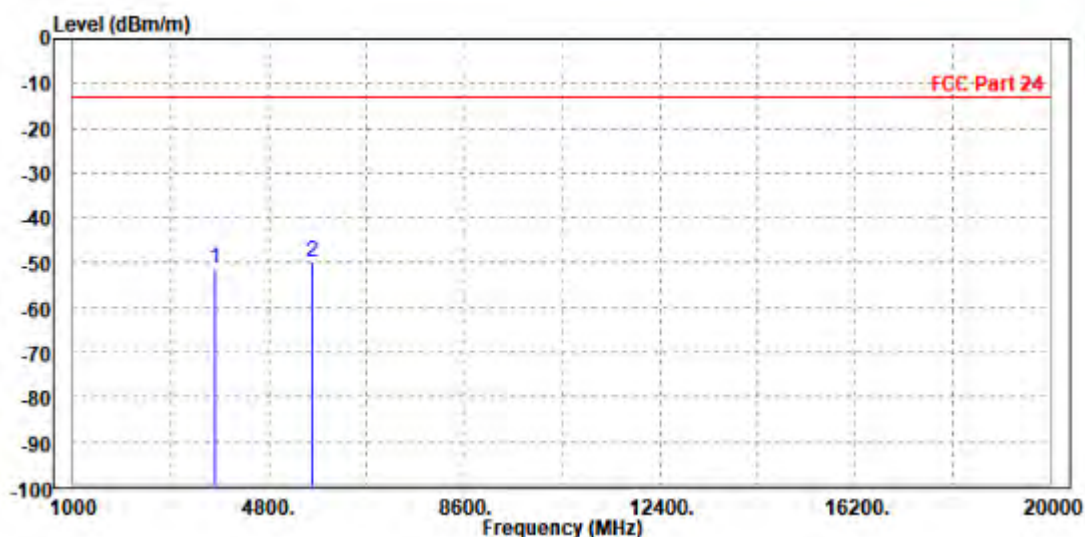


MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3755.000	-51.24	-59.87	-13.00	-38.24	8.63	Peak	Vertical
2 PP	5640.000	-49.89	-62.21	-13.00	-36.89	12.32	Peak	Vertical





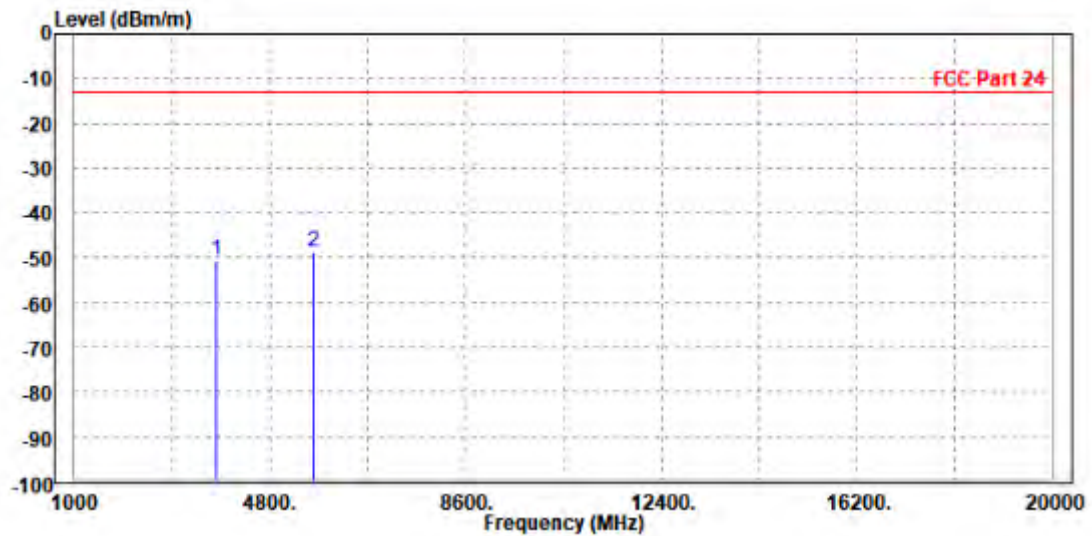
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Test Report No.: W7L-P24100002RF06

CHANNEL BANDWIDTH: 3MHz / QPSK

MODE	TX channel 18900	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	3755.000	-50.60	-58.96	-13.00	-37.60	8.36	Peak	Horizontal
2 PP	5640.000	-48.67	-60.48	-13.00	-35.67	11.81	Peak	Horizontal



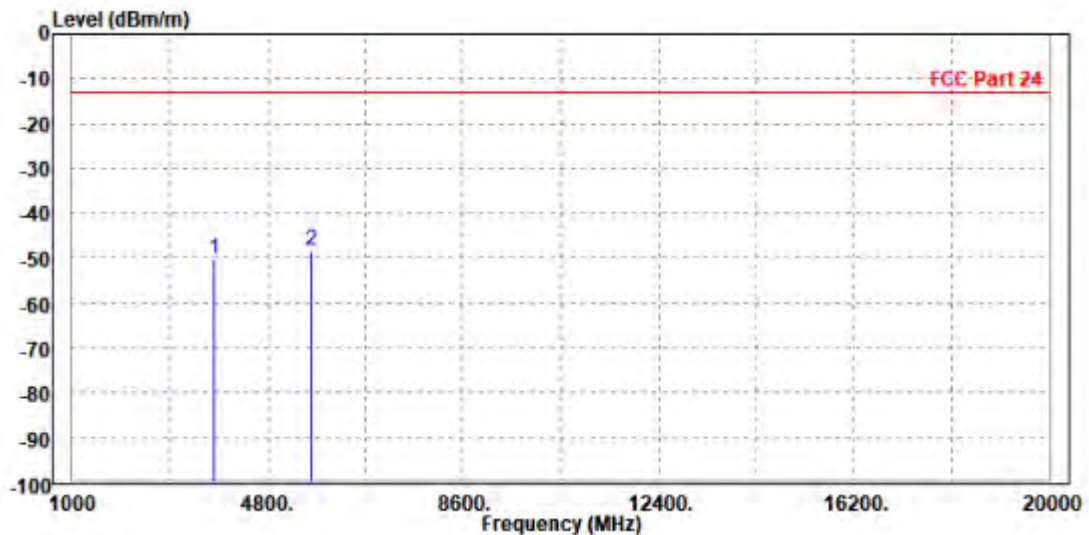


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VERITAS

Test Report No.: W7L-P24100002RF06

MODE	TX channel 18900	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	3760.000	-50.18	-58.81	-13.00	-37.18	8.63	Peak	Vertical
2 PP	5636.000	-48.18	-60.50	-13.00	-35.18	12.32	Peak	Vertical





