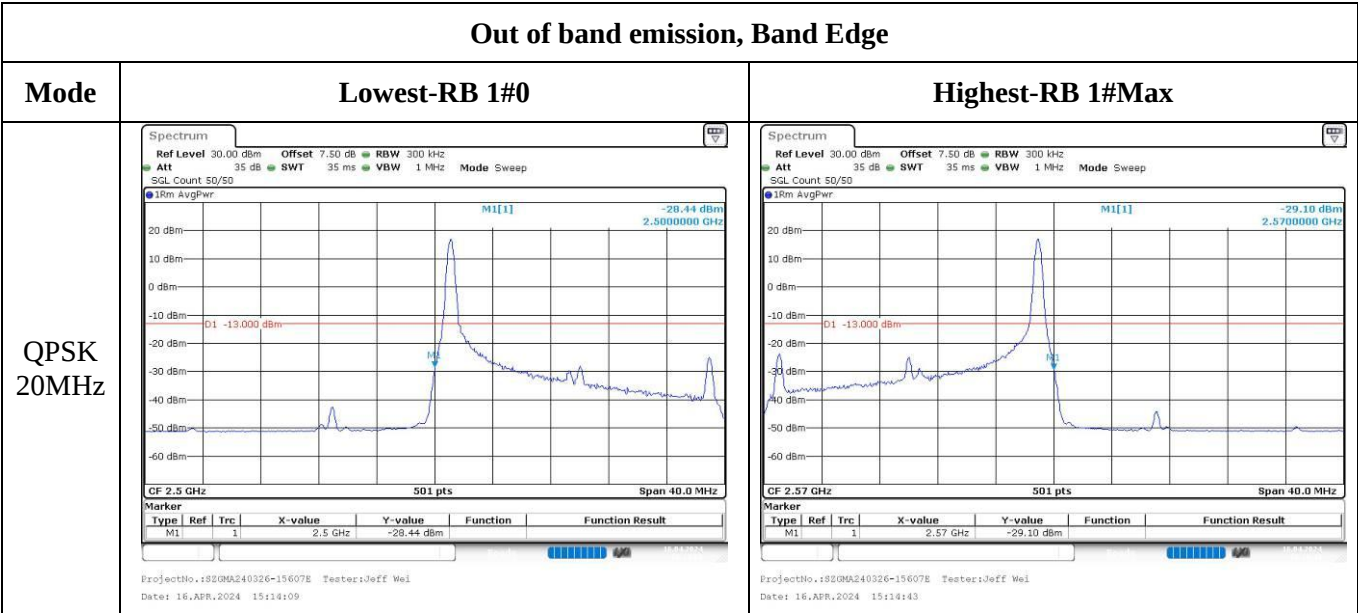
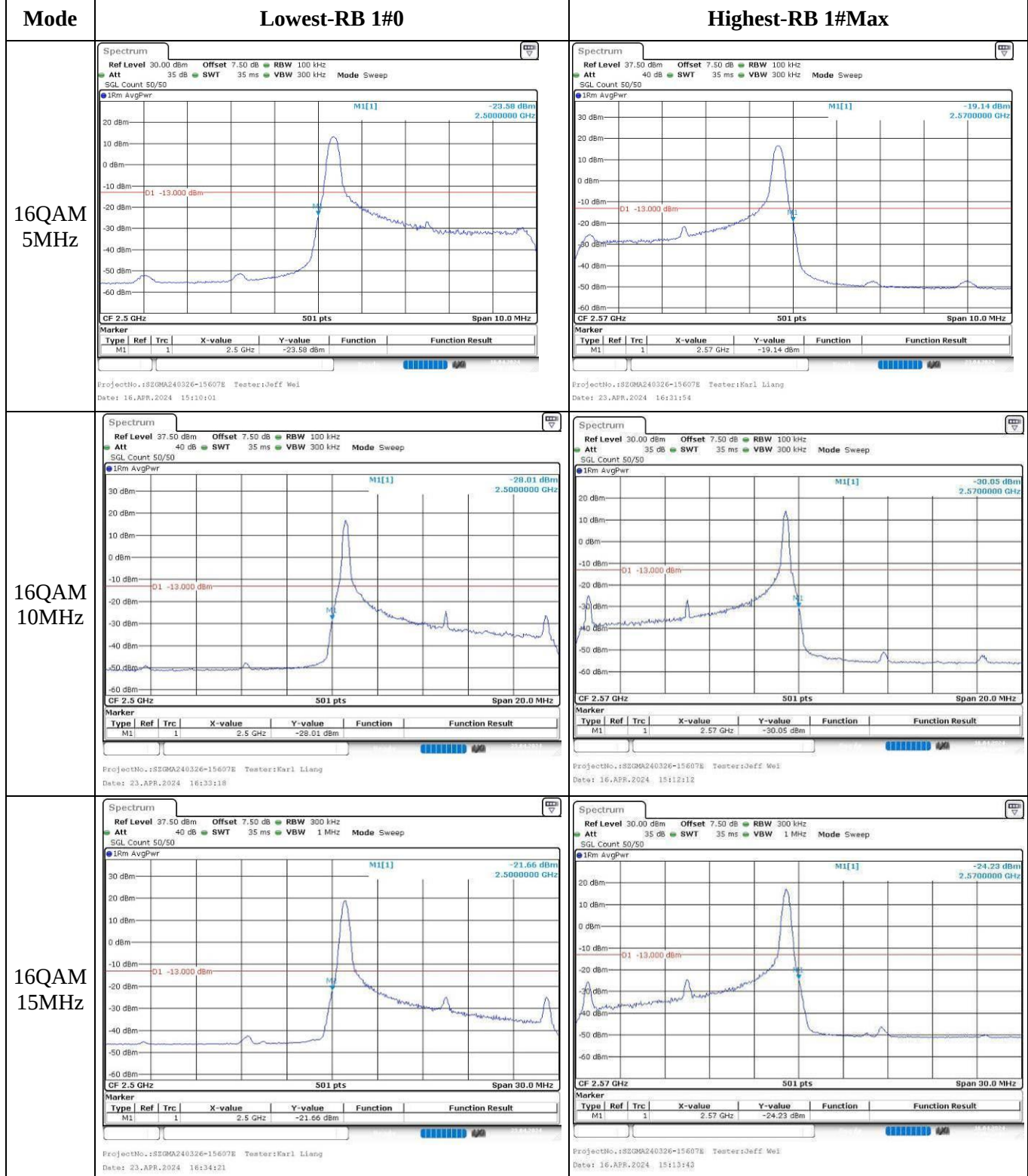


