

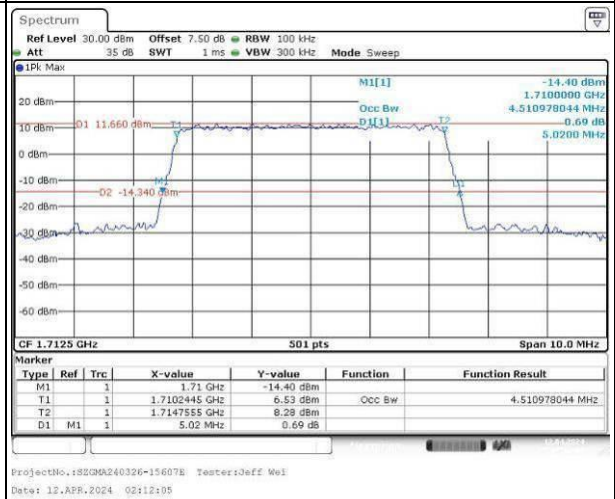
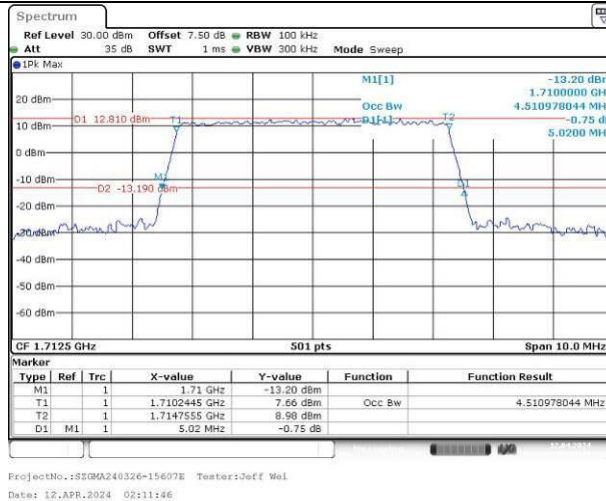
Occupied Bandwidth

Channel

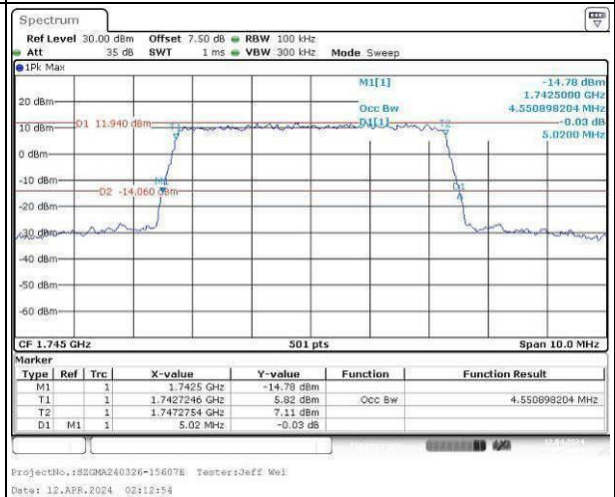
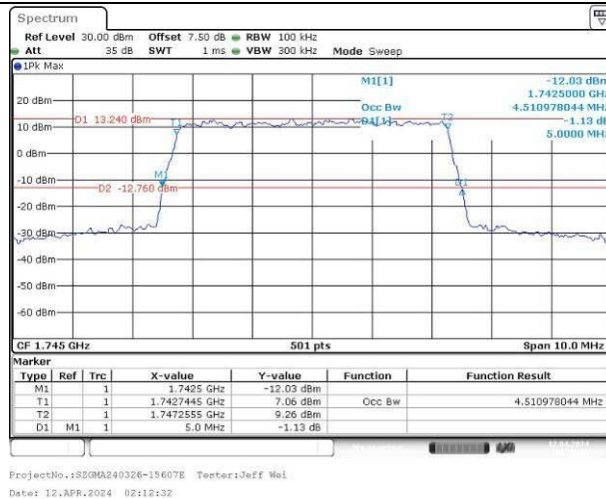
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

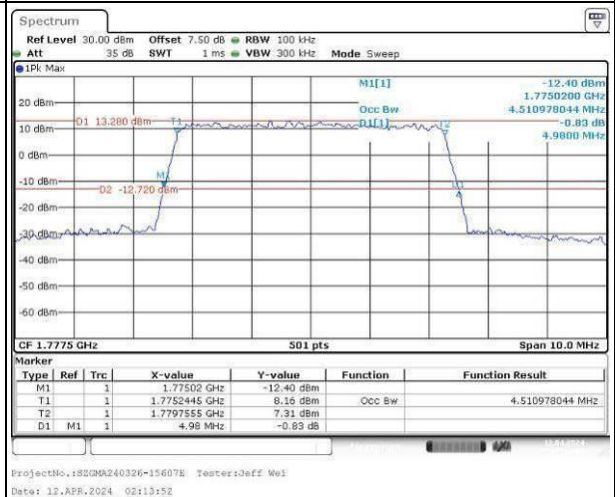
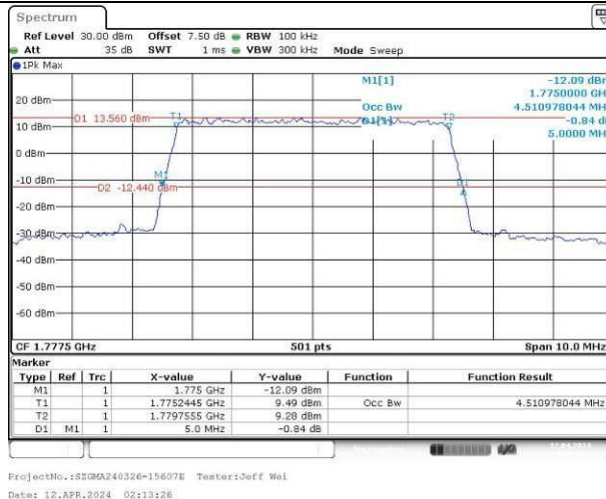
Lowest



Middle



Highest



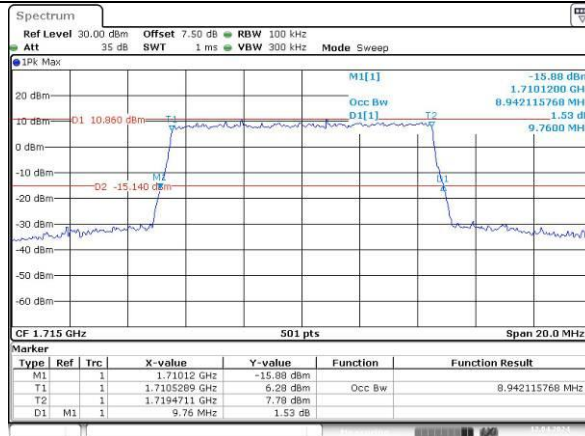
Occupied Bandwidth

Channel

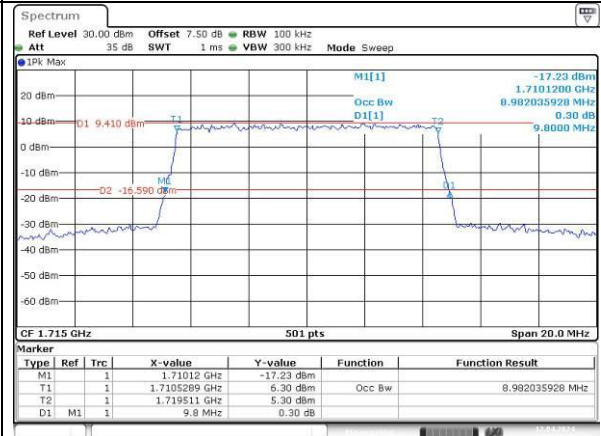
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

