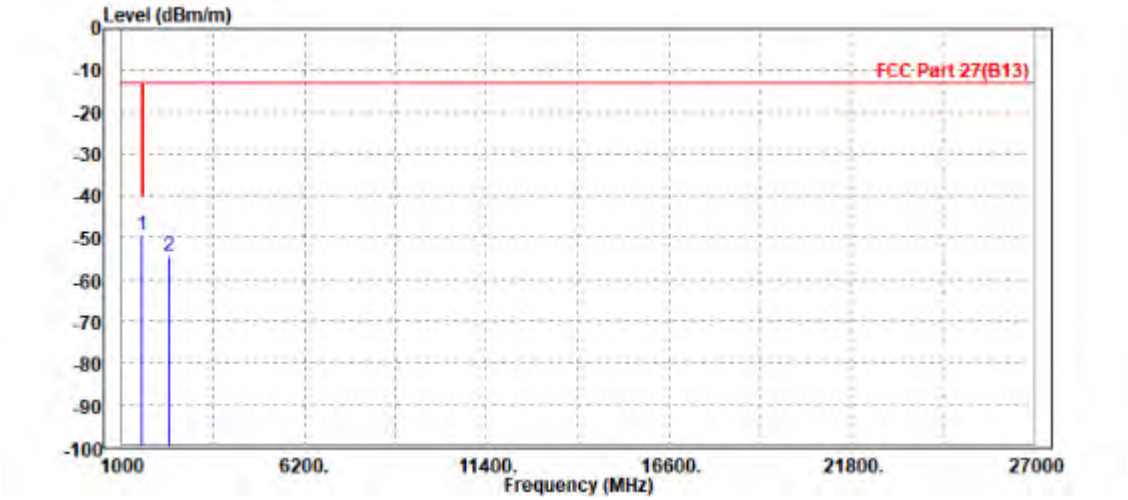
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M			

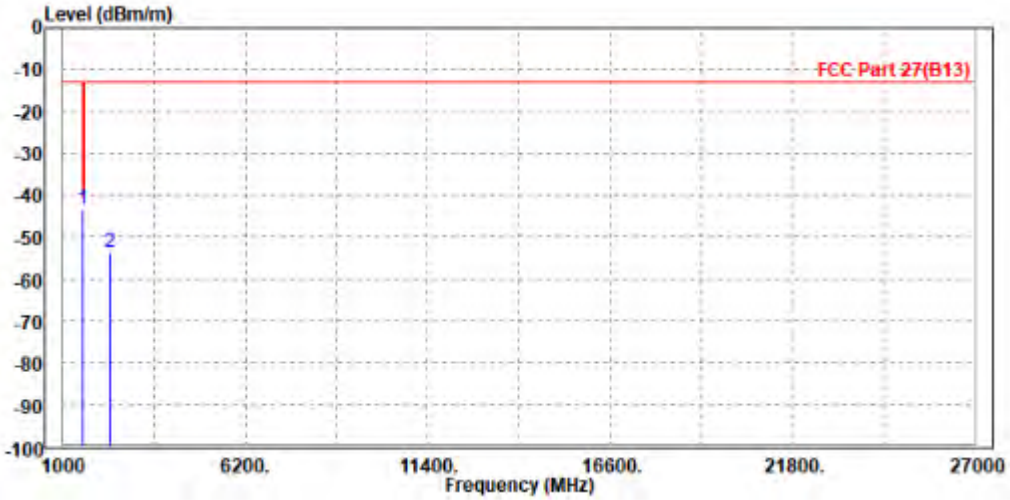
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	PP 1572.000	-49.44	-49.93	-40.00	-9.44	0.49	Peak	Vertical
2	2346.000	-54.55	-59.07	-13.00	-41.55	4.52	Peak	Vertical



CH23255

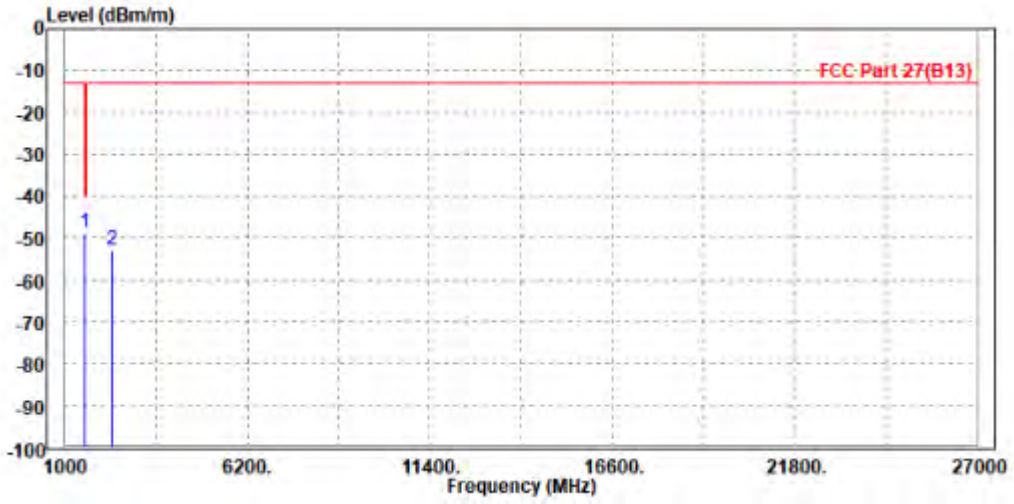
MODE	TX channel 23255	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

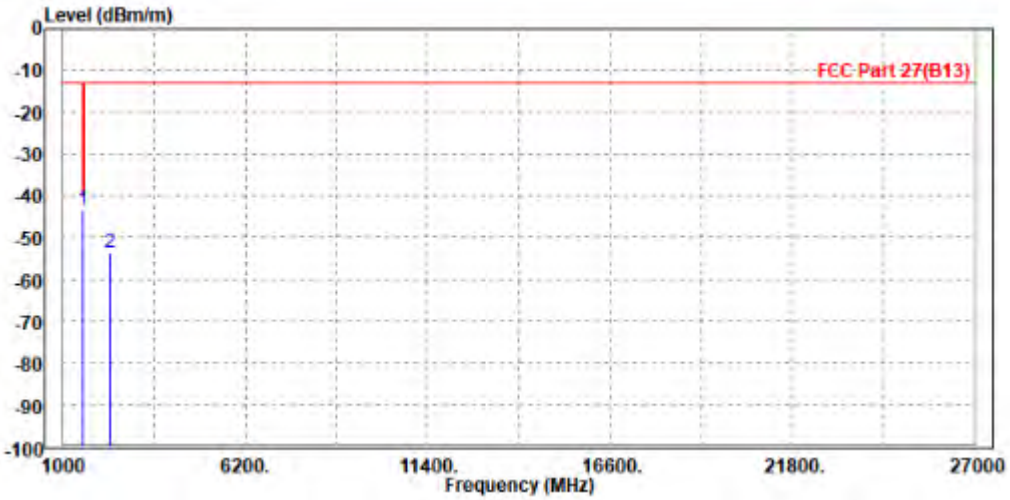
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1572.000	-48.83	-49.32	-40.00	-8.83	0.49	Peak	Vertical
2	2352.000	-52.82	-57.36	-13.00	-39.82	4.54	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz /QPSK

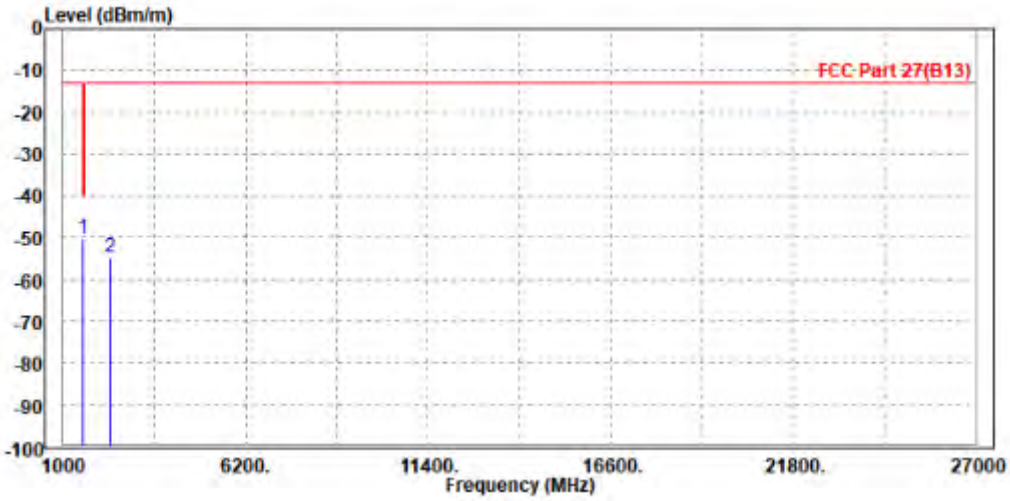
MODE	TX channel 23230	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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



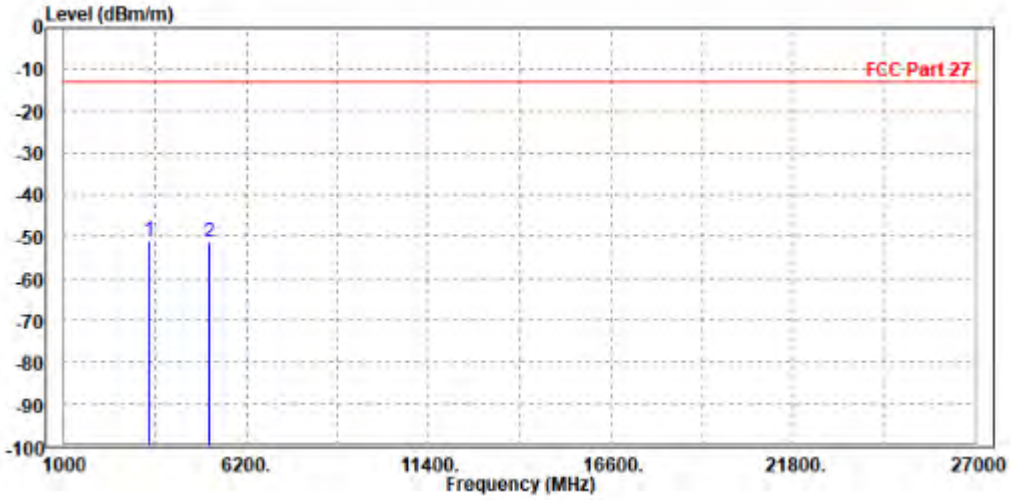
LTE B66

CHANNEL BANDWIDTH: 1.4MHz / QPSK

CH131979

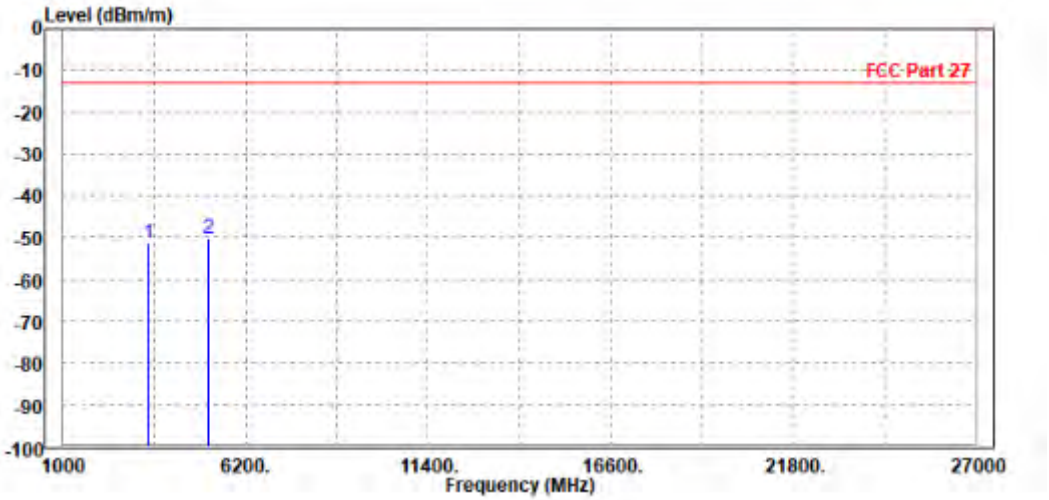
MODE	TX channel 131979	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

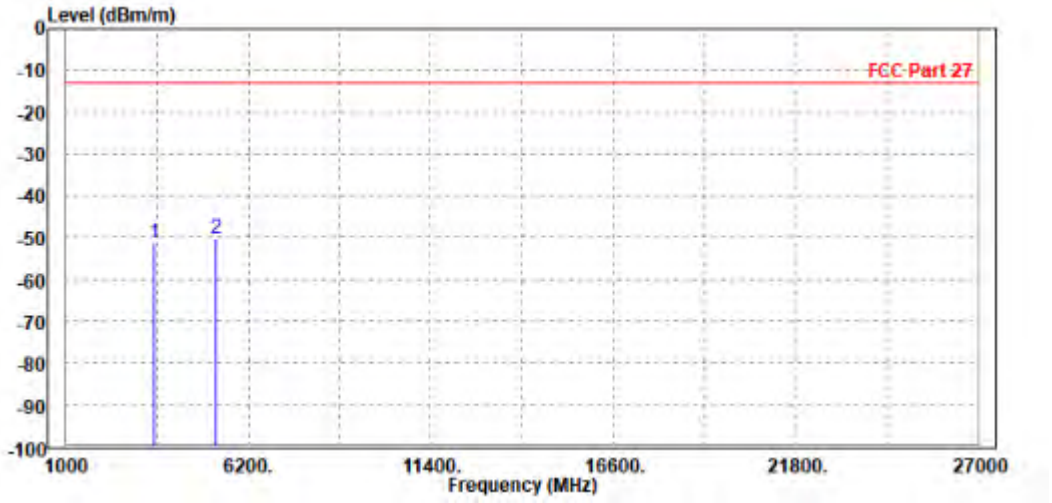
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3418.000	-51.47	-58.66	-13.00	-38.47	7.19	Peak	Vertical
2 PP	5132.100	-50.20	-60.59	-13.00	-37.20	10.39	Peak	Vertical



CH132322

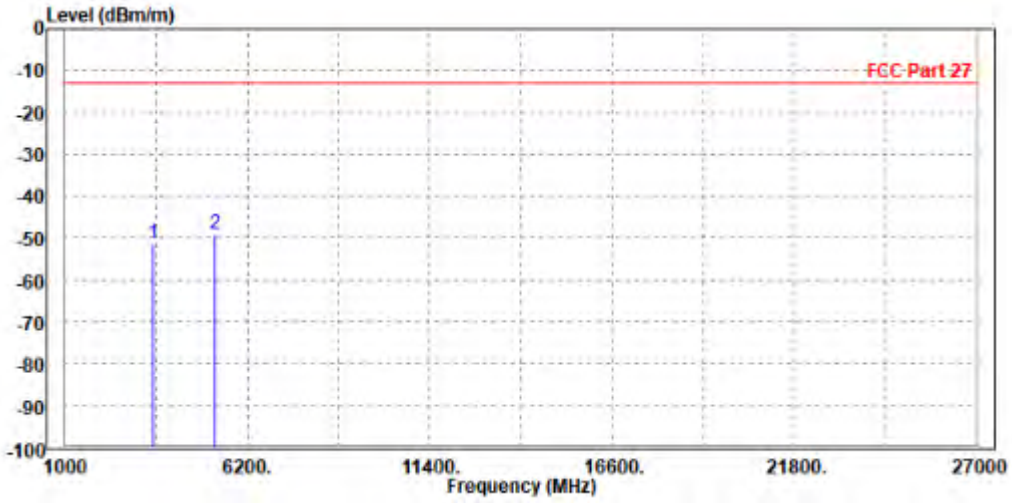
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

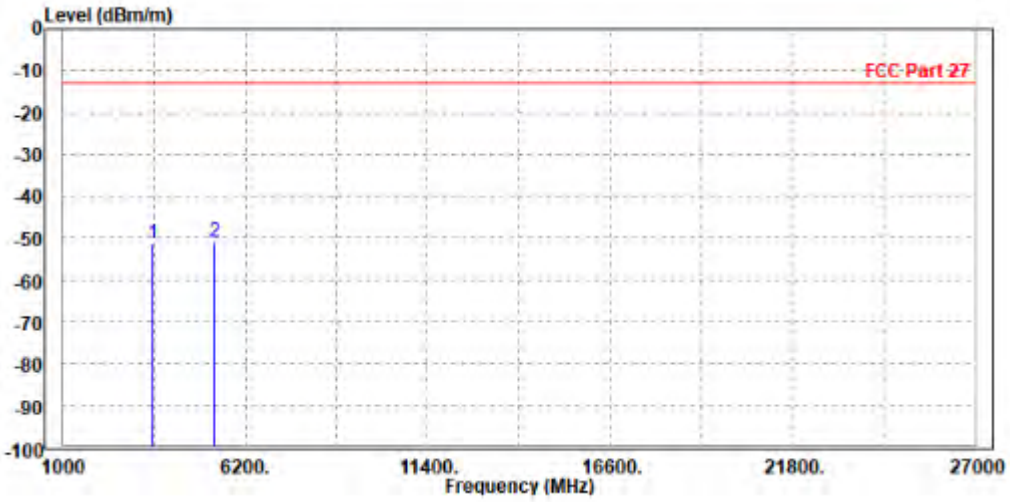
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-51.49	-58.82	-13.00	-38.49	7.33	Peak	Vertical
2 PP	5264.000	-48.92	-59.43	-13.00	-35.92	10.51	Peak	Vertical



CH132665

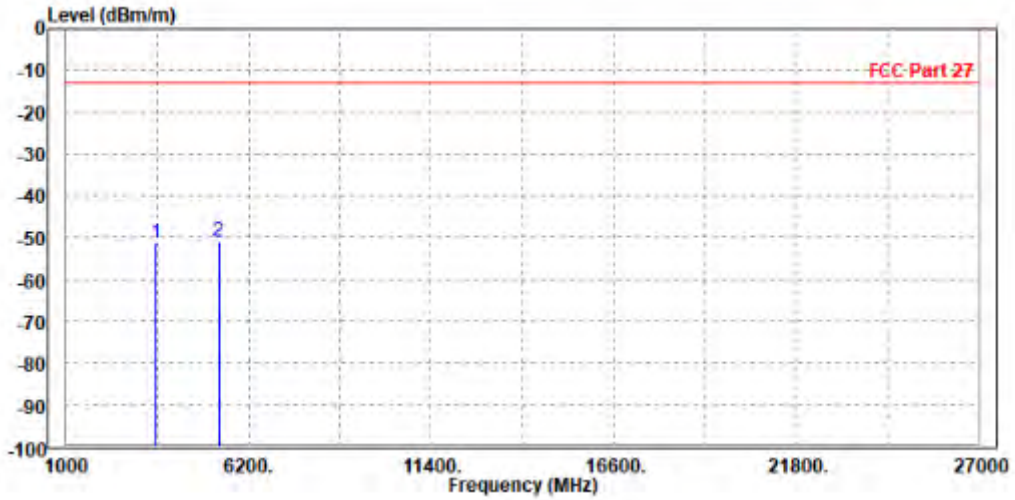
MODE	TX channel 132665	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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



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			

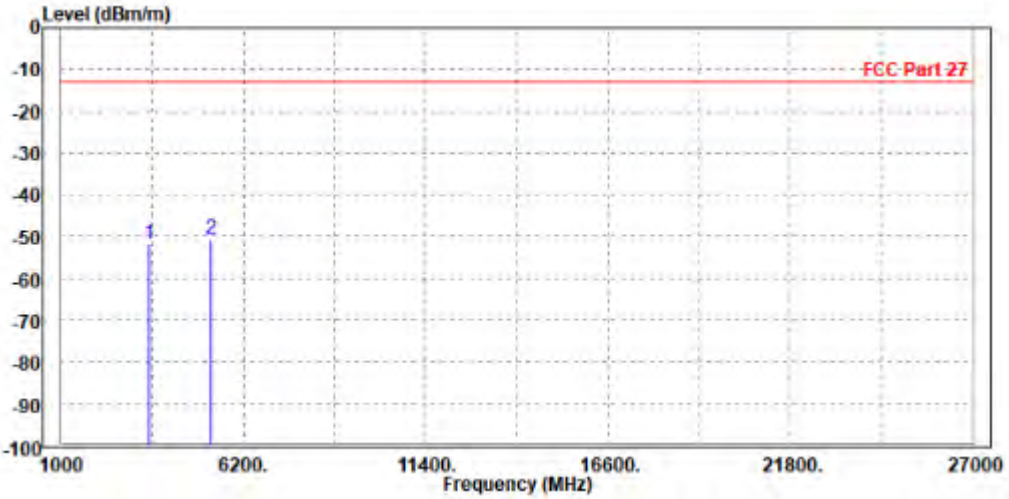
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3558.600	-51.34	-58.74	-13.00	-38.34	7.40	Peak	Vertical
2 PP	5342.000	-50.86	-61.44	-13.00	-37.86	10.58	Peak	Vertical



CHANNEL BANDWIDTH: 3MHz / QPSK

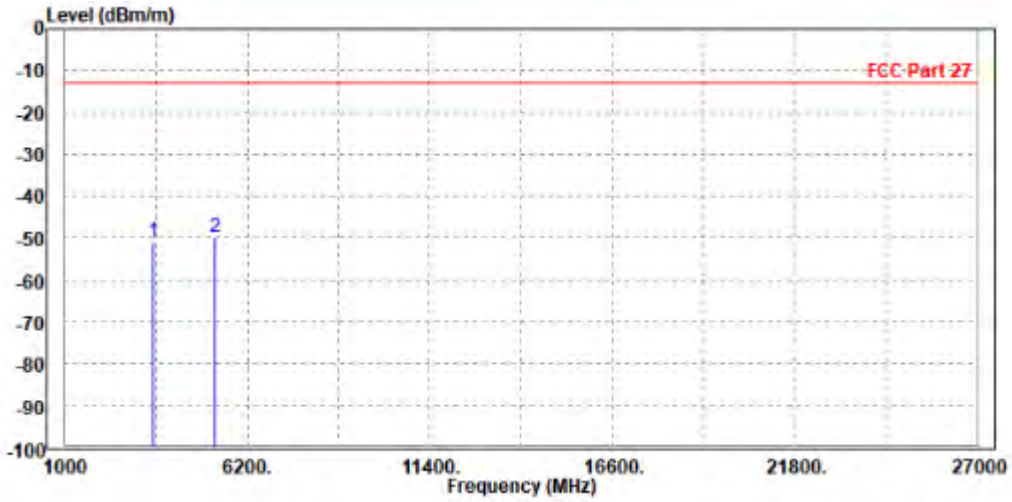
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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

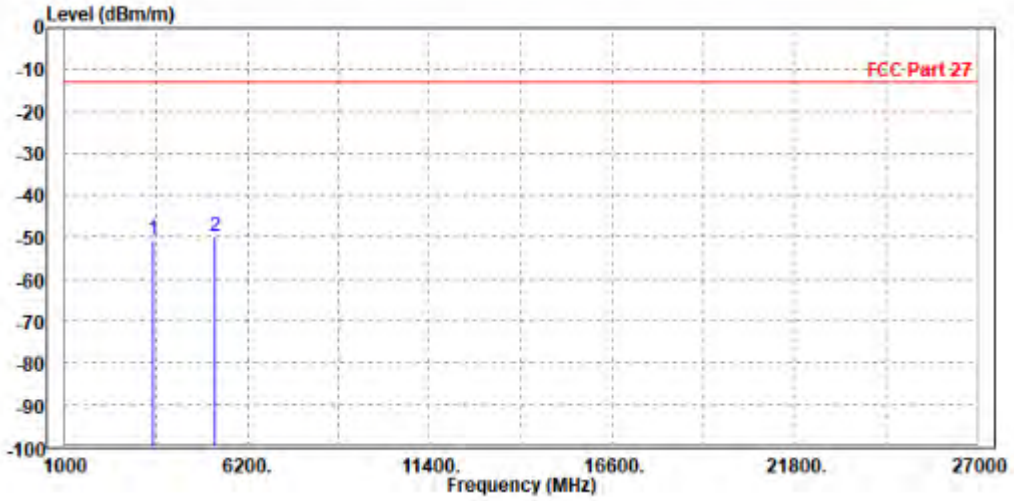


CHANNEL BANDWIDTH: 5MHz / QPSK

CH132322

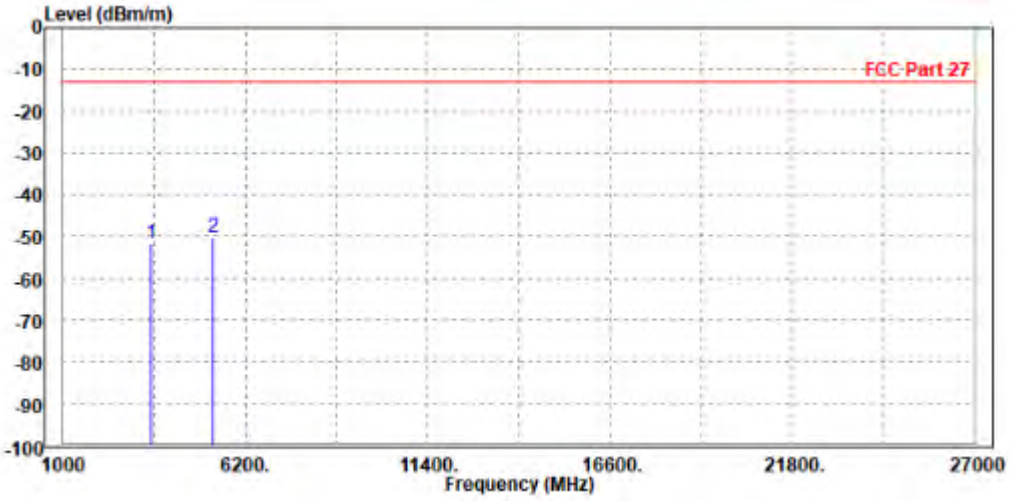
MODE	TX channel 132322	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

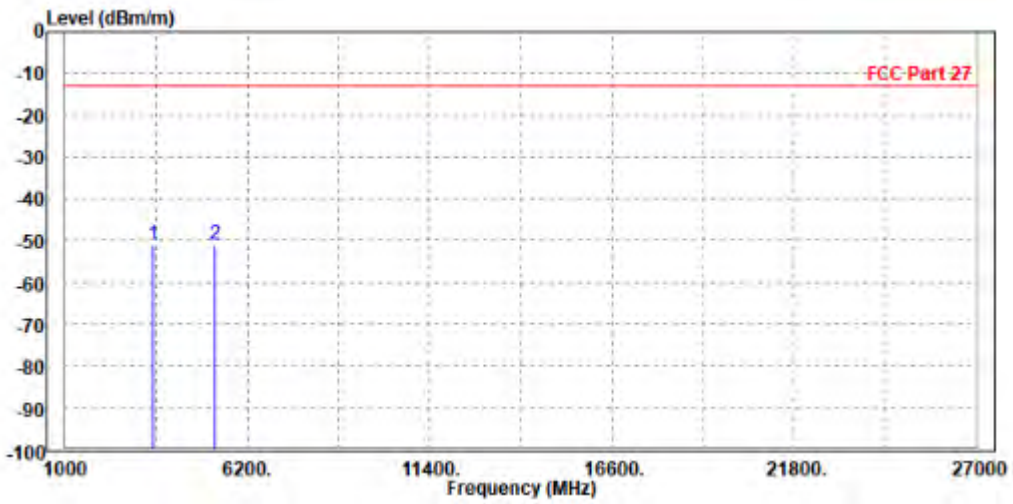
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3510.000	-51.71	-59.04	-13.00	-38.71	7.33	Peak	Vertical
2 PP	5264.000	-50.16	-60.67	-13.00	-37.16	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 10MHz / QPSK

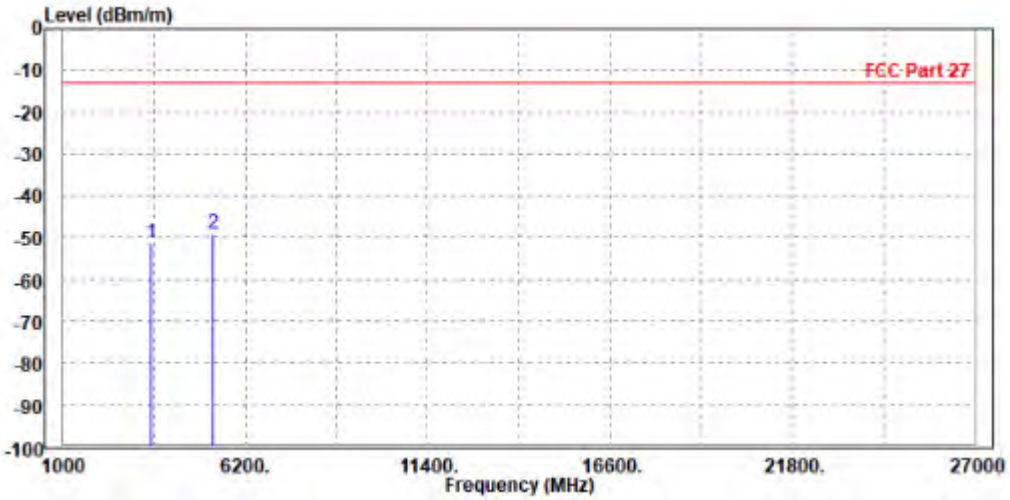
MODE	TX channel 132322	**FREQUENCY RANGE**	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**INPUT POWER**	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

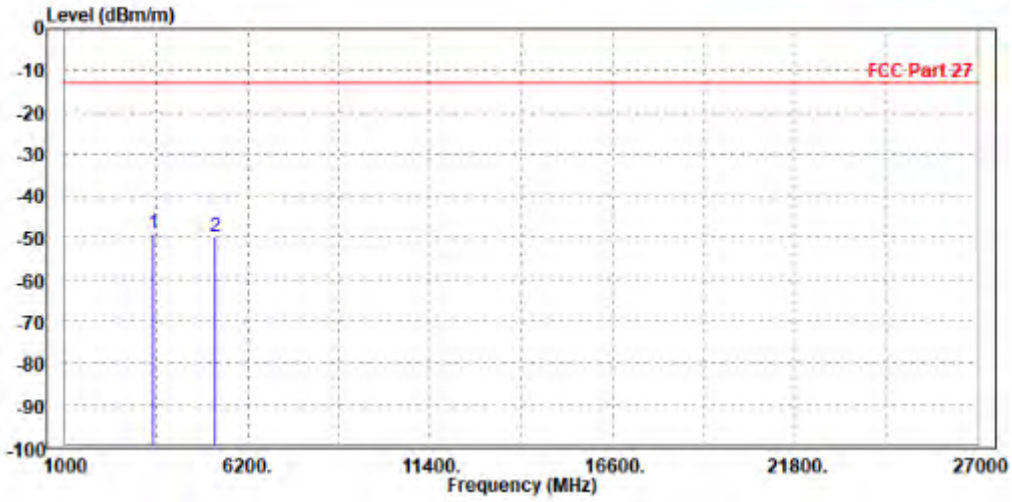
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-51.23	-58.58	-13.00	-38.23	7.35	Peak	Vertical
2 PP	5265.000	-49.17	-59.68	-13.00	-36.17	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 15MHz / QPSK

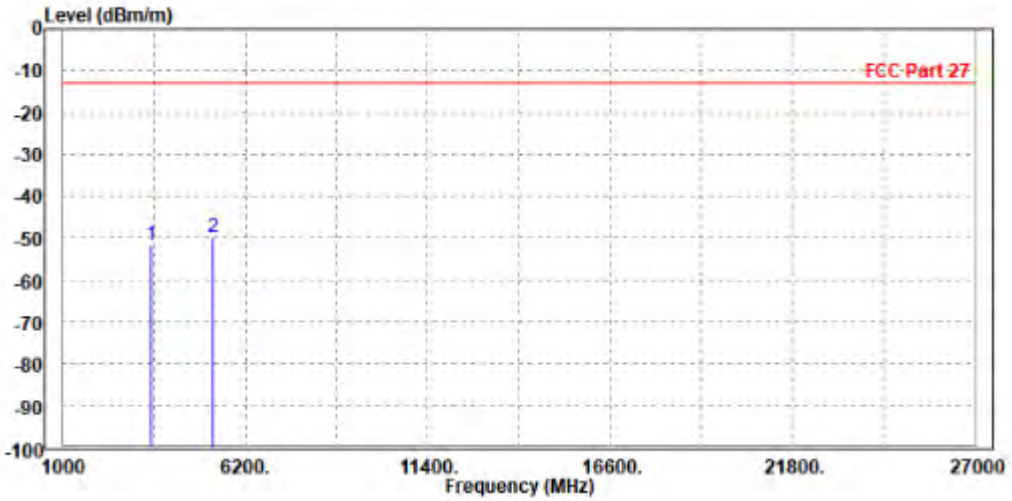
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	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			

