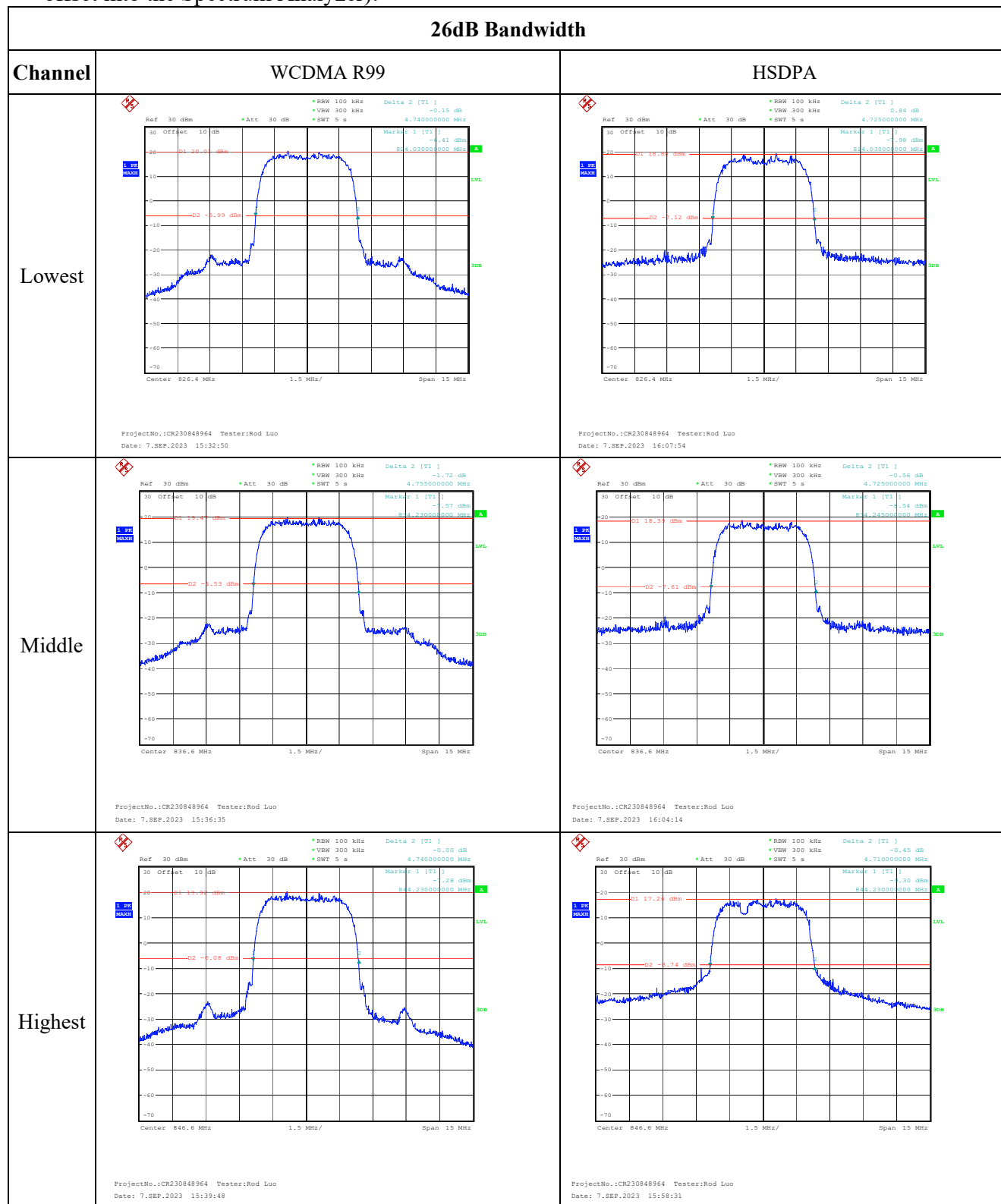


Test Plots(Note: The 10 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):

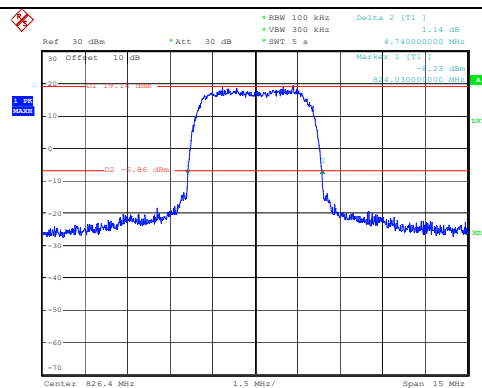


26dB Bandwidth

Channel

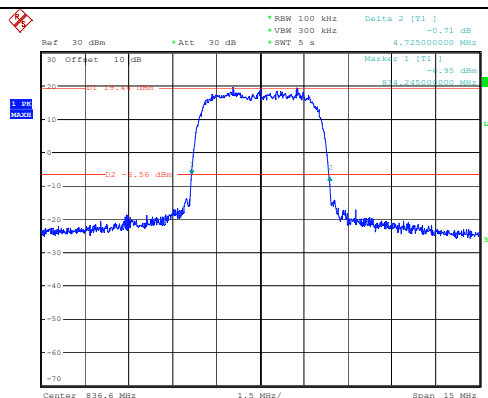
HSUPA

Lowest



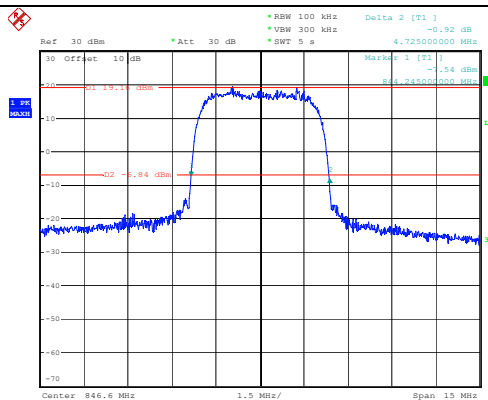
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:12:58

Middle



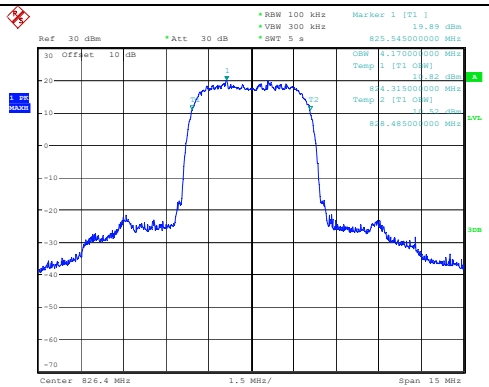
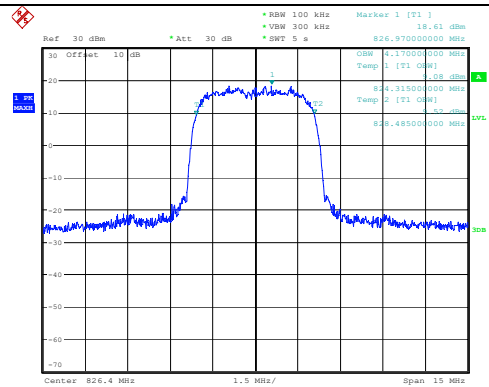
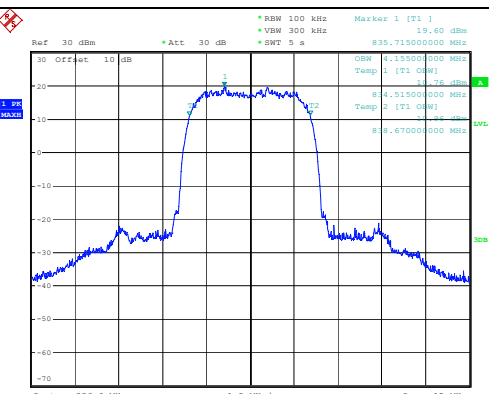
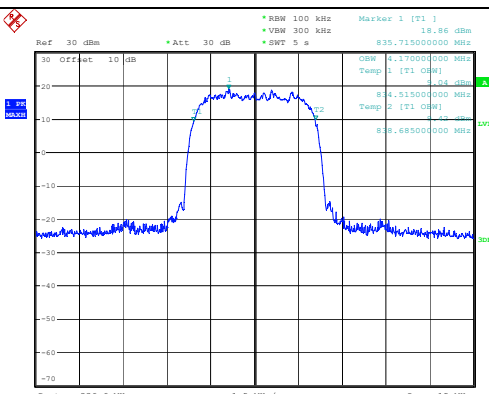
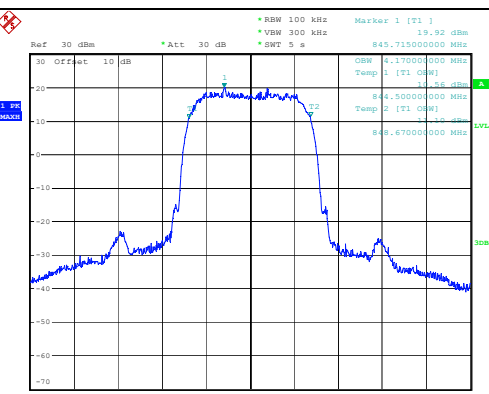
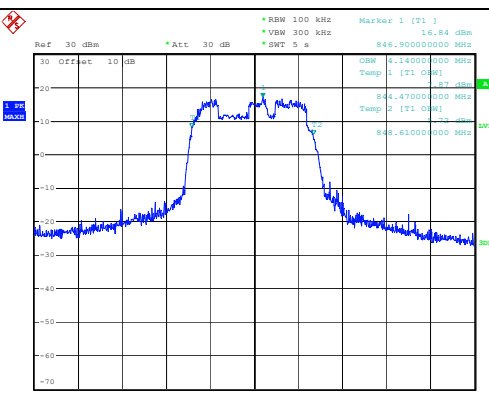
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:16:52

Highest



ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:20:36

Occupied Bandwidth

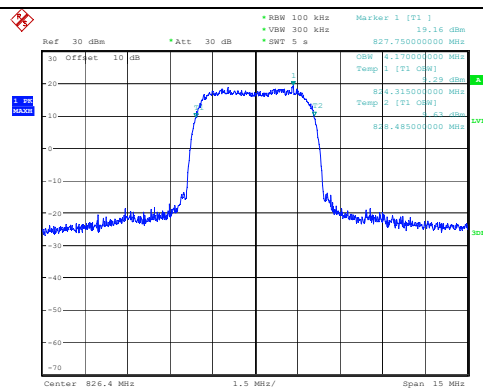
Channel	WCDMA R99	HSDPA
Lowest	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 19.59 dBm 825.545000000 MHz OSW 4.170000000 MHz Temp 1 [T1] OSW 19.59 dBm 826.400000000 MHz Temp 2 [T1] OSW 19.59 dBm 826.400000000 MHz Center 826.4 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:32:09	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 18.61 dBm 826.470000000 MHz OSW 4.170000000 MHz Temp 1 [T1] OSW 18.61 dBm 826.470000000 MHz Temp 2 [T1] OSW 18.61 dBm 826.470000000 MHz Center 826.4 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 16:07:12
Middle	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 19.60 dBm 835.715000000 MHz OSW 4.150000000 MHz Temp 1 [T1] OSW 19.60 dBm 836.600000000 MHz Temp 2 [T1] OSW 19.60 dBm 836.600000000 MHz Center 836.6 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:32:08	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 18.86 dBm 835.715000000 MHz OSW 4.150000000 MHz Temp 1 [T1] OSW 18.86 dBm 836.600000000 MHz Temp 2 [T1] OSW 18.86 dBm 836.600000000 MHz Center 836.6 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 16:03:32
Highest	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 19.92 dBm 845.715000000 MHz OSW 4.170000000 MHz Temp 1 [T1] OSW 19.92 dBm 846.600000000 MHz Temp 2 [T1] OSW 19.92 dBm 846.600000000 MHz Center 846.6 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:39:22	 Ref 30 dBm *Att 30 dB *RSW 100 kHz *VSW 300 kHz *SWT 5 s Marker 1 [T1] 16.84 dBm 846.900000000 MHz OSW 4.140000000 MHz Temp 1 [T1] OSW 16.84 dBm 846.900000000 MHz Temp 2 [T1] OSW 16.84 dBm 846.900000000 MHz Center 846.6 MHz 1.5 MHz/ Span 15 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:56:49

Occupied Bandwidth

Channel

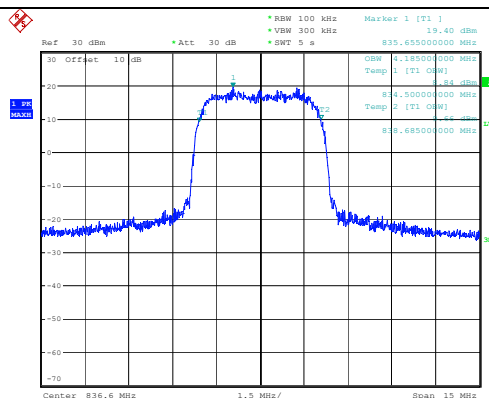
HSUPA

Lowest



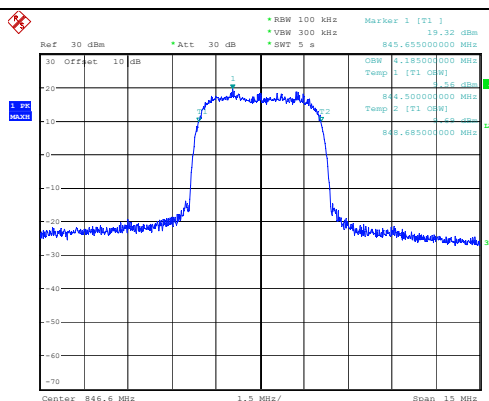
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:12:18

Middle



ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:15:56

Highest



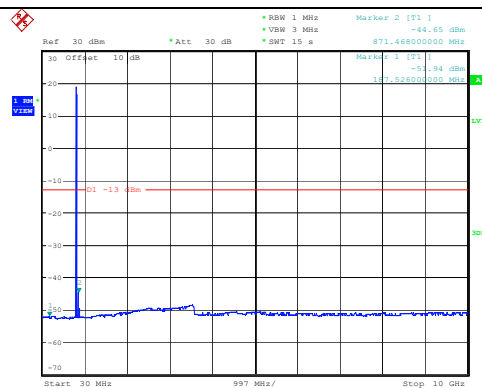
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 16:19:54

Spurious Emissions at Antenna Terminal

Channel

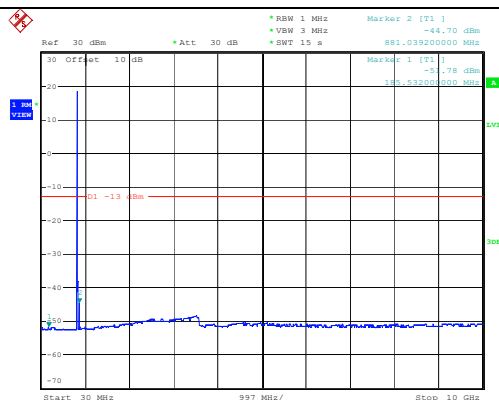
WCDMA R99

Lowest



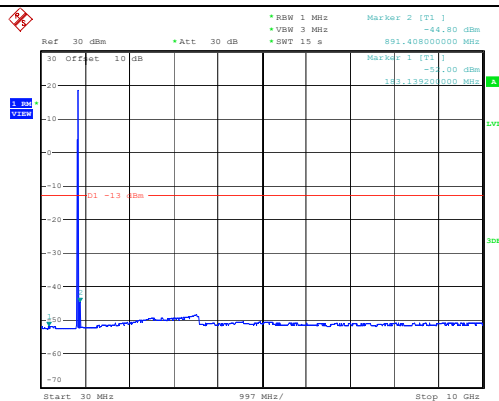
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 15:34:04

Middle



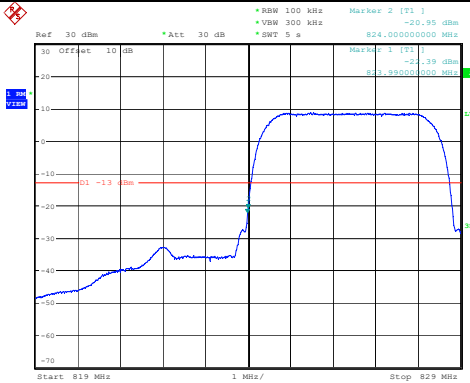
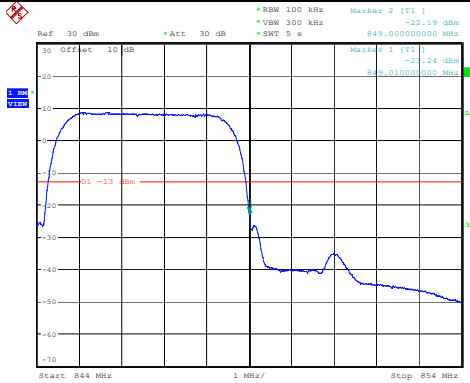
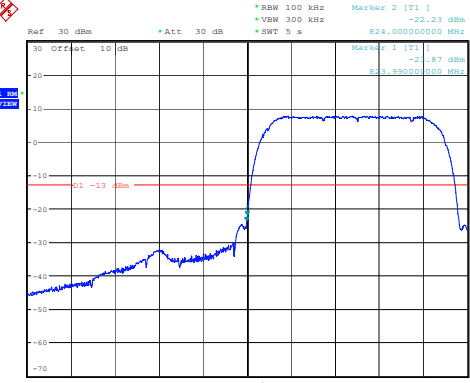
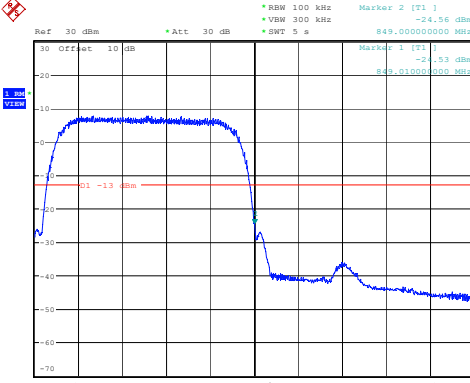
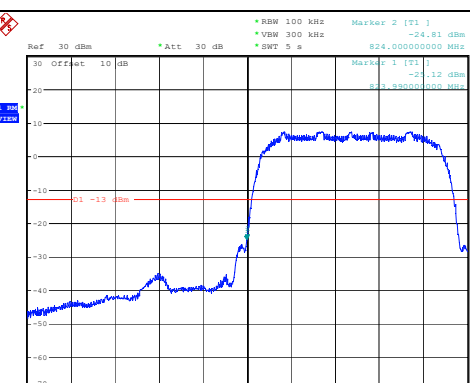
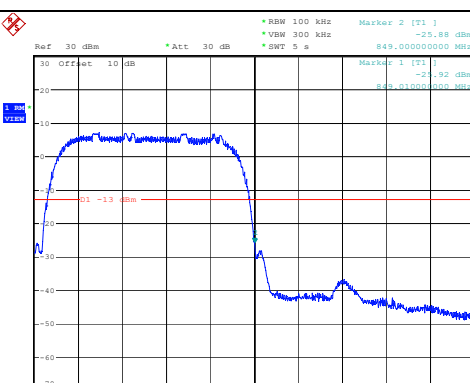
ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 15:37:22

Highest



ProjectNo.:CR230848964 Tester:Rod Luo
Date: 7.SEP.2023 15:41:01

Out of band emission, Band Edge

Mode	Lowest	Highest
R99	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 824.00000000 MHz -20.39 dBm Start 819 MHz 1 MHz/ Stop 829 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:33:16	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 849.00000000 MHz -22.19 dBm Start 844 MHz 1 MHz/ Stop 854 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 15:40:14
HSUPA	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 824.00000000 MHz -22.87 dBm Start 819 MHz 1 MHz/ Stop 829 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 16:13:24	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 849.00000000 MHz -24.56 dBm Start 844 MHz 1 MHz/ Stop 854 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 16:21:02
HSDPA	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 824.00000000 MHz -25.81 dBm Start 819 MHz 1 MHz/ Stop 829 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 7.SEP.2023 16:08:21	 Ref 30 dBm *Att 30 dB *RBW 100 kHz *VBW 300 kHz *SWT 5 s Marker 2 [T1] 849.00000000 MHz -25.88 dBm Start 844 MHz 1 MHz/ Stop 854 MHz ProjectNo.:CR230848964 Tester:Rod Luo Date: 19.SEP.2023 17:15:30

4.6 Antenna Port Test Data and Results for LTE Band 2

Serial Number:	2A93-1	Test Date:	2023/9/9
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	28.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.2
----------------------	------	---------------------------	----	------------------------	-------

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
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
Weinschel	Power Splitter	1515	RA914	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1850.7	1880	1909.3
3MHz	1851.5	1880	1908.5
5MHz	1852.5	1880	1907.5
10MHz	1855	1880	1905
15MHz	1857.5	1880	1902.5
20MHz	1860	1880	1900

Test Data:**FCC§2.1046;§ 24.232****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		
1.4MHz QPSK	RB1#0	17.21	17.03	17.22	16.03	33
	RB1#3	17.42	17.20	17.38		
	RB1#5	17.23	17.06	17.25		
	RB3#0	17.40	17.13	17.34		
	RB3#3	17.43	17.09	17.36		
	RB6#0	16.36	16.13	16.30		
1.4MHz 16QAM	RB1#0	16.24	16.04	16.31	15.13	33
	RB1#3	16.32	16.25	16.53		
	RB1#5	16.27	16.05	16.34		
	RB3#0	16.38	16.27	16.35		
	RB3#3	16.46	16.27	16.33		
	RB6#0	15.31	15.17	15.40		
3MHz QPSK	RB1#0	17.31	17.09	17.25	15.92	33
	RB1#8	17.24	17.03	17.32		
	RB1#14	17.22	17.05	17.26		
	RB6#0	16.21	16.09	16.27		
	RB6#9	16.27	16.06	16.21		
	RB15#0	16.25	16.06	16.21		
3MHz 16QAM	RB1#0	16.18	16.63	16.37	15.24	33
	RB1#8	16.30	16.64	16.35		
	RB1#14	16.22	16.61	16.35		
	RB6#0	15.26	15.17	15.33		
	RB6#9	15.23	15.15	15.31		
	RB15#0	15.33	15.16	15.21		
5MHz QPSK	RB1#0	17.22	17.00	17.18	15.93	33
	RB1#13	17.26	17.13	17.33		
	RB1#24	17.17	16.99	17.20		
	RB15#0	16.20	16.10	16.28		
	RB15#10	16.26	16.08	16.21		
	RB25#0	16.23	16.08	16.22		
5MHz 16QAM	RB1#0	16.49	16.08	16.08	15.20	33
	RB1#13	16.60	16.19	16.22		
	RB1#24	16.42	16.08	16.09		
	RB15#0	15.28	15.13	15.35		
	RB15#10	15.28	15.14	15.25		
	RB25#0	15.28	15.12	15.29		

