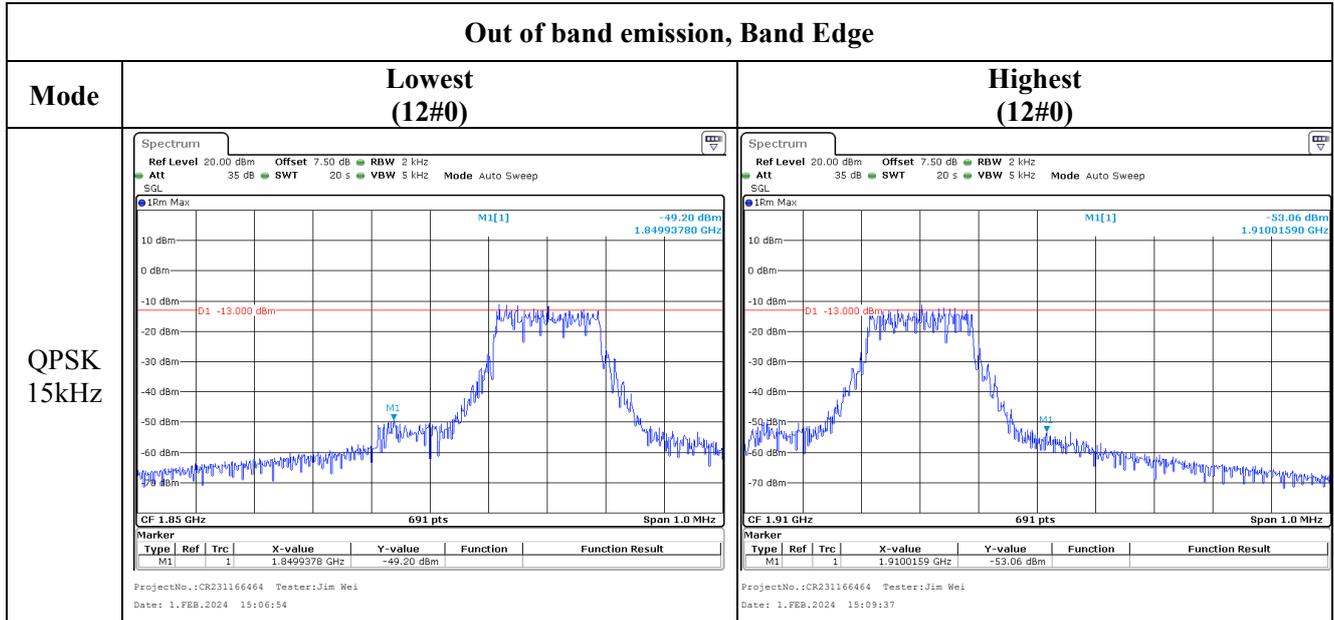


Out of band emission, Band Edge

Mode	Lowest (1#0)	Highest (1#11)
BPSK 15kHz	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 10:03:13</p>	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 10:06:06</p>
QPSK 15kHz	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 10:08:02</p>	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 10:09:26</p>

Out of band emission, Band Edge



**4.2 Antenna Port Test Data and Results for LTE Band 4**

Serial Number:	2DHS-3	Test Date:	2023-12-21~2024-2-1
Test Site:	RF	Test Mode:	Transmitting
Tester:	One Luo, Jim Wei	Test Result:	<b>Pass</b>

**Environmental Conditions:**

Temperature: (°C)	17.8~25.3	Relative Humidity: (%)	26~42	ATM Pressure: (kPa)	100.8~102.1
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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	Functional radio communication tester	CMW290	101742	2023-06-08	2024-06-07
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023-09-29	2024-09-28
UNI-T	Multimeter	UT39A+	C210582554	N/A	N/A
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	2023-07-15	2024-07-14

\* 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:**

Sub-carrier Spacing	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
3.75kHz	1710.2	1732.5	1754.8
15kHz	1710.2	1732.5	1754.8

**Test Data:****FCC§2.1046;§ 27.50(d)(4)****RF Output Power:**

Modulation & Sub-carrier Spacing	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
BPSK & 3.75kHz	RB1#0	20.15	20.07	20.95	27.08	30
	RB1#47	20.11	20.17	20.98		
BPSK & 15kHz	RB1#0	20.79	20.83	20.96		
	RB1#11	20.7	20.77	20.9		
QPSK & 3.75kHz	RB1#0	20.15	20.21	20.05		
	RB1#47	20.17	20.14	20.1		
QPSK & 15kHz	RB1#0	20.87	20.91	20.9		
	RB1#11	20.75	20.79	20.93		
	RB12#0	18.72	18.87	19.06		

Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)

**Result:****Pass****Peak-to-average Ratio(PAR)**

Test Bandwidth & Modulation	Sub-carrier Spacing (kHz)	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
			Lowest Channel	Middle Channel	Highest Channel	
BPSK	3.75	RB1#0	2.35	2.12	2.64	13
		RB1#11	2.54	1.95	2.13	13
QPSK	3.75	RB1#0	2.26	2.56	2.14	13
		RB1#0	2.58	2.45	2.16	13
	15	RB12#0	2.56	2.12	2.22	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
BPSK 3.75k 1#0	0.056	0.058	0.058	0.045	0.041	0.043
QPSK 3.75k 1#0	0.068	0.068	0.069	0.042	0.042	0.042
BPSK 15k 1#0	0.122	0.122	0.123	0.113	0.106	0.113
QPSK 15k 1#0	0.120	0.120	0.119	0.120	0.132	0.133
QPSK 15k 12#0	0.185	0.185	0.185	0.253	0.255	0.250

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>
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**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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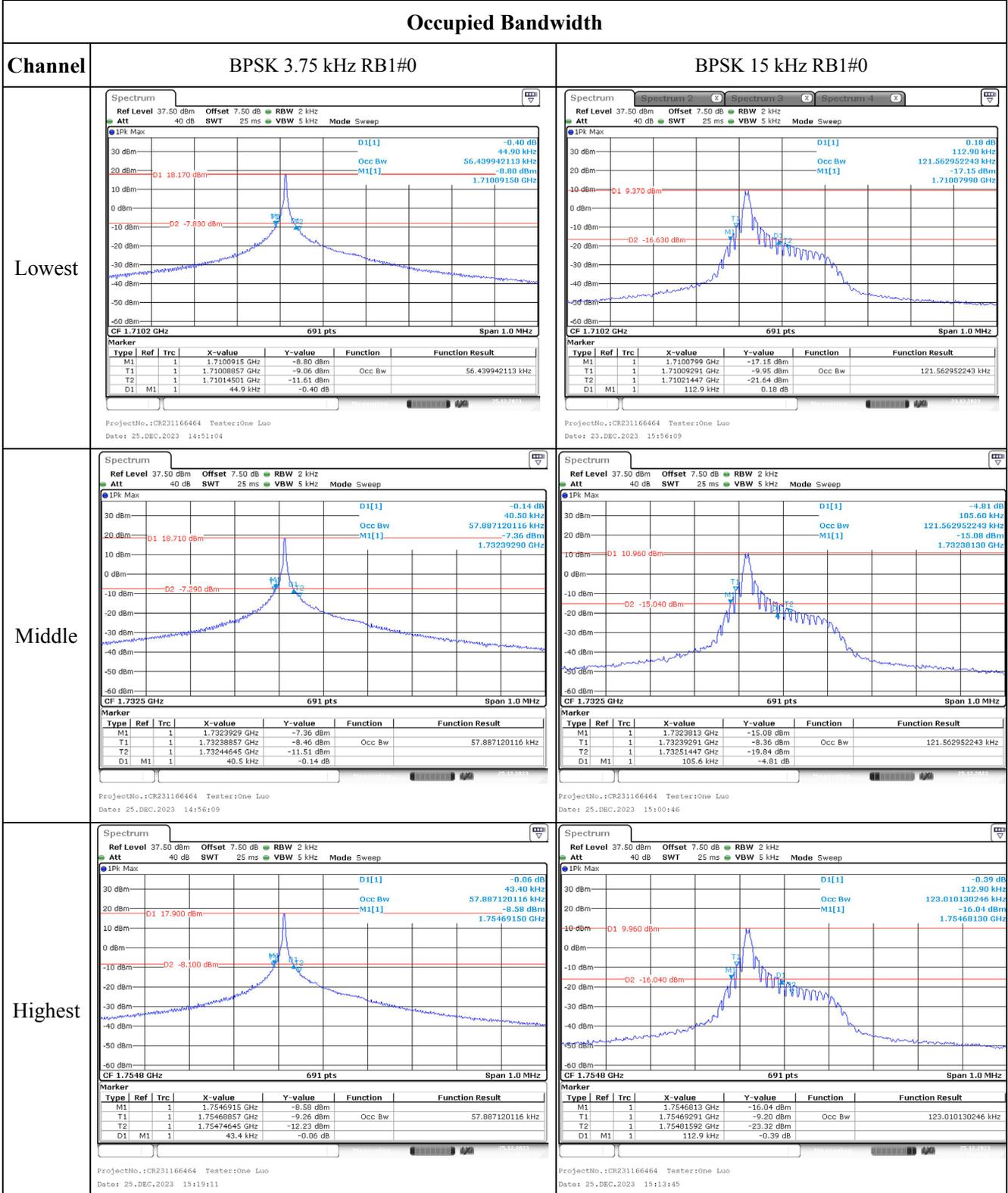
**FCC §2.1055, §27.54: Frequency Stability**

