

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -31.23 dBm 1.7100000 GHz CF 1.71 GHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 11:24:02</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -29.44 dBm 1.75501200 GHz CF 1.755 GHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 11:24:16</p>
16QAM 3MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -32.77 dBm 1.7100000 GHz CF 1.71 GHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 12:00:00</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -31.25 dBm 1.7550000 GHz CF 1.755 GHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 12:00:14</p>
16QAM 5MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -29.34 dBm 1.7100000 GHz CF 1.71 GHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 12:12:00</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SQL Count 50/50 1Rm AvgPwr MI[1] -28.31 dBm 1.7550000 GHz CF 1.755 GHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 12:12:14</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -36.81 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 20.0 MHz Date: 5.AUG.2023 12:17:31</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -35.28 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 20.0 MHz Date: 5.AUG.2023 12:17:46</p>
16QAM 15MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -35.11 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 30.0 MHz Date: 5.AUG.2023 12:28:16</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -34.64 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 30.0 MHz Date: 5.AUG.2023 12:28:31</p>
16QAM 20MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -36.84 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 40.0 MHz Date: 5.AUG.2023 12:31:00</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 300 kHz Att 35 dB SWT 35 ms VBW 1 MHz Mode Sweep SGL Count 50/50 IRm AvgPwr MI[1] -36.86 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 40.0 MHz Date: 5.AUG.2023 12:31:15</p>

**4.9 Antenna Port Test Data and Results for LTE Band 5**

Serial Number:	291M-2	Test Date:	2023/08/05~2023/08/07
Test Site:	RF	Test Mode:	Transmitting
Tester:	One Luo	Test Result:	<b>Pass</b>

**Environmental Conditions:**

Temperature: (°C)	24.2~26.5	Relative Humidity: (%)	42~58	ATM Pressure: (kPa)	99.7~102.2
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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	2023/07/15	2024/07/14
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	2023/07/15	2024/07/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022/09/29	2023/09/28
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	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	24.27	24.44	24.28	16.32	38.45
	RB1#3	24.54	24.39	24.19		
	RB1#5	24.41	24.27	23.97		
	RB3#0	24.25	24.37	24.08		
	RB3#3	24.29	24.24	24.02		
	RB6#0	23.27	23.27	22.97		
1.4MHz 16QAM	RB1#0	23.39	23.58	23.36	15.38	38.45
	RB1#3	23.29	23.6	23.45		
	RB1#5	23.15	23.4	23.29		
	RB3#0	23.41	23.47	23.07		
	RB3#3	23.6	23.55	22.99		
	RB6#0	22.34	22.48	21.77		
3MHz QPSK	RB1#0	24.53	24.05	24.03	16.41	38.45
	RB1#8	24.05	24.18	24.14		
	RB1#14	24.63	24.46	23.93		
	RB6#0	23.29	23.19	23.08		
	RB6#9	23.32	23.27	23.05		
	RB15#0	23.35	23.22	23.05		
3MHz 16QAM	RB1#0	23.89	23.16	23.74	15.67	38.45
	RB1#8	23.5	22.79	23.23		
	RB1#14	23.52	23.06	23.24		
	RB6#0	22.06	22.24	21.95		
	RB6#9	22.12	21.87	21.94		
	RB15#0	22	21.92	21.97		
5MHz QPSK	RB1#0	24.12	24.03	24.13	16.15	38.45
	RB1#13	24.31	24.37	24.03		
	RB1#24	24.27	24.25	23.94		
	RB15#0	23.27	23.29	23.16		
	RB15#10	23.35	23.34	23.09		
	RB25#0	23.41	23.27	23.16		
5MHz 16QAM	RB1#0	23.83	22.95	22.62	15.67	38.45
	RB1#13	23.89	22.95	22.28		
	RB1#24	23.75	22.84	22.59		
	RB15#0	22	22.31	22.05		
	RB15#10	22.09	22.3	21.93		
	RB25#0	22.36	22.09	22.35		

10MHz QPSK	RB1#0	24.41	24.06	23.9	16.26	38.45
	RB1#25	24.48	24.39	24.32		
	RB1#49	24.44	24.26	24.33		
	RB25#0	23.47	23.25	23.06		
	RB25#25	23.32	23.43	23.1		
	RB50#0	23.38	23.34	23.08		
10MHz 16QAM	RB1#0	23.4	23.72	23.06	15.73	38.45
	RB1#25	23.53	23.95	23.69		
	RB1#49	23.45	23.7	22.75		
	RB25#0	22.35	22.03	22.31		
	RB25#25	22.07	22.04	22.32		
	RB50#0	22.18	21.92	21.88		

Note:

ERP= Conducted Power(dBm) - L<sub>c</sub>(dB) + G<sub>T</sub>(dBd)G<sub>T</sub>(dBd)=G<sub>T</sub>(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	3.65	4.29	3.91	13
	RB50#0	4.61	4.64	4.67	13
10MHz 16QAM	RB1#0	4.41	5.13	5.01	13
	RB50#0	5.71	5.74	5.74	13
<b>Result:</b>					<b>Pass</b>

**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	1.108	1.108	1.102	1.326	1.29	1.302
1.4MHz 16QAM	1.096	1.102	1.108	1.308	1.32	1.32
3MHz QPSK	2.695	2.695	2.683	2.94	2.928	2.964
3MHz 16QAM	2.695	2.683	2.683	2.94	2.952	2.94
5MHz QPSK	4.511	4.491	4.531	5.02	5	5.04
5MHz 16QAM	4.531	4.531	4.511	5.04	5.04	5.02
10MHz QPSK	8.942	8.942	8.942	9.8	9.72	9.76
10MHz 16QAM	8.942	8.942	8.942	9.64	9.68	9.72

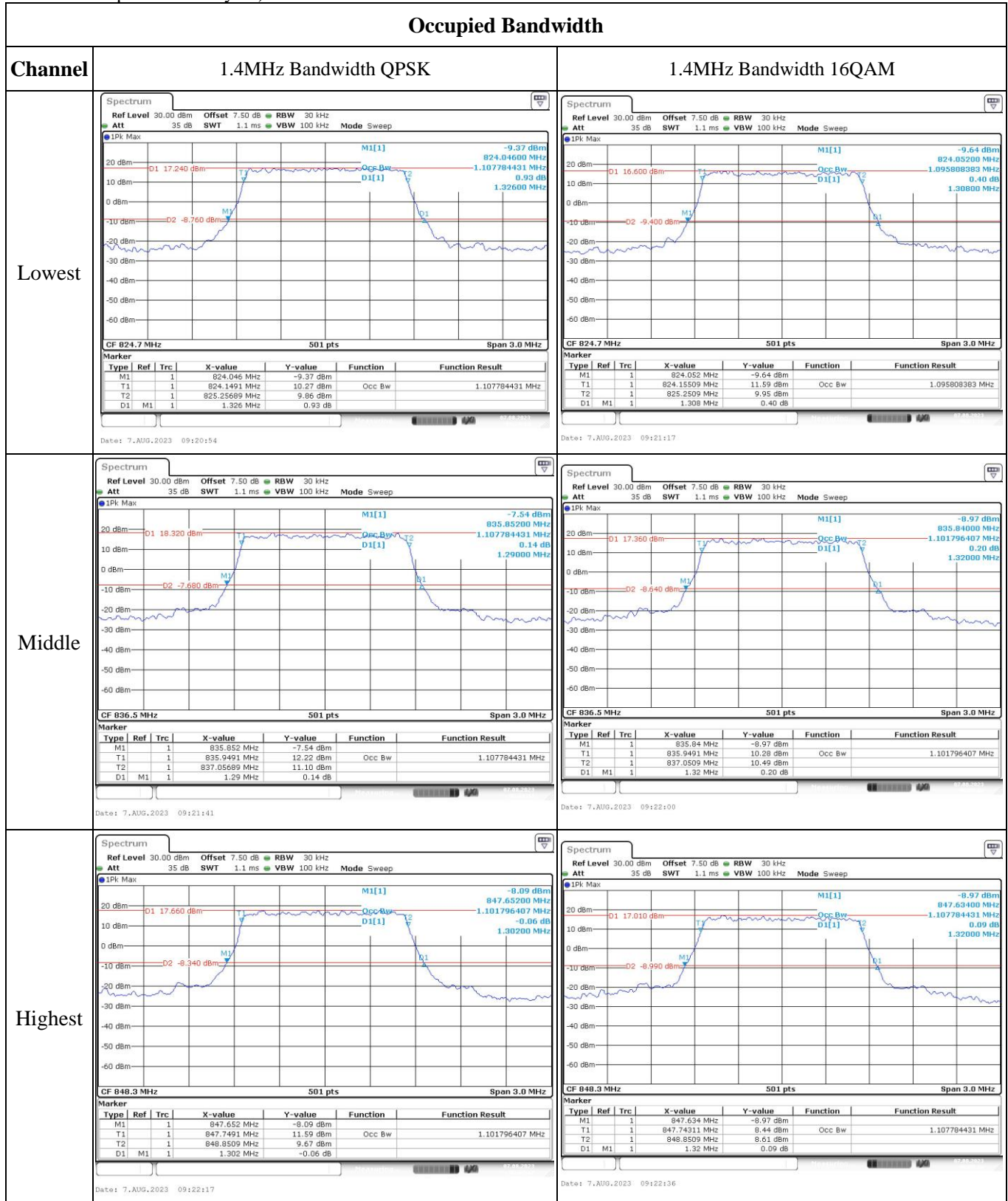
Note: The test plots please refer to the Plots of Occupied Bandwidth

