

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	23.78	23.67	23.53	15.97	34.77
	RB1#3	23.84	23.62	23.51		
	RB1#5	23.80	23.61	23.53		
	RB3#0	23.93	23.76	23.63		
	RB3#3	23.92	23.73	23.67		
	RB6#0	22.88	22.73	22.68		
1.4MHz 16QAM	RB1#0	22.94	22.84	22.77	14.99	34.77
	RB1#3	22.95	22.84	22.80		
	RB1#5	22.89	22.81	22.78		
	RB3#0	22.90	22.88	22.57		
	RB3#3	22.88	22.94	22.59		
	RB6#0	21.79	21.72	21.69		
3MHz QPSK	RB1#0	23.85	23.73	23.76	15.89	34.77
	RB1#8	23.83	23.69	23.63		
	RB1#14	23.81	23.71	23.69		
	RB6#0	22.96	22.78	22.69		
	RB6#9	22.89	22.79	22.63		
	RB15#0	22.89	22.80	22.63		
3MHz 16QAM	RB1#0	23.09	22.84	23.17	15.21	34.77
	RB1#8	23.03	22.78	23.08		
	RB1#14	23.00	22.79	23.04		
	RB6#0	21.95	21.75	21.74		
	RB6#9	21.95	21.68	21.70		
	RB15#0	21.84	21.84	21.73		
5MHz QPSK	RB1#0	24.00	24.04	23.61	16.08	34.77
	RB1#13	23.94	24.02	23.62		
	RB1#24	23.93	23.98	23.62		
	RB15#0	22.96	22.81	22.73		
	RB15#10	22.93	22.77	22.61		
	RB25#0	22.90	22.78	22.64		
5MHz 16QAM	RB1#0	23.05	22.74	22.93	15.09	34.77
	RB1#13	22.96	22.67	22.87		
	RB1#24	22.94	22.70	22.85		
	RB15#0	21.93	21.87	21.71		
	RB15#10	21.90	21.82	21.61		
	RB25#0	21.96	21.87	21.66		

10MHz QPSK	RB1#0	23.94	23.81	23.85	15.98	34.77
	RB1#25	23.85	23.76	23.74		
	RB1#49	23.76	23.63	23.73		
	RB25#0	22.86	22.80	22.86		
	RB25#25	22.85	22.74	22.62		
	RB50#0	22.88	22.80	22.74		
10MHz 16QAM	RB1#0	23.12	22.85	23.29	15.33	34.77
	RB1#25	23.02	22.82	23.16		
	RB1#49	22.96	22.68	23.09		
	RB25#0	21.90	21.93	21.89		
	RB25#25	21.91	21.81	21.68		
	RB50#0	21.86	21.78	21.75		

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

Result: **Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	3.83	4.17	4.00	13
	RB50#0	4.75	4.58	4.58	13
10MHz 16QAM	RB1#0	4.78	4.90	4.87	13
	RB50#0	5.77	5.59	5.48	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	1.102	1.102	1.096	1.308	1.290	1.332
1.4MHz 16QAM	1.090	1.096	1.102	1.278	1.290	1.314
3MHz QPSK	2.683	2.683	2.683	2.904	2.892	2.892
3MHz 16QAM	2.683	2.683	2.683	2.892	2.904	2.904
5MHz QPSK	4.511	4.511	4.491	5.000	5.000	4.940
5MHz 16QAM	4.491	4.511	4.511	4.960	5.000	5.020
10MHz QPSK	8.942	8.942	8.982	9.760	9.640	9.680
10MHz 16QAM	8.942	8.942	8.982	9.640	9.680	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	699.054	699.00	715.951	716.00
	-20	3.91	699.145	699.00	715.820	716.00
	-10	3.91	699.034	699.00	715.938	716.00
	0	3.91	699.174	699.00	715.828	716.00
	10	3.91	699.018	699.00	715.830	716.00
	20	3.91	699.062	699.00	715.999	716.00
	30	3.91	699.078	699.00	715.963	716.00
	40	3.91	699.139	699.00	715.839	716.00
	50	3.91	699.178	699.00	715.984	716.00
Frequency Stability vs. Voltage	20	3.45	699.052	699.00	715.830	716.00
	20	4.5	699.180	699.00	715.962	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	699.088	699.00	715.949	716.00
	-20	3.91	699.049	699.00	715.878	716.00
	-10	3.91	699.073	699.00	715.892	716.00
	0	3.91	699.156	699.00	715.877	716.00
	10	3.91	699.102	699.00	715.818	716.00
	20	3.91	699.074	699.00	715.962	716.00
	30	3.91	699.136	699.00	715.873	716.00
	40	3.91	699.152	699.00	715.933	716.00
	50	3.91	699.183	699.00	715.905	716.00
Frequency Stability vs. Voltage	20	3.45	699.026	699.00	715.805	716.00
	20	4.5	699.012	699.00	715.872	716.00
					Result:	Pass

Test Plots: (Note: The 10dB 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.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:33:43</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:33:57</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:34:10</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:34:16</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:34:53</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:35:17</p>

Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:36:30</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:36:48</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:37:09</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:37:26</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:37:44</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:38:01</p>

Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:40:29</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:40:50</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:41:11</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:41:32</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:41:53</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:42:14</p>

Occupied Bandwidth

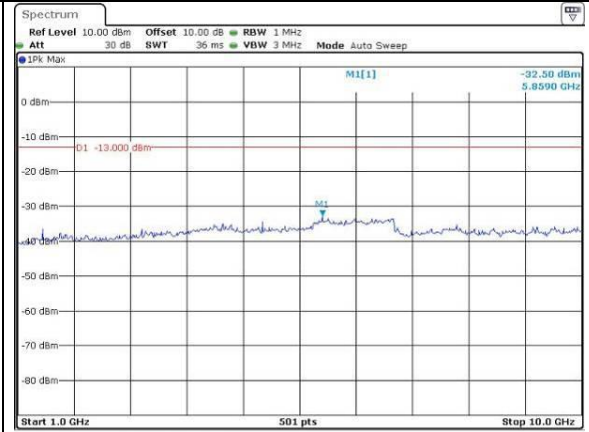
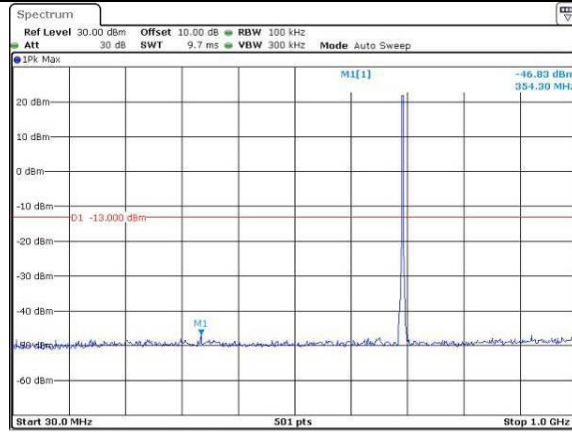
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:43:45</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:44:12</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:44:42</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:45:12</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:45:40</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:46:16</p>