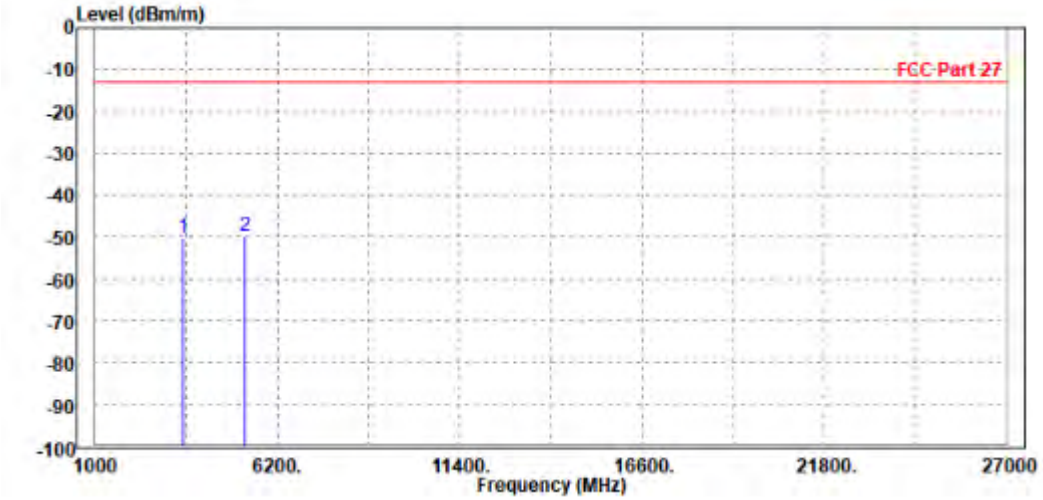
	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	3522.000	-51.70	-59.05	-13.00	-38.70	7.35	Peak	Vertical
2 PP	5265.000	-49.82	-60.33	-13.00	-36.82	10.51	Peak	Vertical



CHANNEL BANDWIDTH: 20MHz / QPSK

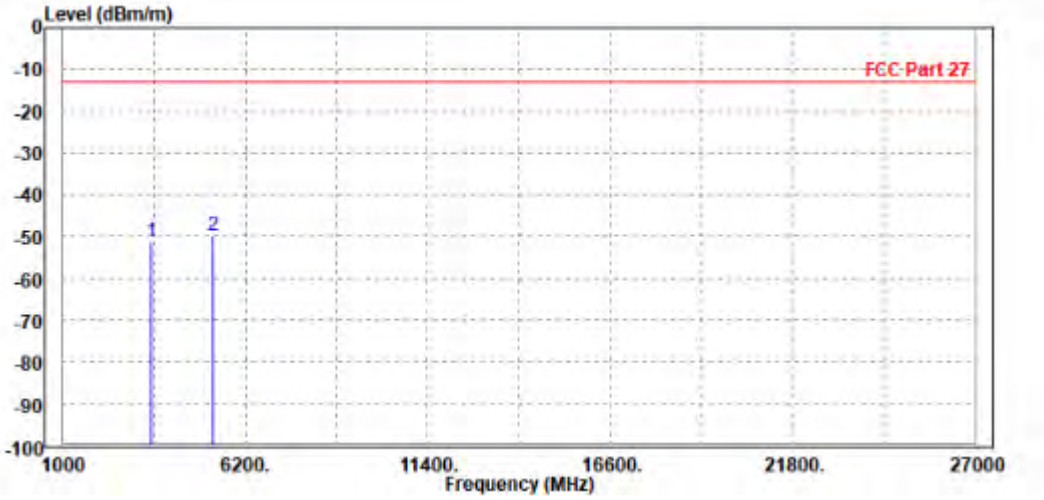
MODE	TX channel 132322	FREQUENCY RANGE	Above 1000MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V/60HZ
TESTED BY	Jace Hu		
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M			

	Freq	Level	Read Level	Limit Line	Over Limit	Factor	Remark	Pol/Phase
	MHz	dBm/m	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

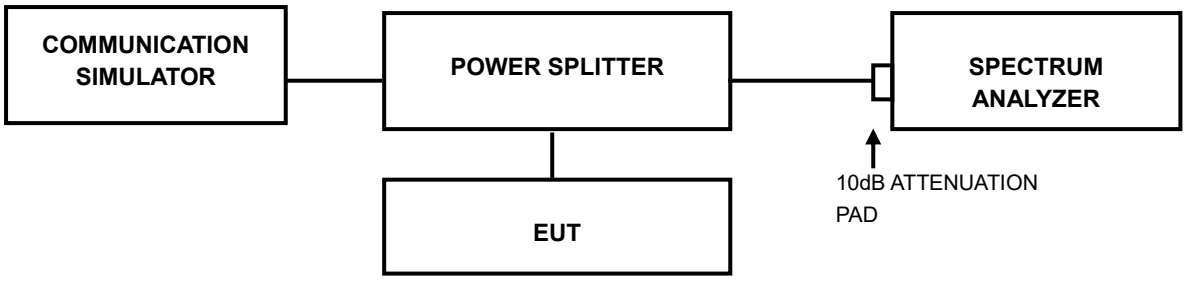


3.7 PEAK TO AVERAGE RATIO

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 ≥ 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%.

3.7.4 TEST RESULTS

Please Refer to Appendix Of this test report.

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.

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.

5 APPENDIX

WCMDA BAND4

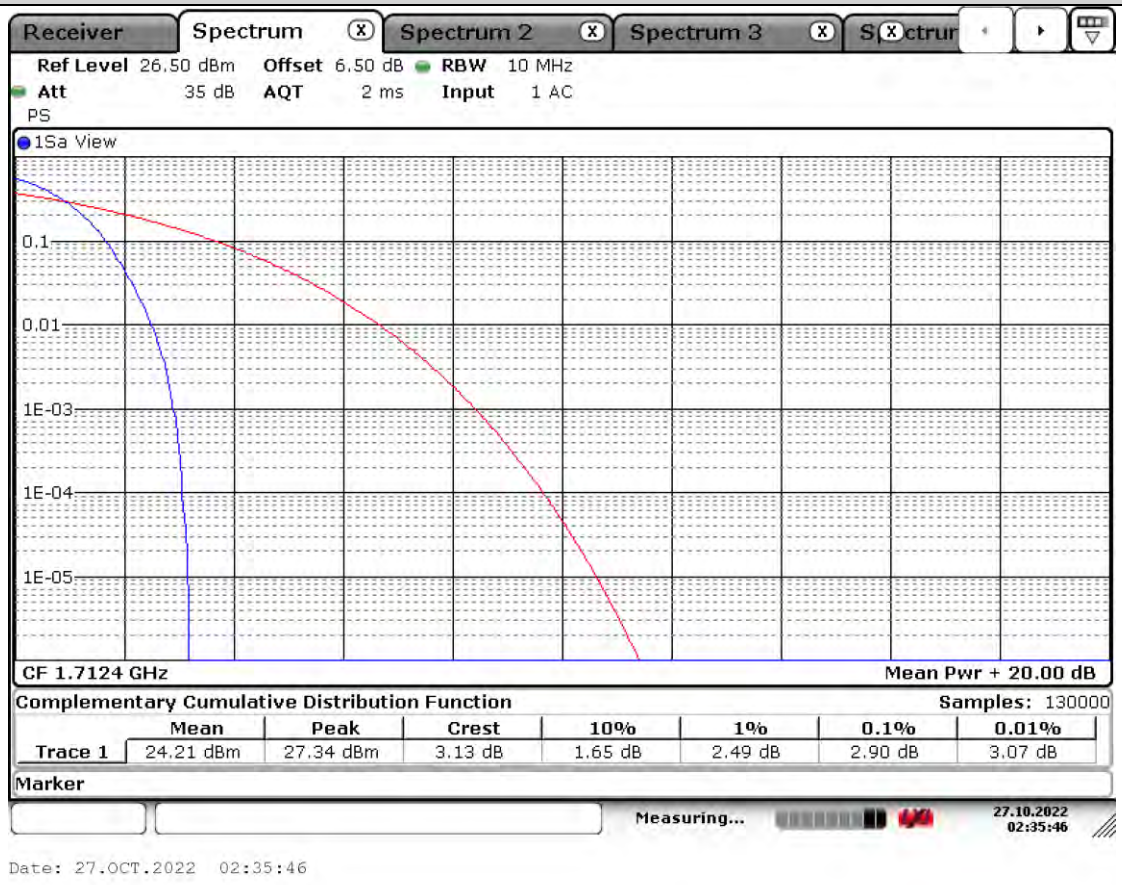
PEAK-TO-AVERAGE RATIO

Test Result

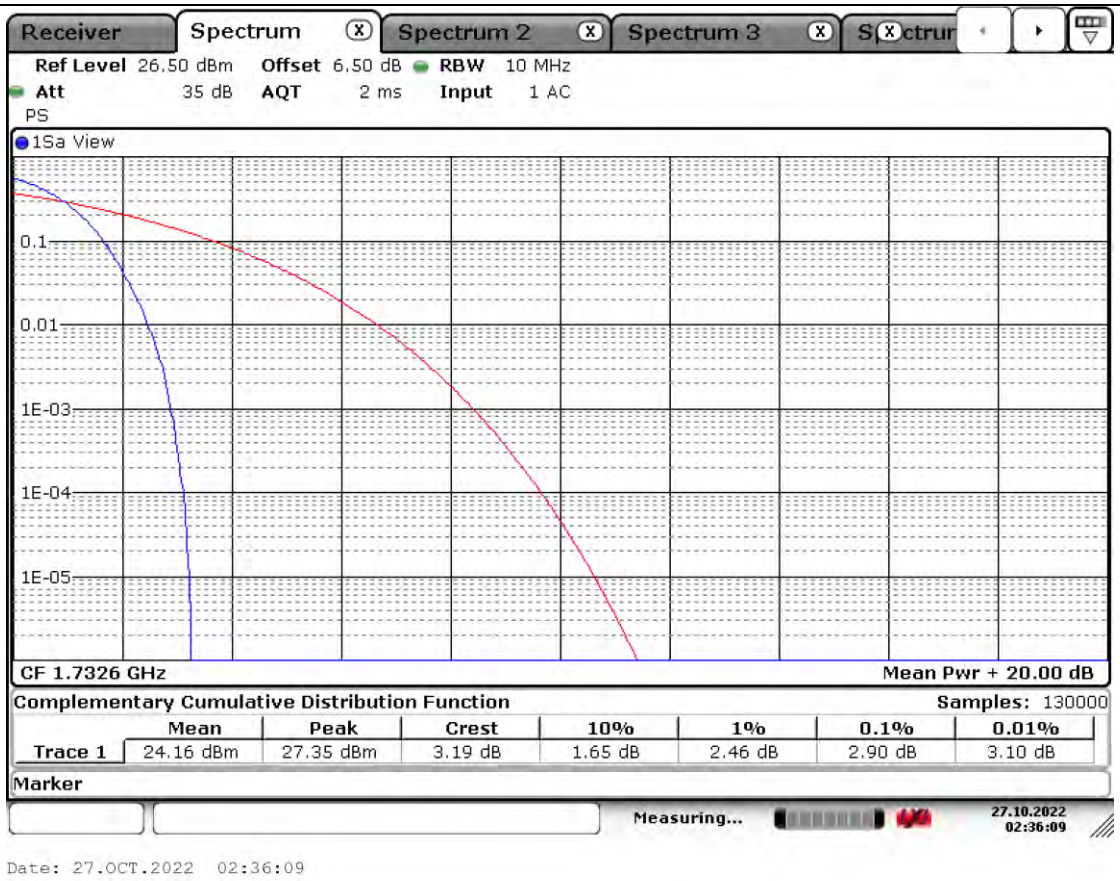
Band	Channel	Peak-to-Average Ratio(dB)	Limit(dBm)	Verdict
Band4	1312	2.90	13	PASS
Band4	1413	2.90	13	PASS
Band4	1513	2.87	13	PASS

Test Graphs

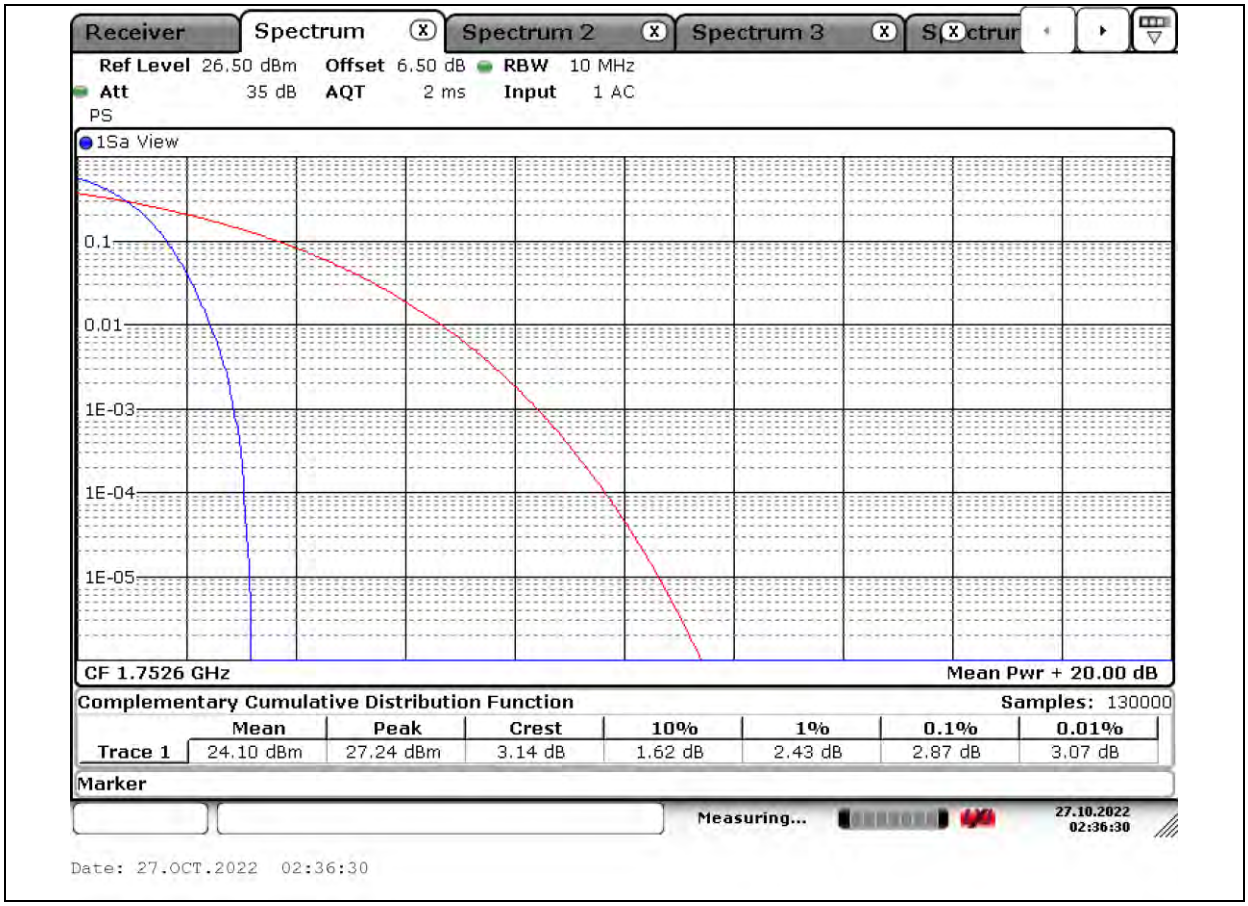
Band4-1312



Band4-1413


Receiver
Spectrum
Spectrum 2
Spectrum 3
Ref Level 26.50 dBm Offset 6.50 dB RBW 10 MHz
Att 35 dB AQT 2 ms Input 1 AC
PS
1Sa View
0.1
0.01
1E-03
1E-04
1E-05
CF 1.7326 GHz
Mean Pwr + 20.00 dB
Complementary Cumulative Distribution Function
Samples: 130000
Mean Peak Crest 10% 1% 0.1% 0.01%
Trace 1 24.16 dBm 27.35 dBm 3.19 dB 1.65 dB 2.46 dB 2.90 dB 3.10 dB
Marker
Measuring...
27.10.2022
02:36:09
Date: 27.OCT.2022 02:36:09

Band4-1513



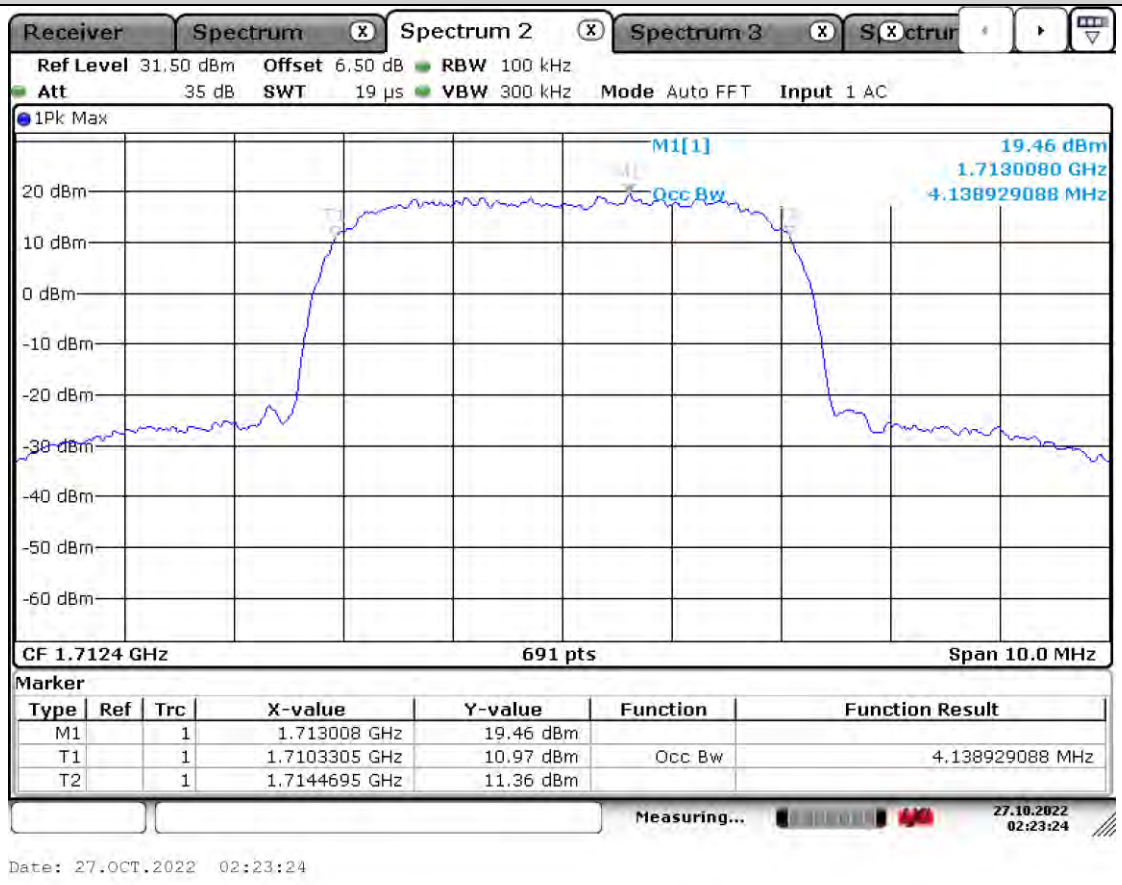
26DB BANDWIDTH AND OCCUPIED BANDWIDTH

Test Result

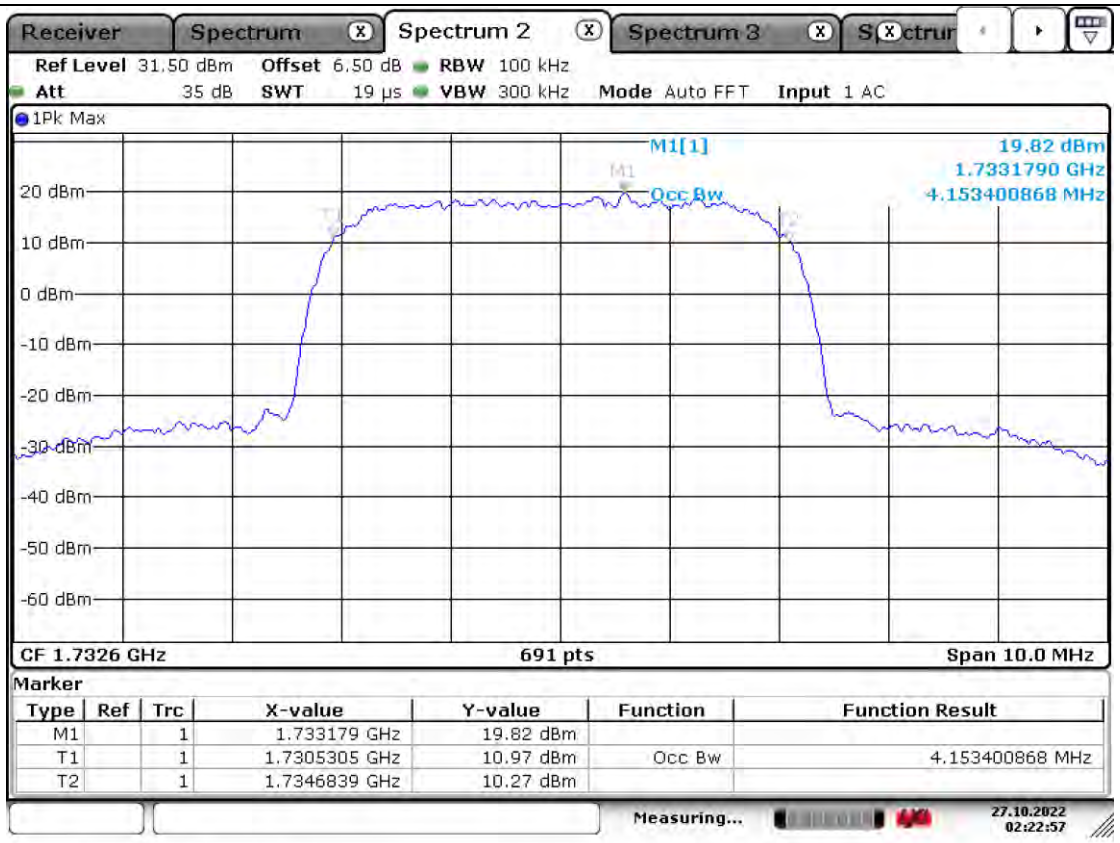
Band	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit(kHz)	Verdict
Band4	1312	4.139	4.689	---	PASS
Band4	1413	4.153	4.689	---	PASS
Band4	1513	4.139	4.689	---	PASS

Test Graphs

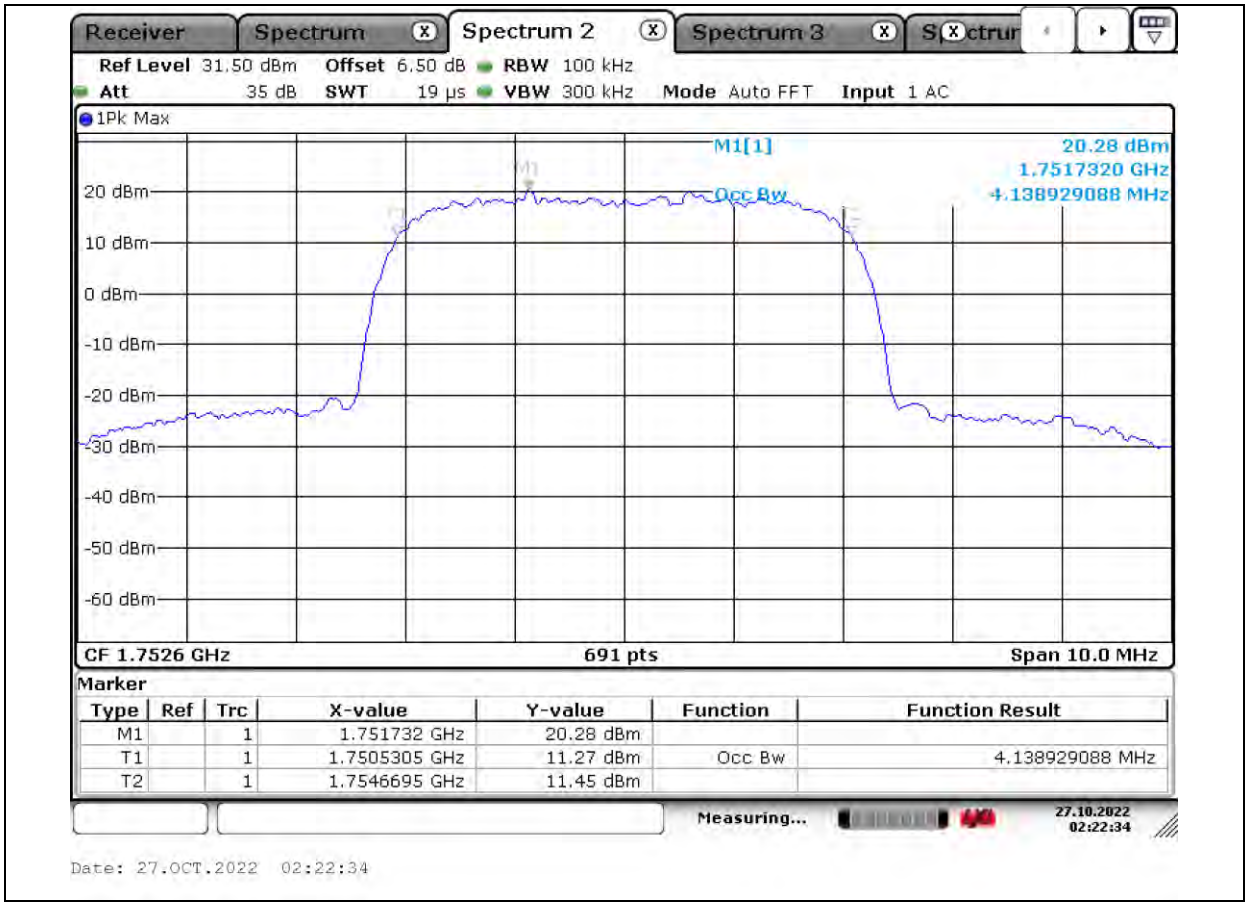
Band4-1312



Band4-1413

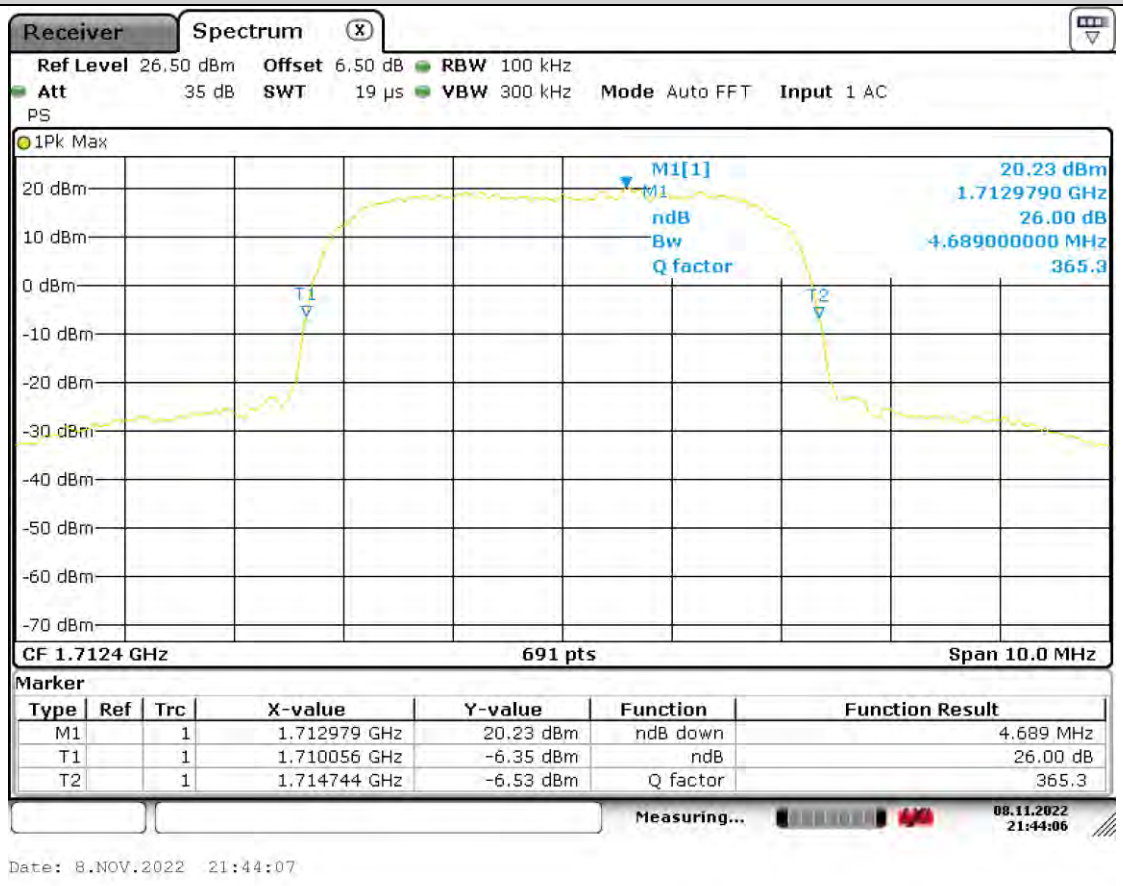

Receiver
Spectrum
Spectrum 2
Spectrum 3
Ref Level 31.50 dBm Offset 6.50 dB RBW 100 kHz
Att 35 dB SWT 19 µs VBW 300 kHz Mode Auto FFT Input 1 AC
1Pk Max
M1[1] 19.82 dBm
1.7331790 GHz
Occ Bw 4.153400868 MHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 1.7326 GHz
691 pts
Span 10.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 1.733179 GHz 19.82 dBm
T1 1 1.7305305 GHz 10.97 dBm Occ Bw 4.153400868 MHz
T2 1 1.7346839 GHz 10.27 dBm
Measuring...
27.10.2022
02:22:57
Date: 27.OCT.2022 02:22:58