Test Mode:	BPSK, 15kHz, RBI#0	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	3.7	1710.084	1710.00	1754.811	1755
	-20	3.7	1710.015	1710.00	1754.841	1755
	-10	3.7	1710.060	1710.00	1754.823	1755
	0	3.7	1710.002	1710.00	1754.858	1755
	10	3.7	1710.056	1710.00	1754.890	1755
	20	3.7	1710.093	1710.00	1754.811	1755
	30	3.7	1710.035	1710.00	1754.841	1755
	40	3.7	1710.070	1710.00	1754.822	1755
	50	3.7	1710.064	1710.00	1754.836	1755
Frequency Stability vs. Voltage	20	3.2	1710.095	1710.00	1754.831	1755
	20	4.2	1710.091	1710.00	1754.883	1755
					<b>Result:</b>	<b>Pass</b>

Test Mode:	QPSK 15kHz RB12#0	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	3.7	1710.166	1710.00	1754.860	1755
	-20	3.7	1710.162	1710.00	1754.829	1755
	-10	3.7	1710.118	1710.00	1754.849	1755
	0	3.7	1710.112	1710.00	1754.804	1755
	10	3.7	1710.159	1710.00	1754.821	1755
	20	3.7	1710.109	1710.00	1754.894	1755
	30	3.7	1710.166	1710.00	1754.881	1755
	40	3.7	1710.130	1710.00	1754.845	1755
	50	3.7	1710.128	1710.00	1754.873	1755
Frequency Stability vs. Voltage	20	3.2	1710.168	1710.00	1754.851	1755
	20	4.2	1710.166	1710.00	1754.900	1755
					<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):