Spurious Emissions at Antenna Terminal

Channel

1.4MHz Bandwidth QPSK

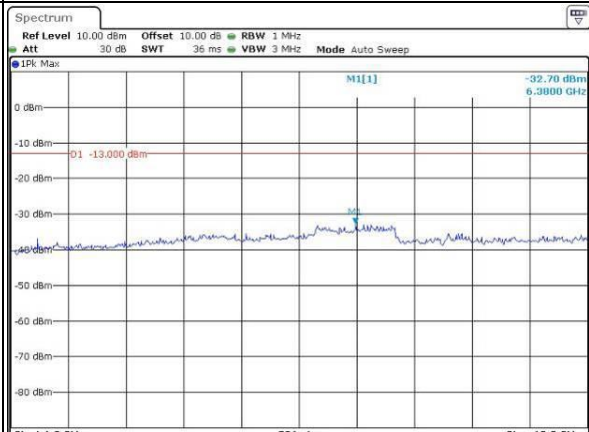
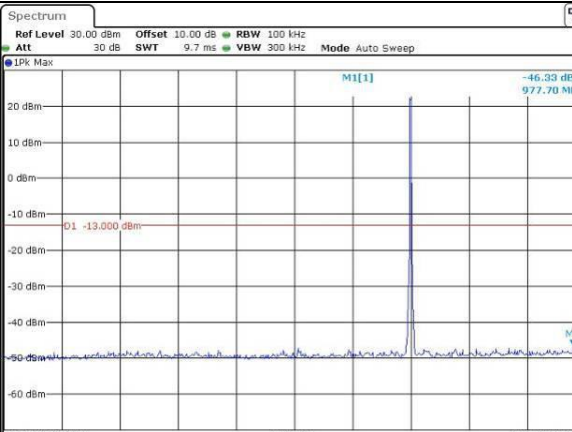
Lowest



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:17:41

ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:18:12

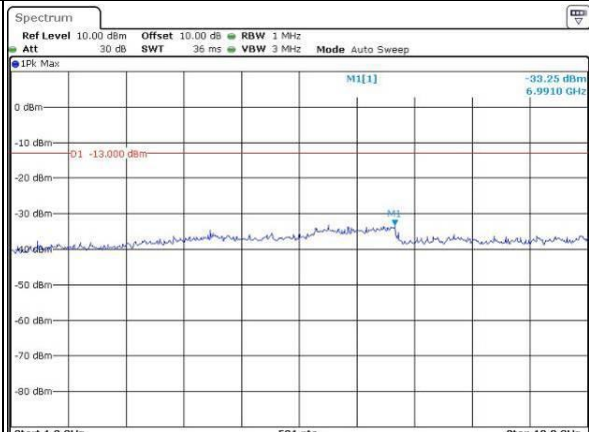
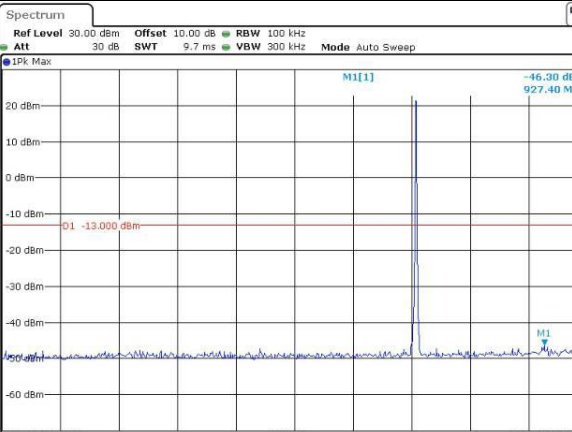
Middle



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:18:47

ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:19:15

Highest



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:20:00

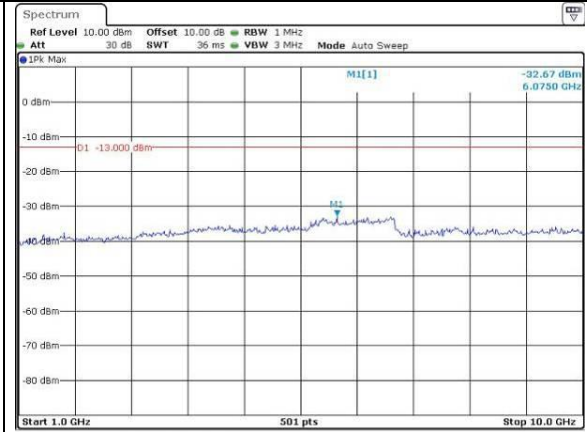
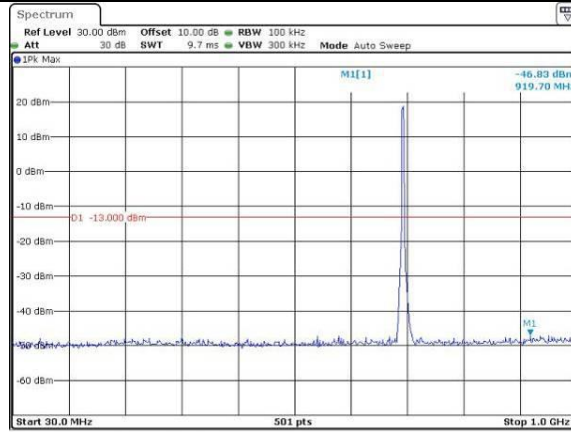
ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:20:19

Spurious Emissions at Antenna Terminal

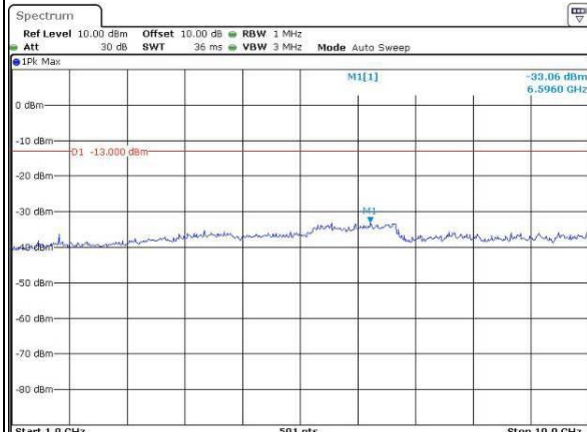
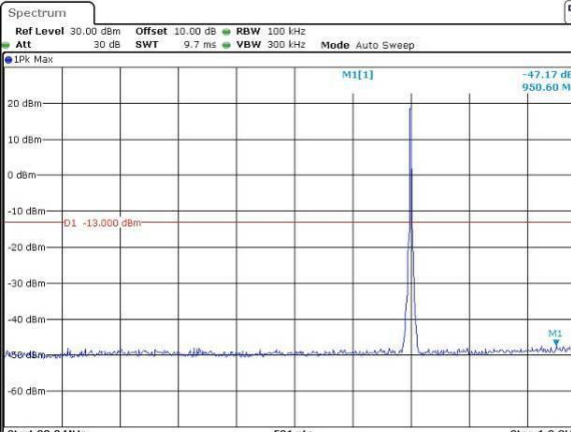
Channel

3MHz Bandwidth QPSK

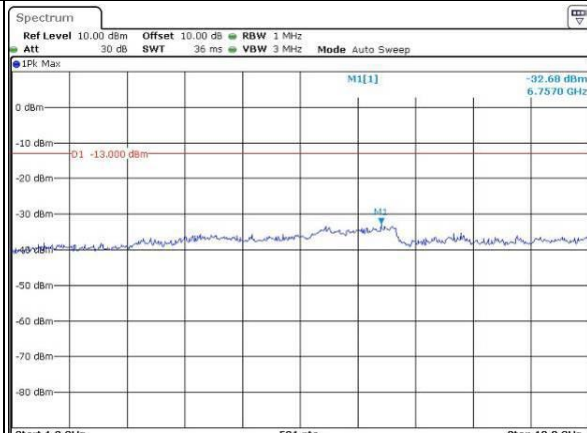
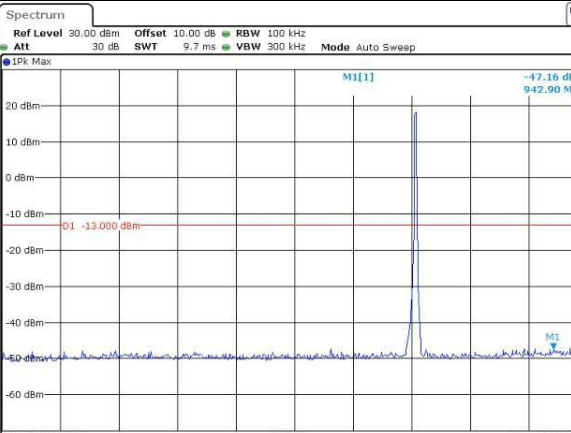
Lowest