Lowest

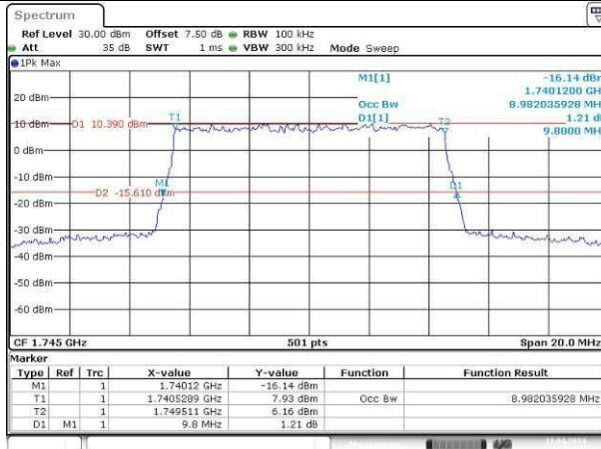


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:14:18

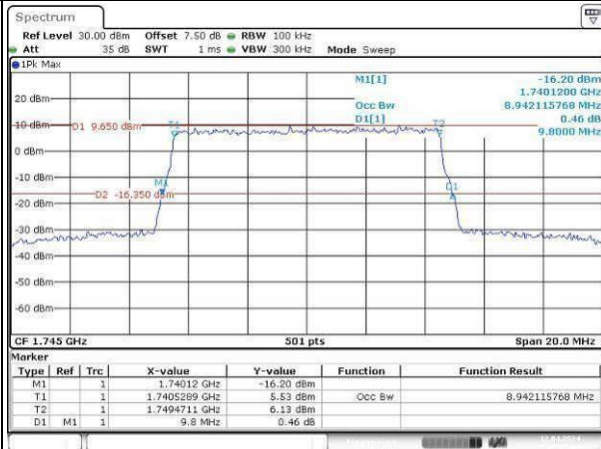


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:14:43

Middle

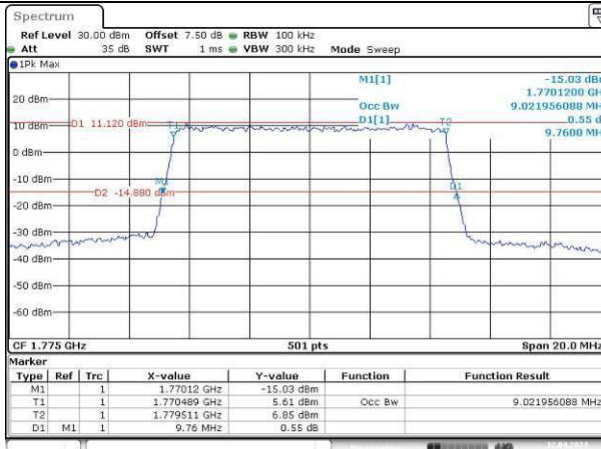


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:15:10

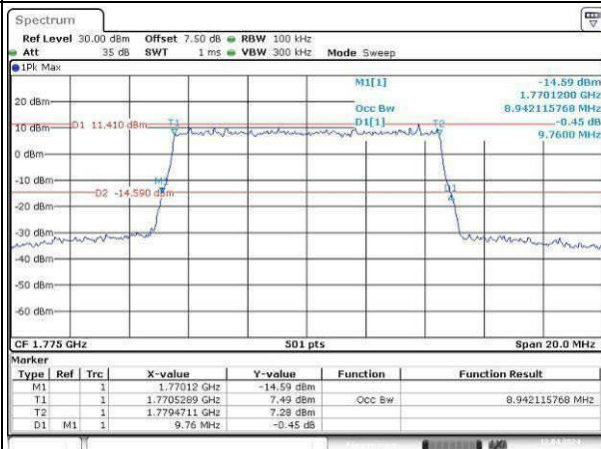


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:15:38

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:16:08



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:16:38

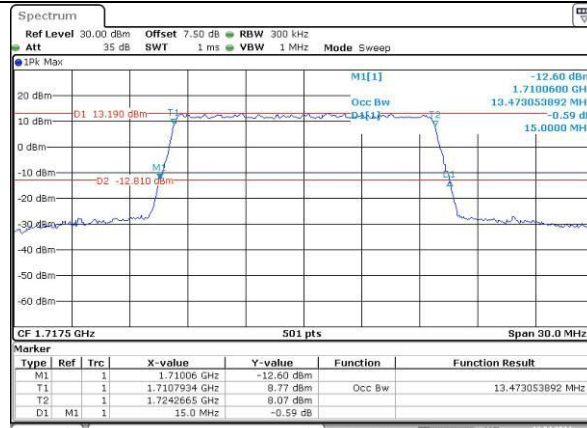
Occupied Bandwidth

Channel

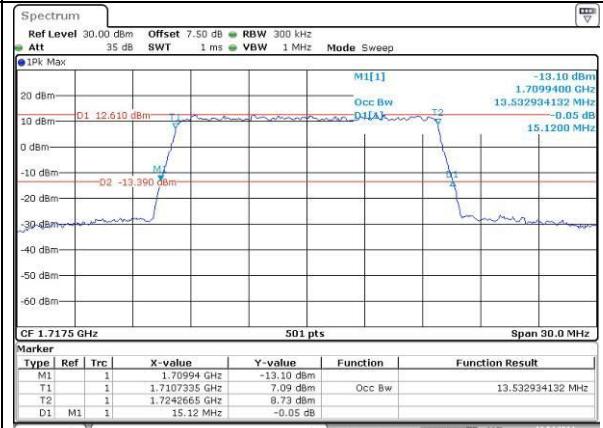
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

Lowest

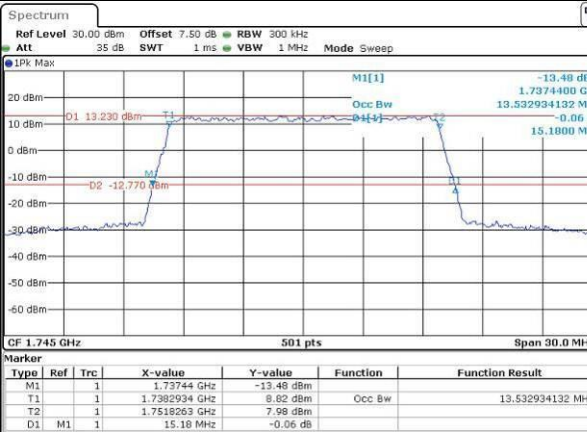


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:17:03

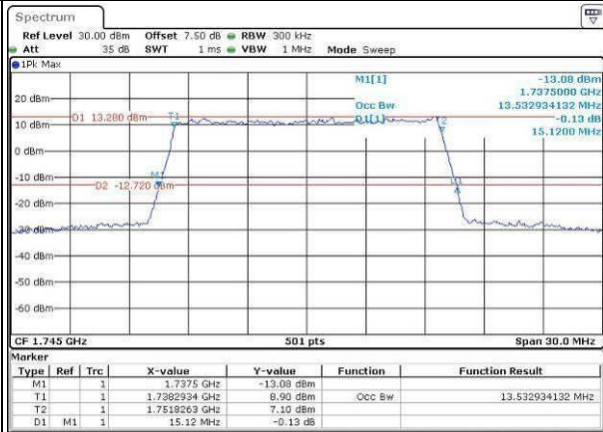


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:17:26

Middle

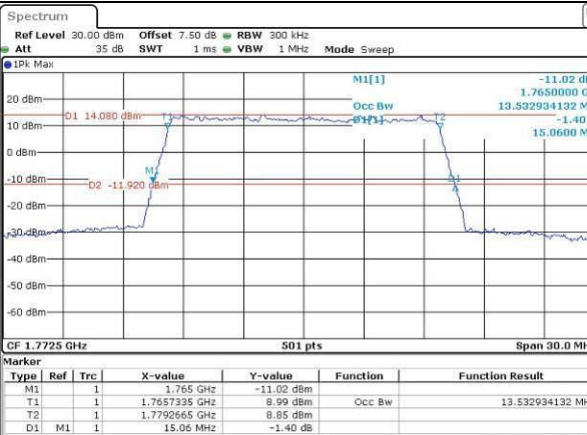


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:17:58

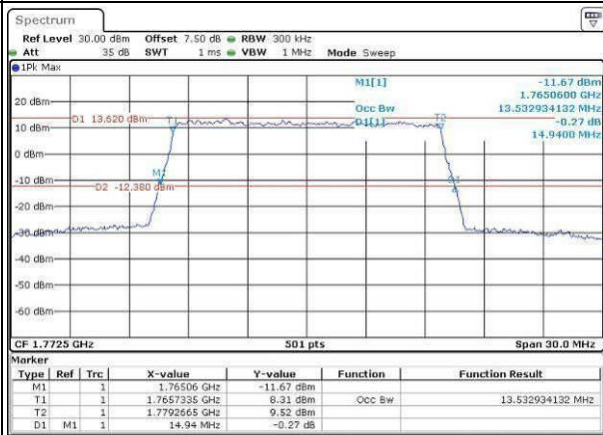


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:18:14

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:18:39



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:19:02

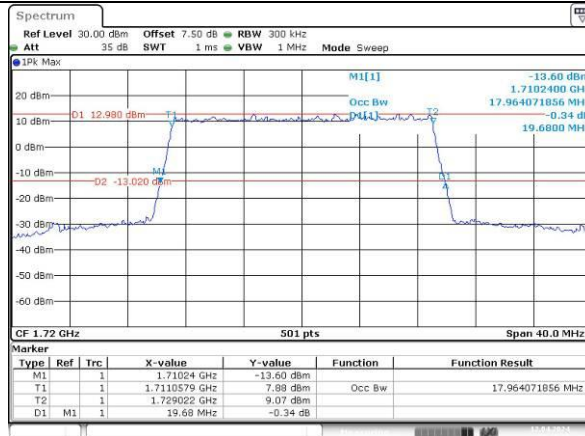
Occupied Bandwidth

Channel

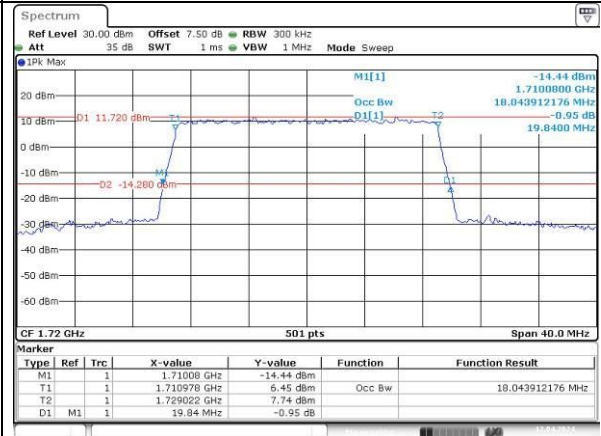
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

Lowest

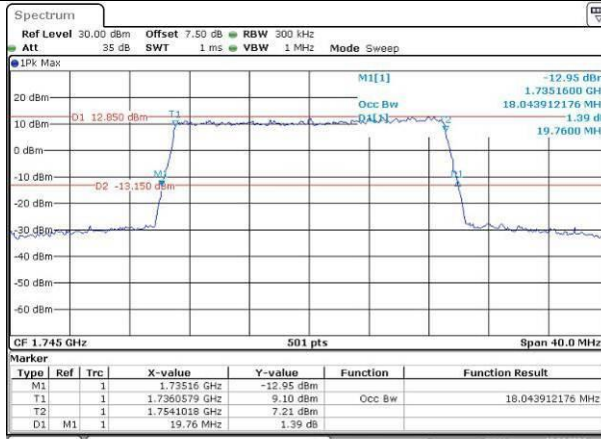


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:19:26

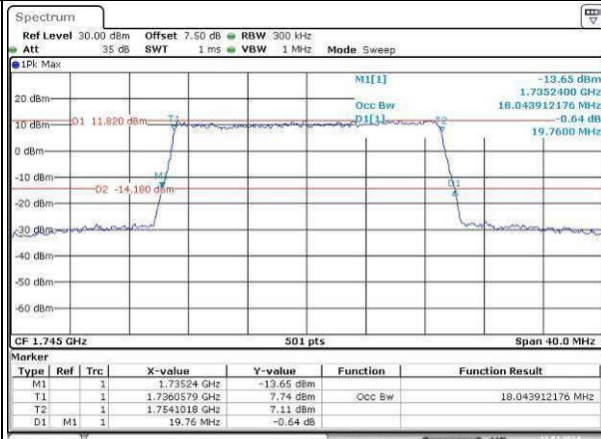


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:19:56

Middle

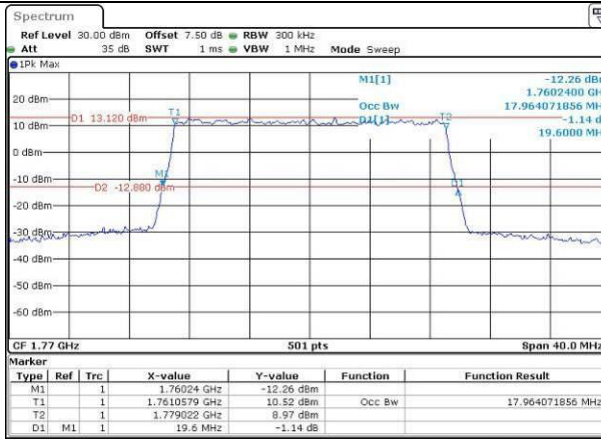


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:20:20

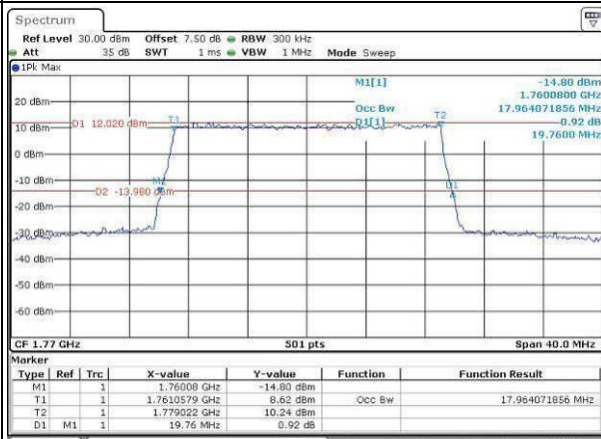


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:20:42

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:21:08



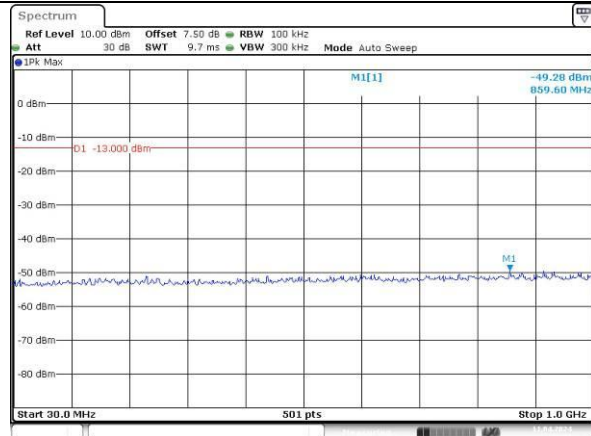
ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 12.APR.2024 02:21:31

