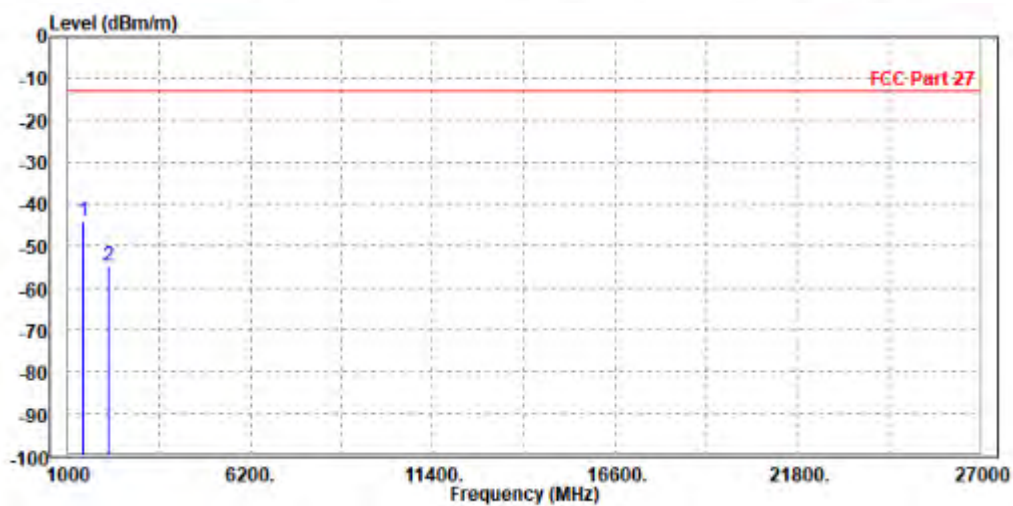


MODE	TX channel 23173	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1430.600	-44.02	-43.68	-13.00	-31.02	-0.34	Peak	Vertical
2	2144.000	-54.63	-58.60	-13.00	-41.63	3.97	Peak	Vertical





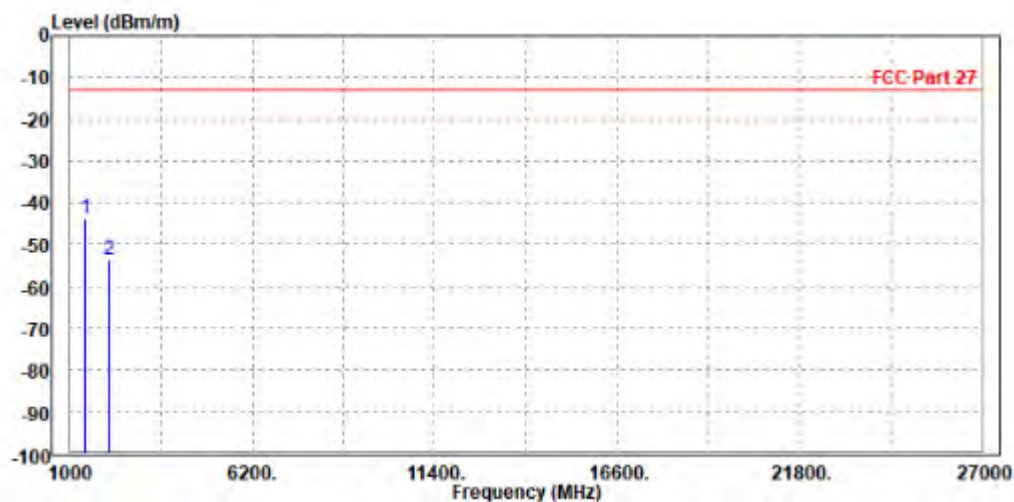
Test Report No.: W7L-P22090023RF05

CHANNEL BANDWIDTH: 3MHz / QPSK

CH23095

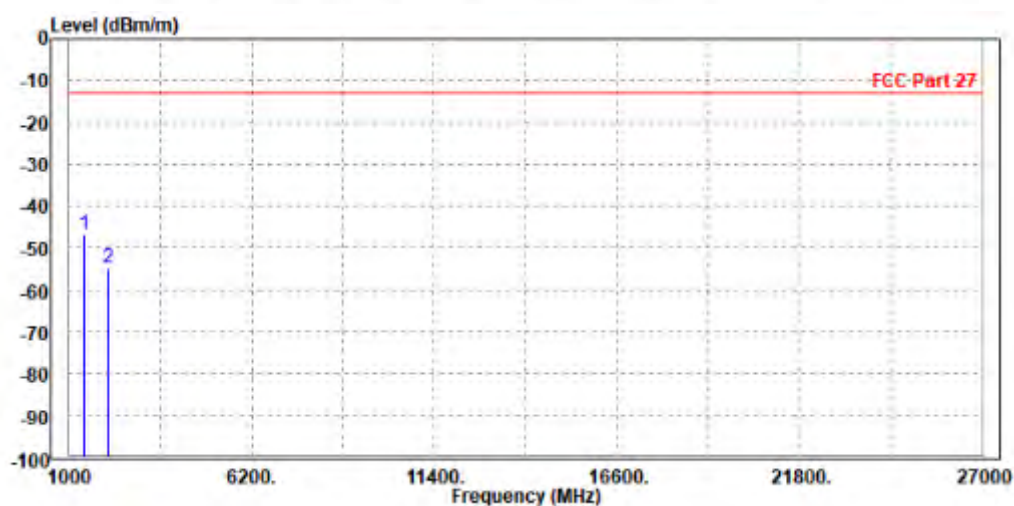
07-20000			
MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1416.000	-43.88	-43.24	-13.00	-30.88	-0.64	Peak	Horizontal
2		2122.500	-53.46	-57.52	-13.00	-40.46	4.06	Peak	Horizontal



MODE	TX channel 23095	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			

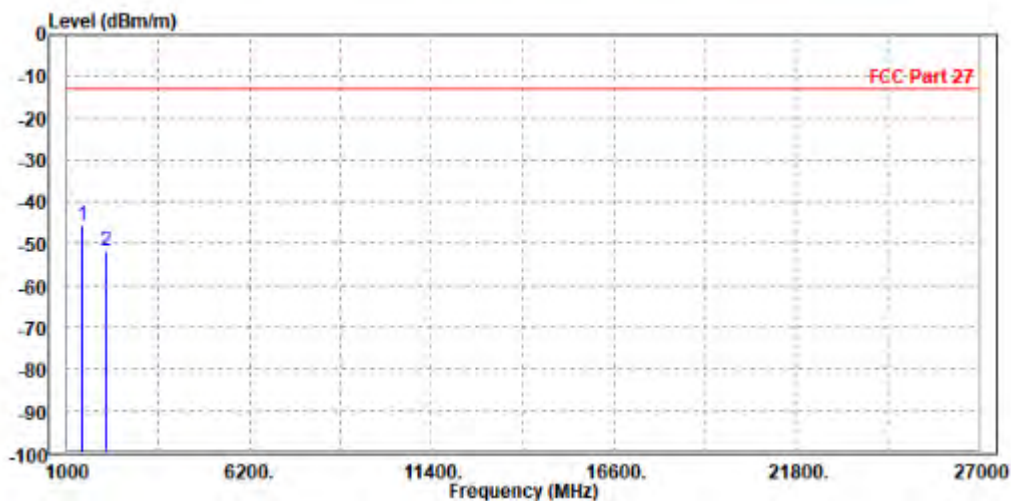
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1415.000	-46.74	-46.33	-13.00	-33.74	-0.41	Peak	Vertical
2		2118.000	-54.86	-58.76	-13.00	-41.86	3.90	Peak	Vertical



CHANNEL BANDWIDTH: 5MHz / QPSK

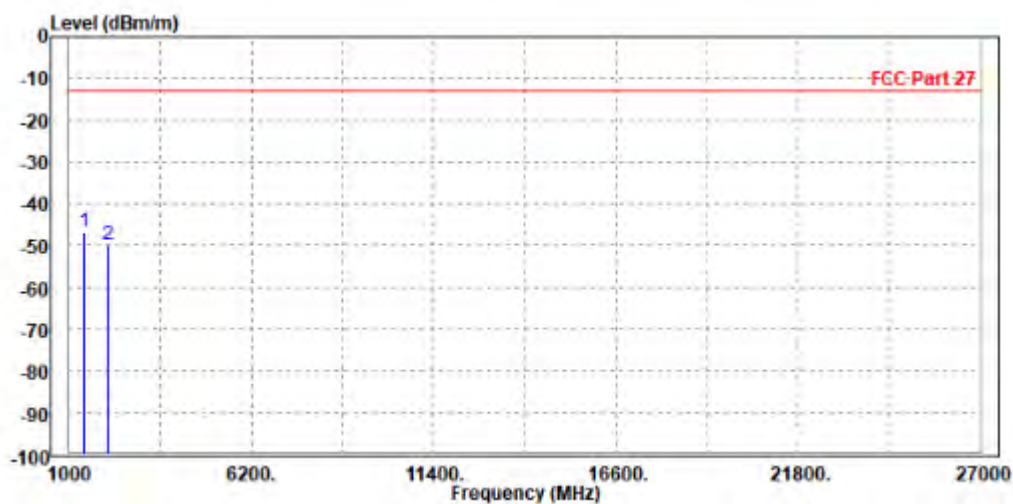
MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1415.000	-45.73	-45.08	-13.00	-32.73	-0.65	Peak	Horizontal
2	2118.000	-51.62	-55.67	-13.00	-38.62	4.05	Peak	Horizontal



MODE	TX channel 23095	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	1416.000	-46.91	-46.51	-13.00	-33.91	-0.40	Peak	Vertical
2		2122.500	-49.63	-53.55	-13.00	-36.63	3.92	Peak	Vertical

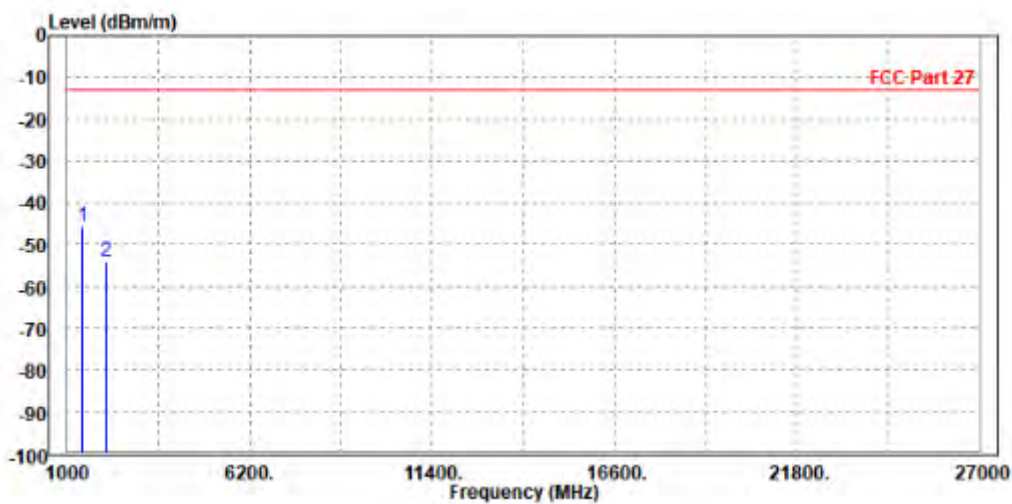


CHANNEL BANDWIDTH: 10MHz / QPSK

CH23095

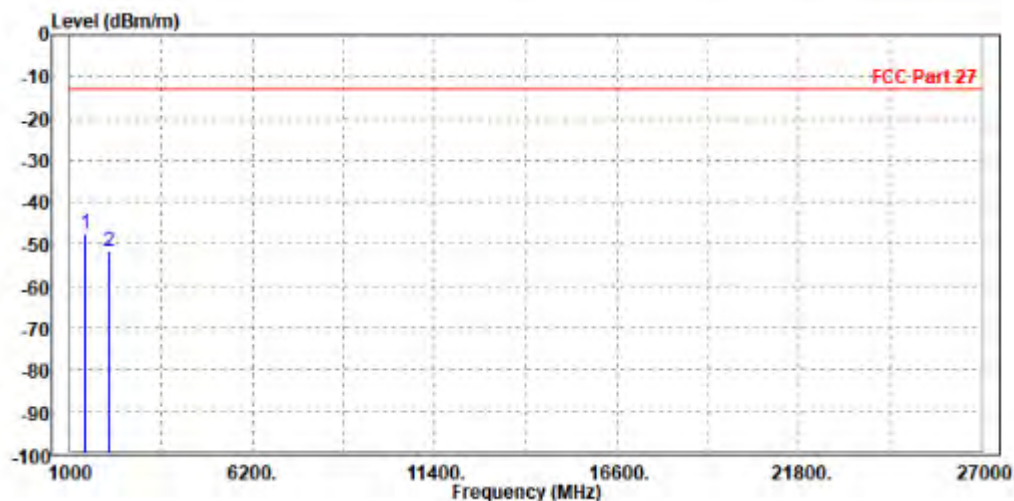
MODE	TX channel 23095	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1416.000	-45.54	-44.90	-13.00	-32.54	-0.64	Peak	Horizontal
2	2122.500	-53.98	-58.04	-13.00	-40.98	4.06	Peak	Horizontal



MODE	TX channel 23095	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 1415.000	-47.71	-47.30	-13.00	-34.71	-0.41	Peak	Vertical
2	2118.000	-51.73	-55.63	-13.00	-38.73	3.90	Peak	Vertical



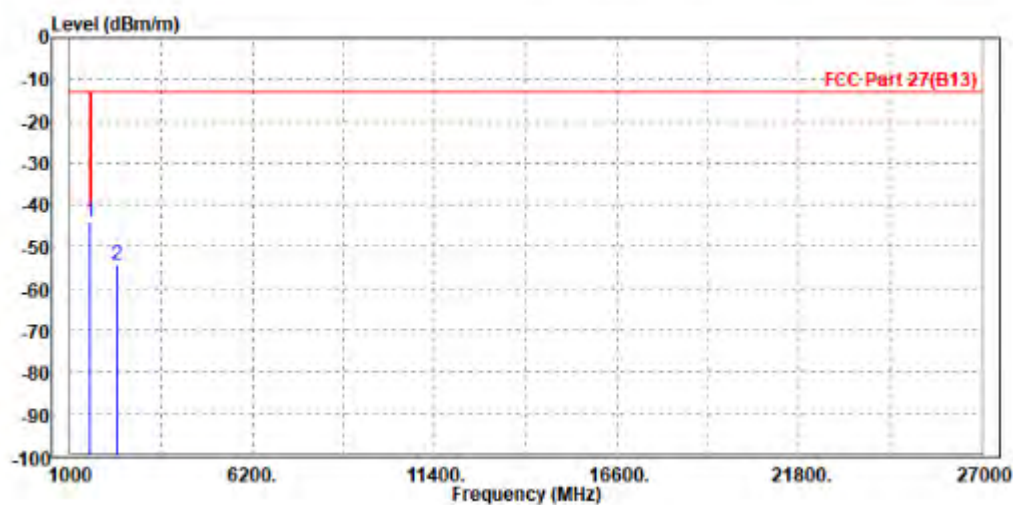
LTE B13

CHANNEL BANDWIDTH: 5MHz / QPSK

CH23205

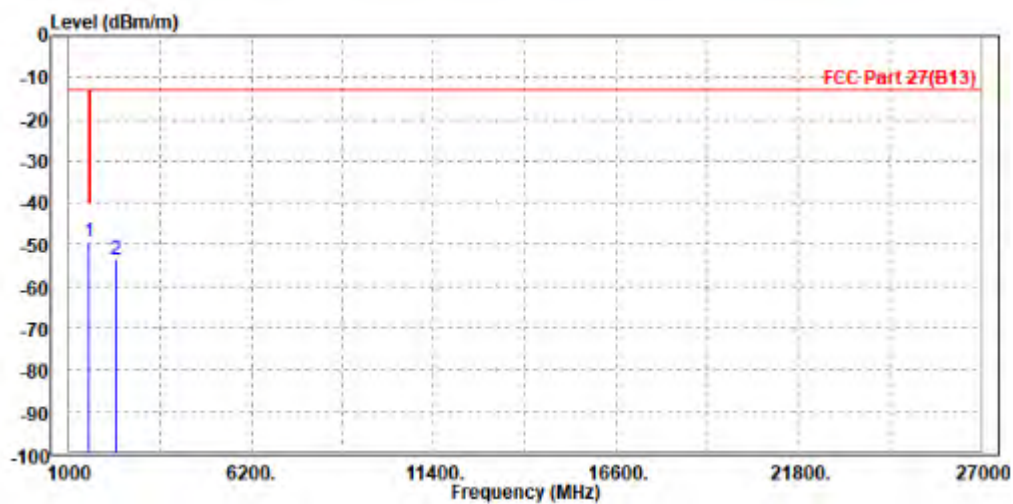
MODE	TX channel 23205	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1572.000	-43.95	-44.11	-40.00	-3.95	0.16	Peak	Horizontal
2		2338.500	-54.26	-59.11	-13.00	-41.26	4.85	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			

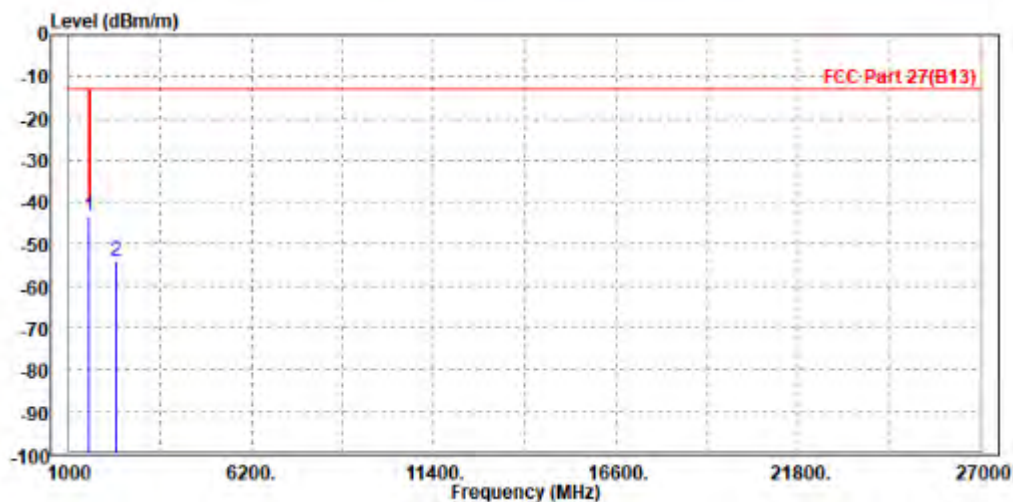
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1572.000	-49.44	-49.93	-40.00	-9.44	0.49	Peak	Vertical
2		2338.500	-53.60	-58.10	-13.00	-40.60	4.50	Peak	Vertical



CH23230

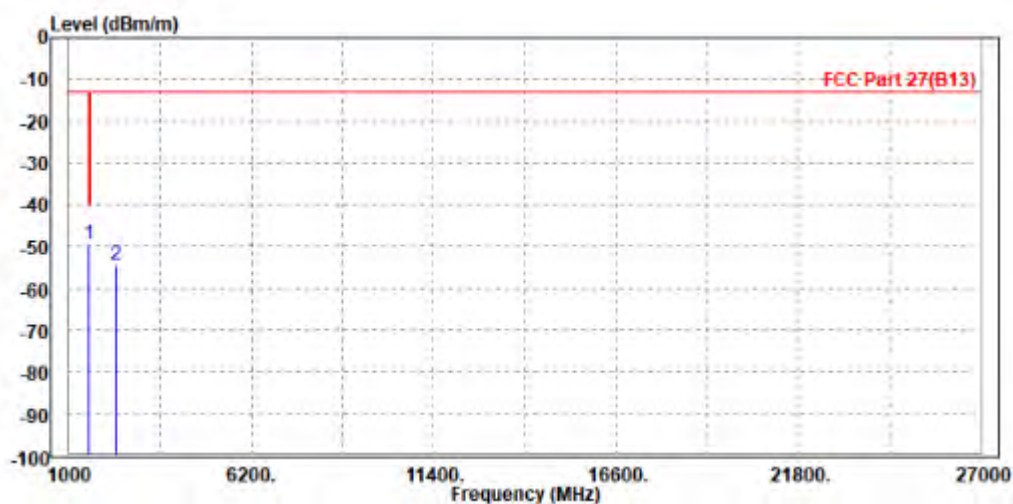
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1572.000	-43.17	-43.33	-40.00	-3.17	0.16	Peak	Horizontal
2	2352.000	-53.85	-58.75	-13.00	-40.85	4.90	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			

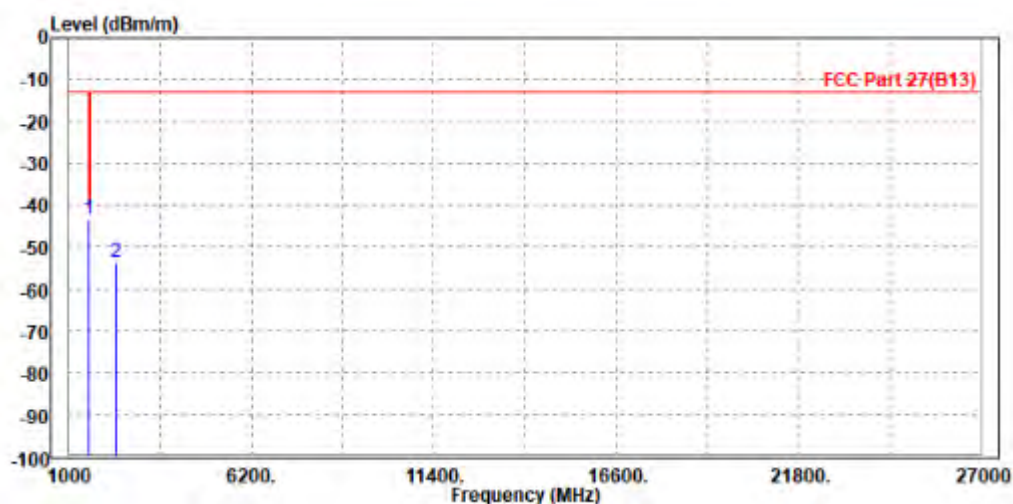
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1572.000	-49.44	-49.93	-40.00	-9.44	0.49	Peak	Vertical
2	2346.000	-54.55	-59.07	-13.00	-41.55	4.52	Peak	Vertical



CH23255

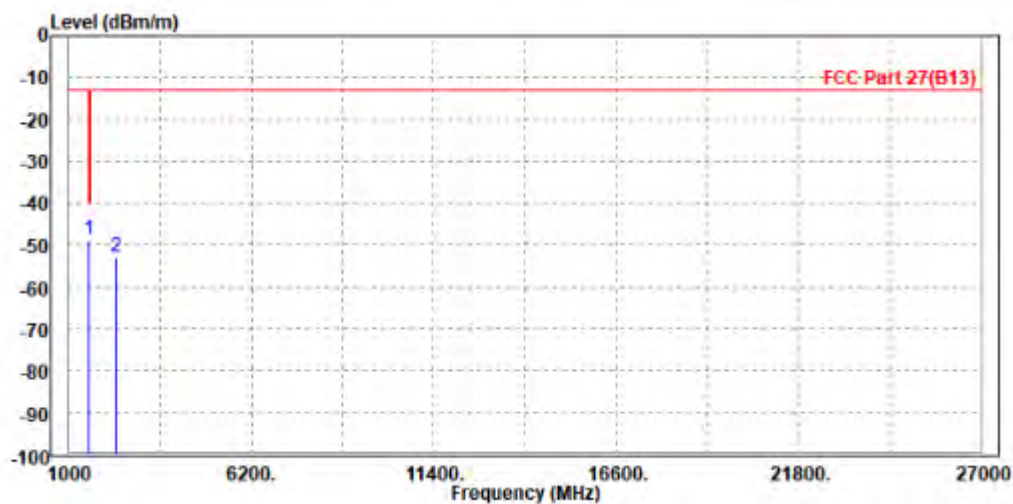
MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1572.000	-43.20	-43.36	-40.00	-3.20	0.16	Peak	Horizontal
2	2353.500	-53.80	-58.71	-13.00	-40.80	4.91	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			

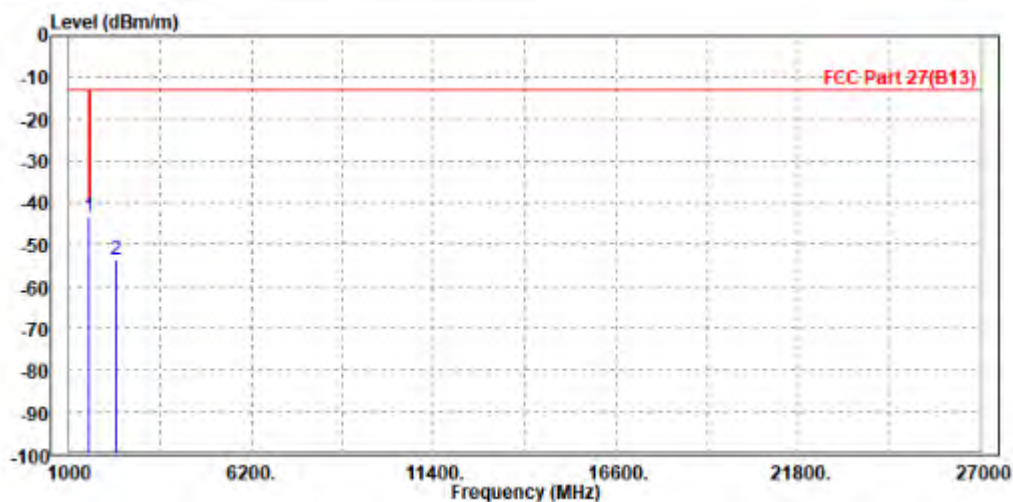
		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1572.000	-48.83	-49.32	-40.00	-8.83	0.49	Peak	Vertical
2		2352.000	-52.82	-57.36	-13.00	-39.82	4.54	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz /QPSK

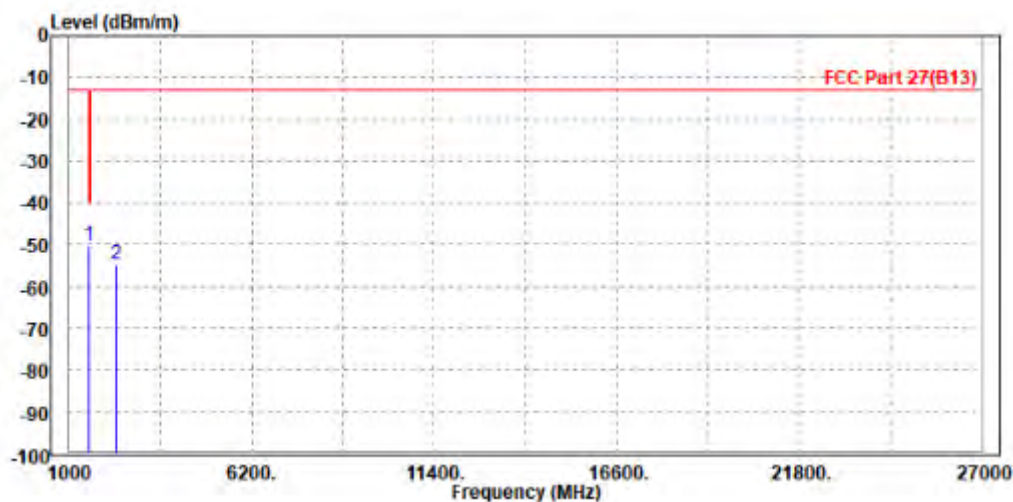
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	1572.000	-43.21	-43.37	-40.00	-3.21	0.16	Peak	Horizontal
2		2346.000	-53.48	-58.36	-13.00	-40.48	4.88	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 1564.000	-50.31	-50.74	-40.00	-10.31	0.43	Peak	Vertical
2	2352.000	-54.70	-59.24	-13.00	-41.70	4.54	Peak	Vertical



