

Occupied Bandwidth

Channel	5MHz Bandwidth QPSK	5MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 15.580 dBm MI[1] -11.02 dBm 699.0200 MHz Occ Bw 4.510978044 MHz D1[1] 1.27 dB 4.9600 MHz</p> <p>D2 -10.420 dBm</p> <p>CF 701.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:10:01</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 14.210 dBm MI[1] -11.07 dBm 699.0200 MHz Occ Bw 4.510978044 MHz D1[1] 0.64 dB 5.0000 MHz</p> <p>D2 -11.790 dBm</p> <p>CF 701.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:10:28</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 14.640 dBm MI[1] -11.53 dBm 704.5000 MHz Occ Bw 4.510978044 MHz D1[1] -0.09 dB 5.0000 MHz</p> <p>D2 -11.360 dBm</p> <p>CF 707.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:10:53</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 14.710 dBm MI[1] -11.08 dBm 705.0000 MHz Occ Bw 4.530938124 MHz D1[1] 0.42 dB 4.9800 MHz</p> <p>D2 -11.290 dBm</p> <p>CF 707.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:11:24</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 15.270 dBm MI[1] -11.83 dBm 711.0000 MHz Occ Bw 4.510978044 MHz D1[1] -1.15 dB 5.0200 MHz</p> <p>D2 -10.730 dBm</p> <p>CF 713.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:11:49</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>D1 14.570 dBm MI[1] -11.49 dBm 711.0200 MHz Occ Bw 4.510978044 MHz D1[1] 0.40 dB 4.9800 MHz</p> <p>D2 -11.430 dBm</p> <p>CF 713.5 MHz 501 pts Span 10.0 MHz</p> <p>Date: 7, JAN, 2022 12:12:10</p>

Occupied Bandwidth

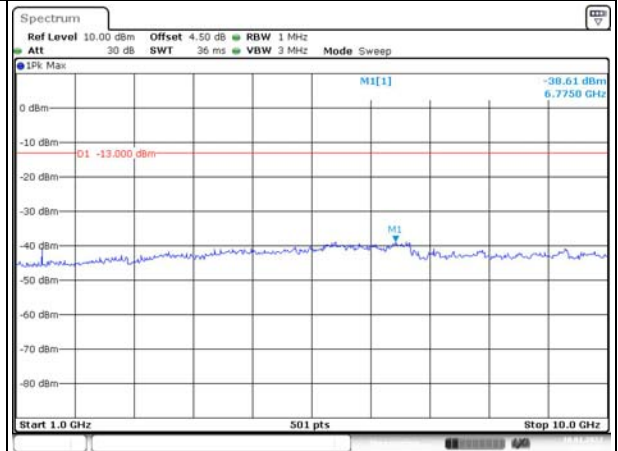
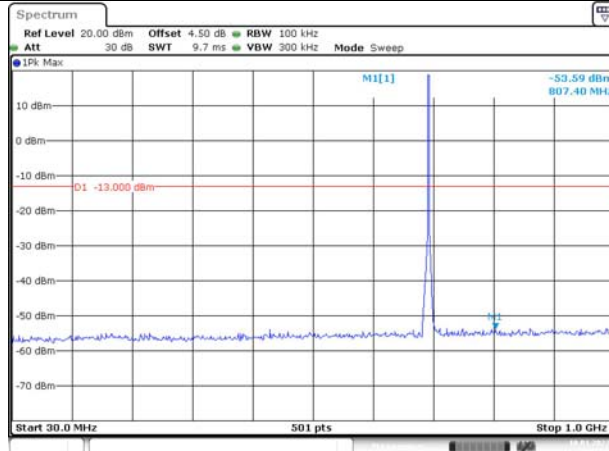
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -14.00 dBm 699.1200 MHz D1[1] 0.962195609 MHz 0.13 dB 9.7600 MHz D2 -13.840 dBm CF 704.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:12:49</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -14.39 dBm 699.1600 MHz D1[1] 0.902195609 MHz -0.07 dB 9.7200 MHz D2 -13.940 dBm CF 704.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:13:20</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -11.55 dBm 702.6600 MHz D1[1] 0.942115768 MHz -0.83 dB 9.6800 MHz D2 -11.970 dBm CF 707.5 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:13:56</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -15.34 dBm 702.5800 MHz D1[1] 0.942115768 MHz -1.27 dB 9.7600 MHz D2 -14.210 dBm CF 707.5 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:14:24</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -12.86 dBm 706.1200 MHz D1[1] 0.902195608 MHz -0.49 dB 9.8000 MHz D2 -13.230 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:14:57</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max M1[1] -13.91 dBm 706.0800 MHz D1[1] 0.982035928 MHz -0.88 dB 9.8800 MHz D2 -13.850 dBm CF 711.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:15:28</p>

Spurious Emissions at Antenna Terminal

Channel

1.4MHz Bandwidth QPSK

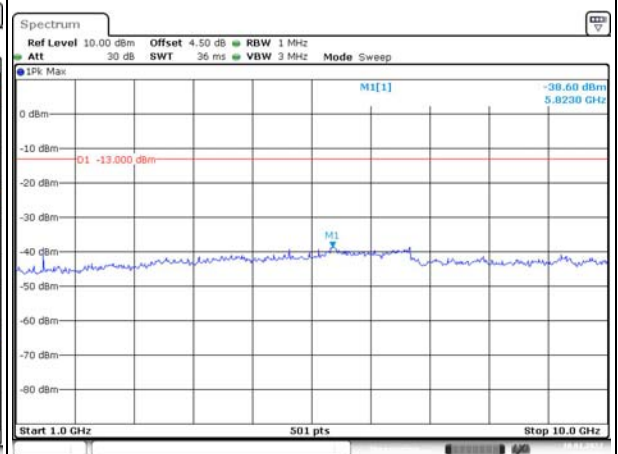
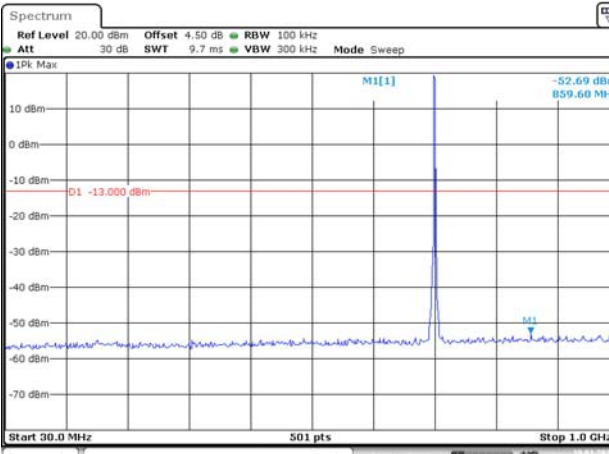
Lowest



Date: 10, JAN, 2022 14:07:51

Date: 10, JAN, 2022 14:08:17

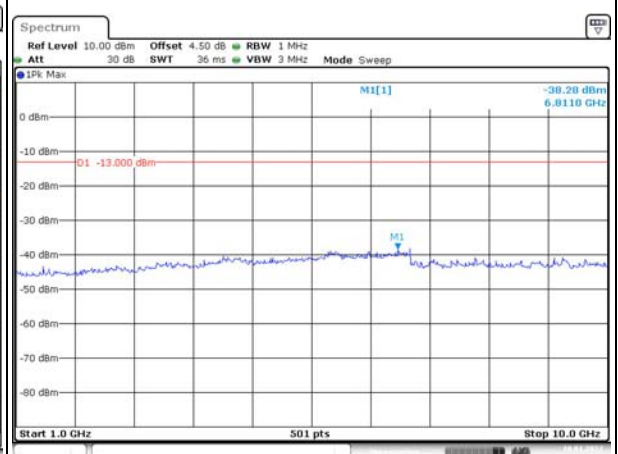
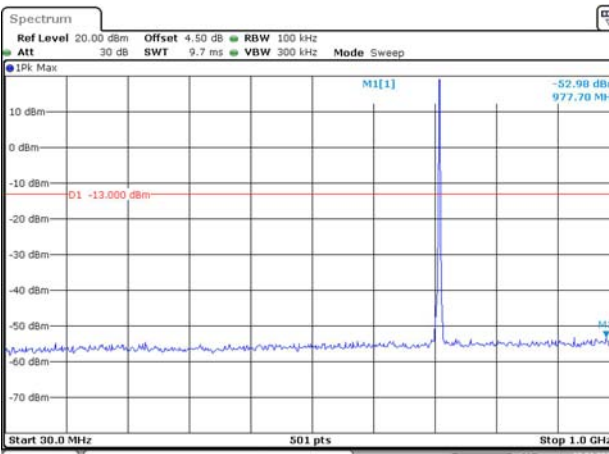
Middle



Date: 10, JAN, 2022 14:08:53

Date: 10, JAN, 2022 14:09:13

Highest



Date: 10, JAN, 2022 14:09:40

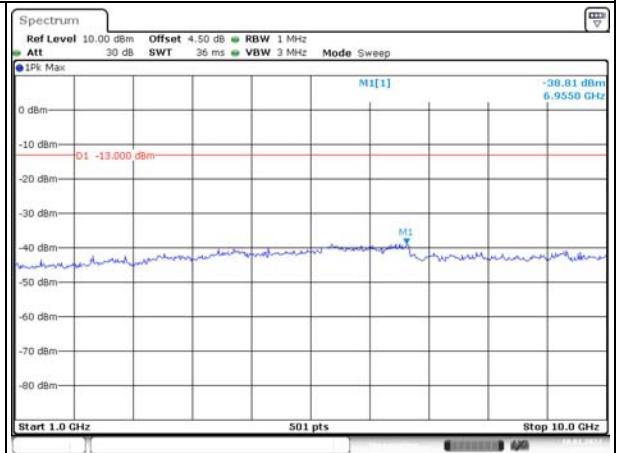
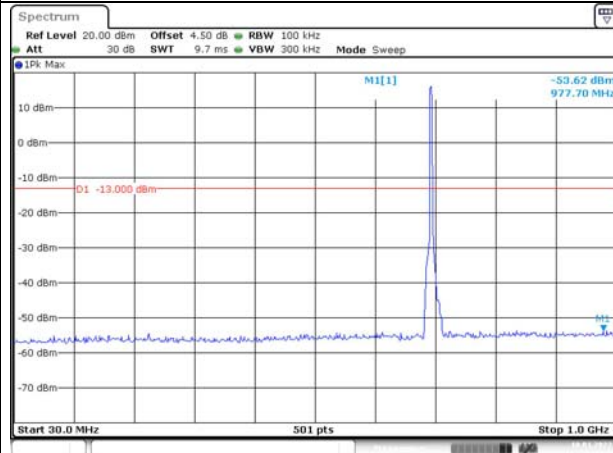
Date: 10, JAN, 2022 14:10:02

Spurious Emissions at Antenna Terminal

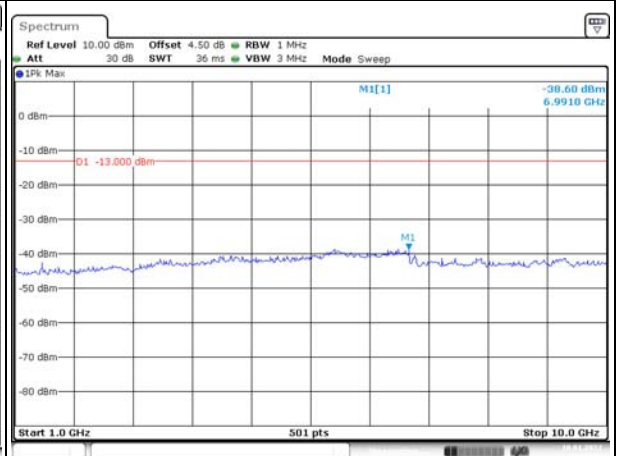
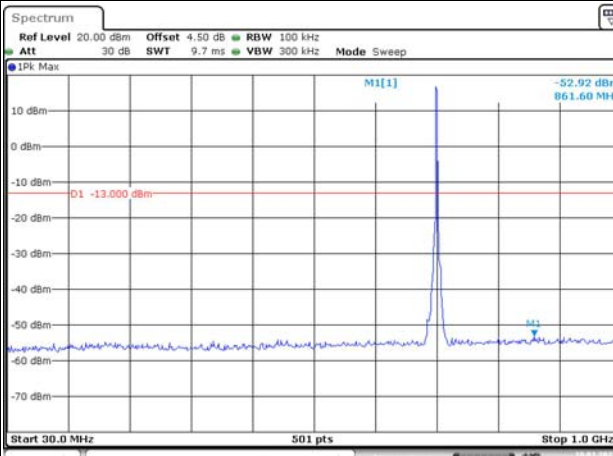
Channel

3MHz Bandwidth QPSK

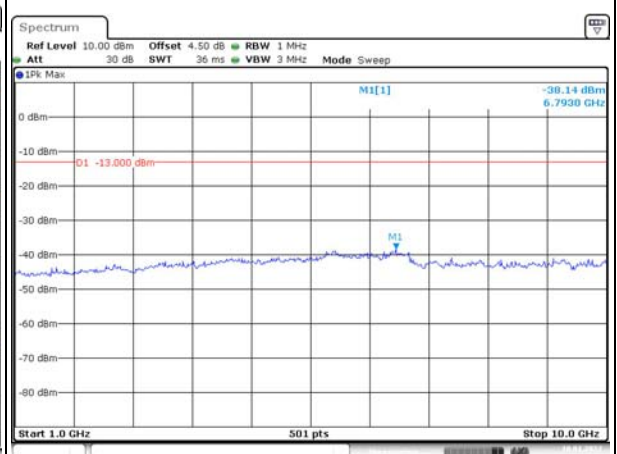
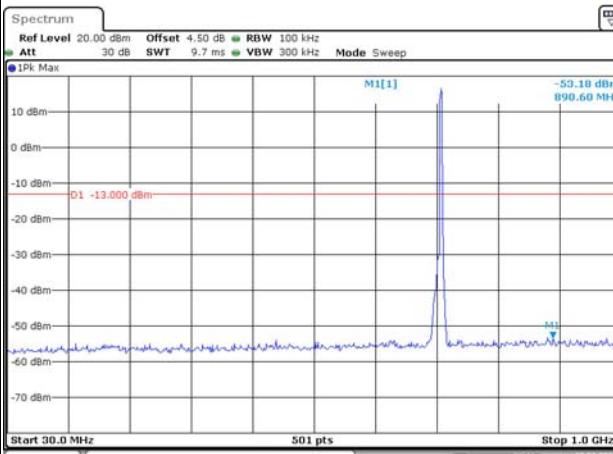
Lowest