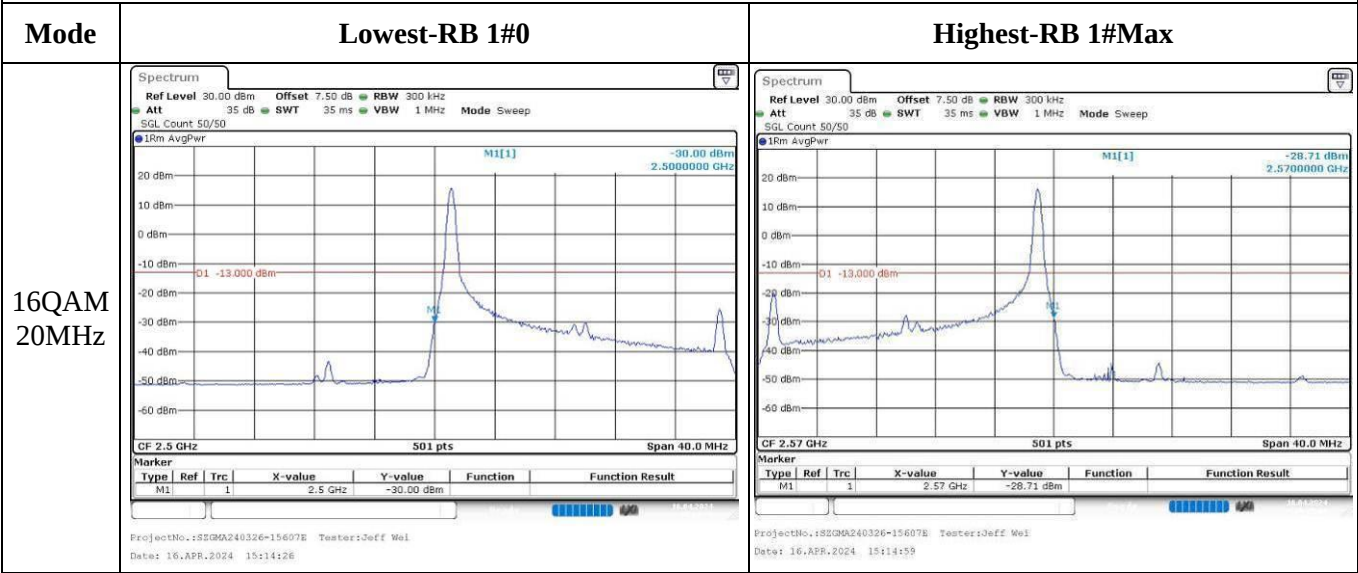
Out of band emission, Band Edge



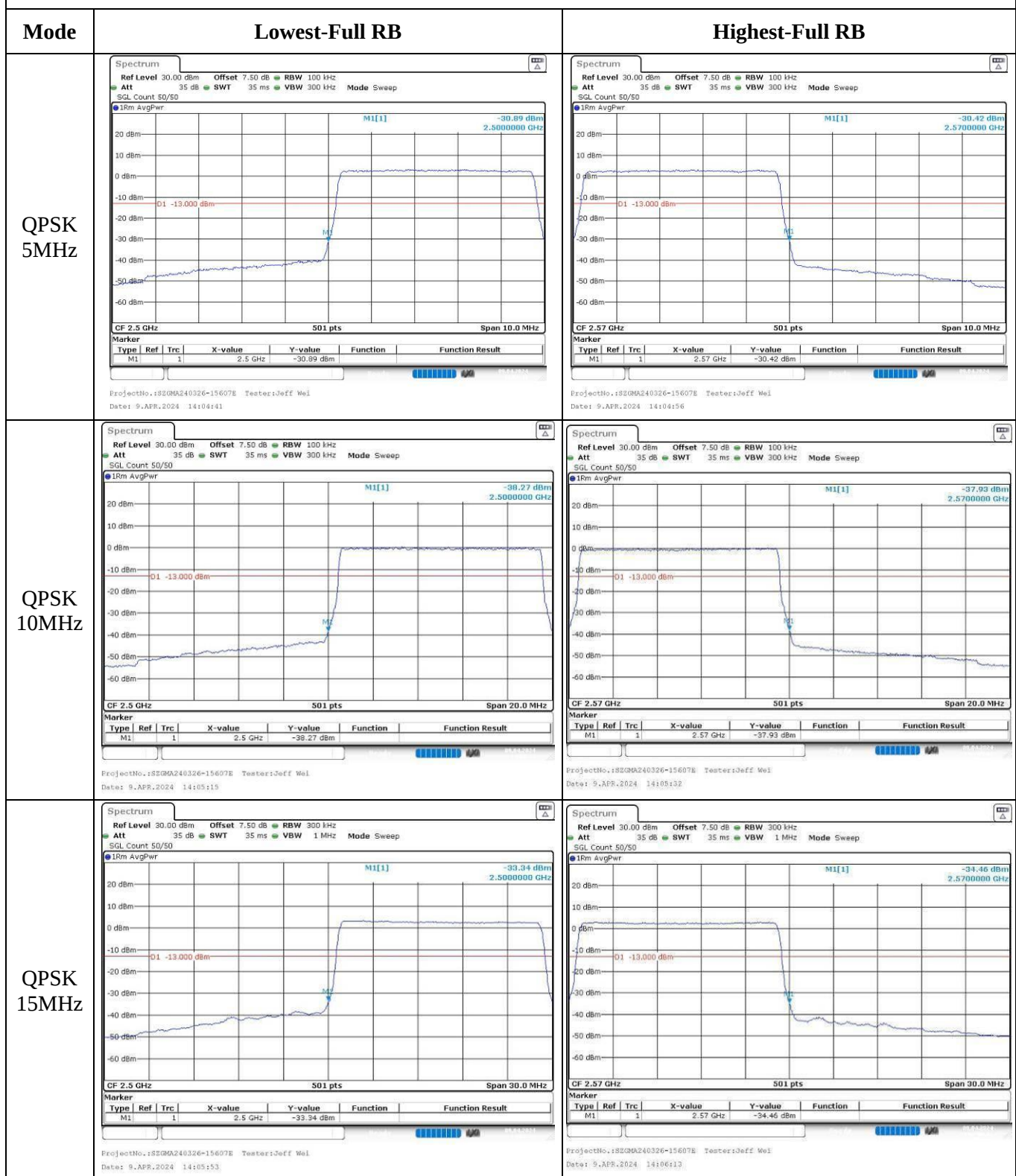
Out of band emission, Band Edge



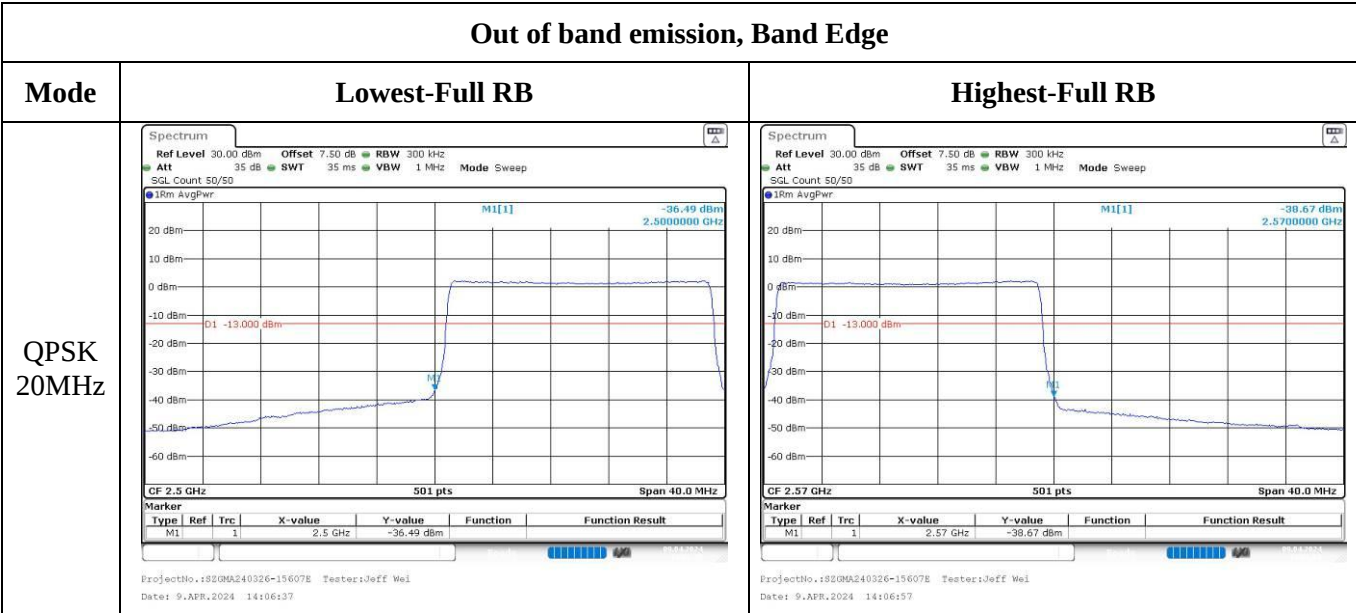
Out of band emission, Band Edge



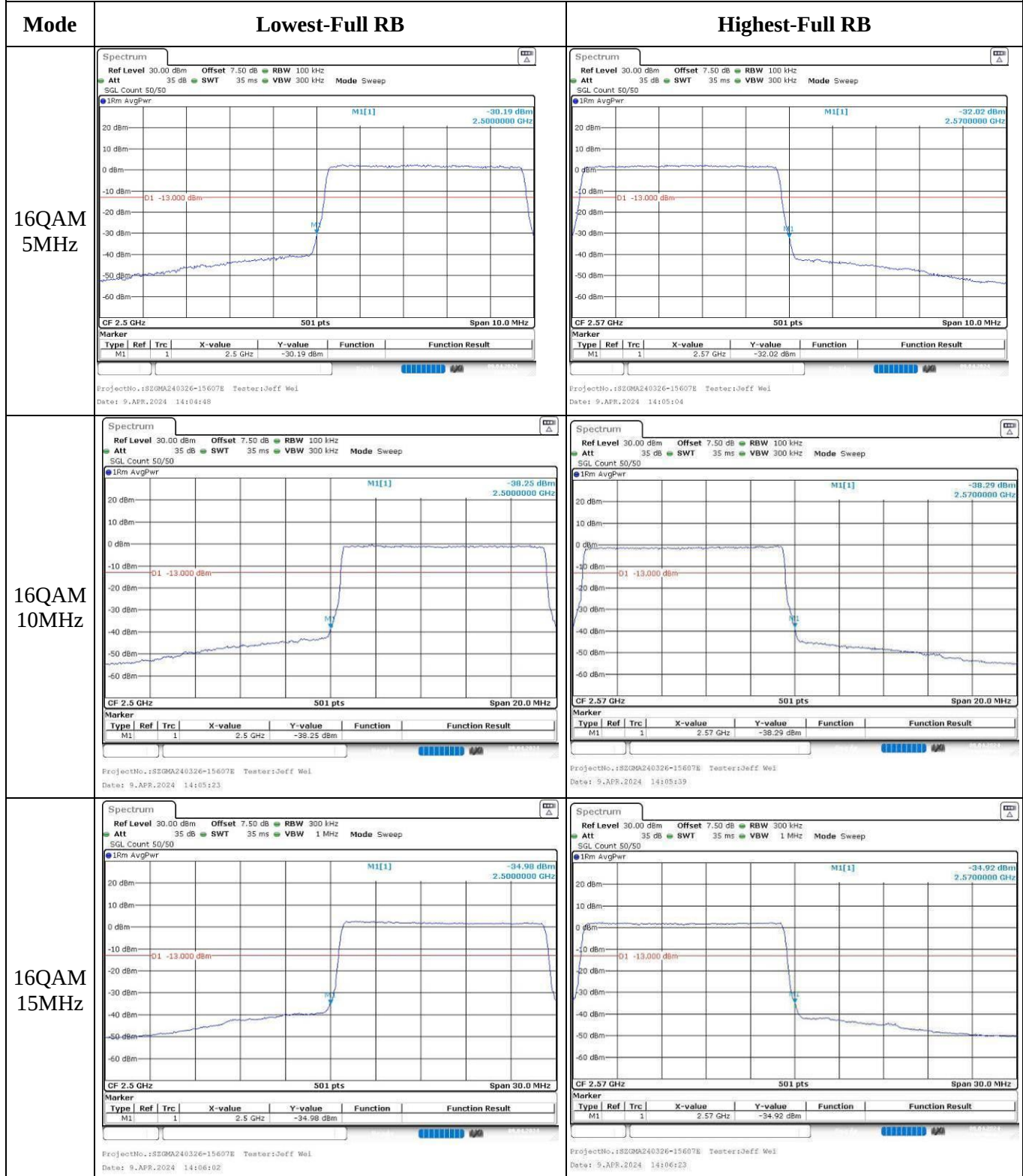
Out of band emission, Band Edge



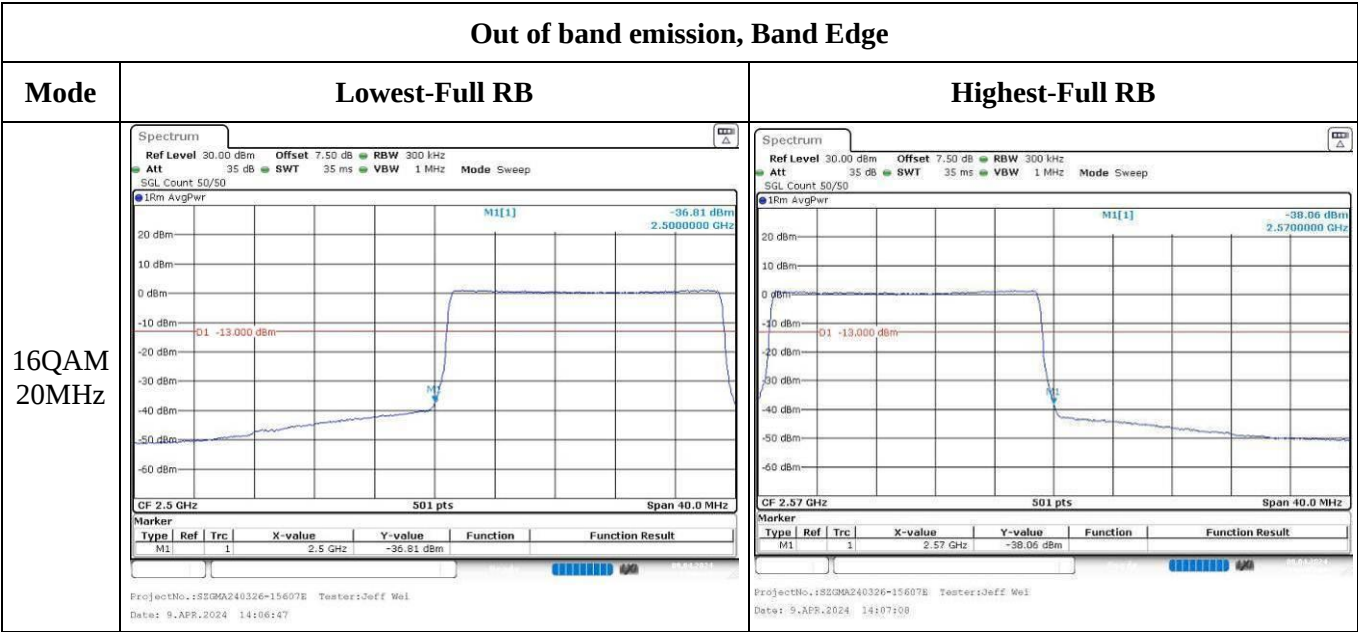
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



5.10 Antenna Port Test Data and Results for LTE Band 38

Serial Number:	2J4T-2	Test Date:	2024/4/9~2024/4/23
Test Site:	RF	Test Mode:	Transmitting
Tester:	Jeff Wei, Karl Liang	Test Result:	Pass

Environmental Conditions:					
Temperature: (°C)	25.1~27.2	Relative Humidity: (%)	49~72	ATM Pressure: (kPa)	100.0~101.2

Test Equipment List and Details:					
Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101461	2023/11/27	2024/11/26
Micro-Coax	Coaxial Cable	UFA210A	94089550	2023/9/1	2024/8/31
Minl-Clrcuts	Coaxial Power Splitters & Combiner	ZFRSC-183-S+	SF448201614	2024/2/25	2025/2/24
R&S	Wideband Radio Communication Tester	CMW500	144976	2023/10/18	2024/10/17
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30173	2023/10/18	2024/10/17
All-sun	Clamp Meter	EM305A	8348897	2023/8/3	2024/8/2
TDK-Lambda	DC Power Supply	Z+60-14	F-08-EM038-1	N/A	N/A

* Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency For Each Mode:			
Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2572.5	2595	2617.5
10MHz	2575	2595	2615
15MHz	2577.5	2595	2612.5
20MHz	2580	2595	2610

Test Data:**RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	19.6	19.14	19.23	18.68	33
	RB1#13	19.44	19.13	19.13		
	RB1#24	19.47	19.23	19.13		
	RB15#0	18.35	18.22	18.07		
	RB15#10	18.38	18.25	17.96		
	RB25#0	18.33	18.28	17.99		
5MHz 16QAM	RB1#0	18.92	18.18	17.8	18	33
	RB1#13	18.83	17.99	18.28		
	RB1#24	18.88	18.18	17.92		
	RB15#0	17.68	17.56	17.31		
	RB15#10	17.7	17.55	17.21		
	RB25#0	17.68	17.17	17.3		
10MHz QPSK	RB1#0	19.7	19.26	19.05	18.8	33
	RB1#25	19.65	19.28	19.08		
	RB1#49	19.72	19.27	18.99		
	RB25#0	18.49	18.38	18.2		
	RB25#25	18.49	18.34	18.17		
	RB50#0	18.47	18.36	18.18		
10MHz 16QAM	RB1#0	18.92	19.12	18.16	18.49	33
	RB1#25	19.41	19	18.1		
	RB1#49	19.14	19.28	17.94		
	RB25#0	17.62	17.68	17.31		
	RB25#25	17.61	17.64	17.26		
	RB50#0	17.73	17.42	17.28		
15MHz QPSK	RB1#0	19.81	19.1	19.17	18.89	33
	RB1#38	19.66	18.98	19.11		
	RB1#74	19.52	19.05	18.97		
	RB36#0	18.46	18.43	18.15		
	RB36#39	18.47	18.28	18.13		
	RB75#0	18.46	18.35	18.23		
15MHz 16QAM	RB1#0	19.01	18.6	18.18	18.43	33
	RB1#38	19.35	18.49	18.21		
	RB1#74	18.96	18.39	17.96		
	RB36#0	17.69	17.49	17.27		
	RB36#39	17.7	17.49	17.22		
	RB75#0	17.73	17.41	17.29		
20MHz QPSK	RB1#0	19.49	19.5	19.14	18.58	33
	RB1#50	19.37	19.34	19.14		
	RB1#99	19.36	19.38	19.03		
	RB50#0	18.37	18.37	18.17		

	RB50#50	18.34	18.19	18.09		
	RB100#0	18.39	18.27	18.14		
20MHz 16QAM	RB1#0	18.33	19.08	18.54	18.16	33
	RB1#50	18.2	19	18.48		
	RB1#99	18.18	18.94	18.31		
	RB50#0	17.69	17.56	17.45		
	RB50#50	17.54	17.39	17.38		
	RB100#0	17.62	17.44	17.26		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + G _T (dBi)						
				Result:	Pass	

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	9.54	9.57	9.25	13
	RB100#0	8.49	8.49	8.52	13
20MHz 16QAM	RB1#0	10.29	10.03	9.88	13
	RB100#0	9.91	9.91	9.91	13
				Result:	Pass

Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.511	4.491	4.511	4.98	4.98	5.02
5MHz 16QAM	4.491	4.511	4.511	5	4.96	5
10MHz QPSK	8.982	8.942	8.982	9.84	9.92	9.84
10MHz 16QAM	8.942	8.942	8.942	9.76	9.8	9.76
15MHz QPSK	13.473	13.533	13.533	15.3	15.78	15.54
15MHz 16QAM	13.593	13.533	13.533	15.12	15.18	15.06
20MHz QPSK	17.964	18.044	18.044	19.52	19.84	19.68
20MHz 16QAM	17.964	17.964	17.964	20.48	19.68	19.68
Note: The test plots please refer to the Plots of Occupied Bandwidth						

Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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Out of band emission, Band Edge

Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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Frequency Stability

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.7	2571.022	2570.00	2618.995	2620
	-20	3.7	2571.040	2570.00	2619.001	2620
	-10	3.7	2571.046	2570.00	2619.019	2620
	0	3.7	2571.049	2570.00	2618.995	2620
	10	3.7	2571.043	2570.00	2619.010	2620
	20	3.7	2571.058	2570.00	2619.022	2620
	30	3.7	2571.085	2570.00	2619.040	2620
	40	3.7	2571.067	2570.00	2619.028	2620
	50	3.7	2571.082	2570.00	2619.049	2620
Frequency Stability vs. Voltage	20	3.4	2571.073	2570.00	2619.034	2620
	20	4.35	2571.067	2570.00	2619.037	2620
					Result:	Pass

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.7	2571.034	2570.00	2618.998	2620
	-20	3.7	2571.040	2570.00	2618.998	2620
	-10	3.7	2571.049	2570.00	2619.019	2620
	0	3.7	2571.034	2570.00	2619.010	2620
	10	3.7	2571.043	2570.00	2618.995	2620
	20	3.7	2571.058	2570.00	2619.022	2620
	30	3.7	2571.064	2570.00	2619.043	2620
	40	3.7	2571.064	2570.00	2619.037	2620
	50	3.7	2571.061	2570.00	2619.025	2620
Frequency Stability vs. Voltage	20	3.4	2571.085	2570.00	2619.025	2620
	20	4.35	2571.085	2570.00	2619.040	2620
					Result:	Pass

Test Plots

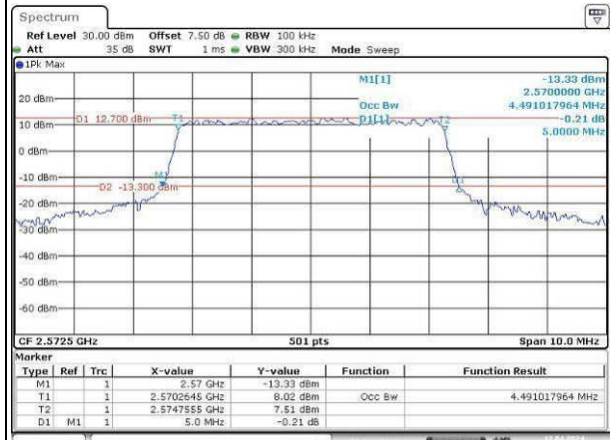
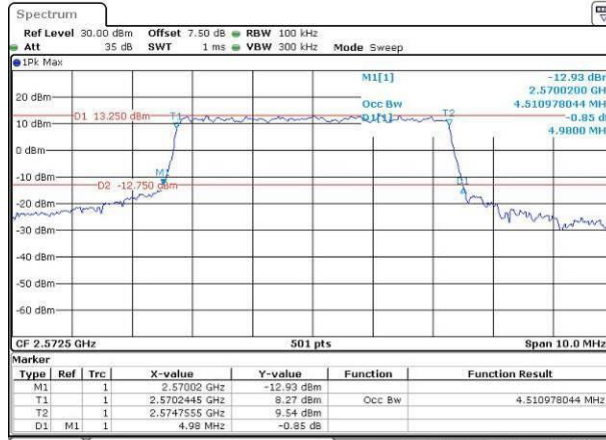
Occupied Bandwidth

Channel

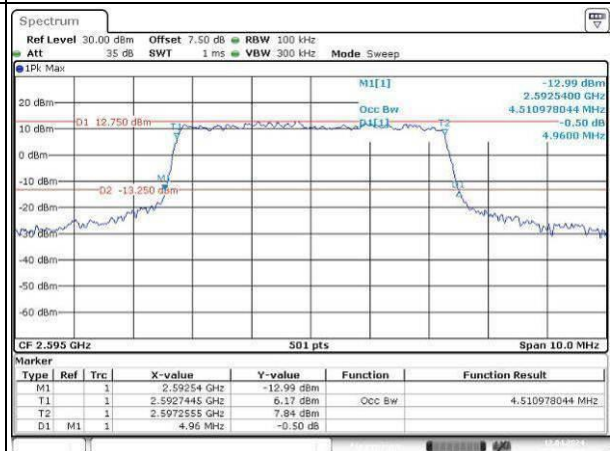
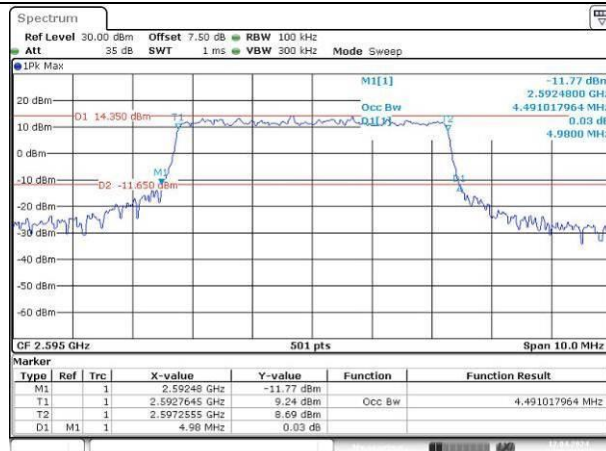
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

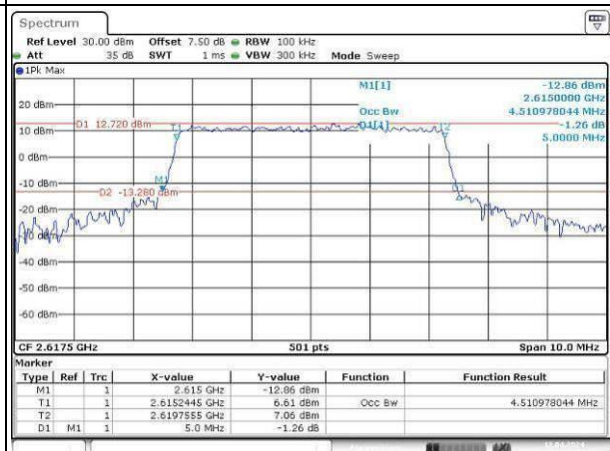
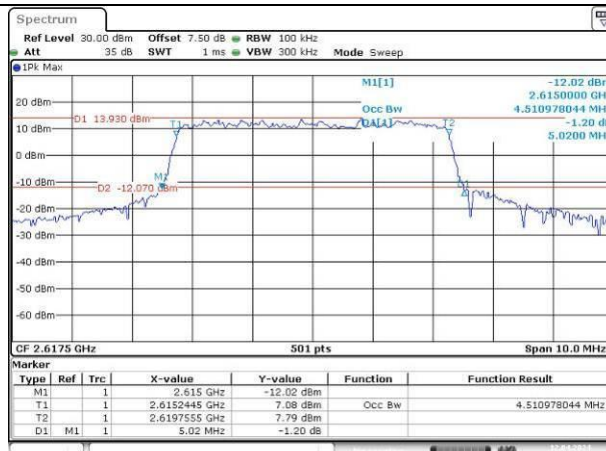
Lowest



