

	RB1#25	23.8	23.55	23.41		
	RB1#49	23.75	23.44	23.41		
	RB25#0	22.67	22.54	22.45		
	RB25#25	22.62	22.44	22.37		
	RB50#0	22.66	22.49	22.41		
10MHz 16QAM	RB1#0	23.3	22.82	22.5	13.85	38.45
	RB1#25	23.18	22.7	22.44		
	RB1#49	23.19	22.57	22.39		
	RB25#0	21.64	21.57	21.50		
	RB25#25	21.61	21.47	21.41		
	RB50#0	21.60	21.51	21.38		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)G_T(dBd)=G_T(dBi)-2.15**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	2.87	1.51	1.54	13
	RB50#0	2.17	2.61	2.46	13
10MHz 16QAM	RB1#0	2.78	2.26	2.29	13
	RB50#0	2.58	3.01	2.93	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	1.104	1.098	1.110	1.320	1.326	1.310
1.4MHz 16QAM	1.110	1.098	1.104	1.320	1.290	1.326
3MHz QPSK	2.700	2.700	2.687	2.900	2.900	2.928
3MHz 16QAM	2.687	2.687	2.687	2.904	2.916	2.916
5MHz QPSK	4.500	4.520	4.520	5.000	5.020	4.980
5MHz 16QAM	4.520	4.520	4.520	5.020	4.920	5.000
10MHz QPSK	8.960	8.960	8.960	9.640	9.720	9.600
10MHz 16QAM	8.960	8.960	8.960	9.640	9.600	9.600

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.
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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.
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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	3.91	102.240	0.122	2.5
	-20	3.91	103.184	0.123	2.5
	-10	3.91	100.622	0.120	2.5
	0	3.91	100.781	0.120	2.5
	10	3.91	105.190	0.126	2.5
	20	3.91	101.037	0.121	2.5
	30	3.91	98.411	0.118	2.5
	40	3.91	100.512	0.120	2.5
Frequency Stability vs. Voltage	20	3.45	103.401	0.124	2.5
	20	4.5	102.759	0.123	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	3.91	100.978	0.121	2.5
	-20	3.91	102.126	0.122	2.5
	-10	3.91	107.080	0.128	2.5
	0	3.91	100.159	0.120	2.5
	10	3.91	106.980	0.128	2.5
	20	3.91	99.702	0.119	2.5
	30	3.91	102.936	0.123	2.5
	40	3.91	106.691	0.128	2.5
Frequency Stability vs. Voltage	20	3.45	96.537	0.115	2.5
	20	4.5	106.900	0.128	2.5
				Result:	Pass

Test Plots: (Note: The 11dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth

Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:21:25</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:21:41</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:21:59</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:22:15</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:22:32</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:22:46</p>

Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] 0.29 dB *VSW 100 kHz 2.892000000 MHz SWT 30 ms</p> <p>OSW 2.700000000 MHz Marker 1 [T1] 17.08 dBm Temp 1 [T1] 0.00 dBm 825.156000000 MHz Temp 2 [T1] 0.00 dBm 826.856000000 MHz</p> <p>Center 825.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:24:00</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] -0.71 dB *VSW 100 kHz 2.906000000 MHz SWT 30 ms</p> <p>OSW 2.680000000 MHz Marker 1 [T1] 15.19 dBm Temp 1 [T1] 0.00 dBm 825.156000000 MHz Temp 2 [T1] 0.00 dBm 826.844000000 MHz</p> <p>Center 825.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:24:14</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] -1.40 dB *VSW 100 kHz 2.892000000 MHz SWT 30 ms</p> <p>OSW 2.700000000 MHz Marker 1 [T1] 16.00 dBm Temp 1 [T1] 0.00 dBm 836.156000000 MHz Temp 2 [T1] 0.00 dBm 837.856000000 MHz</p> <p>Center 836.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:24:28</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] -0.70 dB *VSW 100 kHz 2.916000000 MHz SWT 30 ms</p> <p>OSW 2.680000000 MHz Marker 1 [T1] 14.67 dBm Temp 1 [T1] 0.00 dBm 836.156000000 MHz Temp 2 [T1] 0.00 dBm 837.844000000 MHz</p> <p>Center 836.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:24:41</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] -0.43 dB *VSW 100 kHz 2.928000000 MHz SWT 30 ms</p> <p>OSW 2.680000000 MHz Marker 1 [T1] 15.27 dBm Temp 1 [T1] 0.00 dBm 847.156000000 MHz Temp 2 [T1] 0.00 dBm 848.844000000 MHz</p> <p>Center 847.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:24:55</p>	<p>Ref 30 dBm *Att 25 dB *RBW 30 kHz Delta 1 [T1] 0.62 dB *VSW 100 kHz 2.916000000 MHz SWT 30 ms</p> <p>OSW 2.680000000 MHz Marker 1 [T1] 15.11 dBm Temp 1 [T1] 0.00 dBm 847.156000000 MHz Temp 2 [T1] 0.00 dBm 848.844000000 MHz</p> <p>Center 847.5 MHz 600 kHz/ Span 6 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:25:11</p>

Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:26:16</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:26:38</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:26:08</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:27:28</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:27:51</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:28:14</p>

Occupied Bandwidth

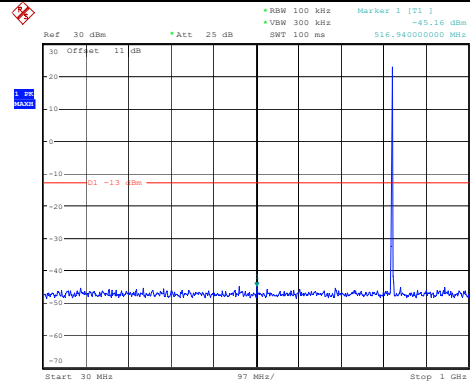
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:29:22</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:29:39</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:29:56</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:30:12</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:30:29</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:30:46</p>

Spurious Emissions at Antenna Terminal

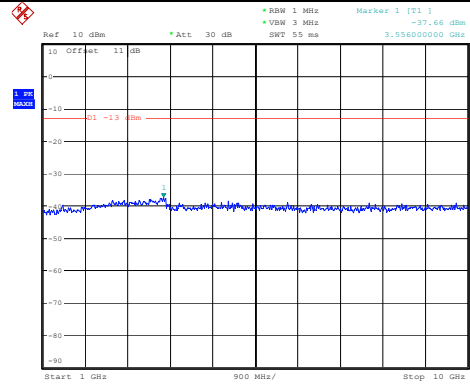
Channel

1.4MHz Bandwidth QPSK

Lowest

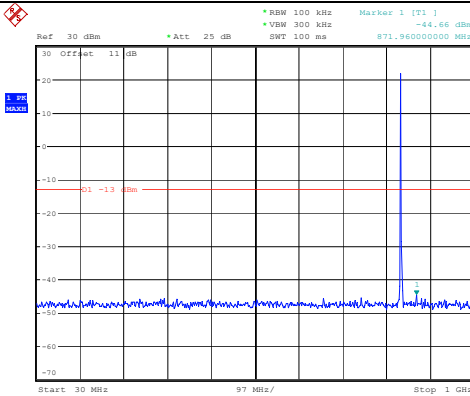


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:09:20

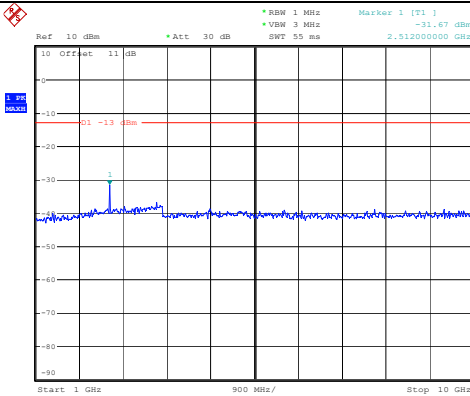


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:09:30

Middle

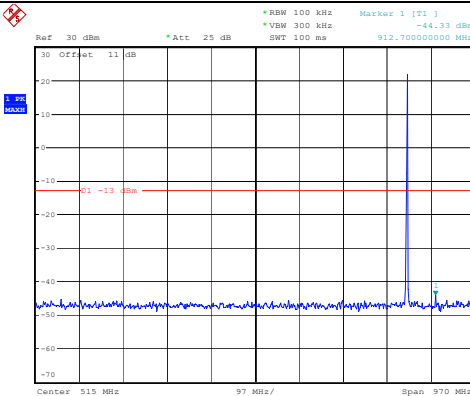


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:09:54

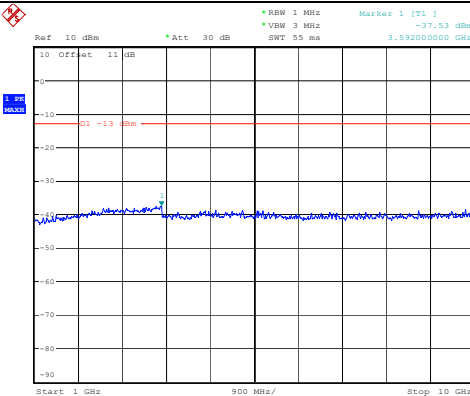


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:10:04

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:10:38



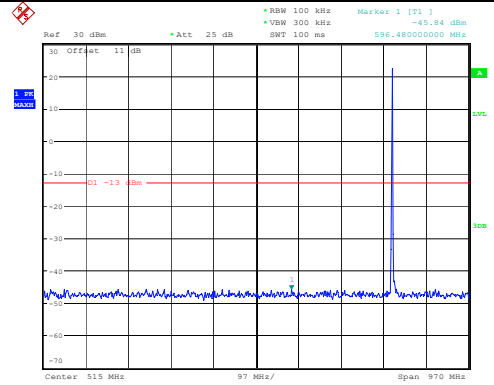
ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:10:51

Spurious Emissions at Antenna Terminal

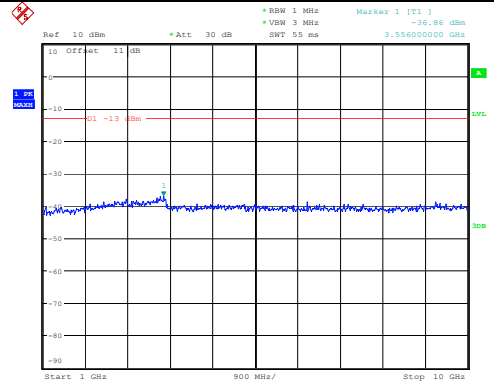
Channel

3MHz Bandwidth QPSK

Lowest

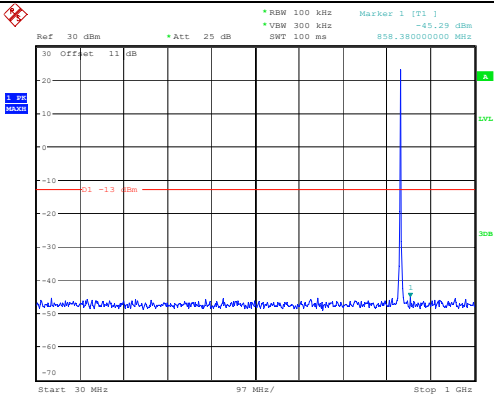


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:11:56

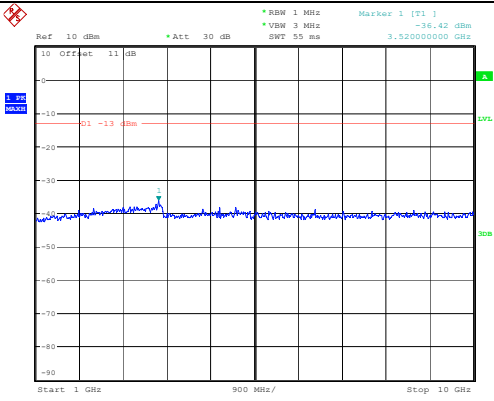


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:12:06

Middle

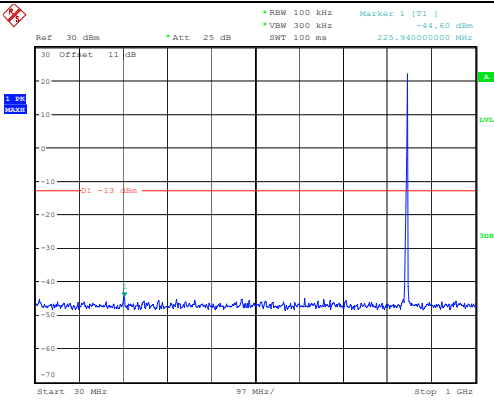


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:12:28

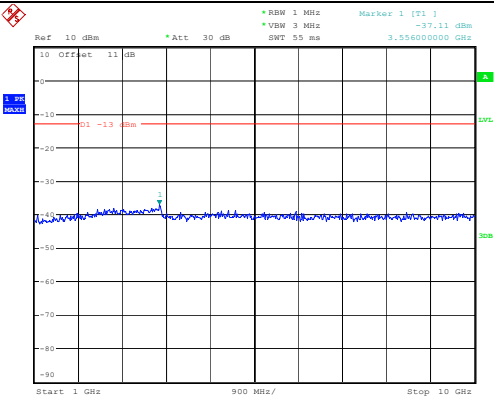


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:12:39

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:13:04



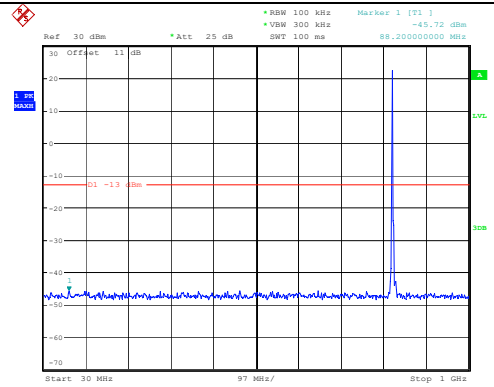
ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:13:14

Spurious Emissions at Antenna Terminal

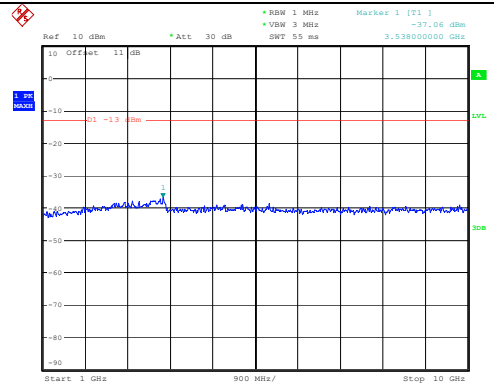
Channel

5MHz Bandwidth QPSK

Lowest

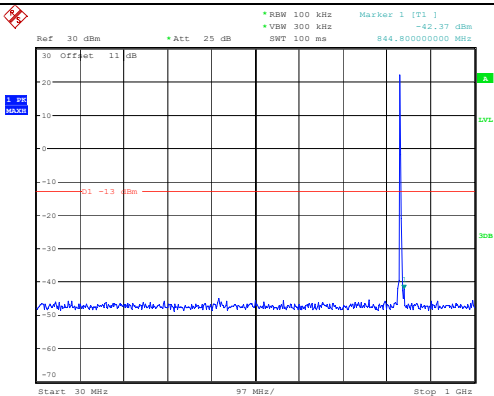


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:14:29

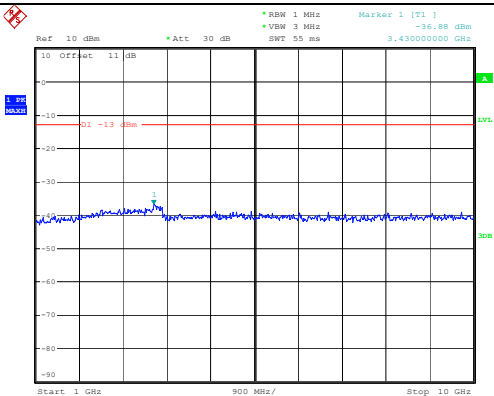


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:14:40

Middle

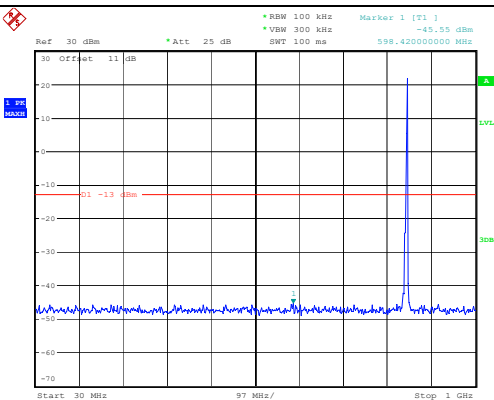


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:15:08

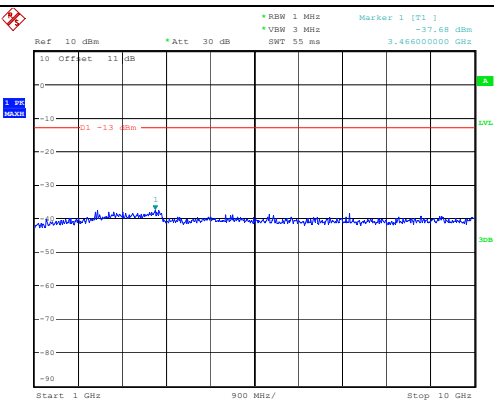


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:15:18

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:15:43

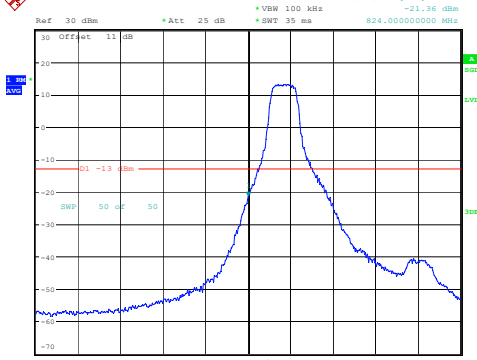
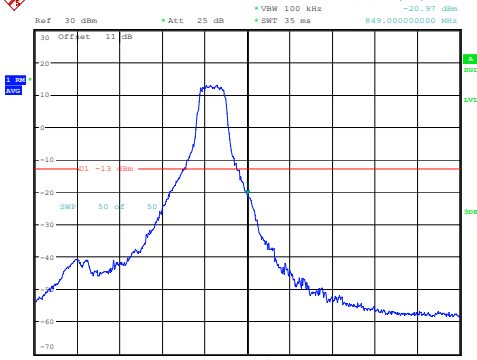
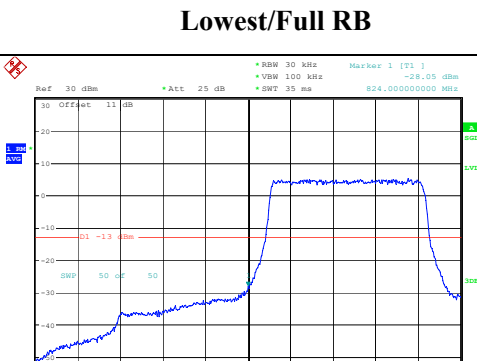
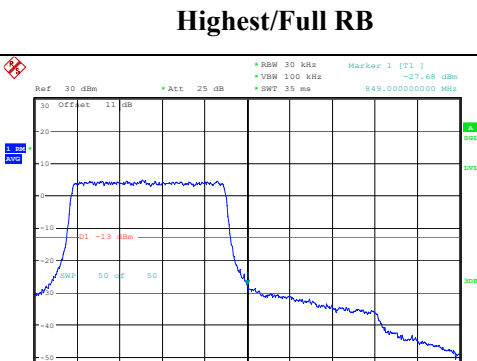


