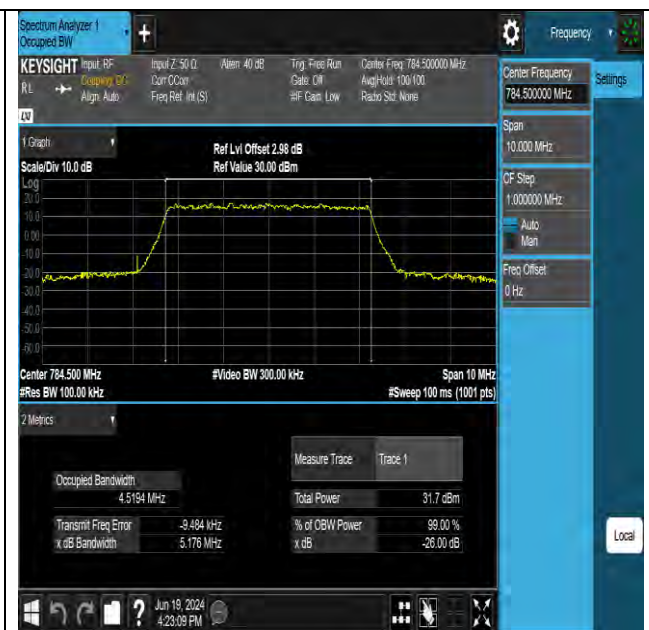
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5394	5.224	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5403	5.233	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5161	5.176	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5171	5.189	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5236	5.206	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5194	5.176	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.0323	10.12	PASS
Band13	10MHz	16QAM	23230	50RB#0	9.0021	10.12	PASS

Test Graphs





BAND EDGE

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	-57.90	PASS
Band13	5MHz	QPSK	23205	25RB#0	-46.92	PASS
Band13	5MHz	QPSK	23255	1RB#24	-68.56	PASS
Band13	5MHz	QPSK	23255	25RB#0	-57.09	PASS
Band13	5MHz	16QAM	23205	1RB#0	-58.54	PASS
Band13	5MHz	16QAM	23205	25RB#0	-47.48	PASS
Band13	5MHz	16QAM	23255	1RB#24	-68.10	PASS
Band13	5MHz	16QAM	23255	25RB#0	-58.85	PASS
Band13	10MHz	QPSK	23230	1RB#0	-58.86	PASS
Band13	10MHz	QPSK	23230	1RB#49	-61.16	PASS
Band13	10MHz	QPSK	23230	50RB#0	-47.48	PASS
Band13	10MHz	16QAM	23230	1RB#0	-59.45	PASS
Band13	10MHz	16QAM	23230	1RB#49	-61.26	PASS
Band13	10MHz	16QAM	23230	50RB#0	-48.59	PASS