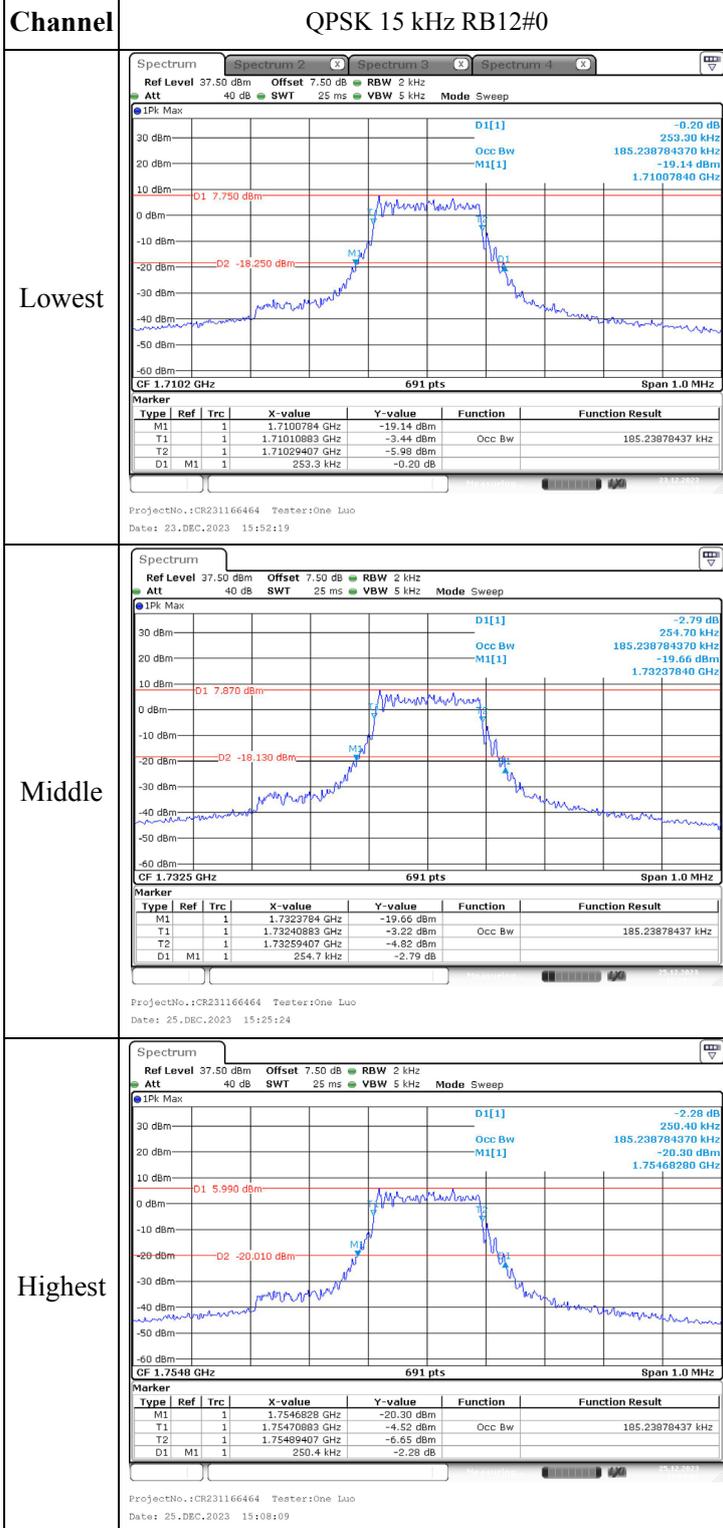
**Occupied Bandwidth**



Occupied Bandwidth

Channel	QPSK 3.75 kHz RB1#0	QPSK 15 kHz RB1#0																																																																						
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>1.7100929 GHz</td> <td>-7.77 dBm</td> <td></td> <td></td> </tr> <tr> <td>T1</td> <td>1</td> <td></td> <td>1.71009857 GHz</td> <td>-9.57 dBm</td> <td>Occ Bw</td> <td>68.017366136 kHz</td> </tr> <tr> <td>T2</td> <td>1</td> <td></td> <td>1.71015658 GHz</td> <td>-13.26 dBm</td> <td></td> <td></td> </tr> <tr> <td>D1</td> <td>M1</td> <td>1</td> <td>42.0 kHz</td> <td>0.41 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>ProjectNo.:CR231166464 Tester:One Luo Date: 25.DEC.2023 14:52:18</p>	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		1.7100929 GHz	-7.77 dBm			T1	1		1.71009857 GHz	-9.57 dBm	Occ Bw	68.017366136 kHz	T2	1		1.71015658 GHz	-13.26 dBm			D1	M1	1	42.0 kHz	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>1.7100784 GHz</td> <td>-11.08 dBm</td> <td></td> <td></td> </tr> <tr> <td>T1</td> <td>1</td> <td></td> <td>1.71009291 GHz</td> <td>-11.08 dBm</td> <td>Occ Bw</td> <td>120.115774240 kHz</td> </tr> <tr> <td>T2</td> <td>1</td> <td></td> <td>1.71021302 GHz</td> <td>-19.38 dBm</td> <td></td> <td></td> </tr> <tr> <td>D1</td> <td>M1</td> <td>1</td> <td>120.1 kHz</td> <td>1.94 dB</td> <td></td> <td></td> </tr> </tbody> </table> <p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 15:54:20</p>	Type	Ref	Trc	X-value	Y-value	Function	Function Result	M1	1		1.7100784 GHz	-11.08 dBm			T1	1		1.71009291 GHz	-11.08 dBm	Occ Bw	120.115774240 kHz	T2	1		1.71021302 GHz	-19.38 dBm			D1	M1	1	120.1 kHz	1.94 dB		
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### Occupied Bandwidth

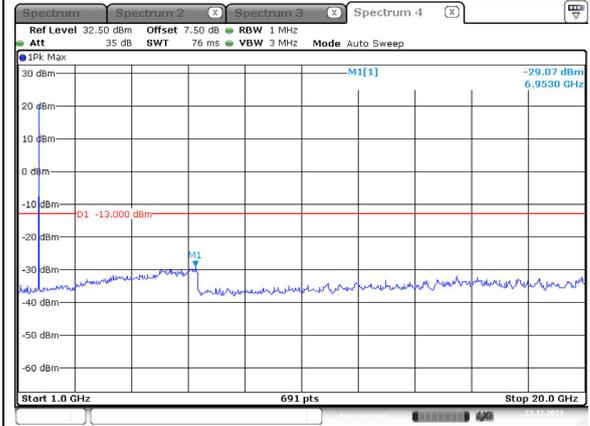
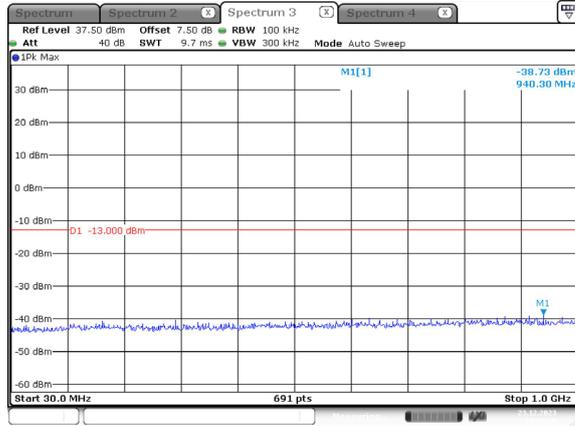