Middle



Highest

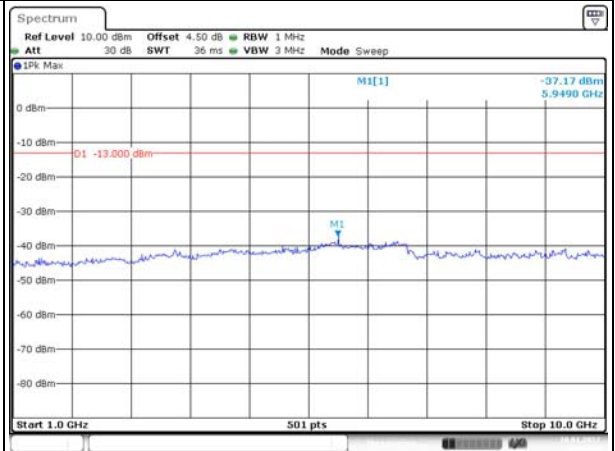
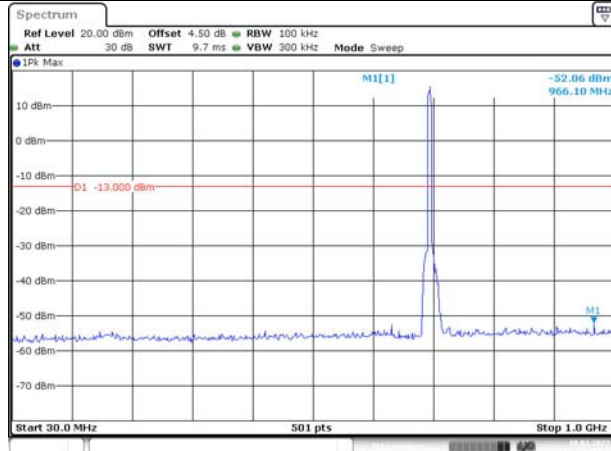


Spurious Emissions at Antenna Terminal

Channel

5MHz Bandwidth QPSK

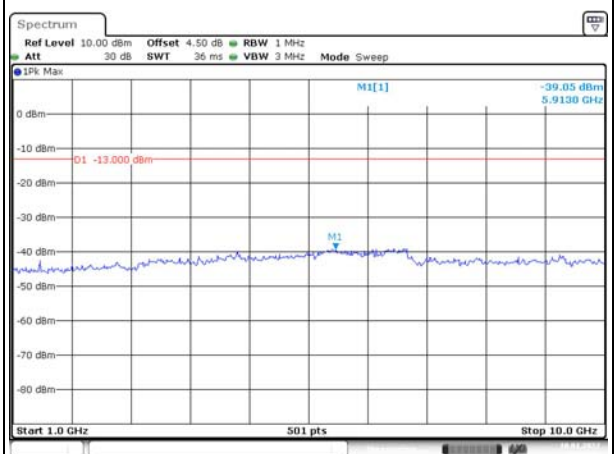
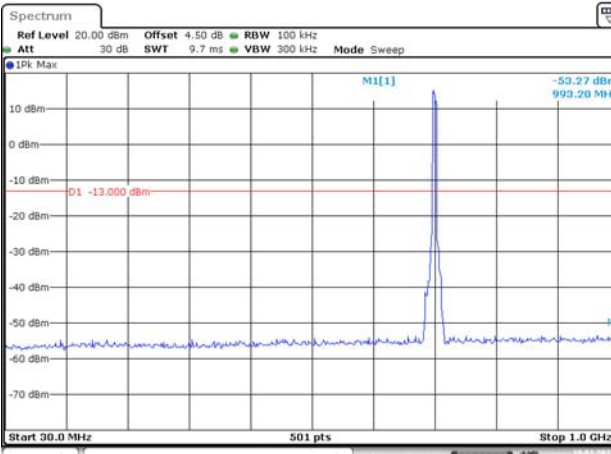
Lowest



Date: 10, JAN, 2022 14:13:25

Date: 10, JAN, 2022 14:13:54

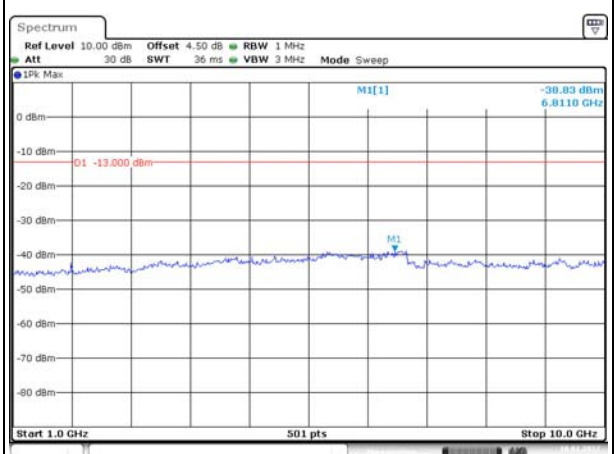
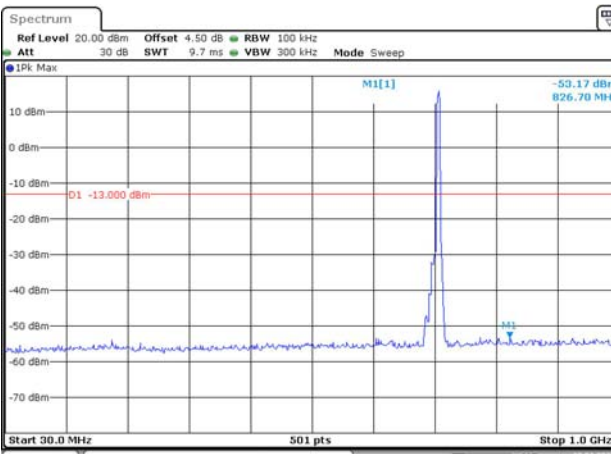
Middle



Date: 10, JAN, 2022 14:14:27

Date: 10, JAN, 2022 14:14:53

Highest



Date: 10, JAN, 2022 14:15:25

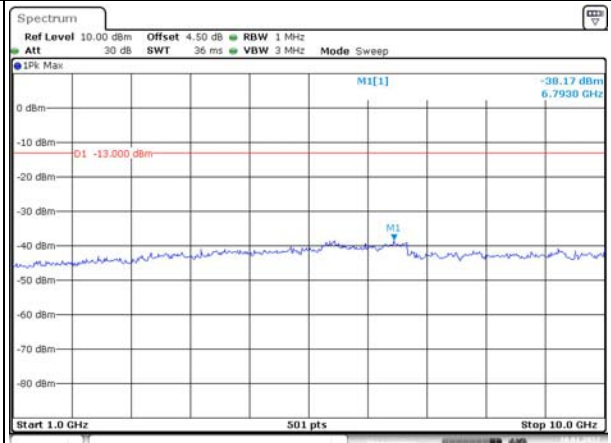
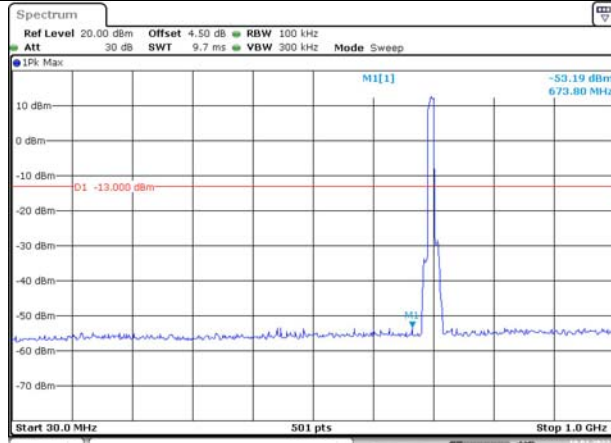
Date: 10, JAN, 2022 14:15:51

Spurious Emissions at Antenna Terminal

Channel

10MHz Bandwidth QPSK

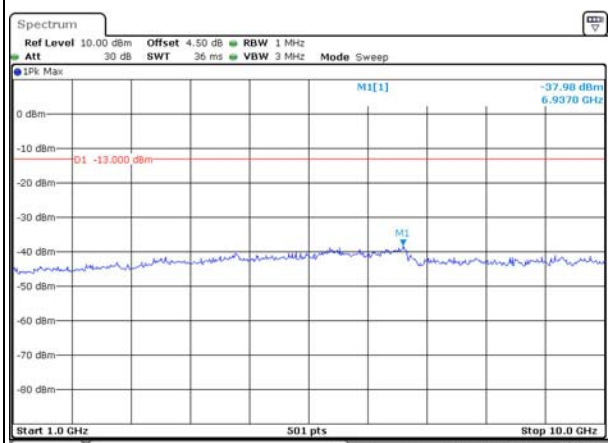
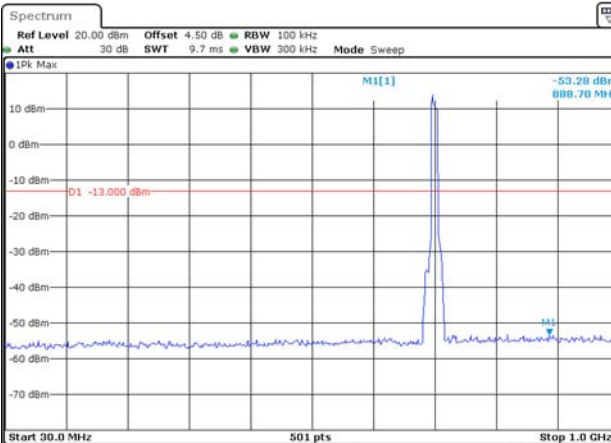
Lowest



Date: 10, JAN, 2022 14:16:31

Date: 10, JAN, 2022 14:16:57

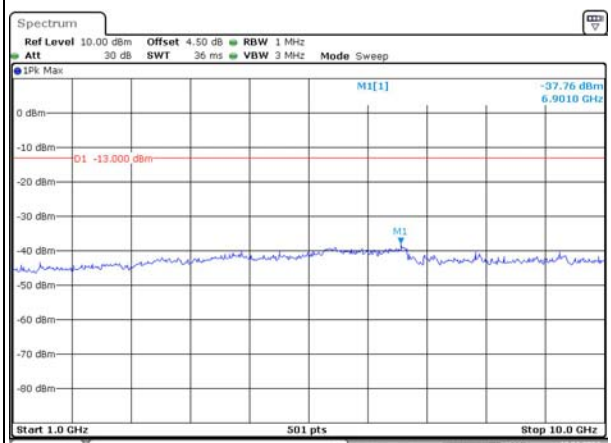
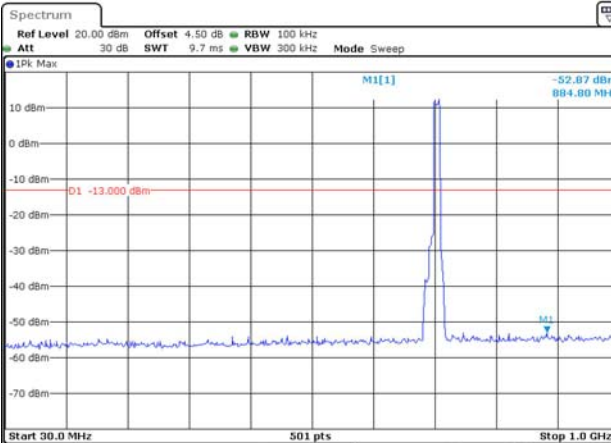
Middle