**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 <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	-1.16	-0.001	2.5
	-20	3.8	-6.97	-0.008	2.5
	-10	3.8	-5.5	-0.007	2.5
	0	3.8	6.06	0.007	2.5
	10	3.8	9.8	0.012	2.5
	20	3.8	5.03	0.006	2.5
	30	3.8	-6.62	-0.008	2.5
	40	3.8	-8.73	-0.010	2.5
Frequency Stability vs. Voltage	20	3.55	8.99	0.011	2.5
	20	4.35	-7.17	-0.009	2.5
				<b>Result:</b>	<b>Pass</b>

Test Modulation:	10 MHz 16QAM		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.8	-1.03	-0.001	2.5
	-20	3.8	8.1	0.010	2.5
	-10	3.8	-8.59	-0.010	2.5
	0	3.8	9.33	0.011	2.5
	10	3.8	-6.94	-0.008	2.5
	20	3.8	7.54	0.009	2.5
	30	3.8	6.43	0.008	2.5
	40	3.8	-6.17	-0.007	2.5
Frequency Stability vs. Voltage	20	3.55	6.34	0.008	2.5
	20	4.35	-6.89	-0.008	2.5
				<b>Result:</b>	<b>Pass</b>

**Test Plots**(Note: The 7.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):





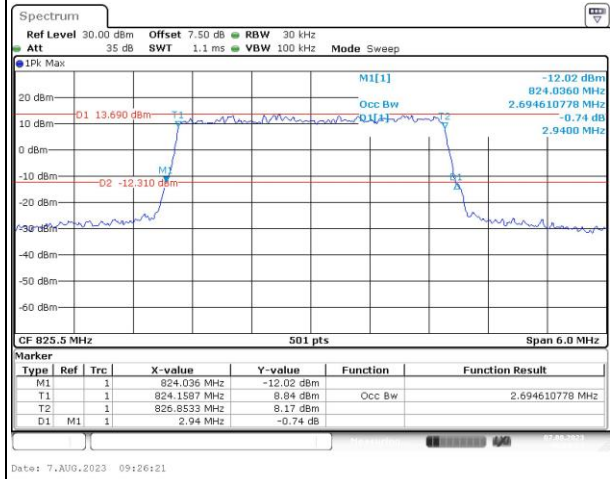
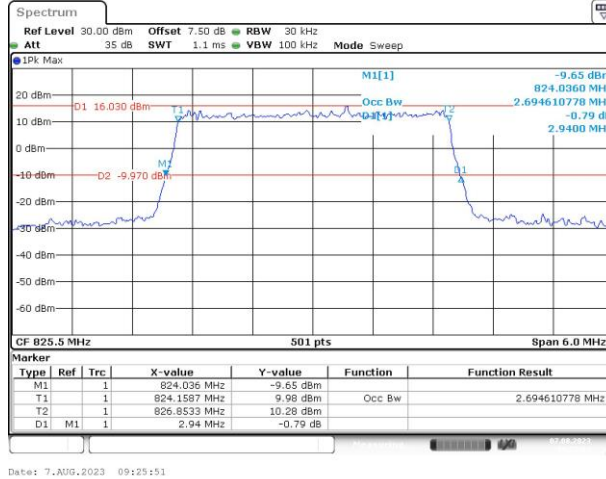
### Occupied Bandwidth

Channel

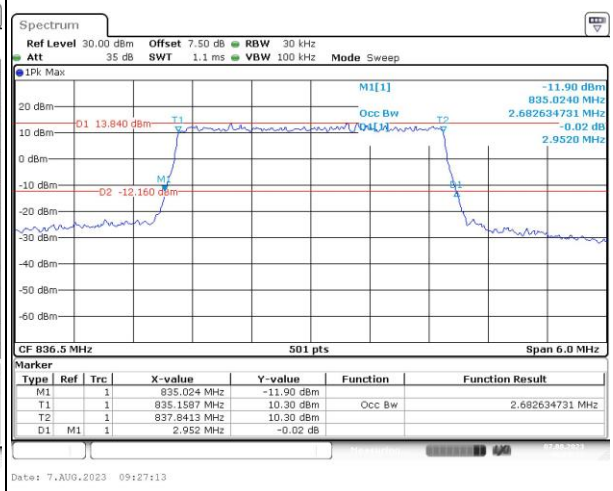
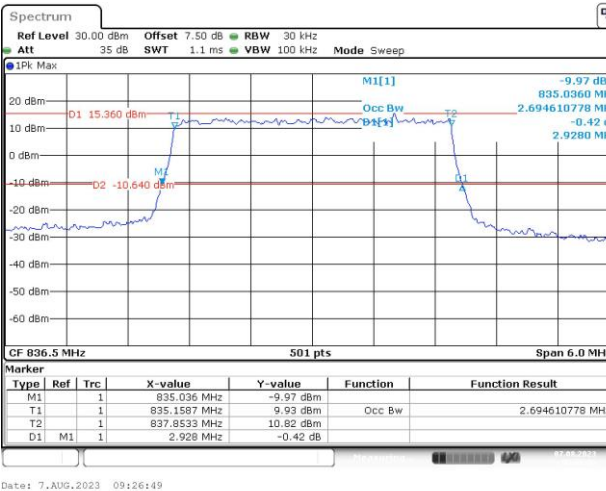
3MHz Bandwidth QPSK

3MHz Bandwidth 16QAM

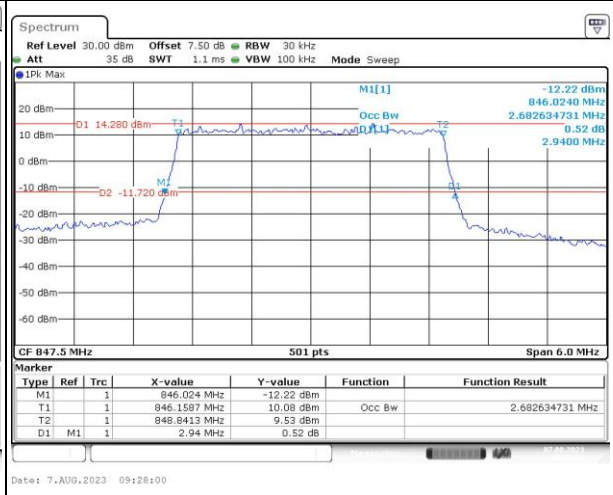
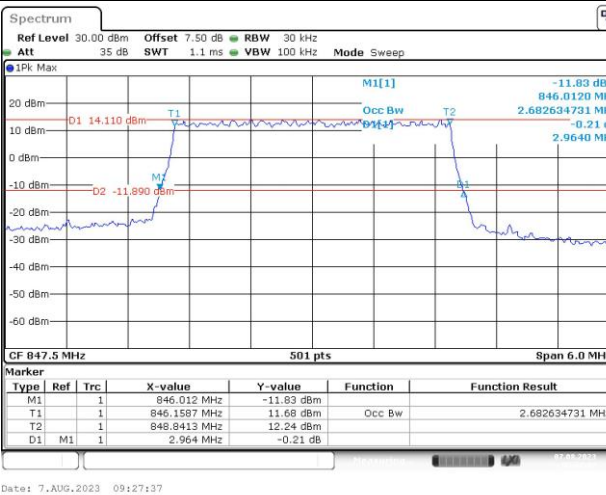
Lowest



Middle



Highest





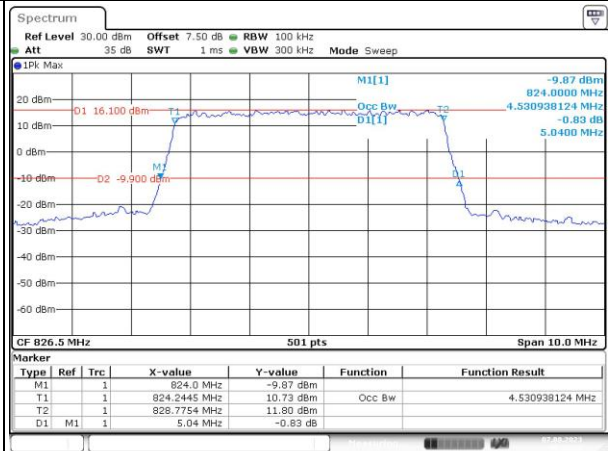
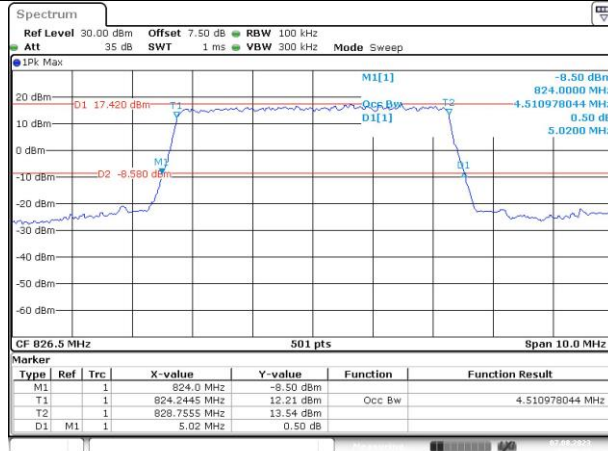
### Occupied Bandwidth