Middle



Highest

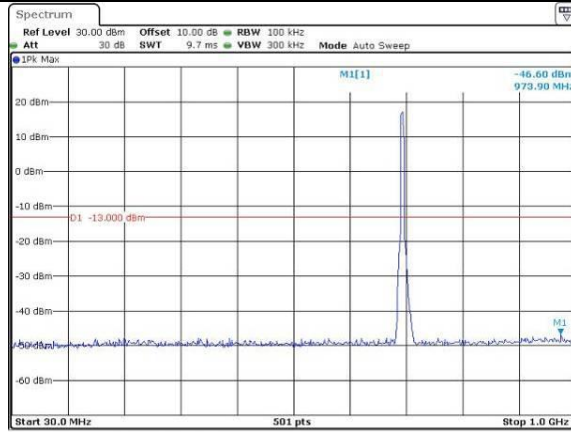


Spurious Emissions at Antenna Terminal

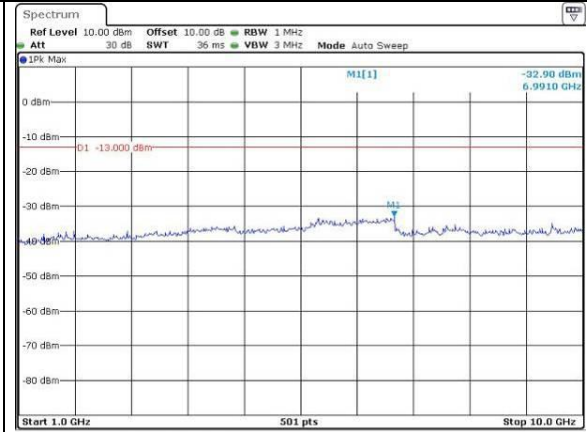
Channel

5MHz Bandwidth QPSK

Lowest

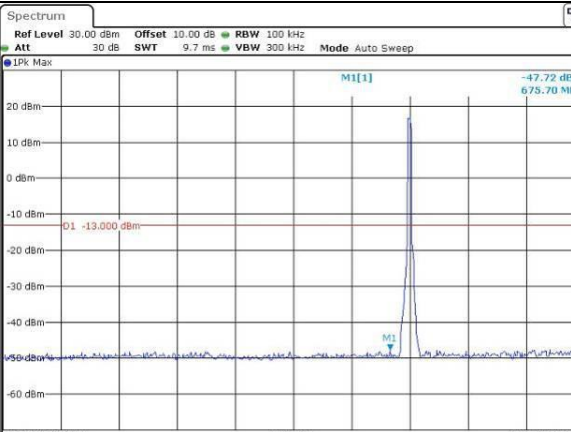


ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:24:49

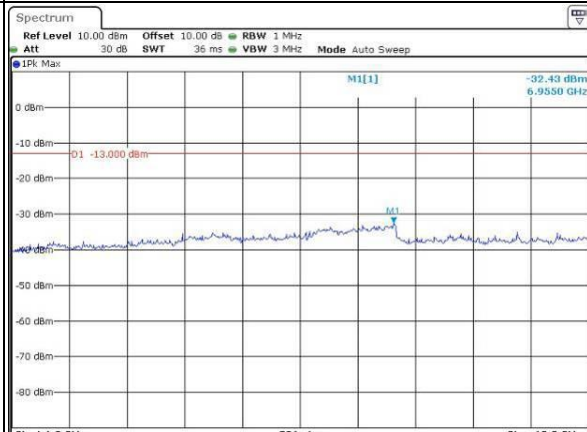


ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:25:18

Middle

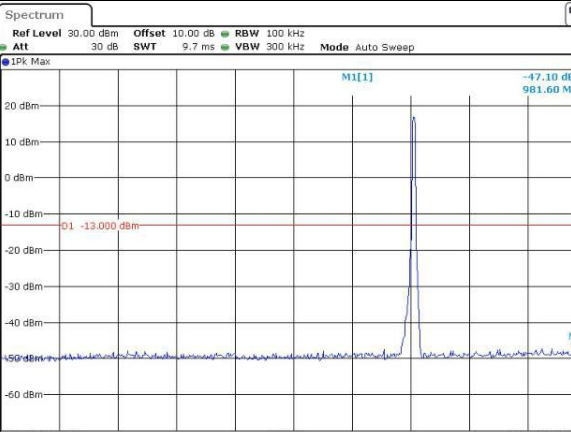


ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:25:44

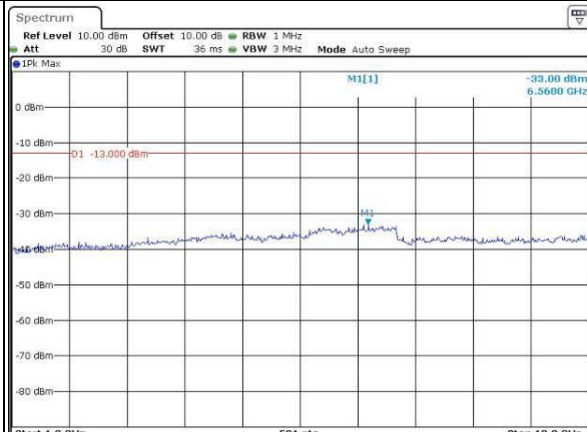


ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:26:17

Highest



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:26:49



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:27:12

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref Level 30.00 dBm Offset 10.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -46.54 dBm 731.80 MHz</p> <p>01 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:28:09</p>	<p>Ref Level 10.00 dBm Offset 10.00 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -32.23 dBm 6.9550 GHz</p> <p>01 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:28:32</p>
Middle	<p>Ref Level 30.00 dBm Offset 10.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -47.08 dBm 745.40 MHz</p> <p>01 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:29:04</p>	<p>Ref Level 10.00 dBm Offset 10.00 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -32.92 dBm 6.8830 GHz</p> <p>01 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:29:36</p>
Highest	<p>Ref Level 30.00 dBm Offset 10.00 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>IPk Max M1[1] -47.04 dBm 921.60 MHz</p> <p>01 -13.000 dBm</p> <p>Start 30.0 MHz 501 pts Stop 1.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:29:59</p>	<p>Ref Level 10.00 dBm Offset 10.00 dB RBW 1 MHz Att 30 dB SWT 36 ms VBW 3 MHz Mode Auto Sweep</p> <p>IPk Max M1[1] -33.18 dBm 6.3000 GHz</p> <p>01 -13.000 dBm</p> <p>Start 1.0 GHz 501 pts Stop 10.0 GHz</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:30:26</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 1.4MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:30:02</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:31:05</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:56:29</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:56:44</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 3MHz		

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:39:38</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:40:51</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:58:49</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:59:05</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:33:48</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:34:47</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:03</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:21</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 1.4MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:30:32</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:31:34</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:56:36</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:56:51</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 3MHz	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 21. DEC. 2023 10:37:21</p>	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 21. DEC. 2023 10:38:25</p>
	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 25. NOV. 2023 14:57:38</p>	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 25. NOV. 2023 14:57:53</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:40:17</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:42:46</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:58:57</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:59:12</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:34:16</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:35:18</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:12</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:30</p>

