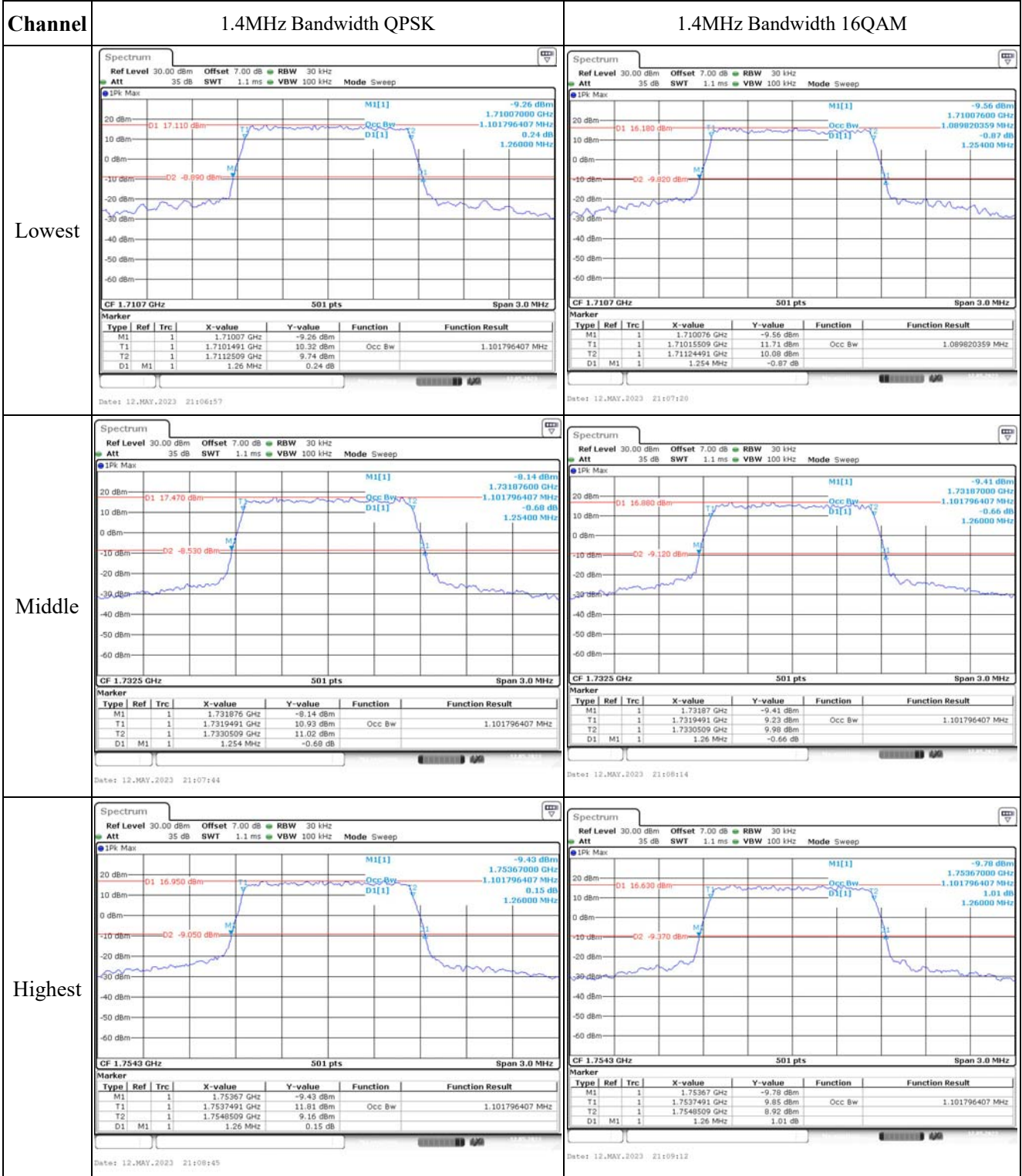


Test Plots(Note: The 7dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

Occupied Bandwidth



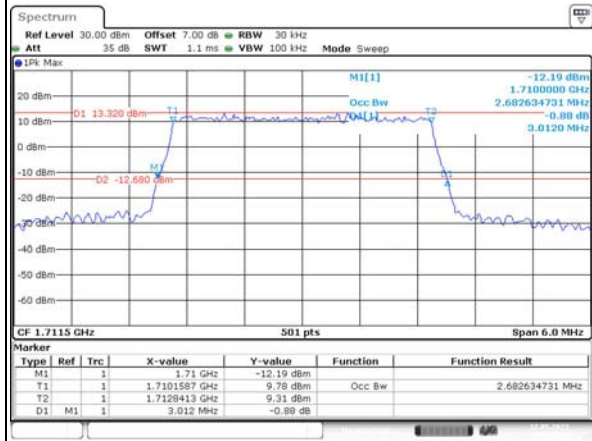
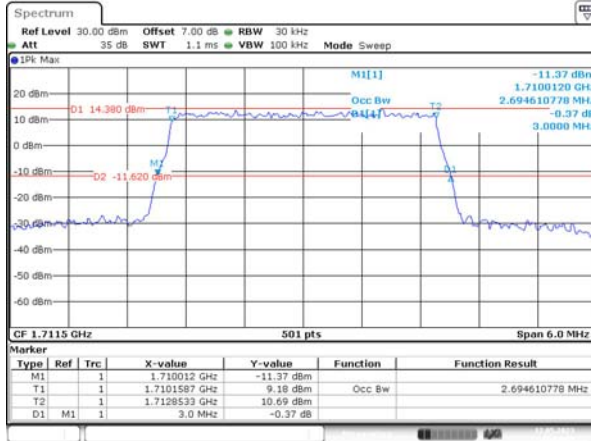
Occupied Bandwidth

Channel

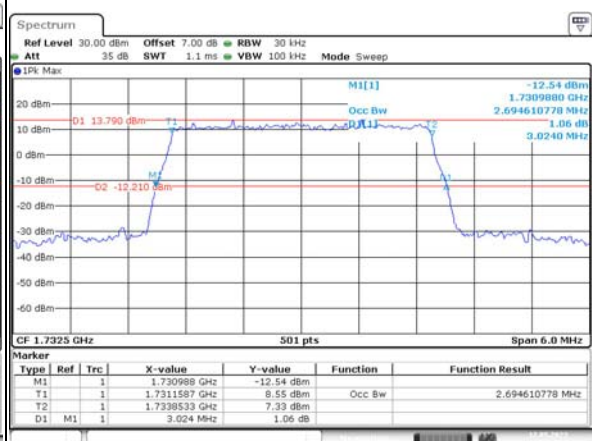
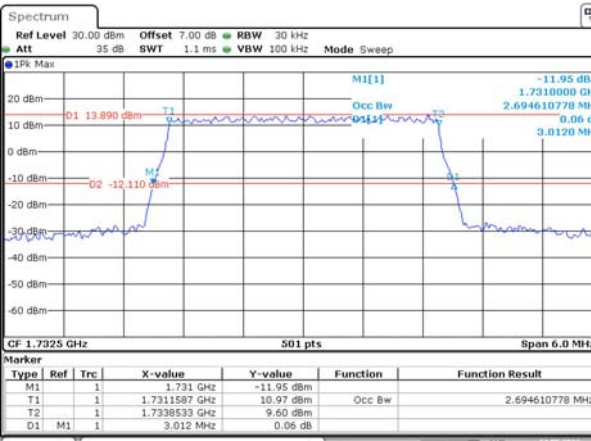
3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

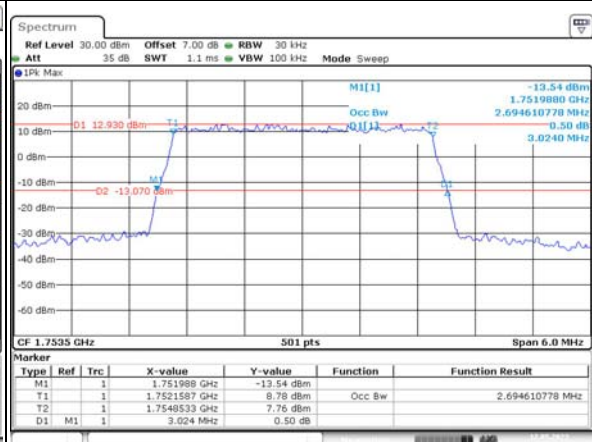
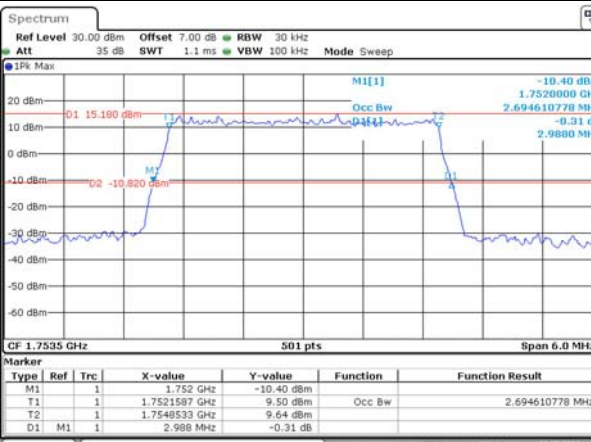
Lowest



Middle



Highest



Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM																																																																						
Lowest	<table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>1.71 GHz</td> <td>-9.30 dBm</td> <td></td> <td></td> </tr> <tr> <td>T1</td> <td>1</td> <td></td> <td>1.7102445 GHz</td> <td>11.27 dBm</td> <td>Occ Bw</td> <td>4.510978044 MHz</td> </tr> <tr> <td>T2</td> <td>1</td> <td></td> <td>1.7147555 GHz</td> <td>11.34 dBm</td> <td></td> <td></td> </tr> <tr> <td>D1</td> <td>M1</td> <td>1</td> <td>5.0 MHz</td> <td>0.41 dB</td> <td></td> <td></td> </tr> </tbody> </table>	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		1.71 GHz	-9.30 dBm			T1	1		1.7102445 GHz	11.27 dBm	Occ Bw	4.510978044 MHz	T2	1		1.7147555 GHz	11.34 dBm			D1	M1	1	5.0 MHz	0.41 dB			<table border="1"> <thead> <tr> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td>1.71 GHz</td> <td>-11.74 dBm</td> <td></td> <td></td> </tr> <tr> <td>T1</td> <td>1</td> <td></td> <td>1.7102246 GHz</td> <td>9.43 dBm</td> <td>Occ Bw</td> <td>4.530938124 MHz</td> </tr> <tr> <td>T2</td> <td>1</td> <td></td> <td>1.7147555 GHz</td> <td>11.16 dBm</td> <td></td> <td></td> </tr> <tr> <td>D1</td> <td>M1</td> <td>1</td> <td>5.02 MHz</td> <td>0.56 dB</td> <td></td> <td></td> </tr> </tbody> </table>	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		1.71 GHz	-11.74 dBm			T1	1		1.7102246 GHz	9.43 dBm	Occ Bw	4.530938124 MHz	T2	1		1.7147555 GHz	11.16 dBm			D1	M1	1	5.02 MHz	0.56 dB		
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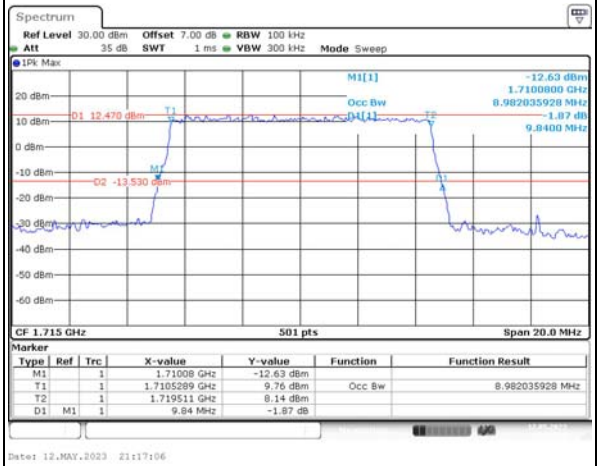
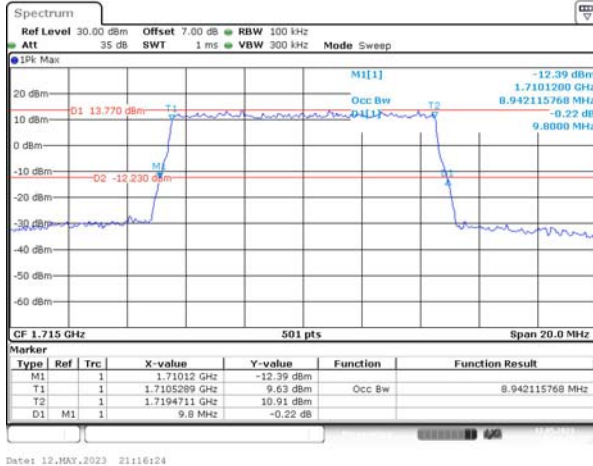
Occupied Bandwidth

Channel

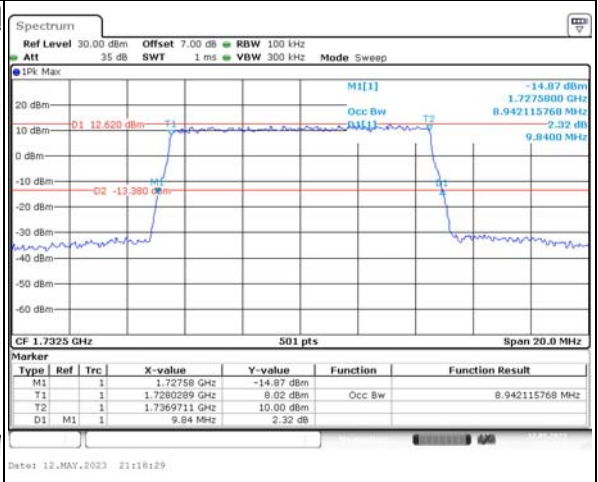
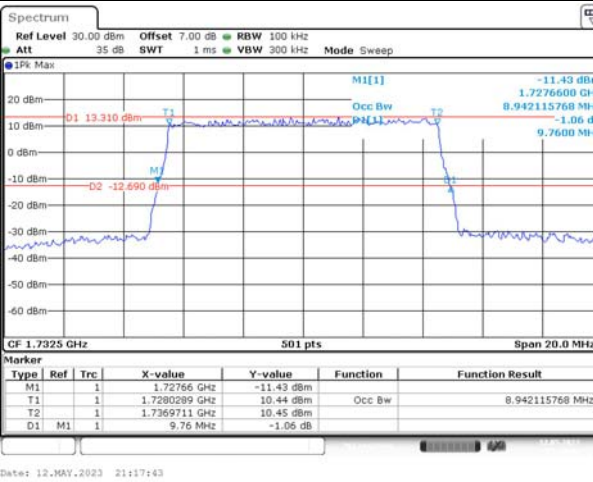
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

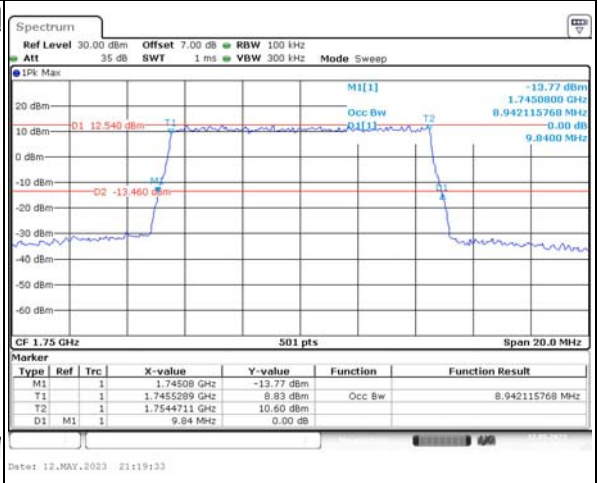
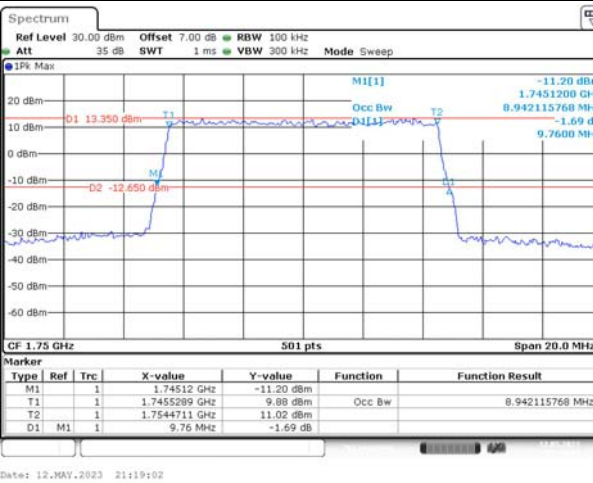
Lowest



Middle



Highest



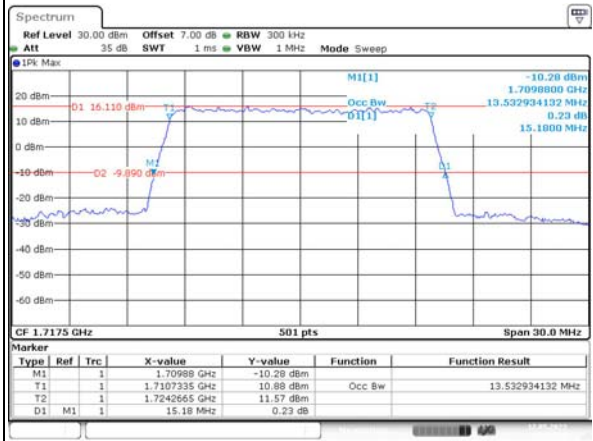
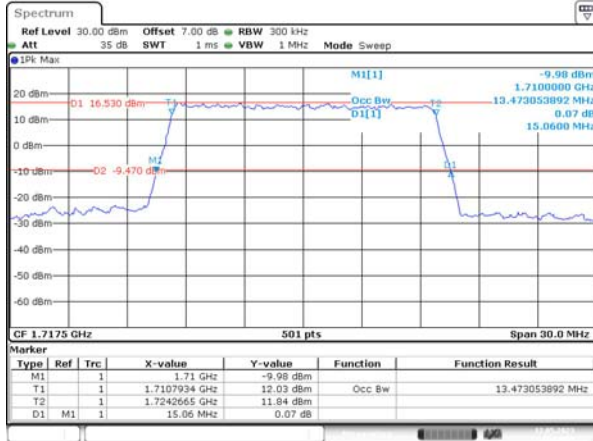
Occupied Bandwidth