Spurious Emissions at Antenna Terminal

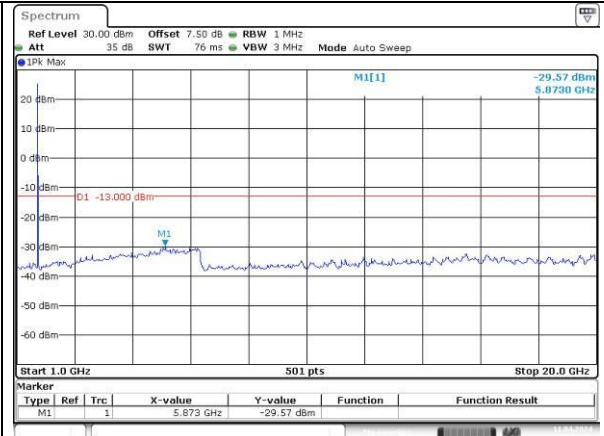
Channel

1.4MHz Bandwidth QPSK

Lowest

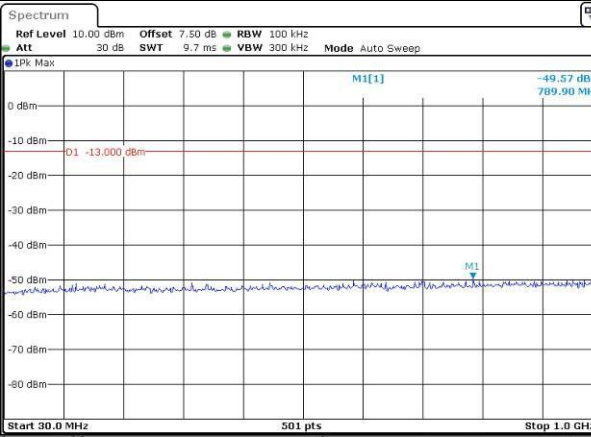


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:18:51

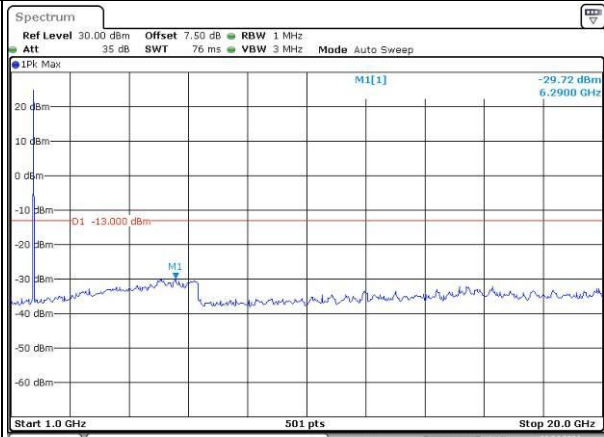


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 11:50:32

Middle

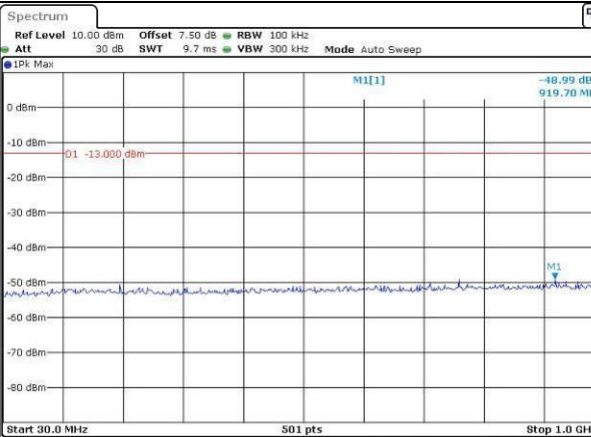


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:21:35

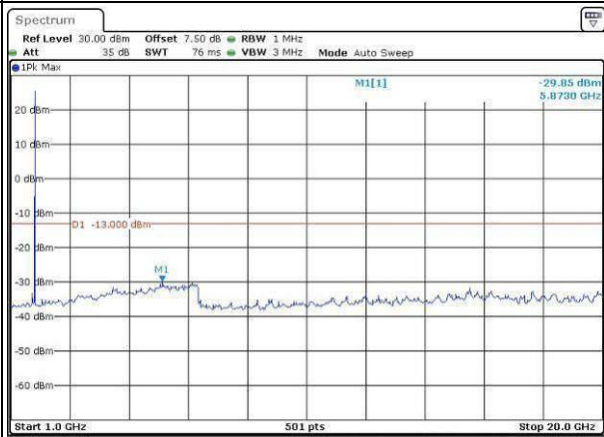


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:22:00

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:22:41



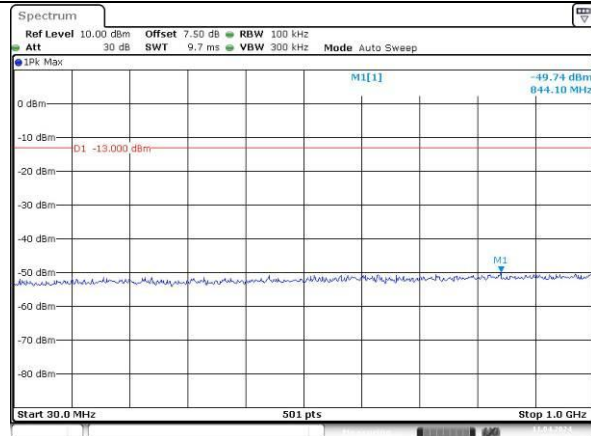
ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:23:02

Spurious Emissions at Antenna Terminal

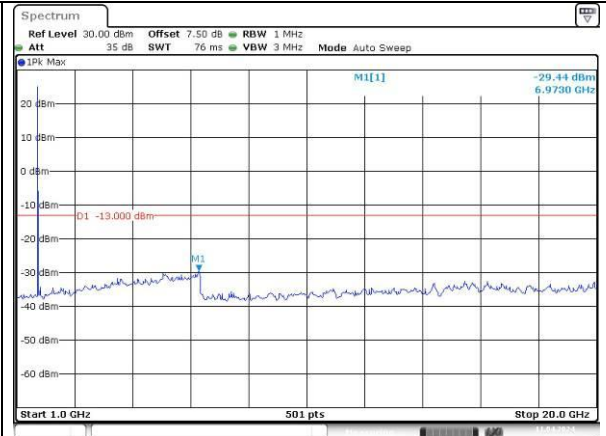
Channel

3MHz Bandwidth QPSK

Lowest

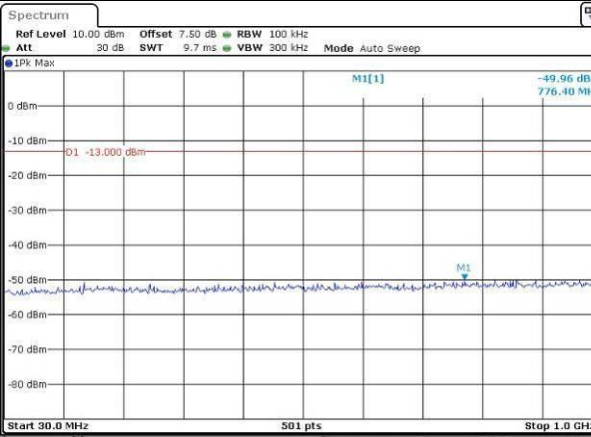


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:23:15

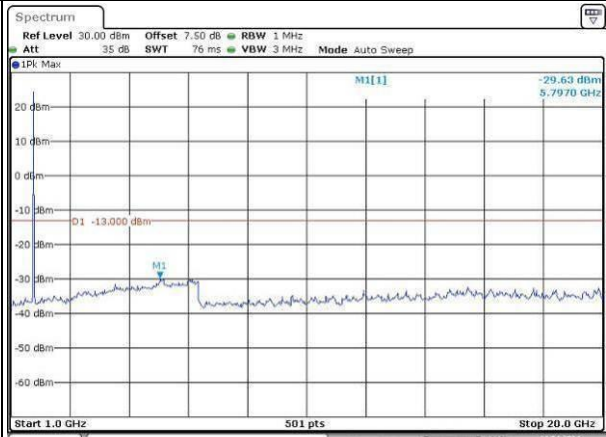


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:24:01

Middle

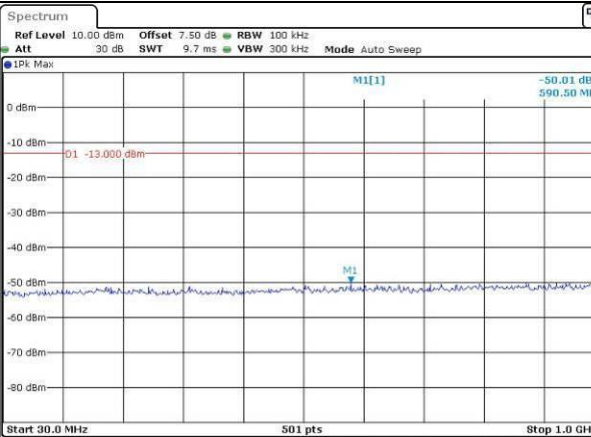


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:24:32

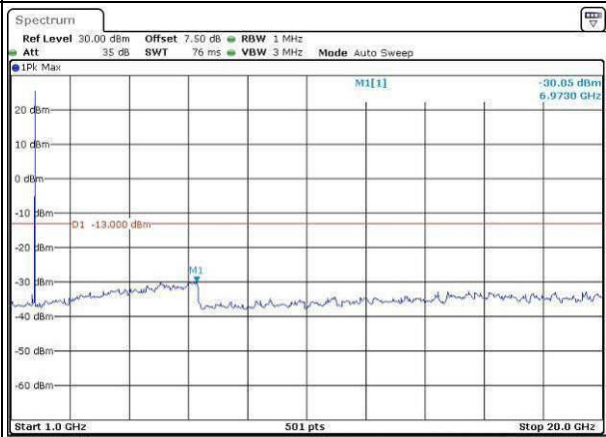


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:24:54

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:25:28



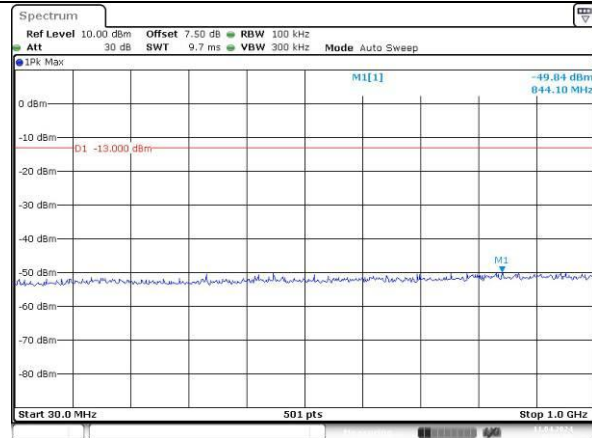
ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:25:59