Date: 10, JAN, 2022 14:17:34

Date: 10, JAN, 2022 14:17:56

Highest



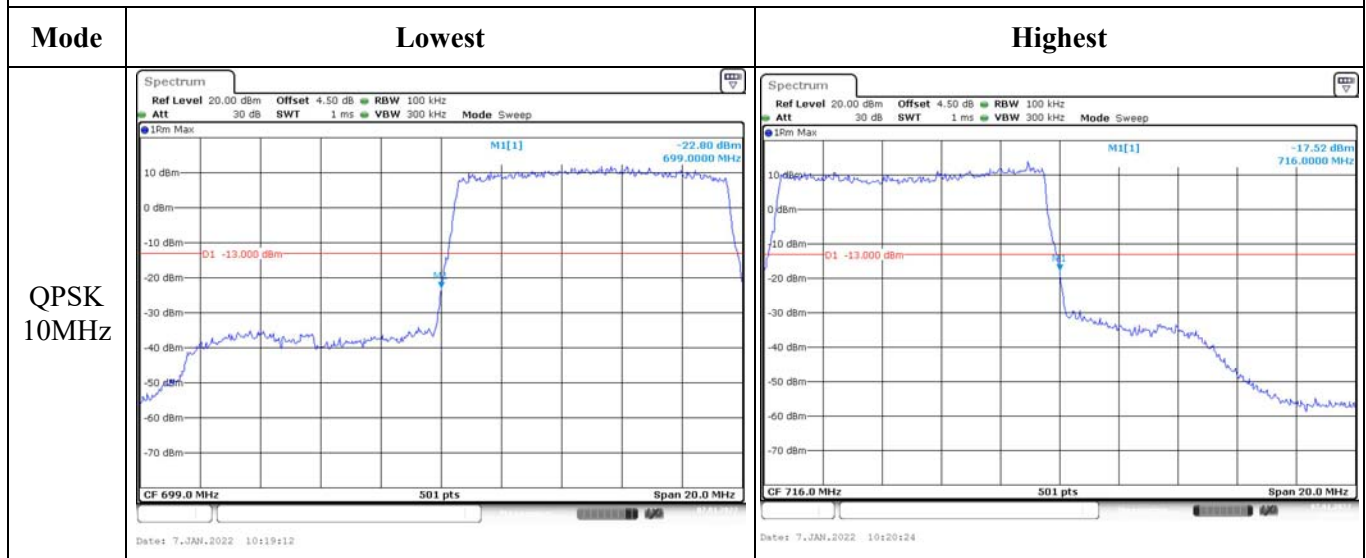
Date: 10, JAN, 2022 14:18:27

Date: 10, JAN, 2022 14:18:50

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz		
QPSK 3MHz		
QPSK 5MHz		

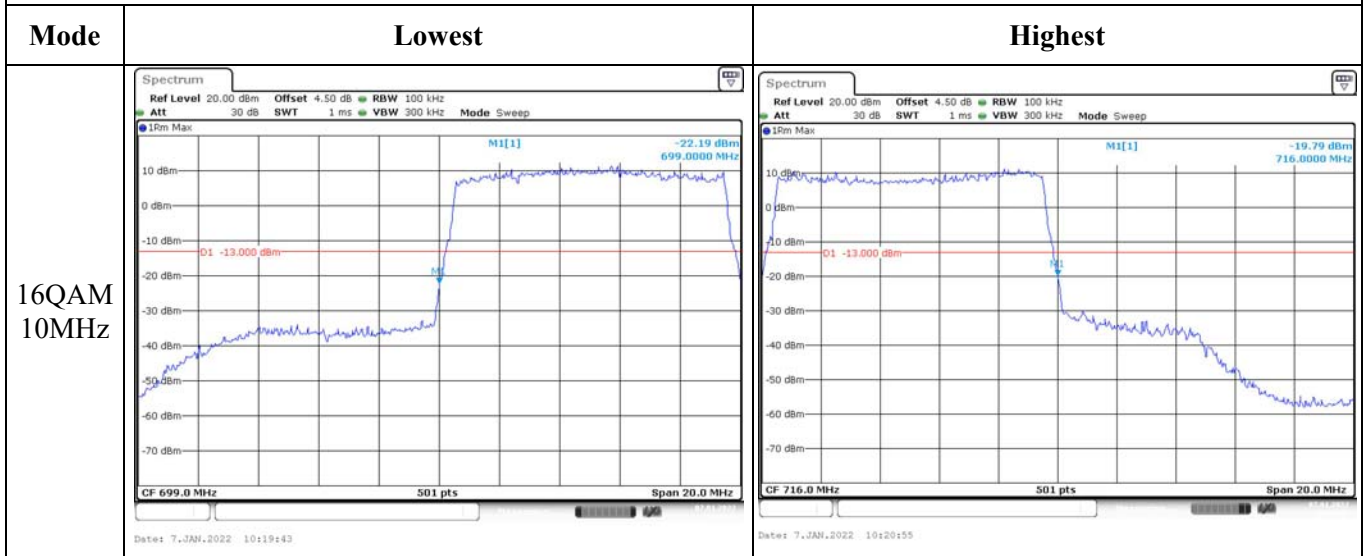
Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz		
16QAM 3MHz		
16QAM 5MHz		

Out of band emission, Band Edge



4.9 Antenna Port Test Data and Results for LTE Band 17:

Serial Number:	CR21120041-RF	Test Date:	2022/01/07~2022/01/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	LE Qiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.6~23.1	Relative Humidity: (%)	27~41	ATM Pressure: (kPa)	101.2~101.8
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	Spectrum Analyzer	101474	2021/7/22	2022/7/21
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN751	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2021/7/22	2022/7/21
BACL	TEMP&HUMI Test Chamber	BTH-150	30026	2021/7/22	2022/7/22
UNI-T	Multimeter	UT39A+	C210582554	2021/9/30	2022/9/30
E-Microwave	Two-way Splitter	ODP-1-6	OE0120176	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).

EUT Information@LTE Band 17▲:

Antenna Gain (dBi):	3	Antenna Gain (dBd):	0.85	Cable Loss (dB):	0
Operation Voltage(V _{DC}):					
Lowest:	3.5	Normal:	3.7	Highest:	4.2

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	22.75	22.78	22.63	23.69	34.77
	RB1#13	22.81	22.72	22.75		
	RB1#24	22.84	22.70	22.64		
	RB15#0	21.77	21.74	21.74		
	RB15#10	21.81	21.78	21.91		
	RB25#0	21.73	21.82	21.85		
5MHz 16QAM	RB1#0	20.91	21.67	21.39	22.64	34.77
	RB1#13	20.96	21.79	21.51		
	RB1#24	21.05	21.76	21.44		
	RB15#0	20.86	20.67	20.83		
	RB15#10	20.85	20.59	20.90		
	RB25#0	20.85	20.79	20.87		
10MHz QPSK	RB1#0	22.66	22.68	22.88	23.88	34.77
	RB1#25	22.62	22.70	22.89		
	RB1#49	22.81	22.76	23.03		
	RB25#0	21.81	21.75	21.78		
	RB25#25	21.84	21.78	21.85		
	RB50#0	21.77	21.79	21.74		
10MHz 16QAM	RB1#0	21.84	21.97	21.32	22.92	34.77
	RB1#25	21.80	21.96	21.39		
	RB1#49	21.92	22.07	21.34		
	RB25#0	20.79	20.77	20.90		
	RB25#25	20.89	20.91	21.01		
	RB50#0	20.90	20.85	20.78		

Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)

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	4.46	4.87	5.01	13
	RB50#0	5.48	5.68	5.51	13
10MHz 16QAM	RB1#0	5.57	5.71	5.91	13
	RB50#0	6.26	6.29	6.32	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	4.531	4.531	4.511	4.980	5.020	5.000
5MHz 16QAM	4.511	4.531	4.531	4.980	5.000	4.980
10MHz QPSK	8.981	8.981	9.022	9.720	9.840	9.800
10MHz 16QAM	8.981	9.022	9.022	9.840	9.840	9.920

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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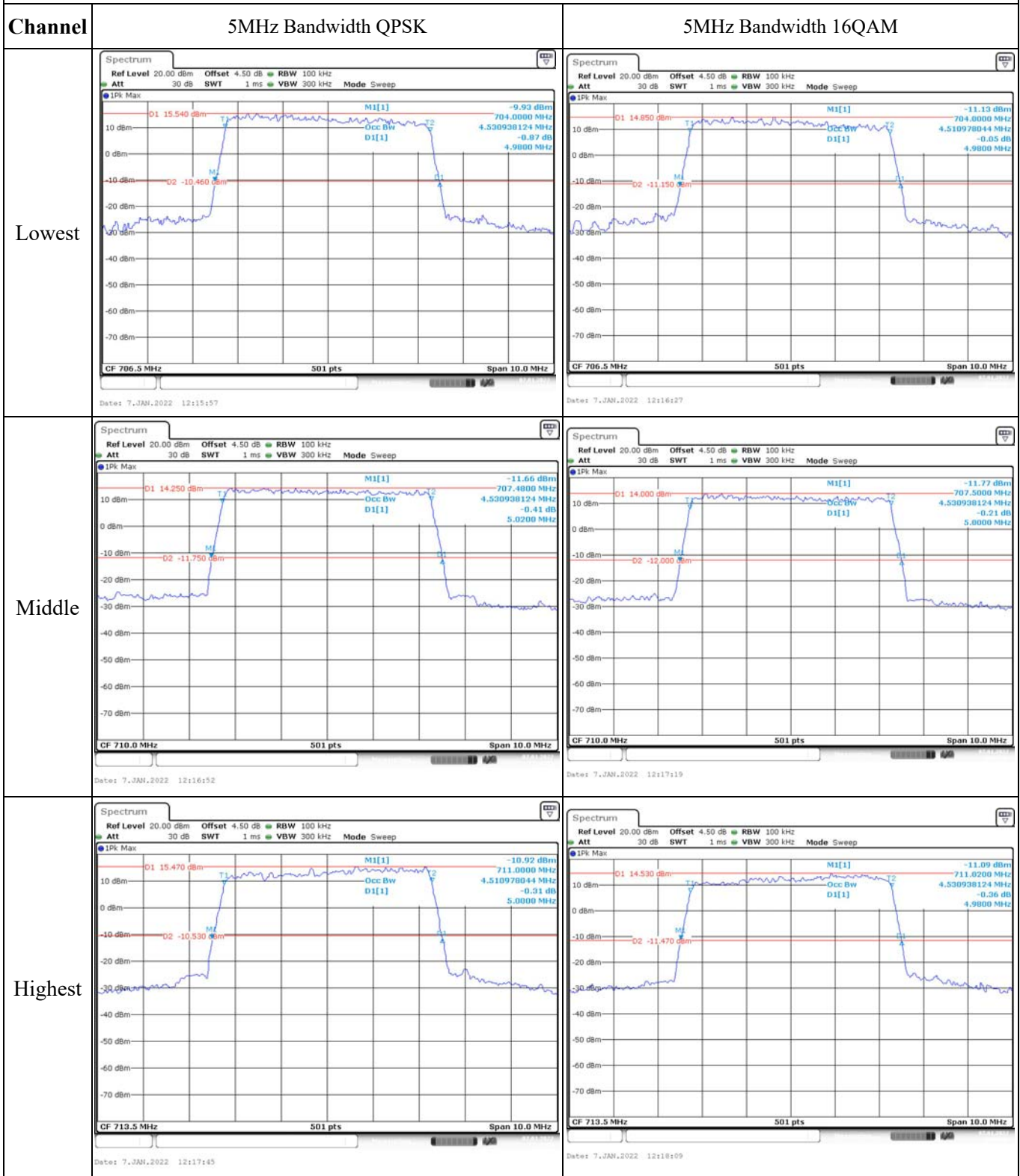
FCC §2.1055, §27.54: Frequency Stability

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	3.7	704.518	704.00	715.486	716.00
	-20	3.7	704.513	704.00	715.484	716.00
	-10	3.7	704.513	704.00	715.486	716.00
	0	3.7	704.512	704.00	715.487	716.00
	10	3.7	704.515	704.00	715.488	716.00
	20	3.7	704.514	704.00	715.486	716.00
	30	3.7	704.517	704.00	715.485	716.00
	40	3.7	704.514	704.00	715.486	716.00
Frequency Stability vs. Voltage	20	3.5	704.514	704.00	715.486	716.00
	20	4.2	704.512	704.00	715.480	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	3.7	704.511	704.00	715.515	716.00
	-20	3.7	704.514	704.00	715.518	716.00
	-10	3.7	704.512	704.00	715.515	716.00
	0	3.7	704.514	704.00	715.519	716.00
	10	3.7	704.515	704.00	715.513	716.00
	20	3.7	704.514	704.00	715.515	716.00
	30	3.7	704.518	704.00	715.519	716.00
	40	3.7	704.514	704.00	715.515	716.00
Frequency Stability vs. Voltage	20	3.5	704.514	704.00	715.515	716.00
	20	4.2	704.511	704.00	715.513	716.00
	Result:					Pass

Test Plots:

Occupied Bandwidth



Occupied Bandwidth

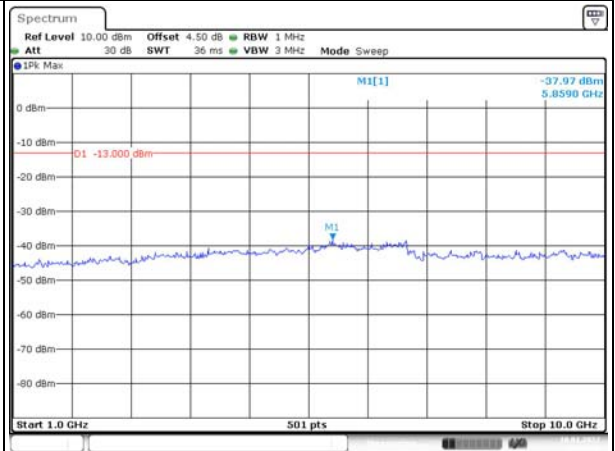
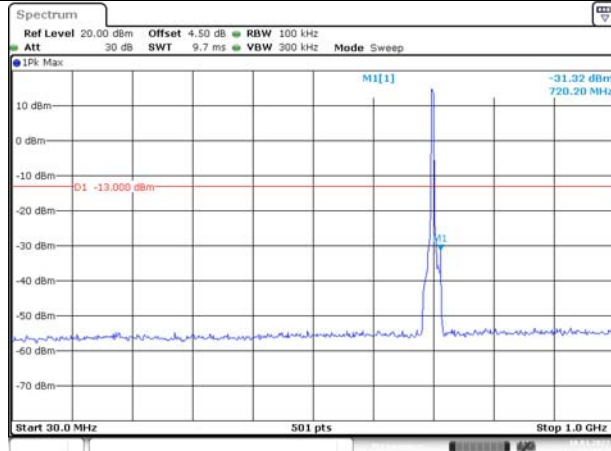
Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 13.900 dBm MI[1] -12.34 dBm 704.0000 MHz Occ BW 10 MHz D1[1] 9.92035920 MHz 0.52 dB 9.7200 MHz CF 709.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:18:38</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 12.290 dBm MI[1] -12.44 dBm 704.0000 MHz Occ BW 10 MHz D1[1] 9.92035920 MHz -2.29 dB 9.9400 MHz CF 709.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:19:07</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 13.110 dBm MI[1] -13.30 dBm 705.0000 MHz Occ BW 10 MHz D1[1] 9.982035920 MHz 1.03 dB 9.8400 MHz CF 710.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:19:42</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 11.610 dBm MI[1] -13.13 dBm 705.0000 MHz Occ BW 10 MHz D1[1] 9.021956000 MHz -1.01 dB 9.8400 MHz CF 710.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:20:14</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 12.920 dBm MI[1] -12.60 dBm 706.1200 MHz Occ BW 10 MHz D1[1] 9.021956000 MHz 0.90 dB 9.8000 MHz CF 711.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:20:43</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep IPk Max D1 11.370 dBm MI[1] -15.03 dBm 706.0400 MHz Occ BW 10 MHz D1[1] 9.021956000 MHz 1.27 dB 9.9200 MHz CF 711.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 12:21:12</p>