10MHz QPSK	RB1#0	17.28	17.13	17.17	16.03	33
	RB1#25	17.42	17.29	17.43		
	RB1#49	17.21	17.07	17.27		
	RB25#0	16.30	16.13	16.30		
	RB25#25	16.30	16.11	16.22		
	RB50#0	16.25	16.11	16.25		
10MHz 16QAM	RB1#0	16.40	16.11	16.74	15.56	33
	RB1#25	16.51	16.25	16.96		
	RB1#49	16.30	16.08	16.81		
	RB25#0	15.36	15.22	15.38		
	RB25#25	15.33	15.17	15.31		
	RB50#0	15.30	15.18	15.32		
15MHz QPSK	RB1#0	17.26	16.99	17.14	15.86	33
	RB1#38	17.26	17.09	17.25		
	RB1#74	17.06	16.97	17.18		
	RB36#0	16.37	16.16	16.22		
	RB36#39	16.24	16.08	16.19		
	RB75#0	16.26	16.10	16.22		
15MHz 16QAM	RB1#0	16.67	16.60	16.24	15.27	33
	RB1#38	16.63	16.67	16.33		
	RB1#74	16.45	16.55	16.29		
	RB36#0	15.31	15.16	15.28		
	RB36#39	15.21	15.09	15.24		
	RB75#0	15.26	15.15	15.23		
20MHz QPSK	RB1#0	17.17	16.92	16.98	15.97	33
	RB1#50	17.37	17.26	17.35		
	RB1#99	16.96	16.86	17.04		
	RB50#0	16.28	16.14	16.17		
	RB50#50	16.18	16.01	16.06		
	RB100#0	16.25	16.12	16.18		
20MHz 16QAM	RB1#0	16.33	16.43	16.24	15.41	33
	RB1#50	16.50	16.81	16.57		
	RB1#99	16.08	16.36	16.29		
	RB50#0	15.28	15.20	15.21		
	RB50#50	15.21	15.09	15.10		
	RB100#0	15.27	15.14	15.20		
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	5.10	6.12	6.23	13
	RB100#0	5.42	5.25	5.28	13
20MHz 16QAM	RB1#0	7.42	6	7.19	13
	RB100#0	6.17	6.03	6.23	13
				Result:	Pass

FCC §2.1049, §24.238: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	1.096	1.102	1.290	1.308	1.320
1.4MHz 16QAM	1.096	1.096	1.09	1.296	1.320	1.29
3MHz QPSK	2.683	2.683	2.683	2.880	2.880	2.880
3MHz 16QAM	2.683	2.683	2.683	2.880	2.892	2.868
5MHz QPSK	4.511	4.491	4.511	4.960	4.960	4.940
5MHz 16QAM	4.511	4.511	4.471	4.960	4.960	4.940
10MHz QPSK	8.942	8.942	8.942	9.600	9.680	9.560
10MHz 16QAM	8.942	8.942	8.942	9.600	9.560	9.640
15MHz QPSK	13.473	13.473	13.533	14.700	14.760	14.760
15MHz 16QAM	13.533	13.473	13.533	14.640	14.640	14.700
20MHz QPSK	17.964	17.964	17.964	19.200	19.440	19.120
20MHz 16QAM	17.884	17.884	17.964	19.360	19.200	19.200

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

FCC §2.1051, § 24.238 (a):Spurious Emissions at Antenna Terminal

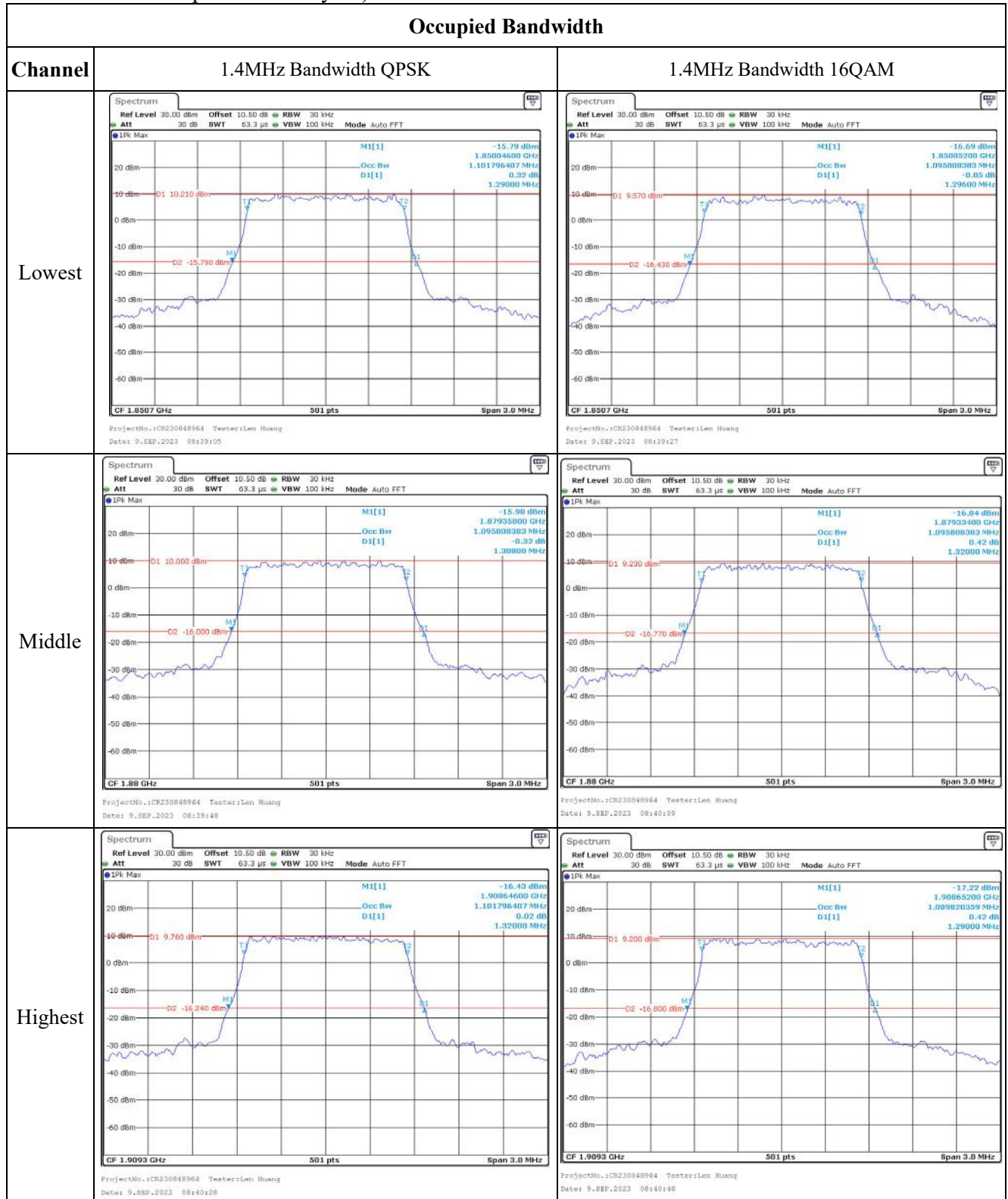
Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
----------------	--

FCC §2.1051, § 24.238 (a):Out of band emission, Band Edge

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

FCC §2.1055, §24.235: 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	3.85	1850.333	1850.000	1909.830	1910.000
	-20	3.85	1850.299	1850.000	1909.747	1910.000
	-10	3.85	1850.287	1850.000	1909.826	1910.000
	0	3.85	1850.177	1850.000	1909.820	1910.000
	10	3.85	1850.229	1850.000	1909.802	1910.000
	20	3.85	1850.308	1850.000	1909.876	1910.000
	30	3.85	1850.218	1850.000	1909.728	1910.000
	40	3.85	1850.226	1850.000	1909.773	1910.000
	50	3.85	1850.137	1850.000	1909.732	1910.000
Frequency Stability vs. Voltage	20	3.35	1850.170	1850.000	1909.818	1910.000
	20	4.4	1850.336	1850.000	1909.817	1910.000
					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	3.85	1850.313	1850.000	1909.741	1910.000
	-20	3.85	1850.325	1850.000	1909.795	1910.000
	-10	3.85	1850.332	1850.000	1909.771	1910.000
	0	3.85	1850.315	1850.000	1909.758	1910.000
	10	3.85	1850.131	1850.000	1909.762	1910.000
	20	3.85	1850.312	1850.000	1909.814	1910.000
	30	3.85	1850.324	1850.000	1909.725	1910.000
	40	3.85	1850.218	1850.000	1909.861	1910.000
	50	3.85	1850.150	1850.000	1909.779	1910.000
Frequency Stability vs. Voltage	20	3.35	1850.128	1850.000	1909.846	1910.000
	20	4.4	1850.184	1850.000	1909.804	1910.000
					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):



Page 73 of 262

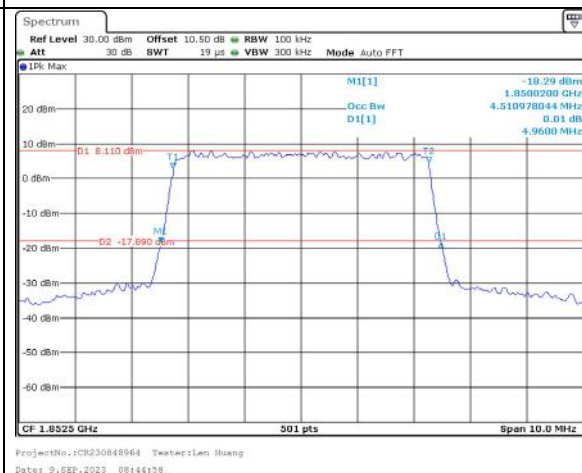
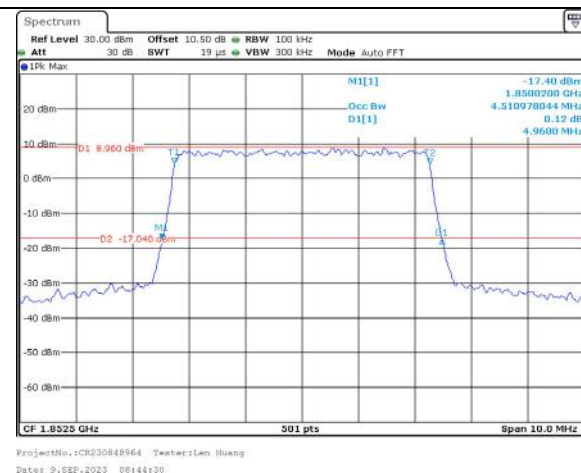
Occupied Bandwidth

Channel

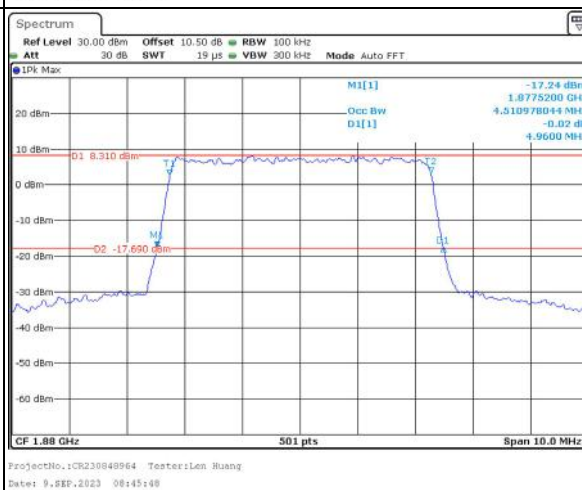
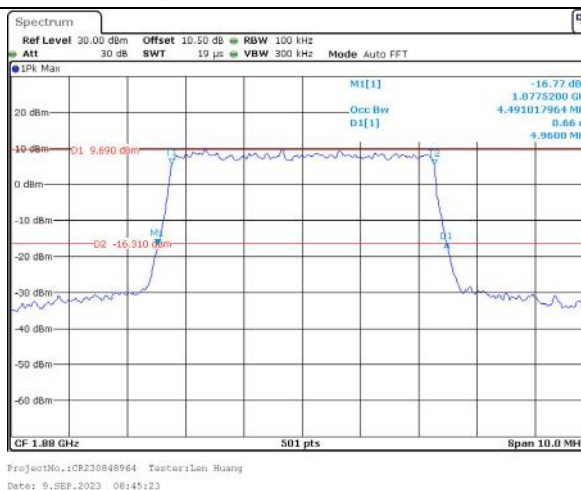
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

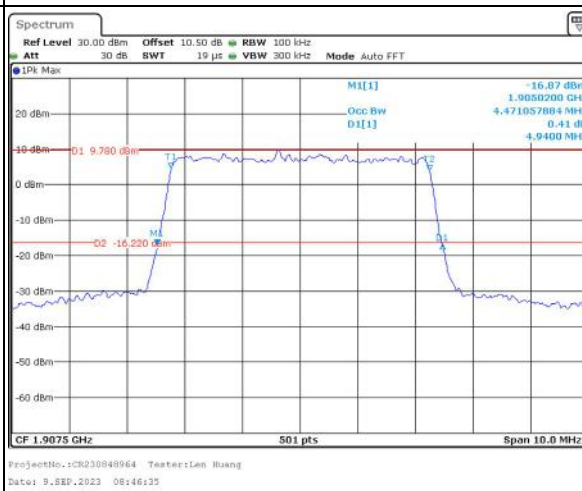
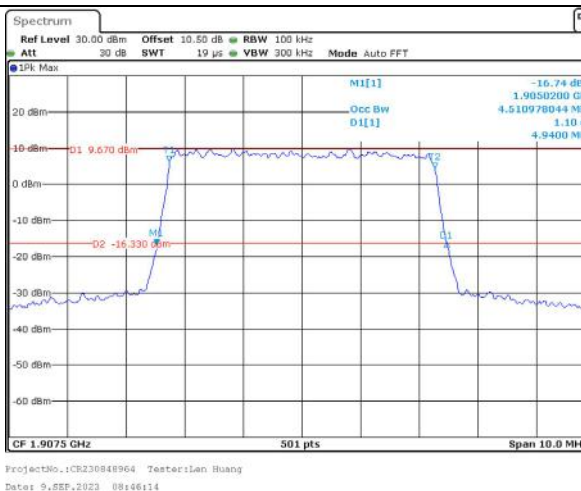
Lowest



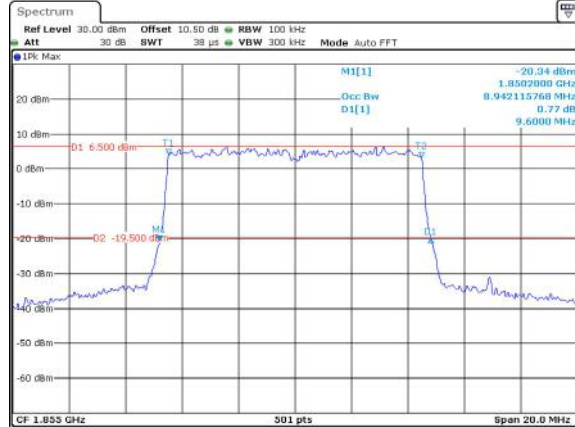
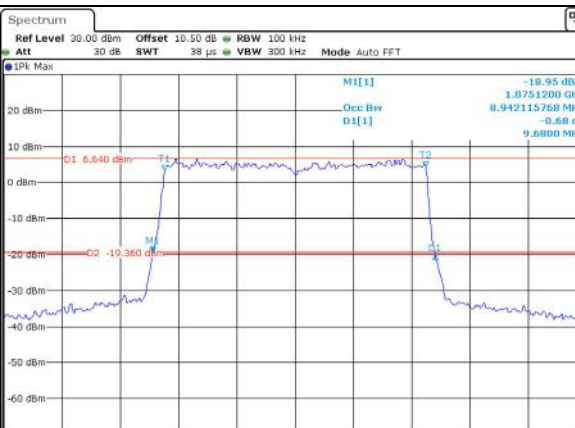
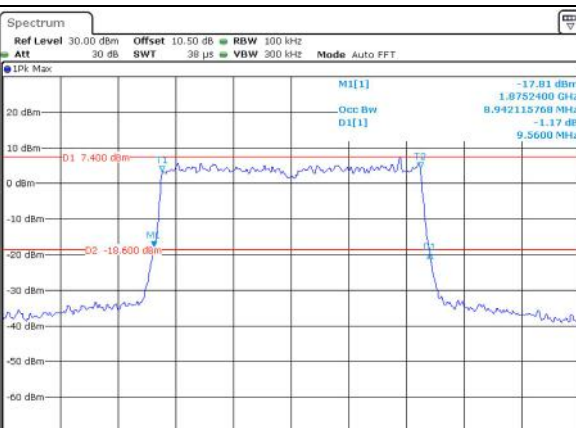
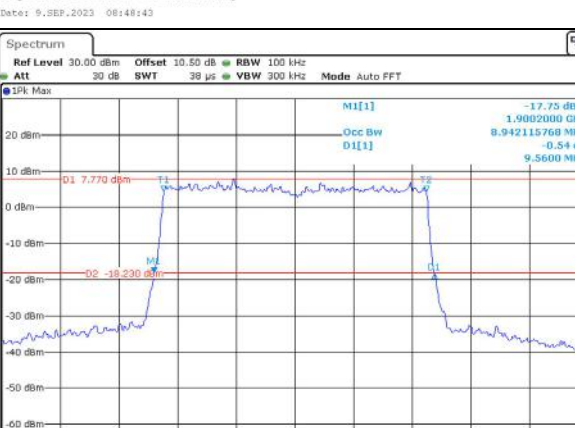
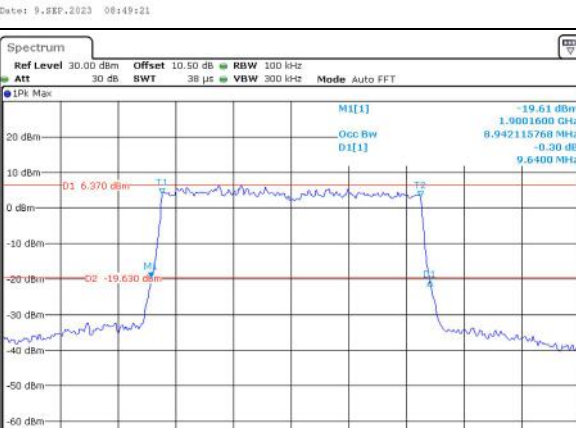
Middle



Highest



Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:47:39	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:48:07
Middle	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:48:43	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:49:21
Highest	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:49:54	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:50:28

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -16.02 dBm Occ Bw 13.473053892 MHz D1[1] -1.01 dB 14.7000 MHz CF 1.8575 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:51:43	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -17.15 dBm Occ Bw 13.532934132 MHz D1[1] -0.63 dB 14.6400 MHz CF 1.8575 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:52:21
Middle	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -16.84 dBm Occ Bw 13.473053892 MHz D1[1] -0.62 dB 14.7600 MHz CF 1.88 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:52:53	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -18.32 dBm Occ Bw 13.473053892 MHz D1[1] -1.65 dB 14.6400 MHz CF 1.88 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:53:18
Highest	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -14.99 dBm Occ Bw 13.532934132 MHz D1[1] -1.24 dB 14.7600 MHz CF 1.9025 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:53:43	Spectrum Ref Level 30.00 dBm Offset 10.50 dB RBW 300 kHz Att 30 dB SWT 12.7 μs VBW 1 MHz Mode Auto FFT IPK Max M1[1] -16.36 dBm Occ Bw 13.532934132 MHz D1[1] -1.80 dB 14.7000 MHz CF 1.9025 GHz 501 pts Span 30.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 08:54:17

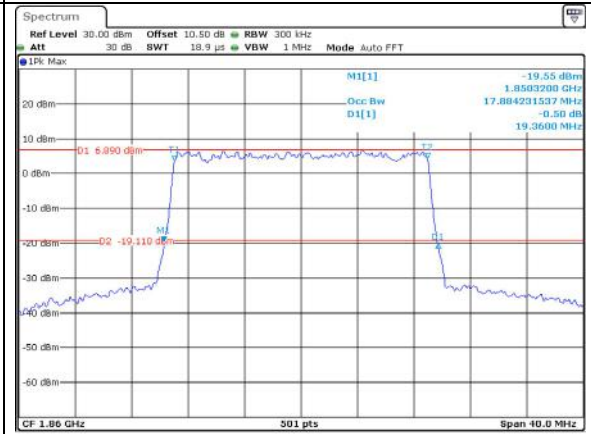
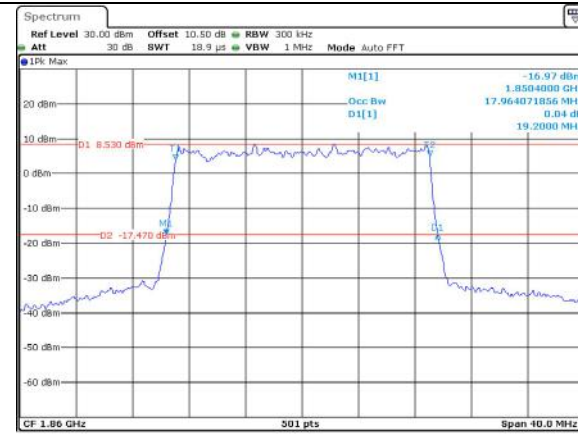
Occupied Bandwidth

Channel

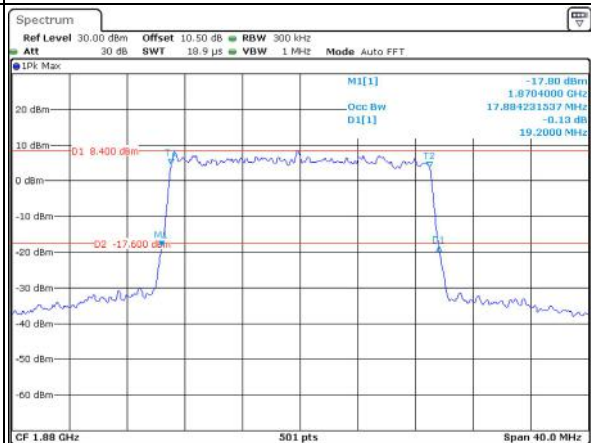
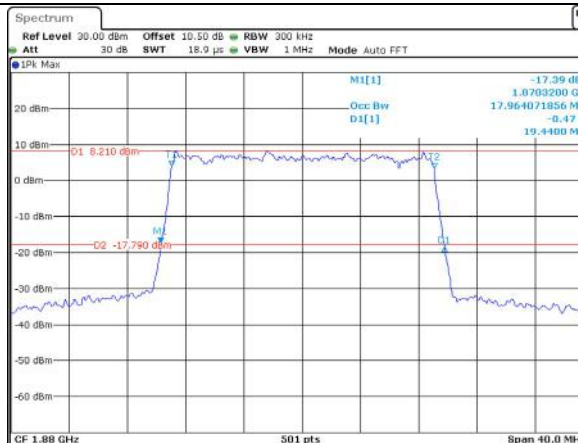
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