Spurious Emissions at Antenna Terminal

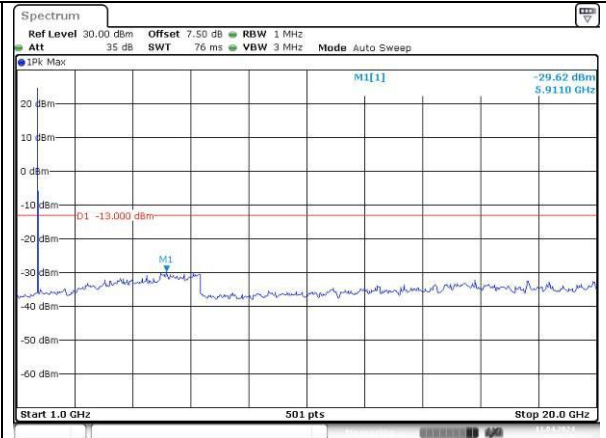
Channel

5MHz Bandwidth QPSK

Lowest

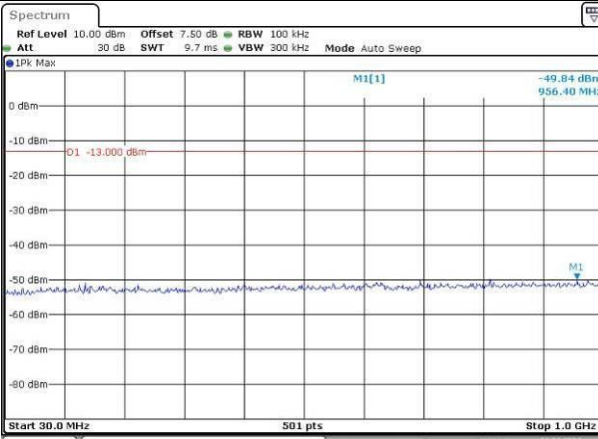


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:26:50

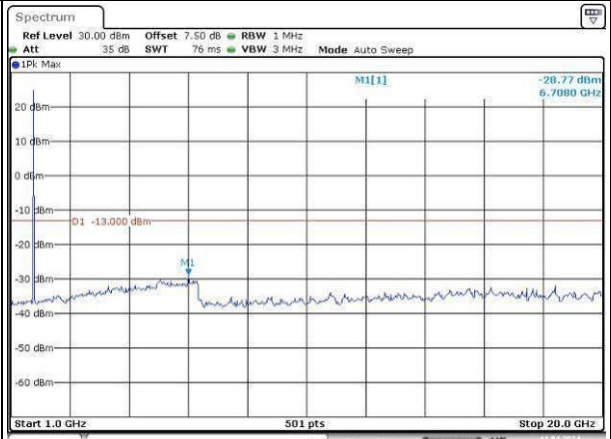


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:27:19

Middle

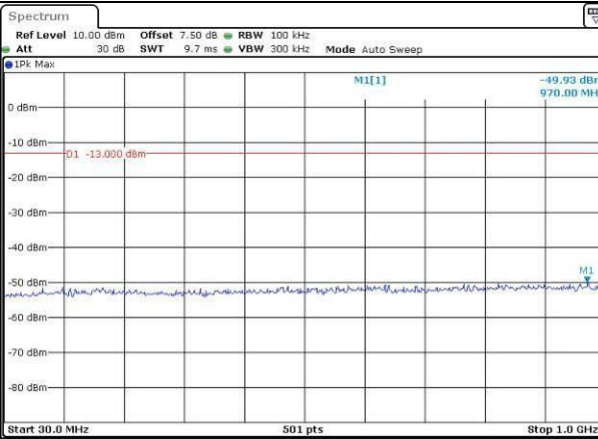


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:27:51

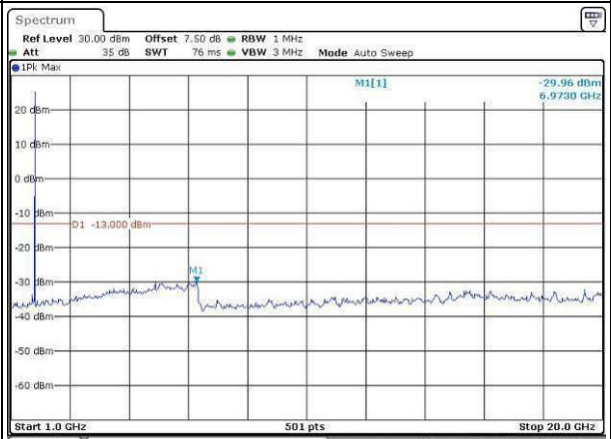


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:28:13

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:28:46



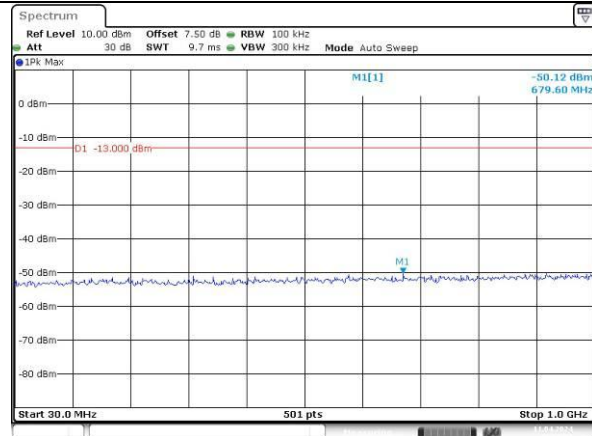
ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:29:11

Spurious Emissions at Antenna Terminal

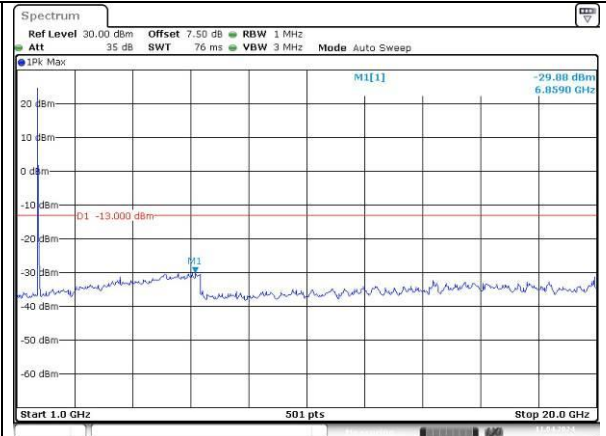
Channel

10MHz Bandwidth QPSK

Lowest

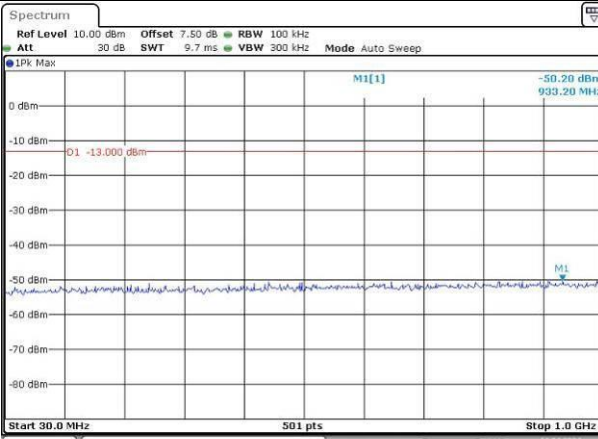


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:29:51

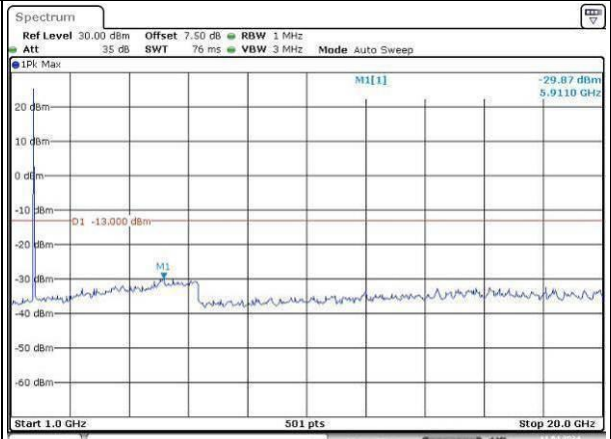


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:30:16

Middle

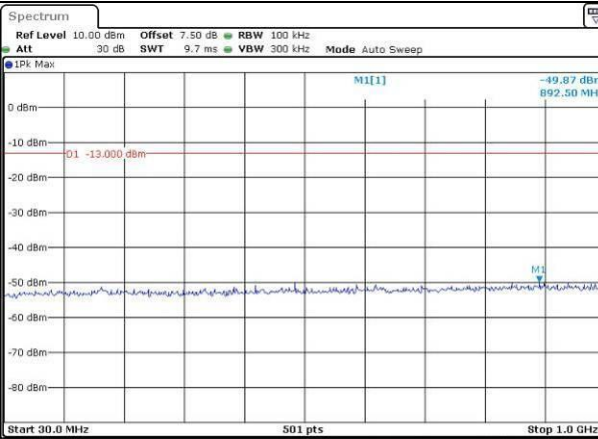


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:32:22

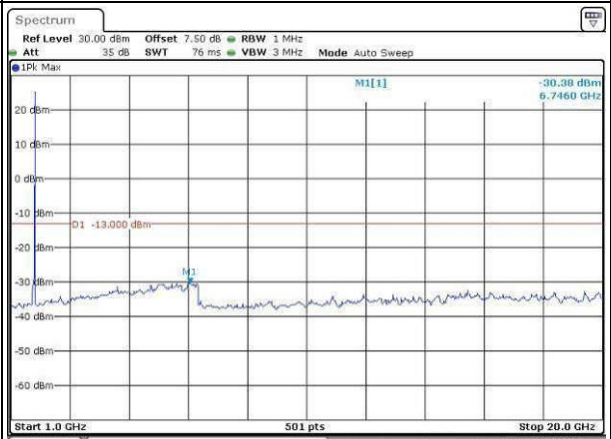


ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:32:47

Highest



ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:33:24



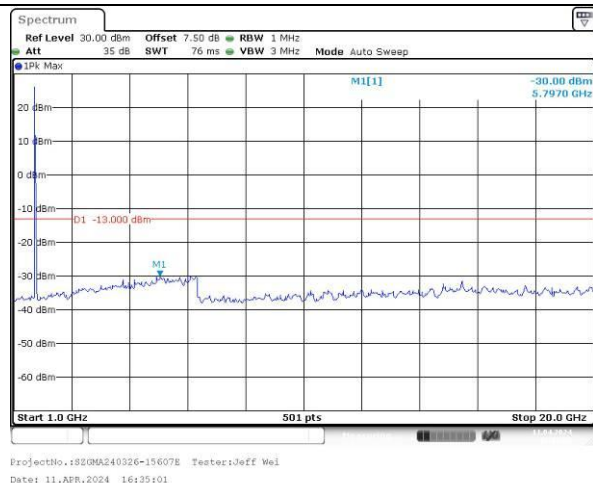
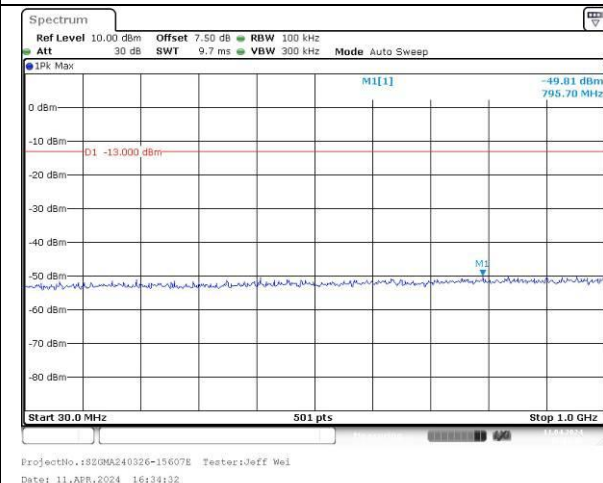
ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei
Date: 11.APR.2024 16:33:49