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:15:53

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -28.59 dBm *VSW 300 kHz *SWT 100 ms 833.160000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:17:24</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz Marker 1 [T1] -36.86 dBm *VSW 3 MHz *SWT 55 ms 3.448000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:17:34</p>
	Middle	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -29.70 dBm *VSW 300 kHz *SWT 100 ms 840.920000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:17:57</p>
Highest		<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -41.24 dBm *VSW 300 kHz *SWT 100 ms 854.500000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:18:33</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 1.4MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:28:35</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:29:12</p>
	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:22:05</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:22:18</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 3MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:30:23</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:30:56</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:23:06</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:23:20</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:32:03</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:32:34</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:24:06</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:24:20</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:33:33</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:34:16</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:25:16</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:25:32</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 1.4MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:28:51</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:29:29</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:22:11</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:22:24</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 3MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:30:40</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:31:12</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:23:12</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 16:23:26</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:32:18</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:32:51</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:24:12</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:24:27</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:33:55</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:34:33</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:25:23</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 16:25:39</p>

4.9 Antenna Port Test Data and Results for LTE Band 7

Serial Number:	2EXR-1	Test Date:	2023/12/18-2023/12/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2-25.7	Relative Humidity: (%)	49-51	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912 386	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	22.35	22.30	22.18	19.61	33
	RB1#13	22.46	22.31	22.23		
	RB1#24	22.51	22.33	22.3		
	RB15#0	21.20	21.3	21.24		
	RB15#10	21.25	21.29	21.21		
	RB25#0	21.22	21.26	21.19		
5MHz 16QAM	RB1#0	21.08	21.61	21.25	18.74	33
	RB1#13	21.15	21.61	21.24		
	RB1#24	21.24	21.64	21.26		
	RB15#0	20.24	20.31	20.25		
	RB15#10	20.31	20.25	20.22		
	RB25#0	20.27	20.30	20.21		
10MHz QPSK	RB1#0	22.15	22.47	22.22	19.57	33
	RB1#25	22.30	22.41	22.19		
	RB1#49	22.35	22.35	22.2		
	RB25#0	21.19	21.39	21.22		
	RB25#25	21.42	21.34	21.25		
	RB50#0	21.33	21.36	21.26		
10MHz 16QAM	RB1#0	21.18	21.89	21.25	18.99	33
	RB1#25	21.33	21.86	21.21		
	RB1#49	21.38	21.82	21.25		
	RB25#0	20.3	20.41	20.35		
	RB25#25	20.49	20.36	20.34		
	RB50#0	20.36	20.34	20.27		
15MHz QPSK	RB1#0	22.11	22.38	22.16	19.48	33
	RB1#38	22.23	22.36	22.08		
	RB1#74	22.27	22.30	22.12		
	RB36#0	21.3	21.35	21.20		
	RB36#39	21.36	21.28	21.3		
	RB75#0	21.30	21.31	21.23		
15MHz 16QAM	RB1#0	21.56	21.82	21.62	18.93	33
	RB1#38	21.67	21.83	21.55		
	RB1#74	21.72	21.79	21.60		
	RB36#0	20.21	20.35	20.28		
	RB36#39	20.37	20.31	20.24		
	RB75#0	20.31	20.32	20.25		
20MHz QPSK	RB1#0	22.38	22.61	22.5	19.72	33

	RB1#50	22.47	22.62	22.41		
	RB1#99	22.47	22.52	22.36		
	RB50#0	21.42	21.6	21.65		
	RB50#50	21.58	21.51	21.58		
	RB100#0	21.52	21.52	21.63		
20MHz 16QAM	RB1#0	21.72	21.84	22.26	19.36	33
	RB1#50	21.73	21.81	22.19		
	RB1#99	21.74	21.75	22.15		
	RB50#0	20.37	20.57	20.66		
	RB50#50	20.56	20.49	20.57		
	RB100#0	20.44	20.52	20.58		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						

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	3.54	3.68	4.09	13
	RB100#0	2.96	3.22	3.51	13
20MHz 16QAM	RB1#0	4.35	4.55	5.01	13
	RB100#0	3.88	4.17	4.49	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	4.520	4.500	4.500	4.980	5.000	4.900
5MHz 16QAM	4.500	4.520	4.500	4.900	4.980	5.000
10MHz QPSK	8.960	8.960	8.960	9.720	9.600	9.680
10MHz 16QAM	8.960	8.960	8.960	9.600	9.640	9.640
15MHz QPSK	13.500	13.500	13.560	14.800	14.800	14.940
15MHz 16QAM	13.560	13.560	13.500	14.820	14.820	14.900
20MHz QPSK	18.000	18.000	18.000	20.000	19.000	19.000
20MHz 16QAM	18.000	18.000	18.000	19.000	19.000	19.000

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.
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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.
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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 _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	2500.023	2500.00	2569.755	2570
	-20	3.91	2500.208	2500.00	2569.844	2570
	-10	3.91	2500.113	2500.00	2569.907	2570
	0	3.91	2500.269	2500.00	2569.761	2570
	10	3.91	2500.215	2500.00	2569.958	2570
	20	3.91	2500.295	2500.00	2569.998	2570
	30	3.91	2500.160	2500.00	2569.896	2570
	40	3.91	2500.127	2500.00	2569.731	2570
Frequency Stability vs. Voltage	20	3.45	2500.237	2500.00	2569.717	2570
	20	4.5	2500.169	2500.00	2569.703	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	3.91	2500.264	2500.00	2569.827	2570
	-20	3.91	2500.289	2500.00	2569.908	2570
	-10	3.91	2500.162	2500.00	2569.906	2570
	0	3.91	2500.009	2500.00	2569.945	2570
	10	3.91	2500.214	2500.00	2569.732	2570
	20	3.91	2500.004	2500.00	2569.715	2570
	30	3.91	2500.032	2500.00	2569.942	2570
	40	3.91	2500.230	2500.00	2569.983	2570
Frequency Stability vs. Voltage	20	3.45	2500.150	2500.00	2569.905	2570
	20	4.5	2500.201	2500.00	2569.994	2570
					Result:	Pass

Test Plots: (Note: The 11 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:14:04</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:14:23</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:14:44</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:15:03</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:15:21</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:15:37</p>

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:25:26</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:25:43</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:26:00</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:26:16</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:26:33</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:26:47</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:27:39</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:27:55</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:28:09</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:28:23</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:28:40</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:28:56</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:29:40</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:29:56</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:30:14</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:30:30</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:30:47</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:31:01</p>

Spurious Emissions at Antenna Terminal

Channel	5MHz Bandwidth QPSK	
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:47:25</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:47:35</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:47:48</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:47:58</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:48:13</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 08:48:24</p>

Spurious Emissions at Antenna Terminal

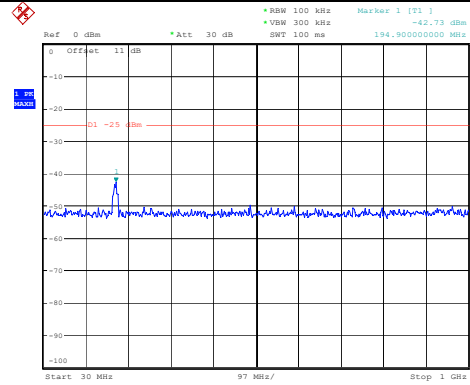
Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref: 0 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 100 ms, Marker 1 [T1]: 191.02000000 MHz, -42.22 dBm</p> <p>Start: 30 MHz, Stop: 1 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:49:26</p>	<p>Ref: 30 dBm, Att: 25 dB, RBW: 1 MHz, VSW: 3 MHz, SWT: 150 ms, Marker 1 [T1]: 24.86800000 GHz, -38.97 dBm</p> <p>Start: 1 GHz, Stop: 26.5 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:49:36</p>
Middle	<p>Ref: 0 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 100 ms, Marker 1 [T1]: 220.12000000 MHz, -42.30 dBm</p> <p>Start: 30 MHz, Stop: 1 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:49:52</p>	<p>Ref: 30 dBm, Att: 25 dB, RBW: 1 MHz, VSW: 3 MHz, SWT: 150 ms, Marker 1 [T1]: 24.35800000 GHz, -38.91 dBm</p> <p>Start: 1 GHz, Stop: 26.5 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:50:02</p>
Highest	<p>Ref: 0 dBm, Att: 30 dB, RBW: 100 kHz, VSW: 300 kHz, SWT: 100 ms, Marker 1 [T1]: 247.28000000 MHz, -42.30 dBm</p> <p>Start: 30 MHz, Stop: 1 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:50:17</p>	<p>Ref: 30 dBm, Att: 25 dB, RBW: 1 MHz, VSW: 3 MHz, SWT: 150 ms, Marker 1 [T1]: 26.09200000 GHz, -38.44 dBm</p> <p>Start: 1 GHz, Stop: 26.5 GHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19 DEC 2023 08:50:28</p>

Spurious Emissions at Antenna Terminal

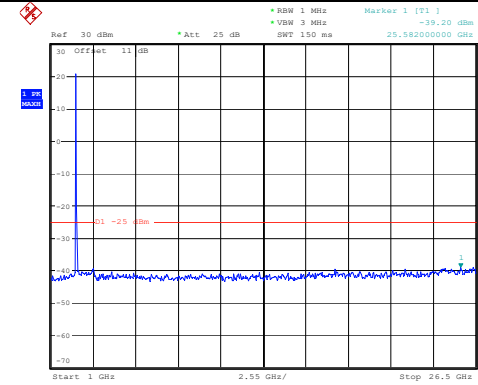
Channel

15MHz Bandwidth QPSK

Lowest

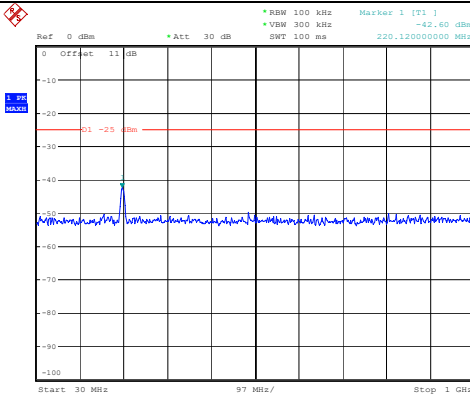


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:52:03

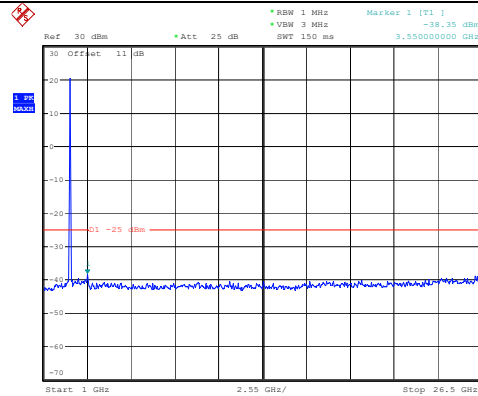


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:52:13

Middle

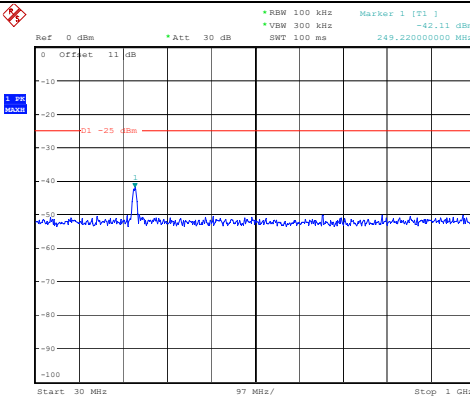


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:52:25

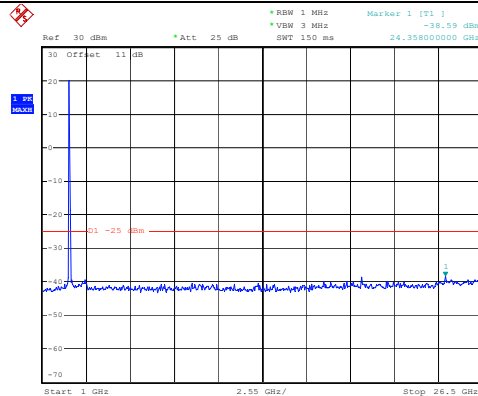


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:52:36

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:52:51



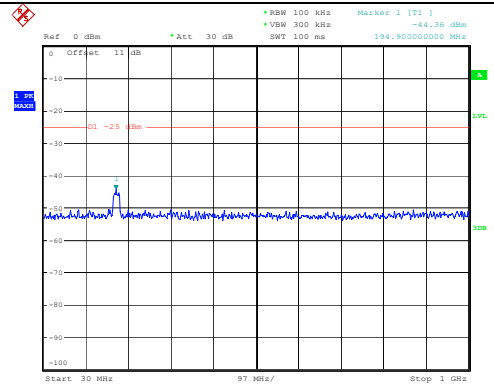
ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:53:02