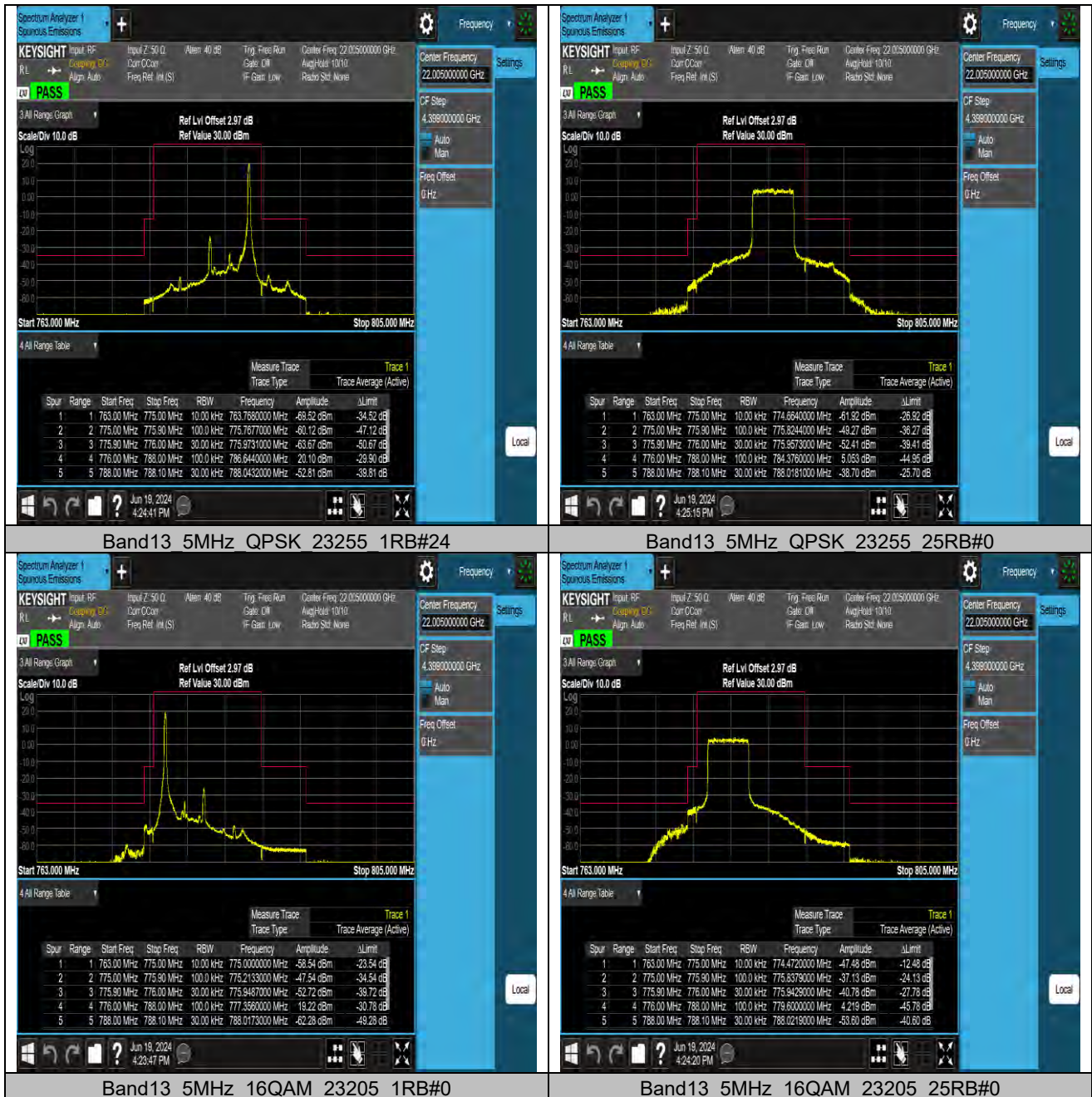
Test Graphs





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