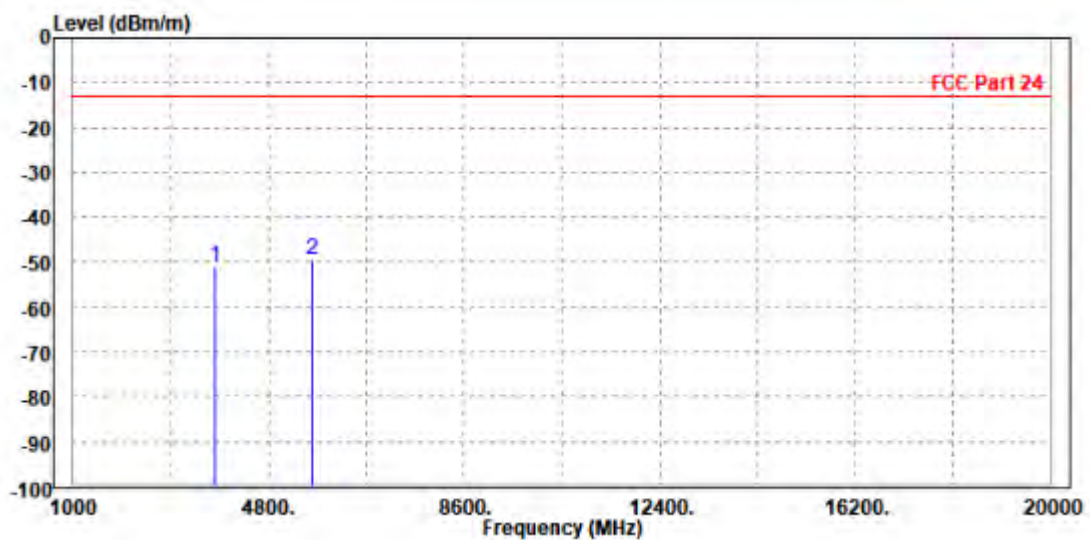
BUREAU
VERITAS

Test Report No.: W7L-P24100002RF06

CHANNEL BANDWIDTH: 5MHz / QPSK

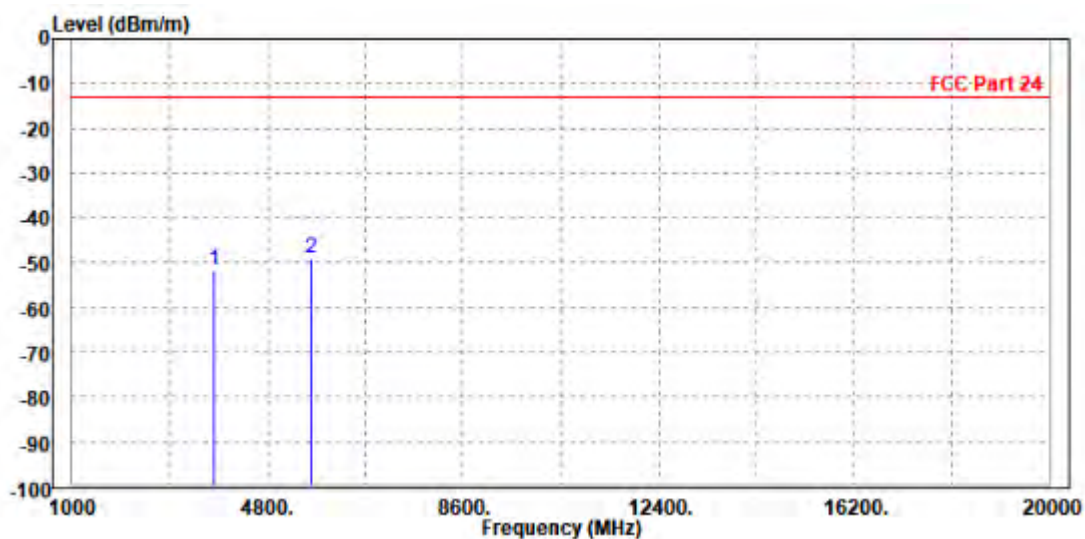
MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3760.000	-50.89	-59.24	-13.00	-37.89	8.35	Peak	Horizontal
2 PP	5636.000	-49.62	-61.43	-13.00	-36.62	11.81	Peak	Horizontal



MODE	TX channel 18900	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	3755.000	-51.53	-60.16	-13.00	-38.53	8.63	Peak	Vertical
2 PP	5640.000	-49.09	-61.41	-13.00	-36.09	12.32	Peak	Vertical

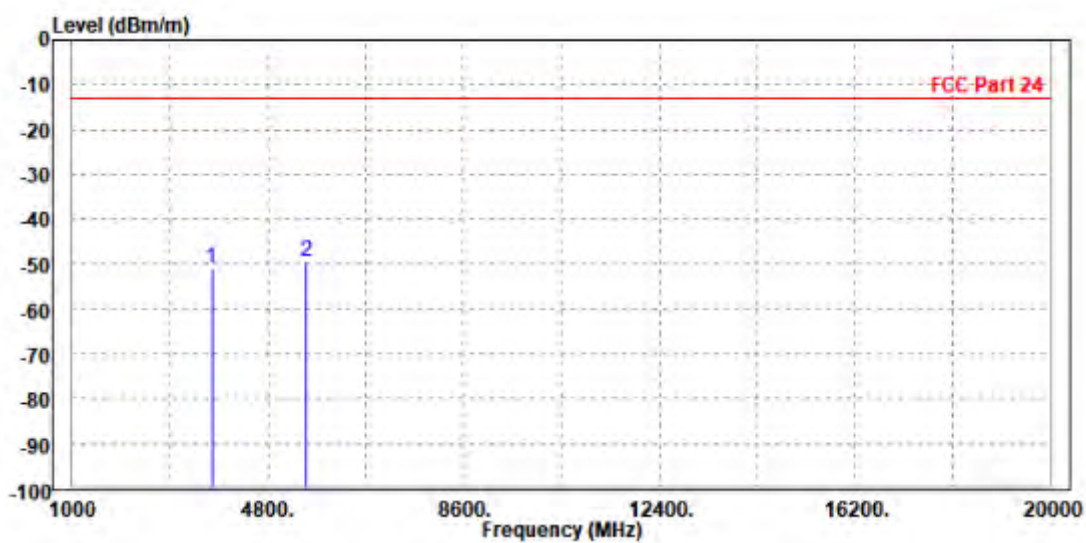


CHANNEL BANDWIDTH: 10MHz / QPSK

CH18650

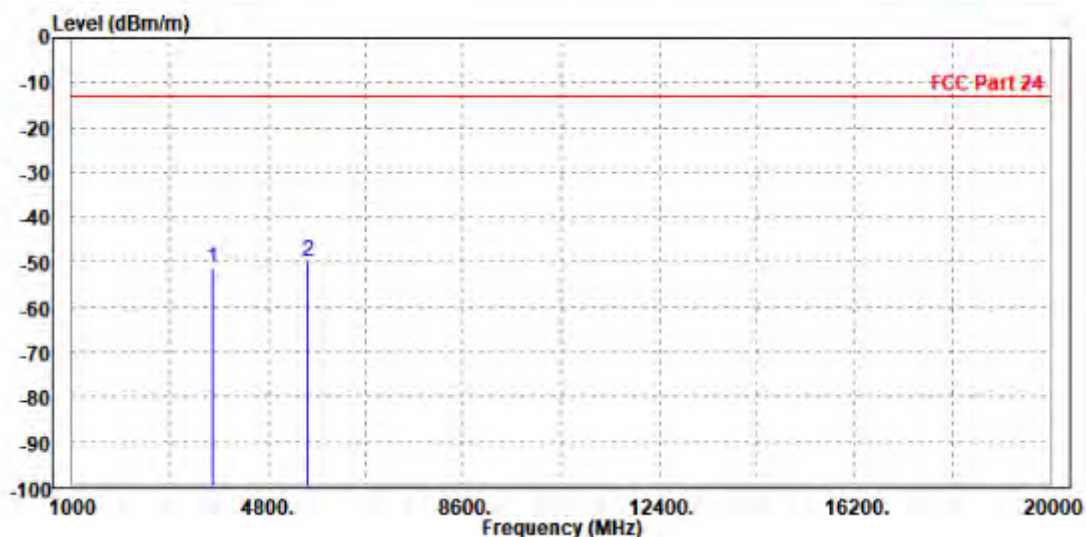
MODE	TX channel 18650	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3710.000	-50.86	-59.25	-13.00	-37.86	8.39	Peak	Horizontal
2 PP	5560.000	-49.53	-61.33	-13.00	-36.53	11.80	Peak	Horizontal



MODE	TX channel 18650	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	3717.000	-51.42	-60.05	-13.00	-38.42	8.63	Peak	Vertical
2 PP	5565.000	-49.77	-62.10	-13.00	-36.77	12.33	Peak	Vertical





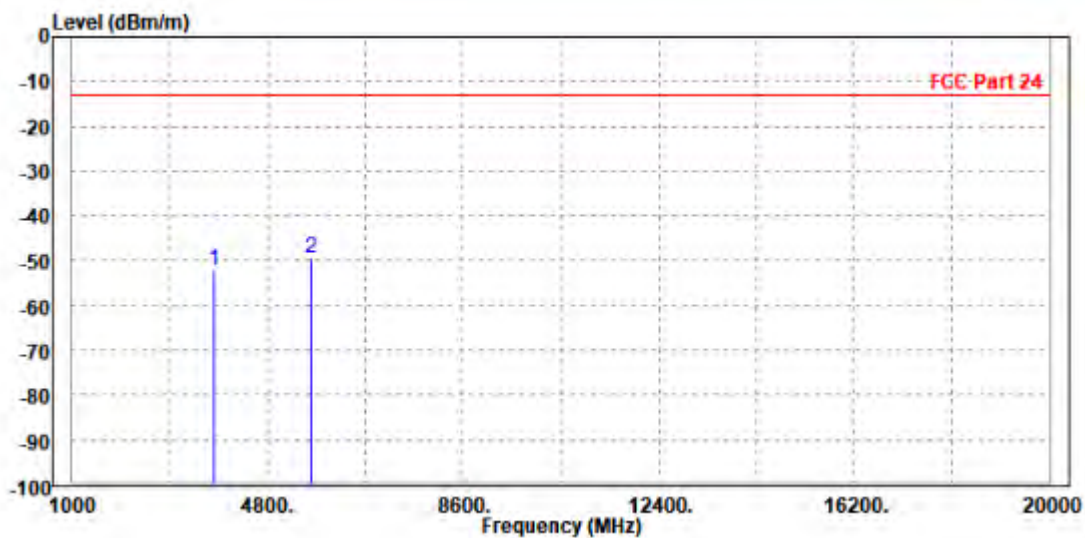
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Test Report No.: W7L-P24100002RF06

