

### Spurious Emissions at Antenna Terminal

Channel	3MHz Bandwidth QPSK	
Lowest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -50.23 dBm 185.90 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:17:37</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -39.70 dBm 5.8350 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:18:03</p>
Middle	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -49.96 dBm 875.10 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:18:26</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -39.57 dBm 6.6700 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:18:52</p>
Highest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -50.42 dBm 948.70 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:19:19</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -39.90 dBm 5.7590 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:19:47</p>

### Spurious Emissions at Antenna Terminal

Channel	5MHz Bandwidth QPSK	
Lowest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -49.50 dBm                      596.30 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:20:23</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -40.81 dBm                      6.8210 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:20:46</p>
Middle	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -49.62 dBm                      890.60 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:21:12</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -40.46 dBm                      7.0110 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:21:38</p>
Highest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -49.90 dBm                      939.00 MHz                      -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:22:11</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -40.46 dBm                      6.8210 GHz                      -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:22:33</p>

### Spurious Emissions at Antenna Terminal

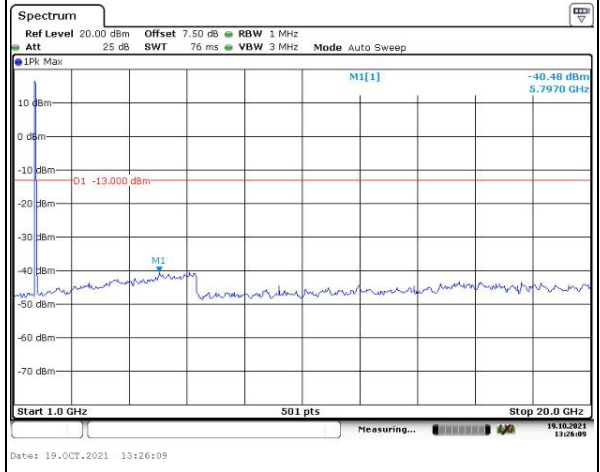
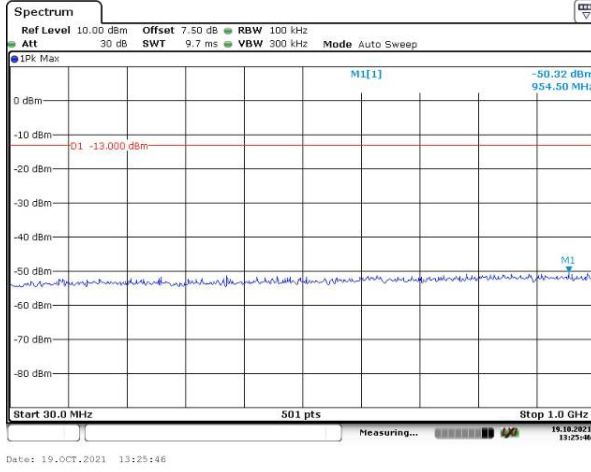
Channel	10MHz Bandwidth QPSK	
Lowest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -50.52 dBm 971.90 MHz                      O1 -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:23:07</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -39.68 dBm 5.8350 GHz                      O1 -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:23:33</p>
Middle	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -50.35 dBm 892.50 MHz                      O1 -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:23:58</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -39.70 dBm 6.9350 GHz                      O1 -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:24:23</p>
Highest	<p><b>Spectrum</b>                      Ref Level 10.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max                      M1[1] -50.03 dBm 970.00 MHz                      O1 -13.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:24:51</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 76 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max                      M1[1] -40.92 dBm 5.7590 GHz                      O1 -13.000 dBm                      Start 1.0 GHz 501 pts Stop 20.0 GHz                      Date: 19.OCT.2021 13:25:17</p>

### Spurious Emissions at Antenna Terminal

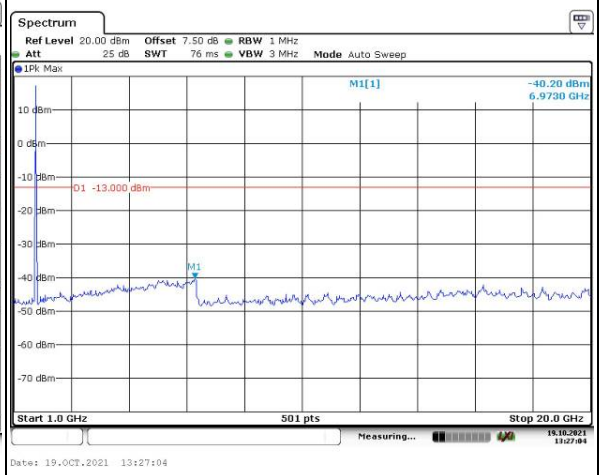
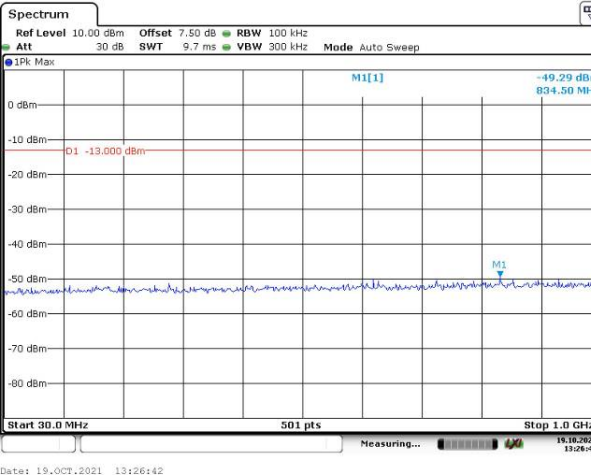
Channel

15MHz Bandwidth QPSK

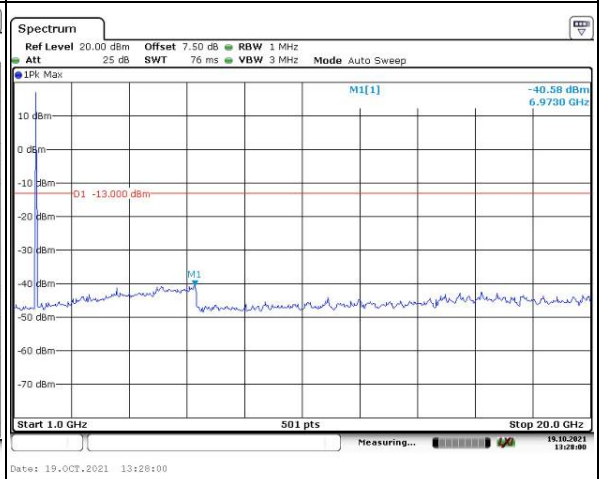
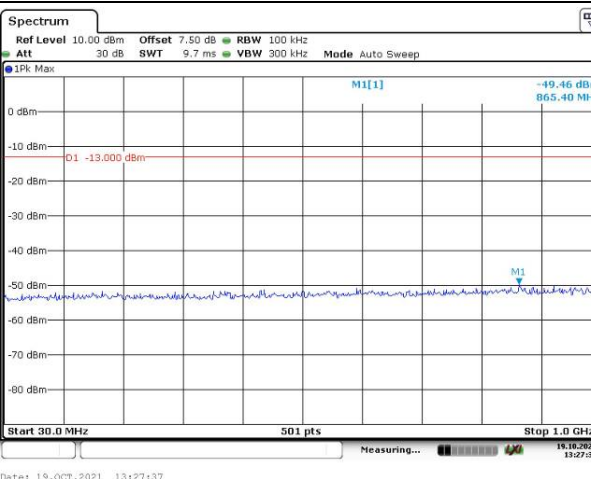
Lowest



Middle



Highest

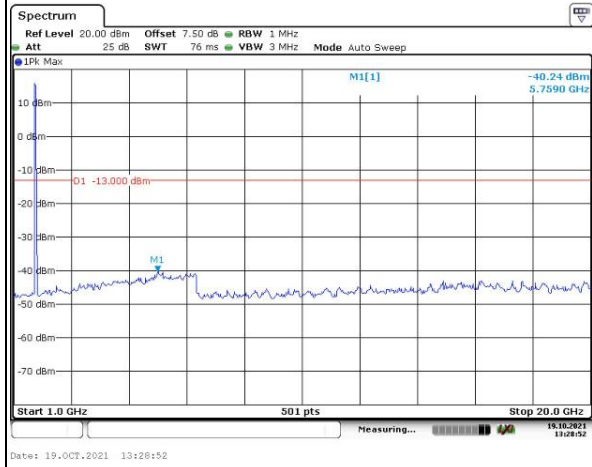
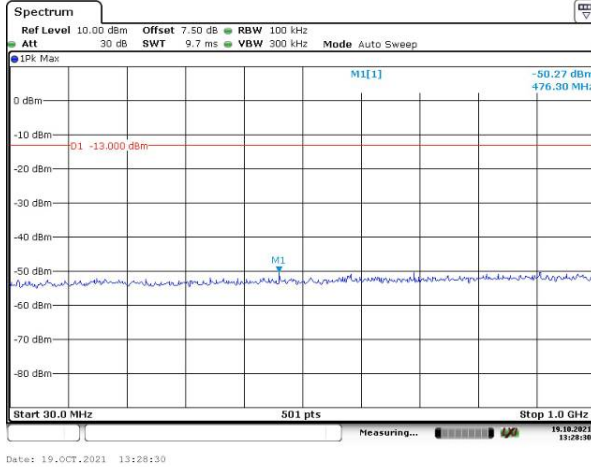