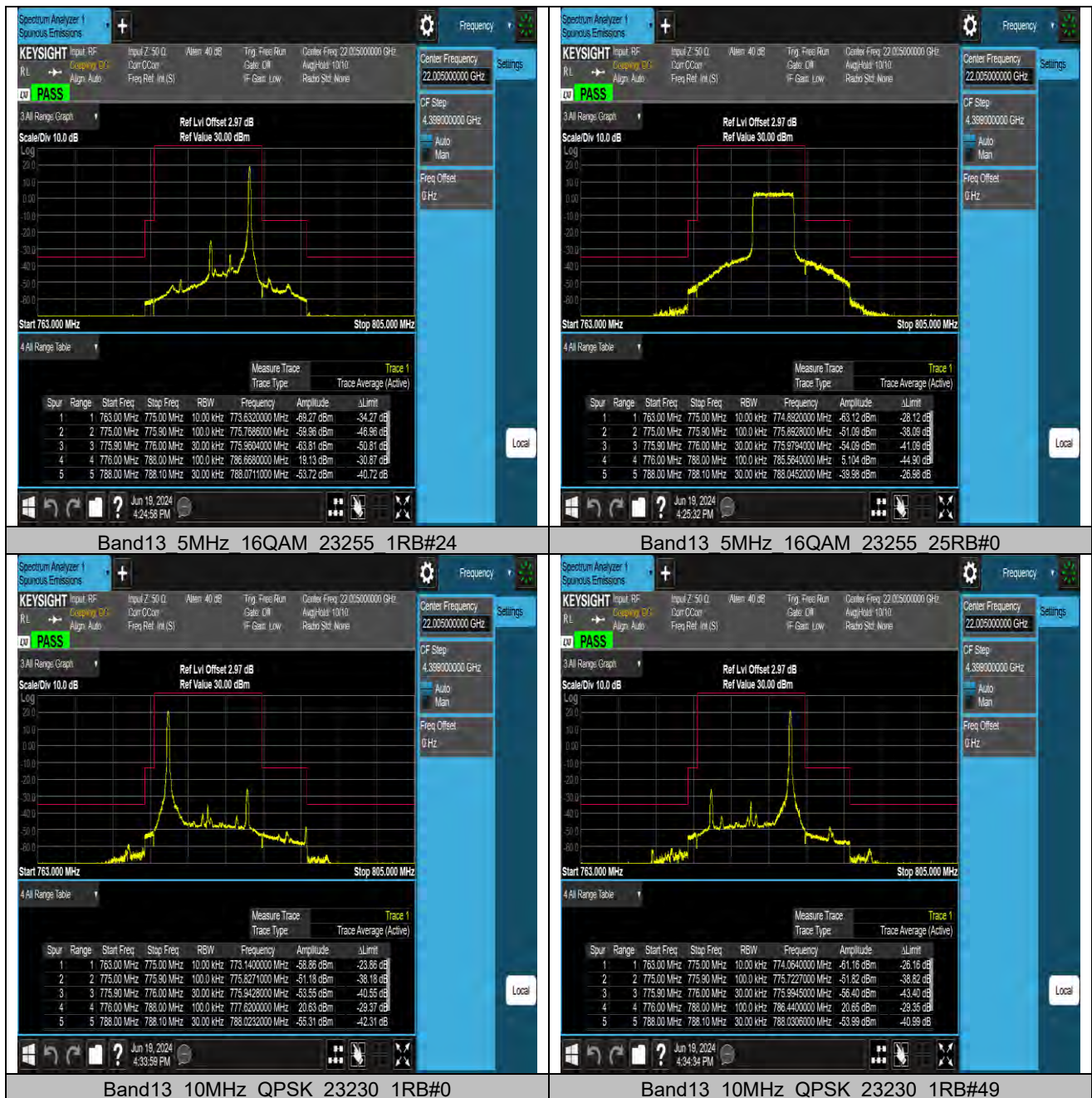
Test Report No.: W7L-P24050014RF07