Spurious Emissions at Antenna Terminal

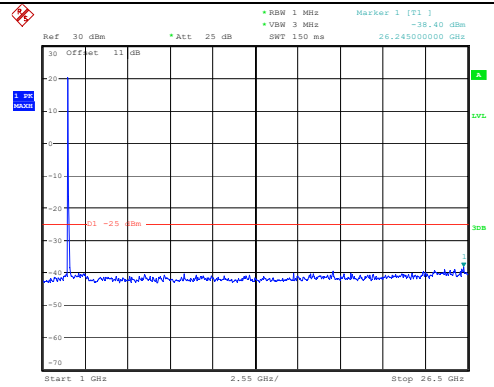
Channel

20MHz Bandwidth QPSK

Lowest

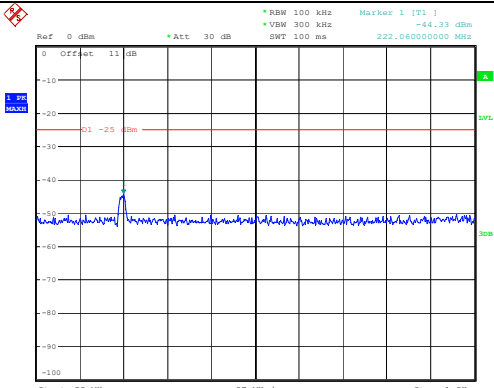


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:54:05

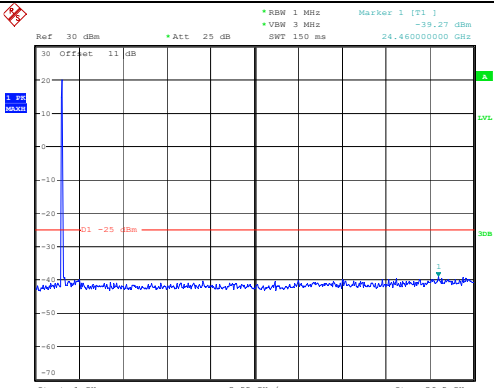


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:54:16

Middle

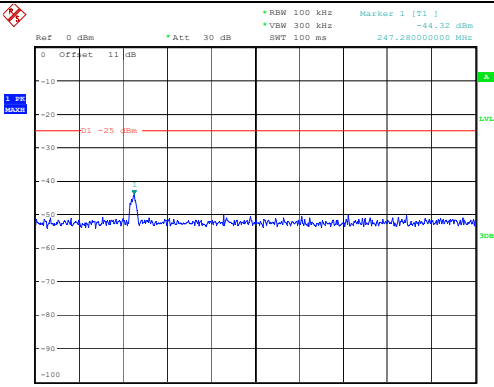


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:54:28

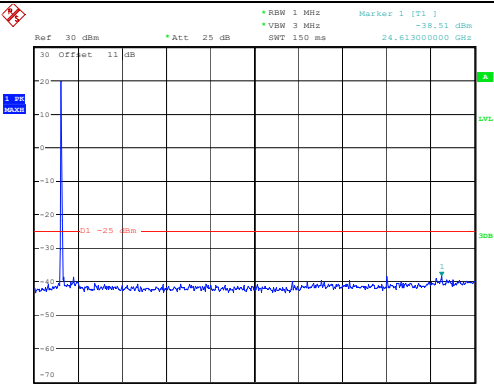


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:54:38

Highest

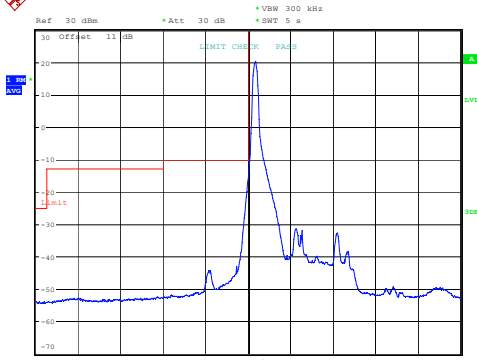
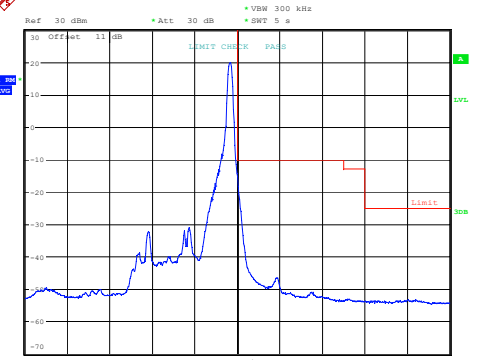
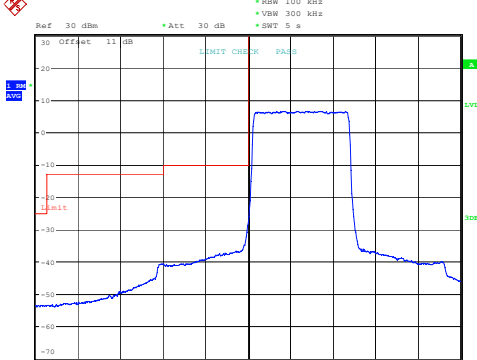
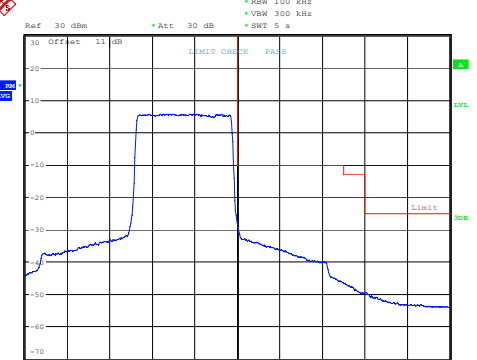


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:54:51



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 08:55:01

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:16:21</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:18:53</p>
	Lowest/Full RB	Highest/Full RB
QPSK 5MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:00:31</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:01:59</p>

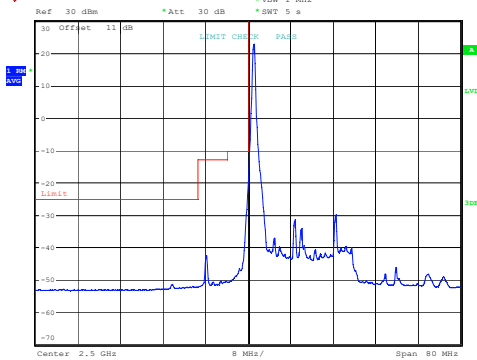
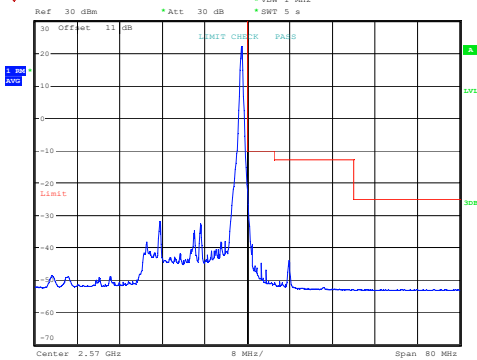
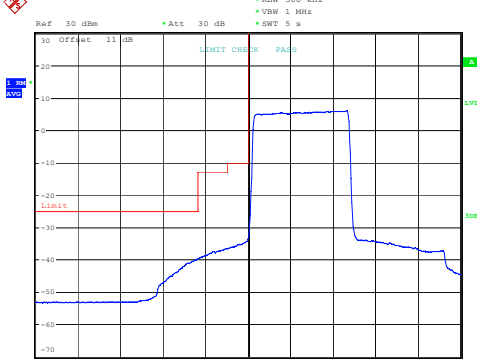
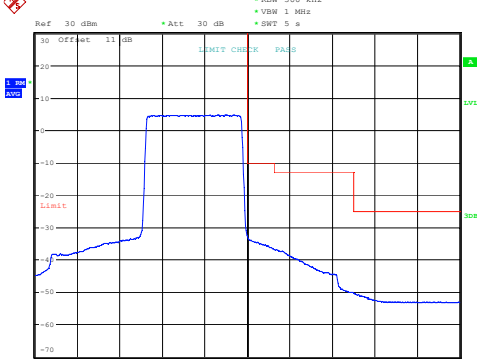
Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:21:58</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:22:42</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:04:24</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:04:58</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 15MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:25:33</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:26:12</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:07:26</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:08:43</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 20MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:29:23</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:30:11</p>
	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:11:21</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:12:23</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:19:46</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:20:41</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:02:38</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:03:25</p>

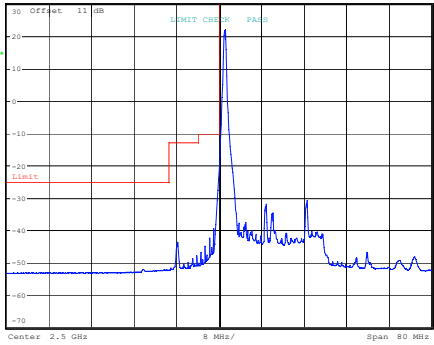
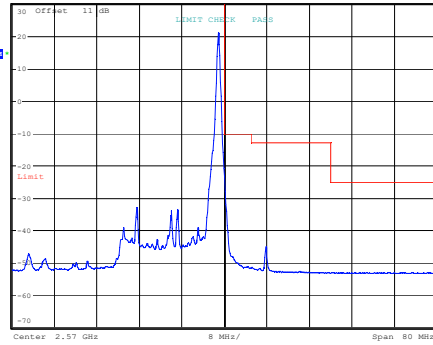
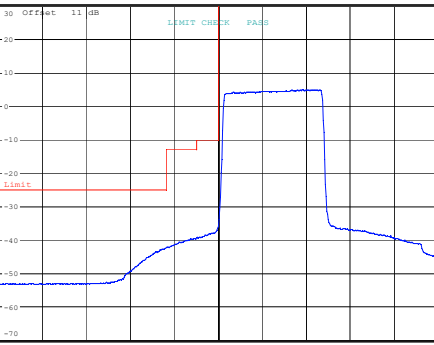
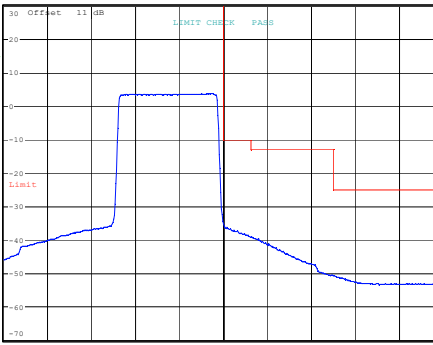
Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 10:23:24</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 10:24:44</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 10:05:31</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 10:06:06</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 15MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:26:46</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:27:20</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:09:31</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:10:16</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 20MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:30:51</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:31:30</p>
	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:12:59</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 10:13:35</p>

4.10 Antenna Port Test Data and Results for LTE Band 12

Serial Number:	2EXR-1	Test Date:	2023/12/18-2023/12/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2-25.7	Relative Humidity: (%)	49-51	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
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	699.7	707.5	715.3
3MHz	700.5	707.5	714.5
5MHz	701.5	707.5	713.5
10MHz	704	707.5	711

Test Data:

FCC§2.1046;§ 27.50(c) (10)						
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	23.50	23.10	22.72	14.54	34.77
	RB1#3	23.51	22.97	22.63		
	RB1#5	23.50	23.41	22.60		
	RB3#0	23.59	23.50	22.88		
	RB3#3	23.59	23.14	22.80		
	RB6#0	22.46	21.86	21.66		
1.4MHz 16QAM	RB1#0	22.49	21.94	21.81	13.44	34.77
	RB1#3	22.41	21.98	21.81		
	RB1#5	22.34	21.91	21.73		
	RB3#0	22.26	21.99	22.00		
	RB3#3	22.04	21.98	21.84		
	RB6#0	21.45	21.24	21.37		
3MHz QPSK	RB1#0	23.63	23.78	23.57	14.73	34.77
	RB1#8	23.59	23.64	23.56		
	RB1#14	23.62	23.66	23.52		
	RB6#0	22.71	22.68	22.74		
	RB6#9	22.7	22.65	22.73		
	RB15#0	22.7	22.61	22.65		
3MHz 16QAM	RB1#0	22.84	23.16	22.82	14.11	34.77
	RB1#8	22.71	23.10	22.8		
	RB1#14	22.75	23.1	22.74		
	RB6#0	22.13	22.25	22.32		
	RB6#9	22.2	22.22	22.3		
	RB15#0	22.27	22.26	22.13		
5MHz QPSK	RB1#0	23.84	23.93	23.67	14.88	34.77
	RB1#13	23.73	23.82	23.61		
	RB1#24	23.8	23.9	23.63		
	RB15#0	22.70	22.61	22.66		
	RB15#10	22.70	22.59	22.56		
	RB25#0	22.64	22.59	22.58		
5MHz 16QAM	RB1#0	22.84	22.7	22.98	13.93	34.77
	RB1#13	22.74	22.55	22.89		
	RB1#24	22.82	22.63	22.89		
	RB15#0	22	22.23	22.19		
	RB15#10	22.27	22.17	22.09		
	RB25#0	22.23	22.21	22.16		
10MHz QPSK	RB1#0	23.70	23.81	23.71	14.76	34.77

	RB1#25	23.65	23.73	23.65		
	RB1#49	23.62	23.70	23.69		
	RB25#0	22.62	22.69	22.66		
	RB25#25	22.61	22.62	22.56		
	RB50#0	22.62	22.69	22.65		
10MHz 16QAM	RB1#0	22.79	23.29	22.91	14.24	34.77
	RB1#25	22.68	23.14	22.81		
	RB1#49	22.69	23.16	22.89		
	RB25#0	22.22	22.26	22.30		
	RB25#25	22.26	22.25	22.20		
	RB50#0	22.22	22.23	22.21		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + G_T(dBd)G_T(dBd)=G_T(dBi)-2.15**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	3.0	1.59	1.62	13
	RB50#0	2.20	2.58	2.49	13
10MHz 16QAM	RB1#0	2.84	2.35	2.32	13
	RB50#0	2.52	2.90	2.81	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
1.4MHz QPSK	1.104	1.104	1.104	1.302	1.326	1.302
1.4MHz 16QAM	1.110	1.098	1.098	1.320	1.290	1.308
3MHz QPSK	2.700	2.700	2.687	2.900	2.900	2.916
3MHz 16QAM	2.687	2.687	2.687	2.904	2.928	2.904
5MHz QPSK	4.520	4.520	4.520	5.000	4.980	4.980
5MHz 16QAM	4.540	4.520	4.500	5.000	5.000	5.000
10MHz QPSK	8.960	8.960	8.960	9.640	9.680	9.640
10MHz 16QAM	8.960	8.960	8.960	9.600	9.600	9.600

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.
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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.
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FCC §2.1055, §27.54: Frequency Stability

Test Mode:	10M 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	3.91	699.186	699.00	715.883	716.00
	-20	3.91	699.193	699.00	715.936	716.00
	-10	3.91	699.005	699.00	715.756	716.00
	0	3.91	699.194	699.00	715.990	716.00
	10	3.91	699.123	699.00	715.928	716.00
	20	3.91	699.235	699.00	715.893	716.00
	30	3.91	699.104	699.00	715.741	716.00
	40	3.91	699.096	699.00	715.917	716.00
	50	3.91	699.090	699.00	715.779	716.00
Frequency Stability vs. Voltage	20	3.45	699.070	699.00	715.824	716.00
	20	4.5	699.291	699.00	715.744	716.00
					Result:	Pass

Test Mode:	10M 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	3.91	699.073	699.00	715.715	716.00
	-20	3.91	699.023	699.00	715.702	716.00
	-10	3.91	699.263	699.00	715.904	716.00
	0	3.91	699.089	699.00	715.721	716.00
	10	3.91	699.182	699.00	715.842	716.00
	20	3.91	699.265	699.00	715.922	716.00
	30	3.91	699.013	699.00	715.783	716.00
	40	3.91	699.103	699.00	715.714	716.00
	50	3.91	699.142	699.00	715.706	716.00
Frequency Stability vs. Voltage	20	3.45	699.129	699.00	715.859	716.00
	20	4.5	699.083	699.00	715.992	716.00
					Result:	Pass

Test Plots: (Note: The 11dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	1.4MHz Bandwidth QPSK	1.4MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:47:49</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:48:09</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:48:26</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:48:43</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:49:00</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:49:16</p>

Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:55:33</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:55:46</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:56:00</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:56:17</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:56:31</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:56:44</p>

Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:58:03</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:58:25</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:58:43</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:59:05</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:59:22</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 11:59:42</p>

Occupied Bandwidth

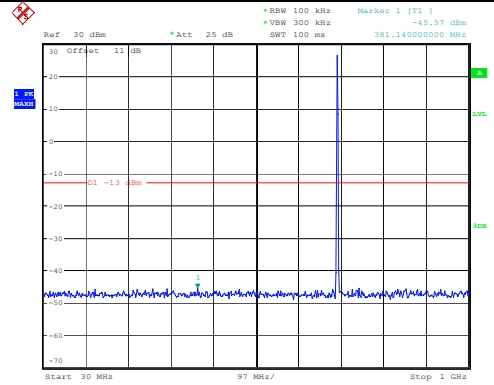
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:00:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:00:46</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:01:03</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:01:20</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:01:37</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:01:53</p>

Spurious Emissions at Antenna Terminal

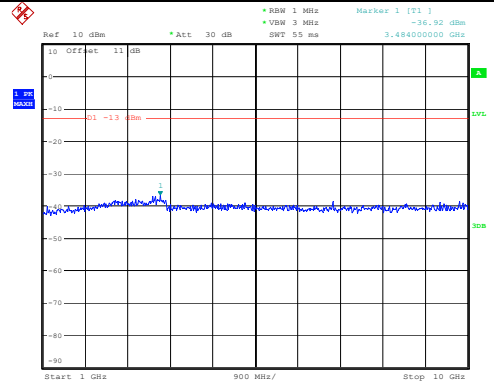
Channel

1.4MHz Bandwidth QPSK

Lowest

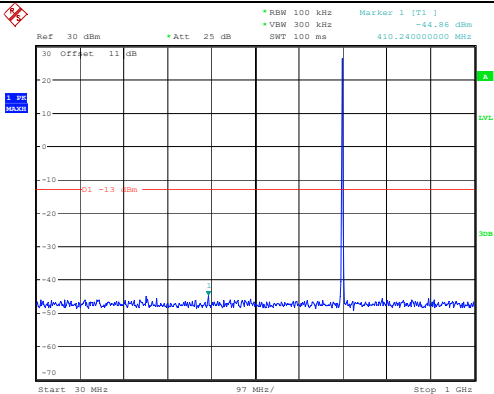


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:41:53

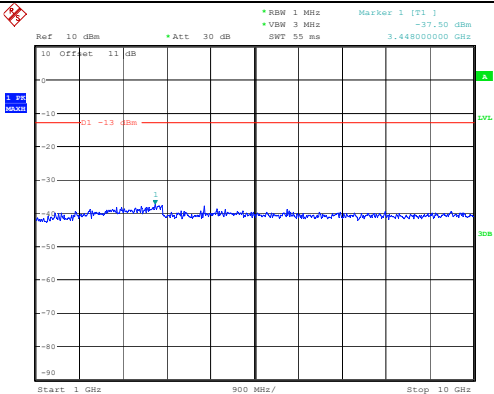


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:42:03

Middle

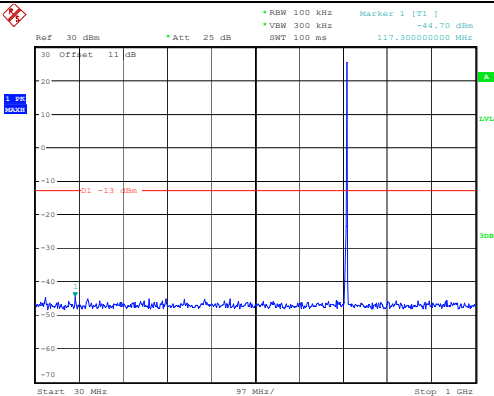


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:42:24

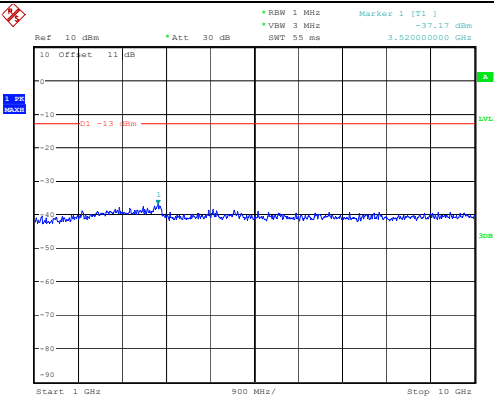


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:42:34

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:43:00



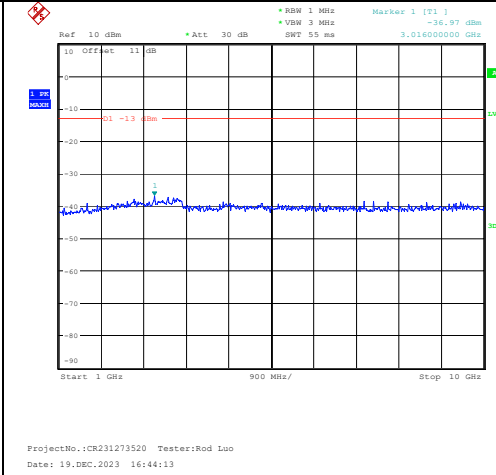
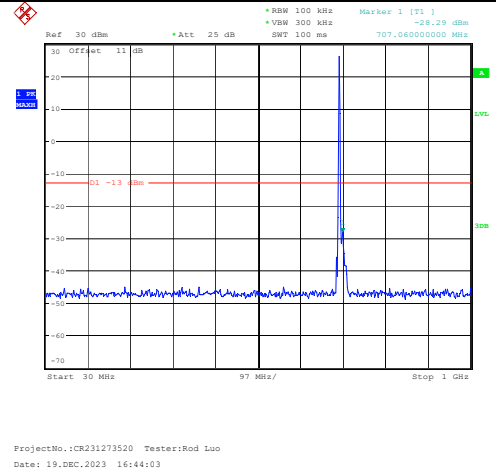
ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 16:43:10