Middle



Highest



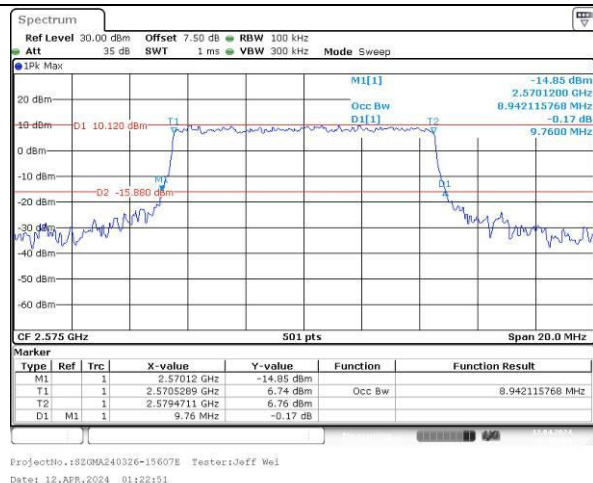
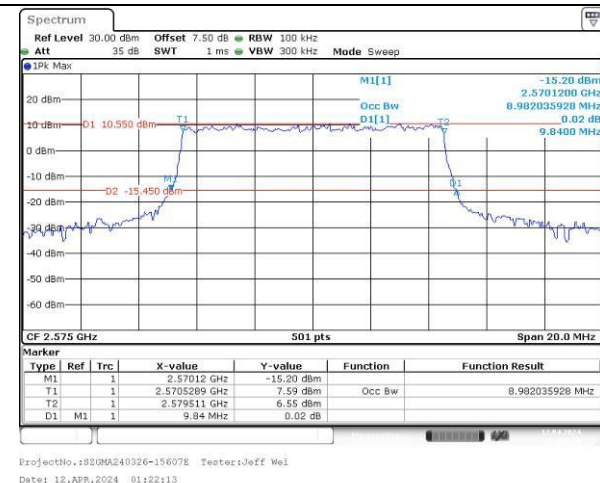
Occupied Bandwidth

Channel

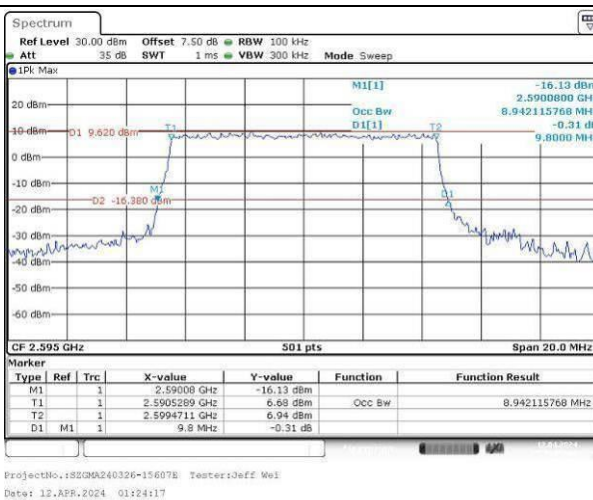
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

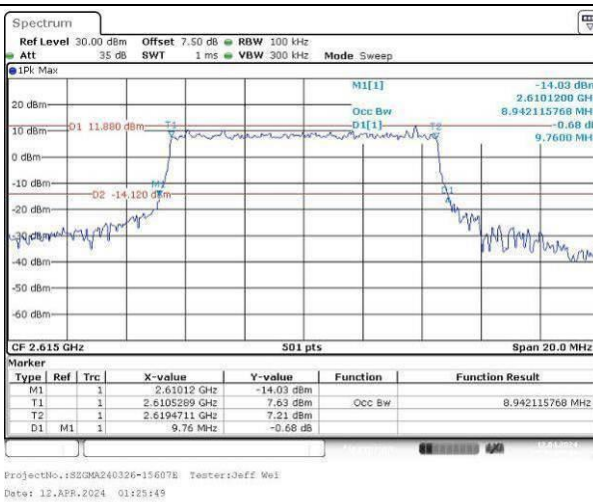
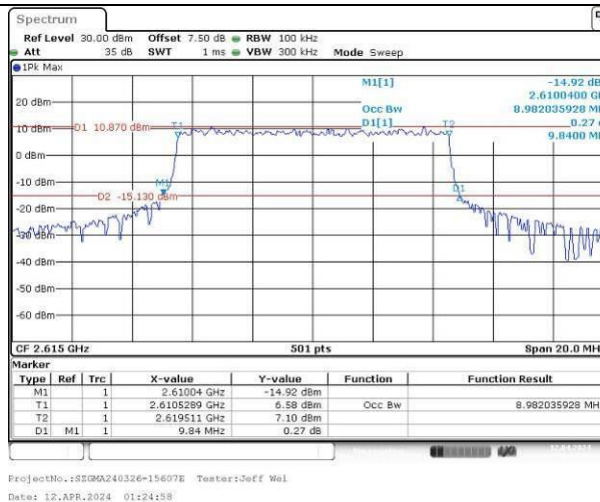
Lowest



Middle



Highest



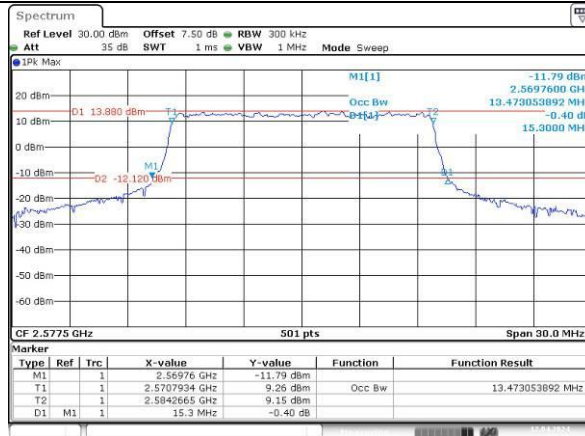
Occupied Bandwidth

Channel

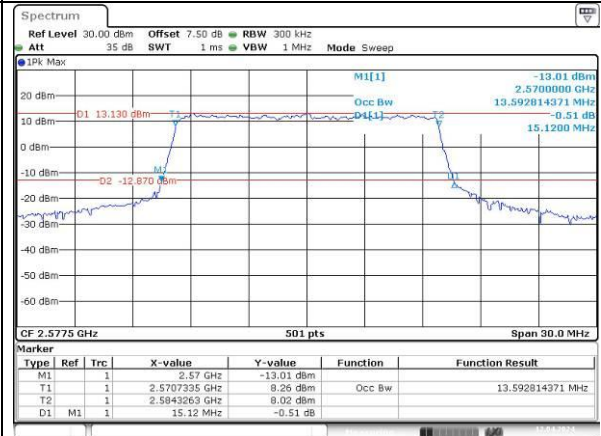
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

Lowest

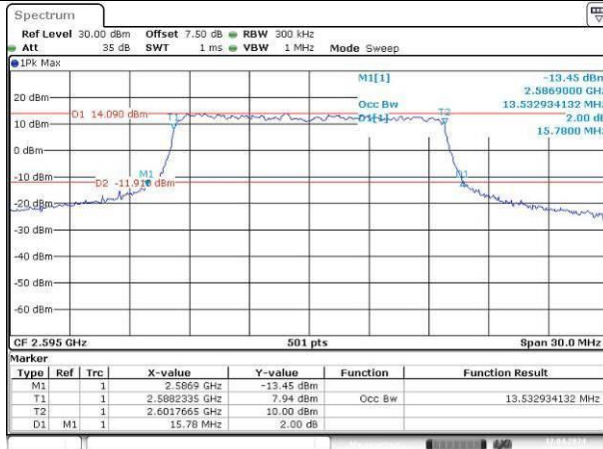


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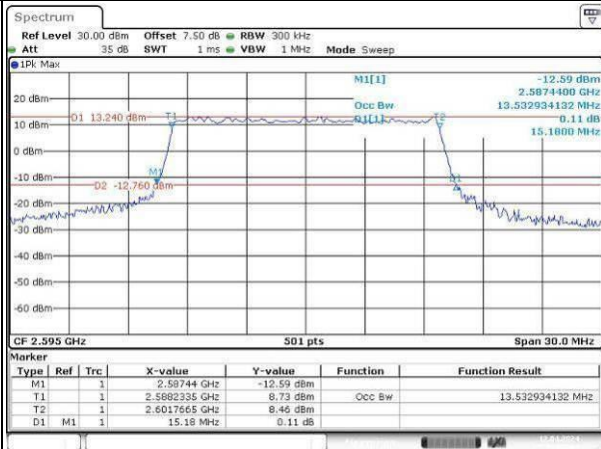


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Date: 12.APR.2024 01:26:44

Middle

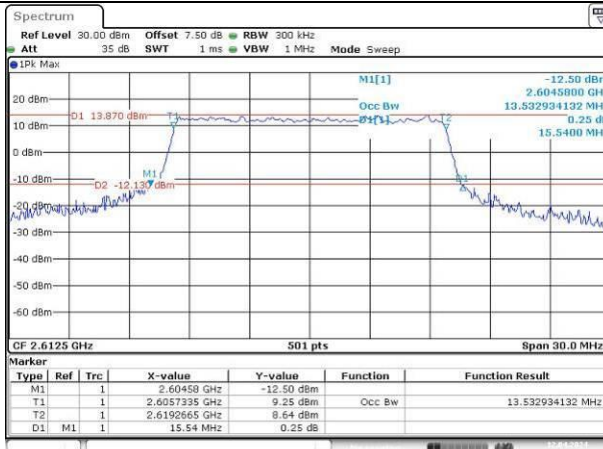


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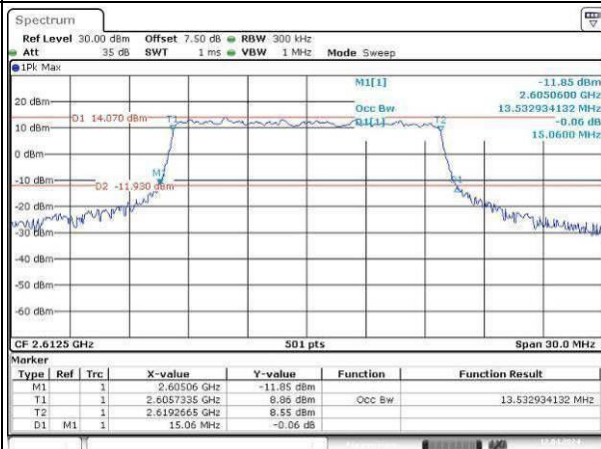


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 01:27:54

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 01:28:30



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 01:29:12

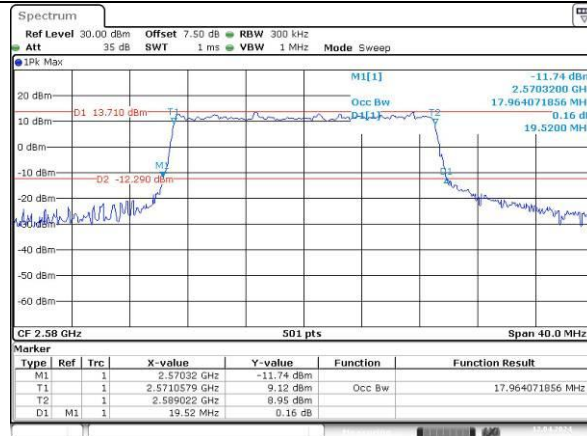
Occupied Bandwidth

Channel

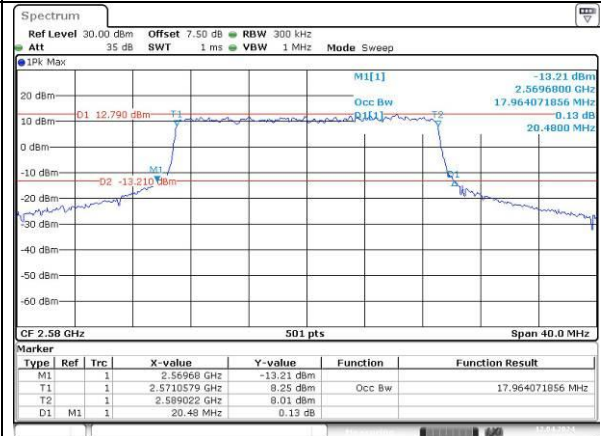
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