Channel

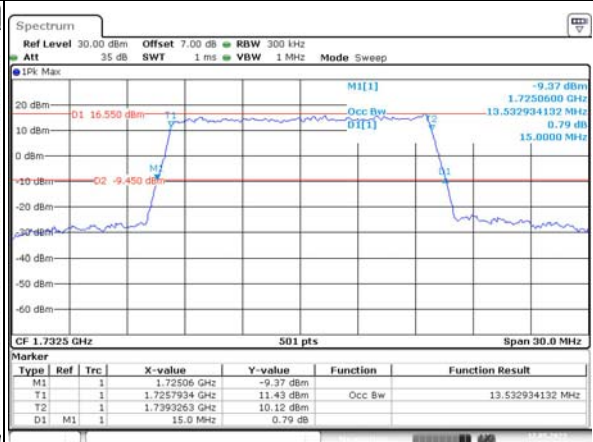
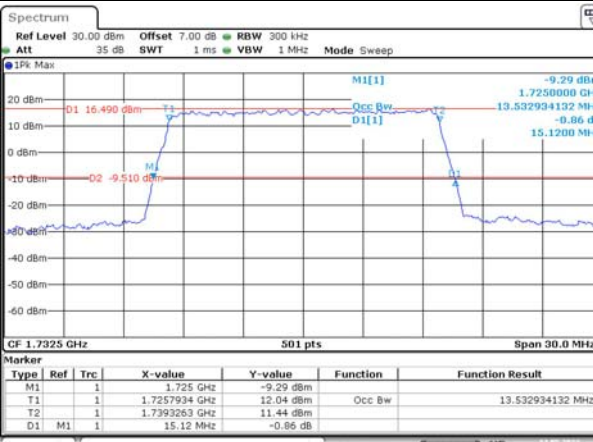
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

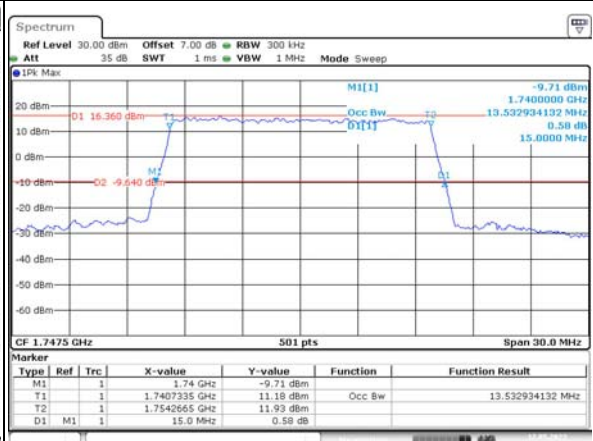
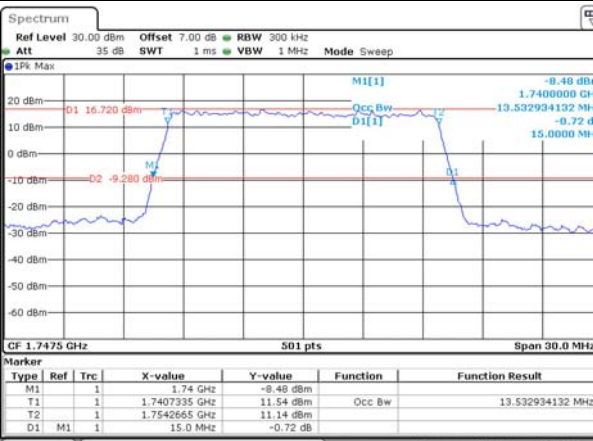
Lowest



Middle



Highest



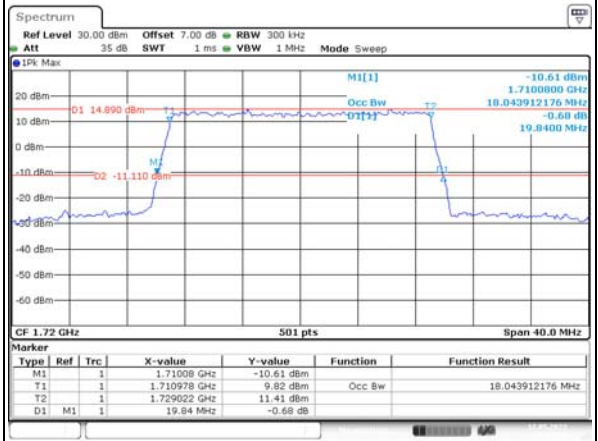
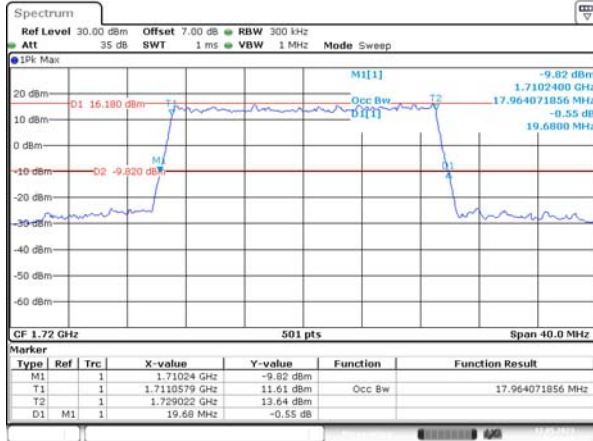
Occupied Bandwidth

Channel

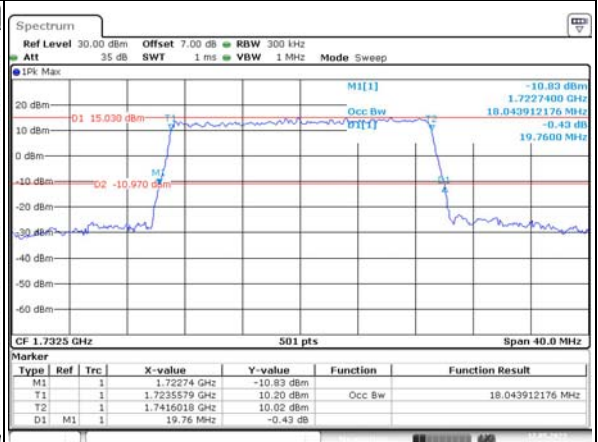
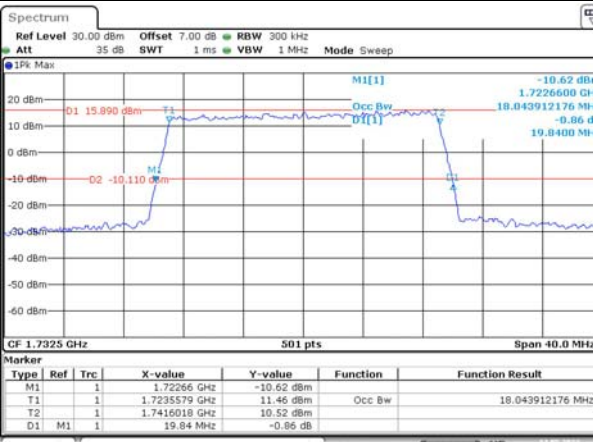
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

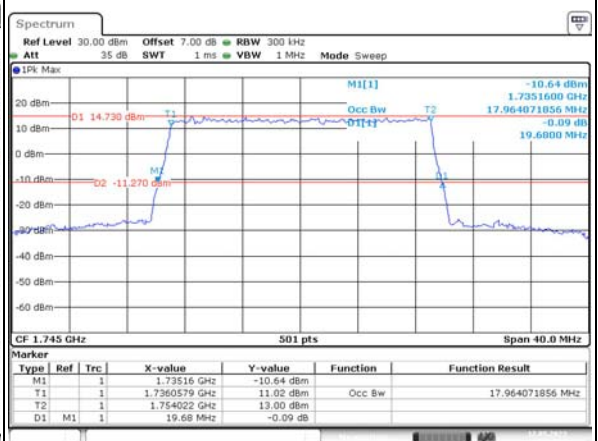
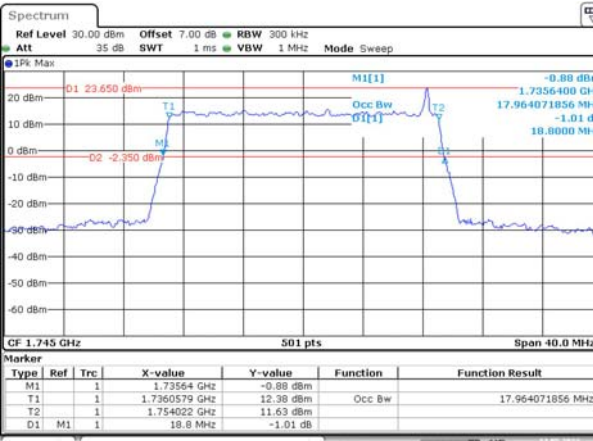
Lowest



Middle



Highest

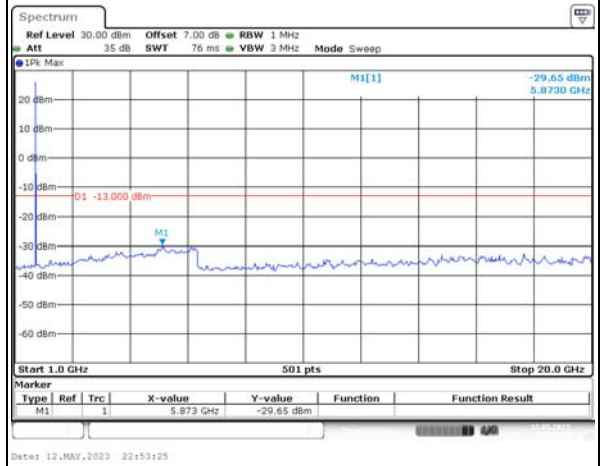
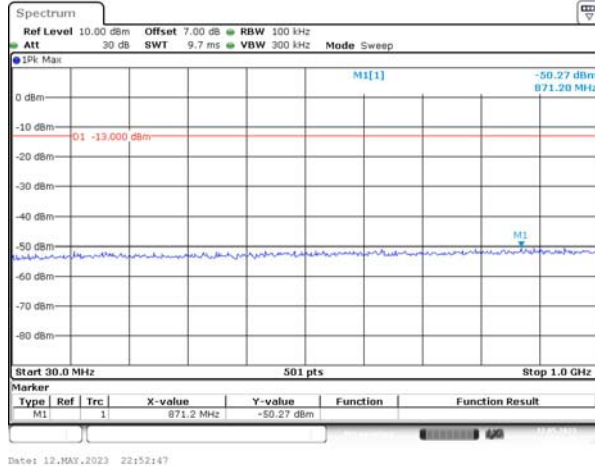


Spurious Emissions at Antenna Terminal

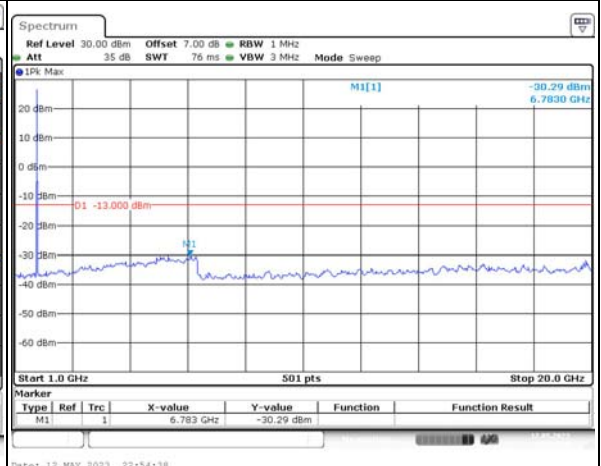
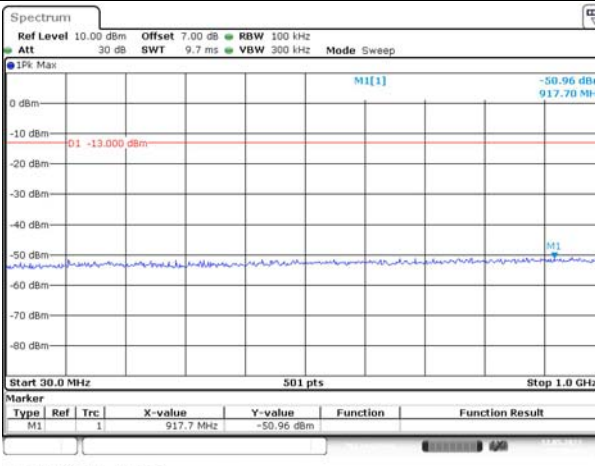
Channel

1.4MHz Bandwidth QPSK

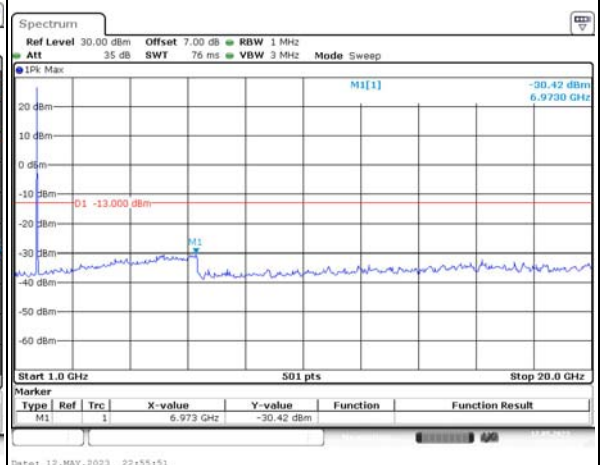
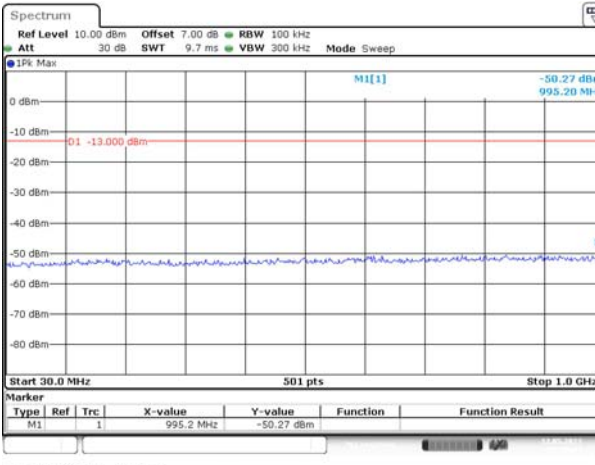
Lowest



Middle



Highest

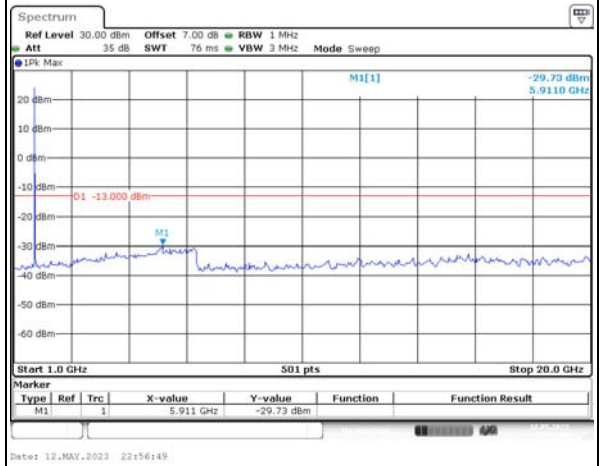
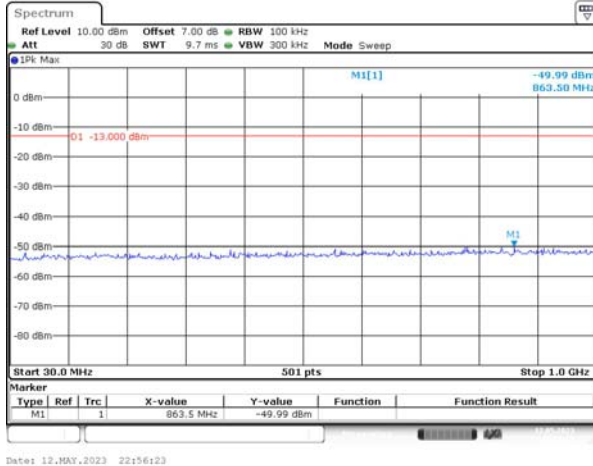


Spurious Emissions at Antenna Terminal

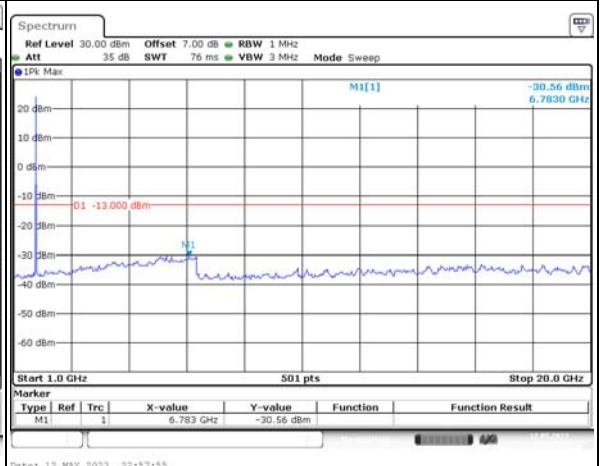
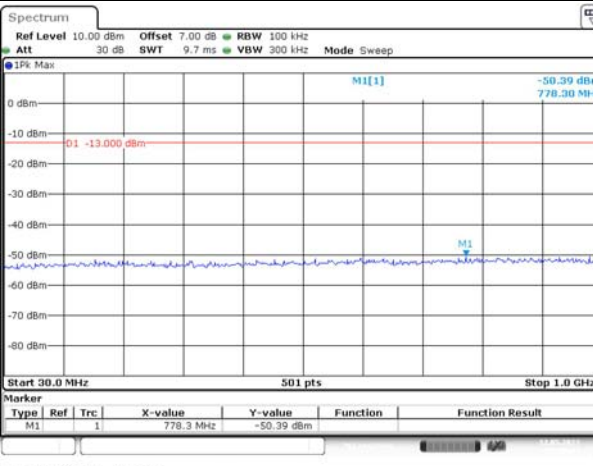
Channel

3MHz Bandwidth QPSK

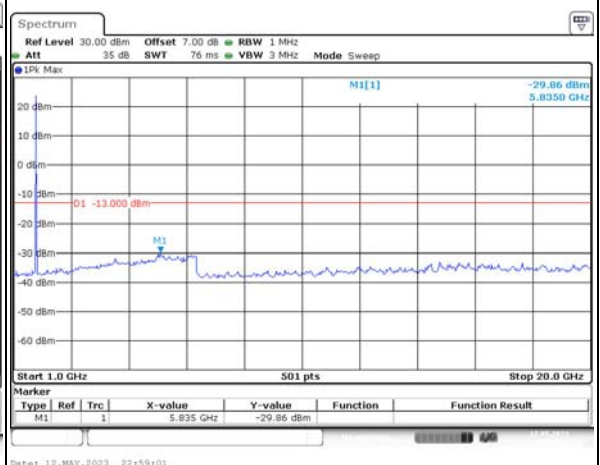
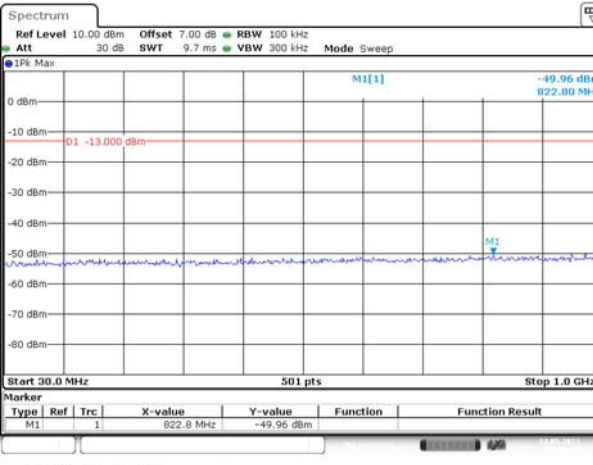
Lowest