Spurious Emissions at Antenna Terminal

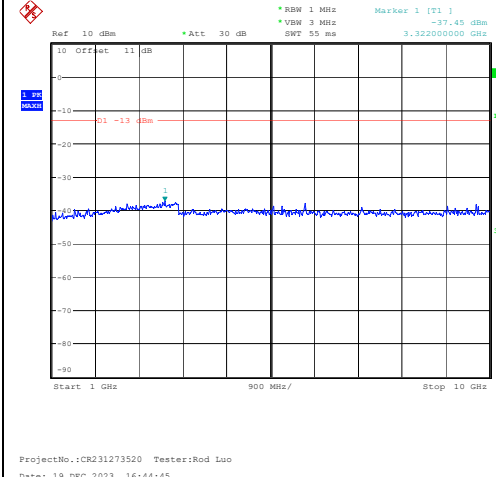
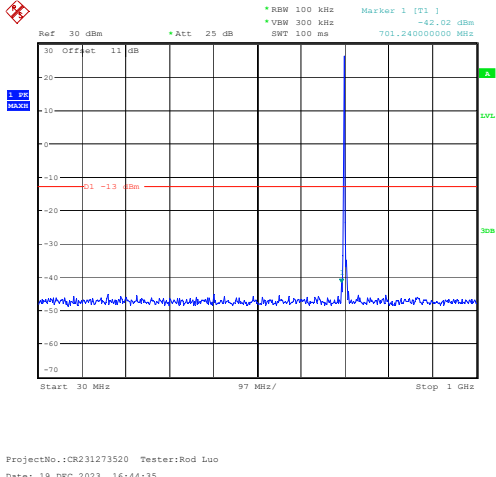
Channel

3MHz Bandwidth QPSK

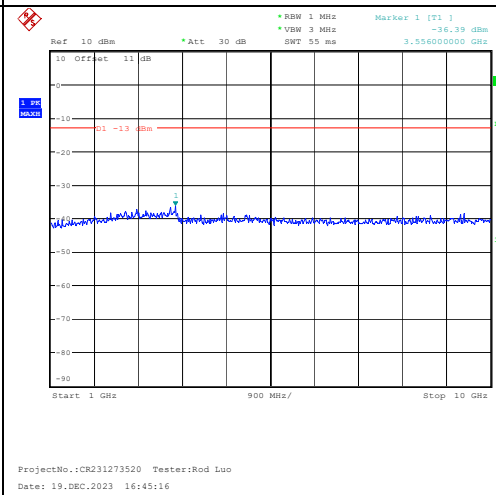
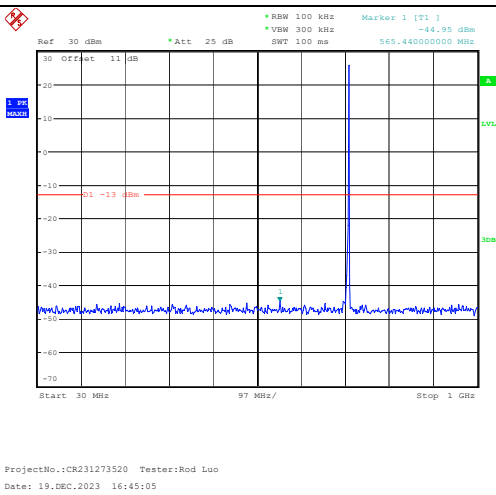
Lowest



Middle



Highest

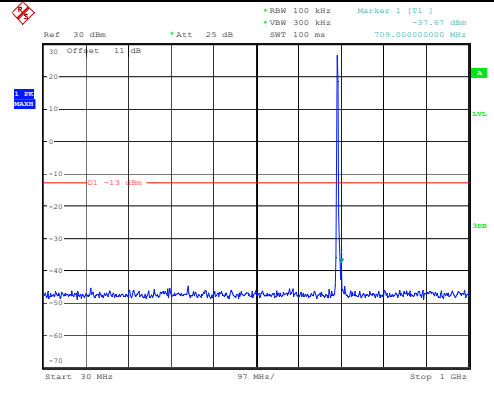


Spurious Emissions at Antenna Terminal

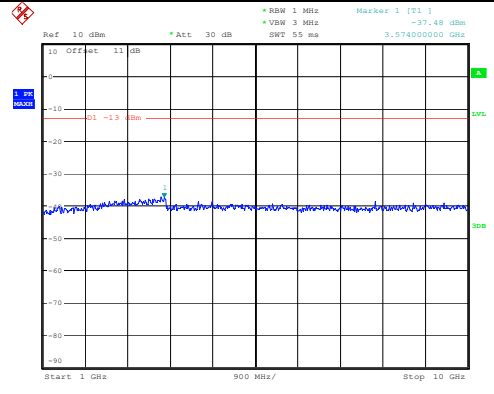
Channel

5MHz Bandwidth QPSK

Lowest

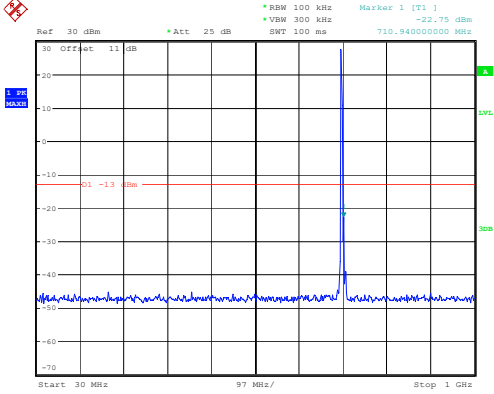


ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:46:25

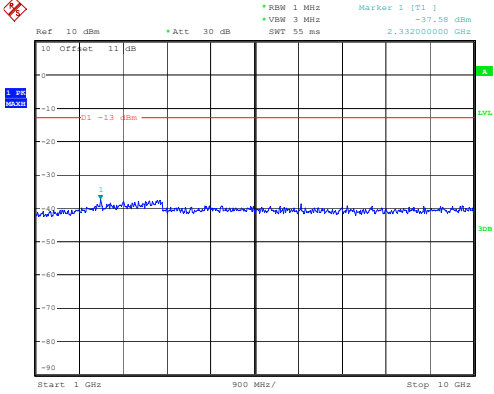


ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:46:35

Middle

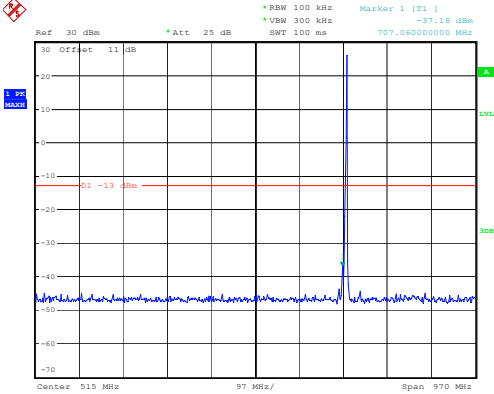


ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:47:03

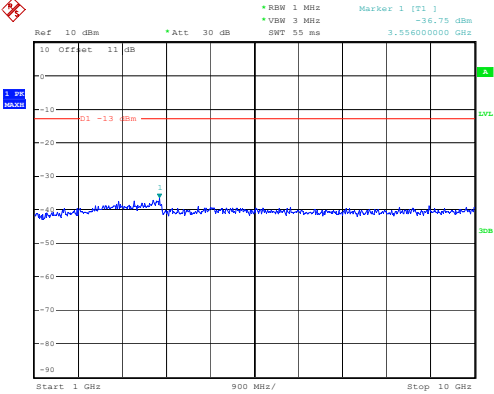


ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:47:13

Highest



ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:47:56

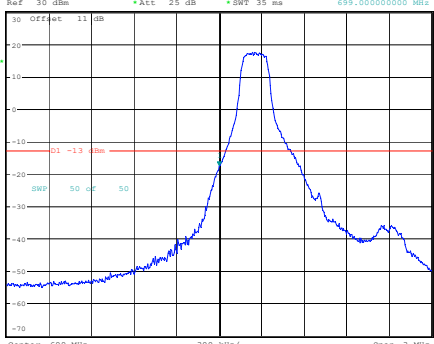
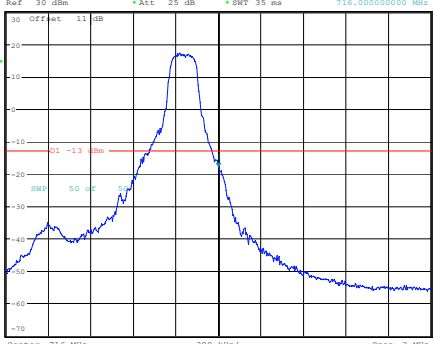
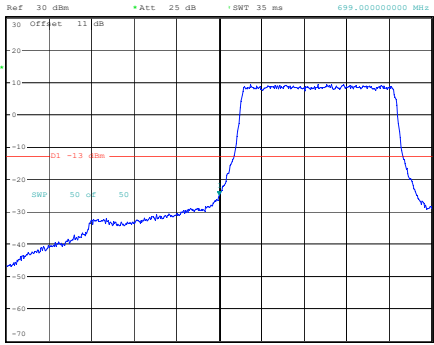
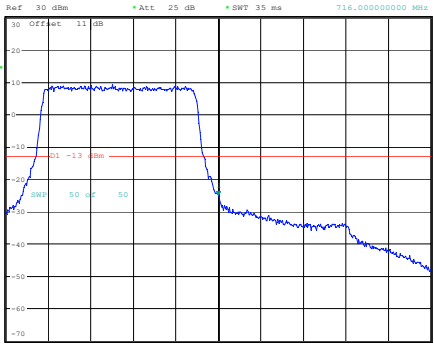


ProjectNo.:CR231273520 Tester:Rod Luo
 Date: 19.DEC.2023 16:48:06

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -22.21 dBm *VSW 300 kHz SWT 100 ms 705.12000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:55:02</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz Marker 1 [T1] -37.36 dBm *VSW 3 MHz SWT 55 ms 3.43000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:55:12</p>
Middle	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -24.42 dBm *VSW 300 kHz SWT 100 ms 710.94000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:55:47</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz Marker 1 [T1] -36.99 dBm *VSW 3 MHz SWT 55 ms 3.02400000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:55:57</p>
Highest	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz Marker 1 [T1] -40.77 dBm *VSW 300 kHz SWT 100 ms 699.30000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:56:25</p>	<p>Ref 10 dBm *Att 30 dB *RBW 1 MHz Marker 1 [T1] -37.30 dBm *VSW 3 MHz SWT 55 ms 3.43000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DECEMBER.2023 16:56:35</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 1.4MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:09:11</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:11:12</p>
	Lowest/Full RB	Highest/Full RB
QPSK 1.4MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:00:02</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:00:15</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 3MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:12:25</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:13:37</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:01:31</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:01:45</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:14:45</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:15:17</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:02:34</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:02:49</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -21.54 dBm 699.00000000 MHz</p> <p>30 Offset 11 dB -10 D1 -13 dBm SWP 50 dB 50 Center 699 MHz 2 MHz/ Span 20 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:16:31</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -20.51 dBm 716.00000000 MHz</p> <p>30 Offset 11 dB -10 D1 -13 dBm SWP 50 dB 50 Center 716 MHz 2 MHz/ Span 20 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:18:51</p>
	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -32.82 dBm 699.00000000 MHz</p> <p>30 Offset 11 dB -10 D1 -13 dBm SWP 50 dB 50 Center 699 MHz 2 MHz/ Span 20 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:03:42</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -32.47 dBm 716.00000000 MHz</p> <p>30 Offset 11 dB -10 D1 -13 dBm SWP 50 dB 50 Center 716 MHz 2 MHz/ Span 20 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:03:57</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 1.4MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:09:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:11:33</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:00:08</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:00:21</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 3MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:13:19</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:14:03</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:01:38</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 17:01:51</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:15:01</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:15:31</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:02:42</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:02:55</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -21.59 dBm 699.00000000 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:16:51</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -20.64 dBm 716.00000000 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:19:09</p>
	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -32.88 dBm 699.00000000 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:03:50</p>	<p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 35 ms Marker 1 [T1] -32.00 dBm 716.00000000 MHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:04:04</p>

4.11 Antenna Port Test Data and Results for LTE Band 17

Serial Number:	2EXR-1	Test Date:	2023/12/18-2023/12/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2-25.7	Relative Humidity: (%)	49-51	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
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	706.5	710	713.5
10MHz	709	710	711

Test Data:

FCC§2.1046;§ 27.50(c) (10)						
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		
5MHz QPSK	RB1#0	23.52	23.68	23.43	14.63	34.77
	RB1#13	23.45	23.59	23.37		
	RB1#24	23.56	23.62	23.44		
	RB15#0	22.45	22.44	22.31		
	RB15#10	22.34	22.29	22.27		
	RB25#0	22.36	22.4	22.29		
5MHz 16QAM	RB1#0	22.59	22.45	22.8	13.75	34.77
	RB1#13	22.44	22.30	22.63		
	RB1#24	22.54	22.33	22.7		
	RB15#0	21.99	22.02	21.86		
	RB15#10	21.89	21.91	21.83		
	RB25#0	21.96	22.00	21.86		
10MHz QPSK	RB1#0	23.47	23.51	23.58	14.53	34.77
	RB1#25	23.42	23.36	23.45		
	RB1#49	23.38	23.43	23.47		
	RB25#0	22.42	22.5	22.49		
	RB25#25	22.33	22.36	22.33		
	RB50#0	22.45	22.43	22.4		
10MHz 16QAM	RB1#0	22.64	22.49	23.1	14.05	34.77
	RB1#25	22.58	22.4	22.90		
	RB1#49	22.52	22.44	22.94		
	RB25#0	22.02	22.10	22.06		
	RB25#25	21.95	21.98	21.96		
	RB50#0	21.95	22.0	22.00		

Note:

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

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	1.59	2.72	1.59	13
	RB50#0	2.46	2.20	2.43	13
10MHz 16QAM	RB1#0	2.32	2.90	2.35	13
	RB50#0	2.78	2.55	2.81	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	4.50	4.52	4.52	4.90	4.98	4.98
5MHz 16QAM	4.52	4.52	4.48	4.98	5.02	4.96
10MHz QPSK	8.96	8.96	8.96	9.64	9.60	9.60
10MHz 16QAM	8.96	8.96	8.96	9.60	9.64	9.64

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:	10M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (VDC)	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	704.209	704.00	715.714	716.00
	-20	3.91	704.035	704.00	715.921	716.00
	-10	3.91	704.030	704.00	715.719	716.00
	0	3.91	704.232	704.00	715.758	716.00
	10	3.91	704.170	704.00	715.916	716.00
	20	3.91	704.144	704.00	715.777	716.00
	30	3.91	704.201	704.00	715.909	716.00
	40	3.91	704.117	704.00	715.877	716.00
	50	3.91	704.131	704.00	715.804	716.00
Frequency Stability vs. Voltage	20	3.45	704.120	704.00	715.831	716.00
	20	4.5	704.250	704.00	715.797	716.00
					Result:	Pass

Test Mode:	10M 16QAM	Test Channel: Lowest for Lower Edge, Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (VDC)	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	704.266	704.00	715.969	716.00
	-20	3.91	704.112	704.00	715.979	716.00
	-10	3.91	704.264	704.00	715.970	716.00
	0	3.91	704.059	704.00	715.957	716.00
	10	3.91	704.293	704.00	715.961	716.00
	20	3.91	704.265	704.00	715.903	716.00
	30	3.91	704.110	704.00	715.951	716.00
	40	3.91	704.291	704.00	715.888	716.00
	50	3.91	704.256	704.00	715.716	716.00
Frequency Stability vs. Voltage	20	3.45	704.133	704.00	715.736	716.00
	20	4.5	704.235	704.00	715.882	716.00
					Result:	Pass