Band4-1513

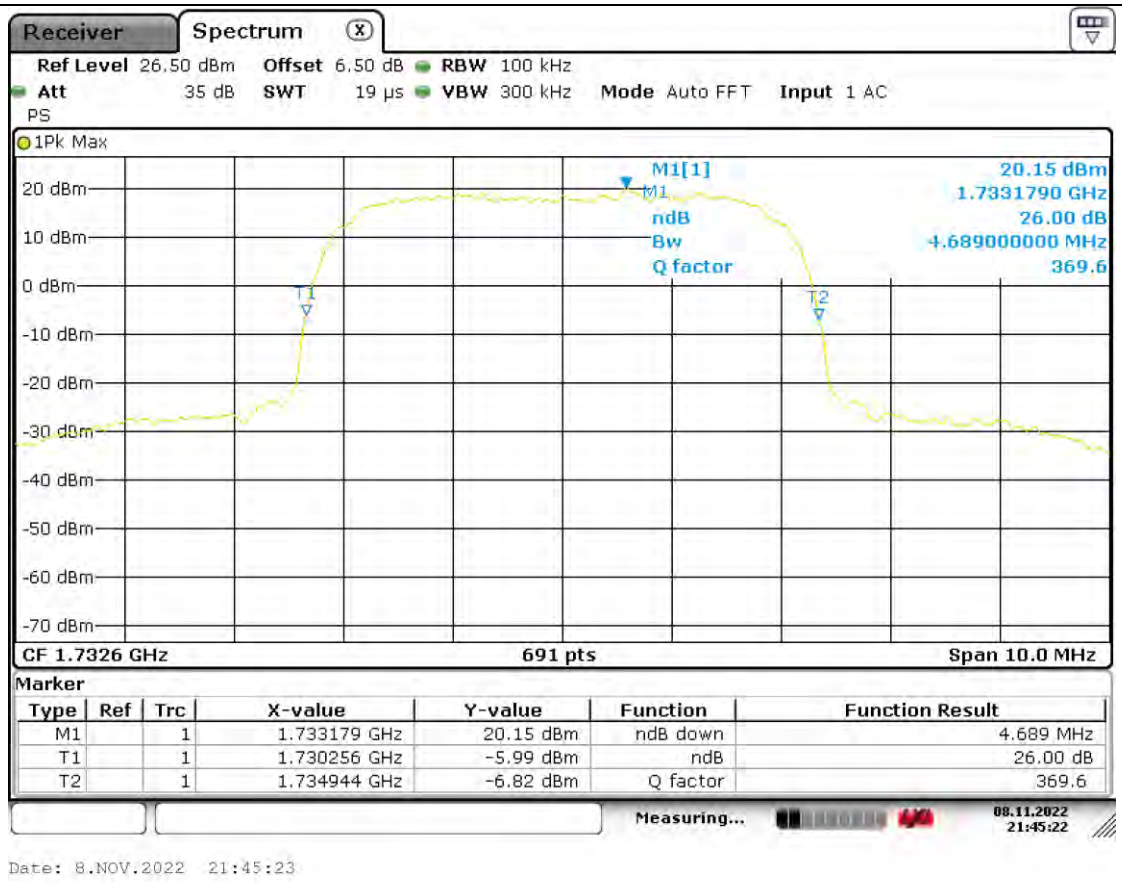

Receiver
Spectrum
Spectrum 2
Spectrum 3
Ref Level 31.50 dBm Offset 6.50 dB RBW 100 kHz
Att 35 dB SWT 19 µs VBW 300 kHz Mode Auto FFT Input 1 AC
1Pk Max
M1[1] 20.28 dBm
1.7517320 GHz
Occ Bw 4.138929088 MHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
CF 1.7526 GHz
691 pts
Span 10.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 1.751732 GHz 20.28 dBm
T1 1 1.7505305 GHz 11.27 dBm Occ Bw 4.138929088 MHz
T2 1 1.7546695 GHz 11.45 dBm
Measuring...
27.10.2022
02:22:34
Date: 27.OCT.2022 02:22:34

26dB Bandwidth

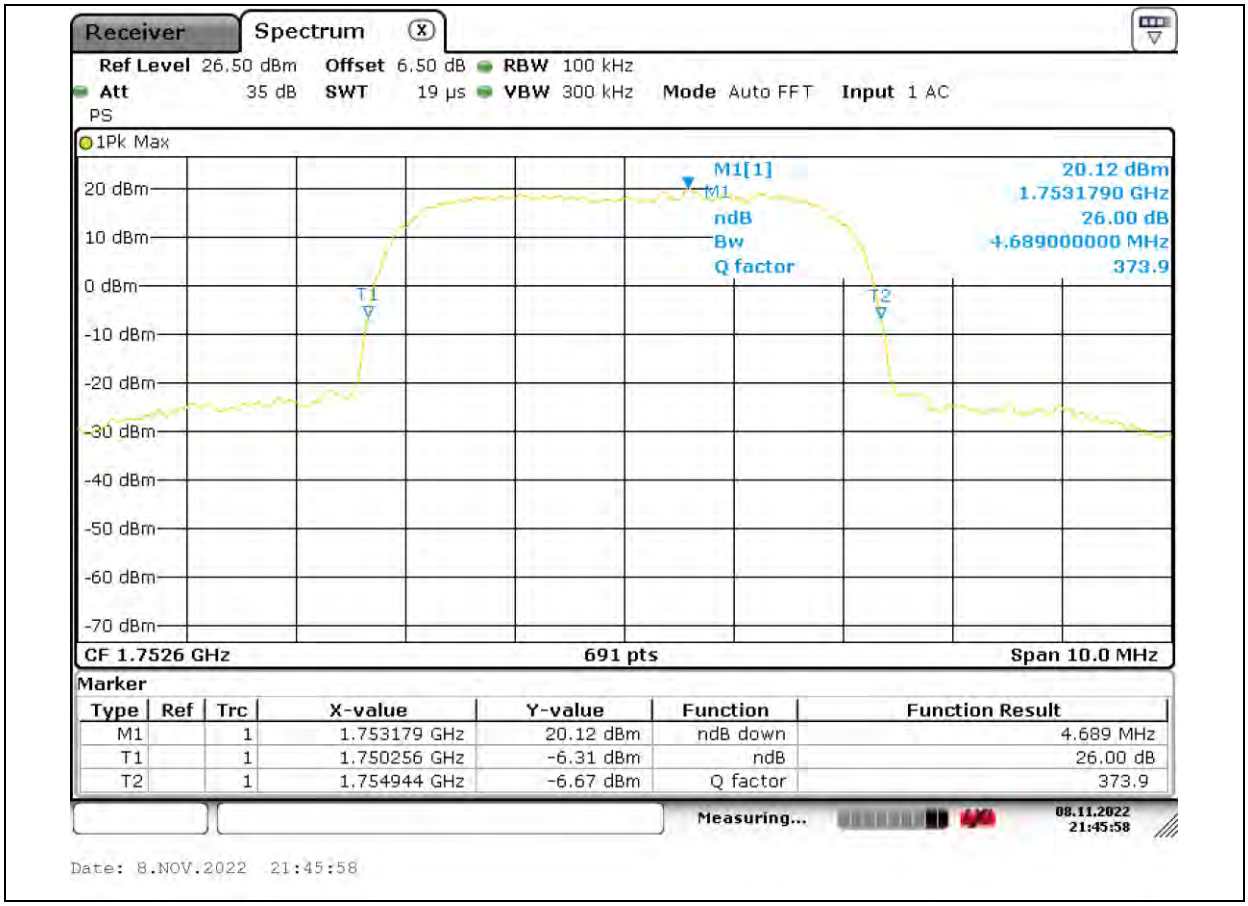
Band4-1312



Band4-1413


Receiver
Spectrum
Ref Level 26.50 dBm Offset 6.50 dB RBW 100 kHz
Att 35 dB SWT 19 µs VBW 300 kHz Mode Auto FFT Input 1 AC
PS
1Pk Max
M1[1] 20.15 dBm
1.7331790 GHz
ndB 26.00 dB
Bw 4.689000000 MHz
Q factor 369.6
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
T1
T2
CF 1.7326 GHz
691 pts
Span 10.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 1.733179 GHz 20.15 dBm ndB down 4.689 MHz
T1 1 1.730256 GHz -5.99 dBm ndB 26.00 dB
T2 1 1.734944 GHz -6.82 dBm Q factor 369.6
Measuring...
08.11.2022
21:45:22
Date: 8.NOV.2022 21:45:23

Band4-1513



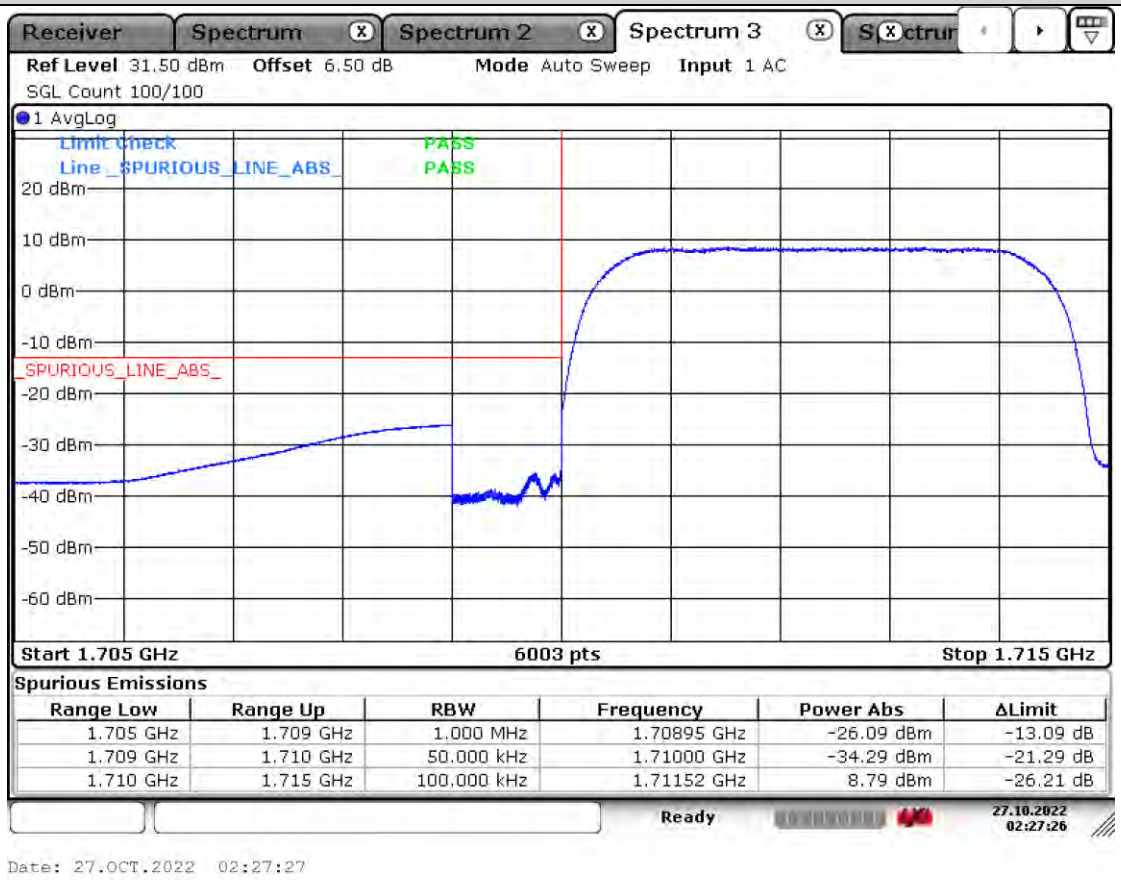
BAND EDGE

Test Result

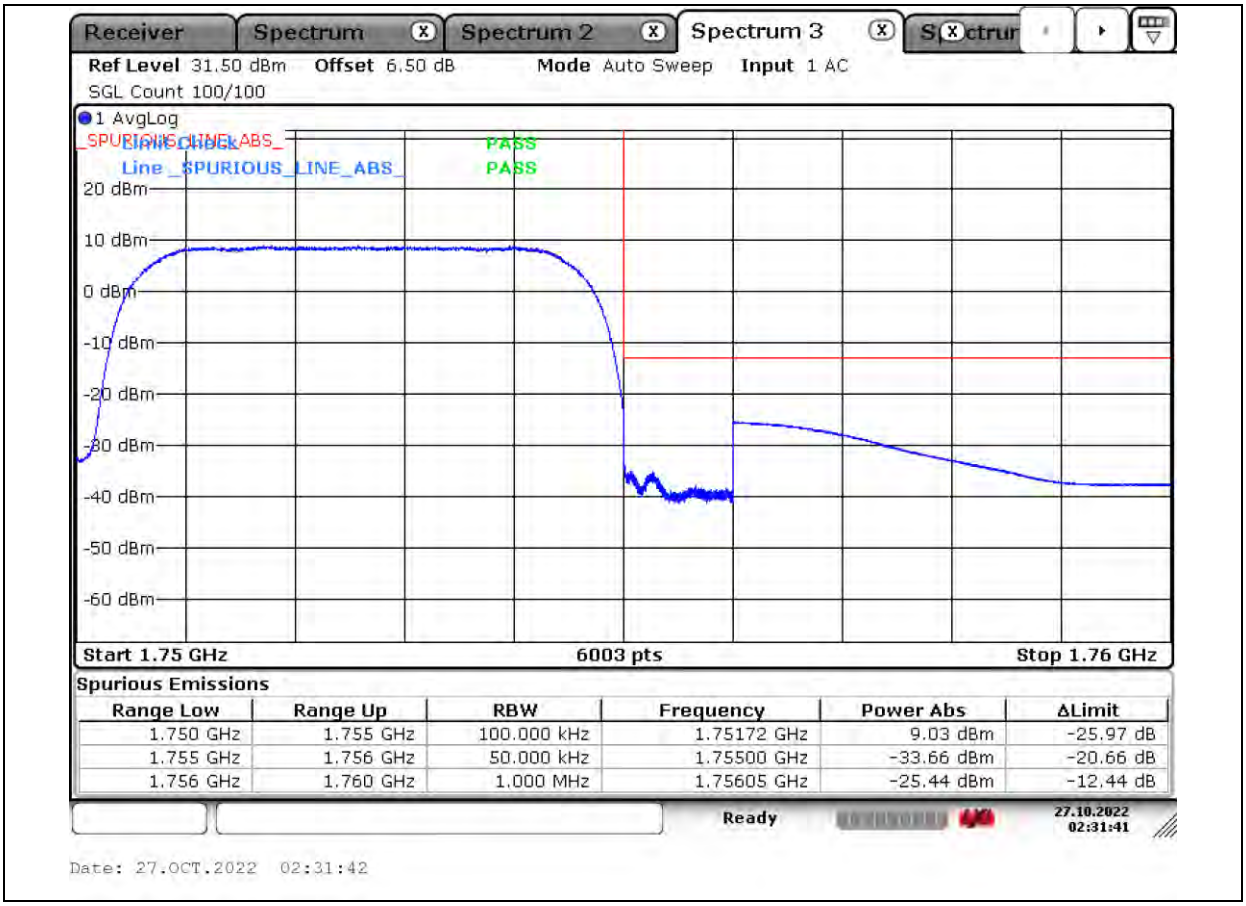
Band	Channel	Frequency (MHz)	Result (dBm)	Limit(dBm)	Verdict
Band4	1312	1708.95	-26.09	-13	PASS
Band4	1513	1756.05	-25.44	-13	PASS

Test Graphs

Band4-1312



Band4-1513


Receiver
Spectrum
Spectrum 2
Spectrum 3
Ref Level 31.50 dBm Offset 6.50 dB Mode Auto Sweep Input 1 AC
SGL Count 100/100
1 AvgLog
Line_SPURIOUS_LINE_ABS_ PASS
Line_SPURIOUS_LINE_ABS_ PASS
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
Start 1.75 GHz
6003 pts
Stop 1.76 GHz
Spurious Emissions
Range Low | Range Up | RBW | Frequency | Power Abs | ΔLimit
1.750 GHz | 1.755 GHz | 100.000 kHz | 1.75172 GHz | 9.03 dBm | -25.97 dB
1.755 GHz | 1.756 GHz | 50.000 kHz | 1.75500 GHz | -33.66 dBm | -20.66 dB
1.756 GHz | 1.760 GHz | 1.000 MHz | 1.75605 GHz | -25.44 dBm | -12.44 dB
Ready
27.10.2022
02:31:41
Date: 27.OCT.2022 02:31:42

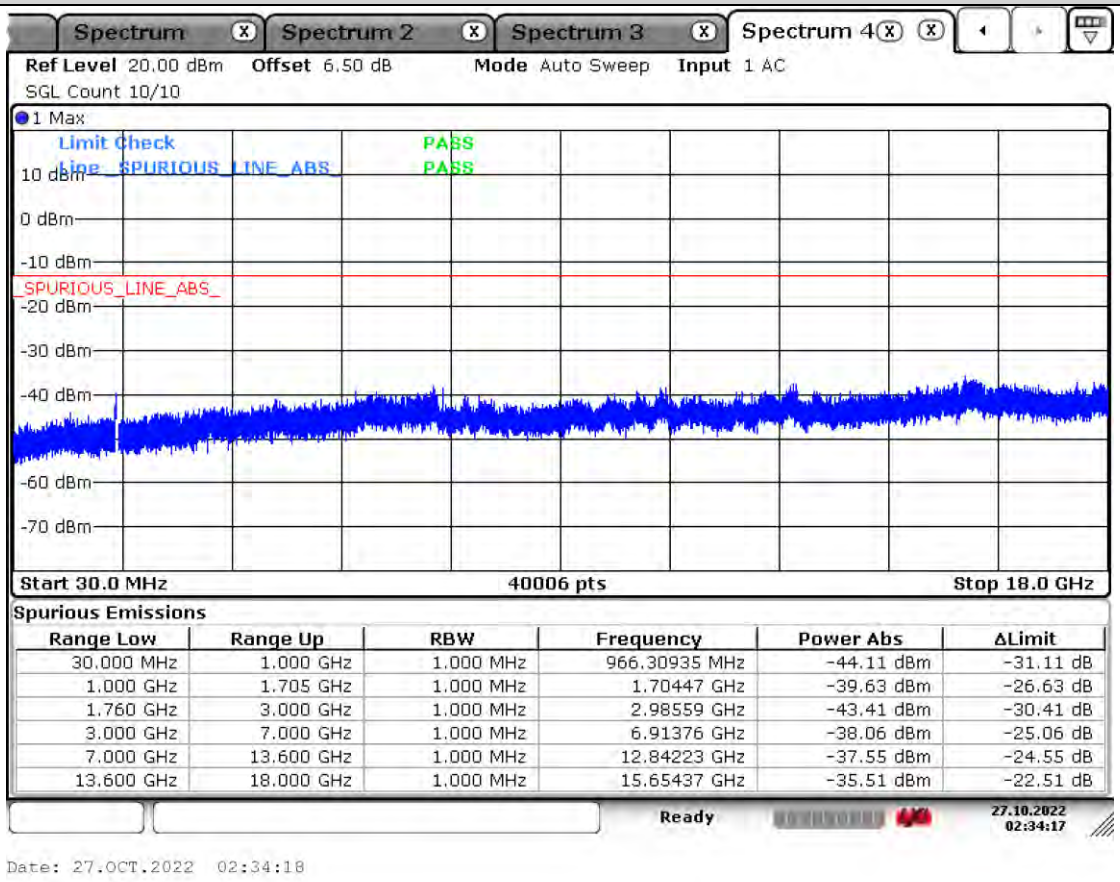
CONDUCTED SPURIOUS EMISSION

Test Result

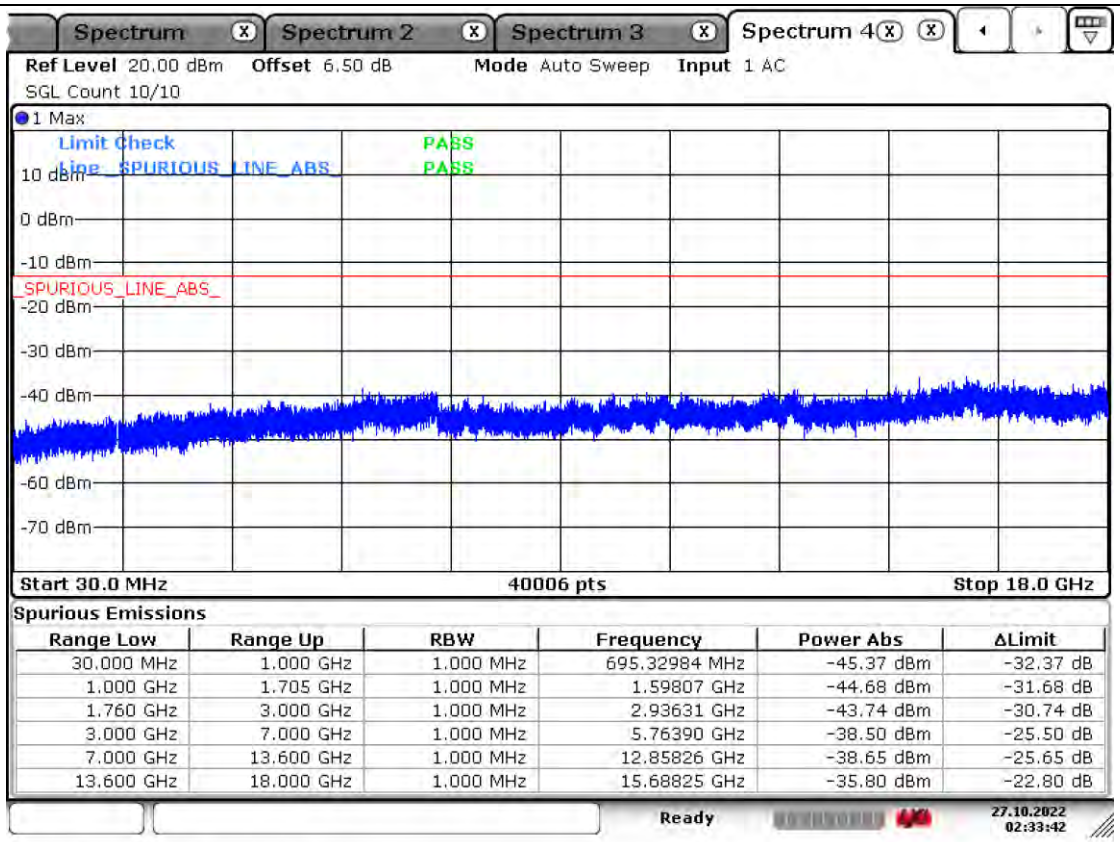
Band	Channel	Frequency Range (Mhz)	Frequency (MHz)	Result (dBm)	Limit (dBm)	Verdict
Band4	1312	30~1000MHz	966.30935	-44.11	-13	PASS
Band4	1312	1000~3000MHz	1704.47	-39.63	-13	PASS
Band4	1312	3000~18000MHz	15654.37	-35.51	-13	PASS
Band4	1413	30~1000MHz	695.32984	-45.37	-13	PASS
Band4	1413	1000~3000MHz	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

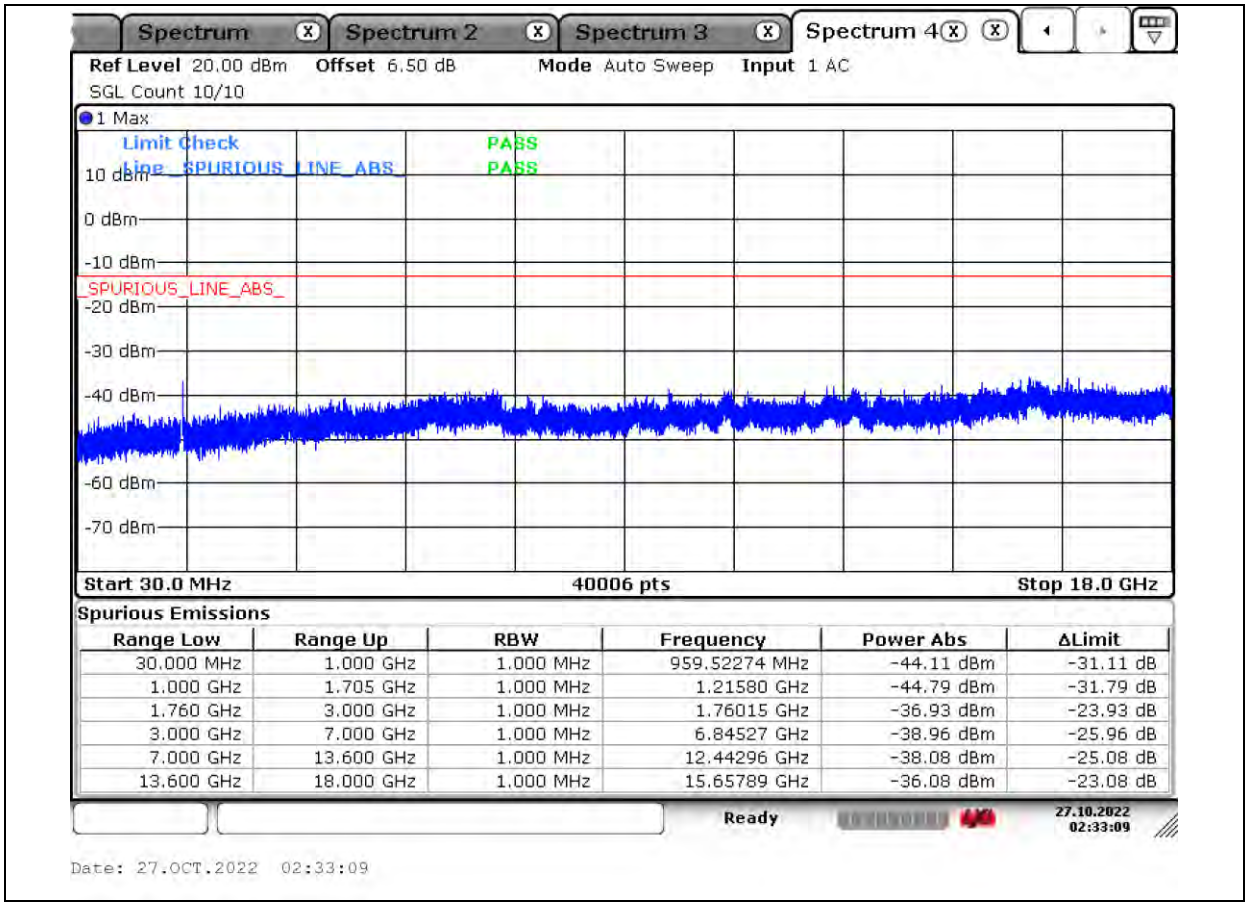
Band4-1312-30~18000MHz



Band4-1413-30~18000MHz



Band4-1513-30~18000MHz



FREQUENCY STABILITY

Test Result

Voltage							
Band	Channel	Voltage (Vdc)	Temperature (℃)	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 (℃)	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

LTE BAND7

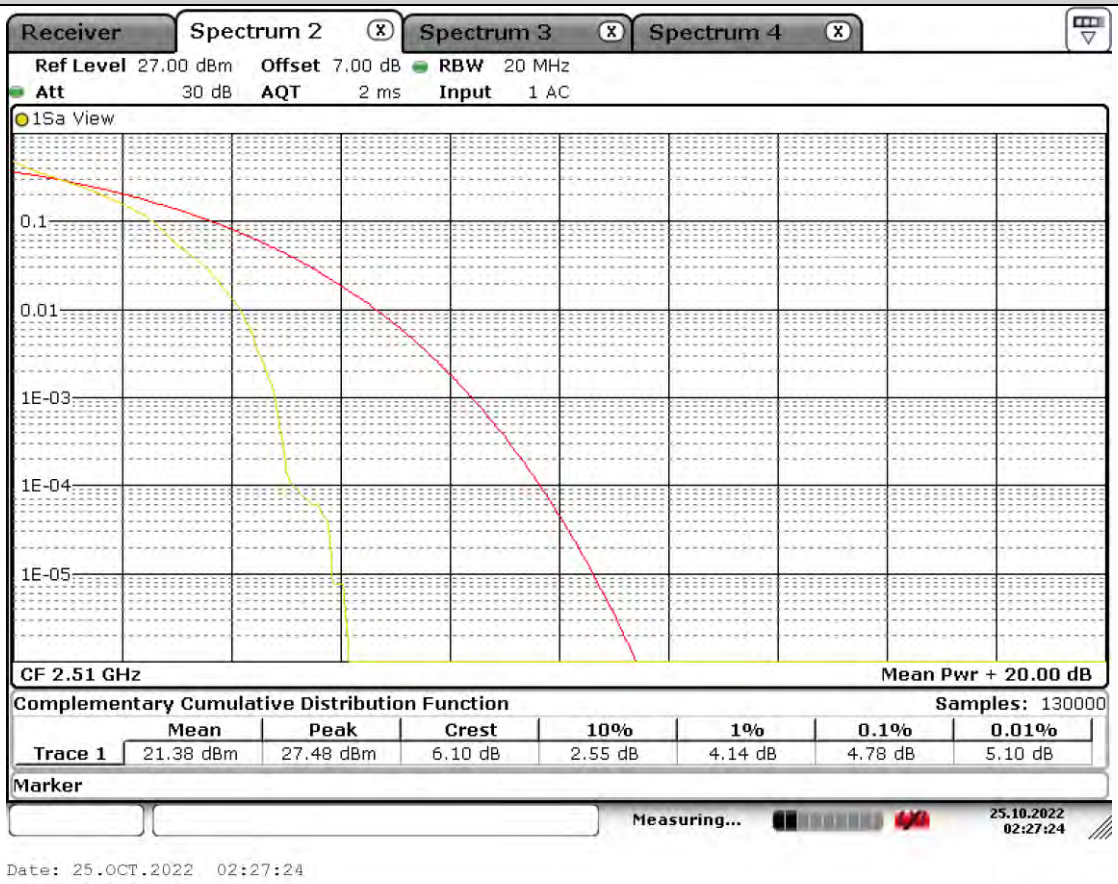
PEAK-TO-AVERAGE RATIO(CCDF)

Test Result

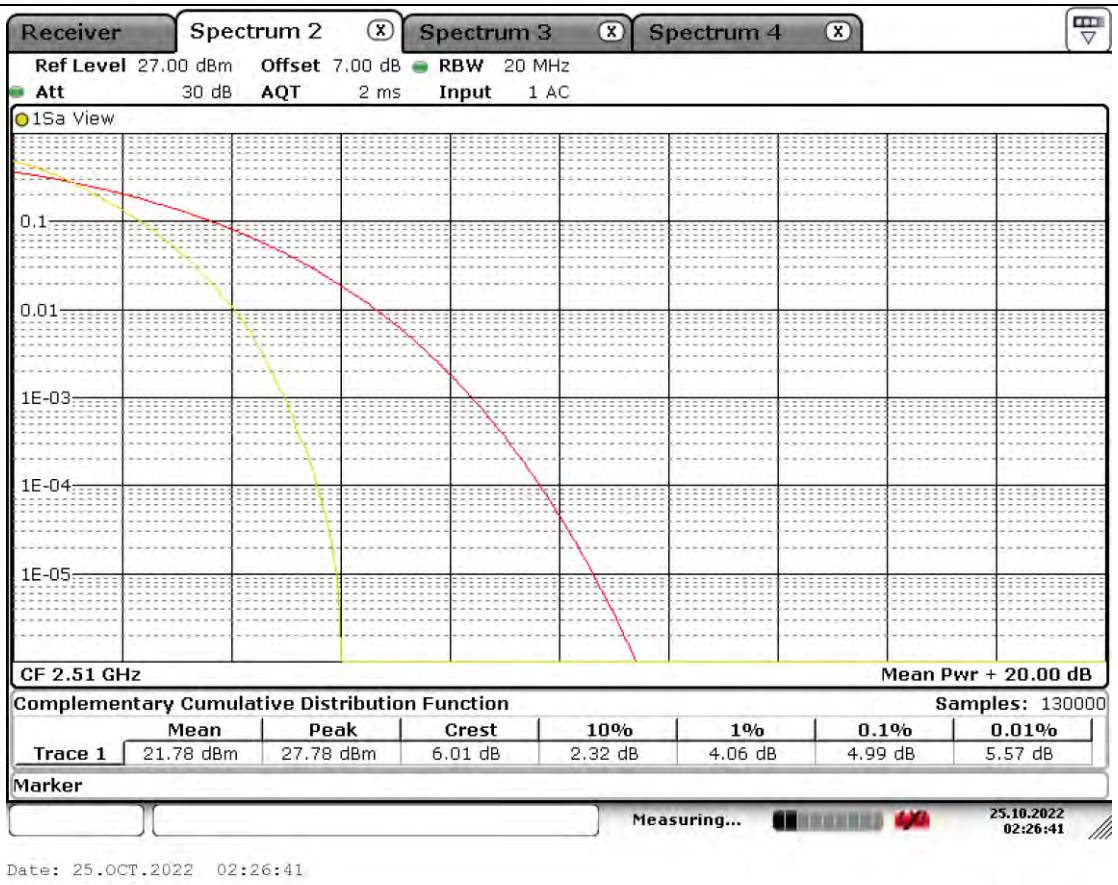
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	1RB#0	4.78	13	PASS
Band7	20MHz	QPSK	20850	100RB#0	4.99	13	PASS
Band7	20MHz	QPSK	21100	1RB#0	4.35	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	5.22	13	PASS
Band7	20MHz	QPSK	21350	1RB#0	4.55	13	PASS
Band7	20MHz	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