### Spurious Emissions at Antenna Terminal

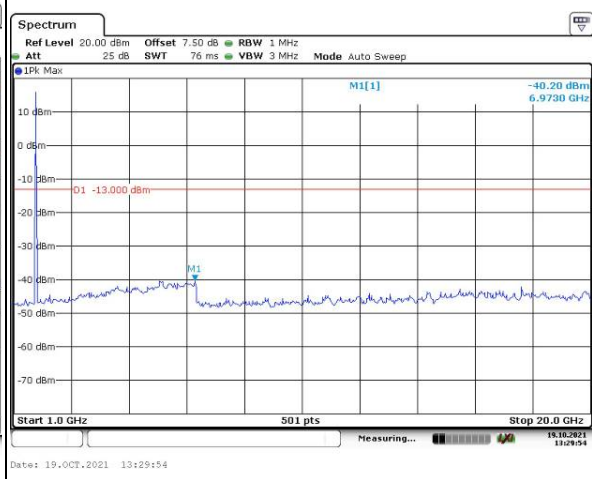
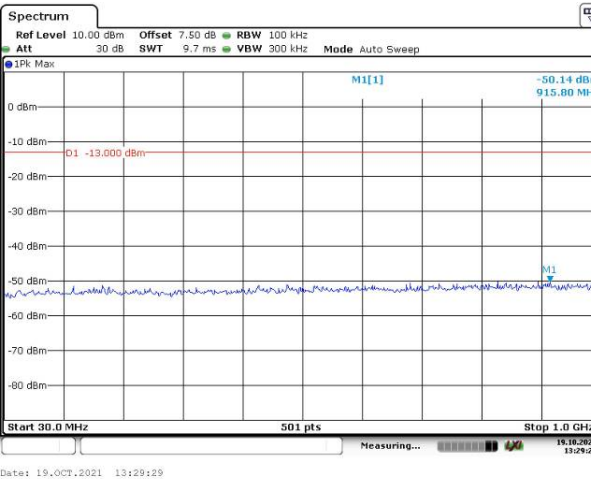
Channel

20MHz Bandwidth QPSK

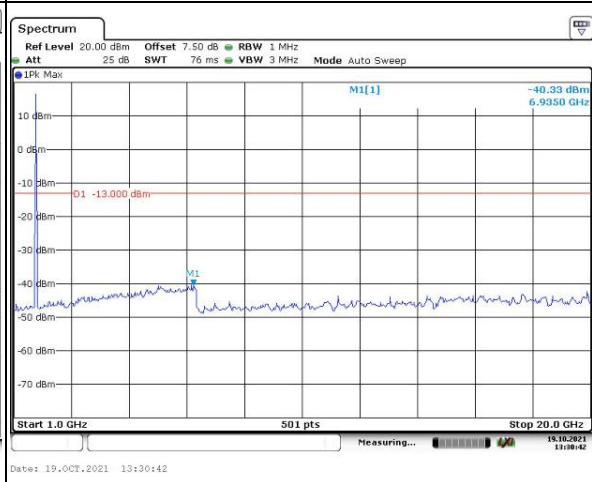
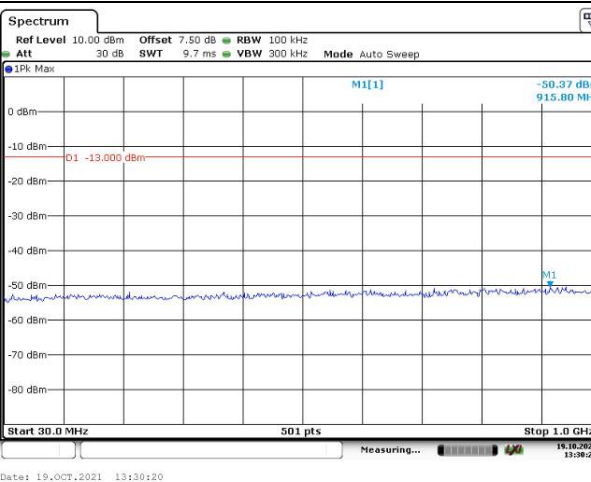
Lowest



Middle



Highest





Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 1.4MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 30 kHz Att 25 dB SWT 63.3 μs VBW 100 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[A] -21.01 dBm 1.70996410 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.71 GHz 501 pts Span 3.0 MHz</p> <p>Date: 19.OCT.2021 12:36:53</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 30 kHz Att 25 dB SWT 63.3 μs VBW 100 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[1] -20.34 dBm 1.75500000 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.755 GHz 501 pts Span 3.0 MHz</p> <p>Date: 19.OCT.2021 12:37:21</p>
QPSK 3MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 30 kHz Att 25 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[1] -15.14 dBm 1.71000000 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.71 GHz 501 pts Span 6.0 MHz</p> <p>Date: 19.OCT.2021 12:37:53</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 30 kHz Att 25 dB SWT 63.2 μs VBW 100 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[1] -14.74 dBm 1.75500000 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.755 GHz 501 pts Span 6.0 MHz</p> <p>Date: 19.OCT.2021 12:38:28</p>
QPSK 5MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[1] -16.70 dBm 1.71000000 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.71 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:39:00</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>1Rm Max</p> <p>M1[1] -14.57 dBm 1.75500000 GHz</p> <p>O1 -13.000 dBm</p> <p>CF 1.755 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:39:37</p>

Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 10MHz		
QPSK 15MHz		
QPSK 20MHz		

Out of band emission, Band Edge

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



Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 10MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT M1[1] -21.92 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 12:40:56</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT M1[1] -22.34 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 12:41:42</p>
16QAM 15MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT M1[1] -17.25 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 30.0 MHz Date: 19.OCT.2021 12:42:51</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT M1[1] -16.27 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 30.0 MHz Date: 19.OCT.2021 12:43:48</p>
16QAM 20MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT M1[1] -22.52 dBm 1.7100000 GHz D1 -13.000 dBm CF 1.71 GHz 501 pts Span 40.0 MHz Date: 19.OCT.2021 12:44:54</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT M1[1] -21.93 dBm 1.7550000 GHz D1 -13.000 dBm CF 1.755 GHz 501 pts Span 40.0 MHz Date: 19.OCT.2021 12:46:00</p>

**4.7 Antenna Port Test Data and Results for LTE Band 7:**

Serial Number:	CR21090082-RF-S2	Test Date:	2021/10/19~2021/11/5
Test Site:	RF	Test Mode:	Transmitting
Tester:	Thor Lei	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	25.1~27.8	Relative Humidity: (%)	52~62	ATM Pressure: (kPa)	100.8~102.1
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSV40	101474	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 7▲:**

Antenna Gain (dBi):	-0.39	Cable Loss (dB):	0.4
Operation Voltage(V <sub>DC</sub> ):			
Lowest:	3.6	Normal:	3.85
		Highest:	4.4

**Test Frequency For Each Mode:**

Operation Bandwidth	Lowest Frequency (MHz)	Middle Frequency (MHz)	Highest Frequency (MHz)
5MHz	2502.5	2535	2567.5
10MHz	2505	2535	2565
15MHz	2507.5	2535	2562.5
20MHz	2510	2535	2560

**Test Data:****FCC§2.1046;§ 27.50(h)(2)****RF Output Power:**

Test Bandwidth & Modulation	Resource Block & RB offset	Conducted Average Output Power(dBm)			Maximum EIRP (dBm)	EIRP Limit (dBm)
		Lowest Channel	Middle Channel	Highest Channel		
5MHz QPSK	RB1#0	22.95	22.78	22.48	22.21	33
	RB1#13	23	22.69	22.46		
	RB1#24	22.95	22.72	22.5		
	RB15#0	22.14	21.71	21.64		
	RB15#10	22.1	21.79	21.62		
	RB25#0	21.97	21.68	21.68		
5MHz 16QAM	RB1#0	21.34	21.88	21.21	21.09	33
	RB1#13	21.26	21.74	21.23		
	RB1#24	21.19	21.77	21.2		
	RB15#0	21.15	20.68	20.7		
	RB15#10	21.1	20.73	20.7		
	RB25#0	21.2	20.79	20.62		
10MHz QPSK	RB1#0	22.85	22.73	22.65	22.09	33
	RB1#25	22.86	22.69	22.63		
	RB1#49	22.88	22.68	22.69		
	RB25#0	22.08	21.75	21.6		
	RB25#25	21.89	21.75	21.61		
	RB50#0	21.86	21.88	21.6		
10MHz 16QAM	RB1#0	22.22	21.98	21.16	21.43	33
	RB1#25	22.16	21.88	21.14		
	RB1#49	22.19	21.94	21.1		
	RB25#0	21.11	20.83	20.79		
	RB25#25	21.11	20.88	20.8		
	RB50#0	21.06	21	20.66		
15MHz QPSK	RB1#0	22.87	22.66	22.63	22.08	33
	RB1#38	22.87	22.7	22.7		
	RB1#74	22.84	22.66	22.69		
	RB36#0	22	21.69	21.58		
	RB36#39	21.87	21.69	21.58		
	RB75#0	22.03	21.77	21.65		