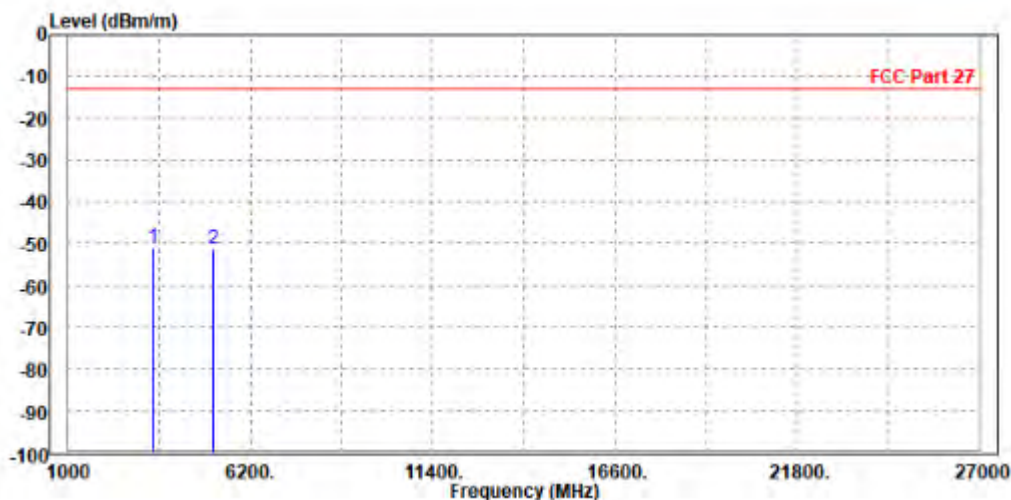
LTE B66

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH131979

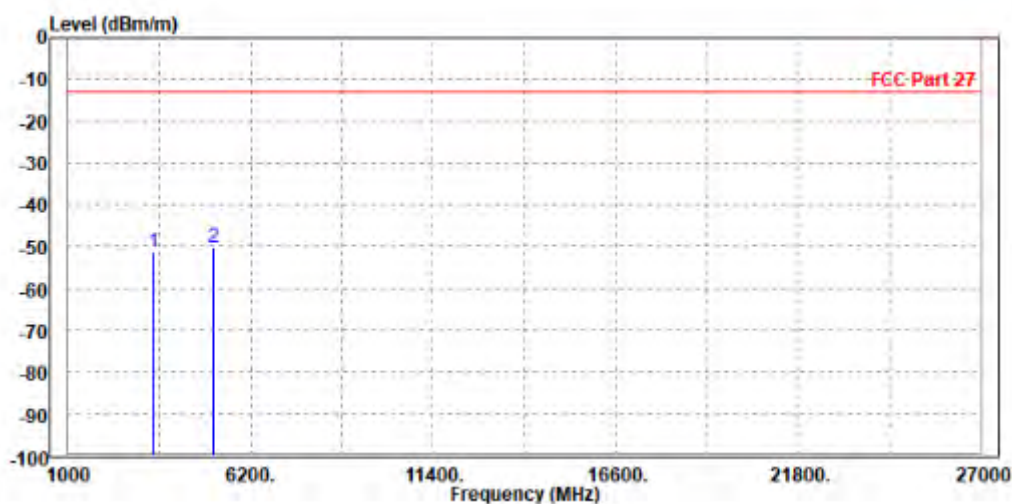
MODE	TX channel 131979	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	3421.400	-50.82	-58.03	-13.00	-37.82	7.21	Peak	Horizontal
2		5134.000	-51.31	-61.21	-13.00	-38.31	9.90	Peak	Horizontal



MODE	TX channel 131979	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			

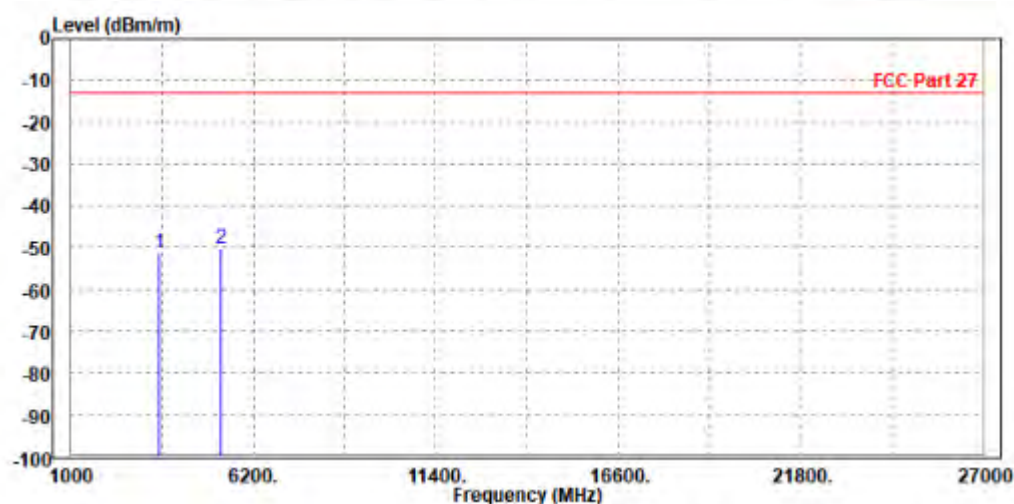
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3418.000	-51.47	-58.66	-13.00	-38.47	7.19	Peak	Vertical
2 PP	5132.100	-50.20	-60.59	-13.00	-37.20	10.39	Peak	Vertical



CH132322

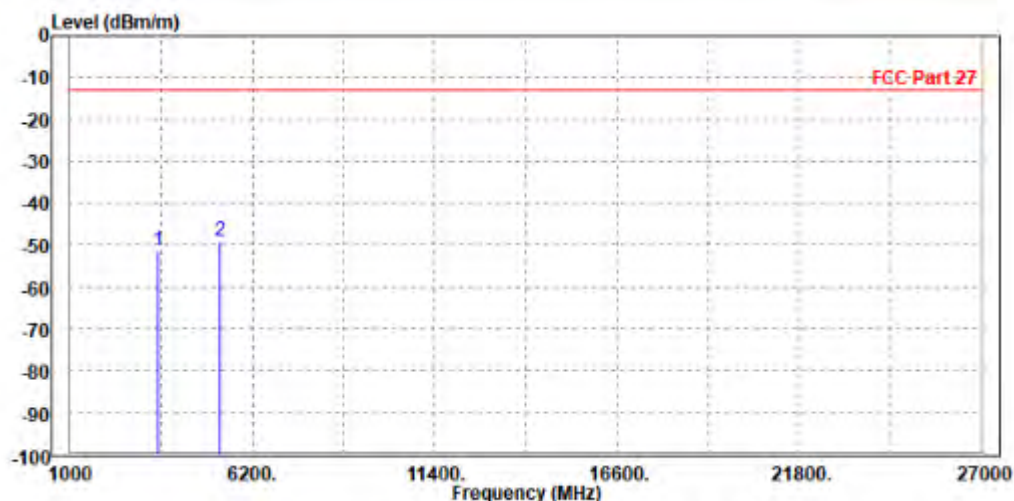
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-51.30	-58.68	-13.00	-38.30	7.38	Peak	Horizontal
2 PP	5265.000	-50.34	-60.45	-13.00	-37.34	10.11	Peak	Horizontal



MODE	TX channel 132322	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			

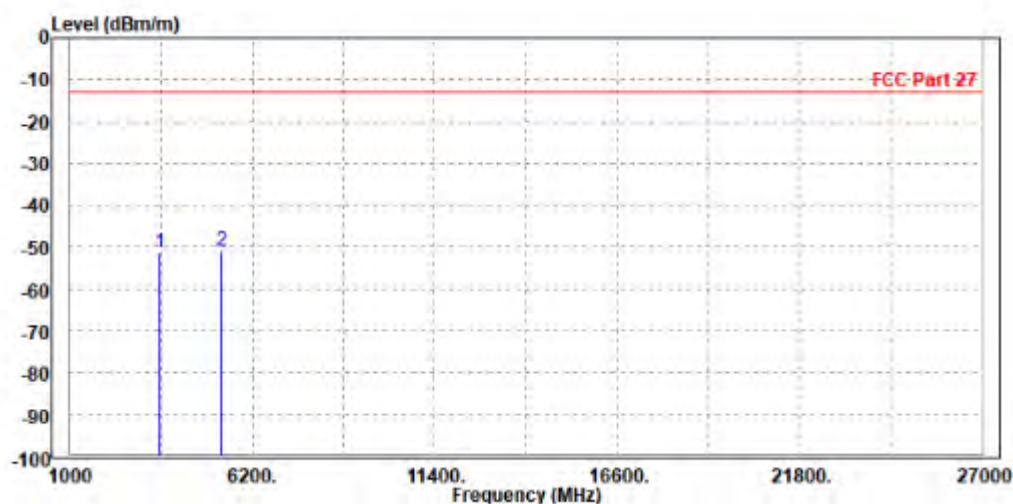
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-51.49	-58.82	-13.00	-38.49	7.33	Peak	Vertical
2 PP	5264.000	-48.92	-59.43	-13.00	-35.92	10.51	Peak	Vertical



CH132665

MODE	TX channel 132665	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	3548.000	-51.33	-58.77	-13.00	-38.33	7.44	Peak	Horizontal
2 PP	5337.900	-50.76	-60.98	-13.00	-37.76	10.22	Peak	Horizontal

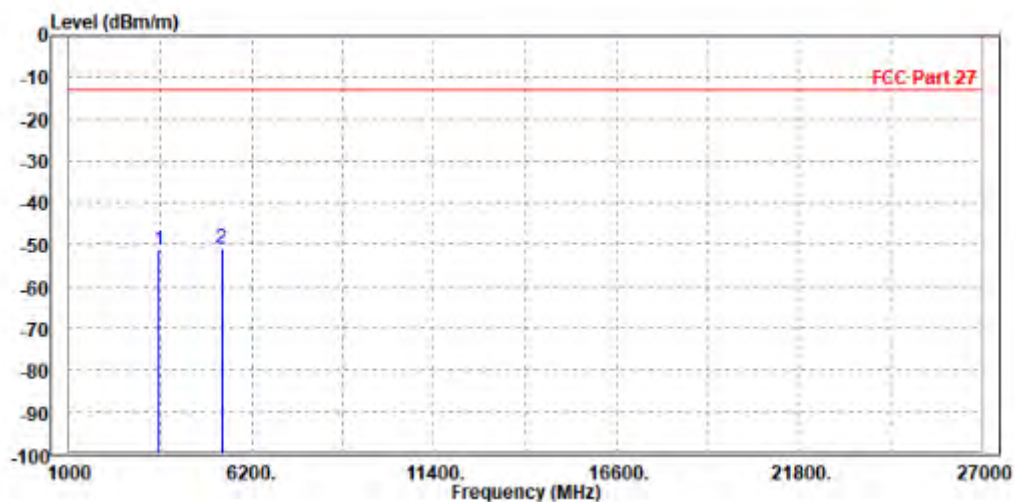




Test Report No.: W7L-P22090023RF05

MODE	TX channel 132665	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			

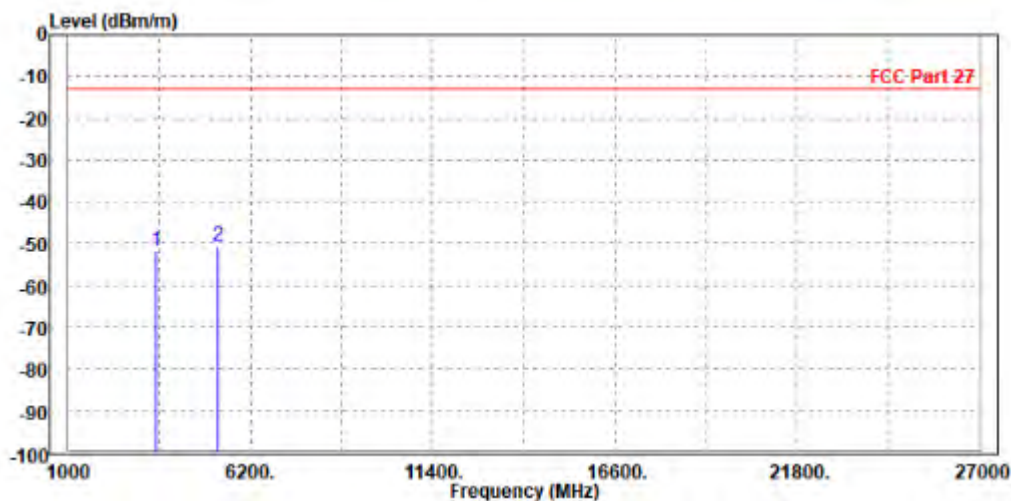
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3558.600	-51.34	-58.74	-13.00	-38.34	7.40	Peak	Vertical
2 PP	5342.000	-50.86	-61.44	-13.00	-37.86	10.58	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

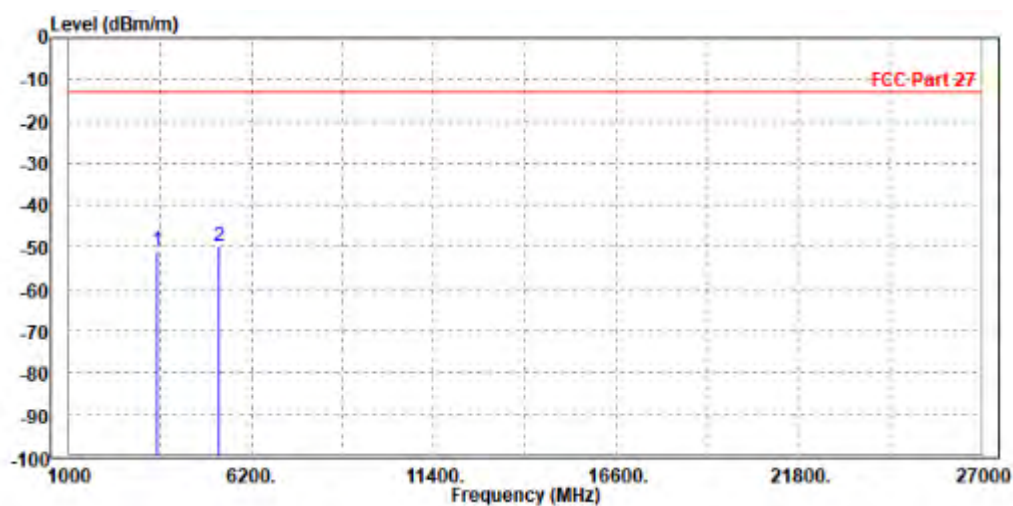
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-51.75	-59.10	-13.00	-38.75	7.35	Peak	Horizontal
2 PP	5264.000	-50.56	-60.66	-13.00	-37.56	10.10	Peak	Horizontal



MODE	TX channel 132322	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	3522.000	-50.97	-58.32	-13.00	-37.97	7.35	Peak	Vertical
2 PP	5265.000	-49.94	-60.45	-13.00	-36.94	10.51	Peak	Vertical

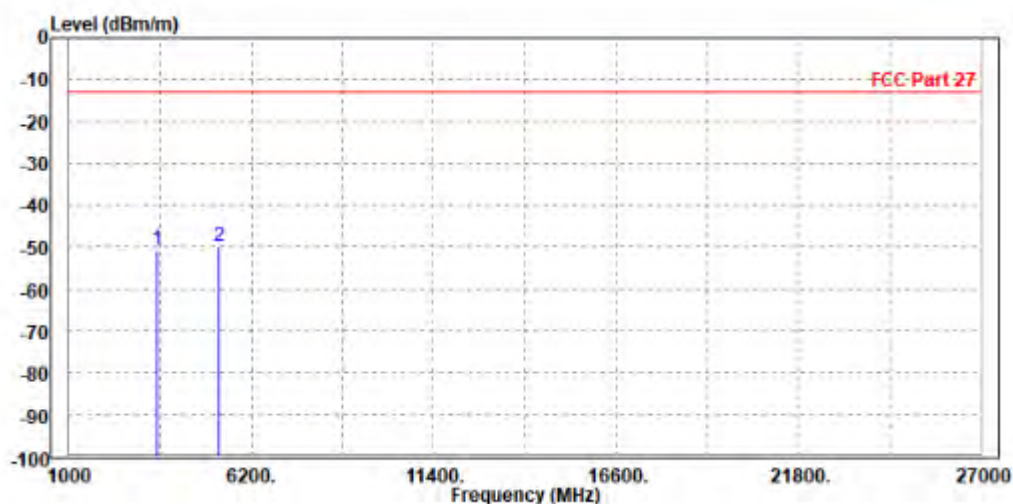


CHANNEL BANDWIDTH: 5MHz / QPSK

CH132322

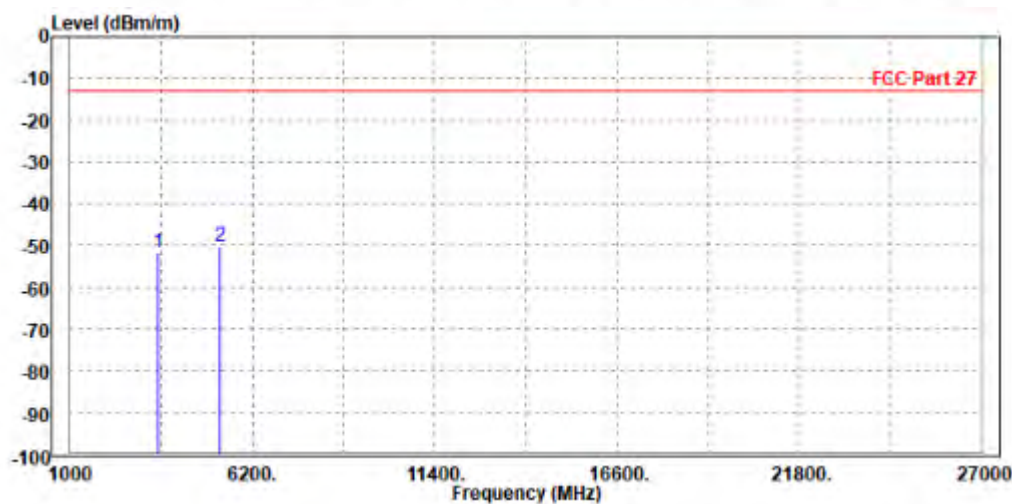
SPECIFICATIONS			
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-50.42	-57.80	-13.00	-37.42	7.38	Peak	Horizontal
2 PP	5265.000	-49.95	-60.06	-13.00	-36.95	10.11	Peak	Horizontal



MODE	TX channel 132322	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			

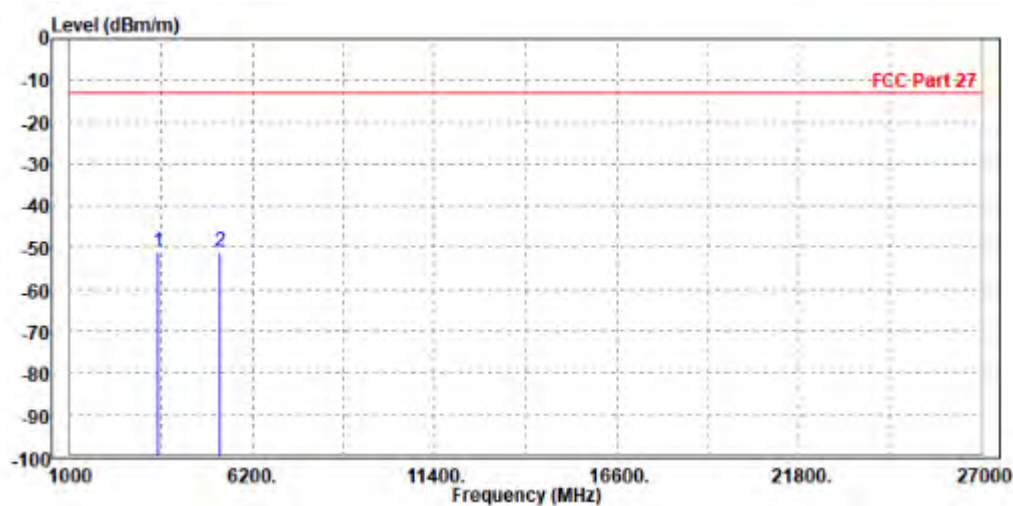
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-51.71	-59.04	-13.00	-38.71	7.33	Peak	Vertical
2 PP	5264.000	-50.16	-60.67	-13.00	-37.16	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

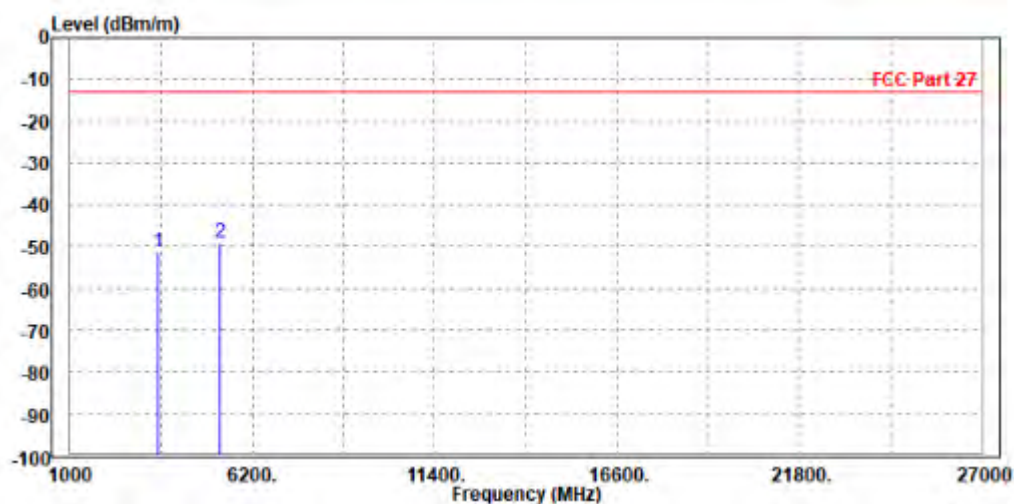
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-50.93	-58.28	-13.00	-37.93	7.35	Peak	Horizontal
2 PP	5264.000	-50.81	-60.91	-13.00	-37.81	10.10	Peak	Horizontal



MODE	TX channel 132322	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			

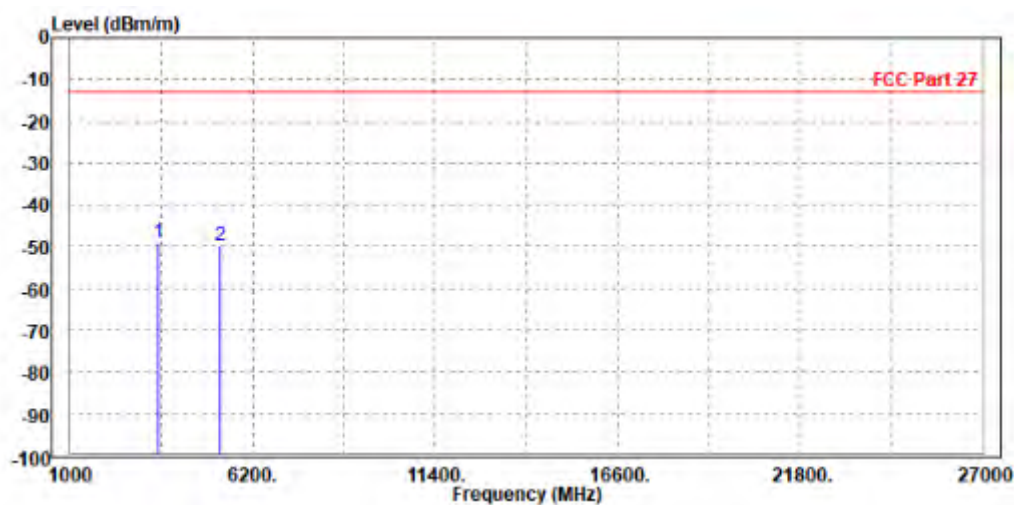
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-51.23	-58.58	-13.00	-38.23	7.35	Peak	Vertical
2 PP	5265.000	-49.17	-59.68	-13.00	-36.17	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

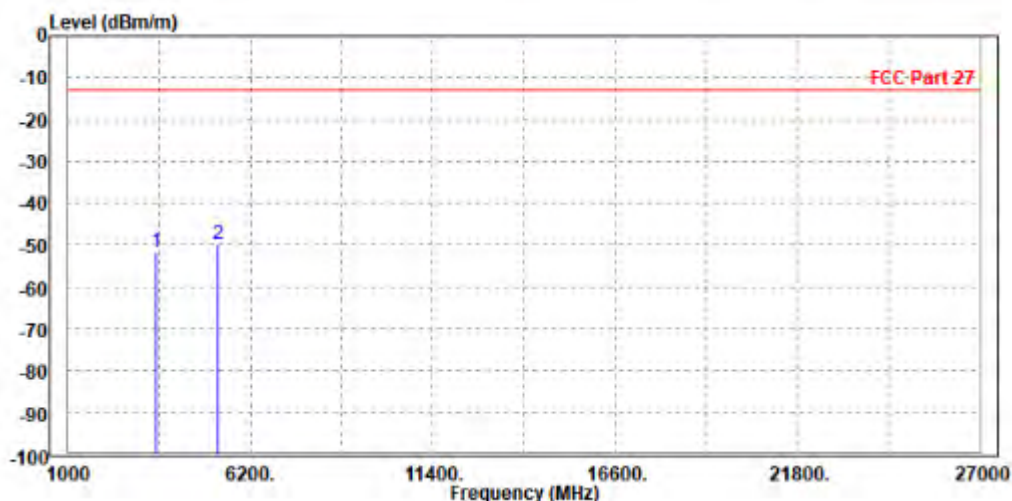
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

		Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
		MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP	3510.000	-49.22	-56.57	-13.00	-36.22	7.35	Peak	Horizontal
2		5264.000	-49.63	-59.73	-13.00	-36.63	10.10	Peak	Horizontal



MODE	TX channel 132322	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			

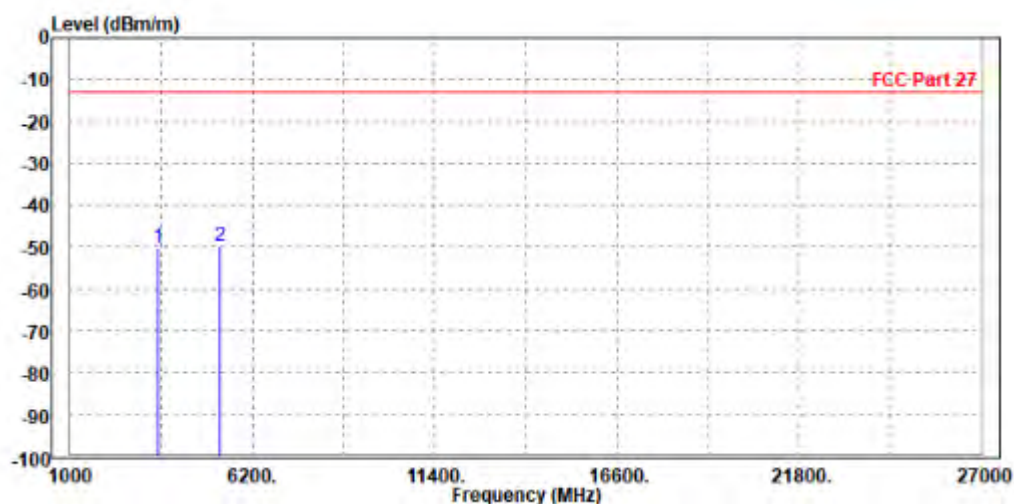
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-51.70	-59.05	-13.00	-38.70	7.35	Peak	Vertical
2 PP	5265.000	-49.82	-60.33	-13.00	-36.82	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

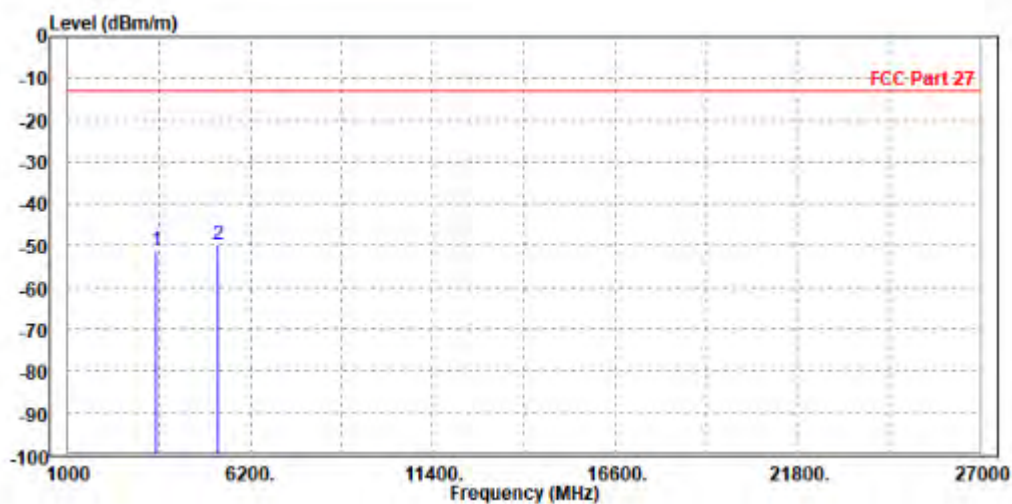
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read	Limit	Over			
	MHz	dBm/m	Level	Line	Limit	Factor	Remark	Pol/Phase
			dBm	dBm/m	dB	dB/m		
1	3522.000	-50.21	-57.59	-13.00	-37.21	7.38	Peak	Horizontal
2 PP	5265.000	-49.99	-60.10	-13.00	-36.99	10.11	Peak	Horizontal



MODE	TX channel 132322	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	3510.000	-51.25	-58.58	-13.00	-38.25	7.33	Peak	Vertical
2 PP	5264.000	-49.78	-60.29	-13.00	-36.78	10.51	Peak	Vertical

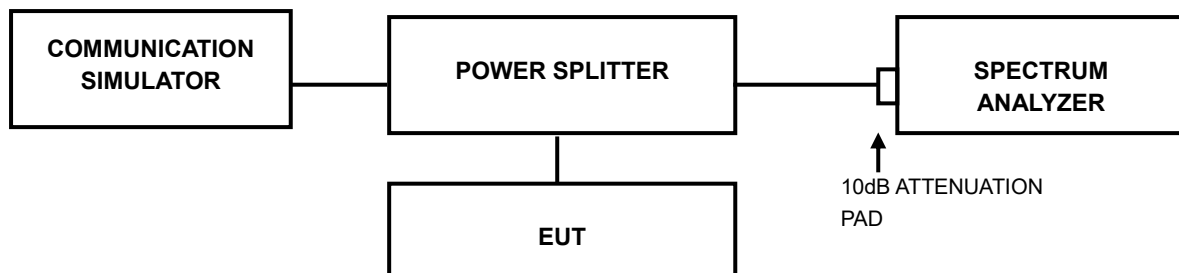


3.7 PEAK TO AVERAGE RATIO

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%.