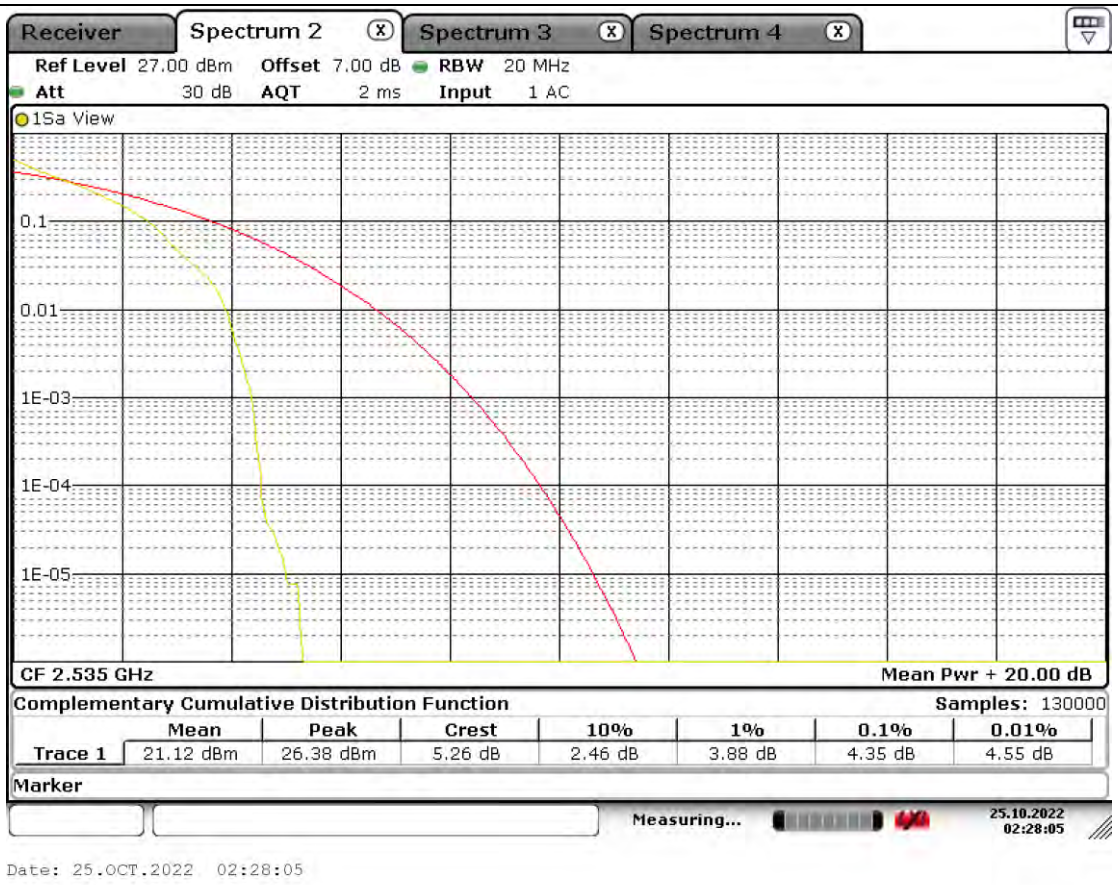
Band7-20MHz-QPSK-20850-1RB#0



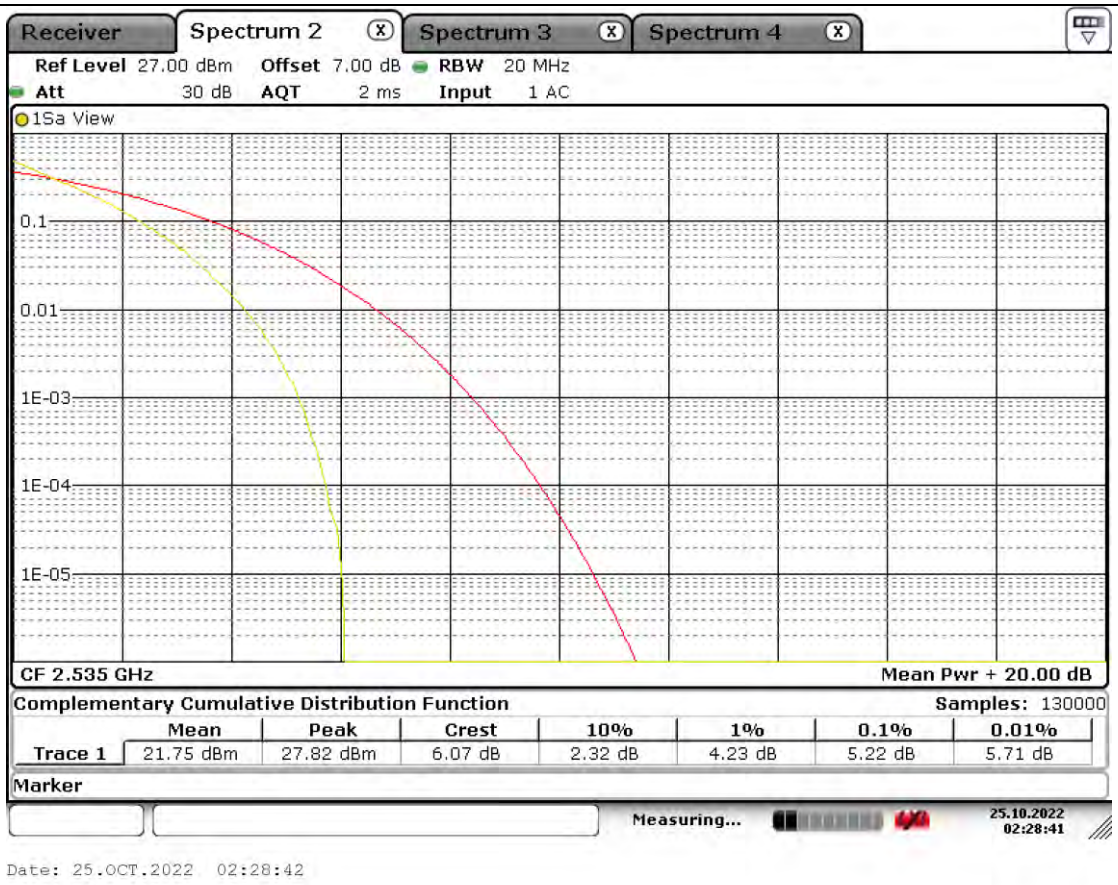
Band7-20MHz-QPSK-20850-100RB#0



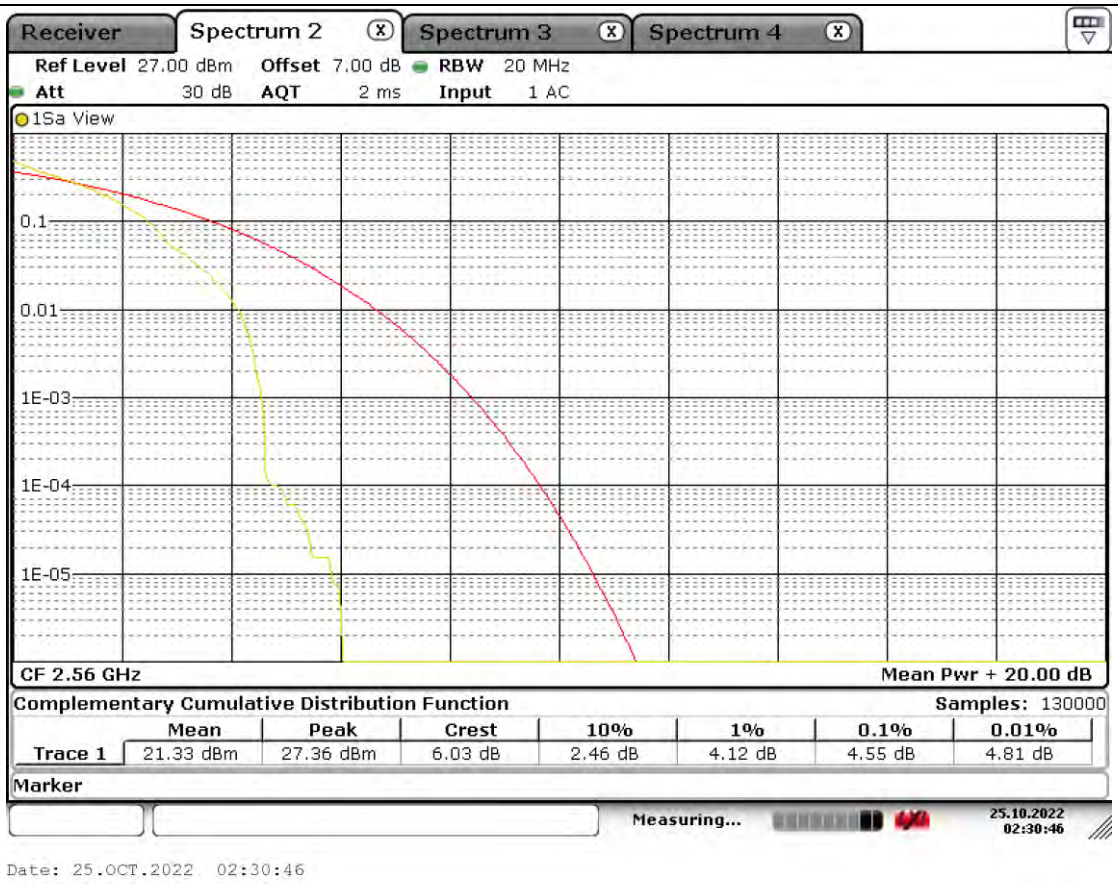
Band7-20MHz-QPSK-21100-1RB#0



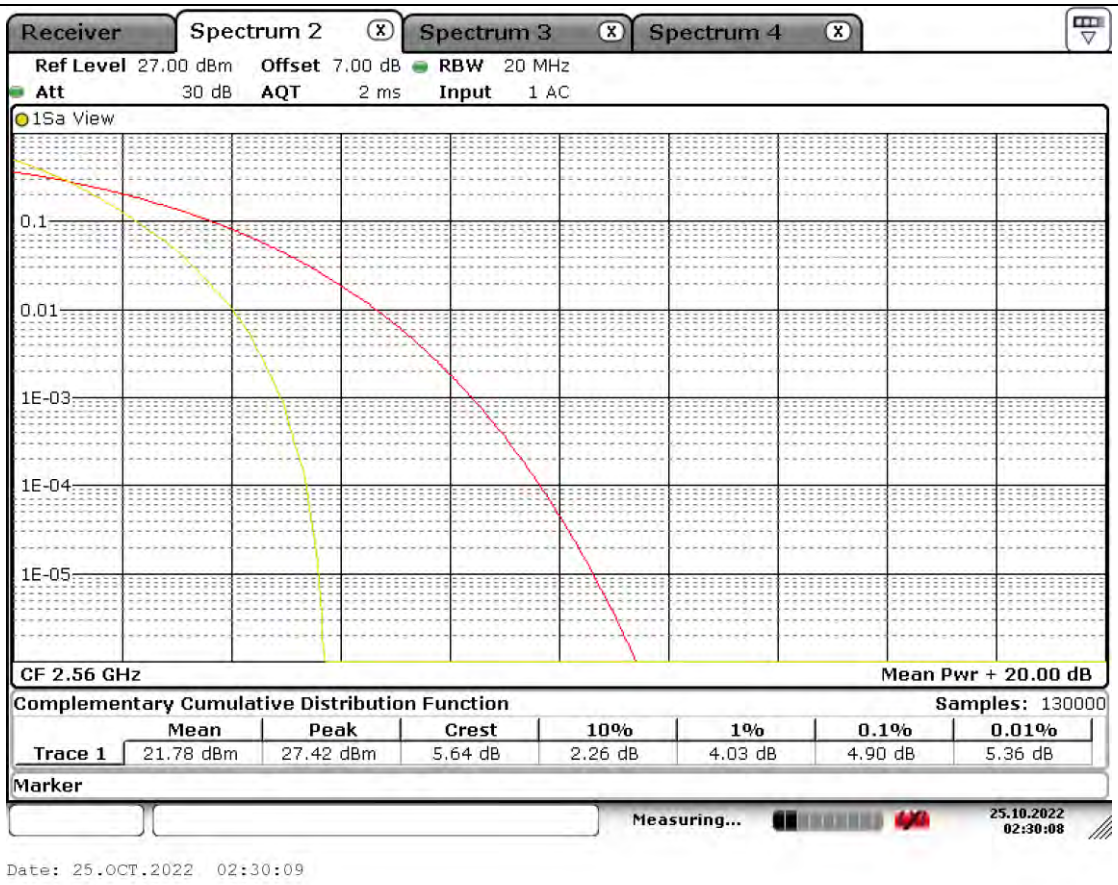
Band7-20MHz-QPSK-21100-100RB#0



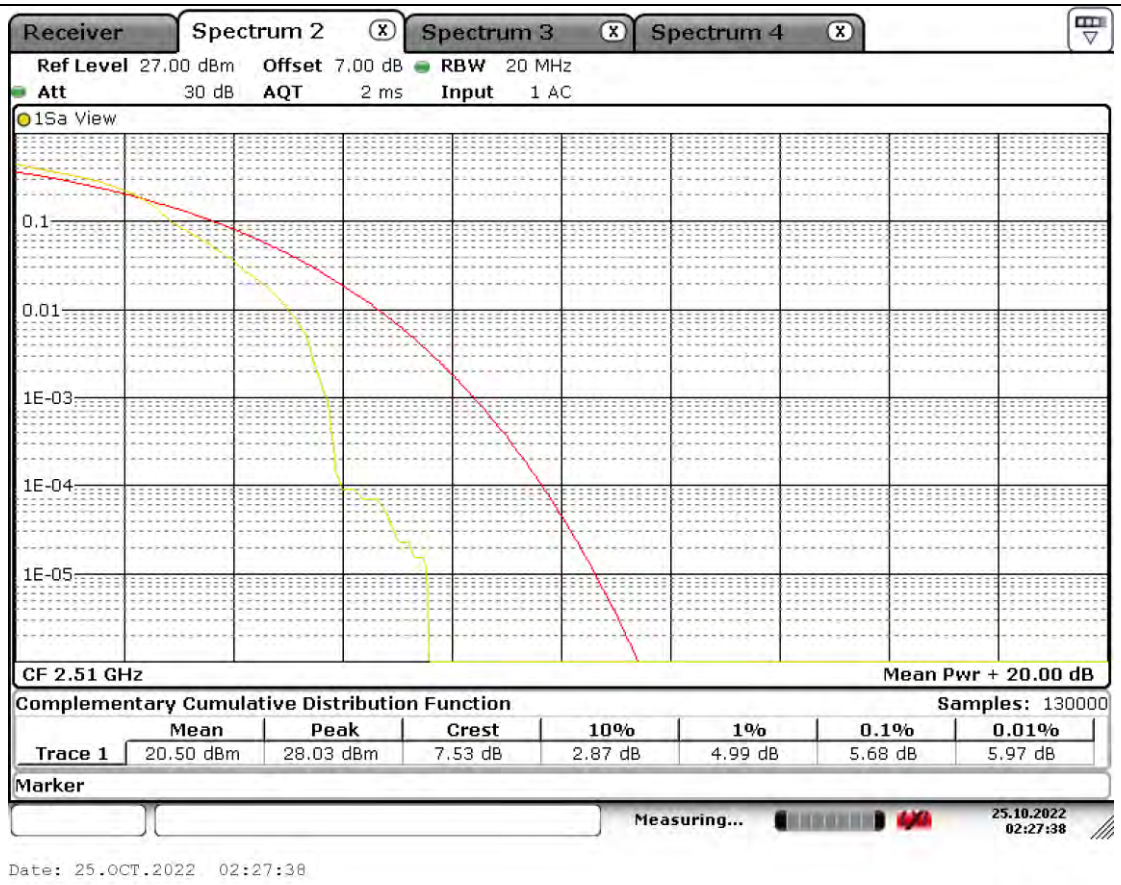
Band7-20MHz-QPSK-21350-1RB#0



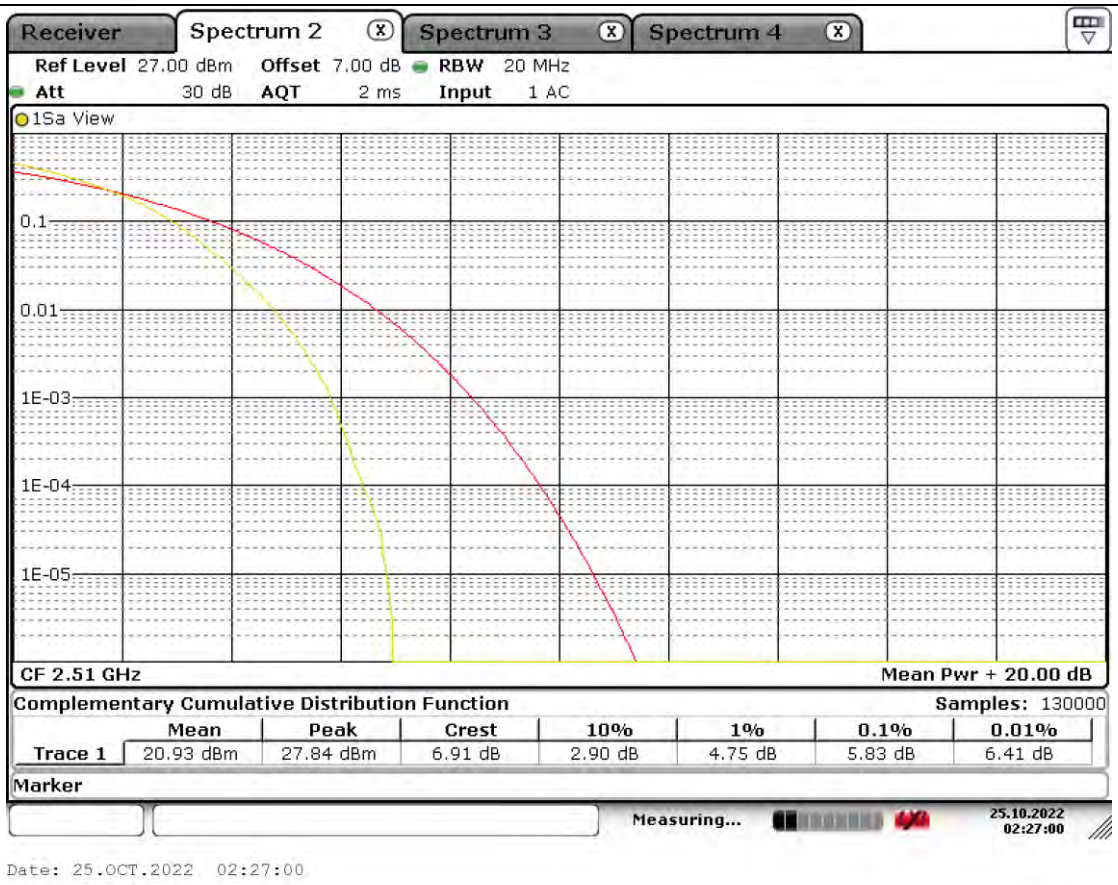
Band7-20MHz-QPSK-21350-100RB#0



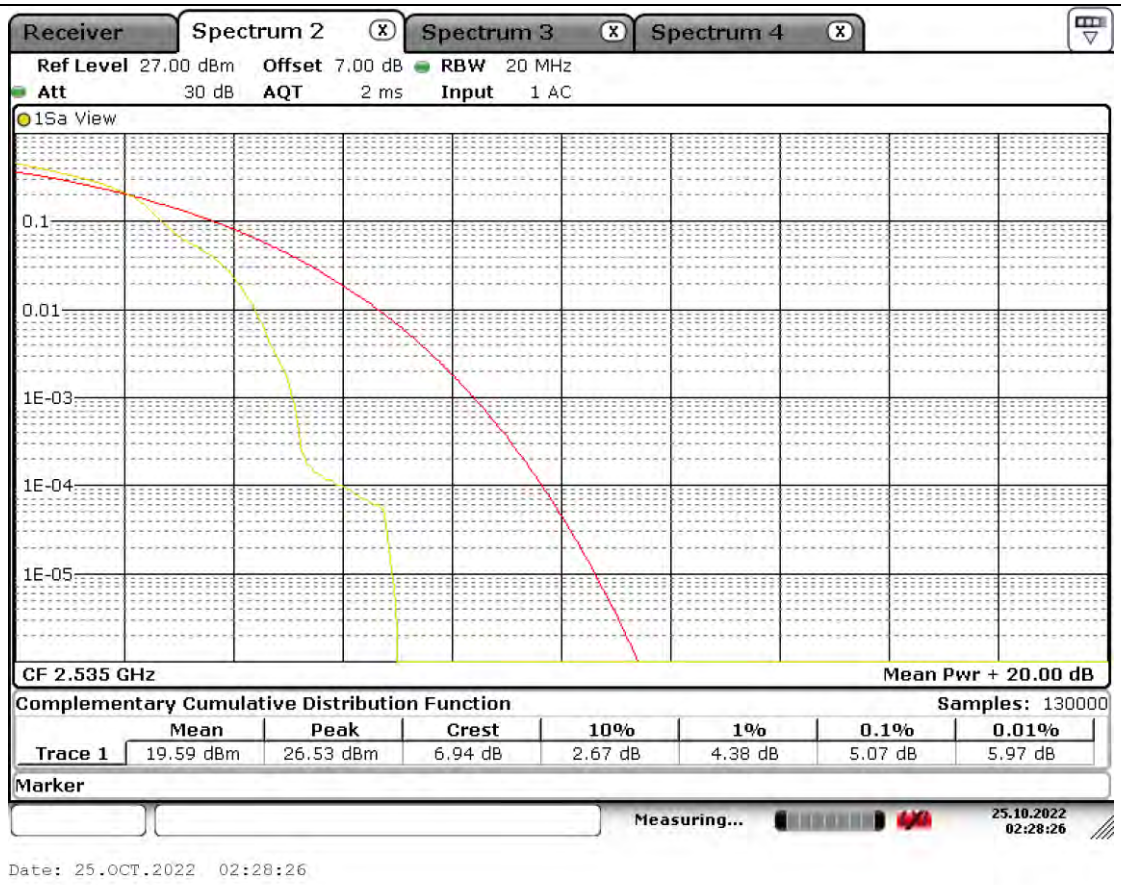
Band7-20MHz-16QAM-20850-1RB#0



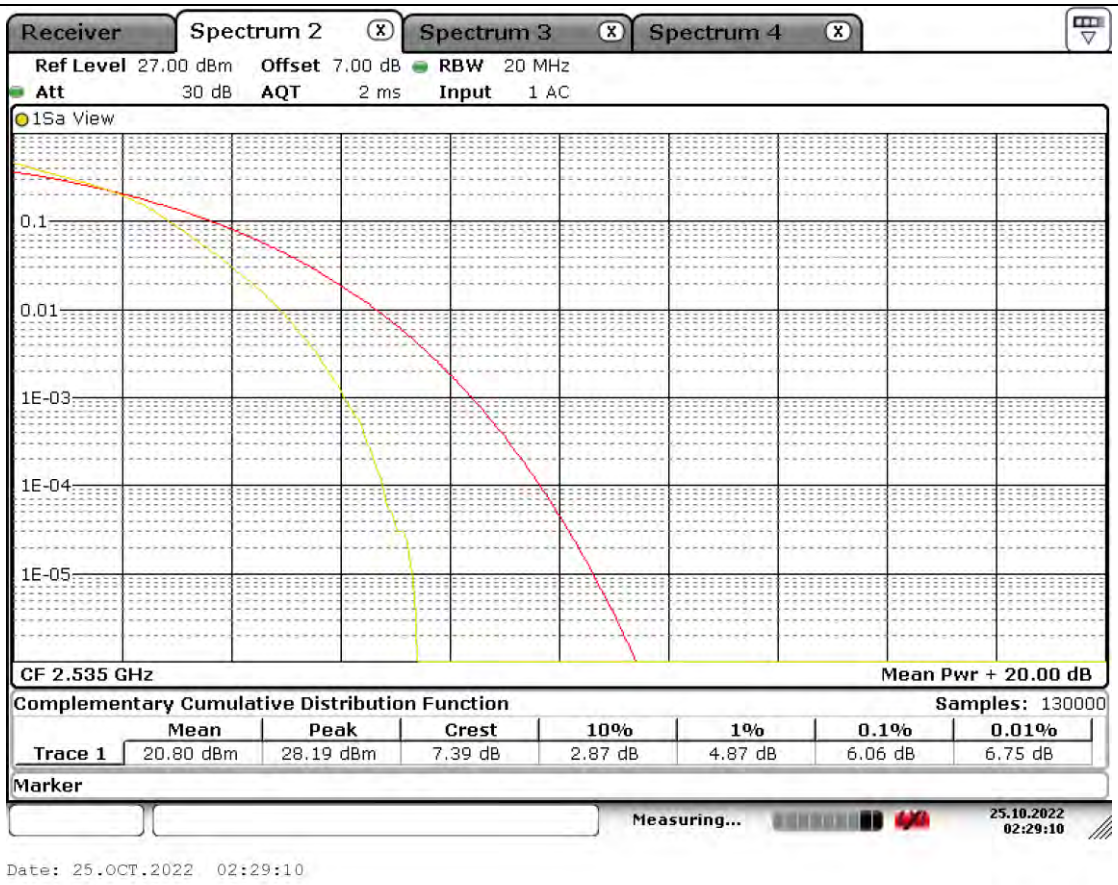
Band7-20MHz-16QAM-20850-100RB#0



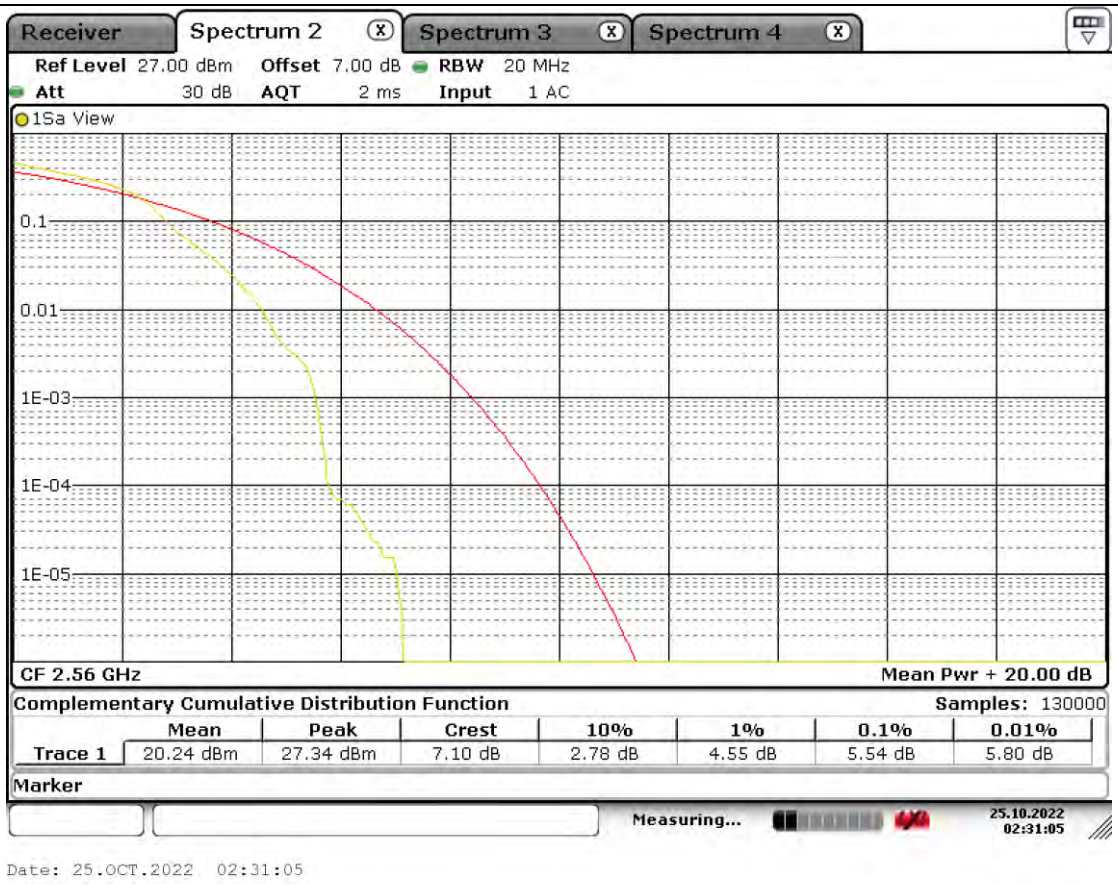
Band7-20MHz-16QAM-21100-1RB#0



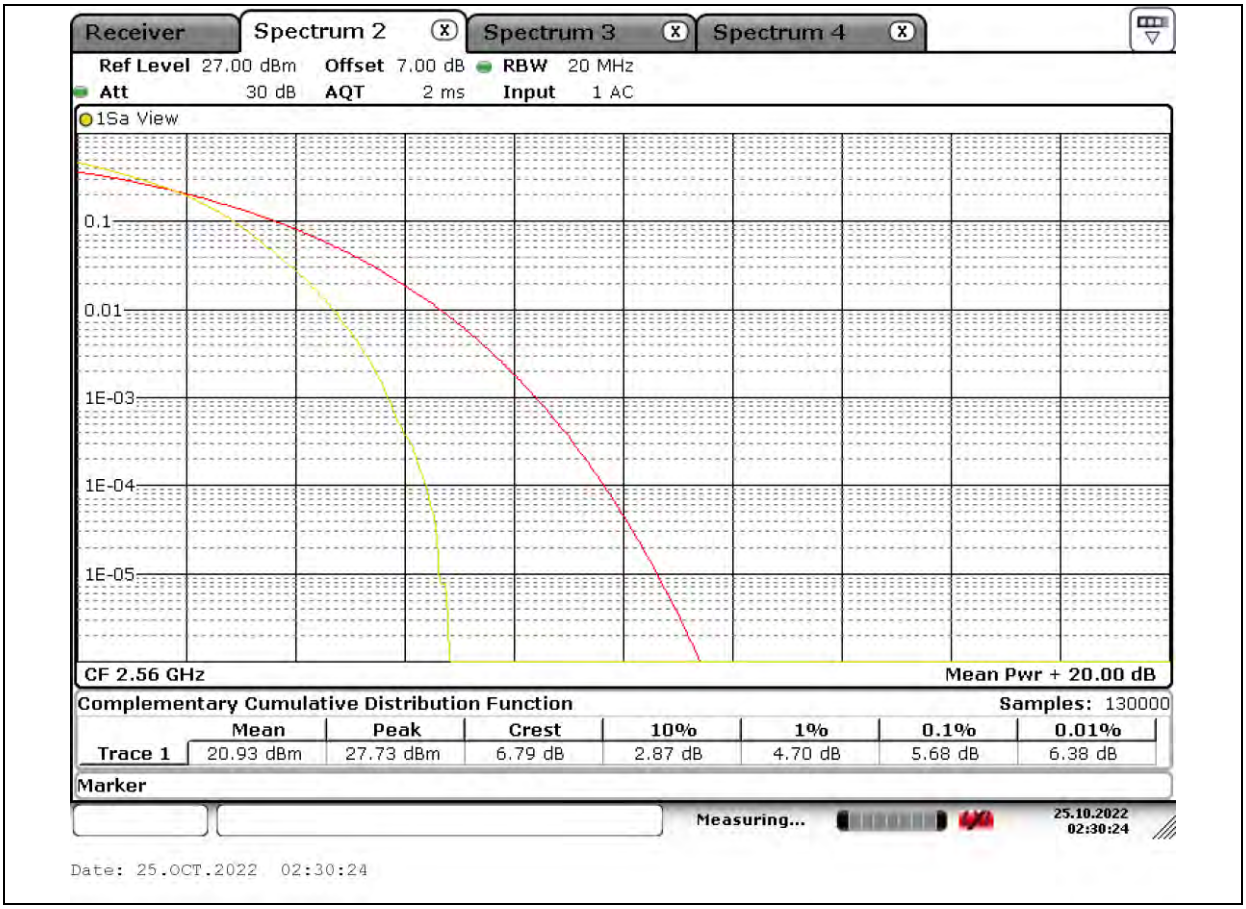
Band7-20MHz-16QAM-21100-100RB#0



Band7-20MHz-16QAM-21350-1RB#0



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


Receiver
Spectrum 2
Spectrum 3
Spectrum 4
Ref Level 27.00 dBm Offset 7.00 dB RBW 20 MHz
Att 30 dB AQT 2 ms Input 1 AC
1Sa View
0.1
0.01
1E-03
1E-04
1E-05
CF 2.56 GHz
Mean Pwr + 20.00 dB
Complementary Cumulative Distribution Function
Samples: 130000
Mean Peak Crest 10% 1% 0.1% 0.01%
Trace 1 20.93 dBm 27.73 dBm 6.79 dB 2.87 dB 4.70 dB 5.68 dB 6.38 dB
Marker
Measuring...
25.10.2022
02:30:24
Date: 25.OCT.2022 02:30:24