4.11 Antenna Port Test Data and Results for LTE Band 17

Serial Number:	2DMI-1	Test Date:	2023/11/22~2023/12/21
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3~26	Relative Humidity: (%)	40~55	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	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	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	23.86	23.81	23.92	15.96	34.77
	RB1#13	23.74	23.77	23.90		
	RB1#24	23.74	23.69	23.86		
	RB15#0	22.81	22.85	22.73		
	RB15#10	22.80	22.69	22.62		
	RB25#0	22.80	22.74	22.63		
5MHz 16QAM	RB1#0	23.14	22.82	22.63	15.18	34.77
	RB1#13	23.06	22.78	22.60		
	RB1#24	22.99	22.75	22.60		
	RB15#0	21.81	21.83	21.77		
	RB15#10	21.79	21.70	21.65		
	RB25#0	21.82	21.77	21.71		
10MHz QPSK	RB1#0	23.87	23.79	23.75	15.91	34.77
	RB1#25	23.81	23.74	23.70		
	RB1#49	23.73	23.62	23.65		
	RB25#0	22.78	22.77	22.77		
	RB25#25	22.69	22.67	22.68		
	RB50#0	22.76	22.77	22.75		
10MHz 16QAM	RB1#0	23.32	22.96	22.79	15.36	34.77
	RB1#25	23.21	22.92	22.75		
	RB1#49	23.12	22.78	22.69		
	RB25#0	21.80	21.79	21.90		
	RB25#25	21.73	21.67	21.78		
	RB50#0	21.76	21.74	21.76		

Note:

ERP= Conducted Power(dBm) - Lc(dB) + Gr(dBd)

Gr(dBd)=Gr(dBi)-2.15

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

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	4.20	4.00	3.97	13
	RB50#0	4.52	4.55	4.58	13
10MHz 16QAM	RB1#0	5.19	4.72	4.87	13
	RB50#0	5.54	5.48	5.48	13
Result:					Pass

FCC §2.1049, §27.53:Occupied Bandwidth						
Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.511	4.511	4.511	5.000	5.020	4.980
5MHz 16QAM	4.511	4.511	4.491	5.000	5.020	4.980
10MHz QPSK	8.942	8.942	8.982	9.680	9.600	9.600
10MHz 16QAM	8.942	8.942	8.982	9.640	9.680	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.

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	704.034	704.00	715.913	716.00
	-20	3.91	704.009	704.00	715.888	716.00
	-10	3.91	704.090	704.00	715.976	716.00
	0	3.91	704.006	704.00	715.864	716.00
	10	3.91	704.169	704.00	715.812	716.00
	20	3.91	704.045	704.00	715.892	716.00
	30	3.91	704.106	704.00	715.880	716.00
	40	3.91	704.008	704.00	715.928	716.00
Frequency Stability vs. Voltage	20	3.45	704.191	704.00	715.883	716.00
	20	4.5	704.004	704.00	715.991	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	704.057	704.00	715.982	716.00
	-20	3.91	704.161	704.00	715.942	716.00
	-10	3.91	704.068	704.00	715.838	716.00

	0	3.91	704.094	704.00	715.867	716.00
	10	3.91	704.040	704.00	715.990	716.00
	20	3.91	704.027	704.00	715.969	716.00
	30	3.91	704.091	704.00	715.974	716.00
	40	3.91	704.039	704.00	715.911	716.00
	50	3.91	704.005	704.00	715.839	716.00
Frequency Stability vs. Voltage	20	3.45	704.194	704.00	715.813	716.00
	20	4.5	704.156	704.00	715.996	716.00
					Result:	Pass

Test Plots: (Note: The 10dB 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.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:46:38</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:46:59</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:47:20</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:47:44</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:48:08</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 14:48:32</p>

Occupied Bandwidth

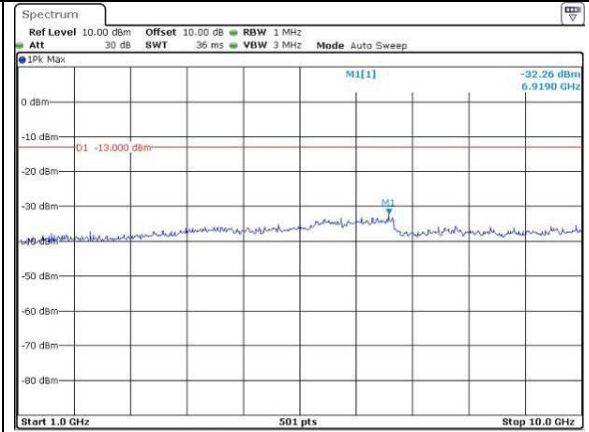
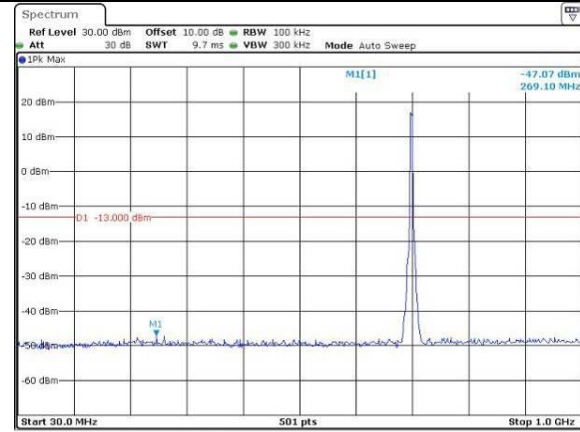
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Spurious Emissions at Antenna Terminal

Channel

5MHz Bandwidth QPSK

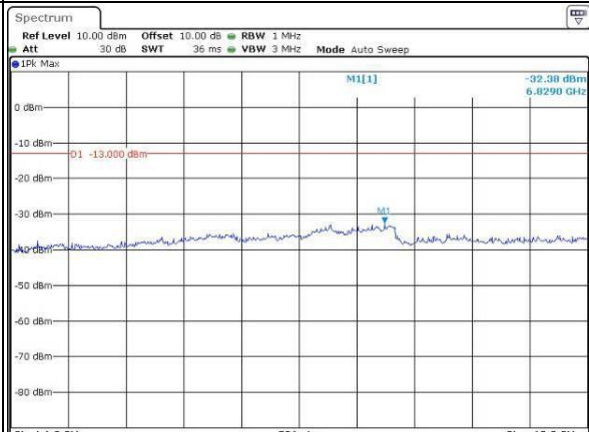
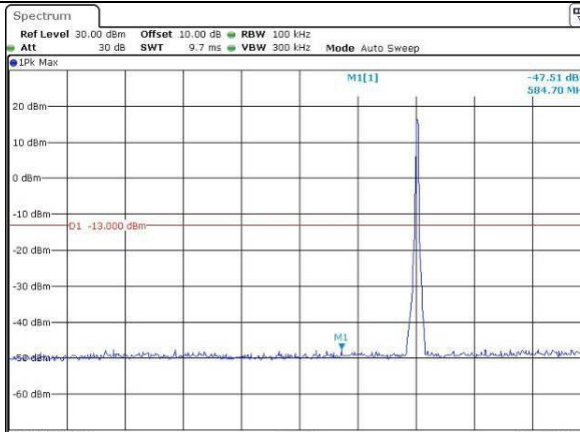
Lowest



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:31:02

ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:31:24

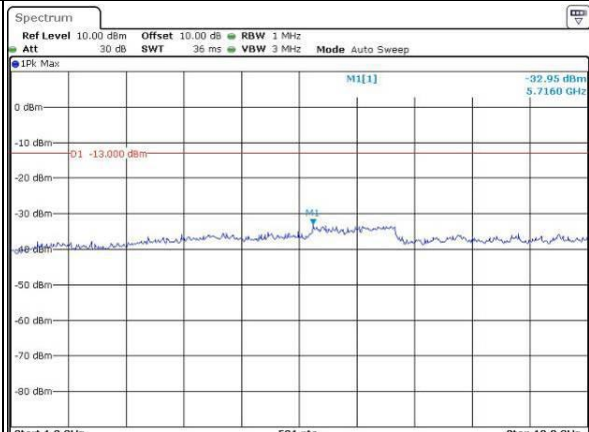
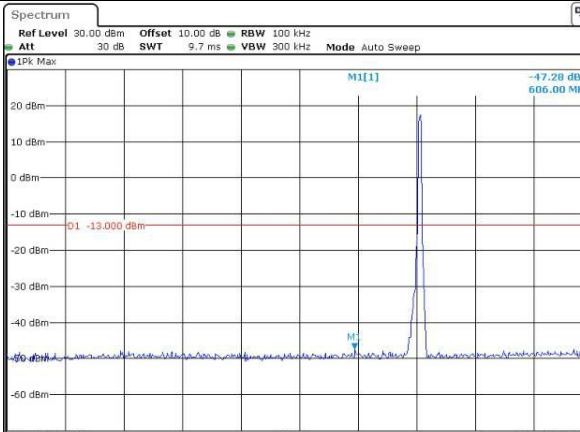
Middle