Test Report No.: W7L-P22090023RF05

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.



Test Report No.: W7L-P22090023RF05

4 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.



Test Report No.: W7L-P22090023RF05

5 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.



Test Report No.: W7L-P22090023RF05

6 APPENDIX

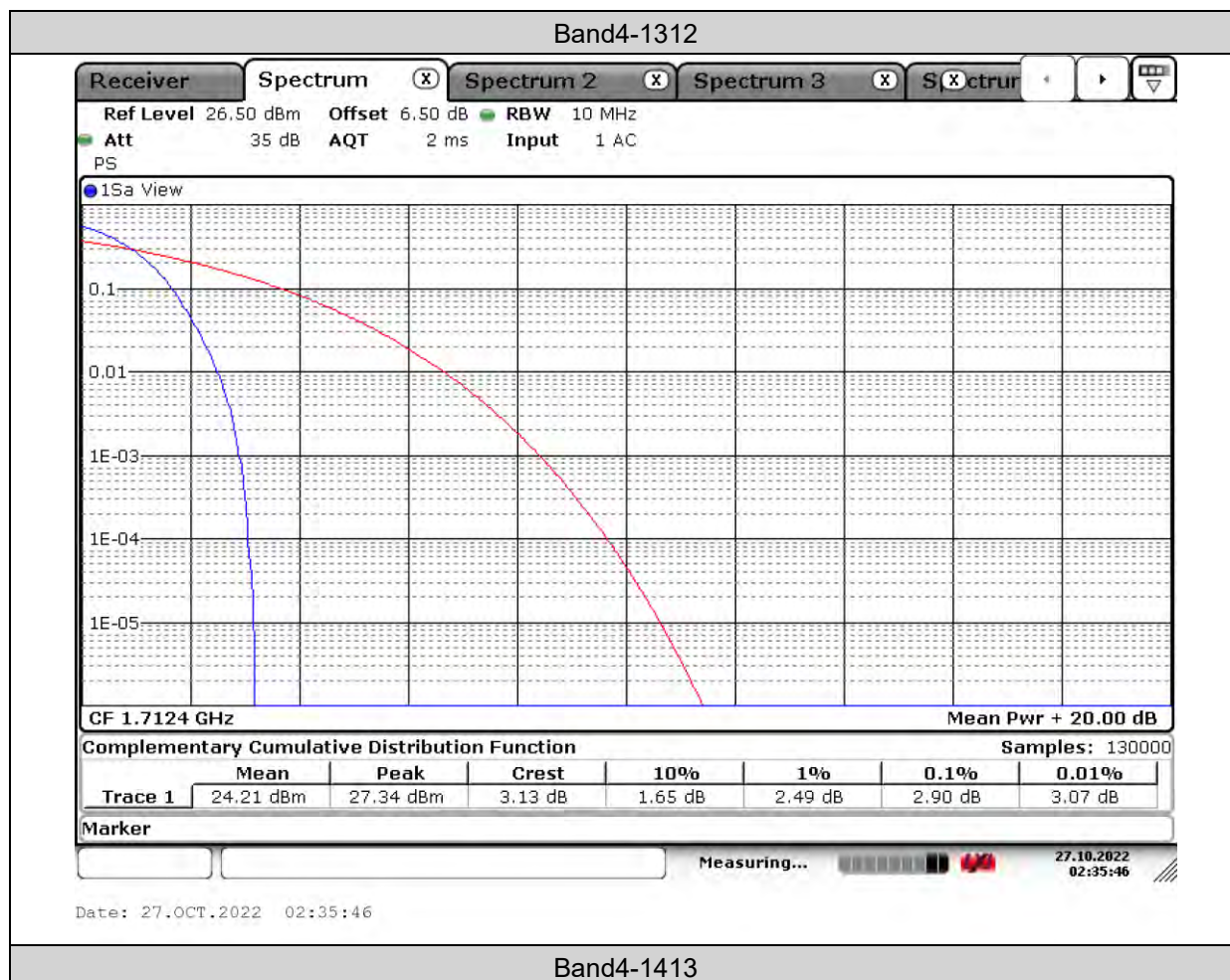
WCMDA BAND4

PEAK-TO-AVERAGE RATIO

Test Result

Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band4	1312	2.90	13	PASS
Band4	1413	2.90	13	PASS
Band4	1513	2.87	13	PASS

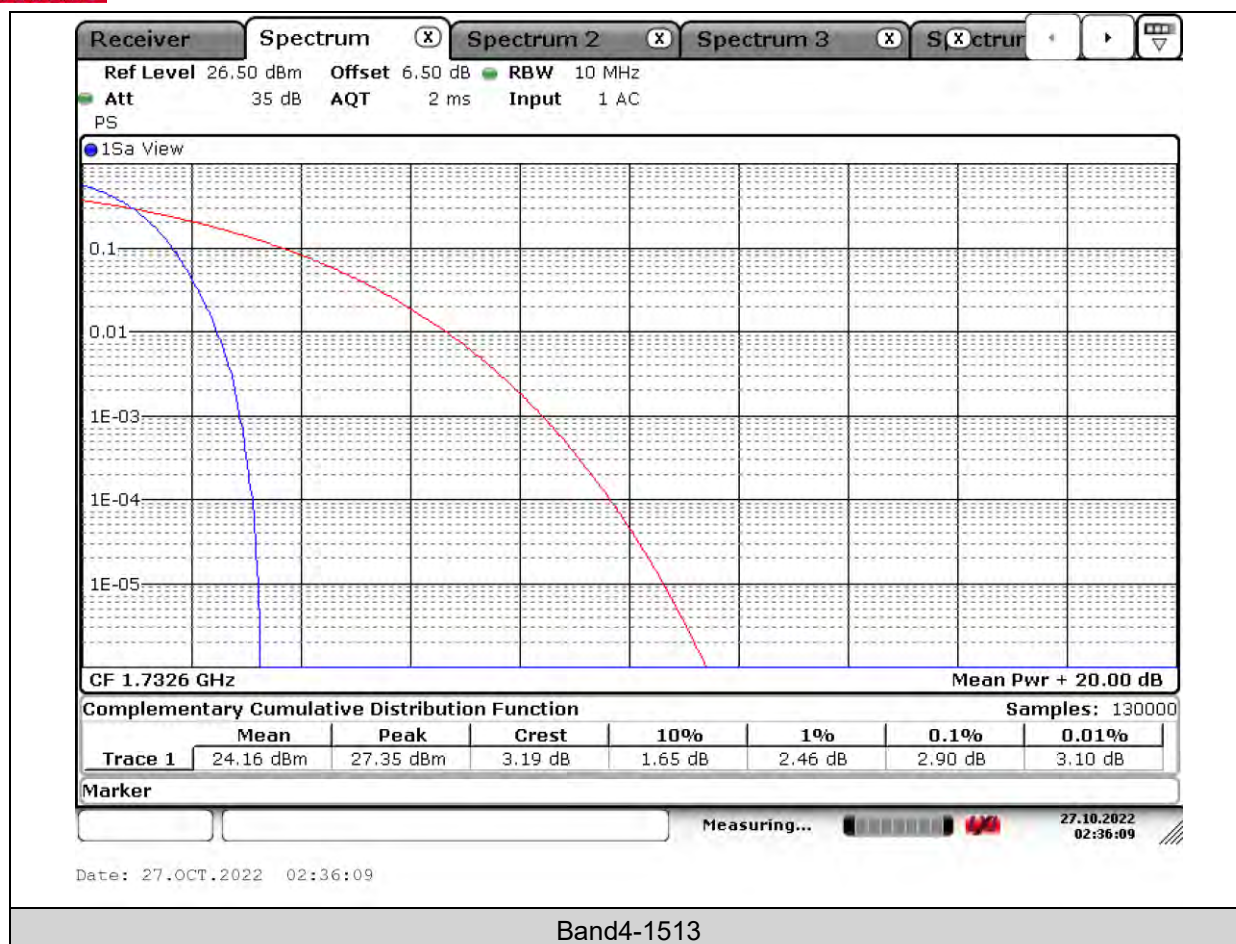
Test Graphs

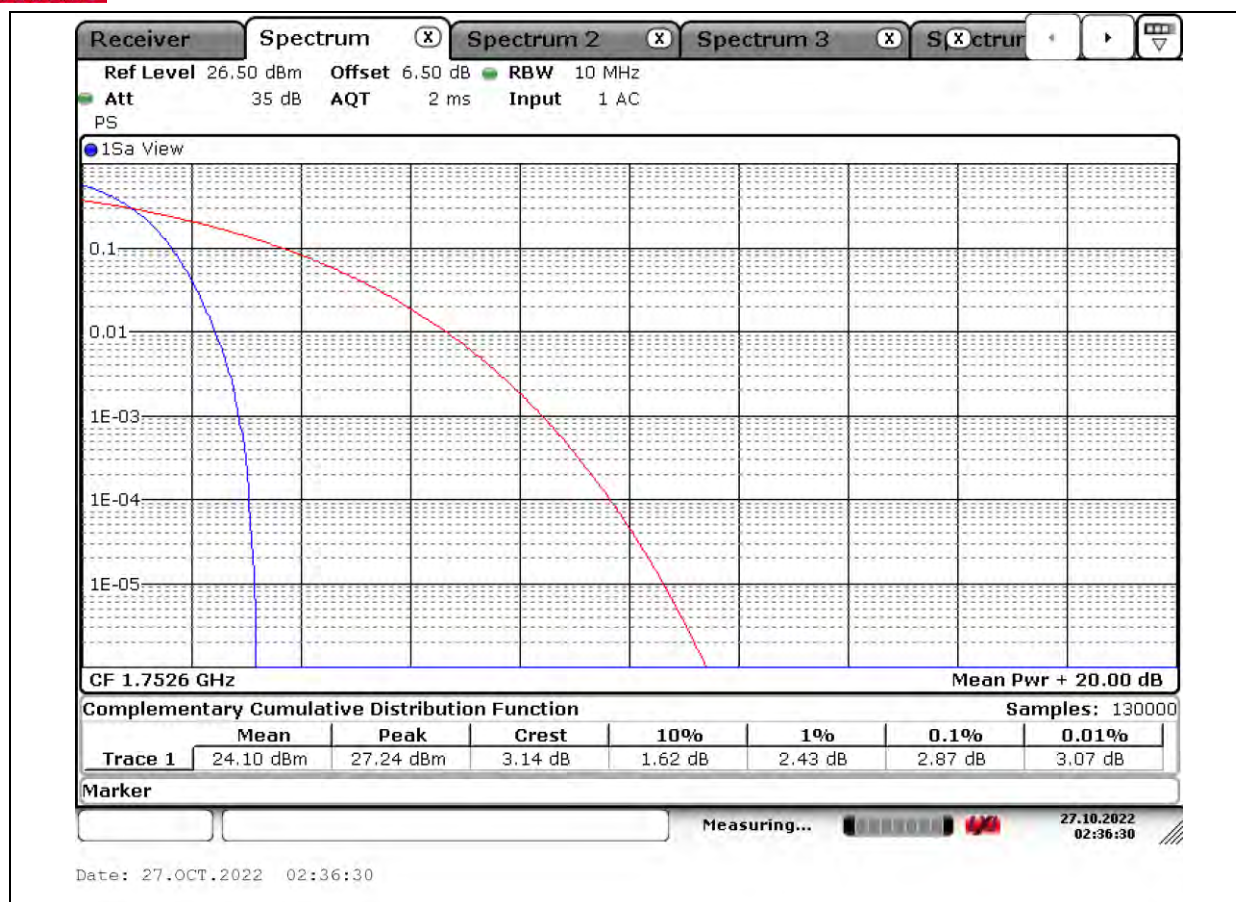




BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



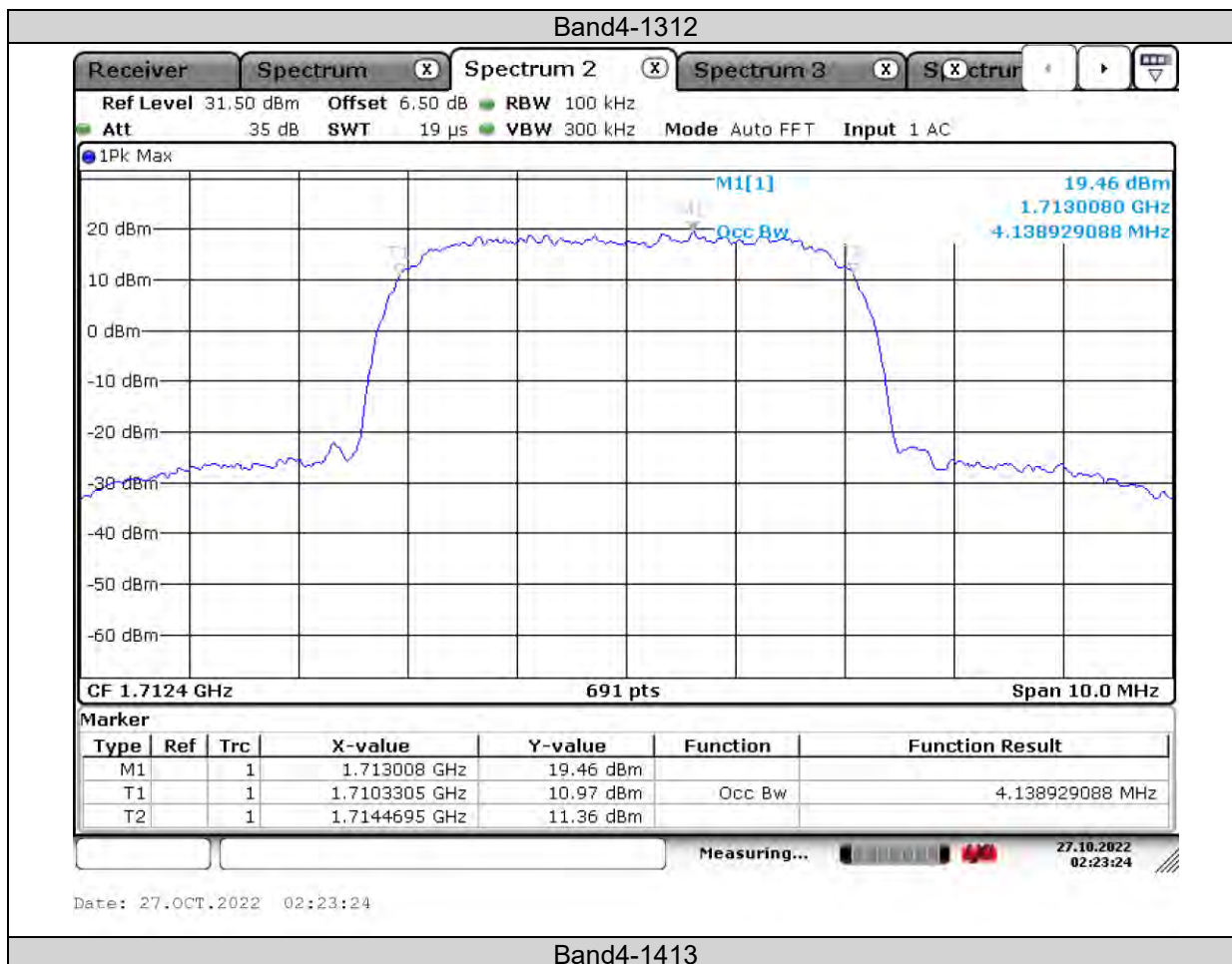


26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band4	1312	4.139	4.689	---	PASS
Band4	1413	4.153	4.689	---	PASS
Band4	1513	4.139	4.689	---	PASS