Middle



Highest

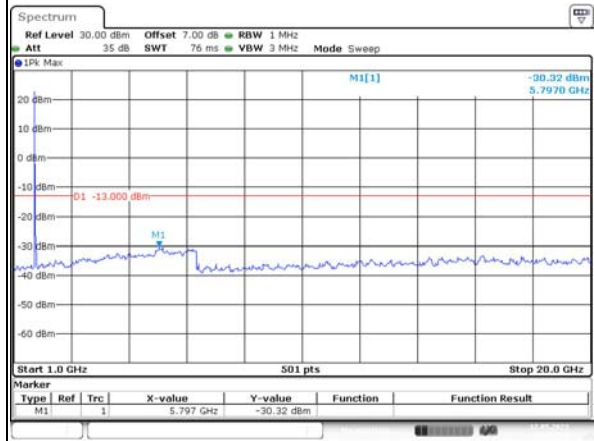
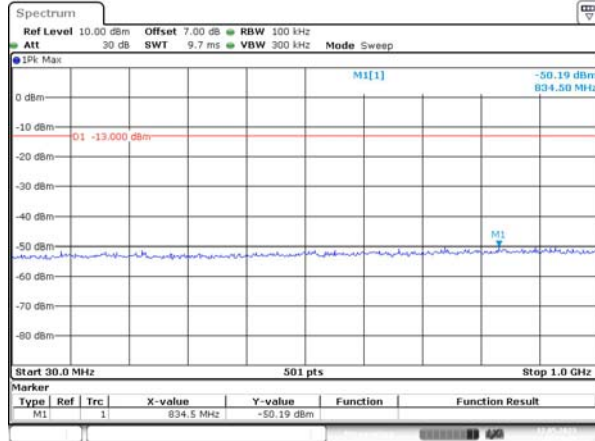


Spurious Emissions at Antenna Terminal

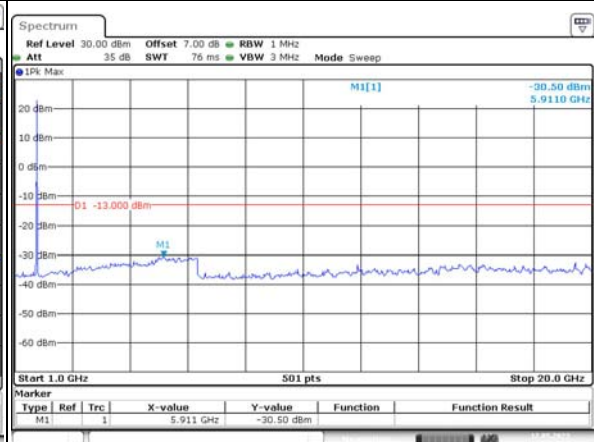
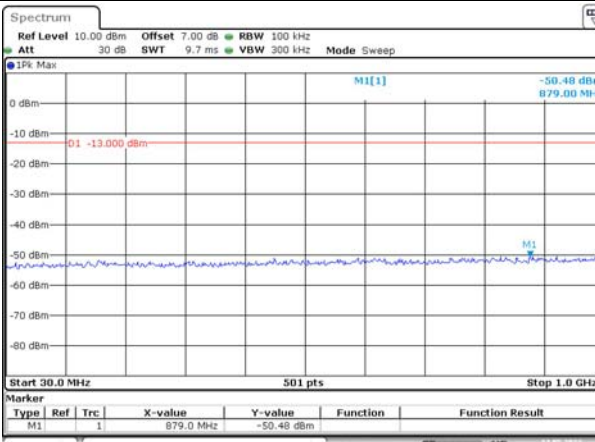
Channel

5MHz Bandwidth QPSK

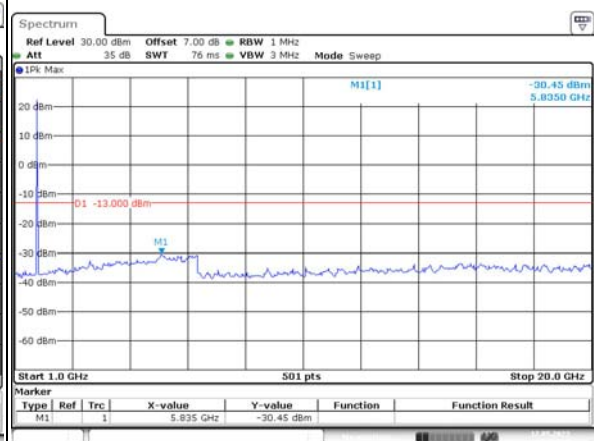
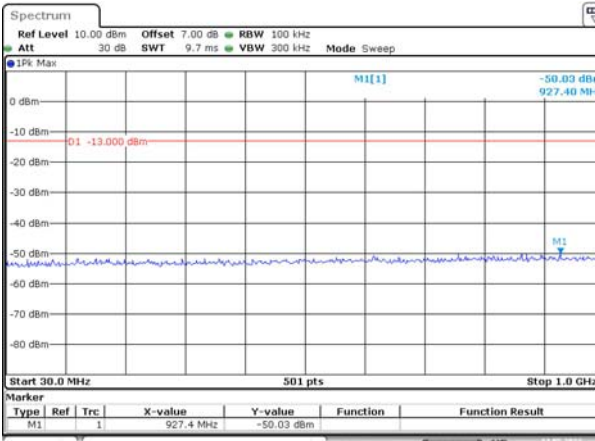
Lowest



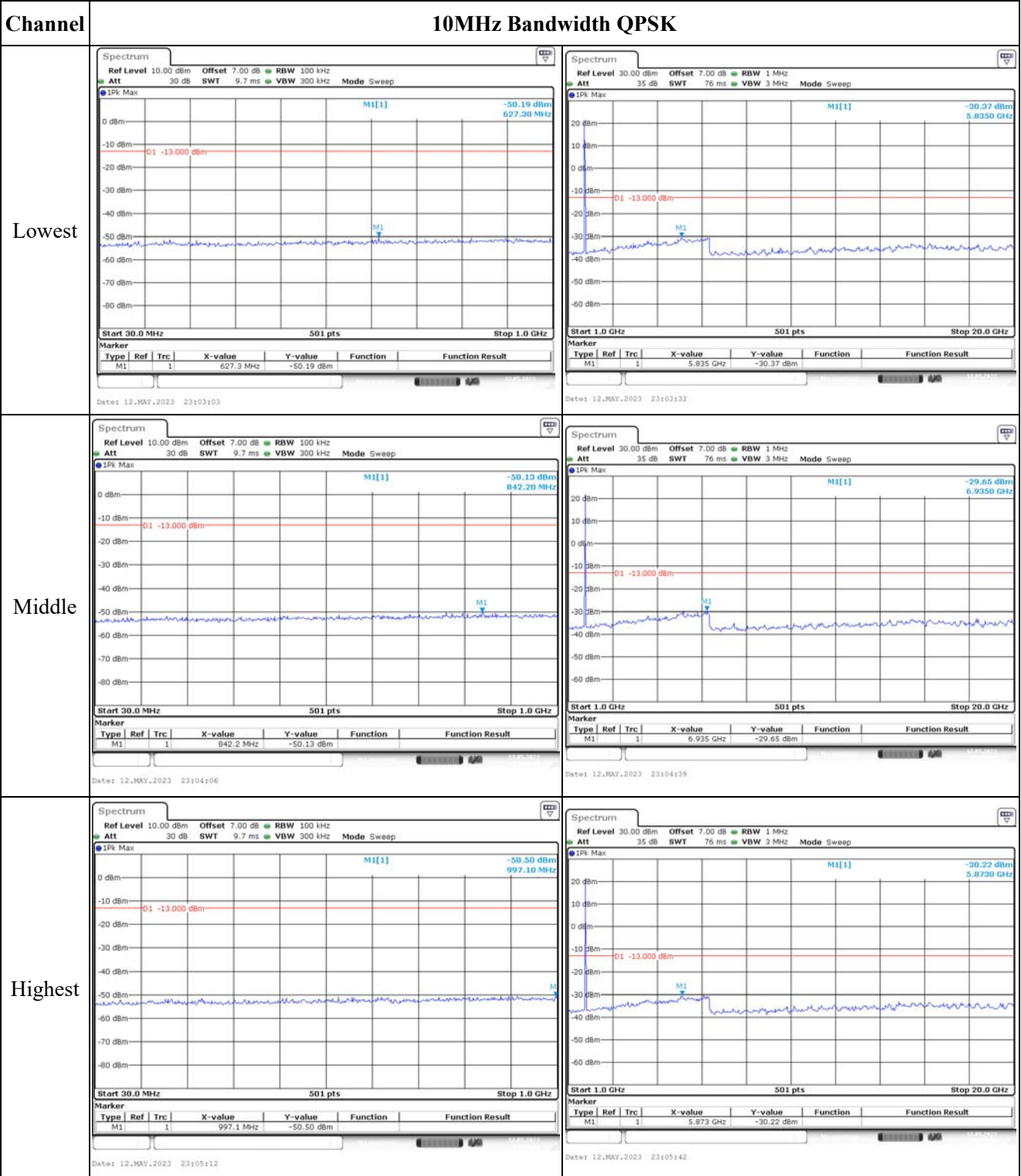
Middle



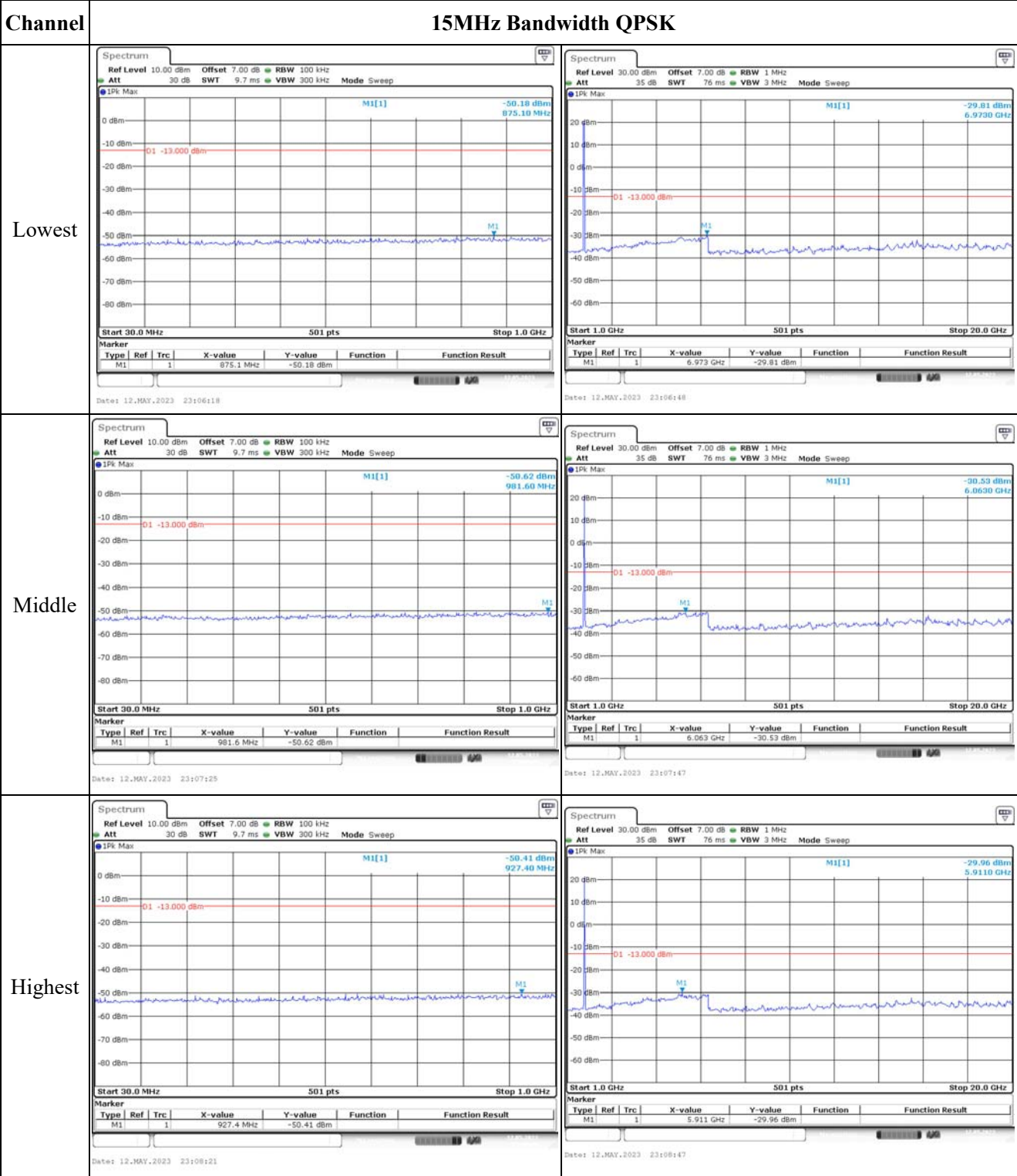
Highest



Spurious Emissions at Antenna Terminal



Spurious Emissions at Antenna Terminal

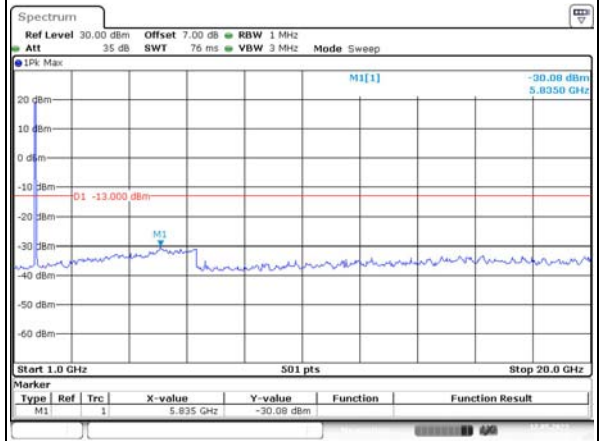
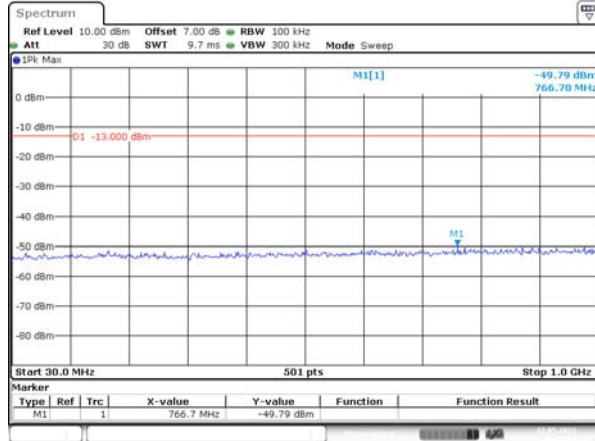


Spurious Emissions at Antenna Terminal

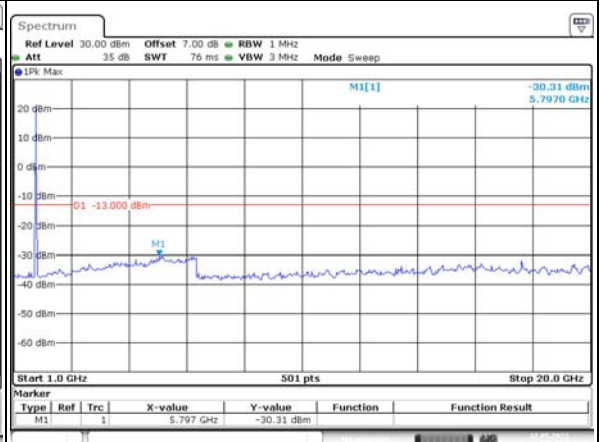
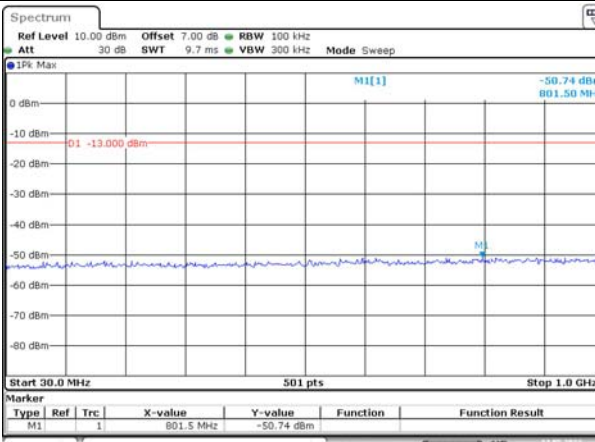
Channel

20MHz Bandwidth QPSK

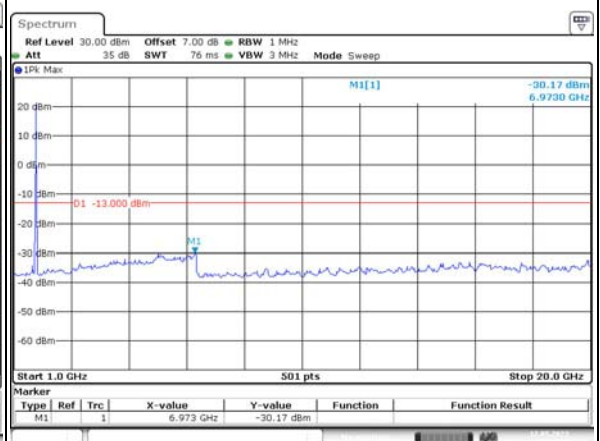
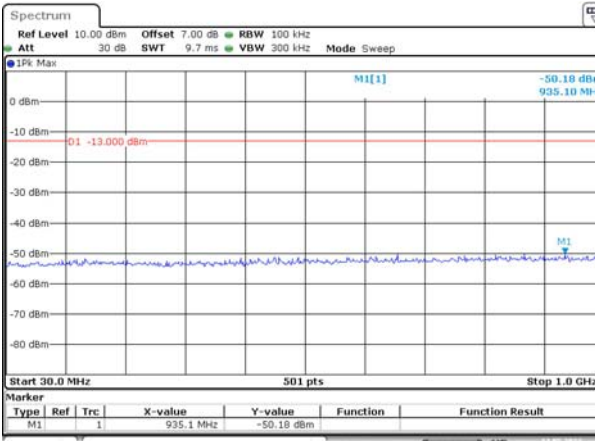
Lowest