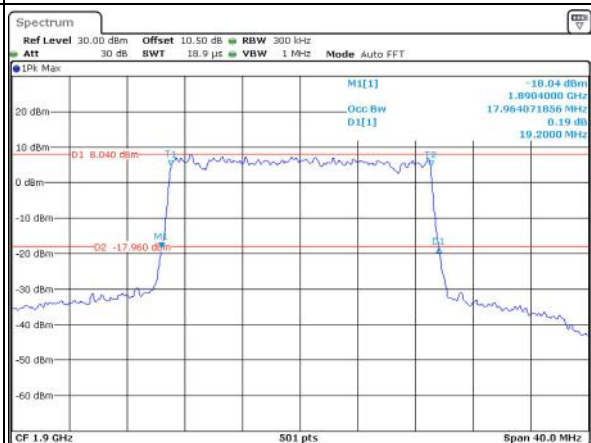
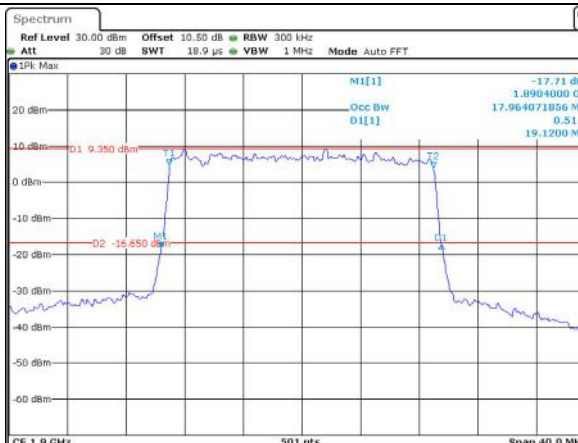
Lowest



Middle



Highest

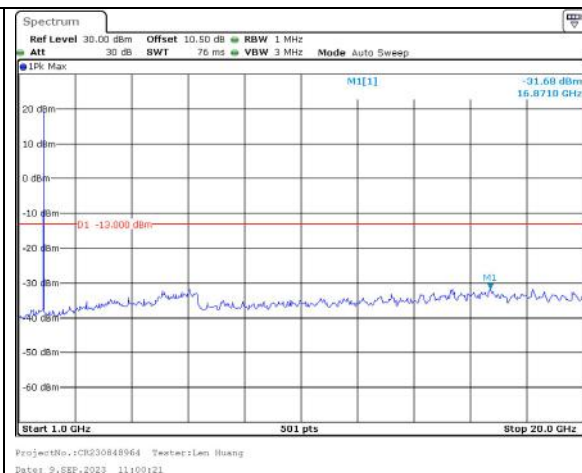
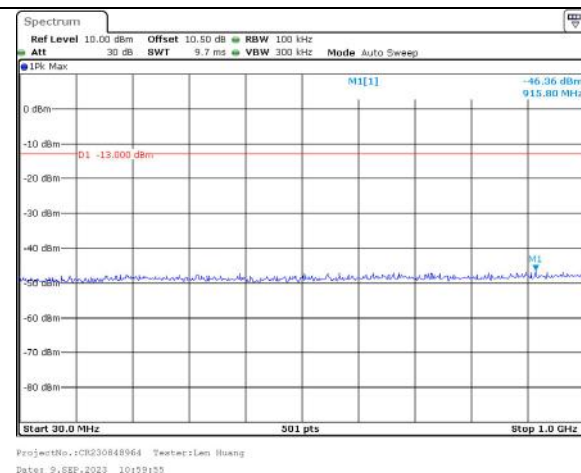


Spurious Emissions at Antenna Terminal

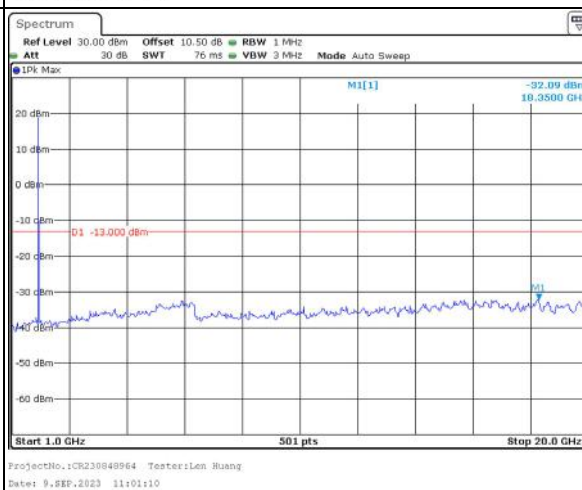
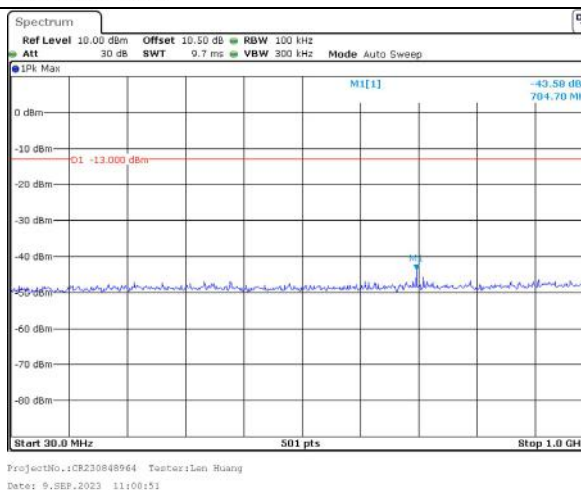
Channel

1.4MHz Bandwidth QPSK

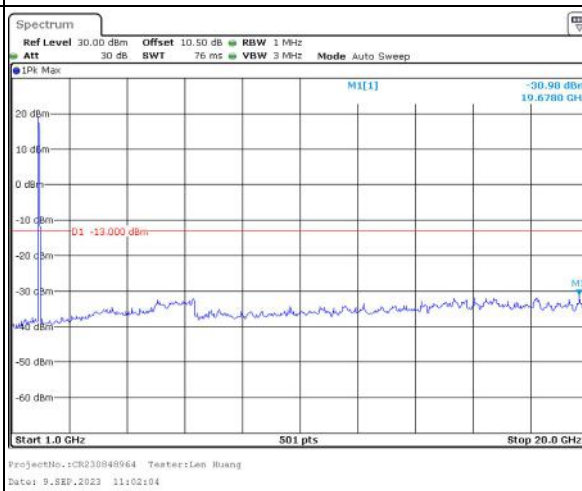
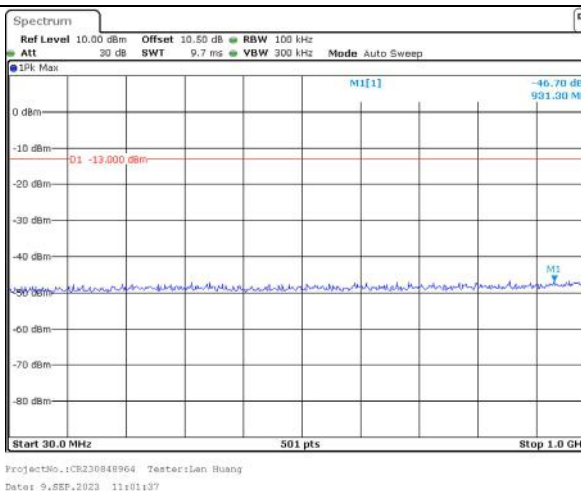
Lowest



Middle



Highest

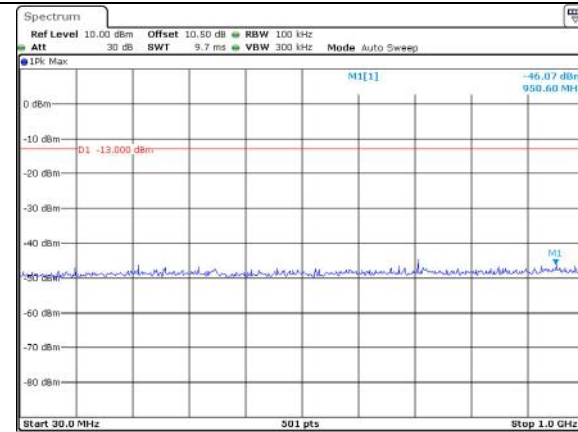


Spurious Emissions at Antenna Terminal

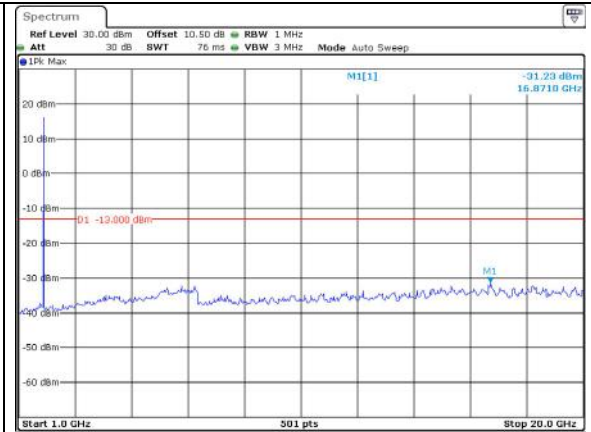
Channel

3MHz Bandwidth QPSK

Lowest

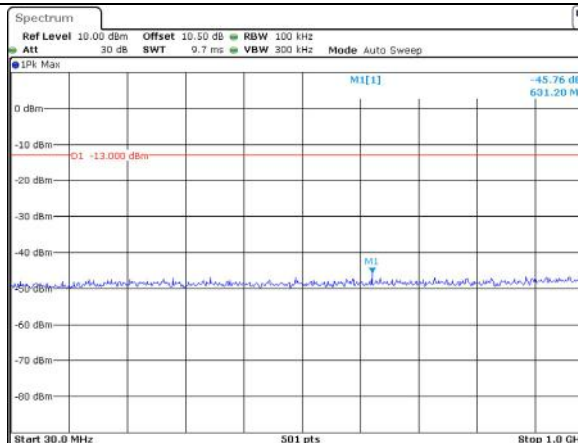


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:03:08

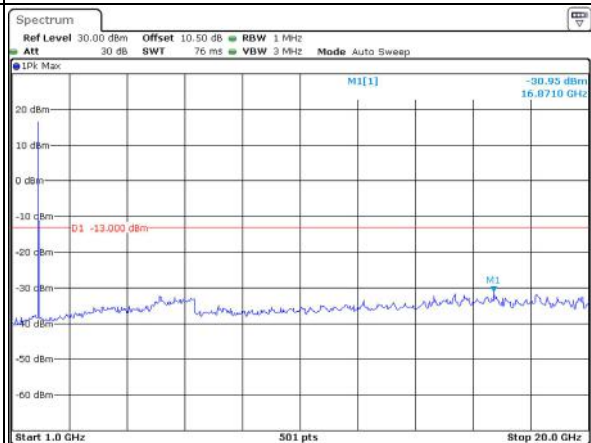


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:03:31

Middle

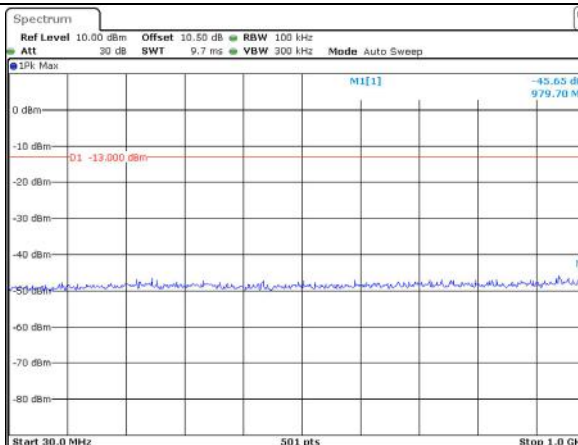


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:04:05

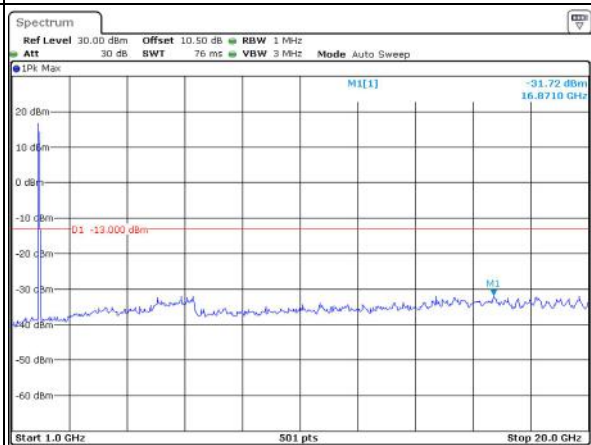


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:04:28

Highest



ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:04:55



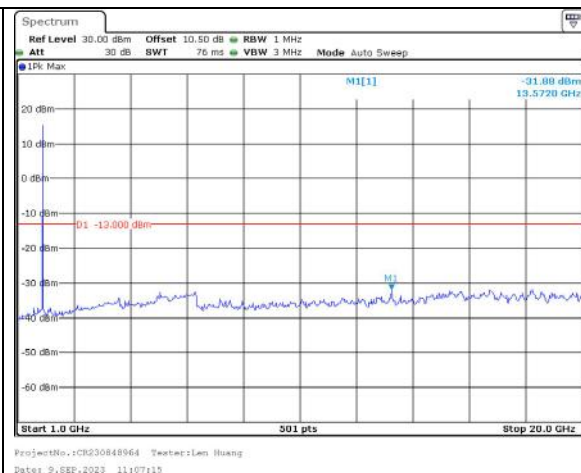
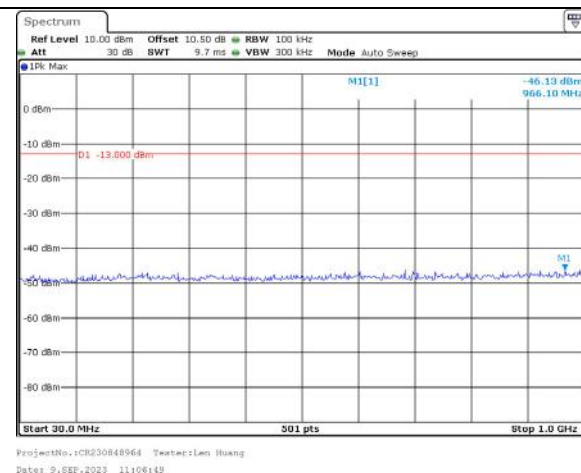
ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:05:21

Spurious Emissions at Antenna Terminal

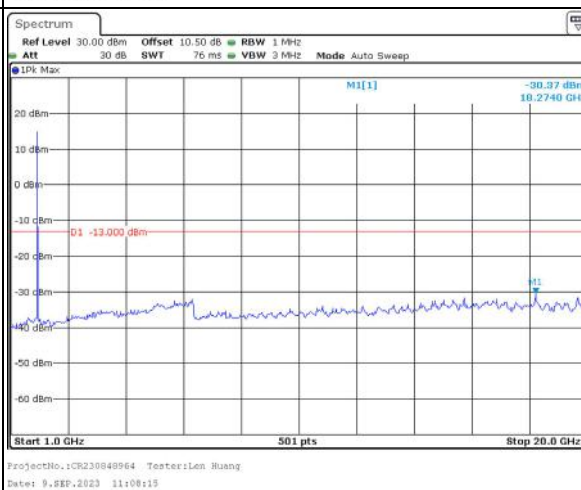
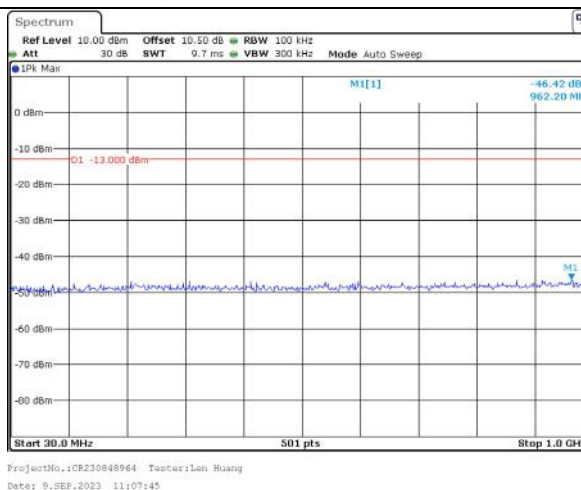
Channel

5MHz Bandwidth QPSK

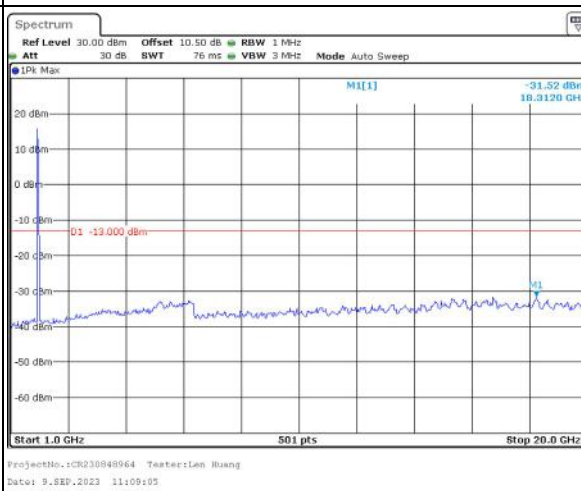
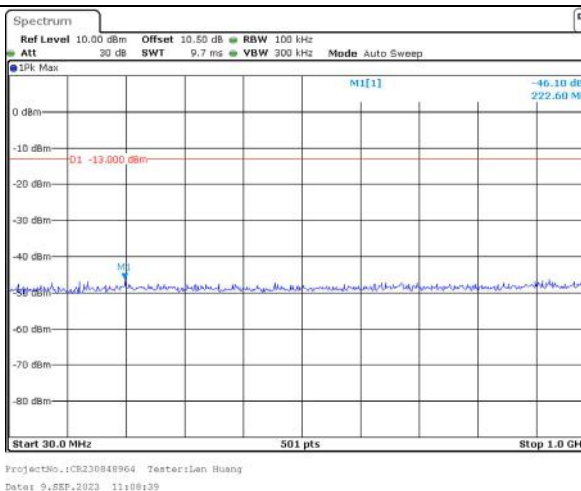
Lowest