15MHz 16QAM	RB1#0	22.3	22.02	21.98	21.51	33
	RB1#38	22.3	22.05	21.97		
	RB1#74	22.13	22.08	22		
	RB36#0	21.08	20.87	20.64		
	RB36#39	21.07	20.97	20.67		
	RB75#0	21.07	20.79	20.66		
20MHz QPSK	RB1#0	23.09	22.72	22.72	22.3	33
	RB1#50	23.01	22.81	22.62		
	RB1#99	22.93	22.77	22.72		
	RB50#0	21.9	21.72	21.65		
	RB50#50	21.91	21.63	21.65		
	RB100#0	22.02	21.65	21.47		
20MHz 16QAM	RB1#0	21.94	22.2	22.21	21.46	33
	RB1#50	21.86	22.25	22.15		
	RB1#99	21.82	22.22	22.2		
	RB50#0	21.04	20.97	20.6		
	RB50#50	21.04	20.96	20.62		
	RB100#0	21.08	20.84	20.66		
<b>Result:</b>					<b>Pass</b>	

Peak-to-average Ratio(PAR)					
Test Bandwidth & Modulation	Resource Block & RB offset	Peak-to-average Ratio(dB)			Limit (dB)
		Lowest Channel	Middle Channel	Highest Channel	
20MHz QPSK	RB1#0	3.51	3.86	3.51	13
	RB100#0	4.61	4.96	4.49	13
20MHz 16QAM	RB1#0	4.12	5.07	4.64	13
	RB100#0	5.57	5.88	5.33	13
<b>Result:</b>					<b>Pass</b>

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	4.511	4.511	5	5.02	5
5MHz 16QAM	4.511	4.551	4.531	5.02	5	5.02
10MHz QPSK	8.981	8.942	8.981	9.8	9.359	9.8
10MHz 16QAM	8.942	8.942	8.981	9.72	9.8	9.88
15MHz QPSK	13.533	13.533	13.533	14.7	14.82	14.88
15MHz 16QAM	13.473	13.473	13.473	14.82	14.82	14.82
20MHz QPSK	17.964	17.964	17.964	19.68	19.6	19.68
20MHz 16QAM	17.964	18.044	17.964	19.6	19.76	19.68

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

<b>FCC §2.1051, § 27.53:Spurious Emissions at Antenna Terminal</b>	
<b>Result:</b>	<b>Pass, Please refer to the test plots of Spurious Emissions at Antenna Terminal.</b>

<b>FCC §2.1051, § 27.53:Out of band emission, Band Edge</b>	
<b>Result:</b>	<b>Pass, Please refer to the test plots of Out of band emission, Band Edge.</b>

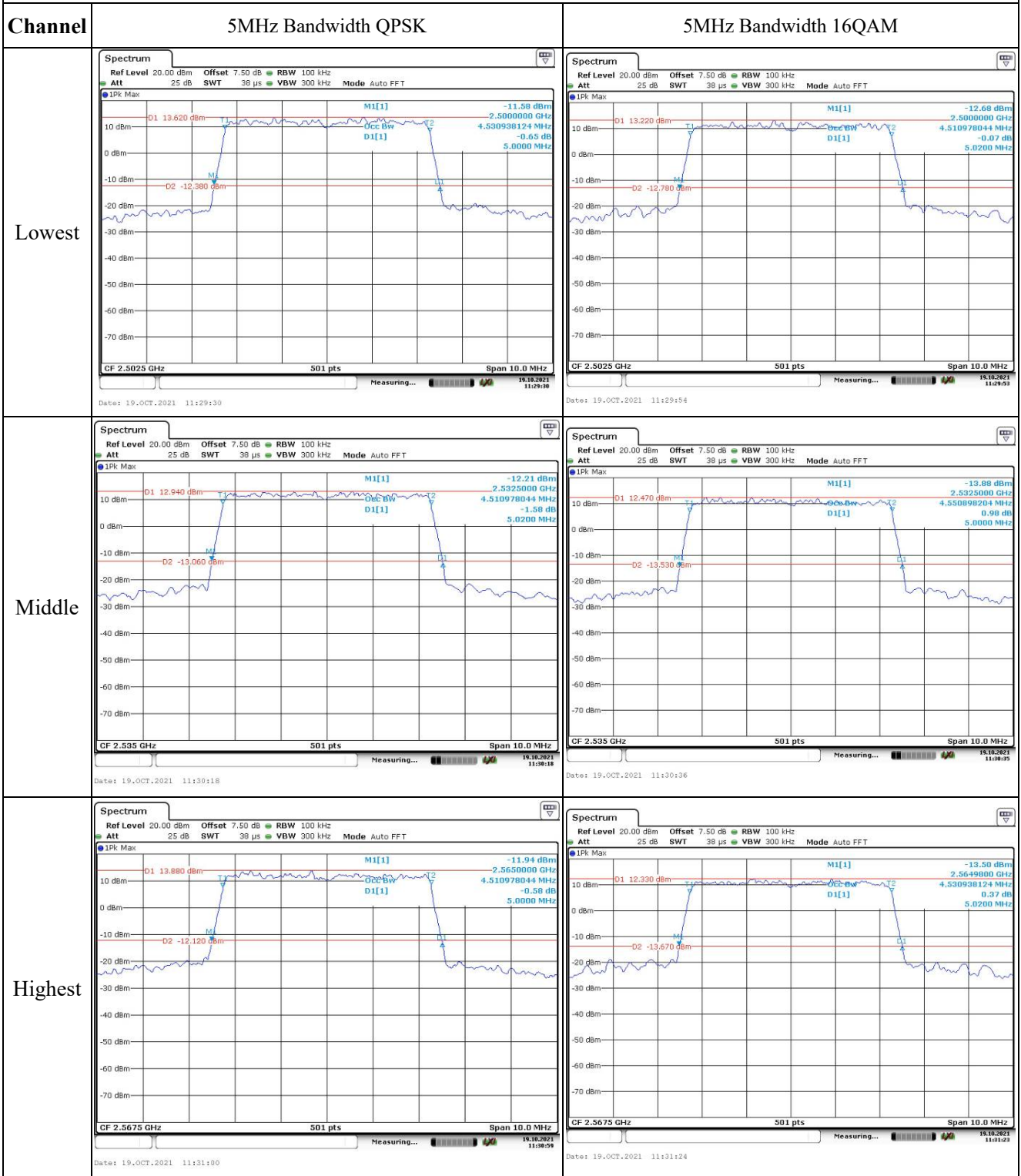
<b>FCC §2.1055, §27.54: Frequency Stability</b>						
Test Mode:	20M QPSK	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2500.5281	2500.00	2569.4717	2570
	-20	3.85	2500.5285	2500.00	2569.4716	2570
	-10	3.85	2500.5284	2500.00	2569.4717	2570
	0	3.85	2500.5282	2500.00	2569.4712	2570
	10	3.85	2500.5283	2500.00	2569.4712	2570
	20	3.85	2500.5289	2500.00	2569.4711	2570
	30	3.85	2500.5287	2500.00	2569.4717	2570
	40	3.85	2500.5281	2500.00	2569.4716	2570
Frequency Stability vs. Voltage	20	3.6	2500.5287	2500.00	2569.4715	2570
	20	4.4	2500.5285	2500.00	2569.4717	2570
					<b>Result:</b>	<b>Pass</b>

Test Mode:	20M 16QAM	Test Channel: Lowest for Lower Edge,Highest for Upper Edge				
Test Item	Temperature (°C)	Voltage (V <sub>DC</sub> )	Lower Edge (MHz)		Upper Edge (MHz)	
			Result	Limit	Result	Limit
Frequency Stability vs. Temperature	-30	3.85	2500.5281	2500.00	2569.4714	2570
	-20	3.85	2500.5282	2500.00	2569.4715	2570
	-10	3.85	2500.5284	2500.00	2569.4716	2570
	0	3.85	2500.5282	2500.00	2569.4714	2570
	10	3.85	2500.5286	2500.00	2569.4713	2570
	20	3.85	2500.5289	2500.00	2569.4711	2570
	30	3.85	2500.5287	2500.00	2569.4717	2570
	40	3.85	2500.5286	2500.00	2569.4714	2570
	50	3.85	2500.5281	2500.00	2569.4715	2570
Frequency Stability vs. Voltage	20	3.6	2500.5282	2500.00	2569.4716	2570
	20	4.4	2500.5287	2500.00	2569.4712	2570
					<b>Result:</b>	<b>Pass</b>



Test Plots:

Occupied Bandwidth



Occupied Bandwidth

Channel	10MHz Bandwidth QPSK	10MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] -14.58 dBm 2.5001200 GHz D1[1] -15.20 dBm 8.982035928 MHz D2 -15.200 dBm CF 2.505 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 11:31:49</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] -13.36 dBm 2.5001600 GHz D1[1] -14.02 dBm 8.942115768 MHz D2 -14.020 dBm CF 2.505 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 11:32:16</p>
Middle	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 1 ms VBW 300 kHz Mode Sweep 1Pk Max D1[1] 1.57 dB 9.8643 MHz M1[1] -15.74 dBm 8.982035928 MHz D2 -15.190 dBm CF 2.535 GHz 501 pts Span 20.0 MHz Date: 5.NOV.2021 10:05:19</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] -16.26 dBm 2.5300800 GHz D1[1] -16.36 dBm 8.942115768 MHz D2 -16.360 dBm CF 2.535 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 11:33:04</p>
Highest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] -14.65 dBm 2.5601200 GHz D1[1] -15.23 dBm 8.982035928 MHz D2 -15.230 dBm CF 2.565 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 11:33:32</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT 1Pk Max M1[1] -15.33 dBm 2.5600800 GHz D1[1] -15.39 dBm 8.982035928 MHz D2 -15.690 dBm CF 2.565 GHz 501 pts Span 20.0 MHz Date: 19.OCT.2021 11:34:03</p>

Occupied Bandwidth

Channel	15MHz Bandwidth QPSK	15MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -10.57 dBm 2.5001800 GHz D1[1] 14.540 dBm 2.5001900 GHz D2 -11.460 dBm Occ BW 0.47 dB 14.7000 MHz</p> <p>CF 2.5075 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 11:34:37</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.50 dBm 2.5001200 GHz D1[1] 13.140 dBm 2.5001300 GHz D2 -12.860 dBm Occ BW 0.32 dB 14.8200 MHz</p> <p>CF 2.5075 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 19:30:29</p>
Middle	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.13 dBm 2.5276200 GHz D1[1] 12.850 dBm 2.5276300 GHz D2 -13.150 dBm Occ BW 1.03 dB 14.8200 MHz</p> <p>CF 2.535 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 11:35:23</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.32 dBm 2.5276000 GHz D1[1] 12.530 dBm 2.5276100 GHz D2 -13.470 dBm Occ BW 0.70 dB 14.8200 MHz</p> <p>CF 2.535 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 11:35:50</p>
Highest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -11.99 dBm 2.5550600 GHz D1[1] 13.720 dBm 2.5550700 GHz D2 -12.280 dBm Occ BW 0.54 dB 14.8800 MHz</p> <p>CF 2.5625 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 11:36:30</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.92 dBm 2.5550600 GHz D1[1] 13.120 dBm 2.5550700 GHz D2 -12.880 dBm Occ BW 1.70 dB 14.8200 MHz</p> <p>CF 2.5625 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 11:37:06</p>

Occupied Bandwidth

Channel	20MHz Bandwidth QPSK	20MHz Bandwidth 16QAM
Lowest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.40 dBm 2.5002400 GHz D1[1] -0.28 dB 17.964071856 MHz D2 -13.550 dBm</p> <p>CF 2.51 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:37:40</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -13.84 dBm 2.5002400 GHz D1[1] -0.29 dB 17.964071856 MHz D2 -13.790 dBm</p> <p>CF 2.51 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:38:13</p>
Middle	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -12.95 dBm 2.5252400 GHz D1[1] -0.68 dB 17.964071856 MHz D2 -13.760 dBm</p> <p>CF 2.535 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:38:47</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -14.52 dBm 2.5250800 GHz D1[1] 0.51 dB 18.043912176 MHz D2 -14.650 dBm</p> <p>CF 2.535 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:39:18</p>
Highest	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -14.43 dBm 2.5500800 GHz D1[1] 1.68 dB 17.964071856 MHz D2 -13.570 dBm</p> <p>CF 2.56 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:39:58</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 37.9 μs VBW 1 MHz Mode Auto FFT</p> <p>1Pk Max</p> <p>M1[1] -12.98 dBm 2.5501600 GHz D1[1] -0.17 dB 17.964071856 MHz D2 -13.580 dBm</p> <p>CF 2.56 GHz 501 pts Span 40.0 MHz</p> <p>Date: 19.OCT.2021 11:40:34</p>

### Spurious Emissions at Antenna Terminal

Channel	5MHz Bandwidth QPSK	
Lowest	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -49.98 dBm 886.70 MHz                      -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:31:18</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -40.57 dBm 6.9810 GHz                      -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:31:37</p>
Middle	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -50.24 dBm 913.80 MHz                      -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:32:03</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -39.75 dBm 6.9810 GHz                      -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:32:28</p>
Highest	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -50.11 dBm 944.80 MHz                      -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:33:07</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -40.27 dBm 6.9300 GHz                      -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:33:29</p>



### Spurious Emissions at Antenna Terminal

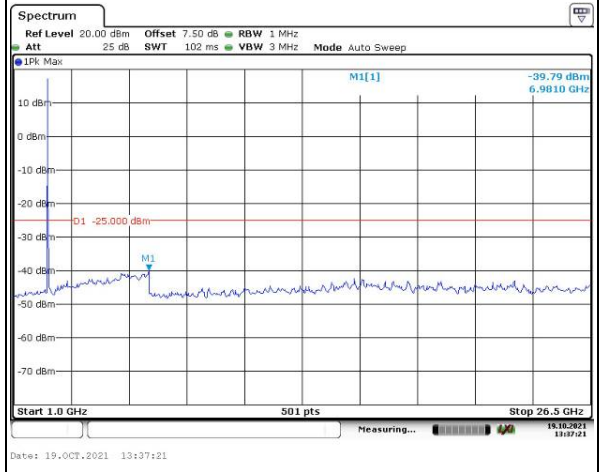
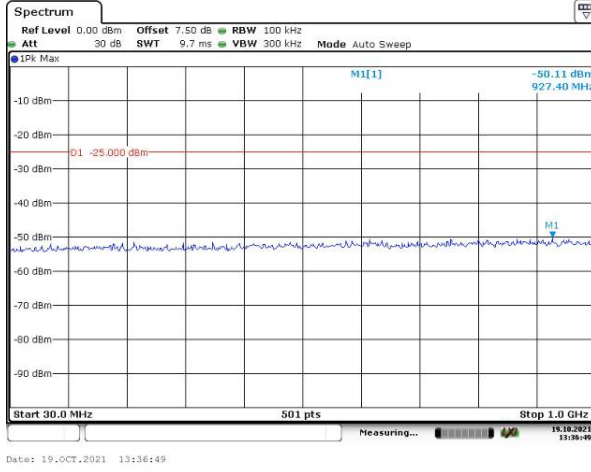
Channel	10MHz Bandwidth QPSK	
Lowest	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -50.29 dBm 989.40 MHz                      D1 -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:33:59</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -40.27 dBm 6.6750 GHz                      D1 -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:34:24</p>
Middle	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -50.28 dBm 832.50 MHz                      D1 -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:34:52</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -40.22 dBm 6.7260 GHz                      D1 -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:35:17</p>
Highest	<p><b>Spectrum</b>                      Ref Level 0.00 dBm Offset 7.50 dB RBW 100 kHz                      Att 30 dB SWT 9.7 ms VBW 300 kHz Mode Auto Sweep                      1Pk Max M1[1] -49.84 dBm 834.50 MHz                      D1 -25.000 dBm                      Start 30.0 MHz 501 pts Stop 1.0 GHz                      Date: 19.OCT.2021 13:35:45</p>	<p><b>Spectrum</b>                      Ref Level 20.00 dBm Offset 7.50 dB RBW 1 MHz                      Att 25 dB SWT 102 ms VBW 3 MHz Mode Auto Sweep                      1Pk Max M1[1] -40.41 dBm 6.7770 GHz                      D1 -25.000 dBm                      Start 1.0 GHz 501 pts Stop 26.5 GHz                      Date: 19.OCT.2021 13:36:10</p>

### Spurious Emissions at Antenna Terminal

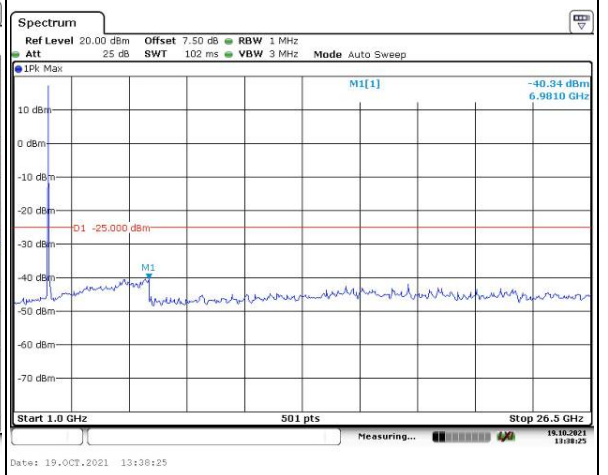
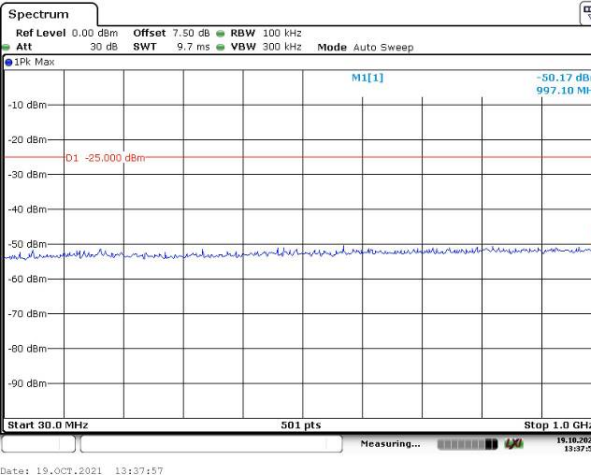
Channel