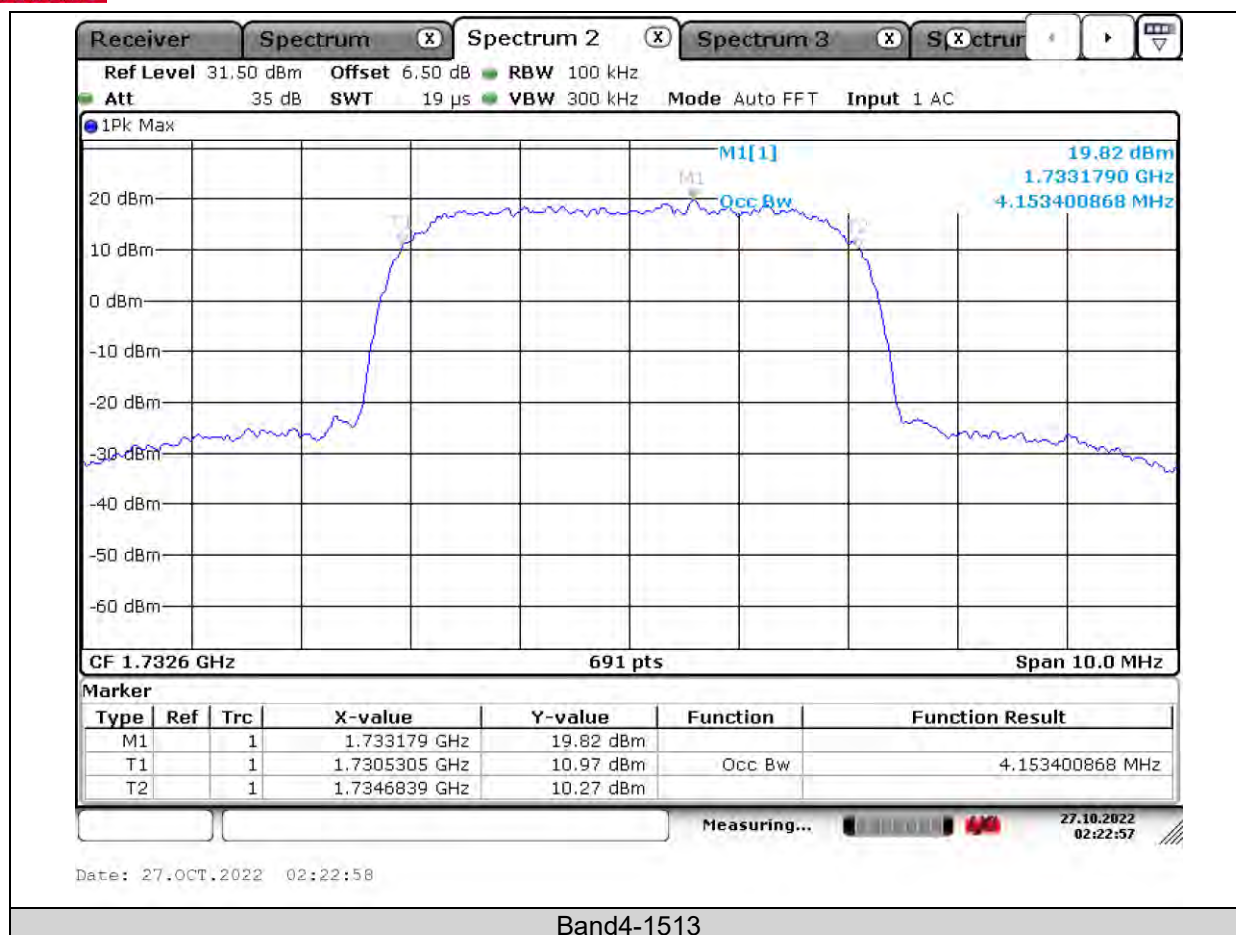
Test Graphs





BUREAU
VERITAS

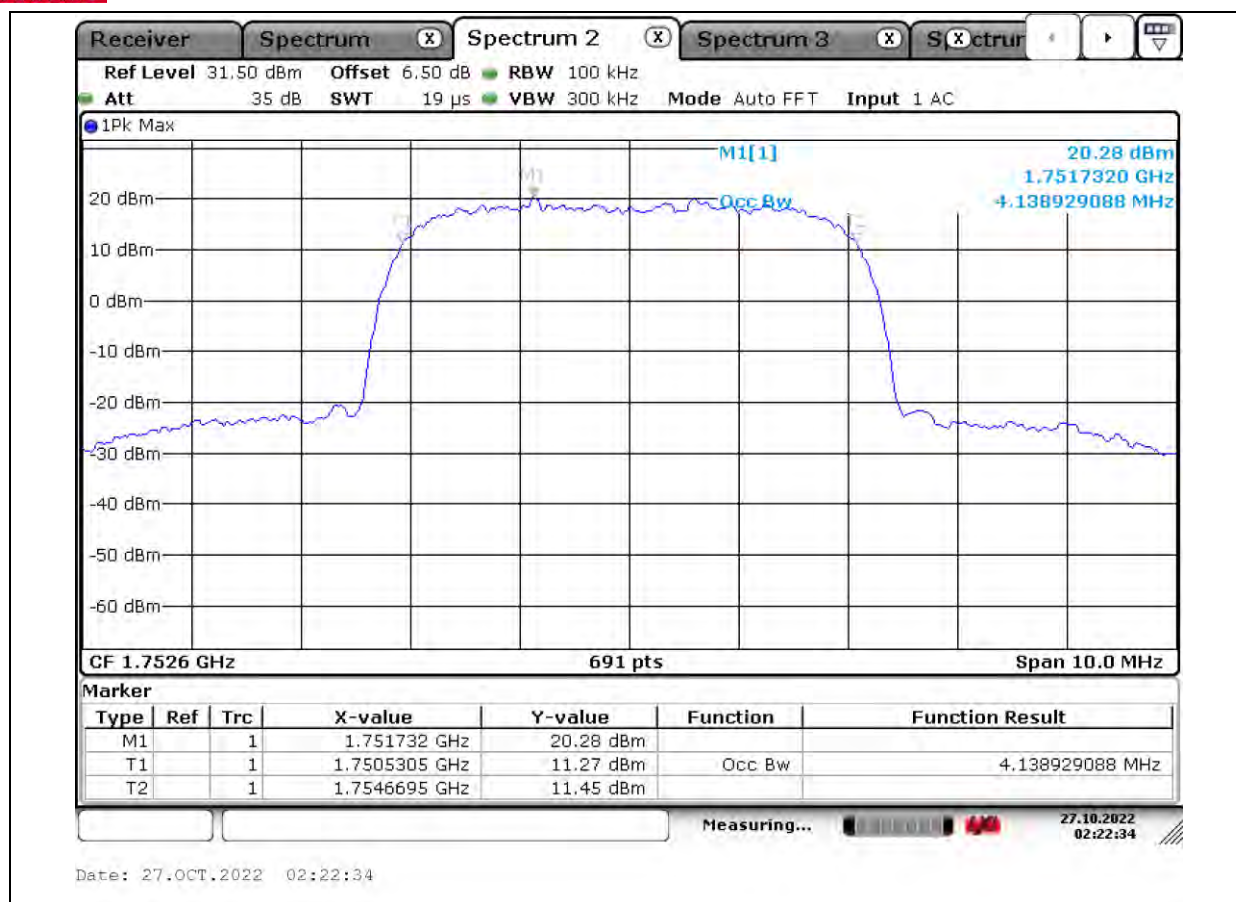
Test Report No.: W7L-P22090023RF05



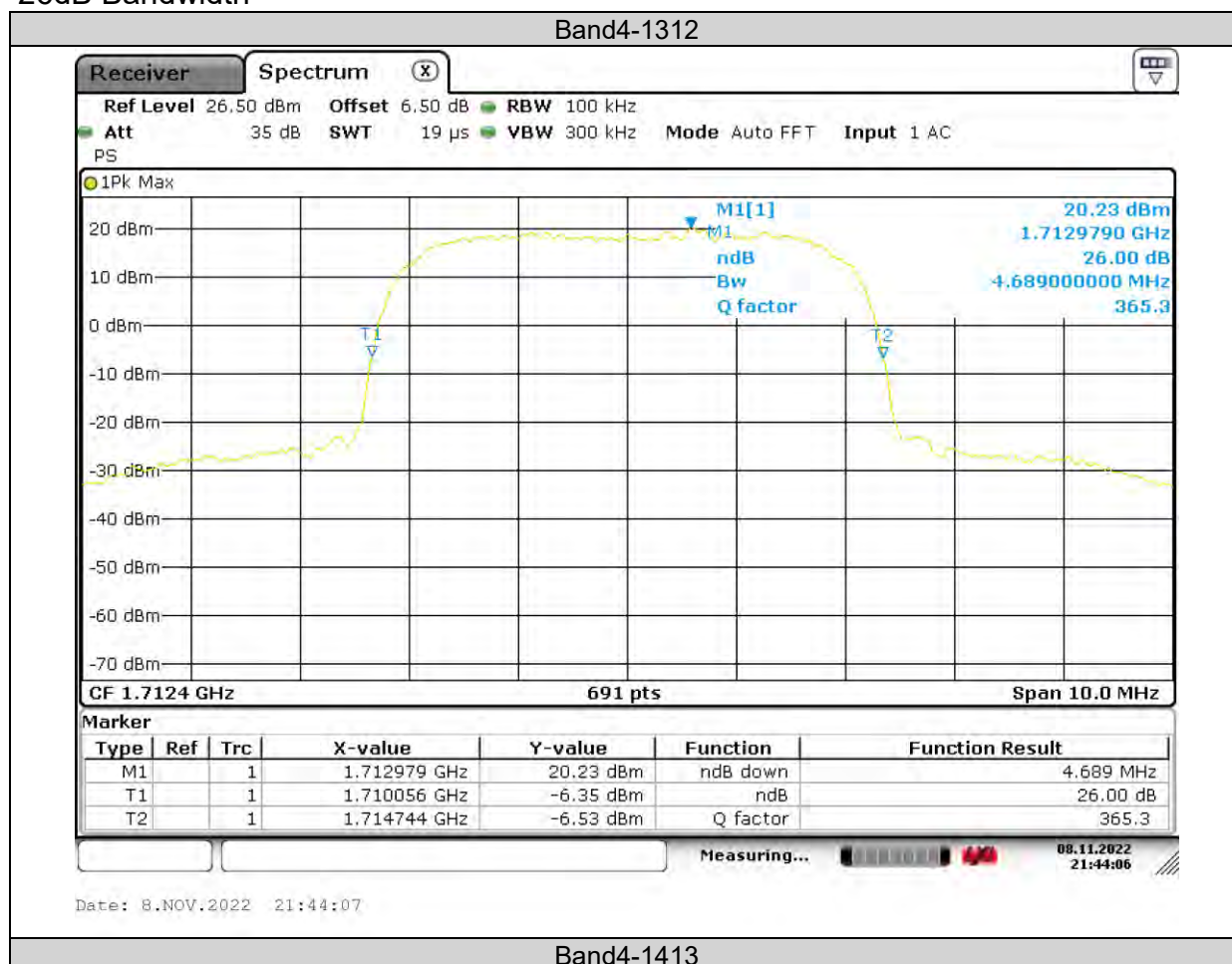


BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



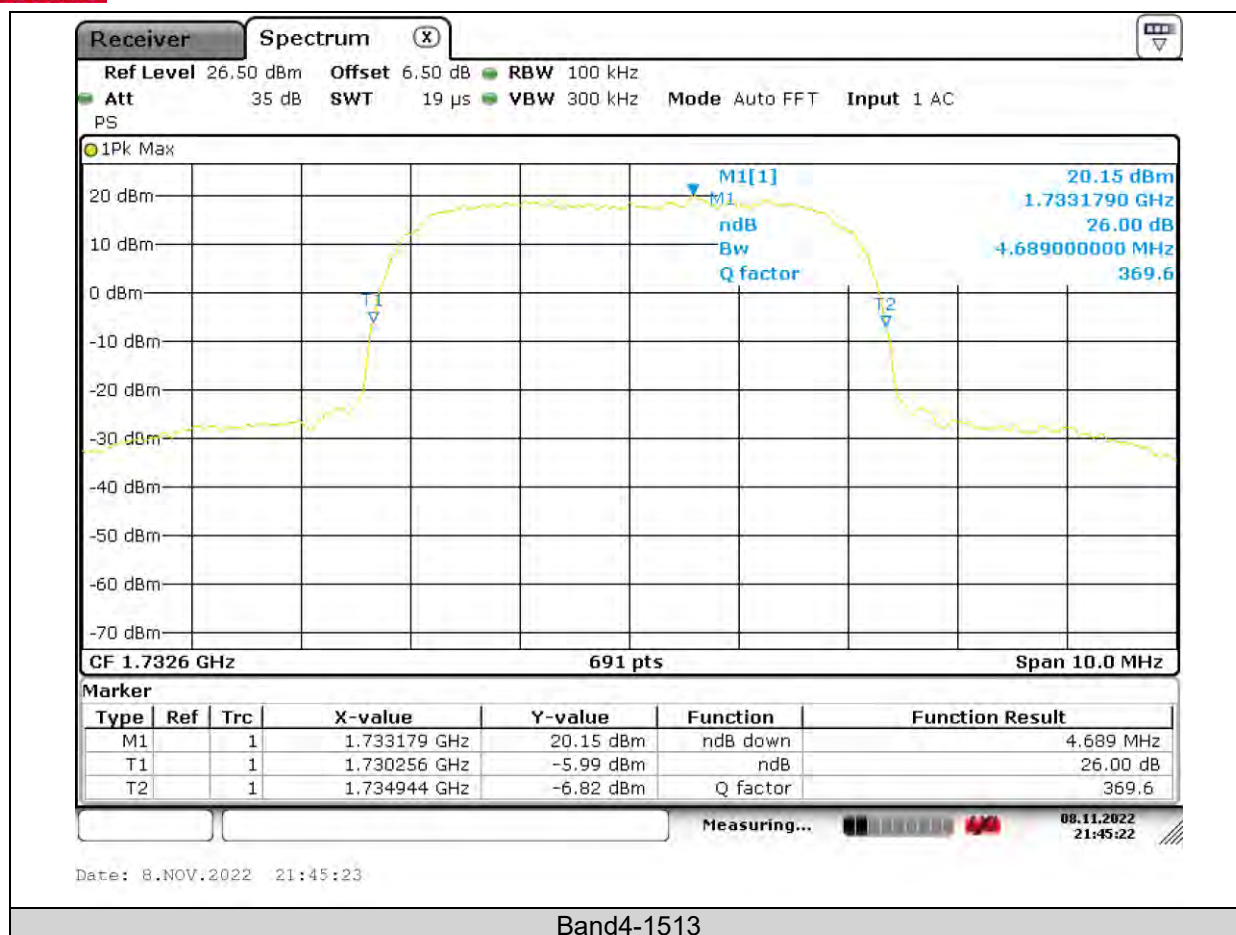
26dB Bandwidth





BUREAU
VERITAS

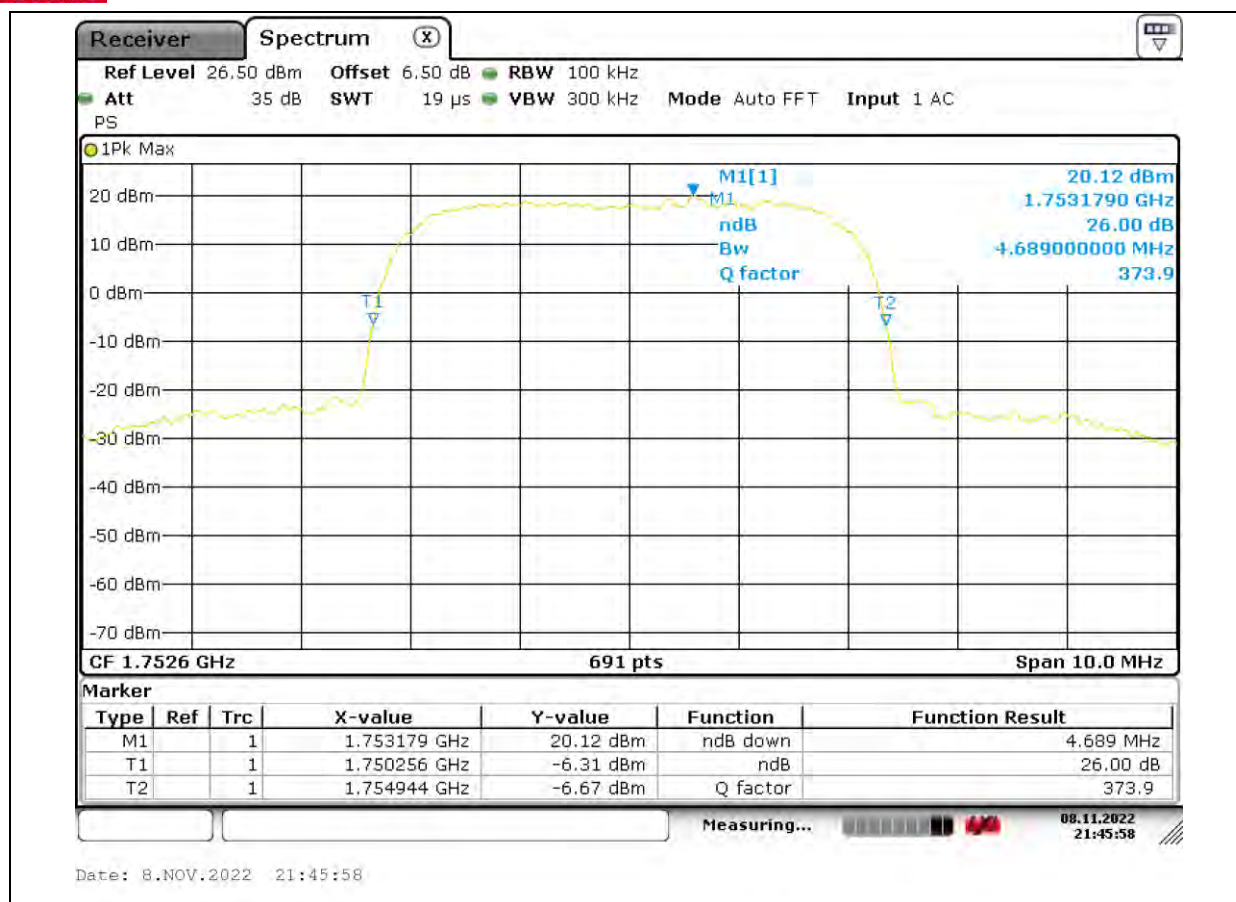
Test Report No.: W7L-P22090023RF05





**BUREAU
VERITAS**

Test Report No.: W7L-P22090023RF05

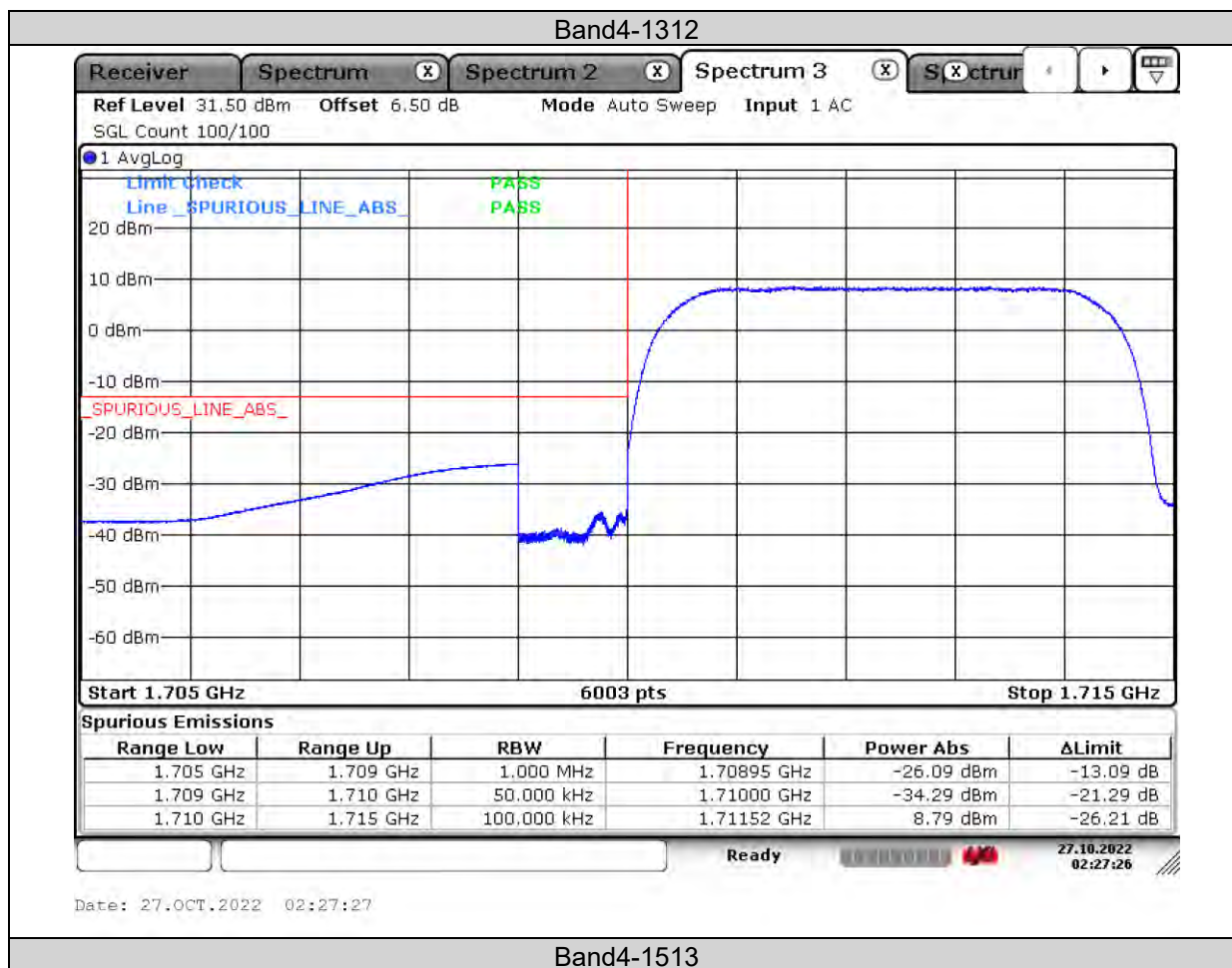


BAND EDGE

Test Result

Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band4	1312	1708.95	-26.09	-13	PASS
Band4	1513	1756.05	-25.44	-13	PASS

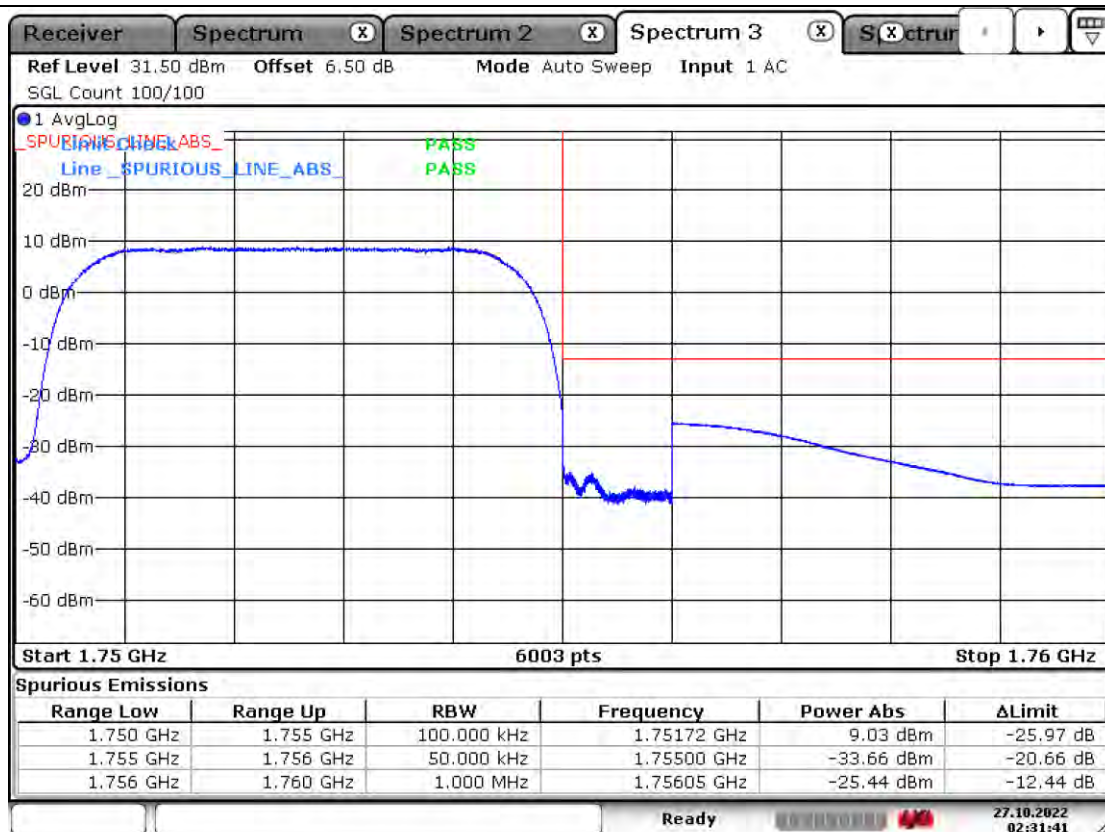
Test Graphs





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



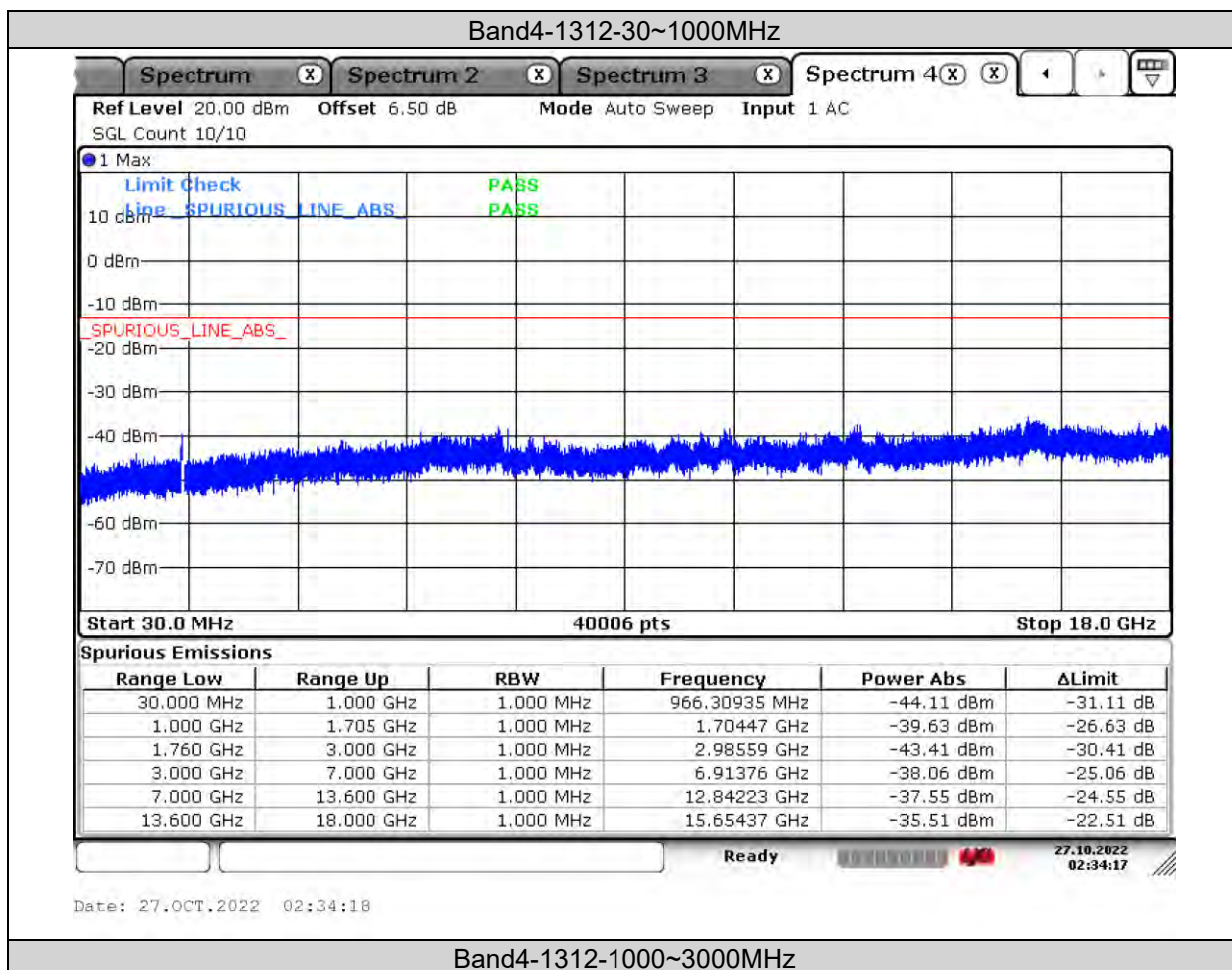
Date: 27.OCT.2022 02:31:42

CONDUCTED SPURIOUS EMISSION

Test Result

Band	Channel	Frequency Range (Mhz)	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band4	1312	30~1000MHz	966.30935	-44.11	-13	PASS
Band4	1312	1000~3000MHz	1704.47	-39.63	-13	PASS
Band4	1312	3000~18000MHz	15654.37	-35.51	-13	PASS
Band4	1413	30~1000MHz	695.32984	-45.37	-13	PASS
Band4	1413	1000~3000MHz	2936.31	-43.74	-13	PASS
Band4	1413	3000~18000MHz	15688.25	-35.8	-13	PASS
Band4	1513	30~1000MHz	959.52274	-44.11	-13	PASS
Band4	1513	1000~3000MHz	1760.15	-36.93	-13	PASS
Band4	1513	3000~18000MHz	15657.89	-36.08	-13	PASS

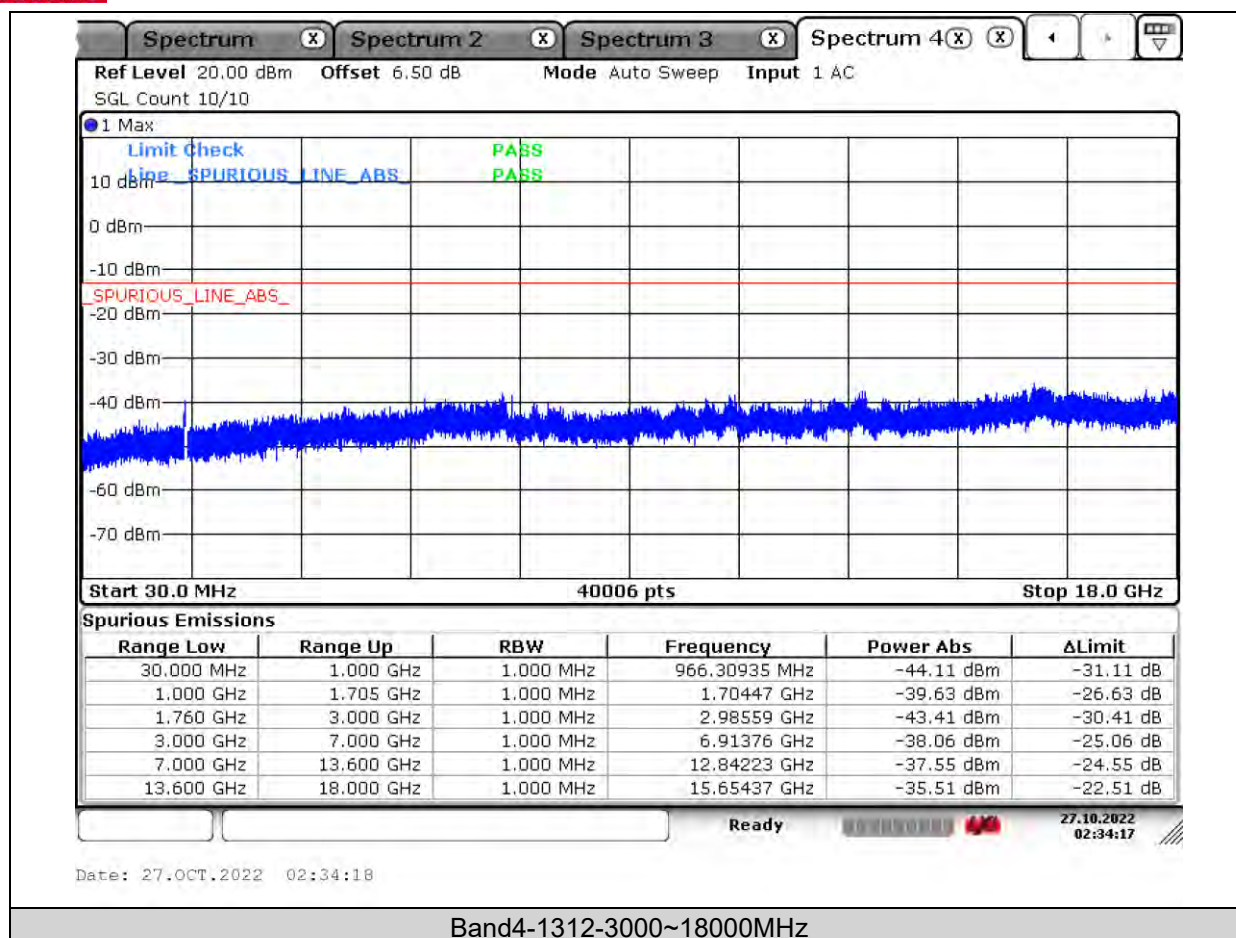
Test Graphs





BUREAU
VERITAS

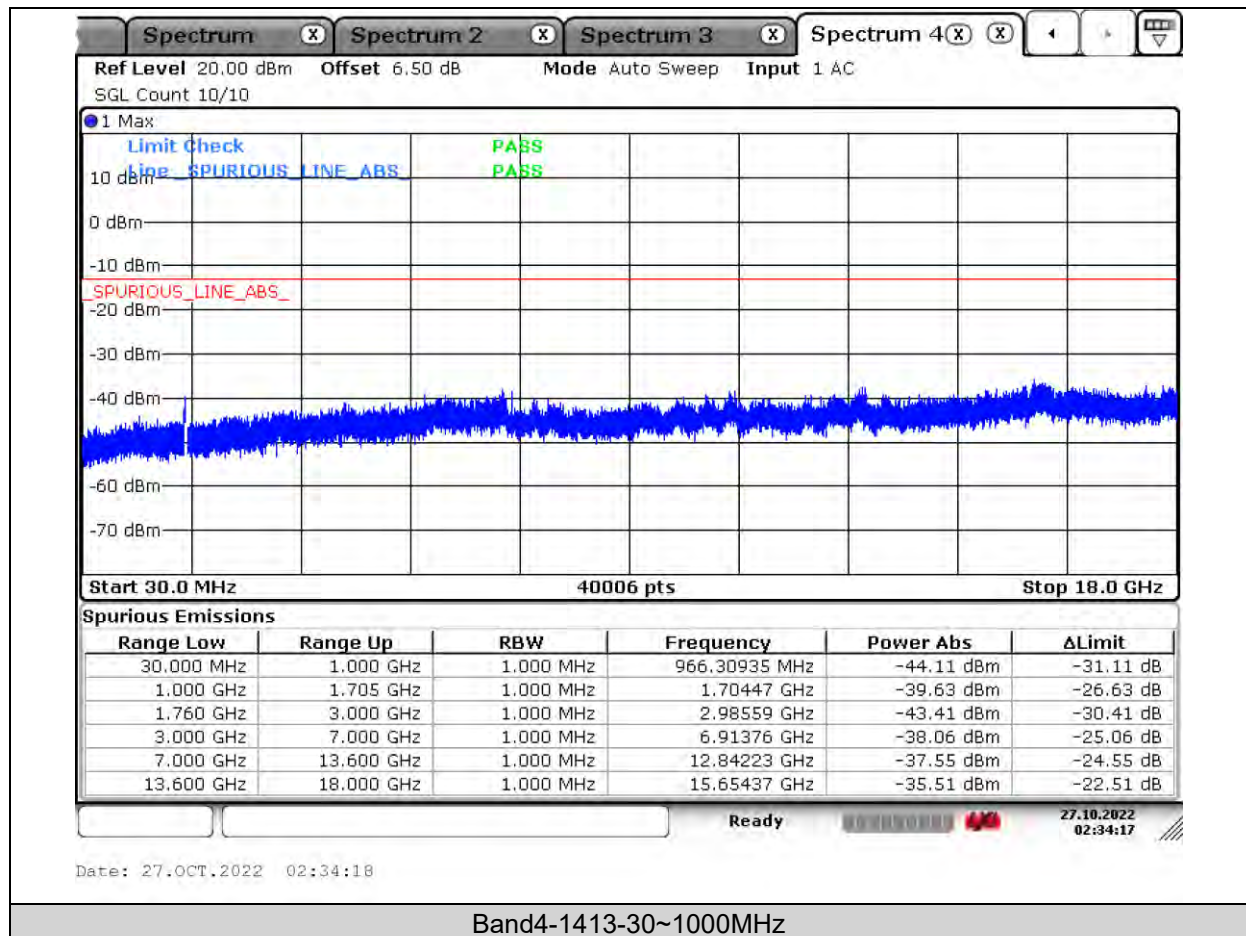
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

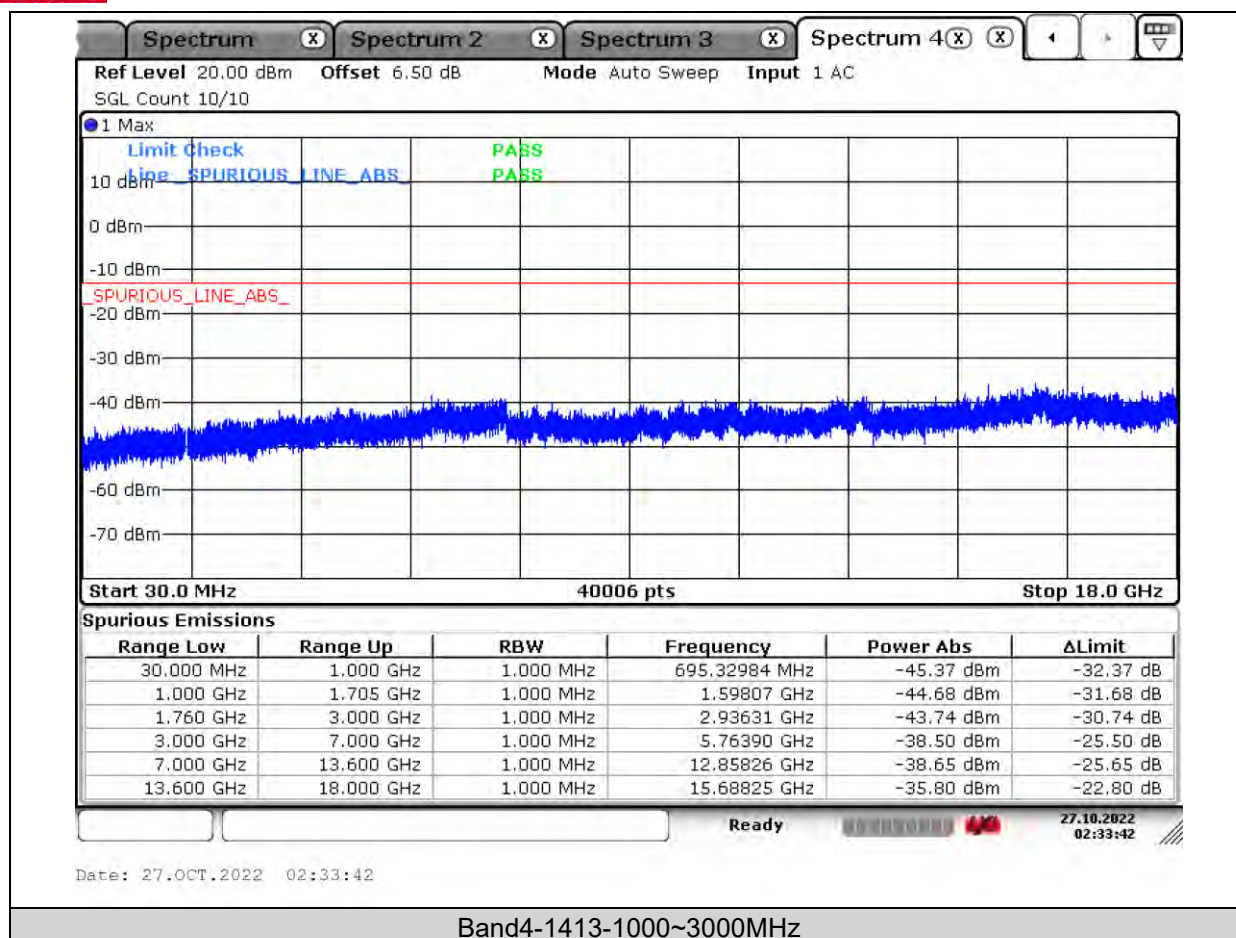
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