Spurious Emissions at Antenna Terminal

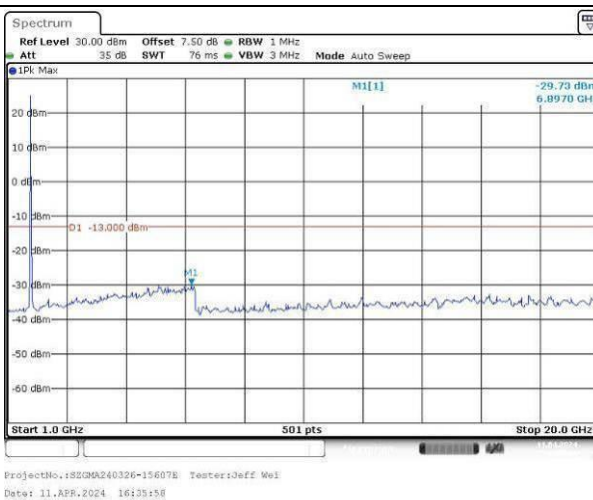
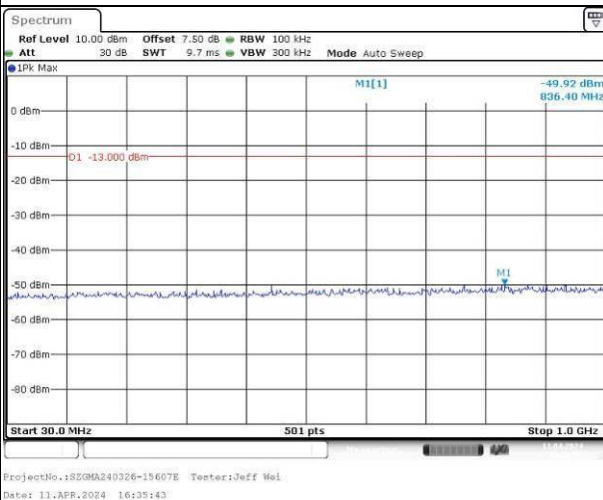
Channel

15MHz Bandwidth QPSK

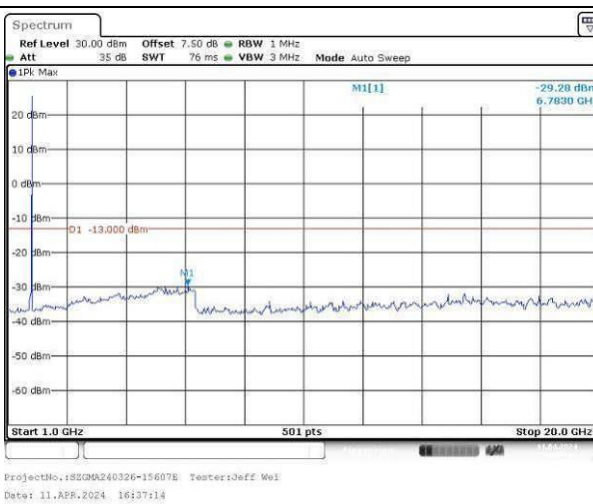
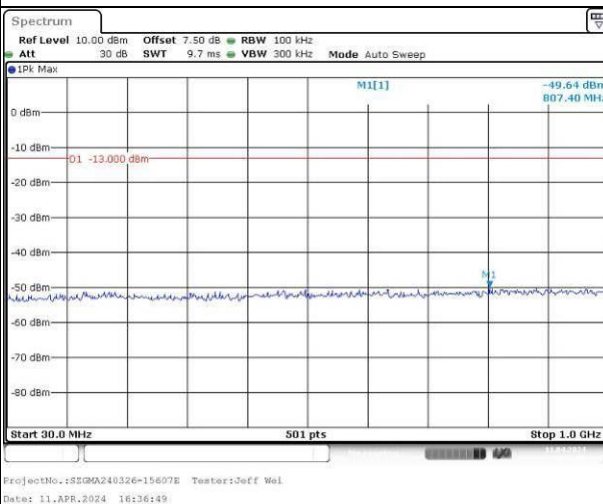
Lowest



Middle



Highest

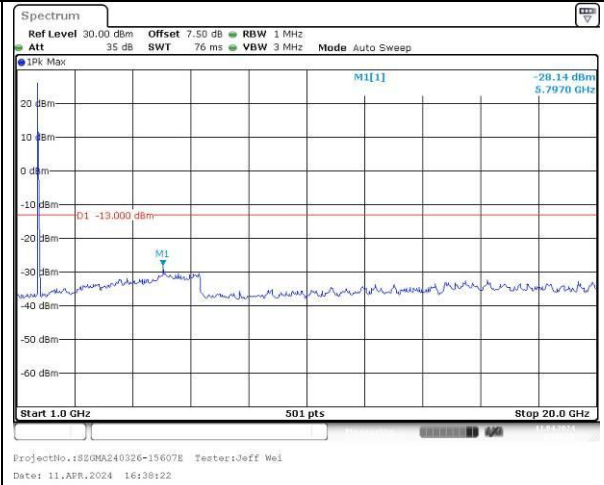
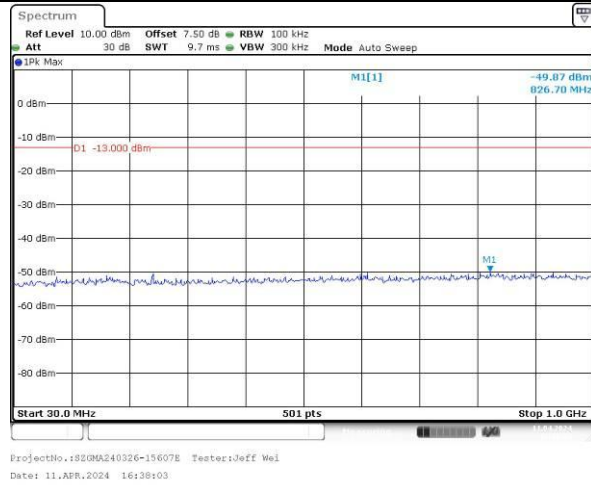


Spurious Emissions at Antenna Terminal

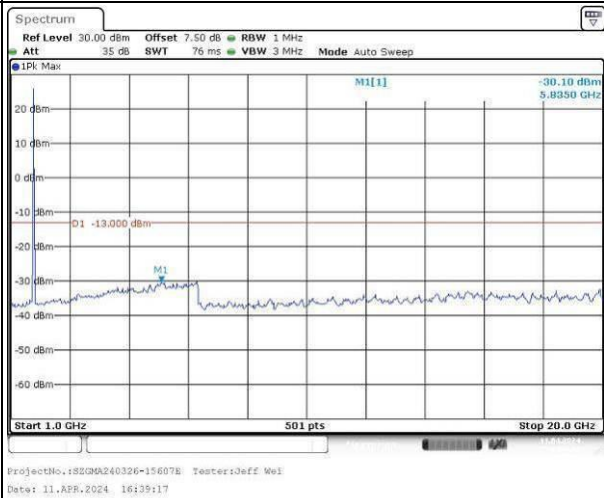
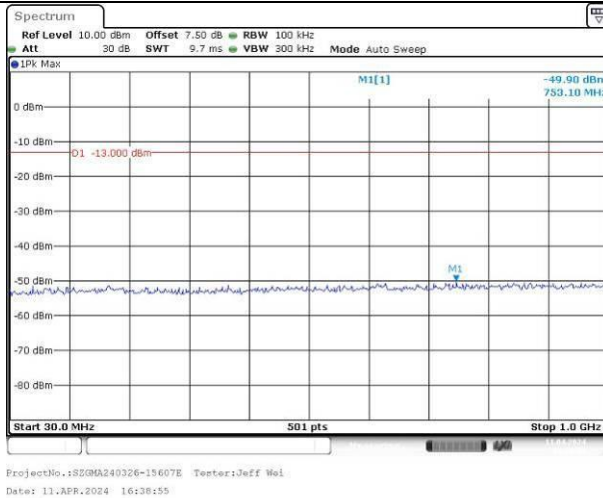
Channel

20MHz Bandwidth QPSK

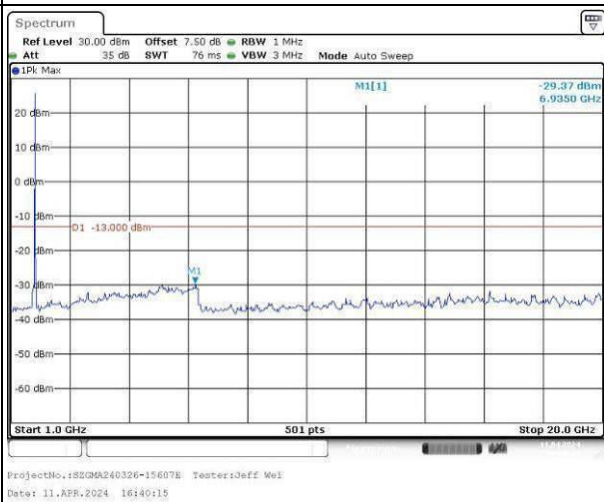
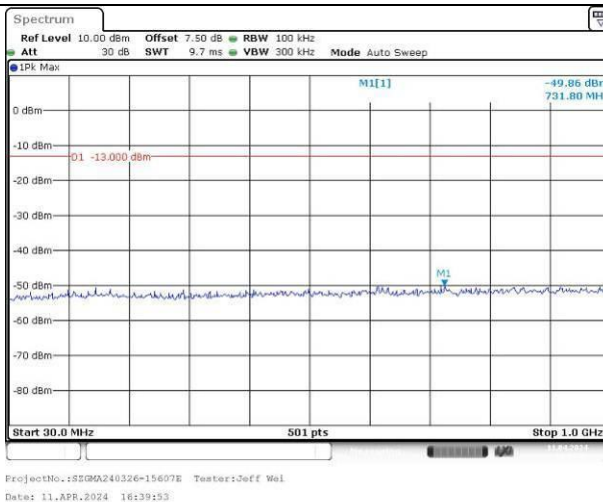
Lowest