CH18900

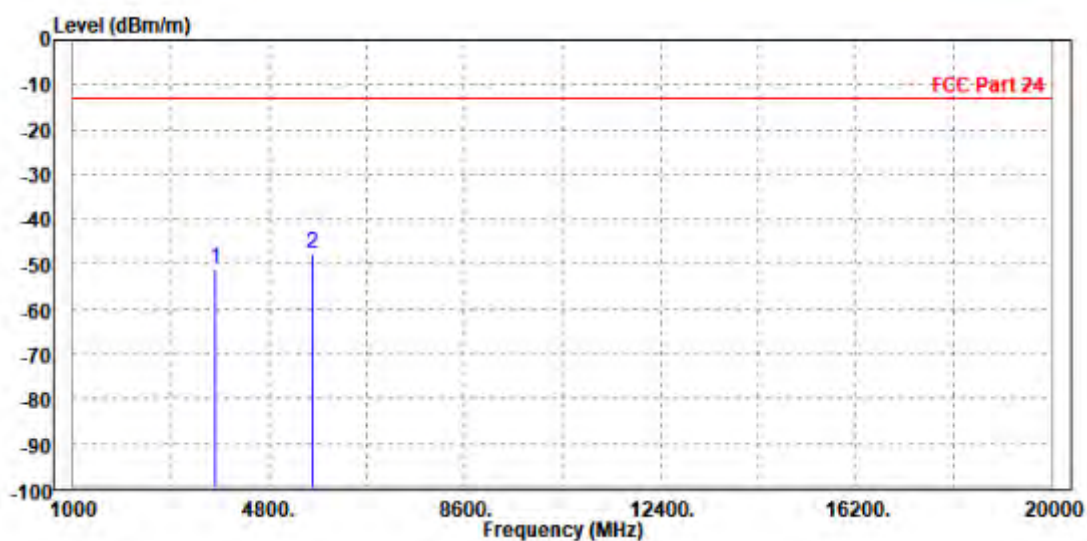
MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3755.000	-52.04	-60.40	-13.00	-39.04	8.36	Peak	Horizontal
2 PP	5640.000	-49.50	-61.31	-13.00	-36.50	11.81	Peak	Horizontal



MODE	TX channel 18900	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	3760.000	-51.05	-59.68	-13.00	-38.05	8.63	Peak	Vertical
2 PP	5636.000	-47.66	-59.98	-13.00	-34.66	12.32	Peak	Vertical





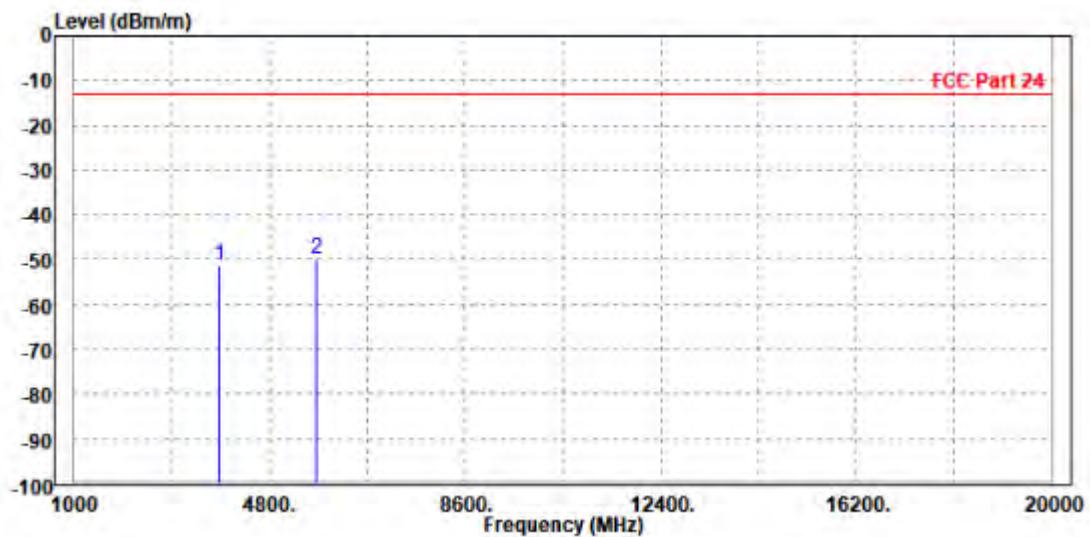
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Test Report No.: W7L-P24100002RF06

CH19150

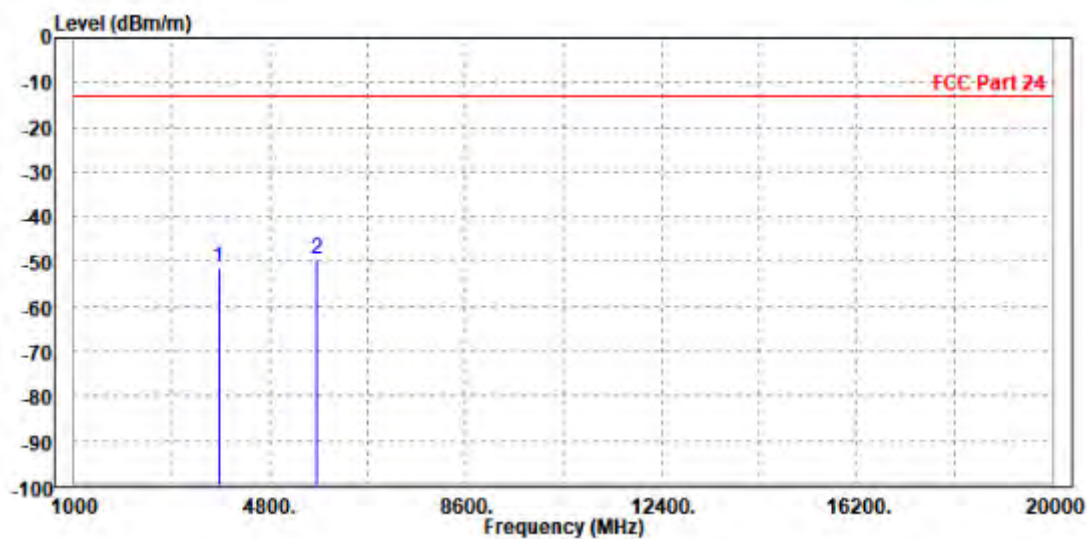
MODE	TX channel 19150	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3812.000	-51.27	-59.58	-13.00	-38.27	8.31	Peak	Horizontal
2 PP	5715.000	-49.62	-61.44	-13.00	-36.62	11.82	Peak	Horizontal



MODE	TX channel 19150	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	3810.000	-51.44	-60.07	-13.00	-38.44	8.63	Peak	Vertical
2 PP	5712.000	-49.36	-61.67	-13.00	-36.36	12.31	Peak	Vertical





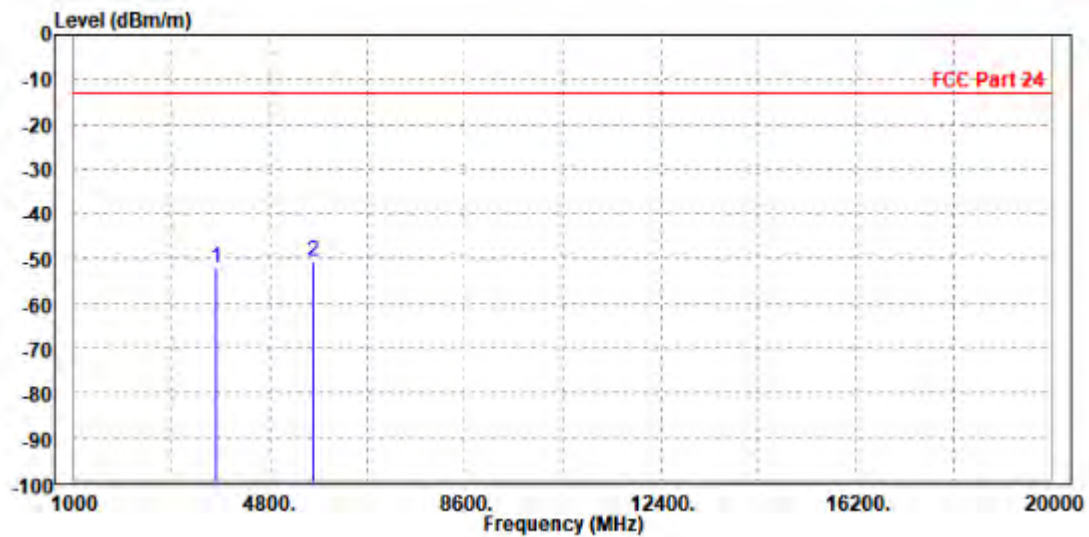
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CHANNEL BANDWIDTH: 15MHz / QPSK