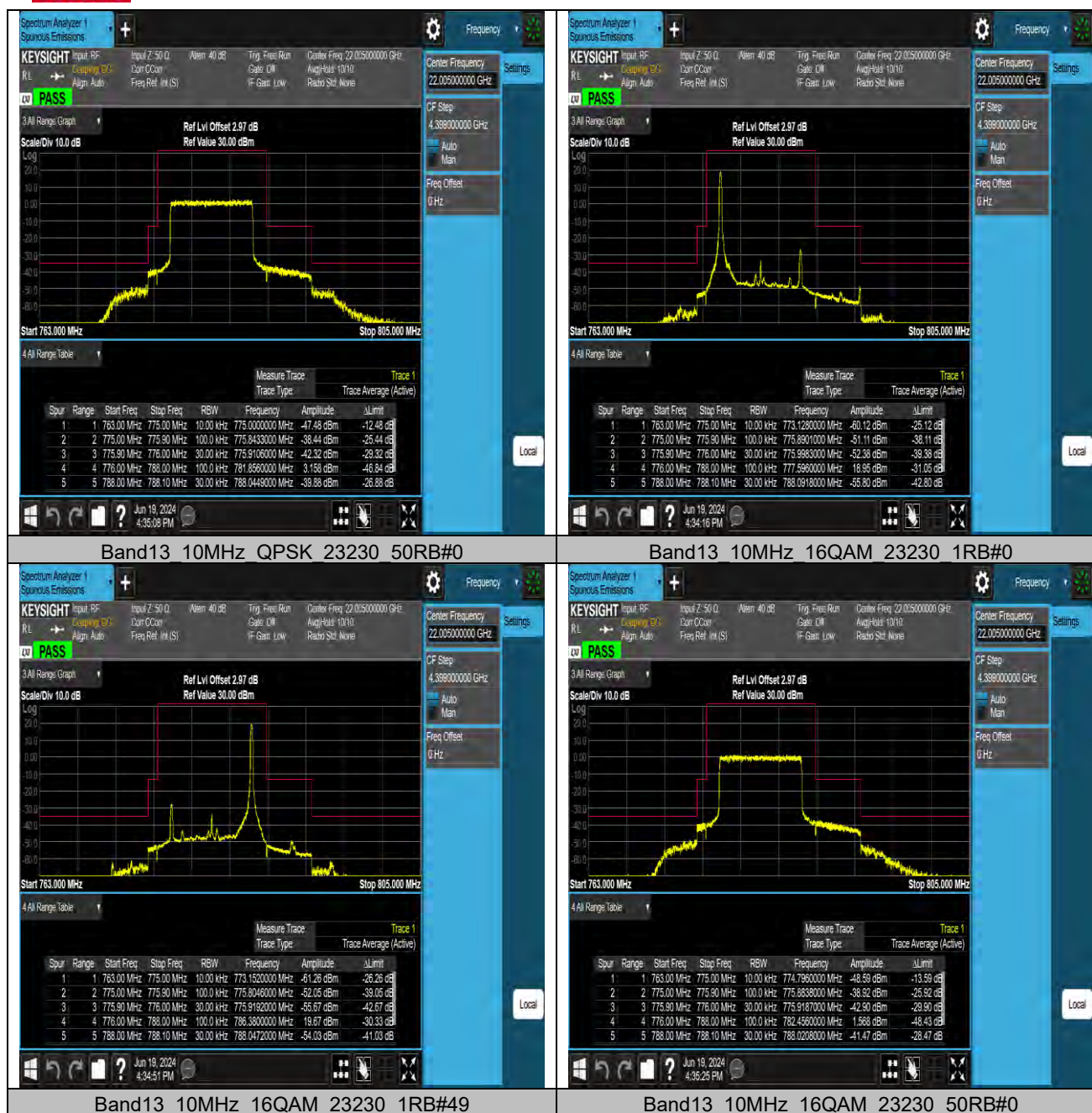




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Test Report No.: W7L-P24050014RF07



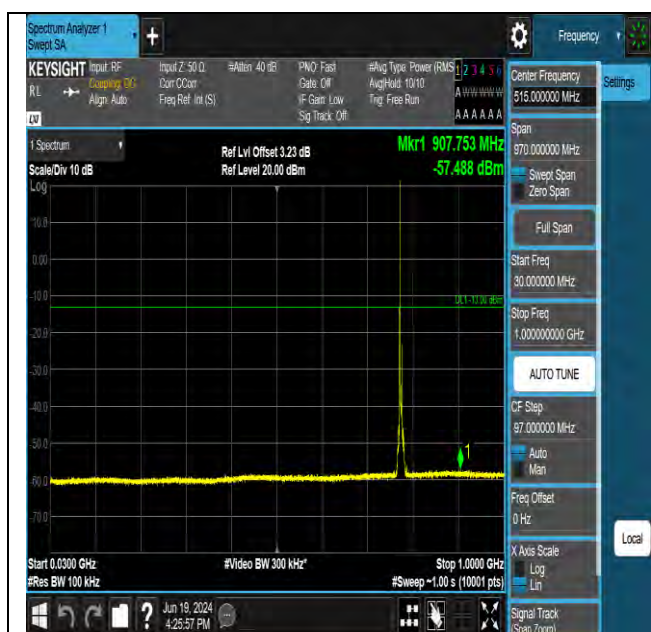


CONDUCTED SPURIOUS EMISSION

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	30~1000	-57.49	PASS
Band13	5MHz	QPSK	23205	1RB#0	1000~10000	-38.39	PASS
Band13	5MHz	QPSK	23230	1RB#0	30~1000	-57.51	PASS
Band13	5MHz	QPSK	23230	1RB#0	1000~10000	-38.33	PASS
Band13	5MHz	QPSK	23255	1RB#0	30~1000	-57.41	PASS
Band13	5MHz	QPSK	23255	1RB#0	1000~10000	-38.36	PASS
Band13	10MHz	QPSK	23230	1RB#0	30~1000	-57.44	PASS
Band13	10MHz	QPSK	23230	1RB#0	1000~10000	-38.44	PASS