15MHz Bandwidth QPSK

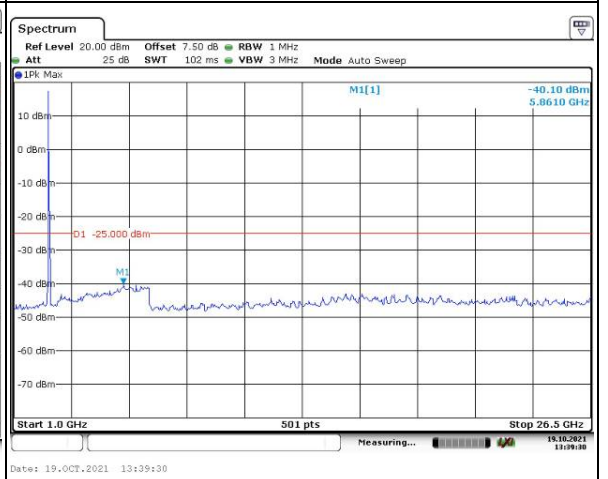
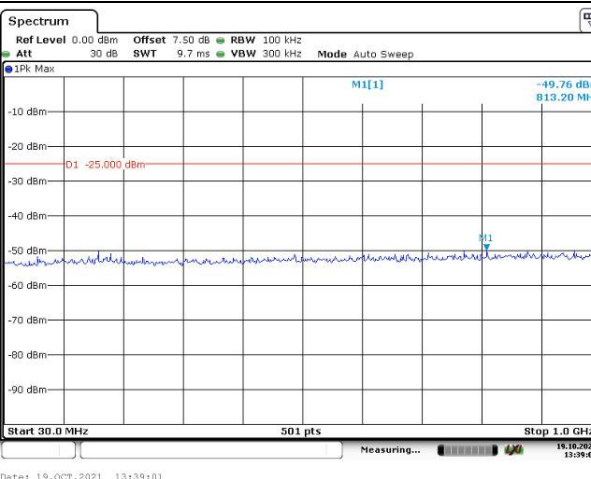
Lowest



Middle



Highest

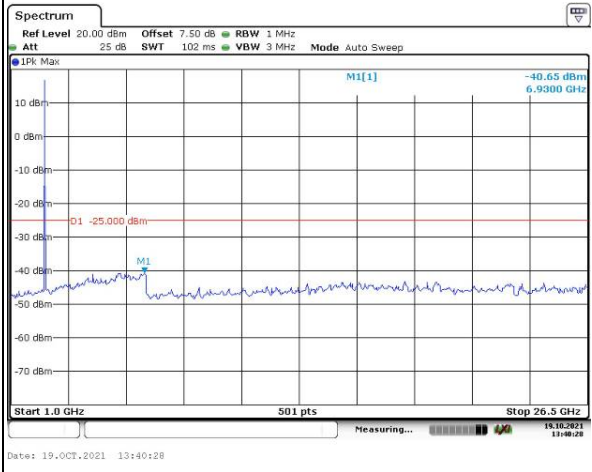
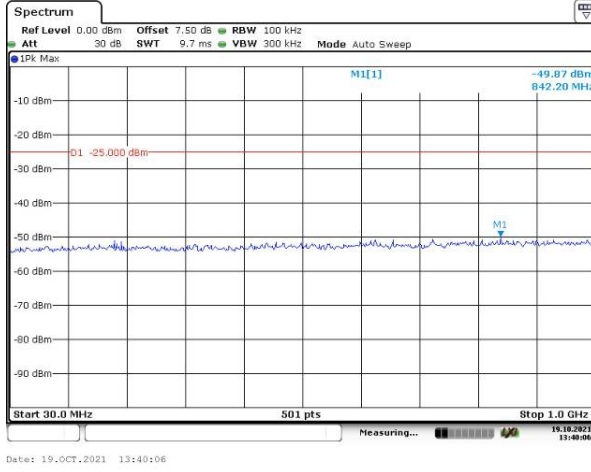


### Spurious Emissions at Antenna Terminal

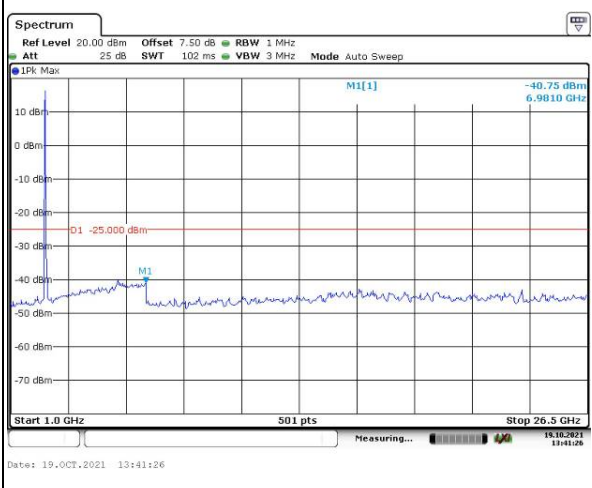
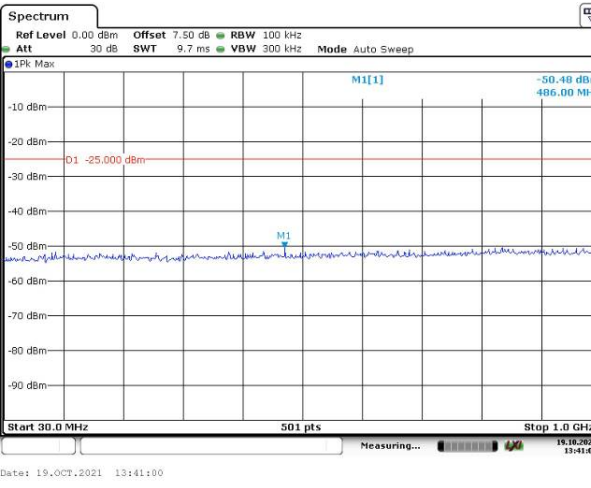
Channel

20MHz Bandwidth QPSK

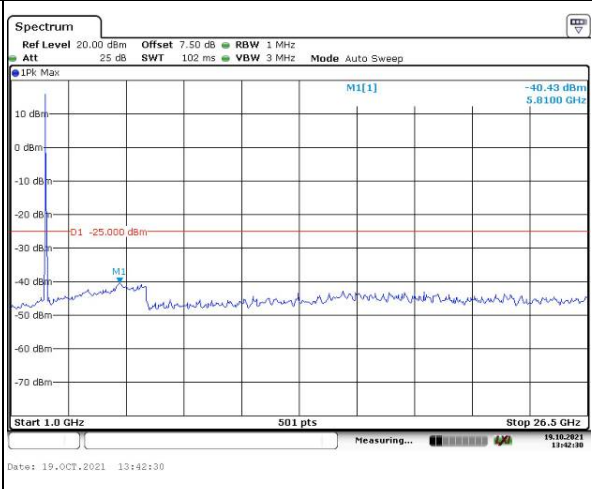
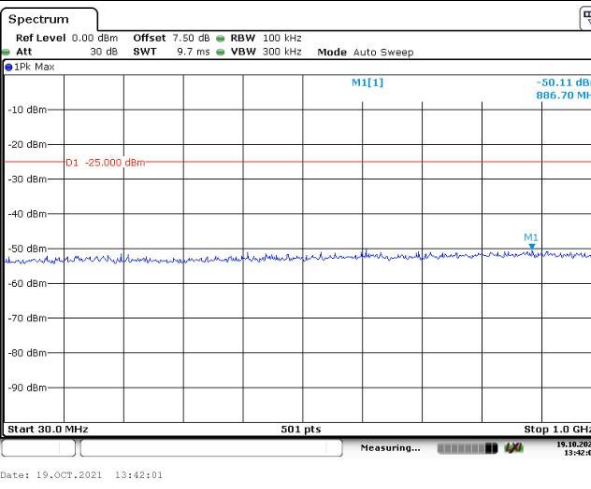
Lowest