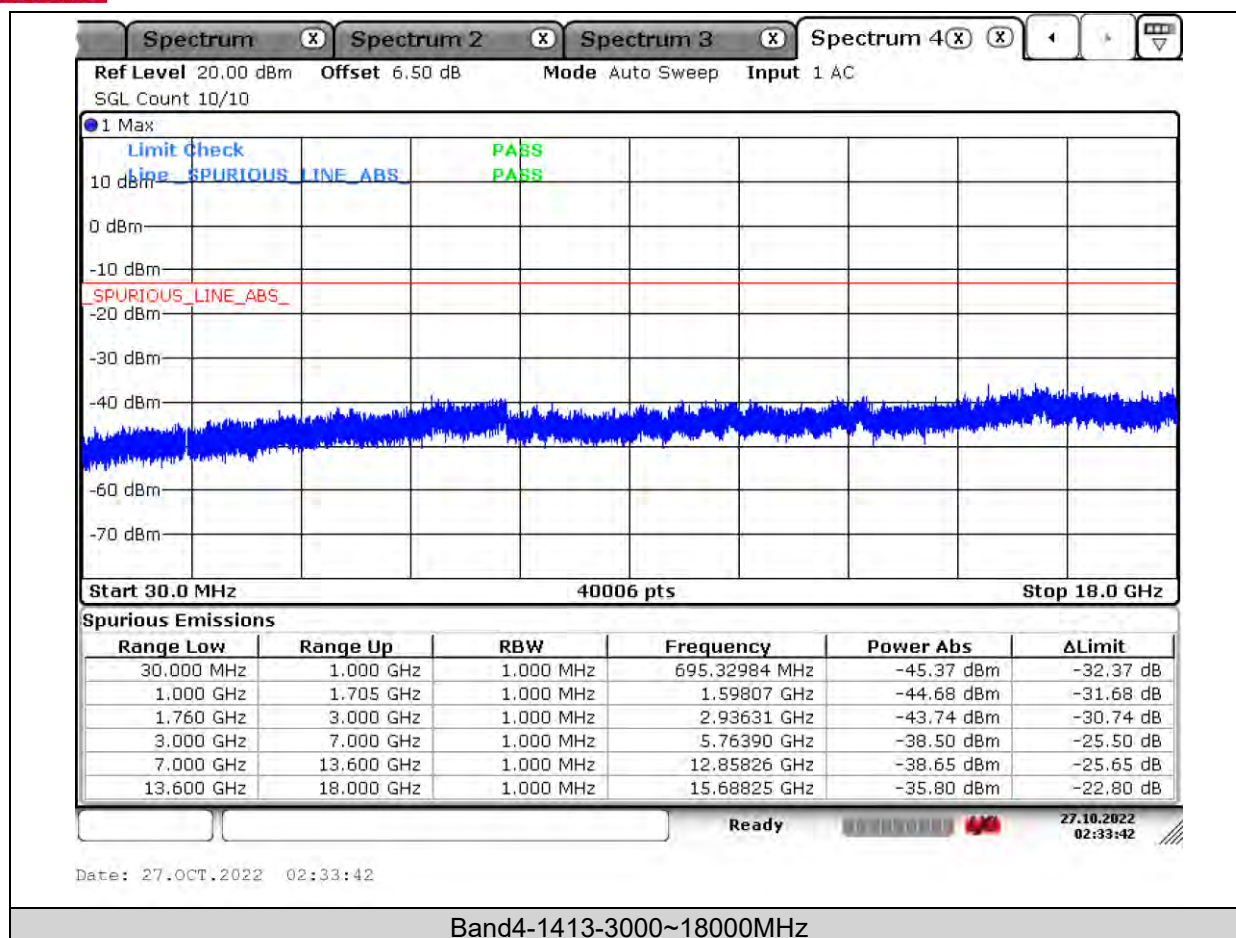
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

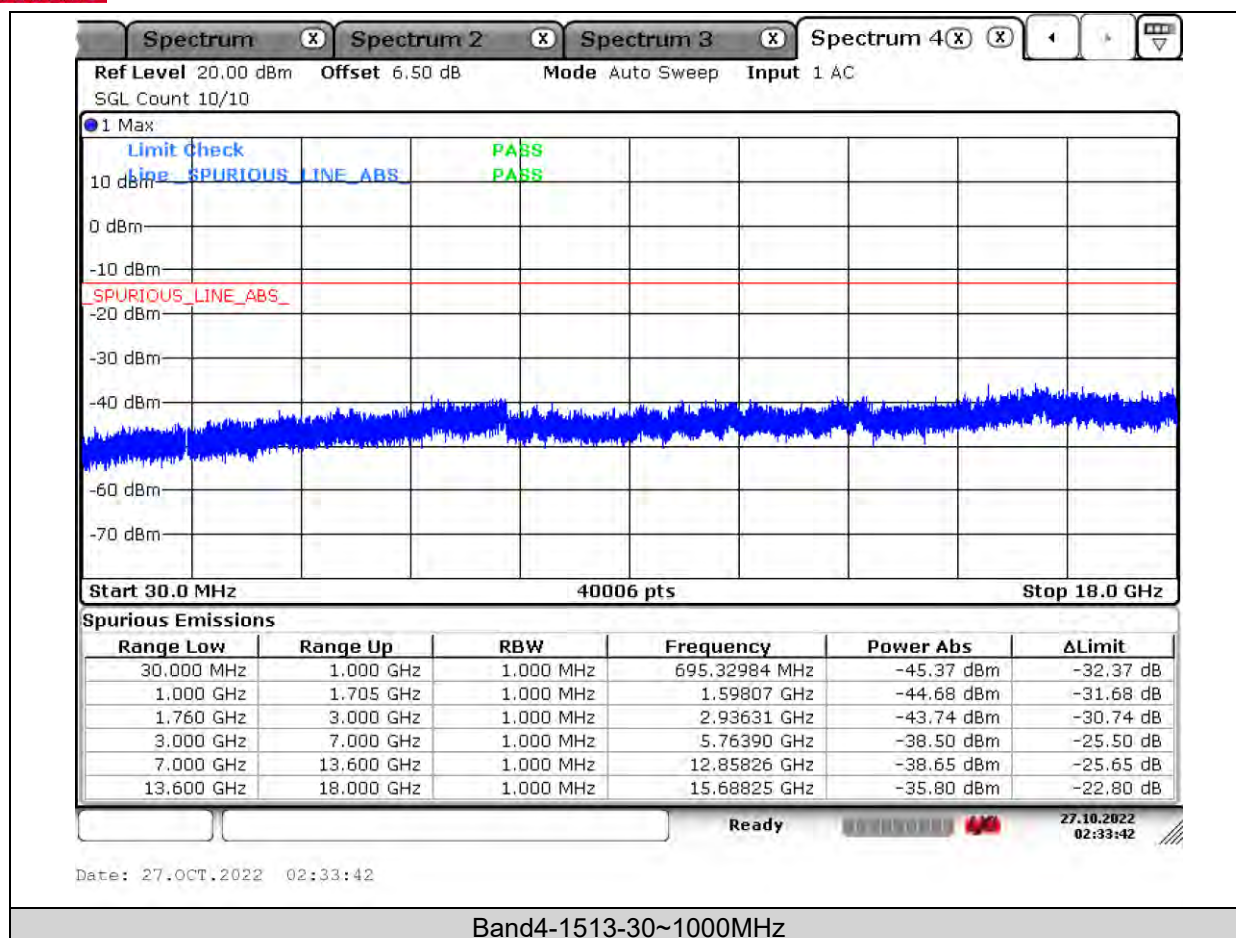
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

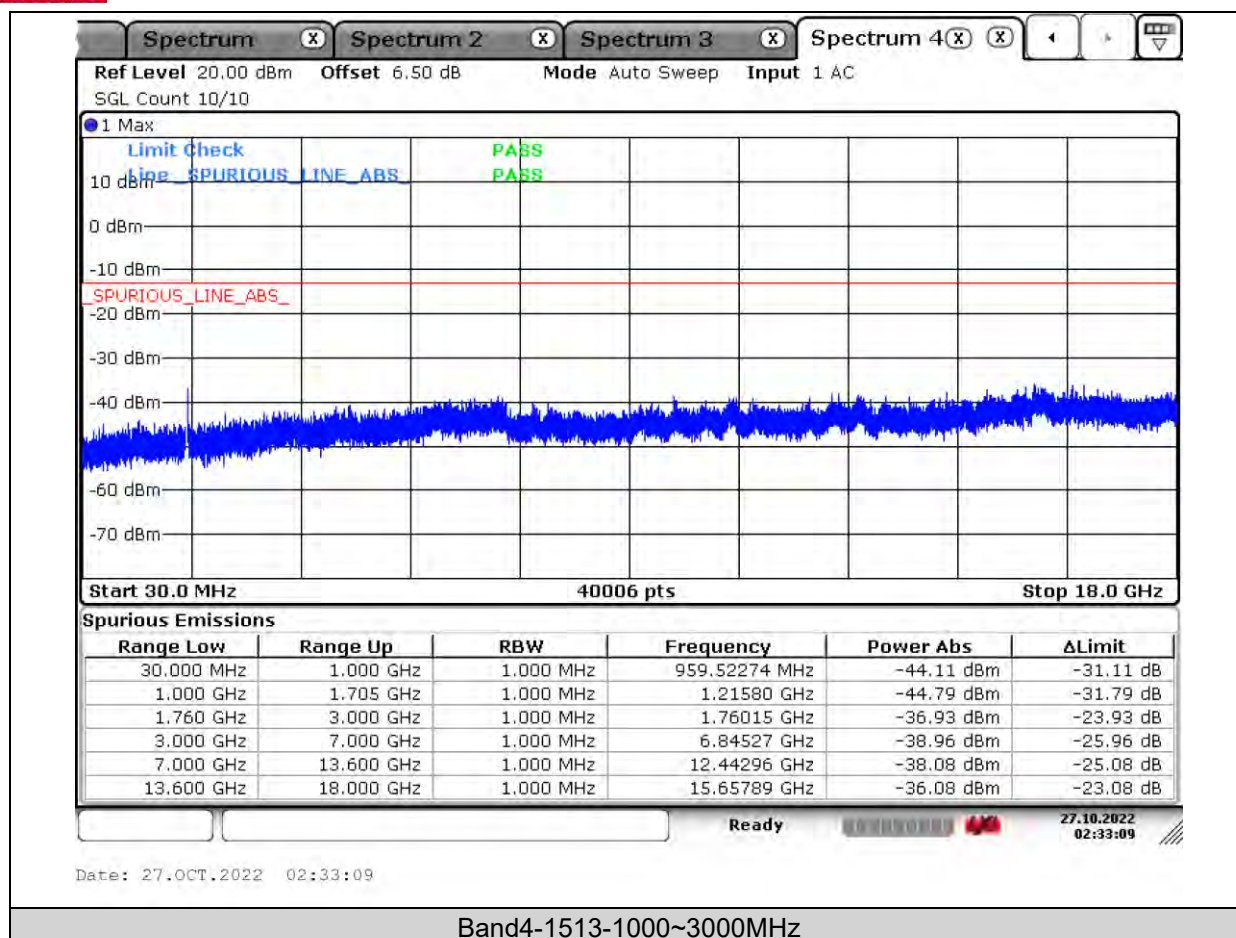
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

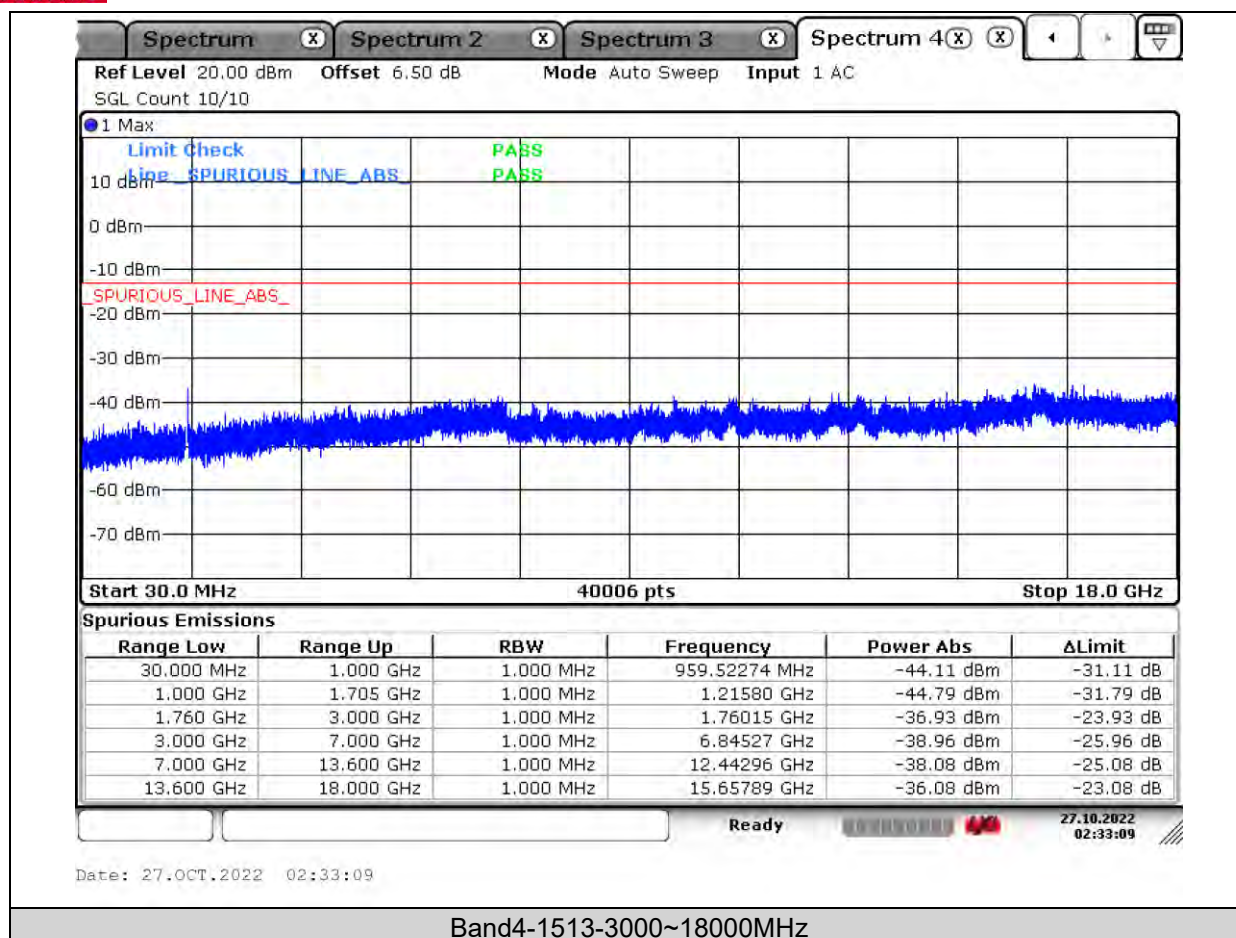
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

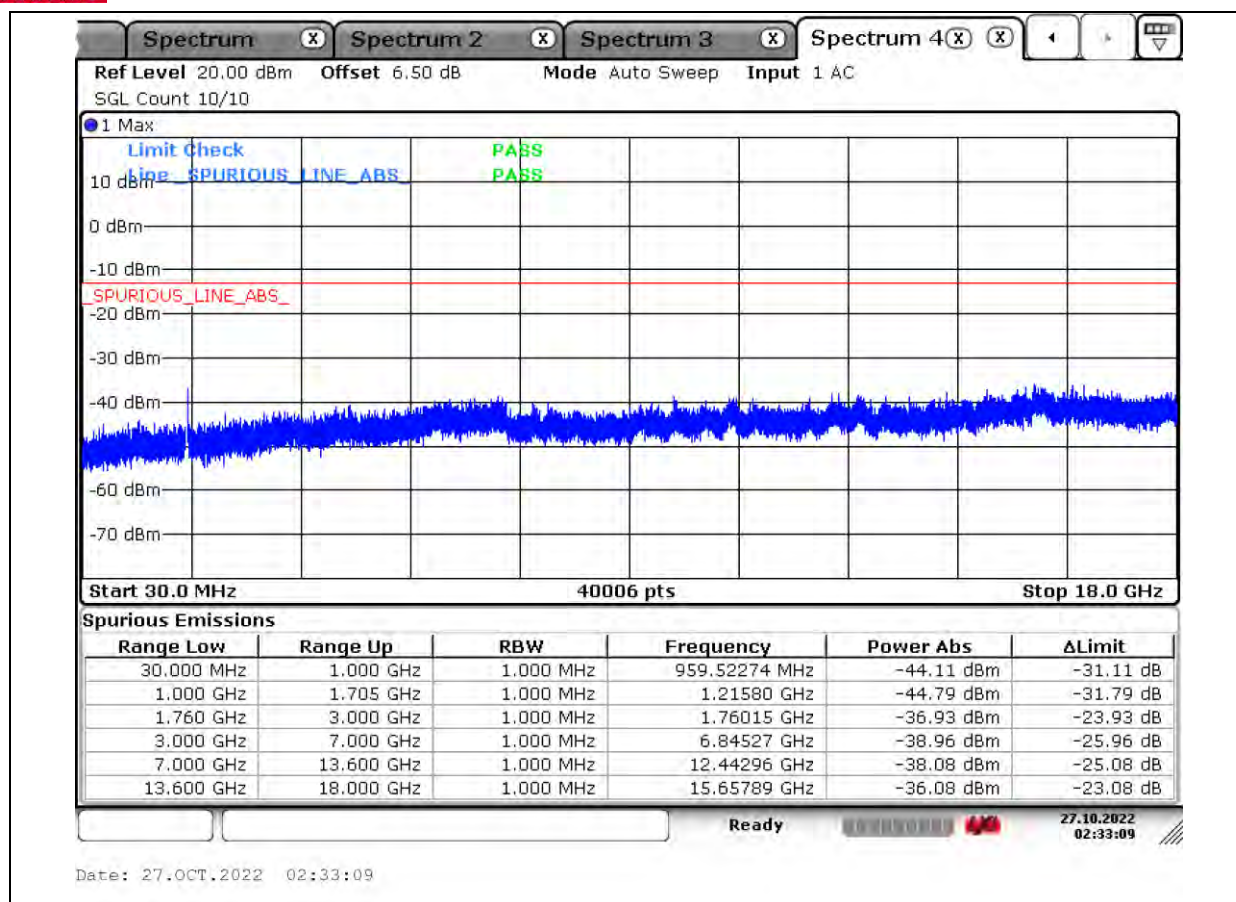
Test Report No.: W7L-P22090023RF05





**BUREAU
VERITAS**

Test Report No.: W7L-P22090023RF05



FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	1312	VL	NT	-7.21	-0.004210	±2.5	PASS
Band4	1312	VN	NT	-0.38	-0.000222	±2.5	PASS
Band4	1312	VH	NT	-8.31	-0.004853	±2.5	PASS
Band4	1413	VL	NT	7.05	0.004034	±2.5	PASS
Band4	1413	VN	NT	-2.32	-0.001328	±2.5	PASS
Band4	1413	VH	NT	2.94	0.001682	±2.5	PASS
Band4	1513	VL	NT	-5.03	-0.002822	±2.5	PASS
Band4	1513	VN	NT	-6.35	-0.003562	±2.5	PASS
Band4	1513	VH	NT	-9.12	-0.005116	±2.5	PASS

Temperature							
Band	Channel	Voltage (Vdc)	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	1712.4	NV	-30	-0.51	-0.000298	±2.5	PASS
Band4	1712.4	NV	-20	-6.05	-0.003533	±2.5	PASS
Band4	1712.4	NV	0	-4.38	-0.002558	±2.5	PASS
Band4	1712.4	NV	10	1.27	0.000742	±2.5	PASS
Band4	1712.4	NV	20	-6.24	-0.003644	±2.5	PASS
Band4	1712.4	NV	30	2.66	0.001553	±2.5	PASS
Band4	1712.4	NV	40	6.45	0.003767	±2.5	PASS
Band4	1712.4	NV	50	-6.84	-0.003994	±2.5	PASS
Band4	1747.6	NV	-30	7.3	0.004177	±2.5	PASS
Band4	1747.6	NV	-20	-5.13	-0.002935	±2.5	PASS
Band4	1747.6	NV	0	-2.1	-0.001202	±2.5	PASS
Band4	1747.6	NV	10	9.85	0.005636	±2.5	PASS
Band4	1747.6	NV	20	7.74	0.004429	±2.5	PASS
Band4	1747.6	NV	30	3.76	0.002152	±2.5	PASS
Band4	1747.6	NV	40	5.31	0.003038	±2.5	PASS
Band4	1747.6	NV	50	1.7	0.000973	±2.5	PASS
Band4	1782.6	NV	-30	-8.03	-0.004505	±2.5	PASS
Band4	1782.6	NV	-20	5.46	0.003063	±2.5	PASS
Band4	1782.6	NV	0	9.55	0.005357	±2.5	PASS
Band4	1782.6	NV	10	-7.47	-0.004191	±2.5	PASS
Band4	1782.6	NV	20	5	0.002805	±2.5	PASS
Band4	1782.6	NV	30	4.08	0.002289	±2.5	PASS
Band4	1782.6	NV	40	-6.22	-0.003489	±2.5	PASS
Band4	1782.6	NV	50	5	0.002805	±2.5	PASS



Test Report No.: W7L-P22090023RF05

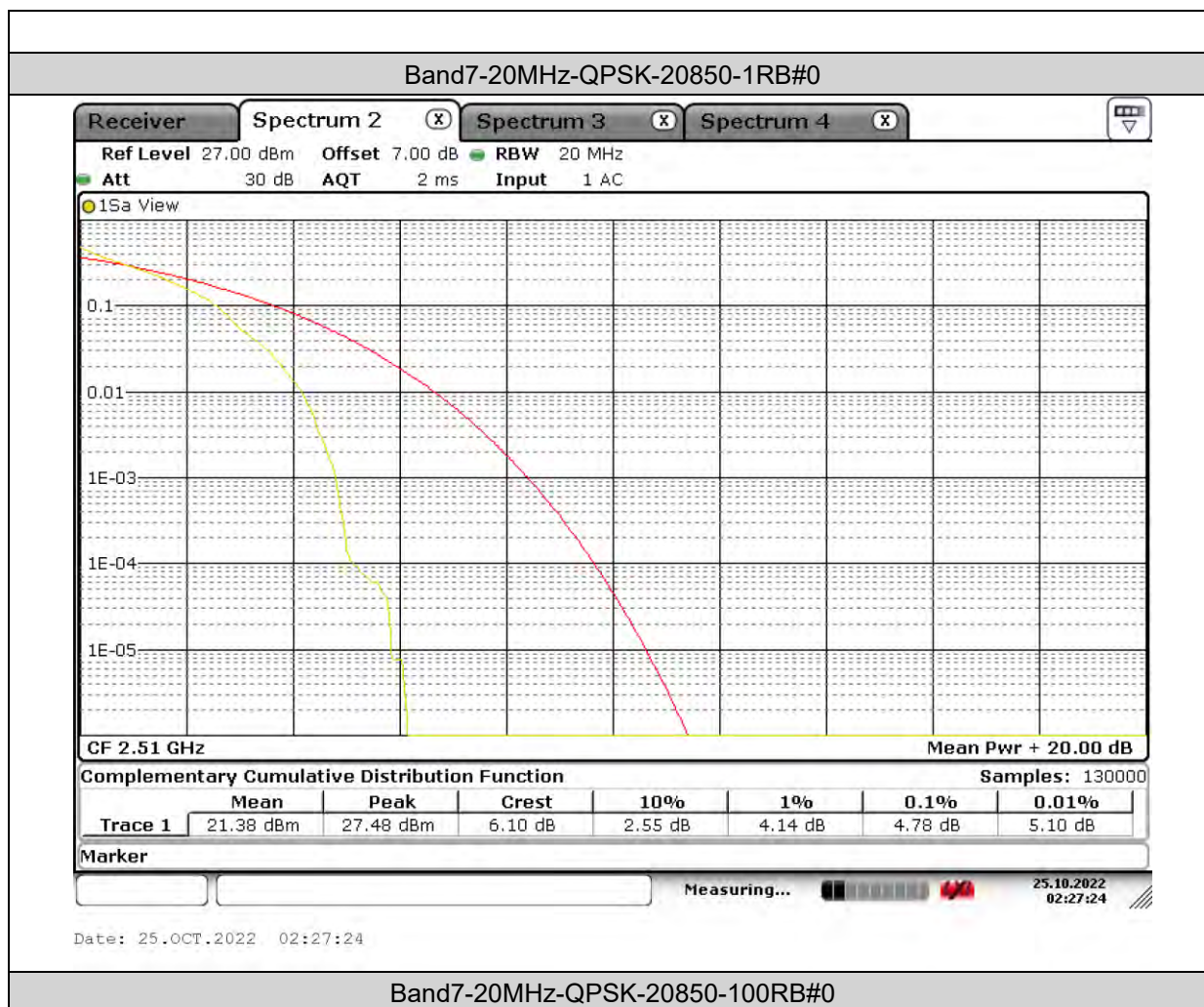
LTE BAND7

PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	1RB#0	4.78	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	4.99	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.35	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.22	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.55	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	4.9	13	PASS
Band7	20MHz	16QAM	20850	1RB#0	5.68	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.83	13	PASS
Band7	20MHz	16QAM	21100	1RB#0	5.07	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	6.06	13	PASS
Band7	20MHz	16QAM	21350	1RB#0	5.54	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.68	13	PASS