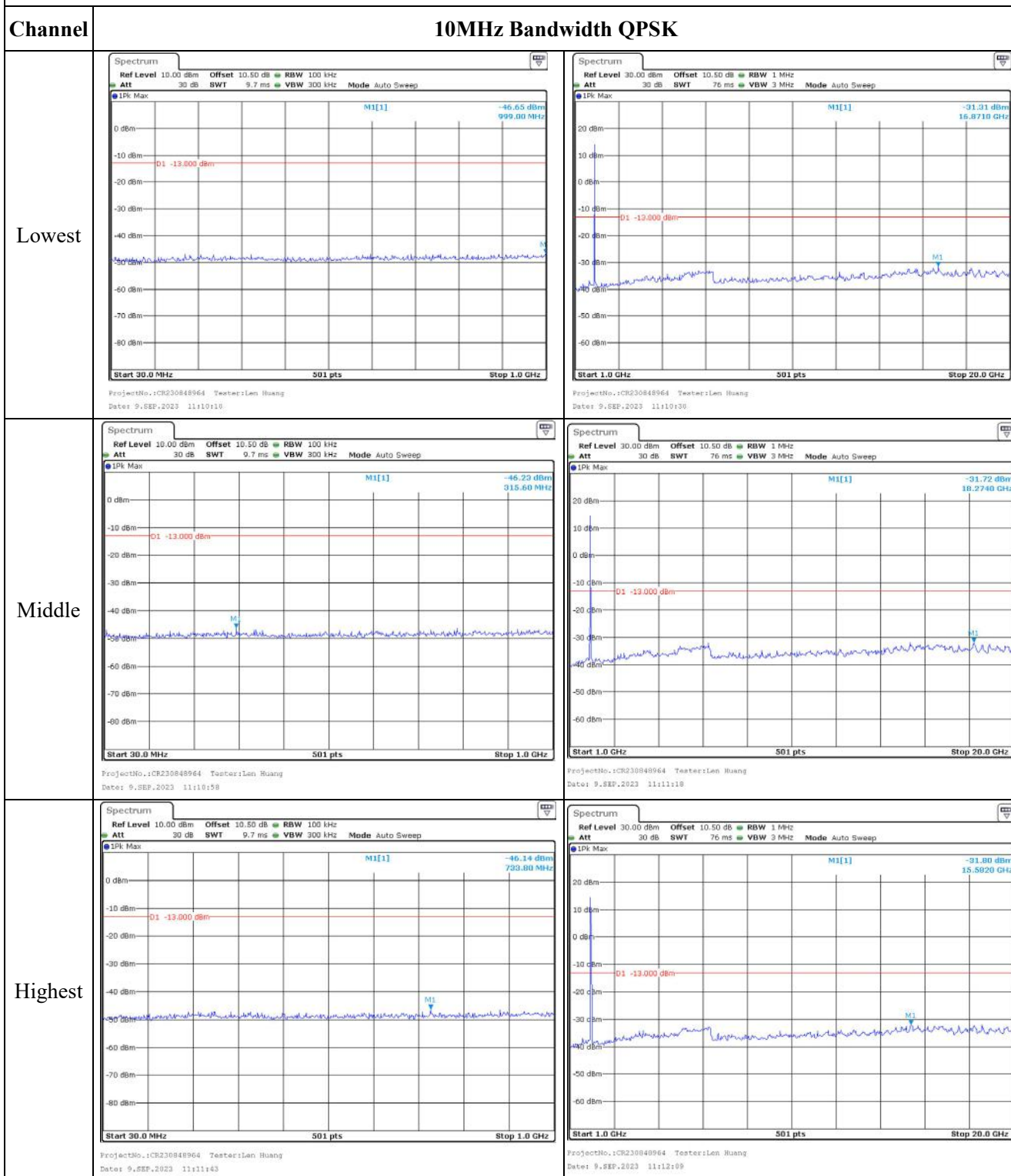
Middle



Highest



Spurious Emissions at Antenna Terminal

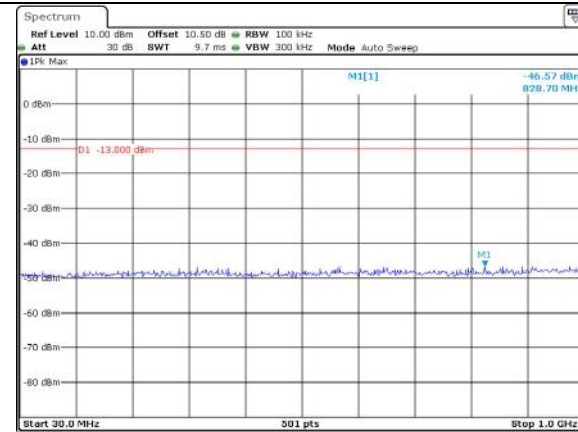


Spurious Emissions at Antenna Terminal

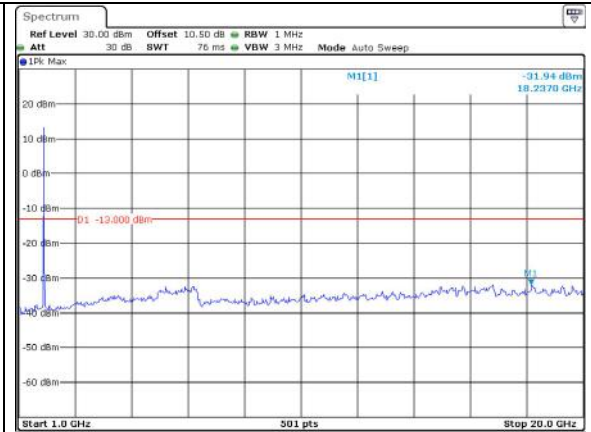
Channel

15MHz Bandwidth QPSK

Lowest

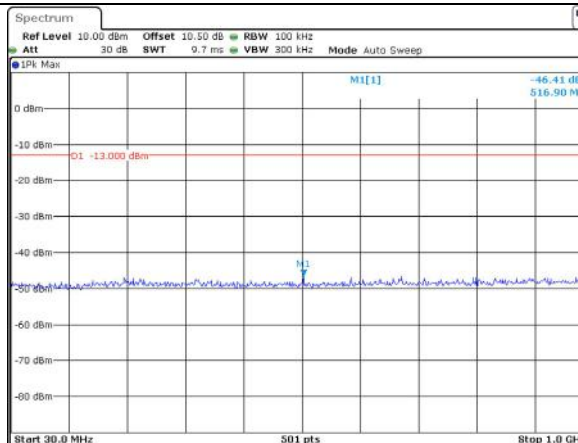


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:13:23

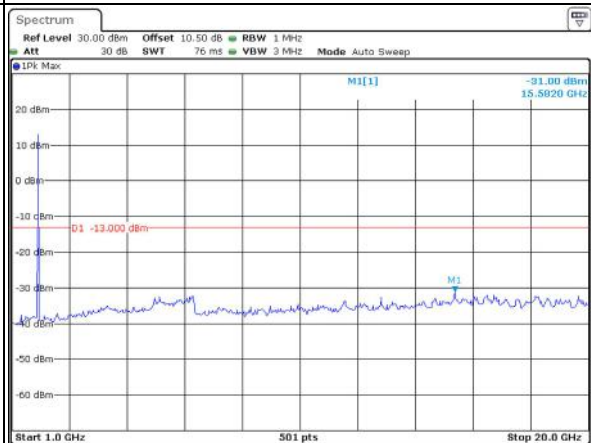


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:13:46

Middle

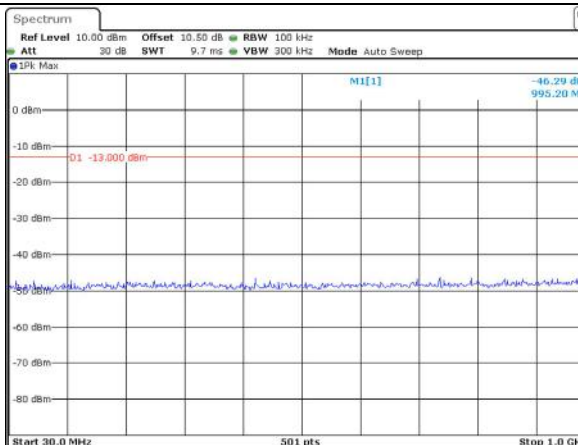


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:14:16

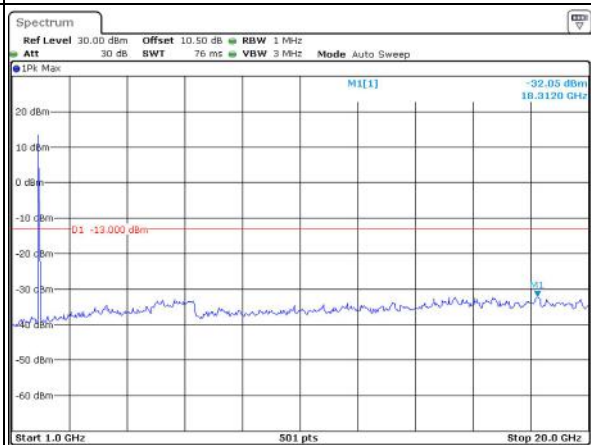


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:14:39

Highest



ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:15:16



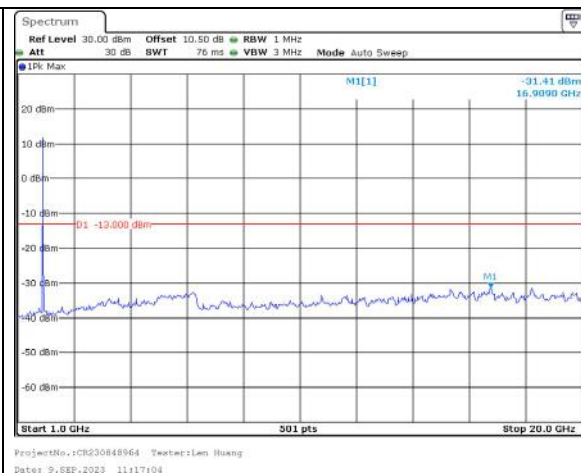
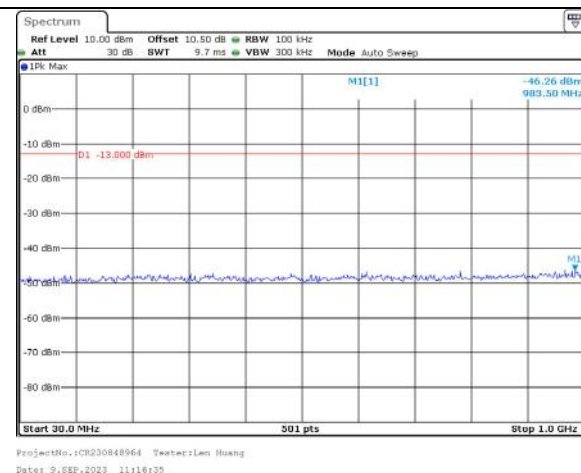
ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:15:36

Spurious Emissions at Antenna Terminal

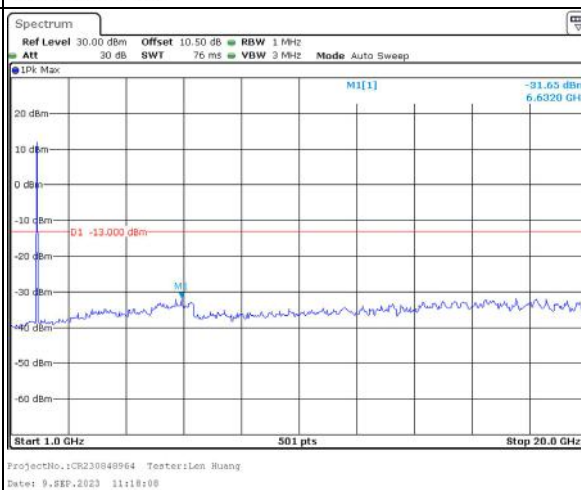
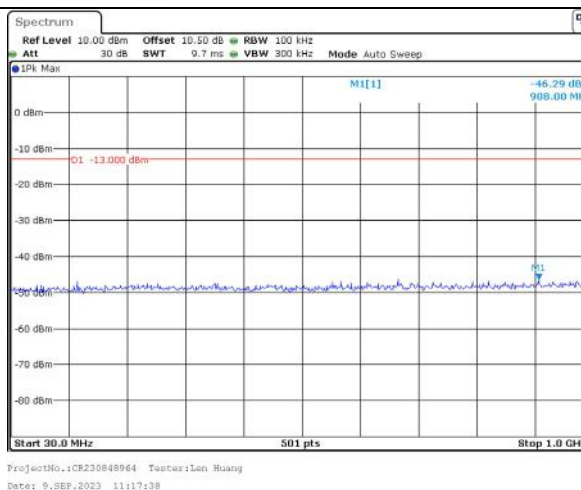
Channel

20MHz Bandwidth QPSK

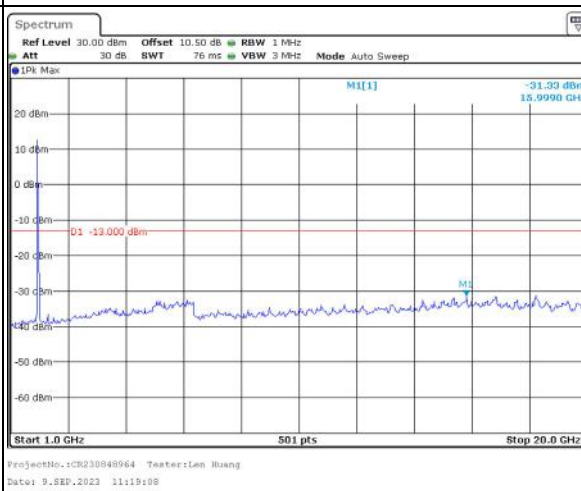
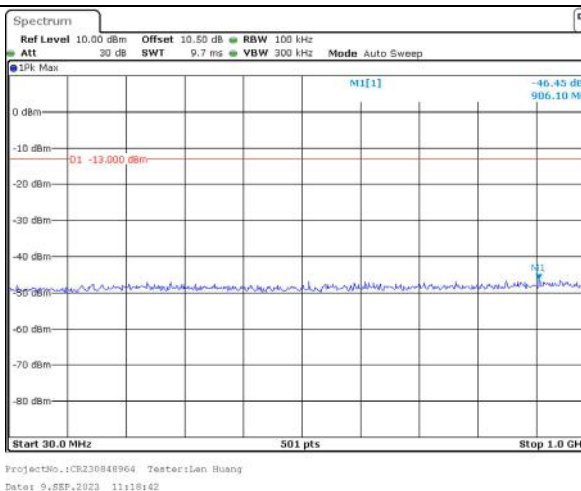
Lowest



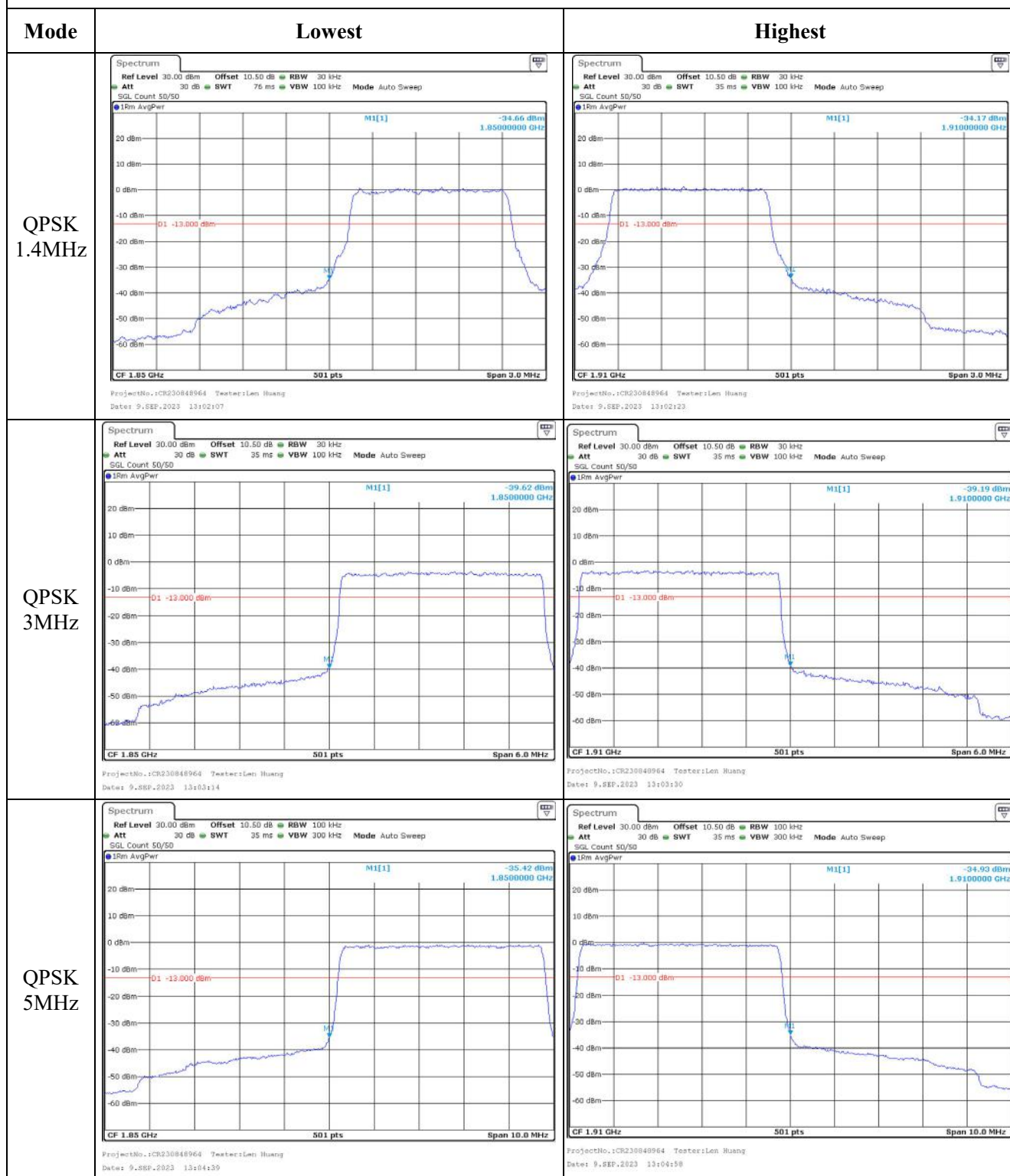
Middle



Highest



Out of band emission, Band Edge



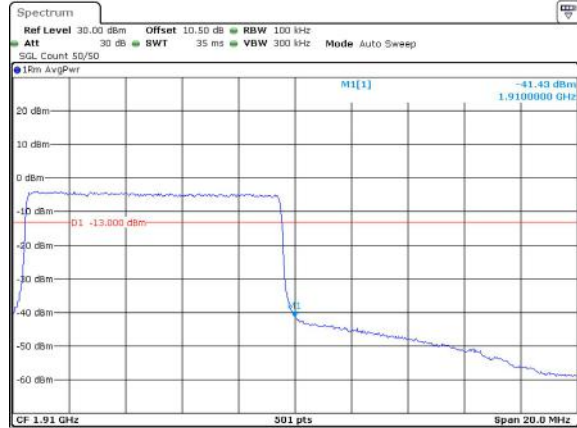
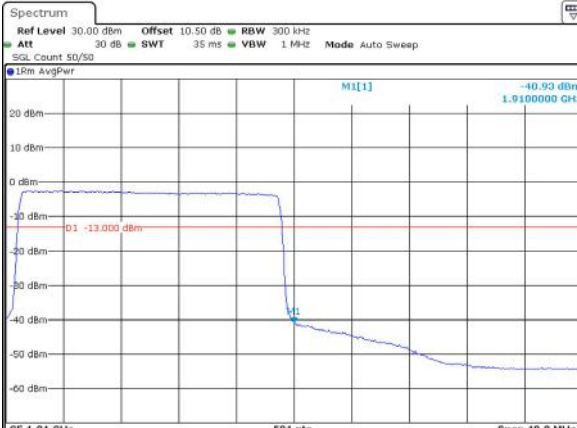
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:05:11	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:06:12
QPSK 15MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:07:17	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:07:41
QPSK 20MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:08:14	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:08:40

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:02:14	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:02:31
16QAM 3MHz	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:03:22	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:03:38
16QAM 5MHz	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:04:48	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:05:07

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:06:01	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:06:22
16QAM 15MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:07:28	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:07:53
16QAM 20MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:08:27	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:08:52

4.7 Antenna Port Test Data and Results for LTE Band 4

Serial Number:	2A93-1	Test Date:	2023/9/9
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	28.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.2
-------------------	------	------------------------	----	---------------------	-------

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
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
Weinschel	Power Splitter	1515	RA914	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

** Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).*

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	1710.7	1732.5	1754.3
3MHz	1711.5	1732.5	1753.5
5MHz	1712.5	1732.5	1752.5
10MHz	1715	1732.5	1750
15MHz	1717.5	1732.5	1747.5
20MHz	1720	1732.5	1745

Test Data:**FCC§2.1046;§ 27.50(d)(4)****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		
1.4MHz QPSK	RB1#0	18.79	18.89	18.78	17.86	30
	RB1#3	18.99	19.06	18.94		
	RB1#5	18.77	18.89	18.76		
	RB3#0	18.92	18.95	18.88		
	RB3#3	18.93	18.90	18.87		
	RB6#0	17.91	17.92	17.83		
1.4MHz 16QAM	RB1#0	17.80	17.90	17.91	16.95	30
	RB1#3	18.06	18.05	18.09		
	RB1#5	17.81	17.89	17.85		
	RB3#0	17.92	18.12	17.77		
	RB3#3	17.90	18.15	17.83		
	RB6#0	16.87	16.94	16.91		
3MHz QPSK	RB1#0	18.82	18.97	18.85	17.77	30
	RB1#8	18.81	18.97	18.85		
	RB1#14	18.79	18.90	18.80		
	RB6#0	17.83	17.89	17.78		
	RB6#9	17.84	17.88	17.82		
	RB15#0	17.83	17.90	17.80		
3MHz 16QAM	RB1#0	18.44	18.08	17.85	17.24	30
	RB1#8	18.40	18.06	17.88		
	RB1#14	18.37	18.04	17.82		
	RB6#0	16.97	16.96	16.79		
	RB6#9	16.92	16.98	16.77		
	RB15#0	16.97	16.94	16.92		
5MHz QPSK	RB1#0	18.77	18.83	18.77	17.8	30
	RB1#13	18.91	19.00	18.91		
	RB1#24	18.75	18.81	18.78		
	RB15#0	17.81	17.90	17.82		
	RB15#10	17.84	17.99	17.82		
	RB25#0	17.80	17.89	17.79		
5MHz 16QAM	RB1#0	18.03	17.93	17.67	17.01	30
	RB1#13	18.21	18.07	17.78		
	RB1#24	18.05	17.91	17.65		
	RB15#0	16.83	17.01	16.90		
	RB15#10	16.90	17.01	16.84		
	RB25#0	16.87	16.96	16.90		

Page 90 of 262

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	6.03	6.29	6.14	13
	RB100#0	5.48	5.51	5.42	13
20MHz 16QAM	RB1#0	7.54	6.41	7.13	13
	RB100#0	6.32	6.29	6.29	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	1.096	1.096	1.284	1.296	1.320
1.4MHz 16QAM	1.096	1.096	1.09	1.290	1.314	1.284
3MHz QPSK	2.683	2.683	2.683	2.880	2.868	2.880
3MHz 16QAM	2.683	2.683	2.683	2.868	2.904	2.880
5MHz QPSK	4.511	4.491	4.511	4.960	4.920	4.960
5MHz 16QAM	4.511	4.511	4.471	4.960	4.960	4.900
10MHz QPSK	8.942	8.942	8.942	9.560	9.560	9.680
10MHz 16QAM	8.942	8.942	8.942	9.600	9.560	9.520
15MHz QPSK	13.413	13.473	13.533	14.640	14.760	14.760
15MHz 16QAM	13.533	13.533	13.533	14.640	14.700	14.700
20MHz QPSK	17.884	17.884	17.964	19.200	19.280	19.200
20MHz 16QAM	17.884	17.964	17.964	19.200	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

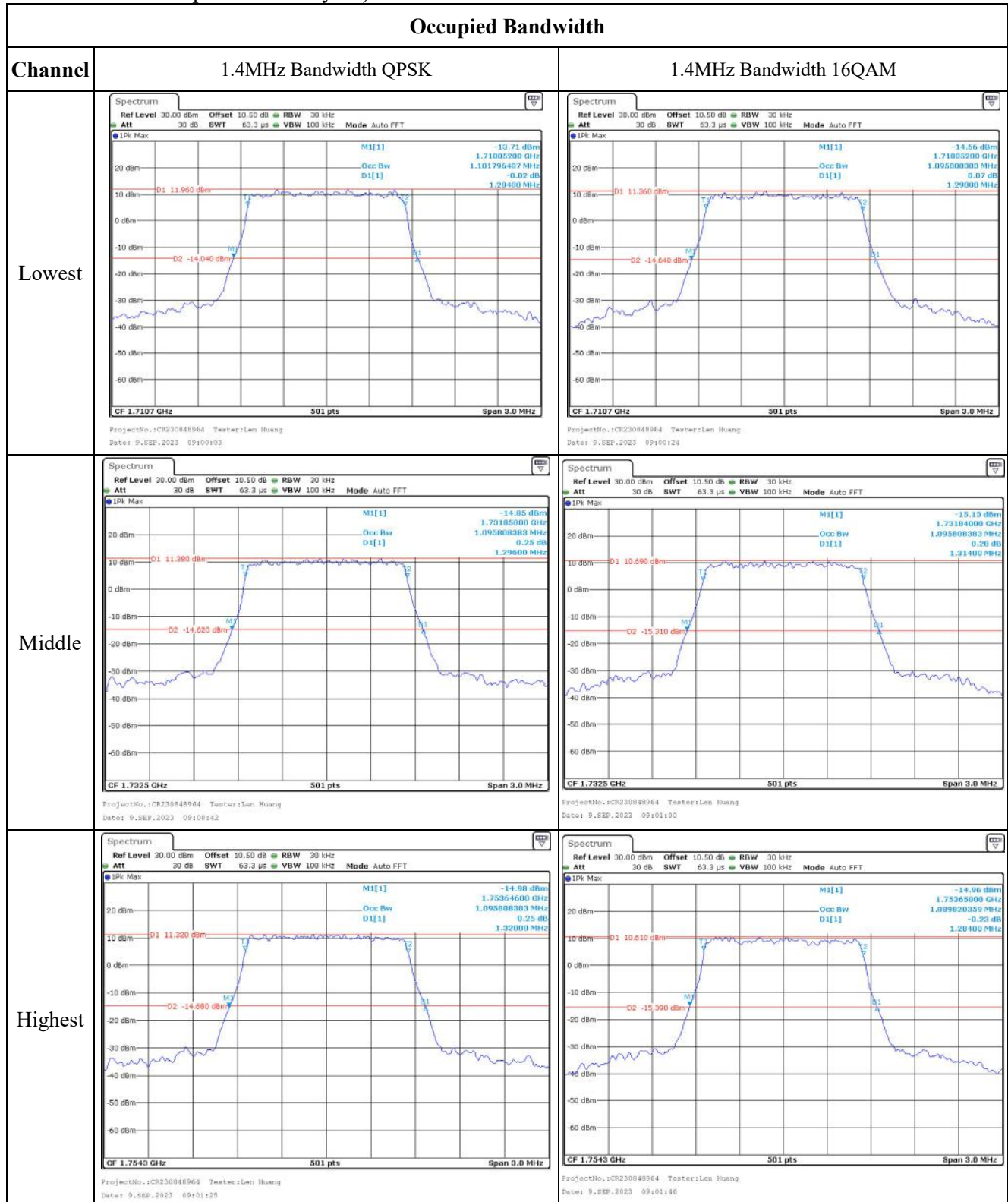
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
----------------	---