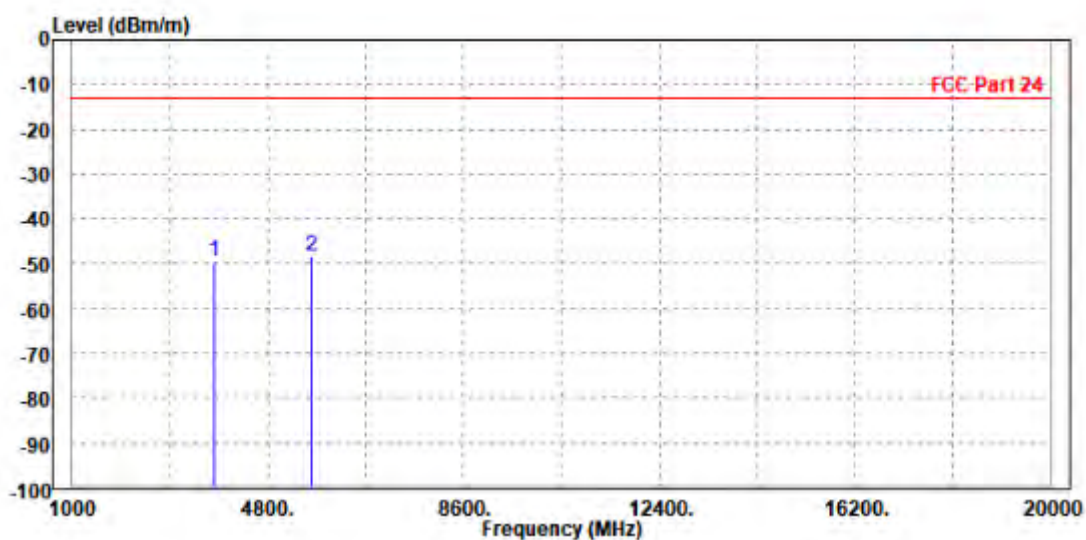
MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3760.000	-52.00	-60.35	-13.00	-39.00	8.35	Peak	Horizontal
2 PP	5636.000	-50.44	-62.25	-13.00	-37.44	11.81	Peak	Horizontal



MODE	TX channel 18900	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			

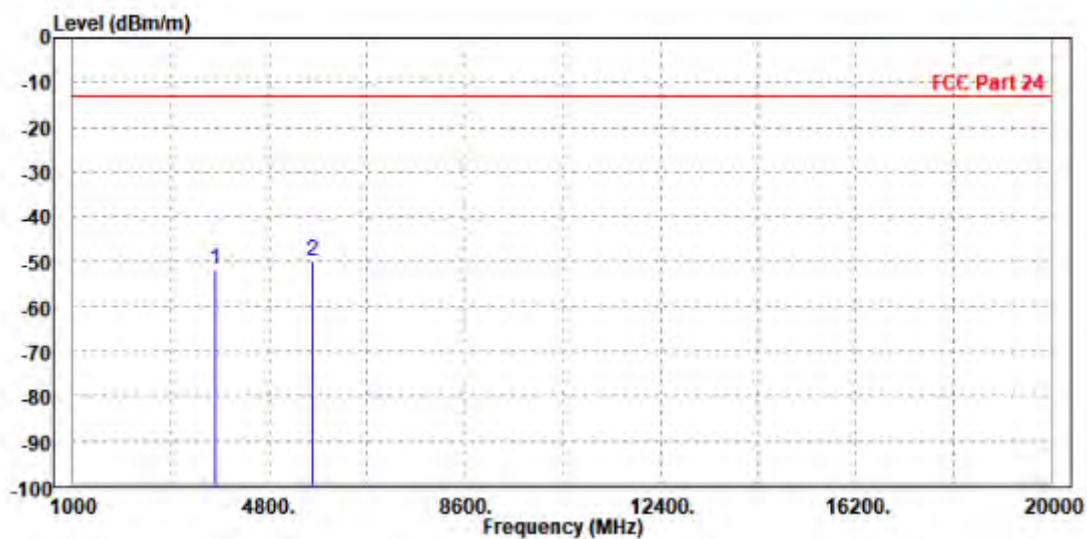
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3755.000	-49.28	-57.91	-13.00	-36.28	8.63	Peak	Vertical
2	PP 5640.000	-48.25	-60.57	-13.00	-35.25	12.32	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

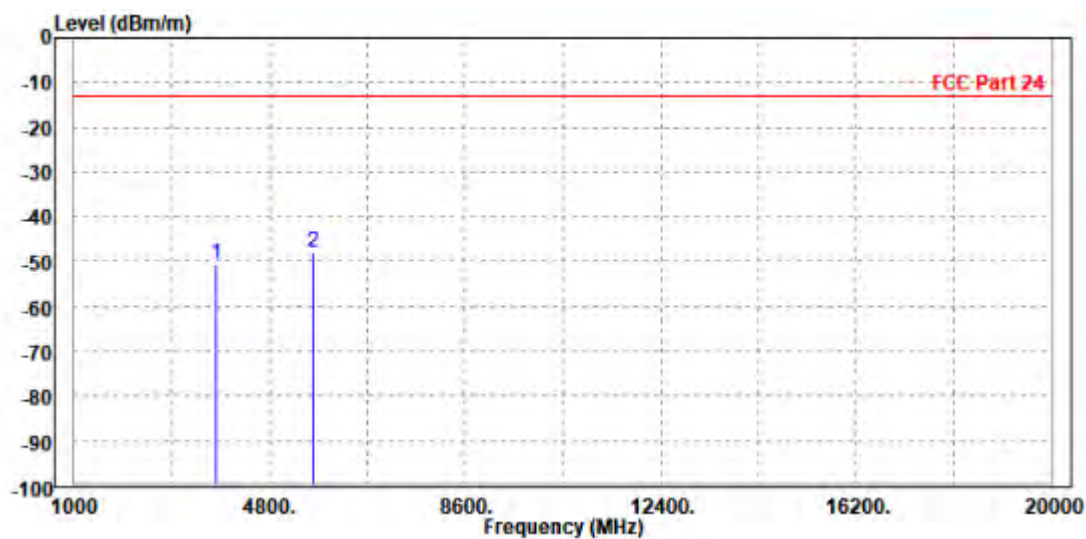
MODE	TX channel 18900	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60Hz
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3755.000	-51.64	-60.00	-13.00	-38.64	8.36	Peak	Horizontal
2 PP	5640.000	-49.65	-61.46	-13.00	-36.65	11.81	Peak	Horizontal



MODE	TX channel 18900	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	3760.000	-50.39	-59.02	-13.00	-37.39	8.63	Peak	Vertical
2 PP	5636.000	-48.05	-60.37	-13.00	-35.05	12.32	Peak	Vertical

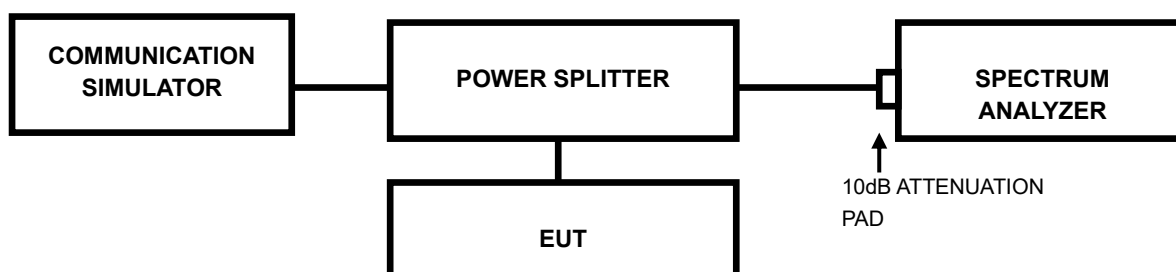


3.7 PEAK TO AVERAGE RATIO

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@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