**Spurious Emissions at Antenna Terminal**

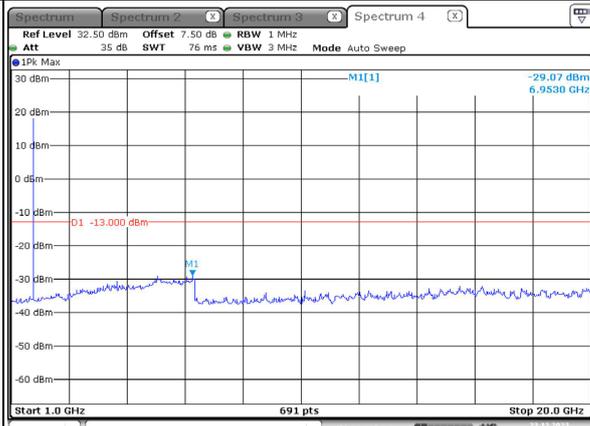
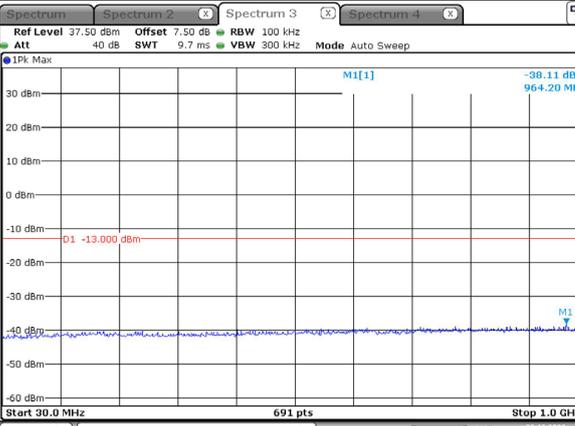
(Worst: BPSK 3.75K 1#0 was tested)

**Channel**

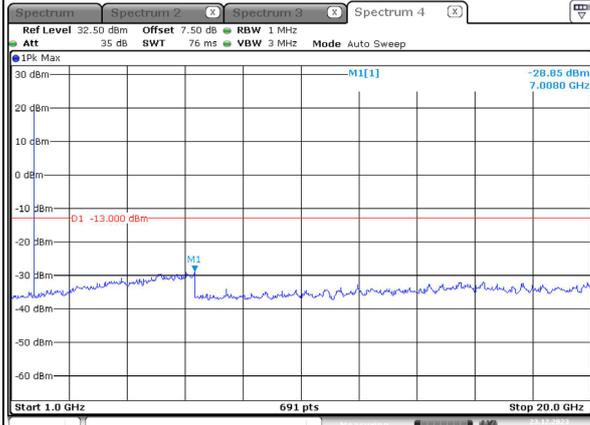
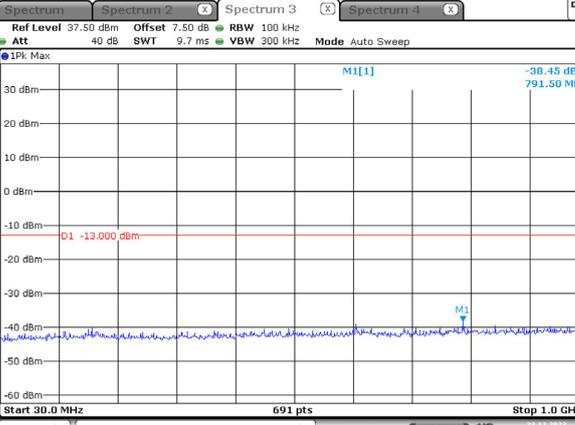
Lowest



Middle



Highest



Out of band emission, Band Edge

Mode	Lowest (1#0)	Highest (1#47)
BPSK 3.75kHz	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 11:01:25</p>	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 11:05:34</p>
QPSK 3.75kHz	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 11:02:47</p>	<p>ProjectNo.:CR231166464 Tester:One Luo Date: 23.DEC.2023 11:04:30</p>