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	3.85	1710.136	1710.00	1754.835	1755
	-20	3.85	1710.313	1710.00	1754.732	1755
	-10	3.85	1710.307	1710.00	1754.802	1755
	0	3.85	1710.192	1710.00	1754.824	1755
	10	3.85	1710.207	1710.00	1754.796	1755
	20	3.85	1710.156	1710.00	1754.871	1755
	30	3.85	1710.297	1710.00	1754.884	1755
	40	3.85	1710.212	1710.00	1754.746	1755
	50	3.85	1710.281	1710.00	1754.824	1755
Frequency Stability vs. Voltage	20	3.35	1710.311	1710.00	1754.816	1755
	20	4.4	1710.266	1710.00	1754.720	1755
					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	3.85	1710.276	1710.00	1754.756	1755
	-20	3.85	1710.172	1710.00	1754.807	1755
	-10	3.85	1710.162	1710.00	1754.742	1755
	0	3.85	1710.240	1710.00	1754.873	1755
	10	3.85	1710.154	1710.00	1754.853	1755
	20	3.85	1710.332	1710.00	1754.768	1755
	30	3.85	1710.326	1710.00	1754.853	1755
	40	3.85	1710.238	1710.00	1754.751	1755
	50	3.85	1710.336	1710.00	1754.834	1755
Frequency Stability vs. Voltage	20	3.35	1710.212	1710.00	1754.872	1755
	20	4.4	1710.323	1710.00	1754.837	1755
					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	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -17.43 dBm Occ BW 3.000 MHz D1[1] 1.710600 GHz D1[1] 2.682634731 MHz D1[1] -0.08 dB D1[1] 2.8800 MHz CF 1.7115 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:02:30	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -17.92 dBm Occ BW 3.000 MHz D1[1] 1.710600 GHz D1[1] 2.682634731 MHz D1[1] -0.49 dB D1[1] 2.8800 MHz CF 1.7115 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:02:32
Middle	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -17.14 dBm Occ BW 3.000 MHz D1[1] 1.7310600 GHz D1[1] 2.682634731 MHz D1[1] -1.53 dB D1[1] 2.8800 MHz CF 1.7325 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:03:17	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -18.45 dBm Occ BW 3.000 MHz D1[1] 1.7310600 GHz D1[1] 2.682634731 MHz D1[1] -0.55 dB D1[1] 2.9040 MHz CF 1.7325 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:03:38
Highest	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -17.42 dBm Occ BW 3.000 MHz D1[1] 1.7520600 GHz D1[1] 2.682634731 MHz D1[1] -0.80 dB D1[1] 2.8800 MHz CF 1.7535 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:04:03	Ref Level 30.00 dBm Offset 10.50 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT 1Pk Max M1[1] -18.44 dBm Occ BW 3.000 MHz D1[1] 1.7520600 GHz D1[1] 2.682634731 MHz D1[1] -0.55 dB D1[1] 2.8800 MHz CF 1.7535 GHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 09:04:21

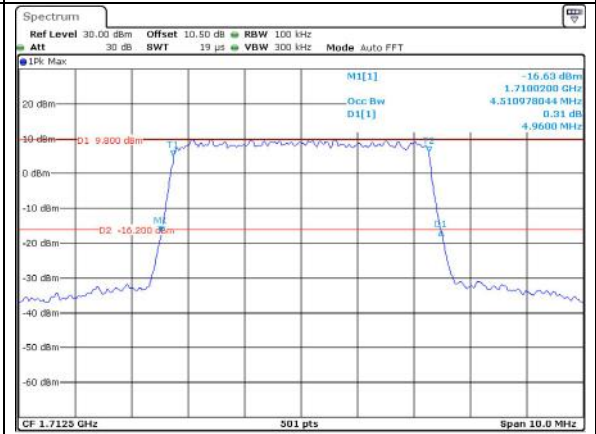
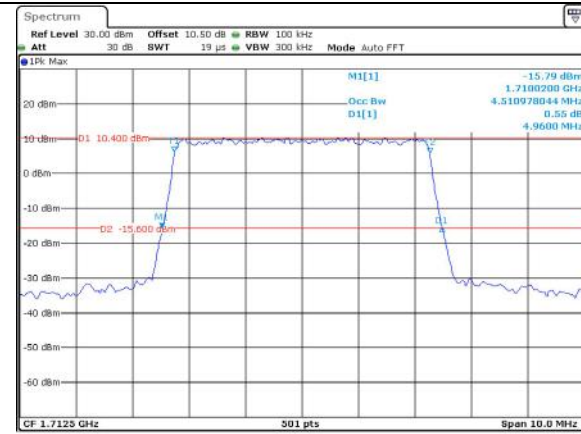
Occupied Bandwidth

Channel

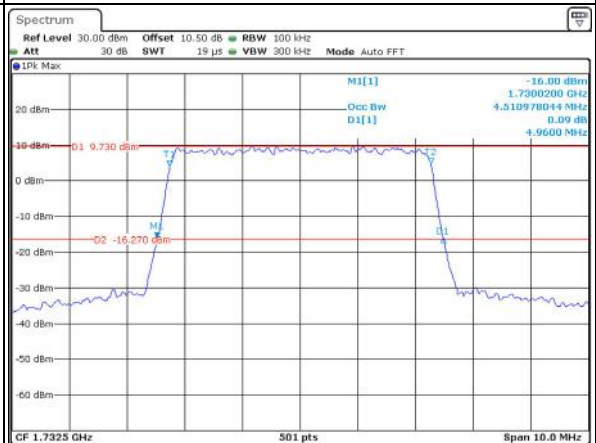
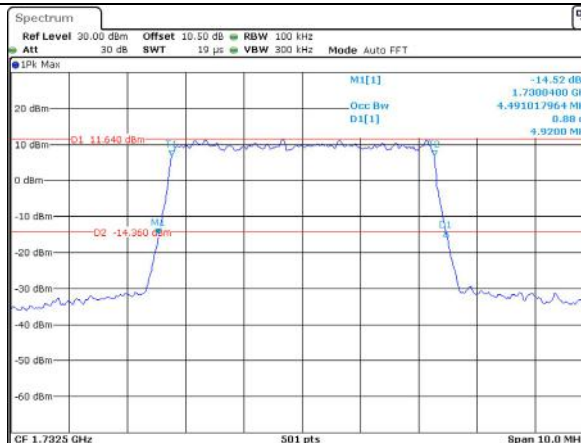
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

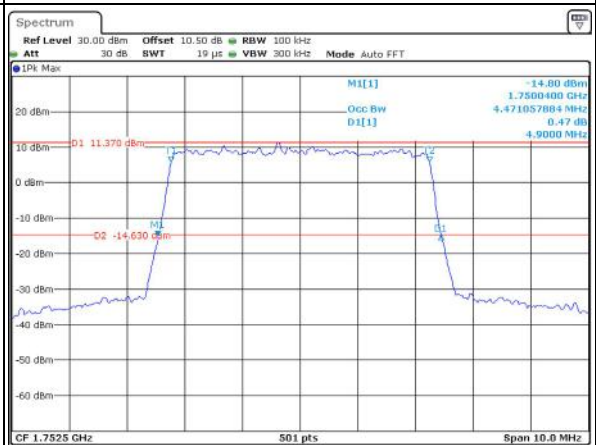
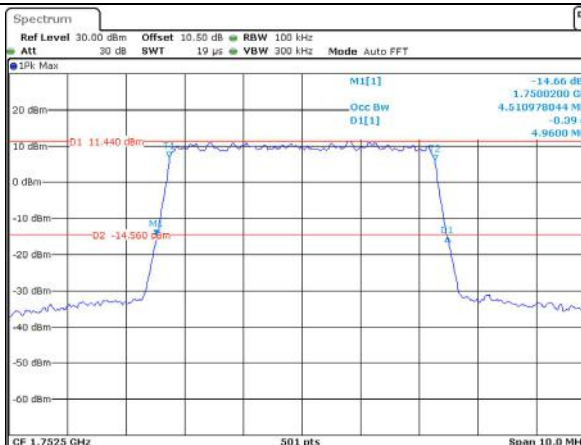
Lowest



Middle



Highest



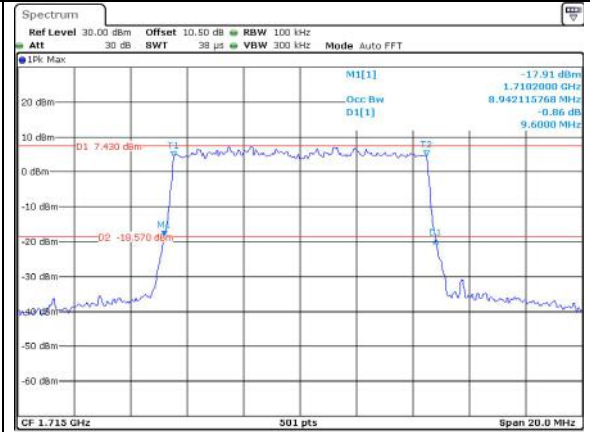
Occupied Bandwidth

Channel

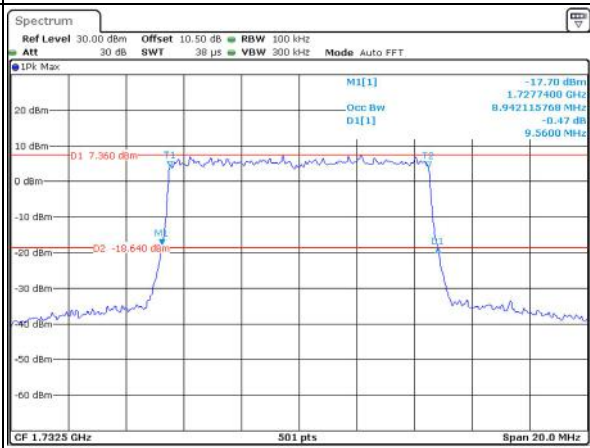
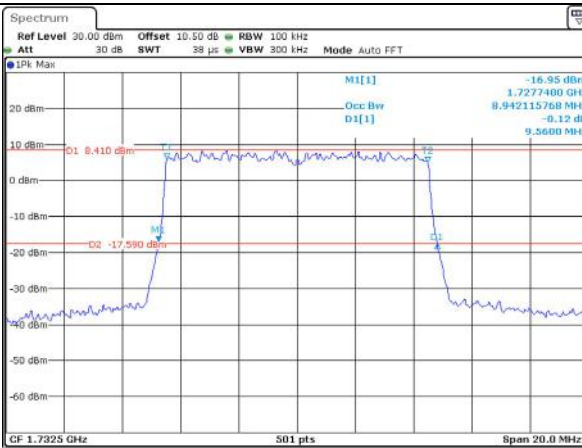
10MHz Bandwidth QPSK

10MHz Bandwidth 16QAM

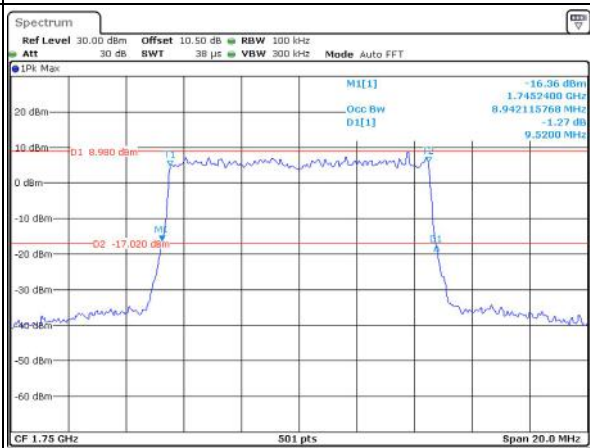
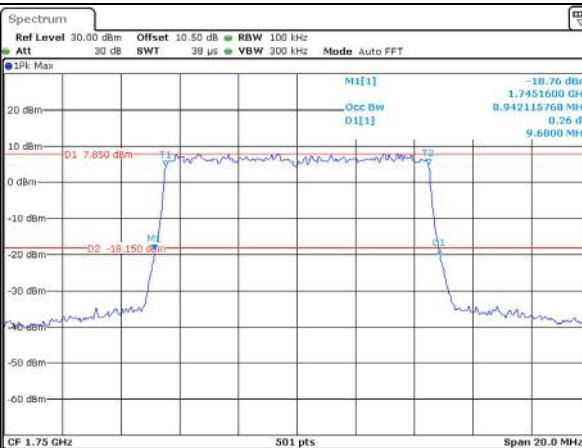
Lowest



Middle



Highest



Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:11:12	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:11:16
Middle	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:12:24	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:13:05
Highest	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:13:37	ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 09:14:01

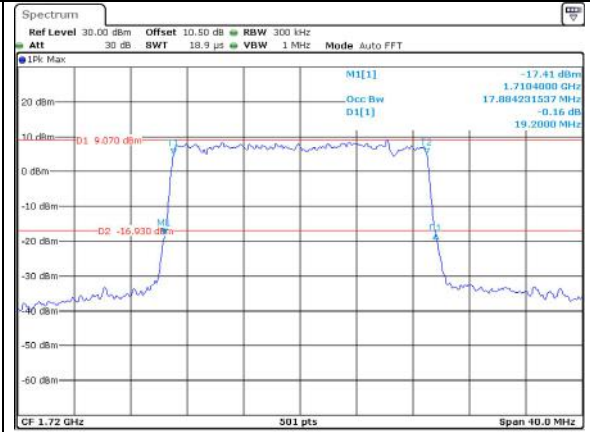
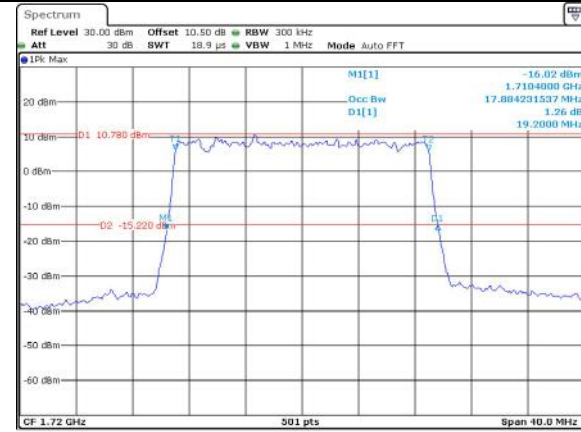
Occupied Bandwidth

Channel

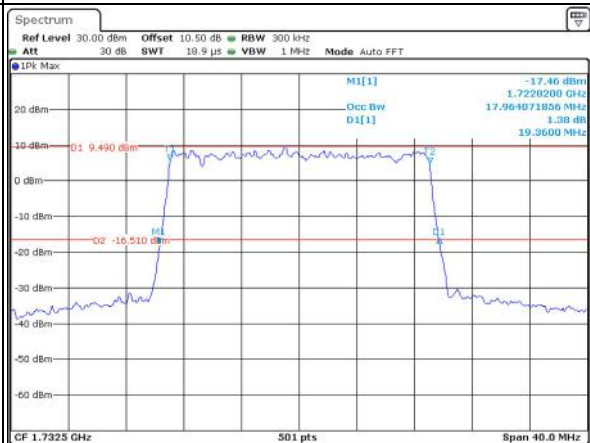
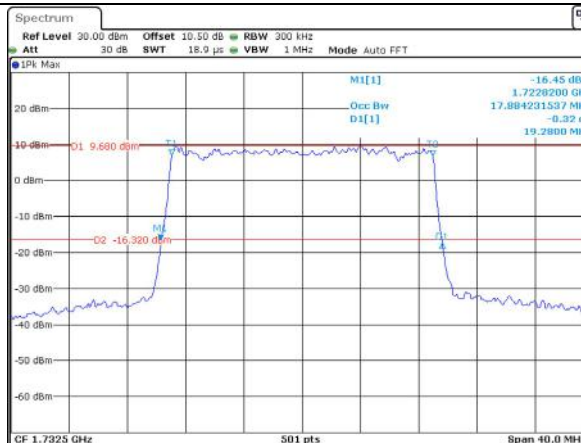
20MHz Bandwidth QPSK

20MHz Bandwidth 16QAM

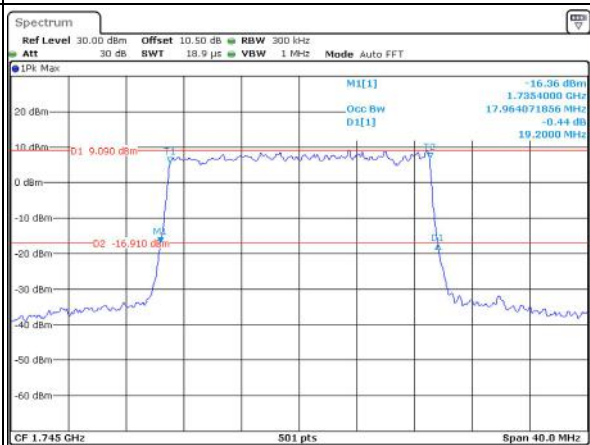
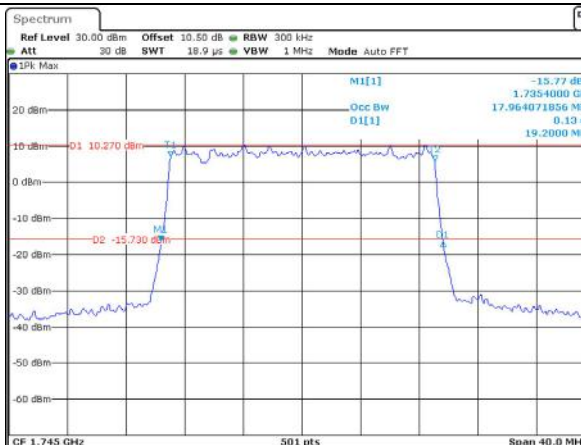
Lowest



Middle



Highest

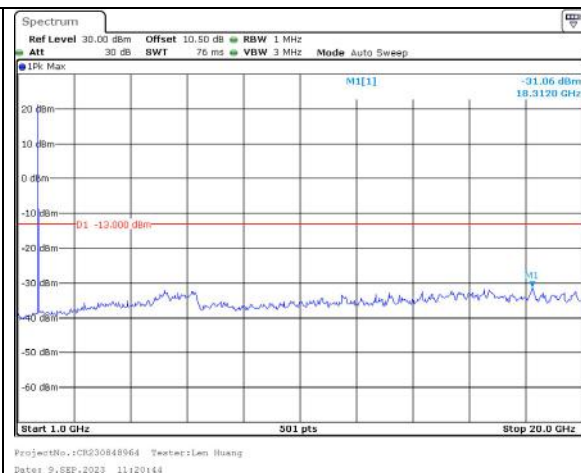
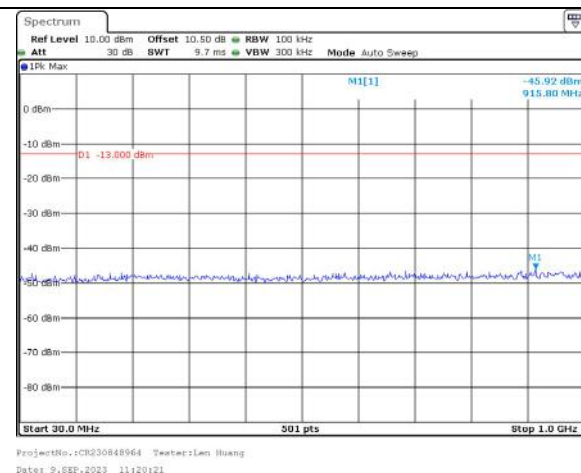


Spurious Emissions at Antenna Terminal

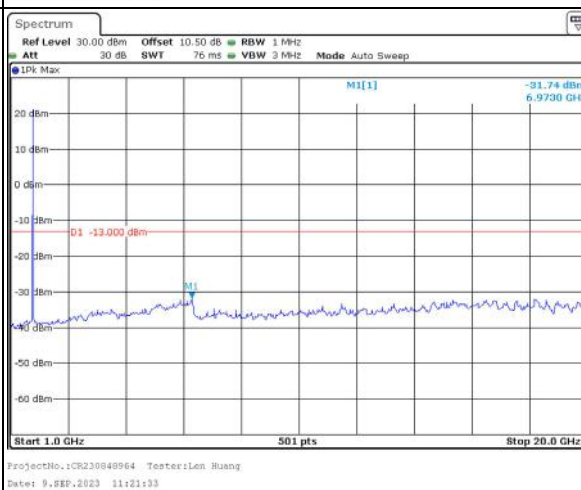
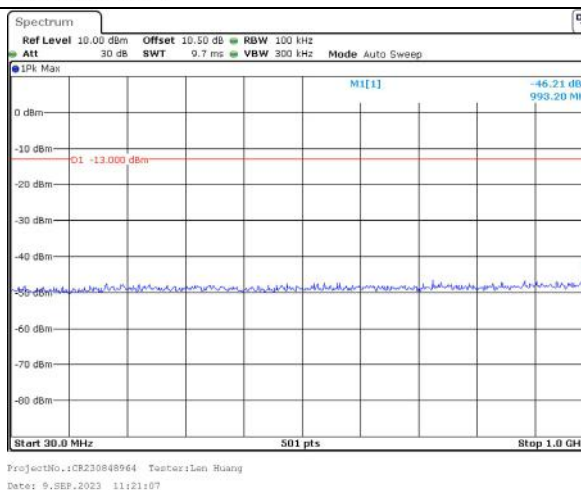
Channel

1.4MHz Bandwidth QPSK

Lowest



Middle



Highest

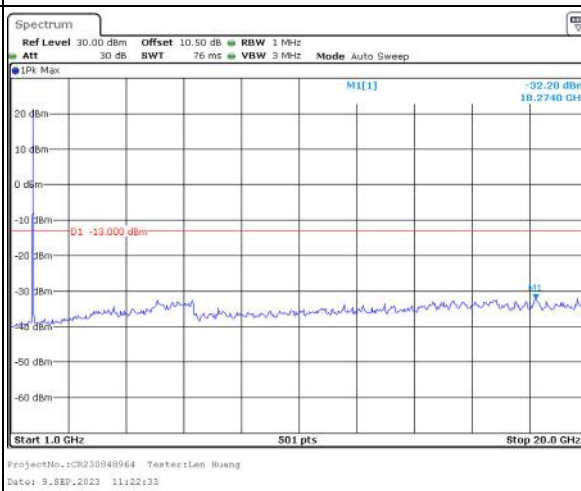
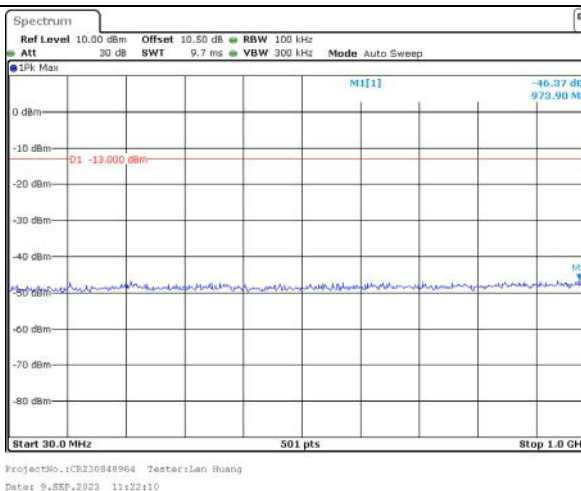


Figure 10 displays six spectrum plots comparing the 3MHz bandwidth QPSK signal across different channels (Lowest, Middle, Highest) and two different signal conditions (Left and Right columns). Each plot shows the power spectral density (PSD) in dBm versus frequency in MHz.