Middle



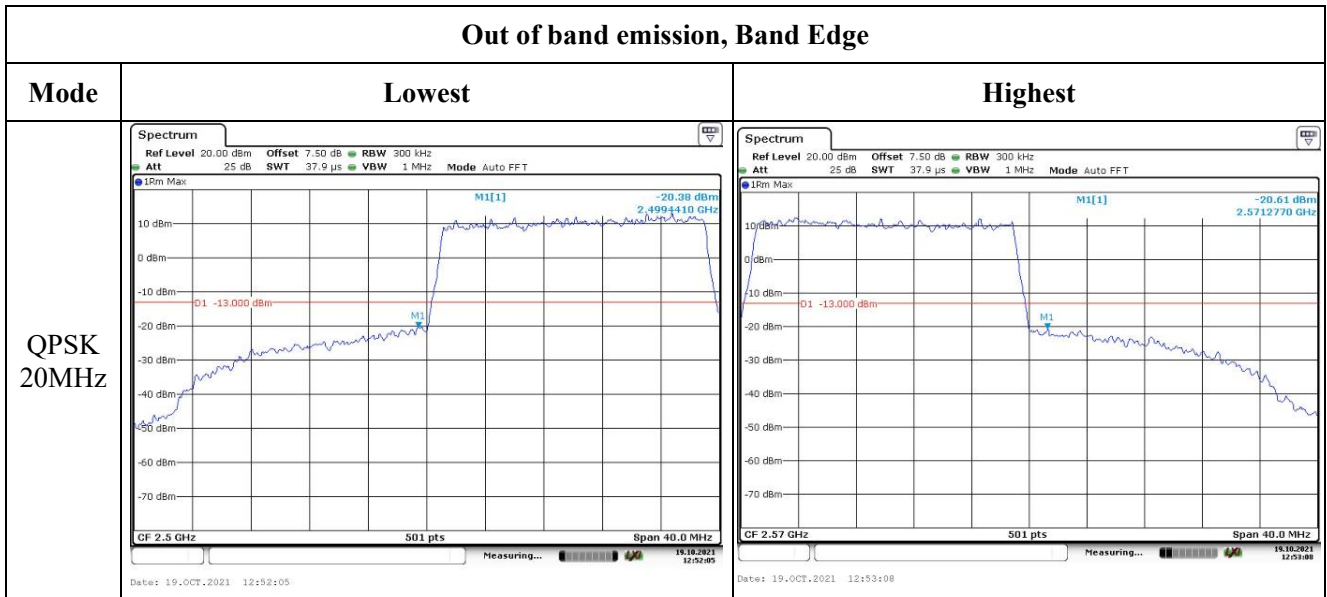
Highest



Out of band emission, Band Edge

Mode	Lowest	Highest
QPSK 5MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -15.95 dBm 2.5000000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:46:21</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -15.25 dBm 2.5700000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:47:09</p>
QPSK 10MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -21.24 dBm 2.5000000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 20.0 MHz</p> <p>Date: 19.OCT.2021 12:48:06</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -20.86 dBm 2.5700000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 20.0 MHz</p> <p>Date: 19.OCT.2021 12:48:55</p>
QPSK 15MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>M1[1] -14.81 dBm 2.5000000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 12:49:56</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>M1[1] -15.53 dBm 2.5700000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 12:50:56</p>

Out of band emission, Band Edge

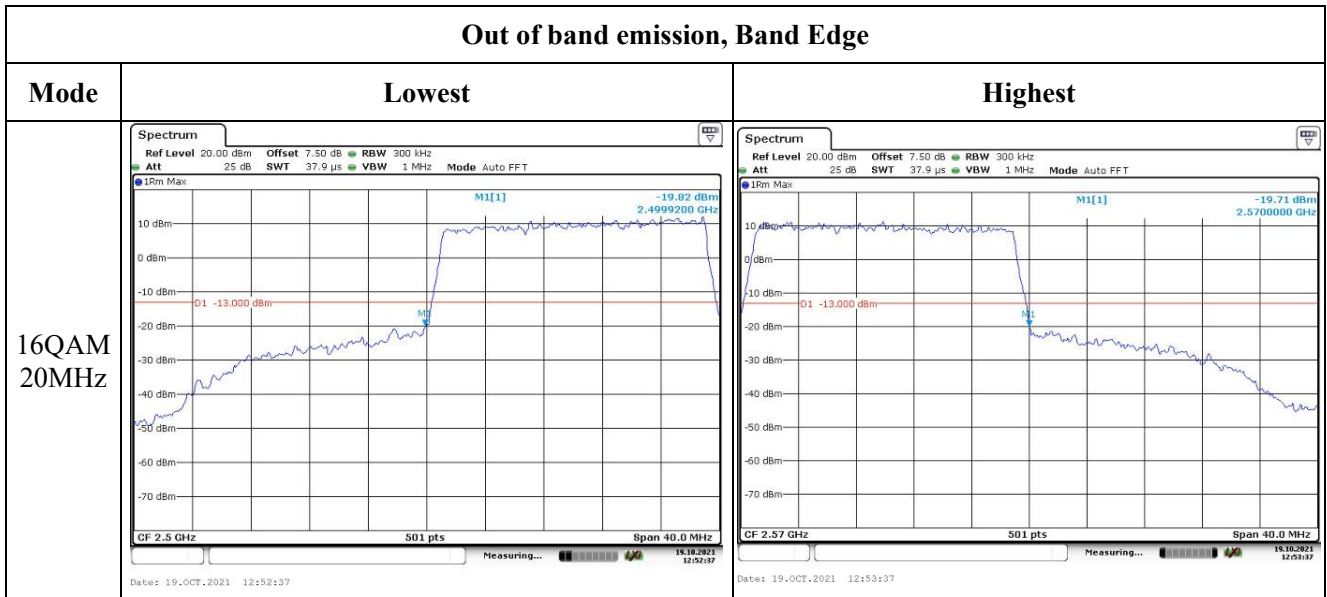




Out of band emission, Band Edge

Mode	Lowest	Highest
16QAM 5MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -16.14 dBm 2.500000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:46:51</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 38 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -16.63 dBm 2.570000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 10.0 MHz</p> <p>Date: 19.OCT.2021 12:47:35</p>
16QAM 10MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -21.83 dBm 2.500000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 20.0 MHz</p> <p>Date: 19.OCT.2021 12:48:30</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 100 kHz Att 25 dB SWT 56.9 μs VBW 300 kHz Mode Auto FFT</p> <p>M1[1] -22.15 dBm 2.570000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 20.0 MHz</p> <p>Date: 19.OCT.2021 12:49:23</p>
16QAM 15MHz	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>M1[1] -18.17 dBm 2.500000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.5 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 12:50:22</p>	<p>Ref Level 20.00 dBm Offset 7.50 dB RBW 300 kHz Att 25 dB SWT 25.3 μs VBW 1 MHz Mode Auto FFT</p> <p>M1[1] -15.91 dBm 2.570000 GHz</p> <p>D1 -13.000 dBm</p> <p>CF 2.57 GHz 501 pts Span 30.0 MHz</p> <p>Date: 19.OCT.2021 12:51:32</p>

Out of band emission, Band Edge



**4.8 Spurious Emissions**

Serial Number:	CR21090082-RF-S2	Test Date:	2021-10-03~2021-10-09
Test Site:	966-2, 966-1	Test Mode:	Transmitting
Tester:	Elan Lv, Alex Hu	Test Result:	Pass

**Environmental Conditions:**

Temperature: (°C)	27.5~28.3	Relative Humidity: (%)	42~60	ATM Pressure: (kPa)	100.3~100.4
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**Test Equipment List and Details:**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Sunol Sciences	Antenna	JB6	A082520-5	2020-10-19	2023-10-18
R&S	EMI Test Receiver	ESR3	102724	2021-07-22	2022-07-21
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0470-02	2021-07-18	2022-07-17
TIMES MICROWAVE	Coaxial Cable	LMR-600-UltraFlex	C-0780-01	2021-07-18	2022-07-17
Sonoma	Amplifier	310N	186165	2021-07-18	2022-07-17
EMCO	Adjustable Dipole Antenna	3121C	9109-753	N/A	N/A
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2021-07-25	2022-07-24
Agilent	Signal Generator	E8247C	MY43321350	2021-04-25	2022-04-24
ETS-Lindgren	Horn Antenna	3115	9912-5985	2020-10-13	2023-10-12
PASTERNAK	Horn Antenna	PE9852/2F-20	112002	2021-02-05	2023-02-04
R&S	Spectrum Analyzer	FSV40	101591	2021-07-22	2022-07-21
MICRO-COAX	Coaxial Cable	UFA210A-1-1200-70U300	217423-008	2021-08-08	2022-08-07
MICRO-COAX	Coaxial Cable	UFA210A-1-2362-300300	235780-001	2021-08-08	2022-08-07
MICRO-COAX	Coaxial Cable	UFB142A-1-2362-200200	235772-001	2021-08-08	2022-08-07
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2021-08-08	2022-08-07
AH	Preamplifier	PAM-1840VH	190	2020-11-20	2021-11-19
AH	Double Ridge Guide Horn Antenna	SAS-571	1396	2021-10-18	2023-10-17
PASTERNAK	Horn Antenna	PE9852/2F-20	112001	2021-02-05	2023-02-04
MICRO-COAX	Coaxial Cable	UFA210B-0-0720-300300	99G1448	2021-07-25	2022-07-24