Test Plots: (Note: The 11dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:03:10</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:03:30</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:03:47</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:04:10</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:04:27</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:04:43</p>

Occupied Bandwidth

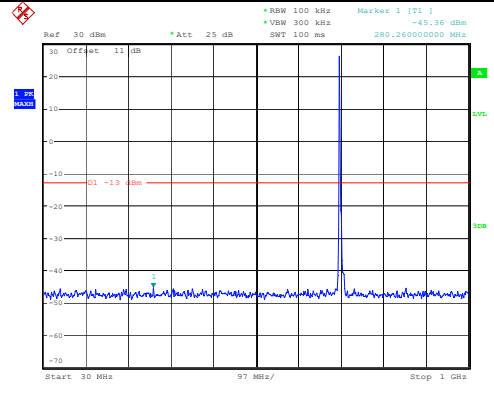
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:19:35</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:19:51</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:20:09</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:20:25</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:20:42</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 12:20:59</p>

Spurious Emissions at Antenna Terminal

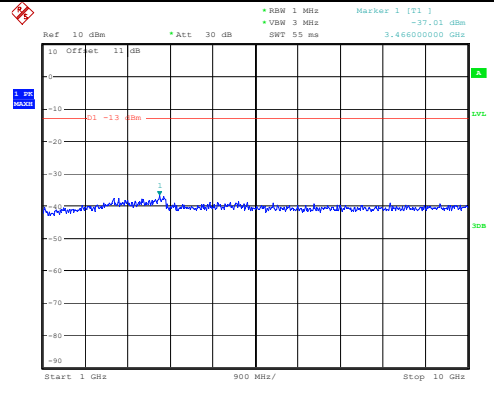
Channel

5MHz Bandwidth QPSK

Lowest

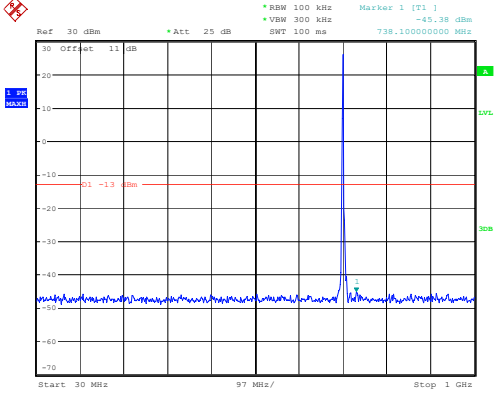


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:24:01

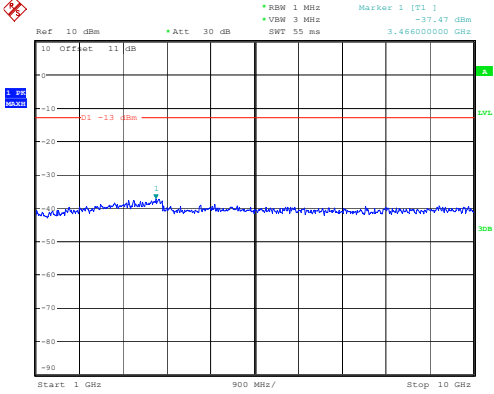


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:24:12

Middle

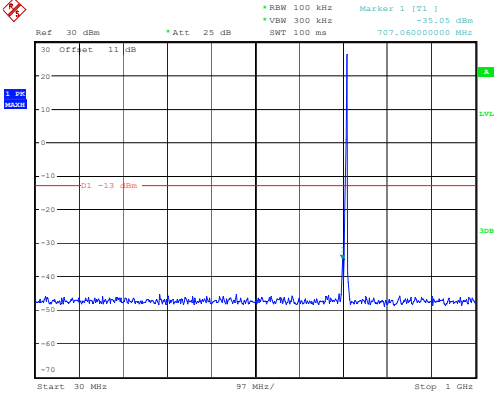


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:24:33

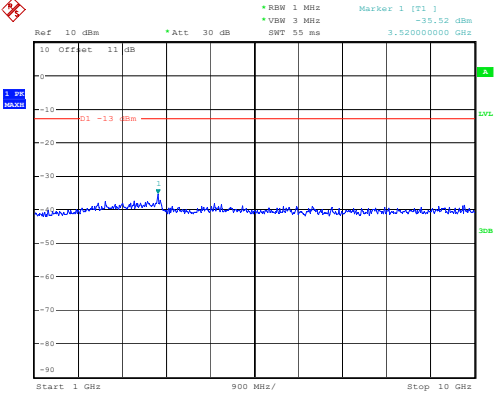


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:24:44

Highest

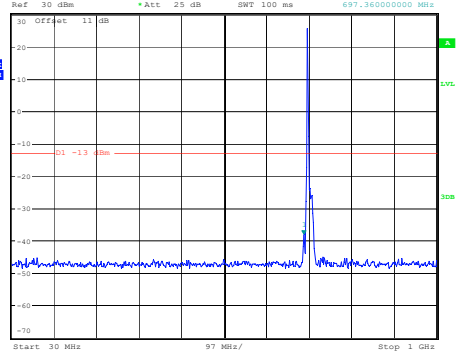
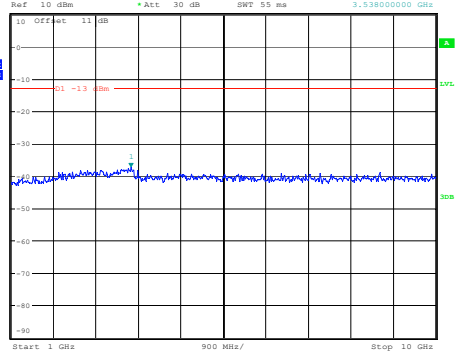
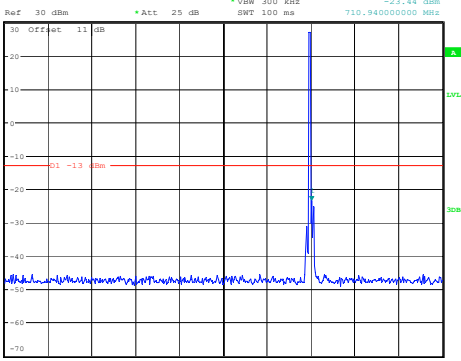
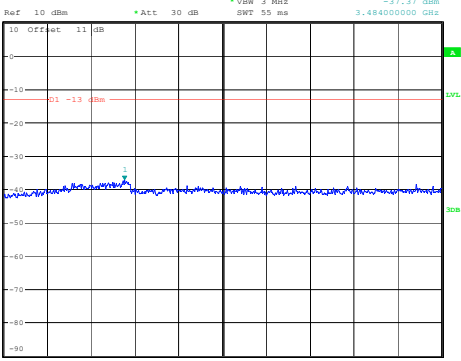
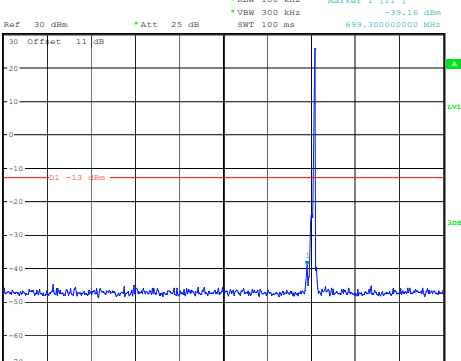
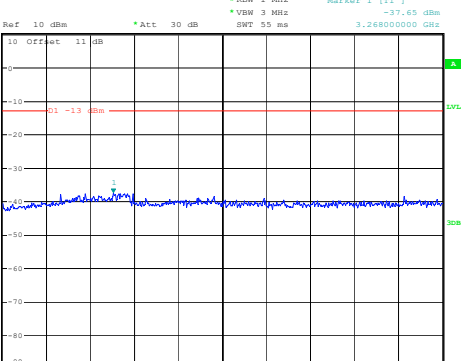


ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:25:06



ProjectNo.:CR231273520 Tester:Rod Luo
Date: 19.DEC.2023 17:25:19

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	 <p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [F1] -38.11 dBm 697.36000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:26:54</p>	 <p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [F1] -37.47 dBm 3.538000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:27:04</p>
Middle	 <p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [F1] -23.44 dBm 715.94000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:27:27</p>	 <p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [F1] -37.37 dBm 3.484000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:27:38</p>
Highest	 <p>Ref 30 dBm *Att 25 dB *RBW 100 kHz *VSW 300 kHz *SWT 100 ms Marker 1 [F1] -39.16 dBm 699.30000000 MHz</p> <p>Start 30 MHz 97 MHz/ Stop 1 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:28:02</p>	 <p>Ref 10 dBm *Att 30 dB *RBW 1 MHz *VSW 3 MHz *SWT 55 ms Marker 1 [F1] -37.65 dBm 3.268000000 GHz</p> <p>Start 1 GHz 900 MHz/ Stop 10 GHz</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:28:12</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:32:08</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:33:13</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:28:41</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:28:56</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:34:29</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:35:05</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:29:39</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:29:54</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:32:26</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:33:40</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:28:49</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:29:02</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:34:48</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:35:21</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:29:46</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 17:30:01</p>

4.12 Antenna Port Test Data and Results for LTE Band 38

Serial Number:	2EXR-1	Test Date:	2023/12/15-2024/03/02
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo, Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.5-25.7	Relative Humidity: (%)	49-53	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
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	2572.5	2595	2617.5
10MHz	2575	2595	2615
15MHz	2577.5	2595	2612.5
20MHz	2580	2595	2610

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	22.61	22.59	22.64	19.80	33
	RB1#13	22.65	22.57	22.57		
	RB1#24	22.70	22.55	22.59		
	RB15#0	21.61	21.49	21.5		
	RB15#10	21.64	21.5	21.43		
	RB25#0	21.63	21.5	21.47		
5MHz 16QAM	RB1#0	21.68	21.80	21.53	18.90	33
	RB1#13	21.76	21.76	21.48		
	RB1#24	21.78	21.77	21.50		
	RB15#0	20.61	20.51	20.38		
	RB15#10	20.69	20.56	20.36		
	RB25#0	20.7	20.47	20.48		
10MHz QPSK	RB1#0	22.67	22.57	22.54	19.86	33
	RB1#25	22.76	22.5	22.55		
	RB1#49	22.62	22.5	22.49		
	RB25#0	21.62	21.54	21.48		
	RB25#25	21.61	21.44	21.46		
	RB50#0	21.67	21.52	21.52		
10MHz 16QAM	RB1#0	21.87	21.49	21.67	19.05	33
	RB1#25	21.95	21.46	21.69		
	RB1#49	21.83	21.39	21.61		
	RB25#0	20.65	20.62	20.53		
	RB25#25	20.64	20.53	20.49		
	RB50#0	20.65	20.50	20.49		
15MHz QPSK	RB1#0	22.66	22.57	22.53	19.81	33
	RB1#38	22.71	22.49	22.50		
	RB1#74	22.65	22.45	22.48		
	RB36#0	21.66	21.5	21.44		
	RB36#39	21.62	21.41	21.44		
	RB75#0	21.64	21.5	21.5		
15MHz 16QAM	RB1#0	21.86	21.52	21.70	19.00	33
	RB1#38	21.9	21.46	21.72		
	RB1#74	21.84	21.42	21.69		
	RB36#0	20.7	20.47	20.50		
	RB36#39	20.6	20.39	20.47		
	RB75#0	20.56	20.50	20.45		
20MHz QPSK	RB1#0	22.65	22.6	22.58	19.75	33

	RB1#50	22.53	22.49	22.54		
	RB1#99	22.54	22.43	22.51		
	RB50#0	21.6	21.5	21.52		
	RB50#50	21.65	21.49	21.47		
	RB100#0	21.62	21.54	21.48		
20MHz 16QAM	RB1#0	21.72	21.60	21.9	19.00	33
	RB1#50	21.61	21.51	21.78		
	RB1#99	21.63	21.41	21.74		
	RB50#0	20.56	20.55	20.50		
	RB50#50	20.58	20.50	20.40		
	RB100#0	20.59	20.45	20.47		
Note: EIRP=Conducted Power(dBm) - Lc(dB) + Gr(dBi)						

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	7.91	6.93	6.72	13
	RB100#0	7.36	6.70	6.61	13
20MHz 16QAM	RB1#0	8.84	7.68	7.51	13
	RB100#0	8.35	7.54	7.51	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	4.500	4.500	4.520	5.100	5.000	4.940
5MHz 16QAM	4.500	4.520	4.500	5.000	5.180	5.000
10MHz QPSK	8.960	8.960	9.000	9.680	9.600	10.000
10MHz 16QAM	8.960	8.960	8.960	9.560	9.640	9.520
15MHz QPSK	13.500	13.560	13.500	16.300	15.060	15.100
15MHz 16QAM	13.560	13.560	13.560	14.820	15.480	15.540
20MHz QPSK	17.920	18.000	18.000	19.520	20.000	19.000
20MHz 16QAM	18.000	17.920	17.920	20.000	19.520	19.440
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	3.91	2570.207	2570.00	2619.982	2620
	-20	3.91	2570.258	2570.00	2619.788	2620
	-10	3.91	2570.041	2570.00	2619.981	2620
	0	3.91	2570.182	2570.00	2619.866	2620
	10	3.91	2570.101	2570.00	2619.775	2620
	20	3.91	2570.045	2570.00	2619.729	2620
	30	3.91	2570.132	2570.00	2619.868	2620
	40	3.91	2570.067	2570.00	2619.821	2620
	50	3.91	2570.062	2570.00	2619.870	2620
Frequency Stability vs. Voltage	20	3.45	2570.235	2570.00	2619.950	2620
	20	4.5	2570.283	2570.00	2619.743	2620
					Result:	Pass

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{DC})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.91	2570.233	2570.00	2619.944	2620
	-20	3.91	2570.051	2570.00	2619.932	2620
	-10	3.91	2570.293	2570.00	2619.910	2620
	0	3.91	2570.029	2570.00	2619.936	2620
	10	3.91	2570.180	2570.00	2619.909	2620
	20	3.91	2570.069	2570.00	2619.993	2620
	30	3.91	2570.065	2570.00	2619.925	2620
	40	3.91	2570.186	2570.00	2619.711	2620
	50	3.91	2570.286	2570.00	2619.894	2620
Frequency Stability vs. Voltage	20	3.45	2570.275	2570.00	2619.903	2620
	20	4.5	2570.234	2570.00	2619.796	2620
					Result:	Pass

Test Plots: (Note: The 11 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:31:54</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:32:17</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:32:40</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:33:00</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:33:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:33:52</p>

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:34:50</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:35:10</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:35:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:35:50</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:36:13</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:36:30</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:37:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:37:56</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:38:17</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:38:39</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:39:00</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:39:16</p>

Occupied Bandwidth

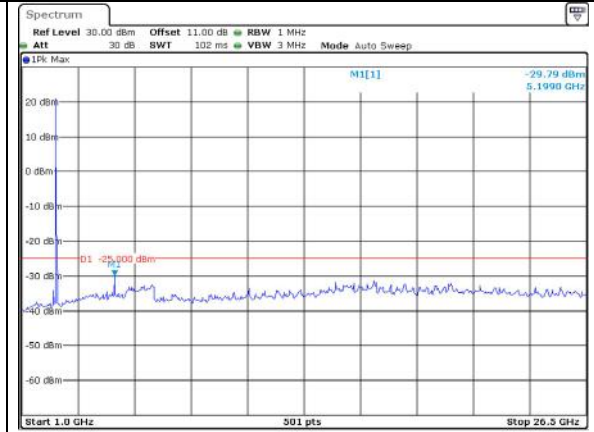
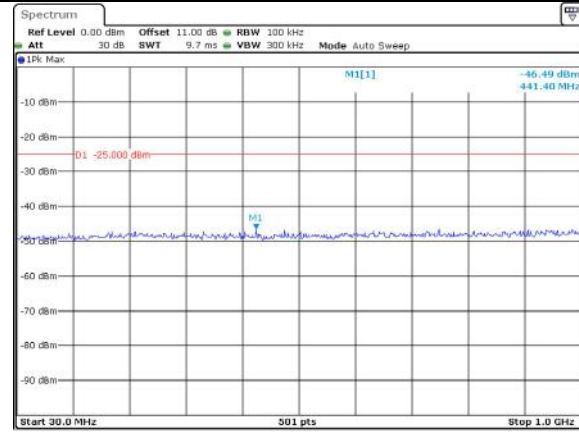
Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:40:30</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:40:53</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:41:13</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:41:36</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:42:00</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 10:42:22</p>

Spurious Emissions at Antenna Terminal

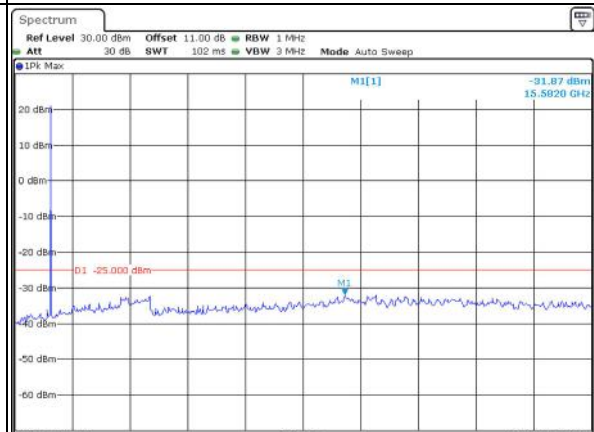
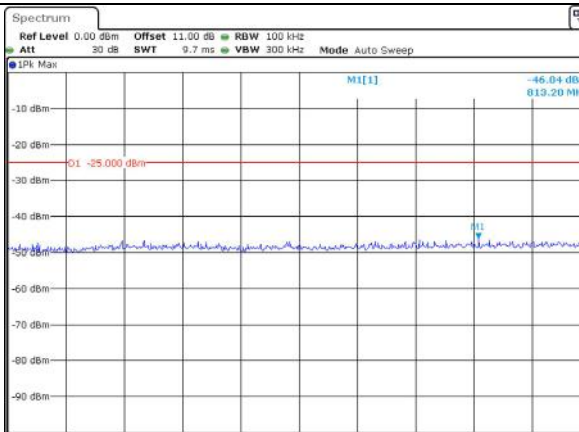
Channel