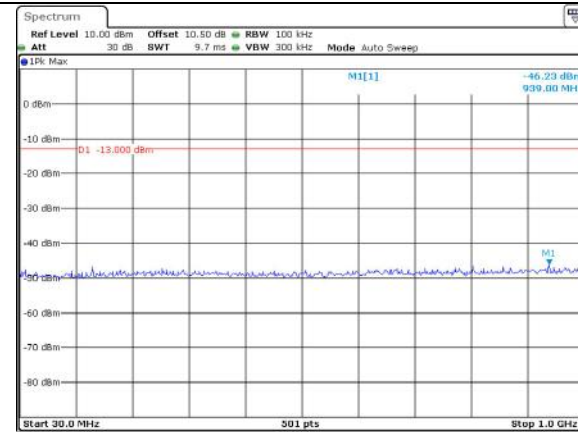
The plots are arranged in a 3x2 grid. The rows are labeled 'Lowest', 'Middle', and 'Highest' on the left. The columns represent different signal conditions. Each subplot shows a spectrum plot with frequency on the x-axis (from 30.0 MHz to 1.0 GHz or 1.0 GHz to 20.0 GHz) and power spectral density on the y-axis (from -80 dBm to 0 dBm). The plots show a blue trace representing the signal spectrum, a red horizontal line at -13.000 dBm, and a green trace representing the noise floor. The signal is identified as M1[1] and the noise floor as N1. The signal power is approximately -46.32 dBm at 898.40 MHz in the 'Lowest' row, -46.50 dBm at 867.40 MHz in the 'Middle' row, and -46.44 dBm at 774.40 MHz in the 'Highest' row. The noise floor is approximately -91.06 dBm at 18.9479 GHz in the 'Lowest' row, -29.80 dBm at 10.2740 GHz in the 'Middle' row, and -31.94 dBm at 18.2740 GHz in the 'Highest' row. The plots are generated using a spectrum analyzer with a reference level of 10.00 dBm, an offset of 10.50 dB, a resolution bandwidth (RBW) of 100 kHz, and a video bandwidth (VBW) of 300 kHz. The mode is set to Auto Sweep. The date is 9 SEP 2023 and the time is 11:23:19.

Spurious Emissions at Antenna Terminal

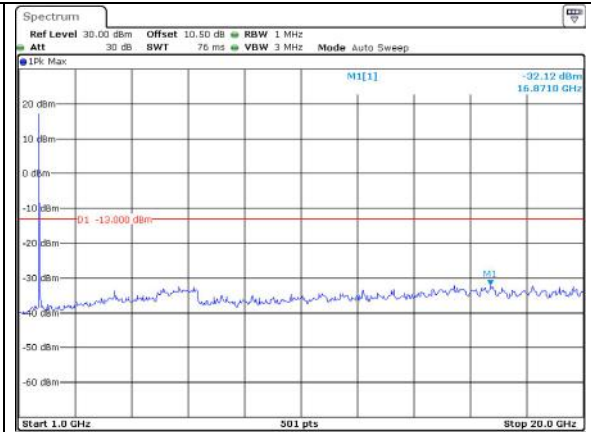
Channel

5MHz Bandwidth QPSK

Lowest

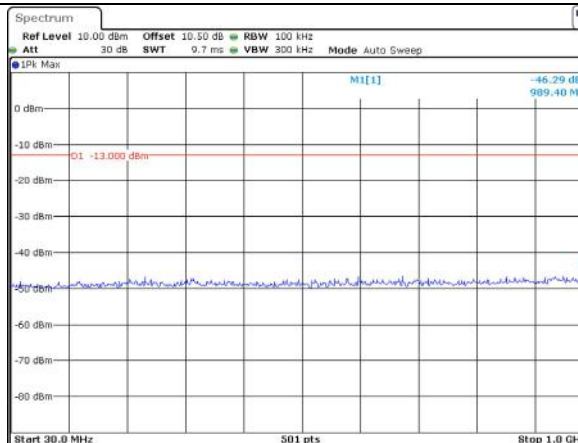


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:26:38

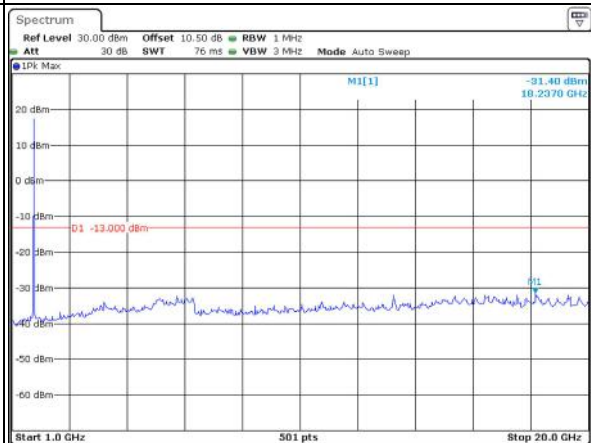


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:26:38

Middle

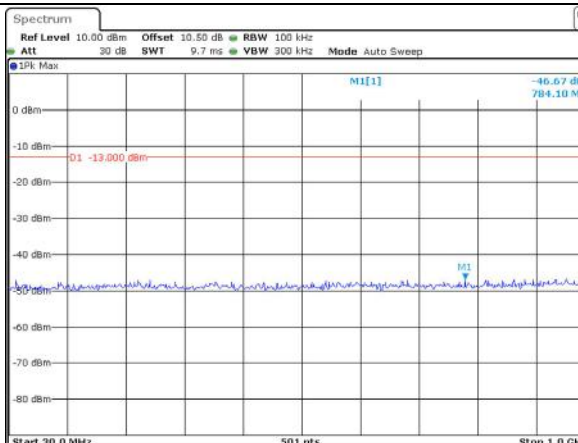


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:27:32

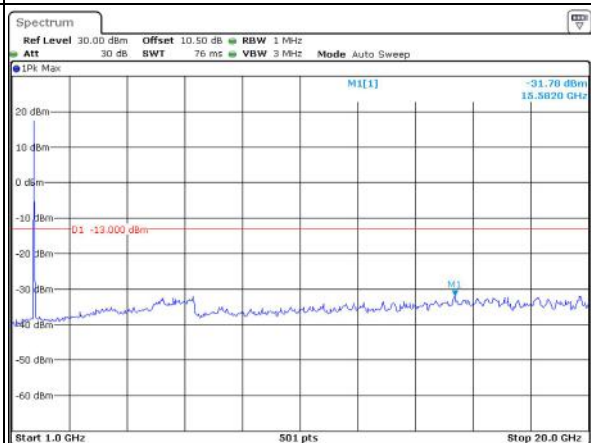


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:27:55

Highest

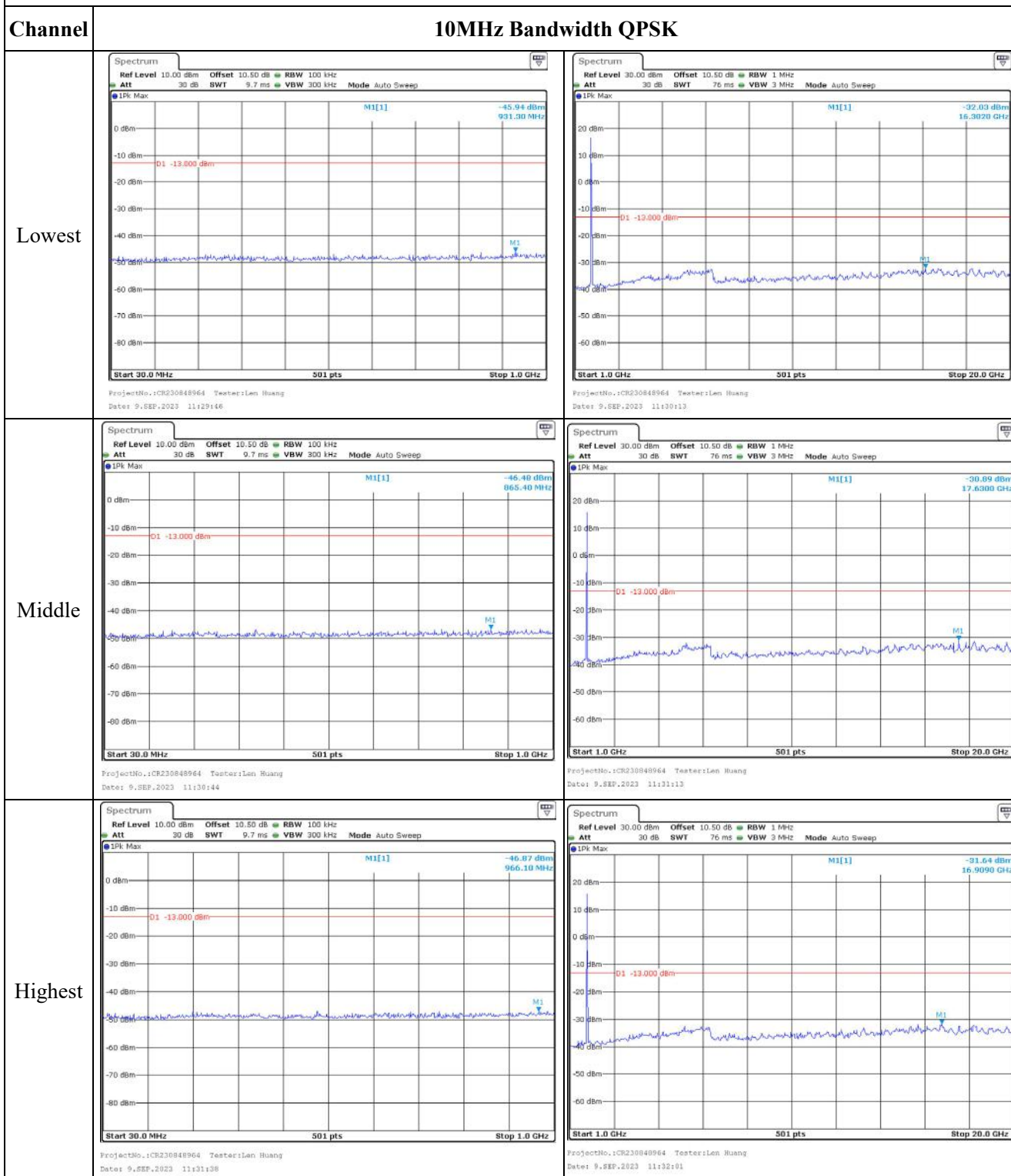


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:28:19



ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:28:45

Spurious Emissions at Antenna Terminal

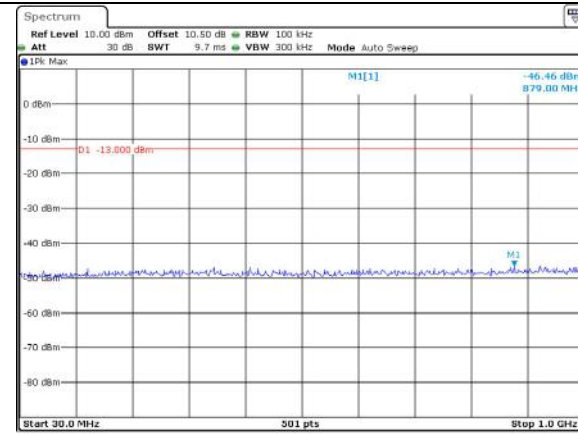


Spurious Emissions at Antenna Terminal

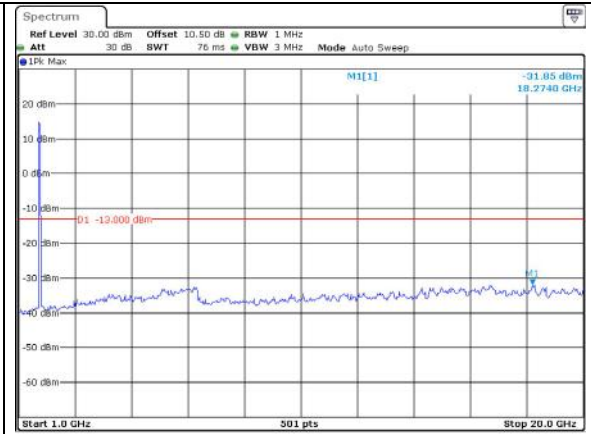
Channel

15MHz Bandwidth QPSK

Lowest

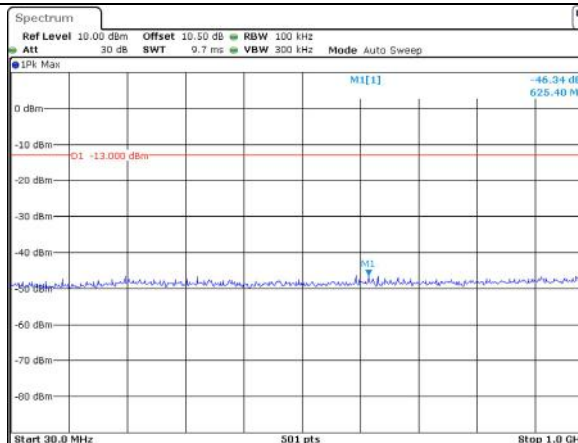


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:32:19

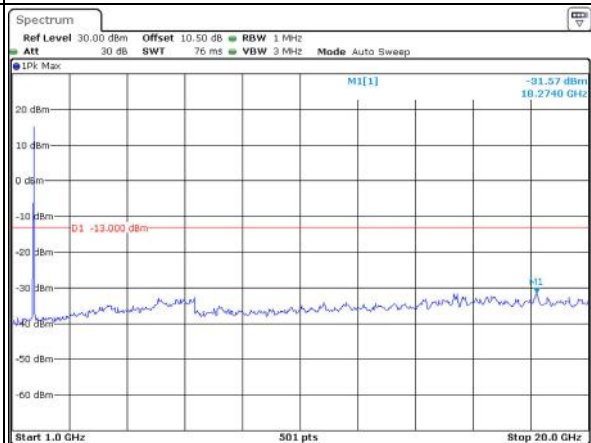


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:33:25

Middle

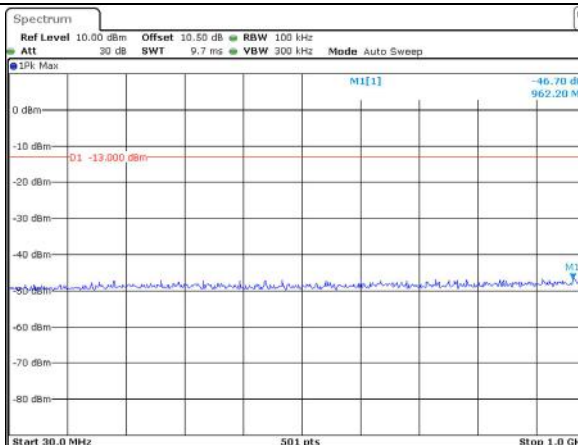


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:34:02

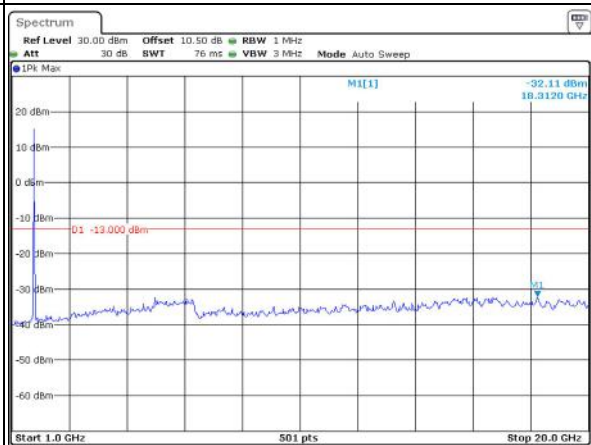


ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:34:22

Highest



ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:34:53



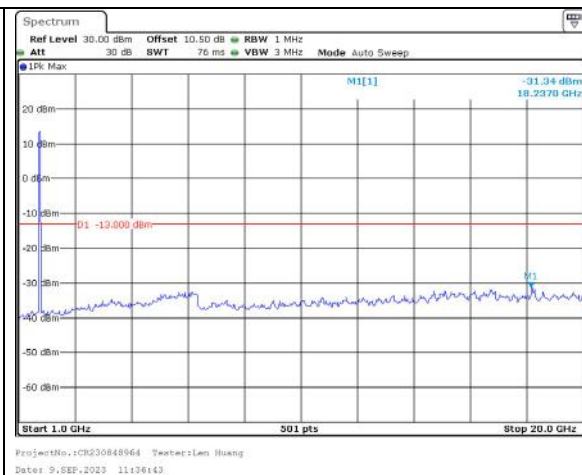
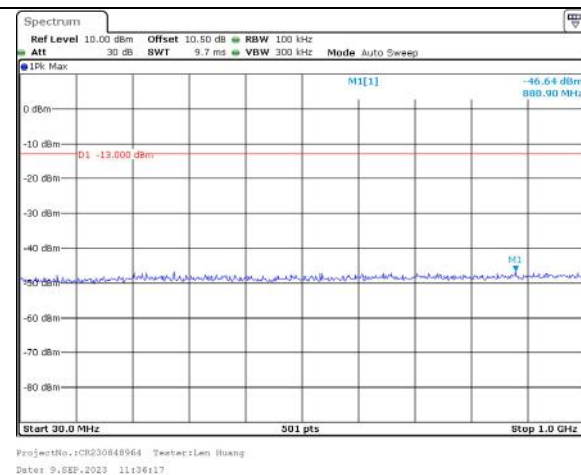
ProjectNo.:CR230848964 Tester:Len Huang
Date: 9.SEP.2023 11:35:16

Spurious Emissions at Antenna Terminal

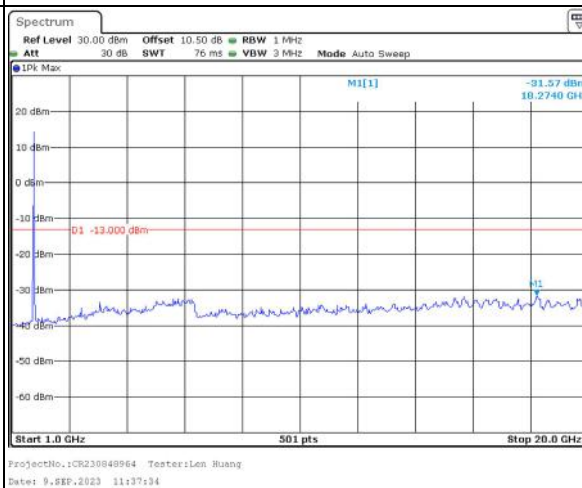
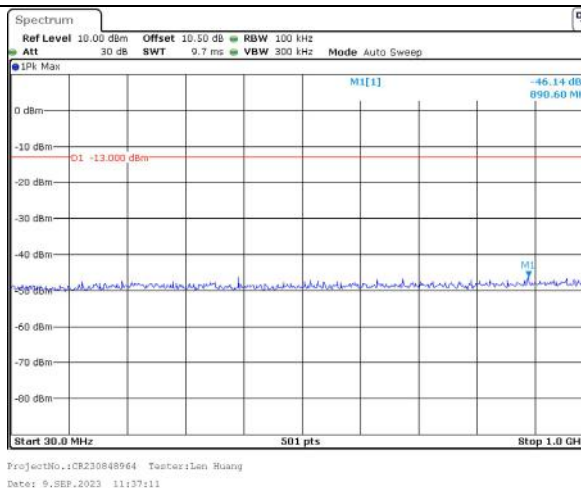
Channel

20MHz Bandwidth QPSK

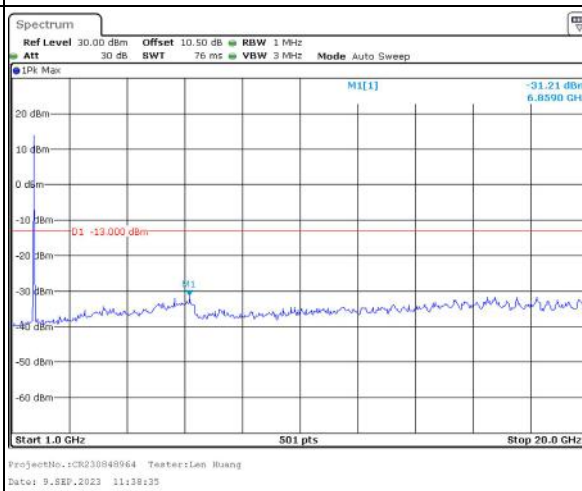
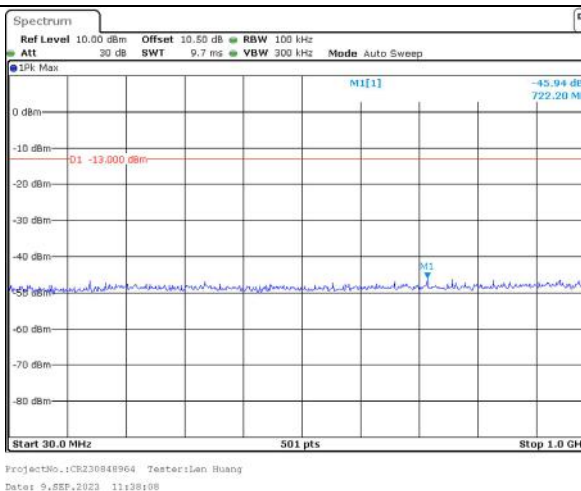
Lowest