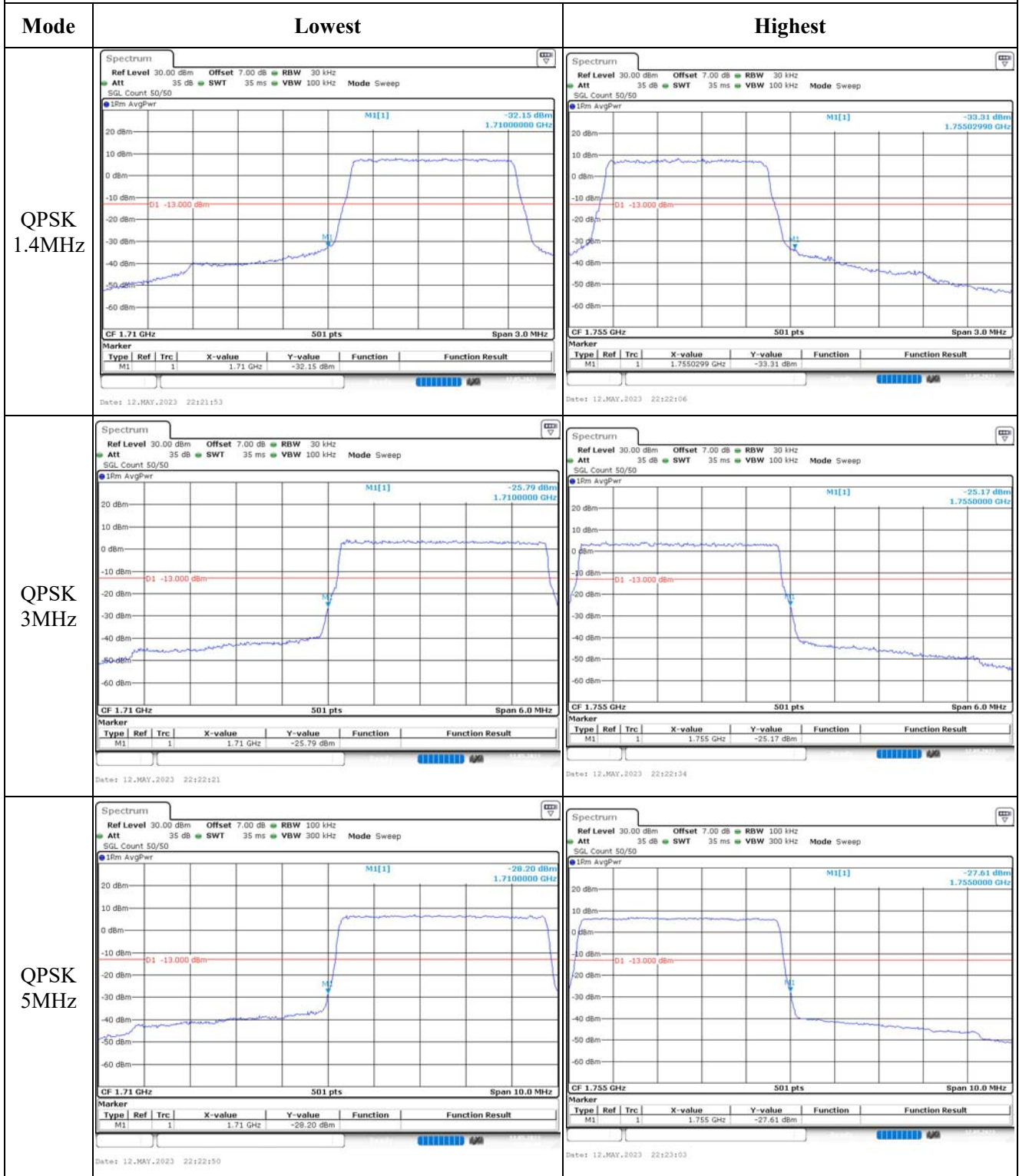
Middle



Highest



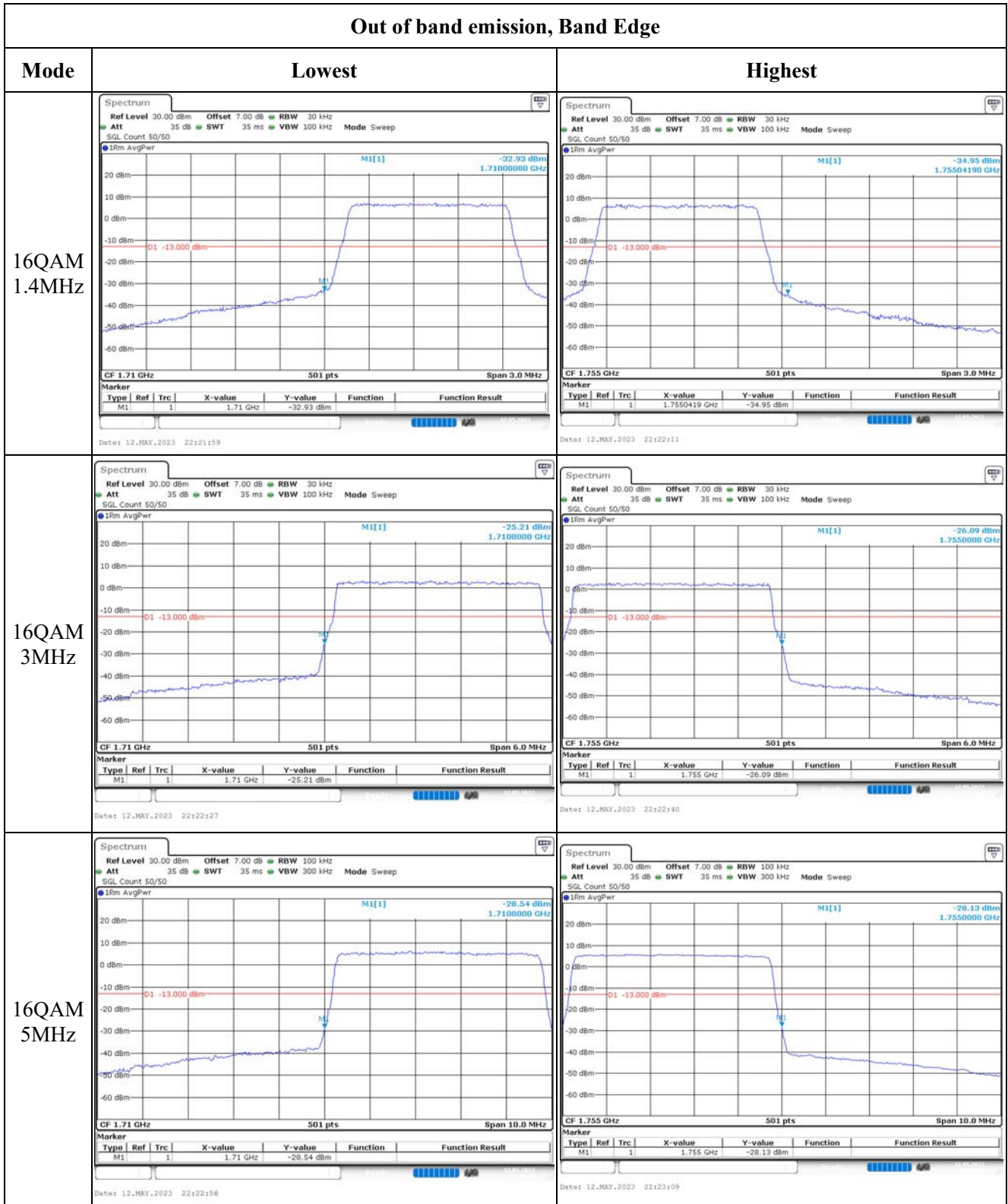
Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz		
QPSK 15MHz		
QPSK 20MHz		

Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest	Highest																																
16QAM 10MHz	<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.71 GHz 501 pts Span 20.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.71 GHz</td> <td>-36.64 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:23:26</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.71 GHz	-36.64 dBm			<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.755 GHz 501 pts Span 20.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.755 GHz</td> <td>-35.83 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:23:40</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.755 GHz	-35.83 dBm		
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.71 GHz	-36.64 dBm																													
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.755 GHz	-35.83 dBm																													
16QAM 15MHz	<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.71 GHz 501 pts Span 30.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.71 GHz</td> <td>-31.13 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:23:57</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.71 GHz	-31.13 dBm			<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.755 GHz 501 pts Span 30.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.755 GHz</td> <td>-32.24 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:24:12</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.755 GHz	-32.24 dBm		
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.71 GHz	-31.13 dBm																													
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.755 GHz	-32.24 dBm																													
16QAM 20MHz	<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.71 GHz 501 pts Span 40.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.71 GHz</td> <td>-34.10 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:24:31</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.71 GHz	-34.10 dBm			<p>Ref Level 30.00 dBm Offset 7.00 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 15m AvgPwr</p> <p>CF 1.755 GHz 501 pts Span 40.0 MHz</p> <table border="1"> <thead> <tr> <th>Marker</th> <th>Type</th> <th>Ref</th> <th>Trc</th> <th>X-value</th> <th>Y-value</th> <th>Function</th> <th>Function Result</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>1</td> <td></td> <td></td> <td>1.755 GHz</td> <td>-35.69 dBm</td> <td></td> <td></td> </tr> </tbody> </table> <p>Date: 12.MAY.2023 22:24:46</p>	Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1			1.755 GHz	-35.69 dBm		
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.71 GHz	-34.10 dBm																													
Marker	Type	Ref	Trc	X-value	Y-value	Function	Function Result																											
M1	1			1.755 GHz	-35.69 dBm																													

4.8 Antenna Port Test Data and Results for LTE Band 5

Serial Number:	25FP-1	Test Date:	2023/05/12~2023/05/18
Test Site:	RF	Test Mode:	Transmitting
Tester:	One Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.3~27.2	Relative Humidity: (%)	42~61	ATM Pressure: (kPa)	100.5~101.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2022/07/15	2023/07/14
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2022/07/15	2023/07/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/03/31	2024/03/30
UNI-T	Multimeter	UT39A+	C210582554	2022/09/29	2023/09/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (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)
1.4MHz	824.7	836.5	848.3
3MHz	825.5	836.5	847.5
5MHz	826.5	836.5	846.5
10MHz	829	836.5	844

Test Data:**FCC§2.1046;§ 22.913 (a)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	23.92	23.78	23.85	21.4	38.45
	RB1#3	23.95	23.9	23.79		
	RB1#5	24.01	23.89	23.85		
	RB3#0	23.97	23.98	24.01		
	RB3#3	23.92	23.99	23.87		
	RB6#0	22.92	22.87	22.92		
1.4MHz 16QAM	RB1#0	22.49	22.81	23.6	21.07	38.45
	RB1#3	22.55	22.96	23.68		
	RB1#5	22.49	23	23.58		
	RB3#0	23.03	22.71	22.69		
	RB3#3	22.91	22.72	22.81		
	RB6#0	22.07	21.76	21.87		
3MHz QPSK	RB1#0	23.88	23.8	23.82	21.33	38.45
	RB1#8	23.8	23.92	23.84		
	RB1#14	23.79	23.94	23.87		
	RB6#0	22.93	22.73	22.74		
	RB6#9	22.9	22.92	22.93		
	RB15#0	22.92	22.93	22.88		
3MHz 16QAM	RB1#0	23.46	22.41	22.93	20.92	38.45
	RB1#8	23.44	22.58	22.98		
	RB1#14	23.53	22.59	23		
	RB6#0	21.82	22.47	21.86		
	RB6#9	21.79	21.99	21.9		
	RB15#0	21.98	21.78	21.84		
5MHz QPSK	RB1#0	23.96	23.69	23.83	21.36	38.45
	RB1#13	23.97	23.77	23.75		
	RB1#24	23.95	23.76	23.78		
	RB15#0	22.89	22.67	22.81		
	RB15#10	22.95	22.77	22.75		
	RB25#0	22.86	22.94	22.84		
5MHz 16QAM	RB1#0	22.94	22.41	21.98	20.34	38.45
	RB1#13	22.95	22.51	21.95		
	RB1#24	22.8	22.53	22.07		
	RB15#0	21.65	22.33	21.87		
	RB15#10	21.64	21.79	21.83		
	RB25#0	21.81	21.76	21.92		
10MHz QPSK	RB1#0	23.9	23.78	23.7	21.41	38.45
	RB1#25	23.94	23.93	23.82		
	RB1#49	24.02	23.93	23.83		

	RB25#0	22.8	22.72	22.85		
	RB25#25	22.7	22.73	22.9		
	RB50#0	22.81	22.95	22.75		
10MHz 16QAM	RB1#0	23.04	22.26	22.94	20.45	38.45
	RB1#25	22.97	22.38	22.99		
	RB1#49	22.95	22.43	23.06		
	RB25#0	21.91	22.44	21.85		
	RB25#25	21.96	22	21.87		
	RB50#0	21.84	21.82	21.87		

Note:
 ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)
 G_T(dBd)=G_T(dBi)-2.15

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	
10MHz QPSK	RB1#0	4.72	4.81	4.72	13
	RB50#0	5.16	5.1	4.96	13
10MHz 16QAM	RB1#0	5.77	5.71	5.86	13
	RB50#0	6.09	6.03	5.88	13

Result: **Pass**

FCC §2.1049, §22.905: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
1.4MHz QPSK	1.102	1.102	1.102	1.26	1.254	1.26
1.4MHz 16QAM	1.09	1.102	1.096	1.248	1.254	1.254
3MHz QPSK	2.695	2.683	2.695	3	3.012	2.988
3MHz 16QAM	2.683	2.683	2.695	3	3.024	3.012
5MHz QPSK	4.511	4.511	4.531	5.02	4.98	5
5MHz 16QAM	4.531	4.551	4.511	5.02	5	5
10MHz QPSK	8.982	8.942	8.942	9.8	9.8	9.8
10MHz 16QAM	8.982	8.942	8.942	9.8	9.84	9.76

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, §22.917(a):Spurious Emissions at Antenna Terminal	
Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.

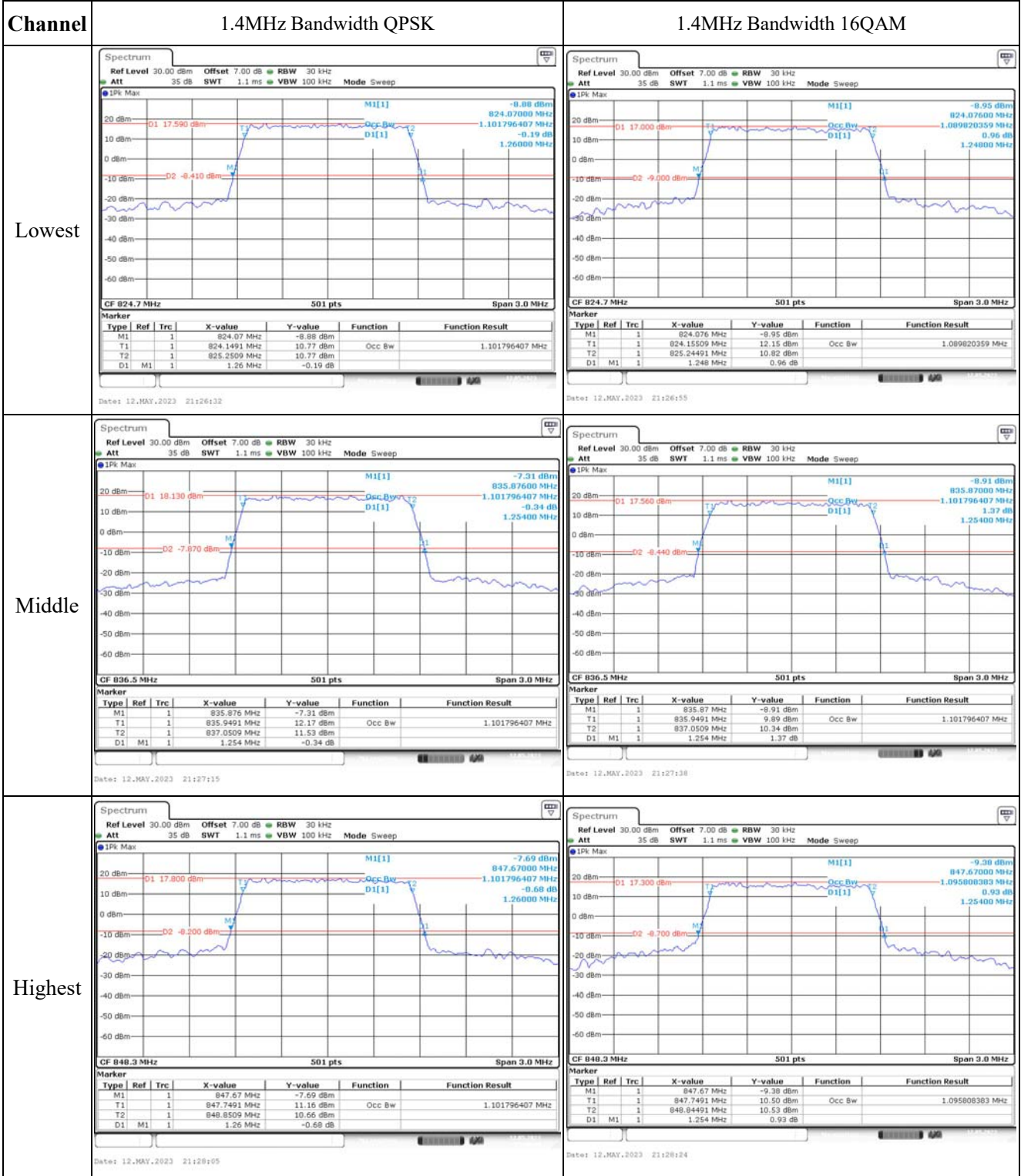
FCC §2.1051, §22.917(a):Out of band emission, Band Edge	
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.