26DB BANDWIDTH AND OCCUPIED BANDWIDTH

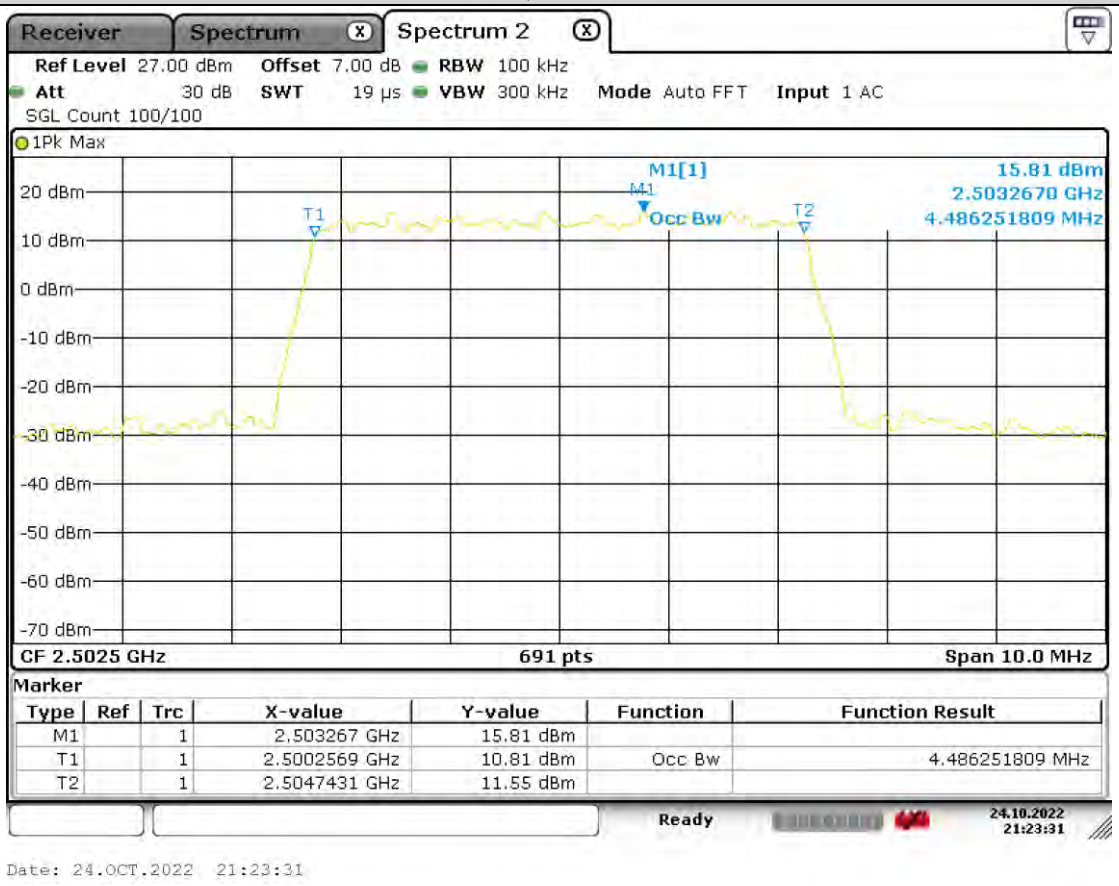
Test Result

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

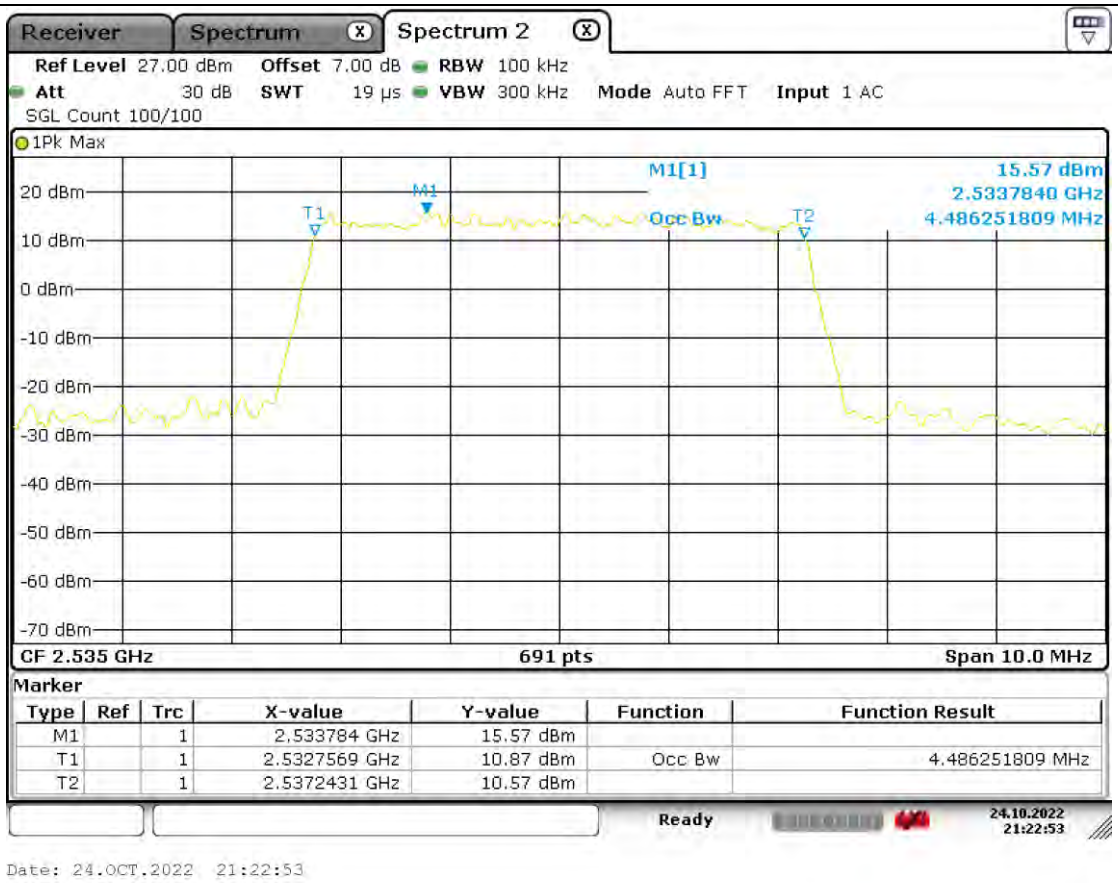
Test Graphs

Occupied Bandwidth

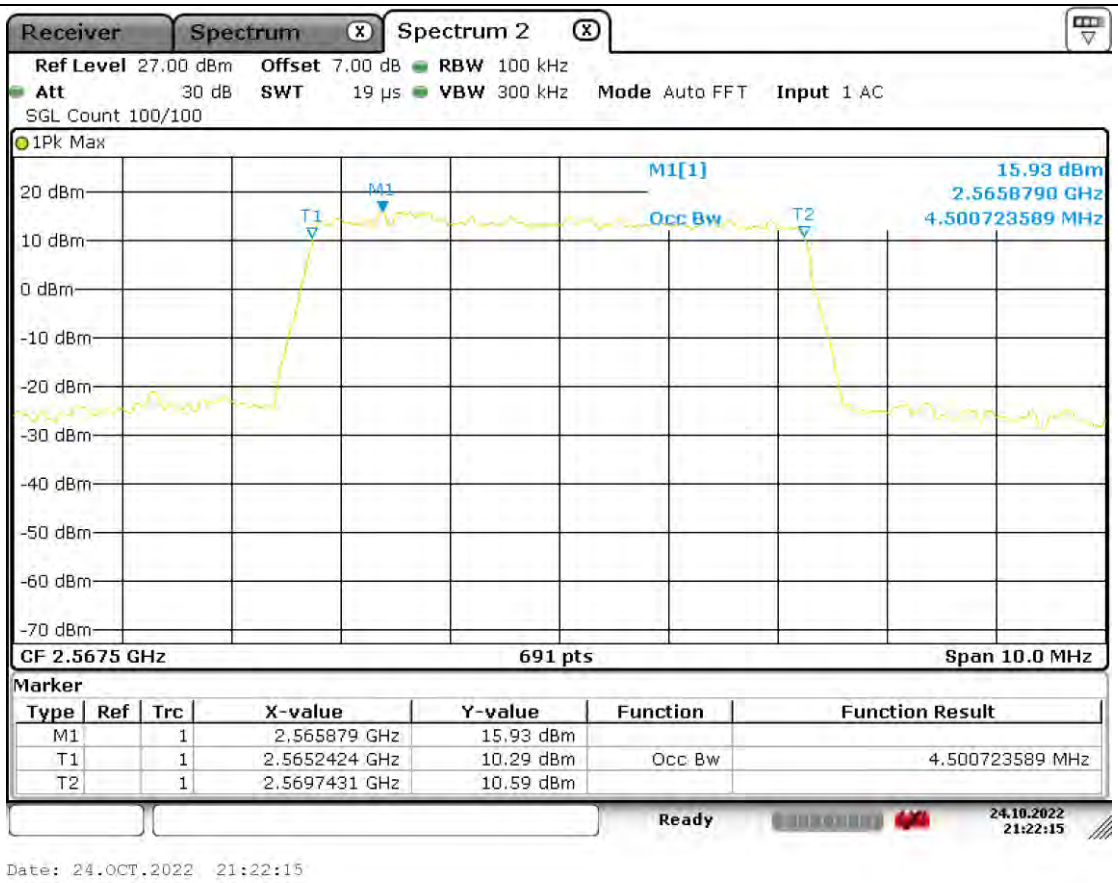
Band7-5MHz-QPSK-20775-25RB#0



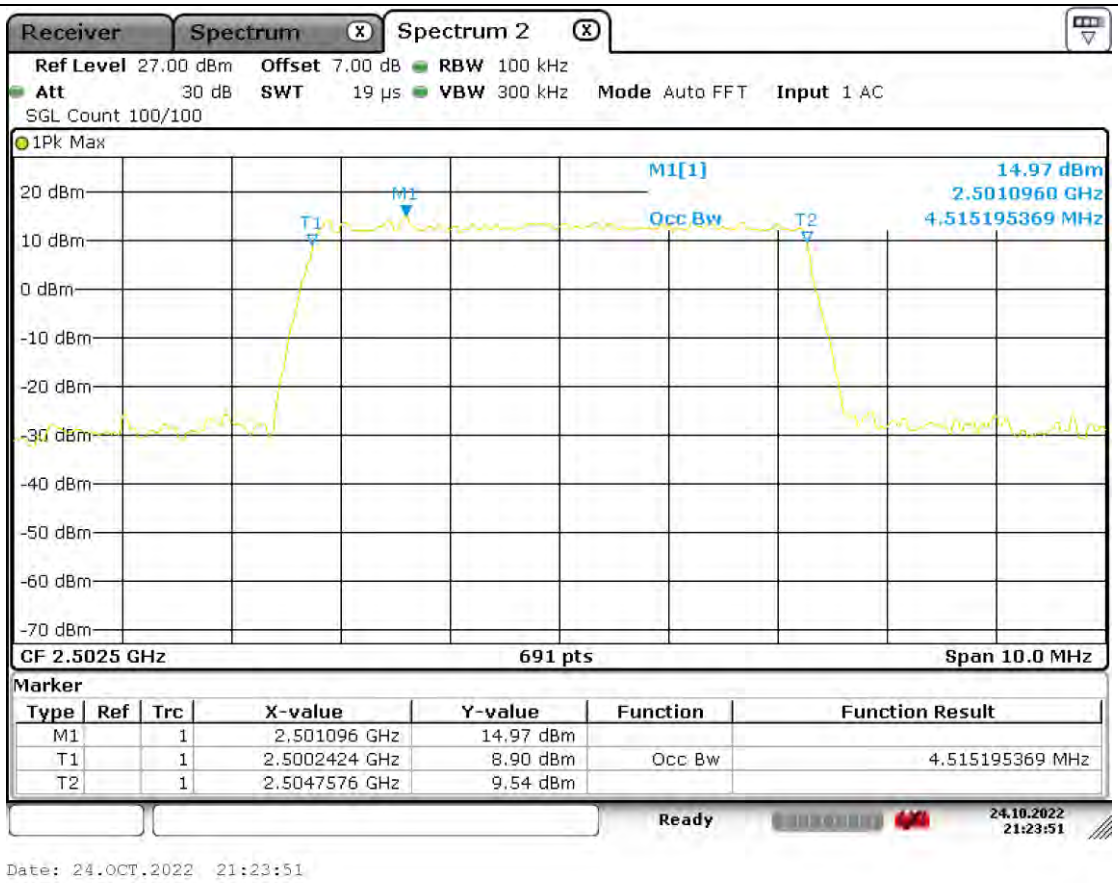
Band7-5MHz-QPSK-21100-25RB#0



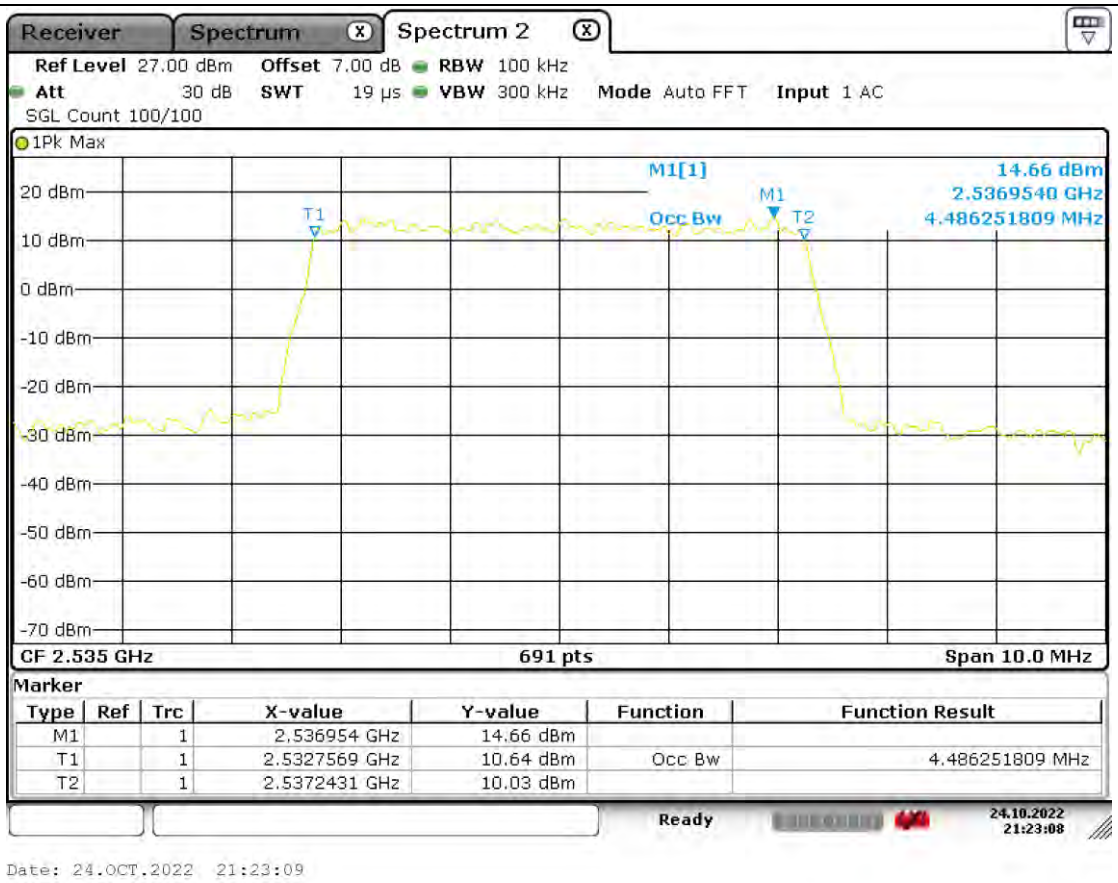
Band7-5MHz-QPSK-21425-25RB#0



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



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



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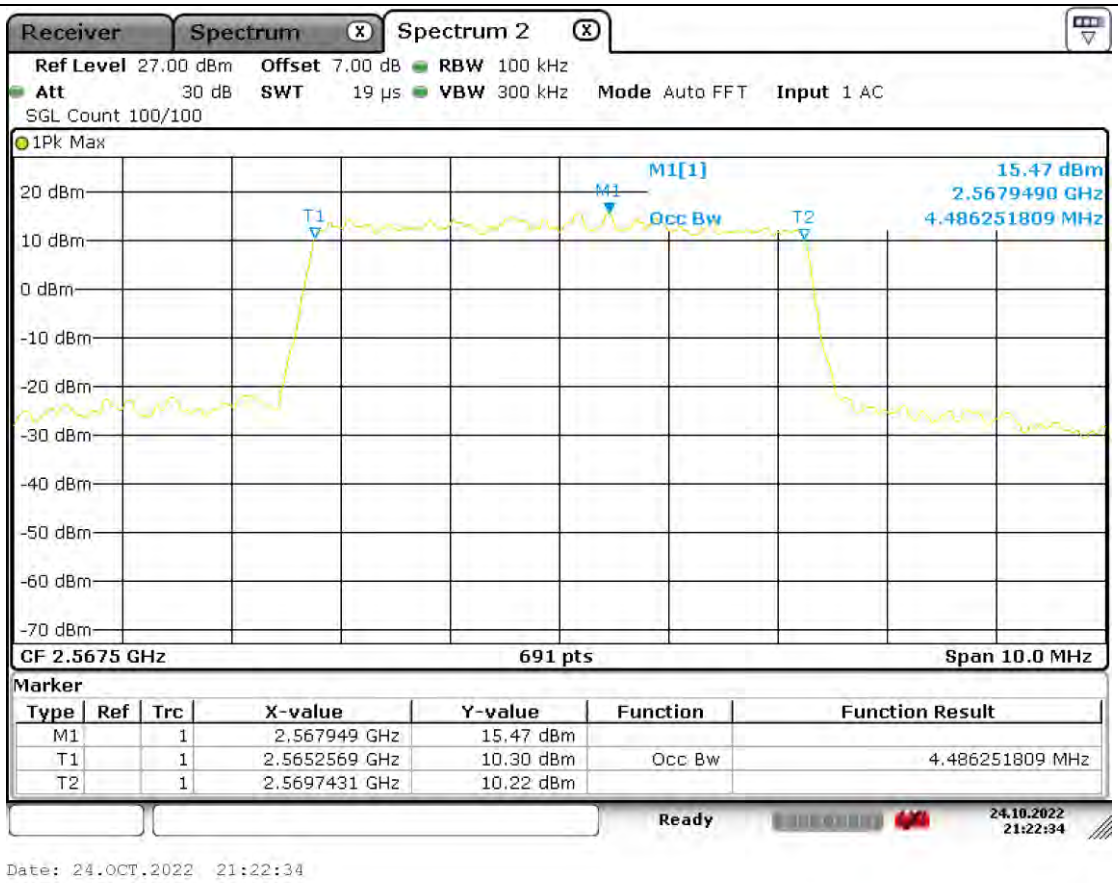
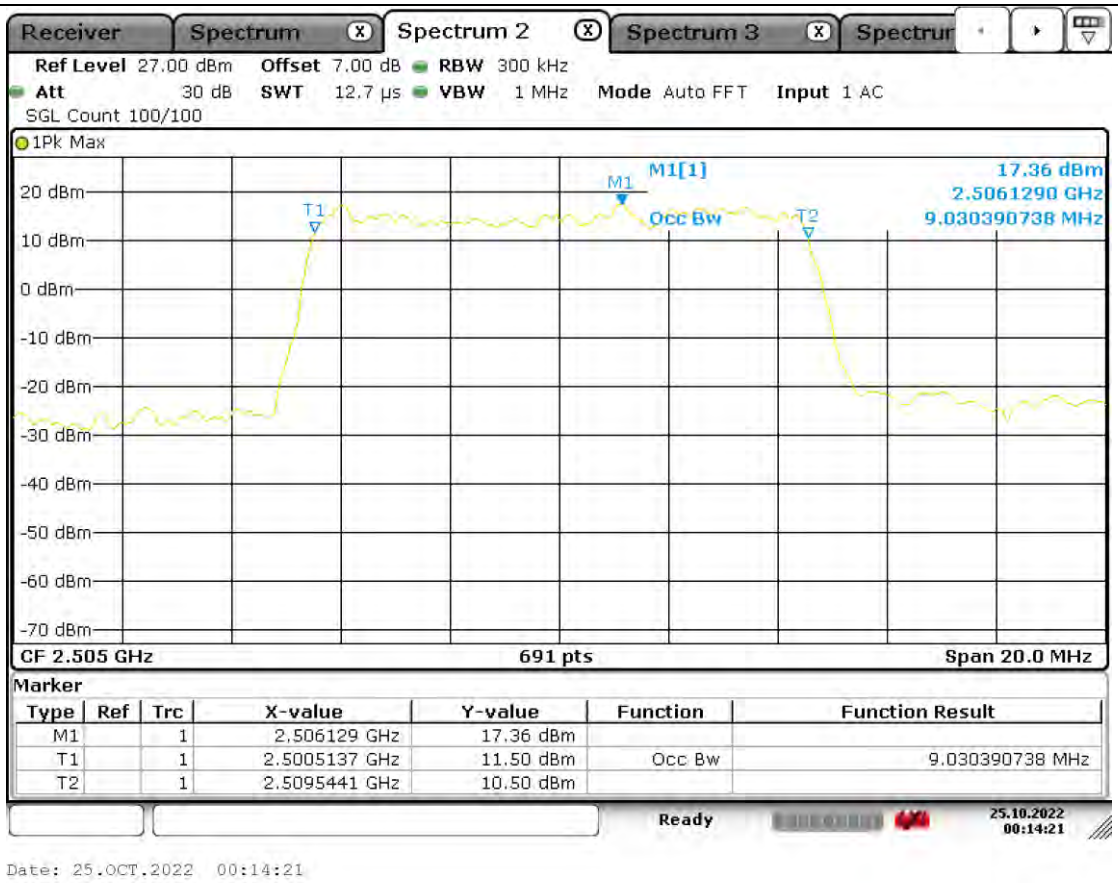


Band7-10MHz-QPSK-20800-50RB#0



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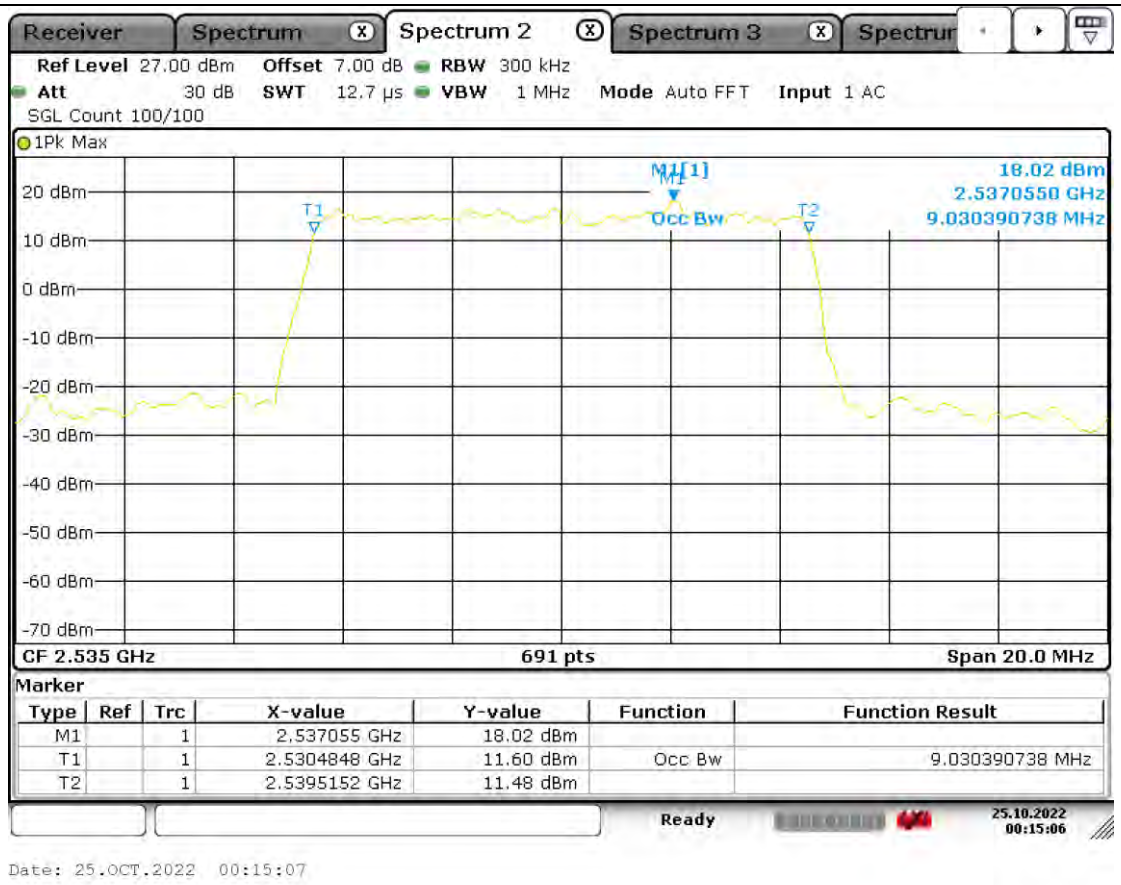

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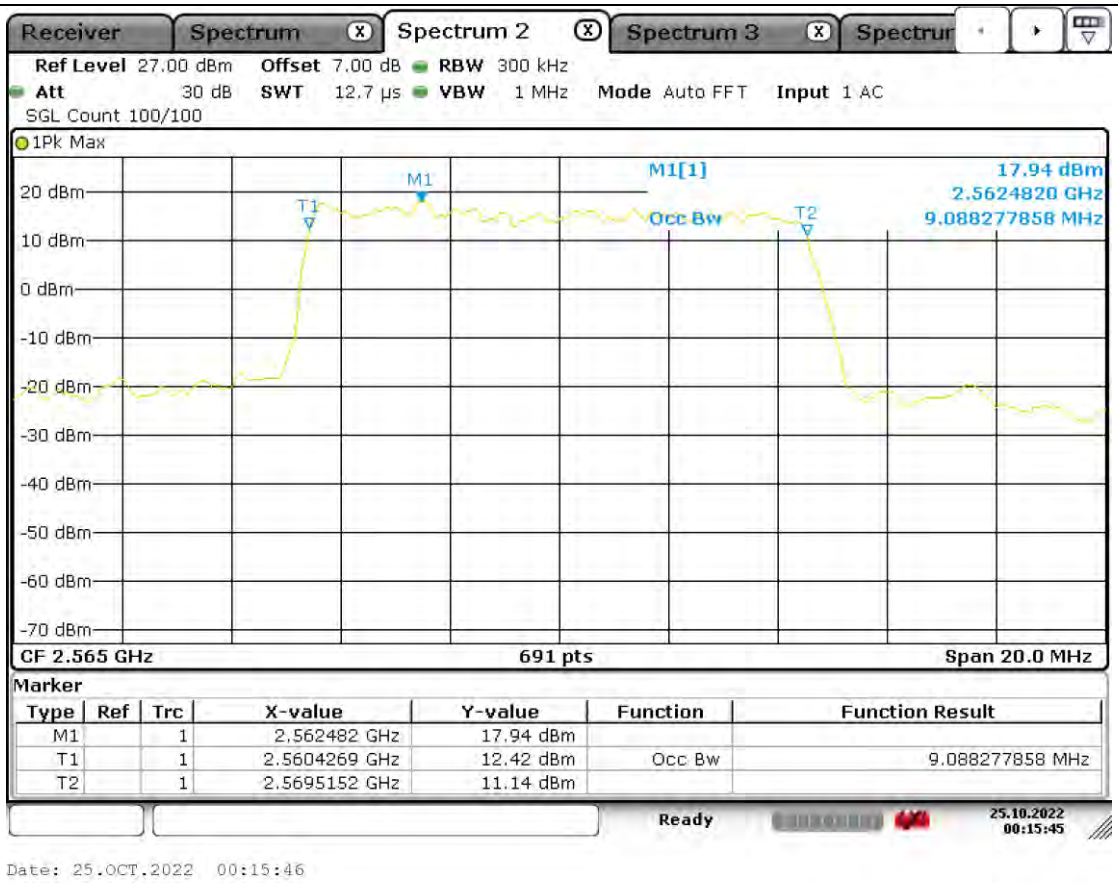

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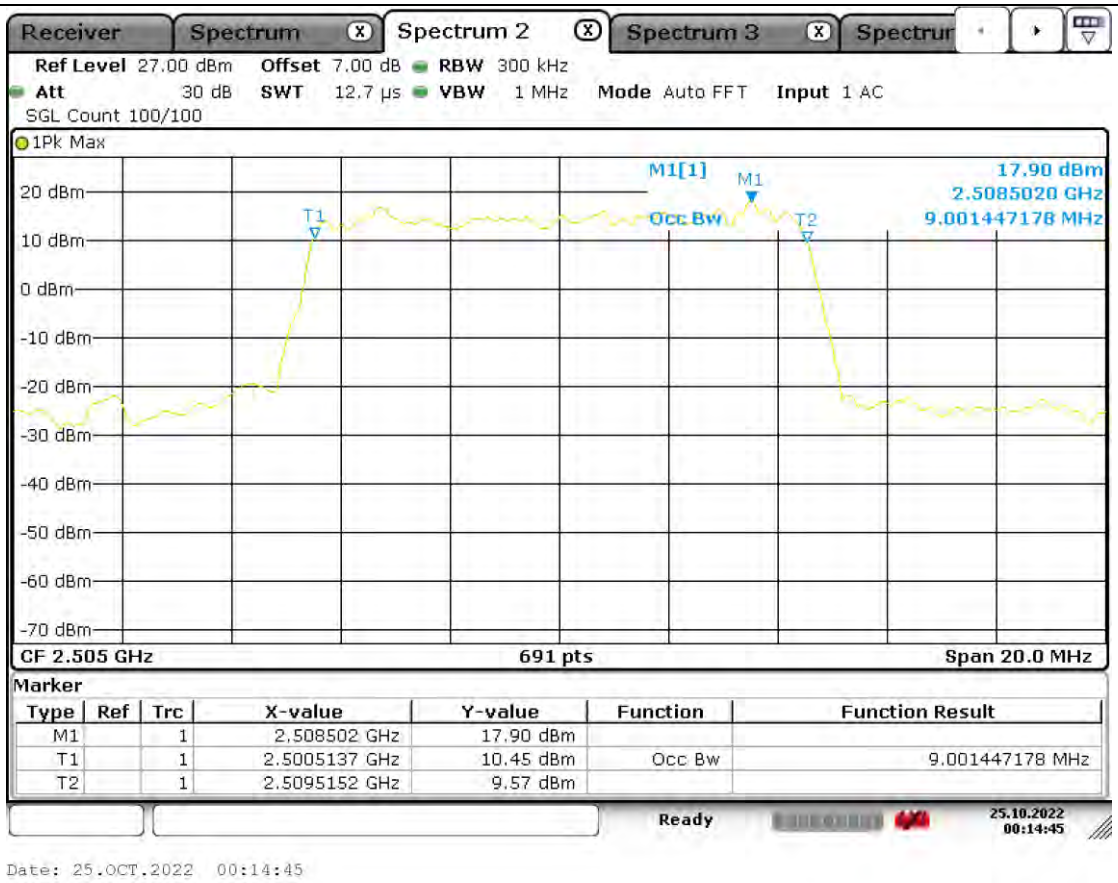