Spurious Emissions at Antenna Terminal

Channel

5MHz Bandwidth QPSK

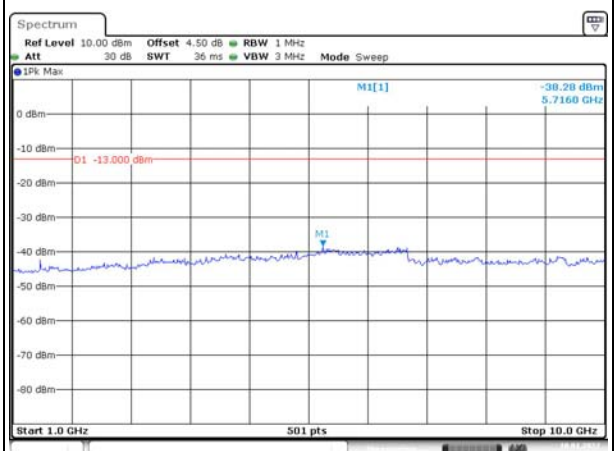
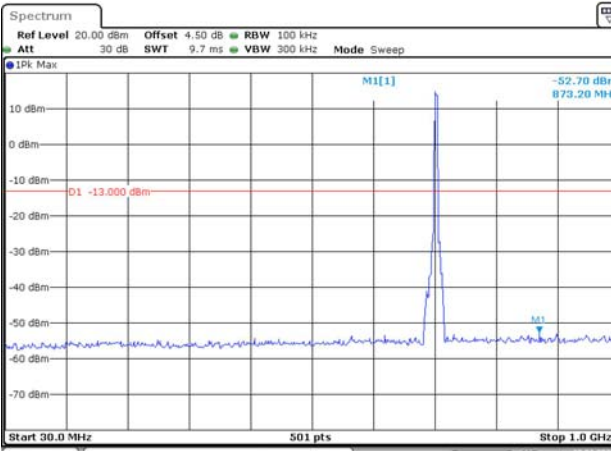
Lowest



Date: 10, JAN, 2022 14:19:25

Date: 10, JAN, 2022 14:19:48

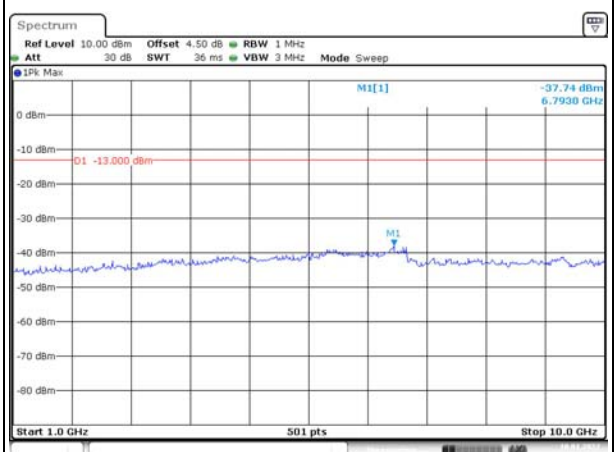
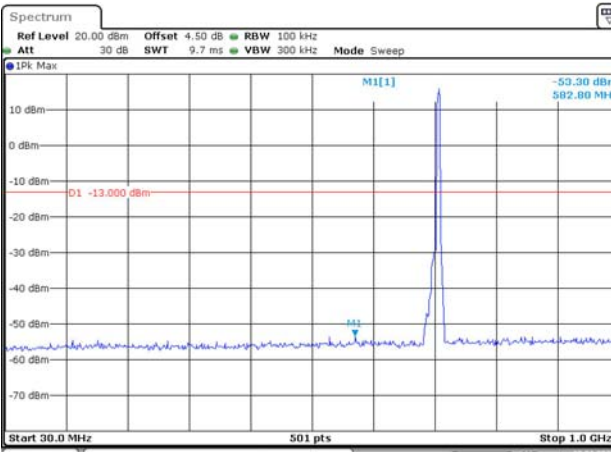
Middle



Date: 10, JAN, 2022 14:20:24

Date: 10, JAN, 2022 14:20:49

Highest



Date: 10, JAN, 2022 14:21:16

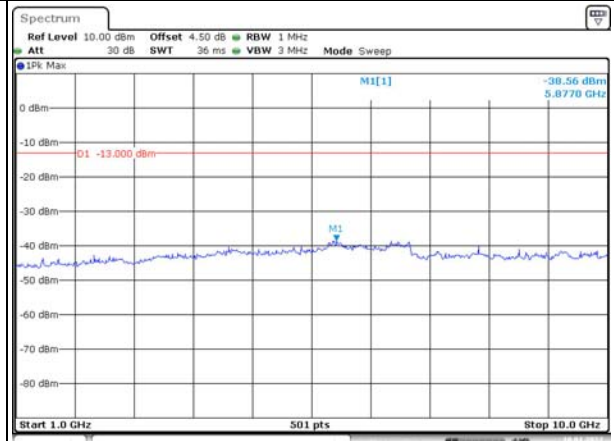
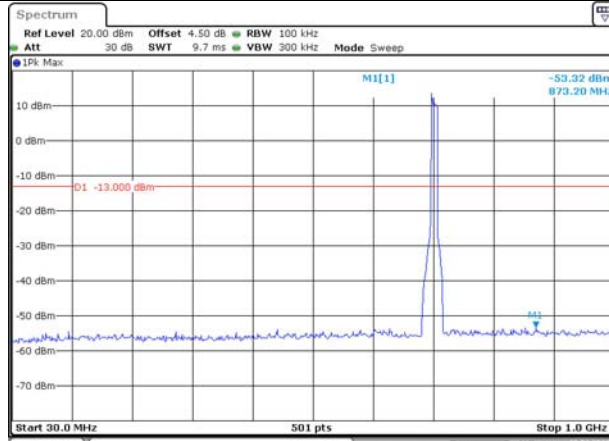
Date: 10, JAN, 2022 14:21:41

Spurious Emissions at Antenna Terminal

Channel

10MHz Bandwidth QPSK

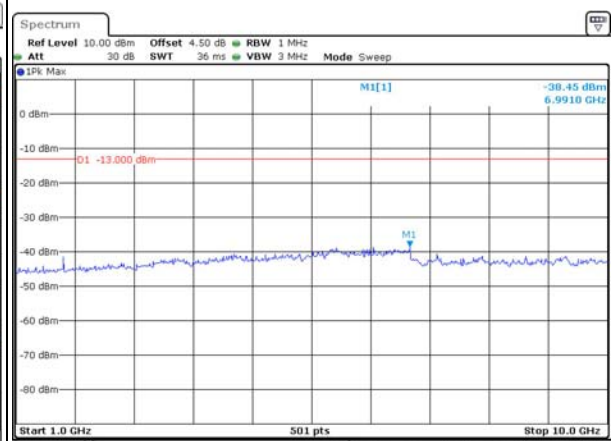
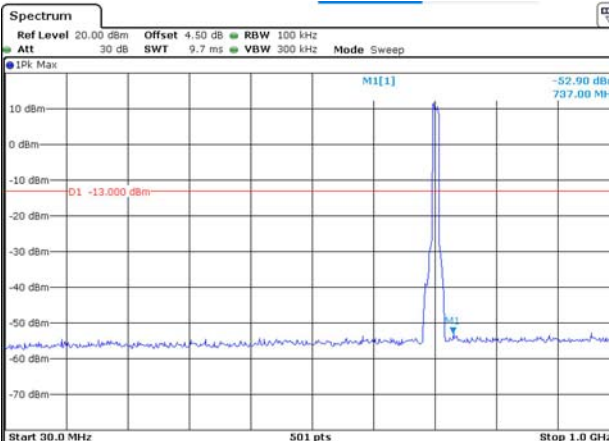
Lowest



Date: 10, JAN, 2022 14:22:12

Date: 10, JAN, 2022 14:22:32

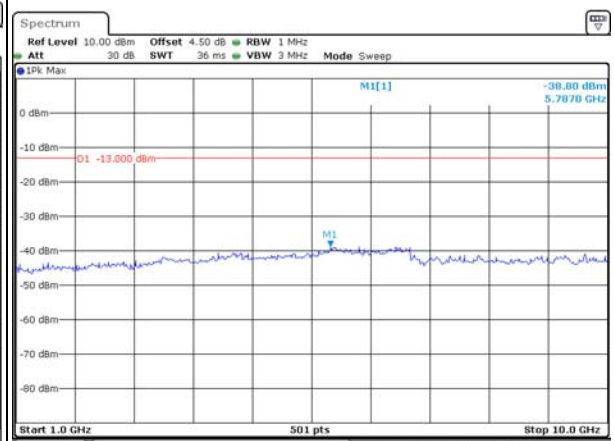
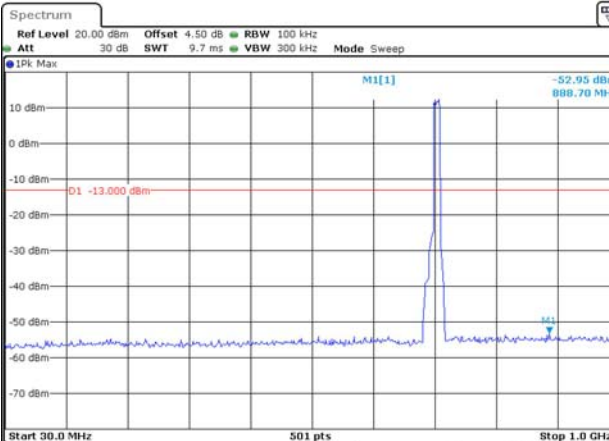
Middle



Date: 11, JAN, 2022 13:15:00

Date: 10, JAN, 2022 14:23:28

Highest



Date: 10, JAN, 2022 14:23:59

Date: 10, JAN, 2022 14:24:28

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 5MHz	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 20 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -10.31 dBm 704.0000 MHz D1 -13.000 dBm CF 704.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:21:35</p>	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 20 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -19.39 dBm 716.0000 MHz D1 -13.000 dBm CF 716.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:22:48</p>
QPSK 10MHz	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -10.75 dBm 704.0000 MHz D1 -13.000 dBm CF 704.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 10:24:05</p>	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -19.13 dBm 716.0000 MHz D1 -13.000 dBm CF 716.0 MHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 10:25:11</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 5MHz		
16QAM 10MHz		

4.10 Antenna Port Test Data and Results for LTE Band 26:

Serial Number:	CR21120041-RF	Test Date:	2022/01/07~2022/01/10
Test Site:	RF	Test Mode:	Transmitting
Tester:	LE Qiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.6~23.1	Relative Humidity: (%)	27~41	ATM Pressure: (kPa)	101.2~101.8
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	Spectrum Analyzer	101474	2021/7/22	2022/7/21
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN751	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2021/7/22	2022/7/21
BACL	TEMP&HUMI Test Chamber	BTH-150	30026	2021/7/22	2022/7/22
UNI-T	Multimeter	UT39A+	C210582554	2021/9/30	2022/9/30

* 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).

EUT Information@ LTE Band 26▲:

Antenna Gain (dBi):	3.15	Antenna Gain (dBd):	1	Cable Loss (dB):	0
Operation Voltage(V _{DC}):					
Lowest:	3.5	Normal:	3.7	Highest:	4.2

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
1.4MHz	814.7	831.5	848.3
3MHz	815.5	831.5	847.5
5MHz	816.5	831.5	846.5
10MHz	819	831.5	844
15MHz	821.5	831.5	841.5

Test Data:**FCC§2.1046;§ 22.913 (a),§ 90.542****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	22.77	22.71	22.78	23.9	38.45
	RB1#3	22.76	22.68	22.80		
	RB1#5	22.73	22.82	22.83		
	RB3#0	22.76	22.81	22.85		
	RB3#3	22.73	22.90	22.84		
	RB6#0	21.75	21.81	21.75		
1.4MHz 16QAM	RB1#0	22.25	22.46	21.62	23.53	38.45
	RB1#3	22.25	22.47	21.67		
	RB1#5	22.27	22.53	21.59		
	RB3#0	21.84	21.69	21.92		
	RB3#3	21.93	21.77	21.90		
	RB6#0	21.08	20.85	21.05		
3MHz QPSK	RB1#0	22.77	22.73	22.90	23.9	38.45
	RB1#8	22.76	22.72	22.90		
	RB1#14	22.81	22.70	22.89		
	RB6#0	21.76	21.82	21.81		
	RB6#9	21.84	21.78	21.82		
	RB15#0	21.84	21.86	21.84		
3MHz 16QAM	RB1#0	22.07	22.48	21.51	23.48	38.45
	RB1#8	22.07	22.47	21.50		
	RB1#14	21.99	22.46	21.53		
	RB6#0	20.81	20.85	21.03		
	RB6#9	20.95	20.97	20.95		
	RB15#0	20.87	20.82	20.80		
5MHz QPSK	RB1#0	22.83	22.75	22.73	24.03	38.45
	RB1#13	22.94	22.83	22.81		
	RB1#24	23.03	22.91	22.75		
	RB15#0	21.75	21.82	21.87		
	RB15#10	21.79	21.81	21.79		
	RB25#0	21.77	21.69	21.85		
5MHz 16QAM	RB1#0	20.98	21.93	21.43	23.01	38.45
	RB1#13	21.04	21.93	21.45		
	RB1#24	21.07	22.01	21.44		
	RB15#0	20.87	20.86	20.88		
	RB15#10	20.97	20.75	20.83		
	RB25#0	20.98	20.86	20.72		

10MHz QPSK	RB1#0	22.65	22.83	22.78	23.93	38.45	
	RB1#25	22.75	22.90	22.79			
	RB1#49	22.78	22.93	22.82			
	RB25#0	21.80	21.72	21.73			
	RB25#25	21.94	21.80	21.73			
	RB50#0	21.90	21.88	21.78			
10MHz 16QAM	RB1#0	21.90	21.90	21.36	23.07	38.45	
	RB1#25	22.00	22.00	21.31			
	RB1#49	22.07	21.95	21.30			
	RB25#0	20.86	20.96	21.28			
	RB25#25	20.90	20.99	21.01			
	RB50#0	20.93	21.00	21.23			
15MHz QPSK	RB1#0	22.68	22.87	22.73	23.92	38.45	
	RB1#38	22.80	22.90	22.75			
	RB1#74	22.73	22.92	22.77			
	RB36#0	21.92	21.84	21.72			
	RB36#39	21.93	21.79	21.82			
	RB75#0	21.89	21.77	21.82			
15MHz 16QAM	RB1#0	22.09	22.00	22.09	23.29	38.45	
	RB1#38	22.29	21.92	22.22			
	RB1#74	22.25	22.07	22.21			
	RB36#0	20.90	21.01	20.82			
	RB36#39	20.93	21.24	20.87			
	RB75#0	20.82	20.98	21.22			
Note: ERP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(dBd)						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	
15MHz QPSK	RB1#0	5.65	5.88	5.71	13
	RB75#0	4.96	5.19	5.25	13
15MHz 16QAM	RB1#0	6.70	6.52	6.41	13
	RB75#0	5.83	6.20	6.09	13
Result:					Pass