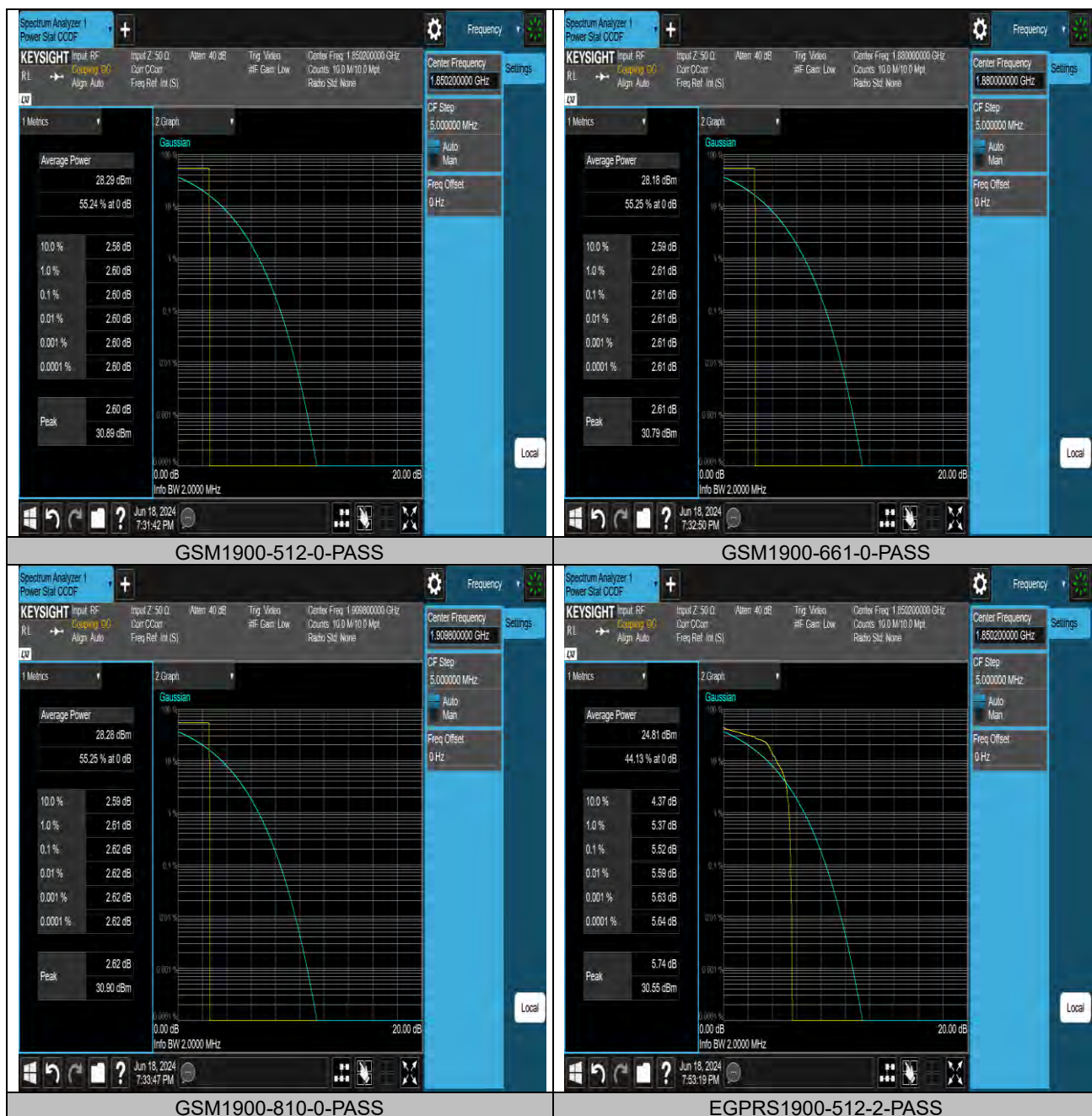
GSM 1900

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Channel	Result(dB)	Limit(dB)	Verdict
GSM1900	512	2.60	13	PASS
GSM1900	661	2.61	13	PASS
GSM1900	810	2.62	13	PASS
EGPRS1900	512	5.52	13	PASS
EGPRS1900	661	5.47	13	PASS
EGPRS1900	810	5.51	13	PASS

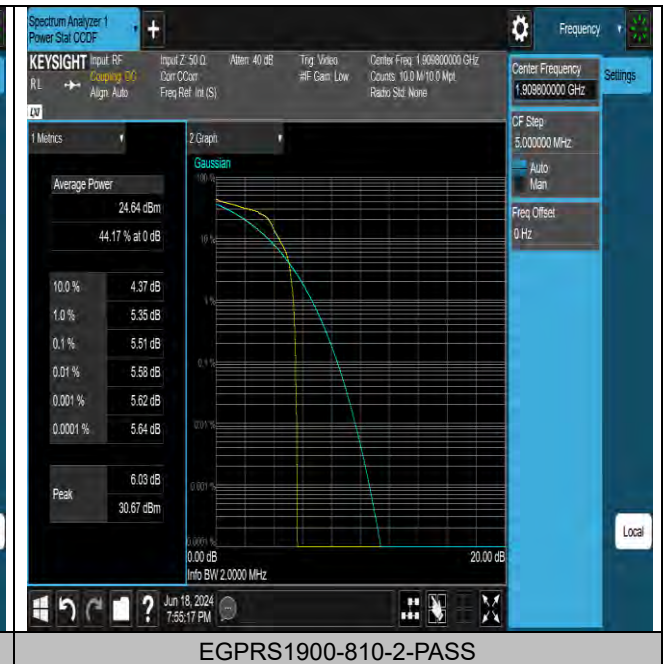
Test Graphs





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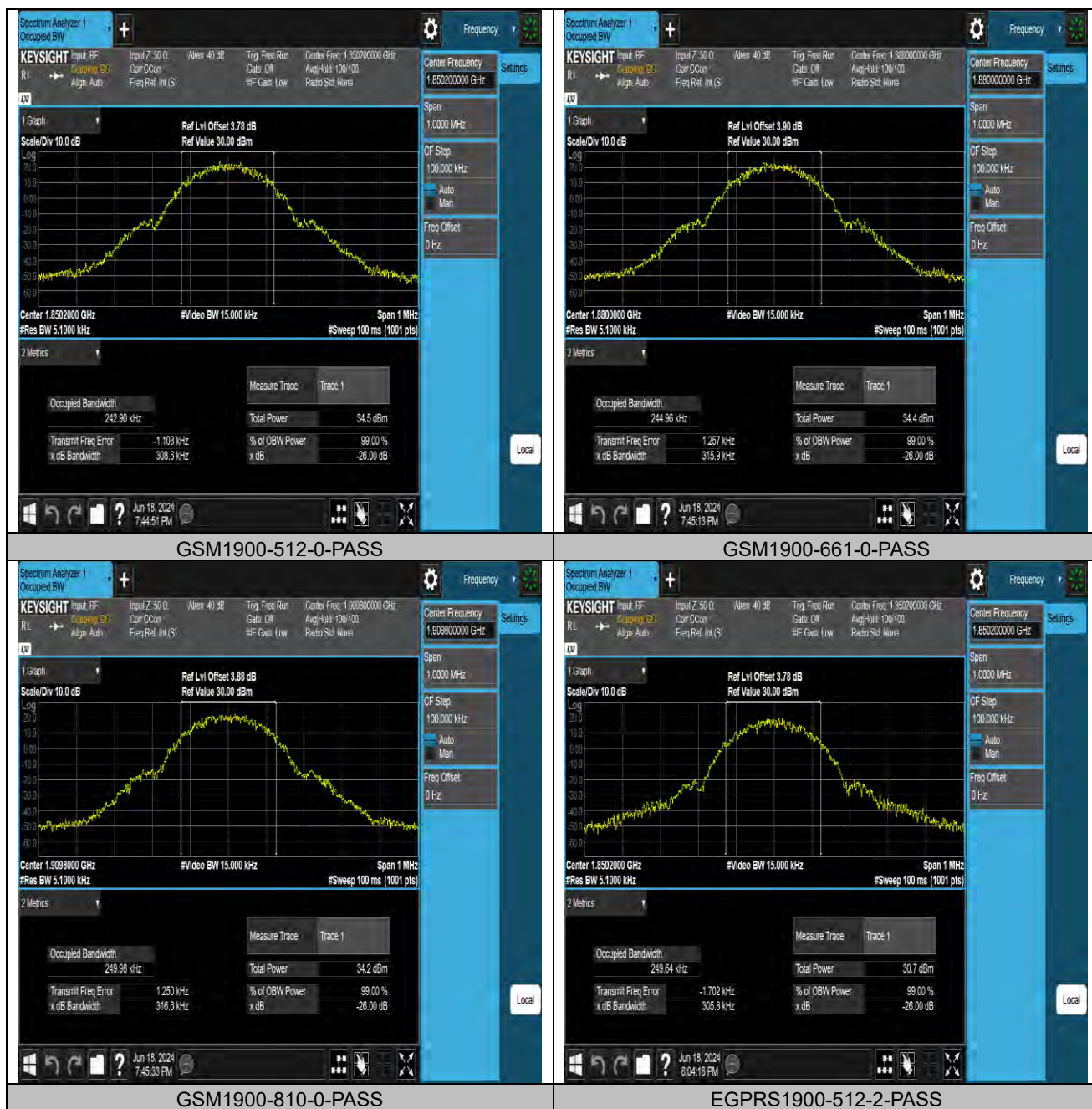