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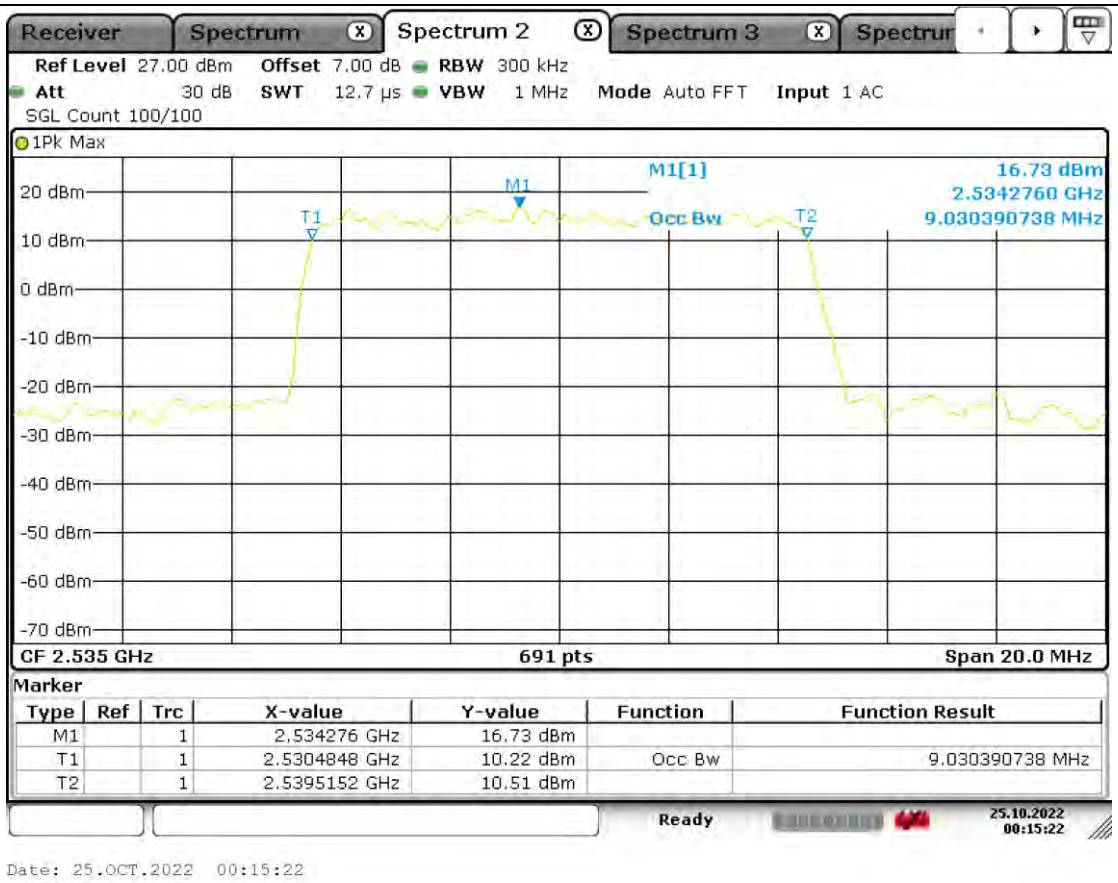

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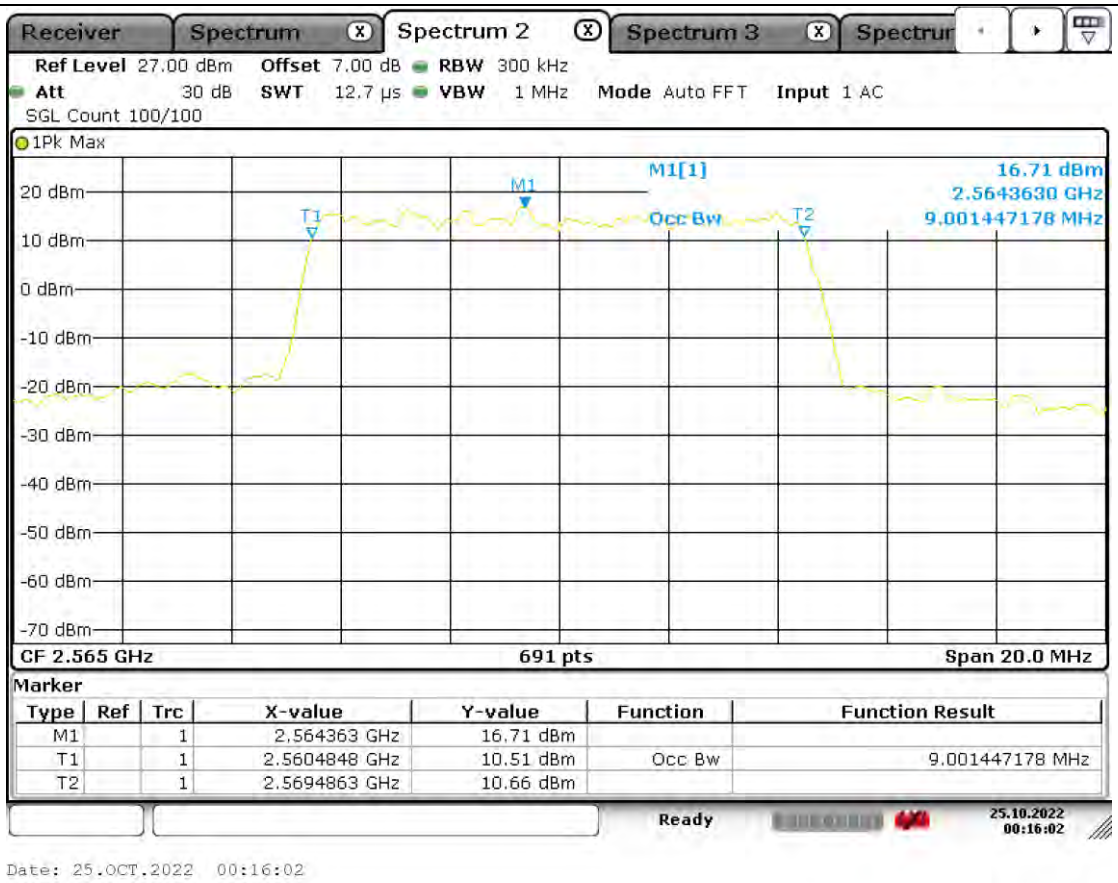

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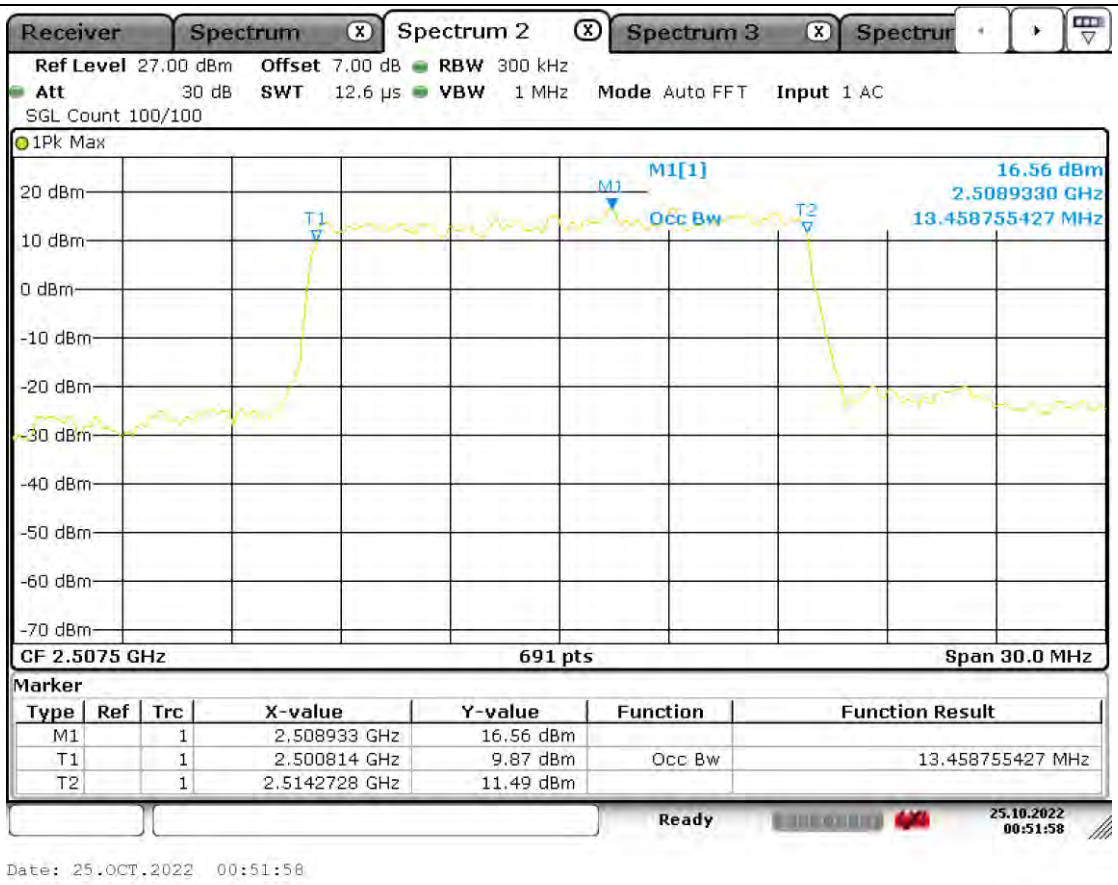

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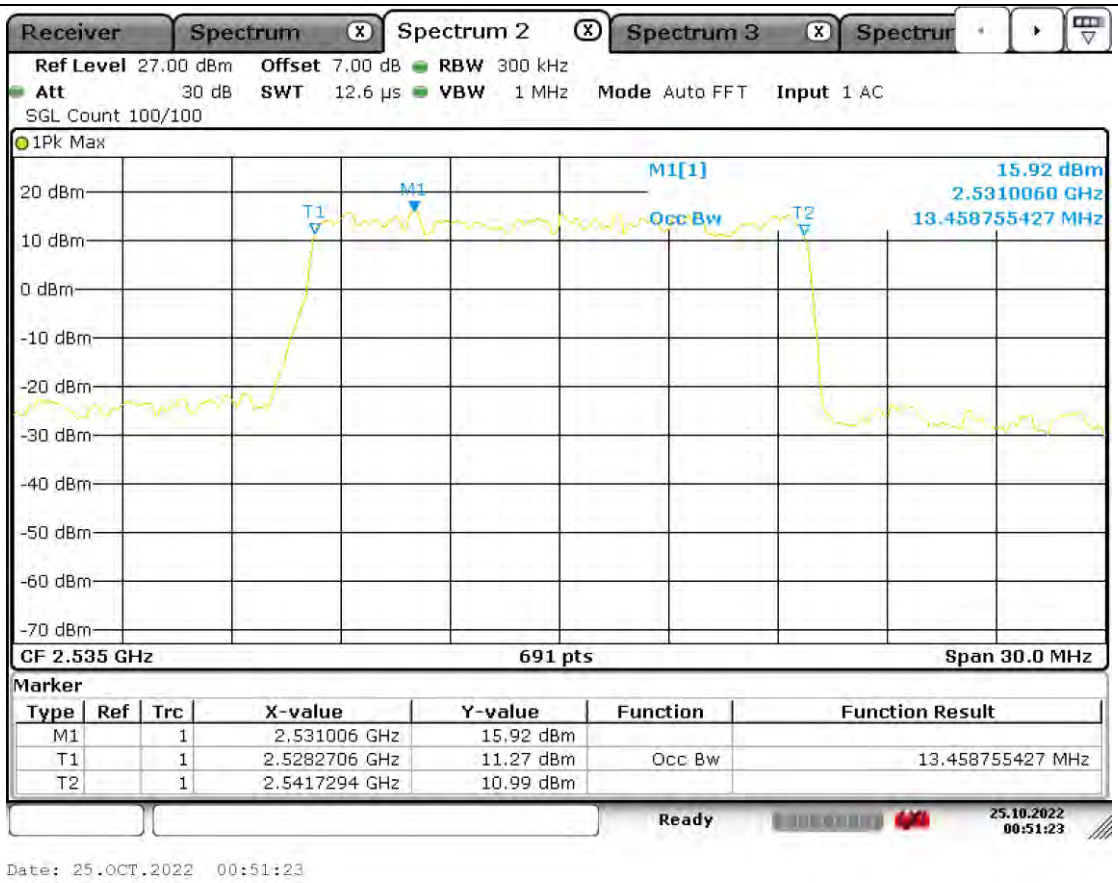

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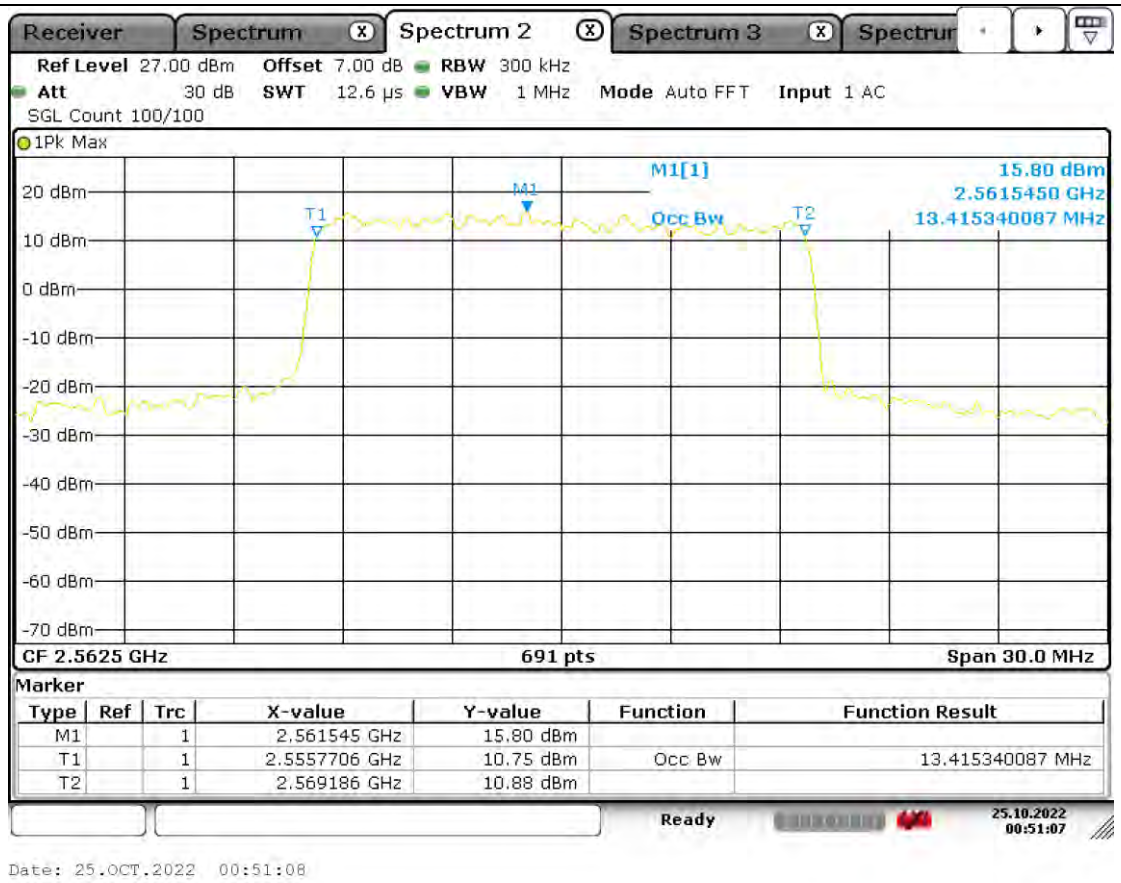

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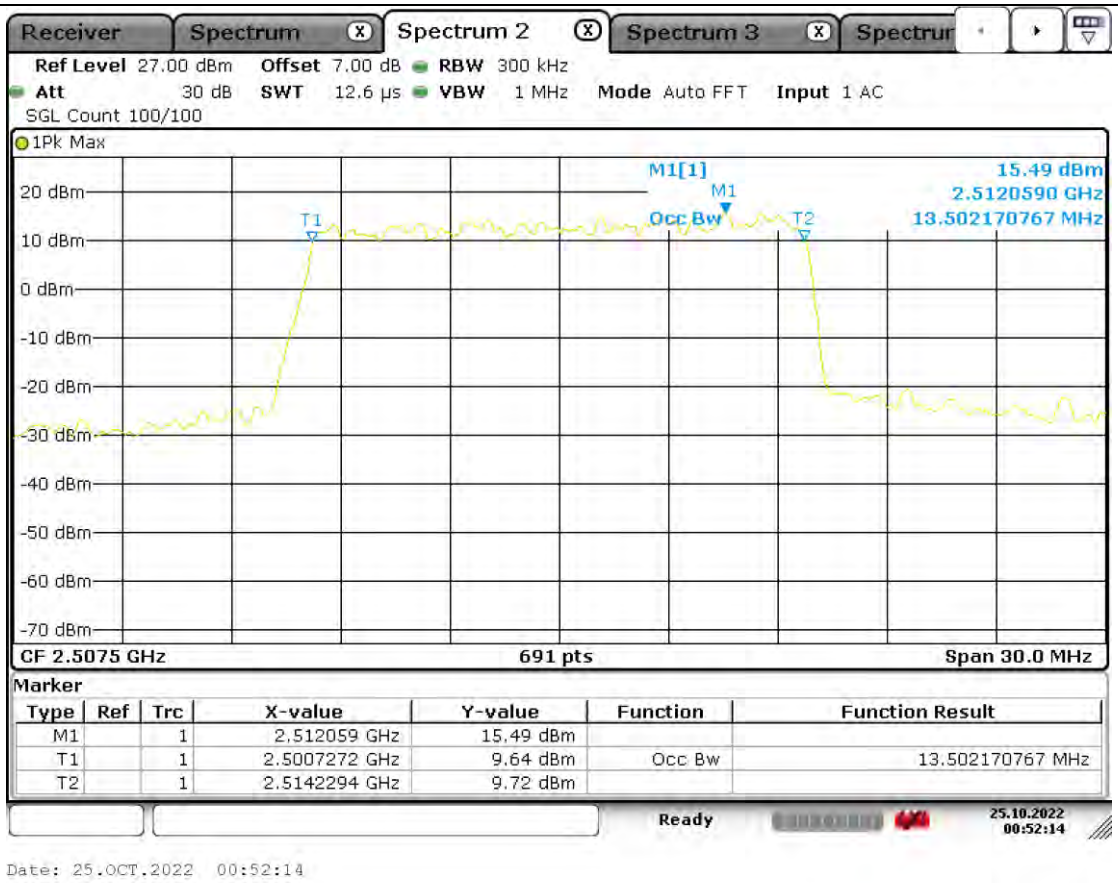

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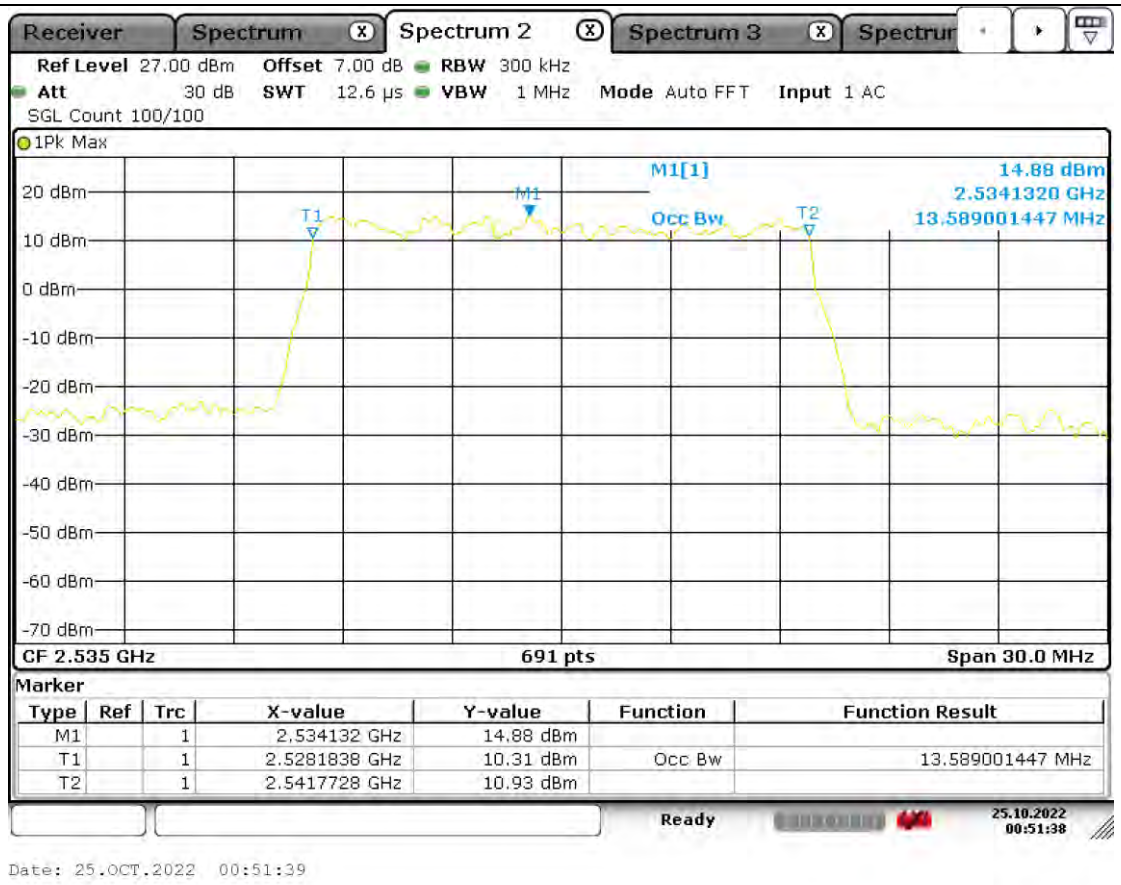

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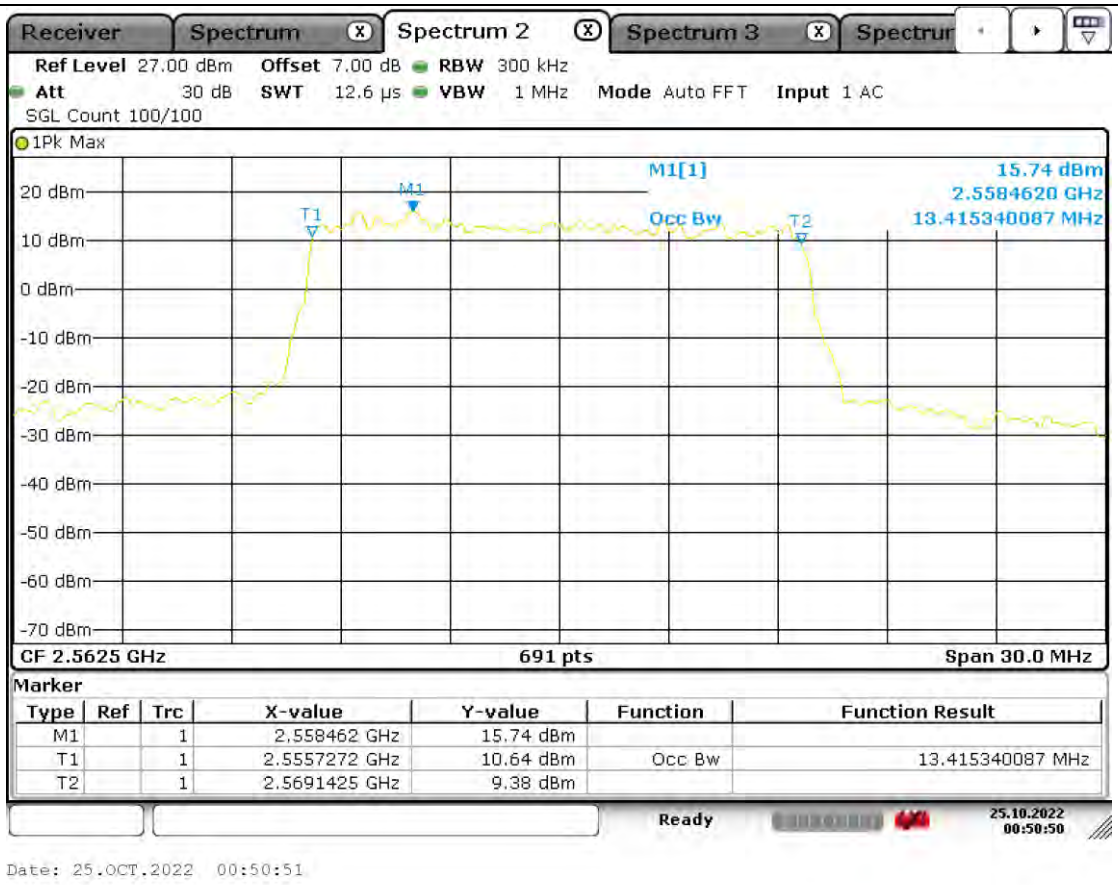

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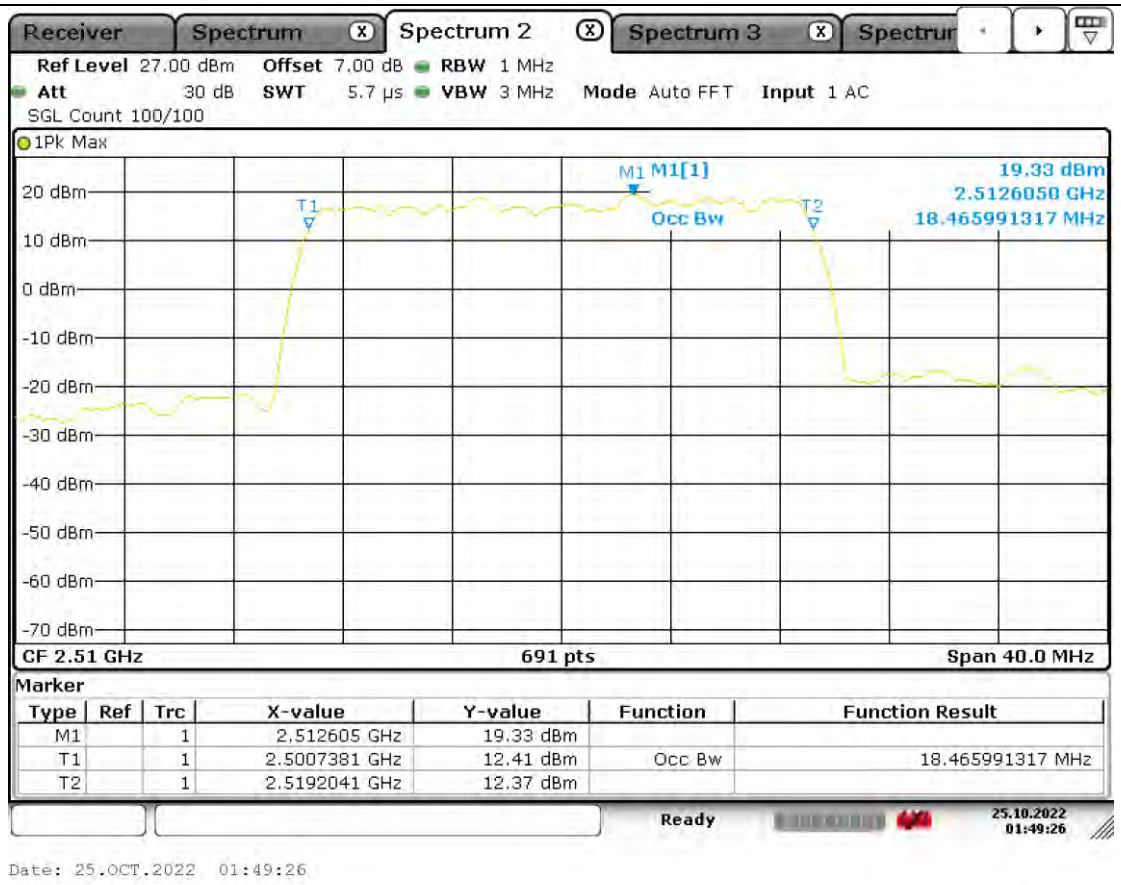

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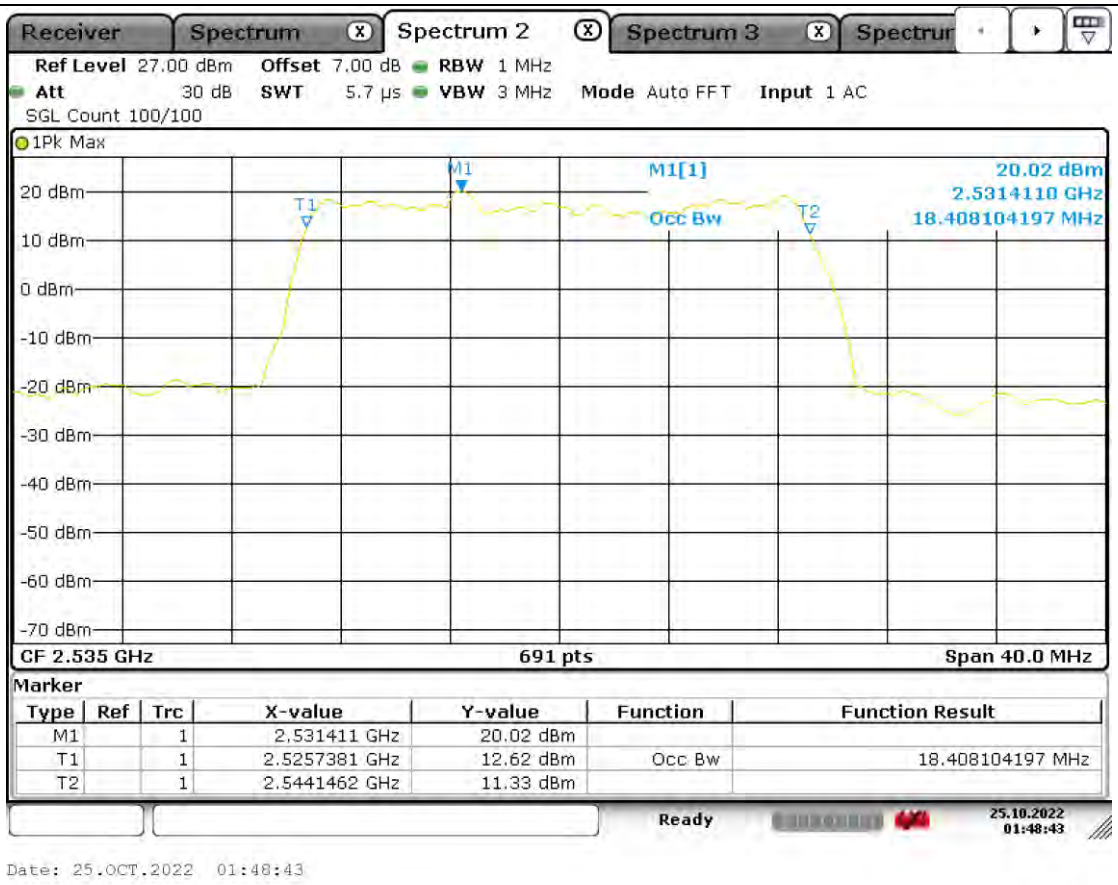

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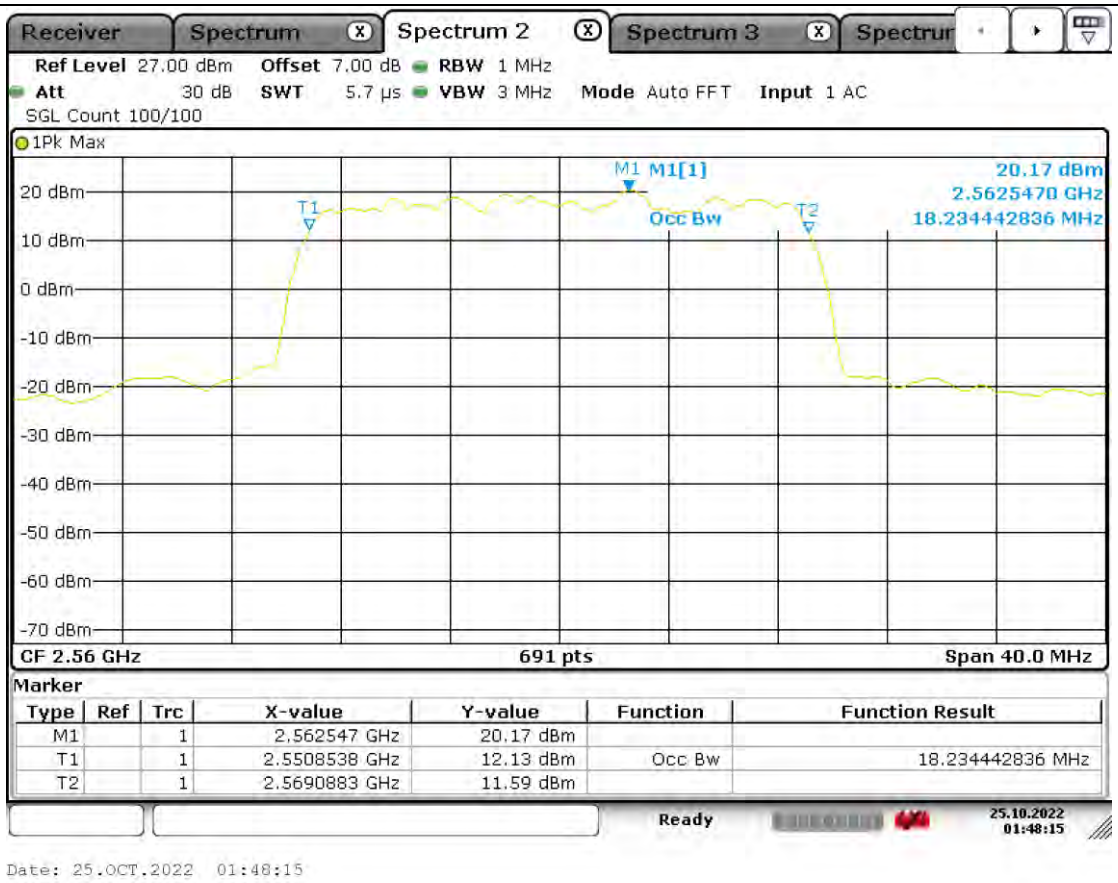