5MHz Bandwidth QPSK

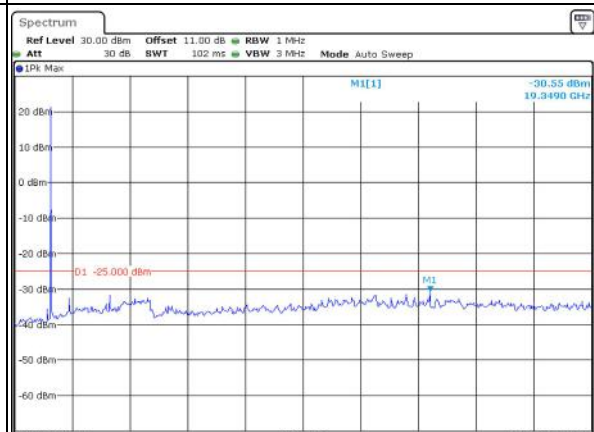
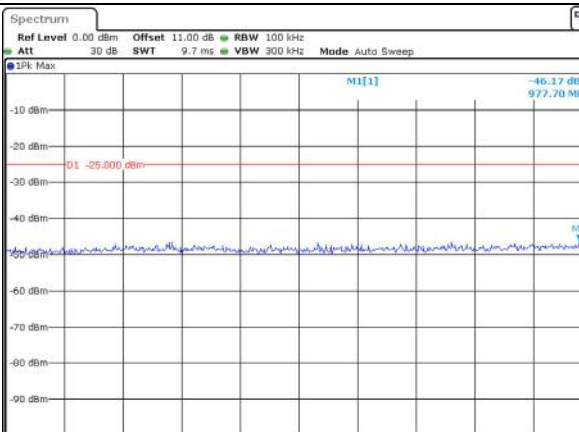
Lowest



Middle



Highest



Spurious Emissions at Antenna Terminal

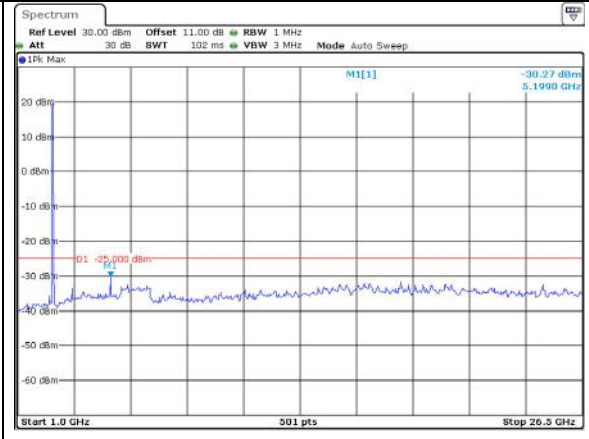
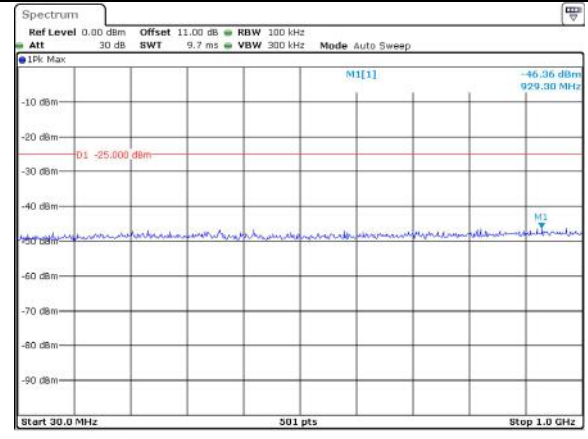
Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref Level 0.00 dBm Offset 11.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -46.24 dBm 892.50 MHz</p> <p>D1 -25.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:21:14</p>	<p>Ref Level 30.00 dBm Offset 11.00 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -30.74 dBm 15.8370 GHz</p> <p>D1 -25.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 26.5 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:21:16</p>
Middle	<p>Ref Level 0.00 dBm Offset 11.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -46.07 dBm 989.50 MHz</p> <p>D1 -25.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:22:16</p>	<p>Ref Level 30.00 dBm Offset 11.00 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -30.59 dBm 6.7260 GHz</p> <p>D1 -25.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 26.5 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:22:18</p>
Highest	<p>Ref Level 0.00 dBm Offset 11.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -46.32 dBm 892.50 MHz</p> <p>D1 -25.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:25:44</p>	<p>Ref Level 30.00 dBm Offset 11.00 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -31.00 dBm 16.0040 GHz</p> <p>D1 -25.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 26.5 GHz</p> <p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:26:13</p>

Spurious Emissions at Antenna Terminal

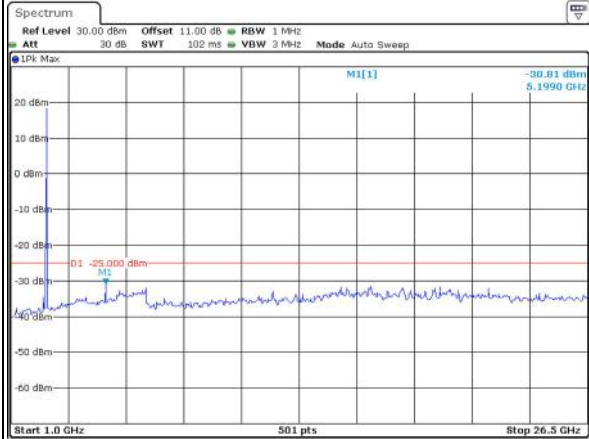
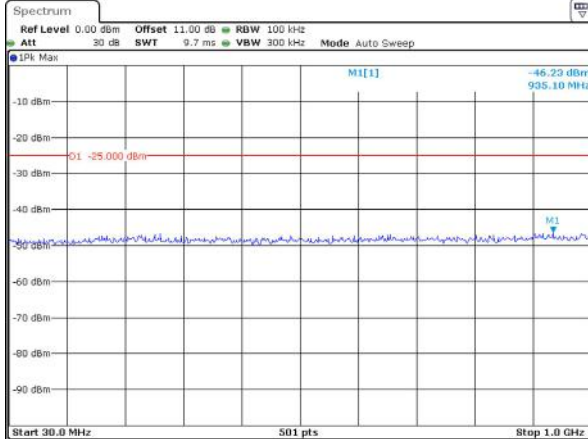
Channel

15MHz Bandwidth QPSK

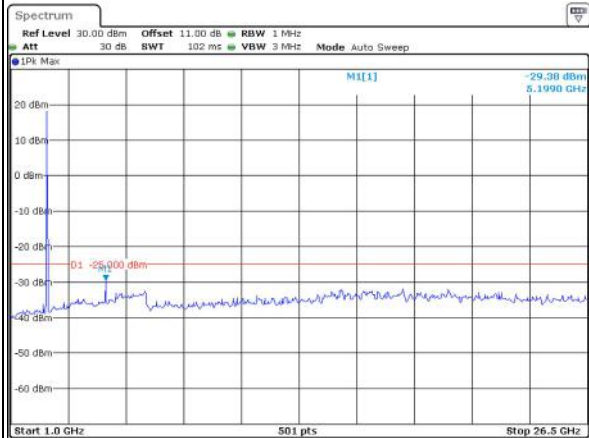
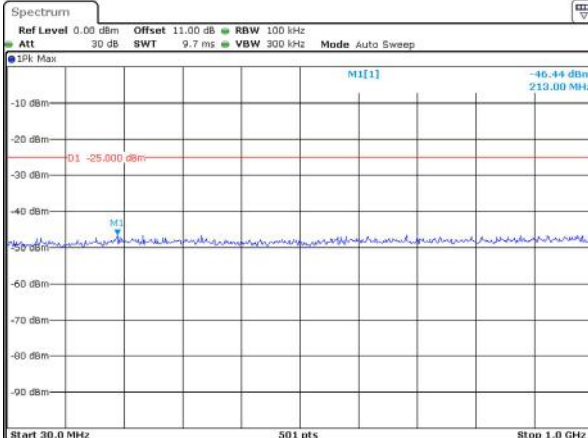
Lowest



Middle



Highest



Spurious Emissions at Antenna Terminal

Channel	20MHz Bandwidth QPSK	
Lowest	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:31:39</p>	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:32:02</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:32:28</p>	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:32:51</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:33:20</p>	<p>ProjectNo.:CR231273520 Tester:Len Huang Date: 2.MAR.2024 13:33:44</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:04:18</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:05:04</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:46:53</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:47:29</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:07:21</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:08:06</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:49:37</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:50:14</p>

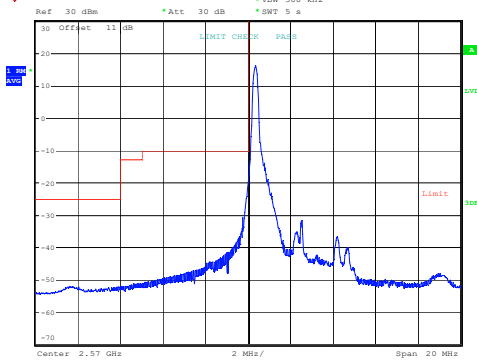
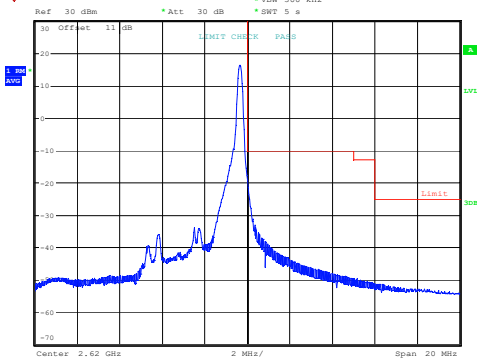
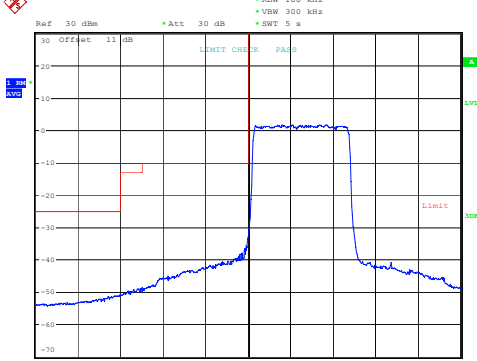
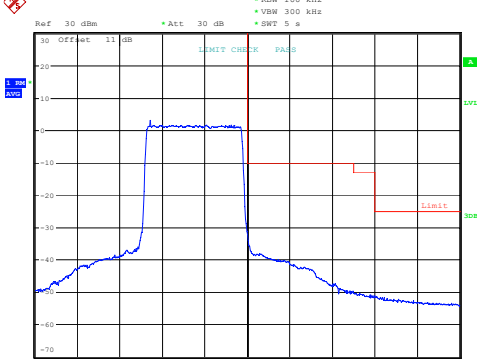
Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 15MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:10:28</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:11:09</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:57:20</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 13:57:56</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 20MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:14:06</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:14:45</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:00:09</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:00:45</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	 <p>Ref: 30 dBm *Att: 30 dB *RBW: 100 kHz *VBW: 300 kHz *SWT: 5 s</p> <p>Center: 2.57 GHz 2 MHz/ Span: 20 MHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 14:05:47</p>	 <p>Ref: 30 dBm *Att: 30 dB *RBW: 100 kHz *VBW: 300 kHz *SWT: 5 s</p> <p>Center: 2.62 GHz 2 MHz/ Span: 20 MHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 14:06:31</p>
	 <p>Ref: 30 dBm *Att: 30 dB *RBW: 100 kHz *VBW: 300 kHz *SWT: 5 s</p> <p>Center: 2.57 GHz 2 MHz/ Span: 20 MHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 13:48:04</p>	 <p>Ref: 30 dBm *Att: 30 dB *RBW: 100 kHz *VBW: 300 kHz *SWT: 5 s</p> <p>Center: 2.62 GHz 2 MHz/ Span: 20 MHz</p> <p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 13:48:40</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 14:08:48</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 14:09:30</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 13:55:40</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 13:56:20</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 15MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 14:11:57</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 14:12:42</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 13:58:32</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19,DEC,2023 13:59:08</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 20MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:15:25</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:16:07</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:01:21</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 14:01:55</p>

4.13 Antenna Port Test Data and Results for LTE Band 40

Serial Number:	2EXR-1	Test Date:	2023/12/16-2023/12/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo, Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2-25.7	Relative Humidity: (%)	49-51	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
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	2307.5	2310	2312.5
10MHz	/	2310	/
5MHz	2352.5	2355	2357.5
10MHz	/	2355	/

Test Data:

(Note:Uplink Downlink configuration 3 was tested)

FCC§2.1046;§ 27.50(a)(3)						
LTE Band 40 Lower:						
RF Output Power:						
Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	23.59	/	23.45	20.69	24
	RB1#13	23.56	/	23.47		
	RB1#24	23.56	/	23.4		
	RB15#0	22.42	/	22.39		
	RB15#10	22.38	/	22.38		
	RB25#0	22.39	/	22.4		
5MHz 16QAM	RB1#0	22.44	/	22.63	19.75	24
	RB1#13	22.42	/	22.65		
	RB1#24	22.4	/	22.60		
	RB15#0	21.34	/	21.42		
	RB15#10	21.32	/	21.4		
	RB25#0	21.39	/	21.31		
10MHz QPSK	RB1#0	/	23.4	/	20.55	24
	RB1#25	/	23.4	/		
	RB1#49	/	23.45	/		
	RB25#0	/	22.41	/		
	RB25#25	/	22.39	/		
	RB50#0	/	22.44	/		
10MHz 16QAM	RB1#0	/	22.47	/	19.59	24
	RB1#25	/	22.47	/		
	RB1#49	/	22.49	/		
	RB25#0	/	21.4	/		
	RB25#25	/	21.44	/		
	RB50#0	/	21.47	/		

EIRP PSD in 5MHz:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted PSD(dBm/5MHz)			Maximum EIRP PSD (dBm/5MHz)	Limit (dBm/5MHz)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	/	23.38	/	20.48	24
	RB1#25	/	23.38	/		
	RB1#49	/	23	/		
	RB25#0	/	22.33	/		
	RB25#25	/	22.36	/		
	RB50#0	/	22.36	/		
10MHz	RB1#0	/	22.30	/	19.40	24

16QAM	RB1#25	/	22.28	/		
	RB1#49	/	22.25	/		
	RB25#0	/	21.38	/		
	RB25#25	/	21.42	/		
	RB50#0	/	21.33	/		
<p>Note: For 5MHz mode, the channel power is equal to the test result in dBm/5MHz. EIRP=Conducted Power(dBm) - LC(dB) + GT(dBi) EIRP PSD=Conducted PSD(dBm/5MHz) - LC(dB) + GT(dBi)</p>						

LTE Band 40 Upper:**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	23.32	/	23.46	20.56	24
	RB1#13	23.3	/	23.42		
	RB1#24	23.3	/	23.42		
	RB15#0	22.26	/	22.3		
	RB15#10	22.3	/	22.22		
	RB25#0	22.24	/	22.26		
5MHz 16QAM	RB1#0	22.40	/	22.34	19.50	24
	RB1#13	22.37	/	22.31		
	RB1#24	22.36	/	22.27		
	RB15#0	21.27	/	21.22		
	RB15#10	21.30	/	21.15		
	RB25#0	21.34	/	21.24		
10MHz QPSK	RB1#0	/	23.39	/	20.49	24
	RB1#25	/	23.37	/		
	RB1#49	/	23.32	/		
	RB25#0	/	22.29	/		
	RB25#25	/	22.29	/		
	RB50#0	/	22.22	/		
10MHz 16QAM	RB1#0	/	22.54	/	19.65	24
	RB1#25	/	22.53	/		
	RB1#49	/	22.55	/		
	RB25#0	/	21.31	/		
	RB25#25	/	21.31	/		
	RB50#0	/	21.19	/		

EIRP PSD in 5MHz:

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted PSD(dBm/5MHz)			Maximum EIRP PSD (dBm/5MHz)	Limit (dBm/5MHz)
		Lowest Channel	Middle Channel	Highest Channel		
10MHz QPSK	RB1#0	/	23.37	/	20.47	24
	RB1#25	/	23.36	/		
	RB1#49	/	23.30	/		
	RB25#0	/	22.27	/		
	RB25#25	/	22.23	/		
	RB50#0	/	22.3	/		
10MHz 16QAM	RB1#0	/	22.53	/	19.66	24
	RB1#25	/	22.56	/		
	RB1#49	/	22.47	/		
	RB25#0	/	21.28	/		
	RB25#25	/	21.25	/		
	RB50#0	/	21.25	/		

Note:

For 5MHz mode, the channel power is equal to the test result in dBm/5MHz.