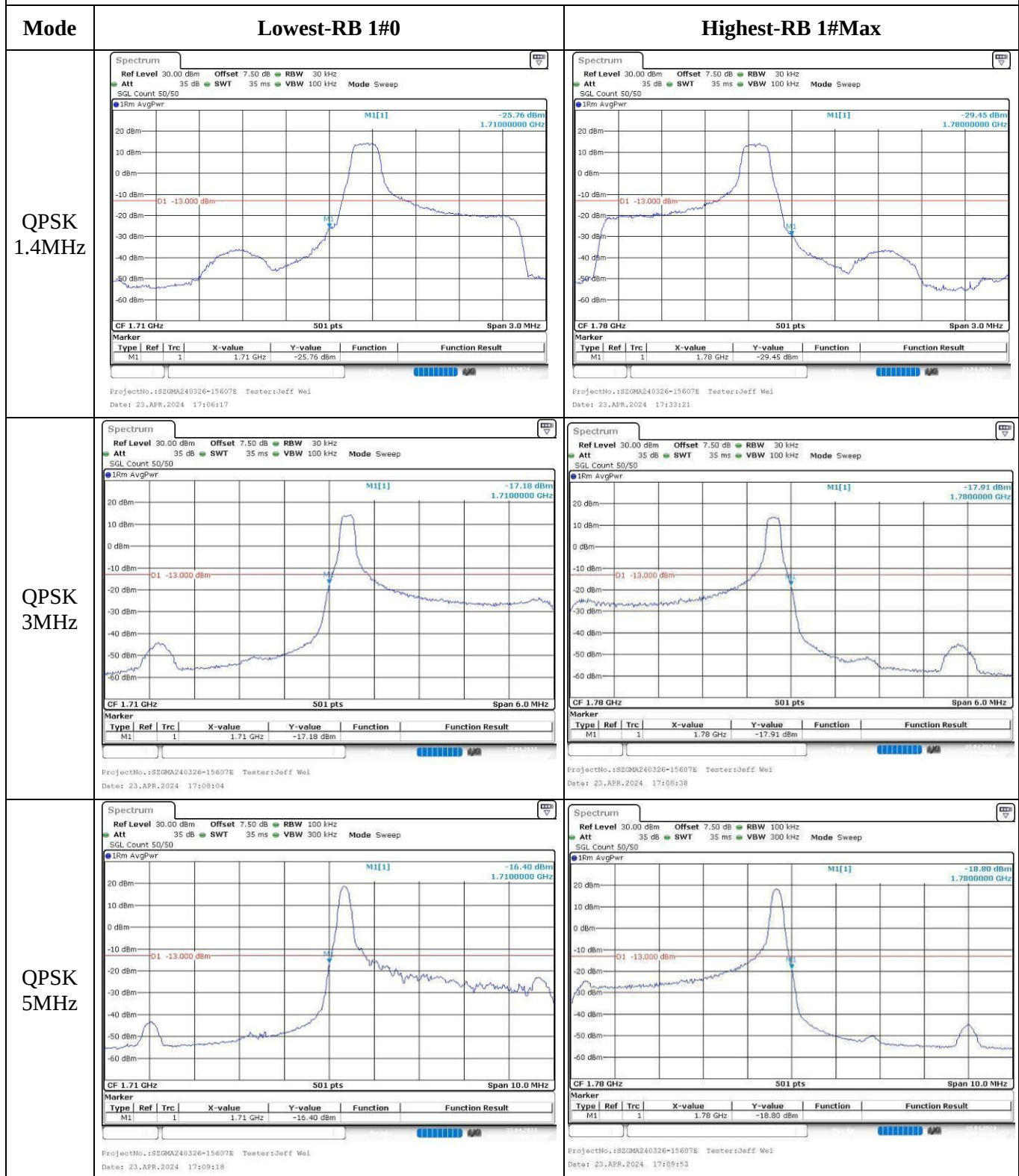
Middle



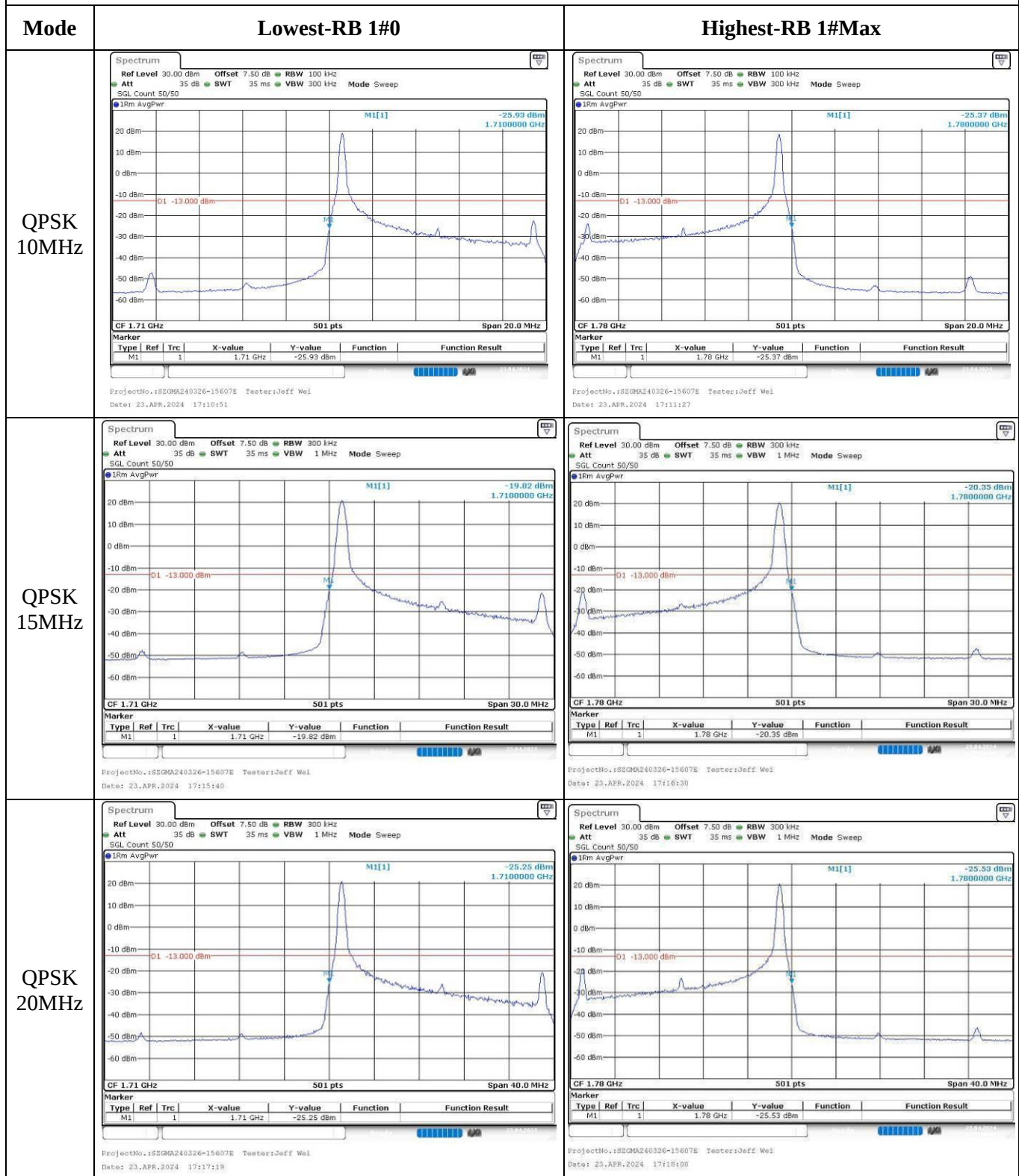
Highest



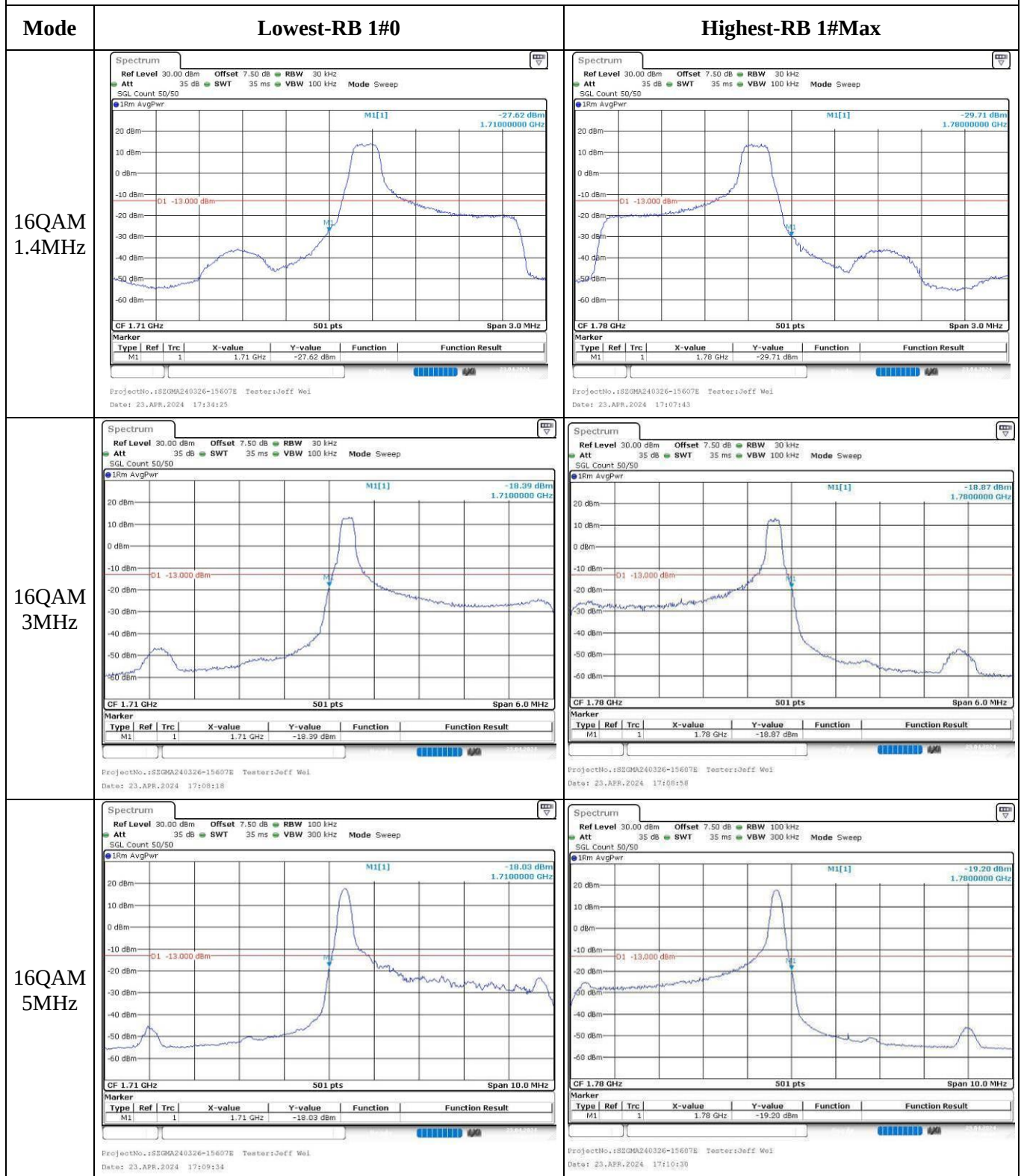
Out of band emission, Band Edge



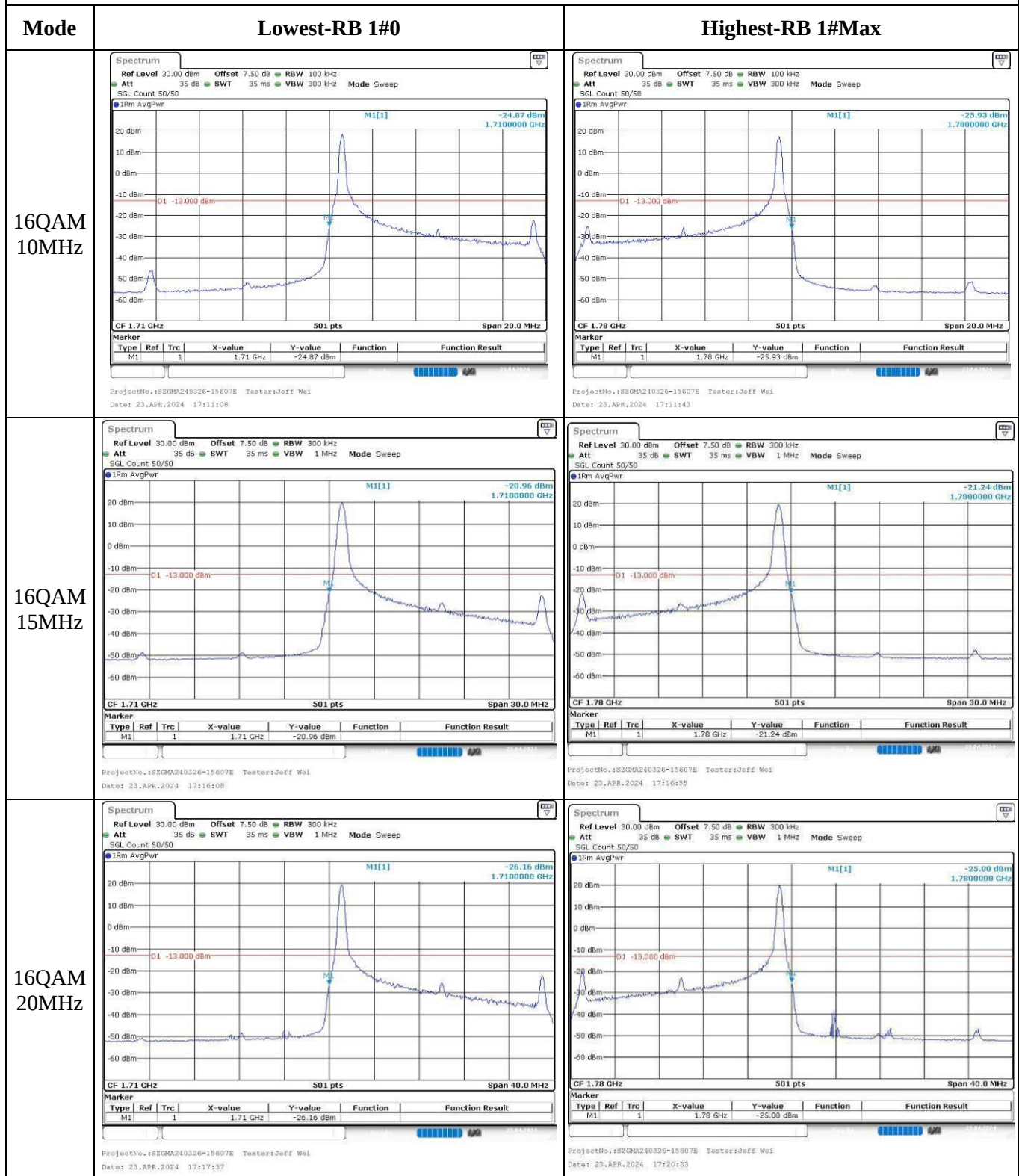
Out of band emission, Band Edge