Channel

5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

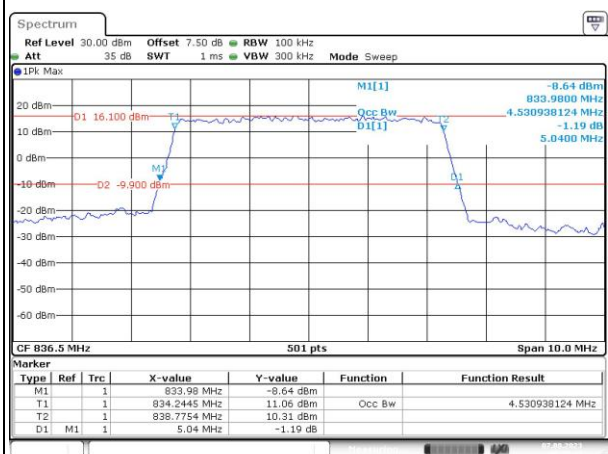
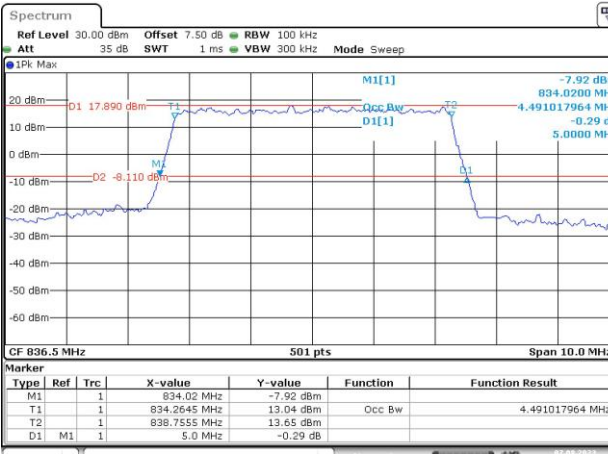
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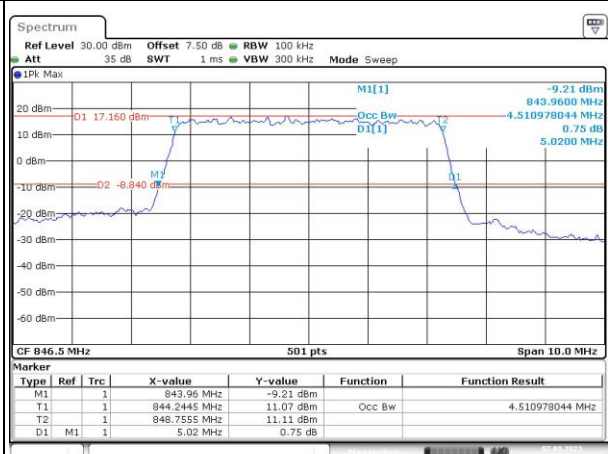
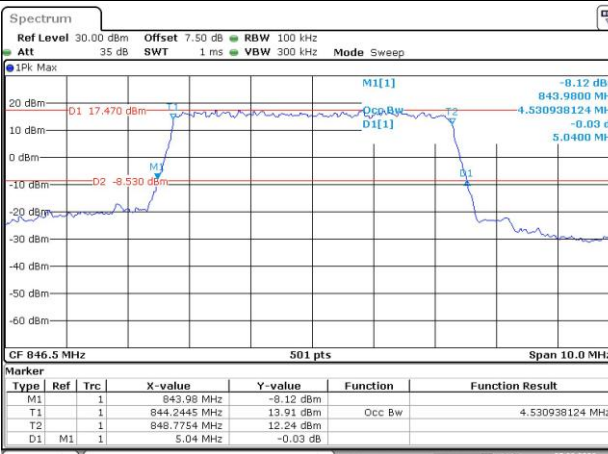
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Date: 7.AUG.2023 09:37:10

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Highest



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Date: 7.AUG.2023 09:38:45

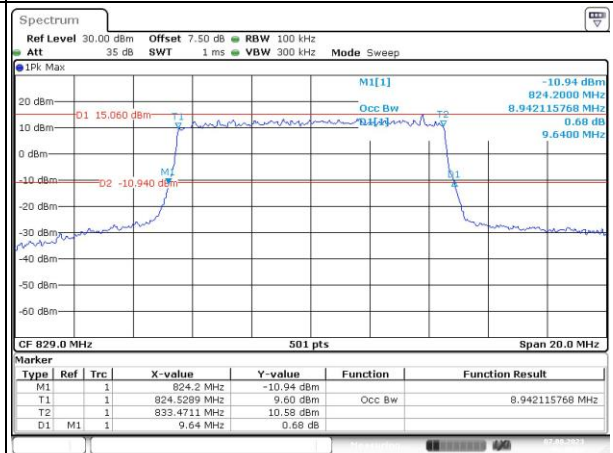
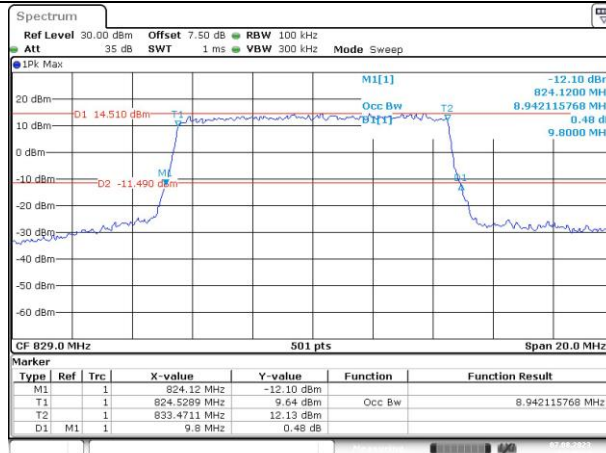
### Occupied Bandwidth

Channel

10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

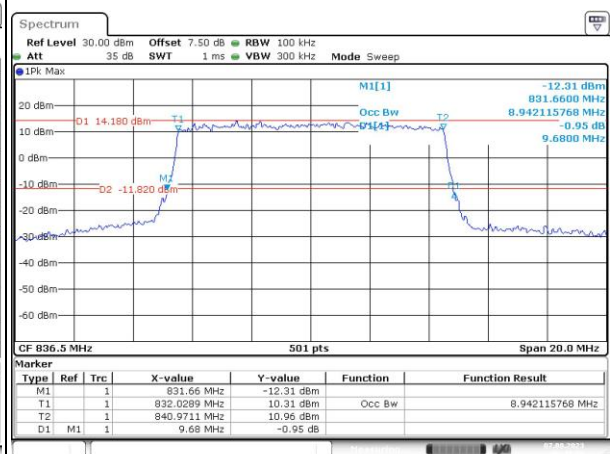
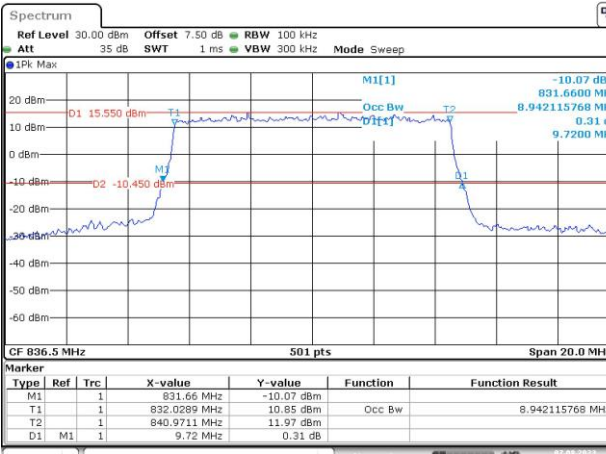
Lowest