EIRP=Conducted Power(dBm) - LC(dB) + GT(dBi)

EIRP PSD=Conducted PSD(dBm/5MHz) - LC(dB) + GT(dBi)

Result:**Pass****Duty Cycle**

Operation Band	Modulation	Bandwidth	Ton (ms)	Ton+off (ms)	Duty Cycle (%)	Limit (%)
LTE Band 40 Lower	QPSK	5M	2.917	9.956	29.30	38
		10M	2.949	10.013	29.45	38
	16QAM	5M	2.914	10.017	29.09	38
		10M	3.013	10.077	29.90	38
LTE Band 40 Upper	QPSK	5M	3.001	10.065	29.82	38
		10M	3.002	10.04	29.90	38
	16QAM	5M	2.937	10.039	29.26	38
		10M	2.937	10.04	29.25	38

Result:**Pass**

FCC §2.1049, §27.53:Occupied Bandwidth						
LTE Band 40 Lower:						
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	4.50	4.5	4.52	5.20	4.9	4.92
5MHz 16QAM	4.50	4.52	4.52	5.00	5.14	5.00
10MHz QPSK	/	8.96	/	/	9.64	/
10MHz 16QAM	/	8.96	/	/	9.60	/

LTE Band 40 Upper:

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	4.50	4.5	4.52	5.10	5	4.96
5MHz 16QAM	4.52	4.52	4.50	5.02	5.2	4.90
10MHz QPSK	/	8.96	/	/	9.60	/
10MHz 16QAM	/	9.00	/	/	10.00	/

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**LTE Band 40 Lower:**

Test Mode:	10M 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	3.91	2305.256	2305.000	2314.954	2315.000
	-20	3.91	2305.267	2305.000	2314.733	2315.000
	-10	3.91	2305.060	2305.000	2314.710	2315.000
	0	3.91	2305.230	2305.000	2314.862	2315.000
	10	3.91	2305.003	2305.000	2314.890	2315.000
	20	3.91	2305.299	2305.000	2314.763	2315.000
	30	3.91	2305.061	2305.000	2314.969	2315.000
	40	3.91	2305.112	2305.000	2314.918	2315.000
	50	3.91	2305.021	2305.000	2314.764	2315.000
Frequency Stability vs. Voltage	20	3.45	2305.095	2305.000	2314.957	2315.000
	20	4.5	2305.251	2305.000	2314.982	2315.000
Result:					Pass	

Test Mode:	10M 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	3.91	2305.228	2305.000	2314.879	2315.000
	-20	3.91	2305.081	2305.000	2314.987	2315.000
	-10	3.91	2305.066	2305.000	2314.942	2315.000
	0	3.91	2305.216	2305.000	2314.977	2315.000
	10	3.91	2305.095	2305.000	2314.901	2315.000
	20	3.91	2305.018	2305.000	2314.841	2315.000
	30	3.91	2305.169	2305.000	2314.897	2315.000
	40	3.91	2305.142	2305.000	2314.851	2315.000
	50	3.91	2305.025	2305.000	2314.759	2315.000
Frequency Stability vs. Voltage	20	3.45	2305.149	2305.000	2314.982	2315.000
	20	4.5	2305.190	2305.000	2314.831	2315.000
Result:					Pass	

LTE Band 40 Upper:						
Test Mode:	10M 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	3.91	2350.166	2350.000	2359.947	2360.000
	-20	3.91	2350.067	2350.000	2359.767	2360.000
	-10	3.91	2350.058	2350.000	2359.816	2360.000
	0	3.91	2350.263	2350.000	2359.985	2360.000
	10	3.91	2350.159	2350.000	2359.967	2360.000
	20	3.91	2350.125	2350.000	2359.736	2360.000
	30	3.91	2350.204	2350.000	2359.999	2360.000
	40	3.91	2350.219	2350.000	2359.812	2360.000
Frequency Stability vs. Voltage	20	3.45	2350.192	2350.000	2359.912	2360.000
	20	4.5	2350.059	2350.000	2359.797	2360.000
Result:					Pass	

Test Mode:	10M 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	3.91	2350.098	2350.000	2359.914	2360.000
	-20	3.91	2350.297	2350.000	2359.937	2360.000
	-10	3.91	2350.019	2350.000	2359.808	2360.000
	0	3.91	2350.065	2350.000	2359.714	2360.000
	10	3.91	2350.231	2350.000	2359.774	2360.000
	20	3.91	2350.110	2350.000	2359.861	2360.000
	30	3.91	2350.047	2350.000	2359.826	2360.000
	40	3.91	2350.030	2350.000	2359.860	2360.000
Frequency Stability vs. Voltage	20	3.45	2350.211	2350.000	2359.788	2360.000
	20	4.5	2350.295	2350.000	2359.877	2360.000
Result:					Pass	

Test Plots: (Note: The 11 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):
2305-2315 MHz:

Occupied Bandwidth		
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:12:21</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:12:38</p>

2350-2360 MHz:

Occupied Bandwidth

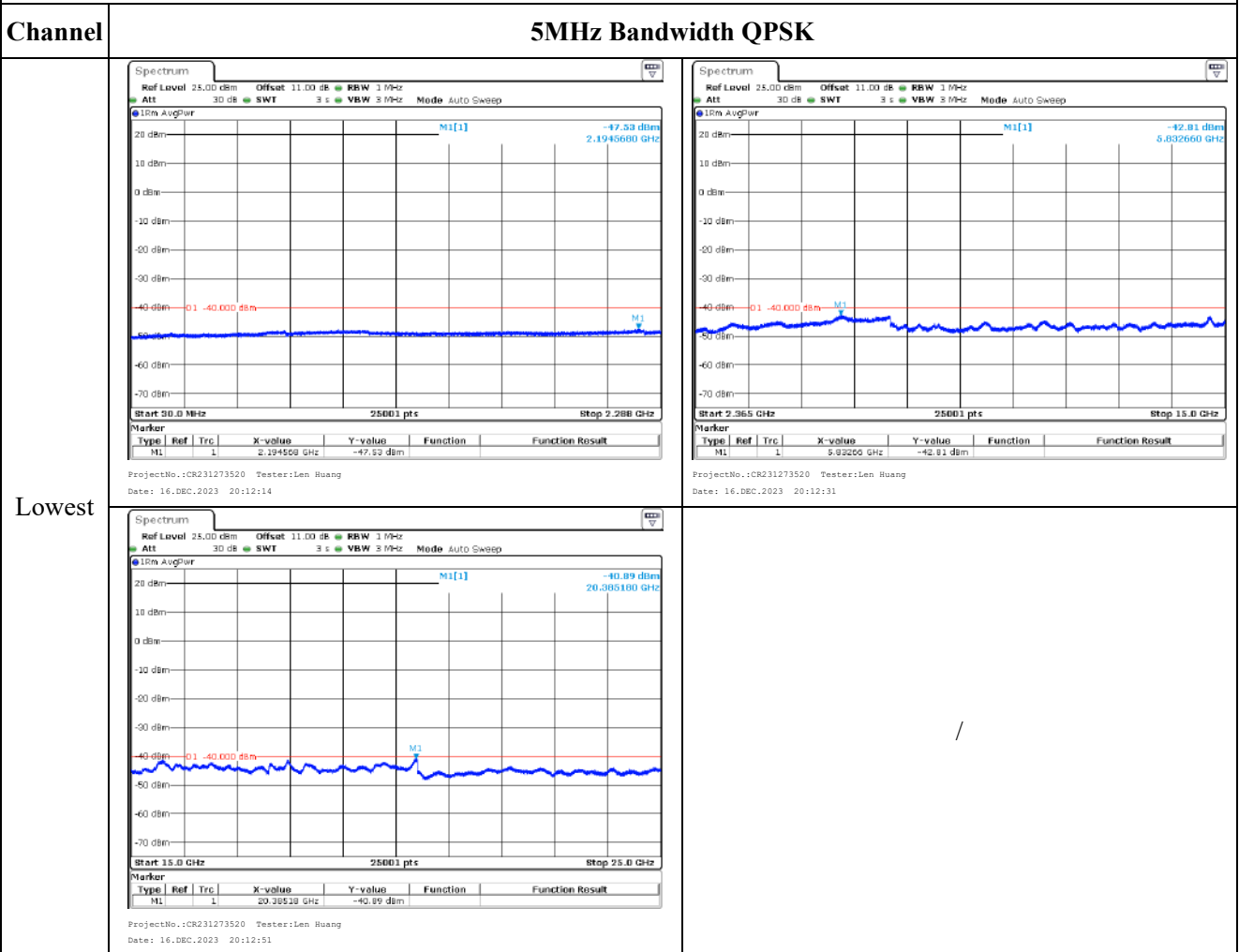
Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:16:16</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:16:42</p>
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:17:18</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:17:50</p>
Highest	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:18:23</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:18:46</p>

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Middle	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:19:33</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 18.DEC.2023 13:19:59</p>

2305-2315 MHz:

Spurious Emissions at Antenna Terminal

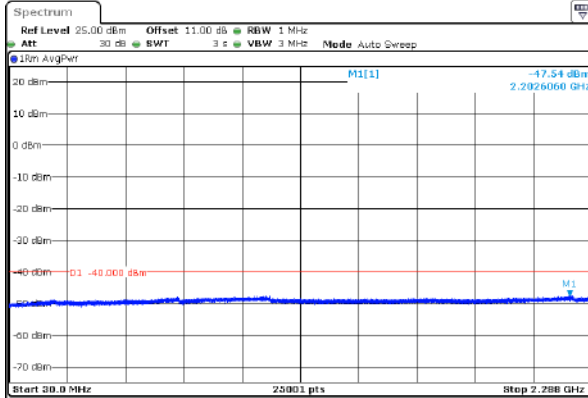


Spurious Emissions at Antenna Terminal

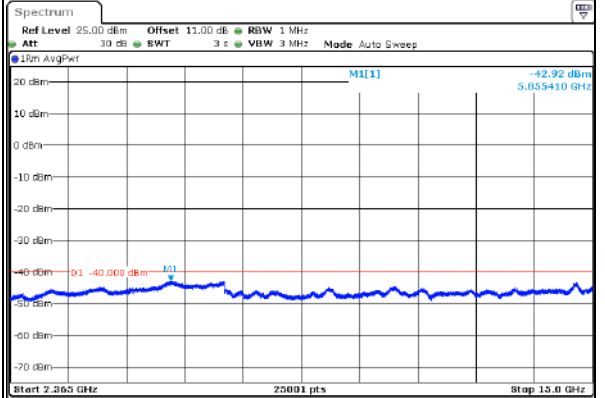
Channel

5MHz Bandwidth QPSK

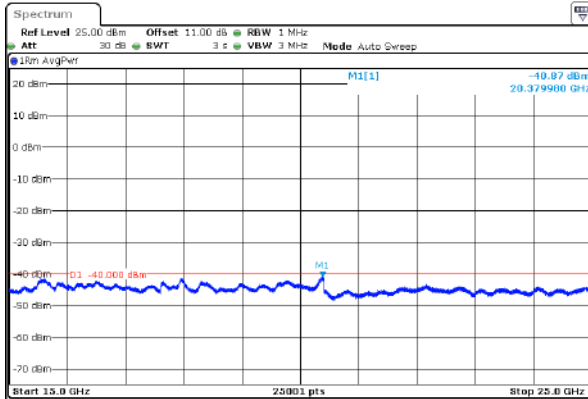
Middle



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:13:23



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:13:39



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:13:58

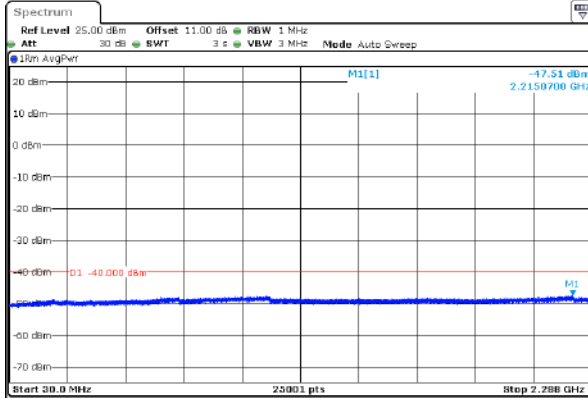
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Spurious Emissions at Antenna Terminal

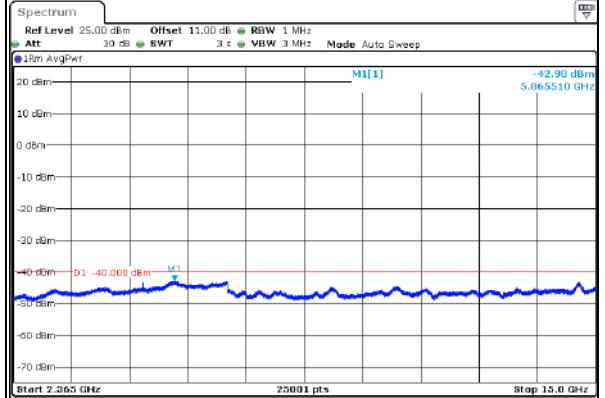
Channel

5MHz Bandwidth QPSK

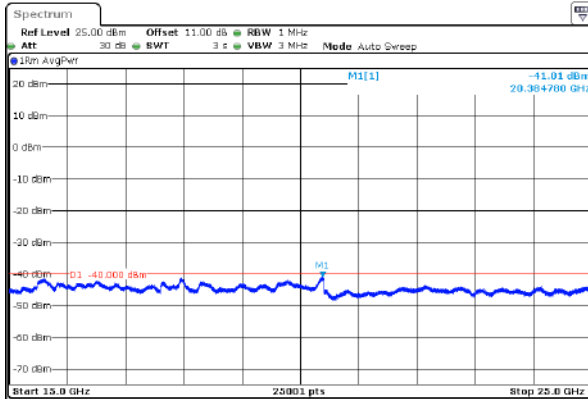
Highest



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:14:18



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:14:34



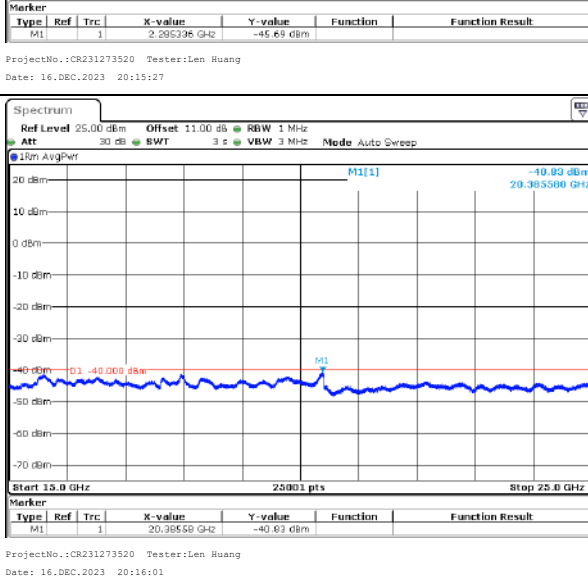
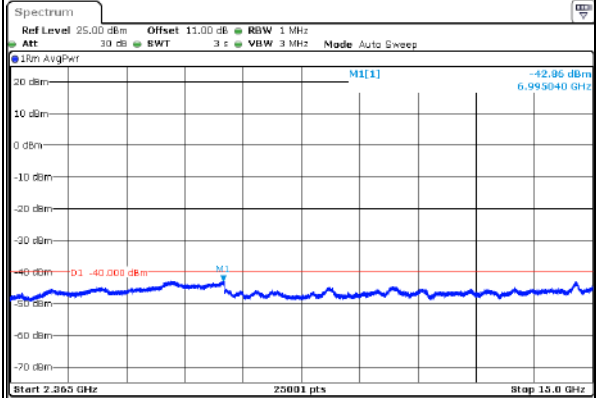
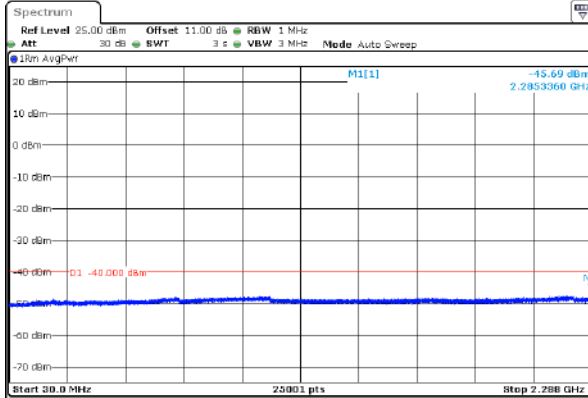
ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:14:51