Agilent	Signal Generator	E8247C	MY43321352	2021-04-25	2022-04-24
* 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 Data:****Cellular Band (PART 22H)****30 MHz-10 GHz:**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dB $\mu$ V)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 850 Frequency:824.2MHz								
1648.40	H	59.68	-44.60	8.68	0.80	-36.72	-13.00	23.72
1648.40	V	55.79	-48.57	8.68	0.80	-40.69	-13.00	27.69
2472.60	H	67.95	-32.77	9.38	1.00	-24.39	-13.00	11.39
2472.60	V	72.95	-27.72	9.38	1.00	-19.34	-13.00	6.34
4121.00	H	55.65	-40.17	10.83	1.27	-30.61	-13.00	17.61
4121.00	V	57.78	-38.01	10.83	1.27	-28.45	-13.00	15.45
4945.20	H	45.62	-47.64	11.13	1.50	-38.01	-13.00	25.01
4945.20	V	43.58	-49.69	11.13	1.50	-40.06	-13.00	27.06
5769.40	H	65.39	-28.16	11.18	1.61	-18.59	-13.00	5.59
5769.40	V	66.95	-26.49	11.18	1.61	-16.92	-13.00	3.92
7417.80	H	40.95	-48.79	10.95	2.03	-39.87	-13.00	26.87
7417.80	V	46.95	-43.50	10.95	2.03	-34.58	-13.00	21.58
304.40	H	33.94	-76.71	0.00	0.34	-77.05	-13.00	64.05
50.40	V	33.72	-67.70	-14.72	0.12	-82.54	-13.00	69.54
GSM 850 Frequency:836.6MHz								
1673.20	H	59.62	-44.66	8.71	0.85	-36.80	-13.00	23.80
1673.20	V	55.62	-48.77	8.71	0.85	-40.91	-13.00	27.91
2509.80	H	72.55	-28.03	9.42	1.01	-19.62	-13.00	6.62
2509.80	V	75.65	-24.94	9.42	1.01	-16.53	-13.00	3.53
3346.40	H	41.99	-54.43	10.34	1.16	-45.25	-13.00	32.25
3346.40	V	44.67	-51.62	10.34	1.16	-42.44	-13.00	29.44
4183.00	H	57.64	-38.20	10.79	1.32	-28.73	-13.00	15.73
4183.00	V	61.57	-34.24	10.79	1.32	-24.77	-13.00	11.77
5019.60	H	47.95	-45.17	11.21	1.45	-35.41	-13.00	22.41
5019.60	V	42.62	-50.37	11.21	1.45	-40.61	-13.00	27.61
5856.20	H	67.85	-25.74	11.07	1.59	-16.26	-13.00	3.26
5856.20	V	65.36	-28.23	11.07	1.59	-18.75	-13.00	5.75
6692.80	H	36.87	-54.66	11.26	1.87	-45.27	-13.00	32.27
6692.80	V	36.35	-54.92	11.26	1.87	-45.53	-13.00	32.53
7529.40	H	43.65	-46.65	10.89	1.96	-37.72	-13.00	24.72
7529.40	V	49.42	-41.43	10.89	1.96	-32.50	-13.00	19.50
303.60	H	34.65	-76.02	0.00	0.34	-76.36	-13.00	63.36
49.80	V	34.68	-66.35	-15.10	0.12	-81.57	-13.00	68.57

GSM 850 Frequency:848.8MHz								
1697.60	H	59.84	-44.45	8.74	0.90	-36.61	-13.00	23.61
1697.60	V	54.95	-49.47	8.74	0.90	-41.63	-13.00	28.63
2546.40	H	69.84	-30.43	9.47	1.01	-21.97	-13.00	8.97
2546.40	V	74.95	-25.28	9.47	1.01	-16.82	-13.00	3.82
3395.20	H	41.86	-54.92	10.36	1.19	-45.75	-13.00	32.75
3395.20	V	46.95	-49.80	10.36	1.19	-40.63	-13.00	27.63
4244.00	H	58.95	-37.11	10.75	1.30	-27.66	-13.00	14.66
4244.00	V	60.67	-35.32	10.75	1.30	-25.87	-13.00	12.87
5092.80	H	42.93	-50.44	11.26	1.53	-40.71	-13.00	27.71
5092.80	V	44.36	-48.92	11.26	1.53	-39.19	-13.00	26.19
5941.60	H	68.43	-24.81	10.97	1.63	-15.47	-13.00	2.47
5941.60	V	65.06	-28.16	10.97	1.63	-18.82	-13.00	5.82
6790.40	H	36.95	-54.96	11.24	1.83	-45.55	-13.00	32.55
6790.40	V	36.54	-55.19	11.24	1.83	-45.78	-13.00	32.78
7639.20	H	40.05	-50.01	10.87	2.05	-41.19	-13.00	28.19
7639.20	V	45.42	-45.34	10.87	2.05	-36.52	-13.00	23.52
300.80	H	33.68	-77.03	0.00	0.34	-77.37	-13.00	64.37
51.60	V	34.58	-67.41	-14.16	0.13	-81.70	-13.00	68.70

Frequency (MHz)	Polar (H/V)	Receiver Reading (dB $\mu$ V)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band 5 Frequency:826.4 MHz								
1652.80	H	36.35	-67.93	8.68	0.81	-60.06	-13.00	47.06
1652.80	V	35.87	-68.49	8.68	0.81	-60.62	-13.00	47.62
2479.20	H	36.15	-64.56	9.39	1.01	-56.18	-13.00	43.18
2479.20	V	35.72	-64.96	9.39	1.01	-56.58	-13.00	43.58
3305.60	H	36.01	-60.11	10.32	1.15	-50.94	-13.00	37.94
3305.60	V	35.41	-60.48	10.32	1.15	-51.31	-13.00	38.31
162.70	H	46.31	-65.41	0.00	0.24	-65.65	-13.00	52.65
46.10	V	49.71	-47.67	-18.72	0.12	-66.51	-13.00	53.51
WCDMA Band 5 Frequency:836.6MHz								
1673.20	H	36.25	-68.03	8.71	0.85	-60.17	-13.00	47.17
1673.20	V	35.78	-68.61	8.71	0.85	-60.75	-13.00	47.75
2509.80	H	36.12	-64.46	9.42	1.01	-56.05	-13.00	43.05
2509.80	V	35.76	-64.83	9.42	1.01	-56.42	-13.00	43.42
3346.40	H	35.91	-60.51	10.34	1.16	-51.33	-13.00	38.33
3346.40	V	35.33	-60.96	10.34	1.16	-51.78	-13.00	38.78
79.80	H	45.26	-64.40	-0.10	0.16	-64.66	-13.00	51.66
158.40	V	44.93	-63.39	0.00	0.23	-63.62	-13.00	50.62
WCDMA Band 5 Frequency:846.6MHz								
1693.20	H	36.16	-68.13	8.73	0.89	-60.29	-13.00	47.29
1693.20	V	35.87	-68.54	8.73	0.89	-60.70	-13.00	47.70
2539.80	H	36.16	-64.17	9.46	1.01	-55.72	-13.00	42.72
2539.80	V	35.74	-64.55	9.46	1.01	-56.10	-13.00	43.10
3386.40	H	36.02	-60.70	10.35	1.18	-51.53	-13.00	38.53
3386.40	V	35.24	-61.43	10.35	1.18	-52.26	-13.00	39.26
223.00	H	44.50	-67.93	0.00	0.28	-68.21	-13.00	55.21
224.40	V	45.36	-64.75	0.00	0.28	-65.03	-13.00	52.03



**PCS Band (PART 24E)****30 MHz-20 GHz:**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
GSM 1900 Frequency:1850.2MHz								
3700.40	H	39.68	-56.81	10.60	1.25	-47.46	-13.00	34.46
3700.40	V	37.85	-58.62	10.60	1.25	-49.27	-13.00	36.27
5550.60	H	40.79	-52.25	11.44	1.49	-42.30	-13.00	29.30
5550.60	V	39.75	-53.12	11.44	1.49	-43.17	-13.00	30.17
228.60	H	32.52	-79.80	0.00	0.29	-80.09	-13.00	67.09
36.30	V	41.67	-44.54	-24.62	0.11	-69.27	-13.00	56.27
GSM 1900 Frequency:1880MHz								
3760.00	H	37.79	-57.87	10.66	1.24	-48.45	-13.00	35.45
3760.00	V	34.86	-60.68	10.66	1.24	-51.26	-13.00	38.26
5640.00	H	37.95	-55.32	11.33	1.54	-45.53	-13.00	32.53
5640.00	V	36.58	-56.57	11.33	1.54	-46.78	-13.00	33.78
121.90	H	32.88	-79.23	0.00	0.20	-79.43	-13.00	66.43
57.40	V	37.57	-67.20	-11.50	0.14	-78.84	-13.00	65.84
GSM 1900 Frequency:1909.8MHz								
3819.60	H	34.28	-60.92	10.72	1.29	-51.49	-13.00	38.49
3819.60	V	34.87	-60.18	10.72	1.29	-50.75	-13.00	37.75
5729.40	H	37.79	-55.71	11.22	1.59	-46.08	-13.00	33.08
5729.40	V	35.93	-57.44	11.22	1.59	-47.81	-13.00	34.81
231.40	H	32.04	-80.23	0.00	0.29	-80.52	-13.00	67.52
79.80	V	36.53	-71.93	-0.10	0.16	-72.19	-13.00	59.19