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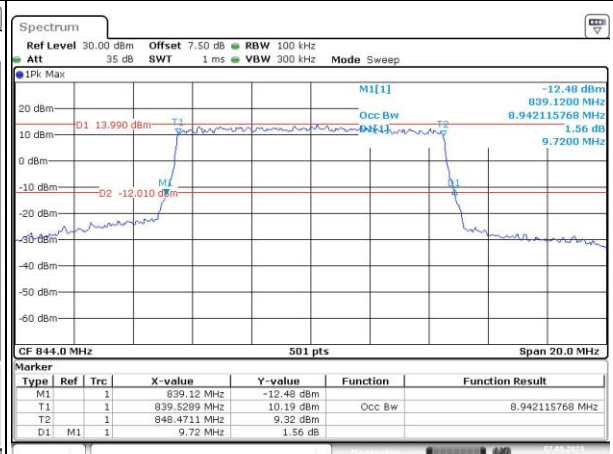
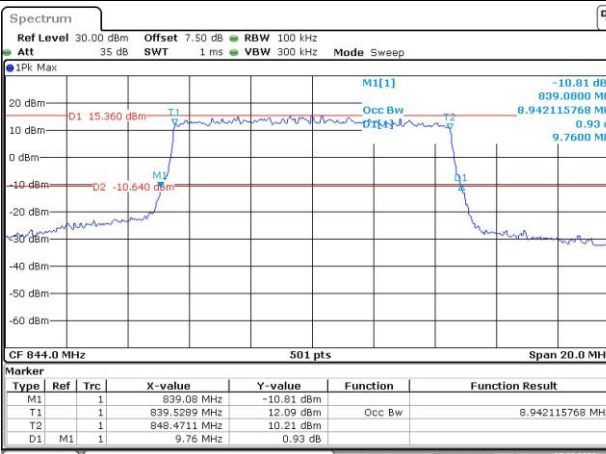
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Date: 7.AUG.2023 09:42:09

Highest



Date: 7.AUG.2023 09:42:49

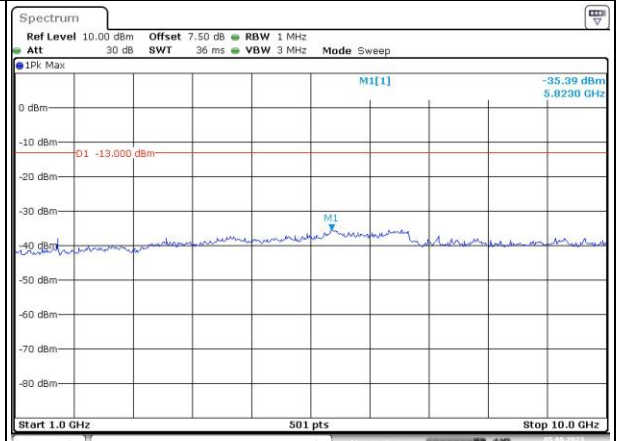
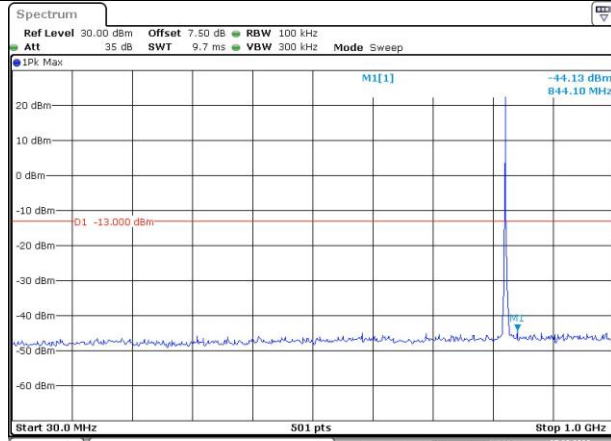
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### Spurious Emissions at Antenna Terminal

Channel

1.4MHz Bandwidth QPSK

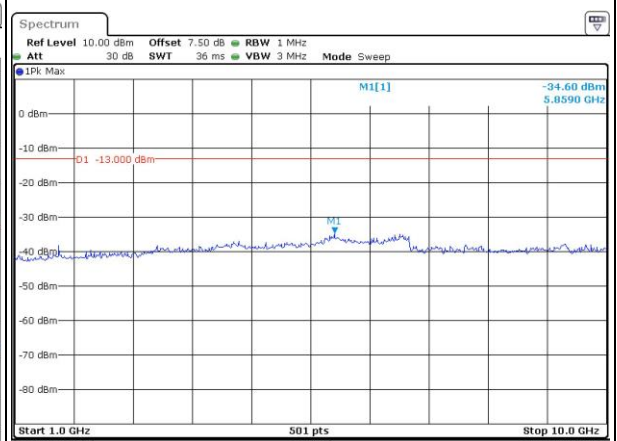
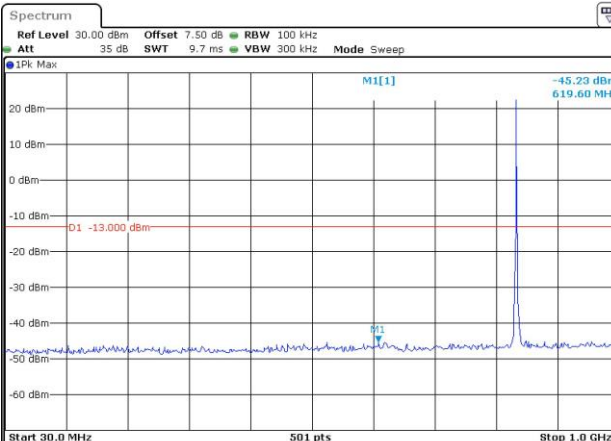
Lowest



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Date: 5.AUG.2023 16:30:35

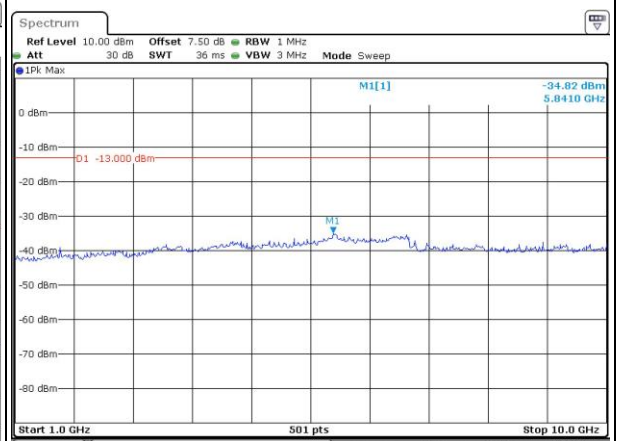
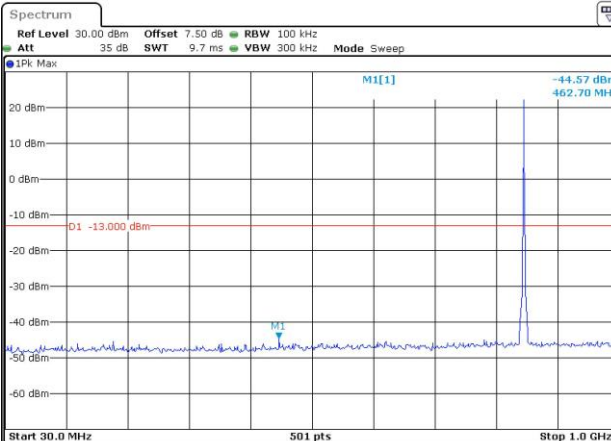
Middle



Date: 5.AUG.2023 16:31:12

Date: 5.AUG.2023 16:31:42

Highest



Date: 5.AUG.2023 16:32:23

Date: 5.AUG.2023 16:32:49

### Spurious Emissions at Antenna Terminal

Channel	3MHz Bandwidth QPSK	
Lowest		
Highest		

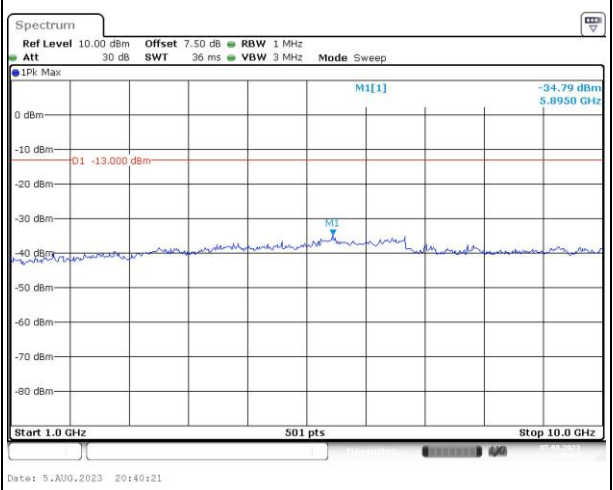
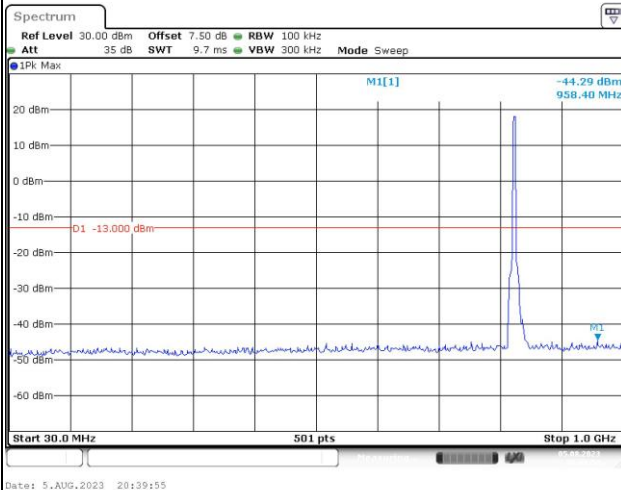