FCC §2.1055, §22.355: Frequency Stability					
Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	-15.25	-0.018	2.5
	-20	3.8	8.5	0.010	2.5
	-10	3.8	-6.2	-0.007	2.5
	0	3.8	-6.43	-0.008	2.5
	10	3.8	9.9	0.012	2.5
	20	3.8	9.96	0.012	2.5
	30	3.8	-8.05	-0.010	2.5
	40	3.8	-8.11	-0.010	2.5
	50	3.8	8.63	0.010	2.5
Frequency Stability vs. Voltage	20	3.6	-9.03	-0.011	2.5
	20	4.35	7.89	0.009	2.5
				Result:	Pass

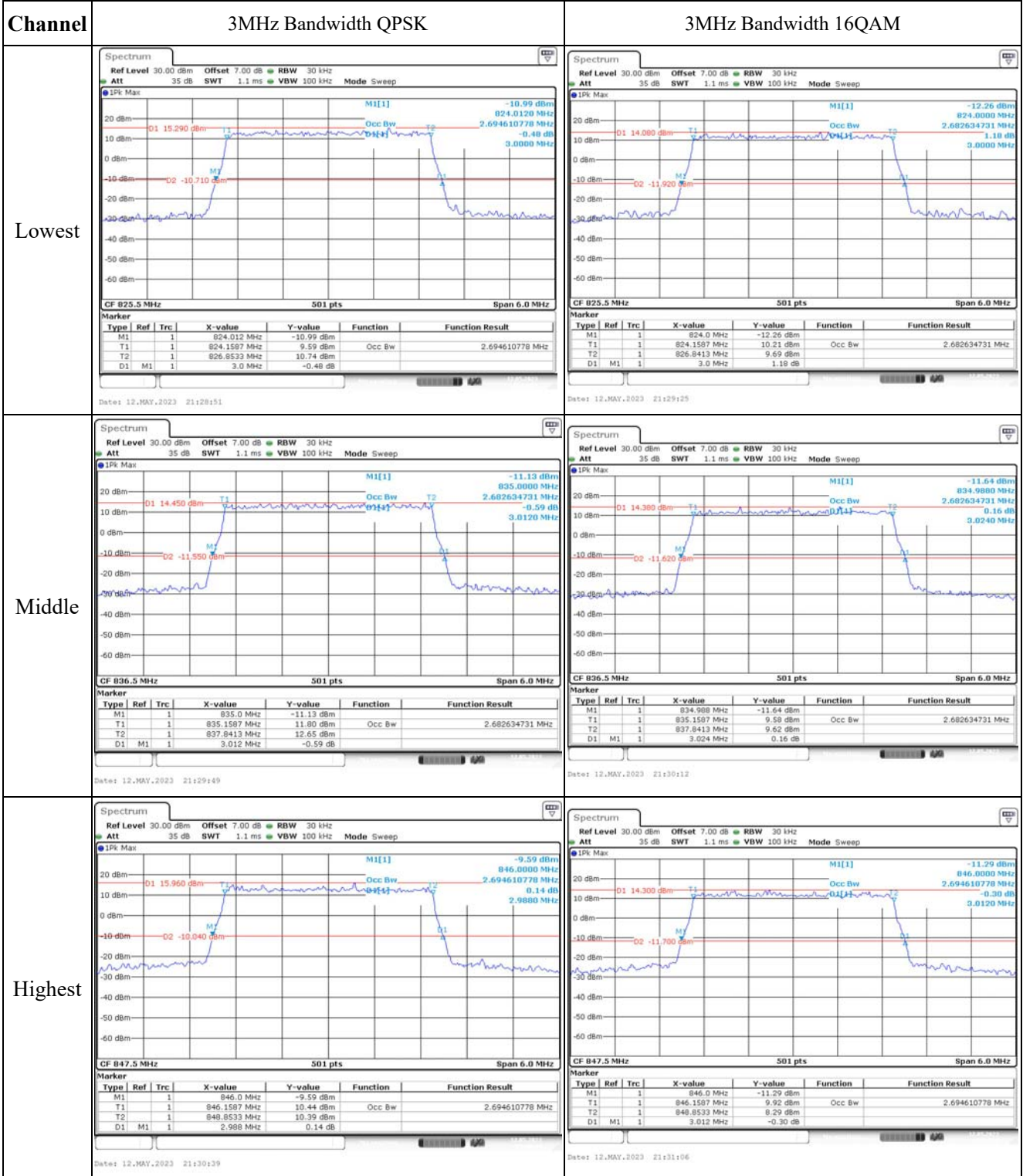
Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	-16.05	-0.019	2.5
	-20	3.8	-5.45	-0.007	2.5
	-10	3.8	5.38	0.006	2.5
	0	3.8	-5.96	-0.007	2.5
	10	3.8	7.1	0.008	2.5
	20	3.8	6.58	0.008	2.5
	30	3.8	-6.31	-0.008	2.5
	40	3.8	8.1	0.010	2.5
	50	3.8	-5.14	-0.006	2.5
Frequency Stability vs. Voltage	20	3.6	-6.22	-0.007	2.5
	20	4.35	-8.39	-0.010	2.5
				Result:	Pass

Test Plots(Note: The 7dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

Occupied Bandwidth



Occupied Bandwidth



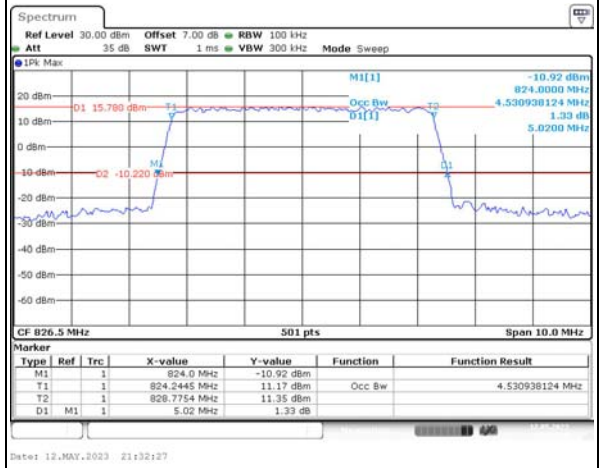
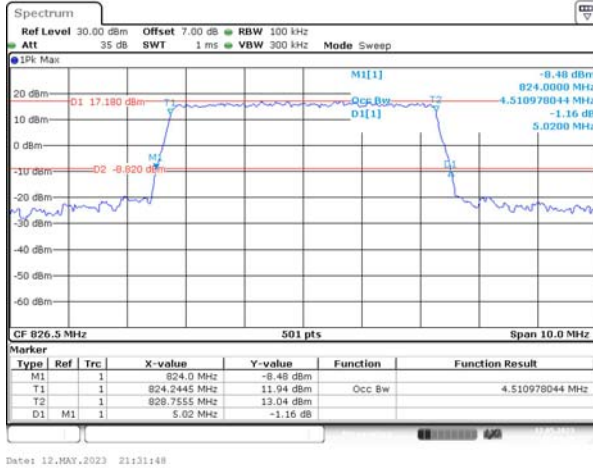
Occupied Bandwidth

Channel

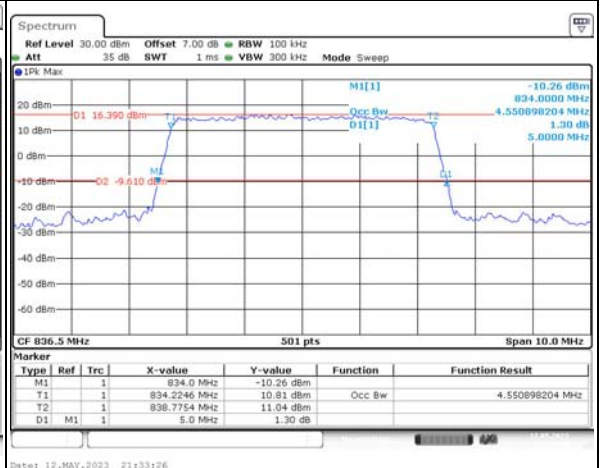
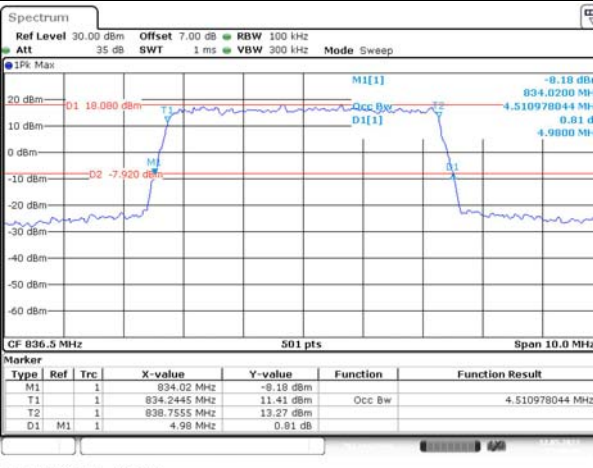
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

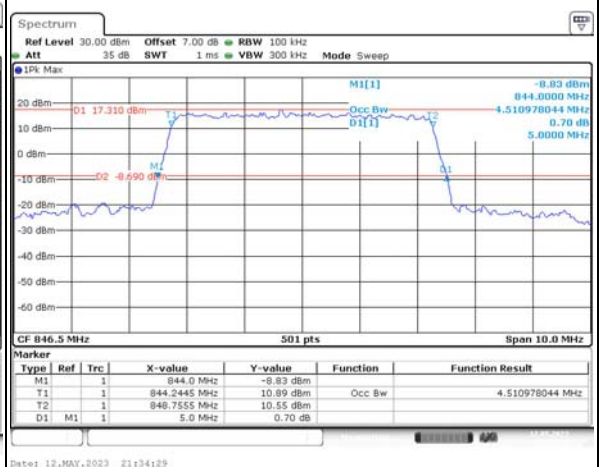
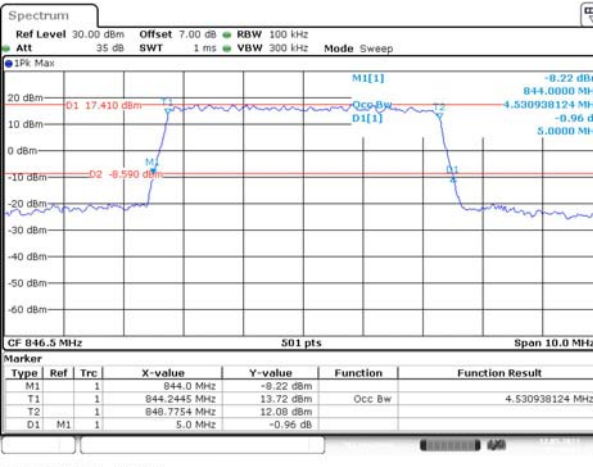
Lowest



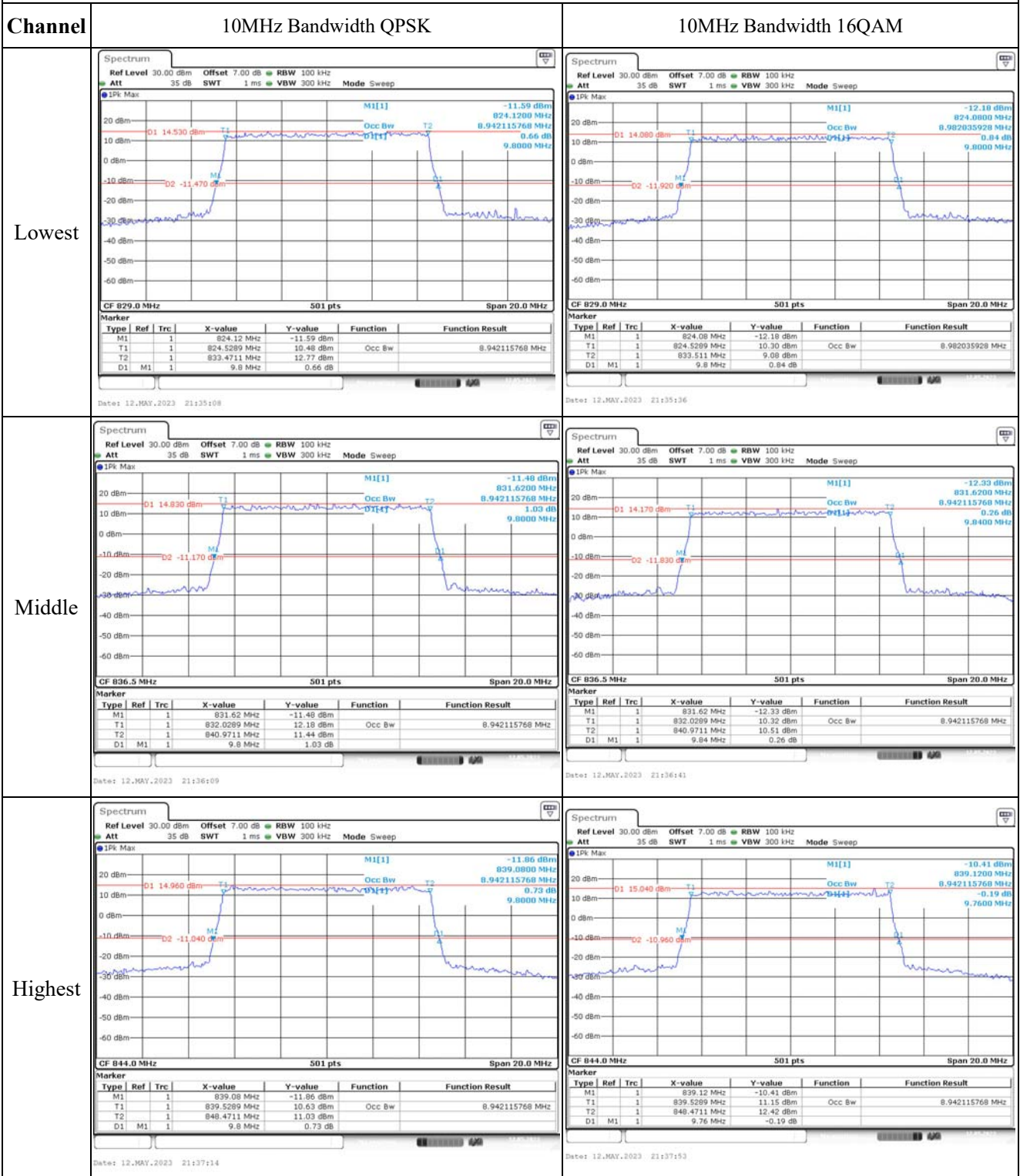
Middle



Highest



Occupied Bandwidth

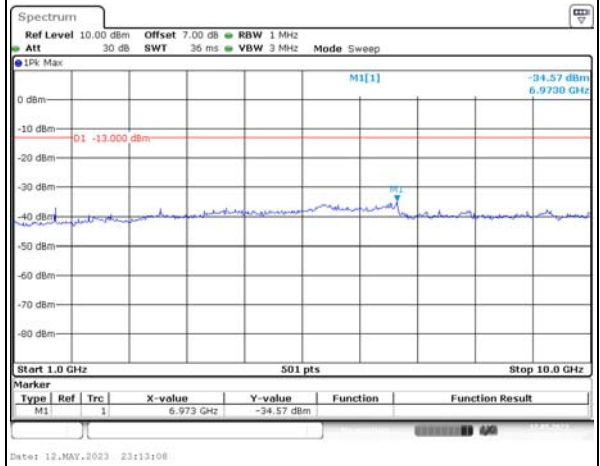
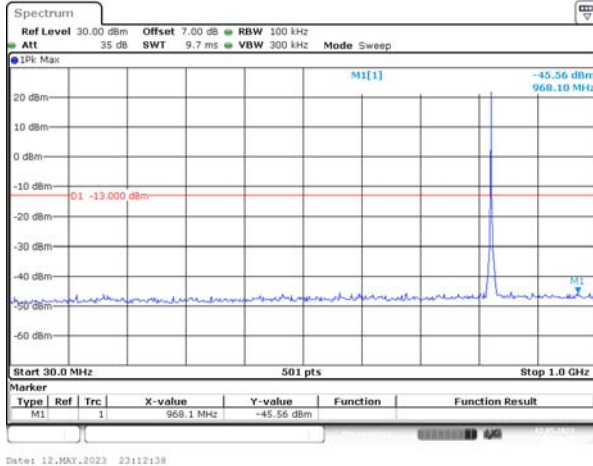


Spurious Emissions at Antenna Terminal

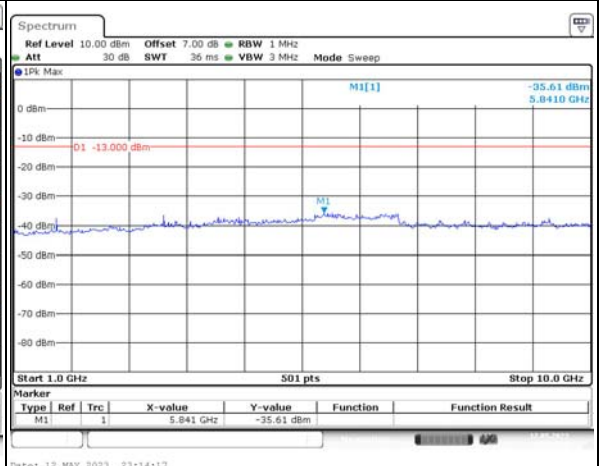
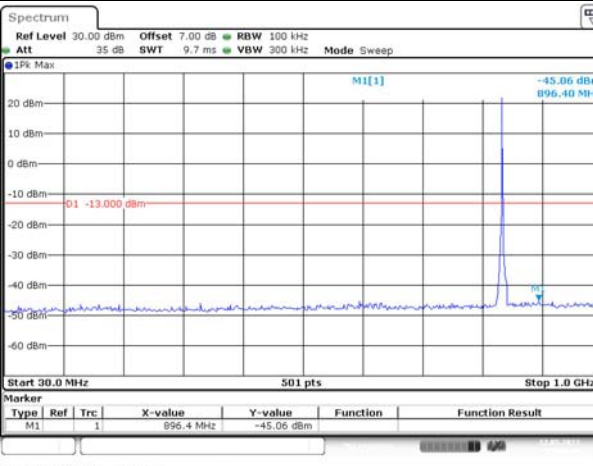
Channel

1.4MHz Bandwidth QPSK

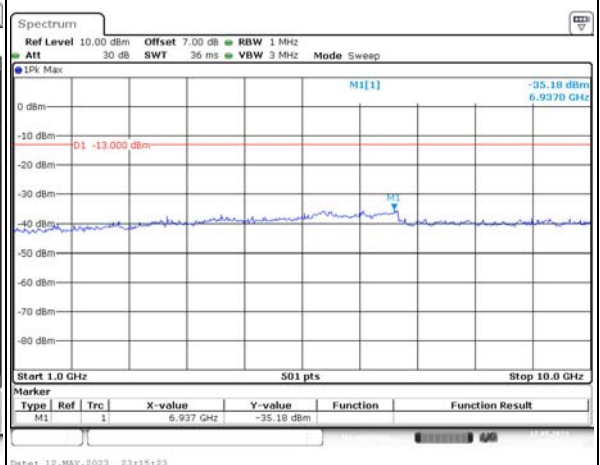
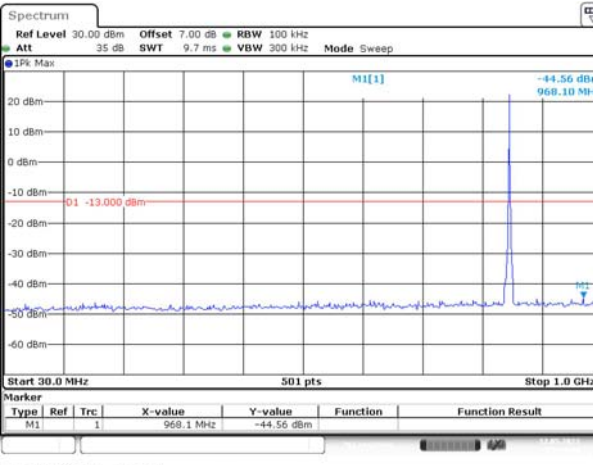
Lowest