26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (MHz)	Verdict
GSM1900	512	0.24290	0.3086	---	PASS
GSM1900	661	0.24496	0.3159	---	PASS
GSM1900	810	0.24998	0.3166	---	PASS
EGPRS1900	512	0.24964	0.3058	---	PASS
EGPRS1900	661	0.24739	0.3167	---	PASS
EGPRS1900	810	0.25217	0.3099	---	PASS

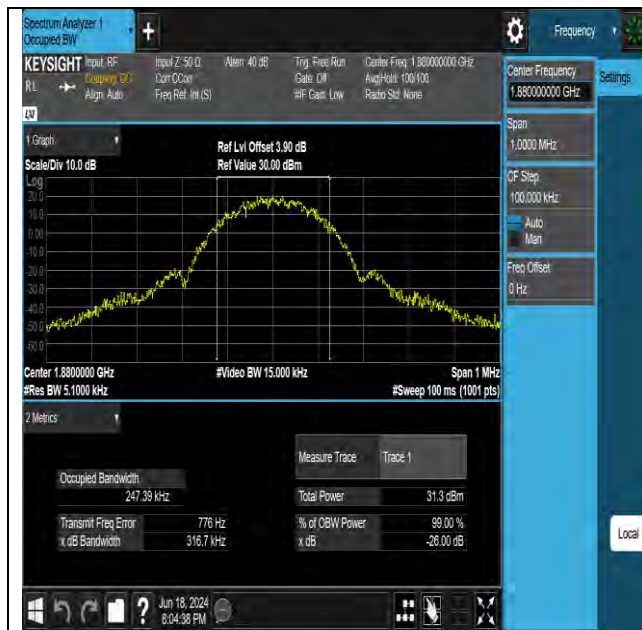
Test Graphs





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EGPRS1900-661-2-PASS



EGPRS1900-810-2-PASS



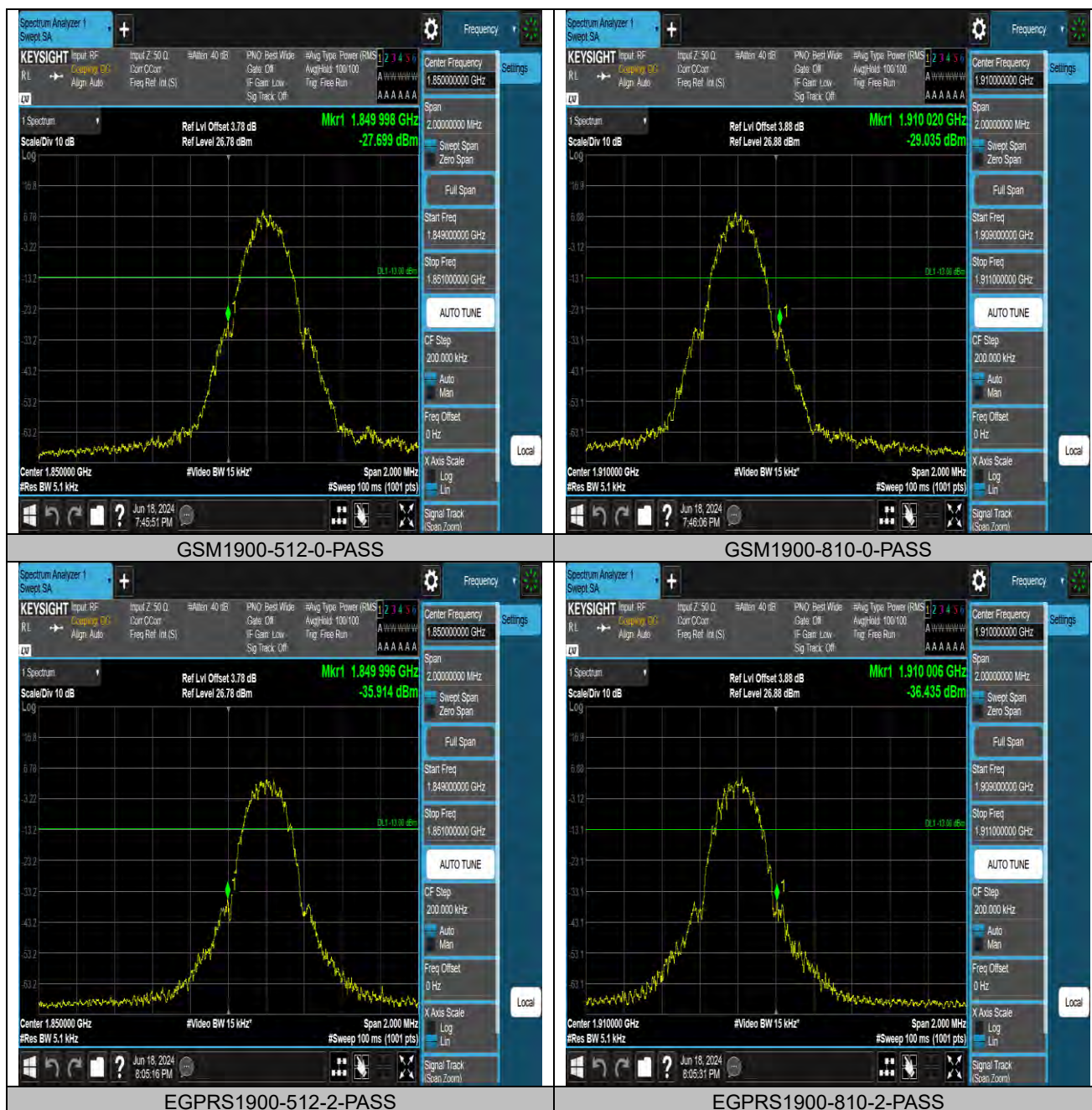
Test Report No.: W7L-P24100002RF06

BAND EDGE

Test Result

Band	Channel	Freq (MHz)	Result (dBm)	Limit(dBm)	Verdict
GSM1900	512	1850.00	-27.70	-13	PASS
GSM1900	810	1910.02	-29.03	-13	PASS
EGPRS1900	512	1850.00	-35.91	-13	PASS
EGPRS1900	810	1910.01	-36.43	-13	PASS

Test Graphs



CONDUCTED SPURIOUS EMISSION

Test Result

Band	Channel	Frequency Range(MHz)	Max.Freq. (MHz)	Result (dBm)	Limit (dBm)	Verdict
GSM1900	512	30~1000MHz	891.94	-49.71	-13	PASS
GSM1900	512	1000~10000MHz	3817	-31.7	-13	PASS
GSM1900	512	10000~20000MHz	19143	-38.39	-13	PASS
GSM1900	661	30~1000MHz	884.47	-49.74	-13	PASS
GSM1900	661	1000~10000MHz	3830.5	-31.74	-13	PASS
GSM1900	661	10000~20000MHz	19357	-38.3	-13	PASS
GSM1900	810	30~1000MHz	904.65	-49.78	-13	PASS
GSM1900	810	1000~10000MHz	3841.3	-31.78	-13	PASS
GSM1900	810	10000~20000MHz	19337.5	-38.38	-13	PASS
EGPRS1900	512	30~1000MHz	896.02	-49.68	-13	PASS
EGPRS1900	512	1000~10000MHz	3845.8	-31.87	-13	PASS
EGPRS1900	512	10000~20000MHz	19250.5	-38.4	-13	PASS
EGPRS1900	661	30~1000MHz	894.37	-49.8	-13	PASS
EGPRS1900	661	1000~10000MHz	3821.5	-31.68	-13	PASS
EGPRS1900	661	10000~20000MHz	19184.5	-38.3	-13	PASS
EGPRS1900	810	30~1000MHz	899.22	-49.75	-13	PASS
EGPRS1900	810	1000~10000MHz	3808.9	-31.67	-13	PASS
EGPRS1900	810	10000~20000MHz	19340.5	-38.28	-13	PASS

Test Graphs





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GSM1900-661-0-1000~10000MHz-PASS