### Spurious Emissions at Antenna Terminal

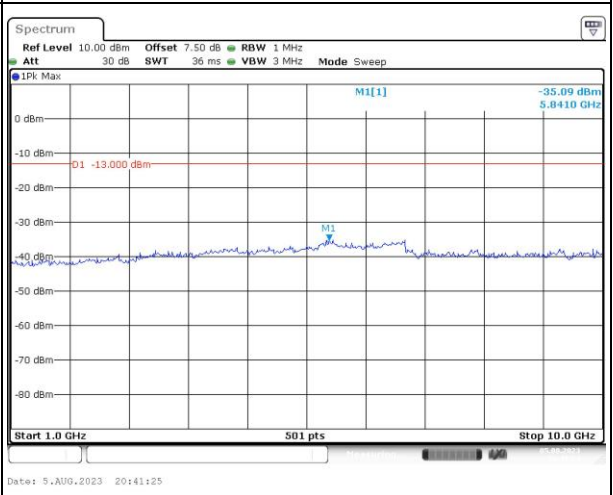
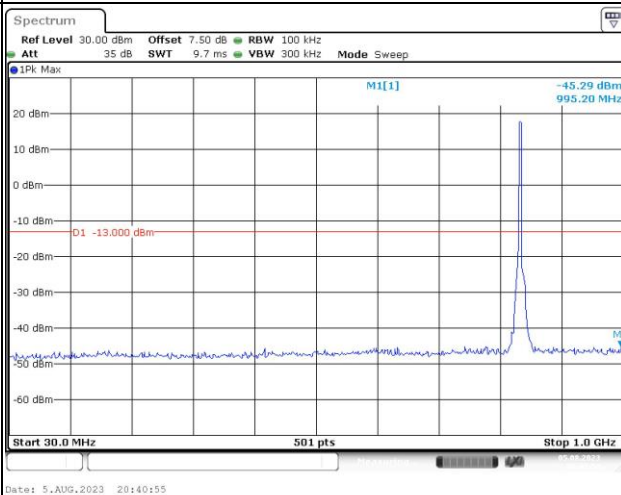
Channel

5MHz Bandwidth QPSK

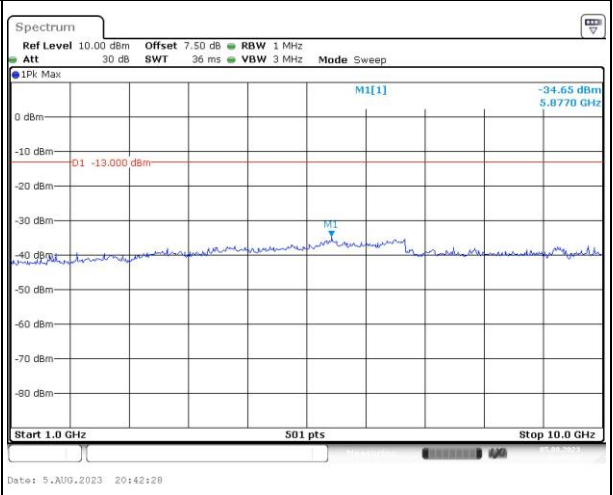
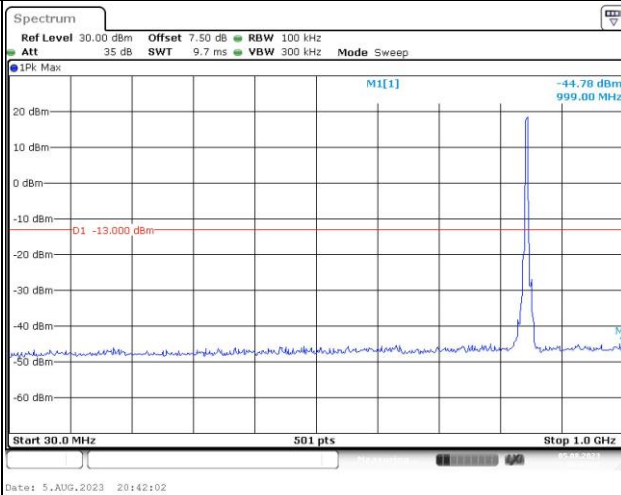
Lowest



Middle



Highest

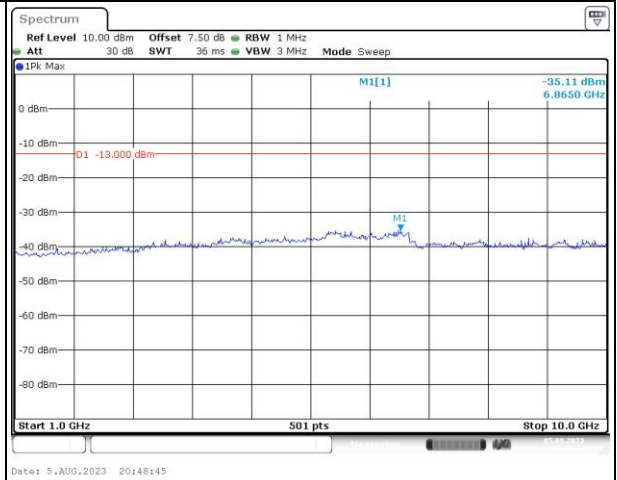
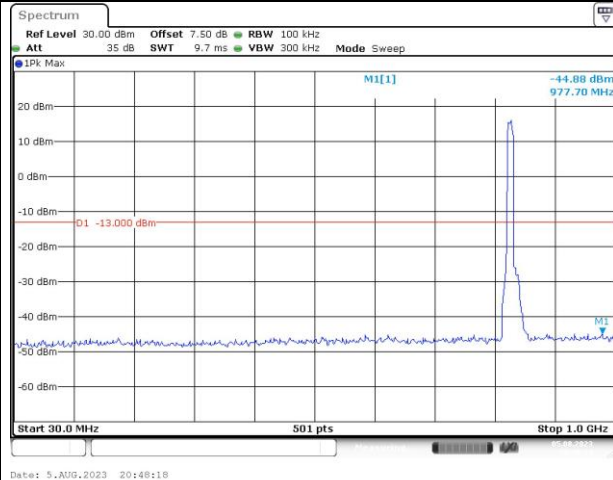


### Spurious Emissions at Antenna Terminal

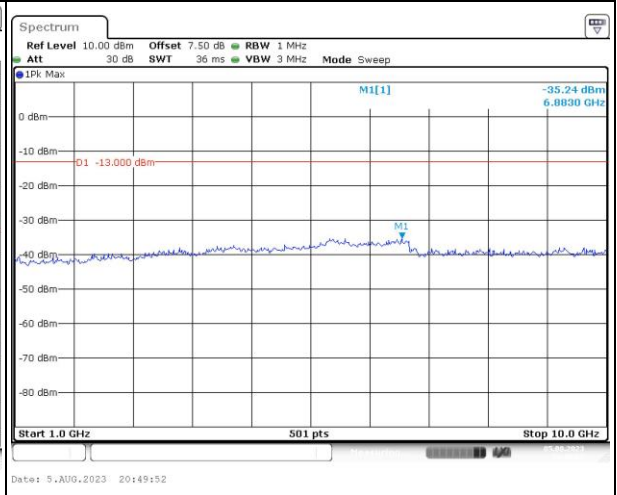
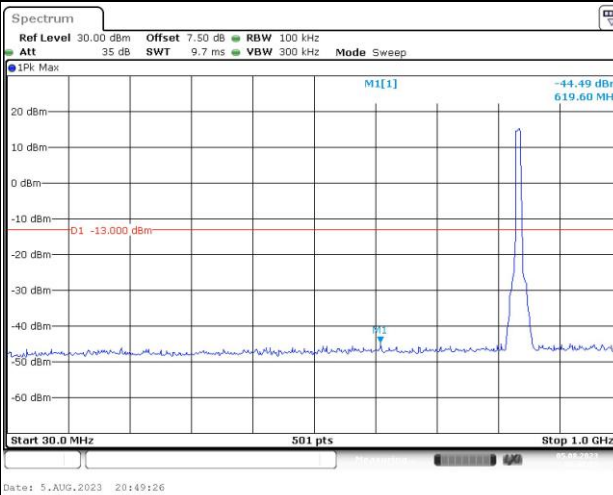
Channel