Lowest

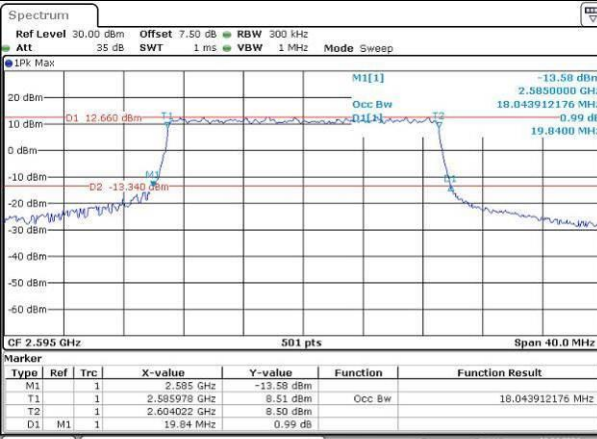


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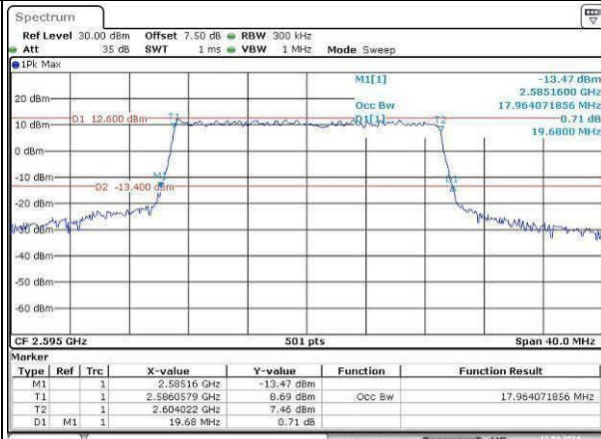


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Date: 12.APR.2024 01:30:24

Middle

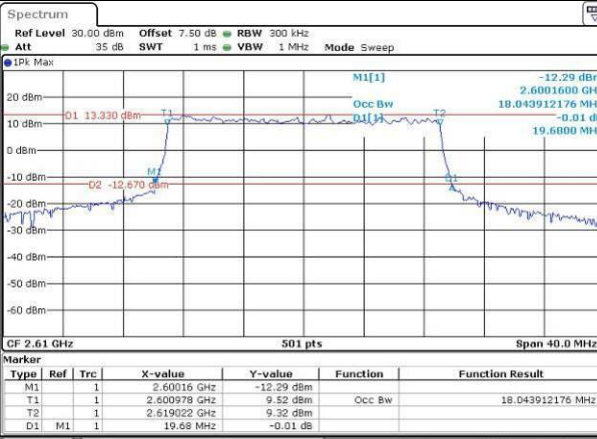


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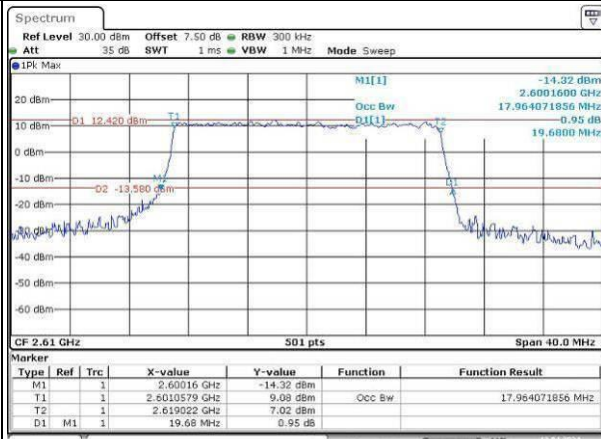


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Date: 12.APR.2024 01:31:43

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 01:32:22



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Date: 12.APR.2024 01:32:55

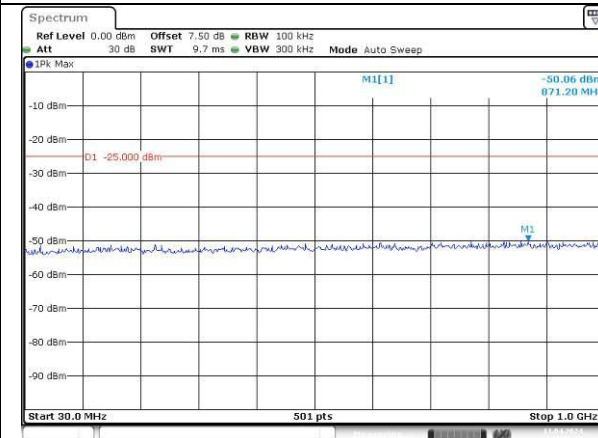
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Spurious Emissions at Antenna Terminal

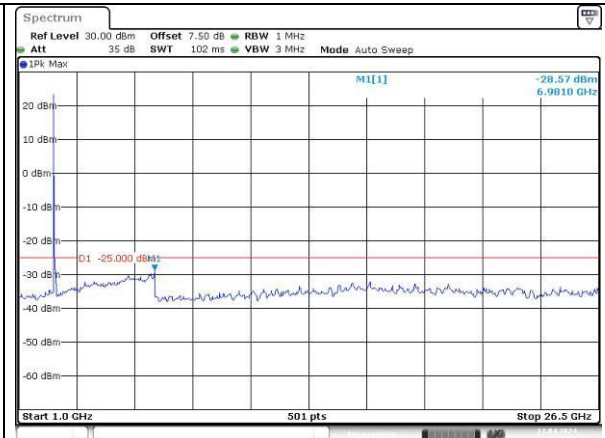
Channel

5MHz Bandwidth QPSK

Lowest

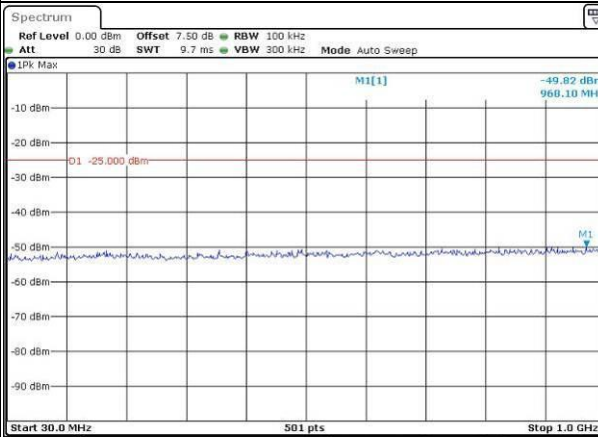


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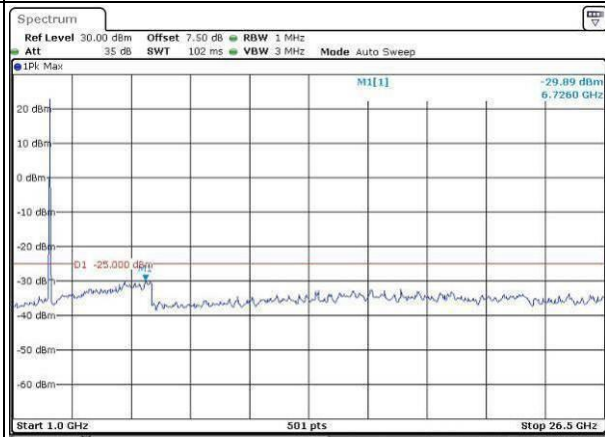


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Date: 11.APR.2024 15:38:02

Middle

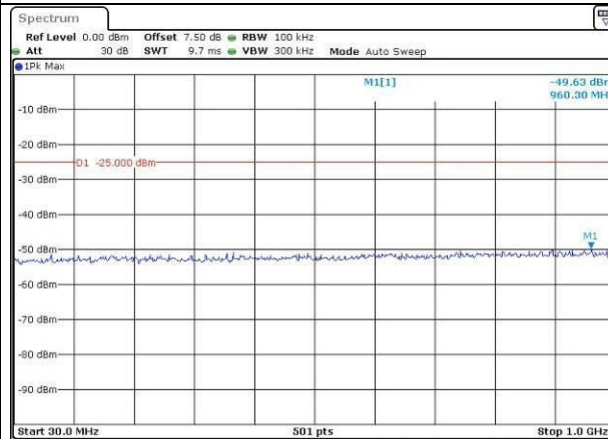


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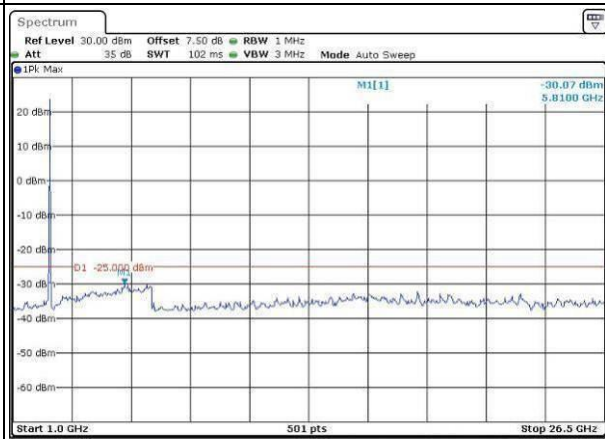


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Highest



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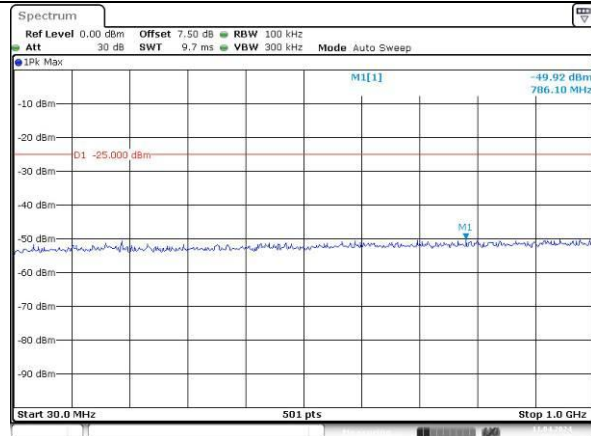
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Spurious Emissions at Antenna Terminal

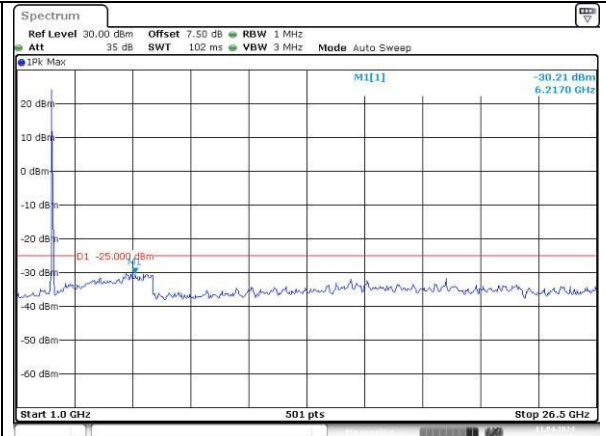
Channel

10MHz Bandwidth QPSK

Lowest

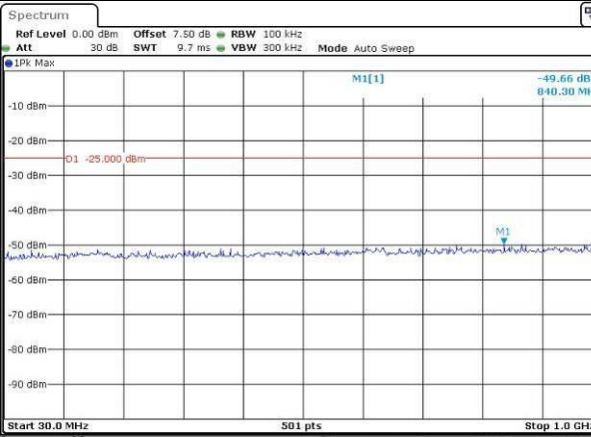


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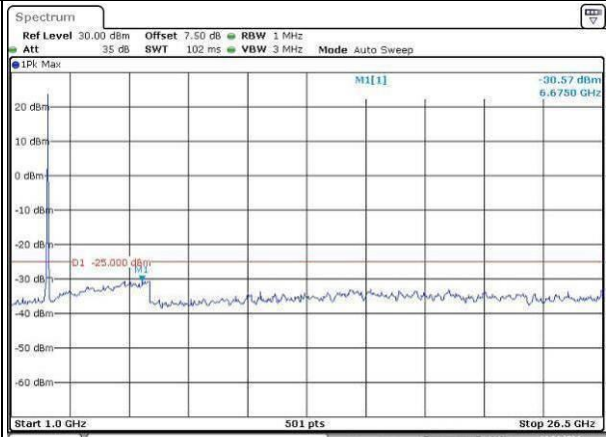