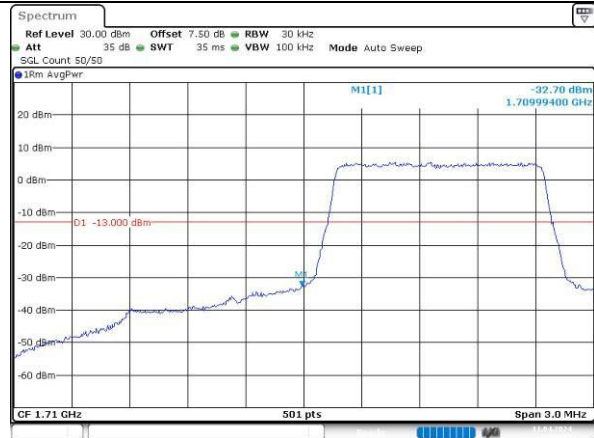
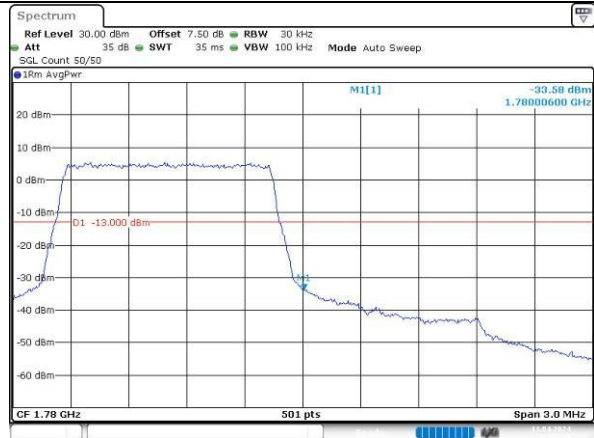
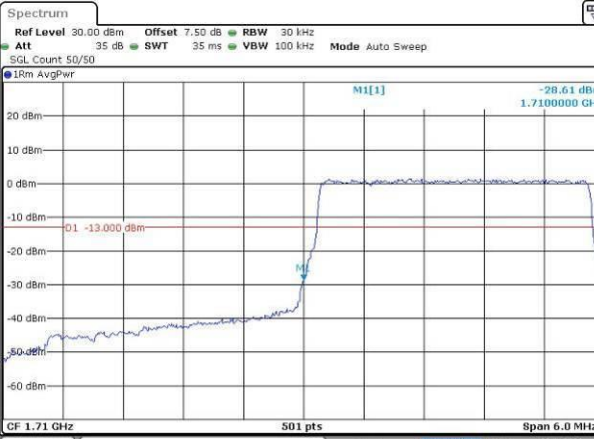
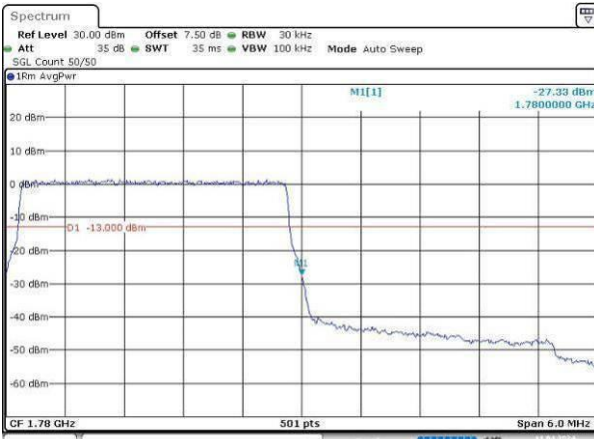
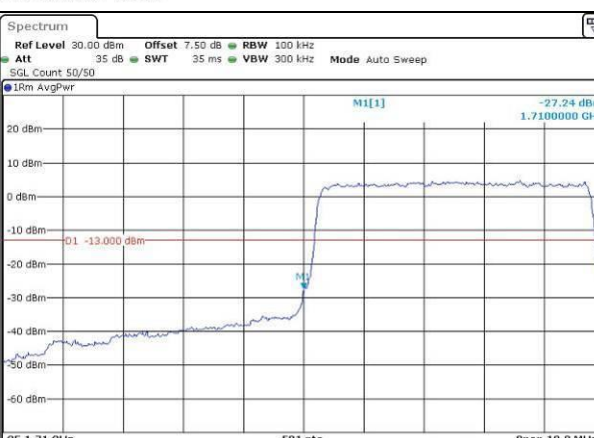
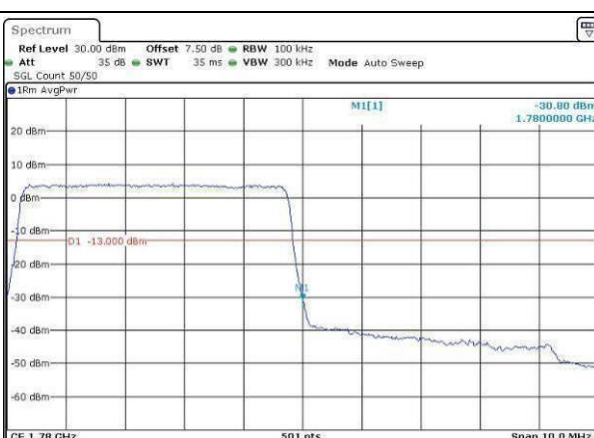
Out of band emission, Band Edge