GSM1900-661-0-1000~20000MHz-PASS



GSM1900-810-0-30~1000MHz-PASS

GSM1900-810-0-1000~10000MHz-PASS

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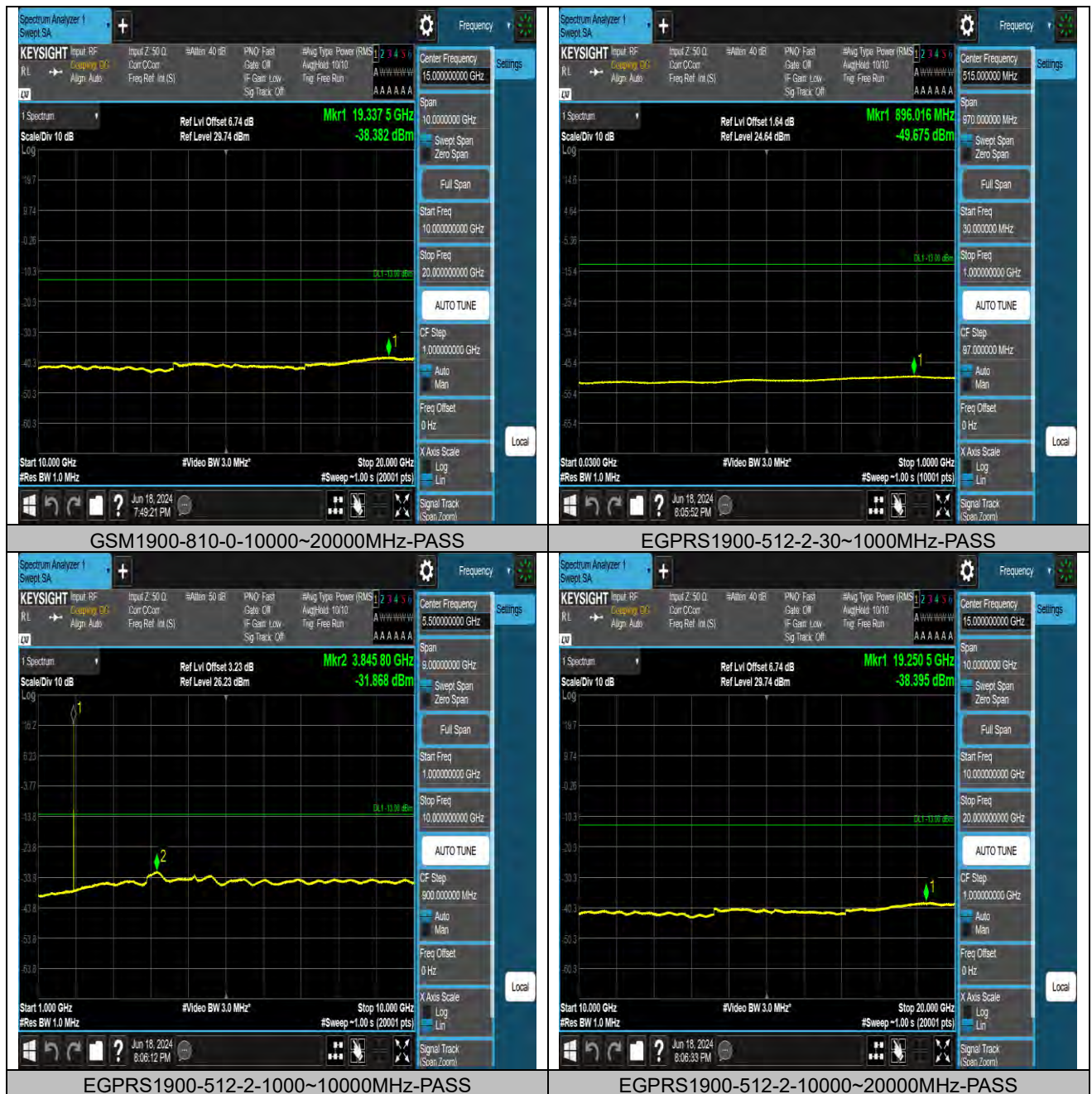
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
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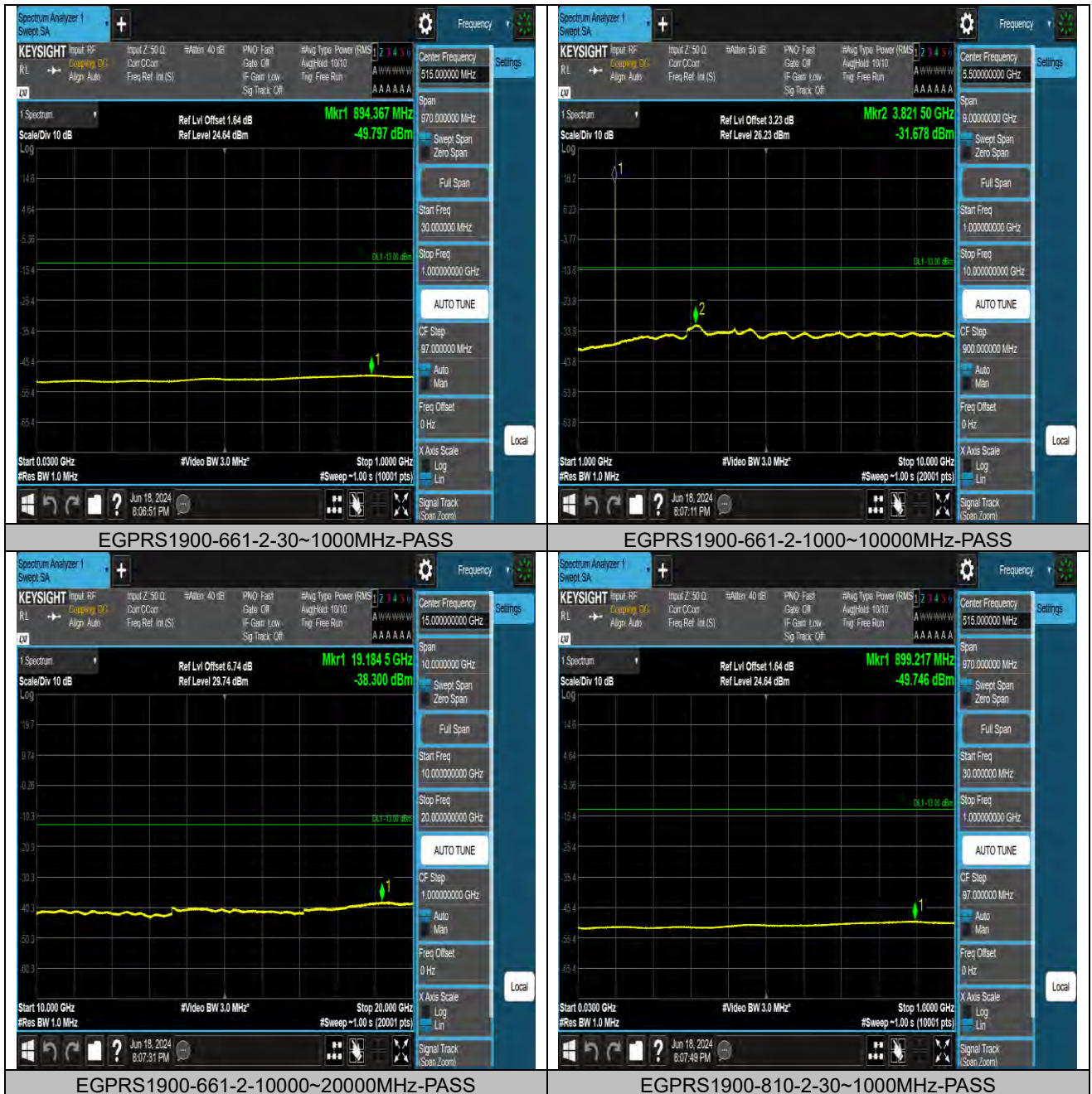
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
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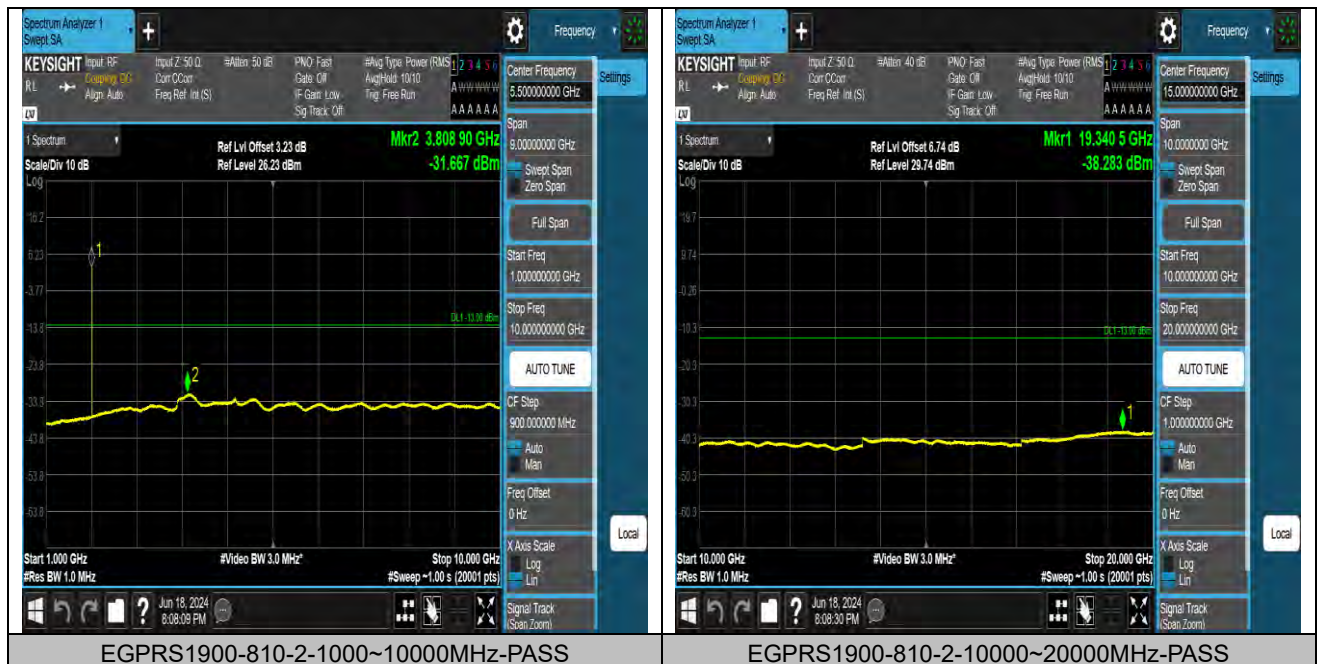
Room B37, Warehouse A5, No.3 Chiwan 4th Road,
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FREQUENCY STABILITY