10MHz Bandwidth QPSK

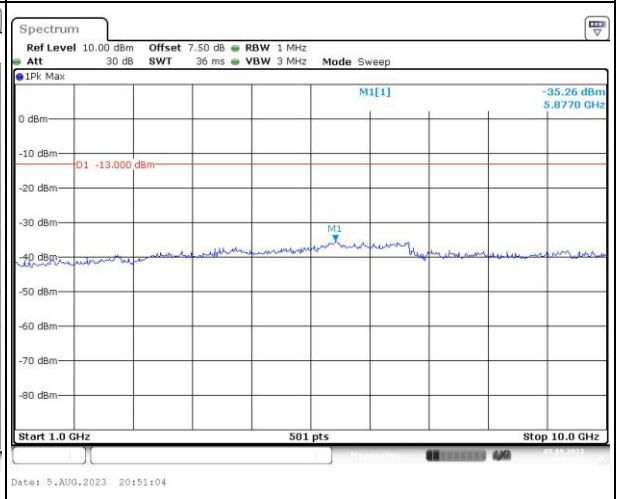
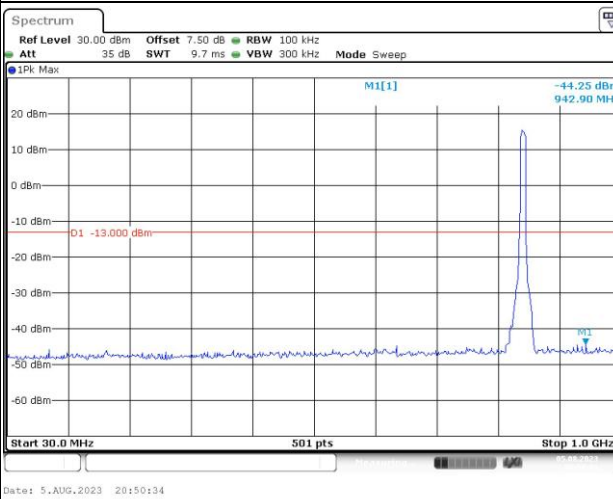
Lowest



Middle



Highest

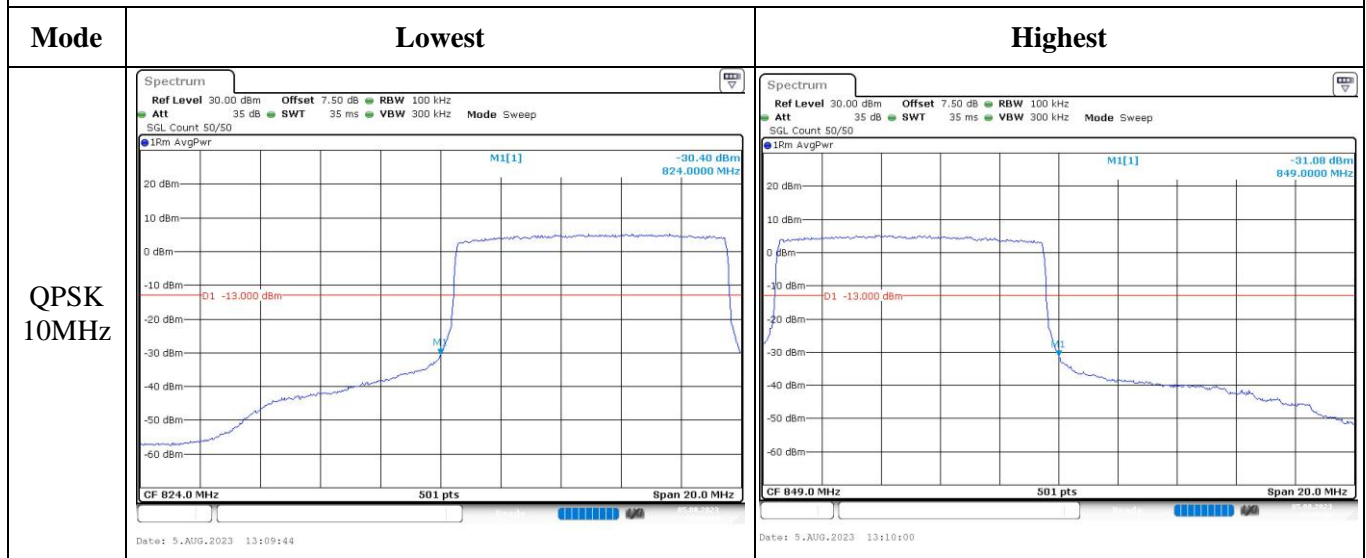




Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -25.27 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 12:56:58</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -26.12 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 12:57:12</p>
QPSK 3MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -27.29 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 13:00:55</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -26.32 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 13:01:09</p>
QPSK 5MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -25.04 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 13:03:29</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr MI[1] -24.96 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 13:03:43</p>

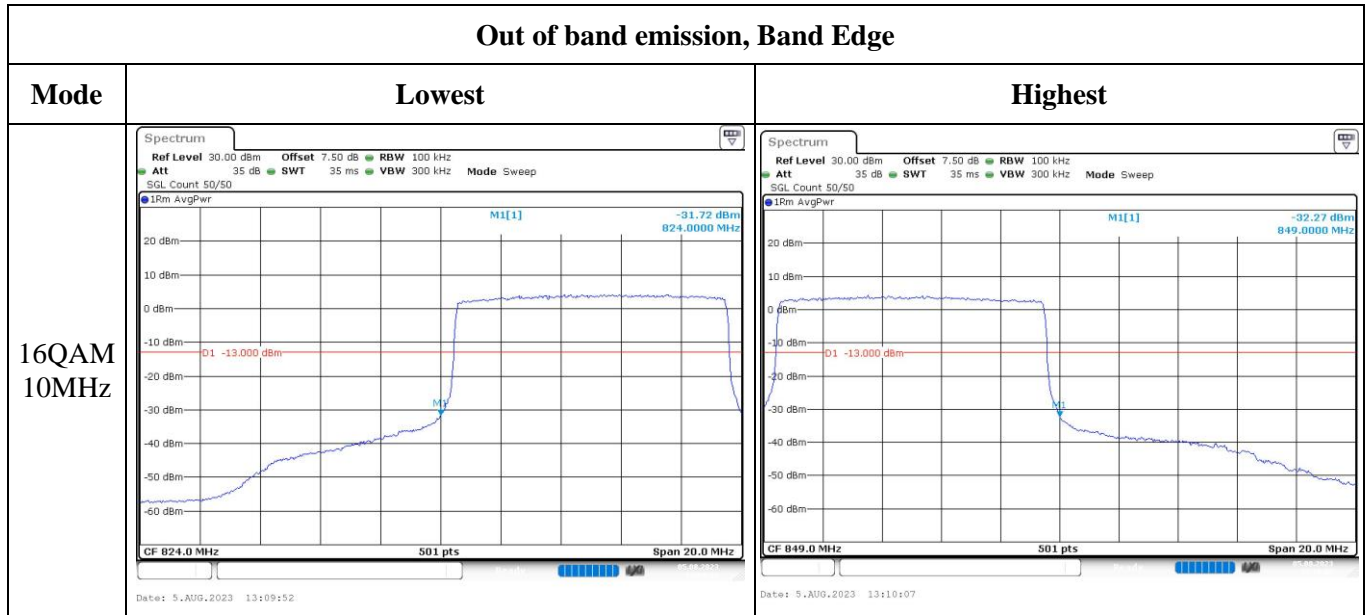
Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -26.92 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 12:57:05</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -26.21 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 3.0 MHz Date: 5.AUG.2023 12:57:19</p>
16QAM 3MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -28.27 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 13:01:02</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 30 kHz Att 35 dB SWT 35 ms VBW 100 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -28.71 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 6.0 MHz Date: 5.AUG.2023 13:01:16</p>
16QAM 5MHz	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -25.76 dBm 824.00000 MHz D1 -13.000 dBm CF 824.0 MHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 13:03:35</p>	<p>Ref Level 30.00 dBm Offset 7.50 dB RBW 100 kHz Att 35 dB SWT 35 ms VBW 300 kHz Mode Sweep SGL Count 50/50 1Rm AvgPwr M1[1] -25.37 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 10.0 MHz Date: 5.AUG.2023 13:03:50</p>

Out of band emission, Band Edge



**4.10 Antenna Port Test Data and Results for LTE Band 7**

Serial Number:	291M-2	Test Date:	2023/08/05~2023/08/30
Test Site:	RF	Test Mode:	Transmitting
Tester:	One Luo	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	24.2~27.4	Relative Humidity: (%)	40~58	ATM Pressure: (kPa)	99.7~102.2
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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	2023/07/15	2024/07/14
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	2023/07/15	2024/07/14
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2022/09/29	2023/09/28
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	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	18.8	18.92	19.14	14.36	33
	RB1#13	18.98	18.9	19.03		
	RB1#24	19.04	18.75	19.2		
	RB15#0	18.02	18.04	18.25		
	RB15#10	18.07	17.97	18.11		
	RB25#0	17.99	18.07	18.11		
5MHz 16QAM	RB1#0	17.72	17.56	18.38	13.55	33
	RB1#13	17.54	17.15	17.91		
	RB1#24	18.12	17.11	18.39		
	RB15#0	16.83	16.89	17.19		
	RB15#10	16.95	17.03	17.21		
	RB25#0	16.93	16.99	17.28		
10MHz QPSK	RB1#0	19.21	19.3	19.19	14.54	33
	RB1#25	19.26	19.18	19.28		
	RB1#49	19.38	18.55	19.11		
	RB25#0	18.03	17.87	18.35		
	RB25#25	18.09	17.91	18.26		
	RB50#0	17.99	18.02	18.38		
10MHz 16QAM	RB1#0	18.77	17.54	18.53	14.03	33
	RB1#25	18.87	17.51	18.36		
	RB1#49	18.6	17.79	18.39		
	RB25#0	16.92	17.06	17.37		
	RB25#25	17.16	17.06	17.27		
	RB50#0	16.76	16.85	17.48		
15MHz QPSK	RB1#0	19.11	19.03	18.97	14.28	33
	RB1#38	19.12	18.83	19.05		
	RB1#74	19.04	18.88	19.11		
	RB36#0	17.99	18.08	18.3		
	RB36#39	18.13	18.05	18.18		
	RB75#0	18.02	18.05	18.34		
15MHz 16QAM	RB1#0	18	18.51	18.39	14.09	33
	RB1#38	18.15	18.44	17.67		
	RB1#74	18.4	18.93	17.54		
	RB36#0	16.8	16.97	17.24		
	RB36#39	17.01	16.81	17.11		
	RB75#0	17.01	17.13	17.31		