Out of band emission, Band Edge



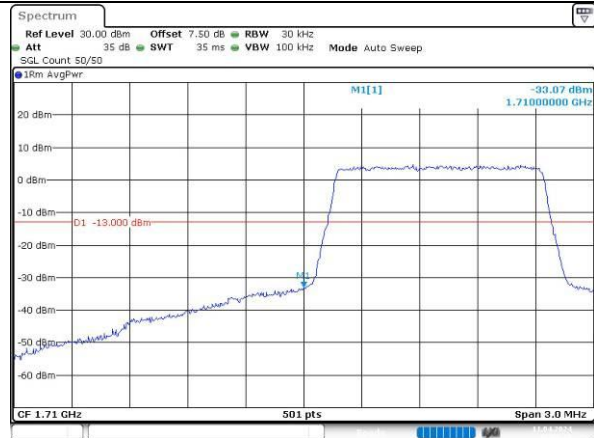
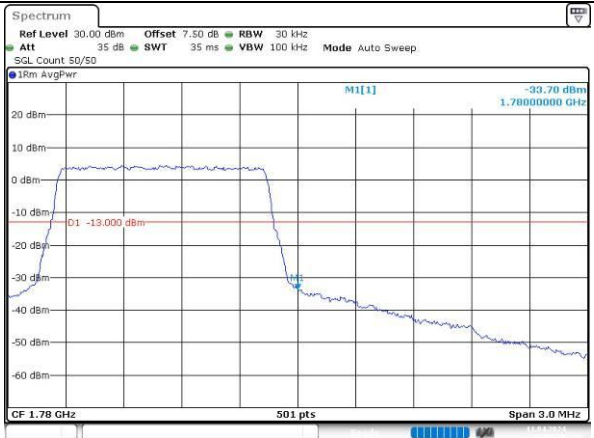
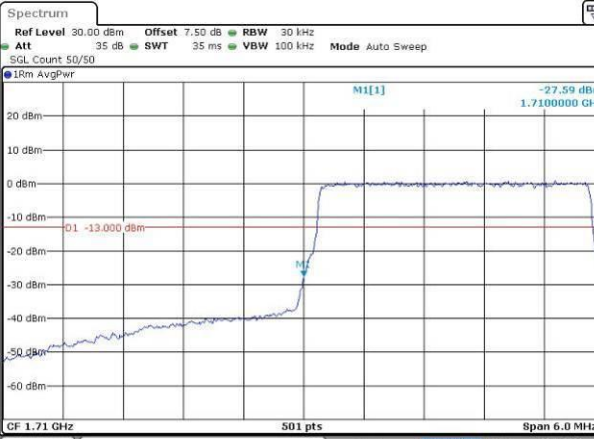
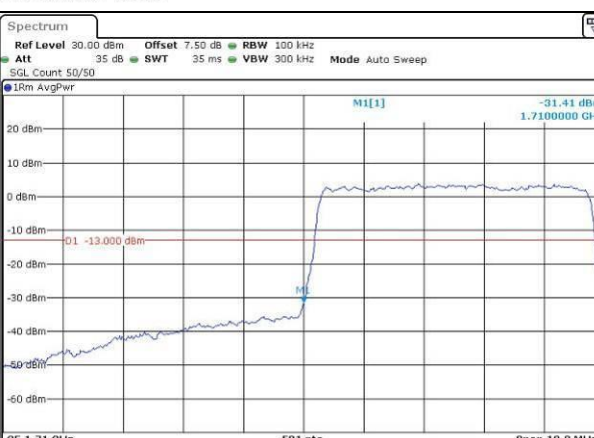
Out of band emission, Band Edge

Mode	Lowest-Full RB	Highest-Full RB
QPSK 1.4MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:05	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:17
QPSK 3MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:31	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:42
QPSK 5MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:58	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:10

Out of band emission, Band Edge

Mode	Lowest-Full RB	Highest-Full RB
QPSK 10MHz	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:25	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:39
QPSK 15MHz	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:55	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:08
QPSK 20MHz	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:24	ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:38

Out of band emission, Band Edge

Mode	Lowest-Full RB	Highest-Full RB
16QAM 1.4MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:11	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:22
16QAM 3MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:37	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:53:49
16QAM 5MHz	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:04	 ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:16

Out of band emission, Band Edge

Mode	Lowest-Full RB	Highest-Full RB
16QAM 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 10m AvgPwr M1[1] -35.90 dBm 1.710000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 20.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:32	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 10m AvgPwr M1[1] -37.53 dBm 1.780000 GHz D1 -13.000 dBm CF 1.78 GHz 501 pts Span 20.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:54:45
16QAM 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 10m AvgPwr M1[1] -32.88 dBm 1.710000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 30.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:01	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 10m AvgPwr M1[1] -34.07 dBm 1.780000 GHz D1 -13.000 dBm CF 1.78 GHz 501 pts Span 30.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:15
16QAM 20MHz	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 10m AvgPwr M1[1] -34.59 dBm 1.710000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 40.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:31	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 10m AvgPwr M1[1] -36.63 dBm 1.780000 GHz D1 -13.000 dBm CF 1.78 GHz 501 pts Span 40.0 MHz ProjectNo.:SZGMA240326-15607E Testers:Jeff Wei Date: 11.APR.2024 16:55:45

5.13 Radiated Spurious Emissions

Serial Number:	2J4T-1	Test Date:	Below 1GHz: 2024/3/8 Above 1GHz: 2024/4/7
Test Site:	Chamber 10m, Chamber B	Test Mode:	Transmitting
Tester:	Joe Li,Bill Yang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.5~25.2	Relative Humidity: (%)	55~59	ATM Pressure: (kPa)	100.4~100.5
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
30MHz~1000MHz					
Sunol Sciences	Hybrid Antenna	JB3	A060611-1	2023/9/6	2026/9/5
Narda	Coaxial Attenuator	779-6dB	04269	2023/9/6	2026/9/5
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-04	2023/8/1	2024/7/31
Unknown	Coaxial Cable	C-NJNJ-50	C-0530-01	2023/8/1	2024/7/31
Sonoma	Amplifier	310N	185914	2023/8/1	2024/7/31
R&S	EMI Test Receiver	ESCI	101121	2023/10/18	2024/10/17
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2023/9/9	2024/9/8
Agilent	Signal Generator	E8247C	MY43321350	2023/10/18	2024/10/17
Sinoscite	Band Rejection Filter	BSF824-862MS	1438001.000000	2023/6/16	2024/6/15

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Above 1GHz					
ETS-Lindgren	Horn Antenna	3115	000 527 35	2023/9/7	2026/9/6
AH	Horn Antenna	SAS-571	1177	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-02 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-03 1304	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-01 1302	2023/2/22	2026/2/21
Ducommun Technologies	Horn Antenna	ARH-2823-02	1007726-02 1302	2023/2/22	2026/2/21
Xinhang Macrowave	Coaxial Cable	XH750A-N/J-SMA/J-10M	20231117004 #0001	2023/11/17	2024/11/16
Xinhang Macrowave	Coaxial Cable	XH360A-2.92/J-2.92/J-6M-A	20231208001 #0001	2023/12/11	2024/12/10
Micro-Coax	Coaxial Cable	UFA210B	99G1448	2023/9/9	2024/9/8
Agilent	Signal Generator	E8247C	MY43321350	2023/10/18	2024/10/17
AH	Preamplifier	PAM-0118P	469	2023/8/19	2024/8/18
AH	Preamplifier	PAM-1840VH	191	2023/9/7	2024/9/6
R&S	Spectrum Analyzer	FSV40	101944	2023/10/18	2024/10/17
Sinoscite	Band Rejection Filter	BSF824-862MS	1438001	2023/6/16	2024/6/15
Sinoscite	Band Rejection Filter	BSF1710-1785MN	0383003	2023/6/16	2024/6/15
Sinoscite	Band Rejection Filter	BSF1850-1910MS	0935V2001	2023/6/16	2024/6/15
Sinoscite	Band Rejection Filter	BSF2500-2750MS	1439001	2023/6/16	2024/6/15
Sinoscite	Band Rejection Filter	BSF2570-2620MN	0698002	2023/6/16	2024/6/15
Mini-Circuits	High Pass Filter	VHF-1200+	31102	2023/8/1	2024/7/31
Mini-Circuits	High Pass Filter	VHF-2700A+	31222	2023/12/1	2024/11/30

* 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 Data:

After pre-scan in the X, Y and Z axes of orientation, the worst case is below:

Cellular Band (30MHz-10GHz)

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Frequency:824.2MHz								
576.85	H	42.62	-60.50	0.00	0.36	-60.86	-13.00	47.86
576.85	V	55.59	-45.05	0.00	0.36	-45.41	-13.00	32.41
1648.40	H	66.59	-51.52	10.44	0.71	-41.79	-13.00	28.79
1648.40	V	75.38	-43.33	10.44	0.71	-33.60	-13.00	20.60
2472.60	H	50.32	-65.76	12.88	1.25	-54.13	-13.00	41.13
2472.60	V	59.87	-56.27	12.88	1.25	-44.64	-13.00	31.64
3296.80	H	55.54	-57.43	13.60	1.59	-45.42	-13.00	32.42
3296.80	V	57.18	-55.79	13.60	1.59	-43.78	-13.00	30.78
GSM 850 Frequency:836.6MHz								
589.10	H	35.93	-66.82	0.00	0.36	-67.18	-13.00	54.18
589.10	V	55.85	-44.46	0.00	0.36	-44.82	-13.00	31.82
1673.20	H	63.21	-54.53	10.61	0.73	-44.65	-13.00	31.65
1673.20	V	71.49	-46.85	10.61	0.73	-36.97	-13.00	23.97
2509.80	H	56.87	-59.40	13.11	1.25	-47.54	-13.00	34.54
2509.80	V	60.32	-55.98	13.11	1.25	-44.12	-13.00	31.12
3346.40	H	53.26	-59.59	13.83	1.61	-47.37	-13.00	34.37
3346.40	V	57.49	-55.41	13.83	1.61	-43.19	-13.00	30.19
GSM 850 Frequency:848.8MHz								
589.10	H	42.43	-60.32	0.00	0.36	-60.68	-13.00	47.68
589.10	V	55.38	-44.93	0.00	0.36	-45.29	-13.00	32.29
1697.60	H	69.35	-48.03	10.78	0.75	-38.00	-13.00	25.00
1697.60	V	80.25	-37.73	10.78	0.75	-27.70	-13.00	14.70
2546.40	H	56.29	-60.14	13.15	1.27	-48.26	-13.00	35.26
2546.40	V	71.34	-45.23	13.15	1.27	-33.35	-13.00	20.35
3395.20	H	54.18	-58.51	14.08	1.64	-46.07	-13.00	33.07
3395.20	V	58.05	-54.74	14.08	1.64	-42.30	-13.00	29.30

PCS Band (30MHz-20GHz)

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 1900 Frequency:1850.2MHz								
591.24	H	32.33	-70.36	0.00	0.36	-70.72	-13.00	57.72
591.21	V	31.29	-68.96	0.00	0.36	-69.32	-13.00	56.32
3700.40	H	55.32	-56.53	14.00	1.83	-44.36	-13.00	31.36
3700.40	V	56.29	-55.54	14.00	1.83	-43.37	-13.00	30.37
5550.60	H	53.26	-54.31	13.95	1.27	-41.63	-13.00	28.63
5550.60	V	53.41	-54.01	13.95	1.27	-41.33	-13.00	28.33
GSM 1900 Frequency:1880MHz								
584.32	H	32.05	-70.85	0.00	0.36	-71.21	-13.00	58.21
584.36	V	31.25	-69.18	0.00	0.36	-69.54	-13.00	56.54
3760.00	H	56.29	-55.05	13.76	1.63	-42.92	-13.00	29.92
3760.00	V	57.48	-53.73	13.76	1.63	-41.60	-13.00	28.60
5640.00	H	54.26	-53.06	14.02	1.31	-40.35	-13.00	27.35
5640.00	V	55.19	-52.01	14.02	1.31	-39.30	-13.00	26.30
GSM 1900 Frequency:1909.8MHz								
598.36	H	32.36	-70.12	0.00	0.36	-70.48	-13.00	57.48
598.41	V	32.06	-67.99	0.00	0.36	-68.35	-13.00	55.35
3819.60	H	57.48	-53.42	13.56	1.50	-41.36	-13.00	28.36
3819.60	V	58.29	-52.43	13.56	1.50	-40.37	-13.00	27.37
5729.40	H	53.49	-53.96	13.96	1.31	-41.31	-13.00	28.31
5729.40	V	54.26	-53.15	13.96	1.31	-40.50	-13.00	27.50