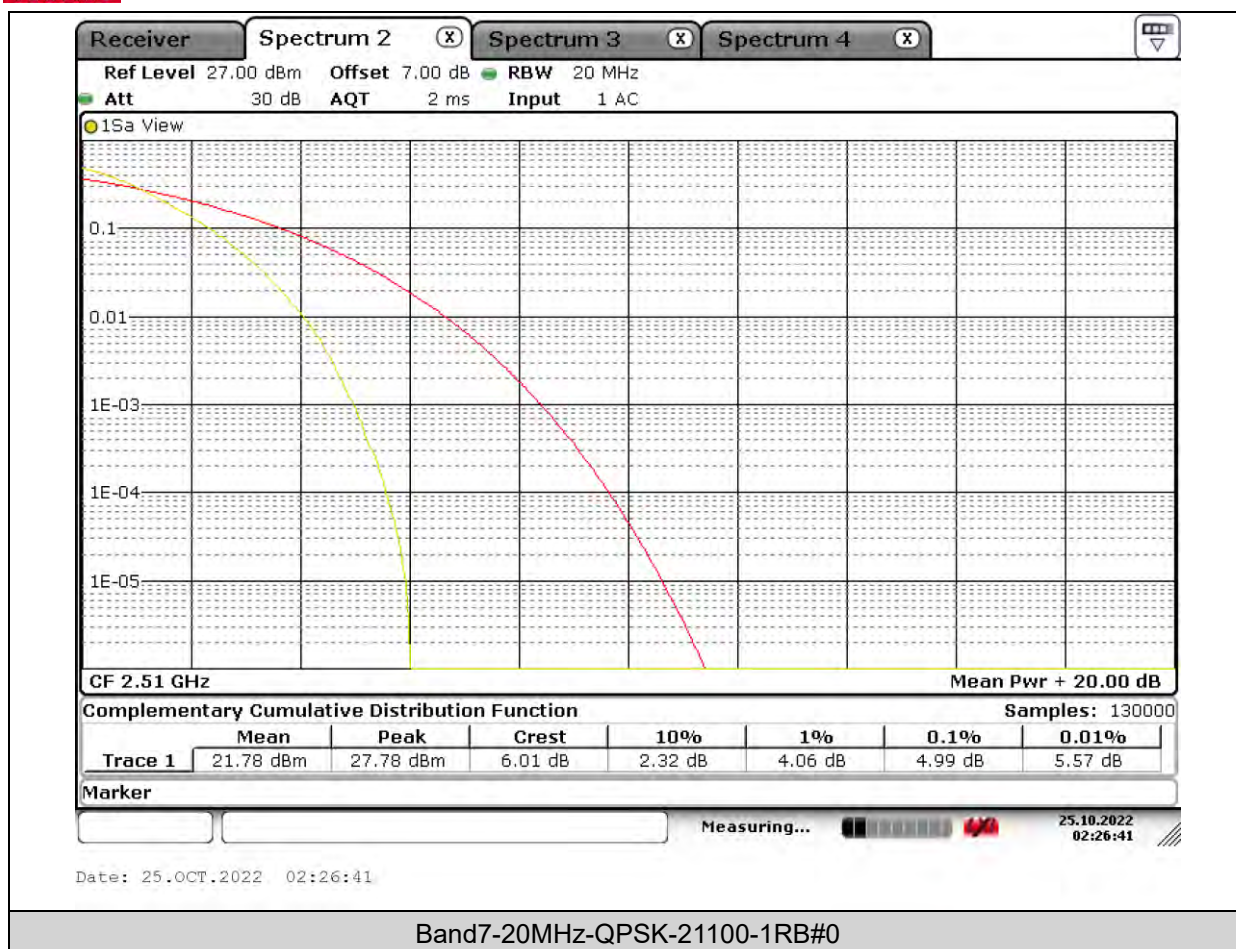
Test Graphs





BUREAU
VERITAS

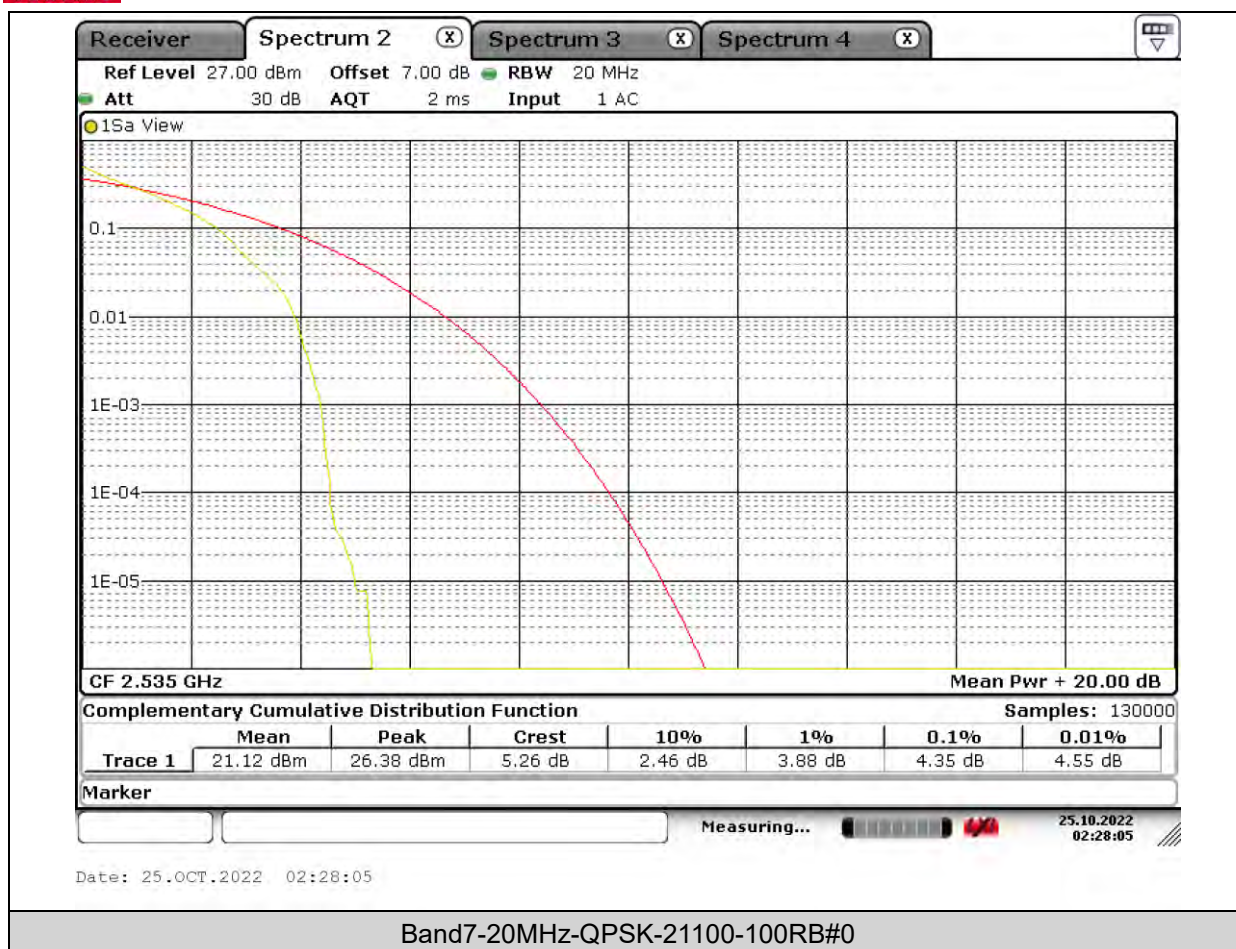
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

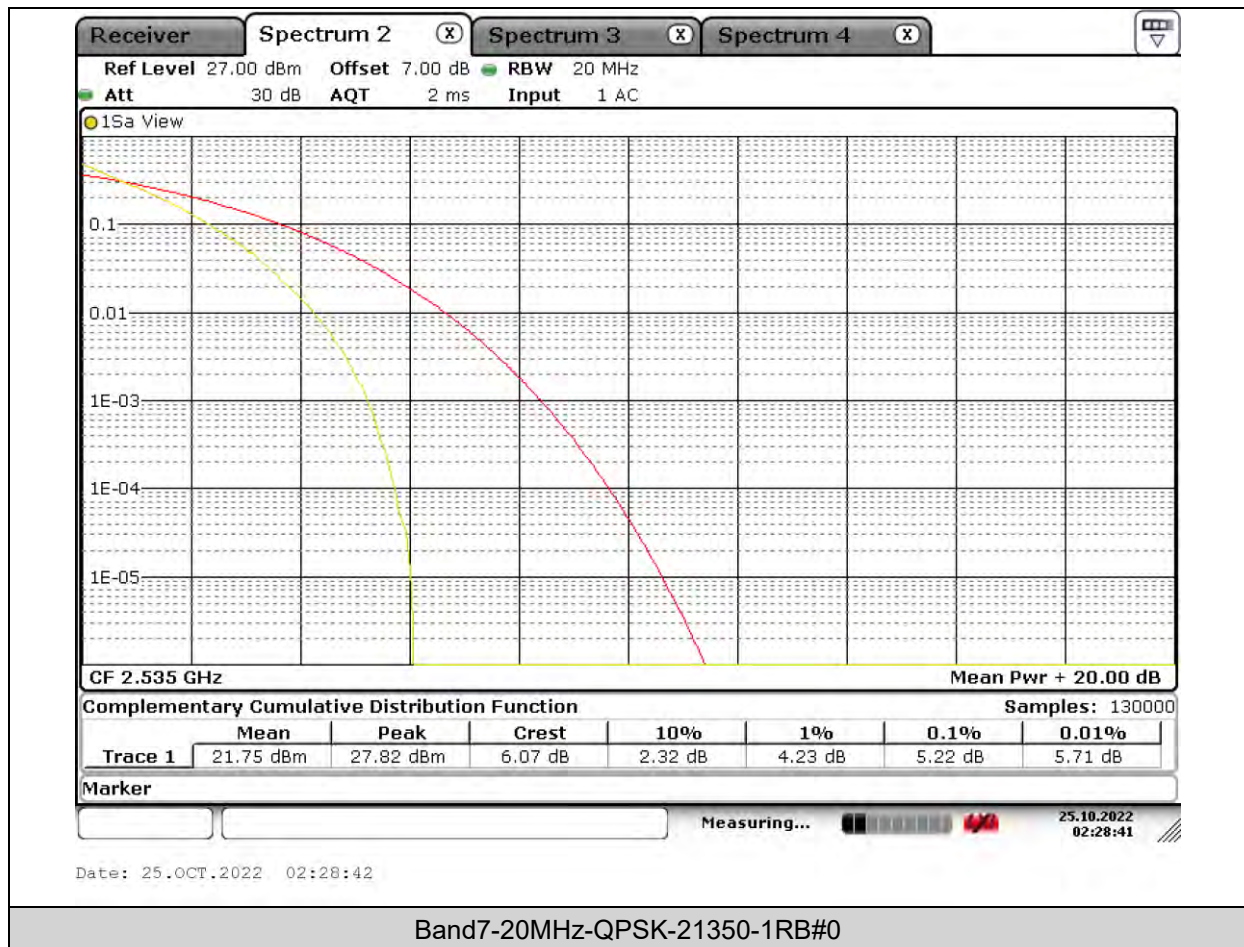
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

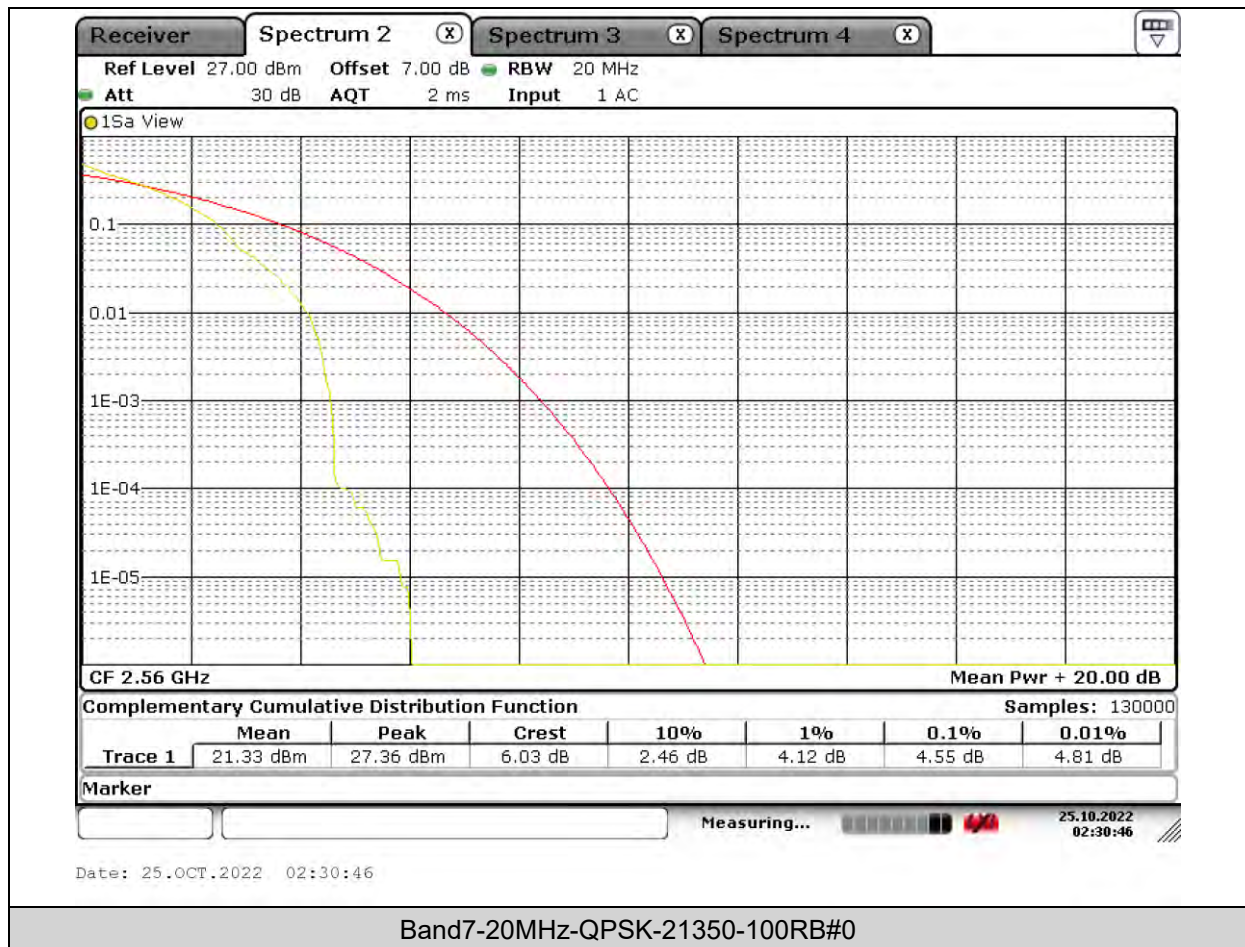
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

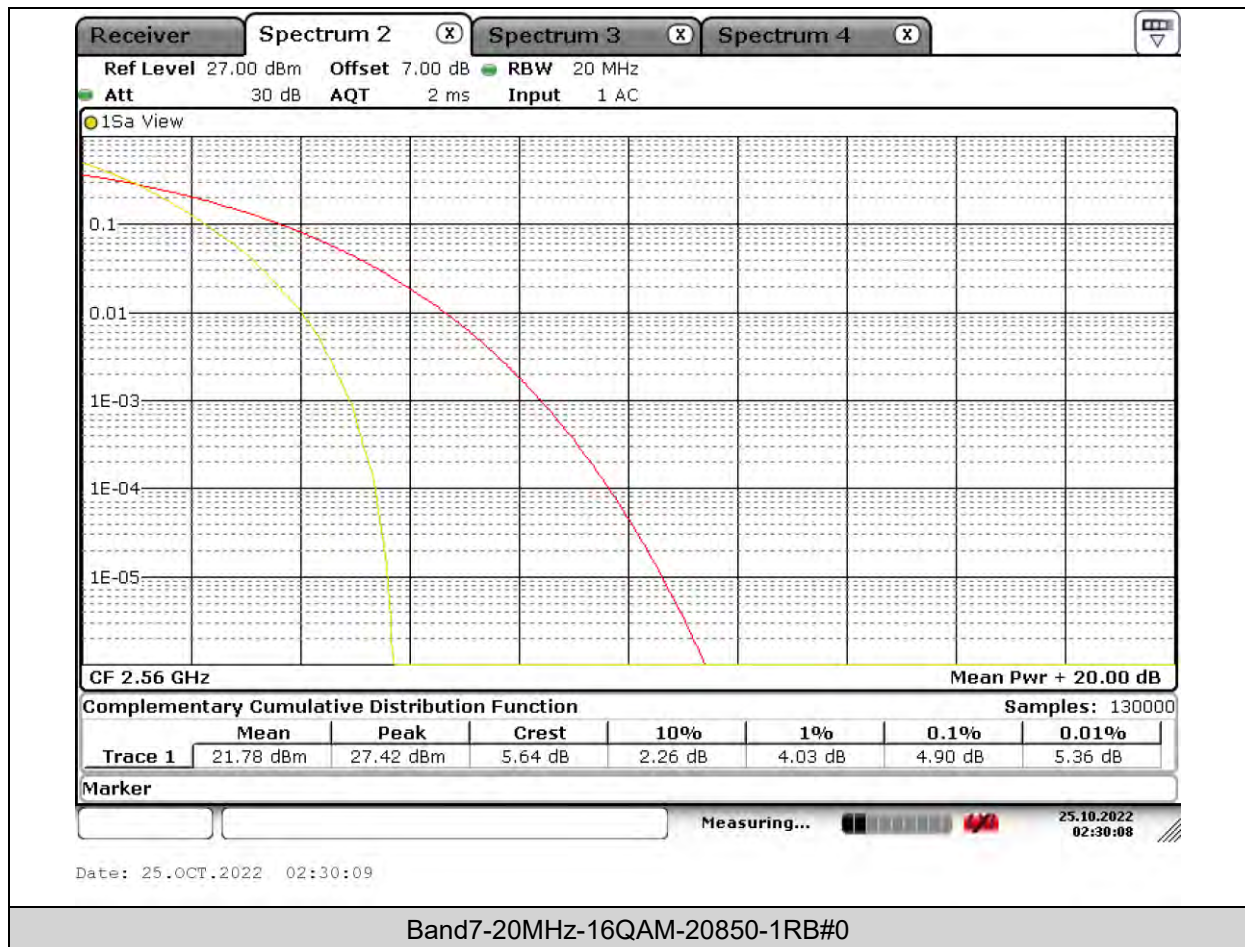
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

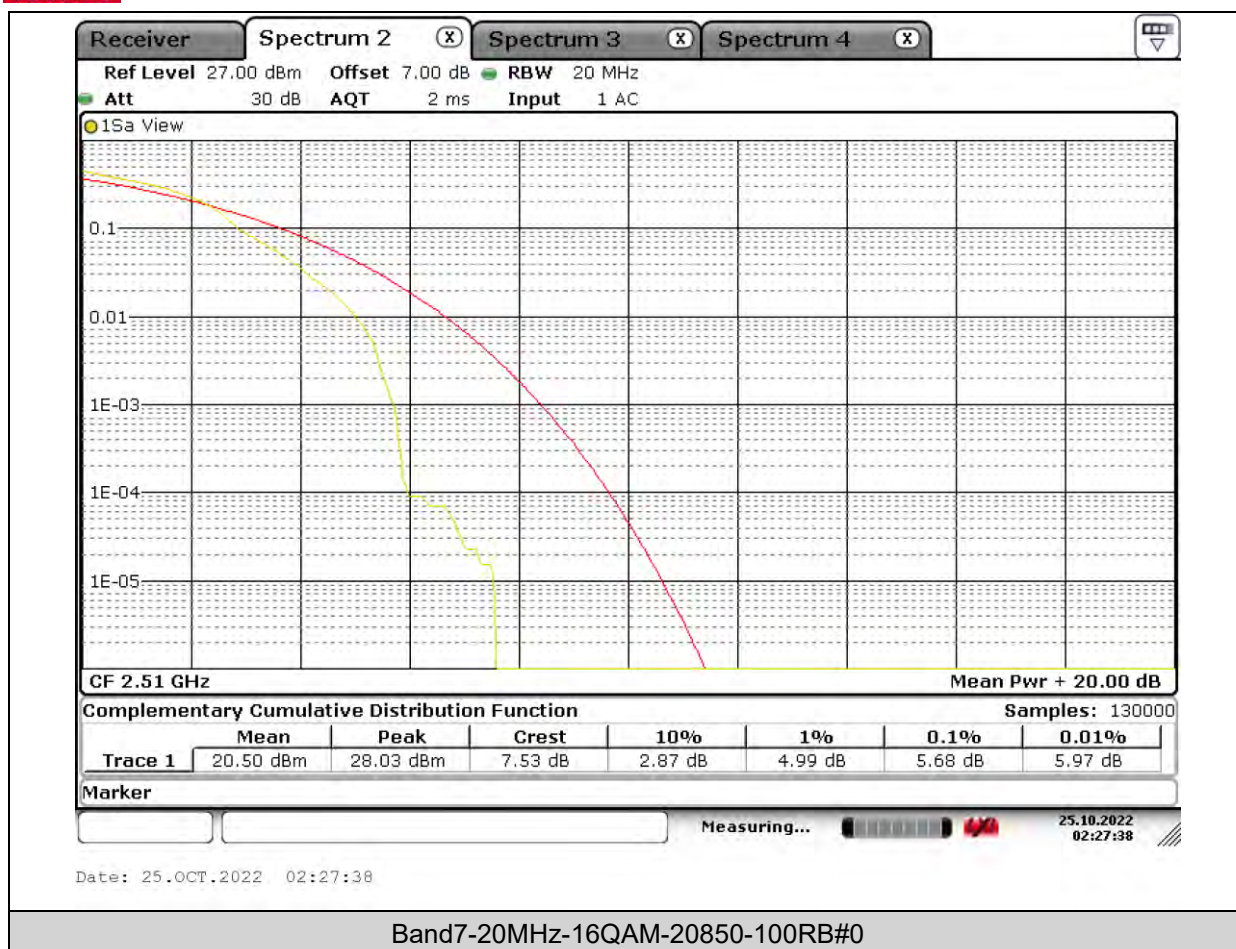
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

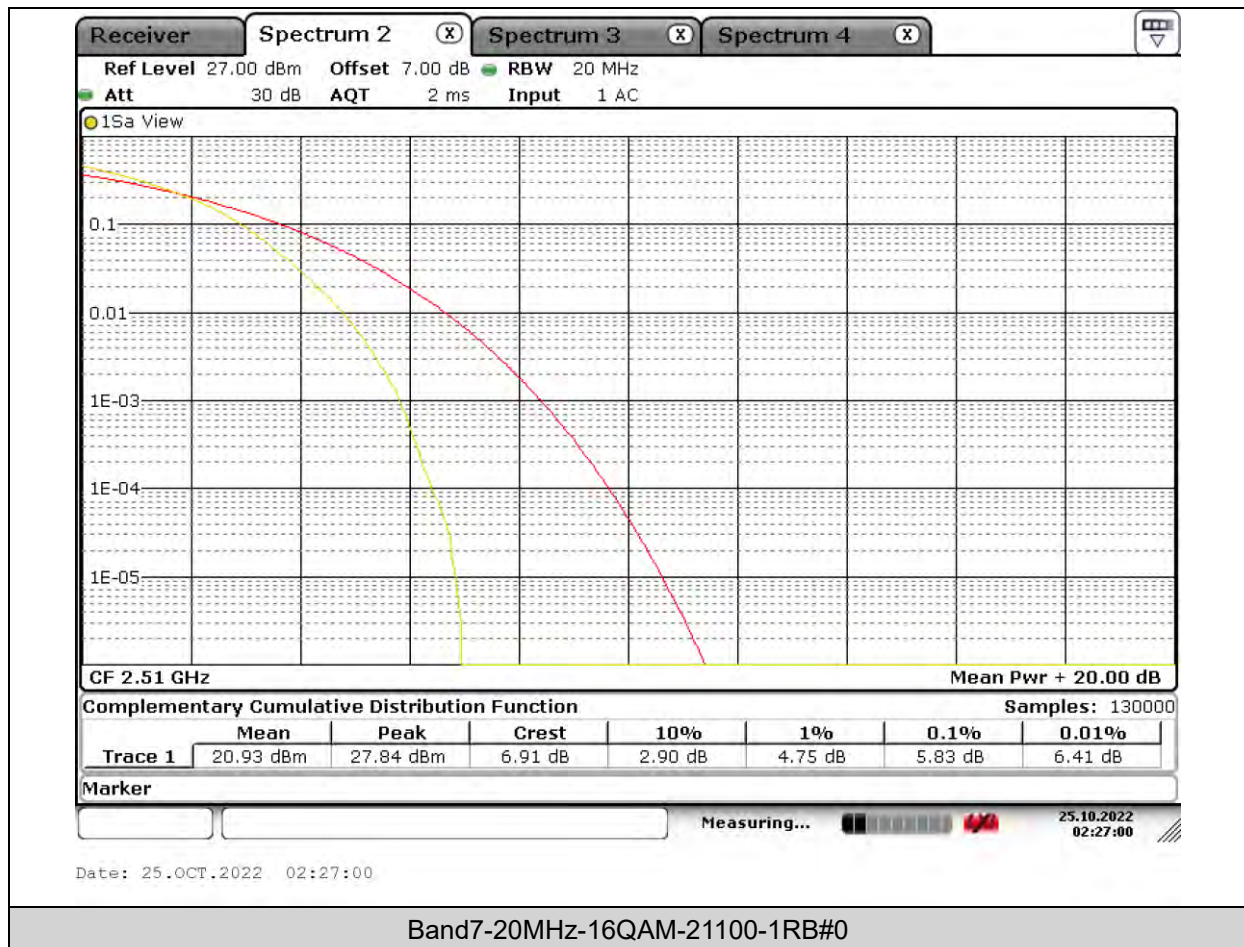
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

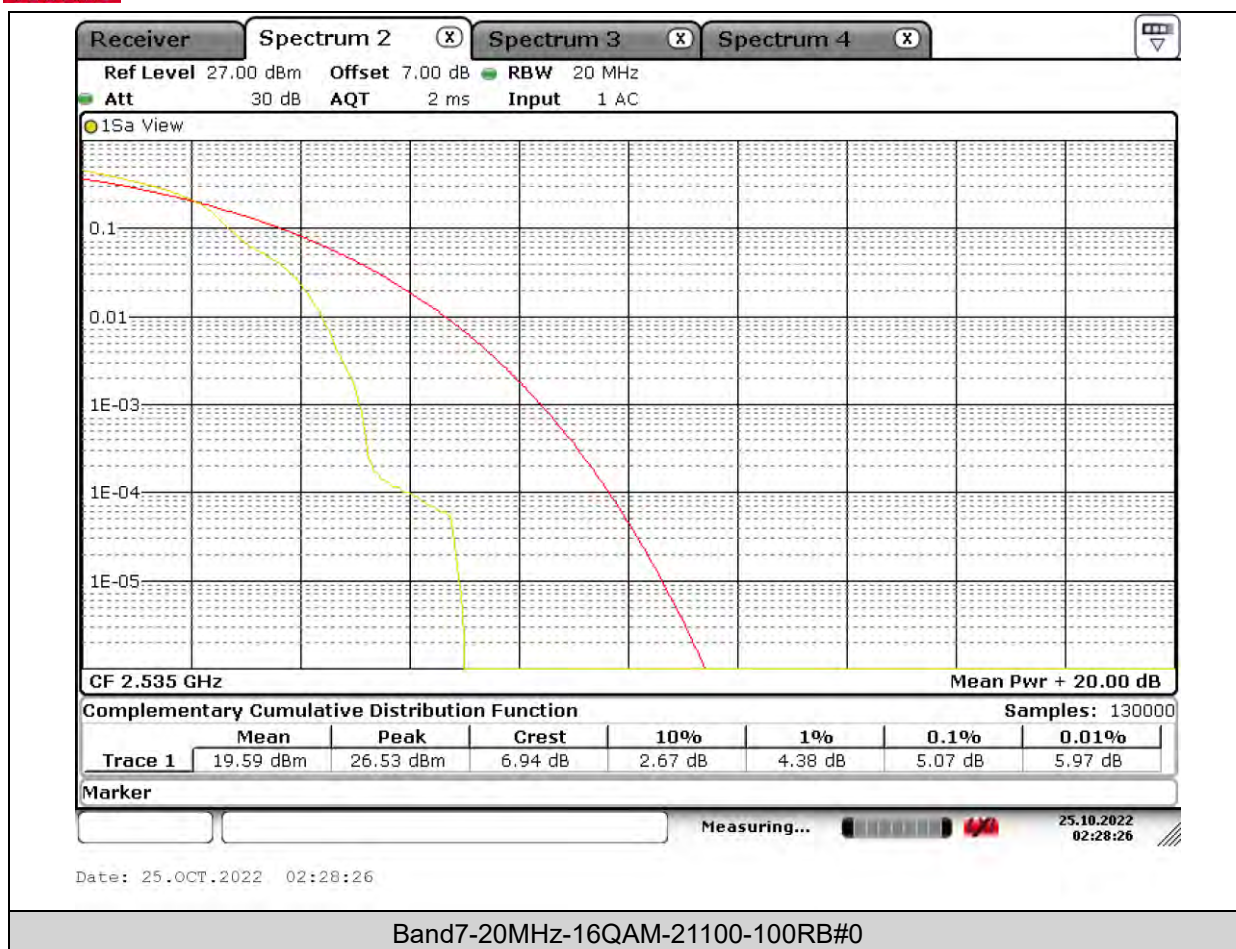
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

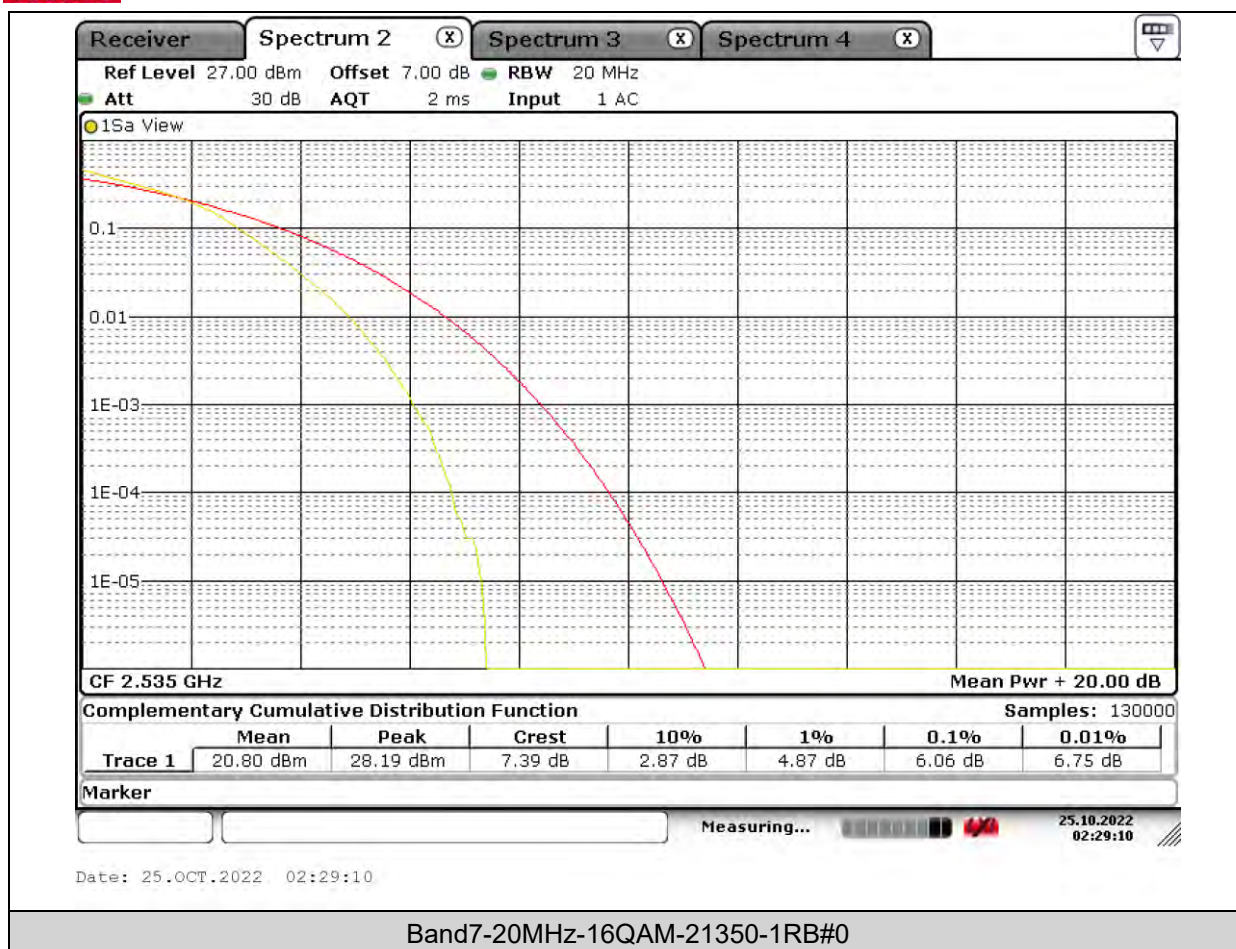
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