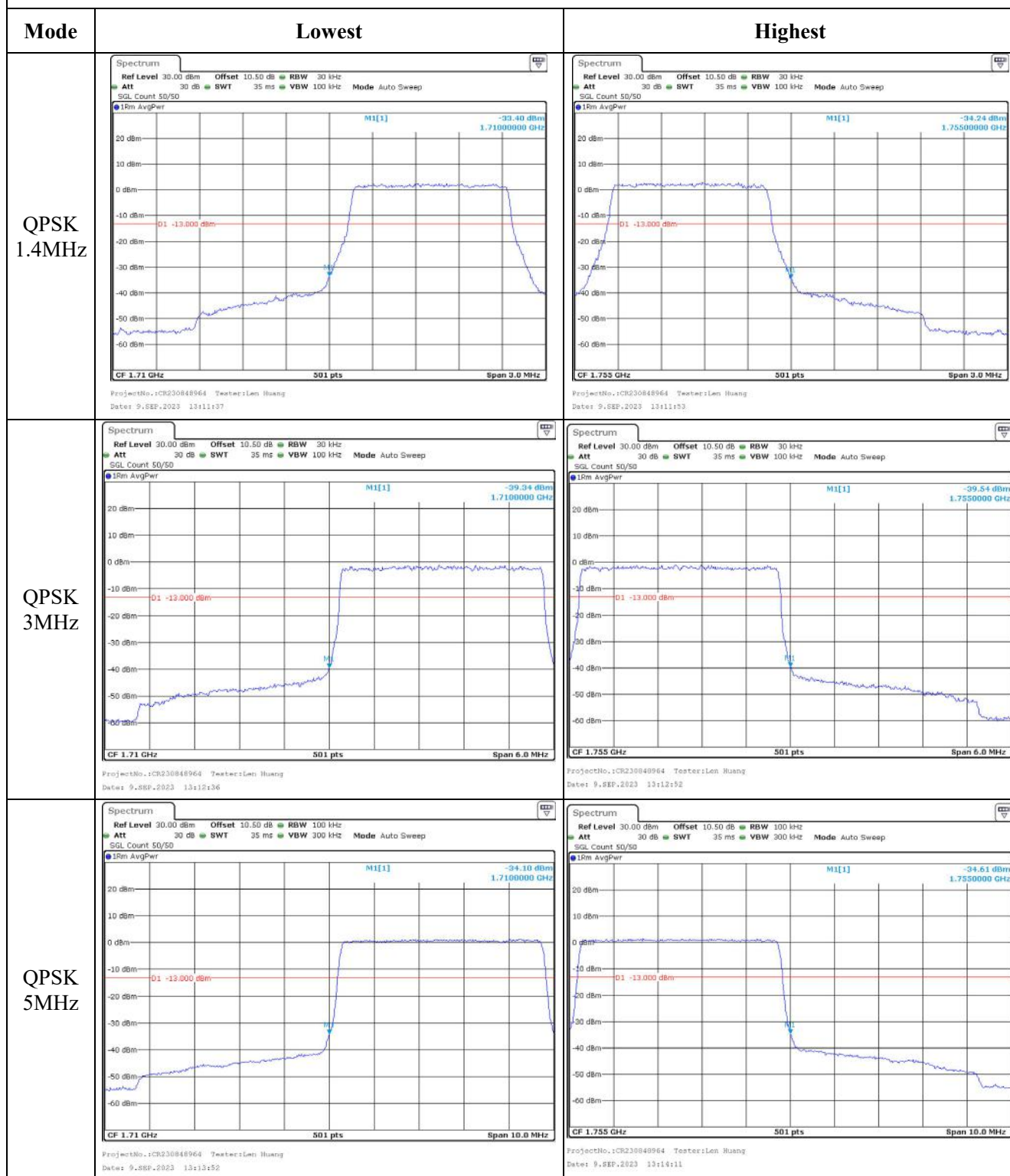
Middle



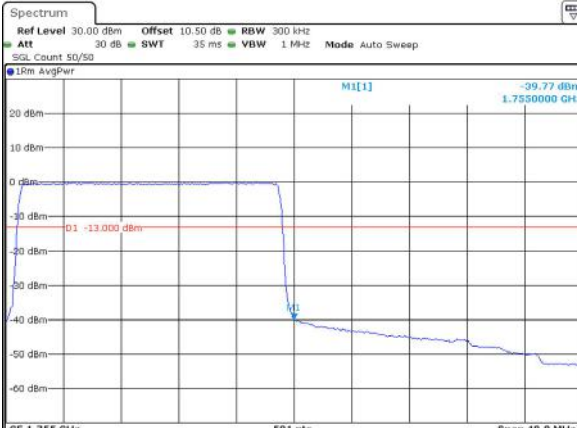
Highest



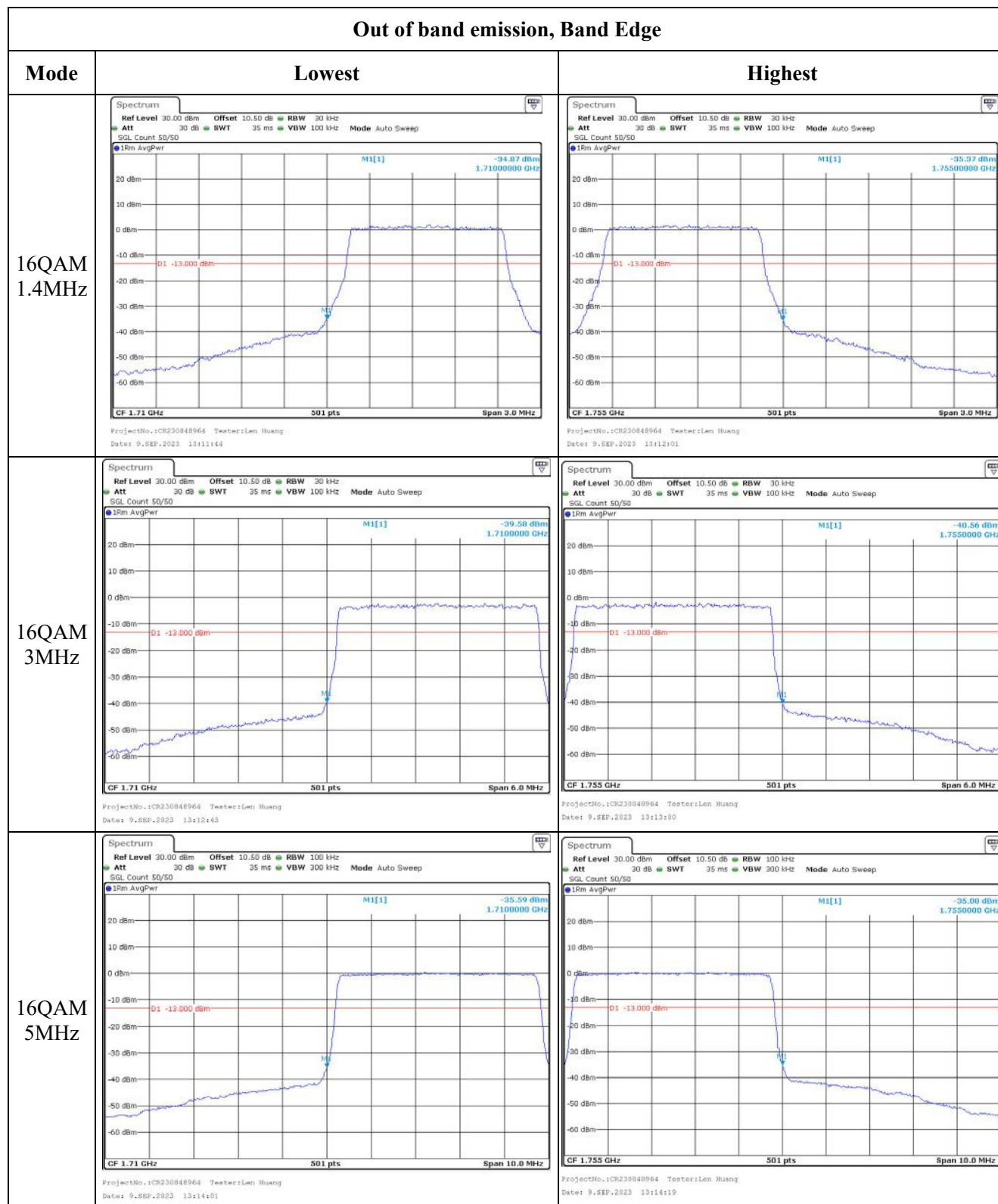
Out of band emission, Band Edge



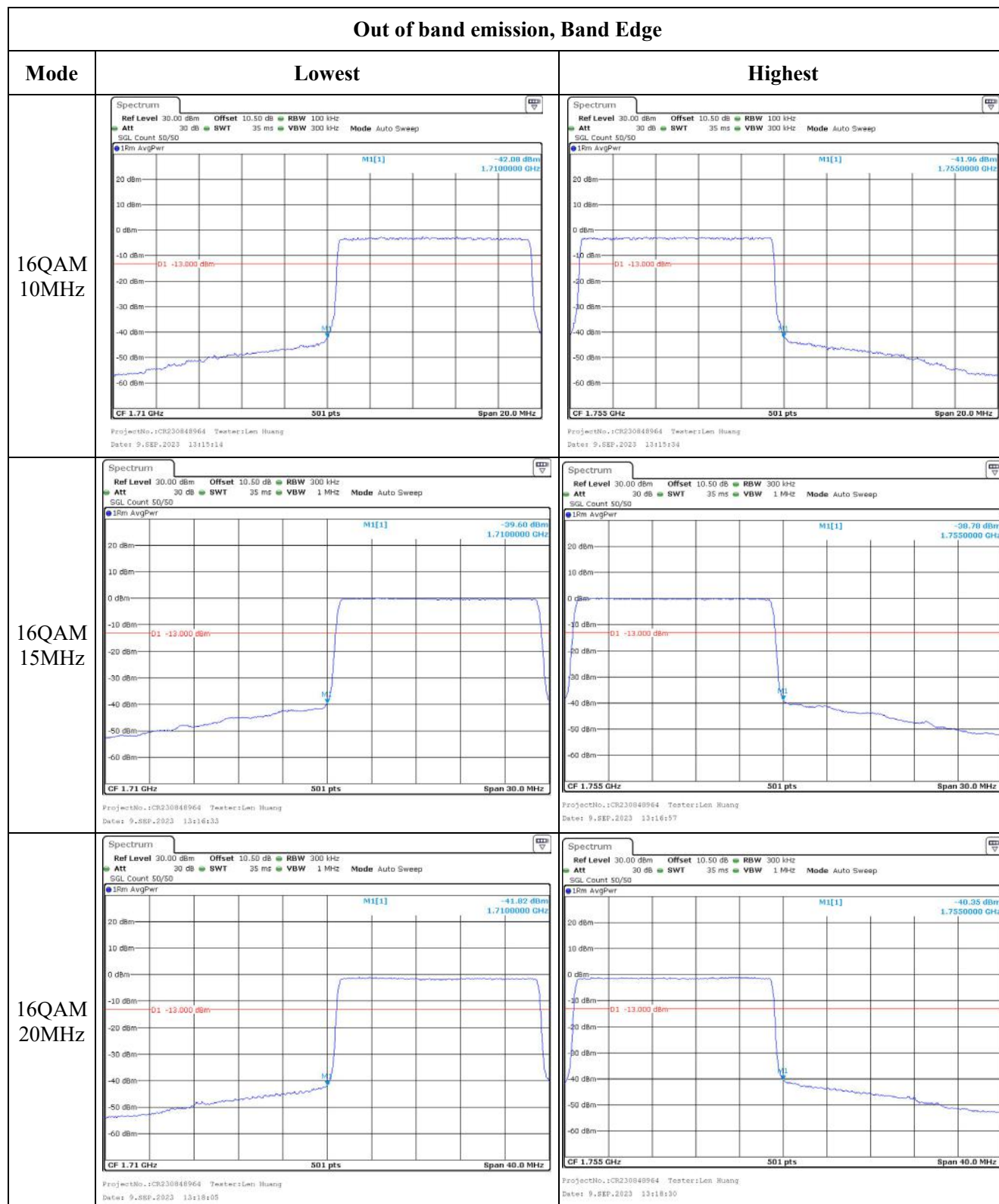
Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:15:05	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:15:25
QPSK 15MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:16:21	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:16:45
QPSK 20MHz	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:17:53	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:18:18

Out of band emission, Band Edge



Out of band emission, Band Edge



4.8 Antenna Port Test Data and Results for LTE Band 5

Serial Number:	2A93-1	Test Date:	2023/9/9
Test Site:	RF	Test Mode:	Transmitting
Tester:	Len Huang	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	28.3	Relative Humidity: (%)	46	ATM Pressure: (kPa)	100.2
-------------------	------	------------------------	----	---------------------	-------

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
R&S	Wideband Radio Communication Tester	CMW500	143458	2023/3/31	2024/3/30
Weinschel	Power Splitter	1515	RA914	Each time	N/A
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
YINSAIGE	Coaxial Cable	SS402	SJ0100001	Each time	N/A
BACL	TEMP&HUMI Test Chamber	BTH-150-40	30174	2023/3/31	2024/3/30
UNI-T	Multimeter	UT39A+	C210582554	2022/9/29	2023/9/28
ZHAOXIN	DC Power Supply	RXN-6010D	21R6010D0912386	N/A	N/A
eastsheep	Coaxial Attenuator	2W-SMA-JK-18G	21060301	Each time	N/A

* Statement of Traceability: China Certification ICT Co., Ltd (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

Test Frequency for Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	824.7	836.5	848.3
3MHz	825.5	836.5	847.5
5MHz	826.5	836.5	846.5
10MHz	829	836.5	844

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

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum ERP (dBm)	ERP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
1.4MHz QPSK	RB1#0	23.03	23.02	23.00	16.37	38.45
	RB1#3	23.22	23.17	23.19		
	RB1#5	23.05	23.00	22.94		
	RB3#0	23.09	23.07	23.11		
	RB3#3	23.13	23.05	23.08		
	RB6#0	22.14	22.13	22.16		
1.4MHz 16QAM	RB1#0	22.03	21.99	22.12	15.48	38.45
	RB1#3	22.22	22.18	22.33		
	RB1#5	22.08	22.02	22.17		
	RB3#0	22.15	22.25	22.09		
	RB3#3	22.13	22.24	22.10		
	RB6#0	21.02	21.12	21.16		
3MHz QPSK	RB1#0	23.03	23.07	22.99	16.22	38.45
	RB1#8	23.07	23.04	22.98		
	RB1#14	23.03	23.01	22.97		
	RB6#0	22.02	22.03	22.03		
	RB6#9	22.04	21.99	22.02		
	RB15#0	22.03	22.02	22.07		
3MHz 16QAM	RB1#0	22.15	22.07	22.60	15.75	38.45
	RB1#8	22.16	22.05	22.52		
	RB1#14	22.17	22.03	22.51		
	RB6#0	21.02	21.01	21.09		
	RB6#9	21.08	20.98	21.06		
	RB15#0	20.98	21.08	21.14		
5MHz QPSK	RB1#0	22.97	22.95	22.89	16.27	38.45
	RB1#13	23.12	23.04	23.00		
	RB1#24	23.01	22.90	22.91		
	RB15#0	22.08	22.07	22.09		
	RB15#10	22.13	22.06	22.02		
	RB25#0	22.06	22.03	22.01		
5MHz 16QAM	RB1#0	22.25	22.04	21.82	15.53	38.45
	RB1#13	22.38	22.12	21.96		
	RB1#24	22.26	22.00	21.84		
	RB15#0	21.04	21.08	21.09		
	RB15#10	21.08	21.05	21.07		
	RB25#0	21.07	21.03	21.08		

10MHz QPSK	RB1#0	23.05	23.08	22.97	16.38	38.45
	RB1#25	23.23	23.21	23.07		
	RB1#49	23.00	23.03	23.01		
	RB25#0	22.11	22.12	22.09		
	RB25#25	22.09	22.07	22.03		
	RB50#0	22.07	22.10	22.02		
10MHz 16QAM	RB1#0	22.16	22.05	22.51	15.80	38.45
	RB1#25	22.38	22.20	22.65		
	RB1#49	22.18	22.04	22.56		
	RB25#0	21.11	21.17	21.12		
	RB25#25	21.11	21.14	21.09		
	RB50#0	21.07	21.08	21.06		

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

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

Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
10MHz QPSK	RB1#0	5.19	5.16	4.29	13
	RB50#0	4.96	4.84	5.13	13
10MHz 16QAM	RB1#0	4.52	4.64	5.59	13
	RB50#0	5.97	5.83	6.00	13
				Result:	Pass

FCC §2.1049, §22.905:Occupied Bandwidth

Operation Mode	99% Occupied Bandwidth (MHz)			26 dB Occupied Bandwidth (MHz)		
	Low Channel	Middle channel	High Channel	Low Channel	Middle Channel	High Channel
1.4MHz QPSK	1.102	1.096	1.102	1.296	1.302	1.302
1.4MHz 16QAM	1.090	1.096	1.090	1.290	1.320	1.284
3MHz QPSK	2.683	2.683	2.683	2.868	2.892	2.868
3MHz 16QAM	2.683	2.683	2.683	2.868	2.868	2.892
5MHz QPSK	4.511	4.491	4.511	4.980	4.960	4.940
5MHz 16QAM	4.511	4.511	4.471	4.960	5.160	4.920
10MHz QPSK	8.942	8.942	8.982	9.560	9.600	9.680
10MHz 16QAM	8.942	8.982	8.942	9.600	9.600	9.560

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

FCC §2.1051, §22.917(a):Spurious Emissions at Antenna Terminal

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

FCC §2.1051, §22.917(a): Out of band emission, Band Edge

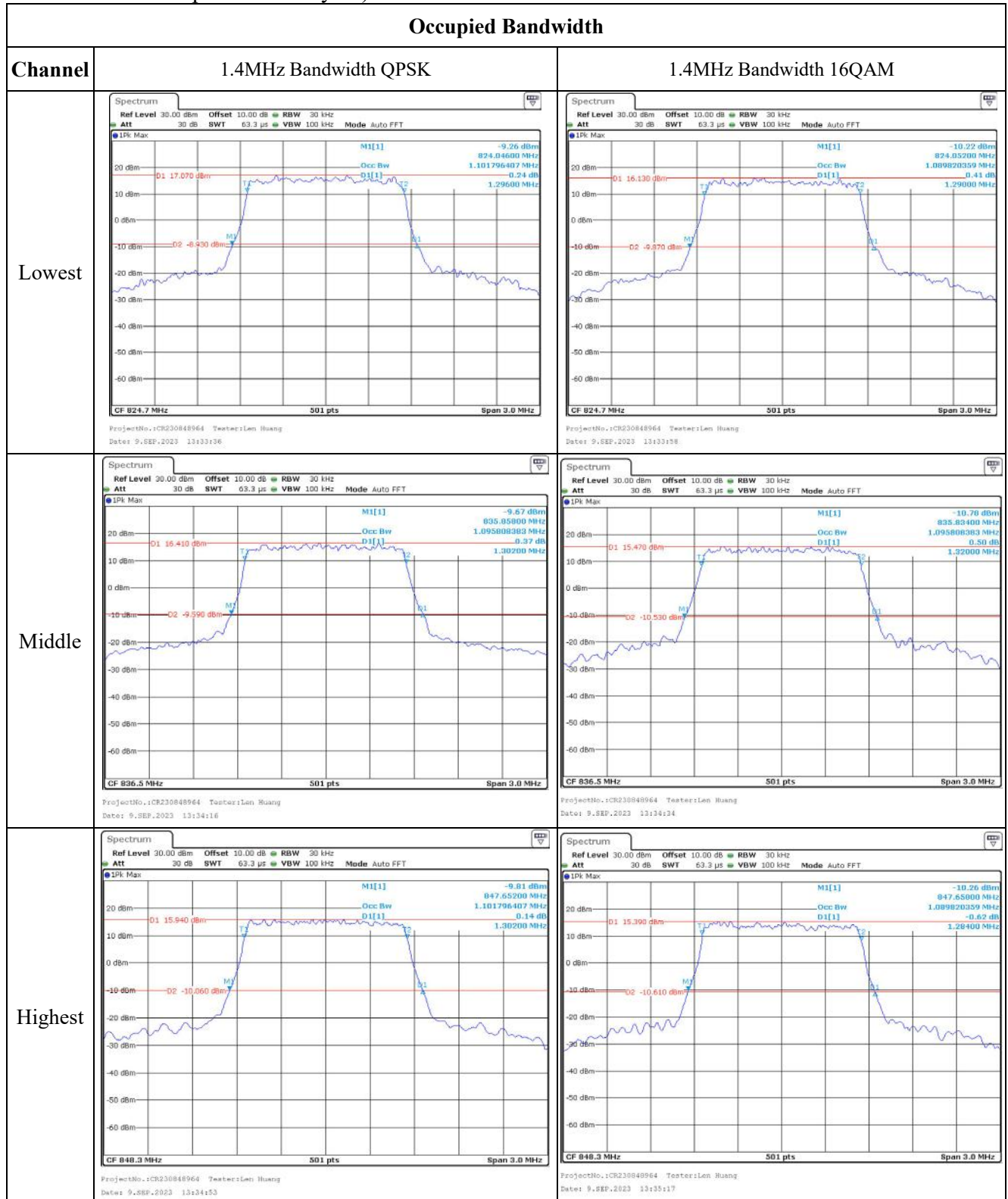
Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
----------------	---

FCC §2.1055, §22.355: Frequency Stability

Test Modulation:	10 MHz QPSK		Test Channel:	836.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.85	15.34	0.018	2.5
	-20	3.85	16.92	0.020	2.5
	-10	3.85	12.04	0.014	2.5
	0	3.85	13.75	0.016	2.5
	10	3.85	10.36	0.012	2.5
	20	3.85	15.32	0.018	2.5
	30	3.85	16.24	0.019	2.5
	40	3.85	16.38	0.020	2.5
	50	3.85	19.24	0.023	2.5
Frequency Stability vs. Voltage	20	3.35	23.01	0.028	2.5
	20	4.4	22.43	0.027	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	3.85	16.54	0.020	2.5
	-20	3.85	15.29	0.018	2.5
	-10	3.85	17.63	0.021	2.5
	0	3.85	19.45	0.023	2.5
	10	3.85	21.53	0.026	2.5
	20	3.85	22.43	0.027	2.5
	30	3.85	26.54	0.032	2.5
	40	3.85	19.34	0.023	2.5
	50	3.85	15.47	0.018	2.5
Frequency Stability vs. Voltage	20	3.35	16.24	0.019	2.5
	20	4.4	13.68	0.016	2.5
Result:				Pass	

Test Plots(Note: The 10 dB is the Insertion loss of the RF cable and Power Splitter, which was offset into the Spectrum Analyzer):



Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -11.24 dBm Occ Bw 824.0600 MHz D1[1] -0.25 dB CF 825.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:10	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -13.34 dBm Occ Bw 824.0600 MHz D1[1] 0.93 dB CF 825.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:13
Middle	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -13.99 dBm Occ Bw 835.0400 MHz D1[1] 0.80 dB CF 836.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:53	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -12.96 dBm Occ Bw 835.0600 MHz D1[1] 0.35 dB CF 836.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:14
Highest	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -12.36 dBm Occ Bw 846.0600 MHz D1[1] 1.77 dB CF 847.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:40	Spectrum Ref Level 30.00 dBm Offset 10.00 dB RBW 30 kHz Att 30 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT M1[1] -13.57 dBm Occ Bw 846.0600 MHz D1[1] -0.29 dB CF 847.5 MHz 501 pts Span 6.0 MHz ProjectNo.:CR230848964 Tester:Len Huang Date: 9,SEP,2023 13:13:57

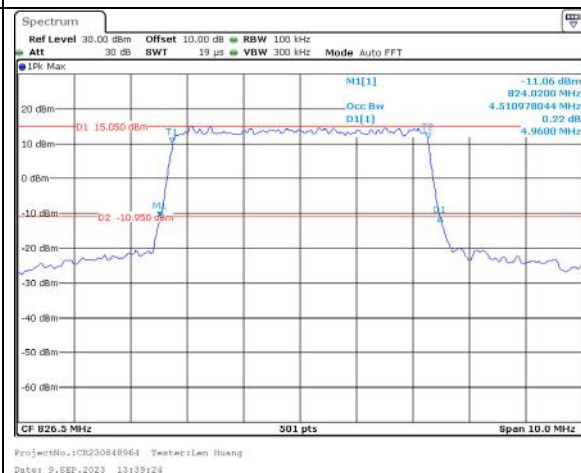
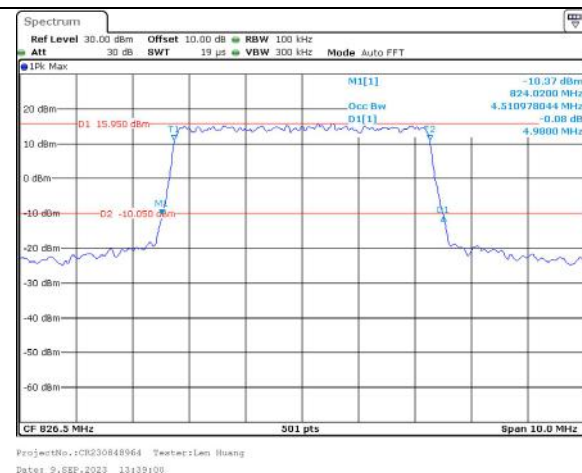
Occupied Bandwidth