Middle



Highest

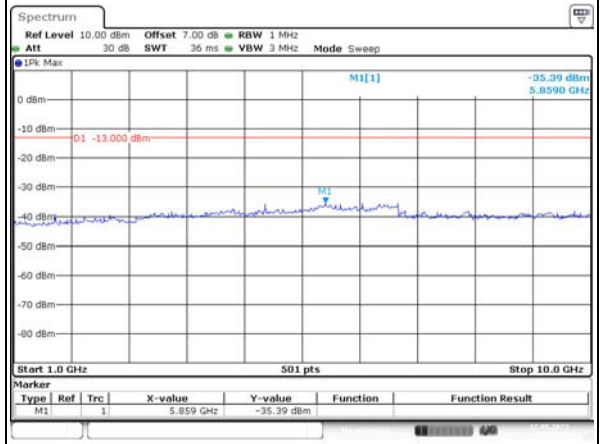
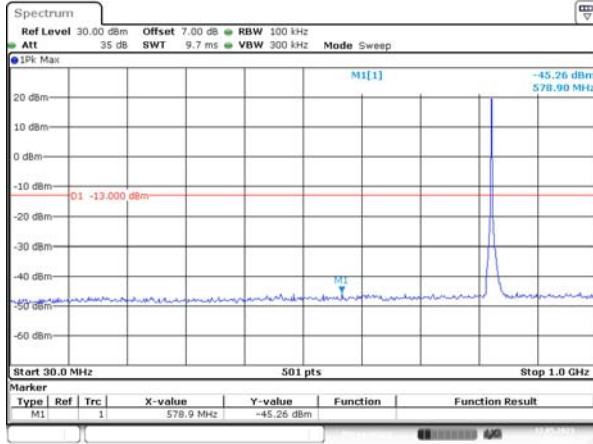


Spurious Emissions at Antenna Terminal

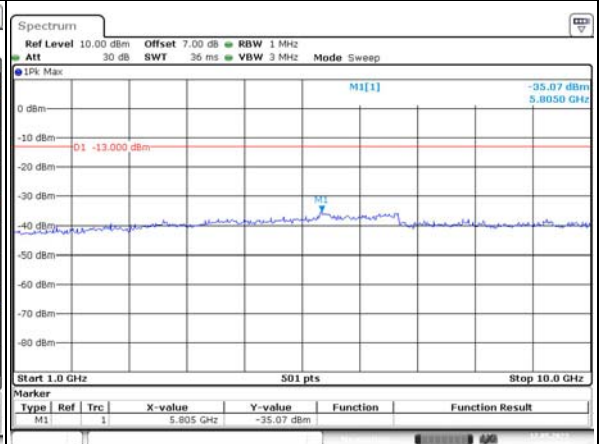
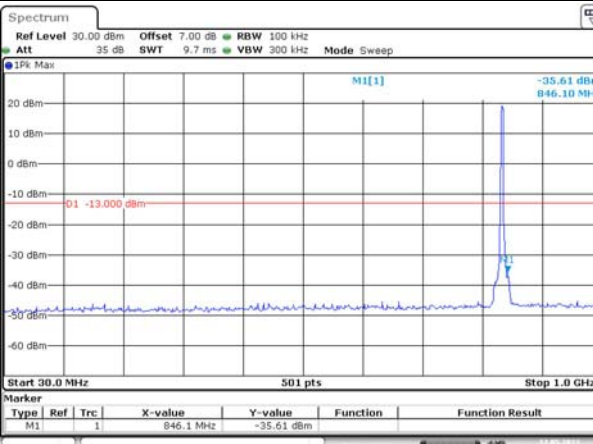
Channel

3MHz Bandwidth QPSK

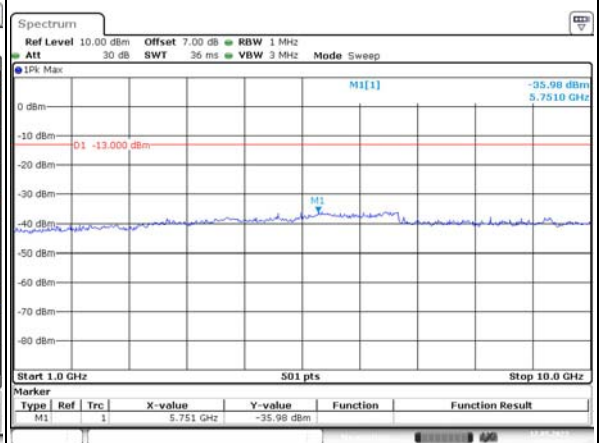
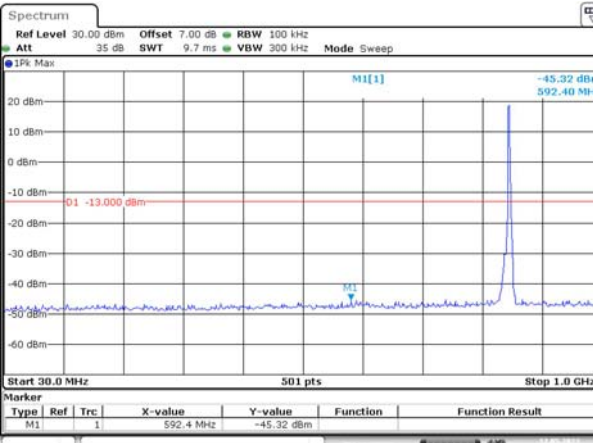
Lowest



Middle



Highest

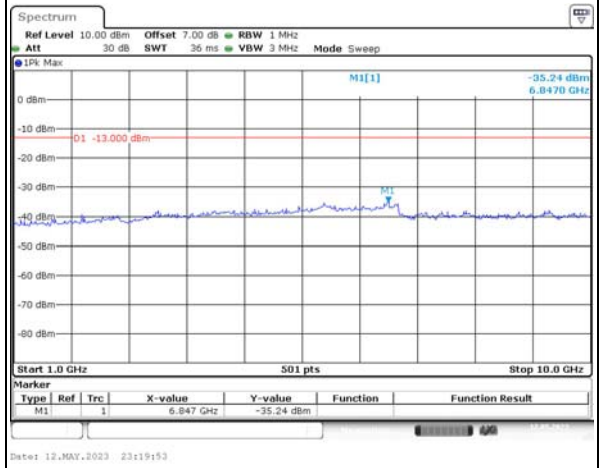
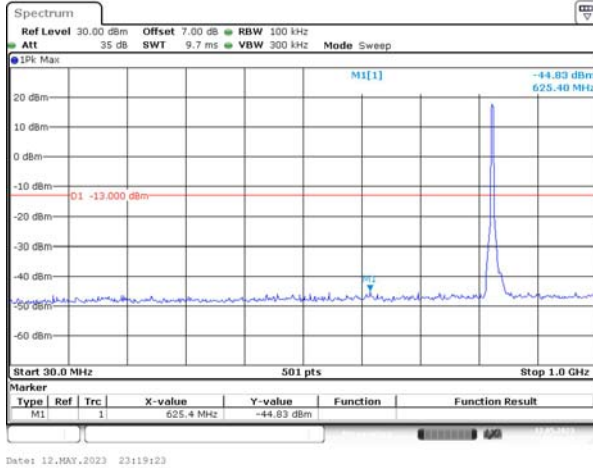


Spurious Emissions at Antenna Terminal

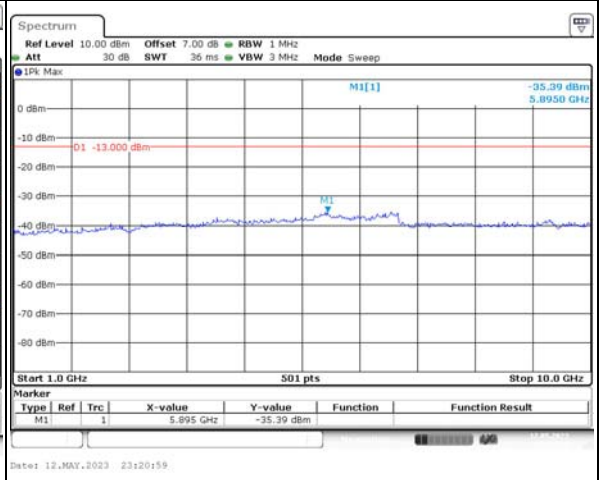
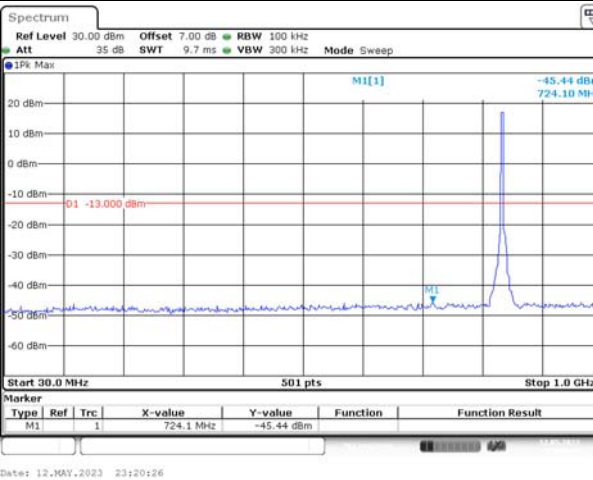
Channel

5MHz Bandwidth QPSK

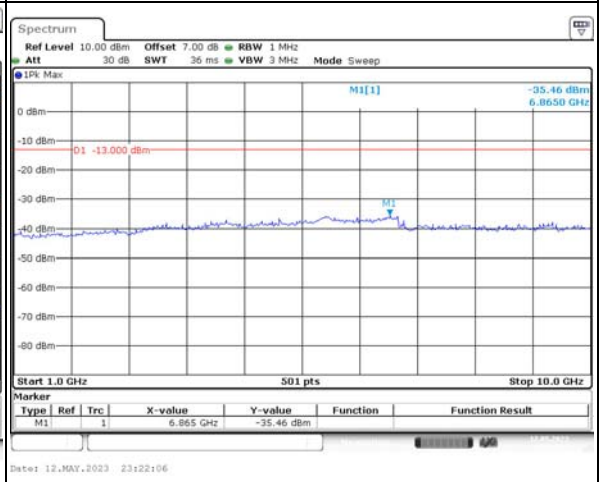
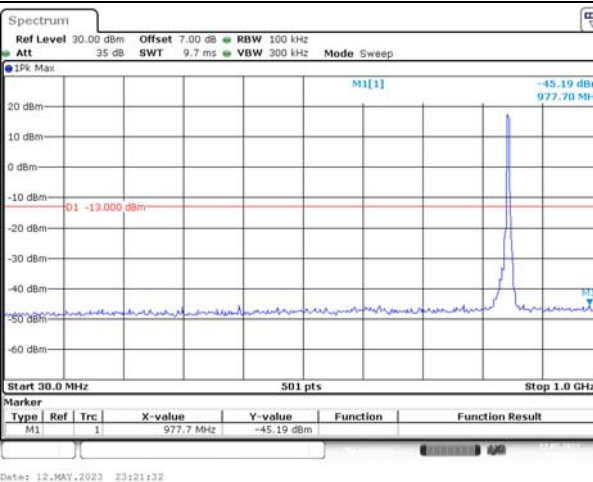
Lowest



Middle



Highest

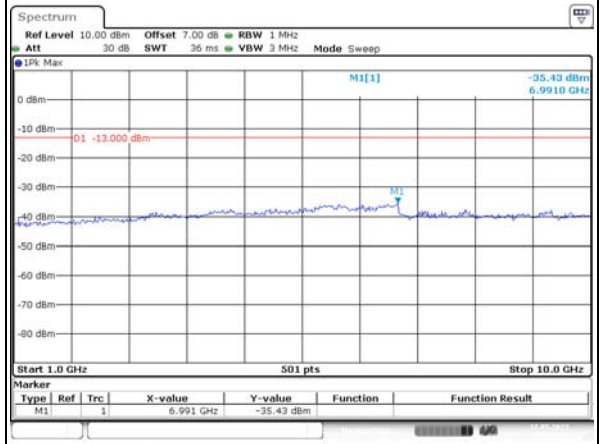
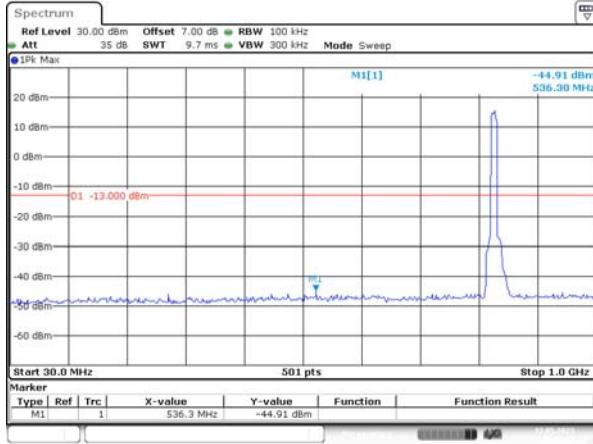


Spurious Emissions at Antenna Terminal

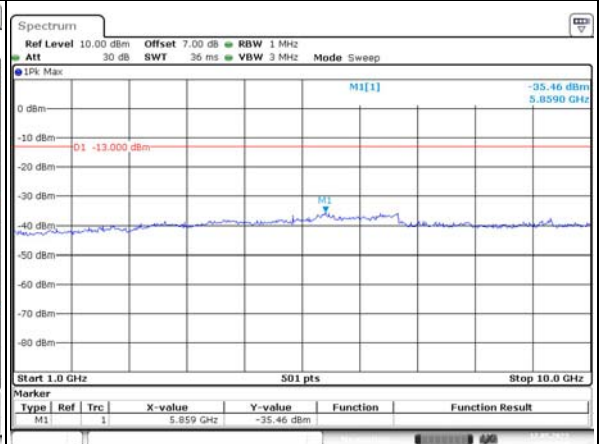
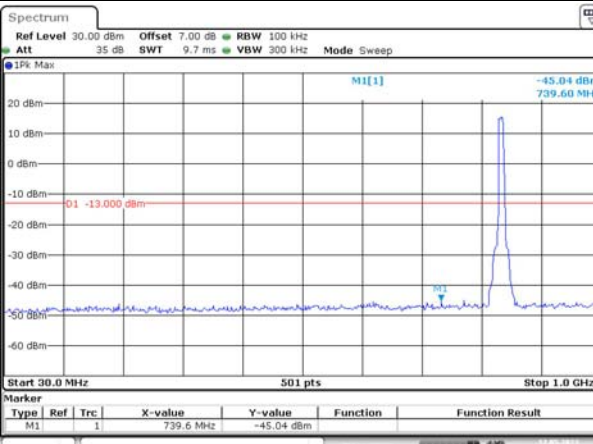
Channel

10MHz Bandwidth QPSK

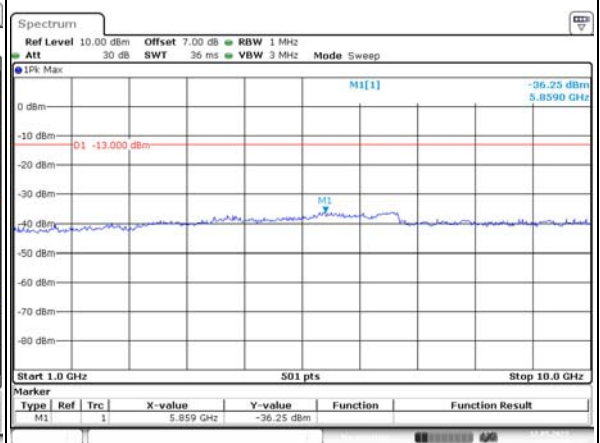
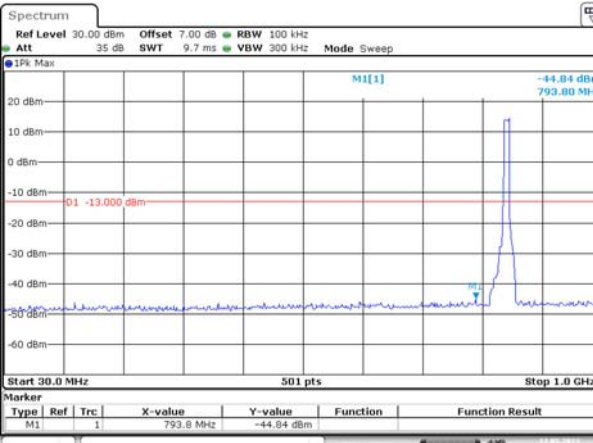
Lowest