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
WCDMA Band II, Frequency: 1852.4 MHz								
3704.80	H	36.76	-59.67	10.60	1.25	-50.32	-13.00	37.32
3704.80	V	36.20	-60.21	10.60	1.25	-50.86	-13.00	37.86
5557.20	H	36.38	-56.67	11.43	1.49	-46.73	-13.00	33.73
5557.20	V	35.81	-57.08	11.43	1.49	-47.14	-13.00	34.14
162.70	H	47.78	-63.94	0.00	0.24	-64.18	-13.00	51.18
44.70	V	49.52	-46.39	-20.20	0.12	-66.71	-13.00	53.71
WCDMA Band II, Frequency: 1880 MHz								
3760.00	H	36.58	-59.08	10.66	1.24	-49.66	-13.00	36.66
3760.00	V	36.25	-59.29	10.66	1.24	-49.87	-13.00	36.87
5640.00	H	36.21	-57.06	11.33	1.54	-47.27	-13.00	34.27
5640.00	V	35.96	-57.19	11.33	1.54	-47.40	-13.00	34.40
220.20	H	46.38	-66.11	0.00	0.27	-66.38	-13.00	53.38
158.40	V	45.72	-62.60	0.00	0.23	-62.83	-13.00	49.83
WCDMA Band II, Frequency: 1907.6MHz								
3815.20	H	36.62	-58.55	10.72	1.29	-49.12	-13.00	36.12
3815.20	V	36.26	-58.76	10.72	1.29	-49.33	-13.00	36.33
5722.80	H	36.24	-57.25	11.23	1.58	-47.60	-13.00	34.60
5722.80	V	35.73	-57.63	11.23	1.58	-47.98	-13.00	34.98
176.70	H	44.37	-67.97	0.00	0.25	-68.22	-13.00	55.22
46.90	V	48.67	-49.50	-17.94	0.12	-67.56	-13.00	54.56

Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit - Absolute Level

**LTE Band 2 (30MHz-20GHz):**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Worst QPSK, Frequency: 1850.7 MHz								
3701.40	H	36.84	-59.64	10.60	1.25	-50.29	-13.00	37.29
3701.40	V	35.85	-60.61	10.60	1.25	-51.26	-13.00	38.26
5552.10	H	36.21	-56.83	11.44	1.49	-46.88	-13.00	33.88
5552.10	V	35.60	-57.28	11.44	1.49	-47.33	-13.00	34.33
223.00	H	35.12	-77.31	0.00	0.28	-77.59	-13.00	64.59
33.50	V	42.38	-41.05	-24.69	0.11	-65.85	-13.00	52.85
Worst QPSK, Frequency: 1880 MHz								
3760.00	H	37.10	-58.56	10.66	1.24	-49.14	-13.00	36.14
3760.00	V	36.58	-58.96	10.66	1.24	-49.54	-13.00	36.54
5640.00	H	36.53	-56.74	11.33	1.54	-46.95	-13.00	33.95
5640.00	V	35.85	-57.30	11.33	1.54	-47.51	-13.00	34.51
148.60	H	39.56	-72.44	0.00	0.22	-72.66	-13.00	59.66
35.60	V	43.16	-42.37	-24.29	0.11	-66.77	-13.00	53.77
Worst QPSK, Frequency: 1909.3 MHz								
3818.60	H	36.64	-58.55	10.72	1.29	-49.12	-13.00	36.12
3818.60	V	36.43	-58.61	10.72	1.29	-49.18	-13.00	36.18
5727.90	H	36.42	-57.08	11.23	1.59	-47.44	-13.00	34.44
5727.90	V	36.21	-57.16	11.23	1.59	-47.52	-13.00	34.52
176.86	H	41.32	-71.03	0.00	0.25	-71.28	-13.00	58.28
34.68	V	41.89	-42.73	-24.15	0.11	-66.99	-13.00	53.99

**LTE Band 4 (30MHz-20GHz):**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Worst QPSK, Frequency: 1710.7 MHz								
3421.40	H	36.35	-60.47	10.37	1.17	-51.27	-13.00	38.27
3421.40	V	36.19	-60.60	10.37	1.17	-51.40	-13.00	38.40
5132.10	H	36.05	-57.52	11.28	1.47	-47.71	-13.00	34.71
5132.10	V	35.78	-57.68	11.28	1.47	-47.87	-13.00	34.87
225.80	H	32.14	-80.24	0.00	0.28	-80.52	-13.00	67.52
36.30	V	33.07	-53.14	-24.62	0.11	-77.87	-13.00	64.87
Worst QPSK, Frequency: 1732.5 MHz								
3465.00	H	36.32	-60.51	10.39	1.15	-51.27	-13.00	38.27
3465.00	V	36.11	-60.67	10.39	1.15	-51.43	-13.00	38.43
5197.50	H	36.17	-57.76	11.32	1.44	-47.88	-13.00	34.88
5197.50	V	35.85	-57.93	11.32	1.44	-48.05	-13.00	35.05
232.80	H	34.38	-77.86	0.00	0.29	-78.15	-13.00	65.15
32.10	V	44.60	-37.43	-25.33	0.10	-62.86	-13.00	49.86
Worst QPSK, Frequency: 1754.3 MHz								
3508.60	H	36.21	-60.59	10.41	1.19	-51.37	-13.00	38.37
3508.60	V	36.10	-60.63	10.41	1.19	-51.41	-13.00	38.41
5262.90	H	36.29	-57.44	11.36	1.47	-47.55	-13.00	34.55
5262.90	V	36.01	-57.49	11.36	1.47	-47.60	-13.00	34.60
129.00	H	33.42	-78.76	0.00	0.21	-78.97	-13.00	65.97
53.20	V	37.68	-65.08	-13.43	0.13	-78.64	-13.00	65.64

**LTE Band 7(30MHz-26.5GHz):**

Frequency (MHz)	Polar (H/V)	Receiver Reading (dBμV)	Substituted Method			Absolute Level (dBm)	Limit (dBm)	Margin (dB)
			Substituted Level (dBm)	Antenna Gain (dBd/dBi)	Cable Loss (dB)			
Worst QPSK, Frequency: 2502.5 MHz								
5005.00	H	35.68	-57.39	11.20	1.47	-47.66	-25.00	22.66
5005.00	V	35.29	-57.64	11.20	1.47	-47.91	-25.00	22.91
7507.50	H	35.17	-55.21	10.90	1.95	-46.26	-25.00	21.26
7507.50	V	34.93	-55.95	10.90	1.95	-47.00	-25.00	22.00
130.40	H	33.68	-78.52	0.00	0.21	-78.73	-25.00	53.73
34.90	V	33.08	-51.76	-24.05	0.11	-75.92	-25.00	50.92
Worst QPSK, Frequency:2535 MHz								
5070.00	H	35.58	-57.72	11.24	1.47	-47.95	-25.00	22.95
5070.00	V	35.49	-57.70	11.24	1.47	-47.93	-25.00	22.93
7605.00	H	35.34	-54.71	10.88	2.01	-45.84	-25.00	20.84
7605.00	V	35.03	-55.74	10.88	2.01	-46.87	-25.00	21.87
237.10	H	34.35	-77.81	0.00	0.29	-78.10	-25.00	53.10
50.40	V	33.52	-67.90	-14.72	0.12	-82.74	-25.00	57.74
Worst QPSK, Frequency: 2567.5 MHz								
5135.00	H	36.00	-57.59	11.28	1.47	-47.78	-25.00	22.78
5135.00	V	35.22	-58.26	11.28	1.47	-48.45	-25.00	23.45
7702.50	H	35.15	-54.92	10.86	1.97	-46.03	-25.00	21.03
7702.50	V	35.31	-55.43	10.86	1.97	-46.54	-25.00	21.54
124.80	H	35.24	-76.90	0.00	0.21	-77.11	-25.00	52.11
89.70	V	34.06	-75.25	0.00	0.18	-75.43	-25.00	50.43

## Note:

- 1) The unit of Antenna Gain is dBd for frequency below 1GHz, and the unit of Antenna Gain is dBi for frequency above 1GHz.
- 2) Absolute Level = Substituted Level - Cable loss + Antenna Gain
- 3) Margin = Limit-Absolute Level

## **5. RF EXPOSURE EVALUATION**

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### **5.1 Applicable Standard**

FCC§1.1310 and §2.1093.

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See §1.1307(b)(1) of this chapter.

### **5.3 Measurement Result**

**Result: Compliance. Please refer to the SAR report: CR21090082-SA.**

**\*\*\*\*\* END OF REPORT \*\*\*\*\***