Channel

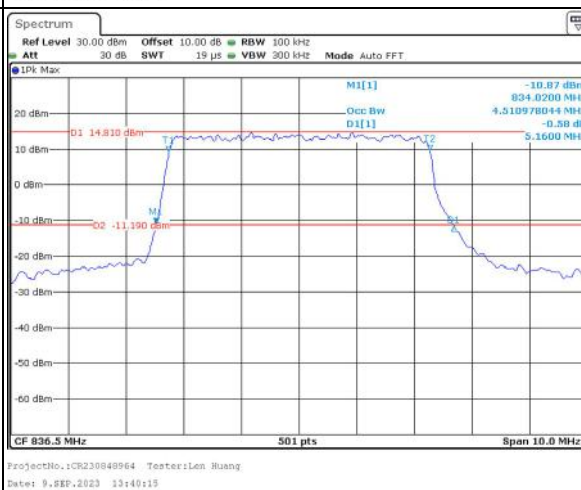
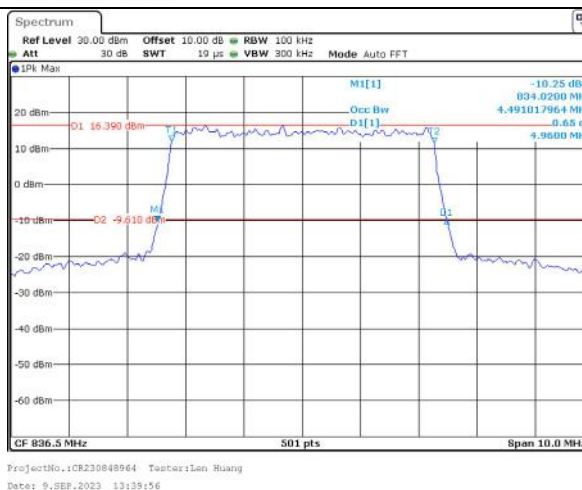
5MHz Bandwidth QPSK

5MHz Bandwidth 16QAM

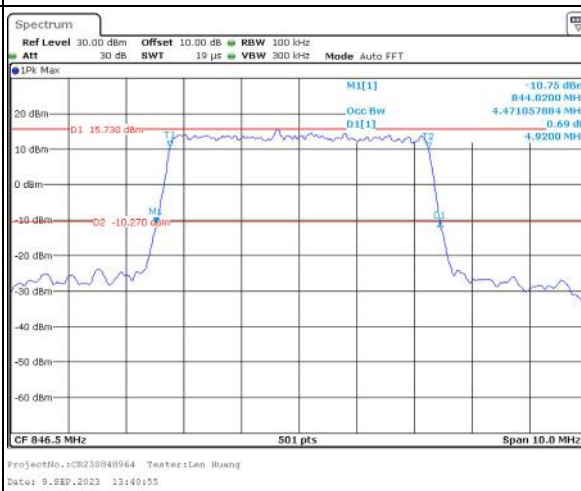
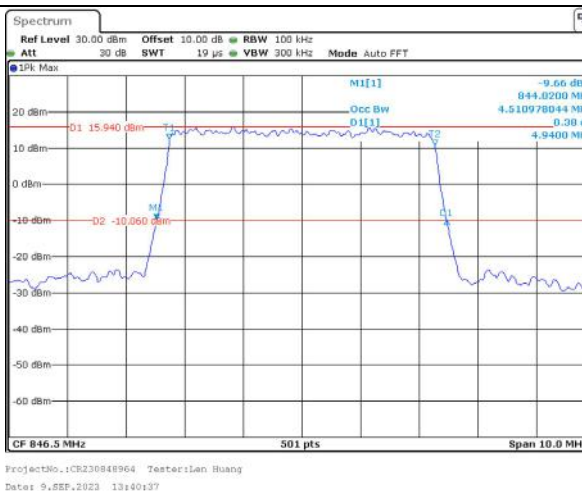
Lowest



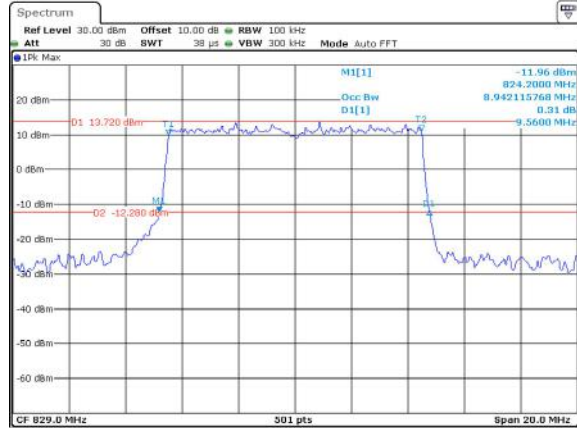
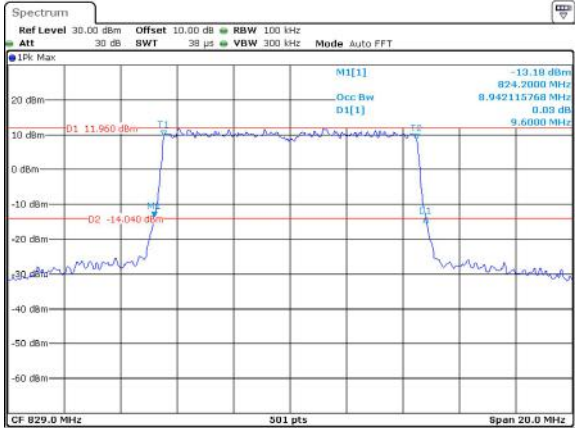
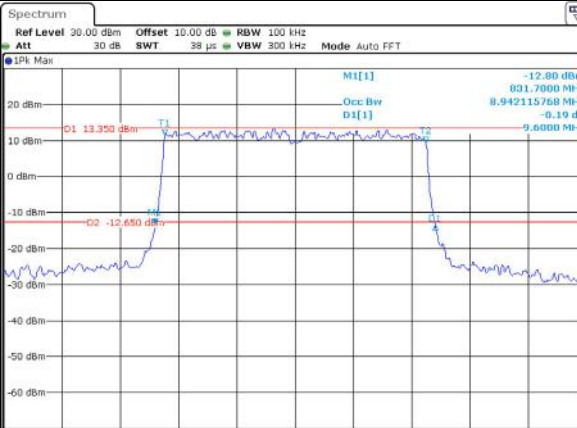
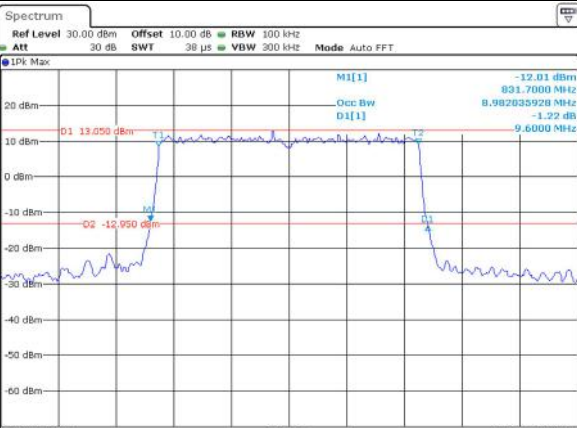
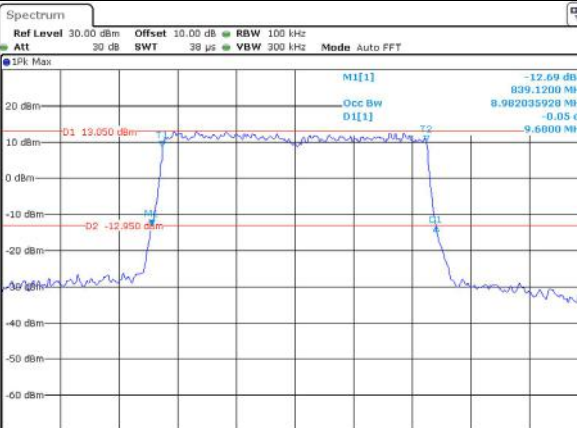
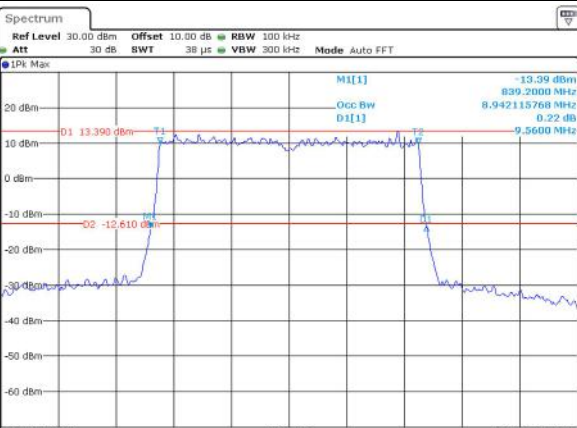
Middle



Highest



Occupied Bandwidth

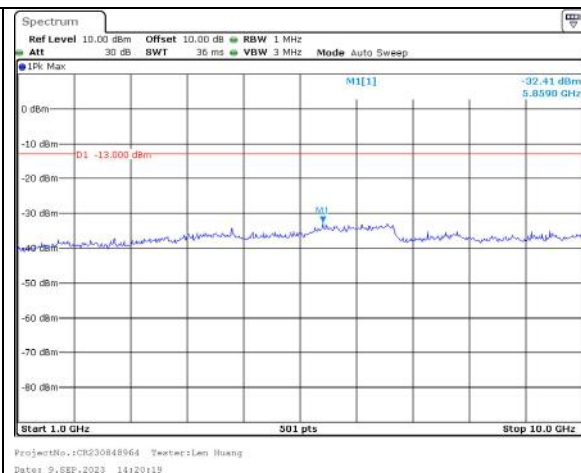
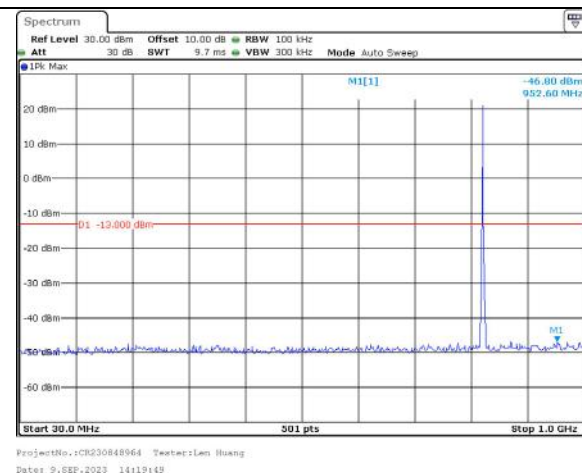
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:42:14	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:42:16
Middle	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:43:05	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:43:33
Highest	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:44:09	 ProjectNo.:CR230848964 Tester:Len Huang Date: 9.SEP.2023 13:44:37

Spurious Emissions at Antenna Terminal

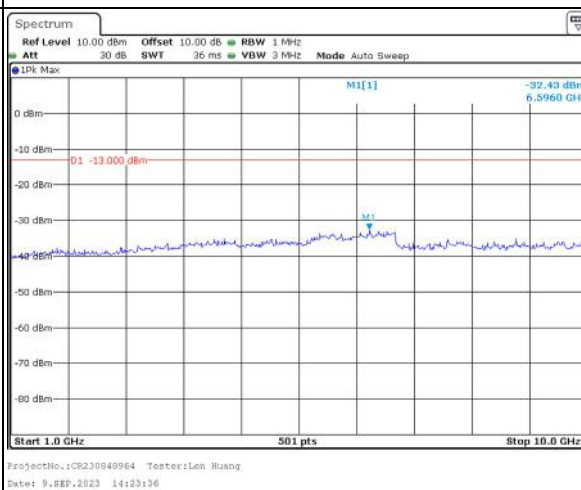
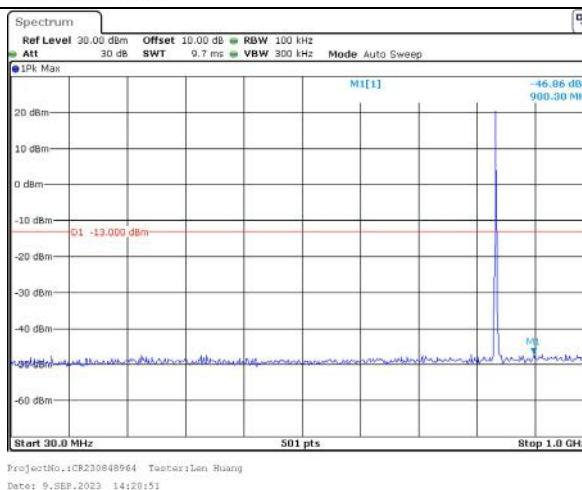
Channel

1.4MHz Bandwidth QPSK

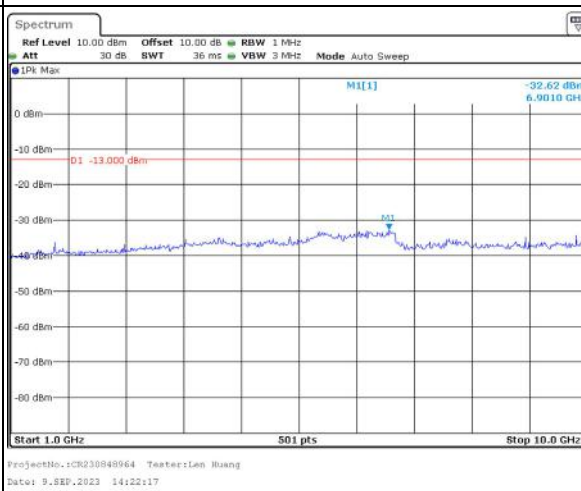
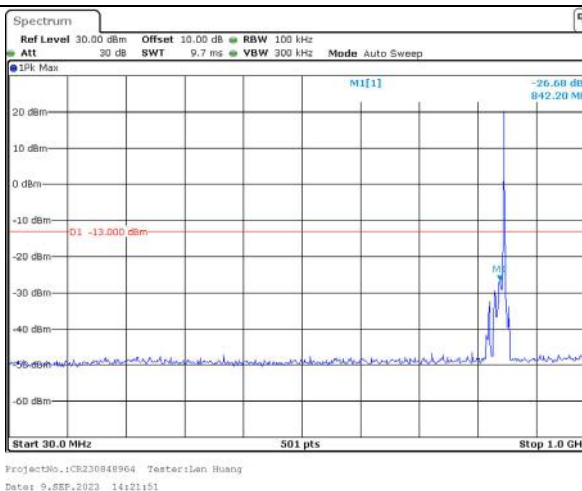
Lowest



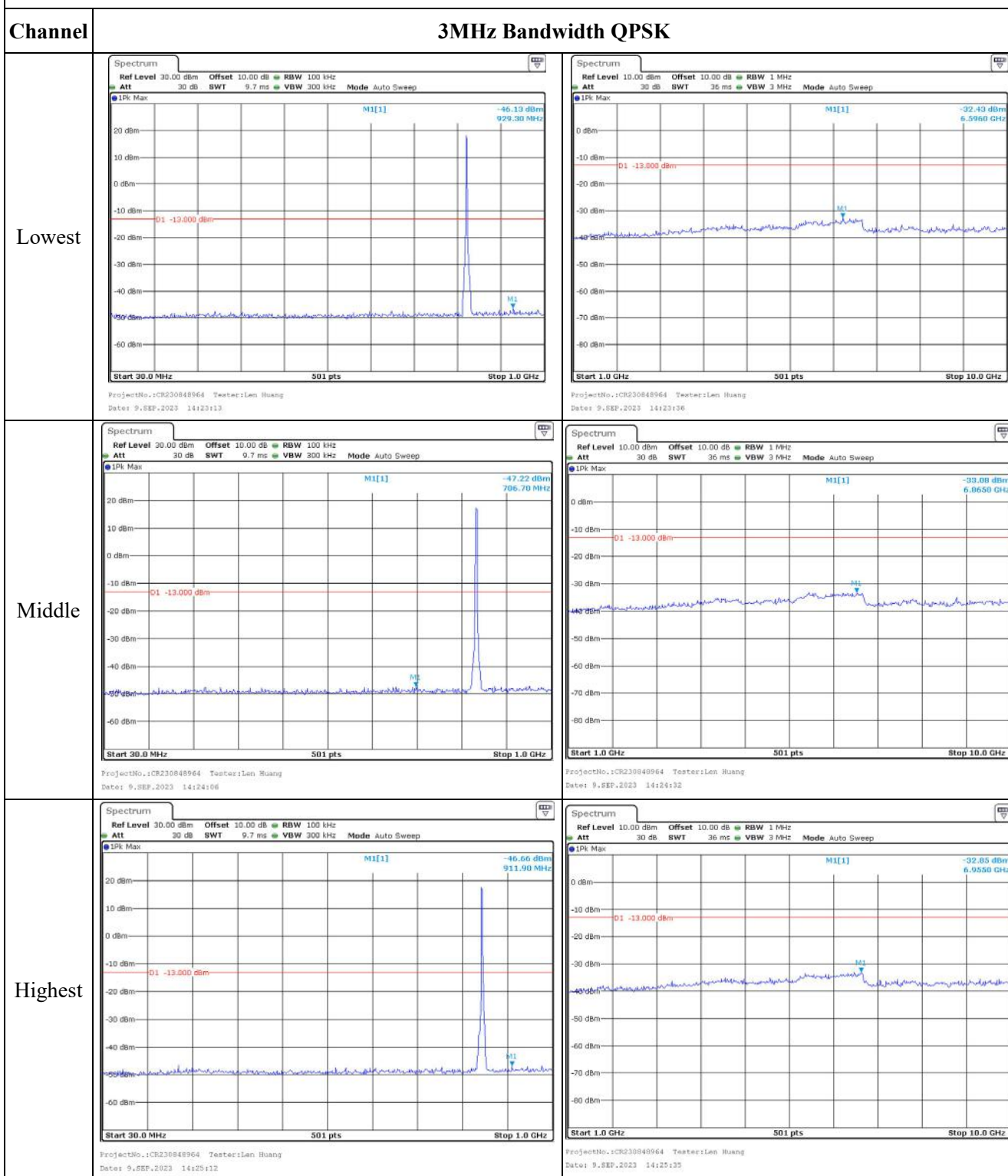
Middle



Highest



Spurious Emissions at Antenna Terminal

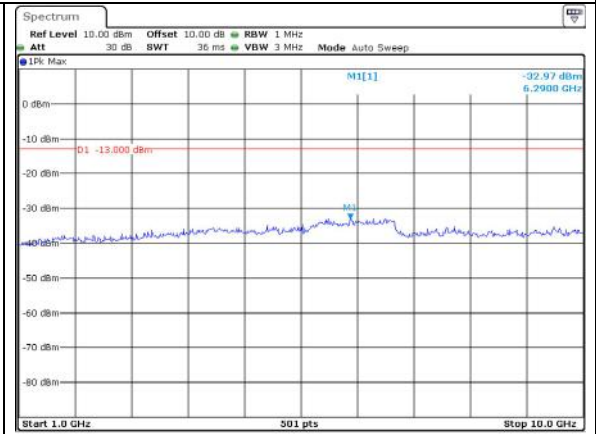
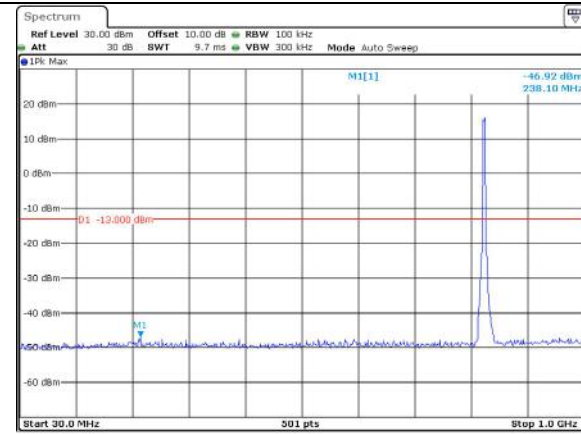


Spurious Emissions at Antenna Terminal

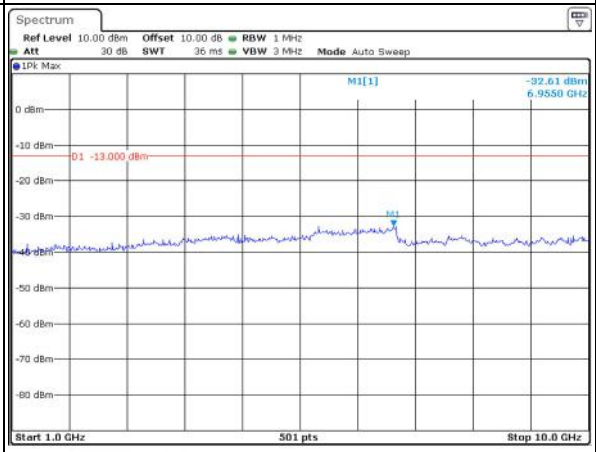
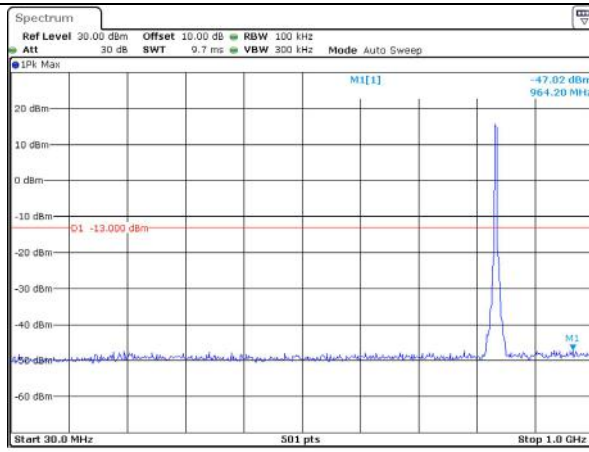
Channel

5MHz Bandwidth QPSK

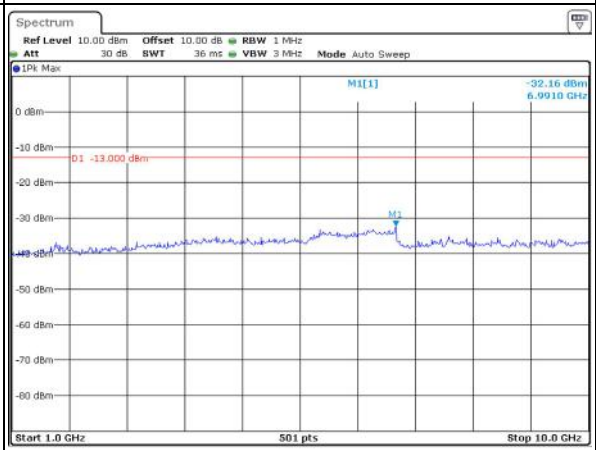
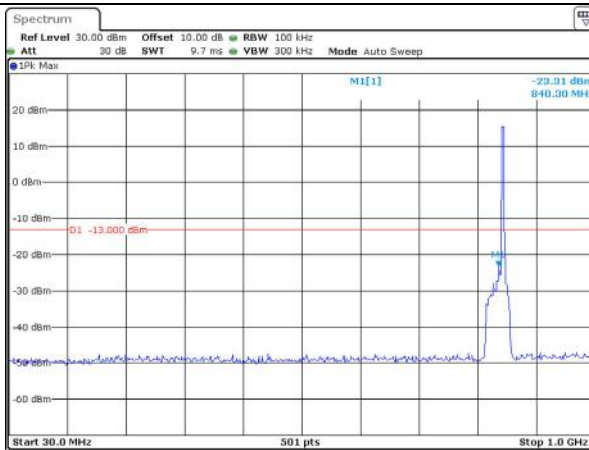
Lowest



Middle



Highest



Spurious Emissions at Antenna Terminal