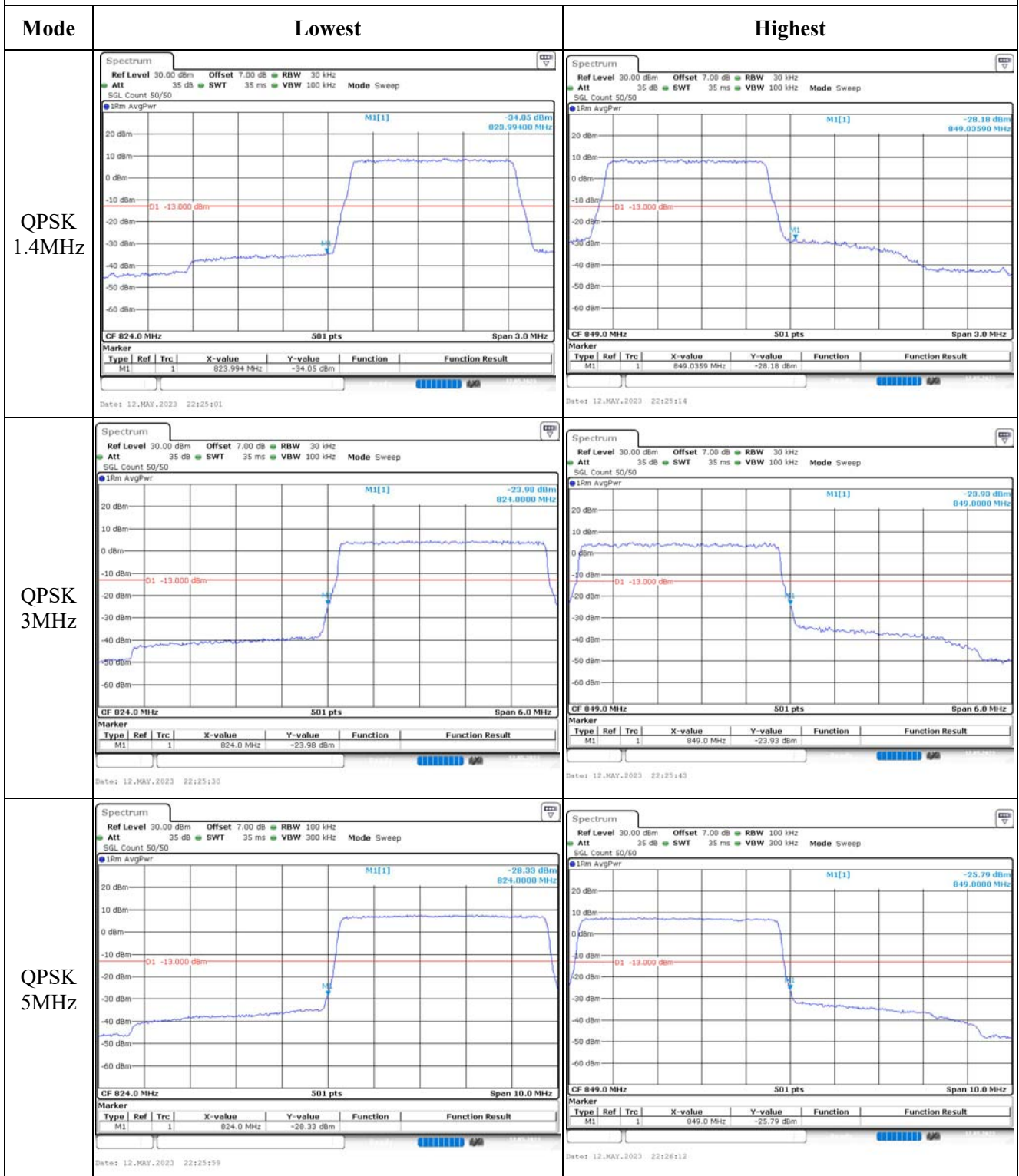
Middle



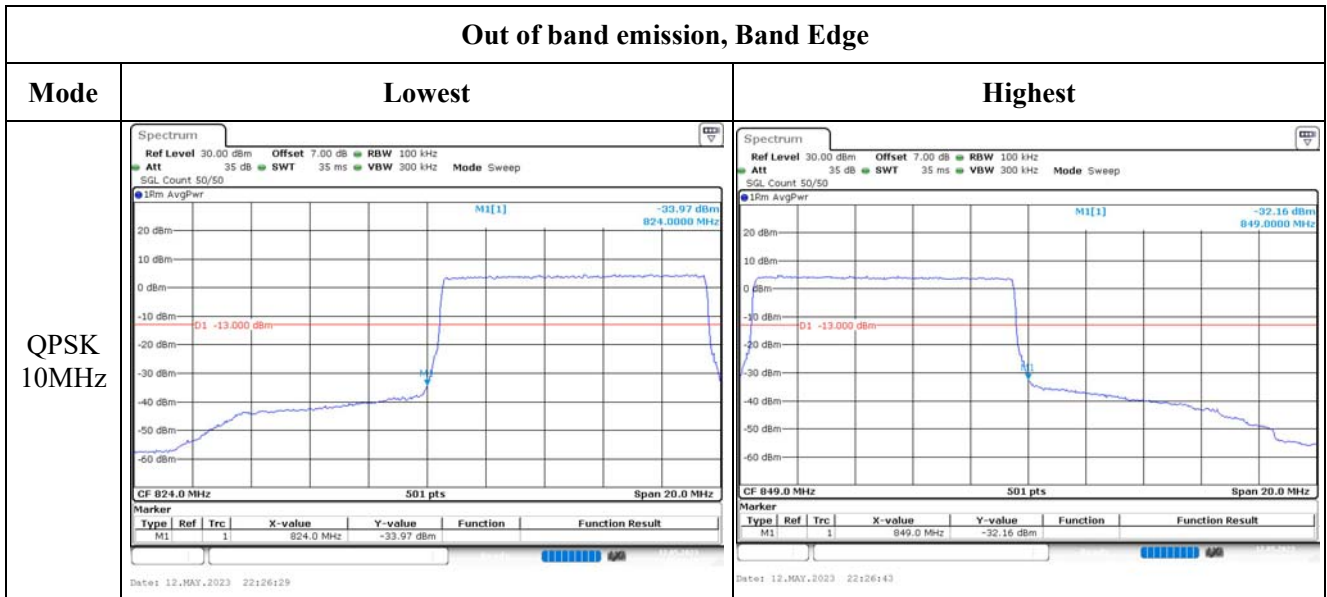
Highest



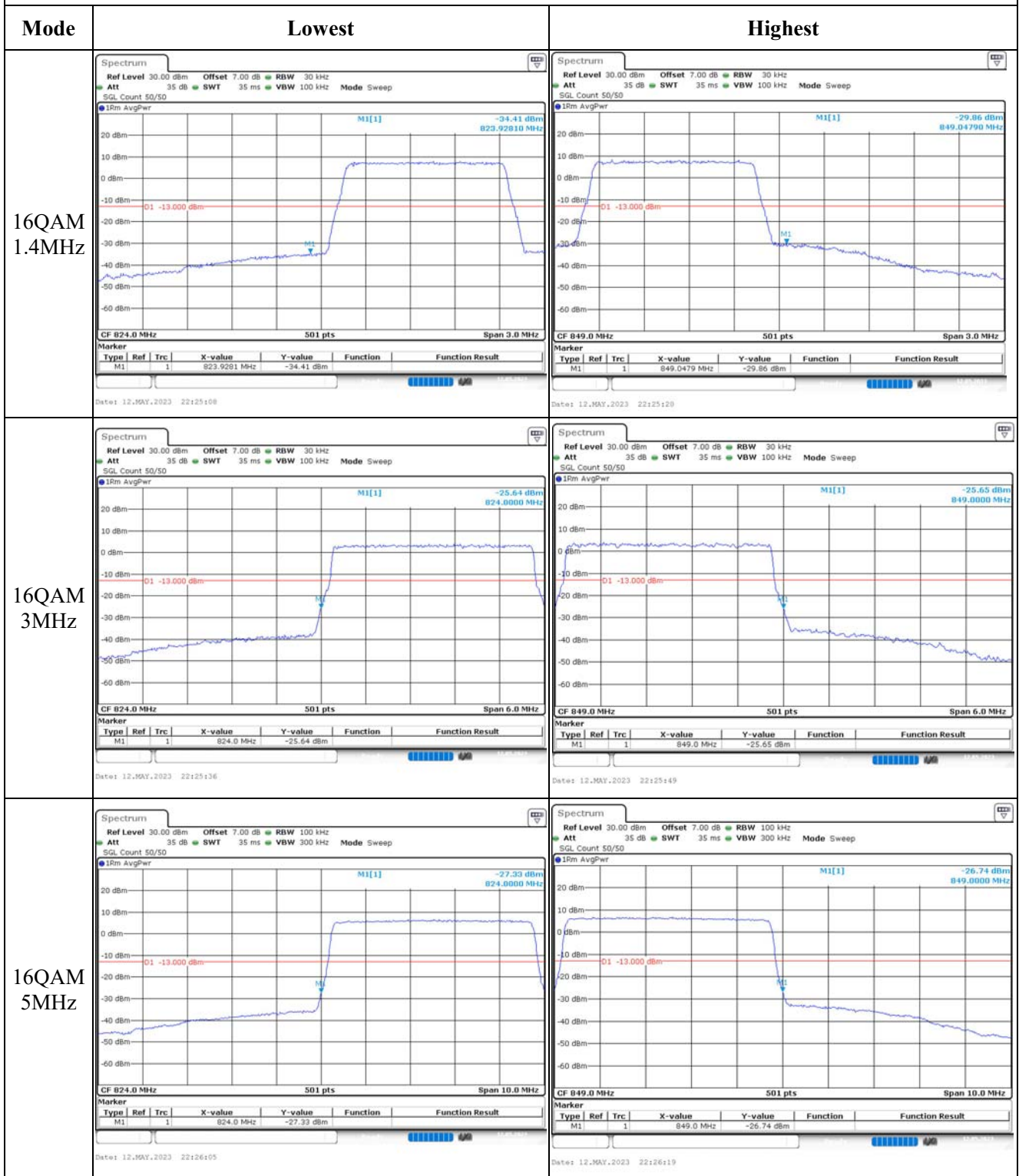
Out of band emission, Band Edge



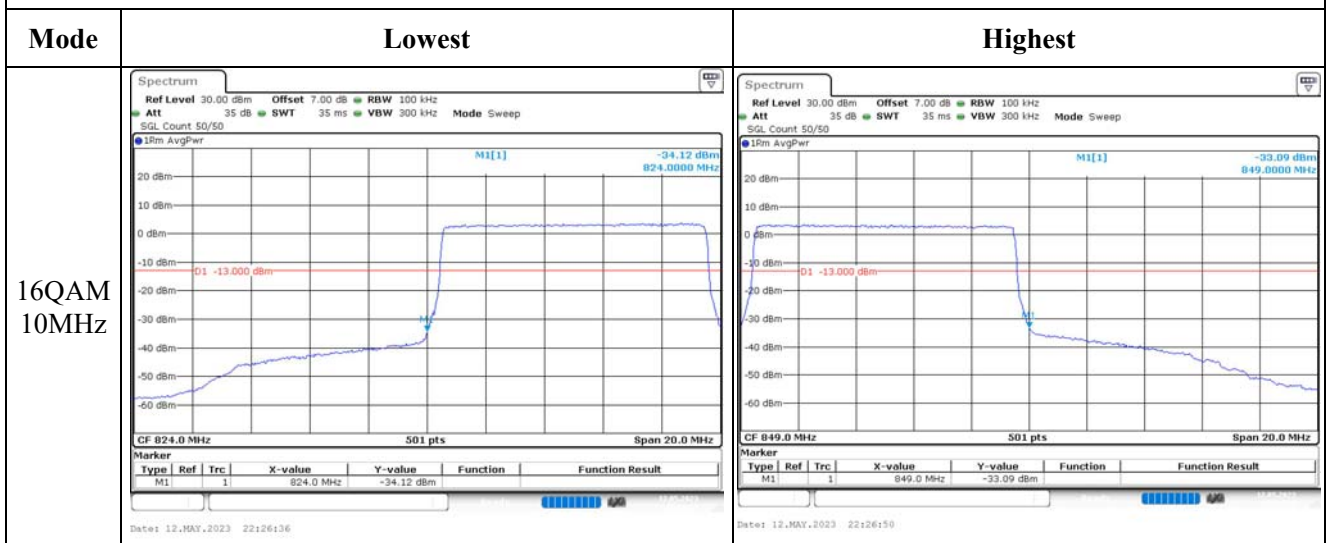
Out of band emission, Band Edge



Out of band emission, Band Edge



Out of band emission, Band Edge



4.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	25FP-1	Test Date:	2023/05/12~2023/05/18
Test Site:	RF	Test Mode:	Transmitting
Tester:	One Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.3~27.2	Relative Humidity: (%)	42~61	ATM Pressure: (kPa)	100.5~101.9
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	2022/07/15	2023/07/14
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Power Splitter	1515	RA914	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2022/07/15	2023/07/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/03/31	2024/03/30
UNI-T	Multimeter	UT39A+	C210582554	2022/09/29	2023/09/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (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	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

Test Data:**FCC§2.1046;§ 27.50(h)(2)****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	22.77	23.08	22.37	26.91	33
	RB1#13	23.21	23.29	22.49		
	RB1#24	22.91	23.09	21.84		
	RB15#0	22.43	22.35	22.42		
	RB15#10	22.31	22.39	22.39		
	RB25#0	22.31	22.33	22.43		
5MHz 16QAM	RB1#0	22.45	22.09	21.92	26.07	33
	RB1#13	22.42	22.06	21.92		
	RB1#24	22.44	22.06	21.62		
	RB15#0	21.36	21.5	21.61		
	RB15#10	21.45	21.46	21.56		
	RB25#0	21.41	21.35	21.65		
10MHz QPSK	RB1#0	22.71	23.14	22.47	27.04	33
	RB1#25	23.18	23.38	22.63		
	RB1#49	23.32	23.42	22.29		
	RB25#0	22.42	22.48	22.4		
	RB25#25	22.34	22.34	22.36		
	RB50#0	22.3	22.44	22.51		
10MHz 16QAM	RB1#0	22.67	21.94	22.66	26.43	33
	RB1#25	22.62	21.89	22.81		
	RB1#49	22.64	21.88	22.51		
	RB25#0	21.55	21.62	21.53		
	RB25#25	21.61	21.57	21.57		
	RB50#0	21.56	21.52	21.74		
15MHz QPSK	RB1#0	22.82	23.3	22.65	26.99	33
	RB1#38	23.28	23.3	22.62		
	RB1#74	23.37	23.31	22.1		
	RB36#0	22.41	22.42	22.32		
	RB36#39	22.4	22.33	22.45		
	RB75#0	22.37	22.26	22.33		
15MHz 16QAM	RB1#0	22.8	22.78	22.72	26.45	33
	RB1#38	22.74	22.77	22.69		
	RB1#74	22.8	22.83	22.36		
	RB36#0	21.53	21.44	21.63		
	RB36#39	21.49	21.47	21.72		
	RB75#0	21.53	21.51	21.61		
20MHz QPSK	RB1#0	22.87	23.31	22.92	27.18	33
	RB1#50	23.38	23.21	22.59		
	RB1#99	23.56	23.35	22.56		

	RB50#0	22.4	22.34	22.37		
	RB50#50	22.37	22.38	22.52		
	RB100#0	22.41	22.44	22.35		
20MHz 16QAM	RB1#0	22.44	23.24	22.34	26.86	33
	RB1#50	22.44	23.16	22.42		
	RB1#99	22.54	23.21	22.52		
	RB50#0	21.53	21.52	21.59		
	RB50#50	21.43	21.51	21.77		
	RB100#0	21.39	21.6	21.6		

Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(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	4.09	4.41	4.23	13
	RB100#0	3.62	3.8	3.59	13
20MHz 16QAM	RB1#0	4.75	5.04	4.81	13
	RB100#0	5.36	5.48	5.36	13

Result: **Pass**

FCC §2.1049, §27.53: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	4.531	5.02	5	5.06
5MHz 16QAM	4.531	4.551	4.511	5.02	5	5.02
10MHz QPSK	8.982	8.942	8.982	9.8	9.8	9.92
10MHz 16QAM	8.982	8.942	8.942	9.8	9.88	9.88
15MHz QPSK	13.473	13.533	13.533	15.06	15.18	15.12
15MHz 16QAM	13.593	13.533	13.593	15.24	15.12	15.06
20MHz QPSK	17.964	17.964	17.964	19.6	19.12	19.12
20MHz 16QAM	17.964	17.964	17.964	19.92	19.84	19.84

Note: The test plots please refer to the Plots of Occupied Bandwidth

FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal

Result: **Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.**

FCC §2.1051, § 27.53:Out of band emission, Band Edge

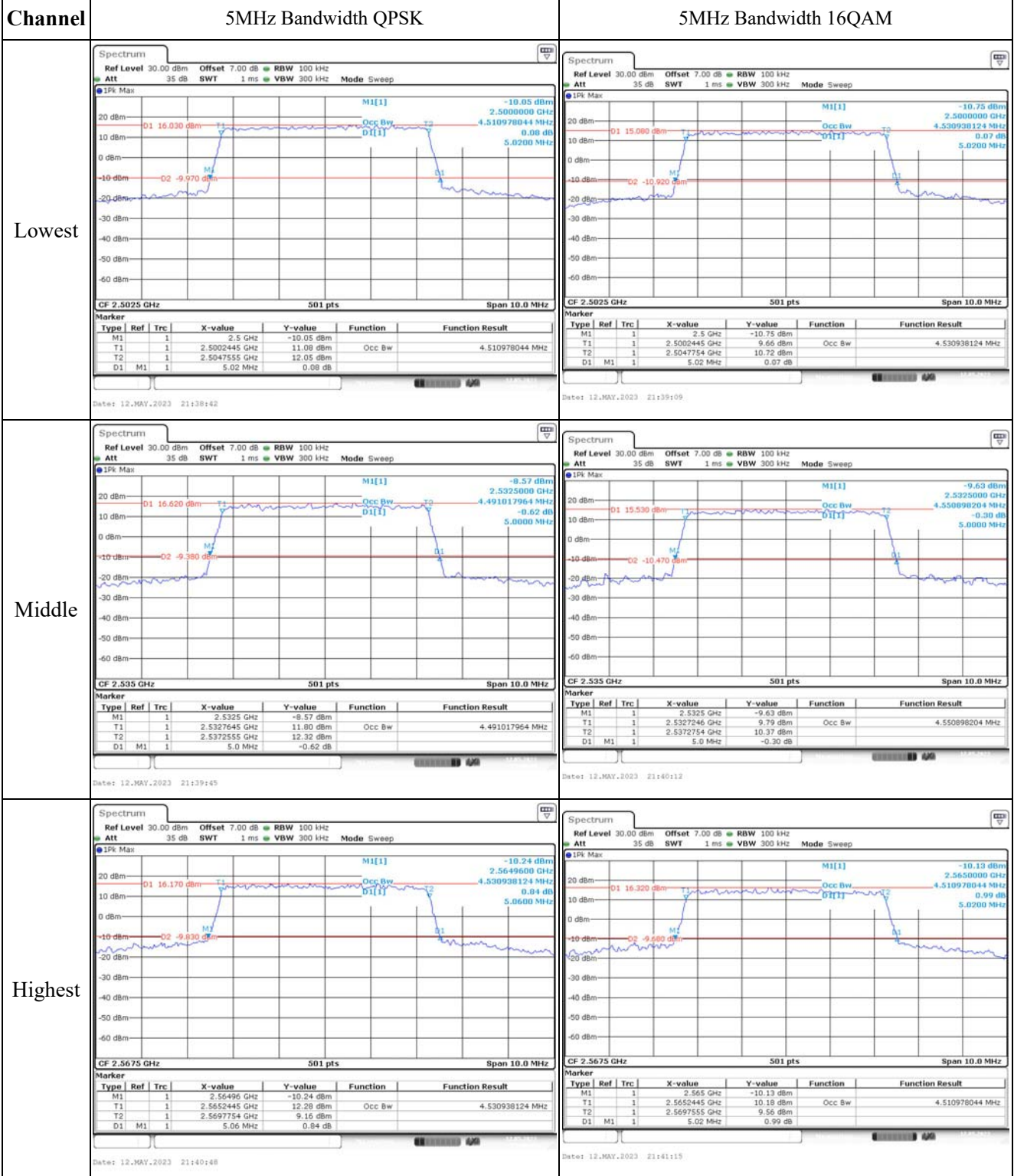
Result: **Pass, Please refer to the test plots of Out of band emission, Band Edge.**

FCC §2.1055, §27.54: 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	3.8	2501.052	2500.00	2569.031	2570
	-20	3.8	2501.058	2500.00	2569.028	2570
	-10	3.8	2501.047	2500.00	2569.043	2570
	0	3.8	2501.033	2500.00	2569.034	2570
	10	3.8	2501.059	2500.00	2569.016	2570
	20	3.8	2501.068	2500.00	2569.024	2570
	30	3.8	2501.053	2500.00	2569.014	2570
	40	3.8	2501.046	2500.00	2569.025	2570
	50	3.8	2501.041	2500.00	2569.014	2570
Frequency Stability vs. Voltage	20	3.6	2501.067	2500.00	2569.011	2570
	20	4.35	2501.055	2500.00	2569.020	2570
					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	3.8	2501.065	2500.00	2569.028	2570
	-20	3.8	2501.062	2500.00	2569.019	2570
	-10	3.8	2501.054	2500.00	2569.038	2570
	0	3.8	2501.060	2500.00	2569.011	2570
	10	3.8	2501.066	2500.00	2569.035	2570
	20	3.8	2501.059	2500.00	2569.030	2570
	30	3.8	2501.067	2500.00	2569.040	2570
	40	3.8	2501.056	2500.00	2569.046	2570
	50	3.8	2501.061	2500.00	2569.047	2570
Frequency Stability vs. Voltage	20	3.6	2501.062	2500.00	2569.044	2570
	20	4.35	2501.051	2500.00	2569.027	2570
					Result:	Pass