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:42:47

Middle

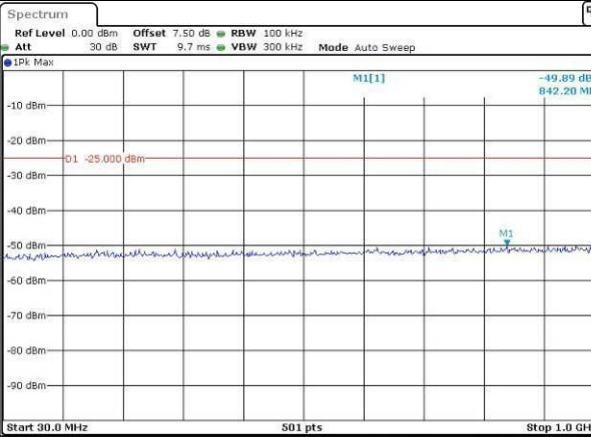


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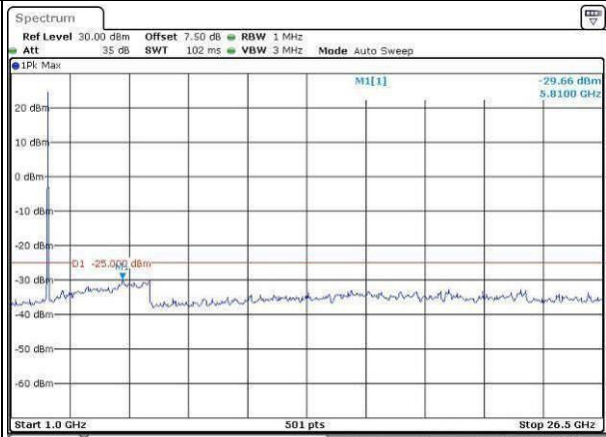


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:43:38

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:44:16



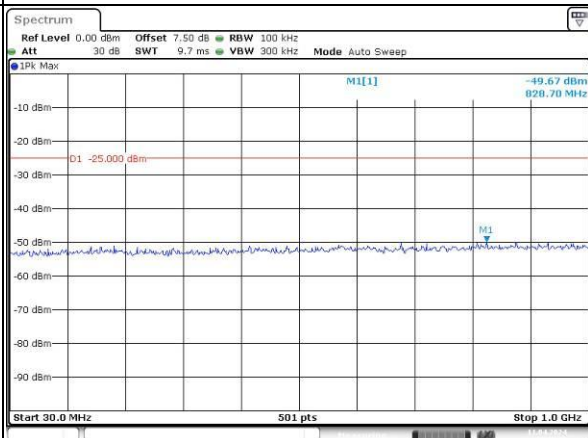
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Spurious Emissions at Antenna Terminal

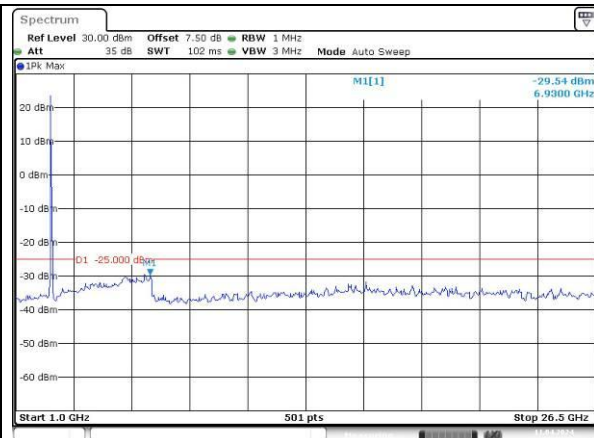
Channel

15MHz Bandwidth QPSK

Lowest

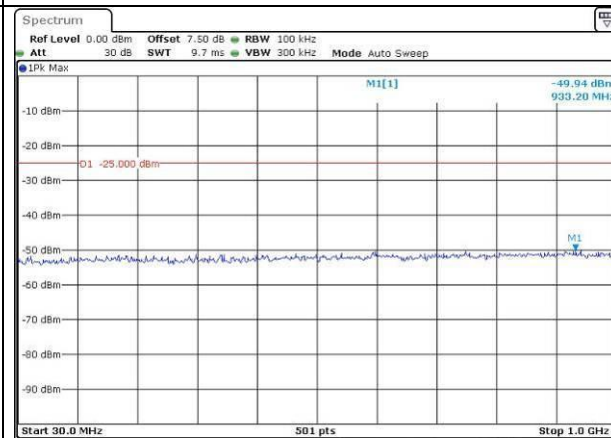


ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:45:15

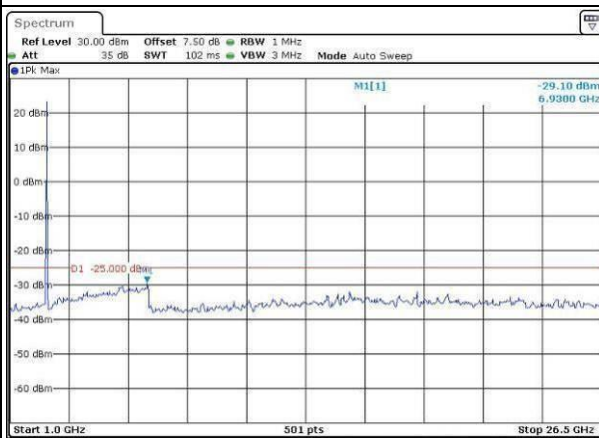


ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:45:37

Middle

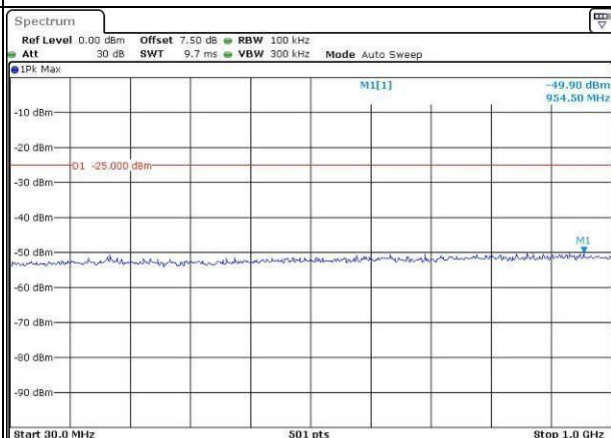


ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:46:17

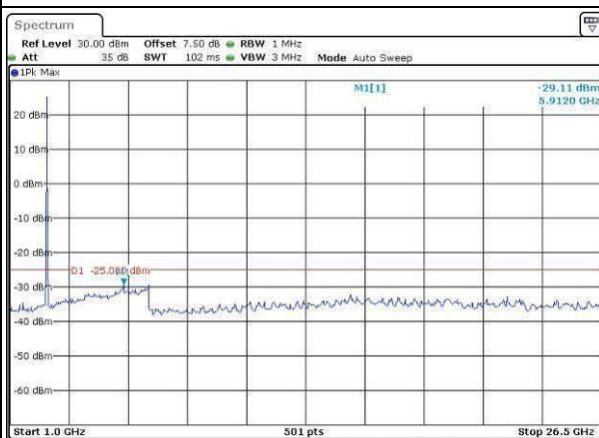


ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:46:39

Highest



ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:47:18



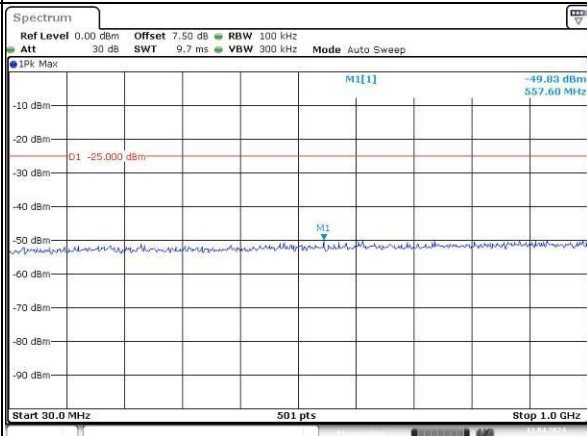
ProjectNo.:SZGMA240326-15607E Tester:Jeff Wei
Date: 11.APR.2024 15:47:50