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:31:53

ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:32:22

Highest



ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:33:51

ProjectNo.:CR231167220 Tester:Len Huang
Date: 25.NOV.2023 15:33:17

Spurious Emissions at Antenna Terminal

Channel	10MHz Bandwidth QPSK	
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:34:56</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:35:19</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:35:52</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:36:13</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:36:39</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:37:09</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:08:25</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:09:34</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:42</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:58</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 21. DEC. 2023 10:11:05</p>	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 21. DEC. 2023 10:12:05</p>
	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 25. NOV. 2023 15:02:47</p>	<p>ProjectNo.: CR231167220 Tester: Len Huang Date: 25. NOV. 2023 15:03:04</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:08:58</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:10:03</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:01:50</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:02:06</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:11:34</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 21.DEC.2023 10:12:34</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:02:55</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 15:03:13</p>

4.12 Antenna Port Test Data and Results for LTE Band 38

Serial Number:	2DMI-1	Test Date:	2023/11/22~2023/12/20
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3~26	Relative Humidity: (%)	40~55	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	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	22.85	22.85	22.97	20.92	33
	RB1#13	22.80	22.89	22.93		
	RB1#24	22.76	22.85	22.89		
	RB15#0	21.84	21.81	21.81		
	RB15#10	21.81	21.84	21.75		
	RB25#0	21.83	21.82	21.78		
5MHz 16QAM	RB1#0	21.95	22.05	21.81	20.04	33
	RB1#13	21.87	22.07	21.79		
	RB1#24	21.84	22.09	21.71		
	RB15#0	20.86	20.82	20.77		
	RB15#10	20.82	20.84	20.70		
	RB25#0	20.88	20.79	20.79		
10MHz QPSK	RB1#0	22.90	22.77	22.87	20.85	33
	RB1#25	22.84	22.86	22.84		
	RB1#49	22.77	22.79	22.73		
	RB25#0	21.82	21.77	21.81		
	RB25#25	21.75	21.82	21.80		
	RB50#0	21.80	21.81	21.83		
10MHz 16QAM	RB1#0	22.07	21.67	22.03	20.02	33
	RB1#25	21.99	21.80	21.97		
	RB1#49	21.96	21.72	21.88		
	RB25#0	20.82	20.81	20.86		
	RB25#25	20.71	20.85	20.79		
	RB50#0	20.76	20.81	20.83		
15MHz QPSK	RB1#0	22.82	22.75	22.77	20.84	33
	RB1#38	22.78	22.89	22.84		
	RB1#74	22.73	22.78	22.65		
	RB36#0	21.74	21.77	21.83		
	RB36#39	21.71	21.85	21.79		
	RB75#0	21.74	21.78	21.83		
15MHz 16QAM	RB1#0	22.00	21.90	21.72	20.00	33
	RB1#38	21.92	22.05	21.80		
	RB1#74	21.89	22.00	21.59		
	RB36#0	20.86	20.76	20.81		
	RB36#39	20.75	20.82	20.69		
	RB75#0	20.73	20.73	20.82		
20MHz QPSK	RB1#0	22.82	22.64	22.74	20.79	33
	RB1#50	22.84	22.83	22.82		
	RB1#99	22.67	22.69	22.53		

	RB50#0	21.77	21.74	21.77		
	RB50#50	21.78	21.83	21.84		
	RB100#0	21.75	21.80	21.80		
20MHz 16QAM	RB1#0	22.10	21.73	21.73	20.05	33
	RB1#50	22.07	21.91	21.78		
	RB1#99	21.96	21.76	21.53		
	RB50#0	20.75	20.69	20.82		
	RB50#50	20.75	20.84	20.85		
	RB100#0	20.72	20.75	20.78		

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

Result: **Pass**

Peak-to-average Ratio(PAR)

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	8.52	8.58	8.43	13
	RB100#0	8.93	8.87	8.87	13
20MHz 16QAM	RB1#0	9.22	9.42	9.25	13
	RB100#0	9.80	9.74	9.74	13

Result: **Pass**

FCC §2.1049, §27.53:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
5MHz QPSK	4.511	4.511	4.511	5.040	5.260	5.060
5MHz 16QAM	4.491	4.511	4.511	5.000	5.000	5.060
10MHz QPSK	8.942	8.942	8.942	9.560	9.760	9.680
10MHz 16QAM	8.942	8.942	8.942	9.640	9.640	9.520
15MHz QPSK	13.533	13.473	13.473	15.240	15.000	15.000
15MHz 16QAM	13.533	13.533	13.533	14.580	15.480	14.700
20MHz QPSK	18.044	17.884	17.964	19.280	19.440	19.120
20MHz 16QAM	17.884	17.964	17.884	19.440	19.360	19.200

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.**

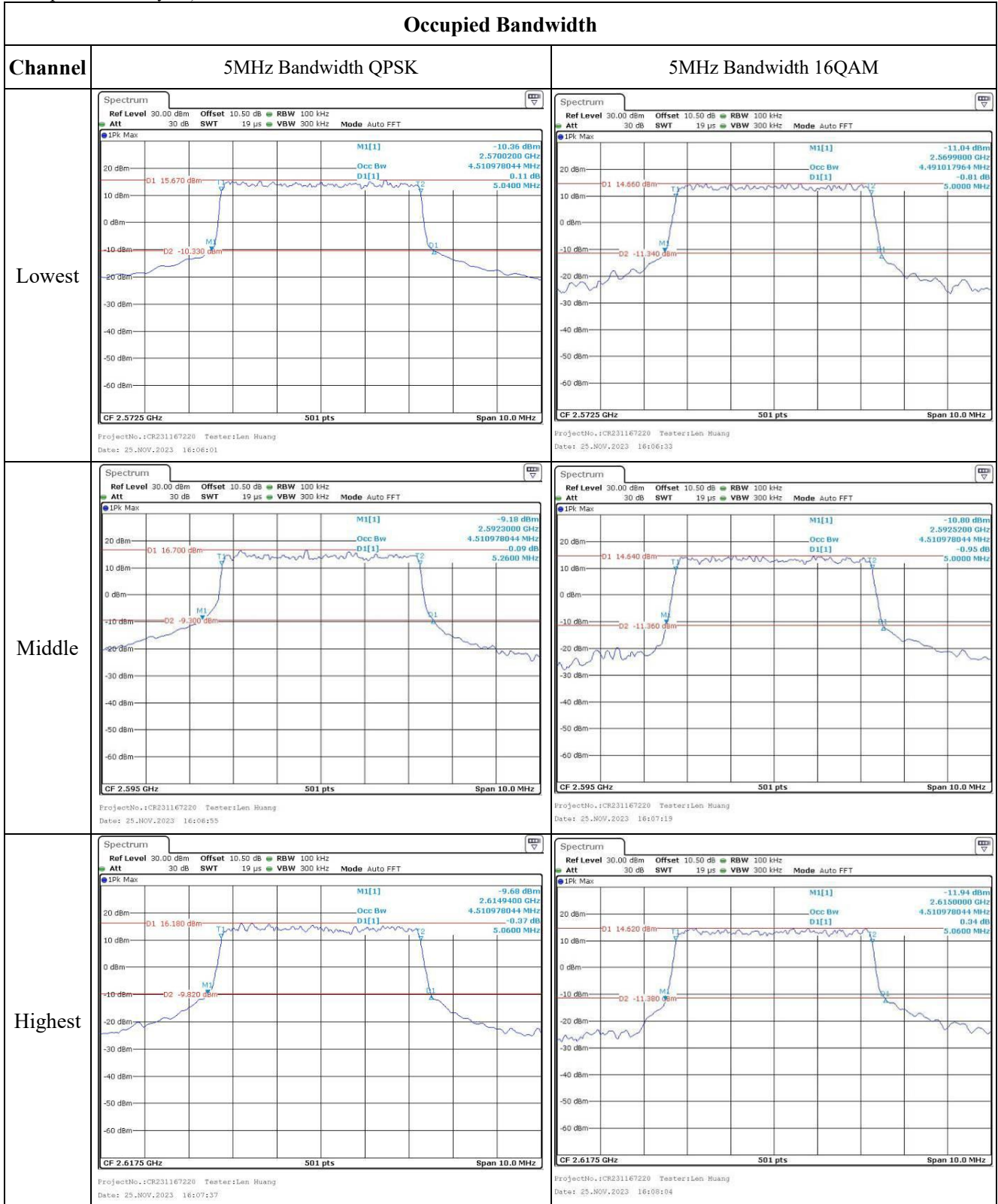
FCC §2.1051, § 27.53:Out of band emission, Band Edge