Test Plots(Note: The 7dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):

Occupied Bandwidth



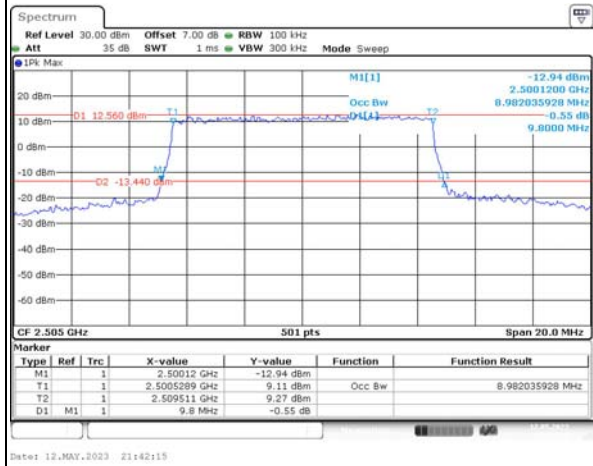
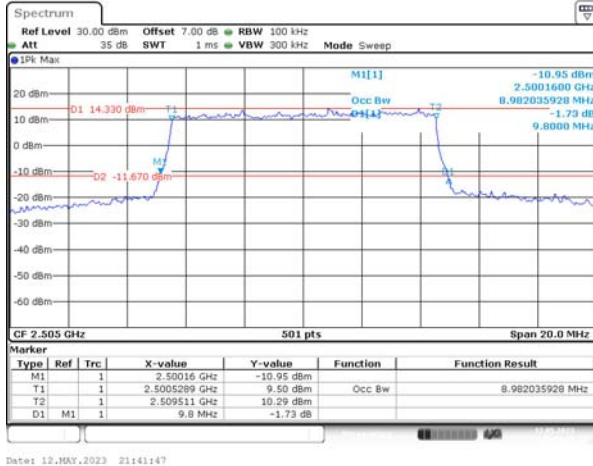
Occupied Bandwidth

Channel

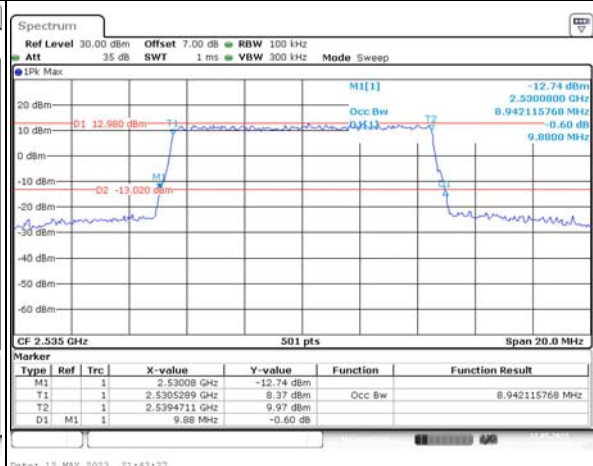
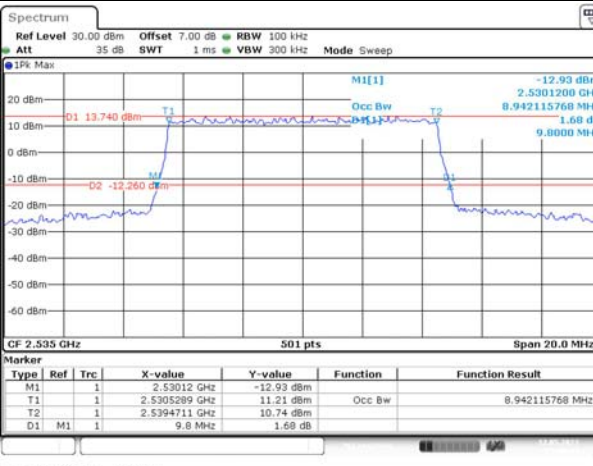
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

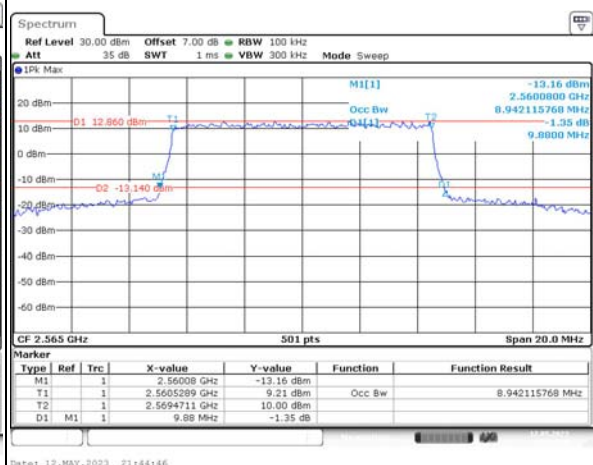
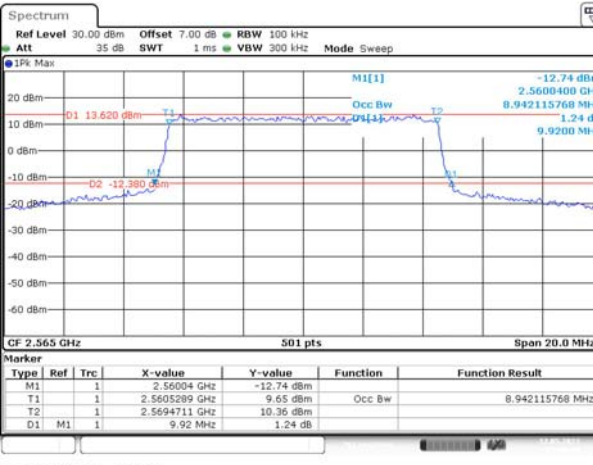
Lowest



Middle



Highest



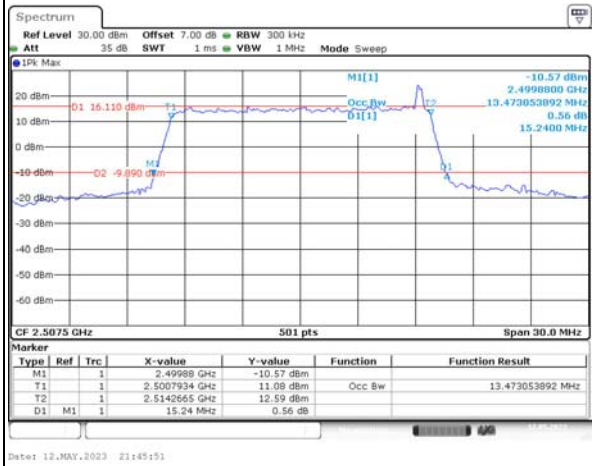
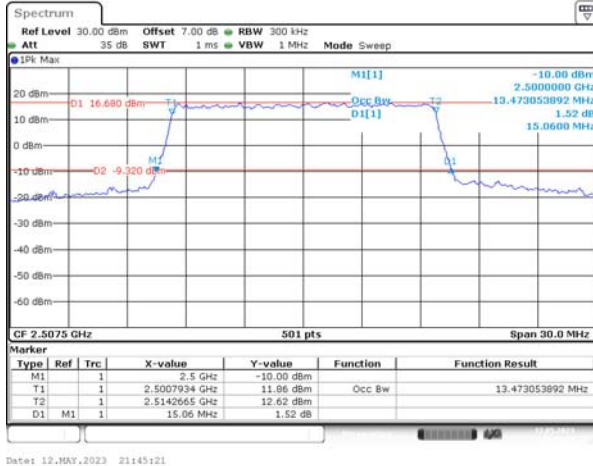
Occupied Bandwidth

Channel

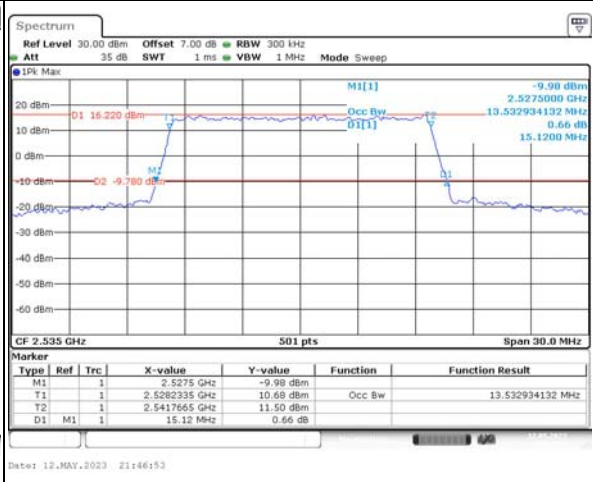
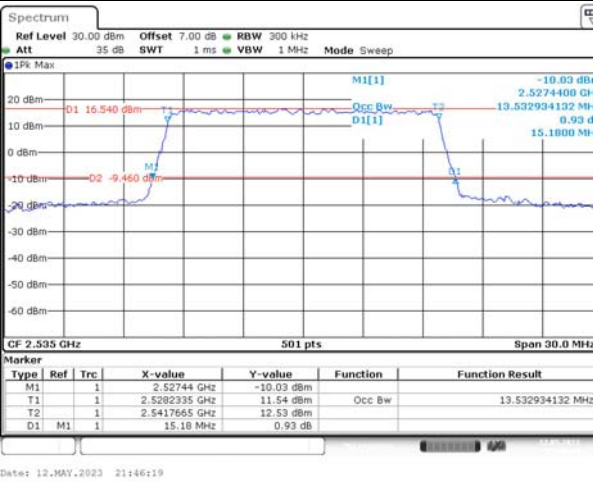
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

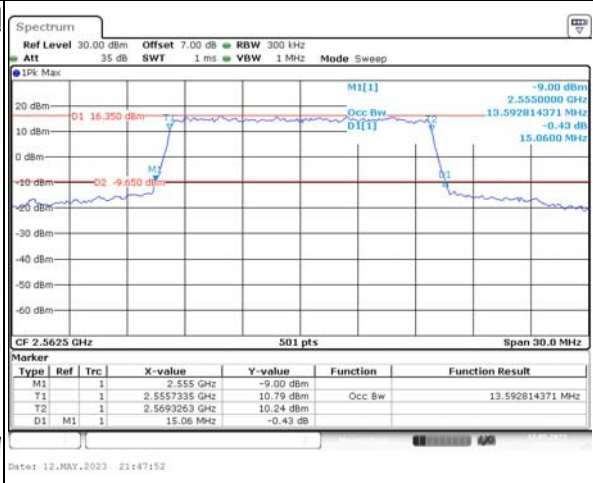
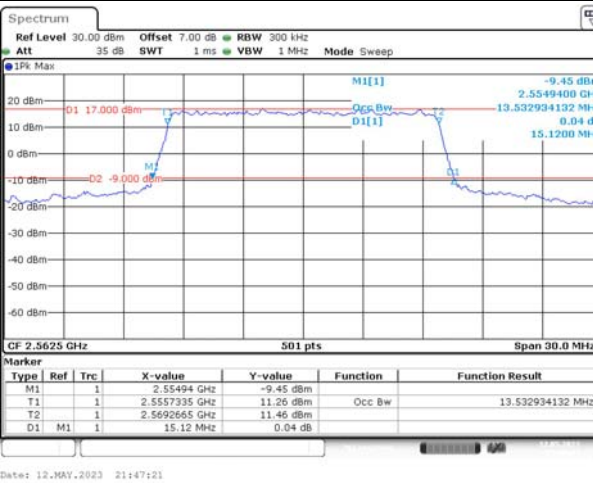
Lowest



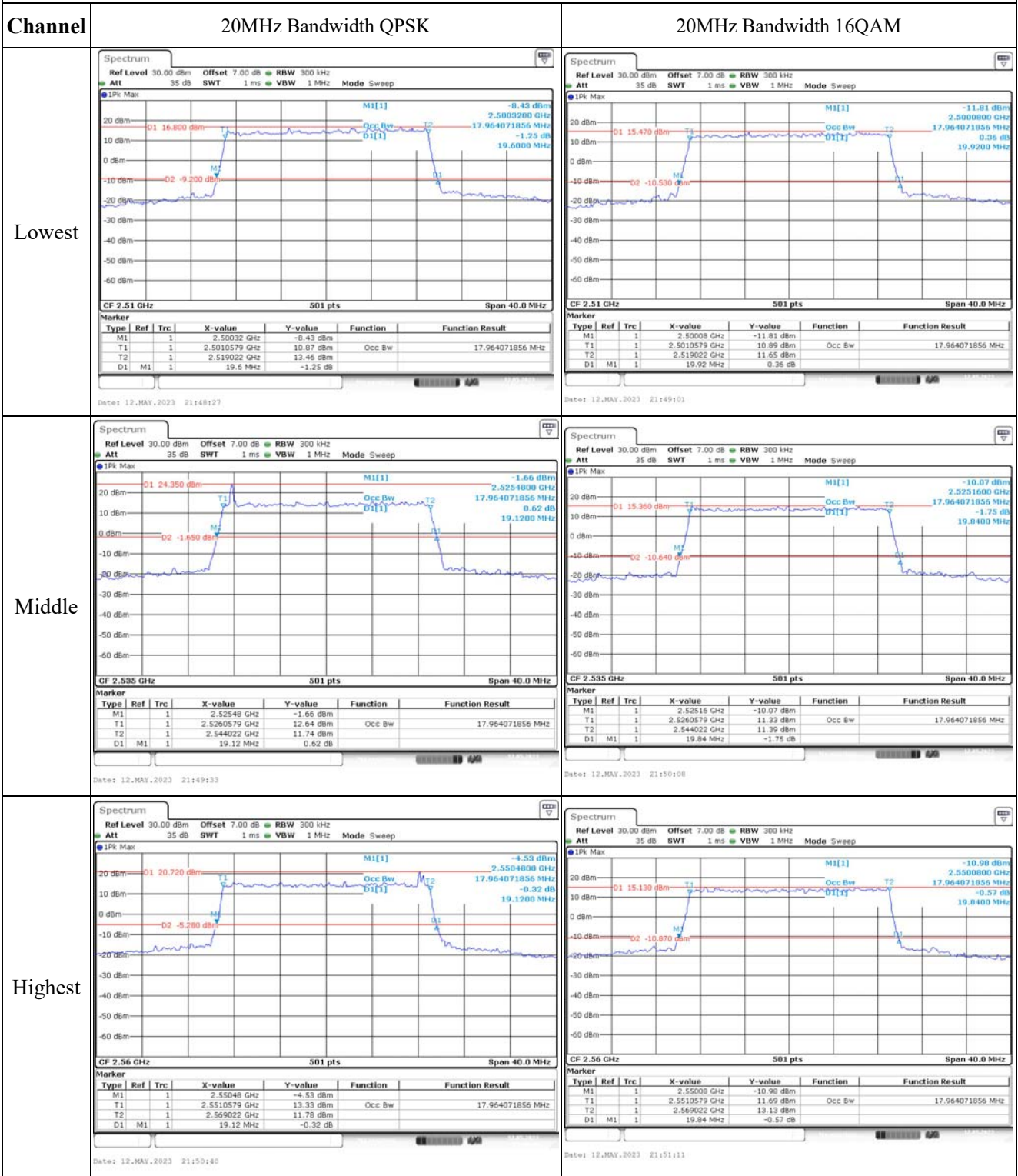
Middle



Highest



Occupied Bandwidth

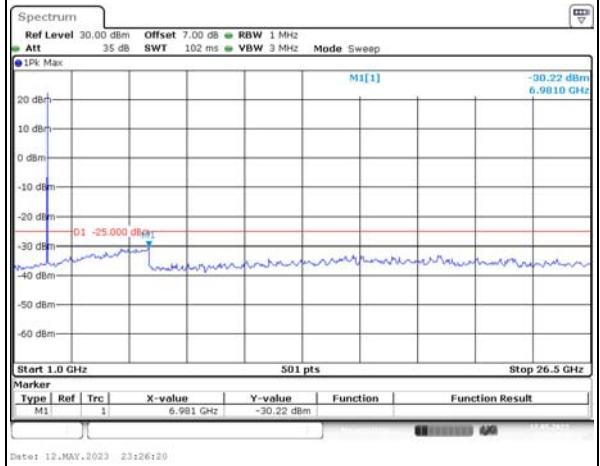
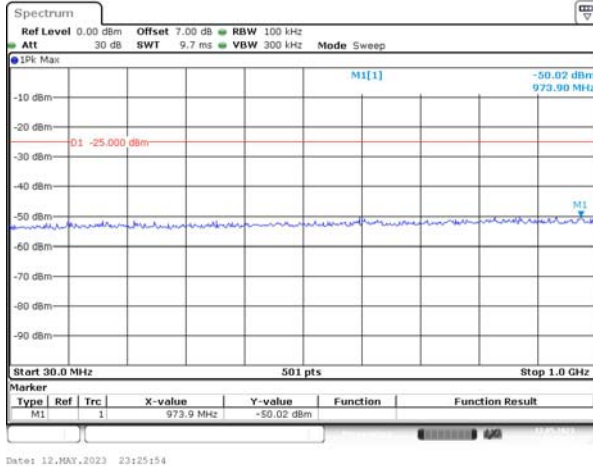


Spurious Emissions at Antenna Terminal

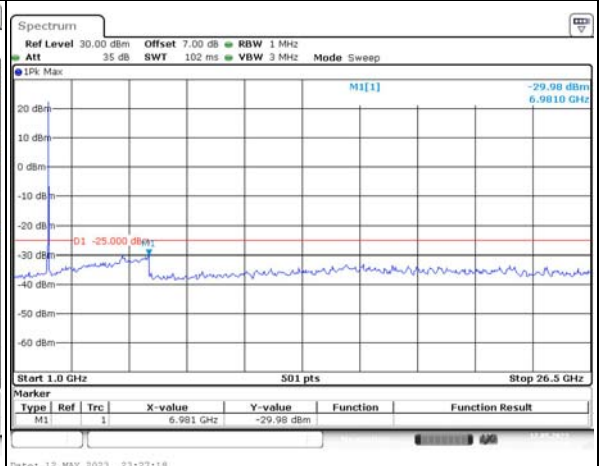
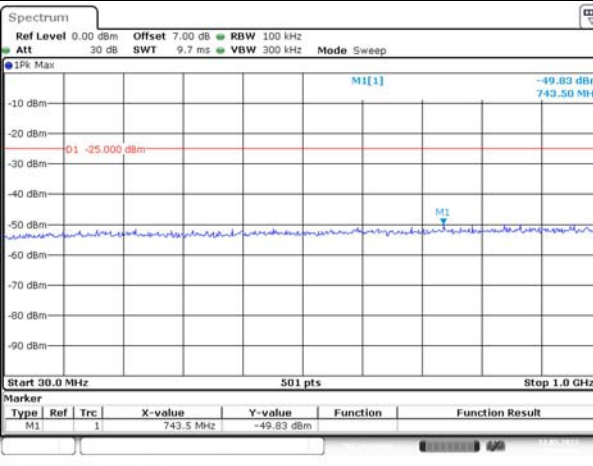
Channel

5MHz Bandwidth QPSK

Lowest



Middle



Highest