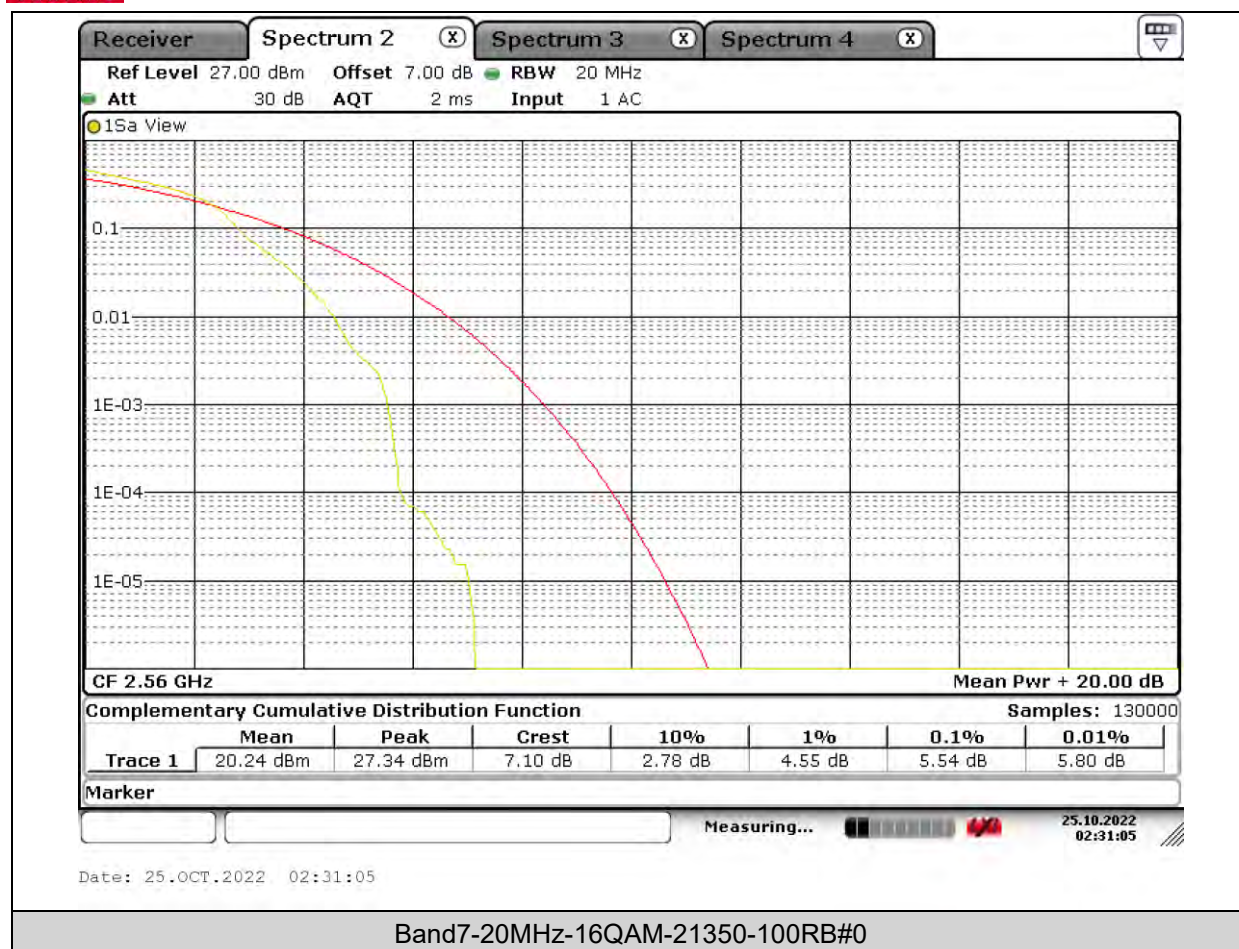
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

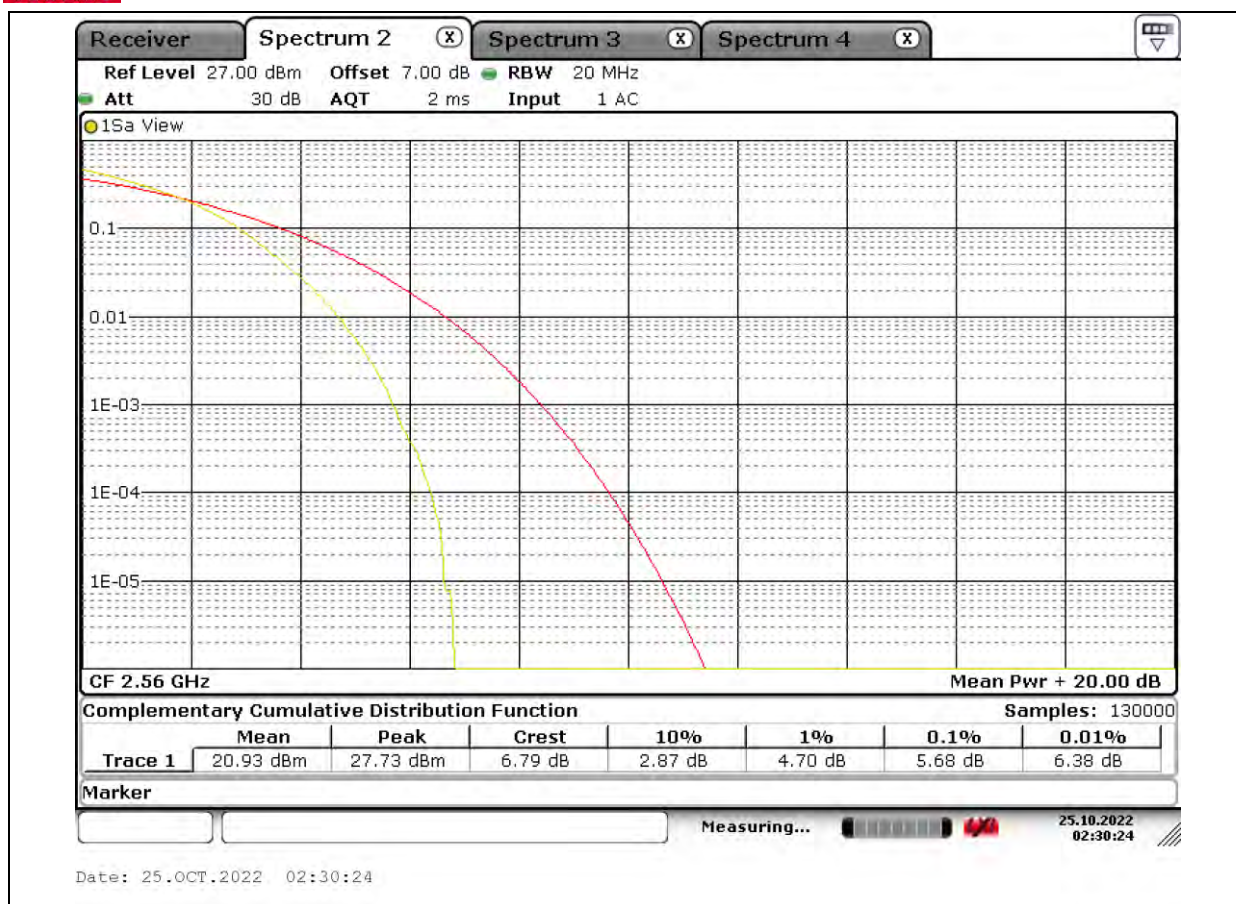
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



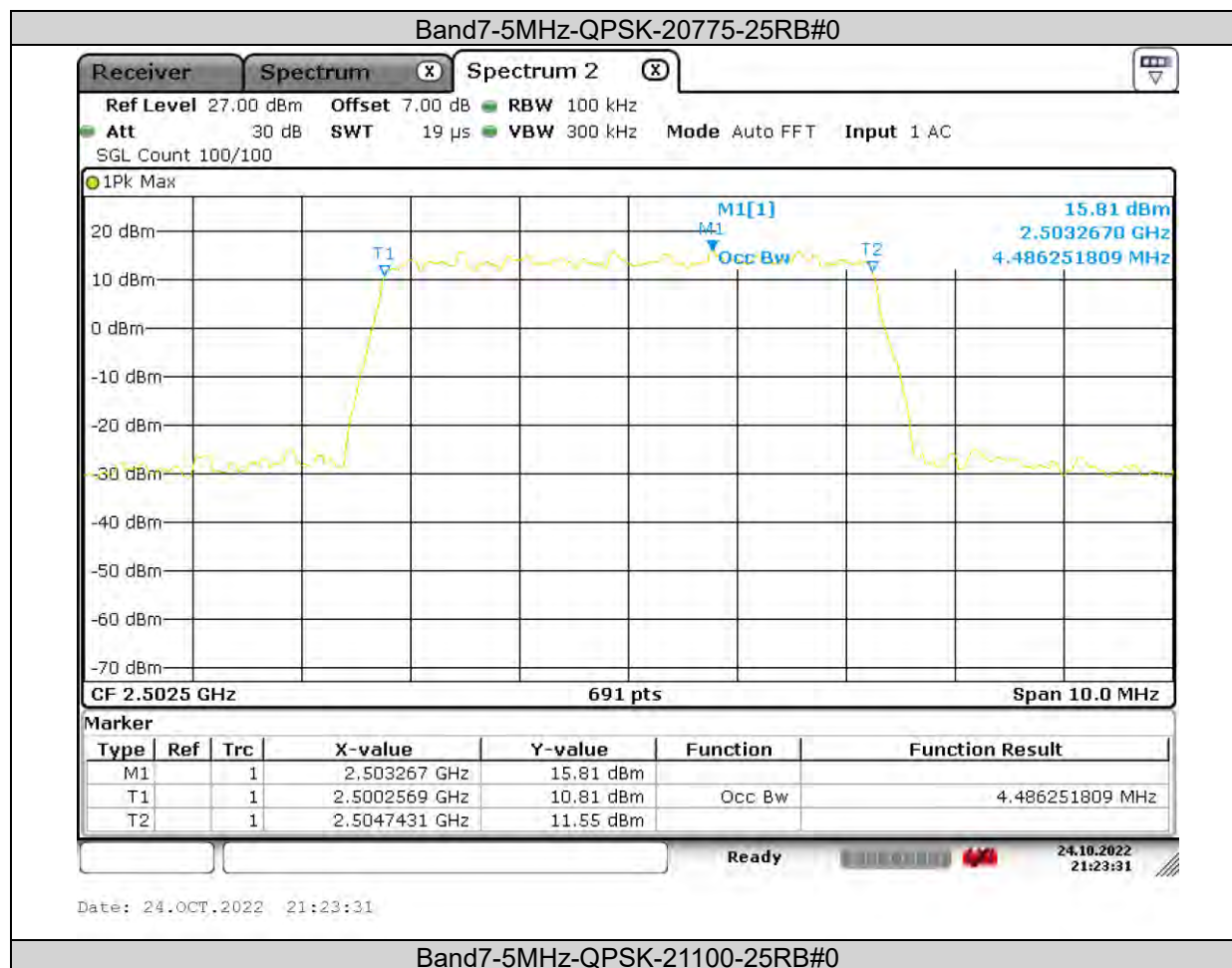
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.486	4.964	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.486	4.949	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.501	4.978	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.515	4.964	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.486	4.92	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.486	4.906	PASS
Band7	10MHz	QPSK	20800	50RB#0	9.030	9.87	PASS
Band7	10MHz	QPSK	21100	50RB#0	9.030	9.754	PASS
Band7	10MHz	QPSK	21400	50RB#0	9.088	9.899	PASS
Band7	10MHz	16QAM	20800	50RB#0	9.001	9.928	PASS
Band7	10MHz	16QAM	21100	50RB#0	9.030	9.812	PASS
Band7	10MHz	16QAM	21400	50RB#0	9.001	9.87	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.459	14.674	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.459	14.848	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.415	14.718	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.502	14.674	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.589	14.805	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.415	14.674	PASS
Band7	20MHz	QPSK	20850	100RB#0	18.466	20.26	PASS
Band7	20MHz	QPSK	21100	100RB#0	18.408	20.781	PASS
Band7	20MHz	QPSK	21350	100RB#0	18.234	20.318	PASS
Band7	20MHz	16QAM	20850	100RB#0	18.408	20.376	PASS
Band7	20MHz	16QAM	21100	100RB#0	18.292	20.781	PASS
Band7	20MHz	16QAM	21350	100RB#0	18.234	20.724	PASS