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	2570.230	2570.00	2619.913	2620
	-20	3.91	2570.482	2570.00	2619.960	2620
	-10	3.91	2570.551	2570.00	2619.947	2620
	0	3.91	2570.573	2570.00	2619.948	2620
	10	3.91	2570.190	2570.00	2619.910	2620
	20	3.91	2570.452	2570.00	2619.954	2620
	30	3.91	2570.289	2570.00	2619.984	2620
	40	3.91	2570.143	2570.00	2619.930	2620
	50	3.91	2570.278	2570.00	2619.959	2620
Frequency Stability vs. Voltage	20	3.45	2570.399	2570.00	2619.940	2620
	20	4.5	2570.175	2570.00	2619.974	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	2570.115	2570.00	2619.969	2620
	-20	3.91	2570.102	2570.00	2619.957	2620
	-10	3.91	2570.152	2570.00	2619.947	2620
	0	3.91	2570.392	2570.00	2619.902	2620
	10	3.91	2570.318	2570.00	2619.951	2620
	20	3.91	2570.239	2570.00	2619.937	2620
	30	3.91	2570.131	2570.00	2619.955	2620
	40	3.91	2570.103	2570.00	2619.939	2620
	50	3.91	2570.178	2570.00	2619.987	2620
Frequency Stability vs. Voltage	20	3.45	2570.190	2570.00	2619.929	2620
	20	4.5	2570.181	2570.00	2619.914	2620
					Result:	Pass

Test Plots: (Note: The 10.5 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):



Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:08:52</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:09:13</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:09:41</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:10:11</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:10:36</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:10:56</p>

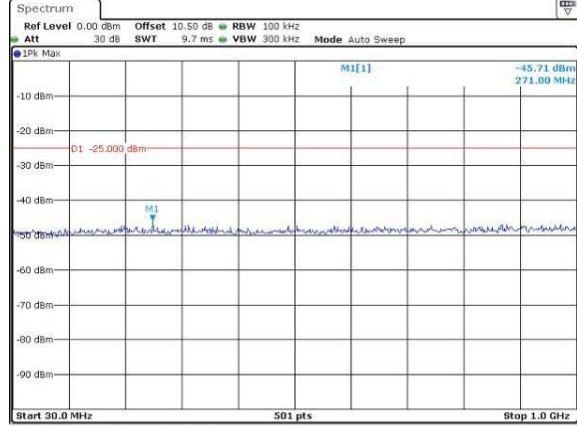
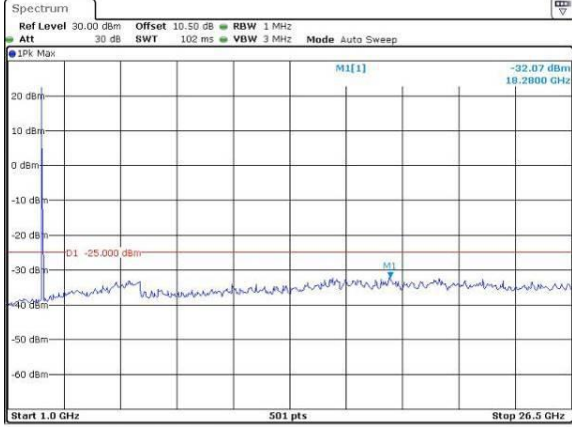
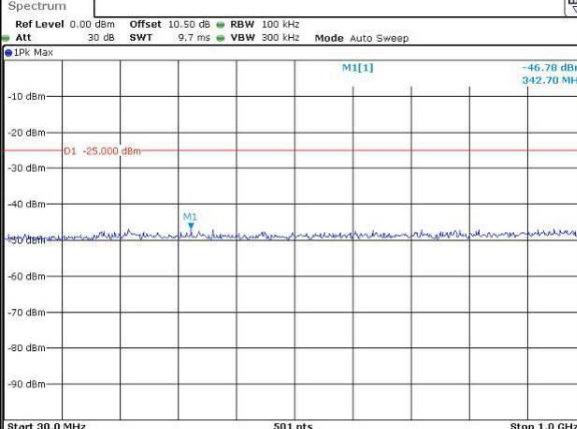
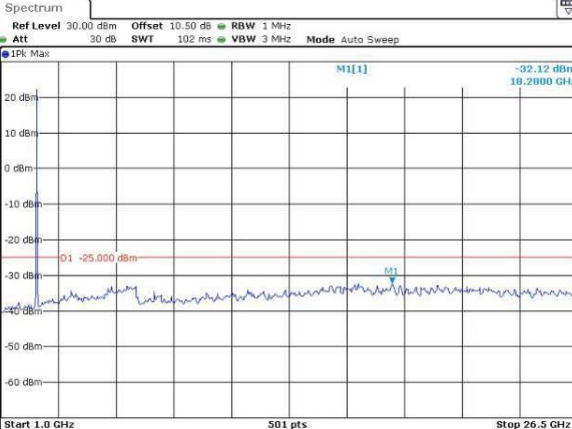
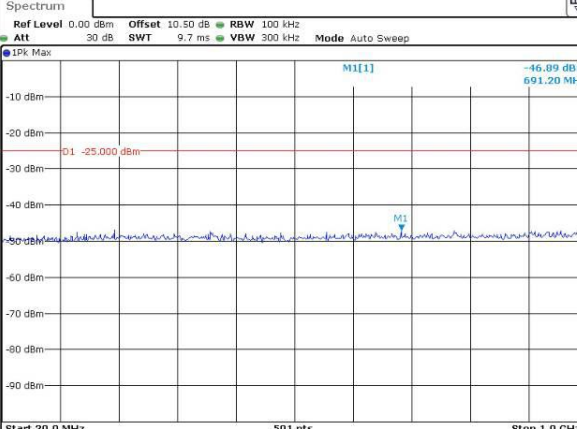
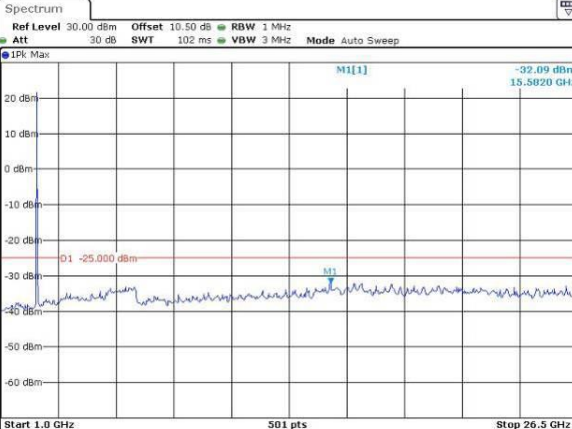
Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:12:52</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:13:24</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:13:51</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:14:13</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:14:37</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:15:09</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:17:20</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:17:40</p>
Middle	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:18:16</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:18:39</p>
Highest	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:19:09</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:19:38</p>