Spurious Emissions at Antenna Terminal

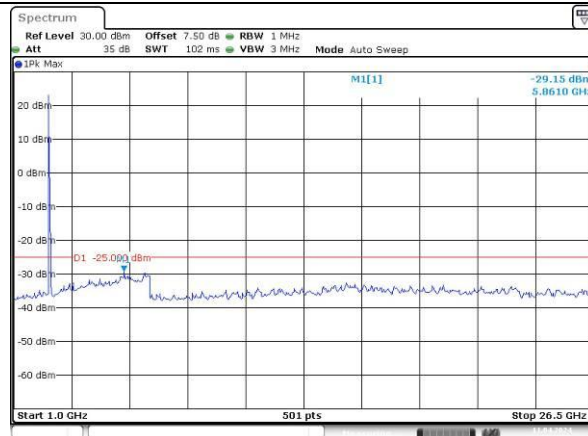
Channel

20MHz Bandwidth QPSK

Lowest

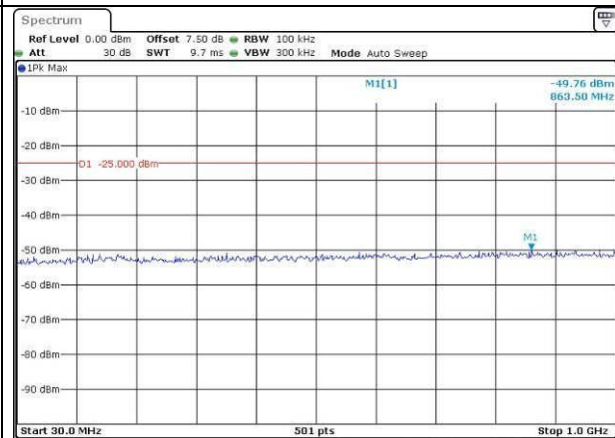


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:48:32

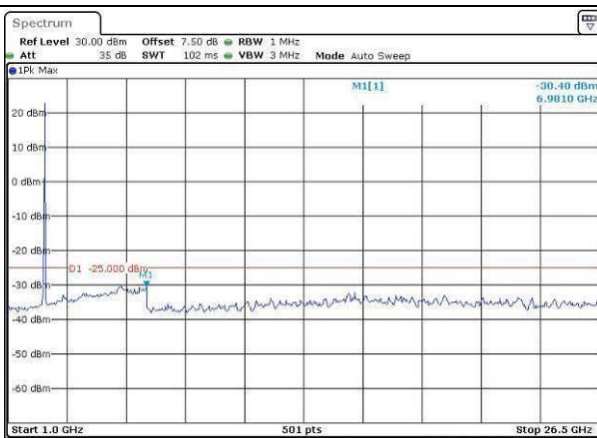


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:48:54

Middle

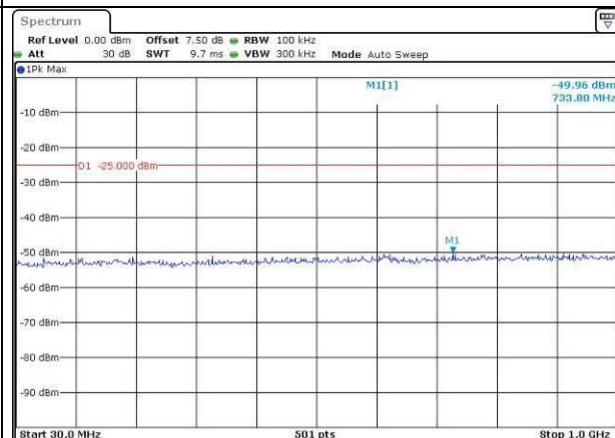


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:49:36

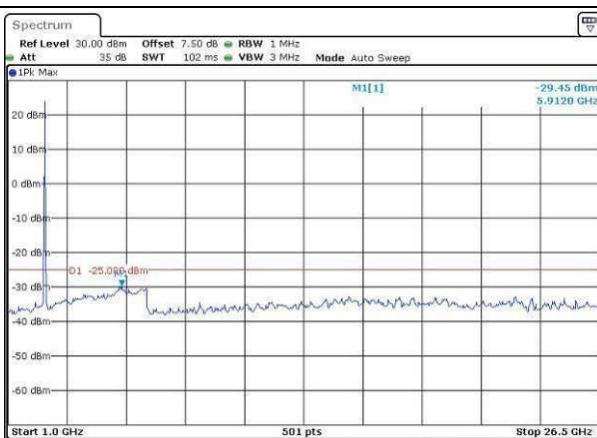


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:49:58

Highest

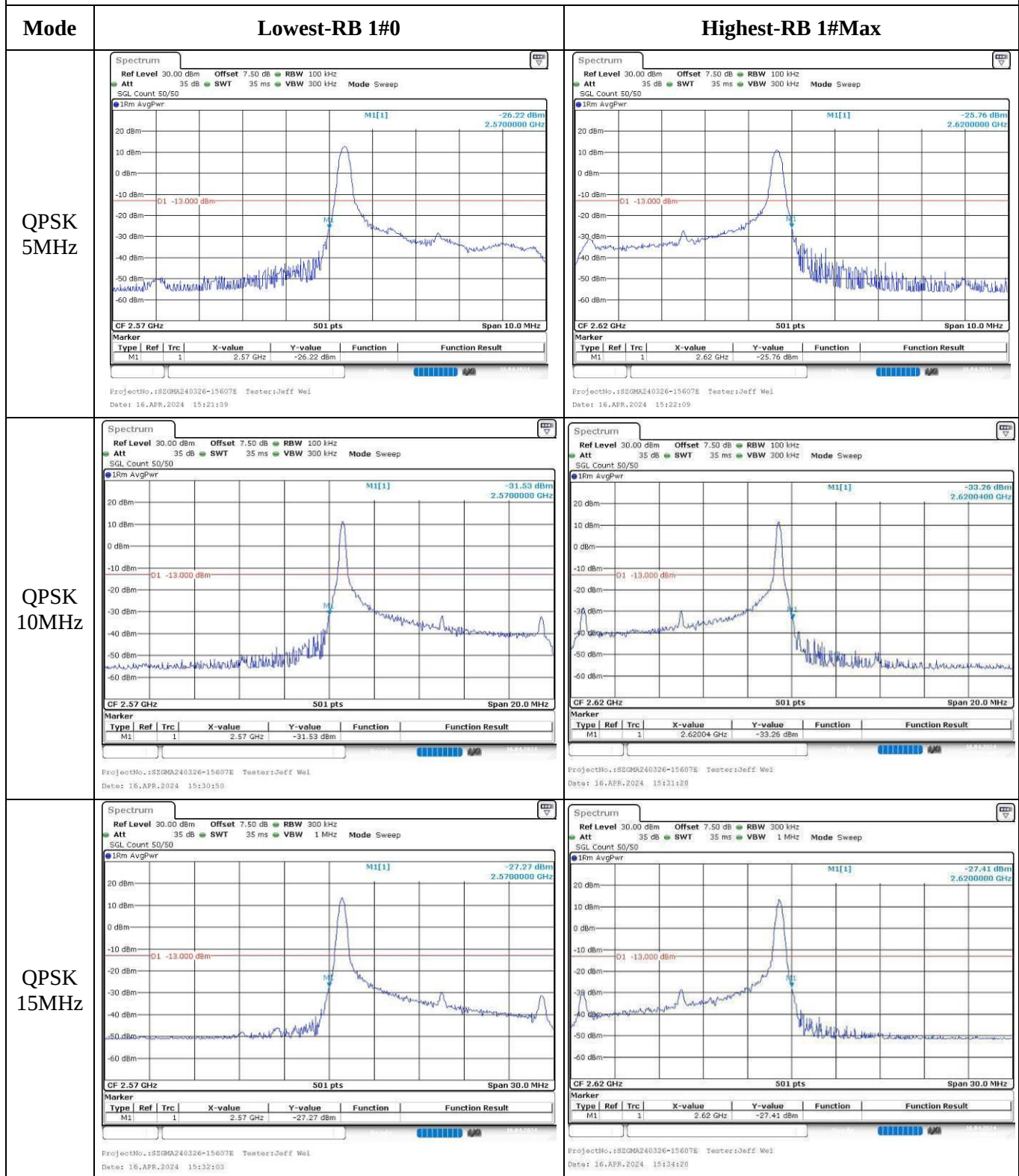


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:50:32

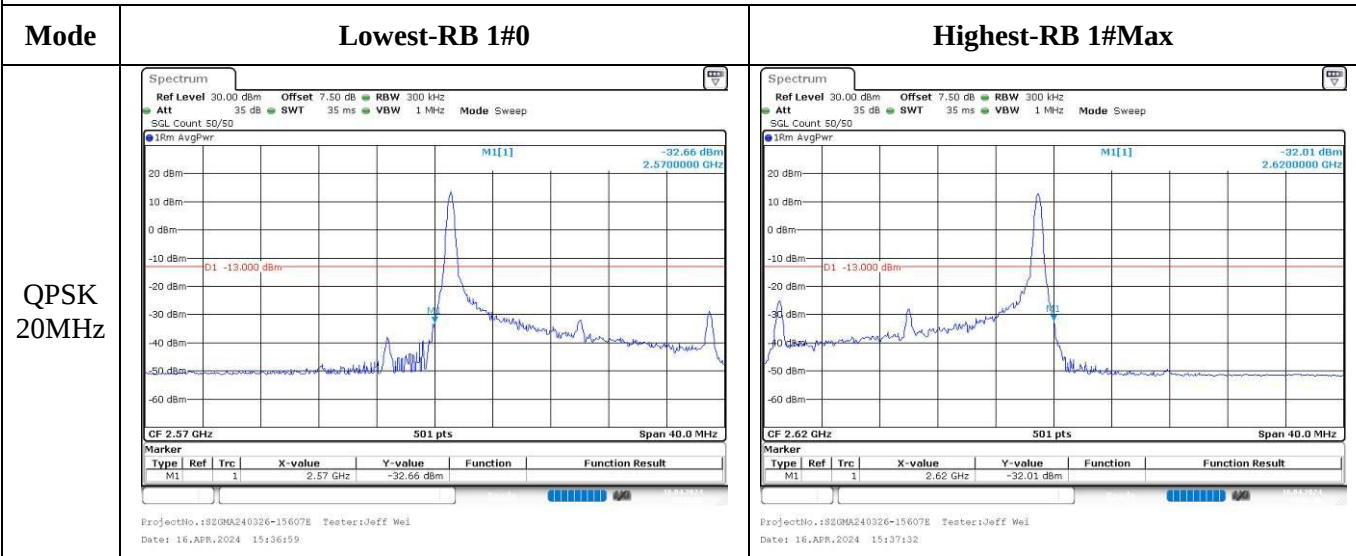


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 15:51:00

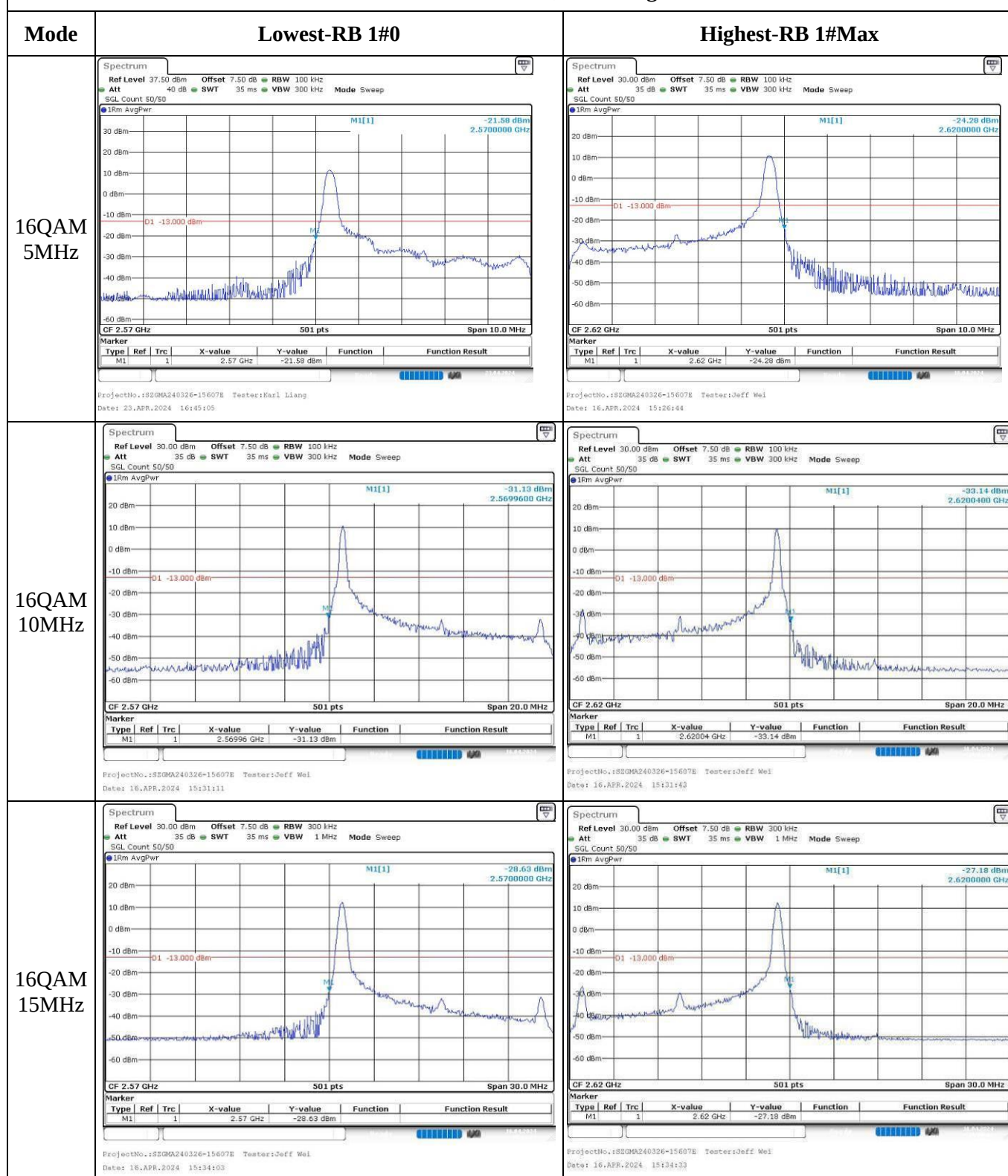
Out of band emission, Band Edge



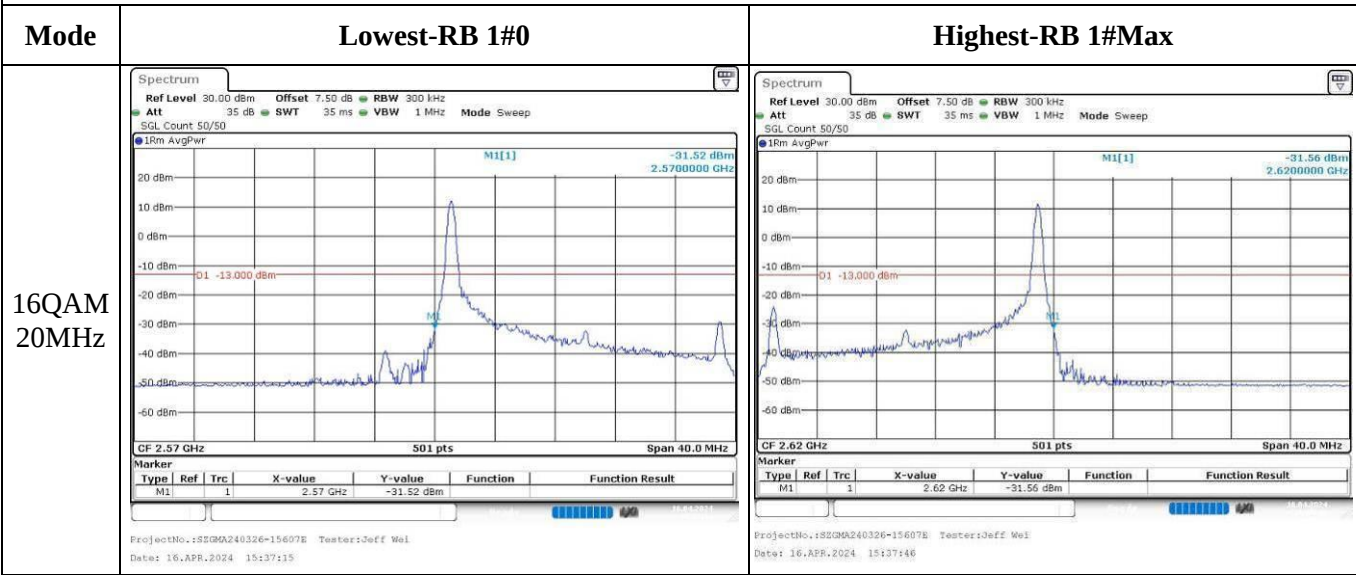
Out of band emission, Band Edge



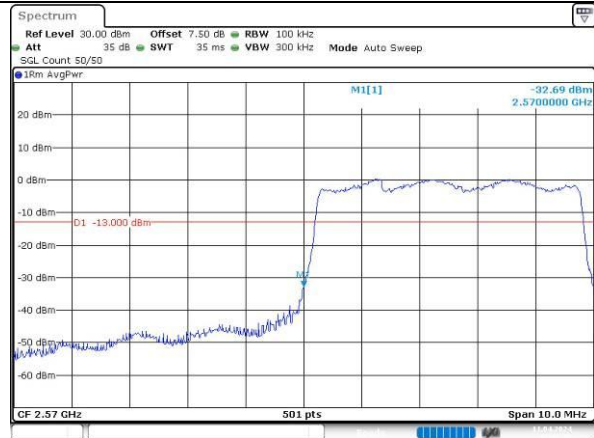
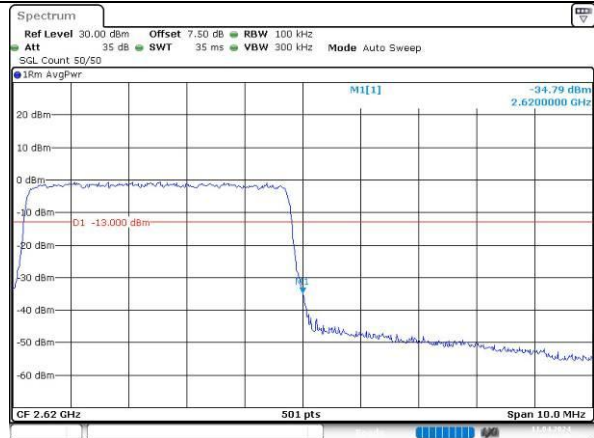
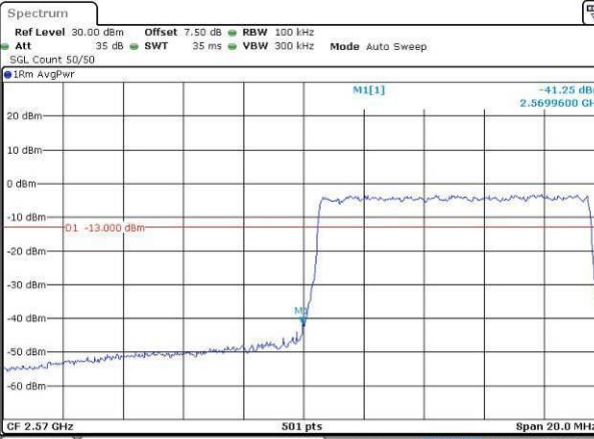
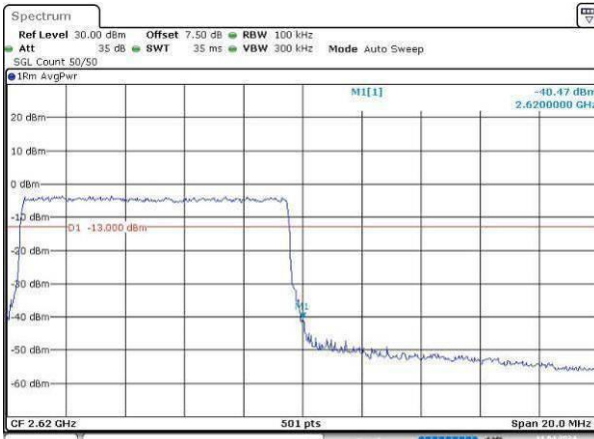
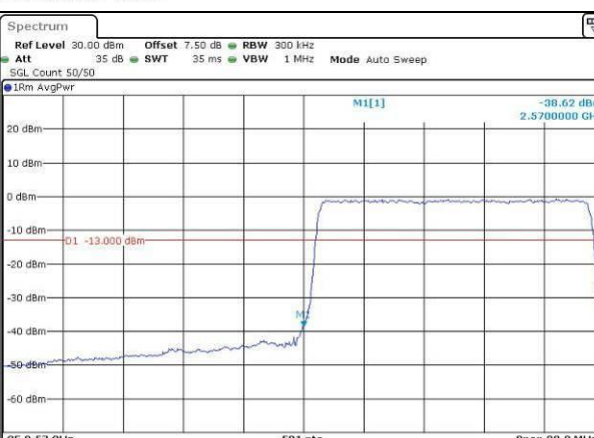
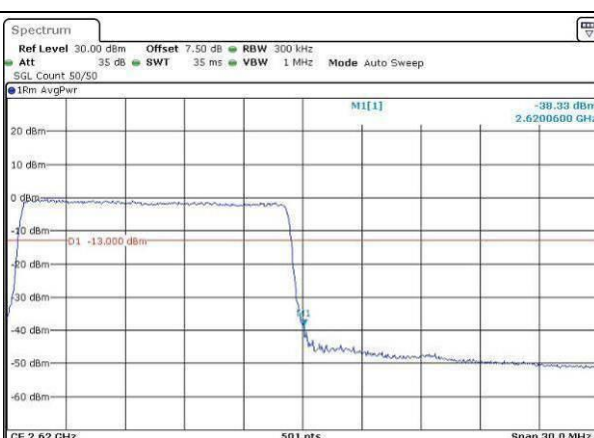
Out of band emission, Band Edge

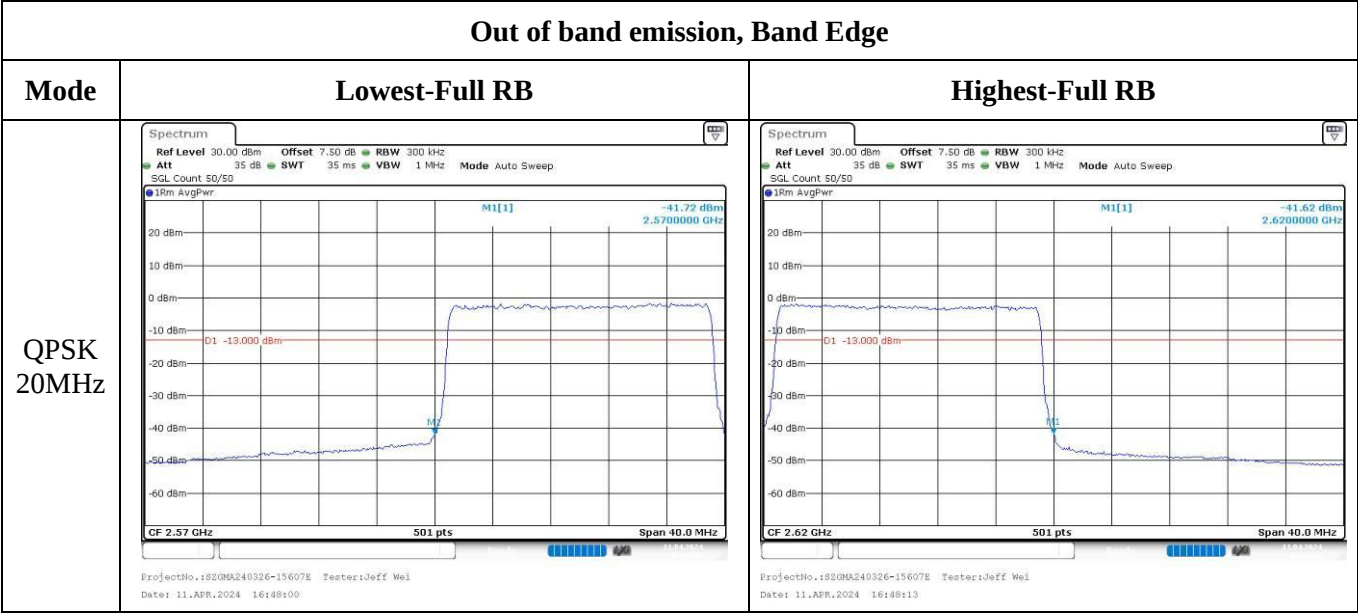


Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest-Full RB	Highest-Full RB
QPSK 5MHz	 Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -32.69 dBm 2.570000 GHz D1 -13.000 dBm CF 2.57 GHz 501 pts Span 10.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:46:33	 Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -34.79 dBm 2.620000 GHz D1 -13.000 dBm CF 2.62 GHz 501 pts Span 10.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:46:45
QPSK 10MHz	 Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -41.25 dBm 2.5699600 GHz D1 -13.000 dBm CF 2.57 GHz 501 pts Span 20.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:47:01	 Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -40.47 dBm 2.6200000 GHz D1 -13.000 dBm CF 2.62 GHz 501 pts Span 20.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:47:14
QPSK 15MHz	 Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -38.62 dBm 2.5700000 GHz D1 -13.000 dBm CF 2.57 GHz 501 pts Span 30.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:47:30	 Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Auto Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -38.33 dBm 2.6200000 GHz D1 -13.000 dBm CF 2.62 GHz 501 pts Span 30.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:47:44



Out of band emission, Band Edge