20MHz QPSK	RB1#0	18.69	19.16	19.03	14.97	33
	RB1#50	19.21	19.08	19.09		
	RB1#99	19.03	19.81	18.89		
	RB50#0	18.04	17.98	18.17		
	RB50#50	17.96	17.96	18.2		
	RB100#0	17.83	18.09	18.24		
20MHz 16QAM	RB1#0	17.99	18.04	18.84	14.04	33
	RB1#50	18.88	17.84	18.88		
	RB1#99	18.44	18.05	18.75		
	RB50#0	16.76	17.08	17.24		
	RB50#50	17.08	17.22	17.22		
	RB100#0	16.88	17.08	17.24		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						
					<b>Result:</b>	<b>Pass</b>

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	3.71	4.23	4.2	13	
	RB100#0	3.88	3.91	3.77	13	
20MHz 16QAM	RB1#0	4.84	4.81	4.99	13	
	RB100#0	5.68	5.68	5.62	13	
					<b>Result:</b>	<b>Pass</b>

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	4.511	4.531	5.04	5.02	5.04
5MHz 16QAM	4.531	4.531	4.511	5.06	5.04	5.02
10MHz QPSK	8.942	8.942	8.902	9.88	9.72	9.72
10MHz 16QAM	8.942	8.942	8.902	9.64	9.72	9.68
15MHz QPSK	13.533	13.473	13.473	14.88	14.82	14.82
15MHz 16QAM	13.533	13.533	13.473	14.82	14.82	14.76
20MHz QPSK	17.964	17.884	17.884	19.36	19.36	19.44
20MHz 16QAM	17.964	17.964	17.804	19.52	19.52	19.28
Note: The test plots please refer to the Plots of Occupied Bandwidth						

FCC §2.1051, §27.53:Spurious Emissions at Antenna Terminal	
<b>Result:</b>	<b>Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.</b>

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

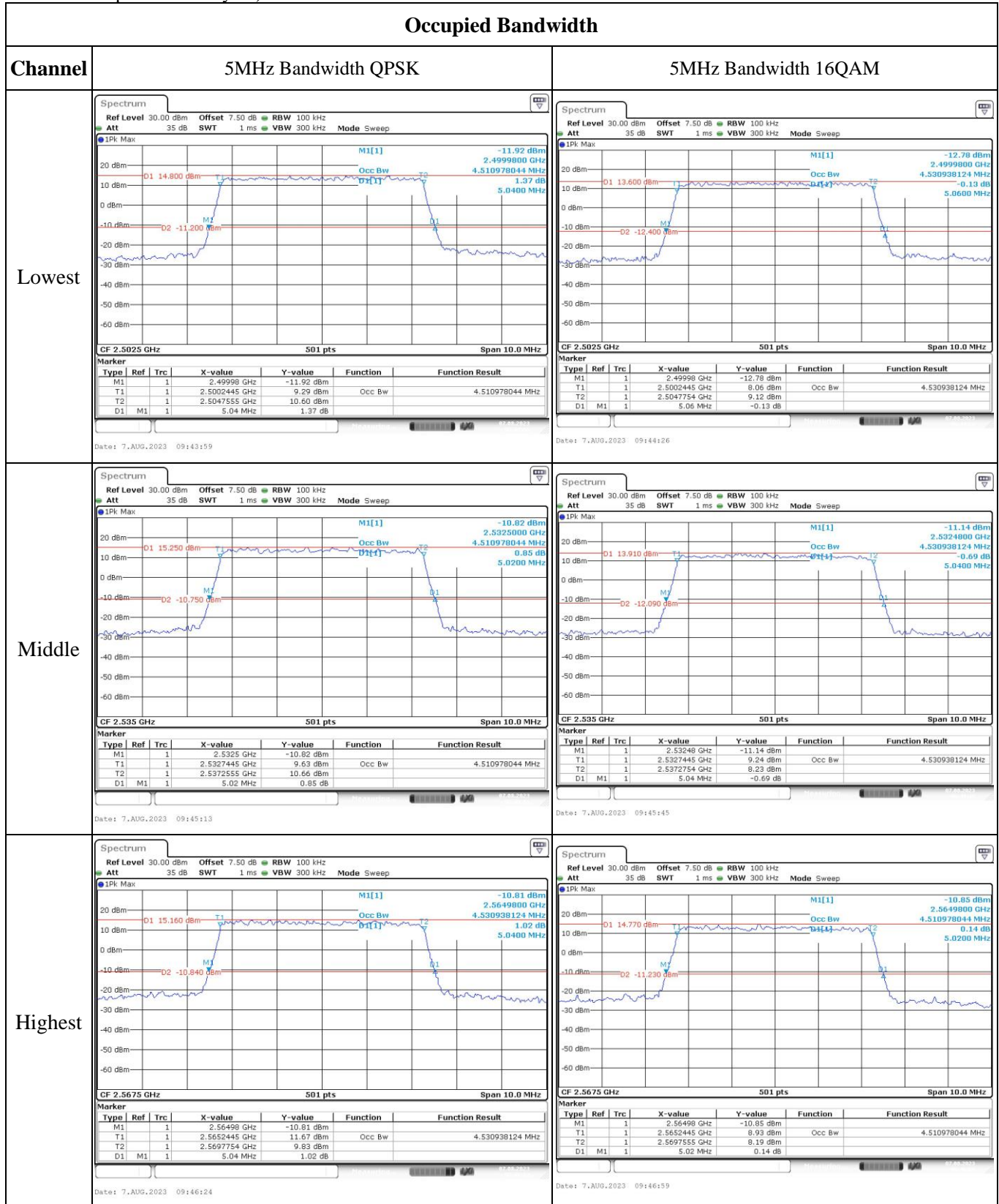
<b>Result:</b>	<b>Pass, Please refer to the test plots of Out of band emission, Band Edge.</b>
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**FCC §2.1055, §27.54: Frequency Stability**

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2501.086	2500.00	2568.932	2570
	-20	3.8	2501.065	2500.00	2568.995	2570
	-10	3.8	2501.050	2500.00	2568.915	2570
	0	3.8	2501.073	2500.00	2568.939	2570
	10	3.8	2501.017	2500.00	2568.974	2570
	20	3.8	2501.058	2500.00	2568.945	2570
	30	3.8	2501.080	2500.00	2568.906	2570
	40	3.8	2501.043	2500.00	2568.971	2570
	50	3.8	2501.053	2500.00	2568.959	2570
Frequency Stability vs. Voltage	20	3.55	2501.029	2500.00	2568.968	2570
	20	4.35	2501.080	2500.00	2568.974	2570
					<b>Result:</b>	<b>Pass</b>

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.8	2501.124	2500.00	2568.917	2570
	-20	3.8	2501.195	2500.00	2568.914	2570
	-10	3.8	2501.164	2500.00	2568.901	2570
	0	3.8	2501.194	2500.00	2568.981	2570
	10	3.8	2501.200	2500.00	2568.910	2570
	20	3.8	2501.138	2500.00	2568.942	2570
	30	3.8	2501.162	2500.00	2568.937	2570
	40	3.8	2501.111	2500.00	2568.967	2570
	50	3.8	2501.167	2500.00	2568.987	2570
Frequency Stability vs. Voltage	20	3.55	2501.175	2500.00	2568.942	2570
	20	4.35	2501.194	2500.00	2568.961	2570
					<b>Result:</b>	<b>Pass</b>

**Test Plots**(Note: The 7.5dB is the Insertion loss of the RF cable, Power Splitter and DC Block, which was offset into the Spectrum Analyzer):