Spurious Emissions at Antenna Terminal

Channel	5MHz Bandwidth QPSK	
Lowest	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:57:46</p>	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:58:09</p>
Middle	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:58:37</p>	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:59:03</p>
Highest	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:59:29</p>	 <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 16:59:52</p>

Spurious Emissions at Antenna Terminal

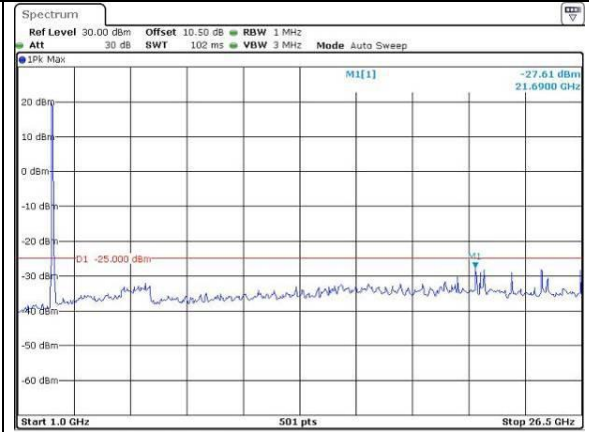
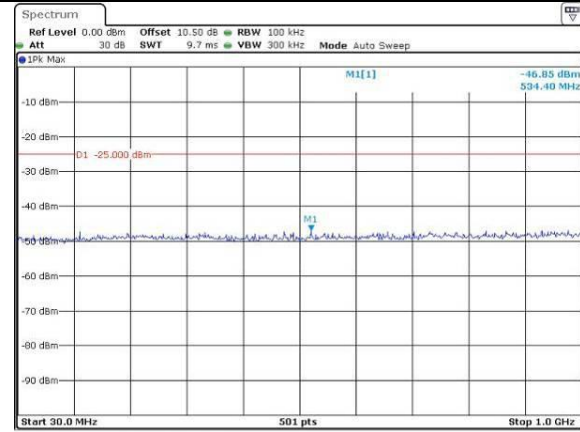
Channel	10MHz Bandwidth QPSK	
Lowest	<p>Ref Level 0.00 dBm Offset 10.50 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>Peak: M1[1] -46.31 dBm @ 962.20 MHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 30.0 MHz Stop 1.0 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:00:48</p>	<p>Ref Level 30.00 dBm Offset 10.50 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>Peak: M1[1] -31.30 dBm @ 16.6000 GHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 1.0 GHz Stop 26.5 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:01:14</p>
Middle	<p>Ref Level 0.00 dBm Offset 10.50 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>Peak: M1[1] -46.28 dBm @ 952.60 MHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 30.0 MHz Stop 1.0 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:01:45</p>	<p>Ref Level 30.00 dBm Offset 10.50 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>Peak: M1[1] -31.01 dBm @ 19.2980 GHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 1.0 GHz Stop 26.5 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:02:08</p>
Highest	<p>Ref Level 0.00 dBm Offset 10.50 dB RBW 100 kHz Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep</p> <p>Peak: M1[1] -46.01 dBm @ 929.50 MHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 30.0 MHz Stop 1.0 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:02:37</p>	<p>Ref Level 30.00 dBm Offset 10.50 dB RBW 1 MHz Att 30 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep</p> <p>Peak: M1[1] -31.03 dBm @ 18.2000 GHz</p> <p>Reference: D1 -25.000 dBm</p> <p>Start 1.0 GHz Stop 26.5 GHz 501 pts</p> <p>ProjectNo.:CR231167220 Tester:Len Huang Date: 25.NOV.2023 17:02:57</p>

Spurious Emissions at Antenna Terminal

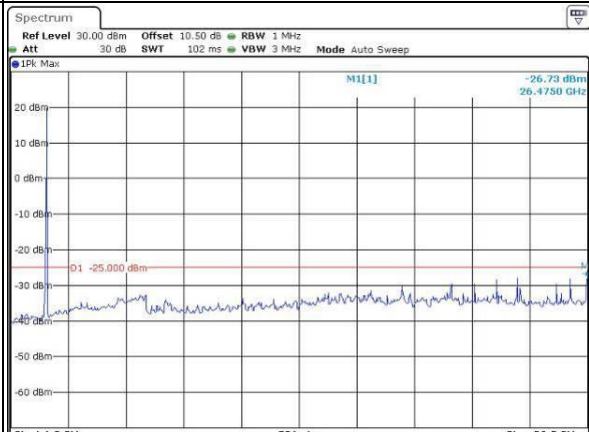
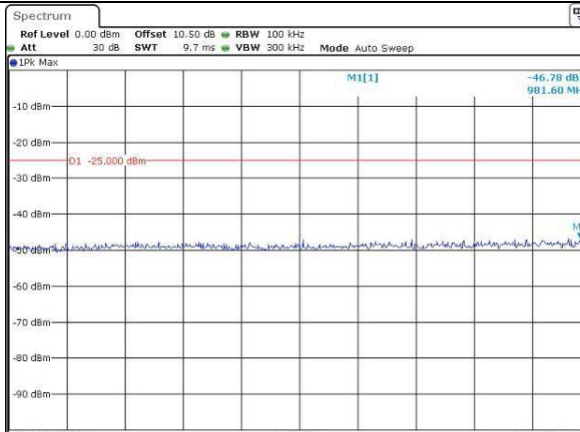
Channel

15MHz Bandwidth QPSK

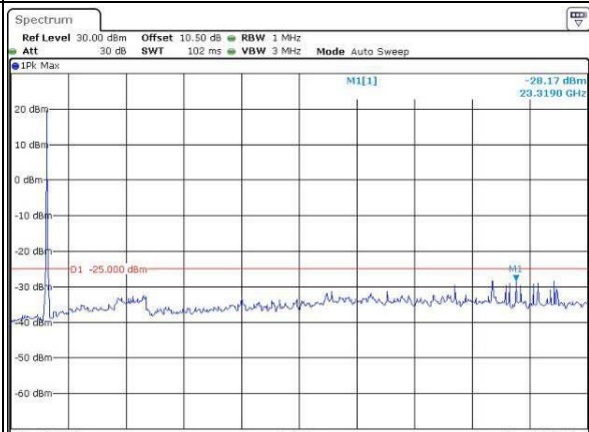
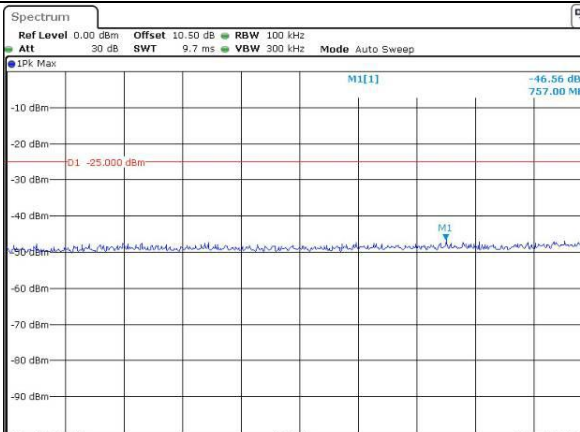
Lowest