FCC §2.1049, §22.905, §90.209: 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	1.102	1.254	1.260	1.260
1.4MHz 16QAM	1.108	1.090	1.102	1.266	1.254	1.254
3MHz QPSK	2.683	2.695	2.695	2.988	2.988	3.012
3MHz 16QAM	2.695	2.683	2.695	3.000	2.988	3.012
5MHz QPSK	4.511	4.511	4.511	4.960	5.000	4.960
5MHz 16QAM	4.491	4.531	4.531	4.980	5.000	5.000
10MHz QPSK	8.942	8.901	8.942	9.800	9.720	9.760
10MHz 16QAM	8.942	8.981	8.942	9.720	9.760	9.840
15MHz QPSK	13.533	13.413	13.533	15.000	14.880	15.120
15MHz 16QAM	13.533	13.473	13.533	15.000	15.120	15.060

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

FCC §2.1051, §22.917(a), §90.543: Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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FCC §2.1051, §22.917(a), §90.543: Out of band emission, Band Edge

Result:	Pass, Please refer to the test plots of Out of band emission, Band Edge.
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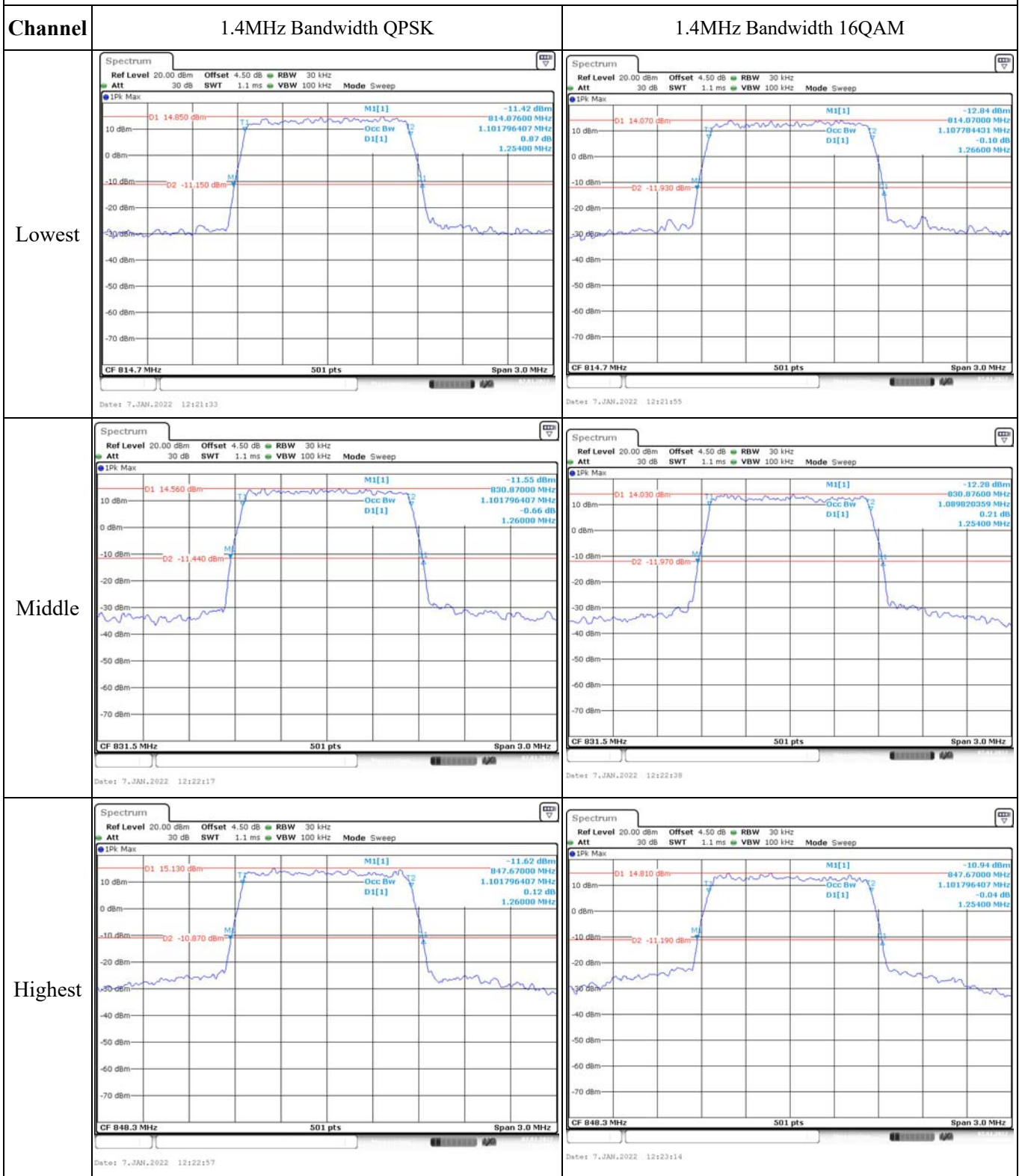
FCC §2.1055, §22.355, §90.213: Frequency Stability

Test Mode:	15 MHz QPSK		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.7	-11.73	-0.014	2.5
	-20	3.7	-9.03	-0.011	2.5
	-10	3.7	-7.63	-0.009	2.5
	0	3.7	-7.86	-0.009	2.5
	10	3.7	-8.31	-0.010	2.5
	20	3.7	7.36	0.009	2.5
	30	3.7	-5.79	-0.007	2.5
	40	3.7	-6.50	-0.008	2.5
Frequency Stability vs. Voltage	20	3.5	-8.23	-0.010	2.5
	20	4.2	8.57	0.010	2.5
Result:				Pass	

Test Mode:	15 MHz 16QAM		Test Channel:	831.5	MHz
Test Item	Temperature (°C)	Voltage (V _{DC})	Frequency Error		Limit
			(Hz)	(ppm)	(ppm)
Frequency Stability vs. Temperature	-30	3.7	-11.77	-0.014	2.5
	-20	3.7	-6.67	-0.008	2.5
	-10	3.7	6.98	0.008	2.5
	0	3.7	-7.93	-0.010	2.5
	10	3.7	-5.99	-0.007	2.5
	20	3.7	-7.34	-0.009	2.5
	30	3.7	-6.91	-0.008	2.5
	40	3.7	5.30	0.006	2.5
	50	3.7	-6.21	-0.007	2.5
Frequency Stability vs. Voltage	20	3.5	-8.67	-0.010	2.5
	20	4.2	8.01	0.010	2.5
				Result:	Pass

Test Plots:

Occupied Bandwidth



Occupied Bandwidth

Channel	3MHz Bandwidth QPSK	3MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 815.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:23:40</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 815.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:24:01</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 831.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:24:20</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 831.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:24:38</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 847.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:25:03</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep CF 847.5 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 12:25:24</p>

Occupied Bandwidth

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

Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -13.88 dBm 814.1200 MHz D1[1] 0.942115760 MHz -0.82 dB 9.8000 MHz</p> <p>D1 11.580 dBm D2 -14.420 dBm</p> <p>CF 819.0 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:28:34</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -13.50 dBm 814.1600 MHz D1[1] 0.942115760 MHz -1.24 dB 9.7200 MHz</p> <p>D1 11.840 dBm D2 -14.160 dBm</p> <p>CF 819.0 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:28:59</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -13.79 dBm 826.6600 MHz D1[1] 0.902195609 MHz -0.56 dB 9.7200 MHz</p> <p>D1 12.240 dBm D2 -13.760 dBm</p> <p>CF 831.5 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:29:29</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -14.74 dBm 826.6200 MHz D1[1] 0.982035928 MHz 0.52 dB 9.7600 MHz</p> <p>D1 11.890 dBm D2 -15.110 dBm</p> <p>CF 831.5 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:29:57</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -14.62 dBm 839.1200 MHz D1[1] 0.942115760 MHz 0.88 dB 9.7600 MHz</p> <p>D1 11.760 dBm D2 -14.240 dBm</p> <p>CF 844.0 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:30:30</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep</p> <p>IPk Max</p> <p>M1[1] -14.99 dBm 839.0800 MHz D1[1] 0.942115760 MHz 1.36 dB 9.8400 MHz</p> <p>D1 11.120 dBm D2 -14.880 dBm</p> <p>CF 844.0 MHz 501 pts Span 20.0 MHz</p> <p>Date: 7, JAN, 2022 12:31:01</p>

Occupied Bandwidth

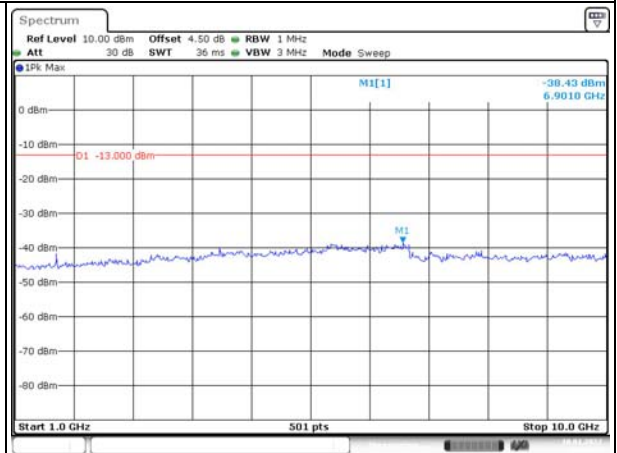
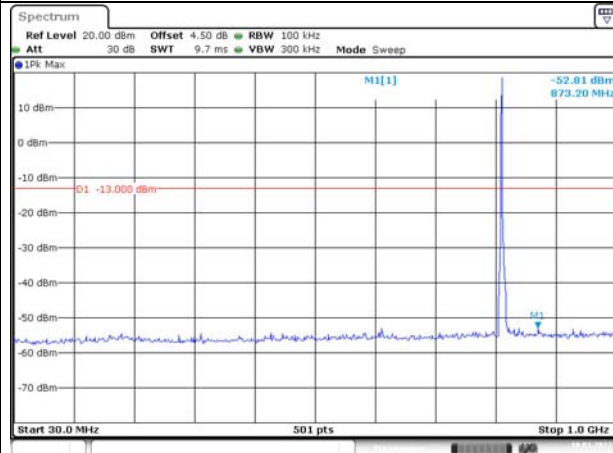
Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		

Spurious Emissions at Antenna Terminal

Channel

1.4MHz Bandwidth QPSK

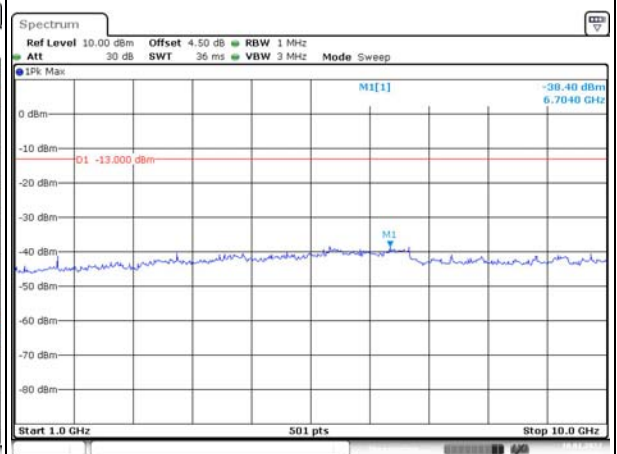
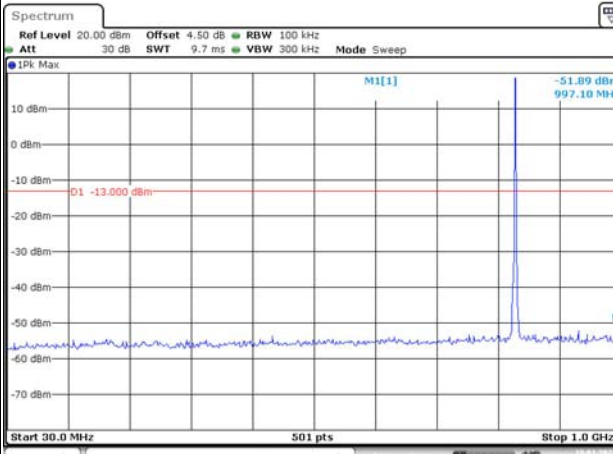
Lowest



Date: 10, JAN, 2022 14:24:57

Date: 10, JAN, 2022 14:25:23

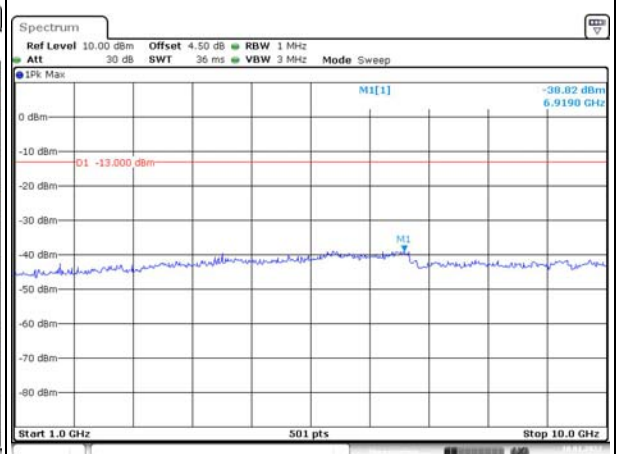
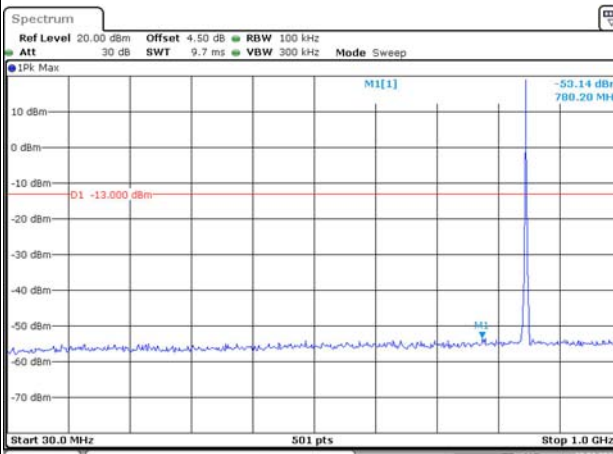
Middle