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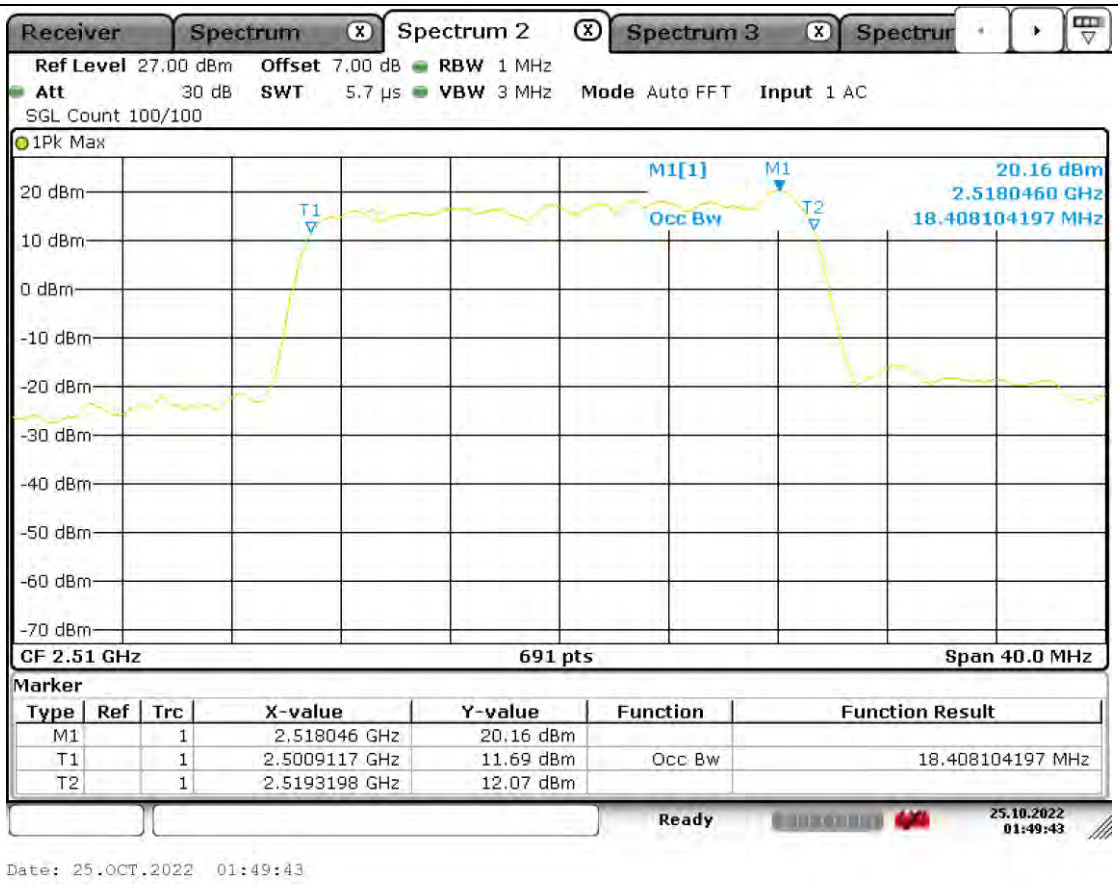

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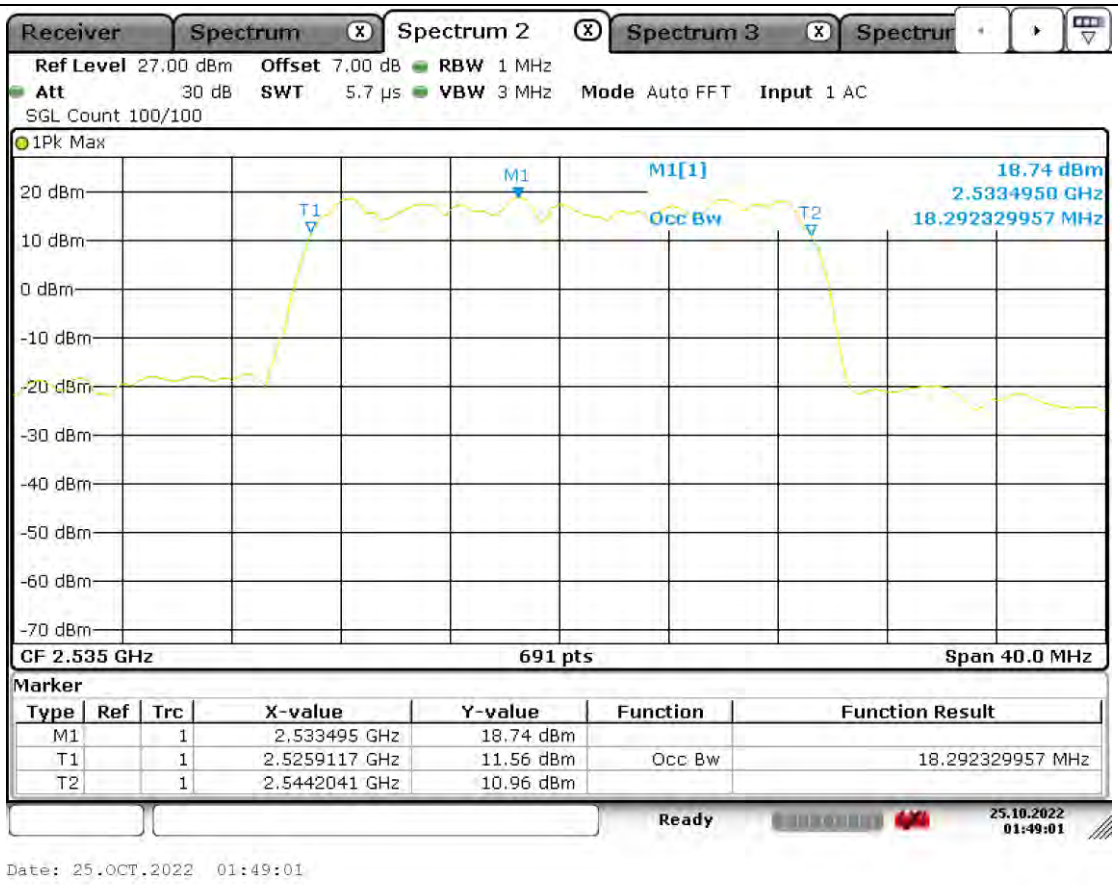

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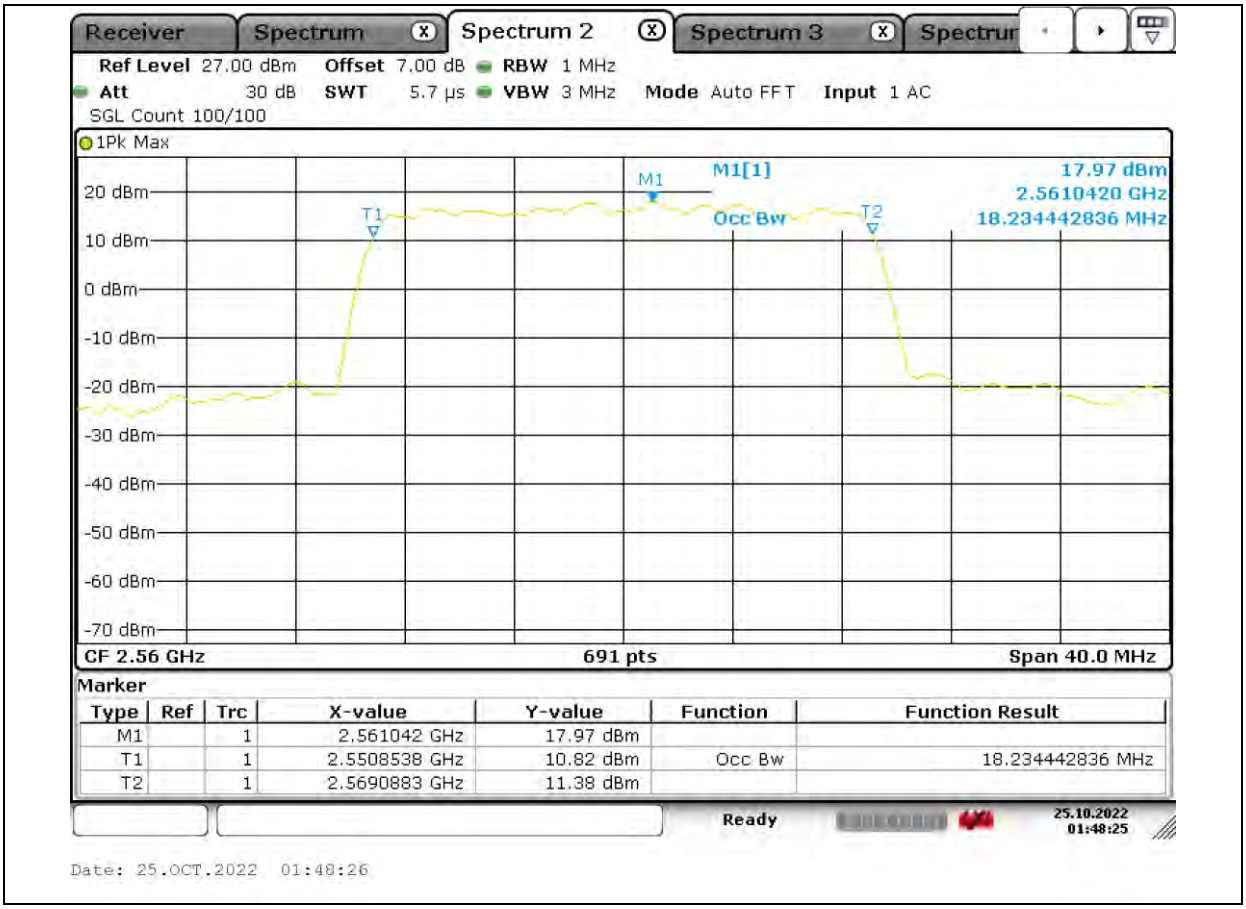
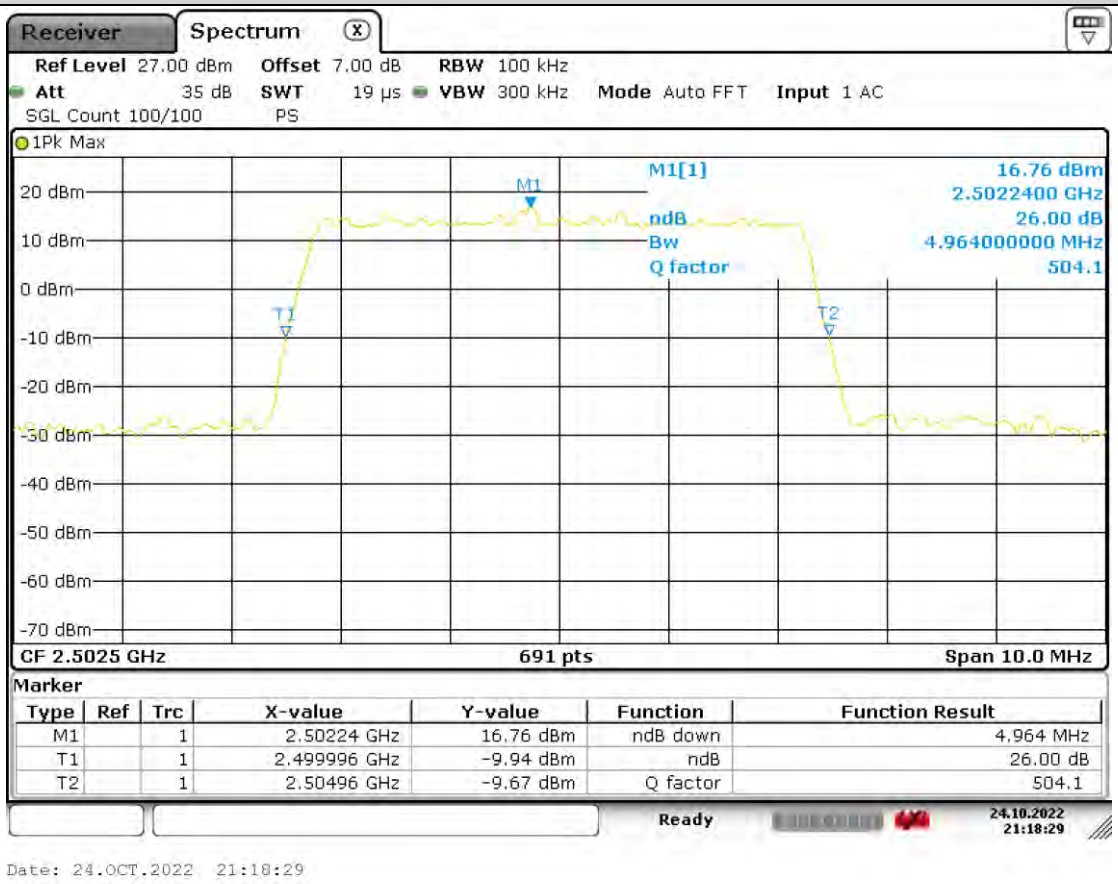

Receiver
Spectrum
Spectrum 2
Spectrum 3
Spectrum
Ref Level 27.00 dBm Offset 7.00 dB RBW 1 MHz
Att 30 dB SWT 5.7 µs VBW 3 MHz Mode Auto FFT Input 1 AC
SGL Count 100/100
1Pk Max
M1[1]
17.97 dBm
2.5610420 GHz
Occ Bw
18.234442836 MHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
-70 dBm
CF 2.56 GHz
691 pts
Span 40.0 MHz
Marker
Type Ref Trc X-value Y-value Function Function Result
M1 1 2.561042 GHz 17.97 dBm
T1 1 2.5508538 GHz 10.82 dBm Occ Bw 18.234442836 MHz
T2 1 2.5690883 GHz 11.38 dBm
Ready
25.10.2022
01:48:25
Date: 25.OCT.2022 01:48:26

26dB Bandwidth

Band7-5MHz-QPSK-20775-25RB#0

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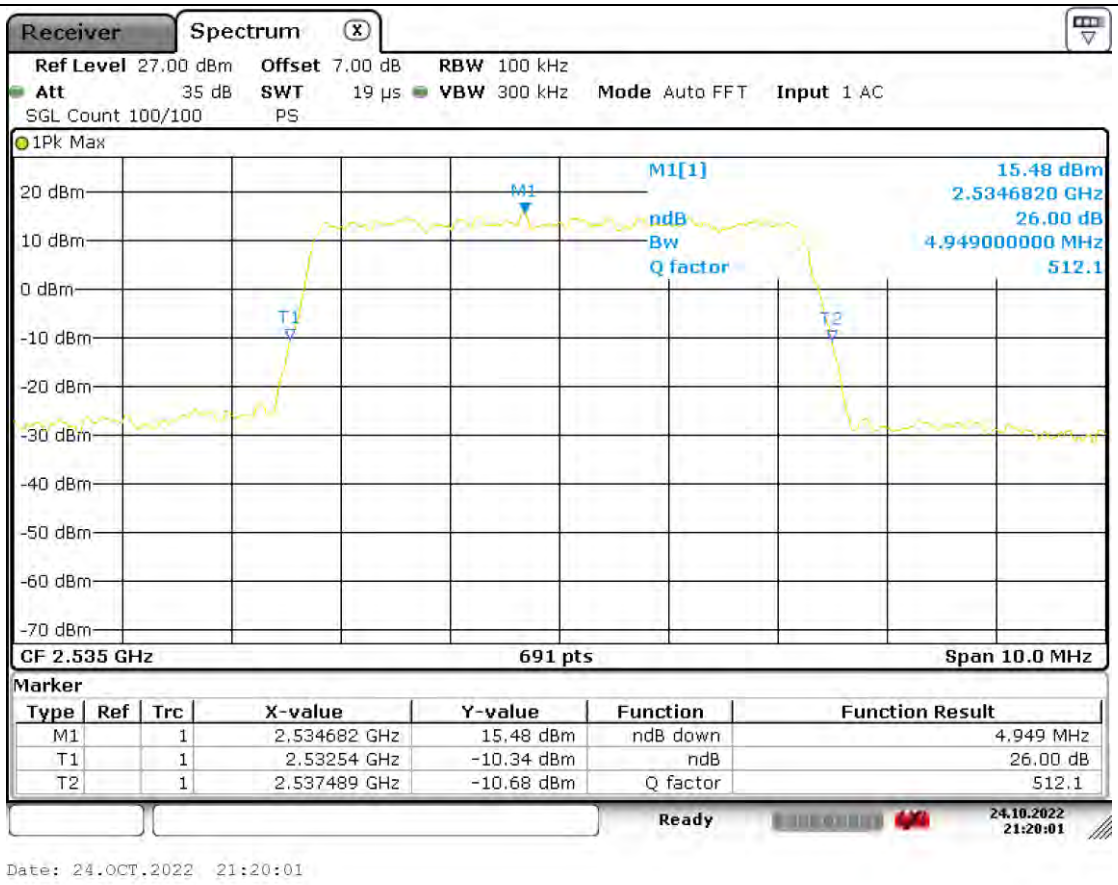

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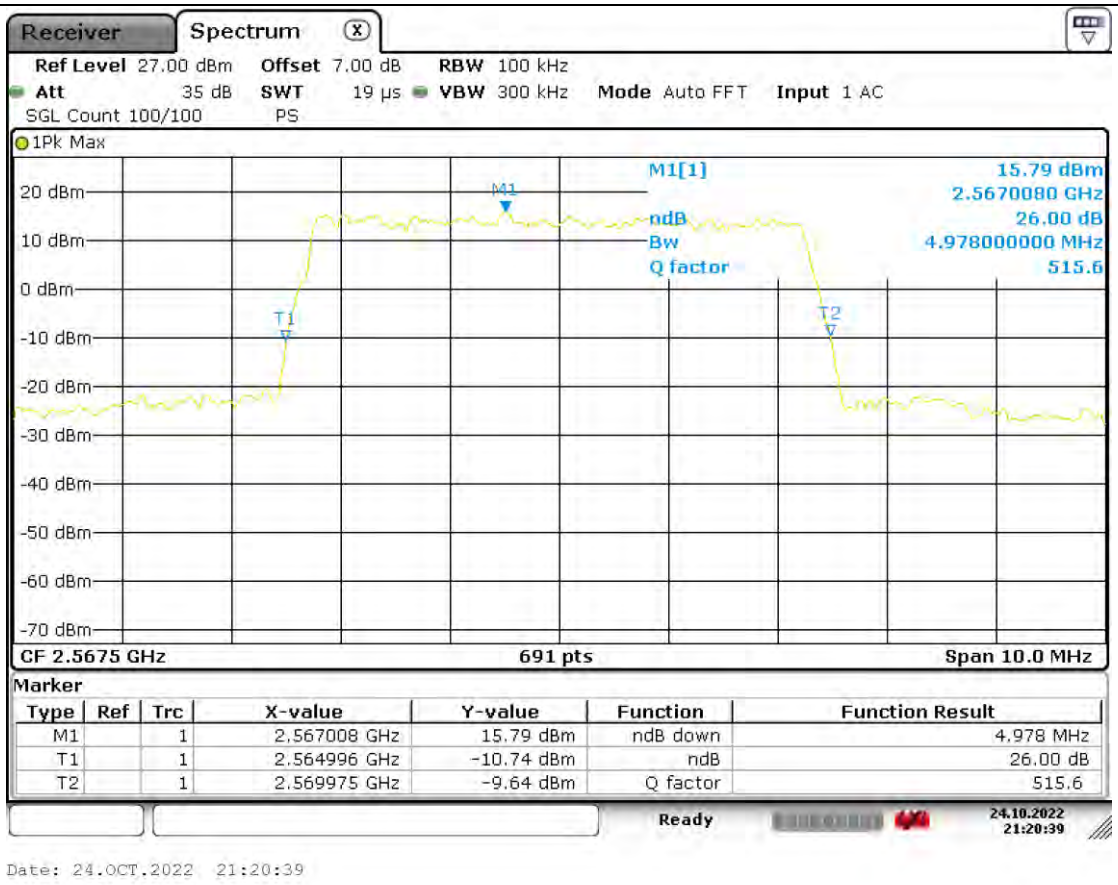

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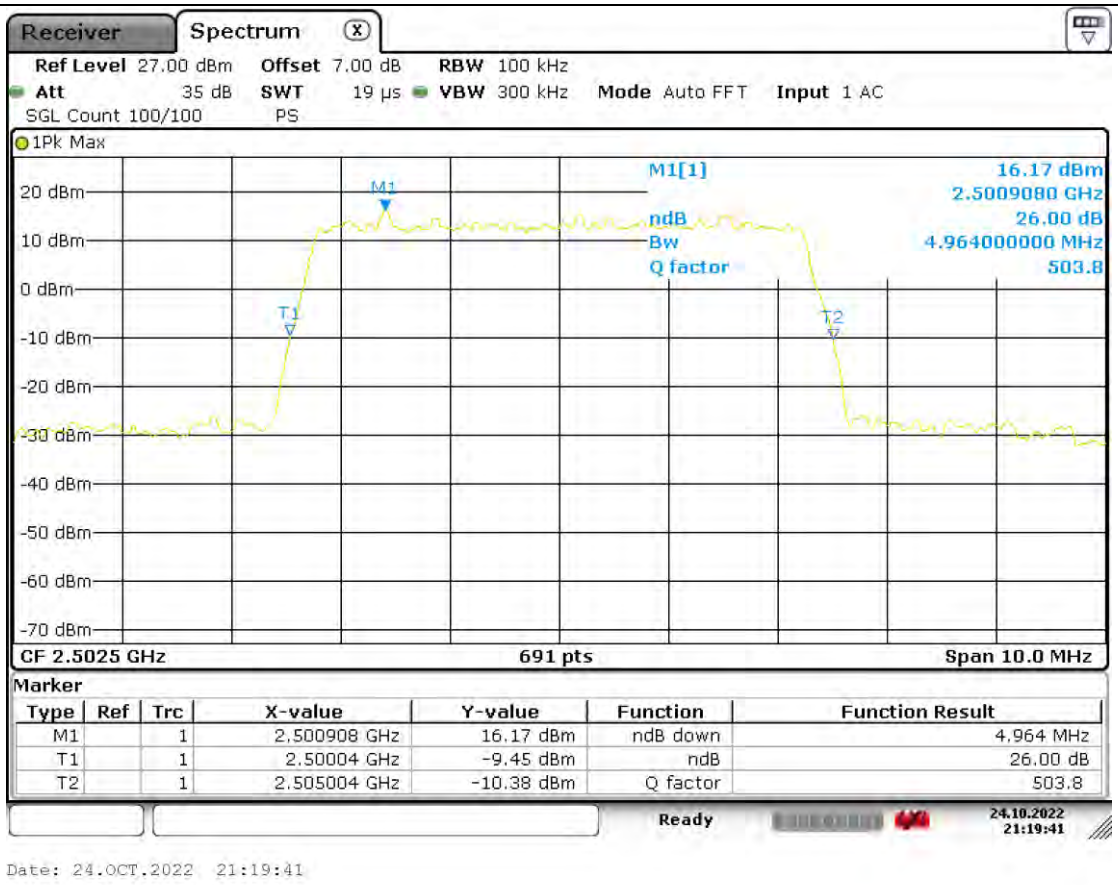

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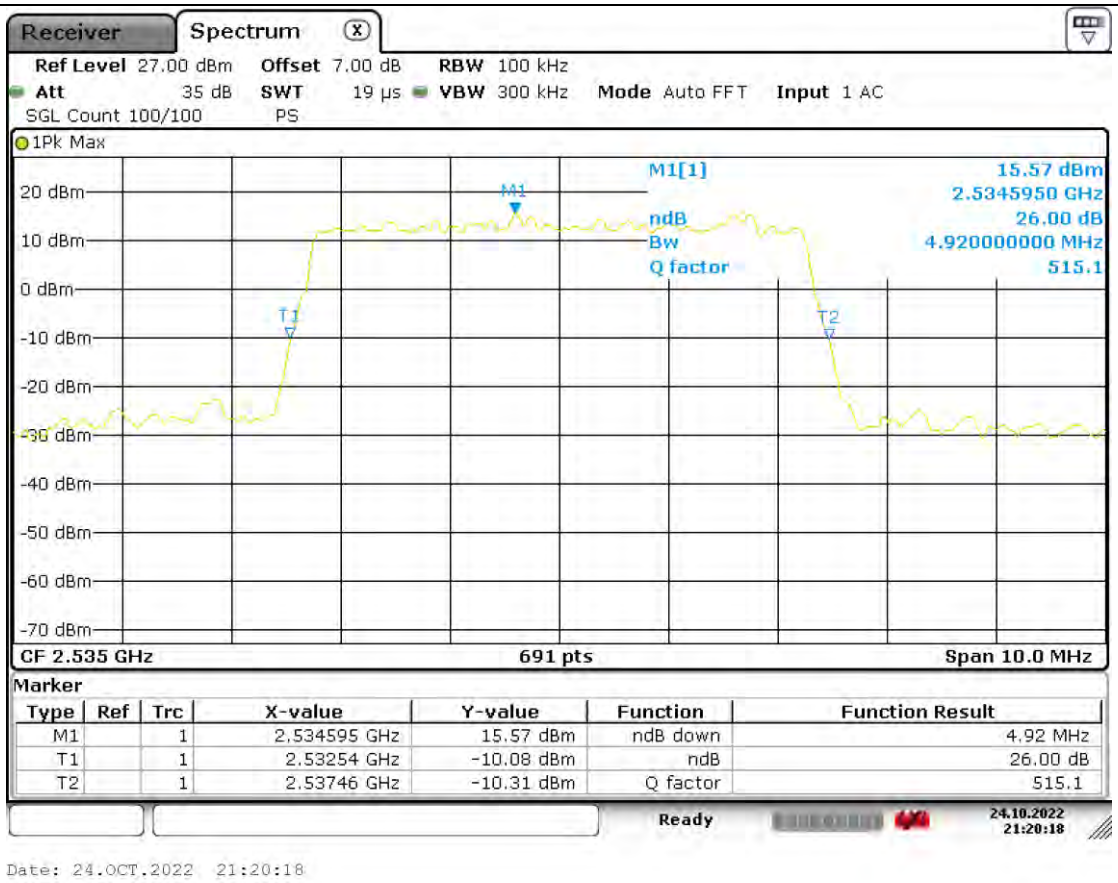

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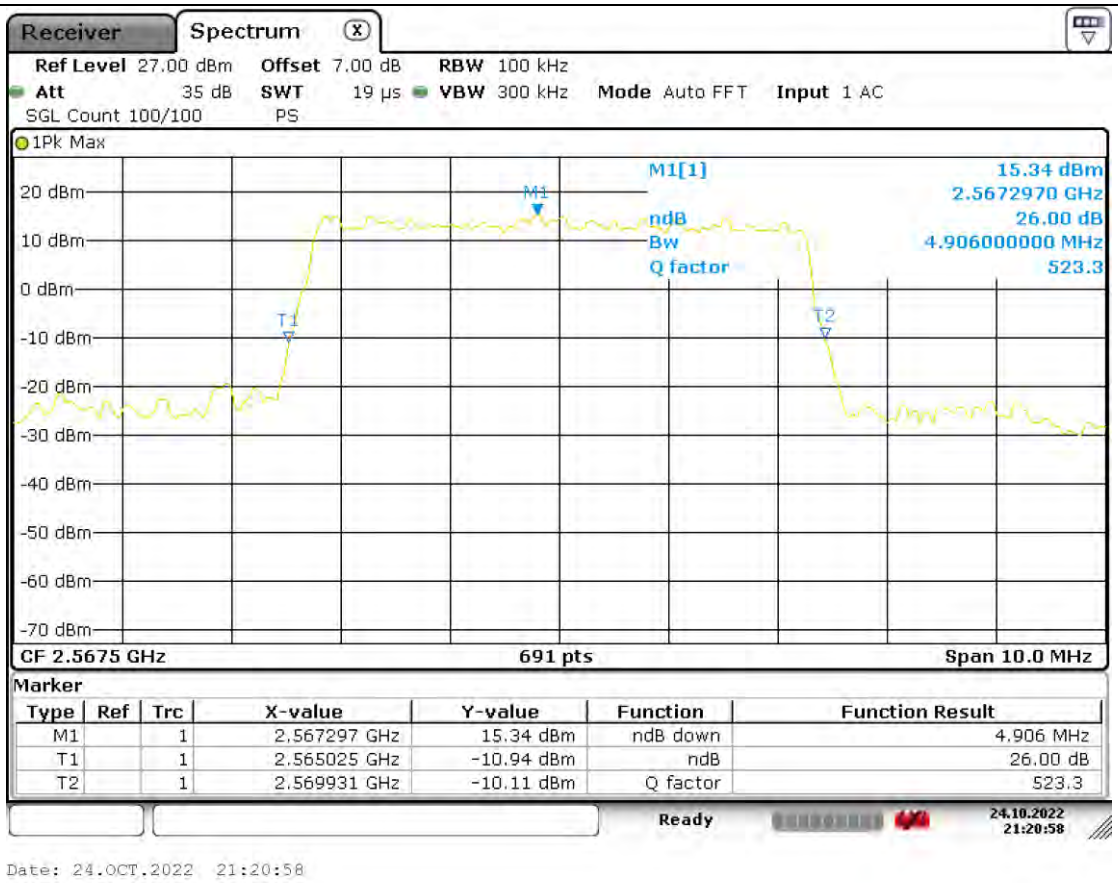

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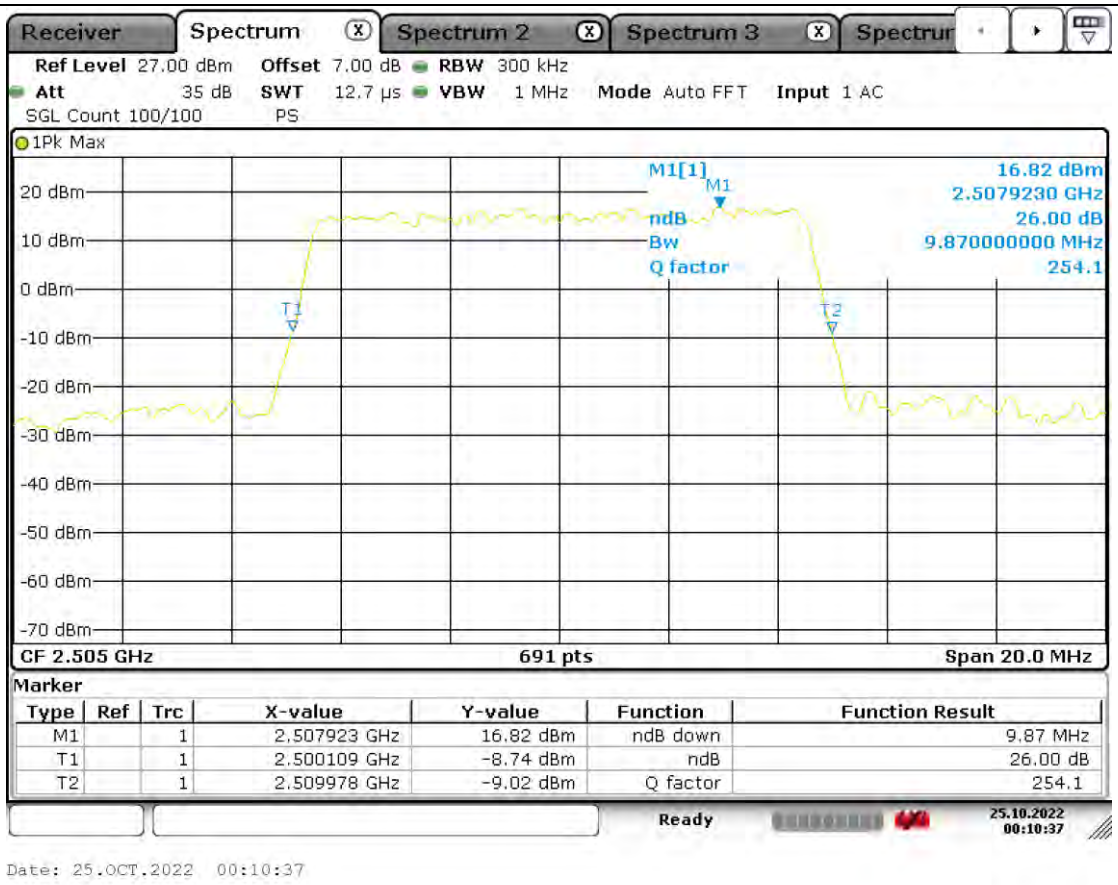