Test Graphs

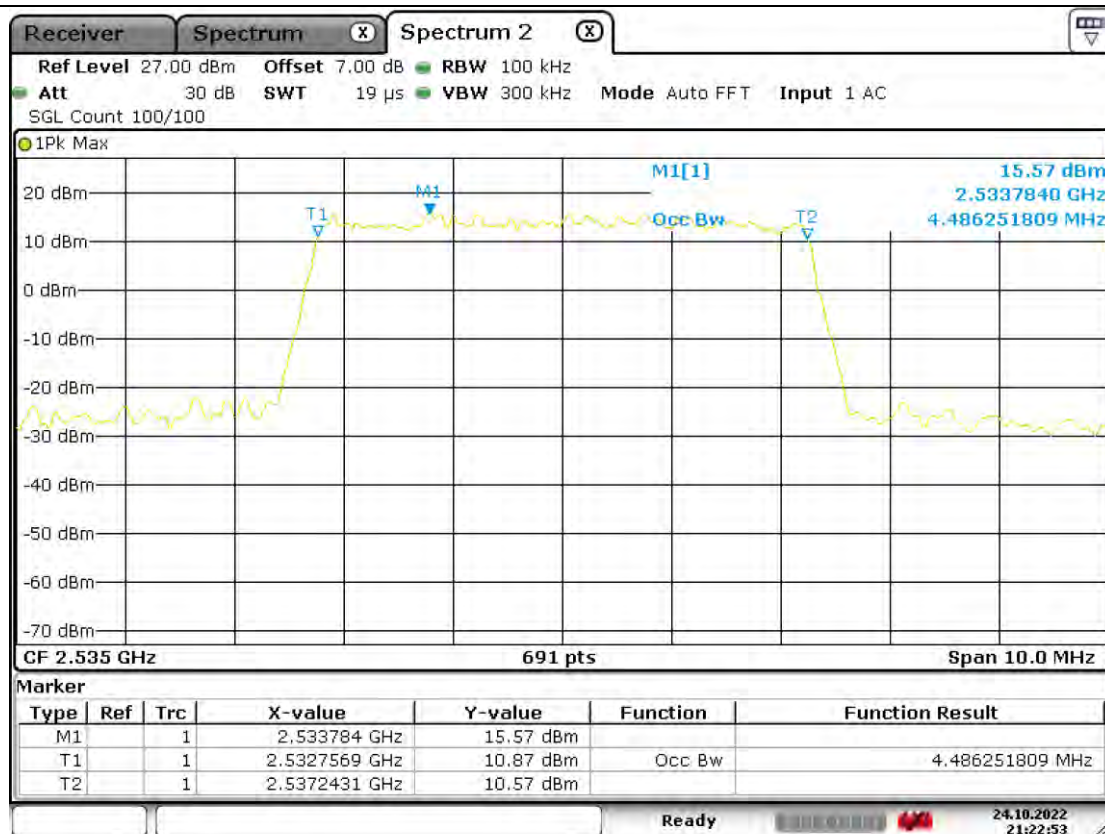
Occupied Bandwidth





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



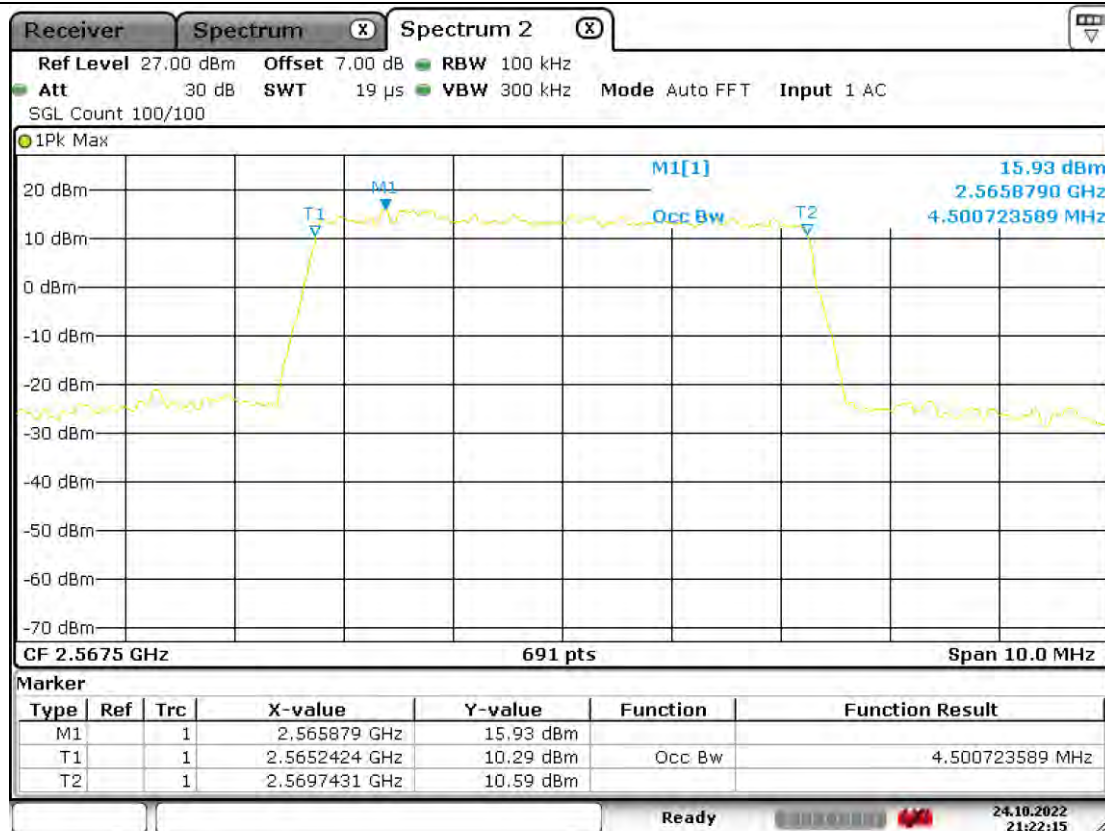
Date: 24.OCT.2022 21:22:53

Band7-5MHz-QPSK-21425-25RB#0



BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



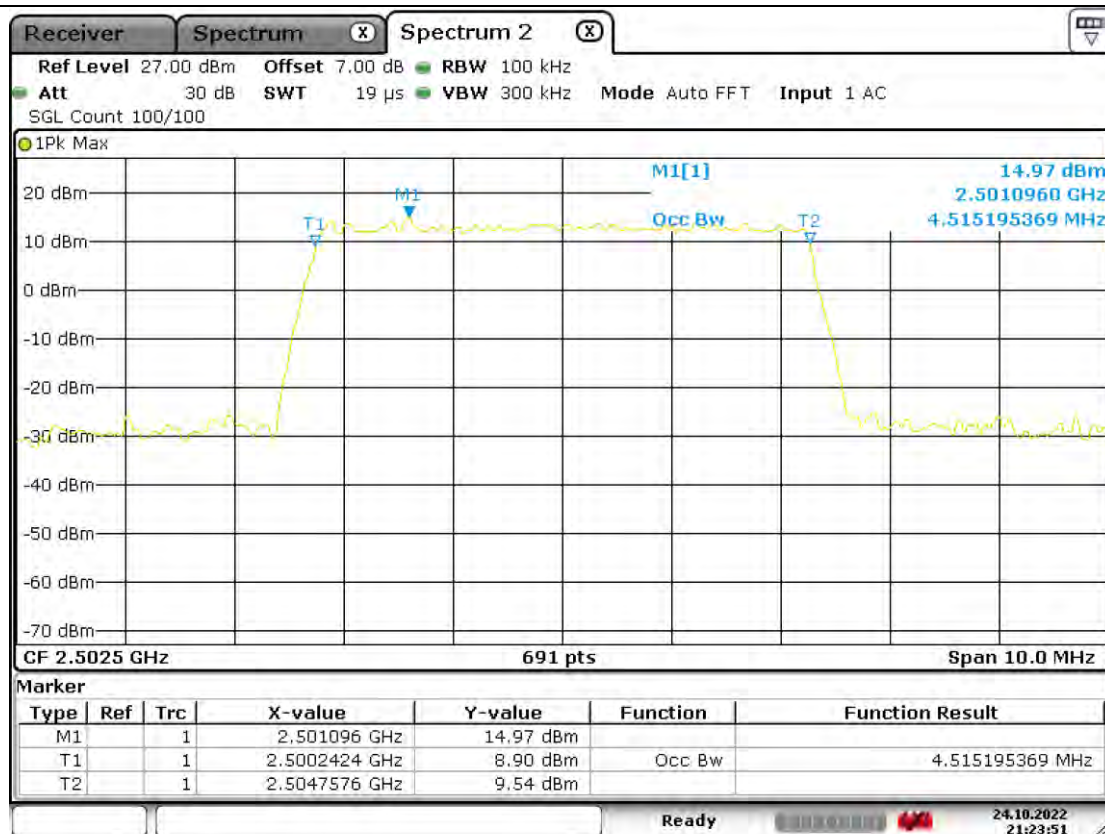
Date: 24.OCT.2022 21:22:15

Band7-5MHz-16QAM-20775-25RB#0



BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



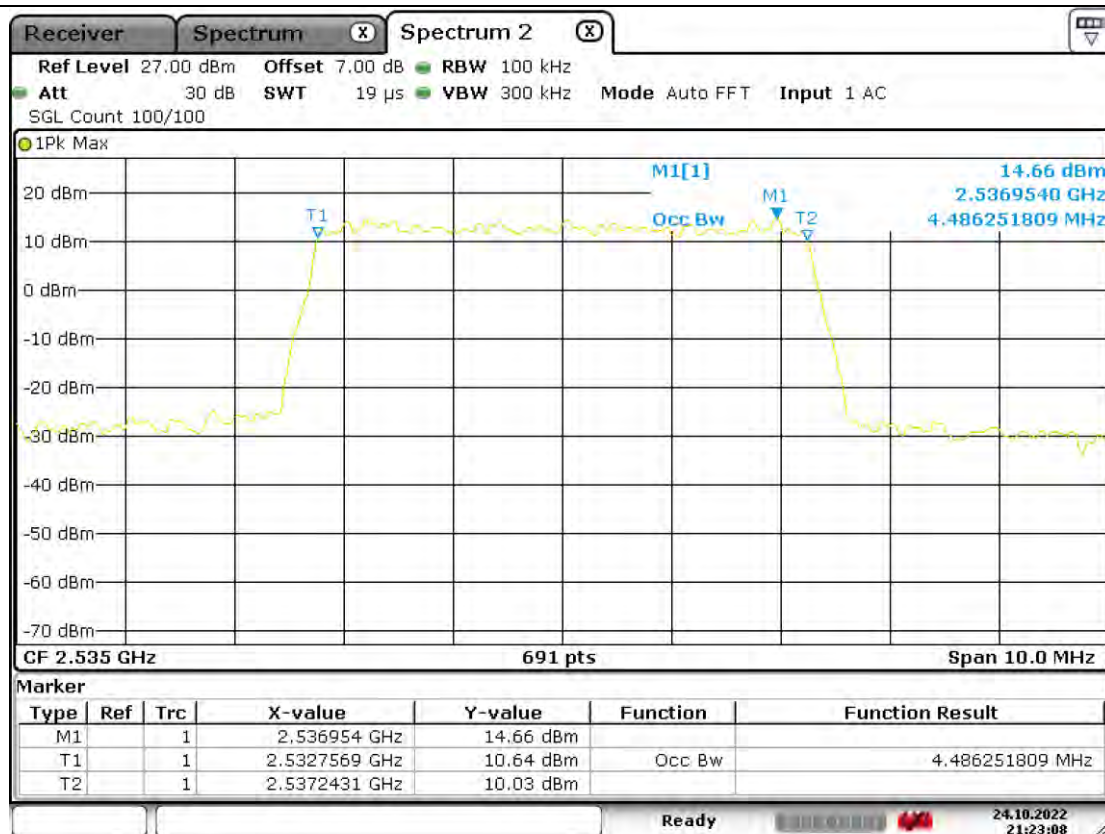
Date: 24.OCT.2022 21:23:51

Band7-5MHz-16QAM-21100-25RB#0



BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



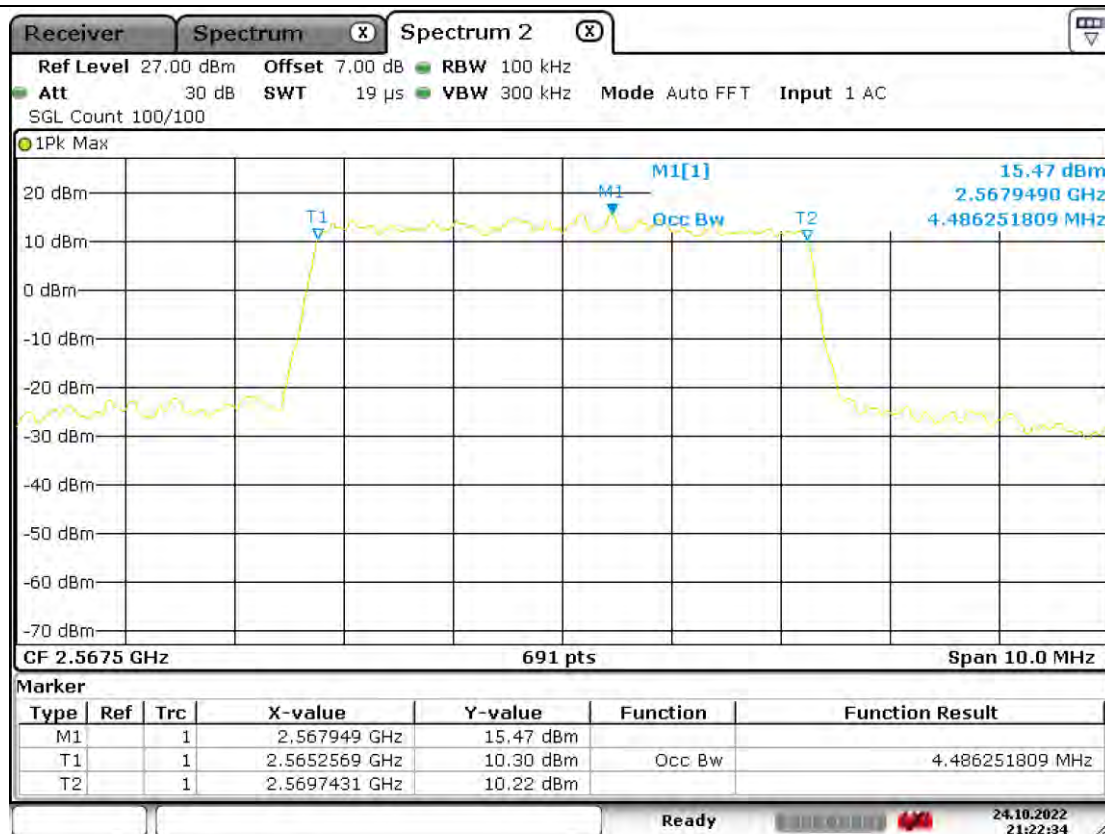
Date: 24.OCT.2022 21:23:09

Band7-5MHz-16QAM-21425-25RB#0



BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



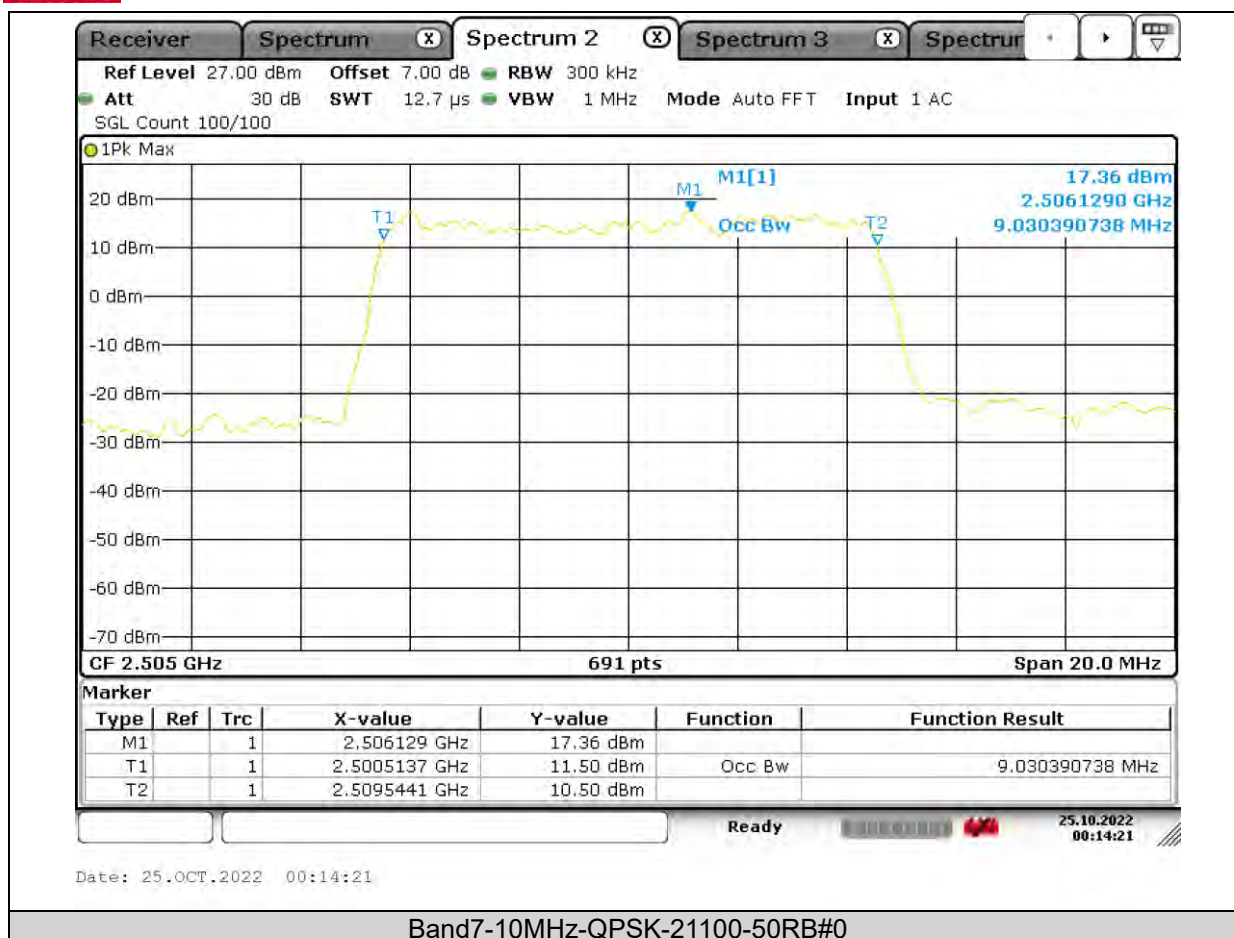
Date: 24.OCT.2022 21:22:34

Band7-10MHz-QPSK-20800-50RB#0



BUREAU
VERITAS

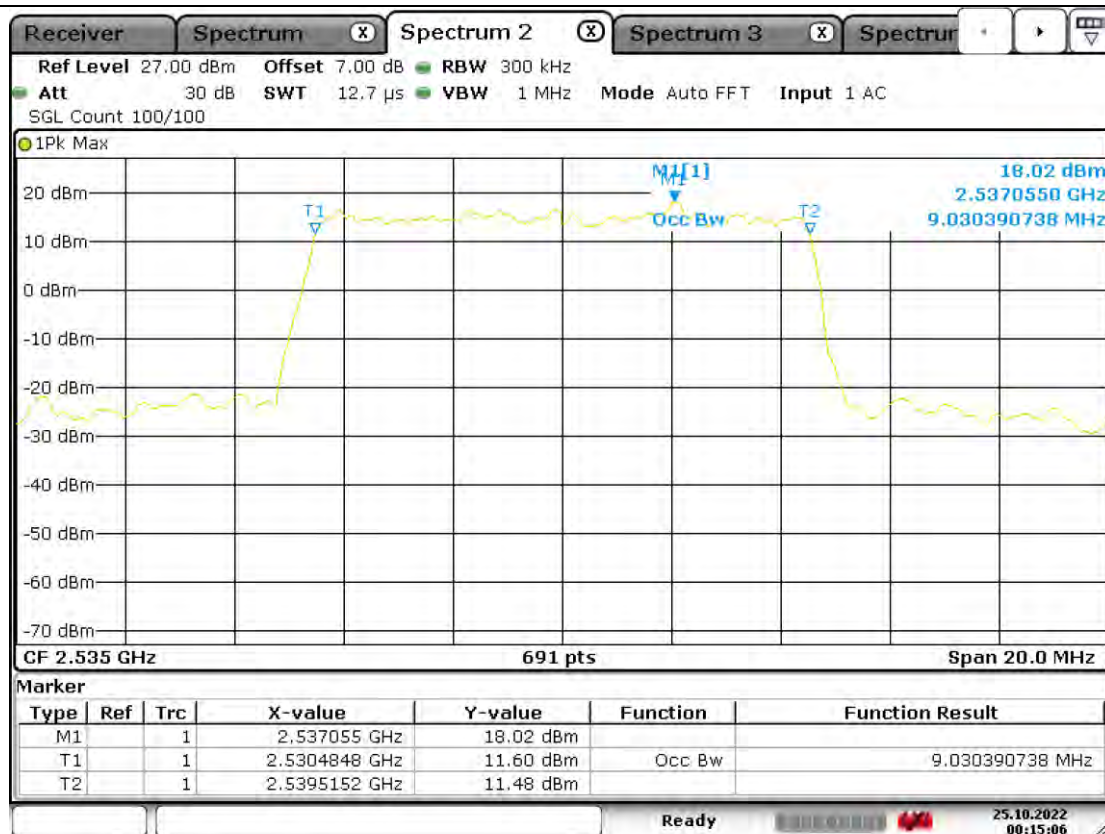
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



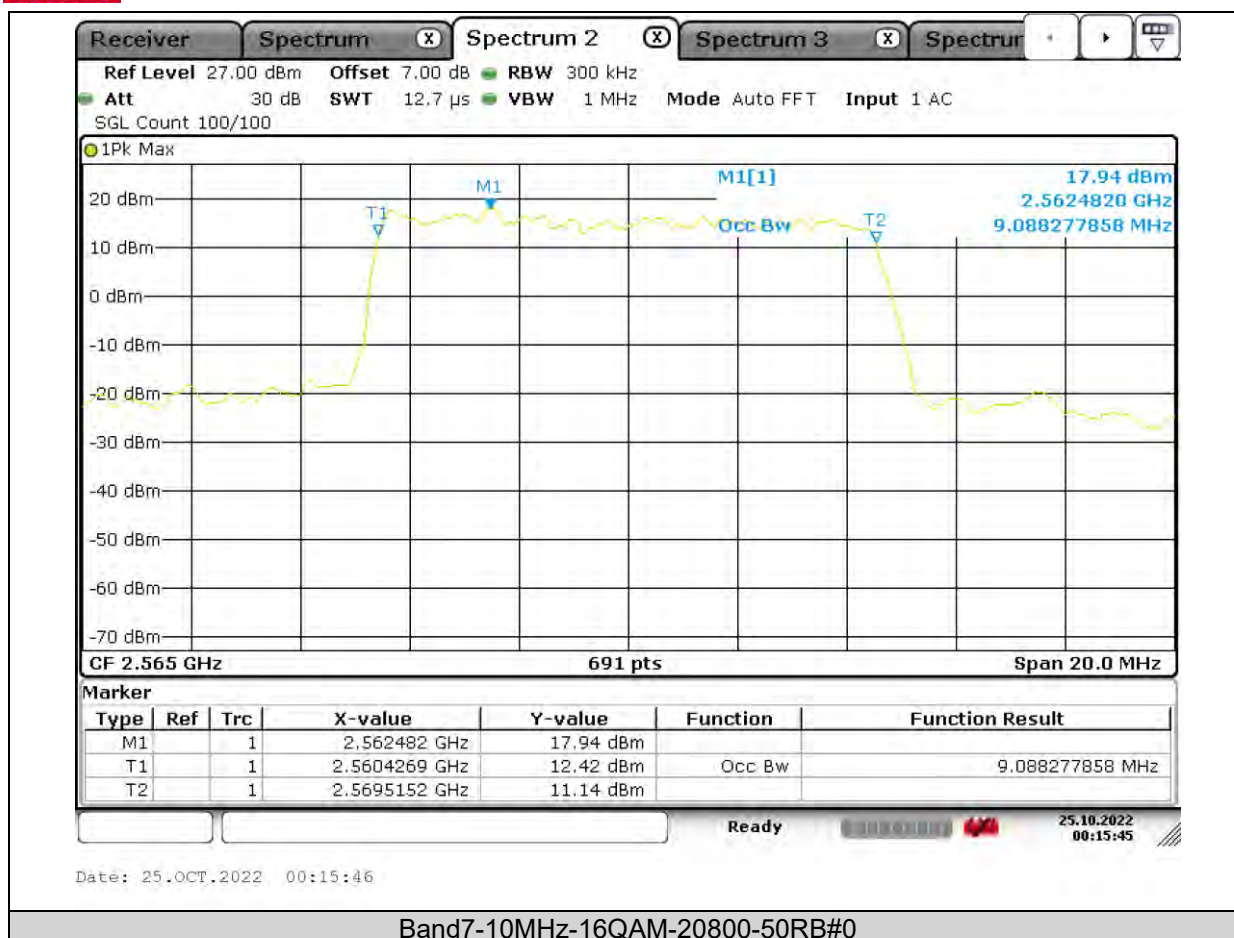
Date: 25.OCT.2022 00:15:07

Band7-10MHz-QPSK-21400-50RB#0



BUREAU
VERITAS

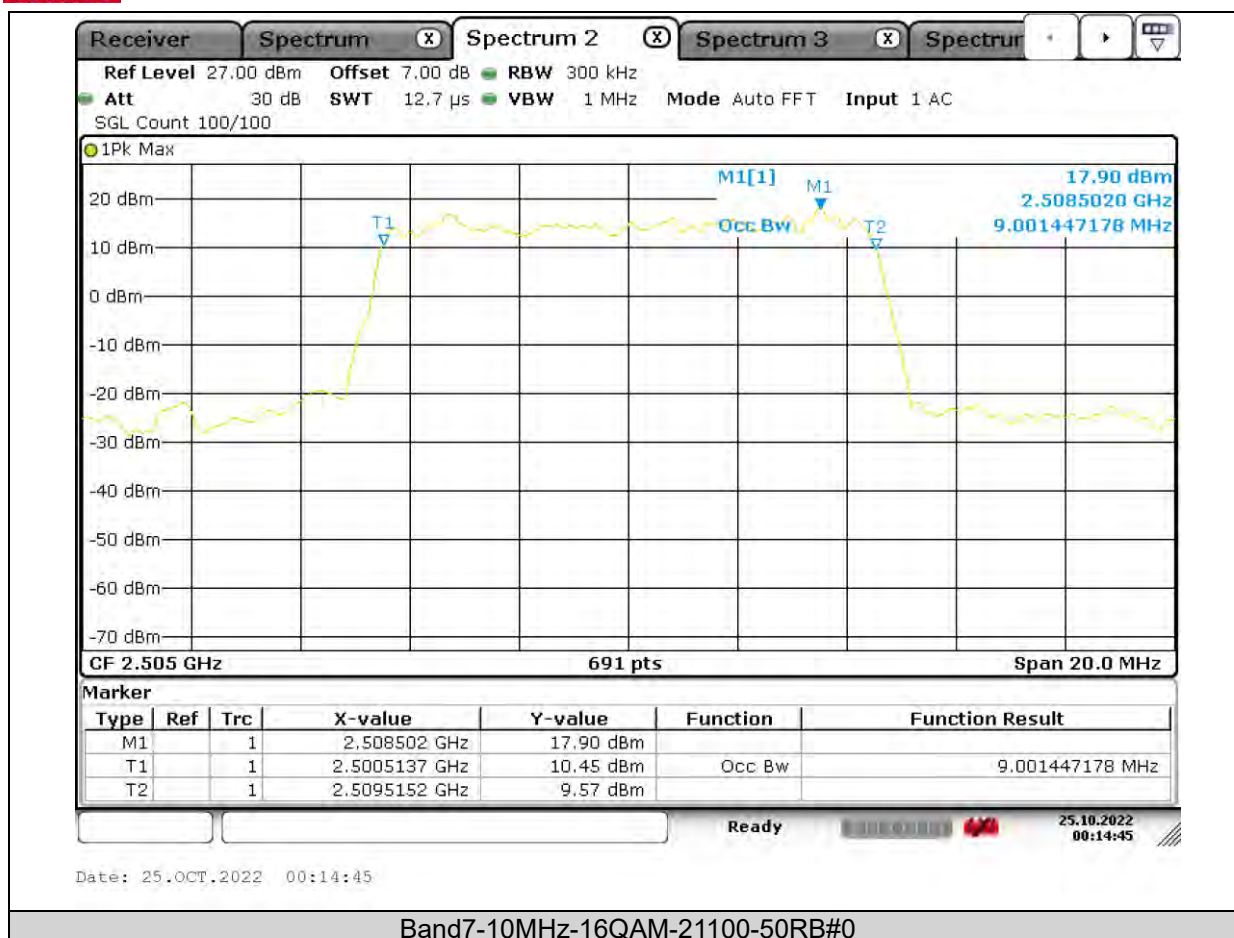
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

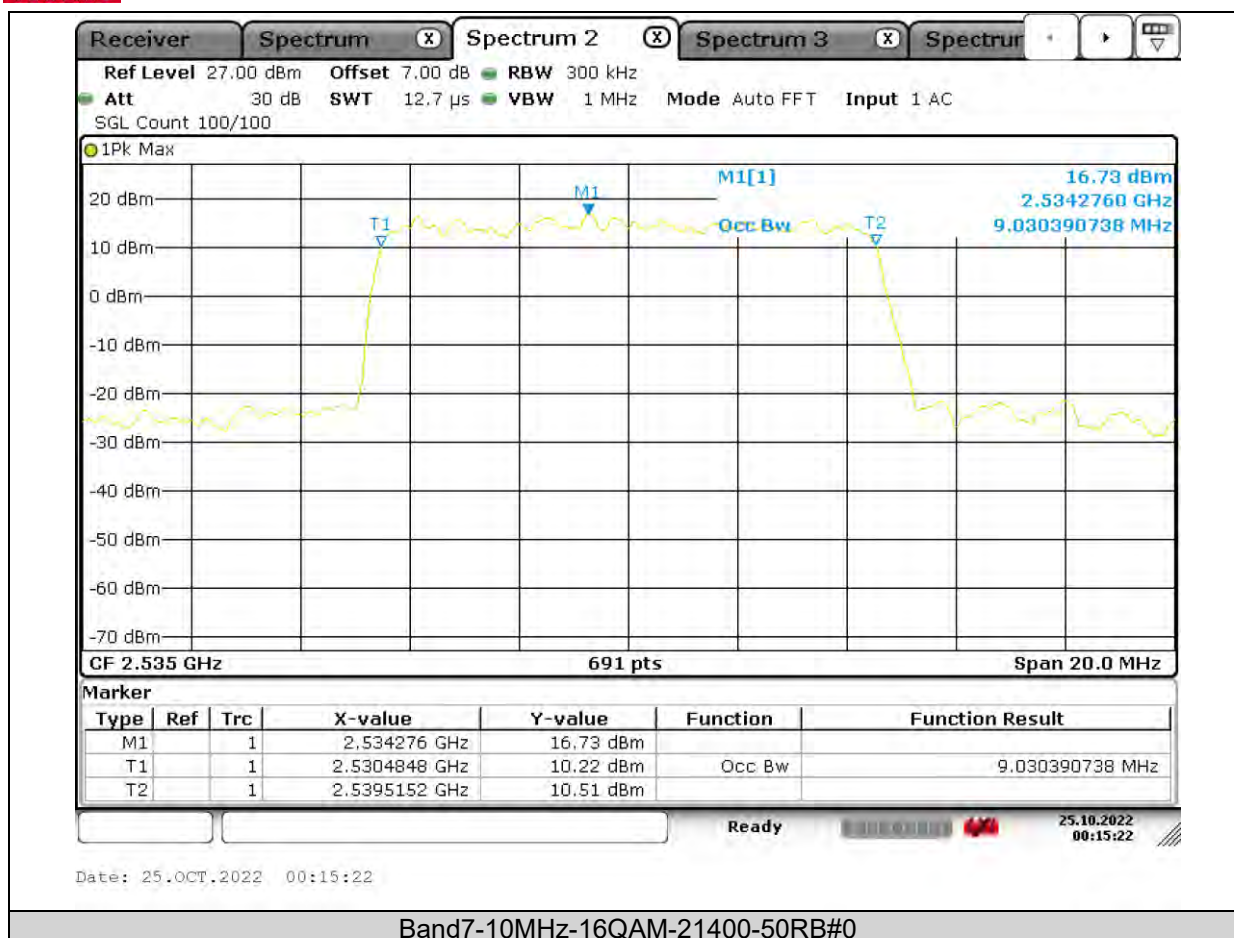
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

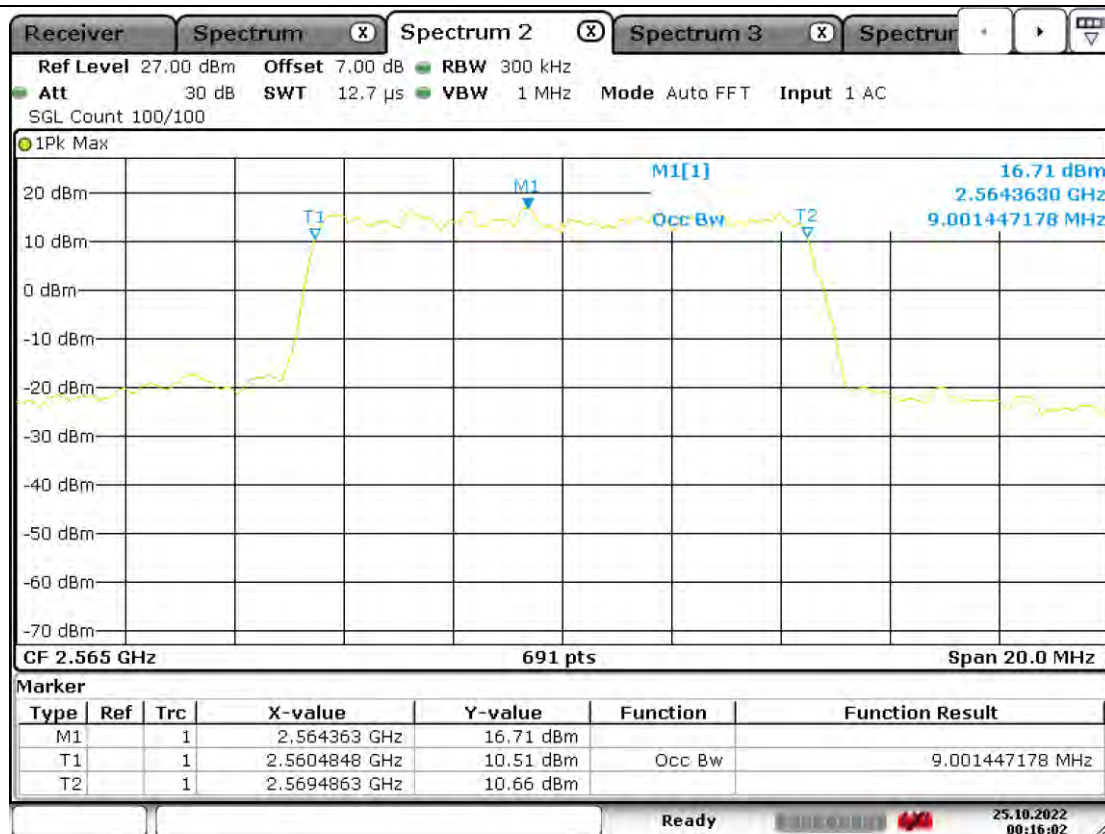
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



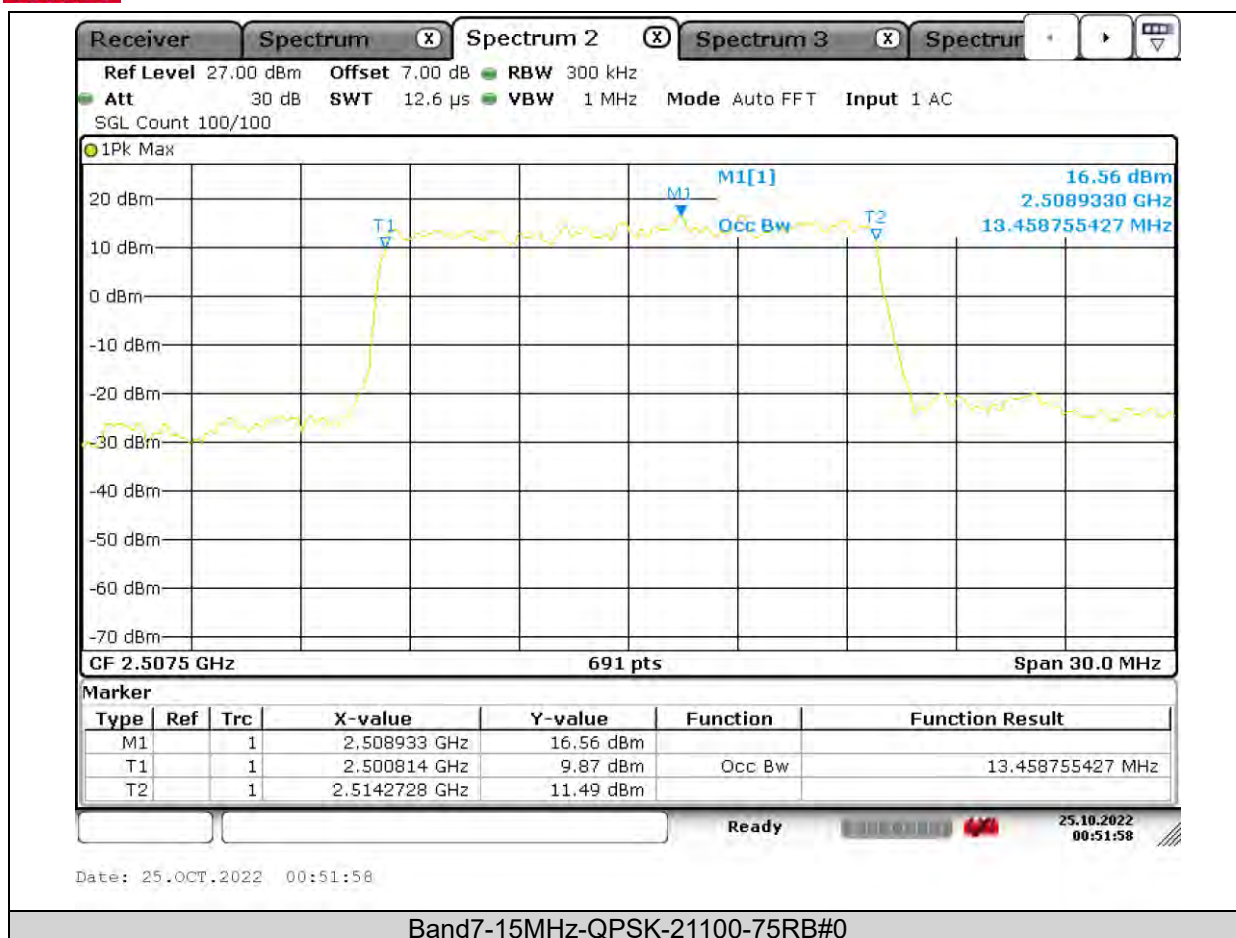
Date: 25.OCT.2022 00:16:02

Band7-15MHz-QPSK-20825-75RB#0



BUREAU
VERITAS

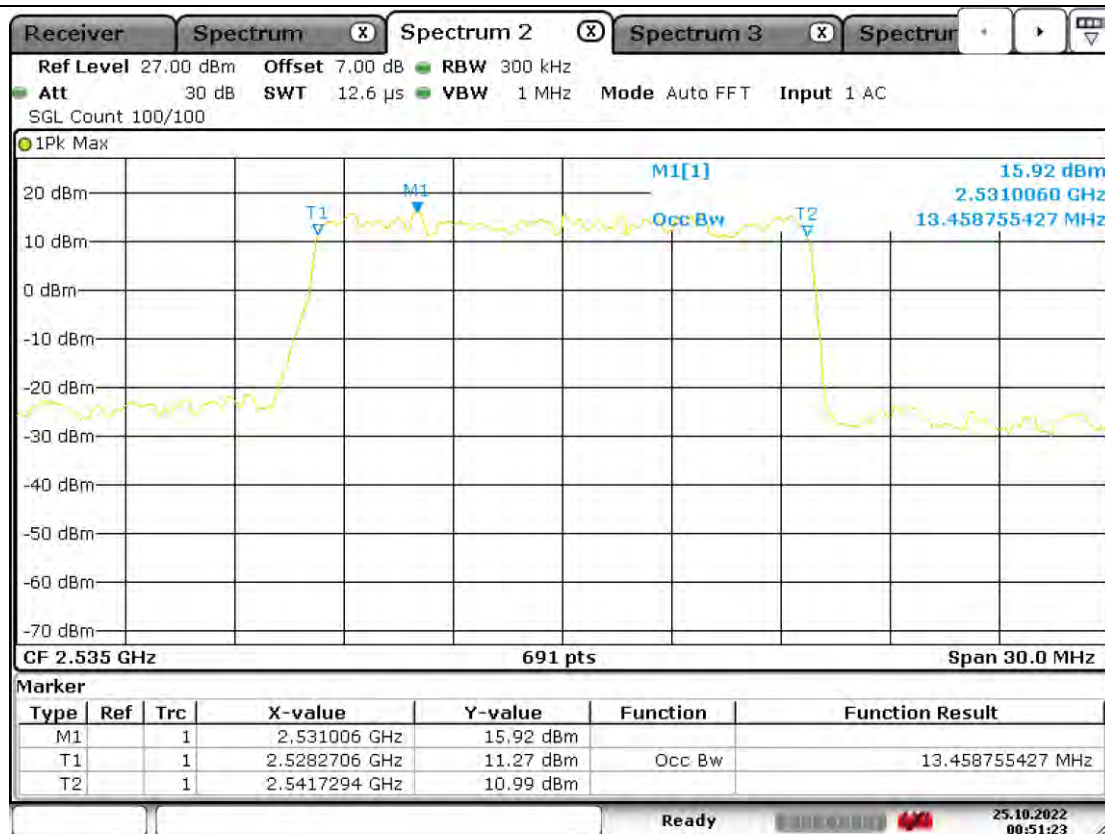
Test Report No.: W7L-P22090023RF05





BUREAU
VERITAS

Test Report No.: W7L-P22090023RF05



Date: 25.OCT.2022 00:51:23

Band7-15MHz-QPSK-21375-75RB#0



Receiver Spectrum Spectrum 2 Spectrum 3 Spectrum 4

Ref Level 27.00 dBm Offset 7.00 dB RBW 300 kHz
 Att 30 dB SWT 12.6 µs VBW 1 MHz Mode Auto FFT Input 1 AC
 SGL Count 100/100

1Pk Max

20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm

T1 M1 M1[1] 15.80 dBm
 2.5615450 GHz
 Occ Bw 13.415340087 MHz
 T2

CF 2.5625 GHz 691 pts Span 30.0 MHz

Marker

Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	2.561545 GHz	15.80 dBm		
T1		1	2.5557706 GHz	10.75 dBm	Occ Bw	13.415340087 MHz
T2		1	2.569186 GHz	10.88 dBm		

Ready

25.10.2022 00:51:07

Date: 25.OCT.2022 00:51:08

Band7-15MHz-16QAM-20825-75RB#0