Date: 10, JAN, 2022 14:26:02

Date: 10, JAN, 2022 14:26:31

Highest



Date: 10, JAN, 2022 14:26:57

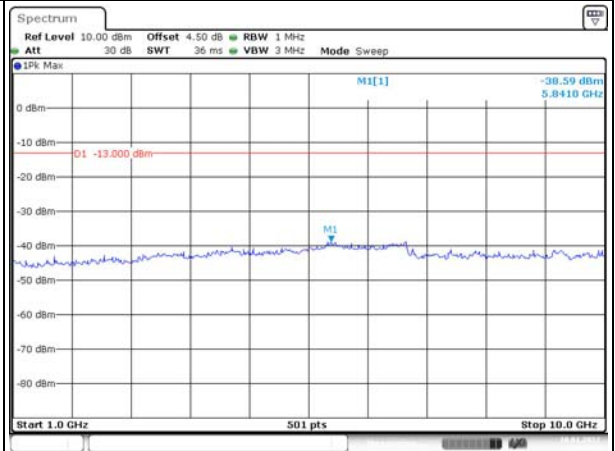
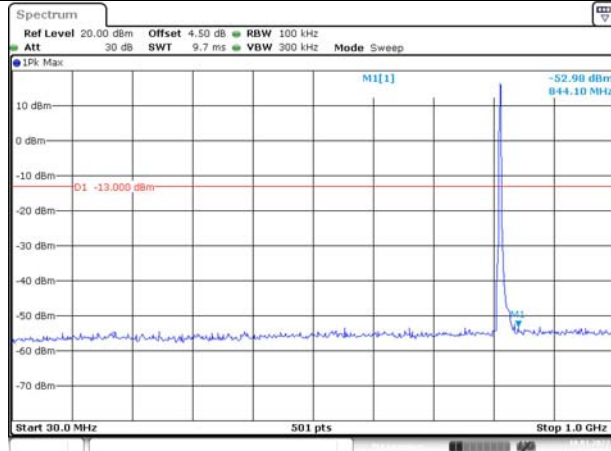
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Spurious Emissions at Antenna Terminal

Channel

3MHz Bandwidth QPSK

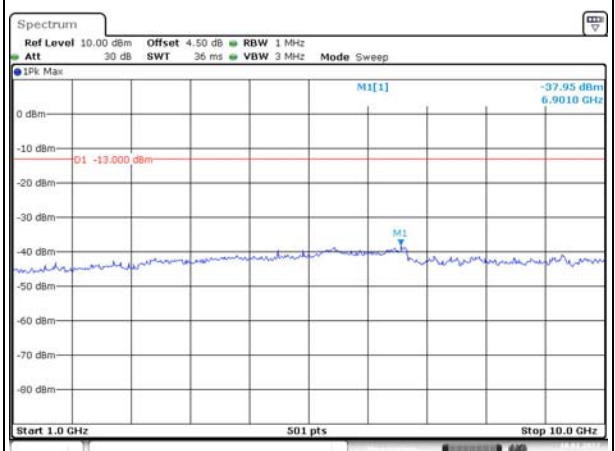
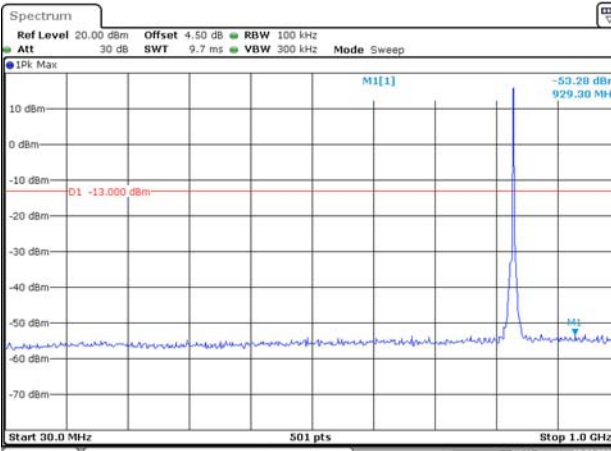
Lowest



Date: 10, JAN, 2022 14:27:56

Date: 10, JAN, 2022 14:28:22

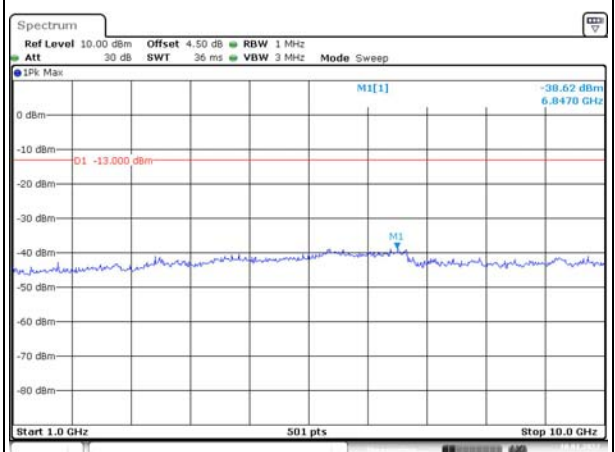
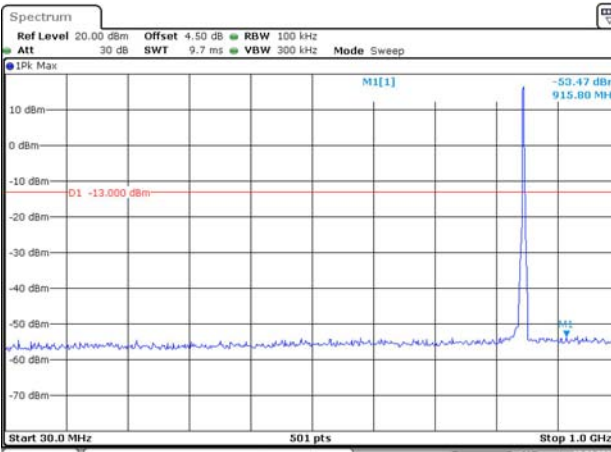
Middle



Date: 10, JAN, 2022 14:28:55

Date: 10, JAN, 2022 14:29:24

Highest



Date: 10, JAN, 2022 14:29:57

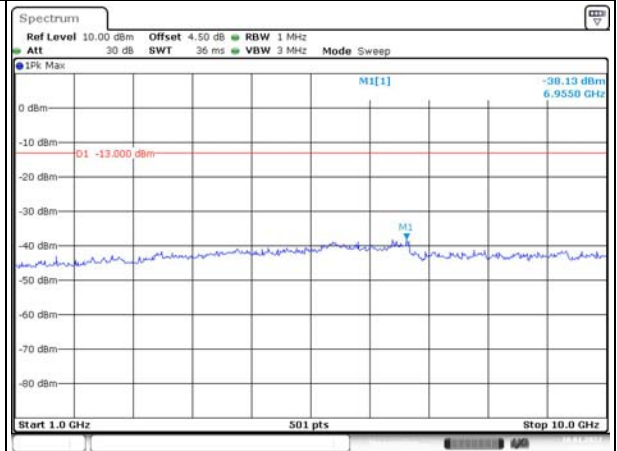
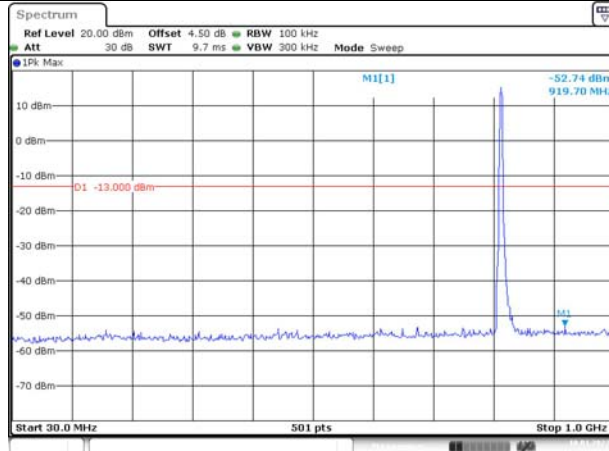
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Spurious Emissions at Antenna Terminal

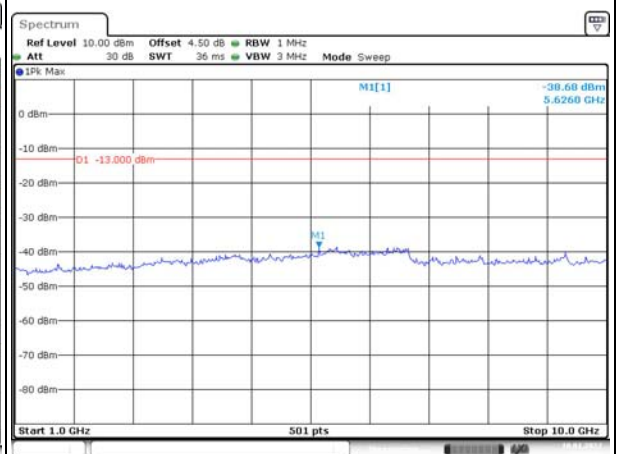
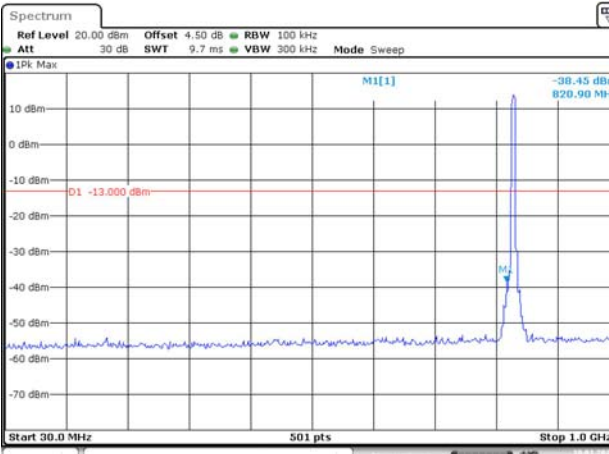
Channel

5MHz Bandwidth QPSK

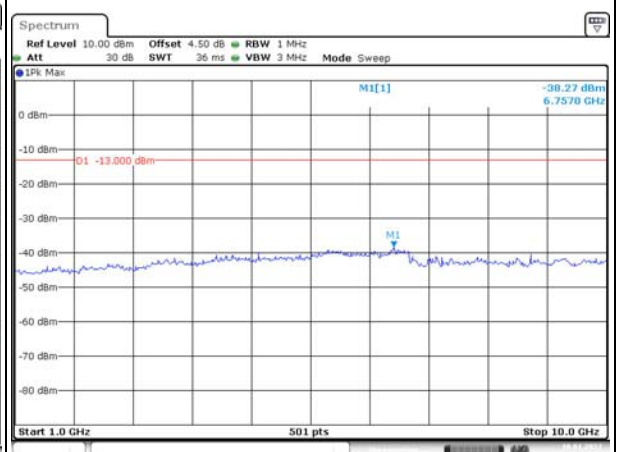
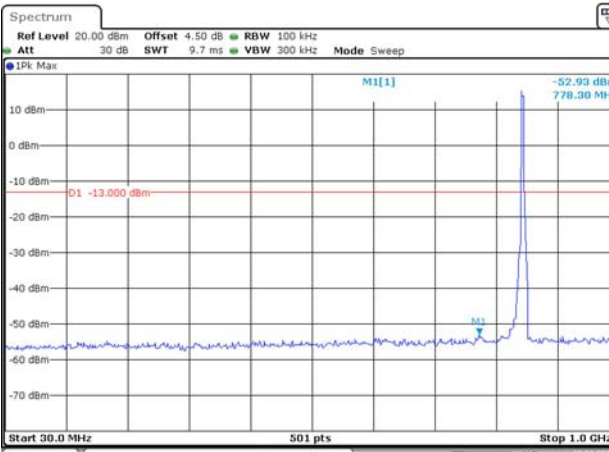
Lowest



Middle



Highest

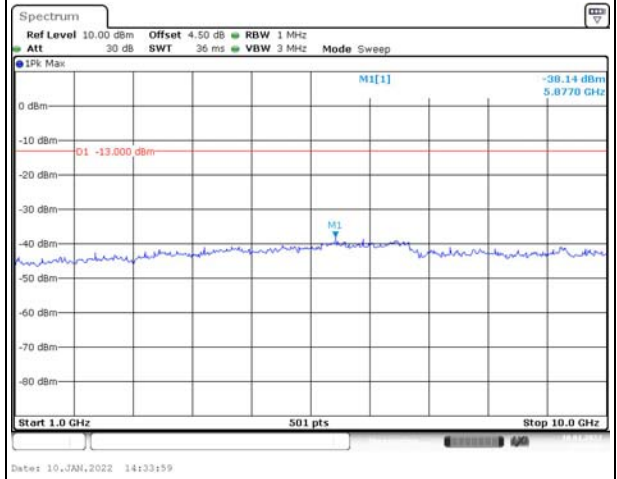
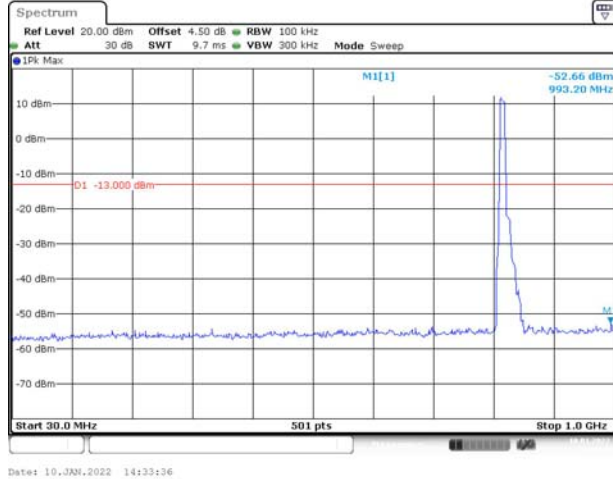