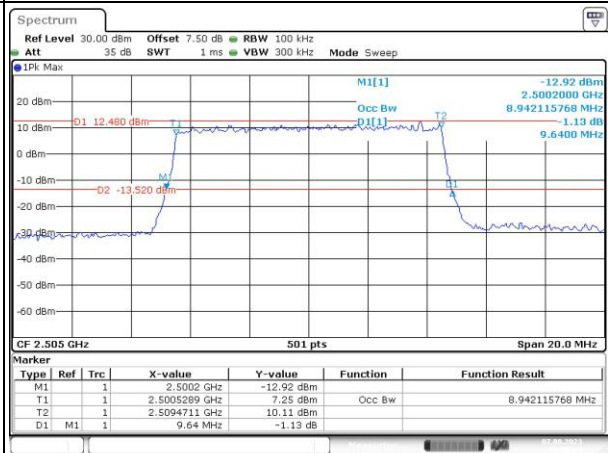
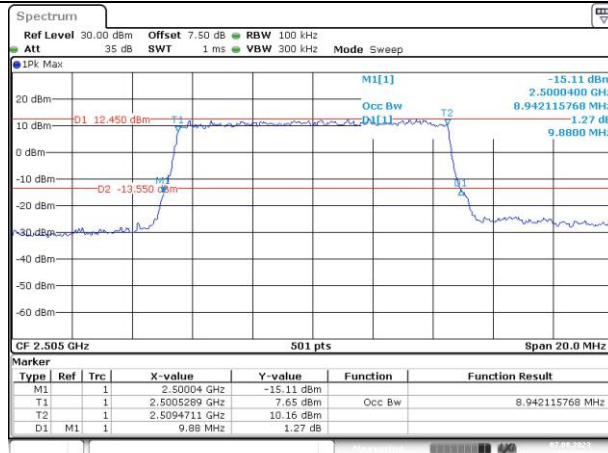
### Occupied Bandwidth

Channel

10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

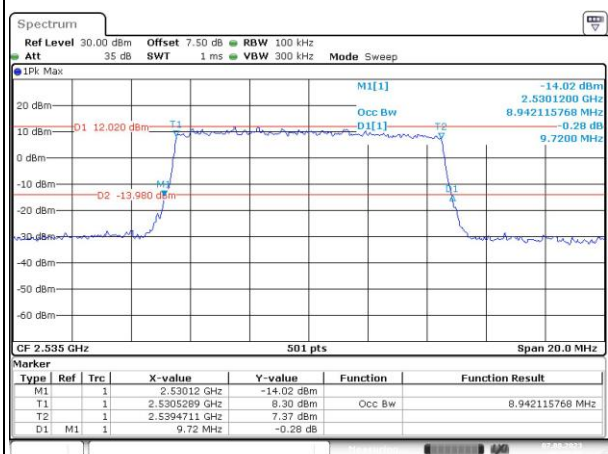
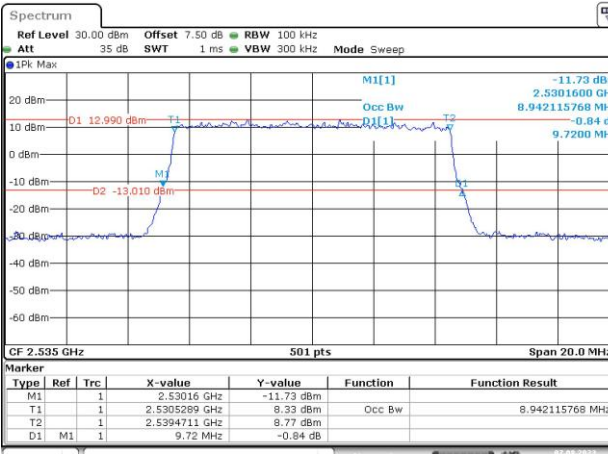
Lowest



Date: 7.AUG.2023 09:50:22

Date: 7.AUG.2023 09:50:54

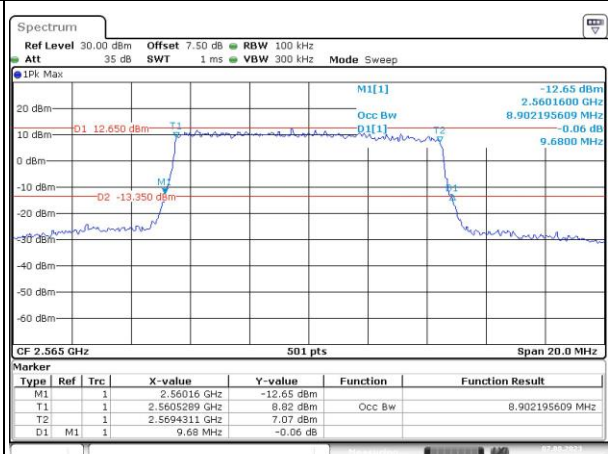
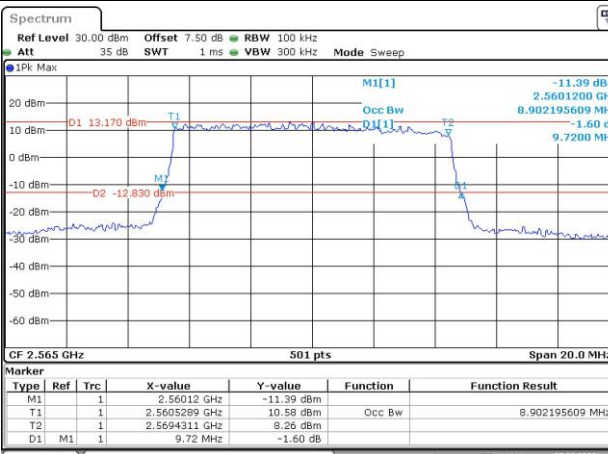
Middle



Date: 7.AUG.2023 09:51:38

Date: 7.AUG.2023 09:52:05

Highest



Date: 7.AUG.2023 09:52:42

Date: 7.AUG.2023 09:53:13

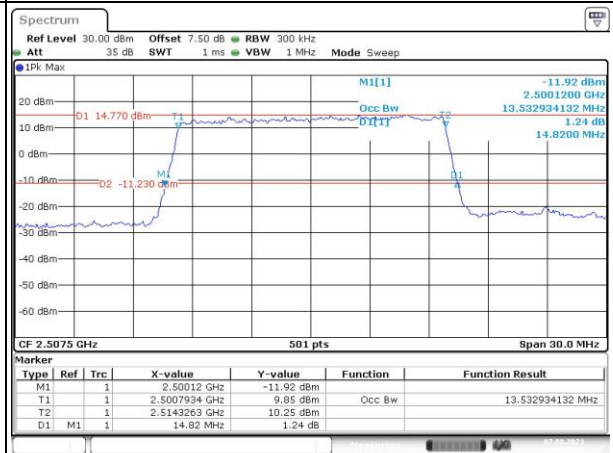
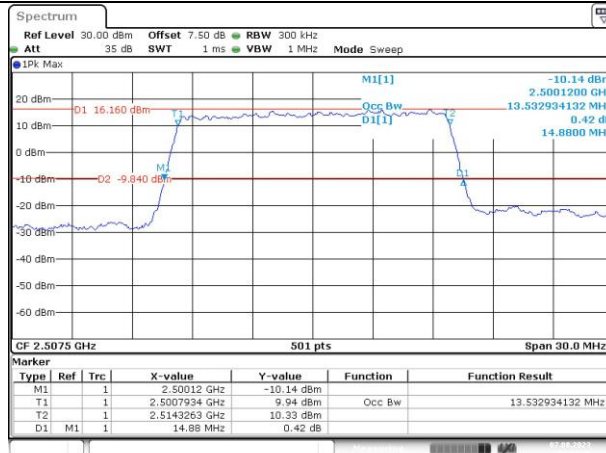
### Occupied Bandwidth

Channel

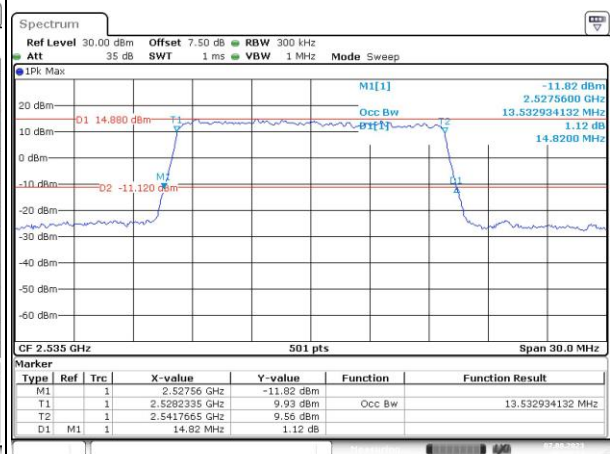
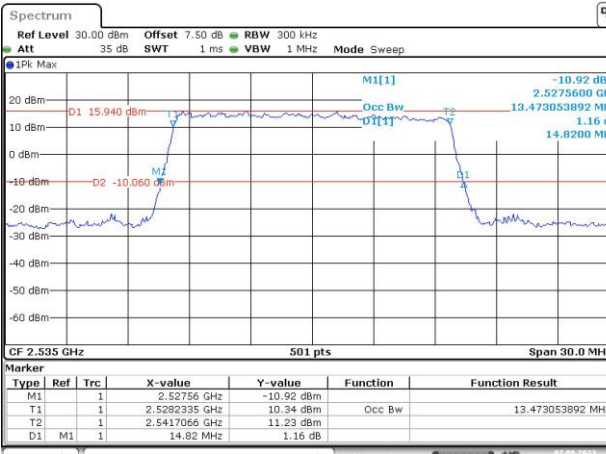
15MHz Bandwidth QPSK

15MHz Bandwidth 16QAM

Lowest



Middle



Highest