Spurious Emissions at Antenna Terminal

Channel

10MHz Bandwidth QPSK

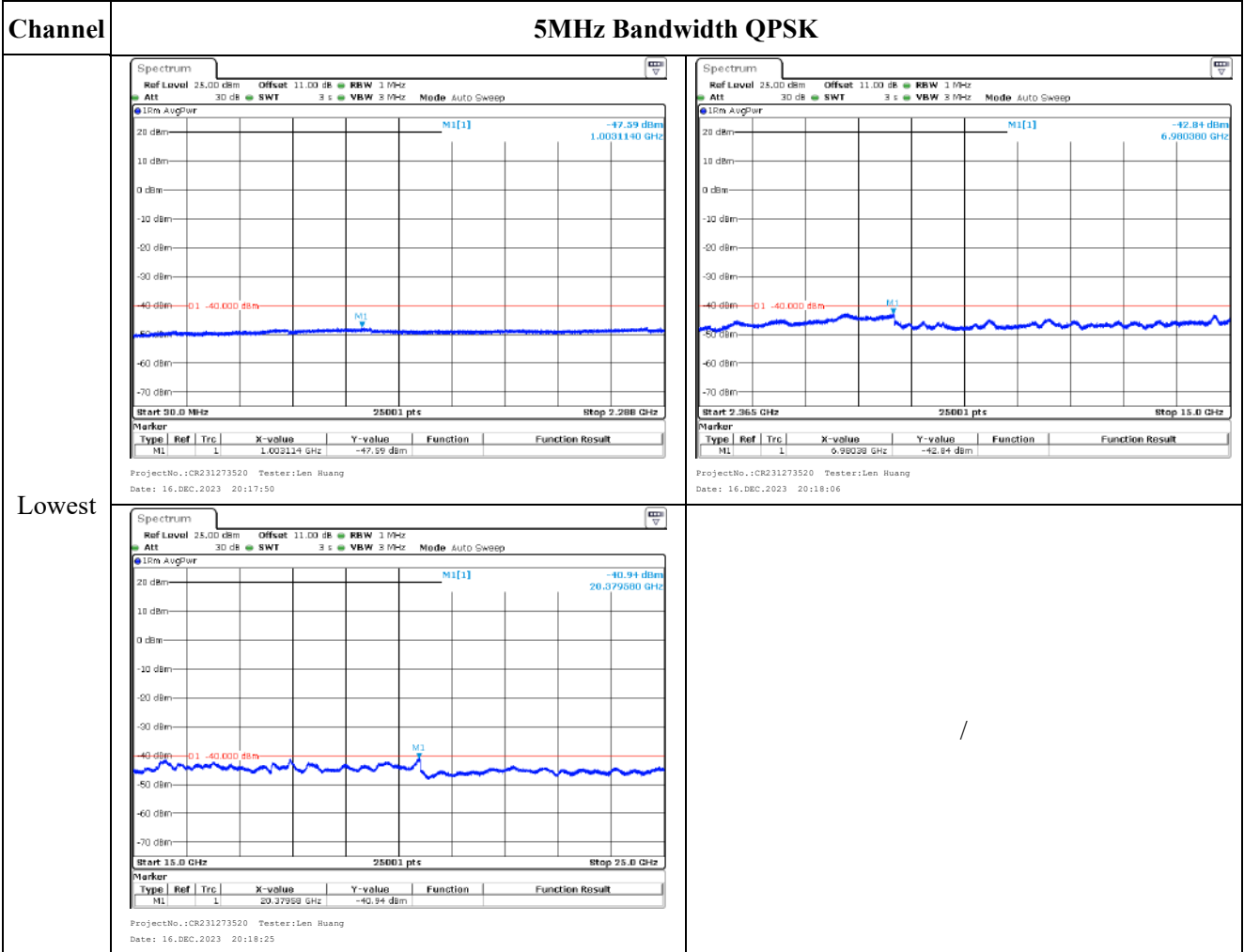
Middle



/

2350-2360 MHz:

Spurious Emissions at Antenna Terminal

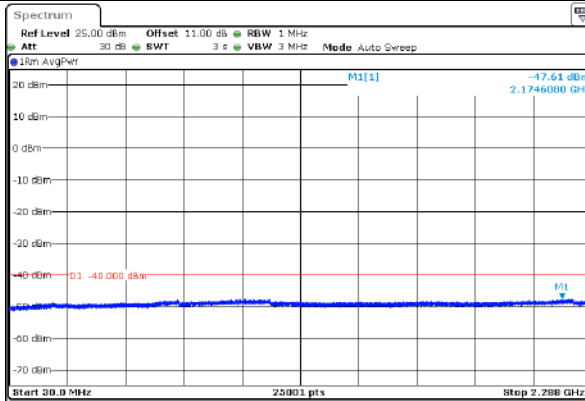


Spurious Emissions at Antenna Terminal

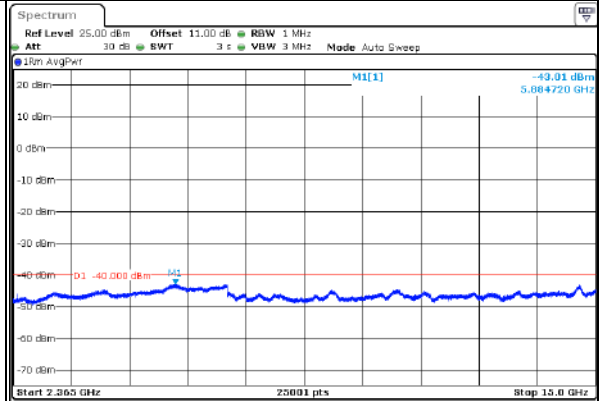
Channel

5MHz Bandwidth QPSK

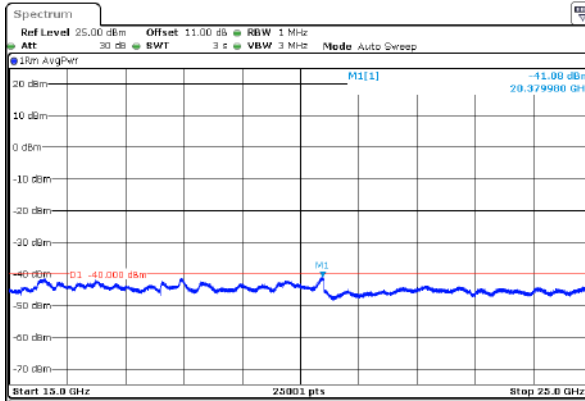
Middle



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:18:47



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:19:06



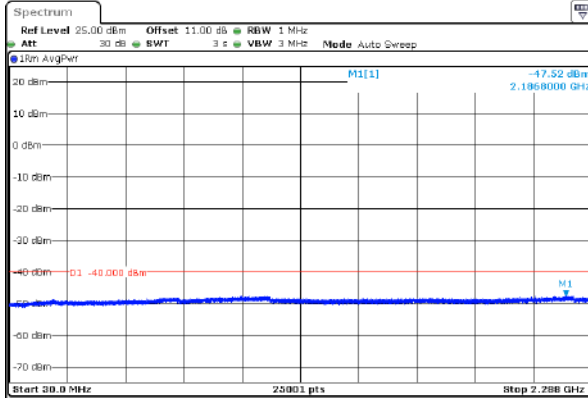
ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:19:26

Spurious Emissions at Antenna Terminal

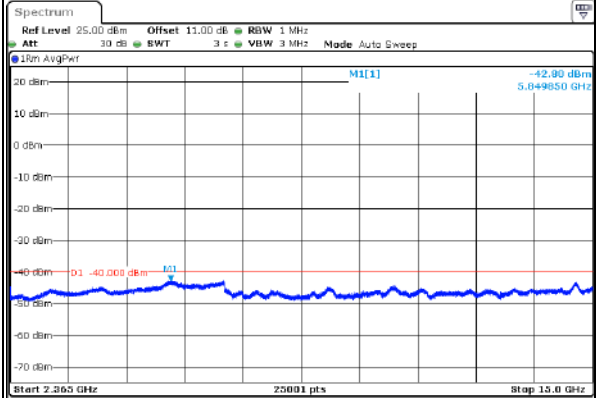
Channel

5MHz Bandwidth QPSK

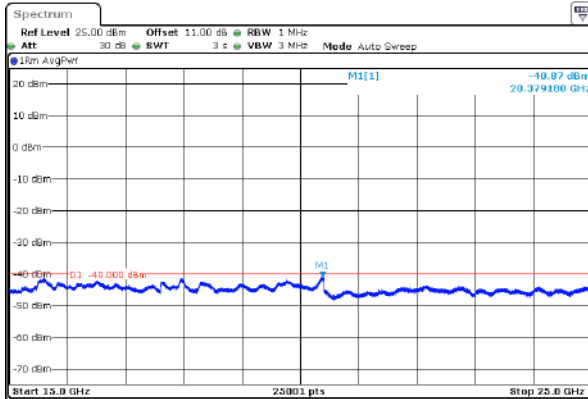
Highest



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:19:56



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:20:10



ProjectNo.:CR231273520 Tester:Len Huang
Date: 16.DEC.2023 20:20:28

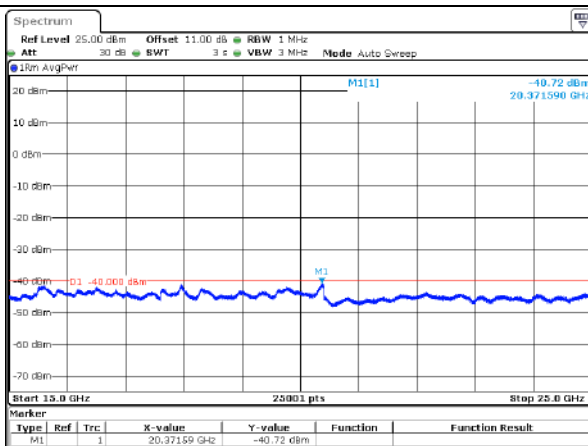
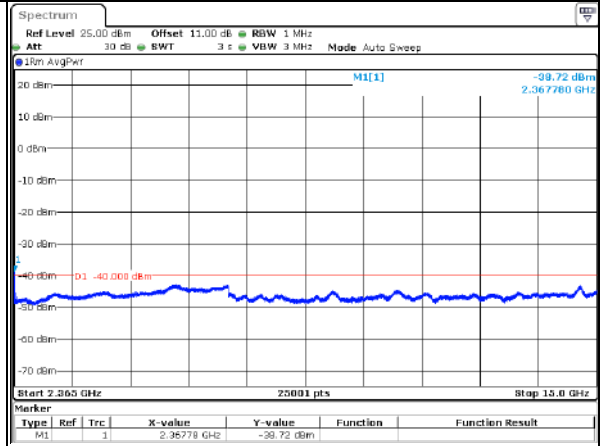
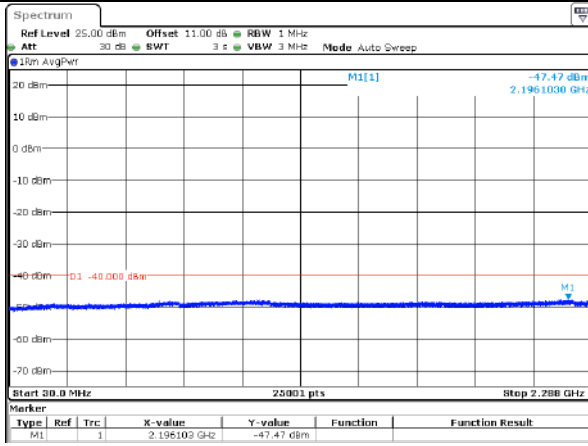
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Spurious Emissions at Antenna Terminal

Channel

10MHz Bandwidth QPSK

Middle



2305-2315 MHz:

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:52:28</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:53:46</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:17:15</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:18:39</p>

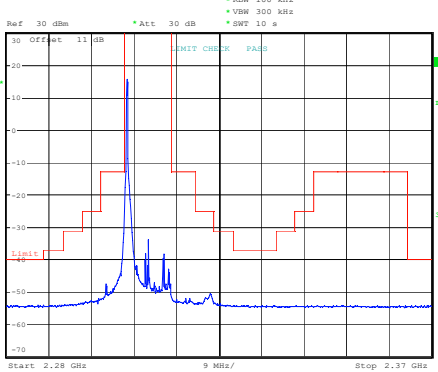
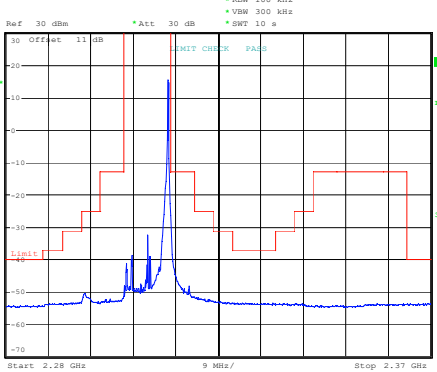
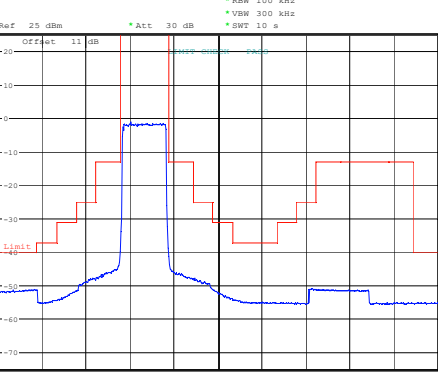
Out of band emission, Band Edge

Mode	Middle/1RB0	Middle/1RBmax
QPSK 10MHz	Middle /Full RB	/
		/

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:53:03</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:54:23</p>
	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:17:51</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:19:15</p>

Out of band emission, Band Edge

Mode	Middle/1RB0	Middle/1RBmax
16QAM 10MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:57:26</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:57:57</p>
	Middle /Full RB	/
	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:20:46</p>	/

2350-2360 MHz:

Out of band emission, Band Edge		
Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p style="font-size: small;">ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 12:30:32</p>	<p style="font-size: small;">ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 12:31:40</p>
	Lowest/Full RB	Highest/Full RB
	<p style="font-size: small;">ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:22:23</p>	<p style="font-size: small;">ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:23:41</p>

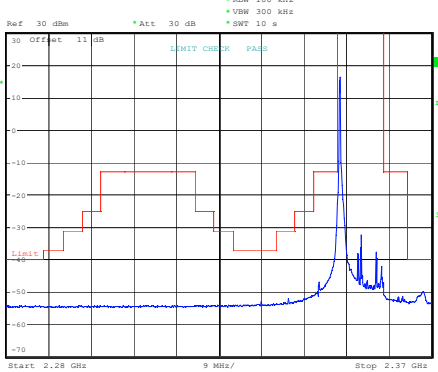
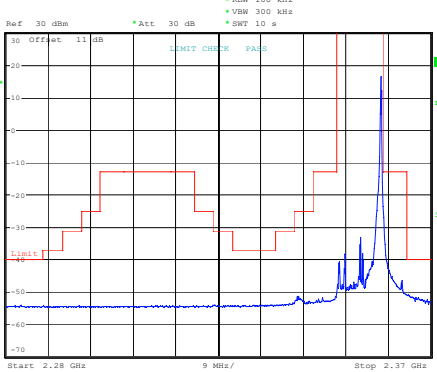
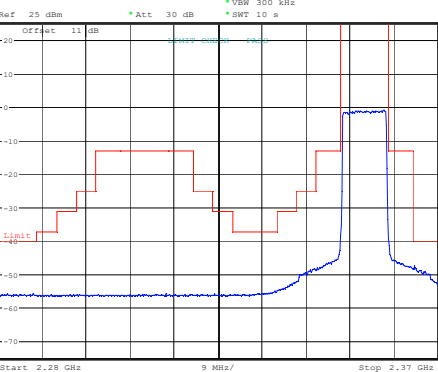
Out of band emission, Band Edge

Mode	Middle/1RB0	Middle/1RBmax
QPSK 10MHz		
	Middle /Full RB	/
		/

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 12:31:04</p>	<p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 12:32:10</p>
	<p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 11:23:02</p>	<p>ProjectNo.: CR231273520 Tester: Rod Luo Date: 19.DEC.2023 11:24:21</p>

Out of band emission, Band Edge

Mode	Middle/1RB0	Middle/1RBmax
	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 12:36:04</p>	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 12:36:36</p>
	Middle /Full RB	/
16QAM 10MHz	 <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 11:38:56</p>	/

2305-2315 MHz:

Duty cycle		
Mode	QPSK	16QAM
5MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:45:11</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:42:26</p>
10MHz	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:48:58</p>	<p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:47:59</p>

2350-2360 MHz:

Duty cycle		
Mode	QPSK	16QAM
5MHz	<p>Ref 30 dBm *Att 25 dB *VSW 10 MHz SWT 40 ms Delta 3 [T1] 1.44 dB Mask 1 [T1] 10.064615 ms Delta 2 [T1] 1.22 dB Mask 2 [T1] 1.67 dB Mask 3 [T1] 1.67 dB</p> <p>Center 2.3525 GHz 4 ms/</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:55:33</p>	<p>Ref 30 dBm *Att 25 dB *VSW 10 MHz SWT 40 ms Delta 3 [T1] 1.78 dB Mask 1 [T1] 10.039487 ms Delta 2 [T1] 1.12 dB Mask 2 [T1] 1.60 dB Mask 3 [T1] 1.60 dB</p> <p>Center 2.3525 GHz 4 ms/</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:54:20</p>
10MHz	<p>Ref 30 dBm *Att 25 dB *VSW 10 MHz SWT 40 ms Delta 3 [T1] 0.03 dB Mask 1 [T1] 10.040000 ms Delta 2 [T1] 1.21 dB Mask 2 [T1] 1.21 dB Mask 3 [T1] 1.21 dB</p> <p>Center 2.355 GHz 4 ms/</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:59:43</p>	<p>Ref 30 dBm *Att 25 dB *VSW 10 MHz SWT 40 ms Delta 3 [T1] -0.39 dB Mask 1 [T1] 10.040000 ms Delta 2 [T1] 1.29 dB Mask 2 [T1] 1.29 dB Mask 3 [T1] 1.29 dB</p> <p>Center 2.355 GHz 4 ms/</p> <p>ProjectNo.:CR231273520 Tester:Rod Luo Date: 19.DEC.2023 15:58:02</p>

4.14 Antenna Port Test Data and Results for LTE Band 41

Serial Number:	2EXR-1	Test Date:	2023/12/16-2023/12/19
Test Site:	RF	Test Mode:	Transmitting
Tester:	Rod Luo, Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	25.2-25.7	Relative Humidity: (%)	49-51	ATM Pressure: (kPa)	101
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSU26	200120	2023/4/18	2024/4/17
zhuoxiang	Coaxial Cable	SMA-178	211002	Each time	N/A
Minl-Circuits	Power Splitter	ZFRSC-183-S+	S F448201619	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2023/9/28	2024/9/27
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
R&S	Spectrum Analyzer	FSV40-N	102259	2023/4/18	2024/4/17

* 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	2498.5	2593	2687.5
10MHz	2501	2593	2685
15MHz	2503.5	2593	2682.5
20MHz	2506	2593	2680