Spurious Emissions at Antenna Terminal

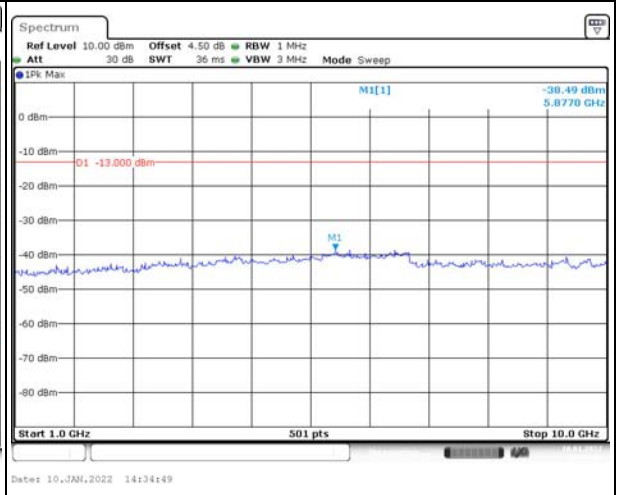
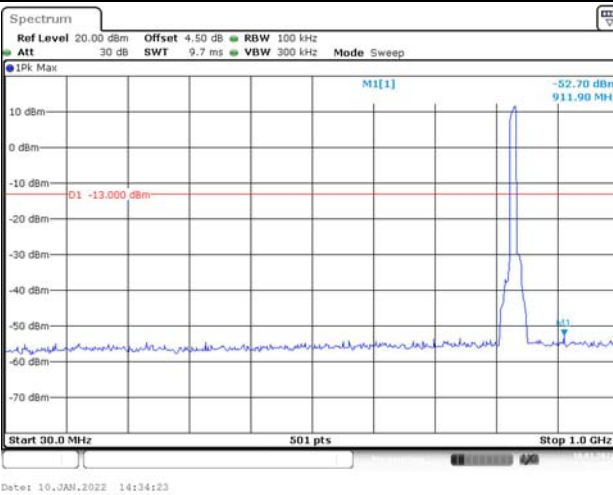
Channel

10MHz Bandwidth QPSK

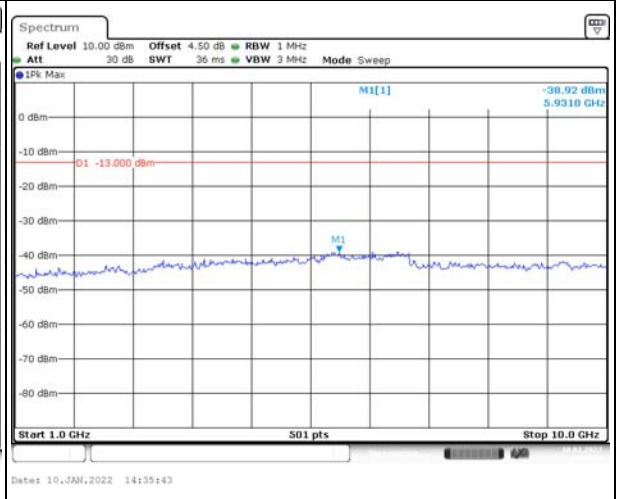
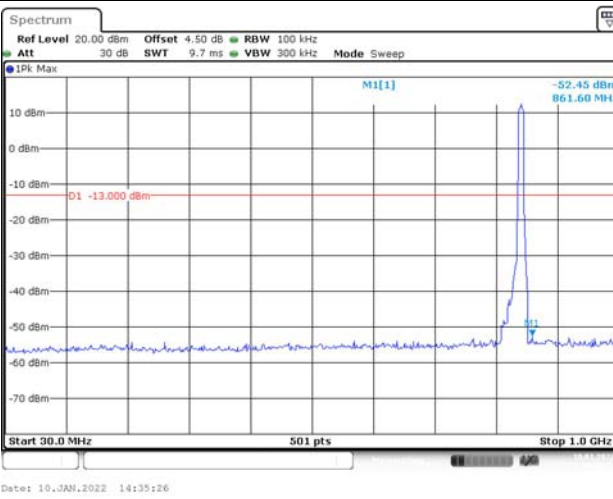
Lowest



Middle



Highest

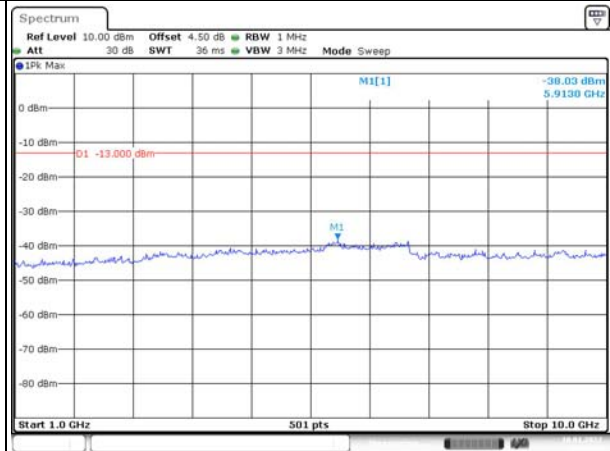
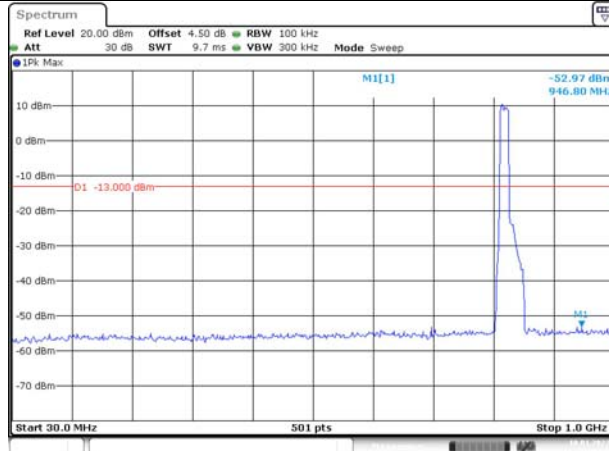


Spurious Emissions at Antenna Terminal

Channel

15MHz Bandwidth QPSK

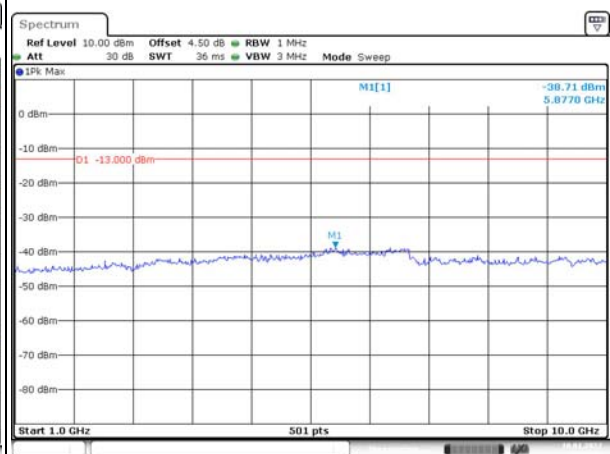
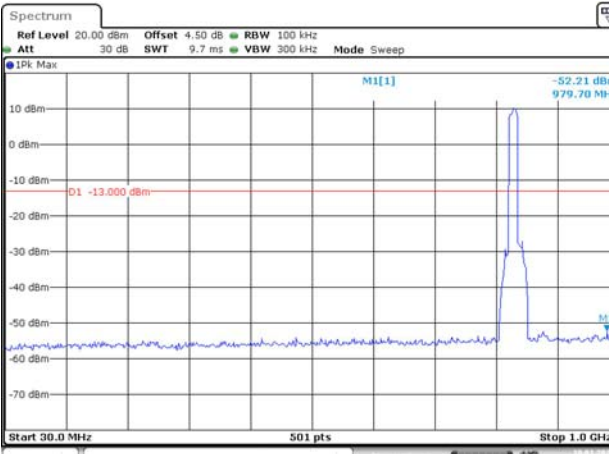
Lowest



Date: 10, JAN, 2022 14:36:19

Date: 10, JAN, 2022 14:36:45

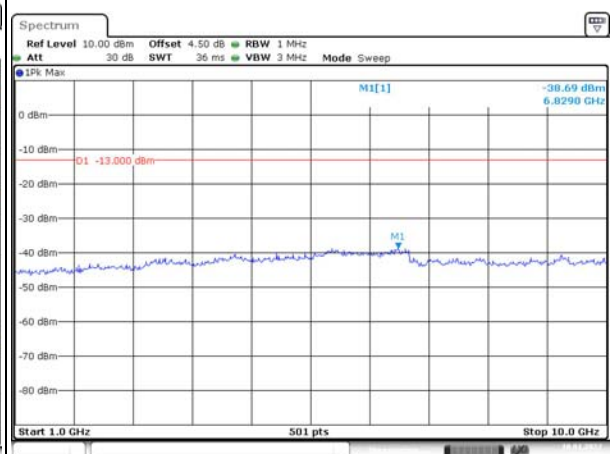
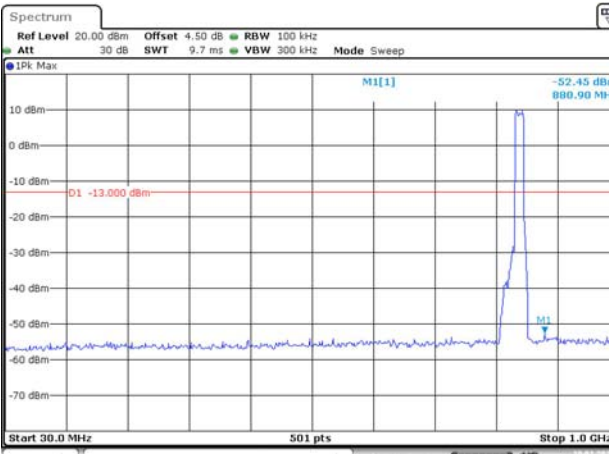
Middle



Date: 10, JAN, 2022 14:37:21

Date: 10, JAN, 2022 14:37:46

Highest



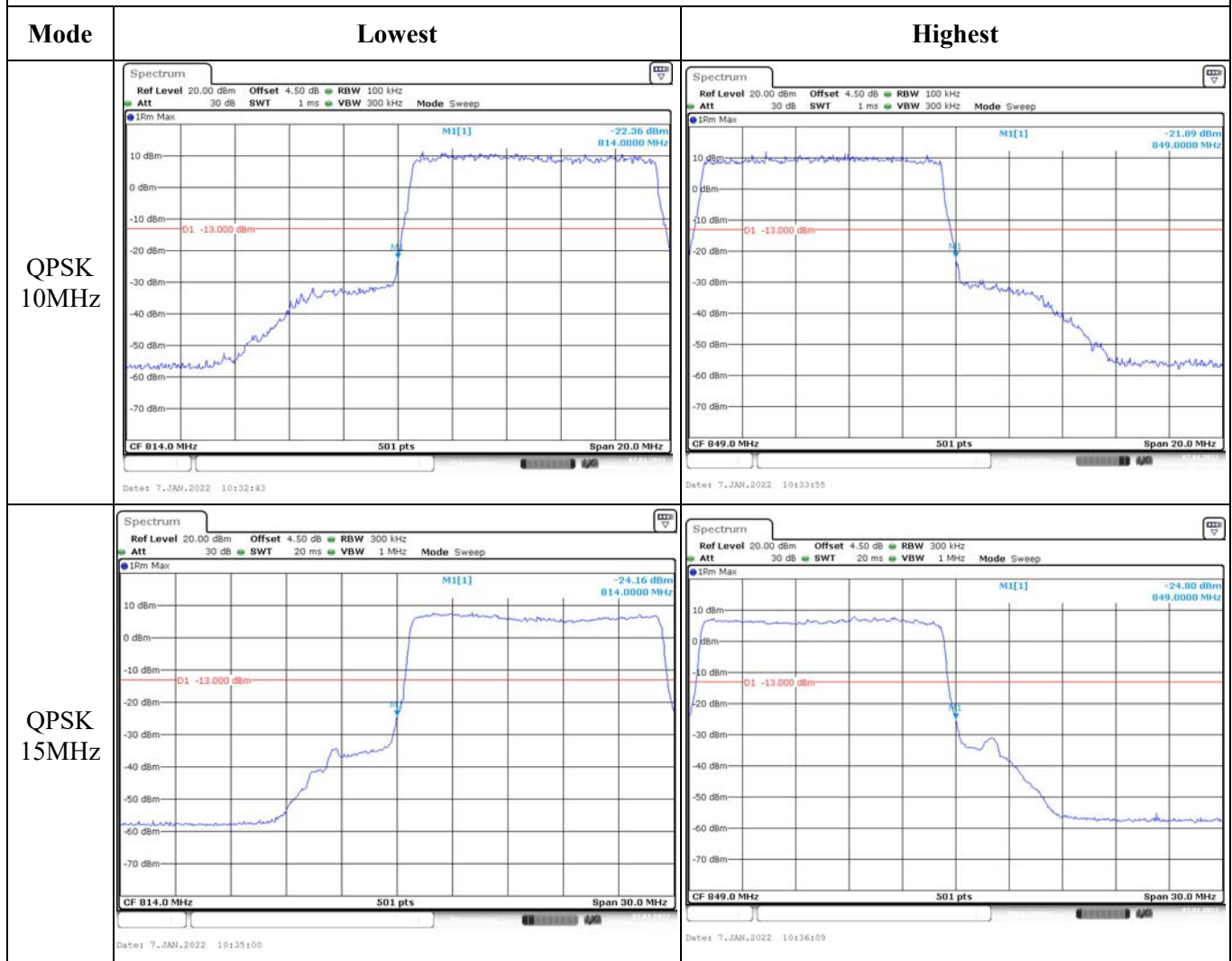
Date: 10, JAN, 2022 14:38:16

Date: 10, JAN, 2022 14:38:45

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 12m Max MI[1] -20.81 dBm 812.30 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 3.0 MHz Date: 7, JAN, 2022 10:25:59</p>	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 12m Max MI[1] -26.15 dBm 849.22750 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 3.0 MHz Date: 7, JAN, 2022 10:26:41</p>
QPSK 3MHz	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 20 ms VBW 100 kHz Mode Sweep 12m Max MI[1] -19.85 dBm 814.0000 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 10:27:39</p>	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 20 ms VBW 100 kHz Mode Sweep 12m Max MI[1] -10.63 dBm 849.0000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 10:29:16</p>
QPSK 5MHz	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 20 ms VBW 300 kHz Mode Sweep 12m Max MI[1] -22.07 dBm 814.0000 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:30:08</p>	<p>Spectrum Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 20 ms VBW 300 kHz Mode Sweep 12m Max MI[1] -22.10 dBm 849.0000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:31:33</p>