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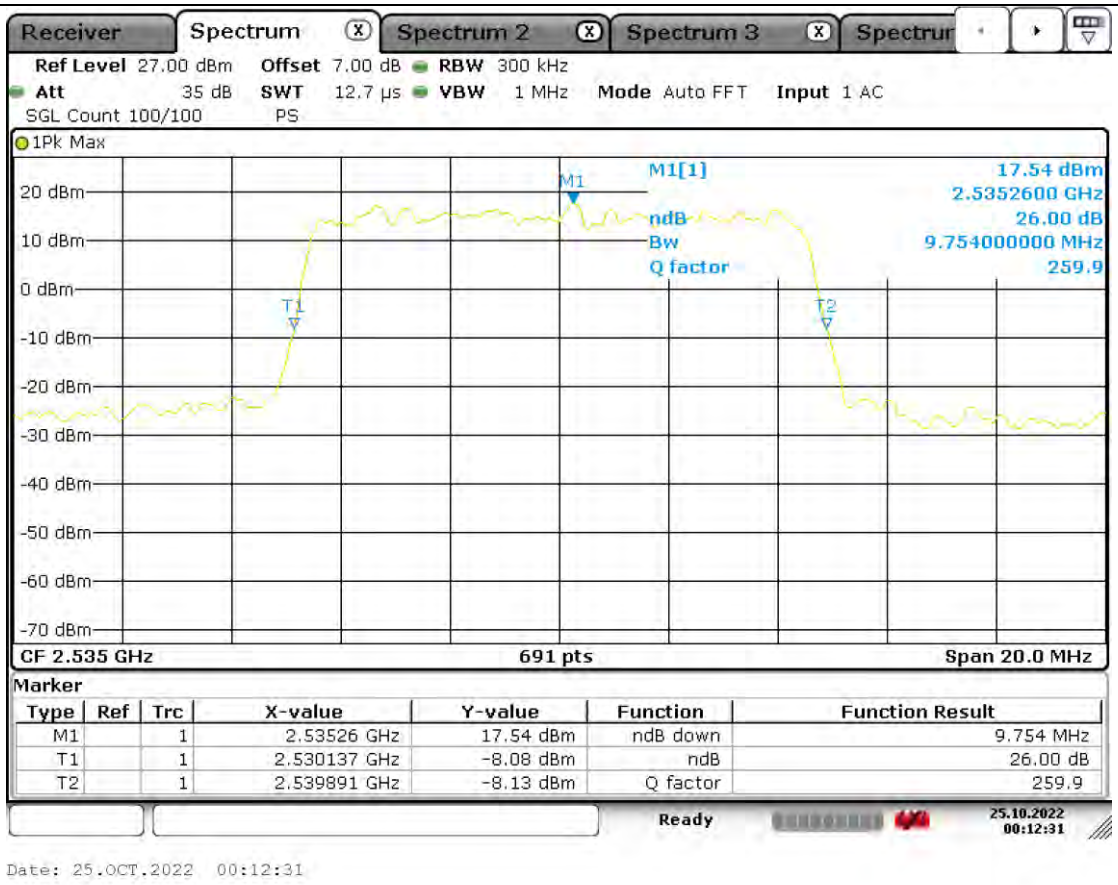

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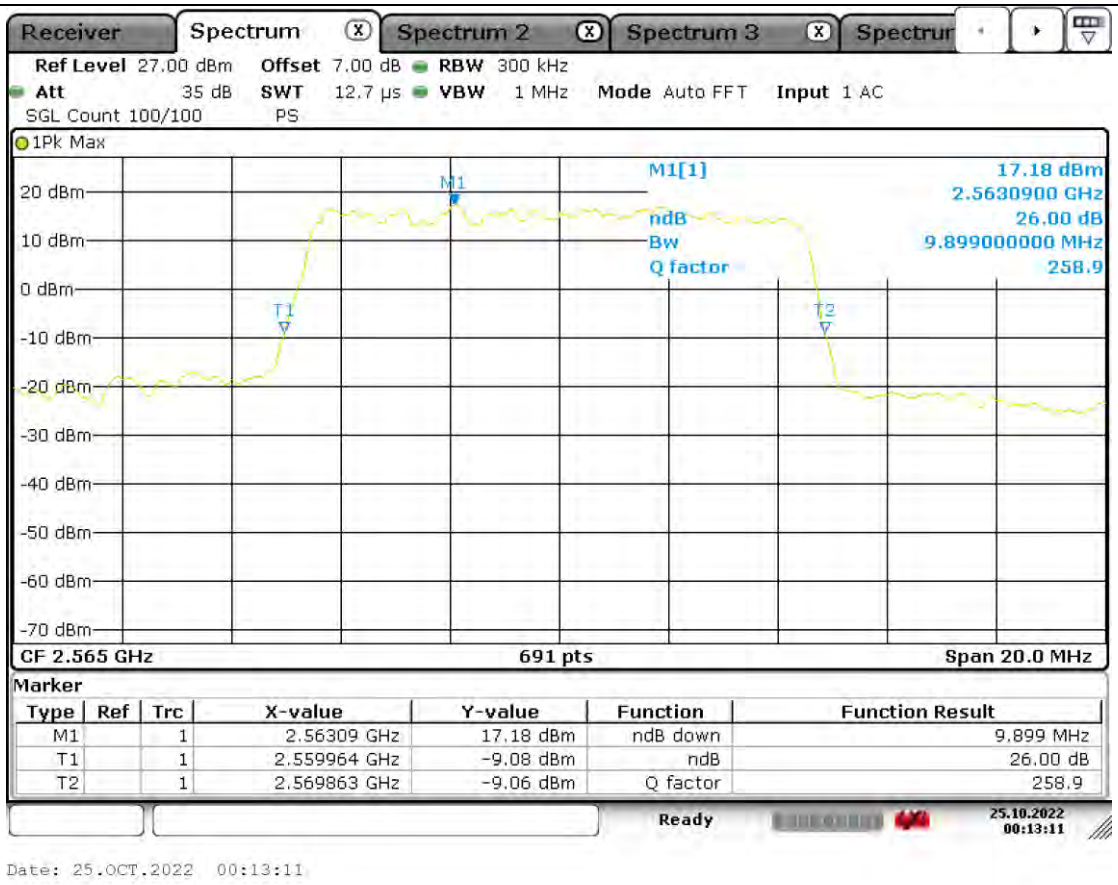

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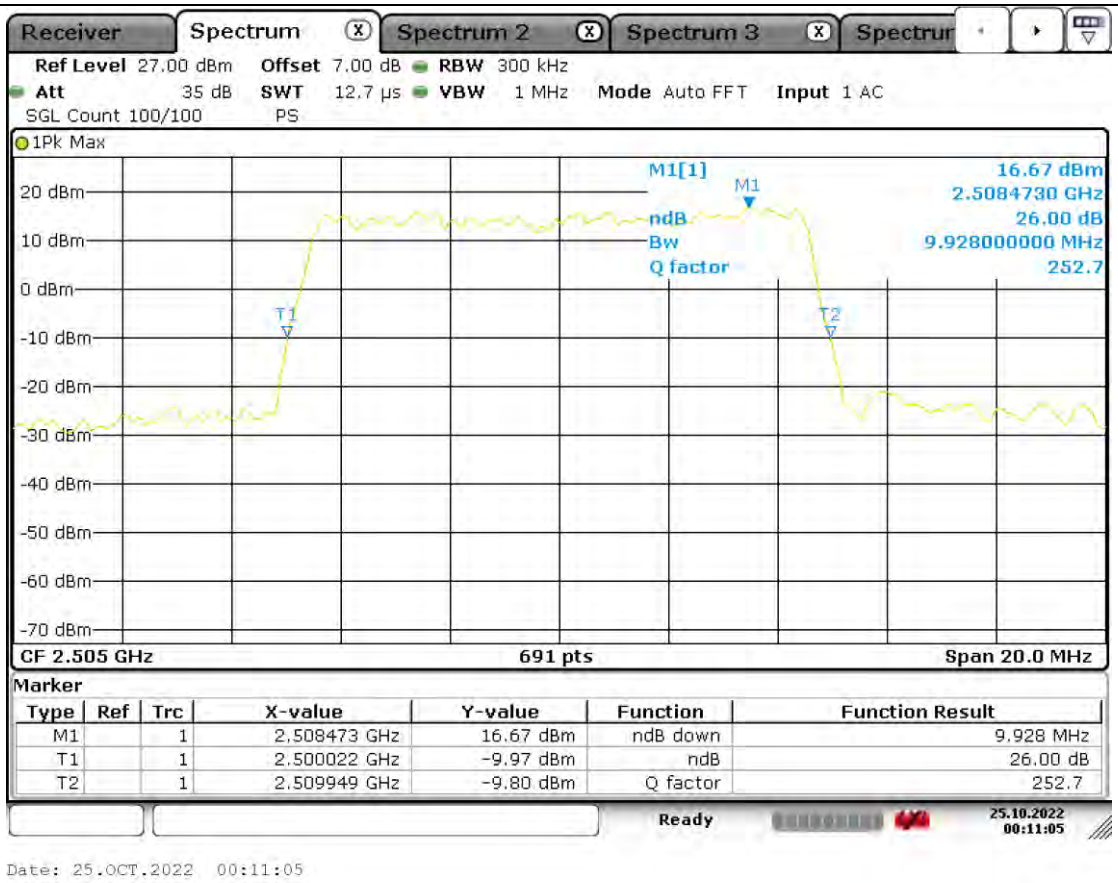

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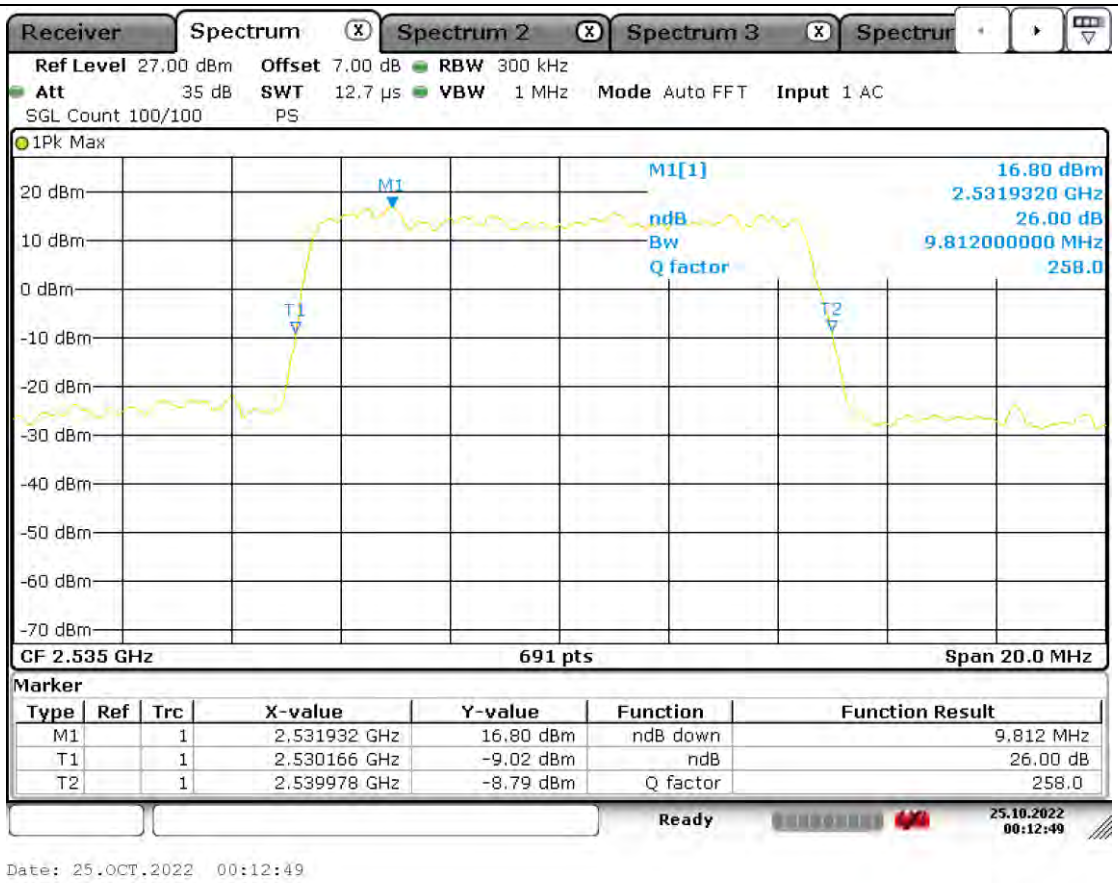

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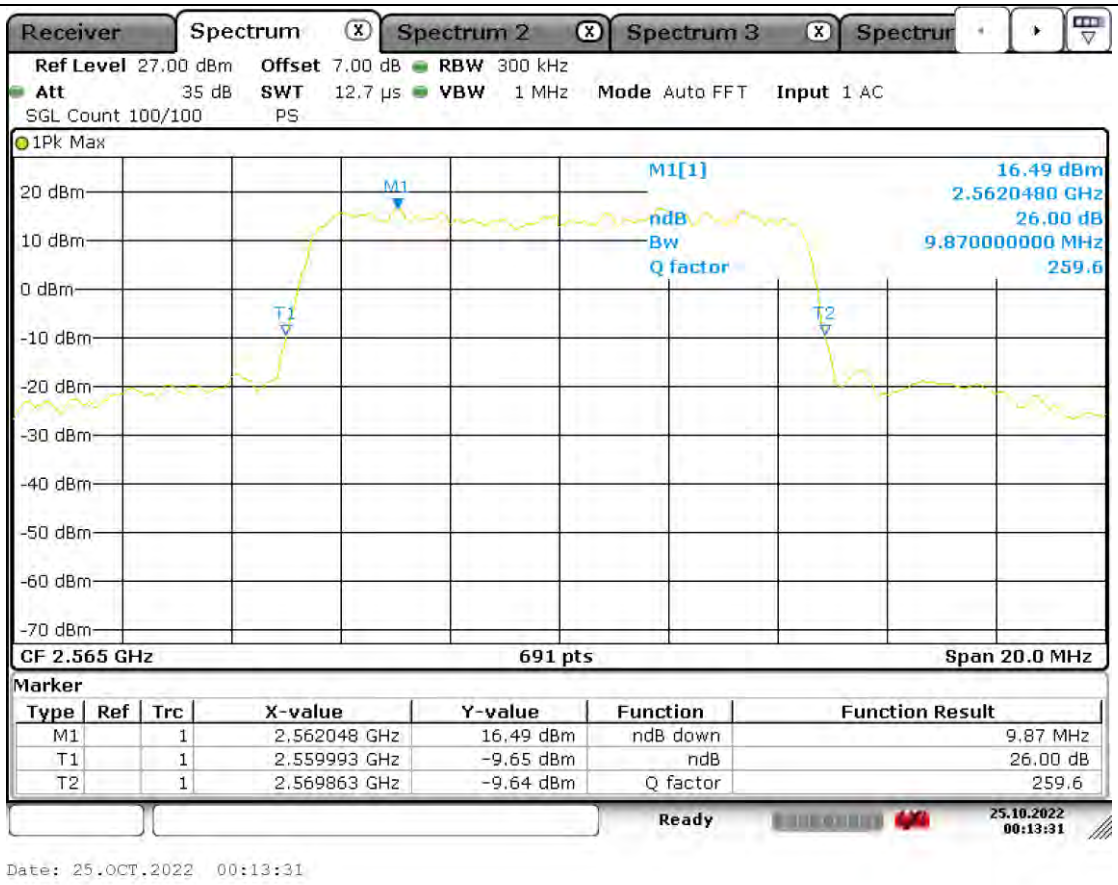
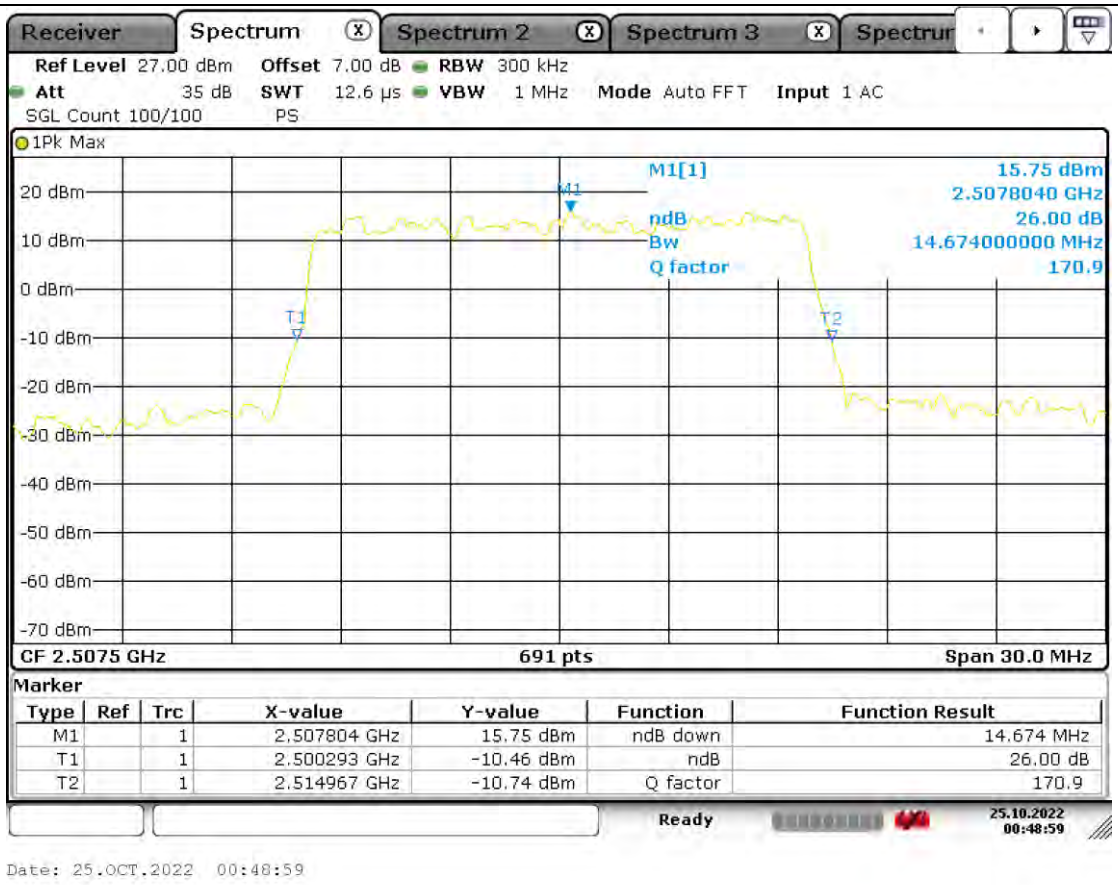


Band7-15MHz-QPSK-20825-75RB#0



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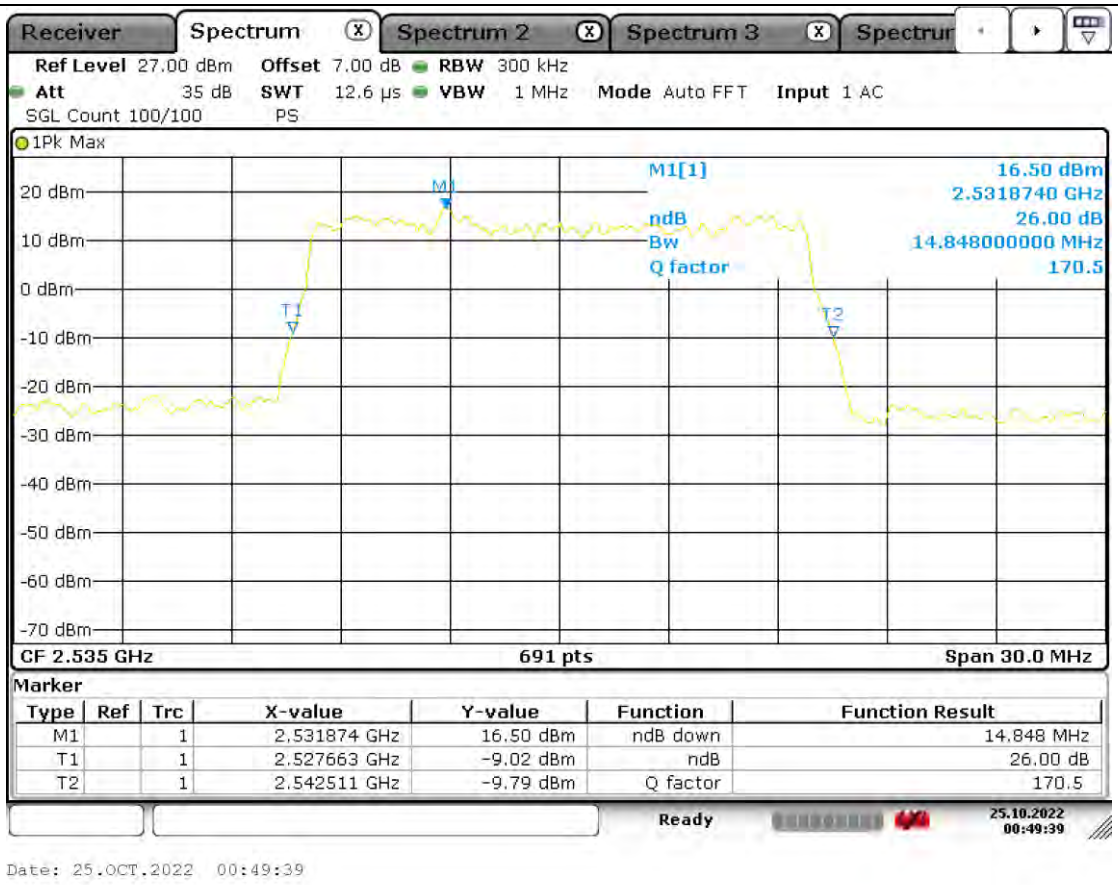

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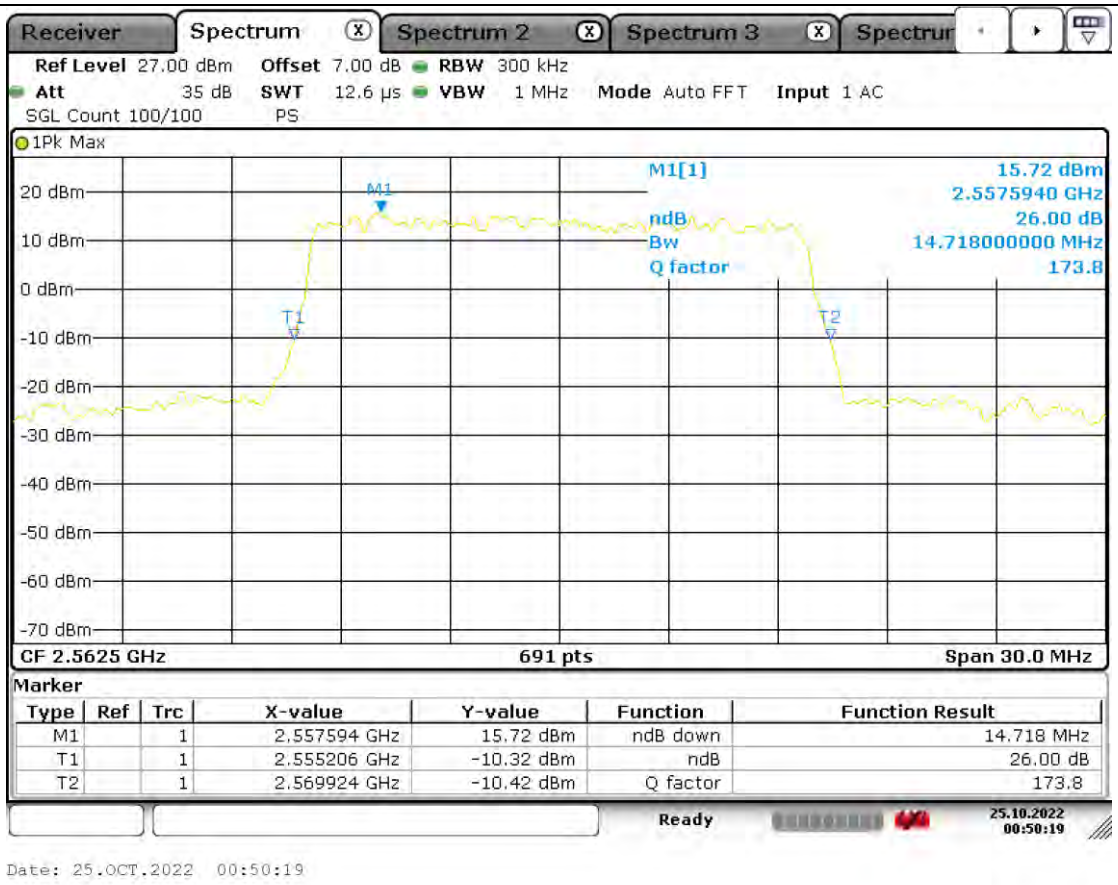

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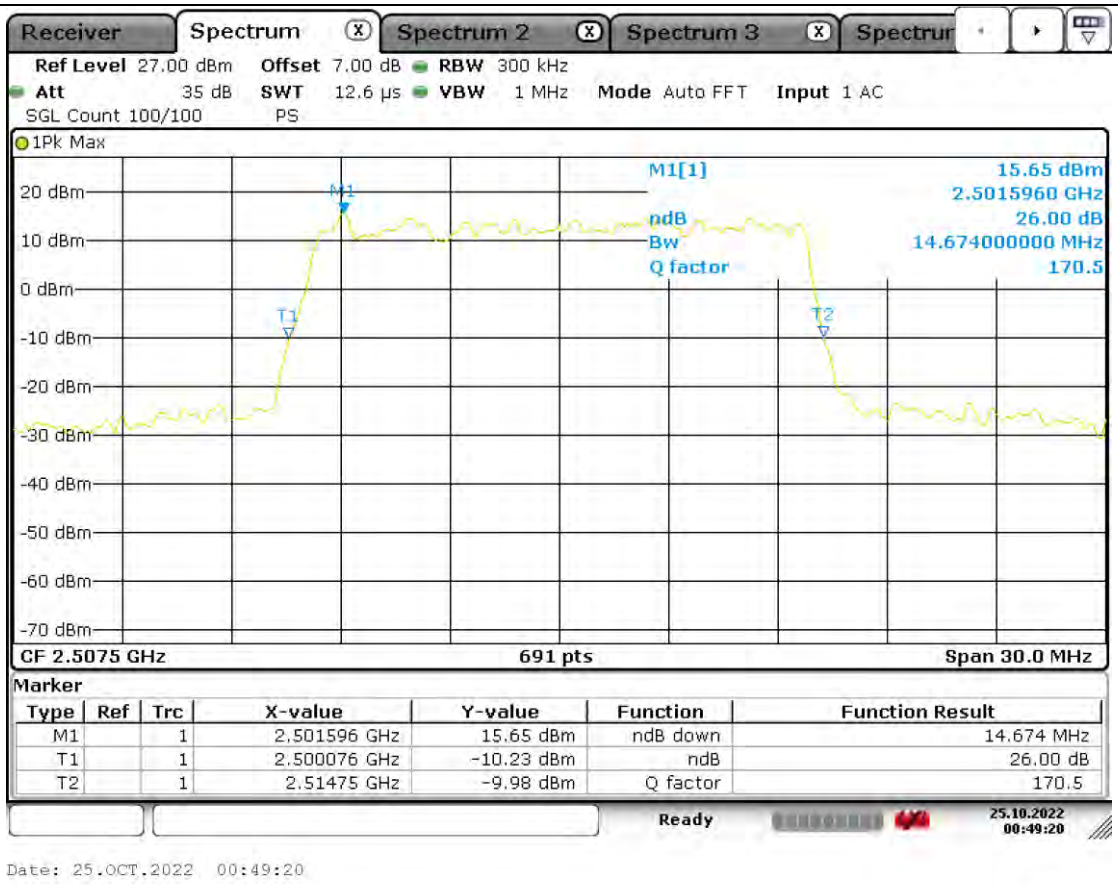

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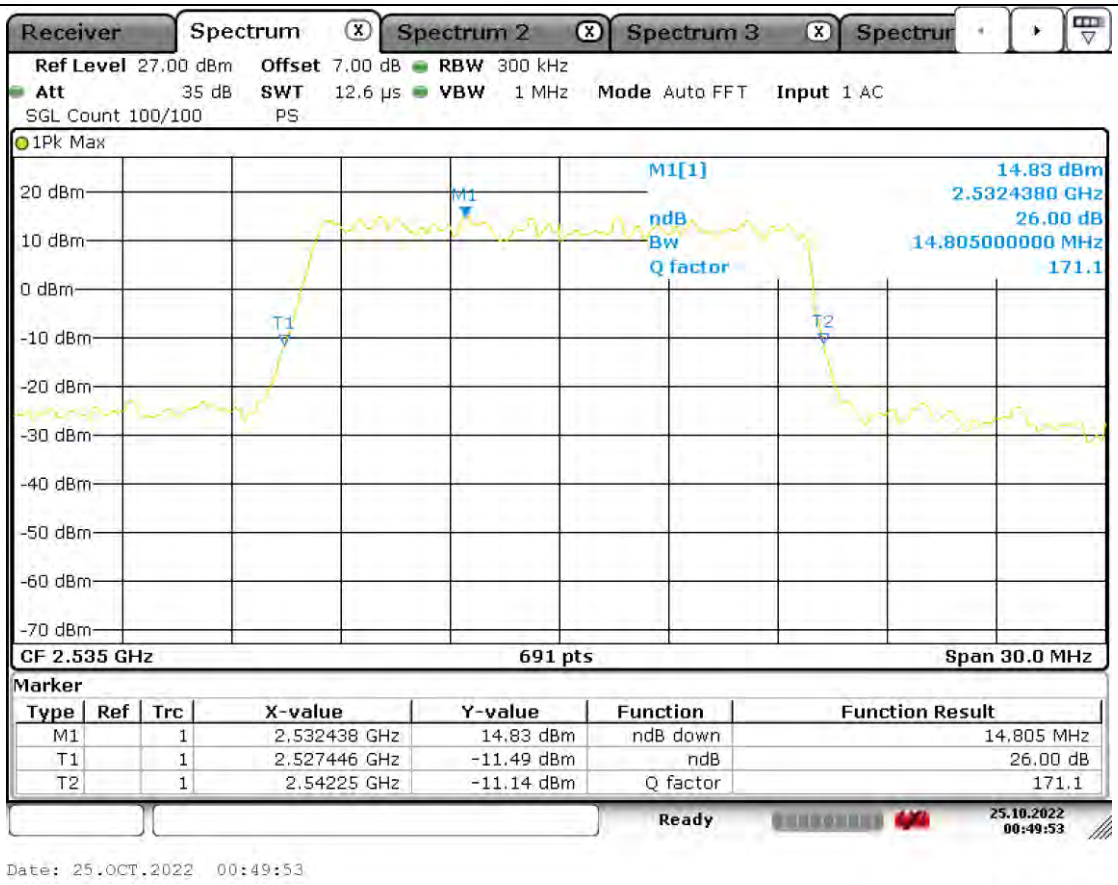

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