Middle



Highest

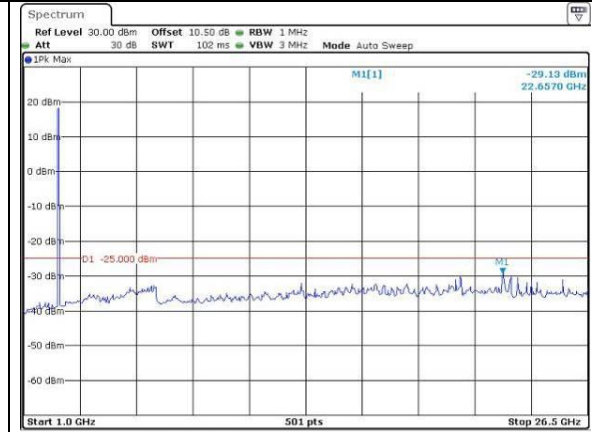
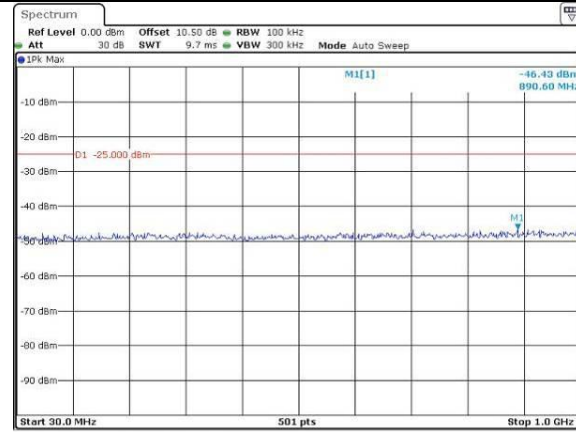


Spurious Emissions at Antenna Terminal

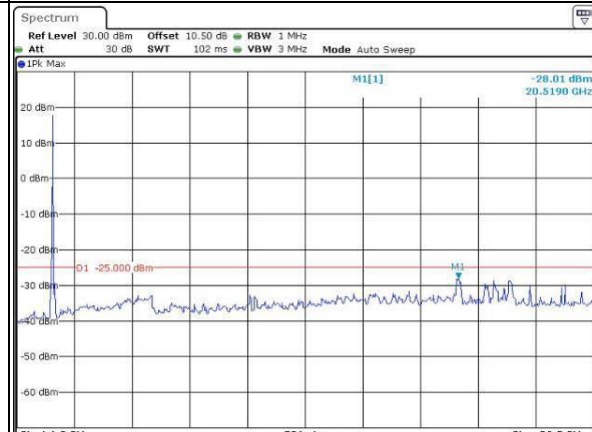
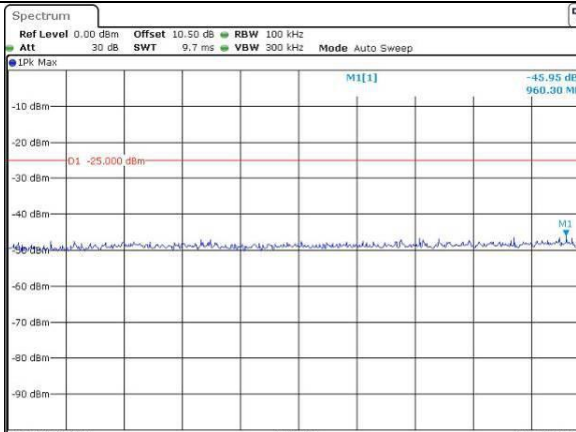
Channel

20MHz Bandwidth QPSK

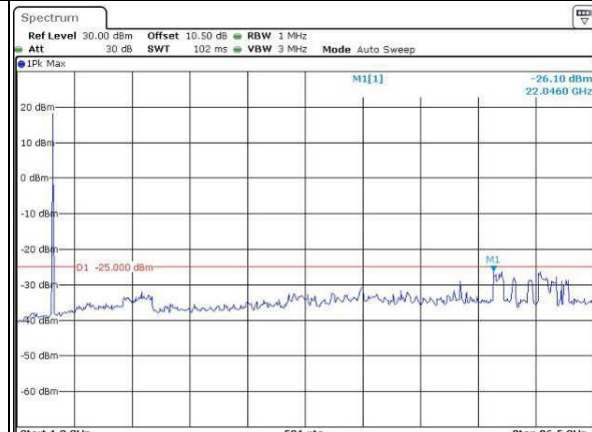
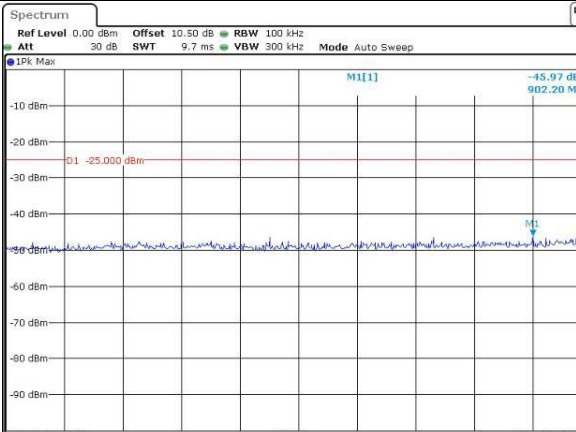
Lowest



Middle



Highest



Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 5MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:21:21</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:22:28</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:48:11</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:48:50</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 10MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:24:52</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:25:28</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:51:36</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:52:10</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
<p>QPSK 15MHz</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:27:57</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:30:43</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:54:26</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:55:02</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
QPSK 20MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20,DEC,2023 13:33:08</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20,DEC,2023 13:33:51</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22,NOV,2023 15:58:11</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22,NOV,2023 15:58:45</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 5MHz		

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 10MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:26:08</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:27:00</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:52:46</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:53:20</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 15MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:31:25</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:32:01</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:55:40</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:56:14</p>

Out of band emission, Band Edge

Mode	Lowest/1RB0	Highest/1RBmax
16QAM 20MHz	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:34:27</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 20.DEC.2023 13:35:12</p>
	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:59:22</p>	<p>ProjectNo.:CR231167220 Tester:Len Huang Date: 22.NOV.2023 15:59:59</p>

4.13 Antenna Port Test Data and Results for LTE Band 40

Serial Number:	2DMI-1	Test Date:	2023/11/22~2023/12/20
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	24.3~26	Relative Humidity: (%)	40~55	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	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	/	2312.5
10MHz	/	2310	/
5MHz	2352.5	/	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	23.05	/	23.29	22.22	24
	RB1#13	23.07	/	23.26		
	RB1#24	23.09	/	23.26		
	RB15#0	22.13	/	22.10		
	RB15#10	22.07	/	22.12		
	RB25#0	22.10	/	22.09		
5MHz 16QAM	RB1#0	22.11	/	22.13	21.07	24
	RB1#13	22.14	/	22.05		
	RB1#24	22.14	/	22.06		
	RB15#0	21.14	/	21.03		
	RB15#10	21.11	/	21.03		
	RB25#0	21.16	/	21.08		
10MHz QPSK	RB1#0	/	23.14	/	22.07	24
	RB1#25	/	23.14	/		
	RB1#49	/	23.07	/		
	RB25#0	/	22.11	/		
	RB25#25	/	22.06	/		
	RB50#0	/	22.05	/		
10MHz 16QAM	RB1#0	/	22.32	/	21.26	24
	RB1#25	/	22.33	/		
	RB1#49	/	22.29	/		
	RB25#0	/	21.12	/		
	RB25#25	/	21.08	/		
	RB50#0	/	21.06	/		

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	/	23.04	/	22.04	24
	RB1#25	/	23.11	/		
	RB1#49	/	23.03	/		
	RB25#0	/	22.06	/		
	RB25#25	/	22.09	/		
	RB50#0	/	22.10	/		