Out of band emission, Band Edge



Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 1.4MHz	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Rm Max MI[1] -26.69 dBm 813.88620 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 3.0 MHz Date: 7, JAN, 2022 10:26:16</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Rm Max MI[1] -26.21 dBm 849.01800 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 3.0 MHz Date: 7, JAN, 2022 10:26:59</p>
16QAM 3MHz	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Rm Max MI[1] -16.97 dBm 814.00000 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 10:28:03</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 30 kHz Att 30 dB SWT 1.1 ms VBW 100 kHz Mode Sweep 1Rm Max MI[1] -16.84 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 6.0 MHz Date: 7, JAN, 2022 10:28:36</p>
16QAM 5MHz	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -15.02 dBm 814.00000 MHz D1 -13.000 dBm CF 814.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:30:41</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 20 ms VBW 300 kHz Mode Sweep 1Rm Max MI[1] -21.20 dBm 849.00000 MHz D1 -13.000 dBm CF 849.0 MHz 501 pts Span 10.0 MHz Date: 7, JAN, 2022 10:32:08</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz		
16QAM 15MHz		

4.11 Antenna Port Test Data and Results for LTE Band 41:

Serial Number:	CR21120041-RF	Test Date:	2021/11/24~2021/12/20
Test Site:	RF	Test Mode:	Transmitting
Tester:	LE Qiao	Test Result:	Pass

Environmental Conditions:

Temperature: (°C)	22.1~23.2	Relative Humidity: (%)	36	ATM Pressure: (kPa)	101.3~101.7
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Test Equipment List and Details:

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	Spectrum Analyzer	101474	2021/7/22	2022/7/21
zhuoxiang	Coaxial Cable	SMA-178	211001	Each time	N/A
Mini-Circuits	DC Block	BLK-18-S+	1554403	Each time	N/A
Weinschel	Coaxial Attenuators	53-20-34	LN751	Each time	N/A
R&S	Wideband Radio Communication Tester	CMW500	149218	2021/7/22	2022/7/21
BACL	TEMP&HUMI Test Chamber	BTH-150	30026	2021/7/22	2022/7/22
UNI-T	Multimeter	UT39A+	C210582554	2021/9/30	2022/9/30
E-Microwave	Two-way Splitter	ODP-1-6	OE0120176	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).

EUT Information@LTE Band 41▲:

Antenna Gain (dBi):	1	Cable Loss (dB):	0
Operation Voltage(V _{DC}):			
Lowest:	3.5	Normal:	3.7
		Highest:	4.2

Test Frequency For Each Mode:

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2537.5	2595	2652.5
10MHz	2540	2595	2650
15MHz	2542.5	2595	2647.5
20MHz	2545	2595	2645

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	20.91	21.10	20.28	22.5	33
	RB1#13	21.41	21.06	20.21		
	RB1#24	21.50	20.93	20.20		
	RB15#0	20.49	20.06	19.41		
	RB15#10	20.39	19.94	19.40		
	RB25#0	20.43	20.09	19.36		
5MHz 16QAM	RB1#0	20.81	20.46	19.52	21.87	33
	RB1#13	20.87	20.43	19.55		
	RB1#24	20.33	20.35	19.35		
	RB15#0	19.66	19.41	19.81		
	RB15#10	19.66	19.30	19.79		
	RB25#0	19.69	19.35	19.51		
10MHz QPSK	RB1#0	21.57	21.35	20.68	22.61	33
	RB1#25	21.61	21.29	20.72		
	RB1#49	21.56	21.24	20.63		
	RB25#0	20.57	20.30	19.69		
	RB25#25	20.47	20.21	19.74		
	RB50#0	20.53	20.26	19.65		
10MHz 16QAM	RB1#0	20.50	20.62	19.70	21.94	33
	RB1#25	20.46	20.94	19.93		
	RB1#49	20.42	20.79	20.21		
	RB25#0	19.61	19.55	19.97		
	RB25#25	19.63	19.50	19.91		
	RB50#0	19.71	19.40	19.87		
15MHz QPSK	RB1#0	21.50	21.42	20.51	22.51	33
	RB1#38	21.51	21.36	20.49		
	RB1#74	21.47	21.16	20.54		
	RB36#0	20.40	20.11	19.68		
	RB36#39	20.42	20.11	19.77		
	RB75#0	20.48	20.16	19.62		
15MHz 16QAM	RB1#0	20.72	20.71	20.03	21.72	33
	RB1#38	20.72	20.33	20.01		
	RB1#74	20.59	20.54	19.96		
	RB36#0	19.68	19.58	19.85		
	RB36#39	19.55	19.55	19.87		
	RB75#0	19.61	19.49	19.81		
20MHz QPSK	RB1#0	21.34	21.08	20.71	22.34	33

	RB1#50	21.32	21.03	20.55		
	RB1#99	21.32	20.94	20.61		
	RB50#0	20.33	20.16	19.64		
	RB50#50	20.30	19.99	19.42		
	RB100#0	20.39	20.15	19.45		
20MHz 16QAM	RB1#0	20.88	19.93	20.41	21.88	33
	RB1#50	20.68	19.82	20.39		
	RB1#99	20.70	19.81	20.33		
	RB50#0	19.68	19.39	18.82		
	RB50#50	19.69	19.31	19.78		
	RB100#0	19.59	19.43	19.72		

Note: EIRP=Conducted Power(dBm) - Cable loss(dB) + Antenna Gain(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	6.38	6.52	5.94	13
	RB100#0	7.22	6.52	7.71	13
20MHz 16QAM	RB1#0	5.86	6.46	5.83	13
	RB100#0	6.17	7.74	5.94	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	4.491	4.511	4.960	4.960	5.100
5MHz 16QAM	4.511	4.511	4.511	5.000	4.960	5.000
10MHz QPSK	8.981	8.942	8.981	9.840	9.880	9.800
10MHz 16QAM	8.942	8.942	8.981	9.680	9.800	9.840
15MHz QPSK	13.533	13.473	13.473	15.780	15.360	15.480
15MHz 16QAM	13.533	13.533	13.593	15.180	15.660	15.780
20MHz QPSK	18.044	17.964	17.964	19.680	19.600	19.680
20MHz 16QAM	17.884	17.964	17.964	19.600	20.240	19.680

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

FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal

Result:	Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.
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FCC §2.1051, § 27.53:Out of band emission, Band Edge

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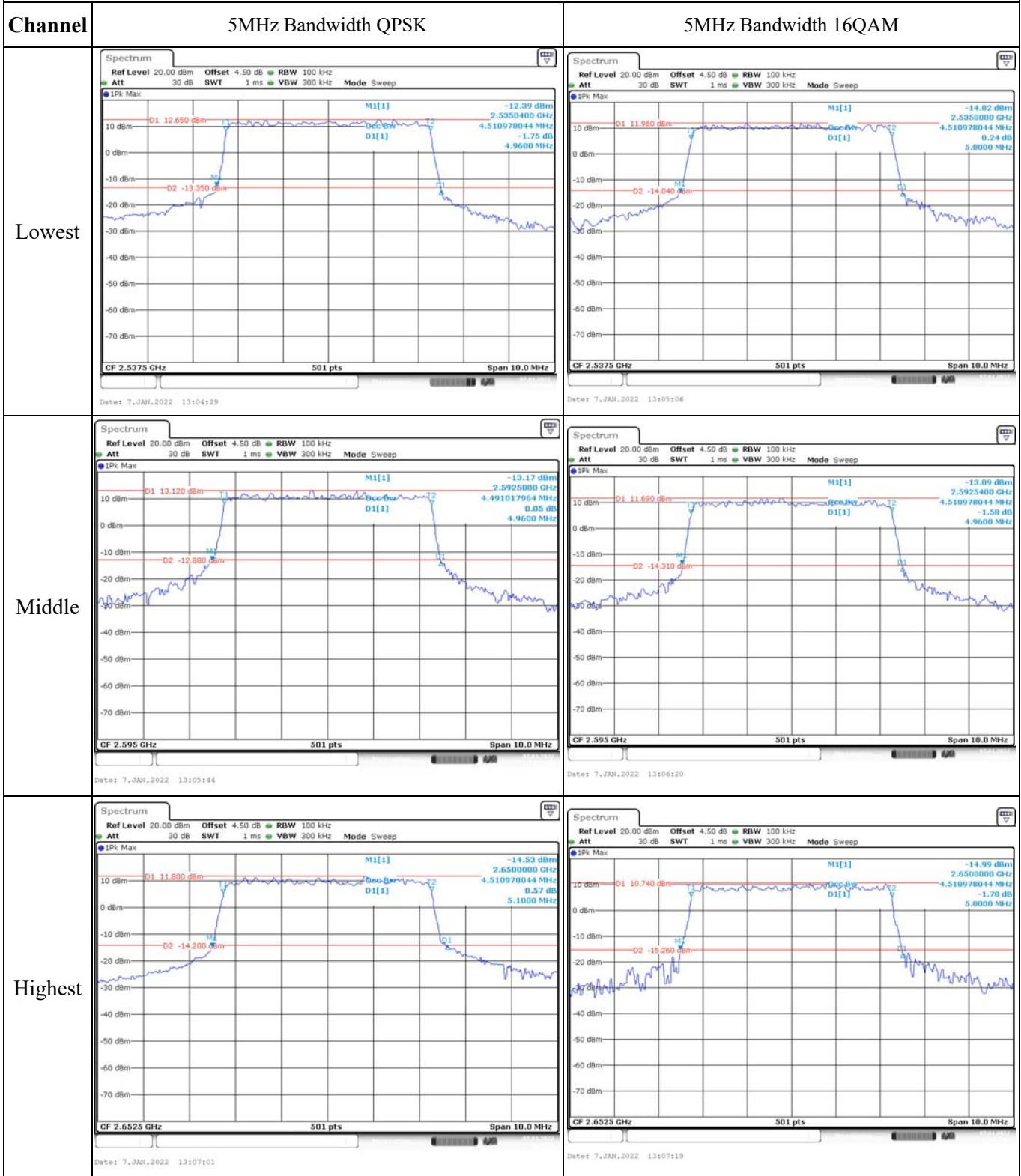
FCC §2.1055, §27.54: Frequency Stability

Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V _{dc})	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.7	2535.514	2535.00	2654.485	2655
	-20	3.7	2535.513	2535.00	2654.486	2655
	-10	3.7	2535.514	2535.00	2654.487	2655
	0	3.7	2535.517	2535.00	2654.486	2655
	10	3.7	2535.512	2535.00	2654.488	2655
	20	3.7	2535.514	2535.00	2654.486	2655
	30	3.7	2535.517	2535.00	2654.489	2655
	40	3.7	2535.514	2535.00	2654.482	2655
Frequency Stability vs. Voltage	20	3.5	2535.514	2535.00	2654.486	2655
	20	4.2	2535.518	2535.00	2654.480	2655
					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	3.7	2535.514	2535.00	2654.486	2655
	-20	3.7	2535.512	2535.00	2654.488	2655
	-10	3.7	2535.514	2535.00	2654.486	2655
	0	3.7	2535.517	2535.00	2654.489	2655
	10	3.7	2535.513	2535.00	2654.480	2655
	20	3.7	2535.514	2535.00	2654.486	2655
	30	3.7	2535.513	2535.00	2654.487	2655
	40	3.7	2535.514	2535.00	2654.486	2655
Frequency Stability vs. Voltage	20	3.5	2535.514	2535.00	2654.486	2655
	20	4.2	2535.519	2535.00	2654.481	2655
					Result:	Pass

Test Plots:

Occupied Bandwidth



Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -15.30 dBm 2.538400 GHz Occ Bw 9.8400 MHz 0.18 dB 9.8400 MHz CF 2.54 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:08:00</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -14.62 dBm 2.5351600 GHz Occ Bw 9.6800 MHz -0.33 dB 9.6800 MHz CF 2.54 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:08:41</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -17.40 dBm 2.5900000 GHz Occ Bw 9.8000 MHz 0.12 dB 9.8000 MHz CF 2.595 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:09:19</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -17.02 dBm 2.5900000 GHz Occ Bw 9.6600 MHz 0.60 dB 9.6600 MHz CF 2.595 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:09:51</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -16.94 dBm 2.6451200 GHz Occ Bw 9.8000 MHz 0.70 dB 9.8000 MHz CF 2.65 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:10:32</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 100 kHz Att 30 dB SWT 1 ms VBW 300 kHz Mode Sweep MI[1] -17.32 dBm 2.6451200 GHz Occ Bw 9.8400 MHz -1.15 dB 9.8400 MHz CF 2.65 GHz 501 pts Span 20.0 MHz Date: 7, JAN, 2022 13:11:10</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -12.54 dBm 2.53944600 GHz OI[1] -1.27 dB 15.7800 MHz</p> <p>D1 13.290 dBm D2 -12.71 dBm</p> <p>CF 2.5425 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:11:54</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -10.00 dBm 2.53949400 GHz OI[1] -1.14 dB 15.1800 MHz</p> <p>D1 13.510 dBm D2 -12.490 dBm</p> <p>CF 2.5425 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:12:24</p>
Middle	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -13.66 dBm 2.59714000 GHz OI[1] -0.22 dB 15.3600 MHz</p> <p>D1 12.420 dBm D2 -13.580 dBm</p> <p>CF 2.595 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:13:02</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -13.55 dBm 2.58750000 GHz OI[1] -0.79 dB 15.6600 MHz</p> <p>D1 12.000 dBm D2 -14.000 dBm</p> <p>CF 2.595 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:13:36</p>
Highest	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -15.04 dBm 2.63976000 GHz OI[1] 0.16 dB 15.4800 MHz</p> <p>D1 11.740 dBm D2 -14.260 dBm</p> <p>CF 2.6475 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:14:07</p>	<p>Ref Level 20.00 dBm Offset 4.50 dB RBW 300 kHz Att 30 dB SWT 1 ms VBW 1 MHz Mode Sweep</p> <p>MI[1] -13.02 dBm 2.64006000 GHz OI[1] -0.40 dB 15.7800 MHz</p> <p>D1 11.940 dBm D2 -14.060 dBm</p> <p>CF 2.6475 GHz 501 pts Span 30.0 MHz</p> <p>Date: 7, JAN, 2022 13:14:44</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest		
Middle		
Highest		