Test Result

Voltage									
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
GSM1900	512	VN	NT	-580.00	-0.313480	1850.07741	---	1850-1910	PASS
GSM1900	512	VL	NT	400.00	0.216193	1850.07854	---	1850-1910	PASS
GSM1900	512	VH	NT	430.00	0.232407	1850.0774	---	1850-1910	PASS
GSM1900	810	VN	NT	1360.00	0.712116	---	1909.924215	1850-1910	PASS
GSM1900	810	VL	NT	450.00	0.235627	---	1909.923035	1850-1910	PASS
GSM1900	810	VH	NT	890.00	0.466017	---	1909.923235	1850-1910	PASS

Temperature									
Band	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	FL (MHz)	FH (MHz)	Limit (MHz)	Verdict
GSM1900	512	NV	-30	-260.00	-0.140525	1850.07766	---	1850-1910	PASS
GSM1900	512	NV	-20	-60.00	-0.032429	1850.07776	---	1850-1910	PASS
GSM1900	512	NV	-10	810.00	0.437791	1850.078715	---	1850-1910	PASS
GSM1900	512	NV	0	540.00	0.291860	1850.07796	---	1850-1910	PASS
GSM1900	512	NV	10	750.00	0.405362	1850.078485	---	1850-1910	PASS
GSM1900	512	NV	20	350.00	0.189169	1850.077435	---	1850-1910	PASS
GSM1900	512	NV	30	250.00	0.135121	1850.077925	---	1850-1910	PASS
GSM1900	512	NV	40	-160.00	-0.086477	1850.07863	---	1850-1910	PASS
GSM1900	512	NV	50	580.00	0.313480	1850.078935	---	1850-1910	PASS
GSM1900	810	NV	-30	820.00	0.429364	---	1909.923125	1850-1910	PASS
GSM1900	810	NV	-20	570.00	0.298461	---	1909.92266	1850-1910	PASS
GSM1900	810	NV	-10	270.00	0.141376	---	1909.920355	1850-1910	PASS
GSM1900	810	NV	0	-1570.00	-0.82207	---	1909.920	1850-1910	PASS



BUREAU
VERITAS

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0					6		57	0	
GSM190 0	810	NV	10	660.00	0.345586	---	1909.922 46	1850-191 0	PASS
GSM190 0	810	NV	20	270.00	0.141376	---	1909.923 04	1850-191 0	PASS
GSM190 0	810	NV	30	-610.00	-0.31940 5	---	1909.921 66	1850-191 0	PASS
GSM190 0	810	NV	40	510.00	0.267044	---	1909.923 41	1850-191 0	PASS
GSM190 0	810	NV	50	100.00	0.052362	---	1909.922 99	1850-191 0	PASS



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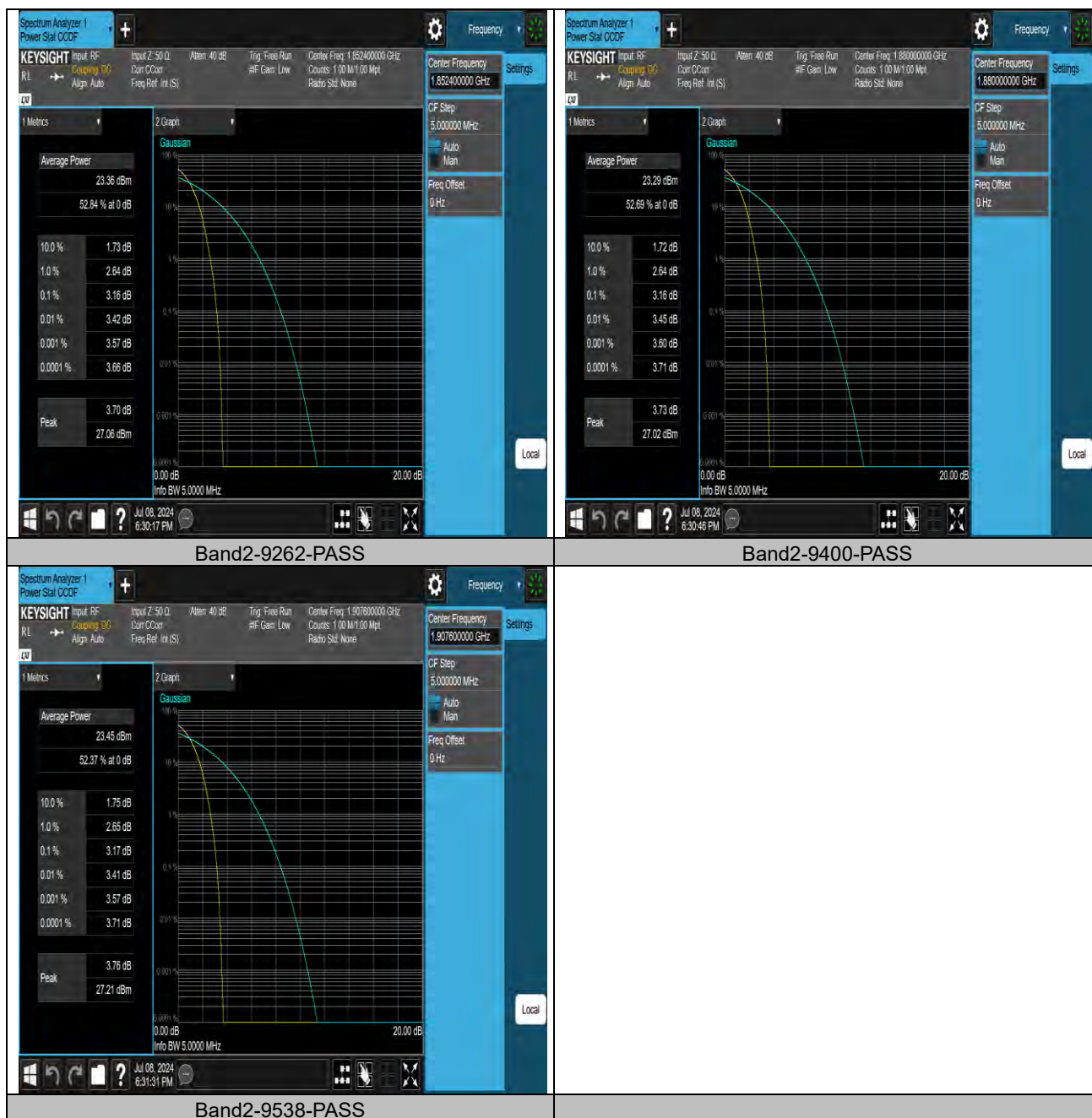
WCDMA BAND2

PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band2	9262	3.16	13	PASS
Band2	9400	3.16	13	PASS
Band2	9538	3.17	13	PASS

Test Graphs



26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(MHz)	Verdict
Band2	9262	4.1657	4.701	---	PASS
Band2	9400	4.1639	4.695	---	PASS
Band2	9538	4.1606	4.696	---	PASS