Test Graphs

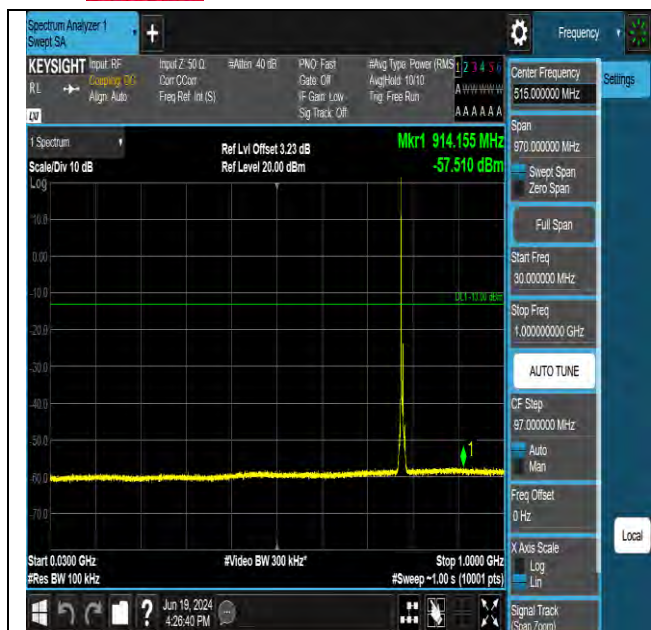


Band13 5MHz QPSK 23205 1RB#0 30~1000 30~1000

Band13 5MHz QPSK 23205 1RB#0 1000~10000 1000~10000



Test Report No.: W7L-P24050014RF07



Band13 5MHz QPSK 23230 1RB#0 30~1000 30~1000



Band13 5MHz QPSK 23255 1RB#0 30~1000 30~1000

Band13 5MHz QPSK 23230 1RB#0 1000~10000 1000~10000



Band13 5MHz QPSK 23255 1RB#0 1000~10000 1000~10000



The screenshot displays a Spectrum Analyzer interface with the following components:

- Top Panel:**
 - Analyzer 1 Sweep SA
 - Input RF: Coupling 20
 - Imped 2 50 Ohm
 - Attenu 40 dB
 - PW Mod Fast
 - Gate Off
 - Ref Level 10 dB
 - IF Gain Low
 - Sig Track Off
 - Mag Type Power (RMS)
 - 12.245
 - AWWWWWWW
 - AAAAAAA
- Frequency Panel (Right):**
 - Center Frequency: 515.000000 MHz
 - Span: 970.000000 MHz
 - Sweep Span: Zero Span
 - Full Span
 - Start Freq: 30.000000 MHz
 - Stop Freq: 1.000000000 GHz
 - AUTO TUNE
 - CF Stop: 97.000000 MHz
 - Auto
 - Man
 - Freq Offset: 0 Hz
 - X Axis Scale: Log
 - Lin
 - Signal Track (Span 7000)
- Main Display:**
 - 1 Spectrum
 - Scale/Div 10 dB
 - Log
 - Ref Lvl Offset 3.23 dB
 - Ref Level 20.00 dBm
 - Mkr1 842.375 MHz -57.441 dBm
 - Grid lines at 10.0, 0.00, -10.0, -20.0, -30.0, -40.0, -50.0, -60.0, -70.0 dBm
- Status Bar (Bottom):**
 - Start 0.0300 GHz
 - #Res BW 100 kHz
 - #Video BW 300 kHz
 - Sweep 1.00 s (10001 pts)
 - Stop 1.0000 GHz
 - Jun 19, 2024 4:36:48 PM



Band13 10MHz QPSK 23230 1RB#0 1000~10000 1000~10000

FREQUENCY STABILITY

Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band1 3	5MHz	QPSK	23205	25RB #0	VN	NT	-1093.60	-1.402945	777.25263	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	VL	NT	1230.41	1.578466	777.25366	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	VH	NT	-1409.01	-1.807586	777.25053	---	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	VN	NT	930.62	1.186254	---	786.74023	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	VL	NT	-952.23	-1.213801	---	786.73979	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	VH	NT	-1184.68	-1.510111	---	786.73751	777-787	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
Band1 3	5MHz	QPSK	23205	25RB #0	NV	-30	-1075.27	-1.379435	777.25122	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	-20	1115.66	1.431247	777.24925	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	-10	-1262.92	-1.620168	777.25571	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	0	-1359.75	-1.744385	777.25219	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	10	1207.91	1.549596	777.25035	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	20	-1308.22	-1.678280	777.2554	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	30	-1404.06	-1.801238	777.25169	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	40	-1478.65	-1.896927	777.25281	---	777-787	PASS
Band1 3	5MHz	QPSK	23205	25RB #0	NV	50	-1634.42	-2.096752	777.25137	---	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	-30	889.29	1.133571	---	786.73899	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	-20	-1070.56	-1.364642	---	786.73988	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	-10	-1303.87	-1.662037	---	786.74093	777-787	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	0	1099.	1.401	---	786.7	777-787	PASS



BUREAU
VERITAS

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3				#0			65	725		4036	87	
Band1 3	5MHz	QPSK	23255	25RB #0	NV	10	985.9 4	1.256 772	---	786.7 4121	777-7 87	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	20	-402.7 0	-0.513 327	---	786.7 3687	777-7 87	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	30	-554.7 3	-0.707 113	---	786.7 3877	777-7 87	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	40	267.8 1	0.341 380	---	786.7 3963	777-7 87	PASS
Band1 3	5MHz	QPSK	23255	25RB #0	NV	50	116.42	0.148 406	---	786.7 4267	777-7 87	PASS

---END---